N65928.AR.001190
NTC ORLANDO
5090.3a

TREATMENT EFFICIENCY MONITORING FOR STUDY AREA 36 WITH TRANSMITTAL LETTER NTC ORLANDO FL
7/6/2001
CH2M HILL

CCI NAVY RAC
CH2MHILL Constructors, Inc.
115 Perimeter Center Place, NE
Suite 700
Atlanta, GA
30346-1278
TEL 770.604.9095
FAX 770.604.9282

July 6, 2001

Ms. Barbara Nwokike
Southern Division, Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, SC 29419-9010

RE: Contract No. N62467-98-D-0995
Contract Task Order 0017 - Naval Training Center (NTC) Orlando - Orlando, Florida
Treatment Efficiency Monitoring Report for Study Area 36,

Dear Ms. Nwokike:

Enclosed please find 2 copies of the Treatment Efficiency Monitoring Report for Study Area 36, Naval Training Center, Orlando. The report describes the results of the first round of treatment efficiency sampling completed at the site in April 2001. Copies are also being distributed to members of the Orlando Partnering Team.

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

Sincerely,

CH2M HILL CONSTRUCTORS, Inc.

FOR

Steven N. Tsangaris, P.E.
Project Manager

cc: Wayne Hansel, SOUTHDIV (2 copies)
Nancy Rodriguez, USEPA Region IV (2 copies)
David Grabka, FDEP (2 copies)
Rick Allen, HLA
Steve McCoy, Tetra Tech NUS
Craig Haas, CH2M HILL
Jennifer Ottoson, CH2M HILL
Tom Palaia, CH2M HILL
CCI Project File No. 152044

Treatment Efficiency Report
Study Area 36, Main Base

Naval Training Center Orlando
Orlando, Florida

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

Submitted to:

U.S. Naval Facilities
Engineering Command
Southern Division

Prepared by:

CH2MHILL
Constructors, Inc.

115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346

July 2001

Contents

1.0 Introduction 1-1
1.1 Site Location and Description 1-1
1.2 Site Background and History 1-1
2.0 Summary of Field Activities and Results 2-1
2.1 Analytical Results and Contaminant Trends 2-2
3.0 Natural Attenuation Evaluation 3-1
3.1 SA-39 Zone A Groundwater Results 3-1
3.2 SA-39 Zone B Groundwater Results 3-1
3.3 SA-39 Zone C Groundwater Results 3-2
3.4 Natural Attenuation Evaluation Conclusions 3-2
4.0 Conclusions and Recommendations 4-1
5.0 References 5-1

Tables

2-1 SA-36 Groundwater Level Elevations, April 5, 2001 2-4
2-2 Water Quality Data, Natural Attenuation Parameters, December 2000 and March 2001 Sampling Events 2-8
2-3 Water Quality Data, December 2000 and March 2001 2-9
2-4 Summary of Detected Contaminants, December 2000 and March 2001 Sampling Events 2-10
2-5 Summary of Analytical Contaminants, December 2000 and March 2001 Sampling Events 2-11

Figures

1-1 Site Location Map 1-3
1-2 Groundwater Exceedances 1-4
2-1 Groundwater Sampling Results 2-3
2-2 Shallow (A) Zone Groundwater Contour Map 2-5
2-3 Intermediate (B) Zone Groundwater Contour Map 2-6
2-4 Deep (C) Zone Groundwater Contour Map 2-7

Appendices

A Monitoring Well Purging and Sampling Logs
B Analytical Laboratory Reports
C Natural Attenuation Technical Memorandum

Acronyms

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

1.0 Introduction

This report presents the results of the baseline and first round groundwater sampling performed by CH2M HILL Constructors, Inc. (CCI) at Study Area 36 (SA-36) at Naval Training Center (NTC) Orlando, Orlando, Florida, completed in December 2000 and March 2001, respectively. The December 2000 sampling represents the baseline groundwater concentrations before the implementation of enhanced biodegradation Interim Remedial Action (IRA) using vegetable oil. The March 2001 sampling represents the first round (Round 1) of groundwater data collected 2 months after the vegetable oil injection.

This work was performed under Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0017. Field activities were performed in accordance with the *Work Plan Addendum 1-C, Study Areas 17, 36, and 39* (CCI, August 2000), the *Work Plan for Enhanced In-Situ Bioremediation of Chlorinated Solvents Via Vegetable Oil Injection at SA-36,* (CCI, November 2000), the *Basewide Work Plan* (CCI, 1999), and the *Project Operations Plan (POP) for Site Investigations and Remedial Investigations* (ABB ES, 1997).

1.1 Site Location and Description

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

1.2 Site Background and History

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

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

The investigation results indicated that surface soils contain arsenic, barium, mercury, TRPH, and benzo(a)pyrene at concentrations exceeding the regulatory screening criteria (HLA, 1999). In addition, groundwater has exceedances of aluminum, antimony, TCE and PCE. The maximum TCE concentration detected in a monitoring well at the site was 300 micrograms per liter (µg/L). The results of the groundwater investigation at the site indicate that TCE and PCE concentrations in groundwater exceed the GCTL in an area of approximately 5,000 square feet in the North Storage Area (HLA, 1999). Chlorinated solvent detections exceeded screening criteria to a depth of 35 feet below land surface (bls).

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

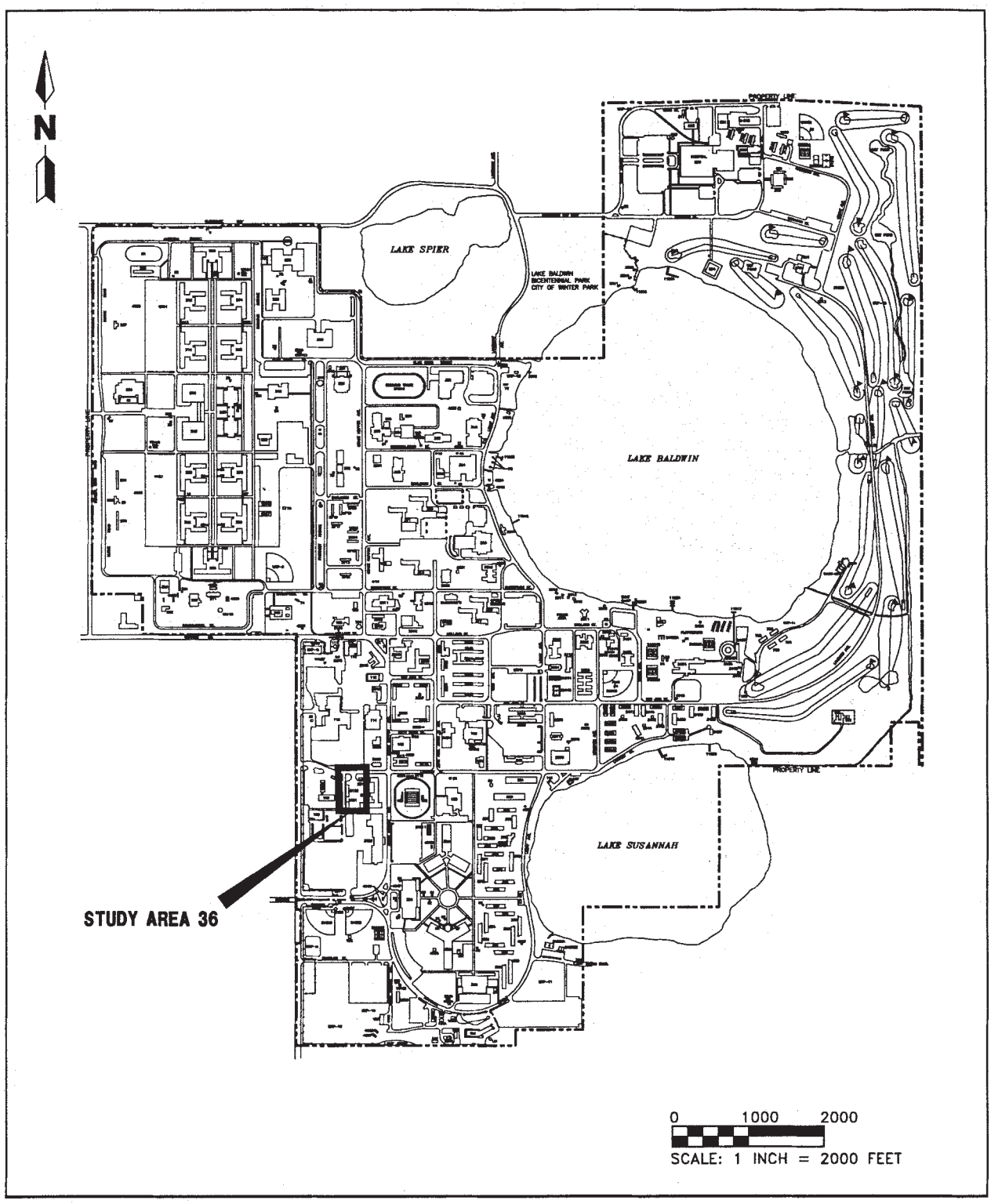
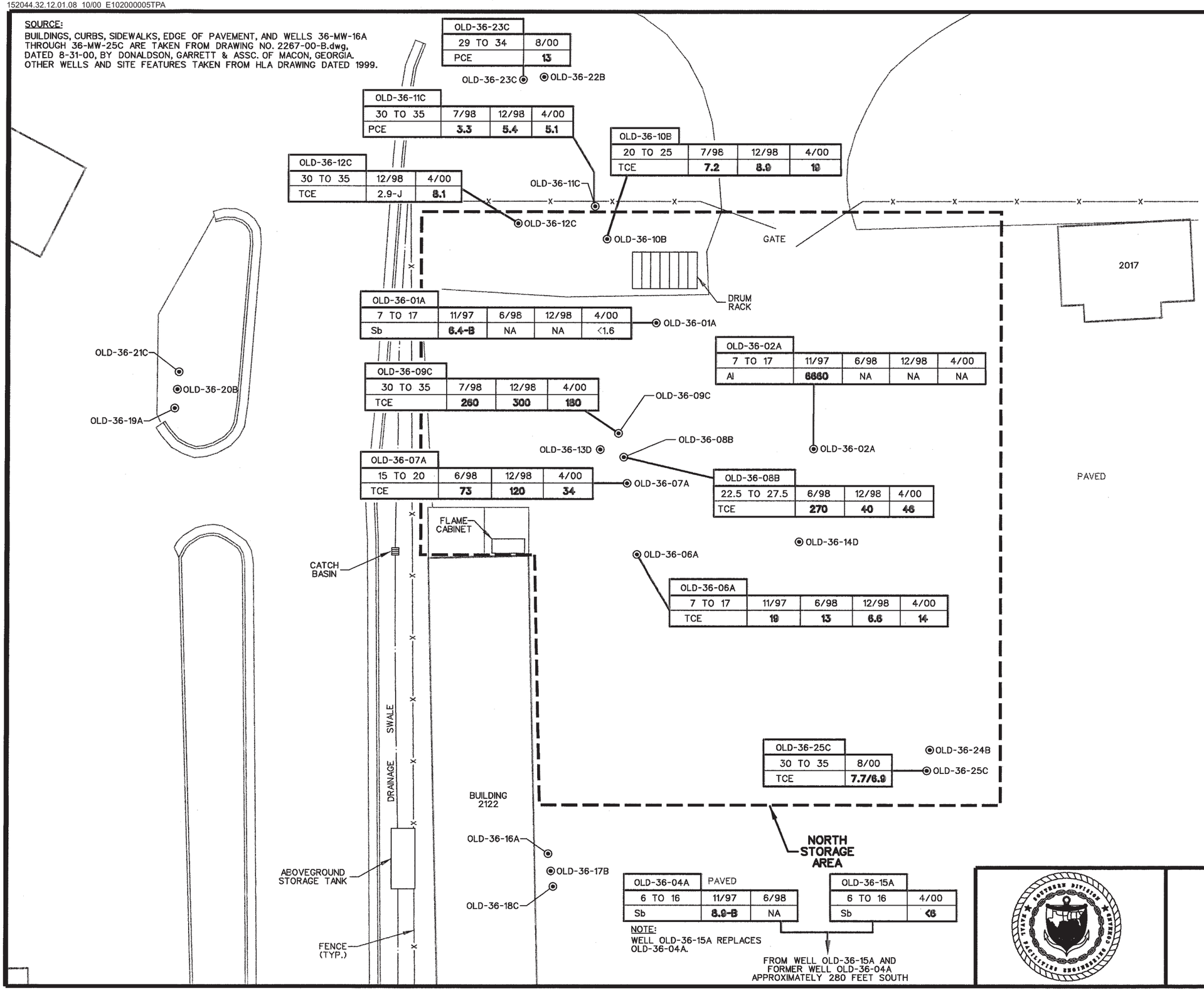


FIGURE 1-1
Location of Study Area 36
Naval Training Center,
Orlando, Florida

CH2MHILL

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



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

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

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

OLD-36-10B			
20 TO 25	7/98	12/98	4/00
TCE	7.2	8.0	10

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

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

OLD-36-09C			
30 TO 35	7/98	12/98	4/00
TCE	260	300	180

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

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

OLD-36-06A				
7 TO 17	11/97	6/98	12/98	4/00
TCE	19	13	6.6	14

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

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

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

OLD-36-15A	
6 TO 16	4/00
Sb	46

LEGEND

MONITORING WELL ⊙

OLD-36-10B		
20 TO 25	7/98	12/98
TCE	7.2	8.0

WELL I.D. — SAMPLE COLLECTION DATE — ANALYTE — ANALYTE CONCENTRATION 1,2 — SCREENED INTERVAL TO NEAREST FOOT

INDICATES CONCENTRATION IS BETWEEN THE INSTRUMENT DETECTION LIMIT AND THE CONTRACT-REQUIRED DETECTION LIMIT	B
ESTIMATED VALUE	J
NOT ANALYZED	NA

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

SCREENING CRITERIA

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

GCTL=GROUNDWATER CLEANUP TARGET LEVEL
BGSV=BACJGROUND SCREENING VALUE

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

-N-

20 0 20
SCALE IN FEET

Source: TETRATECH NUS

FIGURE 1-2

GROUNDWATER EXCEEDANCES STUDY AREA 36 - MAIN BASE

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

n11x17b.dgn

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

2.0 Summary of Field Activities and Results

Five different sampling events for laboratory analysis will be conducted as part of this IRA. The first sampling event (December 2000) was performed prior to injection activities, and will be used as the IRA baseline data. Four subsequent sampling events will be conducted 2, 6, 9, and 12 months after injection to monitor performance of the treatment activities. Round 1 of the performance monitoring was conducted in March 2001.

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

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

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

The locations of these monitoring wells are shown on Figure 2-1. Groundwater samples from the monitoring wells were laboratory analyzed for the following analyte suite:

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

Groundwater level measurements were collected from each of the monitoring wells in April 2001 (Table 2-1). Figures 2-2, 2-3, and 2-4 illustrate the recent groundwater flow directions in the shallow (A zone), intermediate (B zone), and deep (C zone) surficial aquifer zones, respectively. The groundwater flow is to the northwest in the shallow and

intermediate zones and to the southeast in the deep zone. The groundwater flow directions are consistent with previous investigations at the site.

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

A summary of the baseline and Round 1 groundwater sampling data is presented in Table 2-4 and shown on Figure 2-1. The complete analytical laboratory data for the baseline sampling event (December 2000) and Round 1 (March 2001) is presented in Table 2-5. Analytical laboratory reports are included in Appendix B.

2.1 Analytical Results and Contaminant Trends

Table 2-4 presents a summary of the detected analytical concentrations from the SA-36 baseline and Round 1 sampling events. Shaded cells within the table indicate analyte concentrations above FDEP GCTLs or background screening concentrations.

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

PCE and/or TCE were detected above the screening value (3 µg/L) in most of the onsite monitoring wells. This is consistent with historical data for PCE and TCE at these monitoring points. TCE appears to be the major contaminant at the site and some of the TCE concentrations have increased since the vegetable oil injection while others have decreased. No trend in TCE concentrations is evident at this stage in the enhanced biodegradation treatment.

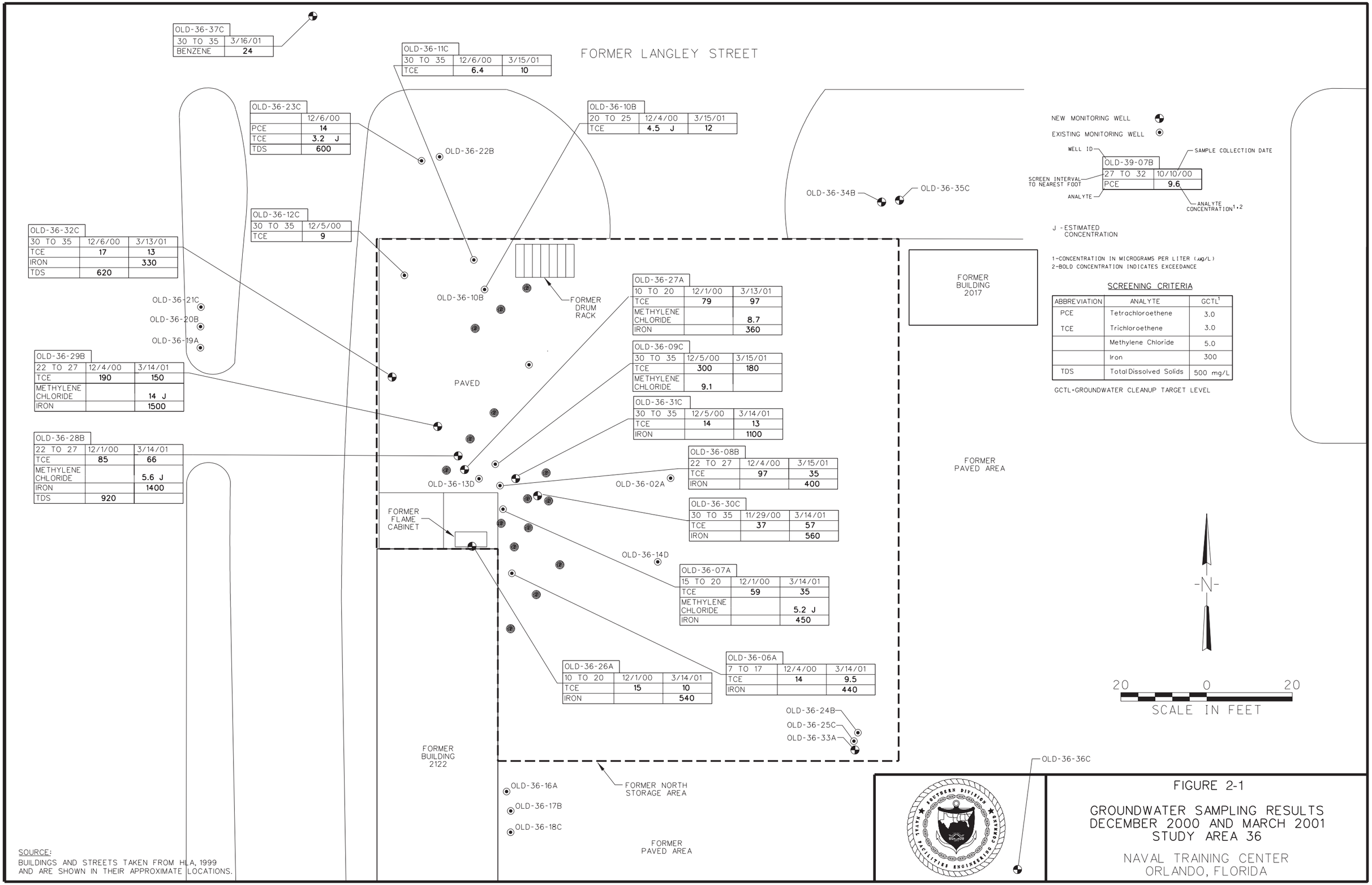


FIGURE 2-1

GROUNDWATER SAMPLING RESULTS
DECEMBER 2000 AND MARCH 2001
STUDY AREA 36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

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

TABLE 2-1
SA-36 Groundwater Level Elevations, April 5, 2001

Monitoring Well	Northing	Easting	TOC Height (feet msl)	Depth to Water (feet)	Water Level Elevation (feet msl)
OLD-36-01A	1,537,920.52	549,523.96	114.91	10.19	104.72
OLD-36-02A	1,537,894.04	549,557.01	115.18	9.35	105.83
OLD-36-06A	1,537,871.85	549,519.96	115.08	9.90	105.18
OLD-36-07A	1,537,886.80	549,517.90	114.87	9.90	104.97
OLD-36-08B	1,537,892.30	549,517.20	114.73	10.60	104.13
OLD-36-09C	1,537,897.30	549,516.10	114.78	14.18	100.60
OLD-36-10B	1,537,938.10	549,513.60	114.93	10.56	104.37
OLD-36-11C	1,537,945.00	549,511.10	114.77	14.13	100.64
OLD-36-12C	1,537,941.40	549,494.90	115.50	13.78	101.72
OLD-36-13D	1,537,893.90	549,512.30	114.75	14.12	100.63
OLD-36-14D	1,537,874.50	549,554.00	115.23	14.43	100.80
OLD-36-15A	1,537,525.14	549,510.97	119.46	13.08	106.38
OLD-36-16A	1,537,817.00	549,520.79	115.19	9.60	105.59
OLD-36-17B	1,537,813.36	549,521.35	115.28	10.10	105.18
OLD-36-18C	1,537,810.10	549,521.82	115.33	14.71	100.62
OLD-36-19A	1,537,910.66	549,442.41	117.75	13.51	104.24
OLD-36-20B	1,537,914.62	549,442.94	117.83	13.51	104.32
OLD-36-21C	1,537,918.28	549,443.26	117.84	17.04	100.80
OLD-36-22B	1,537,980.29	549,519.59	118.13	14.16	103.97
OLD-36-23C	1,537,979.72	549,515.19	118.05	17.36	100.69
OLD-36-24B	1,537,838.87	549,600.88	115.85	9.60	106.25
OLD-36-25C	1,537,834.51	549,600.26	115.76	15.23	100.53
OLD-36-26A	1,537,878.13	549,510.67	117.89	12.89	105.00
OLD-36-27A	1,537,896.05	549,508.93	118.01	13.48	104.53
OLD-36-28B	1,537,899.26	549,507.42	117.97	14.17	103.80
OLD-36-29B	1,537,906.11	549,502.66	117.63	13.48	104.15
OLD-36-32C	1,537,917.64	549,492.02	117.97	17.33	100.64
OLD-36-33A	1,537,830.60	549,600.01	118.47	12.65	105.82
OLD-36-36C	1,537,802.71	549,637.94	118.80	18.45	100.35
OLD-36-37C	1,538,001.90	549,473.52	115.02	16.25	98.77

feet TOC – feet below top of casing
feet msl – feet above 1988 North American Vertical Datum
Easting and Northing are Florida State Plane Coordinates.

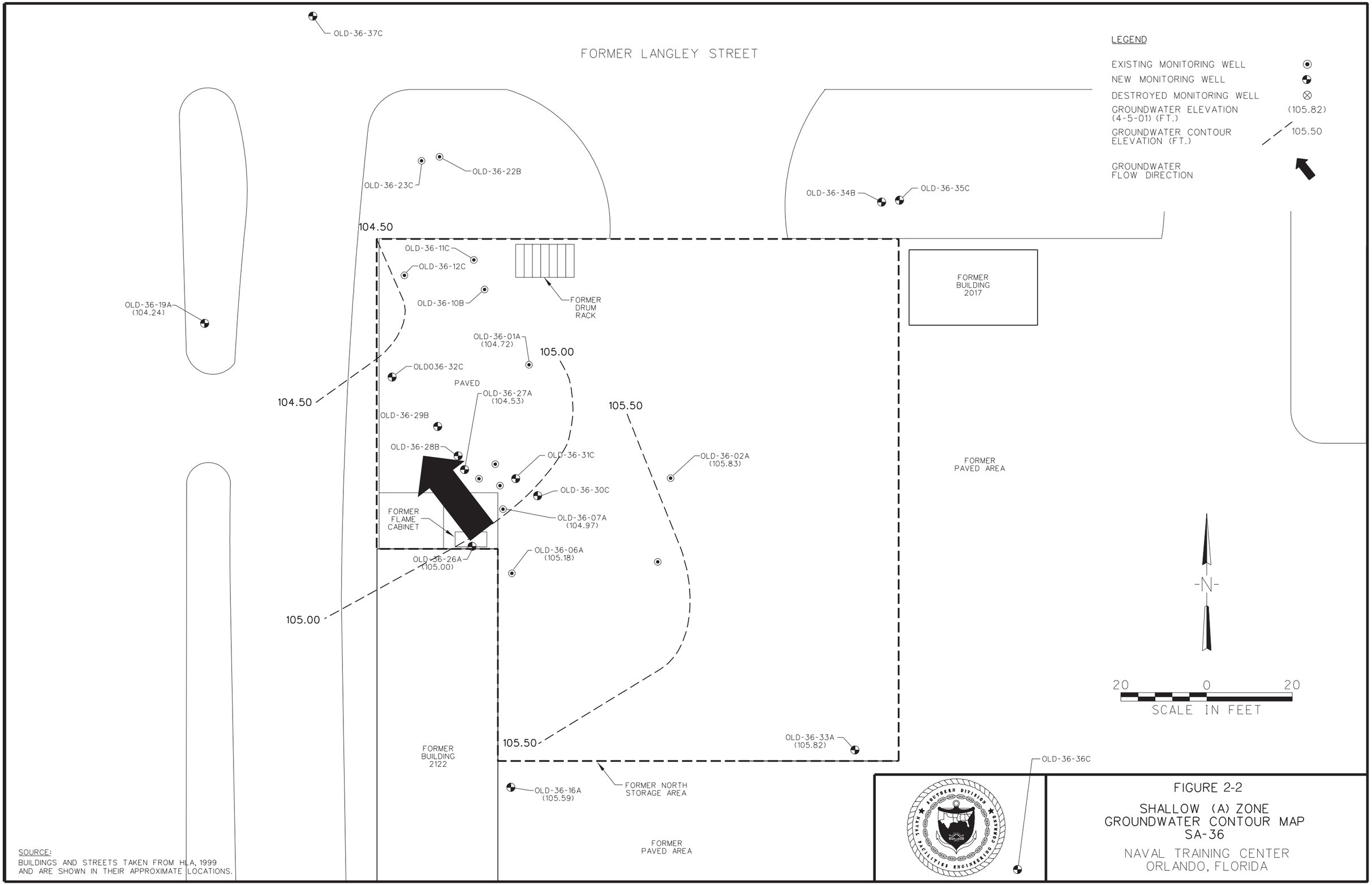


FIGURE 2-2

SHALLOW (A) ZONE GROUNDWATER CONTOUR MAP SA-36

NAVAL TRAINING CENTER ORLANDO, FLORIDA

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/74570026.dgn/03-12-01

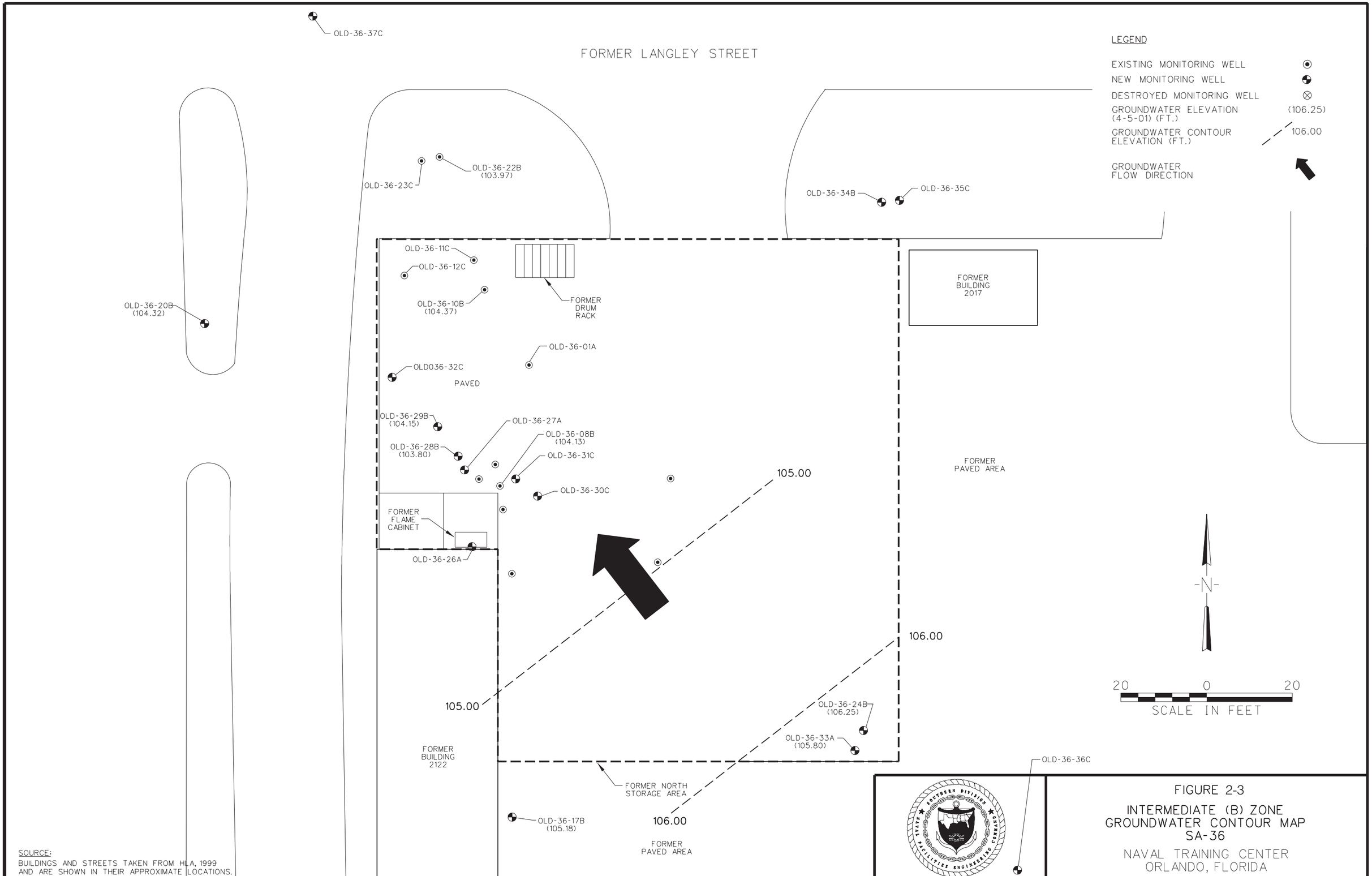


FIGURE 2-3

INTERMEDIATE (B) ZONE GROUNDWATER CONTOUR MAP SA-36

NAVAL TRAINING CENTER ORLANDO, FLORIDA

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/74570026.dgn/03-12-01

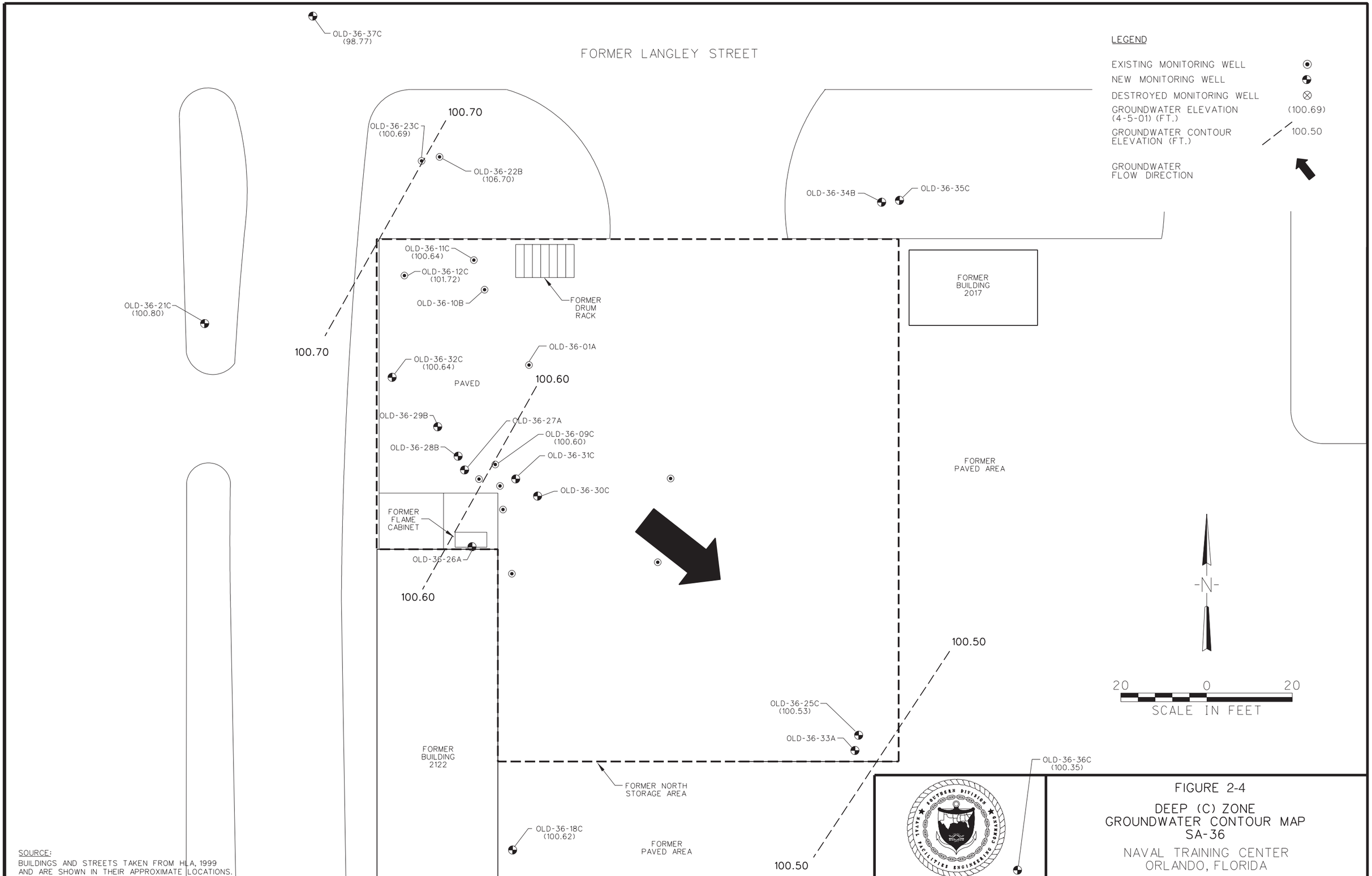


FIGURE 2-4

DEEP (C) ZONE
GROUNDWATER CONTOUR MAP
SA-36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/74570026.dgn/03-12-01

TABLE 2-2
Water Quality Data, Natural Attenuation Field Parameters
December 2000 and March 2001 Sampling Events

Station ID	Date	Ferrous Iron (mg/L)	Manganese (mg/L)	Hydrogen Sulfide (mg/L)	Sulfate (mg/L)	Dissolved Oxygen (mg/L)
OLD-36-06A	12/04/2000	0.5	0	0.0	90	0.79
OLD-36-06A	03/14/2001	0.4	0	0.0	125	2.35
OLD-36-07A	12/01/2000	0.2	0	0.1	<50	0.54
OLD-36-07A	03/14/2001	0.2	0	0.0	>200	1.06
OLD-36-26A	12/01/2000	1	0.2	0.3	>200	0.96
OLD-36-26A	03/14/2001	0.4	0	0.0	>200	0.43
OLD-36-27A	12/01/2000	0.1	0	0.0	<50	0.98
OLD-36-27A	03/13/2001	0.1	0	0.0	<50	0.27
OLD-36-08B	12/04/2000	0.5	0.1	1.0	80	0.98
OLD-36-08B	03/15/2001	6	0	0.5	<50	0.44
OLD-36-10B	12/04/2000	0.2	0	0.3	>200	1.08
OLD-36-10B	03/15/2001	0.8	0.3	0.1	>200	0.45
OLD-36-28B	12/01/2000	2.5	0	0.3	>200	0.59
OLD-36-28B	03/14/2001	1.1	0	0.7	150	0.38
OLD-36-29B	12/04/2000	2	0.1	0.0	70.5	0.65
OLD-36-29B	03/13/2001	1	0	0.1	70	0.11
OLD-36-09C	12/05/2000	0.3	0.3	5.0	<50	0.71
OLD-36-09C	03/15/2001	0.2	0	0.5	>200	0.41
OLD-36-11C	12/06/2000	0.1	0	0.7	100	0.79
OLD-36-11C	03/15/2001	0.1	0.3	0.1	75	0.28
OLD-36-12C	12/05/2000	0.2	0	0.0	>200	1.11
OLD-36-23C	12/06/2000	1.2	0.1	0.5	>200	0.75
OLD-36-30C	11/29/2000	0.6	0	1.0	70	0.90
OLD-36-30C	03/14/2001	0.4	0.1	0.1	<50	0.27
OLD-36-31C	12/05/2000	1.2	0.3	0.0	60	0.79
OLD-36-31C	03/14/2001	0	0.15	5.0	<50	0.31
OLD-36-32C	12/06/2000	0.1	0.1	0.2	>200	0.78
OLD-36-32C	03/13/2001	0.1	0	0.0	80	0.18

mg/L – milligrams per liter

TABLE 2-3
Water Quality Data
December 2000 and March 2001 Sampling Events

Station ID	Date	pH (SU)	Conductivity (mS/cm)	Temperature (^{o}C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
OLD-36-06A	12/04/2000	5.41	70	26.88	0.79	151.6	190
OLD-36-06A	03/14/2001	4.81	75	24.40	2.35	-6.6	239
OLD-36-07A	12/01/2000	5.50	110	25.86	0.54	63.0	138
OLD-36-07A	03/14/2001	5.27	101	24.85	1.06	-83.4	226
OLD-36-26A	12/01/2000	5.86	90	23.97	0.96	207.1	>1000
OLD-36-26A	03/14/2001	4.95	93	24.72	0.43	-125.0	194
OLD-36-27A	12/01/2000	6.83	368	25.75	0.98	136.1	0.9
OLD-36-27A	03/13/2001	6.17	181	25.13	0.27	-13.2	18.2
OLD-36-08B	12/04/2000	5.68	133	27.52	0.98	-81.8	143
OLD-36-08B	03/15/2001	5.92	102	26.59	0.44	-134.1	19.7
OLD-36-10B	12/04/2000	5.60	102	27.36	1.08	16.9	508
OLD-36-10B	03/15/2001	6.03	82	25.91	0.45	-105.7	729
OLD-36-28B	12/01/2000	6.13	333	25.94	0.59	-51.6	>1000
OLD-36-28B	03/14/2001	5.76	140	25.81	0.38	-40.7	358
OLD-36-29B	12/04/2000	5.70	170	26.41	0.65	40.9	42
OLD-36-29B	03/13/2001	5.00	108	25.42	0.11	10.9	47
OLD-36-09C	12/05/2000	5.71	909	25.55	0.71	-178.1	95
OLD-36-09C	03/15/2001	5.49	865	27.01	0.41	-283.7	865
OLD-36-11C	12/06/2000	5.33	90	26.61	0.79	18.1	189
OLD-36-11C	03/15/2001	5.30	70	26.71	0.28	-63.1	71.8
OLD-36-12C	12/05/2000	5.36	87	26.22	1.11	78.9	808
OLD-36-23C	12/06/2000	5.61	78	25.60	0.75	-40.8	>1000
OLD-36-30C	11/29/2000	5.71	169	26.14	0.90	-32.0	82
OLD-36-30C	03/14/2001	5.50	107	26.55	0.27	-48.6	50.1
OLD-36-31C	12/05/2000	5.41	106	25.95	0.79	48.0	80
OLD-36-31C	03/14/2001	4.68	119	26.48	0.31	-112.9	34.5
OLD-36-32C	12/06/2000	6.51	248	26.63	0.78	-26.1	188
OLD-36-32C	03/13/2001	5.61	113	26.32	0.18	-5.8	194

SU – standard unit
^{O}C – degrees Celsius
mS/cm - --- per centimeter
mg/L – milligrams per liter
mV – millivolts
NTU – nephelometric turbidity units
NM – not measured

TABLE 2-4
Summary of Detected Contaminants
December 2000 and March 2001 Sampling Results

STATION ID:			OLD-36-06A	OLD-36-06A	OLD-36-07A	OLD-36-07A	OLD-36-08B	OLD-36-08B	OLD-36-09C	OLD-36-09C	OLD-36-10B	OLD-36-10B	OLD-36-11C	OLD-36-11C	OLD-36-12C
CLIENT SAMPLE ID:			017-OLD-36-06A-Q4-00	017-OLD-36-06A-Q1-01	017-OLD-36-07A-Q4-00	017-OLD-36-07A-Q1-01	017-OLD-36-08B-Q4-00	017-OLD-36-08B-Q1-01	017-OLD-36-09C-Q4-00	017-OLD-36-09C-Q1-01	017-OLD-36-10B-Q4-00	017-OLD-36-10B-Q1-01	017-OLD-36-11C-Q4-00	017-OLD-36-11C-Q1-01	017-OLD-36-12C-Q4-00
LAB SAMPLE ID:			AC04412	AC09821	AC04279	AC09822	AC04413	AC09841	AC04474	AC09845	AC04417	AC09839	AC04568	AC09840	AC04476
LAB SAMPLE ID:				C103383'4		C103383'5		C103409'4		C103409'3		C103409'1		C103409'2	
LAB SAMPLE ID:				P0103235-04		P0103235-05		P0103256-04		P0103256-03		P0103256-01		P0103256-02	
DATE COLLECTED:			12/04/2000	03/14/2001	12/01/2000	03/14/2001	12/04/2000	03/15/2001	12/05/2000	03/15/2001	12/04/2000	03/15/2001	12/06/2000	03/15/2001	12/05/2000
PARAMETER	UNITS														
MISCELLANEOUS PARAMETERS		SCREENING CRITERIA [1]													
ETHANE	NG/L	NA		17		24		18		210		35		18	
ETHENE	NG/L	NA		13		21		110		670		63		57	
METHANE	µG/L	NA		1.7		4.7	9	80	3.6	51		9.9		4.8	
ALKALINITY	MG/L	NA	1.5	6	16	16	24	22	280	330	25	32	14	16	17
BROMIDE	MG/L	NA													
CHLORIDE	MG/L	250	4.2	8.4	6.2	7.7	7	6.1	8.9	9.5	6.4	3.3	6.3	5.7	5.7
IRON	µG/L	300		440		450		400		180		210		220	
SODIUM	MG/L	160	4.1		5.4		7.8		11		6.6		4.7		8.8
SULFIDE	MG/L	NA								2.7					
NITRATE NITROGEN	MG/L	10		0.09	0.2	0.09									
NITRATE-NITRITE NITROGEN	MG/L	10	0.33												
PETROLEUM RANGE ORGANICS (	MG/L	NA		0.42 JB	0.44 JB	0.4 JB		0.66 JB	0.35 JB	2 JB		1.3 JB	0.34 J	0.75 JB	0.4 JB
TOTAL DISSOLVED SOLIDS	MG/L	500	110	150	110	170	100	270	390	120	130	210	85	51	300
TOTAL ORGANIC CARBON	MG/L	NA	10.7	12	12.5	11	3.55	3	19.8	14	15.7	17	8.77	11	22.7
VOLATILE ORGANIC CONSTITUENTS															
1,1-DICHLOROETHENE	µG/L	7							0.5 J						
1,2-DICHLOROBENZENE	µG/L	60											0.7 J		
1,3,5-TRIMETHYLBENZENE	µG/L	10													
BENZENE	µG/L	1													0.54 J
CHLOROFORM	µG/L	5.7													
CHLOROMETHANE	µG/L	2.7													
CIS-1,2-DICHLOROETHENE	µG/L	70							24	20 J	2.3 J	11	3.5 J	5.3 J	3.2 J
METHYLENE CHLORIDE	µG/L	5		0.64 J		5.2 J			9.1				0.82 J		0.85 J
P-ISOPROPYLTOLUENE	µG/L	NA					0.8 J								
TETRACHLOROETHYLENE	µG/L	3									1.7 J	1.6 J	1.3 J	2.5 J	
TOTAL XYLENES	µG/L	10,000													
TRICHLOROETHYLENE	µG/L	3	14	9.5	59	35	97	35	300	180	4.5 J	12	6.4	10	9

STATION ID:			OLD-36-23C	OLD-36-26A	OLD-36-26A	OLD-36-27A	OLD-36-27A	OLD-36-28B	OLD-36-28B	OLD-36-29B	OLD-36-29B	OLD-36-30C	OLD-36-31C	OLD-36-31C	OLD-36-32C
CLIENT SAMPLE ID:			017-OLD-36-23C-Q4-00	017-OLD-36-26A-Q4-00	017-OLD-36-26A-Q1-01	017-OLD-36-27A-Q4-00	017-OLD-36-27A-Q1-01	017-OLD-36-28B-Q4-00	017-OLD-36-28B-Q1-01	017-OLD-36-29B-Q4-00	017-OLD-36-29B-Q1-01	017-OLD-36-30C-Q1-01	017-OLD-36-31C-Q4-00	017-OLD-36-31C-Q1-01	017-OLD-36-32C-Q4-00
LAB SAMPLE ID:			AC04569	AC04276	AC09825	AC04277	AC09719	AC04278	AC09818	AC04414	AC09718	AC09819	AC04475	AC09830	AC04566
LAB SAMPLE ID:					C103383'6		C103316'3		C103383'1		C103316'2	C103383'2		C103383'3	
LAB SAMPLE ID:					P0103235-08		P0103206-03		P0103235-01		P0103206-02	P0103235-02		P0103235-03	
DATE COLLECTED:			12/06/2000	12/01/2000	03/14/2001	12/01/2000	03/13/2001	12/01/2000	03/14/2001	12/04/2000	03/13/2001	03/14/2001	12/05/2000	03/14/2001	12/06/2000
PARAMETER	UNITS														
MISCELLANEOUS PARAMETERS		SCREENING CRITERIA [1]													
ETHANE	NG/L	NA			64		14		50		70	37		84	
ETHENE	NG/L	NA			120		57		110		70	78		270	
METHANE	µG/L	NA	3.7		8.5		1.7	1.2	3.6		5	5.1		400	
ALKALINITY	MG/L	NA	25	26	18	160	62	300	37	27	11	25	18	26	83
BROMIDE	MG/L	NA		0.5											
CHLORIDE	MG/L	250	3.7	6.5	9.9	6.7	7.7	8.7	7	14	9.6	8	8.9	6.9	7.9
IRON	µG/L	300			540		360		1400		1500	560		1100	
SODIUM	MG/L	160	8.8	8.5		7.3		55		12			9.2		16
SULFIDE	MG/L	NA			1.8									1.4	
NITRATE NITROGEN	MG/L	10		1.2	0.02				0.01			0.02			
NITRATE-NITRITE NITROGEN	MG/L	10													
PETROLEUM RANGE ORGANICS (	MG/L	NA	0.28 J	0.57 JB	2.7 B	0.49 JB	0.31 JB	0.4 JB	0.35 JB		0.34 JB	0.38 JB	0.4	5.9	
TOTAL DISSOLVED SOLIDS	MG/L	500	600	260	61	230	91	920	270	180	68	110	130	140	620
TOTAL ORGANIC CARBON	MG/L	NA	15	46.6	25	8.36	3	90.5	6	5.18	12	1	6.41	49	18.5
VOLATILE ORGANIC CONSTITUENTS															
1,1-DICHLOROETHENE	µG/L	7													
1,2-DICHLOROBENZENE	µG/L	60													
1,3,5-TRIMETHYLBENZENE	µG/L	10													
BENZENE	µG/L	1													
CHLOROFORM	µG/L	5.7						1.4 J					0.97 J		
CHLOROMETHANE	µG/L	2.7			0.65 J										
CIS-1,2-DICHLOROETHENE	µG/L	70	0.81 J			1.1 J		0.54 J		1.9 J		1.3 J			
METHYLENE CHLORIDE	µG/L	5			0.53 J		8.7		5.6 J		14 J	0.6 J	1.8	0.57 J	0.85 J
P-ISOPROPYLTOLUENE	µG/L	NA													
TETRACHLOROETHYLENE	µG/L	3	14												
TOTAL XYLENES	µG/L	10,000	1.8 J												
TRICHLOROETHYLENE	µG/L	3	3.2 J	15	10	79	97	85	66	190	150	57	14	13	17

STATION ID:			OLD-36-32C	OLD-36-33A	OLD-36-34B	OLD-36-35C	OLD-36-37C
CLIENT SAMPLE ID:			017-OLD-36-32C-Q1-01	017-OLD-36-33A-Q1-01	017-OLD-36-34B-Q1-01	017-OLD-36-35C-Q1-01	017-OLD-36-37C-Q1-01
LAB SAMPLE ID:			AC09717	AC09959	AC09957	AC09956	AC09958
LAB SAMPLE ID:			C103316'1				
LAB SAMPLE ID:			P0103206-01				
DATE COLLECTED:			03/13/2001	03/16/2001	03/16/2001	03/16/2001	03/16/2001
PARAMETER	UNITS						
MISCELLANEOUS PARAMETERS		SCREENING CRITERIA [1]					
ETHANE	NG/L	NA	19				
ETHENE	NG/L	NA	31				
METHANE	µG/L	NA	1.8				
ALKALINITY	MG/L	NA	26				
BROMIDE	MG/L	NA					
CHLORIDE	MG/L	250	7.8				
IRON	µG/L	300	330				
SODIUM	MG/L	160					
SULFIDE	MG/L	NA					
NITRATE NITROGEN	MG/L	10					
NITRATE-NITRITE NITROGEN	MG/L	10					
PETROLEUM RANGE ORGANICS (	MG/L	NA	0.26 JB				
TOTAL DISSOLVED SOLIDS	MG/L	500	200				
TOTAL ORGANIC CARBON	MG/L	NA	7				
VOLATILE ORGANIC CONSTITUENTS							
1,1-DICHLOROETHENE	µG/L	7					
1,2-DICHLOROBENZENE	µG/L	60					
1,3,5-TRIMETHYLBENZENE	µG/L	10					0.65 J
BENZENE	µG/L	1					24
CHLOROFORM	µG/L	5.7					
CHLOROMETHANE	µG/L	2.7					
CIS-1,2-DICHLOROETHENE	µG/L	70					
METHYLENE CHLORIDE	µG/L	5		0.65 J	0.52 J	0.53 J	
P-ISOPROPYLTOLUENE	µG/L	NA					
TETRACHLOROETHYLENE	µG/L	3					
TOTAL XYLENES	µG/L	10,000					
TRICHLOROETHYLENE	µG/L	3	13				

NOTES:

[1] FOR AN ORGANIC ANALYTE, THE SCREENING CRITERION IS THE GCTL. FOR AN INORGANIC ANALYTE WITH AN ESTABLISHED GCTL AND BACKGROUND SCREENING VALUE, THE SCREENING CRITERION IS THE GREATER OF THE GCTL OR BACKGROUND SCREENING VALUE.

VALUES IN SHADED CELLS MEET OR EXCEED SCREENING CRITERION.

"=" QUALIFIER INDICATES PARAMETER DETECTED AT INDICATED CONCENTRATION.

"J" QUALIFIER INDICATES AN ESTIMATED VALUE.

EMPTY CELLS INDICATE NON-DETECTS.

NA INDICATES NO SCREENING CRITERION AVAILABLE.

TABLE 2-5
Summary of Analytical Results
December 2000 and March 2001 Sampling Results

STATION ID:		OLD-36-06A	OLD-36-06A	OLD-36-07A	OLD-36-07A	OLD-36-08B	OLD-36-08B	OLD-36-09C	OLD-36-09C	OLD-36-10B	OLD-36-10B	OLD-36-11C	OLD-36-11C	OLD-36-12C	OLD-36-23C	OLD-36-26A	OLD-36-26A
CLIENT SAMPLE ID:		017-OLD-36-06A-Q1-01	017-OLD-36-06A-Q4-00	017-OLD-36-07A-Q1-0	017-OLD-36-07A-Q4-00	017-OLD-36-08B-Q1-01	017-OLD-36-08B-Q4-00	017-OLD-36-09C-Q1-01	017-OLD-36-09C-Q4-00	017-OLD-36-10B-Q1-01	017-OLD-36-10B-Q4-00	017-OLD-36-11C-Q1-01	017-OLD-36-11C-Q4-00	017-OLD-36-12C-Q4-00	017-OLD-36-23C-Q4-00	017-OLD-36-26A-Q1-01	017-OLD-36-26A-Q4-00
LAB SAMPLE ID:		AC09821	AC04412	AC09822	AC04279	AC09841	AC04413	AC09845	AC04474	AC09839	AC04417	AC09840	AC04568	AC04476	AC04569	AC09825	AC04276
LAB SAMPLE ID:		C103383'4	P0012036-01	C103383'5	P0012030-04	C103409'4	P0012036-02	C103409'3	P0012055-01	C103409'1	P0012036-06	C103409'2	P0012061-03	P0012055-03	P0012061-04	C103383'6	P0012030-01
LAB SAMPLE ID:		P0103235-04		P0103235-05		P0103256-04		P0103256-03		P0103256-01		P0103256-02				P0103235-08	
DATE COLLECTED:		03/14/2001	12/04/2000	03/14/2001	12/01/2000	03/15/2001	12/04/2000	03/15/2001	12/05/2000	03/15/2001	12/04/2000	03/15/2001	12/06/2000	12/05/2000	12/06/2000	03/14/2001	12/01/2000
PARAMETER	**UNITS**																
MISCELLANEOUS PARAMETERS																	
ACETIC ACID	MG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BUTYRIC ACID	MG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LACTIC ACID	MG/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
PROPIONIC ACID	MG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
PYRUVIC ACID	MG/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ETHANE	UG/L	17		24		18		210		35		18				64	
ETHANE	UG/ML		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U	0.01 U	0.01 U		0.01 U
ETHENE	UG/L	13		21		110		670		63		57				120	
ETHENE	UG/ML		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U	0.01 U	0.01 U		0.01 U
METHANE	UG/L	1.7		4.7		80		51		9.9		4.8				8.5	
METHANE	UG/ML		0.01 U		0.01 U		0.09		0.036		0.01 U		0.01 U	0.01 U	0.037		0.01 U
ALKALINITY	MG/L	6	1.5	16	16	22	24	330	280	32	25	16	14	17	25	18	26
BROMIDE	MG/L		1 U		1 U		1 U		1 U		1 U		1 U	1 U	1 U		0.5
CHLORIDE	MG/L	8.4	4.2	7.7	6.2	6.1	7	9.5	8.9	3.3	6.4	5.7	6.3	5.7	3.7	9.9	6.5
IRON	UG/L	440		450		400		180		210		220				540	
SODIUM	MG/L		4.1		5.4		7.8		11		6.6		4.7	8.8	8.8		8.5
SULFIDE	MG/L	1 U		1 U		1 U		2.7		1 U		1 U				1.8	
NITRITE NITROGEN	MG/L	0.01 U		0.01 U	0.1 U	0.01 U		0.01 U		0.01 U		0.01 U				0.01 U	0.1 U
NITRATE NITROGEN	MG/L	0.09		0.09	0.2	1 U		1 U		1 U		1 U				0.02	1.2
NITRATE-NITRITE NITROGEN	MG/L		0.33				0.1 U		0.1 U		0.1 U		0.1 U	0.1 U	0.1 U		
PETROLEUM RANGE ORGANICS (P	MG/L	0.42 JB	1 U	0.4 JB	0.44 JB	0.66 JB	1 U	2 JB	0.35 JB	1.3 JB	1 U	0.75 JB	0.34 J	0.4 JB	0.28 J	2.7 B	0.57 JB
TOTAL DISSOLVED SOLIDS	MG/L	150	110	170	110	270	100	120	390	210	130	51	85	300	600	61	260
TOTAL ORGANIC CARBON	MG/L	12	10.7	11	12.5	3	3.55	14	19.8	17	15.7	11	8.77	22.7	15	25	46.6
VOLATILE ORGANIC CONSTITUENTS																	
1,1,1,2-TETRACHLOROETHANE	UG/L	2.5 U	2.5 U	12 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-TRICHLOROETHANE	UG/L	4 U	4 U	20 U	4 U	4 U	4 U	40 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,1,2,2-TETRACHLOROETHANE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2-TRICHLOROETHANE	UG/L	5 U	5 U	25 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-DICHLOROETHANE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHENE	UG/L	6 U	6 U	30 U	6 U	6 U	6 U	60 U	0.5 J	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
1,2,3-TRICHLOROBENZENE	UG/L	1.5 U	1.5 U	7.5 U	1.5 U	1.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2,3-TRICHLOROPROPANE	UG/L	16 U	16 U	80 U	16 U	16 U	16 U	160 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U
1,2,4-TRICHLOROBENZENE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-TRIMETHYLBENZENE	UG/L	6.5 U	6.5 U	32 U	6.5 U	6.5 U	6.5 U	65 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	13 U	13 U	65 U	13 U	13 U	13 U	130 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U
1,2-DICHLOROBENZENE	UG/L	1.5 U	1.5 U	7.5 U	1.5 U	1.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.7 J	1.5 U	1.5 U	1.5 U	1.5 U
1,2-DICHLOROETHANE	UG/L	3 U	3 U	15 U	3 U	3 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,2-DICHLOROPROPANE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-ETHYLENE DIBROMIDE	UG/L	3 U	3 U	15 U	3 U	3 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,3,5-TRIMETHYLBENZENE	UG/L	2.5 U	2.5 U	12 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-DICHLOROBENZENE	UG/L	6 U	6 U	30 U	6 U	6 U	6 U	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
1,3-DICHLOROPROPANE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,4-DICHLOROBENZENE	UG/L	1.5 U	1.5 U	7.5 U	1.5 U	1.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
2,2-DICHLOROPROPANE	UG/L	17.5 U	17.5 U	88 U	17.5 U	17.5 U	17.5 U	180 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U
2-CHLOROTOLUENE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-CHLOROTOLUENE	UG/L	3 U	3 U	15 U	3 U	3 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
BENZENE	UG/L	1 U	2 U	5 U	2 U	1 U	2 U	10 U	2 U	1 U	2 U	1 U	2 U	0.34 J	2 U	1 U	2 U
BROMOBENZENE	UG/L	1.5 U	1.5 U	7.5 U	1.5 U	1.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
BROMOCHLOROMETHANE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BROMODICHLOROMETHANE	UG/L	4 U	4 U	20 U	4 U	4 U	4 U	40 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
BROMOFORM	UG/L	6 U	6 U	30 U	6 U	6 U	6 U	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
BROMOMETHANE	UG/L	5.5 U	5.5 U	28 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
CARBON TETRACHLORIDE	UG/L	10.5 U	10.5 U	52 U	10.5 U	10.5 U	10.5 U	110 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U
CHLOROBENZENE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
CHLOROETHANE	UG/L	5 U	5 U	25 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHLOROFORM	UG/L	1.5 U	1.5 U	7.5 U	1.5 U	1.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
CHLOROMETHANE	UG/L	6.5 U	6.5 U	32 U	6.5 U	6.5 U	6.5 U	65 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	0.65 J	6.5 U
CIS-1,2-DICHLOROETHENE	UG/L	6 U	6 U	30 U	6 U	6 U	6 U	20 J	24	11	2.3 J	5.3 J	3.5 J	3.2 J	0.81 J	6 U	6 U
CIS-1,3-DICHLOROPROPENE	UG/L	5 U	5 U	25 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
DIBROMOCHLOROMETHANE	UG/L	2.5 U	2.5 U	12 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
DIBROMOMETHANE	UG/L	12 U	12 U	60 U	12 U	12 U	12 U	120 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
DICHLORODIFLUOROMETHANE	UG/L	5 U	5 U	25 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
ETHYLBENZENE	UG/L	3 U	3 U	15 U	3 U	3 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
HEXACHLOROBUTADIENE	UG/L	5.5 U	5.5 U	28 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
ISOPROPYLBENZENE	UG/L	2.5 U	2.5 U	12 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYLENE CHLORIDE	UG/L	0.64 J	1.5 U	5.2 J	1.5 U	1.5 U	1.5 U	15 U	9.1	1.5 U	1.5 U	1.5 U	0.82 J	0.85 J	1.5 U	0.53 J	1.5 U
N-BUTYLBENZENE	UG/L	5.5 U	5.5 U	28 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
N-PROPYLBENZENE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
NAPHTHALENE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
P-ISOPROPYLTOLUENE	UG/L	6 U	6 U	30 U	6 U	6 U	0.8 J	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
SEC-BUTYLBENZENE	UG/L	6.5 U	6.5 U	32 U	6.5 U	6.5 U	6.5 U	65 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
STYRENE	UG/L	2 U	2 U	10 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
TERT-BUTYLBENZENE	UG/L	7 U	7 U	35 U	7 U	7 U	7 U	70 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
TETRACHLOROETHYLENE	UG/L	7 U	7 U	35 U	7 U	7 U	7 U	70 U	7 U	1.6 J	1.7 J	2.5 J	1.3 J	7 U	14	7 U	7 U
TOLUENE	UG/L	5.5 U	5.5 U	28 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
TOTAL XYLENES	UG/L	5 U	5 U	25 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	1.8 J	5 U	5 U
TRANS-1,2-DICHLOROETHENE	UG/L	3 U	3 U	15 U	3 U	3 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
TRANS-1,3-DICHLOROPROPENE	UG/L	5 U	5 U	25 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
TRICHLOROETHYLENE	UG/L	9.5	14	35	59	35	97	180	300	12	4.5 J	10	6.4	9	3.2 J	10	15
TRICHLOROFLUOROMETHANE	UG/L	4 U	4 U	20 U	4 U	4 U	4 U	40 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
VINYL CHLORIDE	UG/L	5.5 U	5.5 U	28 U	5.5 U	5.5 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U

NOTES:
VALUES IN SHADED CELLS INDICATE DETECTIONS.
J QUALIFIER INDICATES AN ESTIMATED VALUE.
NAME?
U QUALIFIER INDICATES A NON-DETECTION.
B QUALIFIER BLANK CONTAMINATION

TABLE 2-5
Summary of Analytical Results
December 2000 and March 2001 Sampling Results

STATION ID:		OLD-36-27A	OLD-36-27A	OLD-36-28B	OLD-36-28B	OLD-36-29B	OLD-36-29B	OLD-36-30C	OLD-36-31C	OLD-36-31C	OLD-36-32C	OLD-36-32C	OLD-36-33A	OLD-36-34B	OLD-36-35C	OLD-36-36C	OLD-36-37C
CLIENT SAMPLE ID:		017-OLD-36-27A-Q1-01	017-OLD-36-27A-Q4-00	017-OLD-36-28B-Q1-01	017-OLD-36-28B-Q4-00	017-OLD-36-29B-Q1-01	017-OLD-36-29B-Q4-00	017-OLD-36-30C-Q1-01	017-OLD-36-31C-Q1-01	017-OLD-36-31C-Q4-00	017-OLD-36-32C-Q1-01	017-OLD-36-32C-Q4-00	017-OLD-36-33A-Q1-01	017-OLD-36-34B-Q1-01	017-OLD-36-35C-Q1-01	017-OLD-36-36C-Q1-01	017-OLD-36-37C-Q1-01
LAB SAMPLE ID:		AC09719	AC04277	AC09818	AC04278	AC09718	AC04414	AC09819	AC09820	AC04475	AC09717	AC04566	AC09959	AC09957	AC09956	AC09960	AC09958
LAB SAMPLE ID:		C103316*3	P0012030-02	C103383*1	P0012030-03	C103316*2	P0012036-05	C103383*2	C103383*3	P0012055-02	C103316*1	P0012061-01					
LAB SAMPLE ID:		P0103206-03		P0103235-01		P0103206-02		P0103235-02	P0103235-03		P0103206-01						
DATE COLLECTED:		03/13/2001	12/01/2000	03/14/2001	12/01/2000	03/13/2001	12/04/2000	03/14/2001	03/14/2001	12/05/2000	03/13/2001	12/06/2000	03/16/2001	03/16/2001	03/16/2001	03/16/2001	03/16/2001
PARAMETER	**UNITS**																
MISCELLANEOUS PARAMETERS																	
ACETIC ACID	MG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U					
BUTYRIC ACID	MG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U					
LACTIC ACID	MG/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U					
PROPIONIC ACID	MG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U					
PYRUVIC ACID	MG/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U					
ETHANE	UG/L	14		50		70		37	84		19						
ETHANE	UG/ML		0.01 U		0.01 U		0.01 U			0.01 U		0.01 U					
ETHENE	UG/L	57		110		70		78	270		31						
ETHENE	UG/ML		0.01 U		0.01 U		0.01 U			0.01 U		0.01 U					
METHANE	UG/L	1.7		3.6		5		5.1	400		1.8						
METHANE	UG/ML		0.01 U		0.012		0.01 U			0.01 U		0.01 U					
ALKALINITY	MG/L	62	160	37	300	11	27	25	26	18	26	83					
BROMIDE	MG/L		1 U		1 U		5 U			1 U		1 U					
CHLORIDE	MG/L	7.7	6.7	7	8.7	9.6	14	8	6.9	8.9	7.8	7.9					
IRON	UG/L	360		1400		1500		560	1100		330						
SODIUM	MG/L		7.3		55		12			9.2		16					
SULFIDE	MG/L	1 U		1 U		1 U		1 U	1.4		1 U						
NITRITE NITROGEN	MG/L	0.01 U	0.1 U	0.01 U	0.1 U	0.01 U		0.01 U	0.01 U		0.01 U						
NITRATE NITROGEN	MG/L	0.01 U	0.1 U	0.01	0.1 U	0.01 U		0.02	0.01 U		0.01 U						
NITRATE-NITRITE NITROGEN	MG/L						0.1 U			0.1 U		0.1 U					
PETROLEUM RANGE ORGANICS (P	MG/L	0.31 JB	0.49 JB	0.35 JB	0.4 JB	0.34 JB	1 U	0.38 JB	5.9	0.4	0.26 JB	1 U					
TOTAL DISSOLVED SOLIDS	MG/L	91	230	270	920	68	180	110	140	130	200	620					
TOTAL ORGANIC CARBON	MG/L	3	8.36	6	90.5	12	5.18	1	49	6.41	7	18.5					
VOLATILE ORGANIC CONSTITUENTS																	
1,1,1,2-TETRACHLOROETHANE	UG/L	12 U	2.5 U	12 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-TRICHLOROETHANE	UG/L	20 U	4 U	20 U	4 U	40 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,1,2,2-TETRACHLOROETHANE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2-TRICHLOROETHANE	UG/L	25 U	5 U	25 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-DICHLOROETHANE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHENE	UG/L	30 U	6 U	30 U	6 U	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
1,2,3-TRICHLOROBENZENE	UG/L	7.5 U	1.5 U	7.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2,3-TRICHLOROPROPANE	UG/L	80 U	16 U	80 U	16 U	160 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U
1,2,4-TRICHLOROBENZENE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-TRIMETHYLBENZENE	UG/L	32 U	6.5 U	32 U	6.5 U	65 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	65 U	13 U	65 U	13 U	130 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U
1,2-DICHLOROBENZENE	UG/L	7.5 U	1.5 U	7.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-DICHLOROETHANE	UG/L	15 U	3 U	15 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,2-DICHLOROPROPANE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-ETHYLENE DIBROMIDE	UG/L	15 U	3 U	15 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,3,5-TRIMETHYLBENZENE	UG/L	12 U	2.5 U	12 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.65 J
1,3-DICHLOROBENZENE	UG/L	30 U	6 U	30 U	6 U	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
1,3-DICHLOROPROPANE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,4-DICHLOROBENZENE	UG/L	7.5 U	1.5 U	7.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
2,2-DICHLOROPROPANE	UG/L	88 U	17.5 U	88 U	17.5 U	180 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U
2-CHLOROTOLUENE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-CHLOROTOLUENE	UG/L	15 U	3 U	15 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
BENZENE	UG/L	5 U	2 U	5.0 U	2 U	10 U	2 U	1 U	1 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	34
BROMOBENZENE	UG/L	7.5 U	1.5 U	7.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
BROMOCHLOROMETHANE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BROMODICHLOROMETHANE	UG/L	20 U	4 U	20 U	4 U	40 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
BROMOFORM	UG/L	30 U	6 U	30 U	6 U	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
BROMOMETHANE	UG/L	28 U	5.5 U	28 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
CARBON TETRACHLORIDE	UG/L	52 U	10.5 U	52 U	10.5 U	110 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U
CHLOROBENZENE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
CHLOROETHANE	UG/L	25 U	5 U	25 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHLOROFORM	UG/L	7.5 U	1.5 U	7.5 U	1.4 J	15 U	1.5 U	1.5 U	1.5 U	0.97 J	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
CHLOROMETHANE	UG/L	32 U	6.5 U	32 U	6.5 U	65 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
CIS-1,2-DICHLOROETHENE	UG/L	30 U	1.1 J	30 U	0.54 J	60 U	1.9 J	1.3 J	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
CIS-1,3-DICHLOROPROPENE	UG/L	25 U	5 U	25 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
DIBROMOCHLOROMETHANE	UG/L	12 U	2.5 U	12 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
DIBROMOMETHANE	UG/L	60 U	12 U	60 U	12 U	120 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
DICHLORODIFLUOROMETHANE	UG/L	25 U	5 U	25 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
ETHYLBENZENE	UG/L	15 U	3 U	15 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
HEXACHLOROBUTADIENE	UG/L	28 U	5.5 U	28 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
ISOPROPYLBENZENE	UG/L	12 U	2.5 U	12 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYLENE CHLORIDE	UG/L	8.7	1.5 U	5.6 J	1.5 U	14 J	1.5 U	0.6 J	0.57 J	1.8	1.5 U	0.85 J	0.65 J	0.52 J	0.53 J	1.5 U	1.5 U
N-BUTYLBENZENE	UG/L	28 U	5.5 U	28 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
N-PROPYLBENZENE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
NAPHTHALENE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
P-ISOPROPYLTOLUENE	UG/L	30 U	6 U	30 U	6 U	60 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
SEC-BUTYLBENZENE	UG/L	32 U	6.5 U	32 U	6.5 U	65 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
STYRENE	UG/L	10 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
TERT-BUTYLBENZENE	UG/L	35 U	7 U	35 U	7 U	70 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
TETRACHLOROETHYLENE	UG/L	35 U	7 U	35 U	7 U	70 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
TOLUENE	UG/L	28 U	5.5 U	28 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
TOTAL XYLENES	UG/L	25 U	5 U	25 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
TRANS-1,2-DICHLOROETHENE	UG/L	15 U	3 U	15 U	3 U	30 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
TRANS-1,3-DICHLOROPROPENE	UG/L	25 U	5 U	25 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
TRICHLOROETHYLENE	UG/L	97	79	66	85	150	190	57	13	14	13	17	5 U	5 U	5 U	5 U	5 U
TRICHLOROFLUOROMETHANE	UG/L	20 U	4 U	20 U	4 U	40 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
VINYL CHLORIDE	UG/L	28 U	5.5 U	28 U	5.5 U	55 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U

NOTES:
VALUES IN SHADED CELLS INDICATE DETECTI
J QUALIFIER INDICATES AN ESTIMATED VALU
NAME?
U QUALIFIER INDICATES A NON-DETECTION.
B QUALIFIER BLANK CONTAMINATION

3.0 Natural Attenuation Evaluation

An evaluation of the monitored natural attenuation process at SA-36 was completed in June 2001 by CCI. This technical memorandum is included in Appendix C. A summary of the evaluation is presented below.

Monitoring contaminated groundwater to assess the effectiveness of the reductive dechlorination process is necessary to evaluate the progress towards meeting the GCTLs established for a site. In addition, the evaluation is necessary to demonstrate that the selected remedial technology is operating properly and successfully.

3.1 SA-36 Zone A Groundwater Results

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

- The dissolved oxygen was depleted by one-half to less than 0.5 milligrams per liter (mg/L) in wells OLD-36-26A and OLD-36-27A, which is an indication of microbial activity.
- Nitrate concentrations in every well except OLD-37-27A have decreased which is an indication of nitrate reducing conditions.
- The ORP in all four wells decreased to a negative value, two of which (OLD-36-07A and OLD-36-26A), reported ORP values less than –50 millivolts (mV), which indicates the potential for electron transfer has increased.
- The chloride, methane, ethane, and ethene concentrations increased in all four wells, which indicates that the reductive dechlorination process may be occurring.
- The TOC concentrations, in every well except OLD-36-06A, have decreased, which is an indication of microbial activity.
- The TCE concentrations decreased in every well except OLD-36-27A; however, the formation of *cis*-1,2-DCE or vinyl chloride did not occur.

3.2 SA-36 Zone B Groundwater Results

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

- The dissolved oxygen concentrations have decreased in each monitoring well from the baseline concentrations.

- The dissolved gas, MEE, concentrations have increased in each of the monitoring wells from the baseline levels.
- The ORP values have decreased in every well except OLD-36-28B from the baseline measurements.
- Ferrous iron and hydrogen sulfide are reported in the groundwater which are indicative of a reductive environment.
- Sulfate concentrations have reduced in every well except OLD-36-10B.
- The TOC concentrations have either remained relatively constant or decreased in Zone B after the addition of vegetable oil, which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased in every well except OLD-36-10B, and the 1,2-DCE concentration has increased in one monitoring well.

3.3 SA-36 Zone C Groundwater Results

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

- The dissolved oxygen concentrations have decreased in each monitoring well from the baseline concentrations.
- The dissolved gas, MEE, concentrations have increased in each of the monitoring wells from the baseline levels.
- The ORP values have decreased in every well except OLD-36-32C from the baseline measurements.
- Ferrous iron and hydrogen sulfide are reported in the groundwater, which indicates a reductive environment.
- Sulfate concentrations have reduced in every well except OLD-36-09C.
- The TOC concentrations have either remained relatively constant or decreased in Zone C, except for well OLD-36-31C, after the addition of vegetable oil, which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased or remained relatively constant in Zone C and 1,2-DCE is present in three monitoring wells.

3.4 Natural Attenuation Evaluation Conclusions

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

- Dissolved oxygen concentrations have reduced to below 0.5 mg/L in almost every well at SA-36.
- ORP values have decreased to negative values in almost every well at SA-36, and the ORP is very negative at OLD-36-09C (-283.7 mV).
- The nitrate concentrations are below 1 mg/L in the groundwater zones beneath SA-36; therefore, nitrate reduction should not interfere with the reductive dechlorination process.

It appears that the addition of vegetable oil has created a reducing environment in the groundwater. However, it is apparent that elevated levels of sulfate reported in the baseline sampling round have reduced in almost every well at SA-36. The sulfate reductions are most noticeable in Zones B and C beneath SA-36. The TOC concentrations in most of the wells have either remained the same or reduced since the baseline sampling round and the addition of vegetable oil. Therefore, on the basis of the sulfate and TOC data, it appears that the microorganisms beneath SA-36 have utilized the added TOC (vegetable oil) to reduce the sulfate that is present beneath the site.

4.0 Conclusions and Recommendations

Evaluation and comparison of baseline and Round 1 data indicates that groundwater quality data is relatively stable, with no upward or downward trends evident.

The following recommendations will be implemented in upcoming sampling events to provide additional data for evaluating the enhanced biodegradation process at SA-36:

- The groundwater analysis for methane, ethene, and ethane should be modified by adding carbon dioxide which can be measured in the field using a HACH test kit.
- The reporting limit for sulfate should be reduced from 50 to 20 mg/l or lower in order to evaluate the potential for reductive dechlorination according to the scoring protocol.
- Dissolved hydrogen concentrations should be obtained using a method developed by Microseeps. The dissolved hydrogen concentrations will allow for the evaluation of the terminal electron accepting process and the proper scoring of the groundwater plume.
- One additional well (located downgradient of OLD-36-27A) that is screened in Zone A should be sampled due to the elevated levels of TCE reported in the well.
- One additional well (located upgradient and/or in an unaffected area of SA-36) that is screened in Zone B should be sampled due to the elevated levels of TCE and MEE in OLD-36-08B.

Another round of vegetable oil injections should be performed at SA-36 due to the demand on the initial injections by the sulfate present in the groundwater. In order for the TCE to be reduced in the groundwater, the sulfate must be reduced first which will require additional TOC. The sulfate will most likely be reduced with an additional round of vegetable oil injections; however, a third round of vegetable oil injections may be required for the TCE to be reductively dechlorinated due to the second round of vegetable oil injections being consumed by the sulfate reducing microorganisms.

The next SA-36 efficiency monitoring event (Round 2) will be completed by CCI in July 2001. The Round 2 groundwater sampling event represents 6 months after vegetable oil injection.

5.0 References

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

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

CH2M HILL Constructors, Inc. August 2000. *Work Plan Addendum 1-C, Study Areas 17, 36 and 39.*

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

Harding Lawson Associates. April 1999. *Environmental Site Screening Report, Study Area 36, NTC Orlando, Orlando, Florida.*

Appendix A

Monitoring Well Purging and Sampling Logs

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-06A **SITE: CTO-17/SA-36**

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		9.76				
WELL DEPTH (FT):		16.53	2 IN.		0.1632	
WATER COLUMN (FT):	=	6.77	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	1.1	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	3.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	6.25	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1.25	2.5	3.75	5	6.25	
pH (s.units)	5.46	5.33	5.36	5.40	5.41	
COND/SPCond	70	69	71	70	70	
TEMP.(C)	26.76	26.82	26.91	26.88	26.88	
ORP (mV)	217.6	208.4	186.3	160.1	151.6	
DO (mg/L)	1.87	1.02	0.89	0.86	0.79	
Turbidity (NTU)	113	199	181	160	190	
Ferrous Iron (mg/L)	0.65	0.5	0.6	0.6	0.5	
Manganese (mg/L)	0.5	0	0	0	0	
Hydrogen Sulfide (mg/L)	0	0	0	0	0	
Sulfate (mg/L)	80	90	80	90	90	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/04/00@0830

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-07A **SITE:** CTO-17/SA-36

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		13.83				
WELL DEPTH (FT):		19.98	2 IN.		0.1632	
WATER COLUMN (FT):	=	6.15	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	1	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	10	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2	4	6	8	10	
pH (s.units)	5.52	5.47	5.50	5.52	5.50	
COND/SPCond	110	111	110	112	110	
TEMP.(C)	28.05	26.01	25.89	25.84	25.86	
ORP (mV)	107.7	111.5	98	81	63	
DO (mg/L)	0.88	0.79	0.61	0.52	0.54	
Turbidity (NTU)	143	103	151	170	138	
Ferrous Iron (mg/L)	0.2	0.1	0.1	0.2	0.2	
Manganese (mg/L)	0	0	0	0	0	
Hydrogen Sulfide (mg/L)	0.1	0.1	0.1	0.2	0.1	
Sulfate (mg/L)	<50	<50	<50	<50	<50	

SAMPLE PARAMETERS (GRAB OR COMPOSITE): VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/01/00@1530

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-08B **SITE: CTO-17/SA-36**

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		10.04				
WELL DEPTH (FT):		27.07	2 IN.		0.1632	
WATER COLUMN (FT):	=	17.03	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	2.77	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	8.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST. OTHER:

FLOW RATE (gpm): .5 L/MIN
VOL. PURGED (gals): 13.75

BAILER : TEFLON, SS ,OTHER:
BAILER VOL.. (gal) .25 / .33
REQUIRED PULLS:
VOL. PURGED (gals):
OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS 1st	2nd	3rd	4th	5th	WITHIN10% Y / N 6th
VOL. (gal)	2.75	5.5	8.3	11	13.75	
pH (s.units)	5.32	5.69	5.70	5.71	5.68	
COND/SPCond	112	125	131	128	133	
TEMP.(C)	27.40	27.26	27.57	27.49	27.52	
ORP (mV)	72.1	-22.6	-43.5	-61.9	-81.1	
DO (mg/L)	1.88	1.46	1.25	1.07	0.98	
Turbidity (NTU)	32	82	200	119	143	
Ferrous Iron (mg/L)	0.5	0.6	0.6	0.6	0.5	
Manganese (mg/L)	0	0.1	0.2	0.2	0.1	
Hydrogen Sulfide (mg/L)	0.3	1	1	1	1	
Sulfate (mg/L)	>50	100	70	70	80	

SAMPLE PARAMETERS (GRAB OR COMPOSITE): VOC,NO3,NO2,CIAlk,TOC,Fl-Pro,VFA,MEE

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/04/00@1030

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-09C | **SITE:** CTO-17/SA-36

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		13.72				
WELL DEPTH (FT):		34.96	2 IN.		0.1632	
WATER COLUMN (FT):	=	21.24	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	3.5	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	10.4	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 17.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS 1st	2nd	3rd	4th	5th	WITHIN10% Y / N 6th
VOL. (gal)	3.5	7	10.4	14	17.5	
pH (s.units)	5.39	5.77	5.62	5.68	5.71	
COND/SPCond	1940	1344	960	898	909	
TEMP.(C)	25.24	25.46	25.52	25.48	25.55	
ORP (mV)	-147.6	-160.8	-171.7	-160.9	-178.1	
DO (mg/L)	0.86	1.04	1.16	0.85	0.71	
Turbidity (NTU)	43	44	95	88	95	
Ferrous Iron (mg/L)	0.4	0.3	0.4	0.4	0.3	
Manganese (mg/L)	0.1	0.3	0.3	0.2	0.3	
Hydrogen Sulfide (mg/L)	5	5	5	5	5	
Sulfate (mg/L)	<50	<50	<50	<50	<50	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/05/00@0900

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-10B **SITE: CTO-17/SA-36**

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		10.13				
WELL DEPTH (FT):		24.68	2 IN.		0.1632	
WATER COLUMN (FT):	=	14.55	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	2.4	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	7.1	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 7.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS 1st	2nd	3rd	4th	5th	WITHIN10% Y / N 6th
VOL. (gal)	1.5	3	4.5	6	7.5	
pH (s.units)	5.38	5.42	5.54	5.59	5.60	
COND/SPCond	85	79	101	103	102	
TEMP.(C)	27.25	27.20	27.26	27.33	27.36	
ORP (mV)	93.4	53.9	23.1	18.6	16.9	
DO (mg/L)	1.39	1.05	1.12	1.16	1.08	
Turbidity (NTU)	225	719	690	609	508	
Ferrous Iron (mg/L)	0.2	0	0.2	0.1	0.2	
Manganese (mg/L)	0	0	0	0	0	
Hydrogen Sulfide (mg/L)	0.1	0.3	0.2	0.3	0.3	
Sulfate (mg/L)	150	>200	150	>200	>200	

SAMPLE PARAMETERS (GRAB OR COMPOSITE): VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/04/00@1500

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-11C **SITE: CTO-17/SA-36**

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		13.65				
WELL DEPTH (FT):		33.89	2 IN.		0.1632	
WATER COLUMN (FT):	=	20.24	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	3.3	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	9.9	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST. **OTHER:**

FLOW RATE (gpm): .5 L/MIN
VOL. PURGED (gals): 17.5

BAILER : TEFLON, SS ,OTHER:
BAILER VOL.. (gal) .25 / .33
REQUIRED PULLS:
VOL. PURGED (gals):
OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS 1st	2nd	3rd	4th	5th	WITHIN10% Y / N 6th
VOL. (gal)	3.5	7	9.9	14	17.5	
pH (s.units)	5.30	5.35	5.32	5.30	5.33	
COND/SPCond	78	85	89	88	90	
TEMP.(C)	26.08	25.92	26.01	26.59	26.61	
ORP (mV)	203.1	198.1	81.7	16.6	18.1	
DO (mg/L)	1.81	1.59	1.19	0.98	0.79	
Turbidity (NTU)	86	191	306	280	189	
Ferrous Iron (mg/L)	0.4	0.5	0.2	0.2	0.1	
Manganese (mg/L)	0.2	0.1	0	0	0	
Hydrogen Sulfide (mg/L)	0.1	0.3	0.7	0.5	0.7	
Sulfate (mg/L)	<50	<50	100	80	100	

SAMPLE PARAMETERS (GRAB OR COMPOSITE): VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/06/00@1130

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-12C **SITE: CTO-17/SA-36**

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		13.35				
WELL DEPTH (FT):		34.10	2 IN.		0.1632	
WATER COLUMN (FT):	=	20.75	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	3.4	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	10.2	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	17.5	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.2	14	17.5	
pH (s.units)	5.26	5.40	5.29	5.35	5.36	
COND/SPCond	73	82	89	91	87	
TEMP.(C)	26.26	26.06	26.12	26.19	26.22	
ORP (mV)	137.6	92.2	81.0	69.2	78.9	
DO (mg/L)	1.95	1.68	1.19	1.09	1.11	
Turbidity (NTU)	19	>1000	880	719	808	
Ferrous Iron (mg/L)	0.2	1.6	0.2	1.8	0.2	
Manganese (mg/L)	0	0	0	0	0	
Hydrogen Sulfide (mg/L)	0	0.1	0.1	0.1	0	
Sulfate (mg/L)	<50	>200	>200	>200	>200	

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE): VOC,NO3,NO2,ClAlk,TOC,Fl-Pro,VFA,MEE

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/05/00@1500

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-23C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira				(leave blank if on previous page)	
DEPTH TO WATER (FT):	16.89	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	37.27	2 IN.		0.1632	
WATER COLUMN (FT): =	20.38	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.3	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	10	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
			BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm):	.5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals):	17.5		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10	14	17.5	
pH (s.units)	5.46	5.58	5.58	5.60	5.61	
COND/SPCond	71	74	77	81	78	
TEMP.(C)	25.72	25.69	25.62	25.58	25.60	
ORP (mV)	-12.5	-14.4	-25.8	-31.8	-40.8	
DO (mg/L)	1.29	1.05	1.02	0.89	0.75	
Turbidity (NTU)	130	>1000	>1000	>1000	>1000	
Ferrous Iron (mg/L)	1.4	1.6	1.2	1	1.2	
Manganese (mg/L)	0.3	0.2	0.1	0.3	0.1	
Hydrogen Sulfide (mg/L)	0.1	1	0.5	0.1	0.5	
Sulfate (mg/L)	<50	>200	>200	>200	>200	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/06/00@1400

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-26A | **SITE:** CTO-17/SA-36

FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		12.62				
WELL DEPTH (FT):		22.91	2 IN.		0.1632	
WATER COLUMN (FT):	=	10.29	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	1.68	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	5	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 9		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1.75	3.5	5	7	9	
pH (s.units)	7.16	5.99	5.89	5.84	5.86	
COND/SPCond	98	71	84	88	90	
TEMP.(C)	24.12	23.86	23.90	24.01	23.97	
ORP (mV)	130.0	179.1	181.8	201.1	207.1	
DO (mg/L)	1.15	1.09	0.97	1.01	0.96	
Turbidity (NTU)	>1000	>1000	>1000	>1000	>1000	
Ferrous Iron (mg/L)	1	1	0.9	0.9	1	
Manganese (mg/L)	0.1	0.2	0.2	0.1	0.2	
Hydrogen Sulfide (mg/L)	0.3	0.5	0.5	0.3	0.3	
Sulfate (mg/L)	>200	>200	>200	>200	>200	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/01/00@0915

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-27A		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira				(leave blank if on previous page)	
DEPTH TO WATER (FT):	12.96	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	23.19	2 IN.		0.1632	
WATER COLUMN (FT): =	10.23	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	1.66	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	5	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1.75	3.5	5			
pH (s.units)	6.69	6.81	6.83			
COND/SPCond	326	363	368			
TEMP.(C)	25.51	25.70	25.75			
ORP (mV)	195.4	141.6	136.1			
DO (mg/L)	1.61	1.00	0.98			
Turbidity (NTU)	26	4	0.9			
Ferrous iron (mg/L)	10.1	0.1	0.1			
Manganese (mg/L)	0	0	0			
Hydrogen Sulfide (mg/L)	0.1	0.1	0			
Sulfate (mg/L)	<50	<50	<50			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/01/00@1100

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-28B		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira				(leave blank if on previous page)	
DEPTH TO WATER (FT):	13.83	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	29.96	2 IN.		0.1632	
WATER COLUMN (FT): =	16.13	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.63	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	7.89	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	15	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6	9	12	15	
pH (s.units)	5.70	6.18	6.13	6.15	6.13	
COND/SPCond	232	332	320	328	333	
TEMP.(C)	25.96	25.94	25.90	25.95	25.94	
ORP (mV)	89.1	-1.5	-26.7	-38.9	-51.6	
DO (mg/L)	0.83	0.56	0.59	0.57	0.59	
Turbidity (NTU)	77	83	>1000	>1000	>1000	
Ferrous Iron (mg/L)	1.8	2.8	2.2	2.4	2.5	
Manganese (mg/L)	0	0	0	0	0	
Hydrogen Sulfide (mg/L)	2	0.3	0.5	0.3	0.3	
Sulfate (mg/L)	150	>200	>200	>200	>200	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/01/00@1330

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-29B		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira				(leave blank if on previous page)	
DEPTH TO WATER (FT):	13.10	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	30.13	2 IN.		0.1632	
WATER COLUMN (FT): =	17.03	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.77	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	8.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 13.75		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2.75	5.5	8.3	11	13.75	
pH (s.units)	5.52	5.76	5.71	5.74	5.70	
COND/SPCond	125	171	167	168	170	
TEMP.(C)	25.90	26.25	26.33	26.36	26.41	
ORP (mV)	132.6	47.7	40.5	43.9	40.9	
DO (mg/L)	1.36	1.01	0.81	0.69	0.65	
Turbidity (NTU)	102	80	52	36	42	
Ferrous Iron (mg/L)	1	1.2	1.8	1.8	2	
Manganese (mg/L)	0.2	0.1	0.1	0.1	0.1	
Hydrogen Sulfide (mg/L)	0	0	0	0	0	
Sulfate (mg/L)	60.5	67.5	50	62.5	70.5	

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,ClAlk,TOC,Fl-Pro,VFA,MEE

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/04/00@1345

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER:	OLD-36-30C	**SITE: CTO-17/SA-36**			
FIELD CREW:	G. Bonds, T. Plumlee, F. J. Ferreira			(leave blank if on previous page)	
		CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):	16.78				
WELL DEPTH (FT):	37.99	2 IN.		0.1632	
WATER COLUMN (FT): =	21.21	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.4	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	10.4	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	17.5	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.4	14	17.5	
pH (s.units)	5.86	5.92	5.87	5.75	5.71	
COND/SPCond	372	220	198	173	169	
TEMP.(C)	27.44	27.10	27.01	26.89	26.14	
ORP (mV)	-20.9	-17.5	-17.0	-28.0	-32.0	
DO (mg/L)	1.45	0.95	0.89	0.91	0.90	
Turbidity (NTU)	124	113	122	90	82	
Ferrous Iron (mg/L)	1.8	1.6	0.8	0.8	0.6	
Manganese (mg/L)	0.1	0	0.1	0	0	
Hydrogen Sulfide (mg/L)	0.7	0.9	1	0.8	1	
Sulfate (mg/L)	>200	>200	70	60	70	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 11/29/00@1400

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-32C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee, F. J. Ferreira				(leave blank if on previous page)	
DEPTH TO WATER (FT):	16.88	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	37.86	2 IN.		0.1632	
WATER COLUMN (FT): =	20.98	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.4	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	10.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 17.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.3	14	17.5	
pH (s.units)	6.99	6.63	6.44	6.46	6.51	
COND/SPCond	348	267	227	231	248	
TEMP.(C)	26.58	26.45	26.61	26.59	26.63	
ORP (mV)	-28.6	-29.7	-26.8	-17.4	-26.1	
DO (mg/L)	0.95	0.88	0.79	0.75	0.78	
Turbidity (NTU)	463	184	168	140	188	
Ferrous Iron (mg/L)	0	0.2	0.2	0.1	0.1	
Manganese (mg/L)	0.2	0.1	0.1	0.2	0.1	
Hydrogen Sulfide (mg/L)	0.1	0.2	0.1	0.1	0.2	
Sulfate (mg/L)	>200	>200	>200	>200	>200	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/06/00@0900

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER:	OLD-36-31C	**SITE: CTO-17/SA-36**			
FIELD CREW:	G. Bonds, T. Plumlee, F. J. Ferreira			(leave blank if on previous page)	
DEPTH TO WATER (FT):	16.78	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	37.90	2 IN.		0.1632	
WATER COLUMN (FT): =	21.12	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.5	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	10.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	17.5	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.3	14	17.5	
pH (s.units)	6.09	5.81	5.51	5.38	5.41	
COND/SPCond	127	110	112	104	106	
TEMP.(C)	25.88	25.93	25.95	25.97	25.95	
ORP (mV)	-15.4	26.4	29.1	40	48	
DO (mg/L)	1.18	1.23	0.90	0.85	0.79	
Turbidity (NTU)	>1000	301	172	95	80	
Ferrous Iron (mg/L)	1.4	1.4	1.1	1.2	1.2	
Manganese (mg/L)	0.2	0.3	0.2	0.3	0.3	
Hydrogen Sulfide (mg/L)	0.3	0	0	0	0	
Sulfate (mg/L)	125	80	70	75	60	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 12/05/00@1115

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-06A		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	10.83	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	16.5	2 IN.		0.1632	
WATER COLUMN (FT): =	5.67	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	0.9	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	2.7	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
			BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm):	.5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals):	3		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1	2	3			
pH (s.units)	4.79	4.96	4.81			
COND/SPCond	75	74	75			
TEMP.(C)	24.38	24.39	24.4			
ORP (mV)	-7.5	-7.6	-6.6			
DO (mg/L)	1.66	2.26	2.35			
Turbidity (NTU)	278	274	239			
Ferrous Iron (mg/L)			0.4			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0			
Sulfate (mg/L)			125			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/14/01@1130

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-07A		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	10.88	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	20.88	2 IN.		0.1632	
WATER COLUMN (FT): =	10.00	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	1.6	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	4.8	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
			BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm):	.5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals):	4.8		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1.6	3.2	4.8			
pH (s.units)	5.28	5.27	5.27			
COND/SPCond	104	102	101			
TEMP.(C)	24.79	24.85	24.85			
ORP (mV)	-76.3	-81	-83.4			
DO (mg/L)	1.23	1.00	1.06			
Turbidity (NTU)	244	248	226			
Ferrous Iron (mg/L)			0.2			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0			
Sulfate (mg/L)			>200			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/14/01@1224

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-08B		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	11.50	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	27.09	2 IN.		0.1632	
WATER COLUMN (FT): =	15.59	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.5	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	7.5	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
			BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm):	.5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals):	7.5		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2.5	5	7.5			
pH (s.units)	8.11	6.26	5.92			
COND/SPCond	129	105	102			
TEMP.(C)	26.27	26.5	26.59			
ORP (mV)	-175.6	-142.3	-134.1			
DO (mg/L)	0.57	0.50	0.44			
Turbidity (NTU)	17.6	21.4	19.7			
Ferrous Iron (mg/L)			6			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0.5			
Sulfate (mg/L)			0			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/15/01@1455

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER:	OLD-36-09C	**SITE: CTO-17/SA-36**			
FIELD CREW:	G. Bonds, T. Plumlee			(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.75	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	34.80	2 IN.		0.1632	
WATER COLUMN (FT): =	20.05	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.3	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	9.8	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 10.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.5			
pH (s.units)	5.50	5.48	5.49			
COND/SPCond	989	1003	865			
TEMP.(C)	27.12	26.98	27.01			
ORP (mV)	-181.5	-281.3	-283.7			
DO (mg/L)	0.44	0.43	0.41			
Turbidity (NTU)	>1000	>1000	865			
Ferrous Iron (mg/L)			0.2			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0.5			
Sulfate (mg/L)			>200			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/15/01@1345

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-10B		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	11.47	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	24.62	2 IN.		0.1632	
WATER COLUMN (FT): =	13.15	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.1	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	6.4	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
			BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm):	.5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals):	10		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2	4	6	8	10	
pH (s.units)	5.95	6.02	6.03	6.03	6.03	
COND/SPCond	75	79	82	80	82	
TEMP.(C)	25.87	25.90	25.96	25.9	25.91	
ORP (mV)	-50	-74.3	-103.2	-104.9	-105.7	
DO (mg/L)	0.54	0.58	0.36	0.46	0.45	
Turbidity (NTU)	>1000	>1000	783	794	729	
Ferrous Iron (mg/L)					0.8	
Manganese (mg/L)					0.3	
Hydrogen Sulfide (mg/L)					0.1	
Sulfate (mg/L)					>200	

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/15/01@0920

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-11C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.87	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	33.78	2 IN.		0.1632	
WATER COLUMN (FT): =	18.91	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	9	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 9		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6	9			
pH (s.units)	5.38	5.30	5.30			
COND/SPCond	74	72	70			
TEMP.(C)	26.59	26.62	26.71			
ORP (mV)	-38.5	-57.8	-63.1			
DO (mg/L)	1.01	0.45	0.28			
Turbidity (NTU)	52.7	125	71.8			
Ferrous Iron (mg/L)			0.1			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0.5			
Sulfate (mg/L)			0			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/15/01@1058

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-26A		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	13.82	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	22.71	2 IN.		0.1632	
WATER COLUMN (FT): =	8.89	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	1.5	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	4.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 4.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1.5	3	4.5			
pH (s.units)	4.94	4.94	4.95			
COND/SPCond	93	94	93			
TEMP.(C)	24.72	24.73	24.72			
ORP (mV)	-123.7	-124.5	-125.0			
DO (mg/L)	0.42	0.43	0.43			
Turbidity (NTU)	237	269	194			
Ferrous Iron (mg/L)			0.4			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0			
Sulfate (mg/L)			>200			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/14/01@1330

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-27A		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.27	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	23.13	2 IN.		0.1632	
WATER COLUMN (FT): =	8.86	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	1.5	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	4.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 4.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1.5	3	4.5			
pH (s.units)	6.01	6.1	6.17			
COND/SPCond	173	175	181			
TEMP.(C)	25.08	25.09	25.13			
ORP (mV)	-0.7	-6.9	-13.2			
DO (mg/L)	0.25	0.26	0.27			
Turbidity (NTU)	40.8	24.2	18.2			
Ferrous Iron (mg/L)	0.3	0.1	0.1			
Manganese (mg/L)	0	0	0			
Hydrogen Sulfide (mg/L)	0	0	0			
Sulfate (mg/L)	<50	<50	<50			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/13/01@1600

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER:	OLD-36-28B	**SITE: CTO-17/SA-36**			
FIELD CREW:	G. Bonds, T. Plumlee			(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.86	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	29.91	2 IN.		0.1632	
WATER COLUMN (FT): =	15.05	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.5	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	7.4	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 7.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2.5	5	7.5			
pH (s.units)	5.73	5.78	5.76			
COND/SPCond	133	139	140			
TEMP.(C)	25.52	25.74	25.81			
ORP (mV)	33.3	-14.2	-40.7			
DO (mg/L)	0.46	0.23	0.38			
Turbidity (NTU)	426	345	358			
Ferrous Iron (mg/L)			1.1			
Manganese (mg/L)			0			
Hydrogen Sulfide (mg/L)			0.7			
Sulfate (mg/L)			150			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

TURBIDITY: NONE , _LOW , _MEDIUM , ***HIGH*** , VERY TURBID. HEAVY SILTS

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/14/01@0846

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER:	OLD-36-29B	**SITE: CTO-17/SA-36**			
FIELD CREW:	G. Bonds, T. Plumlee			(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.25	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	30.09	2 IN.		0.1632	
WATER COLUMN (FT): =	15.84	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.6	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	7.8	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
FLOW RATE (gpm): .5 L/MIN		BAILER VOL.. (gal) .25 / .33
VOL. PURGED (gals): 9		REQUIRED PULLS:
		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6	9			
pH (s.units)	5.10	5.01	5.00			
COND/SPCond	113	111	108			
TEMP.(C)	25.59	25.6	25.42			
ORP (mV)	15.4	11.7	10.9			
DO (mg/L)	0.23	0.23	0.11			
Turbidity (NTU)	103	78.8	47			
Ferrous Iron (mg/L)	0.2	1	1			
Manganese (mg/L)	0	0	0			
Hydrogen Sulfide (mg/L)	0.1	0.1	0.1			
Sulfate (mg/L)	<50	68	70			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/13/01@1508

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-30C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	18.12	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	38.05	2 IN.		0.1632	
WATER COLUMN (FT): =	19.93	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.2	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	9.7	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
FLOW RATE (gpm):	.5 L/MIN		BAILER VOL.. (gal) .25 / .33
VOL. PURGED (gals):	12		REQUIRED PULLS:
			VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	4	8	12			
pH (s.units)	5.56	5.52	5.50			
COND/SPCond	114	110	107			
TEMP.(C)	26.66	26.56	26.55			
ORP (mV)	-47	-49.8	-48.6			
DO (mg/L)	0.24	0.22	0.27			
Turbidity (NTU)	132	50.2	50.1			
Ferrous Iron (mg/L)			0.4			
Manganese (mg/L)			0.1			
Hydrogen Sulfide (mg/L)			0.1			
Sulfate (mg/L)			<50			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/14/01@1000

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-31C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	17.97	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	37.99	2 IN.		0.1632	
WATER COLUMN (FT): =	20.02	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.3	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	9.8	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 10		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10			
pH (s.units)	4.69	4.67	4.68			
COND/SPCond	118	120	119			
TEMP.(C)	26.62	26.57	26.48			
ORP (mV)	-110.6	-112.8	-112.9			
DO (mg/L)	0.28	0.3	0.31			
Turbidity (NTU)	36.1	36.2	34.5			
Ferrous Iron (mg/L)			0			
Manganese (mg/L)			0.15			
Hydrogen Sulfide (mg/L)			5			
Sulfate (mg/L)			<50			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/14/01@1053

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-32C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	17.85	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	37.86	2 IN.		0.1632	
WATER COLUMN (FT): =	20.01	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.3	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	9.8	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
			BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm):	.5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals):	10.5		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.5			
pH (s.units)	5.72	5.64	5.61			
COND/SPCond	125	115	113			
TEMP.(C)	26.28	26.27	26.32			
ORP (mV)	-1.3	-12.6	-5.8			
DO (mg/L)	0.19	0.18	0.18			
Turbidity (NTU)	237	269	194			
Ferrous Iron (mg/L)	0.15	0.2	0.1			
Manganese (mg/L)	0	0	0			
Hydrogen Sulfide (mg/L)	0	0	0			
Sulfate (mg/L)	100	80	80			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/13/01@1400

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-33A		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.11	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	20.17	2 IN.		0.1632	
WATER COLUMN (FT): =	6.06	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	1	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 3		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	1	2	3			
pH (s.units)	6.37	6.36	6.37			
COND/SPCond	129	130	131			
TEMP.(C)	25.61	25.62	25.67			
ORP (mV)	-118	-119.5	-120.5			
DO (mg/L)	0.55	0.53	0.49			
Turbidity (NTU)	>1000	>1000	>1000			
Ferrous Iron (mg/L)			NC			
Manganese (mg/L)			NC			
Hydrogen Sulfide (mg/L)			NC			
Sulfate (mg/L)			NC			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/16/01@1410

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-34B		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	14.10	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	27.80	2 IN.		0.1632	
WATER COLUMN (FT): =	13.70	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	2.2	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	6.7	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
FLOW RATE (gpm):	.5 L/MIN		BAILER VOL.. (gal) .25 / .33
VOL. PURGED (gals):	6.7		REQUIRED PULLS:
			VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2.2	4.4	6.7			
pH (s.units)	5.24	5.35	5.35			
COND/SPCond	49	55	56			
TEMP.(C)	25.59	25.68	25.69			
ORP (mV)	-83.9	-100	-101.2			
DO (mg/L)	0.58	0.38	0.36			
Turbidity (NTU)	>1000	>1000	>1000			
Ferrous Iron (mg/L)			NC			
Manganese (mg/L)			NC			
Hydrogen Sulfide (mg/L)			NC			
Sulfate (mg/L)			NC			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/16/01@0944

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-35C		**SITE: CTO-17/SA-36**			
FIELD CREW: G. Bonds, T. Plumlee				(leave blank if on previous page)	
DEPTH TO WATER (FT):	18.04	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT):	37.47	2 IN.		0.1632	
WATER COLUMN (FT): =	19.43	4 IN.		0.6528	
GAL/FT OF CASING x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL) =	3.2	8 IN.		2.611	
NO. OF VOLUMES min.(3) x	3	10 IN.		4.0797	
PURGE VOLUME (GAL) =	9.5	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm): .5 L/MIN		REQUIRED PULLS:
VOL. PURGED (gals): 9.5		VOL. PURGED (gals):
		OTHER:

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.2	6.4	9.5			
pH (s.units)	6.39	6.60	6.49			
COND/SPCond	177	208	202			
TEMP.(C)	25.73	26.27	26.28			
ORP (mV)	-111.9	-201.4	-203.9			
DO (mg/L)	0.56	0.38	0.21			
Turbidity (NTU)	129	>1000	>1000			
Ferrous Iron (mg/L)			NC			
Manganese (mg/L)			NC			
Hydrogen Sulfide (mg/L)			NC			
Sulfate (mg/L)			NC			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/16/01@0907

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT# 152044.32.12.01.08

WELL NUMBER: OLD-36-36C | **SITE:** CTO-17/SA-36

FIELD CREW: G. Bonds, T. Plumlee (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		19.22				
WELL DEPTH (FT):		37.34	2 IN.		0.1632	
WATER COLUMN (FT):	=	18.12	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	3	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	9	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	9	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS 1st	2nd	3rd	4th	5th	6th	WITHIN10% Y / N
VOL. (gal)	3	6	9				
pH (s.units)	6.17	6.15	6.13				
COND/SPCond	160	155	148				
TEMP.(C)	27.67	27.81	27.8				
ORP (mV)	-94.7	-109.8	-110.1				
DO (mg/L)	0.4	0.36	0.41				
Turbidity (NTU)	>1000	>1000	>1000				
Ferrous Iron (mg/L)			NC				
Manganese (mg/L)			NC				
Hydrogen Sulfide (mg/L)			NC				
Sulfate (mg/L)			NC				

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/16/01@1332

CH2M HILL
WELL SAMPLING FIELD SHEET

PROJECT#_ 152044.32.12.01.08

WELL NUMBER: OLD-36-37C **SITE: CTO-17/SA-36**

FIELD CREW: G. Bonds, T. Plumlee (leave blank if on previous page)

			CASING DIA.		GAL/FT OF CASING	
DEPTH TO WATER (FT):		16.68				
WELL DEPTH (FT):		37.81	2 IN.		0.1632	
WATER COLUMN (FT):	=	21.13	4 IN.		0.6528	
GAL/FT OF CASING	x	0.1632	6 IN.		1.4688	
CASING VOLUME (GAL)	=	3.4	8 IN.		2.611	
NO. OF VOLUMES min.(3)	x	3	10 IN.		4.0797	
PURGE VOLUME (GAL)	=	10.3	12 IN.		5.8748	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. PERIST.	OTHER:	BAILER : TEFLON, SS ,OTHER:	
		BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm):	.5 L/MIN	REQUIRED PULLS:	
VOL. PURGED (gals):	10.5	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	FIELD MEASUREMENTS					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.5	7	10.5			
pH (s.units)	6.29	6.25	6.22			
COND/SPCond	100	146	152			
TEMP.(C)	26.26	26.56	26.67			
ORP (mV)	-115.7	-138.5	-167.4			
DO (mg/L)	0.27	0.17	0.18			
Turbidity (NTU)	>1000	821	753			
Ferrous Iron (mg/L)			NC			
Manganese (mg/L)			NC			
Hydrogen Sulfide (mg/L)			NC			
Sulfate (mg/L)			NC			

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

FILTERED METALS COLLECTED: Y / N 1.0um,0.45um, OTHER:

OBSERVATIONS

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

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

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

COMMENTS:

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

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

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 03/16/01@1105

Appendix B

Analytical Laboratory Reports
(CD Only)

PEL Laboratories, Inc.

Customer Name:	CH2MHILL
Date & Time Received:	11-8-00; 12:00
Date Reported:	12-18-00
PEL Submission Number:	2011168
Project:	NTC Orlando

Samples: The submission consisted of 2 samples with sample identification shown in the attached data tables.

Tests: The samples were analyzed for EPA method:
8260, 8260 TCLP, 6010 TCLP, 7471 TCLP, 8270 TCLP, 8081 TCLP, 8151 TCLP.

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: (813) 874-0777

2-CH2M HILL
Attn: Jeff Wilmoth
Phone: (770) 604-9182

CCI NAVY RAC PMO
DEC 20 2000

Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualitities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

TABLE OF CONTENTS

PEL Lab Reference No.: 2011168 NTC ORLANDO
Level 3

Page No.

ORGANICS.....1
Organic Sample ID Qualifiers.....1A
Organic Data Qualifiers.....1B

GC VOLATILE ORGANICS Method 8260.....1C
GC VOLATILE ORGANICS Method 8260 Case Narrative.....2
Sample Data.....4
QC Summary.....9
Standards Data.....26

GC/MS VOLATILE ORGANICS 8260 TCLP.....33
GC/MS VOLATILE ORGANICS 8260 TCLP Case Narrative.....34
Sample Data.....37
QC Summary.....39
Standards Data.....48

GC SEMI-VOLATILE ORGANICS 8270 TCLP.....52
GC SEMI-VOLATILE ORGANICS 8270 TCLP Case Narrative.....53
Sample Data.....56
QC Summary.....58
Standards Data.....69

GC/MS SEMI-VOLATILE ORGANICS 8081 TCLP.....73
GC/MS SEMI-VOLATILE ORGANICS 8081 TCLP Case Narrative.....74
Sample Data.....77
QC Summary.....79
Standards Data.....95

GC/MS SEMI-VOLATILE ORGANICS 8151 TCLP.....121
GC/MS SEMI-VOLATILE ORGANICS 8151 TCLP Case Narrative.....122
Sample Data.....125
QC Summary.....127
Standards Data.....139

INORGANICS.....152
Inorganic EPA Qualifiers.....153
ICP Case Narrative.....154
Sample data.....157
QC summary.....159

Chain of Custody Documentation.....180

Addendum.....184

ORGANICS

Organic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for organic analysis is defined below:

DL — Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

R — Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

RE — Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

MS — Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

SD — Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

Organic Data Qualifiers

U	Indicates the compound was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that compound. The reporting limit can vary from sample to sample depending on dilution factors or the percent moisture adjustment when indicated.
J	Indicates estimated value. It is used when the data indicates the presence of a compound above the method MDL yet lower than the reporting limit.
B	Indicates the analyte was found in the associated blank as well as in the sample. The notation indicates possible contamination of the sample.
E	Indicates the value reported is above the highest calibration standard for that compound. The sample should be analyzed at an appropriate dilution. "B" qualified values are estimations and the diluted result will be reported on another Form 1.
D	Indicates the analyte has been identified in a dilution reanalysis. "D" qualifiers are used for samples that have been analyzed at a lesser dilution than required for accurate quantitation.
C	The "C" flag indicates the presence of this compound has been confirmed by GC/MS analysis.
P	This qualifier is used for pesticide / Aloclor target analytes where there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 with a "P" code.
N	This qualifier indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" qualifier is not used.
A	This qualifier indicates that a TIC is suspected aldol-condensation product.
M	This qualifier indicates that the compound is reported as a summation of analyte isomers.
X	Data flagged as rejected by analyst utilizing analytical judgment.

GC/MS VOLATILE ORGANICS

METHOD 8260

CASE NARRATIVE
GC/MS VOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA 8260B/SW846

IV. PREPARATION

Water samples were prepared by EPA 5030/SW846 for 8260B volatiles analysis. All aspects of sample preparation proceeded without exception.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

Initial calibration criteria are stated in SW-846 EPA method 8260. All analytes have a maximum percent RSD of 15 with the exception of the Calibration Check Compounds that may have a percent RSD of 30. The CCCs are:
1,1-Dichloroethene, Chloroform, 1,2-Dichloropropane, Toluene, Ethylbenzene and Vinyl chloride. If the CCCs are not part of the target analyte list then they will not be reported on the calibration forms. As per SW-846 EPA method 8000; Section 7.5.1.2 and 7.5.1.2.1, if one or more of the analytes exceed the maximum percent RSD the average percent RSD may be used provided the average is less than or equal to 15. In those instances, the average will be calculated and cited on the calibration forms.

Continuing Calibration criteria is stated in SW-846 EPA method 8260. All analytes have a maximum percent RSD of 20. As per SW-846 EPA method 8000; Section 7.5.1.2 and 7.5.1.2.1, If one or more of the analytes exceed the maximum percent RSD the average percent RSD may be used provided the average is less than or equal to 20. In those instances, the average will be calculated and cited on the calibration forms.

B. Blanks:

Blank 1201blk34 analyzed with the water samples was non-detect for all target analytes.

C. Surrogates:

All surrogate criteria were met.

CASE NARRATIVE
GC/MS VOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

D. Spikes:

Laboratory Control Samples (LCS)

One LCS was analyzed with the water samples where 1 out of 36 analytes did not meet the acceptance criteria for percent recovery.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

The client did not specify a sample for MS/SD. Reagent water spikes were analyzed as an MS/SD where 2 out of 120 analytes did not meet the acceptance criteria for percent recovery. All criteria were met for Relative Percent Difference.

E. Internal standards:

All internal standard criteria were met.

F. Samples:

Sample analysis proceeded normally. Client specific reporting limits were used.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED: [signature] **DATE:** 12-18-00

Sample Data

VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Method: 8260

EPA Sample No	Lab Sample ID
017OLD36TB2Q400	201116802

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36TB2Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116802 Lab File ID 16802.D

Sample wt/vol: 5 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/2/00 Time: 9:18 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID VOC Trip Blank Method: 8260

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: ug/L

CAS NO.	ANALYTE	RESULT	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
75-35-4	1,1-Dichloroethene	1	U
75-09-2	Methylene chloride	1	U
156-60-5	Trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	Cis-1,2-Dichloroethene	1	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	0.2	J
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36TB2Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116802 Lab File ID 16802.D

Sample wt/vol: 5 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/2/00 Time: 9:18 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID VOC Trip Blank Method: 8260

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: ug/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
127-18-4	Tetrachloroethylene	1	U
142-28-9	1,3-Dichloropropane	1	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane (EDB)	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
511-39-00	M,P-Xylene	2	U
95-47-6	O-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	1-Methylethylbenzene (Cumene)	1	U
108-86-1	Bromobenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
96-18-4	1,2,3-Trichloropropane	1	U
103-65-1	N-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36TB2Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116802 Lab File ID 16802.D

Sample wt/vol: 5 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/2/00 Time: 9:18 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID VOC Trip Blank Method: 8260

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: ug/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
96-12-8	1,2-Dibromo-3-Chloro-Propane (DBCP)	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
87-68-3	Hexachlorobutadiene	1	U
91-20-3	Naphthalene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U
544-10-5	1-Chlorohexane	1	U

QC Summary

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1201blk34

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1201blk34 Lab File ID BLK34.D

Sample wt/vol: 5 Units: ML Date Received: 12/2/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/2/00 Time: 3:36 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID QC Method: 8260

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: ug/L

CAS NO.	ANALYTE	RESULT	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
75-35-4	1,1-Dichloroethene	1	U
75-09-2	Methylene chloride	1	U
156-60-5	Trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	Cis-1,2-Dichloroethene	1	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1201blk34

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1201blk34 Lab File.ID BLK34.D

Sample wt/vol: 5 Units: ML Date Received: 12/2/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/2/00 Time: 3:36 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID QC Method: 8260

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: ug/L

CAS NO.	ANALYTE	RESULT	Q
127-18-4	Tetrachloroethylene	1	U
142-28-9	1,3-Dichloropropane	1	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane (EDB)	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
511-39-00	M,P-Xylene	2	U
95-47-6	O-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	1-Methylethylbenzene (Cumene)	1	U
108-86-1	Bromobenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
96-18-4	1,2,3-Trichloropropane	1	U
103-65-1	N-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1201blk34

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1201blk34 Lab File ID BLK34.D

Sample wt/vol: 5 Units: ML Date Received: 12/2/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/2/00 Time: 3:36 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID QC Method: 8260

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: ug/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
96-12-8	1,2-Dibromo-3-Chloro-Propane (DBCP)	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
87-68-3	Hexachlorobutadiene	1	U
91-20-3	Naphthalene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U
544-10-5	1-Chlorohexane	1	U

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

1201BLK34

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: BLK34 Lab Sample ID: 1201BLK34

Date Analyzed: 12/02/00 Time Analyzed: 0336

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VMS03

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1201LCS33	1201LCS33	LCS33	0046
02	1201BLK34MS	1201BLK34MS	BLK34MS	0114
03	1201BLK34SD	1201BLK34MSD	BLK34SD	0143
04	017OLD36TB2Q400	201116802	16802	0918
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG NO.: 2011168

GC Column: DB-624 ID: 0.18

EPA Sample NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
017OLD36TB2Q400	102	100	102	104			0
1201blk34	100	100	102	96			0
1201blk34ms	102	98	104	100			0
1201blk34sd	96	94	98	96			0
1201lcs33	98	96	100	100			0

			Control Limits
S1	=	Toluene-d8	76 - 120
S2	=	4-Bromofluorobenzene	74 - 118
S3	=	1,2-Dichloroethane-d4	62 - 139
S4	=	Dibromofluoromethane	75 - 120

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

Control limit source: (lab/method) LAB

Form II

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: BFB31 BFB Injection Date: 11/27/00

Instrument ID: VMS03 BFB Injection Time: 1815

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	23.2	
75	30.0 - 60.0% of mass 95	54.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.4	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 100.0% of mass 95	69.2	
175	5.0 - 9.0% of mass 174	5.3	(7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	67.1	(96.9)1
177	5.0 - 9.0% of mass 176	4.1	(6.2)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	1PPBSTD	1PPBSTD	1PPB	11/27/00	1959
02	2PPBSTD	2PPBSTD	2PPB	11/27/00	2028
03	5PPBSTD	5PPBSTD	5PPB	11/27/00	2232
04	10PPBSTD	10PPBSTD	10PPB	11/27/00	2300
05	20PPBSTD	20PPBSTD	20PPB	11/27/00	2329
06	50PPBSTD	50PPBSTD	50PPB	11/27/00	2357
07	60PPBSTD	60PPBSTD	60PPB	11/28/00	0026
08	80PPBSTD	80PPBSTD	80PPB	11/28/00	0054
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: BFB33 BFB Injection Date: 12/01/00

Instrument ID: VMS03 BFB Injection Time: 2313

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	25.7
75	30.0 - 66.0% of mass 95	56.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	57.5
175	4.0 - 9.0% of mass 174	4.4 (7.7)1
176	93.0 - 101.0% of mass 174	55.7 (96.8)1
177	5.0 - 9.0% of mass 176	3.6 (6.4)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	1201CCVA33	1201CCVA33	50CC33	12/01/00	2349
02	1201LCS33	1201LCS33	LCS33	12/02/00	0046
03	1201BLK34MS	1201BLK34MS	BLK34MS	12/02/00	0114
04	1201BLK34SD	1201BLK34MSD	BLK34SD	12/02/00	0143
05	1201BLK34	1201BLK34	BLK34	12/02/00	0336
06	017OLD36TB2Q400	201116802	16802	12/02/00	0918
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID (Standard): 50CC33 Date Analyzed: 12/01/00

Instrument ID: VMS03 Time Analyzed: 2349

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT	IS2 AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	647400	10.83	383074	13.77	916463	6.96
	UPPER LIMIT	1294800	11.33	766148	14.27	1832926	7.46
	LOWER LIMIT	323700	10.33	191537	13.27	458232	6.46
	EPA SAMPLE NO.						
01	1201LCS33	669872	10.83	377321	13.78	938690	6.97
02	1201BLK34MS	680507	10.83	368943	13.78	923995	6.97
03	1201BLK34SD	694512	10.83	385423	13.78	961526	6.97
04	1201BLK34	676621	10.83	353837	13.78	927875	6.97
05	017OLD36TB2Q400	615085	10.83	314678	13.78	822700	6.97
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = CHLOROBENZENE d5 (IS)
IS2 = 1,4-DICHLOROBENZENE-d4 (IS)
IS3 = FLUOROBENZENE (IS)

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

FORM VIII VOA 1/87 Rev.

VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

1201lcs33

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	LCS CONCENTRATION ug/l	LCS % REC #	QC LIMITS REC.
Dichlorodifluoromethane	20	16	80	65 - 135
Chloromethane	20	18	90	65 - 135
Vinyl chloride	20	17	85	36 - 144
Bromomethane	20	19	95	62 - 135
Chloroethane	20	19	95	55 - 135
Trichlorofluoromethane	20	21	105	57 - 135
1,1-Dichloroethene	20	20	100	65 - 135
Methylene chloride	20	21	105	65 - 135
Trans-1,2-Dichloroethene	20	20	100	65 - 135
1,1-Dichloroethane	20	20	100	62 - 135
2,2-Dichloropropane	20	21	105	65 - 135
Cis-1,2-Dichloroethene	20	20	100	65 - 135
Bromochloromethane	20	19	95	63 - 135
Chloroform	20	21	105	64 - 135
1,1,1-Trichloroethane	20	21	105	65 - 135
Carbon tetrachloride	20	21	105	52 - 135
1,1-Dichloropropene	20	24	120	65 - 135
Benzene	20	21	105	65 - 135
1,2-Dichloroethane	20	20	100	58 - 137
Trichloroethene	20	19	95	61 - 135
1,2-Dichloropropane	20	20	100	60 - 135
Dibromomethane	20	19	95	59 - 137
Bromodichloromethane	20	20	100	65 - 135
Cis-1,3-Dichloropropene	20	20	100	64 - 135
Toluene	20	21	105	64 - 135
Trans-1,3-Dichloropropene	20	18	90	56 - 135
1,1,2-Trichloroethane	20	19	95	65 - 135
Tetrachloroethylene	20	30	150 *	61 - 135
1,3-Dichloropropane	20	20	100	65 - 135
Dibromochloromethane	20	19	95	63 - 135
1,2-Dibromoethane (EDB)	20	19	95	65 - 135
Chlorobenzene	20	20	100	65 - 135
1,1,1,2-Tetrachloroethane	20	19	95	62 - 108

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando 1201lcs33

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	LCS CONCENTRATION ug/l	LCS % REC #	QC LIMITS REC.
Ethylbenzene	20	20	100	65 - 135
M,P-Xylene	40	42	105	65 - 135
O-Xylene	20	21	105	65 - 135
Styrene	20	22	110	65 - 135
Bromoform	20	18	90	65 - 135
1-Methylethylbenzene (Cumene)	20	20	100	65 - 135
Bromobenzene	20	20	100	65 - 135
1,1,2,2-Tetrachloroethane	20	17	85	64 - 135
1,2,3-Trichloropropane	20	18	90	65 - 135
N-Propylbenzene	20	21	105	65 - 135
2-Chlorotoluene	20	20	100	63 - 135
4-Chlorotoluene	20	20	100	64 - 135
1,3,5-Trimethylbenzene	20	21	105	62 - 135
tert-Butylbenzene	20	21	105	65 - 135
1,2,4-Trimethylbenzene	20	21	105	65 - 135
sec-Butylbenzene	20	20	100	65 - 135
1,3-Dichlorobenzene	20	20	100	65 - 135
1,4-Dichlorobenzene	20	20	100	65 - 135
p-Isopropyltoluene	20	21	105	65 - 135
n-Butylbenzene	20	22	110	65 - 135
1,2-Dichlorobenzene	20	20	100	65 - 135
1,2-Dibromo-3-Chloro-Propane (	20	17	85	49 - 135
1,2,4-Trichlorobenzene	20	21	105	65 - 145
Hexachlorobutadiene	20	21	105	65 - 135
Naphthalene	20	20	100	65 - 135
1,2,3-Trichlorobenzene	20	21	105	65 - 147
1-Chlorohexane	20	20	100	65 - 135

Spike Recovery: 1 out of 60 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1201blk34ms

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	SAMPLE CONCENTRATION ug/l	MS CONCENTRATION ug/l	MS % REC #	QC LIMITS REC.
Dichlorodifluoromethane	20	0	16	80	60 - 140
Chloromethane	20	0	17	85	60 - 140
Vinyl chloride	20	0	17	85	60 - 140
Bromomethane	20	0	19	95	60 - 140
Chloroethane	20	0	19	95	60 - 140
Trichlorofluoromethane	20	0	21	105	60 - 140
1,1-Dichloroethene	20	0	20	100	60 - 140
Methylene chloride	20	0	21	105	60 - 140
Trans-1,2-Dichloroethene	20	0	20	100	60 - 140
1,1-Dichloroethane	20	0	20	100	60 - 140
2,2-Dichloropropane	20	0	20	100	60 - 140
Cis-1,2-Dichloroethene	20	0	21	105	60 - 140
Bromochloromethane	20	0	19	95	60 - 140
Chloroform	20	0	21	105	60 - 140
1,1,1-Trichloroethane	20	0	21	105	60 - 140
Carbon tetrachloride	20	0	21	105	60 - 140
1,1-Dichloropropene	20	0	24	120	60 - 140
Benzene	20	0	21	105	60 - 140
1,2-Dichloroethane	20	0	20	100	60 - 140
Trichloroethene	20	0	20	100	60 - 140
1,2-Dichloropropane	20	0	20	100	60 - 140
Dibromomethane	20	0	19	95	60 - 140
Bromodichloromethane	20	0	20	100	60 - 140
Cis-1,3-Dichloropropene	20	0	20	100	60 - 140
Toluene	20	0	21	105	60 - 140
Trans-1,3-Dichloropropene	20	0	18	90	60 - 140
1,1,2-Trichloroethane	20	0	19	95	60 - 140
Tetrachloroethylene	20	0	30	150*	60 - 140
1,3-Dichloropropane	20	0	19	95	60 - 140

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1201blk34ms

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	SAMPLE CONCENTRATION ug/l	MS CONCENTRATION ug/l	MS % REC #	QC LIMITS REC.
Dibromochloromethane	20	0	18	90	60 - 140
1,2-Dibromoethane (EDB)	20	0	18	90	60 - 140
Chlorobenzene	20	0	19	95	60 - 140
1,1,1,2-Tetrachloroethane	20	0	18	90	60 - 140
Ethylbenzene	20	0	20	100	60 - 140
M,P-Xylene	40	0	41	103	60 - 140
O-Xylene	20	0	20	100	60 - 140
Styrene	20	0	21	105	60 - 140
Bromoform	20	0	17	85	60 - 140
1-Methylethylbenzene (Cumene)	20	0	20	100	60 - 140
Bromobenzene	20	0	20	100	60 - 140
1,1,2,2-Tetrachloroethane	20	0	17	85	60 - 140
1,2,3-Trichloropropane	20	0	19	95	60 - 140
N-Propylbenzene	20	0	20	100	60 - 140
2-Chlorotoluene	20	0	20	100	60 - 140
4-Chlorotoluene	20	0	20	100	60 - 140
1,3,5-Trimethylbenzene	20	0	21	105	60 - 140
tert-Butylbenzene	20	0	21	105	60 - 140
1,2,4-Trimethylbenzene	20	0	21	105	60 - 140
sec-Butylbenzene	20	0	20	100	60 - 140
1,3-Dichlorobenzene	20	0	19	95	60 - 140
1,4-Dichlorobenzene	20	0	19	95	60 - 140
p-Isopropyltoluene	20	0	21	105	60 - 140
n-Butylbenzene	20	0	22	110	60 - 140
1,2-Dichlorobenzene	20	0	20	100	60 - 140
1,2-Dibromo-3-Chloro-Propane (DB	20	0	18	90	60 - 140
1,2,4-Trichlorobenzene	20	0	21	105	60 - 140
Hexachlorobutadiene	20	0	22	110	60 - 140
Naphthalene	20	0	20	100	60 - 140

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1201blk34ms

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	SAMPLE CONCENTRATION ug/l	MS CONCENTRATION ug/l	MS % REC #	QC LIMITS REC.
1,2,3-Trichlorobenzene	20	0	21	105	60 - 140
1-Chlorohexane	20	0	20	100	60 - 140

Spike Recovery: 1 out of 60 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando 1201blk34sd

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	MSD CONCENTRATION ug/l	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	20	15	75	6.5	30	60 - 140
Chloromethane	20	16	80	6.1	30	60 - 140
Vinyl chloride	20	16	80	6.1	30	60 - 140
Bromomethane	20	18	90	5.4	30	60 - 140
Chloroethane	20	18	90	5.4	30	60 - 140
Trichlorofluoromethane	20	19	95	10	30	60 - 140
1,1-Dichloroethene	20	20	100	0	30	60 - 140
Methylene chloride	20	21	105	0	30	60 - 140
Trans-1,2-Dichloroethene	20	20	100	0	30	60 - 140
1,1-Dichloroethane	20	19	95	5.1	30	60 - 140
2,2-Dichloropropane	20	19	95	5.1	30	60 - 140
Cis-1,2-Dichloroethene	20	20	100	4.9	30	60 - 140
Bromochloromethane	20	19	95	0	30	60 - 140
Chloroform	20	19	95	10	30	60 - 140
1,1,1-Trichloroethane	20	20	100	4.9	30	60 - 140
Carbon tetrachloride	20	20	100	4.9	30	60 - 140
1,1-Dichloropropene	20	23	115	4.3	30	60 - 140
Benzene	20	20	100	4.9	30	60 - 140
1,2-Dichloroethane	20	19	95	5.1	30	60 - 140
Trichloroethene	20	20	100	0	30	60 - 140
1,2-Dichloropropane	20	20	100	0	30	60 - 140
Dibromomethane	20	20	100	5.1	30	60 - 140
Bromodichloromethane	20	19	95	5.1	30	60 - 140
Cis-1,3-Dichloropropene	20	20	100	0	30	60 - 140
Toluene	20	20	100	4.9	30	60 - 140
Trans-1,3-Dichloropropene	20	17	85	5.7	30	60 - 140
1,1,2-Trichloroethane	20	19	95	0	30	60 - 140
Tetrachloroethylene	20	29	145*	3.4	30	60 - 140
1,3-Dichloropropane	20	18	90	5.4	30	60 - 140

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando 1201blk34sd

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	MSD CONCENTRATION ug/l	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dibromochloromethane	20	17	85	5.7	30	60 - 140
1,2-Dibromoethane (EDB)	20	18	90	0	30	60 - 140
Chlorobenzene	20	19	95	0	30	60 - 140
1,1,1,2-Tetrachloroethane	20	18	90	0	30	60 - 140
Ethylbenzene	20	19	95	5.1	30	60 - 140
M,P-Xylene	40	38	95	7.6	30	60 - 140
O-Xylene	20	20	100	0	30	60 - 140
Styrene	20	21	105	0	30	60 - 140
Bromoform	20	17	85	0	30	60 - 140
1-Methylethylbenzene (Cumene)	20	19	95	5.1	30	60 - 140
Bromobenzene	20	19	95	5.1	30	60 - 140
1,1,2,2-Tetrachloroethane	20	16	80	6.1	30	60 - 140
1,2,3-Trichloropropane	20	17	85	11.1	30	60 - 140
N-Propylbenzene	20	20	100	0	30	60 - 140
2-Chlorotoluene	20	19	95	5.1	30	60 - 140
4-Chlorotoluene	20	18	90	10.5	30	60 - 140
1,3,5-Trimethylbenzene	20	19	95	10	30	60 - 140
tert-Butylbenzene	20	20	100	4.9	30	60 - 140
1,2,4-Trimethylbenzene	20	19	95	10	30	60 - 140
sec-Butylbenzene	20	19	95	5.1	30	60 - 140
1,3-Dichlorobenzene	20	18	90	5.4	30	60 - 140
1,4-Dichlorobenzene	20	19	95	0	30	60 - 140
p-Isopropyltoluene	20	20	100	4.9	30	60 - 140
n-Butylbenzene	20	20	100	9.5	30	60 - 140
1,2-Dichlorobenzene	20	19	95	5.1	30	60 - 140
1,2-Dibromo-3-Chloro-Propane (	20	16	80	11.8	30	60 - 140
1,2,4-Trichlorobenzene	20	20	100	4.9	30	60 - 140
Hexachlorobutadiene	20	19	95	14.6	30	60 - 140
Naphthalene	20	19	95	5.1	30	60 - 140

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1201blk34sd

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

COMPOUND	SPIKE ADDED ug/l	MSD CONCENTRATION ug/l	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,3-Trichlorobenzene	20	20	100	4.9	30	60 - 140
1-Chlorohexane	20	18	90	10.5	30	60 - 140

RPD 0 out of 60 outside limits

Spike Recovery: 1 out of 60 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

Standards Data

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 11/28/00

Column: DB-624 ID: 0.18 (mm) Calibration Time: 0219

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF1 =1PPB.D RRF2 =2PPB.D
RRF3 =5PPB.D RRF4 =10PPB.D RRF5 =20PPB.D

COMPOUND		RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Dichlorodifluoromethane		0.347	0.339	0.379	0.387	0.389		
Chloromethane	#	0.496	0.475	0.510	0.496	0.467		#
Vinyl Chloride	*	0.380	0.404	0.457	0.440	0.396		*
Bromomethane		0.197	0.212	0.225	0.219	0.216		
Chloroethane		0.239	0.241	0.252	0.239	0.228		
Trichlorofluoromethane		0.280	0.280	0.322	0.343	0.328		
1,1-Dichloroethene		0.419	0.437	0.486	0.448	0.427		
Methylene Chloride		0.541	0.522	0.502	0.496	0.479		
trans 1,2-Dichloroethene		0.419	0.437	0.486	0.448	0.427		
1,1-Dichloroethane	#	0.620	0.603	0.626	0.622	0.598		#
2,2-Dichloropropane		0.188	0.254	0.249	0.236	0.223		
cis-1,2-Dichloroethene		0.267	0.299	0.303	0.274	0.278		
Bromochloromethane		0.125	0.117	0.122	0.118	0.123		
Chloroform	*	0.502	0.560	0.547	0.566	0.548		*
1,1,1-Trichloroethane		0.404	0.412	0.443	0.438	0.412		
Carbon tetrachloride		0.261	0.307	0.324	0.313	0.289		
1,1-Dichloropropene		0.330	0.357	0.388	0.372	0.348		
Benzene		1.288	1.337	1.372	1.352	1.260		
1,2-Dichloroethane		0.461	0.498	0.476	0.514	0.500		
Trichloroethylene		0.245	0.264	0.258	0.266	0.242		
1,2-Dichloropropane	*	0.352	0.347	0.387	0.393	0.373		*
Dibromomethane		0.188	0.181	0.188	0.188	0.199		
Bromodichloromethane		0.377	0.367	0.393	0.402	0.403		
cis 1,3-Dichloropropene		0.429	0.457	0.458	0.472	0.466		
Toluene	*	0.658	0.724	0.764	0.702	0.710		*
trans 1,3-Dichloropropene		0.430	0.449	0.437	0.468	0.483		
1,1,2-Trichloroethane		0.212	0.236	0.246	0.255	0.256		
Tetrachloroethylene		0.282	0.236	0.288	0.271	0.280		
1,3-Dichloropropane		0.680	0.676	0.664	0.700	0.683		
Dibromochloromethane		0.310	0.318	0.308	0.316	0.318		
1,2-Dibromoethane		0.319	0.355	0.328	0.355	0.351		
Chlorobenzene	#	0.943	1.050	1.054	1.018	1.010		#
1,1,1,2-Tetrachloroethane		0.281	0.319	0.318	0.311	0.315		
Ethylbenzene	*	0.516	0.570	0.541	0.562	0.526		*
p,m-Xylene		0.620	0.690	0.714	0.672	0.668		
o-Xylene		1.513	1.532	1.625	1.551	1.543		
Styrene		1.046	1.085	1.188	1.153	1.174		
Bromoform	#	0.155	0.148	0.165	0.172	0.178		#

Calibration Criteria Is Stated In Narrative

FORM VI VOA 1/87 Rev.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 11/28/00

Column: DB-624 ID: 0.18 (mm) Calibration Time: 0219

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF1 =1PPB.D RRF2 =2PPB.D
RRF3 =5PPB.D RRF4 =10PPB.D RRF5 =20PPB.D

COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
1-Methylethylbenzene	2.912	3.267	3.455	3.141	2.949		
Bromobenzene	1.952	2.171	2.123	2.096	1.999		
1,1,2,2-Tetrachloroethane #	0.917	1.043	0.981	0.975	1.014		#
1,2,3- trichloropropane	0.255	0.257	0.223	0.226	0.248		
n-Propylbenzene	3.776	4.341	4.518	4.164	3.932		
2-Chlorotoluene	2.829	3.094	3.070	2.933	2.770		
4-Chlorotoluene	2.832	3.031	2.890	2.816	2.714		
1,3,5-Trimethylbenzene	2.513	2.615	2.800	2.648	2.546		
tert-Butylbenzene	2.133	2.470	2.516	2.366	2.321		
1,2,4-trimethylbenzene	2.551	2.870	3.034	2.817	2.751		
sec-Butylbenzene	2.857	3.007	3.226	3.024	2.853		
1,3-Dichlorobenzene	1.387	1.475	1.432	1.441	1.411		
1,4-Dichlorobenzene *	1.460	1.527	1.504	1.472	1.484		*
p-Isopropyltoluene	2.133	2.470	2.516	2.366	2.321		
n-Butylbenzene	2.438	2.670	2.677	2.461	2.322		
1,2-Dichlorobenzene	1.233	1.416	1.390	1.360	1.396		
1,2-dibromo-3-chloropropane	0.154	0.169	0.152	0.168	0.173		
1,2,4-Trichlorobenzene	0.641	0.738	0.688	0.676	0.710		
Hexachlorobutadiene *	0.177	0.130	0.165	0.142	0.138		*
Naphthalene	1.933	1.963	1.915	1.983	2.154		
1,2,3-trichlorobenzene	0.572	0.623	0.614	0.571	0.614		
1-Chlorohexane	0.496	0.532	0.554	0.522	0.502		
DIBROMOFLUOROMETHANE (surr		0.216	0.242	0.249	0.260		
TOLUENE d8 (surr)		1.020	1.033	1.068	1.062		
4-BROMOFLUOROBENZENE (surr)		1.122	1.095	1.073	1.099		
1,2-DICHLOROETHANE d4 (surr		0.050	0.061	0.061	0.056		

Calibration Criteria Is Stated In Narrative

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 11/28/00

Column: DB-624 ID: 0.18 (mm) Calibration Time: 0219

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF6 =50PPB.D RRF7 =60PPB.D
RRF8 =80PPB.D

COMPOUND		RRF6	RRF7	RRF8			$\overline{RRF}$	% RSD
Dichlorodifluoromethane		0.368	0.386	0.380			0.3719	5.1
Chloromethane	#	0.441	0.484	0.478			0.4809	4.4#
Vinyl Chloride	*	0.348	0.360	0.345			0.3912	10.6*
Bromomethane		0.209	0.236	0.234			0.2185	6.0
Chloroethane		0.214	0.231	0.234			0.2348	4.8
Trichlorofluoromethane		0.327	0.350	0.353			0.3229	8.9
1,1-Dichloroethene		0.429	0.431	0.426			0.4379	4.9
Methylene Chloride		0.450	0.471	0.461			0.4902	6.3
trans 1,2-Dichloroethene		0.429	0.431	0.426			0.4379	4.9
1,1-Dichloroethane	#	0.605	0.602	0.609			0.6106	1.7#
2,2-Dichloropropane		0.225	0.222	0.220			0.2271	8.9
cis-1,2-Dichloroethene		0.280	0.285	0.278			0.2830	4.3
Bromochloromethane		0.120	0.124	0.121			0.1212	2.3
Chloroform	*	0.548	0.560	0.547			0.5472	3.6*
1,1,1-Trichloroethane		0.412	0.429	0.424			0.4218	3.3
Carbon tetrachloride		0.308	0.324	0.310			0.3045	6.8
1,1-Dichloropropene		0.375	0.381	0.364			0.3644	5.2
Benzene		1.266	1.282	1.258			1.3019	3.5
1,2-Dichloroethane		0.491	0.487	0.480			0.4884	3.4
Trichloroethylene		0.243	0.253	0.248			0.2524	3.8
1,2-Dichloropropane	*	0.371	0.386	0.375			0.3730	4.4*
Dibromomethane		0.192	0.198	0.185			0.1899	3.3
Bromodichloromethane		0.391	0.406	0.398			0.3921	3.5
cis 1,3-Dichloropropene		0.465	0.484	0.471			0.4628	3.5
Toluene	*	0.716	0.739	0.724			0.7171	4.3*
trans 1,3-Dichloropropene		0.472	0.492	0.474			0.4631	4.8
1,1,2-Trichloroethane		0.254	0.261	0.257			0.2471	6.5
Tetrachloroethylene		0.288	0.300	0.304			0.2811	7.5
1,3-Dichloropropane		0.744	0.699	0.693			0.6924	3.5
Dibromochloromethane		0.339	0.336	0.338			0.3229	4.0
1,2-Dibromoethane		0.360	0.363	0.358			0.3486	4.6
Chlorobenzene	#	1.038	1.028	1.033			1.0218	3.4#
1,1,1,2-Tetrachloroethane		0.335	0.330	0.339			0.3185	5.7
Ethylbenzene	*	0.554	0.548	0.552			0.5461	3.3*
p,m-Xylene		0.702	0.709	0.700			0.6844	4.5
o-Xylene		1.601	1.610	1.614			1.5736	2.7
Styrene		1.271	1.221	1.231			1.1711	6.4
Bromoform	#	0.200	0.201	0.202			0.1776	12.1#

Calibration Criteria Is Stated In Narrative

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 11/28/00

Column: DB-624 ID: 0.18 (mm) Calibration Time: 0219

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF6 =50PPB.D RRF7 =60PPB.D
RRF8 =80PPB.D

COMPOUND	RRF6	RRF7	RRF8			$\overline{RRF}$	% RSD
1-Methylethylbenzene	3.127	3.174	3.095			3.1400	5.5
Bromobenzene	2.076	2.060	2.070			2.0684	3.3
1,1,2,2-Tetrachloroethane #	0.979	0.990	0.991			0.9862	3.6#
1,2,3- trichloropropane	0.239	0.232	0.233			0.2391	5.4
n-Propylbenzene	4.188	4.206	4.323			4.1810	5.6
2-Chlorotoluene	2.881	2.935	2.924			2.9295	3.8
4-Chlorotoluene	2.739	2.828	2.671			2.8151	4.0
1,3,5-Trimethylbenzene	2.682	2.757	2.725			2.6608	3.8
tert-Butylbenzene	2.434	2.574	2.515			2.4161	5.8
1,2,4-trimethylbenzene	2.857	3.025	2.974			2.8599	5.6
sec-Butylbenzene	3.070	3.165	2.986			3.0235	4.4
1,3-Dichlorobenzene	1.460	1.497	1.464			1.4459	2.5
1,4-Dichlorobenzene *	1.496	1.526	1.551			1.5025	2.0*
p-Isopropyltoluene	2.434	2.574	2.515			2.4161	5.8
n-Butylbenzene	2.584	2.727	2.607			2.5608	5.5
1,2-Dichlorobenzene	1.415	1.455	1.400			1.3831	4.8
1,2-dibromo-3-chloropropane	0.176	0.181	0.180			0.1691	6.4
1,2,4-Trichlorobenzene	0.765	0.783	0.775			0.7220	7.1
Hexachlorobutadiene *	0.142	0.148	0.149			0.1489	10.3*
Naphthalene	2.276	2.275	2.296			2.0994	8.0
1,2,3-trichlorobenzene	0.652	0.658	0.677			0.6226	6.2
1-Chlorohexane	0.559	0.551	0.556			0.5340	4.7
DIBROMOFLUOROMETHANE (surr	0.246	0.252	0.251			0.2451	5.7
TOLUENE d8 (surr)	1.020	1.059	1.044			1.0437	1.9
4-BROMOFLUOROBENZENE (surr)	1.067	1.057	1.067			1.0828	2.1
1,2-DICHLOROETHANE d4 (surr	0.055	0.057	0.056			0.0566	6.9

Calibration Criteria Is Stated In Narrative

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 12/01/00 Time: 2349

Lab File ID: 50CC33 Init. Calib. Date:11/28/00 Time: 0219

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Min RRF50 for SPCC(#) = 0.100 Max %D for CCC(*) = 20.0%
(0.300 for Chlorobenzene and 1,1,2,2 tetrachloroethane)

COMPOUND		$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Dichlorodifluoromethane		0.372	0.450	0.01	21.0	20.0	<-
Chloromethane	#	0.481	0.502	0.1	4.4	20.0#	
Vinyl Chloride	*	0.391	0.426	0.1	9.0	20.0*	
Bromomethane		0.218	0.227	0.1	4.1	20.0	
Chloroethane		0.235	0.242	0.01	3.0	20.0	
Trichlorofluoromethane		0.323	0.392	0.01	21.4	20.0	<-
1,1-Dichloroethene		0.438	0.448	0.1	2.3	20.0	
Methylene Chloride		0.490	0.480	0.01	2.0	20.0	
trans 1,2-Dichloroethene		0.438	0.448	0.01	2.3	20.0	
1,1-Dichloroethane	#	0.611	0.623	0.1	2.0	20.0#	
2,2-Dichloropropane		0.227	0.241	0.01	6.2	20.0	
cis-1,2-Dichloroethene		0.283	0.292	0.01	3.2	20.0	
Bromochloromethane		0.121	0.122	0.01	0.8	20.0	
Chloroform	*	0.547	0.581	0.2	6.2	20.0*	
1,1,1-Trichloroethane		0.422	0.448	0.1	6.2	20.0	
Carbon tetrachloride		0.304	0.338	0.1	11.2	20.0	
1,1-Dichloropropene		0.364	0.400	0.01	9.9	20.0	
Benzene		1.302	1.292	0.5	0.8	20.0	
1,2-Dichloroethane		0.488	0.504	0.1	3.3	20.0	
Trichloroethylene		0.252	0.256	0.1	1.6	20.0	
1,2-Dichloropropane	*	0.373	0.376	0.01	0.8	20.0*	
Dibromomethane		0.190	0.199	0.01	4.7	20.0	
Bromodichloromethane		0.392	0.406	0.2	3.6	20.0	
cis 1,3-Dichloropropene		0.463	0.473	0.2	2.2	20.0	
Toluene	*	0.717	0.754	0.4	5.2	20.0*	
trans 1,3-Dichloropropene		0.463	0.477	0.1	3.0	20.0	
1,1,2-Trichloroethane		0.247	0.255	0.1	3.2	20.0	
Tetrachloroethylene		0.281	0.340	0.2	21.0	20.0	<-
1,3-Dichloropropane		0.692	0.724	0.01	4.6	20.0	
Dibromochloromethane		0.323	0.340	0.1	5.3	20.0	
1,2-Dibromoethane		0.349	0.358	0.01	2.6	20.0	
Chlorobenzene	#	1.022	1.044	0.5	2.2	20.0#	
1,1,1,2-Tetrachloroethane		0.318	0.337	0.01	6.0	20.0	
Ethylbenzene	*	0.546	0.560	0.1	2.6	20.0*	
p,m-Xylene		0.684	0.730	0.3	6.7	20.0	
o-Xylene		1.574	1.657	0.3	5.3	20.0	
Styrene		1.171	1.265	0.3	8.0	20.0	

FORM VII VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 12/01/00 Time: 2349

Lab File ID: 50CC33 Init. Calib. Date:11/28/00 Time: 0219

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Min RRF50 for SPCC(#) = 0.100 Max %D for CCC(*) = 20.0%
(0.300 for Chlorobenzene and 1,1,2,2 tetrachloroethane)

COMPOUND		$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Bromoform	#	0.178	0.196	0.1	10.1	20.0#
1-Methylethylbenzene		3.140	3.037	0.01	3.3	20.0
Bromobenzene		2.068	2.048	0.01	1.0	20.0
1,1,2,2-Tetrachloroethane	#	0.986	0.925	0.3	6.2	20.0#
1,2,3- trichloropropane		0.239	0.224	0.01	6.3	20.0
n-Propylbenzene		4.181	4.368	0.01	4.5	20.0
2-Chlorotoluene		2.930	2.953	0.01	0.8	20.0
4-Chlorotoluene		2.815	2.788	0.01	1.0	20.0
1,3,5-Trimethylbenzene		2.661	2.718	0.01	2.1	20.0
tert-Butylbenzene		2.416	2.512	0.01	4.0	20.0
1,2,4-trimethylbenzene		2.860	2.923	0.01	2.2	20.0
sec-Butylbenzene		3.024	3.123	0.01	3.3	20.0
1,3-Dichlorobenzene		1.446	1.437	0.01	0.6	20.0
1,4-Dichlorobenzene	*	1.502	1.533	0.01	2.1	20.0*
p-Isopropyltoluene		2.416	2.512	0.01	4.0	20.0
n-Butylbenzene		2.561	2.754	0.01	7.5	20.0
1,2-Dichlorobenzene		1.383	1.402	0.01	1.4	20.0
1,2-dibromo-3-chloropropane		0.169	0.173	0.01	2.4	20.0
1,2,4-Trichlorobenzene		0.722	0.777	0.01	7.6	20.0
Hexachlorobutadiene	*	0.149	0.160	0.01	7.4	20.0*
Naphthalene		2.099	2.139	0.01	1.9	20.0
1,2,3-trichlorobenzene		0.623	0.665	0.01	6.7	20.0
1-Chlorohexane		0.534	0.572	0.01	7.1	20.0
DIBROMOFLUOROMETHANE (surr)		0.245	0.242	0.01	1.2	20.0
TOLUENE d8 (surr)		1.044	1.024	0.01	1.9	20.0
4-BROMOFLUOROBENZENE (surr)		1.083	1.001	0.01	7.6	20.0
1,2-DICHLOROETHANE d4 (surr)		0.056	0.054	0.01	3.6	20.0

Average Used: 4.92305

FORM VII VOA

GC/MS VOLATILE ORGANICS

METHOD 8260

CASE NARRATIVE
GC/MS VOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. **Sample Preparation:** All holding times were met.

B. **Sample Analysis:** All holding times were met.

III. METHODS

EPA 8260B/SW846

IV. PREPARATION

The TCLP samples were prepared by EPA 1311/SW846 for volatiles analysis.
All aspects of sample preparation proceeded without exception.

V. ANALYSIS

A. **Calibration:**

All acceptance criteria were met.

Initial calibration criteria are stated in SW-846 EPA method 8260B. All analytes have a maximum percent RSD of 15 with the exception of the Calibration Check Compounds that may have a percent RSD of 30.
The CCCs are:
1,1-Dichloroethene, Chloroform, 1,2-Dichloropropane, Toluene, Ethylbenzene and Vinyl chloride. If the CCCs are not part of the target analyte list then they will not be reported on the calibration forms. As per SW-846 EPA method 8000; Section 7.5.1.2 and 7.5.1.2.1, if one or more of the analytes exceed the maximum percent RSD the average percent RSD may be used provided the average is less than or equal to 15. In those instances, the average will be calculated and cited on the calibration forms.

Continuing Calibration criteria is stated in SW-846 EPA method 8260B. All analytes have a maximum percent RSD of 20. As per SW-846 EPA method 8000; Section 7.5.1.2 and 7.5.1.2.1, If one or more of the analytes exceed the maximum percent RSD the average percent RSD may be used provided the average is less than or equal to 20. In those instances, the average will be calculated and cited on the calibration forms.

B. **Blanks:**

Blank 1206tclpblk analyzed with the TCLP samples was non-detect for all target analytes.

CASE NARRATIVE
GC/MS VOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

C. Surrogates:

All surrogate criteria were met.

D. Spikes:

Laboratory Control Samples (LCS)

One LCS was analyzed with the TCLP samples where all criteria were met for percent recovery.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

The client sample 017OLD36S1Q400 was analyzed as an MS/SD where 1 out of 20 analytes did not meet the acceptance criteria met for percent recovery. All criteria were met for Relative Percent Difference.

E. Internal standards:

All internal standard criteria were met.

F. Samples:

Sample analysis proceeded normally. Client specific reporting limits were used. The TCLP samples were analyzed at a dilution of 1:10 per PEL protocol. All results are reported in Mg/L.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED: [illegible] **DATE:** 12/2/12

VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Method: 8260

EPA Sample No	Lab Sample ID
017OLD36S1Q400	201116801

Sample Data

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36S1Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116801 Lab File ID 16801.D

Sample wt/vol: 5 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/6/00 Time: 7:34 PM

PercentSolids: 0 decanted : Dilution Factor: 10

Extraction: PURGETRAP Station ID Compsite IDW So Method: 8260_TCLP

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

TCLP Analysis

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
75-01-4	Vinyl chloride	0.01	U
75-35-4	1,1-Dichloroethene	0.01	U
78-93-3	2-Butanone (MEK)	0.05	U
67-66-3	Chloroform	0.01	U
56-23-5	Carbon tetrachloride	0.01	U
71-43-2	Benzene	0.01	U
107-06-2	1,2-Dichloroethane	0.01	U
79-01-6	Trichloroethene	0.01	U
127-18-4	Tetrachloroethylene	0.01	U
108-90-7	Chlorobenzene	0.01	U

QC Summary

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1206tclpblk

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1206tclpblk Lab File ID TCLPBLK.D

Sample wt/vol: 5 Units: ML Date Received: 12/6/00

Concentrated Extract Volume: Date Extracted:

Level:(low/med) LOW Date Analyzed: 12/6/00 Time: 7:03 PM

PercentSolids: 0 decanted : Dilution Factor: 10

Extraction: PURGETRAP Station ID QC Method: 8260_TCLP

GPC Cleanup : (Y/N) pH:

GC Column: DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	*ANALYTE*	*RESULT*	*Q*
75-01-4	Vinyl chloride	0.01	U
75-35-4	1,1-Dichloroethene	0.01	U
78-93-3	2-Butanone (MEK)	0.05	U
67-66-3	Chloroform	0.01	U
56-23-5	Carbon tetrachloride	0.01	U
71-43-2	Benzene	0.01	U
107-06-2	1,2-Dichloroethane	0.01	U
79-01-6	Trichloroethene	0.01	U
127-18-4	Tetrachloroethylene	0.01	U
108-90-7	Chlorobenzene	0.01	U

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

1206TCLPBLK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: TCLPBLK Lab Sample ID: 1206TCLPBLK

Date Analyzed: 12/06/00 Time Analyzed: 1903

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VMS03

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1206LCS31	1206LCS31	LCS31	1108
02	017OLD36S1Q400	201116801	16801	1934
03	017OLD36S1Q400MS	201116801	16801S	2005
04	017OLD36S1Q400SD	201116801	16801D	2036
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG NO.: 2011168

GC Column: DB-624 ID: 0.18

EPA Sample NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
017OLD36S1Q400	96	110	102	98			0
017OLD36S1Q400ms	98	98	96	98			0
017OLD36S1Q400sd	98	104	100	96			0
1206lcs31	104	104	98	98			0
1206tclpblk	96	104	102	98			0

			Control Limits
S1	=	Toluene-d8	76 - 120
S2	=	4-Bromofluorobenzene	74 - 118
S3	=	1,2-Dichloroethane-d4	62 - 139
S4	=	Dibromofluoromethane	75 - 120

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

Control limit source: (lab/method) LAB

Form II

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: BFB31 BFB Injection Date: 12/06/00

Instrument ID: VMS03 BFB Injection Time: 0928

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 60.0% of mass 95	53.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	77.1
175	5.0 - 9.0% of mass 174	5.9 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	73.7 (95.7)1
177	5.0 - 9.0% of mass 176	4.9 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	1206CCV31	1206CCV31	50CCV31	12/06/00	1005
02	1206LCS31	1206LCS31	LCS31	12/06/00	1108
03	1206TCLPBLK	1206TCLPBLK	TCLPBLK	12/06/00	1903
04	017OLD36S1Q400	201116801	16801	12/06/00	1934
05	017OLD36S1Q400MS	201116801	16801S	12/06/00	2005
06	017OLD36S1Q400SD	201116801	16801D	12/06/00	2036
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID (Standard): 50CCV31 Date Analyzed: 12/06/00

Instrument ID: VMS03 Time Analyzed: 1005

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT	IS2 AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	537376	10.83	279653	13.77	773864	6.96
	UPPER LIMIT	1074752	11.33	559306	14.27	1547728	7.46
	LOWER LIMIT	268688	10.33	139827	13.27	386932	6.46
	EPA SAMPLE NO.						
01	1206LCS31	571061	10.83	283243	13.77	824283	6.96
02	1206TCLPBLK	541233	10.83	250324	13.78	753118	6.97
03	017OLD36S1Q400	523353	10.83	239801	13.78	728351	6.97
04	017OLD36S1Q400MS	497656	10.83	256640	13.78	715393	6.96
05	017OLD36S1Q400SD	511412	10.83	251243	13.77	744532	6.96
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = CHLOROBENZENE d5 (IS)
IS2 = 1,4-DICHLOROBENZENE-d4 (IS)
IS3 = FLUOROBENZENE (IS)

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

1206lcs31

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	LCS CONCENTRATION MG/L	LCS % REC #	QC LIMITS REC.
Vinyl chloride	0.02	0.015	75	63 - 133
1,1-Dichloroethene	0.02	0.019	95	52 - 150
2-Butanone (MEK)	0.06	0.051	85	22 - 163
Chloroform	0.02	0.019	95	77 - 121
Carbon tetrachloride	0.02	0.021	105	68 - 127
Benzene	0.02	0.02	100	77 - 118
1,2-Dichloroethane	0.02	0.017	85	73 - 124
Trichloroethene	0.02	0.02	100	76 - 120
Tetrachloroethylene	0.02	0.019	95	72 - 123
Chlorobenzene	0.02	0.019	95	75 - 124

Spike Recovery: 0 out of 10 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

017OLD36S1Q400ms

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	SAMPLE CONCENTRATION MG/L	MS CONCENTRATION MG/L	MS % REC #	QC LIMITS REC.
Vinyl chloride	0.02	0	0.14	70	63 - 133
1,1-Dichloroethene	0.02	0	0.21	105	52 - 150
2-Butanone (MEK)	0.06	0	0.58	96.7	22 - 163
Chloroform	0.02	0	0.2	100	77 - 121
Carbon tetrachloride	0.02	0	0.2	100	68 - 127
Benzene	0.02	0	0.2	100	77 - 118
1,2-Dichloroethane	0.02	0	0.18	90	73 - 124
Trichloroethene	0.02	0	0.2	100	76 - 120
Tetrachloroethylene	0.02	0	0.16	80	72 - 123
Chlorobenzene	0.02	0	0.2	100	75 - 124

Spike Recovery: 0 out of 10 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

017OLD36S1Q400sd

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	MSD CONCENTRATION MG/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Vinyl chloride	0.02	0.12	60*	15.4	18	63 - 133
1,1-Dichloroethene	0.02	0.18	90	15.4	20	52 - 150
2-Butanone (MEK)	0.06	0.52	86.7	10.9	122	22 - 163
Chloroform	0.02	0.18	90	10.5	20	77 - 121
Carbon tetrachloride	0.02	0.17	85	16.2	25	68 - 127
Benzene	0.02	0.19	95	5.1	18	77 - 118
1,2-Dichloroethane	0.02	0.17	85	5.7	20	73 - 124
Trichloroethene	0.02	0.18	90	10.5	21	76 - 120
Tetrachloroethylene	0.02	0.15	75	6.5	20	72 - 123
Chlorobenzene	0.02	0.19	95	5.1	20	75 - 124

RPD 0 out of 10 outside limits

Spike Recovery: 1 out of 10 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

Standards Data

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 12/04/00

Column: DB-624 ID: 0.18 (mm) Calibration Time: 0049

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF1 =2PPB.D RRF2 =5PPB.D
RRF3 =10PPB.D RRF4 =20PPB.D RRF5 =50PPB.D

COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Vinyl Chloride *	0.351	0.347	0.339	0.310	0.314		*
1,1-Dichloroethene	0.551	0.461	0.445	0.464	0.461		
2-Butanone	0.033	0.034	0.041	0.040	0.042		
Chloroform *	0.663	0.532	0.563	0.595	0.588		*
Carbon tetrachloride	0.332	0.262	0.288	0.300	0.318		
Benzene	1.515	1.243	1.258	1.348	1.271		
1,2-Dichloroethane	0.594	0.506	0.520	0.552	0.548		
Trichloroethylene	0.311	0.226	0.234	0.249	0.241		
Tetrachloroethylene	0.375	0.316	0.314	0.346	0.306		
Chlorobenzene #	1.347	1.079	1.071	1.107	1.069		#
DIBROMOFLUOROMETHANE (surr		0.253	0.266	0.253	0.263		
TOLUENE d8 (surr)		1.024	1.102	1.051	1.063		
4-BROMOFLUOROBENZENE (surr)		1.238	1.233	1.159	1.158		
1,2-DICHLOROETHANE d4 (surr		0.062	0.058	0.062	0.063		

Calibration Criteria Is Stated In Narrative

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 12/04/00

Column: DB-624 ID: 0.18 (mm) Calibration Time: 0049

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF6 =60PPB.D RRF7 =80PPB.D

COMPOUND	RRF6	RRF7				$\overline{RRF}$	% RSD
Vinyl Chloride *	0.345	0.286				0.3274	7.4*
1,1-Dichloroethene	0.518	0.408				0.4726	10.0
2-Butanone	0.038	0.038				0.0380	8.6
Chloroform *	0.604	0.540				0.5836	7.6*
Carbon tetrachloride	0.340	0.284				0.3034	9.2
Benzene	1.337	1.189				1.3087	8.1
1,2-Dichloroethane	0.558	0.528				0.5437	5.3
Trichloroethylene	0.254	0.215				0.2471	12.6
Tetrachloroethylene	0.309	0.281				0.3210	9.5
Chlorobenzene #	1.112	0.994				1.1113	10.0#
DIBROMOFLUOROMETHANE (surr	0.260	0.245				0.2567	3.0
TOLUENE d8 (surr)	1.029	0.961				1.0383	4.5
4-BROMOFLUOROBENZENE (surr)	1.151	1.113				1.1753	4.2
1,2-DICHLOROETHANE d4 (surr	0.059	0.060				0.0607	3.3

Calibration Criteria Is Stated In Narrative

FORM VI VOA 1/87 Rev.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: VMS03 Calibration Date: 12/06/00 Time: 1005

Lab File ID: 50CCV31 Init. Calib. Date:12/04/00 Time: 0049

GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Min RRF50 for SPCC(#) = 0.100 Max %D for CCC(*) = 20.0%
(0.300 for Chlorobenzene and 1,1,2,2 tetrachloroethane)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Vinyl Chloride *	0.327	0.344	0.1	5.2	20.0*
1,1-Dichloroethene	0.472	0.501	0.1	6.1	20.0
2-Butanone	0.038	0.034	0.01	10.5	20.0
Chloroform *	0.584	0.579	0.2	0.8	20.0*
Carbon tetrachloride	0.303	0.341	0.1	12.5	20.0
Benzene	1.309	1.322	0.5	1.0	20.0
1,2-Dichloroethane	0.544	0.474	0.1	12.9	20.0
Trichloroethylene	0.247	0.258	0.1	4.4	20.0
Tetrachloroethylene	0.321	0.327	0.2	1.9	20.0
Chlorobenzene #	1.111	1.105	0.5	0.5	20.0#
DIBROMOFLUOROMETHANE (surr)	0.257	0.267	0.01	3.9	20.0
TOLUENE d8 (surr)	1.038	1.150	0.01	10.8	20.0
4-BROMOFLUOROBENZENE (surr)	1.175	1.270	0.01	8.1	20.0
1,2-DICHLOROETHANE d4 (surr)	0.061	0.060	0.01	1.6	20.0

FORM VII VOA

GC/MS SEMI-VOLATILE ORGANICS

METHOD 8270

CASE NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8270

IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 prior to 8270 semi-volatiles preparation.
Water/TCLP samples were prepared by EPA SW846 3510 for 8270 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

Initial calibration criteria is stated in SW-846 EPA method 8270. All analytes have a maximum percent RSD of 15 with the exception of the Calibration Check Compounds which may have a percent RSD of 30. The CCCs are:
Acenapthene, 1,4-Dichlorobenzene, Hexachlorobutadiene, Diphenylamine, Di-n-octyl phthalate, Fluoranthene, Benzo (a) pyrene, 4-Chloro-3-methylphenol, 2,4-Dichlorophenol, 2-Nitrophenol, Phenol, Pentachlorophenol and 2,4,6-Trichlorophenol. If the CCCs are not part of the target analyte list then they will not be reported on the calibration forms. As per SW-846 EPA method 8000; Section 7.5.1.2 and 7.5.1.2.1 and SW-846 method 8270; section 7.371, if one or more of the analytes exceed the maximum percent RSD the average percent RSD may be used provided the average is less than or equal to 15. In those instances, the average will be calculated and cited on the calibration forms.

Calibration verification criteria is stated in SW-846 EPA method 8270. All analytes have a maximum percent D of 20. As per SW-846 EPA method 8000; Section 7.7, if one or more of the analytes exceed the maximum percent D the average percent D may be used provided the average is less than or equal to 20. In those instances, the average will be calculated and cited on the calibration forms.

B. Blanks:

There was one blank analyzed associated with the TCLP sample that was non-detect for target parameters.

CASE NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

C. Surrogates:

All of the surrogate recoveries met acceptable criteria for the TCLP samples.

D. Spikes:

Laboratory Control Spikes (LCS)

One LCS, 1205lcsa1, was analyzed with the TCLP samples which did not meet the criteria set forth by the project instructions for 7 out of the 12 target parameters. The parameters did meet the in-house limits established by the laboratory; therefore no further action was taken.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

There was one reagent MS/SD analyzed with the TCLP samples that did not meet criteria for percent recovery set forth by the project instructions for 9 out of 24 target parameters. The MS/SD did meet the in-house limits established by the laboratory for percent recovery and met client relative percent difference limits; therefore no further action was taken.

E. Internal standards:

All internal standard criteria were met for the TCLP samples.

F. Samples:

Sample analysis proceeded normally. Specific reporting limits were used per client request. Please note the reporting limits for sample 017OLD36S1Q400 were elevated due to the built in dilution for initial volume of 500ml.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED: Jodi Hotchkiss **DATE:** 12/18/00

SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Method: 8270

EPA Sample No	Lab Sample ID
017OLD36S1Q400	201116801

Sample Data

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36S1Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116801 Lab File ID 168-01.D

Sample wt/vol: 500 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: 1 Date Extracted: 12/5/00

Level:(low/med) LOW Date Analyzed: 12/6/00 Time: 12:34 PM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID Compsite IDW So Method: 8270_TCLP

GPC Cleanup : (Y/N) N pH:

GC Column: HPMS-5 ID: 0.25 (mm)

TCLP Analysis

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
110-86-1	Pyridine	0.01	U
106-46-7	1,4-Dichlorobenzene	0.01	U
95-48-7	2-Methylphenol	0.01	U
67-72-1	Hexachloroethane	0.01	U
782-06-0	3/4-Methylphenol	0.01	U
98-95-3	Nitrobenzene	0.01	U
87-68-3	Hexachlorobutadiene	0.01	U
88-06-2	2,4,6-Trichlorophenol	0.01	U
95-95-4	2,4,5-Trichlorophenol	0.01	U
121-14-2	2,4-Dinitrotoluene	0.01	U
118-74-1	Hexachlorobenzene	0.01	U
87-86-5	Pentachlorophenol	0.04	U

QC Summary

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1205BLKA1

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1205BLKA1 Lab File ID BLKA1.D

Sample wt/vol: 1000 Units: ML Date Received: 12/5/00

Concentrated Extract Volume: 1 Date Extracted: 12/5/00

Level:(low/med) LOW Date Analyzed: 12/6/00 Time: 9:13 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID QC Method: 8270_TCLP

GPC Cleanup : (Y/N) N pH:

GC Column: HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	*ANALYTE*	*RESULT*	*Q*
110-86-1	Pyridine	0.005	U
106-46-7	1,4-Dichlorobenzene	0.005	U
95-48-7	2-Methylphenol	0.005	U
67-72-1	Hexachloroethane	0.005	U
782-06-0	3/4-Methylphenol	0.005	U
98-95-3	Nitrobenzene	0.005	U
87-68-3	Hexachlorobutadiene	0.005	U
88-06-2	2,4,6-Trichlorophenol	0.005	U
95-95-4	2,4,5-Trichlorophenol	0.005	U
121-14-2	2,4-Dinitrotoluene	0.005	U
118-74-1	Hexachlorobenzene	0.005	U
87-86-5	Pentachlorophenol	0.02	U

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

1205BLKA1

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: BLKA1 Lab Sample ID: 1205BLKA1

Instrument ID: SMSD03 Date Extracted: 12/05/00

Matrix: (soil/water) WATER Date Analyzed: 12/06/00

Level:(low/med) LOW Time Analyzed: 0913

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	1205BLKA1MS	1205BLKA1MS	BLKA1S	12/06/00
02	1205BLKA1SD	1205BLKA1MSD	BLKA1D	12/06/00
03	1205LCSA1	1205LCSA1	LCSA1	12/06/00
04	017OLD36S1Q400	201116801	168-01	12/06/00
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG NO.: 2011168

GC Column: HPMS-5 ID: 0.25

EPA Sample NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
017OLD36S1Q400	69	54	87	77	84	83	0
1205BLKA1	52	34	87	77	84	84	0
1205BLKA1MS	52	36	91	80	87	76	0
1205BLKA1SD	52	36	87	77	87	80	0
1205LCSA1	49	32	81	71	77	73	0

			Control Limits
S1	=	2-Fluorophenol	43 - 125
S2	=	Phenol-d5	25 - 125
S3	=	Nitrobenzene-d5	32 - 125
S4	=	2-Fluorobiphenyl	43 - 125
S5	=	2,4,6-Tribromophenol	25 - 134
S6	=	Terphenyl-d14	42 - 126

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

Control limit source: (lab/method) METHOD

Form II

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: DFTPP DFTPP Injection Date: 11/18/00

Instrument ID: SMSD03 DFTPP Injection Time: 0807

GC Column: HPMS-5 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	40.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	55.9
197	Less than 1.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	25.2
365	1.0 - 100.0% of mass 198	3.6
441	Present, but less than mass 443	14.5
442	40.0 - 100.0% of mass 198	96.3
443	17.0 - 23.0% of mass 442	20.7 (21.5)2

1-Value is % of mass 69 2-Value is % of mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	8270 100STD	8270 100STD	100STD	11/18/00	0829
02	8270 75STD	8270 75STD	75STD	11/18/00	0908
03	8270 60STD	8270 60STD	60STD	11/18/00	0945
04	8270 45STD	8270 45STD	45STD	11/18/00	1023
05	8270 20STD	8270 20STD	20STD	11/18/00	1101
06	8270 10STD	8270 10STD	10STD	11/18/00	1140
07	8270 5STD	8270 5STD	5STD	11/18/00	1218
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID: DFTPP DFTPP Injection Date: 12/06/00

Instrument ID: SMSD03 DFTPP Injection Time: 0759

GC Column: HPMS-5 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.7
68	Less than 2.0% of mass 69	0.6 (1.3)1
69	Less than 100.0% of mass 198	44.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	56.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	22.7
365	1.0 - 100.0% of mass 198	3.1
441	Present, but less than mass 443	13.8
442	40.0 - 100.0% of mass 198	90.4
443	17.0 - 23.0% of mass 442	18.6 (20.5)2

1-Value is % of mass 69 2-Value is % of mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	45CCV	45CCV	45CCV	12/06/00	0821
02	1205BLKA1	1205BLKA1	BLKA1	12/06/00	0913
03	1205BLKA1MS	1205BLKA1MS	BLKA1S	12/06/00	0953
04	1205BLKA1SD	1205BLKA1MSD	BLKA1D	12/06/00	1032
05	1205LCSA1	1205LCSA1	LCSA1	12/06/00	1115
06	017OLD36S1Q400	201116801	168-01	12/06/00	1234
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID (Standard): 45CCV Date Analyzed: 12/06/00

Instrument ID: SMSD03 Time Analyzed: 0821

GC Column: HPMS-5 ID: 0.25 (mm)

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	324924	5.24	1359743	6.40	813213	8.79
	UPPER LIMIT	649848	5.74	2719486	6.90	1626426	9.29
	LOWER LIMIT	162462	4.74	679872	5.90	406607	8.29
	EPA SAMPLE NO.						
01	1205BLKA1	245346	5.25	983868	6.40	563692	8.79
02	1205BLKA1MS	260784	5.24	1046537	6.40	604835	8.79
03	1205BLKA1SD	264930	5.25	1078245	6.40	632013	8.79
04	1205LCSA1	263094	5.25	1059157	6.40	609790	8.79
05	017OLD36S1Q400	252960	5.24	1014962	6.40	554706	8.79
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

8C
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab File ID (Standard): 45CCV Date Analyzed: 12/06/00

Instrument ID: SMSD03 Time Analyzed: 0821

GC Column: HPMS-5 ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT	IS5 (CRY) AREA #	RT	IS6 (PRY) AREA #	RT
	12 HOUR STD	1413456	11.38	1395756	16.57	1449777	19.19
	UPPER LIMIT	2826912	11.88	2791512	17.07	2899554	19.69
	LOWER LIMIT	706728	10.88	697878	16.07	724889	18.69
	EPA SAMPLE NO.						
01	1205BLKA1	969789	11.38	974572	16.56	1021688	19.18
02	1205BLKA1MS	1023903	11.38	1009744	16.56	1073017	19.19
03	1205BLKA1SD	1051830	11.38	1056947	16.56	1100954	19.19
04	1205LCSA1	1032183	11.39	1009537	16.56	1064251	19.19
05	017OLD36S1Q400	976806	11.38	947251	16.56	987741	19.19
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

FORM VIII SV-2 1/87 Rev.

SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

1205LCSA1

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED ug/l	LCS CONCENTRATION ug/l	LCS % REC #	QC LIMITS REC.
Pyridine	40	18	44.3 *	70 - 130
1,4-Dichlorobenzene	40	24	61 *	70 - 130
2-Methylphenol	40	26	64.5 *	70 - 130
Hexachloroethane	40	24	60.3 *	70 - 130
3/4-Methylphenol	40	23	58 *	70 - 130
Nitrobenzene	40	30	75	70 - 130
Hexachlorobutadiene	40	27	66.5 *	70 - 130
2,4,6-Trichlorophenol	40	30	74.8	70 - 130
2,4,5-Trichlorophenol	40	30	74.8	70 - 130
2,4-Dinitrotoluene	40	30	75.3	70 - 130
Hexachlorobenzene	40	30	74.5	70 - 130
Pentachlorophenol	40	27	66.5 *	70 - 130

Spike Recovery: 7 out of 12 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

SEMI-VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1205BLKA1MS

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED ug/l	SAMPLE CONCENTRATION ug/l	MS CONCENTRATION ug/l	MS % REC #	QC LIMITS REC.
Pyridine	40	0	18	45.5*	70 - 130
1,4-Dichlorobenzene	40	0	28	69.3*	70 - 130
2-Methylphenol	40	0	26	65*	70 - 130
Hexachloroethane	40	0	26	65*	70 - 130
3/4-Methylphenol	40	0	24	60.8*	70 - 130
Nitrobenzene	40	0	35	86.5	70 - 130
Hexachlorobutadiene	40	0	29	71.3	70 - 130
2,4,6-Trichlorophenol	40	0	34	84	70 - 130
2,4,5-Trichlorophenol	40	0	34	84.5	70 - 130
2,4-Dinitrotoluene	40	0	35	86.8	70 - 130
Hexachlorobenzene	40	0	34	85	70 - 130
Pentachlorophenol	40	0	31	76.5	70 - 130

Spike Recovery: 5 out of 12 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

SEMI-VOLATILE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1205BLKA1SD

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED ug/l	MSD CONCENTRATION ug/l	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Pyridine	40	17	41.3*	5.7	50	70 - 130
1,4-Dichlorobenzene	40	26	63.8*	7.4	50	70 - 130
2-Methylphenol	40	29	71.8	10.9	50	70 - 130
Hexachloroethane	40	24	60.8*	8	50	70 - 130
3/4-Methylphenol	40	26	65.5*	8	50	70 - 130
Nitrobenzene	40	33	83.5	5.9	50	70 - 130
Hexachlorobutadiene	40	29	71.8	0	50	70 - 130
2,4,6-Trichlorophenol	40	33	83.3	3	50	70 - 130
2,4,5-Trichlorophenol	40	33	81.5	3	50	70 - 130
2,4-Dinitrotoluene	40	35	86.3	0	50	70 - 130
Hexachlorobenzene	40	34	84.5	0	50	70 - 130
Pentachlorophenol	40	31	76.3	0	50	70 - 130

RPD 0 out of 12 outside limits

Spike Recovery: 4 out of 12 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

Standards Data

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SMSD03 Calibration Date: 11/18/00

Column: HPMS-5 ID: 0.25 (mm) Calibration Time: 1218

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF5 =5STD.D RRF10 =10STD.D
RRF20 =20STD.D RRF45 =45STD.D RRF60 =60STD.D

COMPOUND	RRF5	RRF10	RRF20	RRF45	RRF60	$\overline{RRF}$	% RSD
Pyridine	1.546	1.329	1.432	1.435	1.518		
1,4-Dichlorobenzene *	2.159	1.766	1.716	1.655	1.725		*
2-Methylphenol	1.683	1.402	1.441	1.406	1.484		
Hexachloroethane	0.763	0.615	0.628	0.607	0.632		
m and p-Methylphenol	1.748	1.492	1.493	1.475	1.592		
Nitrobenzene	0.465	0.389	0.407	0.378	0.410		
Hexachlorobutadiene *	0.202	0.168	0.173	0.163	0.174		*
2,4,6-Trichlorophenol *	0.401	0.338	0.360	0.356	0.384		*
2,4,5-Trichlorophenol	0.443	0.362	0.405	0.396	0.432		
2,4-Dinitrotoluene	0.412	0.366	0.418	0.426	0.460		
Hexachlorobenzene	0.310	0.264	0.268	0.255	0.268		
Pentachlorophenol *			0.140	0.160	0.171		*
2-Fluorophenol (SURR)	1.668	1.387	1.430	1.412	1.470		
Phenol-d5 (SURR)	2.253	1.843	1.938	1.814	1.956		
Nitrobenzene-d5 (SURR)	0.444	0.370	0.377	0.375	0.395		
2-Fluorobiphenyl (SURR)	1.723	1.395	1.390	1.330	1.410		
2,4,6-Tribromophenol (SURR)	0.141	0.123	0.136	0.133	0.142		
Terphenyl-d14 (SURR)	1.108	0.907	0.952	0.944	1.003		

Calibration Criteria Is Stated In Narrative

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SMSD03 Calibration Date: 11/18/00

Column: HPMS-5 ID: 0.25 (mm) Calibration Time: 1218

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF75 =75STD.D RRF100=100STD.D

COMPOUND	RRF75	RRF100				$\overline{RRF}$	% RSD
Pyridine	1.558	1.408				1.4608	5.7
1,4-Dichlorobenzene *	1.848	1.593				1.7803	10.4*
2-Methylphenol	1.570	1.436				1.4888	6.9
Hexachloroethane	0.679	0.601				0.6464	8.9
m and p-Methylphenol	1.737	1.534				1.5816	7.4
Nitrobenzene	0.420	0.368				0.4053	7.9
Hexachlorobutadiene *	0.181	0.158				0.1741	8.2*
2,4,6-Trichlorophenol *	0.406	0.363				0.3726	6.7*
2,4,5-Trichlorophenol	0.446	0.393				0.4110	7.4
2,4-Dinitrotoluene	0.474	0.424				0.4257	8.2
Hexachlorobenzene	0.291	0.249				0.2721	7.8
Pentachlorophenol *	0.187	0.166				0.1648	10.2*
2-Fluorophenol (SURR)	1.570	1.370				1.4724	7.4
Phenol-d5 (SURR)	2.036	1.798				1.9483	8.2
Nitrobenzene-d5 (SURR)	0.415	0.362				0.3911	7.4
2-Fluorobiphenyl (SURR)	1.484	1.278				1.4300	10.1
2,4,6-Tribromophenol (SURR)	0.152	0.132				0.1370	6.7
Terphenyl-d14 (SURR)	1.032	0.888				0.9763	7.9

Calibration Criteria Is Stated In Narrative

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SMSD03 Calibration Date: 12/06/00 Time: 0821

Lab File ID: 45CCV Init. Calib. Date:11/18/00 Time: 1218

GC Column: HPMS-5 ID: 0.25 (mm)

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 20.0%

COMPOUND		$\overline{RRF}$	RRF45	MIN RRF	%D	MAX %D	
Pyridine		1.461	1.429	0.01	2.2	20.0	
1,4-Dichlorobenzene	*	1.780	1.454	0.01	18.3	20.0*	
2-Methylphenol		1.489	1.323	0.01	11.1	20.0	
Hexachloroethane		0.646	0.567	0.01	12.2	20.0	
m and p-Methylphenol		1.582	1.420	0.01	10.2	20.0	
Nitrobenzene		0.405	0.354	0.01	12.6	20.0	
Hexachlorobutadiene	*	0.174	0.145	0.01	16.7	20.0*	
2,4,6-Trichlorophenol	*	0.372	0.326	0.01	12.4	20.0*	
2,4,5-Trichlorophenol		0.411	0.350	0.01	14.8	20.0	
2,4-Dinitrotoluene		0.426	0.377	0.01	11.5	20.0	
Hexachlorobenzene		0.272	0.225	0.01	17.3	20.0	
Pentachlorophenol	*	0.165	0.138	0.01	16.4	20.0*	
2-Fluorophenol (SURR)		1.472	1.308	0.01	11.1	20.0	
Phenol-d5 (SURR)		1.948	1.736	0.01	10.9	20.0	
Nitrobenzene-d5 (SURR)		0.391	0.345	0.01	11.8	20.0	
2-Fluorobiphenyl (SURR)		1.430	1.140	0.01	20.3	20.0	<-
2,4,6-Tribromophenol (SURR)		0.137	0.119	0.01	13.1	20.0	
Terphenyl-d14 (SURR)		0.976	0.820	0.01	16.0	20.0	

Average Used: 13.2736

FORM VII SV-1

GC/ECD PESTICIDE ORGANICS

METHOD 8081

CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8081

IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 for 8081 semi-volatiles analysis.
Water/TCLP samples were prepared by EPA SW846 3510 for 8081 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met. The continuing calibration verification standards for the 8081 analytical runs did not meet the less than 15 % D criteria for all analytes. The average % D was used as per SW846 method 8000 section 7.7. The average % D is noted on the form 7 as required.

The Pesticide standards correspond to the following calibration files for pesticide concentration at the instrument level:
CAL1= 0.005ug/mL
CAL2=0.01ug/mL
CAL3=0.02ug/mL
CAL4=0.04ug/mL
CAL5=0.06ug/ml
CAL6=0.08ug/mL
CAL7=0.1ug/mL
CAL8=0.15ug/mL

Toxaphene and Chlordane are run with a one point calibration per EPA SW846 8081 method. The concentration of the standard is 1.0ug/mL at the instrument.

B. Blanks:

There was one blank analyzed associated with the TCLP samples that was non-detect for target parameters.

C. Surrogates:

The surrogates met all criteria for the TCLP samples.

CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

C. Spikes:

Laboratory Control Spikes (LCS)

One regular LCS, 1206LCSA, was analyzed with the TCLP samples where all criteria were met.
One Tox LCS, 1206TOXLCSA, was analyzed with the TCLP samples where all criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

There was one reagent MS/SD set analyzed with the TCLP samples where all acceptance criteria were met for relative percent difference and percent recovery.

E. Internal standards:

All internal standard criteria were met for the water samples.

F. Samples:

Sample analysis proceeded normally. Data was collected using dual column analysis. Specific RLs were used per client instructions.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED: [illegible] **DATE:** 12/18/10

PESTICIDE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Method: 8081

EPA Sample No	Lab Sample ID
017OLD36S1Q400	201116801

Sample Data

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36S1Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116801 Lab File ID 16801.D

Sample wt/vol: 350 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: 10 Date Extracted: 12/6/00

Level:(low/med) LOW Date Analyzed: 12/10/00 Time: 1:31 PM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID Compsite IDW So Method: 8081_TCLP

GPC Cleanup : (Y/N) N pH:

GC Column: XTI-5 & RTX-1701 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	*ANALYTE*	*RESULT*	*Q*
58-89-9	Gamma-BHC (Lindane)	0.0000571	U
76-44-8	Heptachlor	0.0000143	U
1024-57-3	Heptachlor epoxide	0.0000286	U
72-20-8	Endrin	0.0000571	U
72-43-5	Methoxychlor	0.0000571	U
57-74-9	Chlordane	0.000657	U
8001-35-2	Toxaphene	0.0011	U

QC Summary

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1206blka

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1206blka Lab File ID BLKA.D

Sample wt/vol: 1000 Units: ML Date Received: 12/6/00

Concentrated Extract Volume: 10 Date Extracted: 12/6/00

Level:(low/med) LOW Date Analyzed: 12/14/00 Time: 8:23 PM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID QC Method: 8081_TCLP

GPC Cleanup : (Y/N) N pH:

GC Column: XTI-5 & RTX-1701 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	*ANALYTE*	*RESULT*	*Q*
58-89-9	Gamma-BHC (Lindane)	0.00002	U
76-44-8	Heptachlor	0.000005	U
1024-57-3	Heptachlor epoxide	0.00001	U
72-20-8	Endrin	0.00002	U
72-43-5	Methoxychlor	0.00002	U
57-74-9	Chlordane	0.00023	U
8001-35-2	Toxaphene	0.00039	U

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

1206BLKA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206BLKA Lab File ID: BLKA

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SepF

Sulfur Cleanup (Y/N) N Date Extracted: 12/06/00

Date Analyzed (1): 12/14/00 Date Analyzed (2): 12/14/00

Time Analyzed (1): 2023 Time Analyzed (2): 2023

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column (1): XTI-5 ID: 0.53(mm) GC Column (2): RTX-1701 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	017OLD36S1Q400	201116801	12/10/00	12/10/00
02	1206BLKAMS	1206BLKAMS	12/14/00	12/14/00
03	1206BLKASD	1206BLKAMSD	12/14/00	12/14/00
04	1206LCSA	1206LCSA	12/14/00	12/14/00
05	1206TOXLCSA	1206TOXLCSA	12/14/00	12/14/00
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

WATER PESTICIDE ORGANIC SURROGATE RECOVERY

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG NO.: 2011168

GC Column: XTI-5 & RTX-170 ID: 0.53

EPA Sample NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
017OLD36S1Q400	46	61					0
1206blka	37	61					0
1206blkams	85	82					0
1206blkasd	61	77					0
1206lcsa	89	74					0
1206toxlcsa	94	60					0

Control Limits

S1	= Decachlorobiphenyl	34 -	133
S2	= 2,4,5,6-Tetrachloro-m-xylene	45 -	125

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

Control limit source: (lab/method) LAB

Form II

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: XTI-5 ID: 0.53 (mm) Init. Calib. Date: 12/09/00

Instrument ID: SECD01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PCAL8	PCAL8	12/09/00	1416		
02	PCAL7	PCAL7	12/09/00	1446		
03	PCAL6	PCAL6	12/09/00	1516		
04	PCAL5	PCAL5	12/09/00	1545		
05	PCAL4	PCAL4	12/09/00	1615		
06	PCAL3	PCAL3	12/09/00	1645		
07	PCAL2	PCAL2	12/09/00	1715		
08	PCAL1	PCAL1	12/09/00	1744		
09	TOXCAL	TOXCAL	12/09/00	1814		
10	CHLORCAL	CHLORCAL	12/09/00	1844		
11	PEM3	PEM3	12/10/00	0903		
12	PEST CCV3	PEST CCV3	12/10/00	0933		
13	TOX CCV3	TOX CCV3	12/10/00	1003		
14	017OLD36S1Q400	201116801	12/10/00	1331		
15	PEST CCV4	PEST CCV4	12/10/00	1559		
16	PEM1	PEM1	12/14/00	1854		
17	PEST CCV1	PEST CCV1	12/14/00	1924		
18	TOX CCV1	TOX CCV1	12/14/00	1954		
19	1206BLKA	1206BLKA	12/14/00	2023		
20	1206BLKAMS	1206BLKAMS	12/14/00	2053		
21	1206BLKASD	1206BLKAMSD	12/14/00	2122		
22	1206LCSA	1206LCSA	12/14/00	2152		
23	1206TOXLCSA	1206TOXLCSA	12/14/00	2222		
24	PEST CCV2	PEST CCV2	12/14/00	2351		
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: RTX-1701 ID: 0.53 (mm) Init. Calib. Date: 12/09/00

Instrument ID: SECD01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PCAL8	PCAL8	12/09/00	1416		
02	PCAL7	PCAL7	12/09/00	1446		
03	PCAL6	PCAL6	12/09/00	1516		
04	PCAL5	PCAL5	12/09/00	1545		
05	PCAL4	PCAL4	12/09/00	1615		
06	PCAL3	PCAL3	12/09/00	1645		
07	PCAL2	PCAL2	12/09/00	1715		
08	PCAL1	PCAL1	12/09/00	1744		
09	TOXCAL	TOXCAL	12/09/00	1814		
10	CHLORCAL	CHLORCAL	12/09/00	1844		
11	PEM3	PEM3	12/10/00	0903		
12	PEST CCV3	PEST CCV3	12/10/00	0933		
13	TOX CCV3	TOX CCV3	12/10/00	1003		
14	017OLD36S1Q400	201116801	12/10/00	1331		
15	PEST CCV4	PEST CCV4	12/10/00	1559		
16	PEM1	PEM1	12/14/00	1854		
17	PEST CCV1	PEST CCV1	12/14/00	1924		
18	TOX CCV1	TOX CCV1	12/14/00	1954		
19	1206BLKA	1206BLKA	12/14/00	2023		
20	1206BLKAMS	1206BLKAMS	12/14/00	2053		
21	1206BLKASD	1206BLKAMSD	12/14/00	2122		
22	1206LCSA	1206LCSA	12/14/00	2152		
23	1206TOXLCSA	1206TOXLCSA	12/14/00	2222		
24	PEST CCV2	PEST CCV2	12/14/00	2351		
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

CLIENT SAMPLE NO.

PESTICIDE DUAL COLUMN CONFIRMATION CHECK

017OLD36S1Q400

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 201116801 Date(s) Analyzed: 12/10/00 12/10/00

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
2,4,5,6-tetrachloro	1	4.433	4.430	0.003	126847	0.059	1.700	
*	2	4.797	4.793	0.004	123505	0.058	1.600	6.25
Decachlorobiphenyl *	1	21.917	21.917	0.000	111188	0.045	1.300	
	2	22.270	22.270	0.000	95328	0.045	1.300	0.00
Pentachloronitroben*	1	6.830	6.830	0.000	697057	0.200	0.200	
	2	8.313	8.313	0.000	624925	0.200	0.200	0.00

* Column used for quantitation

CLIENT SAMPLE NO.

PESTICIDE DUAL COLUMN CONFIRMATION CHECK

1206BLKA

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206BLKA Date(s) Analyzed: 12/14/00 12/14/00

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
2,4,5,6-tetrachloro	1	4.443	4.430	0.013	126529	0.061	18.500	
*	2	4.807	4.793	0.014	121947	0.058	17.600	5.11
Decachlorobiphenyl *	1	21.920	21.917	0.003	87907	0.037	11.200	
	2	22.273	22.270	0.003	76279	0.037	11.200	0.00
Pentachloronitroben*	1	6.840	6.830	0.010	677193	0.200	0.200	
	2	8.323	8.313	0.010	612882	0.200	0.200	0.00

* Column used for quantitation

CLIENT SAMPLE NO.

PESTICIDE DUAL COLUMN CONFIRMATION CHECK

1206BLKAMS

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206BLKAMS Date(s) Analyzed: 12/14/00 12/14/00

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
gamma-BHC (Lindane) *	1	6.680	6.667	0.013	85345	0.052	15.800	
	2	9.203	9.190	0.013	82871	0.053	16.000	1.26
heptachlor *	1	8.820	8.810	0.010	82193	0.048	14.600	
	2	9.733	9.723	0.010	82773	0.048	14.700	0.68
heptachlor epoxide *	1	11.097	11.087	0.010	88333	0.052	15.700	
	2	12.897	12.890	0.007	81748	0.054	16.200	3.18
endrin	1	13.917	13.907	0.010	77737	0.056	17.100	
*	2	16.223	16.213	0.010	79796	0.055	16.700	2.40
methoxychlor *	1	19.053	19.050	0.003	43648	0.056	17.100	
	2	20.417	20.417	0.000	32934	0.057	17.400	1.75
2,4,5,6-tetrachloro	1	4.443	4.430	0.013	151540	0.087	26.400	
*	2	4.807	4.793	0.014	144654	0.082	24.700	6.88
Decachlorobiphenyl *	1	21.920	21.917	0.003	168815	0.085	25.700	
	2	22.273	22.270	0.003	147792	0.085	25.800	0.39
Pentachloronitroben*	1	6.840	6.830	0.010	565959	0.200	0.200	
	2	8.323	8.313	0.010	516953	0.200	0.200	0.00

* Column used for quantitation

CLIENT SAMPLE NO.

PESTICIDE DUAL COLUMN CONFIRMATION CHECK

1206BLKASD

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206BLKAMSD Date(s) Analyzed: 12/14/00 12/14/00

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
gamma-BHC (Lindane) *	1	6.680	6.667	0.013	90677	0.052	15.800	
	2	9.203	9.190	0.013	87393	0.053	16.000	1.26
heptachlor *	1	8.820	8.810	0.010	86676	0.048	14.400	
	2	9.733	9.723	0.010	86687	0.048	14.500	0.69
heptachlor epoxide *	1	11.097	11.087	0.010	91685	0.050	15.300	
	2	12.897	12.890	0.007	84982	0.053	16.000	4.58
endrin *	1	13.917	13.907	0.010	80364	0.055	16.600	
	2	16.223	16.213	0.010	89356	0.058	17.700	6.63
methoxychlor *	1	19.053	19.050	0.003	44887	0.054	16.500	
	2	20.420	20.417	0.003	33542	0.055	16.700	1.21
2,4,5,6-tetrachloro	1	4.443	4.430	0.013	151168	0.082	24.800	
*	2	4.807	4.793	0.014	144512	0.077	23.400	5.98
Decachlorobiphenyl *	1	21.917	21.917	0.000	128253	0.060	18.400	
	2	22.273	22.270	0.003	113298	0.062	18.700	1.63
Pentachloronitroben*	1	6.840	6.830	0.010	603045	0.200	0.200	
	2	8.323	8.313	0.010	546693	0.200	0.200	0.00

* Column used for quantitation

CLIENT SAMPLE NO.

PESTICIDE DUAL COLUMN CONFIRMATION CHECK

1206LCSA

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206LCSA Date(s) Analyzed: 12/14/00 12/14/00

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
gamma-BHC (Lindane) *	1	6.683	6.667	0.016	91918	0.050	15.200	
	2	9.203	9.190	0.013	88992	0.051	15.400	1.32
heptachlor *	1	8.823	8.810	0.013	85115	0.044	13.400	
	2	9.733	9.723	0.010	85272	0.044	13.500	0.75
heptachlor epoxide *	1	11.097	11.087	0.010	91919	0.048	14.600	
	2	12.900	12.890	0.010	89543	0.052	15.900	8.90
endrin	1	13.920	13.907	0.013	80640	0.052	15.800	
*	2	16.227	16.213	0.014	82913	0.051	15.500	1.94
methoxychlor *	1	19.053	19.050	0.003	44301	0.051	15.400	
	2	20.420	20.417	0.003	32936	0.051	15.500	0.65
2,4,5,6-tetrachloro	1	4.447	4.430	0.017	152483	0.078	23.700	
*	2	4.807	4.793	0.014	146244	0.074	22.400	5.80
Decachlorobiphenyl *	1	21.920	21.917	0.003	198272	0.089	26.900	
	2	22.273	22.270	0.003	181092	0.093	28.200	4.83
Pentachloronitroben*	1	6.843	6.830	0.013	635340	0.200	0.200	
	2	8.323	8.313	0.010	578390	0.200	0.200	0.00

* Column used for quantitation

CLIENT SAMPLE NO.

PESTICIDE DUAL COLUMN CONFIRMATION CHECK

1206TOXLCSA

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206TOXLCSA Date(s) Analyzed: 12/14/00 12/14/00

Instrument ID (1): SECD01 Instrument ID (2): SECD01

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
2,4,5,6-tetrachloro	1	4.443	4.430	0.013	102462	0.063	19.000	
*	2	4.807	4.793	0.014	99447	0.060	18.100	4.97
Decachlorobiphenyl *	1	21.920	21.917	0.003	176025	0.094	28.600	
	2	22.273	22.270	0.003	155927	0.095	28.900	1.05
Pentachloronitroben*	1	6.843	6.830	0.013	531397	0.200	0.200	
	2	8.323	8.313	0.010	485677	0.200	0.200	0.00
Toxaphene-1 *	1	13.943	13.923	0.020	24936	0.237	71.800	
	2	16.050	16.043	0.007	13143	0.348	106.000	47.63
Toxaphene-2 *	1	14.613	14.583	0.030	26958	0.222	67.300	
	2	17.053	17.043	0.010	9536	0.294	89.000	32.24
Toxaphene-3 *	1	16.447	16.437	0.010	27043	0.161	48.900	
	2	18.637	18.627	0.010	15817	0.209	63.400	29.65
Toxaphene-4	1	16.800	16.790	0.010	19161	0.160	48.400	
*	2	19.520	19.517	0.003	29845	0.159	48.100	0.62
Toxaphene-5	1	18.027	18.017	0.010	31661	0.111	33.700	
*	2	20.060	20.053	0.007	16616	0.090	27.200	23.90
Toxaphene-Total *	1	0.890	0.890	0.000	129759	0.891	270.000	
	2	0.890	0.890	0.000	84957	1.100	333.000	23.33

* Column used for quantitation

PESTICIDE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

1206lcsa

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	LCS CONCENTRATION MG/L	LCS % REC #	QC LIMITS REC.
Gamma-BHC (Lindane)	0.0005	0.0005	100	32 - 128
Heptachlor	0.0005	0.00044	88	36 - 115
Heptachlor epoxide	0.0005	0.00048	96	39 - 124
Endrin	0.0005	0.00051	102	42 - 151
Methoxychlor	0.0005	0.00051	102	41 - 119

Spike Recovery: 0 out of 5 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

PESTICIDE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

1206toxlcsa

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	LCS CONCENTRATION MG/L	LCS % REC #	QC LIMITS REC.
Toxaphene	0.01	0.0089	89	54 - 110

Spike Recovery: 0 out of 1 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

PESTICIDE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1206blkams

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	SAMPLE CONCENTRATION MG/L	MS CONCENTRATION MG/L	MS % REC #	QC LIMITS REC.
Gamma-BHC (Lindane)	0.0005	0	0.00052	104	32 - 128
Heptachlor	0.0005	0	0.00048	96	36 - 115
Heptachlor epoxide	0.0005	0	0.00052	104	39 - 124
Endrin	0.0005	0	0.00055	110	42 - 151
Methoxychlor	0.0005	0	0.00056	112	41 - 119

Spike Recovery: 0 out of 5 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

PESTICIDE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

1206blkasd

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	MSD CONCENTRATION MG/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Gamma-BHC (Lindane)	0.0005	0.00052	104	0	39	32 - 128
Heptachlor	0.0005	0.00048	96	0	31	36 - 115
Heptachlor epoxide	0.0005	0.0005	100	3.9	31	39 - 124
Endrin	0.0005	0.00055	110	0	31	42 - 151
Methoxychlor	0.0005	0.00054	108	3.6	30	41 - 119

RPD 0 out of 5 outside limits

Spike Recovery: 0 out of 5 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

Standards Data

6B
PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date(s): 12/09/00 12/09/00

Calibration Time(s): 1416 1744

LAB FILE ID: RRF0.005=CAL1 RRF0.01=CAL2
RRF0.02=CAL3 RRF0.04=CAL4 RRF0.06=CAL5

COMPOUND	RRF 0.005	RRF 0.01	RRF 0.02	RRF 0.04	RRF 0.06	$\overline{RRF}$	% RSD
alpha-BHC	0.521	0.450	0.483	0.561	0.557		
beta-BHC	0.370	0.330	0.338	0.353	0.320		
delta-BHC	0.564	0.475	0.467	0.524	0.516		
gamma-BHC (Lindane)	0.510	0.461	0.500	0.573	0.553		
heptachlor	0.727	0.604	0.588	0.600	0.532		
aldrin	0.547	0.473	0.488	0.533	0.506		
heptachlor epoxide	0.738	0.605	0.577	0.583	0.523		
endosulfan I	0.581	0.507	0.506	0.524	0.478		
dieldrin	0.400	0.342	0.344	0.364	0.339		
4,4'-DDE	0.587	0.498	0.492	0.514	0.477		
endrin	0.550	0.473	0.463	0.479	0.434		
endosulfan II	0.720	0.558	0.529	0.524	0.468		
4,4'-DDD	0.308	0.313	0.323	0.309	0.290		
endosulfan sulfate	0.716	0.550	0.555	0.540	0.480		
4,4'-DDT	0.738	0.543	0.511	0.504	0.447		
methoxychlor	0.346	0.293	0.289	0.267	0.236		
endrin aldehyde	0.374	0.386	0.424	0.394	0.359		
2,4,5,6-tetrachloro-m-xylene	0.660	0.560	0.586	0.616	0.561		
Decachlorobiphenyl	1.007	0.728	0.692	0.702	0.595		
gamma-chlordane	0.716	0.609	0.604	0.618	0.557		
alpha-chlordane	0.744	0.640	0.629	0.647	0.583		
endrin ketone	0.745	0.634	0.596	0.596	0.541		

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-1

6C

PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date(s): 12/09/00 12/09/00

Calibration Time(s): 1416 1744

LAB FILE ID: RRF0.08=CAL6 RRF0.1=CAL7
RRF0.15=CAL8

COMPOUND	RRF 0.08	RRF0.1	RRF 0.15			$\overline{RRF}$	% RSD
alpha-BHC	0.661	0.785	0.685			0.5879	19.3
beta-BHC	0.354	0.397	0.331			0.3491	7.2
delta-BHC	0.591	0.706	0.611			0.5568	14.2
gamma-BHC (Lindane)	0.643	0.747	0.641			0.5785	16.3
heptachlor	0.590	0.653	0.544			0.6048	10.2
aldrin	0.582	0.668	0.567			0.5455	11.4
heptachlor epoxide	0.586	0.656	0.549			0.6021	11.2
endosulfan I	0.539	0.608	0.516			0.5324	8.0
dieldrin	0.386	0.445	0.379			0.3749	9.6
4,4'-DDE	0.539	0.617	0.522			0.5308	9.1
endrin	0.487	0.552	0.461			0.4874	8.7
endosulfan II	0.524	0.588	0.490			0.5501	14.1
4,4'-DDD	0.332	0.394	0.335			0.3255	9.5
endosulfan sulfate	0.526	0.592	0.490			0.5561	13.3
4,4'-DDT	0.496	0.553	0.461			0.5316	17.1
methoxychlor	0.255	0.281	0.222			0.2736	14.1
endrin aldehyde	0.395	0.453	0.371			0.3945	7.8
2,4,5,6-tetrachloro-m-xylene	0.630	0.702	0.592			0.6134	8.1
Decachlorobiphenyl	0.642	0.694	0.560			0.7025	19.3
gamma-chlordane	0.621	0.694	0.586			0.6256	8.6
alpha-chlordane	0.645	0.721	0.601			0.6512	8.5
endrin ketone	0.605	0.673	0.560			0.6188	10.5

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-2

6B
PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date(s): 12/09/00 12/09/00

Calibration Time(s): 1416 1744

LAB FILE ID: RRF0.005=CAL1 RRF0.01=CAL2
RRF0.02=CAL3 RRF0.04=CAL4 RRF0.06=CAL5

COMPOUND	RRF 0.005	RRF 0.01	RRF 0.02	RRF 0.04	RRF 0.06	$\overline{RRF}$	% RSD
alpha-BHC	0.599	0.494	0.522	0.597	0.587		
beta-BHC	0.445	0.370	0.376	0.384	0.350		
delta-BHC	0.492	0.438	0.463	0.522	0.508		
gamma-BHC (Lindane)	0.560	0.495	0.528	0.599	0.576		
heptachlor	0.831	0.675	0.648	0.647	0.575		
aldrin	0.552	0.472	0.479	0.525	0.493		
heptachlor epoxide	0.673	0.566	0.568	0.583	0.527		
endosulfan I	0.604	0.534	0.516	0.535	0.485		
dieldrin	0.442	0.370	0.344	0.365	0.337		
4,4'-DDE	0.566	0.490	0.462	0.492	0.456		
endrin	0.659	0.565	0.547	0.547	0.489		
endosulfan II	0.640	0.528	0.512	0.537	0.483		
4,4'-DDD	0.488	0.394	0.375	0.412	0.378		
endosulfan sulfate	0.476	0.395	0.391	0.425	0.380		
4,4'-DDT	0.559	0.435	0.416	0.433	0.403		
methoxychlor	0.260	0.218	0.221	0.225	0.199		
endrin aldehyde	0.436	0.389	0.365	0.374	0.339		
2,4,5,6-tetrachloro-m-xylene	0.812	0.673	0.672	0.670	0.608		
Decachlorobiphenyl	0.908	0.677	0.686	0.663	0.588		
gamma-chlordane	0.731	0.629	0.616	0.626	0.557		
alpha-chlordane	0.749	0.645	0.634	0.647	0.578		
endrin ketone	0.462	0.463	0.439	0.482	0.447		

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-1

6C

PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date(s): 12/09/00 12/09/00

Calibration Time(s): 1416 1744

LAB FILE ID: RRF0.08=CAL6 RRF0.1=CAL7
RRF0.15=CAL8

COMPOUND	RRF 0.08	RRF0.1	RRF 0.15			$\overline{RRF}$	% RSD
alpha-BHC	0.689	0.810	0.702			0.6250	16.5
beta-BHC	0.383	0.424	0.350			0.3852	8.7
delta-BHC	0.586	0.697	0.600			0.5382	15.8
gamma-BHC (Lindane)	0.661	0.767	0.654			0.6050	14.3
heptachlor	0.636	0.699	0.580			0.6614	12.2
aldrin	0.564	0.646	0.548			0.5349	10.6
heptachlor epoxide	0.587	0.660	0.553			0.5896	8.7
endosulfan I	0.546	0.614	0.517			0.5439	8.1
dieldrin	0.381	0.431	0.370			0.3800	9.9
4,4'-DDE	0.517	0.586	0.511			0.5100	9.0
endrin	0.546	0.605	0.514			0.5590	9.4
endosulfan II	0.537	0.600	0.501			0.5422	9.7
4,4'-DDD	0.423	0.476	0.404			0.4188	10.2
endosulfan sulfate	0.414	0.484	0.400			0.4206	9.3
4,4'-DDT	0.444	0.516	0.415			0.4526	12.2
methoxychlor	0.216	0.240	0.201			0.2225	9.1
endrin aldehyde	0.364	0.404	0.335			0.3758	9.0
2,4,5,6-tetrachloro-m-xylene	0.677	0.748	0.624			0.6855	9.6
Decachlorobiphenyl	0.636	0.673	0.549			0.6725	15.8
gamma-chlordane	0.624	0.689	0.582			0.6318	8.8
alpha-chlordane	0.644	0.710	0.598			0.6506	8.5
endrin ketone	0.487	0.559	0.472			0.4764	7.8

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-2

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/09/00

Column: XTI-5 ID: 0.53 (mm) Calibration Time: 1744

LAB FILE ID: RT1: CAL1 RT2: CAL2 RT3: CAL3
RT4: CAL4 RT5: CAL5

COMPOUND	RT1	RT2	RT3	RT4	RT5
alpha-BHC	5.660	5.660	5.663	5.667	5.667
beta-BHC	6.513	6.513	6.513	6.517	6.517
delta-BHC	7.423	7.423	7.427	7.427	7.427
gamma-BHC (Lindane)	6.667	6.667	6.670	6.673	6.673
heptachlor	8.810	8.813	8.813	8.813	8.813
aldrin	9.827	9.827	9.827	9.830	9.830
heptachlor epoxide	11.087	11.090	11.090	11.090	11.090
endosulfan I	12.217	12.217	12.217	12.220	12.220
dieldrin	13.110	13.110	13.110	13.113	13.113
4,4'-DDE	13.267	13.267	13.267	13.267	13.267
endrin	13.907	13.907	13.907	13.910	13.910
endosulfan II	14.340	14.337	14.337	14.340	14.340
4,4'-DDD	15.047	15.050	15.047	15.050	15.050
endosulfan sulfate	16.187	16.187	16.187	16.190	16.190
4,4'-DDT	16.577	16.580	16.580	16.580	16.583
methoxychlor	19.050	19.050	19.047	19.050	19.050
endrin aldehyde	15.260	15.257	15.257	15.257	15.257
2,4,5,6-tetrachloro-m-xylene	4.430	4.430	4.433	4.433	4.433
Decachlorobiphenyl	21.917	21.917	21.917	21.917	21.917
gamma-chlordane	11.850	11.850	11.850	11.850	11.853
alpha-chlordane	12.357	12.357	12.360	12.360	12.360
endrin ketone	18.143	18.140	18.140	18.140	18.140

COMMENTS:

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/09/00

Column: XTI-5 ID: 0.53 (mm) Calibration Time: 1744

LAB FILE ID: RT6: CAL6 RT7: CAL7 RT8: CAL8

COMPOUND	RT6	RT7	RT8	MEAN RT	RT WINDOW FROM	RT WINDOW TO
alpha-BHC	5.667	5.670	5.670	5.665	5.610	5.710
beta-BHC	6.517	6.520	6.520	6.516	6.463	6.563
delta-BHC	7.430	7.430	7.430	7.427	7.373	7.473
gamma-BHC (Lindane)	6.673	6.677	6.677	6.672	6.617	6.717
heptachlor	8.817	8.817	8.817	8.814	8.760	8.860
aldrin	9.830	9.833	9.833	9.830	9.777	9.877
heptachlor epoxide	11.093	11.093	11.093	11.091	11.037	11.137
endosulfan I	12.223	12.223	12.223	12.220	12.167	12.267
dieldrin	13.117	13.117	13.117	13.113	13.060	13.160
4,4'-DDE	13.270	13.270	13.270	13.268	13.217	13.317
endrin	13.913	13.913	13.913	13.910	13.857	13.957
endosulfan II	14.343	14.343	14.343	14.340	14.290	14.390
4,4'-DDD	15.053	15.053	15.053	15.050	14.997	15.097
endosulfan sulfate	16.190	16.190	16.193	16.189	16.137	16.237
4,4'-DDT	16.583	16.583	16.583	16.581	16.527	16.627
methoxychlor	19.050	19.050	19.050	19.050	19.000	19.100
endrin aldehyde	15.260	15.260	15.260	15.259	15.210	15.310
2,4,5,6-tetrachloro-m-xylene	4.437	4.437	4.437	4.434	4.380	4.480
Decachlorobiphenyl	21.917	21.917	21.917	21.917	21.867	21.967
gamma-chlordane	11.853	11.853	11.857	11.852	11.800	11.900
alpha-chlordane	12.363	12.363	12.363	12.360	12.307	12.407
endrin ketone	18.143	18.143	18.143	18.142	18.093	18.193

COMMENTS:

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/09/00

Column: RTX-1701 ID: 0.53 (mm) Calibration Time: 1744

LAB FILE ID: RT1: CAL1 RT2: CAL2 RT3: CAL3
RT4: CAL4 RT5: CAL5

COMPOUND	RT1	RT2	RT3	RT4	RT5
alpha-BHC	7.890	7.890	7.893	7.893	7.893
beta-BHC	12.010	12.010	12.010	12.010	12.010
delta-BHC	12.587	12.587	12.590	12.590	12.590
gamma-BHC (Lindane)	9.190	9.193	9.193	9.197	9.197
heptachlor	9.723	9.723	9.723	9.727	9.727
aldrin	10.487	10.487	10.490	10.490	10.490
heptachlor epoxide	12.890	12.890	12.890	12.893	12.893
endosulfan I	13.813	13.813	13.813	13.817	13.817
dieldrin	15.477	15.473	15.473	15.473	15.477
4,4'-DDE	15.197	15.197	15.193	15.197	15.197
endrin	16.213	16.213	16.217	16.217	16.217
endosulfan II	18.497	18.497	18.497	18.500	18.500
4,4'-DDD	18.643	18.643	18.643	18.643	18.643
endosulfan sulfate	20.260	20.260	20.263	20.263	20.263
4,4'-DDT	19.030	19.030	19.027	19.030	19.030
methoxychlor	20.417	20.417	20.417	20.417	20.417
endrin aldehyde	19.613	19.613	19.613	19.613	19.613
2,4,5,6-tetrachloro-m-xylene	4.793	4.793	4.793	4.797	4.797
Decachlorobiphenyl	22.270	22.270	22.270	22.270	22.270
gamma-chlordane	14.257	14.257	14.257	14.260	14.260
alpha-chlordane	14.547	14.547	14.547	14.550	14.550
endrin ketone	20.813	20.813	20.813	20.813	20.813

COMMENTS:

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/09/00

Column: RTX-1701 ID: 0.53 (mm) Calibration Time: 1744

LAB FILE ID: RT6: CAL6 RT7: CAL7 RT8: CAL8

COMPOUND	RT6	RT7	RT8	MEAN RT	RT WINDOW FROM	RT WINDOW TO
alpha-BHC	7.897	7.897	7.897	7.894	7.840	7.940
beta-BHC	12.013	12.013	12.013	12.011	11.960	12.060
delta-BHC	12.593	12.593	12.593	12.590	12.537	12.637
gamma-BHC (Lindane)	9.200	9.197	9.197	9.195	9.140	9.240
heptachlor	9.727	9.727	9.727	9.725	9.673	9.773
aldrin	10.493	10.493	10.493	10.490	10.437	10.537
heptachlor epoxide	12.893	12.893	12.897	12.892	12.840	12.940
endosulfan I	13.820	13.820	13.820	13.817	13.763	13.863
dieldrin	15.477	15.477	15.477	15.476	15.427	15.527
4,4'-DDE	15.200	15.200	15.200	15.198	15.147	15.247
endrin	16.220	16.220	16.220	16.217	16.163	16.263
endosulfan II	18.500	18.500	18.500	18.499	18.447	18.547
4,4'-DDD	18.647	18.647	18.647	18.644	18.593	18.693
endosulfan sulfate	20.263	20.263	20.263	20.262	20.210	20.310
4,4'-DDT	19.030	19.030	19.030	19.030	18.980	19.080
methoxychlor	20.417	20.417	20.417	20.417	20.367	20.467
endrin aldehyde	19.617	19.613	19.617	19.614	19.563	19.663
2,4,5,6-tetrachloro-m-xylene	4.800	4.800	4.800	4.797	4.743	4.843
Decachlorobiphenyl	22.270	22.270	22.270	22.270	22.220	22.320
gamma-chlordane	14.263	14.263	14.263	14.260	14.207	14.307
alpha-chlordane	14.553	14.553	14.553	14.550	14.497	14.597
endrin ketone	20.813	20.813	20.813	20.813	20.763	20.863

COMMENTS:

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 0933

Lab File ID: PCCV3 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
alpha-BHC	0.58798	0.56238	N/A	4.4	15.0
beta-BHC	0.34908	0.32839	N/A	5.9	15.0
delta-BHC	0.55688	0.52724	N/A	5.3	15.0
gamma-BHC (Lindane)	0.57851	0.56716	N/A	2.0	15.0
heptachlor	0.60477	0.54214	N/A	10.4	15.0
aldrin	0.54526	0.51685	N/A	5.2	15.0
heptachlor epoxide	0.60228	0.53769	N/A	10.7	15.0
endosulfan I	0.53253	0.48688	N/A	8.6	15.0
dieldrin	0.37488	0.34305	N/A	8.5	15.0
4,4'-DDE	0.53093	0.49093	N/A	7.5	15.0
endrin	0.48752	0.44701	N/A	8.3	15.0
endosulfan II	0.55009	0.47997	N/A	12.7	15.0
4,4'-DDD	0.32560	0.31570	N/A	3.0	15.0
endosulfan sulfate	0.55621	0.54340	N/A	2.3	15.0
4,4'-DDT	0.53159	0.48915	N/A	8.0	15.0
methoxychlor	0.27390	0.23450	N/A	14.4	15.0
endrin aldehyde	0.39459	0.41421	N/A	5.0	15.0
2,4,5,6-tetrachloro-m-xylene	0.61336	0.56208	N/A	8.4	15.0
Decachlorobiphenyl	0.70238	0.62044	N/A	11.7	15.0
gamma-chlordane	0.62551	0.57650	N/A	7.8	15.0
alpha-chlordane	0.65140	0.60137	N/A	7.7	15.0
endrin ketone	0.61902	0.56725	N/A	8.4	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 0933

Lab File ID: PCCV3 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
alpha-BHC	0.58798	0.56238	N/A	4.4	15.0
beta-BHC	0.34908	0.32839	N/A	5.9	15.0
delta-BHC	0.55688	0.52724	N/A	5.3	15.0
gamma-BHC (Lindane)	0.57851	0.56716	N/A	2.0	15.0
heptachlor	0.60477	0.54214	N/A	10.4	15.0
aldrin	0.54526	0.51685	N/A	5.2	15.0
heptachlor epoxide	0.60228	0.53769	N/A	10.7	15.0
endosulfan I	0.53253	0.48688	N/A	8.6	15.0
dieldrin	0.37488	0.34305	N/A	8.5	15.0
4,4'-DDE	0.53093	0.49093	N/A	7.5	15.0
endrin	0.48752	0.44701	N/A	8.3	15.0
endosulfan II	0.55009	0.47997	N/A	12.7	15.0
4,4'-DDD	0.32560	0.31570	N/A	3.0	15.0
endosulfan sulfate	0.55621	0.54340	N/A	2.3	15.0
4,4'-DDT	0.53159	0.48915	N/A	8.0	15.0
methoxychlor	0.27390	0.23450	N/A	14.4	15.0
endrin aldehyde	0.39459	0.41421	N/A	5.0	15.0
2,4,5,6-tetrachloro-m-xylene	0.61336	0.56208	N/A	8.4	15.0
Decachlorobiphenyl	0.70238	0.62044	N/A	11.7	15.0
gamma-chlordane	0.62551	0.57650	N/A	7.8	15.0
alpha-chlordane	0.65140	0.60137	N/A	7.7	15.0
endrin ketone	0.61902	0.56725	N/A	8.4	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 0933

Lab File ID: PCCV3 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
alpha-BHC	0.62519	0.59119	N/A	5.4	15.0
beta-BHC	0.38543	0.36160	N/A	6.2	15.0
delta-BHC	0.53810	0.52453	N/A	2.5	15.0
gamma-BHC (Lindane)	0.60510	0.58867	N/A	2.7	15.0
heptachlor	0.66150	0.59363	N/A	10.3	15.0
aldrin	0.53486	0.49942	N/A	6.6	15.0
heptachlor epoxide	0.58952	0.54252	N/A	8.0	15.0
endosulfan I	0.54383	0.50375	N/A	7.4	15.0
dieldrin	0.38016	0.33907	N/A	10.8	15.0
4,4'-DDE	0.51003	0.45754	N/A	10.3	15.0
endrin	0.55903	0.51648	N/A	7.6	15.0
endosulfan II	0.54240	0.51241	N/A	5.5	15.0
4,4'-DDD	0.41865	0.39236	N/A	6.3	15.0
endosulfan sulfate	0.42074	0.40317	N/A	4.2	15.0
4,4'-DDT	0.45267	0.41070	N/A	9.3	15.0
methoxychlor	0.22232	0.20836	N/A	6.3	15.0
endrin aldehyde	0.37563	0.35690	N/A	5.0	15.0
2,4,5,6-tetrachloro-m-xylene	0.68557	0.60476	N/A	11.8	15.0
Decachlorobiphenyl	0.67260	0.59794	N/A	11.1	15.0
gamma-chlordane	0.63169	0.58091	N/A	8.0	15.0
alpha-chlordane	0.65092	0.60212	N/A	7.5	15.0
endrin ketone	0.47645	0.46793	N/A	1.8	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 1003

Lab File ID: TCCV3 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1844

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D	
Toxaphene-1	0.03960	0.04273	N/A	7.9	15.0	
Toxaphene-2	0.04570	0.05019	N/A	9.8	15.0	
Toxaphene-3	0.06312	0.06968	N/A	10.4	15.0	
Toxaphene-4	0.04513	0.05258	N/A	16.5	15.0	<-
Toxaphene-5	0.10700	0.11758	N/A	9.9	15.0	
Toxaphene-Total	0.06011	0.06655	N/A	10.7	15.0	

Average Used: 10.8719

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 1003

Lab File ID: TCCV3 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1844

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
Toxaphene-1	0.01554	0.01650	N/A	6.2	15.0
Toxaphene-2	0.01336	0.01805	N/A	35.1	15.0
Toxaphene-3	0.03116	0.03314	N/A	6.4	15.0
Toxaphene-4	0.07736	0.08504	N/A	9.9	15.0
Toxaphene-5	0.07634	0.08633	N/A	13.1	15.0
Toxaphene-Total	0.04275	0.04781	N/A	11.8	15.0

Average Used: 13.7478

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 1559

Lab File ID: PCCV4 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D	
alpha-BHC	0.58798	0.56855	N/A	3.3	15.0	
beta-BHC	0.34908	0.32879	N/A	5.8	15.0	
delta-BHC	0.55688	0.52475	N/A	5.8	15.0	
gamma-BHC (Lindane)	0.57851	0.57230	N/A	1.1	15.0	
heptachlor	0.60477	0.54145	N/A	10.5	15.0	
aldrin	0.54526	0.52196	N/A	4.3	15.0	
heptachlor epoxide	0.60228	0.54308	N/A	9.8	15.0	
endosulfan I	0.53253	0.49506	N/A	7.0	15.0	
dieldrin	0.37488	0.34562	N/A	7.8	15.0	
4,4'-DDE	0.53093	0.49004	N/A	7.7	15.0	
endrin	0.48752	0.45022	N/A	7.6	15.0	
endosulfan II	0.55009	0.48568	N/A	11.7	15.0	
4,4'-DDD	0.32560	0.30296	N/A	7.0	15.0	
endosulfan sulfate	0.55621	0.51381	N/A	7.6	15.0	
4,4'-DDT	0.53159	0.47018	N/A	11.6	15.0	
methoxychlor	0.27390	0.23275	N/A	15.0	15.0	<-
endrin aldehyde	0.39459	0.38398	N/A	2.7	15.0	
2,4,5,6-tetrachloro-m-xylene	0.61336	0.56308	N/A	8.2	15.0	
Decachlorobiphenyl	0.70238	0.62952	N/A	10.4	15.0	
gamma-chlordane	0.62551	0.58341	N/A	6.7	15.0	
alpha-chlordane	0.65140	0.60648	N/A	6.9	15.0	
endrin ketone	0.61902	0.57750	N/A	6.7	15.0	

Average Used: 7.50824

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/10/00 Time: 1559

Lab File ID: PCCV4 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
alpha-BHC	0.62519	0.59484	N/A	4.8	15.0
beta-BHC	0.38543	0.36354	N/A	5.7	15.0
delta-BHC	0.53810	0.52932	N/A	1.6	15.0
gamma-BHC (Lindane)	0.60510	0.59248	N/A	2.1	15.0
heptachlor	0.66150	0.59427	N/A	10.2	15.0
aldrin	0.53486	0.50330	N/A	5.9	15.0
heptachlor epoxide	0.58952	0.54594	N/A	7.4	15.0
endosulfan I	0.54383	0.51174	N/A	5.9	15.0
dieldrin	0.38016	0.33967	N/A	10.6	15.0
4,4'-DDE	0.51003	0.45833	N/A	10.1	15.0
endrin	0.55903	0.51973	N/A	7.0	15.0
endosulfan II	0.54240	0.51477	N/A	5.1	15.0
4,4'-DDD	0.41865	0.39607	N/A	5.4	15.0
endosulfan sulfate	0.42074	0.40956	N/A	2.6	15.0
4,4'-DDT	0.45267	0.41363	N/A	8.6	15.0
methoxychlor	0.22232	0.21055	N/A	5.3	15.0
endrin aldehyde	0.37563	0.36295	N/A	3.4	15.0
2,4,5,6-tetrachloro-m-xylene	0.68557	0.59859	N/A	12.7	15.0
Decachlorobiphenyl	0.67260	0.60981	N/A	9.3	15.0
gamma-chlordane	0.63169	0.58440	N/A	7.5	15.0
alpha-chlordane	0.65092	0.60660	N/A	6.8	15.0
endrin ketone	0.47645	0.46798	N/A	1.8	15.0

FORM VII SV-1

7B

PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/14/00 Time: 1924

Lab File ID: PCCV1 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D	
alpha-BHC	0.58798	0.58097	N/A	1.2	15.0	
beta-BHC	0.34908	0.33921	N/A	2.8	15.0	
delta-BHC	0.55688	0.53586	N/A	3.8	15.0	
gamma-BHC (Lindane)	0.57851	0.57016	N/A	1.4	15.0	
heptachlor	0.60477	0.50185	N/A	17.0	15.0	<-
aldrin	0.54526	0.51519	N/A	5.5	15.0	
heptachlor epoxide	0.60228	0.52673	N/A	12.5	15.0	
endosulfan I	0.53253	0.48411	N/A	9.1	15.0	
dieldrin	0.37488	0.31877	N/A	15.0	15.0	
4,4'-DDE	0.53093	0.48095	N/A	9.4	15.0	
endrin	0.48752	0.43551	N/A	10.7	15.0	
endosulfan II	0.55009	0.47745	N/A	13.2	15.0	
4,4'-DDD	0.32560	0.31786	N/A	2.4	15.0	
endosulfan sulfate	0.55621	0.51104	N/A	8.1	15.0	
4,4'-DDT	0.53159	0.43063	N/A	19.0	15.0	<-
methoxychlor	0.27390	0.23107	N/A	15.6	15.0	<-
endrin aldehyde	0.39459	0.35475	N/A	10.1	15.0	
2,4,5,6-tetrachloro-m-xylene	0.61336	0.59679	N/A	2.7	15.0	
Decachlorobiphenyl	0.70238	0.58576	N/A	16.6	15.0	<-
gamma-chlordane	0.62551	0.58826	N/A	6.0	15.0	
alpha-chlordane	0.65140	0.61157	N/A	6.1	15.0	
endrin ketone	0.61902	0.54219	N/A	12.4	15.0	

Average Used: 9.12144

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/14/00 Time: 1924

Lab File ID: PCCV1 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D	
alpha-BHC	0.62519	0.59049	N/A	5.6	15.0	
beta-BHC	0.38543	0.35878	N/A	6.9	15.0	
delta-BHC	0.53810	0.52024	N/A	3.3	15.0	
gamma-BHC (Lindane)	0.60510	0.58060	N/A	4.0	15.0	
heptachlor	0.66150	0.52650	N/A	20.4	15.0	<-
aldrin	0.53486	0.49634	N/A	7.2	15.0	
heptachlor epoxide	0.58952	0.51755	N/A	12.2	15.0	
endosulfan I	0.54383	0.50482	N/A	7.2	15.0	
dieldrin	0.38016	0.31982	N/A	15.9	15.0	<-
4,4'-DDE	0.51003	0.44638	N/A	12.5	15.0	
endrin	0.55903	0.49115	N/A	12.1	15.0	
endosulfan II	0.54240	0.49332	N/A	9.0	15.0	
4,4'-DDD	0.41865	0.38467	N/A	8.1	15.0	
endosulfan sulfate	0.42074	0.40025	N/A	4.9	15.0	
4,4'-DDT	0.45267	0.36126	N/A	20.2	15.0	<-
methoxychlor	0.22232	0.19714	N/A	11.3	15.0	
endrin aldehyde	0.37563	0.33269	N/A	11.4	15.0	
2,4,5,6-tetrachloro-m-xylene	0.68557	0.61075	N/A	10.9	15.0	
Decachlorobiphenyl	0.67260	0.56650	N/A	15.8	15.0	<-
gamma-chlordane	0.63169	0.58389	N/A	7.6	15.0	
alpha-chlordane	0.65092	0.60422	N/A	7.2	15.0	
endrin ketone	0.47645	0.45287	N/A	4.9	15.0	

Average Used: 9.94016

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/14/00 Time: 1954

Lab File ID: TCCV1 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1844

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
Toxaphene-1	0.01554	0.01329	N/A	14.5	15.0
Toxaphene-2	0.01336	0.01369	N/A	2.5	15.0
Toxaphene-3	0.03116	0.03205	N/A	2.8	15.0
Toxaphene-4	0.07736	0.07949	N/A	2.8	15.0
Toxaphene-5	0.07634	0.07730	N/A	1.2	15.0
Toxaphene-Total	0.04275	0.04317	N/A	1.0	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/14/00 Time: 1954

Lab File ID: TCCV1 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1844

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
Toxaphene-1	0.03960	0.03770	N/A	4.8	15.0
Toxaphene-2	0.04570	0.04410	N/A	3.5	15.0
Toxaphene-3	0.06312	0.06017	N/A	4.7	15.0
Toxaphene-4	0.04513	0.03996	N/A	11.4	15.0
Toxaphene-5	0.10700	0.09482	N/A	11.4	15.0
Toxaphene-Total	0.06011	0.05535	N/A	7.9	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/14/00 Time: 2351

Lab File ID: PCCV2 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D
alpha-BHC	0.58798	0.56318	N/A	4.2	15.0
beta-BHC	0.34908	0.33067	N/A	5.3	15.0
delta-BHC	0.55688	0.52282	N/A	6.1	15.0
gamma-BHC (Lindane)	0.57851	0.56158	N/A	2.9	15.0
heptachlor	0.60477	0.51493	N/A	14.8	15.0
aldrin	0.54526	0.51437	N/A	5.7	15.0
heptachlor epoxide	0.60228	0.52602	N/A	12.7	15.0
endosulfan I	0.53253	0.47856	N/A	10.1	15.0
dieldrin	0.37488	0.33307	N/A	11.2	15.0
4,4'-DDE	0.53093	0.46972	N/A	11.5	15.0
endrin	0.48752	0.44774	N/A	8.2	15.0
endosulfan II	0.55009	0.48005	N/A	12.7	15.0
4,4'-DDD	0.32560	0.33193	N/A	1.9	15.0
endosulfan sulfate	0.55621	0.52665	N/A	5.3	15.0
4,4'-DDT	0.53159	0.45302	N/A	14.8	15.0
methoxychlor	0.27390	0.23746	N/A	13.3	15.0
endrin aldehyde	0.39459	0.38846	N/A	1.6	15.0
2,4,5,6-tetrachloro-m-xylene	0.61336	0.56908	N/A	7.2	15.0
Decachlorobiphenyl	0.70238	0.60581	N/A	13.7	15.0
gamma-chlordane	0.62551	0.57157	N/A	8.6	15.0
alpha-chlordane	0.65140	0.59448	N/A	8.7	15.0
endrin ketone	0.61902	0.55231	N/A	10.8	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD01 Calibration Date: 12/14/00 Time: 2351

Lab File ID: PCCV2 Init. Calib. Date: 12/09/00

Init. Calib. Time: 1744

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.06	MIN RRF	%D	MAX %D	
alpha-BHC	0.62519	0.59807	N/A	4.3	15.0	
beta-BHC	0.38543	0.36347	N/A	5.7	15.0	
delta-BHC	0.53810	0.52842	N/A	1.8	15.0	
gamma-BHC (Lindane)	0.60510	0.59292	N/A	2.0	15.0	
heptachlor	0.66150	0.55851	N/A	15.6	15.0	<-
aldrin	0.53486	0.50361	N/A	5.8	15.0	
heptachlor epoxide	0.58952	0.53738	N/A	8.8	15.0	
endosulfan I	0.54383	0.52191	N/A	4.0	15.0	
dieldrin	0.38016	0.34021	N/A	10.5	15.0	
4,4'-DDE	0.51003	0.44210	N/A	13.3	15.0	
endrin	0.55903	0.51488	N/A	7.9	15.0	
endosulfan II	0.54240	0.51632	N/A	4.8	15.0	
4,4'-DDD	0.41865	0.41904	N/A	0.1	15.0	
endosulfan sulfate	0.42074	0.40219	N/A	4.4	15.0	
4,4'-DDT	0.45267	0.38560	N/A	14.8	15.0	
methoxychlor	0.22232	0.20861	N/A	6.2	15.0	
endrin aldehyde	0.37563	0.35144	N/A	6.4	15.0	
2,4,5,6-tetrachloro-m-xylene	0.68557	0.61017	N/A	11.0	15.0	
Decachlorobiphenyl	0.67260	0.57746	N/A	14.1	15.0	
gamma-chlordane	0.63169	0.57748	N/A	8.6	15.0	
alpha-chlordane	0.65092	0.60072	N/A	7.7	15.0	
endrin ketone	0.47645	0.47436	N/A	0.4	15.0	

Average Used: 7.20312

FORM VII SV-1

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: XTI-5 ID: 0.53 (mm) Init. Calib. Date: 12/09/00

EPA Sample No.(PEM): PEM1 Date Analyzed :12/14/00

Lab Sample ID (PEM): PEM1 Time Analyzed :1854

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	RPD
endrin	13.92	13.86	13.96	0.046	0.050	8.3
4,4'-DDT	16.59	16.53	16.63	0.085	0.10	16.2

4,4'-DDT % breakdown (1): 3.50 Endrin % breakdown (1): 0.00

Combined % breakdown (1): 3.50

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: RTX-1701 ID: 0.53 (mm) Init. Calib. Date: 12/09/00

EPA Sample No.(PEM): PEM1 Date Analyzed :12/14/00

Lab Sample ID (PEM): PEM1 Time Analyzed :1854

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	RPD
endrin	16.23	16.16	16.26	0.047	0.050	6.2
4,4'-DDT	19.03	18.98	19.08	0.089	0.10	11.6

4,4'-DDT % breakdown (1): 4.40 Endrin % breakdown (1): 0.00

Combined % breakdown (1): 4.40

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: XTI-5 ID: 0.53 (mm) Init. Calib. Date: 12/09/00

EPA Sample No.(PEM): PEM3 Date Analyzed :12/10/00

Lab Sample ID (PEM): PEM3 Time Analyzed :0903

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	RPD
endrin	13.91	13.86	13.96	0.051	0.050	2.0
4,4'-DDT	16.58	16.53	16.63	0.098	0.10	2.0

4,4'-DDT % breakdown (1): 0.00 Endrin % breakdown (1): 0.00

Combined % breakdown (1): _____

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: RTX-1701 ID: 0.53 (mm) Init. Calib. Date: 12/09/00

EPA Sample No.(PEM): PEM3 Date Analyzed :12/10/00

Lab Sample ID (PEM): PEM3 Time Analyzed :0903

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	RPD
endrin	16.22	16.16	16.26	0.052	0.050	3.9
4,4'-DDT	19.03	18.98	19.08	0.10	0.10	0.0

4,4'-DDT % breakdown (1): 0.00 Endrin % breakdown (1): 0.00

Combined % breakdown (1): _____

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

GC/ECD HERBICIDE ORGANICS

METHOD 8151

CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8151

IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 prior to 8151 semi-volatiles preparation.
Water samples were prepared by EPA SW846 3510 for 8151 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met. . Initial calibration criteria is stated in SW846 such that all required parameters have a maximum percent RSD of 20. If an analyte exceeds the percent RSD, then the mean of the RSD values for all analytes must be below 20%.
The continuing calibration verification standards for the 8151 analytical runs did not meet the less than 15 % D criteria for all analytes. The average % D was used as per SW846 method 8000 section 7.7. The average % D is noted on the form 7 as required.

The Herbicide standards correspond to the following calibration files for Herbicide concentration at the instrument level:

CAL1= 0.025ug/mL
CAL2=0.05ug/mL
CAL3=0.1ug/mL
CAL4=0.15ug/mL
CAL5=0.2ug/ml
CAL6=0.25ug/mL
CAL7=0.3ug/mL

B. Blanks:

There was one blank analyzed associated with the TCLP samples that was non-detect for target parameters.

C. Surrogates:

All surrogate recoveries met criteria for the TCLP samples with the exception of 2,4-Dichlorophenylacetic acid for samples 017OLD36S1Q400 and 017-OLD36S1Q400MS.

CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2011168

C. Spikes:

Laboratory Control Spikes (LCS)

One regular LCS, 1206LCSA, was analyzed with the TCLP samples and met all criteria for percent recovery.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

There was one MS was analyzed with the TCLP samples where one out of two analytes did not meet criteria for relative percent difference.

E. Internal standards:

All internal standard criteria were met for the TCLP samples.

F. Samples:

Sample analysis proceeded normally. Data was collected using duel column analysis. PEL MDLs were used per client instructions.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED: Lara Keen **DATE:** 12/15/05

HERBICIDE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Method: 8151

EPA Sample No	Lab Sample ID
017OLD36S1Q400	201116801

Sample Data

HERBICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36S1Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 201116801 Lab File ID 16801.D

Sample wt/vol: 500 Units: ML Date Received: 12/1/00

Concentrated Extract Volume: 10 Date Extracted: 12/6/00

Level:(low/med) LOW Date Analyzed: 12/8/00 Time: 7:15 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID Compsite IDW So Method: 8151_TCLP

GPC Cleanup : (Y/N) N pH:

GC Column: XTI-5 & RTX-1701 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	*ANALYTE*	*RESULT*	*Q*
94-75-7	2,4-D	0.00014	U
93-72-1	2,4,5-TP (Silvex)	0.00012	U

QC Summary

HERBICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

1206blka

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: WATER Lab Sample ID 1206blka Lab File ID BLKA.D

Sample wt/vol: 1000 Units: ML Date Received: 12/6/00

Concentrated Extract Volume: 10 Date Extracted: 12/6/00

Level:(low/med) LOW Date Analyzed: 12/8/00 Time: 5:31 AM

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID QC Method: 8151_TCLP

GPC Cleanup : (Y/N) N pH:

GC Column: XTI-5 & RTX-1701 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	*ANALYTE*	*RESULT*	*Q*
94-75-7	2,4-D	0.00007	U
93-72-1	2,4,5-TP (Silvex)	0.00006	U

FORM 4
HERB METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

1206BLKA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206BLKA Lab File ID: BLKA

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 12/06/00

Date Analyzed (1): 12/08/00 Date Analyzed (2): 12/08/00

Time Analyzed (1): 0531 Time Analyzed (2): 0531

Instrument ID (1): SECD02 Instrument ID (2): SECD02

GC Column (1): XTI-5 ID: 0.53(mm) GC Column (2): RTX-1701 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	1206LCSA	1206LCSA	12/08/00	12/08/00
02	017OLD36S1Q400	201116801	12/08/00	12/08/00
03	017OLD36S1Q400MS	201116801MS	12/08/00	12/08/00
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

WATER HERBICIDE ORGANIC SURROGATE RECOVERY

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG NO.: 2011168

GC Column: XTI-5 & RTX-170 ID: 0.53

EPA Sample NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
017OLD36S1Q400	14*						1
017OLD36S1Q400MS	18*						1
1206blka	81						0
1206lcsa	84						0

Control Limits

S1 = 2,4-Dichlorophenylacetic acid 60 - 130

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

Control limit source: (lab/method) LAB

Form II

FORM 8
HERB ANALYTICAL SEQUENCE

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: RTX-5 ID: 0.53 (mm) Init. Calib. Date: 12/08/00

Instrument ID: SECD02

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 17.47

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	300STD	300STD	12/07/00	2055	17.46	
02	250STD	250STD	12/07/00	2147	17.46	
03	200STD	200STD	12/07/00	2238	17.46	
04	150STD	150STD	12/07/00	2330	17.46	
05	100STD	100STD	12/08/00	0022	17.46	
06	50STD	50STD	12/08/00	0113	17.47	
07	25STD	25STD	12/08/00	0205	17.47	
08	CCV1	CCV1	12/08/00	0440	17.46	
09	1206BLKA	1206BLKA	12/08/00	0531	17.46	
10	1206LCSA	1206LCSA	12/08/00	0623	17.46	
11	017OLD36S1Q400	201116801	12/08/00	0715	17.47	
12	017OLD36S1Q400MS	201116801MS	12/08/00	0806	17.47	
13	CCV2	CCV2	12/08/00	0949	17.46	
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

S1 = DCAA

QC LIMITS
(+/- 0.20 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
HERB ANALYTICAL SEQUENCE

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

GC Column: RTX-1701 ID: 0.53 (mm) Init. Calib. Date: 12/08/00

Instrument ID: SECD02

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 19.85

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	300STD	300STD	12/07/00	2055	19.77	
02	250STD	250STD	12/07/00	2147	19.78	
03	200STD	200STD	12/07/00	2238	19.78	
04	150STD	150STD	12/07/00	2330	19.79	
05	100STD	100STD	12/08/00	0022	19.80	
06	50STD	50STD	12/08/00	0113	19.83	
07	25STD	25STD	12/08/00	0205	19.85	
08	CCV1	CCV1	12/08/00	0440	19.79	
09	1206BLKA	1206BLKA	12/08/00	0531	19.78	
10	1206LCSA	1206LCSA	12/08/00	0623	19.77	
11	017OLD36S1Q400	201116801	12/08/00	0715	19.80	
12	017OLD36S1Q400MS	201116801MS	12/08/00	0806	19.80	
13	CCV2	CCV2	12/08/00	0949	19.79	
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

S1 = DCAA

QC LIMITS
(+/- 0.20 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

CLIENT SAMPLE NO.

HERB DUAL COLUMN CONFIRMATION CHECK

017OLD36S1Q400

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 201116801 Date(s) Analyzed: 12/08/00 12/08/00

Instrument ID (1): SECD02 Instrument ID (2): SECD02

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
DBOB *	1	21.480	21.483	0.003	474671	0.100	0.100	
	2	23.140	23.143	0.003	894572	0.100	0.100	0.00
DCAA *	1	17.470	17.470	0.000	19897	0.035	0.704	
	2	19.797	19.850	0.053	54218	0.041	0.823	16.90

* Column used for quantitation

CLIENT SAMPLE NO.

HERB DUAL COLUMN CONFIRMATION CHECK

017OLD36
S1Q400MS

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 201116801MS Date(s) Analyzed: 12/08/00 12/08/00

Instrument ID (1): SECD02 Instrument ID (2): SECD02

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
DBOB	* 1	21.480	21.483	0.003	487629	0.100	0.100	
	2	23.140	23.143	0.003	909936	0.100	0.100	0.00
2,4-D	* 1	20.467	20.503	0.036	413005	0.510	10.200	
	2	23.617	23.763	0.146	684207	0.552	11.000	7.84
2,4,5-TP	1	22.953	22.967	0.014	1087872	0.344	6.880	
	* 2	25.420	25.453	0.033	1931952	0.342	6.850	0.44
DCAA	* 1	17.467	17.470	0.003	28869	0.044	0.877	
	2	19.800	19.850	0.050	91757	0.055	1.110	26.57

* Column used for quantitation

CLIENT SAMPLE NO.

HERB DUAL COLUMN CONFIRMATION CHECK

1206BLKA

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206BLKA Date(s) Analyzed: 12/08/00 12/08/00

Instrument ID (1): SECD02 Instrument ID (2): SECD02

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
DBOB	* 1	21.480	21.483	0.003	503436	0.100	0.100	
	2	23.140	23.143	0.003	982418	0.100	0.100	0.00
DCAA	* 1	17.463	17.470	0.007	134172	0.202	2.020	
	2	19.780	19.850	0.070	249176	0.208	2.080	2.97

* Column used for quantitation

CLIENT SAMPLE NO.

HERB DUAL COLUMN CONFIRMATION CHECK

1206LCSA

Lab Name: PEL Laboratories Inc. Contract: NTC Orlando

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Lab Sample ID: 1206LCSA Date(s) Analyzed: 12/08/00 12/08/00

Instrument ID (1): SECD02 Instrument ID (2): SECD02

GC Column(1): XTI-5 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (mm)

COMPOUND	COL	RT	EXP RT	DIFF	AREA	AMOUNT	CONC	%D
DBOB	* 1	21.480	21.483	0.003	512064	0.100	0.100	
	2	23.140	23.143	0.003	997430	0.100	0.100	0.00
2,4-D	1	20.477	20.503	0.026	69465	0.082	0.816	
	* 2	23.667	23.763	0.096	145862	0.079	0.793	2.90
2,4,5-TP	1	22.957	22.967	0.010	275438	0.086	0.860	
	* 2	25.433	25.453	0.020	532925	0.083	0.827	3.99
DCAA	* 1	17.460	17.470	0.010	135752	0.210	2.100	
	2	19.773	19.850	0.077	247355	0.226	2.260	7.62

* Column used for quantitation

HERBICIDE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

1206lcsa

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	LCS CONCENTRATION MG/L	LCS % REC #	QC LIMITS REC.
2,4-D	0.001	0.00079	79.3	43 - 161
2,4,5-TP (Silvex)	0.001	0.00083	82.7	54 - 150

Spike Recovery: 0 out of 2 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

HERBICIDE ORGANIC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Sample No.

017OLD36S1Q400MS

Lab Name: PEL Laboratories, Inc. Contractt: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

TCLP Analysis

COMPOUND	SPIKE ADDED MG/L	SAMPLE CONCENTRATION MG/L	MS CONCENTRATION MG/L	MS % REC #	QC LIMITS REC.
2,4-D	0.02	0	0.01	51	43 - 161
2,4,5-TP (Silvex)	0.02	0	0.0069	34.3*	54 - 150

Spike Recovery: 1 out of 2 outside limits

Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) LAB

COMMENTS: _____

Form III

Standards Data

6B
PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date(s): 12/07/00 12/08/00

Calibration Time(s): 2055 0205

LAB FILE ID: RRF0.025=25STD RRF0.05=50STD
RRF0.1=100STD RRF0.15=150STD RRF0.2=200STD

COMPOUND	RRF 0.025	RRF 0.05	RRF0.1	RRF 0.15	RRF0.2	$\overline{RRF}$	% RSD
2,4-D	0.146	0.183	0.181	0.171	0.167		
2,4,5-TP	0.548	0.634	0.641	0.603	0.596		
DCAA	0.129	0.099	0.126	0.137	0.124		

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-1

6C
PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date(s): 12/07/00 12/08/00

Calibration Time(s): 2055 0205

LAB FILE ID: RRF0.25=250STD RRF0.3=300STD

COMPOUND	RRF 0.25	RRF0.3				$\overline{RRF}$	% RSD
2,4-D	0.167	0.148				0.1661	8.8
2,4,5-TP	0.611	0.551				0.5977	6.1
DCAA	0.119	0.110				0.1206	10.6

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-2

6B

PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date(s): 12/07/00 12/08/00

Calibration Time(s): 2055 0205

LAB FILE ID: RRF0.025=25STD RRF0.05=50STD
RRF0.1=100STD RRF0.15=150STD RRF0.2=200STD

COMPOUND	RRF 0.025	RRF 0.05	RRF0.1	RRF 0.15	RRF0.2	$\overline{RRF}$	% RSD
2,4-D	0.075	0.094	0.106	0.104	0.107		
2,4,5-TP	0.487	0.554	0.575	0.536	0.531		
DCAA	0.075	0.059	0.085	0.094	0.086		

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-1

6C

PESTICIDE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date(s): 12/07/00 12/08/00

Calibration Time(s): 2055 0205

LAB FILE ID: RRF0.25=250STD RRF0.3=300STD

COMPOUND	RRF 0.25	RRF0.3				$\overline{RRF}$	% RSD
2,4-D	0.107	0.099				0.0988	11.7
2,4,5-TP	0.542	0.488				0.5304	6.1
DCAA	0.084	0.078				0.0801	13.8

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM VI SV-2

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00

Column: RTX-5 ID: 0.53 (mm) Calibration Time: 0205

LAB FILE ID: RT1: 25STD RT2: 50STD RT3: 100STD
RT4: 150STD RT5: 200STD

COMPOUND	RT1	RT2	RT3	RT4	RT5
2,4-D	20.517	20.503	20.490	20.483	20.480
2,4,5-TP	22.970	22.967	22.963	22.960	22.960
DCAA	17.473	17.470	17.463	17.463	17.460

COMMENTS:

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00

Column: RTX-5 ID: 0.53 (mm) Calibration Time: 0205

LAB FILE ID: RT6: 250STD RT7: 300STD

COMPOUND	RT6	RT7	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4-D	20.477	20.473	20.489	20.303	20.703
2,4,5-TP	22.957	22.957	22.962	22.767	23.167
DCAA	17.460	17.460	17.464	17.270	17.670

COMMENTS:

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00

Column: RTX-1701 ID: 0.53 (mm) Calibration Time: 0205

LAB FILE ID: RT1: 25STD RT2: 50STD RT3: 100STD
RT4: 150STD RT5: 200STD

COMPOUND	RT1	RT2	RT3	RT4	RT5
2,4-D	23.763	23.720	23.673	23.660	23.647
2,4,5-TP	25.453	25.447	25.437	25.430	25.427
DCAA	19.850	19.833	19.800	19.787	19.780

COMMENTS:

FORM VI HERB

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00

Column: RTX-1701 ID: 0.53 (mm) Calibration Time: 0205

LAB FILE ID: RT6: 250STD RT7: 300STD

COMPOUND	RT6	RT7	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4-D	23.637	23.633	23.676	23.563	23.963
2,4,5-TP	25.427	25.423	25.435	25.253	25.653
DCAA	19.777	19.773	19.800	19.650	20.050

COMMENTS:

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00 Time: 0440

Lab File ID: CCV1 Init. Calib. Date: 12/08/00

Init. Calib. Time: 0205

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.15	MIN RRF	%D	MAX %D
2,4-D	0.16614	0.17178	0.01	3.4	15.0
2,4,5-TP	0.59794	0.60854	0.01	1.8	15.0
DCAA	0.12065	0.13755	0.01	14.0	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00 Time: 0949

Lab File ID: CCV2 Init. Calib. Date: 12/08/00

Init. Calib. Time: 0205

GC Column: XTI-5 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.15	MIN RRF	%D	MAX %D
2,4-D	0.16614	0.17463	0.01	5.1	15.0
2,4,5-TP	0.59794	0.62179	0.01	4.0	15.0
DCAA	0.12065	0.13650	0.01	13.1	15.0

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00 Time: 0440

Lab File ID: CCV1 Init. Calib. Date: 12/08/00

Init. Calib. Time: 0205

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.15	MIN RRF	%D	MAX %D	
2,4-D	0.09879	0.10527	0.01	6.6	15.0	
2,4,5-TP	0.53042	0.53938	0.01	1.7	15.0	
DCAA	0.08046	0.09355	0.01	16.3	15.0	<-

Average Used: 8.17252

FORM VII SV-1

7B
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Instrument ID: SECD02 Calibration Date: 12/08/00 Time: 0949

Lab File ID: CCV2 Init. Calib. Date: 12/08/00

Init. Calib. Time: 0205

GC Column: RTX-1701 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF 0.15	MIN RRF	%D	MAX %D	
2,4-D	0.09879	0.10054	0.01	1.8	15.0	
2,4,5-TP	0.53042	0.54029	0.01	1.9	15.0	
DCAA	0.08046	0.09445	0.01	17.4	15.0	<-

Average Used: 7.00658

FORM VII SV-1

INORGANICS

EPA Qualifiers

Inorganic Analyses

C (Concentration) Qualifier – Entries and their meanings are:

B The reported value obtained was less than the RL but greater than or equal to the MDL.

E The reported value obtained was over calibration or linear range.

U The reported value obtained was less than the MDL or was not detected.

Q Qualifier – Entries and their meanings are:

E The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM I if it is an isolated problem.

M Duplicate injection precision was not met (two analyses of the same sample did not agree).

N Spiked sample recovery not within control limits.

S The reported value was determined by the Method of Standard Additions (MSA).

W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

* Duplicate analysis not within control limits.

\+ Correlation coefficient for the MSA is less than 0.995.

X The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field.

M (Method) Qualifier – Enter one of the following:

P	ICP
A	Flame AA
F	Furnace AA
CV	Manual Cold Vapor AA
TC	Total Organic Carbon
AS	Semi-Automated Spectrophotometric
CA	Midi-Distillation Spectrophotometric
T	Titrimetric
C	Manual Spectrophotometric
GR	Gravimetric
NR	Analyte was not required by your lab

CASE NARRATIVE
Metals

PEL Lab Reference No./SDG: 2011168

Client: CH2M HILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

A. **Sample Preparation:** All holding times were met.

B. **Sample Analysis:** All holding times were met.

III. METHODS

EPA Method 6010B for metals extract analysis and 7470A for mercury extract analysis. Methods performed according to EPA guidelines and PEL Laboratory's Standard Operating Procedures.

IV. PREPARATION

EPA Method 1311 for TCLP extraction, 3010A for metals extracts, and 7470A for mercury extracts. All methods performed according to EPA guidelines and PEL Laboratory's Standard Operating Procedures. TCLP samples are pre-diluted by a factor of 10 due to high sodium levels.

V. ANALYSIS (12 / 06 / 00)

A. **Calibration:** All quality control criteria were met. The CCV report summary, Form 2(s), are in chronological order as they appear on the Analytical Run Log, Form 14(s).

B. **Blanks:** All calibration and preparation blank quality control criteria were met.

C. **Spikes:** All percent recovery quality control criteria were met.

D. **Duplicates:** All relative percent difference quality control criteria were met.

E. **Samples:** All sample analysis proceeded normally. TCLP samples are pre-diluted by a factor of 10 due to high sodium levels.

F. **ICP interference Check Samples:** All percent recovery quality control criteria were met.

G. **Laboratory Control Samples:** All percent recovery quality control criteria were met.

H. **Serial Dilution:** All relative percent difference quality control were met.

I. **Post Digestion Spikes:** All percent recovery quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED: _____ DATE: 12/13/00

Luis A. Levy Solo — Metals Chemist

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SDG No.: 2011168

SOW No.: _____

EPA Sample No	Lab Sample ID
017OLD36S1Q400	201116801

Were ICP interelement corrections applied?	Yes/No	Yes
Were ICP background corrections applied?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Luis A. Levy Solo

Date: 12/13/00 Title: Metals Chemist

Sample Data

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

017OLD36S1Q400

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Matrix: SOIL Lab Sample ID 201116801

Level:(low/med) LOW Date Received: 12/1/00

PercentSolids: 0

TCLP Analysis

CONCENTRATION UNITS: mg/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7440-38-2	Arsenic	0.05	U		P
7440-39-3	Barium	1.9			P
7440-43-9	Cadmium	0.01	U		P
7440-47-3	Chromium	0.02	U		P
7439-92-1	Lead	0.02	U		P
7439-97-6	Mercury	0.002	U		CV
7782-49-2	Selenium	0.05	U		P
7440-22-4	Silver	0.01	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

QC Summary

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Initial Calibration Source: OEJ101
0JF123, 0DM123

Continuing Calibration Source: 022315
018002, 020701, SC0221172, 019618, 015407

Concentration Units: mg/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R (1)	True	Found	%R (1)	Found	%R (1)	M
Arsenic	0.4	0.388	96.9	0.5	0.515	103.1	0.513	102.7	P
Barium	0.4	0.394	98.4	0.5	0.483	96.6	0.474	94.8	P
Cadmium	0.4	0.399	99.9	0.5	0.497	99.4	0.499	99.8	P
Chromium	0.4	0.405	101.2	0.5	0.494	98.8	0.499	99.8	P
Lead	0.4	0.406	101.5	0.5	0.509	101.7	0.504	100.7	P
Mercury	0.003	0.003	94.6	0.005	0.005	99.5			CV
Selenium	0.4	0.413	103.2	0.5	0.528	105.5	0.527	105.4	P
Silver	0.4	0.4	100.1	0.5	0.507	101.5	0.513	102.5	P

(1) Control Limits: Mercury 80-120; Cyanide 85-115; Other Metals 90-110

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: PEL_LABORATORIES,_INC._____ Contract: NTC_ORLANDO

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 2011168

AA CRDL Standard Source: _____

ICP CRDL Standard Source: MO85_____

Concentration Units: mg/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				0.0050	0.0040	80		
Barium				0.0010	0.0008	80		
Cadmium				0.0010	0.0009	90		
Chromium				0.0020	0.0018	90		
Lead				0.0020	0.0022	110		
Silver				0.0010	0.0010	100		
Mercury								
Selenium				0.0050	0.0056	112		

Control Limits: No limits have been established by EPA at this time

U.S. EPA - CLP

3

BLANKS

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Prepartion Blank Matrix (water/soil): WATER

Prepartion Blank Concentration Units (ug/L or mg/Kg): mg/L

Analyte	Initial Calib. Blank mg/L	C	Continuing Calibration Blank mg/L 1	C	2	C	3	C	Prepa-ration Blank	C	M
Arsenic	0.05	U	0.05	U	0.05	U			0.05	U	P
Barium	0.01	U	0.01	U	0.01	U			0.01	U	P
Cadmium	0.01	U	0.01	U	0.01	U			0.01	U	P
Chromium	0.02	U	0.02	U	0.02	U			0.02	U	P
Lead	0.02	U	0.02	U	0.02	U			0.02	U	P
Mercury	0.002	U	0.002	U					0.002	U	CV
Selenium	0.05	U	0.05	U	0.05	U			0.05	U	P
Silver	0.01	U	0.01	U	0.01	U			0.01	U	P

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

ICP ID#: ICAP ICSA Source: 020701

ICSAB Source: 020701, 0JF123

Concentration Units: mg/L

	True		Initial Found			Final Found		
Analyte	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Arsenic	0	1	-0.0015	0.973	97.3			
Barium	0	1	0.0008	0.951	95.1			
Cadmium	0	1	0	0.918	91.8			
Chromium	0	1	0.0019	0.924	92.4			
Lead	0	1	0.001	0.966	96.6			
Mercury								
Selenium	0	1	-0.0007	1.008	100.8			
Silver	0	1	-0.0001	1.051	105.1			

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

017OLD36S1Q400MS

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0

TCLP Analysis

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	4.7		0.05	U	5	94		P
Barium	75 - 125	6.3		1.9		5	88		P
Cadmium	75 - 125	4.7		0.01	U	5	95		P
Chromium	75 - 125	4.7		0.02	U	5	94		P
Lead	75 - 125	4.8		0.02	U	5	97		P
Mercury	75 - 125	0.027		0.002	U	0.03	90		CV
Selenium	75 - 125	5.1		0.05	U	5	102		P
Silver	75 - 125	4.9		0.01	U	5	98		P

Comments:

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

017OLD36S1Q400SD

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0

TCLP Analysis

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	4.8		0.05	U	5	96		P
Barium	75 - 125	6.4		1.9		5	90		P
Cadmium	75 - 125	4.9		0.01	U	5	97		P
Chromium	75 - 125	4.8		0.02	U	5	96		P
Lead	75 - 125	4.9		0.02	U	5	99		P
Mercury	75 - 125	0.028		0.002	U	0.03	92		CV
Selenium	75 - 125	5.1		0.05	U	5	103		P
Silver	75 - 125	5		0.01	U	5	99		P

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

017OLD36S1Q400PDW

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Matrix: WATER Level:(low/med) LOW

TCLP Analysis

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	4.7		0.05	U	500	98		P
Barium	75 - 125	6.2		1.9		500	86		P
Cadmium	75 - 125	4.9		0.01	U	500	97		P
Chromium	75 - 125	4.9		0.02	U	500	97		P
Lead	75 - 125	4.9		0.02	U	500	99		P
Selenium	75 - 125	5.1		0.05	U	500	104		P
Silver	75 - 125	4.9		0.01	U	500	98		P

Comments:

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

017OLD36S1Q400SD

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

TCLP Analysis

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic	20	4.7		4.8		2.1		P
Barium	20	6.3		6.4		1.6		P
Cadmium	20	4.7		4.9		4.2		P
Chromium	20	4.7		4.8		2.1		P
Lead	20	4.8		4.9		2.1		P
Mercury	20	0.027		0.028		3.6		CV
Selenium	20	5.1		5.1		0.0		P
Silver	20	4.9		5		2.0		P

Comments:

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

EPA Sample No.

12124LCS

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Solid LCS Source:

Aqueous LCS Source: PM65,44

TCLP Analysis

	Aqueous (mg/L)			Solid				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Arsenic	5	4.9	98				-	
Barium	5	4.8	95				-	
Cadmium	5	4.9	98				-	
Chromium	5	4.9	97				-	
Lead	5	5.1	102				-	
Selenium	5	5.3	106				-	
Silver	5	5	101				-	

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

EPA Sample No.

12134LCS

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Solid LCS Source:

Aqueous LCS Source: IS495

TCLP Analysis

	Aqueous (mg/L)			Solid				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Mercury	0.03	0.027	92				-	

U.S. EPA - CLP

9

ICP SERIAL DILUTIONS

EPA Sample No.

017OLD36S1Q400SDW

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Matrix: WATER Level:(low/med) LOW

TCLP Analysis

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Arsenic	0.05	U	0.25	U			P
Barium	1.9		1.8		5.3		P
Cadmium	0.01	U	0.05	U			P
Chromium	0.02	U	0.1	U			P
Lead	0.02	U	0.1	U			P
Selenium	0.05	U	0.25	U			P
Silver	0.01	U	0.5	U			P

Comments:

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: PEL_LABORATORIES,_INC._____ Contract: NTC_ORLANDO_

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 2011168

ICP ID Number: ICP_____ Date: 01/01/00_

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (mg/L)	MDL (mg/L)	M
Arsenic	189.04		0.050	0.050	P
Barium	493.41		0.010	0.010	P
Cadmium	226.50		0.010	0.010	P
Chromium	267.72		0.020	0.020	P
Lead	220.35		0.020	0.020	P
Silver	328.07		0.010	0.010	P
Mercury			0.0020		NR
Selenium	196.03		0.050	0.050	P

Comments:

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: PEL LABORATORIES, INC. Contract: NTC ORLANDO

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 2011168

ICP ID Number: _____ Date: 01/01/00

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (mg/L)	MDL (mg/L)	M
Arsenic			0.050		NR
Barium			0.010		NR
Cadmium			0.010		NR
Chromium			0.020		NR
Lead			0.020		NR
Silver			0.010		NR
Mercury	253.70		0.0020	0.0020	CV
Selenium			0.050		NR

Comments:

U.S. EPA - CLP

11A

INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No.: _____ SDG No.: 2011168

ICP ID Number : ICAP Date: 7/14/2000

Analyte	Wave-length	Interelement Correction Factors for: Al	Ca	Cr	Fe	Mg
Arsenic	189	0.00001			-0.000009	
Barium	493.4	0.000004			0.000003	
Cadmium	226.5	-0.000003			0.000155	-0.000021
Chromium	267.7				-0.000008	
Lead	220.3	-0.00053	0.000004	-0.00053	-0.000023	0.000009
Selenium	196	0.000013	0.000024	-0.00034	-0.000071	
Silver	328					

Comments:

U.S. EPA - CLP

11B

INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No.: _____ SDG No.:

ICP ID Number : ICAP Date: 7/14/2000

Analyte	Wave-length	Interelement Correction Factors for: Mn	Mo	Sb	V	
Arsenic	189		0.00056			
Barium	493.4					
Cadmium	226.5					
Chromium	267.7		-0.000233			
Lead	220.3		-0.000511		-0.00028	
Selenium	196	0.000583	0.000087		0.00033	
Silver	328	0.00014	-0.000214			

Comments:

U.S. EPA - CLP

12

ICP LINEAR RANGES

Lab Name: PEL_LABORATORIES,_INC._____ Contract: NTC_ORLANDO_

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 2011168

ICP ID Number: ICP_____ Date: 10/26/99_

Analyte	Integ. Time (sec.)	Concentration (mg/L)	M
Arsenic	15.00	25	P
Barium	15.00	5	P
Cadmium	15.00	10	P
Chromium	15.00	25	P
Lead	15.00	25	P
Silver	15.00	1	P
Mercury			NR
Selenium	15.00	20	P

Comments:

U.S. EPA - CLP

13

PREPARATION LOG

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Method : 6010_TCLP

EPA Sample No:	Preparation Date	Weight (gram)	Volume (mL)
017OLD36S1Q400	5 Dec 00		5
017OLD36S1Q400MS	5 Dec 00		5
017OLD36S1Q400SD	5 Dec 00		5
12123BLK	5 Dec 00		5
12124LCS	5 Dec 00		5

U.S. EPA - CLP

13

PREPARATION LOG

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Method : 7470_TCLP

EPA Sample No:	Preparation Date	Weight (gram)	Volume (mL)
017OLD36S1Q400	6 Dec 00		2.5
017OLD36S1Q400MS	6 Dec 00		2.5
017OLD36S1Q400SD	6 Dec 00		2.5
12133BLK	6 Dec 00		2.5
12134LCS	6 Dec 00		2.5

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: PEL Laboratories, Inc Contract: NTC Orlando

Lab Code : PEL Case No. _____ SAS No: _____ SDG No.: 2011168

Instrument ID Number : ICAP Method : 6010_TCLP

Start Date : 12/6/2000 End Date : 12/6/2000

EPA Sample No.	D/F	Time	%R	Analytes																							
				AG	AL	AS	BA	BE	CA	CD	CN	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SN	TL	VI	ZN
ZZZZZZ	1	09:11																											
ZZZZZZ	1	09:15																											
ZZZZZZ	1	09:20																											
ZZZZZZ	1	09:25																											
ICV for HBN 207897 [ICAP/1	1	09:29		X		X	X			X			X										X		X				
ICB for HBN 207897 [ICAP/1	1	09:36		X		X	X			X			X										X		X				
ZZZZZZ	1	09:41																											
ICSA for HBN 207897 [ICAP/	1	09:46		X		X	X			X			X										X		X				
ICSAB for HBN 207897 [ICA	1	09:51		X		X	X			X			X										X		X				
12123BLK	1	10:02		X		X	X			X			X										X		X				
12124LCS	1	10:07		X		X	X			X			X										X		X				
ZZZZZZ	50	10:12																											
ZZZZZZ	1	10:16																											
ZZZZZZ	1	10:21																											
ZZZZZZ	1	10:26																											
ZZZZZZ	1	10:31																											
CCV for HBN 207897 [ICAP/	1	10:36		X		X	X			X			X										X		X				
CCB for HBN 207897 [ICAP/	1	10:43		X		X	X			X			X										X		X				
ZZZZZZ	1	10:48																											
017OLD36S1Q400SDW	50	10:52		X		X	X			X			X										X		X				
017OLD36S1Q400	1	10:57		X		X	X			X			X										X		X				
017OLD36S1Q400MS	1	11:02		X		X	X			X			X										X		X				
017OLD36S1Q400SD	1	11:07		X		X	X			X			X										X		X				
017OLD36S1Q400PDW	1	11:12		X		X	X			X			X										X		X				
ZZZZZZ	1	11:17																											
CCV for HBN 207897 [ICAP/	1	11:21		X		X	X			X			X										X		X				
CCB for HBN 207897 [ICAP/	1	11:28		X		X	X			X			X										X		X				

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: PEL Laboratories, Inc. Contract: NTC Orlando

Lab Code : PEL Case No. SAS No: SDG No.: 2011168

Instrument ID Number : FIMS Method : 7470_TCLP

Start Date : 12/6/2000 End Date : 12/6/2000

EPA Sample No.	D/F	Time	%R	Analytes																							
				AG	AL	AS	BA	BE	CA	CD	CN	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SN	TL	V	ZN
ZZZZZZ	1	13:51																											
ZZZZZZ	1	13:52																											
ZZZZZZ	1	13:54																											
ZZZZZZ	1	13:55																											
ZZZZZZ	1	13:57																											
ZZZZZZ	1	13:59																											
ICV for HBN 207889 [HGAN/	1	14:01														X													
ICB for HBN 207889 [HGAN/	1	14:03														X													
ZZZZZZ	1	14:04																											
ZZZZZZ	1	14:06																											
12133BLK	1	14:07														X													
12134LCS	1	14:09														X													
017OLD36S1Q400	1	14:10														X													
017OLD36S1Q400MS	1	14:11														X													
017OLD36S1Q400SD	1	14:13														X													
ZZZZZZ	1	14:15																											
ZZZZZZ	1	14:16																											
ZZZZZZ	1	14:18																											
ZZZZZZ	1	14:19																											
CCV for HBN 207889 [HGAN	1	14:21														X													
CCB for HBN 207889 [HGAN	1	14:22														X													

Chain of Custody Documentation

CH2M HILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD 2011-168

152044-32-12.01.08

1 PROJECT NAME	5 PROJECT NUMBER:	8 LAB NAME AND CONTACT:	11 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	14 RECIPIENT 1 (Address, Tel No., and Fax No.)
NTC ORLANDO	152044, 32.12.01.08	PEL / KEVIN DURHAM	STEVE TSANGARIS / CCI	4350 W. CYPRESS ST, SUITE 600 TAMPA, FL 33607
2 PROJECT PHASE/SITE/TASK	6 CTO OR DO NUMBER.	9 LAB PO NUMBER:	12 FAX AND MAIL REPORTS/EDD TO. RECIPIENT 2 (Name and Company)	15 RECIPIENT 2 (Address, Tel No., and Fax No.)
STUDY AREA 36	• CTO 017	2172	Tom for OTTOSON / CH2M HILL	205 INDIAN RIVER DRIVE COCOA FL 32922
4 PROJECT CONTACT	7 PROJECT TEL NO AND FAX NO:	10 LAB TEL NO AND FAX NO	13 FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	16 RECIPIENT 3 (Address, Tel No., and Fax No.)
STEVE TSANGARIS	813 874-0777 813 874-3056	(813) 247-2805		

25 ANALYSES REQUIRED (Include Method Numbers)

17 ID NO	18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	FULL TCLP SCAN	VOC 8260									26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCRLENING READINGS	28 LAB ID (for lab's use)
1	STUD 36-S1-Q4-00	COMPOSITE IDW SOIL SAMPLE	S	11-30-00	1430	III	7	3 jars 3-EOZ										Field Composite		(01)
2	STUD-36-TB2-Q4-00	VOC TRIP BLANK	WQ	—	—	↓	↓	~~2 40-mL~~	2 40-mL									QC	*	(02)
3																				
4																				
5																				
6																				
7																				
8																		Temp Upon Rec't 4c		
9																		Due 12/08/00		
10																				

29 SAMPLERS SIGNATURE AND COMPANY (please print)	30 COURIER AND SHIPPING NUMBER	31 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for Lab use)
FJ Ferreira / CH2M HILL	FEDEX 8215 7530 6237	

32 RELINQUISHED BY	DATE	TIME	33 RECEIVED BY	DATE	TIME
Printed Name and Signature: FJ Ferreira / F. J. Ferreira	11/30/00	1700	Printed Name and Signature: [signature]	12/01/00	10:00
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CC1001 Rev 00

Client CH2M: Hill Date Received: 12/01/00 Workorder #: 2011-168

(1) How were samples received? PEL Client Amer Other Courier

(2) Are samples/cooler secure? Yes ✓ No ____

(3) Are the samples on ice? Yes ✓ No ____

(4) Temperature of the samples? 4 C (Actual)

(5) Are all samples on CoC present? Yes ✓ No ____

(6). Are all samples intact? Yes ✓ No ____

(7). Is sample volume sufficient? Yes ✓ No ____

(8). Are samples within hold? Yes ✓ No ____

(9). Are all samples to be run? Yes ✓ No ____

(10). pH verified by ____

(11). Are sample containers correct? Yes ✓ No ____

(12). Soil origin? Domestic ✓ Foreign ____

(13). Is the site location/project ID on the CoC? Yes ✓ No ____

(14). Is the Client's Project Number on the CoC? Yes ✓ No ____

(15). Is the Project Manager identified on the CoC? Yes ✓ No ____

(16). Is the CoC signed and dated as relinquished by client? Yes ✓ No ____

(17). Is the CoC signed and dated as received by PEL? Yes ✓ No ____

(18). Are the sampler's initials on the CoC? Yes ✓ No ____

(19). Is the time and date of sampling on the CoC? Yes ✓ No ____

(20) Turn around time requested? Standard ✓ Rush ____

(21) Does the client want verbal results? Yes ____ No ✓

(22) Does the client want results faxed? Yes ____ No ✓

(23) Date and time results are due to the client 12/11/00 10:00

(24) Is PEL conducting all analysis? Yes ✓ No ____

(25) If No indicate subcontract lab ____

(26) How are sample transported to subcontract lab? ____

(27) Analytical parameters subcontracted are due date? ____

(28) Does the customer/site require a specific outside lab? Yes ____ No ____

PEL Lab 1001 2011 - 168 CH2M Hill

Sample ID	Parameters	Relin	Rec'd	Date	Time
01	Dry weight	[illegible]	[illegible]	12/1/00	3:40
01	Dry weight	[illegible]	[illegible]	12/1/00	4:10
2	8260 w	[illegible]	KM	12/1/00	1545
2	8260 w	[illegible]	[illegible]	12/1/00	1910
2	8260W	[illegible]	[illegible]	12/1/00	1910
2	8260W	[illegible]	[illegible]	12/2/00	1830
1	FullTCLP	[illegible]	[illegible]	12-4-00	8:35
1	FullTCLP	[illegible]	[illegible]	12-4-00	5:05
1	METALS	[illegible]	[illegible]	12-5-00	2:00 Pm
1	METALS	[illegible]	[illegible]	12-5-00	4:00 Pm

Addendum

Sample Acknowledgement

Customer Name:	CH2MHILL
Date & Time Received:	12-1-00; 12:00
Date to be Reported:	12-2-00
Laboratory Submission Number/SDG:	2011168
Project:	NTC Orlando

Samples: The submission consisted of 2 samples with sample identification shown in the attached data tables.

Tests: The samples will be analyzed for EPA methods:
8260, 8260 TCLP, 6010 TCLP, 7471 TCLP, 8270 TCLP, 8081 TCLP, 8151 TCLP.

Sample Custody/COC discrepancies:
En Cores were received with sample 201116801, but no test was requested. PEL has preserved sample just in case.

Notes: 7 Day TAT for preliminary results. Per the P.C. PEL will run SW-846 8260 list on sample #201116802. Due to PEL's database limitations the dashes have been taken out of the sample ID's (see Login report).

Distribution of Report to:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Jeff Wilmoth
Phone: 770-604-9182

Respectfully Submitted,

PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Total of: 7 analyses on 2 samples (including QC) *04-Dec-00*

Report/SDG #: 2011168

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
017OLD36S1Q4	201116801	Compsite IDW	S	11/30/00 2:30:00 PM	12/1/00 10:00:00 AM

Method		
6010_TCLP	TCLP Metals by 1311/6010	6010
7471_TCLP	7470 TCLP Mercury	7470
8081_TCLP	Pestcides TCLP	8081
8151_TCLP	Herbicides TCLP	8151
8260_TCLP	Volatiles in Soil by 1311/8260	8260
8270_TCLP	TCLP Semivolatiles by 8270	8270

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
017OLD36TB2Q	201116802	VOC Trip Blank	WQ	12/1/00 10:00:00 AM	12/1/00 10:00:00 AM

Method		
8260	Volatile Organic Compounds	8260

PEL Laboratories, Inc.

FAX MESSAGE

4420 Pendola Point Road
Tampa, Florida 33619
Phone: (813) 247-2805
Fax: (813) 248-1537

Date: 12-8-00

To: JEFF WILMOTH / STEVE TSAGARIS

Company: CH2

Number: 770 604 9282 / 874 3256

From: Jorge

This transmittal consists of 4 **page(s), exclusive of the cover sheet.**

Notes:

Due to form generation problems
we were not able to print metals
All metals were N.D. Clean.
Thanks

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

017OLD36S1Q400

Lab Name: PEL LABORATORIES INC. Contract:

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Matrix: (soil/water) WATER Lab Sample ID: 201116801

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: 16801

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/01/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/06/00

Concentrated Extract Volume: 10(ml) Date Analyzed: 12/08/00

Injection Volume: _____(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

GC Column: XTI-5 ID: 0.53 (mm)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	0.140	U
93-72-1	2,4,5-TP	0.120	U

SP 12/8/00
JW 12/8/00
UK 12/8/00

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

201102802

Lab Name: PEL LABORATORIES INC. Contract:

Lab Code: PEL Case No.: SAS No.: SDG No.: SDGA01435

Matrix: (soil/water) SOIL Lab Sample ID: 201102802

Sample wt/vol: 33.1 (g/mL) G Lab File ID: 2802

% Moisture: 0 decanted: (Y/N) N Date Received: 12/02/00

Extraction: (SepF/Cont/Sonc) OTHER Date Extracted:

Concentrated Extract Volume: 10(ml) Date Analyzed: 11/20/00

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

GC Column: XTI-5 ID: 0.53 (mm)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	heptachlor	1.7	U
309-00-2	aldrin	1.7	U
1024-57-3	heptachlor epoxide	1.7	U
959-98-8	endosulfan I	1.7	U
60-57-1	dieldrin	1.7	U
72-55-9	4,4'-DDE	1.7	U
72-20-8	endrin	1.7	U
33213-65-9	endosulfan II	1.7	U
72-54-8	4,4'-DDD	1.7	U
1031-07-8	endosulfan sulfate	1.7	U
50-29-3	4,4'-DDT	1.7	U
72-43-5	methoxychlor	1.7	U
7421-93-4	endrin aldehyde	1.7	U
57-74-9	Chlordane-Total	30.2	U
8001-35-2	Toxaphene-Total	60.4	U

sp 12/8/00
WK 12/8/00

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

201102803

Lab Name: PEL LABORATORIES INC. Contract:

Lab Code: PEL Case No.: SAS No.: SDG No.: E2111800

Matrix: (soil/water) SOIL Lab Sample ID: 201102803

Sample wt/vol: 33.3 (g/mL) G Lab File ID: 2803

% Moisture: 0 decanted: (Y/N) N Date Received: 12/02/00

Extraction: (SepF/Cont/Sonc) OTHER Date Extracted:

Concentrated Extract Volume: 10(ml) Date Analyzed: 11/20/00

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

GC Column: XTI-5 ID: 0.53 (mm)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.6	U
319-85-7	beta-BHC	1.6	U
319-86-8	delta-BHC	1.6	U
58-89-9	gamma-BHC (Lindane)	1.6	U
76-44-8	heptachlor	1.6	U
309-00-2	aldrin	1.6	U
1024-57-3	heptachlor epoxide	1.6	U
959-98-8	endosulfan I	1.6	U
60-57-1	dieldrin	1.6	U
72-55-9	4,4'-DDE	1.6	U
72-20-8	endrin	1.6	U
33213-65-9	endosulfan II	1.6	U
72-54-8	4,4'-DDD	1.6	U
1031-07-8	endosulfan sulfate	1.6	U
50-29-3	4,4'-DDT	1.6	U
72-43-5	methoxychlor	1.6	U
7421-93-4	endrin aldehyde	1.6	U
57-74-9	Chlordane-Total	30.0	U
8001-35-2	Toxaphene-Total	60.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

017OLD36S1Q400

Lab Name: PEL LABORATORIES INC. Contract: NTC ORLANDO

Lab Code: PEL Case No.: SAS No.: SDG No.: 2011168

Matrix: (soil/water) AIR Lab Sample ID: 201116801

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 16801 KM

Level: (low/med) HIGH Date Received: 12/01/00

% Moisture: not dec. _____ Date Analyzed: 12/06/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 10.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/L	Q
75-01-4	Vinyl Chloride	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethylene	1.0	U
127-18-4	Tetrachloroethylene	1.0	U
108-90-7	Chlorobenzene	1.0	U

PEL Laboratories, Inc.

4420 Pendola Point Road
Tampa, FL 33619

Remit To:
P. O. Box 550818
Tampa, FL 33655-0818

Phone: 813-247-2805
Fax: 813-248-1537

COPY

Invoice

DATE	INVOICE #
11/30/2000	2011168

BILL TO
CH2M Hill / Tampa attn: Steve Tsangaris 4350 W. Cypress St. Suite 600 Tampa, FL 33607

CCI NAVY RAC PMO
DEC 20 2000

TERMS	P.O. NO.	PROJECT ID
Net 30	2172	152044.32.12.01.08

DESCRIPTION	QTY	RATE	AMOUNT
NTC ORLANDO CTO 017			
Full TCLP	1	1,045.00	1,045.00
EPA 8260 Volatile Organics Water	1	120.00	120.00
Sales Tax		6.75%	0.00
		Total	**$1,165.00**

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 26383
Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

The following items were noted concerning this project:

1. The following samples were received at Accura Analytical Laboratory on 12/05/00 at 0910.

Client I.D.	Laboratory I.D.
017-OLD-36-06A-Q4-00	AC04412
017-OLD-36-08B-Q4-00	AC04413
017-OLD-36-29B-Q4-00	AC04414
017-OLD-36-10B-Q4-00	AC04417
017-OLD-36-TB3-Q4-00	AC04418

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

3. The pH for the samples for the VOC analysis was noted at <2.0 prior to analysis.

4. The J values noted for the Metal-Sodium, FLA-PRO, and VOC analyses indicate estimated values where the compounds are present at concentrations that are less than the quantitation limits, but above the method detection limits.

5. The following analyses were performed by subcontract laboratories:

Bromide/Chloride by IC – EPA 300.0	Methane, Ethane, Ethene – RSK-175M
Nitrate-Nitrite Nitrogen – EPA 353.2	TOC – EPA 9060

6. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits:

   VOC – SW-846-8260B
   017-OLD-36-08B-Q4-00 - (Trichloroethene)
   017-OLD-36-29B-Q4-00 - (Trichloroethene)

CO NAVY B
JAN 3 0 2001

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

7. The following surrogates were outside the method specified limits :

FL-PRO

Nonatriacontane (C39) -	017-OLD-36-06A-Q4-00
	017-OLD-36-29B-Q4-00
	017-OLD-36-10B-Q4-00
	Method Blank
	Laboratory Control Sample
	Matrix Spike
	Matrix Spike Duplicate
o-Terphenyl -	017-OLD-36-10B-Q4-00
	Matrix Spike
	Matrix Spike Duplicate

All recoveries were within established in-house limits; therefore the data was accepted.

8. The Laboratory Control Sample recovery was outside the project specified limit, but within established in-house limits for the following analysis:

FL-PRO

The results for this analysis should be considered estimated.

9. The following spike recovery was outside the subcontract laboratory's historical limit:

Chloride by IC – EPA – 300.0
MSD - Chloride

10. The following sample was analyzed 2 days outside the EPA recommended holding time:

TDS – EPA – 160.1
017-OLD-36-29B-QA-00

The result for this sample should be considered estimated.

11. Project Specified QC is reported for all analyses.

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04412 **Accura Project #: 26383**

Client: CH2M HILL - CCI Date Sampled: 12/04/2000

Client Contact: S. TSANGARIS Date Received: 12/05/2000

Client Project Number: 152044.32.12.01.08 Date Reported: 12/21/2000

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-06A-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	1.5	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	4.20	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/08/2000 Date Analyzed: 12/12/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	4.1	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/06/2000 Date Analyzed: 12/06/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	0.330	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	<RDL	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/08/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	110	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 12/09/2000 Date Analyzed: 12/09/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	10.7	1.00

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/L

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

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5 5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	14	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	31	
o-Terphenyl (Range 82-142)	82	

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	83	
4-Bromofluorobenzene (86-112)	96	
Toluene-d8 (80-120)	96	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04413 **Accura Project #: 26383**

Client: CH2M HILL - CCI Date Sampled: 12/04/2000

Client Contact: S. TSANGARIS Date Received: 12/05/2000

Client Project Number: 152044.32.12.01.08 Date Reported: 12/21/2000

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	24	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	7.00	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/08/2000 Date Analyzed: 12/12/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	7.8	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	0.090	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/06/2000 Date Analyzed: 12/06/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	<RDL	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/08/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	100	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 12/09/2000 Date Analyzed: 12/09/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	3.55	1.00

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/L

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

Naphthalene	<RDL	2
p-Isopropyltoluene	0.80J	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	97	50
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	49	
o-Terphenyl (Range 82-142)	91	

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	85	
4-Bromofluorobenzene (86-112)	98	
Toluene-d8 (80-120)	95	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04414 **Accura Project #: 26383**

Client: CH2M HILL - CCI Date Sampled: 12/04/2000

Client Contact: S. TSANGARIS Date Received: 12/05/2000

Client Project Number: 152044.32.12.01.08 Date Reported: 12/21/2000

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-29B-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/13/2000 Date Analyzed: 12/13/2000 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	27	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	5.00
Chloride by IC	14.0	5.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/08/2000 Date Analyzed: 12/12/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	12	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/06/2000 Date Analyzed: 12/06/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	<RDL	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160 1

Date Ext/Dig/Prep: 12/13/2000 Date Analyzed: 12/14/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	180	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 12/09/2000 Date Analyzed: 12/09/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	5.18	1.00

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RDL	2.5
1,1,1-Trichloroethane	<RDL	4
1,1,2,2-Tetrachloroethane	<RDL	2
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	2
1,1-Dichloroethene	<RDL	6
1,2,3-Trichlorobenzene	<RDL	1.5
1,2,3-Trichloropropane	<RDL	16
1,2,4-Trichlorobenzene	<RDL	2
1,2,4-Trimethylbenzene	<RDL	6.5
1,2-Dibromo-3-chloropropane	<RDL	13
1,2-Dichlorobenzene	<RDL	1.5
1,2-Dichloroethane	<RDL	3
1,2-Dichloropropane	<RDL	2
1,2-Ethylene Dibromide	<RDL	3
1,3,5-Trimethylbenzene	<RDL	2.5
1,3-Dichlorobenzene	<RDL	6
1,3-Dichloropropane	<RDL	2
1,4-Dichlorobenzene	<RDL	1.5
2,2-Dichloropropane	<RDL	17.5
2-Chlorotoluene	<RDL	2
4-Chlorotoluene	<RDL	3
Benzene	<RDL	2
Bromobenzene	<RDL	1.5
Bromochloromethane	<RDL	2
Bromodichloromethane	<RDL	4
Bromoform	<RDL	6
Bromomethane	<RDL	5.5
Carbon tetrachloride	<RDL	10.5
Chlorobenzene	<RDL	2
Chloroethane	<RDL	5
Chloroform	<RDL	1.5
Chloromethane	<RDL	6.5
cis-1,2-Dichloroethene	1.9J	6
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	<RDL	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	190	50
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/20/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	32	
o-Terphenyl (Range 82-142)	82	

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

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/12/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	90	
4-Bromofluorobenzene (86-112)	98	
Toluene-d8 (80-120)	92	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04417 **Accura Project #: 26383**

Client: CH2M HILL - CCI Date Sampled: 12/04/2000

Client Contact: S. TSANGARIS Date Received: 12/05/2000

Client Project Number: 152044.32.12.01.08 Date Reported: 12/21/2000

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-10B-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	25	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/07/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	6.40	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/08/2000 Date Analyzed: 12/12/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	6.6	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/06/2000 Date Analyzed: 12/06/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	<RDL	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/07/2000 Date Analyzed: 12/08/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	130	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 12/09/2000 Date Analyzed: 12/09/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	15.7	1.00

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RDL	2.5
1,1,1-Trichloroethane	<RDL	4
1,1,2,2-Tetrachloroethane	<RDL	2
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	2
1,1-Dichloroethene	<RDL	6
1,2,3-Trichlorobenzene	<RDL	1.5
1,2,3-Trichloropropane	<RDL	16
1,2,4-Trichlorobenzene	<RDL	2
1,2,4-Trimethylbenzene	<RDL	6.5
1,2-Dibromo-3-chloropropane	<RDL	13
1,2-Dichlorobenzene	<RDL	1.5
1,2-Dichloroethane	<RDL	3
1,2-Dichloropropane	<RDL	2
1,2-Ethylene Dibromide	<RDL	3
1,3,5-Trimethylbenzene	<RDL	2.5
1,3-Dichlorobenzene	<RDL	6
1,3-Dichloropropane	<RDL	2
1,4-Dichlorobenzene	<RDL	1.5
2,2-Dichloropropane	<RDL	17.5
2-Chlorotoluene	<RDL	2
4-Chlorotoluene	<RDL	3
Benzene	<RDL	2
Bromobenzene	<RDL	1.5
Bromochloromethane	<RDL	2
Bromodichloromethane	<RDL	4
Bromoform	<RDL	6
Bromomethane	<RDL	5.5
Carbon tetrachloride	<RDL	10.5
Chlorobenzene	<RDL	2
Chloroethane	<RDL	5
Chloroform	<RDL	1.5
Chloromethane	<RDL	6.5
cis-1,2-Dichloroethene	2.3J	6
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	<RDL	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	1.7J	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	4.5J	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/2000 Date Analyzed: 12/20/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	18	
o-Terphenyl (Range 82-142)	79	

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	90	
4-Bromofluorobenzene (86-112)	98	
Toluene-d8 (80-120)	96	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04418 **Accura Project #: 26383**

Client: CH2M HILL - CCI Date Sampled: 12/04/2000

Client Contact: S. TSANGARIS Date Received: 12/05/2000

Client Project Number: 152044.32.12.01.08 Date Reported: 12/21/2000

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB3-Q4-00

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/L

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

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

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	88	
4-Bromofluorobenzene (86-112)	94	
Toluene-d8 (80-120)	93	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04419 **Accura Project #: 26383**

Client: CH2M HILL - CCI Date Sampled: 12/5/00

Client Contact: S. TSANGARIS Date Received: 12/5/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/24/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	<RDL	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	<RDL	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/12/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	0.063J	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/12/00 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/6/00 Date Analyzed: 12/6/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/17/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	0.38J	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	<RDL	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 12/09/2000 Date Analyzed: 12/09/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	<RDL	1.00

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

Date Ext/Dig/Prep: 12/12/2000 Date Analyzed: 12/12/2000 Result Units: ug/L

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

Client Sample ID: METHOD BLANK AALSample ID #: AC04419 Accura Project #: 26383

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	<RDL	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/17/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	4	
o-Terphenyl (Range 82-142)	92	

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

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/12/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	84	
4-Bromofluorobenzene (85-111)	99	
Toluene-d8 (84-108)	95	

Accura Analytical Laboratory, Inc.

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

ABL/2°C AAL# 26383

[1] COC NUMBER: 152044-36-006

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO · RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No , and Fax No):
NTC ORLANDO	152044.32.12.01.08	Accutra Labs / Bonnie Hoque	STEVE TSANGARIS / CCI	4350 W. CYPRESS ST. TAMPA FL 33607
[3] PROJECT PHASE/SITE/TASK·	[6] CTO OR DO NUMBER	[9] LAB PO NUMBER·	[12] FAX AND MAIL REPORTS/EDD TO · RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No , and Fax No)
STUDY AREA 36	CTO 017	2101	Jennifer OTTOSON / CH2M HILL	205 Indian River Drive Cocoa FL 32922
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO	[10] LAB TEL NO AND FAX NO·	[13] FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No , and Fax No).
STEVE TSANGARIS	813 874-0777 813 884 3056 (FAX)	770 449-8800		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260	MEE AM19GA or ASTM 1945	Nitrite/Nitrate 300.1	Chloride/Bromide 300.1	TOC 9060	ALK / TDS 310.1 160.1	Sodium	FL-PRO			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
								40 mL	40 mL	500 ml	500 ml	500 ml	500 ml	500 mL	30oz.					
1	017-OLD-36-06A-Q4-00	GW Sample @ well 06A	GW	12.4.00	0830	III	14	3	3	1	1	1	1	1	2			Field Grab		A04412
2	017-OLD-36-08B-Q4-00	" " " " 08B			1030															04413
3	017-OLD-36-29B-Q4-00	" " " " 29B			1345															04414
4	017-OLD-36-08BMS-Q4-00	" " " " 08B			1030													Field Grab QC	Rpt 12/8/00	04413 ~~04415~~
5	017-OLD-36-08BMSD-Q4-00	" " " " 08B			1030															04413 ~~04416~~
6	017-OLD-36-10B-Q4-00	" " " " 10B			1500													Field Grab		04417
7	017-OLD-36-TB3-Q4-00	TRIP BLANK #3	WQ	—	—			2 40 mL										QC		04418
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
FJ Ferreira / G S Bonds / T P Plumlee	Fedex - 825060778659	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: FJ Ferreira	12.4.00	1700	Printed Name and Signature: FED EX		
Printed Name and Signature: FED EX	12-5-00	0910	Printed Name and Signature: Arnold B Light	12-5-00	0910
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #26383

		Project Control Rec				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	87	92			60-140	20-150	5%		<30	<50	94		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	97	94			60-140	20-150	3%		<30	<50	96		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	91	98			60-140	20-150	6%		<30	<50	96		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	92	96			60-140	20-150	4%		<30	<50	96		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	94	95			60-140	20-150	1%		<30	<50	95		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	94	94			60-140	20-150	1%		<30	<50	96		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	77	88			60-140	20-150	14%		<30	<50	85		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	88	97			60-140	20-150	10%		<30	<50	86		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	86	91			60-140	20-150	5%		<30	<50	88		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	94	94			60-140	20-150	0%		<30	<50	100		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	91	94			60-140	20-150	3%		<30	<50	93		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	92	94			60-140	20-150	2%		<30	<50	94		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	89	99			60-140	20-150	10%		<30	<50	36		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	93	92			60-140	20-150	1%		<30	<50	91		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	91	87			60-140	20-150	4%		<30	<50	89		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	97	98			60-140	20-150	2%		<30	<50	103		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	91	93			60-140	20-150	2%		<30	<50	96		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	90	90			60-140	20-150	0%		<30	<50	91		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	91	92			60-140	20-150	1%		<30	<50	93		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	99	93			60-140	20-150	6%		<30	<50	99		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	97	101			60-140	20-150	4%		<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	96	97			60-140	20-150	1%		<30	<50	98		64-135	64-135			<50	<75
8260B	Benzene	96	94			60-140	20-150	2%		<30	<50	94		65-135	65-135			<50	<75
8260B	Bromobenzene	91	95			60-140	20-150	5%		<30	<50	95		65-135	65-135			<50	<75
8260B	Bromochloromethane	89	91			60-140	20-150	2%		<30	<50	88		63-135	63-135			<50	<75
8260B	Bromodichloromethane	91	93			60-140	20-150	2%		<30	<50	90		65-135	65-135			<50	<75
8260B	Bromoform	83	88			60-140	20-150	5%		<30	<50	86		65-135	65-135			<50	<75
8260B	Bromomethane	93	95			60-140	20-150	2%		<30	<50	104		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	95	94			60-140	20-150	1%		<30	<50	95		52-135	52-135			<50	<75
8260B	Chlorobenzene	94	92			60-140	20-150	2%		<30	<50	97		65-135	65-135			<50	<75
8260B	Chloroethane	100	96			60-140	20-150	4%		<30	<50	102		55-135	55-135			<50	<75
8260B	Chloroform	95	94			60-140	20-150	1%		<30	<50	94		64-135	64-135			<50	<75
8260B	Chloromethane	96	94			60-140	20-150	2%		<30	<50	97		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	92	91			60-140	20-150	0%		<30	<50	90		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	89	92			60-140	20-150	4%		<30	<50	86		64-135	64-135			<50	<75
8260B	Dibromochloromethane	90	89			60-140	20-150	1%		<30	<50	92		63-135	63-135			<50	<75
8260B	Dibromomethane	91	94			60-140	20-150	2%		<30	<50	90		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	88	89			60-140	20-150	1%		<30	<50	92		65-135	65-135			<50	<75
8260B	Ethylbenzene	95	95			60-140	20-150	0%		<30	<50	101		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	101	101			60-140	20-150	0%		<30	<50	105		65-135	65-135			<50	<75
8260B	Isopropylbenzene	96	100			60-140	20-150	4%		<30	<50	103		65-135	65-135			<50	<75
8260B	total-Xylene	92	92			60-140	20-150	0%		<30	<50	96		65-135	65-135			<50	<75
8260B	Methylene Chloride	102	106			60-140	20-150	4%		<30	<50	116		65-135	65-135			<50	<75
8260B	n-Butylbenzene	98	100			60-140	20-150	2%		<30	<50	103		65-135	65-135			<50	<75
8260B	n-Propylbenzene	97	99			60-140	20-150	1%		<30	<50	106		65-135	65-135			<50	<75
8260B	Naphthalene	80	95			60-140	20-150	16%		<30	<50	83		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	97	96			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	97	97			60-140	20-150	1%		<30	<50	104		65-135	65-135			<50	<75

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

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #26383

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
8260B	Styrene	92	92			60-140	20-150	0%		<30	<50	95		65-135	65-135			<50	<75
8260B	Trichloroethylene	101	98			60-140	20-150	3%		<30	<50	96		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	97	95			60-140	20-150	2%		<30	<50	100		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	95	91			60-140	20-150	3%		<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	95	95			60-140	20-150	0%		<30	<50	100		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	92	93			60-140	20-150	1%		<30	<50	91		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	91	89			60-140	20-150	3%		<30	<50	91		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	94	93			60-140	20-150	0%		<30	<50	98		57-135	57-135			<50	<75
8260B	Vinyl Chloride	95	94			60-140	20-150	0%		<30	<50	97		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	99	98			75-125	65-135	1%		NA	NA	101		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	107			75-125	65-135	8%		NA	NA	101		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	94	99			62-139	52-149	5%		NA	NA	91		NA	NA			NA	NA
	METALS BY ICP					%	%			%	%			%	%			%	%
6010B	Sodium	69	105			50-150	30-170	41%	#DIV/0!	<30	<50	99		79-115	79-115			<50	<75
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH	52	50			50-150	30-170	4%	#DIV/0!	<30	<50	55		75-125	70-130			<50	<75
	WET CHEMISTRY					%	%			%				%	%			%	%
310 1	ALKALINITY	94	95			70-130	NA	1%		<30	NA	94		70-130	NA			<30	NA

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

NS = Not Specified
NA = Not Applicable

Accura Analytical Laboratory, Inc.
Environmental Analytical Services

Administrative Procedure

Quality Notice From

Document No.: **05-QS-0001.F**
Revision/Date: No. 00, Effective: 08/20/97
Page No.: 1 of 1

QUALITY NOTICE FORM

Quality Notice Number _____

Department DRO

Project 26383

Response Assigned To BJH Due Date ASAP

Reported By MT Date 1-24-01

Quality Notice Category [X] Observation [ ] Concern [ ] Deficiency

Activity _____

Procedure/Program/Document Reference _____

Requirements:

Client LCS recovery ranges = 75-125

Conditions Observed:

LCS recovery range = 55

To be filled out by audited organization/department.
Department(s) response:

report as estimated

Response Submitted by: C.L. Date 1/24/01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

FAX COC TO NORCROSS

SUBCONTRACTED TO: **TEST AMERICA, INC.**

218253

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC **(Acct# 2656)**

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: Ms. Bonnie Hogue

Contact Phone # (770) 449 - 8800, ext. 233

Fax Number: (770) 449 - 5477

AAL PROJECT #: 26383

Quote Number: 101200102199

For Laboratory Use Only

Custody Seal: Y N

Page ____ OF ____

QC Level: N 1 2 3 4

Init/Temp: ____

Entered into LIMS: ____

LAB Project # ____

Sample Condition: ____

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	TAC (9060)	Bromide (300.0)	Chloride (300.0)	NO3 - NO2 (300/352)						Remarks	LAB #
AC 04412	12/4/00 0830		X	W		Well 06A	3	X	X	X	X							173784
AC 04413	12/4/00 1030		X	W		Well 08B	9	X	X	X	X						(04415) MS / (04416) MSD	173785
AC 04414	12/4/00 1345		X	W		Well 029B	3	X	X	X	X							173786
AC 04417	12/4/00 1500		X	W		Well 10B	3	X	X	X	X							173787
AC																		
AC																		
AC																		
AC																		
AC																		
AC																		

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
[signature]	12/05/00 1605	[signature]	12/5/00 16:05	**PLEASE FAX RESULTS!!**
Relinquished By:	Date / Time	Received By:	Date / Time	Turnaround Time Requested:
[signature]	12/5/00 16:06	[signature]	12.6.00 [illegible]	

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

TESTAMERICA,INC.-NASHVILLE

COOLER RECEIPT FORM

Client: Accura Analytical BC# 218253

Cooler Received On: 12-6-00 And Opened On: 12-6-00 By: Craig Cothron

(Signature)

1. Temperature of Cooler when opened 3.0 Degrees Celsius
2. Were custody seals on outside of cooler?.....NO
   a. If yes, how many, what kind and where:_____
3. Were custody seals on containers and intact?.....NO
4. Were the seals intact, signed, and dated correctly?.....N/A
5. Were custody papers inside cooler?.....YES
6. Were custody papers properly filled out (ink,signed,etc)?.....YES
7. Did you sign the custody papers in the appropriate place?.....YES
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)?.....YES
10. Did all bottles arrive in good condition(unbroken)?.....YES
11. Were all bottle labels complete (#,date,signed,pres,etc)?.....YES
12. Did all bottle labels and tags agree with custody papers?.....YES
13. Were correct bottles used for the analysis requested?.....YES
14. a. Were VOA vials received?.....YES
    b. Was there any observable head space present in any VOA vial?.....NO
15. Was sufficient amount of sample sent in each bottle?.....YES
16. Were correct preservatives used?.....YES
17. Was residual chlorine present?.....NO
18. Corrective action taken, if necessary:

    See attached for resolution

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26383
Project Name:
Sampler:

Lab Number: 00-A173784
Sample ID: AC04412
Sample Type: Ground water
Site ID:

Date Collected: 12/ 4/00
Time Collected: 8:30
Date Received: 12/ 6/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	0.330	mg/l	0.100	0.100	1	12/ 6/00	22:46	A.Bamarni	353.2	503
Total Organic Carbon	10.7	mg/l	1.00	1.00	1	12/ 9/00	18:22	K. McLain	9060	9149
Chloride	4.20	mg/l	1.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308
Bromide	ND	mg/l	1.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: J Mitchell Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26383
Project Name:
Sampler:

Lab Number: 00-A173785
Sample ID: AC04413
Sample Type: Ground water
Site ID:

Date Collected: 12/ 4/00
Time Collected: 10:30
Date Received: 12/ 6/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 6/00	22:42	A.Bamarni	353.2	503
Total Organic Carbon	3.55	mg/l	1.00	1.00	1	12/ 9/00	18:22	K. McLain	9060	9149
Chloride	7.00	mg/l	1.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308
Bromide	ND	mg/l	1.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26383
Project Name:
Sampler:

Lab Number: 00-A173786
Sample ID: AC04414
Sample Type: Ground water
Site ID:

Date Collected: 12/ 4/00
Time Collected: 13:45
Date Received: 12/ 6/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 6/00	22:40	A.Bamarni	353.2	503
Total Organic Carbon	5.18	mg/l	1.00	1.00	1	12/ 9/00	18:22	K. McLain	9060	9149
Chloride	14.0	mg/l	5.00	1.00	5	12/ 7/00	17:54	A Hardison	300	1308
Bromide	ND	mg/l	5.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: J Mitchell Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26383
Project Name:
Sampler:

Lab Number: 00-A173787
Sample ID: AC04417
Sample Type: Ground water
Site ID:

Date Collected: 12/ 4/00
Time Collected: 15:00
Date Received: 12/ 6/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 6/00	22:48	A.Bamarni	353.2	503
Total Organic Carbon	15.7	mg/l	1.00	1.00	1	12/ 9/00	18:22	K. McLain	9060	9149
Chloride	6.40	mg/l	1.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308
Bromide	ND	mg/l	1.00	1.00	1	12/ 7/00	17:54	A Hardison	300	1308

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
Total Organic Carbon	mg/l	3.55	23.2	20.0	98	80. - 120.	9149	00-A173785
Chloride	mg/l	7.00	9.60	3.00	87#	90. - 110.	1308	00-A173785
Bromide	mg/l	< 1.00	9.80	10.0	98	90. - 110.	1308	00-A173785
Nitrate/Nitrite-N as N	mg/l	< 0.100	8.21	7.50	109	80 - 120	503	00-A173785
Nitrate/Nitrite-N as N	mg/l	< 0.100	8.20	7.50	109	80 - 120	503	00-A173785

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Total Organic Carbon	mg/l	23.2	23.2	0.00	20.	9149
Chloride	mg/l	9.60	9.80	2.06	20.	1308
Bromide	mg/l	9.80	9.80	0.00	20.	1308
Nitrate/Nitrite-N as N	mg/l	8.21	8.20	0.12	20	503

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Nitrate/Nitrite-N as N	mg/l	5.50	5.30	96	90 - 110	503
Total Organic Carbon	mg/l	200.	197.	98	90 - 110	9149
Chloride	mg/l	30.0	29.6	99	90 - 110	1308
Bromide	mg/l	100.	100.	100	95 - 105	1308

Blank Data

Analyte	Blank Value	Units	Q.C. Batch
Nitrate/Nitrite-N as N	< 0.100	mg/l	503
Total Organic Carbon	< 1.00	mg/l	9149
Chloride	< 1.00	mg/l	1308
Bromide	< 1.00	mg/l	1308

- Value outside Laboratory historical QC limits.

End of Report for Project 218253

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0012128

Work Order Summary

CLIENT:	Ms. Bonnie Hogue Accura Analytical Laboratory 6017 Financial Drive Norcross, GA 30071	**BILL TO:**	Ms. Kavitha Avva Accura Analytical Laboratory 6017 Financial Drive Norcross, GA 30071
PHONE:	770-449-8800	**P.O. #**	
FAX:		**PROJECT #**	26326, 26367,26383
DATE RECEIVED:	12/7/00		
DATE COMPLETED:	12/14/00		

FRACTION #	NAME	TEST
01A	AC03938	Mod. RSK-175
01AA	AC03938 Duplicate	Mod. RSK-175
02A	AC04276	Mod. RSK-175
03A	AC04277	Mod. RSK-175
04A	AC04278	Mod. RSK-175
05A	AC04279	Mod. RSK-175
06A	AC04480	Mod. RSK-175
07A	AC04412	Mod. RSK-175
08A	AC04413	Mod. RSK-175
08AMS	AC04413 MS	Mod. RSK-175
08AMSD	AC04413 MSD	Mod. RSK-175
09A	AC04414	Mod. RSK-175
10A	AC04417	Mod. RSK-175
11A	Method Spike	Mod. RSK-175
12A	Lab Blank	Mod. RSK-175

CERTIFIED BY: _____ Laboratory Director

DATE: 12/20/00

Certfication numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217, AZ ELAP - AZ0567

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified RSK 175
Accura Analytical Laboratory
Workorder# 0012128

Ten VOA Vial-40 mL samples were received on December 07, 2000. The laboratory performed analysis via Modified RSK 175 for Methane, Ethane and Ethene using GC/FID. The method involves placing an aliquot of the sample in a headspace vial. The vial is then placed into HP7694 Headspace Autosampler equipped with oven, shaker and 1 mL sample loop. Sample is baked and then equilibrated at 40°C for 15 minutes with high agitation. Finally, a direct injection of the headspace is performed. See the data sheets for the reporting limits for each compound.

Receiving Notes

The chain of custody was not relinquished properly. The client was notified and permission to proceed with the analysis was provided.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

AIR TOXICS LTD.

SAMPLE NAME: AC04412

ID#: 0012128-07A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7121212	**Date of Collection:**	12/4/00
Dil. Factor:	1.00	**Date of Analysis:**	12/12/00

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC04413

ID#: 0012128-08A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121213**	**Date of Collection:**	**12/4/00**
Dil. Factor:	**1.00**	**Date of Analysis:**	**12/12/00**

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.090
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC04413 MS

ID#: 0012128-08AMS

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121214**	**Date of Collection:**	**12/4/00**
Dil. Factor:	**1.00**	**Date of Analysis:**	**12/12/00**

Compound	**Det. Limit (ug/ml)**	**%Recovery**
Methane	0.010	96
Ethane	0.010	100
Ethene	0.010	102

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC04413 MSD

ID#: 0012128-08AMSD

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121215**		**Date of Collection: 12/4/00**
Dil. Factor:	**1.00**		**Date of Analysis: 12/12/00**

Compound	**Det. Limit (ug/ml)**	**%Recovery**
Methane	0.010	95
Ethane	0.010	100
Ethene	0.010	102

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC04414

ID#: 0012128-09A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121216**	**Date of Collection:**	**12/4/00**
Dil. Factor:	**1.00**	**Date of Analysis:**	**12/12/00**

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC04417

ID#: 0012128-10A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121217**	**Date of Collection:**	**12/4/00**
Dil. Factor:	**1.00**	**Date of Analysis:**	**12/12/00**

Compound	**Det. Limit (ug/ml)**	**Amount (ug/ml)**
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: Method Spike

ID#: 0012128-11A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/12/00**	

Compound	**Det. Limit (ug/ml)**	**%Recovery**
Methane	0.010	93
Ethane	0.010	102
Ethene	0.010	103

Container Type: NA - Not Applicable

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0012128-12A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7121204	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Analysis:**	12/12/00

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: NA - Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

0012123

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: Air Toxico

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: * Ms. Bonnie Hogue *

Contact Phone # (770) 449 - 8800, ext. 233

Fax Number: (770) 449 - 5477

AAL PROJECT # See Remarks

For Laboratory Use Only

Custody Seal: Y N

Page 1 OF 2

QC Level: N 1 2 3 4

Init/Temp:

Entered into LIMS:

LAB Project #

Sample Condition:

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	Methane, Ethane, Ethene (RSK-175)									Remarks	LAB #
AC 03938	11/29/00 1400		X	W		OLD-36-30C	3	X									26326	
AC 04276	12/1/00 0915		X	W		OLD-36-26A	3	X									26367	
AC 04277	12/1/00 1100		X	W		OLD-36-27A	3	X										
AC 04278	12/1/00 1330		X	W		OLD-36-28B	3	X										
AC 04279	12/1/00 1530		X	W		OLD-36-07A	3	X										
AC 04280	12/1/00 -		X	W		Duplicate #1	3	X										
AC 04412	12/4/00 0830		X	W		Well 06A	3	X									26383	
AC 04413	12/4/00 1030		X	W		Well 08B	3	X									MS/MSD (04413) (04414)	
AC 04414	12/4/00 1345		X	W		Well 29B	3	X										
~~AC 04415~~	~~12/4/00 1030~~		X	W		~~Well 08B~~	3	X										BMH 12/5/00

	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
	12-7-00 1000	Atecon ATL		PLEASE FAX RESULTS!!
CUSTODY SEAL INTACT? Y N NONE TEMP 1 °C	Date / Time	Received By:	Date / Time	Turnaround Time Requested:

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

Subcoc-hjh xls

Page 18

0012128

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: Air Toxico

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC
Address: 6017 Financial Drive, Norcross, GA 30071
Accura Lab Contact Name: Ms. Bonnie Hogue
Contact Phone # (770) 449 - 8800, ext. 233
Fax Number: (770) 449 - 5477

AAL PROJECT # See Remarks

For Laboratory Use Only

Custody Seal: Y N
Page 2 OF 2
QC Level: N 1 2 3 4
Init/Temp:
Entered into LIMS:
LAB Project #
Sample Condition:

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	Methane, Ethane, Ethene (RSK-175)								Remarks	LAB #
AC 04417	12/4/00 1500		X	W		Well 10B	3	X								26383	
AC																	
AC																	
AC																	
AC																	
AC																	
AC																	
AC																	
AC																	
AC																	

	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
	12-7-00 1000	Alison ATL		PLEASE FAX RESULTS!!
CUSTODY SEAL INTACT? Y N NONE TEMP Ice	Date / Time	Received By:	Date / Time	Turnaround Time Requested:

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

Subcoc-bjh.xls

Page 19

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 12/13/00

Analyst: FT

Time Started: 1030 - 1130

Lot #'s: 0.02N H2SO4: 00109

Phenolphthalein Indicator: -

Na_2CO_3 STD 00108 (2,658 mg/L)

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
							mg/L as $CaCO_3$			
QWW121300 1	100 DI	—			< 0.05	< DL				BLK
QWW121300 2	+5ml spike				12.50	2,500, R=94%				LCS
04414					2.70	27				
04415					3.00	30				
04566					8.25	82				
04567					0.50	5.0				
04568					1.40	14				
04569					2.45	25				
↓ d					2.45	25				
04567 ms	+5ml spike				13.05	2510, R=95%				
↓ msd	↓ ↓	↓			13.00	2500, R=94%				

CT 12/13/00

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{\text{mL sample}}$

where: A = mL acid used

N = Normality of acid

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:

ALKALNTY.XLS Page No. 67

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 12/7/00

Analyst: FT

Time Started: 1250
1400

Lot #'s: 0.02N H2SO4: 00109

Phenolphthalein Indicator: —

Na_2CO_3 std I-00108

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
							mg/L as $CaCO_3$			
QWW1207007	100 DI				<0.05	<DL				BLK
QWW1207008	5ml spike				12.45	2,490, R=94%				LCS
04412	100				0.15	1.5				
04413	↓				2.35	24				
04416	↓				2.50	25				
04417	↓				2.50	25				
04417 d	↓				2.50	25				
04413 MS	5ml spike				14.85	2500, R=94%				
04416 MSD	↓				15.05	2,510, R=95%				
QWW1207009	100 DI				<0.05	<DL				BLK
QWW1207010	5ml spike				12.40	~~124~~ 2480	R= 94%			LCS
04474	100				27.50	280				
04475	↓				1.75	18				
04476	↓				1.70	17				
04477	↓				25.95	260				
↓ d	↓				26.00	260				
FT 12/7/00 04474 MS	5ml spike				14.20	2,500, R=94%				
04475 MSD	↓				14.15	2,480, R=94%				

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{\text{mL sample}}$

where: A = mL acid used
N = Normality of acid

P-alkalinity = phenolphthalein alkalinity
T-alkalinity = total alkalinity

FT 12/7/00

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:

ALKALNTY.XLS Page No. 66

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	Final wt. (g) 2	Final wt. (g) 3	TDS (mg/L)	Comments
12/13/00	FF	1145	0700	QWW1213008	1	65.1751	100 DI	65.1753	65.1751		<DL	BLK
↓	↓	↓	on 12/14/00	04414	2	67.9927	↓	68.0111	68.0110		184	
↓	↓	↓	↓	04415	3	109.7412	↓	109.7544	109.7543		132	
↓	↓	↓	↓	04414d	4	101.8325	↓	101.8509	101.8509	FF 12/14/00	184	

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	Final wt. (g) 2	Final wt. (g) 3	TDS (mg/L)	Comments
12/7/00	BP	13.50	11.35	QWW120706	1	61.3759	100	61.3760	61.3760		<DL	
			on 12/8/00	04412	2	68.4965		68.5077	68.5079		112	
				04413	3	58.8361		58.8464	58.8464		103	
				04416	4	66.3609		66.3719	66.3718		110	
				04417	5	65.7170		65.7296	65.7299	12/8/00	126	
				04417D	6	66.7141		66.7275	66.7277		134	6% RPD

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

Analysis Report Summary 12/12/00 03:53:38 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	DEC0700	WATERS	12/12/00	11:39		X	IR
2	STD3	DEC0700	WATERS	12/12/00	11:44		X	IR
3	STD4	DEC0700	WATERS	12/12/00	12:18		X	IR
4	STD2	DEC0700	WATERS	12/12/00	12:21		X	IR
5	ICV 1	DEC0700	WATERS	12/12/00	12:26	mp	Q	CONC
6	ICB	DEC0700	WATERS	12/12/00	12:31	mp	B	CONC
7	ICS A	DEC0700	WATERS	12/12/00	12:35	mp	Q	CONC
8	ICS AB	DEC0700	WATERS	12/12/00	12:40	mp	Q	CONC
9	SS I	DEC0700	WATERS	12/12/00	12:45	mp	Q	CONC
10	SS I LOW	DEC0700	WATERS	12/12/00	12:49	mp	Q	CONC
11	qmw1208001 0815	DEC0700	WATERS	12/12/00	12:57	mp	S	CONC
12	qmw1208002 lcs	DEC0700	WATERS	12/12/00	13:02	mp	S	CONC
13	qmw1208003 lcsd	DEC0700	WATERS	12/12/00	13:10	mp	S	CONC
14	04412	DEC0700	WATERS	12/12/00	13:19	mp	S	CONC
15	04413	DEC0700	WATERS	12/12/00	13:24	mp	S	CONC
16	04414	DEC0700	WATERS	12/12/00	13:32	mp	S	CONC
17	04413 d	DEC0700	WATERS	12/12/00	13:40	mp	S	CONC
18	04413 ms	DEC0700	WATERS	12/12/00	13:57	mp	S	CONC
19	04413 msd	DEC0700	WATERS	12/12/00	14:06	mp	S	CONC
20	04417	DEC0700	WATERS	12/12/00	14:13	mp	S	CONC
21	ICV 1	DEC0700	WATERS	12/12/00	14:23	mp	Q	CONC
22	ICB	DEC0700	WATERS	12/12/00	14:30	mp	B	CONC
23	04413 1:4 sd	DEC0700	WATERS	12/12/00	14:35	mp	S	CONC
24	04413 1:1 msa	DEC0700	WATERS	12/12/00	14:45	mp	S	CONC
25	03552	DEC0700	WATERS	12/12/00	14:55	mp	S	CONC
26	03552 D	DEC0700	WATERS	12/12/00	15:01	mp	S	CONC
27	03552 T	DEC0700	WATERS	12/12/00	15:11	mp	S	CONC
28	ICV 1	DEC0700	WATERS	12/12/00	15:17	mp	Q	CONC
29	ICB	DEC0700	WATERS	12/12/00	15:22	mp	B	CONC
30	SS I	DEC0700	WATERS	12/12/00	15:33	mp	Q	CONC
31	SS I LOW	DEC0700	WATERS	12/12/00	15:37	mp	Q	CONC
32	ICS A	DEC0700	WATERS	12/12/00	15:42	mp	Q	CONC
33	ICS AB	DEC0700	WATERS	12/12/00	15:47	mp	Q	CONC

#	Element	STD'lank	STD3	STD4	STD2	ICV 1	ICB
1	Ag3280	.00713				1.597	.0002
2	Al3082	.0151	1.72406			1.894	-.1132
3	As1936	-.0022		1.03342		1.986	-.0071
4	Ba4934	0			11.5232	1.913	-.0052
5	Be3130	.00103	6.24973			1.930	.0003
6	Ca3179	.00036			.97676	1.971	-.0019
7	Cd2265	-.00003			3.09336	1.945	-.0121
8	Co2286	-.0001			1.85456	1.978	.0005
9	Cr2677	.00086		2.48906		1.967	-.0039
10	Cu3247	.0012			2.18346	1.947	-.0006
11	Fe2599	.0027	3.802			1.957	-.0137
12	K_7664	.00456			3.43436	19.31	.0622
13	Mg2790	.00016			.79366	1.931	-.0004
14	Mn2576	0			.13473	1.976	.0000
15	Na5889	.01446	.94283			2.005	-.0122
16	Ni2316	.00146	2.07466			1.984	-.0264
17	Pb2203	-.00203			1.51003	1.954	-.0234
18	Sb2068	.00123	1.92626			1.999	-.0106
19	Se1960	.0005		.5741		1.925	-.0076
20	Sn2839	-.07503	.7975			Q-.5623	.1247
21	Tl1908	-.00006	.78939			2.006	.0254
22	V_2924	.00006		3.44076		1.956	.0005
23	Zn2138	.00053			1.83643	1.962	-.0033

#	Element	ICS A	ICS AB	SS I	SS I LOW	qmw'0815	qmw' lcs
						12.57	
1	Ag3280	.0005	Q.4163	.0068	.0023	.0018	.9735
2	Al3082	47.87	44.37	.2026	.0376	.0165	.9495
3	As1936	Q.2171	2.274	.2328	.0543	.0054	.9929
4	Ba4934	.0011	.5847	.1942	.0379	-.0001	.9546
5	Be3130	.0002	.1950	.0050	.0012	.0001	.9588
6	Ca3179	48.13	45.35	.0053	-.0010	.0564	1.010
7	Cd2265	-.0041	.6060	.0024	.0003	-.0012	.9571
8	Co2286	.0038	.6095	.0464	.0117	.0022	.9753
9	Cr2677	-.0083	.6030	.0191	.0027	.0019	.9675
10	Cu3247	-.0059	.5905	.0263	.0050	.0012	.9699
11	Fe2599	46.94	43.75	.1062	.0200	.0053	.9622
12	K_7664	-.0165	50.88	.0097	-.0010	.0719	9.528
13	Mg2790	48.50	44.95	.0122	.0160	.0038	.9454
14	Mn2576	-.0128	.4006	.0519	.0074	.0000	.9819
15	Na5889	.1562	10.40	.0052	.0036	.0634	.9907
16	Ni2316	-.0016	.6139	.0506	.0090	-.0014	.9893
17	Pb2203	Q-.0730	2.023	.0527	.0154	.0024	.9622
18	Sb2068	Q-.1930	1.925	.0526	-.0071	.0066	.9929
19	Se1960	-.0290	.9334	.1900	.0523	-.0215	.9740
20	Sn2839	.1601	Q-.0398	.0564	.0564	.0504	1.671
21	Tl1908	.0690	2.101	.2087	.0393	.0186	.9729
22	V_2924	-.0004	.6096	.0514	.0102	.0004	.9673
23	Zn2138	.0093	.6337	.0528	.0109	.0111	.9641

Na
MDL
0.033 B → 0.634

#	Element	qmw'lcsd	04412	04413	04414	04413 d	04413 ms
			13.19	13.24	13.32		
1	Ag3280	.9966	.0002	.0007	.0009	.0007	.9948
2	Al3082	.9719	4.524	2.303	3.549	2.196	3.219
3	As1936	.9981	.0185	.0162	.0151	.0083	1.001
4	Ba4934	.9742	.0054	.0297	.0444	.0275	.9886
5	Be3130	.9807	.0003	.0003	.0003	.0002	.9762
6	Ca3179	1.019	5.265	13.46	10.67	12.47	13.93
7	Cd2265	.9744	-.0017	-.0021	-.0013	-.0003	.9653
8	Co2286	.9949	.0018	.0017	.0024	.0017	.9834
9	Cr2677	.9859	.0093	.0024	.0052	.0012	.9775
10	Cu3247	.9890	.0033	.0016	.0031	.0016	.9709
11	Fe2599	.9808	.1804	.4576	1.660	.4214	1.391
12	K_7664	9.674	2.096	4.155	4.936	3.932	13.61
13	Mg2790	.9689	1.310	1.325	1.756	1.223	2.217
14	Mn2576	.9992	-.0006	-.0015	.0062	-.0014	.9854
15	Na5889	1.003	4.052	7.831	12.28	7.304	8.519
16	Ni2316	1.006	-.0005	-.0002	.0040	.0026	.9948
17	Pb2203	.9869	-.0057	.0015	-.0090	.0108	.9752
18	Sb2068	.9981	.0033	.0021	-.0003	-.0008	.9907
19	Se1960	.9670	-.0195	.0062	-.0367	.0207	1.006
20	Sn2839	1.676	.0424	.0165	.0301	.0111	1.590
21	Tl1908	1.024	.0147	-.0172	-.0244	-.0093	.9851
22	V_2924	.9872	.0046	.0035	.0037	.0029	.9801
23	Zn2138	.9832	.0031	.0034	.0054	.0036	.9757

#	Element	044' msd	04417	ICV 1	ICB	044'4 sd	044' msa
			14.13				
1	Ag3280	1.028	.0012	1.644	.0030	.0086	1.603
2	Al3082	3.359	7.941	Q1.882	.0010	3.275	4.421
3	As1936	1.026	.0392	1.999	.0091	.0816	2.100
4	Ba4934	1.033	.0181	1.920	.0000	.0375	2.018
5	Be3130	1.026	.0003	1.952	.0003	.0011	2.046
6	Ca3179	14.40	12.12	1.994	.0000	17.67	15.43
7	Cd2265	1.005	-.0007	1.980	-.0018	-.0052	2.034
8	Co2286	1.023	.0017	2.000	.0020	.0091	2.054
9	Cr2677	1.019	.0117	1.994	-.0017	.0008	2.053
10	Cu3247	1.015	.0082	1.948	.0005	.0052	2.015
11	Fe2599	1.455	.1970	1.956	-.0040	.5821	2.475
12	K_7664	14.20	2.065	19.23	-.0019	5.491	24.15
13	Mg2790	2.314	1.168	1.914	.0025	1.750	3.316
14	Mn2576	1.030	-.0013	2.001	.0000	-.0020	2.066
15	Na5889	8.884	6.621	1.986	.0061	11.37	10.61
16	Ni2316	1.030	-.0023	2.025	-.0003	-.0121	2.088
17	Pb2203	1.020	-.0000	2.007	-.0035	-.0298	2.057
18	Sb2068	.9920	.0141	1.982	-.0087	-.0199	2.067
19	Se1960	1.059	.0258	1.974	-.0250	-.0418	2.088
20	Sn2839	1.673	.0046	Q-.5276	.0750	.3141	-.5642
21	Tl1908	1.077	-.0018	Q2.112	.0309	-.1560	2.159
22	V_2924	1.024	.0084	1.981	.0000	.0063	2.047
23	Zn2138	1.013	.0071	1.992	.0009	.0064	2.052

#	Element	03552	03552 D	03552 T	ICV 1	ICB	SS I
1	Ag3280	.0925	.0935	.0942	1.652	.0036	.0072
2	Al3082	.9812	.9936	.9836	Q1.866	.0035	.2014
3	As1936	.0876	.0682	.0754	1.992	.0157	.2126
4	Ba4934	.6230	.6240	.6242	1.912	.0000	.1929
5	Be3130	.0074	.0073	.0074	1.943	.0004	.0050
6	Ca3179	.0093	.0094	.0087	1.987	-.0003	.0019
7	Cd2265	.0315	.0328	.0316	1.973	-.0012	.0035
8	Co2286	.0020	.0012	.0025	1.991	.0009	.0537
9	Cr2677	.1684	.1706	.1671	1.994	.0000	.0211
10	Cu3247	1.701	1.703	1.703	1.936	.0008	.0261
11	Fe2599	.0796	.0799	.0805	1.947	-.0032	.1000
12	K_7664	.0330	.0184	.0155	19.12	.0185	.0194
13	Mg2790	-.0045	-.0020	.0013	1.895	.0034	.0013
14	Mn2576	.0369	.0369	.0369	1.994	.0000	.0519
15	Na5889	.0493	.0490	.0508	1.981	.0086	.0117
16	Ni2316	.4248	.4257	.4228	2.023	-.0031	.0513
17	Pb2203	.0172	.0124	.0172	1.983	-.0037	.0577
18	Sb2068	.0256	.0275	.0315	1.999	-.0068	.0488
19	Se1960	.0349	.0122	.0070	1.989	.0076	.1894
20	Sn2839	.0193	-.0014	.0128	Q-.5369	.0704	.0657
21	Tl1908	-.0030	.0219	-.0098	2.109	.0093	.1935
22	V_2924	.7405	.7428	.7438	1.974	.0004	.0521
23	Zn2138	1.266	1.267	1.265	1.983	.0002	.0532

#	Element	SS I LOW	ICS A	ICS AB
1	Ag3280	.0024	-.0002	Q.4141
2	Al3082	.0394	46.82	43.68
3	As1936	.0474	Q.2474	2.255
4	Ba4934	.0383	.0001	.5845
5	Be3130	.0012	.0002	.1951
6	Ca3179	-.0014	48.40	45.38
7	Cd2265	.0003	-.0045	.6126
8	Co2286	.0108	.0050	.6076
9	Cr2677	.0052	-.0078	.6104
10	Cu3247	.0058	-.0062	.5870
11	Fe2599	.0195	46.71	43.51
12	K_7664	.0049	-.0358	50.37
13	Mg2790	.0025	47.57	44.40
14	Mn2576	.0074	-.0128	.4006
15	Na5889	.0065	.1610	10.32
16	Ni2316	.0055	-.0045	.6258
17	Pb2203	.0090	Q-.0630	2.058
18	Sb2068	-.0053	Q-.1861	1.921
19	Se1960	.0192	-.0422	1.053
20	Sn2839	.0611	.2083	Q.0061
21	Tl1908	.0355	.0011	2.167
22	V_2924	.0104	-.0011	.6117
23	Zn2138	.0103	.0091	.6351

#	Element	03552	03552 D	03552 T	ICV 1	ICB	SS I
1	Ag3280	.0925	.0935	.0942	1.652	.0036	.0072
2	Al3082	.9812	.9936	.9836	Q1.866	.0035	.2014
3	As1936	.0876	.0682	.0754	1.992	.0157	.2126
4	Ba4934	.6230	.6240	.6242	1.912	.0000	.1929
5	Be3130	.0074	.0073	.0074	1.943	.0004	.0050
6	Ca3179	.0093	.0094	.0087	1.987	-.0003	.0019
7	Cd2265	.0315	.0328	.0316	1.973	-.0012	.0035
8	Co2286	.0020	.0012	.0025	1.991	.0009	.0537
9	Cr2677	.1684	.1706	.1671	1.994	.0000	.0211
10	Cu3247	1.701	1.703	1.703	1.936	.0008	.0261
11	Fe2599	.0796	.0799	.0805	1.947	-.0032	.1000
12	K_7664	.0330	.0184	.0155	19.12	.0185	.0194
13	Mg2790	-.0045	-.0020	.0013	1.895	.0034	.0013
14	Mn2576	.0369	.0369	.0369	1.994	.0000	.0519
15	Na5889	.0493	.0490	.0508	1.981	.0086	.0117
16	Ni2316	.4248	.4257	.4228	2.023	-.0031	.0513
17	Pb2203	.0172	.0124	.0172	1.983	-.0037	.0577
18	Sb2068	.0256	.0275	.0315	1.999	-.0068	.0488
19	Se1960	.0349	.0122	.0070	1.989	.0076	.1894
20	Sn2839	.0193	-.0014	.0128	Q-.5369	.0704	.0657
21	Tl1908	-.0030	.0219	-.0098	2.109	.0093	.1935
22	V_2924	.7405	.7428	.7438	1.974	.0004	.0521
23	Zn2138	1.266	1.267	1.265	1.983	.0002	.0532

#	Element	SS I LOW	ICS A	ICS AB
1	Ag3280	.0024	-.0002	Q.4141
2	Al3082	.0394	46.82	43.68
3	As1936	.0474	Q.2474	2.255
4	Ba4934	.0383	.0001	.5845
5	Be3130	.0012	.0002	.1951
6	Ca3179	-.0014	48.40	45.38
7	Cd2265	.0003	-.0045	.6126
8	Co2286	.0108	.0050	.6076
9	Cr2677	.0052	-.0078	.6104
10	Cu3247	.0058	-.0062	.5870
11	Fe2599	.0195	46.71	43.51
12	K_7664	.0049	-.0358	50.37
13	Mg2790	.0025	47.57	44.40
14	Mn2576	.0074	-.0128	.4006
15	Na5889	.0065	.1610	10.32
16	Ni2316	.0055	-.0045	.6258
17	Pb2203	.0090	Q-.0630	2.058
18	Sb2068	-.0053	Q-.1861	1.921
19	Se1960	.0192	-.0422	1.053
20	Sn2839	.0611	.2083	Q.0061
21	Tl1908	.0355	.0011	2.167
22	V_2924	.0104	-.0011	.6117
23	Zn2138	.0103	.0091	.6351

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	DEC0700	WATERS	12/12/00	11:39		X	IR
2	STD3	DEC0700	WATERS	12/12/00	11:44		X	IR
3	STD4	DEC0700	WATERS	12/12/00	12:18		X	IR
4	STD2	DEC0700	WATERS	12/12/00	12:21		X	IR
5	ICV 1	DEC0700	WATERS	12/12/00	12:26	mp	Q	CONC
6	ICB	DEC0700	WATERS	12/12/00	12:31	mp	B	CONC
7	ICS A	DEC0700	WATERS	12/12/00	12:35	mp	Q	CONC
8	ICS AB	DEC0700	WATERS	12/12/00	12:40	mp	Q	CONC
9	SS I	DEC0700	WATERS	12/12/00	12:45	mp	Q	CONC
10	SS I LOW	DEC0700	WATERS	12/12/00	12:49	mp	Q	CONC
11	qmw1208001 0815	DEC0700	WATERS	12/12/00	12:57	mp	S	CONC
12	qmw1208002 lcs	DEC0700	WATERS	12/12/00	13:02	mp	S	CONC
13	qmw1208003 lcsd	DEC0700	WATERS	12/12/00	13:10	mp	S	CONC
14	04412	DEC0700	WATERS	12/12/00	13:19	mp	S	CONC
15	04413	DEC0700	WATERS	12/12/00	13:24	mp	S	CONC
16	04414	DEC0700	WATERS	12/12/00	13:32	mp	S	CONC
17	04413 d	DEC0700	WATERS	12/12/00	13:40	mp	S	CONC
18	04413 ms	DEC0700	WATERS	12/12/00	13:57	mp	S	CONC
19	04413 msd	DEC0700	WATERS	12/12/00	14:06	mp	S	CONC
20	04417	DEC0700	WATERS	12/12/00	14:13	mp	S	CONC
21	ICV 1	DEC0700	WATERS	12/12/00	14:23	mp	Q	CONC
22	ICB	DEC0700	WATERS	12/12/00	14:30	mp	B	CONC
23	04413 1:4 sd	DEC0700	WATERS	12/12/00	14:35	mp	S	CONC
24	04413 1:1 msa	DEC0700	WATERS	12/12/00	14:45	mp	S	CONC
25	03552	DEC0700	WATERS	12/12/00	14:55	mp	S	CONC
26	03552 D	DEC0700	WATERS	12/12/00	15:01	mp	S	CONC
27	03552 T	DEC0700	WATERS	12/12/00	15:11	mp	S	CONC
28	ICV 1	DEC0700	WATERS	12/12/00	15:17	mp	Q	CONC
29	ICB	DEC0700	WATERS	12/12/00	15:22	mp	B	CONC
30	SS I	DEC0700	WATERS	12/12/00	15:33	mp	Q	CONC
31	SS I LOW	DEC0700	WATERS	12/12/00	15:37	mp	Q	CONC
32	ICS A	DEC0700	WATERS	12/12/00	15:42	mp	Q	CONC
33	ICS AB	DEC0700	WATERS	12/12/00	15:47	mp	Q	CONC

#	Element	STD'lank	STD3	STD4	STD2	ICV 1	ICB
1	Ag3280	.00713				1.597	.0002
2	Al3082	.0151	1.72406			1.894	-.1132
3	As1936	-.0022		1.03342		1.986	-.0071
4	Ba4934	0			11.5232	1.913	-.0052
5	Be3130	.00103	6.24973			1.930	.0003
6	Ca3179	.00036			.97676	1.971	-.0019
7	Cd2265	-.00003			3.09336	1.945	-.0121
8	Co2286	-.0001			1.85456	1.978	.0005
9	Cr2677	.00086		2.48906		1.967	-.0039
10	Cu3247	.0012			2.18346	1.947	-.0006
11	Fe2599	.0027	3.802			1.957	-.0137
12	K_7664	.00456			3.43436	19.31	.0622
13	Mg2790	.00016			.79366	1.931	-.0004
14	Mn2576	0			.13473	1.976	.0000
15	Na5889	.01446	.94283			2.005	-.0122
16	Ni2316	.00146	2.07466			1.984	-.0264
17	Pb2203	-.00203			1.51003	1.954	-.0234
18	Sb2068	.00123	1.92626			1.999	-.0106
19	Se1960	.0005		.5741		1.925	-.0076
20	Sn2839	-.07503	.7975			Q-.5623	.1247
21	Tl1908	-.00006	.78939			2.006	.0254
22	V_2924	.00006		3.44076		1.956	.0005
23	Zn2138	.00053			1.83643	1.962	-.0033

#	Element	ICS A	ICS AB	SS I	SS I LOW	qmw'0815	qmw' lcs
						12.57	
1	Ag3280	.0005	Q.4163	.0068	.0023	.0018	.9735
2	Al3082	47.87	44.37	.2026	.0376	.0165	.9495
3	As1936	Q.2171	2.274	.2328	.0543	.0054	.9929
4	Ba4934	.0011	.5847	.1942	.0379	-.0001	.9546
5	Be3130	.0002	.1950	.0050	.0012	.0001	.9588
6	Ca3179	48.13	45.35	.0053	-.0010	.0564	1.010
7	Cd2265	-.0041	.6060	.0024	.0003	-.0012	.9571
8	Co2286	.0038	.6095	.0464	.0117	.0022	.9753
9	Cr2677	-.0083	.6030	.0191	.0027	.0019	.9675
10	Cu3247	-.0059	.5905	.0263	.0050	.0012	.9699
11	Fe2599	46.94	43.75	.1062	.0200	.0053	.9622
12	K_7664	-.0165	50.88	.0097	-.0010	.0719	9.528
13	Mg2790	48.50	44.95	.0122	.0160	.0038	.9454
14	Mn2576	-.0128	.4006	.0519	.0074	.0000	.9819
15	Na5889	.1562	10.40	.0052	.0036	.0634	.9907
16	Ni2316	-.0016	.6139	.0506	.0090	-.0014	.9893
17	Pb2203	Q-.0730	2.023	.0527	.0154	.0024	.9622
18	Sb2068	Q-.1930	1.925	.0526	-.0071	.0066	.9929
19	Se1960	-.0290	.9334	.1900	.0523	-.0215	.9740
20	Sn2839	.1601	Q-.0398	.0564	.0564	.0504	1.671
21	Tl1908	.0690	2.101	.2087	.0393	.0186	.9729
22	V_2924	-.0004	.6096	.0514	.0102	.0004	.9673
23	Zn2138	.0093	.6337	.0528	.0109	.0111	.9641

Na
MDL
0.033 B → 0.634

#	Element	qmw'lcsd	04412	04413	04414	04413 d	04413 ms
			13.19	13.24	13.32		
1	Ag3280	.9966	.0002	.0007	.0009	.0007	.9948
2	Al3082	.9719	4.524	2.303	3.549	2.196	3.219
3	As1936	.9981	.0185	.0162	.0151	.0083	1.001
4	Ba4934	.9742	.0054	.0297	.0444	.0275	.9886
5	Be3130	.9807	.0003	.0003	.0003	.0002	.9762
6	Ca3179	1.019	5.265	13.46	10.67	12.47	13.93
7	Cd2265	.9744	-.0017	-.0021	-.0013	-.0003	.9653
8	Co2286	.9949	.0018	.0017	.0024	.0017	.9834
9	Cr2677	.9859	.0093	.0024	.0052	.0012	.9775
10	Cu3247	.9890	.0033	.0016	.0031	.0016	.9709
11	Fe2599	.9808	.1804	.4576	1.660	.4214	1.391
12	K_7664	9.674	2.096	4.155	4.936	3.932	13.61
13	Mg2790	.9689	1.310	1.325	1.756	1.223	2.217
14	Mn2576	.9992	-.0006	-.0015	.0062	-.0014	.9854
15	Na5889	1.003	4.052	7.831	12.28	7.304	8.519
16	Ni2316	1.006	-.0005	-.0002	.0040	.0026	.9948
17	Pb2203	.9869	-.0057	.0015	-.0090	.0108	.9752
18	Sb2068	.9981	.0033	.0021	-.0003	-.0008	.9907
19	Se1960	.9670	-.0195	.0062	-.0367	.0207	1.006
20	Sn2839	1.676	.0424	.0165	.0301	.0111	1.590
21	Tl1908	1.024	.0147	-.0172	-.0244	-.0093	.9851
22	V_2924	.9872	.0046	.0035	.0037	.0029	.9801
23	Zn2138	.9832	.0031	.0034	.0054	.0036	.9757

#	Element	044' msd	04417	ICV 1	ICB	044'4 sd	044' msa
			14.13				
1	Ag3280	1.028	.0012	1.644	.0030	.0086	1.603
2	Al3082	3.359	7.941	Q1.882	.0010	3.275	4.421
3	As1936	1.026	.0392	1.999	.0091	.0816	2.100
4	Ba4934	1.033	.0181	1.920	.0000	.0375	2.018
5	Be3130	1.026	.0003	1.952	.0003	.0011	2.046
6	Ca3179	14.40	12.12	1.994	.0000	17.67	15.43
7	Cd2265	1.005	-.0007	1.980	-.0018	-.0052	2.034
8	Co2286	1.023	.0017	2.000	.0020	.0091	2.054
9	Cr2677	1.019	.0117	1.994	-.0017	.0008	2.053
10	Cu3247	1.015	.0082	1.948	.0005	.0052	2.015
11	Fe2599	1.455	.1970	1.956	-.0040	.5821	2.475
12	K_7664	14.20	2.065	19.23	-.0019	5.491	24.15
13	Mg2790	2.314	1.168	1.914	.0025	1.750	3.316
14	Mn2576	1.030	-.0013	2.001	.0000	-.0020	2.066
15	Na5889	8.884	6.621	1.986	.0061	11.37	10.61
16	Ni2316	1.030	-.0023	2.025	-.0003	-.0121	2.088
17	Pb2203	1.020	-.0000	2.007	-.0035	-.0298	2.057
18	Sb2068	.9920	.0141	1.982	-.0087	-.0199	2.067
19	Se1960	1.059	.0258	1.974	-.0250	-.0418	2.088
20	Sn2839	1.673	.0046	Q-.5276	.0750	.3141	-.5642
21	Tl1908	1.077	-.0018	Q2.112	.0309	-.1560	2.159
22	V_2924	1.024	.0084	1.981	.0000	.0063	2.047
23	Zn2138	1.013	.0071	1.992	.0009	.0064	2.052

#	Element	03552	03552 D	03552 T	ICV 1	ICB	SS I
1	Ag3280	.0925	.0935	.0942	1.652	.0036	.0072
2	Al3082	.9812	.9936	.9836	Q1.866	.0035	.2014
3	As1936	.0876	.0682	.0754	1.992	.0157	.2126
4	Ba4934	.6230	.6240	.6242	1.912	.0000	.1929
5	Be3130	.0074	.0073	.0074	1.943	.0004	.0050
6	Ca3179	.0093	.0094	.0087	1.987	-.0003	.0019
7	Cd2265	.0315	.0328	.0316	1.973	-.0012	.0035
8	Co2286	.0020	.0012	.0025	1.991	.0009	.0537
9	Cr2677	.1684	.1706	.1671	1.994	.0000	.0211
10	Cu3247	1.701	1.703	1.703	1.936	.0008	.0261
11	Fe2599	.0796	.0799	.0805	1.947	-.0032	.1000
12	K_7664	.0330	.0184	.0155	19.12	.0185	.0194
13	Mg2790	-.0045	-.0020	.0013	1.895	.0034	.0013
14	Mn2576	.0369	.0369	.0369	1.994	.0000	.0519
15	Na5889	.0493	.0490	.0508	1.981	.0086	.0117
16	Ni2316	.4248	.4257	.4228	2.023	-.0031	.0513
17	Pb2203	.0172	.0124	.0172	1.983	-.0037	.0577
18	Sb2068	.0256	.0275	.0315	1.999	-.0068	.0488
19	Se1960	.0349	.0122	.0070	1.989	.0076	.1894
20	Sn2839	.0193	-.0014	.0128	Q-.5369	.0704	.0657
21	Tl1908	-.0030	.0219	-.0098	2.109	.0093	.1935
22	V_2924	.7405	.7428	.7438	1.974	.0004	.0521
23	Zn2138	1.266	1.267	1.265	1.983	.0002	.0532

#	Element	SS I LOW	ICS A	ICS AB
1	Ag3280	.0024	-.0002	Q.4141
2	Al3082	.0394	46.82	43.68
3	As1936	.0474	Q.2474	2.255
4	Ba4934	.0383	.0001	.5845
5	Be3130	.0012	.0002	.1951
6	Ca3179	-.0014	48.40	45.38
7	Cd2265	.0003	-.0045	.6126
8	Co2286	.0108	.0050	.6076
9	Cr2677	.0052	-.0078	.6104
10	Cu3247	.0058	-.0062	.5870
11	Fe2599	.0195	46.71	43.51
12	K_7664	.0049	-.0358	50.37
13	Mg2790	.0025	47.57	44.40
14	Mn2576	.0074	-.0128	.4006
15	Na5889	.0065	.1610	10.32
16	Ni2316	.0055	-.0045	.6258
17	Pb2203	.0090	Q-.0630	2.058
18	Sb2068	-.0053	Q-.1861	1.921
19	Se1960	.0192	-.0422	1.053
20	Sn2839	.0611	.2083	Q.0061
21	Tl1908	.0355	.0011	2.167
22	V_2924	.0104	-.0011	.6117
23	Zn2138	.0103	.0091	.6351

TRACE ICAP STANDARDS PREPARATION

Std #1	Lot #
Blank	NA

Std #8	Lot #
Ag	M99150

Std #3	Lot #
Al	M99073
Be	M99146
Fe	~~M99076~~ 179
Ni	M99151
Sb	M99228
Sn	M99229
Tl	M99226
Na	M99078

Std #2	Lot #
Ba	M99230
Ca	M99143
Cd	M99075
Co	M99144
Cu	M99148
K	M99152
Mg	~~M99078~~ 147
Mn	M99077
Pb	M99231
Zn	M99227

Std #4	Lot #
As	M99074
Cr	M99149
Se	M99225
V	M99145

ICV #1& 2	Lot #
QCS 19	M99216
QCS 7	M99187
ICV Sn	M99153

SS I	Lot #
SS I	M99085

ICS A	Lot #
INFCS IV	M99186

ICS AB	Lot #
INFCS I	M99095
INFCS IV	M99186
INFCS Ag	M99094

Concentrations:
Stds 2,3,4, & 8 = 2ppm
ICV1 = 0.2ppm except K = 2ppm
ICV2= 1.0ppm except K = 20ppm
SSI = mixed, see SOP for conc.
ICS A = 50ppm for Al, Ca, Fe, & Mg
ICS AB = mixed, see SOP for conc.

Date Made	AAL Lot #	Standard #	Method	Date Expire	Analyst	Volume	Comments
10/30/00	51 A	1 (Blank)	6010B/200.7	11/30/00	Em.G	900mL	
	B	2	6010B/200.7				
	C	3	6010B/200.7				
	D	4	6010B/200.7				
	E	8	6010B/200.7			100mL	
	F	ICV 1	6010B/200.7			500mL	
	G	ICV 2	6010B/200.7			100mL	
	H	ICS A	6010B/200.7			500mL	
	I	ICS AB	6010B/200.7				
	J	SS I	6010B/200.7				
	K	SS I Low	6010B/200.7			100mL	

Standards are approximately 1% Nitric and 5% Hydrochloric Acid.

L SSAg

Reviewed By:_____

TRICPSTD.XLS Page No. 52

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TRACE ICAP STANDARDS PREPARATION

Std #1	Lot #
Blank	NA

Std #8	Lot #
Ag	

Std #3	Lot #
Al	
Be	
Fe	
Ni	
Sb	
Sn	
Tl	

Std #2	Lot #
Ba	
Ca	
Cd	
Co	
Cu	
K	
Mg	
Mn	
Pb	
Zn	

See pg 52

Std #4	Lot #
As	
Cr	
Se	
V	

ICV #1& 2	Lot #
QCS 19	
QCS 7	
ICV Sn	

SS I	Lot #
SS I	

ICS A	Lot #
INFCS IV	

ICS AB	Lot #
INFCS I	
INFCS IV	
INFCS Ag	

Concentrations:
Stds 2,3,4, & 8 = 2ppm
ICV1 = 0.2ppm except K = 2ppm
ICV2= 1.0ppm except K = 20ppm
SSI = mixed, see SOP for conc.
ICS A = 50ppm for Al, Ca, Fe, & Mg
ICS AB = mixed, see SOP for conc.

Date Made	AAL Lot #	Standard #	Method	Date Expire	Analyst	Volume	Comments
12/6/00	53A	1 (Blank)	6010B/200.7	1/6/001	M.G/MP	500mL	
	B	2	6010B/200.7				
	C	3	6010B/200.7				
	D	4	6010B/200.7				
	E	8	6010B/200.7			100mL	
	F	ICV 1	6010B/200.7			500mL	
	G	ICV 2	6010B/200.7			100mL	
	H	ICS A	6010B/200.7			500mL	
	I	ICS AB	6010B/200.7				
	J	SS I	6010B/200.7				
	K	SS I Low	6010B/200.7			100 mL	

Standards are approximately 1% Nitric and 5% Hydrochloric Acid.

L SSAg

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Digestion Log for Waters

Date: 12.08.00
Analyst: RL
Started: 08:15
Ended: 14:00
Matrix: Water

BATCH #: 1208004
HNO_3 Acid Lot # M.99220
1:1 HCL Acid Lot # M.99219
Digestion Method: 3010A
Hot Plate Temp: 95.1°C

QCS 19 Lot #: M.99233 Amount: 0.5
QCS 7 Lot #: M.99232 Amount: 0.5
ICV Sn Lot #: M.99208 Amount: 0.1
Sample Vials Lot #: 0997

L#	Sample Volume (mL)	Conc. HNO_3	1:1 HCL	Final Volume	Dilution	Spikes Added QCS 19	QCS 7	ICV Sn	Comments
Blank	50	1.5+1.5	5	50	1:1				QMW1208001
LCS						✓	✓	✓	QMW1208002
LCSD						✓	✓	✓	QMW1208003
04188						26353 (Hgp)			
04190									
04191						RERUN Hg, Cr			
04192									
04193									
04194						HgD			
04412						26383 (Hg)			to Rerun FCHP
04413									
04414									
04415									
04416									
04430									
04445	MS					✓	✓	✓	
04446	MSD					✓	✓	✓	
04417									
04430						26384 (Pb)			
04443									
04432									
04449						26390 (RERUN)			
04505						26400 (Cd, Cr, Cu, Pb, Ni, Ag, Zn)			
04427						26385 (Pb)			
04426									
04425									
04422						26384 (Pb)			
Blank2									
LCS2									
LCSD2									
04412									
04420						26384 (Pb)			
04421									
04421D									
04421MS						✓	✓	✓	
04421MSD						✓	✓	✓	

RL 12.11.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190018.D Vial: 16
Acq On : 20 Dec 2000 8:40 Operator: MT
Sample : AC04412 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:19 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.15f	1893782	41.015 ug/mlm
Spiked Amount 50.000		Recovery =	82.03% ✓MT
3) SC C(39)	34.49	4140052	94.241 ug/mlm
Spiked Amount 300.000		Recovery =	31.41% x MT
Target Compounds			
1) HM Florida PRO	3.70	7895048	138.813 ug/ml =

<DL

MT

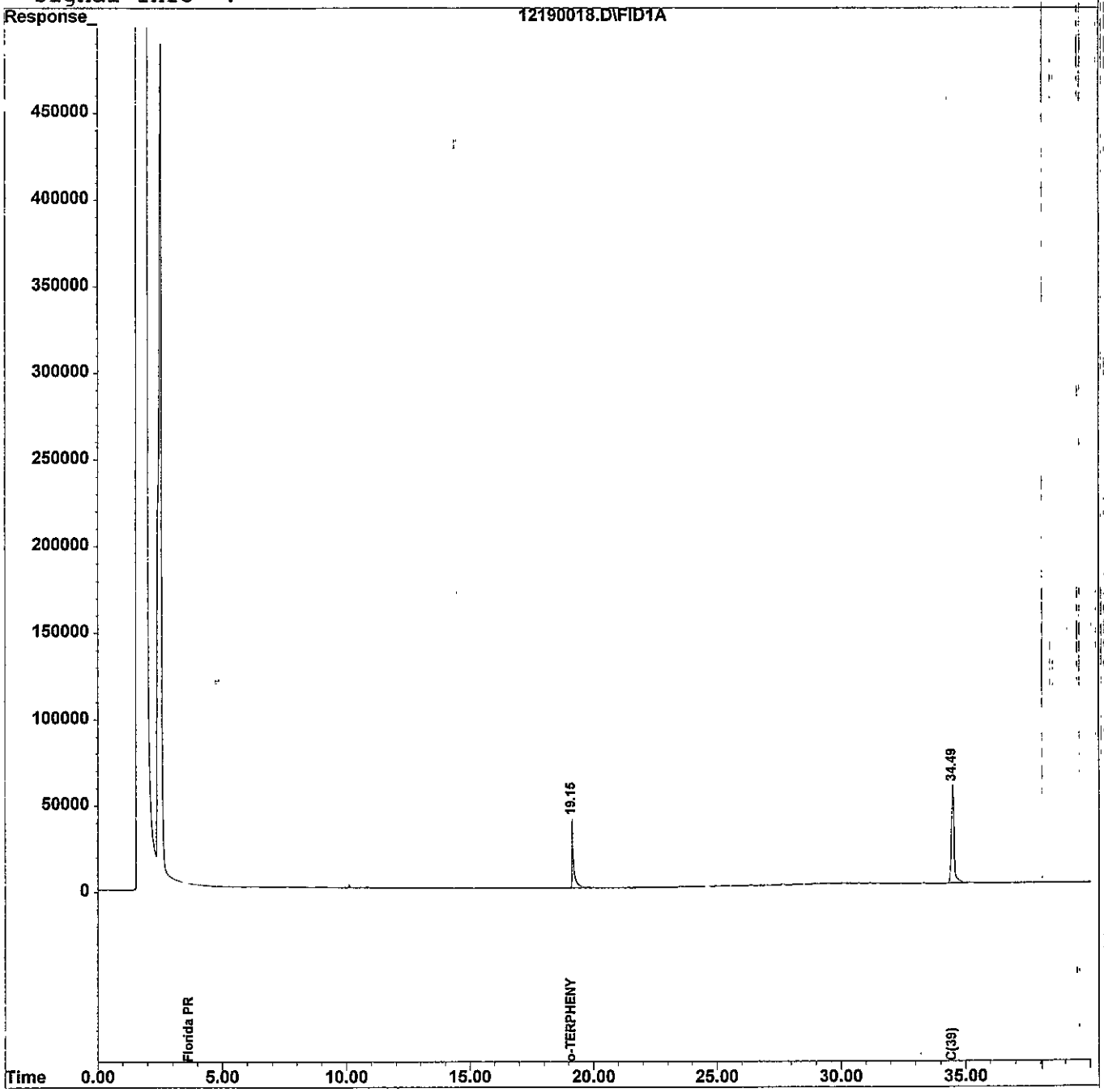
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190018.D Vial: 16
Acq On : 20 Dec 2000 8:40 Operator: MT
Sample : AC04412 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:19 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17901.D Vial: 9
Acq On : 12 Dec 2000 16:42 Operator: TAG/VR
Sample : AC04412 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 17:08 2000 Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	419653	10.00 ug\L	0.03
45) Chlorobenzene-d5	12.79	117	301010	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	157034	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	75606	8.28 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery	= 82.80%	
46) Toluene-d8	10.29	98	416696	9.63 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery	= 96.30%	
65) Bromofluorobenzene	14.88	95	203627	9.59 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery	= 95.90%	

Target Compounds					Qvalue
8) Acrolein	3.33	56	65	~~8.93 ug\L~~ #	1
30) 1,4-Dioxane	8.46	88	65	~~2.84 ug\L~~ #	24
36) Trichloroethene	8.16	95	271192	13.67 ug\L	92
64) 1,4-dichloro-2-Butene	14.88	75	105839	~~22.05 ug\L~~ #	100
68) 1,2,3-Trichloropropane	14.88	75	105839	~~22.05 ug\L~~ #	100

14

VR
12/13/00

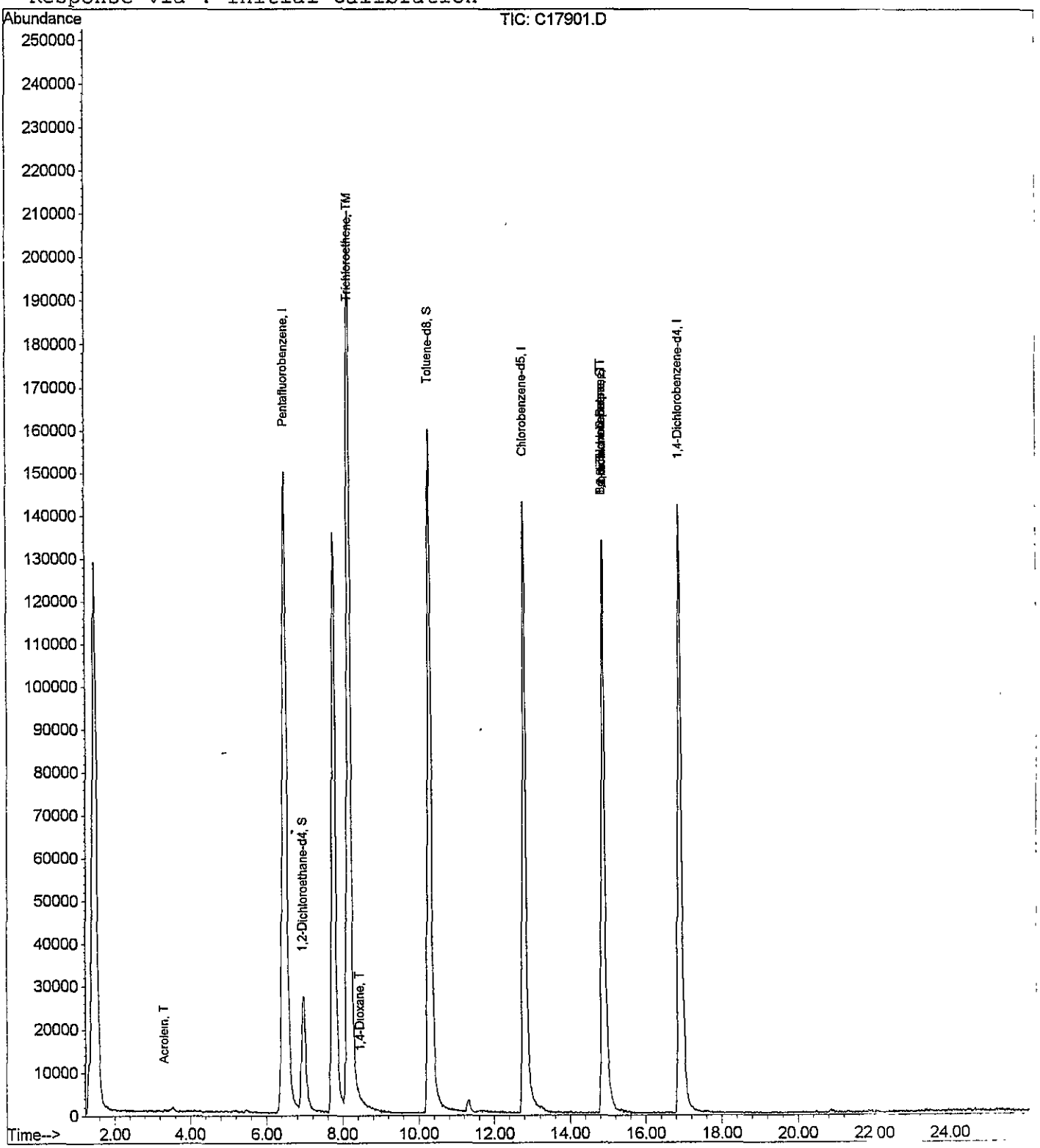
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17901.D
Acq On : 12 Dec 2000 16:42
Sample : AC04412 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 12 17:08 2000

Vial: 9
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-06A

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04412

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17901.D

Level: (low/med) LOW Date Received: 12/05/00

% Moisture: not dec. _____ Date Analyzed: 12/12/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121200\C17901.D
Acq On : 12 Dec 2000 16:42
Sample : AC04412 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: LSCINT.P

Vial: 9
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

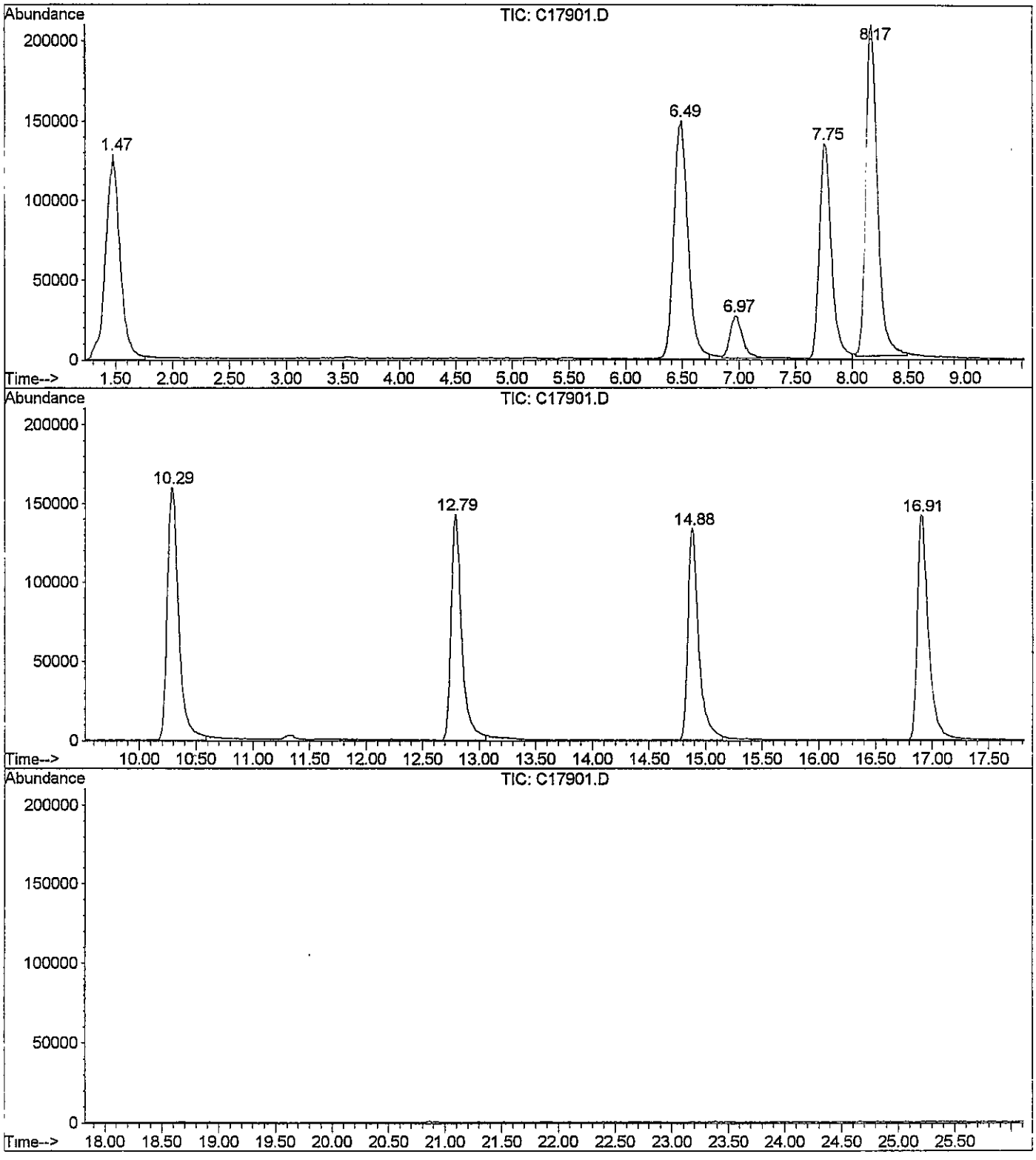
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.473	3	26	55	rBV	128668	1129332	75.89%	12.570%
2	6.492	512	535	560	rBV	149567	1285888	86.41%	14.312%
3	6.966	571	583	609	rVB2	26246	199695	13.42%	2.223%
4	7.755	649	663	688	rBV2	135362	1010808	67.93%	11.250%
5	8.169	691	705	737	rVV2	208133	1488077	100.00%	16.563%
6	10.289	906	920	950	rBV2	159597	1096295	73.67%	12.202%
7	12.794	1160	1174	1201	rBV2	142457	923813	62.08%	10.282%
8	14.885	1374	1386	1413	rBV2	133412	886292	59.56%	9.865%
9	16.907	1578	1591	1627	rBV2	141818	964403	64.81%	10.734%

Sum of corrected areas: 8984603

C17901.D 12120025.M Fri Jan 05 15:53:36 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121200\C17901.D
Operator : TAG/VR
Acquired : 12 Dec 2000 16:42 using AcqMethod 12120025
Instrument : VOA-C
Sample Name: AC04412 25ml DF=1
Misc Info : 26383/C12060025
Vial Number: 9
Quant File :12120025.RES (RTE Integrator)



C17901.D 12120025.M Fri Jan 05 15:53:37 2001 RPT1

Data File : C:\HPCHEM\1\DATA\121200\C17901.D Vial: 9
Acq On : 12 Dec 2000 16:42 Operator: TAG/VR
Sample : AC04412 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

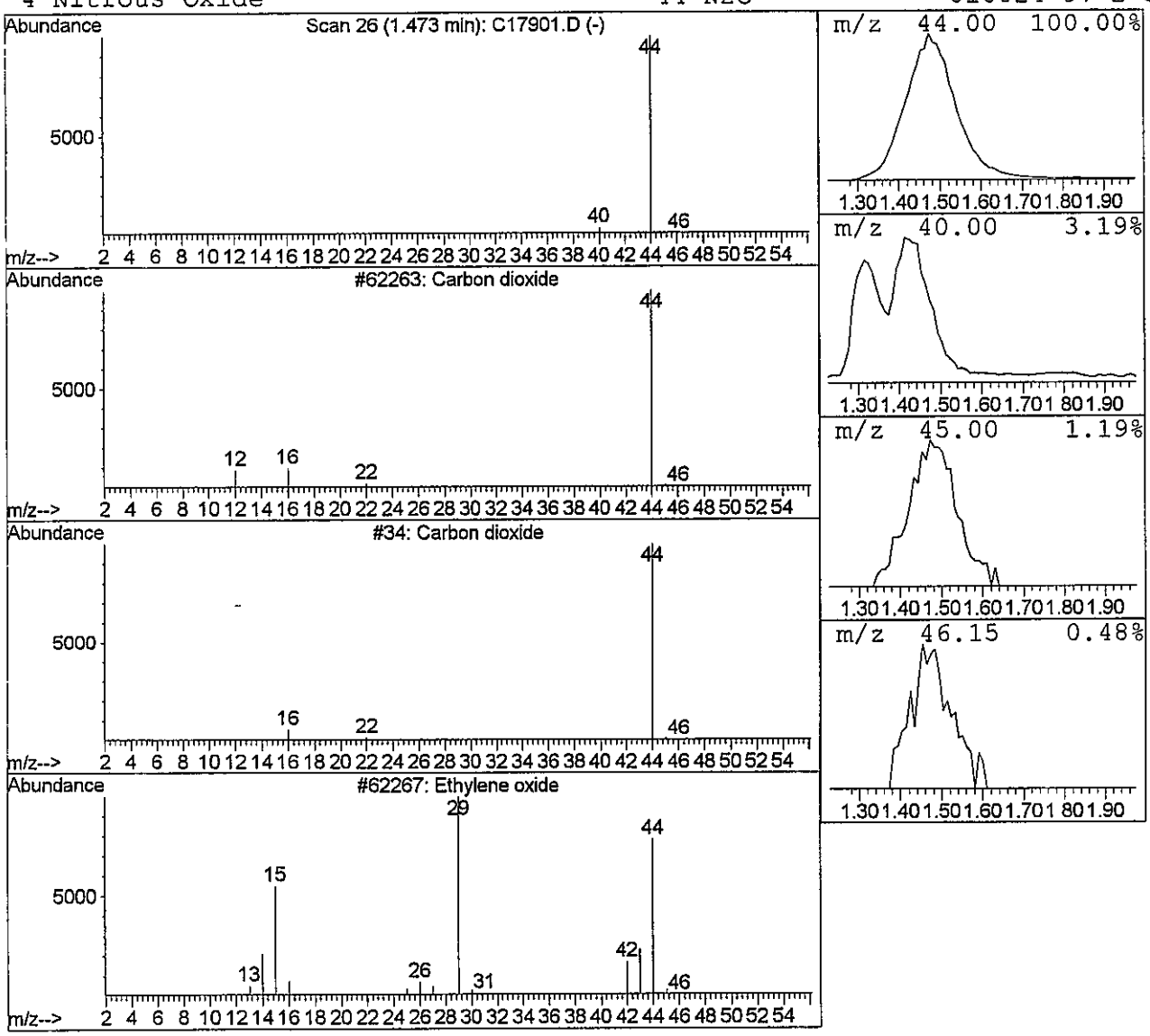
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.47	8.78 ug\L	1129330	Pentafluorobenzene	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\121200\C17901.D Vial: 9
Acq On : 12 Dec 2000 16:42 Operator: TAG/VR
Sample : AC04412 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

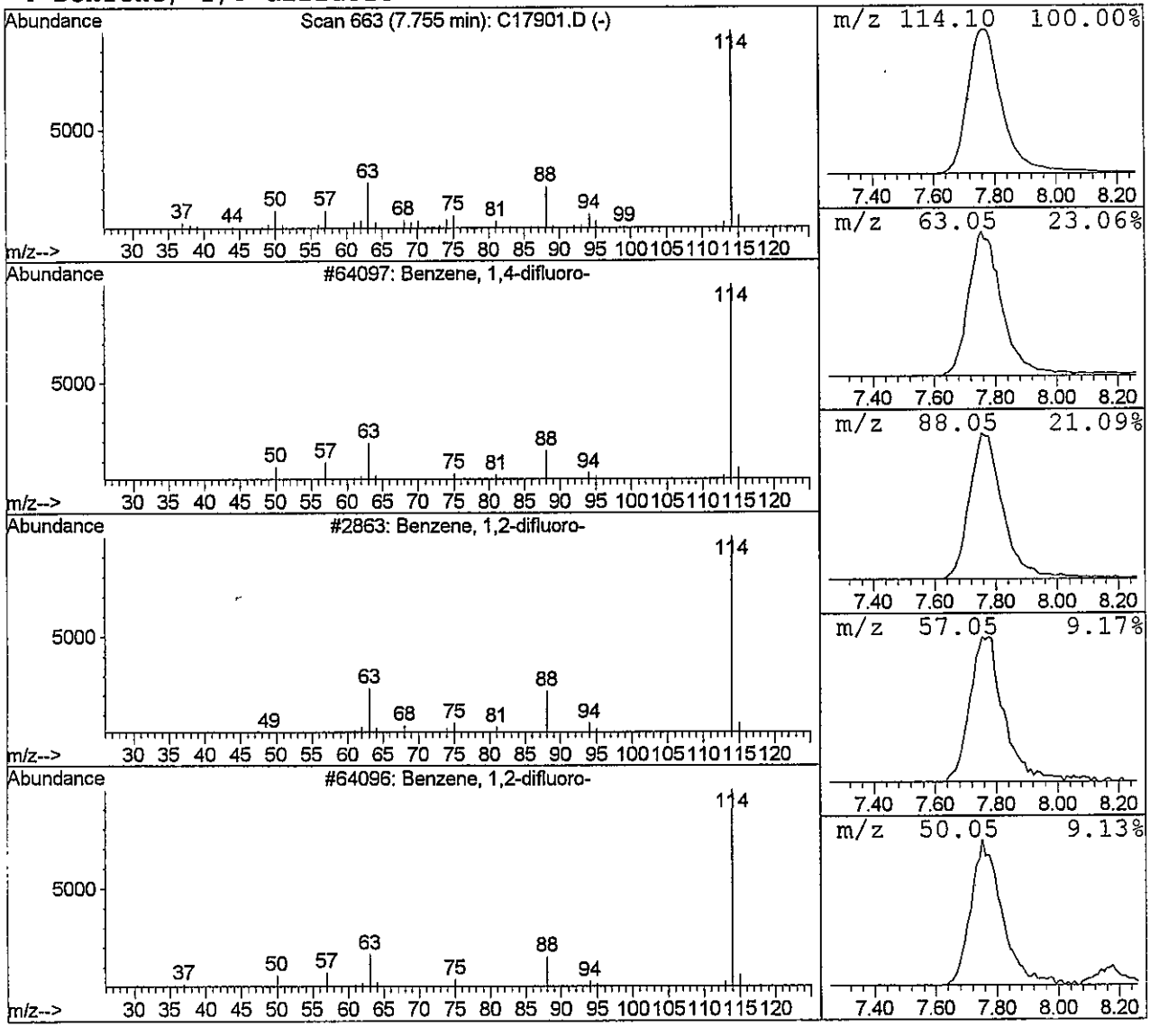
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,4-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.86 ug\L	1010810	Pentafluorobenzene	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 12 Dec 2000 16:42
Data File: C:\HPCHEM\1\DATA\121200\C17901.D
Name: AC04412 25ml DF=1
Misc: 26383/C12060025
Method: c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.47	8.8	ug\L	1129330	ISTD01	6.49	1285890	10.0
Benzene, 1,4-difluor	7.75	7.9	ug\L	1010810	ISTD01	6.49	1285890	10.0

C17901.D 12120025.M Fri Jan 05 15:53:41 2001 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190019.D Vial: 17
Acq On : 20 Dec 2000 9:29 Operator: MT
Sample : AC04413 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:19 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	2106386	45.619 µg/mlm
Spiked Amount 50.000		Recovery =	91.24% MT
3) SC C(39)	34.52	6477177	147.441 ug/mlm
Spiked Amount 300.000		Recovery =	49.15% MT
Target Compounds			
1) HM Florida PRO	3.70	9389418	165.087 ug/ml/1000 =

<DL
MT

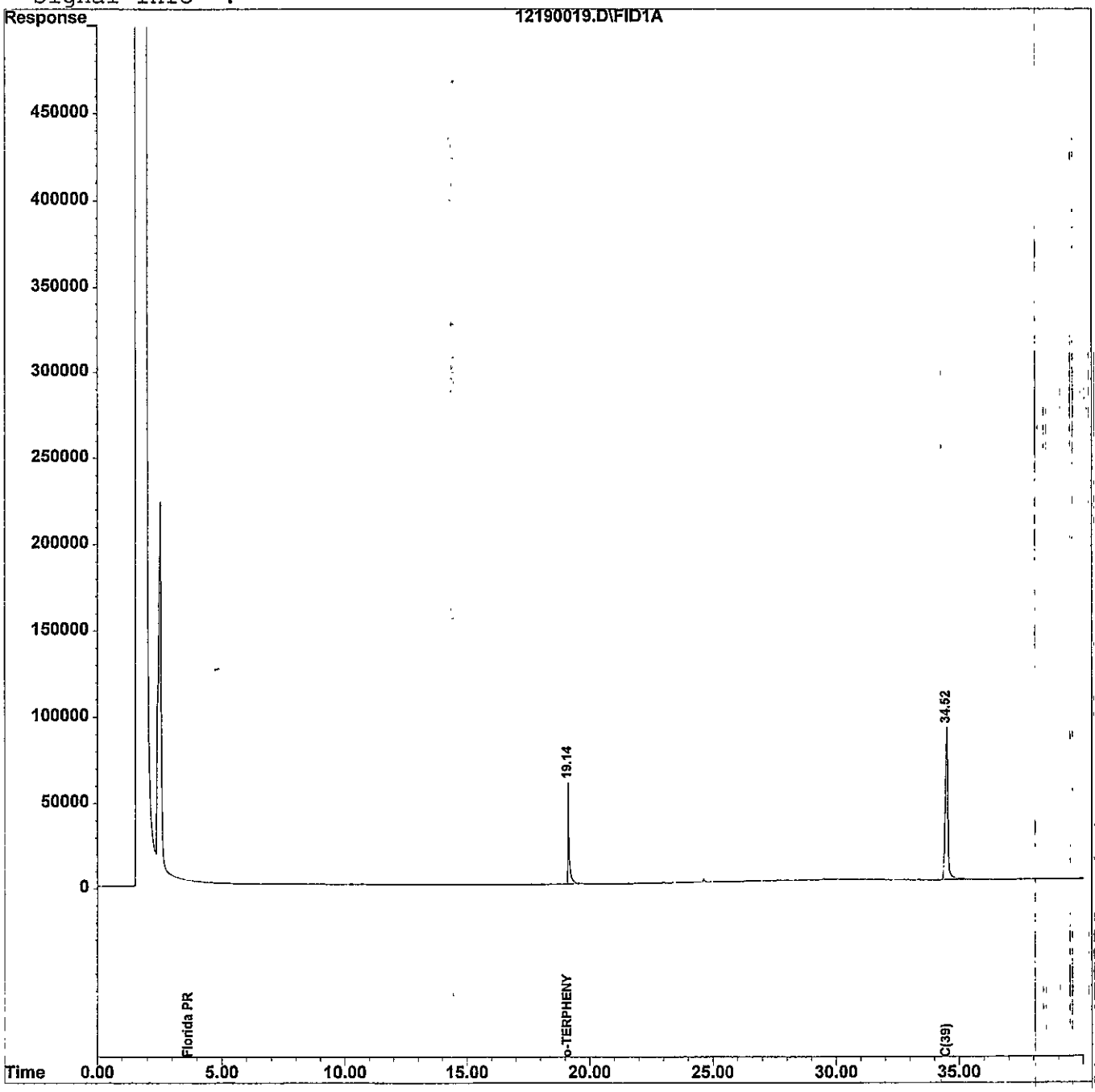
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190019.D Vial: 17
Acq On : 20 Dec 2000 9:29 Operator: MT
Sample : AC04413 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:19 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17902.D
Acq On : 12 Dec 2000 17:12
Sample : AC04413 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 12 17:38 2000

Vial: 10
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	417519	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.80	117	296365	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.91	152	156697	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	76854	8.46 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.60%		
46) Toluene-d8	10.28	98	405241	9.52 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.20%		
65) Bromofluorobenzene	14.88	95	206490	9.75 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.50%		
Target Compounds					Qvalue
36) Trichloroethene	8.16	95	1914126	96.95 ug\L	92 ~DIL
64) 1,4-dichloro-2-Butene	14.89	75	107396	~~22.42 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.89	75	107396	~~22.42 ug\L #~~	100
78) Isopropyltoluene	16.88	119	51085	0.80 ug\L	100 (0.80J)

VR
12/13/00

(#) = qualifier out of range (m) = manual integration

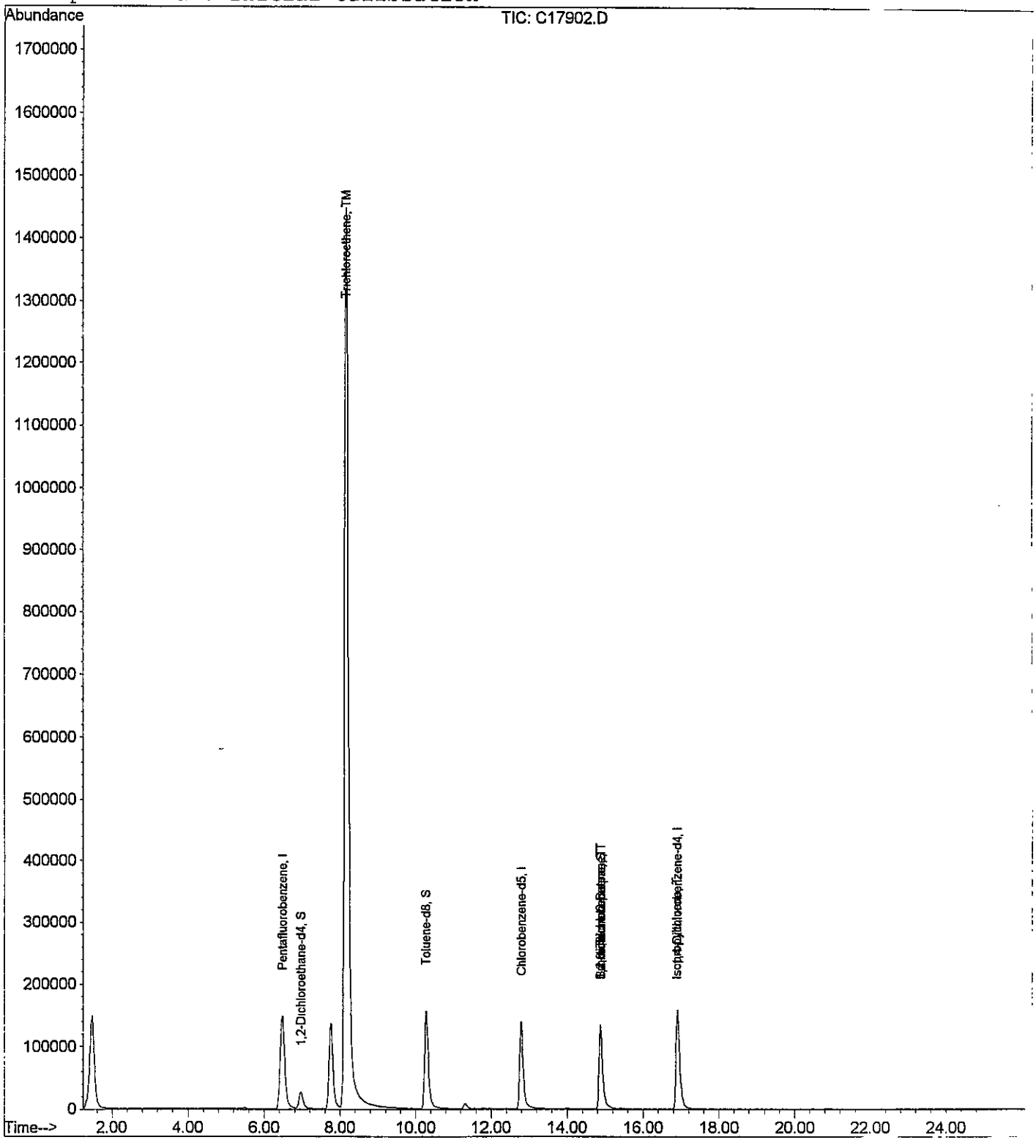
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17902.D
Acq On : 12 Dec 2000 17:12
Sample : AC04413 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 12 17:38 2000

Vial: 10
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12120025.RES

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-08B

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04413

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17902.D

Level: (low/med) LOW Date Received: 12/05/00

% Moisture: not dec. _____ Date Analyzed: 12/12/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000124-38-9	Carbon dioxide	1.48	10	JN
2. 000367-11-3	Benzene, 1,2-difluoro-	7.76	8	JN

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121200\C17902.D
Acq On : 12 Dec 2000 17:12
Sample : AC04413 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: LSCINT.P

Vial: 10
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

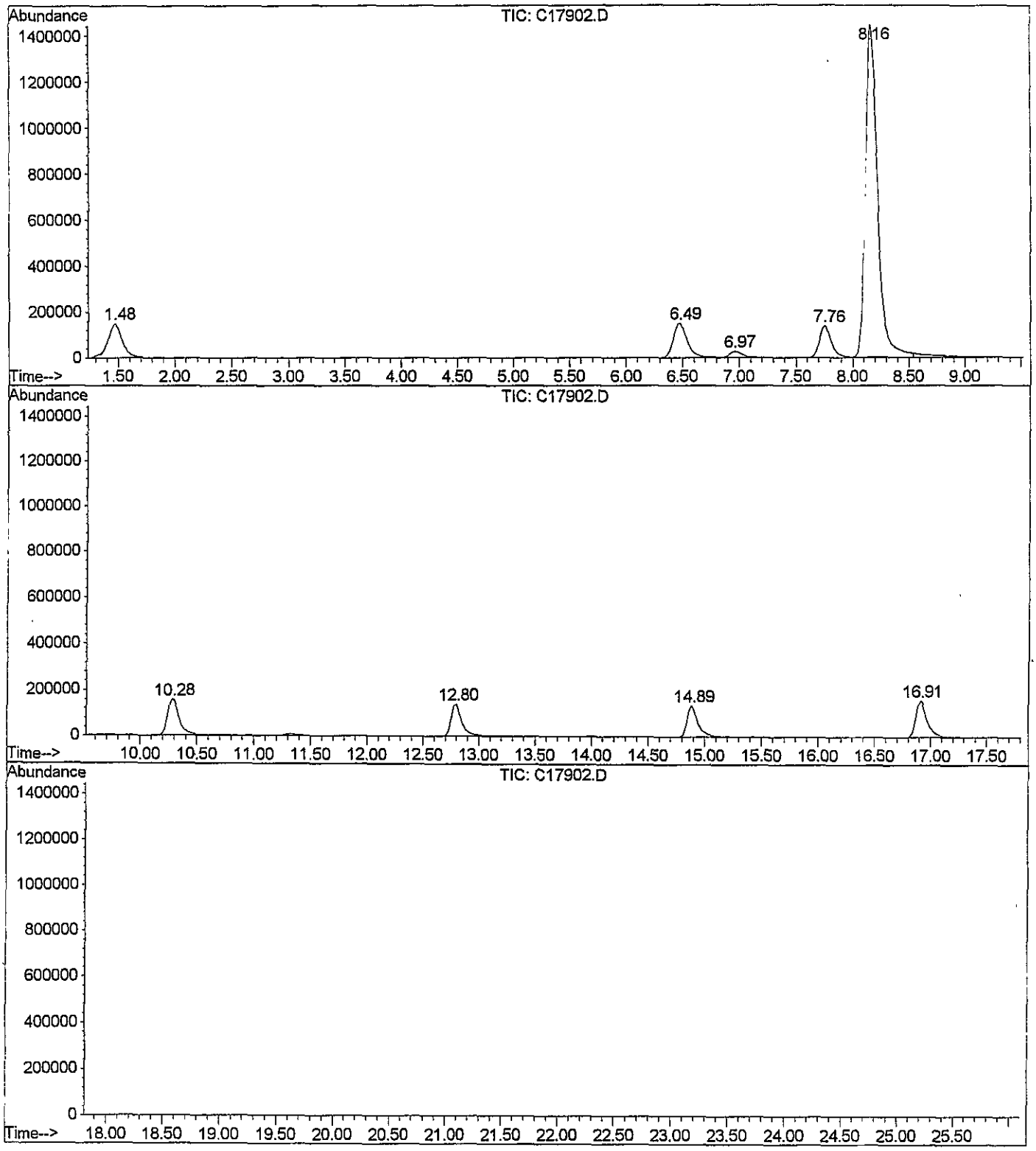
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.478	3	26	50	rBV	149664	1303713	12.16%	7.080%
2	6.488	515	534	560	rBV2	148789	1269102	11.84%	6.893%
3	6.971	569	583	601	rBV3	26109	184700	1.72%	1.003%
4	7.760	649	663	686	rBV2	136301	989040	9.22%	5.371%
5	8.165	688	704	742	rBV2	1444722	10722394	100.00%	58.233%
6	10.285	905	919	947	rBV	156435	1082186	10.09%	5.877%
7	12.800	1160	1174	1199	rBV	139644	906973	8.46%	4.926%
8	14.890	1374	1386	1418	rBV	134224	880159	8.21%	4.780%
9	16.912	1578	1591	1616	rBV3	157532	1074520	10.02%	5.836%

Sum of corrected areas: 18412787

C17902.D 12120025.M Fri Jan 05 15:56:16 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121200\C17902.D
Operator : TAG/VR
Acquired : 12 Dec 2000 17:12 using AcqMethod 12120025
Instrument : VOA-C
Sample Name: AC04413 25ml DF=1
Misc Info : 26383/C12060025
Vial Number: 10
Quant File :12120025.RES (RTE Integrator)



C17902.D 12120025.M Fri Jan 05 15:56:17 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121200\C17902.D Vial: 10
Acq On : 12 Dec 2000 17:12 Operator: TAG/VR
Sample : AC04413 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

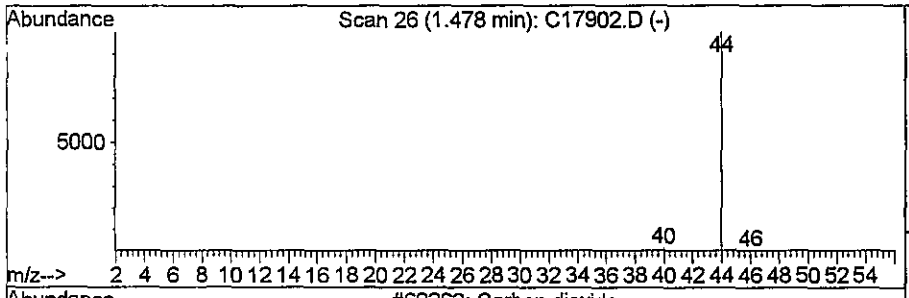
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

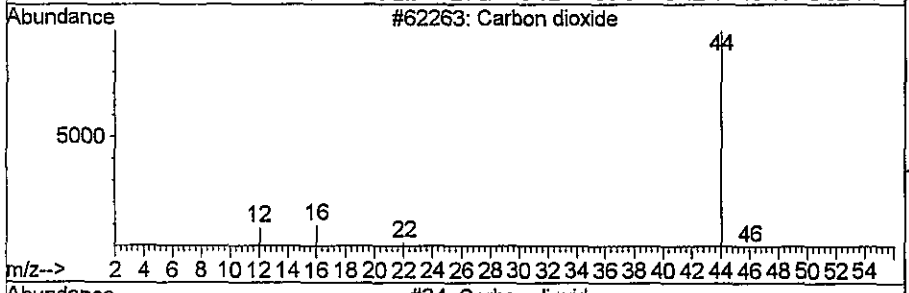
****

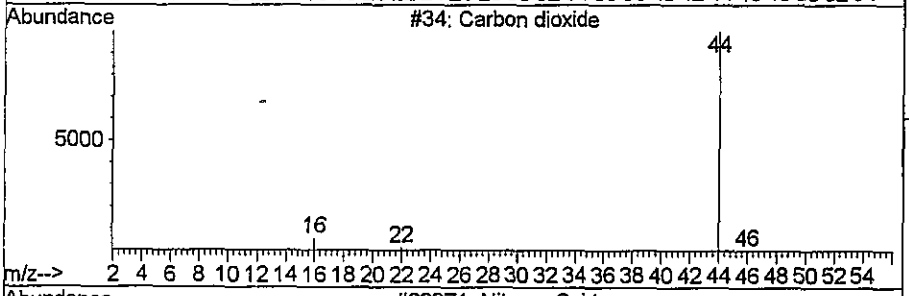
Peak Number 1 Carbon dioxide Concentration Rank 1

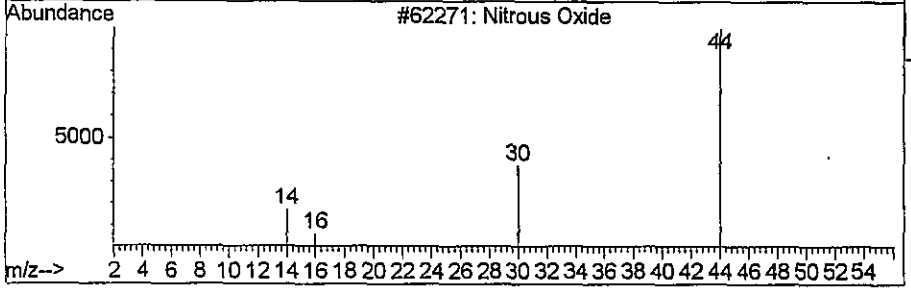
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.48	10.27 ug\L	1303710	Pentafluorobenzene	6.49

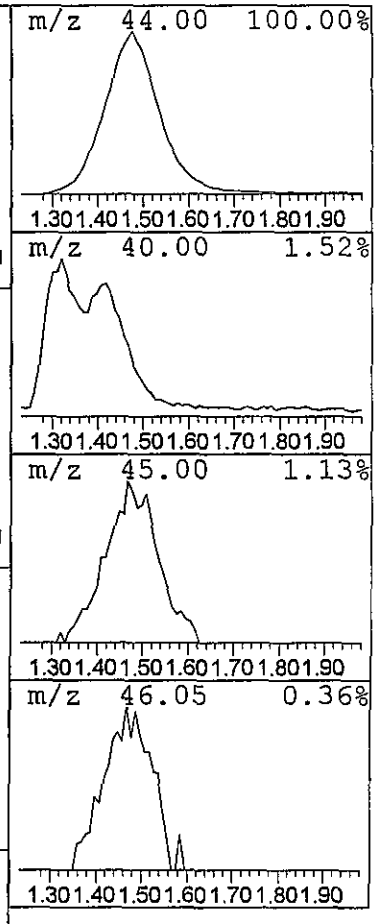
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Data File : C:\HPCHEM\1\DATA\121200\C17902.D Vial: 10
Acq On : 12 Dec 2000 17:12 Operator: TAG/VR
Sample : AC04413 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

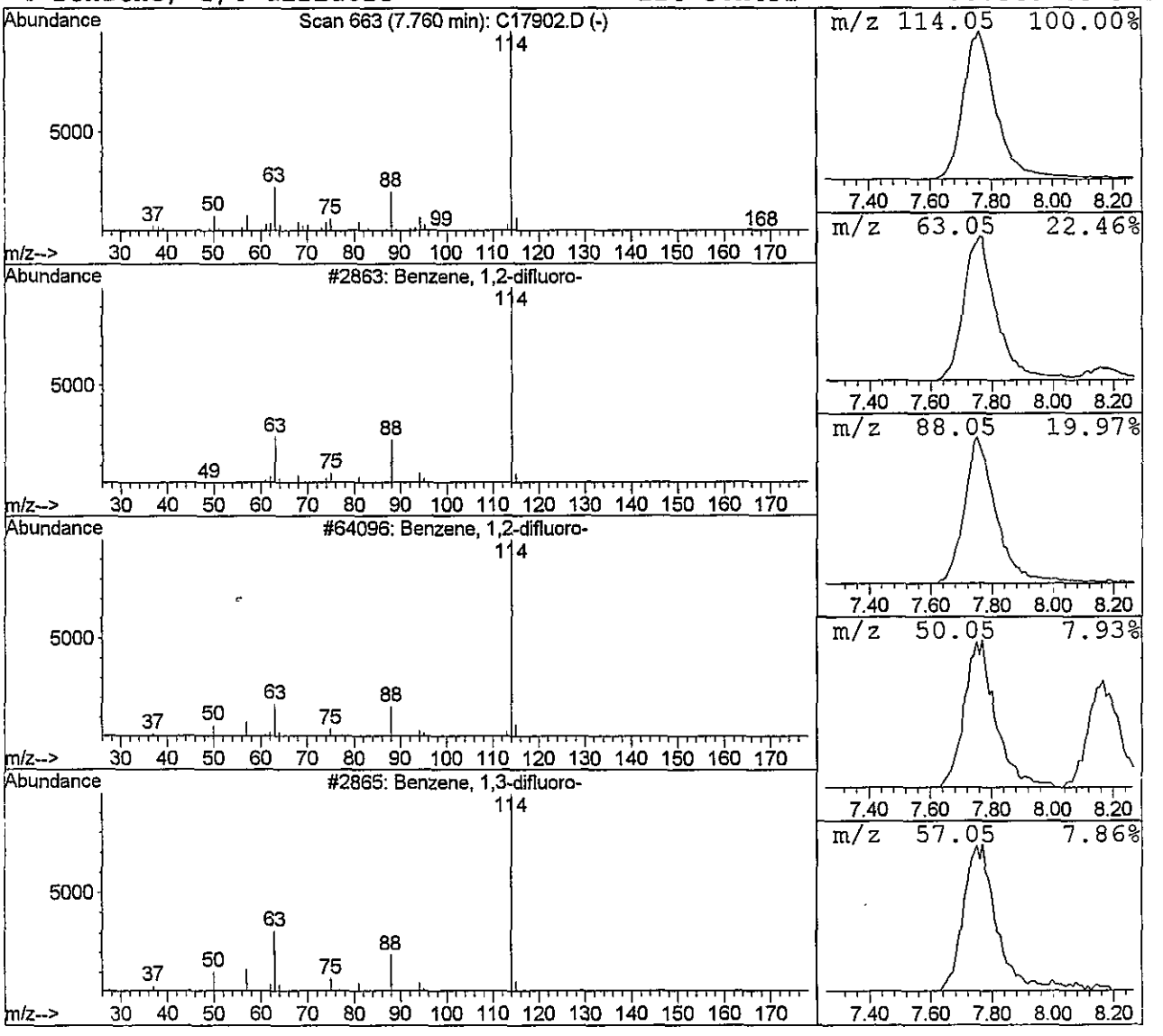
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,2-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.76	7.79 ug\L	989040	Pentafluorobenzene	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 12 Dec 2000 17:12
Data File: C:\HPCHEM\1\DATA\121200\C17902.D
Name: AC04413 25ml DF=1
Misc: 26383/C12060025
Method: c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.48	10.3	ug\L	1303710	ISTD01	6.49	1269100	10.0
Benzene, 1,2-difluor	7.76	7.8	ug\L	989040	ISTD01	6.49	1269100	10.0

C17902.D 12120025.M Fri Jan 05 15:56:21 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17920.D Vial: 4
Acq On : 13 Dec 2000 13:18 Operator: TAG/VR
Sample : AC04413 2.5ml DF=10 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 13:45 2000 Quant Results File: 12130025.RES

Quant Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	401544	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	278252	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	145992	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	74095	8.48 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery =	84.80%	
46) Toluene-d8	10.28	98	387448	9.69 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery =	96.90%	
65) Bromofluorobenzene	14.87	95	189151	9.58 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery =	95.80%	

Target Compounds					Qvalue
16) Methylene Chloride	3.51	86	3902	0.72 ug\L #	1
34) Isobutyl alcohol	7.16	43	133	-2.29 ug\L #	17
36) Trichloroethene	8.16	95	184755	9.73 ug\L	93
64) 1,4-dichloro-2-Butene	14.88	75	94659	21.21 ug\L #	100
68) 1,2,3-Trichloropropane	14.88	75	94659	21.21 ug\L #	100
85) Naphthalene	20.89	128	8855	0.51 ug\L	100
86) 1,2,3-Trichlorobenzene	21.34	180	5621	0.54 ug\L #	94

97

VR
12/14/00

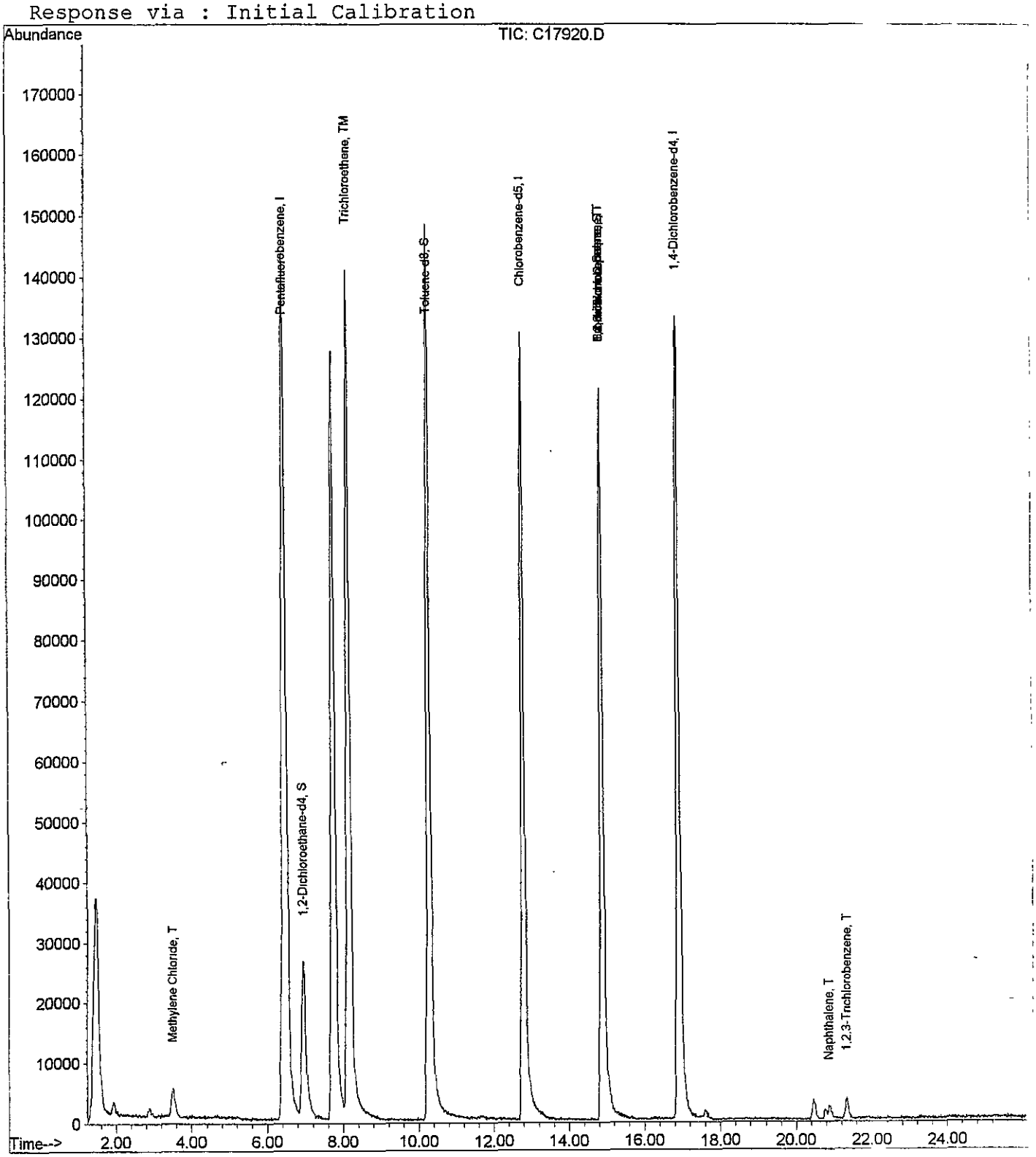
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17920.D
Acq On : 13 Dec 2000 13:18
Sample : AC04413 2.5ml DF=10
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 13 13:45 2000

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190020.D Vial: 18
Acq On : 20 Dec 2000 10:17 Operator: MT
Sample : AC04414 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	1901938	41.192 µg/mlm
Spiked Amount 50.000		Recovery =	82.38% ✓MT
3) SC C(39)	34.48	4192717	95.439 ug/mlm
Spiked Amount 300.000		Recovery =	31.81% x MT
Target Compounds			
1) HM Florida PRO	3.70	7570365	133.104 ug/ml =

<DL

MT

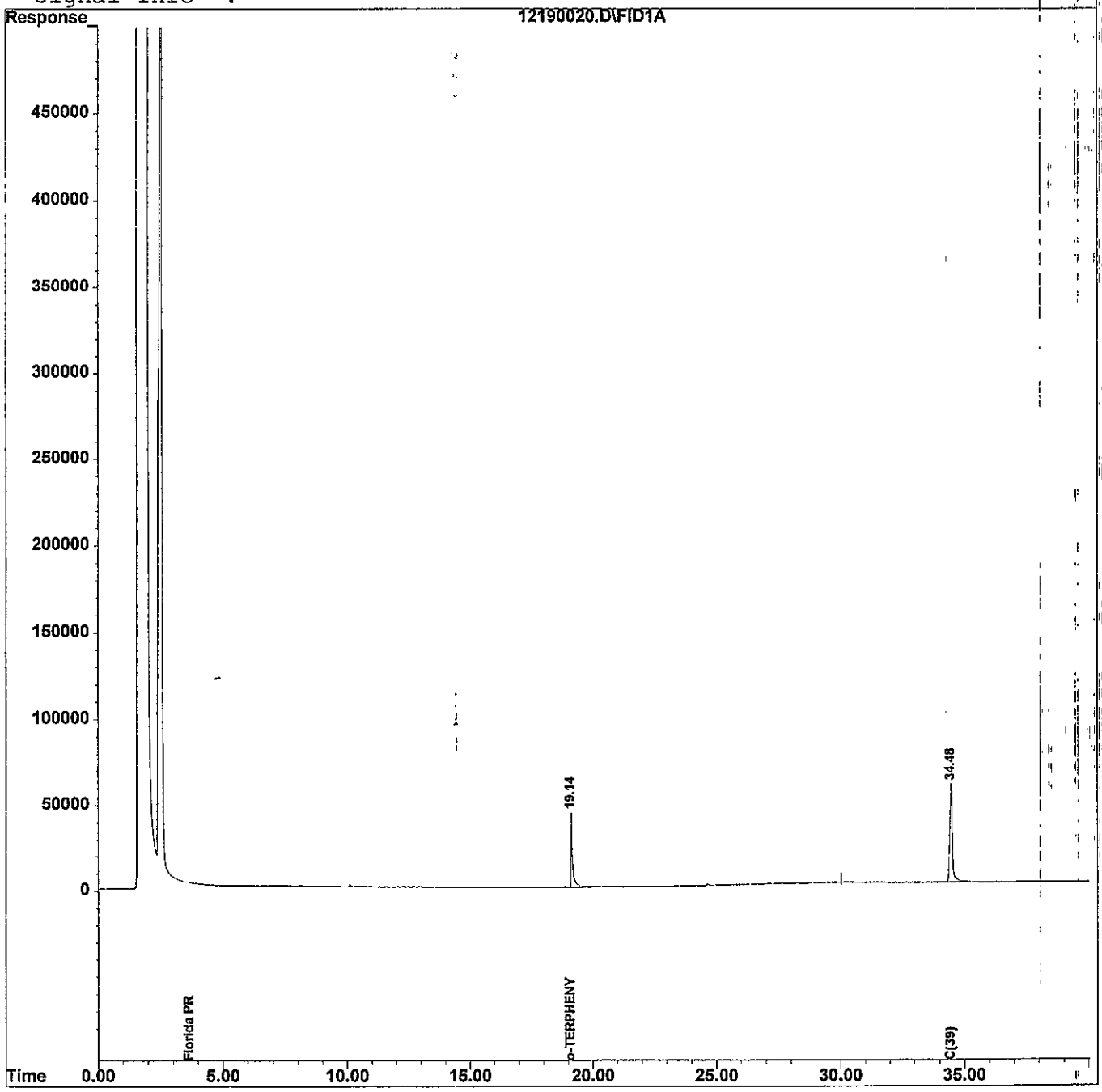
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190020.D Vial: 18
Acq On : 20 Dec 2000 10:17 Operator: MT
Sample : AC04414 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17903.D
Acq On : 12 Dec 2000 17:42
Sample : AC04414 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 12 18:09 2000

Vial: 11
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	391119	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.79	117	284549	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	153501	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	76971	9.04 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 90.40%		
46) Toluene-d8	10.28	98	374860	9.17 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 91.70%		
65) Bromofluorobenzene	14.88	95	203236	9.79 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.90%		

Target Compounds					Qvalue
8) Acrolein	3.29	56	63	~~8.94 ug\L~~ #	1
11) Acetone	3.05	58	71	~~4.56 ug\L~~ #	1
15) Acetonitrile	3.31	41	960	~~0.64 ug\L~~ #	34
22) cis-1,2-Dichloroethene	5.48	96	21182	1.90 ug\L	84 1.95
25) Methacrylonitrile	6.36	41	8401	~~7.53 ug\L~~ #	32
36) Trichloroethene	8.16	95	3223284	174.28 ug\L	92 NDL
64) 1,4-dichloro-2-Butene	14.88	75	95613	~~20.38 ug\L~~ #	100
68) 1,2,3-Trichloropropane	14.88	75	95613	~~20.38 ug\L~~ #	100

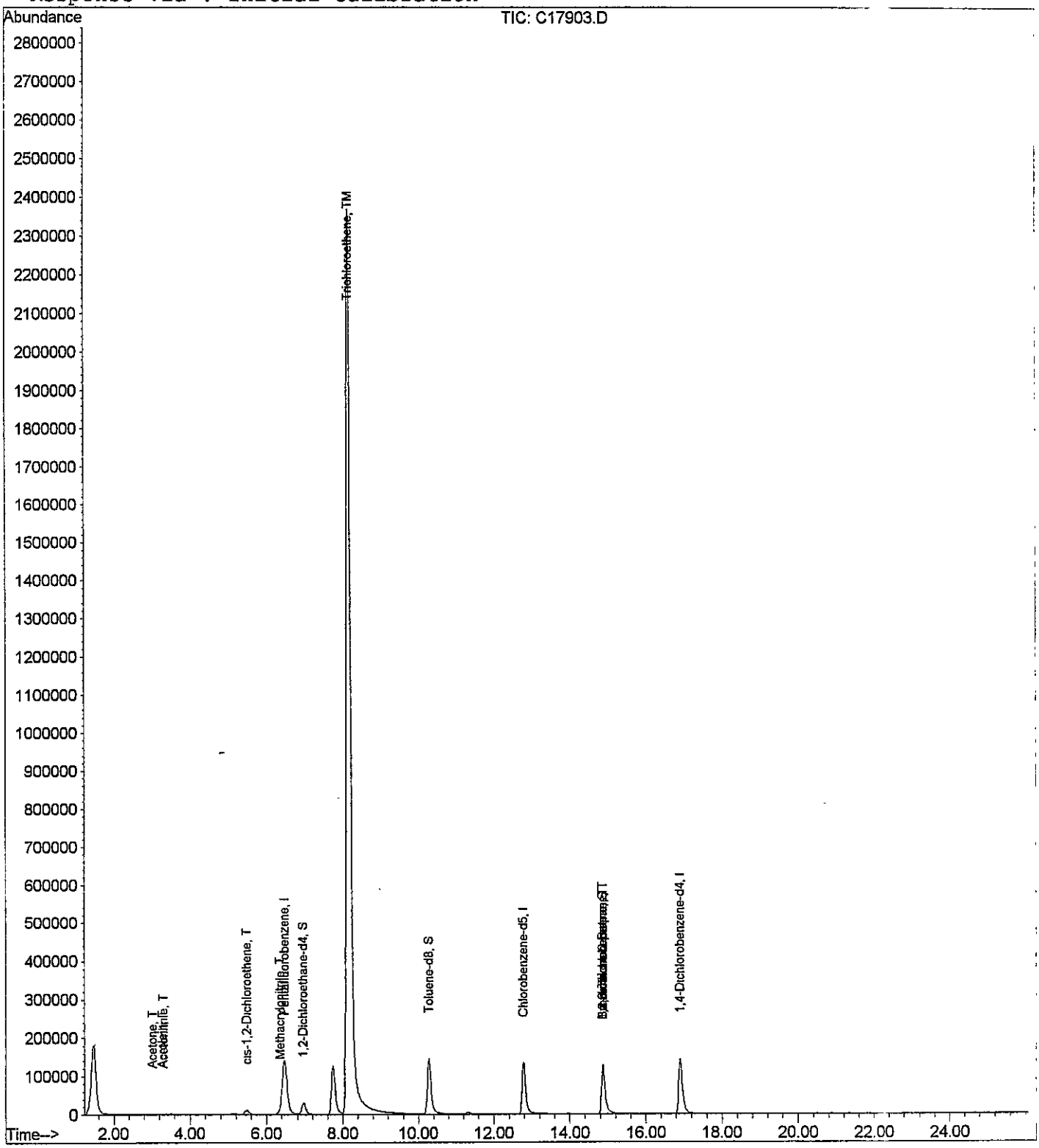
VR
12/13/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17903.D Vial: 11
Acq On : 12 Dec 2000 17:42 Operator: TAG/VR
Sample : AC04414 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 18:09 2000 Quant Results File: 12120025.RES

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-29B

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04414

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17903.D

Level: (low/med) LOW Date Received: 12/05/00

% Moisture: not dec. _____ Date Analyzed: 12/12/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000124-38-9	Carbon dioxide	1.48	13	JN
2. 000540-36-3	Benzene, 1,4-difluoro-	7.75	7	JN

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121200\C17903.D
Acq On : 12 Dec 2000 17:42
Sample : AC04414 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: LSCINT.P

Vial: 11
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

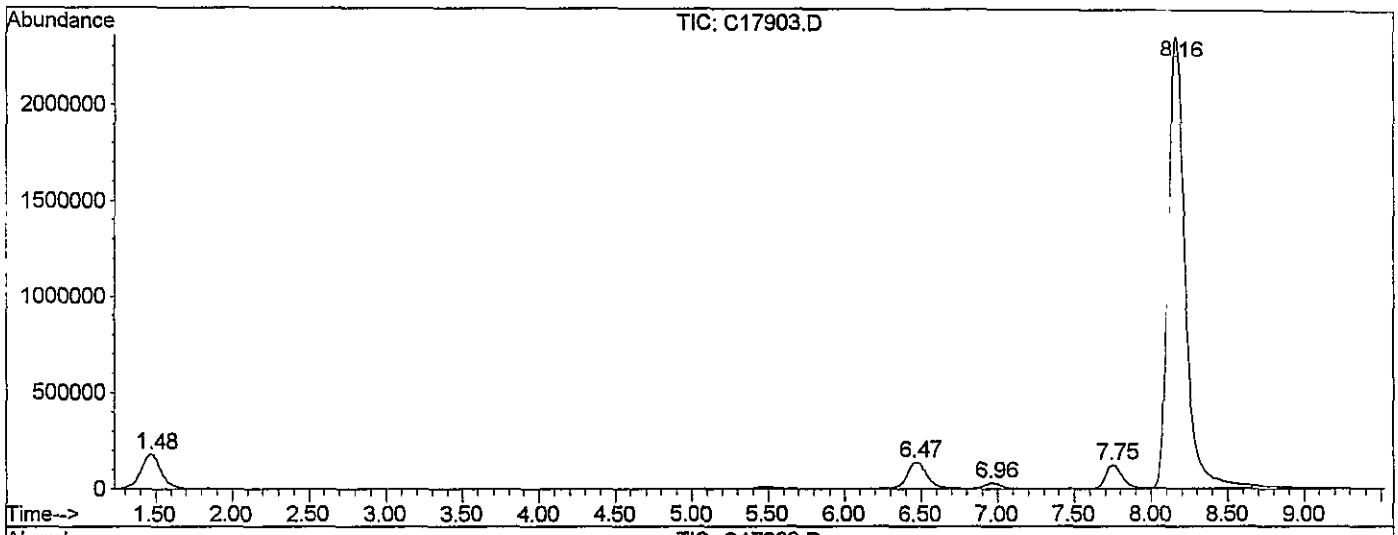
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.477	3	26	54	rBV	180329	1659510	9.12%	6.386%
2	6.468	504	532	561	rBV2	140145	1270373	6.98%	4.889%
3	6.961	569	582	603	rVB3	28944	211395	1.16%	0.813%
4	7.750	647	662	686	rBV	126402	929576	5.11%	3.577%
5	8.164	686	704	754	rBV2	2365654	18199737	100.00%	70.036%
6	10.284	904	919	947	rBV2	144566	993082	5.46%	3.822%
7	12.789	1159	1173	1201	rBV2	134377	881010	4.84%	3.390%
8	14.880	1372	1385	1412	rBV2	128073	858440	4.72%	3.303%
9	16.901	1577	1590	1622	rBV	144863	982996	5.40%	3.783%

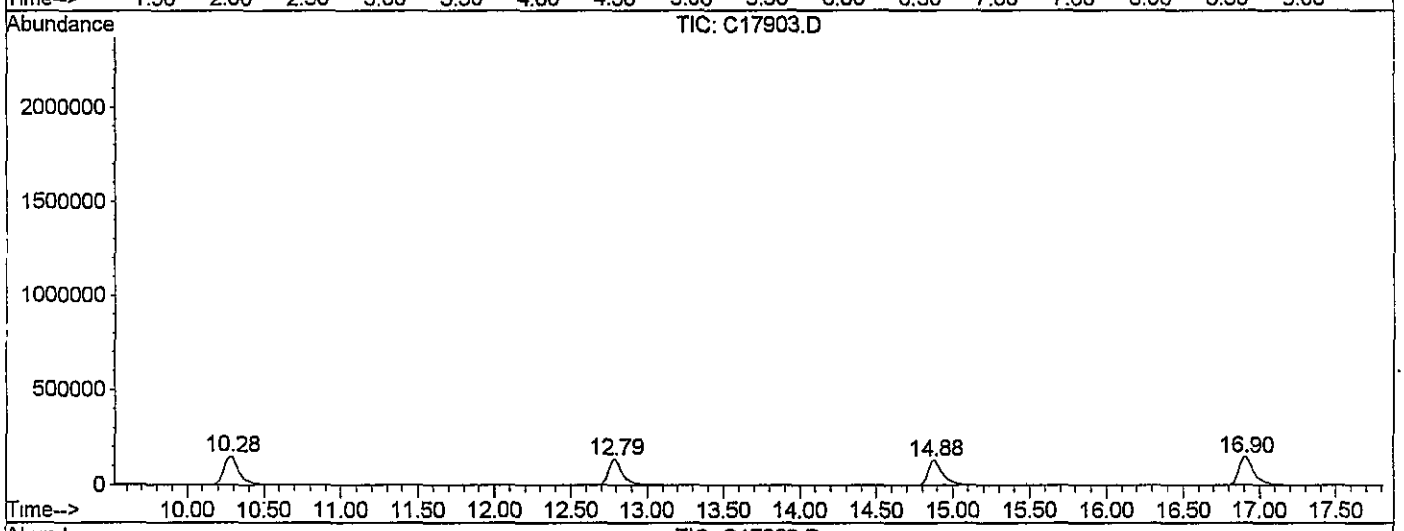
Sum of corrected areas: 25986119

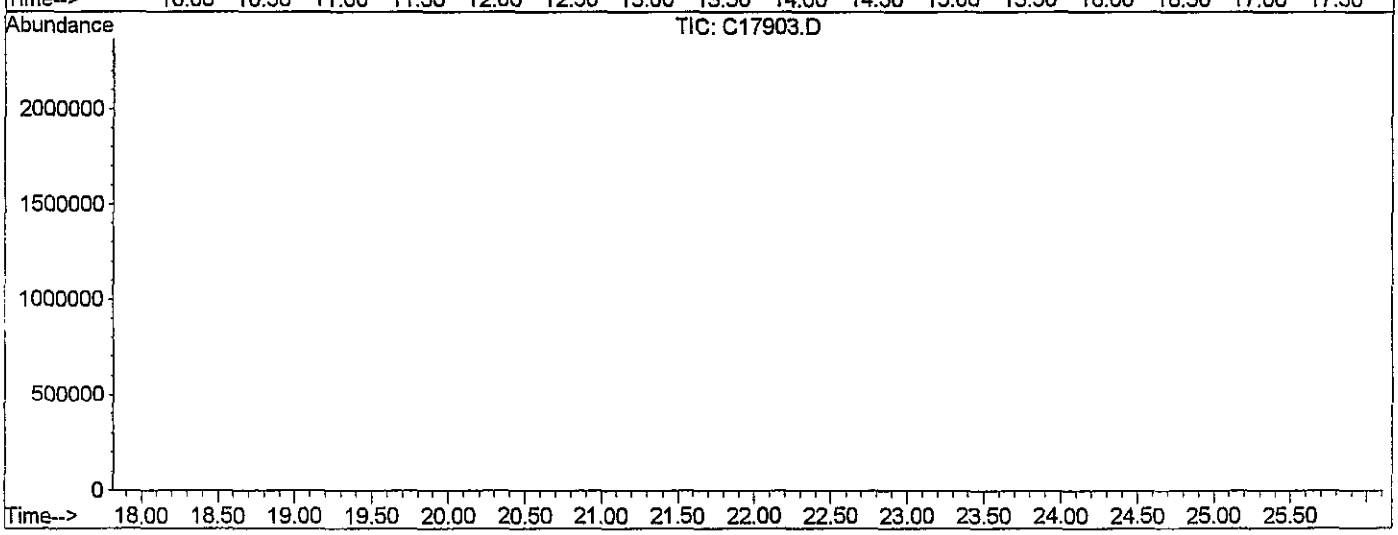
C17903.D 12120025.M Fri Jan 05 15:58:40 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121200\C17903.D
Operator : TAG/VR
Acquired : 12 Dec 2000 17:42 using AcqMethod 12120025
Instrument : VOA-C
Sample Name: AC04414 25ml DF=1
Misc Info : 26383/C12060025
Vial Number: 11
Quant File :12120025.RES (RTE Integrator)







Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121200\C17903.D Vial: 11
Acq On : 12 Dec 2000 17:42 Operator: TAG/VR
Sample : AC04414 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

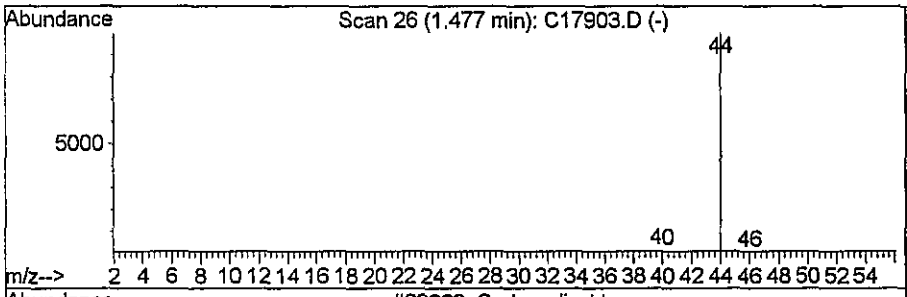
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

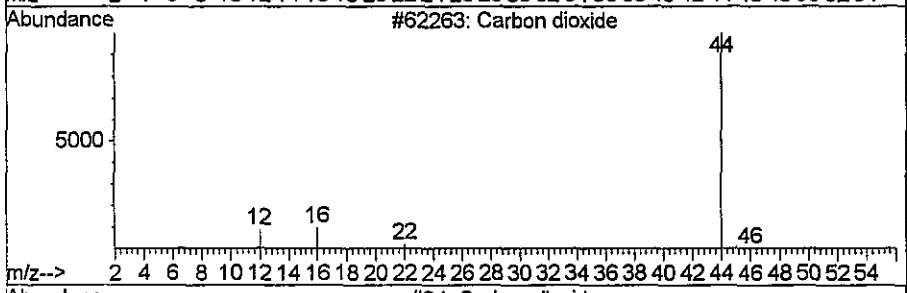
****

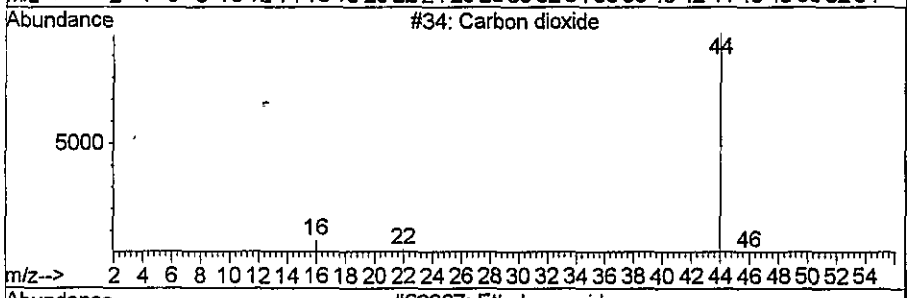
Peak Number 1 Carbon dioxide Concentration Rank 1

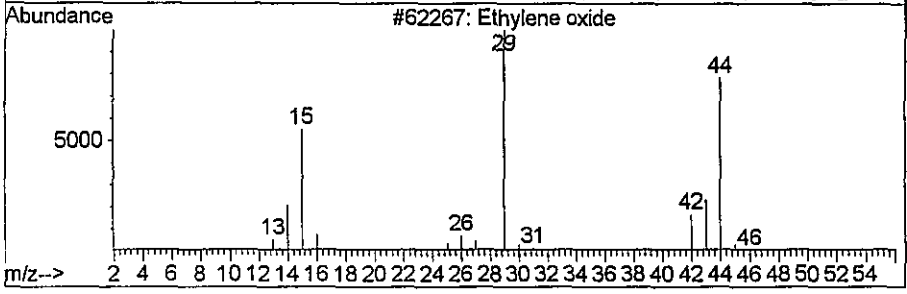
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.48	13.06 ug\L	1659510	Pentafluorobenzene	6.49

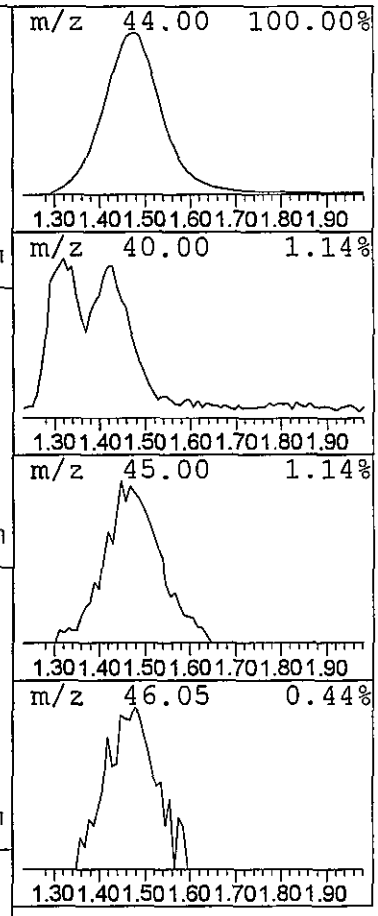
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Data File : C:\HPCHEM\1\DATA\121200\C17903.D
Acq On : 12 Dec 2000 17:42
Sample : AC04414 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: LSCINT.P

Vial: 11
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

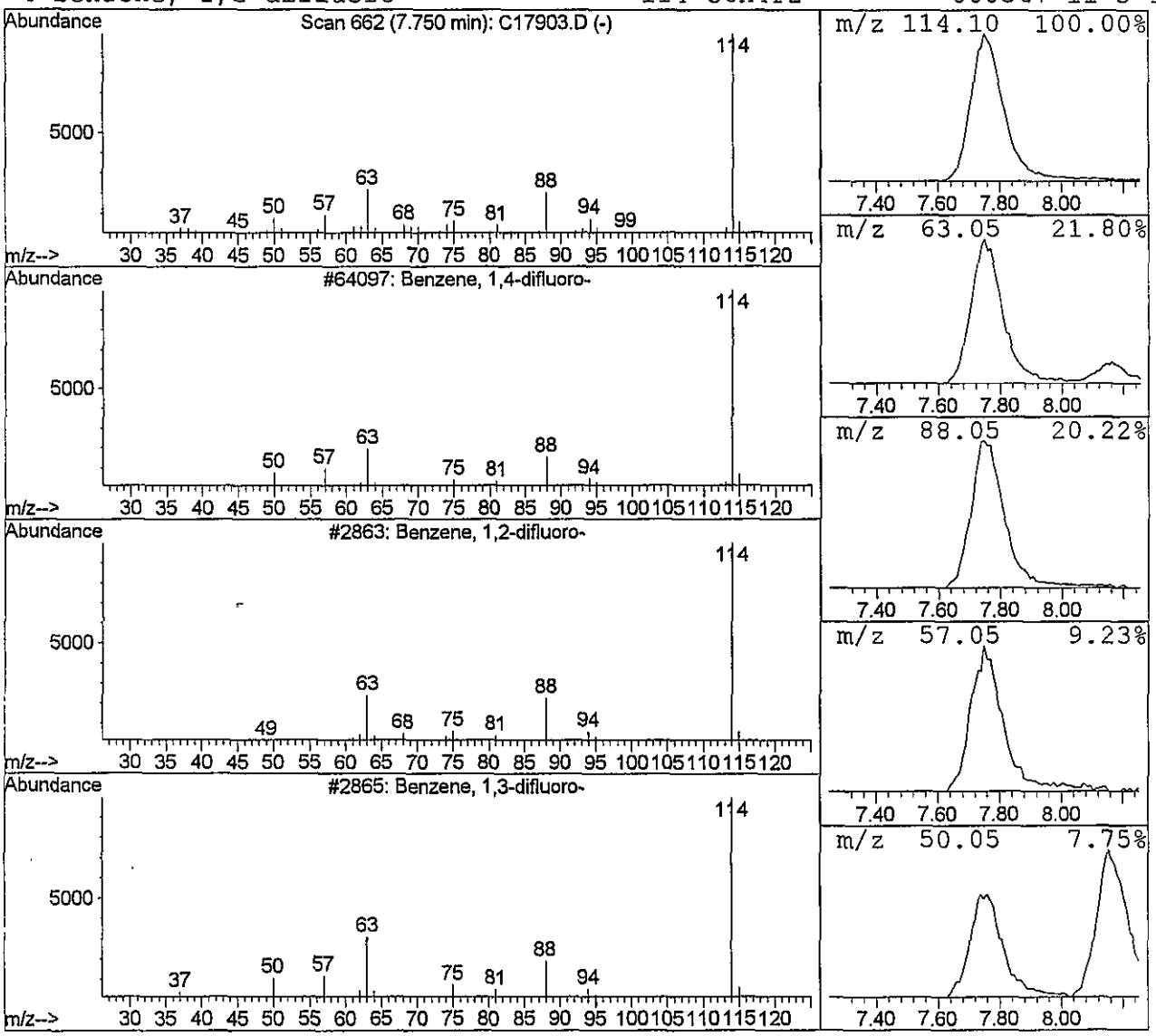
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,4-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.32 ug\L	929576	Pentafluorobenzene	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 12 Dec 2000 17:42
Data File: C:\HPCHEM\1\DATA\121200\C17903.D
Name: AC04414 25ml DF=1
Misc: 26383/C12060025
Method: c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.48	13.1	ug\L	1659510	ISTD01	6.49	1270370	10.0
Benzene, 1,4-difluor	7.75	7.3	ug\L	929576	ISTD01	6.49	1270370	10.0

C17903.D 12120025.M Fri Jan 05 15:58:45 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17921.D
Acq On : 13 Dec 2000 13:48
Sample : AC04414 2.5ml DF=10
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 13 14:15 2000

Vial: 5
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Quant Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	409839	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.79	117	303783	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	155796	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	80165	8.99 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.90%		
46) Toluene-d8	10.28	98	413841	9.48 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.80%		
65) Bromofluorobenzene	14.88	95	200494	9.52 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.20%		

Target Compounds					Qvalue
16) Methylene Chloride	3.52	86	9919	1.78 ug\L #	27
36) Trichloroethene	8.16	95	362334	18.70 ug\L	94
64) 1,4-dichloro-2-Butene	14.87	75	104346	21.91 ug\L #	100
68) 1,2,3-Trichloropropane	14.87	75	104346	21.91 ug\L #	100

190

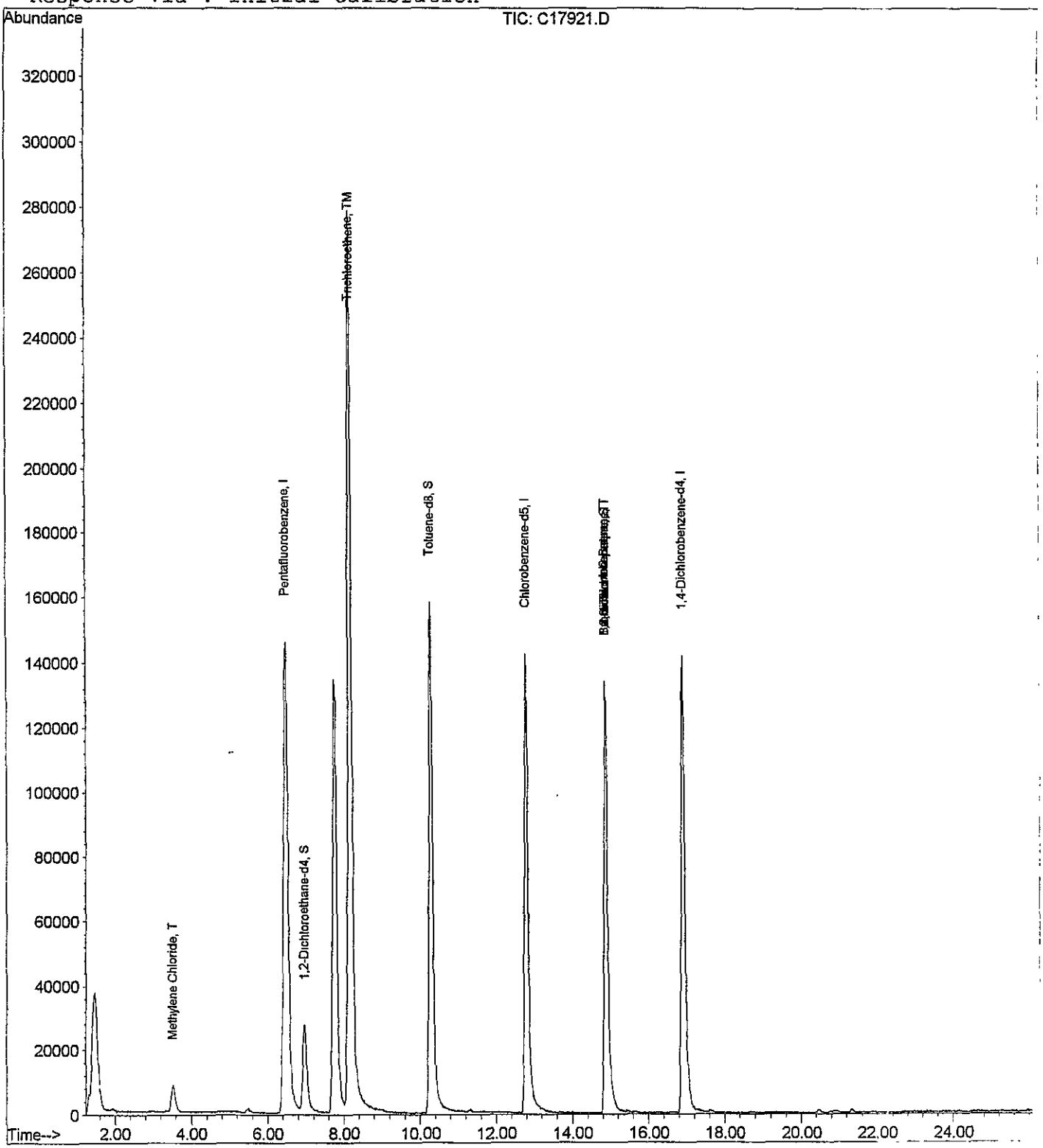
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17921.D Vial: 5
Acq On : 13 Dec 2000 13:48 Operator: TAG/VR
Sample : AC04414 2.5ml DF=10 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 14:15 2000 Quant Results File: 12130025.RES

Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190021.D Vial: 19
Acq On : 20 Dec 2000 11:06 Operator: MT
Sample : AC04417 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.12f	1822715	39.476 ug/mlm
Spiked Amount 50.000	Recovery =		78.95% x MT
3) SC C(39)	34.44f	2341215	53.293 ug/mlm
Spiked Amount 300.000	Recovery =		17.76% x MT
Target Compounds			
1) HM Florida PRO	3.70	5765811	101.376 ug/ml =

<DL
MT

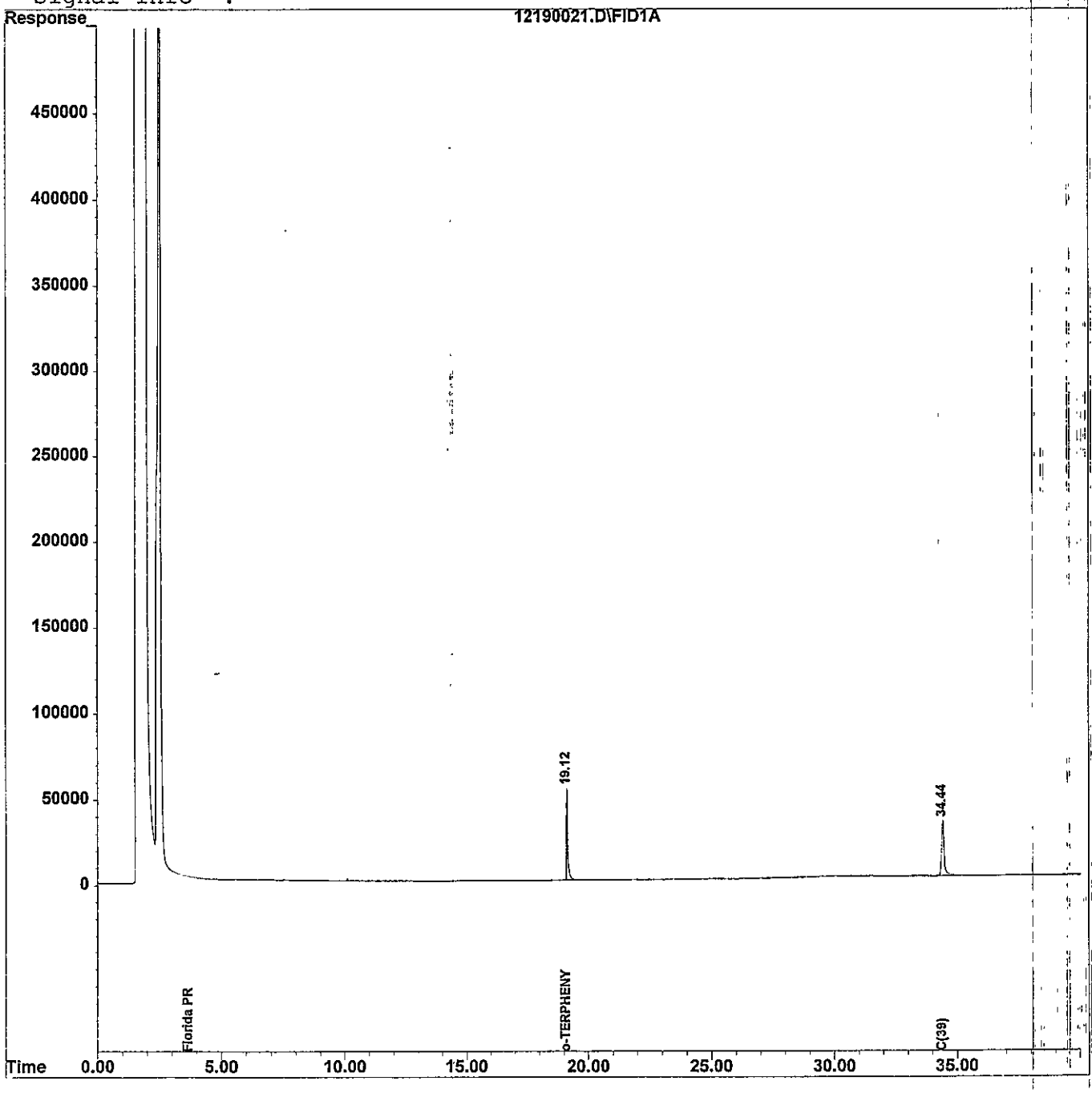
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190021.D Vial: 19
Acq On : 20 Dec 2000 11:06 Operator: MT
Sample : AC04417 Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17904.D Vial: 12
Acq On : 12 Dec 2000 18:13 Operator: TAG/VR
Sample : AC04417 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 18:39 2000 Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	421708	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.80	117	303918	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.91	152	159795	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	82373	8.97 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.70%		
46) Toluene-d8	10.29	98	417451	9.56 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%		
65) Bromofluorobenzene	14.88	95	210898	9.76 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.60%		

Target Compounds					Qvalue
8) Acrolein	3.79	56	6969	~~38.18 ug\L #~~	3
9) Acrylonitrile	3.43	53	195	~~1.10 ug\L #~~	19
15) Acetonitrile	3.42	41	5961	~~3.66 ug\L #~~	46
22) cis-1,2-Dichloroethene	5.49	96	27579	2.29 ug\L	85 2.3J
24) Propionitrile	5.28	54	69	~~16.48 ug\L #~~	57
25) Methacrylonitrile	6.35	41	51452	~~42.79 ug\L #~~	57
30) 1,4-Dioxane	8.66	88	62	~~2.69 ug\L #~~	1
34) Isobutyl alcohol	7.14	43	1557	~~19.64 ug\L #~~	45
36) Trichloroethene	8.16	95	90325	4.53 ug\L	92 4.5J
41) 2-Nitropropane	9.37	43	13249	~~21.09 ug\L #~~	100
51) Tetrachloroethene	11.32	164	30214	1.68 ug\L	95 1.7J
64) 1,4-dichloro-2-Butene	14.89	75	103740	~~21.24 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.89	75	103740	~~21.24 ug\L #~~	100

VR
12/13/00

(#) = qualifier out of range (m) = manual integration

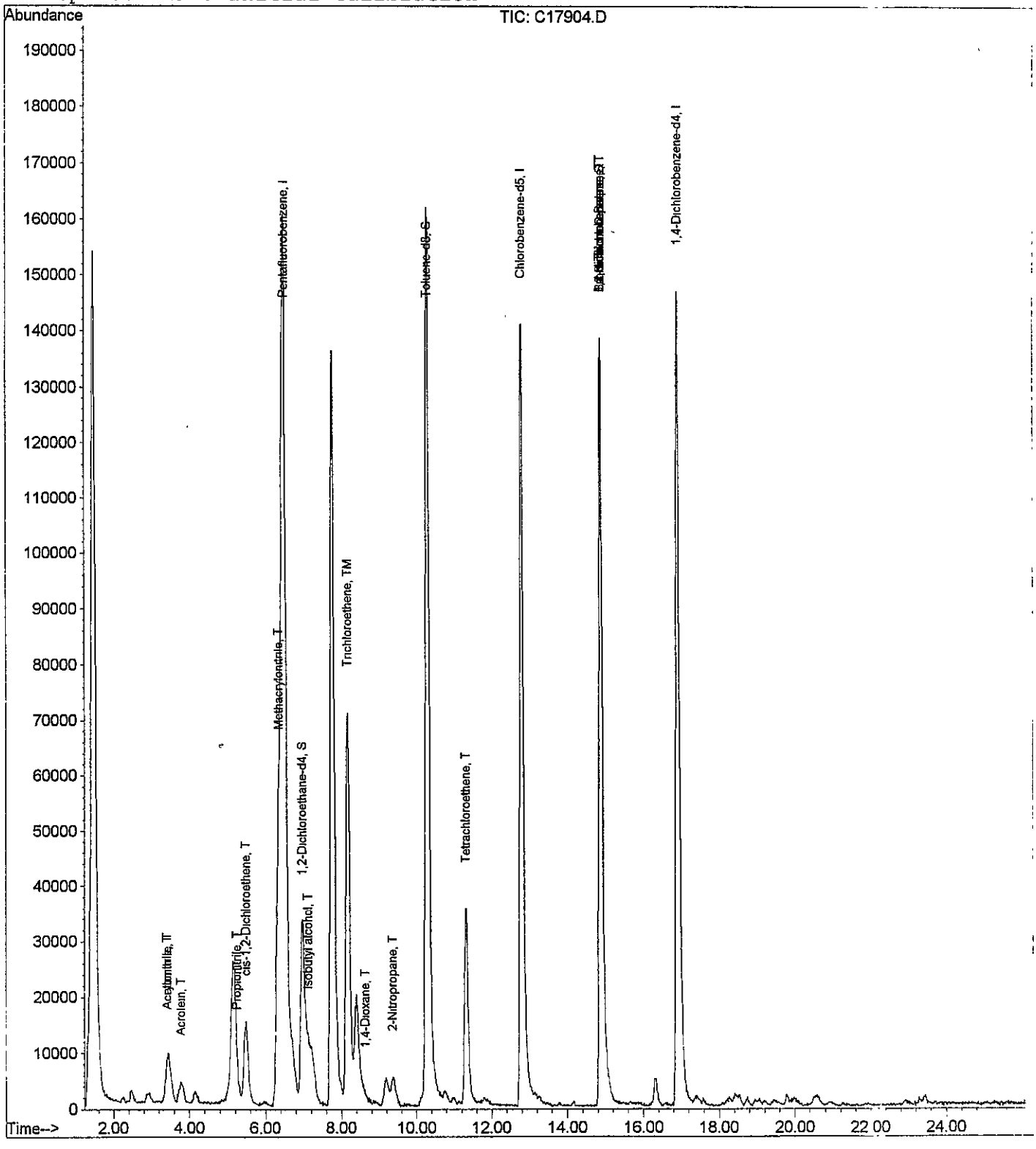
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17904.D
Acq On : 12 Dec 2000 18:13
Sample : AC04417 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 12 18:39 2000

Vial: 12
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12120025.RES

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-10B

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04417

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17904.D

Level: (low/med) LOW Date Received: 12/05/00

% Moisture: not dec. _____ Date Analyzed: 12/12/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121200\C17904.D
Acq On : 12 Dec 2000 18:13
Sample : AC04417 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: LSCINT.P

Vial: 12
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

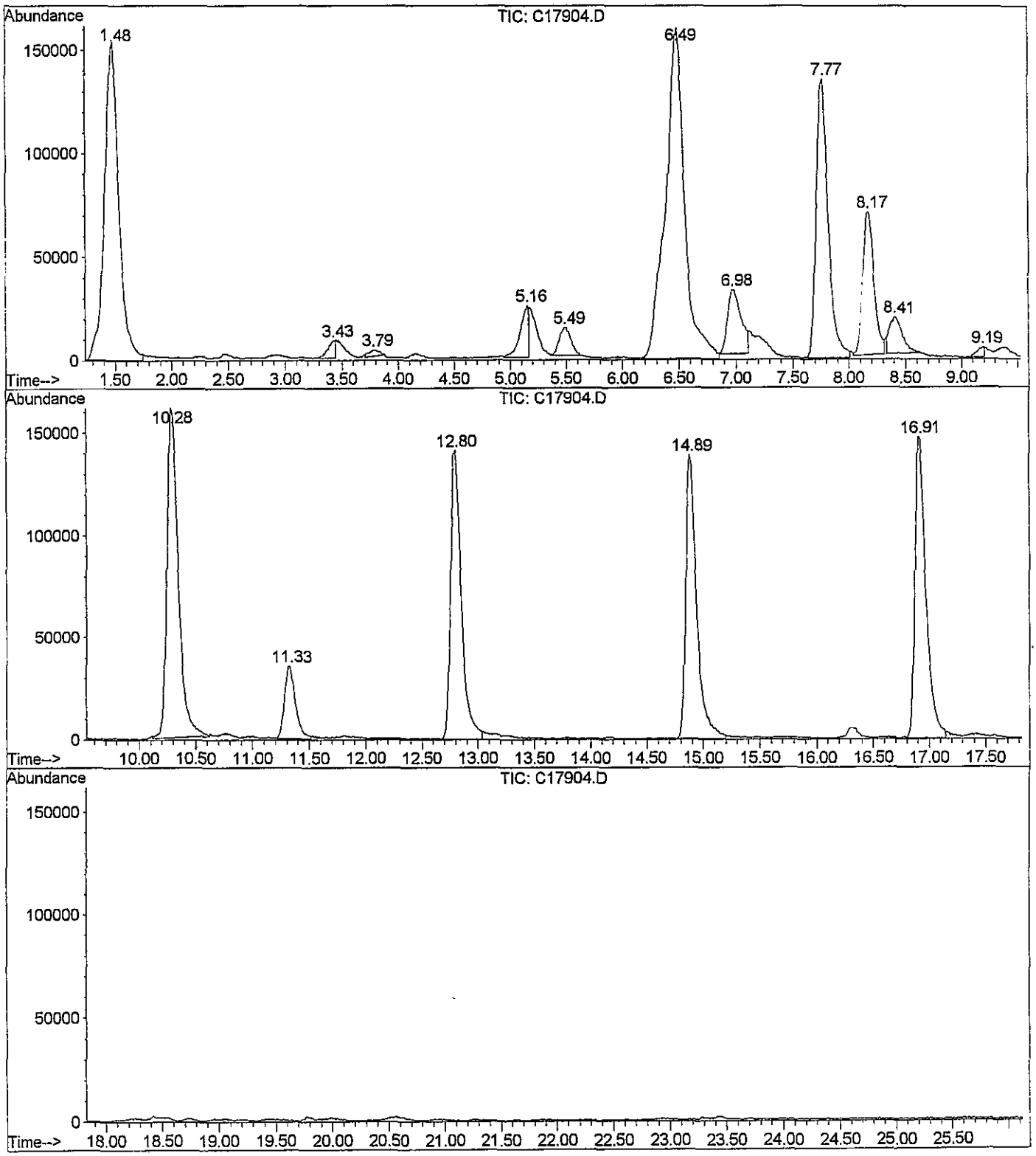
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.478	3	26	53	rBV	153575	1349210	71.99%	14.065%
2	3.431	208	224	225	rBV2	8362	36944	1.97%	0.385%
3	3.786	252	260	268	rVV7	2965	19167	1.02%	0.200%
4	5.157	377	399	400	rBV	24925	127164	6.78%	1.326%
5	5.492	420	433	446	rVB4	13510	97317	5.19%	1.015%
6	6.488	502	534	571	rBV3	160225	1874234	100.00%	19.539%
7	6.981	571	584	597	rBV2	30889	258358	13.78%	2.693%
8	7.770	649	664	688	rBV	135756	1006244	53.69%	10.490%
9	8.174	691	705	719	rVV3	69242	485931	25.93%	5.066%
10	8.411	721	729	750	rVB7	17483	141813	7.57%	1.478%
11	9.190	797	808	809	rBV5	4774	20637	1.10%	0.215%
12	10.285	902	919	953	rVV2	160780	1112547	59.36%	11.598%
13	11.330	1013	1025	1044	rBV3	35139	234338	12.50%	2.443%
14	12.800	1161	1174	1198	rBV2	140792	927258	49.47%	9.667%
15	14.890	1373	1386	1417	rBV2	138243	922880	49.24%	9.621%
16	16.912	1579	1591	1615	rBV2	146558	978357	52.20%	10.199%

Sum of corrected areas: 9592399

C17904.D 12120025.M Fri Jan 05 16:01:24 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121200\C17904.D
Operator : TAG/VR
Acquired : 12 Dec 2000 18:13 using AcqMethod 12120025
Instrument : VOA-C
Sample Name: AC04417 25ml DF=1
Misc Info : 26383/C12060025
Vial Number: 12
Quant File :12120025.RES (RTE Integrator)



C17904.D 12120025.M Fri Jan 05 16:01:25 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121200\C17904.D
Acq On : 12 Dec 2000 18:13
Sample : AC04417 25ml DF=1
Misc : 26383/C12060025
MS Integration Params: LSCINT.P

Vial: 12
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

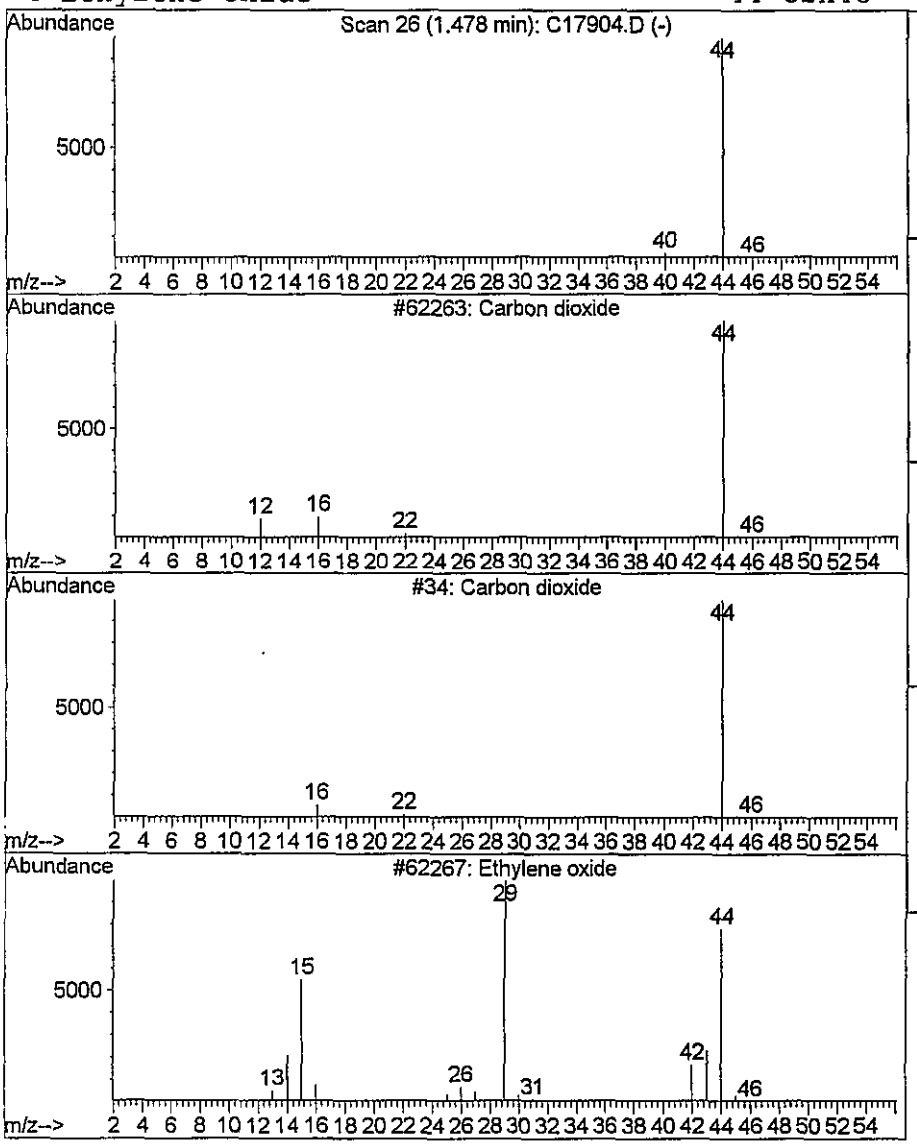
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

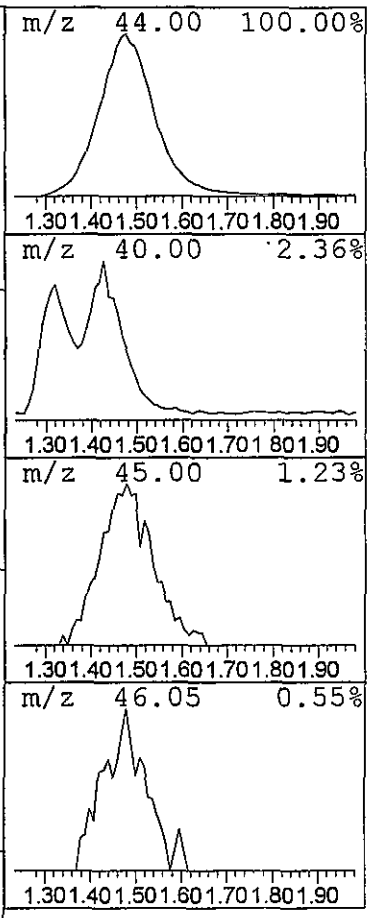
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.48	7.20 ug\L	1349210	Pentafluorobenzene	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3





Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121200\C17904.D Vial: 12
Acq On : 12 Dec 2000 18:13 Operator: TAG/VR
Sample : AC04417 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

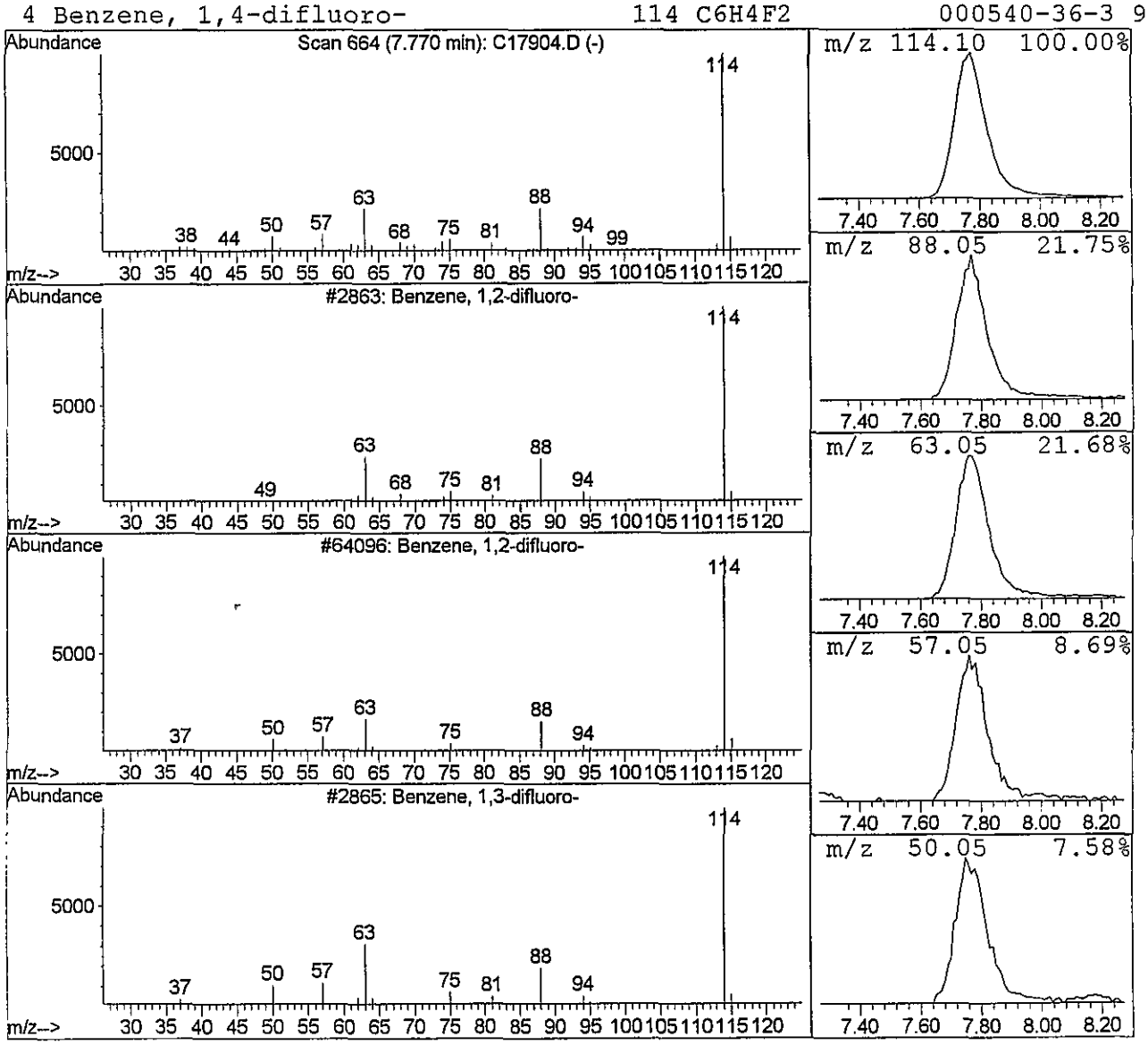
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,2-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.77	5.37 ug\L	1006240	Pentafluorobenzene	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	93



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 12 Dec 2000 18:13
Data File: C:\HPCHEM\1\DATA\121200\C17904.D
Name: AC04417 25ml DF=1
Misc: 26383/C12060025
Method: c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.48	7.2	ug\L	1349210	ISTD01	6.49	1874230	10.0
Benzene, 1,2-difluor	7.77	5.4	ug\L	1006240	ISTD01	6.49	1874230	10.0

C17904.D 12120025.M Fri Jan 05 16:01:29 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17895.D
Acq On : 12 Dec 2000 13:39
Sample : AC04418 5ml DF=1
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 12 14:05 2000

Vial: 3
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	446188	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.80	117	318486	10.00 ug\L	0.02
61) 1,4-Dichlorobenzene-d4	16.91	152	170172	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	85642	8.82 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 88.20%		
46) Toluene-d8	10.29	98	427248	9.34 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.40%		
65) Bromofluorobenzene	14.88	95	217012	9.43 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.30%		

Target Compounds					Qvalue
36) Trichloroethene	7.75	95	13277	~~0.63 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	109997	~~21.15 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	109997	~~21.15 ug\L #~~	100

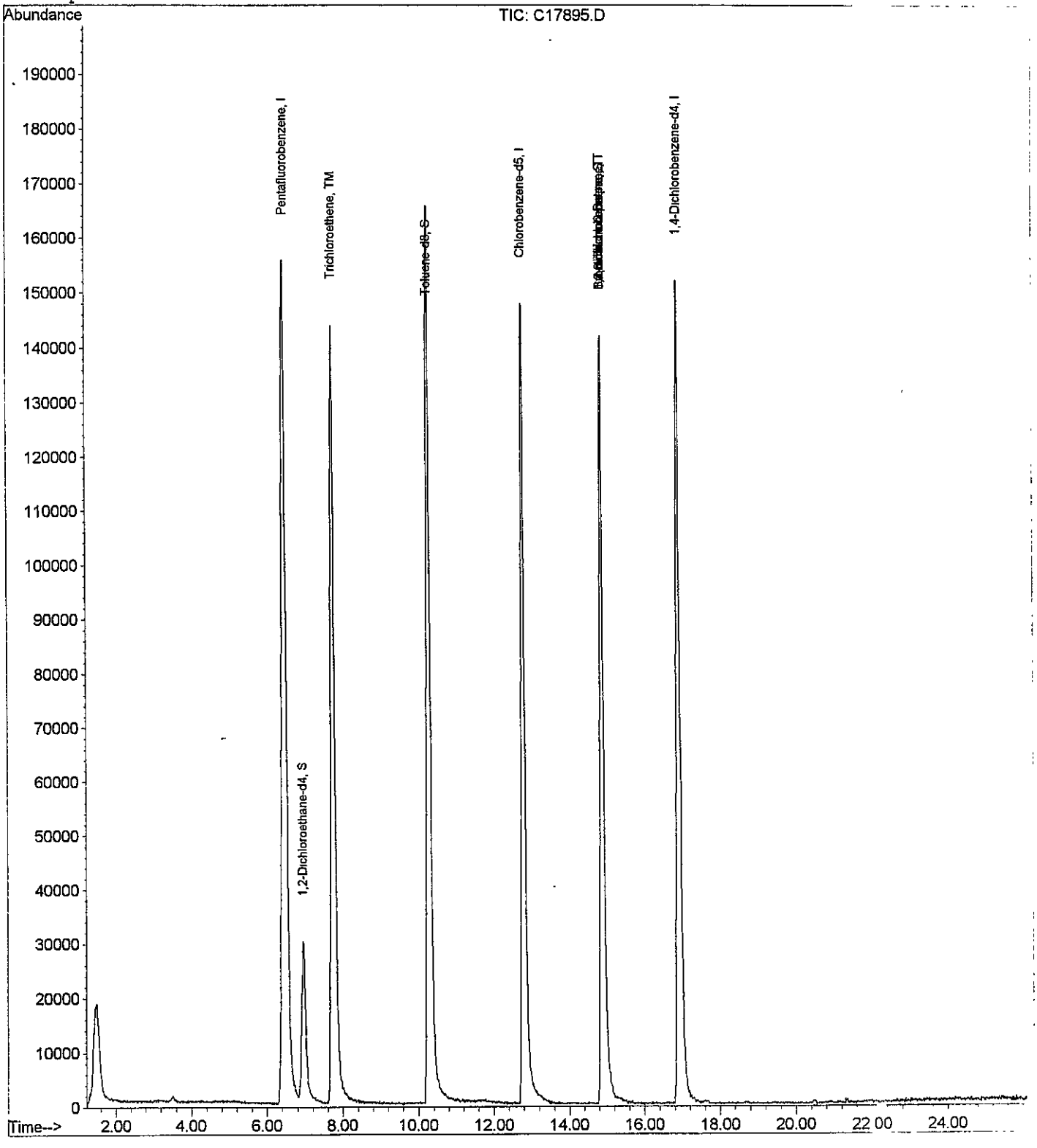
VR
12/12/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17895.D Vial: 3
Acq On : 12 Dec 2000 13:39 Operator: TAG/VR
Sample : AC04418 5ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 14:05 2000 Quant Results File: 12120025.RES

Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-TB3

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04418

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17895.D

Level: (low/med) LOW Date Received: 12/05/00

% Moisture: not dec. _____ Date Analyzed: 12/12/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121200\C17895.D Vial: 3
Acq On : 12 Dec 2000 13:39 Operator: TAG/VR
Sample : AC04418 5ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

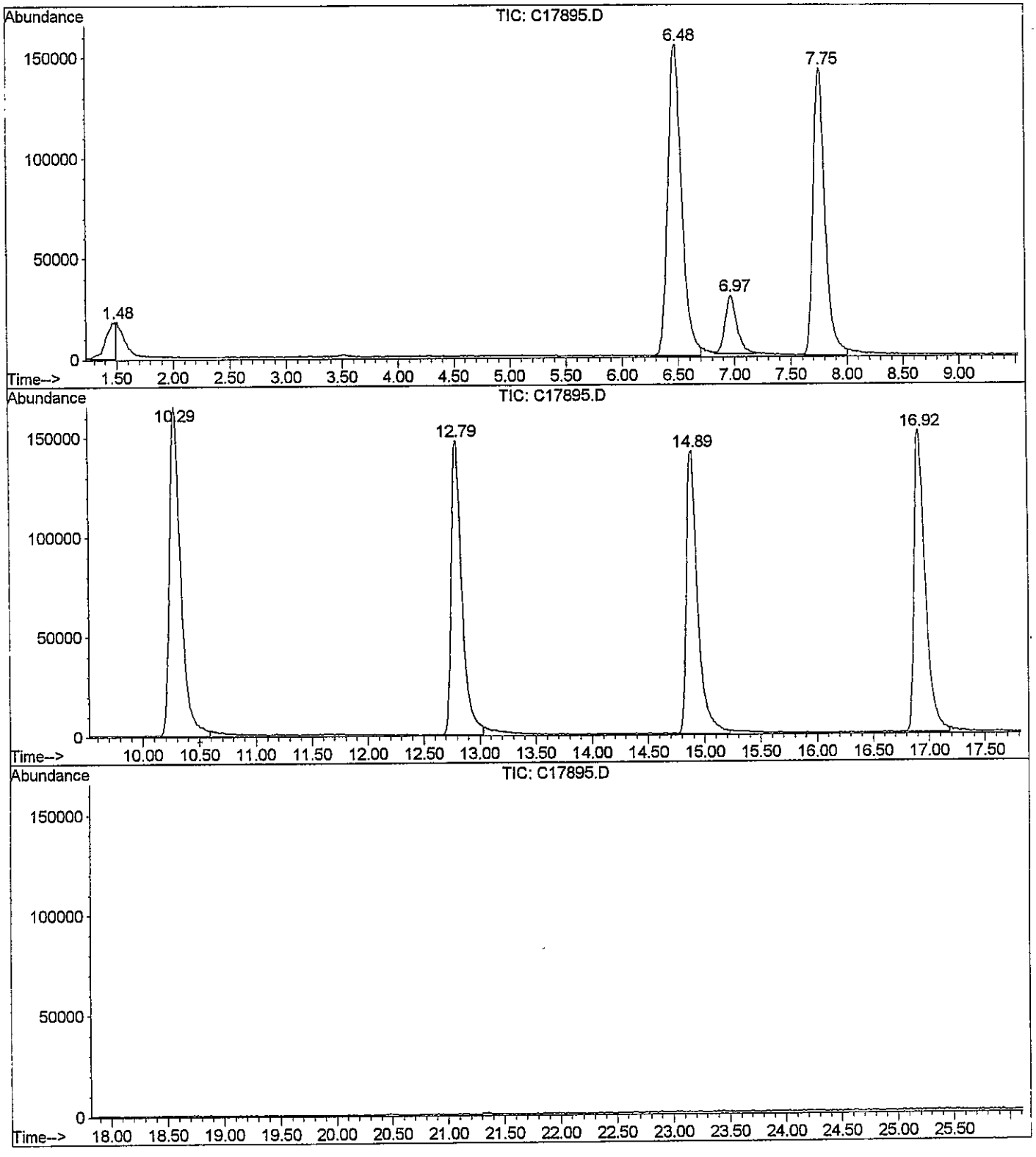
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.482	4	27	28	rBV2	18056	109054	8.21%	1.604%
2	6.482	512	534	556	rBV2	155330	1328705	100.00%	19.543%
3	6.965	568	583	607	rVB3	28798	209015	15.73%	3.074%
4	7.754	647	663	688	rBV	143324	1054021	79.33%	15.503%
5	10.289	907	920	951	rBV	165243	1138763	85.70%	16.749%
6	12.794	1162	1174	1198	rBV2	147353	969087	72.93%	14.254%
7	14.894	1372	1387	1420	rBV2	141605	961021	72.33%	14.135%
8	16.916	1577	1592	1619	rBV3	151558	1029130	77.45%	15.137%

Sum of corrected areas: 6798796

C17895.D 12120025.M Fri Jan 05 16:03:11 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121200\C17895.D
Operator : TAG/VR
Acquired : 12 Dec 2000 13:39 using AcqMethod 12120025
Instrument : VOA-C
Sample Name: AC04418 5ml DF=1
Misc Info : 26383/C12060025
Vial Number: 3
Quant File :12120025.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121200\C17895.D Vial: 3
Acq On : 12 Dec 2000 13:39 Operator: TAG/VR
Sample : AC04418 5ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: LSCINT.P

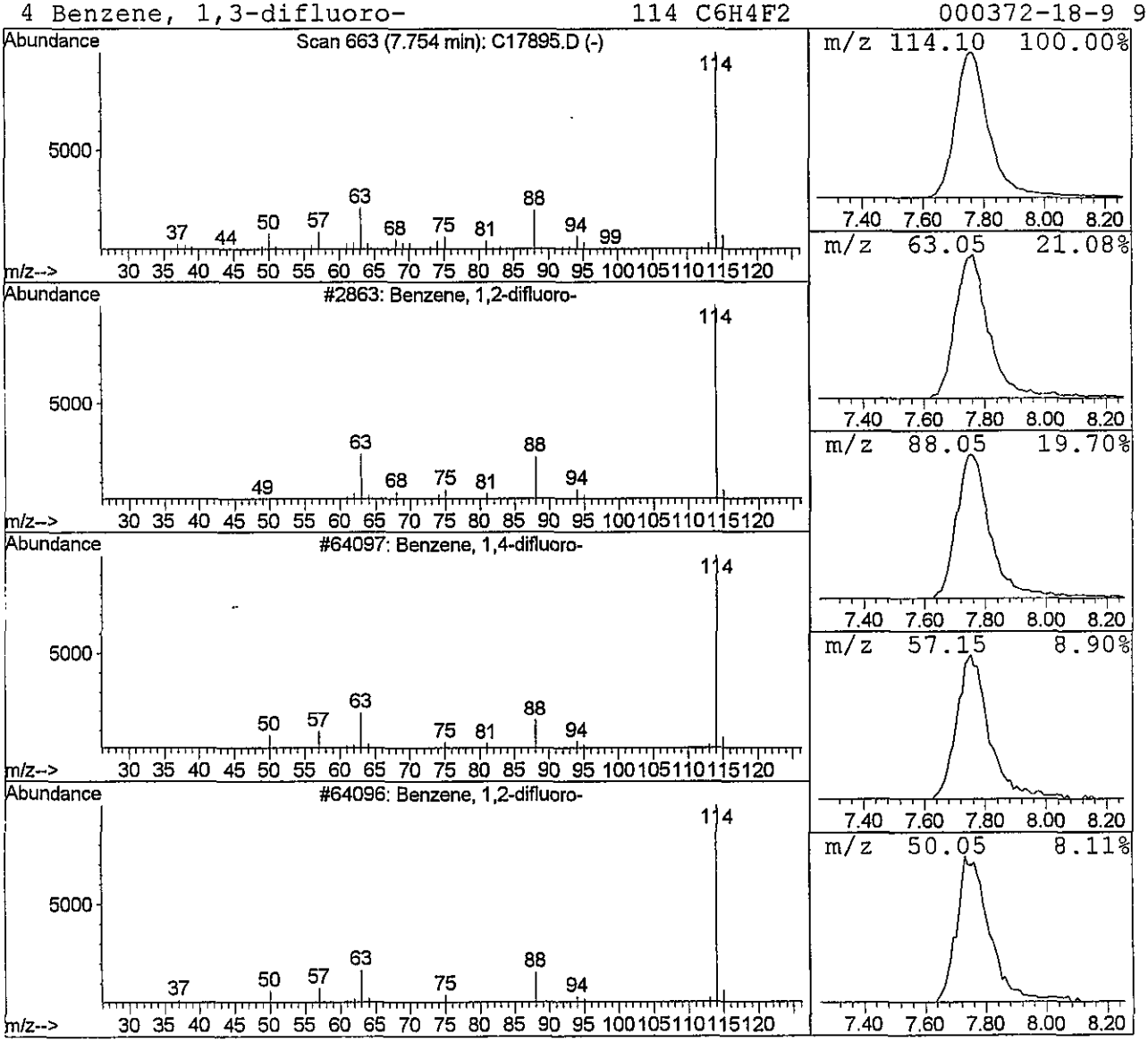
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Benzene, 1,2-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.93 ug\L	1054020	Pentafluorobenzene	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 12 Dec 2000 13:39
Data File: C:\HPCHEM\1\DATA\121200\C17895.D
Name: AC04418 5ml DF=1
Misc: 26383/C12060025
Method: c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, 1,2-difluor	7.75	7.9	ug\L	1054020	ISTD01	6.48	1328710	10.0

C17895.D 12120025.M Fri Jan 05 16:03:14 2001 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160015.D Vial: 15
Acq On : 17 Dec 2000 6:39 Operator: MT
Sample : QFW1211003 Inst : DRO-B
Misc : PROW BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:06 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.21	2113753	45.779 µg/mlm
Spiked Amount 50.000		Recovery =	91.56% ✓MT
3) SC C(39)	34.73	560862	12.767 ug/mlm
Spiked Amount 300.000		Recovery =	4.26% x MT
Target Compounds			
1) HM Florida PRO	3.70	21621639	380.157 ug/ml /1000 =

0.38J ppm = < ½ RDL ✓

MT

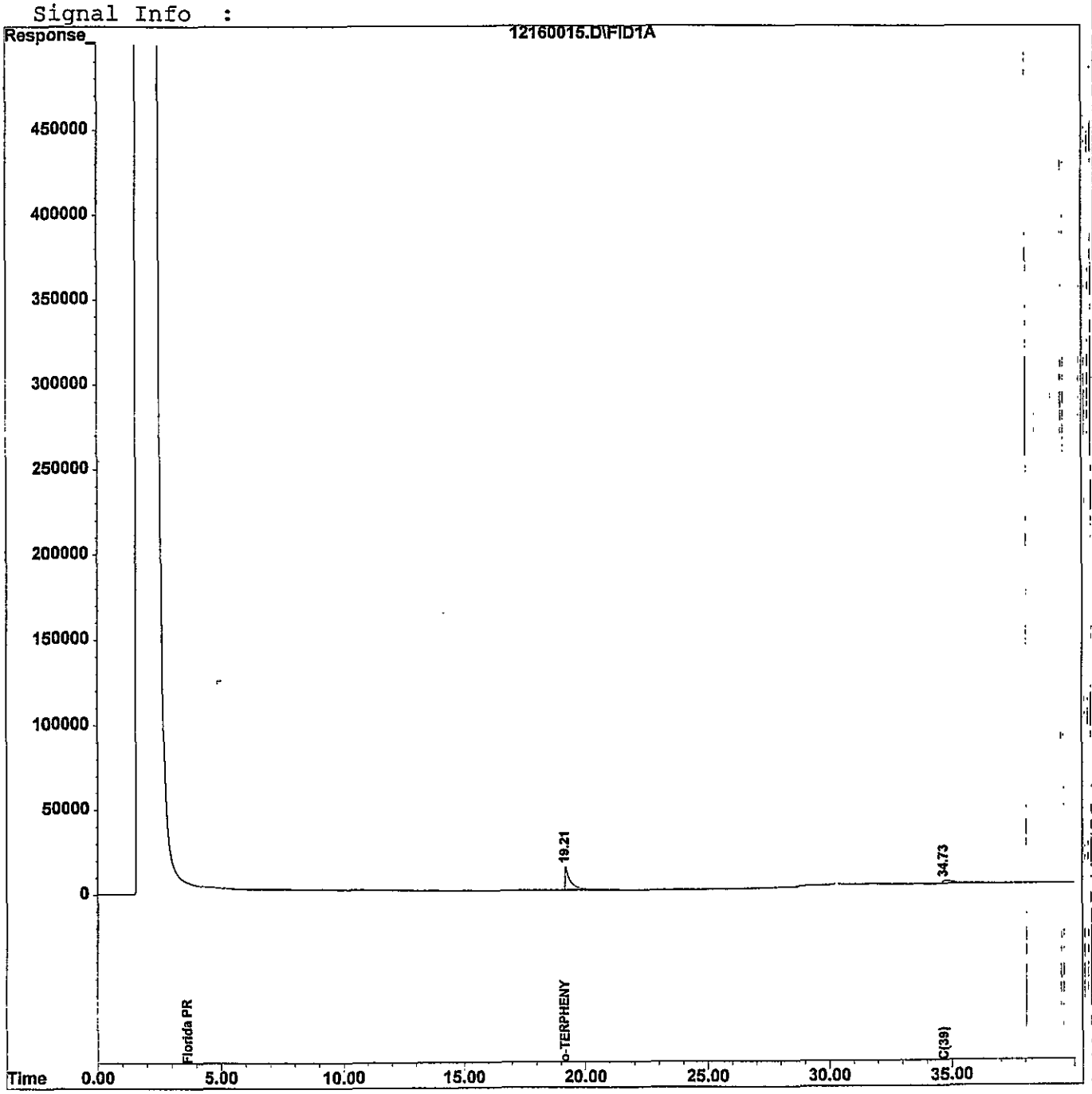
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160015.D Vial: 15
Acq On : 17 Dec 2000 6:39 Operator: MT
Sample : QFW1211003 Inst : DRO-B
Misc : PROW BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:06 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17894.D
Acq On : 12 Dec 2000 13:04
Sample : QVW121200 C1
Misc : WATER BLANK
MS Integration Params: rteint.p
Quant Time: Dec 12 13:31 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	453997	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.80	117	323513	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.97	152	162577	10.00 ug\L	0.07
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	82663	8.37 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 83.70%		
46) Toluene-d8	10.29	98	440693	9.48 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.80%		
65) Bromofluorobenzene	14.95	95	217333	9.89 ug\L	0.08
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.90%		
Target Compounds					Qvalue
30) 1,4-Dioxane	8.60	88	60	~~2.42 ug\L #~~	24
36) Trichloroethene	7.77	95	13715	~~0.64 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.95	75	111323	~~22.40 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.95	75	111323	~~22.40 ug\L #~~	100

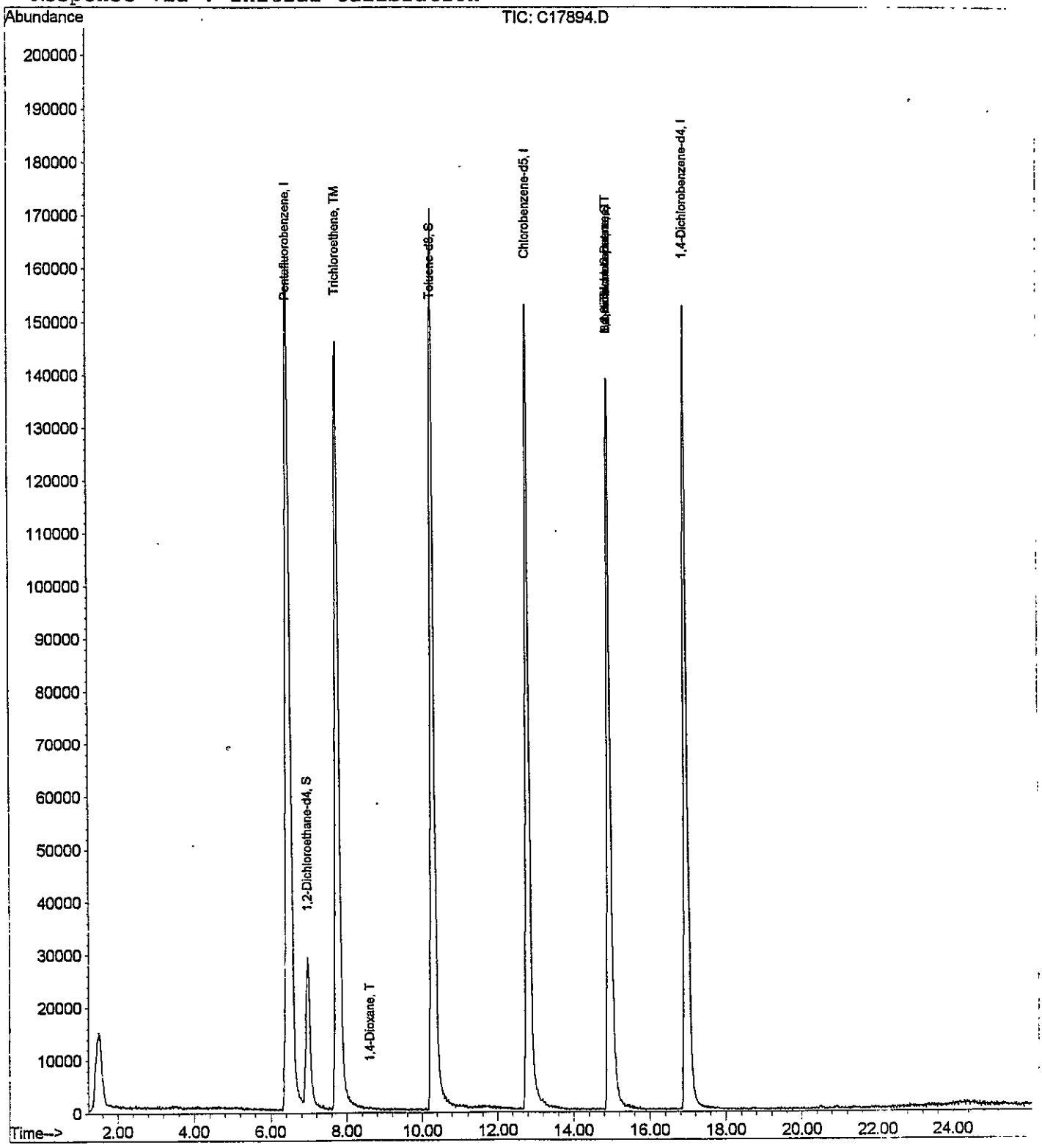
VR
12/12/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17894.D Vial: 2
Acq On : 12 Dec 2000 13:04 Operator: TAG/VR
Sample : QVW121200 C1 Inst : VOA-C
Misc : WATER BLANK Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 13:31 2000 Quant Results File: 12120025.RES

Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WATER BLANK

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: QVW121200 C1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17894.D

Level: (low/med) LOW Date Received: 12/05/00

% Moisture: not dec. _____ Date Analyzed: 12/12/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121200\C17894.D Vial: 2
Acq On : 12 Dec 2000 13:04 Operator: TAG/VR
Sample : QVW121200 C1 Inst : VOA-C
Misc : WATER BLANK Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

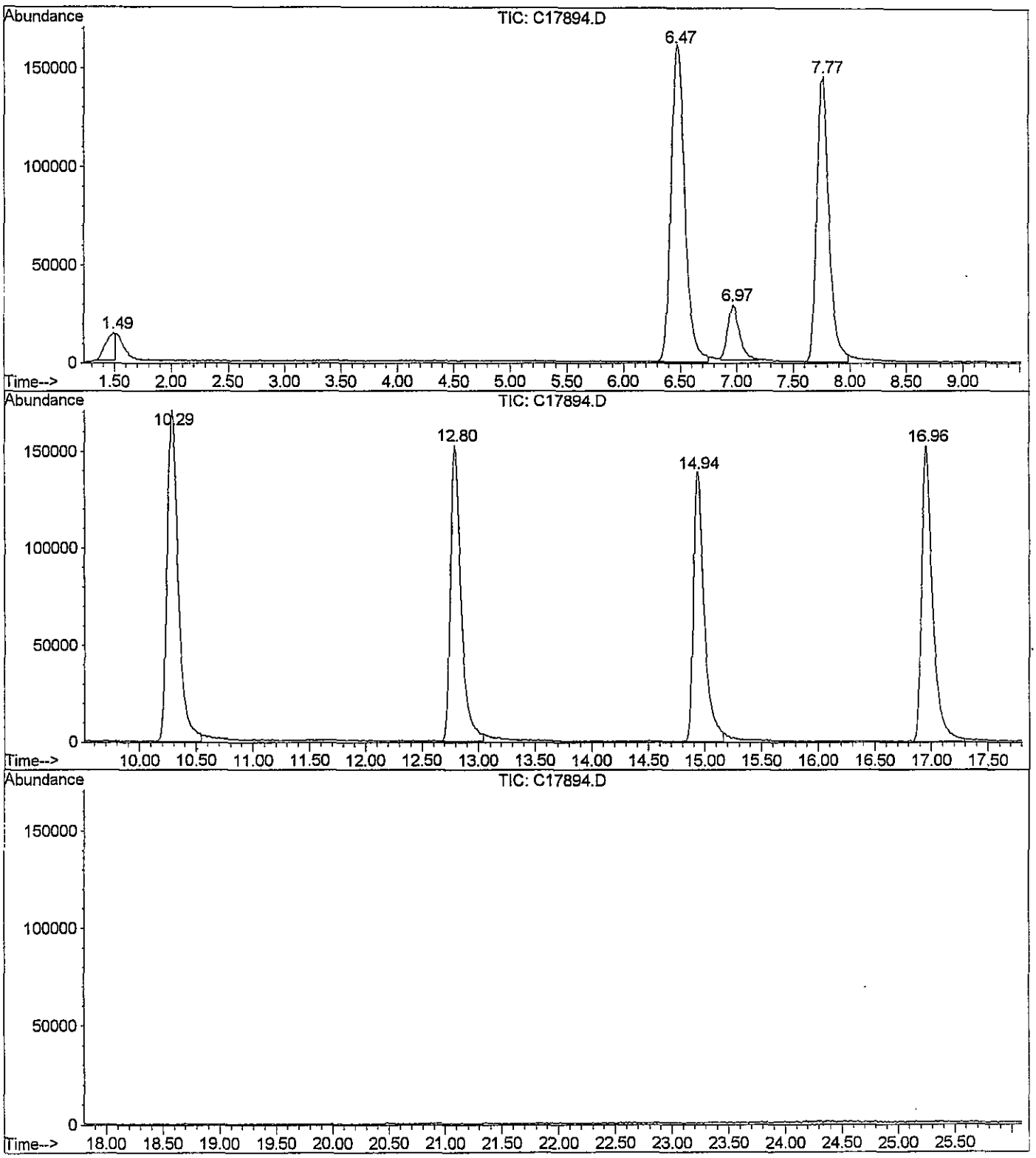
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.494	13	28	29	rBV2	14116	79316	5.73%	1.162%
2	6.474	516	533	561	rBV2	162001	1383918	100.00%	20.273%
3	6.967	572	583	606	rVB3	28078	202665	14.64%	2.969%
4	7.766	646	664	686	rBV3	145763	1078106	77.90%	15.793%
5	10.291	904	920	946	rBV	170652	1157037	83.61%	16.949%
6	12.796	1161	1174	1199	rBV	152609	983584	71.07%	14.408%
7	14.936	1378	1391	1414	rBV	138704	921419	66.58%	13.498%
8	16.957	1583	1596	1630	rBV2	152470	1020426	73.73%	14.948%

Sum of corrected areas: 6826471

C17894.D 12120025.M Fri Jan 05 16:05:54 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121200\C17894.D
Operator : TAG/VR
Acquired : 12 Dec 2000 13:04 using AcqMethod 12120025
Instrument : VOA-C
Sample Name: QVW121200 C1
Misc Info : WATER BLANK
Vial Number: 2
Quant File :12120025.RES (RTE Integrator)



C17894.D 12120025.M Fri Jan 05 16:05:55 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121200\C17894.D Vial: 2
Acq On : 12 Dec 2000 13:04 Operator: TAG/VR
Sample : QVW121200 C1 Inst : VOA-C
Misc : WATER BLANK Multiplr: 1.00
MS Integration Params: LSCINT.P

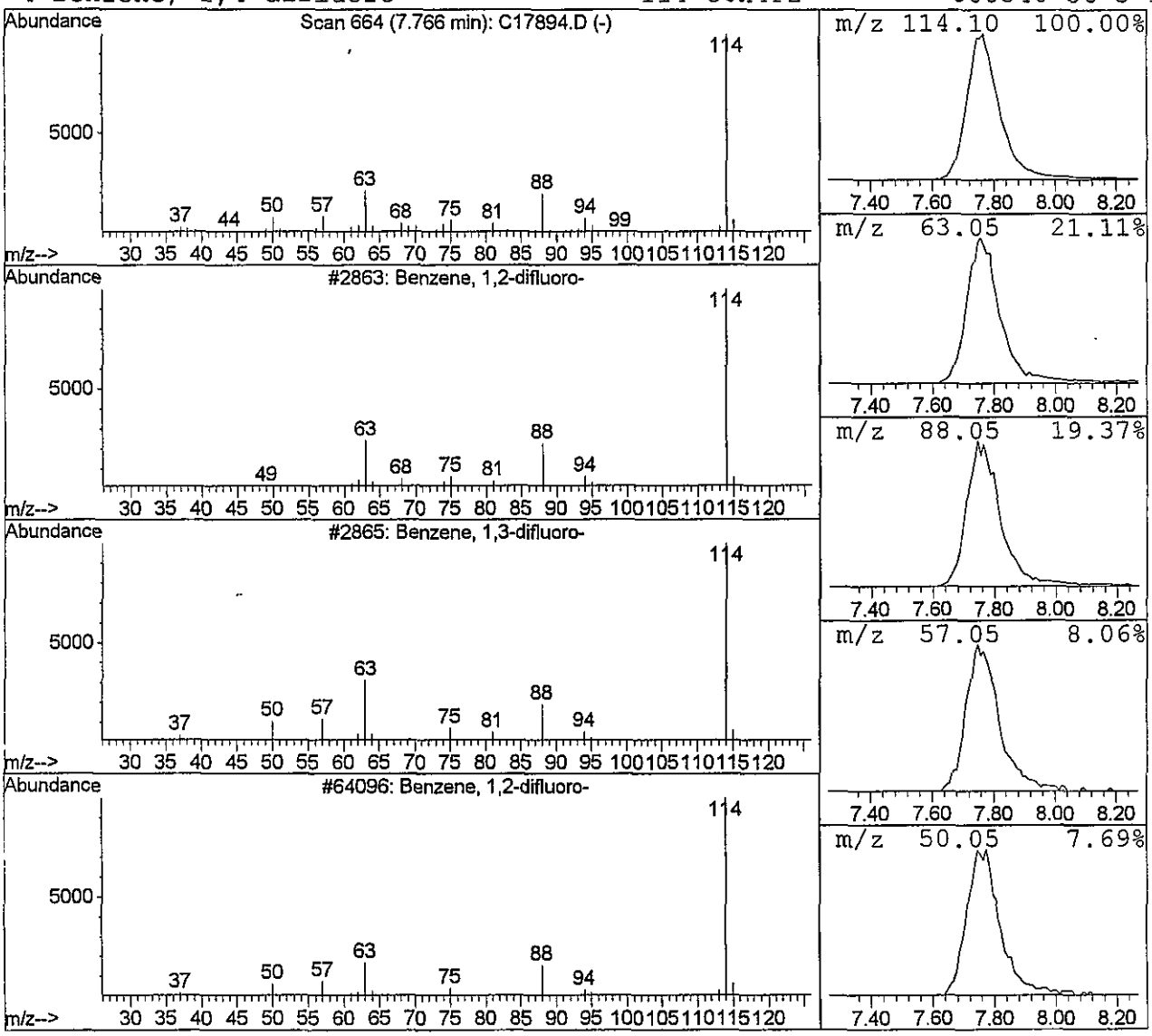
Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Benzene, 1,2-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.77	7.79 ug\L	1078110	Pentafluorobenzene	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91
4	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 12 Dec 2000 13:04
Data File: C:\HPCHEM\1\DATA\121200\C17894.D
Name: QVW121200 C1
Misc: WATER BLANK
Method: c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, 1,2-difluor	7.77	7.8	ug\L	1078110	ISTD01	6.48	1383920	10.0

C17894.D 12120025.M Fri Jan 05 16:05:58 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17917.D Vial: 2
Acq On : 13 Dec 2000 11:29 Operator: TAG/VR
Sample : QVW121300C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 11:56 2000 Quant Results File: 12130025.RES

Quant Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	409640	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.80	117	287047	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.92	152	143780	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	72692	8.15 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 81.50%		
46) Toluene-d8	10.28	98	397080	9.63 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.30%		
65) Bromofluorobenzene	14.88	95	187736	9.66 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.60%		
Target Compounds					Qvalue
36) Trichloroethene	7.75	95	12116	~~0.63 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	95858	~~21.81 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	95858	~~21.81 ug\L #~~	100

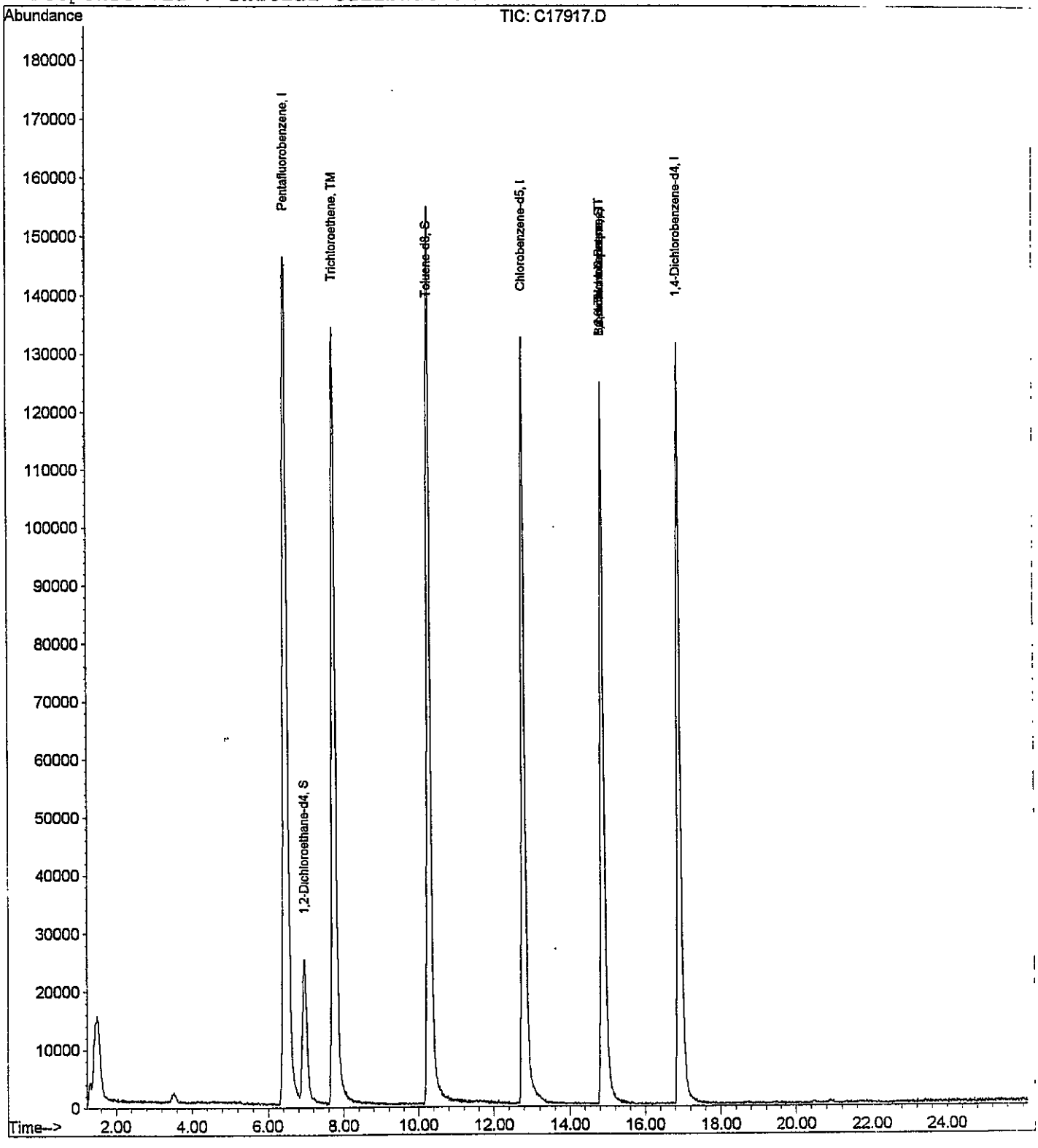
VR
12/13/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17917.D Vial: 2
Acq On : 13 Dec 2000 11:29 Operator: TAG/VR
Sample : QVW121300C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 11:56 2000 Quant Results File: 12130025.RES

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 26383	METHOD: FL-PRO
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are continuing calibrations compliant with method requirements?	Y	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are multicomponent patterns resolvable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	Y	N	NA
Are all analytes to be reported indicated as such on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: MT	
Date: 12-21-00	Time: 17:06

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: YRK	
Date: 12/22/00	Time: 14:25

Sequence Date: 12-16-00
Analyst Initials: MT
Run Method: PRO 1208
Quant Method: ↓

	Sample	Blank/LCS
Water OTP/C(39) Limits	82-142 | 42-193	82-142 | 42-193
Soil OTP/C(39) Limits	62-109 | 60-118	62-109 | 60-118

Compound: FL PRO
Date: 12-8-00

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	PRO Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250 PHS PRO CCV	NA	Std.	1X	88 | 85	MT 12-19-00 ~~85~~ 77	005V231	✓	
2	Solv Blank	↓	MeCl2		NA | NA	NA		✓	
3	QFW1213001	W 12-13-00	W		62 | 7.2	↓		RR	
4	QFW1213002	MT 12-19-00			88 | 5.6	52		RR	
5	04566				61 | 19	NA		RR	
6	04567				76 | 7.3			RR	
7	04568				75 | 14			RR	
8	04569				58 | 17			RR	
9	04368 RE				83 | 7.8			✓	
10	04369 RE				90 | 11			✓	
11	04370 RE				101 | 10			✓	
12	04371 RE	↓	↓		60 | 5.6	↓		RR	
1	4250 PHS PRO CCV	NA	Std.		84 | 78	79	005V231	✓	
2	Solv Blank	↓	MeCl2		NA | NA	NA		✓	
15	QFW1211003 MT 12-19-00	MT W 12-11-00	W		92 | 4.3	↓		✓	
16	QFW1211004	12-19-00			83 | 7.5	55		✓	
17	04413 MS				41 | 5.1	45		RR	
18	04413 MSD				50 | 10	44		RR	
19	04412				65 | 21	NA		RR	
20	04413				71 | 33			RR	
21	04414				62 | 20			RR	
22	04417	↓	↓	↓	60 | 11	↓		RR	

Initials / Date: MT 12-19-00

Sequence Date: Sep pg 025

Analyst Initials:

Run Method:

Quant Method:

	Sample	Blank/LCS
Water OTP/C(39) Limits		
Soil OTP/C(39) Limits		

Compound: Sep pg 025

Date:

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	PRO Spike Recovery	AAL Std. I.D. #	Status	Comments
23	QFW1212001	12-12-00	W	1X	86 | 6.2	NA		✓	<½RDL
24	QFW1212002	↓	↓		78 | 6.4	50		RR	
1	4250 PHS PRO CCV	NA	Std.		84 | 85	79	005V231	✓	
2	Solv Blank	↓	MeCl2		NA | NA	NA		✓	
27	04474	12-12-00	W		66 | 18			RR	
28	04475				74 | 37			RR	
29	04477				71 | 18			RR	
30	04480				68 | 7.5			RR	
31	04481				87 | 6.1			✓	
32	04482				77 | 20			RR	
33	04476	↓	↓		64 | 21	↓		RR	
1	4250 PHS PRO CCV	NA	Std.		91 | 91	85	005V231	✓	
2	Solv Blank	↓	MeCl2	↓	NA | NA	NA		✓	
				MT 12-19-00					

Initials / Date: MT 12-19-00

Sequence Date: 12-19-00
Analyst Initials: MT
Run Method: PRO1208
Quant Method: ↓

	Sample	Blank/LCS
Water OTP/C(39) Limits	82-142 | 42-193	82-142 | 42-193
Soil OTP/C(39) Limits	62-109 | 60-118	62-109 | 60-118

Compound: FL PRO
Date: 12-08-00

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	PRO Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250 PHS PRO CCV	NA	Std.	1X	81 | 87	76	00SV231	✓	
2	Solv Blank	↓	$MeCl_2$	↓	NA | NA	NA		✓	
3	QFW1211002	12-11-00	W	↓	87 | 6.4	51	MT 12-21-00 ~~RE~~	✓	
4	04420 MSD	↓	↓	↓	89 | 4.0	55		✓	
5	04422	↓	↓	↓	100 | 7.6	NA		✓	
6	04430 5X	↓	↓	5X	97 | 5.4	↓		✓	
7	QFW1213001	12-13-00	↓	1X	62 | 9.0	↓		✓	<½RDL
8	QFW1213002	↓	↓	↓	106 | 7.9	59		✓	
9	04566	↓	↓	↓	71 | 24	NA		✓	
10	04567	↓	↓	↓	86 | 11	↓		✓	
11	04568	↓	↓	↓	91 | 20	↓		✓	
12	04569	↓	↓	↓	73 | 25	↓		✓	
1	4250 PHS PRO CCV	NA	Std.	↓	91 | 92	78	00SV231	✓	
2	Solv Blank	↓	$MeCl_2$	↓	NA | NA	NA		✓	
13	04371 RE	12-13-00	W	↓	72 | 8.6	↓		✓	
14	04413 MS	12-11-00	↓	↓	63 | 7.8	52		✓	
15	04413 MSD	↓	↓	↓	70 | 15	50		✓	
16	04412	↓	↓	↓	82 | 31	NA		✓	
17	04413	↓	↓	↓	91 | 49	↓		✓	
18	04414	↓	↓	↓	82 | 32	↓		✓	
19	04417	↓	↓	↓	79 | 18	↓		✓	
20	QFW1212002	12-12-00	↓	↓	99 | 9.6			✓	

Initials / Date: MT 12-20-00

Sequence Date: See pg 027

Analyst Initials:

Run Method:

Quant Method:

	Sample	Blank/LCS
Water OTP/C(39) Limits		
Soil OTP/C(39) Limits		

Compound: See pg 027

Date:

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	PRO Spike Recovery	AAL Std. I.D. #	Status	Comments
21	04474	12-12-00	W	1V	82 | 26	NA		✓	
22	04475	↓	↓		99 | 50	↓		✓	
1	4250 PHS PRO CCV	NA	Std.		98 | 95	78	005V231	✓	
2	Solv Blank	↓	MeCl2		NA | NA	NA		✓	
23	04476	12-12-00	W		x | 29			✓	
24	04477				91 | 27			✓	
25	04486				87 | 10			✓	
26	04482				95 | 28	↓		✓	
1	4250 PHS PRO CCV	NA	Std.		103 | 99	85	005V231	✓	
2	Solv Blank	↓	MeCl2	↓	NA | NA	NA		✓	

Initials / Date: MT 12-20-00

INITIAL CALIBRATION
5 POINT DRO

DATE:	12/8/00			
METHOD:	FL PRO			
INSTRUMENT:	DRO-B ; FRONT COLUMN			
ANALYST:	MT			
ICAL ID:	PRO1208			
CONCENTRATION (PPM)			**AREA**	**Rf**
850			62182797	73156.2
2550			138696300	54390.7
4250			225396394	53034.4
5950			320089278	53796.5
7692			384596146	49999.5
AVERAGE Rf:			56875.5	
% RSD:			16.3	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190025.D Vial: 1
Acq On : 20 Dec 2000 14:21 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 17:08 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.11f	2257246	48.887 ug/mlm
Spiked Amount 50.000		Recovery =	97.77% ✓MT
3) SC C(39)	34.52	12562701	285.967 ug/mlm
Spiked Amount 300.000		Recovery =	95.32% ✓MT
Target Compounds			
1) HM Florida PRO	3.70	188926417	3321.755 ug/ml

78% ✓
MT

(f)=RT Delta > 1/2 Window (m)=manual int.

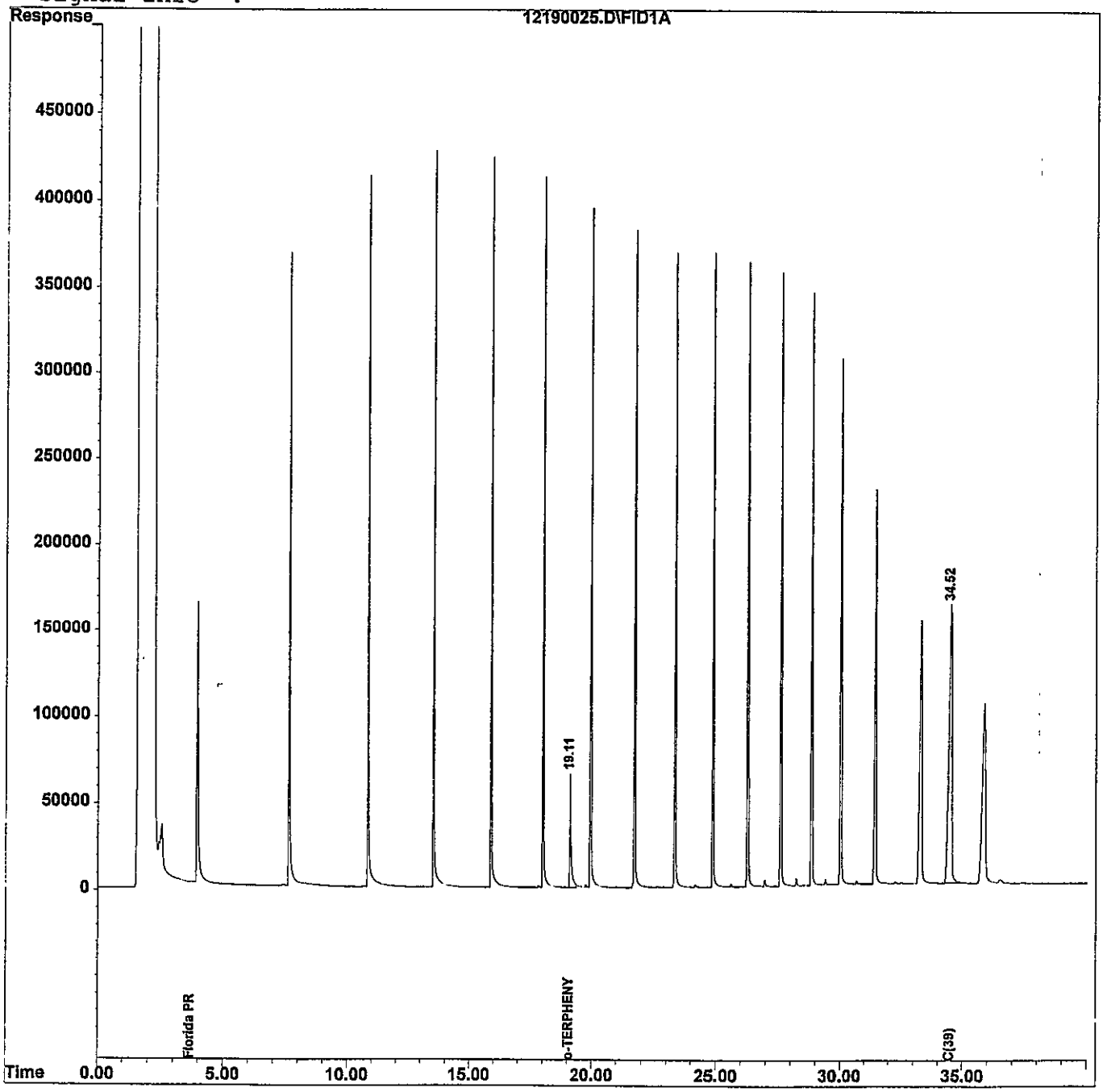
Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190025.D
Acq On : 20 Dec 2000 14:21
Sample : 4250 PHS PRO CCV
Misc :
IntFile : events.e
Quant Time: Dec 20 17:08 2000 Quant Results File: PRO1208.RES

Vial: 1
Operator: MT
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190013.D Vial: 1
Acq On : 20 Dec 2000 4:38 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 16:54 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	2101237	45.508 ug/mlm
Spiked Amount 50.000		Recovery =	91.02% MT
3) SC C(39)	34.57	12147108	276.506 ug/mlm
Spiked Amount 300.000		Recovery =	92.17% MT
Target Compounds			
1) HM Florida PRO	3.70	188934879	3321.904 ug/ml

78% MT

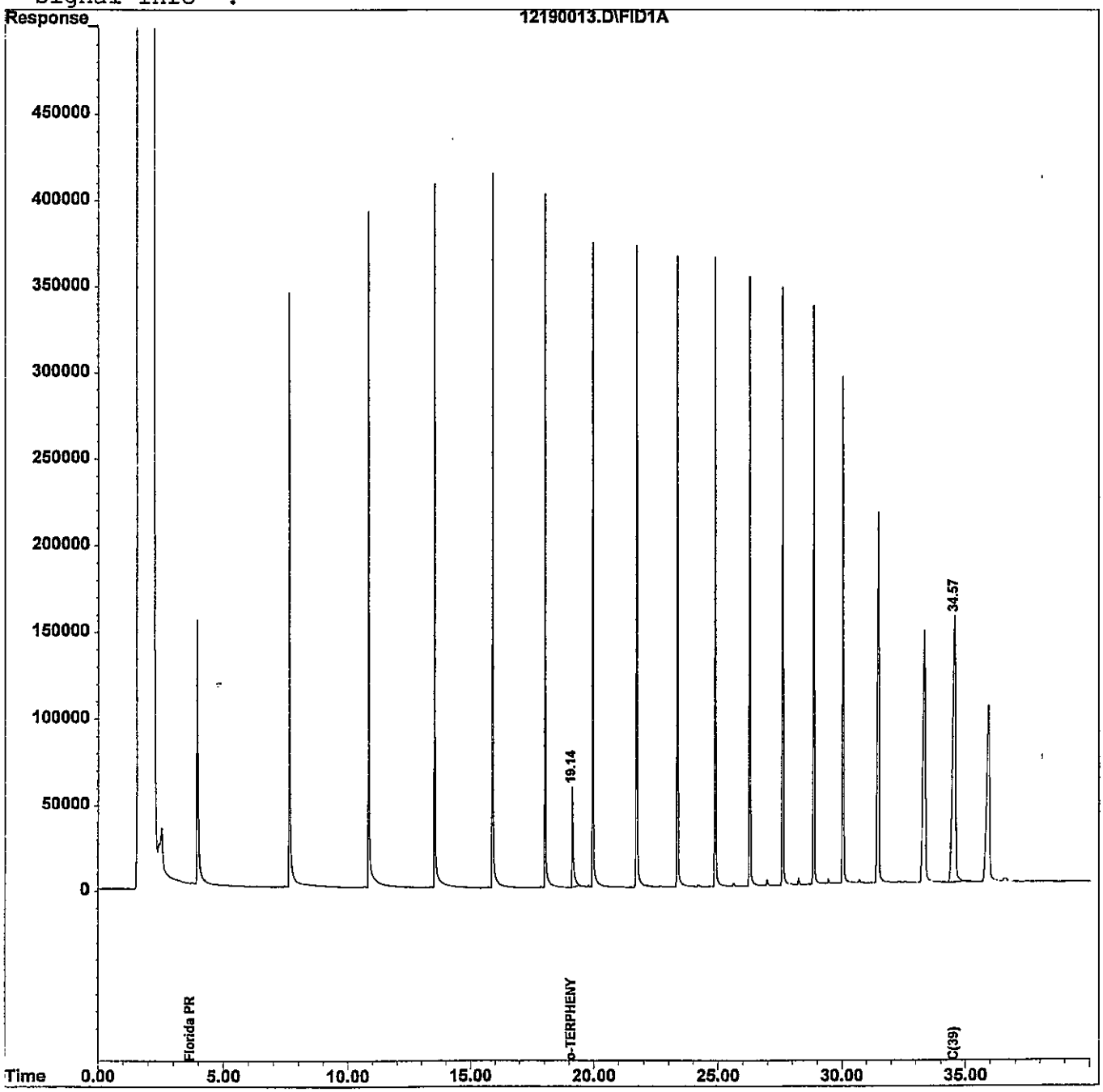
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190013.D Vial: 1
Acq On : 20 Dec 2000 4:38 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 16:54 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160034.D Vial: 1
Acq On : 17 Dec 2000 22:06 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.15f	2108629	45.668 ug/mlm
Spiked Amount 50.000		Recovery =	91.34% ✓MT
3) SC C(39)	34.63	11999352	273.143 ug/mlm
Spiked Amount 300.000		Recovery =	91.05% ✓MT
Target Compounds			
1) HM Florida PRO	3.70	204751242	3599.991 ug/ml

85% ✓
MT

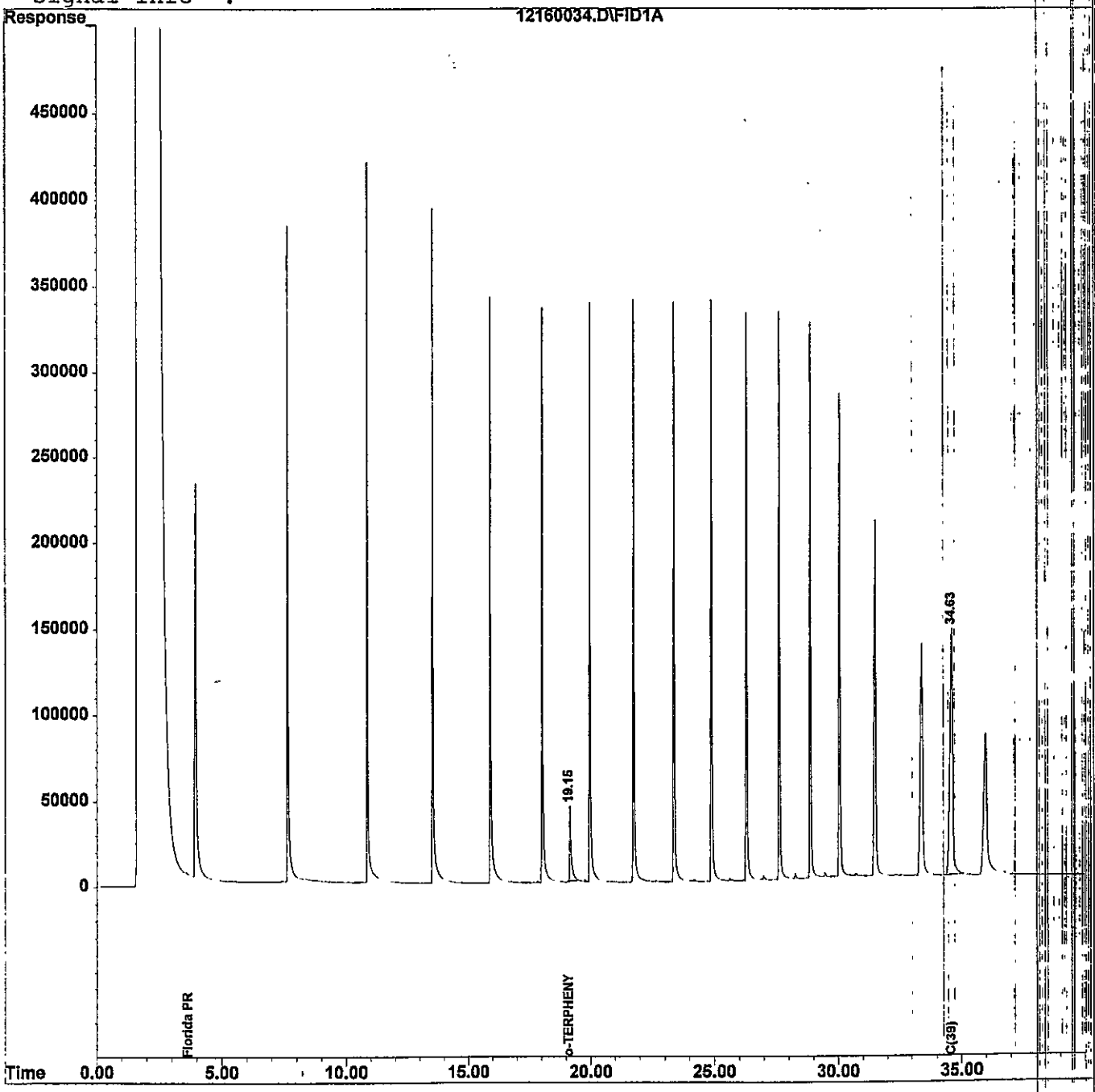
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160034.D Vial: 1
Acq On : 17 Dec 2000 22:06 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160025.D Vial: 1
Acq On : 17 Dec 2000 14:46 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.16f	1947674	42.182 ug/mlm
Spiked Amount 50.000		Recovery =	84.36% MT
3) SC C(39)	34.65	11166998	254.196 ug/mlm
Spiked Amount 300.000		Recovery =	84.73% MT
Target Compounds			
1) HM Florida PRO	3.70	190317241	3346.209 ug/ml

79% NT

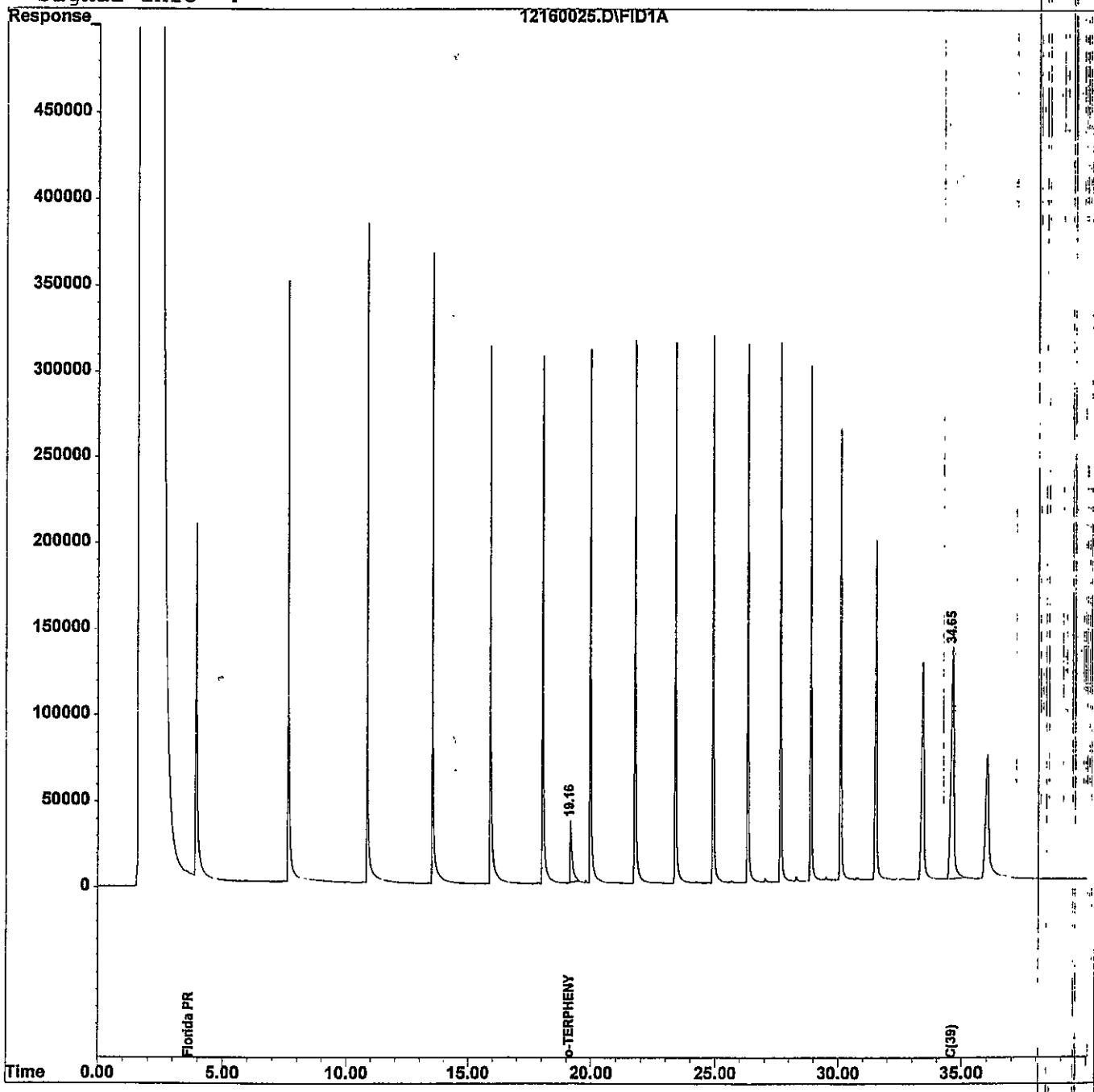
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160025.D Vial: 1
Acq On : 17 Dec 2000 14:46 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160013.D Vial: 1
Acq On : 17 Dec 2000 5:02 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 13:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.13f	1948293	42.195 ug/mlm
Spiked Amount 50.000		Recovery =	84.39% MT
3) SC C(39)	34.56	10232755	232.930 ug/mlm
Spiked Amount 300.000		Recovery =	77.64% MT
Target Compounds			
1) HM Florida PRO	3.70	190887272	3356.231 ug/ml

79% MT

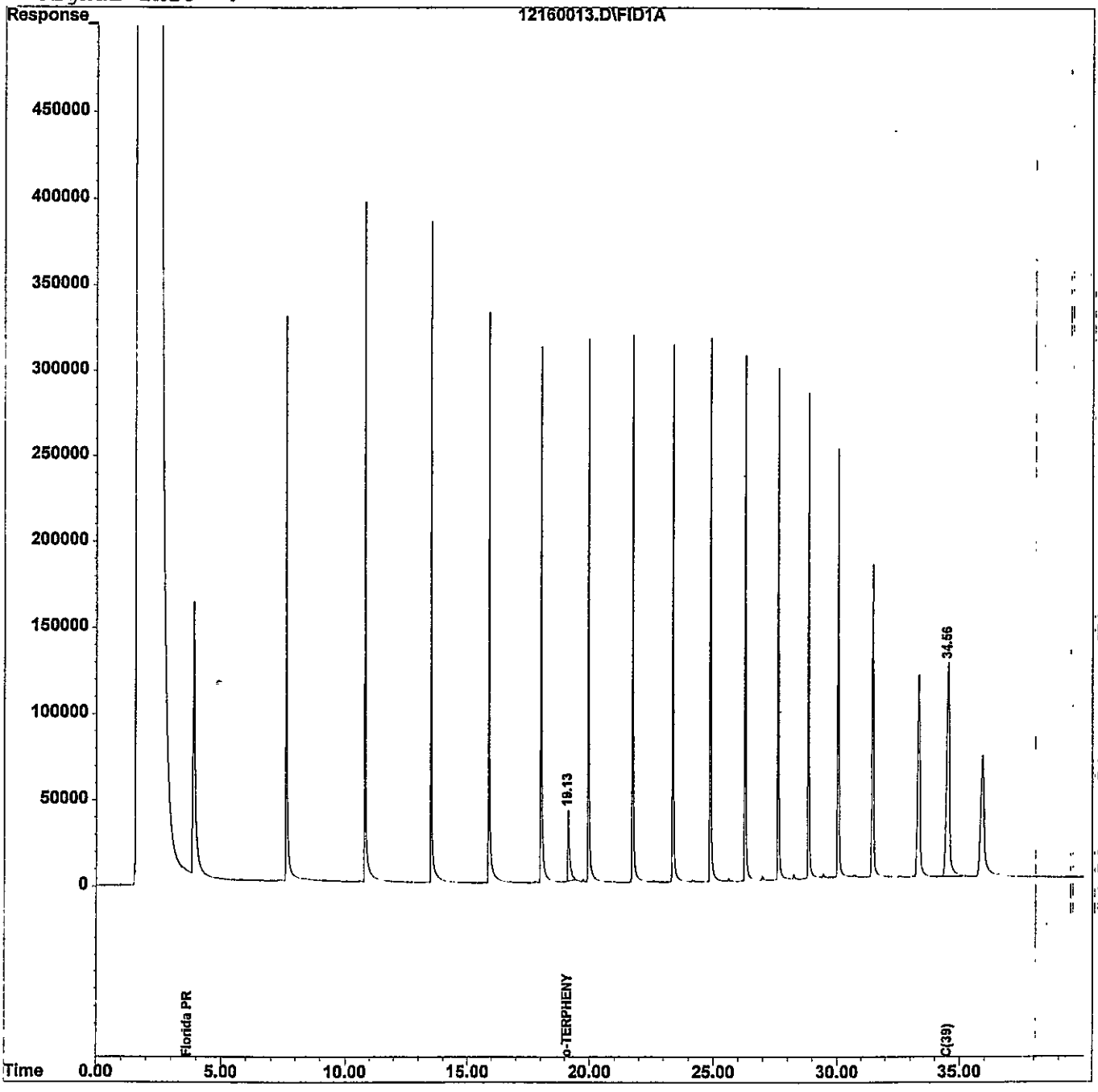
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160013.D Vial: 1
Acq On : 17 Dec 2000 5:02 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 13:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.

MS/MSD Report

Sample ID:	AC04413 MS/MSD	**Date Acquired:**	12/20/00
Operator:	MT	**Instrument ID:**	DRO-B
Data File:	12190016+17	**Vial #**	14+15
Method:	FL PRO	**Matrix:**	Water

Compound	Expected Rec. (ppm)	MS Rec. (ppm)	MS % Recovery	MSD Rec. (ppm)	MSD % Recovery	Recovery Limits (%)	MS Pass/ Fail	MSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
PRO	4.25	2.229	52%	2.145	50%	41 - 101	Pass	Pass	4%	< 20	Pass

Surrogates	Expected Rec. (ppm)	MS Rec. (ppm)	MS % Recovery	MSD Rec. (ppm)	MSD % Recovery	Recovery Limits (%)*	MS Pass/ Fail	MSD Pass/ Fail
O-Terphenyl	50	31.644	63%	35.237	70%	82 - 142	Fail	Fail
C(39)	300	23.336	8%	45.903	15%	42 - 193	Fail	Fail

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190016.D Vial: 14
Acq On : 20 Dec 2000 7:03 Operator: MT
Sample : AC04413 MS Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	1461107	31.644 ug/mlm
Spiked Amount 50.000		Recovery =	63.29% x MT
3) SC C(39)	34.46f	1025146	23.336 ug/mlm
Spiked Amount 300.000		Recovery =	7.78% x MT
Target Compounds			
1) HM Florida PRO	3.70	126760071	2228.730 ug/ml / 1000 =

2.229 / 4.25 x 100% =

52% MT

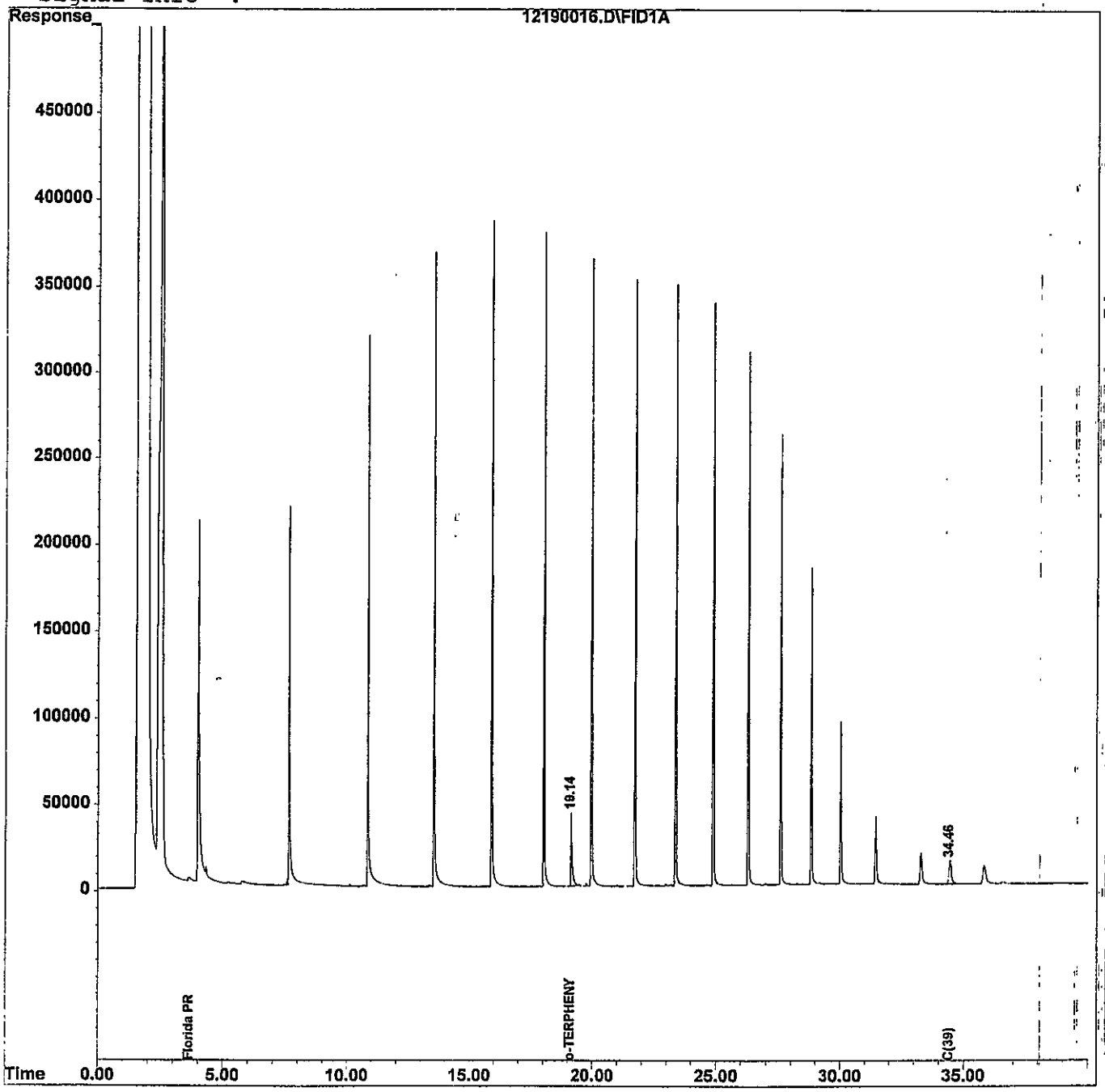
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190016.D Vial: 14
Acq On : 20 Dec 2000 7:03 Operator: MT
Sample : AC04413 MS Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190017.D Vial: 15
Acq On : 20 Dec 2000 7:52 Operator: MT
Sample : AC04413 MSD Inst : DRO-B
Misc : 26383 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	1626994	35.237 ug/mlm
Spiked Amount 50.000		Recovery =	70.47% x MT
3) SC C(39)	34.47	2016539	45.903 ug/mlm
Spiked Amount 300.000		Recovery =	15.30% x MT
Target Compounds			
1) HM Florida PRO	3.70	121995949	2144.966 ug/ml/1000 =

2.145/4.25 x 100% =

50% ✓
MT

(f)=RT Delta > 1/2 Window (m)=manual int.

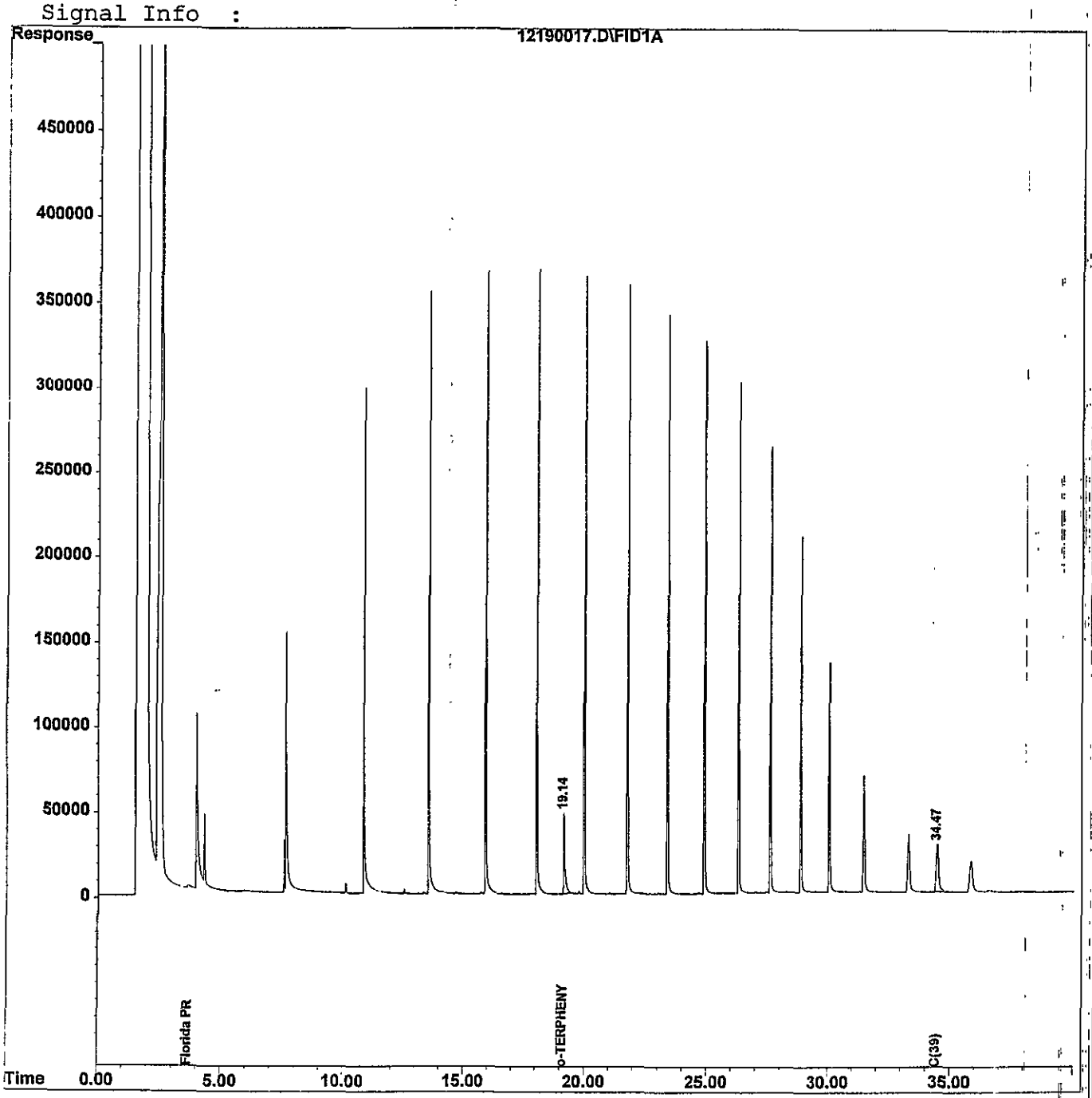
Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190017.D
Acq On : 20 Dec 2000 7:52
Sample : AC04413 MSD
Misc : 26383 1000mL
IntFile : events.e
Quant Time: Dec 20 13:18 2000 Quant Results File: PRO1208.RES

Vial: 15
Operator: MT
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.

LCS Report

Sample ID:	QFW1211004	**Date Acquired:**	12/17/2000
Operator:	MT	**Instrument ID:**	DRO-B
Data File:	12160016	**AS POS.#**	16
Method:	FLPRO	**Matrix:**	WATER

Compound	Expected Rec. (ppm)	Actual Rec. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
PRO	4.25	2.350	55 %	55 - 118	Pass

Surrogates	Expected Rec. (ppm)	Actual Rec. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
ortho-terphenyl	50	41.71	83%	82 - 142	Pass
C(39)	300	22.49	7%	42 - 193	Fail

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160016.D Vial: 16
Acq On : 17 Dec 2000 7:28 Operator: MT
Sample : QFW1211004 Inst : DRO-B
Misc : PROW LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:11 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	1925931	41.711 ug/mlm
Spiked Amount 50.000		Recovery =	83.42% ✓MT
3) SC C(39)	34.62	987767	22.485 ug/mlm
Spiked Amount 300.000		Recovery =	7.50% x MT
Target Compounds			
1) HM Florida PRO	3.70	133644796	2349.779 ug/ml /1000 =

2.350 / 4.25 x 100% =

55% ✓
MT

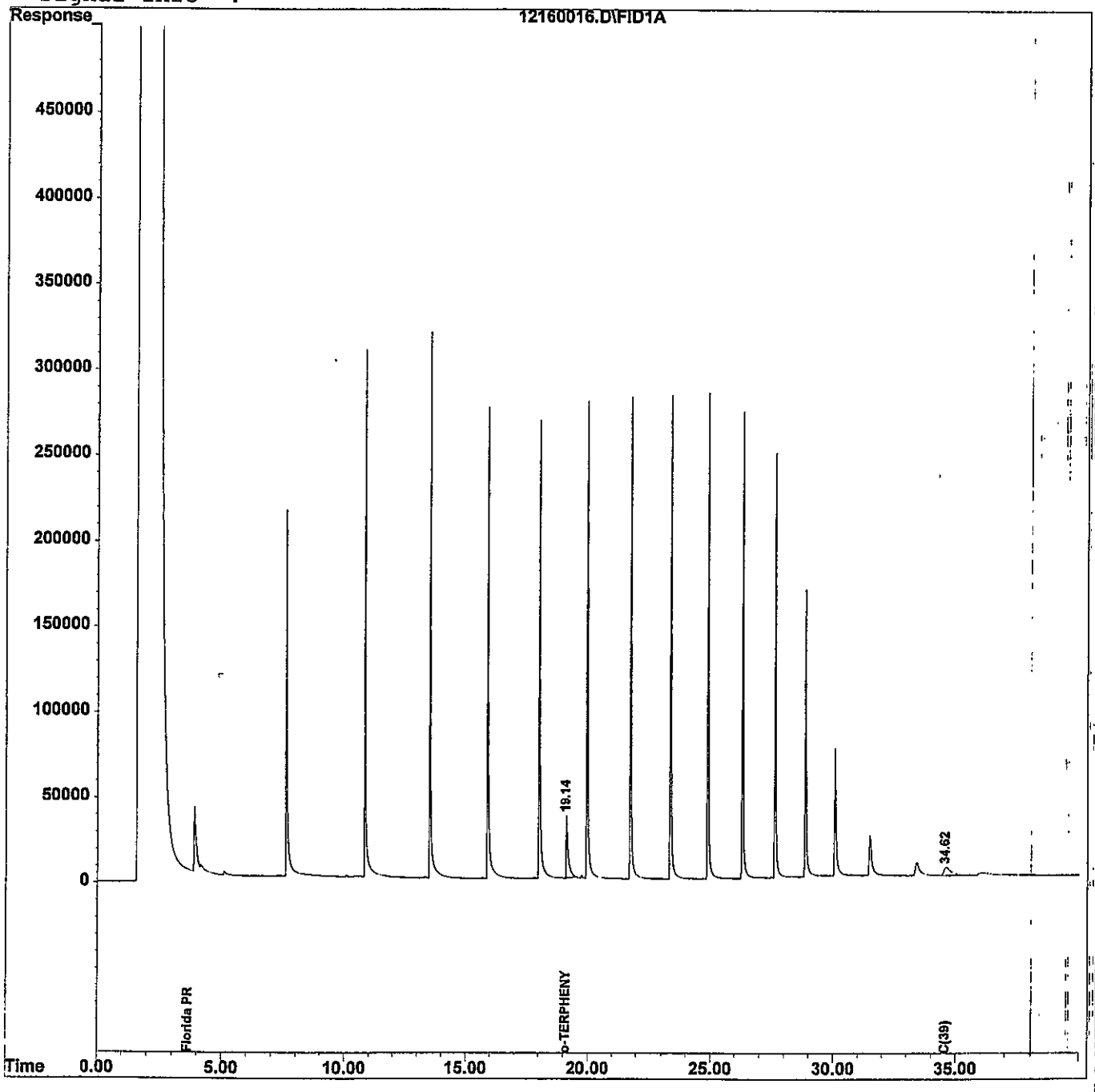
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160016.D Vial: 16
Acq On : 17 Dec 2000 7:28 Operator: MT
Sample : QFW1211004 Inst : DRO-B
Misc : PROW LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:11 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



SVO GC CALIBRATION CHECKLIST
FL-PRO

DATE / INSTRUMENT: 12-08-00 / DRO-B	METHOD: FL-PRO
MATRIX: Soil / Water	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: MT		Reviewer: YGK	
Date: 12-11-00	Time: 18:15	Date: 12/20/00	Time: 10:50

Sequence Date: 12-08-00
Analyst Initials: MT
Run Method: PRO0901
Quant Method: ↓

	Sample		Blank/LCS	
Water OTP/C(39) Limits	82-142	42-193	82-142	42-193
Soil OTP/C(39) Limits	62-109	60-118	62-109	60-118

Compound: FL PRO
Date: 9-01-00

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery		PRO Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Soln Blank	NA	$MeCl_2$	1X	NA	NA	NA		✓	
2	850 PHS PRO ICAL	↓	Std.	↓	↓	↓	↓	005V226	✓	
3	2550	↓	↓	↓	↓	↓	↓	005V227	✓	
4	4250	↓	↓	↓	↓	↓	↓	005V228	✓	
5	5950	↓	↓	↓	↓	↓	↓	005V229	✓	
6	7650 ~~8500~~ MT 12-8-00	↓	↓	↓	↓	↓	↓	005V230	✓	
7	Soln Blank	↓	$MeCl_2$	↓	↓	↓	↓		✓	
8	4250 PHS PRO ICV	↓	Std.	↓	MT 12-8-00 ~~89~~ 82	MT 12-8-00 ~~85~~ 76	MT 12-8-00 ~~114~~ 82	005V231	✓	
9	QFW1205001	12-05-00	W	↓	101	5.1	NA		✓	<½RDL
10	QFW1205002	↓	↓	↓	88	5.1	63		✓	
11	04004 MS	↓	↓	↓	75	3.4	60		✓	
12	04004 MSD	↓	↓	↓	85	4.7	60		✓	
13	03938	↓	↓	↓	93	14	NA		✓	
14	04002	↓	↓	↓	84	7.1	↓		✓	
15	04003	↓	↓	↓	65	5.1	↓		✓	
16	04004	↓	↓	↓	74	6.1	↓		✓	
17	04005	↓	↓	↓	66	3.2	↓		✓	
18	04006	↓	↓	↓	72	8.0	↓		✓	
19	4250 PHS PRO CCV	NA	Std.	↓	79	87	79	005V231	✓	
20	Soln Blank	↓	$MeCl_2$	↓	NA	NA	NA		✓	
21	04007	12-05-00	W	↓	37	6.1	↓		✓	
22	04008	↓	↓	↓	89	10	↓		✓	

Initials / Date: MT 12-11-00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL PRO ICAL
Lab Standard ID# 00SV226 - 00SV230

Date Made: 12-08-00
Expire Date: 6-08-01
Matrix: $MeCl_2$

Prepared By: MT

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL TRPH Std.	S00A117, S00A197, S00A198	500 ppm	100 µl	850 PHS
↓	↓	↓	300 ↓	2550 ↓
↓	↓	↓	500 ↓	4250 ↓
↓	↓	↓	700 ↓	5950 ↓
↓	↓	↓	1000 ↓	~~8500~~ 1677 ↓
OTP	S00A073-2	10,000 ppm	5 µl added	50 ppm
C(39)	S00A187	3000 ppm	100 µl added	300 ppm
$MeCl_2$	EX00114	—	*	—
* All Stds. brought up to a final vol. = 1 mL				
	MT 12-08-00			

Standard Name: FL PRO CCV
Lab Standard ID# 00SV231

Date Made: 12-08-00
Expire Date: 6-08-01
Matrix: $MeCl_2$

Prepared By: MT

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL TRPH Std.	S00A117	500 ppm	500 µl	4250 PHS
OTP	S00A073-2	10,000 ↓	5 ↓	50 ppm
C(39)	S00A092-8	3000 ↓	100 ↓	300 ppm
$MeCl_2$	EX00114	—	395 ↓	—
	MT 12-08-00			

STPRLGFR.XLS

INITIAL CALIBRATION
5 POINT DRO

DATE:	12/8/00			
METHOD:	FL PRO			
INSTRUMENT:	DRO-B ; FRONT COLUMN			
ANALYST:	MT			
ICAL ID:	PRO1208			
CONCENTRATION (PPM)			**AREA**	**Rf**
850			62182797	73156.2
2550			138696300	54390.7
4250			225396394	53034.4
5950			320089278	53796.5
7692			384596146	49999.5
AVERAGE Rf:			56875.5	
% RSD:			16.3	

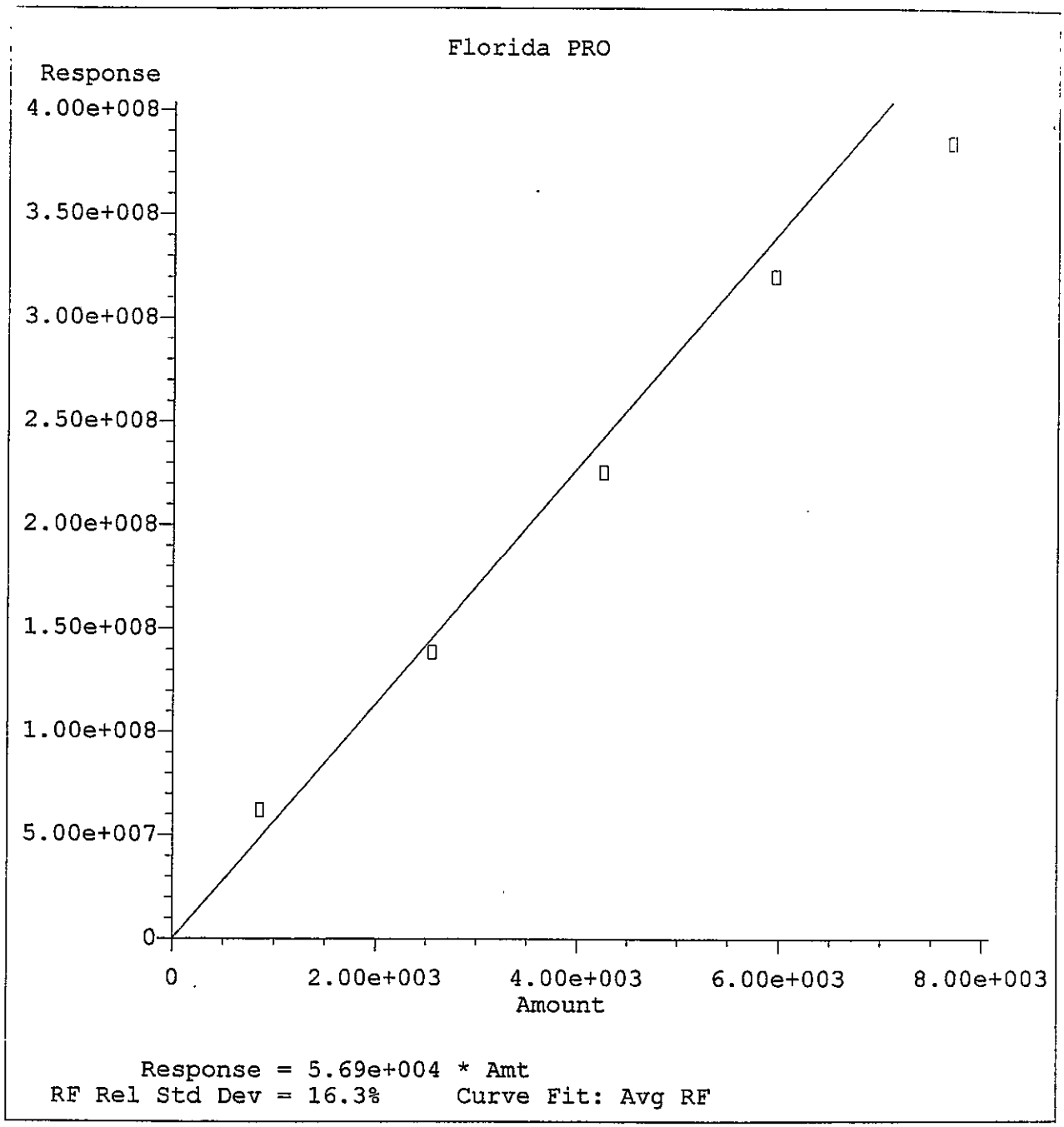
Response Factor Report DRO-B

Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 11 16:05:37 2000

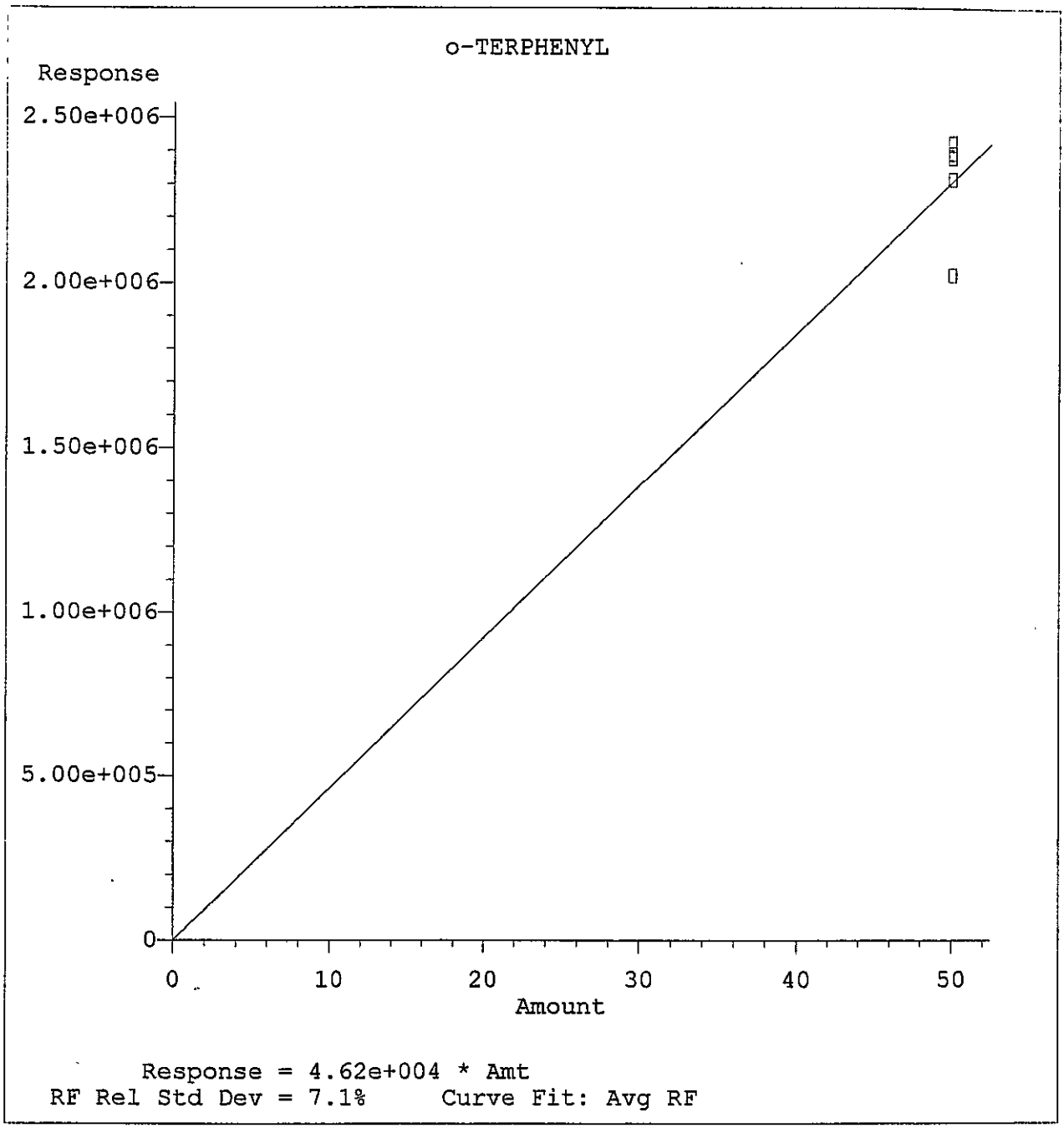
Calibration Files
1 =12080002.D 2 =12080003.D 3 =12080004.D
4 =12080005.D 5 =12080006.D

		Compound	1	2	3	4	5	Avg	%RSD
1)	HM	Florida PRO	7.316	5.439	5.303	5.380	5.000	5.688 E4	16.28
2)	SC	o-TERPHENYL	4.634	4.761	4.788	4.852	4.052	4.617 E4	7.06
3)	SC	C(39)	4.379	4.697	4.519	4.375	3.995	4.393 E4	5.89

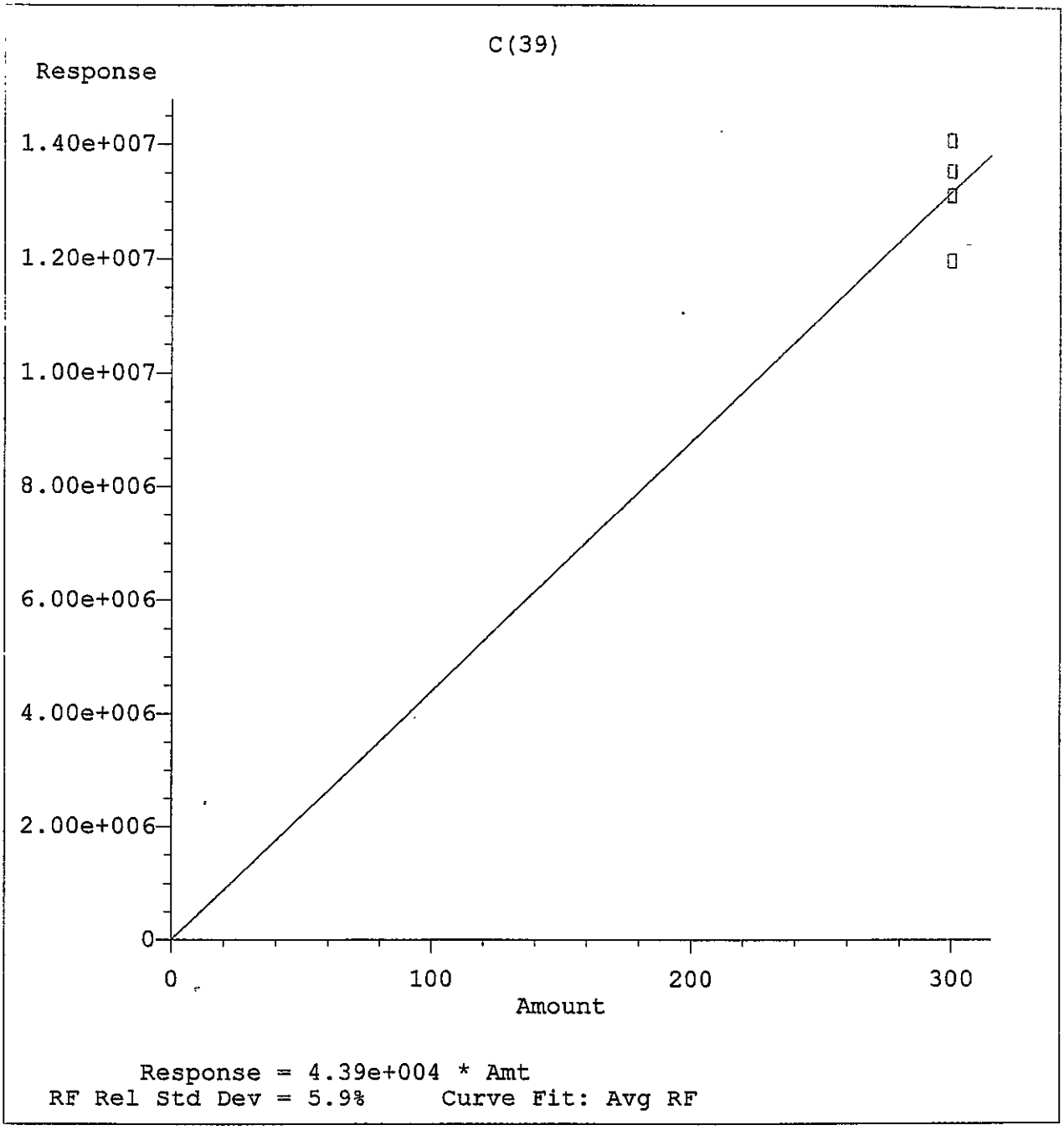
(#) = Out of Range



Method Name: C:\HPCHEM\2\METHODS\PRO1208.M
Calibration Table Last Updated: Mon Dec 18 12:09:37 2000



Method Name: C:\HPCHEM\2\METHODS\PRO1208.M
Calibration Table Last Updated: Fri Dec 08 17:06:58 2000



Method Name: C:\HPCHEM\2\METHODS\PRO1208.M
Calibration Table Last Updated: Fri Dec 08 17:06:58 2000

DATA ANALYSIS PARAMETERS

Method Name: C:\HPCHEM\2\METHODS\PRO1208.M

Percent Report Settings

Sort By: Signal

Output Destination
    Screen: No
    Printer: Yes
    File: No

Integration Events: AutoIntegrate

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Summary

Output Destination
    Screen: No
    Printer: Yes
    File: No

Generate Report During Run Method: Yes

FLORIDA PRO BY GC; INST. #2
Calibration Last Updated: Mon Dec 11 16:05:37 2000

Reference Window: 2.00 Minutes
Non-Reference Window: 0.05 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

---

1) Florida PRO ( )
Ret. Time 3.70 min., Extract & Integrate from 3.70 to 38.00 min.

Lvl	ID	Conc (ug/ml)	Response
1		850.000	62182797
2		2550.000	138696300
3		4250.000	225396394
4		5950.000	320089278
5		7692.000	384596146

Curve Fit: Avg. RF

---

2) o-TERPHENYL ( )
Ret. Time 19.24 min., Extract & Integrate from 19.14 to 19.34 min.

Lvl	ID	Conc (ug/ml)	Response
1		50.000	2316891
2		50.000	2380453
3		50.000	2394194
4		50.000	2425862
5		50.000	2025865

Curve Fit: Avg. RF

---

3) C(39) ( )
Ret. Time 34.72 min., Extract & Integrate from 34.22 to 35.22 min.

Lvl	ID	Conc (ug/ml)	Response
1		300.000	13137951
2		300.000	14092023
3		300.000	13556352
4		300.000	13125618
5		300.000	11984023

Curve Fit: Avg. RF

END OF DATA ANALYSIS PARAMETERS

Mon Dec 18 12:17:01 2000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080002.D Vial: 2
Acq On : 8 Dec 2000 13:11 Operator: MT
Sample : 850 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.19f	2316891	52.497 ug/mlm
Spiked Amount 50.000		Recovery =	104.99%
3) SC C(39)	34.71	13137951	281.879 ug/mlm
Spiked Amount 300.000		Recovery =	93.96%
Target Compounds			
1) HM Florida PRO	3.70	62182797	1526.199 ug/ml

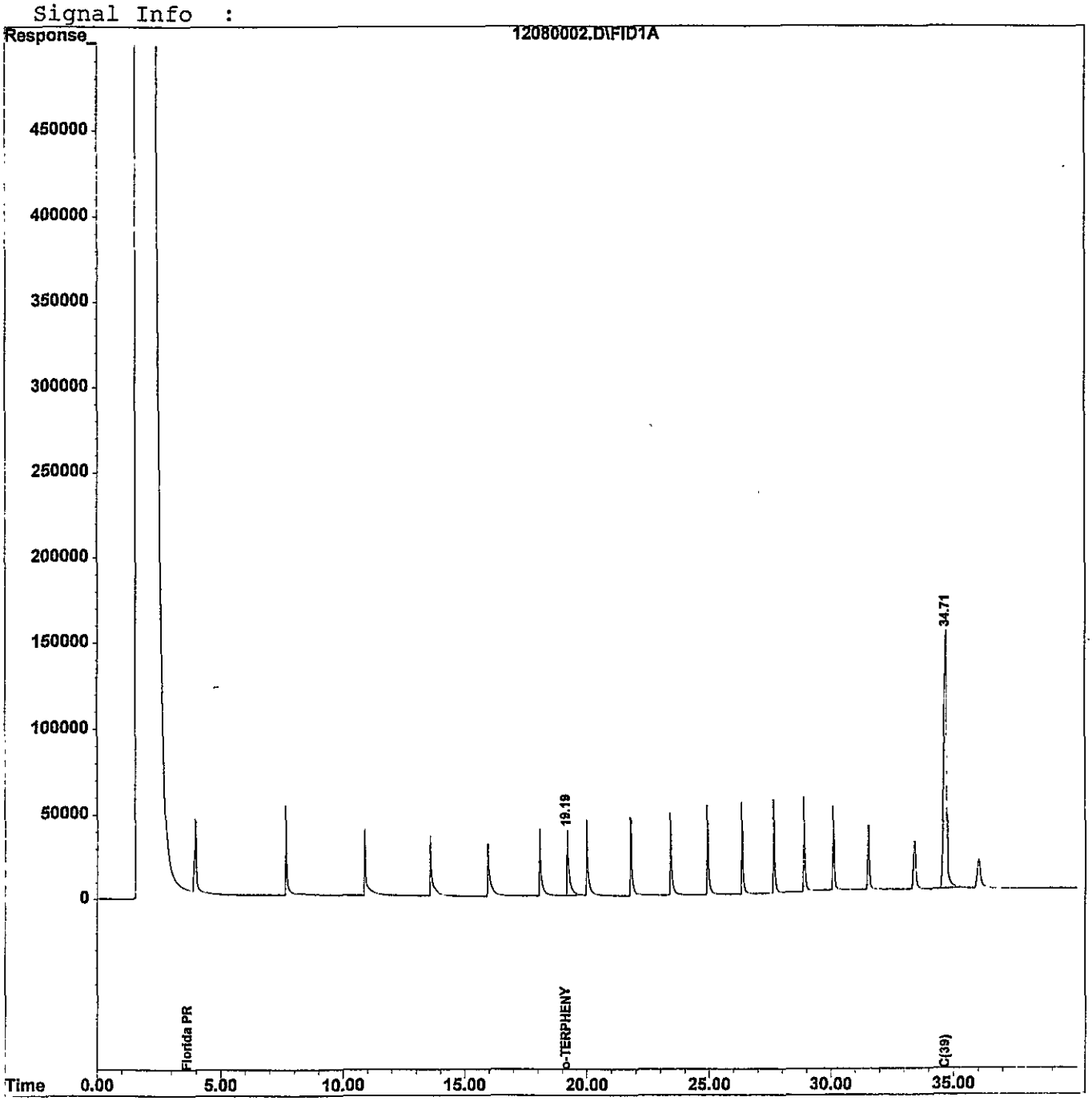
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080002.D Vial: 2
Acq On : 8 Dec 2000 13:11 Operator: MT
Sample : 850 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080003.D Vial: 3
Acq On : 8 Dec 2000 13:59 Operator: MT
Sample : 2550 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.17f	2380453	53.938 ug/mlm
Spiked Amount 50.000		Recovery =	107.88%
3) SC C(39)	34.70	14092023	302.349 ug/mlm
Spiked Amount 300.000		Recovery =	100.78%
Target Compounds			
1) HM Florida PRO	3.70	138696300	3404.128 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

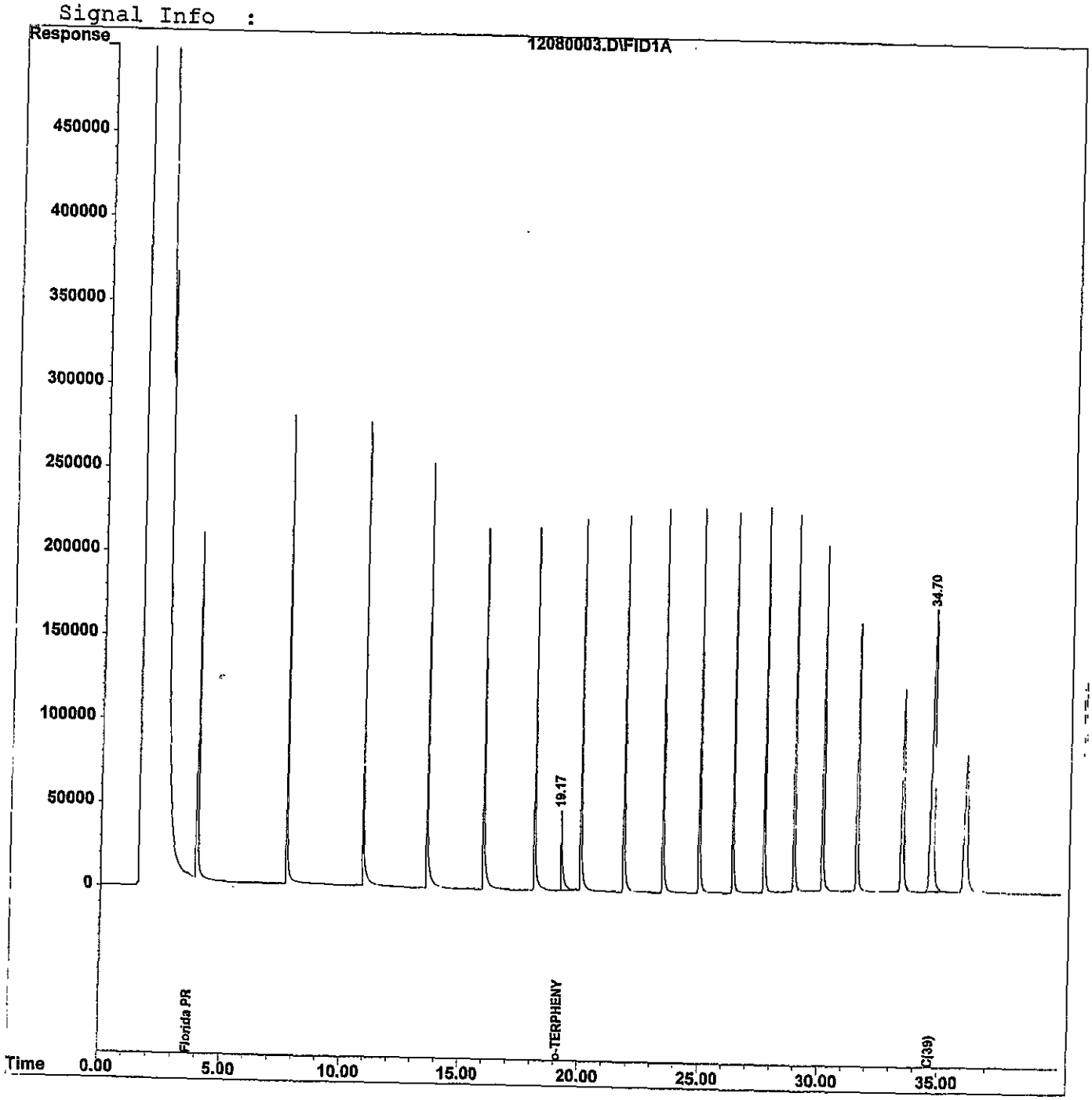
Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080003.D
Acq On : 8 Dec 2000 13:59
Sample : 2550 PHS PRO ICAL
Misc :
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Vial: 3
Operator: MT
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080004.D Vial: 4
Acq On : 8 Dec 2000 14:48 Operator: MT
Sample : 4250 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:34 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.16	2394194	54.249 ug/mlm
Spiked Amount 50.000		Recovery =	108.50%
3) SC C(39)	34.70	13556352	290.856 ug/mlm
Spiked Amount 300.000		Recovery =	96.95%
Target Compounds			
1) HM Florida PRO	3.70	225396394	5532.074 ug/ml

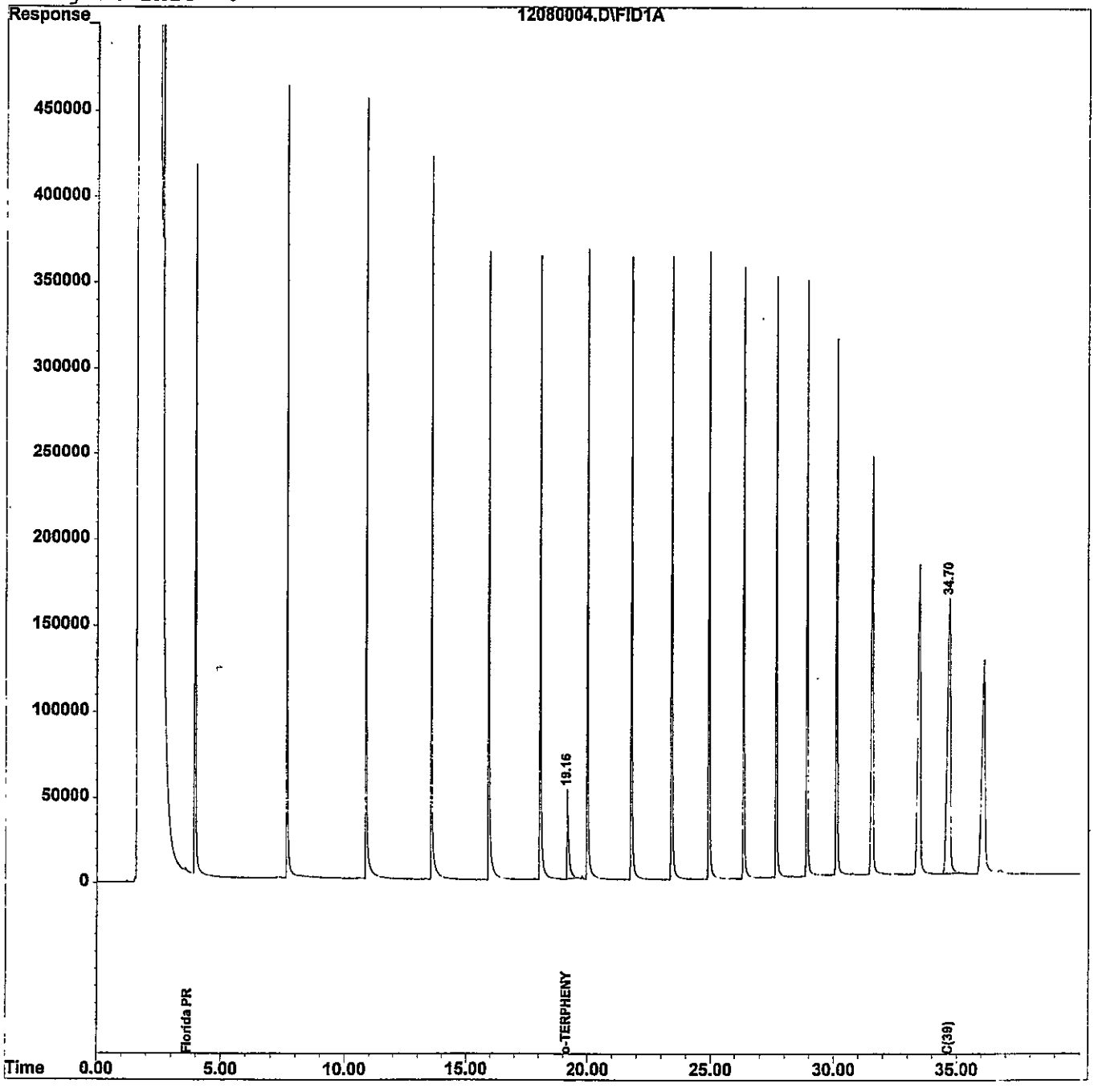
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080004.D Vial: 4
Acq On : 8 Dec 2000 14:48 Operator: MT
Sample : 4250 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:34 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080005.D Vial: 5
Acq On : 8 Dec 2000 15:36 Operator: MT
Sample : 5950 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 16:17 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.16	2425862	54.966 ug/mlm
Spiked Amount 50.000		Recovery =	109.93%
3) SC C(39)	34.70	13125618	281.614 ug/mlm
Spiked Amount 300.000		Recovery =	93.87%
Target Compounds			
1) HM Florida PRO	3.70	320089278	7856.193 ug/ml

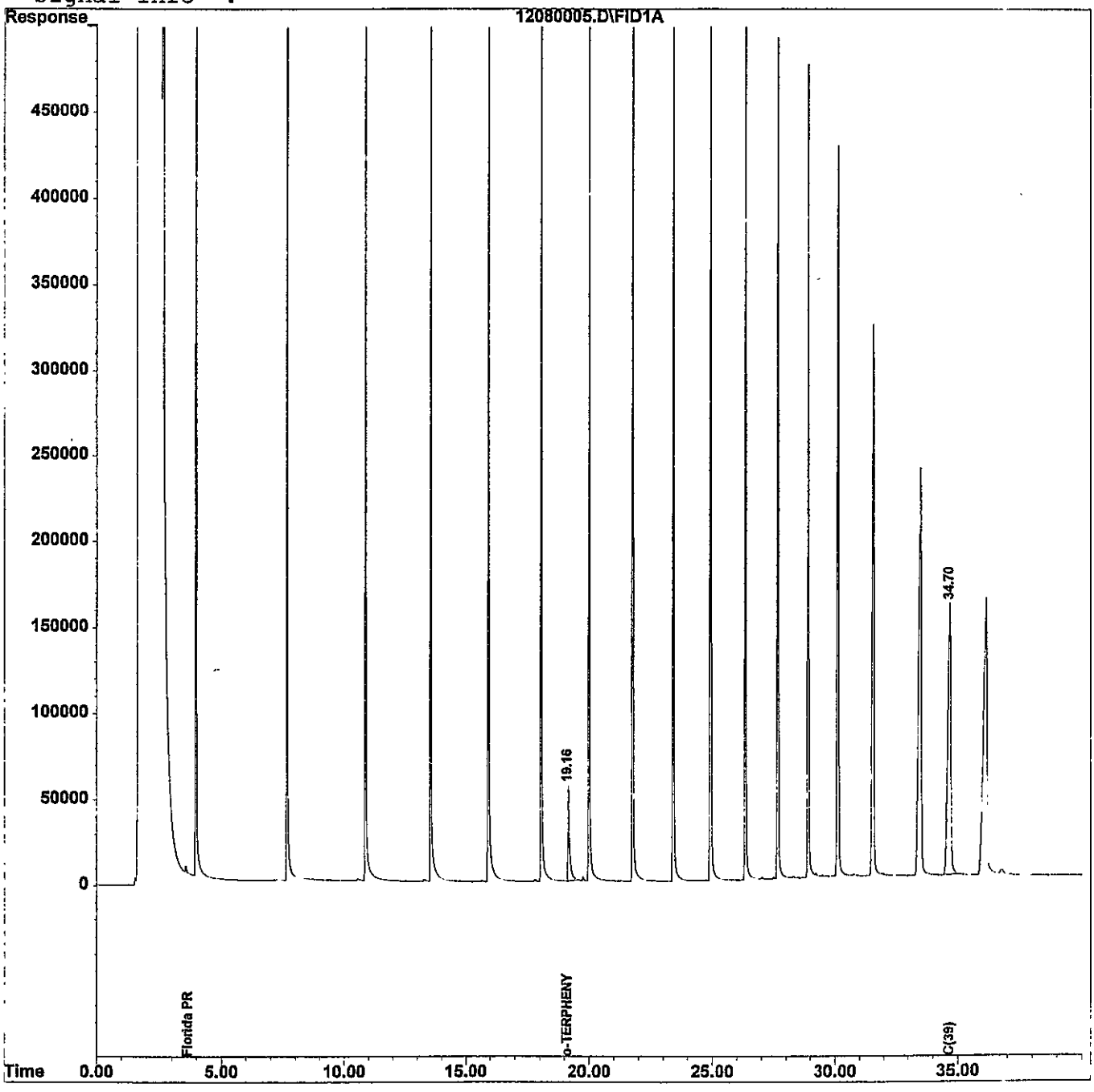
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080005.D Vial: 5
Acq On : 8 Dec 2000 15:36 Operator: MT
Sample : 5950 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 16:17 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080006.D Vial: 6
Acq On : 8 Dec 2000 16:25 Operator: MT
Sample : 8500 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 17:06 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.17	2025865	45.903 ug/mlm
Spiked Amount 50.000		Recovery =	91.81%
3) SC C(39)	34.72	11984023	257.121 ug/mlm
Spiked Amount 300.000		Recovery =	85.71%
Target Compounds			
1) HM Florida PRO	3.70	384596146	9439.434 ug/ml

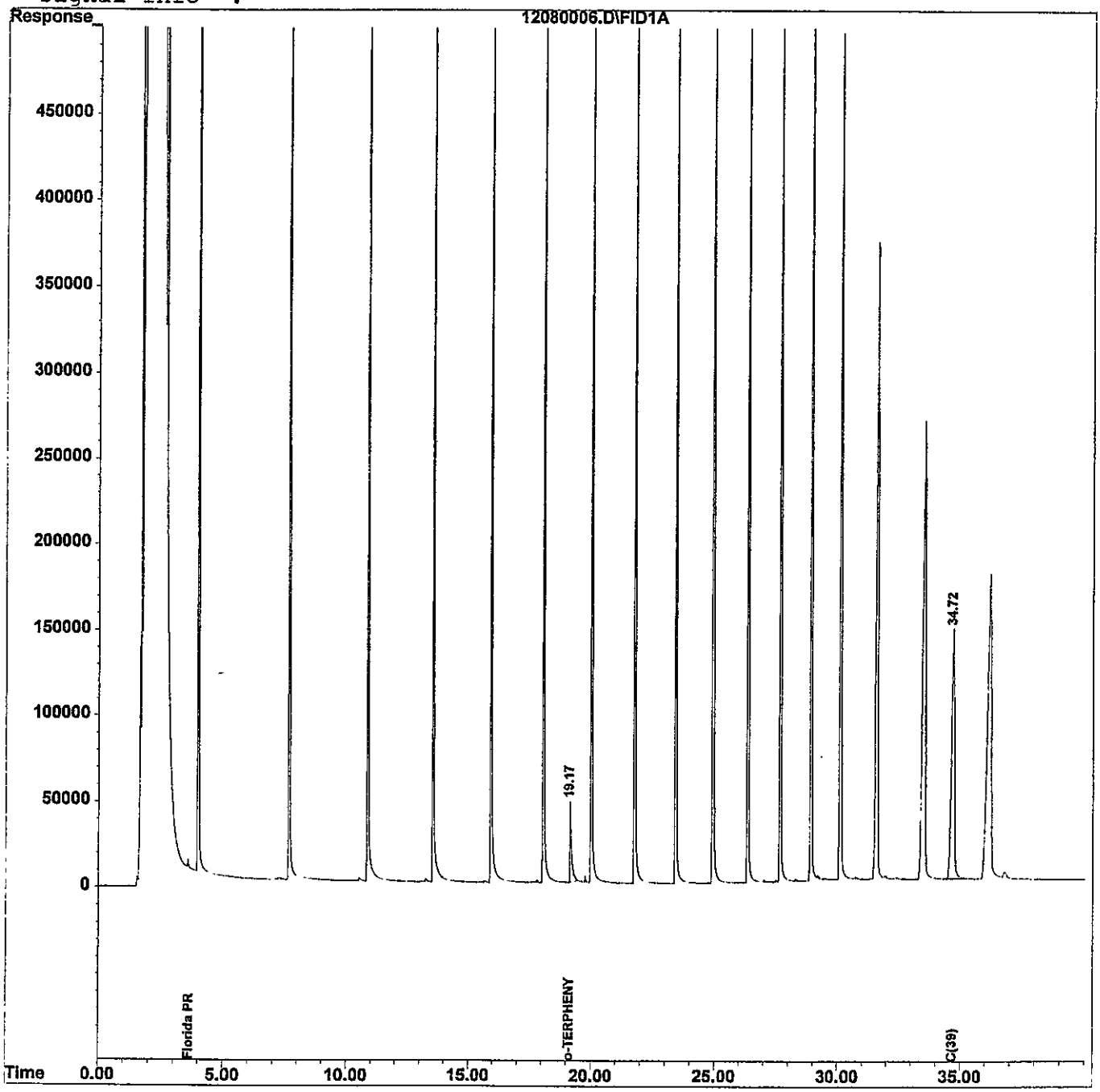
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080006.D Vial: 6
Acq On : 8 Dec 2000 16:25 Operator: MT
Sample : 8500 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 17:06 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080008.D Vial: 8
Acq On : 8 Dec 2000 21:59 Operator: MT
Sample : 4250 PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 18 12:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.20	1889314	40.918 ug/mlm
Spiked Amount 50.000		Recovery =	81.84% ✓MT
3) SC C(39)	34.73	11867881	270.150 ug/mlm
Spiked Amount 300.000		Recovery =	90.05% ✓MT
Target Compounds			
1) HM Florida PRO	3.70	197434255	3471.342 ug/ml

82% ✓
MT

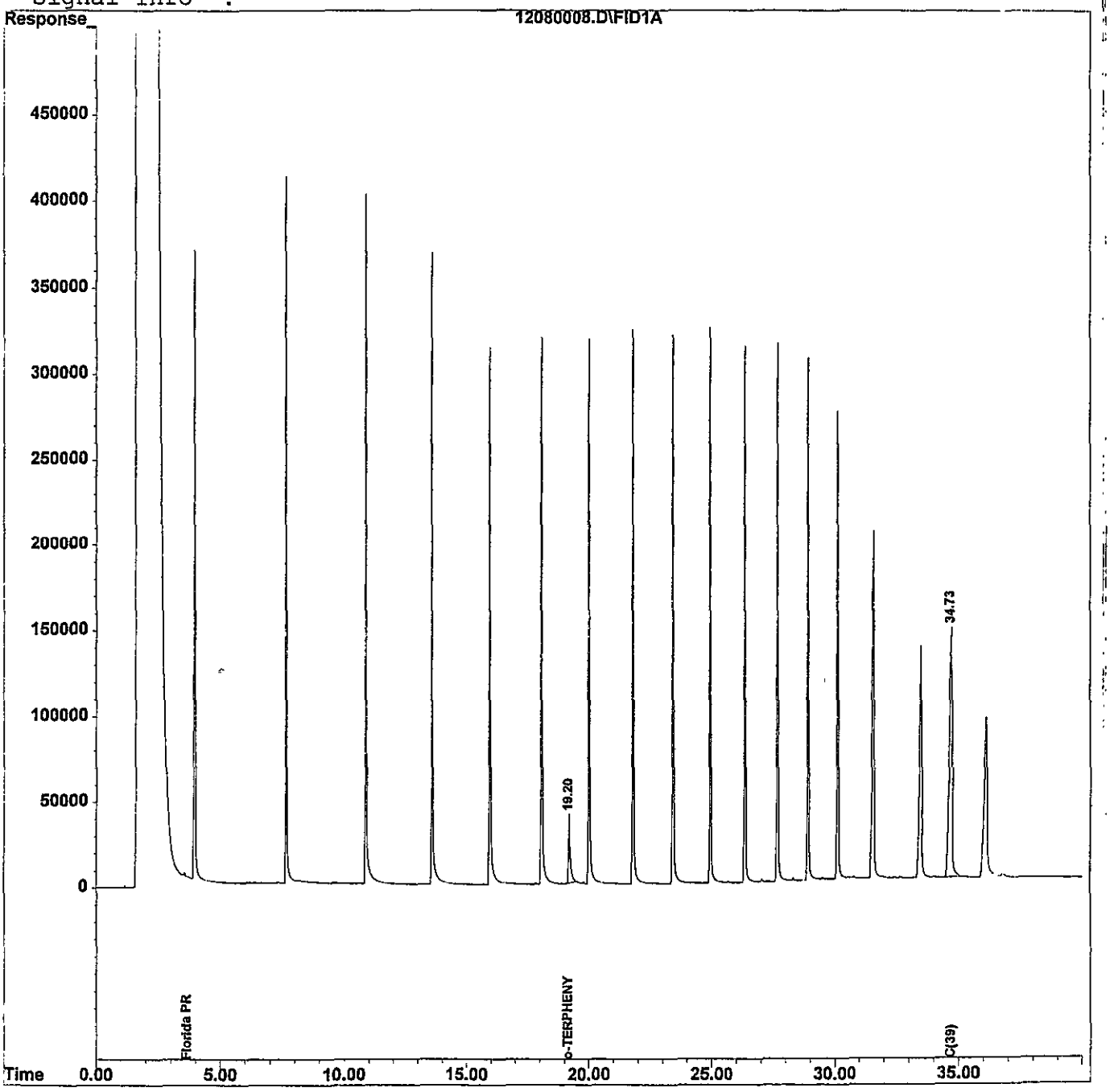
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080008.D Vial: 8
Acq On : 8 Dec 2000 21:59 Operator: MT
Sample : 4250 PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 18 12:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



VOA GC/MS QC CHECKLIST
SW-846-8260B

BATCH #: C120600 25·M	METHOD: 8260B
MATRIX: water - 25 ml	

Are BS/BSD/MS/MSD recoveries within recovery ranges?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all surrogate recoveries within recovery ranges?	Y	N	NA
Are all Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Are all MS/MSD compounds below the high standard?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined out, initialled, & dated?	Y	N	NA

Analyst: VR		Reviewer:	
Date: 12/15/00	Time: 10:00	Date: 12/16/00	Time: 10:10 am

Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration

Non-Spiked Sample: C17920.D

	Spike Sample			Spike Duplicate Sample		
File ID :	C17965.D			C17959.D		
Sample :	AC04415MS	25ml	DF=1	AC04416MSD	2.5ml	DF=10
Acq Time:	15 Dec 2000	00:03		14 Dec 2000	19:59	

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits Rec
1,1-Dichloroethene	0.0	10	9	9	94	93	1	20	82-118
Benzene	0.0	10	10	9	96	94	2	20	83-121
Trichloroethene	9.7	10	20	20	101	98	3	20	68-109
Toluene	0.0	10	10	9	95	95	0	20	85-109
Chlorobenzene	0.0	10	9	9	94	92	2	20	82-110

- Fails Limit Check

12140025.M Fri Dec 15 10:01:37 2000 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17965.D Vial: 4
Acq On : 15 Dec 2000 00:03 Operator: TAG/VR
Sample : AC04415MS 25ml DF=10 Inst : VOA-C
Misc : 26383/C12060025 VR 12/14/00 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 15 0:29 2000 Quant Results File: 121400A.RES

Quant Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	394346	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	279677	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.92	152	149698	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	80426	9.37 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.70%		
46) Toluene-d8	10.26	98	398909	9.93 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.30%		
65) Bromofluorobenzene	14.90	95	199476	9.86 ug\L	0.03
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.60%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	204866	8.80 ug\L	100
3) Chloromethane	1.77	50	75062	9.58 ug\L	96
4) Vinyl Chloride	1.83	62	105256	9.46 ug\L	100
5) Bromomethane	2.12	94	91690	9.31 ug\L	95
6) Chloroethane	2.22	64	57612	10.02 ug\L	96
7) Trichlorofluoromethane	2.41	101	328771	9.42 ug\L #	100
8) Acrolein	3.79	56	2676	20.78 ug\L #	34
9) Acrylonitrile	3.84	53	8375	18.26 ug\L #	33
10) 1,1-Dichloroethene	2.91	96	117690	9.43 ug\L	96
11) Acetone	3.02	58	846	11.33 ug\L #	6
12) Iodomethane	3.12	142	193626	10.64 ug\L	98
13) Allylchloride	3.33	39	102143	9.60 ug\L #	21
14) Carbon Disulfide	3.16	76	343736	14.81 ug\L #	94
15) Acetonitrile	3.33	41	148509	97.64 ug\L	91
16) Methylene Chloride	3.51	86	58530	10.94 ug\L #	33
17) trans-1,2-Dichloroethene	3.80	96	117507	9.20 ug\L	97
18) MethylTertButylEther	3.81	73	104590	8.58 ug\L	94
19) 1,1-Dichloroethane	4.44	63	193022	9.39 ug\L #	55
20) Vinyl Acetate	3.79	43	25638	8.85 ug\L #	73
21) 2,2-Dichloropropane	5.41	77	230602	9.88 ug\L	93
22) cis-1,2-Dichloroethene	5.46	96	103115	9.16 ug\L	97
23) 2-Butanone	5.48	72	528	8.92 ug\L #	1
24) Propionitrile	5.74	54	10655	86.33 ug\L #	66
25) Methacrylonitrile	5.94	41	100681	89.54 ug\L #	89
26) Bromochloromethane	5.92	128	39570	8.93 ug\L #	81
27) Chloroform	6.08	83	240067	9.46 ug\L	100
28) 1,1,1-Trichloroethane	6.31	97	291289	9.67 ug\L #	75
29) Carbon Tetrachloride	6.58	119	258382	9.57 ug\L #	75
30) 1,4-Dioxane	8.89	88	1670	77.58 ug\L #	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17965.D Vial: 4
Acq On : 15 Dec 2000 00:03 Operator: TAG/VR
Sample : AC04415MS 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 15 0:29 2000 Quant Results File: 121400A.RES

Quant Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.62	77	69533	9.81 ug\L	#	1
33) Benzene	6.96	78	329871	9.56 ug\L		100
34) Isobutyl alcohol	7.17	43	9999	160.99 ug\L	#	67
35) 1,2-Dichloroethane	7.09	62	88834	9.12 ug\L	#	87
36) Trichloroethene	8.15	95	369935	19.84 ug\L		94
37) 1,2-Dichloropropane	8.56	63	101596	9.28 ug\L	#	97
38) Dibromomethane	8.78	93	47004	9.13 ug\L	#	87
39) Methylmethacrylate	8.86	69	18464	8.70 ug\L		97
40) Bromodichloromethane	9.11	83	169545	9.09 ug\L		98
41) 2-Nitropropane	9.56	43	4828	8.22 ug\L	#	100
42) 2-Chloroethyl-vinyl ether	9.68	63	9831	7.13 ug\L		94
43) cis-1,3-Dichloropropene	9.88	75	121947	8.88 ug\L		97
44) 4-Methyl-2-Pentanone	10.21	85	4042	6.57 ug\L	#	75
47) Toluene	10.38	92	238989	9.51 ug\L		99
48) trans-1,3-Dichloropropene	10.89	75	84163	9.11 ug\L		96
49) Ethylmethacrylate	11.07	69	47131	8.74 ug\L	#	97
50) 1,1,2-Trichloroethane	11.18	83	44445	9.18 ug\L		98
51) Tetrachloroethene	11.31	164	156519	9.45 ug\L		94
52) 1,3-Dichloropropane	11.46	76	84683	9.03 ug\L		100
53) 2-Hexanone	11.68	43	13143	9.34 ug\L	#	43
54) Dibromochloromethane	11.84	129	93535	8.95 ug\L		97
55) 1,2-Dibromoethane	12.00	107	61731	9.05 ug\L		100
56) Chlorobenzene	12.84	112	270386	9.40 ug\L		97
57) 1,1,1,2-Tetrachloroethane	13.01	131	115682	8.74 ug\L		95
58) Ethylbenzene	13.04	91	497073	9.47 ug\L		99
59) total-Xylene	13.96	106	215767m	27.61 ug\L		
60) Styrene	14.01	104	250933	9.18 ug\L		93
62) Bromoform	14.37	173	43112	8.32 ug\L	#	96
63) Isopropylbenzene	14.62	105	626877	9.63 ug\L		99
64) 1,4-dichloro-2-Butene	15.30	75	40208	8.79 ug\L	#	100
66) Bromobenzene	15.13	156	107539	9.07 ug\L	#	67
67) 1,1,2,2-Tetrachloroethane	15.28	83	52907	9.14 ug\L	#	99
68) 1,2,3-Trichloropropane	15.30	75	40208	8.79 ug\L	#	100
69) n-Propylbenzene	15.34	91	688025	9.74 ug\L		96
70) 2-Chlorotoluene	15.47	91	372945	9.69 ug\L		96
71) 4-Chlorotoluene	15.68	91	507979	9.61 ug\L		98
72) 1,3,5-Trimethylbenzene	15.67	105	484058	9.66 ug\L		87
73) Pentachloroethane	16.28	167	76944	9.17 ug\L		97
74) tert-Butylbenzene	16.23	119	605529	9.69 ug\L		98
75) 1,2,4-Trimethylbenzene	16.32	105	459569	9.46 ug\L		99
76) sec-Butylbenzene	16.61	105	738182	9.77 ug\L		97
77) 1,3-Dichlorobenzene	16.80	146	208702	9.10 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17965.D Vial: 4
Acq On : 15 Dec 2000 00:03 Operator: TAG/VR
Sample : AC04415MS 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 15 0:29 2000 Quant Results File: 121400A.RES

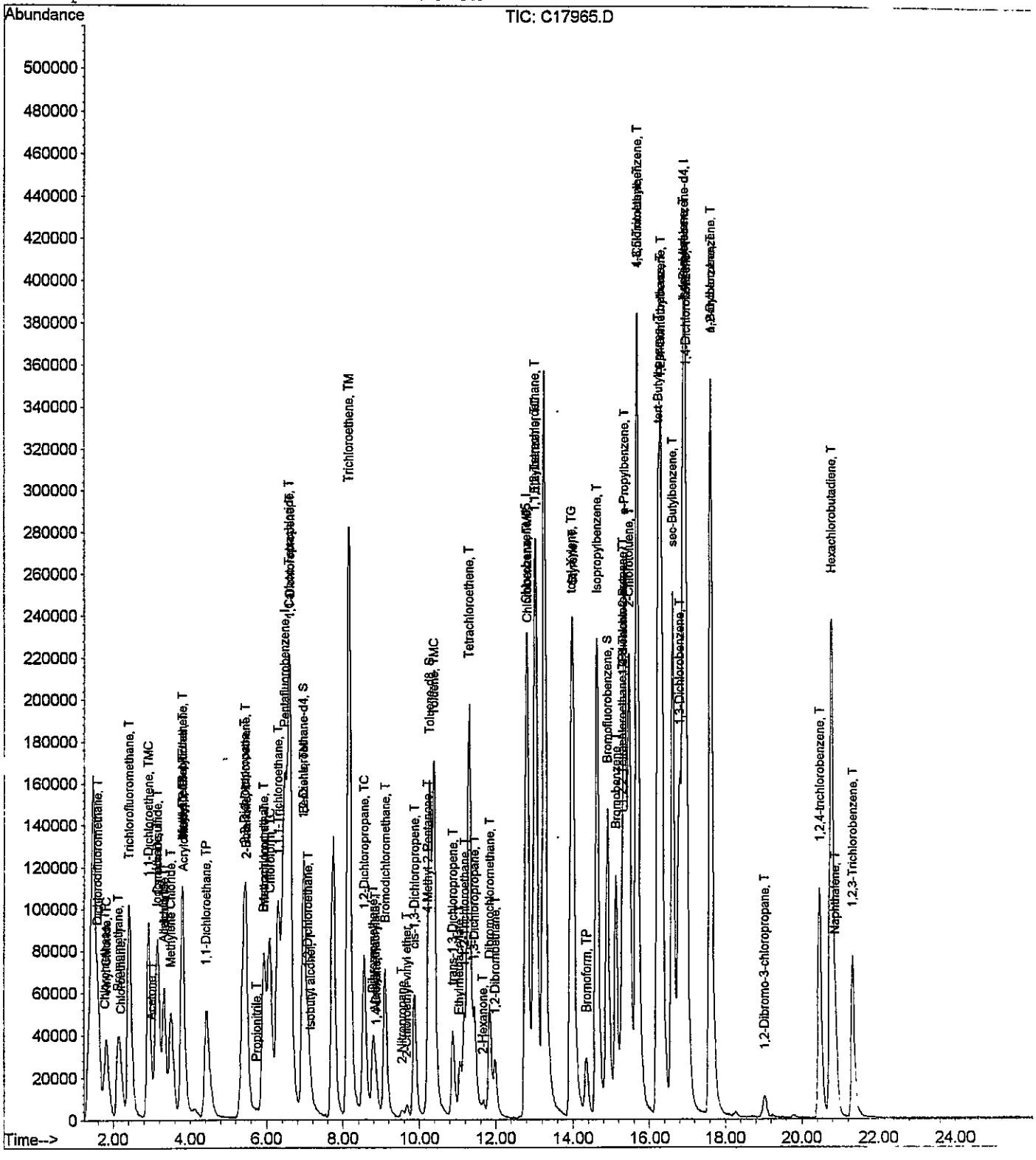
Quant Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.89	119	595973	9.77 ug\L	99
79)	1,4-Dichlorobenzene	16.97	146	236335	9.14 ug\L	99
80)	1,2-Dichlorobenzene	17.61	146	168363	9.18 ug\L	99
81)	n-Butylbenzene	17.62	91	585867	9.90 ug\L	93
82)	1,2-Dibromo-3-chloropropan	19.05	75	9992	8.93 ug\L #	80
83)	1,2,4-trichlorobenzene	20.47	180	133165	8.95 ug\L	100
84)	Hexachlorobutadiene	20.79	225	185690	10.23 ug\L	100
85)	Naphthalene	20.90	128	99558	8.54 ug\L	100
86)	1,2,3-Trichlorobenzene	21.33	180	87883	8.19 ug\L	93

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\121400A\C17965.D Vial: 4
Acq On : 15 Dec 2000 00:03 Operator: TAG/VR
Sample : AC04415MS 25ml DF=1 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 15 0:29 2000 Quant Results File: 121400A.RES

Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17959.D Vial: 2
Acq On : 14 Dec 2000 19:59 Operator: TAG/VR
Sample : AC04416MSD 2.5ml DF=10 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 20:25 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	398703	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.79	117	286182	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.94	152	146856	10.00 ug\L	0.04
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	85531	9.86 ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.60%		
46) Toluene-d8	10.29	98	404229	9.83 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 98.30%		
65) Bromofluorobenzene	14.87	95	212457	10.70 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 107.00%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	208801	8.87 ug\L	100
3) Chloromethane	1.78	50	74445	9.40 ug\L	100
4) Vinyl Chloride	1.85	62	106080	9.43 ug\L	99
5) Bromomethane	2.12	94	93941	9.46 ug\L	99
6) Chloroethane	2.22	64	55825	9.61 ug\L	98
7) Trichlorofluoromethane	2.44	101	331797	9.40 ug\L #	100
8) Acrolein	3.80	56	747	12.00 ug\L #	1
9) Acrylonitrile	3.87	53	8696	18.73 ug\L #	89
10) 1,1-Dichloroethene	2.92	96	117899	9.35 ug\L	99
11) Acetone	3.03	58	586	9.00 ug\L	95
12) Iodomethane	3.13	142	190642	10.39 ug\L	96
13) Allylchloride	3.34	39	102589	9.54 ug\L #	21
14) Carbon Disulfide	3.18	76	338502	14.42 ug\L	95
15) Acetonitrile	3.34	41	151483	98.50 ug\L	92
16) Methylene Chloride	3.52	86	61353	11.35 ug\L #	31
17) trans-1,2-Dichloroethene	3.83	96	120172	9.31 ug\L	99
18) MethylTertButylEther	3.83	73	112807	9.15 ug\L #	72
19) 1,1-Dichloroethane	4.45	63	197127	9.49 ug\L	99
20) Vinyl Acetate	3.83	43	24889	8.49 ug\L #	73
21) 2,2-Dichloropropane	5.41	77	220198	9.33 ug\L #	55
22) cis-1,2-Dichloroethene	5.48	96	103884	9.13 ug\L	97
23) 2-Butanone	5.54	72	889	10.26 ug\L #	1
24) Propionitrile	5.77	54	11496	91.05 ug\L #	80
25) Methacrylonitrile	5.95	41	104057	91.53 ug\L	97
26) Bromochloromethane	5.95	128	40898	9.13 ug\L #	83
27) Chloroform	6.10	83	241160	9.40 ug\L	100
28) 1,1,1-Trichloroethane	6.32	97	286806	9.42 ug\L #	77
29) Carbon Tetrachloride	6.59	119	258323	9.47 ug\L #	75
30) 1,4-Dioxane	8.90	88	2736	125.70 ug\L #	65

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17959.D
Acq On : 14 Dec 2000 19:59
Sample : AC04416MSD 2.5ml DF=10
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 14 20:25 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.61	77	67968	9.49 ug\L	#	1
33)	Benzene	6.99	78	327636	9.39 ug\L		100
34)	Isobutyl alcohol	7.18	43	11336	181.06 ug\L	#	69
35)	1,2-Dichloroethane	7.10	62	92251	9.37 ug\L		96
36)	Trichloroethene	8.16	95	368410	19.54 ug\L		95
37)	1,2-Dichloropropane	8.58	63	101309	9.16 ug\L		98
38)	Dibromomethane	8.80	93	48676	9.35 ug\L	#	88
39)	Methylmethacrylate	8.89	69	19334	9.01 ug\L	#	88
40)	Bromodichloromethane	9.13	83	175366	9.30 ug\L		99
41)	2-Nitropropane	9.56	43	4049	6.82 ug\L	#	100
42)	2-Chloroethyl-vinyl ether	9.70	63	8910	6.63 ug\L	#	81
43)	cis-1,3-Dichloropropene	9.88	75	127886	9.21 ug\L		100
44)	4-Methyl-2-Pentanone	10.19	85	3747	5.74 ug\L	#	1
47)	Toluene	10.40	92	243727	9.48 ug\L		99
48)	trans-1,3-Dichloropropene	10.90	75	83978	8.88 ug\L		98
49)	Ethylmethacrylate	11.09	69	50150	9.08 ug\L	#	97
50)	1,1,2-Trichloroethane	11.20	83	47457	9.58 ug\L		95
51)	Tetrachloroethene	11.31	164	154994	9.14 ug\L		94
52)	1,3-Dichloropropane	11.47	76	86399	9.00 ug\L		99
53)	2-Hexanone	11.70	43	13021	9.04 ug\L	#	88
54)	Dibromochloromethane	11.86	129	95034	8.88 ug\L		98
55)	1,2-Dibromoethane	12.00	107	60505	8.67 ug\L	#	95
56)	Chlorobenzene	12.84	112	271969	9.24 ug\L		97
57)	1,1,1,2-Tetrachloroethane	13.01	131	124574	9.20 ug\L		94
58)	Ethylbenzene	13.04	91	507862	9.45 ug\L		99
59)	total-Xylene	13.95	106	219754m	27.49 ug\L		
60)	Styrene	14.00	104	257896	9.22 ug\L		95
62)	Bromoform	14.33	173	44673	8.75 ug\L	#	97
63)	Isopropylbenzene	14.59	105	639884	10.02 ug\L		98
64)	1,4-dichloro-2-Butene	15.27	75	43625	9.72 ug\L	#	100
66)	Bromobenzene	15.11	156	110670	9.51 ug\L	#	65
67)	1,1,2,2-Tetrachloroethane	15.25	83	55380	9.75 ug\L		99
68)	1,2,3-Trichloropropane	15.27	75	43625	9.72 ug\L	#	100
69)	n-Propylbenzene	15.33	91	684510	9.88 ug\L		96
70)	2-Chlorotoluene	15.45	91	379765	10.06 ug\L		96
71)	4-Chlorotoluene	15.66	91	502486	9.69 ug\L		98
72)	1,3,5-Trimethylbenzene	15.64	105	483530	9.84 ug\L		88
73)	Pentachloroethane	16.27	167	74846	9.09 ug\L		97
74)	tert-Butylbenzene	16.23	119	582776	9.50 ug\L		98
75)	1,2,4-Trimethylbenzene	16.31	105	450628	9.45 ug\L		98
76)	sec-Butylbenzene	16.62	105	719580	9.71 ug\L		96
77)	1,3-Dichlorobenzene	16.80	146	208906	9.28 ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17959.D Vial: 2
Acq On : 14 Dec 2000 19:59 Operator: TAG/VR
Sample : AC04416MSD 2.5ml DF=10 Inst : VOA-C
Misc : 26383/C12060025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 20:25 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.91	119	581385	9.72 ug\L	98
79)	1,4-Dichlorobenzene	16.98	146	234999	9.26 ug\L	99
80)	1,2-Dichlorobenzene	17.64	146	169342	9.41 ug\L	99
81)	n-Butylbenzene	17.64	91	583945	10.06 ug\L	92
82)	1,2-Dibromo-3-chloropropan	19.08	75	10840	9.87 ug\L	93
83)	1,2,4-trichlorobenzene	20.49	180	137495	9.42 ug\L	100
84)	Hexachlorobutadiene	20.81	225	182614	10.26 ug\L	100
85)	Naphthalene	20.92	128	113518	9.97 ug\L	100
86)	1,2,3-Trichlorobenzene	21.35	180	98428	9.35 ug\L	97

(#) = qualifier out of range (m) = manual integration

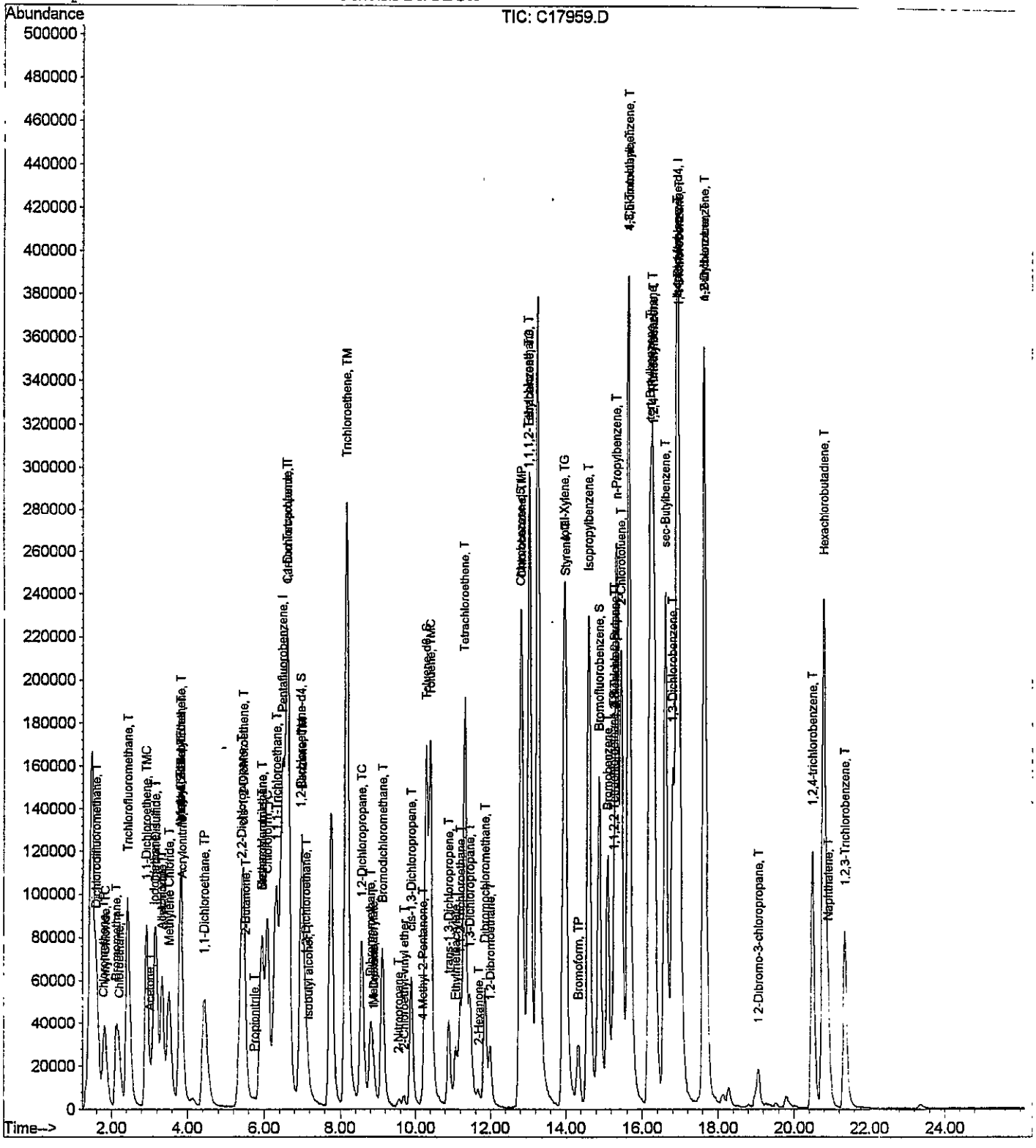
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17959.D
Acq On : 14 Dec 2000 19:59
Sample : AC04416MSD 2.5ml DF=10
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 14 20:25 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17920.D
Acq On : 13 Dec 2000 13:18
Sample : AC04413 2.5ml DF=10
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 13 13:45 2000

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Quant Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	401544	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	278252	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	145992	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	74095	8.48 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%		
46) Toluene-d8	10.28	98	387448	9.69 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.90%		
65) Bromofluorobenzene	14.87	95	189151	9.58 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.80%		

Target Compounds					Qvalue
16) Methylene Chloride	3.51	86	3902	0.72 ug\L #	1
34) Isobutyl alcohol	7.16	43	133	~~2.29 ug\L #~~	17
36) Trichloroethene	8.16	95	184755	9.73 ug\L	93
64) 1,4-dichloro-2-Butene	14.88	75	94659	~~21.21 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	94659	~~21.21 ug\L #~~	100
85) Naphthalene	20.89	128	8855	0.51 ug\L	100
86) 1,2,3-Trichlorobenzene	21.34	180	5621	0.54 ug\L #	94

(#) = qualifier out of range (m) = manual integration

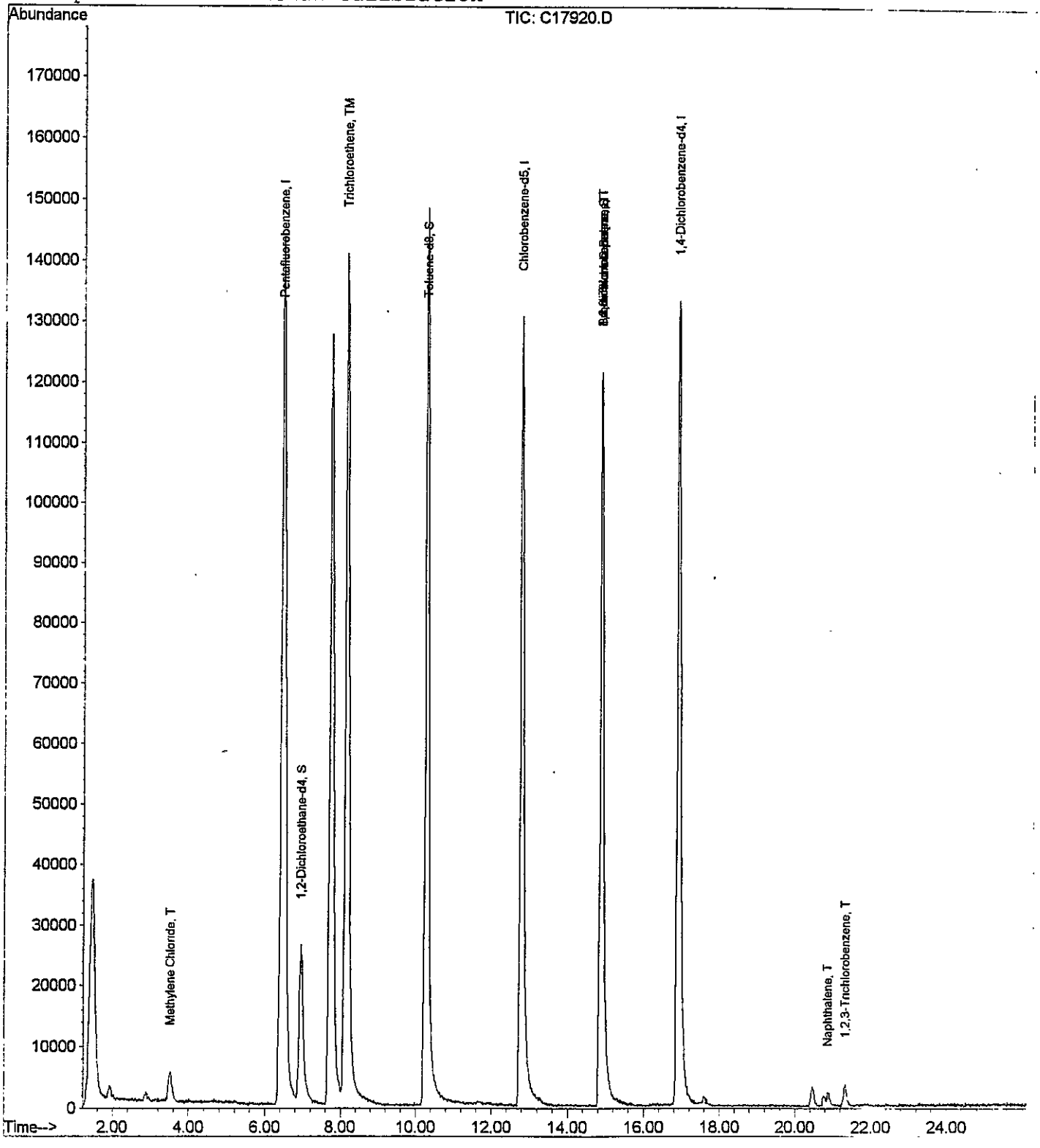
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17920.D
Acq On : 13 Dec 2000 13:18
Sample : AC04413 2.5ml DF=10
Misc : 26383/C12060025
MS Integration Params: rteint.p
Quant Time: Dec 13 13:45 2000

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12130025.RES

Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17955.D Vial: 14
Acq On : 14 Dec 2000 17:57 Operator: TAG/VR
Sample : QVW121400 C2 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 18:24 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	386082	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.79	117	261651	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	139035	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	76107	9.06 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 90.60%		
46) Toluene-d8	10.27	98	378041	10.05 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.50%		
65) Bromofluorobenzene	14.87	95	190345	10.13 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.30%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.61	85	210405	9.23 ug\L	100
3) Chloromethane	1.78	50	74568	9.72 ug\L	98
4) Vinyl Chloride	1.84	62	105437	9.68 ug\L	100
5) Bromomethane	2.15	94	98118	10.36 ug\L	99
6) Chloroethane	2.23	64	57151	10.16 ug\L	99
7) Trichlorofluoromethane	2.43	101	336369	9.84 ug\L #	100
8) Acrolein	3.80	56	3894	26.67 ug\L #	30
9) Acrylonitrile	3.88	53	6891	15.46 ug\L #	29
10) 1,1-Dichloroethene	2.93	96	116930	9.57 ug\L	96
11) Acetone	3.04	58	630	9.56 ug\L #	1
12) Iodomethane	3.12	142	174416	9.88 ug\L #	91
13) Allylchloride	3.34	39	103239	9.91 ug\L #	33
14) Carbon Disulfide	3.17	76	280811	12.36 ug\L	98
15) Acetonitrile	3.33	41	149717	100.54 ug\L	91
16) Methylene Chloride	3.53	86	62290	11.90 ug\L #	36
17) trans-1,2-Dichloroethene	3.81	96	113902	9.11 ug\L	96
18) MethylTertButylEther	3.81	73	101232	8.48 ug\L #	52
19) 1,1-Dichloroethane	4.46	63	191616	9.53 ug\L	100
20) Vinyl Acetate	3.83	43	23743	8.37 ug\L #	73
21) 2,2-Dichloropropane	5.42	77	226927	9.93 ug\L	94
22) cis-1,2-Dichloroethene	5.47	96	99349	9.02 ug\L	96
23) 2-Butanone	5.51	72	454	8.67 ug\L #	1
24) Propionitrile	5.77	54	12755	101.98 ug\L #	60
25) Methacrylonitrile	5.96	41	98221	89.22 ug\L	96
26) Bromochloromethane	5.92	128	38325	8.83 ug\L #	41
27) Chloroform	6.09	83	237582	9.57 ug\L	100
28) 1,1,1-Trichloroethane	6.32	97	282510	9.58 ug\L #	78
29) Carbon Tetrachloride	6.58	119	251754	9.53 ug\L #	78
30) 1,4-Dioxane	8.92	88	2250	106.75 ug\L #	78

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17955.D
Acq On : 14 Dec 2000 17:57
Sample : QVW121400 C2
Misc : WATER BLANK SPIKE 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 14 18:24 2000

Vial: 14
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.61	77	68458	9.87 ug\L #	1
33) Benzene	7.00	78	318490	9.43 ug\L	100
34) Isobutyl alcohol	7.18	43	5741	92.57 ug\L #	53
35) 1,2-Dichloroethane	7.10	62	88244	9.26 ug\L	98
36) Trichloroethene	8.15	95	174355	9.55 ug\L	94
37) 1,2-Dichloropropane	8.56	63	97544	9.11 ug\L	98
38) Dibromomethane	8.80	93	45270	8.98 ug\L #	87
39) Methylmethacrylate	8.86	69	17533	8.44 ug\L #	3
40) Bromodichloromethane	9.11	83	164999	9.04 ug\L	99
41) 2-Nitropropane	9.59	43	3318	5.77 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.68	63	11505	8.08 ug\L #	58
43) cis-1,3-Dichloropropene	9.88	75	116236	8.64 ug\L	97
44) 4-Methyl-2-Pentanone	10.21	85	3623	5.73 ug\L #	87
47) Toluene	10.40	92	236785	10.07 ug\L	100
48) trans-1,3-Dichloropropene	10.90	75	78341	9.06 ug\L	98
49) Ethylmethacrylate	11.07	69	43941	8.71 ug\L #	99
50) 1,1,2-Trichloroethane	11.20	83	43372	9.58 ug\L	98
51) Tetrachloroethene	11.31	164	158727	10.24 ug\L	94
52) 1,3-Dichloropropane	11.46	76	79859	9.10 ug\L	98
53) 2-Hexanone	11.67	43	11487	8.72 ug\L #	91
54) Dibromochloromethane	11.86	129	89719	9.17 ug\L	100
55) 1,2-Dibromoethane	11.99	107	56487	8.86 ug\L #	94
56) Chlorobenzene	12.83	112	262244	9.74 ug\L	97
57) 1,1,1,2-Tetrachloroethane	13.02	131	115757	9.35 ug\L	95
58) Ethylbenzene	13.05	91	496291	10.10 ug\L	99
59) total-Xylene	13.94	106	211008m	28.87 ug\L	
60) Styrene	13.99	104	243229	9.51 ug\L	92
62) Bromoform	14.33	173	41551	8.60 ug\L #	97
63) Isopropylbenzene	14.60	105	623713	10.31 ug\L	99
64) 1,4-dichloro-2-Butene	15.27	75	36697	8.63 ug\L #	100
66) Bromobenzene	15.10	156	104138	9.45 ug\L #	65
67) 1,1,2,2-Tetrachloroethane	15.25	83	51365	9.56 ug\L #	97
68) 1,2,3-Trichloropropane	15.27	75	36697	8.63 ug\L #	100
69) n-Propylbenzene	15.32	91	698241	10.65 ug\L	98
70) 2-Chlorotoluene	15.44	91	358812	10.04 ug\L	96
71) 4-Chlorotoluene	15.66	91	482405	9.82 ug\L	99
72) 1,3,5-Trimethylbenzene	15.66	105	479825	10.31 ug\L	88
73) Pentachloroethane	16.26	167	72286	9.27 ug\L	98
74) tert-Butylbenzene	16.22	119	582814	10.04 ug\L	98
75) 1,2,4-Trimethylbenzene	16.30	105	449834	9.97 ug\L	99
76) sec-Butylbenzene	16.60	105	728256	10.38 ug\L	97
77) 1,3-Dichlorobenzene	16.78	146	204341	9.59 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17955.D Vial: 14
Acq On : 14 Dec 2000 17:57 Operator: TAG/VR
Sample : QVW121400 C2 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 18:24 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

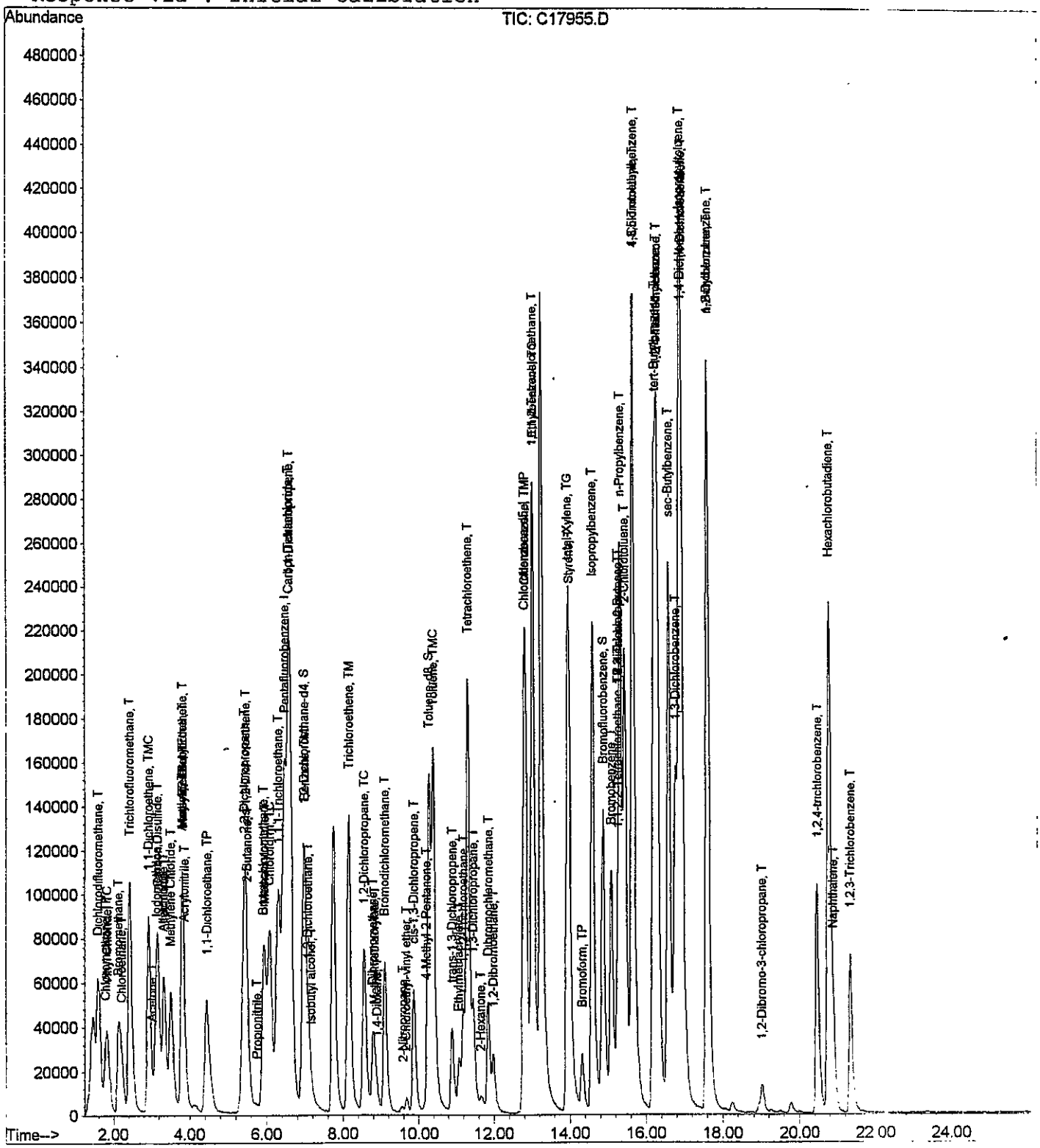
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.87	119	574534	10.14 ug\L	100
79)	1,4-Dichlorobenzene	16.94	146	223520	9.31 ug\L	100
80)	1,2-Dichlorobenzene	17.59	146	159978	9.39 ug\L	99
81)	n-Butylbenzene	17.60	91	566205	10.30 ug\L	93
82)	1,2-Dibromo-3-chloropropan	19.02	75	3767	3.62 ug\L #	16
83)	1,2,4-trichlorobenzene	20.47	180	122114	8.84 ug\L	100
84)	Hexachlorobutadiene	20.78	225	176785	10.49 ug\L	100
85)	Naphthalene	20.90	128	92140	8.51 ug\L	100
86)	1,2,3-Trichlorobenzene	21.33	180	84580	8.49 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17955.D Vial: 14
Acq On : 14 Dec 2000 17:57 Operator: TAG/VR
Sample : QVW121400 C2 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 18:24 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: BFB Tune Std
Lab Standard ID# V00048
Prepared By: VR

Date Made: 9/7/2000
Expire Date: 8/1/2001
Matrix: CH3OH

Standard	Lot # Lab ID	Conc	Amount Used	Final Conc
p-Bromofluorobenzene	V00 - A017	250 ug/ml	100 ul	25 ug/ml
CH3OH	B00A005-10	100 %	900 ul	—

VR
9/7/00

Standard Name: 8260 - ADD Mix
Lab Standard ID# V000 49
Prepared By: VR

Date Made: 9/11/00
Expire Date: 9/27/00
Matrix: CH3OH

Standard	Lot # Lab ID	Conc	Amount Used	Final Conc
VR 8260 - EH	V00 - A024	2000 ug/ml	25 ul	50 ppm
S-2270 / Iodomethane	V00 - A035	1000 ug/ml	50 ul	50 ppm
CH3OH	B00A005-10	100 %	925 ul	—

VR
9/11/00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: 8260-SS
Lab Standard ID#: V00052
Prepared By: TAG

Date Made: 9/21/2000
Expire Date: 3/21/2001
Matrix: CH_3OH

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
~~V00-A010~~				
M-8240/60-SS-10x	V00-A010	2000ug/ml	25ul	50ug/ml
CH_3OH	B00A005-10	100%	975ul	—

TAG 9/21/2000

TAG 9/21/2000

Standard Name: 8260-IS
Lab Standard ID#: V00053
Prepared By: TAG

Date Made: 9/21/2000
Expire Date: 3/21/2001
Matrix: CH_3OH

TAG 9/21/2000

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
8260-INTERNAL STD	V00-A021	~~2000~~ 5000ug/ml	20ul	50ug/ml
CH_3OH	B00A005-10	100%	980 ~~975~~ul	—

TAG 9/21/2000

Stprigfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: 8260-CCS-B
Lab Standard ID# V000 56
Prepared By: MG

Date Made: 9/22/2000
Expire Date: 12/22/2000
Matrix: CH_3OH

Standard	Lot Lab ID#	Conc	Amount Used	Final Conc
M-502-10X	V00-A013	2000 ppm	25 ul	50 ppm
M-8240C-R3-10X	V00-A006	VARIOUS	↓	VARIOUS
2-NITRO PROPANE	V00-A007	2000 ppm	↓	50 ppm
S-078-10X	V00-A018	↓	↓	↓
APP9-007-10X	V00-A027	1000 ppm	100 ul	100 ppm
APP9-008-10X	V00-A019	↓	↓	↓
MEOH	B00A005-10	100%	700 ul	—

MG
9/22/2000

Standard Name: 8260 ADD MIX
Lab Standard ID# V000 57
Prepared By: VR

Date Made: 09/28/00
Expire Date: 01-12-2001
Matrix: CH_3OH

Standard	Lot Lab ID#	Conc	Amount Used	Final Conc
M 8260 - ADD - 10X	V00 - A029	2000 ug/ml	25 ul	50 ppm
CH_3OH	B00A005-10	100 %	975 ul	—

VR
9/28/00

Stprlgfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: VCLP - MS
Lab Standard ID#: V00072
Prepared By: VR

Date Made: 12/8/00
Expire Date: Dec. 2001
Matrix: CH_3OH

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
VOA Matrix Spike Mix	V99-A028	1000 ug/ml	50 ul	50 ppm
CH_3OH	B00-A005-2	100 %	950 ul	—

VR
12/8/00

Standard Name: 8260 CCS-A
Lab Standard ID#: V000 T3
Prepared By: VR

Date Made: 12/8/00
Expire Date: 01/31/2001
Matrix: MEOH

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
M 502-10X	V000-A012	2000 ppm	25 ul	50 ppm
M 8240 CR3 -10X	V000-A006	Various	↓	Various
2-Nitropropane	V000-A007	2000 ppm	↓	50 ppm
S-078 -10X	V000-A018	2000 ppm	↓	50 ppm
App9 -007-10X	V000-A027	1000 ppm	100 ul	100 ppm
App9 - 008 -10X	V00-A028	1000 ppm	100 ul	100 ppm
MEOH	B00-A005-2	100%	700 ul	—

VR
12/8/00

Stprlgfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: 8260 CCS - B
Lab Standard ID#: V000 66
Prepared By: VR

Date Made: 12/01/00
Expire Date: 01/31/2001
Matrix: MEOH

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
M-SO2-10X	V000-A013	2000 ppm	25 ul	50 ppm
M 8240 CR3 -10X	V000-A006	Various	↓	Various
2-Nitropropane	V00-A007	2000 ppm	↓	50 ppm
S-078 - 10X	V00-A018	2000 ppm	↓	50 ppm
APP9 -007- 10X	V00-A027	1000 ppm	100 ul	100 ppm
APP9-008-10X	V00-A028	1000 ppm	100 ul	100 ppm
MEOH	B00-A005-1	100 %	700 ul	—

VR
12/01/00

Standard Name: V CLP STD 050
Lab Standard ID#: V00067
Prepared By: TAG

Date Made: 12/7/2000
Expire Date: 12/14/2000
Matrix: MEOH

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
04.1 CLP VOA	V00-A035	2000 ug/ml	25 ul	50 ug/ml
502.1 CALIBRATION	V00-A034	2000 ug/ml	25 ul	50 ug/ml
VOA CALIBRATION MIX#1	V00-A033	5000 ug/ml	10 ul TAG	50 ug/ml
MEOH	B00A005-2	100%	~~960~~ 940 ul 12/7/00	—

TAG
12/7/2000

Stprlgfr.xls

VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 12/11/00	METHOD: 8260B
MATRIX: water - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant. was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

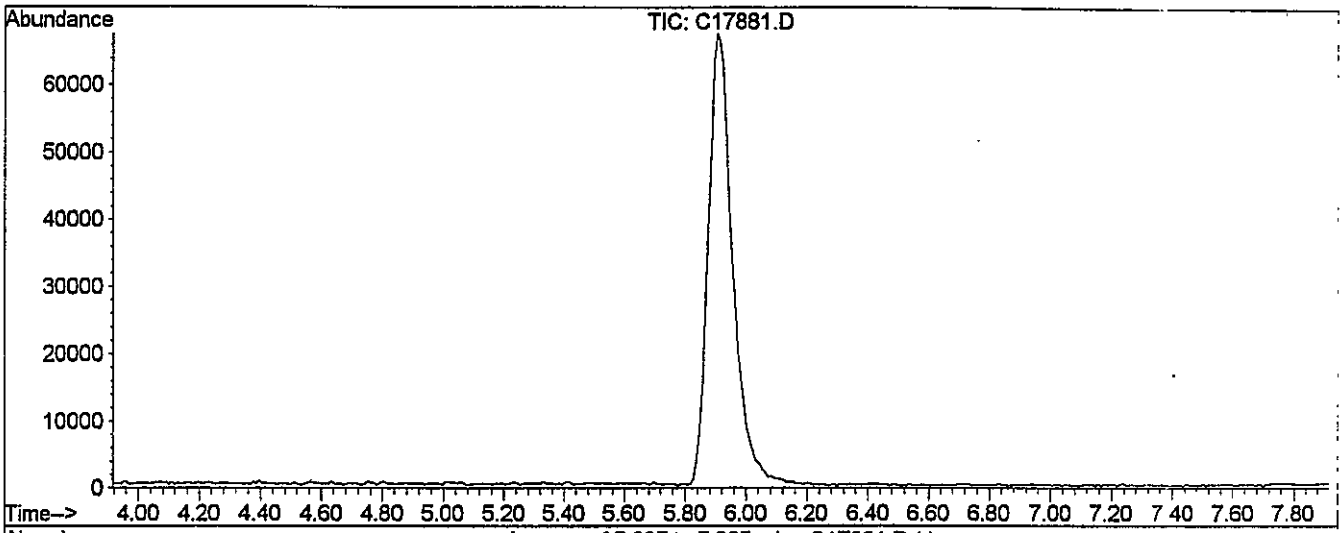
Analyst: VR	Reviewer: Thomas G. Patel
Date: 12/12/00 Time: 10:30	Date: 15:39 Time: 15:38

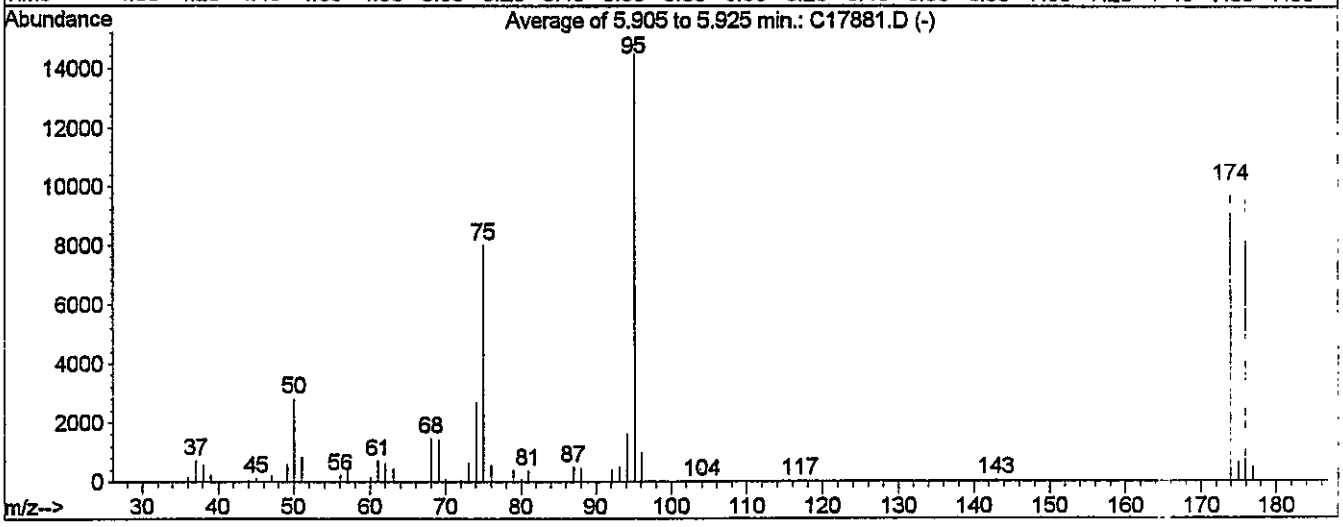
12/17/2000

BFB

Data File : C:\HPCHEM\1\DATA\121100A\C17881.D
Acq On : 11 Dec 2000 22:20
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 475, 476, 477; Background Corrected with Scan 463

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	2828	PASS
75	95	30	60	55.5	8036	PASS
95	95	100	100	100.0	14489	PASS
96	95	5	9	6.9	1002	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.3	10048	PASS
175	174	5	9	6.8	684	PASS
176	174	95	101	97.6	9805	PASS
177	176	5	9	5.9	577	PASS

C17881.D BFB01.M Mon Dec 11 22:33:08 2000 RPT1

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Initial Calibration

Calibration Files
1 =C17884.D 4 =C17883.D 10 =C17882.D
20 =C17885.D 30 =C17886.D 40 =C17887.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluoromet	0.584	0.584	0.627	0.598	0.574	0.576	0.590	3.33
3)	TP	Chloromethane	0.204	0.197	0.203	0.202	0.194	0.192	0.199	2.53
4)	TC	Vinyl Chloride	0.286	0.277	0.297	0.286	0.273	0.274	0.282	3.30
5)	T	Bromomethane	0.302	0.294	0.274	0.241	0.219	0.211	0.257	15.05
6)	T	Chloroethane	0.156	0.151	0.158	0.149	0.135	0.125	0.146	8.92
7)	T	Trichlorofluorometh	0.863	0.877	0.913	0.905	0.875	0.879	0.885	2.20
8)	T	Acrolein		0.004	0.003	0.003	0.005	0.005	0.004	30.74
9)	T	Acrylonitrile	0.005	0.011	0.012	0.012	0.012	0.012	0.011	26.61
10)	TMC	1,1-Dichloroethene	0.304	0.311	0.331	0.327	0.316	0.310	0.316	3.34
11)	T	Acetone		0.001	0.003	0.001	0.003	0.003	0.002	43.26
12)	T	Iodomethane	0.233	0.318	0.425	0.495	0.505	0.500	0.413	27.48
13)	T	Allylchloride	0.280	0.281	0.275	0.273	0.259	0.250	0.270	4.67
14)	T	Carbon Disulfide	0.536	0.549	0.598	0.572	0.555	0.722	0.589	11.71
15)	T	Acetonitrile	0.037	0.040	0.040	0.040	0.038	0.036	0.039	4.51
16)	T	Methylene Chloride	0.139	0.135	0.139	0.136	0.135	0.130	0.136	2.42
17)	T	trans-1,2-Dichloroe	0.302	0.329	0.341	0.335	0.323	0.315	0.324	4.34
18)	T	MethylTertButylEthe	0.292	0.314	0.311	0.322	0.312	0.305	0.309	3.22
19)	TP	1,1-Dichloroethane	0.510	0.521	0.537	0.539	0.520	0.500	0.521	2.92
20)	T	Vinyl Acetate	0.085	0.076	0.071	0.073	0.069	0.067	0.074	8.76
21)	T	2,2-Dichloropropane	0.547	0.549	0.619	0.621	0.606	0.611	0.592	5.90
22)	T	cis-1,2-Dichloroeth	0.271	0.291	0.296	0.296	0.281	0.277	0.285	3.67
23)	T	2-Butanone		0.001	0.006	0.002	0.002	0.008	0.004	83.81
24)	T	Propionitrile	0.002	0.003	0.002	0.004	0.004	0.004	0.003	31.56
25)	T	Methacrylonitrile	0.029	0.027	0.028	0.030	0.029	0.028	0.029	3.72
26)	T	Bromochloromethane	0.102	0.112	0.118	0.118	0.114	0.110	0.112	5.35
27)	TC	Chloroform	0.614	0.634	0.663	0.667	0.648	0.633	0.643	3.16
28)	T	1,1,1-Trichloroetha	0.698	0.756	0.797	0.787	0.776	0.769	0.764	4.58
29)	T	Carbon Tetrachlorid	0.672	0.655	0.689	0.721	0.693	0.677	0.684	3.32
30)	T	1,4-Dioxane		0.000	0.001	0.001	0.001	0.001	0.001	14.80
31)	T	1,1-Dichloropropene	0.173	0.182	0.188	0.184	0.178	0.172	0.180	3.55
32)	S	1,2-Dichloroethane-	0.212	0.211	0.223	0.225	0.218	0.218	0.218	2.63
33)	TM	Benzene	0.850	0.881	0.899	0.905	0.872	0.844	0.875	2.84
34)	T	Isobutyl alcohol	0.001	0.002	0.002	0.002	0.002	0.002	0.001	17.01
35)	T	1,2-Dichloroethane	0.221	0.247	0.256	0.263	0.248	0.247	0.247	5.83
36)	TM	Trichloroethene	0.471	0.467	0.483	0.483	0.469	0.465	0.473	1.65
37)	TC	1,2-Dichloropropane	0.275	0.284	0.276	0.286	0.275	0.269	0.277	2.35
38)	T	Dibromomethane	0.113	0.131	0.133	0.142	0.135	0.130	0.131	7.49
39)	T	Methylmethacrylate	0.049	0.054	0.054	0.057	0.054	0.054	0.054	5.07
40)	T	Bromodichloromethan	0.410	0.464	0.482	0.502	0.493	0.487	0.473	7.06
41)	T	2-Nitropropane	0.015	0.013	0.015	0.017	0.013	0.015	0.015	10.18
42)	T	2-Chloroethyl-vinyl	0.008	0.024	0.029	0.045	0.048	0.049	0.034	48.33
43)	T	cis-1,3-Dichloropro	0.302	0.337	0.358	0.371	0.362	0.360	0.348	7.34
44)	T	4-Methyl-2-Pentanon		0.018	0.014	0.012	0.012	0.011	0.013	19.90

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Initial Calibration

Calibration Files
1 =C17884.D 4 =C17883.D 10 =C17882.D
20 =C17885.D 30 =C17886.D 40 =C17887.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	----------ISTD----------							
46)	S	Toluene-d8	1.473	1.382	1.470	1.444	1.430	1.422	1.437	2.35
47)	TMC	Toluene	0.900	0.871	0.937	0.937	0.882	0.865	0.899	3.56
48)	T	trans-1,3-Dichlorop	0.290	0.313	0.341	0.351	0.340	0.347	0.330	7.19
49)	T	Ethylmethacrylate	0.165	0.189	0.198	0.206	0.201	0.198	0.193	7.52
50)	T	1,1,2-Trichloroetha	0.160	0.175	0.183	0.179	0.171	0.171	0.173	4.50
51)	T	Tetrachloroethene	0.608	0.578	0.617	0.617	0.573	0.560	0.592	4.15
52)	T	1,3-Dichloropropane	0.330	0.331	0.344	0.352	0.330	0.326	0.335	2.94
53)	T	2-Hexanone	0.046	0.048	0.052	0.057	0.050	0.049	0.050	7.29
54)	T	Dibromochloromethan	0.308	0.362	0.375	0.410	0.391	0.397	0.374	9.70
55)	T	1,2-Dibromoethane	0.215	0.241	0.247	0.263	0.250	0.246	0.244	6.50
56)	TMP	Chlorobenzene	1.021	1.017	1.058	1.057	1.021	1.000	1.029	2.26
57)	T	1,1,1,2-Tetrachloro	0.436	0.463	0.494	0.496	0.481	0.470	0.473	4.70
58)	TC	Ethylbenzene	1.866	1.874	1.961	1.967	1.830	1.767	1.877	4.09
59)	TG	total-Xylene	0.289	0.277	0.279	0.291	0.276	0.265	0.279	3.34
60)	T	Styrene	0.913	0.965	1.023	1.021	0.987	0.956	0.977	4.32
61)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
62)	TP	Bromoform	0.215	0.296	0.340	0.366	0.374	0.370	0.327	18.93
63)	T	Isopropylbenzene	4.321	4.310	4.478	4.391	4.418	4.183	4.350	2.37
64)	T	1,4-dichloro-2-Bute	0.295	0.294	0.301	0.326	0.319	0.299	0.306	4.35
65)	S	Bromofluorobenzene		1.340	1.369	1.337	1.382	1.331	1.352	1.65
66)	T	Bromobenzene	0.773	0.767	0.816	0.816	0.810	0.772	0.792	2.99
67)	TP	1,1,2,2-Tetrachloro	0.360	0.383	0.396	0.402	0.401	0.377	0.387	4.24
68)	T	1,2,3-Trichloroprop	0.295	0.294	0.301	0.326	0.319	0.299	0.306	4.35
69)	T	n-Propylbenzene	4.716	4.772	4.772	4.811	4.979	4.250	4.717	5.20
70)	T	2-Chlorotoluene	2.699	2.512	2.716	2.616	2.438	2.447	2.571	4.80
71)	T	4-Chlorotoluene	3.625	3.523	3.630	3.575	3.550	3.292	3.532	3.54
72)	T	1,3,5-Trimethylbenz	3.294	3.342	3.468	3.413	3.397	3.166	3.347	3.19
73)	T	Pentachloroethane	0.472	0.537	0.579	0.595	0.603	0.578	0.561	8.79
74)	T	tert-Butylbenzene	4.166	4.177	4.300	4.241	4.202	3.968	4.176	2.71
75)	T	1,2,4-Trimethylbenz	3.369	3.251	3.312	3.277	3.241	3.027	3.246	3.60
76)	T	sec-Butylbenzene	5.223	4.951	5.213	5.071	5.071	4.751	5.047	3.50
77)	T	1,3-Dichlorobenzene	1.554	1.530	1.557	1.565	1.526	1.462	1.533	2.46
78)	T	Isopropyltoluene	4.226	3.972	4.201	4.125	4.095	3.830	4.075	3.68
79)	T	1,4-Dichlorobenzene	1.902	1.703	1.726	1.700	1.724	1.608	1.727	5.55
80)	T	1,2-Dichlorobenzene	1.313	1.193	1.248	1.226	1.206	1.166	1.225	4.18
81)	T	n-Butylbenzene	3.994	3.891	4.050	4.040	3.997	3.742	3.952	2.98
82)	T	1,2-Dibromo-3-chlor	0.064	0.069	0.076	0.081	0.077	0.081	0.075	8.82
83)	T	1,2,4-trichlorobenz	1.095	1.014	0.968	0.976	0.979	0.930	0.994	5.70
84)	T	Hexachlorobutadiene	1.317	1.267	1.297	1.225	1.130	1.039	1.212	8.90
85)	T	Naphthalene	1.248	0.855	0.728	0.748	0.772	0.758	0.851	23.39
86)	T	1,2,3-Trichlorobenz	0.866	0.738	0.676	0.680	0.679	0.661	0.717	10.84

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D Vial: 3
Acq On : 11 Dec 2000 23:36 Operator: TAG/VR
Sample : ICAL 1 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	444685	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.82	117	308023	10.00 ug\L	0.03
61) 1,4-Dichlorobenzene-d4	16.93	152	166527	10.00 ug\L	0.03
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	9409	0.97 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 9.70%#		
46) Toluene-d8	10.31	98	45362	1.02 ug\L	0.03
Spiked Amount 10.000	Range 87 - 104		Recovery = 10.20%#		
65) Bromofluorobenzene	14.90	95	22750	1.01 ug\L	0.03
Spiked Amount 10.000	Range 84 - 110		Recovery = 10.10%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.61	85	25984	0.99 ug\L	99
3) Chloromethane	1.79	50	9066	1.02 ug\L #	66
4) Vinyl Chloride	1.83	62	12736	1.01 ug\L	100
6) Chloroethane	2.22	64	6950	1.08 ug\L	100
7) Trichlorofluoromethane	2.41	101	38371	0.97 ug\L #	100
8) Acrolein	3.85	56	130m	0.91 ug\L	
9) Acrylonitrile	3.84	53	436m	1.20 ug\L	
10) 1,1-Dichloroethene	2.94	96	13499	0.95 ug\L	95
12) Iodomethane	3.12	142	10352m	1.54 ug\L	
13) Allylchloride	3.35	39	12438	1.05 ug\L #	15
14) Carbon Disulfide	3.17	76	23813	0.90 ug\L #	87
15) Acetonitrile	3.34	41	16449	9.67 ug\L #	82
16) Methylene Chloride	3.51	86	6160	1.02 ug\L #	1
17) trans-1,2-Dichloroethene	3.83	96	13412	0.93 ug\L	98
18) MethylTertButylEther	3.85	73	13005	0.95 ug\L	92
19) 1,1-Dichloroethane	4.47	63	22666	0.98 ug\L #	53
20) Vinyl Acetate	3.85	43	3769m	2.54 ug\L	
21) 2,2-Dichloropropane	5.41	77	24307	0.91 ug\L #	74
22) cis-1,2-Dichloroethene	5.50	96	12065	0.95 ug\L #	86
24) Propionitrile	5.86	54	872m	6.52 ug\L	
25) Methacrylonitrile	5.97	41	12786m	10.94 ug\L	
26) Bromochloromethane	5.94	128	4526	0.90 ug\L #	16
27) Chloroform	6.08	83	27297	0.95 ug\L	99
28) 1,1,1-Trichloroethane	6.30	97	31057	0.91 ug\L #	31
29) Carbon Tetrachloride	6.59	119	29874	0.96 ug\L #	3
31) 1,1-Dichloropropene	6.63	77	7698	0.96 ug\L #	1
33) Benzene	7.00	78	37816	0.97 ug\L	100
34) Isobutyl alcohol	7.22	43	875m	14.19 ug\L	
35) 1,2-Dichloroethane	7.12	62	9811	0.89 ug\L #	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D
Acq On : 11 Dec 2000 23:36
Sample : ICAL 1 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000

Vial: 3
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Trichloroethene	8.17	95	20955	0.99 ug\L		96
37)	1,2-Dichloropropane	8.58	63	12219	1.00 ug\L	#	89
38)	Dibromomethane	8.85	93	5011	0.86 ug\L	#	86
39)	Methylmethacrylate	8.90	69	2170m	0.97 ug\L		
40)	Bromodichloromethane	9.14	83	18221	0.86 ug\L	#	25
41)	2-Nitropropane	9.68	43	679m	0.95 ug\L		
42)	2-Chloroethyl-vinyl ether	9.71	63	353m	2.44 ug\L		
43)	cis-1,3-Dichloropropene	9.92	75	13414	0.86 ug\L		98
44)	4-Methyl-2-Pentanone	10.33	85	193m	-3.66 ug\L		
47)	Toluene	10.40	92	27719	0.99 ug\L		99
48)	trans-1,3-Dichloropropene	10.93	75	8938	0.87 ug\L		95
49)	Ethylmethacrylate	11.11	69	5095	0.86 ug\L	#	57
50)	1,1,2-Trichloroethane	11.21	83	4933	0.92 ug\L		95
51)	Tetrachloroethene	11.34	164	18729	1.02 ug\L		92
52)	1,3-Dichloropropane	11.49	76	10175	0.98 ug\L		99
53)	2-Hexanone	11.73	43	1427m	1.00 ug\L		
54)	Dibromochloromethane	11.87	129	9498	0.81 ug\L		96
55)	1,2-Dibromoethane	12.03	107	6624	0.88 ug\L	#	93
56)	Chlorobenzene	12.85	112	31464	0.99 ug\L	#	74
57)	1,1,1,2-Tetrachloroethane	13.03	131	13434	0.92 ug\L	#	89
58)	Ethylbenzene	13.07	91	57480	0.99 ug\L		98
59)	total-Xylene	13.96	106	26682m	1.43 ug\L		
60)	Styrene	14.01	104	28112	0.93 ug\L		92
62)	Bromoform	14.34	173	3588m	1.19 ug\L		
63)	Isopropylbenzene	14.61	105	71953	0.99 ug\L	#	92
66)	Bromobenzene	15.11	156	12879	0.97 ug\L	#	69
67)	1,1,2,2-Tetrachloroethane	15.27	83	5999	0.93 ug\L	#	97
68)	1,2,3-Trichloropropane	15.30	75	4918	0.86 ug\L	#	100
69)	n-Propylbenzene	15.34	91	78533	1.00 ug\L		97
70)	2-Chlorotoluene	15.46	91	44946	1.05 ug\L		96
71)	4-Chlorotoluene	15.68	91	60364	1.02 ug\L		97
72)	1,3,5-Trimethylbenzene	15.67	105	54858	0.98 ug\L		92
73)	Pentachloroethane	16.28	167	7856	0.83 ug\L		93
74)	tert-Butylbenzene	16.22	119	69379	1.00 ug\L		99
75)	1,2,4-Trimethylbenzene	16.32	105	56106	1.04 ug\L		98
76)	sec-Butylbenzene	16.61	105	86983	1.03 ug\L		96
77)	1,3-Dichlorobenzene	16.80	146	25873	1.01 ug\L		93
78)	Isopropyltoluene	16.89	119	70375	1.03 ug\L		98
79)	1,4-Dichlorobenzene	16.95	146	31667	1.10 ug\L		95
80)	1,2-Dichlorobenzene	17.62	146	21861	1.06 ug\L		98
81)	n-Butylbenzene	17.63	91	66508	1.00 ug\L		93
82)	1,2-Dibromo-3-chloropropan	19.05	75	1074m	0.86 ug\L		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D Vial: 3
Acq On : 11 Dec 2000 23:36 Operator: TAG/VR
Sample : ICAL 1 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83) 1,2,4-trichlorobenzene	20.49	180	18243	1.10 ug\L	100
84) Hexachlorobutadiene	20.79	225	21936	1.10 ug\L	100
85) Naphthalene	20.92	128	20783m	1.48 ug\L	
86) 1,2,3-Trichlorobenzene	21.33	180	14418	1.21 ug\L	92

(#) = qualifier out of range (m) = manual integration

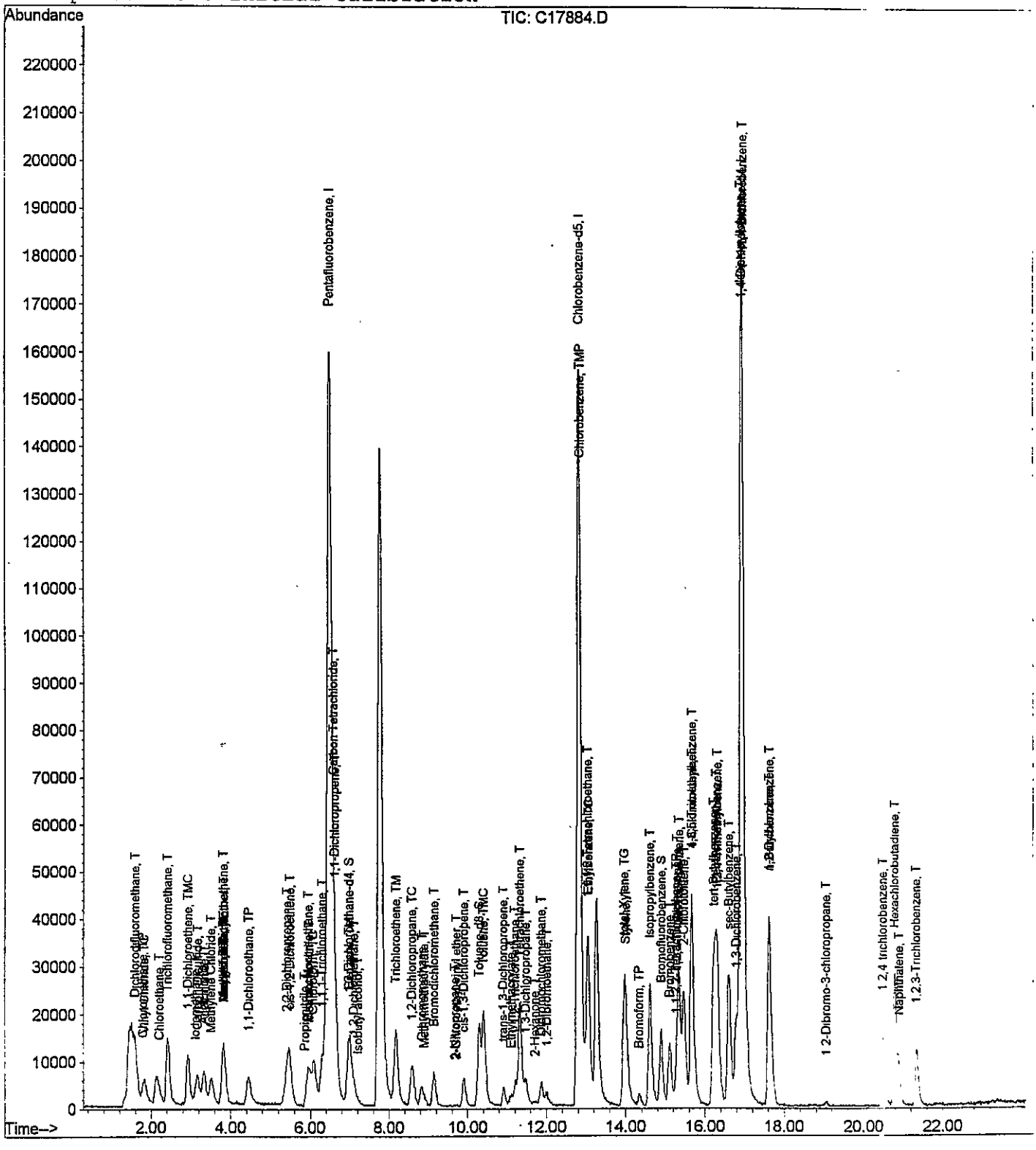
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D
Acq On : 11 Dec 2000 23:36
Sample : ICAL 1 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000

Vial: 3
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	414841	10.00	ug\L	0.02
45) Chlorobenzene-d5	12.79	117	305698	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	167726	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.98	65	34996	3.86	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 38.60%#			
46) Toluene-d8	10.29	98	168972	3.81	ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 38.10%#			
65) Bromofluorobenzene	14.88	95	89918	3.96	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 39.60%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.61	85	96904	3.95	ug\L	100
3) Chloromethane	1.81	50	32736	3.95	ug\L	98
4) Vinyl Chloride	1.84	62	46009	3.92	ug\L #	66
5) Bromomethane	2.14	94	48714	3.98	ug\L	97
6) Chloroethane	2.24	64	25071	4.18	ug\L	99
7) Trichlorofluoromethane	2.44	101	145448	3.95	ug\L #	100
8) Acrolein	3.84	56	1189	8.90	ug\L #	53
9) Acrylonitrile	3.87	53	3700m	10.88	ug\L	
10) 1,1-Dichloroethene	2.94	96	51576	3.91	ug\L	99
11) Acetone	3.08	58	195m	2.35	ug\L	
12) Iodomethane	3.14	142	52804m	3.56	ug\L	
13) Allylchloride	3.35	39	46668	4.21	ug\L #	20
14) Carbon Disulfide	3.19	76	91127	3.68	ug\L	97
15) Acetonitrile	3.34	41	66707	42.03	ug\L #	88
16) Methylene Chloride	3.53	86	22465	3.99	ug\L #	35
17) trans-1,2-Dichloroethene	3.85	96	54524	4.05	ug\L	97
18) MethylTertButylEther	3.83	73	52053	4.07	ug\L #	52
19) 1,1-Dichloroethane	4.46	63	86394	4.00	ug\L	99
20) Vinyl Acetate	3.84	43	12668	9.15	ug\L #	73
21) 2,2-Dichloropropane	5.43	77	91018	3.65	ug\L	96
22) cis-1,2-Dichloroethene	5.48	96	48253	4.09	ug\L	96
23) 2-Butanone	5.52	72	125m	-13.31	ug\L	
24) Propionitrile	5.77	54	5440m	43.61	ug\L	
25) Methacrylonitrile	5.97	41	45566	41.79	ug\L	95
26) Bromochloromethane	5.95	128	18664	3.99	ug\L	84
27) Chloroform	6.10	83	105238	3.93	ug\L	97
28) 1,1,1-Trichloroethane	6.33	97	125459	3.95	ug\L #	61
29) Carbon Tetrachloride	6.60	119	108613	3.75	ug\L #	47
30) 1,4-Dioxane	8.93	88	1337m	-24.07	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.64	77	30209	4.06 ug\L #	1
33) Benzene	7.00	78	146210	4.03 ug\L	100
34) Isobutyl alcohol	7.20	43	5496m	95.55 ug\L	
35) 1,2-Dichloroethane	7.13	62	41023	4.01 ug\L #	73
36) Trichloroethene	8.16	95	77485	3.94 ug\L	94
37) 1,2-Dichloropropane	8.57	63	47117	4.11 ug\L #	95
38) Dibromomethane	8.82	93	21705	4.00 ug\L #	83
39) Methylmethacrylate	8.90	69	8972	4.30 ug\L #	75
40) Bromodichloromethane	9.12	83	76996	3.91 ug\L	99
41) 2-Nitropropane	9.57	43	2240m	3.56 ug\L	
42) 2-Chloroethyl-vinyl ether	9.70	63	4016m	4.16 ug\L	
43) cis-1,3-Dichloropropene	9.90	75	55885	3.84 ug\L	97
44) 4-Methyl-2-Pentanone	10.25	85	2921m	2.76 ug\L	
47) Toluene	10.41	92	106453	3.84 ug\L	98
48) trans-1,3-Dichloropropene	10.91	75	38334	3.75 ug\L	96
49) Ethylmethacrylate	11.09	69	23128	3.92 ug\L #	88
50) 1,1,2-Trichloroethane	11.19	83	21362	4.04 ug\L	96
51) Tetrachloroethene	11.32	164	70730	3.89 ug\L	93
52) 1,3-Dichloropropane	11.47	76	40429	3.92 ug\L	99
53) 2-Hexanone	11.71	43	5885	4.17 ug\L #	85
54) Dibromochloromethane	11.85	129	44221	3.80 ug\L	98
55) 1,2-Dibromoethane	12.00	107	29465	3.93 ug\L	99
56) Chlorobenzene	12.84	112	124297	3.95 ug\L	98
57) 1,1,1,2-Tetrachloroethane	13.03	131	56666	3.92 ug\L	98
58) Ethylbenzene	13.05	91	229091	3.99 ug\L	100
59) total-Xylene	13.93	106	101467m	5.46 ug\L	
60) Styrene	13.98	104	117944	3.95 ug\L	95
62) Bromoform	14.33	173	19860m	3.76 ug\L	
63) Isopropylbenzene	14.59	105	289156	3.96 ug\L	100
64) 1,4-dichloro-2-Butene	15.28	75	19734	1.67 ug\L #	100
66) Bromobenzene	15.10	156	51473	3.86 ug\L #	64
67) 1,1,2,2-Tetrachloroethane	15.25	83	25717	3.95 ug\L	96
68) 1,2,3-Trichloropropane	15.28	75	19734	3.41 ug\L #	100
69) n-Propylbenzene	15.32	91	320143	4.05 ug\L	98
70) 2-Chlorotoluene	15.44	91	168499	3.90 ug\L	95
71) 4-Chlorotoluene	15.66	91	236350	3.98 ug\L	98
72) 1,3,5-Trimethylbenzene	15.66	105	224187	3.98 ug\L	87
73) Pentachloroethane	16.26	167	36022	3.80 ug\L #	79
74) tert-Butylbenzene	16.20	119	280259	4.00 ug\L	100
75) 1,2,4-Trimethylbenzene	16.31	105	218128	4.00 ug\L	99
76) sec-Butylbenzene	16.60	105	332183	3.90 ug\L	97
77) 1,3-Dichlorobenzene	16.78	146	102678	3.99 ug\L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

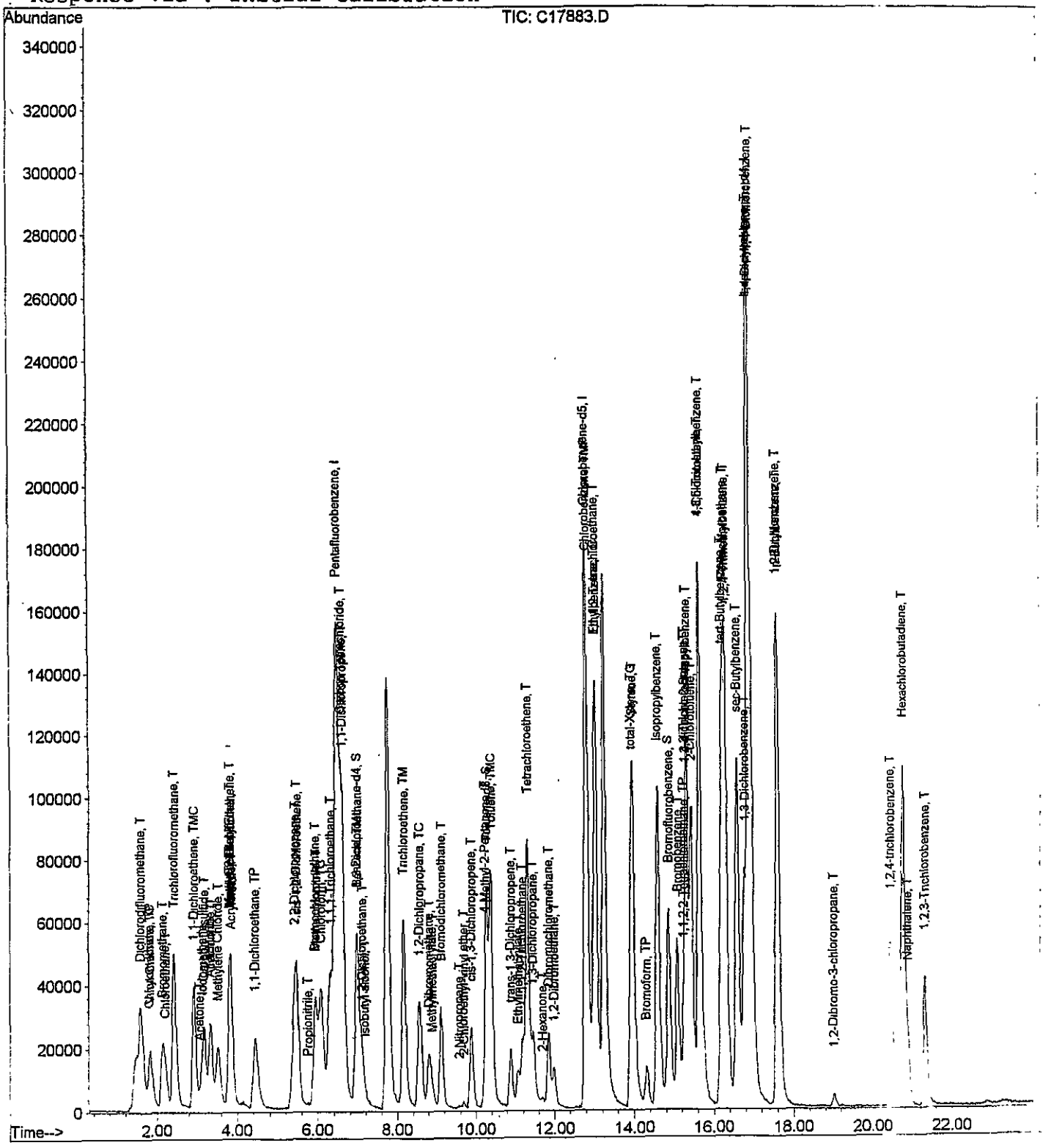
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.88	119	266465	3.87 ug\L		98
79)	1,4-Dichlorobenzene	16.94	146	114228	3.94 ug\L		99
80)	1,2-Dichlorobenzene	17.59	146	80022	3.85 ug\L		96
81)	n-Butylbenzene	17.61	91	261027	3.92 ug\L		94
82)	1,2-Dibromo-3-chloropropan	19.02	75	4657	3.72 ug\L	#	16
83)	1,2,4-trichlorobenzene	20.47	180	68058	4.09 ug\L		100
84)	Hexachlorobutadiene	20.79	225	85009	4.22 ug\L		100
85)	Naphthalene	20.90	128	57330	4.05 ug\L		100
86)	1,2,3-Trichlorobenzene	21.33	180	49498	4.13 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.46	168	426889	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.79	117	307080	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	167417	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.97	65	95089	10.18	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.80%			
46) Toluene-d8	10.27	98	451408	10.14	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.40%			
65) Bromofluorobenzene	14.87	95	229214	10.11	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.10%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.59	85	267541	10.59	ug\L	99
3) Chloromethane	1.78	50	86593	10.15	ug\L	99
4) Vinyl Chloride	1.84	62	126924	10.50	ug\L	100
5) Bromomethane	2.14	94	117137	11.53	ug\L	98
6) Chloroethane	2.21	64	67392	10.91	ug\L	97
7) Trichlorofluoromethane	2.43	101	389846	10.30	ug\L #	100
8) Acrolein	3.82	56	2263	16.46	ug\L #	69
9) Acrylonitrile	3.84	53	10235m	29.24	ug\L	
10) 1,1-Dichloroethene	2.92	96	141141	10.39	ug\L	99
11) Acetone	3.01	58	1185m	13.89	ug\L	
12) Iodomethane	3.13	142	181494	9.31	ug\L	99
13) Allylchloride	3.34	39	117493	10.29	ug\L #	35
14) Carbon Disulfide	3.17	76	255224	10.03	ug\L	98
15) Acetonitrile	3.34	41	171633	105.10	ug\L	91
16) Methylene Chloride	3.51	86	59238	10.23	ug\L #	46
17) trans-1,2-Dichloroethene	3.81	96	145376	10.50	ug\L	96
18) MethylTertButylEther	3.82	73	132604	10.08	ug\L #	52
19) 1,1-Dichloroethane	4.44	63	229326	10.31	ug\L	99
20) Vinyl Acetate	3.80	43	30471	21.40	ug\L #	73
21) 2,2-Dichloropropane	5.41	77	264376	10.31	ug\L	95
22) cis-1,2-Dichloroethene	5.47	96	126303	10.40	ug\L	98
23) 2-Butanone	5.51	72	2591m	12.36	ug\L	
24) Propionitrile	5.74	54	7189	56.00	ug\L #	76
25) Methacrylonitrile	5.95	41	120331	107.26	ug\L	97
26) Bromochloromethane	5.94	128	50236	10.44	ug\L #	78
27) Chloroform	6.08	83	283195	10.27	ug\L	99
28) 1,1,1-Trichloroethane	6.31	97	340043	10.40	ug\L #	73
29) Carbon Tetrachloride	6.58	119	294103	9.86	ug\L #	71
30) 1,4-Dioxane	8.92	88	4824m	161.29	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.61	77	80419	10.50 ug\L	#	1
33)	Benzene	6.99	78	383717	10.28 ug\L		100
34)	Isobutyl alcohol	7.16	43	12814m	216.50 ug\L		
35)	1,2-Dichloroethane	7.09	62	109321	10.38 ug\L	#	87
36)	Trichloroethene	8.16	95	205991	10.17 ug\L		92
37)	1,2-Dichloropropane	8.57	63	117663	9.99 ug\L	#	95
38)	Dibromomethane	8.81	93	56677	10.16 ug\L	#	80
39)	Methylmethacrylate	8.88	69	23122	10.76 ug\L		94
40)	Bromodichloromethane	9.12	83	205791	10.14 ug\L		96
41)	2-Nitropropane	9.57	43	6409m	10.05 ug\L		
42)	2-Chloroethyl-vinyl ether	9.68	63	12506m	7.96 ug\L		
43)	cis-1,3-Dichloropropene	9.88	75	152881	10.22 ug\L		99
44)	4-Methyl-2-Pentanone	10.18	85	5962m	9.48 ug\L		
47)	Toluene	10.39	92	287771	10.34 ug\L		100
48)	trans-1,3-Dichloropropene	10.89	75	104620	10.19 ug\L		95
49)	Ethylmethacrylate	11.07	69	60937	10.27 ug\L	#	88
50)	1,1,2-Trichloroethane	11.20	83	56061	10.54 ug\L		95
51)	Tetrachloroethene	11.31	164	189363	10.38 ug\L		94
52)	1,3-Dichloropropane	11.46	76	105539	10.19 ug\L		99
53)	2-Hexanone	11.68	43	15830	11.17 ug\L	#	72
54)	Dibromochloromethane	11.85	129	115255	9.85 ug\L		99
55)	1,2-Dibromoethane	11.99	107	75944	10.09 ug\L	#	98
56)	Chlorobenzene	12.84	112	324788	10.28 ug\L		96
57)	1,1,1,2-Tetrachloroethane	13.01	131	151680	10.44 ug\L		95
58)	Ethylbenzene	13.03	91	602064	10.44 ug\L		99
59)	total-Xylene	13.94	106	257208m	13.79 ug\L		
60)	Styrene	13.99	104	314274	10.48 ug\L		94
62)	Bromoform	14.32	173	56942m	9.63 ug\L		
63)	Isopropylbenzene	14.59	105	749771	10.28 ug\L		98
64)	1,4-dichloro-2-Butene	15.27	75	50365	4.26 ug\L	#	100
66)	Bromobenzene	15.10	156	136635	10.25 ug\L	#	62
67)	1,1,2,2-Tetrachloroethane	15.25	83	66343	10.22 ug\L	#	97
68)	1,2,3-Trichloropropane	15.27	75	50365	8.73 ug\L	#	100
69)	n-Propylbenzene	15.32	91	798928	10.14 ug\L		95
70)	2-Chlorotoluene	15.45	91	454624	10.53 ug\L		96
71)	4-Chlorotoluene	15.65	91	607719	10.24 ug\L		98
72)	1,3,5-Trimethylbenzene	15.66	105	580630	10.34 ug\L		88
73)	Pentachloroethane	16.26	167	96966	10.24 ug\L	#	58
74)	tert-Butylbenzene	16.22	119	719886	10.30 ug\L		98
75)	1,2,4-Trimethylbenzene	16.31	105	554479	10.18 ug\L		100
76)	sec-Butylbenzene	16.60	105	872737	10.26 ug\L		96
77)	1,3-Dichlorobenzene	16.77	146	260711	10.16 ug\L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

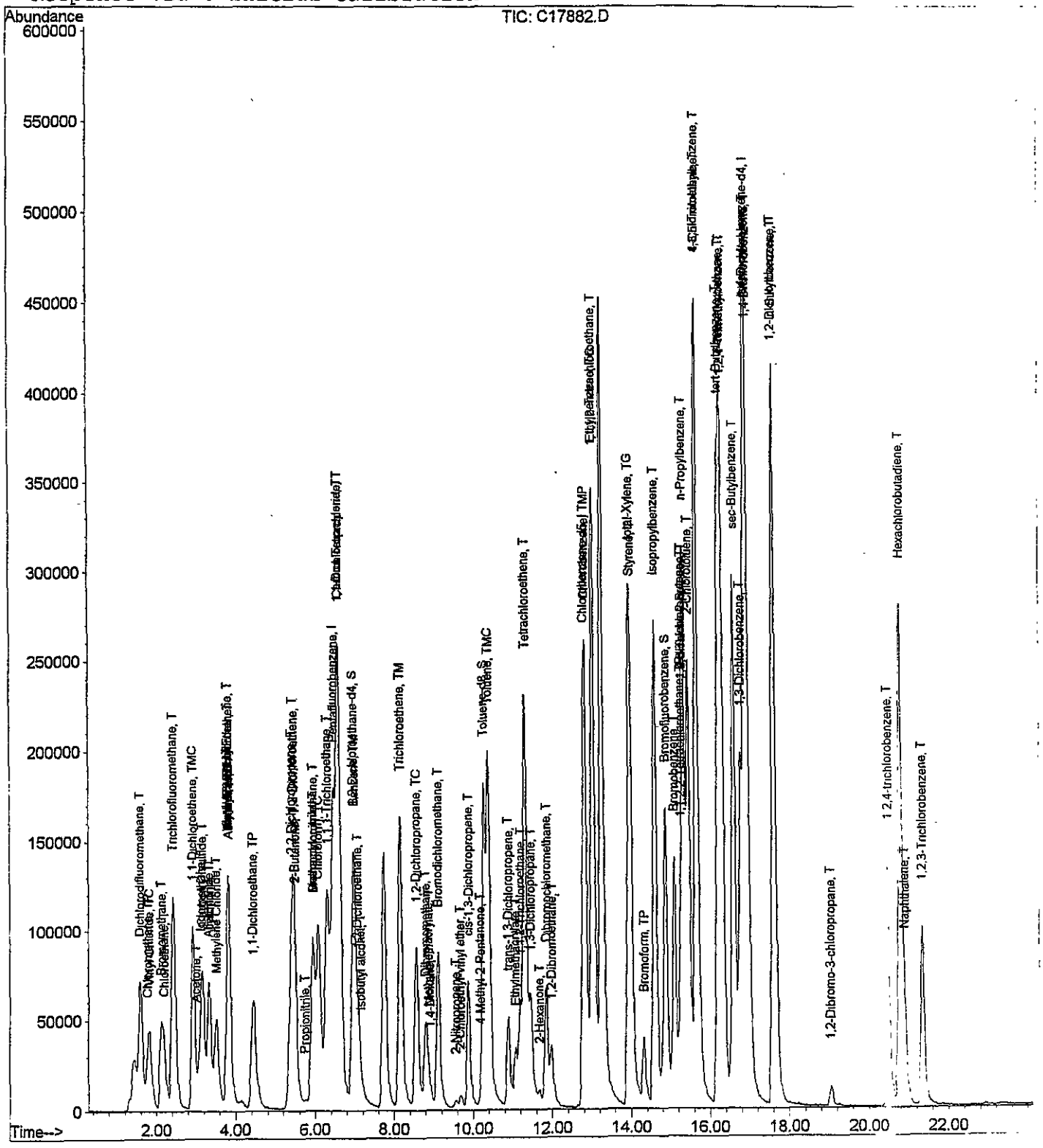
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.88	119	703310	10.23 ug\L	100
79) 1,4-Dichlorobenzene	16.95	146	289010	9.98 ug\L	99
80) 1,2-Dichlorobenzene	17.59	146	208987	10.08 ug\L	98
81) n-Butylbenzene	17.61	91	678033	10.19 ug\L	92
82) 1,2-Dibromo-3-chloropropan	19.04	75	12654	10.12 ug\L	86
83) 1,2,4-trichlorobenzene	20.48	180	162084	9.76 ug\L	100
84) Hexachlorobutadiene	20.79	225	217098	10.80 ug\L	100
85) Naphthalene	20.91	128	121867m	8.63 ug\L	
86) 1,2,3-Trichlorobenzene	21.35	180	113256	9.47 ug\L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D
Acq On : 12 Dec 2000 00:05
Sample : ICAL 20 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	395797	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.79	117	284737	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	155971	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.96	65	178182	20.58	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 205.80%#			
46) Toluene-d8	10.29	98	822521	19.93	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 199.30%#			
65) Bromofluorobenzene	14.87	95	417116	19.75	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 197.50%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.60	85	473154	20.21	ug\L	98
3) Chloromethane	1.78	50	160276	20.25	ug\L	98
4) Vinyl Chloride	1.84	62	226076	20.17	ug\L	99
5) Bromomethane	2.14	94	191125	21.55	ug\L	98
6) Chloroethane	2.21	64	118019	20.62	ug\L	97
7) Trichlorofluoromethane	2.45	101	716642	20.41	ug\L #	100
8) Acrolein	3.82	56	4697	36.85	ug\L #	45
9) Acrylonitrile	3.88	53	18764	57.82	ug\L #	88
10) 1,1-Dichloroethene	2.94	96	259139	20.58	ug\L	99
11) Acetone	3.02	58	814	10.29	ug\L #	1
12) Iodomethane	3.14	142	391513	20.21	ug\L	96
13) Allylchloride	3.34	39	216371	20.44	ug\L #	36
14) Carbon Disulfide	3.18	76	453056	19.20	ug\L	99
15) Acetonitrile	3.35	41	315920	208.65	ug\L	91
16) Methylene Chloride	3.51	86	108036	20.12	ug\L #	35
17) trans-1,2-Dichloroethene	3.82	96	264900	20.64	ug\L	97
18) MethylTertButylEther	3.81	73	254978	20.91	ug\L	93
19) 1,1-Dichloroethane	4.44	63	426690	20.69	ug\L	99
20) Vinyl Acetate	3.82	43	57660	43.67	ug\L #	73
21) 2,2-Dichloropropane	5.41	77	491734	20.69	ug\L	95
22) cis-1,2-Dichloroethene	5.48	96	234435	20.82	ug\L	98
23) 2-Butanone	5.53	72	1355	0.59	ug\L #	1
24) Propionitrile	5.75	54	30250	254.16	ug\L #	94
25) Methacrylonitrile	5.96	41	240961	231.65	ug\L #	73
26) Bromochloromethane	5.94	128	93492	20.96	ug\L #	78
27) Chloroform	6.09	83	528310	20.67	ug\L	100
28) 1,1,1-Trichloroethane	6.30	97	622970	20.54	ug\L #	81
29) Carbon Tetrachloride	6.58	119	571124	20.66	ug\L	85
30) 1,4-Dioxane	8.91	88	9338m	443.39	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D Vial: 4
Acq On : 12 Dec 2000 00:05 Operator: TAG/VR
Sample : ICAL 20 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.62	77	145885	20.54 ug\L	#	1
33) Benzene	6.98	78	716137	20.69 ug\L		100
34) Isobutyl alcohol	7.16	43	26176	477.00 ug\L		96
35) 1,2-Dichloroethane	7.09	62	208196	21.32 ug\L		98
36) Trichloroethene	8.16	95	381961	20.33 ug\L		93
37) 1,2-Dichloropropane	8.57	63	226719	20.75 ug\L	#	95
38) Dibromomethane	8.80	93	112415	21.73 ug\L	#	85
39) Methylmethacrylate	8.88	69	45265	22.71 ug\L		84
40) Bromodichloromethane	9.12	83	397153	21.12 ug\L		99
41) 2-Nitropropane	9.57	43	13666	23.20 ug\L	#	100
42) 2-Chloroethyl-vinyl ether	9.68	63	35855	19.83 ug\L	#	95
43) cis-1,3-Dichloropropene	9.87	75	294051	21.20 ug\L		99
44) 4-Methyl-2-Pentanone	10.21	85	9620	19.52 ug\L	#	63
47) Toluene	10.39	92	533419	20.68 ug\L		100
48) trans-1,3-Dichloropropene	10.89	75	200058	21.02 ug\L		96
49) Ethylmethacrylate	11.06	69	117110	21.29 ug\L	#	99
50) 1,1,2-Trichloroethane	11.19	83	101944	20.68 ug\L		95
51) Tetrachloroethene	11.31	164	351313	20.76 ug\L		94
52) 1,3-Dichloropropane	11.46	76	200192	20.85 ug\L		100
53) 2-Hexanone	11.67	43	32418	24.66 ug\L		99
54) Dibromochloromethane	11.85	129	233576	21.53 ug\L		99
55) 1,2-Dibromoethane	11.99	107	149629	21.44 ug\L	#	98
56) Chlorobenzene	12.84	112	601886	20.54 ug\L		97
57) 1,1,1,2-Tetrachloroethane	13.02	131	282262	20.95 ug\L		94
58) Ethylbenzene	13.04	91	1120151	20.95 ug\L		99
59) total-Xylene	13.94	106	496534m	28.70 ug\L		
60) Styrene	13.98	104	581279	20.91 ug\L		95
62) Bromoform	14.33	173	114030	19.99 ug\L	#	97
63) Isopropylbenzene	14.60	105	1369760	20.15 ug\L		98
64) 1,4-dichloro-2-Butene	15.31	75	101687	9.24 ug\L	#	100
66) Bromobenzene	15.10	156	254402	20.49 ug\L	#	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	125489	20.75 ug\L	#	98
68) 1,2,3-Trichloropropane	15.31	75	101687	18.92 ug\L	#	100
69) n-Propylbenzene	15.33	91	1500727	20.44 ug\L		97
70) 2-Chlorotoluene	15.45	91	816057	20.30 ug\L		96
71) 4-Chlorotoluene	15.66	91	1115178	20.17 ug\L		98
72) 1,3,5-Trimethylbenzene	15.66	105	1064748	20.35 ug\L		89
73) Pentachloroethane	16.28	167	185727	21.05 ug\L		95
74) tert-Butylbenzene	16.22	119	1323035	20.32 ug\L		98
75) 1,2,4-Trimethylbenzene	16.31	105	1022210	20.14 ug\L		98
76) sec-Butylbenzene	16.61	105	1581832	19.97 ug\L		96
77) 1,3-Dichlorobenzene	16.78	146	488303	20.42 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D Vial: 4
Acq On : 12 Dec 2000 00:05 Operator: TAG/VR
Sample : ICAL 20 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.89	119	1286612	20.09 ug\L	99
79) 1,4-Dichlorobenzene	16.96	146	530432	19.67 ug\L	99
80) 1,2-Dichlorobenzene	17.60	146	382498	19.80 ug\L	98
81) n-Butylbenzene	17.62	91	1260276	20.33 ug\L	92
82) 1,2-Dibromo-3-chloropropan	19.06	75	25254	21.69 ug\L	86
83) 1,2,4-trichlorobenzene	20.49	180	304306	19.68 ug\L	100
84) Hexachlorobutadiene	20.80	225	382127	20.40 ug\L	100
85) Naphthalene	20.92	128	233260	17.74 ug\L	100
86) 1,2,3-Trichlorobenzene	21.36	180	212036	19.02 ug\L	97

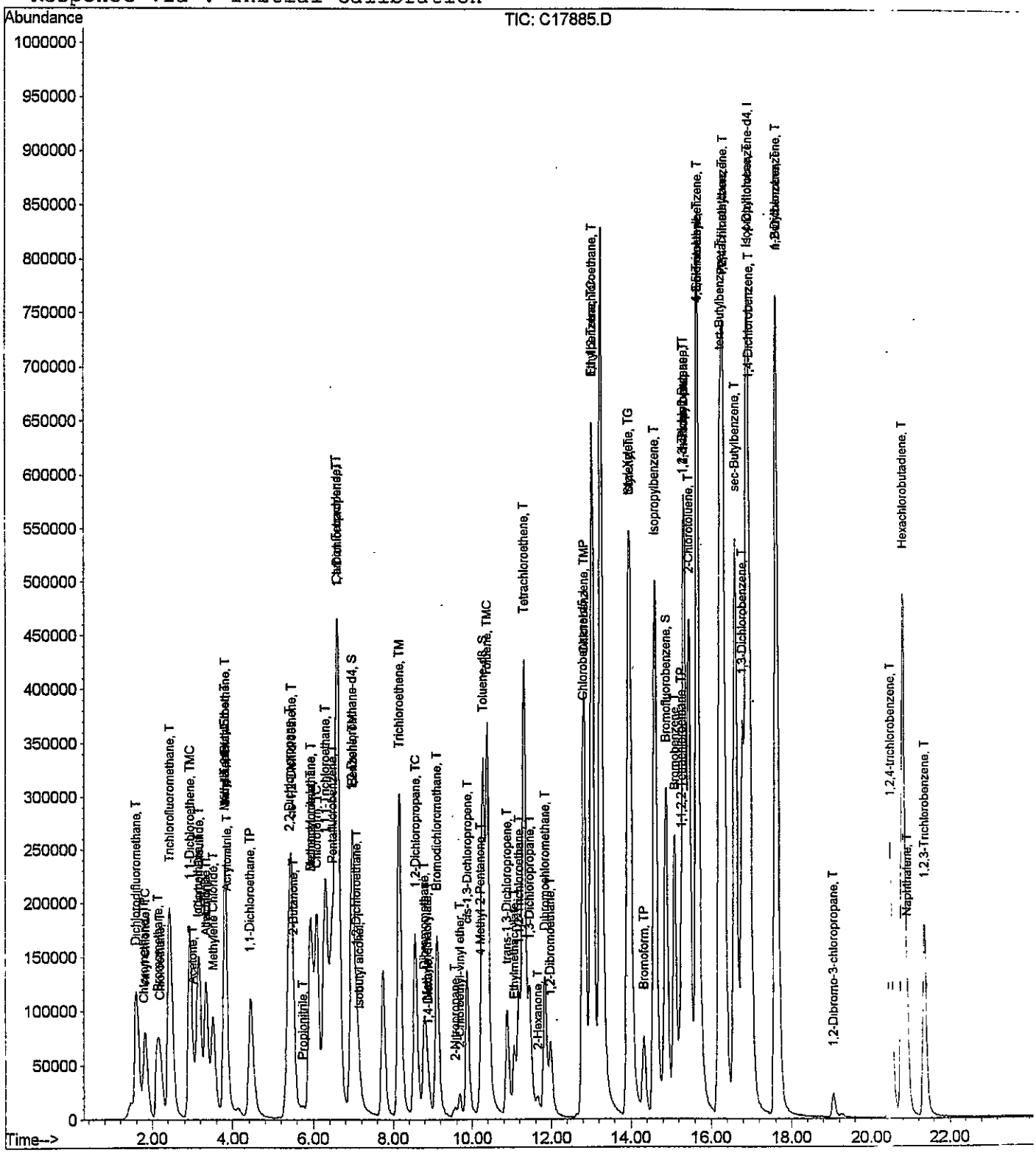
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D
Acq On : 12 Dec 2000 00:05
Sample : ICAL 20 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	417290	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.79	117	305503	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	161292	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	272485	29.85 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 298.50%#		
46) Toluene-d8	10.29	98	1310917	29.61 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 296.10%#		
65) Bromofluorobenzene	14.89	95	668675	30.61 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 306.10%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.61	85	718108	29.09 ug\L	99
3) Chloromethane	1.80	50	242422	29.06 ug\L	99
4) Vinyl Chloride	1.85	62	342295	28.97 ug\L	99
5) Bromomethane	2.13	94	273916	29.89 ug\L	96
6) Chloroethane	2.22	64	169487	28.08 ug\L	99
7) Trichlorofluoromethane	2.47	101	1095917	29.61 ug\L #	100
8) Acrolein	3.82	56	13190m	98.15 ug\L	
9) Acrylonitrile	3.89	53	30087m	87.94 ug\L	
10) 1,1-Dichloroethene	2.95	96	395434	29.79 ug\L	99
11) Acetone	3.04	58	3383	40.58 ug\L #	47
12) Iodomethane	3.14	142	632196	30.38 ug\L	97
13) Allylchloride	3.35	39	324374	29.06 ug\L #	36
14) Carbon Disulfide	3.19	76	694397	27.91 ug\L	98
15) Acetonitrile	3.36	41	472520	296.00 ug\L	91
16) Methylene Chloride	3.54	86	168773	29.81 ug\L #	37
17) trans-1,2-Dichloroethene	3.84	96	403869	29.84 ug\L	98
18) MethylTertButylEther	3.83	73	390086	30.34 ug\L	94
19) 1,1-Dichloroethane	4.46	63	650692	29.93 ug\L	98
20) Vinyl Acetate	3.82	43	86605	62.21 ug\L #	73
21) 2,2-Dichloropropane	5.42	77	758351	30.26 ug\L	96
22) cis-1,2-Dichloroethene	5.49	96	352254	29.68 ug\L	99
23) 2-Butanone	5.46	72	2407	11.02 ug\L #	1
24) Propionitrile	5.77	54	47273	376.72 ug\L #	93
25) Methacrylonitrile	5.97	41	357223	325.73 ug\L	98
26) Bromochloromethane	5.95	128	142846	30.38 ug\L	96
27) Chloroform	6.11	83	810592	30.08 ug\L	98
28) 1,1,1-Trichloroethane	6.32	97	971235	30.37 ug\L #	83
29) Carbon Tetrachloride	6.61	119	867479	29.77 ug\L	84
30) 1,4-Dioxane	8.92	88	14457m	697.02 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.63	77	222730	29.75 ug\L #	1
33) Benzene	6.99	78	1091049	29.89 ug\L	100
34) Isobutyl alcohol	7.18	43	39282	678.96 ug\L	95
35) 1,2-Dichloroethane	7.11	62	310089	30.11 ug\L	96
36) Trichloroethene	8.18	95	587697	29.67 ug\L	92
37) 1,2-Dichloropropane	8.58	63	344582	29.92 ug\L #	95
38) Dibromomethane	8.82	93	169431	31.07 ug\L #	84
39) Methylmethacrylate	8.88	69	67934	32.33 ug\L	93
40) Bromodichloromethane	9.13	83	617026	31.12 ug\L #	99
41) 2-Nitropropane	9.57	43	16271	26.22 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.69	63	59735	30.01 ug\L #	92
43) cis-1,3-Dichloropropene	9.89	75	453570	31.02 ug\L	98
44) 4-Methyl-2-Pentanone	10.21	85	14791	30.34 ug\L #	64
47) Toluene	10.40	92	808225	29.20 ug\L	99
48) trans-1,3-Dichloropropene	10.90	75	311280	30.48 ug\L	94
49) Ethylmethacrylate	11.09	69	183955	31.17 ug\L #	94
50) 1,1,2-Trichloroethane	11.20	83	157177	29.71 ug\L	97
51) Tetrachloroethene	11.32	164	525583	28.95 ug\L	94
52) 1,3-Dichloropropane	11.47	76	302820	29.40 ug\L	100
53) 2-Hexanone	11.69	43	45694	32.40 ug\L #	90
54) Dibromochloromethane	11.85	129	358242	30.78 ug\L	98
55) 1,2-Dibromoethane	12.00	107	229283	30.62 ug\L #	99
56) Chlorobenzene	12.84	112	935303	29.75 ug\L	96
57) 1,1,1,2-Tetrachloroethane	13.03	131	440748	30.48 ug\L	94
58) Ethylbenzene	13.06	91	1676847	29.23 ug\L	99
59) total-Xylene	13.95	106	758543m	40.86 ug\L	
60) Styrene	13.98	104	904457	30.32 ug\L	96
62) Bromoform	14.33	173	181113	30.37 ug\L #	98
63) Isopropylbenzene	14.60	105	2137631	30.42 ug\L	98
64) 1,4-dichloro-2-Butene	15.30	75	154165	13.55 ug\L #	100
66) Bromobenzene	15.10	156	391984	30.53 ug\L #	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	193944	31.01 ug\L #	98
68) 1,2,3-Trichloropropane	15.30	75	154165	27.74 ug\L #	100
69) n-Propylbenzene	15.33	91	2409134	31.73 ug\L	99
70) 2-Chlorotoluene	15.45	91	1179703	28.37 ug\L	93
71) 4-Chlorotoluene	15.66	91	1717645	30.05 ug\L	99
72) 1,3,5-Trimethylbenzene	15.66	105	1643622	30.37 ug\L	89
73) Pentachloroethane	16.27	167	291918	32.00 ug\L	96
74) tert-Butylbenzene	16.22	119	2033408	30.20 ug\L	99
75) 1,2,4-Trimethylbenzene	16.31	105	1568281	29.87 ug\L	99
76) sec-Butylbenzene	16.61	105	2453696	29.95 ug\L	96
77) 1,3-Dichlorobenzene	16.78	146	738611	29.87 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.88	119	1981669	29.92 ug\L	100
79) 1,4-Dichlorobenzene	16.96	146	834409	29.92 ug\L	97
80) 1,2-Dichlorobenzene	17.59	146	583593	29.21 ug\L	99
81) n-Butylbenzene	17.61	91	1934086	30.17 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.04	75	37382	31.05 ug\L #	80
83) 1,2,4-trichlorobenzene	20.49	180	473859	29.63 ug\L	100
84) Hexachlorobutadiene	20.80	225	546777	28.23 ug\L	100
85) Naphthalene	20.91	128	373464m	27.47 ug\L	
86) 1,2,3-Trichlorobenzene	21.34	180	328764	28.52 ug\L	96

(#) = qualifier out of range (m) = manual integration

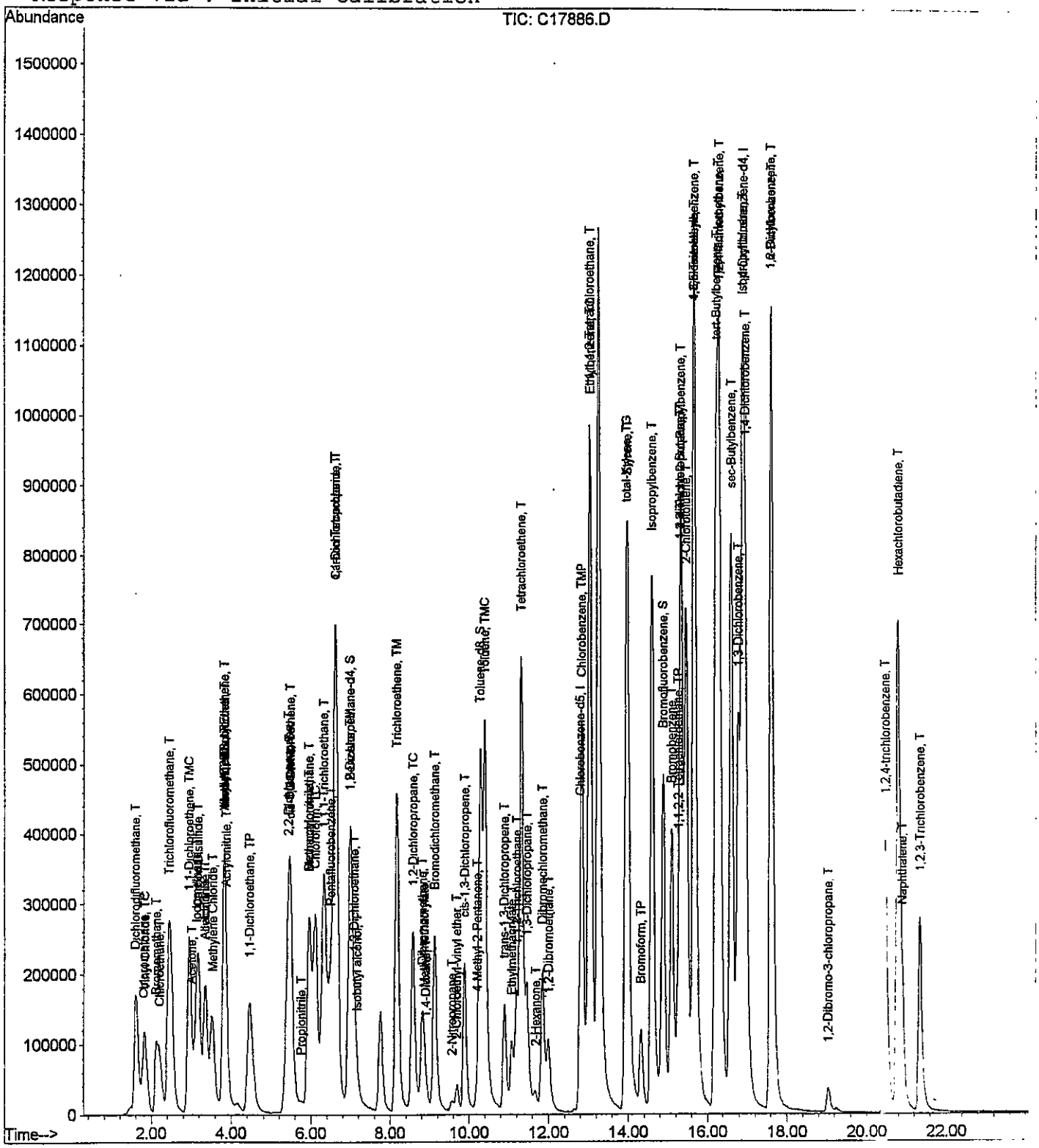
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D
Acq On : 12 Dec 2000 00:33
Sample : ICAL 30 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000

Vial: 5
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.50	168	409847	10.00 ug\L	0.03
45) Chlorobenzene-d5	12.80	117	295665	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.90	152	160039	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.98	65	357218	39.84 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 398.40%#		
46) Toluene-d8	10.30	98	1682238	39.26 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 392.60%#		
65) Bromofluorobenzene	14.88	95	851941	39.31 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 393.10%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.61	85	944493	38.96 ug\L	99
3) Chloromethane	1.79	50	315291	38.47 ug\L	99
4) Vinyl Chloride	1.85	62	448445	38.65 ug\L	98
5) Bromomethane	2.13	94	346357	38.96 ug\L	97
6) Chloroethane	2.24	64	204573	34.51 ug\L	99
7) Trichlorofluoromethane	2.48	101	1440316	39.62 ug\L #	100
8) Acrolein	3.84	56	16622	125.93 ug\L #	67
9) Acrylonitrile	3.89	53	39211m	116.69 ug\L	
10) 1,1-Dichloroethene	2.97	96	508597	39.01 ug\L	99
11) Acetone	3.04	58	4537m	55.40 ug\L	
12) Iodomethane	3.14	142	819814	39.76 ug\L	97
13) Allylchloride	3.36	39	409207	37.32 ug\L #	21
14) Carbon Disulfide	3.19	76	1184253	48.47 ug\L #	95
15) Acetonitrile	3.36	41	596308	380.33 ug\L	91
16) Methylene Chloride	3.54	86	212776	38.26 ug\L #	35
17) trans-1,2-Dichloroethene	3.84	96	516899	38.89 ug\L	98
18) MethylTertButylEther	3.83	73	499599	39.56 ug\L	94
19) 1,1-Dichloroethane	4.48	63	819662	38.39 ug\L	98
20) Vinyl Acetate	3.83	43	109048	79.75 ug\L #	73
21) 2,2-Dichloropropane	5.43	77	1001612	40.69 ug\L	95
22) cis-1,2-Dichloroethene	5.51	96	453353	38.89 ug\L	98
23) 2-Butanone	5.60	72	12485m	120.93 ug\L	
24) Propionitrile	5.77	54	59452	482.38 ug\L #	99
25) Methacrylonitrile	5.97	41	454196	421.67 ug\L	97
26) Bromochloromethane	5.96	128	180786	39.15 ug\L	98
27) Chloroform	6.11	83	1037646	39.20 ug\L	99
28) 1,1,1-Trichloroethane	6.34	97	1260481	40.14 ug\L	93
29) Carbon Tetrachloride	6.61	119	1109525	38.76 ug\L	85
30) 1,4-Dioxane	8.92	88	19489m	993.22 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.64	77	282456	38.41 ug\L #	1
33) Benzene	7.00	78	1383239	38.59 ug\L	100
34) Isobutyl alcohol	7.19	43	49360	868.64 ug\L	94
35) 1,2-Dichloroethane	7.12	62	404458	39.99 ug\L	96
36) Trichloroethene	8.18	95	761604	39.15 ug\L	93
37) 1,2-Dichloropropane	8.59	63	440722	38.96 ug\L #	96
38) Dibromomethane	8.82	93	213304	39.82 ug\L #	84
39) Methylmethacrylate	8.90	69	89222	43.23 ug\L	92
40) Bromodichloromethane	9.14	83	797810	40.96 ug\L	99
41) 2-Nitropropane	9.57	43	25118	41.25 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.69	63	80802	40.48 ug\L #	96
43) cis-1,3-Dichloropropene	9.90	75	589900	41.08 ug\L	98
44) 4-Methyl-2-Pentanone	10.22	85	17954	38.45 ug\L #	74
47) Toluene	10.40	92	1023474	38.20 ug\L	99
48) trans-1,3-Dichloropropene	10.91	75	410770	41.57 ug\L	93
49) Ethylmethacrylate	11.08	69	234259	41.01 ug\L #	95
50) 1,1,2-Trichloroethane	11.20	83	201684	39.39 ug\L	96
51) Tetrachloroethene	11.32	164	662715	37.71 ug\L	94
52) 1,3-Dichloropropane	11.47	76	385874	38.71 ug\L	99
53) 2-Hexanone	11.68	43	58218	42.65 ug\L #	91
54) Dibromochloromethane	11.86	129	469174	41.65 ug\L	99
55) 1,2-Dibromoethane	12.00	107	291525	40.22 ug\L #	99
56) Chlorobenzene	12.84	112	1183089	38.88 ug\L	96
57) 1,1,1,2-Tetrachloroethane	13.02	131	555522	39.70 ug\L	94
58) Ethylbenzene	13.06	91	2089915	37.64 ug\L	98
59) total-Xylene	13.95	106	941031m	52.38 ug\L	
60) Styrene	13.99	104	1130561	39.16 ug\L	94
62) Bromoform	14.33	173	236791	39.82 ug\L #	98
63) Isopropylbenzene	14.60	105	2677590	38.40 ug\L	98
64) 1,4-dichloro-2-Butene	15.29	75	191508	16.96 ug\L #	100
66) Bromobenzene	15.11	156	494375	38.81 ug\L #	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	241189	38.87 ug\L #	99
68) 1,2,3-Trichloropropane	15.29	75	191508	34.73 ug\L #	100
69) n-Propylbenzene	15.34	91	2720814	36.11 ug\L	94
70) 2-Chlorotoluene	15.44	91	1566183	37.96 ug\L	94
71) 4-Chlorotoluene	15.66	91	2107390	37.15 ug\L	98
72) 1,3,5-Trimethylbenzene	15.66	105	2026737	37.74 ug\L	89
73) Pentachloroethane	16.26	167	370203	40.90 ug\L	95
74) tert-Butylbenzene	16.21	119	2539864	38.02 ug\L	99
75) 1,2,4-Trimethylbenzene	16.31	105	1937921	37.21 ug\L	99
76) sec-Butylbenzene	16.60	105	3041613	37.42 ug\L	97
77) 1,3-Dichlorobenzene	16.78	146	935986	38.15 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

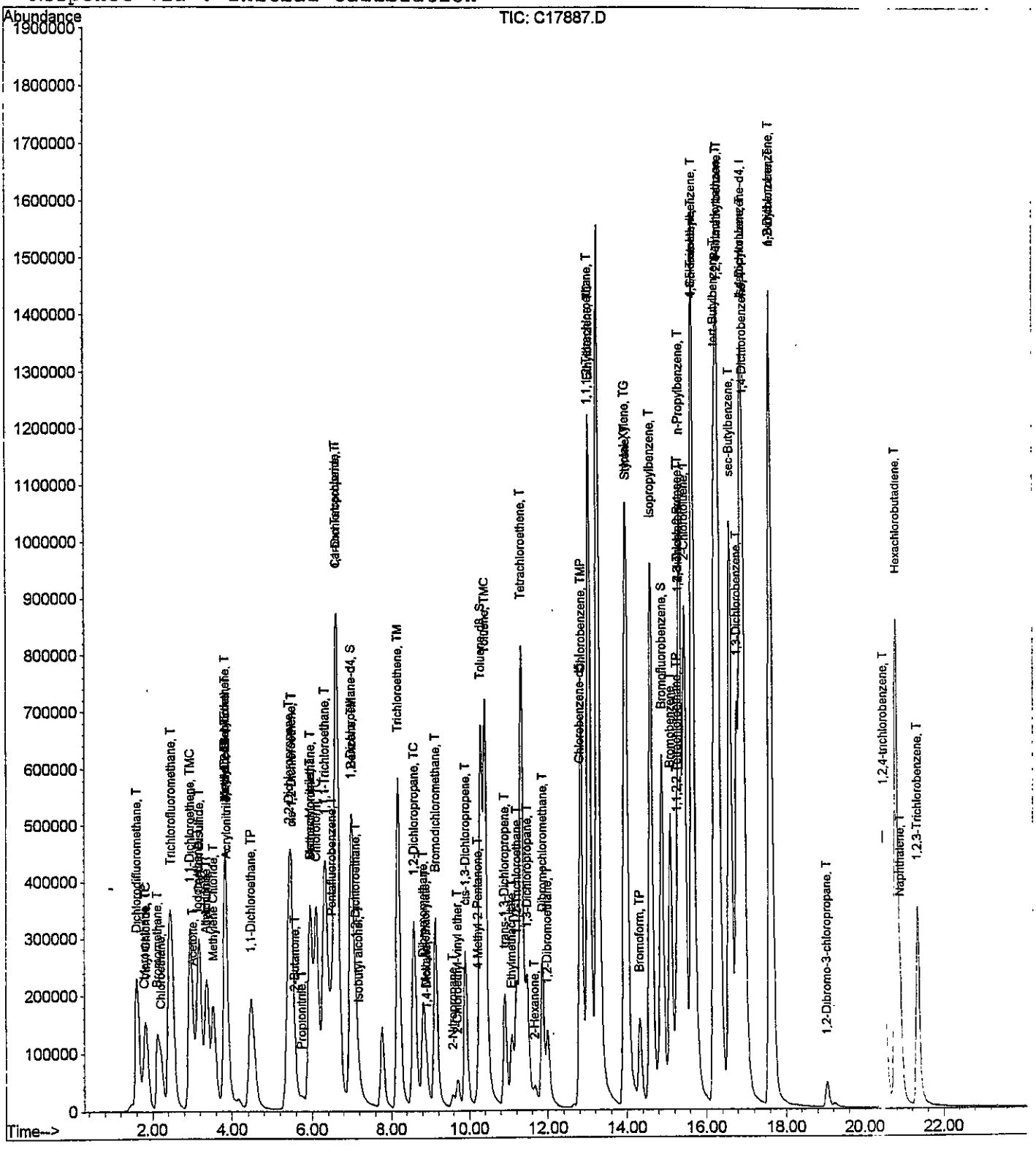
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.88	119	2451789	37.31 ug\L		98
79)	1,4-Dichlorobenzene	16.95	146	1029215	37.19 ug\L		98
80)	1,2-Dichlorobenzene	17.59	146	746375	37.65 ug\L		98
81)	n-Butylbenzene	17.61	91	2395170	37.66 ug\L		93
82)	1,2-Dibromo-3-chloropropan	19.02	75	51822	43.38 ug\L	#	16
83)	1,2,4-trichlorobenzene	20.47	180	595256	37.51 ug\L		100
84)	Hexachlorobutadiene	20.79	225	664942	34.60 ug\L		100
85)	Naphthalene	20.90	128	485287	35.97 ug\L		100
86)	1,2,3-Trichlorobenzene	21.33	180	423076	36.99 ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	104	0.00
2	T	Dichlorodifluoromethane	0.590	0.627	-6.3	104	0.01
3	TP	Chloromethane	0.199	0.213	-7.0	109	0.00
4	TC	Vinyl Chloride	0.282	0.252	10.6	88	0.01
5	T	Bromomethane	0.257	0.256	0.4	97	0.01
6	T	Chloroethane	0.146	0.159	-8.9	105	0.00
7	T	Trichlorofluoromethane	0.885	0.890	-0.6	101	0.00
8	T	Acrolein	0.004	0.005	-25.0	184#	-0.02
9	T	Acrylonitrile	0.011	0.011	0.0	92	0.02
10	TMC	1,1-Dichloroethene	0.316	0.311	1.6	98	0.00
11	T	Acetone	0.002	0.002	0.0	75	0.02
12	T	Iodomethane	0.413	0.359	13.1	88	0.00
13	T	Allylchloride	0.270	0.267	1.1	101	0.00
14	T	Carbon Disulfide	0.589	0.540	8.3	94	0.00
15	T	Acetonitrile	0.039	0.039	0.0	100	0.00
16	T	Methylene Chloride	0.136	0.128	5.9	96	0.01
17	T	trans-1,2-Dichloroethene	0.324	0.325	-0.3	99	0.00
18	T	MethylTertButylEther	0.309	0.291	5.8	98	0.01
19	TP	1,1-Dichloroethane	0.521	0.536	-2.9	104	0.02
20	T	Vinyl Acetate	0.074	0.068	8.1	99	0.01
21	T	2,2-Dichloropropane	0.592	0.586	1.0	99	0.02
22	T	cis-1,2-Dichloroethene	0.285	0.281	1.4	99	0.00
23	T	2-Butanone	0.004	0.006	-50.0#	99	0.07
24	T	Propionitrile	0.003	0.003	0.0	206#	0.00
25	T	Methacrylonitrile	0.029	0.026	10.3	96	0.00
26	T	Bromochloromethane	0.112	0.108	3.6	95	-0.02
27	TC	Chloroform	0.643	0.650	-1.1	102	0.02
28	T	1,1,1-Trichloroethane	0.764	0.782	-2.4	102	0.02
29	T	Carbon Tetrachloride	0.684	0.703	-2.8	106	0.01
30	T	1,4-Dioxane	0.001	0.001	0.0	101	0.00
31	T	1,1-Dichloropropene	0.180	0.182	-1.1	101	0.00
32	S	1,2-Dichloroethane-d4	0.218	0.212	2.8	99	0.00
33	TM	Benzene	0.875	0.877	-0.2	102	0.00
34	T	Isobutyl alcohol	0.001	0.001	0.0	48#	0.00
35	T	1,2-Dichloroethane	0.247	0.241	2.4	98	0.01
36	TM	Trichloroethene	0.473	0.484	-2.3	104	0.00
37	TC	1,2-Dichloropropane	0.277	0.264	4.7	100	0.01
38	T	Dibromomethane	0.131	0.126	3.8	99	0.00
39	T	Methylmethacrylate	0.054	0.052	3.7	100	0.00
40	T	Bromodichloromethane	0.473	0.459	3.0	99	0.00
41	T	2-Nitropropane	0.015	0.012	20.0	85	0.00
42	T	2-Chloroethyl-vinyl ether	0.034	0.031	8.8	111	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D
Acq On : 12 Dec 2000 1:30
Sample : ICV 10 ppb (V00066,V00057)
Misc : QC
MS Integration Params: rteint.p

Vial: 7
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.328	5.7	95	0.01
44	T	4-Methyl-2-Pentanone	0.013	0.010	23.1	74	0.03
45	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
46	S	Toluene-d8	1.437	1.449	-0.8	100	0.00
47	TMC	Toluene	0.899	0.923	-2.7	100	0.00
48	T	trans-1,3-Dichloropropene	0.330	0.310	6.1	93	0.00
49	T	Ethylmethacrylate	0.193	0.187	3.1	96	0.00
50	T	1,1,2-Trichloroethane	0.173	0.175	-1.2	98	0.00
51	T	Tetrachloroethene	0.592	0.582	1.7	96	0.00
52	T	1,3-Dichloropropane	0.335	0.323	3.6	96	0.00
53	T	2-Hexanone	0.050	0.050	0.0	99	-0.02
54	T	Dibromochloromethane	0.374	0.367	1.9	100	0.01
55	T	1,2-Dibromoethane	0.244	0.234	4.1	97	0.01
56	TMP	Chlorobenzene	1.029	1.032	-0.3	99	0.00
57	T	1,1,1,2-Tetrachloroethane	0.473	0.467	1.3	96	0.01
58	TC	Ethylbenzene	1.877	1.918	-2.2	100	0.01
59	TG	total-Xylene	0.279	0.282	-1.1	103	0.00
60	T	Styrene	0.977	0.986	-0.9	98	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
62	TP	Bromoform	0.327	0.314	4.0	93	0.01
63	T	Isopropylbenzene	4.350	4.416	-1.5	99	0.00
64	T	1,4-dichloro-2-Butene	0.306	0.291	4.9	98	0.00
65	S	Bromofluorobenzene	1.352	1.363	-0.8	100	0.01
66	T	Bromobenzene	0.792	0.799	-0.9	99	0.00
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.373	3.6	95	0.00
68	T	1,2,3-Trichloropropane	0.306	0.291	4.9	98	0.00
69	T	n-Propylbenzene	4.717	4.815	-2.1	102	0.01
70	T	2-Chlorotoluene	2.571	2.611	-1.6	97	0.00
71	T	4-Chlorotoluene	3.532	3.557	-0.7	99	0.01
72	T	1,3,5-Trimethylbenzene	3.347	3.492	-4.3	102	0.00
73	T	Pentachloroethane	0.561	0.575	-2.5	100	0.00
74	T	tert-Butylbenzene	4.176	4.265	-2.1	100	0.00
75	T	1,2,4-Trimethylbenzene	3.246	3.328	-2.5	101	0.00
76	T	sec-Butylbenzene	5.047	5.096	-1.0	99	0.00
77	T	1,3-Dichlorobenzene	1.533	1.519	0.9	98	0.01
78	T	Isopropyltoluene	4.075	4.200	-3.1	101	0.01
79	T	1,4-Dichlorobenzene	1.727	1.715	0.7	100	0.00
80	T	1,2-Dichlorobenzene	1.225	1.223	0.2	99	0.00
81	T	n-Butylbenzene	3.952	4.125	-4.4	103	0.00
82	T	1,2-Dibromo-3-chloropropane	0.075	0.074	1.3	98	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	1.081	-8.8	113	0.00
84	T	Hexachlorobutadiene	1.212	1.323	-9.2	103	0.00
85	T	Naphthalene	0.851	0.959	-12.7	133	-0.02
86	T	1,2,3-Trichlorobenzene	0.717	0.785	-9.5	117	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	444400	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.79	117	312970	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	168889	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.97	65	94007	9.72	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.20%			
46) Toluene-d8	10.28	98	453388	10.08	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.80%			
65) Bromofluorobenzene	14.88	95	230154	10.08	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.80%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.61	85	278654	10.62	ug\L	99
3) Chloromethane	1.78	50	94636	10.72	ug\L	99
4) Vinyl Chloride	1.85	62	111855	8.92	ug\L	100
5) Bromomethane	2.15	94	113881	10.47	ug\L	97
6) Chloroethane	2.21	64	70622	10.90	ug\L	94
7) Trichlorofluoromethane	2.44	101	395477	10.05	ug\L #	100
8) Acrolein	3.80	56	4172	23.66	ug\L #	19
9) Acrylonitrile	3.87	53	4106	8.35	ug\L #	69
10) 1,1-Dichloroethene	2.93	96	138240	9.83	ug\L	98
11) Acetone	3.03	58	888	10.82	ug\L #	61
12) Iodomethane	3.14	142	159752	8.10	ug\L #	44
13) Allylchloride	3.34	39	118565	9.89	ug\L #	36
14) Carbon Disulfide	3.17	76	240107	9.18	ug\L	100
15) Acetonitrile	3.33	41	171148	99.85	ug\L	90
16) Methylene Chloride	3.52	86	56987	9.45	ug\L #	36
17) trans-1,2-Dichloroethene	3.82	96	144345	10.03	ug\L	99
18) MethylTertButylEther	3.84	73	129397	9.42	ug\L	95
19) 1,1-Dichloroethane	4.47	63	238077	10.28	ug\L	99
20) Vinyl Acetate	3.82	43	30245	9.26	ug\L #	73
21) 2,2-Dichloropropane	5.43	77	260515	9.90	ug\L	95
22) cis-1,2-Dichloroethene	5.47	96	124740	9.84	ug\L	98
23) 2-Butanone	5.50	72	555	8.78	ug\L #	1
24) Propionitrile	5.75	54	14781	102.56	ug\L #	88
25) Methacrylonitrile	5.95	41	115043	90.79	ug\L #	51
26) Bromochloromethane	5.93	128	47973	9.60	ug\L #	82
27) Chloroform	6.10	83	288790	10.10	ug\L	100
28) 1,1,1-Trichloroethane	6.33	97	347722	10.24	ug\L #	72
29) Carbon Tetrachloride	6.60	119	312243	10.27	ug\L #	78
30) 1,4-Dioxane	8.91	88	3616	149.05	ug\L #	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.62	77	80926	10.14 ug\L	#	1
33)	Benzene	6.99	78	389892	10.03 ug\L		100
34)	Isobutyl alcohol	7.17	43	6130	85.55 ug\L	#	45
35)	1,2-Dichloroethane	7.10	62	106992	9.75 ug\L		97
36)	Trichloroethene	8.17	95	214962	10.23 ug\L		94
37)	1,2-Dichloropropane	8.58	63	117241	9.51 ug\L	#	96
38)	Dibromomethane	8.81	93	56108	9.67 ug\L	#	85
39)	Methylmethacrylate	8.89	69	23063	9.64 ug\L	#	11
40)	Bromodichloromethane	9.12	83	203873	9.70 ug\L		97
41)	2-Nitropropane	9.57	43	5430	8.20 ug\L	#	100
42)	2-Chloroethyl-vinyl ether	9.70	63	13841	8.34 ug\L	#	58
43)	cis-1,3-Dichloropropene	9.89	75	145668	9.41 ug\L		98
44)	4-Methyl-2-Pentanone	10.22	85	4435	6.31 ug\L	#	83
47)	Toluene	10.39	92	288730	10.27 ug\L		98
48)	trans-1,3-Dichloropropene	10.90	75	96933	9.37 ug\L		96
49)	Ethylmethacrylate	11.07	69	58474	9.69 ug\L	#	97
50)	1,1,2-Trichloroethane	11.19	83	54855	10.13 ug\L		95
51)	Tetrachloroethene	11.31	164	182228	9.83 ug\L		95
52)	1,3-Dichloropropane	11.46	76	101232	9.64 ug\L		99
53)	2-Hexanone	11.67	43	15698	9.96 ug\L	#	47
54)	Dibromochloromethane	11.86	129	114991	9.83 ug\L		99
55)	1,2-Dibromoethane	12.00	107	73375	9.62 ug\L	#	98
56)	Chlorobenzene	12.84	112	323112	10.03 ug\L		97
57)	1,1,1,2-Tetrachloroethane	13.03	131	146201	9.87 ug\L		95
58)	Ethylbenzene	13.05	91	600326	10.22 ug\L		98
59)	total-Xylene	13.94	106	264555m	30.26 ug\L		
60)	Styrene	13.99	104	308671	10.09 ug\L		96
62)	Bromoform	14.34	173	53054	9.01 ug\L	#	97
63)	Isopropylbenzene	14.60	105	745801	10.15 ug\L		99
64)	1,4-dichloro-2-Butene	15.28	75	49173	9.53 ug\L	#	100
66)	Bromobenzene	15.11	156	134886	10.08 ug\L	#	63
67)	1,1,2,2-Tetrachloroethane	15.26	83	62973	9.64 ug\L	#	98
68)	1,2,3-Trichloropropane	15.28	75	49173	9.53 ug\L	#	100
69)	n-Propylbenzene	15.33	91	813256	10.21 ug\L		97
70)	2-Chlorotoluene	15.44	91	441003	10.16 ug\L		95
71)	4-Chlorotoluene	15.66	91	600667	10.07 ug\L		98
72)	1,3,5-Trimethylbenzene	15.66	105	589811	10.44 ug\L		89
73)	Pentachloroethane	16.26	167	97054	10.25 ug\L		95
74)	tert-Butylbenzene	16.21	119	720265	10.21 ug\L		98
75)	1,2,4-Trimethylbenzene	16.31	105	561984	10.25 ug\L		99
76)	sec-Butylbenzene	16.61	105	860624	10.10 ug\L		96
77)	1,3-Dichlorobenzene	16.78	146	256542	9.91 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

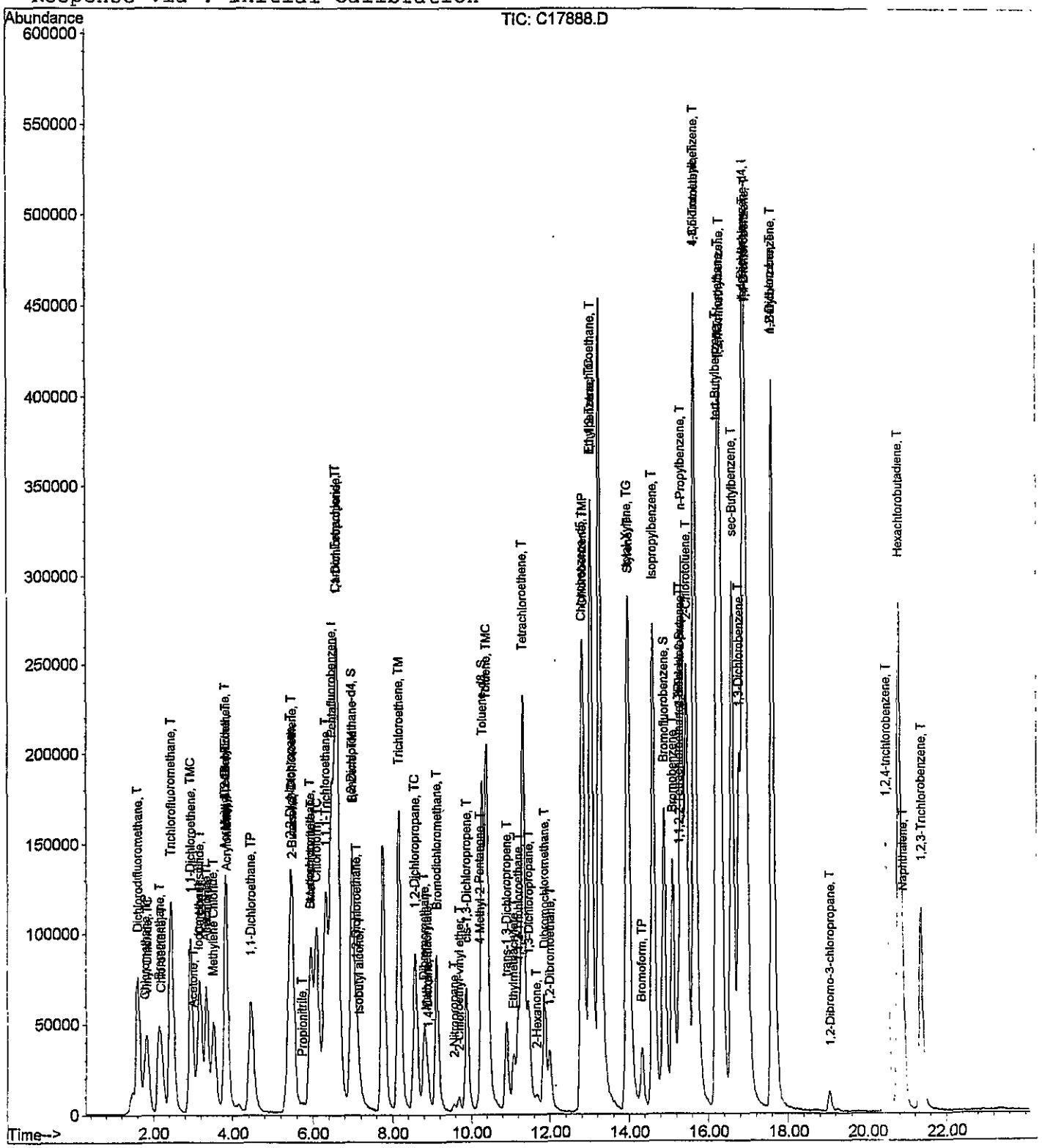
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.89	119	709278	10.31 ug\L	98
79) 1,4-Dichlorobenzene	16.95	146	289616	9.93 ug\L	99
80) 1,2-Dichlorobenzene	17.59	146	206604	9.98 ug\L	98
81) n-Butylbenzene	17.61	91	696648	10.44 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.06	75	12428	9.84 ug\L #	83
83) 1,2,4-trichlorobenzene	20.48	180	182602	10.88 ug\L	100
84) Hexachlorobutadiene	20.79	225	223468	10.91 ug\L	100
85) Naphthalene	20.90	128	161921	12.44 ug\L	100
86) 1,2,3-Trichlorobenzene	21.35	180	132647	10.96 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

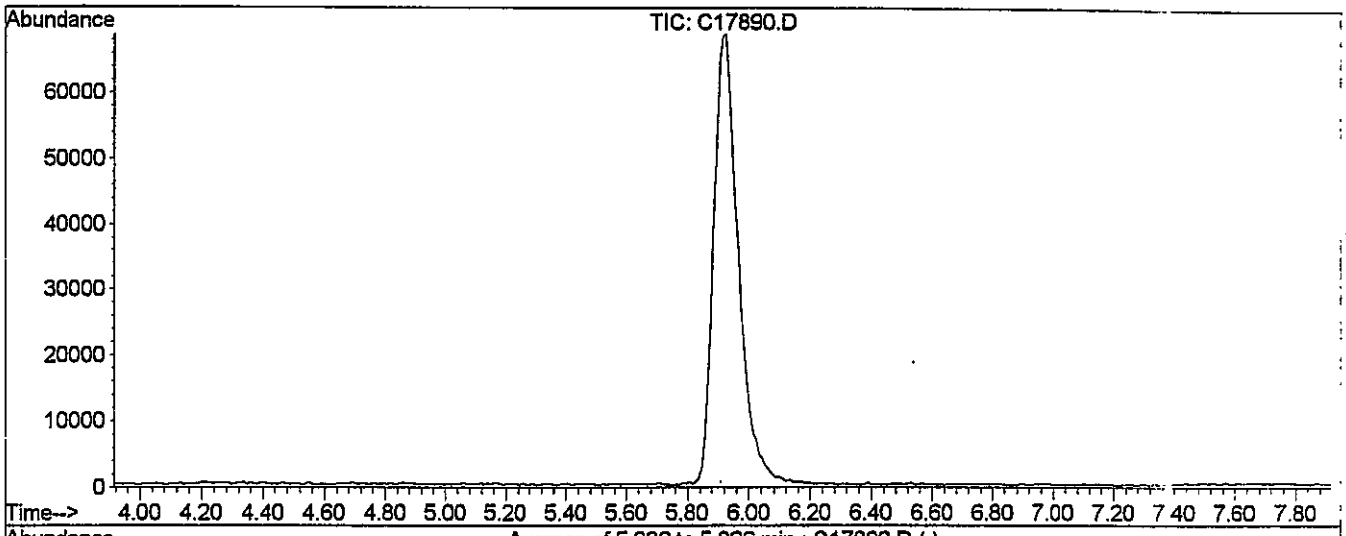
Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration

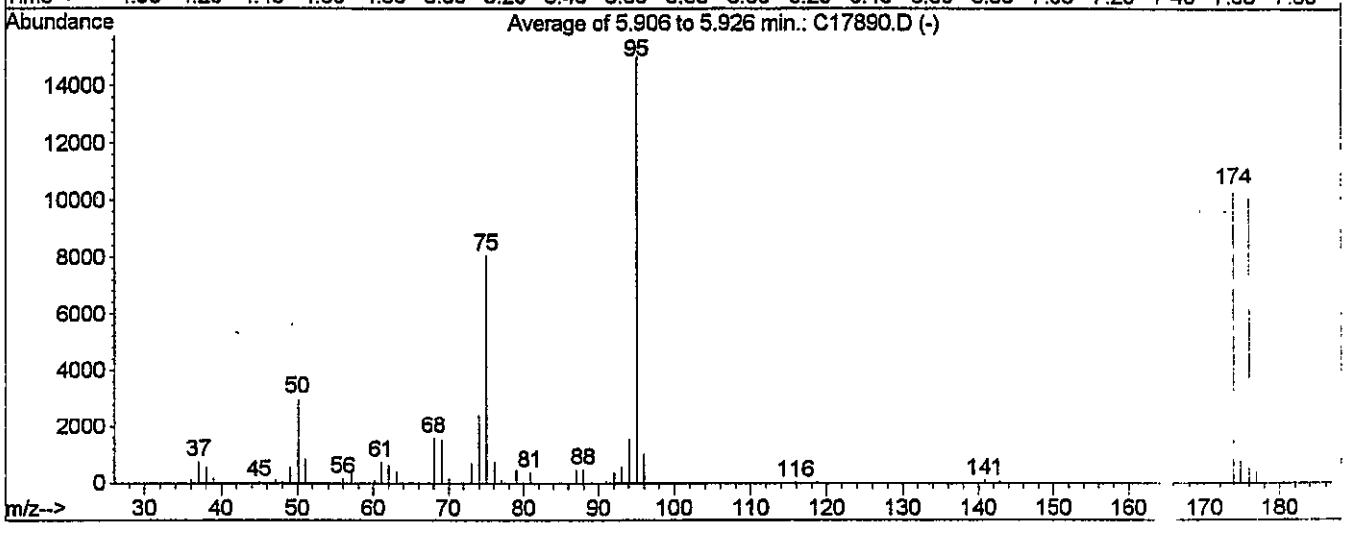


BFB

Data File : C:\HPCHEM\1\DATA\121200\C17890.D
Acq On : 12 Dec 2000 10:43
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 475, 476, 477; Background Corrected with Scan 464

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	3018	PASS
75	95	30	60	53.8	8077	PASS
95	95	100	100	100.0	15014	PASS
96	95	5	9	6.8	1025	PASS
173	174	0.00	2	0.4	37	PASS
174	95	50	100	69.2	10390	PASS
175	174	5	9	7.7	798	PASS
176	174	95	101	97.0	10074	PASS
177	176	5	9	5.8	589	PASS

C17890.D BFB01.M Tue Dec 12 10:56:39 2000 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17891.D
Acq On : 12 Dec 2000 11:04
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 11:38 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	423482	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.80	117	291026	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.91	152	155592	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	84202	9.14 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.40%		
46) Toluene-d8	10.29	98	430018	10.28 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%		
65) Bromofluorobenzene	14.87	95	212505	10.10 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.00%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	249465	9.98 ug\L	99
3) Chloromethane	1.78	50	81706	9.71 ug\L	99
4) Vinyl Chloride	1.83	62	118312	9.90 ug\L	99
5) Bromomethane	2.14	94	111854	10.85 ug\L	98
6) Chloroethane	2.22	64	66438	10.76 ug\L	99
7) Trichlorofluoromethane	2.43	101	377132	10.06 ug\L #	100
8) Acrolein	3.80	56	3686m	24.20 ug\L	
9) Acrylonitrile	3.86	53	7875	16.07 ug\L #	82
10) 1,1-Dichloroethene	2.93	96	136531	10.19 ug\L	99
11) Acetone	3.01	58	856m	10.90 ug\L	
12) Iodomethane	3.14	142	173282	9.06 ug\L	99
13) Allylchloride	3.33	39	114420	10.02 ug\L #	34
14) Carbon Disulfide	3.17	76	242292	9.72 ug\L	100
15) Acetonitrile	3.33	41	160254	98.11 ug\L	88
16) Methylene Chloride	3.53	86	59799	10.41 ug\L #	36
17) trans-1,2-Dichloroethene	3.83	96	138745	10.12 ug\L	95
18) MethylTertButylEther	3.83	73	116344	8.89 ug\L	94
19) 1,1-Dichloroethane	4.45	63	214556	9.72 ug\L #	91
20) Vinyl Acetate	3.82	43	27395	8.80 ug\L #	73
21) 2,2-Dichloropropane	5.41	77	259686	10.36 ug\L	95
22) cis-1,2-Dichloroethene	5.47	96	116594	9.65 ug\L	99
23) 2-Butanone	5.58	72	1794m	13.29 ug\L	
24) Propionitrile	5.76	54	11755	88.25 ug\L #	87
25) Methacrylonitrile	5.96	41	106447	88.16 ug\L	98
26) Bromochloromethane	5.96	128	45948	9.65 ug\L #	78
27) Chloroform	6.10	83	269886	9.91 ug\L	100
28) 1,1,1-Trichloroethane	6.31	97	326069	10.08 ug\L #	79
29) Carbon Tetrachloride	6.59	119	298433	10.30 ug\L	81
30) 1,4-Dioxane	8.93	88	2631m	113.81 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17891.D Vial: 1
Acq On : 12 Dec 2000 11:04 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 11:38 2000 Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.62	77	77554	10.19 ug\L #	1
33) Benzene	6.98	78	369456	9.97 ug\L	100
34) Isobutyl alcohol	7.19	43	9229	137.74 ug\L #	84
35) 1,2-Dichloroethane	7.10	62	97392	9.31 ug\L	100
36) Trichloroethene	8.16	95	197142	9.84 ug\L	92
37) 1,2-Dichloropropane	8.59	63	108048	9.20 ug\L #	94
38) Dibromomethane	8.82	93	50782	9.18 ug\L #	84
39) Methylmethacrylate	8.87	69	20350	8.93 ug\L #	72
40) Bromodichloromethane	9.12	83	187171	9.35 ug\L	99
41) 2-Nitropropane	9.55	43	5047	8.00 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.68	63	11016m	7.34 ug\L	
43) cis-1,3-Dichloropropene	9.89	75	139224	9.44 ug\L	99
44) 4-Methyl-2-Pentanone	10.23	85	4831	7.69 ug\L #	52
47) Toluene	10.40	92	270302	10.34 ug\L	99
48) trans-1,3-Dichloropropene	10.89	75	95844	9.97 ug\L	91
49) Ethylmethacrylate	11.09	69	52313	9.32 ug\L #	92
50) 1,1,2-Trichloroethane	11.20	83	49430	9.81 ug\L	97
51) Tetrachloroethene	11.32	164	180689	10.48 ug\L	93
52) 1,3-Dichloropropane	11.47	76	93790	9.61 ug\L	98
53) 2-Hexanone	11.70	43	12617	8.61 ug\L #	86
54) Dibromochloromethane	11.86	129	102161	9.39 ug\L	98
55) 1,2-Dibromoethane	11.99	107	67742	9.55 ug\L #	6
56) Chlorobenzene	12.85	112	299566	10.00 ug\L	96
57) 1,1,1,2-Tetrachloroethane	13.02	131	137526	9.98 ug\L	94
58) Ethylbenzene	13.05	91	564562	10.33 ug\L	98
59) total-Xylene	13.94	106	251108m	30.88 ug\L	
60) Styrene	13.99	104	279785	9.84 ug\L	95
62) Bromoform	14.34	173	48364	8.92 ug\L #	37
63) Isopropylbenzene	14.60	105	716058	10.58 ug\L	98
64) 1,4-dichloro-2-Butene	15.30	75	41832	8.80 ug\L #	100
66) Bromobenzene	15.11	156	121580	9.86 ug\L #	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	56514	9.39 ug\L #	98
68) 1,2,3-Trichloropropane	15.30	75	41832	8.80 ug\L #	100
69) n-Propylbenzene	15.33	91	777477	10.59 ug\L	97
70) 2-Chlorotoluene	15.45	91	402006	10.05 ug\L	94
71) 4-Chlorotoluene	15.65	91	555736	10.11 ug\L	99
72) 1,3,5-Trimethylbenzene	15.66	105	541808	10.41 ug\L	91
73) Pentachloroethane	16.27	167	86491	9.91 ug\L	96
74) tert-Butylbenzene	16.21	119	669820	10.31 ug\L	97
75) 1,2,4-Trimethylbenzene	16.31	105	513638	10.17 ug\L	98
76) sec-Butylbenzene	16.61	105	822956	10.48 ug\L	96
77) 1,3-Dichlorobenzene	16.77	146	237921	9.98 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17891.D
Acq On : 12 Dec 2000 11:04
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 11:38 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

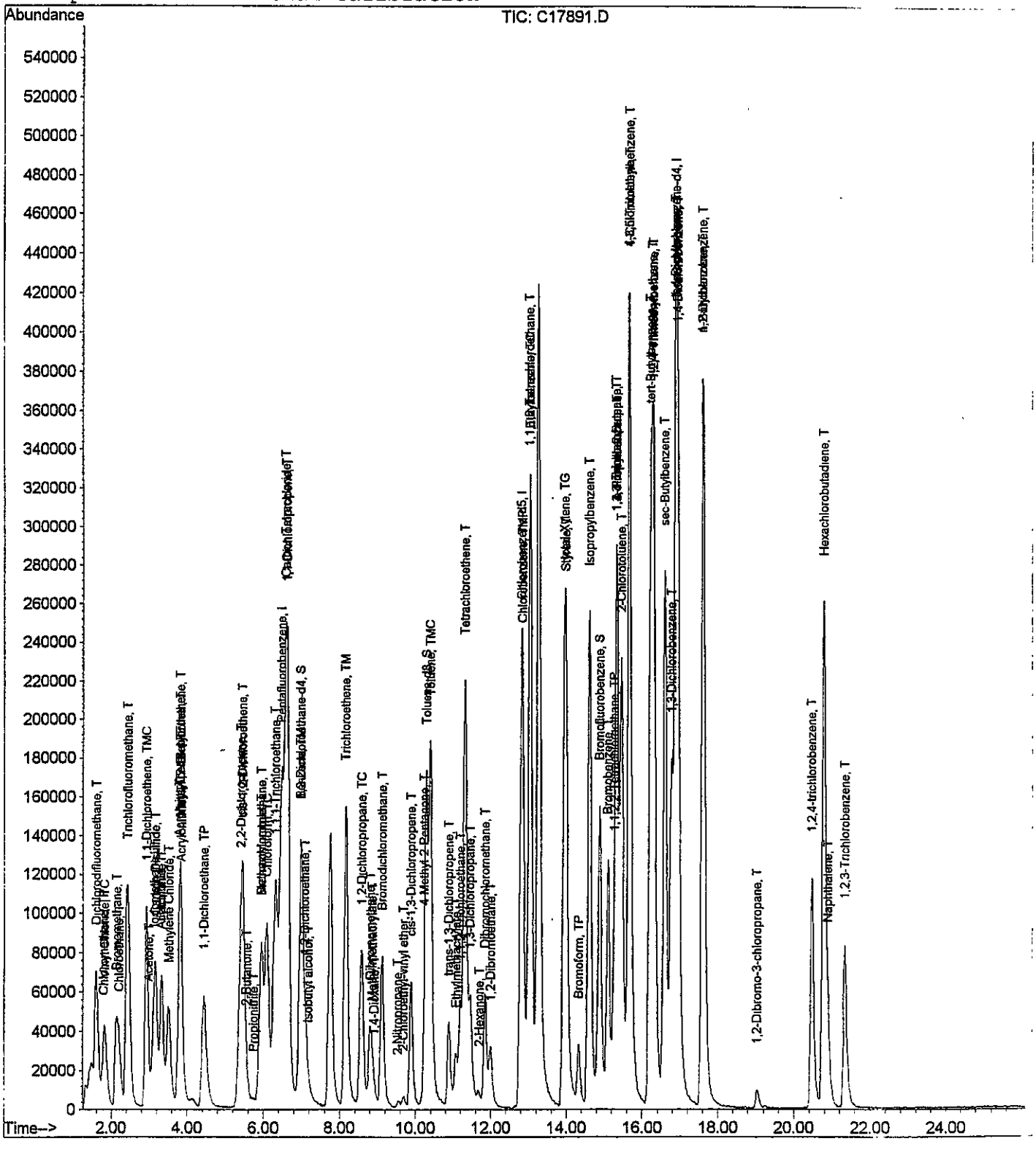
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
78)	Isopropyltoluene	16.88	119	651139	10.27	ug\L		98
79)	1,4-Dichlorobenzene	16.95	146	260833	9.71	ug\L		97
80)	1,2-Dichlorobenzene	17.60	146	183893	9.65	ug\L		100
81)	n-Butylbenzene	17.61	91	636756	10.35	ug\L		92
82)	1,2-Dibromo-3-chloropropan	19.03	75	10054	8.64	ug\L	#	69
83)	1,2,4-trichlorobenzene	20.47	180	139293	9.01	ug\L		100
84)	Hexachlorobutadiene	20.79	225	205373	10.89	ug\L		100
85)	Naphthalene	20.90	128	100535	8.29	ug\L		100
86)	1,2,3-Trichlorobenzene	21.34	180	96999	8.70	ug\L		97

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\121200\C17891.D
Acq On : 12 Dec 2000 11:04
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 11:38 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12120025.RES

Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121200\C17891.D Vial: 1
Acq On : 12 Dec 2000 11:04 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	0.01
2	T	Dichlorodifluoromethane	0.590	0.589	0.2	93	0.00
3	TP	Chloromethane	0.199	0.193	3.0	94	0.00
4	TC	Vinyl Chloride	0.282	0.279	1.1	93	0.00
5	T	Bromomethane	0.257	0.264	-2.7	95	0.00
6	T	Chloroethane	0.146	0.157	-7.5	99	0.00
7	T	Trichlorofluoromethane	0.885	0.891	-0.7	97	0.00
8	T	Acrolein	0.004	0.004	0.0	163#	-0.03
9	T	Acrylonitrile	0.011	0.009	18.2	77	0.02
10	TMC	1,1-Dichloroethene	0.316	0.322	-1.9	97	0.00
11	T	Acetone	0.002	0.002	0.0	72	0.00
12	T	Iodomethane	0.413	0.409	1.0	95	0.00
13	T	Allylchloride	0.270	0.270	0.0	97	0.00
14	T	Carbon Disulfide	0.589	0.572	2.9	95	0.00
15	T	Acetonitrile	0.039	0.038	2.6	93	0.00
16	T	Methylene Chloride	0.136	0.141	-3.7	101	0.02
17	T	trans-1,2-Dichloroethene	0.324	0.328	-1.2	95	0.01
18	T	MethylTertButylEther	0.309	0.275	11.0	88	0.00
19	TP	1,1-Dichloroethane	0.521	0.507	2.7	94	0.00
20	T	Vinyl Acetate	0.074	0.065	12.2	90	0.01
21	T	2,2-Dichloropropane	0.592	0.613	-3.5	98	0.00
22	T	cis-1,2-Dichloroethene	0.285	0.275	3.5	92	0.00
23	T	2-Butanone	0.004	0.004	0.0	69	0.07
24	T	Propionitrile	0.003	0.003	0.0	164#	0.01
25	T	Methacrylonitrile	0.029	0.025	13.8	88	0.00
26	T	Bromochloromethane	0.112	0.109	2.7	91	0.01
27	TC	Chloroform	0.643	0.637	0.9	95	0.02
28	T	1,1,1-Trichloroethane	0.764	0.770	-0.8	96	0.00
29	T	Carbon Tetrachloride	0.684	0.705	-3.1	101	0.00
30	T	1,4-Dioxane	0.001	0.000	100.0#	55	0.01
31	T	1,1-Dichloropropene	0.180	0.183	-1.7	96	0.00
32	S	1,2-Dichloroethane-d4	0.218	0.199	8.7	89	0.00
33	TM	Benzene	0.875	0.872	0.3	96	0.00
34	T	Isobutyl alcohol	0.001	0.001	0.0	72	0.02
35	T	1,2-Dichloroethane	0.247	0.230	6.9	89	0.01
36	TM	Trichloroethene	0.473	0.466	1.5	96	0.00
37	TC	1,2-Dichloropropane	0.277	0.255	7.9	92	0.02
38	T	Dibromomethane	0.131	0.120	8.4	90	0.00
39	T	Methylmethacrylate	0.054	0.048	11.1	88	0.00
40	T	Bromodichloromethane	0.473	0.442	6.6	91	0.00
41	T	2-Nitropropane	0.015	0.012	20.0	79	-0.03
42	T	2-Chloroethyl-vinyl ether	0.034	0.026	23.5	88	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121200\C17891.D Vial: 1
Acq On : 12 Dec 2000 11:04 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.329	5.5	91	0.01
44	T	4-Methyl-2-Pentanone	0.013	0.011	15.4	81	0.04
45	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.01
46	S	Toluene-d8	1.437	1.478	-2.9	95	0.02
47	TMC	Toluene	0.899	0.929	-3.3	94	0.01
48	T	trans-1,3-Dichloropropene	0.330	0.329	0.3	92	0.00
49	T	Ethylmethacrylate	0.193	0.180	6.7	86	0.02
50	T	1,1,2-Trichloroethane	0.173	0.170	1.7	88	0.00
51	T	Tetrachloroethene	0.592	0.621	-4.9	95	0.01
52	T	1,3-Dichloropropane	0.335	0.322	3.9	89	0.00
53	T	2-Hexanone	0.050	0.043	14.0	80	0.02
54	T	Dibromochloromethane	0.374	0.351	6.1	89	0.01
55	T	1,2-Dibromoethane	0.244	0.233	4.5	89	0.00
56	TMP	Chlorobenzene	1.029	1.029	0.0	92	0.01
57	T	1,1,1,2-Tetrachloroethane	0.473	0.473	0.0	91	0.00
58	TC	Ethylbenzene	1.877	1.940	-3.4	94	0.01
59	TG	total-Xylene	0.279	0.288	-3.2	98	0.00
60	T	Styrene	0.977	0.961	1.6	89	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.01
62	TP	Bromoform	0.327	0.311	4.9	85	0.01
63	T	Isopropylbenzene	4.350	4.602	-5.8	96	0.01
64	T	1,4-dichloro-2-Butene	0.306	0.269	12.1	83	0.03
65	S	Bromofluorobenzene	1.352	1.366	-1.0	93	0.00
66	T	Bromobenzene	0.792	0.781	1.4	89	0.00
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.363	6.2	85	0.00
68	T	1,2,3-Trichloropropane	0.306	0.269	12.1	83	0.03
69	T	n-Propylbenzene	4.717	4.997	-5.9	97	0.01
70	T	2-Chlorotoluene	2.571	2.584	-0.5	88	0.00
71	T	4-Chlorotoluene	3.532	3.572	-1.1	91	0.00
72	T	1,3,5-Trimethylbenzene	3.347	3.482	-4.0	93	0.00
73	T	Pentachloroethane	0.561	0.556	0.9	89	0.01
74	T	tert-Butylbenzene	4.176	4.305	-3.1	93	0.00
75	T	1,2,4-Trimethylbenzene	3.246	3.301	-1.7	93	0.00
76	T	sec-Butylbenzene	5.047	5.289	-4.8	94	0.00
77	T	1,3-Dichlorobenzene	1.533	1.529	0.3	91	0.00
78	T	Isopropyltoluene	4.075	4.185	-2.7	93	0.00
79	T	1,4-Dichlorobenzene	1.727	1.676	3.0	90	0.00
80	T	1,2-Dichlorobenzene	1.225	1.182	3.5	88	0.01
81	T	n-Butylbenzene	3.952	4.092	-3.5	94	0.00
82	T	1,2-Dibromo-3-chloropropane	0.075	0.065	13.3	79	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121200\C17891.D Vial: 1
Acq On : 12 Dec 2000 11:04 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	0.895	10.0	86	0.00
84	T	Hexachlorobutadiene	1.212	1.320	-8.9	95	0.00
85	T	Naphthalene	0.851	0.646	24.1	82	-0.02
86	T	1,2,3-Trichlorobenzene	0.717	0.623	13.1	86	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121200\C17894.D
Acq On : 12 Dec 2000 13:04
Sample : QVW121200 C1
Misc : WATER BLANK
MS Integration Params: rteint.p
Quant Time: Dec 12 13:31 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12120025.RES

Quant Method : c:\hpchem\1\data\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12120025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	453997	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.80	117	323513	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.97	152	162577	10.00 ug\L	0.07
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	82663	8.37 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 83.70%		
46) Toluene-d8	10.29	98	440693	9.48 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.80%		
65) Bromofluorobenzene	14.95	95	217333	9.89 ug\L	0.08
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.90%		

Target Compounds					Qvalue
30) 1,4-Dioxane	8.60	88	60	~~2.42 ug\L #~~	24
36) Trichloroethene	7.77	95	13715	~~0.64 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.95	75	111323	~~22.40 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.95	75	111323	~~22.40 ug\L #~~	100

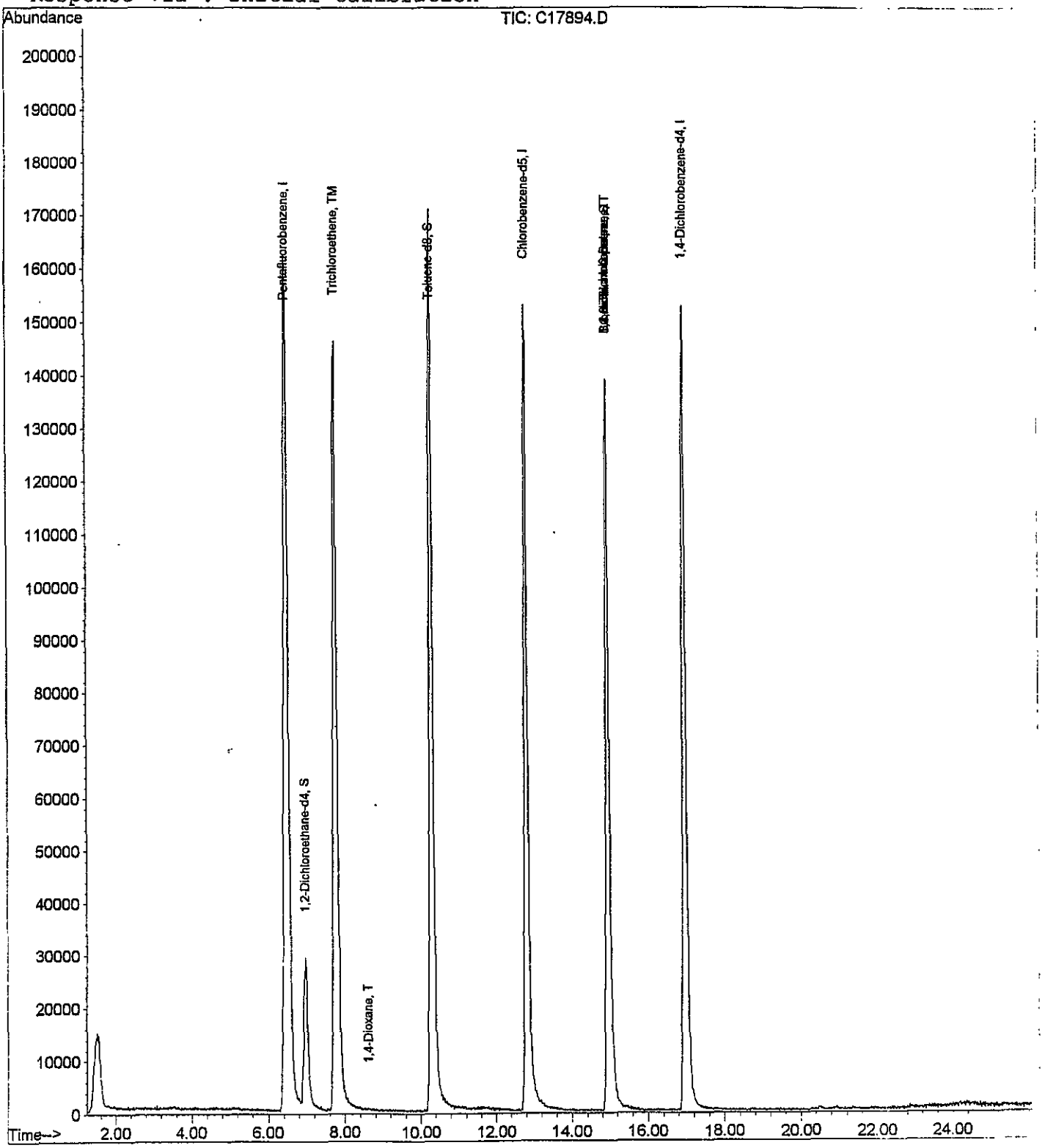
VR
12/12/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121200\C17894.D Vial: 2
Acq On : 12 Dec 2000 13:04 Operator: TAG/VR
Sample : QVW121200 C1 Inst : VOA-C
Misc : WATER BLANK Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 13:31 2000 Quant Results File: 12120025.RES

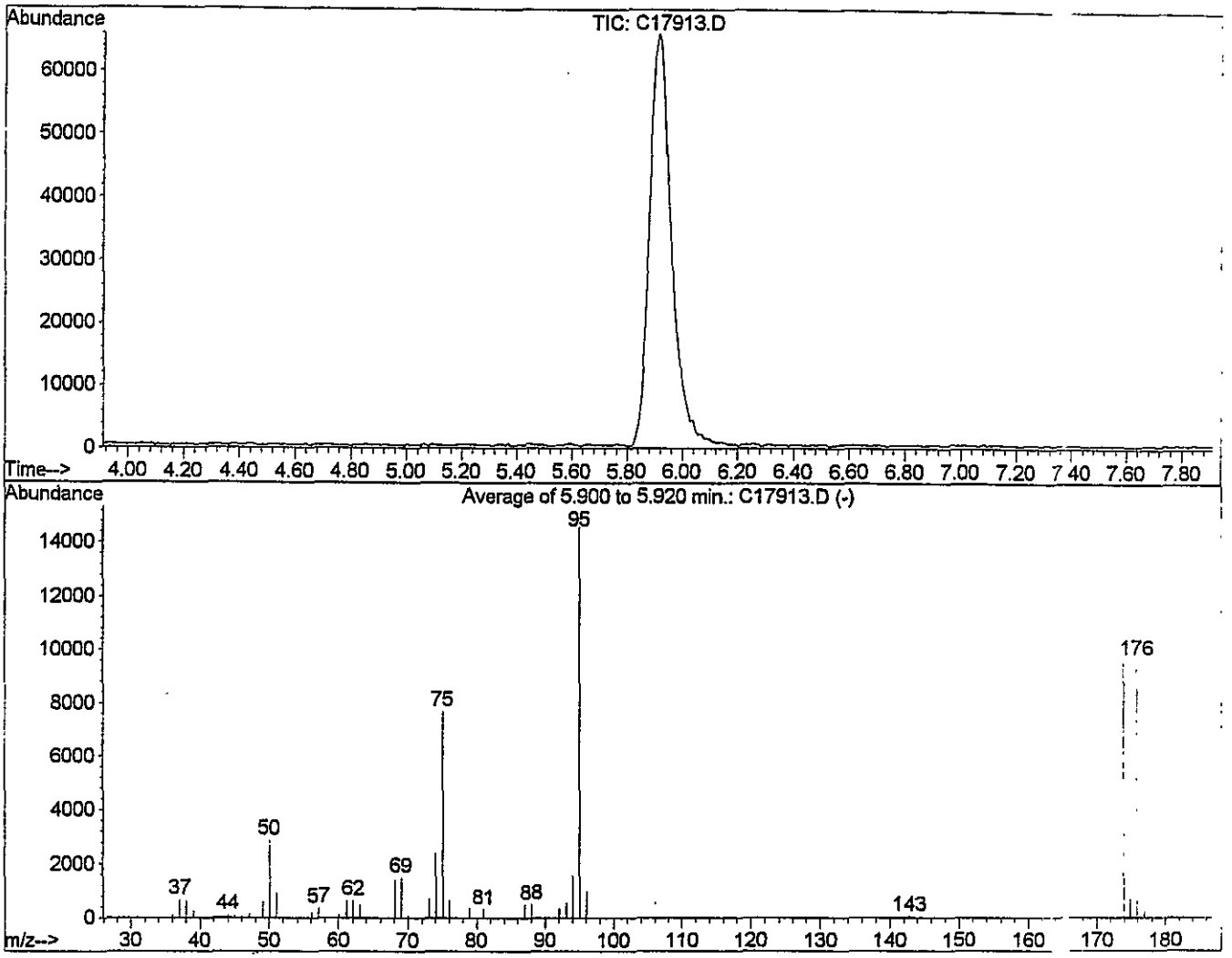
Method : C:\HPCHEM\1\DATA\121200\12120025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\121300\C17913.D
Acq On : 13 Dec 2000 9:06
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00



AutoFind: Scans 475, 476, 477; Background Corrected with Scan 464

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	2891	PASS
75	95	30	60	52.9	7720	PASS
95	95	100	100	100.0	14593	PASS
96	95	5	9	6.8	992	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.0	9630	PASS
175	174	5	9	7.1	687	PASS
176	174	95	101	100.7	9697	PASS
177	176	5	9	5.8	566	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17915.D
Acq On : 13 Dec 2000 10:05
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Quant Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	432501	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.78	117	264881	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	138729	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.96	65	73939	7.85	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 78.50%#			
46) Toluene-d8	10.28	98	398982	10.48	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.80%#			
65) Bromofluorobenzene	14.87	95	180477	9.62	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.20%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.60	85	235724	9.23	ug\L	99
3) Chloromethane	1.77	50	80194	9.33	ug\L	99
4) Vinyl Chloride	1.83	62	115713	9.48	ug\L	99
5) Bromomethane	2.12	94	109046	10.27	ug\L	100
6) Chloroethane	2.22	64	66130	10.49	ug\L	97
7) Trichlorofluoromethane	2.42	101	362199	9.46	ug\L #	100
8) Acrolein	3.82	56	3249	22.07	ug\L #	79
9) Acrylonitrile	3.88	53	7199m	14.46	ug\L	
10) 1,1-Dichloroethene	2.92	96	133958	9.79	ug\L	99
11) Acetone	3.04	58	1090	12.62	ug\L #	1
12) Iodomethane	3.13	142	152416	7.96	ug\L	97
13) Allylchloride	3.33	39	112526	9.65	ug\L #	35
14) Carbon Disulfide	3.17	76	222523	8.74	ug\L	100
15) Acetonitrile	3.32	41	159682	95.72	ug\L	89
16) Methylene Chloride	3.50	86	60421	10.30	ug\L #	37
17) trans-1,2-Dichloroethene	3.82	96	135037	9.64	ug\L	97
18) MethylTertButylEther	3.81	73	94737m	7.08	ug\L	
19) 1,1-Dichloroethane	4.44	63	208117	9.23	ug\L	99
20) Vinyl Acetate	3.82	43	22055m	6.94	ug\L	
21) 2,2-Dichloropropane	5.41	77	250374	9.78	ug\L	94
22) cis-1,2-Dichloroethene	5.47	96	111769	9.06	ug\L	99
23) 2-Butanone	5.57	72	1204m	11.10	ug\L	
24) Propionitrile	5.74	54	4220	41.43	ug\L #	64
25) Methacrylonitrile	5.96	41	87377	70.85	ug\L	98
26) Bromochloromethane	5.92	128	39737	8.17	ug\L #	80
27) Chloroform	6.10	83	253086	9.10	ug\L	100
28) 1,1,1-Trichloroethane	6.30	97	322870	9.77	ug\L #	78
29) Carbon Tetrachloride	6.59	119	283174	9.57	ug\L #	72
30) 1,4-Dioxane	8.90	88	2690m	113.93	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000 Quant Results File: 12130025.RES

Quant Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.61	77	75116	9.67 ug\L #	1
33) Benzene	6.98	78	354530	9.37 ug\L	100
34) Isobutyl alcohol	7.16	43	4588	64.76 ug\L #	61
35) 1,2-Dichloroethane	7.10	62	86909	8.14 ug\L	99
36) Trichloroethene	8.16	95	191775	9.38 ug\L	93
37) 1,2-Dichloropropane	8.57	63	102844	8.57 ug\L #	97
38) Dibromomethane	8.80	93	42551	7.53 ug\L #	82
39) Methylmethacrylate	8.86	69	16100	6.92 ug\L #	87
40) Bromodichloromethane	9.12	83	170040	8.31 ug\L #	99
41) 2-Nitropropane	9.55	43	4730	7.34 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.68	63	9298m	6.47 ug\L	
43) cis-1,3-Dichloropropene	9.88	75	122840	8.15 ug\L	97
44) 4-Methyl-2-Pentanone	10.18	85	6231m	10.60 ug\L	
47) Toluene	10.40	92	251830	10.58 ug\L	99
48) trans-1,3-Dichloropropene	10.90	75	76770	8.77 ug\L	96
49) Ethylmethacrylate	11.08	69	39280	7.69 ug\L #	57
50) 1,1,2-Trichloroethane	11.20	83	40186	8.77 ug\L	97
51) Tetrachloroethene	11.31	164	172642	11.00 ug\L	93
52) 1,3-Dichloropropane	11.45	76	75058	8.45 ug\L	99
53) 2-Hexanone	11.68	43	10639	7.98 ug\L #	81
54) Dibromochloromethane	11.85	129	84547	8.54 ug\L	100
55) 1,2-Dibromoethane	11.99	107	53505	8.29 ug\L #	98
56) Chlorobenzene	12.83	112	275480	10.11 ug\L	96
57) 1,1,1,2-Tetrachloroethane	13.01	131	117010	9.33 ug\L	95
58) Ethylbenzene	13.04	91	526833	10.59 ug\L	99
59) total-Xylene	13.94	106	228776m	30.91 ug\L	
60) Styrene	13.98	104	253492	9.79 ug\L	94
62) Bromoform	14.32	173	39154	8.16 ug\L #	94
63) Isopropylbenzene	14.59	105	660273	10.94 ug\L	98
64) 1,4-dichloro-2-Butene	15.28	75	34497	8.13 ug\L #	100
66) Bromobenzene	15.09	156	104716	9.53 ug\L #	64
67) 1,1,2,2-Tetrachloroethane	15.26	83	44987	8.39 ug\L #	99
68) 1,2,3-Trichloropropane	15.28	75	34497	8.13 ug\L #	100
69) n-Propylbenzene	15.32	91	698561	10.68 ug\L	94
70) 2-Chlorotoluene	15.44	91	399320	11.20 ug\L	97
71) 4-Chlorotoluene	15.65	91	495669	10.11 ug\L	98
72) 1,3,5-Trimethylbenzene	15.65	105	502960	10.83 ug\L	89
73) Pentachloroethane	16.26	167	73951	9.51 ug\L	97
74) tert-Butylbenzene	16.21	119	627872	10.84 ug\L	98
75) 1,2,4-Trimethylbenzene	16.30	105	468072	10.39 ug\L	100
76) sec-Butylbenzene	16.59	105	782159	11.17 ug\L	96
77) 1,3-Dichlorobenzene	16.78	146	207195	9.75 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17915.D
Acq On : 13 Dec 2000 10:05
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Quant Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.88	119	610995	10.81 ug\L	97
79) 1,4-Dichlorobenzene	16.95	146	230358	9.61 ug\L	98
80) 1,2-Dichlorobenzene	17.59	146	158480	9.32 ug\L	100
81) n-Butylbenzene	17.61	91	608739	11.10 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.03	75	7848	7.57 ug\L #	77
83) 1,2,4-trichlorobenzene	20.47	180	115395	8.37 ug\L	100
84) Hexachlorobutadiene	20.79	225	196468	11.68 ug\L	100
85) Naphthalene	20.89	128	78309	7.20 ug\L	100
86) 1,2,3-Trichlorobenzene	21.33	180	78938	7.94 ug\L	97

(#) = qualifier out of range (m) = manual integration

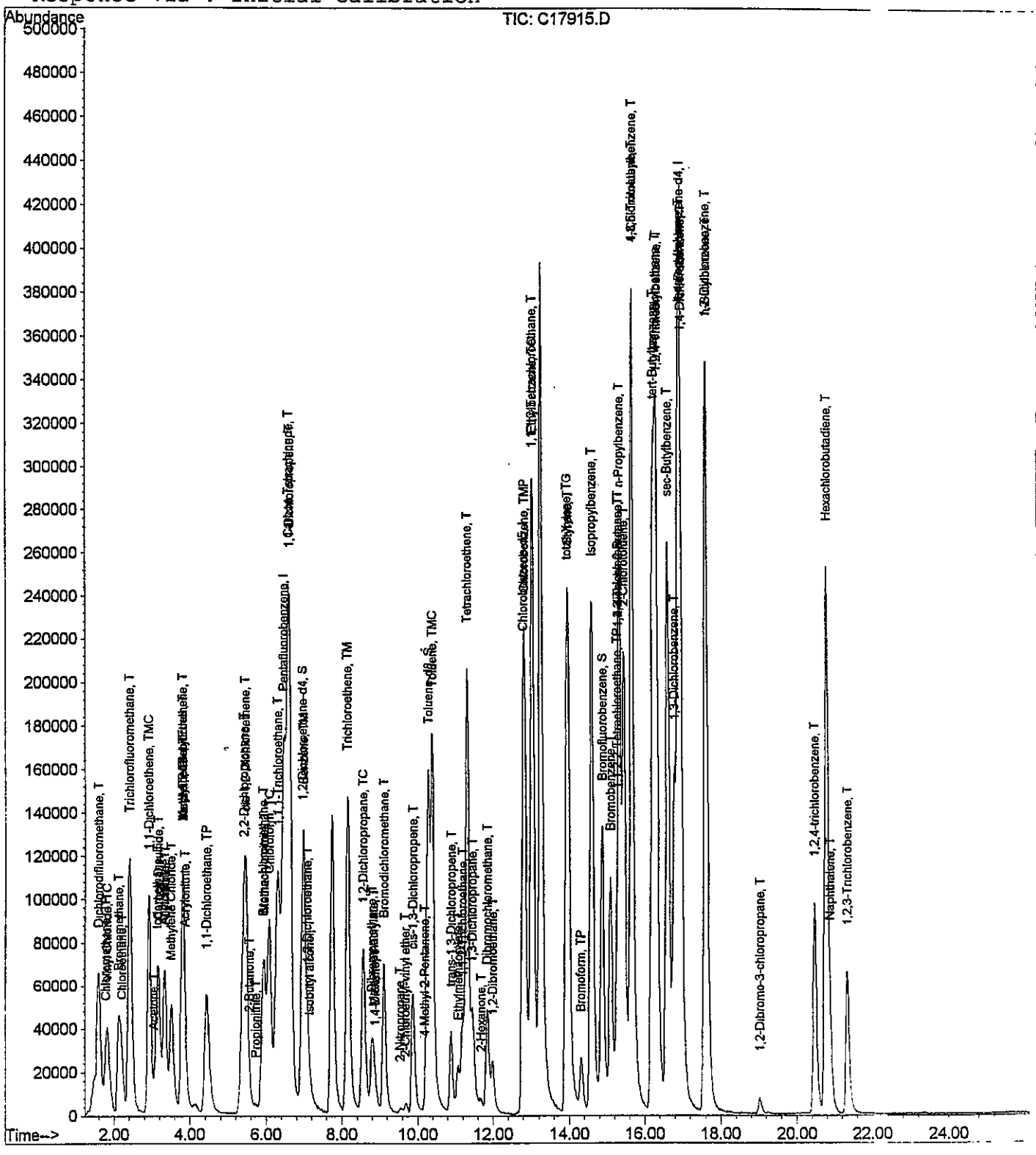
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D
Acq On : 13 Dec 2000 10:05
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12130025.RES

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area*	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	T	Dichlorodifluoromethane	0.590	0.545	7.6	88	0.00
3	TP	Chloromethane	0.199	0.185	7.0	93	-0.01
4	TC	Vinyl Chloride	0.282	0.268	5.0	91	-0.01
5	T	Bromomethane	0.257	0.252	1.9	93	-0.01
6	T	Chloroethane	0.146	0.153	-4.8	98	0.00
7	T	Trichlorofluoromethane	0.885	0.837	5.4	93	-0.01
8	T	Acrolein	0.004	0.004	0.0	144	0.00
9	T	Acrylonitrile	0.011	0.008	27.3#	70	0.04
10	TMC	1,1-Dichloroethene	0.316	0.310	1.9	95	0.00
11	T	Acetone	0.002	0.003	-50.0#	92	0.03
12	T	Iodomethane	0.413	0.352	14.8	84	0.00
13	T	Allylchloride	0.270	0.260	3.7	96	-0.01
14	T	Carbon Disulfide	0.589	0.515	12.6	87	0.00
15	T	Acetonitrile	0.039	0.037	5.1	93	-0.02
16	T	Methylene Chloride	0.136	0.140	-2.9	102	0.00
17	T	trans-1,2-Dichloroethene	0.324	0.312	3.7	93	0.00
18	T	MethylTertButylEther	0.309	0.219	29.1#	71	-0.01
19	TP	1,1-Dichloroethane	0.521	0.481	7.7	91	0.00
20	T	Vinyl Acetate	0.074	0.051	31.1#	72	0.02
21	T	2,2-Dichloropropane	0.592	0.579	2.2	95	0.00
22	T	cis-1,2-Dichloroethene	0.285	0.258	9.5	88	0.00
23	T	2-Butanone	0.004	0.003	25.0	46#	0.07
24	T	Propionitrile	0.003	0.001	66.7#	59	0.00
25	T	Methacrylonitrile	0.029	0.020	31.0#	73	0.00
26	T	Bromochloromethane	0.112	0.092	17.9	79	-0.02
27	TC	Chloroform	0.643	0.585	9.0	89	0.02
28	T	1,1,1-Trichloroethane	0.764	0.747	2.2	95	0.00
29	T	Carbon Tetrachloride	0.684	0.655	4.2	96	0.00
30	T	1,4-Dioxane	0.001	0.000	100.0#	56	-0.02
31	T	1,1-Dichloropropene	0.180	0.174	3.3	93	0.00
32	S	1,2-Dichloroethane-d4	0.218	0.171	21.6	78	-0.01
33	TM	Benzene	0.875	0.820	6.3	92	-0.01
34	T	Isobutyl alcohol	0.001	0.001	0.0	36#	0.00
35	T	1,2-Dichloroethane	0.247	0.201	18.6	79	0.02
36	TM	Trichloroethene	0.473	0.443	6.3	93	0.00
37	TC	1,2-Dichloropropane	0.277	0.238	14.1	87	0.00
38	T	Dibromomethane	0.131	0.098	25.2#	75	-0.01
39	T	Methylmethacrylate	0.054	0.037	31.5#	70	-0.02
40	T	Bromodichloromethane	0.473	0.393	16.9	83	0.00
41	T	2-Nitropropane	0.015	0.011	26.7#	74	-0.02
42	T	2-Chloroethyl-vinyl ether	0.034	0.021	38.2#	74	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.284	18.4	80	0.00
44	T	4-Methyl-2-Pentanone	0.013	0.014	-7.7	105	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.00
46	S	Toluene-d8	1.437	1.506	-4.8	88	0.00
47	TMC	Toluene	0.899	0.951	-5.8	88	0.00
48	T	trans-1,3-Dichloropropene	0.330	0.290	12.1	73	0.00
49	T	Ethylmethacrylate	0.193	0.148	23.3	64	0.00
50	T	1,1,2-Trichloroethane	0.173	0.152	12.1	72	0.00
51	T	Tetrachloroethene	0.592	0.652	-10.1	91	0.00
52	T	1,3-Dichloropropane	0.335	0.283	15.5	71	-0.01
53	T	2-Hexanone	0.050	0.040	20.0	67	0.00
54	T	Dibromochloromethane	0.374	0.319	14.7	73	0.00
55	T	1,2-Dibromoethane	0.244	0.202	17.2	70	0.00
56	TMP	Chlorobenzene	1.029	1.040	-1.1	85	0.00
57	T	1,1,1,2-Tetrachloroethane	0.473	0.442	6.6	77	0.00
58	TC	Ethylbenzene	1.877	1.989	-6.0	88	0.00
59	TG	total-Xylene	0.279	0.288	-3.2	89	0.00
60	T	Styrene	0.977	0.957	2.0	81	-0.01
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00
62	TP	Bromoform	0.327	0.282	13.8	69	0.00
63	T	Isopropylbenzene	4.350	4.759	-9.4	88	0.00
64	T	1,4-dichloro-2-Butene	0.306	0.249	18.6	68	0.00
65	S	Bromofluorobenzene	1.352	1.301	3.8	79	0.00
66	T	Bromobenzene	0.792	0.755	4.7	77	-0.01
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.324	16.3	68	0.00
68	T	1,2,3-Trichloropropane	0.306	0.249	18.6	68	0.00
69	T	n-Propylbenzene	4.717	5.035	-6.7	87	0.00
70	T	2-Chlorotoluene	2.571	2.878	-11.9	88	-0.01
71	T	4-Chlorotoluene	3.532	3.573	-1.2	82	0.00
72	T	1,3,5-Trimethylbenzene	3.347	3.625	-8.3	87	0.00
73	T	Pentachloroethane	0.561	0.533	5.0	76	0.00
74	T	tert-Butylbenzene	4.176	4.526	-8.4	87	-0.01
75	T	1,2,4-Trimethylbenzene	3.246	3.374	-3.9	84	0.00
76	T	sec-Butylbenzene	5.047	5.638	-11.7	90	-0.01
77	T	1,3-Dichlorobenzene	1.533	1.494	2.5	79	0.00
78	T	Isopropyltoluene	4.075	4.404	-8.1	87	0.00
79	T	1,4-Dichlorobenzene	1.727	1.660	3.9	80	0.00
80	T	1,2-Dichlorobenzene	1.225	1.142	6.8	76	0.00
81	T	n-Butylbenzene	3.952	4.388	-11.0	90	0.00
82	T	1,2-Dibromo-3-chloropropane	0.075	0.057	24.0	62	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	0.832	16.3	71	-0.01
84	T	Hexachlorobutadiene	1.212	1.416	-16.8	90	0.00
85	T	Naphthalene	0.851	0.564	33.7#	64	-0.02
86	T	1,2,3-Trichlorobenzene	0.717	0.569	20.6	70	-0.01

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17917.D
Acq On : 13 Dec 2000 11:29
Sample : QVW121300C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 13 11:56 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12130025.RES

Quant Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	409640	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.80	117	287047	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.92	152	143780	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	72692	8.15 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 81.50%		
46) Toluene-d8	10.28	98	397080	9.63 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.30%		
65) Bromofluorobenzene	14.88	95	187736	9.66 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.60%		
Target Compounds					Qvalue
36) Trichloroethene	7.75	95	12116	~~0.63 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	95858	~~21.81 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	95858	~~21.81 ug\L #~~	100

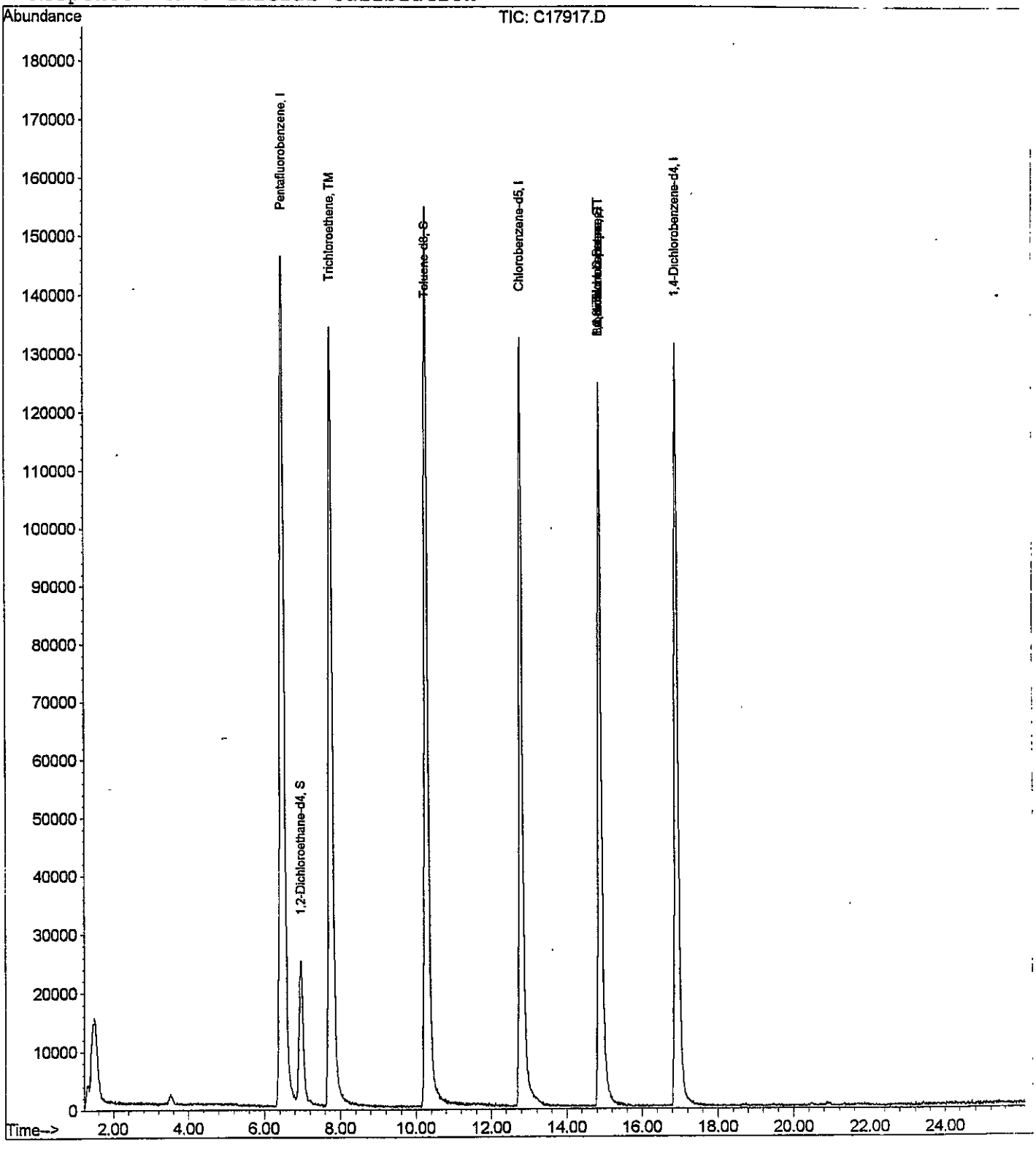
VR
12/13/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17917.D Vial: 2
Acq On : 13 Dec 2000 11:29 Operator: TAG/VR
Sample : QVW121300C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 11:56 2000 Quant Results File: 12130025.RES

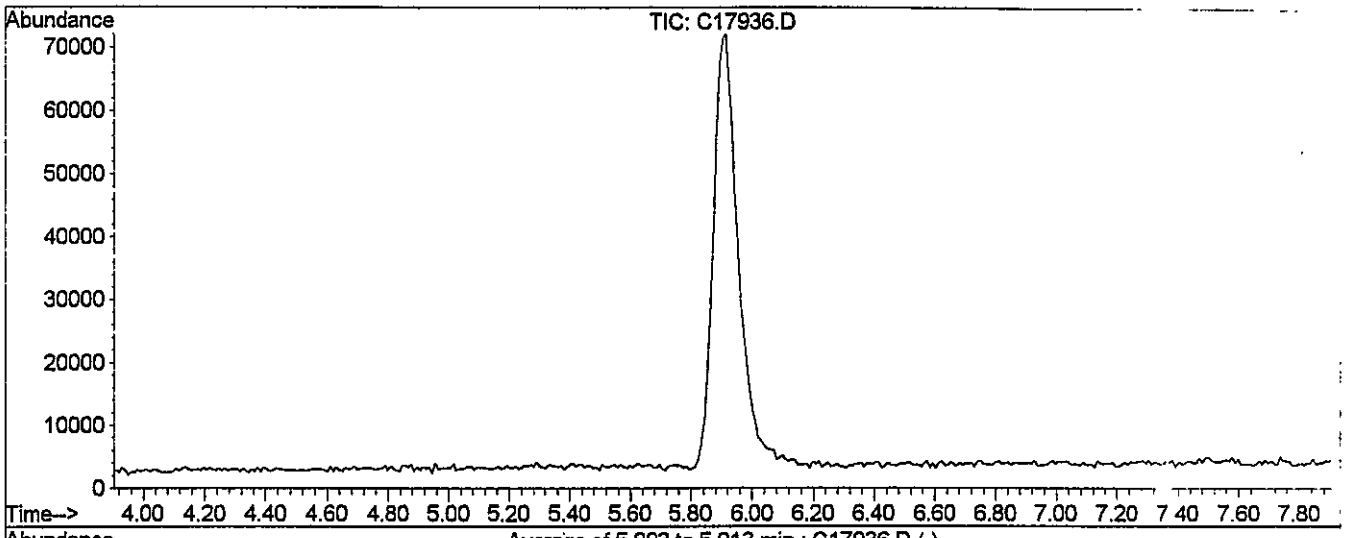
Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration

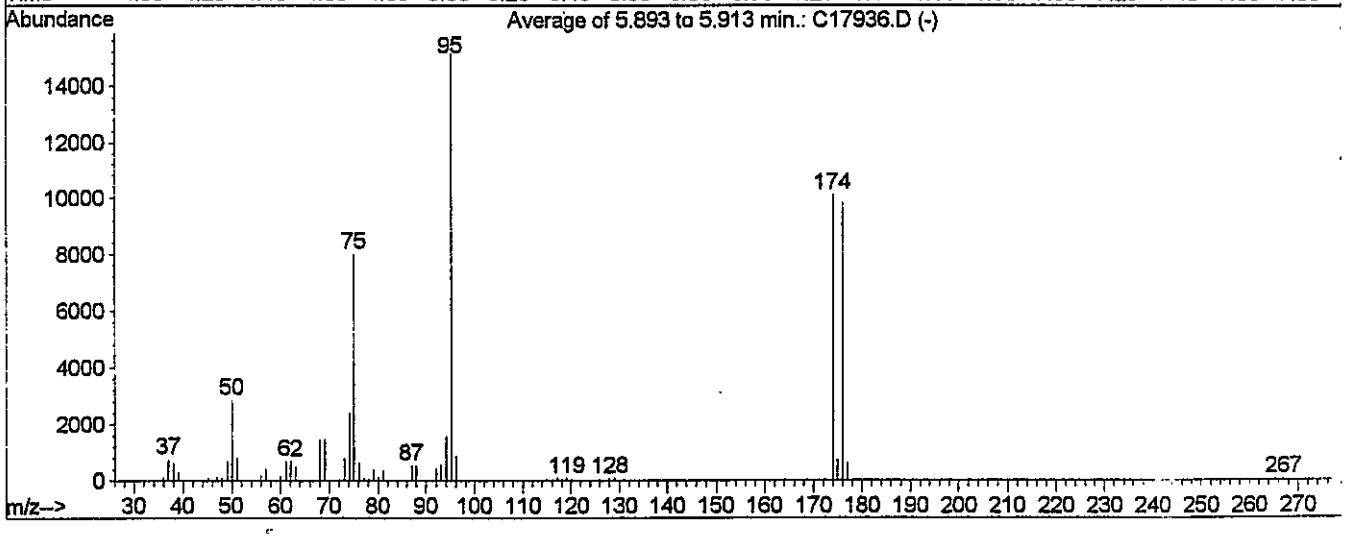


BFB

Data File : C:\HPCHEM\1\DATA\121400\C17936.D
Acq On : 14 Dec 2000 8:26
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 474, 475, 476; Background Corrected with Scan 463

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	2877	PASS
75	95	30	60	53.0	8016	PASS
95	95	100	100	100.0	15135	PASS
96	95	5	9	6.0	904	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.9	10121	PASS
175	174	5	9	7.3	743	PASS
176	174	95	101	97.4	9856	PASS
177	176	5	9	6.4	630	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17938.D
Acq On : 14 Dec 2000 9:19
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12140025.RES

Quant Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	450442	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.78	117	310834	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.93	152	157787	10.00	ug\L	0.03

System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.95	65	81073	8.27	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.70%			
46) Toluene-d8	10.27	98	436746	9.78	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.80%			
65) Bromofluorobenzene	14.92	95	208050	9.75	ug\L	0.05
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.50%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.59	85	286724	10.78	ug\L	99
3) Chloromethane	1.78	50	97708	10.91	ug\L	98
4) Vinyl Chloride	1.84	62	118613	9.33	ug\L	99
5) Bromomethane	2.12	94	113556	10.26	ug\L	99
6) Chloroethane	2.21	64	74006	11.27	ug\L	98
7) Trichlorofluoromethane	2.43	101	395144	9.91	ug\L #	100
8) Acrolein	3.82	56	2255	17.60	ug\L #	1
9) Acrylonitrile	3.87	53	8076	15.52	ug\L #	91
10) 1,1-Dichloroethene	2.93	96	144525	10.14	ug\L	99
11) Acetone	3.03	58	930m	11.05	ug\L	
12) Iodomethane	3.12	142	166722	8.30	ug\L	98
13) Allylchloride	3.32	39	117338	9.66	ug\L #	35
14) Carbon Disulfide	3.17	76	212927	8.03	ug\L	98
15) Acetonitrile	3.32	41	169200	97.39	ug\L	90
16) Methylene Chloride	3.52	86	81495	13.34	ug\L #	36
17) trans-1,2-Dichloroethene	3.80	96	147729	10.13	ug\L	97
18) MethylTertButylEther	3.80	73	114744	8.24	ug\L	95
19) 1,1-Dichloroethane	4.42	63	236040	10.06	ug\L	99
20) Vinyl Acetate	3.81	43	27092	8.18	ug\L #	73
21) 2,2-Dichloropropane	5.40	77	270817	10.15	ug\L	95
22) cis-1,2-Dichloroethene	5.46	96	122095	9.50	ug\L	98
23) 2-Butanone	5.54	72	2425m	15.03	ug\L	
24) Propionitrile	5.73	54	10787m	78.34	ug\L	
25) Methacrylonitrile	5.94	41	100551	78.29	ug\L	97
26) Bromochloromethane	5.91	128	46012	9.09	ug\L #	80
27) Chloroform	6.08	83	278729	9.62	ug\L	100
28) 1,1,1-Trichloroethane	6.29	97	343450	9.98	ug\L #	73
29) Carbon Tetrachloride	6.56	119	309174	10.03	ug\L #	76
30) 1,4-Dioxane	8.88	88	3975m	161.65	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17938.D
Acq On : 14 Dec 2000 9:19
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Quant Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.59	77	80781	9.98 ug\L	#	1
33)	Benzene	6.96	78	399012	10.12 ug\L		100
34)	Isobutyl alcohol	7.15	43	8999m	125.90 ug\L		
35)	1,2-Dichloroethane	7.08	62	99671	8.96 ug\L		97
36)	Trichloroethene	8.14	95	208341	9.78 ug\L		93
37)	1,2-Dichloropropane	8.54	63	116177	9.30 ug\L		98
38)	Dibromomethane	8.78	93	50805	8.63 ug\L	#	83
39)	Methylmethacrylate	8.87	69	19397	8.00 ug\L		84
40)	Bromodichloromethane	9.10	83	195300	9.17 ug\L		100
41)	2-Nitropropane	9.54	43	4996	7.45 ug\L	#	100
42)	2-Chloroethyl-vinyl ether	9.67	63	5313m	4.59 ug\L		
43)	cis-1,3-Dichloropropene	9.88	75	136245	8.68 ug\L		98
44)	4-Methyl-2-Pentanone	10.20	85	5290m	8.02 ug\L		
47)	Toluene	10.38	92	287446	10.29 ug\L		100
48)	trans-1,3-Dichloropropene	10.88	75	96506	9.40 ug\L		93
49)	Ethylmethacrylate	11.06	69	50131	8.36 ug\L	#	99
50)	1,1,2-Trichloroethane	11.19	83	50892	9.46 ug\L		96
51)	Tetrachloroethene	11.32	164	188440	10.24 ug\L	#	24
52)	1,3-Dichloropropane	11.45	76	92058	8.83 ug\L		100
53)	2-Hexanone	11.68	43	14231m	9.10 ug\L		
54)	Dibromochloromethane	11.84	129	106641	9.18 ug\L		99
55)	1,2-Dibromoethane	11.99	107	66194	8.74 ug\L	#	98
56)	Chlorobenzene	12.83	112	318627	9.96 ug\L		96
57)	1,1,1,2-Tetrachloroethane	12.99	131	139620	9.49 ug\L		95
58)	Ethylbenzene	13.03	91	615953	10.56 ug\L		100
59)	total-Xylene	13.95	106	250264m	28.82 ug\L		
60)	Styrene	14.01	104	280338	9.23 ug\L		94
62)	Bromoform	14.36	173	46994	8.58 ug\L		99
63)	Isopropylbenzene	14.64	105	738957	10.77 ug\L		98
64)	1,4-dichloro-2-Butene	15.32	75	44257	9.18 ug\L	#	100
66)	Bromobenzene	15.14	156	123309	9.86 ug\L	#	65
67)	1,1,2,2-Tetrachloroethane	15.30	83	54397	8.92 ug\L	#	98
68)	1,2,3-Trichloropropane	15.32	75	44257	9.18 ug\L	#	100
69)	n-Propylbenzene	15.36	91	800157	10.75 ug\L		96
70)	2-Chlorotoluene	15.48	91	447848	11.04 ug\L		97
71)	4-Chlorotoluene	15.70	91	583982	10.48 ug\L		99
72)	1,3,5-Trimethylbenzene	15.70	105	579806	10.98 ug\L		88
73)	Pentachloroethane	16.30	167	88192	9.97 ug\L		97
74)	tert-Butylbenzene	16.25	119	710044	10.78 ug\L		97
75)	1,2,4-Trimethylbenzene	16.35	105	549726	10.73 ug\L		98
76)	sec-Butylbenzene	16.63	105	867582	10.89 ug\L		96
77)	1,3-Dichlorobenzene	16.81	146	242362	10.02 ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000 Quant Results File: 12140025.RES

Quant Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

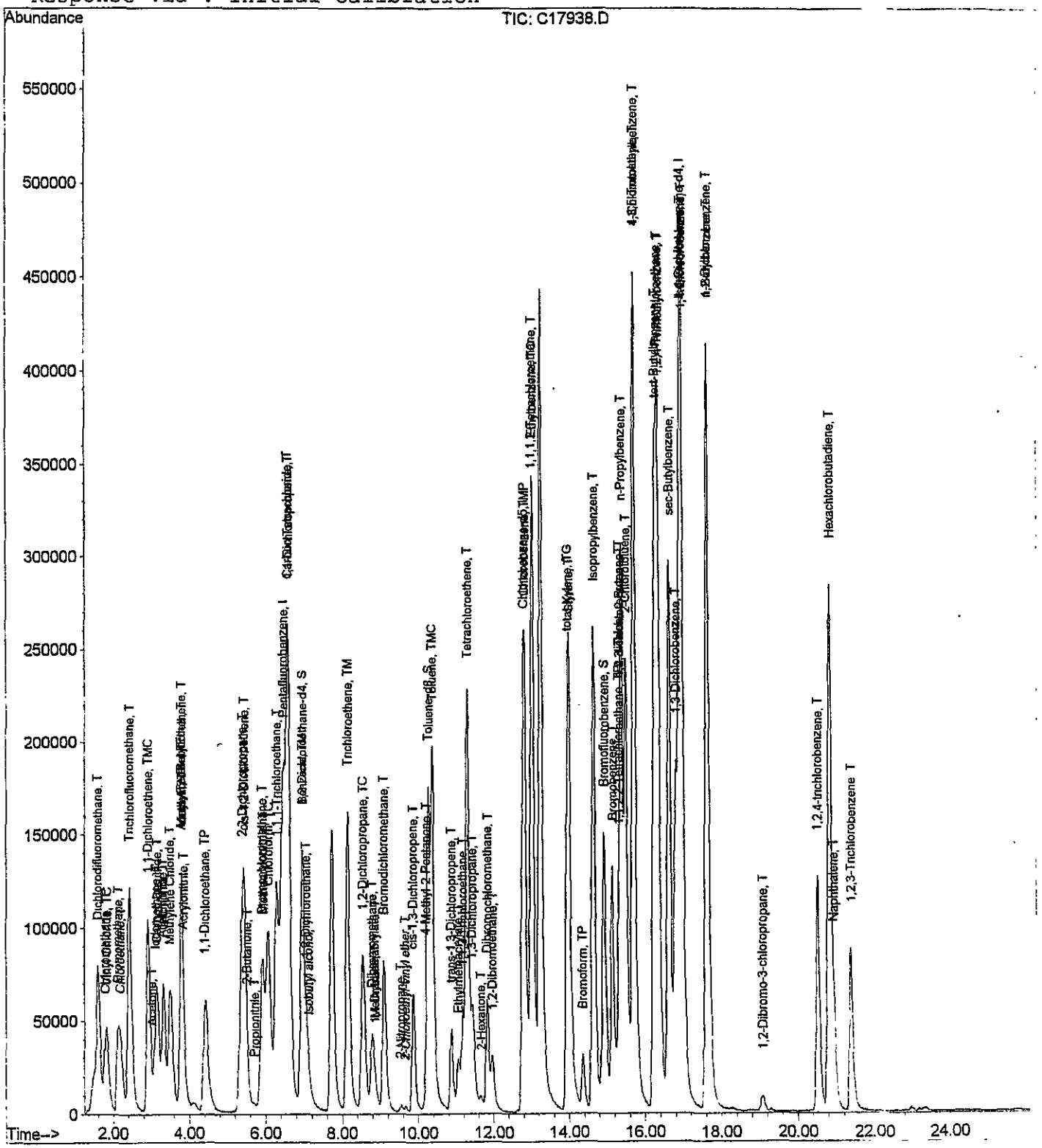
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.91	119	707982	11.01 ug\L	98
79)	1,4-Dichlorobenzene	16.98	146	276808	10.16 ug\L	98
80)	1,2-Dichlorobenzene	17.62	146	193491	10.01 ug\L	98
81)	n-Butylbenzene	17.63	91	697110	11.18 ug\L	93
82)	1,2-Dibromo-3-chloropropan	19.09	75	9370	7.94 ug\L #	78
83)	1,2,4-trichlorobenzene	20.54	180	149566	9.54 ug\L	100
84)	Hexachlorobutadiene	20.84	225	217938	11.39 ug\L	100
85)	Naphthalene	20.95	128	112970	9.21 ug\L	100
86)	1,2,3-Trichlorobenzene	21.40	180	106107	9.38 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000 Quant Results File: 12140025.RES

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area*	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	0.590	0.637	-8.0	107	0.00
3	TP	Chloromethane	0.199	0.217	-9.0	113	0.00
4	TC	Vinyl Chloride	0.282	0.263	6.7	93	0.00
5	T	Bromomethane	0.257	0.252	1.9	97	-0.02
6	T	Chloroethane	0.146	0.164	-12.3	110	0.00
7	T	Trichlorofluoromethane	0.885	0.877	0.9	101	0.00
8	T	Acrolein	0.004	0.003	25.0	100	0.00
9	T	Acrylonitrile	0.011	0.009	18.2	79	0.03
10	TMC	1,1-Dichloroethene	0.316	0.321	-1.6	102	0.00
11	T	Acetone	0.002	0.002	0.0	78	0.02
12	T	Iodomethane	0.413	0.370	10.4	92	0.00
13	T	Allylchloride	0.270	0.260	3.7	100	-0.02
14	T	Carbon Disulfide	0.589	0.473	19.7	83	0.00
15	T	Acetonitrile	0.039	0.038	2.6	99	-0.02
16	T	Methylene Chloride	0.136	0.181	-33.1#	138	0.01
17	T	trans-1,2-Dichloroethene	0.324	0.328	-1.2	102	0.00
18	T	MethylTertButylEther	0.309	0.255	17.5	87	-0.02
19	TP	1,1-Dichloroethane	0.521	0.524	-0.6	103	-0.02
20	T	Vinyl Acetate	0.074	0.060	18.9	89	0.01
21	T	2,2-Dichloropropane	0.592	0.601	-1.5	102	0.00
22	T	cis-1,2-Dichloroethene	0.285	0.271	4.9	97	0.00
23	T	2-Butanone	0.004	0.005	-25.0	94	0.03
24	T	Propionitrile	0.003	0.002	33.3#	150#	-0.02
25	T	Methacrylonitrile	0.029	0.022	24.1	84	0.00
26	T	Bromochloromethane	0.112	0.102	8.9	92	-0.03
27	TC	Chloroform	0.643	0.619	3.7	98	0.00
28	T	1,1,1-Trichloroethane	0.764	0.762	0.3	101	-0.02
29	T	Carbon Tetrachloride	0.684	0.686	-0.3	105	-0.02
30	T	1,4-Dioxane	0.001	0.000	100.0#	82	-0.04
31	T	1,1-Dichloropropene	0.180	0.179	0.6	100	-0.02
32	S	1,2-Dichloroethane-d4	0.218	0.180	17.4	85	-0.02
33	TM	Benzene	0.875	0.886	-1.3	104	-0.03
34	T	Isobutyl alcohol	0.001	0.001	0.0	70	-0.02
35	T	1,2-Dichloroethane	0.247	0.221	10.5	91	0.00
36	TM	Trichloroethene	0.473	0.463	2.1	101	-0.02
37	TC	1,2-Dichloropropane	0.277	0.258	6.9	99	-0.03
38	T	Dibromomethane	0.131	0.113	13.7	90	-0.03
39	T	Methylmethacrylate	0.054	0.043	20.4	84	0.00
40	T	Bromodichloromethane	0.473	0.434	8.2	95	-0.02
41	T	2-Nitropropane	0.015	0.011	26.7#	78	-0.03
42	T	2-Chloroethyl-vinyl ether	0.034	0.012	64.7#	42#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.302	13.2	89	0.00
44	T	4-Methyl-2-Pentanone	0.013	0.012	7.7	89	0.02
45	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
46	S	Toluene-d8	1.437	1.405	2.2	97	0.00
47	TMC	Toluene	0.899	0.925	-2.9	100	0.00
48	T	trans-1,3-Dichloropropene	0.330	0.310	6.1	92	0.00
49	T	Ethylmethacrylate	0.193	0.161	16.6	82	0.00
50	T	1,1,2-Trichloroethane	0.173	0.164	5.2	91	0.00
51	T	Tetrachloroethene	0.592	0.606	-2.4	100	0.01
52	T	1,3-Dichloropropane	0.335	0.296	11.6	87	-0.02
53	T	2-Hexanone	0.050	0.046	8.0	90	0.00
54	T	Dibromochloromethane	0.374	0.343	8.3	93	0.00
55	T	1,2-Dibromoethane	0.244	0.213	12.7	87	0.00
56	TMP	Chlorobenzene	1.029	1.025	0.4	98	0.00
57	T	1,1,1,2-Tetrachloroethane	0.473	0.449	5.1	92	-0.02
58	TC	Ethylbenzene	1.877	1.982	-5.6	102	0.00
59	TG	total-Xylene	0.279	0.268	3.9	97	0.01
60	T	Styrene	0.977	0.902	7.7	89	0.02
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.03
62	TP	Bromoform	0.327	0.298	8.9	83	0.04
63	T	Isopropylbenzene	4.350	4.683	-7.7	99	0.05
64	T	1,4-dichloro-2-Butene	0.306	0.280	8.5	88	0.05
65	S	Bromofluorobenzene	1.352	1.319	2.4	91	0.05
66	T	Bromobenzene	0.792	0.781	1.4	90	0.04
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.345	10.9	82	0.05
68	T	1,2,3-Trichloropropane	0.306	0.280	8.5	88	0.05
69	T	n-Propylbenzene	4.717	5.071	-7.5	100	0.04
70	T	2-Chlorotoluene	2.571	2.838	-10.4	99	0.03
71	T	4-Chlorotoluene	3.532	3.701	-4.8	96	0.05
72	T	1,3,5-Trimethylbenzene	3.347	3.675	-9.8	100	0.04
73	T	Pentachloroethane	0.561	0.559	0.4	91	0.04
74	T	tert-Butylbenzene	4.176	4.500	-7.8	99	0.03
75	T	1,2,4-Trimethylbenzene	3.246	3.484	-7.3	99	0.04
76	T	sec-Butylbenzene	5.047	5.498	-8.9	99	0.03
77	T	1,3-Dichlorobenzene	1.533	1.536	-0.2	93	0.04
78	T	Isopropyltoluene	4.075	4.487	-10.1	101	0.03
79	T	1,4-Dichlorobenzene	1.727	1.754	-1.6	96	0.03
80	T	1,2-Dichlorobenzene	1.225	1.226	-0.1	93	0.03
81	T	n-Butylbenzene	3.952	4.418	-11.8	103	0.02
82	T	1,2-Dibromo-3-chloropropane	0.075	0.059	21.3	74	0.05

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VCA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	0.948	4.6	92	0.06
84	T	Hexachlorobutadiene	1.212	1.381	-13.9	100	0.05
85	T	Naphthalene	0.851	0.716	15.9	93	0.04
86	T	1,2,3-Trichlorobenzene	0.717	0.672	6.3	94	0.05

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17943.D
Acq On : 14 Dec 2000 12:15
Sample : QVW121400 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 14 12:41 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	433896	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.79	117	310954	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	154998	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	77531	8.21 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.10%		
46) Toluene-d8	10.28	98	422558	9.46 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.60%		
65) Bromofluorobenzene	14.87	95	210772	10.06 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.60%		

Target Compounds					Qvalue
30) 1,4-Dioxane	8.55	88	60	~~2.53 ug\L #~~	24
36) Trichloroethene	7.75	95	12704	~~0.62 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	101637	~~21.45 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	101637	~~21.45 ug\L~~ #	100

VR
12/14/00

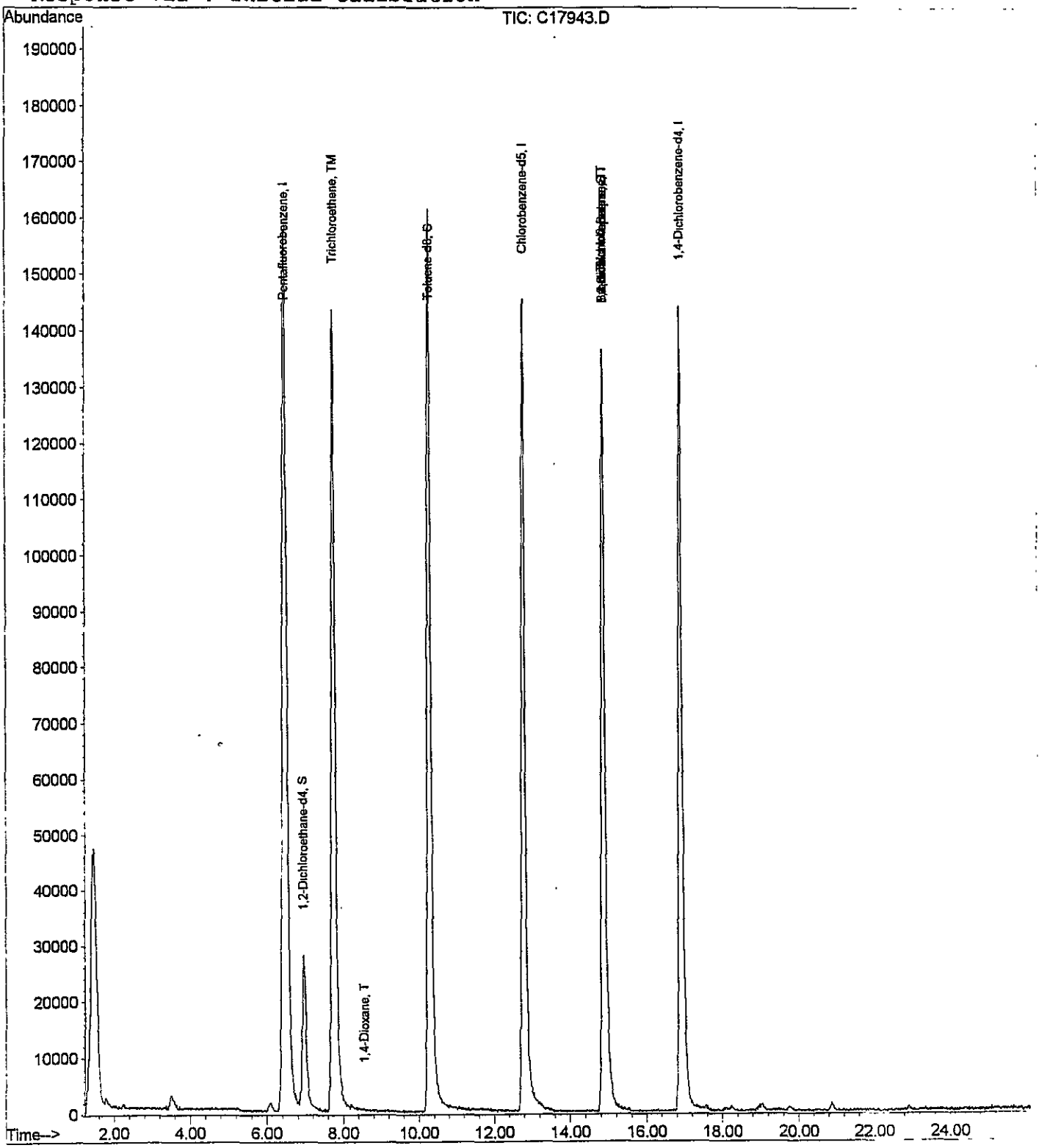
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17943.D
Acq On : 14 Dec 2000 12:15
Sample : QVW121400 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 14 12:41 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

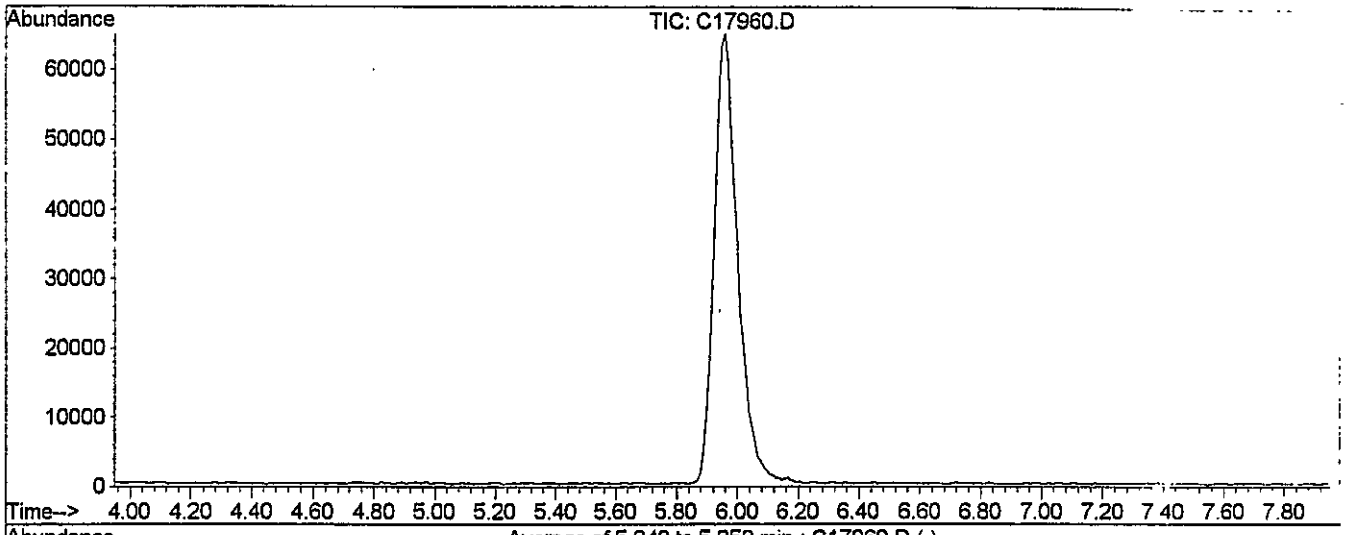
Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration

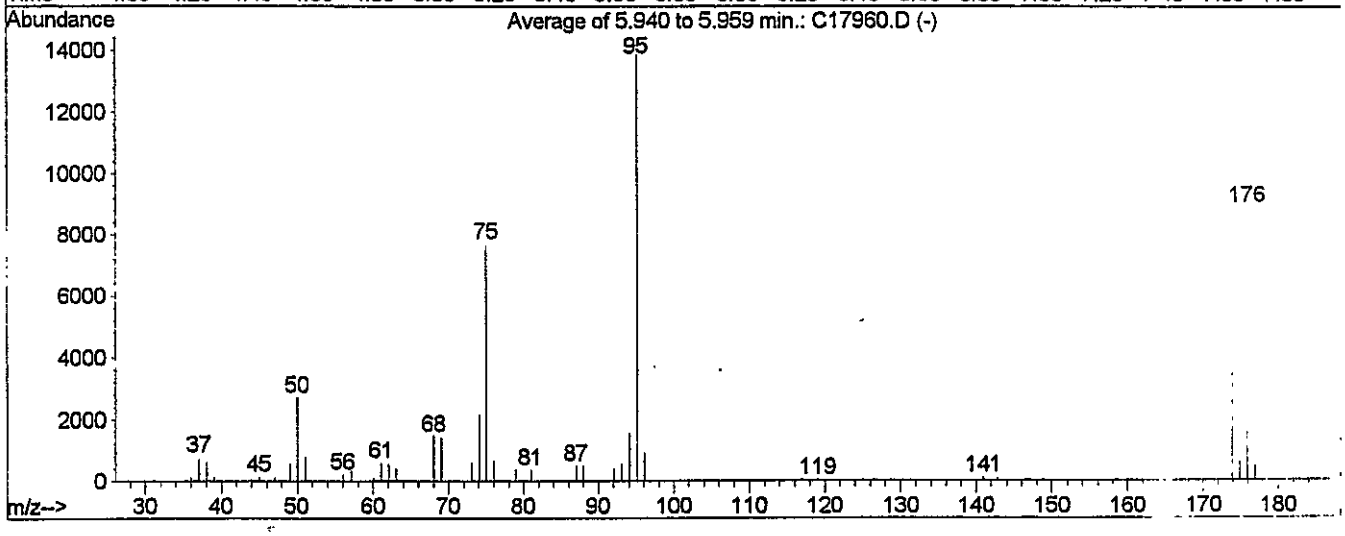


BFB

Data File : C:\HPCHEM\1\DATA\121400A\C17960.D
Acq On : 14 Dec 2000 21:23
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 479, 480, 481; Background Corrected with Scan 469

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	2717	PASS
75	95	30	60	55.5	7698	PASS
95	95	100	100	100.0	13864	PASS
96	95	5	9	6.4	889	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	63.6	8821	PASS
175	174	5	9	6.6	580	PASS
176	174	95	101	100.7	8881	PASS
177	176	5	9	6.5	578	PASS

C17960.D BFB01.M Thu Dec 14 21:35:53 2000 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17961.D Vial: 1
Acq On : 14 Dec 2000 21:43 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 22:09 2000 Quant Results File: 121400A.RES

Quant Method : C:\HPCHEM\1\DATA\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	407550	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.82	117	280823	10.00 ug\L	0.03
61) 1,4-Dichlorobenzene-d4	16.92	152	148650	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	82538	9.31 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.10%		
46) Toluene-d8	10.29	98	397679	9.86 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 98.60%		
65) Bromofluorobenzene	14.91	95	200527	9.98 ug\L	0.04
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.80%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	217137	9.02 ug\L	99
3) Chloromethane	1.78	50	78154	9.65 ug\L	100
4) Vinyl Chloride	1.85	62	105540	9.17 ug\L	99
5) Bromomethane	2.14	94	98794	9.79 ug\L	98
6) Chloroethane	2.22	64	60617	10.20 ug\L	96
7) Trichlorofluoromethane	2.44	101	341272	9.46 ug\L #	100
8) Acrolein	3.82	56	4150	26.85 ug\L #	4
9) Acrylonitrile	3.86	53	4756	10.35 ug\L #	61
10) 1,1-Dichloroethene	2.93	96	121876	9.45 ug\L	98
11) Acetone	3.05	58	1146	13.62 ug\L #	1
12) Iodomethane	3.13	142	193556	10.33 ug\L	98
13) Allylchloride	3.34	39	102614	9.34 ug\L #	22
14) Carbon Disulfide	3.18	76	285817	11.91 ug\L	98
15) Acetonitrile	3.33	41	152425	96.97 ug\L	93
16) Methylene Chloride	3.51	86	64737	11.71 ug\L #	35
17) trans-1,2-Dichloroethene	3.81	96	126450	9.58 ug\L	97
18) MethylTertButylEther	3.82	73	110666	8.78 ug\L	98
19) 1,1-Dichloroethane	4.46	63	202943	9.56 ug\L	100
20) Vinyl Acetate	3.82	43	26159	8.73 ug\L #	73
21) 2,2-Dichloropropane	5.42	77	229981	9.53 ug\L #	77
22) cis-1,2-Dichloroethene	5.47	96	110491	9.50 ug\L	99
23) 2-Butanone	5.50	72	466	8.62 ug\L #	1
24) Propionitrile	5.77	54	11969	92.44 ug\L #	69
25) Methacrylonitrile	5.95	41	106757	91.87 ug\L	97
26) Bromochloromethane	5.94	128	41524	9.06 ug\L	84
27) Chloroform	6.09	83	252129	9.62 ug\L	100
28) 1,1,1-Trichloroethane	6.32	97	293872	9.44 ug\L #	78
29) Carbon Tetrachloride	6.59	119	259053	9.29 ug\L #	71
30) 1,4-Dioxane	8.92	88	3361	151.07 ug\L #	45

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17961.D Vial: 1
Acq On : 14 Dec 2000 21:43 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : V0A-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 22:09 2000 Quant Results File: 121400A.RES

Quant Method : C:\HPCHEM\1\DATA\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.63	77	71069	9.71 ug\L #	1
33) Benzene	6.99	78	339973	9.53 ug\L	100
34) Isobutyl alcohol	7.20	43	11087	173.05 ug\L #	78
35) 1,2-Dichloroethane	7.09	62	93890	9.33 ug\L	98
36) Trichloroethene	8.16	95	181552	9.42 ug\L	93
37) 1,2-Dichloropropane	8.57	63	104080	9.20 ug\L #	95
38) Dibromomethane	8.81	93	48492	9.11 ug\L #	85
39) Methylmethacrylate	8.87	69	19857	9.05 ug\L #	24
40) Bromodichloromethane	9.13	83	180647	9.37 ug\L	99
41) 2-Nitropropane	9.55	43	5208	8.58 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.69	63	10852	7.46 ug\L #	83
43) cis-1,3-Dichloropropene	9.89	75	128041	9.02 ug\L	99
44) 4-Methyl-2-Pentanone	10.22	85	4225	6.68 ug\L #	69
47) Toluene	10.39	92	251811	9.98 ug\L	100
48) trans-1,3-Dichloropropene	10.90	75	85469	9.21 ug\L	95
49) Ethylmethacrylate	11.08	69	49961	9.22 ug\L #	99
50) 1,1,2-Trichloroethane	11.21	83	46104	9.49 ug\L	98
51) Tetrachloroethene	11.32	164	165062	9.92 ug\L	94
52) 1,3-Dichloropropane	11.47	76	90003	9.55 ug\L	99
53) 2-Hexanone	11.68	43	16081	11.38 ug\L #	96
54) Dibromochloromethane	11.85	129	97949	9.33 ug\L	99
55) 1,2-Dibromoethane	12.00	107	64718	9.45 ug\L #	99
56) Chlorobenzene	12.87	112	275304	9.53 ug\L	96
57) 1,1,1,2-Tetrachloroethane	13.05	131	124127	9.34 ug\L	95
58) Ethylbenzene	13.09	91	523336	9.93 ug\L	100
59) total-Xylene	13.98	106	232097m	29.58 ug\L	
60) Styrene	14.03	104	269638	9.82 ug\L	94
62) Bromoform	14.37	173	44505	8.62 ug\L #	97
63) Isopropylbenzene	14.63	105	660090	10.21 ug\L	98
64) 1,4-dichloro-2-Butene	15.32	75	43052	9.47 ug\L #	100
66) Bromobenzene	15.14	156	116772	9.91 ug\L #	64
67) 1,1,2,2-Tetrachloroethane	15.28	83	55539	9.66 ug\L	99
68) 1,2,3-Trichloropropane	15.32	75	43052	9.47 ug\L #	100
69) n-Propylbenzene	15.35	91	696216	9.93 ug\L	95
70) 2-Chlorotoluene	15.47	91	407687	10.67 ug\L	97
71) 4-Chlorotoluene	15.68	91	522286	9.95 ug\L	99
72) 1,3,5-Trimethylbenzene	15.69	105	506006	10.17 ug\L	90
73) Pentachloroethane	16.30	167	77602	9.31 ug\L	97
74) tert-Butylbenzene	16.24	119	626131	10.09 ug\L	98
75) 1,2,4-Trimethylbenzene	16.32	105	487435	10.10 ug\L	99
76) sec-Butylbenzene	16.62	105	768276	10.24 ug\L	96
77) 1,3-Dichlorobenzene	16.79	146	218394	9.59 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17961.D Vial: 1
Acq On : 14 Dec 2000 21:43 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 22:09 2000 Quant Results File: 121400A.RES

Quant Method : C:\HPCHEM\1\DATA\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.89	119	612133	10.11 ug\L	97
79) 1,4-Dichlorobenzene	16.96	146	251016	9.78 ug\L	98
80) 1,2-Dichlorobenzene	17.61	146	177523	9.75 ug\L	99
81) n-Butylbenzene	17.62	91	609591	10.38 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.08	75	9955	8.96 ug\L	89
83) 1,2,4-trichlorobenzene	20.51	180	139157	9.42 ug\L	100
84) Hexachlorobutadiene	20.81	225	189837	10.53 ug\L	100
85) Naphthalene	20.94	128	100393	8.67 ug\L	100
86) 1,2,3-Trichlorobenzene	21.37	180	98632	9.26 ug\L	98

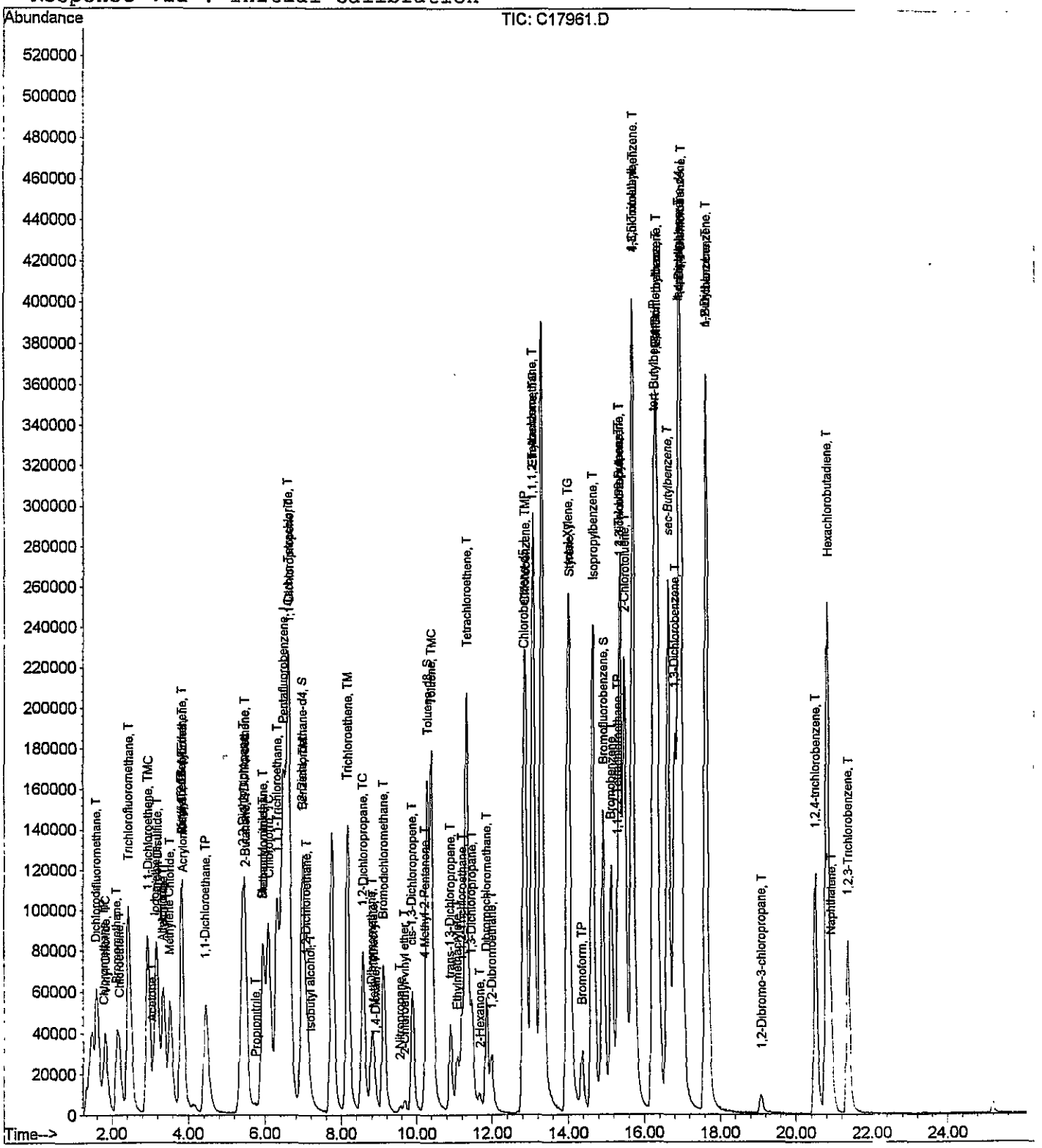
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400A\C17961.D
Acq On : 14 Dec 2000 21:43
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 14 22:09 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 121400A.RES

Method : C:\HPCHEM\1\DATA\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17963.D Vial: 2
Acq On : 14 Dec 2000 22:58 Operator: TAG/VR
Sample : QVW121400 C3 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 23:25 2000 Quant Results File: 121400A.RES

Quant Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	410808	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.82	117	286663	10.00 ug\L	0.03
61) 1,4-Dichlorobenzene-d4	16.91	152	144691	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	72503	8.11 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 81.10		
46) Toluene-d8	10.29	98	384825	9.34 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.40%		
65) Bromofluorobenzene	14.89	95	196078	10.02 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.20%		

Target Compounds					Qvalue
8) Acrolein	3.32	56	125	~~9.20 ug\L #~~	1
16) Methylene Chloride	3.51	86	6177	1.11 ug\L #	31
30) 1,4-Dioxane	8.47	88	66	~~2.94 ug\L #~~	24
36) Trichloroethene	7.76	95	11994	~~0.62 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.89	75	100571	~~22.74 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.89	75	100571	~~22.74 ug\L #~~	100

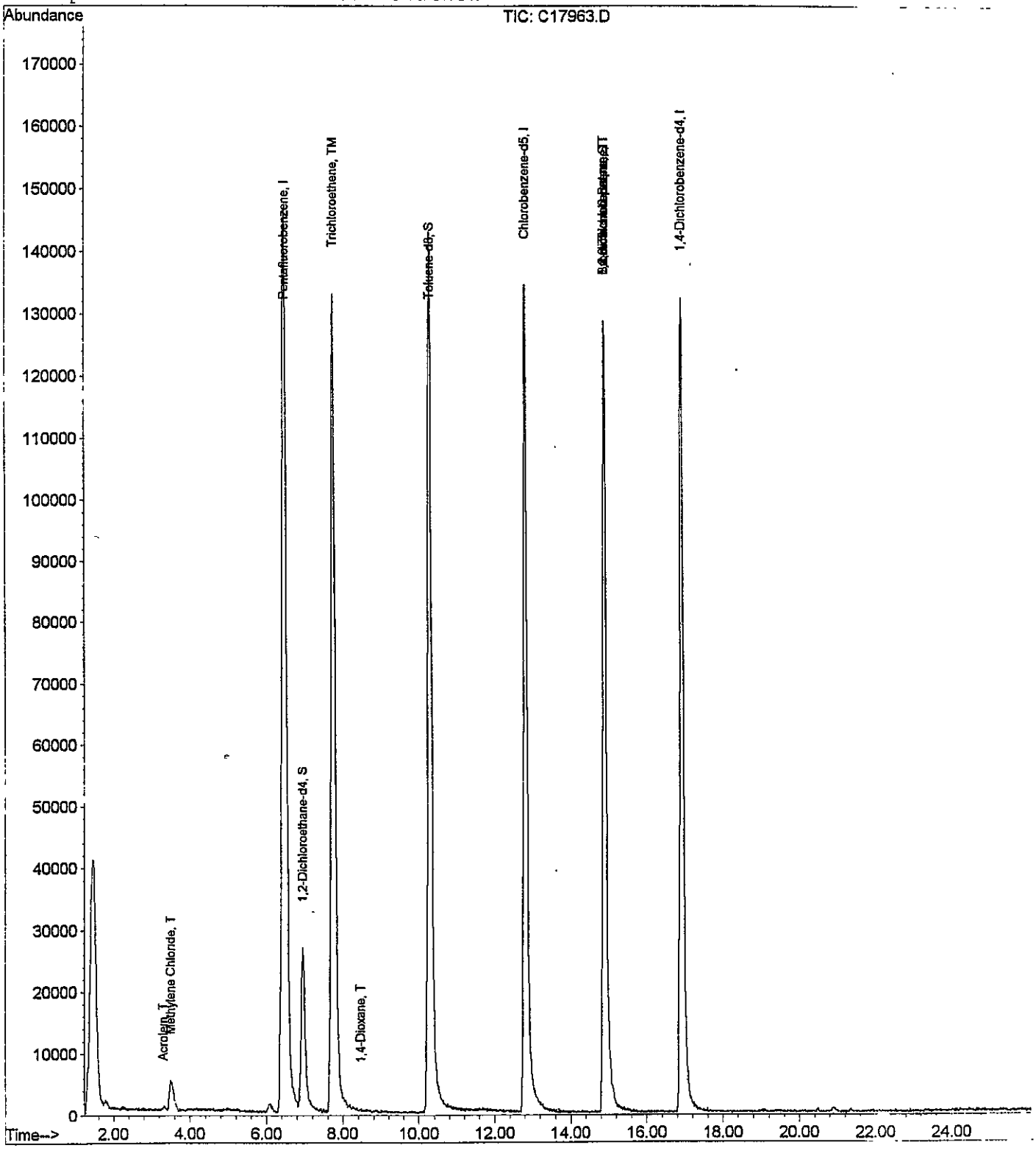
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400A\C17963.D Vial: 2
Acq On : 14 Dec 2000 22:58 Operator: TAG/VR
Sample : QVW121400 C3 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 23:25 2000 Quant Results File: 121400A.RES

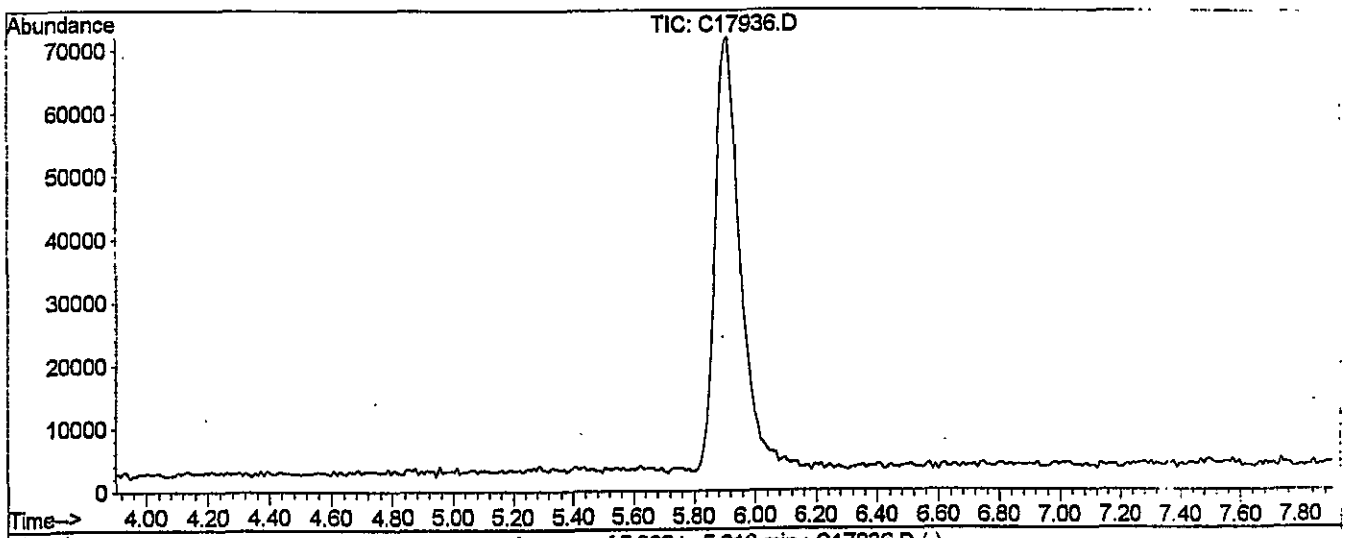
Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration

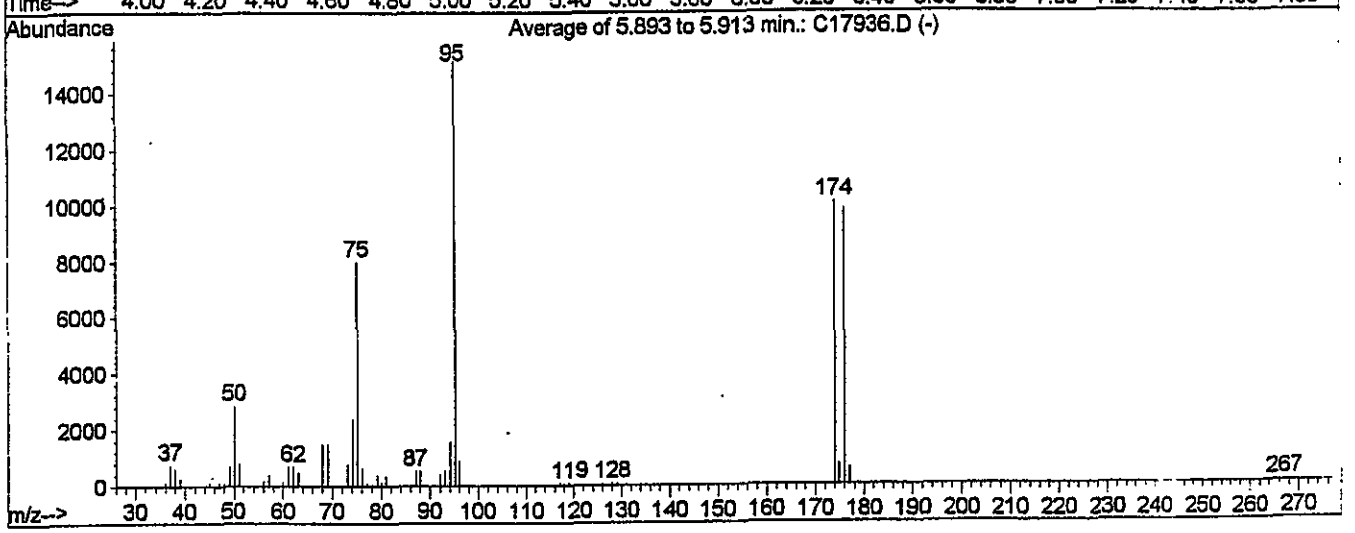


BFB

Data File : C:\HPCHEM\1\DATA\121400\C17936.D
Acq On : 14 Dec 2000 8:26
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 474, 475, 476; Background Corrected with Scan 463

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	2877	PASS
75	95	30	60	53.0	8016	PASS
95	95	100	100	100.0	15135	PASS
96	95	5	9	6.0	904	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.9	10121	PASS
175	174	5	9	7.3	743	PASS
176	174	95	101	97.4	9856	PASS
177	176	5	9	6.4	630	PASS

C17936.D BFB01.M Thu Dec 14 08:39:12 2000 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17938.D
Acq On : 14 Dec 2000 9:19
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12140025.RES

Quant Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	450442	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.78	117	310834	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.93	152	157787	10.00	ug\L	0.03
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.95	65	81073	8.27	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.70%			
46) Toluene-d8	10.27	98	436746	9.78	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.80%			
65) Bromofluorobenzene	14.92	95	208050	9.75	ug\L	0.05
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.59	85	286724	10.78	ug\L	99
3) Chloromethane	1.78	50	97708	10.91	ug\L	98
4) Vinyl Chloride	1.84	62	118613	9.33	ug\L	99
5) Bromomethane	2.12	94	113556	10.26	ug\L	99
6) Chloroethane	2.21	64	74006	11.27	ug\L	98
7) Trichlorofluoromethane	2.43	101	395144	9.91	ug\L #	100
8) Acrolein	3.82	56	2255	17.60	ug\L #	1
9) Acrylonitrile	3.87	53	8076	15.52	ug\L #	91
10) 1,1-Dichloroethene	2.93	96	144525	10.14	ug\L	99
11) Acetone	3.03	58	930m	11.05	ug\L	
12) Iodomethane	3.12	142	166722	8.30	ug\L	98
13) Allylchloride	3.32	39	117338	9.66	ug\L #	35
14) Carbon Disulfide	3.17	76	212927	8.03	ug\L	98
15) Acetonitrile	3.32	41	169200	97.39	ug\L	90
16) Methylene Chloride	3.52	86	81495	13.34	ug\L #	36
17) trans-1,2-Dichloroethene	3.80	96	147729	10.13	ug\L	97
18) MethylTertButylEther	3.80	73	114744	8.24	ug\L	95
19) 1,1-Dichloroethane	4.42	63	236040	10.06	ug\L	99
20) Vinyl Acetate	3.81	43	27092	8.18	ug\L #	73
21) 2,2-Dichloropropane	5.40	77	270817	10.15	ug\L	95
22) cis-1,2-Dichloroethene	5.46	96	122095	9.50	ug\L	98
23) 2-Butanone	5.54	72	2425m	15.03	ug\L	
24) Propionitrile	5.73	54	10787m	78.34	ug\L	
25) Methacrylonitrile	5.94	41	100551	78.29	ug\L	97
26) Bromochloromethane	5.91	128	46012	9.09	ug\L #	80
27) Chloroform	6.08	83	278729	9.62	ug\L	100
28) 1,1,1-Trichloroethane	6.29	97	343450	9.98	ug\L #	73
29) Carbon Tetrachloride	6.56	119	309174	10.03	ug\L #	76
30) 1,4-Dioxane	8.88	88	3975m	161.65	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000 Quant Results File: 12140025.RES

Quant Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.59	77	80781	9.98 ug\L	#	1
33) Benzene	6.96	78	399012	10.12 ug\L		100
34) Isobutyl alcohol	7.15	43	8999m	125.90 ug\L		
35) 1,2-Dichloroethane	7.08	62	99671	8.96 ug\L		97
36) Trichloroethene	8.14	95	208341	9.78 ug\L		93
37) 1,2-Dichloropropane	8.54	63	116177	9.30 ug\L		98
38) Dibromomethane	8.78	93	50805	8.63 ug\L	#	83
39) Methylmethacrylate	8.87	69	19397	8.00 ug\L		84
40) Bromodichloromethane	9.10	83	195300	9.17 ug\L		100
41) 2-Nitropropane	9.54	43	4996	7.45 ug\L	#	100
42) 2-Chloroethyl-vinyl ether	9.67	63	5313m	4.59 ug\L		
43) cis-1,3-Dichloropropene	9.88	75	136245	8.68 ug\L		98
44) 4-Methyl-2-Pentanone	10.20	85	5290m	8.02 ug\L		
47) Toluene	10.38	92	287446	10.29 ug\L		100
48) trans-1,3-Dichloropropene	10.88	75	96506	9.40 ug\L		93
49) Ethylmethacrylate	11.06	69	50131	8.36 ug\L	#	99
50) 1,1,2-Trichloroethane	11.19	83	50892	9.46 ug\L		96
51) Tetrachloroethene	11.32	164	188440	10.24 ug\L	#	24
52) 1,3-Dichloropropane	11.45	76	92058	8.83 ug\L		100
53) 2-Hexanone	11.68	43	14231m	9.10 ug\L		
54) Dibromochloromethane	11.84	129	106641	9.18 ug\L		99
55) 1,2-Dibromoethane	11.99	107	66194	8.74 ug\L	#	98
56) Chlorobenzene	12.83	112	318627	9.96 ug\L		96
57) 1,1,1,2-Tetrachloroethane	12.99	131	139620	9.49 ug\L		95
58) Ethylbenzene	13.03	91	615953	10.56 ug\L		100
59) total-Xylene	13.95	106	250264m	28.82 ug\L		
60) Styrene	14.01	104	280338	9.23 ug\L		94
62) Bromoform	14.36	173	46994	8.58 ug\L		99
63) Isopropylbenzene	14.64	105	738957	10.77 ug\L		98
64) 1,4-dichloro-2-Butene	15.32	75	44257	9.18 ug\L	#	100
66) Bromobenzene	15.14	156	123309	9.86 ug\L	#	65
67) 1,1,2,2-Tetrachloroethane	15.30	83	54397	8.92 ug\L	#	98
68) 1,2,3-Trichloropropane	15.32	75	44257	9.18 ug\L	#	100
69) n-Propylbenzene	15.36	91	800157	10.75 ug\L		96
70) 2-Chlorotoluene	15.48	91	447848	11.04 ug\L		97
71) 4-Chlorotoluene	15.70	91	583982	10.48 ug\L		99
72) 1,3,5-Trimethylbenzene	15.70	105	579806	10.98 ug\L		88
73) Pentachloroethane	16.30	167	88192	9.97 ug\L		97
74) tert-Butylbenzene	16.25	119	710044	10.78 ug\L		97
75) 1,2,4-Trimethylbenzene	16.35	105	549726	10.73 ug\L		98
76) sec-Butylbenzene	16.63	105	867582	10.89 ug\L		96
77) 1,3-Dichlorobenzene	16.81	146	242362	10.02 ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000 Quant Results File: 12140025.RES

Quant Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

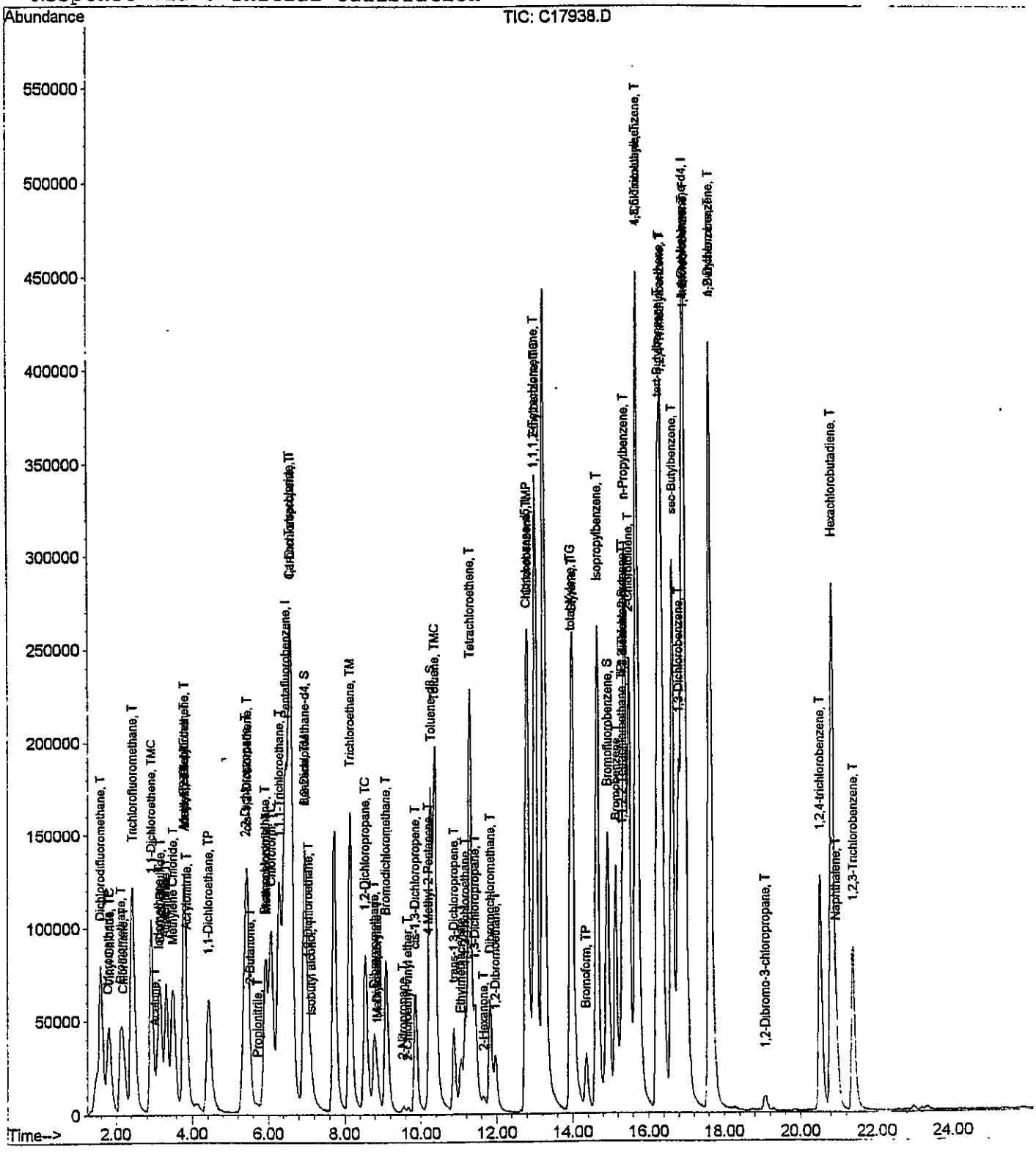
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.91	119	707982	11.01 ug\L	98
79) 1,4-Dichlorobenzene	16.98	146	276808	10.16 ug\L	98
80) 1,2-Dichlorobenzene	17.62	146	193491	10.01 ug\L	98
81) n-Butylbenzene	17.63	91	697110	11.18 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.09	75	9370	7.94 ug\L #	78
83) 1,2,4-trichlorobenzene	20.54	180	149566	9.54 ug\L	100
84) Hexachlorobutadiene	20.84	225	217938	11.39 ug\L	100
85) Naphthalene	20.95	128	112970	9.21 ug\L	100
86) 1,2,3-Trichlorobenzene	21.40	180	106107	9.38 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:49 2000 Quant Results File: 12140025.RES

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area*	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	0.590	0.637	-8.0	107	0.00
3	TP	Chloromethane	0.199	0.217	-9.0	113	0.00
4	TC	Vinyl Chloride	0.282	0.263	6.7	93	0.00
5	T	Bromomethane	0.257	0.252	1.9	97	-0.02
6	T	Chloroethane	0.146	0.164	-12.3	110	0.00
7	T	Trichlorofluoromethane	0.885	0.877	0.9	101	0.00
8	T	Acrolein	0.004	0.003	25.0	100	0.00
9	T	Acrylonitrile	0.011	0.009	18.2	79	0.03
10	TMC	1,1-Dichloroethene	0.316	0.321	-1.6	102	0.00
11	T	Acetone	0.002	0.002	0.0	78	0.02
12	T	Iodomethane	0.413	0.370	10.4	92	0.00
13	T	Allylchloride	0.270	0.260	3.7	100	-0.02
14	T	Carbon Disulfide	0.589	0.473	19.7	83	0.00
15	T	Acetonitrile	0.039	0.038	2.6	99	-0.02
16	T	Methylene Chloride	0.136	0.181	-33.1#	138	0.01
17	T	trans-1,2-Dichloroethene	0.324	0.328	-1.2	102	0.00
18	T	MethylTertButylEther	0.309	0.255	17.5	87	-0.02
19	TP	1,1-Dichloroethane	0.521	0.524	-0.6	103	-0.02
20	T	Vinyl Acetate	0.074	0.060	18.9	89	0.01
21	T	2,2-Dichloropropane	0.592	0.601	-1.5	102	0.00
22	T	cis-1,2-Dichloroethene	0.285	0.271	4.9	97	0.00
23	T	2-Butanone	0.004	0.005	-25.0	94	0.03
24	T	Propionitrile	0.003	0.002	33.3#	150#	-0.02
25	T	Methacrylonitrile	0.029	0.022	24.1	84	0.00
26	T	Bromochloromethane	0.112	0.102	8.9	92	-0.03
27	TC	Chloroform	0.643	0.619	3.7	98	0.00
28	T	1,1,1-Trichloroethane	0.764	0.762	0.3	101	-0.02
29	T	Carbon Tetrachloride	0.684	0.686	-0.3	105	-0.02
30	T	1,4-Dioxane	0.001	0.000	100.0#	82	-0.04
31	T	1,1-Dichloropropene	0.180	0.179	0.6	100	-0.02
32	S	1,2-Dichloroethane-d4	0.218	0.180	17.4	85	-0.02
33	TM	Benzene	0.875	0.886	-1.3	104	-0.03
34	T	Isobutyl alcohol	0.001	0.001	0.0	70	-0.02
35	T	1,2-Dichloroethane	0.247	0.221	10.5	91	0.00
36	TM	Trichloroethene	0.473	0.463	2.1	101	-0.02
37	TC	1,2-Dichloropropane	0.277	0.258	6.9	99	-0.03
38	T	Dibromomethane	0.131	0.113	13.7	90	-0.03
39	T	Methylmethacrylate	0.054	0.043	20.4	84	0.00
40	T	Bromodichloromethane	0.473	0.434	8.2	95	-0.02
41	T	2-Nitropropane	0.015	0.011	26.7#	78	-0.03
42	T	2-Chloroethyl-vinyl ether	0.034	0.012	64.7#	42#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VCA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area*	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.302	13.2	89	0.00
44	T	4-Methyl-2-Pentanone	0.013	0.012	7.7	89	0.02
45	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
46	S	Toluene-d8	1.437	1.405	2.2	97	0.00
47	TMC	Toluene	0.899	0.925	-2.9	100	0.00
48	T	trans-1,3-Dichloropropene	0.330	0.310	6.1	92	0.00
49	T	Ethylmethacrylate	0.193	0.161	16.6	82	0.00
50	T	1,1,2-Trichloroethane	0.173	0.164	5.2	91	0.00
51	T	Tetrachloroethene	0.592	0.606	-2.4	100	0.01
52	T	1,3-Dichloropropane	0.335	0.296	11.6	87	-0.02
53	T	2-Hexanone	0.050	0.046	8.0	90	0.00
54	T	Dibromochloromethane	0.374	0.343	8.3	93	0.00
55	T	1,2-Dibromoethane	0.244	0.213	12.7	87	0.00
56	TMP	Chlorobenzene	1.029	1.025	0.4	98	0.00
57	T	1,1,1,2-Tetrachloroethane	0.473	0.449	5.1	92	-0.02
58	TC	Ethylbenzene	1.877	1.982	-5.6	102	0.00
59	TG	total-Xylene	0.279	0.268	3.9	97	0.01
60	T	Styrene	0.977	0.902	7.7	89	0.02
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.03
62	TP	Bromoform	0.327	0.298	8.9	83	0.04
63	T	Isopropylbenzene	4.350	4.683	-7.7	99	0.05
64	T	1,4-dichloro-2-Butene	0.306	0.280	8.5	88	0.05
65	S	Bromofluorobenzene	1.352	1.319	2.4	91	0.05
66	T	Bromobenzene	0.792	0.781	1.4	90	0.04
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.345	10.9	82	0.05
68	T	1,2,3-Trichloropropane	0.306	0.280	8.5	88	0.05
69	T	n-Propylbenzene	4.717	5.071	-7.5	100	0.04
70	T	2-Chlorotoluene	2.571	2.838	-10.4	99	0.03
71	T	4-Chlorotoluene	3.532	3.701	-4.8	96	0.05
72	T	1,3,5-Trimethylbenzene	3.347	3.675	-9.8	100	0.04
73	T	Pentachloroethane	0.561	0.559	0.4	91	0.04
74	T	tert-Butylbenzene	4.176	4.500	-7.8	99	0.03
75	T	1,2,4-Trimethylbenzene	3.246	3.484	-7.3	99	0.04
76	T	sec-Butylbenzene	5.047	5.498	-8.9	99	0.03
77	T	1,3-Dichlorobenzene	1.533	1.536	-0.2	93	0.04
78	T	Isopropyltoluene	4.075	4.487	-10.1	101	0.03
79	T	1,4-Dichlorobenzene	1.727	1.754	-1.6	96	0.03
80	T	1,2-Dichlorobenzene	1.225	1.226	-0.1	93	0.03
81	T	n-Butylbenzene	3.952	4.418	-11.8	103	0.02
82	T	1,2-Dibromo-3-chloropropane	0.075	0.059	21.3	74	0.05

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121400\C17938.D Vial: 1
Acq On : 14 Dec 2000 9:19 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	0.948	4.6	92	0.06
84	T	Hexachlorobutadiene	1.212	1.381	-13.9	100	0.05
85	T	Naphthalene	0.851	0.716	15.9	93	0.04
86	T	1,2,3-Trichlorobenzene	0.717	0.672	6.3	94	0.05

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17943.D Vial: 2
Acq On : 14 Dec 2000 12:15 Operator: TAG/VR
Sample : QVW121400 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 12:41 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	433896	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.79	117	310954	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	154998	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	77531	8.21 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.10%		
46) Toluene-d8	10.28	98	422558	9.46 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.60%		
65) Bromofluorobenzene	14.87	95	210772	10.06 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.60%		
Target Compounds					Qvalue
30) 1,4-Dioxane	8.55	88	60	~~2.53 ug\L #~~	24
36) Trichloroethene	7.75	95	12704	~~0.62 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	101637	~~21.45 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	101637	~~21.45 ug\L~~ #	100

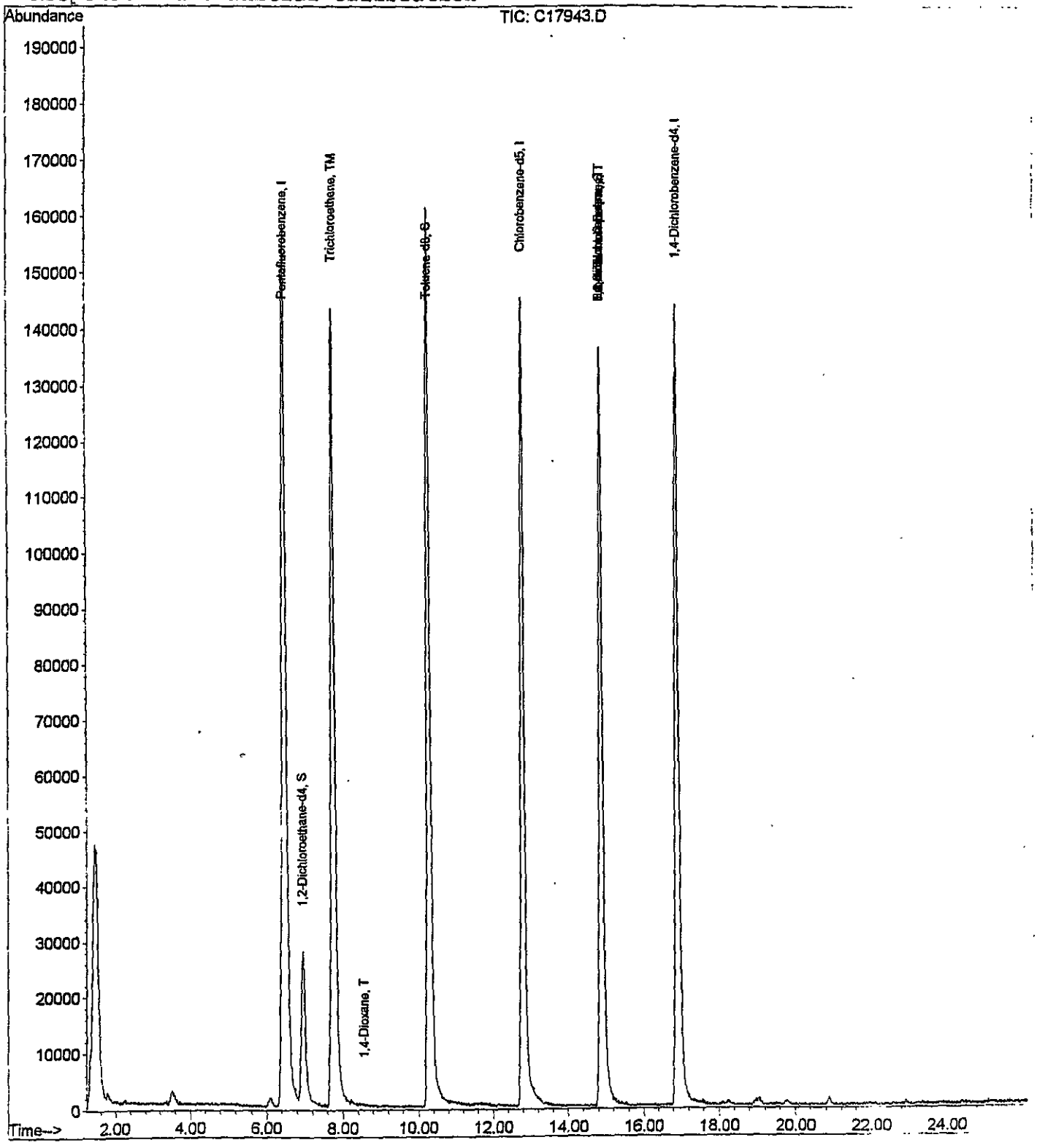
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17943.D Vial: 2
Acq On : 14 Dec 2000 12:15 Operator: TAG/VR
Sample : QVW121400 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 12:41 2000 Quant Results File: 12140025.RES

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 26397
Client Project: CTO 017- NTC Orlando – Study Area 36 / 152044.32.12.01.08
Task Order Manager: Steve Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 12/06/00 at 0920:

Client I.D.	Laboratory I.D.
017-OLD-36-09C-Q4-00	AC04474
017-OLD-36-31C-Q4-00	AC04475
017-OLD-36-12C-Q4-00	AC04476
017-OLD-36-DUP2-Q4-00	AC04477
017-OLD-36-TB4-Q4-00	AC04478

CCI NAVY RAC PMO
JAN 19 2001

2. The sample cooler temperature was 2^0C upon receipt.

3. The pH for the VOC samples was noted to be < 2 prior to analysis.

4. The following analyses were performed by a subcontract laboratory:
   Anions - EPA-300.0
   Nitrate-Nitrite Nitrogen – EPA 353.2
   TOC – SW-846-9060
   Methane, Ethane, Ethene – RSK-175M

5. The J values noted for the FL-PRO analyses indicate estimated values where the compounds are present at concentrations that are less than the quantitation limits, but above the method detection limits.

6. The B flags applied to the FL-PRO sample results indicate that the analyte was detected in the samples and Method Blank at a concentration above the method detection limit. These sample results should be considered estimated due to Method Blank contamination.

7. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits:
   VOCs – SW-846-8260B
   Trichloroethene - 017-OLD-36-09C-Q4-00
   017-OLD-36-DUP2-Q4-00

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

8. The following surrogates were outside the project specified limits:

FL-PRO	FL-PRO
o-Terphenyl	Nonatriacontane (C39)
017-OLD-36-12C-Q4-00	017-OLD-36-09C-Q4-00
Matrix Spike	017-OLD-36-12C-Q4-00
Matrix Spike Duplicate	017-OLD-36-DUP2-Q4-00
	Method Blank
	Laboratory Control Sample
	Matrix Spike
	Matrix Spike Duplicate

All recoveries were within established in-house limits; therefore the data was accepted.

9. The recovery for the Laboratory Control Sample associated with the FL-PRO analyses was outside the project specified limits, but within established in-house limits; therefore the data was accepted.

10. The following spike compound was outside the project specified limit due to possible matrix interference:

    Metals – SW-846-6010B
    Matrix Spike - Sodium

11. The relative percent difference between the matrix spike and matrix spike duplicate results was outside the project specified limit for the following analyte:

    Metals – SW-846-6010B
    Sodium

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04474 **Accura Project #: 26397**

Client: CH2M HILL - CCI Date Sampled: 12/5/00
Client Contact: S. TSANGARIS Date Received: 12/6/00
Client Project Number: 152044.32.12.01.08 Date Reported: 1/18/01
Client Project Name: CTO 017-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER
Client Sample ID: 017-OLD-36-09C-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	280	1.0

ANALYSIS: Anions Method Ref: 300.0
Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	8.90	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B
Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/14/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	11	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M
Date Ext/Dig/Prep: 12/18/00 Date Analyzed: 12/18/00 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	0.036	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2
Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	0.35JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/12/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	390	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 415.1

Date Ext/Dig/Prep: 12/9/00 Date Analyzed: 12/9/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	19.8	1.00

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RDL	2.5
1,1,1-Trichloroethane	<RDL	4
1,1,2,2-Tetrachloroethane	<RDL	2
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	2
1,1-Dichloroethene	0.50J	6
1,2,3-Trichlorobenzene	<RDL	1.5
1,2,3-Trichloropropane	<RDL	16
1,2,4-Trichlorobenzene	<RDL	2
1,2,4-Trimethylbenzene	<RDL	6.5
1,2-Dibromo-3-chloropropane	<RDL	13
1,2-Dichlorobenzene	<RDL	1.5
1,2-Dichloroethane	<RDL	3
1,2-Dichloropropane	<RDL	2
1,2-Ethylene Dibromide	<RDL	3
1,3,5-Trimethylbenzene	<RDL	2.5
1,3-Dichlorobenzene	<RDL	6
1,3-Dichloropropane	<RDL	2
1,4-Dichlorobenzene	<RDL	1.5
2,2-Dichloropropane	<RDL	17.5
2-Chlorotoluene	<RDL	2
4-Chlorotoluene	<RDL	3
Benzene	<RDL	2
Bromobenzene	<RDL	1.5
Bromochloromethane	<RDL	2
Bromodichloromethane	<RDL	4
Bromoform	<RDL	6
Bromomethane	<RDL	5.5
Carbon tetrachloride	<RDL	10.5
Chlorobenzene	<RDL	2
Chloroethane	<RDL	5
Chloroform	<RDL	1.5
Chloromethane	<RDL	6.5
cis-1,2-Dichloroethene	24	6
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	9.1	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	300	50
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	26	
o-Terphenyl (Range 82-142)	82	

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	88	
4-Bromofluorobenzene (86-112)	99	
Toluene-d8 (80-120)	92	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04475 **Accura Project #: 26397**

Client: CH2M HILL - CCI Date Sampled: 12/5/00

Client Contact: S. TSANGARIS Date Received: 12/6/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/18/01

Client Project Name: CTO 017-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-31C-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	18	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	8.90	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/14/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	9.2	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/18/00 Date Analyzed: 12/18/00 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	0.40JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/12/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	130	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 415.1

Date Ext/Dig/Prep: 12/9/00 Date Analyzed: 12/9/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	6.41	1.00

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RDL	2.5
1,1,1-Trichloroethane	<RDL	4
1,1,2,2-Tetrachloroethane	<RDL	2
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	2
1,1-Dichloroethene	<RDL	6
1,2,3-Trichlorobenzene	<RDL	1.5
1,2,3-Trichloropropane	<RDL	16
1,2,4-Trichlorobenzene	<RDL	2
1,2,4-Trimethylbenzene	<RDL	6.5
1,2-Dibromo-3-chloropropane	<RDL	13
1,2-Dichlorobenzene	<RDL	1.5
1,2-Dichloroethane	<RDL	3
1,2-Dichloropropane	<RDL	2
1,2-Ethylene Dibromide	<RDL	3
1,3,5-Trimethylbenzene	<RDL	2.5
1,3-Dichlorobenzene	<RDL	6
1,3-Dichloropropane	<RDL	2
1,4-Dichlorobenzene	<RDL	1.5
2,2-Dichloropropane	<RDL	17.5
2-Chlorotoluene	<RDL	2
4-Chlorotoluene	<RDL	3
Benzene	<RDL	2
Bromobenzene	<RDL	1.5
Bromochloromethane	<RDL	2
Bromodichloromethane	<RDL	4
Bromoform	<RDL	6
Bromomethane	<RDL	5.5
Carbon tetrachloride	<RDL	10.5
Chlorobenzene	<RDL	2
Chloroethane	<RDL	5
Chloroform	0.97J	1.5
Chloromethane	<RDL	6.5
cis-1,2-Dichloroethene	<RDL	6
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	1.8	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	14	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	50	
o-Terphenyl (Range 82-142)	99	

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	89	
4-Bromofluorobenzene (86-112)	98	
Toluene-d8 (80-120)	90	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04476 **Accura Project #: 26397**

Client: CH2M HILL - CCI Date Sampled: 12/5/00

Client Contact: S. TSANGARIS Date Received: 12/6/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/18/01

Client Project Name: CTO 017-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-12C-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	17	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	5.70	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/14/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	8.8	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/18/00 Date Analyzed: 12/18/00 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	0.40JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/12/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	300	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 415.1

Date Ext/Dig/Prep: 12/9/00 Date Analyzed: 12/9/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	22.7	1.00

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RDL	2.5
1,1,1-Trichloroethane	<RDL	4
1,1,2,2-Tetrachloroethane	<RDL	2
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	2
1,1-Dichloroethene	<RDL	6
1,2,3-Trichlorobenzene	<RDL	1.5
1,2,3-Trichloropropane	<RDL	16
1,2,4-Trichlorobenzene	<RDL	2
1,2,4-Trimethylbenzene	<RDL	6.5
1,2-Dibromo-3-chloropropane	<RDL	13
1,2-Dichlorobenzene	<RDL	1.5
1,2-Dichloroethane	<RDL	3
1,2-Dichloropropane	<RDL	2
1,2-Ethylene Dibromide	<RDL	3
1,3,5-Trimethylbenzene	<RDL	2.5
1,3-Dichlorobenzene	<RDL	6
1,3-Dichloropropane	<RDL	2
1,4-Dichlorobenzene	<RDL	1.5
2,2-Dichloropropane	<RDL	17.5
2-Chlorotoluene	<RDL	2
4-Chlorotoluene	<RDL	3
Benzene	0.54J	2
Bromobenzene	<RDL	1.5
Bromochloromethane	<RDL	2
Bromodichloromethane	<RDL	4
Bromoform	<RDL	6
Bromomethane	<RDL	5.5
Carbon tetrachloride	<RDL	10.5
Chlorobenzene	<RDL	2
Chloroethane	<RDL	5
Chloroform	<RDL	1.5
Chloromethane	<RDL	6.5
cis-1,2-Dichloroethene	3.2J	6
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	0.85J	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	9.0	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	29	
o-Terphenyl (Range 82-142)	77	

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	85	
4-Bromofluorobenzene (86-112)	98	
Toluene-d8 (80-120)	92	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04477 **Accura Project #: 26397**

Client: CH2M HILL - CCI Date Sampled: 12/5/00

Client Contact: S. TSANGARIS Date Received: 12/6/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/18/01

Client Project Name: CTO 017-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-DUP2-Q4-00

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	260	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	9.10	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/14/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	11	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/18/00 Date Analyzed: 12/18/00 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	0.039	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	0.33JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/12/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	400	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 415.1

Date Ext/Dig/Prep: 12/9/00 Date Analyzed: 12/9/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	20.6	1.00

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RDL	2.5
1,1,1-Trichloroethane	<RDL	4
1,1,2,2-Tetrachloroethane	<RDL	2
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	2
1,1-Dichloroethene	<RDL	6
1,2,3-Trichlorobenzene	<RDL	1.5
1,2,3-Trichloropropane	<RDL	16
1,2,4-Trichlorobenzene	<RDL	2
1,2,4-Trimethylbenzene	<RDL	6.5
1,2-Dibromo-3-chloropropane	<RDL	13
1,2-Dichlorobenzene	<RDL	1.5
1,2-Dichloroethane	<RDL	3
1,2-Dichloropropane	<RDL	2
1,2-Ethylene Dibromide	<RDL	3
1,3,5-Trimethylbenzene	<RDL	2.5
1,3-Dichlorobenzene	<RDL	6
1,3-Dichloropropane	<RDL	2
1,4-Dichlorobenzene	<RDL	1.5
2,2-Dichloropropane	<RDL	17.5
2-Chlorotoluene	<RDL	2
4-Chlorotoluene	<RDL	3
Benzene	<RDL	2
Bromobenzene	<RDL	1.5
Bromochloromethane	<RDL	2
Bromodichloromethane	<RDL	4
Bromoform	<RDL	6
Bromomethane	<RDL	5.5
Carbon tetrachloride	<RDL	10.5
Chlorobenzene	<RDL	2
Chloroethane	<RDL	5
Chloroform	<RDL	1.5
Chloromethane	<RDL	6.5
cis-1,2-Dichloroethene	24	6
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	0.83J	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	290	50
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/20/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	27	
o-Terphenyl (Range 82-142)	91	

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	86	
4-Bromofluorobenzene (86-112)	96	
Toluene-d8 (80-120)	91	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04478 **Accura Project #: 26397**

Client: CH2M HILL - CCI Date Sampled: 12/5/00

Client Contact: S. TSANGARIS Date Received: 12/6/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/18/01

Client Project Name: CTO 017-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB4-Q4-00

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: ug/L

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

Dibromochloromethane	<RDL	2.5
Dibromomethane	<RDL	12
Dichlorodifluoromethane	<RDL	5
Ethylbenzene	<RDL	3
Hexachlorobutadiene	<RDL	5.5
Isopropylbenzene	<RDL	2.5
Methylene chloride	4.8	1.5
n-Butylbenzene	<RDL	5.5
n-Propylbenzene	<RDL	2
Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	<RDL	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	82	
4-Bromofluorobenzene (86-112)	97	
Toluene-d8 (80-120)	93	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC04479 **Accura Project #: 26397**

Client: CH2M HILL - CCI Date Sampled: 12/6/00

Client Contact: S. TSANGARIS Date Received: 12/6/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/18/01

Client Project Name: CTO 017-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 12/7/00 Date Analyzed: 12/7/00 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Reported Detection Limits
Alkalinity	<RDL	1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Bromide by IC	<RDL	1.00
Chloride by IC	<RDL	1.00

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/14/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Sodium	<RDL	0.20

ANALYSIS: Methane, Ethane, Ethene Method Ref: RSK-175M

Date Ext/Dig/Prep: 12/18/00 Date Analyzed: 12/18/00 Result Units: ug/ml

Analyte Name	Analytical Results	Reported Detection Limits
Ethane	<RDL	0.010
Ethene	<RDL	0.010
Methane	<RDL	0.010

ANALYSIS: Nitrate-Nitrite Nitrogen (353.2) Method Ref: 353.2

Date Ext/Dig/Prep: 12/8/00 Date Analyzed: 12/8/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Nitrate-Nitrite Nitrogen	<RDL	0.100

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/17/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Petroleum Range Organics (PRO)	0.33J	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 12/11/00 Date Analyzed: 12/12/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Dissolved Solids	<RDL	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 415.1

Date Ext/Dig/Prep: 12/9/00 Date Analyzed: 12/9/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Total Organic Carbon	<RDL	1.00

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: ug/L

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

Naphthalene	<RDL	2
p-Isopropyltoluene	<RDL	6
Sec-Butylbenzene	<RDL	6.5
Styrene	<RDL	2
Tert-Butylbenzene	<RDL	7
Tetrachloroethylene	<RDL	7
Toluene	<RDL	5.5
Total Xylenes	<RDL	5
trans-1,2-Dichloroethene	<RDL	3
trans-1,3-Dichloropropene	<RDL	5
Trichloroethylene	<RDL	5
Trichlorofluoromethane	<RDL	4
Vinyl chloride	<RDL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 12/12/00 Date Analyzed: 12/17/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
C(39) (Range 42-193)	6.2	
o-Terphenyl (Range 82-142)	86	

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

Date Ext/Dig/Prep: 12/14/00 Date Analyzed: 12/14/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	82	
4-Bromofluorobenzene (85-111)	101	
Toluene-d8 (84-108)	95	

Accura Analytical Laboratory, Inc.

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

AAL #26397 ABL/2°C

[1] COC NUMBER: 152044-36-008

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No , and Fax No)
NTC ORLANDO	152044.32.12.01.08	Accura LABS	STEVE TSANGARIS / CCI	4350 W. CYPRESS ST. SUITE 600, TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK	**[6] CTO OR DO NUMBER**	**[9] LAB PO NUMBER**	**[12] FAX AND MAIL REPORTS/EDD TO RECIPIENT 2 (Name and Company)**	**[15] RECIPIENT 2 (Address, Tel No , and Fax No.):**
STUDY AREA 36	CTO 017	2101	Jennifer OTTOSON / CH2M HILL	205 Indian River Drive Cocoa FL 32922
[4] PROJECT CONTACT	**[7] PROJECT TEL NO AND FAX NO**	**[10] LAB TEL NO AND FAX NO**	**[13] FAX AND MAIL REPORTS/EDD TO.. RECIPIENT 3 (Name and Company)**	**[16] RECIPIENT 3 (Address, Tel No , and Fax No.)**
STEVE TSANGARIS	813 874-0777 813	770 449-8800		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs 8260	MEE AsH3 Alkalinity or 1945	Nitrate/Nitrite 300.1	Chloride Bromide 300.1	TOC 9060	Alk/TDS 310.1/160.1	Sodium 320.1	FL-PRO	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use) AC
1	017-OLD-36-09C-Q4-00	GW Sample @ well OLD-36-09C	GW	12/5/00	0900	III	14	3 40 ml	3 40 ml	1 50 ml	1 50 ml	1 50 ml	1 50 ml	1 50 ml	2 ~~300~~	Field Grab		12-6-00 04474
2	017-OLD-36-31C-Q4-00	" " " " OLD-36-31C			1115													04475
3	017-OLD-36-12C-Q4-00	" " " " OLD-36-12C			1500													04476
4	017-OLD-36-DUP2-Q4-00	DUPLICATE #2			—											Field Grab QC		04477
5	017-OLD-36-TB4-Q4-00	TRIP BLANK #4	WQ	—	—											QC		04478
6																		
7																		
8																		
9																		
10																		

[29] SAMPLER(S) AND COMPANY (please print)	[30] COURIER AND SHIPPING NUMBER.	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
FJ Ferreira / TP Plumlee / GS Bonds	FEDEX 825060778637	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature FJ Ferreira / FJ Ferreira CH2MHILL	12/5/00	1700	Printed Name and Signature FED EX		
Printed Name and Signature. FED EX	12-6-00	0920 ~~0910~~	Printed Name and Signature Arnold Bright	12-6-00	0920 ~~0910~~
Printed Name and Signature.		ABL-12-6-00	Printed Name and Signature:		ABL-12-6-00

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

Form CCI001, Rev 06/00

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #26397

		Project Control Rec				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	95	98			60-140	20-150	2%		<30	<50	100		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	95	97			60-140	20-150	2%		<30	<50	100		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	101			60-140	20-150	4%		<30	<50	100		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	95	101			60-140	20-150	7%		<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	96	95			60-140	20-150	1%		<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	96	95			60-140	20-150	0%		<30	<50	99		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	98	94			60-140	20-150	5%		<30	<50	90		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	100	99			60-140	20-150	1%		<30	<50	96		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	100	89			60-140	20-150	12%		<30	<50	93		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	107	99			60-140	20-150	8%		<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	91	96			60-140	20-150	5%		<30	<50	100		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	99	99			60-140	20-150	0%		<30	<50	100		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	99	103			60-140	20-150	5%		<30	<50	92		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	92	93			60-140	20-150	1%		<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	90	96			60-140	20-150	5%		<30	<50	97		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	108	99			60-140	20-150	9%		<30	<50	103		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	98	97			60-140	20-150	1%		<30	<50	99		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	92	98			60-140	20-150	7%		<30	<50	97		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	96	96			60-140	20-150	0%		<30	<50	98		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	98	99			60-140	20-150	2%		<30	<50	103		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	117	109			60-140	20-150	7%		<30	<50	110		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	106	97			60-140	20-150	9%		<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	96	97			60-140	20-150	0%		<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	101	99			60-140	20-150	2%		<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	89	94			60-140	20-150	5%		<30	<50	99		63-135	63-135			<50	<75
8260B	Bromodichloromethane	91	94			60-140	20-150	3%		<30	<50	96		65-135	65-135			<50	<75
8260B	Bromoform	91	91			60-140	20-150	1%		<30	<50	89		65-135	65-135			<50	<75
8260B	Bromomethane	95	97			60-140	20-150	2%		<30	<50	101		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	96	97			60-140	20-150	0%		<30	<50	99		52-135	52-135			<50	<75
8260B	Chlorobenzene	95	99			60-140	20-150	4%		<30	<50	102		65-135	65-135			<50	<75
8260B	Chloroethane	99	100			60-140	20-150	1%		<30	<50	105		55-135	55-135			<50	<75
8260B	Chloroform	93	94			60-140	20-150	1%		<30	<50	99		64-135	64-135			<50	<75
8260B	Chloromethane	93	94			60-140	20-150	1%		<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	93	93			60-140	20-150	1%		<30	<50	98		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	87	92			60-140	20-150	6%		<30	<50	99		64-135	64-135			<50	<75
8260B	Dibromochloromethane	89	97			60-140	20-150	9%		<30	<50	100		63-135	63-135			<50	<75
8260B	Dibromomethane	90	96			60-140	20-150	7%		<30	<50	100		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	89	89			60-140	20-150	1%		<30	<50	94		65-135	65-135			<50	<75
8260B	Ethylbenzene	98	100			60-140	20-150	3%		<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	115	103			60-140	20-150	10%		<30	<50	108		65-135	65-135			<50	<75
8260B	Isopropylbenzene	109	103			60-140	20-150	6%		<30	<50	102		65-135	65-135			<50	<75
8260B	total-Xylene	97	98			60-140	20-150	1%		<30	<50	98		65-135	65-135			<50	<75
8260B	Methylene Chloride	84	86			60-140	20-150	3%		<30	<50	109		65-135	65-135			<50	<75
8260B	n-Butylbenzene	109	104			60-140	20-150	4%		<30	<50	104		65-135	65-135			<50	<75
8260B	n-Propylbenzene	104	97			60-140	20-150	7%		<30	<50	99		65-135	65-135			<50	<75
8260B	Naphthalene	98	93			60-140	20-150	5%		<30	<50	85		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	104	101			60-140	20-150	3%		<30	<50	103		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	109	102			60-140	20-150	6%		<30	<50	104		65-135	65-135			<50	<75

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

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #26397

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	Styrene	94	94			60-140	20-150	0%		<30	<50	97		65-135	65-135			<50	<75
8260B	Trichloroethylene	101	95			60-140	20-150	7%		<30	<50	99		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	108	103			60-140	20-150	5%		<30	<50	103		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	98	99			60-140	20-150	1%		<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	96	98			60-140	20-150	2%		<30	<50	103		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	95	95			60-140	20-150	1%		<30	<50	96		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	92	95			60-140	20-150	3%		<30	<50	97		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	95	97			60-140	20-150	2%		<30	<50	102		57-135	57-135			<50	<75
8260B	Vinyl Chloride	94	96			60-140	20-150	3%		<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	99	101			75-125	65-135	2%		NA	NA	101		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	109	102			75-125	65-135	7%		NA	NA	102		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	92	95			62-139	52-149	2%		NA	NA	98		NA	NA			NA	NA
	METALS BY ICP					%	%			%	%			%	%			%	%
6010B	Sodium	121	169			50-150	30-170	33%	#DIV/0!	<30	<50	107		79-115	79-115			<50	<75
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH	52	50			50-150	30-170	4%	#DIV/0!	<30	<50	55		75-125	70-130			<50	<75

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

NS = Not Specified
NA = Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

FAX COC TO NORCROSS

218607

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: **TEST AMERICA, INC.**

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC **(Acct# 2656)**

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: Ms. Bonnie Hogue

Contact Phone # (770) 449 - 8800, ext. 233

Fax Number: (770) 449 - 5477

AAL PROJECT #: 26397

Quote Number: 101200102199

For Laboratory Use Only

Custody Seal: Y N

Page ____ OF ____

QC Level: N 1 2 3 4

Init/Temp: ____

Entered into LIMS: ____

LAB Project # ____

Sample Condition: ____

5 BUS. DAY TAT

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	TOC (9060)	Bromide (300.0)	Chloride (300.0)	NO3-NO2 (300/353.2)	Nitrate/Nitrite					Remarks	LAB #
AC 04474	12/5/00 0900		X	W		OLD-36-09C	3	X	X	X	X							175193
AC 04475	12/5/00 1115		X	W		OLD-36-31C	3	X	X	X	X							54
AC 04476	12/5/00 1500		X	W		OLD-36-12C	3	X	X	X	X							55
AC 04477	12/5/00 -		X	W		Dup# 2	3	X	X	X	X							175186
AC																		
AC																		
AC																		
AC																		
AC																		
AC																		

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
		[illegible]	12/7/00 11:54	PLEASE FAX RESULTS!!
Relinquished By:	**Date / Time**	**Received By:**	**Date / Time**	**Turnaround Time Requested:**
[illegible]	12/7 17:00	AM - [illegible]	12/8/00 8:00	Fax Results

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

TestAmerica-sub-coc (1)
Revised 05/10/97

TESTAMERICA, INC.

COOLER RECEIPT FORM

Client: Accura BC# 218607

Cooler Received On: 12/8/00 And Opened On: 12/8/00 By: Mark Beasley

M. Beasley
(Signature)

1. Temperature of Cooler when opened 4.0 DEGREES CELSIUS
2. Were custody seals on outside of cooler and intact?.....NO
   a. If yes,what kind and where: TAPE
   b. Were the signature and date correct?.....N/A
3. Were custody seals on containers intact?.....NO
4. Were custody papers inside cooler?.....YES
5. Were custody papers properly filled out (ink,signed,etc)?.....YES
6. Did you sign the custody papers in the appropriate place?.....YES
7. What kind of packing material was used? Bubblewrap Peanuts Other None
8. Was sufficient ice used (if appropriate)?.....YES
9. Did all bottles arrive in good condition(unbroken)?.....YES
10. Were all bottle labels complete (#,date,signed,pres,etc)?.....YES
11. Did all bottle labels and tags agree with custody papers?.....YES
12. Were correct bottles used for the analysis requested?.....YES
13. If present, was any observable VOA headspace present?.....NO
14. If present, were VOA vials checked for absence of air bubbles and noted if found?.....YES
15. Was sufficient amount of sample sent in each bottle?.....YES
16. Were correct preservatives used?.....YES
17. Was residual chlorine present (if appropriate?).....NO
18. Corrective action taken, if necessary:
    a. Name of person contacted: SEE ATTACHED FOR RESOLUTION IF NEEDED
    b. Date:_____

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26397
Project Name:
Sampler:

Lab Number: 00-A175153
Sample ID: AC04474
Sample Type: Water
Site ID:

Date Collected: 12/ 5/00
Time Collected: 9:00
Date Received: 12/ 8/00
Time Received: 8:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 8/00	20:48	A.Bamarni	353.2	1079
Total Organic Carbon	19.8	mg/l	1.00	1.00	1	12/ 9/00	18:51	K. McLain	415.1	774
Chloride	8.90	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073
Bromide	ND	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A175153
Sample ID: AC04474

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

2960 Foster Creighton Drive / Nashville,TN 37204 / 615-726-0177 / Fax: 615-726-0954 / 800-765-0980

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26397
Project Name:
Sampler:

Lab Number: 00-A175154
Sample ID: AC04475
Sample Type: Water
Site ID:

Date Collected: 12/ 5/00
Time Collected: 11:15
Date Received: 12/ 8/00
Time Received: 8:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 8/00	20:49	A.Bamarni	353.2	1079
Total Organic Carbon	6.41	mg/l	1.00	1.00	1	12/ 9/00	18:51	K. McLain	415.1	774
Chloride	8.90	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073
Bromide	ND	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A175154
Sample ID: AC04475

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26397
Project Name:
Sampler:

Lab Number: 00-A175155
Sample ID: AC04476
Sample Type: Water
Site ID:

Date Collected: 12/ 5/00
Time Collected: 15:00
Date Received: 12/ 8/00
Time Received: 8:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 8/00	20:51	A.Bamarni	353.2	1079
Total Organic Carbon	22.7	mg/l	1.00	1.00	1	12/ 9/00	18:51	K. McLain	415.1	774
Chloride	5.70	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073
Bromide	ND	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A175155
Sample ID: AC04476

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ACCURA ANALYTICAL 2656

6017 FINANCIAL DR.
NORCROSS, GA 30071

Project: 26397
Project Name:
Sampler:

Lab Number: 00-A175156
Sample ID: AC04477
Sample Type: Water
Site ID:

Date Collected: 12/ 5/00
Time Collected:
Date Received: 12/ 8/00
Time Received: 8:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY										
Nitrate/Nitrite-N as N	ND	mg/l	0.100	0.100	1	12/ 8/00	20:51	A.Bamarni	353.2	1079
Total Organic Carbon	20.6	mg/l	1.00	1.00	1	12/ 9/00	18:51	K. McLain	415.1	774
Chloride	9.10	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073
Bromide	ND	mg/l	1.00	1.00	1	12/ 8/00	16:07	A Hardison	300	1073

ND - Not detected at the report limit.
- Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A175156
Sample ID: AC04477

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/12/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 387

End of Sample Report.

2960 Foster Creighton Drive / Nashville,TN 37204 / 615-726-0177 / Fax: 615-726-0954 / 800-765-0980

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
Bromide	mg/l	< 1.00	10.4	10.0	104	90. - 110.	1073	00-A174888

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Bromide	mg/l	10.4	10.4	0.00	20.	1073
Nitrate/Nitrite-N as N	mg/l	12.8	12.9	0.78	20	1079

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Total Organic Carbon	mg/l	200.	210.	105	90 - 110	774
Chloride	mg/l	30.0	31.0	103	90 - 110	1073
Bromide	mg/l	100.	98.7	99	95 - 105	1073

Blank Data

Analyte	Blank Value	Units	Q.C. Batch
Nitrate/Nitrite-N as N	< 0.100	mg/l	1079
Total Organic Carbon	< 1.00	mg/l	774
Chloride	< 1.00	mg/l	1073
Bromide	< 1.00	mg/l	1073

- Value outside Laboratory historical QC limits.

End of Report for Project 218607

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0012295

Work Order Summary

CLIENT:	Ms. Bonnie Hogue Accura Analytical Laboratory 6017 Financial Drive Norcross, GA 30071	**BILL TO:**	Ms. Bonnie Hogue Accura Analytical Laboratory 6017 Financial Drive Norcross, GA 30071
PHONE:	770-449-8800	**P.O. #**	
FAX:	770-449-5477	**PROJECT #**	
DATE RECEIVED:	12/14/00		
DATE COMPLETED:	12/22/00		

FRACTION #	NAME	TEST
01A	AC 04474	Mod. RSK-175
01AA	AC 04474 Duplicate	Mod. RSK-175
02A	AC 04475	Mod. RSK-175
03A	AC 04476	Mod. RSK-175
04A	AC 04477	Mod. RSK-175
05A	AC 04566	Mod. RSK-175
06A	AC 04567	Mod. RSK-175
07A	AC 04568	Mod. RSK-175
08A	AC 04569	Mod. RSK-175
09A	Method Spike	Mod. RSK-175
10A	Lab Blank	Mod. RSK-175

CERTIFIED BY: Linda Mayo for: DATE: 12-27-00

Laboratory Director

Certfication numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217, AZ ELAP - AZ0567

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified RSK 175
Accura Analytical Laboratory
Workorder# 0012295

Eight VOA Vial-40 mL samples were received on December 14, 2000. The laboratory performed analysis via Modified RSK 175 for Methane, Ethane and Ethene using GC/FID. The method involves placing an aliquot of the sample in a headspace vial. The vial is then placed into HP7694 Headspace Autosampler equipped with oven, shaker and 1 mL sample loop. Sample is baked and then equilibrated at 40°C for 15 minutes with high agitation. Finally, a direct injection of the headspace is performed. See the data sheets for the reporting limits for each compound.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Water samples 03A, 05A, and 08A were received with a high amount of sediment in the sample VOA vials.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

AIR TOXICS LTD.

SAMPLE NAME: AC 04474

ID#: 0012295-01A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121804**		**Date of Collection: 12/5/00**
Dil. Factor:	**1.00**		**Date of Analysis: 12/18/00**

Compound	**Det. Limit (ug/ml)**	**Amount (ug/ml)**
Methane	0.010	0.036
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC 04474 Duplicate

ID#: 0012295-01AA

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121805**	**Date of Collection:**	**12/5/00**
Dil. Factor:	**1.00**	**Date of Analysis:**	**12/18/00**

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.036
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC 04475

ID#: 0012295-02A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121806**	**Date of Collection:**	**12/5/00**
Dil. Factor:	**1.00**	**Date of Analysis:**	**12/18/00**

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC 04476

ID#: 0012295-03A

MODIFIED METHOD RSK-175 GC/FID

File Name:	**7121807**		**Date of Collection: 12/5/00**
Dil. Factor:	**1.00**		**Date of Analysis: 12/18/00**

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: AC 04477

ID#: 0012295-04A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7121808	Date of Collection:	12/5/00
Dil. Factor:	1.00	Date of Analysis:	12/18/00

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.039
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: Method Spike

ID#: 0012295-09A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7121801		**Date of Collection: NA**
Dil. Factor:	1.00		**Date of Analysis: 12/18/00**

Compound	Det. Limit (ug/ml)	%Recovery
Methane	0.010	100
Ethane	0.010	110
Ethene	0.010	111

Container Type: NA - Not Applicable

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0012295-10A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7121803		**Date of Collection: NA**
Dil. Factor:	1.00		**Date of Analysis: 12/18/00**

Compound	Det. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: NA - Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

0012295

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: Air Toxicd

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: Ms. Bonnie Hogue

Contact Phone # (770) 449 - 8800, ext. 233

Fax Number: (770) 449 - 5477

AAL PROJECT # See Remarks

For Laboratory Use Only

Custody Seal: Y N

Page 1 OF 1

QC Level: N 1 2 3 4

Init/Temp:

Entered into LIMS:

LAB Project #

Sample Condition:

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	Methane, Ethane, Ethene (RSK-175)	Remarks	LAB #
AC 04474	12/5/00 0900		X	W		OLD-36-09C	3	X	26397	
AC 04475	12/5/00 1115		X	W		OLD-36-31C	3	X		
AC 04476	12/5/00 1500		X	W		OLD-36-12C	3	X		
AC 04477	12/5/00 –		X	W		Dup #2	3	X		
AC 04566	12/6/00 0900		X	W		OLD-36-32C	3	X	26413	
AC 04567	12/6/00 0915		X	W		Eq. BLK #1	3	X		
AC 04568	12/6/00 1130		X	W		OLD-36-11C ~~OLD-36-23C~~	3	X		
AC 04569	12/6/00 1400		X	W		OLD-36-23C	3	X		
AC										
AC										

CUSTODY SEAL INTACT? Y N NONE TEMP

	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
Bonnie Hogue		AOC	12-14-00 10:00	PLEASE FAX RESULTS!!
	Date / Time	Received By:	Date / Time	Turnaround Time Requested:

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

Subcoc-bjh.xls
Revised 05/10/97

Page 14

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190023.D Vial: 21
Acq On : 20 Dec 2000 12:43 Operator: MT
Sample : AC04474 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:30 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.11f	1901899	41.191 µg/mlm
Spiked Amount 50.000	Recovery =		82.38% MT
3) SC C(39)	34.42f	3417889	77.802 ug/mlm
Spiked Amount 300.000	Recovery =		25.93% x MT
Target Compounds			
1) HM Florida PRO	3.70	20151171	354.303 ug/ml 710.00

0.35 JB ppm
MT

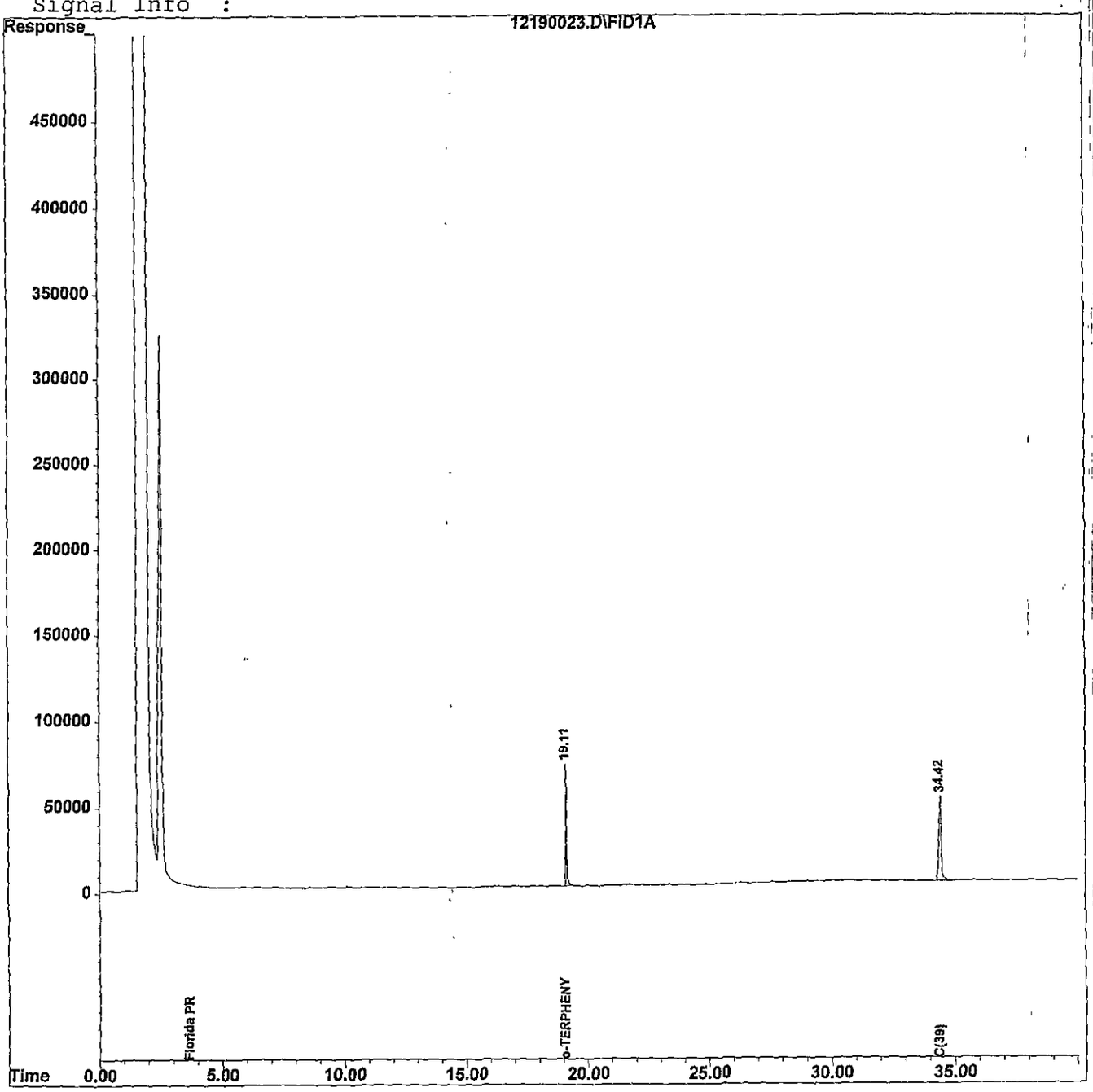
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190023.D Vial: 21
Acq On : 20 Dec 2000 12:43 Operator: MT
Sample : AC04474 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 13:30 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17946.D Vial: 5
Acq On : 14 Dec 2000 13:53 Operator: TAG/VR
Sample : AC04474 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 14:19 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.50	168	422013	10.00 ug\L	0.04
45) Chlorobenzene-d5	12.79	117	303638	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	154338	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.00	65	80344	8.75 ug\L	0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 87.50%		
46) Toluene-d8	10.30	98	399523	9.16 ug\L	0.03
Spiked Amount 10.000	Range 87 - 104		Recovery = 91.60%		
65) Bromofluorobenzene	14.88	95	205571	9.85 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.50%		

Target Compounds					Qvalue	
8) Acrolein	3.82	56	64	~~8.92 ug\L~~ #	1	
10) 1,1-Dichloroethene	2.97	96	6697	0.50 ug\L	89	0.50J
11) Acetone	3.08	58	7146	62.26 ug\L NOL	72	
14) Carbon Disulfide	3.21	76	26926	1.08 ug\L #	95	1.1J NOL
16) Methylene Chloride	3.56	86	51807	9.05 ug\L #	33	9.1
22) cis-1,2-Dichloroethene	5.53	96	291300	24.19 ug\L	84	24
23) 2-Butanone	5.54	72	1856	~~13.54 ug\L #~~	1	
25) Methacrylonitrile	6.36	41	7537	~~6.26 ug\L #~~	53	
30) 1,4-Dioxane	8.57	88	72	~~3.13 ug\L #~~	24	
36) Trichloroethene	8.20	95	5124391	256.78 ug\L	93	NDIL
37) 1,2-Dichloropropane	8.18	63	21120	~~1.80 ug\L~~ #	87	
64) 1,4-dichloro-2-Butene	14.88	75	103216	~~21.88 ug\L~~ #	100	
68) 1,2,3-Trichloropropane	14.88	75	103216	~~21.88 ug\L~~ #	100	

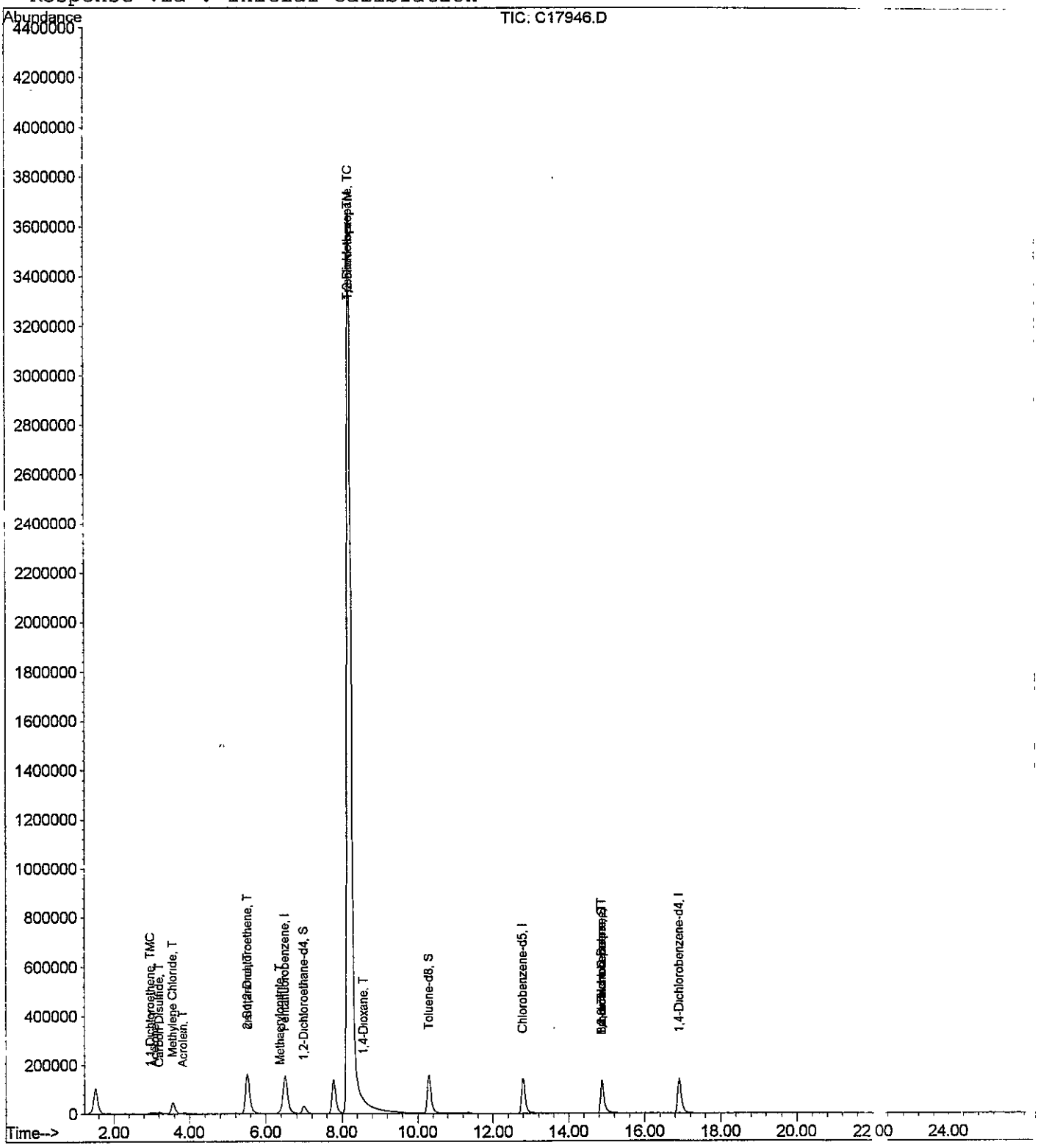
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17946.D Vial: 5
Acq On : 14 Dec 2000 13:53 Operator: TAG/VR
Sample : AC04474 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 14:19 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-09C

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04474

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17946.D

Level: (low/med) LOW Date Received: 12/06/00

% Moisture: not dec. _____ Date Analyzed: 12/14/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121400\C17946.D Vial: 5
Acq On : 14 Dec 2000 13:53 Operator: TAG/VR
Sample : AC04474 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

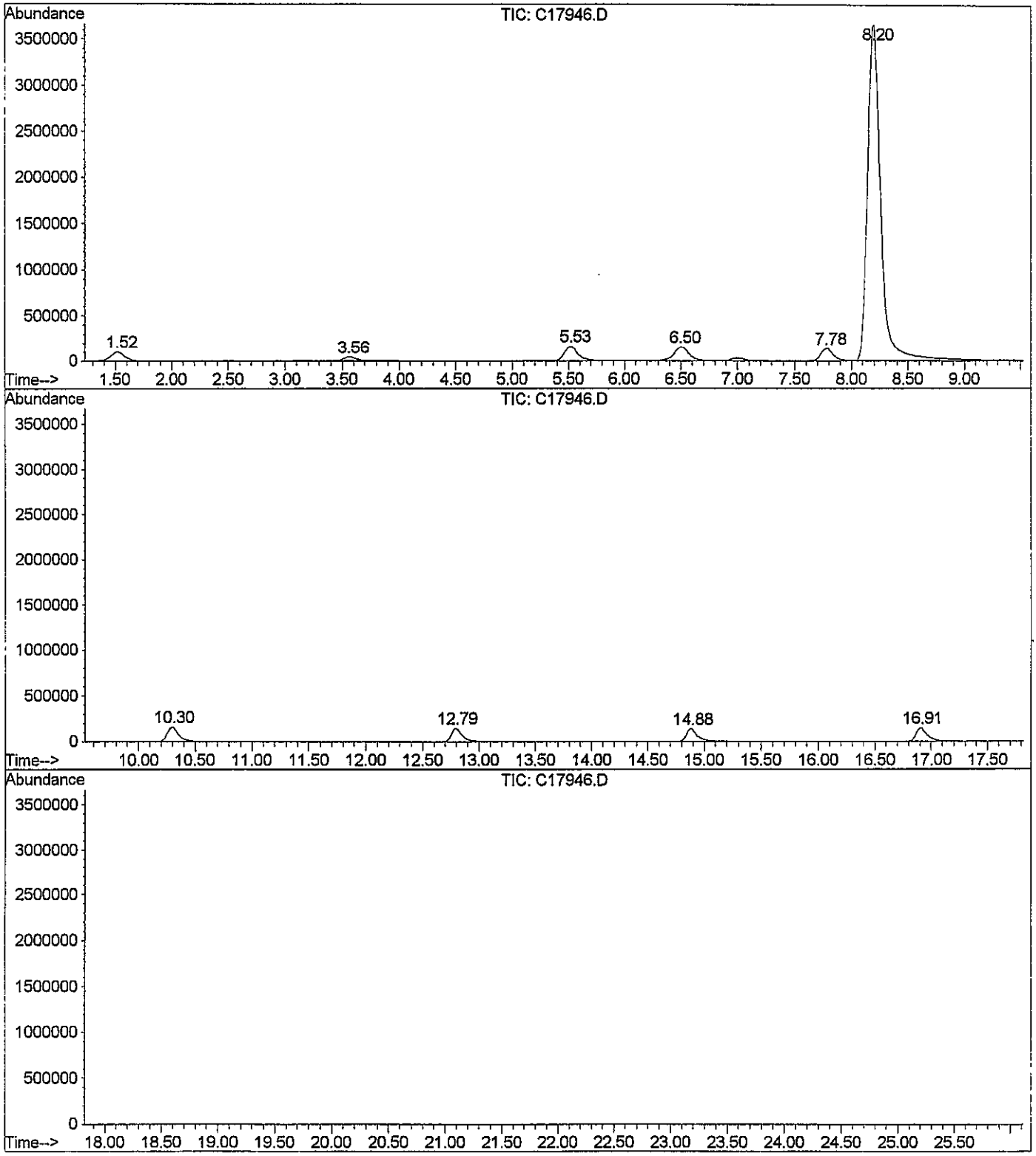
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.522	8	31	57	rBV	105196	881048	3.00%	2.315%
2	3.564	226	238	260	rBV2	43600	311618	1.06%	0.819%
3	5.526	419	437	460	rBV	161617	1293753	4.41%	3.400%
4	6.502	512	536	560	rBV	153647	1350839	4.60%	3.550%
5	7.784	649	666	690	rBV	138602	1021764	3.48%	2.685%
6	8.199	690	708	767	rBV	3665691	29362702	100.00%	77.159%
7	10.299	908	921	948	rBV2	155002	1056559	3.60%	2.776%
8	12.794	1162	1174	1198	rBV2	142358	926623	3.16%	2.435%
9	14.885	1372	1386	1416	rBV2	135126	899422	3.06%	2.364%
10	16.907	1579	1591	1615	rBV	144418	950333	3.24%	2.497%

Sum of corrected areas: 38054661

C17946.D 12140025.M Fri Jan 05 15:30:00 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121400\C17946.D
Operator : TAG/VR
Acquired : 14 Dec 2000 13:53 using AcqMethod 12140025
Instrument : VOA-C
Sample Name: AC04474 25ml DF=1
Misc Info : 26397/C12140025
Vial Number: 5
Quant File :12140025.RES (RTE Integrator)



C17946.D 12140025.M Fri Jan 05 15:30:01 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17946.D Vial: 5
Acq On : 14 Dec 2000 13:53 Operator: TAG/VR
Sample : AC04474 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

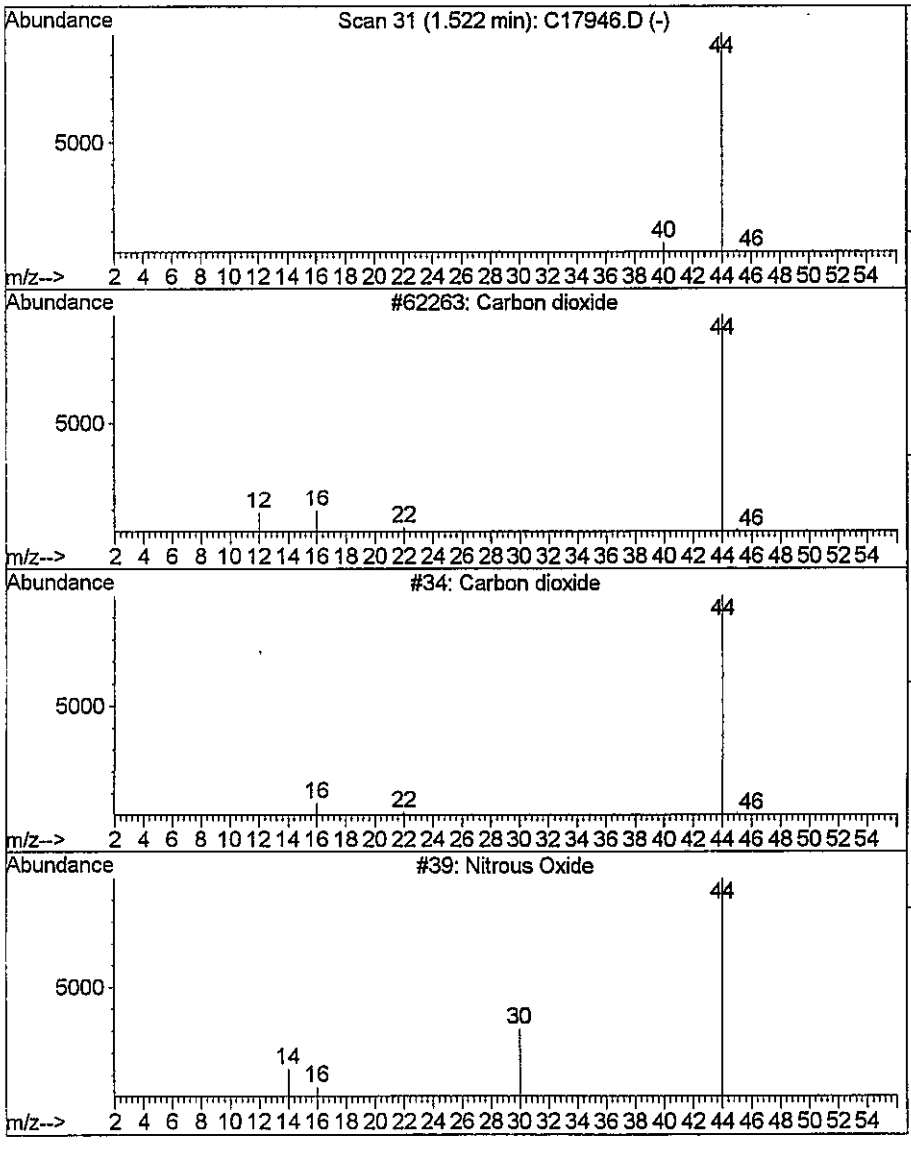
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.52	6.52 ug\L	881048	Pentafluorobenzene	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\121400\C17946.D
Acq On : 14 Dec 2000 13:53
Sample : AC04474 25ml DF=1
Misc : 26397/C12140025
MS Integration Params: LSCINT.P

Vial: 5
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

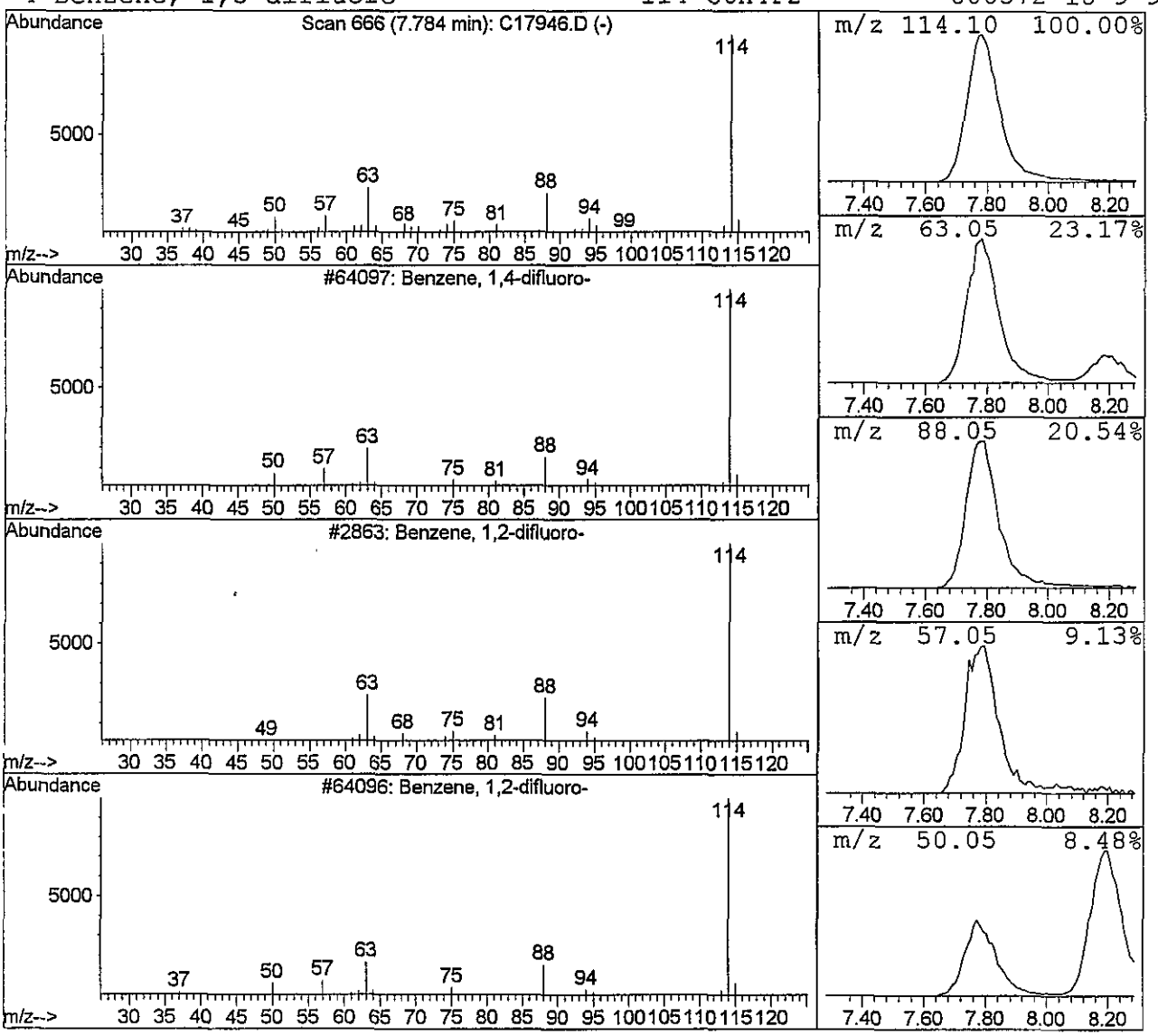
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,4-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.78	7.56 ug\L	1021760	Pentafluorobenzene	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	93



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 14 Dec 2000 13:53
Data File: C:\HPCHEM\1\DATA\121400\C17946.D
Name: AC04474 25ml DF=1
Misc: 26397/C12140025
Method: c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.52	6.5	ug\L	881048	ISTD01	6.50	1350840	10.0
Benzene, 1,4-difluor	7.78	7.6	ug\L	1021760	ISTD01	6.50	1350840	10.0

C17946.D 12140025.M Fri Jan 05 15:30:05 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17956.D
Acq On : 14 Dec 2000 18:28
Sample : AC04474 2.5ml DF=10
Misc : 26397/C12140025
MS Integration Params: rteint.p
Quant Time: Dec 14 18:54 2000

Vial: 15
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	411938	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	289375	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	143165	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	72068	8.04 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 80.40%		
46) Toluene-d8	10.29	98	398768	9.59 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.90%		
65) Bromofluorobenzene	14.88	95	194259	10.04 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.40%		
Target Compounds					Qvalue
8) Acrolein	3.32	56	60	8.91 ug\L #	1
11) Acetone	3.00	58	76	4.57 ug\L #	1
16) Methylene Chloride	3.52	86	14660	2.62 ug\L #	34
22) cis-1,2-Dichloroethene	5.48	96	27102	2.31 ug\L	82
30) 1,4-Dioxane	8.78	88	61	2.71 ug\L #	24
36) Trichloroethene	8.15	95	581755	29.86 ug\L	95
64) 1,4-dichloro-2-Butene	14.87	75	100037	22.86 ug\L #	100
68) 1,2,3-Trichloropropane	14.87	75	100037	22.86 ug\L #	100
85) Naphthalene	20.90	128	8721	0.51 ug\L	100

300

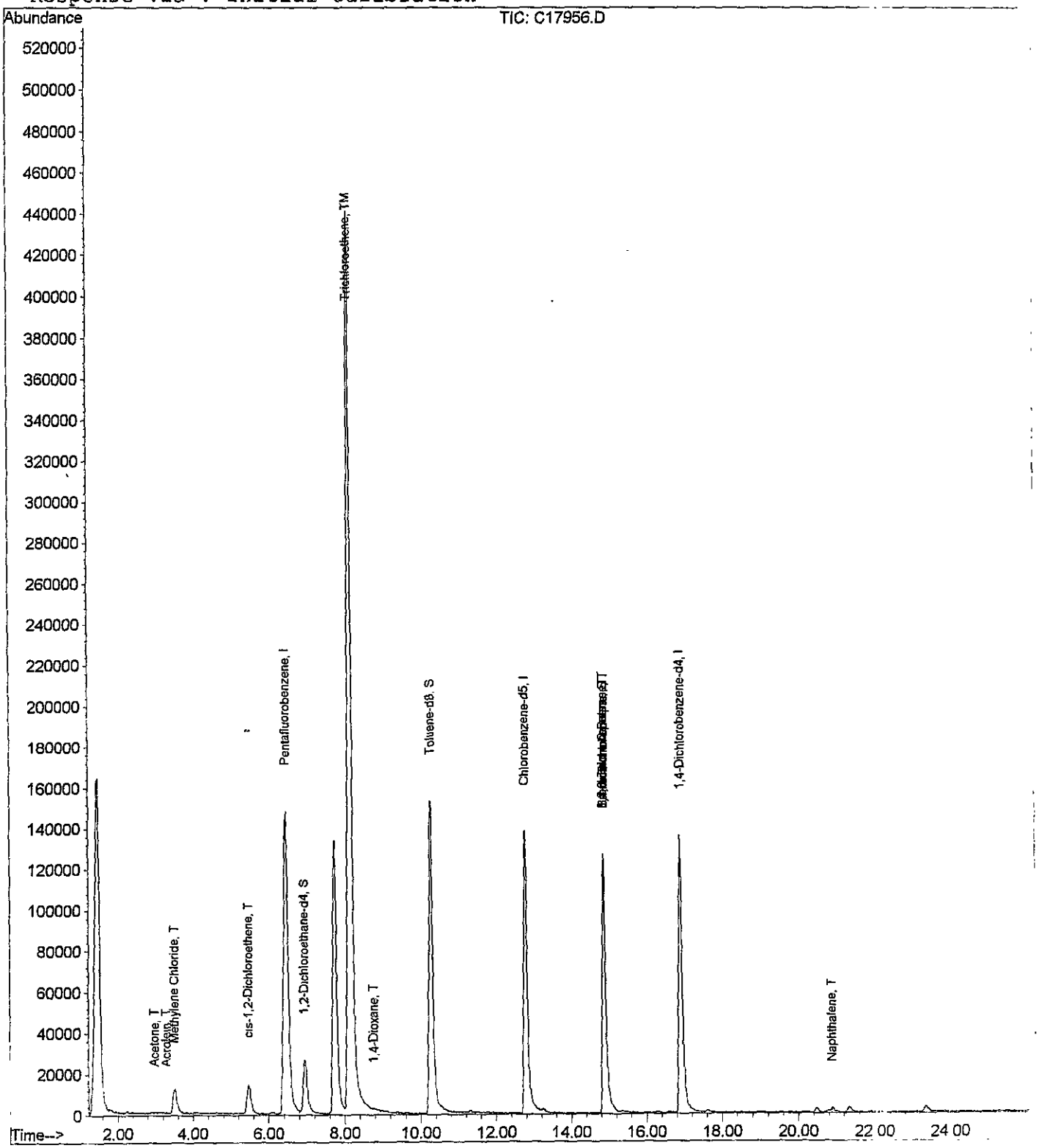
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17956.D Vial: 15
Acq On : 14 Dec 2000 18:28 Operator: TAG/VR
Sample : AC04474 2.5ml DF=10 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 18:54 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190024.D Vial: 22
Acq On : 20 Dec 2000 13:32 Operator: MT
Sample : AC04475 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 17:08 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.10f	2282551	49.435 µg/mlm
Spiked Amount 50.000		Recovery =	98.87% MT
3) SC C(39)	34.45f	6608569	150.432 ug/mlm
Spiked Amount 300.000		Recovery =	50.14% MT
Target Compounds			
1) HM Florida PRO	3.70	22726947	399.591 ug/ml /1000 =

0.405 ppm
MT

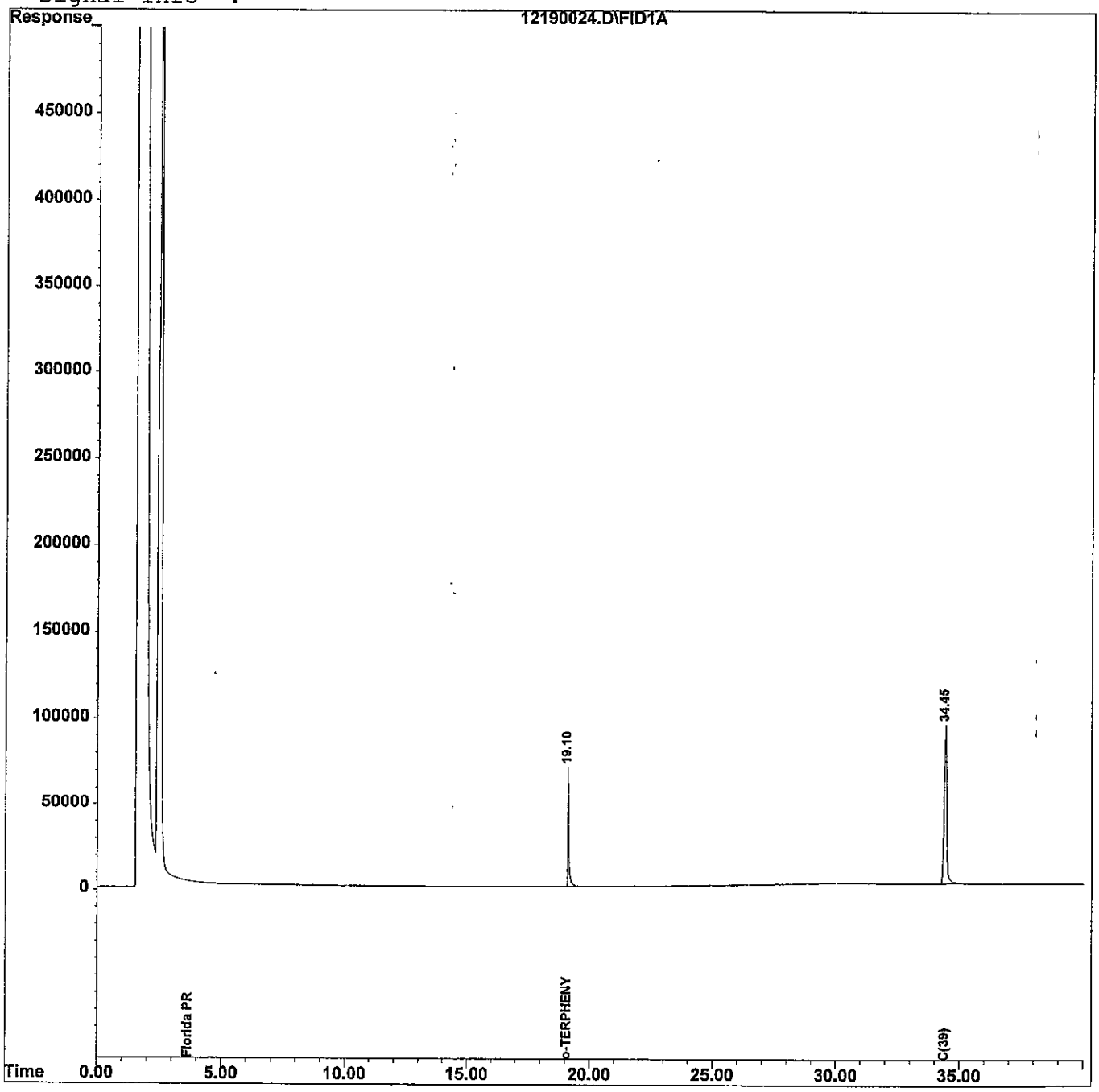
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190024.D Vial: 22
Acq On : 20 Dec 2000 13:32 Operator: MT
Sample : AC04475 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 17:08 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17947.D Vial: 6
Acq On : 14 Dec 2000 14:24 Operator: TAG/VR
Sample : AC04475 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 14:50 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	413267	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.80	117	295222	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.91	152	151156	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	80132	8.91 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.10%		
46) Toluene-d8	10.28	98	382631	9.02 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 90.20%		
65) Bromofluorobenzene	14.89	95	199247	9.75 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.50%		

Target Compounds					Qvalue
8) Acrolein	3.33	56	63	~~8.93 ug\L #~~	1
16) Methylene Chloride	3.51	86	10023	1.79 ug\L #	28 1.8
27) Chloroform	6.08	83	25880	0.97 ug\L #	58 0.97J
36) Trichloroethene	8.14	95	272413	13.94 ug\L	94 14
41) 2-Nitropropane	9.39	43	995	~~1.62 ug\L #~~	100
64) 1,4-dichloro-2-Butene	14.87	75	97044	~~21.00 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.87	75	97044	~~21.00 ug\L #~~	100

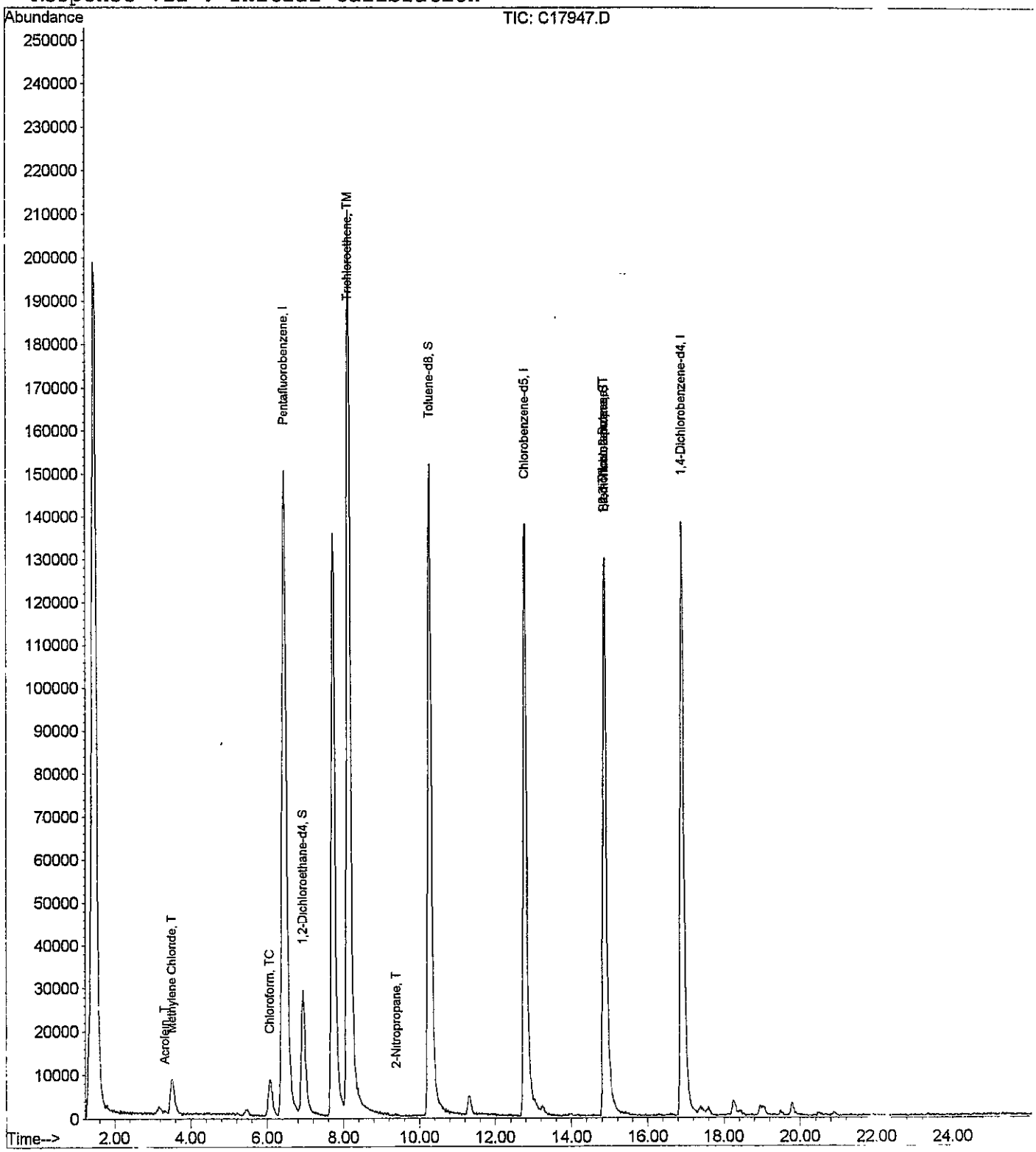
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17947.D Vial: 6
Acq On : 14 Dec 2000 14:24 Operator: TAG/VR
Sample : AC04475 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 14:50 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-31C

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04475

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17947.D

Level: (low/med) LOW Date Received: 12/06/00

% Moisture: not dec. _____ Date Analyzed: 12/14/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121400\C17947.D Vial: 6
Acq On : 14 Dec 2000 14:24 Operator: TAG/VR
Sample : AC04475 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

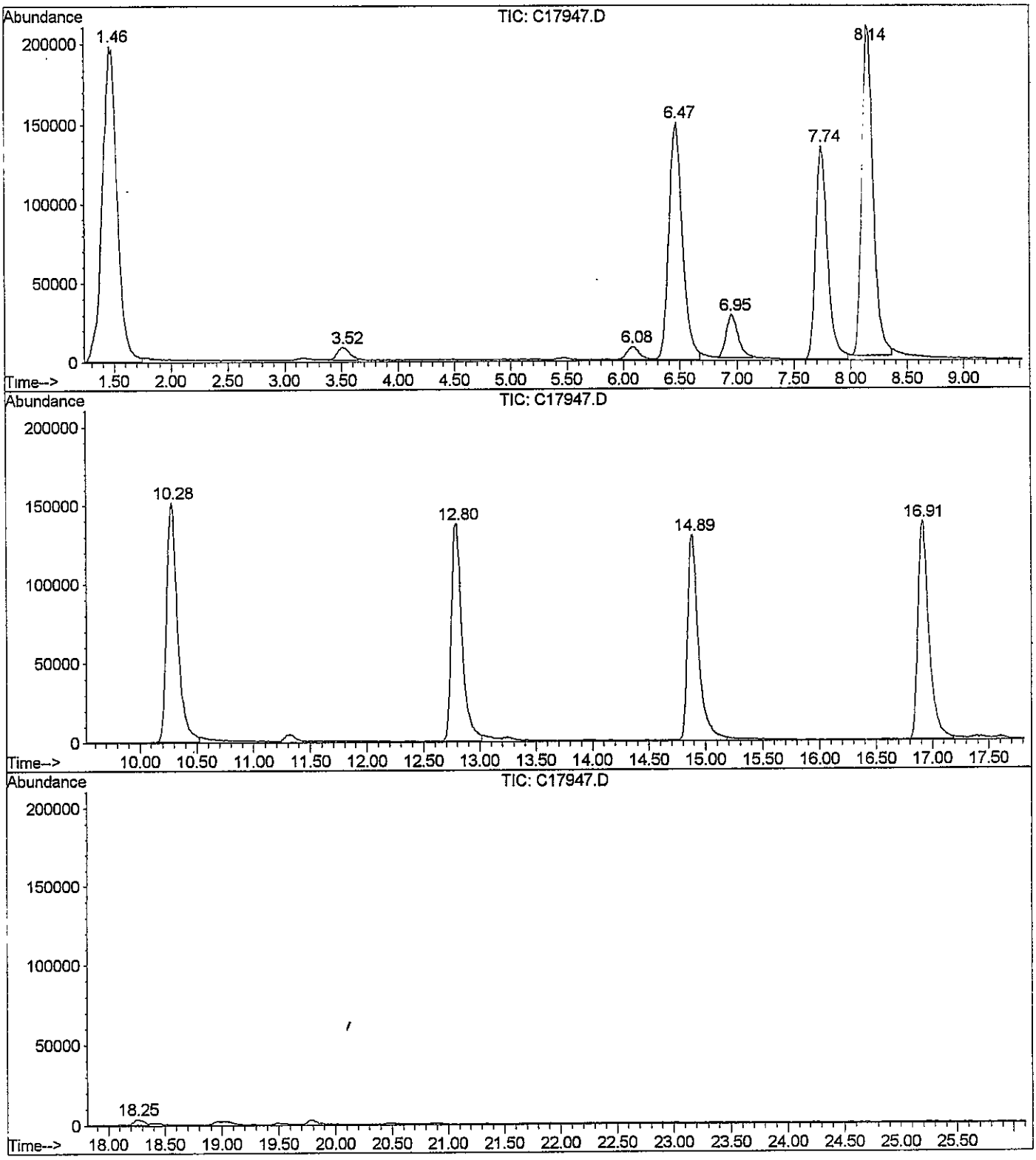
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.458	3	24	53	rBV	198436	1811812	100.00%	18.964%
2	3.519	222	233	246	rBV5	7722	58706	3.24%	0.614%
3	6.083	476	493	509	rBV2	8229	60847	3.36%	0.637%
4	6.468	513	532	553	rBV	149954	1257084	69.38%	13.158%
5	6.951	568	581	600	rBV2	27679	195618	10.80%	2.047%
6	7.740	645	661	685	rBV	135467	986825	54.47%	10.329%
7	8.144	689	702	724	rBV	207904	1449789	80.02%	15.175%
8	10.284	905	919	943	rBV	151601	1023685	56.50%	10.715%
9	12.799	1160	1174	1196	rBV3	137610	897003	49.51%	9.389%
10	14.890	1374	1386	1416	rBV2	129792	865292	47.76%	9.057%
11	16.911	1580	1591	1619	rBV2	138109	926499	51.14%	9.697%
12	18.252	1719	1727	1738	rBV5	3411	20876	1.15%	0.219%

Sum of corrected areas: 9554036

C17947.D 12140025.M Fri Jan 05 15:32:40 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121400\C17947.D
Operator : TAG/VR
Acquired : 14 Dec 2000 14:24 using AcqMethod 12140025
Instrument : VOA-C
Sample Name: AC04475 25ml DF=1
Misc Info : 26397/C12140025
Vial Number: 6
Quant File :12140025.RES (RTE Integrator)



C17947.D 12140025.M Fri Jan 05 15:32:41 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17947.D Vial: 6
Acq On : 14 Dec 2000 14:24 Operator: TAG/VR
Sample : AC04475 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

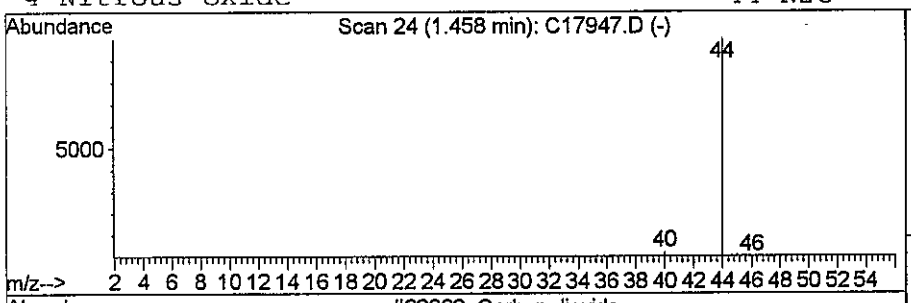
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

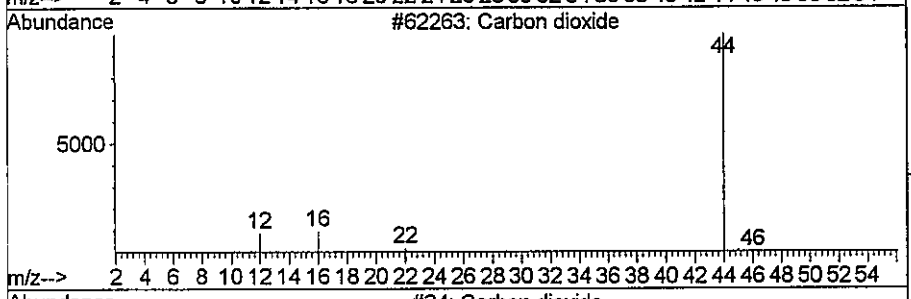
****

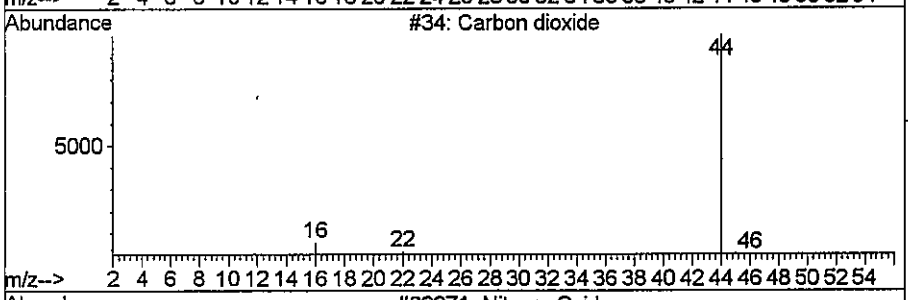
Peak Number 1 Carbon dioxide Concentration Rank 1

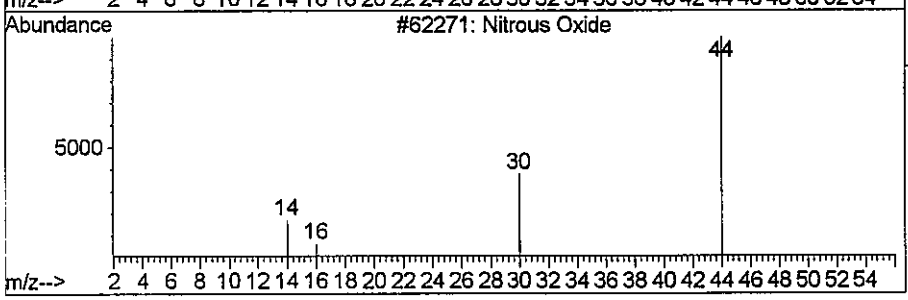
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.46	14.41 ug\L	1811810	Pentafluorobenzene	6.47

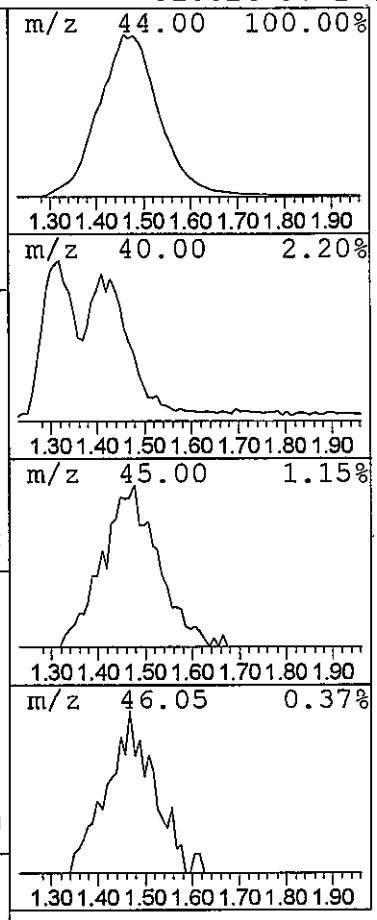
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17947.D Vial: 6
Acq On : 14 Dec 2000 14:24 Operator: TAG/VR
Sample : AC04475 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

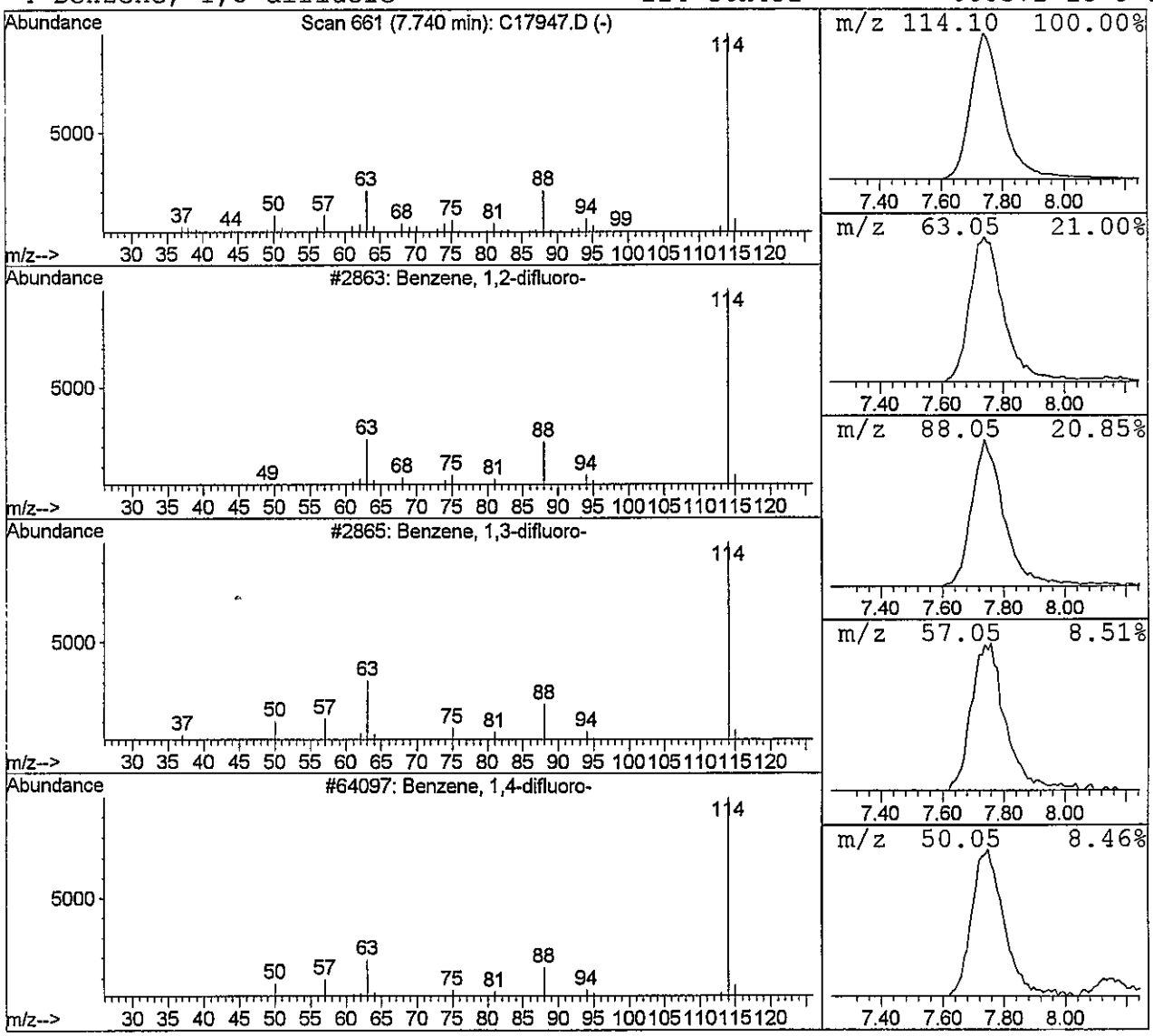
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,2-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.74	7.85 ug\L	986825	Pentafluorobenzene	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
3	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	93
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 14 Dec 2000 14:24
Data File: C:\HPCHEM\1\DATA\121400\C17947.D
Name: AC04475 25ml DF=1
Misc: 26397/C12140025
Method: c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.46	14.4	ug\L	1811810	ISTD01	6.47	1257080	10.0
Benzene, 1,2-difluor	7.74	7.9	ug\L	986825	ISTD01	6.47	1257080	10.0

C17947.D 12140025.M Fri Jan 05 15:32:45 2001 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190027.D Vial: 23
Acq On : 20 Dec 2000 15:58 Operator: MT
Sample : AC04476 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 29 11:52 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	24.56f	1773952	38.420 ug/mlm
Spiked Amount 50.000		Recovery =	76.84% MT
3) SC C(39)	34.42f	3815666	86.857 ug/mlm
Spiked Amount 300.000		Recovery =	28.95% MT
Target Compounds			
1) HM Florida PRO	3.70	23003682	404.457 ug/ml /1000 =

6.40 JB ppm

MT

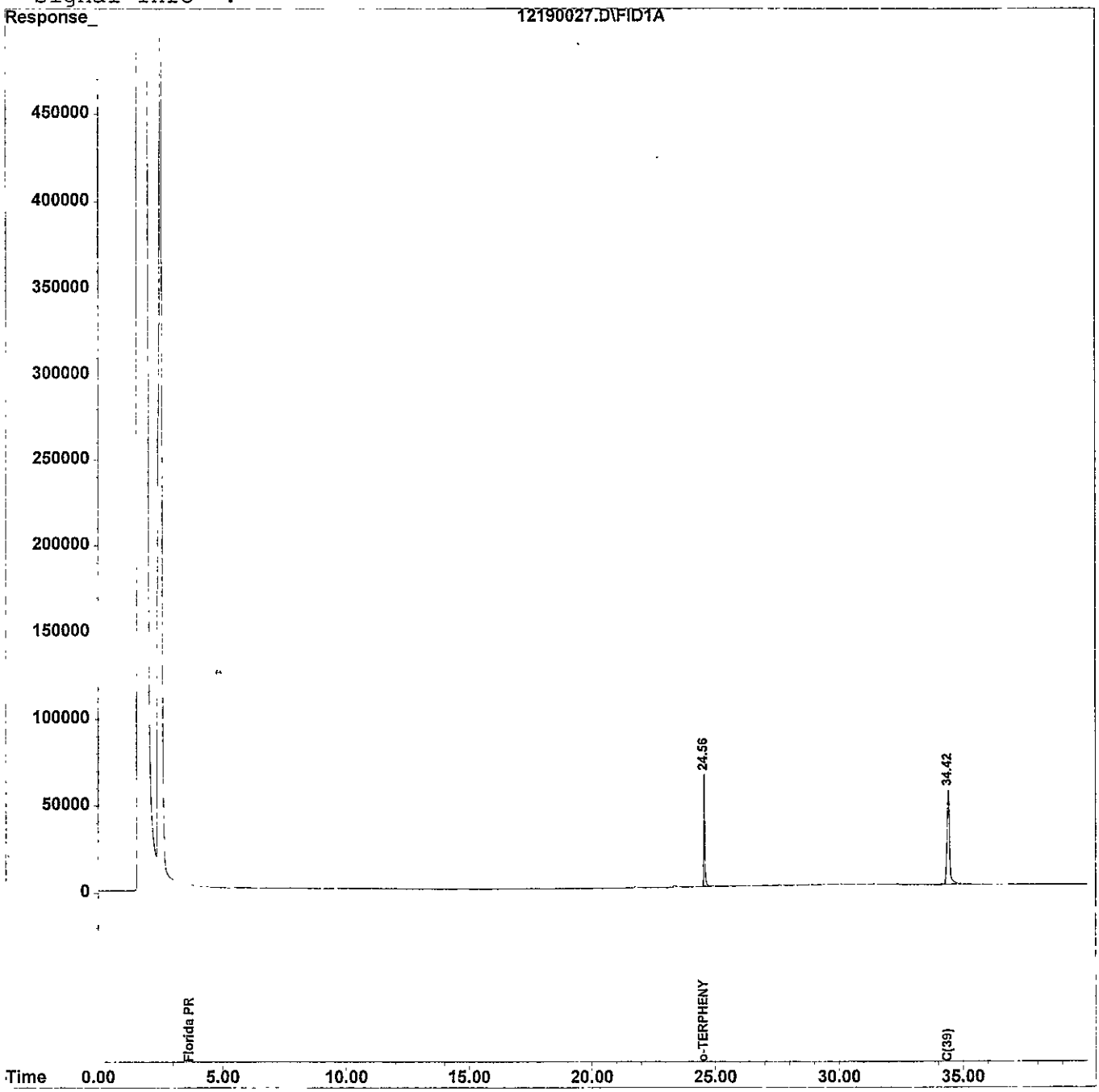
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190027.D Vial: 23
Acq On : 20 Dec 2000 15:58 Operator: MT
Sample : AC04476 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 29 11:52 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17948.D
Acq On : 14 Dec 2000 14:54
Sample : AC04476 25ml DF=1
Misc : 26397/C12140025
MS Integration Params: rteint.p
Quant Time: Dec 14 15:20 2000

Vial: 7
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	432611	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	312094	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	155456	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	79655	8.46 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.60%		
46) Toluene-d8	10.28	98	413551	9.22 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 92.20%		
65) Bromofluorobenzene	14.88	95	206277	9.82 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.20%		

Target Compounds					Qvalue	
8) Acrolein	3.85	56	82	~~8.99 ug\L #~~	1	
15) Acetonitrile	3.36	41	1059	~~0.63 ug\L #~~	29	
16) Methylene Chloride	3.51	86	5011	0.85 ug\L #	19	0.85J
22) cis-1,2-Dichloroethene	5.48	96	39347	3.19 ug\L	87	3.2J
25) Methacrylonitrile	6.32	41	1651	~~1.34 ug\L #~~	27	
31) 1,1-Dichloropropene	7.00	77	4781	~~0.62 ug\L #~~	44	
33) Benzene	6.97	78	20533	0.54 ug\L	100	0.54J
34) Isobutyl alcohol	7.10	43	1498	~~18.14 ug\L #~~	1	
36) Trichloroethene	8.16	95	183099	8.95 ug\L	93	9.0
41) 2-Nitropropane	9.36	43	9859	~~15.30 ug\L #~~	100	
64) 1,4-dichloro-2-Butene	14.88	75	96889	~~20.39 ug\L #~~	100	
68) 1,2,3-Trichloropropane	14.88	75	96889	~~20.39 ug\L #~~	100	

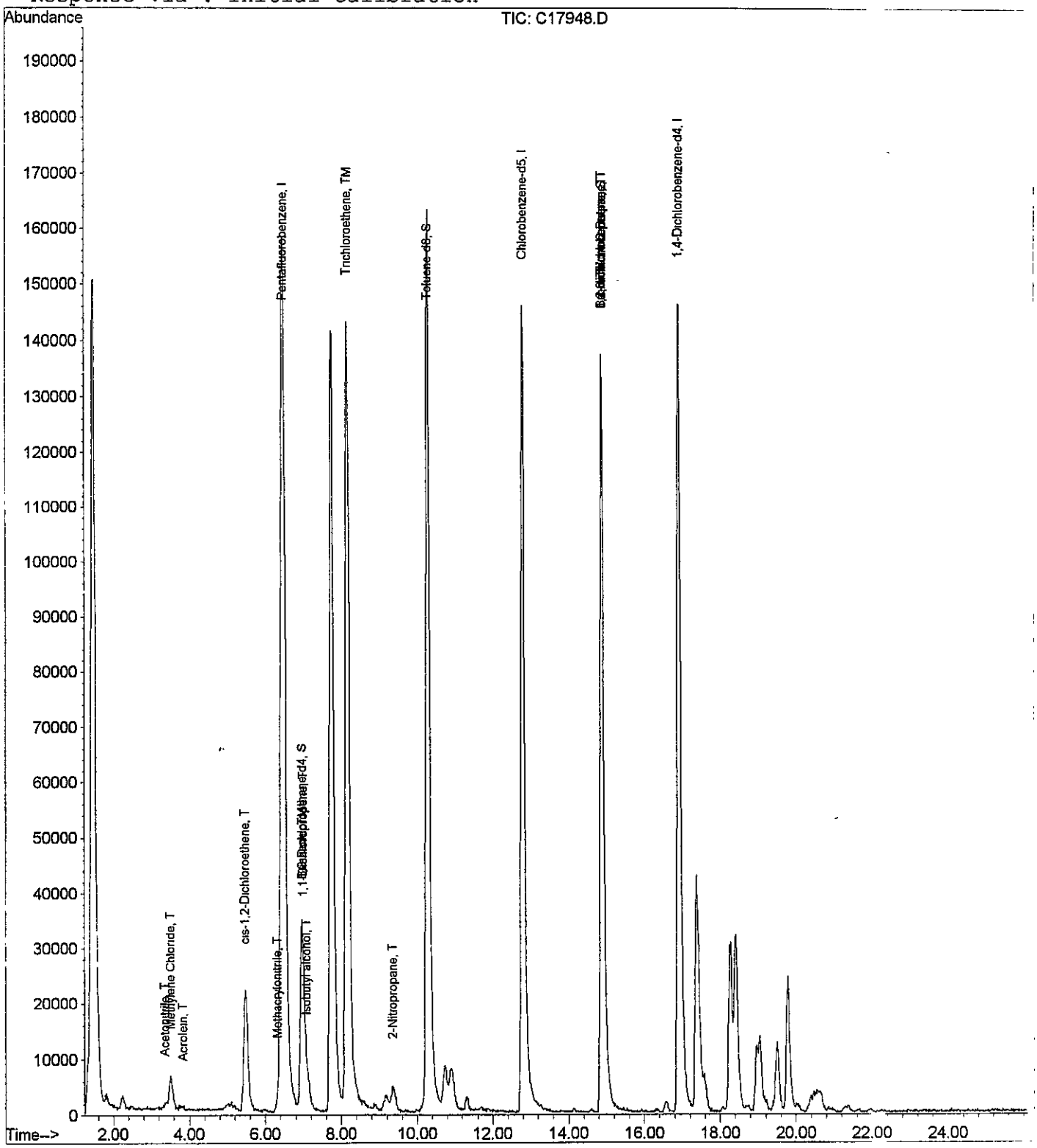
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 15:20 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-12C

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04476

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17948.D

Level: (low/med) LOW Date Received: 12/06/00

% Moisture: not dec. _____ Date Analyzed: 12/14/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 4

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000873-49-4	Benzene, cyclopropyl-	17.40	3	JN
2. 000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	18.28	2	JN
3. 027133-93-3	2,3-Dihydro-1-methylindene	18.42	2	JN
4. 000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	19.79	2	JN

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

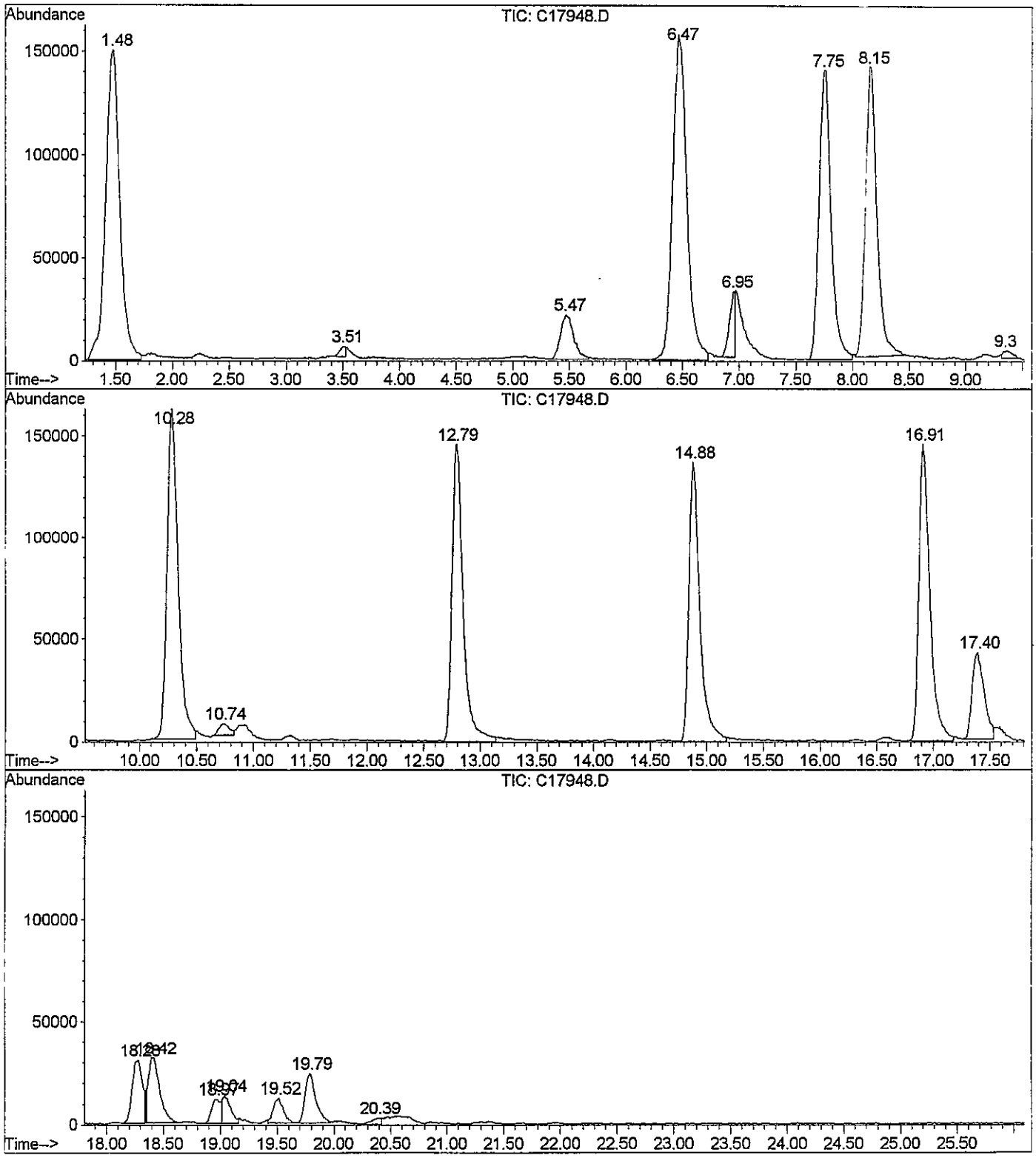
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.478	3	26	51	rBV	150237	1293481	94.33%	12.870%
2	3.510	223	232	234	rBV6	4879	18122	1.32%	0.180%
3	5.472	418	431	451	rBV4	21782	171799	12.53%	1.709%
4	6.468	507	532	558	rBV	157898	1371258	100.00%	13.644%
5	6.952	568	581	582	rBV2	32142	105157	7.67%	1.046%
6	7.750	647	662	687	rBV	140876	1036417	75.58%	10.312%
7	8.155	690	703	733	rVB2	140641	1002732	73.12%	9.977%
8	9.358	821	825	836	rVB4	3573	18035	1.32%	0.179%
9	10.285	903	919	940	rVV	161976	1076405	78.50%	10.710%
10	10.739	956	965	974	rBV8	5549	35339	2.58%	0.352%
11	12.790	1160	1173	1208	rBV2	145593	964095	70.31%	9.593%
12	14.881	1372	1385	1415	rBV	136876	893745	65.18%	8.893%
13	16.912	1578	1591	1618	rBV	145810	965644	70.42%	9.608%
14	17.395	1627	1640	1654	rBV3	42002	311631	22.73%	3.101%
15	18.283	1715	1730	1736	rVV4	30379	193630	14.12%	1.927%
16	18.421	1737	1744	1765	rVB2	31308	214744	15.66%	2.137%
17	18.973	1789	1800	1804	rVV3	11721	66049	4.82%	0.657%
18	19.042	1804	1807	1819	rVV	13303	67004	4.89%	0.667%
19	19.516	1845	1855	1867	rVV4	12105	74006	5.40%	0.736%
20	19.792	1871	1883	1901	rBV3	23806	154365	11.26%	1.536%
21	20.393	1929	1944	1947	rBV5	2999	16709	1.22%	0.166%

Sum of corrected areas: 10050367

C17948.D 12140025.M Fri Jan 05 15:35:04 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121400\C17948.D
Operator : TAG/VR
Acquired : 14 Dec 2000 14:54 using AcqMethod 12140025
Instrument : VOA-C
Sample Name: AC04476 25ml DF=1
Misc Info : 26397/C12140025
Vial Number: 7
Quant File :12140025.RES (RTE Integrator)



C17948.D 12140025.M Fri Jan 05 15:35:05 2001 RPT1

Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

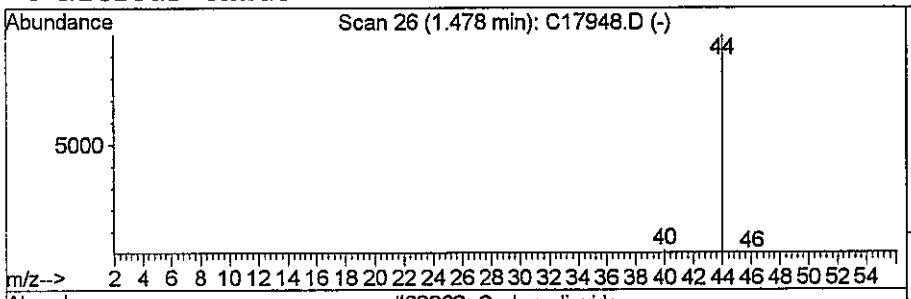
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

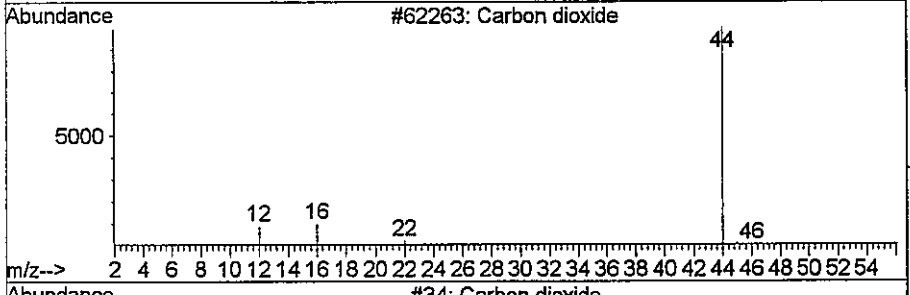
****

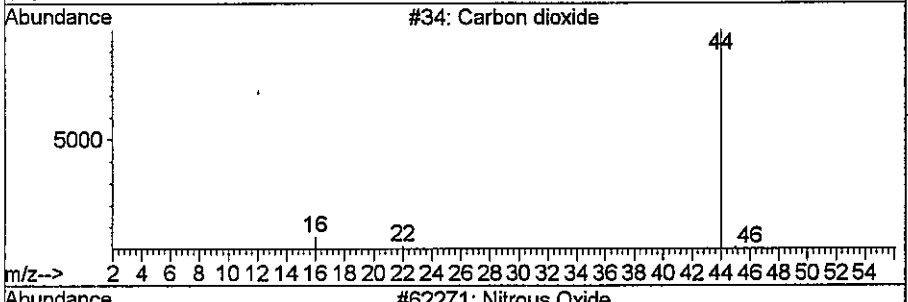
Peak Number 1 Carbon dioxide Concentration Rank 1

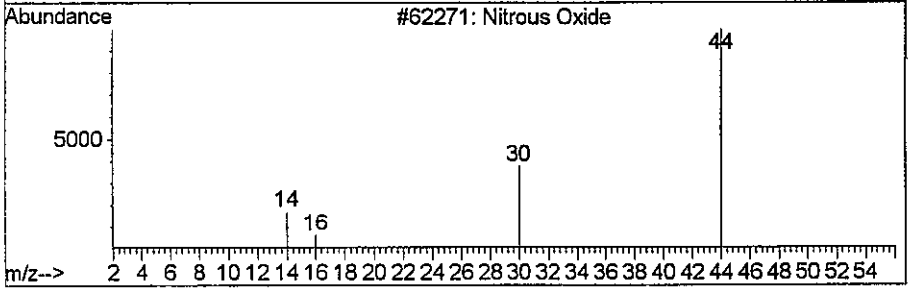
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.48	9.43 ug\L	1293480	Pentafluorobenzene	6.47

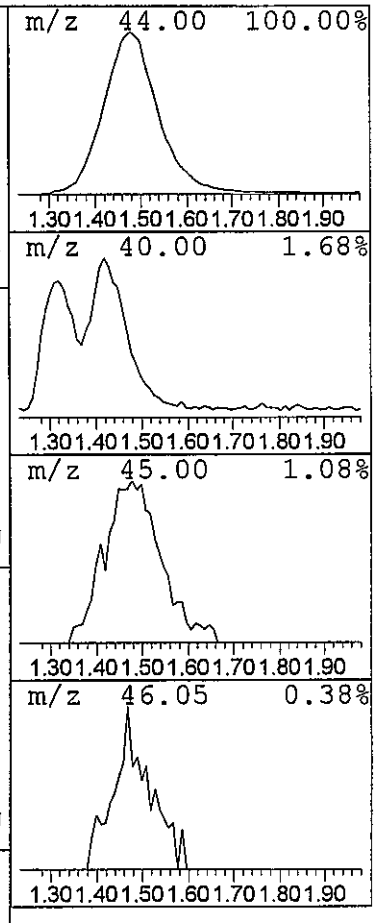
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

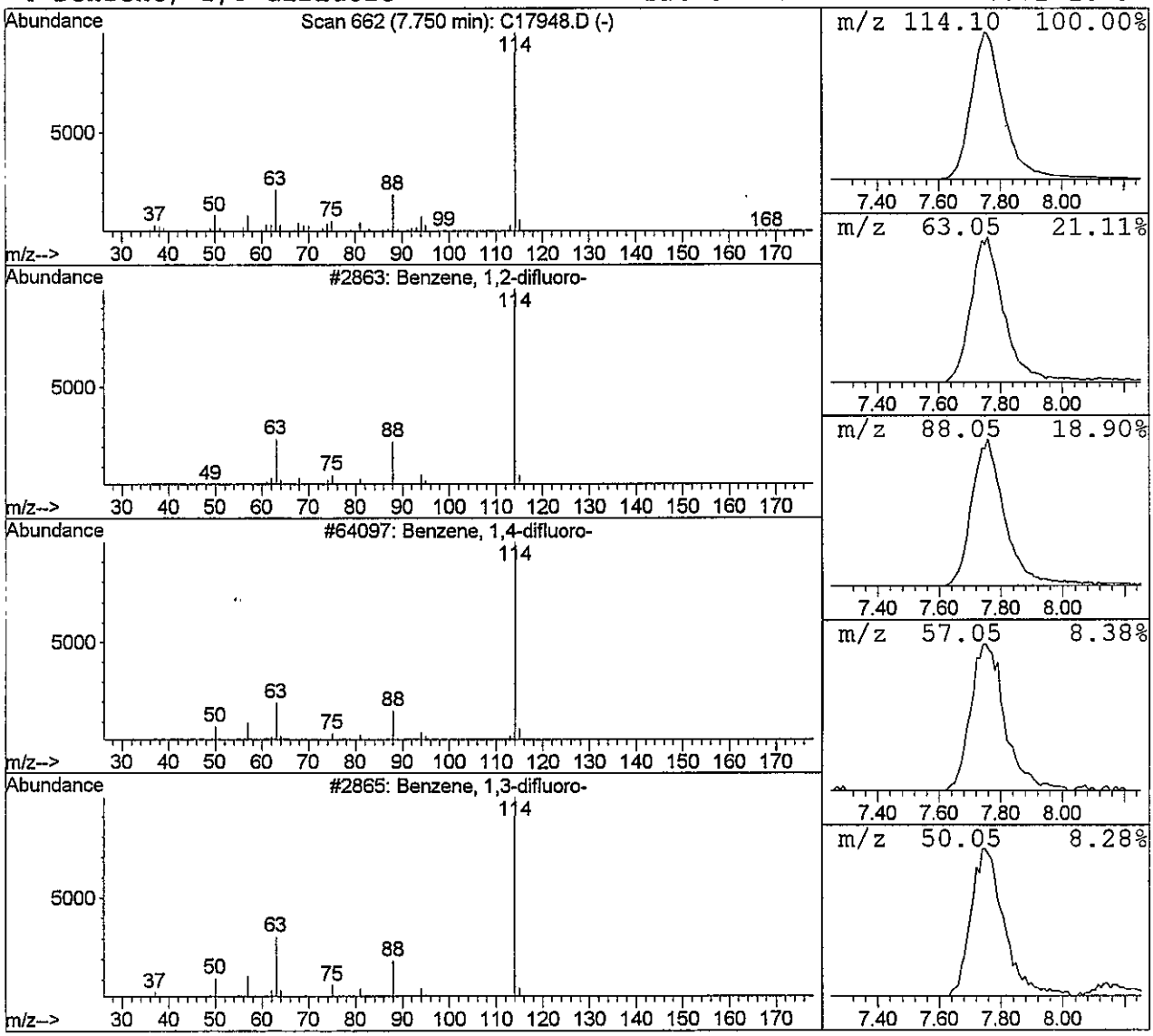
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,2-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.56 ug\L	1036420	Pentafluorobenzene	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	91



Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

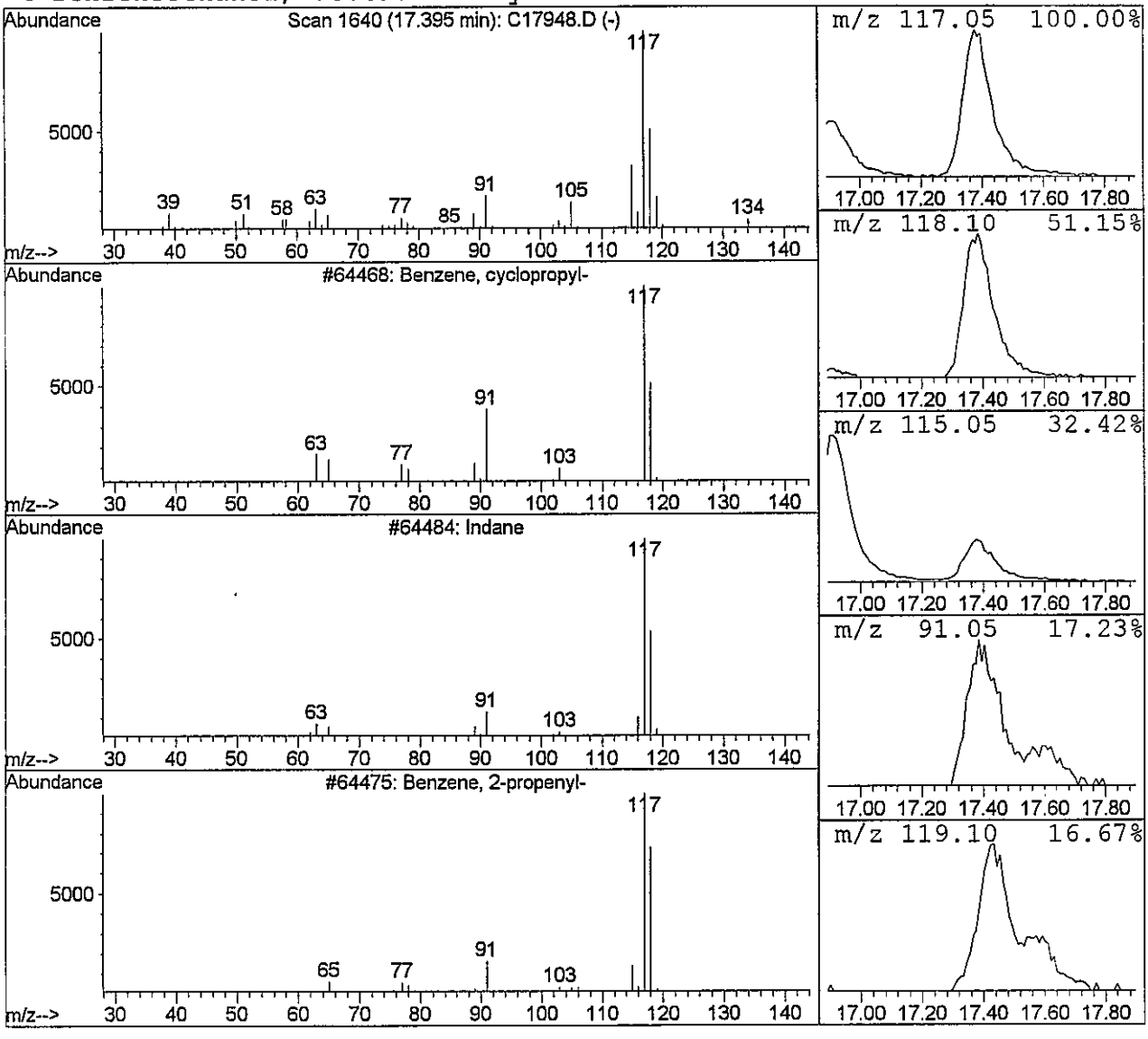
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, cyclopropyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.40	3.23 ug\L	311631	1,4-Dichlorobenzene-d4	16.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, cyclopropyl-	118	C9H10	000873-49-4	76
2	Indane	118	C9H10	000496-11-7	76
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	72
4	Benzeneethanol, .beta.-ethenyl-	148	C10H12O	006052-63-7	72



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

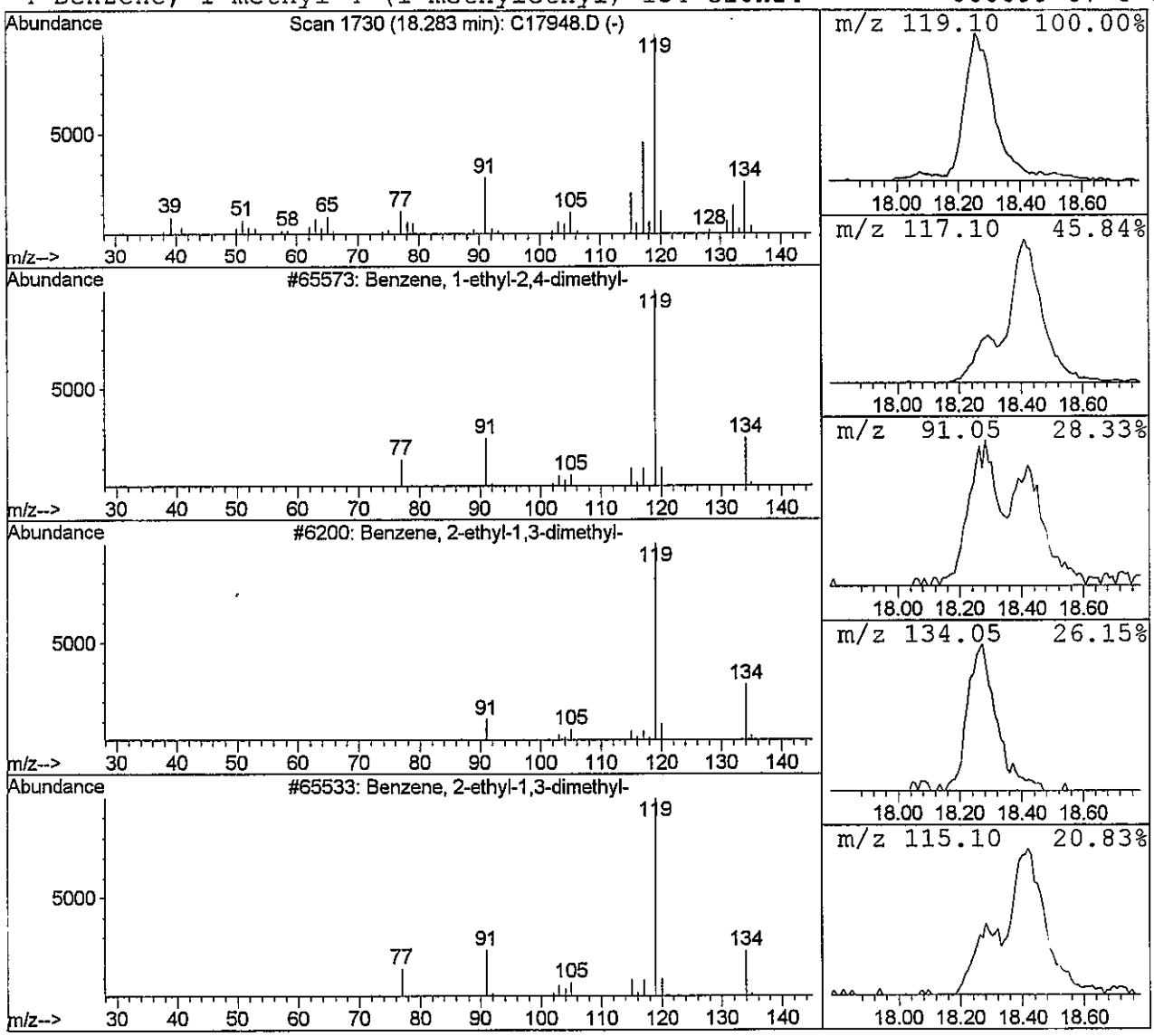
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.28	2.01 ug\L	193630	1,4-Dichlorobenzene-d4	16.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	70
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	64
3	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	64
4	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	64



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

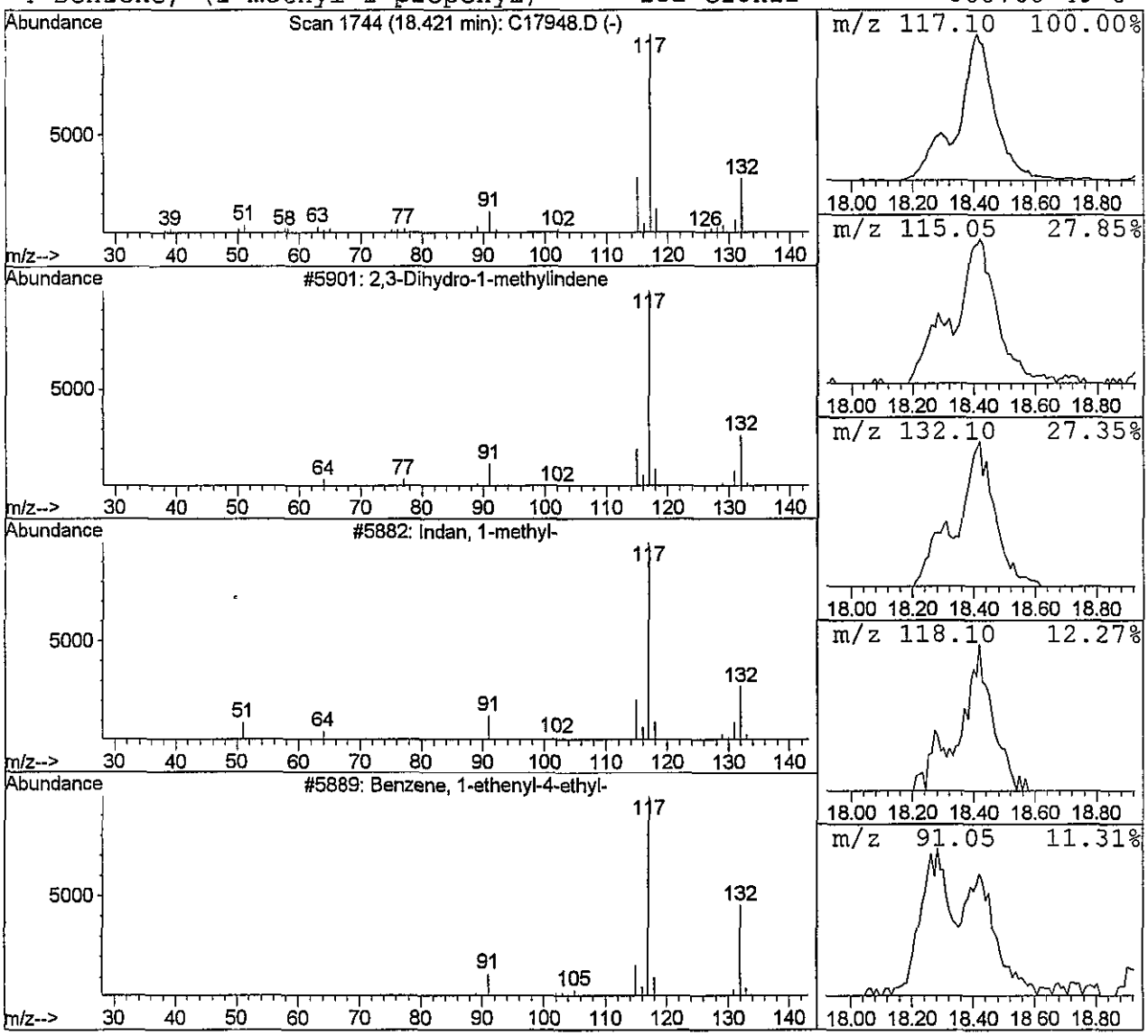
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 2,3-Dihydro-1-methylindene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.42	2.22 ug\L	214744	1,4-Dichlorobenzene-d4	16.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	86
2	Indan, 1-methyl-	132	C10H12	000767-58-8	86
3	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	78
4	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	72



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17948.D Vial: 7
Acq On : 14 Dec 2000 14:54 Operator: TAG/VR
Sample : AC04476 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

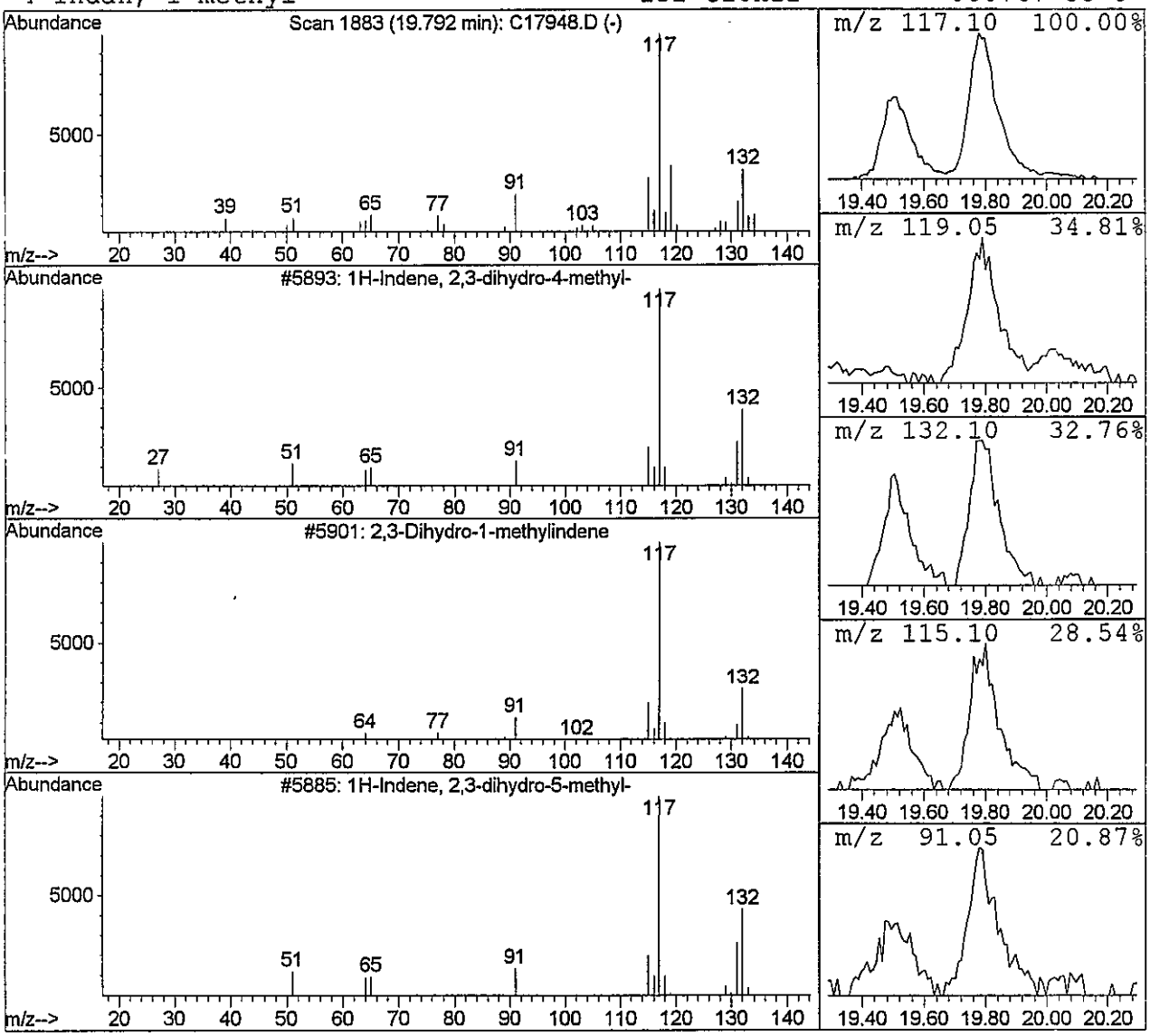
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 1H-Indene, 2,3-dihydro-4-methy Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.79	1.60 ug\L	154365	1,4-Dichlorobenzene-d4	16.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	81
2	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	81
3	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	76
4	Indan, 1-methyl-	132	C10H12	000767-58-8	74



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 14 Dec 2000 14:54
Data File: C:\HPCHEM\1\DATA\121400\C17948.D
Name: AC04476 25ml DF=1
Misc: 26397/C12140025
Method: c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.48	9.4	ug\L	1293480	ISTD01	6.47	1371260	10.0
Benzene, 1,2-difluor	7.75	7.6	ug\L	1036420	ISTD01	6.47	1371260	10.0
Benzene, cyclopropyl	17.40	3.2	ug\L	311631	ISTD03	16.91	965644	10.0
Benzene, 1-ethyl-2,4	18.28	2.0	ug\L	193630	ISTD03	16.91	965644	10.0
2,3-Dihydro-1-methyl	18.42	2.2	ug\L	214744	ISTD03	16.91	965644	10.0
1H-Indene, 2,3-dihyd	19.79	1.6	ug\L	154365	ISTD03	16.91	965644	10.0

C17948.D 12140025.M Fri Jan 05 15:35:13 2001 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190028.D Vial: 24
Acq On : 20 Dec 2000 16:47 Operator: MT
Sample : AC04477 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 17:42 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.10f	2098813	45.455 ug/mlm
Spiked Amount 50.000		Recovery =	90.91% ✓MT
3) SC C(39)	34.42f	3585378	81.615 ug/mlm
Spiked Amount 300.000		Recovery =	27.20% x MT
Target Compounds			
1) HM Florida PRO	3.70	19023862	334.483 ug/ml /1000 =

0.335 ppm
MT

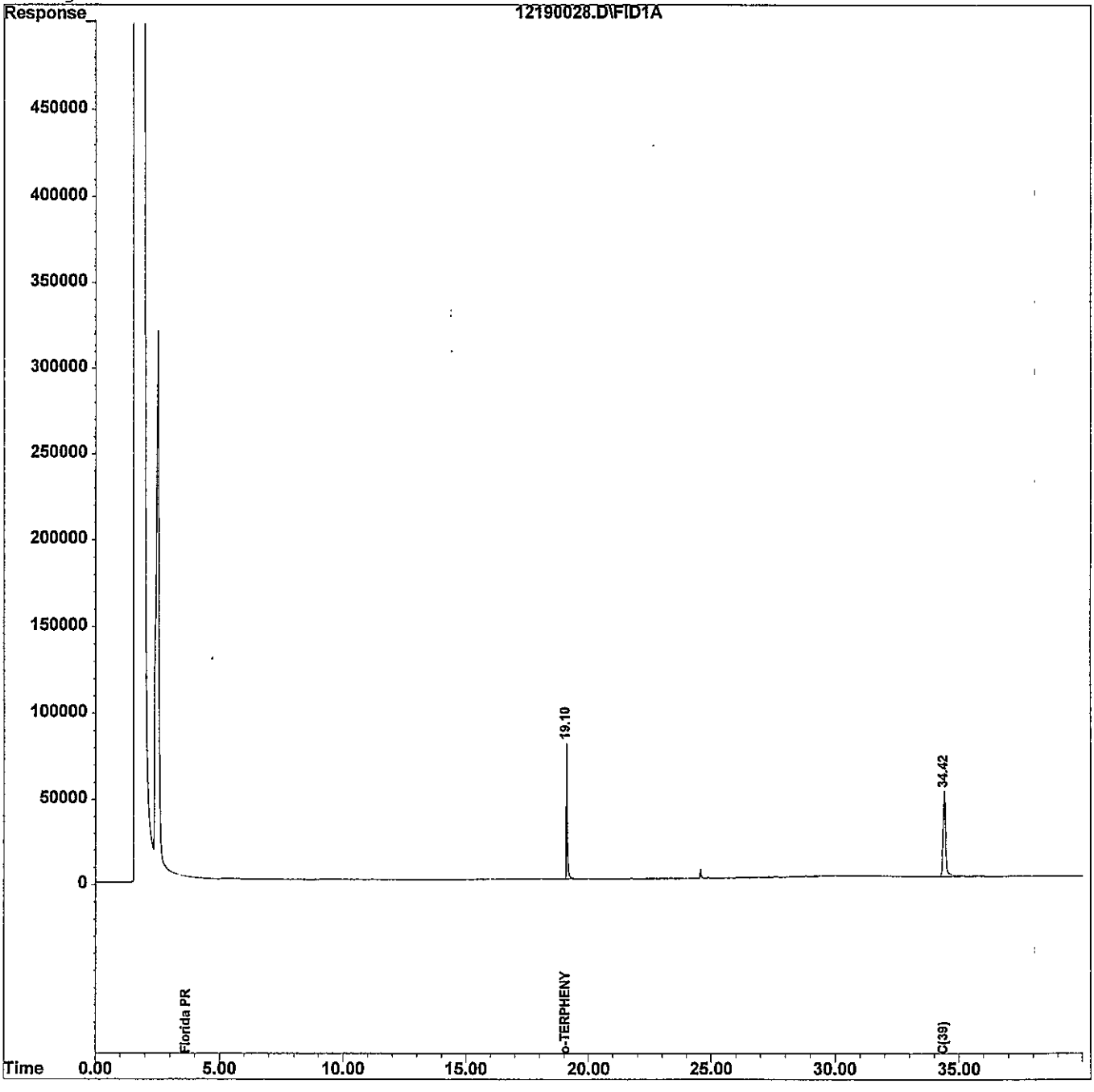
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190028.D Vial: 24
Acq On : 20 Dec 2000 16:47 Operator: MT
Sample : AC04477 Inst : DRO-B
Misc : 26397 1000mL Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 17:42 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17949.D
Acq On : 14 Dec 2000 15:25
Sample : AC04477 25ml DF=1
Misc : 26397/C12140025
MS Integration Params: rteint.p
Quant Time: Dec 14 15:51 2000

Vial: 8
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	424345	10.00 ug\L	0.02
45) Chlorobenzene-d5	12.79	117	304319	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.93	152	154873	10.00 ug\L	0.03
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	79128	8.57 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 85.70%		
46) Toluene-d8	10.29	98	399230	9.13 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 91.30%		
65) Bromofluorobenzene	14.89	95	200207	9.56 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.60%		

Target Compounds					Qvalue
8) Acrolein	3.80	56	65	~~8.93 ug\L #~~	1
11) Acetone	3.03	58	7135	61.85 ug\L NDL	72
14) Carbon Disulfide	3.17	76	26750	1.07 ug\L # NDL	90
15) Acetonitrile	3.32	41	926	~~0.57 ug\L #~~	54
16) Methylene Chloride	3.53	86	4802	0.83 ug\L #	34 0.83J
22) cis-1,2-Dichloroethene	5.47	96	286570	23.67 ug\L	85
23) 2-Butanone	5.51	72	1621	~~12.67 ug\L #~~	1
25) Methacrylonitrile	6.35	41	9485	~~7.84 ug\L #~~	30
34) Isobutyl alcohol	7.19	43	66	~~3.44 ug\L #~~	1
36) Trichloroethene	8.17	95	5078687	253.09 ug\L	93 NDL
64) 1,4-dichloro-2-Butene	14.88	75	103132	~~21.79 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	103132	~~21.79 ug\L #~~	100

VR
12/14/00

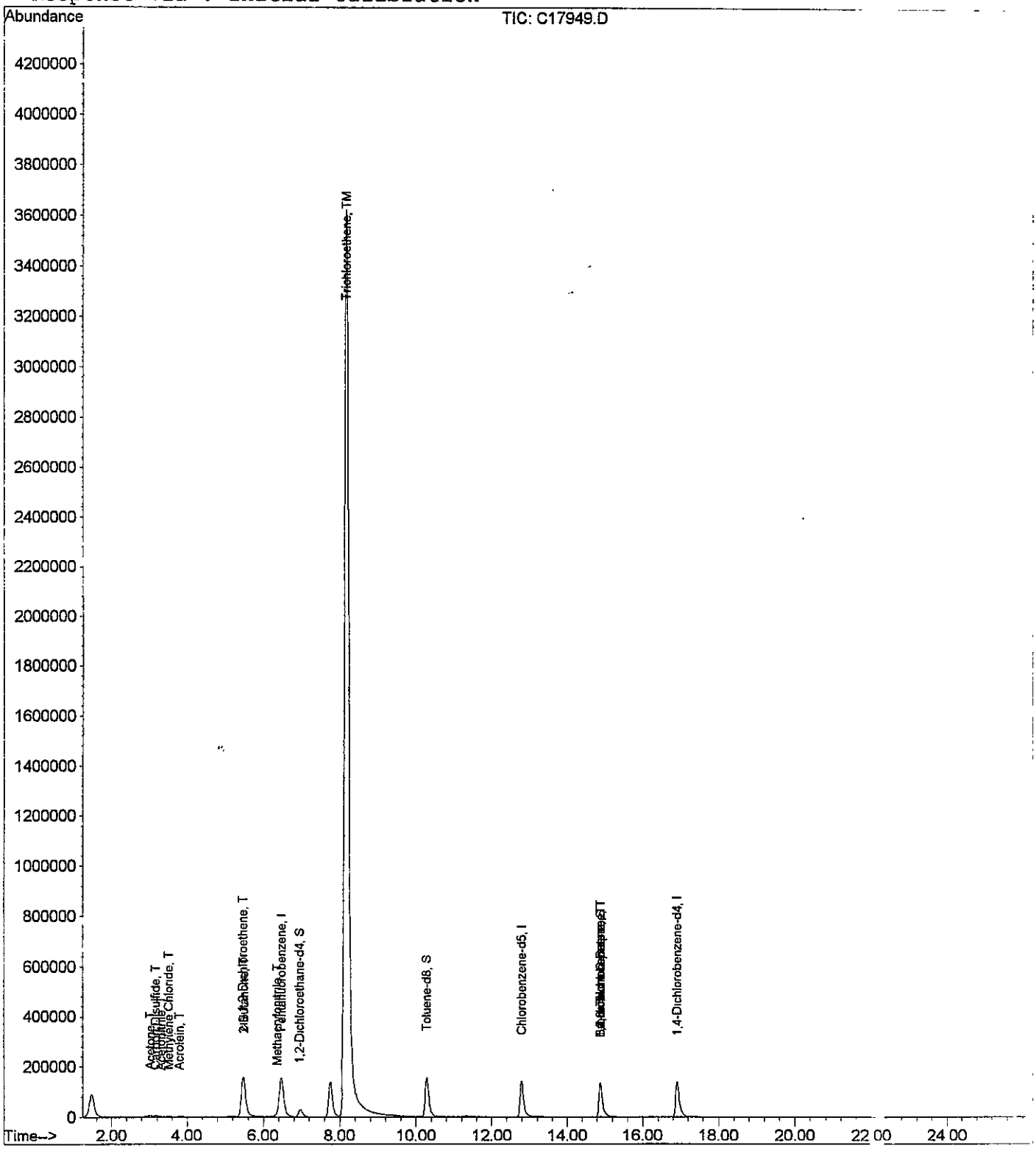
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17949.D
Acq On : 14 Dec 2000 15:25
Sample : AC04477 25ml DF=1
Misc : 26397/C12140025
MS Integration Params: rteint.p
Quant Time: Dec 14 15:51 2000

Vial: 8
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

17-OLD-36-DUP

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04477

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17949.D

Level: (low/med) LOW Date Received: 12/06/00

% Moisture: not dec. _____ Date Analyzed: 12/14/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121400\C17949.D Vial: 8
Acq On : 14 Dec 2000 15:25 Operator: TAG/VR
Sample : AC04477 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

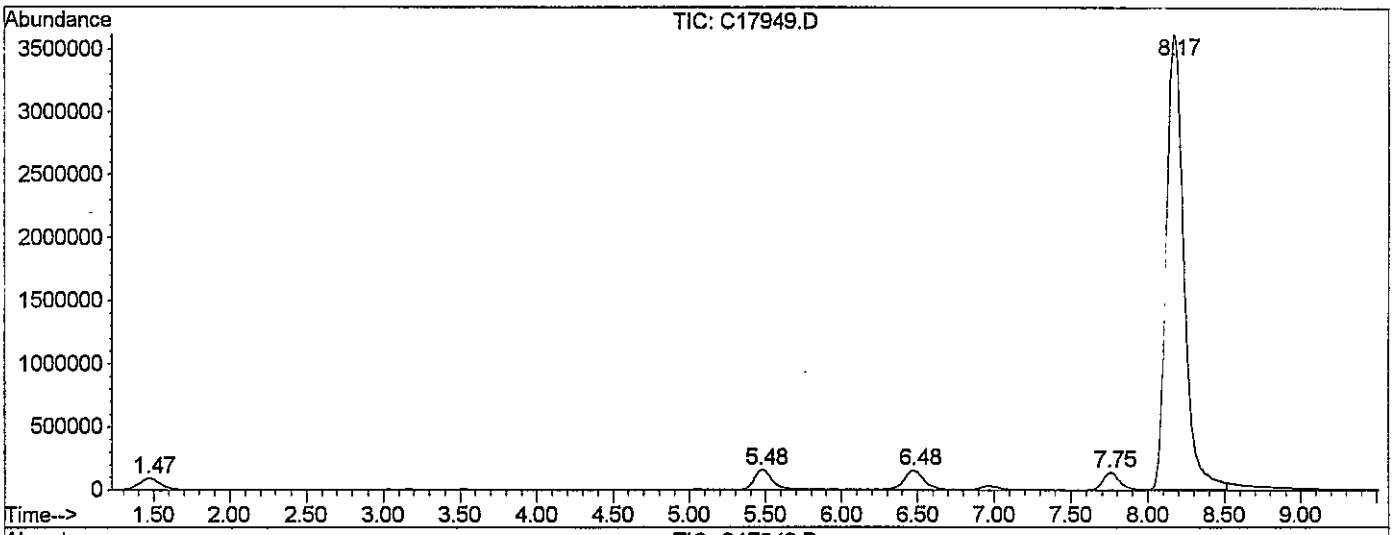
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.473	3	26	49	rBV	90730	862737	3.03%	2.338%
2	5.477	416	432	456	rBV2	157789	1261316	4.42%	3.419%
3	6.483	506	534	554	rBV2	156865	1367050	4.79%	3.705%
4	7.755	647	663	688	rBV	139245	1036620	3.64%	2.810%
5	8.169	688	705	740	rBV	3619994	28517013	100.00%	77.297%
6	10.289	906	920	944	rBV2	157757	1064526	3.73%	2.885%
7	12.794	1162	1174	1199	rBV	143970	928047	3.25%	2.516%
8	14.885	1371	1386	1415	rBV2	135507	892576	3.13%	2.419%
9	16.917	1579	1592	1620	rBV2	140896	962989	3.38%	2.610%

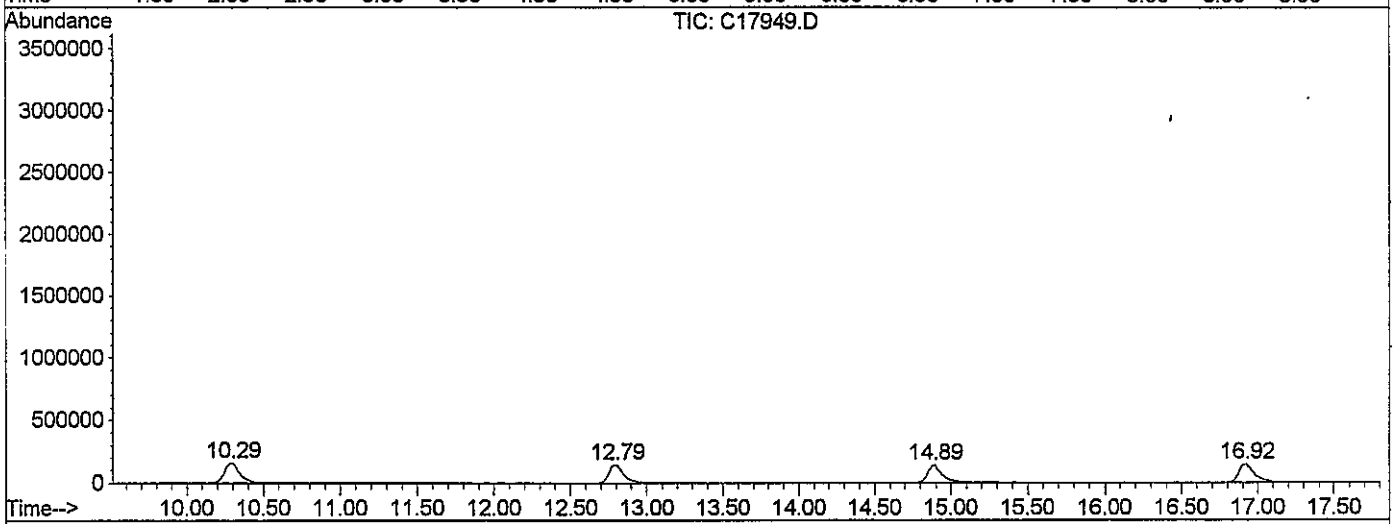
Sum of corrected areas: 36892874

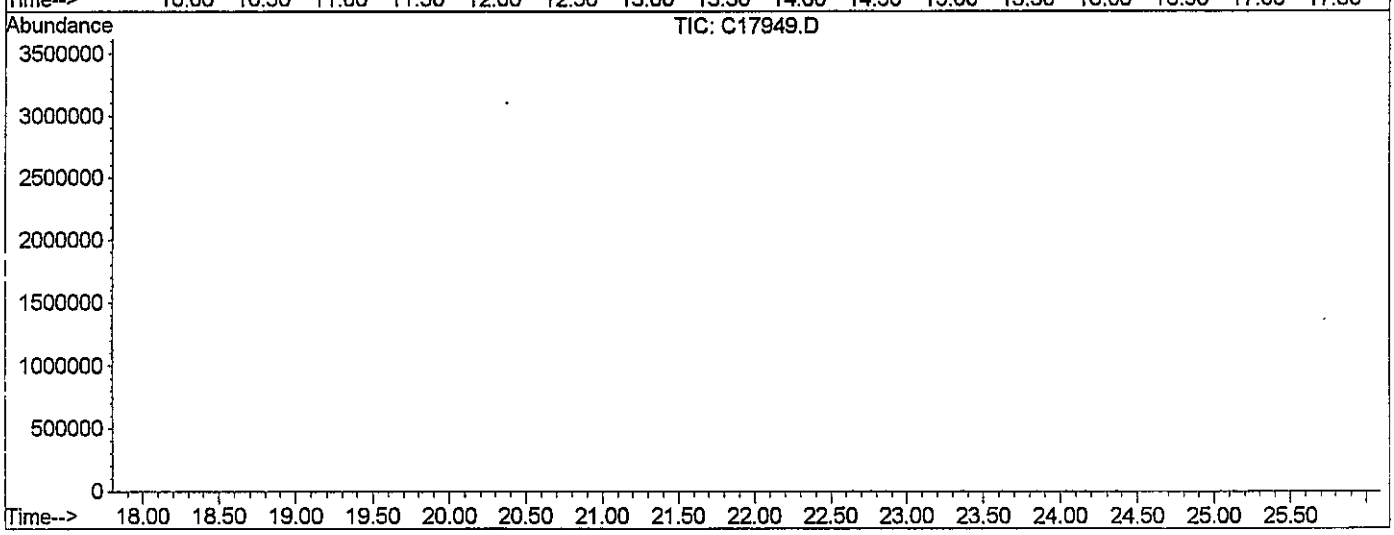
C17949.D 12140025.M Fri Jan 05 15:37:51 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121400\C17949.D
Operator : TAG/VR
Acquired : 14 Dec 2000 15:25 using AcqMethod 12140025
Instrument : VOA-C
Sample Name: AC04477 25ml DF=1
Misc Info : 26397/C12140025
Vial Number: 8
Quant File :12140025.RES (RTE Integrator)







C17949.D 12140025.M Fri Jan 05 15:37:52 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17949.D Vial: 8
Acq On : 14 Dec 2000 15:25 Operator: TAG/VR
Sample : AC04477 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

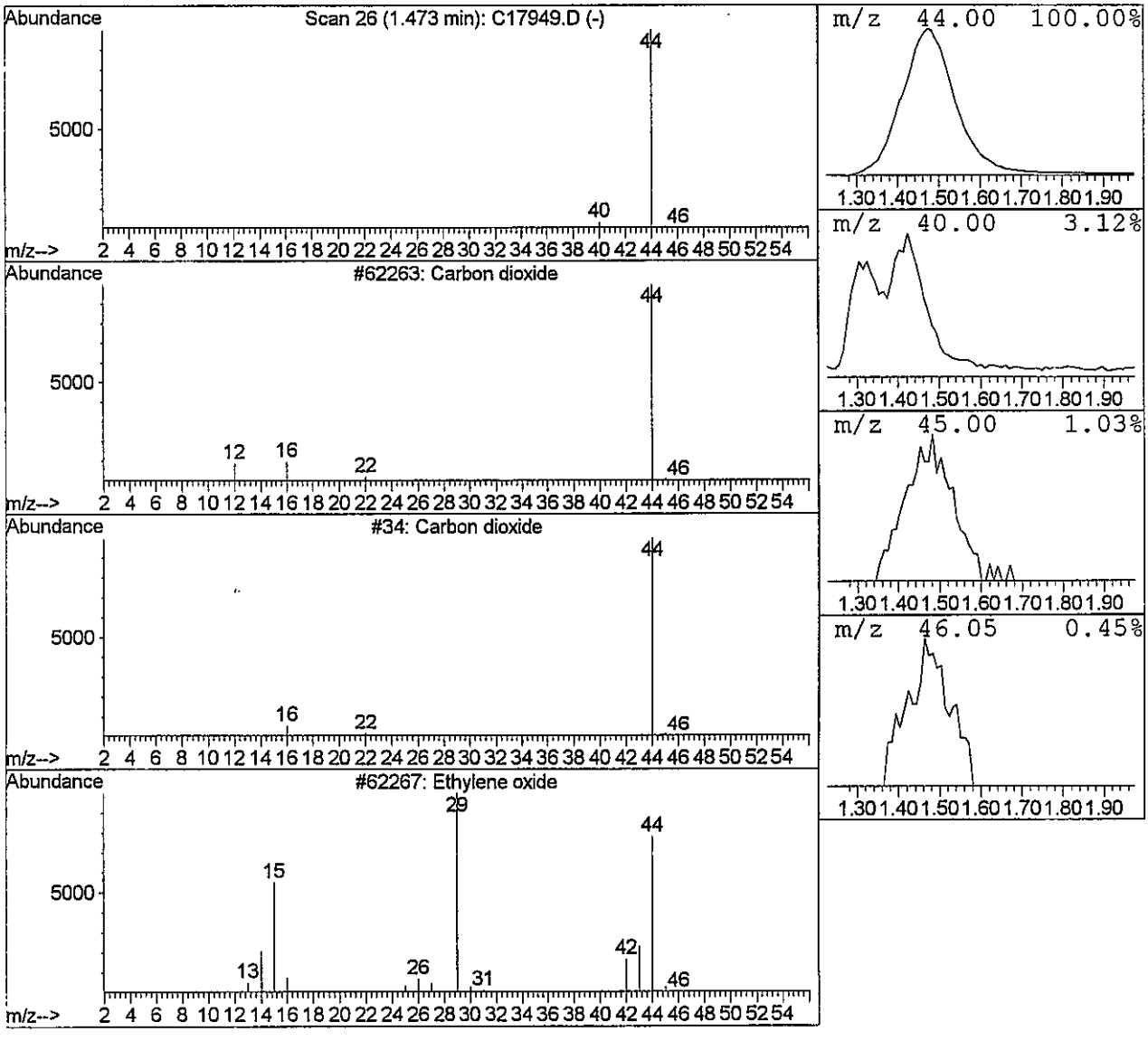
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.47	6.31 ug\L	862737	Pentafluorobenzene	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17949.D Vial: 8
Acq On : 14 Dec 2000 15:25 Operator: TAG/VR
Sample : AC04477 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

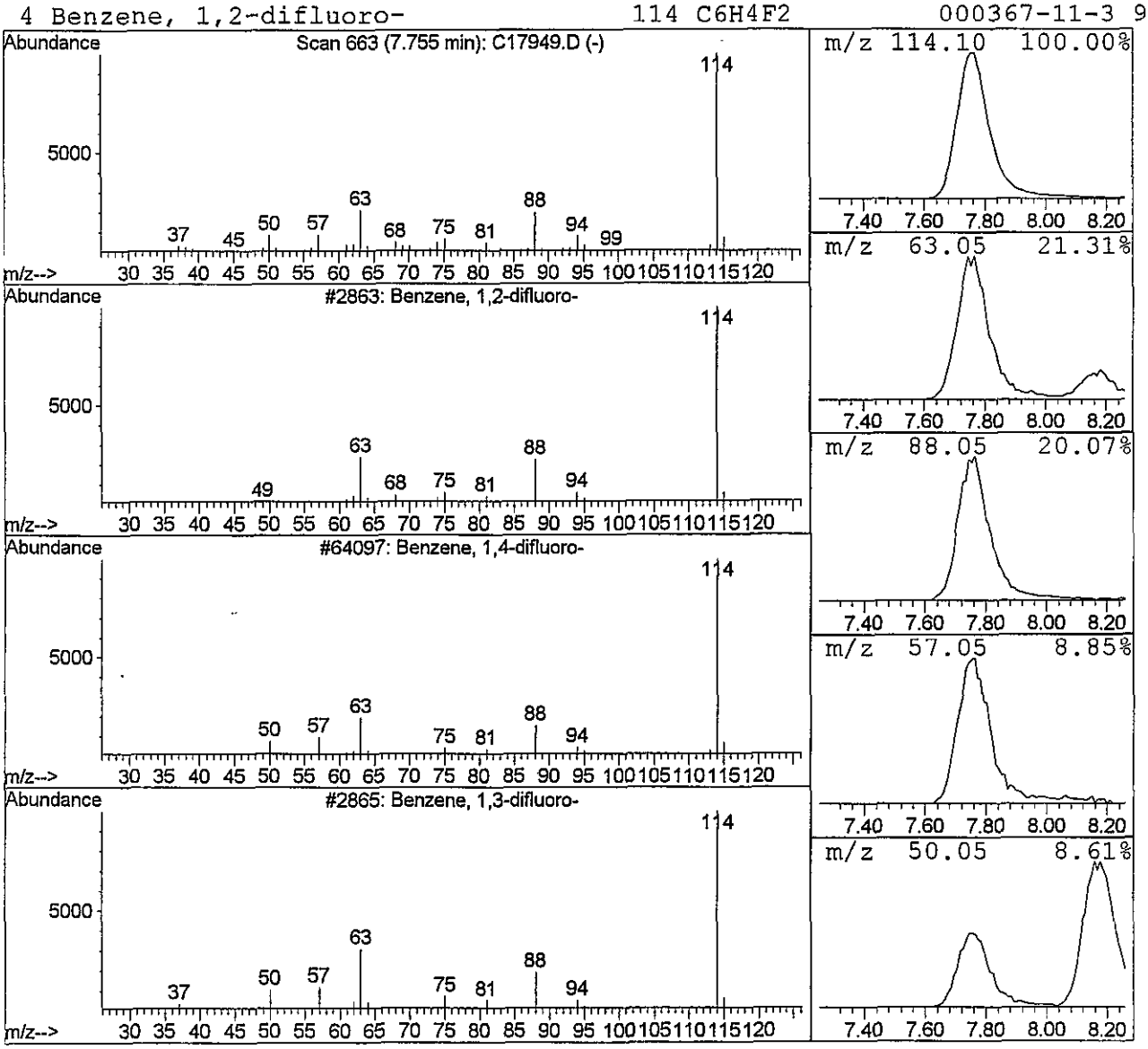
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,2-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.58 ug\L	1036620	Pentafluorobenzene	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 14 Dec 2000 15:25
Data File: C:\HPCHEM\1\DATA\121400\C17949.D
Name: AC04477 25ml DF=1
Misc: 26397/C12140025
Method: c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.47	6.3	ug\L	862737	ISTD01	6.48	1367050	10.0
Benzene, 1,2-difluor	7.75	7.6	ug\L	1036620	ISTD01	6.48	1367050	10.0

C17949.D 12140025.M Fri Jan 05 15:37:55 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17957.D Vial: 16
Acq On : 14 Dec 2000 18:58 Operator: TAG/VR
Sample : AC04477 2.5ml DF=10 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 19:24 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	397658	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	287754	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	143698	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	73381	8.48 ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%		
46) Toluene-d8	10.28	98	392922	9.50 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.00%		
65) Bromofluorobenzene	14.88	95	193904	9.98 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.80%		

Target Compounds					Qvalue
11) Acetone	3.00	58	67	4.52 ug\L #	1
16) Methylene Chloride	3.52	86	15007	2.78 ug\L #	21
22) cis-1,2-Dichloroethene	5.47	96	26238	2.31 ug\L	83
30) 1,4-Dioxane	8.48	88	66	3.04 ug\L #	24
34) Isobutyl alcohol	7.61	43	65	-3.39 ug\L #	17
36) Trichloroethene	8.16	95	546939	29.09 ug\L	93
64) 1,4-dichloro-2-Butene	14.87	75	93073	21.19 ug\L #	100
68) 1,2,3-Trichloropropane	14.87	75	93073	21.19 ug\L #	100

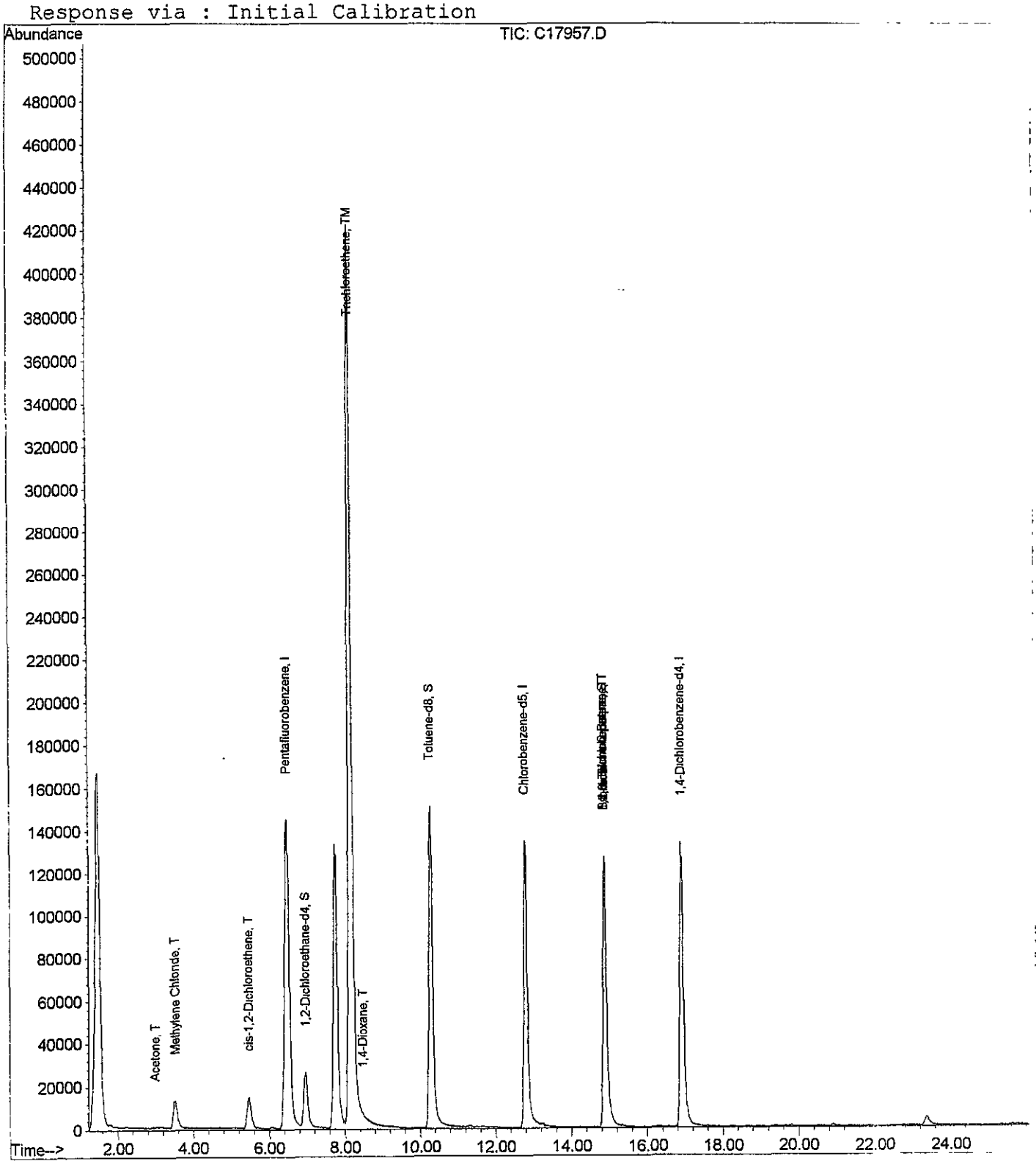
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17957.D Vial: 16
Acq On : 14 Dec 2000 18:58 Operator: TAG/VR
Sample : AC04477 2.5ml DF=10 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 19:24 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17944.D Vial: 3
Acq On : 14 Dec 2000 12:52 Operator: TAG/VR
Sample : AC04478 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 13:18 2000 Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	405879	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.80	117	289836	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.90	152	145501	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	72785	8.24 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.40%		
46) Toluene-d8	10.28	98	385116	9.25 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 92.50%		
65) Bromofluorobenzene	14.88	95	191168	9.72 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.20%		

Target Compounds					Qvalue
8) Acrolein	3.32	56	80	~~9.00 ug\L #~~	1
16) Methylene Chloride	3.51	86	26435	4.80 ug\L #	38 4.8
36) Trichloroethene	7.76	95	11255	~~0.59 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.87	75	98407	~~22.13 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.87	75	98407	~~22.13 ug\L #~~	100

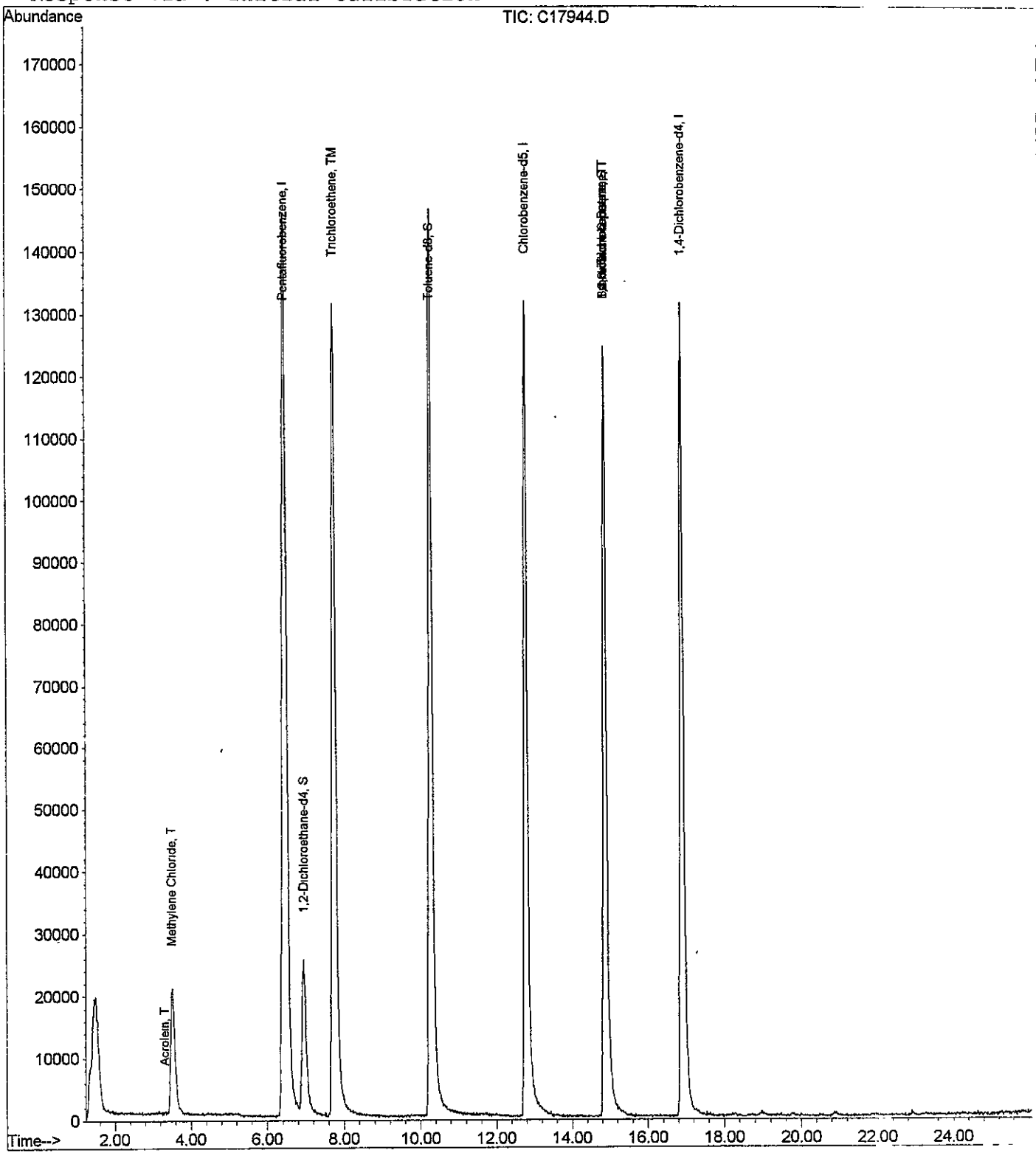
VR
12/14/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17944.D Vial: 3
Acq On : 14 Dec 2000 12:52 Operator: TAG/VR
Sample : AC04478 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 13:18 2000 Quant Results File: 12140025.RES

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017-OLD-36-TB4

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC04478

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17944.D

Level: (low/med) LOW Date Received: 12/06/00

% Moisture: not dec. _____ Date Analyzed: 12/14/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121400\C17944.D Vial: 3
Acq On : 14 Dec 2000 12:52 Operator: TAG/VR
Sample : AC04478 25ml DF=1 Inst : VOA-C
Misc : 26397/C12140025 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

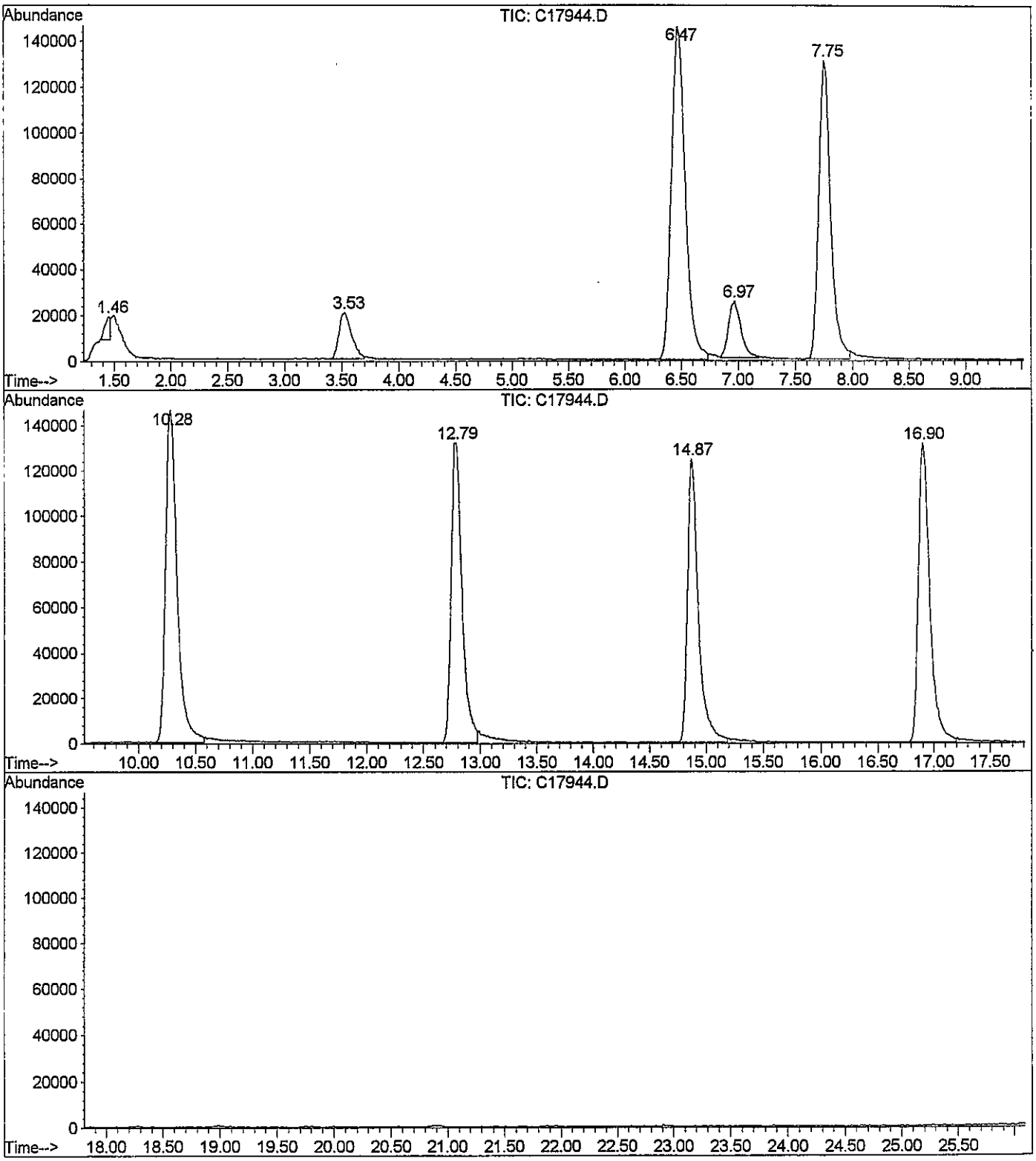
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.457	16	24	25	rBV	9984	33543	2.73%	0.545%
2	3.528	222	234	251	rBV3	20032	151186	12.29%	2.457%
3	6.467	515	532	559	rBV2	145542	1229899	100.00%	19.990%
4	6.970	570	583	605	rVB2	24409	178292	14.50%	2.898%
5	7.749	648	662	685	rBV	130844	950956	77.32%	15.456%
6	10.283	904	919	949	rBV2	146223	1025824	83.41%	16.673%
7	12.788	1160	1173	1192	rBV2	131719	858719	69.82%	13.957%
8	14.869	1373	1384	1416	rBV	124528	834224	67.83%	13.559%
9	16.901	1576	1590	1620	rBV	131489	889995	72.36%	14.465%

Sum of corrected areas: 6152638

C17944.D 12140025.M Fri Jan 05 15:39:51 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121400\C17944.D
Operator : TAG/VR
Acquired : 14 Dec 2000 12:52 using AcqMethod 12140025
Instrument : VOA-C
Sample Name: AC04478 25ml DF=1
Misc Info : 26397/C12140025
Vial Number: 3
Quant File :12140025.RES (RTE Integrator)



C17944.D 12140025.M Fri Jan 05 15:39:52 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17944.D
Acq On : 14 Dec 2000 12:52
Sample : AC04478 25ml DF=1
Misc : 26397/C12140025
MS Integration Params: LSCINT.P

Vial: 3
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

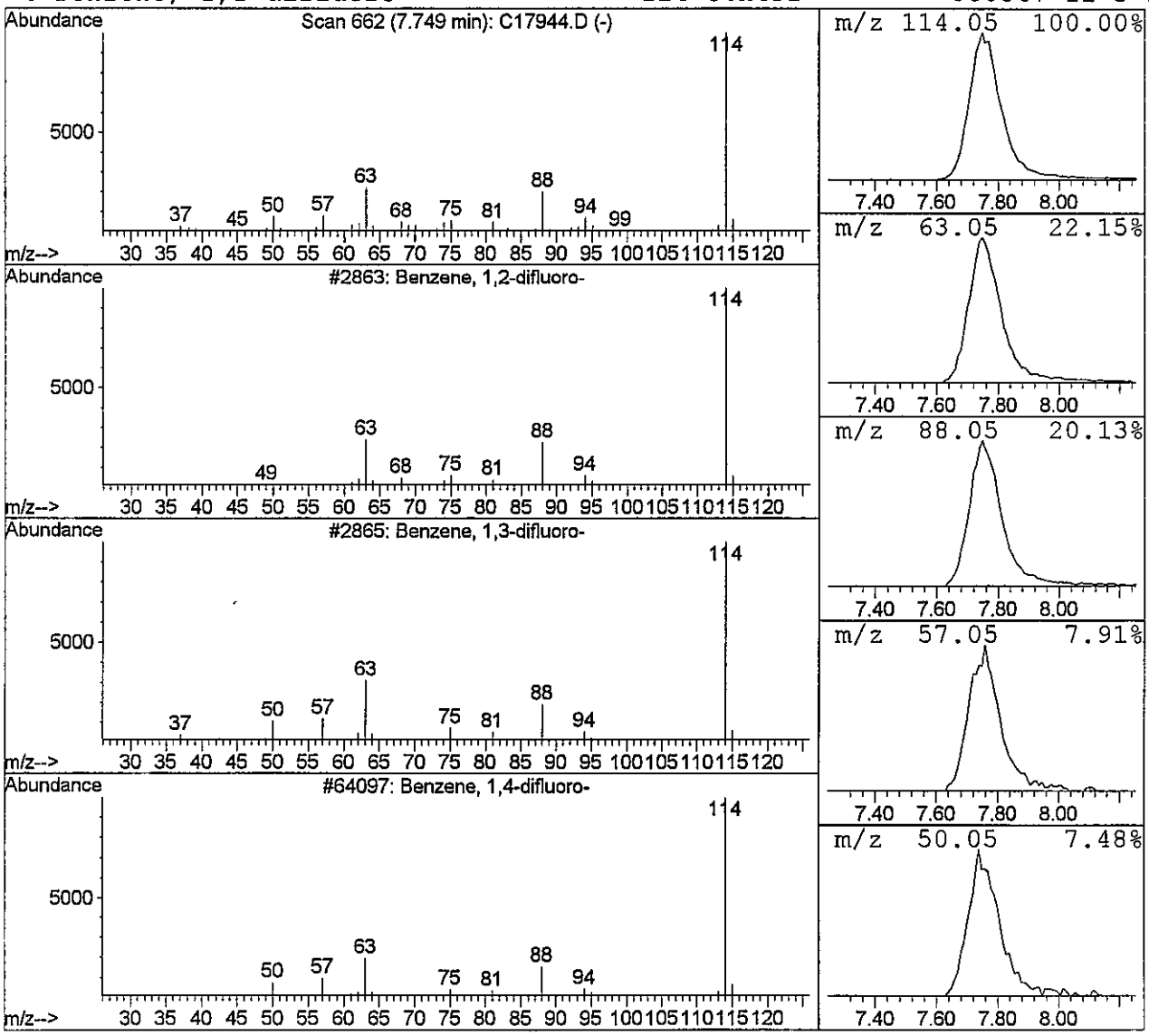
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Benzene, 1,2-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.73 ug\L	950956	Pentafluorobenzene	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
3	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	93
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 14 Dec 2000 12:52
Data File: C:\HPCHEM\1\DATA\121400\C17944.D
Name: AC04478 25ml DF=1
Misc: 26397/C12140025
Method: c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, 1,2-difluor	7.75	7.7	ug\L	950956	ISTD01	6.48	1229900	10.0

C17944.D 12140025.M Fri Jan 05 15:39:55 2001 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160023.D Vial: 23
Acq On : 17 Dec 2000 13:09 Operator: MT
Sample : QFW1212001 Inst : DRO-B
Misc : PROW BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.25	1992544	43.154 ug/mlm
Spiked Amount 50.000		Recovery =	86.31% ✓ MT
3) SC C(39)	34.68	816150	18.578 ug/mlm
Spiked Amount 300.000		Recovery =	6.19% x MT
Target Compounds			
1) HM Florida PRO	3.70	18735415	329.411 ug/ml / 1000 =

0.335 ppm = < ½ RDL ✓
MT MT

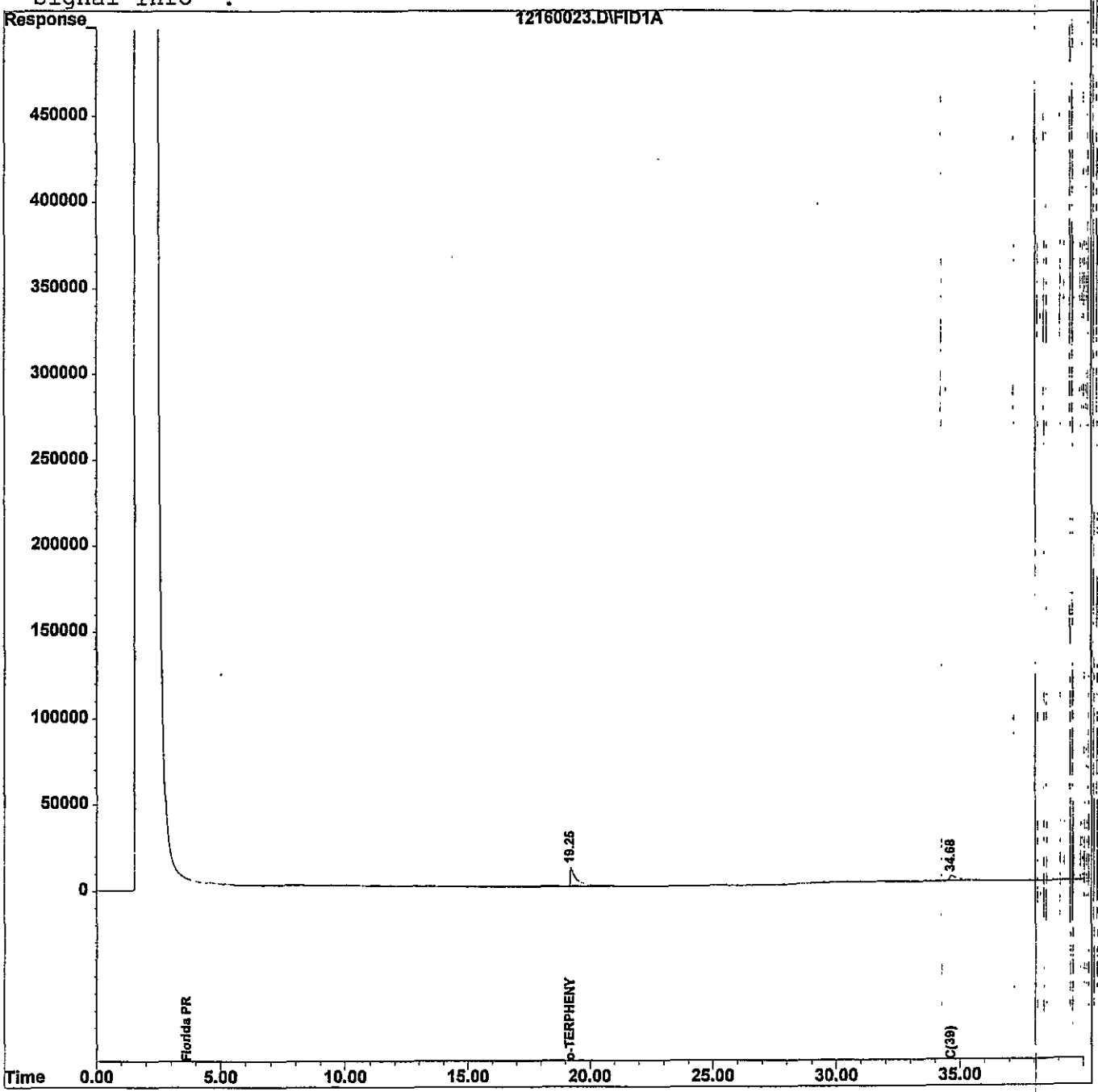
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160023.D Vial: 23
Acq On : 17 Dec 2000 13:09 Operator: MT
Sample : QFW1212001 Inst : DRO-B
Misc : PROW BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121400\C17943.D
Acq On : 14 Dec 2000 12:15
Sample : QVW121400 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 14 12:41 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12140025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	433896	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.79	117	310954	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	154998	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	77531	8.21 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.10%		
46) Toluene-d8	10.28	98	422558	9.46 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.60%		
65) Bromofluorobenzene	14.87	95	210772	10.06 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.60%		

Target Compounds					Qvalue
30) 1,4-Dioxane	8.55	88	60	~~2.53 ug\L #~~	24
36) Trichloroethene	7.75	95	12704	~~0.62 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	101637	~~21.45 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	101637	~~21.45 ug\L~~ #	100

VR
12/14/00

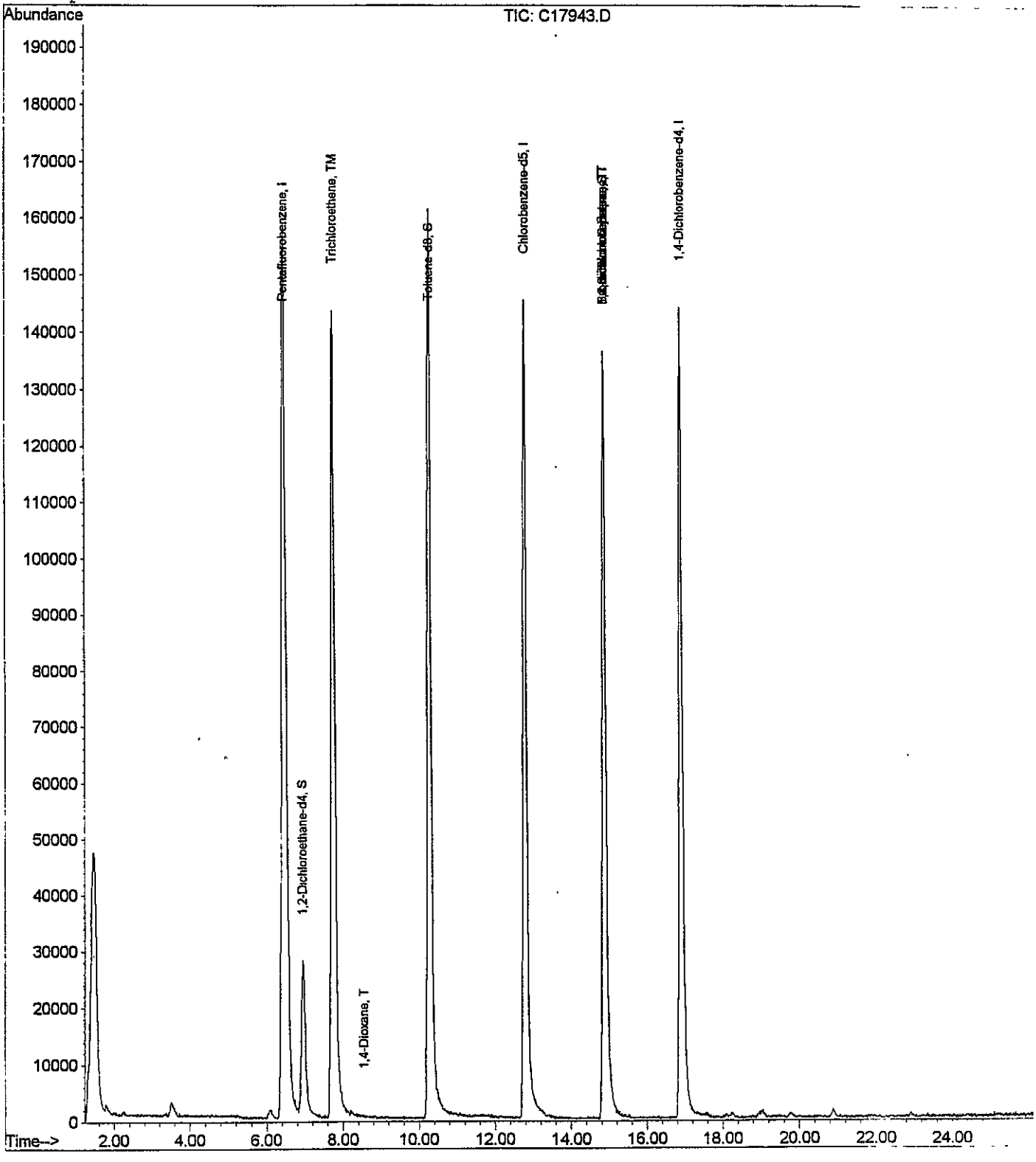
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121400\C17943.D
Acq On : 14 Dec 2000 12:15
Sample : QVW121400 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 14 12:41 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12140025.RES

Method : C:\HPCHEM\1\DATA\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WATER BLANK

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: QVW121400 C1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C17943.D

Level: (low/med) LOW Date Received: 12/06/00

% Moisture: not dec. _____ Date Analyzed: 12/14/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\121400\C17943.D Vial: 2
Acq On : 14 Dec 2000 12:15 Operator: TAG/VR
Sample : QVW121400 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

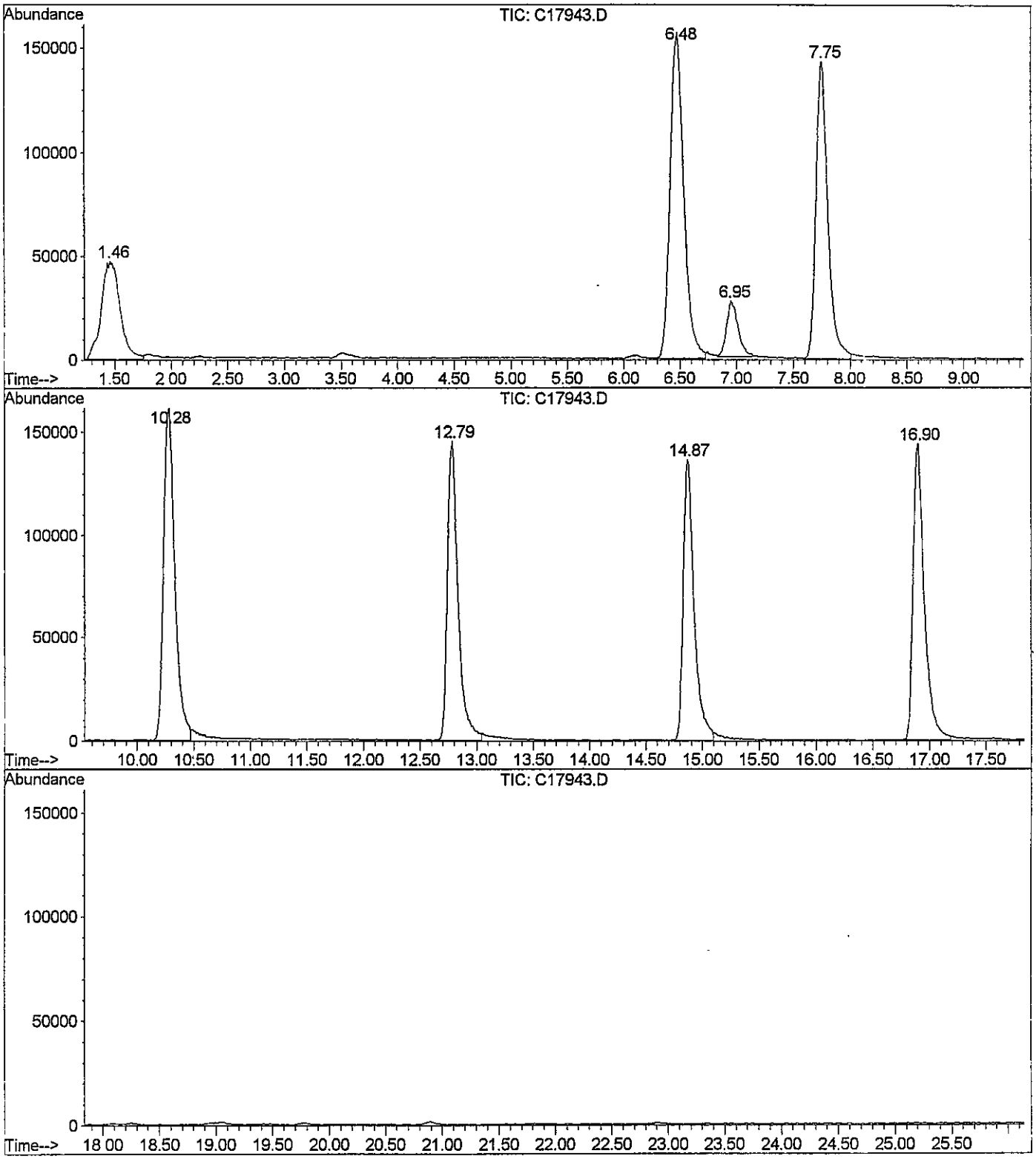
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.458	3	24	54	rBV	47217	535329	40.54%	7.663%
2	6.477	512	533	558	rBV	157310	1320364	100.00%	18.901%
3	6.951	569	581	601	rVV	26734	189452	14.35%	2.712%
4	7.750	646	662	688	rBV2	143207	1039598	78.74%	14.882%
5	10.284	904	919	938	rBV	160974	1090671	82.60%	15.613%
6	12.789	1158	1173	1199	rBV2	145147	950493	71.99%	13.606%
7	14.870	1371	1384	1407	rBV2	136271	899464	68.12%	12.876%
8	16.901	1577	1590	1619	rBV3	143568	960326	72.73%	13.747%

Sum of corrected areas: 6985697

C17943.D 12140025.M Fri Jan 05 15:40:47 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\121400\C17943.D
Operator : TAG/VR
Acquired : 14 Dec 2000 12:15 using AcqMethod 12140025
Instrument : VOA-C
Sample Name: QVW121400 C1
Misc Info : WATER BLANK 25ml DF=1
Vial Number: 2
Quant File :12140025.RES (RTE Integrator)



C17943.D 12140025.M Fri Jan 05 15:40:48 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17943.D Vial: 2
Acq On : 14 Dec 2000 12:15 Operator: TAG/VR
Sample : QVW121400 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

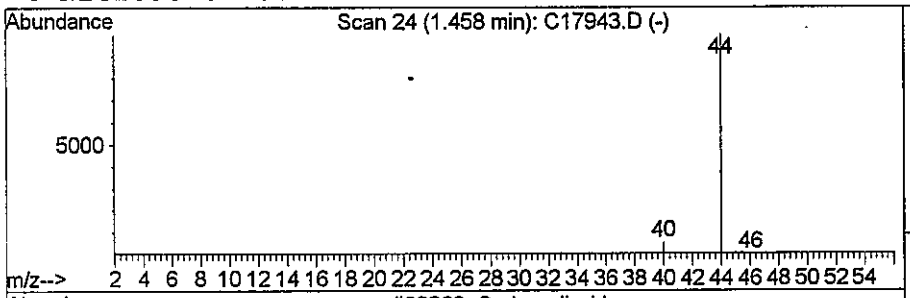
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

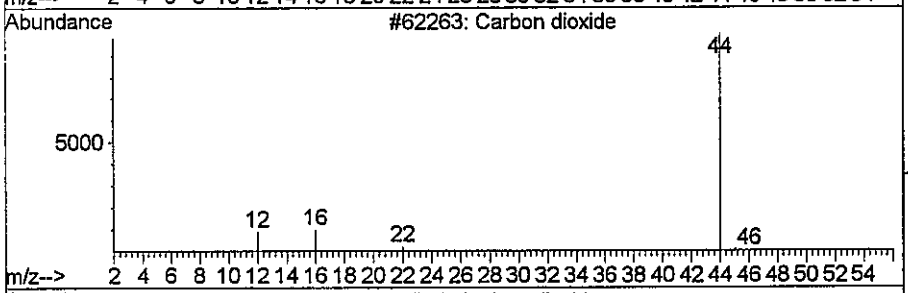
****

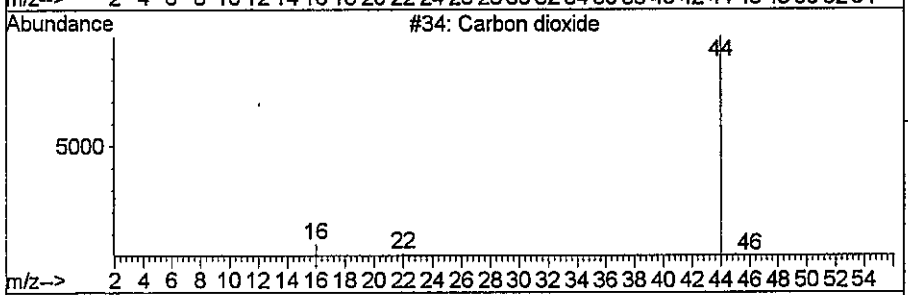
Peak Number 1 Carbon dioxide Concentration Rank 2

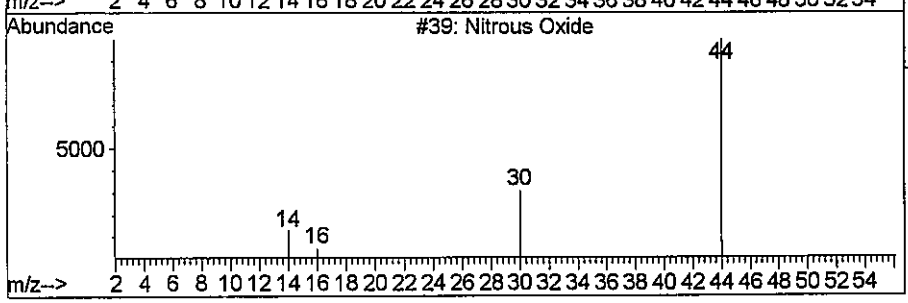
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.46	4.05 ug\L	535329	Pentafluorobenzene	6.48

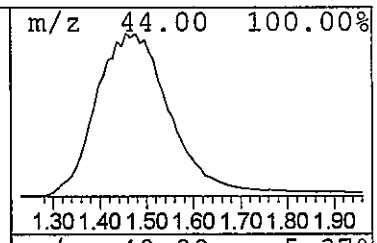
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

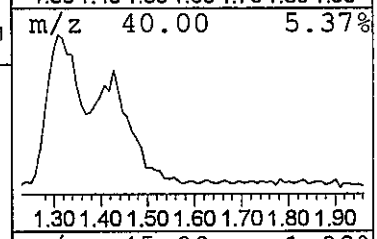


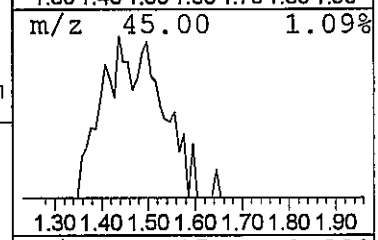


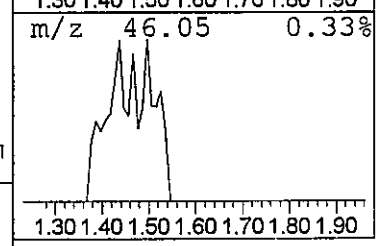












Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\121400\C17943.D Vial: 2
Acq On : 14 Dec 2000 12:15 Operator: TAG/VR
Sample : QVW121400 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

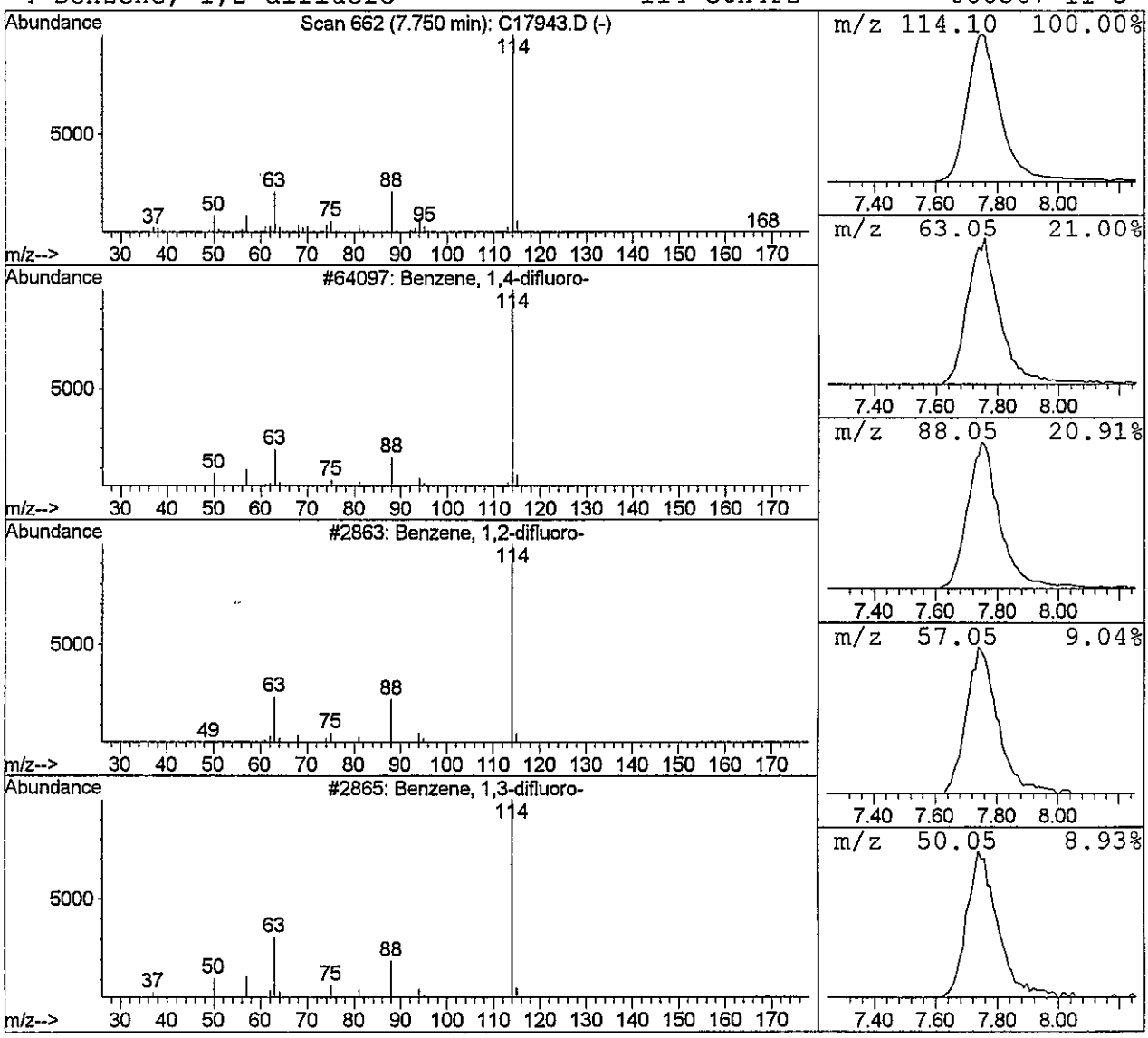
Quant Method : c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,4-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	7.87 ug\L	1039600	Pentafluorobenzene	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	93
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 14 Dec 2000 12:15
Data File: C:\HPCHEM\1\DATA\121400\C17943.D
Name: QVW121400 C1
Misc: WATER BLANK 25ml DF=1
Method: c:\hpchem\1\data\121400\12140025.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.46	4.1	ug\L	535329	ISTD01	6.48	1320360	10.0
Benzene, 1,4-difluor	7.75	7.9	ug\L	1039600	ISTD01	6.48	1320360	10.0

C17943.D 12140025.M Fri Jan 05 15:40:52 2001 RPT1

SVO GC CALIBRATION CHECKLIST
FL-PRO

DATE / INSTRUMENT: 12-08-00 / DRO-B	METHOD: FL-PRO
MATRIX: Soil / Water	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: MT		Reviewer: YGK	
Date: 12-11-00	Time: 18:15	Date: 12/20/00	Time: 10:50

Sequence Date: 12-08-00
Analyst Initials: MT
Run Method: PRO0901
Quant Method: ↓

	Sample		Blank/LCS	
Water OTP/C(39) Limits	82-142	42-193	82-142	42-193
Soil OTP/C(39) Limits	62-109	60-118	62-109	60-118

Compound: FL PRO
Date: 9-01-00

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery		PRO Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solv Blank	NA	MeCl2	1X	NA	NA	NA		✓	
2	850 PHS PRO ICAL	↓	Std.	↓	↓	↓	↓	005V226	✓	
3	2550	↓	↓	↓	↓	↓	↓	005V227	✓	
4	4250	↓	↓	↓	↓	↓	↓	005V228	✓	
5	5950	↓	↓	↓	↓	↓	↓	005V229	✓	
6	7650 ~~8500~~ MT 12-8-00	↓	↓	↓	↓	↓	↓	005V230	✓	
7	Solv Blank	↓	MeCl2	↓	↓	↓	↓		✓	
8	4250 PHS PRO ICV	↓	Std.	↓	MT 12-8-00 87 82	MT 12-8-00 85 90	MT 12-8-00 114 82	005V231	✓	
9	QFW1205001	12-05-00	W	↓	101	5.1	NA	↓	✓	<½RDL
10	QFW1205002	↓	↓	↓	88	5.1	63	↓	✓	
11	04004 MS	↓	↓	↓	75	3.4	60	↓	✓	
12	04004 MSD	↓	↓	↓	85	4.7	60	↓	✓	
13	03938	↓	↓	↓	93	14	NA	↓	✓	
14	04002	↓	↓	↓	84	7.1	↓	↓	✓	
15	04003	↓	↓	↓	65	5.1	↓	↓	✓	
16	04004	↓	↓	↓	74	6.1	↓	↓	✓	
17	04005	↓	↓	↓	66	3.2	↓	↓	✓	
18	04006	↓	↓	↓	72	8.0	↓	↓	✓	
19	4250 PHS PRO CCV	NA	Std.	↓	79	87	79	005V231	✓	
20	Solv Blank	↓	MeCl2	↓	NA	NA	NA	↓	✓	
21	04007	12-05-00	W	↓	37	6.1	↓	↓	✓	
22	04008	↓	↓	↓	89	10	↓	↓	✓	

Initials / Date: MT 12-11-00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL PRO ICAL
Lab Standard ID# 00SV226 - 00SV230

Date Made: 12-08-00
Expire Date: 6-08-01
Matrix: $MeCl_2$

Prepared By: MT

Standard	Lot\Lab ID#	Conc.	Amount Used	Final Conc.
FL TRPH Std.	S00A117, S00A197, S00A198	500 ppm	100 µl	850 PHS
			300	2550
			500	4250
			700	5950
			1000	~~8500~~ 1677
OTP	S00A073-2	10,000 ppm	5 µl added	50 ppm
C(39)	S00A187	3000 ppm	100 µl added	300 ppm
$MeCl_2$	EX00114	—	*	—
* All Stds. brought up to a final vol. = 1mL				
	MT 12-08-00			

Standard Name: FL PRO CCV
Lab Standard ID# 00SV231

Date Made: 12-08-00
Expire Date: 6-08-01
Matrix: $MeCl_2$

Prepared By: MT

Standard	Lot\Lab ID#	Conc.	Amount Used	Final Conc.
FL TRPH Std.	S00A117	500 ppm	500 µl	4250 PHS
OTP	S00A073-2	10,000	5	50 ppm
C(39)	S00A092-8	3000	100	300 ppm
$MeCl_2$	EX00114	—	395	—
	MT 12-08-00			

STPRLGFR.XLS

INITIAL CALIBRATION
5 POINT DRO

DATE:	12/8/00			
METHOD:	FL PRO			
INSTRUMENT:	DRO-B ; FRONT COLUMN			
ANALYST:	MT			
ICAL ID:	PRO1208			
CONCENTRATION (PPM)			**AREA**	**Rf**
850			62182797	73156.2
2550			138696300	54390.7
4250			225396394	53034.4
5950			320089278	53796.5
7692			384596146	49999.5
AVERAGE Rf:			56875.5	
% RSD:			16.3	

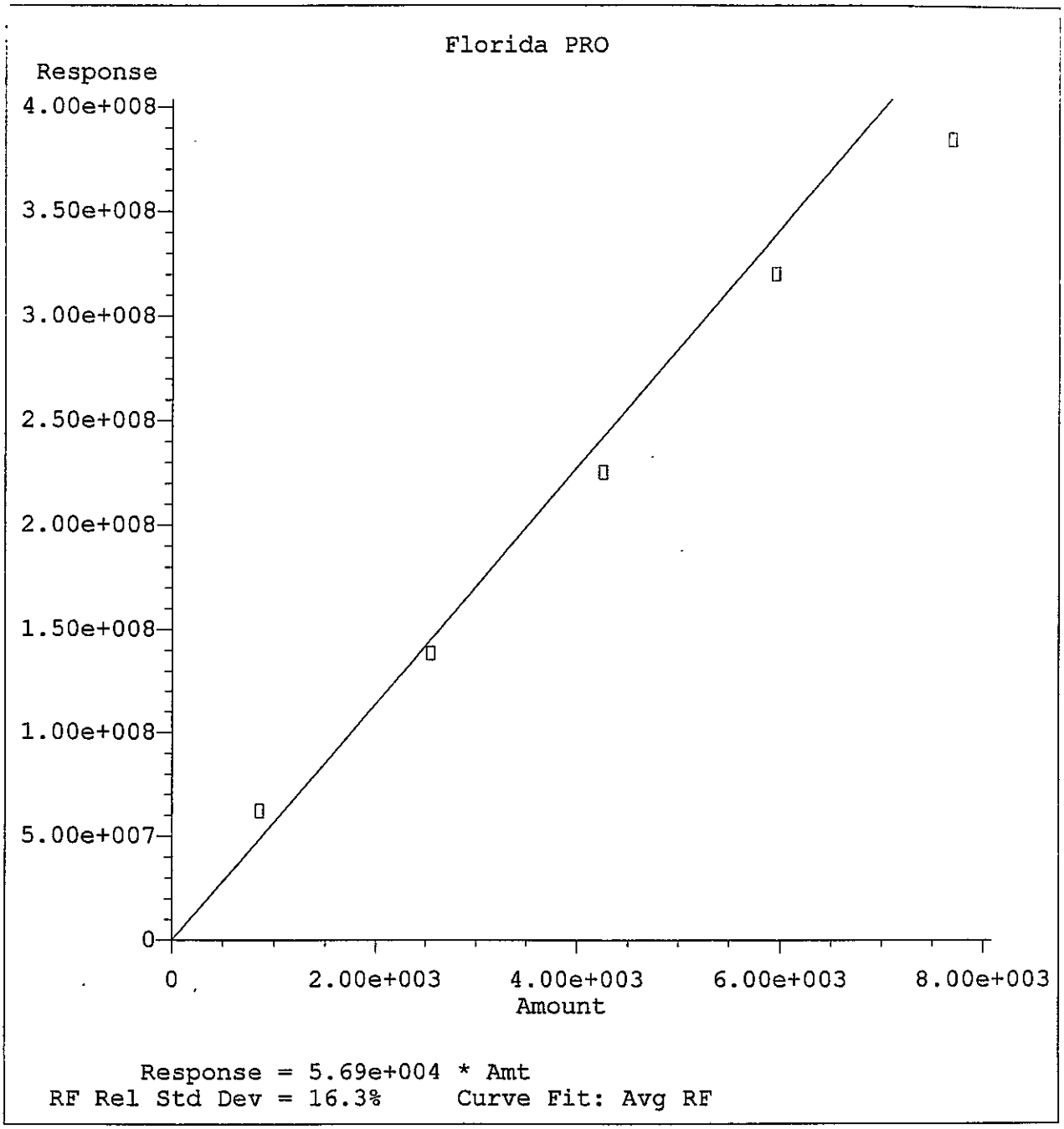
Response Factor Report DRO-B

Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 11 16:05:37 2000

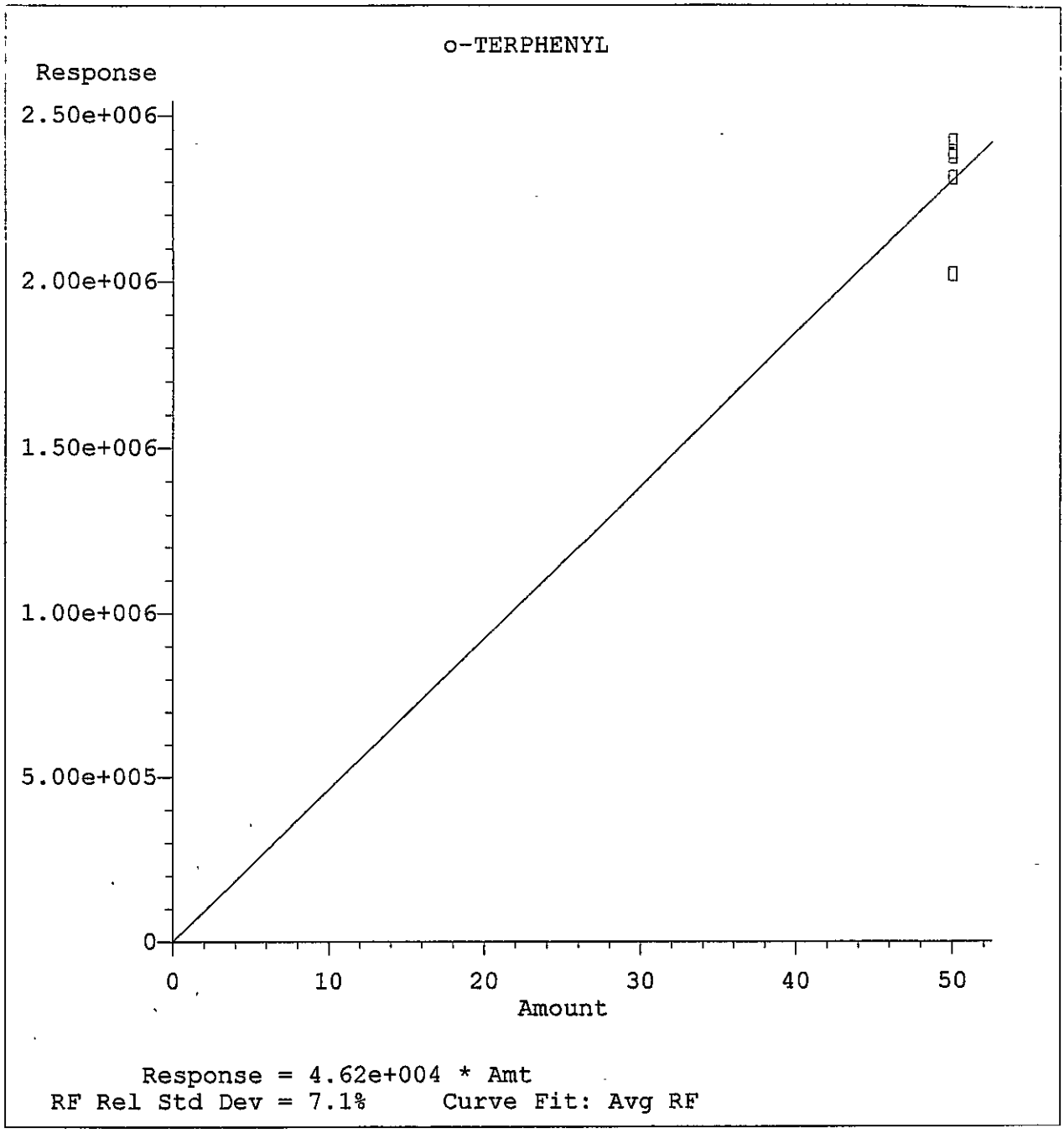
Calibration Files
1 =12080002.D 2 =12080003.D 3 =12080004.D
4 =12080005.D 5 =12080006.D

	Compound	1	2	3	4	5	Avg	%RSD
1) HM	Florida PRO	7.316	5.439	5.303	5.380	5.000	5.688 E4	16.28
2) SC	o-TERPHENYL	4.634	4.761	4.788	4.852	4.052	4.617 E4	7.06
3) SC	C(39)	4.379	4.697	4.519	4.375	3.995	4.393 E4	5.89

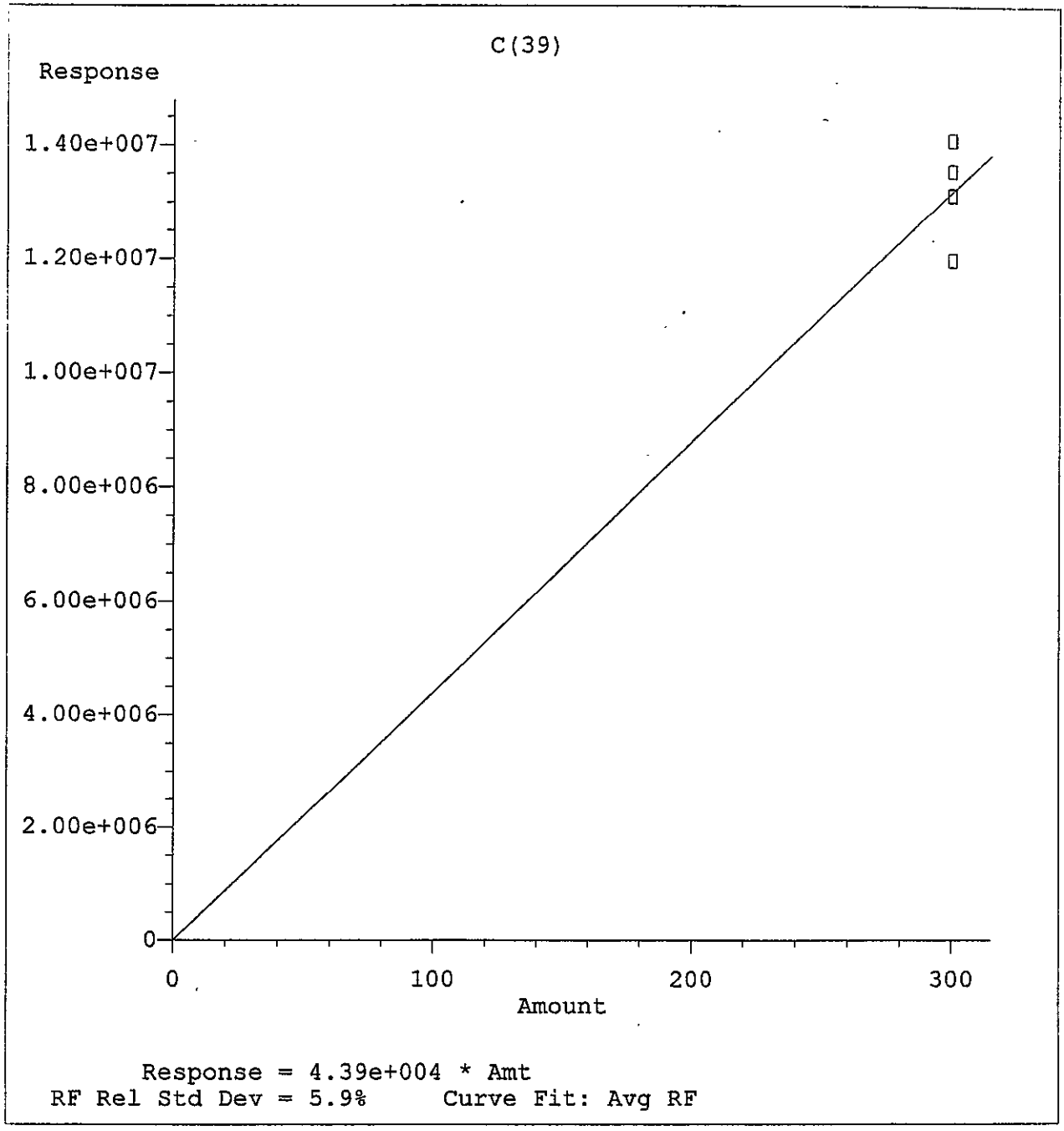
(#) = Out of Range



Method Name: C:\HPCHEM\2\METHODS\PRO1208.M
Calibration Table Last Updated: Mon Dec 18 12:09:37 2000



Method Name: C:\HPCHEM\2\METHODS\PRO1208.M
Calibration Table Last Updated: Fri Dec 08 17:06:58 2000



Method Name: C:\HPCHEM\2\METHODS\PRO1208.M
Calibration Table Last Updated: Fri Dec 08 17:06:58 2000

DATA ANALYSIS PARAMETERS

Method Name: C:\HPCHEM\2\METHODS\PRO1208.M

Percent Report Settings

Sort By: Signal

Output Destination
    Screen: No
    Printer: Yes
    File: No

Integration Events: AutoIntegrate

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Summary

Output Destination
    Screen: No
    Printer: Yes
    File: No

Generate Report During Run Method: Yes

FLORIDA PRO BY GC; INST. #2
Calibration Last Updated: Mon Dec 11 16:05:37 2000

Reference Window: 2.00 Minutes
Non-Reference Window: 0.05 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

---

1) Florida PRO ( )
Ret. Time 3.70 min., Extract & Integrate from 3.70 to 38.00 min.

Lvl	ID	Conc (ug/ml)	Response
1		850.000	62182797
2		2550.000	138696300
3		4250.000	225396394
4		5950.000	320089278
5		7692.000	384596146

Curve Fit: Avg. RF

---

2) o-TERPHENYL ( )
Ret. Time 19.24 min., Extract & Integrate from 19.14 to 19.34 min.

Lvl	ID	Conc (ug/ml)	Response
1		50.000	2316891
2		50.000	2380453
3		50.000	2394194
4		50.000	2425862
5		50.000	2025865

Curve Fit: Avg. RF

---

3) C(39) ( )
Ret. Time 34.72 min., Extract & Integrate from 34.22 to 35.22 min.

Lvl	ID	Conc (ug/ml)	Response
1		300.000	13137951
2		300.000	14092023
3		300.000	13556352
4		300.000	13125618
5		300.000	11984023

Curve Fit: Avg. RF

END OF DATA ANALYSIS PARAMETERS

Mon Dec 18 12:17:01 2000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080002.D Vial: 2
Acq On : 8 Dec 2000 13:11 Operator: MT
Sample : 850 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

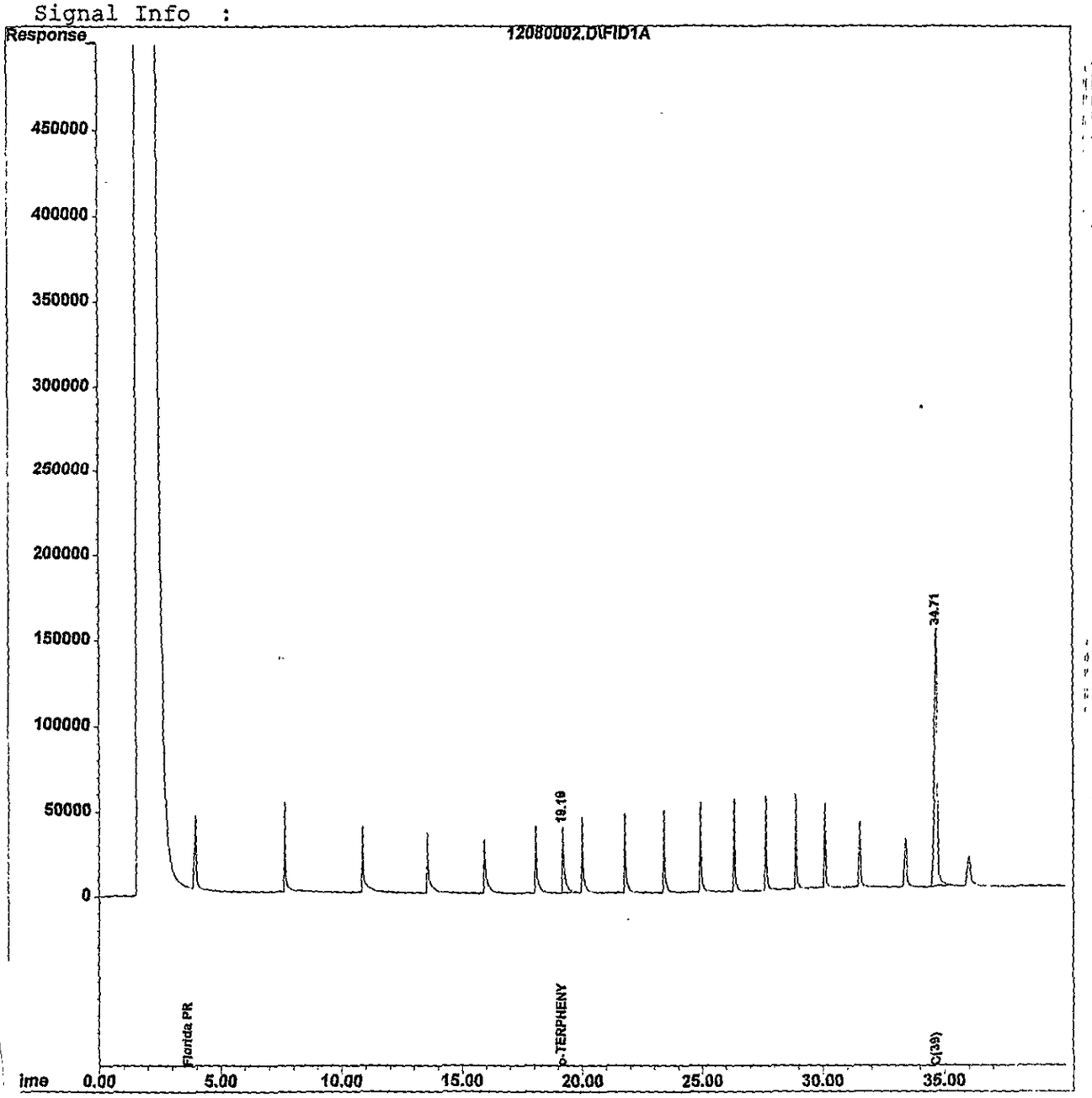
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.19f	2316891	52.497 ug/mlm
Spiked Amount 50.000		Recovery =	104.99%
3) SC C(39)	34.71	13137951	281.879 ug/mlm
Spiked Amount 300.000		Recovery =	93.96%
Target Compounds			
1) HM Florida PRO	3.70	62182797	1526.199 ug/ml

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080002.D Vial: 2
Acq On : 8 Dec 2000 13:11 Operator: MT
Sample : 850 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



0002.D PRO1208.M Tue Dec 12 11:45:54 2000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080003.D Vial: 3
Acq On : 8 Dec 2000 13:59 Operator: MT
Sample : 2550 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.17f	2380453	53.938 ug/mlm
Spiked Amount 50.000		Recovery =	107.88%
3) SC C(39)	34.70	14092023	302.349 ug/mlm
Spiked Amount 300.000		Recovery =	100.78%
Target Compounds			
1) HM Florida PRO	3.70	138696300	3404.128 ug/ml

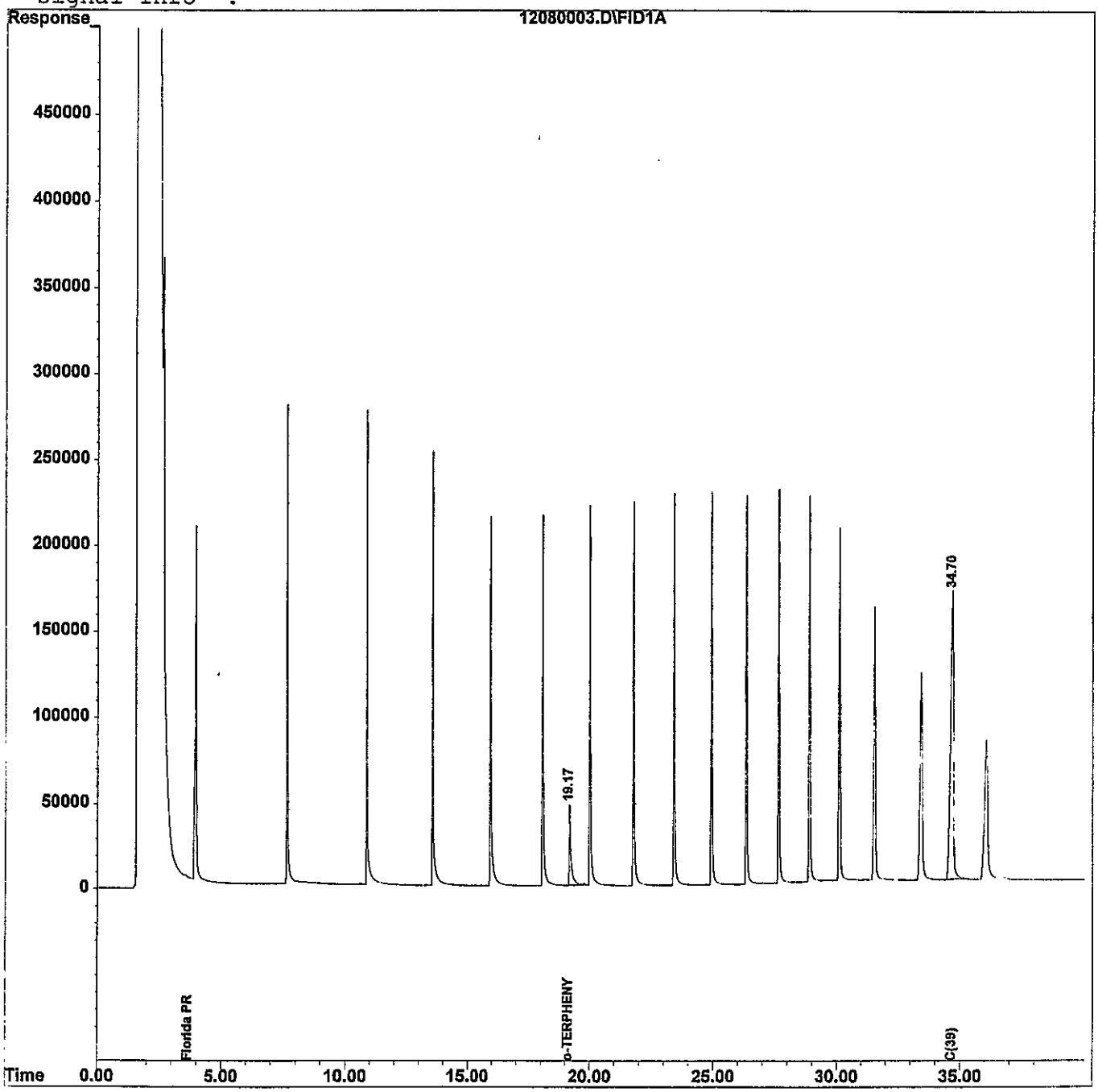
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080003.D Vial: 3
Acq On : 8 Dec 2000 13:59 Operator: MT
Sample : 2550 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:16 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080004.D Vial: 4
Acq On : 8 Dec 2000 14:48 Operator: MT
Sample : 4250 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:34 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.16	2394194	54.249 ug/mlm
Spiked Amount 50.000		Recovery =	108.50%
3) SC C(39)	34.70	13556352	290.856 ug/mlm
Spiked Amount 300.000		Recovery =	96.95%
Target Compounds			
1) HM Florida PRO	3.70	225396394	5532.074 ug/ml

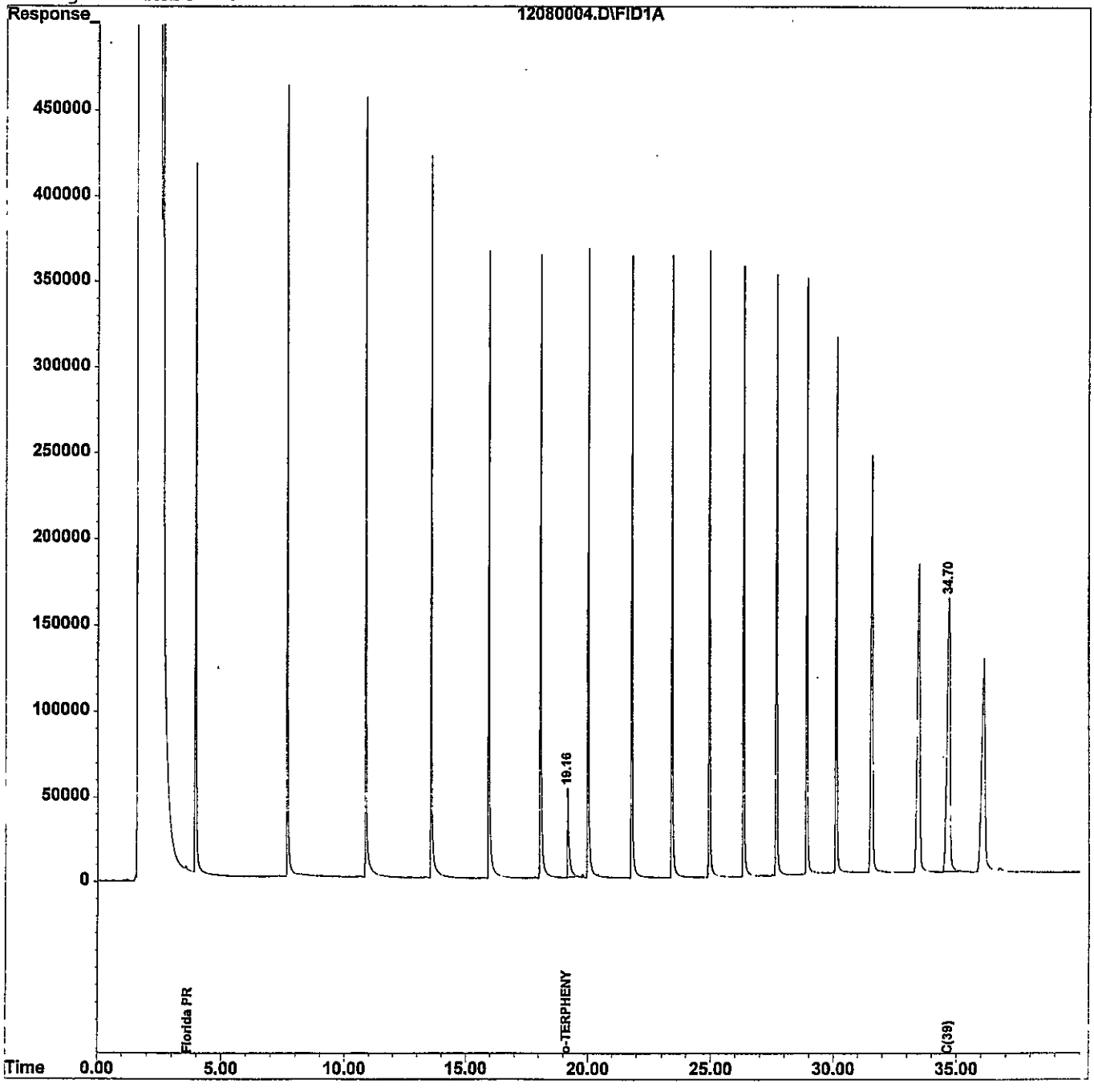
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080004.D Vial: 4
Acq On : 8 Dec 2000 14:48 Operator: MT
Sample : 4250 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 15:34 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080005.D Vial: 5
Acq On : 8 Dec 2000 15:36 Operator: MT
Sample : 5950 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 16:17 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.16	2425862	54.966 ug/mlm
Spiked Amount 50.000		Recovery =	109.93%
3) SC C(39)	34.70	13125618	281.614 ug/mlm
Spiked Amount 300.000		Recovery =	93.87%
Target Compounds			
1) HM Florida PRO	3.70	320089278	7856.193 ug/ml

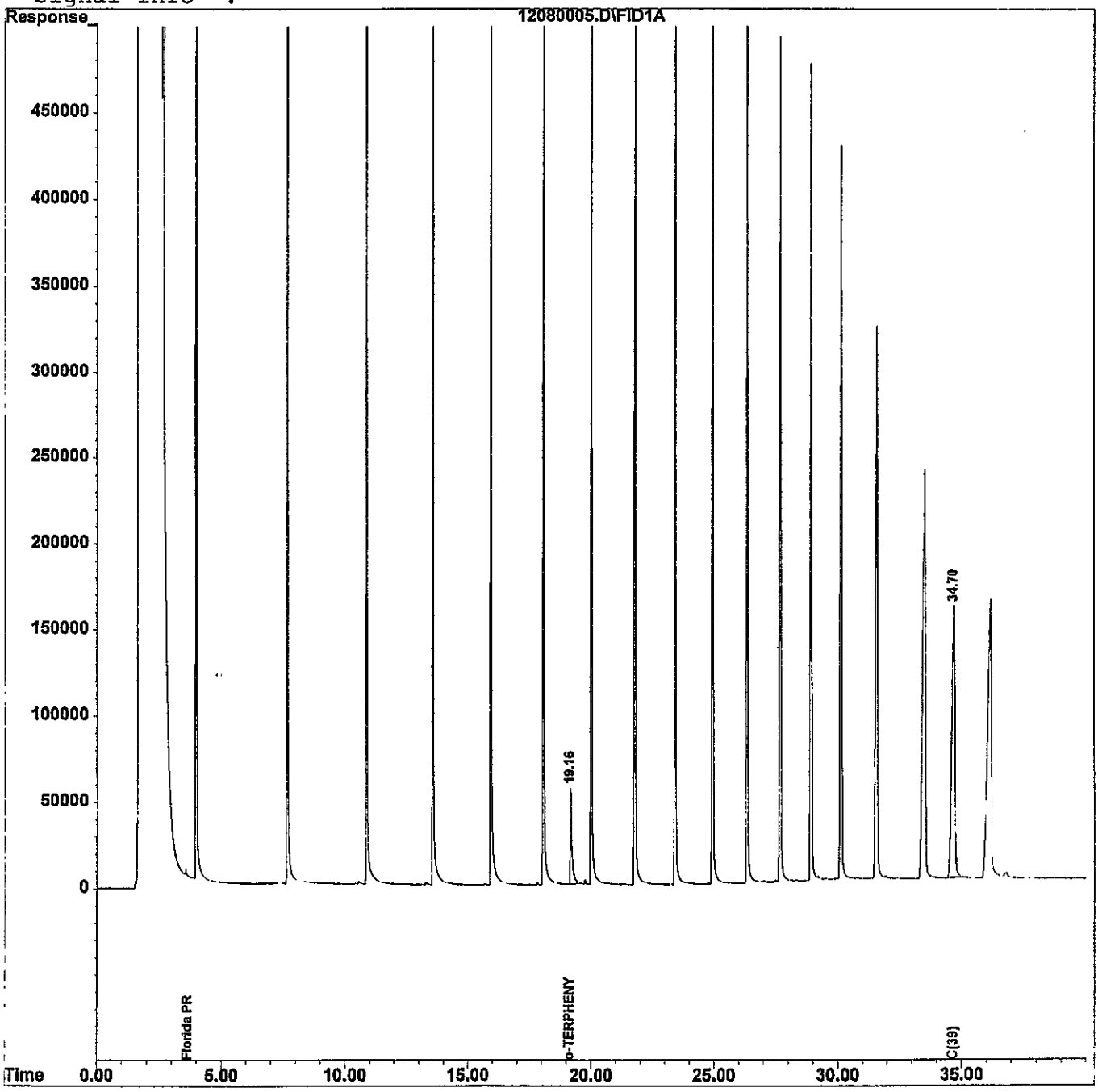
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080005.D Vial: 5
Acq On : 8 Dec 2000 15:36 Operator: MT
Sample : 5950 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 16:17 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080006.D Vial: 6
Acq On : 8 Dec 2000 16:25 Operator: MT
Sample : 8500 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 17:06 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.17	2025865	45.903 ug/mlm
Spiked Amount 50.000		Recovery =	91.81%
3) SC C(39)	34.72	11984023	257.121 ug/mlm
Spiked Amount 300.000		Recovery =	85.71%
Target Compounds			
1) HM Florida PRO	3.70	384596146	9439.434 ug/ml

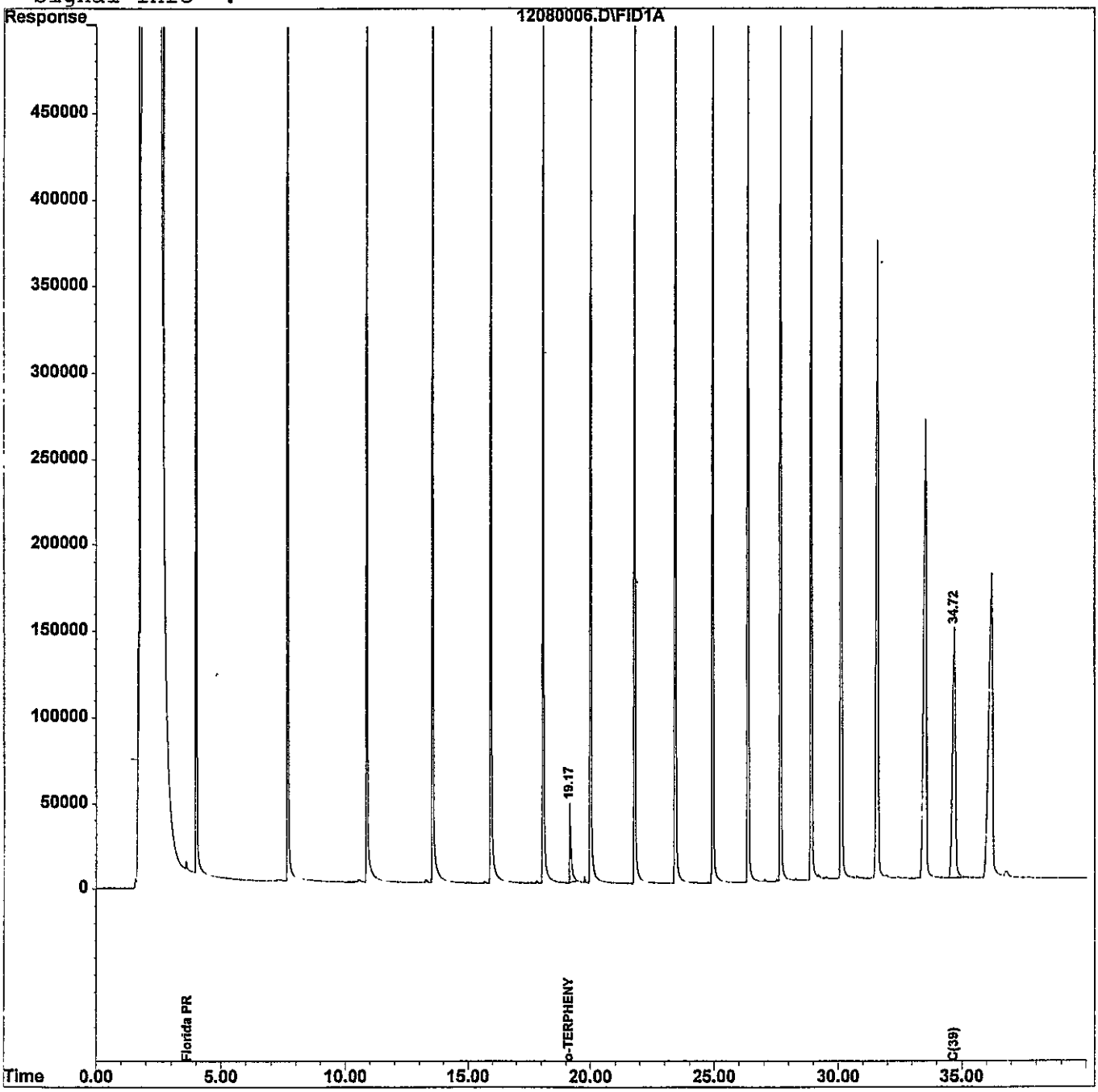
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080006.D Vial: 6
Acq On : 8 Dec 2000 16:25 Operator: MT
Sample : 8500 PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 8 17:06 2000 Quant Results File: PRO0901.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0901.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Nov 27 15:46:57 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\120800\12080008.D Vial: 8
Acq On : 8 Dec 2000 21:59 Operator: MT
Sample : 4250 PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 18 12:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.20	1889314	40.918 ug/mlm
Spiked Amount 50.000		Recovery =	81.84% MT
3) SC C(39)	34.73	11867881	270.150 ug/mlm
Spiked Amount 300.000		Recovery =	90.05% MT
Target Compounds			
1) HM Florida PRO	3.70	197434255	3471.342 ug/ml

82%

MT

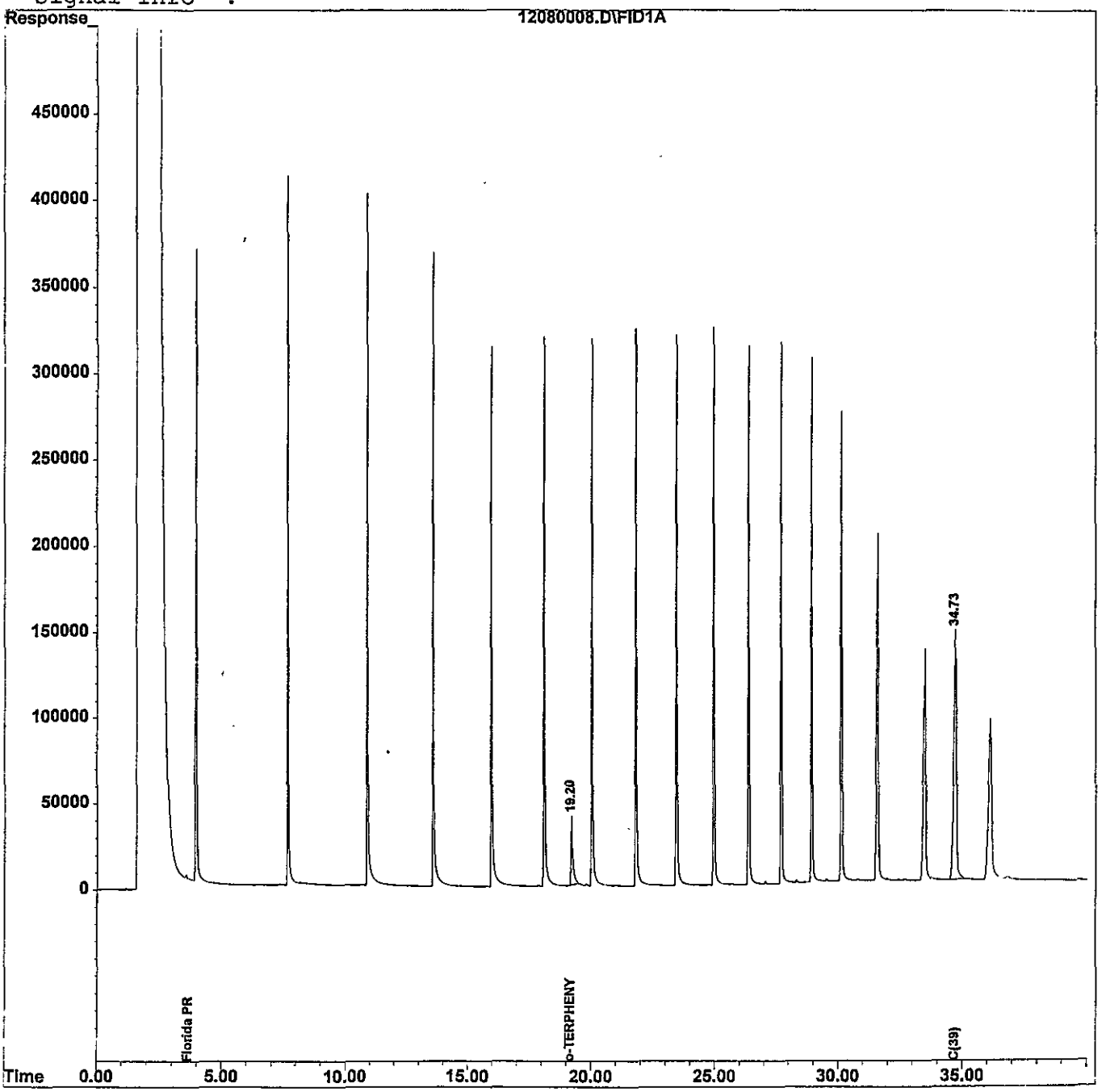
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\120800\12080008.D Vial: 8
Acq On : 8 Dec 2000 21:59 Operator: MT
Sample : 4250 PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 18 12:18 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO0901.M

Volume Inj. :
Signal Phase :
Signal Info :



INITIAL CALIBRATION
5 POINT DRO

DATE:	12/8/00			
METHOD:	FL PRO			
INSTRUMENT:	DRO-B ; FRONT COLUMN			
ANALYST:	MT			
ICAL ID:	PRO1208			
CONCENTRATION (PPM)			**AREA**	**Rf**
850			62182797	73156.2
2550			138696300	54390.7
4250			225396394	53034.4
5950			320089278	53796.5
7692			384596146	49999.5
AVERAGE Rf:			56875.5	
% RSD:			16.3	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190031.D Vial: 1
Acq On : 20 Dec 2000 19:21 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 20:58 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.11f	2369588	51.320 ug/mlm
Spiked Amount 50.000		Recovery =	102.64% ✓MT
3) SC C(39)	34.55	13060734	297.303 ug/mlm
Spiked Amount 300.000		Recovery =	99.10% ✓MT
Target Compounds			
1) HM Florida PRO	3.70	204349408	3592.926 ug/ml

85% ✓
MT

(f)=RT Delta > 1/2 Window (m)=manual int.

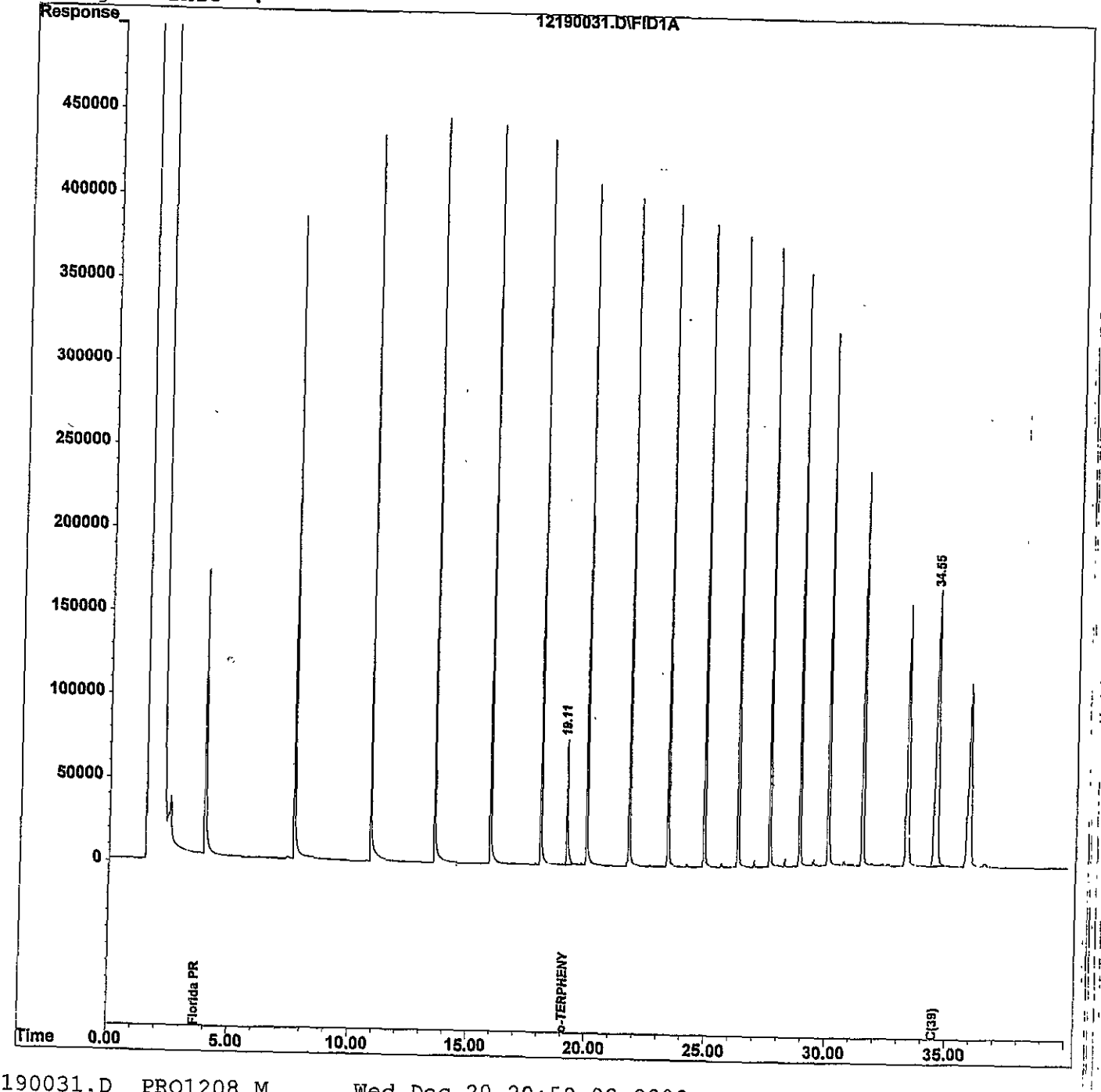
Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190031.D
Acq On : 20 Dec 2000 19:21
Sample : 4250 PHS PRO CCV
Misc :
IntFile : events.e
Quant Time: Dec 20 20:58 2000 Quant Results File: PRO1208.RES

Vial: 1
Operator: MT
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190025.D Vial: 1
Acq On : 20 Dec 2000 14:21 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 17:08 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.11f	2257246	48.887 ug/mlm
Spiked Amount 50.000		Recovery =	97.77% ✓MT
3) SC C(39)	34.52	12562701	285.967 ug/mlm
Spiked Amount 300.000		Recovery =	95.32% ✓MT
Target Compounds			
1) HM Florida PRO	3.70	188926417	3321.755 ug/ml

78% ✓
MT

(f)=RT Delta > 1/2 Window (m)=manual int.

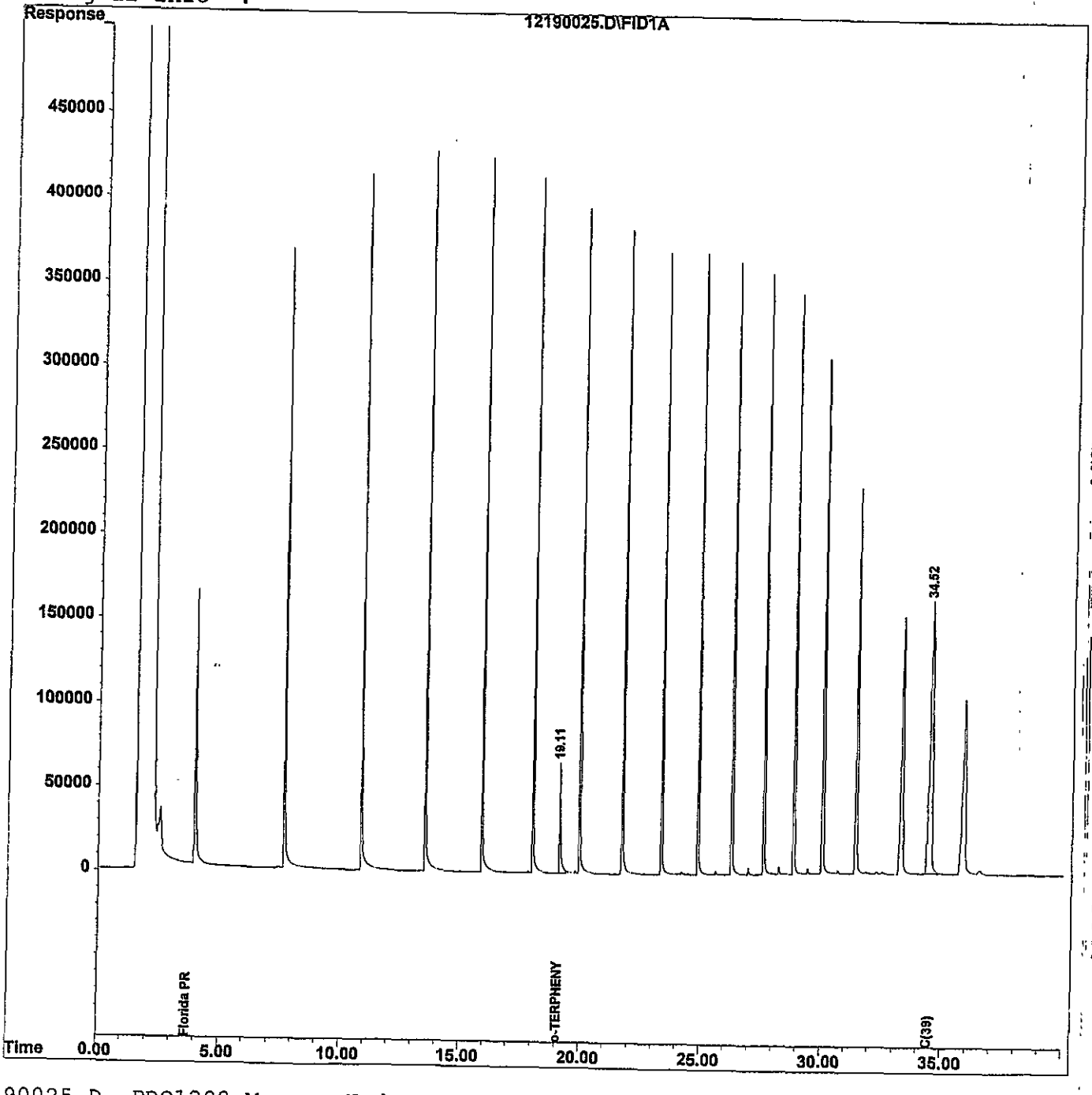
Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190025.D
Acq On : 20 Dec 2000 14:21
Sample : 4250 PHS PRO CCV
Misc :
IntFile : events.e
Quant Time: Dec 20 17:08 2000 Quant Results File: PRO1208.RES

Vial: 1
Operator: MT
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121900\12190013.D Vial: 1
Acq On : 20 Dec 2000 4:38 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 16:54 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	2101237	45.508 ug/mlm
Spiked Amount 50.000		Recovery =	91.02% MT
3) SC C(39)	34.57	12147108	276.506 ug/mlm
Spiked Amount 300.000		Recovery =	92.17% MT
Target Compounds			
1) HM Florida PRO	3.70	188934879	3321.904 ug/ml

78% MT

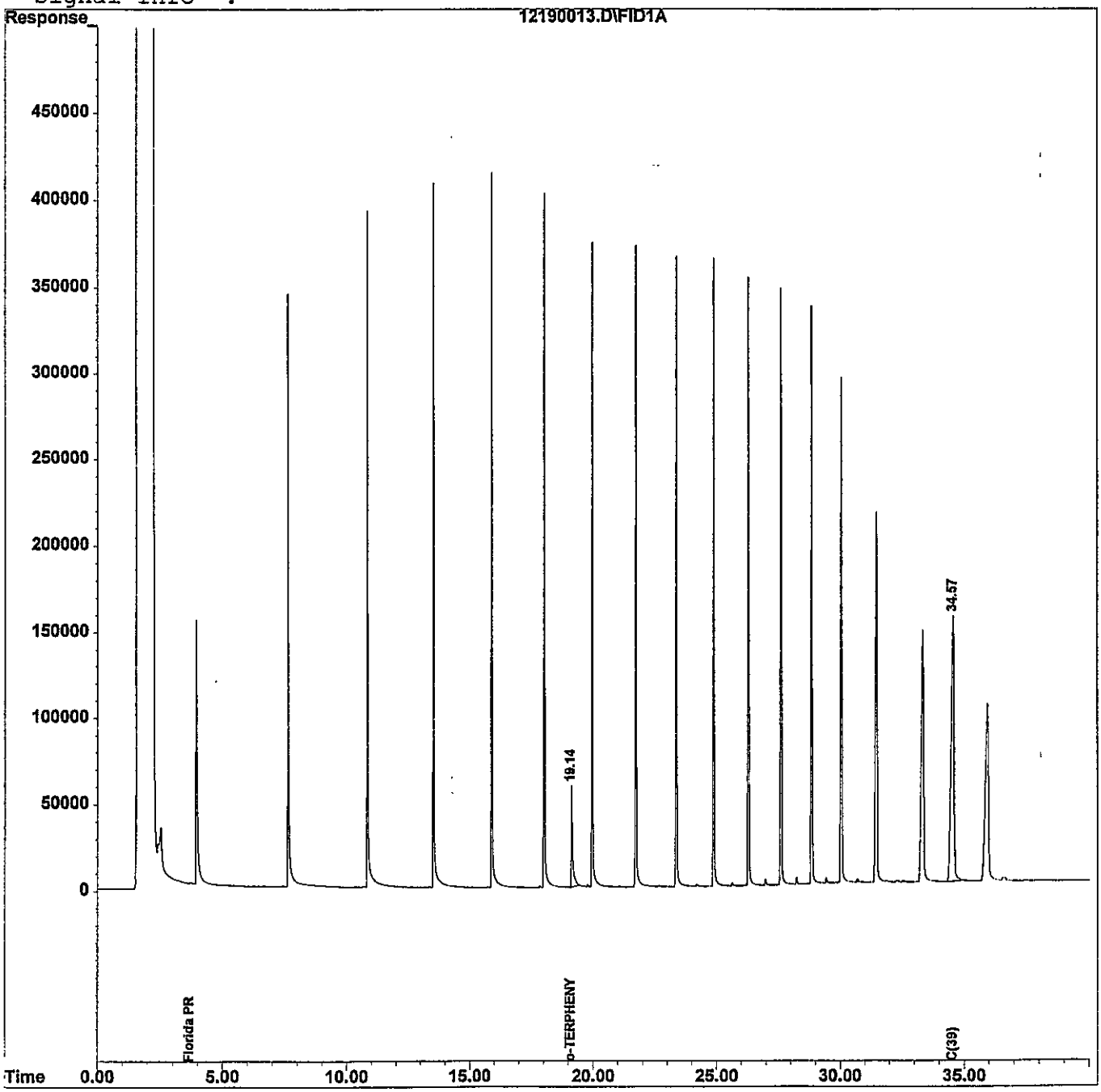
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121900\12190013.D Vial: 1
Acq On : 20 Dec 2000 4:38 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 20 16:54 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160034.D Vial: 1
Acq On : 17 Dec 2000 22:06 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:20 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.15f	2108629	45.668 ug/mlm
Spiked Amount 50.000		Recovery =	91.34% ✓ MT
3) SC C(39)	34.63	11999352	273.143 ug/mlm
Spiked Amount 300.000		Recovery =	91.05% ✓ MT
Target Compounds			
1) HM Florida PRO	3.70	204751242	3599.991 ug/ml

85% ✓
MT

(f)=RT Delta > 1/2 Window (m)=manual int.

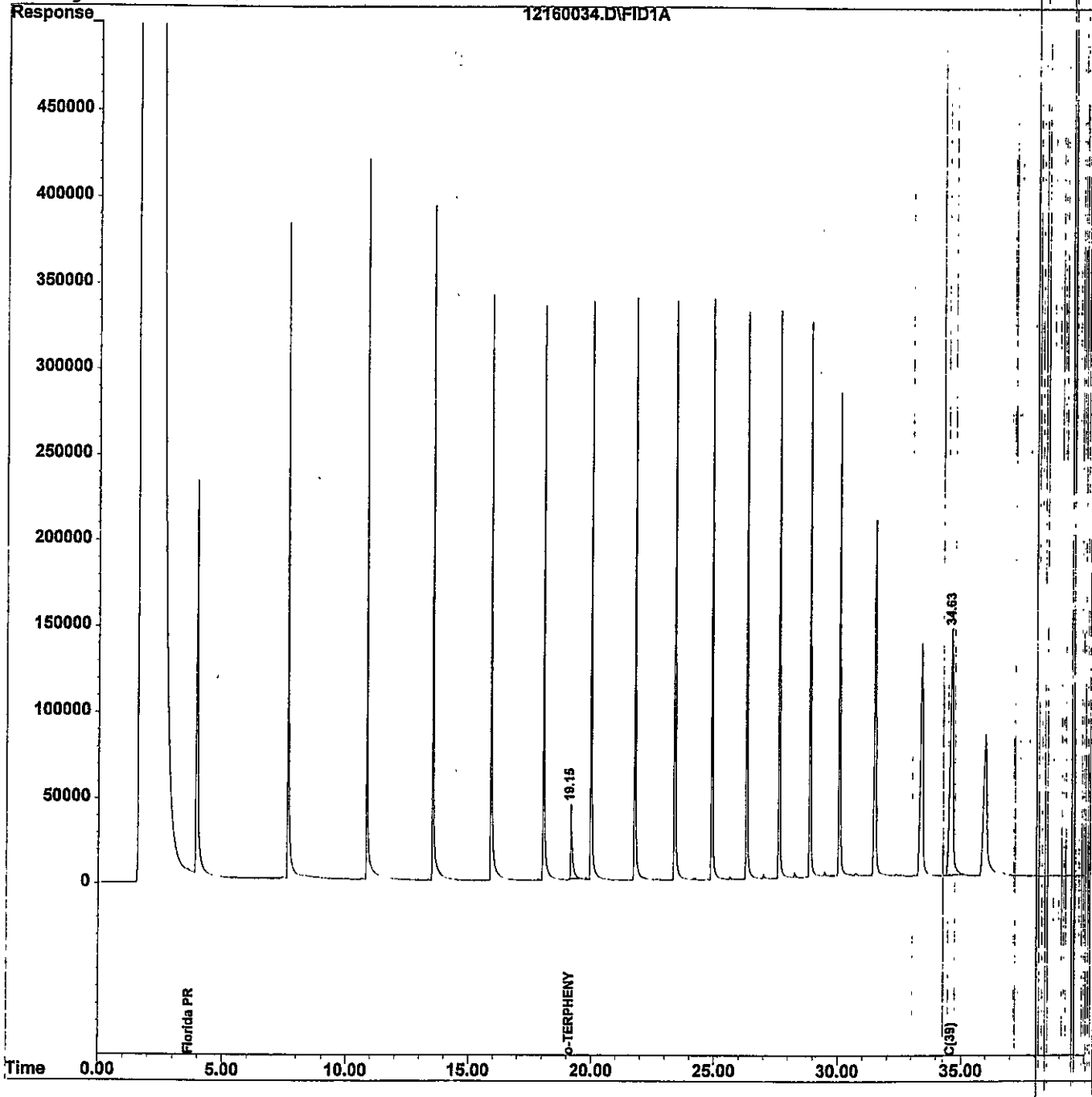
Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160034.D
Acq On : 17 Dec 2000 22:06
Sample : 4250 PHS PRO CCV
Misc :
IntFile : events.e
Quant Time: Dec 19 14:20 2000 Quant Results File: PRO1208.RES

Vial: 1
Operator: MT
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160025.D Vial: 1
Acq On : 17 Dec 2000 14:46 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.16f	1947674	42.182 ug/mlm
Spiked Amount 50.000		Recovery =	84.36% MT
3) SC C(39)	34.65	11166998	254.196 ug/mlm
Spiked Amount 300.000		Recovery =	84.73% MT
Target Compounds			
1) HM Florida PRO	3.70	190317241	3346.209 ug/ml

79%
MT

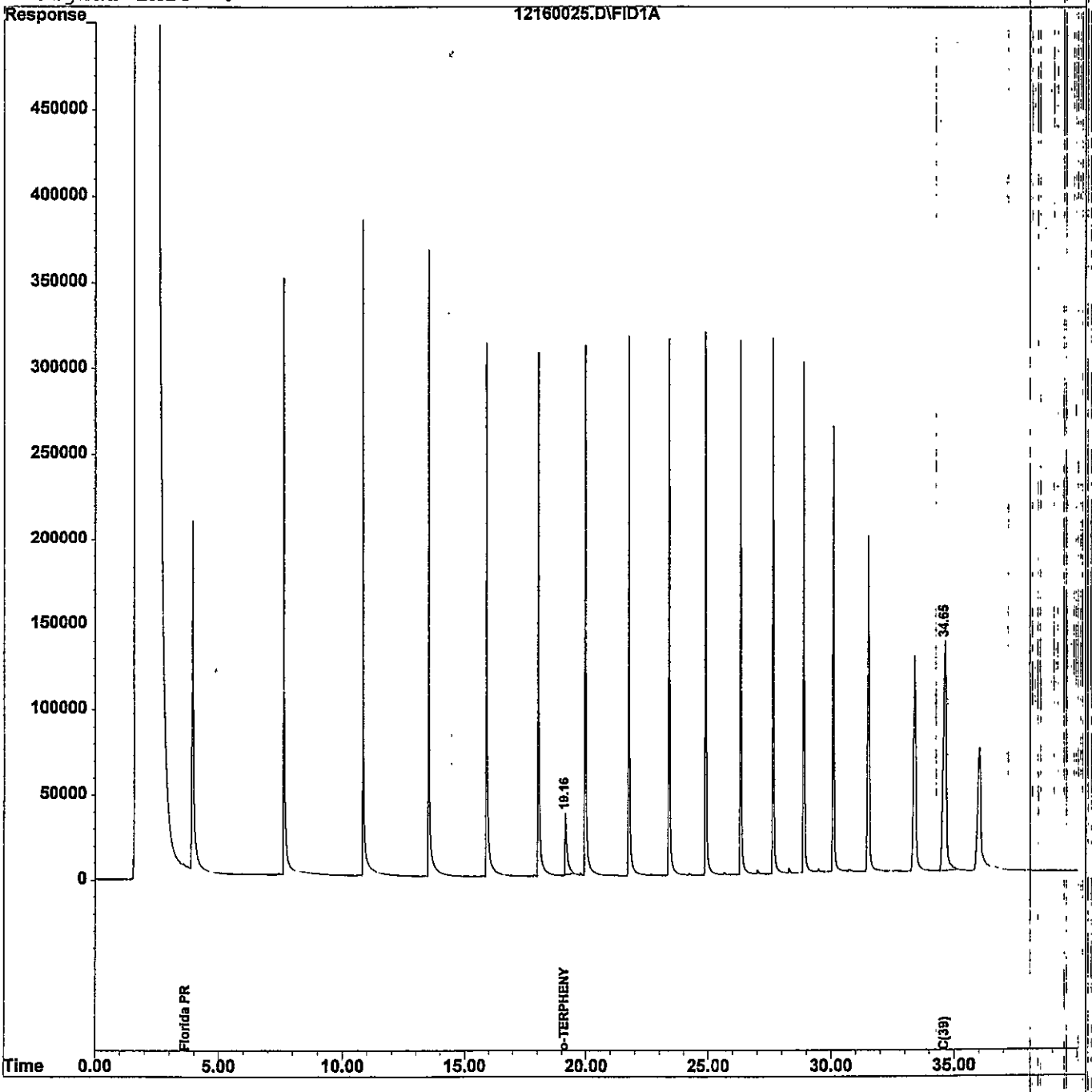
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160025.D Vial: 1
Acq On : 17 Dec 2000 14:46 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 14:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121600\12160013.D Vial: 1
Acq On : 17 Dec 2000 5:02 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 13:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Initial Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.13f	1948293	42.195 ug/mlm
Spiked Amount 50.000		Recovery =	84.39% MT
3) SC C(39)	34.56	10232755	232.930 ug/mlm
Spiked Amount 300.000		Recovery =	77.64% MT
Target Compounds			
1) HM Florida PRO	3.70	190887272	3356.231 ug/ml

79%
MT

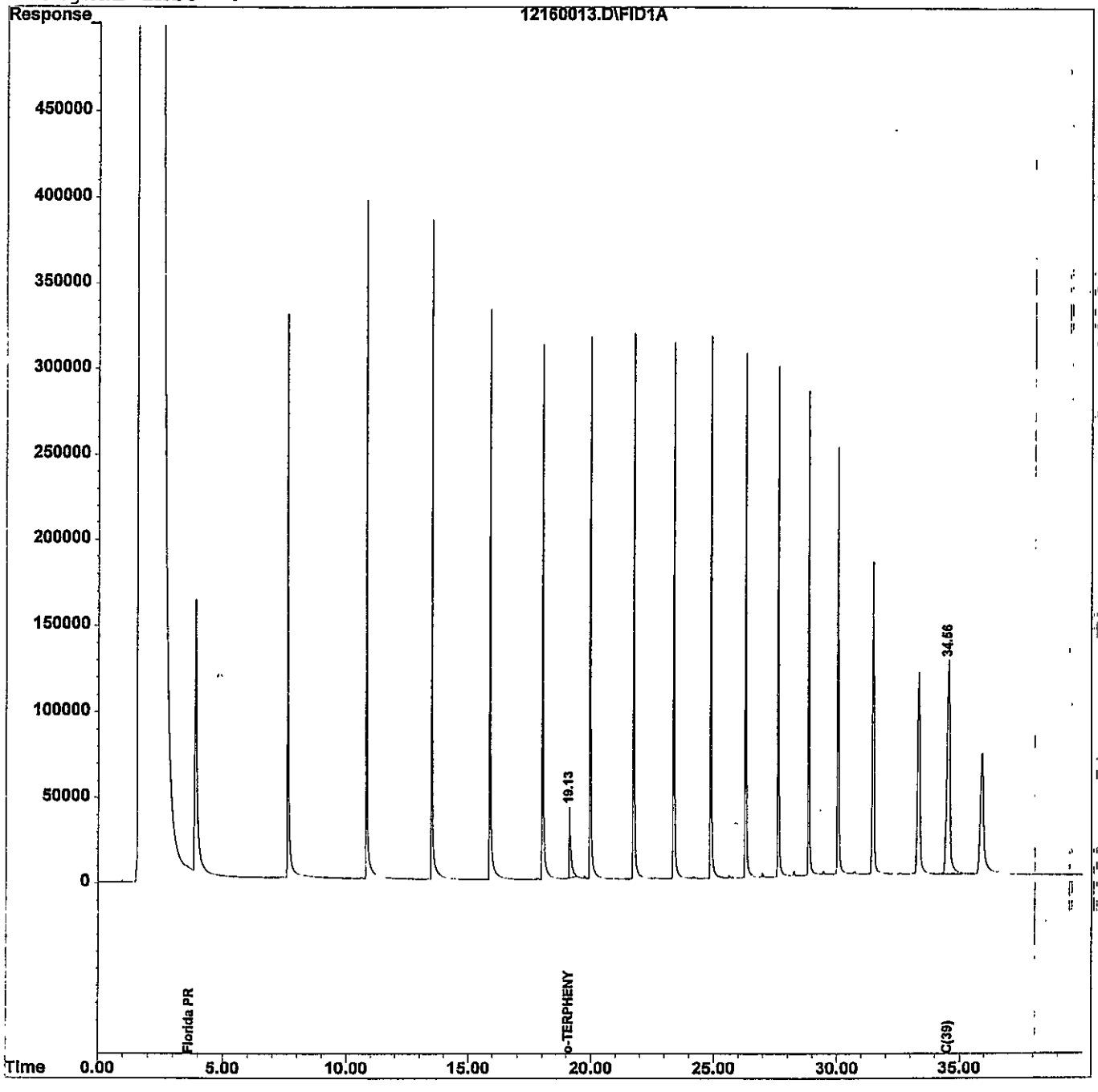
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121600\12160013.D Vial: 1
Acq On : 17 Dec 2000 5:02 Operator: MT
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Dec 19 13:16 2000 Quant Results File: PRO1208.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO1208.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Mon Dec 18 12:09:37 2000
Response via : Multiple Level Calibration
DataAcq Meth : PRO1208.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121400A\C17963.D Vial: 2
Acq On : 14 Dec 2000 22:58 Operator: TAG/VR
Sample : QVW121400 C3 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 23:25 2000 Quant Results File: 121400A.RES

Quant Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 121400A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	410808	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.82	117	286663	10.00 ug\L	0.03
61) 1,4-Dichlorobenzene-d4	16.91	152	144691	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	72503	8.11 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 81.10%		
46) Toluene-d8	10.29	98	384825	9.34 ug\L	0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.40%		
65) Bromofluorobenzene	14.89	95	196078	10.02 ug\L	0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.20%		

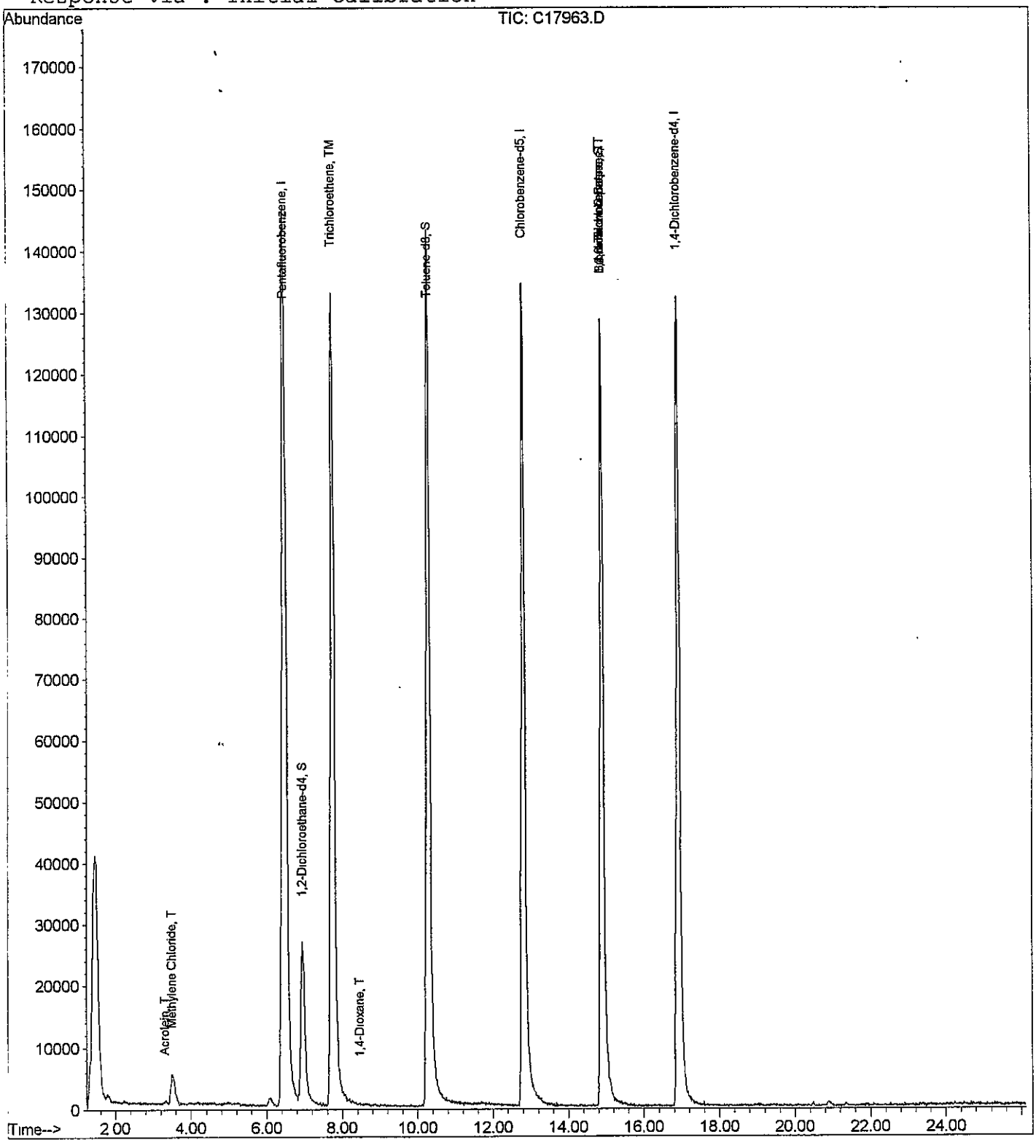
Target Compounds					Qvalue
8) Acrolein	3.32	56	125	~~9.20 ug\L #~~	1
16) Methylene Chloride	3.51	86	6177	1.11 ug\L #	31
30) 1,4-Dioxane	8.47	88	66	~~2.94 ug\L #~~	24
36) Trichloroethene	7.76	95	11994	~~0.62 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.89	75	100571	~~22.74 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.89	75	100571	~~22.74 ug\L~~ #	100

VR
12/15/00

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\121400A\C17963.D Vial: 2
Acq On : 14 Dec 2000 22:58 Operator: TAG/VR
Sample : QVW121400 C3 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 23:25 2000 Quant Results File: 121400A.RES

Method : c:\hpchem\1\data\121400A\121400A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: BFB Tune Std
Lab Standard ID# V000048
Prepared By: VR

Date Made: 9/7/2000
Expire Date: 8/1/2001
Matrix: CH3OH

Standard	Lot# or Lab ID#	Conc.	Amount Used	Final Conc.
p-Bromofluorobenzene	V00 - A017	250 ug/ml	100 ul	25 ug/ml
CH3OH	B00A005 - 10	100 %	900 ul	—

VR
9/7/00

Standard Name: 8260 - ADD Mix
Lab Standard ID# V000 49
Prepared By: VR

Date Made: 9/11/00
Expire Date: 9/27/00
Matrix: CH3OH

Standard	Lot# or Lab ID#	Conc.	Amount Used	Final Conc.
8260 - EH	V00 - A024	2000 ug/ml	25 ul	50 ppm
S - 2270 / Iodomethane	V00 - A025	1000 ug/ml	50 ul	50 ppm
CH3OH	B00A005 - 10	100 %	925 ul	—

VR
9/11/00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: 8260-SS
Lab Standard ID# V00052
Prepared By: TAG

Date Made: 9/21/2000
Expire Date: 3/21/2001
Matrix: CH_3OH

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
~~V00-A010~~				
m-8240/60-SS-10x	V00-A010	2000ug/ml	25ul	50ug/ml
CH_3OH	B00A005-10	100%	975ul	—

TAG 9/21/2000

TAG 9/21/2000

Standard Name: 8260-IS
Lab Standard ID# V00053
Prepared By: TAG

Date Made: 9/21/2000
Expire Date: 3/21/2001
Matrix: CH_3OH

TAG 9/21/2000

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
8260-INTERNAL STD	V00-A021	2500ug/ml	20ul	50ug/ml
CH_3OH	B00A005-10	100%	980 ~~975~~ul	—

TAG 9/21/2000

Stprigfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: 8260-CCS-B
Lab Standard ID#: V000 56
Prepared By: MG

Date Made: 9/22/2000
Expire Date: 12/22/2000
Matrix: CH_3OH

Standard	Lot/Lab ID#	Conc	Amount Used	Final Conc
M-502-10X	V00-A013	2000 ppm	25 ul	50 ppm
M-8240C-R3-10X	V00-A006	VARIOUS	↓	VARIOUS
2-NITROPROPANE	V00-A007	2000 ppm	↓	50 ppm
S-078-10X	V00-A018	↓	↓	↓
APP9-007-10X	V00-A027	1000 ppm	100 ul	100 ppm
APP9-008-10X	V00-A019	↓	↓	↓
MEOH	B00A005-10	100%	700 ul	—

MG
9/22/2000

Standard Name: 8260 ADD MIX
Lab Standard ID#: V000 57
Prepared By: VR

Date Made: 09/28/00
Expire Date: 01-12-2001
Matrix: CH_3OH

Standard	Lot/Lab ID#	Conc	Amount Used	Final Conc
M 8260-ADD-10X	V00-A029	2000 ug/ml	25 ul	50 ppm
CH_3OH	B00A005-10	100 %	975 ul	—

VR
9/28/00

Stprlgfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: VCLP - MS
Lab Standard ID#: V00072
Prepared By: VR

Date Made: 12/8/00
Expire Date: Dec. 2001
Matrix: CH_3OH

Standard Name	Lot Lab ID#	Conc.	Amount Used	Final Conc.
VOA Matrix Spike Mix	V99-A028	1000 ug/ml	50 ul	50 ppm
CH_3OH	B00-A005-2	100 %	950 ul	—

VR
12/8/00

Standard Name: 8260 CCS-A
Lab Standard ID#: V000 T3
Prepared By: VR

Date Made: 12/8/00
Expire Date: 01/31/2001
Matrix: MEOH

Standard Name	Lot Lab ID#	Conc.	Amount Used	Final Conc.
M 502-10x	V000-A012	2000 ppm	25 ul	50 ppm
M 8240 CR3 -10x	V000-A006	Various	↓	Various
2-Nitropropane	V000-A007	2000 ppm	↓	50 ppm
S-078 -10x	V000-A018	2000 ppm	↓	50 ppm
App9 -007-10x	V000-A027	1000 ppm	100 ul	100 ppm
App9-008-10x	V00-A028	1000 ppm	100 ul	100 ppm
MEOH	B00-A005-2	100%	700 ul	—

VR
12/8/00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: 8260 CCS-B
Lab Standard ID# V000 66
Prepared By: VR

Date Made: 12/01/00
Expire Date: 01/31/2001
Matrix: MEOH

Standard	Lot # or Lab ID	Conc	Amount Used	Final Conc
M-SO2-10X	V000-A013	2000 ppm	25 ul	50 ppm
M 8240 CR3 -10X	V000-A006	Various	↓	Various
2-Nitropropane	V00-A007	2000 ppm	↓	50 ppm
S-078 - 10X	V00-A018	2000 ppm	↓	50 ppm
App9 -007-10X	V00-A027	1000 ppm	100 ul	100 ppm
App9-008-10X	V00-A028	1000 ppm	100 ul	100 ppm
MEOH	B00-A005-1	100 %	700 ul	—

VR
12/01/00

Standard Name: VCLP STD050
Lab Standard ID# V00067
Prepared By: TAG

Date Made: 12/7/2000
Expire Date: 12/14/2000
Matrix: MEOH

Standard	Lot # or Lab ID	Conc	Amount Used	Final Conc
04.1 CLP VOA	V00-A035	2000 ug/ml	25 ul	50 ug/ml
502.1 CALIBRATION	V00-A034	2000 ug/ml	25 ul	50 ug/ml
VOA CALIBRATION MIX #1	V00-A033	5000 ug/ml	10 ul TAG	50 ug/ml
MEOH	B00A005-2	100%	~~960~~ 940 ul 12/7/00	—

TAG
12/7/2000

Stprlgfr.xls

VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 12/11/00	METHOD: 8260B
MATRIX: water - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

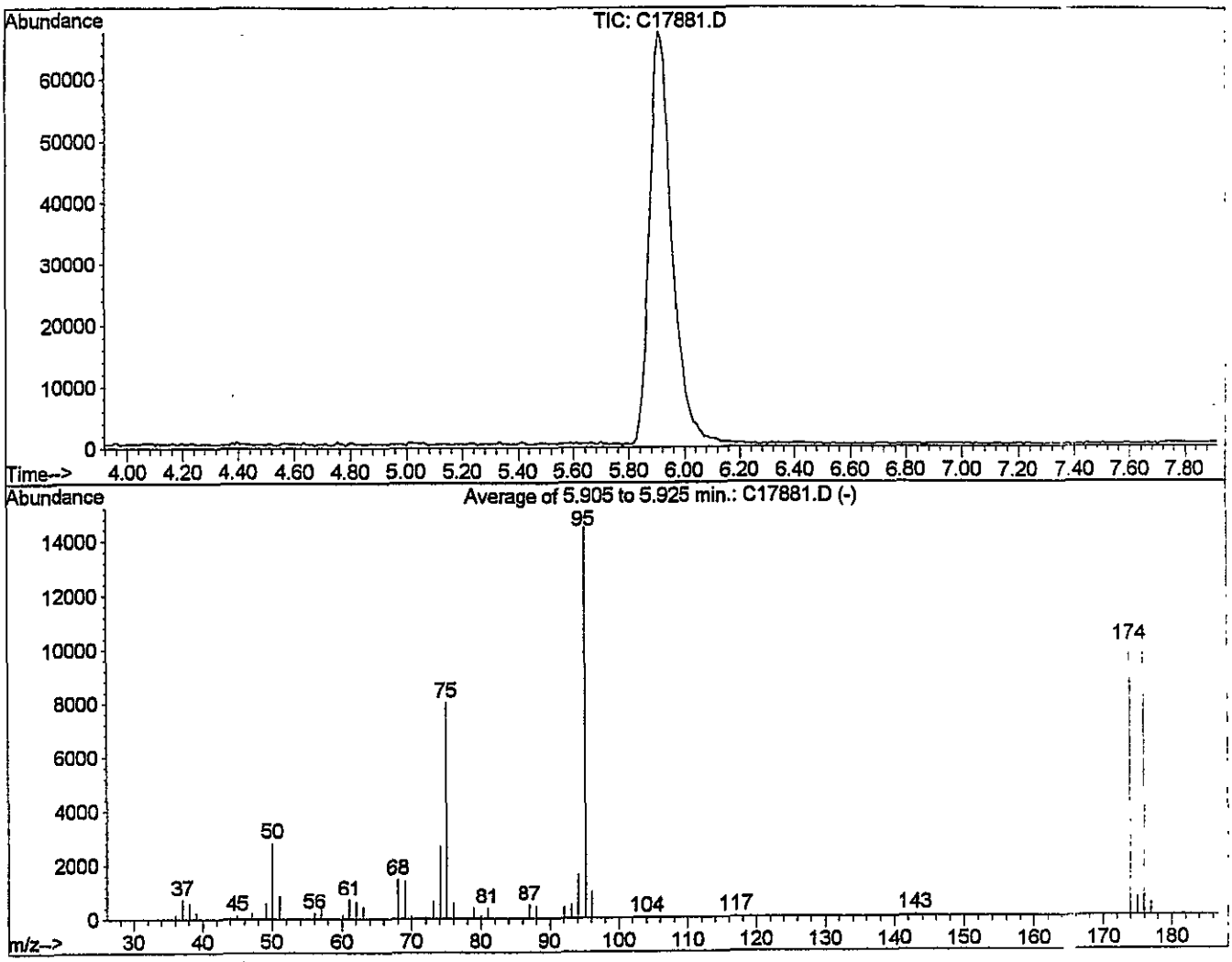
Analyst: VR	Reviewer: Thomas G. Yates
Date: 12/12/00 Time: 10:30	Date: 15:39 Time: 15:35

12/17/2000

BFB

Data File : C:\HPCHEM\1\DATA\121100A\C17881.D
Acq On : 11 Dec 2000 22:20
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00



AutoFind: Scans 475, 476, 477; Background Corrected with Scan 463

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	2828	PASS
75	95	30	60	55.5	8036	PASS
95	95	100	100	100.0	14489	PASS
96	95	5	9	6.9	1002	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.3	10048	PASS
175	174	5	9	6.8	684	PASS
176	174	95	101	97.6	9805	PASS
177	176	5	9	5.9	577	PASS

C17881.D BFB01.M Mon Dec 11 22:33:08 2000 RPT1

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Initial Calibration

Calibration Files

1	=C17884.D	4	=C17883.D	10	=C17882.D
20	=C17885.D	30	=C17886.D	40	=C17887.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	----------	ISTD	----------	----------	----------	
2)	T	Dichlorodifluoromet	0.584	0.584	0.627	0.598	0.574	0.576	0.590	3.33
3)	TP	Chloromethane	0.204	0.197	0.203	0.202	0.194	0.192	0.199	2.53
4)	TC	Vinyl Chloride	0.286	0.277	0.297	0.286	0.273	0.274	0.282	3.30
5)	T	Bromomethane	0.302	0.294	0.274	0.241	0.219	0.211	0.257	15.05
6)	T	Chloroethane	0.156	0.151	0.158	0.149	0.135	0.125	0.146	8.92
7)	T	Trichlorofluorometh	0.863	0.877	0.913	0.905	0.875	0.879	0.885	2.20
8)	T	Acrolein		0.004	0.003	0.003	0.005	0.005	0.004	30.74
9)	T	Acrylonitrile	0.005	0.011	0.012	0.012	0.012	0.012	0.011	26.61
10)	TMC	1,1-Dichloroethene	0.304	0.311	0.331	0.327	0.316	0.310	0.316	3.34
11)	T	Acetone		0.001	0.003	0.001	0.003	0.003	0.002	43.26
12)	T	Iodomethane	0.233	0.318	0.425	0.495	0.505	0.500	0.413	27.48
13)	T	Allylchloride	0.280	0.281	0.275	0.273	0.259	0.250	0.270	4.67
14)	T	Carbon Disulfide	0.536	0.549	0.598	0.572	0.555	0.722	0.589	11.71
15)	T	Acetonitrile	0.037	0.040	0.040	0.040	0.038	0.036	0.039	4.51
16)	T	Methylene Chloride	0.139	0.135	0.139	0.136	0.135	0.130	0.136	2.42
17)	T	trans-1,2-Dichloroe	0.302	0.329	0.341	0.335	0.323	0.315	0.324	4.34
18)	T	MethylTertButylEthe	0.292	0.314	0.311	0.322	0.312	0.305	0.309	3.22
19)	TP	1,1-Dichloroethane	0.510	0.521	0.537	0.539	0.520	0.500	0.521	2.92
20)	T	Vinyl Acetate	0.085	0.076	0.071	0.073	0.069	0.067	0.074	8.76
21)	T	2,2-Dichloropropane	0.547	0.549	0.619	0.621	0.606	0.611	0.592	5.90
22)	T	cis-1,2-Dichloroeth	0.271	0.291	0.296	0.296	0.281	0.277	0.285	3.67
23)	T	2-Butanone		0.001	0.006	0.002	0.002	0.008	0.004	83.81
24)	T	Propionitrile	0.002	0.003	0.002	0.004	0.004	0.004	0.003	31.56
25)	T	Methacrylonitrile	0.029	0.027	0.028	0.030	0.029	0.028	0.029	3.72
26)	T	Bromochloromethane	0.102	0.112	0.118	0.118	0.114	0.110	0.112	5.35
27)	TC	Chloroform	0.614	0.634	0.663	0.667	0.648	0.633	0.643	3.16
28)	T	1,1,1-Trichloroetha	0.698	0.756	0.797	0.787	0.776	0.769	0.764	4.58
29)	T	Carbon Tetrachlorid	0.672	0.655	0.689	0.721	0.693	0.677	0.684	3.32
30)	T	1,4-Dioxane		0.000	0.001	0.001	0.001	0.001	0.001	14.80
31)	T	1,1-Dichloropropene	0.173	0.182	0.188	0.184	0.178	0.172	0.180	3.55
32)	S	1,2-Dichloroethane-	0.212	0.211	0.223	0.225	0.218	0.218	0.218	2.63
33)	TM	Benzene	0.850	0.881	0.899	0.905	0.872	0.844	0.875	2.84
34)	T	Isobutyl alcohol	0.001	0.002	0.002	0.002	0.002	0.002	0.001	17.01
35)	T	1,2-Dichloroethane	0.221	0.247	0.256	0.263	0.248	0.247	0.247	5.83
36)	TM	Trichloroethene	0.471	0.467	0.483	0.483	0.469	0.465	0.473	1.65
37)	TC	1,2-Dichloropropane	0.275	0.284	0.276	0.286	0.275	0.269	0.277	2.35
38)	T	Dibromomethane	0.113	0.131	0.133	0.142	0.135	0.130	0.131	7.49
39)	T	Methylmethacrylate	0.049	0.054	0.054	0.057	0.054	0.054	0.054	5.07
40)	T	Bromodichloromethan	0.410	0.464	0.482	0.502	0.493	0.487	0.473	7.06
41)	T	2-Nitropropane	0.015	0.013	0.015	0.017	0.013	0.015	0.015	10.18
42)	T	2-Chloroethyl-vinyl	0.008	0.024	0.029	0.045	0.048	0.049	0.034	48.33
43)	T	cis-1,3-Dichloropro	0.302	0.337	0.358	0.371	0.362	0.360	0.348	7.34
44)	T	4-Methyl-2-Pentanon		0.018	0.014	0.012	0.012	0.011	0.013	19.90

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Initial Calibration

Calibration Files
1 =C17884.D 4 =C17883.D 10 =C17882.D
20 =C17885.D 30 =C17886.D 40 =C17887.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	----------ISTD----------							
46)	S	Toluene-d8	1.473	1.382	1.470	1.444	1.430	1.422	1.437	2.35
47)	TMC	Toluene	0.900	0.871	0.937	0.937	0.882	0.865	0.899	3.56
48)	T	trans-1,3-Dichlorop	0.290	0.313	0.341	0.351	0.340	0.347	0.330	7.19
49)	T	Ethylmethacrylate	0.165	0.189	0.198	0.206	0.201	0.198	0.193	7.52
50)	T	1,1,2-Trichloroetha	0.160	0.175	0.183	0.179	0.171	0.171	0.173	4.50
51)	T	Tetrachloroethene	0.608	0.578	0.617	0.617	0.573	0.560	0.592	4.15
52)	T	1,3-Dichloropropane	0.330	0.331	0.344	0.352	0.330	0.326	0.335	2.94
53)	T	2-Hexanone	0.046	0.048	0.052	0.057	0.050	0.049	0.050	7.29
54)	T	Dibromochloromethan	0.308	0.362	0.375	0.410	0.391	0.397	0.374	9.70
55)	T	1,2-Dibromoethane	0.215	0.241	0.247	0.263	0.250	0.246	0.244	6.50
56)	TMP	Chlorobenzene	1.021	1.017	1.058	1.057	1.021	1.000	1.029	2.26
57)	T	1,1,1,2-Tetrachloro	0.436	0.463	0.494	0.496	0.481	0.470	0.473	4.70
58)	TC	Ethylbenzene	1.866	1.874	1.961	1.967	1.830	1.767	1.877	4.09
59)	TG	total-Xylene	0.289	0.277	0.279	0.291	0.276	0.265	0.279	3.34
60)	T	Styrene	0.913	0.965	1.023	1.021	0.987	0.956	0.977	4.32
61)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
62)	TP	Bromoform	0.215	0.296	0.340	0.366	0.374	0.370	0.327	18.93
63)	T	Isopropylbenzene	4.321	4.310	4.478	4.391	4.418	4.183	4.350	2.37
64)	T	1,4-dichloro-2-Bute	0.295	0.294	0.301	0.326	0.319	0.299	0.306	4.35
65)	S	Bromofluorobenzene		1.340	1.369	1.337	1.382	1.331	1.352	1.65
66)	T	Bromobenzene	0.773	0.767	0.816	0.816	0.810	0.772	0.792	2.99
67)	TP	1,1,2,2-Tetrachloro	0.360	0.383	0.396	0.402	0.401	0.377	0.387	4.24
68)	T	1,2,3-Trichloroprop	0.295	0.294	0.301	0.326	0.319	0.299	0.306	4.35
69)	T	n-Propylbenzene	4.716	4.772	4.772	4.811	4.979	4.250	4.717	5.20
70)	T	2-Chlorotoluene	2.699	2.512	2.716	2.616	2.438	2.447	2.571	4.80
71)	T	4-Chlorotoluene	3.625	3.523	3.630	3.575	3.550	3.292	3.532	3.54
72)	T	1,3,5-Trimethylbenz	3.294	3.342	3.468	3.413	3.397	3.166	3.347	3.19
73)	T	Pentachloroethane	0.472	0.537	0.579	0.595	0.603	0.578	0.561	8.79
74)	T	tert-Butylbenzene	4.166	4.177	4.300	4.241	4.202	3.968	4.176	2.71
75)	T	1,2,4-Trimethylbenz	3.369	3.251	3.312	3.277	3.241	3.027	3.246	3.60
76)	T	sec-Butylbenzene	5.223	4.951	5.213	5.071	5.071	4.751	5.047	3.50
77)	T	1,3-Dichlorobenzene	1.554	1.530	1.557	1.565	1.526	1.462	1.533	2.46
78)	T	Isopropyltoluene	4.226	3.972	4.201	4.125	4.095	3.830	4.075	3.68
79)	T	1,4-Dichlorobenzene	1.902	1.703	1.726	1.700	1.724	1.608	1.727	5.55
80)	T	1,2-Dichlorobenzene	1.313	1.193	1.248	1.226	1.206	1.166	1.225	4.18
81)	T	n-Butylbenzene	3.994	3.891	4.050	4.040	3.997	3.742	3.952	2.98
82)	T	1,2-Dibromo-3-chlor	0.064	0.069	0.076	0.081	0.077	0.081	0.075	8.82
83)	T	1,2,4-trichlorobenz	1.095	1.014	0.968	0.976	0.979	0.930	0.994	5.70
84)	T	Hexachlorobutadiene	1.317	1.267	1.297	1.225	1.130	1.039	1.212	8.90
85)	T	Naphthalene	1.248	0.855	0.728	0.748	0.772	0.758	0.851	23.39
86)	T	1,2,3-Trichlorobenz	0.866	0.738	0.676	0.680	0.679	0.661	0.717	10.84

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D Vial: 3
Acq On : 11 Dec 2000 23:36 Operator: TAG/VR
Sample : ICAL 1 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	444685	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.82	117	308023	10.00 ug\L	0.03
61) 1,4-Dichlorobenzene-d4	16.93	152	166527	10.00 ug\L	0.03
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	9409	0.97 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 9.70%#		
46) Toluene-d8	10.31	98	45362	1.02 ug\L	0.03
Spiked Amount 10.000	Range 87 - 104		Recovery = 10.20%#		
65) Bromofluorobenzene	14.90	95	22750	1.01 ug\L	0.03
Spiked Amount 10.000	Range 84 - 110		Recovery = 10.10%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.61	85	25984	0.99 ug\L	99
3) Chloromethane	1.79	50	9066	1.02 ug\L #	66
4) Vinyl Chloride	1.83	62	12736	1.01 ug\L	100
6) Chloroethane	2.22	64	6950	1.08 ug\L	100
7) Trichlorofluoromethane	2.41	101	38371	0.97 ug\L #	100
8) Acrolein	3.85	56	130m	0.91 ug\L	
9) Acrylonitrile	3.84	53	436m	1.20 ug\L	
10) 1,1-Dichloroethene	2.94	96	13499	0.95 ug\L	95
12) Iodomethane	3.12	142	10352m	1.54 ug\L	
13) Allylchloride	3.35	39	12438	1.05 ug\L #	15
14) Carbon Disulfide	3.17	76	23813	0.90 ug\L #	87
15) Acetonitrile	3.34	41	16449	9.67 ug\L #	82
16) Methylene Chloride	3.51	86	6160	1.02 ug\L #	1
17) trans-1,2-Dichloroethene	3.83	96	13412	0.93 ug\L	98
18) MethylTertButylEther	3.85	73	13005	0.95 ug\L	92
19) 1,1-Dichloroethane	4.47	63	22666	0.98 ug\L #	53
20) Vinyl Acetate	3.85	43	3769m	2.54 ug\L	
21) 2,2-Dichloropropane	5.41	77	24307	0.91 ug\L #	74
22) cis-1,2-Dichloroethene	5.50	96	12065	0.95 ug\L #	86
24) Propionitrile	5.86	54	872m	6.52 ug\L	
25) Methacrylonitrile	5.97	41	12786m	10.94 ug\L	
26) Bromochloromethane	5.94	128	4526	0.90 ug\L #	16
27) Chloroform	6.08	83	27297	0.95 ug\L	99
28) 1,1,1-Trichloroethane	6.30	97	31057	0.91 ug\L #	31
29) Carbon Tetrachloride	6.59	119	29874	0.96 ug\L #	3
31) 1,1-Dichloropropene	6.63	77	7698	0.96 ug\L #	1
33) Benzene	7.00	78	37816	0.97 ug\L	100
34) Isobutyl alcohol	7.22	43	875m	14.19 ug\L	
35) 1,2-Dichloroethane	7.12	62	9811	0.89 ug\L #	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D Vial: 3
Acq On : 11 Dec 2000 23:36 Operator: TAG/VR
Sample : ICAL 1 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Trichloroethene	8.17	95	20955	0.99 ug\L	96
37) 1,2-Dichloropropane	8.58	63	12219	1.00 ug\L #	89
38) Dibromomethane	8.85	93	5011	0.86 ug\L #	86
39) Methylmethacrylate	8.90	69	2170m	0.97 ug\L	
40) Bromodichloromethane	9.14	83	18221	0.86 ug\L #	25
41) 2-Nitropropane	9.68	43	679m	0.95 ug\L	
42) 2-Chloroethyl-vinyl ether	9.71	63	353m	2.44 ug\L	
43) cis-1,3-Dichloropropene	9.92	75	13414	0.86 ug\L	98
44) 4-Methyl-2-Pentanone	10.33	85	193m	-3.66 ug\L	
47) Toluene	10.40	92	27719	0.99 ug\L	99
48) trans-1,3-Dichloropropene	10.93	75	8938	0.87 ug\L	95
49) Ethylmethacrylate	11.11	69	5095	0.86 ug\L #	57
50) 1,1,2-Trichloroethane	11.21	83	4933	0.92 ug\L	95
51) Tetrachloroethene	11.34	164	18729	1.02 ug\L	92
52) 1,3-Dichloropropane	11.49	76	10175	0.98 ug\L	99
53) 2-Hexanone	11.73	43	1427m	1.00 ug\L	
54) Dibromochloromethane	11.87	129	9498	0.81 ug\L	96
55) 1,2-Dibromoethane	12.03	107	6624	0.88 ug\L #	93
56) Chlorobenzene	12.85	112	31464	0.99 ug\L #	74
57) 1,1,1,2-Tetrachloroethane	13.03	131	13434	0.92 ug\L #	89
58) Ethylbenzene	13.07	91	57480	0.99 ug\L	98
59) total-Xylene	13.96	106	26682m	1.43 ug\L	
60) Styrene	14.01	104	28112	0.93 ug\L	92
62) Bromoform	14.34	173	3588m	1.19 ug\L	
63) Isopropylbenzene	14.61	105	71953	0.99 ug\L #	92
66) Bromobenzene	15.11	156	12879	0.97 ug\L #	69
67) 1,1,2,2-Tetrachloroethane	15.27	83	5999	0.93 ug\L #	97
68) 1,2,3-Trichloropropane	15.30	75	4918	0.86 ug\L #	100
69) n-Propylbenzene	15.34	91	78533	1.00 ug\L	97
70) 2-Chlorotoluene	15.46	91	44946	1.05 ug\L	96
71) 4-Chlorotoluene	15.68	91	60364	1.02 ug\L	97
72) 1,3,5-Trimethylbenzene	15.67	105	54858	0.98 ug\L	92
73) Pentachloroethane	16.28	167	7856	0.83 ug\L	93
74) tert-Butylbenzene	16.22	119	69379	1.00 ug\L	99
75) 1,2,4-Trimethylbenzene	16.32	105	56106	1.04 ug\L	98
76) sec-Butylbenzene	16.61	105	86983	1.03 ug\L	96
77) 1,3-Dichlorobenzene	16.80	146	25873	1.01 ug\L	93
78) Isopropyltoluene	16.89	119	70375	1.03 ug\L	98
79) 1,4-Dichlorobenzene	16.95	146	31667	1.10 ug\L	95
80) 1,2-Dichlorobenzene	17.62	146	21861	1.06 ug\L	98
81) n-Butylbenzene	17.63	91	66508	1.00 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.05	75	1074m	0.86 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D Vial: 3
Acq On : 11 Dec 2000 23:36 Operator: TAG/VR
Sample : ICAL 1 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

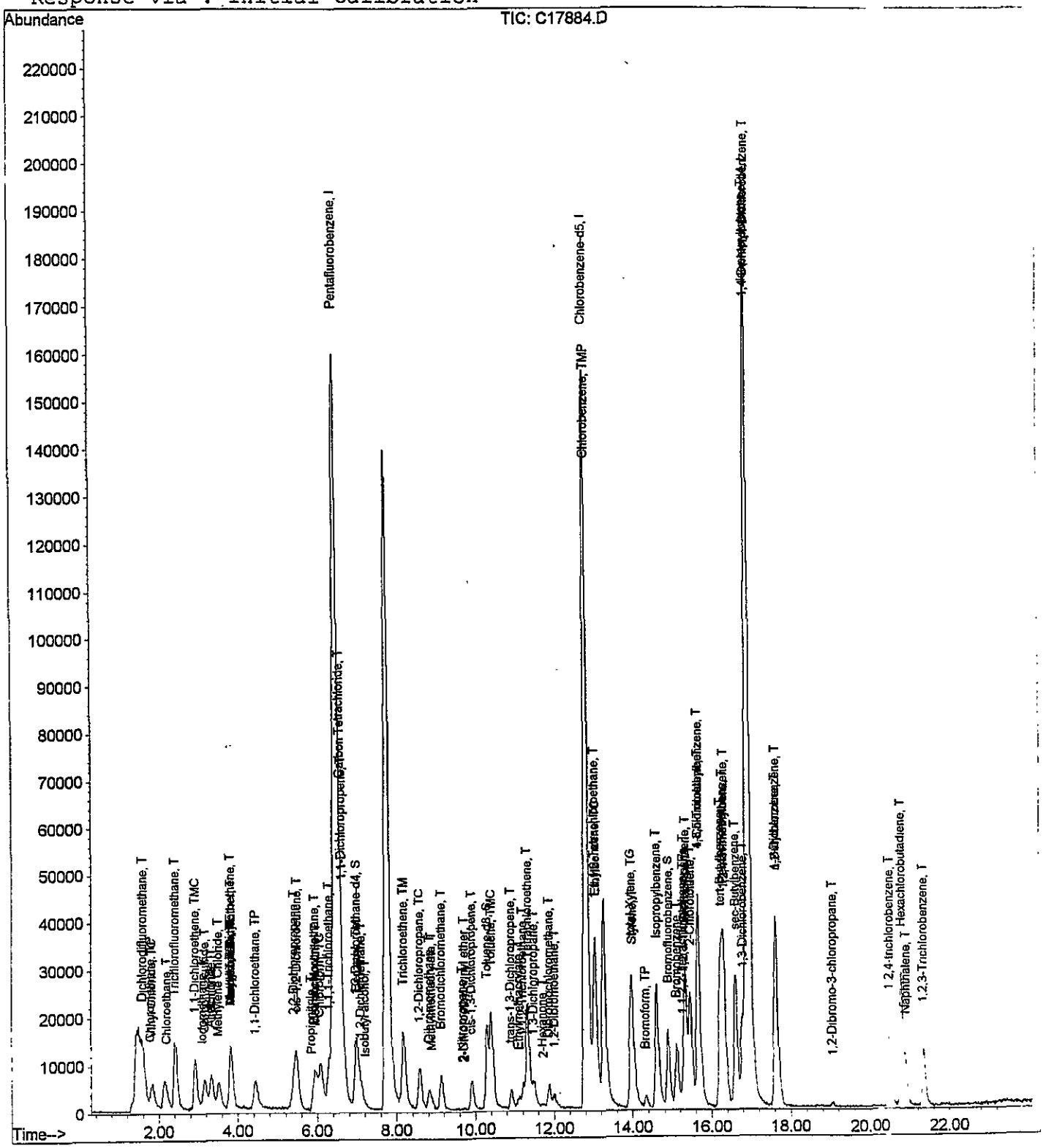
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83) 1,2,4-trichlorobenzene	20.49	180	18243	1.10 ug\L	100
84) Hexachlorobutadiene	20.79	225	21936	1.10 ug\L	100
85) Naphthalene	20.92	128	20783m	1.48 ug\L	
86) 1,2,3-Trichlorobenzene	21.33	180	14418	1.21 ug\L	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17884.D Vial: 3
Acq On : 11 Dec 2000 23:36 Operator: TAG/VR
Sample : ICAL 1 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:06 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D
Acq On : 11 Dec 2000 23:08
Sample : ICAL 4 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.49	168	414841	10.00	ug\L		0.02
45) Chlorobenzene-d5	12.79	117	305698	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	167726	10.00	ug\L		0.01
System Monitoring Compounds							
32) 1,2-Dichloroethane-d4	6.98	65	34996	3.86	ug\L		0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 38.60%#				
46) Toluene-d8	10.29	98	168972	3.81	ug\L		0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 38.10%#				
65) Bromofluorobenzene	14.88	95	89918	3.96	ug\L		0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 39.60%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.61	85	96904	3.95	ug\L		100
3) Chloromethane	1.81	50	32736	3.95	ug\L		98
4) Vinyl Chloride	1.84	62	46009	3.92	ug\L	#	66
5) Bromomethane	2.14	94	48714	3.98	ug\L		97
6) Chloroethane	2.24	64	25071	4.18	ug\L		99
7) Trichlorofluoromethane	2.44	101	145448	3.95	ug\L	#	100
8) Acrolein	3.84	56	1189	8.90	ug\L	#	53
9) Acrylonitrile	3.87	53	3700m	10.88	ug\L		
10) 1,1-Dichloroethene	2.94	96	51576	3.91	ug\L		99
11) Acetone	3.08	58	195m	2.35	ug\L		
12) Iodomethane	3.14	142	52804m	3.56	ug\L		
13) Allylchloride	3.35	39	46668	4.21	ug\L	#	20
14) Carbon Disulfide	3.19	76	91127	3.68	ug\L		97
15) Acetonitrile	3.34	41	66707	42.03	ug\L	#	88
16) Methylene Chloride	3.53	86	22465	3.99	ug\L	#	35
17) trans-1,2-Dichloroethene	3.85	96	54524	4.05	ug\L		97
18) MethylTertButylEther	3.83	73	52053	4.07	ug\L	#	52
19) 1,1-Dichloroethane	4.46	63	86394	4.00	ug\L		99
20) Vinyl Acetate	3.84	43	12668	9.15	ug\L	#	73
21) 2,2-Dichloropropane	5.43	77	91018	3.65	ug\L		96
22) cis-1,2-Dichloroethene	5.48	96	48253	4.09	ug\L		96
23) 2-Butanone	5.52	72	125m	-13.31	ug\L		
24) Propionitrile	5.77	54	5440m	43.61	ug\L		
25) Methacrylonitrile	5.97	41	45566	41.79	ug\L		95
26) Bromochloromethane	5.95	128	18664	3.99	ug\L		84
27) Chloroform	6.10	83	105238	3.93	ug\L		97
28) 1,1,1-Trichloroethane	6.33	97	125459	3.95	ug\L	#	61
29) Carbon Tetrachloride	6.60	119	108613	3.75	ug\L	#	47
30) 1,4-Dioxane	8.93	88	1337m	-24.07	ug\L		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.64	77	30209	4.06 ug\L #	1
33) Benzene	7.00	78	146210	4.03 ug\L	100
34) Isobutyl alcohol	7.20	43	5496m	95.55 ug\L	
35) 1,2-Dichloroethane	7.13	62	41023	4.01 ug\L #	73
36) Trichloroethene	8.16	95	77485	3.94 ug\L	94
37) 1,2-Dichloropropane	8.57	63	47117	4.11 ug\L #	95
38) Dibromomethane	8.82	93	21705	4.00 ug\L #	83
39) Methylmethacrylate	8.90	69	8972	4.30 ug\L #	75
40) Bromodichloromethane	9.12	83	76996	3.91 ug\L	99
41) 2-Nitropropane	9.57	43	2240m	3.56 ug\L	
42) 2-Chloroethyl-vinyl ether	9.70	63	4016m	4.16 ug\L	
43) cis-1,3-Dichloropropene	9.90	75	55885	3.84 ug\L	97
44) 4-Methyl-2-Pentanone	10.25	85	2921m	2.76 ug\L	
47) Toluene	10.41	92	106453	3.84 ug\L	98
48) trans-1,3-Dichloropropene	10.91	75	38334	3.75 ug\L	96
49) Ethylmethacrylate	11.09	69	23128	3.92 ug\L #	88
50) 1,1,2-Trichloroethane	11.19	83	21362	4.04 ug\L	96
51) Tetrachloroethene	11.32	164	70730	3.89 ug\L	93
52) 1,3-Dichloropropane	11.47	76	40429	3.92 ug\L	99
53) 2-Hexanone	11.71	43	5885	4.17 ug\L #	85
54) Dibromochloromethane	11.85	129	44221	3.80 ug\L	98
55) 1,2-Dibromoethane	12.00	107	29465	3.93 ug\L	99
56) Chlorobenzene	12.84	112	124297	3.95 ug\L	98
57) 1,1,1,2-Tetrachloroethane	13.03	131	56666	3.92 ug\L	98
58) Ethylbenzene	13.05	91	229091	3.99 ug\L	100
59) total-Xylene	13.93	106	101467m	5.46 ug\L	
60) Styrene	13.98	104	117944	3.95 ug\L	95
62) Bromoform	14.33	173	19860m	3.76 ug\L	
63) Isopropylbenzene	14.59	105	289156	3.96 ug\L	100
64) 1,4-dichloro-2-Butene	15.28	75	19734	1.67 ug\L #	100
66) Bromobenzene	15.10	156	51473	3.86 ug\L #	64
67) 1,1,2,2-Tetrachloroethane	15.25	83	25717	3.95 ug\L	96
68) 1,2,3-Trichloropropane	15.28	75	19734	3.41 ug\L #	100
69) n-Propylbenzene	15.32	91	320143	4.05 ug\L	98
70) 2-Chlorotoluene	15.44	91	168499	3.90 ug\L	95
71) 4-Chlorotoluene	15.66	91	236350	3.98 ug\L	98
72) 1,3,5-Trimethylbenzene	15.66	105	224187	3.98 ug\L	87
73) Pentachloroethane	16.26	167	36022	3.80 ug\L #	79
74) tert-Butylbenzene	16.20	119	280259	4.00 ug\L	100
75) 1,2,4-Trimethylbenzene	16.31	105	218128	4.00 ug\L	99
76) sec-Butylbenzene	16.60	105	332183	3.90 ug\L	97
77) 1,3-Dichlorobenzene	16.78	146	102678	3.99 ug\L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

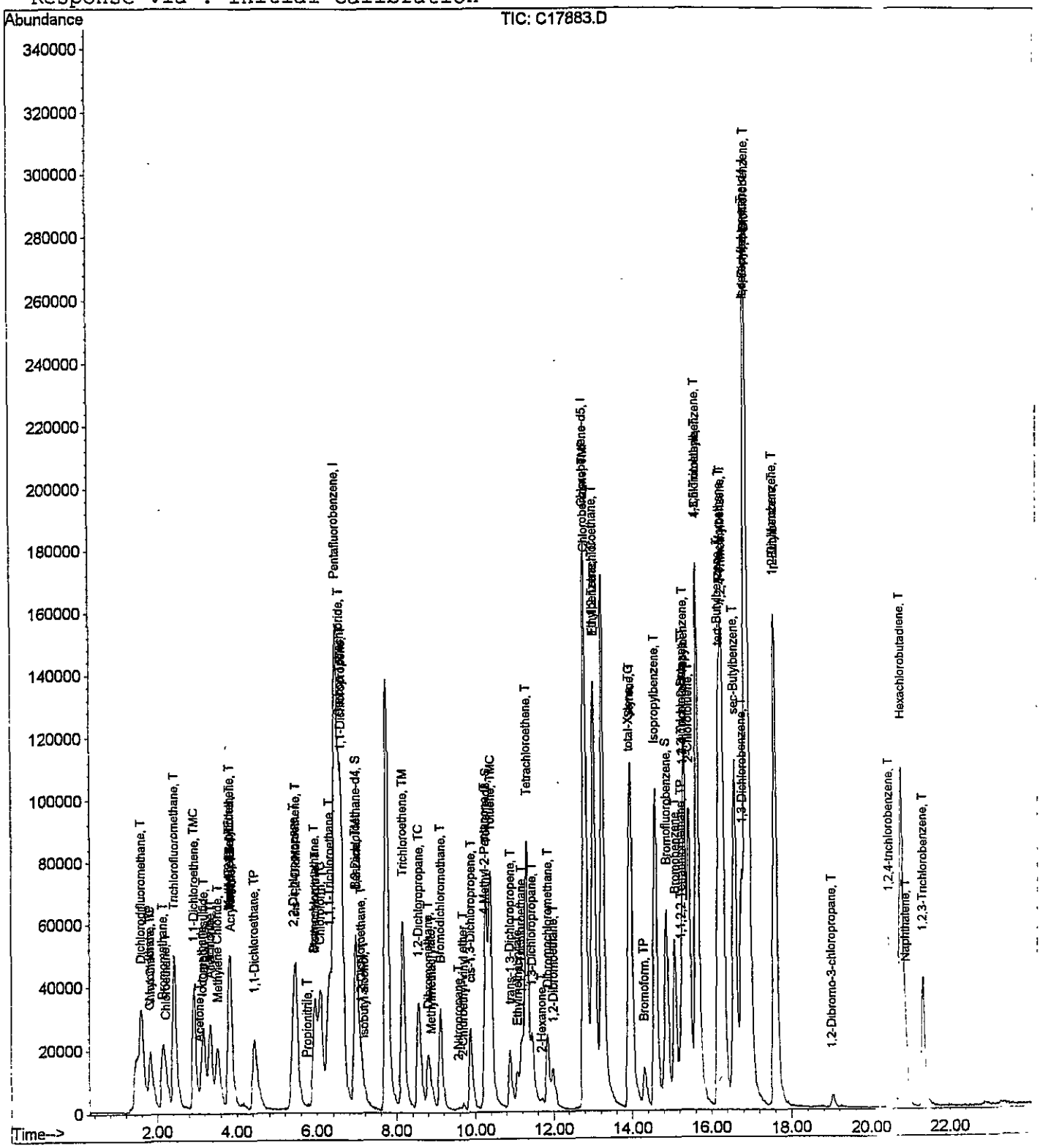
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.88	119	266465	3.87 ug\L	98
79) 1,4-Dichlorobenzene	16.94	146	114228	3.94 ug\L	99
80) 1,2-Dichlorobenzene	17.59	146	80022	3.85 ug\L	96
81) n-Butylbenzene	17.61	91	261027	3.92 ug\L	94
82) 1,2-Dibromo-3-chloropropan	19.02	75	4657	3.72 ug\L #	16
83) 1,2,4-trichlorobenzene	20.47	180	68058	4.09 ug\L	100
84) Hexachlorobutadiene	20.79	225	85009	4.22 ug\L	100
85) Naphthalene	20.90	128	57330	4.05 ug\L	100
86) 1,2,3-Trichlorobenzene	21.33	180	49498	4.13 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17883.D Vial: 2
Acq On : 11 Dec 2000 23:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:09 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.46	168	426889	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.79	117	307080	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	167417	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	95089	10.18 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.80%		
46) Toluene-d8	10.27	98	451408	10.14 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.40%		
65) Bromofluorobenzene	14.87	95	229214	10.11 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.10%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.59	85	267541	10.59 ug\L	99
3) Chloromethane	1.78	50	86593	10.15 ug\L	99
4) Vinyl Chloride	1.84	62	126924	10.50 ug\L	100
5) Bromomethane	2.14	94	117137	11.53 ug\L	98
6) Chloroethane	2.21	64	67392	10.91 ug\L	97
7) Trichlorofluoromethane	2.43	101	389846	10.30 ug\L #	100
8) Acrolein	3.82	56	2263	16.46 ug\L #	69
9) Acrylonitrile	3.84	53	10235m	29.24 ug\L	
10) 1,1-Dichloroethene	2.92	96	141141	10.39 ug\L	99
11) Acetone	3.01	58	1185m	13.89 ug\L	
12) Iodomethane	3.13	142	181494	9.31 ug\L	99
13) Allylchloride	3.34	39	117493	10.29 ug\L #	35
14) Carbon Disulfide	3.17	76	255224	10.03 ug\L	98
15) Acetonitrile	3.34	41	171633	105.10 ug\L	91
16) Methylene Chloride	3.51	86	59238	10.23 ug\L #	46
17) trans-1,2-Dichloroethene	3.81	96	145376	10.50 ug\L	96
18) MethylTertButylEther	3.82	73	132604	10.08 ug\L #	52
19) 1,1-Dichloroethane	4.44	63	229326	10.31 ug\L	99
20) Vinyl Acetate	3.80	43	30471	21.40 ug\L #	73
21) 2,2-Dichloropropane	5.41	77	264376	10.31 ug\L	95
22) cis-1,2-Dichloroethene	5.47	96	126303	10.40 ug\L	98
23) 2-Butanone	5.51	72	2591m	12.36 ug\L	
24) Propionitrile	5.74	54	7189	56.00 ug\L #	76
25) Methacrylonitrile	5.95	41	120331	107.26 ug\L	97
26) Bromochloromethane	5.94	128	50236	10.44 ug\L #	78
27) Chloroform	6.08	83	283195	10.27 ug\L	99
28) 1,1,1-Trichloroethane	6.31	97	340043	10.40 ug\L #	73
29) Carbon Tetrachloride	6.58	119	294103	9.86 ug\L #	71
30) 1,4-Dioxane	8.92	88	4824m	161.29 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.61	77	80419	10.50 ug\L	#	1
33)	Benzene	6.99	78	383717	10.28 ug\L		100
34)	Isobutyl alcohol	7.16	43	12814m	216.50 ug\L		
35)	1,2-Dichloroethane	7.09	62	109321	10.38 ug\L	#	87
36)	Trichloroethene	8.16	95	205991	10.17 ug\L		92
37)	1,2-Dichloropropane	8.57	63	117663	9.99 ug\L	#	95
38)	Dibromomethane	8.81	93	56677	10.16 ug\L	#	80
39)	Methylmethacrylate	8.88	69	23122	10.76 ug\L		94
40)	Bromodichloromethane	9.12	83	205791	10.14 ug\L		96
41)	2-Nitropropane	9.57	43	6409m	10.05 ug\L		
42)	2-Chloroethyl-vinyl ether	9.68	63	12506m	7.96 ug\L		
43)	cis-1,3-Dichloropropene	9.88	75	152881	10.22 ug\L		99
44)	4-Methyl-2-Pentanone	10.18	85	5962m	9.48 ug\L		
47)	Toluene	10.39	92	287771	10.34 ug\L		100
48)	trans-1,3-Dichloropropene	10.89	75	104620	10.19 ug\L		95
49)	Ethylmethacrylate	11.07	69	60937	10.27 ug\L	#	88
50)	1,1,2-Trichloroethane	11.20	83	56061	10.54 ug\L		95
51)	Tetrachloroethene	11.31	164	189363	10.38 ug\L		94
52)	1,3-Dichloropropane	11.46	76	105539	10.19 ug\L		99
53)	2-Hexanone	11.68	43	15830	11.17 ug\L	#	72
54)	Dibromochloromethane	11.85	129	115255	9.85 ug\L		99
55)	1,2-Dibromoethane	11.99	107	75944	10.09 ug\L	#	98
56)	Chlorobenzene	12.84	112	324788	10.28 ug\L		96
57)	1,1,1,2-Tetrachloroethane	13.01	131	151680	10.44 ug\L		95
58)	Ethylbenzene	13.03	91	602064	10.44 ug\L		99
59)	total-Xylene	13.94	106	257208m	13.79 ug\L		
60)	Styrene	13.99	104	314274	10.48 ug\L		94
62)	Bromoform	14.32	173	56942m	9.63 ug\L		
63)	Isopropylbenzene	14.59	105	749771	10.28 ug\L		98
64)	1,4-dichloro-2-Butene	15.27	75	50365	4.26 ug\L	#	100
66)	Bromobenzene	15.10	156	136635	10.25 ug\L	#	62
67)	1,1,2,2-Tetrachloroethane	15.25	83	66343	10.22 ug\L	#	97
68)	1,2,3-Trichloropropane	15.27	75	50365	8.73 ug\L	#	100
69)	n-Propylbenzene	15.32	91	798928	10.14 ug\L		95
70)	2-Chlorotoluene	15.45	91	454624	10.53 ug\L		96
71)	4-Chlorotoluene	15.65	91	607719	10.24 ug\L		98
72)	1,3,5-Trimethylbenzene	15.66	105	580630	10.34 ug\L		88
73)	Pentachloroethane	16.26	167	96966	10.24 ug\L	#	58
74)	tert-Butylbenzene	16.22	119	719886	10.30 ug\L		98
75)	1,2,4-Trimethylbenzene	16.31	105	554479	10.18 ug\L		100
76)	sec-Butylbenzene	16.60	105	872737	10.26 ug\L		96
77)	1,3-Dichlorobenzene	16.77	146	260711	10.16 ug\L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D
Acq On : 11 Dec 2000 22:40
Sample : ICAL 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12110025.RES

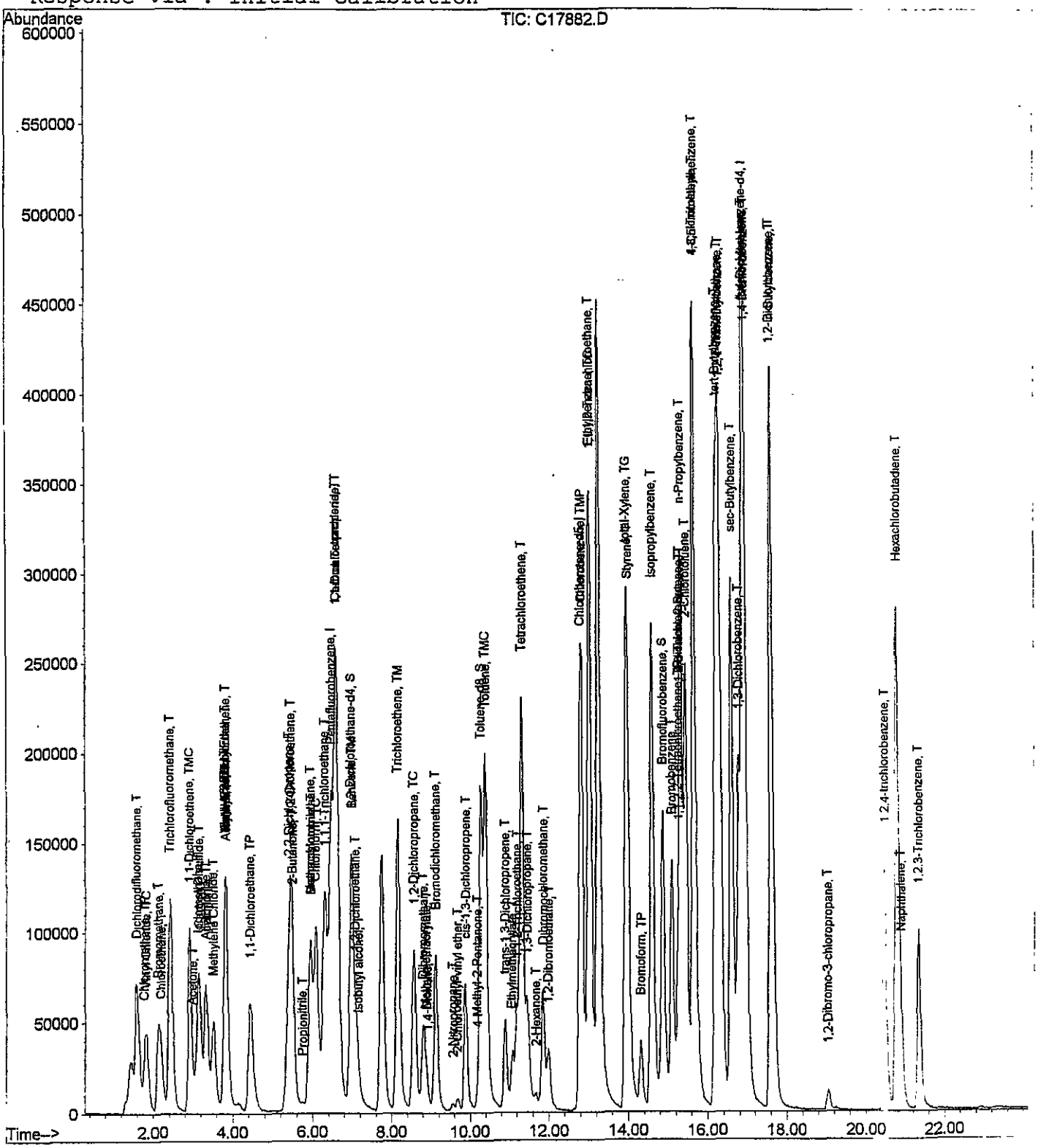
Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.88	119	703310	10.23 ug\L	100
79)	1,4-Dichlorobenzene	16.95	146	289010	9.98 ug\L	99
80)	1,2-Dichlorobenzene	17.59	146	208987	10.08 ug\L	98
81)	n-Butylbenzene	17.61	91	678033	10.19 ug\L	92
82)	1,2-Dibromo-3-chloropropan	19.04	75	12654	10.12 ug\L	86
83)	1,2,4-trichlorobenzene	20.48	180	162084	9.76 ug\L	100
84)	Hexachlorobutadiene	20.79	225	217098	10.80 ug\L	100
85)	Naphthalene	20.91	128	121867m	8.63 ug\L	
86)	1,2,3-Trichlorobenzene	21.35	180	113256	9.47 ug\L	96

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\121100A\C17882.D Vial: 1
Acq On : 11 Dec 2000 22:40 Operator: TAG/VR
Sample : ICAL 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:08 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D Vial: 4
Acq On : 12 Dec 2000 00:05 Operator: TAG/VR
Sample : ICAL 20 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	395797	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.79	117	284737	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	155971	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.96	65	178182	20.58	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 205.80%#			
46) Toluene-d8	10.29	98	822521	19.93	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 199.30%#			
65) Bromofluorobenzene	14.87	95	417116	19.75	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 197.50%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.60	85	473154	20.21	ug\L	98
3) Chloromethane	1.78	50	160276	20.25	ug\L	98
4) Vinyl Chloride	1.84	62	226076	20.17	ug\L	99
5) Bromomethane	2.14	94	191125	21.55	ug\L	98
6) Chloroethane	2.21	64	118019	20.62	ug\L	97
7) Trichlorofluoromethane	2.45	101	716642	20.41	ug\L #	100
8) Acrolein	3.82	56	4697	36.85	ug\L #	45
9) Acrylonitrile	3.88	53	18764	57.82	ug\L #	88
10) 1,1-Dichloroethene	2.94	96	259139	20.58	ug\L	99
11) Acetone	3.02	58	814	10.29	ug\L #	1
12) Iodomethane	3.14	142	391513	20.21	ug\L	96
13) Allylchloride	3.34	39	216371	20.44	ug\L #	36
14) Carbon Disulfide	3.18	76	453056	19.20	ug\L	99
15) Acetonitrile	3.35	41	315920	208.65	ug\L	91
16) Methylene Chloride	3.51	86	108036	20.12	ug\L #	35
17) trans-1,2-Dichloroethene	3.82	96	264900	20.64	ug\L	97
18) MethylTertButylEther	3.81	73	254978	20.91	ug\L	93
19) 1,1-Dichloroethane	4.44	63	426690	20.69	ug\L	99
20) Vinyl Acetate	3.82	43	57660	43.67	ug\L #	73
21) 2,2-Dichloropropane	5.41	77	491734	20.69	ug\L	95
22) cis-1,2-Dichloroethene	5.48	96	234435	20.82	ug\L	98
23) 2-Butanone	5.53	72	1355	0.59	ug\L #	1
24) Propionitrile	5.75	54	30250	254.16	ug\L #	94
25) Methacrylonitrile	5.96	41	240961	231.65	ug\L #	73
26) Bromochloromethane	5.94	128	93492	20.96	ug\L #	78
27) Chloroform	6.09	83	528310	20.67	ug\L	100
28) 1,1,1-Trichloroethane	6.30	97	622970	20.54	ug\L #	81
29) Carbon Tetrachloride	6.58	119	571124	20.66	ug\L	85
30) 1,4-Dioxane	8.91	88	9338m	443.39	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D Vial: 4
Acq On : 12 Dec 2000 00:05 Operator: TAG/VR
Sample : ICAL 20 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.62	77	145885	20.54 ug\L	#	1
33) Benzene	6.98	78	716137	20.69 ug\L		100
34) Isobutyl alcohol	7.16	43	26176	477.00 ug\L		96
35) 1,2-Dichloroethane	7.09	62	208196	21.32 ug\L		98
36) Trichloroethene	8.16	95	381961	20.33 ug\L		93
37) 1,2-Dichloropropane	8.57	63	226719	20.75 ug\L	#	95
38) Dibromomethane	8.80	93	112415	21.73 ug\L	#	85
39) Methylmethacrylate	8.88	69	45265	22.71 ug\L		84
40) Bromodichloromethane	9.12	83	397153	21.12 ug\L		99
41) 2-Nitropropane	9.57	43	13666	23.20 ug\L	#	100
42) 2-Chloroethyl-vinyl ether	9.68	63	35855	19.83 ug\L	#	95
43) cis-1,3-Dichloropropene	9.87	75	294051	21.20 ug\L		99
44) 4-Methyl-2-Pentanone	10.21	85	9620	19.52 ug\L	#	63
47) Toluene	10.39	92	533419	20.68 ug\L		100
48) trans-1,3-Dichloropropene	10.89	75	200058	21.02 ug\L		96
49) Ethylmethacrylate	11.06	69	117110	21.29 ug\L	#	99
50) 1,1,2-Trichloroethane	11.19	83	101944	20.68 ug\L		95
51) Tetrachloroethene	11.31	164	351313	20.76 ug\L		94
52) 1,3-Dichloropropane	11.46	76	200192	20.85 ug\L		100
53) 2-Hexanone	11.67	43	32418	24.66 ug\L		99
54) Dibromochloromethane	11.85	129	233576	21.53 ug\L		99
55) 1,2-Dibromoethane	11.99	107	149629	21.44 ug\L	#	98
56) Chlorobenzene	12.84	112	601886	20.54 ug\L		97
57) 1,1,1,2-Tetrachloroethane	13.02	131	282262	20.95 ug\L		94
58) Ethylbenzene	13.04	91	1120151	20.95 ug\L		99
59) total-Xylene	13.94	106	496534m	28.70 ug\L		
60) Styrene	13.98	104	581279	20.91 ug\L		95
62) Bromoform	14.33	173	114030	19.99 ug\L	#	97
63) Isopropylbenzene	14.60	105	1369760	20.15 ug\L		98
64) 1,4-dichloro-2-Butene	15.31	75	101687	9.24 ug\L	#	100
66) Bromobenzene	15.10	156	254402	20.49 ug\L	#	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	125489	20.75 ug\L	#	98
68) 1,2,3-Trichloropropane	15.31	75	101687	18.92 ug\L	#	100
69) n-Propylbenzene	15.33	91	1500727	20.44 ug\L		97
70) 2-Chlorotoluene	15.45	91	816057	20.30 ug\L		96
71) 4-Chlorotoluene	15.66	91	1115178	20.17 ug\L		98
72) 1,3,5-Trimethylbenzene	15.66	105	1064748	20.35 ug\L		89
73) Pentachloroethane	16.28	167	185727	21.05 ug\L		95
74) tert-Butylbenzene	16.22	119	1323035	20.32 ug\L		98
75) 1,2,4-Trimethylbenzene	16.31	105	1022210	20.14 ug\L		98
76) sec-Butylbenzene	16.61	105	1581832	19.97 ug\L		96
77) 1,3-Dichlorobenzene	16.78	146	488303	20.42 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D Vial: 4
Acq On : 12 Dec 2000 00:05 Operator: TAG/VR
Sample : ICAL 20 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.89	119	1286612	20.09 ug\L	99
79)	1,4-Dichlorobenzene	16.96	146	530432	19.67 ug\L	99
80)	1,2-Dichlorobenzene	17.60	146	382498	19.80 ug\L	98
81)	n-Butylbenzene	17.62	91	1260276	20.33 ug\L	92
82)	1,2-Dibromo-3-chloropropan	19.06	75	25254	21.69 ug\L	86
83)	1,2,4-trichlorobenzene	20.49	180	304306	19.68 ug\L	100
84)	Hexachlorobutadiene	20.80	225	382127	20.40 ug\L	100
85)	Naphthalene	20.92	128	233260	17.74 ug\L	100
86)	1,2,3-Trichlorobenzene	21.36	180	212036	19.02 ug\L	97

(#) = qualifier out of range (m) = manual integration

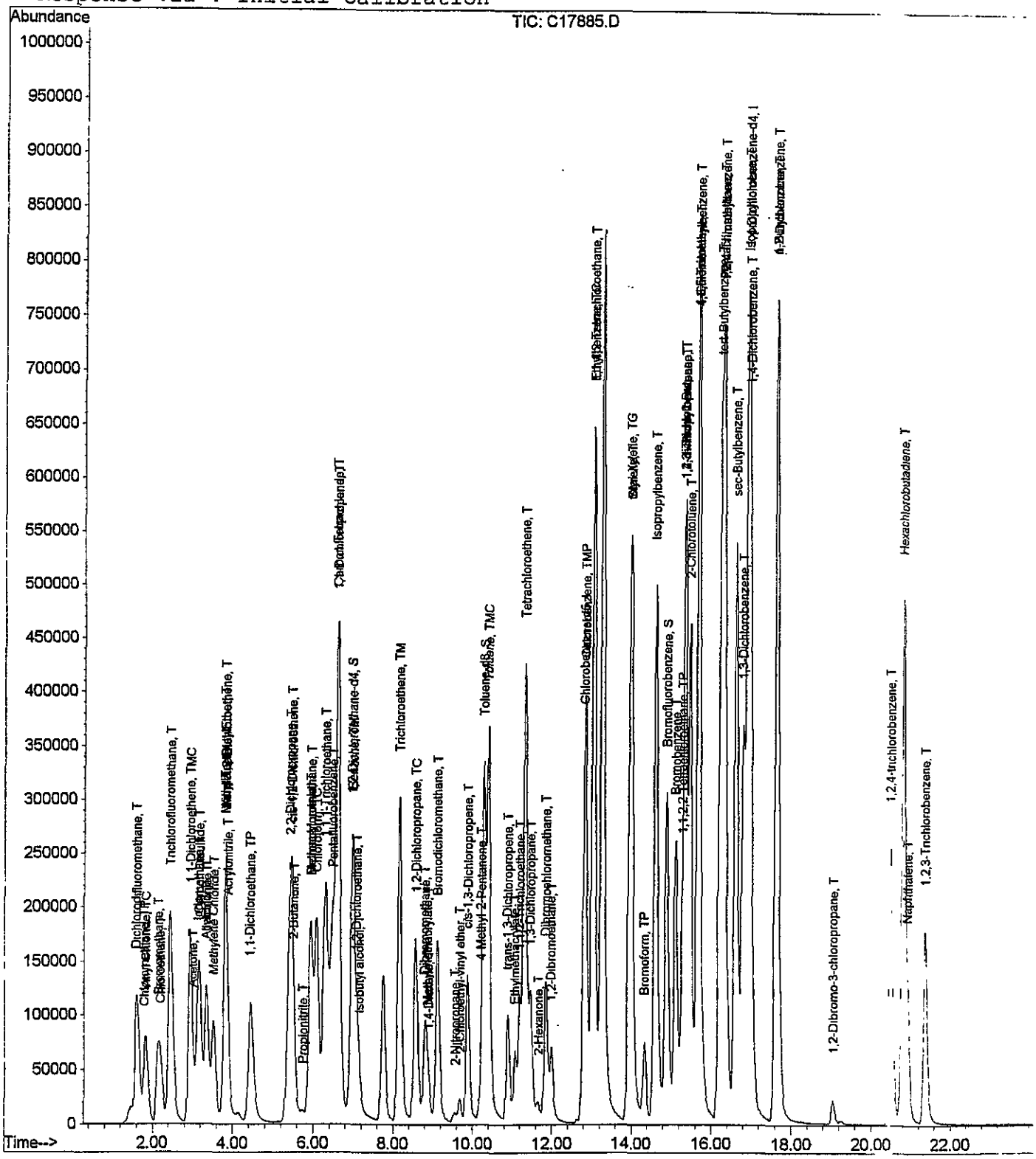
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17885.D
Acq On : 12 Dec 2000 00:05
Sample : ICAL 20 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 9:43 2000

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.49	168	417290	10.00	ug\L		0.02
45) Chlorobenzene-d5	12.79	117	305503	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	161292	10.00	ug\L		0.02
System Monitoring Compounds							
32) 1,2-Dichloroethane-d4	6.97	65	272485	29.85	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 298.50%#				
46) Toluene-d8	10.29	98	1310917	29.61	ug\L		0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 296.10%#				
65) Bromofluorobenzene	14.89	95	668675	30.61	ug\L		0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 306.10%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.61	85	718108	29.09	ug\L		99
3) Chloromethane	1.80	50	242422	29.06	ug\L		99
4) Vinyl Chloride	1.85	62	342295	28.97	ug\L		99
5) Bromomethane	2.13	94	273916	29.89	ug\L		96
6) Chloroethane	2.22	64	169487	28.08	ug\L		99
7) Trichlorofluoromethane	2.47	101	1095917	29.61	ug\L	#	100
8) Acrolein	3.82	56	13190m	98.15	ug\L		
9) Acrylonitrile	3.89	53	30087m	87.94	ug\L		
10) 1,1-Dichloroethene	2.95	96	395434	29.79	ug\L		99
11) Acetone	3.04	58	3383	40.58	ug\L	#	47
12) Iodomethane	3.14	142	632196	30.38	ug\L		97
13) Allylchloride	3.35	39	324374	29.06	ug\L	#	36
14) Carbon Disulfide	3.19	76	694397	27.91	ug\L		98
15) Acetonitrile	3.36	41	472520	296.00	ug\L		91
16) Methylene Chloride	3.54	86	168773	29.81	ug\L	#	37
17) trans-1,2-Dichloroethene	3.84	96	403869	29.84	ug\L		98
18) MethylTertButylEther	3.83	73	390086	30.34	ug\L		94
19) 1,1-Dichloroethane	4.46	63	650692	29.93	ug\L		98
20) Vinyl Acetate	3.82	43	86605	62.21	ug\L	#	73
21) 2,2-Dichloropropane	5.42	77	758351	30.26	ug\L		96
22) cis-1,2-Dichloroethene	5.49	96	352254	29.68	ug\L		99
23) 2-Butanone	5.46	72	2407	11.02	ug\L	#	1
24) Propionitrile	5.77	54	47273	376.72	ug\L	#	93
25) Methacrylonitrile	5.97	41	357223	325.73	ug\L		98
26) Bromochloromethane	5.95	128	142846	30.38	ug\L		96
27) Chloroform	6.11	83	810592	30.08	ug\L		98
28) 1,1,1-Trichloroethane	6.32	97	971235	30.37	ug\L	#	83
29) Carbon Tetrachloride	6.61	119	867479	29.77	ug\L		84
30) 1,4-Dioxane	8.92	88	14457m	697.02	ug\L		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.63	77	222730	29.75 ug\L	#	1
33) Benzene	6.99	78	1091049	29.89 ug\L		100
34) Isobutyl alcohol	7.18	43	39282	678.96 ug\L		95
35) 1,2-Dichloroethane	7.11	62	310089	30.11 ug\L		96
36) Trichloroethene	8.18	95	587697	29.67 ug\L		92
37) 1,2-Dichloropropane	8.58	63	344582	29.92 ug\L	#	95
38) Dibromomethane	8.82	93	169431	31.07 ug\L	#	84
39) Methylmethacrylate	8.88	69	67934	32.33 ug\L		93
40) Bromodichloromethane	9.13	83	617026	31.12 ug\L	#	99
41) 2-Nitropropane	9.57	43	16271	26.22 ug\L	#	100
42) 2-Chloroethyl-vinyl ether	9.69	63	59735	30.01 ug\L	#	92
43) cis-1,3-Dichloropropene	9.89	75	453570	31.02 ug\L		98
44) 4-Methyl-2-Pentanone	10.21	85	14791	30.34 ug\L	#	64
47) Toluene	10.40	92	808225	29.20 ug\L		99
48) trans-1,3-Dichloropropene	10.90	75	311280	30.48 ug\L		94
49) Ethylmethacrylate	11.09	69	183955	31.17 ug\L	#	94
50) 1,1,2-Trichloroethane	11.20	83	157177	29.71 ug\L		97
51) Tetrachloroethene	11.32	164	525583	28.95 ug\L		94
52) 1,3-Dichloropropane	11.47	76	302820	29.40 ug\L		100
53) 2-Hexanone	11.69	43	45694	32.40 ug\L	#	90
54) Dibromochloromethane	11.85	129	358242	30.78 ug\L		98
55) 1,2-Dibromoethane	12.00	107	229283	30.62 ug\L	#	99
56) Chlorobenzene	12.84	112	935303	29.75 ug\L		96
57) 1,1,1,2-Tetrachloroethane	13.03	131	440748	30.48 ug\L		94
58) Ethylbenzene	13.06	91	1676847	29.23 ug\L		99
59) total-Xylene	13.95	106	758543m	40.86 ug\L		
60) Styrene	13.98	104	904457	30.32 ug\L		96
62) Bromoform	14.33	173	181113	30.37 ug\L	#	98
63) Isopropylbenzene	14.60	105	2137631	30.42 ug\L		98
64) 1,4-dichloro-2-Butene	15.30	75	154165	13.55 ug\L	#	100
66) Bromobenzene	15.10	156	391984	30.53 ug\L	#	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	193944	31.01 ug\L	#	98
68) 1,2,3-Trichloropropane	15.30	75	154165	27.74 ug\L	#	100
69) n-Propylbenzene	15.33	91	2409134	31.73 ug\L		99
70) 2-Chlorotoluene	15.45	91	1179703	28.37 ug\L		93
71) 4-Chlorotoluene	15.66	91	1717645	30.05 ug\L		99
72) 1,3,5-Trimethylbenzene	15.66	105	1643622	30.37 ug\L		89
73) Pentachloroethane	16.27	167	291918	32.00 ug\L		96
74) tert-Butylbenzene	16.22	119	2033408	30.20 ug\L		99
75) 1,2,4-Trimethylbenzene	16.31	105	1568281	29.87 ug\L		99
76) sec-Butylbenzene	16.61	105	2453696	29.95 ug\L		96
77) 1,3-Dichlorobenzene	16.78	146	738611	29.87 ug\L		98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

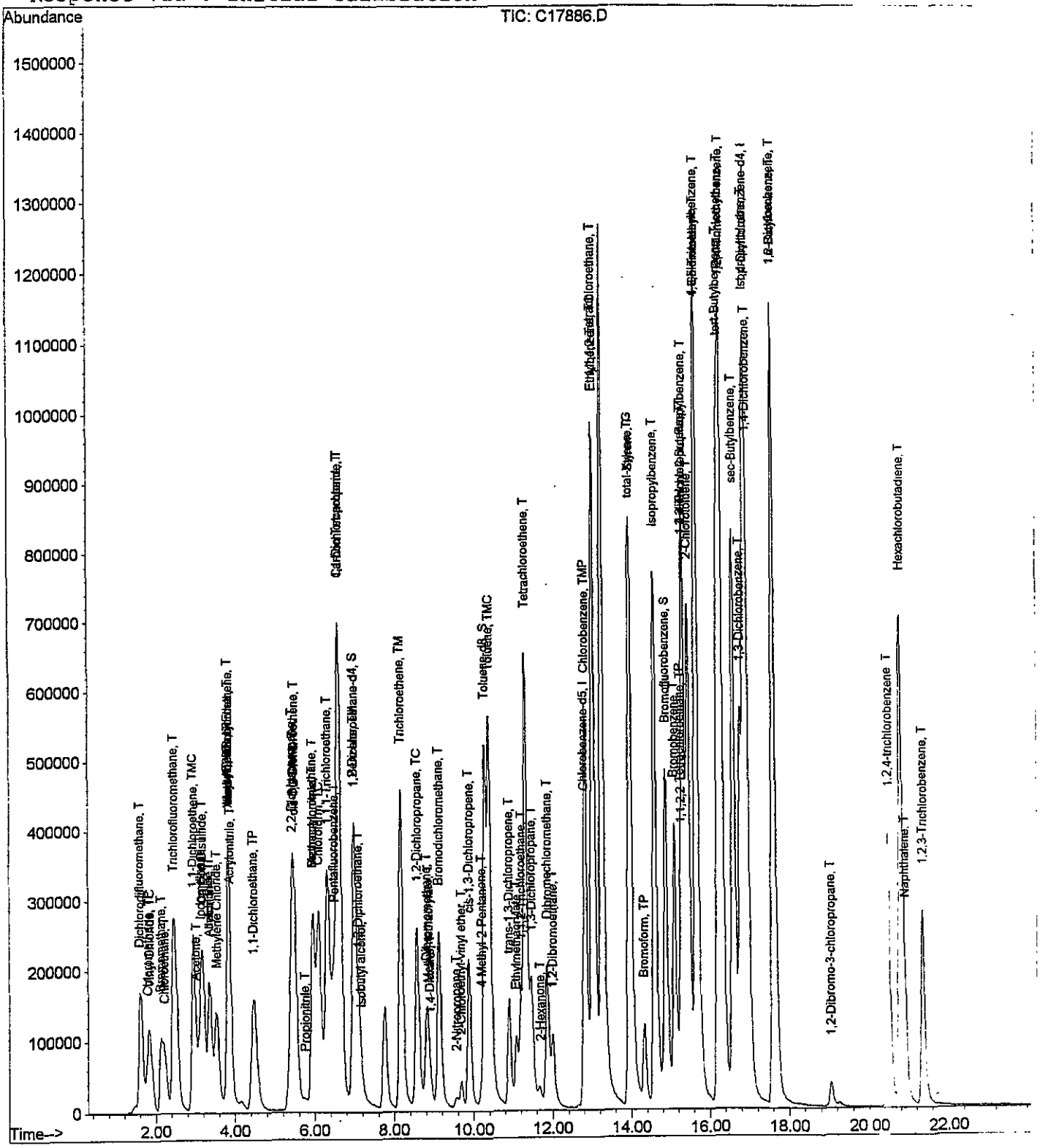
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.88	119	1981669	29.92 ug\L		100
79)	1,4-Dichlorobenzene	16.96	146	834409	29.92 ug\L		97
80)	1,2-Dichlorobenzene	17.59	146	583593	29.21 ug\L		99
81)	n-Butylbenzene	17.61	91	1934086	30.17 ug\L		93
82)	1,2-Dibromo-3-chloropropan	19.04	75	37382	31.05 ug\L	#	80
83)	1,2,4-trichlorobenzene	20.49	180	473859	29.63 ug\L		100
84)	Hexachlorobutadiene	20.80	225	546777	28.23 ug\L		100
85)	Naphthalene	20.91	128	373464m	27.47 ug\L		
86)	1,2,3-Trichlorobenzene	21.34	180	328764	28.52 ug\L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17886.D Vial: 5
Acq On : 12 Dec 2000 00:33 Operator: TAG/VR
Sample : ICAL 30 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:45 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.50	168	409847	10.00	ug\L		0.03
45) Chlorobenzene-d5	12.80	117	295665	10.00	ug\L		0.01
61) 1,4-Dichlorobenzene-d4	16.90	152	160039	10.00	ug\L		0.00
System Monitoring Compounds							
32) 1,2-Dichloroethane-d4	6.98	65	357218	39.84	ug\L		0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 398.40%#				
46) Toluene-d8	10.30	98	1682238	39.26	ug\L		0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 392.60%#				
65) Bromofluorobenzene	14.88	95	851941	39.31	ug\L		0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 393.10%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.61	85	944493	38.96	ug\L		99
3) Chloromethane	1.79	50	315291	38.47	ug\L		99
4) Vinyl Chloride	1.85	62	448445	38.65	ug\L		98
5) Bromomethane	2.13	94	346357	38.96	ug\L		97
6) Chloroethane	2.24	64	204573	34.51	ug\L		99
7) Trichlorofluoromethane	2.48	101	1440316	39.62	ug\L	#	100
8) Acrolein	3.84	56	16622	125.93	ug\L	#	67
9) Acrylonitrile	3.89	53	39211m	116.69	ug\L		
10) 1,1-Dichloroethene	2.97	96	508597	39.01	ug\L		99
11) Acetone	3.04	58	4537m	55.40	ug\L		
12) Iodomethane	3.14	142	819814	39.76	ug\L		97
13) Allylchloride	3.36	39	409207	37.32	ug\L	#	21
14) Carbon Disulfide	3.19	76	1184253	48.47	ug\L	#	95
15) Acetonitrile	3.36	41	596308	380.33	ug\L		91
16) Methylene Chloride	3.54	86	212776	38.26	ug\L	#	35
17) trans-1,2-Dichloroethene	3.84	96	516899	38.89	ug\L		98
18) MethylTertButylEther	3.83	73	499599	39.56	ug\L		94
19) 1,1-Dichloroethane	4.48	63	819662	38.39	ug\L		98
20) Vinyl Acetate	3.83	43	109048	79.75	ug\L	#	73
21) 2,2-Dichloropropane	5.43	77	1001612	40.69	ug\L		95
22) cis-1,2-Dichloroethene	5.51	96	453353	38.89	ug\L		98
23) 2-Butanone	5.60	72	12485m	120.93	ug\L		
24) Propionitrile	5.77	54	59452	482.38	ug\L	#	99
25) Methacrylonitrile	5.97	41	454196	421.67	ug\L		97
26) Bromochloromethane	5.96	128	180786	39.15	ug\L		98
27) Chloroform	6.11	83	1037646	39.20	ug\L		99
28) 1,1,1-Trichloroethane	6.34	97	1260481	40.14	ug\L		93
29) Carbon Tetrachloride	6.61	119	1109525	38.76	ug\L		85
30) 1,4-Dioxane	8.92	88	19489m	993.22	ug\L		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.64	77	282456	38.41 ug\L	#	1
33)	Benzene	7.00	78	1383239	38.59 ug\L		100
34)	Isobutyl alcohol	7.19	43	49360	868.64 ug\L		94
35)	1,2-Dichloroethane	7.12	62	404458	39.99 ug\L		96
36)	Trichloroethene	8.18	95	761604	39.15 ug\L		93
37)	1,2-Dichloropropane	8.59	63	440722	38.96 ug\L	#	96
38)	Dibromomethane	8.82	93	213304	39.82 ug\L	#	84
39)	Methylmethacrylate	8.90	69	89222	43.23 ug\L		92
40)	Bromodichloromethane	9.14	83	797810	40.96 ug\L		99
41)	2-Nitropropane	9.57	43	25118	41.25 ug\L	#	100
42)	2-Chloroethyl-vinyl ether	9.69	63	80802	40.48 ug\L	#	96
43)	cis-1,3-Dichloropropene	9.90	75	589900	41.08 ug\L		98
44)	4-Methyl-2-Pentanone	10.22	85	17954	38.45 ug\L	#	74
47)	Toluene	10.40	92	1023474	38.20 ug\L		99
48)	trans-1,3-Dichloropropene	10.91	75	410770	41.57 ug\L		93
49)	Ethylmethacrylate	11.08	69	234259	41.01 ug\L	#	95
50)	1,1,2-Trichloroethane	11.20	83	201684	39.39 ug\L		96
51)	Tetrachloroethene	11.32	164	662715	37.71 ug\L		94
52)	1,3-Dichloropropane	11.47	76	385874	38.71 ug\L		99
53)	2-Hexanone	11.68	43	58218	42.65 ug\L	#	91
54)	Dibromochloromethane	11.86	129	469174	41.65 ug\L		99
55)	1,2-Dibromoethane	12.00	107	291525	40.22 ug\L	#	99
56)	Chlorobenzene	12.84	112	1183089	38.88 ug\L		96
57)	1,1,1,2-Tetrachloroethane	13.02	131	555522	39.70 ug\L		94
58)	Ethylbenzene	13.06	91	2089915	37.64 ug\L		98
59)	total-Xylene	13.95	106	941031m	52.38 ug\L		
60)	Styrene	13.99	104	1130561	39.16 ug\L		94
62)	Bromoform	14.33	173	236791	39.82 ug\L	#	98
63)	Isopropylbenzene	14.60	105	2677590	38.40 ug\L		98
64)	1,4-dichloro-2-Butene	15.29	75	191508	16.96 ug\L	#	100
66)	Bromobenzene	15.11	156	494375	38.81 ug\L	#	63
67)	1,1,2,2-Tetrachloroethane	15.26	83	241189	38.87 ug\L	#	99
68)	1,2,3-Trichloropropane	15.29	75	191508	34.73 ug\L	#	100
69)	n-Propylbenzene	15.34	91	2720814	36.11 ug\L		94
70)	2-Chlorotoluene	15.44	91	1566183	37.96 ug\L		94
71)	4-Chlorotoluene	15.66	91	2107390	37.15 ug\L		98
72)	1,3,5-Trimethylbenzene	15.66	105	2026737	37.74 ug\L		89
73)	Pentachloroethane	16.26	167	370203	40.90 ug\L		95
74)	tert-Butylbenzene	16.21	119	2539864	38.02 ug\L		99
75)	1,2,4-Trimethylbenzene	16.31	105	1937921	37.21 ug\L		99
76)	sec-Butylbenzene	16.60	105	3041613	37.42 ug\L		97
77)	1,3-Dichlorobenzene	16.78	146	935986	38.15 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 09:14:03 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

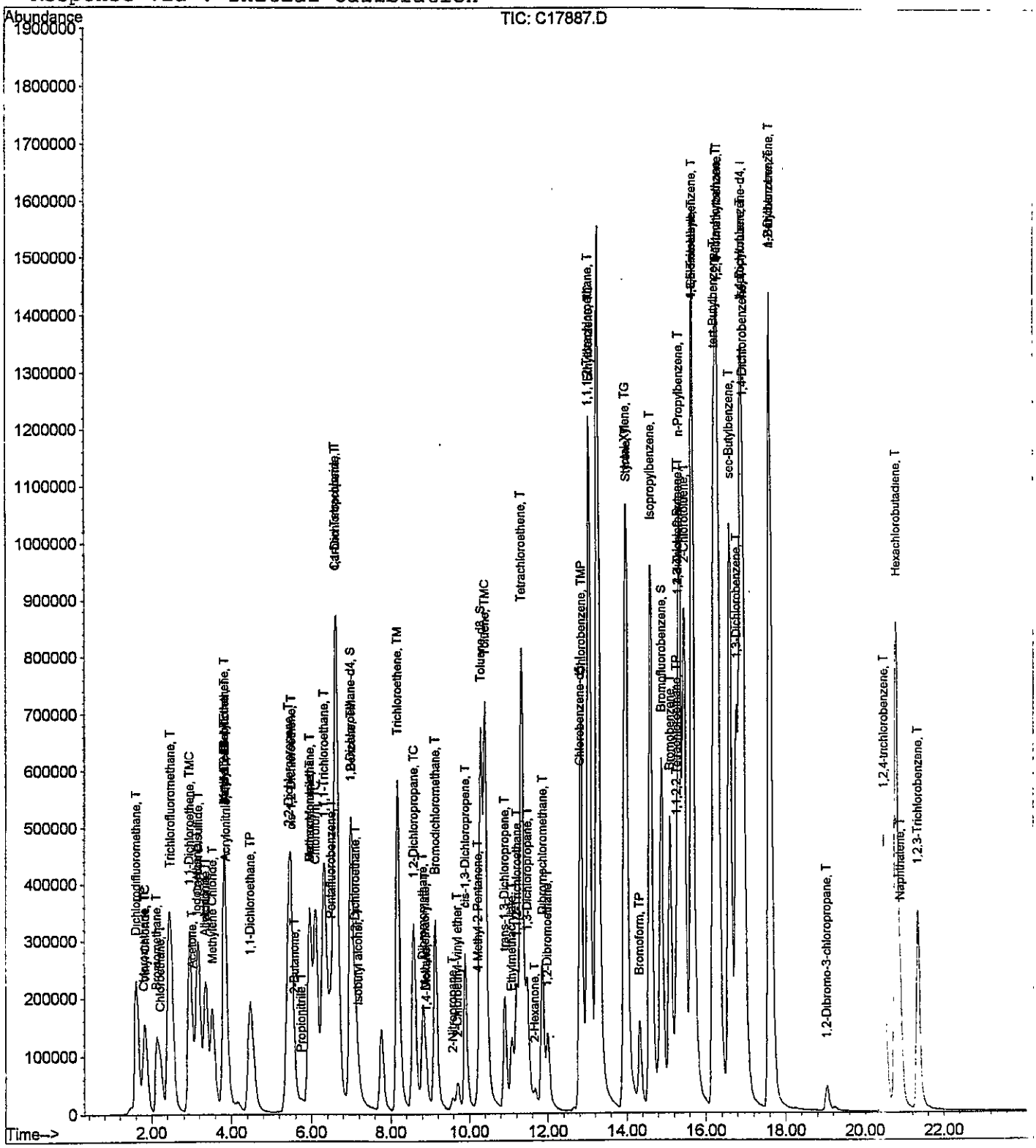
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.88	119	2451789	37.31 ug\L	98
79)	1,4-Dichlorobenzene	16.95	146	1029215	37.19 ug\L	98
80)	1,2-Dichlorobenzene	17.59	146	746375	37.65 ug\L	98
81)	n-Butylbenzene	17.61	91	2395170	37.66 ug\L	93
82)	1,2-Dibromo-3-chloropropan	19.02	75	51822	43.38 ug\L #	16
83)	1,2,4-trichlorobenzene	20.47	180	595256	37.51 ug\L	100
84)	Hexachlorobutadiene	20.79	225	664942	34.60 ug\L	100
85)	Naphthalene	20.90	128	485287	35.97 ug\L	100
86)	1,2,3-Trichlorobenzene	21.33	180	423076	36.99 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121100A\C17887.D Vial: 6
Acq On : 12 Dec 2000 1:01 Operator: TAG/VR
Sample : ICAL 40 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 9:58 2000 Quant Results File: 12110025.RES

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	104	0.00
2	T	Dichlorodifluoromethane	0.590	0.627	-6.3	104	0.01
3	TP	Chloromethane	0.199	0.213	-7.0	109	0.00
4	TC	Vinyl Chloride	0.282	0.252	10.6	88	0.01
5	T	Bromomethane	0.257	0.256	0.4	97	0.01
6	T	Chloroethane	0.146	0.159	-8.9	105	0.00
7	T	Trichlorofluoromethane	0.885	0.890	-0.6	101	0.00
8	T	Acrolein	0.004	0.005	-25.0	184#	-0.02
9	T	Acrylonitrile	0.011	0.011	0.0	92	0.02
10	TMC	1,1-Dichloroethene	0.316	0.311	1.6	98	0.00
11	T	Acetone	0.002	0.002	0.0	75	0.02
12	T	Iodomethane	0.413	0.359	13.1	88	0.00
13	T	Allylchloride	0.270	0.267	1.1	101	0.00
14	T	Carbon Disulfide	0.589	0.540	8.3	94	0.00
15	T	Acetonitrile	0.039	0.039	0.0	100	0.00
16	T	Methylene Chloride	0.136	0.128	5.9	96	0.01
17	T	trans-1,2-Dichloroethene	0.324	0.325	-0.3	99	0.00
18	T	MethylTertButylEther	0.309	0.291	5.8	98	0.01
19	TP	1,1-Dichloroethane	0.521	0.536	-2.9	104	0.02
20	T	Vinyl Acetate	0.074	0.068	8.1	99	0.01
21	T	2,2-Dichloropropane	0.592	0.586	1.0	99	0.02
22	T	cis-1,2-Dichloroethene	0.285	0.281	1.4	99	0.00
23	T	2-Butanone	0.004	0.006	-50.0#	99	0.07
24	T	Propionitrile	0.003	0.003	0.0	206#	0.00
25	T	Methacrylonitrile	0.029	0.026	10.3	96	0.00
26	T	Bromochloromethane	0.112	0.108	3.6	95	-0.02
27	TC	Chloroform	0.643	0.650	-1.1	102	0.02
28	T	1,1,1-Trichloroethane	0.764	0.782	-2.4	102	0.02
29	T	Carbon Tetrachloride	0.684	0.703	-2.8	106	0.01
30	T	1,4-Dioxane	0.001	0.001	0.0	101	0.00
31	T	1,1-Dichloropropene	0.180	0.182	-1.1	101	0.00
32	S	1,2-Dichloroethane-d4	0.218	0.212	2.8	99	0.00
33	TM	Benzene	0.875	0.877	-0.2	102	0.00
34	T	Isobutyl alcohol	0.001	0.001	0.0	48#	0.00
35	T	1,2-Dichloroethane	0.247	0.241	2.4	98	0.01
36	TM	Trichloroethene	0.473	0.484	-2.3	104	0.00
37	TC	1,2-Dichloropropane	0.277	0.264	4.7	100	0.01
38	T	Dibromomethane	0.131	0.126	3.8	99	0.00
39	T	Methylmethacrylate	0.054	0.052	3.7	100	0.00
40	T	Bromodichloromethane	0.473	0.459	3.0	99	0.00
41	T	2-Nitropropane	0.015	0.012	20.0	85	0.00
42	T	2-Chloroethyl-vinyl ether	0.034	0.031	8.8	111	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.328	5.7	95	0.01
44	T	4-Methyl-2-Pentanone	0.013	0.010	23.1	74	0.03
45	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
46	S	Toluene-d8	1.437	1.449	-0.8	100	0.00
47	TMC	Toluene	0.899	0.923	-2.7	100	0.00
48	T	trans-1,3-Dichloropropene	0.330	0.310	6.1	93	0.00
49	T	Ethylmethacrylate	0.193	0.187	3.1	96	0.00
50	T	1,1,2-Trichloroethane	0.173	0.175	-1.2	98	0.00
51	T	Tetrachloroethene	0.592	0.582	1.7	96	0.00
52	T	1,3-Dichloropropane	0.335	0.323	3.6	96	0.00
53	T	2-Hexanone	0.050	0.050	0.0	99	-0.02
54	T	Dibromochloromethane	0.374	0.367	1.9	100	0.01
55	T	1,2-Dibromoethane	0.244	0.234	4.1	97	0.01
56	TMP	Chlorobenzene	1.029	1.032	-0.3	99	0.00
57	T	1,1,1,2-Tetrachloroethane	0.473	0.467	1.3	96	0.01
58	TC	Ethylbenzene	1.877	1.918	-2.2	100	0.01
59	TG	total-Xylene	0.279	0.282	-1.1	103	0.00
60	T	Styrene	0.977	0.986	-0.9	98	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
62	TP	Bromoform	0.327	0.314	4.0	93	0.01
63	T	Isopropylbenzene	4.350	4.416	-1.5	99	0.00
64	T	1,4-dichloro-2-Butene	0.306	0.291	4.9	98	0.00
65	S	Bromofluorobenzene	1.352	1.363	-0.8	100	0.01
66	T	Bromobenzene	0.792	0.799	-0.9	99	0.00
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.373	3.6	95	0.00
68	T	1,2,3-Trichloropropane	0.306	0.291	4.9	98	0.00
69	T	n-Propylbenzene	4.717	4.815	-2.1	102	0.01
70	T	2-Chlorotoluene	2.571	2.611	-1.6	97	0.00
71	T	4-Chlorotoluene	3.532	3.557	-0.7	99	0.01
72	T	1,3,5-Trimethylbenzene	3.347	3.492	-4.3	102	0.00
73	T	Pentachloroethane	0.561	0.575	-2.5	100	0.00
74	T	tert-Butylbenzene	4.176	4.265	-2.1	100	0.00
75	T	1,2,4-Trimethylbenzene	3.246	3.328	-2.5	101	0.00
76	T	sec-Butylbenzene	5.047	5.096	-1.0	99	0.00
77	T	1,3-Dichlorobenzene	1.533	1.519	0.9	98	0.01
78	T	Isopropyltoluene	4.075	4.200	-3.1	101	0.01
79	T	1,4-Dichlorobenzene	1.727	1.715	0.7	100	0.00
80	T	1,2-Dichlorobenzene	1.225	1.223	0.2	99	0.00
81	T	n-Butylbenzene	3.952	4.125	-4.4	103	0.00
82	T	1,2-Dibromo-3-chloropropane	0.075	0.074	1.3	98	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:25 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	1.081	-8.8	113	0.00
84	T	Hexachlorobutadiene	1.212	1.323	-9.2	103	0.00
85	T	Naphthalene	0.851	0.959	-12.7	133	-0.02
86	T	1,2,3-Trichlorobenzene	0.717	0.785	-9.5	117	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	444400	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.79	117	312970	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.90	152	168889	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.97	65	94007	9.72	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.20%			
46) Toluene-d8	10.28	98	453388	10.08	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.80%			
65) Bromofluorobenzene	14.88	95	230154	10.08	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.80%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.61	85	278654	10.62	ug\L	99
3) Chloromethane	1.78	50	94636	10.72	ug\L	99
4) Vinyl Chloride	1.85	62	111855	8.92	ug\L	100
5) Bromomethane	2.15	94	113881	10.47	ug\L	97
6) Chloroethane	2.21	64	70622	10.90	ug\L	94
7) Trichlorofluoromethane	2.44	101	395477	10.05	ug\L #	100
8) Acrolein	3.80	56	4172	23.66	ug\L #	19
9) Acrylonitrile	3.87	53	4106	8.35	ug\L #	69
10) 1,1-Dichloroethene	2.93	96	138240	9.83	ug\L	98
11) Acetone	3.03	58	888	10.82	ug\L #	61
12) Iodomethane	3.14	142	159752	8.10	ug\L #	44
13) Allylchloride	3.34	39	118565	9.89	ug\L #	36
14) Carbon Disulfide	3.17	76	240107	9.18	ug\L	100
15) Acetonitrile	3.33	41	171148	99.85	ug\L	90
16) Methylene Chloride	3.52	86	56987	9.45	ug\L #	36
17) trans-1,2-Dichloroethene	3.82	96	144345	10.03	ug\L	99
18) MethylTertButylEther	3.84	73	129397	9.42	ug\L	95
19) 1,1-Dichloroethane	4.47	63	238077	10.28	ug\L	99
20) Vinyl Acetate	3.82	43	30245	9.26	ug\L #	73
21) 2,2-Dichloropropane	5.43	77	260515	9.90	ug\L	95
22) cis-1,2-Dichloroethene	5.47	96	124740	9.84	ug\L	98
23) 2-Butanone	5.50	72	555	8.78	ug\L #	1
24) Propionitrile	5.75	54	14781	102.56	ug\L #	88
25) Methacrylonitrile	5.95	41	115043	90.79	ug\L #	51
26) Bromochloromethane	5.93	128	47973	9.60	ug\L #	82
27) Chloroform	6.10	83	288790	10.10	ug\L	100
28) 1,1,1-Trichloroethane	6.33	97	347722	10.24	ug\L #	72
29) Carbon Tetrachloride	6.60	119	312243	10.27	ug\L #	78
30) 1,4-Dioxane	8.91	88	3616	149.05	ug\L #	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	6.62	77	80926	10.14 ug\L #	1
33) Benzene	6.99	78	389892	10.03 ug\L	100
34) Isobutyl alcohol	7.17	43	6130	85.55 ug\L #	45
35) 1,2-Dichloroethane	7.10	62	106992	9.75 ug\L	97
36) Trichloroethene	8.17	95	214962	10.23 ug\L	94
37) 1,2-Dichloropropane	8.58	63	117241	9.51 ug\L #	96
38) Dibromomethane	8.81	93	56108	9.67 ug\L #	85
39) Methylmethacrylate	8.89	69	23063	9.64 ug\L #	11
40) Bromodichloromethane	9.12	83	203873	9.70 ug\L	97
41) 2-Nitropropane	9.57	43	5430	8.20 ug\L #	100
42) 2-Chloroethyl-vinyl ether	9.70	63	13841	8.34 ug\L #	58
43) cis-1,3-Dichloropropene	9.89	75	145668	9.41 ug\L	98
44) 4-Methyl-2-Pentanone	10.22	85	4435	6.31 ug\L #	83
47) Toluene	10.39	92	288730	10.27 ug\L	98
48) trans-1,3-Dichloropropene	10.90	75	96933	9.37 ug\L	96
49) Ethylmethacrylate	11.07	69	58474	9.69 ug\L #	97
50) 1,1,2-Trichloroethane	11.19	83	54855	10.13 ug\L	95
51) Tetrachloroethene	11.31	164	182228	9.83 ug\L	95
52) 1,3-Dichloropropane	11.46	76	101232	9.64 ug\L	99
53) 2-Hexanone	11.67	43	15698	9.96 ug\L #	47
54) Dibromochloromethane	11.86	129	114991	9.83 ug\L	99
55) 1,2-Dibromoethane	12.00	107	73375	9.62 ug\L #	98
56) Chlorobenzene	12.84	112	323112	10.03 ug\L	97
57) 1,1,1,2-Tetrachloroethane	13.03	131	146201	9.87 ug\L	95
58) Ethylbenzene	13.05	91	600326	10.22 ug\L	98
59) total-Xylene	13.94	106	264555m	30.26 ug\L	
60) Styrene	13.99	104	308671	10.09 ug\L	96
62) Bromoform	14.34	173	53054	9.01 ug\L #	97
63) Isopropylbenzene	14.60	105	745801	10.15 ug\L	99
64) 1,4-dichloro-2-Butene	15.28	75	49173	9.53 ug\L #	100
66) Bromobenzene	15.11	156	134886	10.08 ug\L #	63
67) 1,1,2,2-Tetrachloroethane	15.26	83	62973	9.64 ug\L #	98
68) 1,2,3-Trichloropropane	15.28	75	49173	9.53 ug\L #	100
69) n-Propylbenzene	15.33	91	813256	10.21 ug\L	97
70) 2-Chlorotoluene	15.44	91	441003	10.16 ug\L	95
71) 4-Chlorotoluene	15.66	91	600667	10.07 ug\L	98
72) 1,3,5-Trimethylbenzene	15.66	105	589811	10.44 ug\L	89
73) Pentachloroethane	16.26	167	97054	10.25 ug\L	95
74) tert-Butylbenzene	16.21	119	720265	10.21 ug\L	98
75) 1,2,4-Trimethylbenzene	16.31	105	561984	10.25 ug\L	99
76) sec-Butylbenzene	16.61	105	860624	10.10 ug\L	96
77) 1,3-Dichlorobenzene	16.78	146	256542	9.91 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121100A\C17888.D
Acq On : 12 Dec 2000 1:30
Sample : ICV 10 ppb (V00066,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000

Vial: 7
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12110025.RES

Quant Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration
DataAcq Meth : 121100A

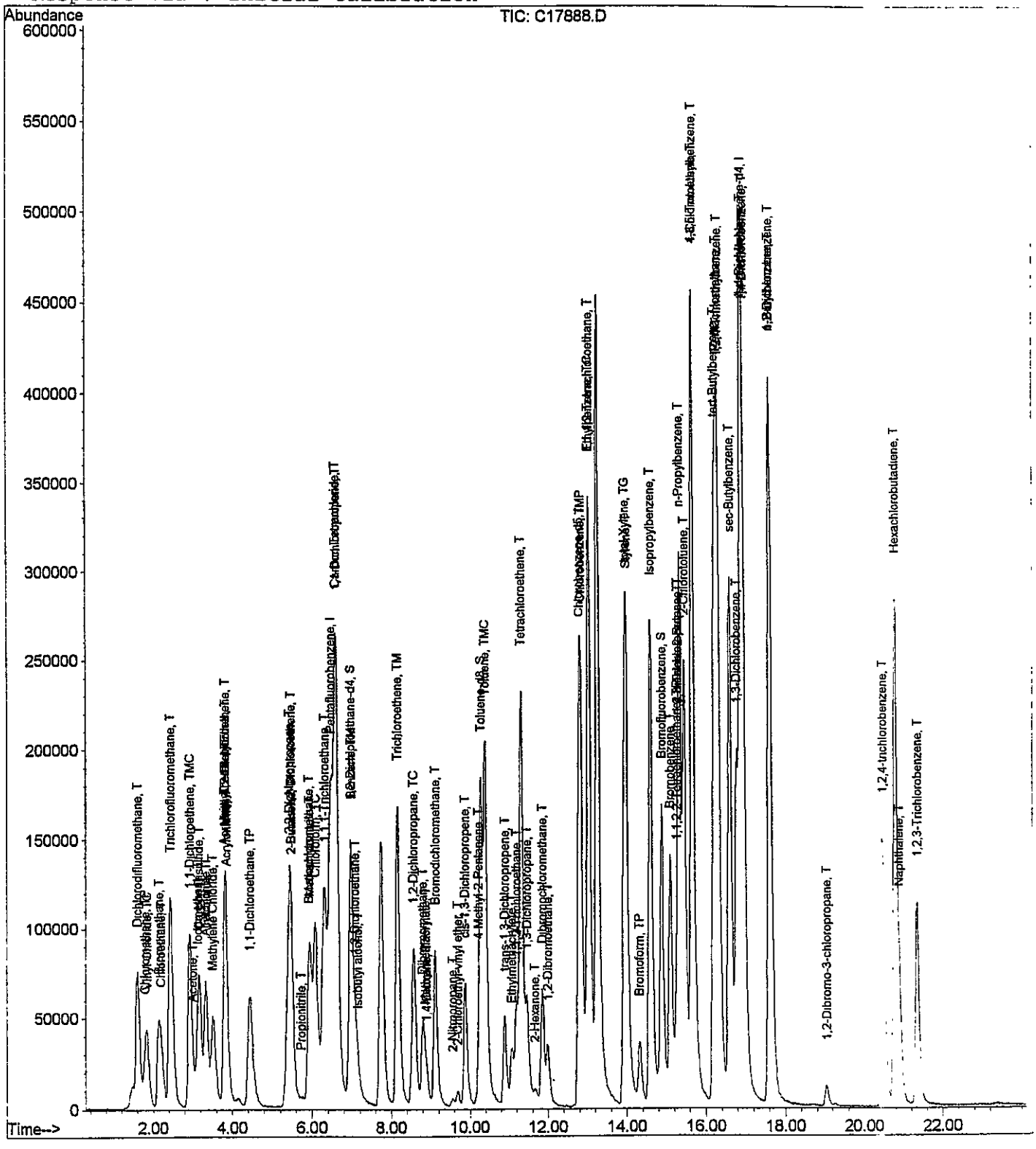
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.89	119	709278	10.31 ug\L	98
79) 1,4-Dichlorobenzene	16.95	146	289616	9.93 ug\L	99
80) 1,2-Dichlorobenzene	17.59	146	206604	9.98 ug\L	98
81) n-Butylbenzene	17.61	91	696648	10.44 ug\L	93
82) 1,2-Dibromo-3-chloropropan	19.06	75	12428	9.84 ug\L #	83
83) 1,2,4-trichlorobenzene	20.48	180	182602	10.88 ug\L	100
84) Hexachlorobutadiene	20.79	225	223468	10.91 ug\L	100
85) Naphthalene	20.90	128	161921	12.44 ug\L	100
86) 1,2,3-Trichlorobenzene	21.35	180	132647	10.96 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

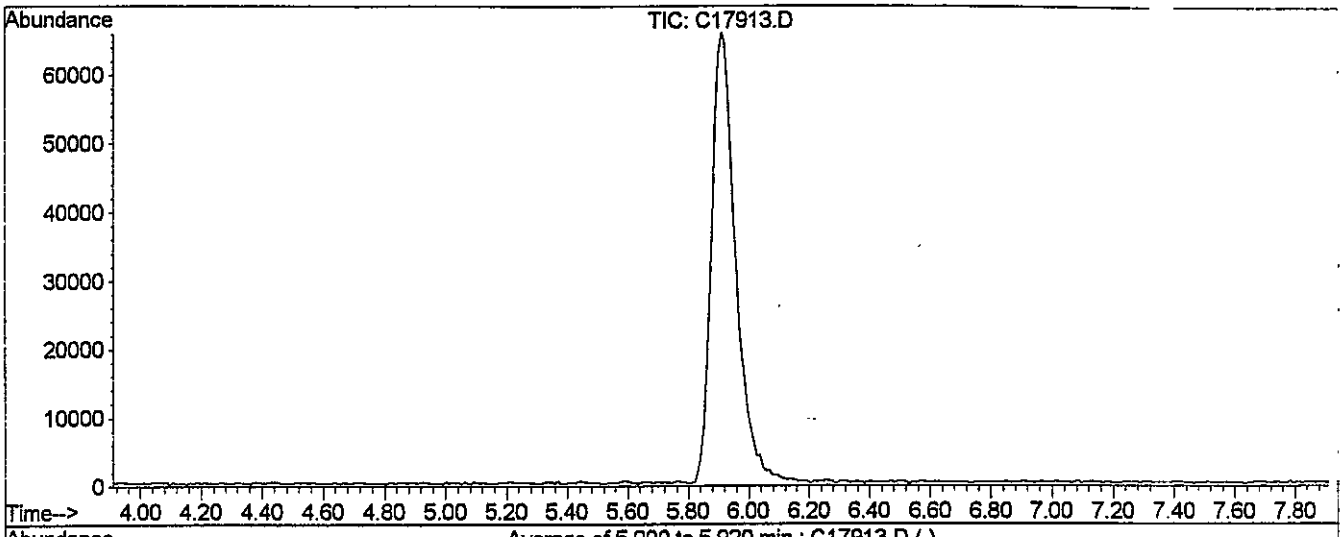
Data File : C:\HPCHEM\1\DATA\121100A\C17888.D Vial: 7
Acq On : 12 Dec 2000 1:30 Operator: TAG/VR
Sample : ICV 10 ppb (V00066,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 10:20 2000 Quant Results File: 12110025.RES

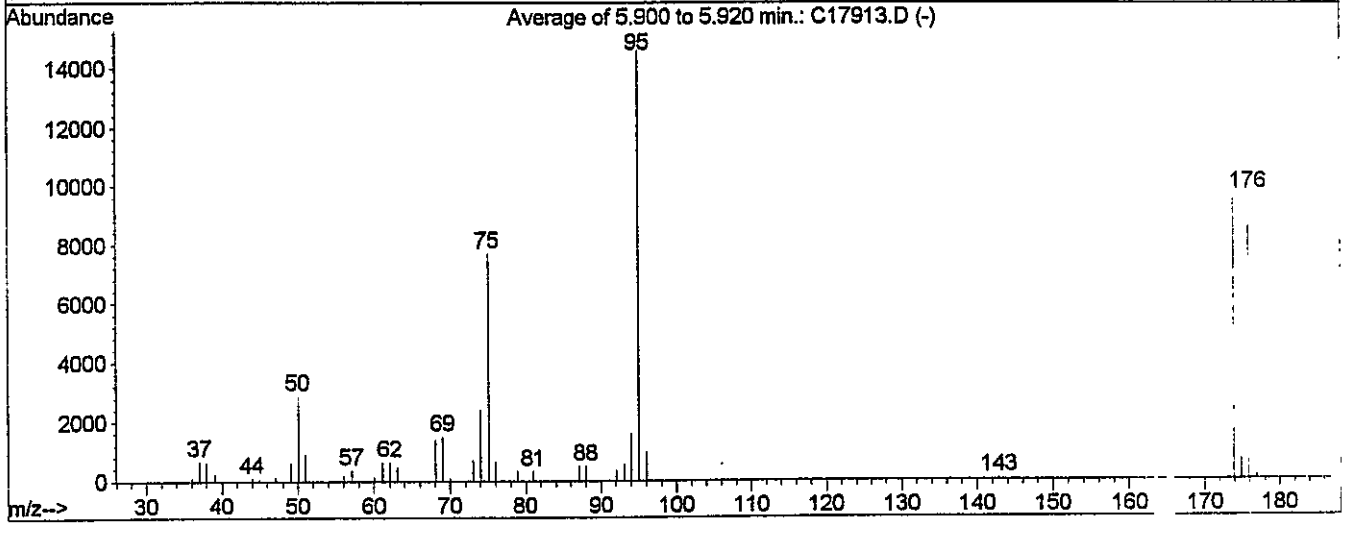
Method : C:\HPCHEM\1\DATA\121100A\12110025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:19:39 2000
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\121300\C17913.D Vial: 1
Acq On : 13 Dec 2000 9:06 Operator: TAG/VR
Sample : BFB 50ng V00048 Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :





AutoFind: Scans 475, 476, 477; Background Corrected with Scan 464

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	2891	PASS
75	95	30	60	52.9	7720	PASS
95	95	100	100	100.0	14593	PASS
96	95	5	9	6.8	992	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.0	9630	PASS
175	174	5	9	7.1	687	PASS
176	174	95	101	100.7	9697	PASS
177	176	5	9	5.8	566	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000 Quant Results File: 12130025.RES

Quant Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	432501	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.78	117	264881	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	16.91	152	138729	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	73939	7.85 ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 78.50%#		
46) Toluene-d8	10.28	98	398982	10.48 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.80*#		
65) Bromofluorobenzene	14.87	95	180477	9.62 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.20%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	235724	9.23 ug\L	99
3) Chloromethane	1.77	50	80194	9.33 ug\L	99
4) Vinyl Chloride	1.83	62	115713	9.48 ug\L	99
5) Bromomethane	2.12	94	109046	10.27 ug\L	100
6) Chloroethane	2.22	64	66130	10.49 ug\L	97
7) Trichlorofluoromethane	2.42	101	362199	9.46 ug\L #	100
8) Acrolein	3.82	56	3249	22.07 ug\L #	79
9) Acrylonitrile	3.88	53	7199m	14.46 ug\L	
10) 1,1-Dichloroethene	2.92	96	133958	9.79 ug\L	99
11) Acetone	3.04	58	1090	12.62 ug\L #	1
12) Iodomethane	3.13	142	152416	7.96 ug\L	97
13) Allylchloride	3.33	39	112526	9.65 ug\L #	35
14) Carbon Disulfide	3.17	76	222523	8.74 ug\L	100
15) Acetonitrile	3.32	41	159682	95.72 ug\L	89
16) Methylene Chloride	3.50	86	60421	10.30 ug\L #	37
17) trans-1,2-Dichloroethene	3.82	96	135037	9.64 ug\L	97
18) MethylTertButylEther	3.81	73	94737m	7.08 ug\L	
19) 1,1-Dichloroethane	4.44	63	208117	9.23 ug\L	99
20) Vinyl Acetate	3.82	43	22055m	6.94 ug\L	
21) 2,2-Dichloropropane	5.41	77	250374	9.78 ug\L	94
22) cis-1,2-Dichloroethene	5.47	96	111769	9.06 ug\L	99
23) 2-Butanone	5.57	72	1204m	11.10 ug\L	
24) Propionitrile	5.74	54	4220	41.43 ug\L #	64
25) Methacrylonitrile	5.96	41	87377	70.85 ug\L	98
26) Bromochloromethane	5.92	128	39737	8.17 ug\L #	80
27) Chloroform	6.10	83	253086	9.10 ug\L	100
28) 1,1,1-Trichloroethane	6.30	97	322870	9.77 ug\L #	78
29) Carbon Tetrachloride	6.59	119	283174	9.57 ug\L #	72
30) 1,4-Dioxane	8.90	88	2690m	113.93 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17915.D
Acq On : 13 Dec 2000 10:05
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Quant Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.61	77	75116	9.67 ug\L	#	1
33)	Benzene	6.98	78	354530	9.37 ug\L		100
34)	Isobutyl alcohol	7.16	43	4588	64.76 ug\L	#	61
35)	1,2-Dichloroethane	7.10	62	86909	8.14 ug\L		99
36)	Trichloroethene	8.16	95	191775	9.38 ug\L		93
37)	1,2-Dichloropropane	8.57	63	102844	8.57 ug\L	#	97
38)	Dibromomethane	8.80	93	42551	7.53 ug\L	#	82
39)	Methylmethacrylate	8.86	69	16100	6.92 ug\L	#	87
40)	Bromodichloromethane	9.12	83	170040	8.31 ug\L	#	99
41)	2-Nitropropane	9.55	43	4730	7.34 ug\L	#	100
42)	2-Chloroethyl-vinyl ether	9.68	63	9298m	6.47 ug\L		
43)	cis-1,3-Dichloropropene	9.88	75	122840	8.15 ug\L		97
44)	4-Methyl-2-Pentanone	10.18	85	6231m	10.60 ug\L		
47)	Toluene	10.40	92	251830	10.58 ug\L		99
48)	trans-1,3-Dichloropropene	10.90	75	76770	8.77 ug\L		96
49)	Ethylmethacrylate	11.08	69	39280	7.69 ug\L	#	57
50)	1,1,2-Trichloroethane	11.20	83	40186	8.77 ug\L		97
51)	Tetrachloroethene	11.31	164	172642	11.00 ug\L		93
52)	1,3-Dichloropropane	11.45	76	75058	8.45 ug\L		99
53)	2-Hexanone	11.68	43	10639	7.98 ug\L	#	81
54)	Dibromochloromethane	11.85	129	84547	8.54 ug\L		100
55)	1,2-Dibromoethane	11.99	107	53505	8.29 ug\L	#	98
56)	Chlorobenzene	12.83	112	275480	10.11 ug\L		96
57)	1,1,1,2-Tetrachloroethane	13.01	131	117010	9.33 ug\L		95
58)	Ethylbenzene	13.04	91	526833	10.59 ug\L		99
59)	total-Xylene	13.94	106	228776m	30.91 ug\L		
60)	Styrene	13.98	104	253492	9.79 ug\L		94
62)	Bromoform	14.32	173	39154	8.16 ug\L	#	94
63)	Isopropylbenzene	14.59	105	660273	10.94 ug\L		98
64)	1,4-dichloro-2-Butene	15.28	75	34497	8.13 ug\L	#	100
66)	Bromobenzene	15.09	156	104716	9.53 ug\L	#	64
67)	1,1,2,2-Tetrachloroethane	15.26	83	44987	8.39 ug\L	#	99
68)	1,2,3-Trichloropropane	15.28	75	34497	8.13 ug\L	#	100
69)	n-Propylbenzene	15.32	91	698561	10.68 ug\L		94
70)	2-Chlorotoluene	15.44	91	399320	11.20 ug\L		97
71)	4-Chlorotoluene	15.65	91	495669	10.11 ug\L		98
72)	1,3,5-Trimethylbenzene	15.65	105	502960	10.83 ug\L		89
73)	Pentachloroethane	16.26	167	73951	9.51 ug\L		97
74)	tert-Butylbenzene	16.21	119	627872	10.84 ug\L		98
75)	1,2,4-Trimethylbenzene	16.30	105	468072	10.39 ug\L		100
76)	sec-Butylbenzene	16.59	105	782159	11.17 ug\L		96
77)	1,3-Dichlorobenzene	16.78	146	207195	9.75 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000 Quant Results File: 12130025.RES

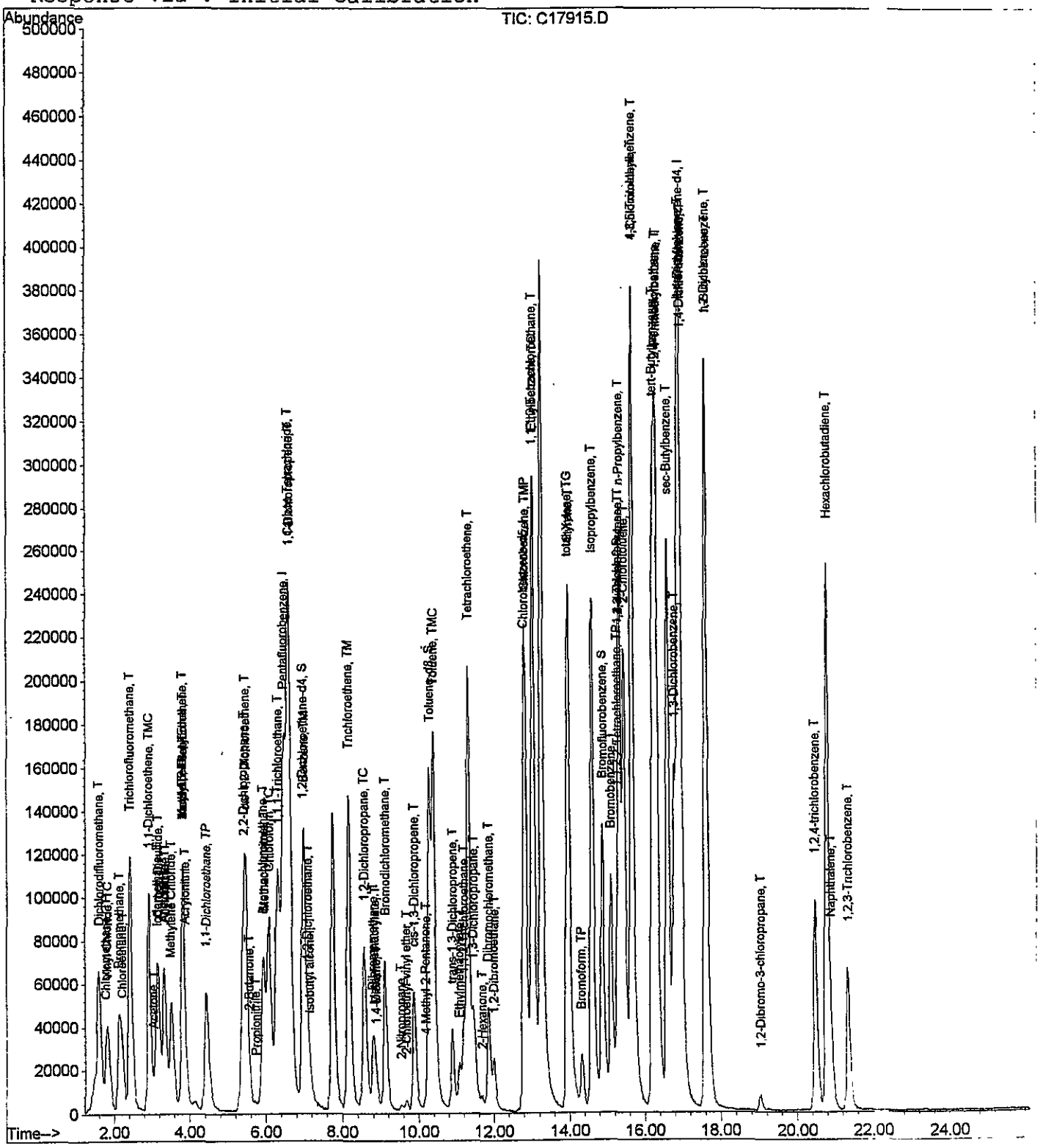
Quant Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.88	119	610995	10.81 ug\L		97
79)	1,4-Dichlorobenzene	16.95	146	230358	9.61 ug\L		98
80)	1,2-Dichlorobenzene	17.59	146	158480	9.32 ug\L		100
81)	n-Butylbenzene	17.61	91	608739	11.10 ug\L		93
82)	1,2-Dibromo-3-chloropropan	19.03	75	7848	7.57 ug\L	#	77
83)	1,2,4-trichlorobenzene	20.47	180	115395	8.37 ug\L		100
84)	Hexachlorobutadiene	20.79	225	196468	11.68 ug\L		100
85)	Naphthalene	20.89	128	78309	7.20 ug\L		100
86)	1,2,3-Trichlorobenzene	21.33	180	78938	7.94 ug\L		97

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 10:36 2000 Quant Results File: 12130025.RES

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	T	Dichlorodifluoromethane	0.590	0.545	7.6	88	0.00
3	TP	Chloromethane	0.199	0.185	7.0	93	-0.01
4	TC	Vinyl Chloride	0.282	0.268	5.0	91	-0.01
5	T	Bromomethane	0.257	0.252	1.9	93	-0.01
6	T	Chloroethane	0.146	0.153	-4.8	98	0.00
7	T	Trichlorofluoromethane	0.885	0.837	5.4	93	-0.01
8	T	Acrolein	0.004	0.004	0.0	144	0.00
9	T	Acrylonitrile	0.011	0.008	27.3#	70	0.04
10	TMC	1,1-Dichloroethene	0.316	0.310	1.9	95	0.00
11	T	Acetone	0.002	0.003	-50.0#	92	0.03
12	T	Iodomethane	0.413	0.352	14.8	84	0.00
13	T	Allylchloride	0.270	0.260	3.7	96	-0.01
14	T	Carbon Disulfide	0.589	0.515	12.6	87	0.00
15	T	Acetonitrile	0.039	0.037	5.1	93	-0.02
16	T	Methylene Chloride	0.136	0.140	-2.9	102	0.00
17	T	trans-1,2-Dichloroethene	0.324	0.312	3.7	93	0.00
18	T	MethylTertButylEther	0.309	0.219	29.1#	71	-0.01
19	TP	1,1-Dichloroethane	0.521	0.481	7.7	91	0.00
20	T	Vinyl Acetate	0.074	0.051	31.1#	72	0.02
21	T	2,2-Dichloropropane	0.592	0.579	2.2	95	0.00
22	T	cis-1,2-Dichloroethene	0.285	0.258	9.5	88	0.00
23	T	2-Butanone	0.004	0.003	25.0	46#	0.07
24	T	Propionitrile	0.003	0.001	66.7#	59	0.00
25	T	Methacrylonitrile	0.029	0.020	31.0#	73	0.00
26	T	Bromochloromethane	0.112	0.092	17.9	79	-0.02
27	TC	Chloroform	0.643	0.585	9.0	89	0.02
28	T	1,1,1-Trichloroethane	0.764	0.747	2.2	95	0.00
29	T	Carbon Tetrachloride	0.684	0.655	4.2	96	0.00
30	T	1,4-Dioxane	0.001	0.000	100.0#	56	-0.02
31	T	1,1-Dichloropropene	0.180	0.174	3.3	93	0.00
32	S	1,2-Dichloroethane-d4	0.218	0.171	21.6	78	-0.01
33	TM	Benzene	0.875	0.820	6.3	92	-0.01
34	T	Isobutyl alcohol	0.001	0.001	0.0	36#	0.00
35	T	1,2-Dichloroethane	0.247	0.201	18.6	79	0.02
36	TM	Trichloroethene	0.473	0.443	6.3	93	0.00
37	TC	1,2-Dichloropropane	0.277	0.238	14.1	87	0.00
38	T	Dibromomethane	0.131	0.098	25.2#	75	-0.01
39	T	Methylmethacrylate	0.054	0.037	31.5#	70	-0.02
40	T	Bromodichloromethane	0.473	0.393	16.9	83	0.00
41	T	2-Nitropropane	0.015	0.011	26.7#	74	-0.02
42	T	2-Chloroethyl-vinyl ether	0.034	0.021	38.2#	74	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D
Acq On : 13 Dec 2000 10:05
Sample : ICV 10 ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p

Vial: 1
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area*	Dev(min)
43	T	cis-1,3-Dichloropropene	0.348	0.284	18.4	80	0.00
44	T	4-Methyl-2-Pentanone	0.013	0.014	-7.7	105	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.00
46	S	Toluene-d8	1.437	1.506	-4.8	88	0.00
47	TMC	Toluene	0.899	0.951	-5.8	88	0.00
48	T	trans-1,3-Dichloropropene	0.330	0.290	12.1	73	0.00
49	T	Ethylmethacrylate	0.193	0.148	23.3	64	0.00
50	T	1,1,2-Trichloroethane	0.173	0.152	12.1	72	0.00
51	T	Tetrachloroethene	0.592	0.652	-10.1	91	0.00
52	T	1,3-Dichloropropane	0.335	0.283	15.5	71	-0.01
53	T	2-Hexanone	0.050	0.040	20.0	67	0.00
54	T	Dibromochloromethane	0.374	0.319	14.7	73	0.00
55	T	1,2-Dibromoethane	0.244	0.202	17.2	70	0.00
56	TMP	Chlorobenzene	1.029	1.040	-1.1	85	0.00
57	T	1,1,1,2-Tetrachloroethane	0.473	0.442	6.6	77	0.00
58	TC	Ethylbenzene	1.877	1.989	-6.0	88	0.00
59	TG	total-Xylene	0.279	0.288	-3.2	89	0.00
60	T	Styrene	0.977	0.957	2.0	81	-0.01
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00
62	TP	Bromoform	0.327	0.282	13.8	69	0.00
63	T	Isopropylbenzene	4.350	4.759	-9.4	88	0.00
64	T	1,4-dichloro-2-Butene	0.306	0.249	18.6	68	0.00
65	S	Bromofluorobenzene	1.352	1.301	3.8	79	0.00
66	T	Bromobenzene	0.792	0.755	4.7	77	-0.01
67	TP	1,1,2,2-Tetrachloroethane	0.387	0.324	16.3	68	0.00
68	T	1,2,3-Trichloropropane	0.306	0.249	18.6	68	0.00
69	T	n-Propylbenzene	4.717	5.035	-6.7	87	0.00
70	T	2-Chlorotoluene	2.571	2.878	-11.9	88	-0.01
71	T	4-Chlorotoluene	3.532	3.573	-1.2	82	0.00
72	T	1,3,5-Trimethylbenzene	3.347	3.625	-8.3	87	0.00
73	T	Pentachloroethane	0.561	0.533	5.0	76	0.00
74	T	tert-Butylbenzene	4.176	4.526	-8.4	87	-0.01
75	T	1,2,4-Trimethylbenzene	3.246	3.374	-3.9	84	0.00
76	T	sec-Butylbenzene	5.047	5.638	-11.7	90	-0.01
77	T	1,3-Dichlorobenzene	1.533	1.494	2.5	79	0.00
78	T	Isopropyltoluene	4.075	4.404	-8.1	87	0.00
79	T	1,4-Dichlorobenzene	1.727	1.660	3.9	80	0.00
80	T	1,2-Dichlorobenzene	1.225	1.142	6.8	76	0.00
81	T	n-Butylbenzene	3.952	4.388	-11.0	90	0.00
82	T	1,2-Dibromo-3-chloropropane	0.075	0.057	24.0	62	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121300\C17915.D Vial: 1
Acq On : 13 Dec 2000 10:05 Operator: TAG/VR
Sample : ICV 10 ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2,4-trichlorobenzene	0.994	0.832	16.3	71	-0.01
84	T	Hexachlorobutadiene	1.212	1.416	-16.8	90	0.00
85	T	Naphthalene	0.851	0.564	33.7#	64	-0.02
86	T	1,2,3-Trichlorobenzene	0.717	0.569	20.6	70	-0.01

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121300\C17917.D Vial: 2
Acq On : 13 Dec 2000 11:29 Operator: TAG/VR
Sample : QVW121300C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 11:56 2000 Quant Results File: 12130025.RES

Quant Method : c:\hpchem\1\data\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration
DataAcq Meth : 12130025

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	409640	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.80	117	287047	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	16.92	152	143780	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.97	65	72692	8.15 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 81.50%		
46) Toluene-d8	10.28	98	397080	9.63 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.30%		
65) Bromofluorobenzene	14.88	95	187736	9.66 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.60%		
Target Compounds					Qvalue
36) Trichloroethene	7.75	95	12116	~~0.63 ug\L #~~	9
64) 1,4-dichloro-2-Butene	14.88	75	95858	~~21.81 ug\L #~~	100
68) 1,2,3-Trichloropropane	14.88	75	95858	~~21.81 ug\L #~~	100

VR
12/13/00

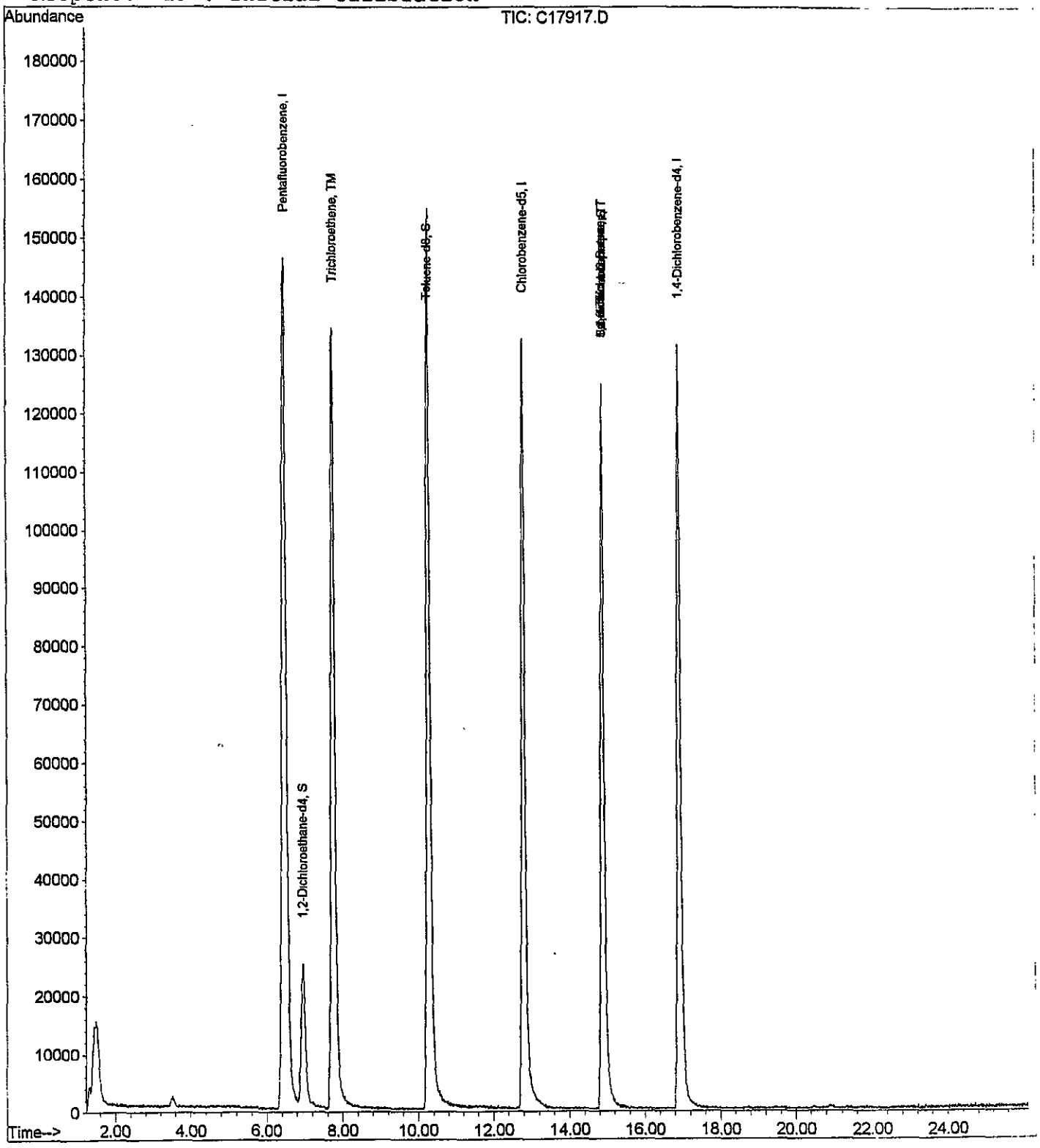
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121300\C17917.D
Acq On : 13 Dec 2000 11:29
Sample : QVW121300C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 13 11:56 2000

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 12130025.RES

Method : C:\HPCHEM\1\DATA\121300\12130025.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Tue Dec 12 10:52:52 2000
Response via : Initial Calibration



Analysis Report Summary 12/14/00 06:02:45 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	DEC1300	WATERS	12/14/00	14:37		X	IR
2	STD3	DEC1300	WATERS	12/14/00	14:41		X	IR
3	STD4	DEC1300	WATERS	12/14/00	14:45		X	IR
4	STD2	DEC1300	WATERS	12/14/00	14:49		X	IR
5	ICV 1	DEC1300	WATERS	12/14/00	14:52	mp	Q	CONC
6	ICB	DEC1300	WATERS	12/14/00	15:00	mp	B	CONC
7	ICS A	DEC1300	WATERS	12/14/00	15:10	mp	Q	CONC
8	ICS AB	DEC1300	WATERS	12/14/00	15:15	mp	Q	CONC
9	SS I	DEC1300	WATERS	12/14/00	15:23	mp	Q	CONC
10	SS I LOW	DEC1300	WATERS	12/14/00	15:28	mp	Q	CONC
11	blank-2 08.00	DEC1300	WATERS	12/14/00	15:33	mp	S	CONC
12	lcs-2	DEC1300	WATERS	12/14/00	15:38	mp	S	CONC
13	lcsd-2	DEC1300	WATERS	12/14/00	15:42	mp	S	CONC
14	04474	DEC1300	WATERS	12/14/00	15:48	mp	S	CONC
15	04475	DEC1300	WATERS	12/14/00	15:53	mp	S	CONC
16	04476	DEC1300	WATERS	12/14/00	15:58	mp	S	CONC
17	04477	DEC1300	WATERS	12/14/00	16:04	mp	S	CONC
18	04477 d	DEC1300	WATERS	12/14/00	16:10	mp	S	CONC
19	04477 ms	DEC1300	WATERS	12/14/00	16:51	mp	S	CONC
20	04477 msd	DEC1300	WATERS	12/14/00	16:57	mp	S	CONC
21	ICV 1	DEC1300	WATERS	12/14/00	17:05	mp	Q	CONC
22	ICB	DEC1300	WATERS	12/14/00	17:11	mp	B	CONC
23	04474 1:4 sd	DEC1300	WATERS	12/14/00	17:16	mp	S	CONC
24	04474 1:1 msa	DEC1300	WATERS	12/14/00	17:21	mp	S	CONC
25	ICV 1	DEC1300	WATERS	12/14/00	17:27	mp	Q	CONC
26	ICB	DEC1300	WATERS	12/14/00	17:33	mp	B	CONC
27	SS I	DEC1300	WATERS	12/14/00	17:38	mp	Q	CONC
28	SS I LOW	DEC1300	WATERS	12/14/00	17:43	mp	Q	CONC
29	ICS A	DEC1300	WATERS	12/14/00	17:49	mp	Q	CONC
30	ICS AB	DEC1300	WATERS	12/14/00	17:56	mp	Q	CONC

proj 26397
NA

#	Element	STD'lank	STD3	STD4	STD2	ICV 1	ICB
1	Ag3280	.00803				1.561	.0008
2	Al3082	.01633	1.64266			1.903	.0037
3	As1936	-.00009		1.02335		1.983	-.0089
4	Ba4934	-.00009			10.8796	1.947	.0001
5	Be3130	.00133	6.09776			1.950	.0000
6	Ca3179	.00073			.98976	2.020	.0000
7	Cd2265	-.00049			3.10083	1.999	.0027
8	Co2286	-.00013			1.82626	2.032	.0018
9	Cr2677	.00136		2.53763		1.977	-.0012
10	Cu3247	.0013			2.05516	1.982	.0008
11	Fe2599	.00413	3.7091			1.971	-.0052
12	K_7664	.00576			3.23903	19.60	.0175
13	Mg2790	.00043			.75233	1.954	.0049
14	Mn2576	0			.13386	2.021	.0000
15	Na5889	.01623	.89289			2.001	.0068
16	Ni2316	.00046	2.13913			2.002	.0081
17	Pb2203	-.0012			1.54756	2.004	.0097
18	Sb2068	.0027	1.90763			2.002	-.0107
19	Se1960	.00109		.57099		1.969	-.0105
20	Sn2839	-.05853	.78196			Q-.5730	-.0087
21	Tl1908	-.00053	.82533			1.994	-.0012
22	V_2924	.00029		3.48046		1.957	.0004
23	Zn2138	.00069			1.82773	2.025	.0013

#	Element	ICS A	ICS AB	SS I	SS I LOW	bla'8.00	lcs-2
						15:33	
1	Ag3280	.0001	Q.4040	.0061	.0008	-.0003	1.073
2	Al3082	47.51	44.30	.2061	.0418	.0135	1.047
3	As1936	Q.2395	2.258	.1867	.0332	-.0220	1.042
4	Ba4934	.0001	.5923	.1971	.0395	.0002	1.055
5	Be3130	-.0001	.1938	.0047	.0009	-.0002	1.059
6	Ca3179	48.19	45.39	.0019	-.0051	.0407	1.129
7	Cd2265	-.0028	.6091	.0064	.0007	-.0001	1.062
8	Co2286	.0033	.6125	.0542	.0128	.0016	1.093
9	Cr2677	-.0133	.5908	.0139	.0020	-.0001	1.056
10	Cu3247	-.0067	.5975	.0259	.0055	.0003	1.076
11	Fe2599	46.73	43.63	.1057	.0162	-.0022	1.068
12	K_7664	-.0243	51.29	-.0072	-.0330	-.0041	10.46
13	Mg2790	48.71	45.33	.0071	.0004	.0018	1.056
14	Mn2576	-.0128	.4057	.0523	.0075	.0000	1.088
15	Na5889	.1458	10.37	.0032	-.0042	-.0037	1.071
16	Ni2316	-.0017	.6160	.0564	.0126	.0056	1.071
17	Pb2203	Q-.0521	2.019	.0372	-.0002	-.0176	1.069
18	Sb2068	Q-.1769	1.868	.0360	-.0021	.0070	1.053
19	Se1960	Q.1894	.9247	.2024	.0749	-.0245	1.003
20	Sn2839	.1819	Q-.0230	-.0059	.0142	-.0260	1.770
21	Tl1908	.0427	2.161	.2156	.0541	-.0166	1.092
22	V_2924	-.0028	.5985	.0501	.0103	.0000	1.050
23	Zn2138	.0080	.6324	.0533	.0108	.0014	1.082

#	Element	lcsd-2	04474	04475	04476	04477	04477 d
			15:48	15:53	15:58	16:04	
1	Ag3280	1.043	-.0005	-.0001	-.0006	-.0009	-.0021
2	Al3082	1.003	9.202	1.516	27.40	8.619	9.079
3	As1936	1.017	.0156	-.0021	.0670	.0061	.0198
4	Ba4934	1.019	.0280	.0217	.1258	.0262	.0268
5	Be3130	1.015	.0000	.0001	.0004	-.0002	-.0002
6	Ca3179	1.070	104.4	7.222	8.552	98.20	102.1
7	Cd2265	1.026	.0009	.0002	-.0027	.0003	-.0001
8	Co2286	1.045	.0006	.0017	.0028	.0018	.0016
9	Cr2677	1.016	-.0064	.0070	.0367	-.0048	-.0080
10	Cu3247	1.040	.0013	.0015	.0169	.0010	-.0003
11	Fe2599	1.032	.0490	.7223	1.041	.0383	.0398
12	K_7664	10.07	6.185	1.724	2.050	5.842	6.118
13	Mg2790	1.018	.1578	1.091	1.169	.1565	.1627
14	Mn2576	1.043	-.0116	.0042	.0065	-.0109	-.0113
15	Na5889	1.030	11.11	9.195	8.796	10.58	11.14
16	Ni2316	1.043	.0023	.0037	.0059	.0053	.0039
17	Pb2203	1.029	-.0198	.0080	-.0252	-.0090	-.0306
18	Sb2068	1.014	-.0473	-.0150	-.0081	-.0416	-.0409
19	Se1960	.9903	.0811	-.0384	.0162	.2038	.0873
20	Sn2839	1.679	-.3526	-.0322	-.0647	-.3176	-.3507
21	Tl1908	1.033	-.0550	-.0030	-.0207	-.0345	-.0293
22	V_2924	1.009	.0042	.0021	.0196	.0044	.0031
23	Zn2138	1.041	.0014	.0047	.0068	.0044	.0020

#	Element	04477 ms	044' msd	ICV 1	ICB	044'4 sd	044' msa
1	Ag3280	.9908	1.040	1.595	.0000	-.0838	1.629
2	Al3082	9.949	10.32	Q1.889	-.0021	10.30	10.63
3	As1936	1.029	1.074	1.971	.0012	-.1067	2.157
4	Ba4934	1.000	1.050	1.956	.0001	.0415	2.130
5	Be3130	.9906	1.037	1.935	.0000	-.0037	2.145
6	Ca3179	99.80	103.0	1.978	.0007	114.5	97.76
7	Cd2265	.9618	1.009	1.976	-.0005	.0187	2.112
8	Co2286	.9878	1.034	2.010	.0014	-.0693	2.153
9	Cr2677	.9471	.9905	1.945	.0014	-.1890	2.080
10	Cu3247	1.001	1.049	1.989	.0003	-.1063	2.137
11	Fe2599	1.032	1.082	1.956	-.0041	.0870	2.157
12	K_7664	15.86	16.62	19.53	.0041	4.289	27.23
13	Mg2790	1.150	1.198	1.948	.0018	-.3438	2.229
14	Mn2576	.9723	1.019	1.992	.0000	-.0002	2.130
15	Na5889	11.79	12.27	2.003	-.0023	13.18	12.92
16	Ni2316	.9825	1.042	1.962	.0031	.1956	2.123
17	Pb2203	.9534	1.029	1.977	-.0060	.0121	2.105
18	Sb2068	.9566	1.002	1.984	.0028	-.2834	2.086
19	Se1960	1.123	1.076	1.922	-.0187	2.021	3.501
20	Sn2839	1.345	1.417	Q-.5868	-.0264	-2.848	-1.061
21	Tl1908	.9445	.9524	1.997	.0121	.0542	2.055
22	V_2924	.9634	1.005	1.931	.0003	-.0730	2.097
23	Zn2138	.9983	1.043	1.996	.0011	.0210	2.159

M

#	Element	ICV 1	ICB	SS I	SS I LOW	ICS A	ICS AB
1	Ag3280	1.632	.0010	.0052	.0014	.0001	Q.4071
2	Al3082	1.908	.0029	.1967	.0350	47.67	44.43
3	As1936	1.978	-.0092	.2028	.0297	Q.2290	2.248
4	Ba4934	1.956	.0001	.1990	.0395	.0001	.5954
5	Be3130	1.948	.0001	.0047	.0008	-.0002	.1929
6	Ca3179	2.017	.0027	-.0042	-.0068	47.80	44.62
7	Cd2265	1.997	.0002	.0060	.0024	-.0010	.5992
8	Co2286	2.034	.0016	.0524	.0128	.0037	.6083
9	Cr2677	1.977	.0009	.0156	.0030	-.0114	.5843
10	Cu3247	1.992	.0011	.0256	.0047	-.0056	.6002
11	Fe2599	1.981	-.0027	.0988	.0140	46.79	43.56
12	K_7664	19.62	-.0144	-.0227	-.0031	-.0202	51.46
13	Mg2790	1.962	.0071	-.0022	.0031	48.66	45.41
14	Mn2576	2.014	.0000	.0523	.0075	-.0103	.4033
15	Na5889	2.004	.0023	-.0040	-.0053	.1454	10.47
16	Ni2316	1.994	.0044	.0561	.0122	.0022	.6006
17	Pb2203	2.005	-.0136	.0411	.0142	Q-.0540	1.977
18	Sb2068	2.020	-.0075	.0353	-.0001	Q-.1616	1.904
19	Se1960	1.974	-.0269	.1889	.0351	.0640	1.137
20	Sn2839	Q-.5759	-.0221	-.0555	-.0369	.1683	Q-.0427
21	Tl1908	1.983	.0226	.2270	.0194	.0541	2.080
22	V_2924	1.948	.0000	.0492	.0096	-.0024	.5933
23	Zn2138	2.024	.0018	.0533	.0095	.0084	.6309

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	DEC1300	WATERS	12/14/00	14:37		X	IR
2	STD3	DEC1300	WATERS	12/14/00	14:41		X	IR
3	STD4	DEC1300	WATERS	12/14/00	14:45		X	IR
4	STD2	DEC1300	WATERS	12/14/00	14:49		X	IR
5	ICV 1	DEC1300	WATERS	12/14/00	14:52	mp	Q	CONC
6	ICB	DEC1300	WATERS	12/14/00	15:00	mp	B	CONC
7	ICS A	DEC1300	WATERS	12/14/00	15:10	mp	Q	CONC
8	ICS AB	DEC1300	WATERS	12/14/00	15:15	mp	Q	CONC
9	SS I	DEC1300	WATERS	12/14/00	15:23	mp	Q	CONC
10	SS I LOW	DEC1300	WATERS	12/14/00	15:28	mp	Q	CONC
11	blank-2 08.00	DEC1300	WATERS	12/14/00	15:33	mp	S	CONC
12	lcs-2	DEC1300	WATERS	12/14/00	15:38	mp	S	CONC
13	lcsd-2	DEC1300	WATERS	12/14/00	15:42	mp	S	CONC
14	04474	DEC1300	WATERS	12/14/00	15:48	mp	S	CONC
15	04475	DEC1300	WATERS	12/14/00	15:53	mp	S	CONC
16	04476	DEC1300	WATERS	12/14/00	15:58	mp	S	CONC
17	04477	DEC1300	WATERS	12/14/00	16:04	mp	S	CONC
18	04477 d	DEC1300	WATERS	12/14/00	16:10	mp	S	CONC
19	04477 ms	DEC1300	WATERS	12/14/00	16:51	mp	S	CONC
20	04477 msd	DEC1300	WATERS	12/14/00	16:57	mp	S	CONC
21	ICV 1	DEC1300	WATERS	12/14/00	17:05	mp	Q	CONC
22	ICB	DEC1300	WATERS	12/14/00	17:11	mp	B	CONC
23	04474 1:4 sd	DEC1300	WATERS	12/14/00	17:16	mp	S	CONC
24	04474 1:1 msa	DEC1300	WATERS	12/14/00	17:21	mp	S	CONC
25	ICV 1	DEC1300	WATERS	12/14/00	17:27	mp	Q	CONC
26	ICB	DEC1300	WATERS	12/14/00	17:33	mp	B	CONC
27	SS I	DEC1300	WATERS	12/14/00	17:38	mp	Q	CONC
28	SS I LOW	DEC1300	WATERS	12/14/00	17:43	mp	Q	CONC
29	ICS A	DEC1300	WATERS	12/14/00	17:49	mp	Q	CONC
30	ICS AB	DEC1300	WATERS	12/14/00	17:56	mp	Q	CONC

proj 26397
NA

#	Element	STD'lank	STD3	STD4	STD2	ICV 1	ICB
1	Ag3280	.00803				1.561	.0008
2	Al3082	.01633	1.64266			1.903	.0037
3	As1936	-.00009		1.02335		1.983	-.0089
4	Ba4934	-.00009			10.8796	1.947	.0001
5	Be3130	.00133	6.09776			1.950	.0000
6	Ca3179	.00073			.98976	2.020	.0000
7	Cd2265	-.00049			3.10083	1.999	.0027
8	Co2286	-.00013			1.82626	2.032	.0018
9	Cr2677	.00136		2.53763		1.977	-.0012
10	Cu3247	.0013			2.05516	1.982	.0008
11	Fe2599	.00413	3.7091			1.971	-.0052
12	K_7664	.00576			3.23903	19.60	.0175
13	Mg2790	.00043			.75233	1.954	.0049
14	Mn2576	0			.13386	2.021	.0000
15	Na5889	.01623	.89289			2.001	.0068
16	Ni2316	.00046	2.13913			2.002	.0081
17	Pb2203	-.0012			1.54756	2.004	.0097
18	Sb2068	.0027	1.90763			2.002	-.0107
19	Se1960	.00109		.57099		1.969	-.0105
20	Sn2839	-.05853	.78196			Q-.5730	-.0087
21	Tl1908	-.00053	.82533			1.994	-.0012
22	V_2924	.00029		3.48046		1.957	.0004
23	Zn2138	.00069			1.82773	2.025	.0013

#	Element	ICS A	ICS AB	SS I	SS I LOW	bla'8.00	lcs-2
						15:33	
1	Ag3280	.0001	Q.4040	.0061	.0008	-.0003	1.073
2	Al3082	47.51	44.30	.2061	.0418	.0135	1.047
3	As1936	Q.2395	2.258	.1867	.0332	-.0220	1.042
4	Ba4934	.0001	.5923	.1971	.0395	.0002	1.055
5	Be3130	-.0001	.1938	.0047	.0009	-.0002	1.059
6	Ca3179	48.19	45.39	.0019	-.0051	.0407	1.129
7	Cd2265	-.0028	.6091	.0064	.0007	-.0001	1.062
8	Co2286	.0033	.6125	.0542	.0128	.0016	1.093
9	Cr2677	-.0133	.5908	.0139	.0020	-.0001	1.056
10	Cu3247	-.0067	.5975	.0259	.0055	.0003	1.076
11	Fe2599	46.73	43.63	.1057	.0162	-.0022	1.068
12	K_7664	-.0243	51.29	-.0072	-.0330	-.0041	10.46
13	Mg2790	48.71	45.33	.0071	.0004	.0018	1.056
14	Mn2576	-.0128	.4057	.0523	.0075	.0000	1.088
15	Na5889	.1458	10.37	.0032	-.0042	-.0037	1.071
16	Ni2316	-.0017	.6160	.0564	.0126	.0056	1.071
17	Pb2203	Q-.0521	2.019	.0372	-.0002	-.0176	1.069
18	Sb2068	Q-.1769	1.868	.0360	-.0021	.0070	1.053
19	Se1960	Q.1894	.9247	.2024	.0749	-.0245	1.003
20	Sn2839	.1819	Q-.0230	-.0059	.0142	-.0260	1.770
21	Tl1908	.0427	2.161	.2156	.0541	-.0166	1.092
22	V_2924	-.0028	.5985	.0501	.0103	.0000	1.050
23	Zn2138	.0080	.6324	.0533	.0108	.0014	1.082

#	Element	lcsd-2	04474	04475	04476	04477	04477 d
			15:48	15:53	15:58	16:04	
1	Ag3280	1.043	-.0005	-.0001	-.0006	-.0009	-.0021
2	Al3082	1.003	9.202	1.516	27.40	8.619	9.079
3	As1936	1.017	.0156	-.0021	.0670	.0061	.0198
4	Ba4934	1.019	.0280	.0217	.1258	.0262	.0268
5	Be3130	1.015	.0000	.0001	.0004	-.0002	-.0002
6	Ca3179	1.070	104.4	7.222	8.552	98.20	102.1
7	Cd2265	1.026	.0009	.0002	-.0027	.0003	-.0001
8	Co2286	1.045	.0006	.0017	.0028	.0018	.0016
9	Cr2677	1.016	-.0064	.0070	.0367	-.0048	-.0080
10	Cu3247	1.040	.0013	.0015	.0169	.0010	-.0003
11	Fe2599	1.032	.0490	.7223	1.041	.0383	.0398
12	K_7664	10.07	6.185	1.724	2.050	5.842	6.118
13	Mg2790	1.018	.1578	1.091	1.169	.1565	.1627
14	Mn2576	1.043	-.0116	.0042	.0065	-.0109	-.0113
15	Na5889	1.030	11.11	9.195	8.796	10.58	11.14
16	Ni2316	1.043	.0023	.0037	.0059	.0053	.0039
17	Pb2203	1.029	-.0198	.0080	-.0252	-.0090	-.0306
18	Sb2068	1.014	-.0473	-.0150	-.0081	-.0416	-.0409
19	Se1960	.9903	.0811	-.0384	.0162	.2038	.0873
20	Sn2839	1.679	-.3526	-.0322	-.0647	-.3176	-.3507
21	Tl1908	1.033	-.0550	-.0030	-.0207	-.0345	-.0293
22	V_2924	1.009	.0042	.0021	.0196	.0044	.0031
23	Zn2138	1.041	.0014	.0047	.0068	.0044	.0020

#	Element	04477 ms	044' msd	ICV 1	ICB	044'4 sd	044' msa
1	Ag3280	.9908	1.040	1.595	.0000	-.0838	1.629
2	Al3082	9.949	10.32	Q1.889	-.0021	10.30	10.63
3	As1936	1.029	1.074	1.971	.0012	-.1067	2.157
4	Ba4934	1.000	1.050	1.956	.0001	.0415	2.130
5	Be3130	.9906	1.037	1.935	.0000	-.0037	2.145
6	Ca3179	99.80	103.0	1.978	.0007	114.5	97.76
7	Cd2265	.9618	1.009	1.976	-.0005	.0187	2.112
8	Co2286	.9878	1.034	2.010	.0014	-.0693	2.153
9	Cr2677	.9471	.9905	1.945	.0014	-.1890	2.080
10	Cu3247	1.001	1.049	1.989	.0003	-.1063	2.137
11	Fe2599	1.032	1.082	1.956	-.0041	.0870	2.157
12	K_7664	15.86	16.62	19.53	.0041	4.289	27.23
13	Mg2790	1.150	1.198	1.948	.0018	-.3438	2.229
14	Mn2576	.9723	1.019	1.992	.0000	-.0002	2.130
15	Na5889	11.79	12.27	2.003	-.0023	13.18	12.92
16	Ni2316	.9825	1.042	1.962	.0031	.1956	2.123
17	Pb2203	.9534	1.029	1.977	-.0060	.0121	2.105
18	Sb2068	.9566	1.002	1.984	.0028	-.2834	2.086
19	Se1960	1.123	1.076	1.922	-.0187	2.021	3.501
20	Sn2839	1.345	1.417	Q-.5868	-.0264	-2.848	-1.061
21	Tl1908	.9445	.9524	1.997	.0121	.0542	2.055
22	V_2924	.9634	1.005	1.931	.0003	-.0730	2.097
23	Zn2138	.9983	1.043	1.996	.0011	.0210	2.159

M

#	Element	ICV 1	ICB	SS I	SS I LOW	ICS A	ICS AB
1	Ag3280	1.632	.0010	.0052	.0014	.0001	Q.4071
2	Al3082	1.908	.0029	.1967	.0350	47.67	44.43
3	As1936	1.978	-.0092	.2028	.0297	Q.2290	2.248
4	Ba4934	1.956	.0001	.1990	.0395	.0001	.5954
5	Be3130	1.948	.0001	.0047	.0008	-.0002	.1929
6	Ca3179	2.017	.0027	-.0042	-.0068	47.80	44.62
7	Cd2265	1.997	.0002	.0060	.0024	-.0010	.5992
8	Co2286	2.034	.0016	.0524	.0128	.0037	.6083
9	Cr2677	1.977	.0009	.0156	.0030	-.0114	.5843
10	Cu3247	1.992	.0011	.0256	.0047	-.0056	.6002
11	Fe2599	1.981	-.0027	.0988	.0140	46.79	43.56
12	K_7664	19.62	-.0144	-.0227	-.0031	-.0202	51.46
13	Mg2790	1.962	.0071	-.0022	.0031	48.66	45.41
14	Mn2576	2.014	.0000	.0523	.0075	-.0103	.4033
15	Na5889	2.004	.0023	-.0040	-.0053	.1454	10.47
16	Ni2316	1.994	.0044	.0561	.0122	.0022	.6006
17	Pb2203	2.005	-.0136	.0411	.0142	Q-.0540	1.977
18	Sb2068	2.020	-.0075	.0353	-.0001	Q-.1616	1.904
19	Se1960	1.974	-.0269	.1889	.0351	.0640	1.137
20	Sn2839	Q-.5759	-.0221	-.0555	-.0369	.1683	Q-.0427
21	Tl1908	1.983	.0226	.2270	.0194	.0541	2.080
22	V_2924	1.948	.0000	.0492	.0096	-.0024	.5933
23	Zn2138	2.024	.0018	.0533	.0095	.0084	.6309

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Digestion Log for Waters

Date: 12.12.00
Analyst: RL
Started: 08:00
Ended: 13:55
Matrix: water

BATCH #: 121200A
HNO_3 Acid Lot # M.99219 20RL 12.12.00
1:1 HCL Acid Lot # M.99219
Digestion Method: 3010A
Hot Plate Temp: 95.1°C

QCS 19 Lot #: M.99233 Amount: 0.5
QCS 7 Lot #: M.99232 Amount: 0.5
ICV Sn Lot #: M.99208 Amount: 0.1
Sample Vials Lot #: D997

AL #	Sample Volume (mL)	Conc. HNO_3	1:1 HCL	Final Volume	Dilution	Spikes Added QCS 19	QCS 7	ICV Sn	Comments
Blank	50	1.5+1.5	5	50	1:1				QMW1212001
LCS						✓	✓	✓	QMW1212002
LCSD						✓	✓	✓	QMW1212003
04436					200:1		26424	(Pb)	
04512							26403	(AppII)	
~~04513~~ 12.12.00								↓	
04514								AppI	
04515									
04516									
04517									
04518									
04519								↓	
04520								AppII	
04521									
04532									
04533								↓	
04534								AppI	
04535								RCRA Niln	
04536								AppII	
04537								AppI	
04538									
04539								↓	
04544							↓	AppII	
04544D									
04544MS						✓	✓	✓	
04544MSD						✓	✓	✓	
Blank2									
LCS2						✓	✓	✓	
LCSD2						✓	✓	✓	
D4474								26397 (Na)	
D4475									
D4476									
D4477								↓	
D4477D									
D4477MS						✓	✓	✓	
D4477MSD	↓	↓	↓	↓	↓	✓	✓	✓	

006

Reviewed By: _____ 3010wdig Page # _____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Digestion Log for Waters

Date: 12.12.00
Analyst: RL
Started: 08:00
Ended: 13:55
Matrix: water

BATCH #: 121200A
HNO_3 Acid Lot # M.99219 20RZ 12.12.00
1:1 HCL Acid Lot # M.99219
Digestion Method: 3010A
Hot Plate Temp: 95.1°C

QCS 19 Lot #: M.99233 Amount: 0.5
QCS 7 Lot #: M.99232 Amount: 0.5
ICV Sn Lot #: M.99208 Amount: 0.1
Sample Vials Lot #: D997

AL #	Sample Volume (mL)	Conc. HNO_3	1:1 HCL	Final Volume	Dilution	Spikes Added QCS 19	QCS 7	ICV Sn	Comments
Blank	50	1.5+1.5	5	50	1:1				QMW121200/
LCS						✓	✓	✓	QMW121200Z
LCSD						✓	✓	✓	QMW121200Z
04436					200:1		26424	(Pb)	
04512							26403	(App II)	
04513								App I	
04514									
04515									
04516									
04517									
04518									
04519								App II	
04520									
04521									
04532									
04533								App I	
04534								RCRA Mn	
04535								App II	
04536								App I	
04537									
04538									
04539								App II	
04544									
045440						✓	✓	✓	
04544MS						✓	✓	✓	
04544MSD									
BlankR						✓	✓	✓	
LCSR						✓	✓	✓	
LCSDR								26397 (Na)	
04474									
04475									
04476									
04477									
04477D									
04477MS						✓	✓	✓	
04477MSD						✓	✓	✓	

Reviewed By: _____ 3010wdig Page # _____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Digestion Log for Waters

Date: 12.12.00
Analyst: BL
Started: 08:00
Ended: 13:55
Matrix: Water

BATCH #: 121200A
HNO_3 Acid Lot # M.99219 20RZ 12/12/00
1:1 HCL Acid Lot # M.99219
Digestion Method: 3010A
Hot Plate Temp: 95.1°C

QCS 19 Lot #: M.99233 Amount: 0.5
QCS 7 Lot #: M.99232 Amount: 0.5
ICV Sn Lot #: M.99208 Amount: 0.1
Sample Vials Lot #: 0997

AL #	Sample Volume (mL)	Conc. HNO_3	1:1 HCL	Final Volume	Dilution	Spikes Added QCS 19	QCS 7	ICV Sn	Comments
Blank	50	1.5+1.5	5	50	1:1				QMW1212001
LCS						✓	✓	✓	QMW1212002
LCSD						✓	✓	✓	QMW1212003
04436					200:1		26424	(Pb)	
04512							26403	(AppII)	
04513								AppI	
04514									
04515									
04516									
04517									
04518									
04519									
04520								AppII	
04521									
04532									
04533									
04534								AppI	
04535								RCRA Niin	
04536								AppII	
04537								AppI	
04538									
04539									
04544								AppII	
04544D									
04544MS						✓	✓	✓	
04544MSD						✓	✓	✓	
Blank2									
LCS2						✓	✓	✓	
LCSD2						✓	✓	✓	
04474								26397 (Na)	
04475									
04476									
04477									
04477D									
04477MS						✓	✓	✓	
04477MSD						✓	✓	✓	

Reviewed By: _____ 3010wdig Page # _____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TRACE ICAP STANDARDS PREPARATION

Std #1	Lot #
Blank	NA

Std #8	Lot #
Ag	M99150

Std #3	Lot #
Al	M99073
Be	M99146
Fe	~~M99076~~ 179
Ni	M99151
Sb	M99228
Sn	M99229
Tl	M99226
Mg	M99078

Std #2	Lot #
Ba	M99230
Ca	M99143
Cd	M99075
Co	M99144
Cu	M99148
K	M99152
Mg	~~M99078~~ 147
Mn	M99077
Pb	M99231
Zn	M99227

Std #4	Lot #
As	M99074
Cr	M99149
Se	M99225
V	M99145

ICV #1& 2	Lot #
QCS 19	M99216
QCS 7	M99187
ICV Sn	M99153

SS I	Lot #
SS I	M99085

ICS A	Lot #
INFCS IV	M99186

ICS AB	Lot #
INFCS I	M99095
INFCS IV	~~M99186~~
INFCS Ag	M99094

Concentrations:
Stds 2,3,4, & 8 = 2ppm
ICV1 = 0.2ppm except K = 2ppm
ICV2= 1.0ppm except K = 20ppm
SSI = mixed, see SOP for conc.
ICS A = 50ppm for Al, Ca, Fe, & Mg
ICS AB = mixed, see SOP for conc.

Date Made	AAL Lot #	Standard #	Method	Date Expire	Analyst	Volume	Comments
10/30/00	51 A	1 (Blank)	6010B/200.7	11/30/00	[illegible]	500mL	
	B	2	6010B/200.7				
	C	3	6010B/200.7				
	D	4	6010B/200.7			100mL	
	E	8	6010B/200.7			500mL	
	F	ICV 1	6010B/200.7			100mL	
	G	ICV 2	6010B/200.7			500mL	
	H	ICS A	6010B/200.7				
	I	ICS AB	6010B/200.7				
	J	SS I	6010B/200.7				
	K	SS I Low	6010B/200.7			100mL	

Standards are approximately 1% Nitric and 5% Hydrochloric Acid.

L SSAg

Reviewed By:_____

TRICPSTD.XLS Page No. 52

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TRACE ICAP STANDARDS PREPARATION

Std #1	Lot #
Blank	NA

Std #8	Lot #
Ag	

Std #3	Lot #
Al	
Be	
Fe	
Ni	
Sb	
Sn	
Ti	

Std #2	Lot #
Ba	
Ca	
Cd	
Co	
Cu	
K	
Mg	
Mn	
Pb	
Zn	

See pg 52

Std #4	Lot #
As	
Cr	
Se	
V	

ICV #1& 2	Lot #
QCS 19	
QCS 7	
ICV Sn	

SS I	Lot #
SS I	

ICS A	Lot #
INFCS IV	

ICS AB	Lot #
INFCS I	
INFCS IV	
INFCS Ag	

Concentrations:
Stds 2,3,4, & 8 = 2ppm
ICV1 = 0.2ppm except K = 2ppm
ICV2= 1.0ppm except K = 20ppm
SSI = mixed, see SOP for conc.
ICS A = 50ppm for Al, Ca, Fe, & Mg
ICS AB = mixed, see SOP for conc.

Date Made	AAL Lot #	Standard #	Method	Date Expire	Analyst	Volume	Comments
12/6/00	53A	1 (Blank)	6010B/200.7	1/6/001	Am.g/mP	500mL	
	B	2	6010B/200.7				
	C	3	6010B/200.7				
	D	4	6010B/200.7				
	E	8	6010B/200.7			100mL	
	F	ICV 1	6010B/200.7			500mL	
	G	ICV 2	6010B/200.7			100mL	
	H	ICS A	6010B/200.7			500mL	
	I	ICS AB	6010B/200.7				
	J	SS I	6010B/200.7				
	K	SS I Low	6010B/200.7				

Standards are approximately 1% Nitric and 5% Hydrochloric Acid.

L SSAg

100 mL

Reviewed By:_____

TRICPSTD.XLS Page No. 54

AAL #26553 ABL/3°C

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD 26553

[1] COC NUMBER: 152044-36-012

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO . RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No)
NTC ORLANDO	152044.32.12.01.08	ACCURA LABS / DAVID FULLER	STEVE TSANGARIS / CCI	4350 W. CYPRESS ST SUITE 600 TAMPA FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER	[9] LAB PO NUMBER	[12] FAX AND MAIL REPORTS/EDD TO . RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No).
STUDY AREA 36 IDW SOIL SAMPLING	CTO 017	2101		
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO	[10] LAB TEL NO AND FAX NO	[13] FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No , and Fax No.)
STEVE TSANGARIS	813 874-0777 813 874-3056 (Fax)	(770) 449-8800		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	TCL VOCs 8260	TCL SVOCs 8270	TCL PEST. 8081	TCL HERBS. 8151	TCL PCBs 8082	TAL METALS/Hg 6010/7470	REACTIVITY Cyan. Sulf. CORROSIVITY 9045 IGNITIBILITY 1030	pH 150.1			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-W-Q4-00	IDW COMPOSITE WATER SAMPLE	GW	12-19-00	1230	III	7	3 40 mL	1 Am. L	1 Am. L	1 Am. L	1 Am. L	1 500 ml	1 Am. L	1 250 mL			Field Composite	Please ADD HNO_3 ASAP to 6010/7470 CONTAINER	AC05503
2	017-OLD-36-TB-Q4-00	TRIP BLANK	WQ	—	—	↓	↓	2 40 mL												AC05504
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
FJ Ferreira (CH2M HILL) G S BONDS (CCI)	FEDEX - 823948715493	3°C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: F.J. Ferreira	12/19/00	1400	Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature: Fedex	12/20/00		Printed Name and Signature:	12/20/00	11:10

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

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 26553
Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

The following items were noted concerning this project:

1. The following samples were received at Accura Analytical Laboratory on 12/20/00 at 1110.

Client I.D.	Laboratory I.D.
017-OLD-36-W-QA-00	AC05503
017-OLD-36-TB-QA-00	AC05504

2. The sample cooler temperature was noted to be 3^0C upon receipt.

3. The pH of all samples submitted for VOC analyses was noted to be less than 2 prior to analysis.

4. Sample 017-OLD-36-W-QA-00 submitted for Metals-TAL analysis was preserved in the laboratory upon receipt.

5. The J values noted for the Mercury-TAL, Metals-TAL, and VOC analyses indicate estimated values where the compounds are present at concentrations that are less than the quantitation limits, but above the method detection limits.

6. The B values noted for the Metals-TAL analysis indicate that the compounds were present in the Method Blank and in the sample, and the concentratrions in the sample was less than ten times the concentration in the Method Blank. These results should be considered estimated due to Blank contamination.

7. The Method Blank associated with the Metals-TAL analysis had a concentration of Calcium that was above the reported detection limit. However, the concentration in the samples submitted with this project were greater than ten times the concentration in the Method Blank; therefore the contamination was considered to be insignificant.

8. The following sample required dilution due to matrix interference, resulting in elevated detection limits:

   Herbicides SW846-8151A
   017-OLD-36-W-QA-00

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

9. The following surrogates were outside the method specified limits due to matrix interference:

Pesticides SW846-8081A	SVOC SW846-8270C
Tetrachloro-m-xylene - 017-OLD-36-W-QA-00	Phenol-d5 - 017-OLD-36-W-QA-00
	Terphenyl-d14 - 017-OLD-36-W-QA-00

10. The following sample was analyzed 2 days after sampling:

Reactive Cyanide – SW846-7.332	Reactive Sulfide – SW846-7.342
017-OLD-36-W-QA-00	017-OLD-36-W-QA-00

11. Batch QC consists of LCS/LCSD for the following analyses due to limited sample volume:

    SVOC – SW-846-8270C

    Pesticides – SW-846-8081A

    PCB – SW-846-8082

    Herbicides – SW-846-8151A

    Note that for the SVOC analysis, the LCS/LCSD recoveries are reported as the MS/MSD values on the QC spreadsheet.

12. Project Specified QC is reported for the following analyses:

    VOC – SW-846-8260B

    Metals-TAL – SW-846-6010B

    Mercury-TAL – SW-846-7470A

13. The Laboratory Control Sample/ Laboratory Control Sample Duplicate associated with the SVOC analyses was biased low for the following analytes:

    SVOC – SW-846-8270C

    LCS - Hexachlorocyclopentadiene

    LCSD - 4-Chloroaniline Hexachlorocyclopentadiene 3-Nitroaniline
    4-Nitroaniline 3,3`-Dichlorobenzidine

    All results for these analytes should be considered estimated.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

14. The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside the project specified limits for the following analytes:

    Herbicides – SW-846-8151A
    MS - 2,4,5-T 2,4,5,-TP 2,4,5-D

    Metals-TAL – SW-846-6010B
    MS - Antimony Sodium
    MSD - Antimony Magnesium Sodium

    The Laboratory Control Sample recoveries were within acceptable limits; therefore the data satisfies the method requirements.

15. The recoveries of Aluminum, Calcium, and Iron could not be determined in the Matrix Spike and Matrix Spike Duplicate analyses due to high sample concentration.

16. The relative percent difference between the Matrix Spike and Matrix Spike Duplicate was outside the project specified limits for the following analytes:

    Metals-TAL – SW-846-6010B
    Aluminum Antimony Calcium Iron Magnesium Sodium

    Herbicides – SW-846-8151A
    2,4,5-T 2,4,5-TP 2,4,5-D DCAA

17. The relative percent difference between the Laboratory Control Sample and Laboratory Control Sample Duplicate was outside the project specified limits for the following analytes:

    SVOC – SW-846-8270C
    4-Chloroaniline 3-Nitroaniline 4-Nitroaniline N-Nitrosodiphenylamine
    3,3'-Dichlorobenzidine

18. The following surrogate recovery was outside the project specified limit:

    Herbicides – SW-846-8151A
    DCAA - MS

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC05503 **Accura Project #: 26553**

Client: CH2M HILL - CCI Date Sampled: 12/19/00

Client Contact: S. TSANGARIS Date Received: 12/20/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/10/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-W-Q4-00

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
2,4,5-T	<RDL	5.0
2,4,5-TP (Silvex)	<RDL	5.0
2,4-D	<RDL	5.0

ANALYSIS: Ignitability/Flash Point Method Ref: 1010

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: °F

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

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/22/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Mercury	0.0016J	0.002

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

Date Ext/Dig/Prep: 12/21/00 Date Analyzed: 12/28/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	120	0.050
Antimony	0.0065	0.0060
Arsenic	0.0068J	0.050
Barium	0.83	0.50
Beryllium	0.0025J	0.0030
Cadmium	0.0084	0.0050
Calcium	110	0.050
Chromium	0.13	0.050
Cobalt	0.0087JB	0.010
Copper	0.12	0.050
Iron	61	0.10
Lead	0.19	0.010
Magnesium	6.4	0.050
Manganese	0.39	0.050
Nickel	0.016	0.010
Potassium	9.2	0.10
Selenium	0.045JB	0.050
Silver	<RDL	0.050

Sodium	100	0.20
Thallium	0.036	0.0020
Vanadium	0.067	0.010
Zinc	0.12J	1.0

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: ug/l

Analyte Name	Analytical Results	Reported Detection Limits
Aroclor-1016	<RDL	0.50
Aroclor-1221	<RDL	1.0
Aroclor-1232	<RDL	1.0
Aroclor-1242	<RDL	0.50
Aroclor-1248	<RDL	0.50
Aroclor-1254	<RDL	0.50
Aroclor-1260	<RDL	0.50

ANALYSIS: Pesticides Method Ref: 8081A

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/29/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
4,4'-DDD	<RDL	0.050
4,4'-DDE	<RDL	0.050
4,4'-DDT	<RDL	0.10
Aldrin	<RDL	0.050
alpha-BHC	<RDL	0.050
alpha-Endosulfan	<RDL	0.050
beta-BHC	<RDL	0.050
beta-Endosulfan	<RDL	0.050
delta-BHC	<RDL	0.050
Dieldrin	<RDL	0.050
Endosulfan sulfate	<RDL	0.050
Endrin	<RDL	0.050
Endrin aldehyde	<RDL	0.050
Endrin ketone	<RDL	0.050
gamma-BHC	<RDL	0.050
Heptachlor	<RDL	0.050
Heptachlor epoxide	<RDL	0.050
Methoxychlor	<RDL	0.25
Total Chlordane (Technical)	<RDL	0.50
Toxaphene	<RDL	2.5

ANALYSIS: pH (Water) Method Ref: 9040B

Date Ext/Dig/Prep: 12/20/00 Date Analyzed: 12/20/00 Result Units: pH units

Analyte Name	Analytical Results	Reported Detection Limits
pH	6.7	

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 12/21/00 Date Analyzed: 12/21/00 Result Units: mg/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Reactive Cyanide	<RDL	0.20

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 12/21/00 Date Analyzed: 12/21/00 Result Units: mg/kg

Analyte Name	Analytical Results	Reported Detection Limits

Reactive Sulfide	<RDL	10

ANALYSIS: SVOC's - TCL Method Ref: 8270C

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 1/5/01 Result Units: ug/L

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

Dimethylphthalate	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Hexachlorobenzene	<RDL	10
Hexachlorobutadiene	<RDL	10
Hexachlorocyclopentadiene	<RDL	10
Hexachloroethane	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Isophorone	<RDL	10
N-Nitroso-di-n-propylamine	<RDL	10
N-Nitrosodiphenylamine	<RDL	10
Naphthalene	<RDL	10
Nitrobenzene	<RDL	10
Pentachlorophenol	<RDL	20
Phenanthrene	<RDL	10
Phenol	<RDL	10
Pyrene	<RDL	10

ANALYSIS: VOC's - TCL Method Ref: 8260B

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Hexanone (MBK)	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	2.2 J	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	1.6 J	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	9.1	5

Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
DCAA (Range 42-166)	54	

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Decachlorobiphenyl (Range D-119)	4	

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/29/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Decachlorobiphenyl (Range D-160)	4	
Tetrachloro-m-xylene (Range 21-131)	16	

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

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	85	
4-Bromofluorobenzene (86-112)	91	
Toluene-d8 (84-108)	92	

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 1/5/01 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
2,4,6-Tribromophenol (Range 40-117)	92	
2-Fluorobiphenyl (Range 43-111)	71	
2-Fluorophenol (Range 33-103)	62	
Nitrobenzene-d5 (Range 37-104)	71	
p-Terphenyl-d14 (Range 15-132)	7	
Phenol-d6 (Range 33-114)	21	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC05504 **Accura Project #: 26553**

Client: CH2M HILL - CCI Date Sampled: 12/19/00

Client Contact: S. TSANGARIS Date Received: 12/20/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/10/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB-Q4-00

ANALYSIS: VOC's - TCL Method Ref: 8260B

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Hexanone (MBK)	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

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

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	91	
4-Bromofluorobenzene (86-112)	96	
Toluene-d8 (84-108)	95	

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC05505 **Accura Project #: 26553**

Client: CH2M HILL - CCI Date Sampled: 12/20/00

Client Contact: S. TSANGARIS Date Received: 12/20/00

Client Project Number: 152044.32.12.01.08 Date Reported: 1/10/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: ug/L

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

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/22/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Mercury	<RDL	0.002

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

Date Ext/Dig/Prep: 12/21/00 Date Analyzed: 12/28/00 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	0.040J	0.050
Antimony	<RDL	0.0060
Arsenic	<RDL	0.050
Barium	0.00070J	0.50
Beryllium	<RDL	0.0030
Cadmium	0.00040J	0.0050
Calcium	0.051	0.050
Chromium	<RDL	0.050
Cobalt	0.0026J	0.010
Copper	<RDL	0.050
Iron	<RDL	0.10
Lead	<RDL	0.010
Magnesium	<RDL	0.050
Manganese	<RDL	0.050
Nickel	0.0035J	0.010
Potassium	<RDL	0.10
Selenium	0.0084J	0.050
Silver	<RDL	0.050
Sodium	<RDL	0.20
Thallium	<RDL	0.0020
Vanadium	<RDL	0.010
Zinc	<RDL	1.0

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: ug/l

Analyte Name	Analytical Results	Reported Detection Limits
Aroclor-1016	<RDL	0.50
Aroclor-1221	<RDL	1.0
Aroclor-1232	<RDL	1.0
Aroclor-1242	<RDL	0.50
Aroclor-1248	<RDL	0.50
Aroclor-1254	<RDL	0.50
Aroclor-1260	<RDL	0.50

ANALYSIS: Pesticides Method Ref: 8081A

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/29/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
4,4'-DDD	<RDL	0.050
4,4'-DDE	<RDL	0.050
4,4'-DDT	<RDL	0.10
Aldrin	<RDL	0.050
alpha-BHC	<RDL	0.050
alpha-Endosulfan	<RDL	0.050
beta-BHC	<RDL	0.050
beta-Endosulfan	<RDL	0.050
delta-BHC	<RDL	0.050
Dieldrin	<RDL	0.050
Endosulfan sulfate	<RDL	0.050
Endrin	<RDL	0.050
Endrin aldehyde	<RDL	0.050
Endrin ketone	<RDL	0.050
gamma-BHC	<RDL	0.050
Heptachlor	<RDL	0.050
Heptachlor epoxide	<RDL	0.050
Methoxychlor	<RDL	0.25
Total Chlordane (Technical)	<RDL	0.50
Toxaphene	<RDL	2.5

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 12/21/00 Date Analyzed: 12/21/00 Result Units: mg/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Reactive Cyanide	<RDL	0.20

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 12/21/00 Date Analyzed: 12/21/00 Result Units: mg/kg

Analyte Name	Analytical Results	Reported Detection Limits
Reactive Sulfide	<RDL	10

ANALYSIS: SVOC's - TCL Method Ref: 8270C

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 1/4/01 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,2,4-Trichlorobenzene	<RDL	10
1,2-Dichlorobenzene	<RDL	10
1,3-Dichlorobenzene	<RDL	10
1,4-Dichlorobenzene	<RDL	10

2,4,5-Trichlorophenol	<RDL	10
2,4,6-Trichlorophenol	<RDL	10
2,4-Dichlorophenol	<RDL	10
2,4-Dimethylphenol	<RDL	10
2,4-Dinitrophenol	<RDL	50
2,4-Dinitrotoluene	<RDL	10
2,6-Dinitrotoluene	<RDL	10
2-Chloronaphthalene	<RDL	10
2-Chlorophenol	<RDL	10
2-Methylnaphthalene	<RDL	10
2-Methylphenol	<RDL	10
2-Nitroaniline	<RDL	20
2-Nitrophenol	<RDL	10
3,3'-Dichlorobenzidine	<RDL	10
3-Nitroaniline	<RDL	20
4,6-Dinitro-2-methylphenol	<RDL	20
4-Bromophenyl phenyl ether	<RDL	10
4-Chloro-3-methylphenol	<RDL	10
4-Chloroaniline	<RDL	10
4-Chlorophenyl phenyl ether	<RDL	10
4-Methylphenol	<RDL	10
4-Nitroaniline	<RDL	20
4-Nitrophenol	<RDL	20
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
bis(2-Chloroethoxy)methane	<RDL	10
bis(2-Chloroethyl)ether	<RDL	10
bis(2-Chloroisopropyl)ether	<RDL	10
bis(2-Ethylhexyl)phthalate	<RDL	10
Butyl benzyl phthalate	<RDL	10
Carbazole	<RDL	10
Chrysene	<RDL	10
Di-n-butylphthalate	<RDL	10
Di-n-octylphthalate	<RDL	10
Dibenz(a,h)anthracene	<RDL	10
Dibenzofuran	<RDL	10
Diethylphthalate	<RDL	10
Dimethylphthalate	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Hexachlorobenzene	<RDL	10
Hexachlorobutadiene	<RDL	10
Hexachlorocyclopentadiene	<RDL	10
Hexachloroethane	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Isophorone	<RDL	10

N-Nitroso-di-n-propylamine	<RDL	10
N-Nitrosodiphenylamine	<RDL	10
Naphthalene	<RDL	10
Nitrobenzene	<RDL	10
Pentachlorophenol	<RDL	20
Phenanthrene	<RDL	10
Phenol	<RDL	10
Pyrene	<RDL	10

ANALYSIS: VOC's - TCL Method Ref: 8260B

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: ug/L

Analyte Name	Analytical Results	Reported Detection Limits
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Hexanone (MBK)	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
DCAA (Range 32-167)	67	

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/28/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Decachlorobiphenyl (Range 46-128)	77	

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 12/29/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Decachlorobiphenyl (Range 42-153)	67	
Tetrachloro-m-xylene (Range 51-123)	78	

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

Date Ext/Dig/Prep: 12/27/00 Date Analyzed: 12/27/00 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	85	
4-Bromofluorobenzene (85-111)	93	
Toluene-d8 (88-106)	94	

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

Date Ext/Dig/Prep: 12/22/00 Date Analyzed: 1/4/01 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
2,4,6-Tribromophenol (Range 46-110)	80	
2-Fluorobiphenyl (Range 57-102)	75	
2-Fluorophenol (Range 47-104	71	
Nitrobenzene-d5 (Range 50-103)	72	
p-Terphenyl-d14 (Range 64-113)	95	
Phenol-d6 (Range 52-106)	73	

Accura Analytical Laboratory, Inc.

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT #26553

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%	%	%
8260B	Chloromethane	76	76			60-140	20-150	0%	#VALUE!	<30	<50	77		38-116	38-116			<50	<75
8260B	Bromomethane	126	117			60-140	20-150	7%	#VALUE!	<30	<50	98		49-117	49-117			<50	<75
8260B	Vinyl Chloride	93	91			60-140	20-150	2%	#VALUE!	<30	<50	89		31-121	31-121			<50	<75
8260B	Chloroethane	108	107			60-140	20-150	1%	#VALUE!	<30	<50	111		62-116	62-116			<50	<75
8260B	Methylene Chloride	94	97			60-140	20-150	3%	#VALUE!	<30	<50	96		55-126	55-126			<50	<75
8260B	Acetone	115	125			60-140	20-150	8%	#VALUE!	<30	<50	114		43-165	43-165			<50	<75
8260B	Carbon Disulfide	87	102			60-140	20-150	16%	#VALUE!	<30	<50	102		76-119	76-119			<50	<75
8260B	1,1-Dichloroethene	99	96			60-140	20-150	4%	#VALUE!	<30	<50	94		54-128	54-128			<50	<75
8260B	1,1-Dichloroethane	97	98			60-140	20-150	1%	#VALUE!	<30	<50	96		62-141	62-141			<50	<75
8260B	cis-1,2-Dichloroethene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	97		70-131	60-141			<50	<75
8260B	trans-1,2-Dichloroethene	96	94			60-140	20-150	1%	#VALUE!	<30	<50	92		61-138	51-148			<50	<75
8260B	Chloroform	103	103			60-140	20-150	0%	#VALUE!	<30	<50	100		65-129	65-129			<50	<75
8260B	1,2-Dichloroethane	98	102			60-140	20-150	4%	#VALUE!	<30	<50	99		68-135	68-135			<50	<75
8260B	2-Butanone	95	100			60-140	20-150	5%	#VALUE!	<30	<50	102		50-163	50-163			<50	<75
8260B	1,1,1-Trichloroethane	100	100			60-140	20-150	0%	#VALUE!	<30	<50	99		68-135	68-135			<50	<75
8260B	Carbon Tetrachloride	97	98			60-140	20-150	1%	#VALUE!	<30	<50	97		67-125	67-125			<50	<75
8260B	Bromodichloromethane	102	106			60-140	20-150	4%	#VALUE!	<30	<50	101		68-135	58-145			<50	<75
8260B	1,2-Dichloropropane	103	102			60-140	20-150	1%	#VALUE!	<30	<50	98		76-132	76-132			<50	<75
8260B	Cis-1,3-Dichloropropene	102	104			60-140	20-150	1%	#VALUE!	<30	<50	98		70-122	70-122			<50	<75
8260B	Trichloroethylene	101	103			60-140	20-150	3%	#VALUE!	<30	<50	96		67-137	67-137			<50	<75
8260B	Dibromochloromethane	100	103			60-140	20-150	3%	#VALUE!	<30	<50	100		64-120	64-120			<50	<75
8260B	1,1,2-Trichloroethane	100	104			60-140	20-150	4%	#VALUE!	<30	<50	100		70-141	70-141			<50	<75
8260B	Benzene	97	98			60-140	20-150	1%	#VALUE!	<30	<50	96		51-139	51-139			<50	<75
8260B	trans-1,3-Dichloropropene	100	103			60-140	20-150	3%	#VALUE!	<30	<50	102		42-154	42-154			<50	<75
8260B	Bromoform	102	106			60-140	20-150	3%	#VALUE!	<30	<50	102		67-129	67-129			<50	<75
8260B	4-Methyl-2-Pentanone	97	110			60-140	20-150	13%	#VALUE!	<30	<50	101		77-119	77-119			<50	<75
8260B	2-Hexanone	94	103			60-140	20-150	9%	#VALUE!	<30	<50	93		47-165	47-165			<50	<75
8260B	Tetrachloroethylene	102	100			60-140	20-150	2%	#VALUE!	<30	<50	103		67-131	67-131			<50	<75
8260B	Toluene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	99		31-137	31-137			<50	<75
8260B	1,1,2,2-Tetrachloroethane	102	106			60-140	20-150	4%	#VALUE!	<30	<50	103		55-138	55-138			<50	<75
8260B	Chlorobenzene	101	102			60-140	20-150	1%	#VALUE!	<30	<50	103		69-140	69-140			<50	<75
8260B	Ethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	100		59-140	59-140			<50	<75
8260B	Styrene	104	105			60-140	20-150	1%	#VALUE!	<30	<50	103		71-133	71-133			<50	<75
8260B	Xylenes, Total	102	104			60-140	20-150	1%	#VALUE!	<30	<50	103		68-133	68-133			<50	<75
8260B	4-Bromofluorobenzene (Surr)	98	97			75-125	65-135	1%	#VALUE!			96							
8260B	1,2-Dichloroethane-d4 (Surr)	100	100			62-139	52-149	0%	#VALUE!			98							
8260B	Toluene-d8 (Surr)	102	100			75-125	65-135	2%	#VALUE!			102							
TCL SEMI-VOLATILES BY GC/MS						%	%			%	%			%	%			%	%
8270C	Phenol	93	94			60-140	20-150	1%	#VALUE!	<30	<50			25-125	25-135			<50	<75
8270C	Bis (2-chloroethyl) ether	79	80			60-140	20-150	1%	#VALUE!	<30	<50			44-125	34-135			<50	<75
8270C	2-Chlorophenol	91	93			60-140	20-150	2%	#VALUE!	<30	<50			41-125	31-135			<50	<75
8270C	1,3-Dichlorobenzene	78	75			60-140	20-150	4%	#VALUE!	<30	<50			36-125	26-135			<50	<75
8270C	1,4-Dichlorobenzene	72	70			60-140	20-150	3%	#VALUE!	<30	<50			30-125	25-135			<50	<75
8270C	1,2-Dichlorobenzene	82	81			60-140	20-150	1%	#VALUE!	<30	<50			42-155	32-135			<50	<75
8270C	2-Methylphenol	90	93			60-140	20-150	3%	#VALUE!	<30	<50			25-125	25-135			<50	<75

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

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT #26553

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
8270C	2,2'-Oxybis (1-Chloropropane) [bis (2-Chloroisopropyl) ether]	88	86			60-140	20-150	2%	#VALUE!	<30	<50			36-166	26-175			<50	<75
8270C	3,4-Methylphenol	99	105			60-140	20-150	6%	#VALUE!	<30	<50			33-125	25-135			<50	<75
8270C	N-Nitroso-di-n-propylamine	87	89			60-140	20-150	2%	#VALUE!	<30	<50			37-125	27-135			<50	<75
8270C	Hexachloroethane	66	64			60-140	20-150	3%	#VALUE!	<30	<50			25-153	25-163			<50	<75
8270C	Nitrobenzene	83	87			60-140	20-150	5%	#VALUE!	<30	<50			46-133	36-143			<50	<75
8270C	Isophorone	81	82			60-140	20-150	1%	#VALUE!	<30	<50			26-175	25-175			<50	<75
8270C	2-Nitrophenol	89	93			60-140	20-150	4%	#VALUE!	<30	<50			44-125	34-135			<50	<75
8270C	2,4-Dimethylphenol	80	95			60-140	20-150	17%	#VALUE!	<30	<50			45-139	35-149			<50	<75
8270C	Bis (2-chloroethoxy) methane	81	84			60-140	20-150	4%	#VALUE!	<30	<50			49-125	39-135			<50	<75
8270C	2,4-Dichlorophenol	92	96			60-140	20-150	4%	#VALUE!	<30	<50			46-125	36-135			<50	<75
8270C	1,2,4-Trichlorobenzene	75	73			60-140	20-150	3%	#VALUE!	<30	<50			44-142	34-152			<50	<75
8270C	Naphthalene	88	90			60-140	20-150	2%	#VALUE!	<30	<50			50-125	40-135			<50	<75
8270C	4-Chloroaniline	62	5			60-140	20-150	170%	#VALUE!	<30	<50			45-136	35-146			<50	<75
8270C	Hexachlorobutadiene	77	76			60-140	20-150	1%	#VALUE!	<30	<50			25-125	25-135			<50	<75
8270C	4-Chloro-3-methylphenol	98	103			60-140	20-150	5%	#VALUE!	<30	<50			44-125	34-135			<50	<75
8270C	2-Methylnaphthalene	77	80			60-140	20-150	4%	#VALUE!	<30	<50			41-125	31-135			<50	<75
8270C	Hexachlorocyclopentadiene	18	21			60-140	20-150	15%	#VALUE!	<30	<50			41-125	31-135			<50	<75
8270C	2,4,6-Trichlorophenol	93	95			60-140	20-150	2%	#VALUE!	<30	<50			39-128	29-138			<50	<75
8270C	2,4,5-Trichlorophenol	97	100			60-140	20-150	3%	#VALUE!	<30	<50			25-175	25-175			<50	<75
8270C	2-Chloronaphthalene	83	84			60-140	20-150	1%	#VALUE!	<30	<50			60-125	50-135			<50	<75
8270C	2-Nitroaniline	83	87			60-140	20-150	5%	#VALUE!	<30	<50			50-125	40-135			<50	<75
8270C	Dimethyl phthalate	96	96			60-140	20-150	0%	#VALUE!	<30	<50			25-175	25-175			<50	<75
8270C	Acenaphthylene	89	90			60-140	20-150	1%	#VALUE!	<30	<50			47-125	37-135			<50	<75
8270C	2,6-Dinitrotoluene	92	95			60-140	20-150	3%	#VALUE!	<30	<50			51-125	41-135			<50	<75
8270C	3-Nitroaniline	87	25			60-140	20-150	111%	#VALUE!	<30	<50			51-125	41-135			<50	<75
8270C	Acenaphthene	97	99			60-140	20-150	2%	#VALUE!	<30	<50			49-124	39-135			<50	<75
8270C	2,4-Dinitrophenol	75	86			60-140	20-150	14%	#VALUE!	<30	<50			30-151	25-161			<50	<75
8270C	4-Nitrophenol	93	101			60-140	20-150	8%	#VALUE!	<30	<50			25-131	25-141			<50	<75
8270C	Dibenzofuran	83	84			60-140	20-150	1%	#VALUE!	<30	<50			52-125	42-135			<50	<75
8270C	2,4-Dinitrotoluene	121	127			60-140	20-150	5%	#VALUE!	<30	<50			39-139	29-149			<50	<75
8270C	Diethyl phthalate	106	108			60-140	20-150	2%	#VALUE!	<30	<50			37-125	27-135			<50	<75
8270C	4-Chlorophenyl-phenyl ether	90	93			60-140	20-150	3%	#VALUE!	<30	<50			51-132	41-142			<50	<75
8270C	Fluorene	100	104			60-140	20-150	4%	#VALUE!	<30	<50			48-139	38-149			<50	<75
8270C	4-Nitroaniline	84	49			60-140	20-150	53%	#VALUE!	<30	<50			40-143	30-153			<50	<75
8270C	4,6-Dinitro-2-methylphenol	90	93			60-140	20-150	3%	#VALUE!	<30	<50			26-134	25-144			<50	<75
8270C	N-Nitrosodiphenylamine	89	62			60-140	20-150	36%	#VALUE!	<30	<50			27-125	25-135			<50	<75
8270C	4-Bromophenyl-phenyl ether	92	90			60-140	20-150	2%	#VALUE!	<30	<50			53-127	43-137			<50	<75
8270C	Hexachlorobenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50			46-133	36-143			<50	<75
8270C	Pentachlorophenol	94	99			60-140	20-150	5%	#VALUE!	<30	<50			28-136	38-146			<50	<75
8270C	Phenanthrene	93	91			60-140	20-150	2%	#VALUE!	<30	<50			54-125	44-135			<50	<75
8270C	Anthracene	93	94			60-140	20-150	1%	#VALUE!	<30	<50			45-165	35-175			<50	<75
8270C	Carbazole	95	89			60-140	20-150	7%	#VALUE!	<30	<50			34-132	34-132			<50	<75
8270C	Di-n-butylphthalate	96	100			60-140	20-150	4%	#VALUE!	<30	<50			34-126	25-136			<50	<75
8270C	Fluoranthene	91	96			60-140	20-150	5%	#VALUE!	<30	<50			47-125	37-135			<50	<75
8270C	Pyrene	103	106			60-140	20-150	3%	#VALUE!	<30	<50			47-136	37-146			<50	<75
8270C	Butylbenzylphthalate	93	97			60-140	20-150	4%	#VALUE!	<30	<50			26-125	25-135			<50	<75
8270C	3,3'-Dichlorobenzidine	64	0			60-140	20-150	200%	#VALUE!	<30	<50			29-175	25-175			<50	<75

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

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT #26553

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
8270C	Benzo (a) anthracene	92	93			60-140	20-150	1%	#VALUE!	<30	<50			51-133	41-143			<50	<75
8270C	Chrysene	92	90			60-140	20-150	2%	#VALUE!	<30	<50			55-133	45-143			<50	<75
8270C	bis (2-Ethylhexyl) phthalate	94	96			60-140	20-150	2%	#VALUE!	<30	<50			33-129	25-139			<50	<75
8270C	Di-n-octylphthalate	86	107			60-140	20-150	22%	#VALUE!	<30	<50			38-127	28-137			<50	<75
8270C	Benzo (b) fluoranthene	86	104			60-140	20-150	19%	#VALUE!	<30	<50			37-125	27-135			<50	<75
8270C	Benzo (k) fluoranthene	86	103			60-140	20-150	18%	#VALUE!	<30	<50			37-123	37-123			<50	<75
8270C	Benzo (a) pyrene	80	94			60-140	20-150	16%	#VALUE!	<30	<50			41-125	31-135			<50	<75
8270C	Indeno (1,2,3-cd) pyrene	80	91			60-140	20-150	13%	#VALUE!	<30	<50			27-160	25-170			<50	<75
8270C	Dibenzo (a,h) anthracene	84	94			60-140	20-150	11%	#VALUE!	<30	<50			50-125	40-135			<50	<75
8270C	Benzo (g,h,i) perylene	82	90			60-140	20-150	9%	#VALUE!	<30	<50			34-149	25-159			<50	<75
8270C	Nitrobenzene-d5	78	80			35-114	23-120	3%	#VALUE!										
8270C	2-Fluorobiphenyl	81	80			43-116	30-115	1%	#VALUE!										
8270C	Terphenyl-d14	90	92			33-141	18-137	2%	#VALUE!										
8270C	Phenol-d5	80	78			10-110	24-113	3%	#VALUE!										
8270C	2-Fluorophenol	76	75			21-110	25-121	1%	#VALUE!										
8270C	2,4,6-Tribromophenol	89	90			10-123	19-122	1%	#VALUE!										
TCL PESTICIDES/AROCHLORS						%	%			%	%			%	%			%	%
8081A	alpha-BHC	78	88			60-140	20-150	12%	#VALUE!	<30	<50	83		75-125	65-135			<50	<75
8081A	beta-BHC	81	95			60-140	20-150	16%	#VALUE!	<30	<50	83		51-125	41-133			<50	<75
8081A	delta-BHC	85	92			60-140	20-150	8%	#VALUE!	<30	<50	85		75-126	65-136			<50	<75
8081A	gamma-BHC (Lindane)	84	94			60-140	20-150	11%	#VALUE!	<30	<50	84		73-125	63-130			<50	<75
8081A	Heptachlor	92	99			60-140	20-150	7%	#VALUE!	<30	<50	96		45-128	35-138			<50	<75
8081A	Aldrin	96	107			60-140	20-150	11%	#VALUE!	<30	<50	96		47-125	37-126			<50	<75
8081A	Heptachlor epoxide	103	107			60-140	20-150	4%	#VALUE!	<30	<50	98		53-134	43-144			<50	<75
8081A	Endosulfan I	97	100			60-140	20-150	3%	#VALUE!	<30	<50	91		49-143	39-153			<50	<75
8081A	Dieldrin	104	108			60-140	20-150	4%	#VALUE!	<30	<50	99		42-132	32-142			<50	<75
8081A	4,4'-DDE	107	114			60-140	20-150	6%	#VALUE!	<30	<50	101		45-139	35-149			<50	<75
8081A	Endrin	114	117			60-140	20-150	3%	#VALUE!	<30	<50	107		43-134	33-144			<50	<75
8081A	Endosulfan II	105	107			60-140	20-150	2%	#VALUE!	<30	<50	100		75-159	65-169			<50	<75
8081A	4,4'-DDD	106	112			60-140	20-150	6%	#VALUE!	<30	<50	100		48-136	38-146			<50	<75
8081A	Endosulfan sulfate	109	111			60-140	20-150	2%	#VALUE!	<30	<50	108		46-141	36-151			<50	<75
8081A	4,4'-DDT	93	98			60-140	20-150	5%	#VALUE!	<30	<50	102		34-143	25-153			<50	<75
8081A	Methoxychlor	95	97			60-140	20-150	2%	#VALUE!	<30	<50	105		73-142	63-152			<50	<75
8081A	Endrin ketone	101	104			60-140	20-150	3%	#VALUE!	<30	<50	101		43-134	33-144			<50	<75
8081A	Endrin aldehyde	98	102			60-140	20-150	4%	#VALUE!	<30	<50	99		75-150	35-160			<50	<75
8081A	alpha-Chlordane	106	112			60-140	20-150	6%	#VALUE!	<30	<50	99		41-125	31-135			<50	<75
8081A	gamma-Chlordane	98	104			60-140	20-150	6%	#VALUE!	<30	<50	95		41-125	31-133			<50	<75
8082A	Arochlor-1016	96	100			60-140	20-150	4%	#VALUE!	<30	<50	97		54-125	44-127			<50	<75
8082A	Arochlor-1260	100	101			60-140	20-150	1%	#VALUE!	<30	<50	92		41-126	31-136			<50	<75
8081A	Decachlorobiphenyl (DCBP) (Surr)	71	76			34-133	25-143	7%	#VALUE!			76							
8081A	Tetrachloro-m-xylene (TCMX) (Surr)	72	76			45-125	35-135	5%	#VALUE!			68							
HERBICIDES						%	%			%	%			%	%			%	%
8151A	2,4,5-T	15	44			30-150	30-150	98%	#VALUE!	<30	<50	84		30-150	30-150			<50	<75
8151A	2,4,5-TP	15	79			30-150	30-150	136%	#VALUE!	<30	<50	87		30-150	30-150			<50	<75
8151A	2,4,5-D	17	65			30-150	30-150	117%	#VALUE!	<30	<50	88		30-150	30-150			<50	<75
8151A	DCAA (Surr)	21	78			42-166	42-166	115%	#VALUE!	<30	<50	77		42-166	42-166			<50	<75

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

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT #26553

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
TAL METALS BY ICP						%	%			%	%			%	%			%	%
6010B	Aluminum	3920	5500			50-150	30-170	34%	#VALUE!	<30	<50	102		80-120	80-120			<50	<75
6010B	Antimony	12	18			50-150	30-170	40%	#VALUE!	<30	<50	105		80-120	80-120			<50	<75
6010B	Arsenic	92	99			50-150	30-170	7%	#VALUE!	<30	<50	114		80-120	80-120			<50	<75
6010B	Barium	102	123			50-150	30-170	19%	#VALUE!	<30	<50	104		80-120	80-120			<50	<75
6010B	Beryllium	81	90			50-150	30-170	11%	#VALUE!	<30	<50	110		80-120	80-120			<50	<75
6010B	Cadmium	83	90			50-150	30-170	8%	#VALUE!	<30	<50	102		80-120	80-120			<50	<75
6010B	Calcium	370	1440			50-150	30-170	118%	#VALUE!	<30	<50	113		80-120	80-120			<50	<75
6010B	Chromium	74	84			50-150	30-170	13%	#VALUE!	<30	<50	100		80-120	80-120			<50	<75
6010B	Cobalt	82	92			50-150	30-170	11%	#VALUE!	<30	<50	103		80-120	80-120			<50	<75
6010B	Copper	89	101			50-150	30-170	13%	#VALUE!	<30	<50	104		80-120	80-120			<50	<75
6010B	Iron	600	1300			50-150	30-170	74%	#VALUE!	<30	<50	106		80-120	80-120			<50	<75
6010B	Lead	91	99			50-150	30-170	8%	#VALUE!	<30	<50	105		80-120	80-120			<50	<75
6010B	Magnesium	150	217			50-150	30-170	37%	#VALUE!	<30	<50	103		80-120	80-120			<50	<75
6010B	Manganese	83	99			50-150	30-170	18%	#VALUE!	<30	<50	103		80-120	80-120			<50	<75
6010B	Nickel	80	91			50-150	30-170	13%	#VALUE!	<30	<50	101		80-120	80-120			<50	<75
6010B	Potassium	95	99			50-150	30-170	4%	#VALUE!	<30	<50	102		80-120	80-120			<50	<75
6010B	Selenium	105	110			50-150	30-170	5%	#VALUE!	<30	<50	119		80-120	80-120			<50	<75
6010B	Silver	90	94			50-150	30-170	4%	#VALUE!	<30	<50	106		80-120	80-120			<50	<75
6010B	Sodium	0	380			50-150	30-170	200%	#VALUE!	<30	<50	105		80-120	80-120			<50	<75
6010B	Thallium	97	103			50-150	30-170	6%	#VALUE!	<30	<50	110		80-120	80-120			<50	<75
6010B	Vanadium	77	87			50-150	30-170	12%	#VALUE!	<30	<50	100		80-120	80-120			<50	<75
6010B	Zinc	92	101			50-150	30-170	9%	#VALUE!	<30	<50	100		80-120	80-120			<50	<75
MERCURY BY COLD VAPOR						%	%			%	%			%	%			%	%
7470	Mercury	85	69			50-150	NA	21%	#VALUE!	<30	NA	94		70-130	NA			<50	NA
WET CHEMISTRY																			
7332	Cyanide, Reactive	88	90			70-130	70-130	2%		<30	<50	94		70-130	70-130			<30	<50
7342	Sulfide, Reactive	86	86			70-130		0%		<30	NA	96		70-130	NA			<30	NA

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

NS = Not Specified
NA = Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

SAMPLE RECEIPT CHECKLIST VERSION 3 **Client Code:** 0397-04 **AAL Project Mg:** BJH DJ

Client Project Name: NTC ORLANDO ACCURA Lab Project#: 026553

Are there any tests requested with holding times or TAT's less than 48 HOURS? (YES) ~~NO~~ BGB 12.20.00
If YES, you must communicate this to the appropriate analyst(s) immediately!!!
Preliminary Examination: Initials: SR Date received: 12/20/00 Date cooler was opened: 12/20/00

1. Did cooler/package come with a shipping slip (airbill, Etc.)? (YES) NO
   If YES, enter carrier name and airbill number here: Fedex 8239 4871 5493

   Describe type of packing in cooler: Some ICE, Bubble wrap
   ****If cooler was hand delivered, CIRCLE HERE, skip to item #5****
2. Were custody seals on outside of cooler? YES (NO)
   If YES, how many:____ seal dated:____ seal name:____
3. Were custody seals unbroken and intact at the date and time of arrival? (YES) N/A NO
4. Were custody papers sealed in a plastic bag to prevent damage to chain of custody? (YES) NO
5. If required, was enough ice used? **(Internal cooler temperature, 3C)** (YES) N/A NO
6. Did you sign custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
   If YES, enter project name at the top.

****

Complete project file with green sheet, proper file tag, and shipping documentation. Line up samples following chain. Complete Container Count Sheet including extra containers for dissolved metals filtrates. Complete login in Labworks and generate AAL ID Barcode Labels.

8. Did all containers arrive unbroken and were labels in good condition? (YES) NO
9. Were custody papers filled out properly and did all labels agree with custody papers? (YES) NO
10. Were correct containers and sufficient amount of sample sent for the test indicated? (YES) NO
11. Were all samples collected within three days of the date received? (YES) NO
    If NO, coordinate with the project manager to ensure that no samples go out of hold!!!
12. No residual chlorine found in waters for these analyses:
    (Cyanide, PAH, SVOC, Pesticides, PCB's, Herbicides)? (YES) N/A NO
    Checked by: SR **(Initials)**
13. Were samples properly chemically preserved, if required, upon receipt? YES N/A (NO) ⇒
    (For example: pH checked for waters for all Metals, Wet Chemistry, Pesticides, PCB's, Herbicides, and low level VOC/BTEX soil samples submitted in either Encore samplers or $NaHSO_4$ labeled vials)
    Preservation checked by: SR **(Initials)**
14. Were air bubbles (>1/4 inch) absent in VOC/BTEX samples? (YES) N/A NO
    If NO, list ID # on back:
15. If there are samples for dissolved metals, were they field filtered? YES (N/A) NO
    If NO, list date and time samples were filtered and preserved in lab:____

****

16. Were Encore samplers included? YES (NO)
    If YES, date and time preserved with $NaHSO_4$:____ By whom:____
17. Does this submittal contain soil $NaHSO_4$ vials for BTEX/GRO/VOC'S? YES (NO)
    If YES, vials weighed by and entered into vial database by:____
18. Initials of laboratory personnel responsible for labeling laboratory I.D. numbers on containers: SR

****

Keep samples and chain out. Before logging samples to their appropriate location, another person must review the entire project ensuring that information on the AAL ID Barcode label matches the container label, and that all information is consistent with the chain.
Final check and samples logged to locations by: ABL **(Initials)**

19. Was it necessary to call the assigned project manager in order to proceed with login? YES (NO)
    If YES, give details on the back of this form.
20. Who was called?____ By whom?____ Date/Time:____

Project Mgr. Review: DJ **(Initials)** 12/20/00 **(Date)**

ACCURA ANALYTICAL LABORATORY, INC.
SAMPLE RECEIPT VARIANCE FORM

Item #	Discrepancies Noted:
13	CONTAINER FOR TAL METALS REC'VD UNPRESERVED (pH~7)

Item #	Actions Taken:
13	2mL HNO_3 (M99237-4) ADDED TO BRING pH <2

Project Mgr. Review: DJ (Initials) 12/20/00 (Date)

Environmental Analytical Services

Cyanide (soils and reactives)

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

Analyst: FT

1600 - 1730

Analysis Date: 12/21/00

Lot #'s:

Cyanide Working Std: 50 C

Cyanide ICV Working Std: 50D

NaOH 0.25N: 50 B

H_2SO_4 18N (1:1): 48N

$Na_2H_2PO_4$ Solution: 49 I

Chloramine-T Solution: Daily

Pyridine/Barbituric Acid: 00130

= Reactive =

Date 7-point curve generated:									3-Point Curve:			
Std Conc. (mg/L CN⁻)	Blank	0.005	0.010	0.025	0.040	0.050	0.075	ICV 0.025	Blank	0.005	0.025	0.075
Absorbance								0.167	0	0.031	0.161	0.524
Calc. Conc (mg/L CN-)								0.0252	0	0.0050	0.0243	0.0752
Standard %R (+/- 10%)					CT 12/21/00			101	—	100	97	100
Correlation Coefficient									.99999			

#	AAL #	Spiked vol (ml) and conc.	Sample weight (gm.)	Extraction volume (ml)	Dilution factor (DF)	Sample vol. (ml) (V^1_I)	Vol. (ml) after distillation (V^1_F)	Vol. (ml) for colorimetry (V^2_I)	Vol. (ml) after colorimetry (V^2_F)	Abs.	Conc. From curve (mg/L)	Result (mg/kg)	RDL (mg/kg)
1	W8122100316	—	10	100	—	50	100	50	100	0.000	<DL	<DL	BLK
2	W8122100147	10ml of 1ppm			—					0.155	0.0234	0.094, R=94%, LCS	
3	05503	—			1:10					0.000	<DL	<DL	0.20
4	d	—			1:10					0.000	<DL	<DL	0.20
5	ms	10ml of 1ppm			—					0.146	0.0221	0.088, R=88%	—
6	msd				—					0.148	0.0224	0.0895, R=90%	—
7													
8													
9													
10													
11													
12													
13													
14													
15													CT 12/21/00

Comments:

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

Reviewed By: _____

Page No. 025

Cyanides

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Total Sulfides
EPA 376.1

Analyst: FT
Date: 12/21/00
Time Started: 1600
1730

Lot #'s:
Working Sulfide Standard: 526
Zinc Acetate Solution: –
$Na_2S_2O_3$ 0.0250N: 00087
$Na_2S_2O_3$ 0.0100N: 00012
Sulfide stock: 48c (200mg/L)

Starch Solution: 00102
I_2 0.02500N: 00098
6N NaOH: –
1:1 HCl: Daily

Standardization Titrations:
mL of 0.0100N $Na_2S_2O_3$ used for 200ml working standard: 12.90
mL of 0.0250N $Na_2S_2O_3$ used for 200mL working standard: 5.25

Ratio of 0.0100/0.0250=0.400
Ratio of Titrations: 0.407

RPD between the two ratios = 2%
If RPD is less than 15%, then continue with the samples, otherwise retitrate.

= Reactive =

AAL#	mL I_2	Sample volume	Dilution	mL 0.0250N $Na_2S_2O_3$	Calc. Value (mg/L)	QC RDL mg/L
QW8122100 4 BLK	10	10g → 100mL	–	9.90	<DL	–
QW8W122100 25 LCS	↓	↓ +10ml stock	–	5.20	19.2, R=96%	–
05503	↓	↓	1:10	9.85	<DL	10
↓ d	↓	↓	↓	9.80	<DL	10
MS	↓	↓ +10ml stock	–	5.70	17.2, R=86%	–
MSD	↓	↓ ↓	–	5.70	17.2, ↓	–

DP 12/21/00

FT 12/21/00

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

Reviewed By:

Page No. 086 Sulflog

Mercury Run Log

Hg Working Std. Lot # MSP001C
ICV Working Std. Lot # MSP001D
$SnCl_2$ Lot # MRP076R
10% HCl Solution: MRP076S

Standards Conc # 1: Autozero
Standards Conc # 2: 0.5 ppb
Standards Conc # 3: 1.0 ppb
Standards Conc # 4: 3.0 ppb
Standards Conc # 5: 5.0 ppb
Standards Conc # 6: 10.0 ppb
Correlation Coefficient = 0.999

Digestion Date: 12.22.00
Analysis Date: 12.22.00
Batch #: 122200Hg

Analysis Start Time: 09:25
Analysis End Time: 16:53
Analyst: RL

Matrix: Water

Method: 7470A

AAL #	Sample Volume	Dilution	Data Value ppb	Calculated Value ppb	% Recovery	Comments
ICB	–	–	<DL	<DL		
ICV	–	–	3.02	3.02	101%	
CCB	–	–	<DL	<DL		
WaterBlank	–	–	↓	↓		16:35 QHgW122200I
WaterLCS	–	–	2.81	5.63	94%	QHgW122200I2
05066	50ml to 100	1:2	<DL	<DL		16:39
05503	↓	↓	0.78J	1.58J		16:41
05503D			0.84J	1.68J	6.7% RPD	
05503MS			3.34	6.69	85.2%	20% RPD
05503MSD			2.86	5.72	69.2%	
CCB	–	–	<DL	<DL		
CCV	–	–	2.94	2.94	98%	

RL
12.23.00

Reviewed By: _____

Hgrunlog Page #

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

DAILY CALIBRATION OF pH METER AND CONDUCTIVITY METER

Daily Reading of pH and Conductivity of DI Water

Lot #'s: pH 7.00 Standard: 00092
pH 4.00 Standard: 00091
pH 10.00 Standard: 00112
Check Std must be ± 0.1 of true value or restandardize

1000uMHOS/cm Cond. Std.: _____
100uMHOS/cm Cond. Std.: _____
10uMHOS/cm Cond. Std.: _____
100uMHOS/cm ICV Cond. Std.: _____

Date	Analyst	Conductivity Standards (uMHOS/cm) 1000	100	10	ICV 100	DI H_2O Cond.	Temp. °C	pH Standards Calibration 4.00	7.00	10.00	Check 4 or 10	DI H_2O pH	Slope pH Calib.
12/7/00	FT						17°C	4.01	7.04	–	10.10	–	97.0
~~12/8/00~~ 12/8/00	FT						18°C	4.01	7.04	–	10.05	–	97.8
12/11/00	FT						17°C	4.01	7.04	–	10.10	–	97.2
12/12/00	FT						19°C	4.01	7.03	–	10.06	–	98.2
12/13/00	FT						17.5°C	4.01	7.04	–	10.10	–	97.6
12/14/00	FT						17°C	4.00	7.04	–	10.06	–	98.2
12/15/00	FT						17°C	4.01	7.05	–	10.10	–	97.2
12/17/00	BP						17	4.04	7.03	–	10.06	–	97.0
12/18/00	BP						15°	4.07	7.00	–	10.02	–	100.5
12/19/00	BP						16	4.08	7.00	–	9.99	–	101.4
12/20/00	BP						15	4.06	7.02	–	10.01	–	101.1
12/21/00	FT						15°C	4.01	7.06	–	10.04	–	96.9
12/22/00	FT						14°C	4.07	7.00	–	10.01	–	99.9

Reviewed By: _____

PHCONCAL.XLS

Analysis Report Summary 12/28/00 07:16:56 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	DEC2800	WATERS2	12/28/00	08:58		X	IR
2	STD8	DEC2800	WATERS2	12/28/00	09:05		X	IR
3	STD3	DEC2800	WATERS2	12/28/00	09:08		X	IR
4	STD4	DEC2800	WATERS2	12/28/00	09:12		X	IR
5	STD2	DEC2800	WATERS2	12/28/00	09:16		X	IR
6	ICV 2	DEC2800	WATERS2	12/28/00	09:20	mp	Q	CONC
7	ICV 1	DEC2800	WATERS2	12/28/00	09:26	mp	Q	CONC
8	ICB	DEC2800	WATERS2	12/28/00	09:33	mp	B	CONC
9	ICS A	DEC2800	WATERS2	12/28/00	09:38	mp	Q	CONC
10	ICS AB	DEC2800	WATERS2	12/28/00	09:45	mp	Q	CONC
11	SS I	DEC2800	WATERS2	12/28/00	09:51	mp	Q	CONC
12	SS I LOW	DEC2800	WATERS2	12/28/00	09:57	mp	Q	CONC
13	05325 tl	DEC2800	WATERS2	12/28/00	10:27	mp	S	CONC
14	05327 tl	DEC2800	WATERS2	12/28/00	10:31	mp	S	CONC
15	05329 tl	DEC2800	WATERS2	12/28/00	10:35	mp	S	CONC
16	05335 tl	DEC2800	WATERS2	12/28/00	10:39	mp	S	CONC
17	05349 tl	DEC2800	WATERS2	12/28/00	10:43	mp	S	CONC
18	05351 tl	DEC2800	WATERS2	12/28/00	10:47	mp	S	CONC
19	05353 tl	DEC2800	WATERS2	12/28/00	10:51	mp	S	CONC
20	05355 tl	DEC2800	WATERS2	12/28/00	10:56	mp	S	CONC
21	05357 tl	DEC2800	WATERS2	12/28/00	11:00	mp	S	CONC
22	05359 tl	DEC2800	WATERS2	12/28/00	11:04	mp	S	CONC
23	ICV 2	DEC2800	WATERS2	12/28/00	11:08	mp	Q	CONC
24	ICV 1	DEC2800	WATERS2	12/28/00	11:13	mp	Q	CONC
25	ICB	DEC2800	WATERS2	12/28/00	11:18	mp	B	CONC
26	05361 tl	DEC2800	WATERS2	12/28/00	11:22	mp	S	CONC
27	05361 tl	DEC2800	WATERS2	12/28/00	11:26	mp	S	CONC
28	05365 tl	DEC2800	WATERS2	12/28/00	11:30	mp	S	CONC
29	05370 tl	DEC2800	WATERS2	12/28/00	11:34	mp	S	CONC
30	05372 tl	DEC2800	WATERS2	12/28/00	11:39	mp	S	CONC
31	05376 tl	DEC2800	WATERS2	12/28/00	11:43	mp	S	CONC
32	05378 tl	DEC2800	WATERS2	12/28/00	11:47	mp	S	CONC
33	05390 tl	DEC2800	WATERS2	12/28/00	11:51	mp	S	CONC
34	05390 TL	DEC2800	WATERS2	12/28/00	12:03	mp	S	CONC
35	05378 TL	DEC2800	WATERS2	12/28/00	12:07	mp	S	CONC
36	ICV 2	DEC2800	WATERS2	12/28/00	12:11	mp	Q	CONC
37	ICB	DEC2800	WATERS2	12/28/00	12:15	mp	B	CONC
38	05357 TL	DEC2800	WATERS2	12/28/00	12:20	mp	S	CONC
39	QMW1221004 1200	DEC2800	WATERS2	12/28/00	12:30	mp	S	CONC
40	QMW1221005 LCS	DEC2800	WATERS2	12/28/00	12:35	mp	S	CONC
41	QMW1221006 LCSD	DEC2800	WATERS2	12/28/00	12:41	mp	S	CONC
42	05392	DEC2800	WATERS2	12/28/00	12:47	mp	S	CONC
43	05393	DEC2800	WATERS2	12/28/00	12:53	mp	S	CONC
44	ICV 2	DEC2800	WATERS2	12/28/00	13:02	mp	Q	CONC
45	ICV 1	DEC2800	WATERS2	12/28/00	13:09	mp	Q	CONC
46	ICB	DEC2800	WATERS2	12/28/00	13:15	mp	B	CONC
47	QMW1221004 1200	DEC2800	WATERS2	12/28/00	13:23	mp	S	CONC
48	QMW1221005 LCS	DEC2800	WATERS2	12/28/00	13:28	mp	S	CONC
49	QMW1221006 LCSD	DEC2800	WATERS2	12/28/00	13:34	mp	S	CONC
50	05392	DEC2800	WATERS2	12/28/00	13:40	mp	S	CONC
51	05393	DEC2800	WATERS2	12/28/00	13:46	mp	S	CONC
52	05394	DEC2800	WATERS2	12/28/00	13:51	mp	S	CONC
53	05395	DEC2800	WATERS2	12/28/00	13:57	mp	S	CONC

pros
#
26553
TAL

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	05396	DEC2800	WATERS2	12/28/00	14:03	mp	S	CONC
55	05399	DEC2800	WATERS2	12/28/00	14:08	mp	S	CONC
56	ICV 2	DEC2800	WATERS2	12/28/00	14:15	mp	Q	CONC
57	ICV 1	DEC2800	WATERS2	12/28/00	14:21	mp	Q	CONC
58	ICB	DEC2800	WATERS2	12/28/00	14:27	mp	B	CONC
59	05401	DEC2800	WATERS2	12/28/00	14:33	mp	S	CONC
60	05405	DEC2800	WATERS2	12/28/00	14:38	mp	S	CONC
61	05407	DEC2800	WATERS2	12/28/00	14:44	mp	S	CONC
62	05409	DEC2800	WATERS2	12/28/00	14:50	mp	S	CONC
63	05409 D	DEC2800	WATERS2	12/28/00	14:55	mp	S	CONC
64	05409 MS	DEC2800	WATERS2	12/28/00	15:01	mp	S	CONC
65	05409 MSD	DEC2800	WATERS2	12/28/00	15:07	mp	S	CONC
66	05411	DEC2800	WATERS2	12/28/00	15:13	mp	S	CONC
67	05413	DEC2800	WATERS2	12/28/00	15:18	mp	S	CONC
68	05415	DEC2800	WATERS2	12/28/00	15:24	mp	S	CONC
69	ICV 2	DEC2800	WATERS2	12/28/00	15:30	mp	Q	CONC
70	ICV 1	DEC2800	WATERS2	12/28/00	15:42	mp	Q	CONC
71	ICV 2	DEC2800	WATERS2	12/28/00	16:01	mp	Q	CONC
72	ICB	DEC2800	WATERS2	12/28/00	16:07	mp	B	CONC
73	STD1-Blank	DEC2800	WATERS2	12/28/00	16:14		X	IR
74	STD3	DEC2800	WATERS2	12/28/00	16:21		X	IR
75	STD2	DEC2800	WATERS2	12/28/00	16:25		X	IR
76	ICV 2	DEC2800	WATERS2	12/28/00	16:30	mp	Q	CONC
77	ICV 1	DEC2800	WATERS2	12/28/00	16:37	mp	Q	CONC
78	ICB	DEC2800	WATERS2	12/28/00	16:43	mp	B	CONC
79	05417	DEC2800	WATERS2	12/28/00	16:50	mp	S	CONC
80	05419	DEC2800	WATERS2	12/28/00	16:56	mp	S	CONC
81	05421	DEC2800	WATERS2	12/28/00	17:01	mp	S	CONC
82	05422	DEC2800	WATERS2	12/28/00	17:07	mp	S	CONC
83	05423	DEC2800	WATERS2	12/28/00	17:13	mp	S	CONC
84	05491	DEC2800	WATERS2	12/28/00	17:18	mp	S	CONC
85	05503	DEC2800	WATERS2	12/28/00	17:24	mp	S	CONC
86	05503 D	DEC2800	WATERS2	12/28/00	17:30	mp	S	CONC
87	05503 MS	DEC2800	WATERS2	12/28/00	17:36	mp	S	CONC
88	05503 MSD	DEC2800	WATERS2	12/28/00	17:41	mp	S	CONC
89	ICV 2	DEC2800	WATERS2	12/28/00	17:47	mp	Q	CONC
90	ICV 1	DEC2800	WATERS2	12/28/00	17:54	mp	Q	CONC
91	ICB	DEC2800	WATERS2	12/28/00	18:00	mp	B	CONC
92	05392 1:4 SD	DEC2800	WATERS2	12/28/00	18:05	mp	S	CONC
93	05392 1:1 MSA	DEC2800	WATERS2	12/28/00	18:11	mp	S	CONC
94	05355 TL	DEC2800	WATERS2	12/28/00	18:17	mp	S	CONC
95	05357 TL	DEC2800	WATERS2	12/28/00	18:22	mp	S	CONC
96	05596 DISS	DEC2800	WATERS2	12/28/00	18:28	mp	S	CONC
97	ICV 2	DEC2800	WATERS2	12/28/00	18:34	mp	Q	CONC
98	ICV 1	DEC2800	WATERS2	12/28/00	18:41	mp	Q	CONC
99	ICB	DEC2800	WATERS2	12/28/00	18:47	mp	B	CONC
100	SS I	DEC2800	WATERS2	12/28/00	18:53	mp	Q	CONC
101	SS I LOW	DEC2800	WATERS2	12/28/00	18:58	mp	Q	CONC
102	ICS A	DEC2800	WATERS2	12/28/00	19:04	mp	Q	CONC
103	ICS AB	DEC2800	WATERS2	12/28/00	19:10	mp	Q	CONC

#	Element	STD'lank	STD8	STD3	STD4	STD2	ICV 2
1	Ag3280	-.00105	.87581				.9926
2	Al3082	.02076		.11312			Q.9197
3	As1890	-.00613			.4375		.9880
4	Ba4934	.00005				2.7657	.9954
5	Be3130	-.0031		1.60865			1.047
6	Ca3179	.00122				.06006	.9874
7	Cd2265	-.00093				1.28466	.9802
8	Co2286	-.00199				.97017	.9923
9	Cr2677	.00029			.65928		.9959
10	Cu3247	.00982				.8119	.9831
11	Fe2714	.00079		.03488			Q1.078
12	K_7664	.01372				1.87724	Q8.920
13	Mg2790	-.00011				.06156	Q.9416
14	Mn2576	.0005				.81607	.9886
15	Ni2316	-.00337		.65532			.9859
16	2203/1	.00609				3.03116	.9799
17	2203/2	.00635				2.79962	.9779
18	1960/1	-.04673			1.76423		1.005
19	1960/2	.01381			.79353		1.003
20	Sb2068	.00266		.56215			.9823
21	Sn1899	-.00089		.36586			.9700
22	Tl1908	-.00133		.18217			1.005
23	V_2924	-.00002			.01549		.9824
24	Zn2062	-.00015				.18207	.9839
25	Pb2203						.9795
26	Se1960						1.005

#	Element	ICV 1	ICB	ICS A	ICS AB	SS I	SS I LOW
1	Ag3280	.1981	.0001	.0002	.3157	Q.0013	.0003
2	Al3082	Q.1186	-.0968	50.41	52.44	Q.0291	-.0608
3	As1890	.2030	.0022	-.0000	1.052	.0428	.0119
4	Ba4934	.2001	.0002	.0002	.3010	.0408	.0107
5	Be3130	.2103	.0003	.0000	.1010	.0011	.0003
6	Ca3179	.1998	-.0036	48.71	50.27	.1100	.0073
7	Cd2265	.1975	.0004	.0062	.3062	Q.0014	.0001
8	Co2286	.1997	.0009	.0023	.3027	.0115	Q.0037
9	Cr2677	.1987	.0004	.0021	.3010	.0041	.0012
10	Cu3247	.1945	-.0008	Q.0303	.3401	.0044	.0003
11	Fe2714	Q.2259	-.0011	47.72	49.48	Q.0649	.0203
12	K_7664	Q1.674	-.0196	.1927	Q26.26	-.0112	-.0005
13	Mg2790	Q.1880	.0009	48.90	50.48	.0451	.0078
14	Mn2576	.1988	.0000	.0013	.2021	.0102	.0024
15	Ni2316	.1989	.0004	.0028	.3018	Q.0125	Q.0039
16	2203/1	.1932	-.0000	.0177	1.050	.0107	.0019
17	2203/2	.1933	-.0023	.0013	1.033	.0076	.0010
18	1960/1	.2066	.0051	.0163	.5642	.0546	.0186
19	1960/2	.2009	-.0029	-.0085	.5431	.0374	.0046
20	Sb2068	.1976	-.0003	.0049	1.053	Q.0076	.0009
21	Sn1899	.1926	-.0019	.0022	1.040	-.0008	-.0001
22	Tl1908	.2055	-.0010	Q.0378	1.117	.0446	.0088
23	V_2924	.1966	.0001	.0023	.3026	.0089	Q.0034

#	Element	ICV 1	ICB	ICS A	ICS AB	SS I	SS I LOW
24	Zn2062	.1954	-.0001	.0020	.2999	.0096	.0019
25	Pb2203	.1935	-.0005	.0125	1.045	.0100	Q.0018
26	Se1960	.2049	.0026	.0080	.5571	Q.0491	Q.0142

#	Element	05325 tl	05327 tl	05329 tl	05335 tl	05349 tl	05351 tl
1	Ag3280						
2	Al3082	.0862	-.2815	15.32	-.0500	.4330	1.085
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	.7996	7.213	4.328	2.200	1.418	.8112
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	.0101	36.71	12.92	13.93	.3035	.9838
12	K_7664	.4649	11.71	2.060	2.719	.4442	.4588
13	Mg2790	.8211	5.934	2.182	3.005	.7858	.5019
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	-.0021	.0269	.0100	.0105	.0019	.0005
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	05353 tl	05355 tl	05357 tl	05359 tl	ICV 2	ICV 1
1	Ag3280						
2	Al3082	.3403	11.34	.8083	-.6244	1.041	Q.2268
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	6.451	1.140	18.71	64.92	1.011	.1902
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	.4879	9.427	.3975	109.3	Q1.163	Q.2343
12	K_7664	2.479	4.630	6.097	33.93	Q9.448	Q1.783
13	Mg2790	2.711	1.171	6.181	26.32	.9633	.1895
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						

#	Element	05353 tl	05355 tl	05357 tl	05359 tl	ICV 2	ICV 1
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	-.0028	.0069	.0039	.0840	1.049	.2054
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	ICB	05361 tl	05361 tl	05365 tl	05370 tl	05372 tl
1	Ag3280						
2	Al3082	-.0060	1.854	1.848	31.76	.1114	.2087
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	-.0098	1.503	1.506	7.613	.6300	8.600
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	-.0105	1.566	1.566	24.69	.0469	.0928
12	K_7664	-.0070	.9114	.8920	3.354	.3642	1.301
13	Mg2790	.0029	.6304	.6280	5.598	.2816	3.625
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	.0011	.0002	-.0010	.0149	-.0016	.0005
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	05376 tl	05378 tl	05390 tl	05390 TL	05378 TL	ICV 2
1	Ag3280						
2	Al3082	2.412	1.326	.0466	.0627	1.311	1.049
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	2.536	4.150	1.575	1.546	3.987	.9849
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	1.969	6.685	1.842	1.807	6.712	Q1.095

#	Element	05376 tl	05378 tl	05390 tl	05390 TL	05378 TL	ICV 2
12	K_7664	1.617	1.419	.7171	.6866	1.334	Q9.310
13	Mg2790	1.050	1.726	.8110	.7982	1.692	Q.9176
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	.0007	.0054	.0028	.0007	.0014	1.051
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	ICB	05357 TL	QMW'1200	QMW' LCS	QMW'LCSD	05392
1	Ag3280			.0003	1.077	1.086	.0009
2	Al3082	.0429	-.2045	.0937	1.112	1.148	.7346
3	As1890			.0044	1.152	1.174	.0016
4	Ba4934			.0006	1.034	1.056	.0527
5	Be3130			-.0003	1.124	1.124	.0004
6	Ca3179	-.0125	-.0223	.0293	1.116	1.099	1.779
7	Cd2265			.0000	1.046	1.036	.0007
8	Co2286			.0025	1.055	1.042	.0036
9	Cr2677			-.0002	1.034	1.015	.0010
10	Cu3247			-.0022	1.028	1.040	-.0018
11	Fe2714	-.0023	.2229	-.0101	1.143	1.121	.4874
12	K_7664	-.0048	-.1828	-.0079	10.54	10.74	.6993
13	Mg2790	.0029	-.0173	.0066	.9873	1.002	1.022
14	Mn2576			-.0003	1.053	1.041	.0057
15	Ni2316			.0044	1.029	1.025	.0040
16	2203/1			-.0026	1.059	1.059	.0001
17	2203/2			-.0036	1.070	1.069	-.0025
18	1960/1			.0179	1.185	1.272	.0169
19	1960/2			-.0118	1.198	1.283	-.0096
20	Sb2068			-.0031	1.062	1.081	.0009
21	Sn1899			.0006	2.184	2.161	.0027
22	Tl1908	.0029	-.0334	.0012	1.104	1.109	.0043
23	V_2924			.0034	1.020	1.013	.0034
24	Zn2062			.0024	1.060	1.036	.0068
25	Pb2203			-.0027	1.063	1.063	-.0005
26	Se1960			.0082	1.190	1.276	.0083

#	Element	05393	ICV 2	ICV 1	ICB	QMW'1200	QMW' LCS
						13:23	
1	Ag3280	.0002	1.014	.1978	.0002	.0002	1.064
2	Al3082	.1350	1.051	Q.2622	.0547	~~.1082~~	1.142
3	As1890	.0052	1.031	.2043	-.0010	.0022	1.137
4	Ba4934	.0008	1.001	.1965	.0000	.0007 J	1.044
5	Be3130	-.0001	Q1.095	Q.2139	-.0000	-.0001	1.098

Ba MDL .00015 B .007

#	Element	05393	ICV 2	ICV 1	ICB	QMW'1200	QMW' LCS
6	Ca3179	.0821	.9838	Q.1841	-.0147	~~.0376~~	~~1.074~~
7	Cd2265	-.0002	.9748	.1901	-.0003	.0004	1.016
8	Co2286	.0024	.9903	.1940	.0022	.0026	1.027
9	Cr2677	.0011	.9835	.1927	.0002	-.0001	1.004
10	Cu3247	-.0016	1.006	.1915	-.0038	-.0032	1.042
11	Fe2714	.0099	Q1.066	Q.2175	-.0102	~~-.0147~~	~~1.115~~
12	K_7664	.2048	9.499	Q1.708	.0065	~~-.0156~~	~~10.67~~
13	Mg2790	.0166	Q.9230	Q.1814	.0051	~~.0095~~	~~.9838~~
14	Mn2576	.0000	.9935	.1947	-.0004	-.0002	1.028
15	Ni2316	.0051	.9687	.1895	.0023	.0035	1.006
16	2203/1	.0005	.9926	.1922	.0010	-.0026	1.042
17	2203/2	-.0040	1.002	.1932	-.0041	-.0045	1.055
18	1960/1	.0189	1.009	.2096	.0105	.0184	1.175
19	1960/2	-.0069	1.052	.1989	-.0096	-.0123	1.205
20	Sb2068	.0001	.9775	.1938	-.0012	-.0021	1.053
21	Sn1899	.0003	.9903	.1945	-.0001	.0003	2.132
22	Tl1908	.0034	1.046	.1979	.0022	.0019	1.100
23	V_2924	.0001	.9746	.1913	.0001	.0001	1.002
24	Zn2062	.0034	.9525	Q.1860	.0001	.0031	1.002
25	Pb2203	-.0007	.9961	.1928	-.0004	-.0030	1.047
26	Se1960	.0105	1.024	.2063	.0040	.0084	1.185

Cd
MDL
.00037 B .004
Co
MDL
.00108 B .026
Ni
MDL
0.0018 B .035
Se
MDL
.00386 B .084

#	Element	QMW'LCSD	05392	05393	05394	05395	05396
1	Ag3280	1.096	.0006	.0003	.0003	.0003	.0003
2	Al3082	1.150	.7131	.1614	.8828	.4740	1.862
3	As1890	1.184	.0043	-.0008	.1256	.0109	.0219
4	Ba4934	1.052	.0518	.0007	.0687	.0349	.0320
5	Be3130	1.147	.0006	-.0002	-.0001	-.0001	-.0001
6	Ca3179	1.133	1.894	.0774	3.534	4.729	1.838
7	Cd2265	1.051	.0006	.0000	-.0001	.0000	.0001
8	Co2286	1.055	.0037	.0026	.0029	.0029	.0024
9	Cr2677	1.033	.0013	.0012	.0011	.0005	.0017
10	Cu3247	1.033	-.0019	-.0021	-.0012	-.0022	-.0010
11	Fe2714	1.129	.5066	.0030	.7963	.3480	1.011
12	K_7664	10.71	.6750	.1839	1.842	7.506	2.528
13	Mg2790	1.004	1.018	.0151	1.818	1.030	.5393
14	Mn2576	1.055	.0061	.0000	.1042	.0947	.0946
15	Ni2316	1.033	.0047	.0046	.0039	.0038	.0038
16	2203/1	1.070	-.0012	-.0007	-.0006	-.0001	.0021
17	2203/2	1.085	-.0021	-.0032	-.0032	-.0054	-.0031
18	1960/1	1.260	.0207	.0134	.0167	.0241	.0218
19	1960/2	1.271	-.0081	-.0130	-.0092	-.0131	-.0131
20	Sb2068	1.078	-.0014	-.0018	-.0012	-.0035	-.0027
21	Sn1899	2.195	.0016	.0007	.0009	-.0007	.0011
22	Tl1908	1.118	.0064	.0016	.0023	.0049	.0030
23	V_2924	1.022	.0012	.0000	.0000	.0001	.0034
24	Zn2062	1.077	.0104	.0030	.0142	.0350	.0168
25	Pb2203	1.075	-.0013	-.0012	-.0012	-.0016	.0006
26	Se1960	1.264	.0113	.0048	.0082	.0119	.0104

#	Element	05399	ICV 2	ICV 1	ICB	05401	05405
1	Ag3280	.0002	1.011	.2011	.0003	.0004	.0002
2	Al3082	.2352	1.044	Q.2886	.0748	.2747	1.117
3	As1890	.0033	1.037	Q.2136	.0023	.0024	.0019
4	Ba4934	.0199	.9957	.2012	.0001	.0227	.0181
5	Be3130	.0000	Q1.101	Q.2187	-.0000	-.0001	-.0003
6	Ca3179	.8323	.9919	Q.1870	-.0157	.3734	.4778
7	Cd2265	.0003	.9734	.1936	-.0001	-.0000	.0011
8	Co2286	.0031	.9891	.1979	.0023	.0028	.0025
9	Cr2677	.0002	.9835	.1954	.0004	.0007	.0014
10	Cu3247	-.0032	.9943	.1959	-.0037	-.0028	-.0004
11	Fe2714	.0242	Q1.066	Q.2270	-.0094	.0584	.7957
12	K_7664	1.032	Q9.222	Q1.765	-.0070	.7963	.5352
13	Mg2790	.2640	Q.9148	Q.1886	.0037	.2088	.1637
14	Mn2576	.0016	.9922	.1979	-.0003	.0028	.0037
15	Ni2316	.0049	.9642	.1937	.0021	.0041	.0040
16	2203/1	-.0014	.9898	.1966	-.0004	-.0028	.0014
17	2203/2	-.0054	.9975	.1936	-.0026	-.0032	-.0005
18	1960/1	.0165	1.002	.2088	.0120	.0137	.0123
19	1960/2	-.0107	1.044	.2011	-.0074	-.0085	-.0060
20	Sb2068	-.0027	.9697	.1957	-.0018	.0013	-.0008
21	Sn1899	.0012	.9911	.1982	.0001	.0019	-.0004
22	Tl1908	.0038	1.049	.2087	.0020	.0025	.0022
23	V_2924	-.0009	.9712	.1952	.0001	.0012	.0022
24	Zn2062	.0405	.9655	.1895	.0006	.0065	.0107
25	Pb2203	-.0025	.9926	.1959	-.0009	-.0027	.0011
26	Se1960	.0077	1.016	.2065	.0057	.0065	.0065

#	Element	05407	05409	05409 D	05409 MS	054' MSD	05411
1	Ag3280	.0003	.0002	.0003	1.092	1.080	.0008
2	Al3082	2.959	.5790	.5936	2.552	2.538	1.021
3	As1890	.0008	.0027	.0032	1.133	1.118	.0041
4	Ba4934	.0317	.2886	.2840	1.332	1.308	.2559
5	Be3130	.0001	.0007	.0008	1.119	1.109	.0020
6	Ca3179	.9018	7.993	8.076	9.263	8.981	3.191
7	Cd2265	-.0006	-.0000	.0003	1.037	1.026	.0009
8	Co2286	.0019	.0057	.0067	1.057	1.047	.0102
9	Cr2677	.0036	.0005	.0004	1.024	1.018	.0017
10	Cu3247	.0005	-.0003	-.0004	1.063	1.049	-.0005
11	Fe2714	1.970	.3407	.3879	1.654	1.648	.2712
12	K_7664	.8255	4.036	4.043	19.04	18.37	2.946
13	Mg2790	.4105	3.698	3.676	4.715	4.574	1.777
14	Mn2576	.0042	.0058	.0062	1.051	1.042	.0099
15	Ni2316	.0057	.0053	.0081	1.035	1.023	.0086
16	2203/1	.0002	-.0004	-.0004	1.075	1.060	.0016
17	2203/2	-.0024	-.0029	-.0023	1.086	1.075	-.0022
18	1960/1	.0198	.0138	.0225	1.122	1.115	.0199
19	1960/2	-.0078	-.0093	-.0145	1.161	1.146	-.0118
20	Sb2068	-.0008	-.0010	-.0004	1.027	1.012	-.0006
21	Sn1899	.0002	.0004	.0003	2.239	2.217	.0037
22	Tl1908	.0052	.0038	.0025	1.169	1.168	.0063
23	V_2924	.0068	.0011	.0012	1.021	1.011	.0001

#	Element	05407	05409	05409 D	05409 MS	054' MSD	05411
24	Zn2062	.0087	.0108	.0209	1.050	1.046	.0161
25	Pb2203	-.0004	-.0010	-.0008	1.079	1.065	.0006
26	Se1960	.0108	.0063	.0104	1.135	1.126	.0095

#	Element	05413	05415	ICV 2	ICV 1	ICV 2	ICB
1	Ag3280	.0004	.0001	1.012	.2027	.9876	.0009
2	Al3082	34.27	.9175	1.054	Q.2981	Q1.108	.1132
3	As1890	.0033	.0025	1.027	Q.2131	1.005	.0011
4	Ba4934	.3471	.0161	.9899	.2010	1.003	.0005
5	Be3130	.0028	.0001	Q1.106	Q.2225	1.044	.0002
6	Ca3179	34.50	.4613	1.001	.1892	Q.9177	-.0172
7	Cd2265	.0013	-.0001	.9749	.1963	Q.9080	-.0034
8	Co2286	.0082	.0030	.9884	.2009	Q.9286	-.0049
9	Cr2677	.0453	.0029	.9835	.1984	Q.9305	.0004
10	Cu3247	.0322	-.0025	.9894	.1955	1.018	-.0031
11	Fe2714	17.78	.6686	Q1.072	Q.2253	Q1.066	.0200
12	K_7664	7.026	.6699	10.17	1.916	10.10	-.0126
13	Mg2790	2.882	.1481	Q.9007	Q.1875	Q.8942	.0043
14	Mn2576	.0550	.0032	.9938	.2006	.9485	-.0001
15	Ni2316	.0151	.0042	.9654	.1966	Q.9282	.0091
16	2203/1	.0154	-.0002	.9868	.1951	.9043	-.0162
17	2203/2	.0037	-.0025	.9996	.1981	.9293	-.0044
18	1960/1	.0194	.0147	.9984	.2091	.9968	.0185
19	1960/2	-.0064	-.0105	1.030	.2013	1.038	-.0033
20	Sb2068	.0029	-.0003	.9653	.1937	.9538	.0045
21	Sn1899	.0017	-.0003	.9957	.2003	Q.9414	.0003
22	Tl1908	.0178	.0021	1.045	.2075	1.024	-.0005
23	V_2924	.0510	.0034	.9723	.1943	Q.9424	-.0000
24	Zn2062	.0388	.0064	.9635	.1933	Q.8590	-.0012
25	Pb2203	.0117	-.0007	.9913	.1963	Q.9129	-.0120
26	Se1960	.0108	.0065	1.009	.2067	1.011	.0115

#	Element	STD'lank	STD3	STD2	ICV 2	ICV 1	ICB
1	Ag3280	-.00085			.9787	.1944	-.0000
2	Al3082	.04061	.16924		.9595	Q-.0810	-.1272
3	As1890	-.00617			.9952	.2032	.0023
4	Ba4934	.00018		2.7811	.9915	.1985	.0001
5	Be3130	-.00321	1.64816		1.018	.2029	.0002
6	Ca3179	.00078		.05697	.9774	.1946	-.0014
7	Cd2265	-.00264		1.20542	.9774	.1965	.0019
8	Co2286	-.0033		.92008	.9872	.1987	.0034
9	Cr2677	.00034			Q.9266	Q.1846	.0004
10	Cu3247	.0085		.83494	.9822	.1943	-.0002
11	Fe2714	.00148	.03474		1.022	Q.1775	-.0423
12	K_7664	.0119		2.15311	Q8.872	Q1.622	.0037
13	Mg2790	.00005		.05911	Q.9414	Q.1831	.0006
14	Mn2576	.00046		.7833	.9847	.1961	.0000
15	Ni2316	-.00132	.62578		.9599	Q.1884	-.0015
16	2203/1	-.00716		2.90095	.9780	.1998	.0065
17	2203/2	-.00288		2.7347	.9703	.1935	.0035

#	Element	STD'lank	STD3	STD2	ICV 2	ICV 1	ICB
18	1960/1	-.03409			.9817	.1935	-.0011
19	1960/2	.01201			1.026	.1995	-.0013
20	Sb2068	.00366	.55342		.9593	.1904	-.0020
21	Sn1899	-.00091	.36483		.9480	.1913	-.0029
22	Tl1908	-.00136	.18949		.9873	.1933	.0016
23	V_2924	-.00002			Q.9357	Q.1866	.0000
24	Zn2062	-.00024		.16051	.9817	.1956	.0006
25	Pb2203				.9757	.1980	.0058
26	Se1960				.9966	.1957	-.0009

#	Element	05417	05419	05421	05422	05423	05491
1	Ag3280	-.0004	-.0001	-.0002	.0000	-.0001	.0001
2	Al3082	2.498	.2126	-.0027	.5180	-.2057	18.23
3	As1890	.0208	.0059	.0032	.0531	.0073	.0121
4	Ba4934	.0546	.0409	.0295	.0117	.0008	.1041
5	Be3130	.0002	.0000	-.0000	-.0002	-.0001	.0006
6	Ca3179	1.081	1.492	.7589	6.250	.1491	116.7
7	Cd2265	.0037	.0022	.0022	.0027	.0024	.0165
8	Co2286	.0094	.0058	.0054	.0049	.0045	.0166
9	Cr2677	.0085	.0008	.0006	.0006	.0001	.0301
10	Cu3247	.0049	.0050	.0015	.0032	.0000	.0965
11	Fe2714	2.841	.4240	.3864	.5292	-.0540	19.64
12	K_7664	1.490	1.362	.9461	5.554	.0045	112.5
13	Mg2790	.6712	.5750	.5838	2.158	.0123	6.909
14	Mn2576	.0070	.0155	.0065	.0092	-.0002	.9972
15	Ni2316	.0017	.0009	-.0006	-.0020	-.0029	.0225
16	2203/1	.0068	.0085	.0062	.0065	.0081	.0267
17	2203/2	.0027	.0060	.0036	.0045	.0027	.0176
18	1960/1	.0114	.0012	.0037	.0091	.0033	.0116
19	1960/2	-.0100	-.0065	-.0072	-.0032	-.0076	-.0046
20	Sb2068	-.0043	-.0040	-.0038	-.0070	-.0041	-.0013
21	Sn1899	.0011	.0025	-.0026	.0009	.0011	.0011
22	Tl1908	.0059	.0011	.0052	.0038	.0010	.0189
23	V_2924	.0092	.0034	.0011	.0022	.0000	.0411
24	Zn2062	.0230	.0806	.0082	.0125	.0056	.1430
25	Pb2203	.0057	.0079	.0056	.0061	.0066	.0239
26	Se1960	.0045	-.0012	.0003	.0052	-.0001	.0063

#	Element	05503	05503 D	05503 MS	055' MSD	ICV 2	ICV 1
		17:24					
1	Ag3280	-.0003	-.0002	.9024 90	.9441 94	.9727	.1919
2	Al3082	~~75.92~~	~~77.38~~	~~112.0~~	~~128.6~~	Q.8271	Q-.0782
3	As1890	.0068	.0081	.9217 92	.9878 98	.9927	.1995
4	Ba4934	.8315	.8343	1.851 102	2.063 123	.9999	.1987
5	Be3130	.0025	.0023	.8076 81	.8996 90	1.012	.1993
6	Ca3179	~~83.38~~	~~79.88~~	~~91.28~~	~~105.1~~	Q1.061	.2016
7	Cd2265	.0084	.0086	.8399 83	.9054 90	.9724	.1946
8	Co2286	.0087 JB	.0087	.8209 82	.9169 92	.9830	.1977
9	Cr2677	.1320	.1302	.8716 94	.9907 84	Q.9191	Q.1809
10	Cu3247	.1167	.1162	1.008 89	1.129 101	.9918	.1954
11	Fe2714	~~51.35~~	~~50.63~~	~~60.77~~	~~70.55~~	Q1.069	Q.1707

#	Element	05503	05503 D	05503 MS	055' MSD	ICV 2	ICV 1
12	K_7664	17.24 ~~12.33~~	~~12.11~~	27.48	30.87	Q9.432	Q1.731
13	Mg2790	~~5.379~~	~~5.348~~	~~7.296~~ 83	~~8.250~~	.9499	Q.1840
14	Mn2576	.3885	.3754	1.220	1.375 99	.9762	.1924
15	Ni2316	.0157	.0158	.8198 80	.9218 91	.9552	Q.1843
16	2203/1	.2005	.1946	1.117	1.197	.9908	.1968
17	2203/2	.1639	.1599	1.074	1.143	.9759	.1943
18	1960/1	.0528	.0516	1.044	1.093	.9713	.1904
19	1960/2	.0303	.0309	1.070	1.113	1.030	.2054
20	Sb2068	.0065	.0023	.1267	.1913	.9646	Q.1880
21	Sn1899	.0103	.0140	.8483	1.025	Q.9436	Q.1859
22	Tl1908	.0362	.0353	1.004	1.063	.9904	.1946
23	V_2924	.0668	.0653	.8333	.9399	Q.9296	Q.1817
24	Zn2062	.1231	.1210	.9168	1.011	.9649	.1896
25	Pb2203	.1886	.1833	1.103	1.179	.9861	.1963
26	Se1960	.0451	.0445	1.052	1.100	.9911	.1956

#	Element	ICB	053'4 SD	053' MSA	05355 TL	05357 TL	055'DISS
1	Ag3280	-.0001	-.0010	.1989	-.0002	-.0003	-.0003
2	Al3082	-.0540	-.5805	.2973	7.885	.2836	.4647
3	As1890	.0014	.0198	.2071	-.0016	-.0035	.0009
4	Ba4934	.0002	.0606	.2561	.0427	.1600	.0228
5	Be3130	.0001	-.0003	.2002	.0004	.0005	.0000
6	Ca3179	.0040	2.196	2.051	1.220	18.09	6.292
7	Cd2265	.0024	.0147	.1999	.0026	.0022	.0022
8	Co2286	.0050	.0267	.2066	.0062	.0068	.0051
9	Cr2677	.0004	-.0012	.1866	.0105	.0006	-.0001
10	Cu3247	.0010	.0043	.2013	.0085	.0053	.0010
11	Fe2714	-.0121	.2778	.6633	9.167	.3395	.5803
12	K_7664	.0104	.8650	2.783	4.883	6.291	2.061
13	Mg2790	.0006	1.224	1.250	1.201	6.181	.8356
14	Mn2576	.0001	.0045	.2022	.0363	.0995	.1381
15	Ni2316	-.0037	-.0070	.1871	-.0006	-.0032	-.0044
16	2203/1	.0099	.0376	.2096	.0238	.0135	.0096
17	2203/2	.0026	.0220	.2044	.0156	.0067	.0057
18	1960/1	-.0082	.0499	.2074	-.0070	-.0037	-.0018
19	1960/2	-.0013	-.0502	.2152	-.0001	.0007	-.0038
20	Sb2068	-.0044	-.0273	.1920	-.0011	-.0025	-.0053
21	Sn1899	.0007	.0174	.1913	-.0012	-.0007	.0009
22	Tl1908	.0008	.0157	.1992	.0063	-.0016	.0010
23	V_2924	.0034	.0171	.1891	.0312	.0023	.0023
24	Zn2062	.0021	.0166	.2027	.0427	.4174	.0360
25	Pb2203	.0078	.0338	.2084	.0213	.0115	.0086
26	Se1960	-.0057	.0176	.2104	-.0045	-.0020	-.0023

#	Element	ICV 2	ICV 1	ICB	SS I	SS I LOW	ICS A
1	Ag3280	1.016	.1955	.0002	.0010	.0024	.0001
2	Al3082	Q.6263	Q-.1156	-.1599	Q-.2302	-.3343	Q35.15
3	As1890	1.024	.2008	.0016	.0408	Q-.0025	-.0007
4	Ba4934	1.024	.1994	.0002	.0406	Q.0077	.0001
5	Be3130	1.043	.2013	.0004	.0011	.0005	-.0000

#	Element	ICV 2	ICV 1	ICB	SS I	SS I LOW	ICS A
6	Ca3179	1.026	.1976	.0056	.0785	.0118	47.57
7	Cd2265	1.010	.1983	.0028	Q.0036	.0025	.0076
8	Co2286	1.025	.2012	.0047	Q.0150	Q.0053	.0051
9	Cr2677	.9628	Q.1859	.0003	.0039	Q.0020	.0015
10	Cu3247	1.012	.1949	.0004	.0053	-.0023	Q.0281
11	Fe2714	1.052	Q.1705	-.0256	Q-.0095	.0027	46.58
12	K_7664	9.847	Q1.756	-.0031	-.0045	.3439	.1737
13	Mg2790	.9802	Q.1875	-.0018	.0023	.0101	49.70
14	Mn2576	1.018	.1970	.0001	.0101	Q.0017	.0012
15	Ni2316	.9967	Q.1879	-.0046	Q.0065	Q-.0018	-.0027
16	2203/1	1.019	.2028	.0090	.0182	.0106	.0265
17	2203/2	1.001	.1958	.0040	.0137	.0075	.0037
18	1960/1	.9880	.1874	-.0074	.0436	.0058	.0028
19	1960/2	1.041	.1974	.0009	.0405	.0092	-.0071
20	Sb2068	.9942	.1909	-.0036	Q.0058	-.0085	.0004
21	Sn1899	.9677	Q.1868	.0013	.0003	-.0163	-.0017
22	Tl1908	1.011	.1971	.0010	.0402	Q.0013	Q.0326
23	V_2924	.9707	Q.1862	.0034	.0113	Q.0042	.0022
24	Zn2062	1.006	.1943	.0021	.0115	-.0010	.0034
25	Pb2203	1.013	.2007	.0076	Q.0170	Q.0098	.0192
26	Se1960	1.006	.1910	-.0044	.0428	Q.0071	-.0004

#	Element	ICS AB
1	Ag3280	.3091
2	Al3082	Q36.44
3	As1890	1.030
4	Ba4934	.3008
5	Be3130	.0943
6	Ca3179	48.89
7	Cd2265	.3020
8	Co2286	.3031
9	Cr2677	.2784
10	Cu3247	.3371
11	Fe2714	48.07
12	K_7664	Q28.36
13	Mg2790	51.01
14	Mn2576	.1981
15	Ni2316	.2914
16	2203/1	1.056
17	2203/2	1.029
18	1960/1	.5263
19	1960/2	.5464
20	Sb2068	1.023
21	Sn1899	.9900
22	Tl1908	1.079
23	V_2924	.2876
24	Zn2062	.2934
25	Pb2203	1.047
26	Se1960	.5330

Analysis Report Summary 12/29/00 04:24:19 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	DEC2900	WATERS	12/29/00	12:22		X	IR
2	STD3	DEC2900	WATERS	12/29/00	12:27		X	IR
3	STD4	DEC2900	WATERS	12/29/00	12:31		X	IR
4	STD2	DEC2900	WATERS	12/29/00	12:35		X	IR
5	ICV 1	DEC2900	WATERS	12/29/00	12:39	ma	Q	CONC
6	ICB	DEC2900	WATERS	12/29/00	13:00	ma	B	CONC
7	ICS A	DEC2900	WATERS	12/29/00	13:05	ma	Q	CONC
8	ICS AB	DEC2900	WATERS	12/29/00	13:11	ma	Q	CONC
9	SS I	DEC2900	WATERS	12/29/00	13:17	ma	Q	CONC
10	SS I LOW	DEC2900	WATERS	12/29/00	13:22	ma	Q	CONC
11	qmw1221004 1200	DEC2900	WATERS	12/29/00	13:28	ma	S	CONC
12	qmw12210051cs	DEC2900	WATERS	12/29/00	13:33	ma	S	CONC
13	qmw12210061csd	DEC2900	WATERS	12/29/00	13:38	ma	S	CONC
14	05503	DEC2900	WATERS	12/29/00	13:43	ma	S	CONC
15	05503 d	DEC2900	WATERS	12/29/00	13:49	ma	S	CONC
16	05503 ms	DEC2900	WATERS	12/29/00	13:54	ma	S	CONC
17	05503 msd	DEC2900	WATERS	12/29/00	13:59	ma	S	CONC
18	ICV 1	DEC2900	WATERS	12/29/00	14:19	ma	Q	CONC
19	ICB	DEC2900	WATERS	12/29/00	14:25	ma	B	CONC
20	qmw1228001 0930	DEC2900	WATERS	12/29/00	14:30	ma	S	CONC
21	qmw12280021cs	DEC2900	WATERS	12/29/00	14:36	ma	S	CONC
22	qmw12280031csd	DEC2900	WATERS	12/29/00	14:41	ma	S	CONC
23	05509	DEC2900	WATERS	12/29/00	14:46	ma	S	CONC
24	05510	DEC2900	WATERS	12/29/00	14:51	ma	S	CONC
25	05510 d	DEC2900	WATERS	12/29/00	14:57	ma	S	CONC
26	05510 ms	DEC2900	WATERS	12/29/00	15:02	ma	S	CONC
27	05510 msd	DEC2900	WATERS	12/29/00	15:07	ma	S	CONC
28	05509 1:4sd	DEC2900	WATERS	12/29/00	15:12	ma	S	CONC
29	05509 1:1msa	DEC2900	WATERS	12/29/00	15:18	ma	S	CONC
30	ICV 1	DEC2900	WATERS	12/29/00	15:25	ma	Q	CONC
31	ICB	DEC2900	WATERS	12/29/00	15:30	ma	B	CONC
32	05509 diss	DEC2900	WATERS	12/29/00	15:36	ma	S	CONC
33	05510 diss	DEC2900	WATERS	12/29/00	15:41	ma	S	CONC
34	ICV 1	DEC2900	WATERS	12/29/00	15:49	ma	Q	CONC
35	ICB	DEC2900	WATERS	12/29/00	15:55	ma	B	CONC
36	SS I	DEC2900	WATERS	12/29/00	16:00	ma	Q	CONC
37	SS I LOW	DEC2900	WATERS	12/29/00	16:05	ma	Q	CONC
38	ICS A	DEC2900	WATERS	12/29/00	16:11	ma	Q	CONC
39	ICS AB	DEC2900	WATERS	12/29/00	16:18	ma	Q	CONC

proj 26553
Al, Ca, Mg, Na, K, Fe

#	Element	STD'lank	STD3	STD4	STD2	ICV 1	ICB
1	Ag3280	.00689				1.647	.0217
2	Al3082	.01316	1.67413			1.918	.0058
3	As1936	-.00106		1.01636		1.982	.0021
4	Ba4934	0			10.8873	1.961	-.0000
5	Be3130	.00113	5.90959			1.956	.0000
6	Ca3179	.00066			.94126	2.018	.0046
7	Cd2265	-.00019			2.94799	2.005	-.0002
8	Co2286	.00006			1.76706	2.036	.0015
9	Cr2677	.00146		2.45		1.964	-.0005
10	Cu3247	.00136			2.07633	1.993	.0006
11	Fe2599	.00273	3.65506			1.970	-.0009
12	K_7664	.00559			3.29836	19.71	.0233
13	Mg2790	.0006			.77286	1.961	.0035
14	Mn2576	.00003			.12916	2.021	.0000
15	Na5889	.01393	.91136			2.017	.0015
16	Ni2316	.00116	2.028			2.007	.0007
17	Pb2203	-.00193			1.46203	1.983	-.0064
18	Sb2068	.00103	1.88396			2.021	.0065
19	Se1960	.00053		.55386		1.941	-.0133
20	Sn2839	-.06573	.78736			Q-.5673	.0505
21	Tl1908	-.00076	.79013			1.971	.0257
22	V_2924	.0005		3.37996		1.956	-.0003
23	Zn2138	.00103			1.77499	2.014	.0006

#	Element	ICS A	ICS AB	SS I	SS I LOW	qmw'1200	qmw'51cs
						13:28	
1	Ag3280	.0068	Q.3668	.0077	.0035	.0112	1.071
2	Al3082	47.67	44.34	.2124	.0487	.0403	1.024
3	As1936	Q.2151	2.270	.1944	.0367	.0014	1.058
4	Ba4934	.0009	.5998	.2004	.0398	.0013	1.030
5	Be3130	.0000	.1971	.0050	.0010	.0001	1.056
6	Ca3179	49.32	46.23	.0006	-.0056	.0512	1.125
7	Cd2265	-.0029	.6252	.0049	.0001	-.0006	1.089
8	Co2286	.0037	.6200	.0534	.0102	.0002	1.076
9	Cr2677	-.0105	.5967	.0167	.0000	-.0016	1.038
10	Cu3247	-.0065	.6031	.0255	.0048	.0008	1.054
11	Fe2599	47.11	43.89	.1116	.0241	.0115	1.060
12	K_7664	-.0269	51.73	.0071	-.0010	.0162	10.16
13	Mg2790	48.85	45.50	-.0004	.0000	.0047	1.026
14	Mn2576	-.0158	.4052	.0516	.0052	-.0026	1.079
15	Na5889	.1679	10.47	.0117	.0097	.0195	1.053
16	Ni2316	.0020	.6216	.0485	.0104	.0015	1.085
17	Pb2203	Q-.0533	2.049	.0453	.0057	.0116	1.097
18	Sb2068	Q-.1988	1.941	.0481	-.0065	-.0126	1.088
19	Se1960	-.0268	1.030	.1669	-.0169	-.0259	1.063
20	Sn2839	.1619	Q.0088	.0253	.0103	.0282	1.816
21	Tl1908	.0496	2.149	.2189	.0620	.0282	1.057
22	V_2924	-.0024	.6100	.0503	.0092	-.0005	1.032
23	Zn2138	.0051	.6402	.0513	.0077	.0043	1.094

Al
MDL
.014 B → 0.403

Ca
MDL
~~.011~~ B → 0.512

#	Element	qmw'lcsd	05503	05503 d	05503 ms	055' msd	ICV 1
1	Ag3280	1.099	.0030	.0011	.9722	.9801	2.978
2	Al3082	1.043	120.1	112.5	159.3	175.0	Q1.841
3	As1936	1.051	.4273	.4218	1.529	1.607	1.960
4	Ba4934	1.049	1.007	.9364	2.036	2.181	1.970
5	Be3130	1.080	.0033	.0030	.9337	.9953	2.015
6	Ca3179	1.142	106.1	97.71	109.8	120.5	2.015
7	Cd2265	1.114	-.0094	-.0103	.9369	.9663	2.032
8	Co2286	1.096	.0078	.0068	.9202	.9811	2.009
9	Cr2677	1.053	.1476	.1360	1.032	1.129	1.987
10	Cu3247	1.073	.0808	.0746	.9810	1.041	1.975
11	Fe2599	1.059	61.13	57.12	67.07	74.44	1.933
12	K_7664	10.39	9.215	8.366	18.72	19.13	19.20
13	Mg2790	1.038	6.408	5.904	7.904	8.578	1.900
14	Mn2576	1.094	.4632	.4280	1.397	1.499	2.018
15	Na5889	1.068	101.6	92.75	100.5	105.4	1.961
16	Ni2316	1.101	.0222	.0222	.9448	1.007	2.039
17	Pb2203	1.106	-.0191	.0115	.8938	.9638	2.032
18	Sb2068	1.070	-.2417	-.2494	-.1212	-.1005	1.970
19	Se1960	1.042	.1791	.0916	.8283	.9491	1.987
20	Sn2839	1.830	.2126	.1869	.9037	1.074	Q-.5788
21	Tl1908	1.112	.0846	.0826	1.024	1.063	2.071
22	V_2924	1.050	.0810	.0741	.9749	1.050	1.975
23	Zn2138	1.121	.1545	.1411	1.103	1.166	2.005

#	Element	ICB	qmw'0930	qmw'2lcs	qmw'lcsd	05509	05510
1	Ag3280	.0029	.0016	1.012	1.009	-.0013	-.0005
2	Al3082	.0164	.0355	.9682	.9746	.9332	.9081
3	As1936	-.0086	-.0050	.9827	1.007	.0597	.0752
4	Ba4934	.0003	.0000	1.016	1.025	.1310	.0992
5	Be3130	.0002	.0003	1.011	1.016	.0005	.0002
6	Ca3179	.0033	.0338	1.050	1.068	111.2	111.0
7	Cd2265	-.0014	-.0022	1.035	1.051	.0003	.0031
8	Co2286	.0030	.0006	1.025	1.043	.0121	.0039
9	Cr2677	-.0026	-.0012	1.008	1.021	.0373	.0301
10	Cu3247	.0013	.0001	1.011	1.020	.0825	.0103
11	Fe2599	-.0019	.0092	1.005	1.037	66.28	93.77
12	K_7664	.0223	.0020	9.848	9.935	19.42	18.92
13	Mg2790	.0035	.0056	.9623	.9817	21.43	23.87
14	Mn2576	-.0026	.0000	1.037	1.053	.3491	.4575
15	Na5889	.0104	.0165	1.022	1.031	58.61	102.8
16	Ni2316	.0000	-.0007	1.048	1.062	.0159	.1008
17	Pb2203	-.0016	.0027	1.055	1.040	.0307	.0273
18	Sb2068	-.0018	.0048	1.007	1.018	-.2788	-.3828
19	Se1960	-.0030	-.0042	.9844	1.057	.0471	-.2301
20	Sn2839	.0812	.0752	1.639	1.667	.2565	.5381
21	Tl1908	-.0004	.0223	1.034	1.055	.1067	.1597
22	V_2924	.0001	.0000	1.009	1.022	-.0012	-.0027
23	Zn2138	.0009	.0084	1.022	1.040	5.618	4.606

#	Element	05510 d	05510 ms	055' msd	055':4sd	055'1msa	ICV 1
1	Ag3280	-.0018	.9999	1.007	-.0004	1.665	2.015
2	Al3082	.9125	1.807	1.844	1.567	2.971	Q1.810
3	As1936	.0767	1.063	1.113	.0616	2.057	1.933
4	Ba4934	.0994	1.096	1.110	.1616	2.094	1.965
5	Be3130	.0003	1.008	1.018	.0017	2.012	2.007
6	Ca3179	110.7	108.4	110.5	141.0	114.4	2.041
7	Cd2265	.0017	1.005	1.016	-.0020	2.027	2.038
8	Co2286	.0028	.9949	1.002	.0180	2.020	2.012
9	Cr2677	.0276	1.001	1.013	.0391	2.038	2.005
10	Cu3247	.0091	1.005	1.017	.0991	2.053	1.961
11	Fe2599	93.95	91.81	93.47	84.03	68.87	1.928
12	K_7664	19.02	28.55	29.16	23.87	38.92	19.06
13	Mg2790	23.96	24.12	24.58	26.81	23.23	Q1.888
14	Mn2576	.4576	1.444	1.459	.4361	2.382	2.031
15	Na5889	103.5	101.0	103.1	73.04	60.49	1.960
16	Ni2316	.0997	1.112	1.125	.0222	2.077	2.072
17	Pb2203	.0364	1.044	1.053	.0933	2.116	2.066
18	Sb2068	-.3863	.6605	.6655	-.4391	1.761	1.959
19	Se1960	.0312	.9118	.9461	.1799	1.858	1.922
20	Sn2839	.5371	2.090	2.071	.3762	-.3427	Q-.5547
21	Tl1908	.1229	1.110	1.153	.3193	2.169	2.053
22	V_2924	-.0026	.9895	1.001	-.0060	2.007	1.993
23	Zn2138	4.597	5.438	5.572	7.461	7.736	2.016

#	Element	ICB	055'diss	055'diss	ICV 1	ICB	SS I
1	Ag3280	.0011	-.0010	-.0004	2.012	.0019	.0061
2	Al3082	.0268	1.257	.5013	Q1.801	.0292	.2215
3	As1936	-.0015	-.0036	-.0019	1.922	-.0024	.2029
4	Ba4934	.0001	.1113	.0293	1.967	.0003	.2007
5	Be3130	.0006	.0004	.0004	2.008	.0007	.0054
6	Ca3179	.0012	108.0	99.32	2.035	.0044	.0038
7	Cd2265	.0003	.0015	-.0006	2.042	-.0002	.0041
8	Co2286	.0011	.0021	.0048	2.007	.0013	.0532
9	Cr2677	-.0003	.0269	.0027	1.998	-.0010	.0189
10	Cu3247	.0006	-.0041	.0045	1.960	.0014	.0255
11	Fe2599	.0005	40.79	1.979	1.917	-.0003	.1039
12	K_7664	.0010	18.18	17.95	19.00	.0253	.0263
13	Mg2790	-.0017	20.64	22.20	Q1.881	.0013	.0005
14	Mn2576	-.0026	.3185	.3039	2.023	-.0026	.0516
15	Na5889	.0160	56.08	96.90	1.952	.0216	.0299
16	Ni2316	-.0005	.0076	.0928	2.069	-.0023	.0561
17	Pb2203	.0057	.0118	.0086	2.045	.0014	.0494
18	Sb2068	.0058	-.1903	-.0289	1.929	.0062	.0440
19	Se1960	.0096	-.0433	-.0280	1.948	.0193	.2355
20	Sn2839	.0827	.0842	-.1677	Q-.5496	.1156	.0984
21	Tl1908	.0240	.0450	-.0152	2.067	.0008	.2324
22	V_2924	-.0006	-.0007	-.0011	1.995	.0003	.0516
23	Zn2138	.0015	.1430	.9106	2.016	.0015	.0522

#	Element	SS I LOW	ICS A	ICS AB
1	Ag3280	.0016	-.0000	Q.3685
2	Al3082	.0665	45.67	42.17
3	As1936	.0348	Q.2211	2.235
4	Ba4934	.0397	.0000	.6001
5	Be3130	.0014	.0004	.1992
6	Ca3179	-.0027	50.79	46.94
7	Cd2265	-.0001	-.0033	.6362
8	Co2286	.0117	.0020	.6153
9	Cr2677	.0020	-.0116	.6078
10	Cu3247	.0050	-.0063	.5953
11	Fe2599	.0227	46.87	43.20
12	K_7664	-.0020	-.0297	50.46
13	Mg2790	.0009	47.96	44.30
14	Mn2576	.0052	-.0108	.4103
15	Na5889	.0268	.1896	10.28
16	Ni2316	.0105	.0087	.6423
17	Pb2203	.0219	Q-.0699	2.132
18	Sb2068	.0073	Q-.1760	1.929
19	Se1960	.0440	Q-.0892	.9374
20	Sn2839	.1012	.2757	Q.0784
21	Tl1908	.0346	Q.1035	2.286
22	V_2924	.0096	-.0037	.6238
23	Zn2138	.0092	.0064	.6486

Flash Point Log Book
EPA SW-846 1010

Lot#'s: p-Xylene: 00073 ; I-00115 from 11/1/00 ; I-00122 from 12/18/00

Date	Analyst	AAL#	Result (°F)	QC	Comments
10/31/00	FT	02411	>140°F		1450 — 1520
↓	↓	02429	>140°F		
↓	↓	p-xylene	83°F		
11/1/00	BP	01435	99°F		15.10 – 16.15
↓	↓	P-xylene	83°F		
11/10/00	BP	02992	>140		09.30 – 10.15
↓	↓	P-xylene	81		
11/14/00	FT	02865	>140°F		1415 — 1500
↓	↓	03253	>140°F		
↓	↓	P-xylene	82°F		
11/16/00	FT	03329	>140		02 # 26213
↓	↓	03320	<80		11.00 – 11.55 03 ↓
↓	↓	P-xylene	82		
11/21/00	BP	03578	>140		14.25 – 15.10
↓	↓	P-xylene	83	BP 11/21/00	
11/21/00	BP	03578	>140		14.25 – 15.10
↓	↓	QWS1121006	83		P-xylene
11/30/00	BP	QWS1130001	82		14.40 – 1[illegible].20
↓	↓	03856	>140		
12/6/00	BP	QWW1206003	82		09.45 – 11.00 P-xylene
↓	↓	03991	>140		
↓	↓	04404	>140		
↓	↓	04406	>140		
12/18/00	BP	QWW1218005	82		14.20 – 15.05
↓	↓	04894	>140		
↓	↓	04895	>140		
12/27/00	BP	QWW1227002	83		13.40 – 14.15
↓	↓	05503	>140		

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/29/00
Analyst Initials: YCK
Instrument Method: 8081DIA
Calibration Column: Rtx-CLP1 (F)
Confirmation Column: Rtx-CLP2

DDT Breakdown % (<15%): 6.3%
Endrin Breakdown % (<15%): 13.4%

Pest Calibration Date: 12/29/00
PCB Calibration Date: –

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil	50-116	43-152
Water	21-131	10-160

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
1	PRIMER	122900P	std	1X	NA	NA	
2	Hexane	↓	soln	↓	↓	↓	
3	PEM	↓	std	↓	↓	↓	P00182
4	ccv Pest .25ppm	↓	↓	↓	114	114	P00185
5	IC Pest .010ppm	↓	↓	↓	NA	NA	P00188
6	IC .050ppm	↓	↓	↓	↓	↓	P00187
7	.10ppm	↓	↓	↓	↓	↓	P00186
8	.25ppm	↓	↓	↓	↓	↓	P00185
9	.35ppm	↓	↓	↓	↓	↓	P00184
10	.50ppm	↓	↓	↓	↓	↓	P00183
11	ICV Pest .25ppm	↓	↓	↓	100	100	P00220
12	ccv Chlord .25ppm	080500CL	↓	↓	NA	NA	P00132
13	ccv TOX 2.5ppm	110800TX	↓	↓	↓	↓	P00176
14	IC Chlord .050ppm	122900CL	↓	↓	↓	↓	P00226
15	.10ppm	↓	↓	↓	↓	↓	P00225
16	.25ppm	↓	↓	↓	↓	↓	P00224
17	.50ppm	↓	↓	↓	↓	↓	P00223
18	.75ppm	↓	↓	↓	↓	↓	P00222
19	ICV Chlord .25ppm	↓	↓	↓	NA ~~100~~	NA ~~100~~	112% P00228
20	Hexane	122900P	soln	↓	↓	↓	
21	QPW1222001	↓	W	↓	78	67	
22	↓ 2	↓	↓	↓	76	68	
23	05503 W	↓	↓	↓	16	4	

Signature/Date: Jeff Kehm 12/29/00

↓ Cont

GC/ECD Pesticides & PCBs Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/29/00
Analyst Initials:
Instrument Method:
Calibration Column:
Confirmation Column:

DDT Breakdown % (<15%):
Endrin Breakdown % (<15%):

Pest Calibration Date:
PCB Calibration Date:

Continued from p. 48

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil		
Water		

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
24	Hexane	122900P	soln	1X	NA	NA	
25	PEM	↓	std	↓	↓	↓	P00182
26	ccv Pest .25 ppm	↓	↓	↓	102	104	P00185

YGV 12/29/00

Signature/Date: [signature] 12/29/00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/28/00
Analyst Initials: YGK
Instrument Method: 8082
Calibration Column: SPB-5
Confirmation Column: -

PCB Calibration Date: 11/00

Surrogate Recovery Limits (%)	
Decachlorobiphenyl	
Soil	37-160
Water	D-119

Sequence Directory:

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCB	Comments/Observations
1	Hexane	1130166D	soln	1X	NA	
2	ccv PCB 1.0ppm		std		115	1016-106%, 1260-108% P00189
3	QPW 1222001		W		77	
4	1 3				68	
5	05503 W				4.4	
6	Hexane		soln		NA	
7	ccv PCB 1.0ppm		std		104	1016-98%, 1260-97% P00189

YGK 12/28/00

Signature/Date: [signature] 12/28/00

Pcbrun.xls Page # P00063

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\122800\12280005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\122800\12280005.D\ECD2B.CH
Acq On : 28 Dec 2000 12:06 Operator: YGK
Sample : 05503 W Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 29 11:14 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.28	13.53	2501601	6132618	0.271	0.263	
Spiked Amount		0.500			Recovery	=	54.20%	52.60%	
		Target Compounds							
1)		DALAPON	6.94	0.00	21127	0	0.001	N.D.	#
3)	T	DICAMBA	13.55f	0.00	424381	0	0.010	N.D.	#
4)	T	MCPP	13.90f	14.31	381839	94507	15.305	1.573	#
5)	T	MCPA	14.30	14.76	357544	937076	9.550	9.778	
6)	T	DICHLOROPROP	14.95	15.39	1567229	49331	0.123	0.002	#
7)	T	2,4 D	15.28f	16.05f	591511	672539	0.039	0.021	#
8)	T	SILVEX	16.70	17.05	95335	99306	0.002	0.001	#
9)	T	2,4,5 T	17.12	17.71f	41548	689750	0.001	0.004	#
10)	T	2,4DB	17.84	18.14	1668941	707391	0.239	0.049	#
11)	T	DINOSEB	18.07f	18.68f	732575	123856	0.018	0.001	#

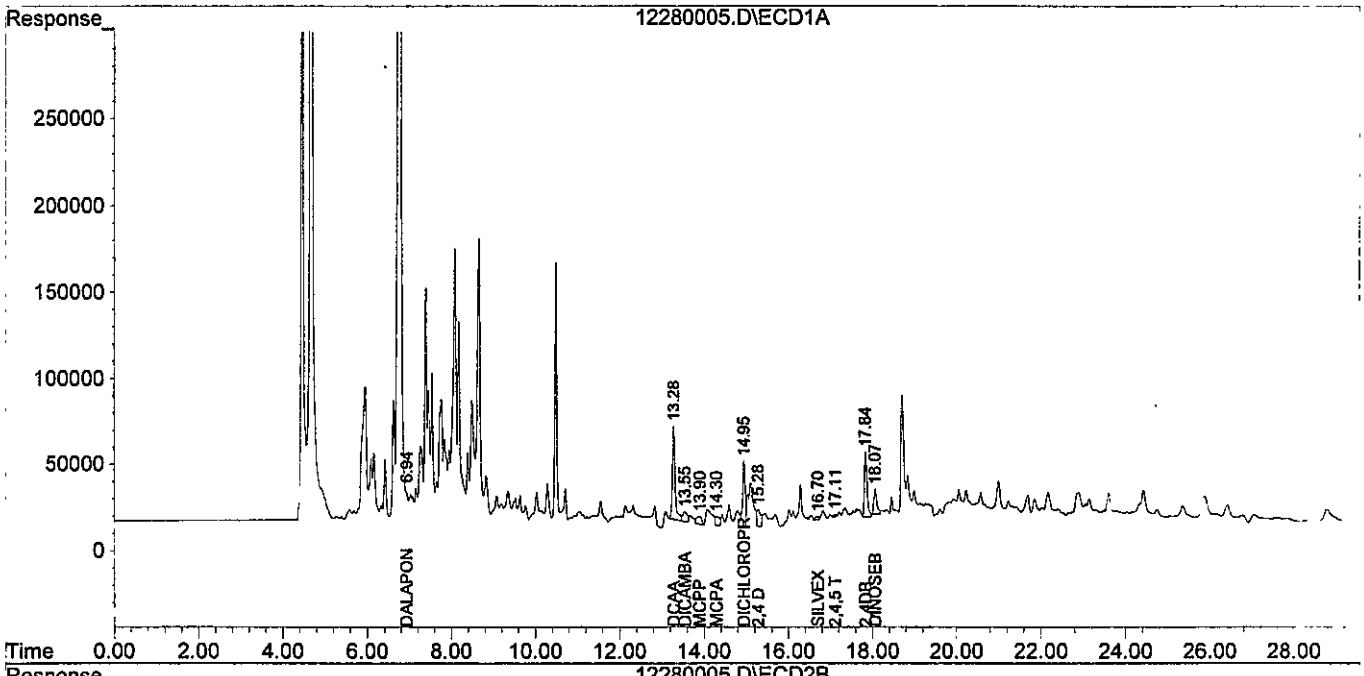
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

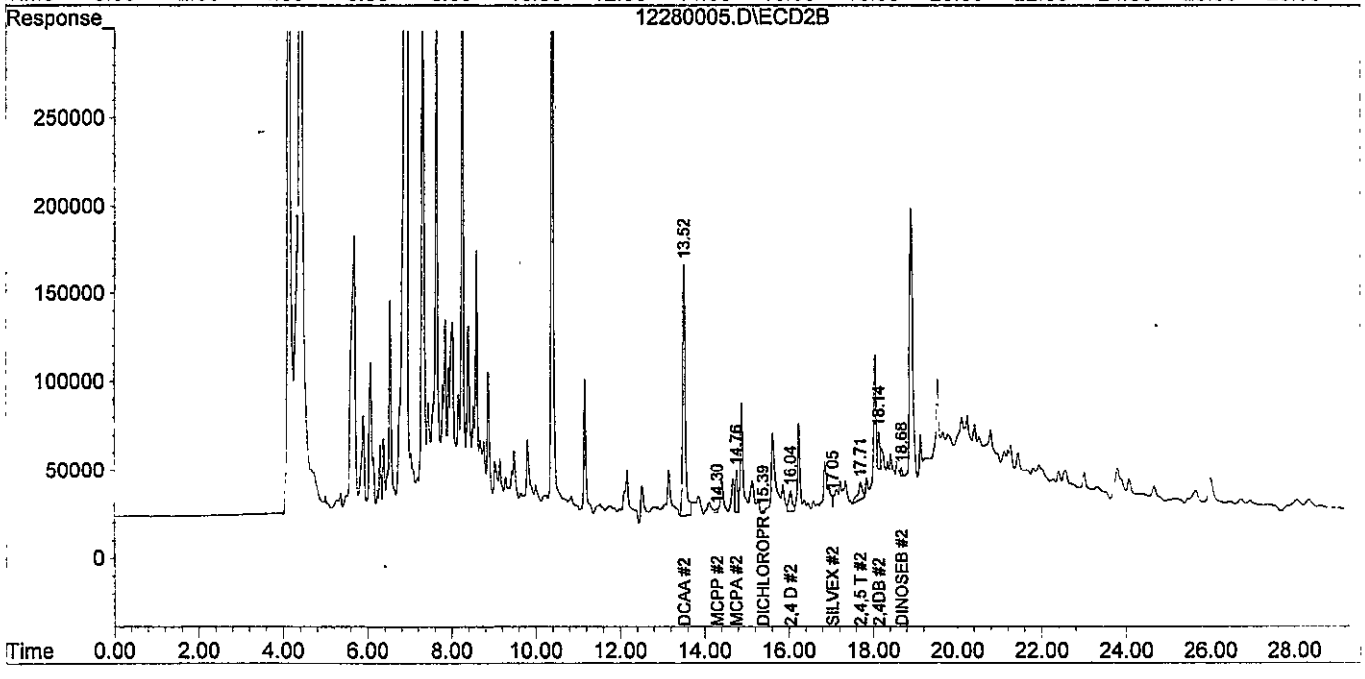
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\122800\12280005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\122800\12280005.D\ECD2B.CH
Acq On : 28 Dec 2000 12:06 Operator: YGK
Sample : 05503 W Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 29 11:14 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\122800\12280005.D Vial: 5
Acq On : 28 Dec 2000 17:41 Operator: YGK
Sample : 05503.W Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jan 2 11:53 2001 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	5828798	0.053 ug/ml
Spiked Amount 0.250		Recovery =	21.20%
12) S DCB (SURR)	26.75	1148732	0.011 ug/ml
Spiked Amount 0.250		Recovery =	4.40% ✓
Target Compounds			
2) L1 AR 1016 1	9.38	13834	0.005 ug/ml
3) L1 AR 1016 2	10.08	42322	0.005 ug/ml
4) L1 AR 1016 3	10.40	36223	0.010 ug/ml
5) L1 AR 1016 4	11.67	10906	0.005 ug/ml
6) L1 AR 1016 5	12.07	11014	0.004 ug/ml
Sum AR 1016 1		114299	0.030 ug/ml
Average AR 1016 1			0.006 ug/ml
7) L2 AR 1260 1	15.38	4081	0.001 ug/ml
8) L2 AR 1260 2	16.08	5653	0.001 ug/ml
9) L2 AR 1260 3	16.90	17703	0.002 ug/ml
10) L2 AR 1260 4	18.91	61840	0.005 ug/ml
11) L2 AR 1260 5	19.98	7615	0.001 ug/ml
Sum AR 1260 1		96891	0.011 ug/ml
Average AR 1260 1			0.002 ug/ml

PCBs ⊕

(f)=RT Delta > 1/2 Window (m)=manual int.

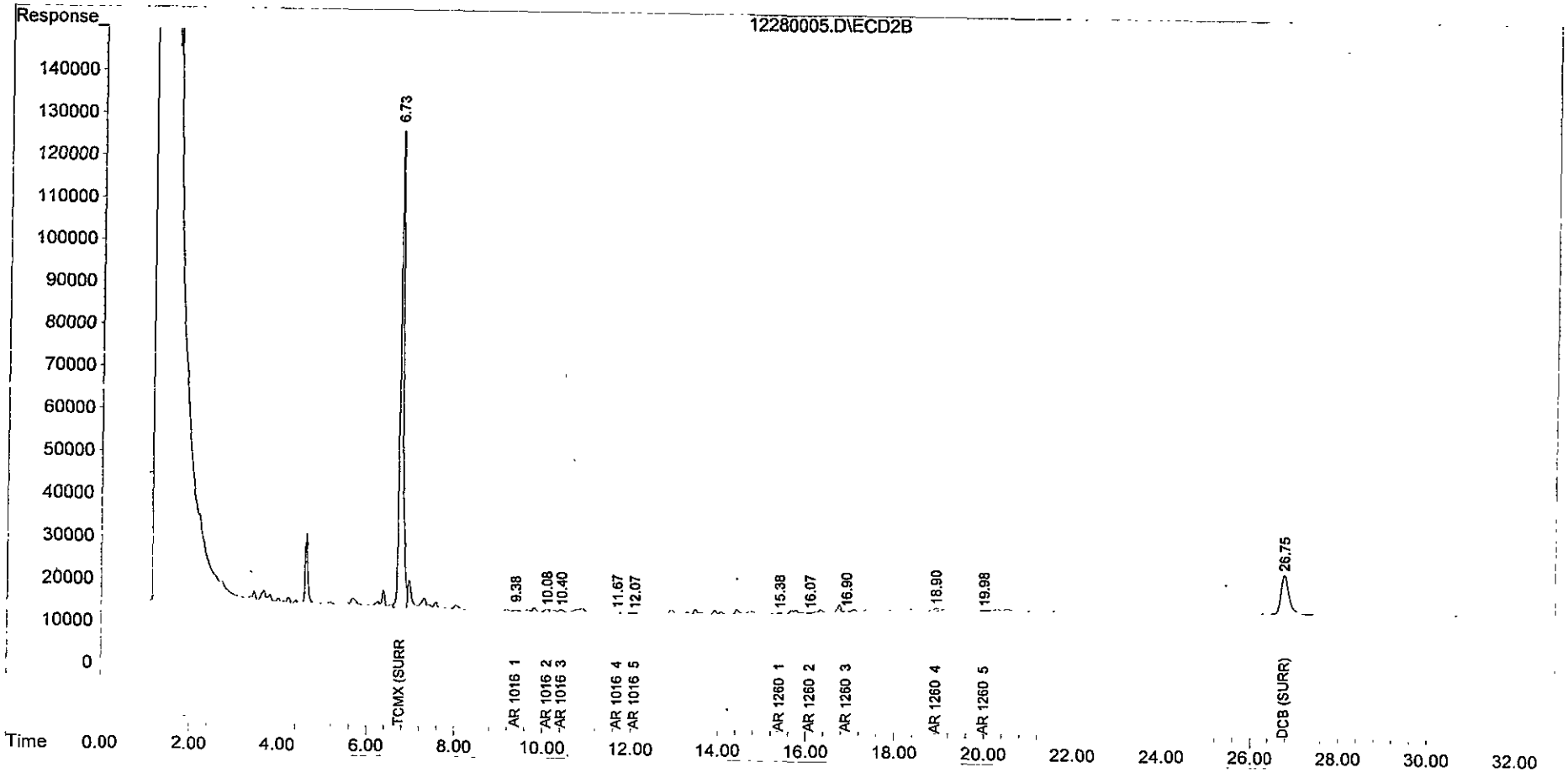
Quantitation Report

Data File : C:\HPCHEM\3\DATA\122800\12280005.D
Acq On : 28 Dec 2000 17:41
Sample : 05503 W
Misc :
IntFile : EVENTS.E
Quant Time: Jan 2 11:53 2001 Quant Results File: 11301660.RES

Vial: 5
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD2B.CH
Acq On : 29 Dec 2000 21:14 Operator: YGK
Sample : 05503 W Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:26 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L	
		System Monitoring Compounds							
1)	S	Tetrachloro-m-xy	8.06	7.75	5071868	4745608	0.041	0.037	
Spiked Amount		0.250			Recovery	=	16.40% fail	14.80%	
22)	S	Decachlorobiphen	20.83	21.17	974436	2751242	0.009	0.024	#
Spiked Amount		0.250			Recovery	=	3.60%	9.60%	
		Target Compounds							
2)	T	alpha-BHC	9.55f	0.00	481095	0	0.002	N.D.	#
3)	T	beta-BHC	10.66f	10.58f	18210	61230	0.000	0.001	#
4)	T	gamma-BHC (Linda	10.41f	10.34	60101	592432	0.000	0.003	#
5)	T	delta-BHC	11.11f-	11.36	8070234	503834	0.042-	0.004	#
6)	T	Heptachlor	11.68f	11.36f	143672	503834	0.001	0.003	#
7)	T	Aldrin	0.00	12.17	0	89851	N.D.	0.001	#
8)	T	Heptachlor epoxi	13.78	13.47	89871	47779	0.001	0.000	#
9)	T	Endosulfan I	14.66	14.46f	982328	70643	0.008 -	0.001	#
10)	T	gamma-Chlordane	14.10	0.00	267729	0	0.002	N.D.	#
11)	T	alpha-Chlordane	14.33f	14.25	135078	142550	0.001	0.001	
12)	T	4,4'-DDE	14.58	14.67	71528	111309	0.001	0.001	#
13)	T	Dieldrin	15.22	0.00	19171	0	0.000	N.D.	#
14)	T	Endrin	15.69	15.61	13812	8662	0.000	0.000	#
15)	T	4,4'-DDD	15.92	15.92	105533	48167	0.001	0.001	#
16)	T	Endosulfan II	16.22	16.02f	22268	572285	0.000	0.005	#
17)	T	Endrin aldehyde	17.12	16.83	8556	42387	0.000	0.000	#
18)	T	4,4'-DDT	16.50	16.58	254701	294317	0.002	0.003	
19)	T	Endosulfan sulfa	18.13f	17.40	160676	79782	0.002	0.001	#
20)	T	Methoxychlor	17.50	18.12f	139300	103637	0.003	0.002	
21)	T	Endrin ketone	18.76f	18.59	31692	4827	0.000	0.000	#

SSI- fail → MI

Pest < QL

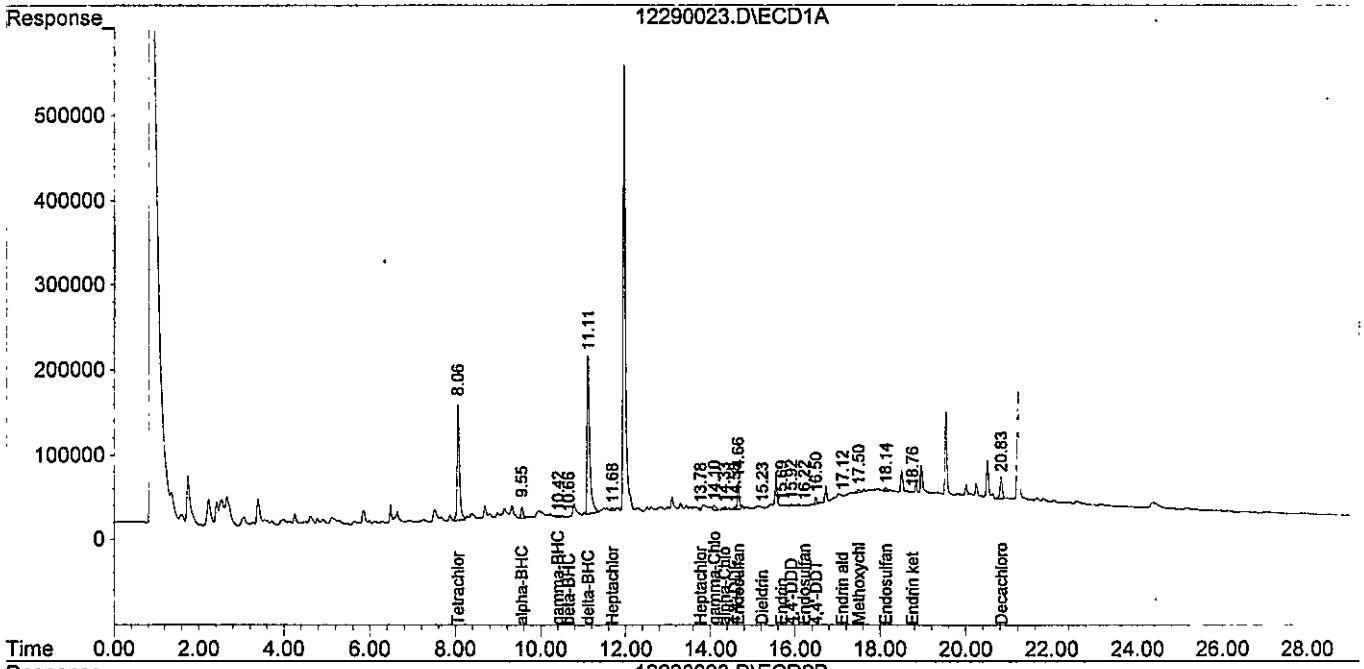
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

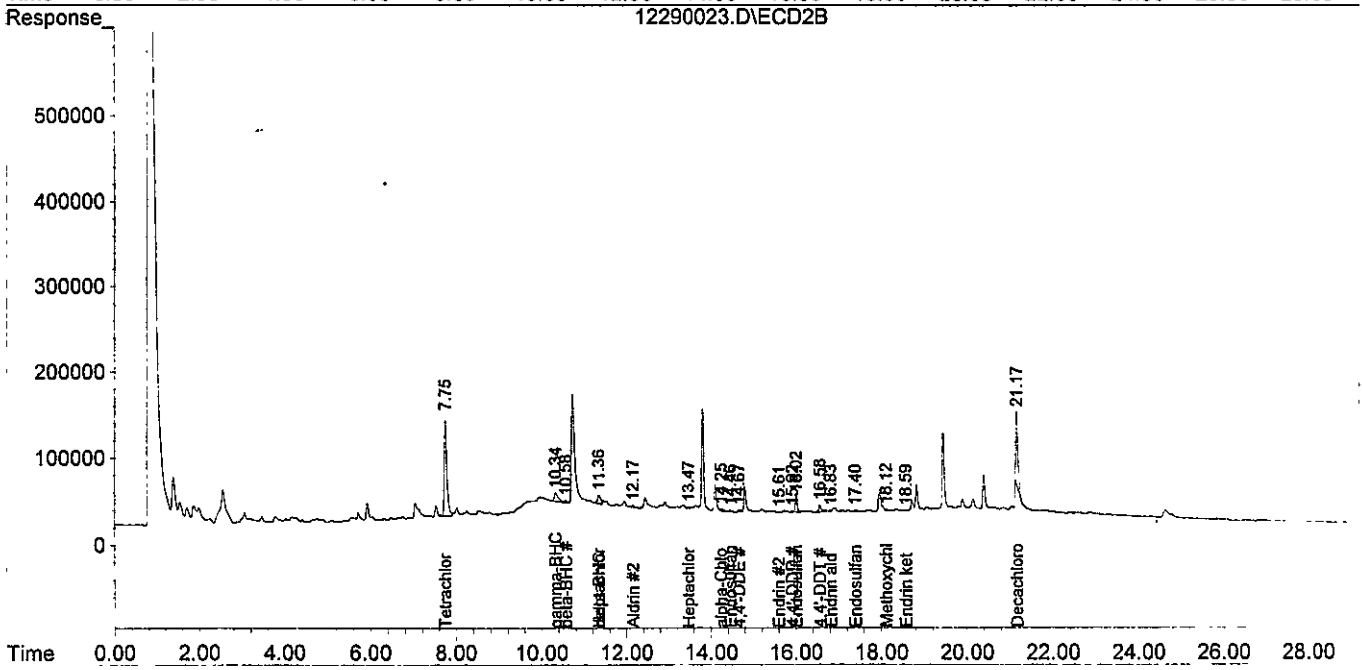
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD2B.CH
Acq On : 29 Dec 2000 21:14 Operator: YGK
Sample : 05503 W Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:26 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD2B.CH
Acq On : 29 Dec 2000 21:14 Operator: YGK
Sample : 05503 W Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:53 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
Target Compounds							
1) L1 CHLORD 1	11.43	11.03	39899	234435	0.006	0.034	#
2) L1 CHLORD 2	11.68f	11.36f	144828	290375	0.013	0.027	#
3) L1 CHLORD 3	12.72	0.00	61796	0	0.007	N.D.	#
4) L1 CHLORD 4	13.66	0.00	228467	0	0.059	N.D.	#
5) L1 CHLORD 5	14.10	0.00	169341	0	0.008	N.D.	#
6) L1 CHLORD 6	14.33	14.11	184219	1105021	0.006	0.071	#
7) L1 CHLORD 7	15.80	14.25	49424	141946	0.013	0.009	#
Sum CHLORD 1			877974	1771776	0.112	0.141	
Average CHLORD 1					0.016	0.035	

Chlord < DL

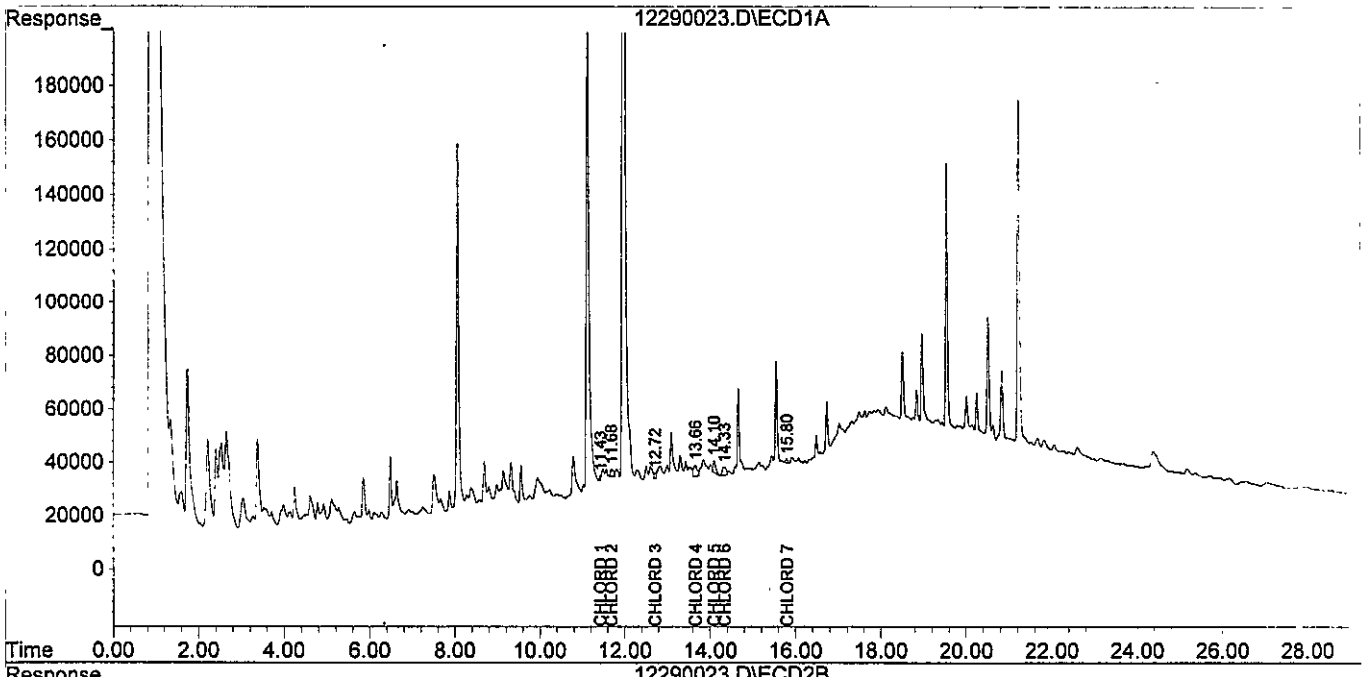
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

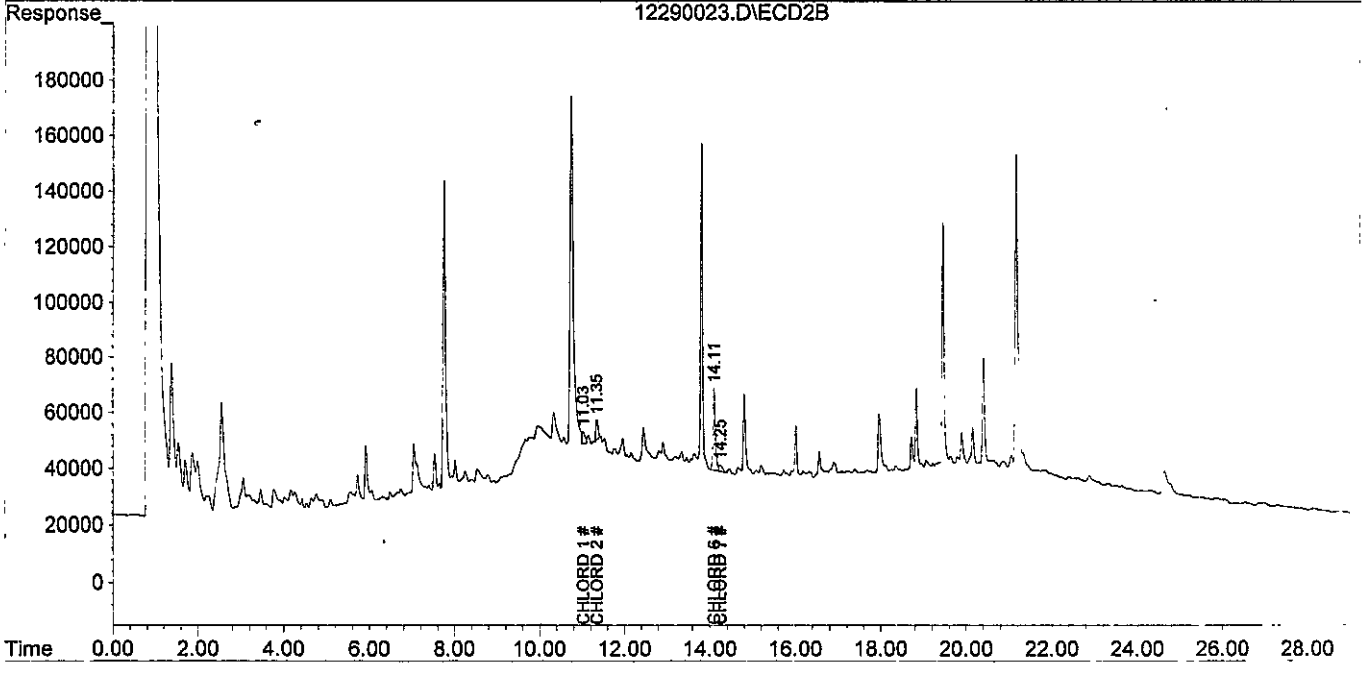
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD2B.CH
Acq On : 29 Dec 2000 21:14 Operator: YGK
Sample : 05503 W Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:53 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD2B.CH
Acq On : 29 Dec 2000 21:14 Operator: YGK
Sample : 05503 W Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 2 10:46 2001 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Fri Dec 08 12:19:06 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.22	16.36f	24550	169200	0.017	0.031 #
2) L TOX 2	16.50	16.72	310956	98118	0.118	0.026 #
3) L TOX 3	17.03f	16.91	1382412	404523	0.391	0.084 #
4) L TOX 4	17.63f	17.97	682749	1011188	0.192	0.167
5) L TOX 5	17.86	18.12	623022	101655	0.141	0.021 #
6) L TOX 6	18.62	18.84	236375	1039403	0.074	0.293 #
7) L TOX 7	18.97	19.22	1102579	50680	0.648	0.020 #
Sum TOX 1			4362643	2874768	1.580	0.643
Average TOX 1					0.226	0.092

TOX <DL

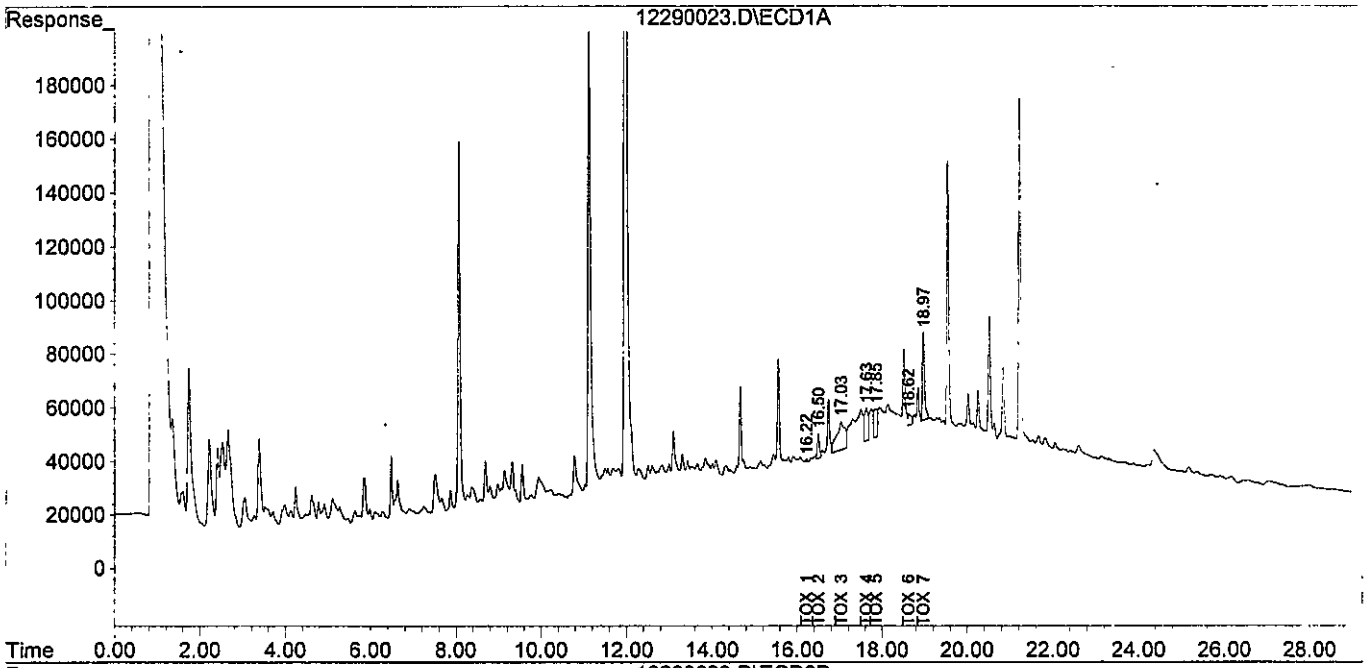
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

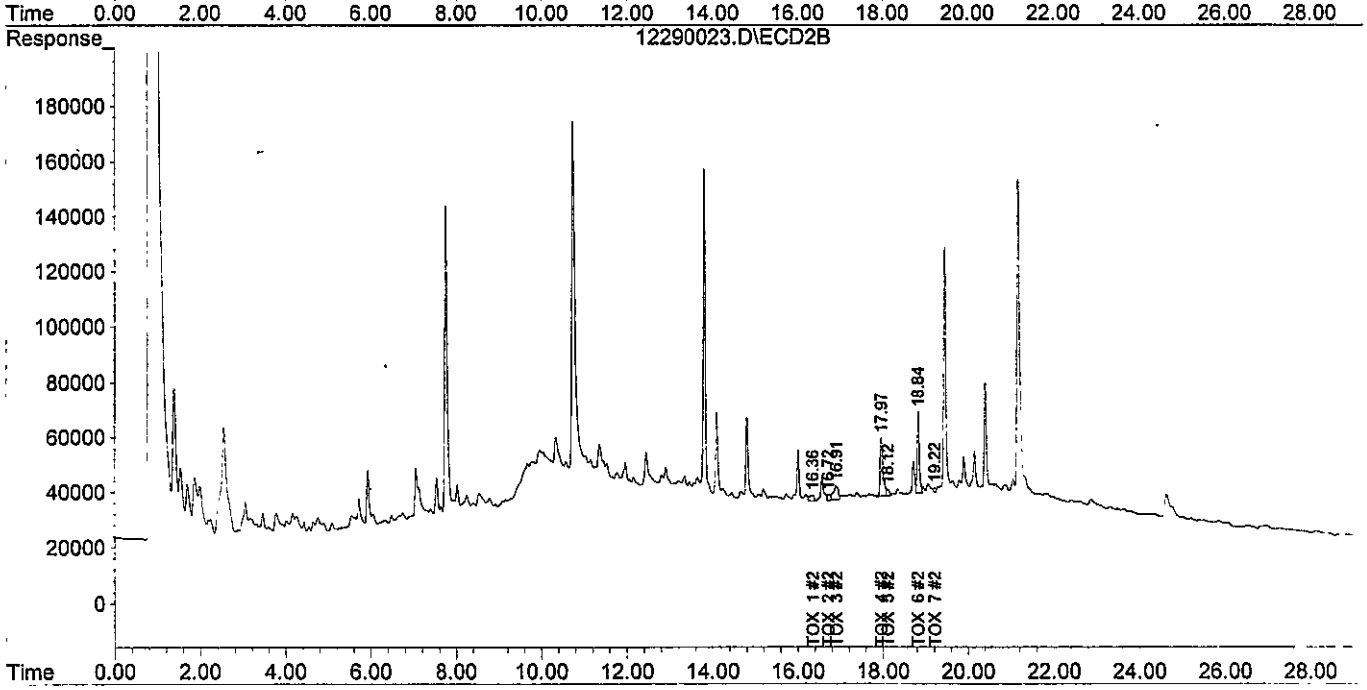
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\122900\12290023.D\ECD2B.CH
Acq On : 29 Dec 2000 21:14 Operator: YGK
Sample : 05503 W Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 2 10:46 2001 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Fri Dec 08 12:19:06 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 05 18:32:33 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	44003	40.00 ul/l	0.00
21) Naphthalene-d8	8.84	136	113712	40.00 ul/l	0.00
38) Acenaphthene-d10	11.06	164	123940	40.00 ul/l	0.00
59) Phenanthrene-d10	12.90	188	106150	40.00 ul/l	0.00
72) Chyrsene-d12	16.53	240	116582	40.00 ul/l	0.00
80) Perylene-d12	19.18	264	16673	40.00 ul/l	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	5.68	112	105079	62.30 ul/l	0.01
Spiked Amount 100.000			Recovery =	62.30%	
7) Phenol-d5	6.82	99	42101	21.18 ul/l	0.00
Spiked Amount 100.000			Recovery =	21.18% ↓	
22) Nitrobenzene-d5	7.97	82	82354	35.55 ul/l	0.00
Spiked Amount 50.000			Recovery =	71.10%	
42) 2-Fluorobiphenyl	10.19	172	103068	35.60 ul/l	0.00
Spiked Amount 50.000			Recovery =	71.20%	
63) 2,4,6-Tribromophenol	12.05	330	43943	92.47 ul/l	0.00
Spiked Amount 100.000			Recovery =	92.47%	
74) Terphenyl-d14	14.89	244	9318	3.67 ul/l	0.00
Spiked Amount 50.000			Recovery =	7.34% ↓	

Target Compounds Qvalue

2 surr ↓ – α B1

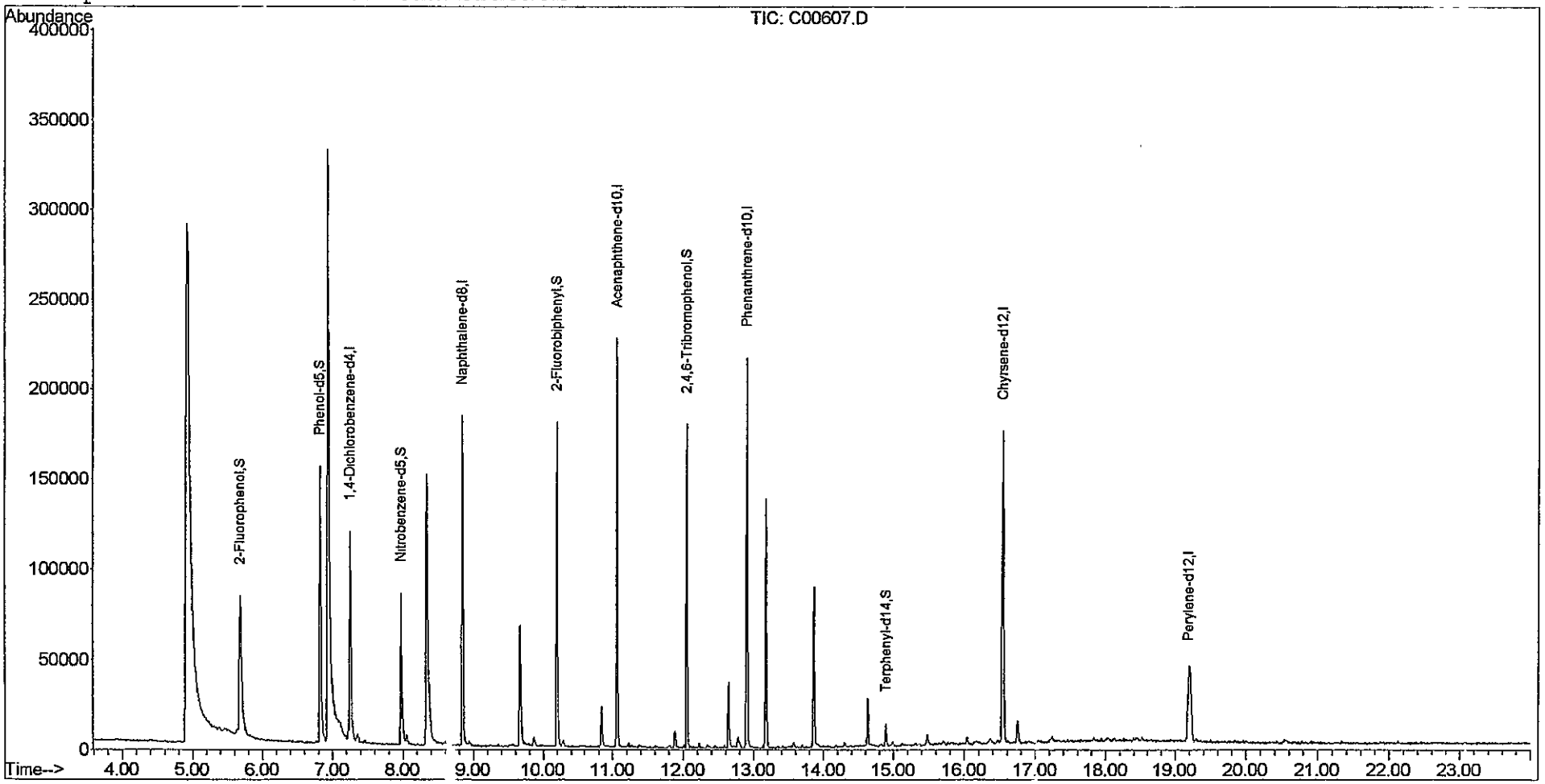
JP 01.04.2001

(#) = qualifier out of range (m) = manual integration
C00607.D 8270S.M Sat Jan 06 09:26:34 2001 Page 1

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 6 9:26 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 5 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

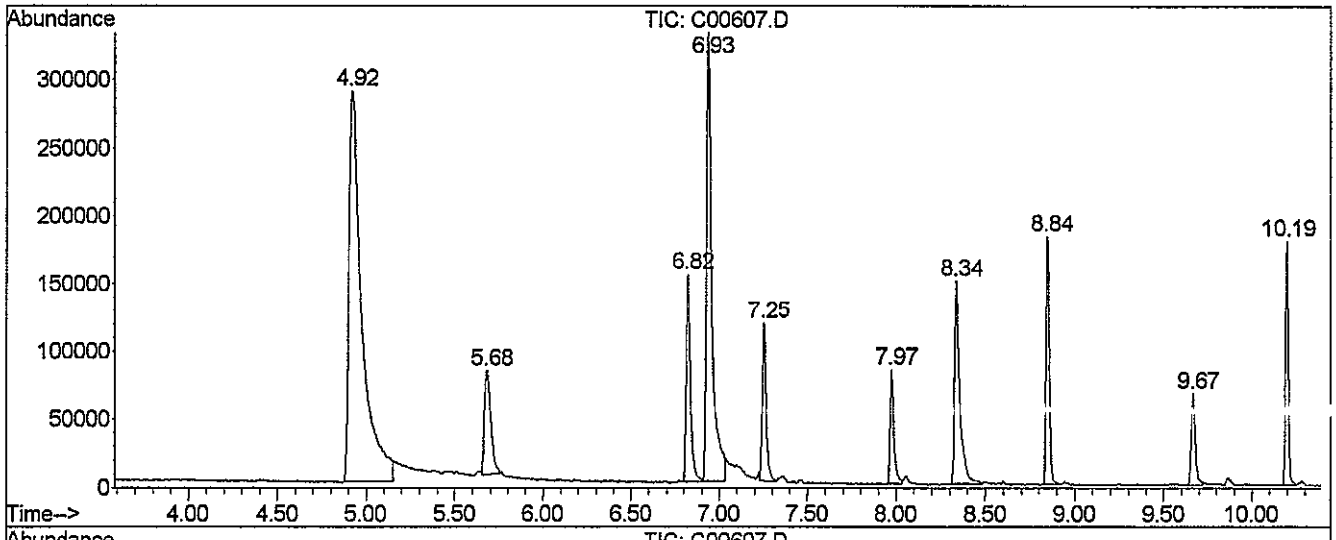
Signal : TIC

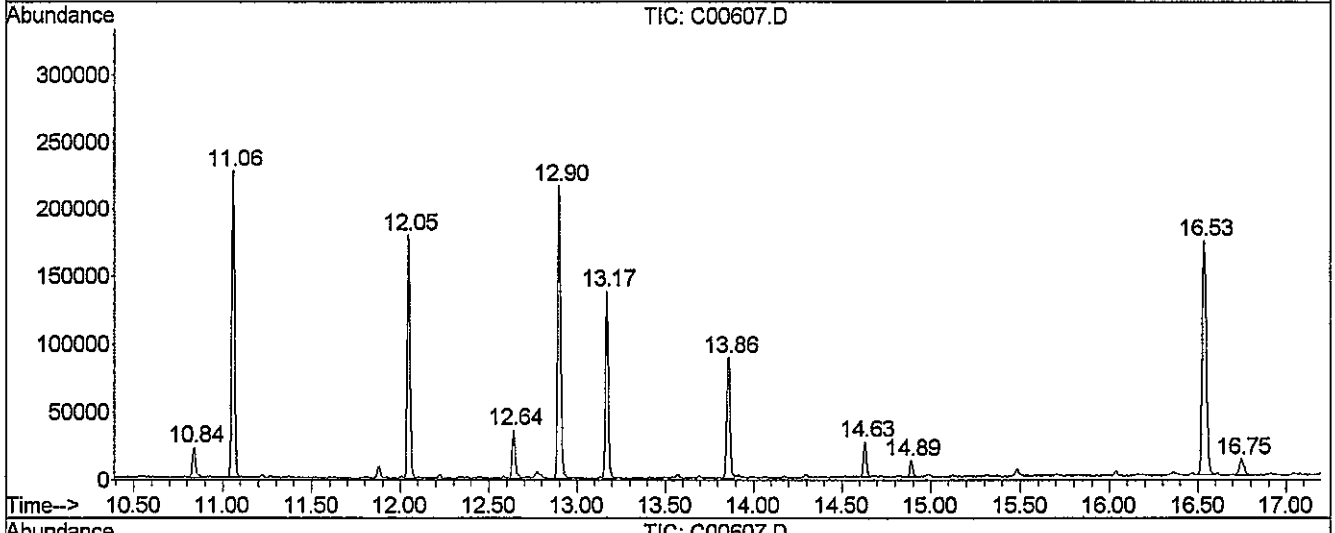
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.919	220	228	268	rBV2	287353	1442265	100.00%	27.525%
2	5.683	353	358	371	rVB	75388	185462	12.86%	3.539%
3	6.822	548	552	566	rBV	153060	247209	17.14%	4.718%
4	6.934	566	571	588	rBV	329601	718103	49.79%	13.705%
5	7.251	621	625	637	rVV	116108	174730	12.11%	3.335%
6	7.974	745	748	758	rBV	83646	113145	7.84%	2.159%
7	8.338	805	810	835	rBV	149443	300802	20.86%	5.741%
8	8.844	892	896	907	rBV	182805	227309	15.76%	4.338%
9	9.666	1031	1036	1045	rBV	67146	103483	7.18%	1.975%
10	10.195	1122	1126	1135	rVV	179851	192130	13.32%	3.667%
11	10.841	1229	1236	1247	rBV	23091	34885	2.42%	0.666%
12	11.059	1268	1273	1280	rBV	226985	250390	17.36%	4.779%
13	12.046	1437	1441	1448	rVB	179991	195098	13.53%	3.723%
14	12.639	1538	1542	1550	rBV2	36428	44953	3.12%	0.858%
15	12.898	1581	1586	1598	rBV	216613	252616	17.52%	4.821%
16	13.168	1628	1632	1641	rBV	137875	158177	10.97%	3.019%
17	13.861	1743	1750	1755	rBV	89139	113775	7.89%	2.171%
18	14.631	1877	1881	1887	rBV	26130	32344	2.24%	0.617%
19	14.890	1921	1925	1932	rVB	12844	15006	1.04%	0.286%
20	16.535	2200	2205	2216	rVB2	172794	275565	19.11%	5.259%
21	16.746	2235	2241	2251	rVB3	12761	25383	1.76%	0.484%
22	19.196	2650	2658	2670	rVB7	42866	136952	9.50%	2.614%

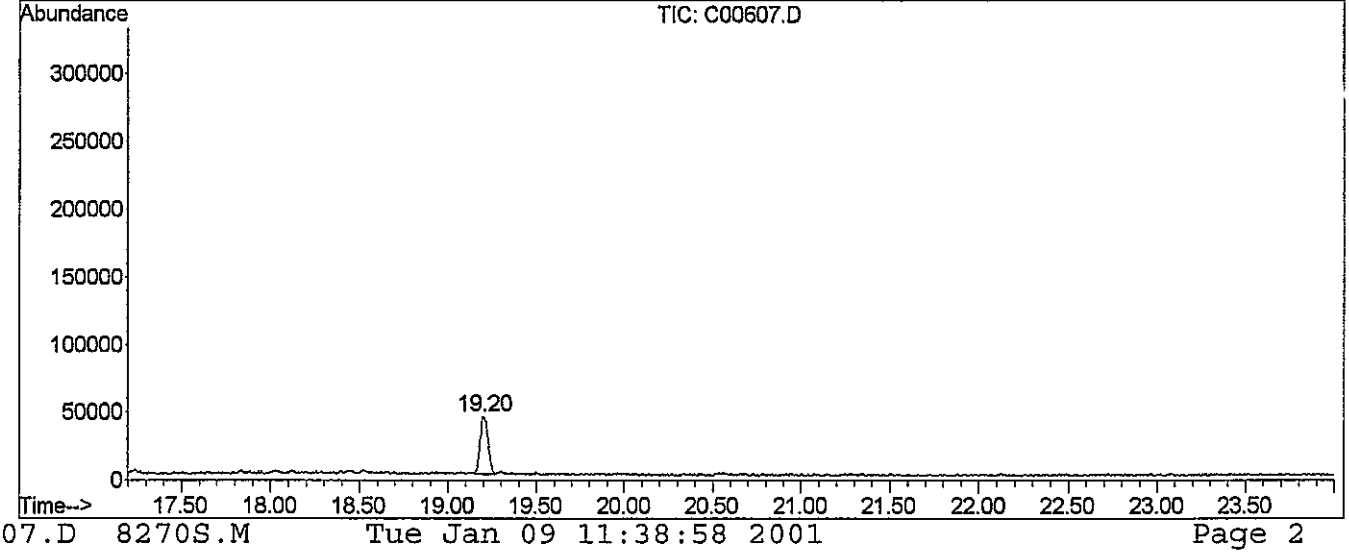
Sum of corrected areas: 5239782

LSC Report - Integrated Chromatogram

File : D:\MSDCHEM\1\DATA\010501\C00607.D
Operator : JP
Acquired : 5 Jan 2001 6:08 pm using AcqMethod 8270S
Instrument : Instrumen
Sample Name: 05503 BNA W 12/23
Misc Info :
Vial Number: 21
Quant File :8270S.RES (RTE Integrator)







Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

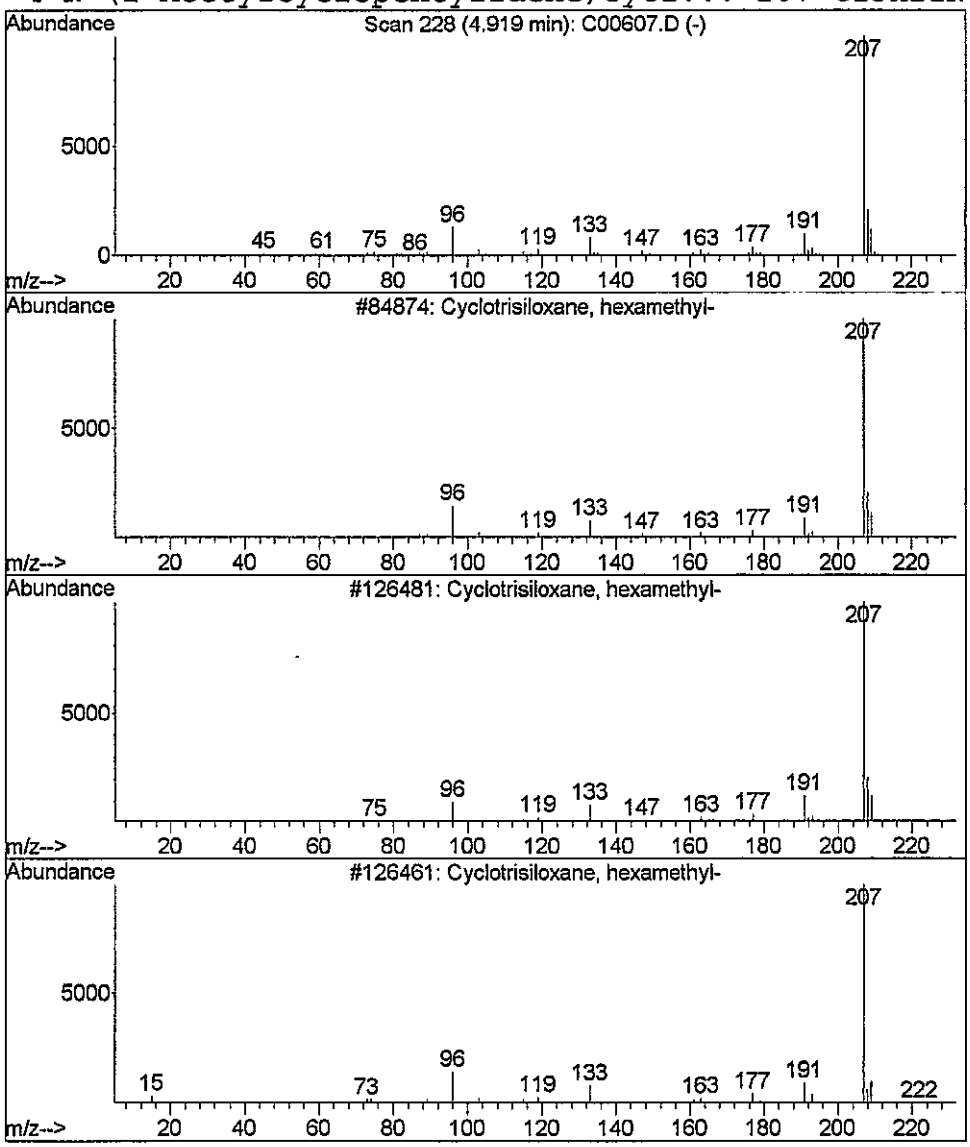
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

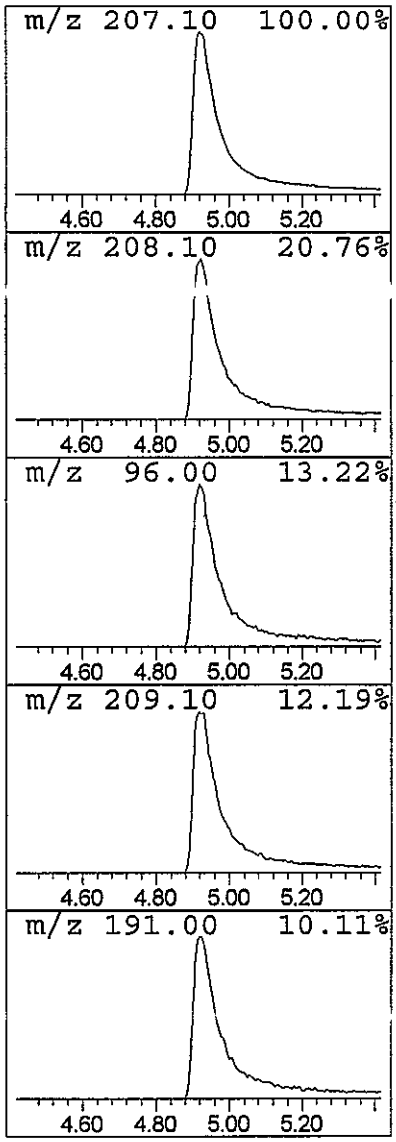
****

Peak Number 1 Cyclotrisiloxane, hexamethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.92	330.17 ul/l	1442270	1,4-Dichlorobenzene-d4	7.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	N-(2-Acetylcyclopentylidene)cycl...	207	C13H21NO	1000100-48-5	59





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D
Acq On : 5 Jan 2001 6:08 pm
Sample : 05503 BNA W 12/23
Misc :
MS Integration Params: LSCINT.P

Vial: 21
Operator: JP
Inst : Instrumen
Multiplr: 1.00

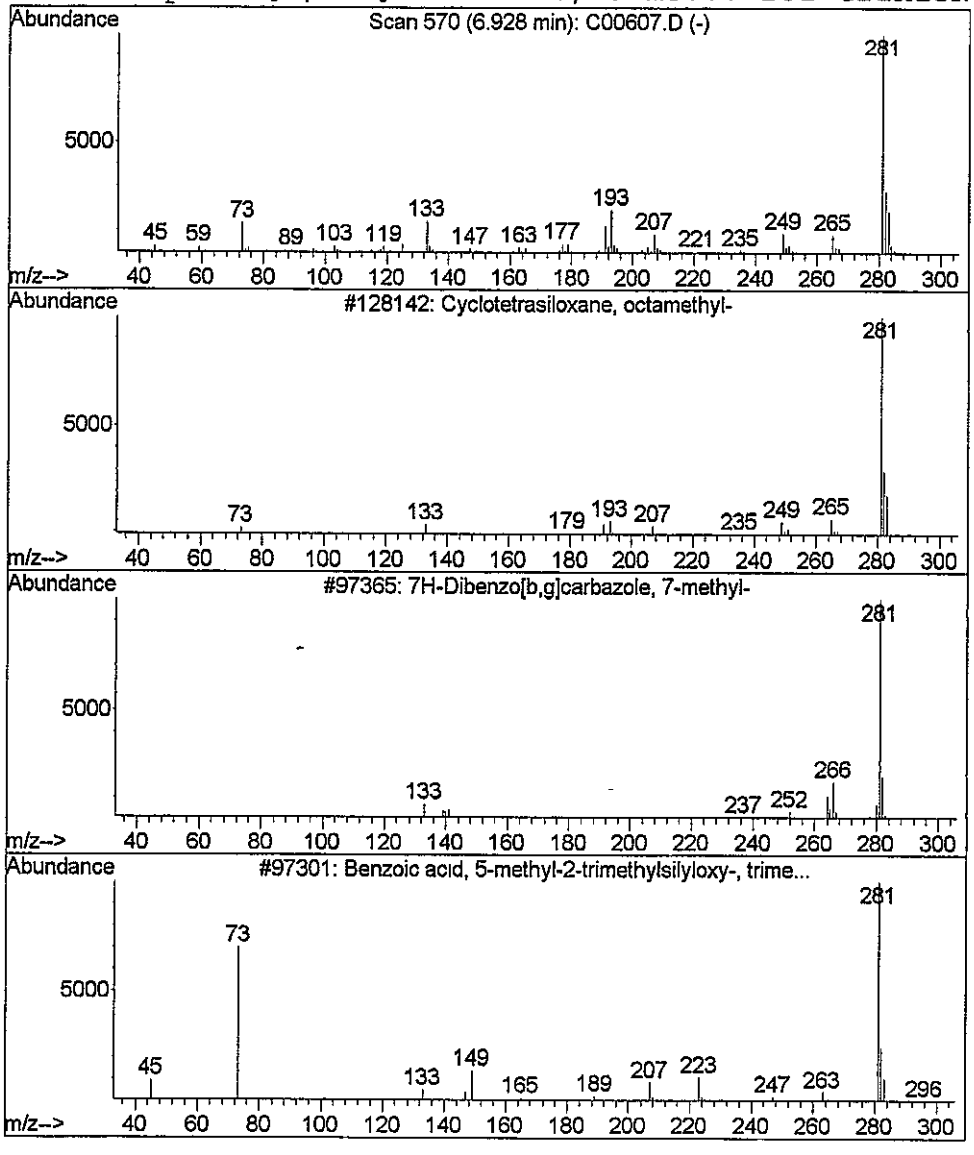
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

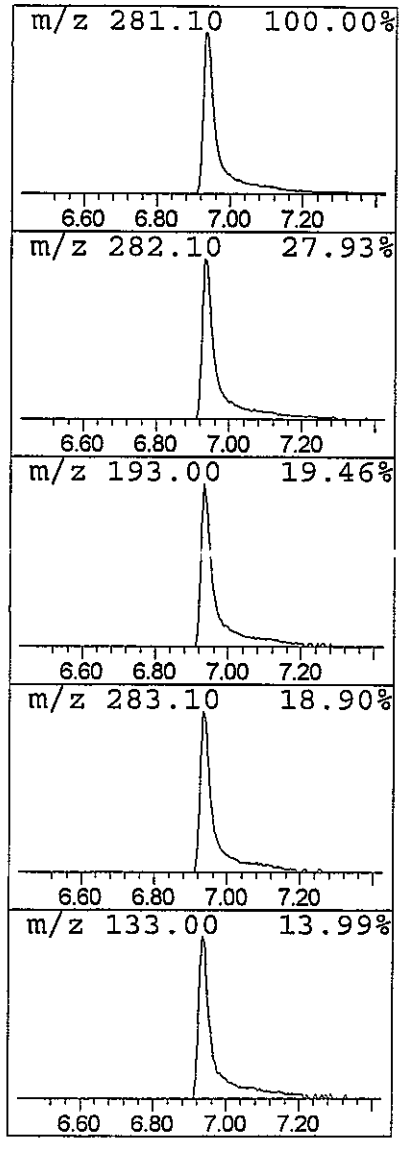
****

Peak Number 2 Cyclotetrasiloxane, octamet... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.93	164.39 ul/l	718103	1,4-Dichlorobenzene-d4	7.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	91
2	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	59
3	Benzoic acid, 5-methyl-2-trimeth...	296	C14H24O3Si2	1000153-59-4	53
4	5H-Naphtho[2,3-c]carbazole, 5-me...	281	C21H15N	100025-44-3	53





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

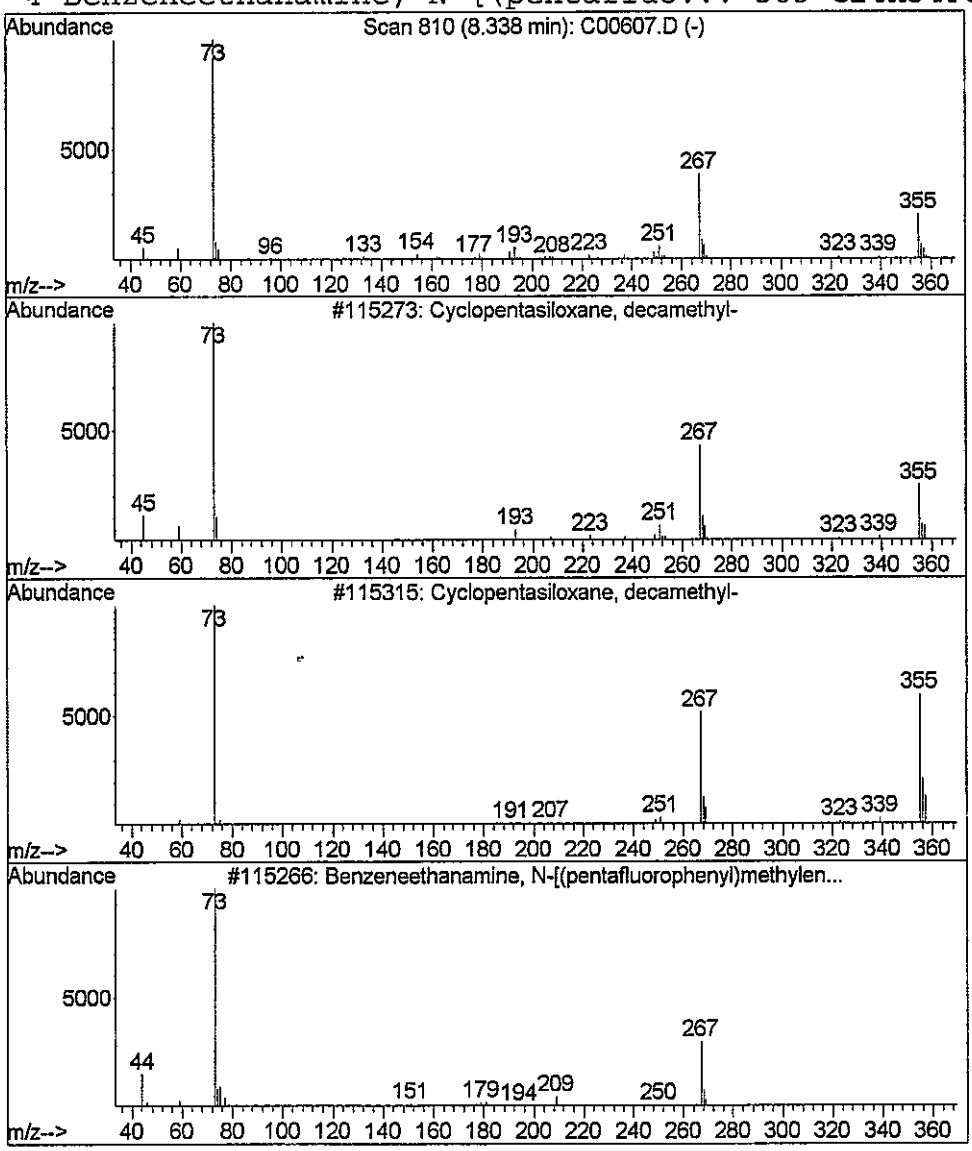
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

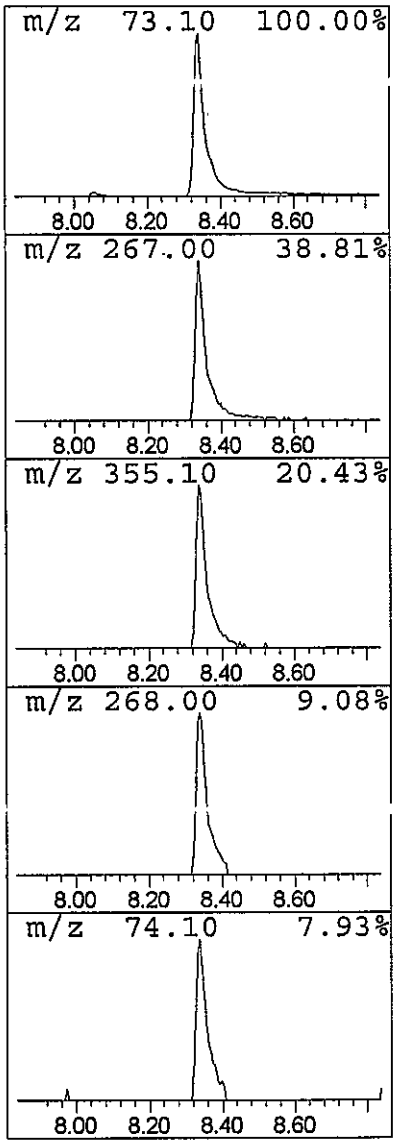
****

Peak Number 3 Cyclopentasiloxane, decamet... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.34	52.93 ul/l	300802	Naphthalene-d8	8.84

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentasiloxane, decamethyl-	370	C10H30O5Si5	000541-02-6	87
2	Cyclopentasiloxane, decamethyl-	370	C10H30O5Si5	000541-02-6	72
3	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	47
4	Benzeneethanamine, N-[(pentafluo...	563	C24H34F5NO3Si3	055429-13-5	35





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

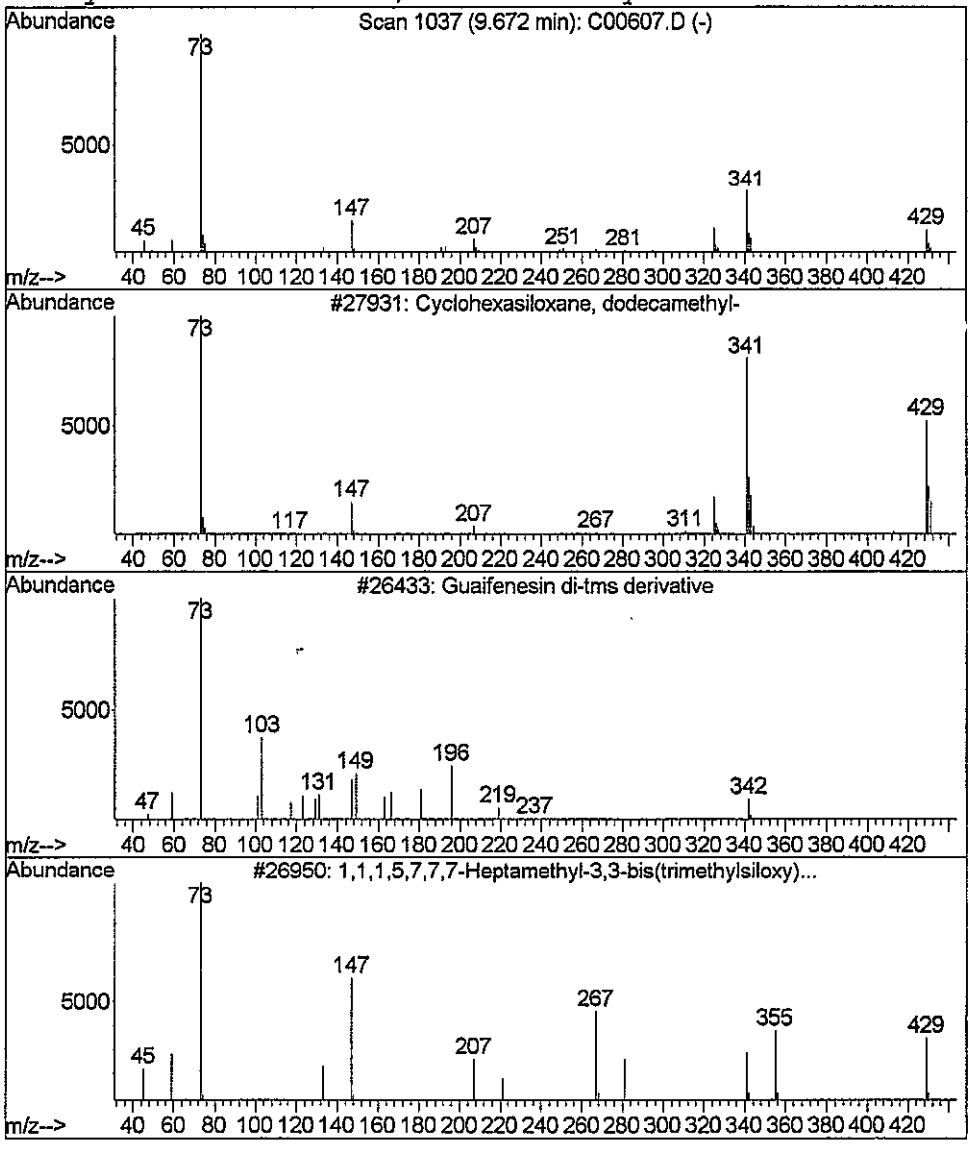
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

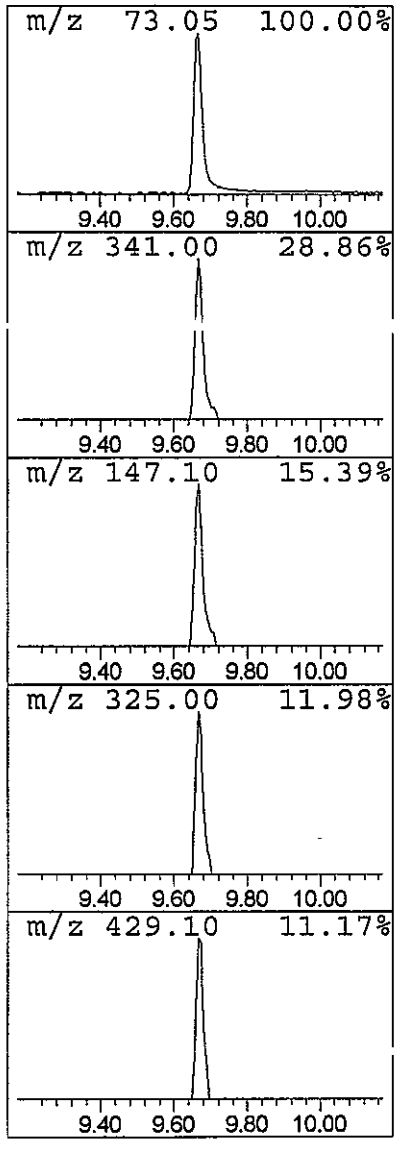
****

Peak Number 4 Cyclohexasiloxane, dodecame... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.67	18.21 ul/l	103483	Naphthalene-d8	8.84

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	90
2	Guaifenesin di-tms derivative	342	C16H30O4Si2	1000137-06-7	38
3	1,1,1,5,7,7,7-Heptamethyl-3,3-bi...	444	C13H40O5Si6	038147-00-1	37
4	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	30





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

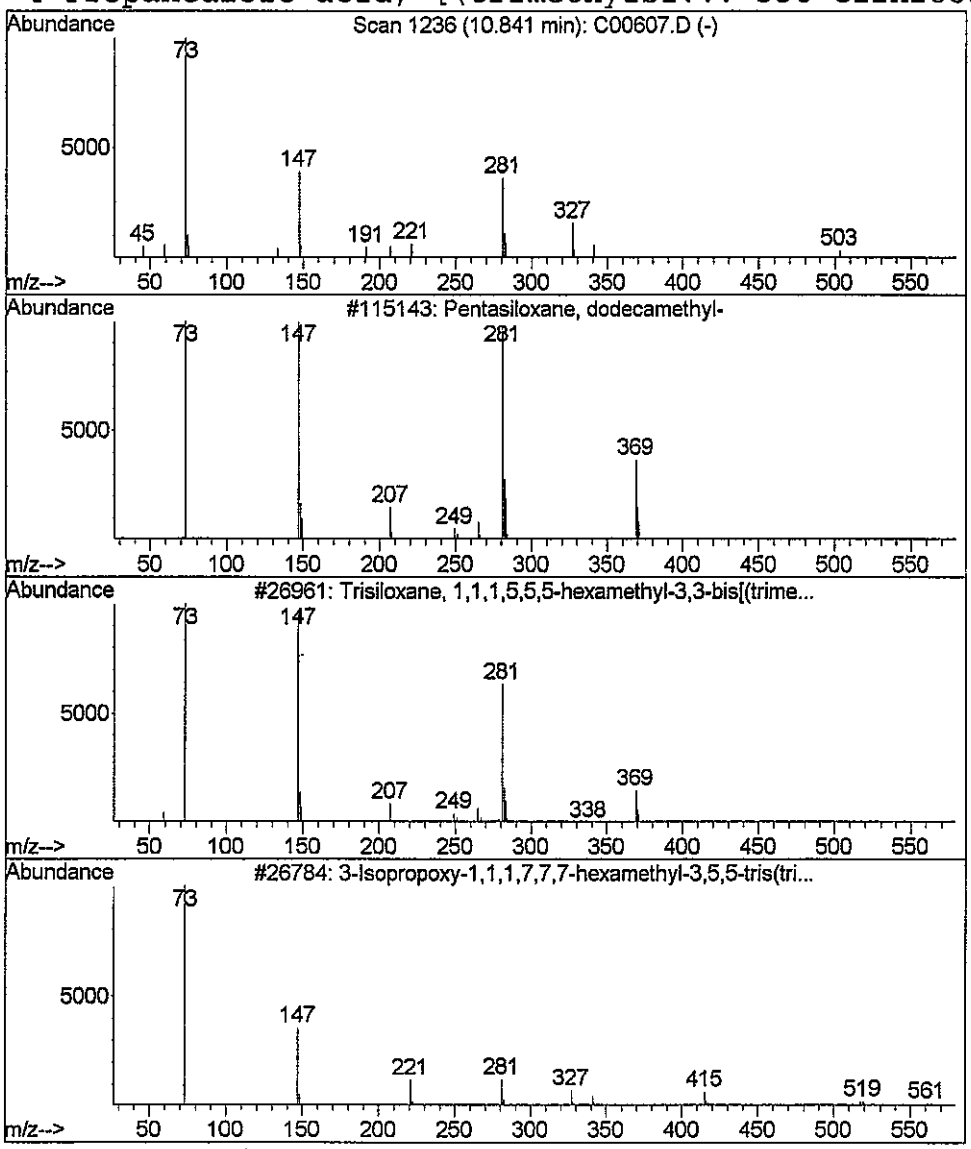
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

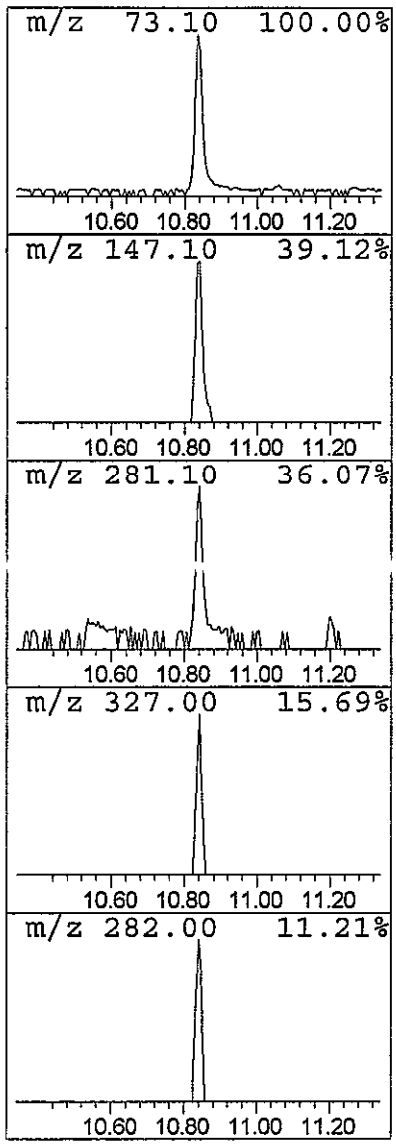
****

Peak Number 5 Pentasiloxane, dodecamethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.84	5.57 ul/l	34885	Acenaphthene-d10	11.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentasiloxane, dodecamethyl-	384	C12H36O4Si5	000141-63-9	59
2	Trisiloxane, 1,1,1,5,5,5-hexamet...	384	C12H36O4Si5	003555-47-3	45
3	3-Isopropoxy-1,1,1,7,7,7-hexamet...	576	C18H52O7Si7	071579-69-6	38
4	Propanedioic acid, [(trimethylsi...	336	C12H28O5Si3	038165-93-4	23





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

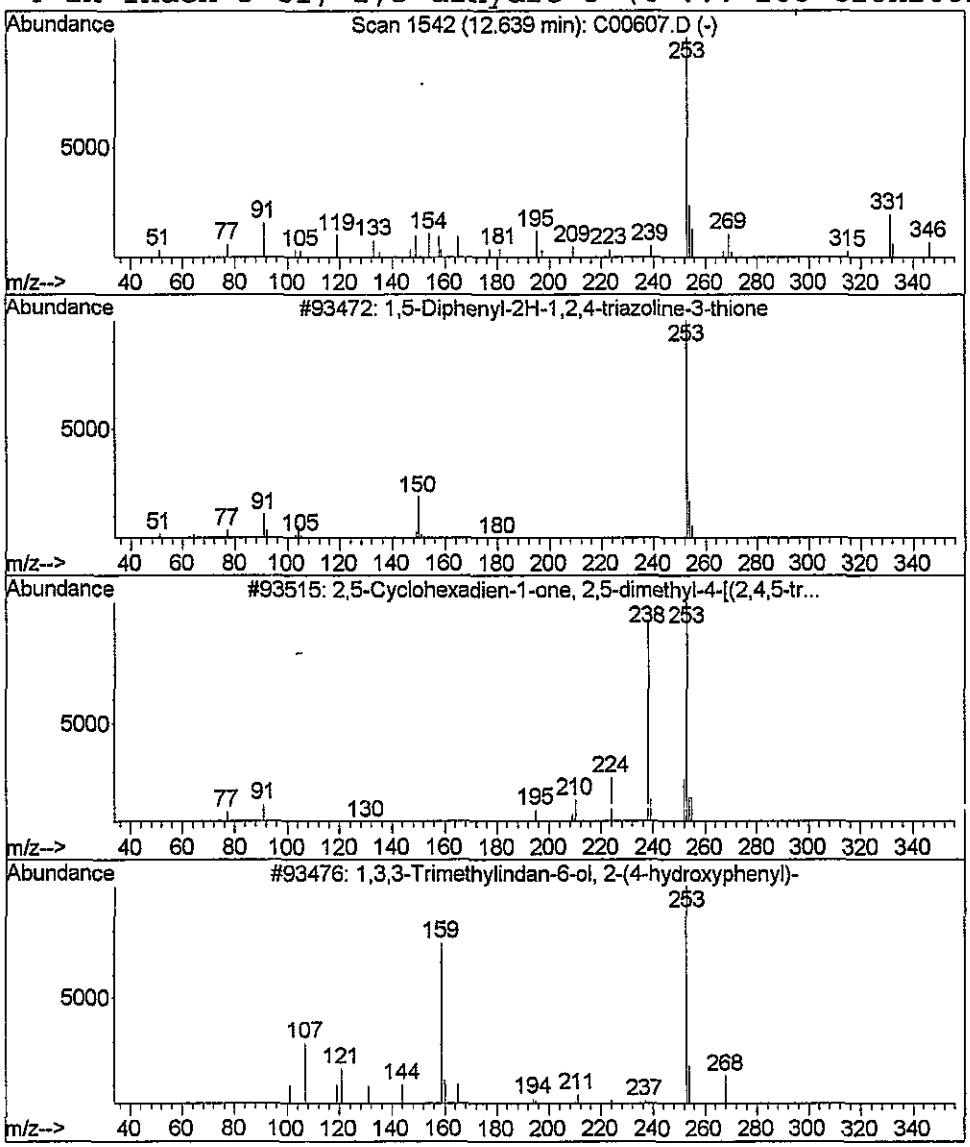
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

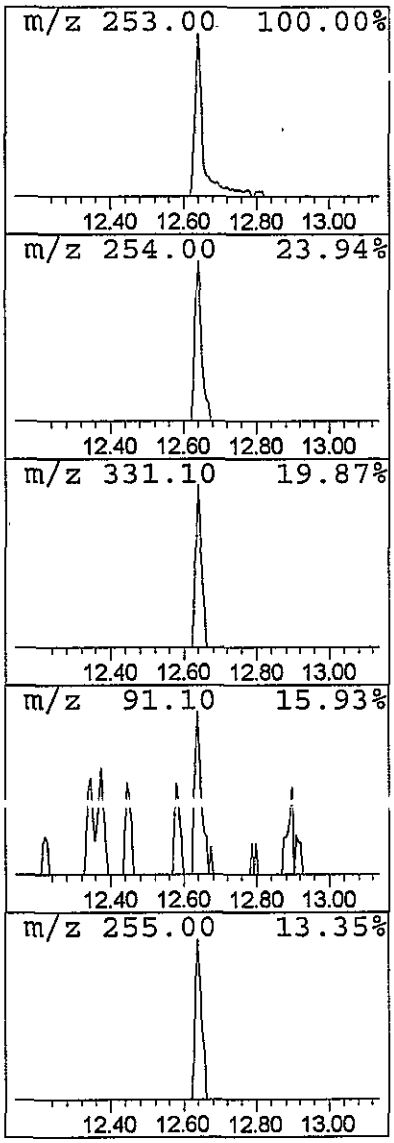
****

Peak Number 6 unknown Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	7.12 ul/l	44953	Phenanthrene-d10	12.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Diphenyl-2H-1,2,4-triazoline...	253	C14H11N3S	005055-74-3	43
2	2,5-Cyclohexadien-1-one, 2,5-dim...	253	C17H19NO	054245-93-1	38
3	1,3,3-Trimethylindan-6-ol, 2-(4-...	268	C18H20O2	1000204-18-7	28
4	1H-Inden-5-ol, 2,3-dihydro-3-(4-...	268	C18H20O2	010527-11-4	28





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

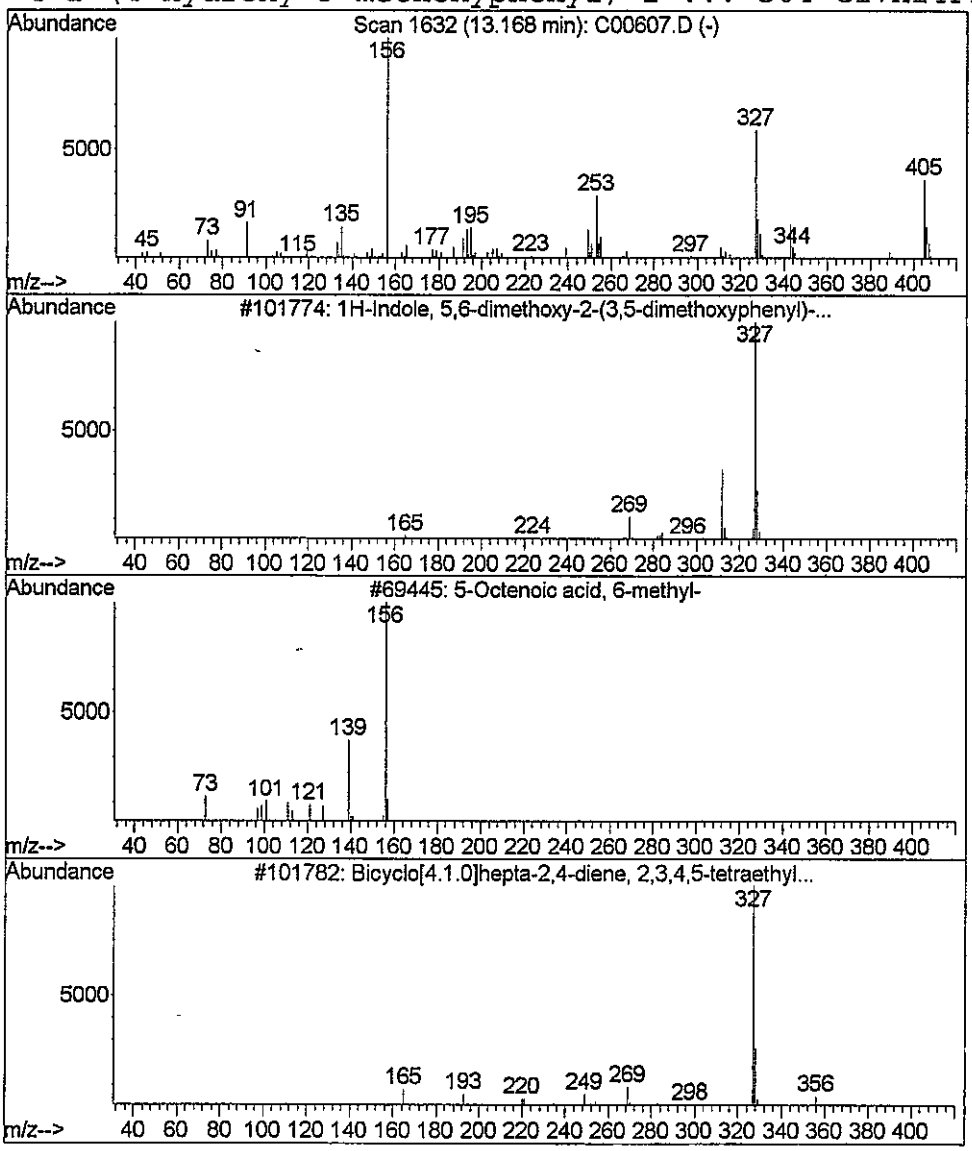
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

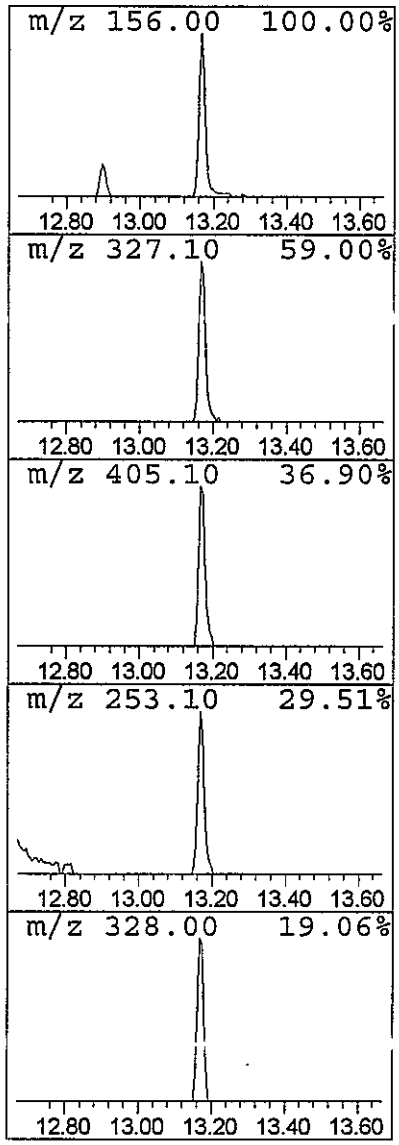
****

Peak Number 7 unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.17	25.05 ul/l	158177	Phenanthrene-d10	12.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indole, 5,6-dimethoxy-2-(3,5-...	327	C19H21NO4	1000163-52-0	9
2	5-Octenoic acid, 6-methyl-	156	C9H16O2	1000132-19-8	9
3	Bicyclo[4.1.0]hepta-2,4-diene, 2...	356	C27H32	1000158-07-0	9
4	2-(4-Hydroxy-3-methoxyphenyl)-2-...	504	C17H14F10O6	1000071-58-9	9





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

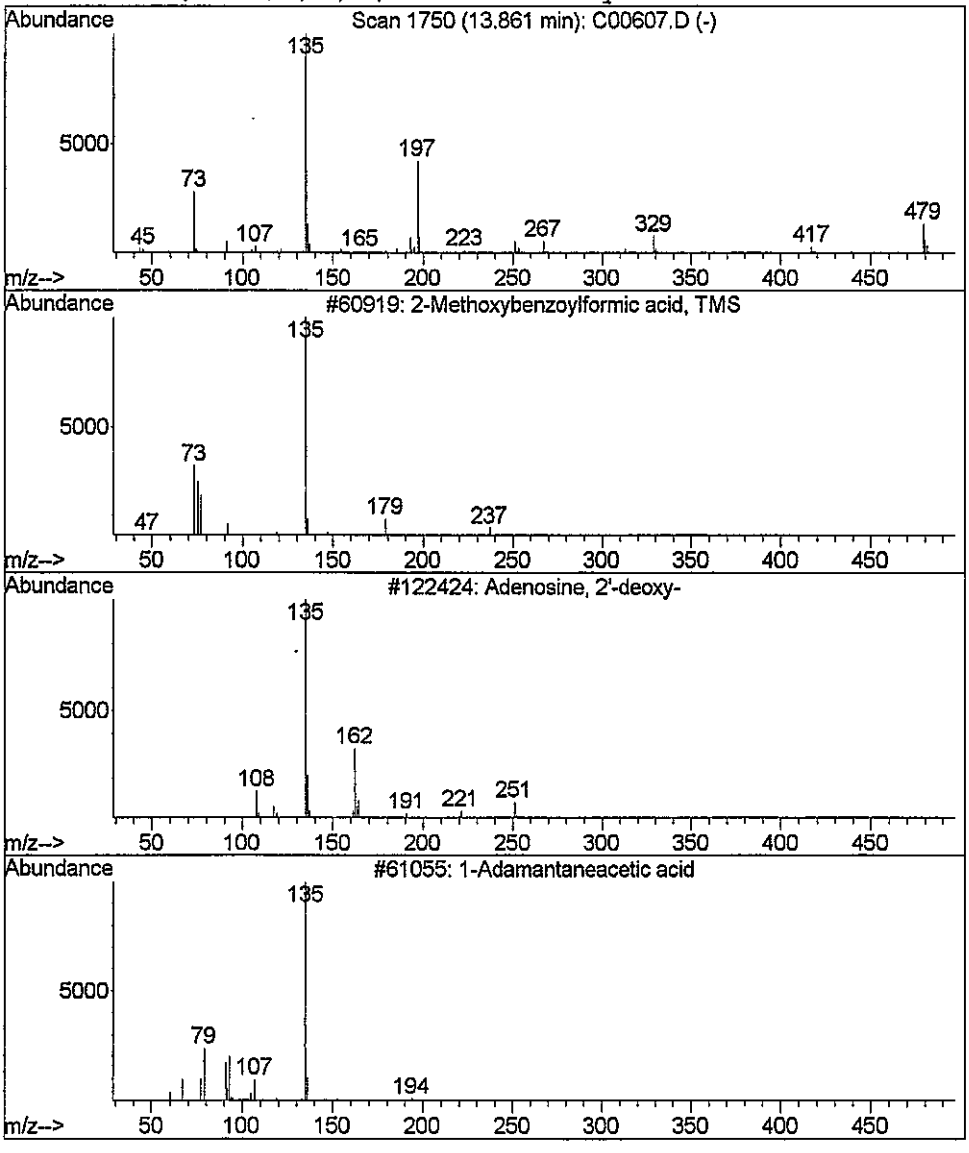
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

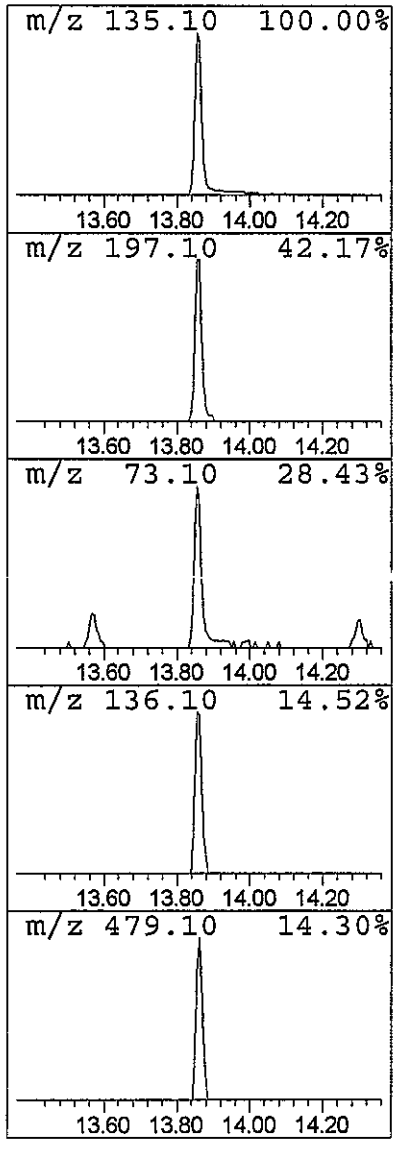
****

Peak Number 8 unknown Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.86	18.02 ul/l	113775	Phenanthrene-d10	12.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Methoxybenzoylformic acid, TMS	252	C12H16O4Si	1000071-87-1	37
2	Adenosine, 2'-deoxy-	251	C10H13N5O3	000958-09-8	25
3	1-Adamantaneacetic acid	194	C12H18O2	004942-47-6	25
4	Phenol, 4-(1,1,3,3-tetramethylbu...	206	C14H22O	000140-66-9	25





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010501\C00607.D Vial: 21
Acq On : 5 Jan 2001 6:08 pm Operator: JP
Sample : 05503 BNA W 12/23 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

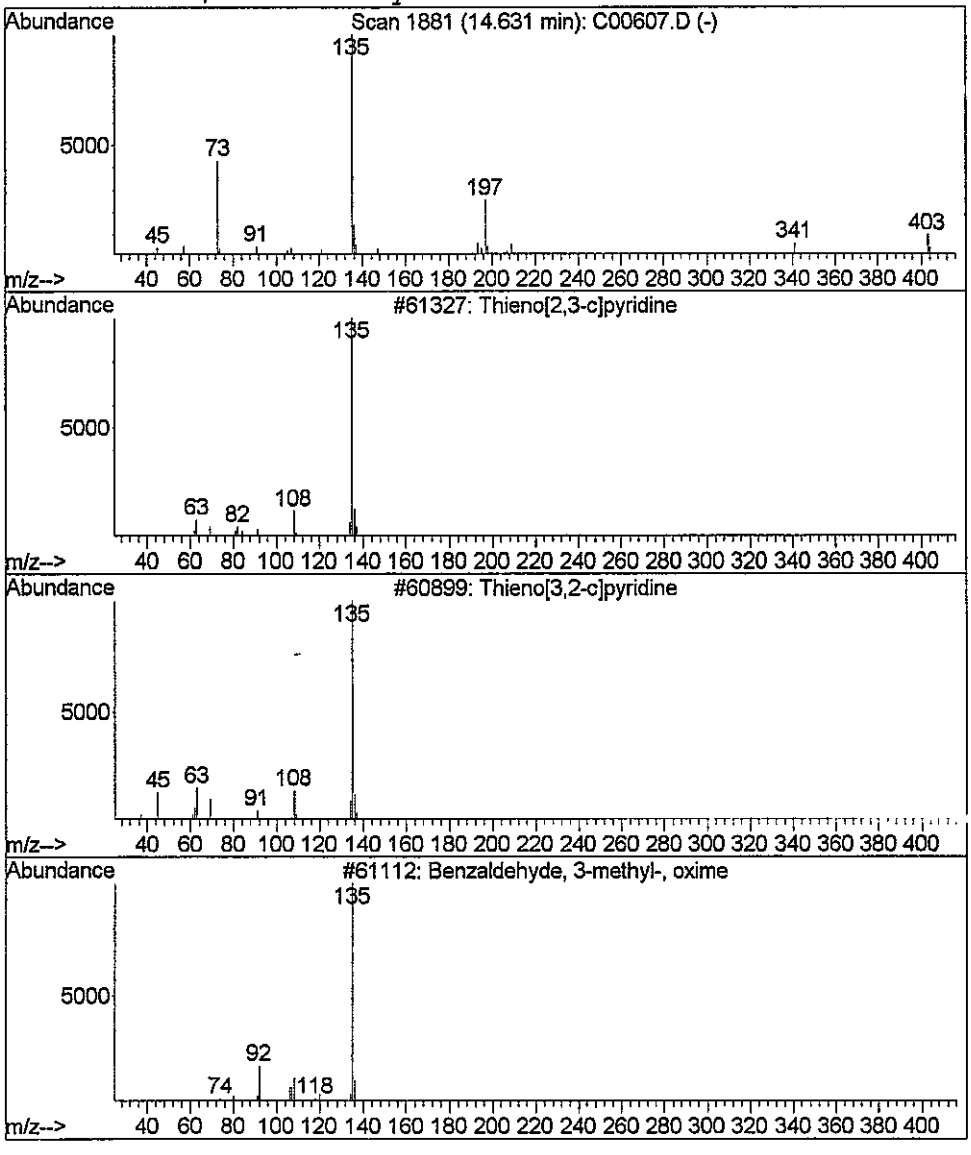
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

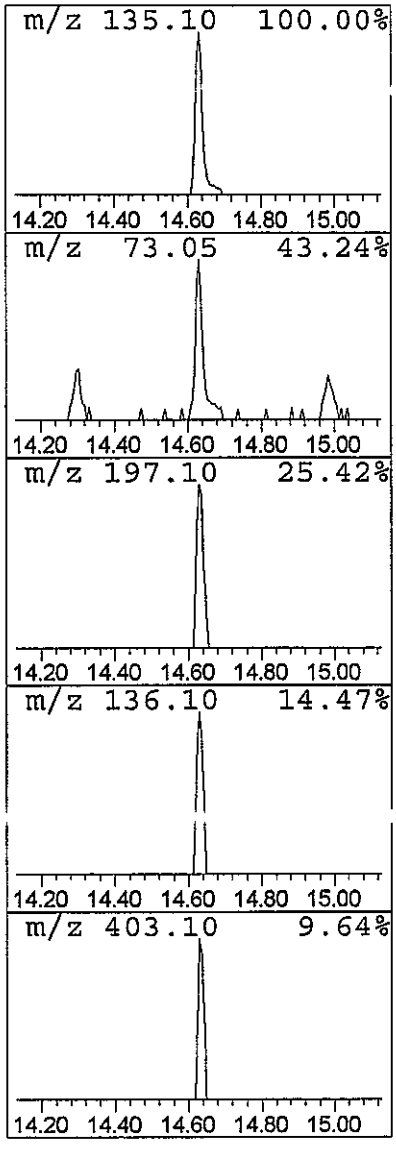
****

Peak Number 9 unknown Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.63	5.12 ul/l	32344	Phenanthrene-d10	12.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thieno[2,3-c]pyridine	135	C7H5NS	000272-12-8	37
2	Thieno[3,2-c]pyridine	135	C7H5NS	000272-14-0	25
3	Benzaldehyde, 3-methyl-, oxime	135	C8H9NO	041977-54-2	9
4	Benzene, isothiocyanato-	135	C7H5NS	000103-72-0	9





Tentatively Identified Compound (LSC) summary

Operator ID: JP Date Acquired: 5 Jan 2001 6:08 pm
Data File: D:\MSDCHEM\1\DATA\010501\C00607.D
Name: 05503 BNA W 12/23
Misc:
Method: D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title: SW-846 Method 8270 Calibration Method
Library Searched: d:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
Cyclotrisiloxane,...	4.92	330.2	ul/l	1442270	1	7.25	174730	40.0
Cyclotetrasiloxan...	6.93	164.4	ul/l	718103	1	7.25	174730	40.0
Cyclopentasiloxan...	8.34	52.9	ul/l	300802	2	8.84	227309	40.0
Cyclohexasiloxane...	9.67	18.2	ul/l	103483	2	8.84	227309	40.0
Pentasiloxane, do...	10.84	5.6	ul/l	34885	3	11.06	250390	40.0
unknown	12.64	7.1	ul/l	44953	4	12.90	252616	40.0
unknown	13.17	25.1	ul/l	158177	4	12.90	252616	40.0
unknown	13.86	18.0	ul/l	113775	4	12.90	252616	40.0
unknown	14.63	5.1	ul/l	32344	4	12.90	252616	40.0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18213.D Vial: 1
Acq On : 27 Dec 2000 15:24 Operator: TAG/VR
Sample : AC05503 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 15:49 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	402472	50.00 ug\l	0.00
45) Chlorobenzene-d5	12.78	117	363419	50.00 ug\l	-0.01
61) 1,2-Dichlorobenzene-d4	16.90	152	209818	50.00 ug\l	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	155644	42.40 ug\l	-0.01
Spiked Amount 50.000	Range 84 - 124		Recovery = 84.80%		
46) Toluene-d8	10.28	98	441617	46.13 ug\l	-0.01
Spiked Amount 50.000	Range 86 - 107		Recovery = 92.26%		
65) Bromofluorobenzene	14.87	95	274032	45.51 ug\L	-0.01
Spiked Amount 50.000	Range 91 - 110		Recovery = 91.02%		

Target Compounds					Qvalue
11) Acetone	3.03	58	217	2.21 ug\l # ~~NOC~~	1 VR
27) Chloroform	6.08	83	10395	1.60 ug\l	99
30) 1,4-Dioxane	8.77	88	70	~~3.94 ug\l~~ #	62
34) Isobutyl alcohol	7.14	43	146	~~2.62 ug\l~~ #	50
36) Trichloroethene	8.15	95	37524	9.12 ug\l	88
85) Naphthalene	20.89	128	2187	~~-1.84 ug\l~~	100

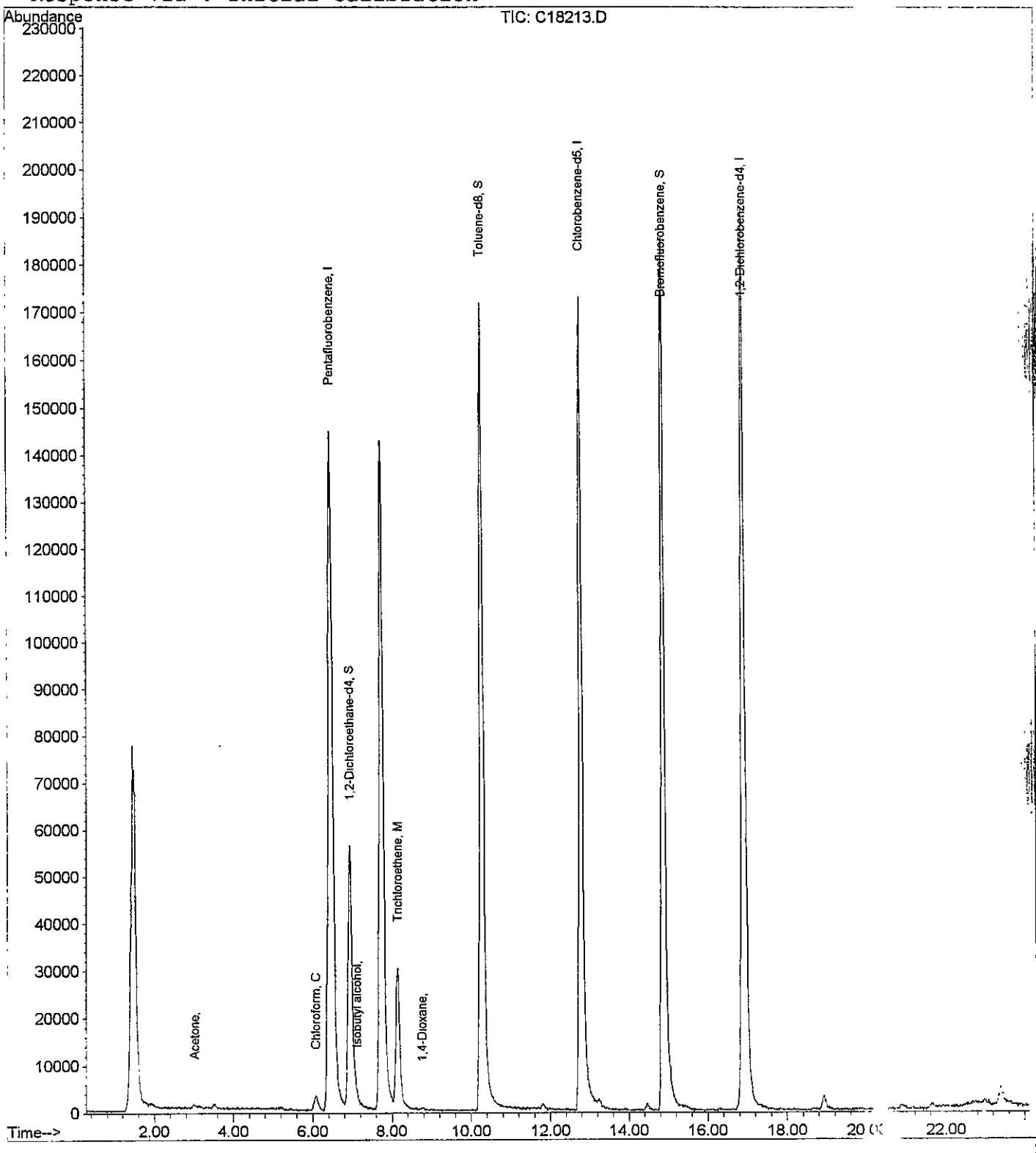
VR
12/28/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18213.D Vial: 1
Acq On : 27 Dec 2000 15:24 Operator: 1 G/VR
Sample : AC05503 5ml DF=1 Inst : A-C
Misc : 26553/C122200W Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 27 15:49 2000 Quant Results File: 1 2700W.RES

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrato
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017OLD36WQ4

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC05503

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C18213.D

Level: (low/med) LOW Date Received: 12/20/00

% Moisture: not dec. _____ Date Analyzed: 12/27/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\122700\C18213.D
Acq On : 27 Dec 2000 15:24
Sample : AC05503 5ml DF=1
Misc : 26553/C122200W
MS Integration Params: LSCINT.P

Vial: 12
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

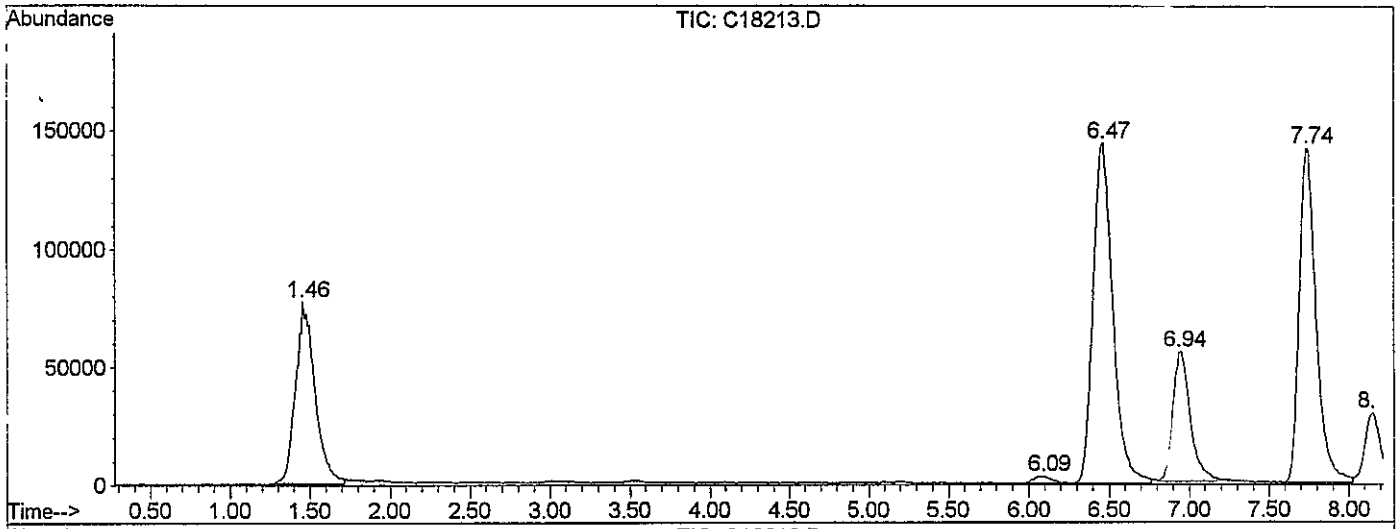
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.459	102	121	147	rBV	77281	642719	48.40%	7.687%
2	6.094	578	591	603	rBV3	3189	23055	1.74%	0.276%
3	6.469	611	629	659	rBV	144534	1220905	91.95%	14.603%
4	6.942	663	677	700	rBV2	55043	401965	30.27%	4.808%
5	7.741	744	758	787	rBV2	142192	1047111	78.86%	12.524%
6	8.155	787	800	822	rVB2	29215	201526	15.18%	2.410%
7	10.276	1000	1015	1039	rBV2	171423	1135440	85.51%	13.580%
8	12.780	1257	1269	1299	rBV2	172602	1130461	85.14%	13.521%
9	14.871	1468	1481	1514	rBV	185043	1229814	92.62%	14.709%
10	16.903	1668	1687	1725	rBV2	191574	1327841	100.00%	15.882%

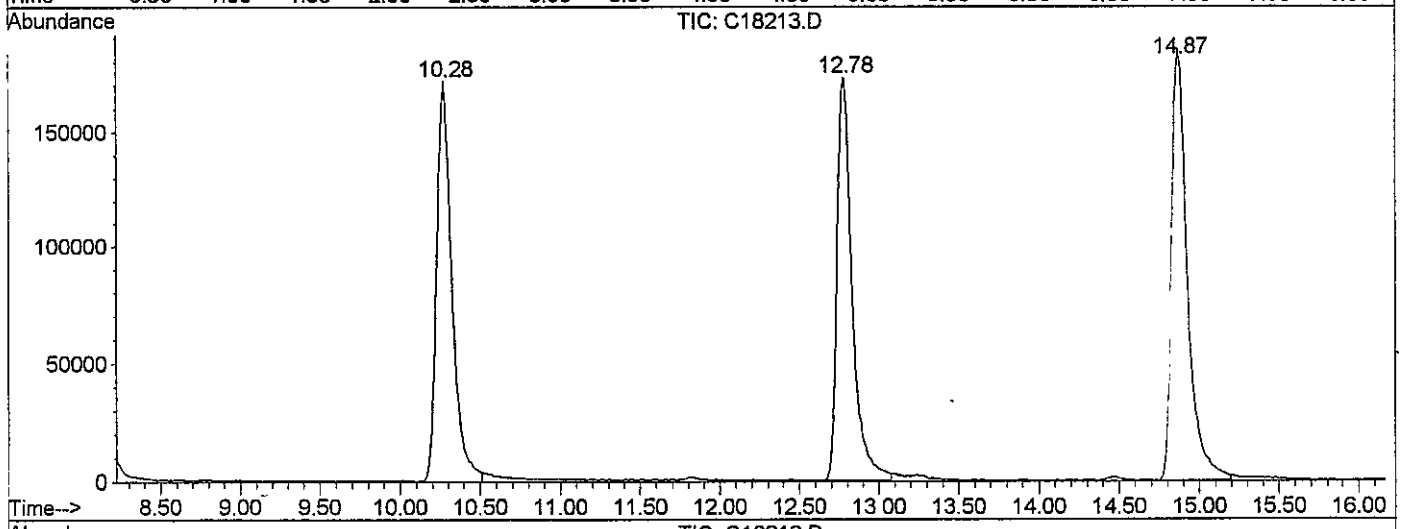
Sum of corrected areas: 8360837

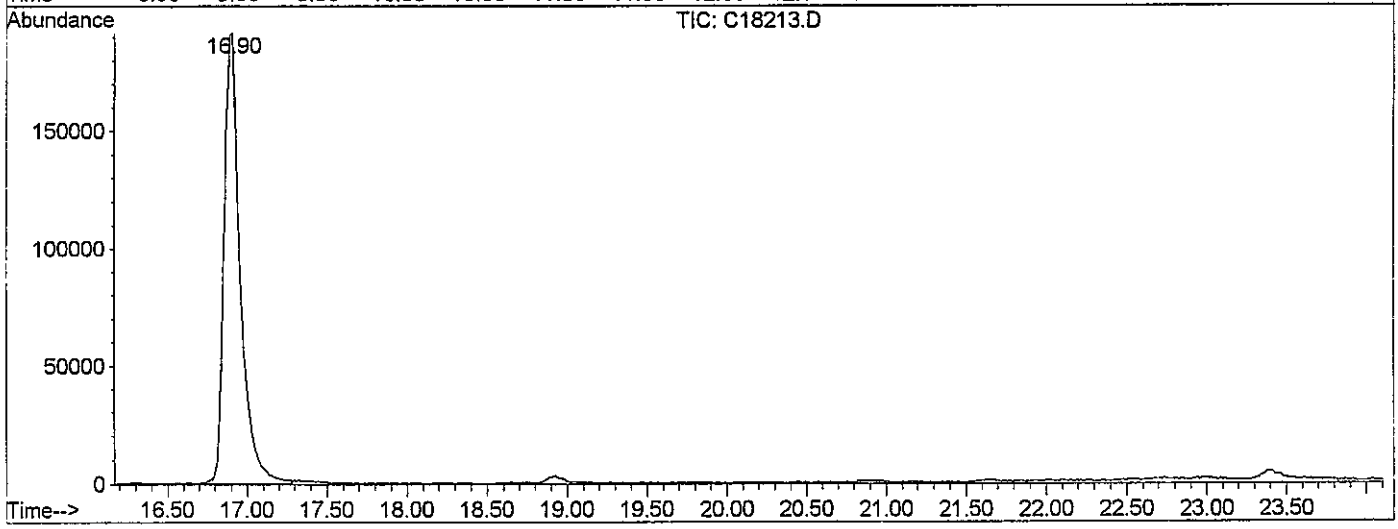
C18213.D 122700W.M Thu Jan 04 09:21:01 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\122700\C18213.D
Operator : TAG/VR
Acquired : 27 Dec 2000 15:24 using AcqMethod 122700W
Instrument : VOA-C
Sample Name: AC05503 5ml DF=1
Misc Info : 26553/C122200W
Vial Number: 12
Quant File :122700W.RES (RTE Integrator)







C18213.D 122700W.M Thu Jan 04 09:21:02 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\122700\C18213.D
Acq On : 27 Dec 2000 15:24
Sample : AC05503 5ml DF=1
Misc : 26553/C122200W
MS Integration Params: LSCINT.P

Vial: 12
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

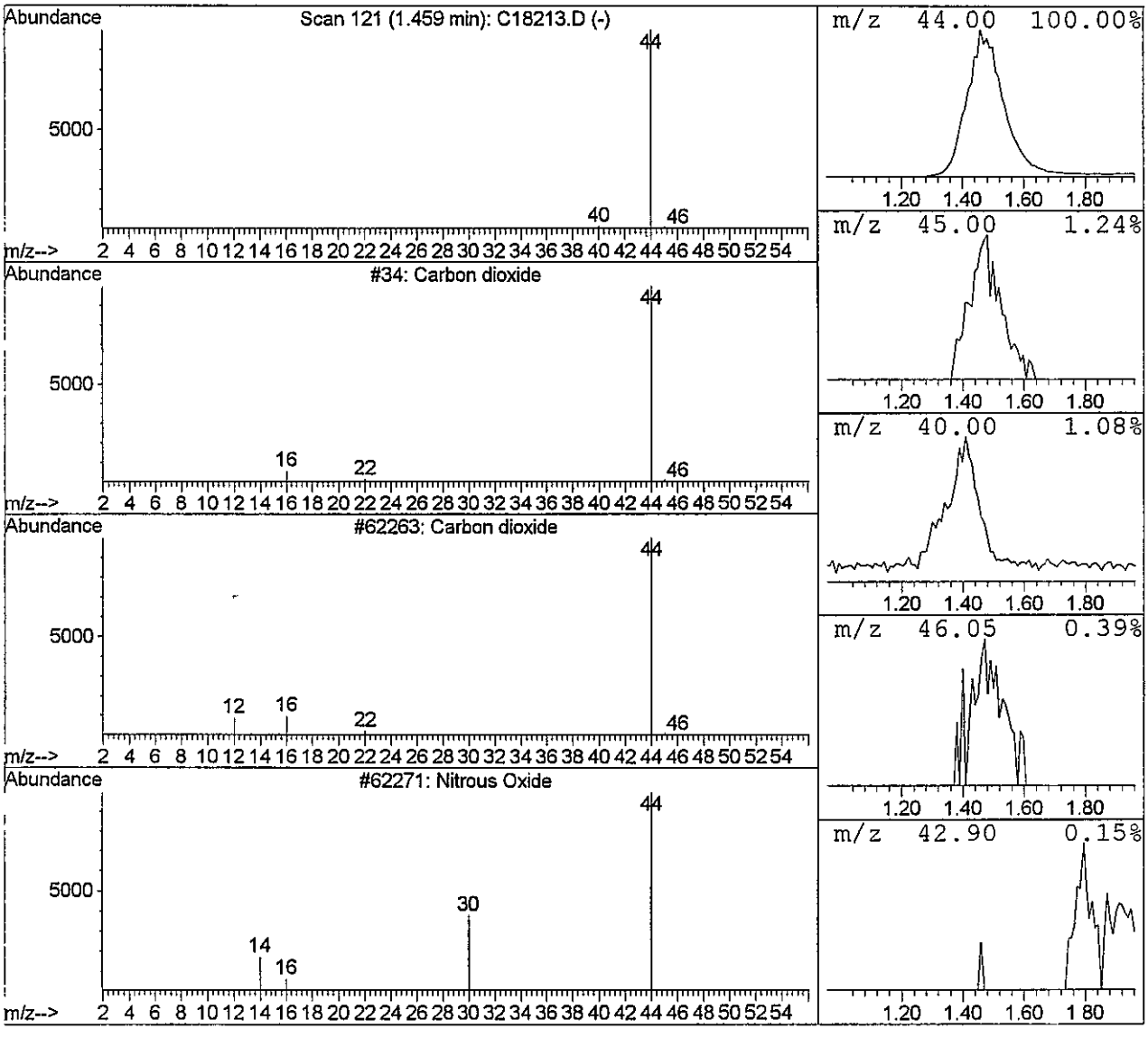
Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.46	26.32 ug\L	642719	Pentafluorobenzene	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\122700\C18213.D
Acq On : 27 Dec 2000 15:24
Sample : AC05503 5ml DF=1
Misc : 26553/C122200W
MS Integration Params: LSCINT.P

Vial: 12
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

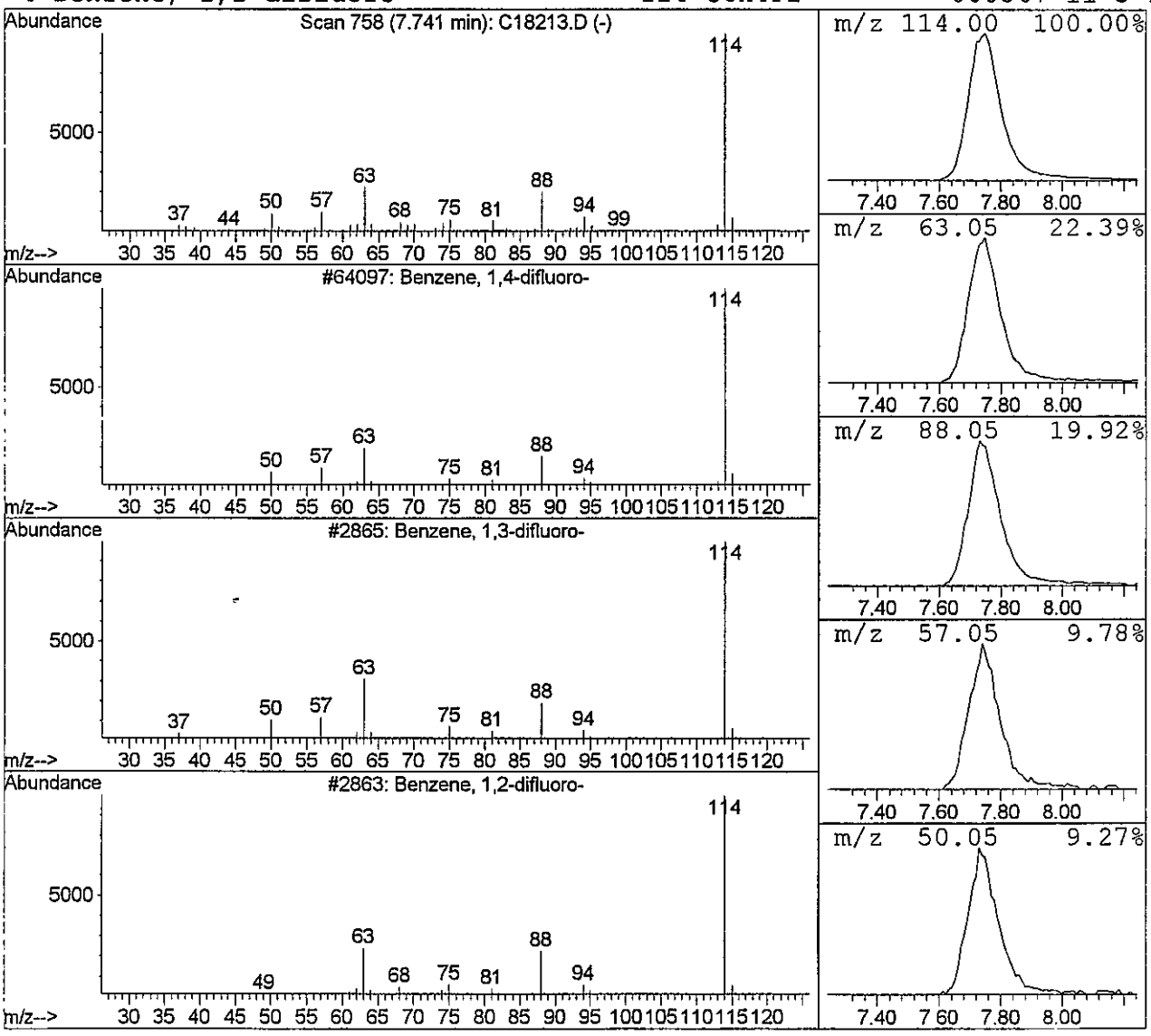
Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,4-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.74	42.88 ug\L	1047110	Pentafluorobenzene	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 27 Dec 2000 15:24
Data File: C:\HPCHEM\1\DATA\122700\C18213.D
Name: AC05503 5ml DF=1
Misc: 26553/C122200W
Method: c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title: 8260 CALIBRATION FOR WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.46	26.3	ug\L	642719	ISTD01	6.47	1220910	50.0
Benzene, 1,4-difluor	7.74	42.9	ug\L	1047110	ISTD01	6.47	1220910	50.0

C18213.D 122700W.M Thu Jan 04 09:21:06 2001 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18212.D Vial: 1
Acq On : 27 Dec 2000 14:56 Operator: TAG/VR
Sample : AC05504 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 15:21 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.46	168	407040	50.00 ug\L	0.00
45) Chlorobenzene-d5	12.78	117	371796	50.00 ug\L	0.00
61) 1,2-Dichlorobenzene-d4	16.90	152	212670	50.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	169202	45.58 ug\L	0.00
Spiked Amount 50.000	Range 84 - 124		Recovery = 91.16%		
46) Toluene-d8	10.28	98	463799	47.35 ug\L	0.00
Spiked Amount 50.000	Range 86 - 107		Recovery = 94.70%		
65) Bromofluorobenzene	14.87	95	291524	47.76 ug\L	0.00
Spiked Amount 50.000	Range 91 - 110		Recovery = 95.52%		

Target Compounds					Qvalue
30) 1,4-Dioxane	8.82	88	60	~~3.34 ug\L~~ #	23
34) Isobutyl alcohol	7.15	43	67	~~1.19 ug\L~~ #	18
85) Naphthalene	20.91	128	2416	~~-1.81 ug\L~~	100
86) 1,2,3-Trichlorobenzene	21.34	180	63	~~-3.09 ug\L~~ #	12

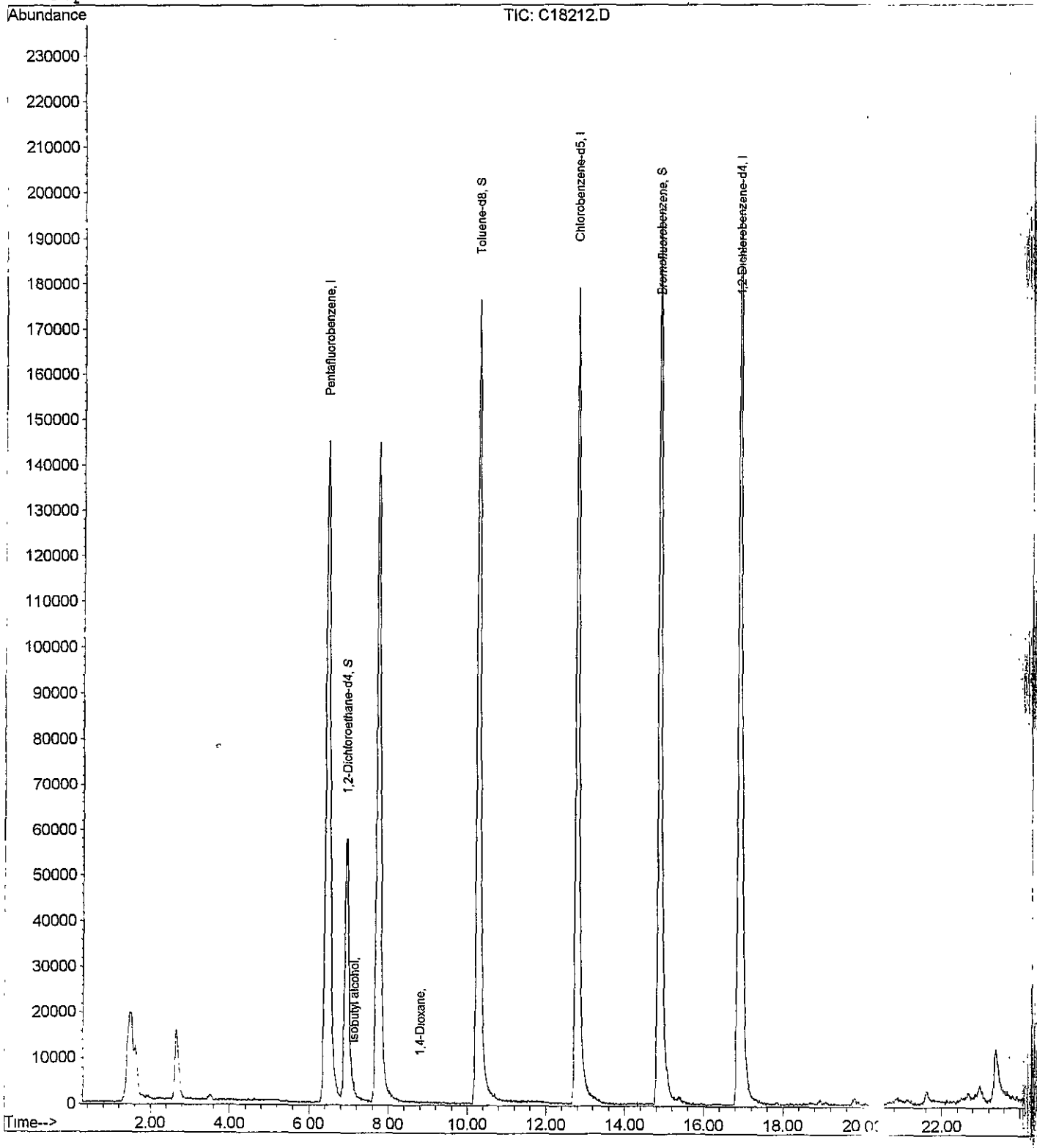
VR
12/28/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18212.D Vial: 1
Acq On : 27 Dec 2000 14:56 Operator: 1 \G/VR
Sample : AC05504 5ml DF=1 Inst : 1)A-C
Misc : 26553/C122200W Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 27 15:21 2000 Quant Results File: 1 2700W.RES

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

017OLD36TBQ4

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: AC05504

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C18212.D

Level: (low/med) LOW Date Received: 12/20/00

% Moisture: not dec. _____ Date Analyzed: 12/27/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\122700\C18212.D
Acq On : 27 Dec 2000 14:56
Sample : AC05504 5ml DF=1
Misc : 26553/C122200W
MS Integration Params: LSCINT.P

Vial: 11
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

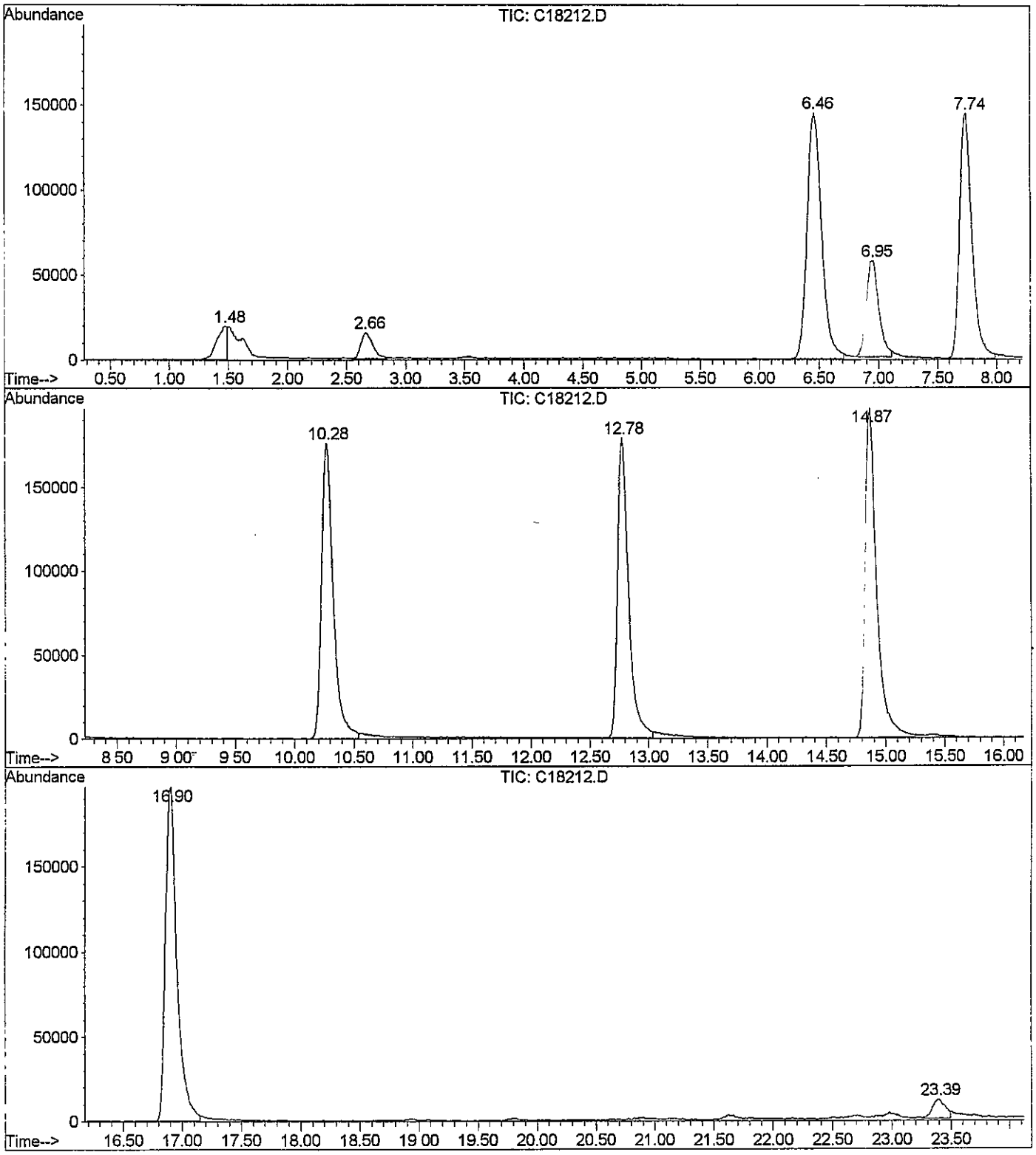
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.479	99	123	124	rBV	19434	115837	8.71%	1.446%
2	2.663	231	243	261	rBV	15195	103592	7.79%	1.293%
3	6.459	610	628	653	rBV2	144927	1223584	91.95%	15.273%
4	6.953	664	678	694	rBV4	56564	416130	31.27%	5.194%
5	7.741	741	758	783	rBV	144663	1064361	79.99%	13.286%
6	10.276	1001	1015	1042	rBV	176270	1203810	90.47%	15.026%
7	12.781	1256	1269	1295	rBV	179082	1157482	86.99%	14.448%
8	14.872	1468	1481	1519	rBV2	196371	1311346	98.55%	16.369%
9	16.903	1674	1687	1712	rBV	196954	1330651	100.00%	16.610%
10	23.392	2331	2345	2355	rBV6	11305	84497	6.35%	1.055%

Sum of corrected areas: 8011290

C18212.D 122700W.M Thu Jan 04 09:22:02 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\122700\C18212.D
Operator : TAG/VR
Acquired : 27 Dec 2000 14:56 using AcqMethod 122700W
Instrument : VOA-C
Sample Name: AC05504 5ml DF=1
Misc Info : 26553/C122200W
Vial Number: 11
Quant File :122700W.RES (RTE Integrator)



C18212.D 122700W.M Thu Jan 04 09:22:03 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\122700\C18212.D Vial: 11
Acq On : 27 Dec 2000 14:56 Operator: TAG/VR
Sample : AC05504 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: LSCINT.P

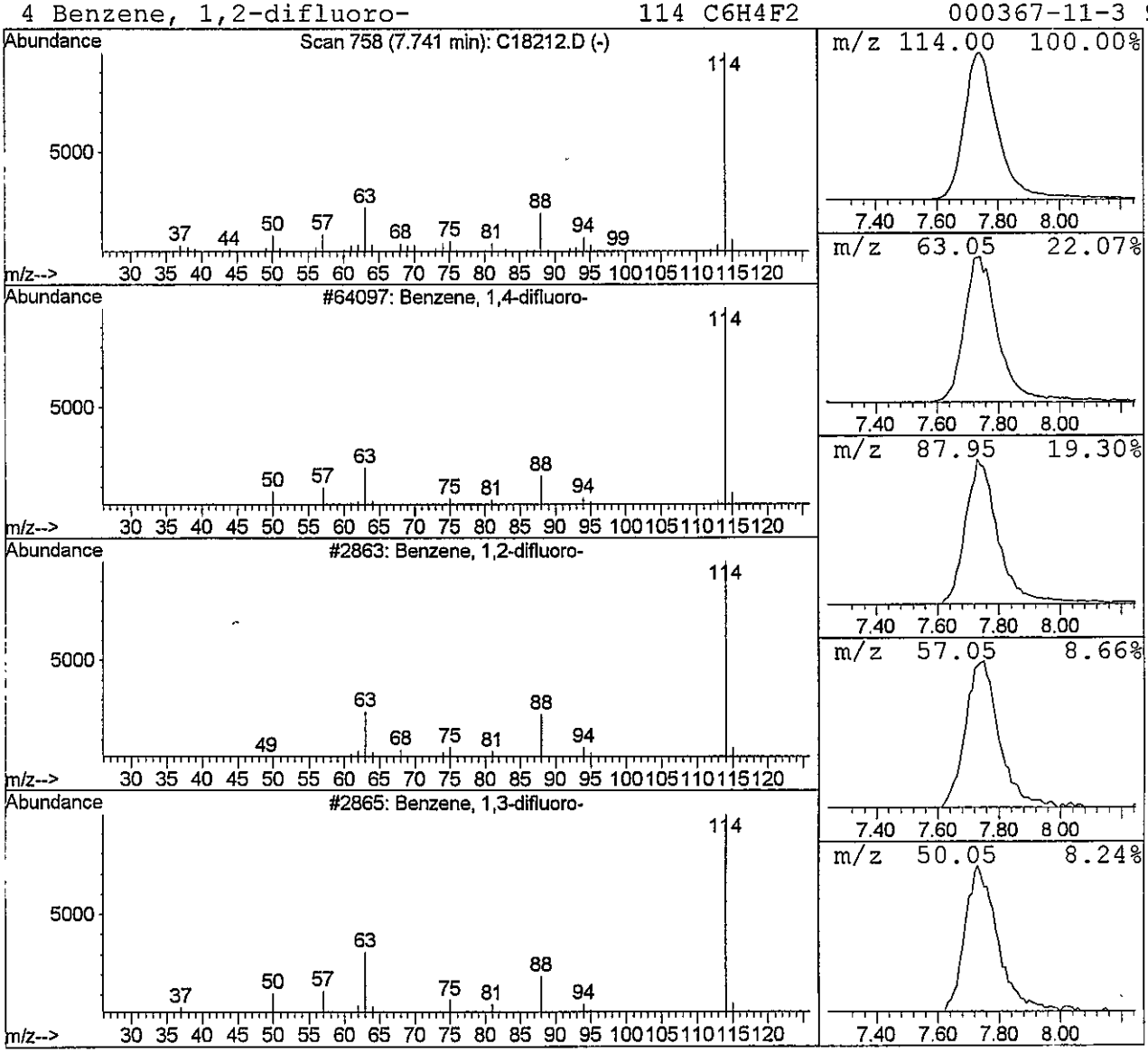
Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Benzene, 1,4-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.74	43.49 ug\L	1064360	Pentafluorobenzene	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 27 Dec 2000 14:56
Data File: C:\HPCHEM\1\DATA\122700\C18212.D
Name: AC05504 5ml DF=1
Misc: 26553/C122200W
Method: c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title: 8260 CALIBRATION FOR WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, 1,4-difluor	7.74	43.5	ug\L	1064360	ISTD01	6.46	1223580	50.0

C18212.D 122700W.M Thu Jan 04 09:22:06 2001 RPT1

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\122800\12280003.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\122800\12280003.D\ECD2B.CH
Acq On : 28 Dec 2000 10:46 Operator: YGK
Sample : QHW1222001 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 29 11:12 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
System Monitoring Compounds									
2)	S	DCAA	13.30	13.54	3104533	7230129	0.336	0.310	
Spiked Amount		0.500			Recovery	=	67.20% ✓	62.00%	
Target Compounds									
1)		DALAPON	6.97	6.84	18119	153099	0.001	0.004	#
3)	T	DICAMBA	13.70f	13.87f	61397	313330	0.001	0.003	#
4)	T	MCPP	13.93	0.00	86233	0	3.457	N.D.	#
5)	T	MCPA	14.36f	14.77	91351	85330	2.440	0.890	#
6)	T	DICHLOROPROP	14.96	0.00	481635	0	0.038	N.D.	#
7)	T	2,4 D	15.42	16.06f	288179	242681	0.019	0.008	#
8)	T	SILVEX	16.69	16.96f	10624	240188	0.000	0.001	#
9)	T	2,4,5 T	17.10	17.70f	17506	627504	0.000	0.004	#
10)	T	2,4DB	17.87f	18.15	294514	46702	0.042	0.003	#
11)	T	DINOSEB	18.10	18.70f	485669	535598	0.012	0.005	#

Herb < ½ QL

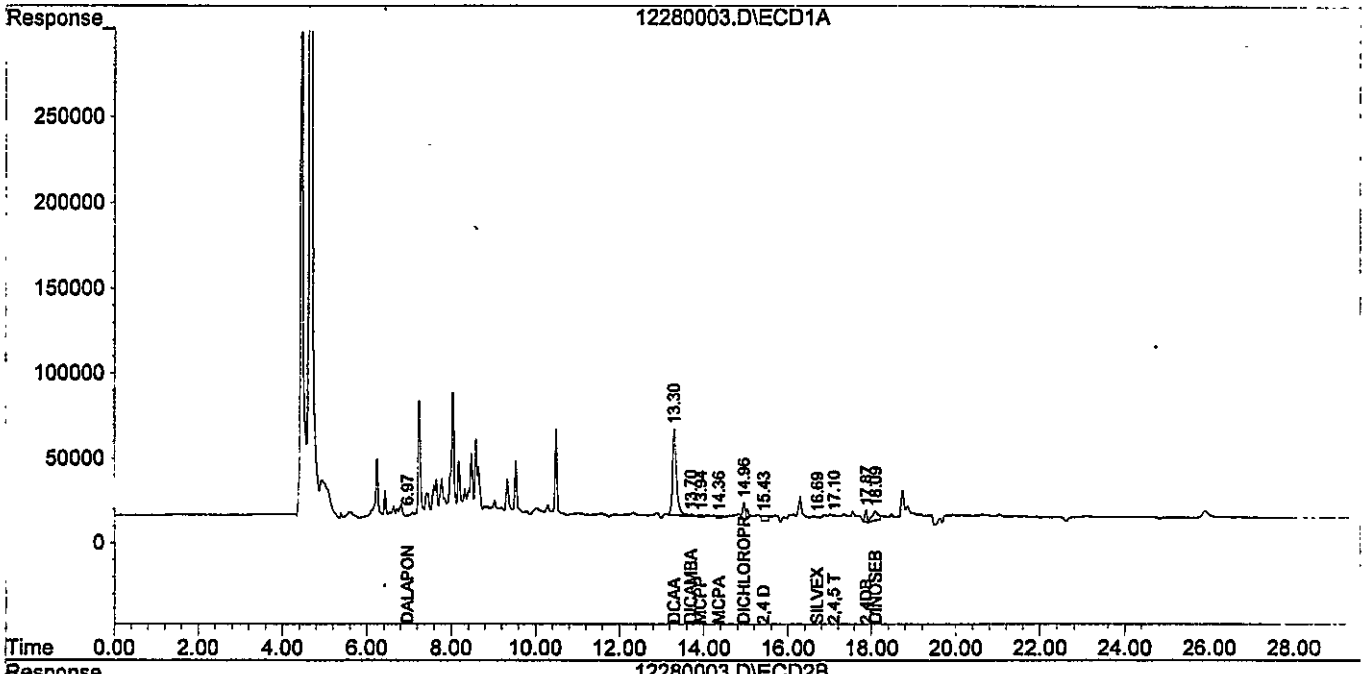
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

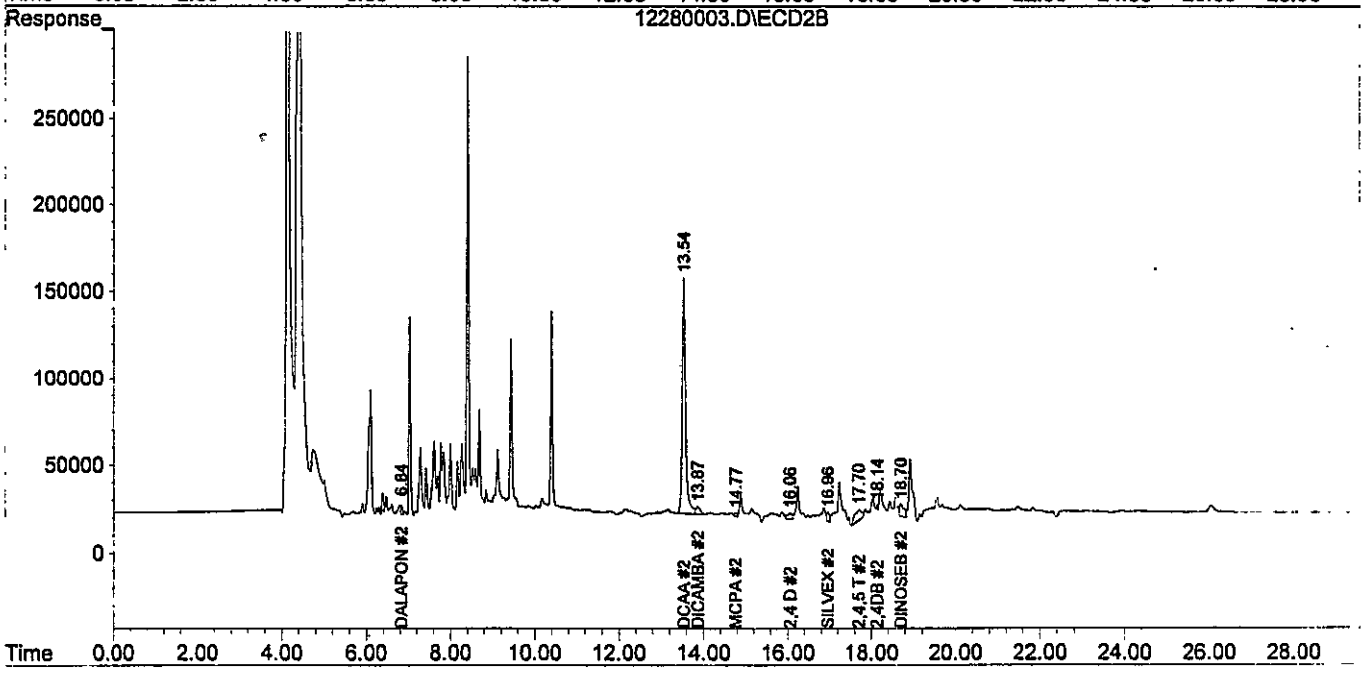
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\122800\12280003.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\122800\12280003.D\ECD2B.CH
Acq On : 28 Dec 2000 10:46 Operator: YGK
Sample : QHW1222001 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 29 11:12 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\122800\12280003.D Vial: 3
Acq On : 28 Dec 2000 16:26 Operator: YGK
Sample : QPW1222001 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jan 2 13:11 2001 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	23575367	0.208 ug/ml
Spiked Amount 0.250		Recovery =	83.20%
12) S DCB (SURR)	26.76	20708121	0.193 ug/ml
Spiked Amount 0.250		Recovery =	77.20% ✓
Target Compounds			
2) L1 AR 1016 1	9.42	62854	0.025 ug/ml
3) L1 AR 1016 2	10.06	868784	0.103 ug/ml
4) L1 AR 1016 3	10.40	40261	0.011 ug/ml
5) L1 AR 1016 4	11.69	3735	0.002 ug/ml
6) L1 AR 1016 5	12.07	6616	0.002 ug/ml
Sum AR 1016 1		982251	0.143 ug/ml
Average AR 1016 1			0.029 ug/ml
7) L2 AR 1260 1	15.39	6740	0.001 ug/ml
8) L2 AR 1260 2	16.10	11789	0.002 ug/ml
9) L2 AR 1260 3	16.91	31062	0.004 ug/ml
10) L2 AR 1260 4	18.98	36065	0.003 ug/ml
11) L2 AR 1260 5	19.98	1704	0.000 ug/ml
Sum AR 1260 1		87361	0.011 ug/ml
Average AR 1260 1			0.002 ug/ml

PCB < ½ D C

(f)=RT Delta > 1/2 Window (m)=manual int.

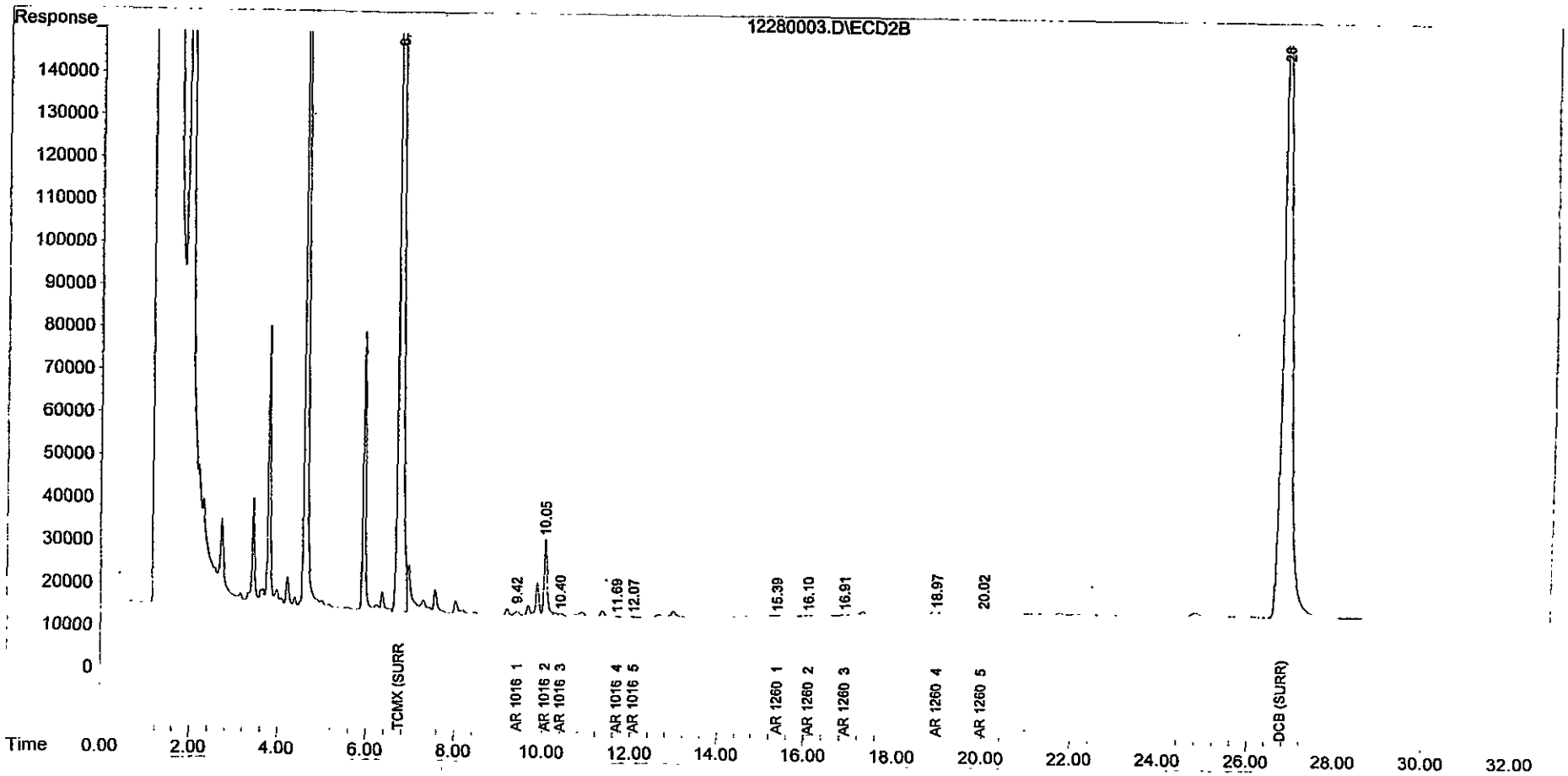
Quantitation Report

Data File : C:\HPCHEM\3\DATA\122800\12280003.D
Acq On : 28 Dec 2000 16:26
Sample : QPW1222001
Misc :
IntFile : EVENTS.E
Quant Time: Jan 2 13:11 2001 Quant Results File: 11301660.RES

Vial: 3
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD2B.CH
Acq On : 29 Dec 2000 20:06 Operator: YGK
Sample : QPW1222001 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:24 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L	
		System Monitoring Compounds							
1)	S	Tetrachloro-m-xy	8.06	7.75	23801244	24909299	0.194	0.193	
		Spiked Amount 0.250			Recovery	=	77.60%	77.20%	
22)	S	Decachlorobiphen	20.84	21.24	17703359	17566331	0.167	0.155	
		Spiked Amount 0.250			Recovery	=	66.80%	62.00%	
		Target Compounds							
2)	T	alpha-BHC	9.60	9.50f	8240	188221	0.000	0.001	#
3)	T	beta-BHC	10.68	10.60	144830	913083	0.002	0.010	#
4)	T	gamma-BHC (Linda	10.42	10.42f	183638	81587	0.001	0.000	#
5)	T	delta-BHC	11.17	11.36	72479	-2865	0.000	N.D.	#
6)	T	Heptachlor	11.57f	11.36f	244978	-2865	0.002	N.D.	#
7)	T	Aldrin	12.32f	0.00	11473	0	0.000	N.D.	#
8)	T	Heptachlor epoxi	13.75	0.00	21821	0	0.000	N.D.	#
9)	T	Endosulfan I	14.70	14.43f	589320	158131	0.005	0.001	#
10)	T	gamma-Chlordane	14.04f	13.88f	248733	85738	0.002	0.001	#
11)	T	alpha-Chlordane	14.32f	14.20f	137039	153650	0.001	0.001	
12)	T	4,4'-DDE	0.00	14.64	0	5592	N.D.	0.000	#
13)	T	Dieldrin	15.23	14.89f	865	486167	0.000	0.004	#
14)	T	Endrin	0.00	15.63	0	54212	N.D.	0.001	#
15)	T	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	T	Endosulfan II	16.23	0.00	100394	0	0.001	N.D.	#
17)	T	Endrin aldehyde	17.07f	16.83	21112	204005	0.000	0.002	#
18)	T	4,4'-DDT	0.00	16.62	0	23222	N.D.	0.000	#
19)	T	Endosulfan sulfa	18.04	17.42	36087	47062	0.000	0.000	#
20)	T	Methoxychlor	17.57	17.98f	78675	708020	0.001	0.014	#
21)	T	Endrin ketone	0.00	0.00	0	0	N.D.	N.D.	

Pest < ½ oz

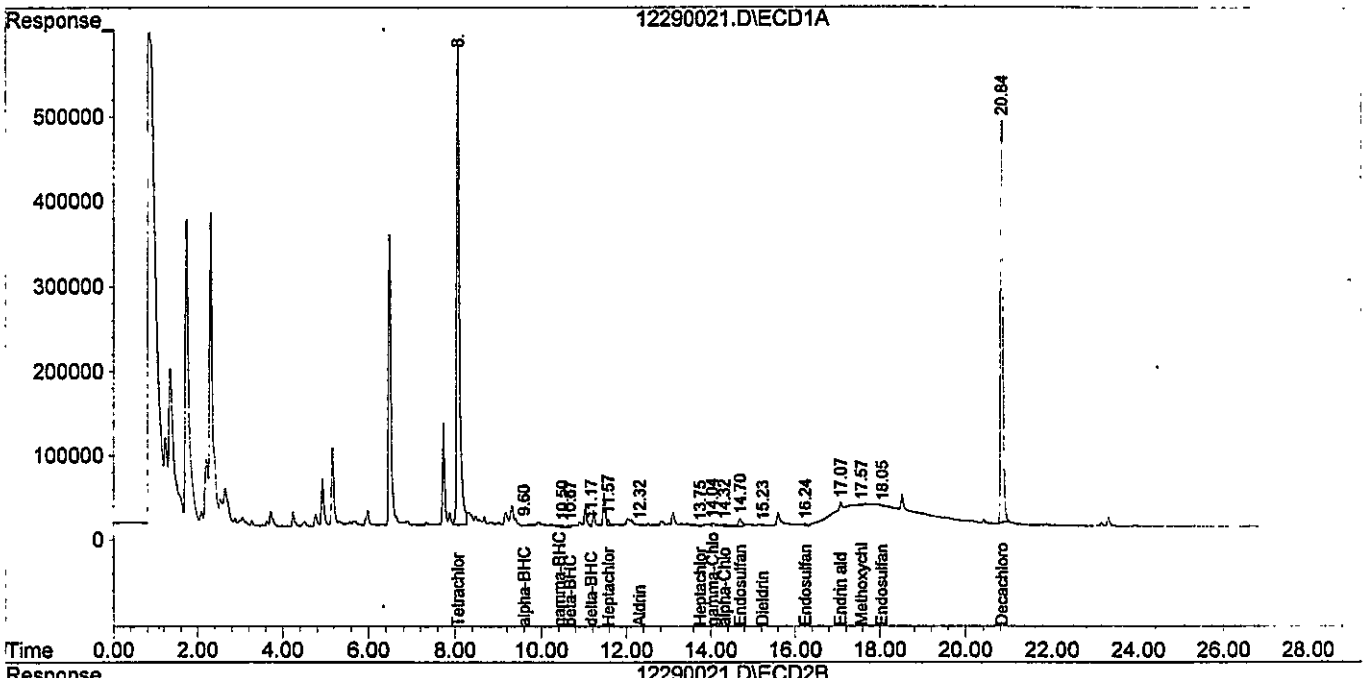
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

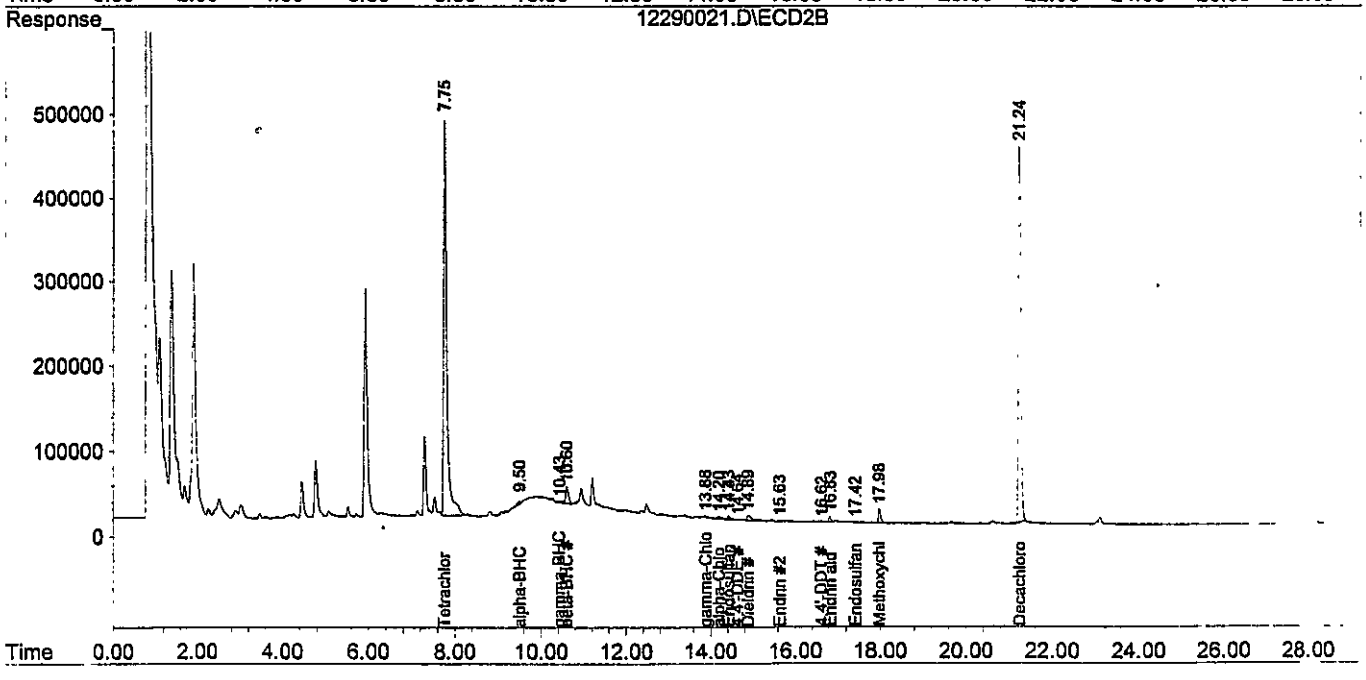
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD2B.CH
Acq On : 29 Dec 2000 20:06 Operator: YGK
Sample : QPW1222001 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:24 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD2B.CH
Acq On : 29 Dec 2000 20:06 Operator: YGK
Sample : QPW1222001 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:52 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L1 CHLORD 1	11.48f	0.00	1245798	0	0.184	N.D. #
2) L1 CHLORD 2	11.57f	0.00	235253	0	0.022	N.D. #
3) L1 CHLORD 3	12.70	0.00	32774	0	0.003	N.D. #
4) L1 CHLORD 4	13.64	13.38f	55050	149952	0.014	0.041 #
5) L1 CHLORD 5	14.04f	13.88f	141121	141766	0.007	0.008
6) L1 CHLORD 6	14.32f	14.20f	118043	153650	0.004	0.010 #
7) L1 CHLORD 7	0.00	14.20f	0	153650	N.D.	0.010 #
Sum CHLORD 1			1828039	599018	0.235	0.068
Average CHLORD 1					0.039	0.017

Chlord < $\frac{1}{2}$ PQL

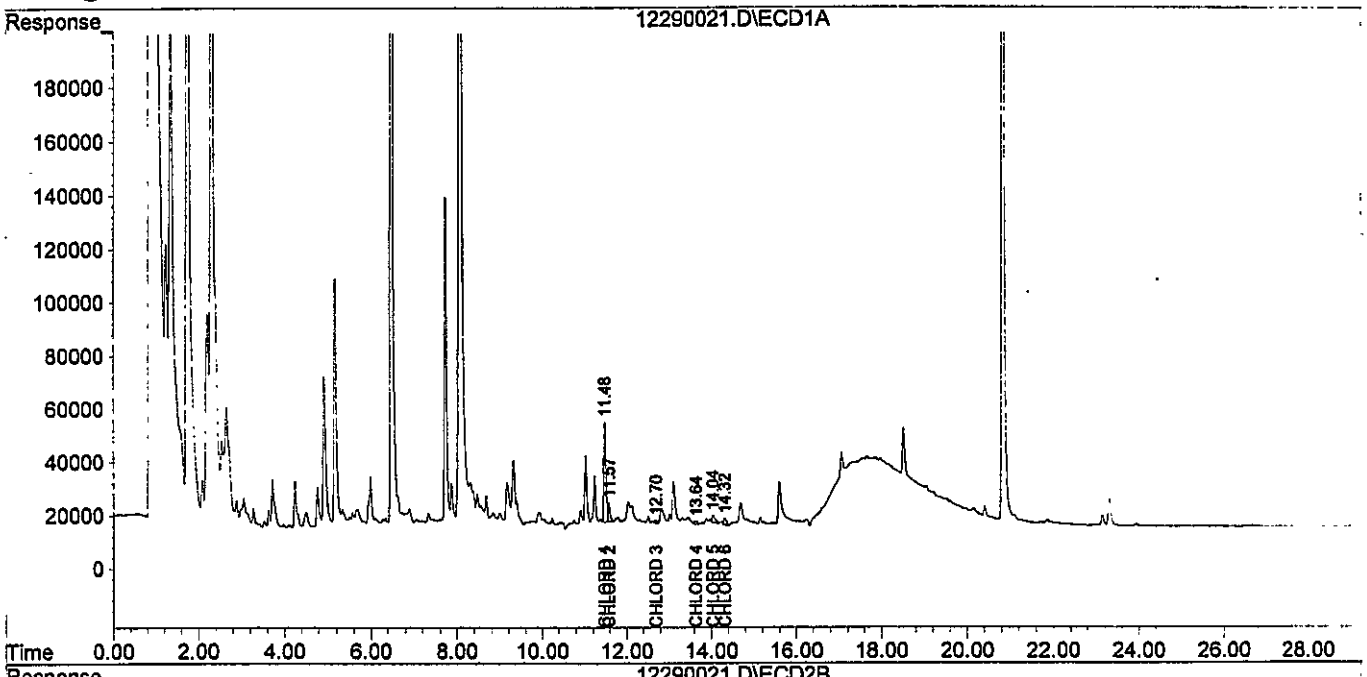
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

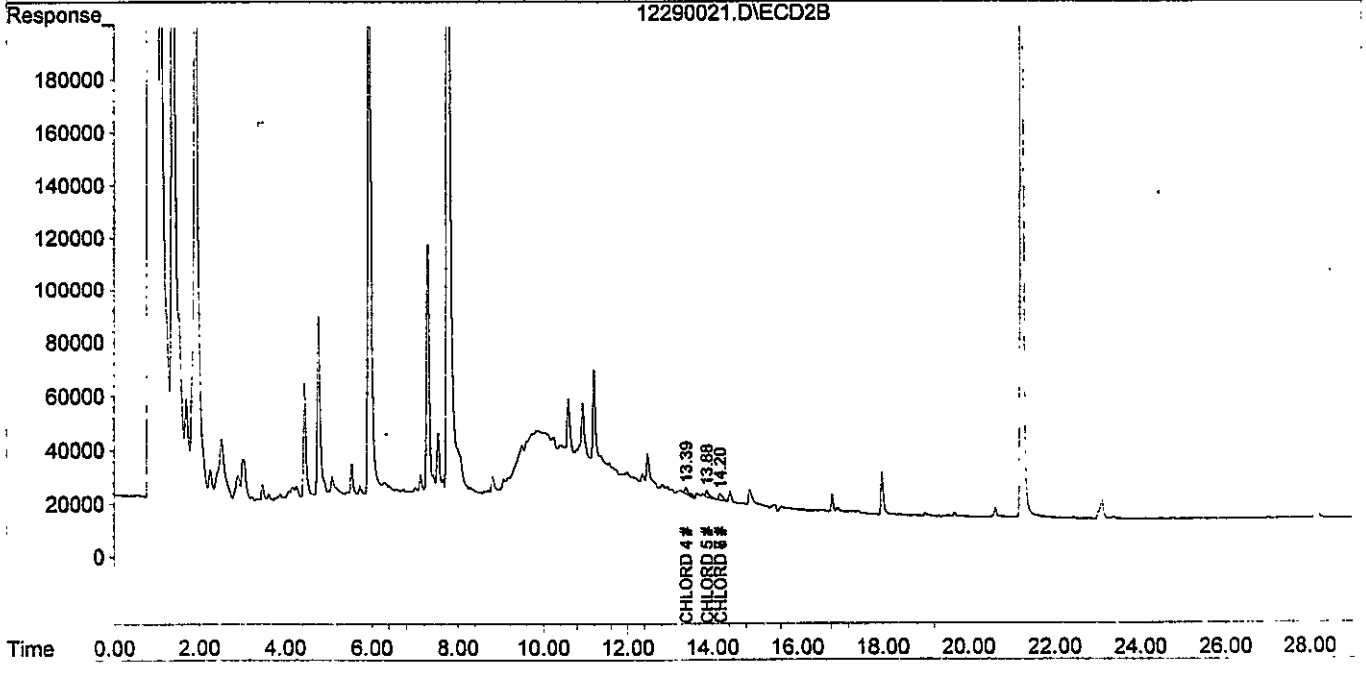
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD2B.CH
Acq On : 29 Dec 2000 20:06 Operator: YGK
Sample : QPW1222001 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:52 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD2B.CH
Acq On : 29 Dec 2000 20:06 Operator: YGK
Sample : QPW1222001 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 2 10:46 2001 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.23	16.30	133385	49234	0.094	0.009 #
2) L TOX 2	0.00	16.73	0	27918	N.D.	0.008 #
3) L TOX 3	0.00	16.83	0	258689	N.D.	0.054 #
4) L TOX 4	17.66	17.98	1295369	753009	0.364	0.125 #
5) L TOX 5	17.85	17.98f	1049631	753009	0.238	0.155 #
6) L TOX 6	0.00	18.75	0	54517	N.D.	0.015 #
7) L TOX 7	19.04f	19.10f	28689	61786	0.017	0.024 #
Sum TOX 1			2507073	1958162	0.713	0.390
Average TOX 1					0.178	0.056

TOX < $\frac{1}{2}$ CD 2

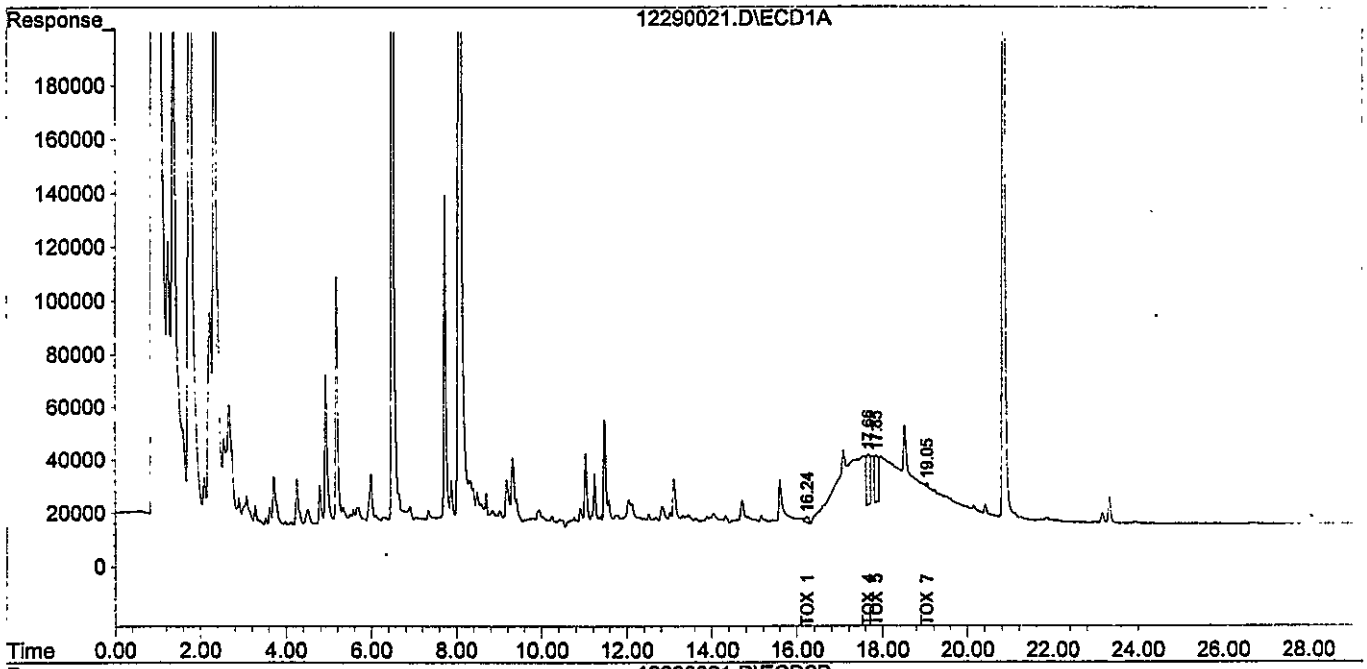
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

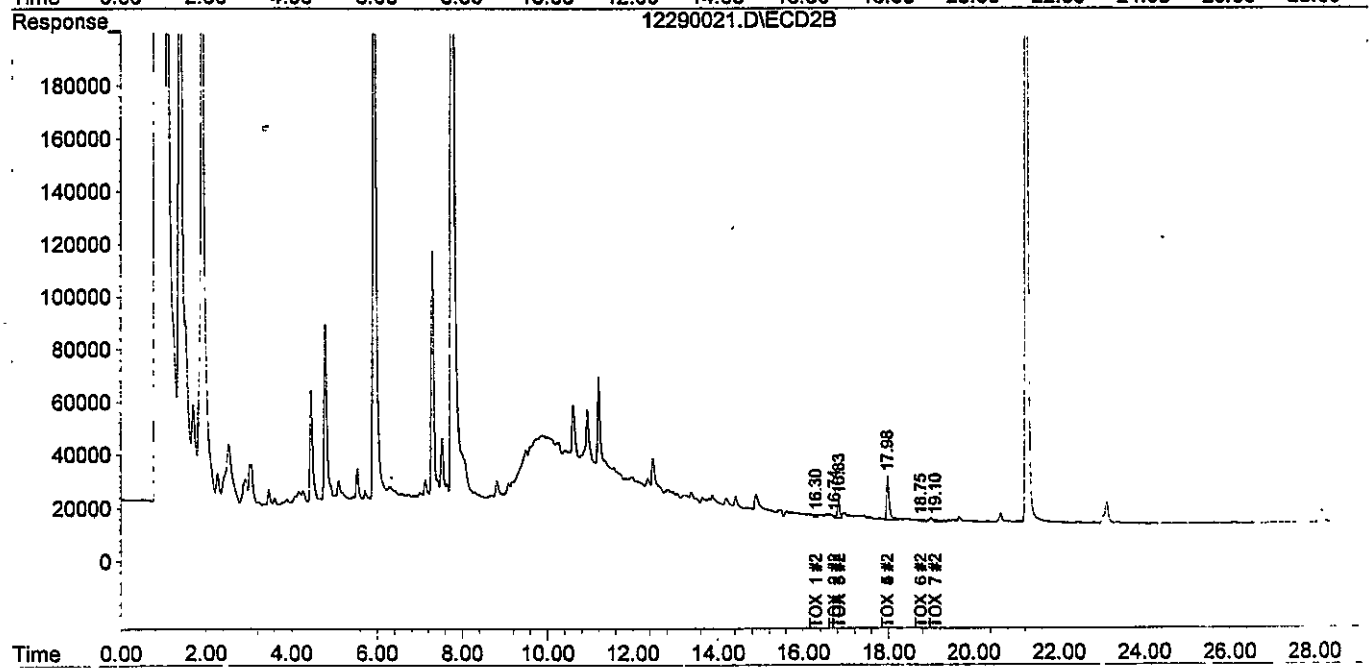
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\122900\12290021.D\ECD2B.CH
Acq On : 29 Dec 2000 20:06 Operator: YGK
Sample : QPW1222001 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 2 10:46 2001 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00575.D Vial: 9
Acq On : 4 Jan 2001 7:48 pm Operator: JP
Sample : QSW1222001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 20:12:42 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	52756	40.00 ul/l	0.00
21) Naphthalene-d8	8.85	136	137396	40.00 ul/l	0.00
38) Acenaphthene-d10	11.06	164	162325	40.00 ul/l	0.00
59) Phenanthrene-d10	12.90	188	125439	40.00 ul/l	0.00
72) Chyrsene-d12	16.53	240	113640	40.00 ul/l	0.00
80) Perylene-d12	19.18	264	73005	40.00 ul/l	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	5.68	112	143836	71.12 ul/l	0.00
Spiked Amount 100.000			Recovery =	71.12%	
7) Phenol-d5	6.82	99	173602	72.84 ul/l	0.00
Spiked Amount 100.000			Recovery =	72.84%	
22) Nitrobenzene-d5	7.97	82	101113	36.12 ul/l	0.00
Spiked Amount 50.000			Recovery =	72.24%	
42) 2-Fluorobiphenyl	10.19	172	141759	37.39 ul/l	0.00
Spiked Amount 50.000			Recovery =	74.78%	
63) 2,4,6-Tribromophenol	12.05	330	44844	79.86 ul/l	0.00
Spiked Amount 100.000			Recovery =	79.86%	
74) Terphenyl-d14	14.89	244	117691	47.59 ul/l	0.00
Spiked Amount 50.000			Recovery =	95.18%	
Target Compounds					Qvalue
~~79) bis(2 Ethylhexyl)phthalate~~	~~16.54~~	~~149~~	~~3940~~	~~1.45 ul/l~~	~~97~~ BMDL

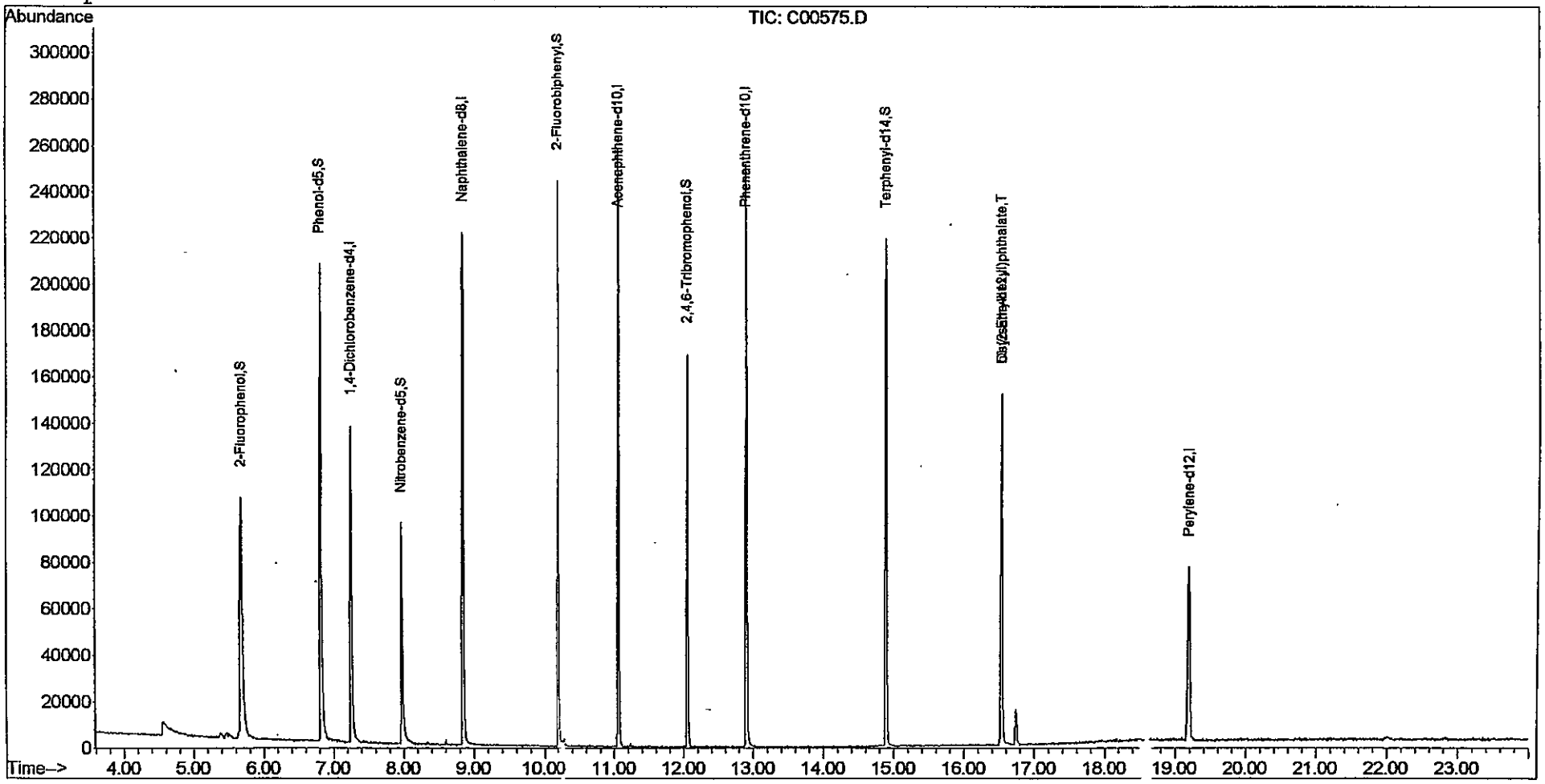
JP 01.05.2001

(#) = qualifier out of range (m) = manual integration
C00575.D 8270S.M Fri Jan 05 07:29:14 2001 Page 1

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00575.D Vial: 9
Acq On : 4 Jan 2001 7:48 pm Operator: JP
Sample : QSW1222001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 5 6:35 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : D:\MSDCHEM\1\DATA\010401A\C00575.D Vial: 9
Acq On : 4 Jan 2001 7:48 pm Operator: JP
Sample : QSW1222001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 5 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

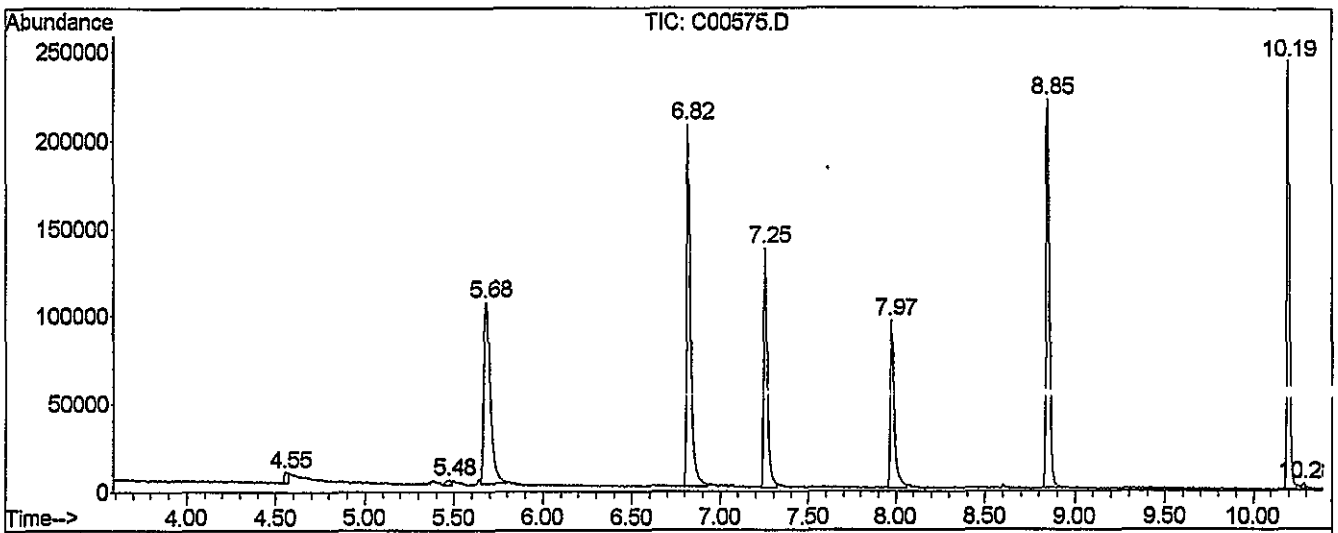
Signal : TIC

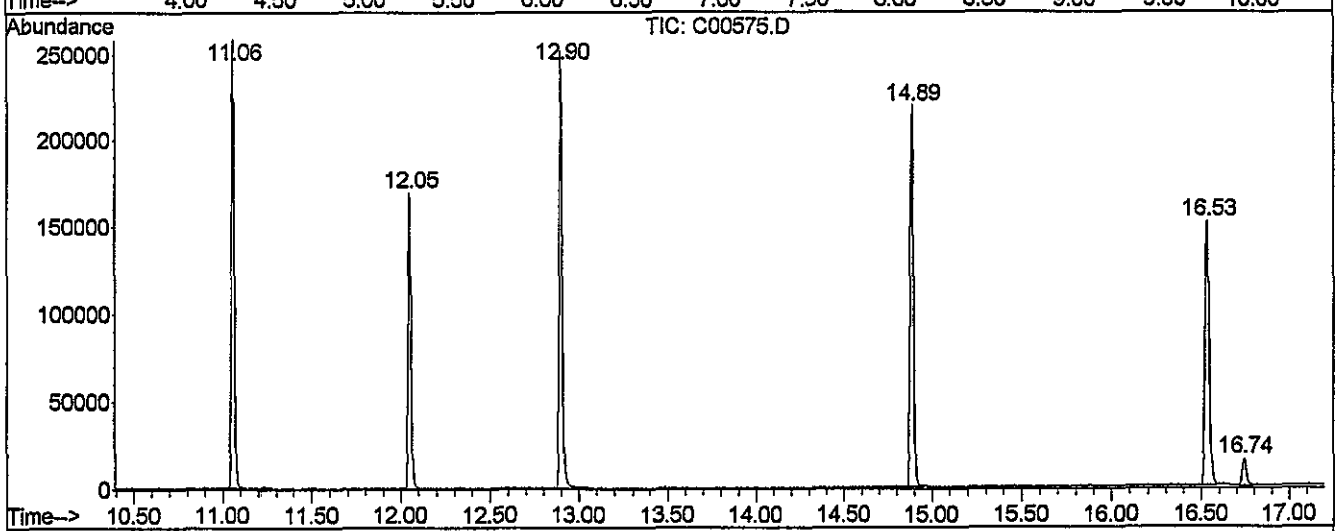
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.554	164	166	169	rBV	5966	9838	3.20%	0.337%
2	5.477	316	323	325	rBV4	2813	6314	2.06%	0.216%
3	5.683	352	358	377	rVB	102990	258932	84.34%	8.870%
4	6.817	547	551	570	rBV	205812	307010	100.00%	10.517%
5	7.251	621	625	637	rBV	136551	194958	63.50%	6.678%
6	7.974	744	748	763	rBV	95178	139464	45.43%	4.777%
7	8.849	892	897	911	rBV	220893	268419	87.43%	9.195%
8	10.195	1122	1126	1134	rBV	244431	262093	85.37%	8.978%
9	10.283	1138	1141	1144	rVB2	2724	3384	1.10%	0.116%
10	11.059	1268	1273	1280	rBV	258523	294972	96.08%	10.104%
11	12.046	1437	1441	1451	rVB	169573	185847	60.53%	6.366%
12	12.898	1582	1586	1604	rBV	251776	289261	94.22%	9.909%
13	14.890	1920	1925	1935	rBV	218614	269296	87.72%	9.225%
14	16.535	2199	2205	2214	rBV	151255	237224	77.27%	8.126%
15	16.740	2235	2240	2249	rVB	15506	25873	8.43%	0.886%
16	19.179	2648	2655	2663	rBV2	75026	166384	54.19%	5.700%

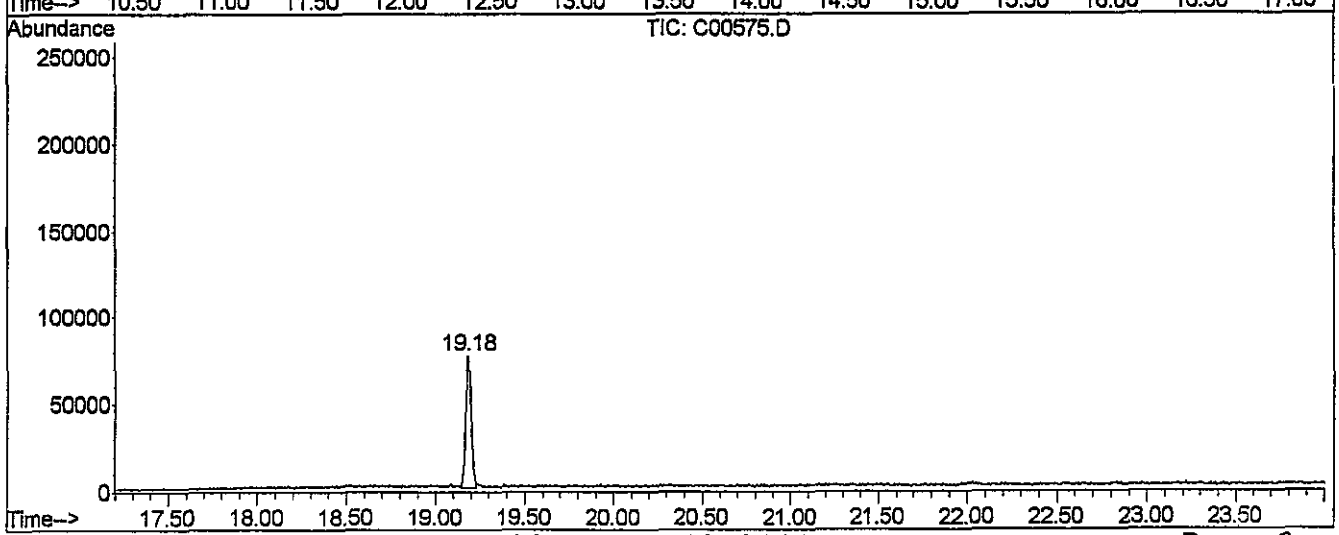
Sum of corrected areas: 2919269

LSC Report - Integrated Chromatogram

File : D:\MSDCHEM\1\DATA\010401A\C00575.D
Operator : JP
Acquired : 4 Jan 2001 7:48 pm using AcqMethod 8270S
Instrument : Instrumen
Sample Name: QSW1222001
Misc Info :
Vial Number: 9
Quant File :8270S.RES (RTE Integrator)







Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\010401A\C00575.D Vial: 9
Acq On : 4 Jan 2001 7:48 pm Operator: JP
Sample : QSW1222001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

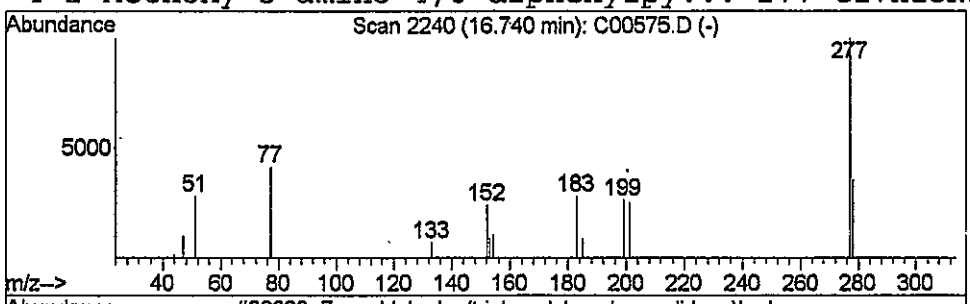
Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : d:\DATABASE\NIST98.L

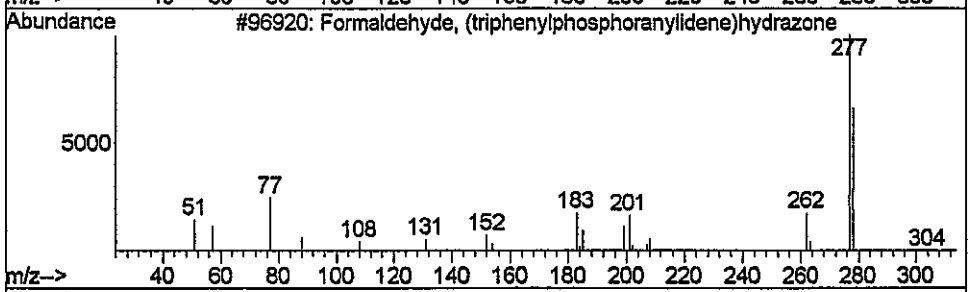
****

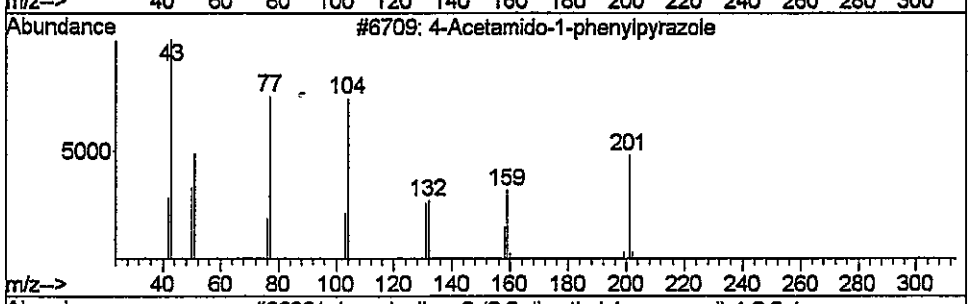
Peak Number 1 unknown Concentration Rank 1

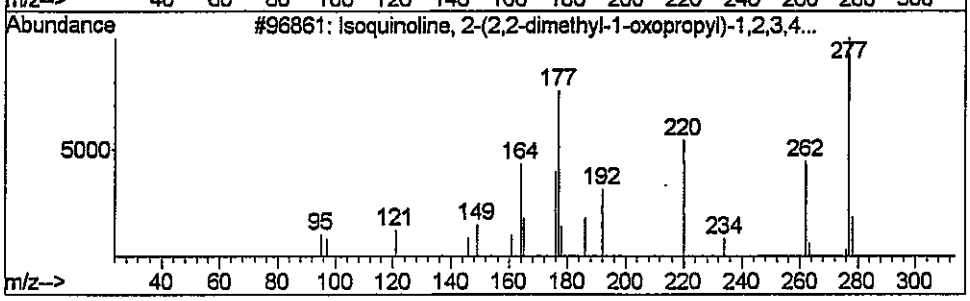
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.74	4.36 ul/l	25873	Chyrsene-d12	16.53

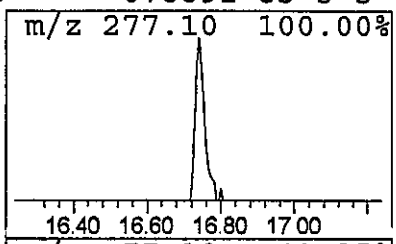
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Formaldehyde, (triphenylphosphor...	304	C19H17N2P	015990-54-2	50
2	4-Acetamido-1-phenylpyrazole	201	C11H11N3O	1000224-12-6	9
3	Isoquinoline, 2-(2,2-dimethyl-1-...	277	C16H23NO3	104299-14-1	5
4	2-Methoxy-5-amino-4,6-diphenylpy...	277	C17H15N3O	076891-83-3	5

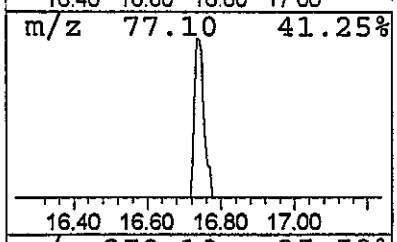


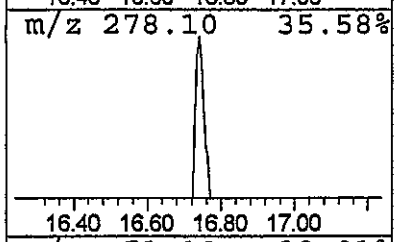


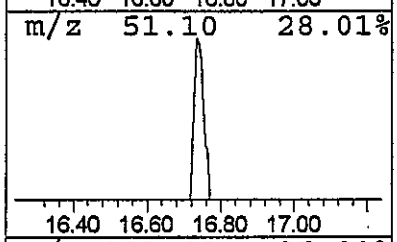


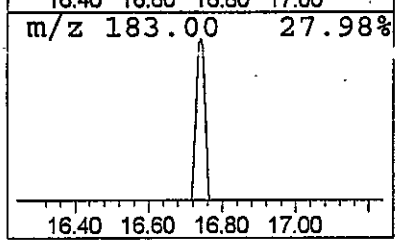












Tentatively Identified Compound (LSC) summary

Operator ID: JP Date Acquired: 4 Jan 2001 7:48 pm
Data File: D:\MSDCHEM\1\DATA\010401A\C00575.D
Name: QSW1222001
Misc:
Method: D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title: SW-846 Method 8270 Calibration Method
Library Searched: d:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	16.74	4.4	ul/l	25873	5	16.53	237224	40.0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18203.D Vial: 1
Acq On : 27 Dec 2000 10:17 Operator: I G/VR
Sample : QVW 122700 C1 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 27 12:09 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.45	168	462866	50.00 ug\l	0.00
45) Chlorobenzene-d5	12.77	117	407888	50.00 ug\l	-0.02
61) 1,2-Dichlorobenzene-d4	16.95	152	229091	50.00 ug\l	0.05
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	178790m	42.35 ug\l	-0.02
Spiked Amount 50.000	Range 84 - 124		Recovery =	84.70%	
46) Toluene-d8	10.28	98	507232	47.20 ug\l	0.00
Spiked Amount 50.000	Range 86 - 107		Recovery =	94.40%	
65) Bromofluorobenzene	14.86	95	305474	46.46 ug\l	-0.02
Spiked Amount 50.000	Range 91 - 110		Recovery =	92.92%	
Target Compounds					Qvalue
30) 1,4-Dioxane	8.59	88	79	~~3.87 ug\l~~	# 23
85) Naphthalene	20.91	128	29690	2.11 ug\l	NJL 100 ← ½ RDL
86) 1,2,3-Trichlorobenzene	21.18	180	2592	~~2.47 ug\l~~	94

VR
12/27/00

(#) = qualifier out of range (m) = manual integration

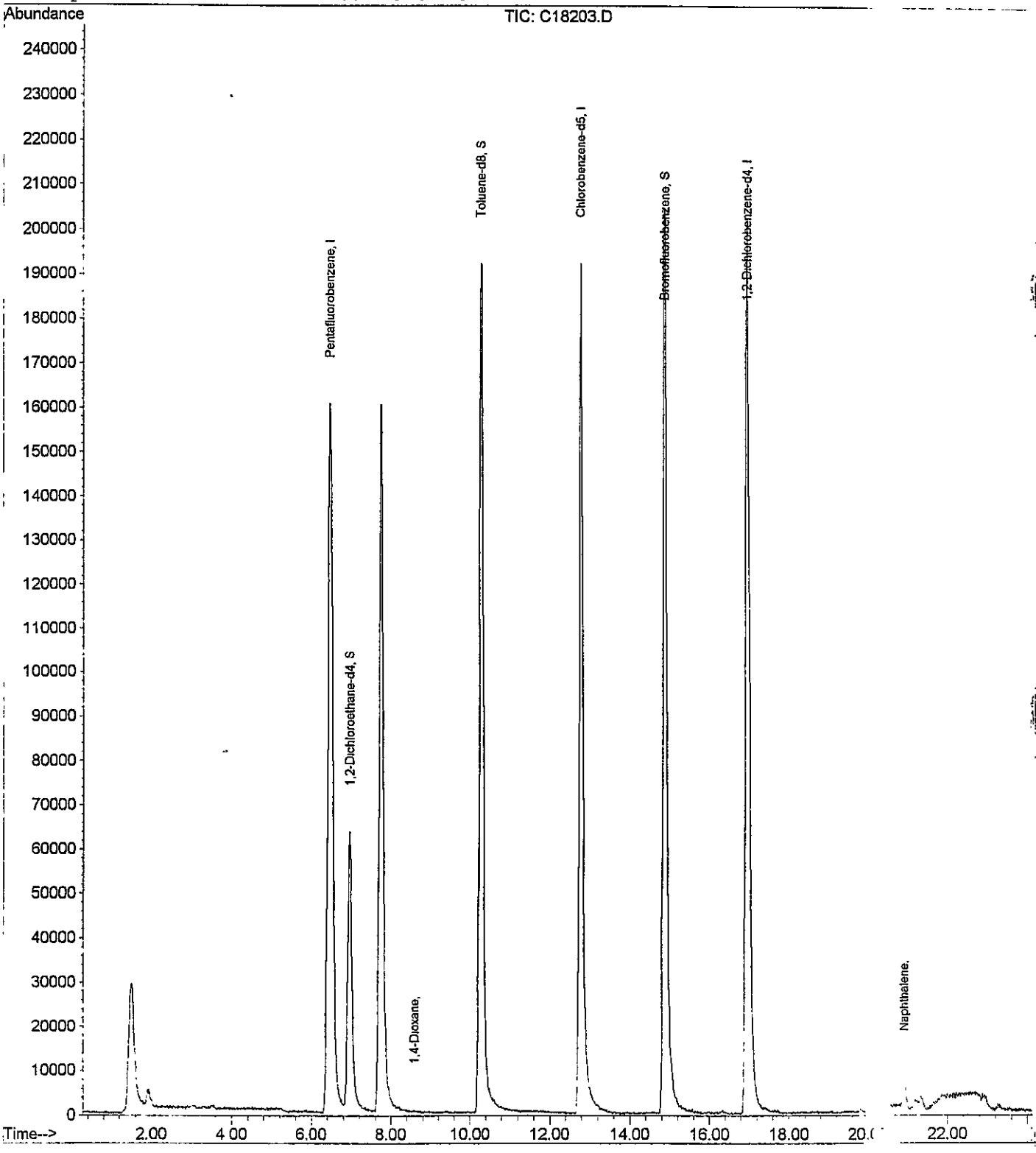
Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18203.D
Acq On : 27 Dec 2000 10:17
Sample : QVW 122700 C1
Misc : WATER BLANK 5ml DF=1
MS Integration Params: rteint.p
Quant Time: Dec 27 12:09 2000

Vial: 1
Operator: [illegible]G/VR
Inst : [illegible]A-C
Multiplr: [illegible]00

Quant Results File: [illegible]2700W.RES

Method : C:\HPCHEM\1\DATA\122700\122700W.M (RTE Integrato[illegible]
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Water Blank

Lab Name: Accura Analytical Lab. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: QVW122700C1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: C18203.D

Level: (low/med) LOW Date Received: 12/20/00

% Moisture: not dec. _____ Date Analyzed: 12/27/00

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\122700\C18203.D Vial: 2
Acq On : 27 Dec 2000 10:17 Operator: TAG/VR
Sample : QVW 122700 C1 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

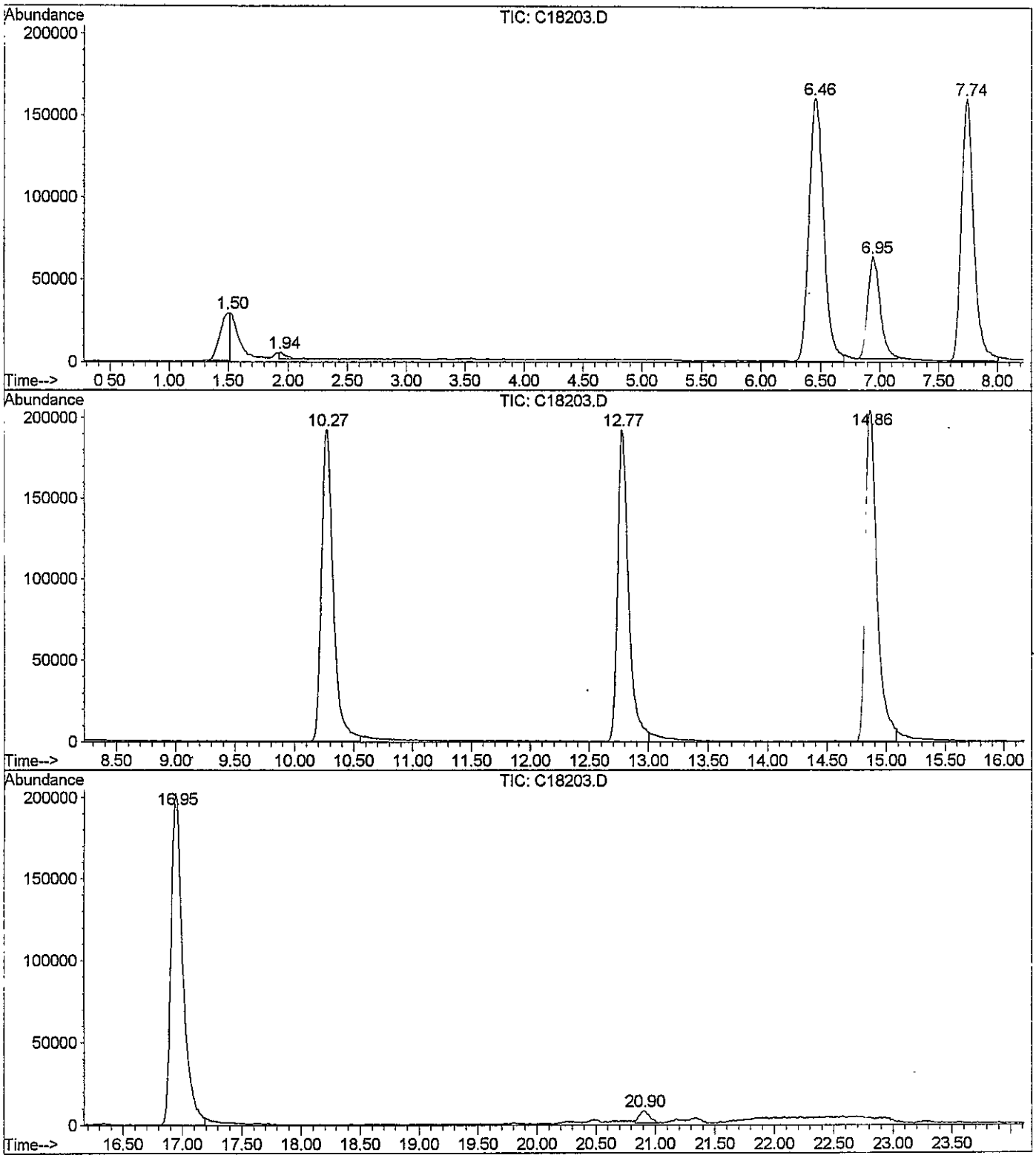
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.501	108	125	126	rBV	28603	160093	11.56%	1.890%
2	1.935	168	169	181	rVB	4068	13863	1.00%	0.164%
3	6.462	609	628	652	rBV2	160363	1363807	98.48%	16.100%
4	6.945	664	677	698	rBV	61521	434090	31.35%	5.124%
5	7.744	742	758	785	rBV2	159730	1166559	84.24%	13.771%
6	10.269	1000	1014	1043	rBV2	191652	1312222	94.75%	15.491%
7	12.773	1255	1268	1291	rBV	192083	1233309	89.06%	14.559%
8	14.864	1467	1480	1502	rBV	204112	1358729	98.11%	16.040%
9	16.945	1674	1691	1716	rBV	201876	1384865	100.00%	16.348%
10	20.900	2085	2092	2106	rVB2	7285	43418	3.14%	0.513%

Sum of corrected areas: 8470955

C18203.D 122700W.M Thu Jan 04 09:22:48 2001 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\122700\C18203.D
Operator : TAG/VR
Acquired : 27 Dec 2000 10:17 using AcqMethod 122700W
Instrument : VOA-C
Sample Name: QVW 122700 C1
Misc Info : WATER BLANK 5ml DF=1
Vial Number: 2
Quant File :122700W.RES (RTE Integrator)



C18203.D 122700W.M Thu Jan 04 09:22:49 2001 RPT1

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\122700\C18203.D Vial: 2
Acq On : 27 Dec 2000 10:17 Operator: TAG/VR
Sample : QVW 122700 C1 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

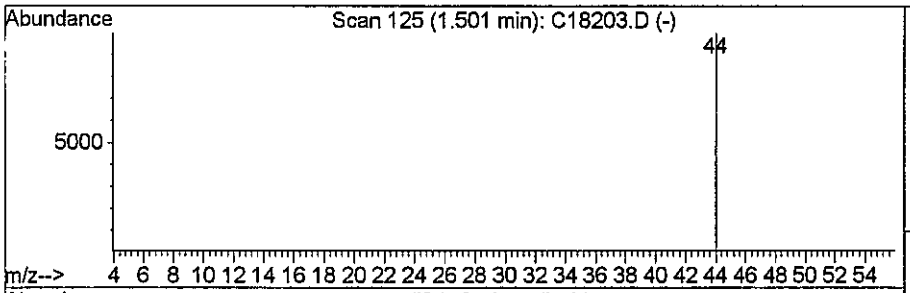
Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Library : C:\DATABASE\NBS75K.L

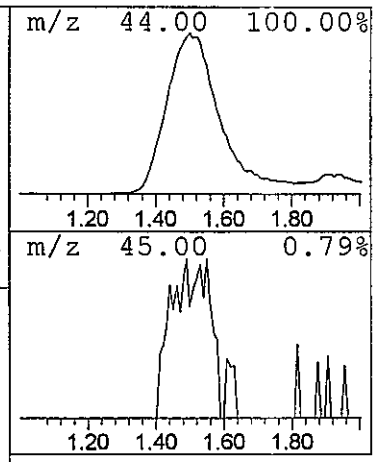
****

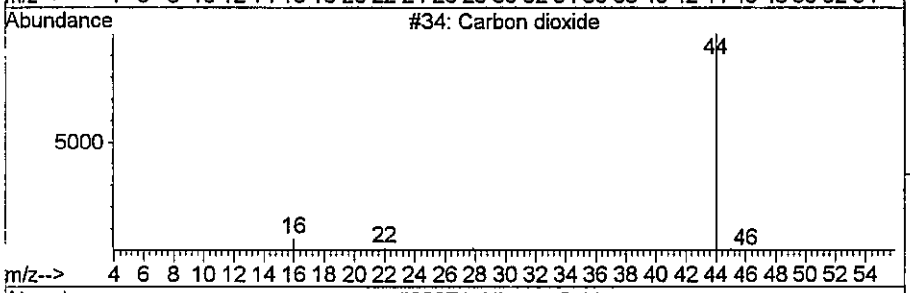
Peak Number 1 Carbon dioxide Concentration Rank 2

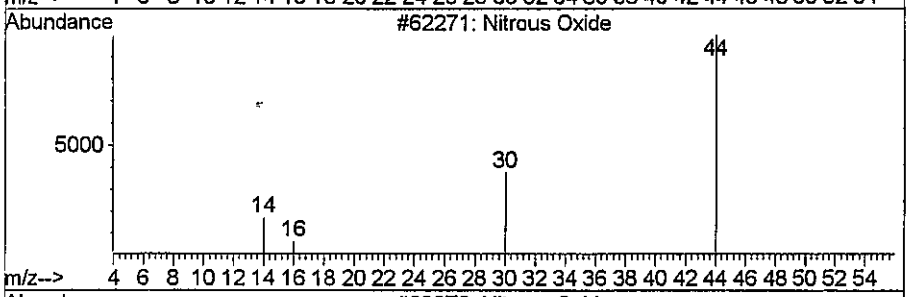
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.50	5.87 ug\L	160093	Pentafluorobenzene	6.45

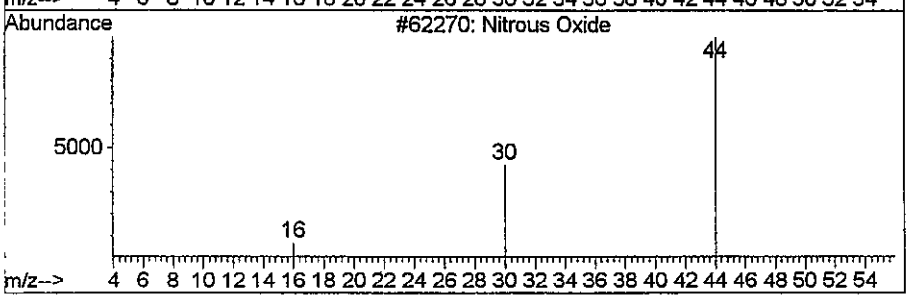
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	3
2	Nitrous Oxide	44	N2O	010024-97-2	3
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Data File : C:\HPCHEM\1\DATA\122700\C18203.D Vial: 2
Acq On : 27 Dec 2000 10:17 Operator: TAG/VR
Sample : QVW 122700 C1 Inst : VOA-C
Misc : WATER BLANK 5ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

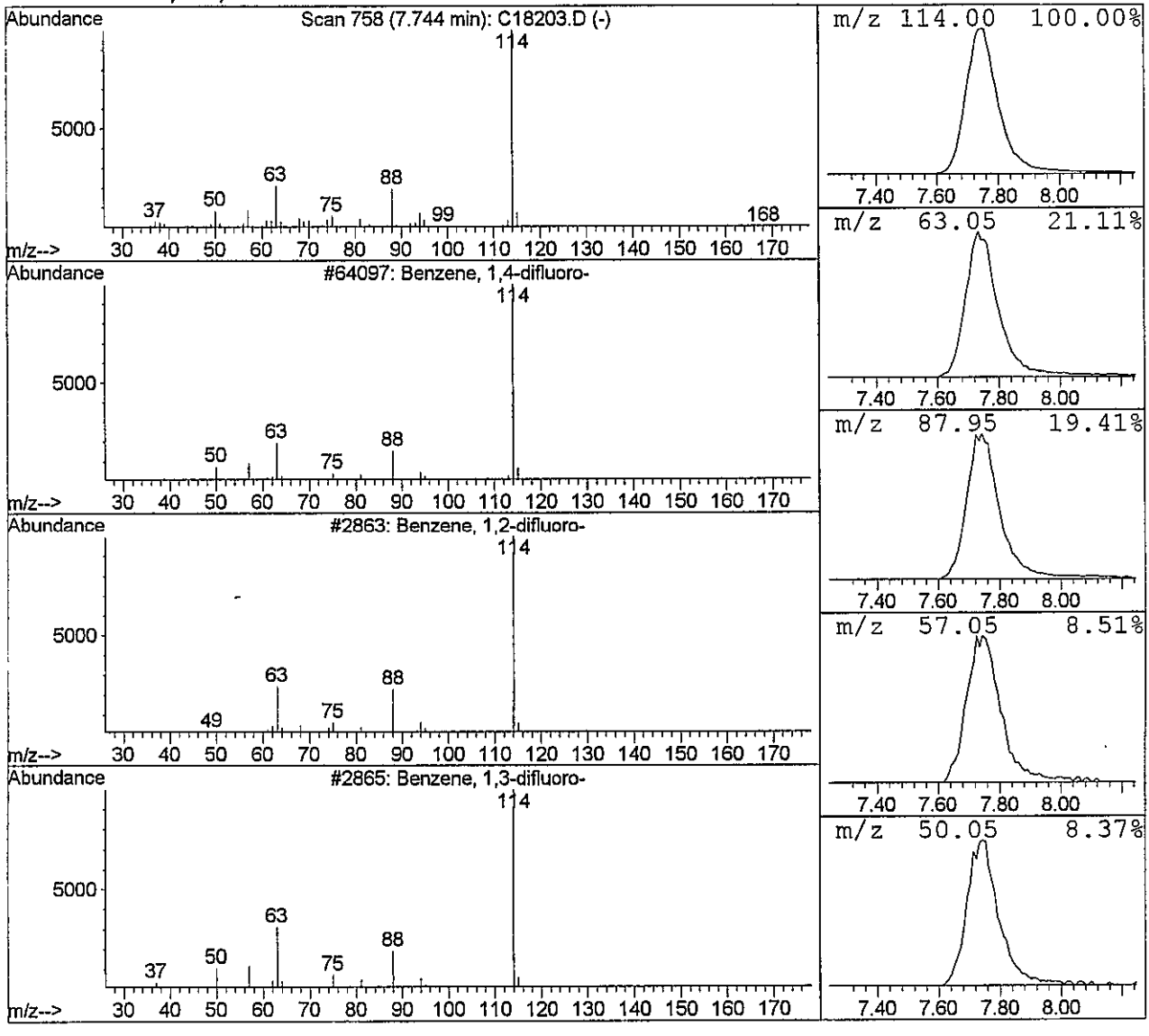
Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzene, 1,4-difluoro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.74	42.77 ug\L	1166560	Pentafluorobenzene	6.45

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	97
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	95



Tentatively Identified Compound (LSC) summary

Operator ID: TAG/VR Date Acquired: 27 Dec 2000 10:17
Data File: C:\HPCHEM\1\DATA\122700\C18203.D
Name: QVW 122700 C1
Misc: WATER BLANK 5ml DF=1
Method: c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title: 8260 CALIBRATION FOR WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.50	5.9	ug\L	160093	ISTD01	6.45	1363810	50.0
Benzene, 1,4-difluor	7.74	42.8	ug\L	1166560	ISTD01	6.45	1363810	50.0

C18203.D 122700W.M Thu Jan 04 09:22:53 2001 RPT1

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00576.D Vial: 10
Acq On : 4 Jan 2001 8:23 pm Operator: JP
Sample : QSW1222002 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 20:47:14 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	44879	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	113615	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	139046	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	104693	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	100486	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	74215	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.68	112	129950	75.54	ul/l	0.00
Spiked Amount 100.000			Recovery = 75.54%			
7) Phenol-d5	6.82	99	161828	79.82	ul/l	0.00
Spiked Amount 100.000			Recovery = 79.82%			
22) Nitrobenzene-d5	7.97	82	90770	39.22	ul/l	0.00
Spiked Amount 50.000			Recovery = 78.44%			
42) 2-Fluorobiphenyl	10.19	172	130720	40.25	ul/l	0.00
Spiked Amount 50.000			Recovery = 80.50%			
63) 2,4,6-Tribromophenol	12.05	330	41636	88.84	ul/l	0.00
Spiked Amount 100.000			Recovery = 88.84%			
74) Terphenyl-d14	14.89	244	97879	44.76	ul/l	0.00
Spiked Amount 50.000			Recovery = 89.52%			

Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.84	42	19524m	39.26	ul/l	
4) Methylmethanesufonate	5.52	80	22505	38.35	ul/l	98
6) Ethylmethanesulfonate	6.38	79	38213	42.32	ul/l	99
8) Phenol	6.83	94	111196	46.73	ul/l	98
9) bis(2-Chloroethyl)ether	6.95	63	81958	39.50	ul/l	97
10) 2-Chlorophenol	7.03	128	79946	45.42	ul/l	100
11) 1,3-Dichlorobenzene	7.21	146	66471	39.07	ul/l	99
12) 1,4-Dichlorobenzene	7.27	146	73560	36.21	ul/l	98
13) Benzyl alcohol	7.43	108	87975	39.33	ul/l	99
14) 1,2-Dichlorobenzene	7.51	146	67702	40.76	ul/l	100
15) 2-Methylphenol	7.57	108	75412	44.95	ul/l	99
16) bis(2-chloroisopropyl)ethe	7.62	45	92142	43.90	ul/l	99
17) 3,4-Methylphenol	7.75	108	192713	99.47	ul/l	99
18) Total Cresol	7.75	108	131356m	143.77	ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	60746	43.33	ul/l	100
20) Hexachloroethane	7.89	117	33257	33.19	ul/l	100
23) Nitrobenzene	7.99	77	81758	41.73	ul/l	100
24) Isophorone	8.28	82	90924	40.36	ul/l	99
25) 2-Nitrophenol	8.39	139	46620	44.25	ul/l	98
26) 2,4-Dimethylphenol	8.41	107	94880	40.24	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00576.D Vial: 10
Acq On : 4 Jan 2001 8:23 pm Operator: JP
Sample : QSW1222002 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 20:47:14 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
27)	Benzoic Acid	8.50	105	19017	29.40	ul/l	#	88
28)	bis(2-Chloroethoxy)methane	8.53	93	66892	40.46	ul/l		99
29)	2,4-Dichlorophenol	8.67	162	70505	45.84	ul/l		99
30)	1,2,4-Trichlorobenzene	8.78	180	74401	37.27	ul/l		100
31)	Naphthalene	8.87	128	143317	44.03	ul/l		100
32)	4-Chloroaniline	8.95	127	59045	30.85	ul/l		100
33)	2,6-Dichlorophenol	8.96	162	35341	46.34	ul/l		100
34)	Hexachlorobutadiene	9.08	225	37337	38.51	ul/l		100
35)	4-Chloro-3-methylphenol	9.53	107	83113	48.84	ul/l		100
36)	2-Methylnaphthalene	9.73	142	145723	38.68	ul/l		100
37)	1-Methylnaphthalene	9.87	142	82914	40.80	ul/l		99
39)	Hexachlorocyclopentadiene	10.01	237	8086	8.77	ul/l		99
40)	2,4,6-Trichlorophenol	10.10	196	56458	46.62	ul/l		99
41)	2,4,5-Trichlorophenol	10.15	196	63713	48.61	ul/l		100
43)	2-Chloronaphthalene	10.34	162	128811	41.45	ul/l		100
44)	2-Nitroaniline	10.49	65	69657	41.57	ul/l		100
45)	Dimethylphthalate	10.73	163	106219	47.90	ul/l		100
46)	Acenaphthylene	10.87	152	167409	44.55	ul/l		99
47)	2,6-Dinitrotoluene	10.82	165	38091	45.80	ul/l		99
48)	3-Nitroaniline	11.01	138	47606	43.33	ul/l		99
49)	Acenaphthene	11.10	153	192478	48.70	ul/l		99
50)	2,4-Dinitrophenol	11.13	184	19923	37.25	ul/l		89
51)	4-Nitrophenol	11.18	109	49467	46.26	ul/l		99
52)	Dibenzofuran	11.29	168	154588	41.71	ul/l		99
53)	2,4-Dinitrotoluene	11.32	165	46945	60.70	ul/l		83
54)	Diethylphthalate	11.60	149	120621	53.08	ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	20964	50.96	ul/l		98
56)	Fluorene	11.72	166	182132	50.18	ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	78096	45.04	ul/l		100
58)	4-Nitroaniline	11.78	138	46711	42.03	ul/l		99
60)	4,6-Dinitro-2-methylphenol	11.83	198	27396	45.12	ul/l		99
61)	n-Nitrosodiphenylamine	11.85	169	120654	44.68	ul/l		99
62)	Azobenzene	11.90	77	108104	45.53	ul/l		98
64)	4-Bromophenyl-phenylether	12.31	248	61234	45.77	ul/l		100
65)	Hexachlorobenzene	12.52	284	40541	52.13	ul/l		99
66)	Pentachlorophenol	12.73	266	31314	46.83	ul/l		99
67)	Phenanthrene	12.93	178	175646	46.52	ul/l		99
68)	Anthracene	12.98	178	164002	46.68	ul/l		100
69)	Carbazole	13.17	167	118141	47.46	ul/l	#	100
70)	Di-n-butylphthalate	13.61	149	158292	47.90	ul/l		99
71)	Fluoranthene	14.42	202	157728	45.62	ul/l		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00576.D Vial: 10
Acq On : 4 Jan 2001 8:23 pm Operator: JP
Sample : QSW1222002 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 20:47:14 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73)	Pyrene	14.71	202	187280	51.42 ul/l	99
75)	Butylbenzylphthalate	15.61	149	118670	46.52 ul/l	100
76)	3,3'-Dichlorobenzidine	16.45	252	25864	32.01 ul/l	100
77)	Benzo[a]anthracene	16.51	228	162135	46.00 ul/l	100
78)	Chyrsene	16.58	228	157527	45.99 ul/l	99
79)	bis(2-Ethylhexyl)phthalate	16.54	149	113146	47.08 ul/l	99
81)	Di-n-octylphthalate	17.59	149	135129	43.13 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	134244	43.23 ul/l	100
83)	Benzo[k]fluoranthene	18.44	252	127919	42.75 ul/l	100
84)	Benzo[a]pyrene	19.06	252	117442	40.26 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	21.98	276	133587	40.02 ul/l	98
86)	Dibenz[a,h]anthracene	22.02	278	110410	41.53 ul/l	100
87)	Benzo[g,h,i]perylene	22.82	276	130175	41.05 ul/l	99

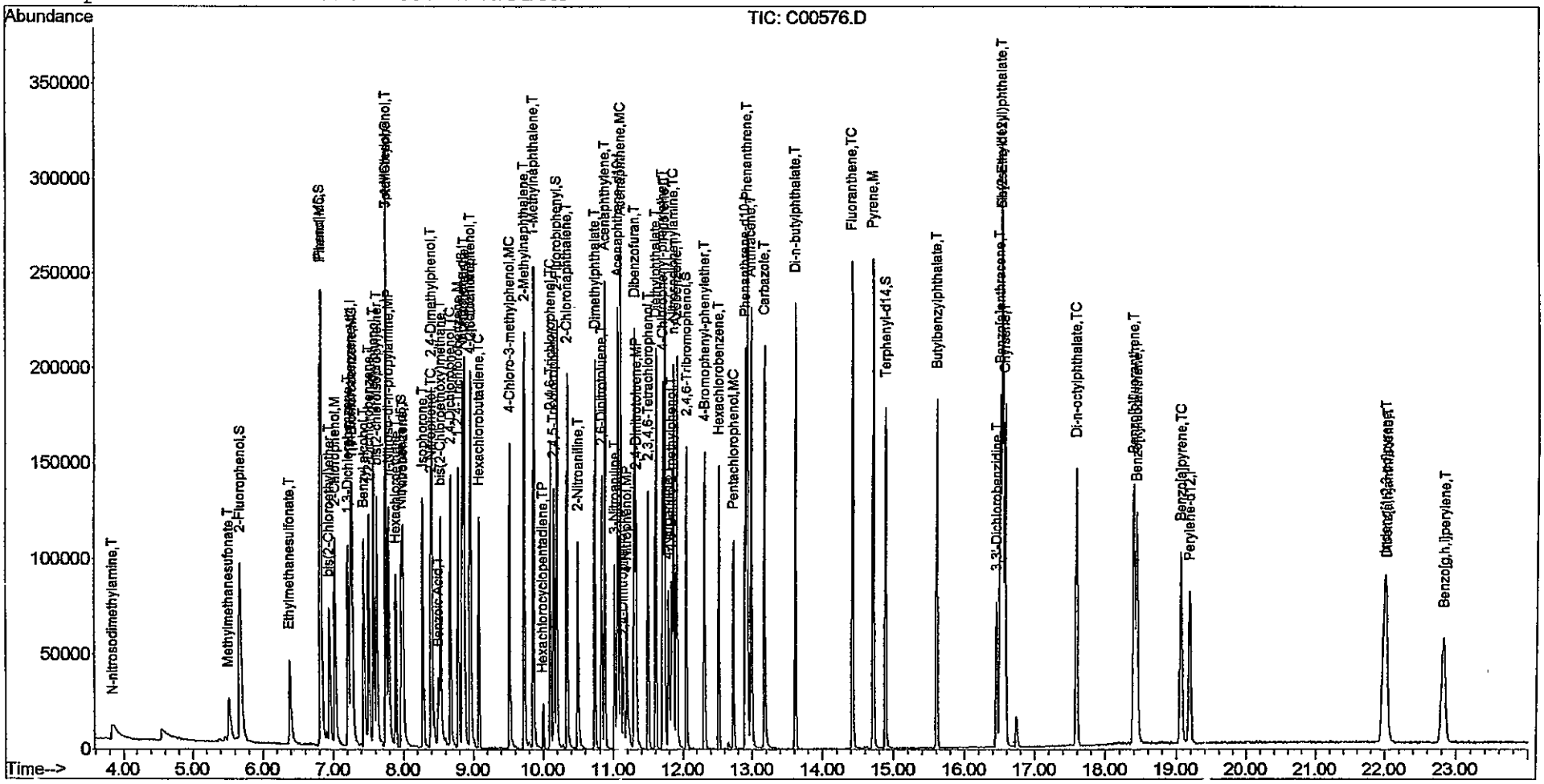
JP 01.05.2001

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00576.D Vial: 10
Acq On : 4 Jan 2001 8:23 pm Operator: JP
Sample : QSW1222002 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 5 6:37 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00577.D Vial: 11
Acq On : 4 Jan 2001 8:57 pm Operator: JP
Sample : QSW1222003 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 21:21:46 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	52918	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	134784	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	168204	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	134153	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	131157	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	80252	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.68	112	152307	75.08	ul/l	0.00
Spiked Amount 100.000			Recovery = 75.08%			
7) Phenol-d5	6.82	99	187224	78.31	ul/l	0.00
Spiked Amount 100.000			Recovery = 78.31%			
22) Nitrobenzene-d5	7.97	82	109804	39.99	ul/l	0.00
Spiked Amount 50.000			Recovery = 79.98%			
42) 2-Fluorobiphenyl	10.19	172	157038	39.97	ul/l	0.00
Spiked Amount 50.000			Recovery = 79.94%			
63) 2,4,6-Tribromophenol	12.05	330	53793	89.57	ul/l	0.00
Spiked Amount 100.000			Recovery = 89.57%			
74) Terphenyl-d14	14.89	244	131230	45.98	ul/l	0.00
Spiked Amount 50.000			Recovery = 91.96%			

Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.86	42	22456m	38.29	ul/l	
4) Methylmethanesufonate	5.52	80	25995	37.56	ul/l	98
6) Ethylmethanesulfonate	6.38	79	44281	41.59	ul/l	99
8) Phenol	6.83	94	132333	47.16	ul/l	98
9) bis(2-Chloroethyl)ether	6.95	63	98457	40.24	ul/l	97
10) 2-Chlorophenol	7.03	128	96078	46.30	ul/l	99
11) 1,3-Dichlorobenzene	7.21	146	75223	37.50	ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	83621	34.91	ul/l	99
13) Benzyl alcohol	7.43	108	97395	36.93	ul/l	98
14) 1,2-Dichlorobenzene	7.51	146	79326	40.51	ul/l	99
15) 2-Methylphenol	7.57	108	92212	46.61	ul/l	96
16) bis(2-chloroisopropyl)ethe	7.62	45	106455	43.01	ul/l	95
17) 3,4-Methylphenol	7.75	108	239831	104.98	ul/l	99
18) Total Cresol	7.75	108	160500m	148.99	ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	73608	44.53	ul/l	99
20) Hexachloroethane	7.89	117	37732	31.94	ul/l	99
23) Nitrobenzene	7.99	77	100673	43.31	ul/l	99
24) Isophorone	8.28	82	108923	40.76	ul/l	98
25) 2-Nitrophenol	8.39	139	58094	46.49	ul/l	99
26) 2,4-Dimethylphenol	8.41	107	132287	47.29	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00577.D Vial: 11
Acq On : 4 Jan 2001 8:57 pm Operator: JP
Sample : QSW1222003 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 21:21:46 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
27)	Benzoic Acid	8.51	105	30724	40.04 ul/l		98
28)	bis(2-Chloroethoxy)methane	8.53	93	82794	42.21 ul/l		99
29)	2,4-Dichlorophenol	8.67	162	87861	48.15 ul/l		100
30)	1,2,4-Trichlorobenzene	8.78	180	85837	36.25 ul/l		100
31)	Naphthalene	8.87	128	172844	44.76 ul/l		100
32)	4-Chloroaniline	8.96	127	12637	2.70 ul/l		97
33)	2,6-Dichlorophenol	8.96	162	43846	48.47 ul/l		91
34)	Hexachlorobutadiene	9.08	225	43937	38.20 ul/l		99
35)	4-Chloro-3-methylphenol	9.53	107	104031	51.53 ul/l		99
36)	2-Methylnaphthalene	9.73	142	178504	40.09 ul/l		100
37)	1-Methylnaphthalene	9.87	142	101470	42.09 ul/l		99
39)	Hexachlorocyclopentadiene	10.01	237	11625	10.42 ul/l		99
40)	2,4,6-Trichlorophenol	10.10	196	69418	47.38 ul/l		99
41)	2,4,5-Trichlorophenol	10.15	196	79508	50.15 ul/l		100
43)	2-Chloronaphthalene	10.34	162	157956	42.02 ul/l		100
44)	2-Nitroaniline	10.49	65	87886	43.35 ul/l		100
45)	Dimethylphthalate	10.73	163	129001	48.09 ul/l		100
46)	Acenaphthylene	10.87	152	203954	44.87 ul/l		99
47)	2,6-Dinitrotoluene	10.82	165	47626	47.33 ul/l		98
48)	3-Nitroaniline	11.01	138	16896	12.71 ul/l		98
49)	Acenaphthene	11.10	153	237253	49.63 ul/l		100
50)	2,4-Dinitrophenol	11.13	184	27825	43.01 ul/l		90
51)	4-Nitrophenol	11.18	109	65594	50.71 ul/l		98
52)	Dibenzofuran	11.29	168	188944	42.19 ul/l		98
53)	2,4-Dinitrotoluene	11.32	165	59235	63.31 ul/l		84
54)	Diethylphthalate	11.60	149	148987	54.20 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	25806	51.85 ul/l		99
56)	Fluorene	11.73	166	229270	52.22 ul/l		99
57)	4-Chlorophenyl-phenylether	11.70	204	97693	46.58 ul/l		100
58)	4-Nitroaniline	11.78	138	32655	24.29 ul/l		99
60)	4,6-Dinitro-2-methylphenol	11.82	198	36042	46.33 ul/l		100
61)	n-Nitrosodiphenylamine	11.85	169	106660	30.83 ul/l		99
62)	Azobenzene	11.90	77	117265	38.54 ul/l		99
64)	4-Bromophenyl-phenylether	12.31	248	77485	45.20 ul/l		100
65)	Hexachlorobenzene	12.52	284	50382	50.55 ul/l		99
66)	Pentachlorophenol	12.73	266	42433	49.53 ul/l		100
67)	Phenanthrene	12.93	178	220440	45.56 ul/l		99
68)	Anthracene	12.99	178	210883	46.84 ul/l		100
69)	Carbazole	13.17	167	142611	44.71 ul/l	#	99
70)	Di-n-butylphthalate	13.61	149	211178	49.87 ul/l		100
71)	Fluoranthene	14.43	202	211640	47.77 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00577.D Vial: 11
Acq On : 4 Jan 2001 8:57 pm Operator: JP
Sample : QSW1222003 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 21:21:46 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73)	Pyrene	14.71	202	252954	53.21 ul/l	100
75)	Butylbenzylphthalate	15.61	149	162168	48.71 ul/l	100
77)	Benzo[a]anthracene	16.51	228	214373	46.60 ul/l	99
78)	Chyrsene	16.58	228	202072	45.19 ul/l	100
79)	bis(2-Ethylhexyl)phthalate	16.54	149	151221	48.21 ul/l	99
81)	Di-n-octylphthalate	17.59	149	181175	53.47 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	174869	52.08 ul/l	99
83)	Benzo[k]fluoranthene	18.44	252	167321	51.71 ul/l	98
84)	Benzo[a]pyrene	19.06	252	147731	46.83 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	21.99	276	163314	45.25 ul/l	98
86)	Dibenz[a,h]anthracene	22.02	278	134937	46.93 ul/l	100
87)	Benzo[g,h,i]perylene	22.82	276	153579	44.79 ul/l	100

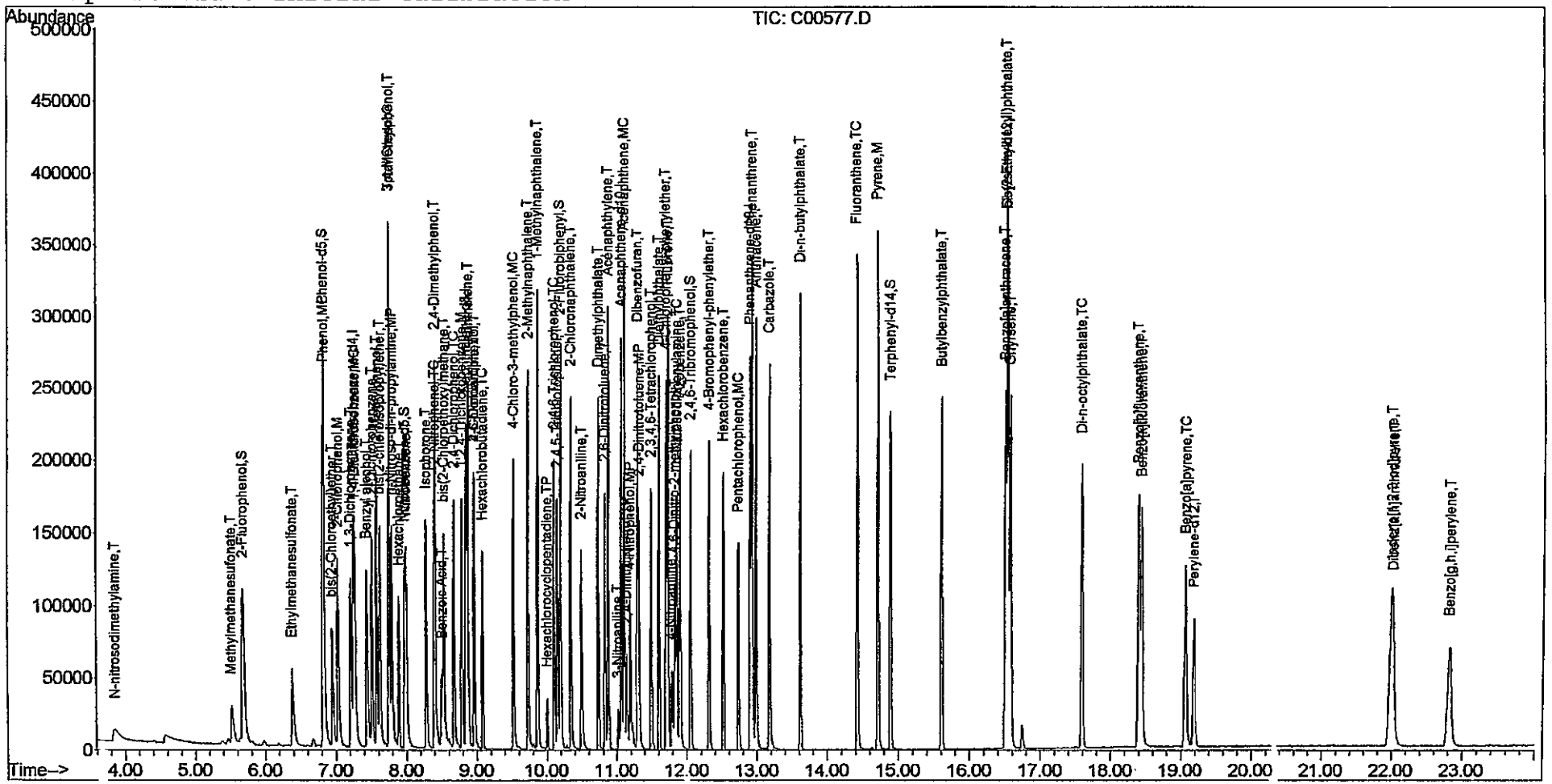
JP 01.05.2001

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00577.D Vial: 11
Acq On : 4 Jan 2001 8:57 pm Operator: JP
Sample : QSW1222003 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 5 6:39 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration



Accura Analytical Laboratory, Inc.

Pesticides LCS Report

Sample ID:	QPW1222002	**Date Acquired:**	12/29/00
Operator:	YGK	**Instrument ID:**	PEST-A
Data File:	12290022	**Bottle #:**	22
Method:	8081A	**Matrix:**	Water

Compounds	Expected Conc. (ppm)	Actual Conc. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
Aldrin	0.25	0.239	96%	67 - 120	Pass
alpha-BHC	0.25	0.207	83%	65 - 117	Pass
beta-BHC	0.25	0.208	83%	67 - 120	Pass
gamma-BHC	0.25	0.211	84%	68 - 121	Pass
delta-BHC	0.25	0.212	85%	72 - 115	Pass
4,4'-DDD	0.25	0.251	100%	80 - 127	Pass
4,4'-DDE	0.25	0.252	101%	77 - 129	Pass
4,4'-DDT	0.25	0.255	102%	80 - 130	Pass
Dieldrin	0.25	0.247	99%	84 - 128	Pass
Endosulfan I	0.25	0.228	91%	51 - 142	Pass
Endosulfan II	0.25	0.251	100%	54 - 125	Pass
Endosulfan Sulfate	0.25	0.271	108%	87 - 140	Pass
Endrin	0.25	0.267	107%	83 - 131	Pass
Endrin Aldehyde	0.25	0.247	99%	84 - 121	Pass
Heptachlor epoxide	0.25	0.245	98%	81 - 128	Pass
Heptachlor	0.25	0.239	96%	70 - 125	Pass
Methoxychlor	0.25	0.263	105%	85 - 122	Pass

Surrogates	Expected Rec. (ppm)	Actual Rec. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
Tetrachloro-m-xylene	0.25	0.189	76%	51 - 123	Pass
Decachlorobiphenyl	0.25	0.169	68%	42 - 153	Pass

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290022.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\122900\12290022.D\ECD2B.CH
Acq On : 29 Dec 2000 20:40 Operator: YGK
Sample : QPW1222002 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:25 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.75	23254453	24092424	0.189	0.186
		Spiked Amount 0.250			Recovery	=	75.60%	74.40%
22)	S	Decachlorobiphen	20.84	21.24	17949536	17910049	0.169	0.158
		Spiked Amount 0.250			Recovery	=	67.60%	63.20%
		Target Compounds						
2)	T	alpha-BHC	9.61	9.43	40596866	39129626	0.207	0.203
3)	T	beta-BHC	10.71	10.62	19377387	18092899	0.208	0.199
4)	T	gamma-BHC (Linda	10.44	10.35	38144781	33374434	0.211	0.192
5)	T	delta-BHC	11.15	11.33	40361399	27026205	0.212	0.216
6)	T	Heptachlor	11.63	11.40	31012863	38194657	0.239	0.227
7)	T	Aldrin	12.36	12.16	30108054	31697021	0.229	0.224
8)	T	Heptachlor epoxi	13.79	13.50	28884461	28297146	0.245	0.243
9)	T	Endosulfan I	14.68	14.37	29032560	26919378	0.228	0.223
10)	T	gamma-Chlordane	14.08	13.93	33239029	32889928	0.238	0.225
11)	T	alpha-Chlordane	14.38	14.25	31250394	30576188	0.248	0.231
12)	T	4,4'-DDE	14.59	14.67	26805599	30693550	0.252	0.239
13)	T	Dieldrin	15.22	14.97	29417196	29963434	0.247	0.245
14)	T	Endrin	15.73	15.63	23798464	22988420	0.267	0.269
15)	T	4,4'-DDD	15.91	15.93	24912627	23721331	0.251	0.252
16)	T	Endosulfan II	16.24	16.11	25166697	26093177	0.251	0.248
17)	T	Endrin aldehyde	17.14	16.83	20327755	22010065	0.247	0.255
18)	T	4,4'-DDT	16.50	16.59	26090004	26337790	0.255	0.257
19)	T	Endosulfan sulfa	18.08	17.42	25075415	25172815	0.271	0.262
20)	T	Methoxychlor	17.55	18.06	13910345	13400972	0.263	0.268
21)	T	Endrin ketone	18.69	18.56	27895498	25839100	0.252	0.251

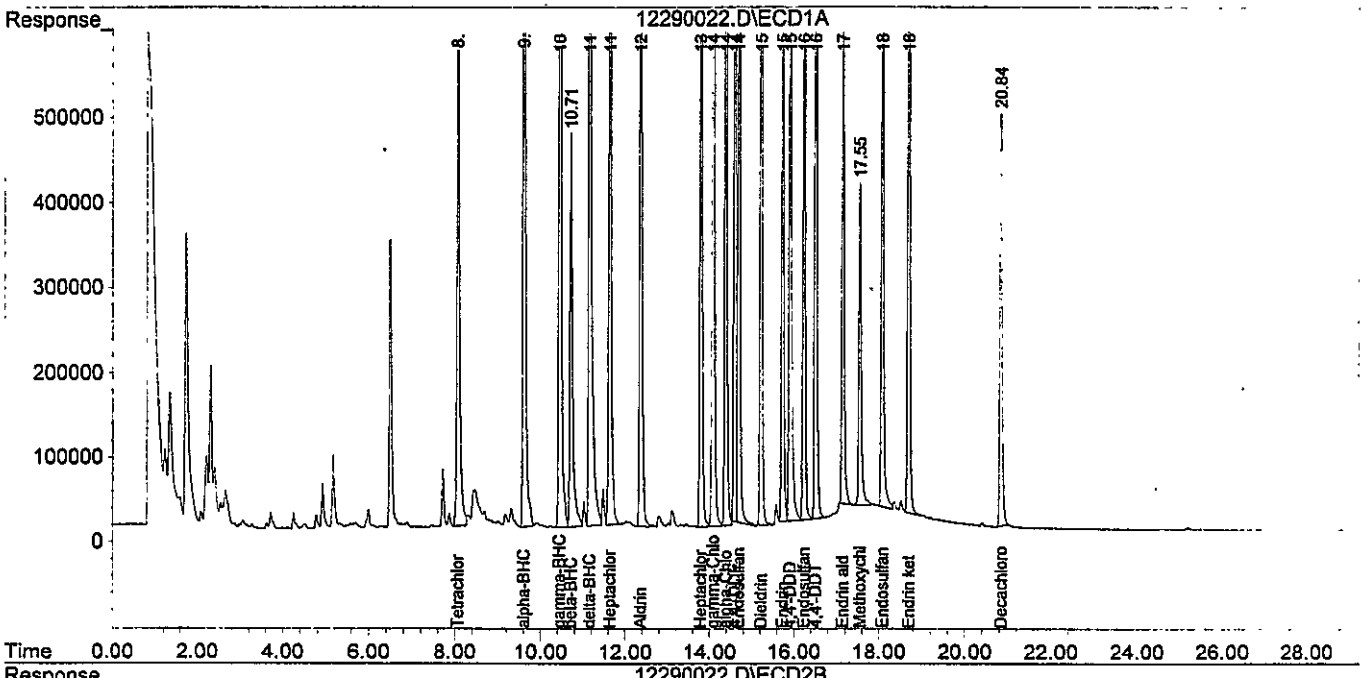
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

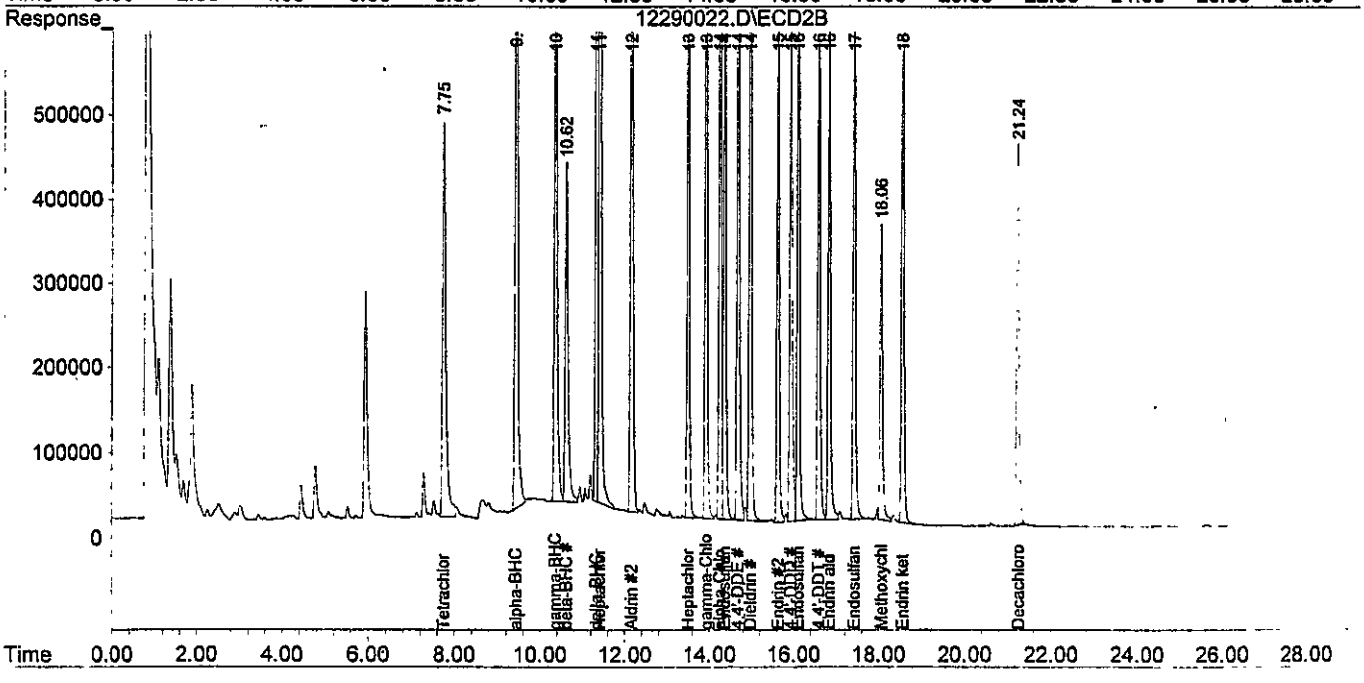
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290022.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\122900\12290022.D\ECD2B.CH
Acq On : 29 Dec 2000 20:40 Operator: YGK
Sample : QPW1222002 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:25 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Accura Analytical Laboratory, Inc.

PCB's LCS Report

Sample ID:	QPW1222003	**Date Acquired:**	12/28/00
Operator:	YGK	**Instrument ID:**	PEST-C
Data File:	12280004	**Bottle #:**	4
Method:	8082	**Matrix:**	WATER

Compounds	Expected Conc. (ppm)	Actual Conc. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
AR 1016	1.00	0.97	97%	75 - 130	Pass
AR 1260	1.00	0.92	92%	85 - 129	Pass

Surrogate	Expected Conc. (ppm)	Actual Conc. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
Decachlorobiphenyl	0.25	0.171	68%	46 - 128	Pass

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\122800\12280004.D
Acq On : 28 Dec 2000 17:03
Sample : QPW1222003
Misc :
IntFile : EVENTS.E
Quant Time: Jan 2 13:11 2001 Quant Results File: 11301660.RES

Vial: 4
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	22451874	0.198 ug/ml
Spiked Amount 0.250		Recovery =	79.20%
12) S DCB (SURR)	26.75	18326708	0.171 ug/ml
Spiked Amount 0.250		Recovery =	68.40% ✓
Target Compounds			
2) L1 AR 1016 1	9.36	2440155	0.960 ug/ml
3) L1 AR 1016 2	10.14	8561258	1.013 ug/ml
4) L1 AR 1016 3	10.43	3571717	1.002 ug/ml
5) L1 AR 1016 4	11.70	2035630	0.926 ug/ml
6) L1 AR 1016 5	12.07	2572242	0.949 ug/ml
Sum AR 1016 1		19181002	4.849 ug/ml
Average AR 1016 1			0.970 ug/ml 97
7) L2 AR 1260 1	15.38	4905907	0.986 ug/ml
8) L2 AR 1260 2	16.07	5375395	0.934 ug/ml
9) L2 AR 1260 3	16.89	7569579	0.933 ug/ml
10) L2 AR 1260 4	18.90	10276287	0.887 ug/ml
11) L2 AR 1260 5	19.97	4935103	0.859 ug/ml
Sum AR 1260 1		33062272	4.599 ug/ml
Average AR 1260 1			0.920 ug/ml 92

(f)=RT Delta > 1/2 Window (m)=manual int.

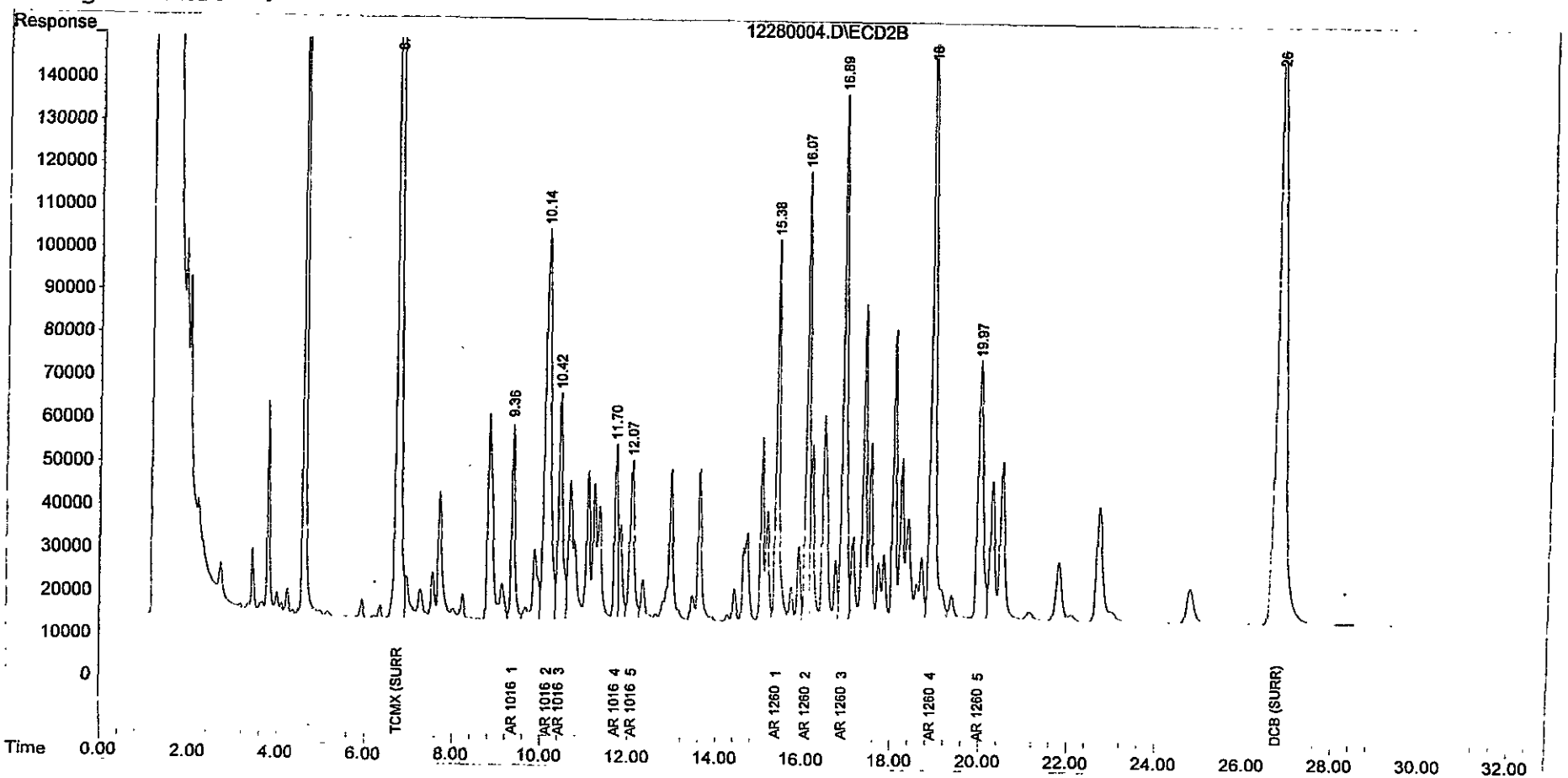
Quantitation Report

Data File : C:\HPCHEM\3\DATA\122800\12280004.D
Acq On : 28 Dec 2000 17:03
Sample : QPW1222003
Misc :
IntFile : EVENTS.E
Quant Time: Jan 2 13:11 2001 Quant Results File: 11301660.RES

Vial: 4
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.
Persticides LCS/LCS DUP Report

Sample ID:	QPW12070023	**Date Acquired:**	12/14/00
Operator:	YGK	**Instrument ID:**	#1
Data File:	12140013&14	**Bottle #:**	13&14
Method:	8081A	**Matrix:**	WATER

Compounds	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
Aldrin	0.25	0.241	96%	0.268	107%	67 - 120	Pass	Pass	11%	< 20	Pass
alpha-BHC	0.25	0.194	78%	0.22	88%	65 - 117	Pass	Pass	13%	< 20	Pass
beta-BHC	0.25	0.203	81%	0.237	95%	67 - 120	Pass	Pass	15%	< 20	Pass
gamma-BHC	0.25	0.209	84%	0.235	94%	68 - 121	Pass	Pass	12%	< 20	Pass
delta-BHC	0.25	0.213	85%	0.229	92%	72 - 115	Pass	Pass	7%	< 20	Pass
4,4'-DDD	0.25	0.265	106%	0.279	112%	80 - 127	Pass	Pass	5%	< 20	Pass
4,4'-DDE	0.25	0.267	107%	0.285	114%	77 - 129	Pass	Pass	7%	< 20	Pass
4,4'-DDT	0.25	0.233	93%	0.245	98%	80 - 130	Pass	Pass	5%	< 20	Pass
Dieldrin	0.25	0.259	104%	0.269	108%	84 - 128	Pass	Pass	4%	< 20	Pass
Endosulfan I	0.25	0.242	97%	0.251	100%	51 - 142	Pass	Pass	4%	< 20	Pass
Endosulfan II	0.25	0.262	105%	0.268	107%	54 - 125	Pass	Pass	2%	< 20	Pass
Endosulfan Sulfate	0.25	0.272	109%	0.278	111%	87 - 140	Pass	Pass	2%	< 20	Pass
Endrin	0.25	0.284	114%	0.292	117%	83 - 131	Pass	Pass	3%	< 20	Pass
Endrin Aldehyde	0.25	0.246	98%	0.254	102%	84 - 121	Pass	Pass	3%	< 20	Pass
Heptachlor epoxide	0.25	0.257	103%	0.268	107%	81 - 128	Pass	Pass	4%	< 20	Pass
Heptachlor	0.25	0.229	92%	0.247	99%	70 - 125	Pass	Pass	8%	< 20	Pass
Methoxychlor	0.25	0.238	95%	0.243	97%	85 - 122	Pass	Pass	2%	< 20	Pass

Surrogates	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail
Tetrachloro-m-xylene	0.25	0.178	71%	0.189	76%	51 - 123	Pass	Pass
Decachlorobiphenyl	0.25	0.18	72%	0.19	76%	42 - 153	Pass	Pass

*-Inhouse limits to be developed

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\121400\12140013.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\121400\12140013.D\ECD2B.CH
Acq On : 14 Dec 2000 17:02 Operator: YGK
Sample : QPW1207002 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 15 10:18 2000 Quant Results File: 121200P.RES

Quant Method : C:\HPCHEM\1\METHODS\121200P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (11/29/00)
Last Update : Wed Dec 13 17:39:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.07	7.76	19686611	21213463	0.178	0.179
Spiked Amount		0.250			Recovery	=	71.20% ✓	71.60%
22)	S	Decachlorobiphen	20.85	21.25	18150109	19793514	0.180	0.182
Spiked Amount		0.250			Recovery	=	72.00% ✓	72.80%
		Target Compounds						
2)	T	alpha-BHC	9.62	9.44	34395736	34212073	0.194	0.197
3)	T	beta-BHC	10.72	10.62	16434200	15940709	0.203	0.224
4)	T	gamma-BHC (Linda	10.46	10.36	32856158	29477350	0.209	0.219
5)	T	delta-BHC	11.16	11.33	34251991	27602247	0.213	0.249
6)	T	Heptachlor	11.65	11.41	26695815	32355510	0.229	0.224
7)	T	Aldrin	12.37	12.17	26308258	27679726	0.241	0.231
8)	T	Heptachlor epoxi	13.80	13.51	26782425	27683151	0.257	0.264
9)	T	Endosulfan I	14.70	14.37	27524971	27662857	0.242	0.252
10)	T	gamma-Chlordane	14.10	13.93	30151158	31128189	0.244 98	0.240
11)	T	alpha-Chlordane	14.39	14.26	28032404	29630792	0.265 106	0.251
12)	T	4,4'-DDE	14.60	14.68	25754450	29800199	0.267	0.259
13)	T	Dieldrin	15.23	14.98	27239282	30410294	0.259	0.264
14)	T	Endrin	15.75	15.64	22667898	23804402	0.284	0.303
15)	T	4,4'-DDD	15.92	15.93	23561283	24639160	0.265	0.280
16)	T	Endosulfan II	16.25	16.11	23565571	26378690	0.262	0.267
17)	T	Endrin aldehyde	17.16	16.84	18712076	21116630	0.246	0.266
18)	T	4,4'-DDT	16.51	16.59	22134443	22943209	0.233	0.249
19)	T	Endosulfan sulfa	18.09	17.43	23106518	24966532	0.272	0.277
20)	T	Methoxychlor	17.56	18.07	11412242	12265674	0.238	0.261
21)	T	Endrin ketone	18.71	18.57	25609067	26749418	0.253 101	0.261

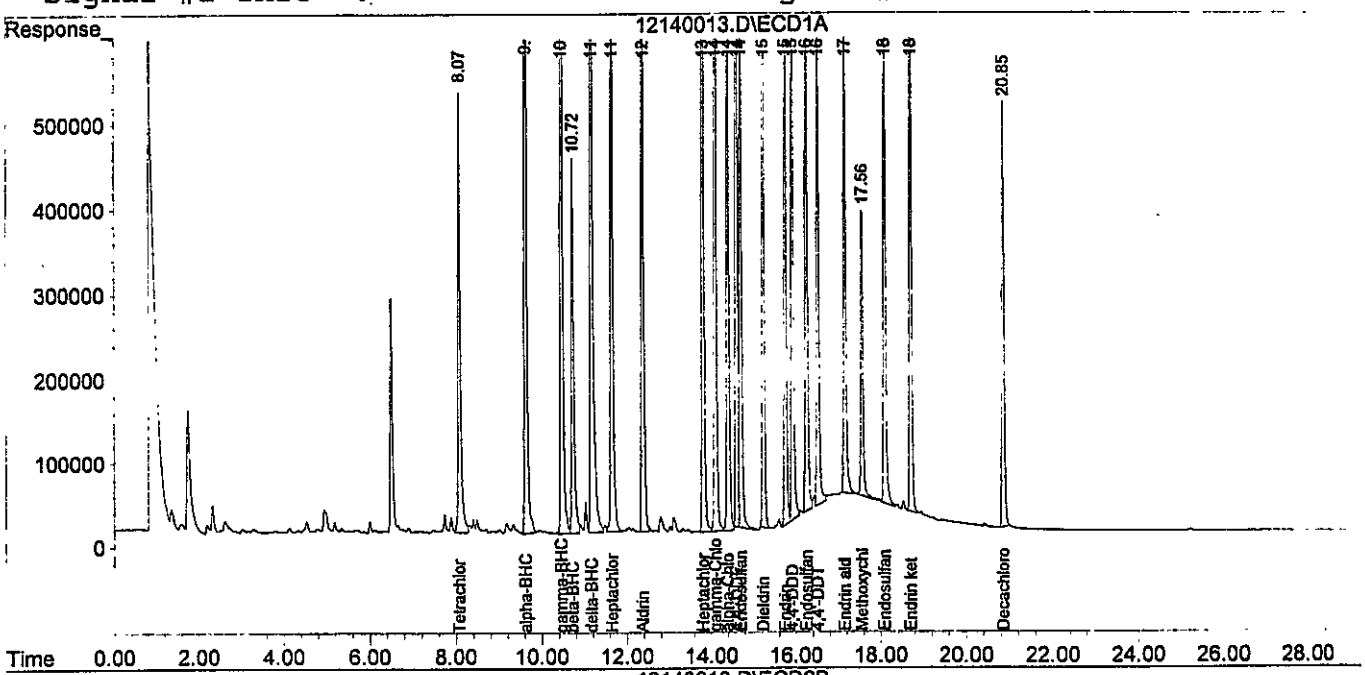
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

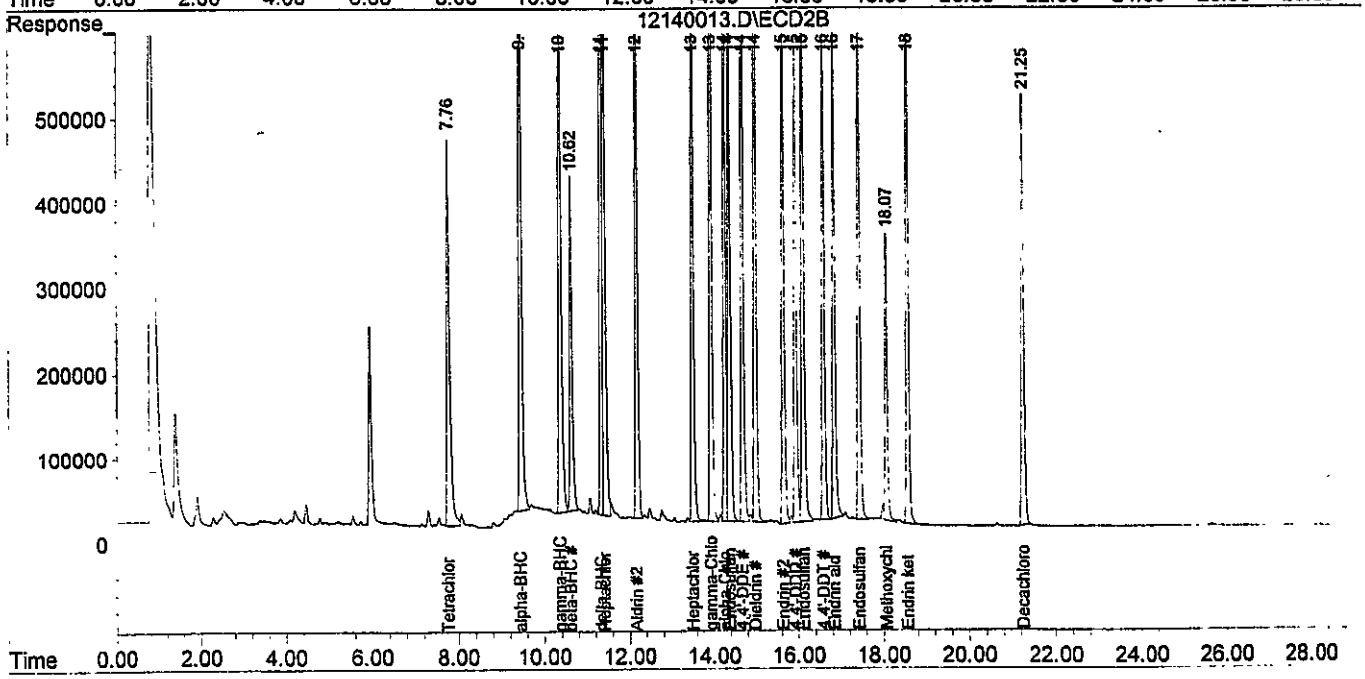
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\121400\12140013.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\121400\12140013.D\ECD2B.CH
Acq On : 14 Dec 2000 17:02 Operator: YGK
Sample : QPW1207002 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 15 10:18 2000 Quant Results File: 121200P.RES

Quant Method : C:\HPCHEM\1\METHODS\121200P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (11/29/00)
Last Update : Wed Dec 13 17:39:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\121400\12140014.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\121400\12140014.D\ECD2B.CH
Acq On : 14 Dec 2000 17:36 Operator: YGK
Sample : QPW1207003 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 15 10:19 2000 Quant Results File: 121200P.RES

Quant Method : C:\HPCHEM\1\METHODS\121200P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (11/29/00)
Last Update : Wed Dec 13 17:39:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.07	7.76	20930180	22003943	0.189	0.185
Spiked Amount		0.250			Recovery	=	75.60% ✓	74.00%
22)	S	Decachlorobiphen	20.85	21.25	19163143	20744499	0.190	0.191
Spiked Amount		0.250			Recovery	=	76.00% ✓	76.40%
		Target Compounds						
2)	T	alpha-BHC	9.62	9.44	38845987	38325416	0.220	0.221
3)	T	beta-BHC	10.72	10.62	19154696	18572275	0.237	0.261
4)	T	gamma-BHC (Linda	10.46	10.36	36997719	32286406	0.235	0.240
5)	T	delta-BHC	11.16	11.33	36798601	29538412	0.229	0.267
6)	T	Heptachlor	11.65	11.41	28810853	36391254	0.247	0.252
7)	T	Aldrin	12.37	12.17	29215446	30456533	0.268	0.254
8)	T	Heptachlor epoxi	13.80	13.51	27928274	28881402	0.268	0.275
9)	T	Endosulfan I	14.70	14.37	28644687	28730849	0.251	0.261
10)	T	gamma-Chlordane	14.10	13.93	32101952	33849596	0.259 104	0.261
11)	T	alpha-Chlordane	14.39	14.26	29591142	31913170	0.279 112	0.271
12)	T	4,4'-DDE	14.60	14.68	27496633	31942141	0.285	0.277
13)	T	Dieldrin	15.23	14.98	28354995	31231955	0.269	0.271
14)	T	Endrin	15.75	15.64	23301971	24303104	0.292	0.309
15)	T	4,4'-DDD	15.92	15.93	24848625	25834134	0.279	0.294
16)	T	Endosulfan II	16.25	16.11	24071615	27420920	0.268	0.277
17)	T	Endrin aldehyde	17.16	16.84	19327250	21586509	0.254	0.272
18)	T	4,4'-DDT	16.52	16.59	23288209	24102421	0.245	0.262
19)	T	Endosulfan sulfa	18.09	17.43	23580871	25472518	0.278	0.282
20)	T	Methoxychlor	17.56	18.07	11623042	12477078	0.243	0.265
21)	T	Endrin ketone	18.71	18.57	26314936	27213850	0.260 104	0.266

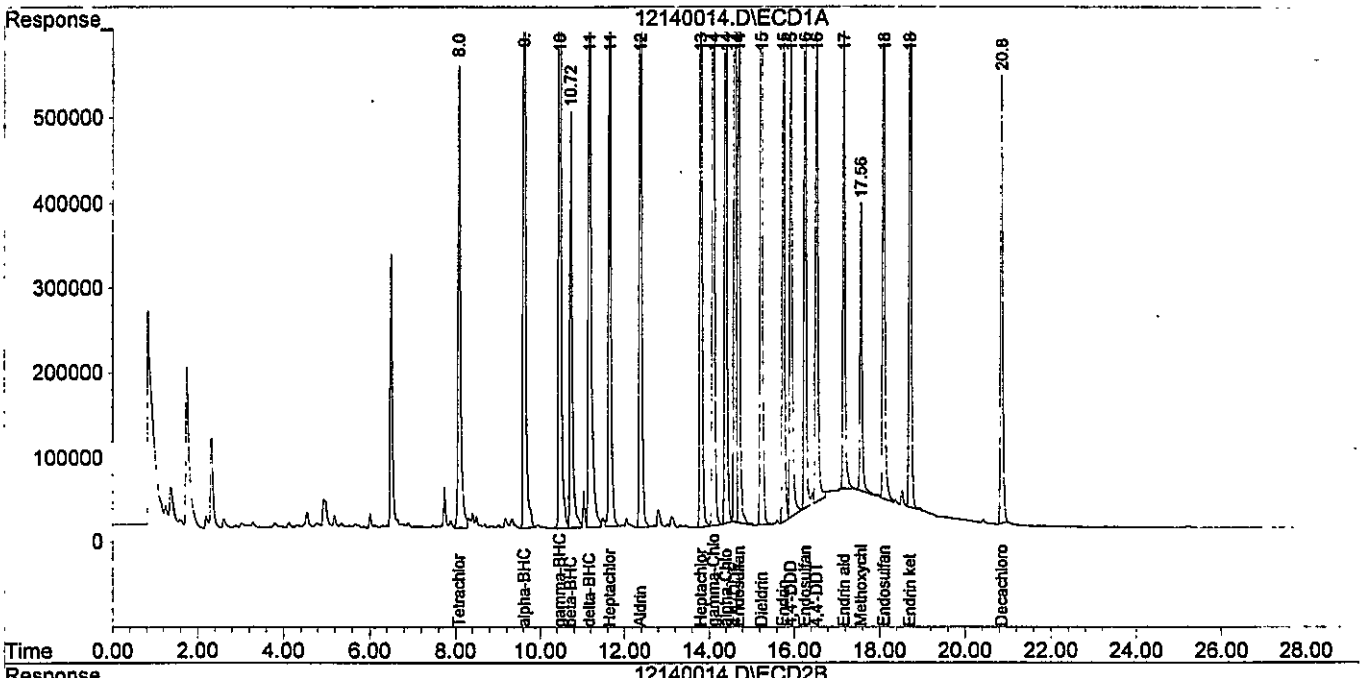
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

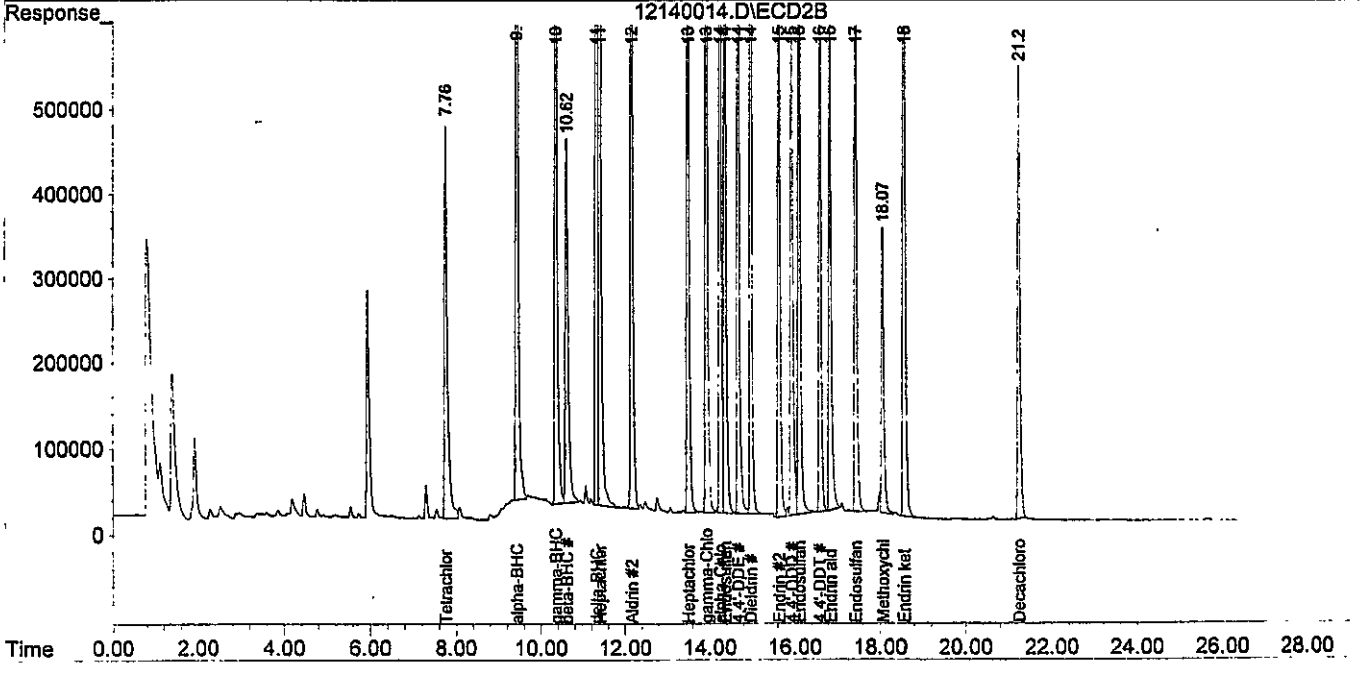
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\121400\12140014.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\121400\12140014.D\ECD2B.CH
Acq On : 14 Dec 2000 17:36 Operator: YGK
Sample : QPW1207003 Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 15 10:19 2000 Quant Results File: 121200P.RES

Quant Method : C:\HPCHEM\1\METHODS\121200P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (11/29/00)
Last Update : Wed Dec 13 17:39:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Accura Analytical Laboratory, Inc.

PCB's LCS/LCSD Report

Sample ID:	LCS/LCSD PCB W	12/07	**Date Acquired:**	12/8/00
Operator:	YGK		**Instrument ID:**	PEST-C
Data File:	1207004&5		**Bottle #:**	4&5
Method:	8082		**Matrix:**	Water

Compounds	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
Aroclor 1016	1.0	0.962	96%	1.004	100%	75 - 130	Pass	Pass	4%	< 20	Pass
Aroclor 1260	1.0	0.981	98%	1.005	101%	85 - 129	Pass	Pass	2%	< 20	Pass

Surrogate	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	Pass/ Fail	Pass/ Fail
Decachlorobiphenyl	0.25	0.225	90%	0.219	88%	46 - 128	Pass	Pass

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\120800\12080005.D Vial: 5
Acq On : 8 Dec 2000 14:48 Operator: YGK
Sample : QPW1207004 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 9 10:32 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	23961533	0.211 ug/ml
Spiked Amount 0.250		Recovery =	84.40%
12) S DCB (SURR)	26.74	24201682	0.225 ug/ml
Spiked Amount 0.250		Recovery =	90.00% ✓
Target Compounds			
2) L1 AR 1016 1	9.35	2526280	0.993 ug/ml
3) L1 AR 1016 2	10.12	8277110	0.979 ug/ml
4) L1 AR 1016 3	10.41	3389702	0.951 ug/ml
5) L1 AR 1016 4	11.69	2097107	0.954 ug/ml
6) L1 AR 1016 5	12.06	2528067	0.932 ug/ml
Sum AR 1016 1		18818266	4.810 ug/ml
Average AR 1016 1			0.962 ug/ml 96
7) L2 AR 1260 1	15.38	4965054	0.997 ug/ml
8) L2 AR 1260 2	16.07	5688655	0.989 ug/ml
9) L2 AR 1260 3	16.89	7943807	0.980 ug/ml
10) L2 AR 1260 4	18.90	11126558	0.960 ug/ml
11) L2 AR 1260 5	19.96	5630040	0.980 ug/ml
Sum AR 1260 1		35354114	4.906 ug/ml
Average AR 1260 1			0.981 ug/ml 98

(f)=RT Delta > 1/2 Window (m)=manual int.

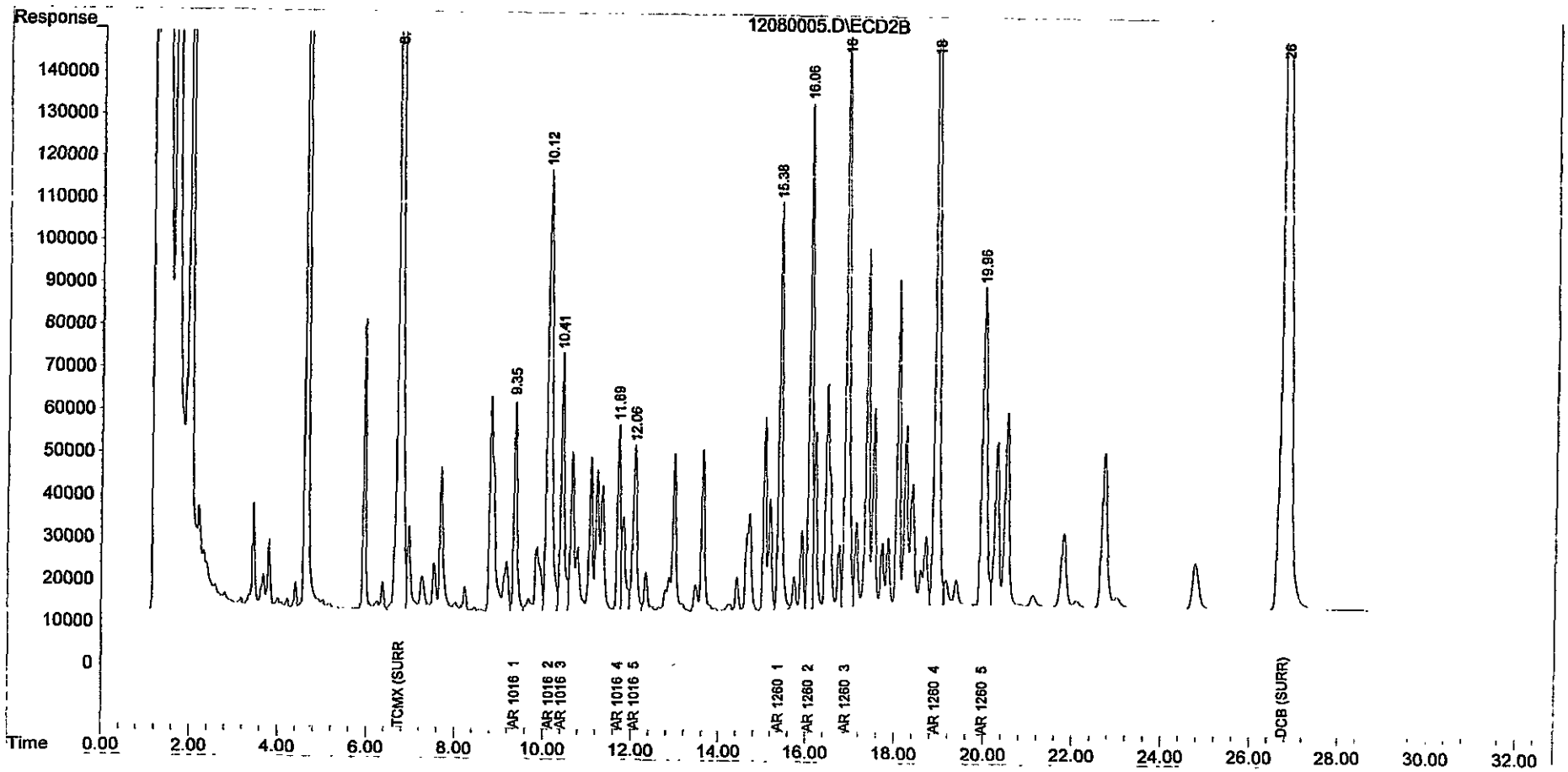
Quantitation Report

Data File : C:\HPCHEM\3\DATA\120800\12080005.D
Acq On : 8 Dec 2000 14:48
Sample : QPW1207004
Misc :
IntFile : EVENTS.E
Quant Time: Dec 9 10:32 2000 Quant Results File: 11301660.RES

Vial: 5
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\120800\12080006.D Vial: 6
Acq On : 8 Dec 2000 15:25 Operator: YGK
Sample : QPW1207005 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 9 10:32 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.72	24798189	0.219 ug/ml
Spiked Amount 0.250	Recovery = 87.60%		
12) S DCB (SURR)	26.73	23472276	0.219 ug/ml
Spiked Amount 0.250	Recovery = 87.60%		
Target Compounds			
2) L1 AR 1016 1	9.35	2595793	1.021 ug/ml
3) L1 AR 1016 2	10.12	8536260	1.010 ug/ml
4) L1 AR 1016 3	10.41	3574205	1.003 ug/ml
5) L1 AR 1016 4	11.69	2205588	1.004 ug/ml
6) L1 AR 1016 5	12.06	2662960	0.982 ug/ml
Sum AR 1016 1		19574806	5.019 ug/ml
Average AR 1016 1			1.004 ug/ml 100
7) L2 AR 1260 1	15.37	5153218	1.035 ug/ml
8) L2 AR 1260 2	16.06	5873640	1.021 ug/ml
9) L2 AR 1260 3	16.88	8194025	1.010 ug/ml
10) L2 AR 1260 4	18.89	11259768	0.972 ug/ml
11) L2 AR 1260 5	19.96	5674652	0.988 ug/ml
Sum AR 1260 1		36155305	5.026 ug/ml
Average AR 1260 1			1.005 ug/ml 101

(f)=RT Delta > 1/2 Window (m)=manual int.

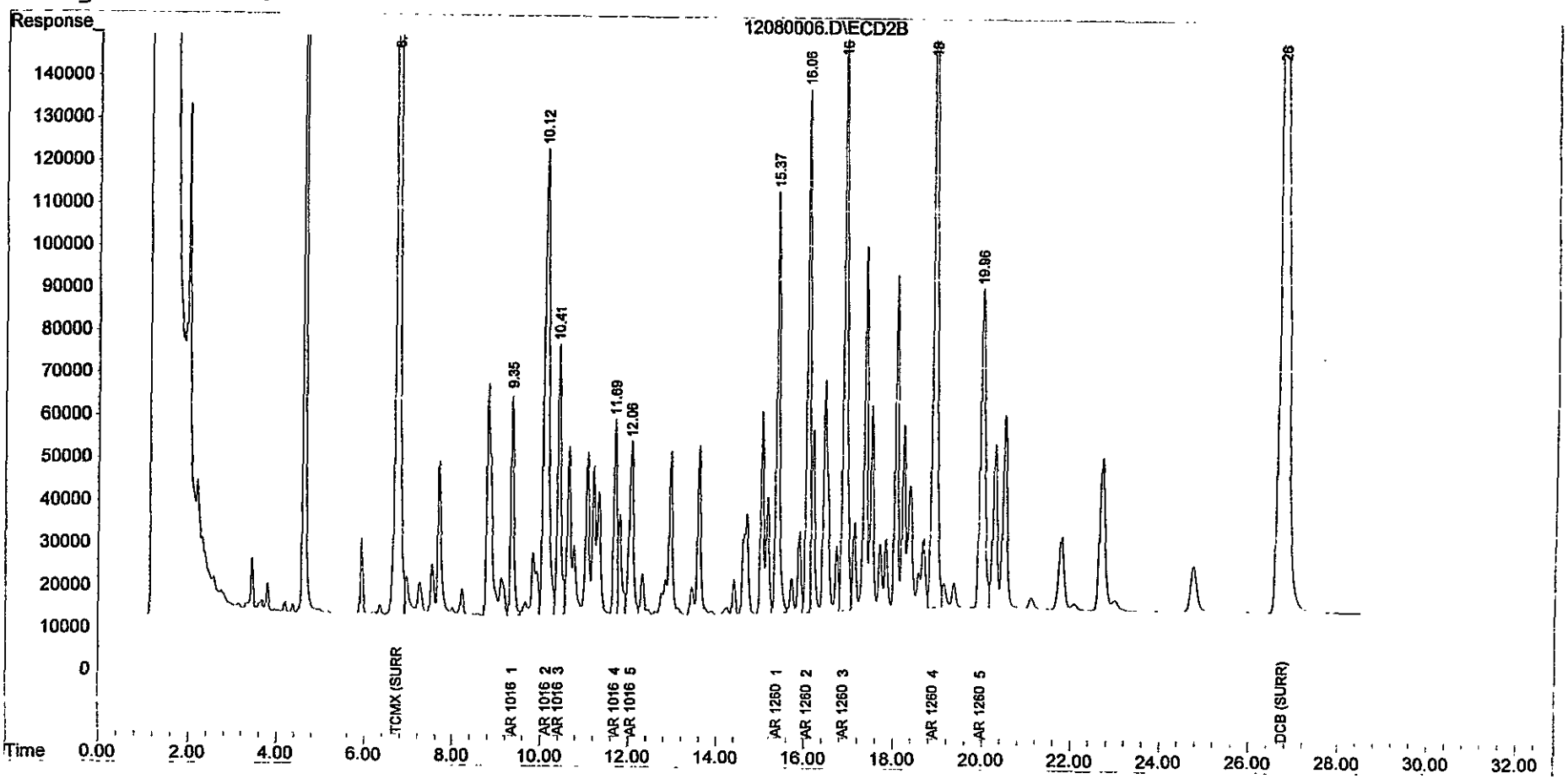
Quantitation Report

Data File : C:\HPCHEM\3\DATA\120800\12080006.D
Acq On : 8 Dec 2000 15:25
Sample : QPW1207005
Misc :
IntFile : EVENTS.E
Quant Time: Dec 9 10:32 2000 Quant Results File: 11301660.RES

Vial: 6
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



GC/ECD Herbicides Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/28/00
Analyst Initials: YGK
Instrument Method: 8151D16
Calibration Column: HP-5 (F)
Confirmation Column: Rtx-1701

Herbicide Calibration Date: 12/01/00

Surrogate Recovery Limits (%)	
	DCAA
Soil	30-150
Water	30-150

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
1	Hexane	120100H	soln	1X	NA	
2	ccv Herb .25ppm		std		97	H00149
3	QHW122001		w		67	
4	1 2				76	
5	05503 w				54	
6	ccv Herb .25ppm		std		103	
7	Hexane		soln		NA	H00149

YGK 12/28/00

Signature/Date: _____

Accura Analytical Laboratory, Inc.

Herbicides LCS Report

Sample ID:	QHW1222002	**Date Acquired:**	12/28/00
Operator:	YGK	**Instrument ID:**	PEST-B
Data File:	12280004	**Bottle #:**	4
Method:	8151A	**Matrix:**	Water

Compounds	Expected Con. (ppm)	Actual Con. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
2,4D	0.250	0.219	88%	30 - 150	Pass
2,4,5-TP(Silvex)	0.250	0.218	87%	30 - 150	Pass
2,4,5-T	0.250	0.209	84%	30 - 150	Pass

Surrogate	Expected Con. (ppm)	Actual Con. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
DCAA	0.500	0.383	77%	30 - 150	Pass

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\122800\12280004.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\122800\12280004.D\ECD2B.CH
Acq On : 28 Dec 2000 11:24 Operator: YGK
Sample : QHW1222002 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 29 11:13 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.28	13.53	3528220	9356709	0.382	0.401	
Spiked Amount		0.500			Recovery	=	76.40%	80.20%	
		Target Compounds							
1)		DALAPON	6.96	6.85	1292767	3308219	0.079	0.087	
3)	T	DICAMBA	13.61	13.97	7860781	19982354	0.191	0.200	
4)	T	MCPP	13.97	14.28	489472	1288612	19.620	21.446	
5)	T	MCPA	14.31	14.81	857208	2204095	22.897	22.999	
6)	T	DICHLOROPROP	14.96	15.38	3401990	5313119	0.268	0.199	#
7)	T	2,4 D	15.37	15.97	3309777	6357999	0.219	0.197	
8)	T	SILVEX	16.73	17.02	13779357	39529776	0.218	0.210	
9)	T	2,4,5 T	17.16	17.59	12238810	31038729	0.209	0.197	
10)	T	2,4DB	17.79	18.10	1817072	3552302	0.260	0.245	
11)	T	DINOSEB	18.14	18.78	4503967	9275927	0.112	0.093	

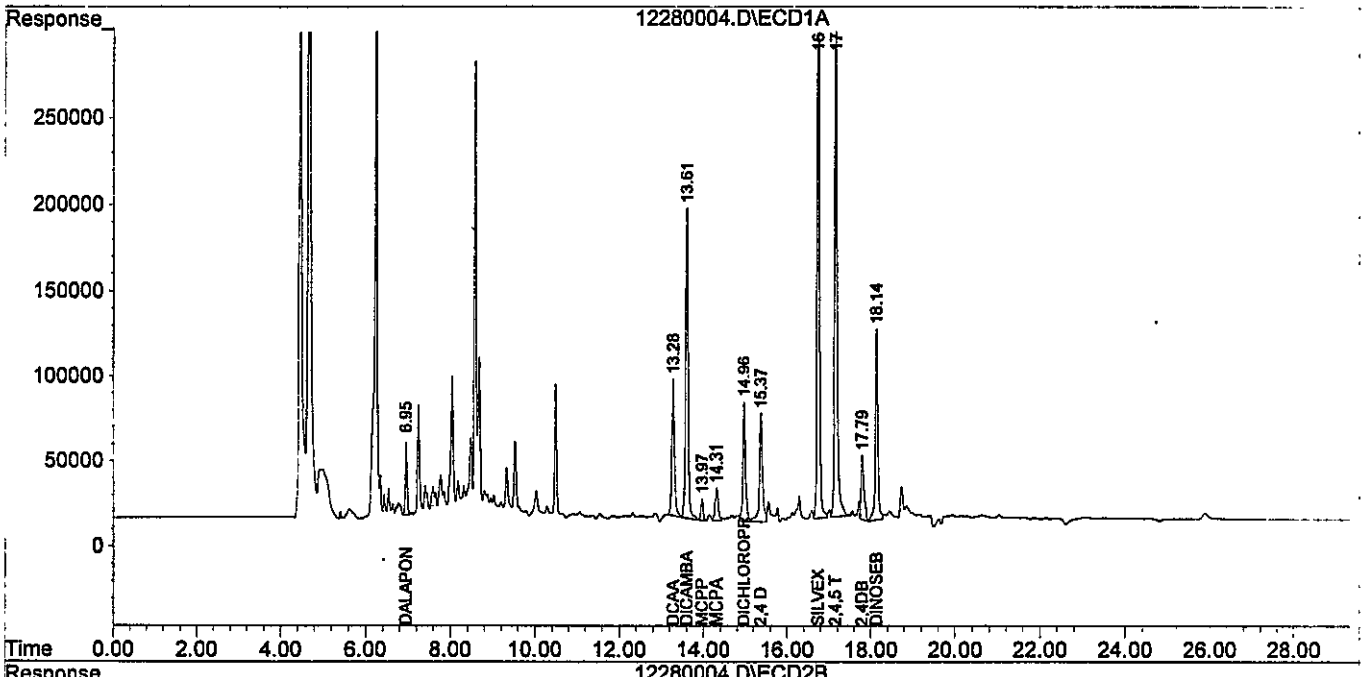
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

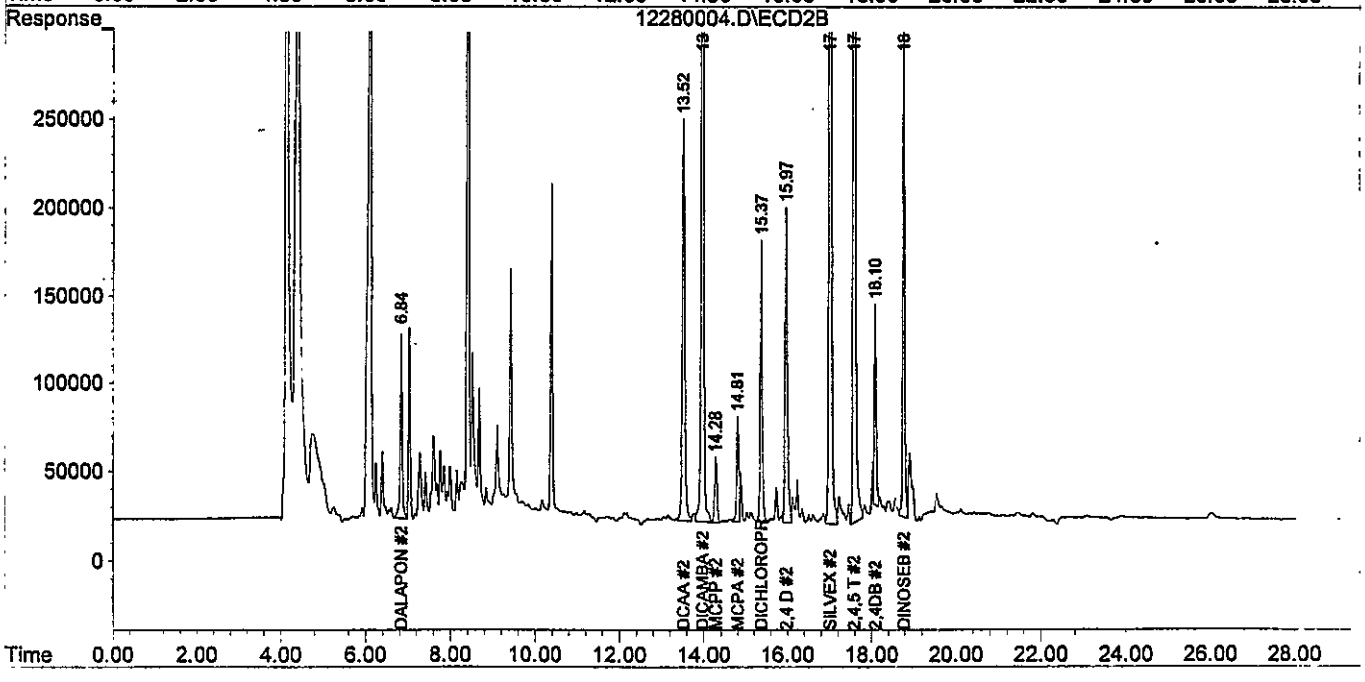
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\122800\12280004.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\122800\12280004.D\ECD2B.CH
Acq On : 28 Dec 2000 11:24 Operator: YGK
Sample : QHW1222002 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 29 11:13 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Accura Analytical Laboratory, Inc.

Herbicides MS/MSD Report

Sample ID:	MS/MSD 04540	**Date Acquired:**	9/15/00
Operator:	YGK	**Instrument ID:**	PEST-B
Data File:	12140009&10	**Bottle #:**	9&10
Method:	8151A	**Matrix:**	Water

Compounds	Expected Conc. (ppm)	MS Conc. (ppm)	MS % Recovery	MSD Conc. (ppm)	MSD % Recovery	Recovery Limits (%)*	MS Pass/ Fail	MSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
2,4-D	0.25	0.042	17%	0.163	65%	30 - 150	Fail	Pass	118%	< 20	Fail
2,4,5-TP (Silvex)	0.25	0.038	15%	0.198	79%	30 - 150	Fail	Pass	136%	< 20	Fail
2,4,5-T	0.25	0.037	15%	0.111	44%	30 - 150	Fail	Pass	100%	< 20	Fail

Surrogate	Expected Conc. (ppm)	MS Conc. (ppm)	MS % Recovery	MSD Conc. (ppm)	MSD % Recovery	Recovery Limits (%)	MS Pass/ Fail	MSD Pass/ Fail
DCAA	0.50	0.103	21%	0.388	78%	42 - 166	Fail	Pass

*-Inhouse limits to be developed.

NOTE: MS is bad for some reson. (probably, during extraction).
MS & MSD or LCS & LCS Dup will be extract in next sequence.

YGK 01/02/01.

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\121400\12140009.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\121400\12140009.D\ECD2B.CH
Acq On : 14 Dec 2000 14:12 Operator: YGK
Sample : 04540 W MS Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jan 2 13:34 2001 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.29	13.53	948529	2080149	0.103	0.089	
Spiked Amount		0.500			Recovery	=	20.60%	17.80%	
		Target Compounds							
1)		DALAPON	0.00	6.85	0	118992	N.D.	0.003	#
3)	T	DICAMBA	13.62	13.98	2057347	3540954	0.050	0.035	#
4)	T	MCPP	13.96	14.29	60938	192750	2.443	3.208	#
5)	T	MCPA	14.31	14.85	90979	1121475	2.430	11.702	#
6)	T	DICHLOROPROP	14.96	15.38	406486	958683	0.032	0.036	
7)	T	2,4 D	15.38	15.98	634811	1172445	0.042	0.036	
8)	T	SILVEX	16.73	17.02	2411297	5354905	0.038	0.028	#
9)	T	2,4,5 T	17.16	17.59	2191086	4457836	0.037	0.028	
10)	T	2,4DB	17.79	18.10	635894	339519	0.091	0.023	#
11)	T	DINOSEB	18.14	18.78	1305583	1218419	0.032	0.012	#

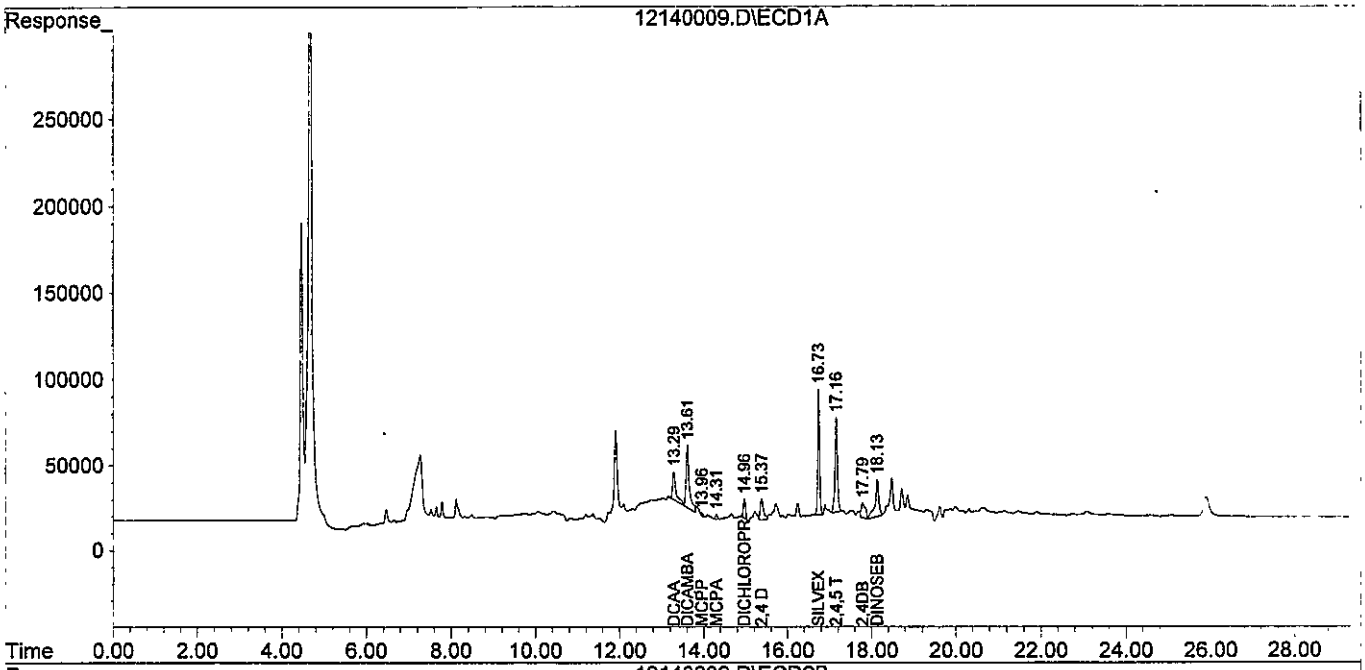
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

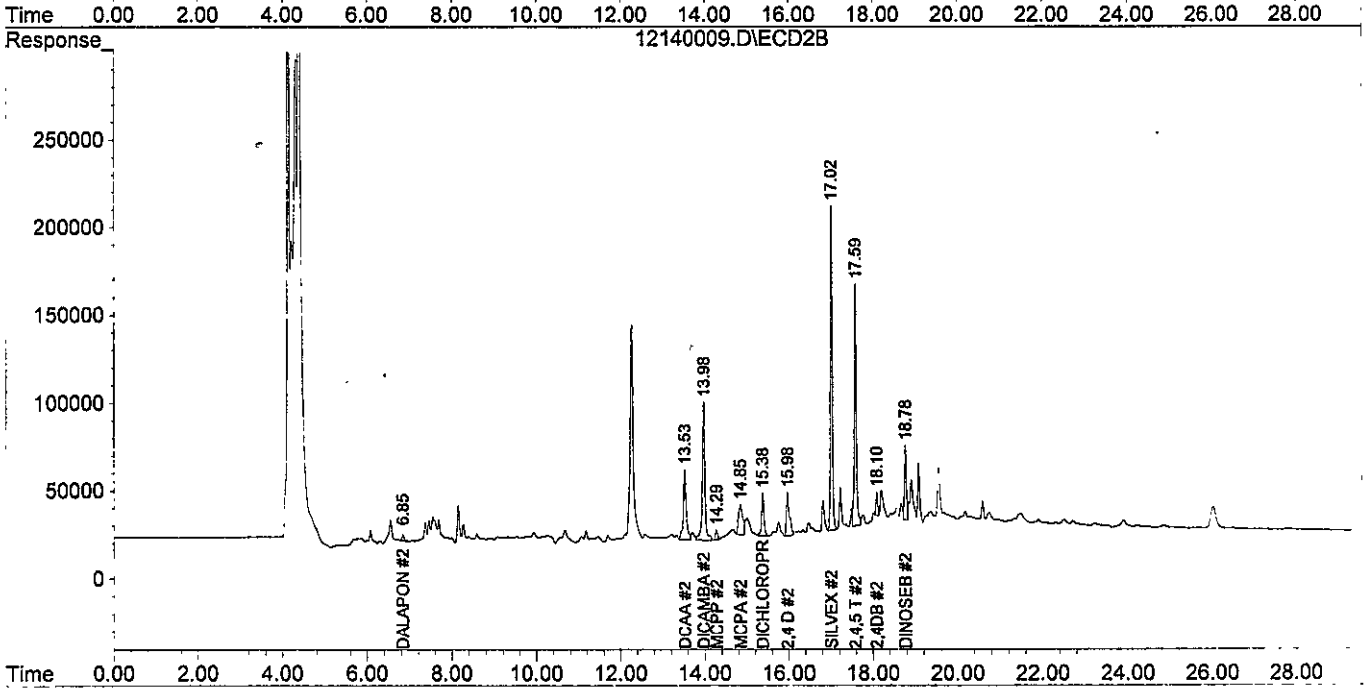
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\121400\12140009.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\121400\12140009.D\ECD2B.CH
Acq On : 14 Dec 2000 14:12 Operator: YGK
Sample : 04540 W MS Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jan 2 13:34 2001 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\121400\12140010.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\2\DATA\121400\12140010.D\ECD2B.CH
Acq On : 14 Dec 2000 14:49 Operator: YGK
Sample : 04540 W MSD Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jan 2 13:35 2001 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.28	13.52	3579680	10337215	0.388	0.443	
Spiked Amount		0.500			Recovery	=	77.60%	88.60%	
		Target Compounds							
1)		DALAPON	6.96	0.00	785542	0	0.048	N.D.	#
3)	T	DICAMBA	13.61	13.97	7966907	19340037	0.194	0.193	
4)	T	MCPP	13.95	14.28	887532	1419970	35.575	23.633	#
5)	T	MCPA	14.30	14.80	729010	1602952	19.473	16.726	
6)	T	DICHLOROPROP	14.96	15.37	2597804	5500822	0.205	0.206	
7)	T	2,4 D	15.36	15.97	2461805	5462320	0.163	0.169	
8)	T	SILVEX	16.73	17.01	12465809	32991962	0.198	0.175	
9)	T	2,4,5 T	17.10f	17.59	6482066	26235125	0.111	0.167	#
10)	T	2,4DB	0.00	18.09	0	2104455	N.D.	0.145	#
11)	T	DINOSEB	18.13	18.77	5934271	13740596	0.148	0.138	

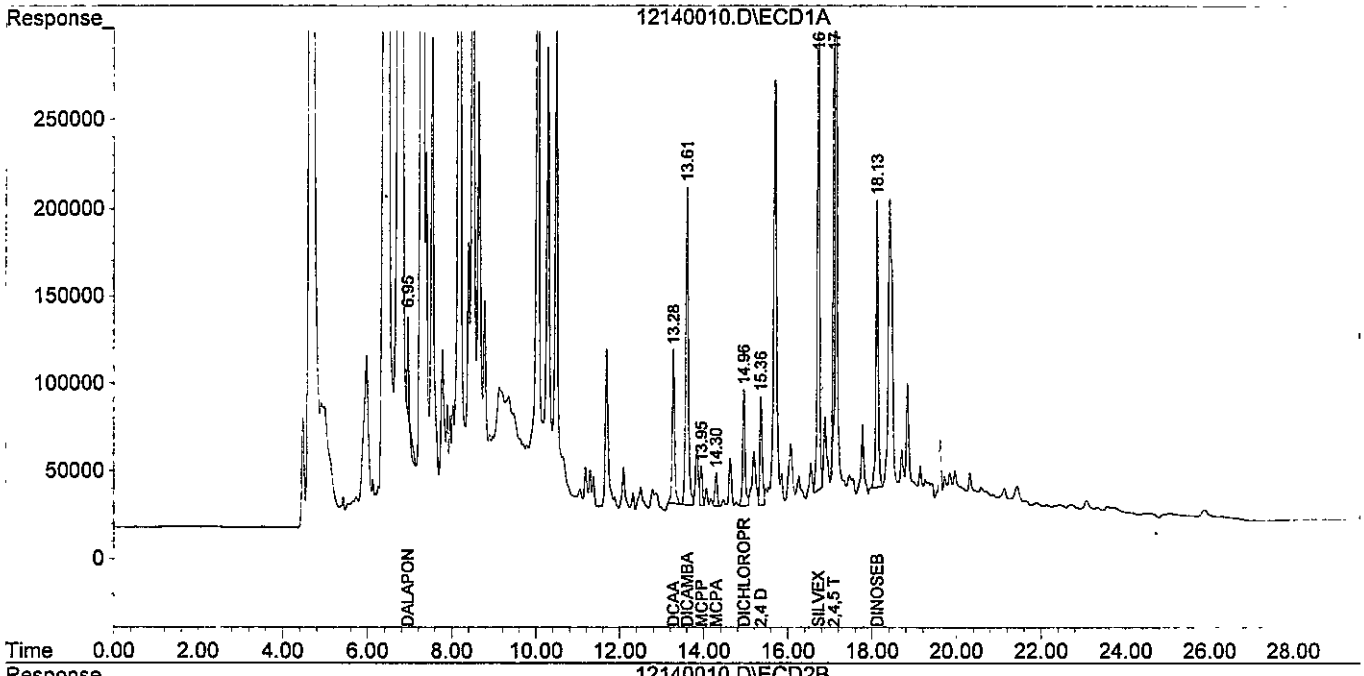
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

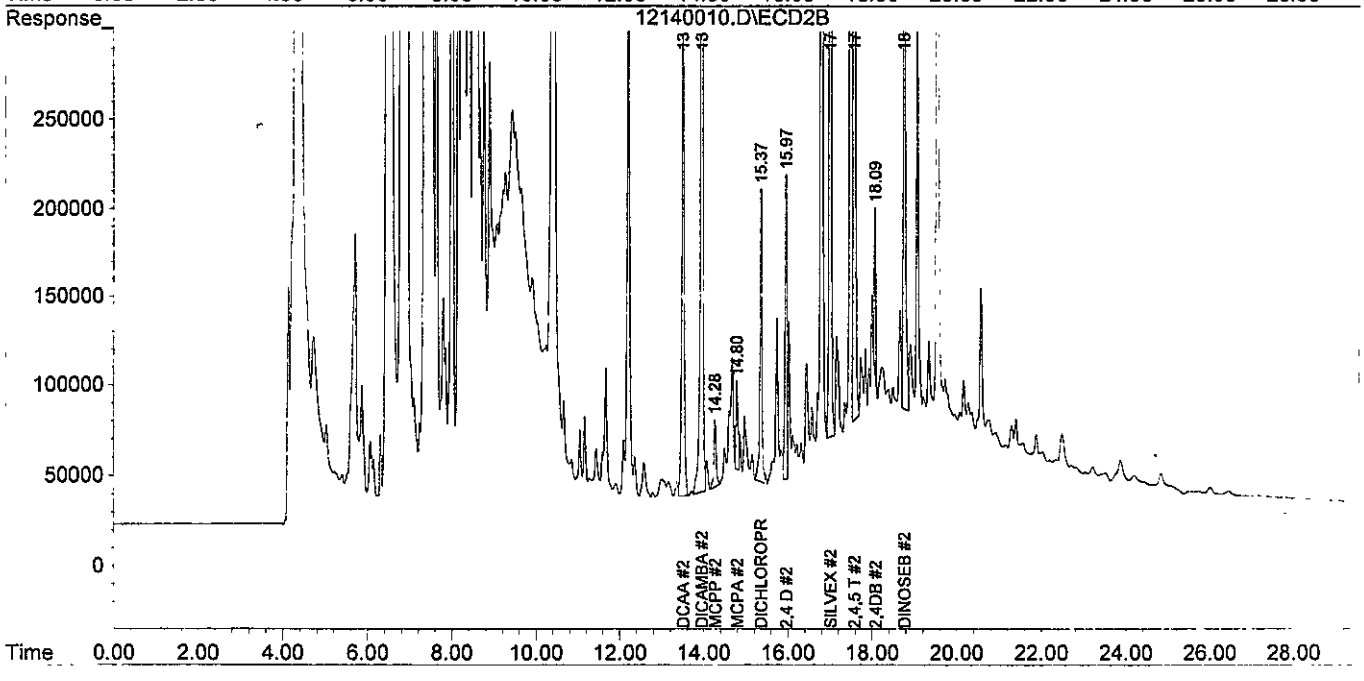
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\121400\12140010.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\2\DATA\121400\12140010.D\ECD2B.CH
Acq On : 14 Dec 2000 14:49 Operator: YGK
Sample : 04540 W MSD Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jan 2 13:35 2001 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\121400\12140008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\2\DATA\121400\12140008.D\ECD2B.CH
Acq On : 14 Dec 2000 13:34 Operator: YGK
Sample : 04540 W Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jan 2 13:34 2001 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
System Monitoring Compounds									
2)	S	DCAA	13.29	13.53	1472926	3780441	0.159	0.162	
Spiked Amount		0.500			Recovery	=	31.80%	32.40%	
Target Compounds									
1)		DALAPON	0.00	6.85	0	74856	N.D.	0.002	#
3)	T	DICAMBA	13.68f	13.93	3596544	208519	0.087	0.002	#
4)	T	MCPP	0.00	14.23f	0	34251	N.D.	0.570	#
5)	T	MCPA	14.26	14.85	28857	8132135	0.771	84.856	#
6)	T	DICHLOROPROP	14.95	15.41	408826	100346	0.032	0.004	#
7)	T	2,4 D	15.40	16.04f	200348	623691	0.013	0.019	#
8)	T	SILVEX	16.73	17.02	570203	479485	0.009	0.003	#
9)	T	2,4,5 T	17.10	17.64	2707566	95452	0.046	0.001	#
10)	T	2,4DB	17.85	18.21f	420335	2270732	0.060	0.156	#
11)	T	DINOSEB	18.17	18.85f	295245	514460	0.007	0.005	#

lab <0.2

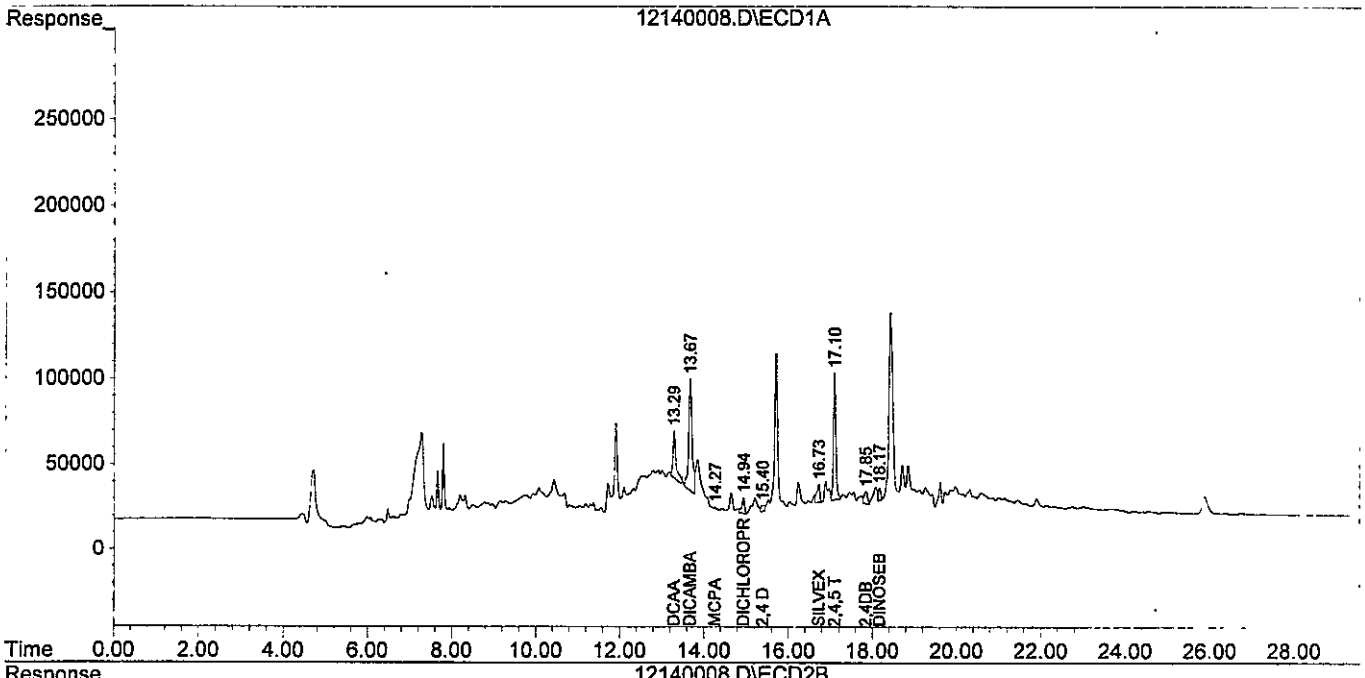
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

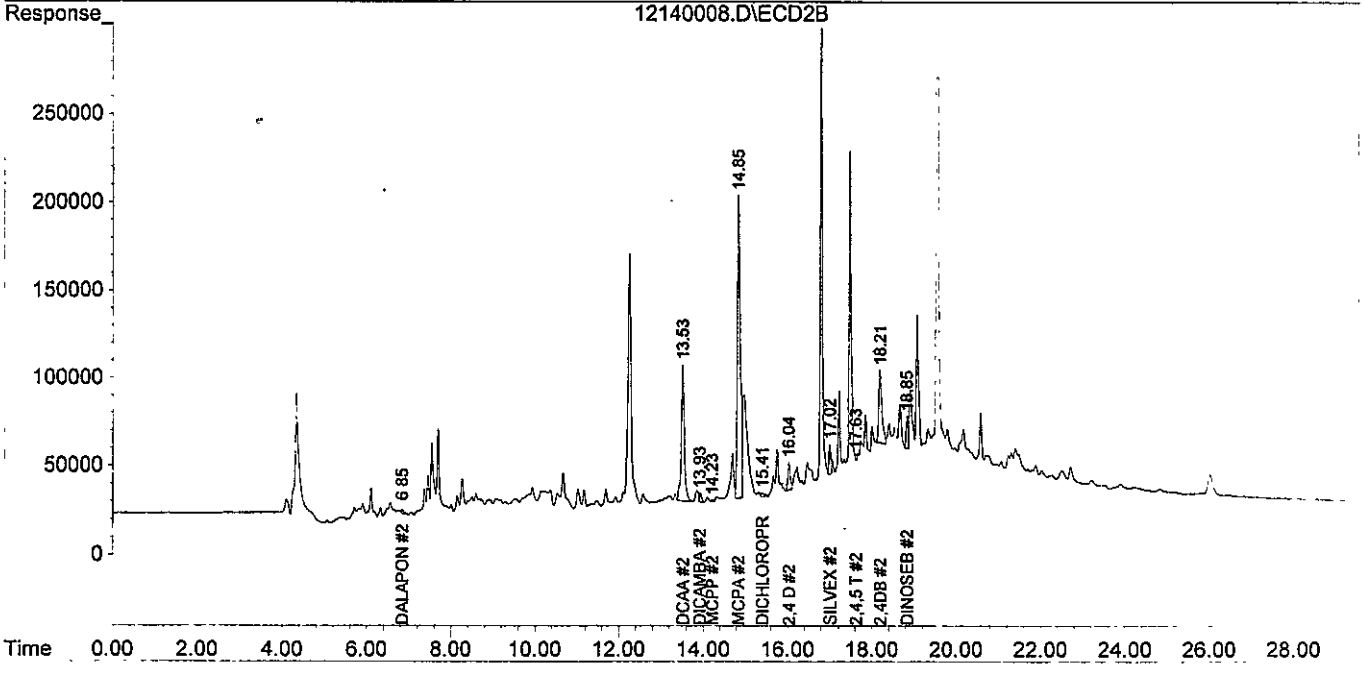
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\121400\12140008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\2\DATA\121400\12140008.D\ECD2B.CH
Acq On : 14 Dec 2000 13:34 Operator: YGK
Sample : 04540 W Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jan 2 13:34 2001 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 12/29/00 PEST-A	METHOD: (circle applicable methods)
MATRIX:	(8081A) 8082 8151A

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	(Y)	N	NA
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YGK		Reviewer:	
Date: 12/29/00	Time: 15:00	Date: 01.05.2001	Time: 1500

Response Factor Report PEST-A

Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000

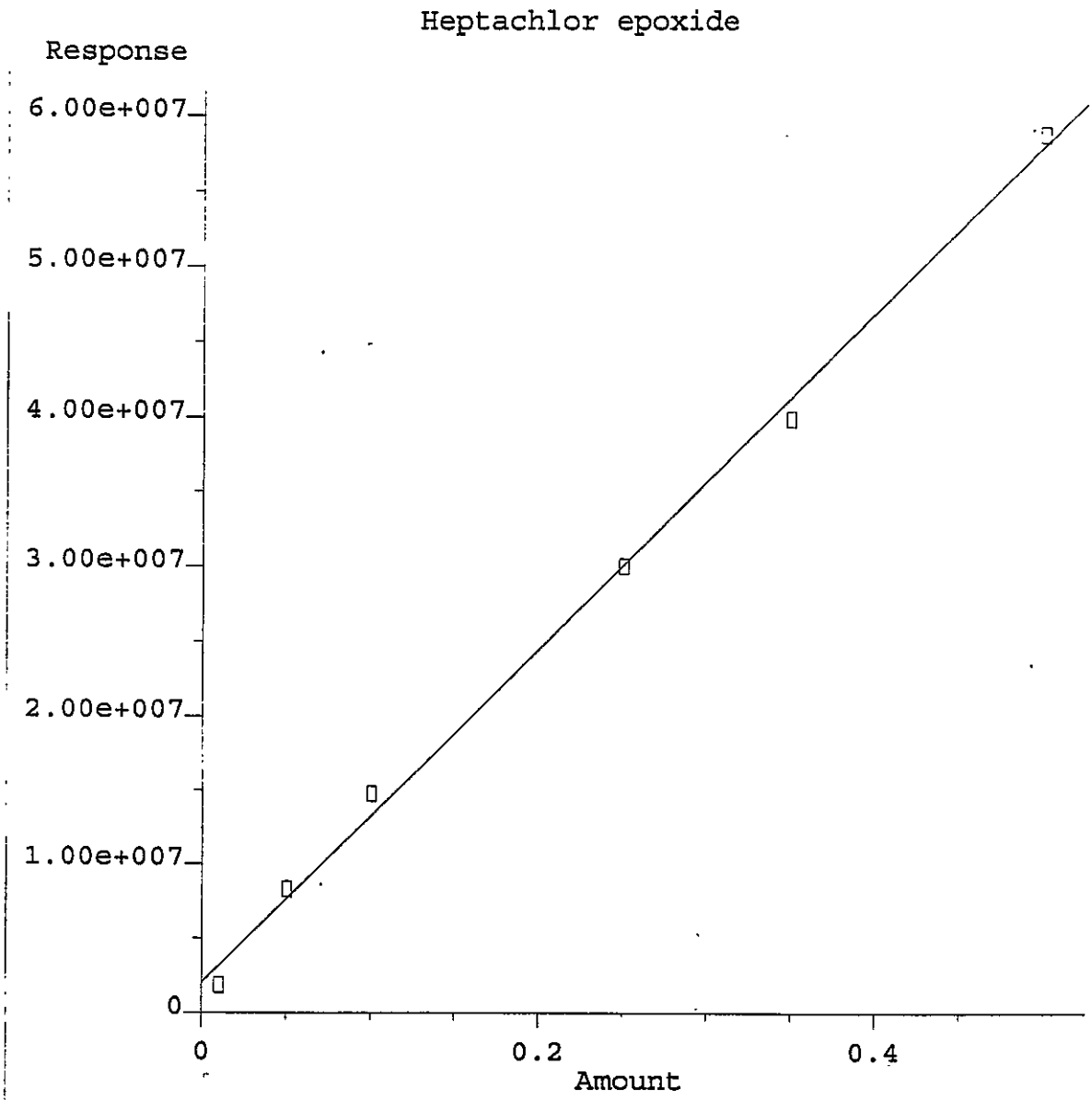
Calibration Files
0.01 =12290005.D 0.05 =12290006.D 0.1 =12290007.D
0.25 =12290008.D 0.35 =12290009.D 0.50 =12290010.D

		Compound	0.01	0.05	0.1	0.25	0.35	0.50	Avg		%RSD
1)	S	Tetrachloro-m-xylen	1.486	1.777	1.603	1.258	1.162	1.234	1.420	E8	17.03
2)	T	alpha-BHC	2.319	2.433	2.281	1.986	1.885	1.968	2.145	E8	10.54
3)	T	beta-BHC	1.035	1.172	1.098	0.951	0.901	0.933	1.015	E8	10.39
4)	T	gamma-BHC (Lindane)	2.133	2.223	2.102	1.816	1.707	1.836	1.969	E8	10.62
5)	T	delta-BHC	1.969	2.263	2.185	1.905	1.795	1.934	2.009	E8	8.90
6)	T	Heptachlor	1.785	1.817	1.640	1.324	1.221	1.308	1.516	E8	17.35
7)	T	Aldrin	1.791	1.795	1.630	1.348	1.254	1.323	1.523	E8	16.07
8)	T	Heptachlor epoxide	1.860	1.656	1.474	1.199	1.138	1.176	1.417	E8	20.92*
9)	T	Endosulfan I	1.977	1.942	1.687	1.320	1.255	1.243	1.571	E8	21.79*
10)	T	gamma-Chlordane	1.971	1.891	1.749	1.445	1.340	1.388	1.631	E8	16.80
11)	T	alpha-Chlordane	1.828	1.677	1.522	1.306	1.226	1.251	1.468	E8	16.92
12)	T	4,4'-DDE	1.335	1.279	1.238	1.079	0.998	1.082	1.168	E8	11.45
13)	T	Dieldrin	1.662	1.638	1.469	1.217	1.127	1.200	1.386	E8	16.98
14)	T	Endrin	1.191	1.168	1.078	0.892	0.829	0.911	1.012	E8	15.24
15)	T	4,4'-DDD	1.101	1.255	1.182	1.010	0.940	1.001	1.082	E8	11.09
16)	T	Endosulfan II	1.494	1.386	1.221	1.025	0.957	1.007	1.182	E8	18.79
17)	T	Endrin aldehyde	1.120	1.147	1.017	0.865	0.791	0.819	0.960	E8	16.22
18)	T	4,4'-DDT	1.105	1.258	1.205	1.043	0.973	1.037	1.103	E8	9.88
19)	T	Endosulfan sulfate	1.248	1.313	1.153	0.944	0.884	0.930	1.078	E8	16.95
20)	T	Methoxychlor		6.680	6.341	5.320	5.041	5.332	5.743	E7	12.55
21)	T	Endrin ketone	1.552	1.557	1.364	1.128	1.051	1.116	1.295	E8	17.57
22)	S	Decachlorobiphenyl	1.624	1.502	1.328	1.141	1.044	1.032	1.279	E8	19.35

*- See PLOT

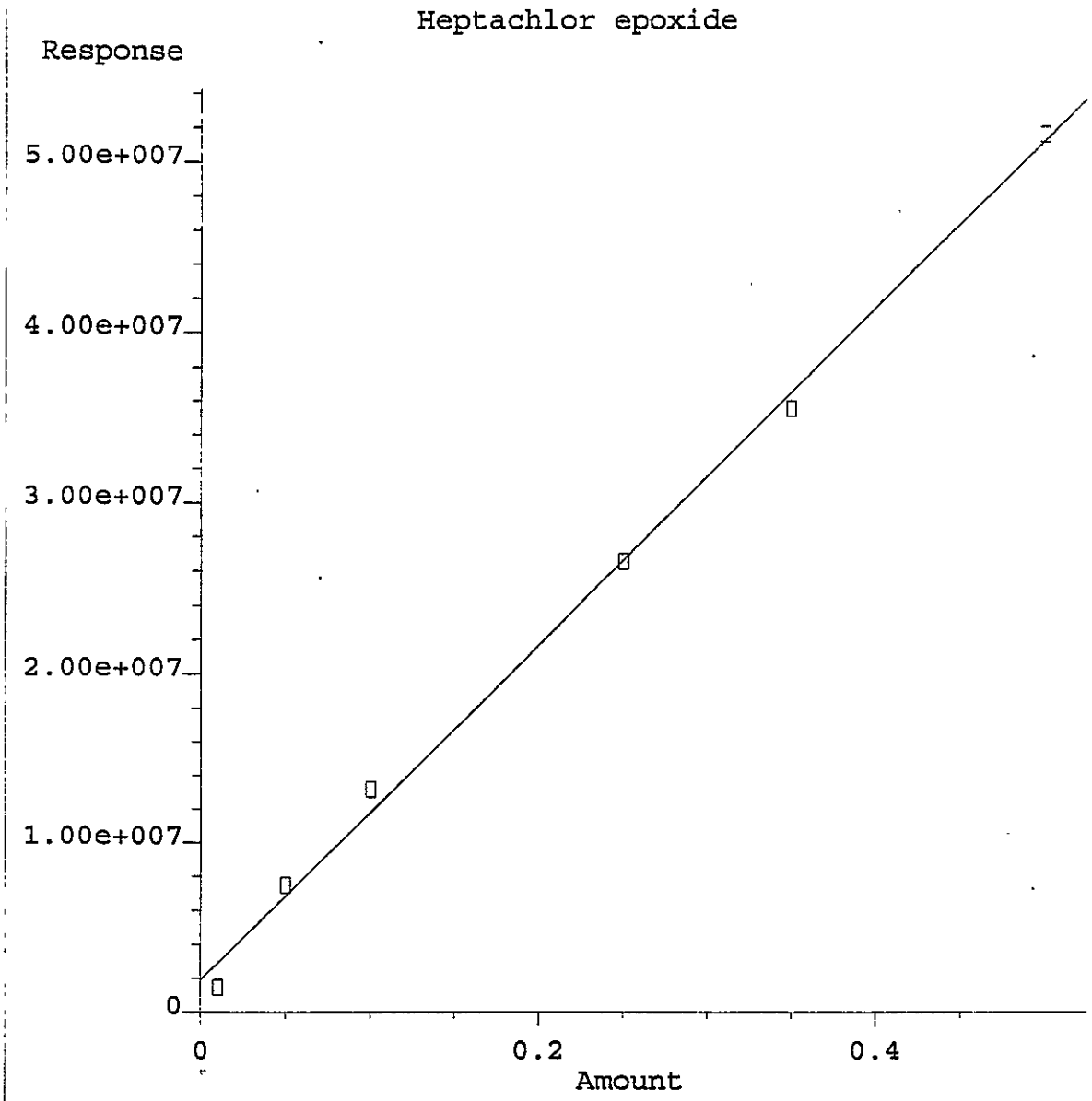
Signal #2 Calibration Files
0.01 =12290005.D 0.05 =12290006.D 0.1 =12290007.D
0.25 =12290008.D 0.35 =12290009.D 0.50 =12290010.D

		Compound	0.01	0.05	0.1	0.25	0.35	0.50	Avg		%RSD
1)	S	Tetrachloro-m-xylen	1.660	1.667	1.556	1.361	1.216	1.298	1.460	E8	13.26
2)	T	alpha-BHC	1.804	2.217	2.185	1.978	1.858	1.941	1.997	E8	8.50
3)	T	beta-BHC	1.151	1.119	1.072	0.909	0.862	0.927	1.007	E8	12.11
4)	T	gamma-BHC (Lindane)	2.078	2.074	1.991	1.757	1.651	1.761	1.885	E8	9.80
5)	T	delta-BHC	0.797	0.888	1.127	1.211	1.177	1.308	1.085	E8	18.30
6)	T	Heptachlor	2.143	2.428	2.401	1.817	1.628	1.645	2.010	E8	18.09
7)	T	Aldrin	1.744	1.899	1.767	1.477	1.358	1.410	1.609	E8	13.83
8)	T	Heptachlor epoxide	1.642	1.593	1.436	1.204	1.117	1.162	1.359	E8	16.86
9)	T	Endosulfan I	1.542	1.698	1.529	1.248	1.154	1.209	1.397	E8	15.86
10)	T	gamma-Chlordane	1.937	1.898	1.762	1.503	1.399	1.462	1.660	E8	14.14
11)	T	alpha-Chlordane	1.810	1.765	1.626	1.369	1.267	1.328	1.527	E8	15.45
12)	T	4,4'-DDE	1.645	1.695	1.564	1.331	1.233	1.285	1.459	E8	13.69
13)	T	Dieldrin	1.642	1.687	1.531	1.264	1.165	1.225	1.419	E8	16.07
14)	T	Endrin	1.110	1.110	1.018	0.853	0.797	0.876	0.960	E8	14.24
15)	T	4,4'-DDD	1.033	1.217	1.139	0.965	0.892	0.948	1.032	E8	12.00
16)	T	Endosulfan II	1.334	1.551	1.354	1.089	1.004	1.053	1.231	E8	17.48
17)	T	Endrin aldehyde	1.180	1.149	1.029	0.900	0.822	0.864	0.991	E8	15.32
18)	T	4,4'-DDT	1.130	1.249	1.191	1.038	0.971	1.039	1.103	E8	9.55
19)	T	Endosulfan sulfate	1.374	1.311	1.173	0.975	0.906	0.971	1.118	E8	17.56
20)	T	Methoxychlor		6.235	5.715	4.931	4.651	5.134	5.333	E7	11.96
21)	T	Endrin ketone	1.465	1.443	1.280	1.056	0.971	1.037	1.209	E8	17.95
22)	S	Decachlorobiphenyl	1.595	1.478	1.337	1.157	1.075	1.147	1.298	E8	15.95



Response = 1.12e+008 * Amt + 2.04e+006
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: C:\HPCHEM\1\METHODS\122900P.M
Calibration Table Last Updated: Fri Dec 29 14:44:08 2000



Response = 9.88e+007 * Amt + 1.88e+006
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: C:\HPCHEM\1\METHODS\121200P.M
Calibration Table Last Updated: Fri Dec 22 09:28:12 2000

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\122900\12290005.D\ECD2B.CH
Acq On : 29 Dec 2000 9:27 Operator: YGK
Sample : IC PEST .010 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 13:41 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 22 09:28:12 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L	
		System Monitoring Compounds							
1)	S	Tetrachloro-m-xy	8.08	7.78	1485882	1659592	0.013	0.013	
		Spiked Amount 0.250			Recovery	=	5.20%	5.20%	
22)	S	Decachlorobiphen	20.83	21.24	1723660	1594623	0.017	0.015	
		Spiked Amount 0.250			Recovery	=	6.80%	6.00%	
		Target Compounds							
2)	T	alpha-BHC	9.61	9.45	2319052	1803560	0.012	0.010	
3)	T	beta-BHC	10.73	10.66f	1034595	1151020	0.012	0.013	
4)	T	gamma-BHC (Linda	10.45	10.37	2133145	2077897	0.013	0.013	
5)	T	delta-BHC	11.18	11.38f	1969293	737181	0.011	0.006	#
6)	T	Heptachlor	11.63	11.40	1785412	2143261	0.015	0.013	
7)	T	Aldrin	12.36	12.16	1790574	1744247	0.014	0.013	
8)	T	Heptachlor epoxi	13.79	13.50	1859595	1642095	0.017	0.015	
9)	T	Endosulfan I	14.69	14.37	1976720	1541540	0.017	0.013	
10)	T	gamma-Chlordane	14.09	13.93	1970767	1936743	0.015	0.014	
11)	T	alpha-Chlordane	14.38	14.25	1828065	1809636	0.015	0.014	
12)	T	4,4'-DDE	14.61	14.70	1335017	1644823	0.013	0.013	
13)	T	Dieldrin	15.22	14.97	1661628	1642300	0.015	0.014	
14)	T	Endrin	15.74	15.64	1191199	1109875	0.014	0.014	
15)	T	4,4'-DDD	15.94	15.97	1101230	1033069	0.012	0.012	
16)	T	Endosulfan II	16.25	16.11	1494124	1334303	0.016	0.013	
17)	T	Endrin aldehyde	17.15	16.84	1120147	1180477	0.014	0.014	
18)	T	4,4'-DDT	16.52	16.60	1105181	1129911	0.011	0.012	
19)	T	Endosulfan sulfa	18.09	17.43	1247713	1373596	0.014	0.015	
20)	T	Methoxychlor	17.57	18.08	612506	637581	0.012	0.014	
21)	T	Endrin ketone	18.70	18.57	1552268	1465017	0.015	0.015	

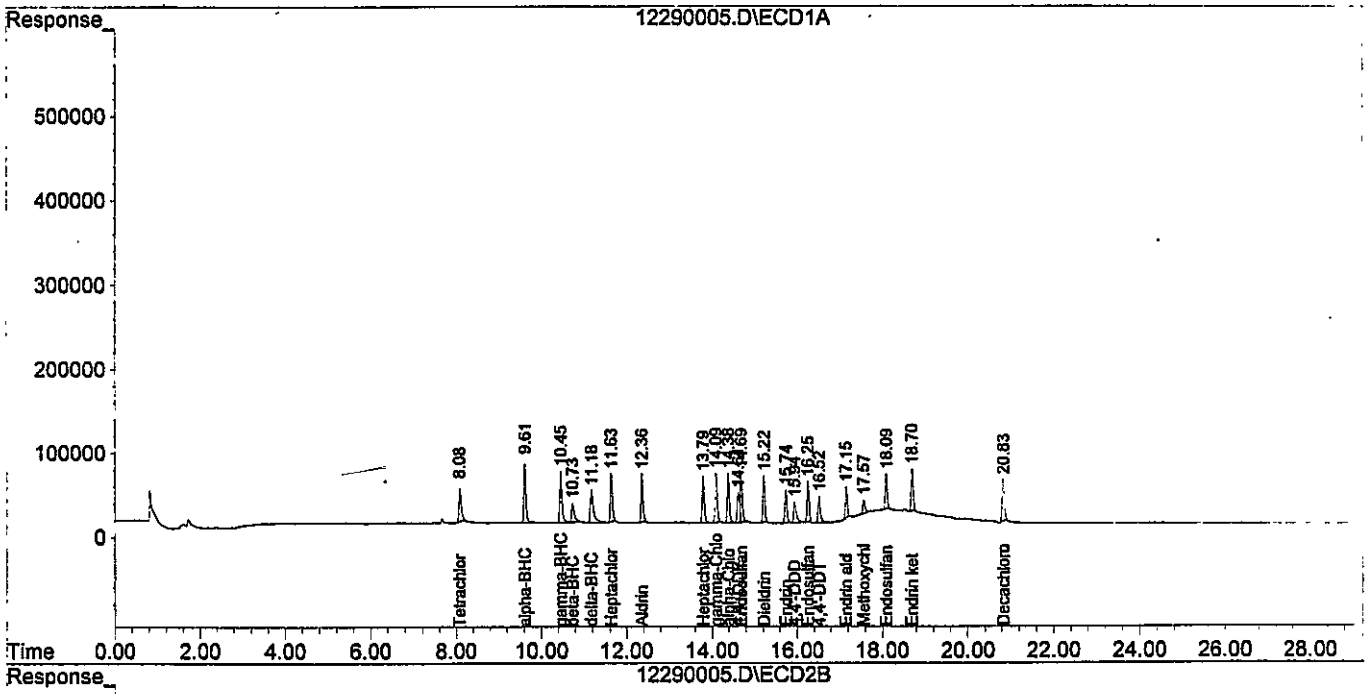
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

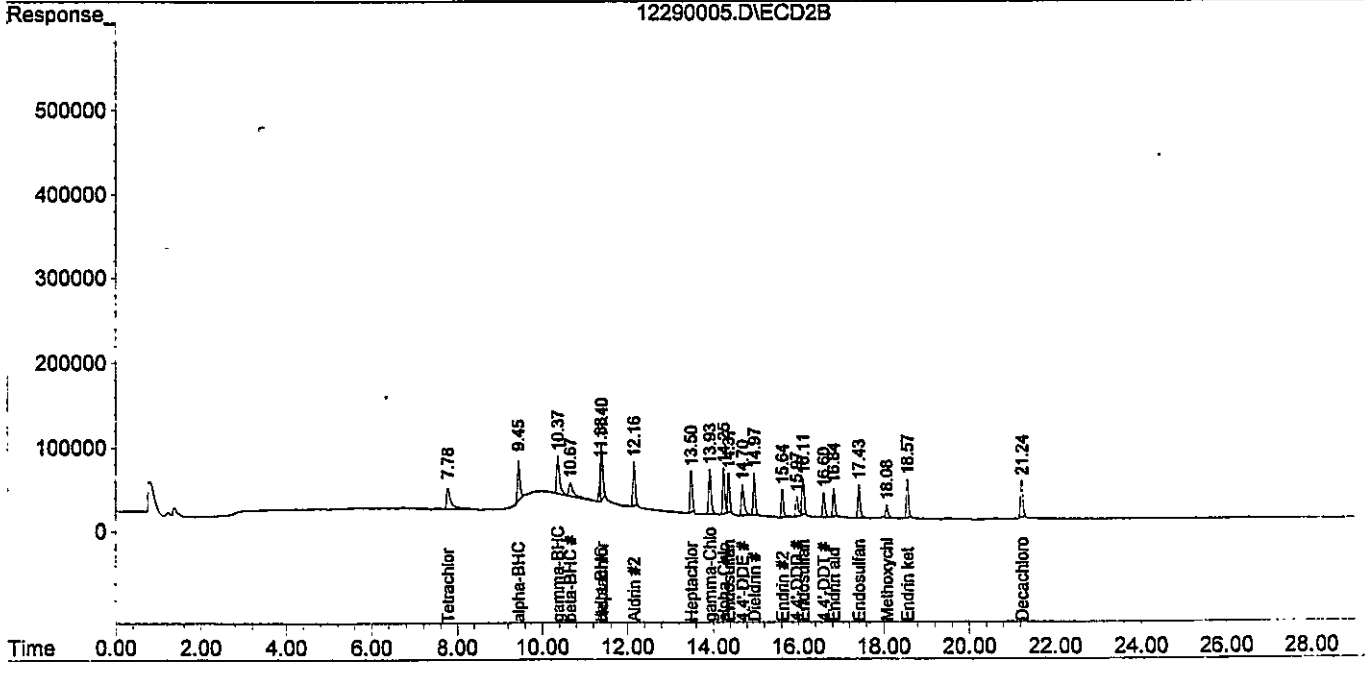
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\122900\12290005.D\ECD2B.CH
Acq On : 29 Dec 2000 9:27 Operator: YGK
Sample : IC PEST .010 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 13:41 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 22 09:28:12 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290006.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\122900\12290006.D\ECD2B.CH
Acq On : 29 Dec 2000 10:02 Operator: YGK
Sample : IC PEST .050 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:53 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L	
		System Monitoring Compounds							
1)	S	Tetrachloro-m-xy	8.06	7.76	8882794	8335593	0.072	0.064	
		Spiked Amount 0.250			Recovery	=	28.80%	25.60%	
22)	S	Decachlorobiphen	20.83	21.23	7510758	7391794	0.071	0.065	
		Spiked Amount 0.250			Recovery	=	28.40%	26.00%	
		Target Compounds							
2)	T	alpha-BHC	9.60	9.44	12162696	11086354	0.062	0.057	
3)	T	beta-BHC	10.71	10.63	5858809	5593449	0.063	0.061	
4)	T	gamma-BHC (Linda	10.44	10.36	11113284	10372240	0.062	0.060	
5)	T	delta-BHC	11.16	11.34	11317002	4441503	0.060	0.035	#
6)	T	Heptachlor	11.63	11.39	9087096	14140150	0.070	0.084	
7)	T	Aldrin	12.35	12.15	8972708	9497004	0.068	0.067	
8)	T	Heptachlor epoxi	13.78	13.49	8279208	7964588	0.070	0.068	
9)	T	Endosulfan I	14.68	14.36	9708545	8488949	0.076	0.070	
10)	T	gamma-Chlordane	14.08	13.92	9456468	9490464	0.068	0.065	
11)	T	alpha-Chlordane	14.37	14.25	8383266	8823402	0.067	0.067	
12)	T	4,4'-DDE	14.60	14.69	6394028	8475878	0.060	0.066	
13)	T	Dieldrin	15.21	14.97	8192334	8437439	0.069	0.069	
14)	T	Endrin	15.73	15.63	5840402	5550100	0.066	0.065	
15)	T	4,4'-DDD	15.92	15.94	6272671	6084608	0.063	0.065	
16)	T	Endosulfan II	16.24	16.11	6932022	7753722	0.069	0.074	
17)	T	Endrin aldehyde	17.14	16.83	5733924	5744907	0.070	0.067	
18)	T	4,4'-DDT	16.51	16.59	6290841	6246903	0.061	0.061	
19)	T	Endosulfan sulfa	18.08	17.42	6563175	6553754	0.071	0.068	
20)	T	Methoxychlor	17.55	18.07	3340029	3117669	0.063	0.062	
21)	T	Endrin ketone	18.69	18.56	7783013	7217490	0.070	0.070	

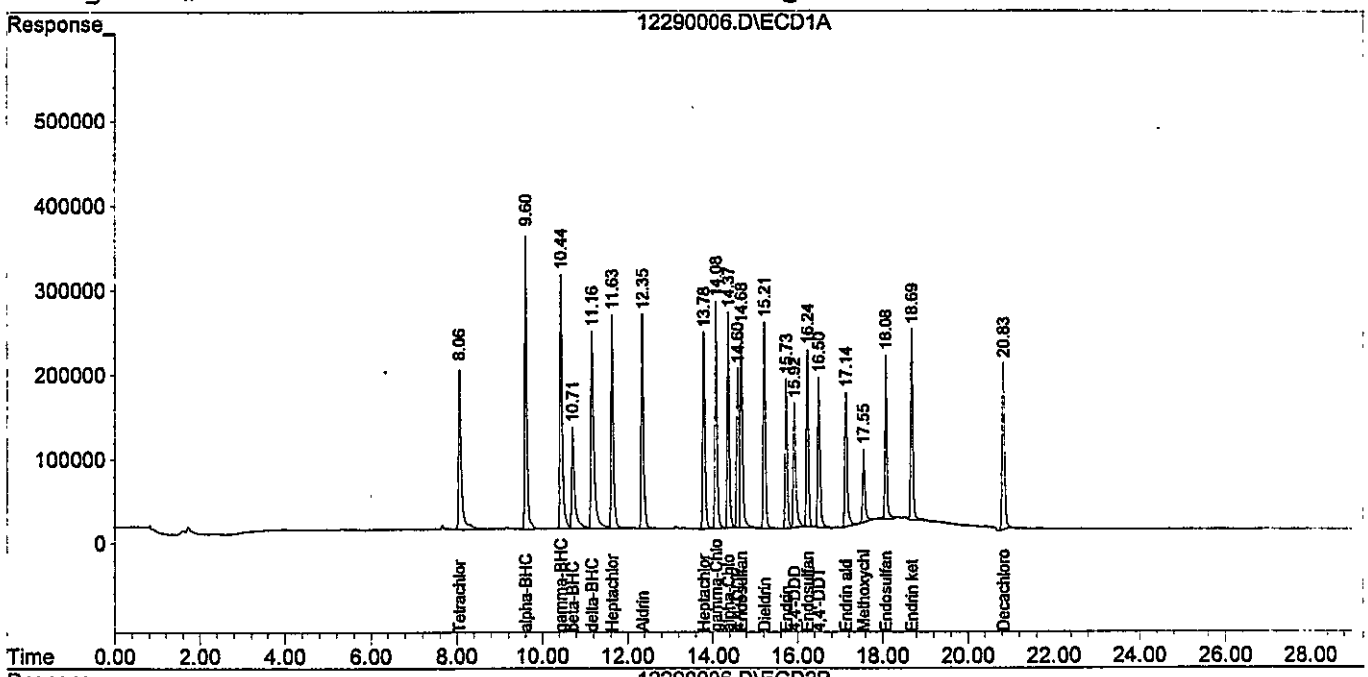
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

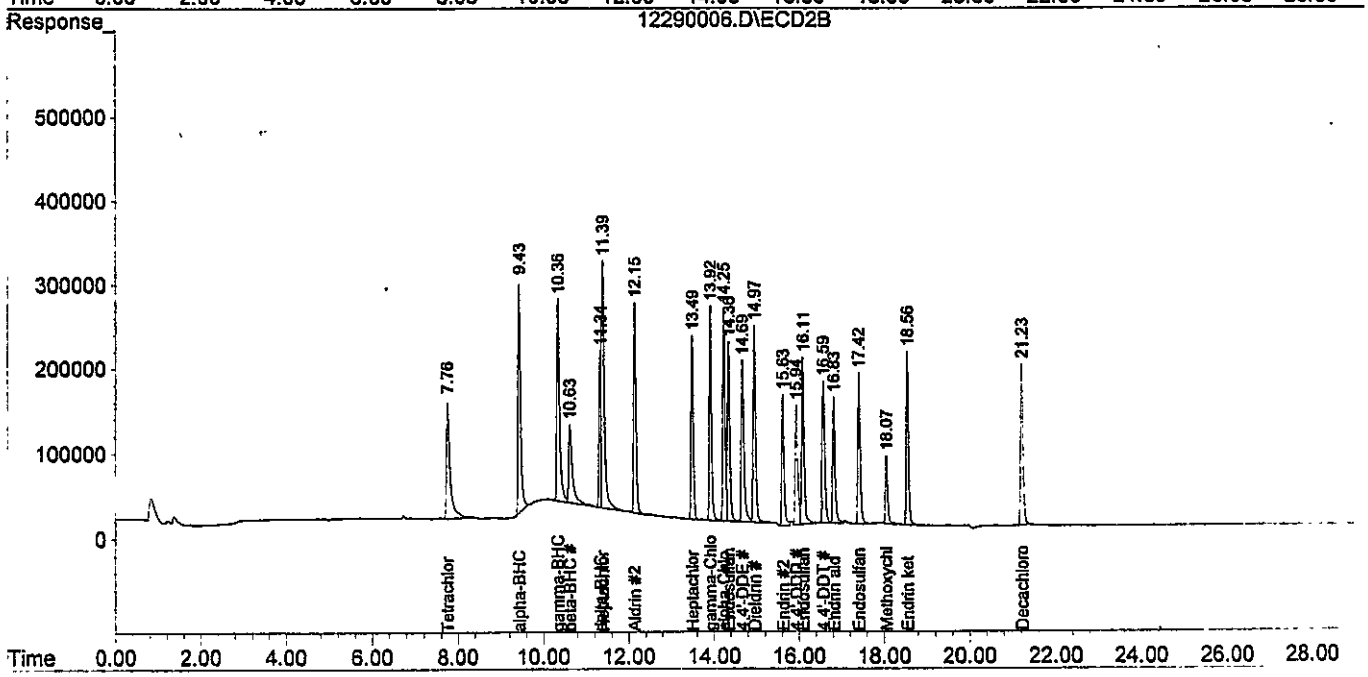
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290006.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\122900\12290006.D\ECD2B.CH
Acq On : 29 Dec 2000 10:02 Operator: YGK
Sample : IC PEST .050 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:53 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290007.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\122900\12290007.D\ECD2B.CH
Acq On : 29 Dec 2000 10:36 Operator: YGK
Sample : IC PEST .10 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:54 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.76	16027613	15560012	0.130	0.120
		Spiked Amount 0.250			Recovery	=	52.00%	48.00%
22)	S	Decachlorobiphen	20.83	21.24	13284759	13368222	0.125	0.118
		Spiked Amount 0.250			Recovery	=	50.00%	47.20%
		Target Compounds						
2)	T	alpha-BHC	9.60	9.43	22806699	21852249	0.117	0.113
3)	T	beta-BHC	10.71	10.62	10982492	10723378	0.118	0.118
4)	T	gamma-BHC (Linda	10.44	10.35	21015804	19912092	0.116	0.115
5)	T	delta-BHC	11.15	11.33	21853981	11271458	0.115	0.090
6)	T	Heptachlor	11.63	11.39	16400430	24008971	0.126	0.142
7)	T	Aldrin	12.35	12.15	16300820	17672677	0.124	0.125
8)	T	Heptachlor epoxi	13.78	13.49	14740386	14359115	0.125	0.123
9)	T	Endosulfan I	14.68	14.36	16871373	15292810	0.133	0.126
10)	T	gamma-Chlordane	14.08	13.92	17489277	17621893	0.125	0.121
11)	T	alpha-Chlordane	14.37	14.25	15224509	16257036	0.121	0.123
12)	T	4,4'-DDE	14.59	14.68	12379880	15638567	0.116	0.122
13)	T	Dieldrin	15.21	14.97	14691058	15305082	0.123	0.125
14)	T	Endrin	15.73	15.63	10781620	10175875	0.121	0.119
15)	T	4,4'-DDD	15.91	15.94	11818750	11392346	0.119	0.121
16)	T	Endosulfan II	16.23	16.10	12211844	13539223	0.122	0.128
17)	T	Endrin aldehyde	17.14	16.83	10167219	10289594	0.123	0.119
18)	T	4,4'-DDT	16.50	16.59	12050424	11906205	0.118	0.116
19)	T	Endosulfan sulfa	18.08	17.42	11528306	11725149	0.124	0.122
20)	T	Methoxychlor	17.55	18.06	6340864	5714830	0.120	0.114
21)	T	Endrin ketone	18.69	18.56	13639959	12797258	0.123	0.124

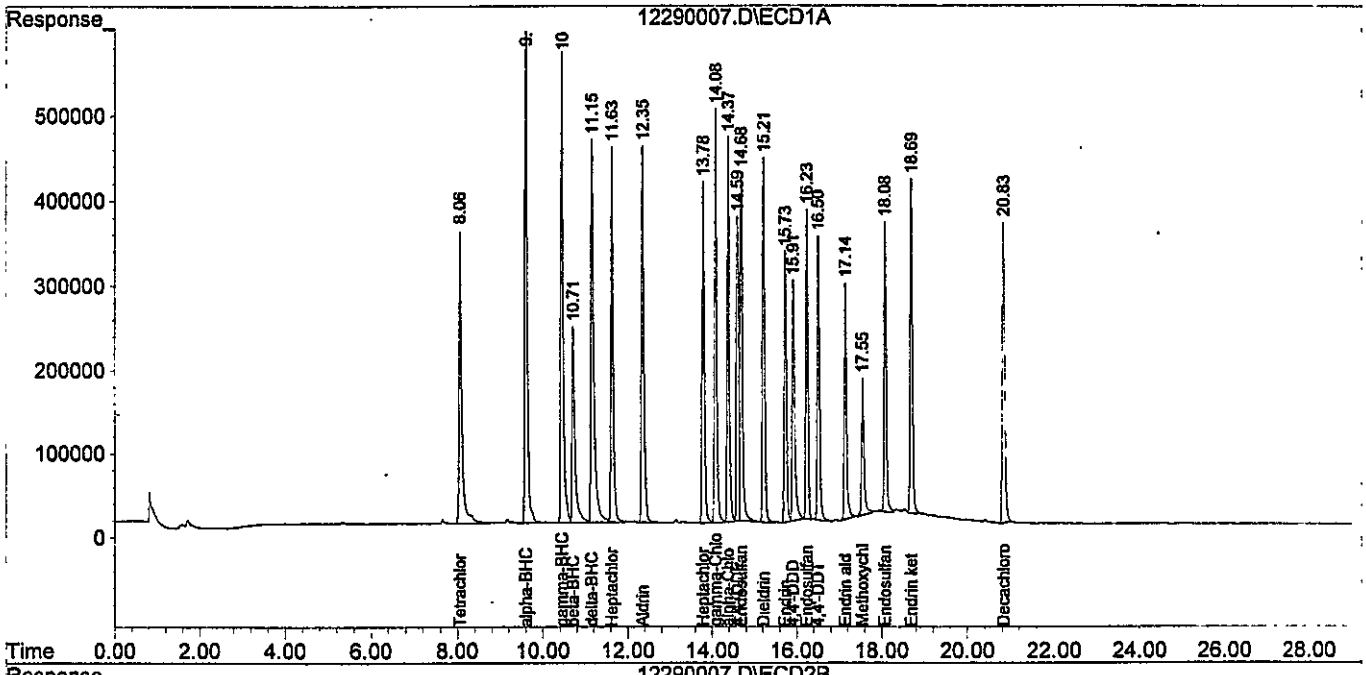
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

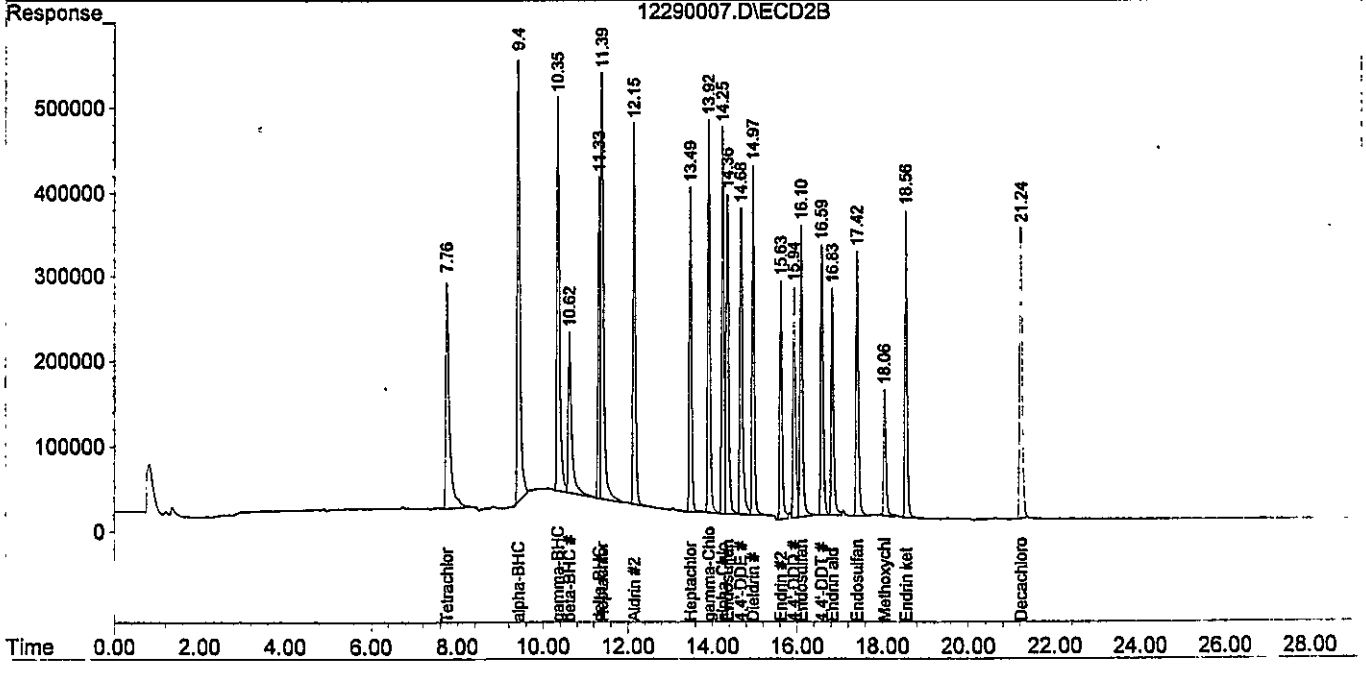
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290007.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\122900\12290007.D\ECD2B.CH
Acq On : 29 Dec 2000 10:36 Operator: YGK
Sample : IC PEST .10 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:54 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\122900\12290008.D\ECD2B.CH
Acq On : 29 Dec 2000 11:10 Operator: YGK
Sample : IC PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:55 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.75	31447704	34036352	0.256	0.263
Spiked Amount		0.250			Recovery	=	102.40%	105.20%
22)	S	Decachlorobiphen	20.83	21.24	28524583	28934180	0.269	0.255
Spiked Amount		0.250			Recovery	=	107.60%	102.00%
		Target Compounds						
2)	T	alpha-BHC	9.60	9.43	49648203	49446095	0.254	0.256
3)	T	beta-BHC	10.70	10.61	23784123	22736636	0.255	0.250
4)	T	gamma-BHC (Linda	10.44	10.35	45397265	43918639	0.251	0.253
5)	T	delta-BHC	11.15	11.32	47613409	30269138	0.251	0.242
6)	T	Heptachlor	11.63	11.40	33108847	45435239	0.255	0.269
7)	T	Aldrin	12.35	12.15	33710297	36931287	0.256	0.261
8)	T	Heptachlor epoxi	13.79	13.49	29972671	30094625	0.254	0.259
9)	T	Endosulfan I	14.68	14.36	33003011	31201627	0.260	0.258
10)	T	gamma-Chlordane	14.08	13.92	36123406	37586796	0.259	0.258
11)	T	alpha-Chlordane	14.37	14.25	32643254	34229523	0.259	0.258
12)	T	4,4'-DDE	14.59	14.67	26968396	33263875	0.254	0.259
13)	T	Dieldrin	15.21	14.97	30434507	31605148	0.256	0.258
14)	T	Endrin	15.73	15.63	22296216	21314719	0.250	0.249
15)	T	4,4'-DDD	15.91	15.93	25258633	24114203	0.255	0.256
16)	T	Endosulfan II	16.23	16.10	25632689	27229321	0.256	0.258
17)	T	Endrin aldehyde	17.14	16.83	21633655	22507102	0.263	0.261
18)	T	4,4'-DDT	16.50	16.58	26074287	25942294	0.254	0.253
19)	T	Endosulfan sulfa	18.08	17.42	23591747	24364486	0.255	0.254
20)	T	Methoxychlor	17.55	18.06	13298861	12327666	0.252	0.247
21)	T	Endrin ketone	18.69	18.56	28211165	26389625	0.255	0.256

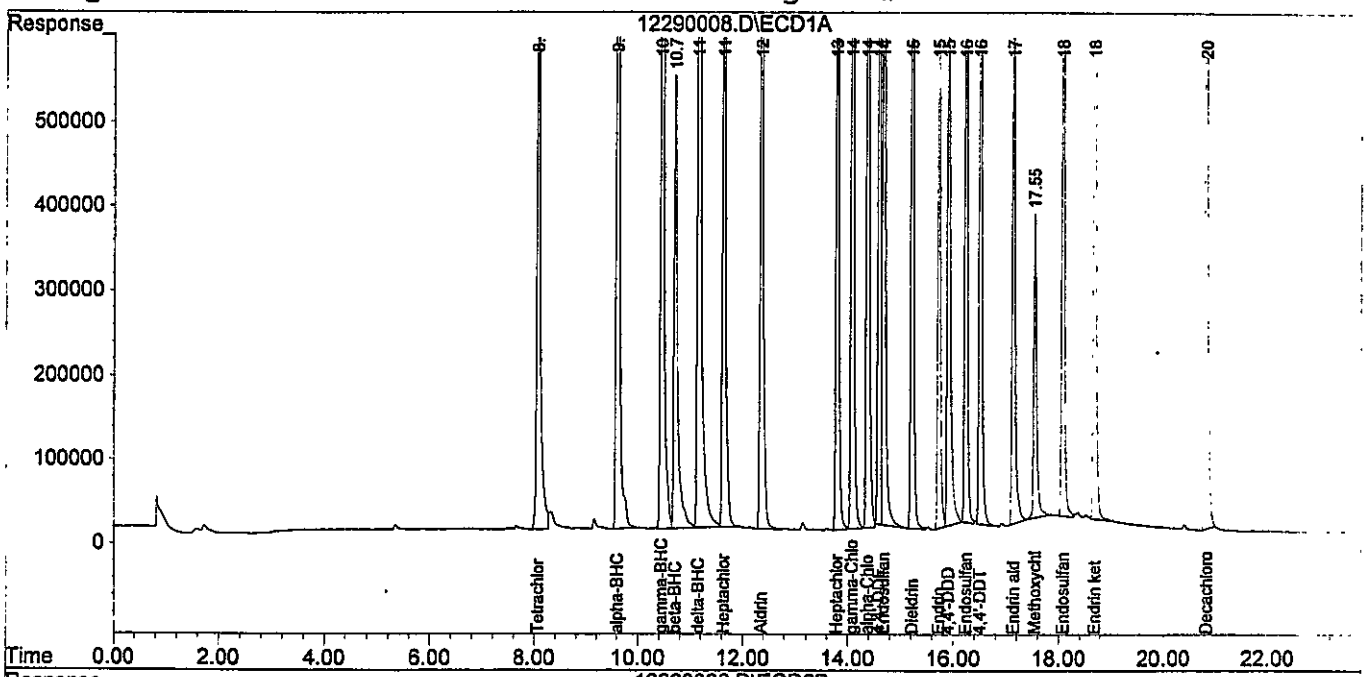
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

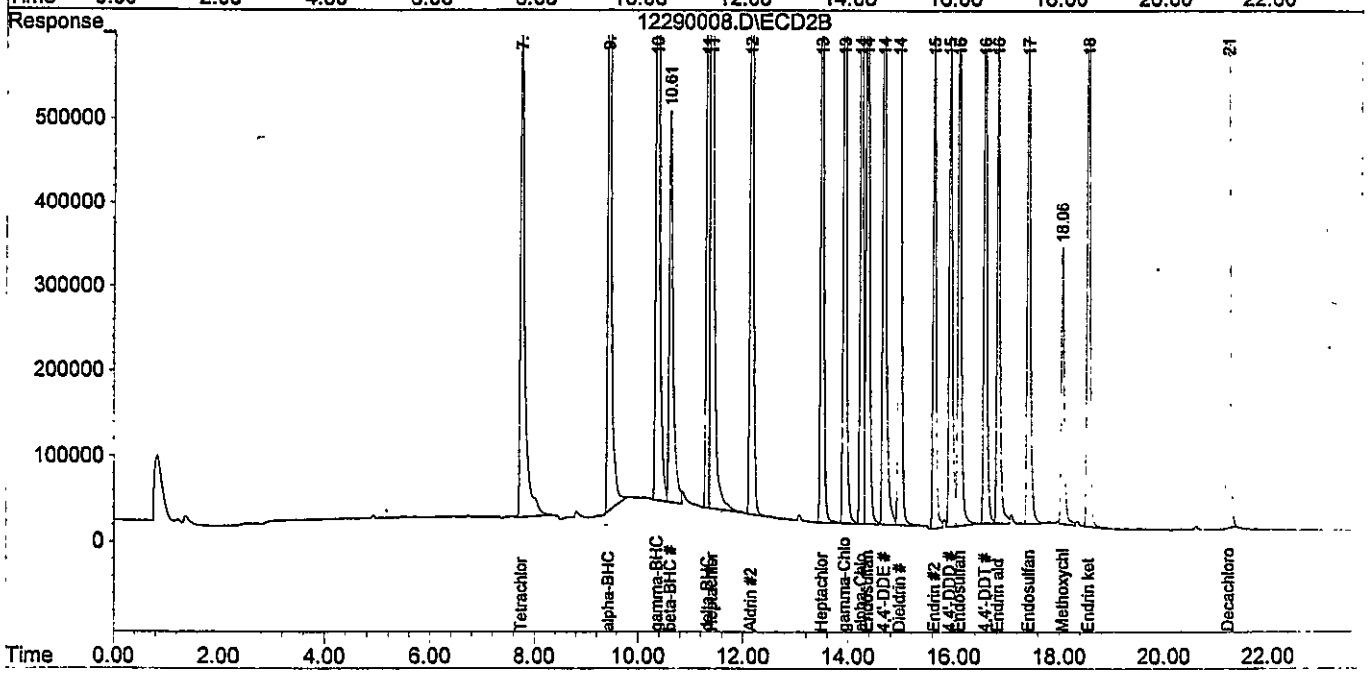
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\122900\12290008.D\ECD2B.CH
Acq On : 29 Dec 2000 11:10 Operator: YGK
Sample : IC PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:55 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290009.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\122900\12290009.D\ECD2B.CH
Acq On : 29 Dec 2000 11:39 Operator: YGK
Sample : IC PEST .35 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:56 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.75	40670927	42569293	0.331	0.329
Spiked Amount		0.250			Recovery	=	132.40%	131.60%
22)	S	Decachlorobiphen	20.83	21.24	36545101	37627646	0.345	0.332
Spiked Amount		0.250			Recovery	=	138.00%	132.80%
		Target Compounds						
2)	T	alpha-BHC	9.60	9.43	65975807	65024568	0.337	0.337
3)	T	beta-BHC	10.70	10.61	31533563	30174424	0.338	0.331
4)	T	gamma-BHC (Linda	10.44	10.35	59739528	57785777	0.331	0.333
5)	T	delta-BHC	11.15	11.32	62815530	41183277	0.331	0.329
6)	T	Heptachlor	11.63	11.40	42735111	56985278	0.330	0.338
7)	T	Aldrin	12.36	12.15	43885871	47531215	0.333	0.336
8)	T	Heptachlor epoxi	13.79	13.49	38847366	39080456	0.330	0.336
9)	T	Endosulfan I	14.68	14.36	42139504	40392086	0.332	0.334
10)	T	gamma-Chlordane	14.08	13.92	46906381	48973906	0.337	0.336
11)	T	alpha-Chlordane	14.38	14.25	42897591	44327949	0.340	0.334
12)	T	4,4'-DDE	14.59	14.67	34917859	43155577	0.329	0.336
13)	T	Dieldrin	15.22	14.97	39447464	40792498	0.331	0.333
14)	T	Endrin	15.73	15.63	29015630	27882883	0.326	0.326
15)	T	4,4'-DDD	15.91	15.93	32900071	31233984	0.332	0.332
16)	T	Endosulfan II	16.23	16.10	33493309	35123097	0.334	0.333
17)	T	Endrin aldehyde	17.14	16.83	27684909	28763975	0.336	0.333
18)	T	4,4'-DDT	16.50	16.58	34046719	33994447	0.332	0.332
19)	T	Endosulfan sulfa	18.08	17.42	30929587	31693638	0.334	0.330
20)	T	Methoxychlor	17.55	18.06	17642794	16278795	0.334	0.326
21)	T	Endrin ketone	18.69	18.56	36781096	33977049	0.332	0.330

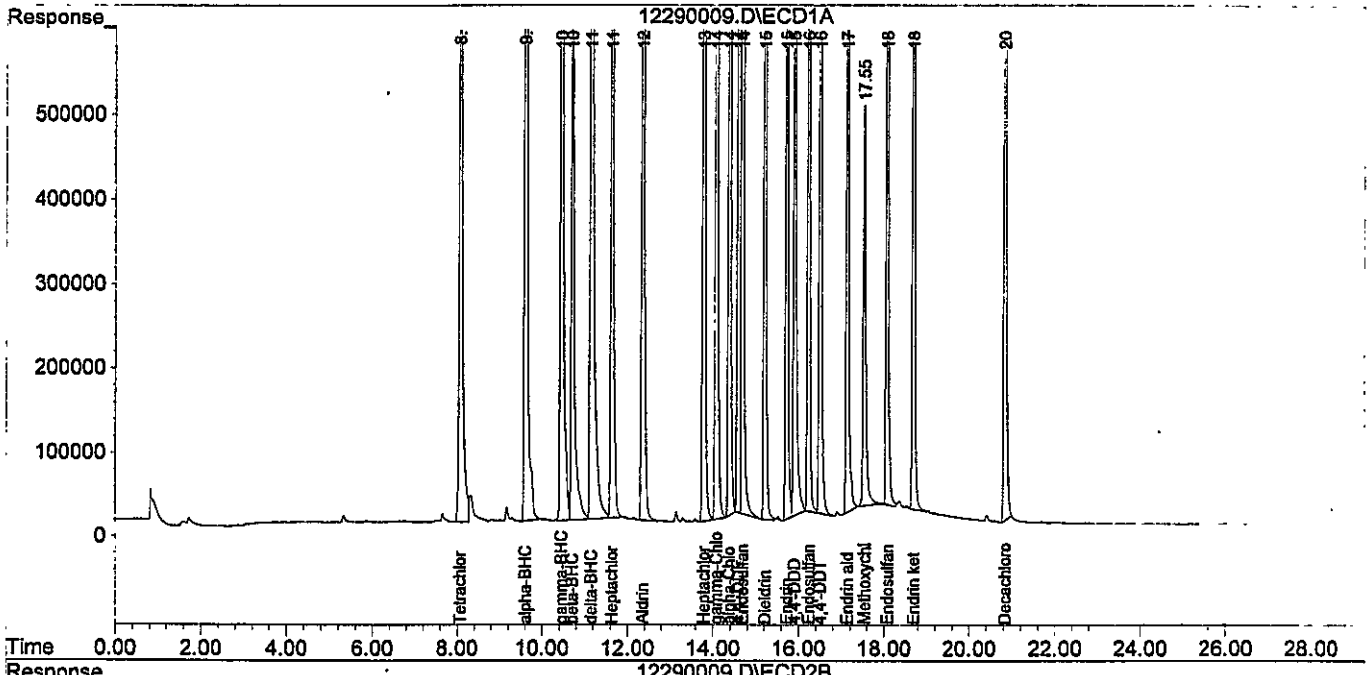
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

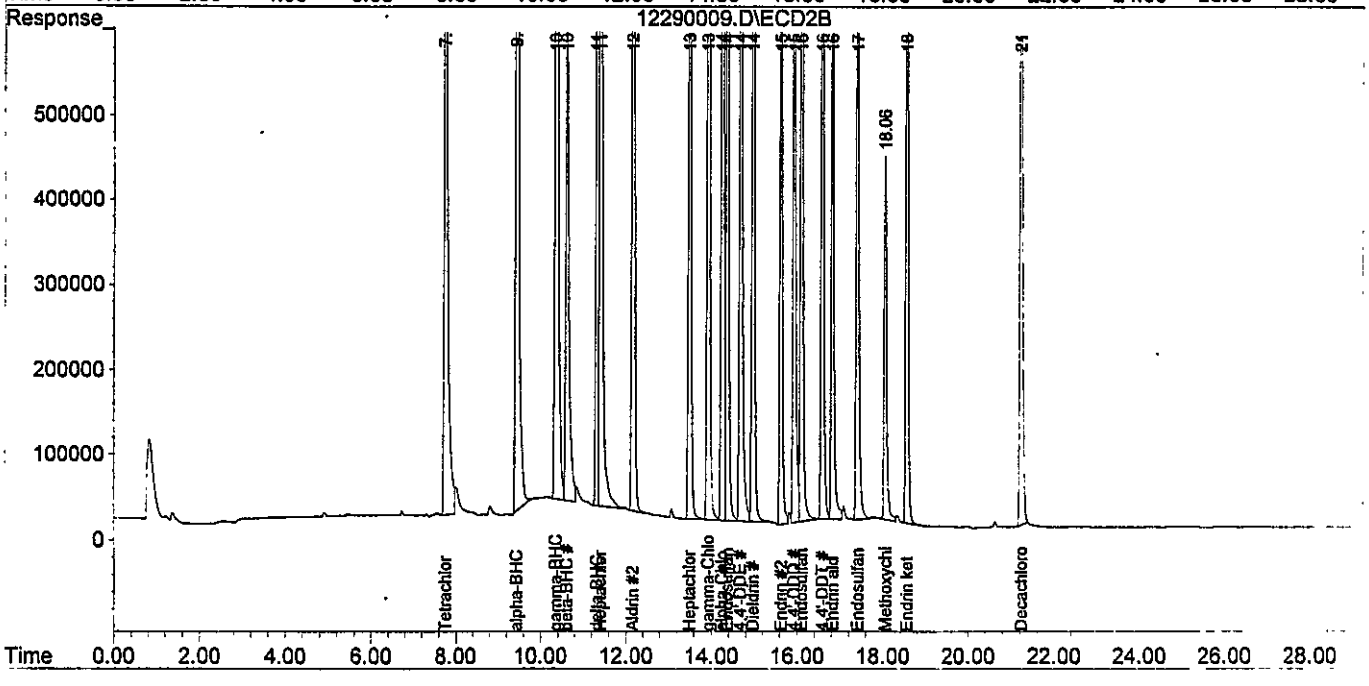
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290009.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\122900\12290009.D\ECD2B.CH
Acq On : 29 Dec 2000 11:39 Operator: YGK
Sample : IC PEST .35 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 14:56 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290010.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\122900\12290010.D\ECD2B.CH
Acq On : 29 Dec 2000 13:52 Operator: YGK
Sample : IC PEST .50 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 15:00 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.08	7.75	61706958	64909605	0.502	0.502
Spiked Amount		0.250			Recovery	=	200.80%	200.80%
22)	S	Decachlorobiphen	20.84	21.24	51616894	57328837	0.487	0.505
Spiked Amount		0.250			Recovery	=	194.80%	202.00%
		Target Compounds						
2)	T	alpha-BHC	9.62	9.44	98409323	97071745	0.503	0.503
3)	T	beta-BHC	10.72	10.62	46658391	46359628	0.501	0.509
4)	T	gamma-BHC (Linda	10.46	10.36	91785846	88071498	0.508	0.507
5)	T	delta-BHC	11.16	11.33	96714128	65379521	0.509	0.522
6)	T	Heptachlor	11.65	11.41	65379571	82259126	0.504	0.488
7)	T	Aldrin	12.37	12.16	66167901	70483781	0.502	0.498
8)	T	Heptachlor epoxi	13.80	13.50	58807830	58108589	0.499	0.499
9)	T	Endosulfan I	14.69	14.37	62131220	60443041	0.489	0.500
10)	T	gamma-Chlordane	14.09	13.93	69405574	73076664	0.498	0.501
11)	T	alpha-Chlordane	14.39	14.25	62525229	66421190	0.496	0.501
12)	T	4,4'-DDE	14.60	14.68	54080748	64225248	0.509	0.500
13)	T	Dieldrin	15.23	14.97	59982981	61258526	0.504	0.501
14)	T	Endrin	15.74	15.63	45571632	43793198	0.511	0.512
15)	T	4,4'-DDD	15.91	15.93	50054257	47412958	0.505	0.504
16)	T	Endosulfan II	16.24	16.11	50337026	52663008	0.502	0.500
17)	T	Endrin aldehyde	17.15	16.83	40939941	43207209	0.497	0.501
18)	T	4,4'-DDT	16.51	16.59	51829988	51965304	0.506	0.507
19)	T	Endosulfan sulfa	18.08	17.42	46518459	48571975	0.502	0.506
20)	T	Methoxychlor	17.55	18.06	26660272	25670687	0.505	0.514
21)	T	Endrin ketone	18.69	18.56	55799451	51868968	0.504	0.504

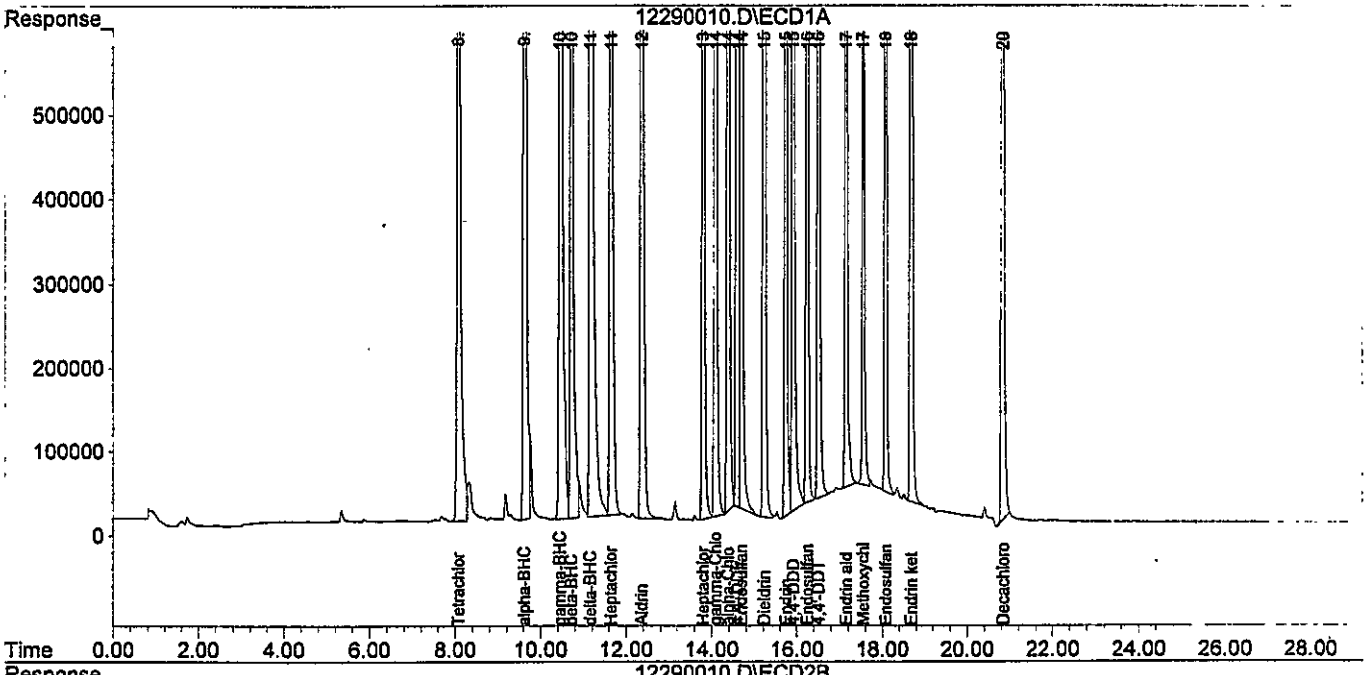
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

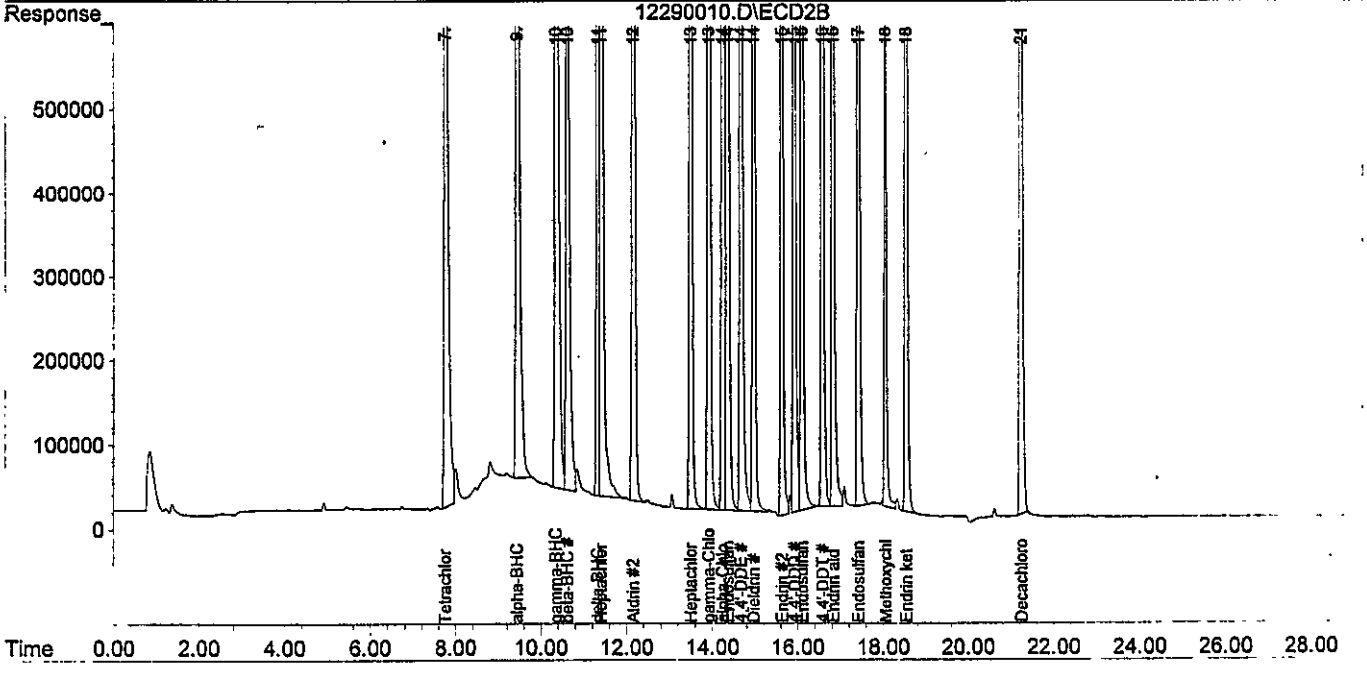
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290010.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\122900\12290010.D\ECD2B.CH
Acq On : 29 Dec 2000 13:52 Operator: YGK
Sample : IC PEST .50 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 15:00 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD2B.CH
Acq On : 29 Dec 2000 12:48 Operator: YGK
Sample : ICV PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 15:01 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.75	30812493	33492343	0.251	0.259
Spiked Amount		0.250			Recovery	=	100.40% ✓	103.60%
22)	S	Decachlorobiphen	20.84	21.24	26365866	27572159	0.249	0.243
Spiked Amount		0.250			Recovery	=	99.60% ✓	97.20%
		Target Compounds						
2)	T	alpha-BHC	9.61	9.43	47925861	47653244	0.245	0.247
3)	T	beta-BHC	10.71	10.62	22758833	22588357	0.244	0.248
4)	T	gamma-BHC (Linda	10.44	10.36	43981377	42377798	0.244	0.244
5)	T	delta-BHC	11.15	11.33	46123756	28842605	0.243	0.230
6)	T	Heptachlor	11.63	11.40	32124313	43750504	0.248	0.260
7)	T	Aldrin	12.36	12.16	32737708	35360508	0.248	0.250
8)	T	Heptachlor epoxi	13.79	13.50	29477571	29652804	0.250	0.255
9)	T	Endosulfan I	14.68	14.37	31860212	29812823	0.251	0.247
10)	T	gamma-Chlordane	14.08	13.93	34733555	35473036	0.249	0.243
11)	T	alpha-Chlordane	14.38	14.25	32500812	32657298	0.258	0.246
12)	T	4,4'-DDE	14.59	14.68	25658171	31799189	0.241	0.247
13)	T	Dieldrin	15.22	14.97	28961008	29793971	0.243	0.243
14)	T	Endrin	15.73	15.63	23597739	22471895	0.265	0.263
15)	T	4,4'-DDD	15.91	15.93	24093007	22910154	0.243	0.243
16)	T	Endosulfan II	16.24	16.11	25084718	26354003	0.250	0.250
17)	T	Endrin aldehyde	17.14	16.83	20718423	21642596	0.251	0.251
18)	T	4,4'-DDT	16.51	16.59	24515723	24495615	0.239	0.239
19)	T	Endosulfan sulfa	18.08	17.42	22694285	23691131	0.245	0.247
20)	T	Methoxychlor	17.55	18.06	12783393	11937443	0.242	0.239
21)	T	Endrin ketone	18.69	18.56	25908234	24584622	0.234	0.239

OK YG

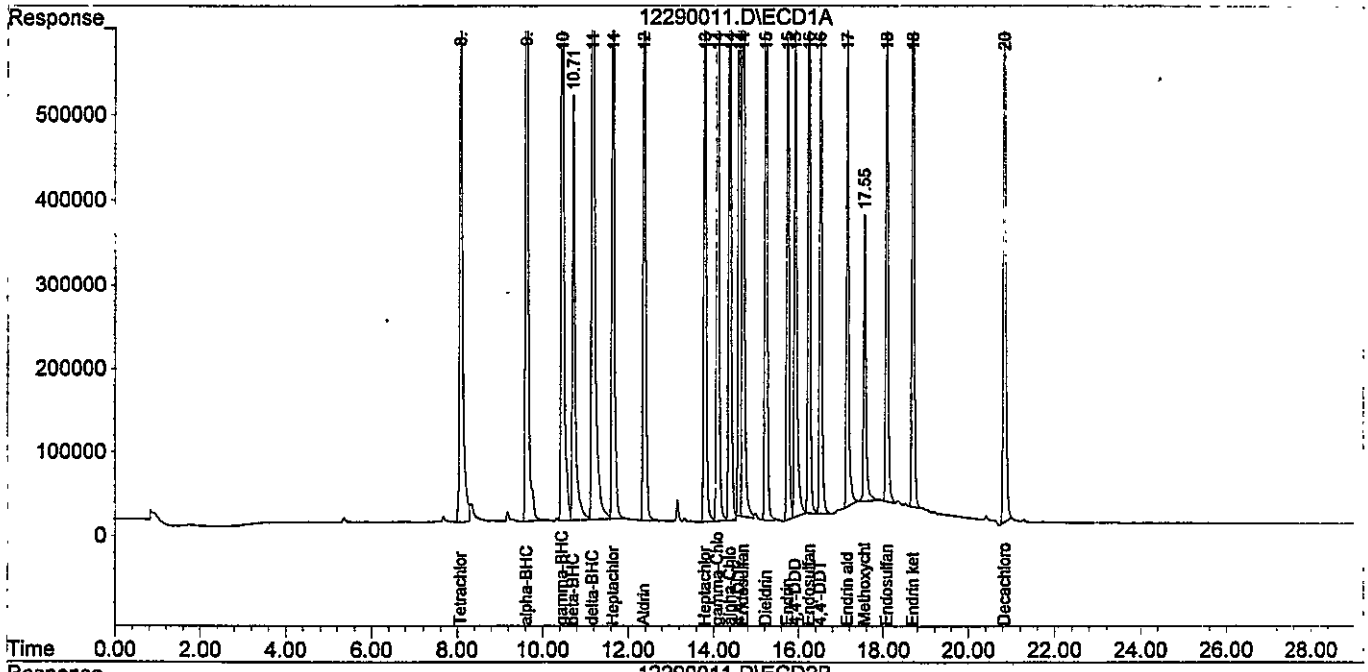
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

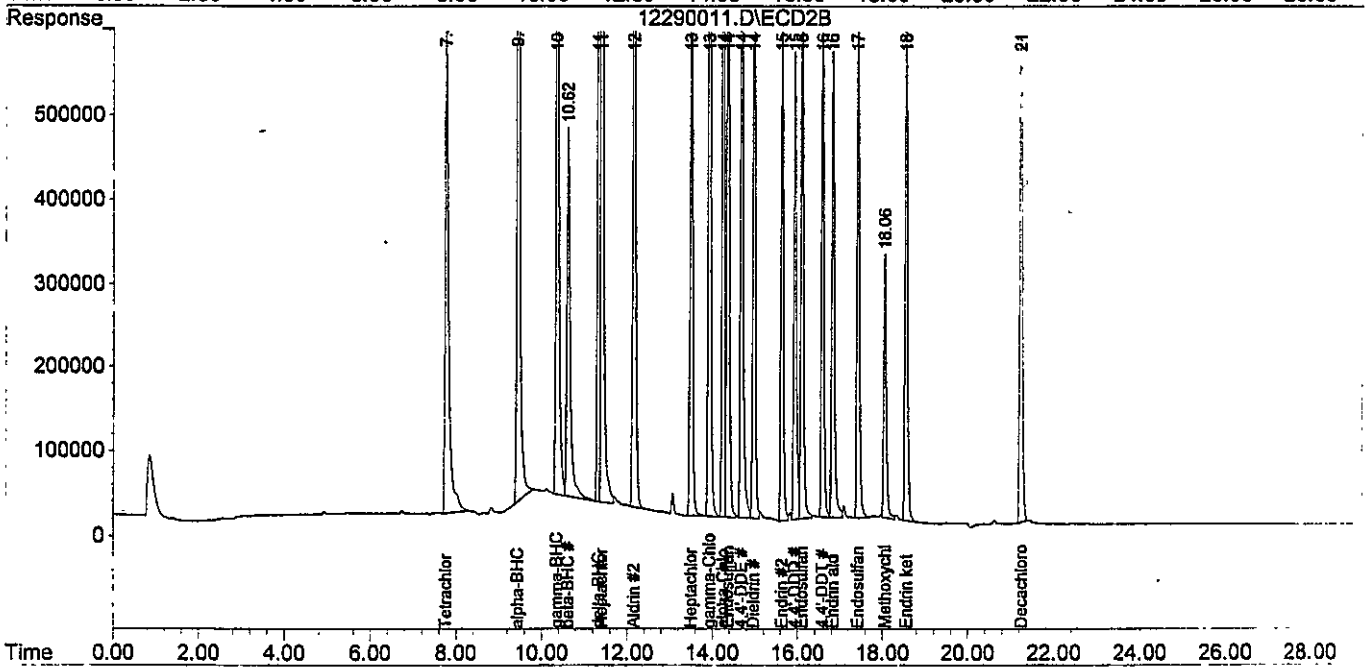
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD2B.CH
Acq On : 29 Dec 2000 12:48 Operator: YGK
Sample : ICV PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 15:01 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/29/00
Analyst Initials: YCK
Instrument Method: 8081DIA
Calibration Column: Rtx-CLP1 (F)
Confirmation Column: Rtx-CLP2

DDT Breakdown % (<15%): 6.3%
Endrin Breakdown % (<15%): 13.4%

Pest Calibration Date: 12/29/00
PCB Calibration Date: —

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil	50-116	43-152
Water	21-131	10-160

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
1	PRIMER	122900P	std	1X	NA	NA	
2	Hexane		solv				
3	PEM		std				P00182
4	ccv Pest .25ppm				114	114	P00185
5	IC Pest .010ppm				NA	NA	P00188
6	IC .050ppm						P00187
7	.10ppm						P00186
8	.25ppm						P00185
9	.35ppm						P00184
10	.50ppm						P00183
11	ICV Pest .25ppm				100	100	P00220
12	ccv Chlord .25ppm	080300CL			NA	NA	P00132
13	ccv TOX 2.5ppm	110800TK					P00176
14	IC Chlord .050ppm	122900CL					P00226
15	.10ppm						P00225
16	.25ppm						P00224
17	.50ppm						P00223
18	.75ppm						P00222
19	ICV Chlord .25ppm				NA ~~100~~ ppm	NA ~~100~~ ppm	112% P00228
20	Hexane	122900P	solv				
21	QPW1222001		W		78	67	
22	1 2				76	68	
23	05503 W				16	4	

Signature/Date: Yef Kehm 12/29/00

↓ cont

GC/ECD Pesticides & PCBs Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/29/00
Analyst Initials:
Instrument Method:
Calibration Column:
Confirmation Column:

DDT Breakdown % (<15%):
Endrin Breakdown % (<15%):

Pest Calibration Date:
PCB Calibration Date:

Continued from p. 48

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil		
Water		

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
24	Hexane	122900P	soln	1X	NA	NA	
25	PEM	↓	std	↓	↓	↓	P00182
26	ccv Pest.25ppm	↓	↓	↓	102.	104	P00185

YGH 12/29/00

Signature/Date: [signature] 12/29/00

SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

Chlordane Tech

DATE / INSTRUMENT: 12/29/00 PEST-A	METHOD: (circle applicable methods)
MATRIX:	(8081A) 8082 8151A

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	(Y)	N	NA
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YGK	Reviewer: JP
Date: 01/02/01 Time: 10:30	Date: 01.03.2001 Time: 1130

Response Factor Report PEST-A

Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000

Calibration Files
0.05 =12290014.D 0.1 =12290015.D 0.25 =12290016.D
0.5 =12290017.D 0.75 =12290018.D

	Compound	0.05	0.1	0.25	0.5	0.75	Avg		%RSD
1) L1	CHLORD 1	7.625	6.972	7.055	6.757	6.719	7.025	E6	5.18
2) L1	CHLORD 2	1.069	0.981	1.127	1.069	1.075	1.064	E7	4.95
3) L1	CHLORD 3	1.377	1.089	1.050	0.966	0.911	1.079	E7	16.77
4) L1	CHLORD 4	3.904	3.724	3.912	3.857	3.908	3.861	E6	2.07
5) L1	CHLORD 5	2.319	2.197	2.168	2.028	1.957	2.134	E7	6.71
6) L1	CHLORD 6	3.731	3.587	3.514	3.230	3.130	3.438	E7	7.30
7) L1	CHLORD 7	3.575	3.632	3.748	3.729	3.735	3.684	E6	2.07

Signal #2 Calibration Files
0.05 =12290014.D 0.1 =12290015.D 0.25 =12290016.D
0.5 =12290017.D 0.75 =12290018.D

	Compound	0.05	0.1	0.25	0.5	0.75	Avg		%RSD
1) L1	CHLORD 1	5.283	7.174	7.110	6.971	6.848	6.677	E6	11.82
2) L1	CHLORD 2	1.009	1.041	1.087	1.067	1.063	1.053	E7	2.82
3) L1	CHLORD 3	9.266	7.824	8.806	8.162	7.864	8.385	E6	7.52
4) L1	CHLORD 4	4.741	3.463	3.661	3.623	3.720	3.842	E6	13.32
5) L1	CHLORD 5	1.996	1.944	1.962	1.848	1.789	1.908	E7	4.52
6) L1	CHLORD 6	1.665	1.624	1.656	1.572	1.536	1.611	E7	3.44
7) L1	CHLORD 7	1.742	1.697	1.705	1.600	1.567	1.662	E7	4.50

(#) = Out of Range

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290014.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\122900\12290014.D\ECD2B.CH
Acq On : 29 Dec 2000 16:07 Operator: YGK
Sample : IC CHLORD .050 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:32 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : 'Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
Target Compounds							
1) L1 CHLORD 1	11.45	11.07	381253	264157	0.075	0.053	#
2) L1 CHLORD 2	11.65	11.42	534635	504536	0.065	0.063	
3) L1 CHLORD 3	12.73	12.58	688652	463322	0.106	0.077	#
4) L1 CHLORD 4	13.67	13.46	195225	237054	0.066	0.083	#
5) L1 CHLORD 5	14.11	13.95	1159608	998075	0.074	0.068	
6) L1 CHLORD 6	14.39	14.15	1865436	832389	0.078	0.066	
7) L1 CHLORD 7	15.84	14.27	178747	870925	0.066	0.073	
Sum CHLORD 1			5003556	4170458	0.530	0.484	
Average CHLORD 1					0.076	0.069	

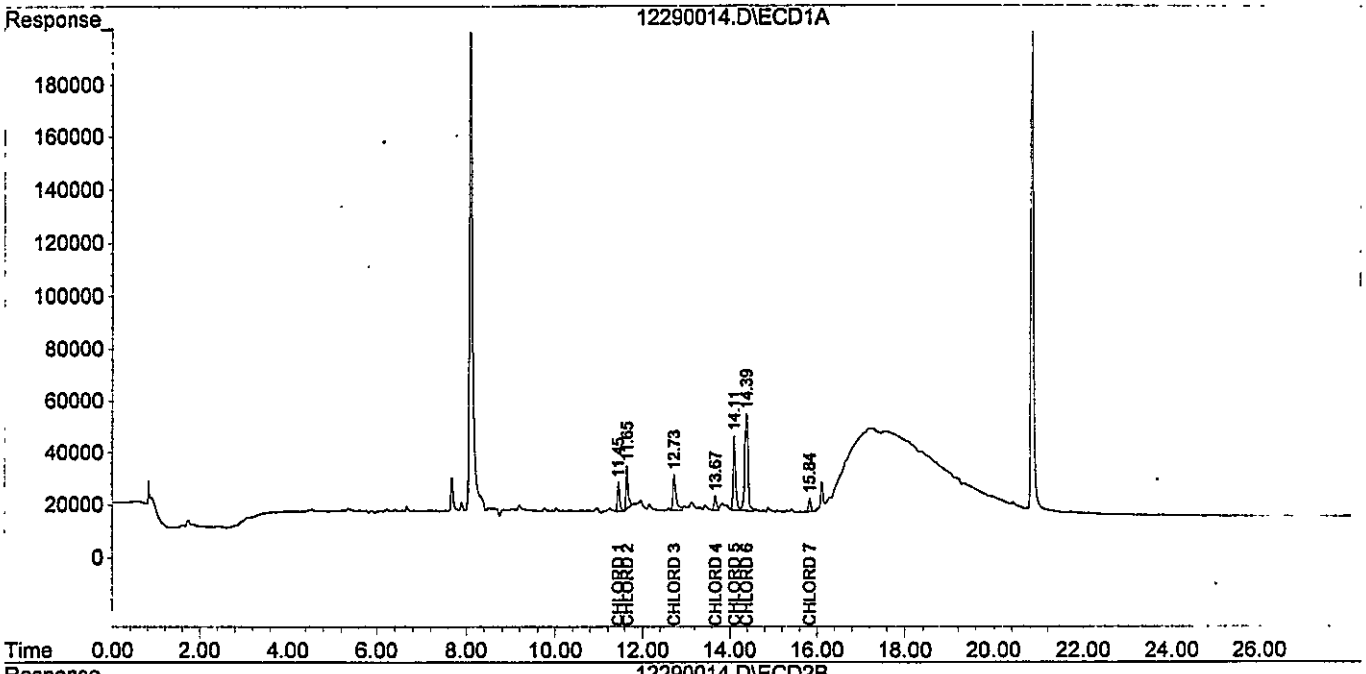
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

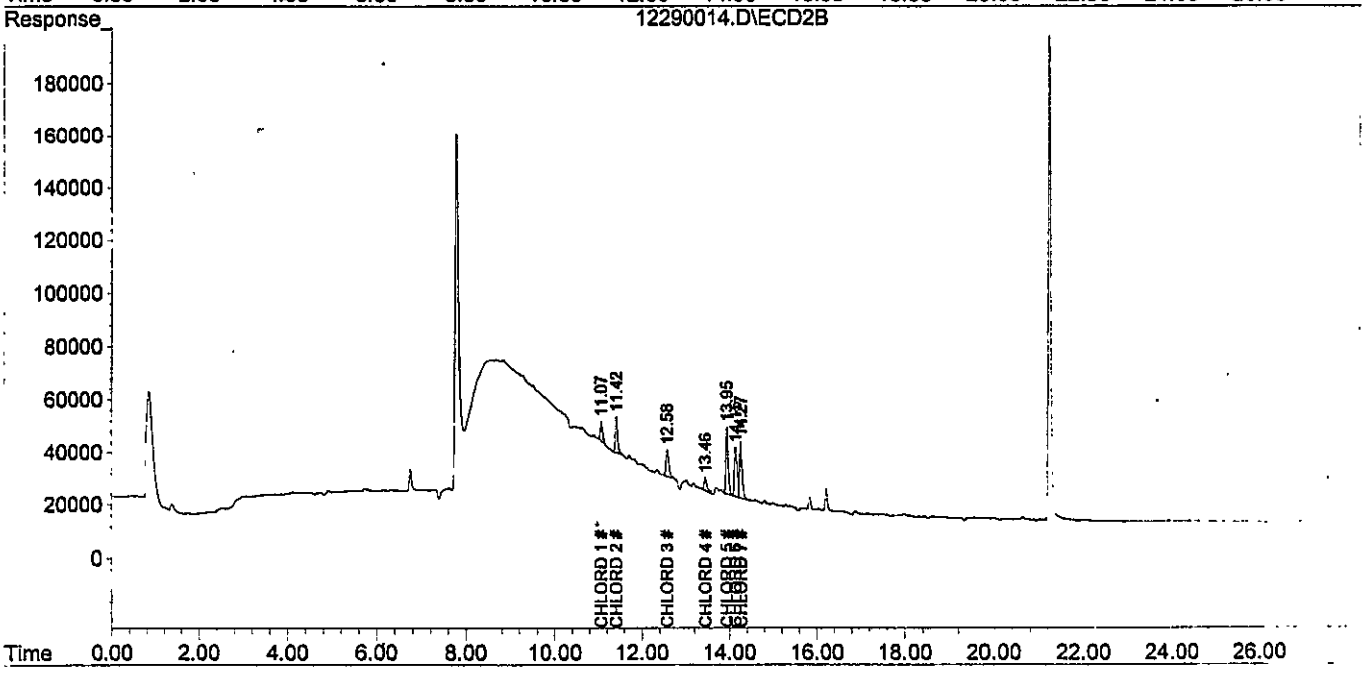
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290014.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\122900\12290014.D\ECD2B.CH
Acq On : 29 Dec 2000 16:07 Operator: YGK
Sample : IC CHLORD .050 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:32 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290015.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\122900\12290015.D\ECD2B.CH
Acq On : 29 Dec 2000 16:40 Operator: YGK
Sample : IC CHLORD .10 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:47 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L1 CHLORD 1	11.44	11.06	697203	717437	0.103	0.104
2) L1 CHLORD 2	11.64	11.41	980674	1040918	0.091	0.098
3) L1 CHLORD 3	12.71	12.57	1089326	782398	0.116	0.097
4) L1 CHLORD 4	13.66	13.45	372401	346335	0.096	0.094
5) L1 CHLORD 5	14.09	13.94	2197047	1943667	0.110	0.107
6) L1 CHLORD 6	14.38	14.14	3586807	1624358	0.112	0.104
7) L1 CHLORD 7	15.83	14.26	363239	1696651	0.097	0.107
Sum CHLORD 1			9286697	8151764	0.726	0.711
Average CHLORD 1					0.104	0.102

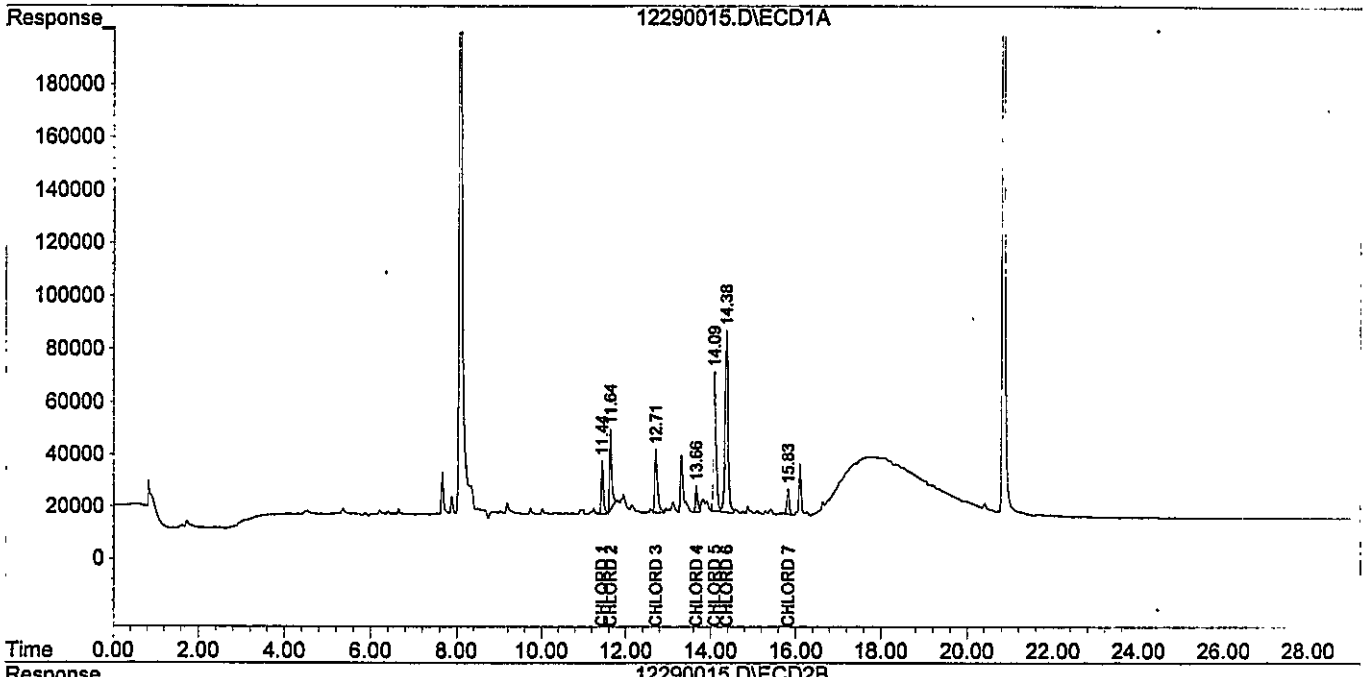
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

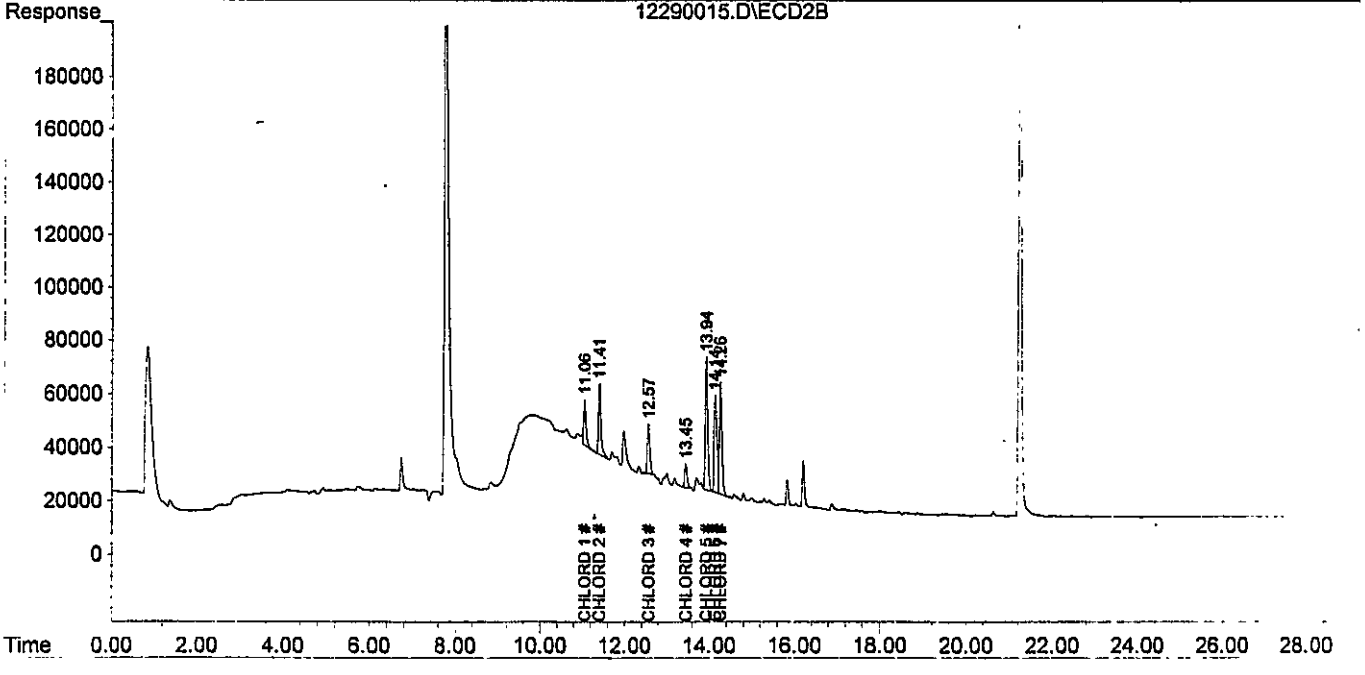
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290015.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\122900\12290015.D\ECD2B.CH
Acq On : 29 Dec 2000 16:40 Operator: YGK
Sample : IC CHLORD .10 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:47 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290016.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\122900\12290016.D\ECD2B.CH
Acq On : 29 Dec 2000 17:15 Operator: YGK
Sample : IC CHLORD .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:00 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L1 CHLORD 1	11.44	11.06	1763650	1777577	0.261	0.258
2) L1 CHLORD 2	11.64	11.41	2818289	2718071	0.262	0.255
3) L1 CHLORD 3	12.71	12.57	2623806	2201540	0.279	0.275
4) L1 CHLORD 4	13.67	13.45	977966	915162	0.251	0.248
5) L1 CHLORD 5	14.10	13.94	5421131	4905718	0.272	0.270
6) L1 CHLORD 6	14.38	14.14	8786129	4141126	0.275	0.266
7) L1 CHLORD 7	15.83	14.26	936948	4262583	0.251	0.268
Sum CHLORD 1			23327919	20921777	1.851	1.840
Average CHLORD 1					0.264	0.263

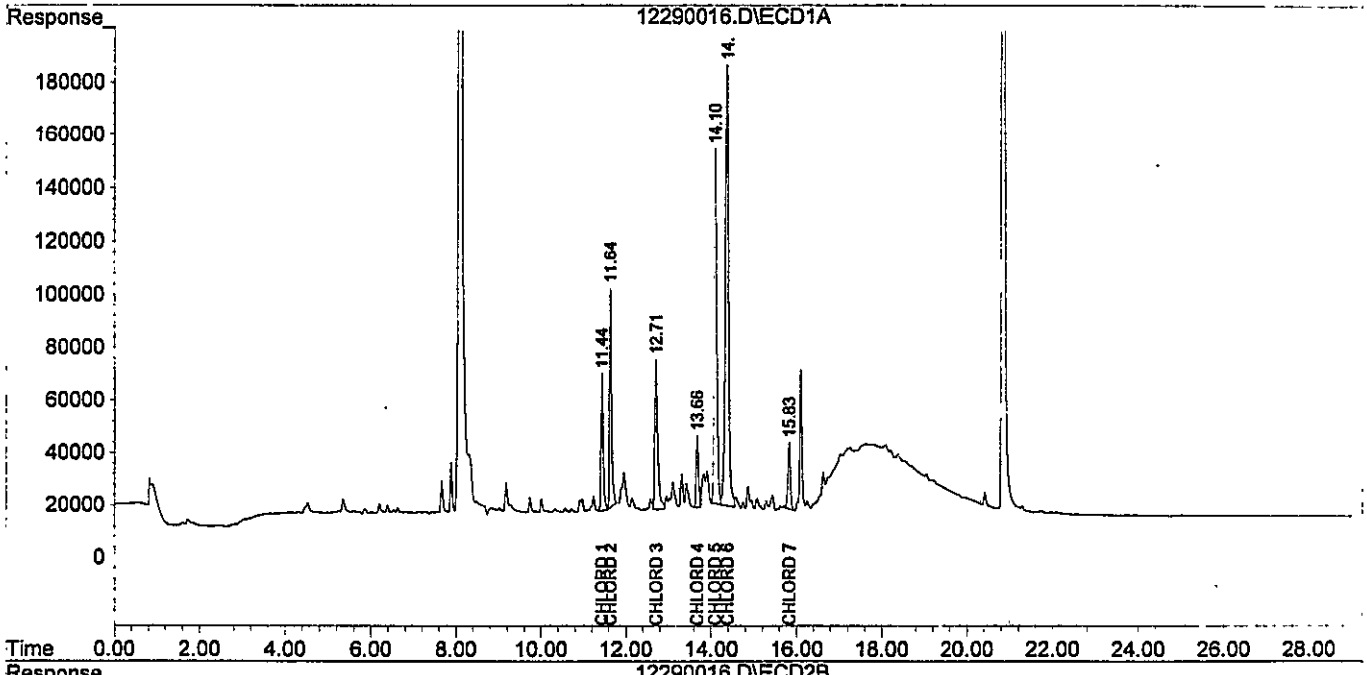
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

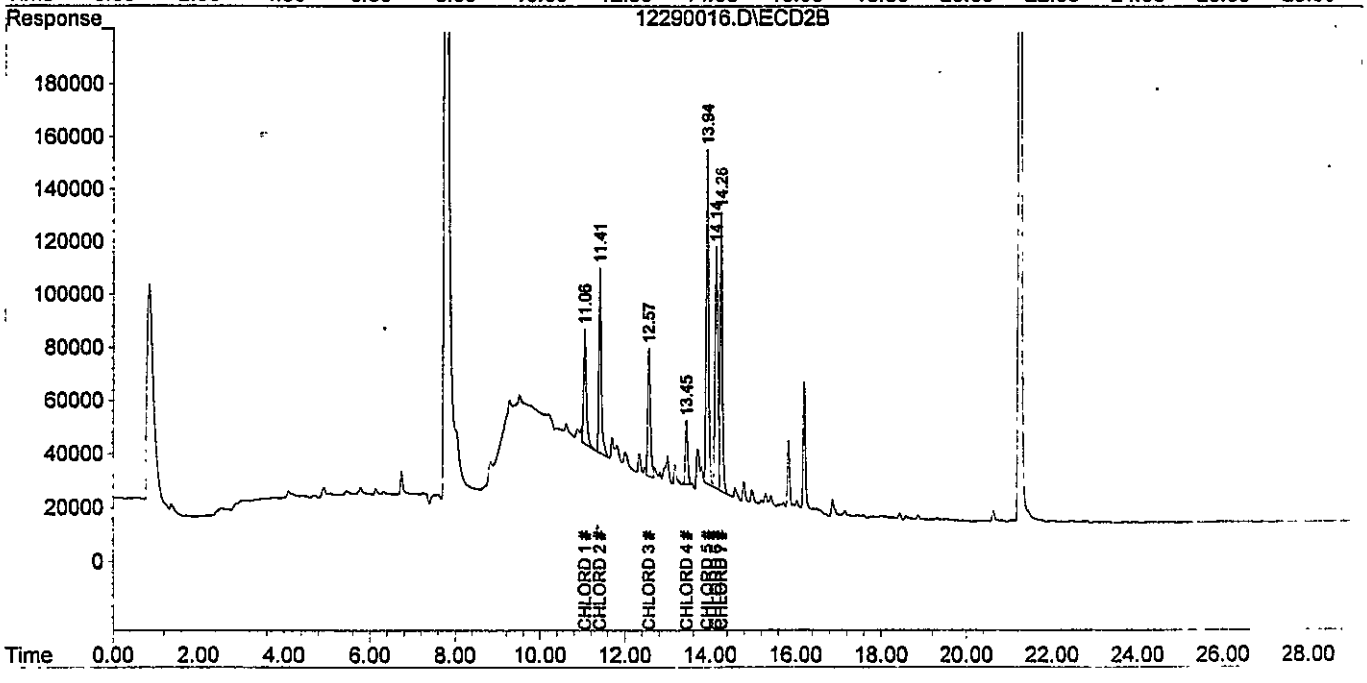
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290016.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\122900\12290016.D\ECD2B.CH
Acq On : 29 Dec 2000 17:15 Operator: YGK
Sample : IC CHLORD .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:00 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290017.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\122900\12290017.D\ECD2B.CH
Acq On : 29 Dec 2000 17:49 Operator: YGK
Sample : IC CHLORD .50 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:00 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L1 CHLORD 1	11.44	11.06	3378430	3485584	0.500	0.505
2) L1 CHLORD 2	11.64	11.41	5344954	5333918	0.497	0.501
3) L1 CHLORD 3	12.71	12.57	4831060	4081000	0.514	0.509
4) L1 CHLORD 4	13.67	13.45	1928491	1811395	0.496	0.491
5) L1 CHLORD 5	14.09	13.94	10140451	9237998	0.508	0.508
6) L1 CHLORD 6	14.38	14.14	16147647	7862032	0.506	0.505
7) L1 CHLORD 7	15.83	14.26	1864522	8000810	0.500	0.504
Sum CHLORD 1			43635555	39812735	3.520	3.522
Average CHLORD 1					0.503	0.503

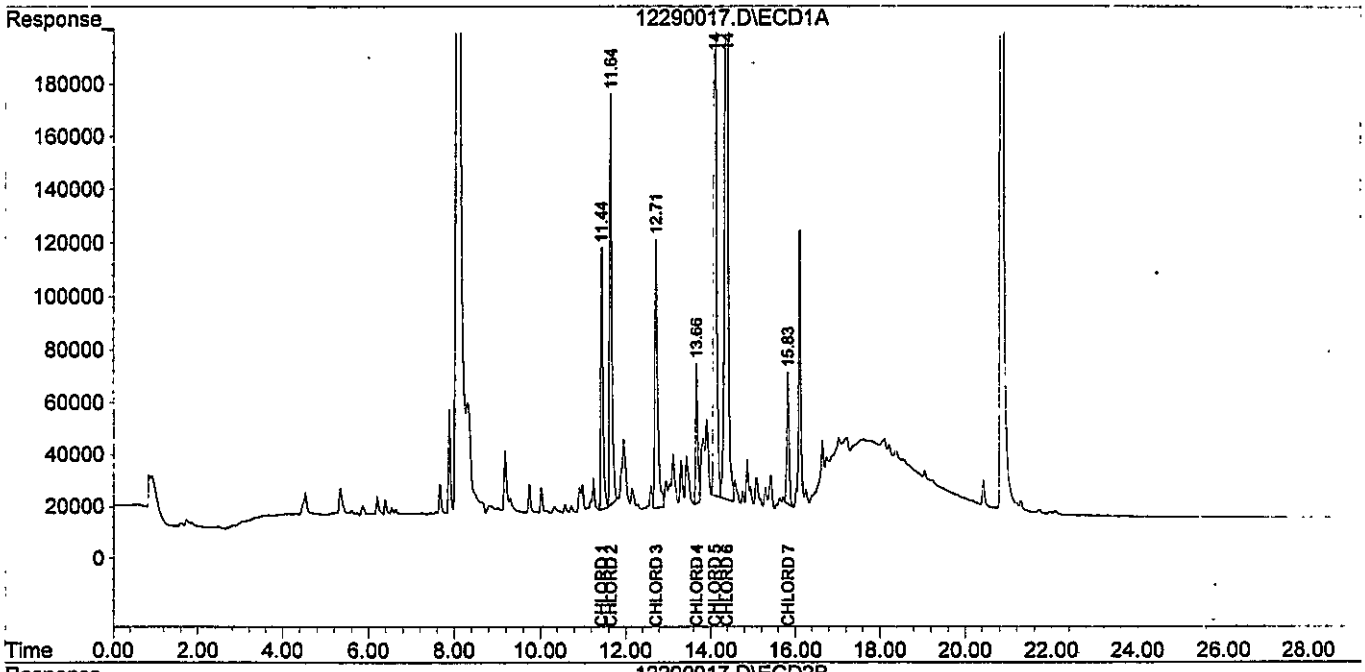
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

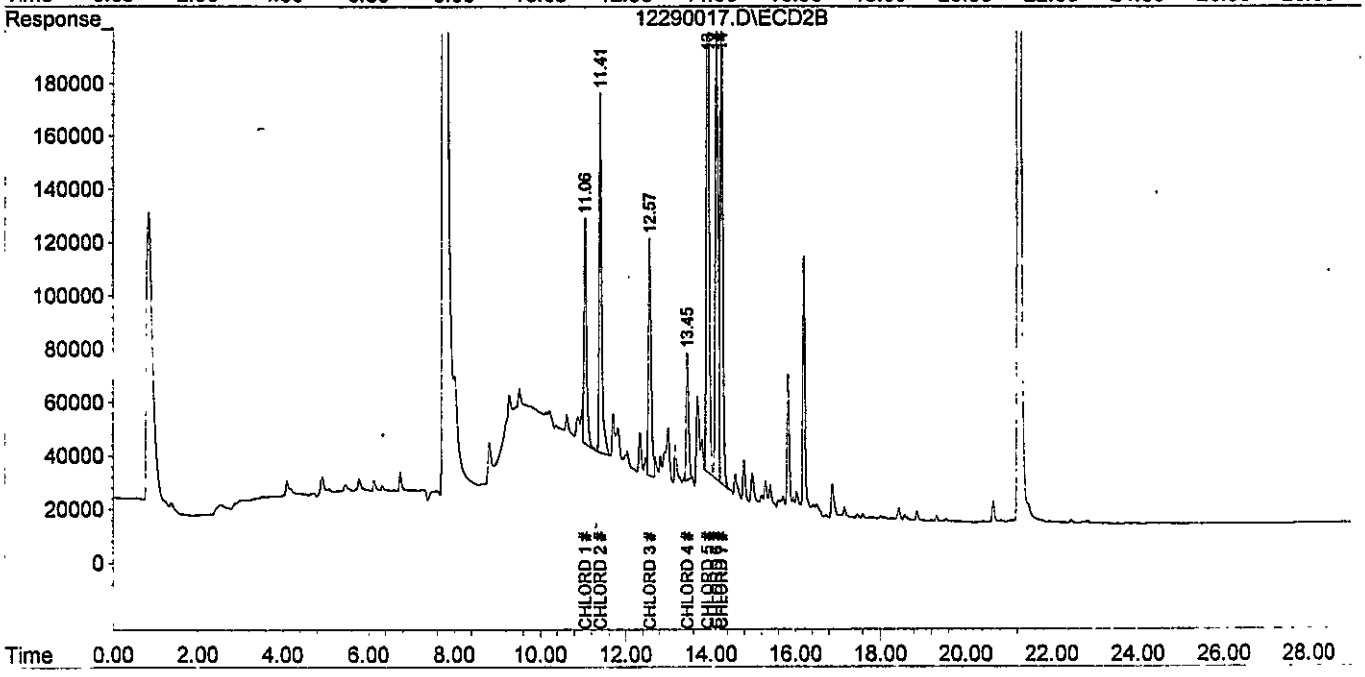
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290017.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\122900\12290017.D\ECD2B.CH
Acq On : 29 Dec 2000 17:49 Operator: YGK
Sample : IC CHLORD .50 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:00 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290018.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\122900\12290018.D\ECD2B.CH
Acq On : 29 Dec 2000 18:23 Operator: YGK
Sample : IC CHLORD .75 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:01 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L1 CHLORD 1	11.44	11.06	5038965	5136103	0.746	0.744
2) L1 CHLORD 2	11.64	11.41	8061102	7974598	0.749	0.748
3) L1 CHLORD 3	12.71	12.57	6831827	5898281	0.727	0.736
4) L1 CHLORD 4	13.66	13.45	2930910	2790180	0.753	0.756
5) L1 CHLORD 5	14.09	13.94	14678143	13417849	0.735	0.737
6) L1 CHLORD 6	14.38	14.14	23474052	11518873	0.735	0.740
7) L1 CHLORD 7	15.83	14.26	2800906	11749929	0.750	0.740
Sum CHLORD 1			63815906	58485812	5.196	5.202
Average CHLORD 1					0.742	0.743

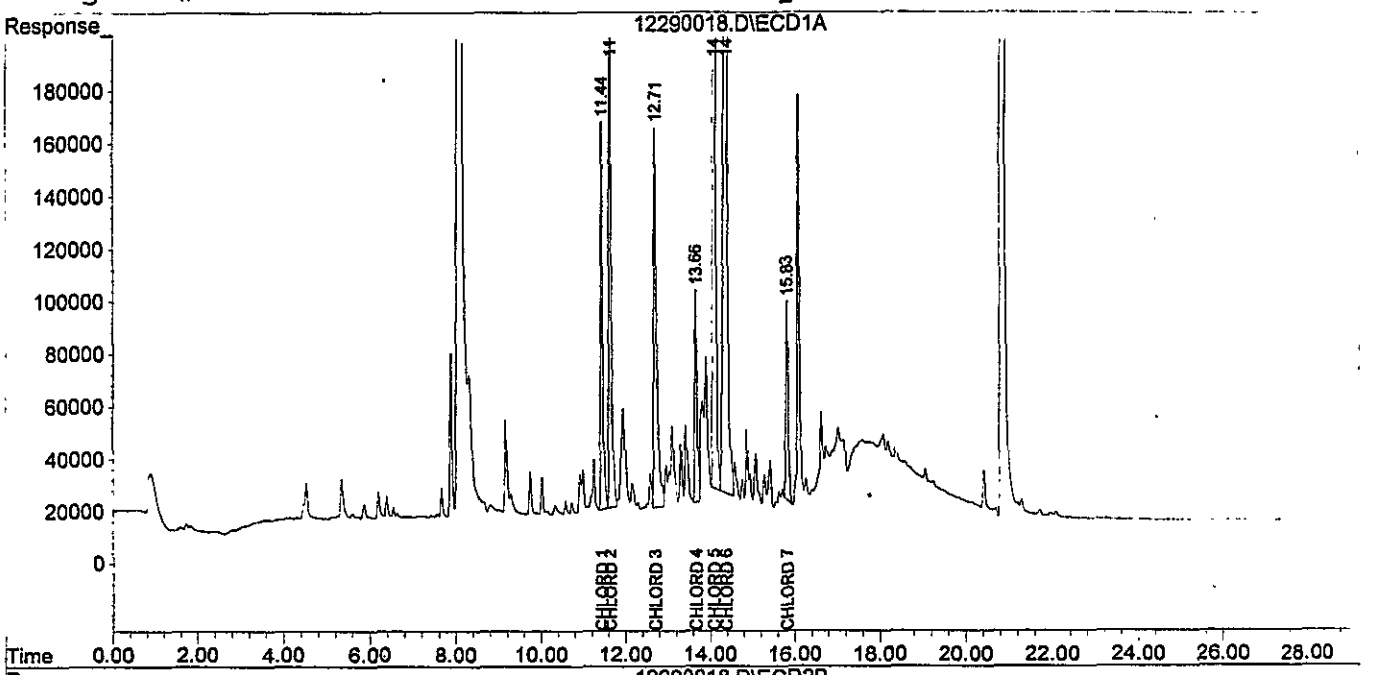
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

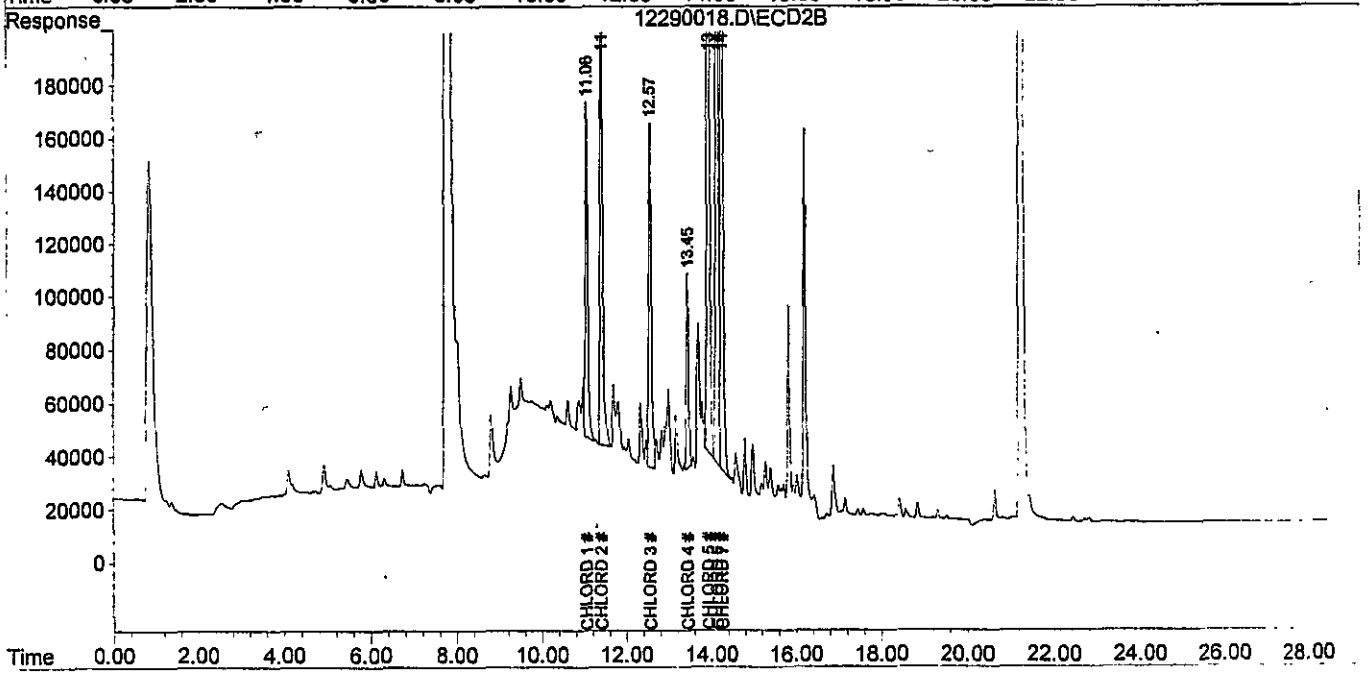
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290018.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\122900\12290018.D\ECD2B.CH
Acq On : 29 Dec 2000 18:23 Operator: YGK
Sample : IC CHLORD .75 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 10:01 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Thu Nov 30 10:52:47 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD2B.CH
Acq On : 29 Dec 2000 18:58 Operator: YGK
Sample : ICV CHLORD .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:55 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
Target Compounds							
1) L1 CHLORD 1	11.44	11.06	2082425	1753181	0.308	0.254	
2) L1 CHLORD 2	11.64	11.41	2951375	2488322	0.274	0.234	
3) L1 CHLORD 3	12.71	12.57	2341242	1992029	0.249	0.248	
4) L1 CHLORD 4	13.66	13.45	1126403	1069646	0.289	0.290	
5) L1 CHLORD 5	14.09	13.94	6099957	5995866	0.306	0.329	
6) L1 CHLORD 6	14.38	14.14	9445150	3572585	0.296	0.230	
7) L1 CHLORD 7	15.83	14.26	896732	4985762	0.240	0.314	#
Sum CHLORD 1			24943284	21857391	1.963	1.899	
Average CHLORD 1					0.280 ✓	0.271 ✓	
					112%		

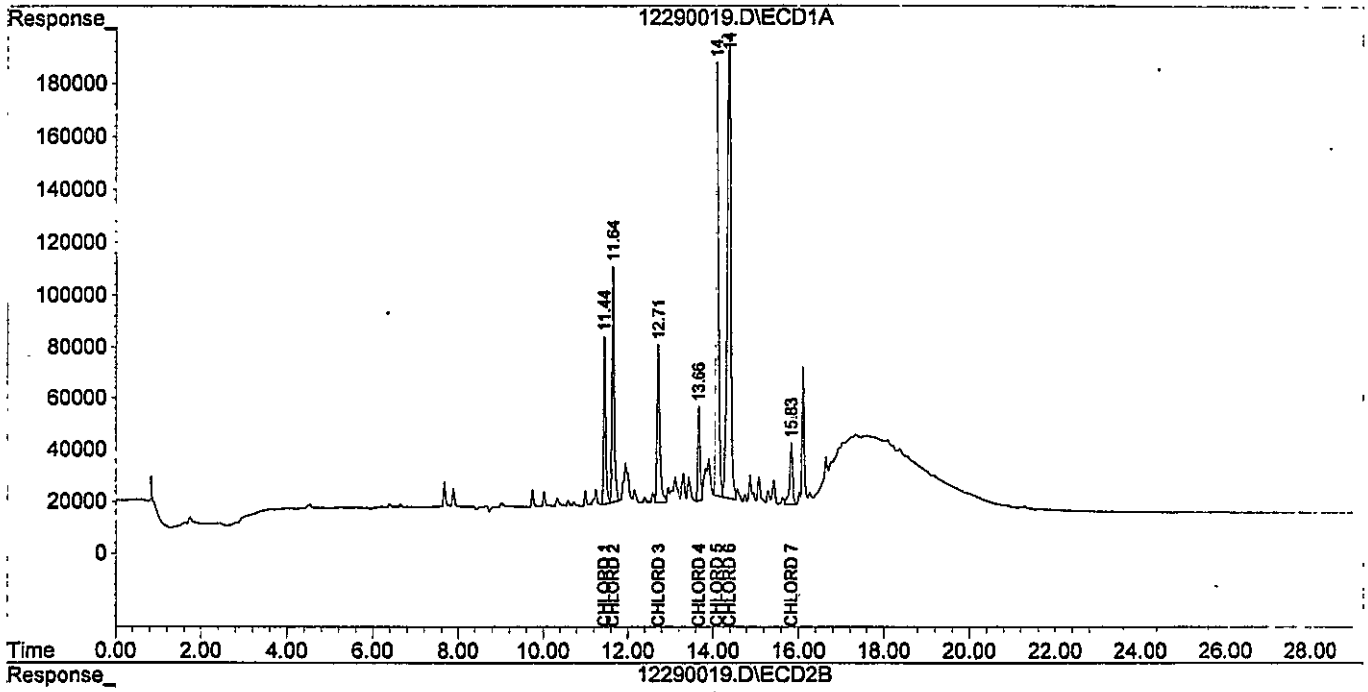
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
12290019.D 122900CL.M Tue Jan 02 09:55:32 2001

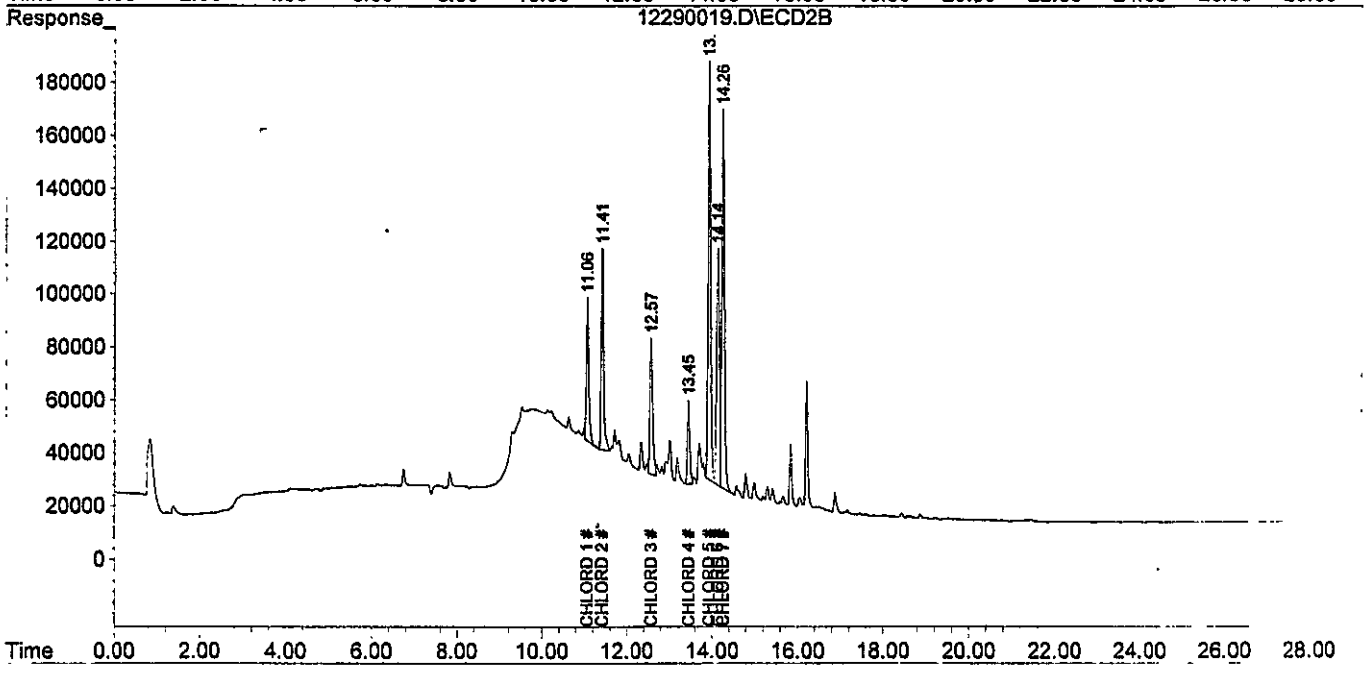
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD2B.CH
Acq On : 29 Dec 2000 18:58 Operator: YGK
Sample : ICV CHLORD .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:48 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/29/00
Analyst Initials: YC-K
Instrument Method: 8081DIA
Calibration Column: Rtx-CLP1 (F)
Confirmation Column: Rtx-CLP2

DDT Breakdown % (<15%): 6.3%
Endrin Breakdown % (<15%): 13.4%

Pest Calibration Date: 12/29/00
PCB Calibration Date: –

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil	50-116	43-152
Water	21-131	D-160

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
1	PRIMER	122900P	std	1X	NA	NA	
2	Hexane		soln				
3	PEM		std				P00182
4	ccv Pest .25ppm				114	114	P00185
5	IC Pest .010ppm				NA	NA	P00188
6	IC .050ppm						P00187
7	.10ppm						P00186
8	.25ppm						P00185
9	.35ppm						P00184
10	.50ppm						P00183
11	ICV Pest .25ppm				100	100	P00220
12	ccv Chlord .25ppm	080800CL			NA	NA	P00132
13	ccv TOX 2.5ppm	110800TX					P00176
14	IC Chlord .050ppm	122900CL					P00226
15	.10ppm						P00225
16	.25ppm						P00224
17	.50ppm						P00223
18	.75ppm						P00222
19	ICV Chlord .25ppm				NA ~~100~~ YCK 12/29	NA ~~100~~ YCK 12/29	112% P00228
20	Hexane	122900P	soln				
21	QPW1222001		W		78	67	
22	1 2				76	68	
23	05503 W				16	4	

Signature/Date: [signature] 12/29/00

↓ cont

GC/ECD Pesticides & PCBs Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/29/00
Analyst Initials:
Instrument Method:
Calibration Column:
Confirmation Column:

DDT Breakdown % (<15%):
Endrin Breakdown % (<15%):

Pest Calibration Date:
PCB Calibration Date:

Continued from p. 48

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil		
Water		

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
24	Hexane	122900P	soln	1X	NA	NA	
25	PEM	↓	std	↓	↓	↓	P00182
26	ccv Pest. 25ppm	↓	↓	↓	102.	104	P00185

YGK 12/29/00

Signature/Date: Jeffrey Kephart 12/29/00

SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

Toxaphene

DATE / INSTRUMENT: 11/08/00 PEST-A	METHOD: (circle applicable methods)
MATRIX:	8081A 8082 8151A

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: YGK	Reviewer: [illegible]
Date: 11/09/00 Time: 14:00	Date: 11.16.2000 Time: 1330

Response Factor Report PEST-A

Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Fri Dec 08 12:19:06 2000

Calibration Files
5 =11080007.D 3.5 =11080006.D 2.5 =11290013.D
1.5 =11080004.D 0.5 =11080003.D

	Compound	5	3.5	2.5	1.5	0.5	Avg		%RSD
1) L	TOX 1	1.352	1.469	1.499	1.647	1.660	1.526	E6	8.46
2) L	TOX 2	2.551	2.743	2.716	2.891	2.717	2.723	E6	4.43
3) L	TOX 3	3.397	3.672	3.683	3.981	3.763	3.699	E6	5.67
4) L	TOX 4	3.449	3.678	3.663	3.861	3.531	3.636	E6	4.33
5) L	TOX 5	4.235	4.584	4.568	4.901	4.818	4.621	E6	5.63
6) L	TOX 6	3.146	3.307	3.245	3.389	2.986	3.215	E6	4.83
7) L	TOX 7	1.714	1.751	1.613	1.591	1.152	1.564	E6	15.33

Signal #2 Calibration Files
5 =11080007.D 3.5 =11080006.D 2.5 =12210006.D
1.5 =11080004.D 0.5 =11080003.D

	Compound	5	3.5	2.5	1.5	0.5	Avg		%RSD
1) L	TOX 1	5.559	5.031	5.515	5.779	5.423	5.461	E6	5.01
2) L	TOX 2	3.652	3.818	3.738	3.658	3.368	3.647	E6	4.66
3) L	TOX 3	4.645	4.953	4.970	5.159	5.016	4.949	E6	3.80
4) L	TOX 4	5.834	6.218	6.328	6.746	5.838	6.193	E6	6.15
5) L	TOX 5	4.732	5.000	4.940	5.126	4.661	4.892	E6	3.93
6) L	TOX 6	3.455	3.638	3.637	3.718	3.589	3.607	E6	2.69
7) L	TOX 7	2.600	2.641	2.518	2.397	1.968	2.425	E6	11.21

(#) = Out of Range

110800TX.M Wed Jan 03 12:58:15 2001

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\110800\11080003.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\110800\11080003.D\ECD2B.CH
Acq On : 8 Nov 2000 10:19 am Operator: YGK
Sample : IC TOX 0.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:49 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.25	16.31	829865	2711732	0.585	0.500
2) L TOX 2	16.51	16.70	1358287	1684005	0.514	0.454
3) L TOX 3	16.98	16.87	1881328	2507965	0.532	0.523
4) L TOX 4	17.70	17.95	1765556	2460218	0.496	0.407
5) L TOX 5	17.91	18.08	2409125	2330525	0.546	0.480
6) L TOX 6	18.68	18.79	1493232	1794267	0.465	0.507
7) L TOX 7	19.00	19.18	576222	984160	0.339	0.380
Sum TOX 1			10313617	14472873	3.476	3.251
Average TOX 1					0.497	0.464

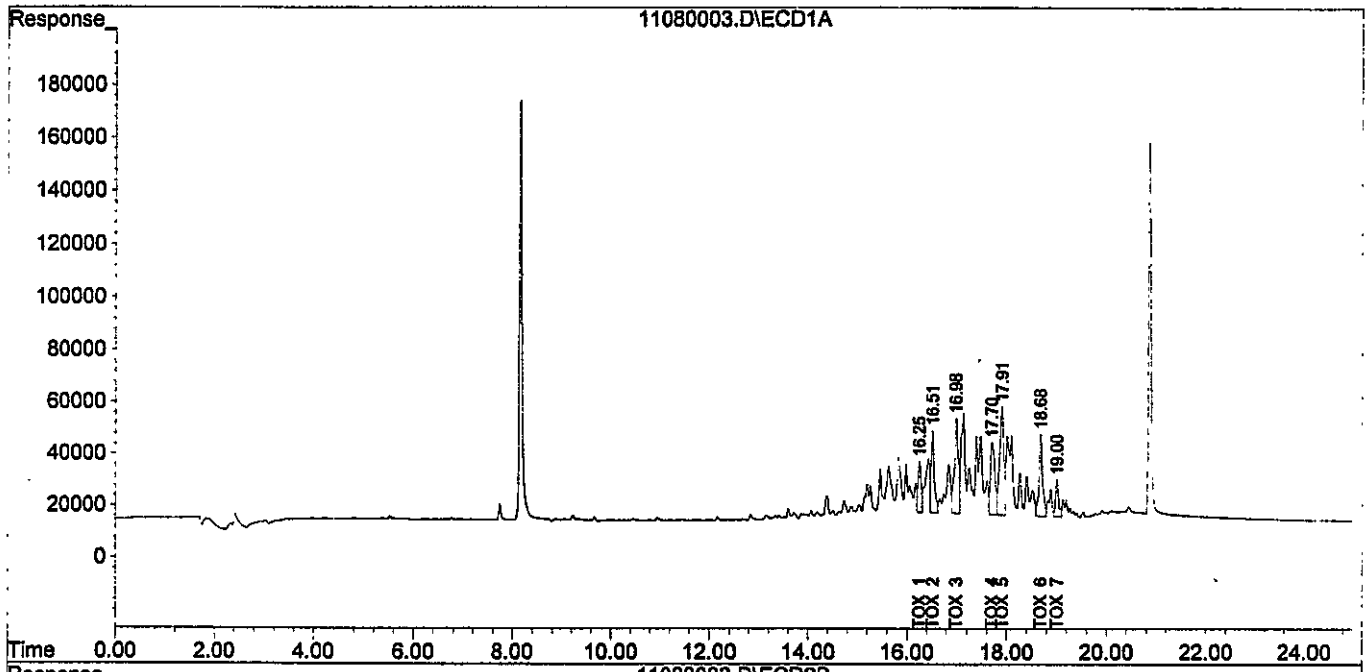
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

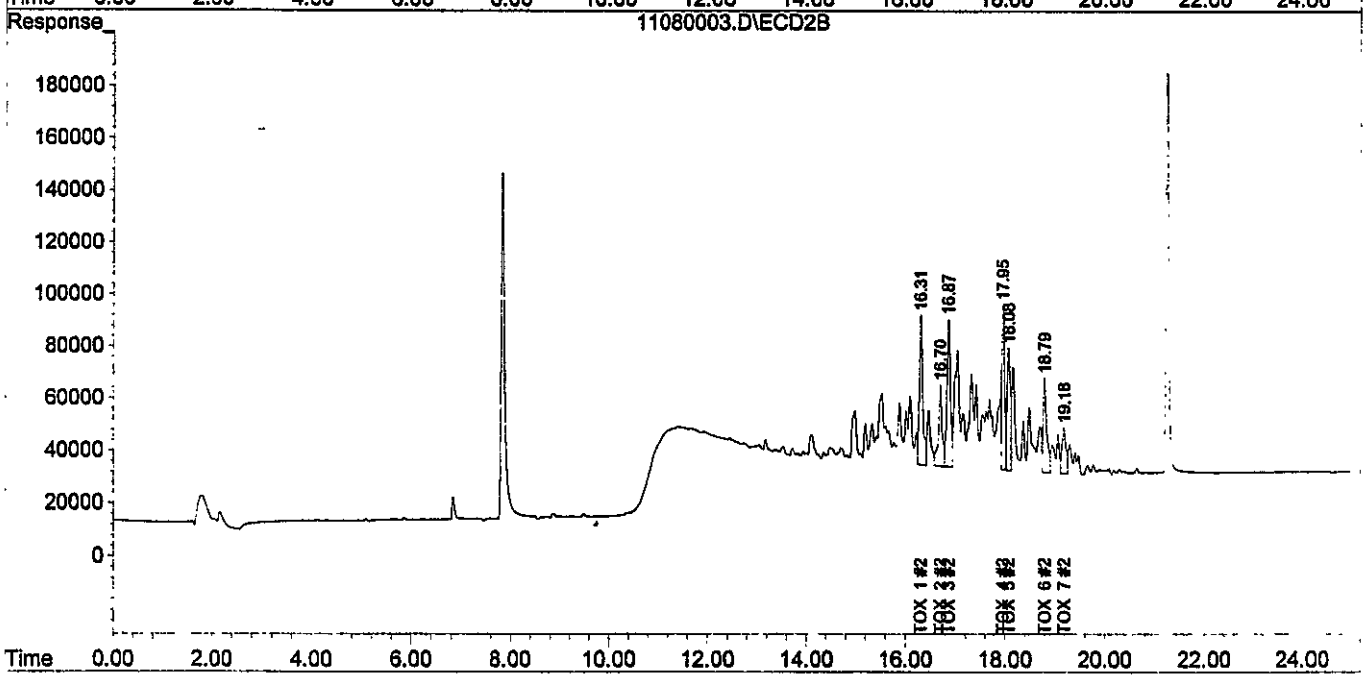
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\110800\11080003.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\110800\11080003.D\ECD2B.CH
Acq On : 8 Nov 2000 10:19 am Operator: YGK
Sample : IC TOX 0.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:49 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\110800\11080004.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\110800\11080004.D\ECD2B.CH
Acq On : 8 Nov 2000 10:50 am Operator: YGK
Sample : IC TOX 1.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:50 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.25	16.30	2470465	8668408	1.740	1.599
2) L TOX 2	16.51	16.70	4336246	5487290	1.641	1.480
3) L TOX 3	16.98	16.87	5971153	7738538	1.687	1.613
4) L TOX 4	17.70	17.95	5792083	10119509	1.627	1.673
5) L TOX 5	17.90	18.07	7352146	7688841	1.668	1.585
6) L TOX 6	18.68	18.79	5083128	5576361	1.582	1.574
7) L TOX 7	19.00	19.18	2386149	3595730	1.403	1.390
Sum TOX 1			33391369	48874677	11.348	10.915
Average TOX 1					1.621	1.559

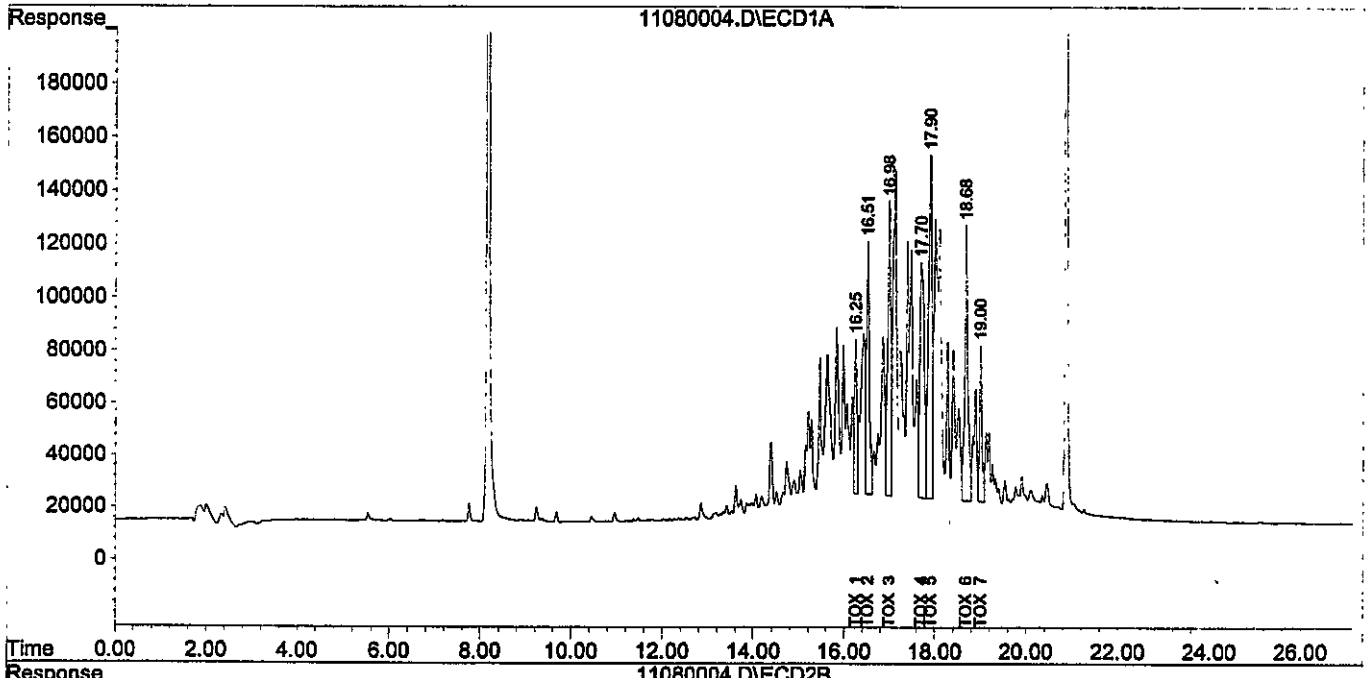
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

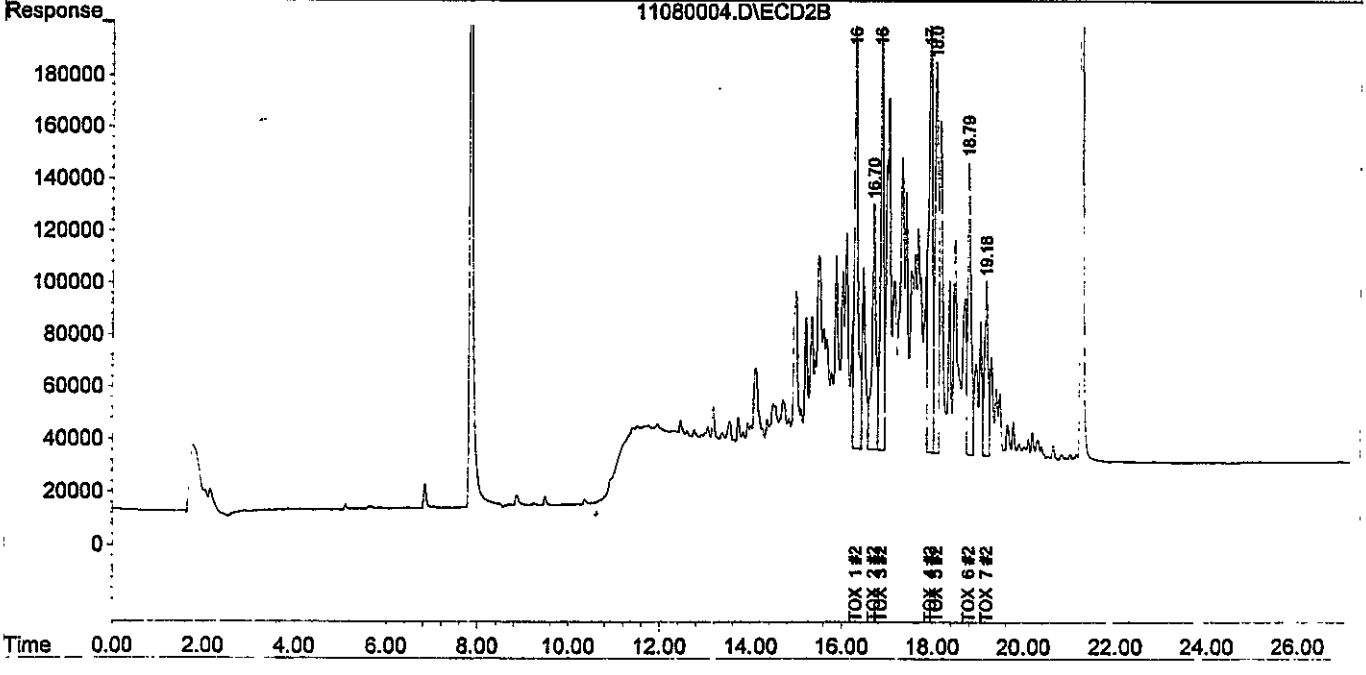
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\110800\11080004.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\110800\11080004.D\ECD2B.CH
Acq On : 8 Nov 2000 10:50 am Operator: YGK
Sample : IC TOX 1.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:50 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\110800\11080005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\110800\11080005.D\ECD2B.CH
Acq On : 8 Nov 2000 11:22 am Operator: YGK
Sample : IC TOX 2.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:50 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.25	16.30	3748533	13787562	2.641	2.543
2) L TOX 2	16.51	16.70	6789490	9345615	2.570	2.521
3) L TOX 3	16.98	16.87	9207172	12425873	2.601	2.589
4) L TOX 4	17.70	17.95	9157465	15819852	2.573	2.616
5) L TOX 5	17.90	18.07	11420413	12349198	2.590	2.546
6) L TOX 6	18.68	18.79	8112834	9093354	2.525	2.567
7) L TOX 7	19.00	19.18	4032386	6295288	2.370	2.434
Sum TOX 1			52468293	79116743	17.870	17.817
Average TOX 1					2.553	2.545

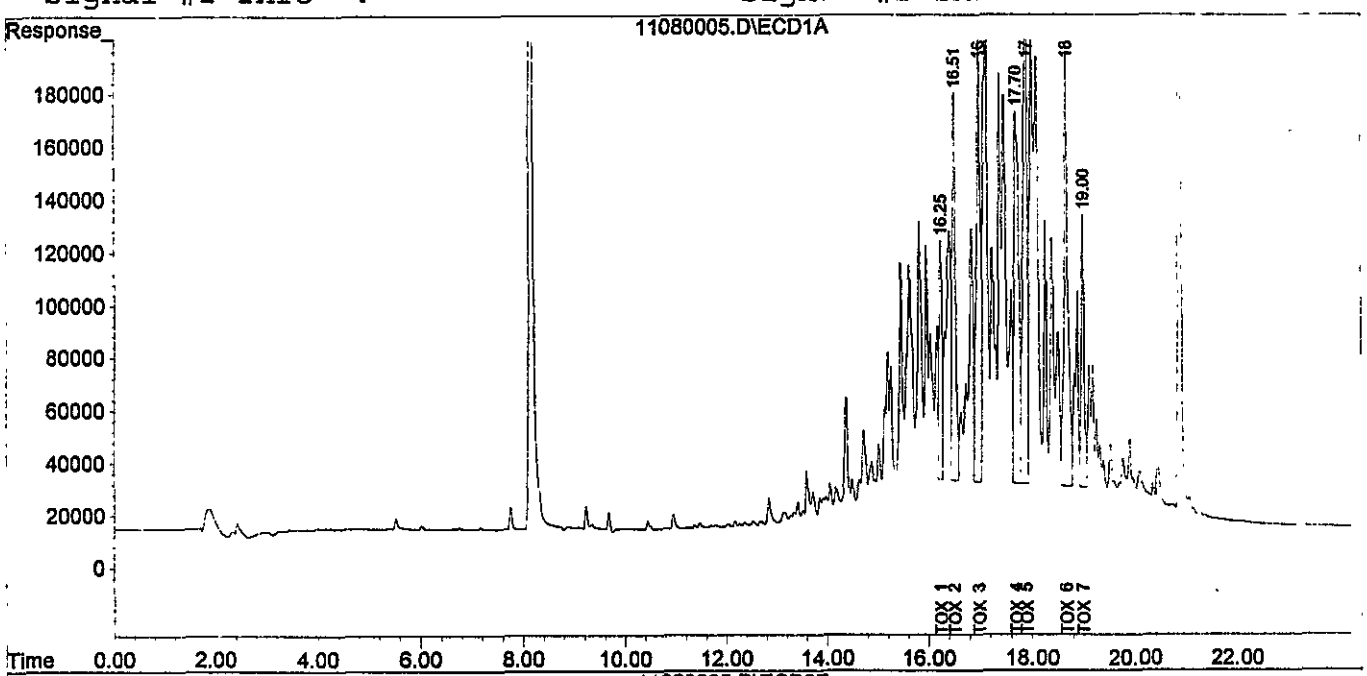
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

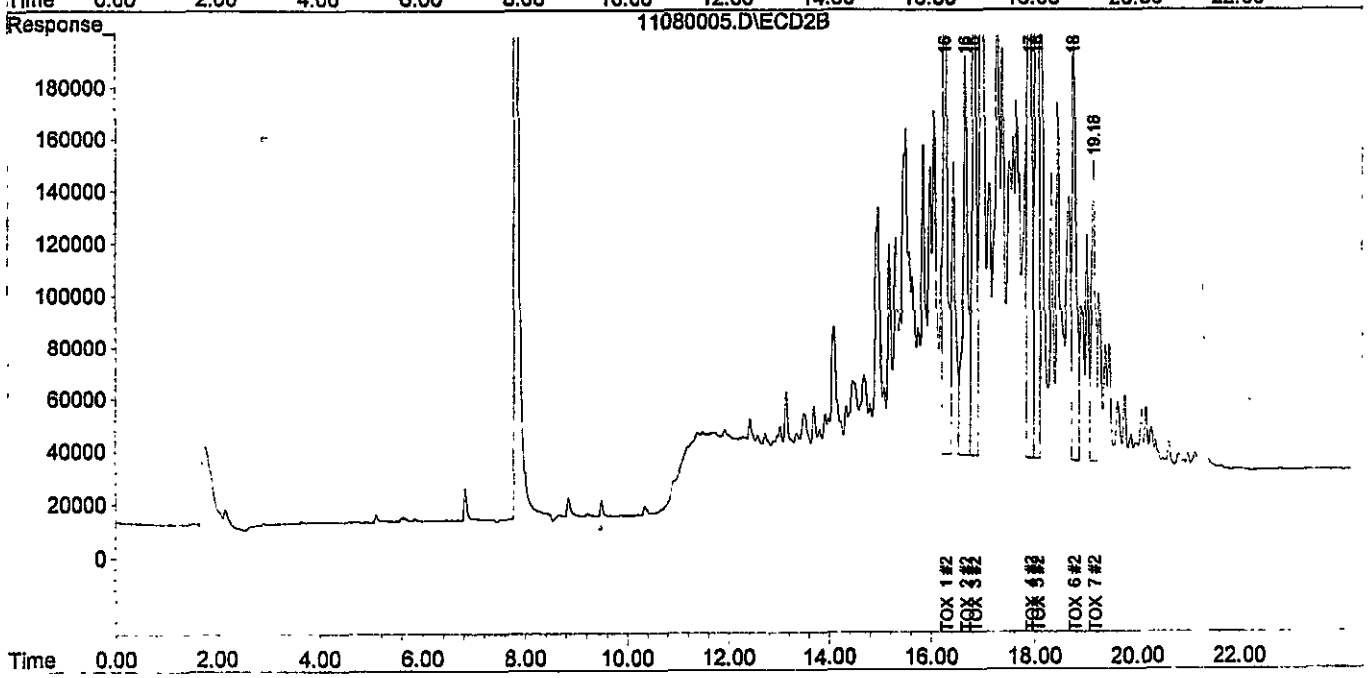
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\110800\11080005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\110800\11080005.D\ECD2B.CH
Acq On : 8 Nov 2000 11:22 am Operator: YGK
Sample : IC TOX 2.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:50 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\110800\11080006.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\110800\11080006.D\ECD2B.CH
Acq On : 8 Nov 2000 11:52 am Operator: YGK
Sample : IC TOX 3.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:51 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.25	16.30	5141478	17608041	3.622	3.247
2) L TOX 2	16.51	16.70	9598964	13361852	3.634	3.605
3) L TOX 3	16.98	16.87	12852422	17335917	3.631	3.613
4) L TOX 4	17.70	17.95	12871336	21762242	3.616	3.598
5) L TOX 5	17.90	18.07	16045216	17499818	3.639	3.608
6) L TOX 6	18.68	18.79	11575921	12731452	3.602	3.595
7) L TOX 7	19.00	19.18	6129066	9244940	3.602	3.574
Sum TOX 1			74214404	109.5E6	25.347	24.840
Average TOX 1					3.621	3.549

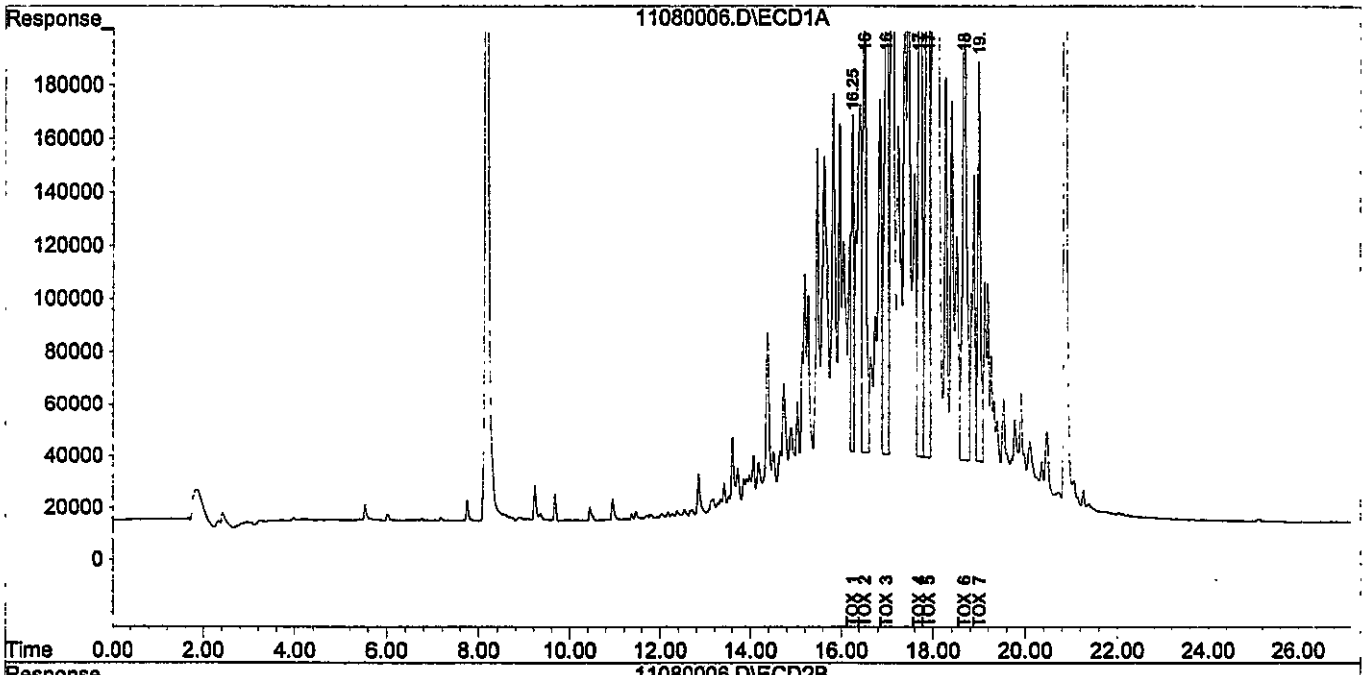
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

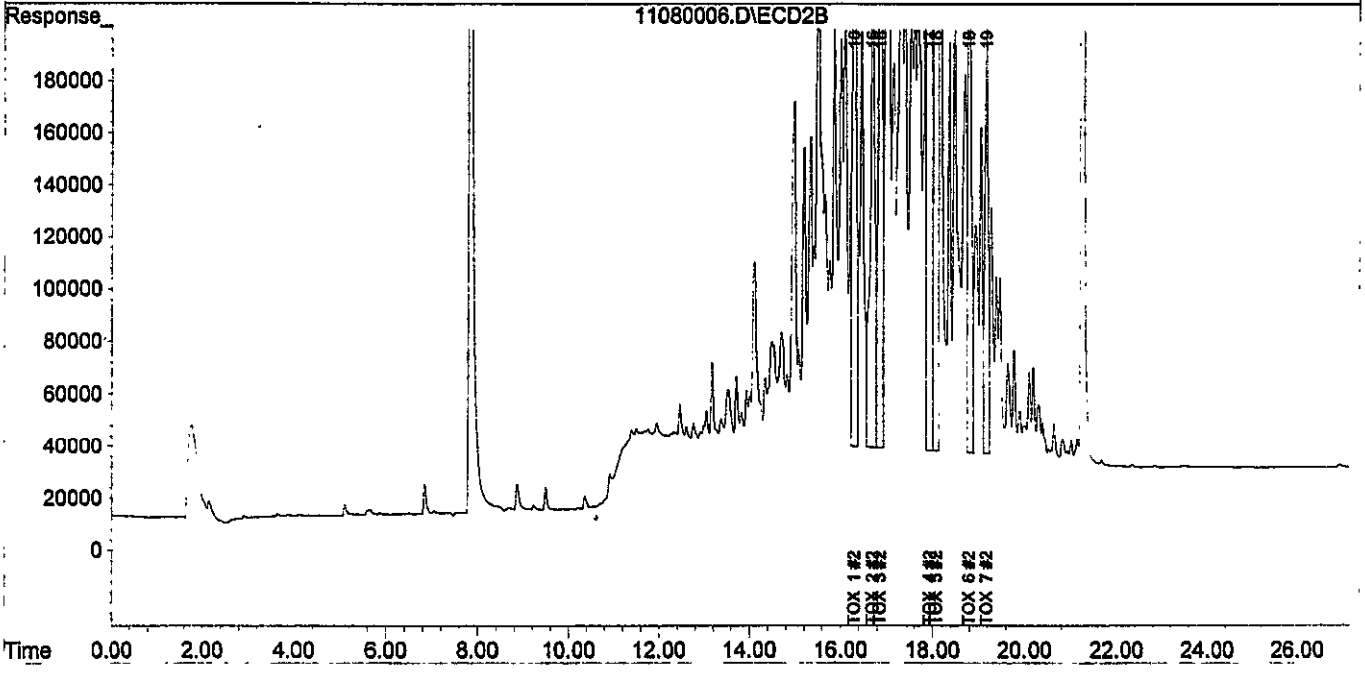
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\110800\11080006.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\110800\11080006.D\ECD2B.CH
Acq On : 8 Nov 2000 11:52 am Operator: YGK
Sample : IC TOX 3.50 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:51 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\110800\11080007.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\110800\11080007.D\ECD2B.CH
Acq On : 8 Nov 2000 12:25 pm Operator: YGK
Sample : IC TOX 5.0 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:52 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.25	16.30	6762286	27794282	4.764	5.126
2) L TOX 2	16.51	16.70	12753721	18258069	4.828	4.926
3) L TOX 3	16.98	16.87	16983194	23226856	4.798	4.840
4) L TOX 4	17.70	17.95	17244292	29169155	4.845	4.823
5) L TOX 5	17.90	18.07	21172839	23658315	4.802	4.878
6) L TOX 6	18.68	18.79	15730243	17273696	4.895	4.877
7) L TOX 7	19.00	19.18	8572393	12999975	5.039	5.026
Sum TOX 1			99218967	152.4E6	33.970	34.496
Average TOX 1					4.853	4.928

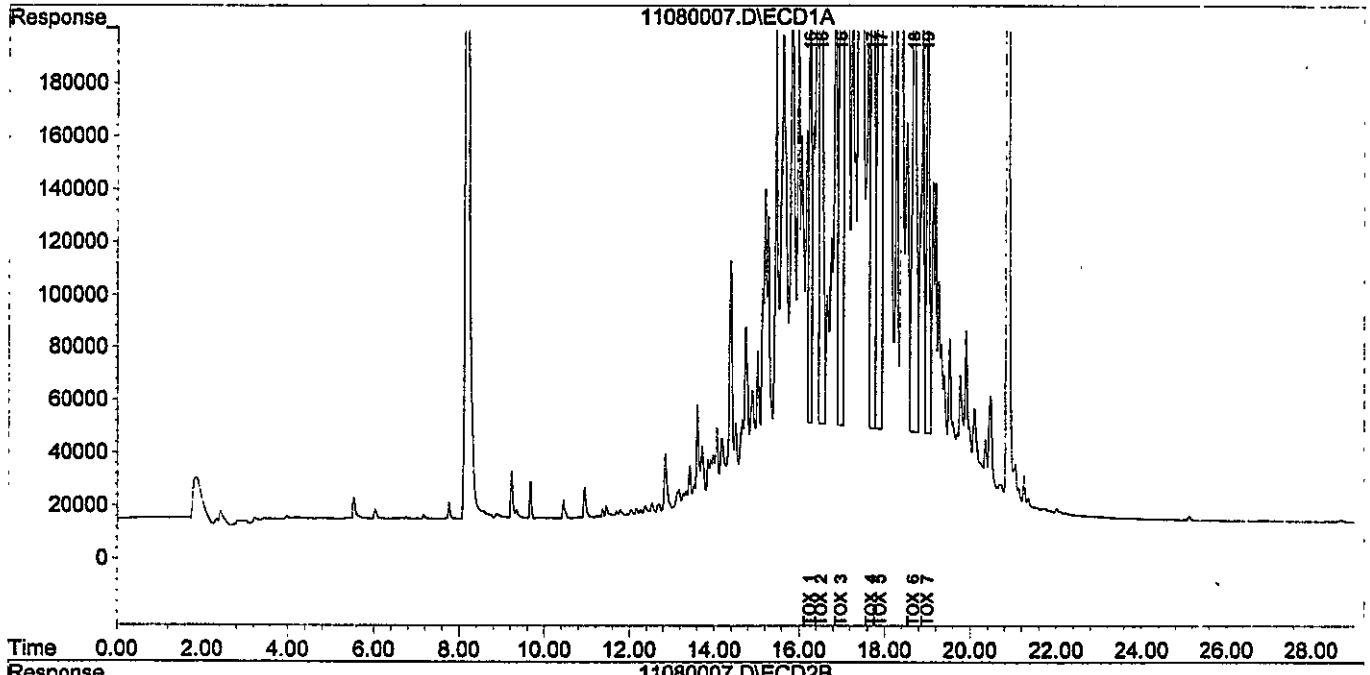
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

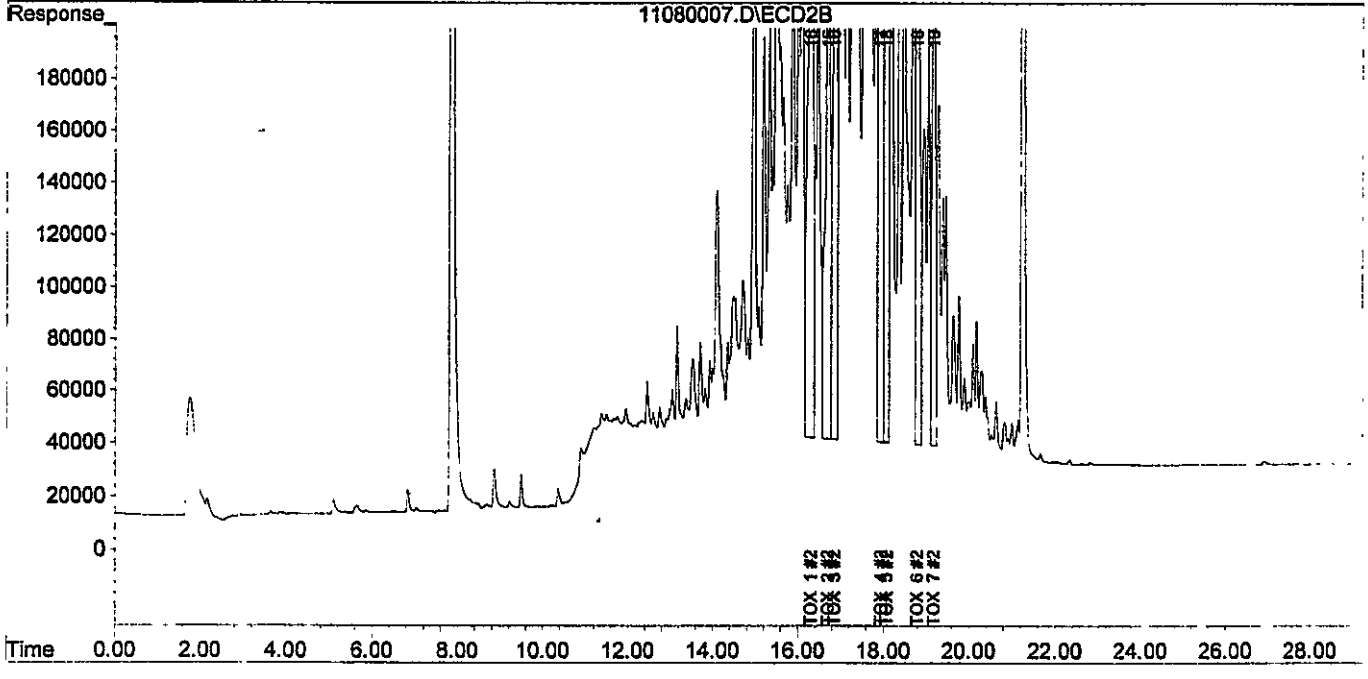
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\110800\11080007.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\110800\11080007.D\ECD2B.CH
Acq On : 8 Nov 2000 12:25 pm Operator: YGK
Sample : IC TOX 5.0 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 15:52 2000 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\110800\11080008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\110800\11080008.D\ECD2B.CH
Acq On : 8 Nov 2000 12:59 pm Operator: YGK
Sample : ICV TOX 2.5 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 13:42 2000 Quant Results File: 110800TS.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TS.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A, ~~08/01/00~~ 11/08/00
Last Update : Wed Nov 08 13:24:49 2000 YGK 11/08
Response via : Initial Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
1)	S	TCMX	8.15	7.83	24083782	26378190	0.273	0.277	
9)	S	DCB	20.87	21.26	19359697	24611553	0.282	0.284	
		Target Compounds							
2)	L	TOX 1	16.25	16.30	1724721	11077650	1.215	2.043	#
3)	L	TOX 2	16.52	16.70	5100481	6494300	1.931	1.752	
4)	L	TOX 3	16.99	16.87	9516679	11498113	2.689	2.396	
5)	L	TOX 4	17.70	17.95	3648948	18486431	1.025	3.057	#
6)	L	TOX 5	17.89	18.11	12561443	16437656	2.849	3.389	
7)	L	TOX 6	18.68	18.79	11452784	11787799	3.564	3.328	
8)	L	TOX 7	19.00	19.18	6488017	8906627	3.813	3.443	
		Sum TOX 1			50493073	84688575	17.086	19.409	
		Average TOX 1					2.441	2.773	

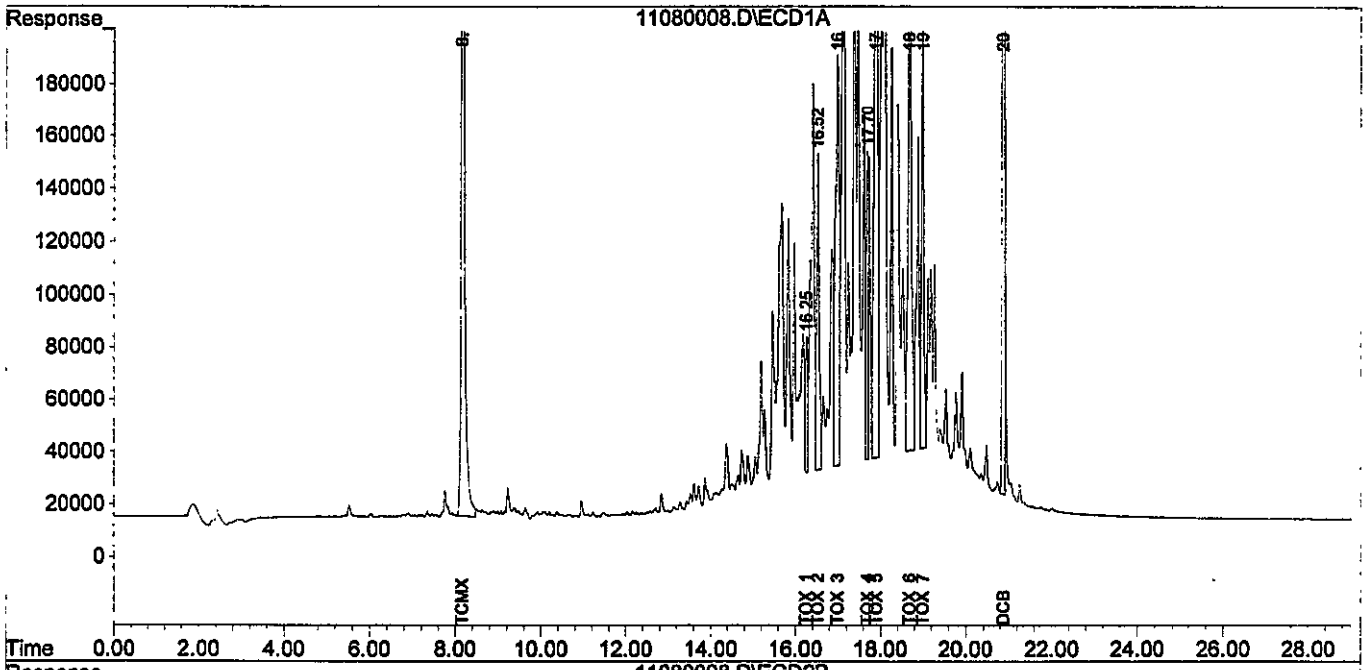
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

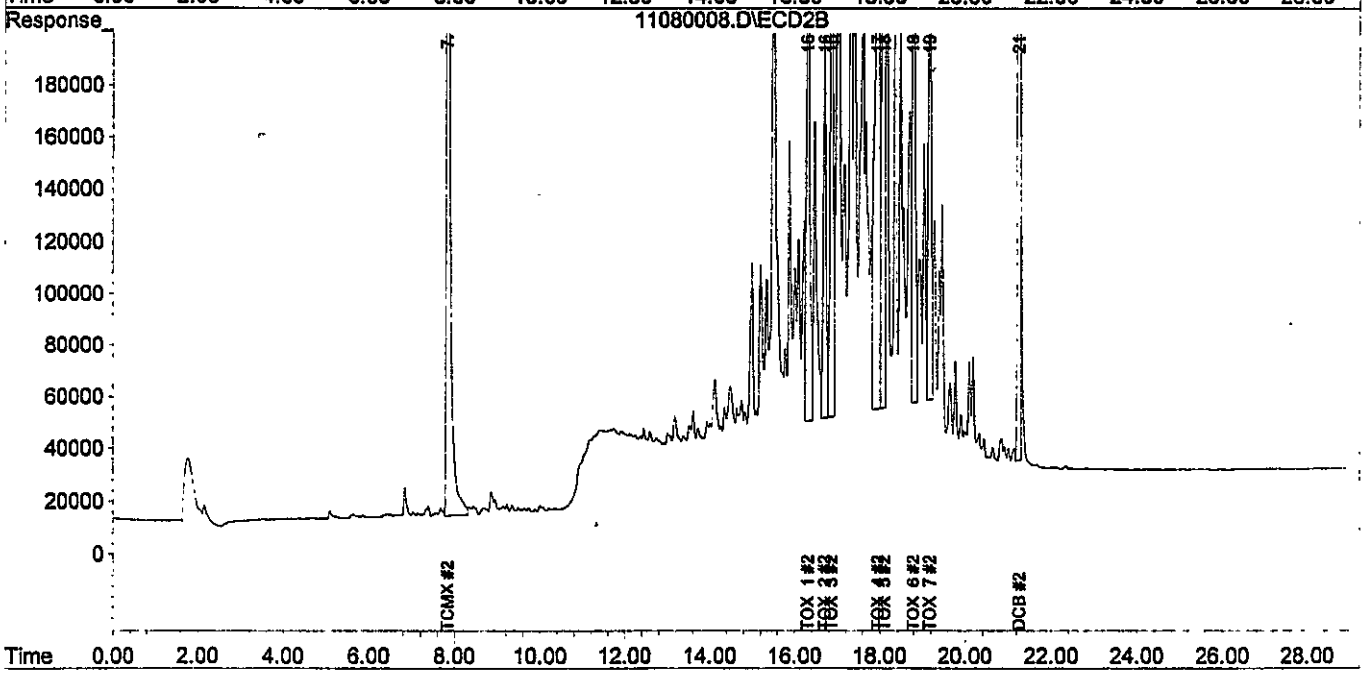
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\110800\11080008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\110800\11080008.D\ECD2B.CH
Acq On : 8 Nov 2000 12:59 pm Operator: YGK
Sample : ICV TOX 2.5 PPM Inst : GC/ECD IN
Misc : Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Nov 8 13:42 2000 Quant Results File: 110800TS.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TS.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A, ~~08/01/00~~ 11/08/00 YGK
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 11/08/00
Analyst Initials: YGK
Instrument Method: 8081D1
Calibration Column: Rtx-CLP1 (F)
Confirmation Column: Rtx-CLP2

DDT Breakdown % (<15%): NA
Endrin Breakdown % (<15%): NA

Pest Calibration Date: 10/18/00
PCB Calibration Date:
TOX 11/08/00

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil	50-116	43-152
Water	21-131	D-160

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
1	PRIMER	110800TS	std	1X	NA	NA	
2	Hexane		soln				
3	IC TOX 0.50 ppm		std				P00178
4	1.50 ppm						P00177
5	2.5 ppm						P00176
6	3.5 ppm						P00175
7	5.0 ppm						P00174
8	ICV TOX 2.5 ppm				109	113	98% P00179
9	Hexane		soln		NA	NA	
10	BLNK T 11/07		W		65	123	
11	LCS T 11/07				YGK 11/08 ~~55~~ 60	180	
12	LCS T DUP 11/07				YGK 11/08 ~~33~~ 64	124	
13	02626 T				66	116	
14	02627 T				54	120	
15	02628 T				53	103	
16	02629 T				58	126	
17	02630 T				66	116	
18	02631 T				76	116	
19	02632 T				67	111	
20	02633 T				73	125	
21	02634 T				81	112	
22	Hexane		soln		NA	NA	
23	CCV TOX 2.5 ppm		std		114	107	109% P00176

Signature/Date: Yefim Kaplan 11/08/00

↓ cont.

SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 11/30/00 PEST-C	METHOD: (circle applicable methods)		
MATRIX:	8081A	(8082)	8151A

Ar 1016, 1260

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YCK		Reviewer:	
Date: 12/01/00	Time: 15:00	Date: 12.08.2000	Time: 1330

Response Factor Report GC#3

Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000

Calibration Files
1 =11300003.D 5 =11300007.D 4 =11300006.D
3 =11300005.D 2 =11300004.D

		Compound	1	5	4	3	2	Avg		%RSD
1)	S	TCMX (SURR)	1.326	1.151	1.100	1.139	1.105	1.164	E8	8.00
2)	L1	AR 1016 1	3.419	2.506	2.534	2.735	2.767	2.792	E6	13.23
3)	L1	AR 1016 2	1.149	0.838	0.837	0.892	0.902	0.924	E7	14.03
4)	L1	AR 1016 3	5.030	3.461	3.542	4.111	4.085	4.046	E6	15.49
5)	L1	AR 1016 4	2.839	2.153	2.207	2.392	2.430	2.404	E6	11.23
6)	L1	AR 1016 5	3.432	2.666	2.712	2.935	2.931	2.935	E6	10.35
7)	L2	AR 1260 1	6.991	4.907	4.966	5.322	5.403	5.518	E6	15.43
8)	L2	AR 1260 2	7.913	5.703	5.703	6.056	6.132	6.301	E6	14.63
9)	L2	AR 1260 3	1.054	0.809	0.801	0.840	0.835	0.868	E7	12.17
10)	L2	AR 1260 4	1.445	1.160	1.140	1.192	1.168	1.221	E7	10.37
11)	L2	AR 1260 5	6.753	5.735	5.674	5.933	5.792	5.978	E6	7.43
12)	S	DCB (SURR)	1.477	1.055	1.071	1.160	1.186	1.190	E8	14.30

(#) = Out of Range

11301660.M Mon Dec 04 10:39:26 2000 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\113000\11300003.D Vial: 3
Acq On : 30 Nov 2000 10:32 am Operator: YGK
Sample : IC AR 1016,1260/SS 0.1/0.02 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 30 13:38 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.75	2652268	0.025 ug/ml
Spiked Amount 0.250		Recovery =	10.00%
12) S DCB (SURR)	26.81	2954480	0.028 ug/ml
Spiked Amount 0.250		Recovery =	11.20%
Target Compounds			
2) L1 AR 1016 1	9.38	341886	0.136 ug/ml
3) L1 AR 1016 2	10.16	1149245	0.137 ug/ml
4) L1 AR 1016 3	10.44	503013	0.143 ug/ml
5) L1 AR 1016 4	11.72	283868	0.133 ug/ml
6) L1 AR 1016 5	12.09	343165	0.131 ug/ml
Sum AR 1016 1		2621178	0.681 ug/ml
Average AR 1016 1			0.136 ug/ml
7) L2 AR 1260 1	15.40	699077	0.140 ug/ml
8) L2 AR 1260 2	16.09	791251	0.138 ug/ml
9) L2 AR 1260 3	16.91	1054251	0.130 ug/ml
10) L2 AR 1260 4	18.93	1445128	0.125 ug/ml
11) L2 AR 1260 5	20.00	675283	0.118 ug/ml
Sum AR 1260 1		4664991	0.650 ug/ml
Average AR 1260 1			0.130 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

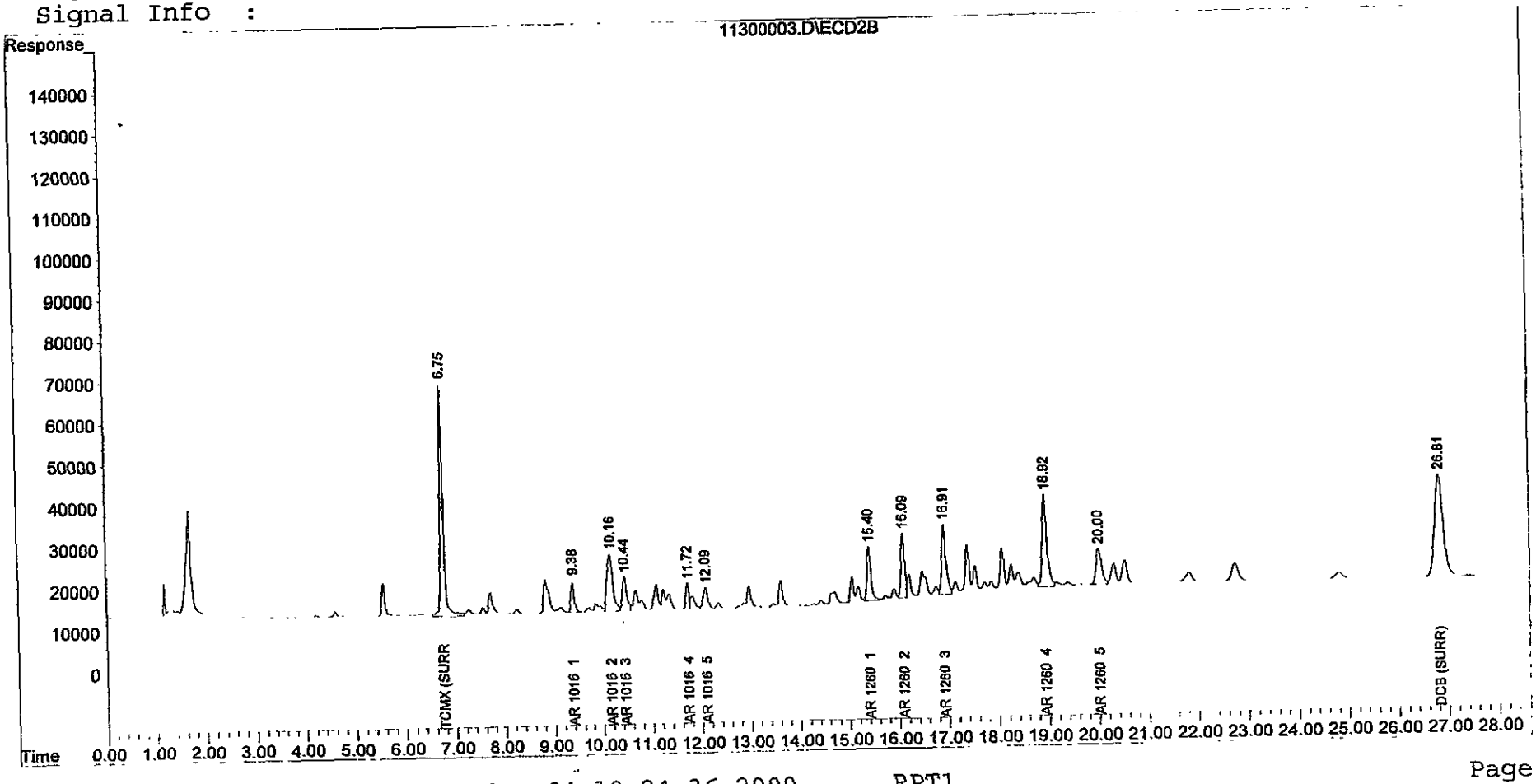
Quantitation Report

Data File : C:\HPCHEM\3\DATA\113000\11300003.D
Acq On : 30 Nov 2000 10:32 am
Sample : IC AR 1016,1260/SS 0.1/0.02
Misc :
IntFile : EVENTS.E
Quant Time: Nov 30 13:38 2000 Quant Results File: 11301660.RES

Vial: 3
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\113000\11300004.D Vial: 4
Acq On : 30 Nov 2000 11:05 am Operator: YGK
Sample : IC AR 1016,1260/SS 0.5/0.1 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 4 10:25 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.74	11046203	0.098 ug/ml
Spiked Amount 0.250		Recovery =	39.20%
12) S DCB (SURR)	26.79	11856231	0.110 ug/ml
Spiked Amount 0.250		Recovery =	44.00%
Target Compounds			
2) L1 AR 1016 1	9.37	1369911	0.539 ug/ml
3) L1 AR 1016 2	10.14	4477789	0.530 ug/ml
4) L1 AR 1016 3	10.43	2015402	0.566 ug/ml
5) L1 AR 1016 4	11.70	1183045	0.538 ug/ml
6) L1 AR 1016 5	12.08	1422359	0.525 ug/ml
Sum AR 1016 1		10468507	2.697 ug/ml
Average AR 1016 1			0.539 ug/ml
7) L2 AR 1260 1	15.39	2701310	0.543 ug/ml
8) L2 AR 1260 2	16.08	3066112	0.533 ug/ml
9) L2 AR 1260 3	16.90	4173343	0.515 ug/ml
10) L2 AR 1260 4	18.91	5842480	0.504 ug/ml
11) L2 AR 1260 5	19.99	2896025	0.504 ug/ml
Sum AR 1260 1		18679271	2.599 ug/ml
Average AR 1260 1			0.520 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

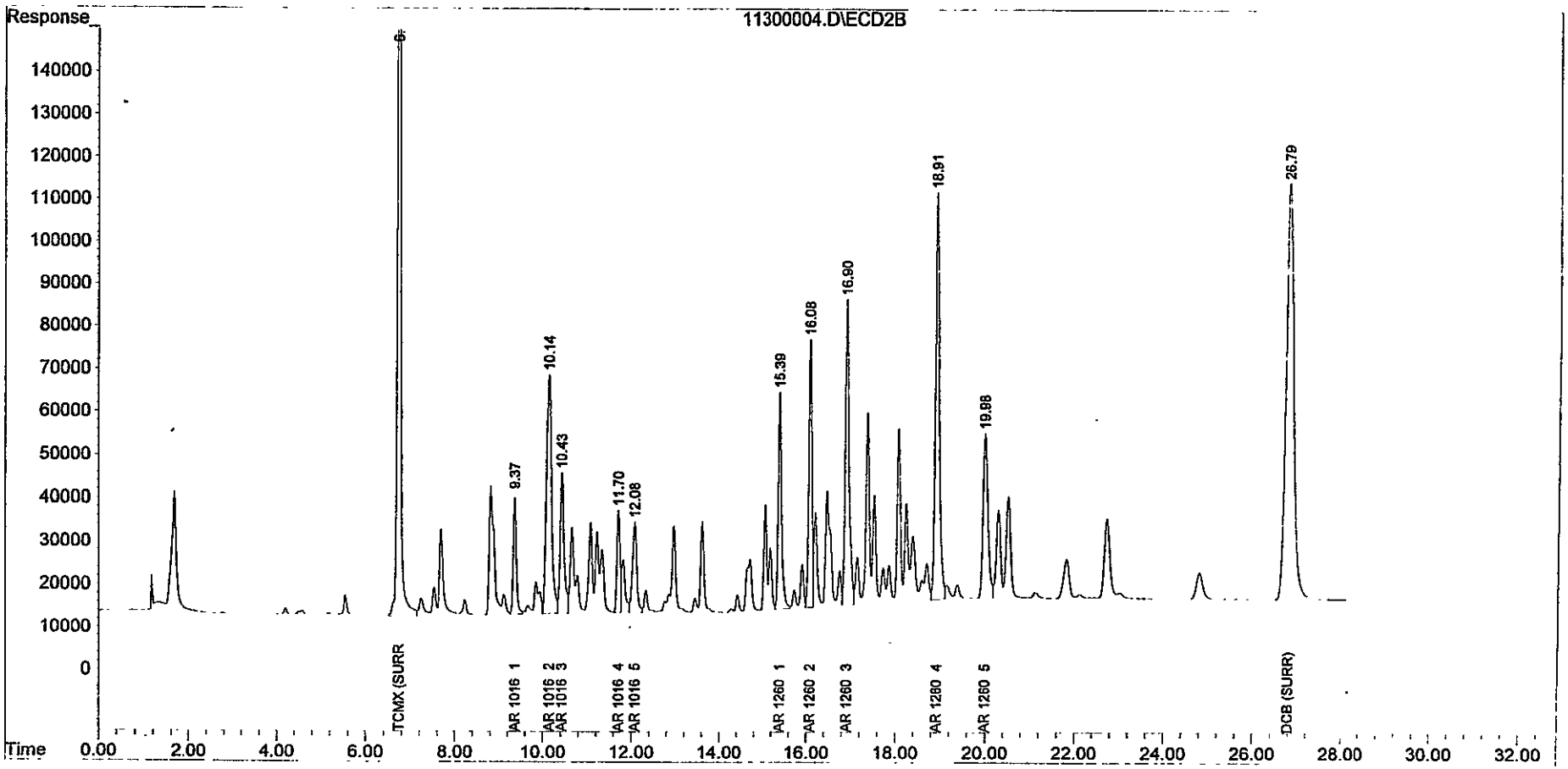
Quantitation Report

Data File : C:\HPCHEM\3\DATA\113000\11300004.D
Acq On : 30 Nov 2000 11:05 am
Sample : IC AR 1016,1260/SS 0.5/0.1
Misc :
IntFile : EVENTS.E
Quant Time: Dec 4 10:25 2000 Quant Results File: 11301660.RES

Vial: 4
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Mon Oct 23 10:13:53 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\113000\11300005.D Vial: 5
Acq On : 30 Nov 2000 11:42 am Operator: YGK
Sample : IC AR 1016,1260/SS 1.0/0.2 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 4 10:25 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.74	22780452	0.201 ug/ml
Spiked Amount 0.250		Recovery =	80.40%
12) S DCB (SURR)	26.78	23202351	0.216 ug/ml
Spiked Amount 0.250		Recovery =	86.40%
Target Compounds			
2) L1 AR 1016 1	9.36	2695296	1.060 ug/ml
3) L1 AR 1016 2	10.13	8831353	1.045 ug/ml
4) L1 AR 1016 3	10.42	4032958	1.132 ug/ml
5) L1 AR 1016 4	11.70	2300455	1.047 ug/ml
6) L1 AR 1016 5	12.07	2813477	1.038 ug/ml
Sum AR 1016 1		20673540	5.320 ug/ml
Average AR 1016 1			1.064 ug/ml
7) L2 AR 1260 1	15.38	5321915	1.069 ug/ml
8) L2 AR 1260 2	16.07	6056198	1.053 ug/ml
9) L2 AR 1260 3	16.89	8397645	1.035 ug/ml
10) L2 AR 1260 4	18.90	11923074	1.029 ug/ml
11) L2 AR 1260 5	19.98	5933336	1.033 ug/ml
Sum AR 1260 1		37632168	5.219 ug/ml
Average AR 1260 1			1.044 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

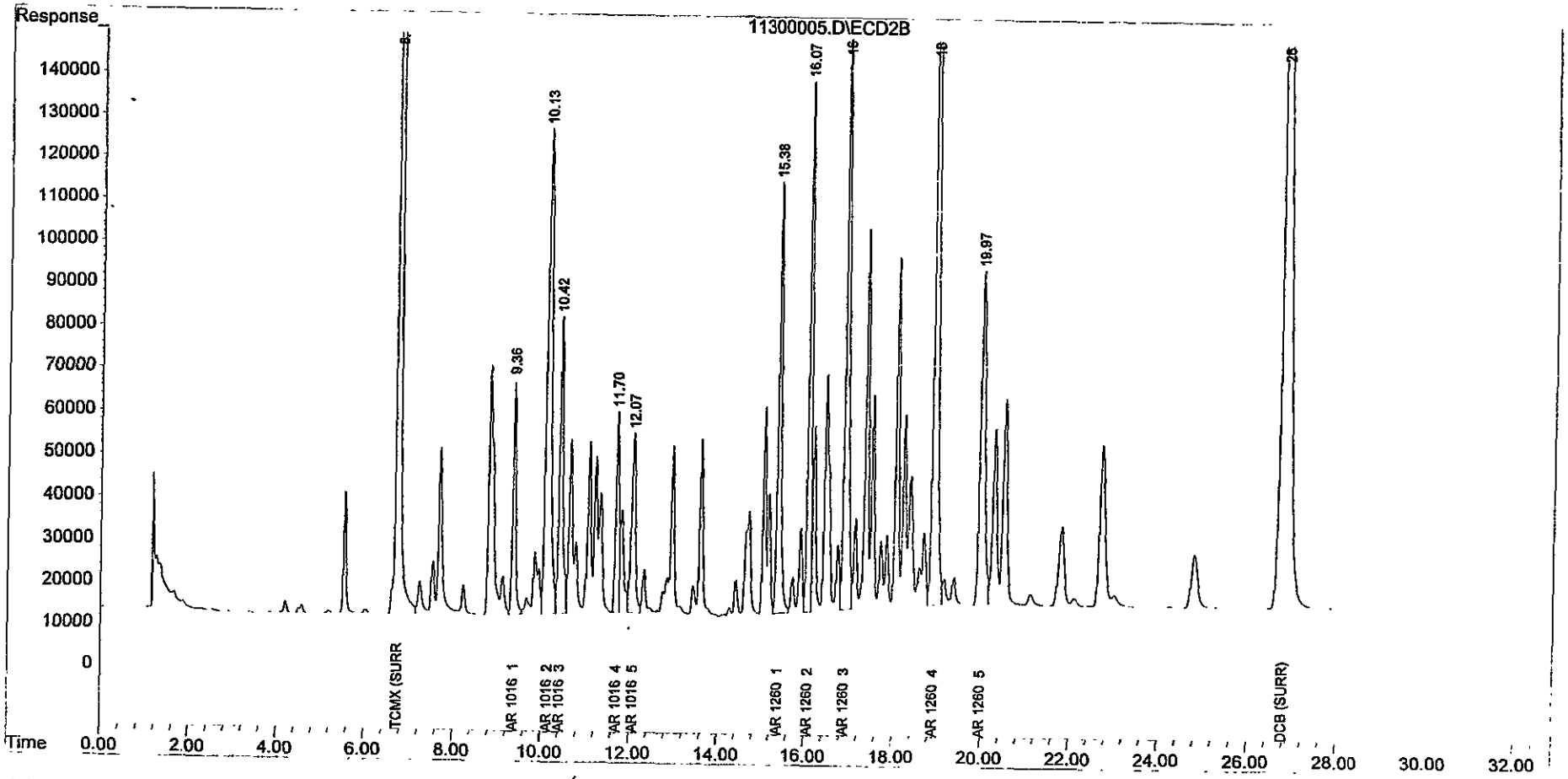
Quantitation Report

Data File : C:\HPCHEM\3\DATA\113000\11300005.D
Acq On : 30 Nov 2000 11:42 am
Sample : IC AR 1016,1260/SS 1.0/0.2
Misc :
IntFile : EVENTS.E
Quant Time: Dec 4 10:25 2000 Quant Results File: 11301660.RES

Vial: 5
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\113000\11300006.D Vial: 6
Acq On : 30 Nov 2000 12:22 pm Operator: YGK
Sample : IC AR 1016,1260/SS 1.5/0.3 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 4 10:26 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	33005801	0.291 ug/ml
Spiked Amount 0.250		Recovery =	116.40%
12) S DCB (SURR)	26.78	32139508	0.299 ug/ml
Spiked Amount 0.250		Recovery =	119.60%
Target Compounds			
2) L1 AR 1016 1	9.36	3772310	1.483 ug/ml
3) L1 AR 1016 2	10.13	12487638	1.477 ug/ml
4) L1 AR 1016 3	10.42	5258216	1.475 ug/ml
5) L1 AR 1016 4	11.70	3199631	1.456 ug/ml
6) L1 AR 1016 5	12.07	3923122	1.447 ug/ml
Sum AR 1016 1		28640917	7.338 ug/ml
Average AR 1016 1			1.468 ug/ml
7) L2 AR 1260 1	15.39	7449361	1.496 ug/ml
8) L2 AR 1260 2	16.07	8553936	1.487 ug/ml
9) L2 AR 1260 3	16.90	12016812	1.482 ug/ml
10) L2 AR 1260 4	18.91	17101806	1.476 ug/ml
11) L2 AR 1260 5	19.98	8511301	1.482 ug/ml
Sum AR 1260 1		53633216	7.423 ug/ml
Average AR 1260 1			1.485 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

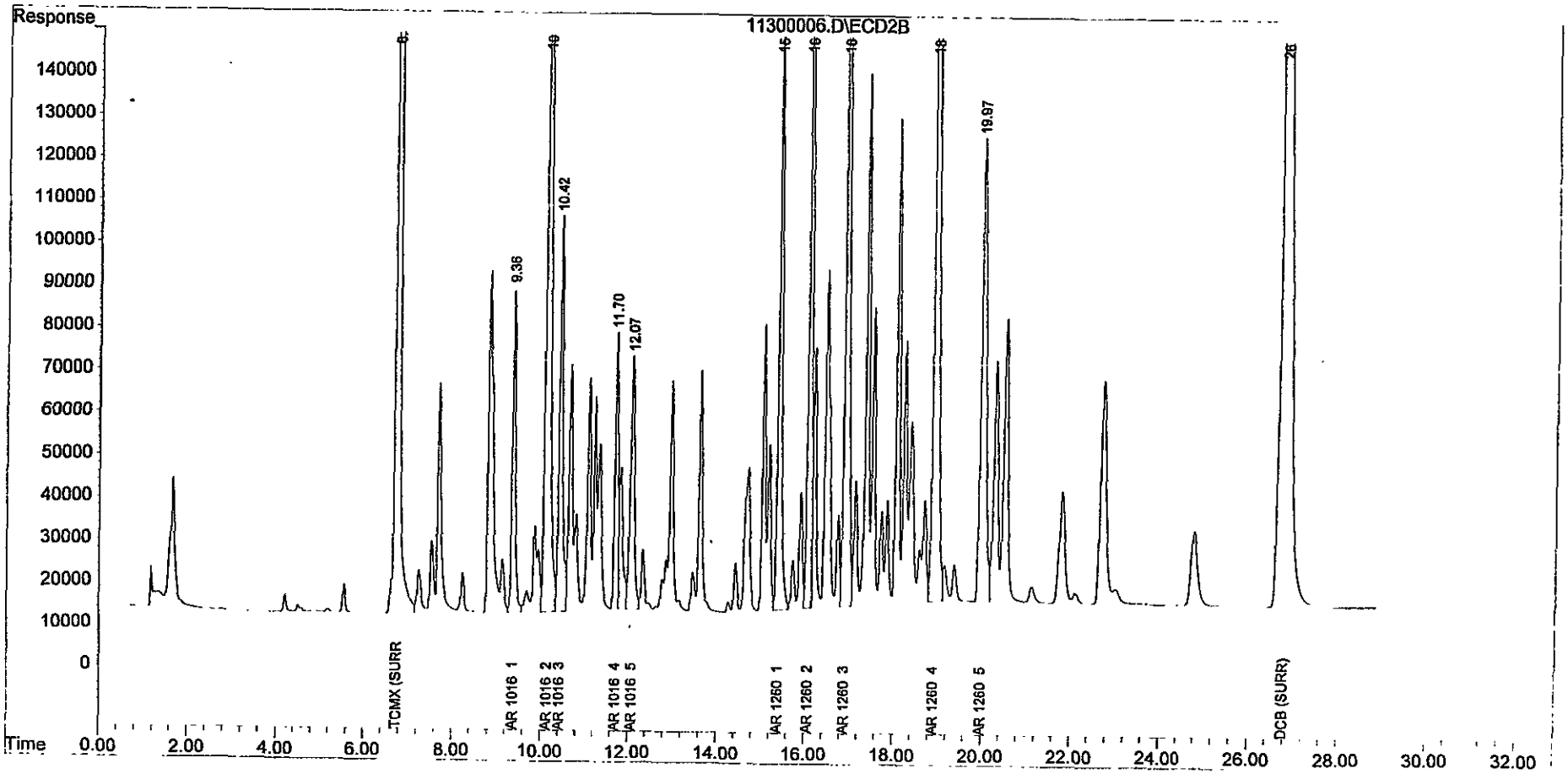
Quantitation Report

Data File : C:\HPCHEM\3\DATA\113000\11300006.D
Acq On : 30 Nov 2000 12:22 pm
Sample : IC AR 1016,1260/SS 1.5/0.3
Misc :
IntFile : EVENTS.E
Quant Time: Dec 4 10:26 2000 Quant Results File: 11301660.RES

Vial: 6
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\113000\11300007.D Vial: 7
Acq On : 30 Nov 2000 12:59 pm Operator: YGK
Sample : IC AR 1016,1260/SS 2.5/0.5 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 4 10:26 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	57551000	0.505 ug/ml
Spiked Amount 0.250		Recovery = 202.00%	
12) S DCB (SURR)	26.77	52747044	0.491 ug/ml
Spiked Amount 0.250		Recovery = 196.40%	
Target Compounds			
2) L1 AR 1016 1	9.35	6192730	2.435 ug/ml
3) L1 AR 1016 2	10.12	20801644	2.460 ug/ml
4) L1 AR 1016 3	10.41	8515064	2.389 ug/ml
5) L1 AR 1016 4	11.69	5215463	2.373 ug/ml
6) L1 AR 1016 5	12.06	6441650	2.376 ug/ml
Sum AR 1016 1		47166552	12.033 ug/ml
Average AR 1016 1			2.407 ug/ml
7) L2 AR 1260 1	15.38	12267238	2.464 ug/ml
8) L2 AR 1260 2	16.06	14257721	2.479 ug/ml
9) L2 AR 1260 3	16.89	20214811	2.493 ug/ml
10) L2 AR 1260 4	18.90	28990333	2.501 ug/ml
11) L2 AR 1260 5	19.97	14338029	2.496 ug/ml
Sum AR 1260 1		90068133	12.433 ug/ml
Average AR 1260 1			2.487 ug/ml

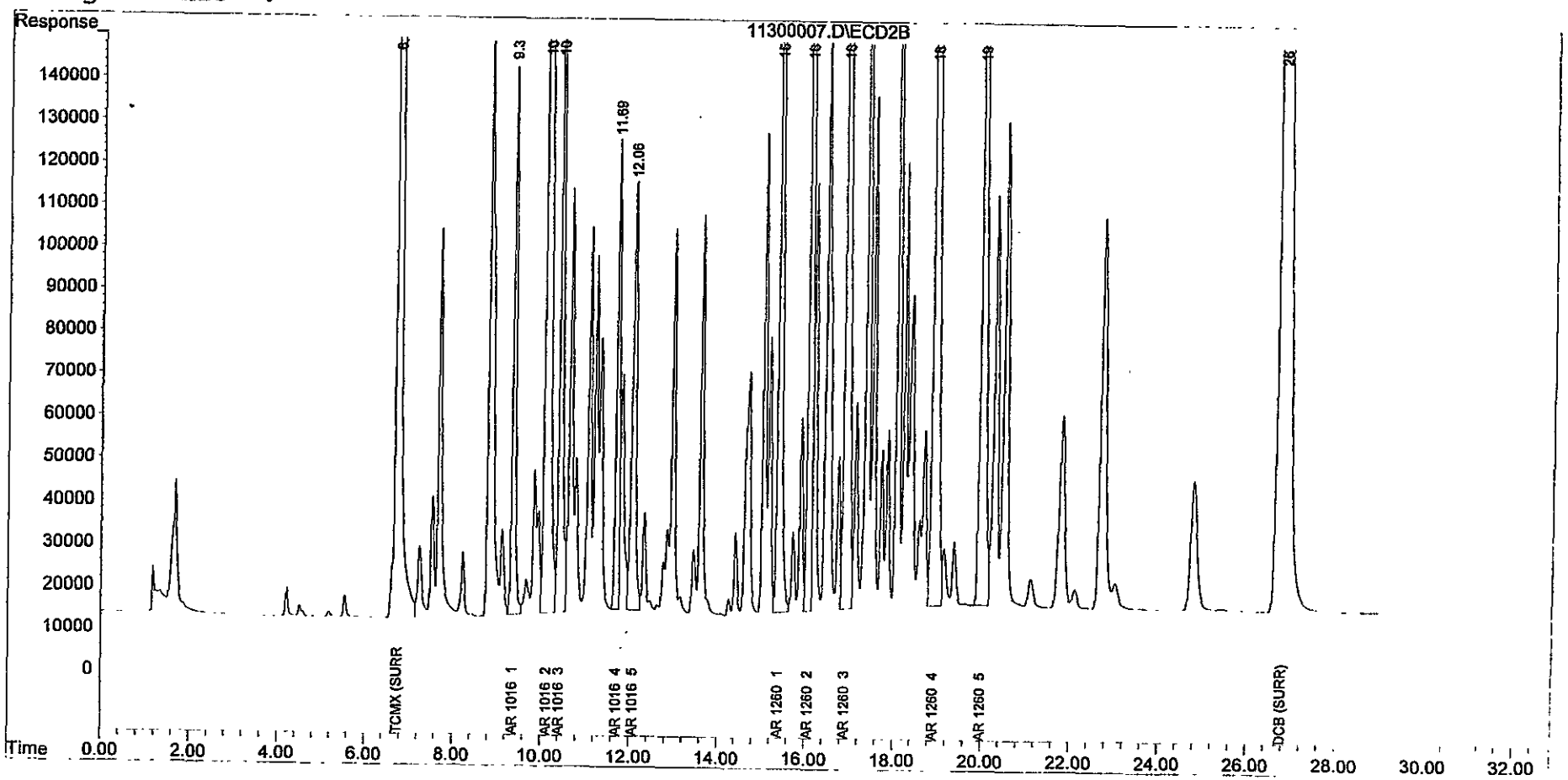
Quantitation Report

Data File : C:\HPCHEM\3\DATA\113000\11300007.D
Acq On : 30 Nov 2000 12:59 pm
Sample : IC AR 1016,1260/SS 2.5/0.5
Misc :
IntFile : EVENTS.E
Quant Time: Dec 4 10:26 2000 Quant Results File: 11301660.RES

Vial: 7
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\113000\11300008.D Vial: 8
Acq On : 30 Nov 2000 1:36 pm Operator: YGK
Sample : ICV AR 1016,1260/SS 1.0/0.2 Inst : GC#3
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Dec 4 10:26 2000 Quant Results File: 11301660.RES

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TCMX (SURR)	6.73	23820620	0.210 ug/ml
Spiked Amount 0.250		Recovery =	84.00%
12) S DCB (SURR)	26.75	27677865	0.258 ug/ml
Spiked Amount 0.250		Recovery =	103.20% ✓
Target Compounds			
2) L1 AR 1016 1	9.35	2739335	1.077 ug/ml
3) L1 AR 1016 2	10.13	9019437	1.067 ug/ml
4) L1 AR 1016 3	10.41	3900371	1.094 ug/ml
5) L1 AR 1016 4	11.69	2323699	1.057 ug/ml
6) L1 AR 1016 5	12.06	2834520	1.045 ug/ml
Sum AR 1016 1		20817363	5.341 ug/ml
Average AR 1016 1			1.068 ug/ml 107
7) L2 AR 1260 1	15.38	5504110	1.106 ug/ml
8) L2 AR 1260 2	16.06	6302527	1.096 ug/ml
9) L2 AR 1260 3	16.88	8779114	1.083 ug/ml
10) L2 AR 1260 4	18.89	12482343	1.077 ug/ml
11) L2 AR 1260 5	19.96	6236659	1.086 ug/ml
Sum AR 1260 1		39304752	5.447 ug/ml
Average AR 1260 1			1.089 ug/ml 109

(f)=RT Delta > 1/2 Window (m)=manual int.

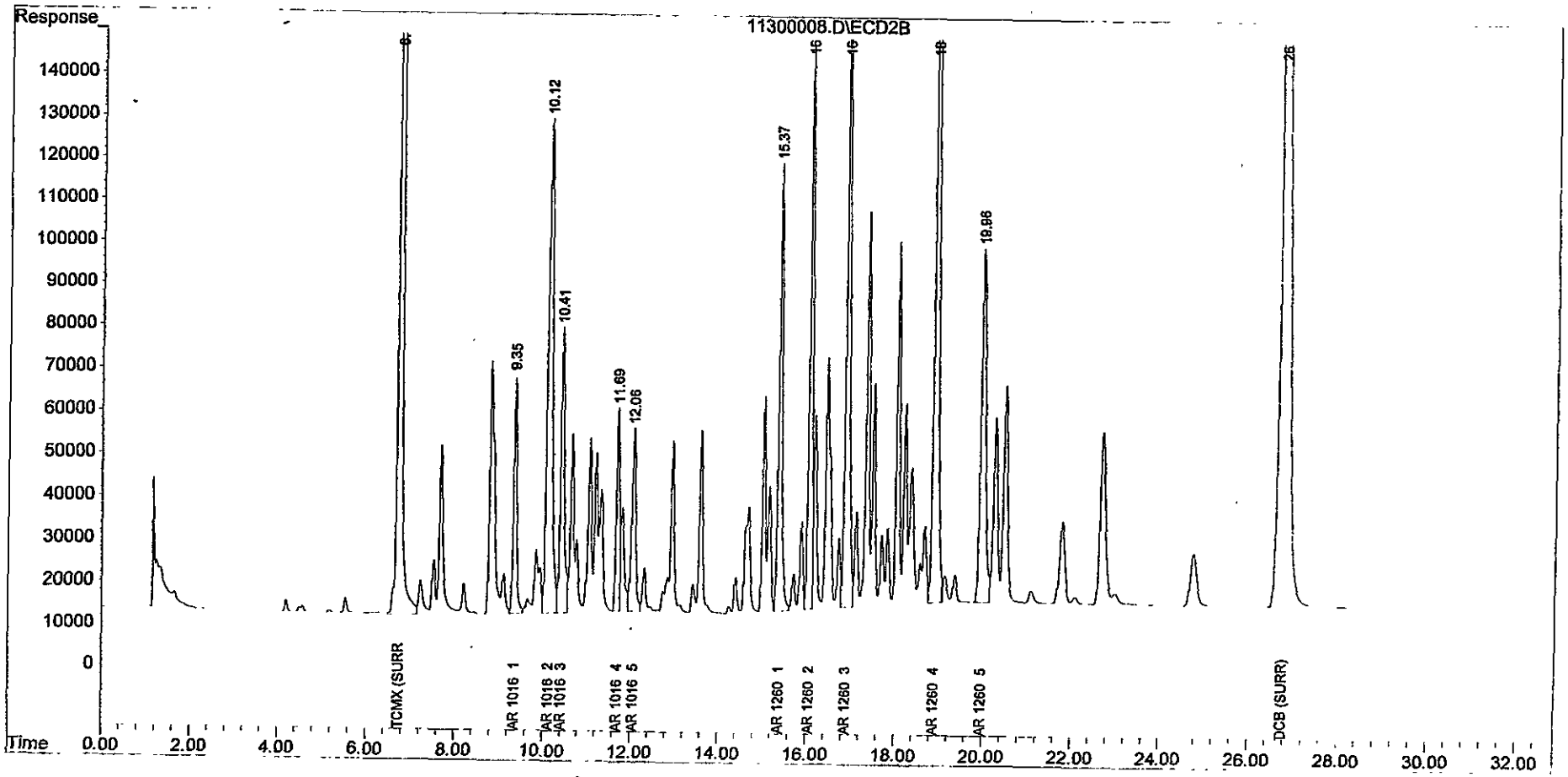
Quantitation Report

Data File : C:\HPCHEM\3\DATA\113000\11300008.D
Acq On : 30 Nov 2000 1:36 pm
Sample : ICV AR 1016,1260/SS 1.0/0.2
Misc :
IntFile : EVENTS.E
Quant Time: Dec 4 10:26 2000 Quant Results File: 11301660.RES

Vial: 8
Operator: YGK
Inst : GC#3
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\11301660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,11/30/00
Last Update : Thu Nov 30 13:46:50 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 11/30/00
Analyst Initials: YGK
Instrument Method: 8082
Calibration Column: SPB-5
Confirmation Column: –

PCB Calibration Date: 11/00

Surrogate Recovery Limits (%)	
Decachlorobiphenyl	
Soil	37 – 160
Water	D – 119

Sequence Directory:

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCB	Comments/Observations	
1	Hexane	11301660	Solv	1X			
2	CCV PCB 1.0 ppm		std				
3	IC 1016/1260/SS 0.1/0.02 ppm						P00138
4	0.5/0.1 ppm						P00137
5	1.0/.2 ppm						P00139
6	1.5/.3 ppm						P00135
7	2.5/.05 ppm						P00134
8	VCV 1016/1260 1.0/.20 ppm				103	1016 - 107%, 1260 - 109%	P00192
9	Hexane		Solv				
10	QPW 1129001		W		108		
11	2				104	1016 - 99%, 1260 - 105%	
12	03404 W				102		
13	AR 1254 1.5 ppm	08002154	std				P00193
14	QPW 1129001	11301660	W			TBA	
15	3						
16	03666 W TBA						
17	03670 W TBA						
18	03671 W TBA						
19	03810 W				90		
20	03811 W				47		
21	03812 W				119		
22	Hexane		Solv		NA		
23	CCV PCB 1.0 ppm		std		110	1016 - 108%, 1260 - 106%	P00189

Signature/Date: [signature] 11/30/00

Pcbrun.xls Page # CP0053

SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 12/01/00 PEST-B	METHOD: (circle applicable methods)
MATRIX: —	8081A 8082 (8151A)

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YCK		Reviewer: [illegible]	
Date: 12/04/00	Time: 9:10	Date: 12.08.2000	Time: 1330

Response Factor Report GC/ECD In

Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000

Calibration Files
1 =12010003.D 2 =12010004.D 3 =12010005.D
4 =12010006.D 5 =12010007.D

		Compound	1	2	3	4	5	Avg		%RSD
1)		DALAPON	1.833	1.799	1.750	1.634	1.565	1.716	E7	6.60
2)	S	DCAA	1.182	1.060	1.013	0.920	0.871	1.009	E7	12.09
3)	T	DICAMBA	5.315	4.771	4.552	4.094	3.860	4.518	E7	12.68
4)	T	MCPP	2.148	2.531	2.589	2.541	2.450	2.452	E4	7.23
5)	T	MCPA	3.643	3.964	3.902	3.775	3.653	3.787	E4	3.82
6)	T	DICHLOROPROP	1.625	1.490	1.415	1.266	1.187	1.397	E7	12.53
7)	T	2,4 D	1.902	1.770	1.673	1.504	1.417	1.653	E7	11.86
8)	T	SILVEX	7.605	7.203	6.871	6.315	5.969	6.793	E7	9.71
9)	T	2,4,5 T	7.199	6.722	6.381	5.851	5.544	6.339	E7	10.46
10)	T	2,4DB	7.743	7.141	7.281	7.072	6.816	7.211	E6	4.74
11)	T	DINOSEB	4.476	4.478	4.193	4.048	3.863	4.211	E7	6.39

Signal #2 Calibration Files
1 =12010003.D 2 =12010004.D 3 =12010005.D
4 =12010006.D 5 =12010007.D

		Compound	1	2	3	4	5	Avg		%RSD
1)		DALAPON	3.686	3.789	3.855	3.815	3.800	3.789	E7	1.65
2)	S	DCAA	2.466	2.455	2.428	2.341	2.280	2.394	E7	3.36
3)	T	DICAMBA	0.981	1.005	1.008	1.003	0.996	0.999	E8	1.09
4)	T	MCPP	5.332	5.823	5.843	5.924	6.161	5.817	E4	5.19
5)	T	MCPA	0.993	1.021	1.003	0.964	0.932	0.983	E5	3.56
6)	T	DICHLOROPROP	2.930	2.905	2.799	2.696	2.585	2.783	E7	5.20
7)	T	2,4 D	3.333	3.430	3.331	3.255	3.142	3.298	E7	3.25
8)	T	SILVEX	1.595	1.735	1.751	1.865	1.962	1.781	E8	7.81
9)	T	2,4,5 T	1.409	1.513	1.514	1.577	1.605	1.524	E8	4.94
10)	T	2,4DB	1.387	1.445	1.438	1.464	1.450	1.437	E7	2.05
11)	T	DINOSEB	0.846	0.966	0.938	1.011	1.007	0.954	E8	7.07

(#) = Out of Range

120100H.M Fri Dec 01 14:07:57 2000

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010003.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\120100\12010003.D\ECD2B.CH
Acq On : 1 Dec 2000 10:30 am Operator: YGK
Sample : IC HERB/SS 0.10/0.20 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 1 14:05 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.32	13.56	2364347	4931243	0.275	0.217	
Spiked Amount		0.500			Recovery	=	55.00%	43.40%	
		Target Compounds							
1)		DALAPON	6.99	6.87	1833260	3686276	0.139	0.104	
3)	T	DICAMBA	13.65	14.01	5315420	9806758	0.149	0.102	#
4)	T	MCPP	14.00	14.32	214795	533240	7.473	8.420	
5)	T	MCPA	14.34	14.83	364270	993221	7.927	9.477	
6)	T	DICHLOROPROP	15.00	15.41	1625415	2930397	0.152	0.112	#
7)	T	2,4 D	15.40	16.00	1901873	3332589	0.153	0.106	#
8)	T	SILVEX	16.76	17.04	7604800	15947266	0.144	0.091	#
9)	T	2,4,5 T	17.18	17.62	7199391	14094534	0.148	0.093	#
10)	T	2,4DB	17.82	18.13	774307	1387212	0.120	0.090	#
11)	T	DINOSEB	18.16	18.80	4475929	8457286	0.124	0.086	#

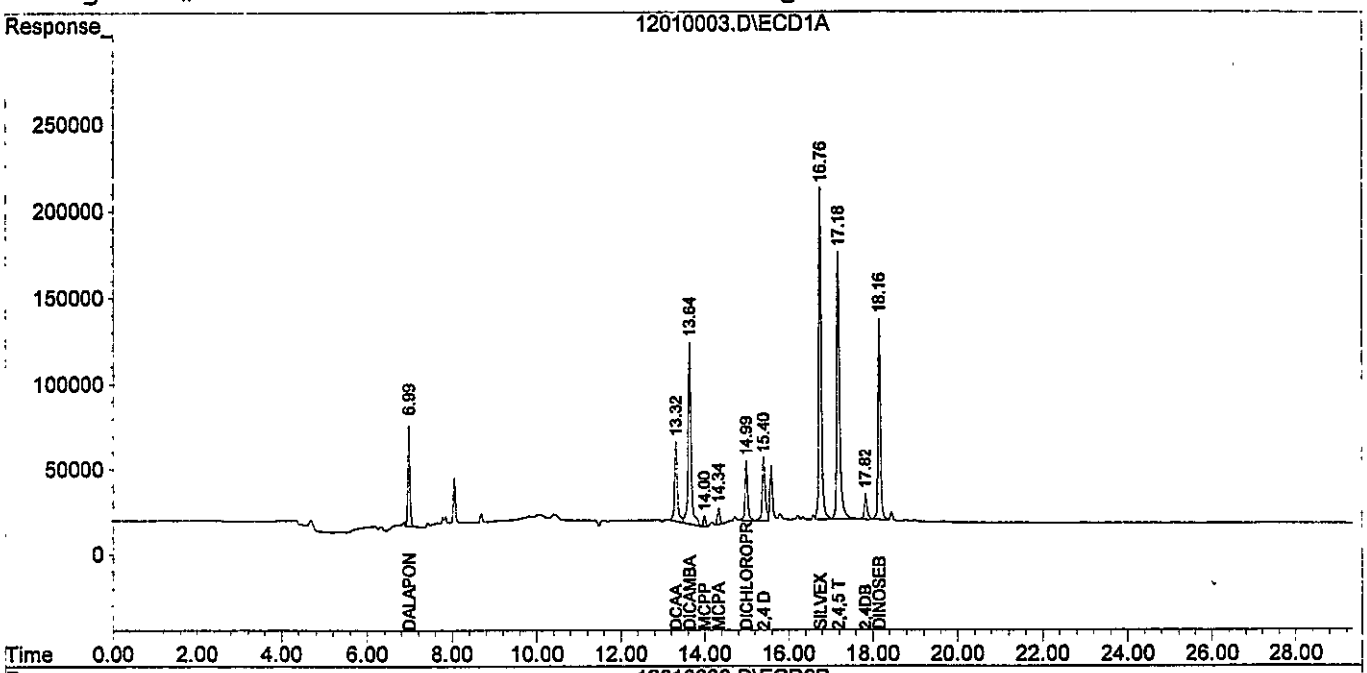
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

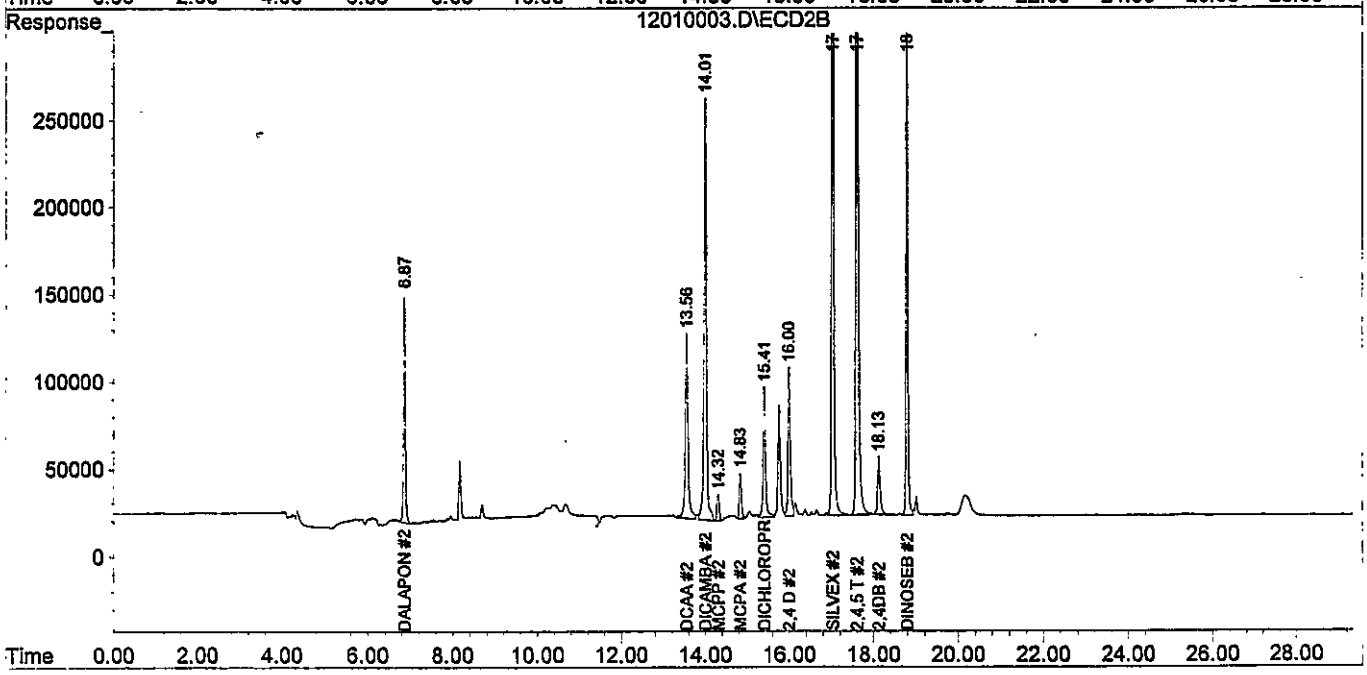
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010003.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\120100\12010003.D\ECD2B.CH
Acq On : 1 Dec 2000 10:30 am Operator: YGK
Sample : IC HERB/SS 0.10/0.20 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 1 14:05 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010004.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\120100\12010004.D\ECD2B.CH
Acq On : 1 Dec 2000 11:07 am Operator: YGK
Sample : IC HERB/SS 0.20/0.40 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:51 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.31	13.56	4240691	9821791	0.459	0.421
Spiked Amount		0.500			Recovery	=	91.80%	84.20%
		Target Compounds						
1)		DALAPON	6.98	6.87	3598378	7578794	0.221	0.199
3)	T	DICAMBA	13.64	14.00	9541940	20104450	0.232	0.201
4)	T	MCPP	13.99	14.31	506253	1164691	20.292	19.384
5)	T	MCPA	14.33	14.83	792806	2041600	21.177	21.303
6)	T	DICHLOROPROP	14.99	15.40	2979858	5810957	0.235	0.217
7)	T	2,4 D	15.39	15.99	3540723	6859995	0.234	0.213
8)	T	SILVEX	16.75	17.04	14406881	34706969	0.228	0.184
9)	T	2,4,5 T	17.18	17.61	13443252	30253713	0.229	0.192
10)	T	2,4DB	17.82	18.13	1428167	2890813	0.204	0.199
11)	T	DINOSEB	18.16	18.80	8955955	19323722	0.223	0.194

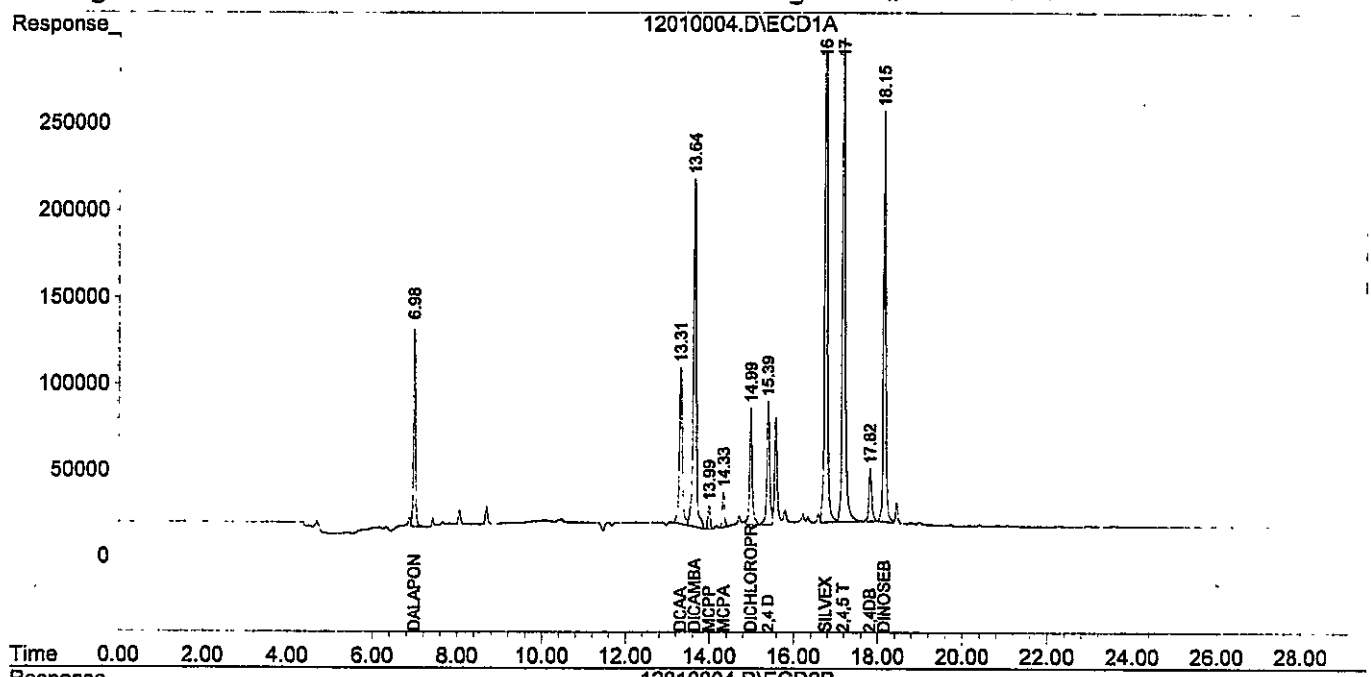
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

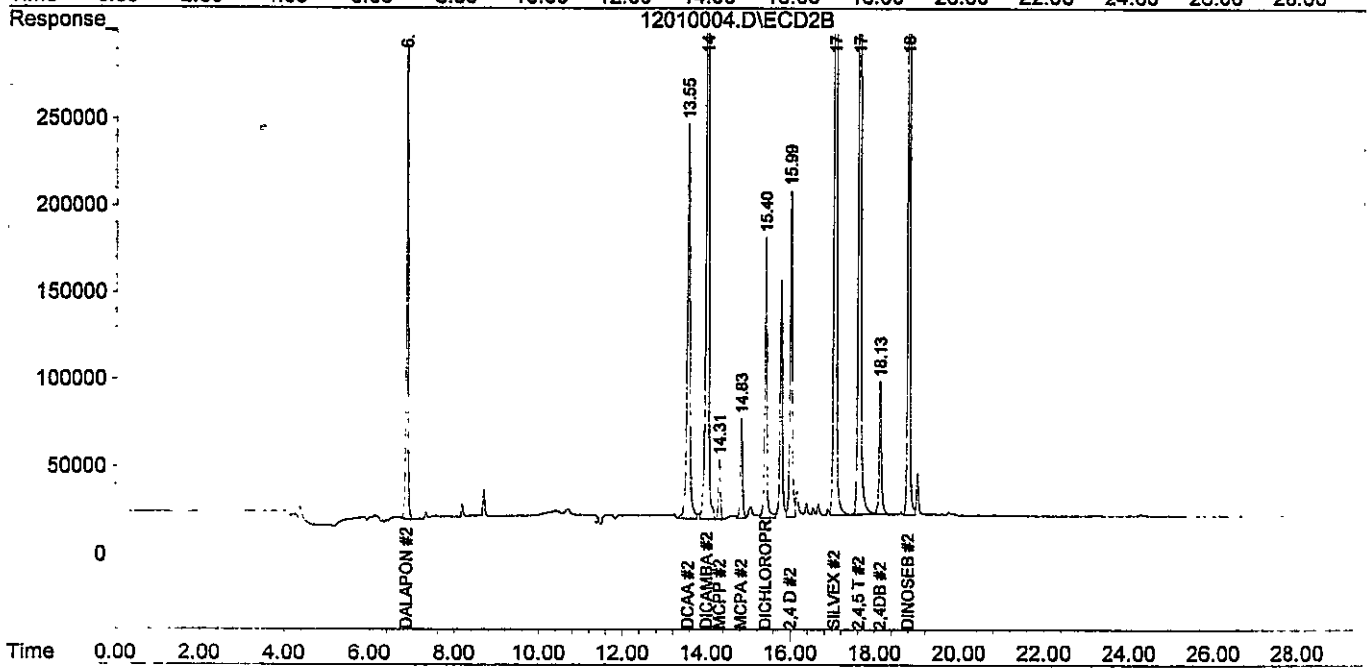
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010004.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\120100\12010004.D\ECD2B.CH
Acq On : 1 Dec 2000 11:07 am Operator: YGK
Sample : IC HERB/SS 0.20/0.40 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:51 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\120100\12010005.D\ECD2B.CH
Acq On : 1 Dec 2000 11:45 am Operator: YGK
Sample : IC HERB/SS 0.25/0.50 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:51 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.31	13.55	5065980	12141414	0.549	0.520
Spiked Amount		0.500			Recovery	=	109.80%	104.00%
		Target Compounds						
1)		DALAPON	6.98	6.87	4374835	9637390	0.268	0.253
3)	T	DICAMBA	13.64	14.00	11379947	25194665	0.277	0.252
4)	T	MCPP	13.99	14.31	647355	1460727	25.948	24.311
5)	T	MCPA	14.33	14.83	975497	2508075	26.057	26.171
6)	T	DICHLOROPROP	14.99	15.40	3538182	6997922	0.279	0.262
7)	T	2,4 D	15.39	15.99	4181752	8326966	0.277	0.258
8)	T	SILVEX	16.75	17.04	17178249	43766369	0.272	0.232
9)	T	2,4,5 T	17.18	17.61	15951272	37852328	0.272	0.240
10)	T	2,4DB	17.81	18.12	1820262	3595942	0.260	0.248
11)	T	DINOSEB	18.15	18.80	10483246	23461399	0.261	0.236

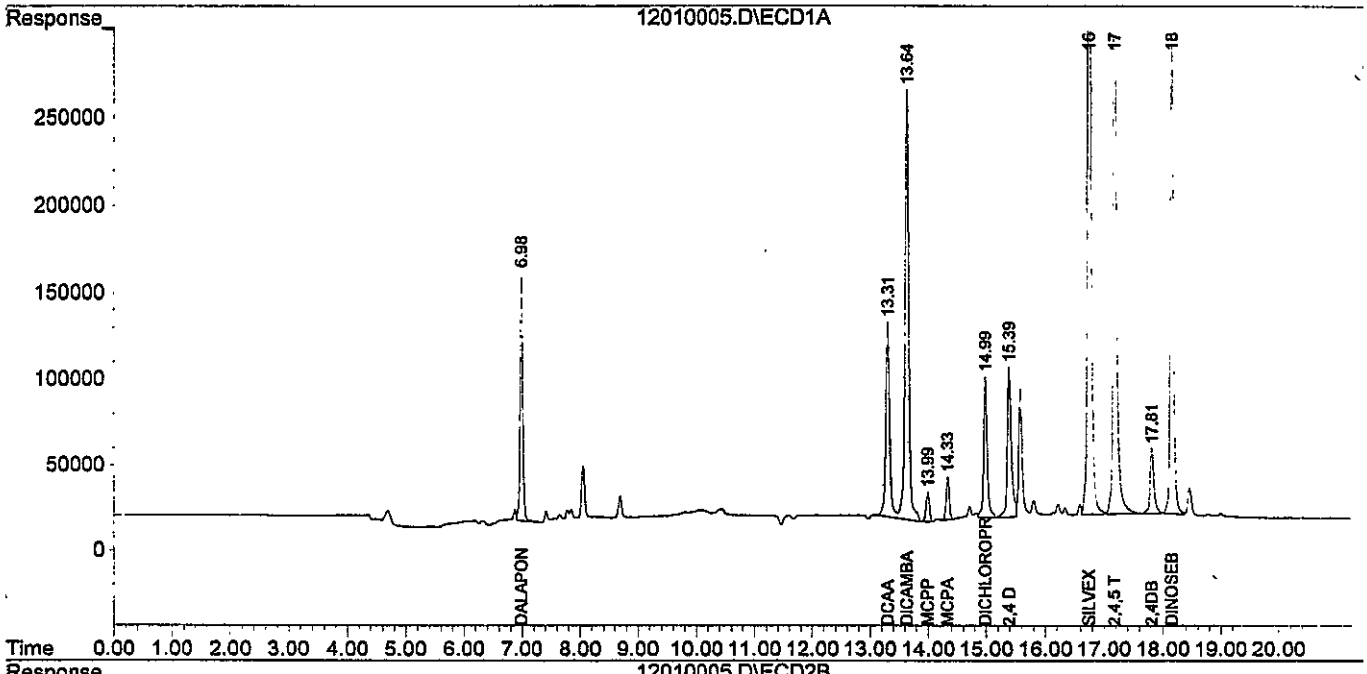
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

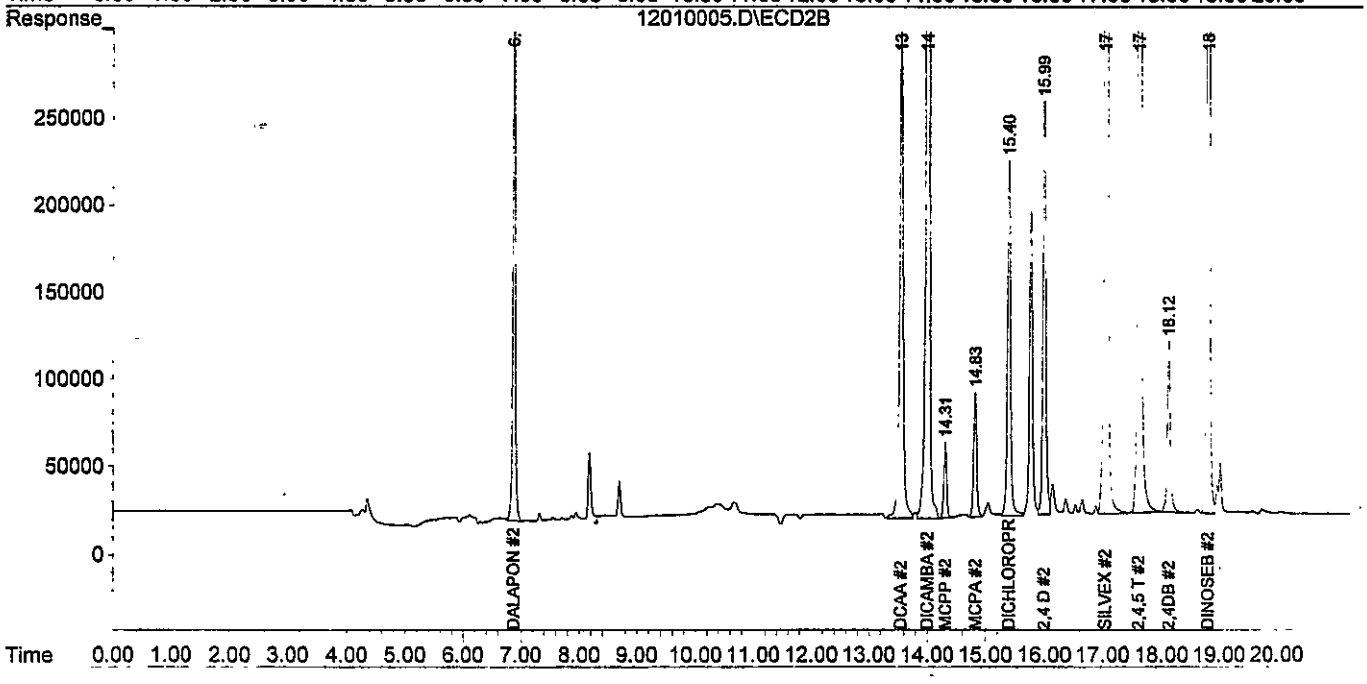
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010005.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\120100\12010005.D\ECD2B.CH
Acq On : 1 Dec 2000 11:45 am Operator: YGK
Sample : IC HERB/SS 0.25/0.50 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:51 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010006.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\120100\12010006.D\ECD2B.CH
Acq On : 1 Dec 2000 12:14 pm Operator: YGK
Sample : IC HERB/SS 0.40/0.80 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:52 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.31	13.55	7358868	18731012	0.797	0.803
Spiked Amount		0.500			Recovery	=	159.40%	160.60%
		Target Compounds						
1)		DALAPON	6.98	6.87	6535233	15260305	0.401	0.401
3)	T	DICAMBA	13.64	14.00	16376524	40116295	0.398	0.401
4)	T	MCPP	14.00	14.32	1016414	2369452	40.741	39.435
5)	T	MCPA	14.34	14.84	1510127	3857958	40.337	40.256
6)	T	DICHLOROPROP	14.99	15.40	5062224	10784102	0.399	0.403
7)	T	2,4 D	15.39	15.99	6016879	13018109	0.398	0.404
8)	T	SILVEX	16.75	17.04	25259371	74600943	0.400	0.396
9)	T	2,4,5 T	17.18	17.61	23404548	63061468	0.399	0.400
10)	T	2,4DB	17.81	18.12	2828936	5857784	0.405	0.404
11)	T	DINOSEB	18.15	18.80	16190221	40449023	0.403	0.407

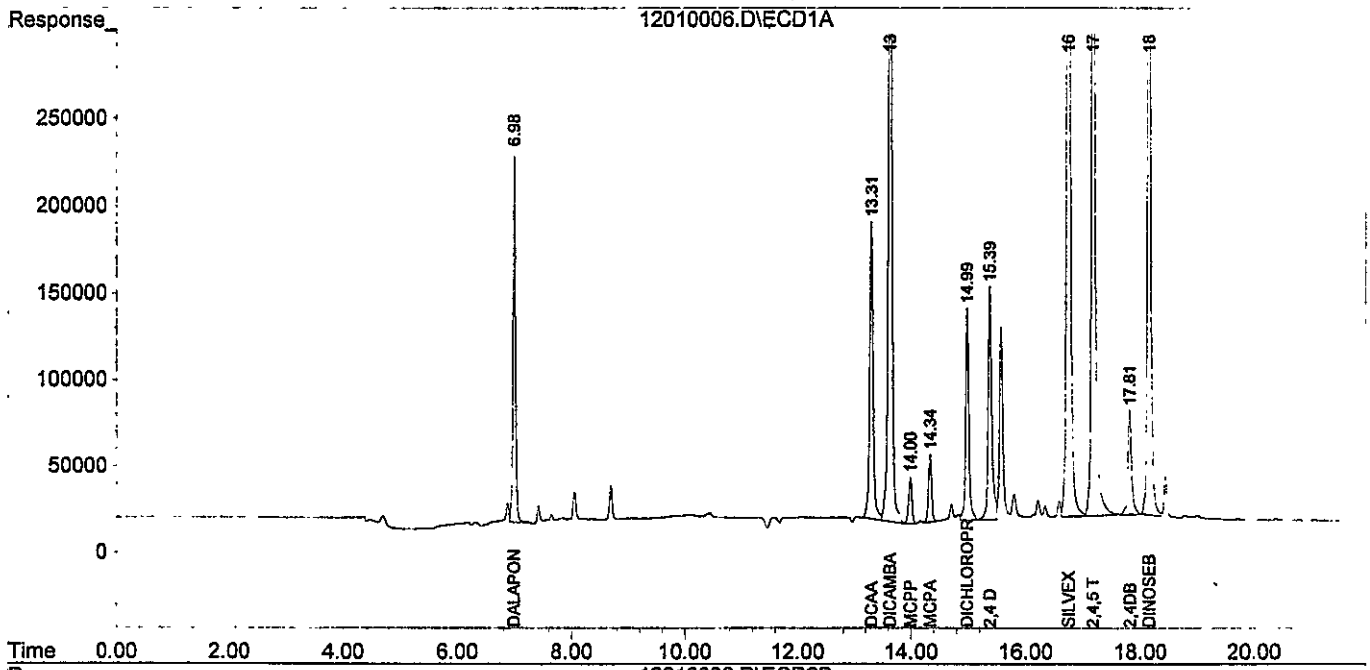
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

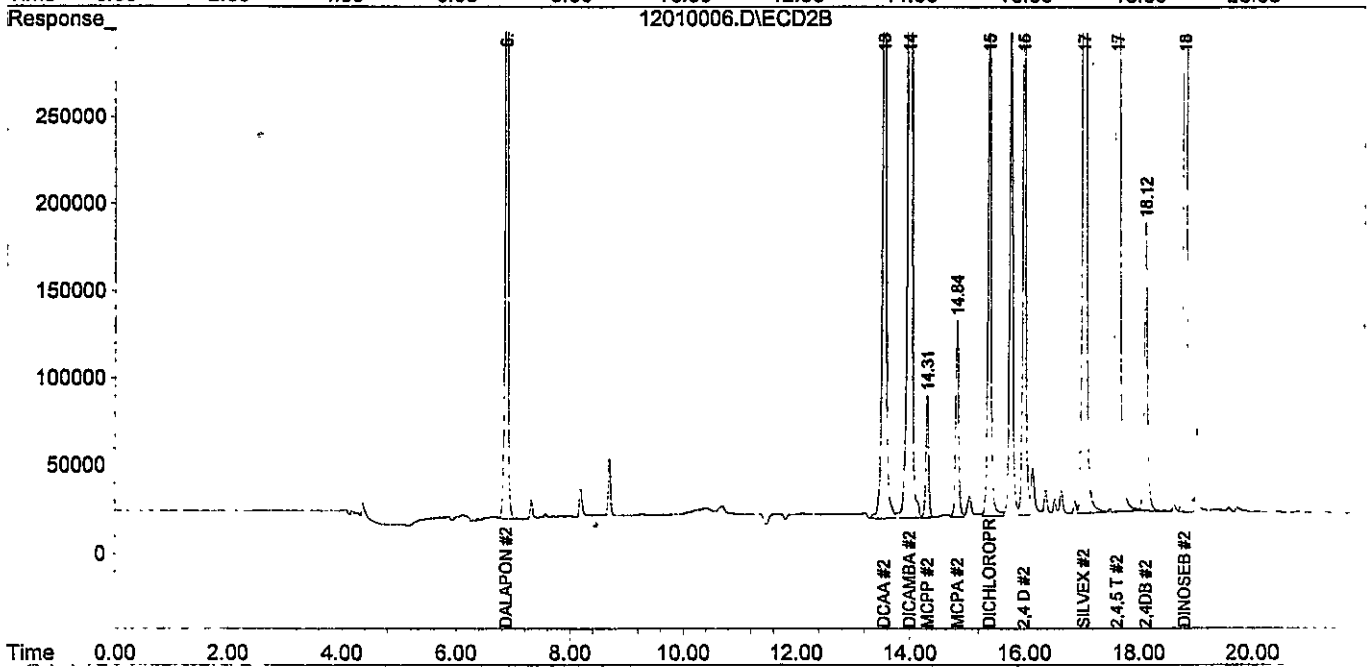
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010006.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\120100\12010006.D\ECD2B.CH
Acq On : 1 Dec 2000 12:14 pm Operator: YGK
Sample : IC HERB/SS 0.40/0.80 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:52 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010007.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\2\DATA\120100\12010007.D\ECD2B.CH
Acq On : 1 Dec 2000 12:43 pm Operator: YGK
Sample : IC HERB/SS 0.50/1.0 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:52 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.31	13.55	8711912	22799481	0.943	0.977
Spiked Amount		0.500			Recovery	=	188.60%	195.40%
		Target Compounds						
1)		DALAPON	6.98	6.87	7825694	19001700	0.480	0.499
3)	T	DICAMBA	13.64	14.00	19299176	49811293	0.469	0.498
4)	T	MCPP	14.00	14.32	1224793	3080452	49.094	51.268
5)	T	MCPA	14.34	14.84	1826372	4659026	48.785	48.615
6)	T	DICHLOROPROP	14.99	15.40	5934860	12924050	0.467	0.483
7)	T	2,4 D	15.39	15.99	7086638	15709518	0.469	0.487
8)	T	SILVEX	16.75	17.04	29845722	98081755	0.473	0.521
9)	T	2,4,5 T	17.18	17.61	27717524	80260002	0.473	0.510
10)	T	2,4DB	17.81	18.12	3408016	7250136	0.487	0.499
11)	T	DINOSEB	18.16	18.80	19313492	50344846	0.481	0.507

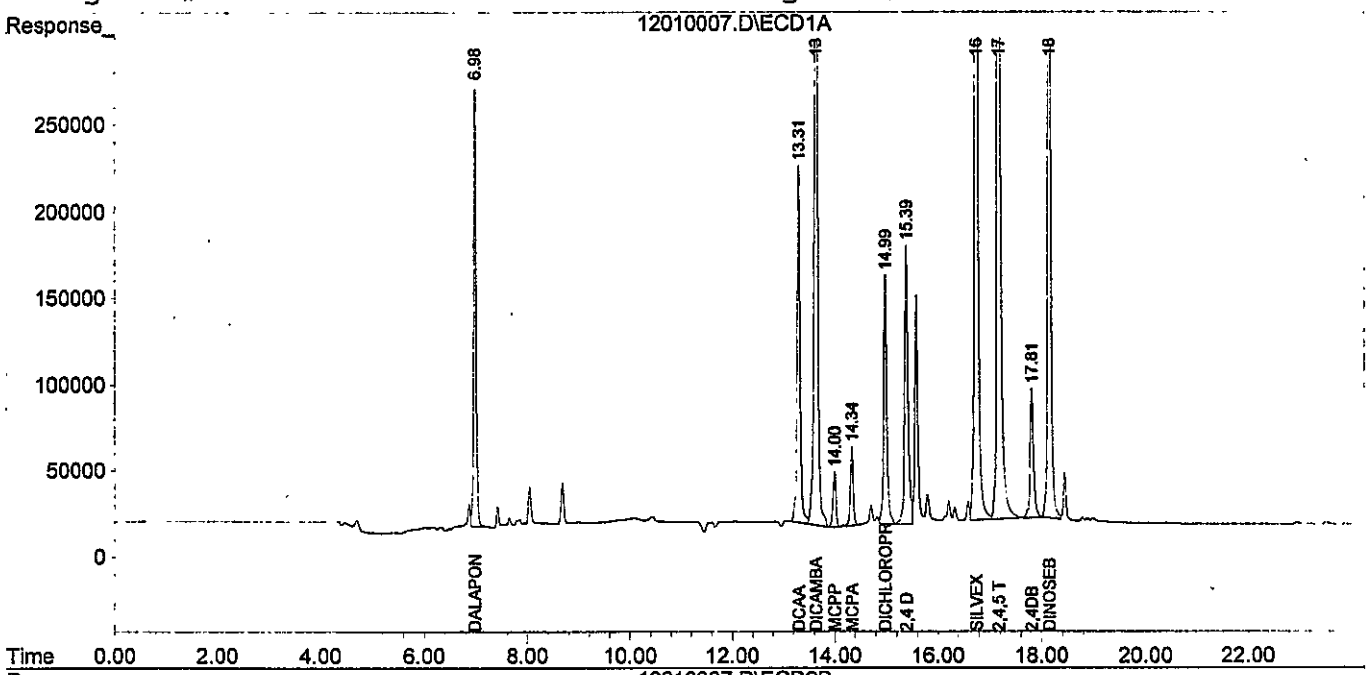
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

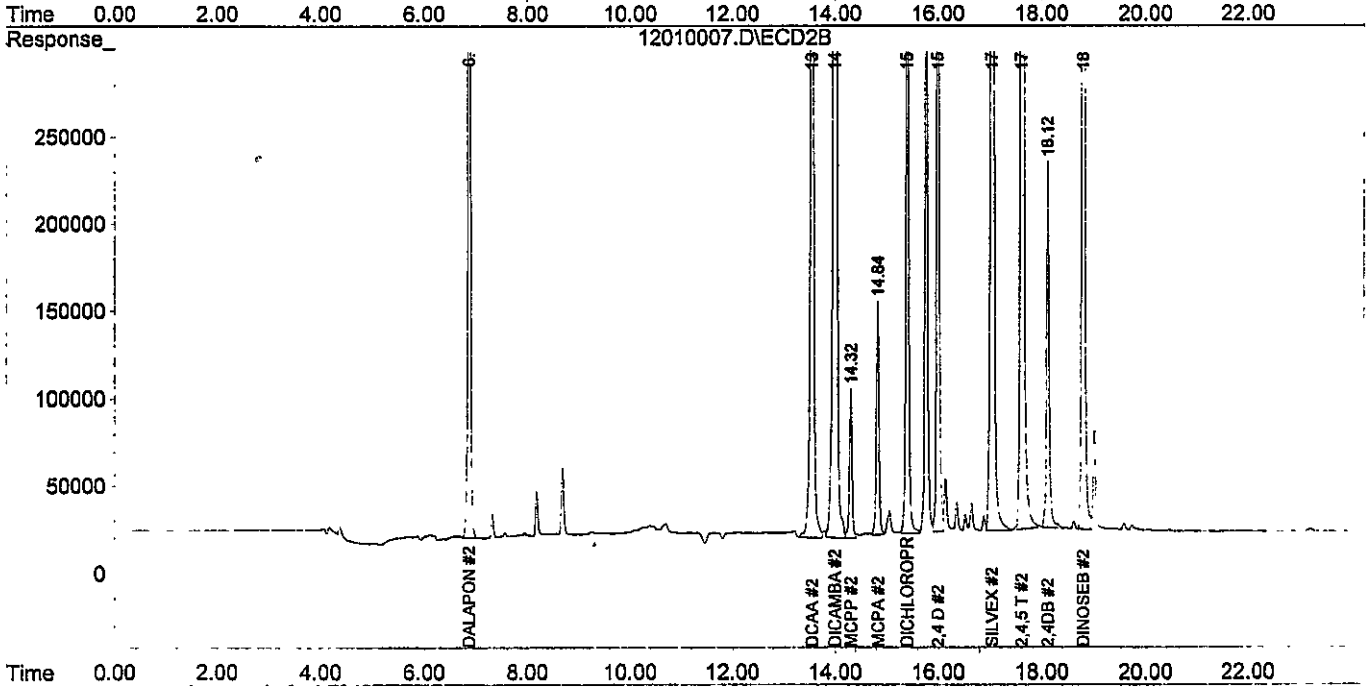
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010007.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\2\DATA\120100\12010007.D\ECD2B.CH
Acq On : 1 Dec 2000 12:43 pm Operator: YGK
Sample : IC HERB/SS 0.50/1.0 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 4 8:52 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Fri Dec 01 14:07:31 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\2\DATA\120100\12010008.D\ECD2B.CH
Acq On : 1 Dec 2000 1:28 pm Operator: YGK
Sample : ICV HERB/SS 0.25/.50 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 1 14:12 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.32	13.56	4907696	11891901	0.531	0.510
Spiked Amount		0.500			Recovery	=	106.20%	102.00%
		Target Compounds						
1)		DALAPON	6.99	6.87	4440180	9901804	0.272	0.260
3)	T	DICAMBA	13.65	14.01	11297492	24604898	0.275	0.246
4)	T	MCPP	14.00	14.32	620394	1440609	24.868	23.976
5)	T	MCPA	14.34	14.84	922989	2399574	24.654	25.039
6)	T	DICHLOROPROP	15.00	15.41	4538740	9711494	0.357	0.363
7)	T	2,4 D	15.40	16.00	4215808	8713702	0.279	0.270
8)	T	SILVEX	16.76	17.05	17265578	44111058	0.274	0.234
9)	T	2,4,5 T	17.19	17.62	16429879	39037752	0.280	0.248
10)	T	2,4DB	17.82	18.13	1817463	3635824	0.260	0.250
11)	T	DINOSEB	18.16	18.80	10568387	23876903	0.263	0.240

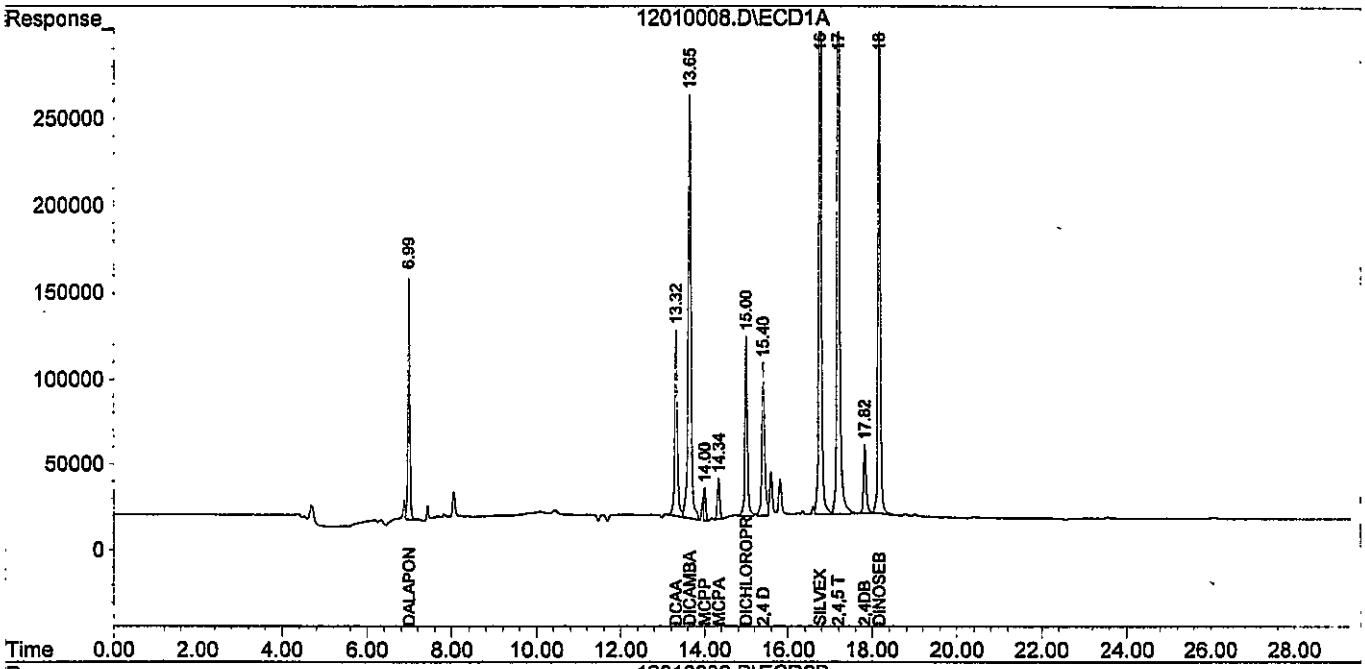
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

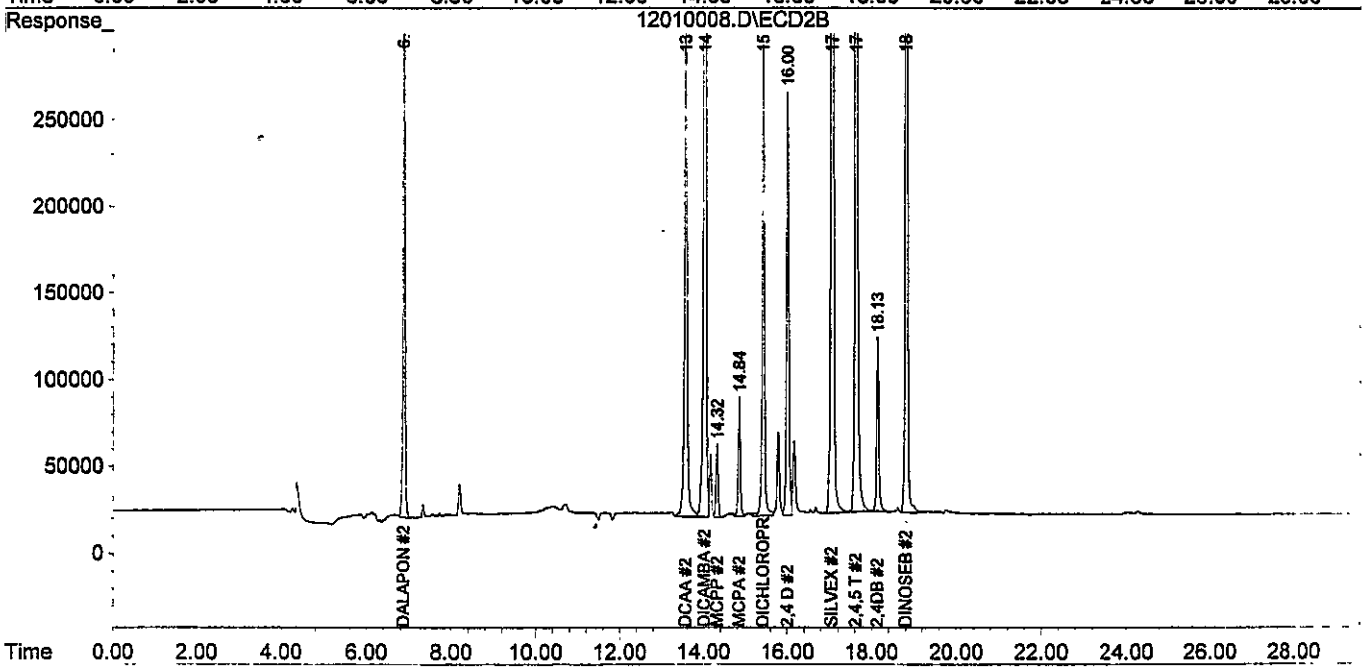
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010008.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\2\DATA\120100\12010008.D\ECD2B.CH
Acq On : 1 Dec 2000 1:28 pm Operator: YGK
Sample : ICV HERB/SS 0.25/.50 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 1 14:12 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\120100\12010009.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\120100\12010009.D\ECD2B.CH
Acq On : 1 Dec 2000 2:05 pm Operator: YGK
Sample : ICV 2 HERB/SS 0.25/.50 PPM Dichloroprop only Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 1 14:39 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.32	13.53	22938	29889	0.002	0.001	#
Spiked Amount		0.500			Recovery	=	0.40%	0.20%	
		Target Compounds							
1)		DALAPON	6.98	6.87	4344198	9669754	0.266	0.254	
3)	T	DICAMBA	13.65	14.01	11118263	23475377	0.270	0.235	
4)	T	MCPP	13.95	14.32	474136	109196	19.005	1.817	#
5)	T	MCPA	14.34	14.84	58311	246347	1.558	2.571	#
6)	T	DICHLOROPROP	15.00	15.41	3238252	6623238	0.255 ✓	0.248 ✓	
7)	T	2,4 D	15.40	16.00	3862401	8133389	0.256	0.252	
8)	T	SILVEX	16.76	17.04	16469068	41638126	0.261	0.221	
9)	T	2,4,5 T	17.18	17.61	15638207	36521233	0.267	0.232	
10)	T	2,4DB	17.82	18.13	1743406	3440815	0.249	0.237	
11)	T	DINOSEB	18.16	18.80	10166898	22739925	0.253	0.229	

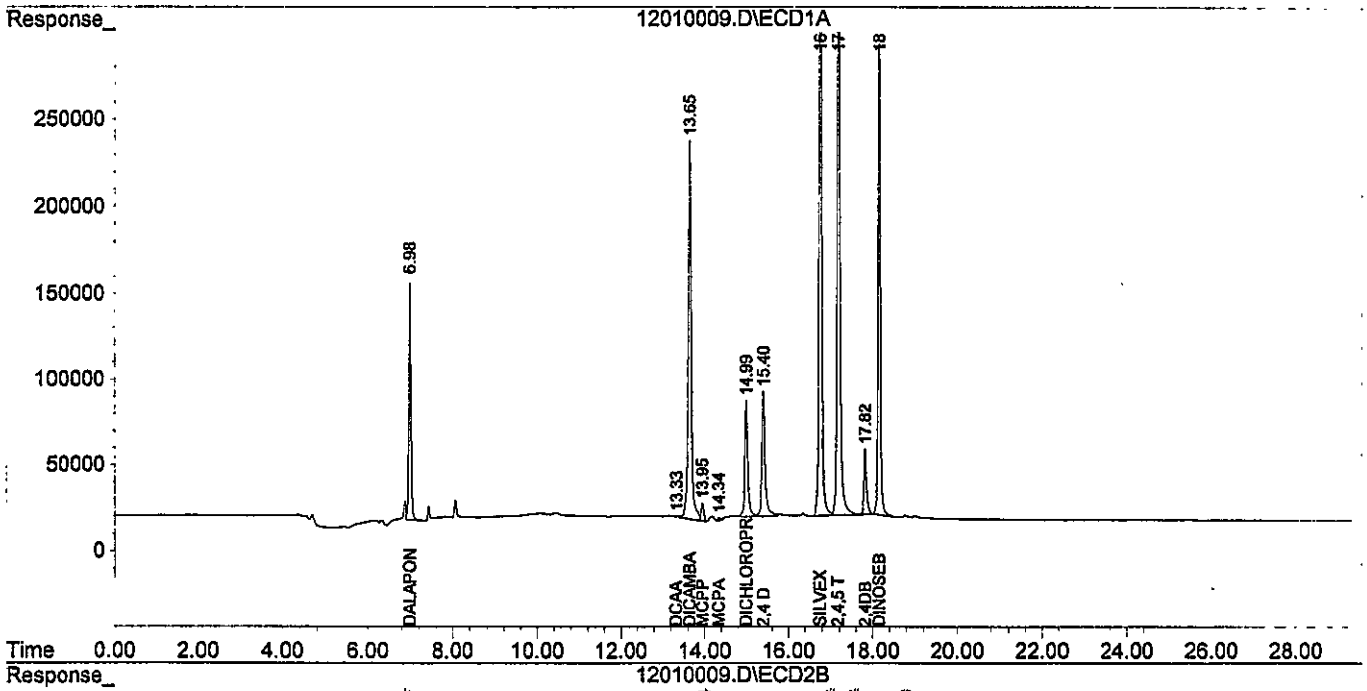
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

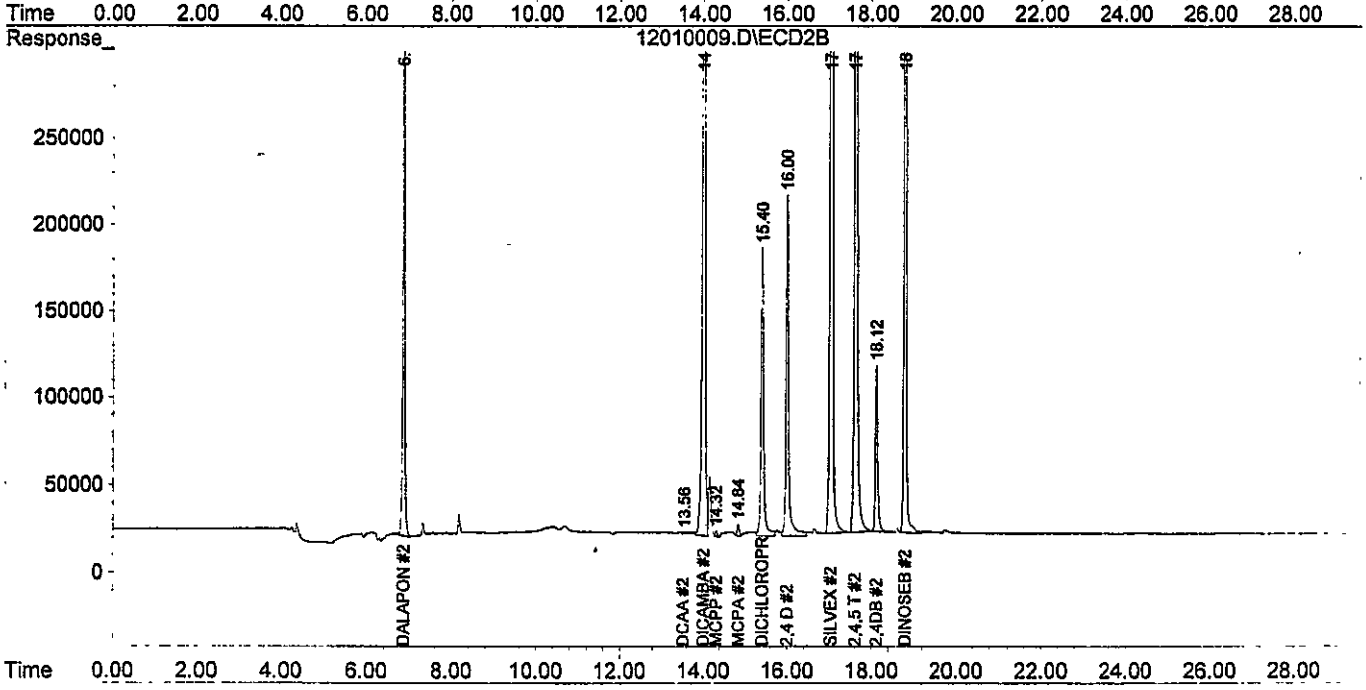
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\120100\12010009.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\120100\12010009.D\ECD2B.CH
Acq On : 1 Dec 2000 2:05 pm Operator: YGK
Sample : ICV 2 HERB/SS 0.25/.50 PPM Inst : GC/ECD In
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Dec 1 14:39 2000 Quant Results File: 120100H.RES

Quant Method : C:\HPCHEM\2\METHODS\120100H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Oct 02 19:07:07 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





GC/ECD Herbicides Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 12/01/00
Analyst Initials: YGK
Instrument Method: 8151A
Calibration Column: HP-5 (F)
Confirmation Column: RTX-1701

Herbicide Calibration Date: 12/01/00

Surrogate Recovery Limits (%)	
	DCAA
Soil	30 - 150
Water	30 - 150

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
1	PRIMER	120100 H	std	1X	NA	
2	Hexane		solv			
3	IC Herb/ss 0.10/20 ppm		std			H00150
4	0.2/0.4 ppm					H00154
5	0.25/50					H00149
6	0.4/0.8 ppm					H00153
7	0.5/1.0 ppm					H00148
8	ICV Herb .25 ppm				106	H00143
9	ICV Herb .25 ppm				ICV 12/01 ~~106~~ NA	for Dichlorprop only H00194
10	Hexane		solv		NA	
11	QHW1130001		W		109	
12	2				108	
13	03401 W				94	
14	03401W 1:5			5X	111	
15	03401W 1:8			8X	130	
16	QHS1130001		S	1X	87	
17	QHS1130002				88	
18	03856 S				96	
19	03856 S MS				79	
20	03856 S MSD				87	
21	03665 W RD		W		22	
22	03666 W RD				6	
23	03669W RD				17	

Signature/Date: [illegible] 12/01/00

↓ cont

GC/ECD Herbicides Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: _____

Analyst Initials: _____

Instrument Method: _____

Calibration Column: _____

Confirmation Column: _____

Herbicide Calibration Date: _____

Continued from p. 3

Surrogate Recovery Limits (%)	
	DCAA
Soil	
Water	

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
24	03671 W RD	120100 H	W	1X	12	
25	03673 W				78	
26	Hexane		soil		NA	
27	ccv Herb. .25 ppm		std		112	H00149

YGK 12/01

Signature/Date: Yef Kehm 12/01/00

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD2B.CH
Acq On : 29 Dec 2000 12:48 Operator: YGK
Sample : ICV PEST .25 PPM (CCV) Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 15:01 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.75	30812493	33492343	0.251	0.259
Spiked Amount		0.250			Recovery	=	100.40% ✓	103.60%
22)	S	Decachlorobiphen	20.84	21.24	26365866	27572159	0.249	0.243
Spiked Amount		0.250			Recovery	=	99.60% ✓	97.20%
		Target Compounds						
2)	T	alpha-BHC	9.61	9.43	47925861	47653244	0.245	0.247
3)	T	beta-BHC	10.71	10.62	22758833	22588357	0.244	0.248
4)	T	gamma-BHC (Linda	10.44	10.36	43981377	42377798	0.244	0.244
5)	T	delta-BHC	11.15	11.33	46123756	28842605	0.243	0.230
6)	T	Heptachlor	11.63	11.40	32124313	43750504	0.248	0.260
7)	T	Aldrin	12.36	12.16	32737708	35360508	0.248	0.250
8)	T	Heptachlor epoxi	13.79	13.50	29477571	29652804	0.250	0.255
9)	T	Endosulfan I	14.68	14.37	31860212	29812823	0.251	0.247
10)	T	gamma-Chlordane	14.08	13.93	34733555	35473036	0.249	0.243
11)	T	alpha-Chlordane	14.38	14.25	32500812	32657298	0.258	0.246
12)	T	4,4'-DDE	14.59	14.68	25658171	31799189	0.241	0.247
13)	T	Dieldrin	15.22	14.97	28961008	29793971	0.243	0.243
14)	T	Endrin	15.73	15.63	23597739	22471895	0.265	0.263
15)	T	4,4'-DDD	15.91	15.93	24093007	22910154	0.243	0.243
16)	T	Endosulfan II	16.24	16.11	25084718	26354003	0.250	0.250
17)	T	Endrin aldehyde	17.14	16.83	20718423	21642596	0.251	0.251
18)	T	4,4'-DDT	16.51	16.59	24515723	24495615	0.239	0.239
19)	T	Endosulfan sulfa	18.08	17.42	22694285	23691131	0.245	0.247
20)	T	Methoxychlor	17.55	18.06	12783393	11937443	0.242	0.239
21)	T	Endrin ketone	18.69	18.56	25908234	24584622	0.234	0.239

OK YG

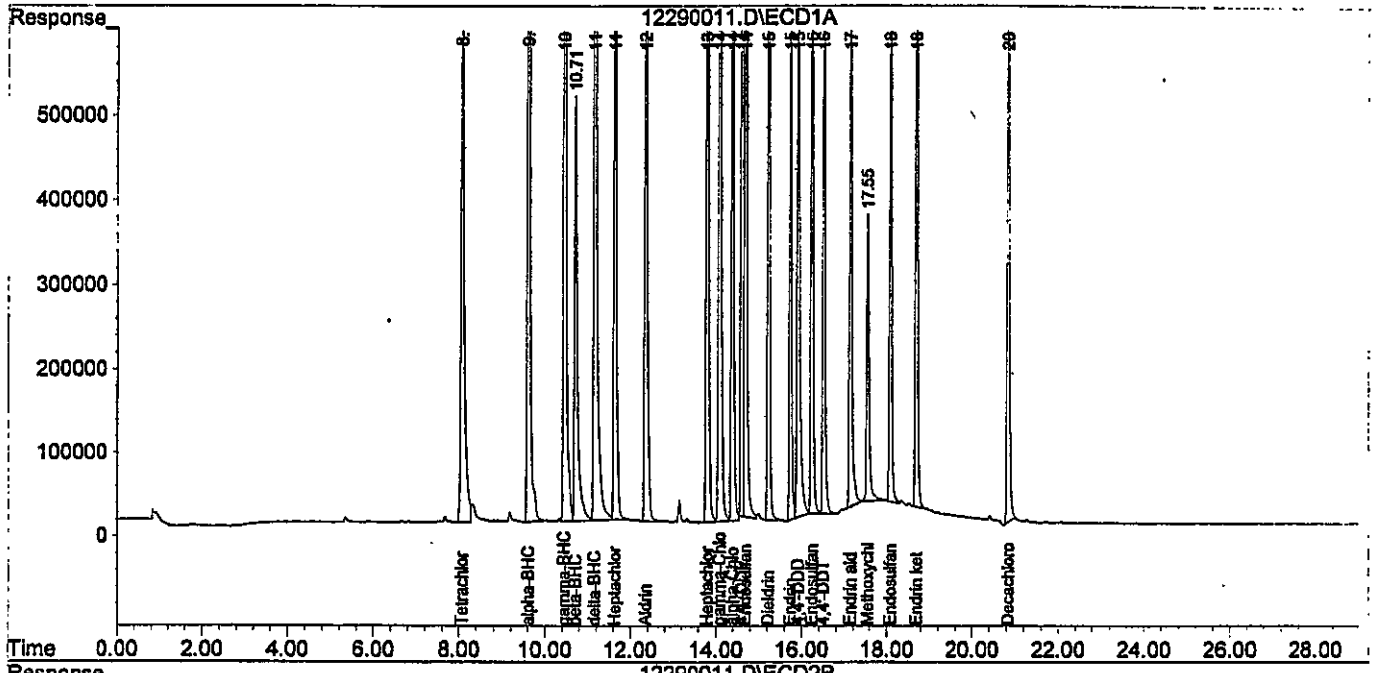
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

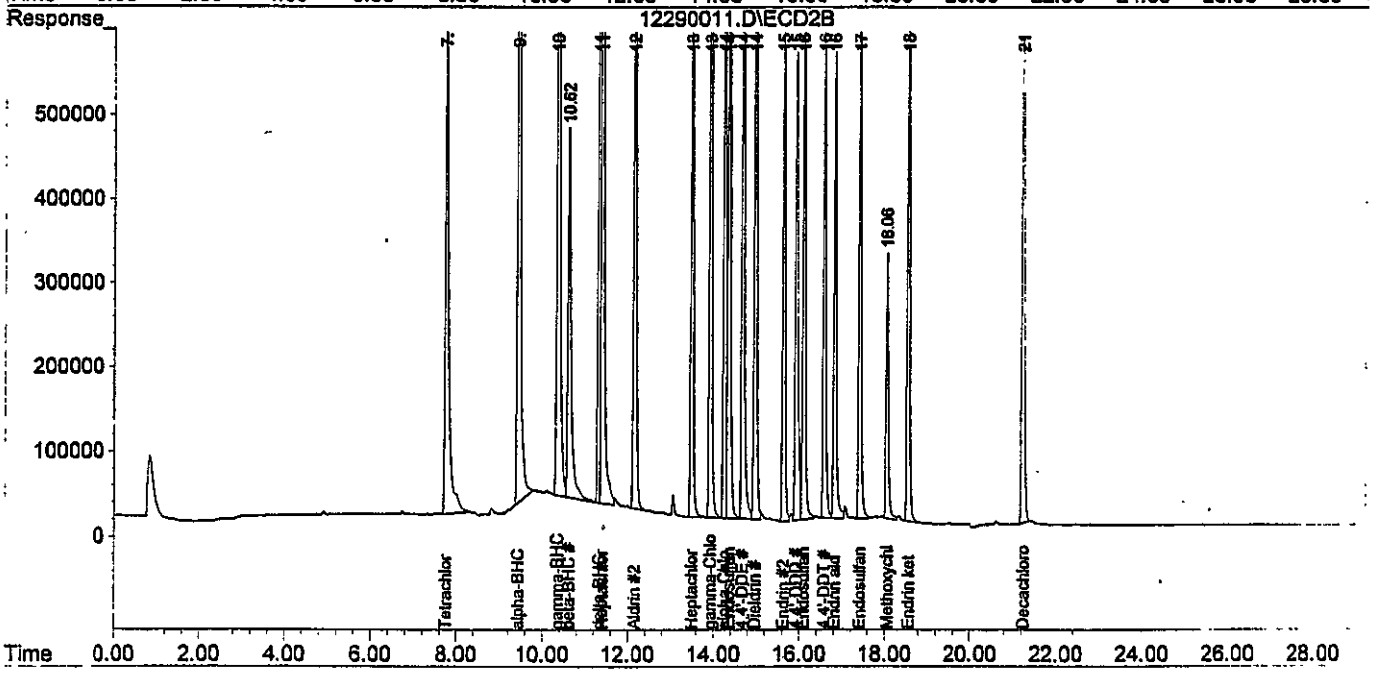
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\122900\12290011.D\ECD2B.CH
Acq On : 29 Dec 2000 12:48 Operator: YGK
Sample : ICV PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Dec 29 15:01 2000 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:44:08 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290026.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\122900\12290026.D\ECD2B.CH
Acq On : 29 Dec 2000 22:57 Operator: YGK
Sample : CCV PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:28 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	mg/L	mg/L
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	8.06	7.75	31455698	34256489	0.256	0.265
		Spiked Amount 0.250			Recovery	=	102.40% ✓	106.00%
22)	S	Decachlorobiphen	20.83	21.24	27436389	28492479	0.259	0.251
		Spiked Amount 0.250			Recovery	=	103.60% ✓	100.40%
		Target Compounds						
2)	T	alpha-BHC	9.60	9.43	49892843	48907047	0.255	0.253
3)	T	beta-BHC	10.70	10.61	23789575	22568538	0.255	0.248
4)	T	gamma-BHC (Linda	10.44	10.35	45627603	43841196	0.253	0.252
5)	T	delta-BHC	11.15	11.32	47454773	30346747	0.250	0.242
6)	T	Heptachlor	11.63	11.40	33514913	45561404	0.258	0.270
7)	T	Aldrin	12.35	12.15	33865349	36613523	0.257	0.259
8)	T	Heptachlor epoxi	13.79	13.49	30054963	30063499	0.255	0.258
9)	T	Endosulfan I	14.68	14.36	33086064	31016790	0.260	0.256
10)	T	gamma-Chlordane	14.08	13.92	35717619	37199877	0.256	0.255
11)	T	alpha-Chlordane	14.38	14.25	32291445	33899112	0.256	0.256
12)	T	4,4'-DDE	14.59	14.67	26771478	32923124	0.252	0.256
13)	T	Dieldrin	15.21	14.97	30557155	31499142	0.257	0.257
14)	T	Endrin	15.73	15.63	22929732	21943807	0.257	0.257
15)	T	4,4'-DDD	15.91	15.93	25082243	23910943	0.253	0.254
16)	T	Endosulfan II	16.23	16.10	25656809	27163034	0.256	0.258
17)	T	Endrin aldehyde	17.14	16.83	21258529	21922728	0.258	0.254
18)	T	4,4'-DDT	16.50	16.58	25680680	25847723	0.251	0.252
19)	T	Endosulfan sulfa	18.08	17.42	23390380	24190229	0.252	0.252
20)	T	Methoxychlor	17.55	18.06	13354108	12469466	0.253	0.250
21)	T	Endrin ketone	18.69	18.56	28030496	26054613	0.253	0.253

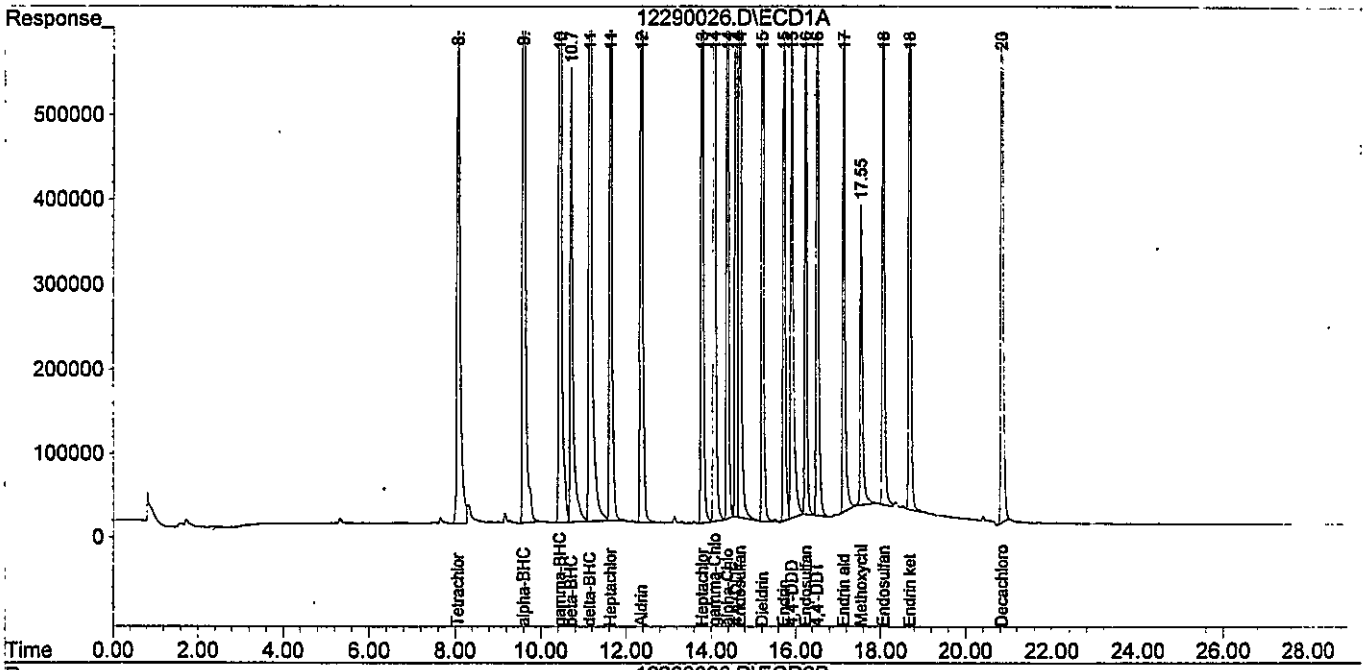
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

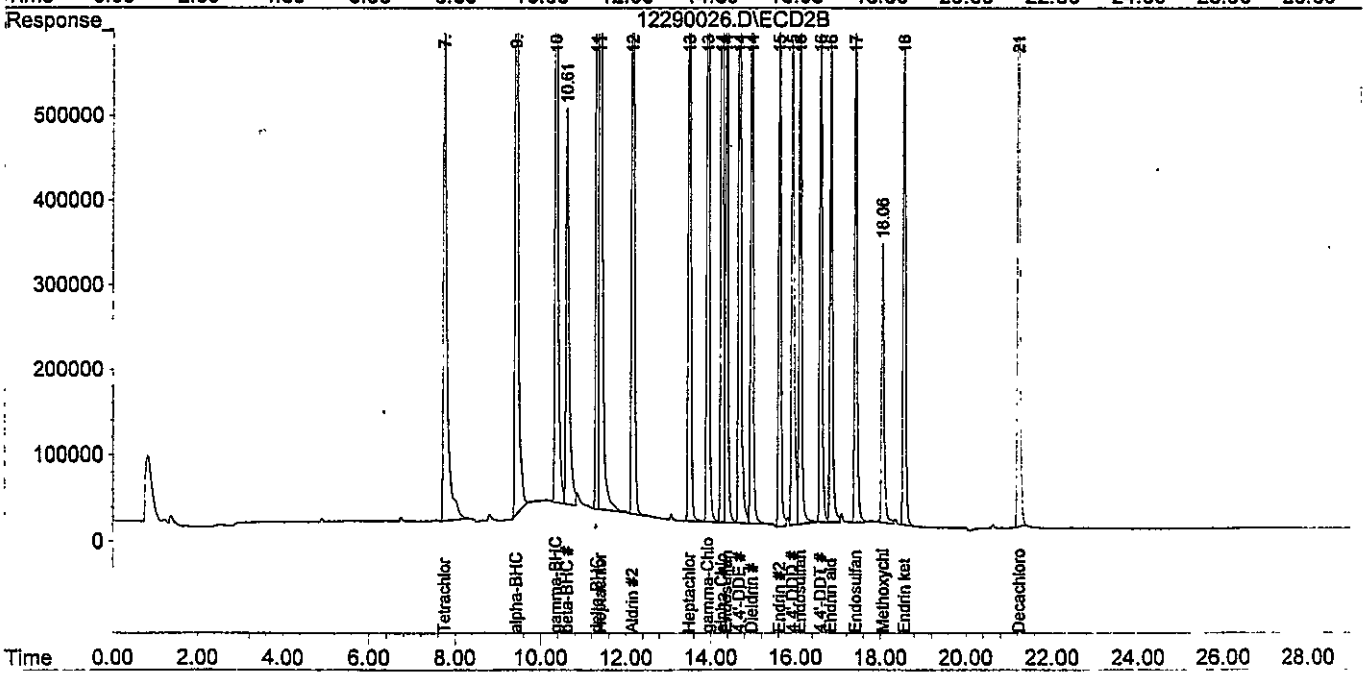
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290026.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\122900\12290026.D\ECD2B.CH
Acq On : 29 Dec 2000 22:57 Operator: YGK
Sample : CCV PEST .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Jan 2 10:28 2001 Quant Results File: 122900P.RES

Quant Method : C:\HPCHEM\1\METHODS\122900P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (12/29/00)
Last Update : Fri Dec 29 14:41:01 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD2B.CH
Acq On : 29 Dec 2000 18:58 Operator: YGK
Sample : ICV CHLORD .25 PPM (CCV) Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:55 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L1 CHLORD 1	11.44	11.06	2082425	1753181	0.308	0.254
2) L1 CHLORD 2	11.64	11.41	2951375	2488322	0.274	0.234
3) L1 CHLORD 3	12.71	12.57	2341242	1992029	0.249	0.248
4) L1 CHLORD 4	13.66	13.45	1126403	1069646	0.289	0.290
5) L1 CHLORD 5	14.09	13.94	6099957	5995866	0.306	0.329
6) L1 CHLORD 6	14.38	14.14	9445150	3572585	0.296	0.230
7) L1 CHLORD 7	15.83	14.26	896732	4985762	0.240	0.314 #
Sum CHLORD 1			24943284	21857391	1.963	1.899
Average CHLORD 1					0.280 ✓	0.271 ✓
					112%	

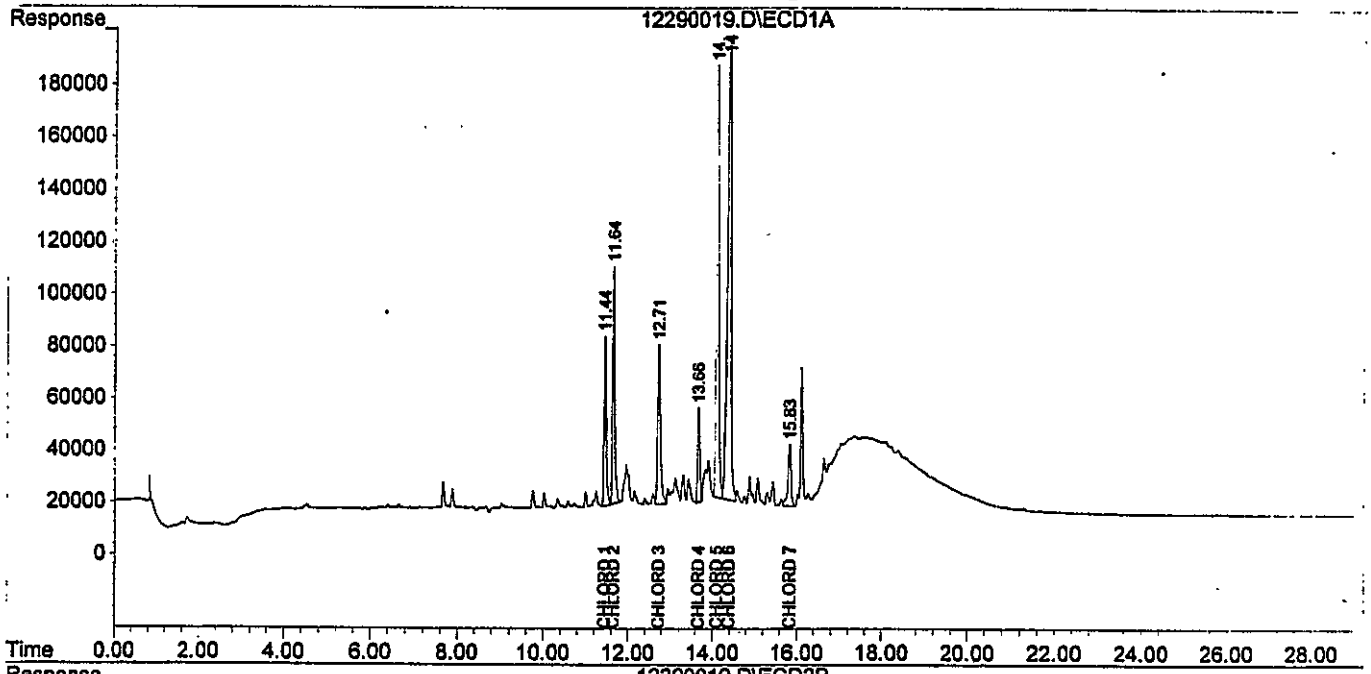
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
12290019.D 122900CL.M Tue Jan 02 09:55:32 2001

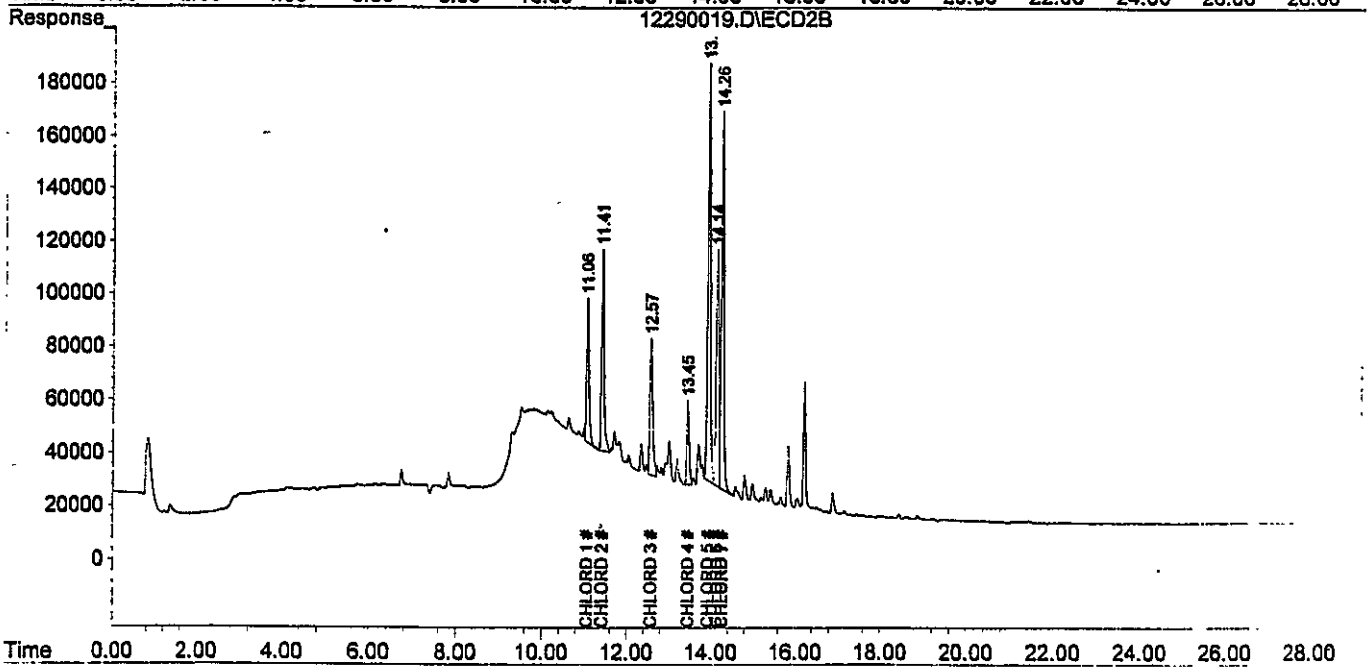
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\122900\12290019.D\ECD2B.CH
Acq On : 29 Dec 2000 18:58 Operator: YGK
Sample : ICV CHLORD .25 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jan 2 9:48 2001 Quant Results File: 122900CL.RES

Quant Method : C:\HPCHEM\1\METHODS\122900CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,12/29/00
Last Update : Tue Oct 17 11:02:22 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\122900\12290013.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\122900\12290013.D\ECD2B.CH
Acq On : 29 Dec 2000 15:15 Operator: YGK
Sample : CCV TOX 2.5 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 2 10:44 2001 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Initial Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
Target Compounds						
1) L TOX 1	16.21	16.28	3326405	16672402	2.343	3.075 #
2) L TOX 2	16.48	16.68	7352175	9982303	2.783	2.693
3) L TOX 3	16.95	16.85	10490505	12976538	2.964	2.704
4) L TOX 4	17.67	17.93	10879973	15709244	3.057	2.597
5) L TOX 5	17.87	18.06	14258368	12795690	3.234	2.638
6) L TOX 6	18.64	18.77	9197658	9642507	2.862	2.722
7) L TOX 7	18.97	19.16	4076914	6763844	2.396	2.615
Sum TOX 1			59581999	84542529	19.639	19.045
Average TOX 1					2.806	2.721

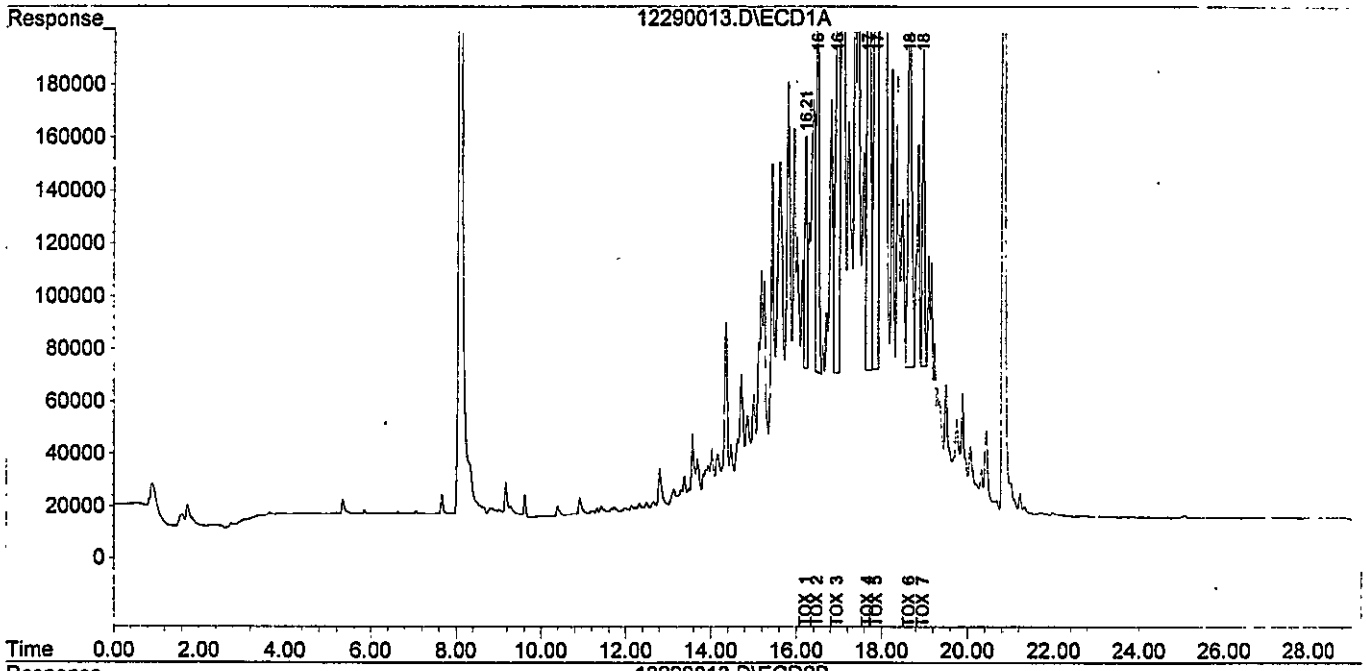
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

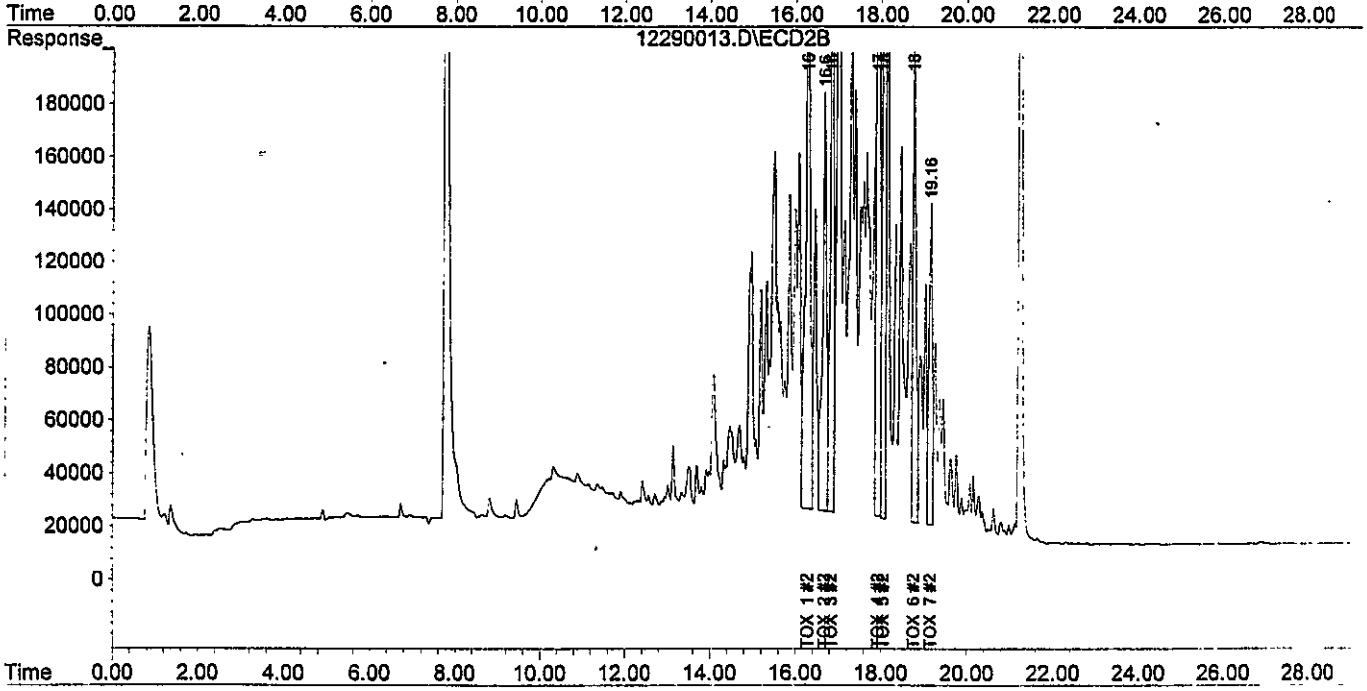
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\122900\12290013.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\122900\12290013.D\ECD2B.CH
Acq On : 29 Dec 2000 15:15 Operator: YGK
Sample : CCV TOX 2.5 PPM Inst : PEST-A
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 2 10:44 2001 Quant Results File: 110800TX.RES

Quant Method : C:\HPCHEM\1\METHODS\110800TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,11/08/00
Last Update : Wed Nov 08 13:24:49 2000
Response via : Multiple Level Calibration
DataAcq Meth : 8081D1A.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

GC\MS SEMI-VOLATILE INSTRUMENT LOG

Initial Cal. Date: 01.04.2001/11.15.2000

Calib. File: 8270S.m / BENZ.m

Quant ID File: 8270S.m / BENZ.m

DDT % breakdown (<20): 0%

MS Conditions

EM: 1400

Tune File: DFTPP

Scan Delay: 3.50

CCV IS Areas	
#1	63665
#2	161906
#3	179687
#4	130548
#5	118212
#6	84249

Date: 01.04.2001

Analyst(s): JP

File Name	Lab Sample ID	Matrix	Analysis	DF	ALS#	Comments	IS	SS	OK
C00567	DFTPP	-	DFTPP		1	S00220 1526	-	-	\
68	BNA 50	-	8270S		2	S01001	\	\	\
69	BENZ 50	-	BENZ		3	S00217	\	-	\
70	QSW1216001	W	8270S/BENZ		4		\	\	\
71	05061 BNA 12/16				5		\	\	\
72	05064 BNA 12/16				6		\	\	\
73	05067 BNA 12/16			1:10	7	100µl→1ml	\	DIL	\
74	05241 BNA 12/16			1:10	8	100µl→1ml	\	DIL	\
75	QSW1222001		8270S/~~BENZ~~ 1/24/01		9		\	\	\
76	QSW1222002				10		\	\	\
77	QSW1222003				11		\	\	\
78	05509 BNA 12/22			1:10	12	100µl→1ml	\	DIL	\
79	05510 BNA 12/22			1:10	13	100µl→1ml	\	DIL	\
80	05503 BNA 12/22			1:10	14	100µl→1ml RET:1	\	DIL	\
81	QSW0102011				15		\	\	\
82	QSW0102012				16		\	\	\
83	05817 BNA 01/02				17		\	\	\
84	05818 BNA 01/02				18		\	\	\
85	05819 BNA 01/02				19		\	\	\
86	05820 BNA 01/02				20	0204	\	\	\

Sign\Date: JP 01.05.2001

Approved By\Date:

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

GC\MS SEMI-VOLATILE INSTRUMENT LOG

Initial Cal. Date: 01.04.2001 / 11.15.2001

Calib. File: 8270S.. / BENZ..

Quant ID File: 8270S.. / BENZ..

DDT % breakdown (<20): 0%

MS Conditions

EM: 1400

Tune File: DFTPP

Scan Delay: 3.50

CCV IS Areas	
#1	66518
#2	176467
#3	211408
#4	161914
#5	142567
#6	98553

Date: 01.05.2001

Analyst(s): JJ

File Name	Lab Sample ID	Matrix	Analysis	DF	ALS#	Comments	IS	SS	OK
C00587	DFTPP	-	DFTPP		1	S00220 0637	-	-	✓
88	BNA 50	-	8270S		2	S01001	✓	✓	✓
89	BENZ 50	-	BENZ		3	S00217	✓	-	✓
90	QSW1219001	W	8270S/BENZ		4		✓	✓	✓
91	QSW1219002	↓	8270S		5		✓	✓	✓
92	05218 BNA 12/19	↓	8270S/BENZ		6		✓	✓	✓
93	05219 BNA 12/19	↓	↓		7	SHOULD BE MS-VIAL MISLABELED	1↓	5↑	X
94	05219 MS BNA 12/19	↓	8270S		8	SHOULD BE ORIGINAL SAMPLE-VIAL MISLABELED	✓	✓	✓
95	05219 MSD BNA 12/19	↓	↓		9		✓	✓	✓
96	05220 BNA 12/19	↓	8270S/BENZ		10		✓	✓	✓
97	05221 BNA 12/19	↓	↓		11		✓	✓	✓
98	05222 BNA 12/19	↓	↓		12		✓	✓	✓
99	05223 BNA 12/19	↓	↓		13		✓	✓	✓
600	05224 BNA 12/19	↓	↓		14		✓	✓	✓
01	05225 BNA 12/19	↓	↓		15		✓	✓	✓
02	11/01/05/2001 ~~05272~~ 05271 BNA 12/19	↓	↓		16		✓	✓	✓
03	11/05/01/2001 ~~05273~~ 05272 BNA 12/19	↓	↓		17		✓	✓	✓
04	05273 BNA 12/19	↓	↓		18		✓	✓	✓
05	05273 MS BNA 12/19	↓	8270S		19		✓	✓	✓
06	05273 MSD BNA 12/19	↓	↓		20		✓	✓	✓
07	05503 BNA 12/23	↓	↓		21	2 SUM ↓-*B1 1808	✓	2↓	✓

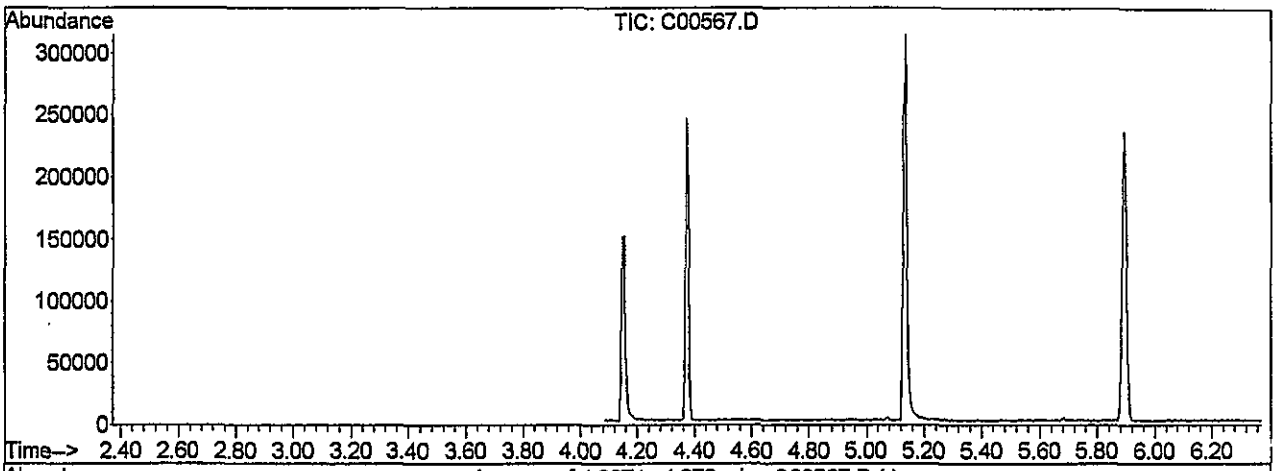
Sign\Date: JJ 01.05 2001

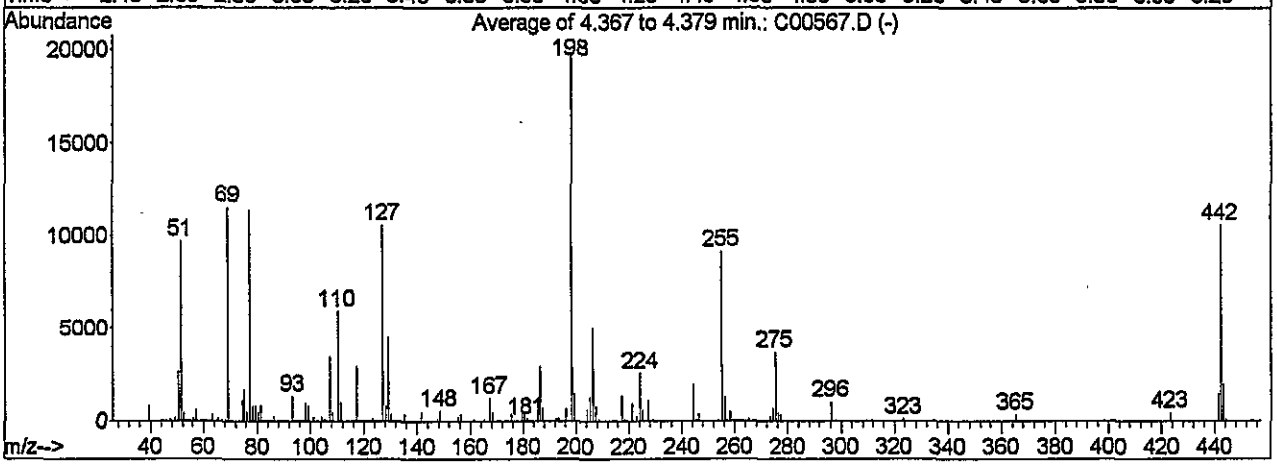
Approved By\Date:

DFTPP

Data File : D:\MSDCHEM\1\DATA\010401A\C00567.D
Acq On : 4 Jan 2001 3:26 pm
Sample : DFTPP 50 PPM S00220
Misc :
MS Integration Params: rteint.p
Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method

Vial: 1
Operator: JP
Inst : Instrume
Multiplr: 1.00





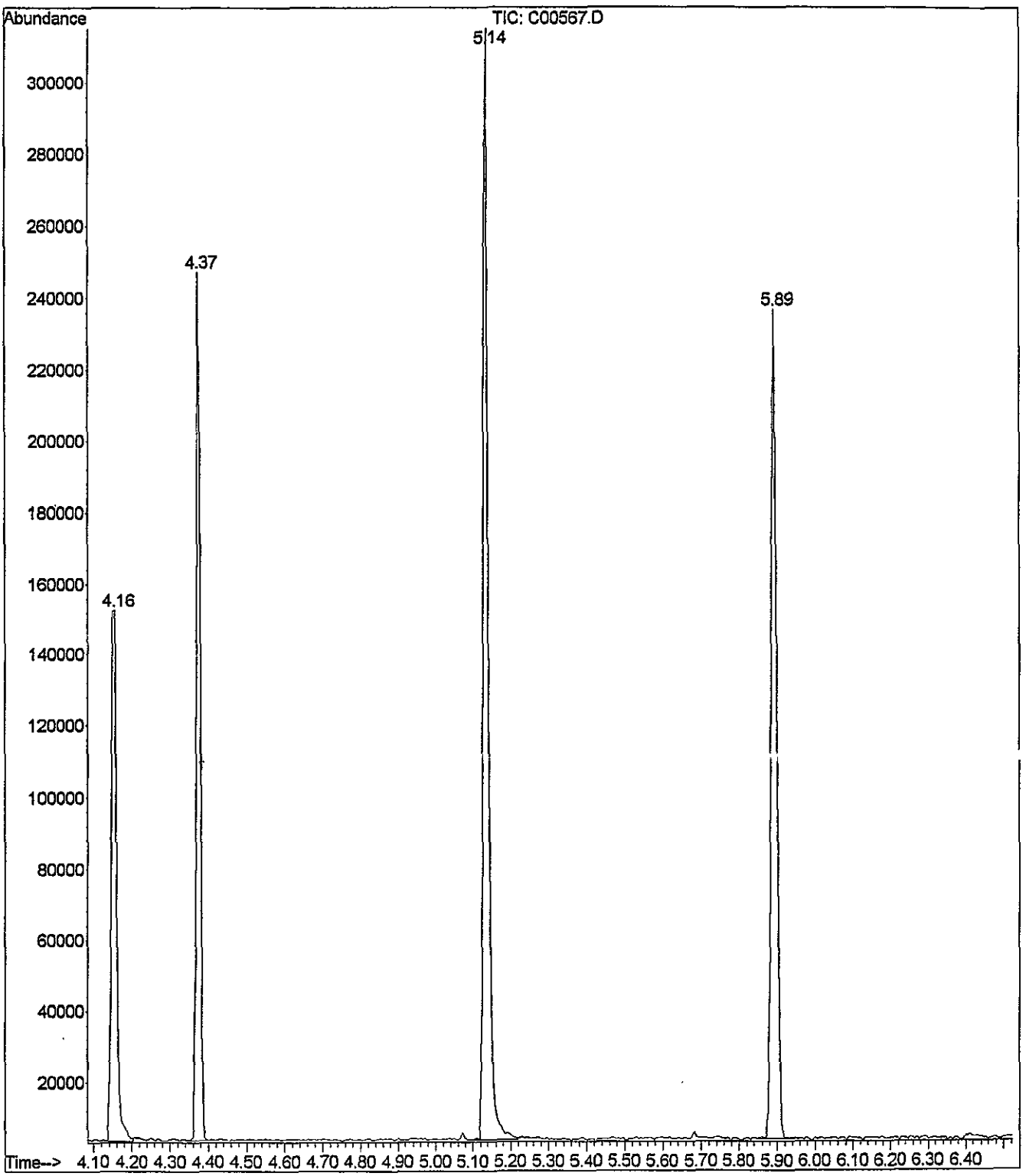
AutoFind: Scans 49, 50, 51; Background Corrected with Scan 46

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.2	9736	PASS
68	69	0.00	2	1.1	129	PASS
69	198	0.00	100	58.6	11603	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.6	10603	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	19799	PASS
199	198	5	9	7.3	1445	PASS
275	198	10	30	18.6	3686	PASS
365	198	1	100	1.8	365	PASS
441	443	0.01	100	75.3	1452	PASS
442	198	40	100	53.7	10624	PASS
443	442	17	23	18.1	1928	PASS

C00567.D 8270S.M Thu Jan 04 16:12:33 2001

1	4.155	rBV	0.071	144609	4.132	4.202
2	4.373	rVB	0.053	181960	4.349	4.402
3	5.137	rBV	0.129	294038	5.089	5.219
4	5.894	rVB	0.112	242643	5.847	5.959

File : D:\MSDCHEM\1\DATA\010401A\C00567.D
Operator : JP
Acquired : 4 Jan 2001 3:26 pm using AcqMethod DFTPPS
Instrument : Instrumen
Sample Name: DFTPP 50 PPM S00220
Misc Info :
Vial Number: 1



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D Vial: 2
Acq On : 4 Jan 2001 3:43 pm Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 16:13:02 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	63665	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	161906	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	179687	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	130548	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	118212	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	84249	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.68	112	125994	51.63	ul/l	0.00
Spiked Amount 100.000			Recovery = 51.63%			
7) Phenol-d5	6.82	99	144280	50.16	ul/l	0.00
Spiked Amount 100.000			Recovery = 50.16%			
22) Nitrobenzene-d5	7.97	82	159346	48.31	ul/l	0.00
Spiked Amount 50.000			Recovery = 96.62%			
42) 2-Fluorobiphenyl	10.19	172	211135	50.31	ul/l	0.00
Spiked Amount 50.000			Recovery = 100.62%			
63) 2,4,6-Tribromophenol	12.05	330	28892	49.44	ul/l	0.00
Spiked Amount 100.000			Recovery = 49.44%			
74) Terphenyl-d14	14.89	244	130198	50.61	ul/l	0.00
Spiked Amount 50.000			Recovery = 101.22%			

Target Compounds						Qvalue
2) Pyridine	3.88	79	70062m	53.26	ul/l	
3) N-nitrosodimethylamine	3.80	42	33306	47.21	ul/l	100
4) Methylmethanesufonate	5.51	80	42670	51.25	ul/l	100
6) Ethylmethanesulfonate	6.38	79	65440	51.09	ul/l	100
8) Phenol	6.83	94	168789	50.00	ul/l	100
9) bis(2-Chloroethyl)ether	6.95	63	148693	50.52	ul/l	100
10) 2-Chlorophenol	7.03	128	128195	51.34	ul/l	100
11) 1,3-Dichlorobenzene	7.20	146	124063	51.40	ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	141944	49.26	ul/l	100
13) Benzyl alcohol	7.43	108	152294	47.97	ul/l	100
14) 1,2-Dichlorobenzene	7.51	146	119770	50.83	ul/l	100
15) 2-Methylphenol	7.57	108	116248	48.84	ul/l	100
16) bis(2-chloroisopropyl)ethe	7.62	45	155689	52.29	ul/l	100
17) 3,4-Methylphenol	7.75	108	279946	101.85	ul/l	100
18) Total Cresol	7.75	108	193632m	149.40	ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	97788	49.17	ul/l	100
20) Hexachloroethane	7.89	117	72706	51.15	ul/l	100
23) Nitrobenzene	7.99	77	135123	48.39	ul/l	100
24) Isophorone	8.27	82	155913	48.57	ul/l	100
25) 2-Nitrophenol	8.39	139	73329	48.85	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D Vial: 2
Acq On : 4 Jan 2001 3:43 pm Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 16:13:02 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	160397	47.74 ul/l		100
27)	Benzoic Acid	8.51	105	34644	37.59 ul/l		100
28)	bis(2-Chloroethoxy)methane	8.53	93	118144	50.15 ul/l		100
29)	2,4-Dichlorophenol	8.67	162	107013	48.82 ul/l		100
30)	1,2,4-Trichlorobenzene	8.78	180	137995	48.51 ul/l		100
31)	Naphthalene	8.87	128	223499	48.18 ul/l		100
32)	4-Chloroaniline	8.95	127	118891	45.04 ul/l		100
33)	2,6-Dichlorophenol	8.96	162	53612	49.33 ul/l		100
34)	Hexachlorobutadiene	9.08	225	67595	48.92 ul/l		100
35)	4-Chloro-3-methylphenol	9.52	107	112384	46.34 ul/l		100
36)	2-Methylnaphthalene	9.73	142	241175	45.69 ul/l		100
37)	1-Methylnaphthalene	9.87	142	137982	47.65 ul/l		100
39)	Hexachlorocyclopentadiene	10.01	237	59718	50.11 ul/l		100
40)	2,4,6-Trichlorophenol	10.10	196	76707	49.01 ul/l		100
41)	2,4,5-Trichlorophenol	10.15	196	84711	50.01 ul/l		100
43)	2-Chloronaphthalene	10.34	162	199825	49.76 ul/l		100
44)	2-Nitroaniline	10.49	65	100249	46.29 ul/l		100
45)	Dimethylphthalate	10.74	163	141393	49.34 ul/l		100
46)	Acenaphthylene	10.87	152	236406	48.68 ul/l		100
47)	2,6-Dinitrotoluene	10.83	165	51954	48.33 ul/l		100
48)	3-Nitroaniline	11.01	138	65775	46.33 ul/l		100
49)	Acenaphthene	11.10	153	247272	48.42 ul/l		100
50)	2,4-Dinitrophenol	11.13	184	25396	36.75 ul/l		100
51)	4-Nitrophenol	11.18	109	59381	42.97 ul/l		100
52)	Dibenzofuran	11.29	168	217177	45.74 ul/l		100
53)	2,4-Dinitrotoluene	11.32	165	46783	46.81 ul/l		100
54)	Diethylphthalate	11.60	149	139789	47.61 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	25344	47.67 ul/l		100
56)	Fluorene	11.73	166	224344	47.83 ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	108417	48.39 ul/l		100
58)	4-Nitroaniline	11.78	138	62005	43.17 ul/l		100
60)	4,6-Dinitro-2-methylphenol	11.83	198	33868	44.73 ul/l		100
61)	n-Nitrosodiphenylamine	11.85	169	159585	47.39 ul/l		100
62)	Azobenzene	11.90	77	142347	48.08 ul/l		100
64)	4-Bromophenyl-phenylether	12.31	248	81432	48.81 ul/l		100
65)	Hexachlorobenzene	12.52	284	46415	47.86 ul/l		100
66)	Pentachlorophenol	12.73	266	37867	45.42 ul/l		100
67)	Phenanthrene	12.93	178	224098	47.60 ul/l		100
68)	Anthracene	12.99	178	206184	47.07 ul/l		100
69)	Carbazole	13.17	167	146062	47.05 ul/l	#	100
70)	Di-n-butylphthalate	13.61	149	199620	48.44 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D Vial: 2
Acq On : 4 Jan 2001 3:43 pm Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 16:13:02 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

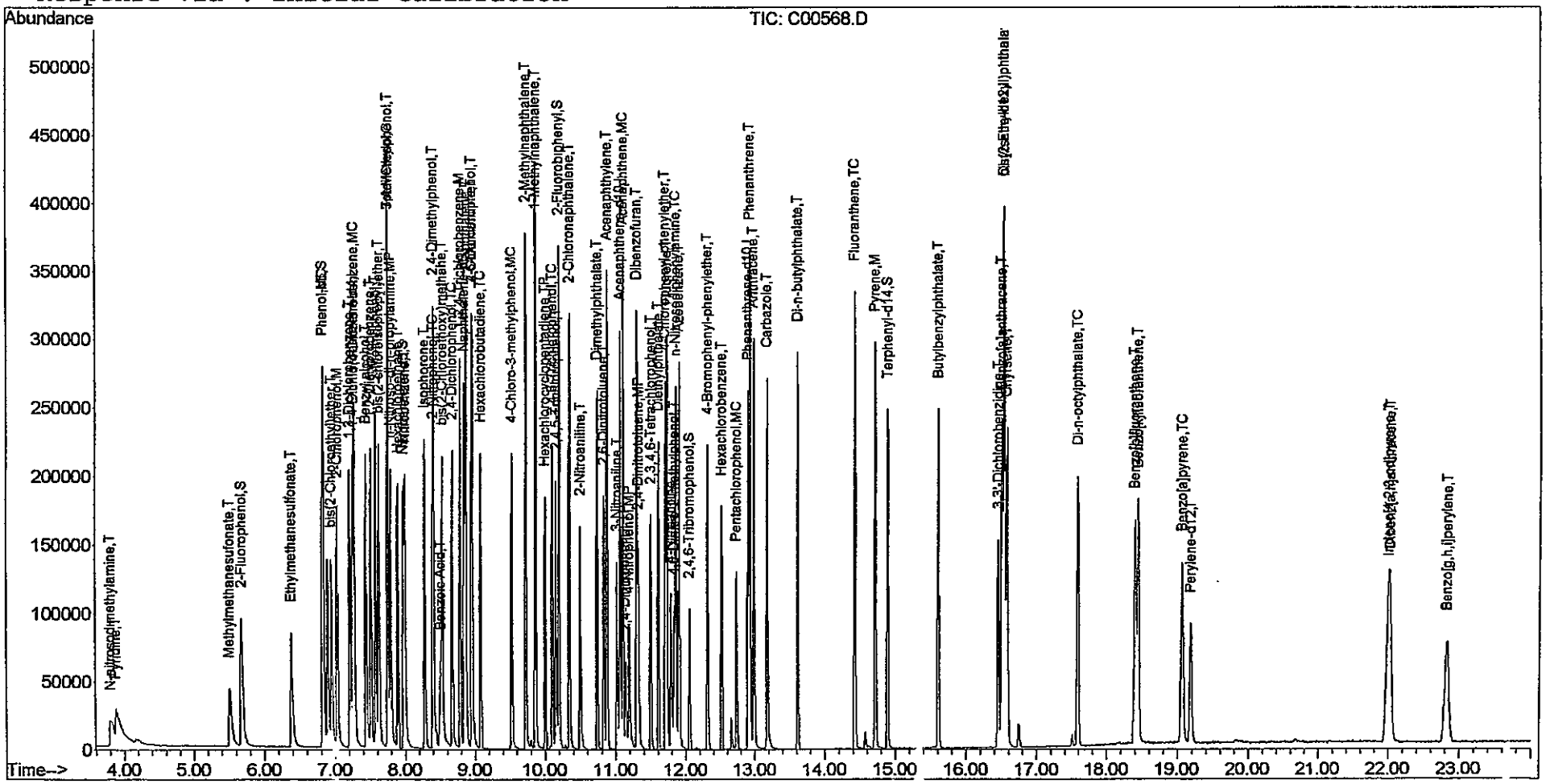
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	203330	47.17 ul/l	100
73)	Pyrene	14.71	202	212486	49.59 ul/l	100
75)	Butylbenzylphthalate	15.61	149	153603	51.19 ul/l	100
76)	3,3'-Dichlorobenzidine	16.45	252	47009	49.46 ul/l	100
77)	Benzo[a]anthracene	16.51	228	208462	50.27 ul/l	100
78)	Chyrsene	16.58	228	197155	48.92 ul/l	100
79)	bis(2-Ethylhexyl)phthalate	16.54	149	142703	50.48 ul/l	100
81)	Di-n-octylphthalate	17.59	149	184333	51.83 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	166966	47.37 ul/l	100
83)	Benzo[k]fluoranthene	18.44	252	178081	52.43 ul/l	100
84)	Benzo[a]pyrene	19.06	252	161333	48.72 ul/l	100
85)	Indeno[1,2,3-cd]pyrene	21.98	276	188992	49.88 ul/l	100
86)	Dibenz[a,h]anthracene	22.02	278	152360	50.48 ul/l	100
87)	Benzo[g,h,i]perylene	22.82	276	176873	49.13 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D Vial: 2
Acq On : 4 Jan 2001 3:43 pm Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 16:13 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D Vial: 2
Acq On : 4 Jan 2001 3:43 pm Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
2	T	Pyridine	0.800	0.880	-10.0	110	0.00
3	T	N-nitrosodimethylamine	0.443	0.419	5.4	83	0.00
4	T	Methylmethanesufonate	0.523	0.536	-2.5	89	0.00
5	S	2-Fluorophenol	1.533	1.583	-3.3	91	0.00
6	T	Ethylmethanesulfonate	0.805	0.822	-2.1	90	0.00
7	S	Phenol-d5	1.807	1.813	-0.3	90	0.00
8	MC	Phenol	2.121	2.121	0.0	89	0.00
9	T	bis(2-Chloroethyl)ether	1.849	1.868	-1.0	89	0.00
10	M	2-Chlorophenol	1.569	1.611	-2.7	92	0.00
11	T	1,3-Dichlorobenzene	1.516	1.559	-2.8	93	0.00
12	MC	1,4-Dichlorobenzene	1.810	1.784	1.4	91	0.00
13	T	Benzyl alcohol	2.067	1.914	7.4	88	0.00
14	T	1,2-Dichlorobenzene	1.480	1.505	-1.7	90	0.00
15	T	2-Methylphenol	1.495	1.461	2.3	89	0.00
16	T	bis(2-chloroisopropyl)ether	1.871	1.956	-4.5	94	0.00
17	T	3,4-Methylphenol	1.727	1.759	-1.9	90	0.00
18	G	Total Cresol	0.814	0.811	0.4	89	0.00
19	MP	n-Nitroso-di-n-propylamine	1.249	1.229	1.6	85	0.00
20	T	Hexachloroethane	0.893	0.914	-2.4	93	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	89	0.00
22	S	Nitrobenzene-d5	0.815	0.787	3.4	88	0.00
23	T	Nitrobenzene	0.690	0.668	3.2	87	0.00
24	T	Isophorone	0.793	0.770	2.9	88	0.00
25	TC	2-Nitrophenol	0.371	0.362	2.4	89	0.00
26	T	2,4-Dimethylphenol	0.830	0.793	4.5	88	0.00
27	T	Benzoic Acid	0.228	0.171	25.0#	82	0.00
28	T	bis(2-Chloroethoxy)methane	0.582	0.584	-0.3	93	0.00
29	TC	2,4-Dichlorophenol	0.542	0.529	2.4	88	0.00
30	M	1,2,4-Trichlorobenzene	0.703	0.682	3.0	90	0.00
31	T	Naphthalene	1.146	1.104	3.7	89	0.00
32	T	4-Chloroaniline	0.662	0.587	11.3	85	0.00
33	T	2,6-Dichlorophenol	0.268	0.265	1.1	89	0.00
34	TC	Hexachlorobutadiene	0.341	0.334	2.1	91	0.00
35	MC	4-Chloro-3-methylphenol	0.599	0.555	7.3	82	0.00
36	T	2-Methylnaphthalene	1.340	1.192	11.0	88	0.00
37	T	1-Methylnaphthalene	0.715	0.682	4.6	87	0.00
38	I	Acenaphthene-d10	1.000	1.000	0.0	83	0.00
39	TP	Hexachlorocyclopentadiene	0.265	0.266	-0.4	86	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D Vial: 2
Acq On : 4 Jan 2001 3:43 pm Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	TC	2,4,6-Trichlorophenol	0.348	0.342	1.7	84	0.00
41	T	2,4,5-Trichlorophenol	0.377	0.377	0.0	85	0.00
42	S	2-Fluorobiphenyl	0.934	0.940	-0.6	87	0.00
43	T	2-Chloronaphthalene	0.894	0.890	0.4	86	0.00
44	T	2-Nitroaniline	0.482	0.446	7.5	80	0.00
45	T	Dimethylphthalate	0.638	0.630	1.3	81	0.00
46	T	Acenaphthylene	1.081	1.053	2.6	83	0.00
47	T	2,6-Dinitrotoluene	0.239	0.231	3.3	80	0.00
48	T	3-Nitroaniline	0.316	0.293	7.3	78	0.00
49	MC	Acenaphthene	1.137	1.101	3.2	83	0.00
50	TP	2,4-Dinitrophenol	0.154	0.113	26.6#	68	0.00
51	MP	4-Nitrophenol	0.308	0.264	14.3	76	0.00
52	T	Dibenzofuran	1.087	0.967	11.0	82	0.00
3	MP	2,4-Dinitrotoluene	0.223	0.208	6.7	79	0.00
54	T	Diethylphthalate	0.654	0.622	4.9	80	0.00
55	T	2,3,4,6-Tetrachlorophenol	0.118	0.113	4.2	78	0.00
56	T	Fluorene	1.044	0.999	4.3	80	0.00
57	T	4-Chlorophenyl-phenylether	0.499	0.483	3.2	83	0.00
58	T	4-Nitroaniline	0.320	0.276	13.7	75	0.00
59	I	Phenanthrene-d10	1.000	1.000	0.0	80	0.00
60	T	4,6-Dinitro-2-methylphenol	0.232	0.208	10.3	74	0.00
61	TC	n-Nitrosodiphenylamine	1.032	0.978	5.2	78	0.00
62	T	Azobenzene	0.907	0.872	3.9	80	0.00
63	S	2,4,6-Tribromophenol	0.179	0.177	1.1	80	0.00
64	T	4-Bromophenyl-phenylether	0.511	0.499	2.3	80	0.00
65	T	Hexachlorobenzene	0.297	0.284	4.4	81	0.00
66	MC	Pentachlorophenol	0.255	0.232	9.0	77	0.00
67	T	Phenanthrene	1.443	1.373	4.9	79	0.00
68	T	Anthracene	1.342	1.263	5.9	77	0.00
69	T	Carbazole	0.951	0.895	5.9	78	0.00
70	T	Di-n-butylphthalate	1.263	1.223	3.2	80	0.00
71	TC	Fluoranthene	1.321	1.246	5.7	78	0.00
72	I	Chyrsene-d12	1.000	1.000	0.0	82	0.00
73	M	Pyrene	1.450	1.438	0.8	78	0.00
74	S	Terphenyl-d14	0.870	0.881	-1.3	79	0.00
75	T	Butylbenzylphthalate	1.015	1.040	-2.5	81	0.00
76	T	3,3'-Dichlorobenzidine	0.322	0.318	1.2	81	0.00
7	T	Benzo[a]anthracene	1.403	1.411	-0.6	83	0.00
78	T	Chyrsene	1.364	1.334	2.2	81	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010401A\C00568.D
Acq On : 4 Jan 2001 3:43 pm
Sample : BNA 50 PPM S01001
Misc :
MS Integration Params: rteint.p

Vial: 2
Operator: JP
Inst : Instrumen
Multiplr: 1.00

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 16:12:59 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	bis(2-Ethylhexyl)phthalate	0.957	0.966	-0.9	85	0.00
80	I	Perylene-d12	1.000	1.000	0.0	82	0.00
81	TC	Di-n-octylphthalate	1.689	1.750	-3.6	84	0.00
82	T	Benzo[b]fluoranthene	1.674	1.585	5.3	82	0.00
83	T	Benzo[k]fluoranthene	1.613	1.691	-4.8	86	0.00
84	TC	Benzo[a]pyrene	1.572	1.532	2.5	83	0.00
85	T	Indeno[1,2,3-cd]pyrene	1.799	1.795	0.2	89	0.00
86	T	Dibenz[a,h]anthracene	1.433	1.447	-1.0	90	0.00
87	T	Benzo[g,h,i]perylene	1.709	1.680	1.7	88	0.00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: PAH 50
Lab Standard ID#: S00243
Prepared By: DMB

Date Made: 12.31.00
Expire Date: 06.30.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
o-Terph	S00P073	10000 ppm	5 uL	50 ppm
BN Surr	EX00090	5000	10	50
1-methylnaph	S00A147	2000	25	50
BN Comp mix	S00A135	2000	25	50
Comp mix #2	S00A090	2000	25	50
ISTD	S00A281	4000	10	40
MeCl2	EX00128	—	to 1 mL	—

Standard Name: BNA 50
Lab Standard ID#: ~~S00244~~ 01.02.2001 S01001
Prepared By: JP

Date Made: 01.02.~~2000~~ 2001 01.02.2001
Expire Date: 06.02.2001
Matrix: MeCl2

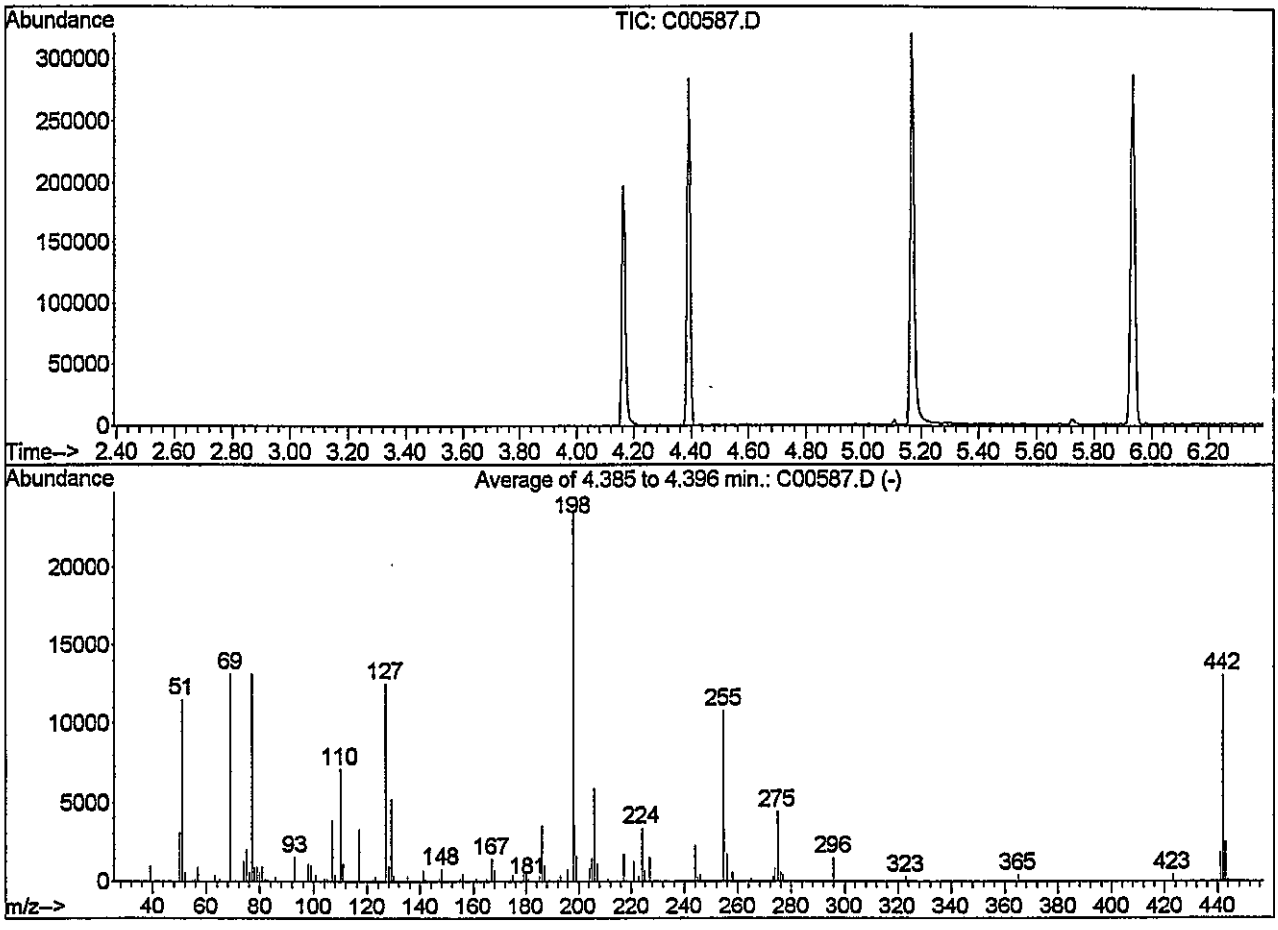
Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	250µl	50ppm
MeCl2	EX00128	—	to 1ml	—
ISTD	S00A281	4000ppm	10µl	40ppm

Stprlgfr.xls

DFTPP

Data File : D:\MSDCHEM\1\DATA\010501\C00587.D
Acq On : 5 Jan 2001 6:37 am
Sample : DFTPP 50 PPM S00220
Misc :
MS Integration Params: rteint.p
Method : D:\MSDCHEM\1\METHODS\BENZ.M (RTE Integrator)
Title : EPA METHOD 8270C

Vial: 1
Operator: JP
Inst : Instrume
Multiplr: 1.00



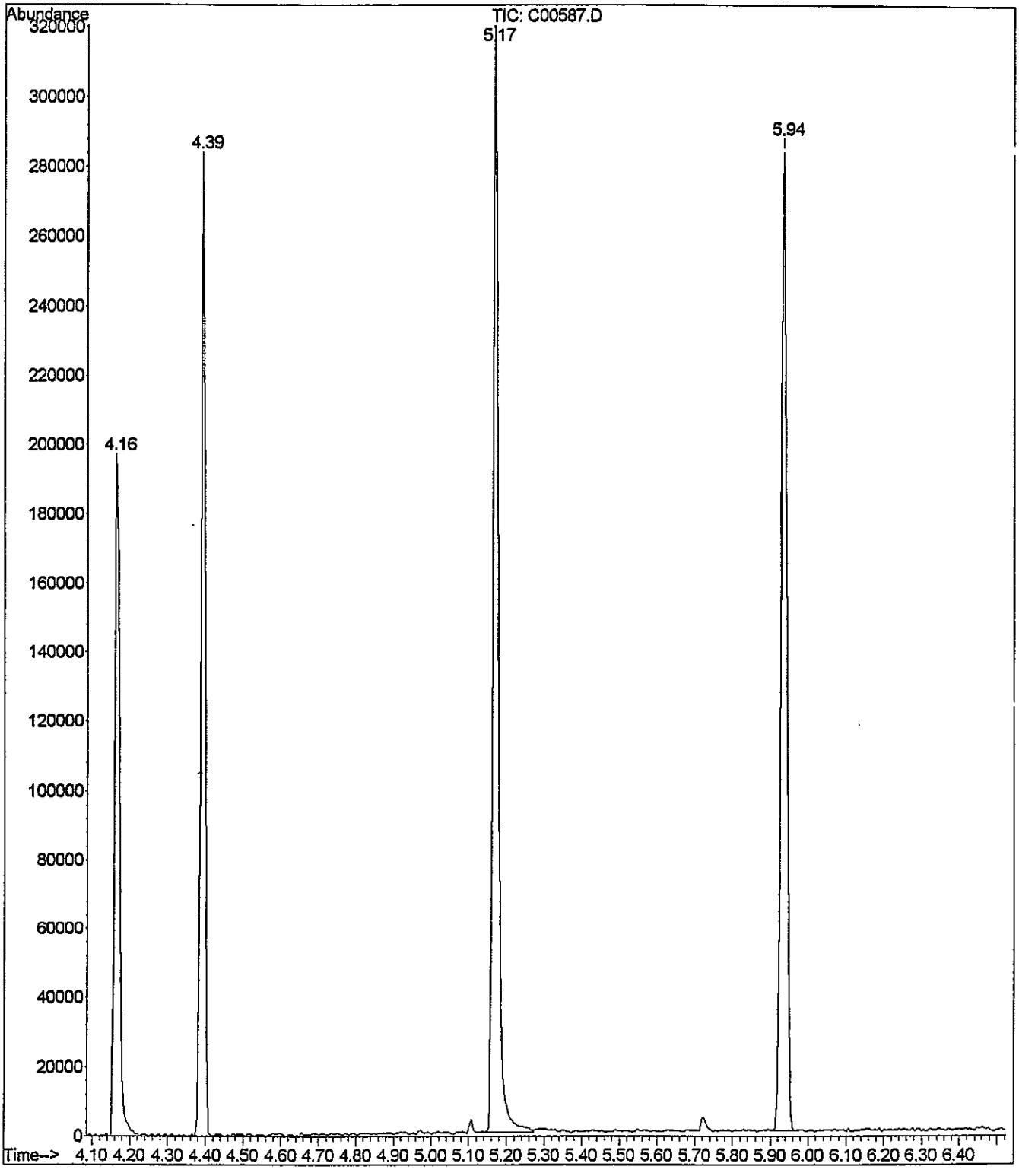
AutoFind: Scans 52, 53, 54; Background Corrected with Scan 48

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	48.9	11507	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	55.9	13160	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.2	12533	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	23549	PASS
199	198	5	9	6.8	1613	PASS
275	198	10	30	18.9	4450	PASS
365	198	1	100	1.8	427	PASS
441	443	0.01	100	73.5	1850	PASS
442	198	40	100	55.8	13129	PASS
443	442	17	23	19.2	2518	PASS

C00587.D BENZ.M Fri Jan 05 07:56:24 2001

1	4.161	rBB	0.106	178355	4.120	4.226
2	4.390	rBB	0.065	217119	4.355	4.420
3	5.166	rBV	0.129	310931	5.143	5.272
4	5.936	rBV	0.071	292243	5.901	5.971

File : D:\MSDCHEM\1\DATA\010501\C00587.D
Operator : JP
Acquired : 5 Jan 2001 6:37 am using AcqMethod DFTPPS
Instrument : Instrumen
Sample Name: DFTPP 50 PPM S00220
Misc Info :
Vial Number: 1



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D Vial: 2
Acq On : 5 Jan 2001 6:53 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
4S Integration Params: rteint.p
Quant Time: Jan 05 07:54:17 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	66518	40.00 ul/l	0.00
21) Naphthalene-d8	8.84	136	176467	40.00 ul/l	0.00
38) Acenaphthene-d10	11.06	164	211408	40.00 ul/l	0.00
59) Phenanthrene-d10	12.90	188	161914	40.00 ul/l	0.00
72) Chyrsene-d12	16.53	240	142567	40.00 ul/l	0.00
80) Perylene-d12	19.18	264	98553	40.00 ul/l	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	5.67	112	131709	51.65 ul/l	0.00
Spiked Amount 100.000			Recovery = 51.65%		
7) Phenol-d5	6.82	99	155664	51.80 ul/l	0.00
Spiked Amount 100.000			Recovery = 51.80%		
22) Nitrobenzene-d5	7.97	82	171712	47.76 ul/l	0.00
Spiked Amount 50.000			Recovery = 95.52%		
42) 2-Fluorobiphenyl	10.19	172	232298	47.04 ul/l	0.00
Spiked Amount 50.000			Recovery = 94.08%		
63) 2,4,6-Tribromophenol	12.05	330	35503	48.98 ul/l	0.00
Spiked Amount 100.000			Recovery = 48.98%		
74) Terphenyl-d14	14.89	244	160655	51.78 ul/l	0.00
Spiked Amount 50.000			Recovery = 103.56%		
Target Compounds					Qvalue
2) Pyridine	3.90	79	74072m	53.80 ul/l	
3) N-nitrosodimethylamine	3.78	42	38758m	52.58 ul/l	
4) Methylmethanesufonate	5.51	80	44260	50.88 ul/l	100
6) Ethylmethanesulfonate	6.38	79	68862	51.45 ul/l	100
8) Phenol	6.83	94	183736	52.09 ul/l	100
9) bis(2-Chloroethyl)ether	6.94	63	169648	55.16 ul/l	100
10) 2-Chlorophenol	7.02	128	134630	51.61 ul/l	100
11) 1,3-Dichlorobenzene	7.20	146	127571	50.59 ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	153086	50.85 ul/l	100
13) Benzyl alcohol	7.43	108	160900	48.51 ul/l	100
14) 1,2-Dichlorobenzene	7.50	146	126216	51.27 ul/l	100
15) 2-Methylphenol	7.57	108	127848	51.41 ul/l	100
16) bis(2-chloroisopropyl)ethe	7.62	45	156686	50.37 ul/l	100
17) 3,4-Methylphenol	7.75	108	308720	107.51 ul/l	100
18) Total Cresol	7.75	108	217394m	160.54 ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	108501	52.22 ul/l	100
20) Hexachloroethane	7.89	117	75359	50.74 ul/l	100
23) Nitrobenzene	7.99	77	144585	47.51 ul/l	100
24) Isophorone	8.27	82	168672	48.21 ul/l	100
25) 2-Nitrophenol	8.39	139	80038	48.92 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D Vial: 2
Acq On : 5 Jan 2001 6:53 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 05 07:54:17 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.40	107	178813	48.83 ul/l		100
27)	Benzoic Acid	8.51	105	44019	43.82 ul/l		100
28)	bis(2-Chloroethoxy)methane	8.53	93	124386	48.44 ul/l		100
29)	2,4-Dichlorophenol	8.67	162	117417	49.15 ul/l		100
30)	1,2,4-Trichlorobenzene	8.78	180	148353	47.85 ul/l		100
31)	Naphthalene	8.87	128	240550	47.58 ul/l		100
32)	4-Chloroaniline	8.95	127	108747m	37.23 ul/l		
33)	2,6-Dichlorophenol	8.96	162	57704	48.72 ul/l		100
34)	Hexachlorobutadiene	9.08	225	72388	48.07 ul/l		100
35)	4-Chloro-3-methylphenol	9.52	107	130193	49.25 ul/l		100
36)	2-Methylnaphthalene	9.73	142	268211	46.72 ul/l		100
37)	1-Methylnaphthalene	9.87	142	152098	48.19 ul/l		100
39)	Hexachlorocyclopentadiene	10.01	237	65244	46.53 ul/l		100
40)	2,4,6-Trichlorophenol	10.10	196	88232	47.92 ul/l		100
41)	2,4,5-Trichlorophenol	10.15	196	98920	49.64 ul/l		100
43)	2-Chloronaphthalene	10.34	162	227306	48.11 ul/l		100
44)	2-Nitroaniline	10.49	65	121055	47.51 ul/l		100
45)	Dimethylphthalate	10.73	163	167413	49.65 ul/l		100
46)	Acenaphthylene	10.87	152	276378	48.37 ul/l		100
47)	2,6-Dinitrotoluene	10.83	165	62102	49.11 ul/l		100
48)	3-Nitroaniline	11.01	138	81449	48.76 ul/l		100
49)	Acenaphthene	11.10	153	287959	47.92 ul/l		100
50)	2,4-Dinitrophenol	11.13	184	34298	42.18 ul/l		100
51)	4-Nitrophenol	11.19	109	76048	46.77 ul/l		100
52)	Dibenzofuran	11.29	168	253862	45.41 ul/l		100
53)	2,4-Dinitrotoluene	11.32	165	58694	49.91 ul/l		100
54)	Diethylphthalate	11.60	149	169116	48.95 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	31370	50.15 ul/l		100
56)	Fluorene	11.73	166	271782	49.25 ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	127724	48.45 ul/l		100
58)	4-Nitroaniline	11.78	138	81327	48.13 ul/l		100
60)	4,6-Dinitro-2-methylphenol	11.83	198	41612	44.31 ul/l		100
61)	n-Nitrosodiphenylamine	11.85	169	196366	47.02 ul/l		100
62)	Azobenzene	11.90	77	169024	46.03 ul/l		100
64)	4-Bromophenyl-phenylether	12.31	248	99792	48.23 ul/l		100
65)	Hexachlorobenzene	12.52	284	56630	47.08 ul/l		100
66)	Pentachlorophenol	12.73	266	47017	45.47 ul/l		100
67)	Phenanthrene	12.93	178	274414	46.99 ul/l		100
68)	Anthracene	12.99	178	264556	48.69 ul/l		100
69)	Carbazole	13.17	167	183565	47.68 ul/l	#	100
70)	Di-n-butylphthalate	13.61	149	243996	47.74 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D Vial: 2
Acq On : 5 Jan 2001 6:53 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 05 07:54:17 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

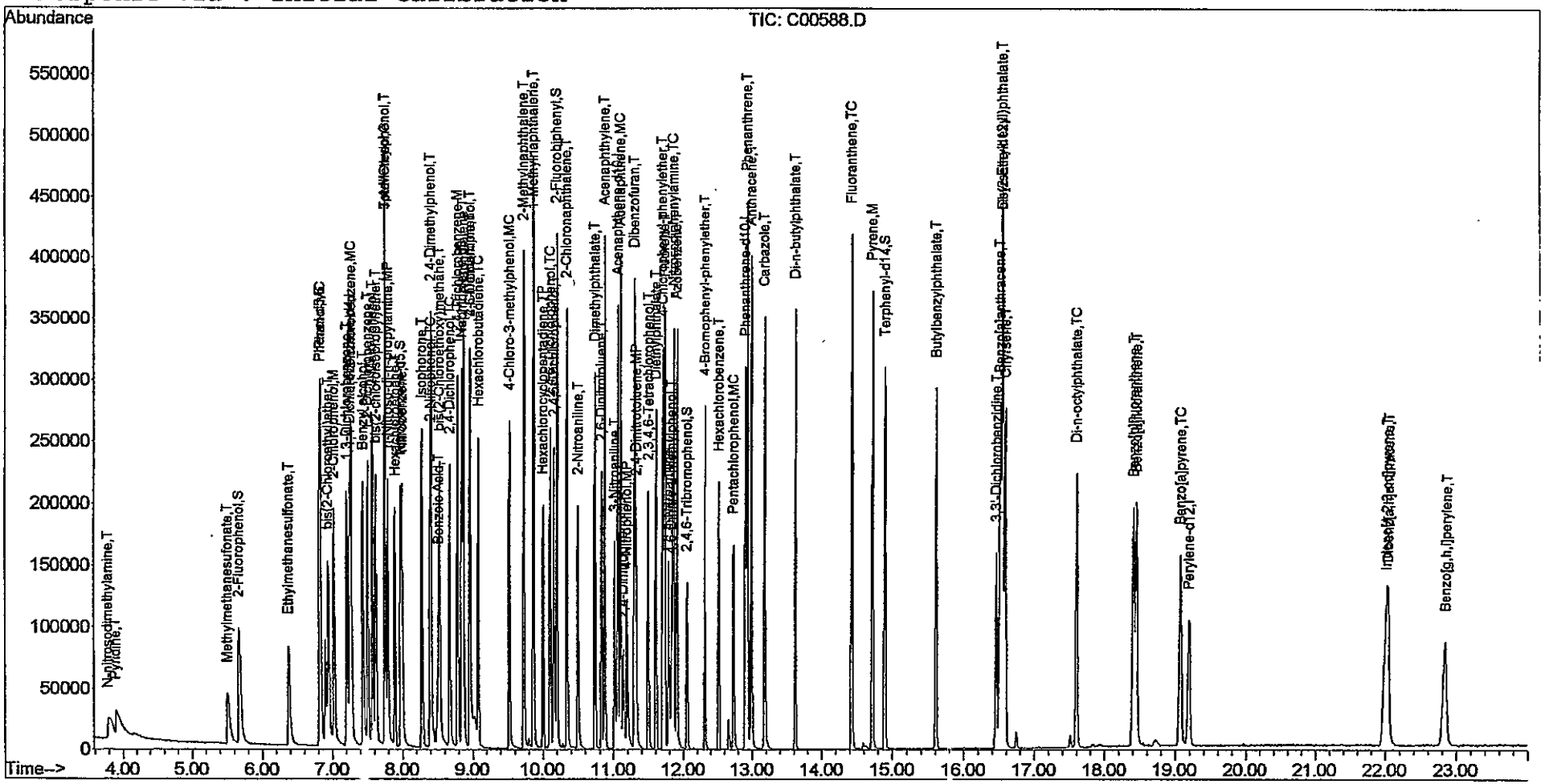
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	253295	47.37 ul/l	100
73)	Pyrene	14.71	202	265664	51.41 ul/l	100
75)	Butylbenzylphthalate	15.61	149	187303	51.76 ul/l	100
76)	3,3'-Dichlorobenzidine	16.45	252	50728	44.26 ul/l	100
77)	Benzo[a]anthracene	16.51	228	252488	50.49 ul/l	100
78)	Chyrsene	16.58	228	241047	49.60 ul/l	100
79)	bis(2-Ethylhexyl)phthalate	16.54	149	160406	47.05 ul/l	100
81)	Di-n-octylphthalate	17.59	149	204456	49.14 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	201467	48.86 ul/l	100
83)	Benzo[k]fluoranthene	18.45	252	187384	47.16 ul/l	100
84)	Benzo[a]pyrene	19.07	252	184156	47.54 ul/l	100
85)	Indeno[1,2,3-cd]pyrene	21.99	276	197664	44.60 ul/l	100
86)	Dibenz[a,h]anthracene	22.02	278	160012	45.32 ul/l	100
87)	Benzo[g,h,i]perylene	22.83	276	190406	45.22 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D Vial: 2
Acq On : 5 Jan 2001 6:53 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 5 7:54 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D Vial: 2
Acq On : 5 Jan 2001 6:53 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00
2	T	Pyridine	0.800	0.891	-11.4	117	0.00
3	T	N-nitrosodimethylamine	0.443	0.466	-5.2	97	0.00
4	T	Methylmethanesufonate	0.523	0.532	-1.7	93	0.00
5	S	2-Fluorophenol	1.533	1.584	-3.3	95	0.00
6	T	Ethylmethanesulfonate	0.805	0.828	-2.9	95	0.00
7	S	Phenol-d5	1.807	1.872	-3.6	97	0.00
8	MC	Phenol	2.121	2.210	-4.2	97	0.00
9	T	bis(2-Chloroethyl)ether	1.849	2.040	-10.3	102	0.00
10	M	2-Chlorophenol	1.569	1.619	-3.2	96	0.00
11	T	1,3-Dichlorobenzene	1.516	1.534	-1.2	95	0.00
12	MC	1,4-Dichlorobenzene	1.810	1.841	-1.7	98	0.00
13	T	Benzyl alcohol	2.067	1.935	6.4	93	0.00
14	T	1,2-Dichlorobenzene	1.480	1.518	-2.6	95	0.00
15	T	2-Methylphenol	1.495	1.538	-2.9	98	0.00
16	T	bis(2-chloroisopropyl)ether	1.871	1.884	-0.7	95	0.00
17	T	3,4-Methylphenol	1.727	1.856	-7.5	99	0.00
18	G	Total Cresol	0.814	0.872	-7.1	100	0.00
19	MP	n-Nitroso-di-n-propylamine	1.249	1.305	-4.5	94	0.00
20	T	Hexachloroethane	0.893	0.906	-1.5	96	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	97	0.00
22	S	Nitrobenzene-d5	0.815	0.778	4.5	94	0.00
23	T	Nitrobenzene	0.690	0.655	5.1	94	0.00
24	T	Isophorone	0.793	0.765	3.5	95	0.00
25	TC	2-Nitrophenol	0.371	0.363	2.2	97	0.00
26	T	2,4-Dimethylphenol	0.830	0.811	2.3	98	0.00
27	T	Benzoic Acid	0.228	0.200	12.3	104	0.00
28	T	bis(2-Chloroethoxy)methane	0.582	0.564	3.1	98	0.00
29	TC	2,4-Dichlorophenol	0.542	0.532	1.8	97	0.00
30	M	1,2,4-Trichlorobenzene	0.703	0.673	4.3	97	0.00
31	T	Naphthalene	1.146	1.091	4.8	96	0.00
32	T	4-Chloroaniline	0.662	0.493	25.5#	78	0.00
33	T	2,6-Dichlorophenol	0.268	0.262	2.2	96	0.00
34	TC	Hexachlorobutadiene	0.341	0.328	3.8	98	0.00
35	MC	4-Chloro-3-methylphenol	0.599	0.590	1.5	96	0.00
36	T	2-Methylnaphthalene	1.340	1.216	9.3	98	0.00
37	T	1-Methylnaphthalene	0.715	0.690	3.5	96	0.00
38	I	Acenaphthene-d10	1.000	1.000	0.0	97	0.00
39	TP	Hexachlorocyclopentadiene	0.265	0.247	6.8	94	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D Vial: 2
Acq On : 5 Jan 2001 6:53 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	TC	2,4,6-Trichlorophenol	0.348	0.334	4.0	96	0.00
41	T	2,4,5-Trichlorophenol	0.377	0.374	0.8	99	0.00
42	S	2-Fluorobiphenyl	0.934	0.879	5.9	95	0.00
43	T	2-Chloronaphthalene	0.894	0.860	3.8	98	0.00
44	T	2-Nitroaniline	0.482	0.458	5.0	97	0.00
45	T	Dimethylphthalate	0.638	0.634	0.6	96	0.00
46	T	Acenaphthylene	1.081	1.046	3.2	97	0.00
47	T	2,6-Dinitrotoluene	0.239	0.235	1.7	96	0.00
48	T	3-Nitroaniline	0.316	0.308	2.5	97	0.00
49	MC	Acenaphthene	1.137	1.090	4.1	97	0.00
50	TP	2,4-Dinitrophenol	0.154	0.130	15.6	92	0.00
51	MP	4-Nitrophenol	0.308	0.288	6.5	98	0.00
52	T	Dibenzofuran	1.087	0.961	11.6	96	0.00
3	MP	2,4-Dinitrotoluene	0.223	0.222	0.4	100	0.00
54	T	Diethylphthalate	0.654	0.640	2.1	97	0.00
55	T	2,3,4,6-Tetrachlorophenol	0.118	0.119	-0.8	97	0.00
56	T	Fluorene	1.044	1.028	1.5	97	0.00
57	T	4-Chlorophenyl-phenylether	0.499	0.483	3.2	97	0.00
58	T	4-Nitroaniline	0.320	0.308	3.8	98	0.00
59	I	Phenanthrene-d10	1.000	1.000	0.0	99	0.00
60	T	4,6-Dinitro-2-methylphenol	0.232	0.206	11.2	91	0.00
61	TC	n-Nitrosodiphenylamine	1.032	0.970	6.0	96	0.00
62	T	Azobenzene	0.907	0.835	7.9	95	0.00
63	S	2,4,6-Tribromophenol	0.179	0.175	2.2	99	0.00
64	T	4-Bromophenyl-phenylether	0.511	0.493	3.5	98	0.00
65	T	Hexachlorobenzene	0.297	0.280	5.7	99	0.00
66	MC	Pentachlorophenol	0.255	0.232	9.0	95	0.00
67	T	Phenanthrene	1.443	1.356	6.0	97	0.00
68	T	Anthracene	1.342	1.307	2.6	99	0.00
69	T	Carbazole	0.951	0.907	4.6	98	0.00
70	T	Di-n-butylphthalate	1.263	1.206	4.5	98	0.00
71	TC	Fluoranthene	1.321	1.252	5.2	98	0.00
72	I	Chyrsene-d12	1.000	1.000	0.0	99	0.00
73	M	Pyrene	1.450	1.491	-2.8	97	0.00
74	S	Terphenyl-d14	0.870	0.901	-3.6	98	0.00
75	T	Butylbenzylphthalate	1.015	1.051	-3.5	99	0.00
76	T	3,3'-Dichlorobenzidine	0.322	0.285	11.5	88	0.00
7	T	Benzo[a]anthracene	1.403	1.417	-1.0	101	0.00
78	T	Chyrsene	1.364	1.353	0.8	99	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010501\C00588.D
Acq On : 5 Jan 2001 6:53 am
Sample : BNA 50 PPM S01001
Misc :
MS Integration Params: rteint.p

Vial: 2
Operator: JP
Inst : Instrumen
Multiplr: 1.00

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jan 05 07:54:10 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	bis(2-Ethylhexyl)phthalate	0.957	0.900	6.0	95	0.00
80	I	Perylene-d12	1.000	1.000	0.0	96	0.00
81	TC	Di-n-octylphthalate	1.689	1.660	1.7	93	0.00
82	T	Benzo[b]fluoranthene	1.674	1.635	2.3	99	0.00
83	T	Benzo[k]fluoranthene	1.613	1.521	5.7	91	0.00
84	TC	Benzo[a]pyrene	1.572	1.495	4.9	94	0.00
85	T	Indeno[1,2,3-cd]pyrene	1.799	1.605	10.8	93	0.00
86	T	Dibenz[a,h]anthracene	1.433	1.299	9.4	94	0.00
87	T	Benzo[g,h,i]perylene	1.709	1.546	9.5	95	0.00

SVO GC/MS CALIBRATION CHECKLIST
SW-846-8270C

DATE / INSTRUMENT: 01.04.2001 / SVOA-C	METHOD: 8270C
CAL TYPE: 8270	

Are all standards within expiration dates for both stock and serial standards?	~~Y~~	N	NA
Are Tuning results compliant with method?	~~Y~~	N	NA
Are DDT breakdown and tailing factors within method limits?	~~Y~~	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	~~N~~	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	~~Y~~	~~N~~	NA * SEE TDF

PYRIDINE - LINEAR DIBENZOFURAN - LINEAR

BENZYL ALCOHOL - LINEAR

4-CHLOROANILINE - LINEAR

2-METHYLNAPHTHALENE - LINEAR

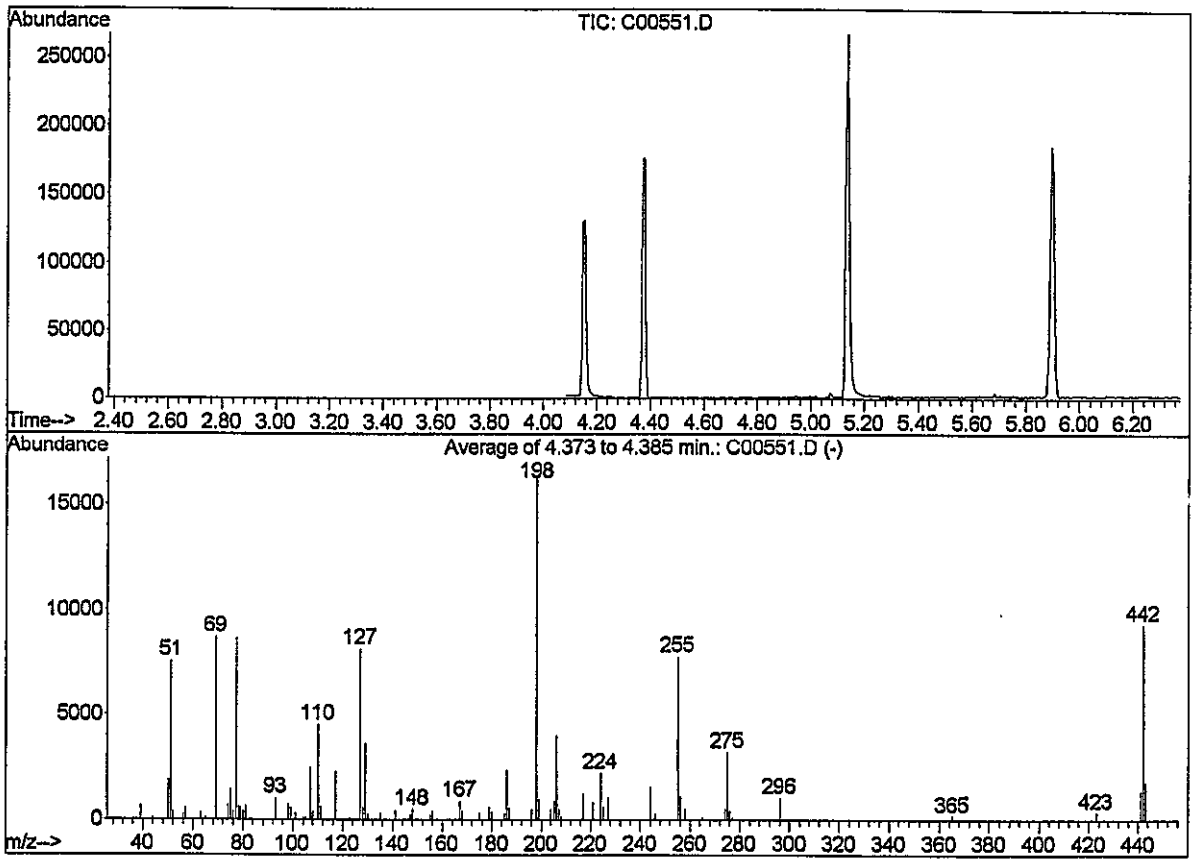
Is the runlog completely filled out (including review signature/date)?	~~Y~~	N	NA
Are all mistakes single lined, initialled, and dated?	~~Y~~	N	NA

Analyst: JP	Reviewer: DMB
Date: 01.04.2001 Time: 1600	Date: 01.04.2001 Time: 1925

DFTPP

Data File : D:\MSDCHEM\1\DATA\010401\C00551.D
Acq On : 4 Jan 2001 6:27 am
Sample : DFTPP 50 PPM S00220
Misc :
MS Integration Params: rteint.p
Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method

Vial: 1
Operator: JP
Inst : Instrume
Multiplr: 1.00



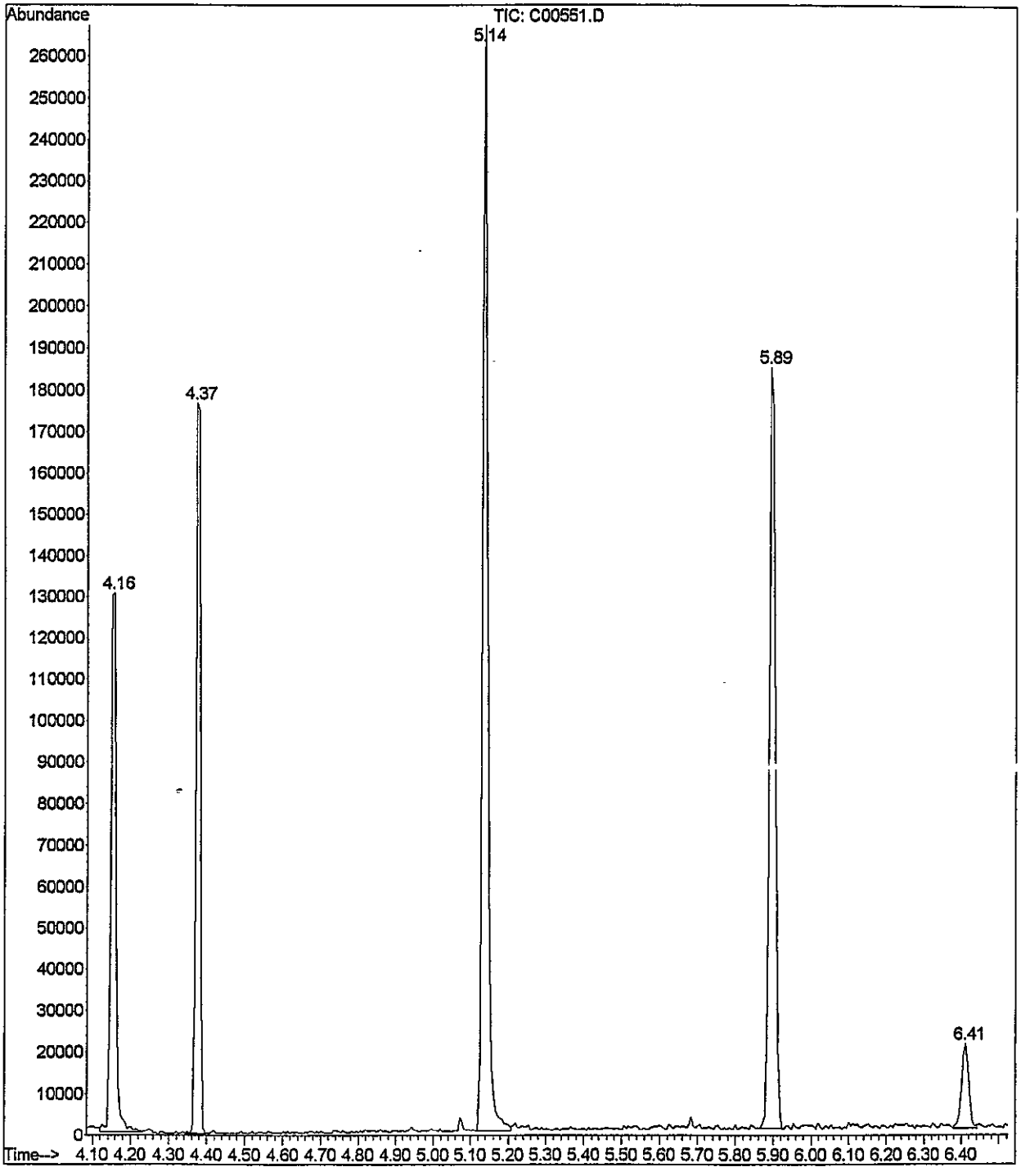
AutoFind: Scans 50, 51, 52; Background Corrected with Scan 46

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.3	7568	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	53.2	8712	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	50.0	8176	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	16362	PASS
199	198	5	9	6.0	988	PASS
275	198	10	30	19.7	3216	PASS
365	198	1	100	1.2	198	PASS
441	443	0.01	100	76.9	1387	PASS
442	198	40	100	57.2	9355	PASS
443	442	17	23	19.3	1803	PASS

C00551.D 8270S.M Thu Jan 04 15:12:14 2001

1	4.155	rVB	0.112	130678	4.120	4.232
2	4.373	rBV	0.065	149098	4.343	4.408
3	5.137	rBV	0.094	244377	5.113	5.207
4	5.895	rBV	0.065	209867	5.865	5.930
5	6.412	rBV	0.065	26980	6.376	6.441

File : D:\MSDCHEM\1\DATA\010401\C00551.D
Operator : JP
Acquired : 4 Jan 2001 6:27 am using AcqMethod DFTPPS
Instrument : Instrumen
Sample Name: DFTPP 50 PPM S00220
Misc Info :
Vial Number: 1



Response Factor Report Instrumen

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 15:31:27 2001
Response via : Initial Calibration

Calibration Files
10 =C00561.D 20 =C00555.D 50 =C00560.D
80 =C00557.D 120 =C00554.D 160 =C00563.D

		Compound	10	20	50	80	120	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------	----------	
2)	T	Pyridine	0.763	0.499	0.719	0.848	0.901	0.972	0.800	19.80
3)	T	N-nitrosodimeth	0.322	0.388	0.454	0.463	0.489	0.515	0.443	14.91
4)	T	Methylmethanesu	0.465	0.492	0.540	0.533	0.547	0.561	0.523	6.38
5)	S	2-Fluorophenol	1.180	1.310	1.567	1.588	1.670	1.776	1.533	13.80
6)	T	Ethylmethanesul	0.769	0.756	0.821	0.795	0.844	0.854	0.805	4.58
7)	S	Phenol-d5	1.610	1.712	1.819	1.815	1.902	1.990	1.807	6.81
8)	MC	Phenol	1.894	2.011	2.151	2.128	2.217	2.331	2.121	6.60
9)	T	bis(2-Chloroeth	1.768	1.824	1.888	1.798	1.831	2.001	1.849	4.12
10)	M	2-Chlorophenol	1.436	1.489	1.579	1.587	1.633	1.698	1.569	5.54
11)	T	1,3-Dichloroben	1.506	1.481	1.517	1.529	1.564	1.586	1.516	3.37
12)	MC	1,4-Dichloroben	1.931	1.873	1.771	1.771	1.830	1.837	1.810	4.81
13)	T	Benzyl alcohol	2.796	1.791	1.961	1.894	1.955	2.120	2.067	16.24
14)	T	1,2-Dichloroben	1.476	1.469	1.502	1.480	1.519	1.530	1.480	3.19
15)	T	2-Methylphenol	1.544	1.589	1.470	1.439	1.447	1.577	1.495	4.94
16)	T	bis(2-chloroiso	2.010	1.960	1.865	1.853	1.897	1.811	1.871	5.40
17)	T	3,4-Methylpheno	1.692	1.688	1.759	1.727	1.756	1.828	1.727	3.57
18)	G	Total Cresol	0.829	0.821	0.818	0.793	0.813	0.859	0.814	3.50
19)	MP	n-Nitroso-di-n-	1.191	1.225	1.309	1.240	1.274	1.330	1.249	4.60
20)	T	Hexachloroethan	0.914	0.901	0.884	0.902	0.918	0.905	0.893	3.45
21)	I	Naphthalene-d8	----------	----------	----------	ISTD	----------	----------	----------	
22)	S	Nitrobenzene-d5	0.723	0.786	0.798	0.843	0.854	0.884	0.815	6.48
23)	T	Nitrobenzene	0.642	0.661	0.677	0.709	0.722	0.740	0.690	5.06
24)	T	Isophorone	0.766	0.784	0.777	0.820	0.828	0.829	0.793	4.07
25)	TC	2-Nitrophenol	0.302	0.345	0.362	0.388	0.405	0.414	0.371	10.40
26)	T	2,4-Dimethylphe	0.781	0.790	0.800	0.854	0.872	0.897	0.830	5.38
27)	T	Benzoic Acid			0.186	0.192	0.233	0.283	0.228	17.61
28)	T	bis(2-Chloroeth	0.546	0.556	0.558	0.610	0.616	0.620	0.582	5.48
29)	TC	2,4-Dichlorophe	0.467	0.519	0.531	0.562	0.575	0.597	0.542	7.82
30)	M	1,2,4-Trichloro	0.717	0.698	0.668	0.720	0.734	0.721	0.703	3.94
31)	T	Naphthalene	1.164	1.165	1.097	1.168	1.171	1.183	1.146	3.64
32)	T	4-Chloroaniline	0.906	0.594	0.611	0.631	0.653	0.656	0.662	16.74
33)	T	2,6-Dichlorophe	0.255	0.267	0.263	0.277	0.281	0.283	0.268	4.55
34)	TC	Hexachlorobutad	0.346	0.345	0.324	0.350	0.360	0.344	0.341	4.10
35)	MC	4-Chloro-3-meth	0.506	0.578	0.597	0.611	0.646	0.672	0.599	8.88
36)	T	2-Methylnaphtha	1.960	1.240	1.201	1.253	1.304	1.267	1.340	20.71
37)	T	1-Methylnaphtha	0.745	0.736	0.693	0.710	0.742	0.723	0.715	4.31
38)	I	Acenaphthene-d10	----------	----------	----------	ISTD	----------	----------	----------	
39)	TP	Hexachlorocyclo	0.235	0.240	0.254	0.282	0.281	0.279	0.265	8.18
40)	TC	2,4,6-Trichloro	0.307	0.339	0.337	0.365	0.366	0.370	0.348	6.43
41)	T	2,4,5-Trichloro	0.329	0.359	0.369	0.392	0.406	0.407	0.377	7.38

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Instrumen

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 15:31:27 2001
Response via : Initial Calibration

Calibration Files
10 =C00561.D 20 =C00555.D 50 =C00560.D
80 =C00557.D 120 =C00554.D 160 =C00563.D

		Compound	10	20	50	80	120	160	Avg	%RSD
42)	S	2-Fluorobipheny	0.938	0.918	0.896	0.978	0.966	0.942	0.934	3.35
43)	T	2-Chloronaphtha	0.887	0.874	0.852	0.942	0.915	0.911	0.894	3.42
44)	T	2-Nitroaniline		0.434	0.462	0.482	0.502	0.529	0.482	6.80
45)	T	Dimethylphthala	0.591	0.657	0.639	0.645	0.672	0.656	0.638	4.59
46)	T	Acenaphthylene	1.055	1.080	1.050	1.119	1.116	1.108	1.081	3.09
47)	T	2,6-Dinitrotolu	0.208	0.232	0.238	0.245	0.258	0.261	0.239	7.47
48)	T	3-Nitroaniline		0.297	0.310	0.300	0.329	0.354	0.316	6.84
49)	MC	Acenaphthene	1.150	1.159	1.092	1.146	1.183	1.155	1.137	3.49
50)	TP	2,4-Dinitrophen			0.137	0.128	0.153	0.185	0.154	15.00
51)	MP	4-Nitrophenol		0.259	0.286	0.283	0.338	0.363	0.308	12.62
52)	T	Dibenzofuran	1.577	1.009	0.974	1.011	1.061	1.033	1.087	20.21
53)	MP	2,4-Dinitrotolu	0.189	0.215	0.217	0.221	0.242	0.253	0.223	9.26
54)	T	Diethylphthalat	0.633	0.663	0.644	0.636	0.713	0.686	0.654	5.64
55)	T	2,3,4,6-Tetrach	0.090	0.114	0.119	0.119	0.132	0.134	0.118	12.25
56)	T	Fluorene	1.022	1.069	1.027	1.032	1.104	1.082	1.044	4.20
57)	T	4-Chlorophenyl-	0.470	0.495	0.483	0.497	0.547	0.521	0.499	5.35
58)	T	4-Nitroaniline		0.277	0.306	0.303	0.349	0.369	0.320	10.44
59)	I	Phenanthrene-d10		----------ISTD----------						
60)	T	4,6-Dinitro-2-m		0.181	0.222	0.231	0.245	0.265	0.232	12.56
61)	TC	n-Nitrosodiphen	1.019	1.022	0.995	1.064	1.066	1.056	1.032	2.94
62)	T	Azobenzene	0.946	0.897	0.869	0.946	0.923	0.897	0.907	3.48
63)	S	2,4,6-Tribromop	0.136	0.164	0.176	0.191	0.198	0.199	0.179	12.72
64)	T	4-Bromophenyl-p	0.505	0.482	0.495	0.524	0.545	0.522	0.511	4.07
65)	T	Hexachlorobenze	0.304	0.299	0.280	0.305	0.311	0.297	0.297	3.88
66)	MC	Pentachlorophen		0.199	0.241	0.256	0.278	0.288	0.255	12.55
67)	T	Phenanthrene	1.480	1.471	1.380	1.467	1.477	1.464	1.443	3.55
68)	T	Anthracene	1.343	1.372	1.299	1.352	1.385	1.374	1.342	3.12
69)	T	Carbazole	0.877	0.944	0.917	0.989	1.008	0.993	0.951	5.01
70)	T	Di-n-butylphtha	1.145	1.195	1.212	1.304	1.409	1.321	1.263	7.06
71)	TC	Fluoranthene	1.250	1.311	1.265	1.354	1.408	1.370	1.321	4.42
72)	I	Chyrsene-d12		----------ISTD----------						
73)	M	Pyrene	1.430	1.447	1.513	1.389	1.466	1.503	1.450	3.28
74)	S	Terphenyl-d14	0.858	0.848	0.910	0.841	0.900	0.901	0.870	3.66
75)	T	Butylbenzylphth	0.842	0.909	1.048	1.047	1.111	1.116	1.015	10.08
76)	T	3,3'-Dichlorobe	0.272	0.313	0.322	0.337	0.331	0.364	0.322	8.73
77)	T	Benzo[a]anthrac	1.346	1.388	1.391	1.422	1.455	1.485	1.403	3.91
78)	T	Chyrsene	1.410	1.376	1.356	1.359	1.379	1.390	1.364	3.17
79)	T	bis(2-Ethylhexy	1.002	0.957	0.934	0.975	0.990	0.956	0.957	4.19
80)	I	Perylene-d12		----------ISTD----------						
81)	TC	Di-n-octylphtha	1.480	1.693	1.709	1.694	1.854	1.799	1.689	7.38
82)	T	Benzo[b]fluoran	1.746	1.774	1.583	1.653	1.706	1.666	1.674	4.40

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Instrumen

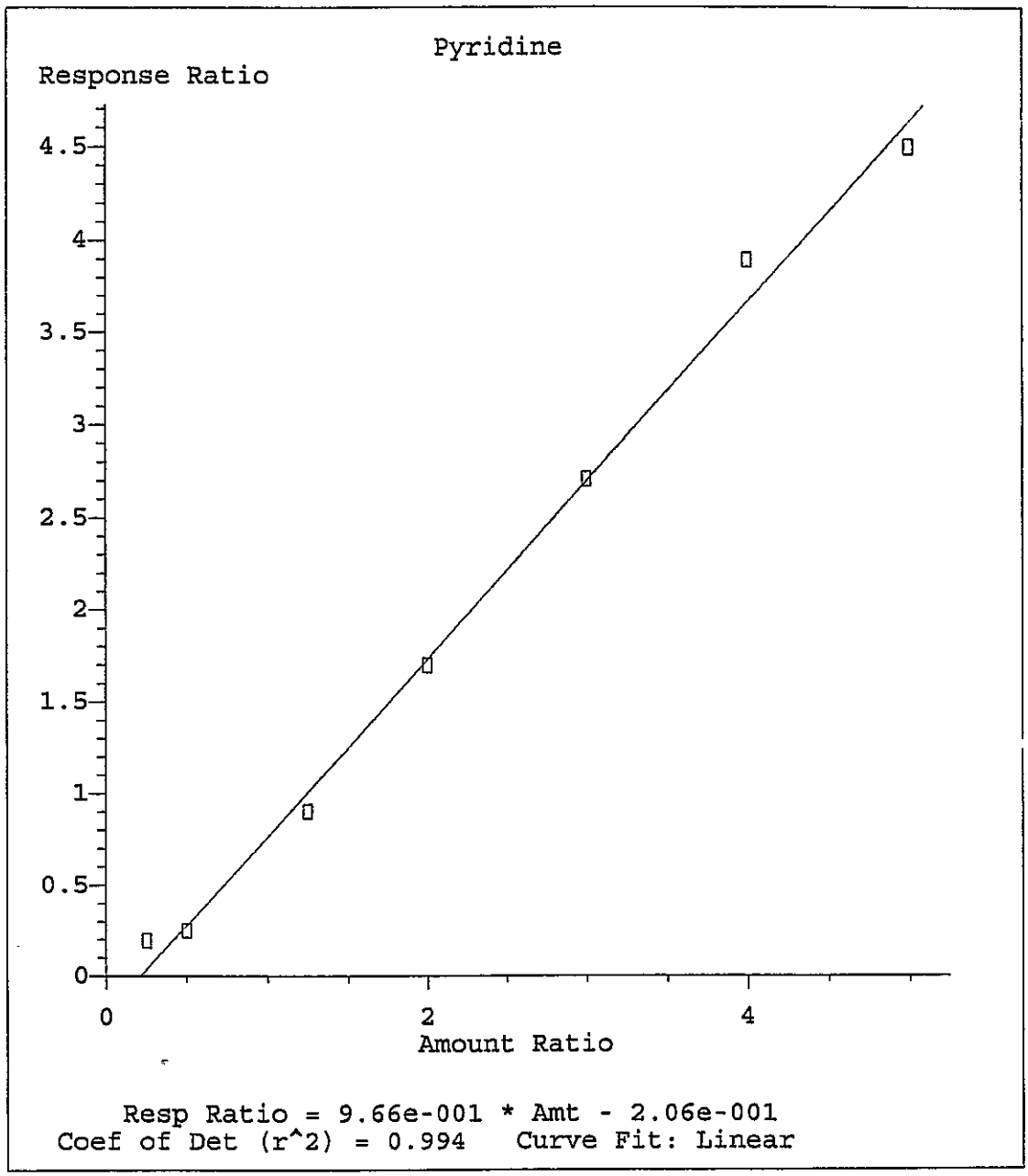
Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 15:31:27 2001
Response via : Initial Calibration

Calibration Files

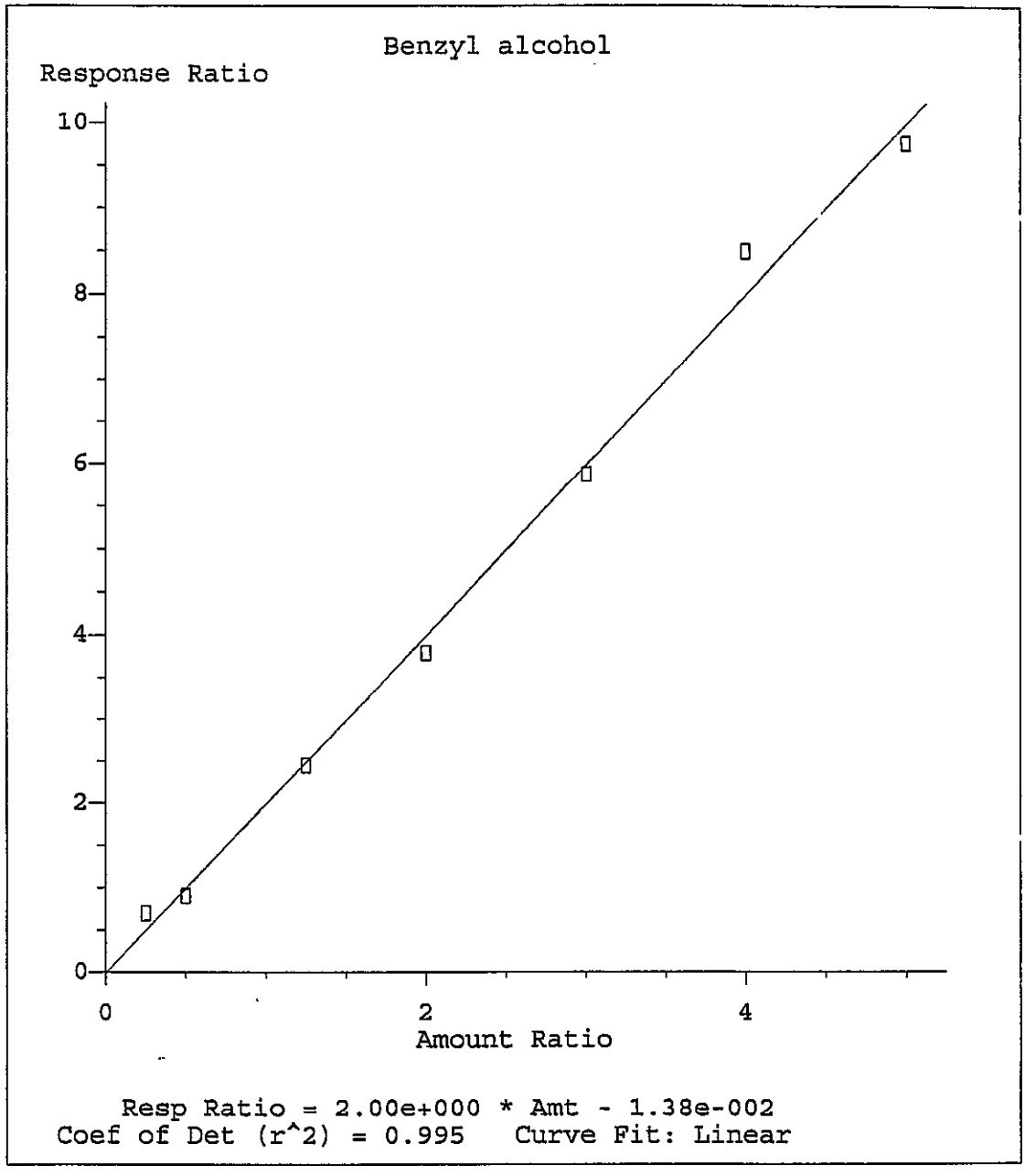
10	=C00561.D	20	=C00555.D	50	=C00560.D
80	=C00557.D	120	=C00554.D	160	=C00563.D

		Compound	10	20	50	80	120	160	Avg	%RSD
83)	T	Benzo[k]fluoran	1.851	1.819	1.610	1.510	1.607	1.536	1.613	10.80
84)	TC	Benzo[a]pyrene	1.672	1.669	1.523	1.516	1.613	1.584	1.572	5.64
85)	T	Indeno[1,2,3-cd	2.111	1.794	1.655	1.786	1.827	1.749	1.799	8.43
86)	T	Dibenz[a,h]anth	1.684	1.419	1.324	1.427	1.455	1.396	1.433	8.49
87)	T	Benzo[g,h,i]per	1.973	1.683	1.564	1.704	1.756	1.672	1.709	7.72

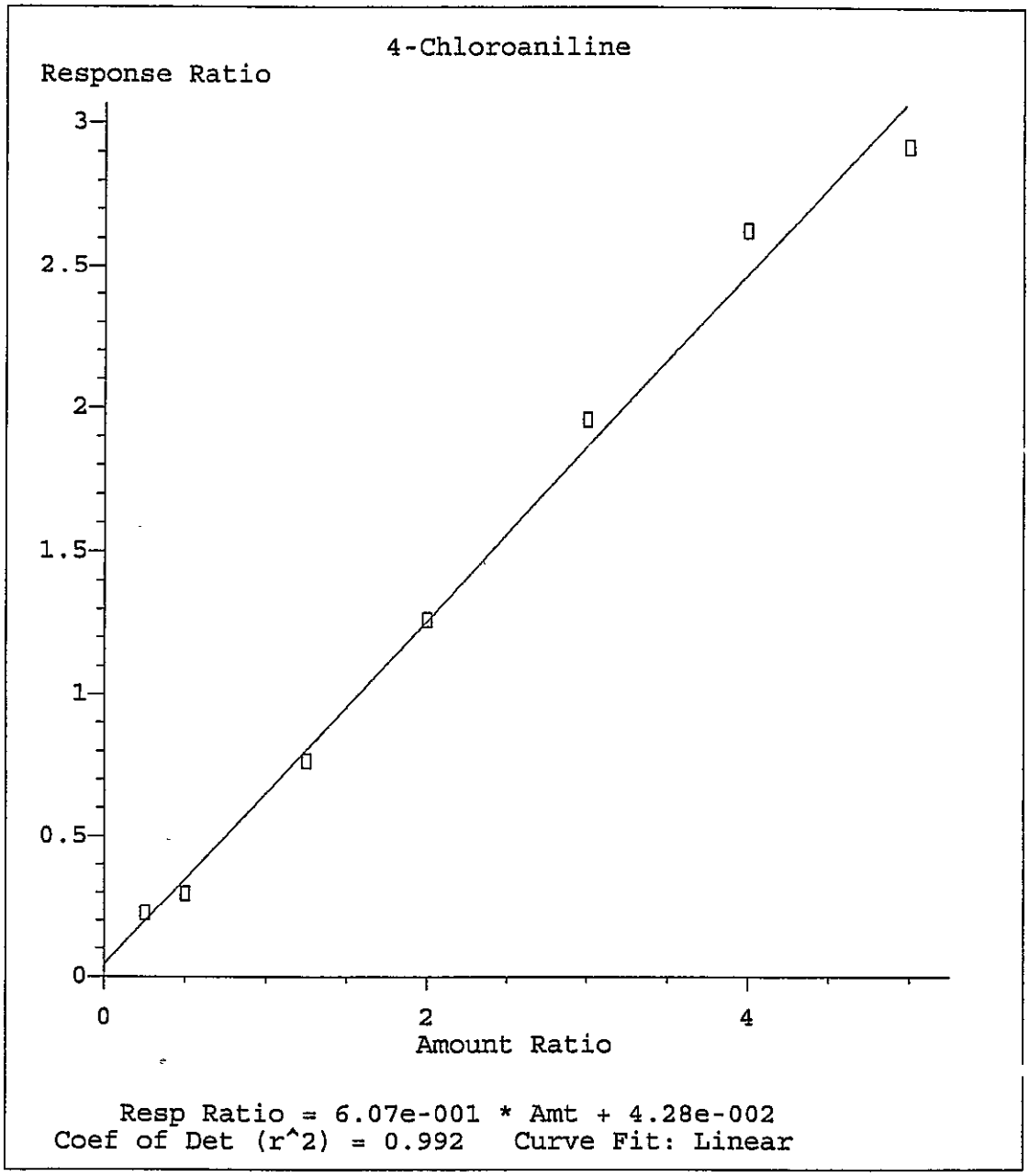
(#) = Out of Range ### Number of calibration levels exceeded format ###



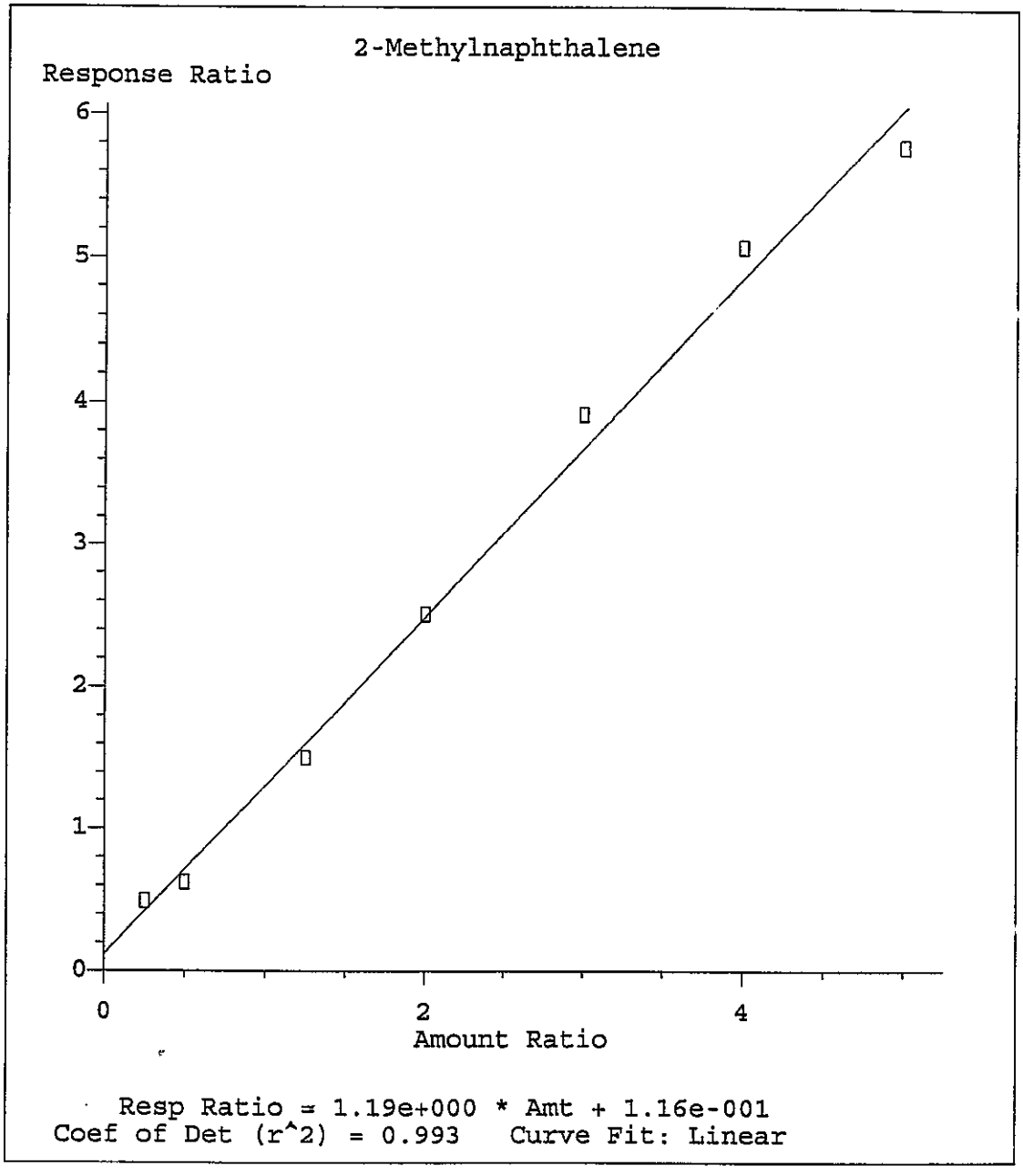
Method Name: D:\MSDCHEM\1\METHODS\8270S.M
Calibration Table Last Updated: Thu Jan 04 15:31:27 2001



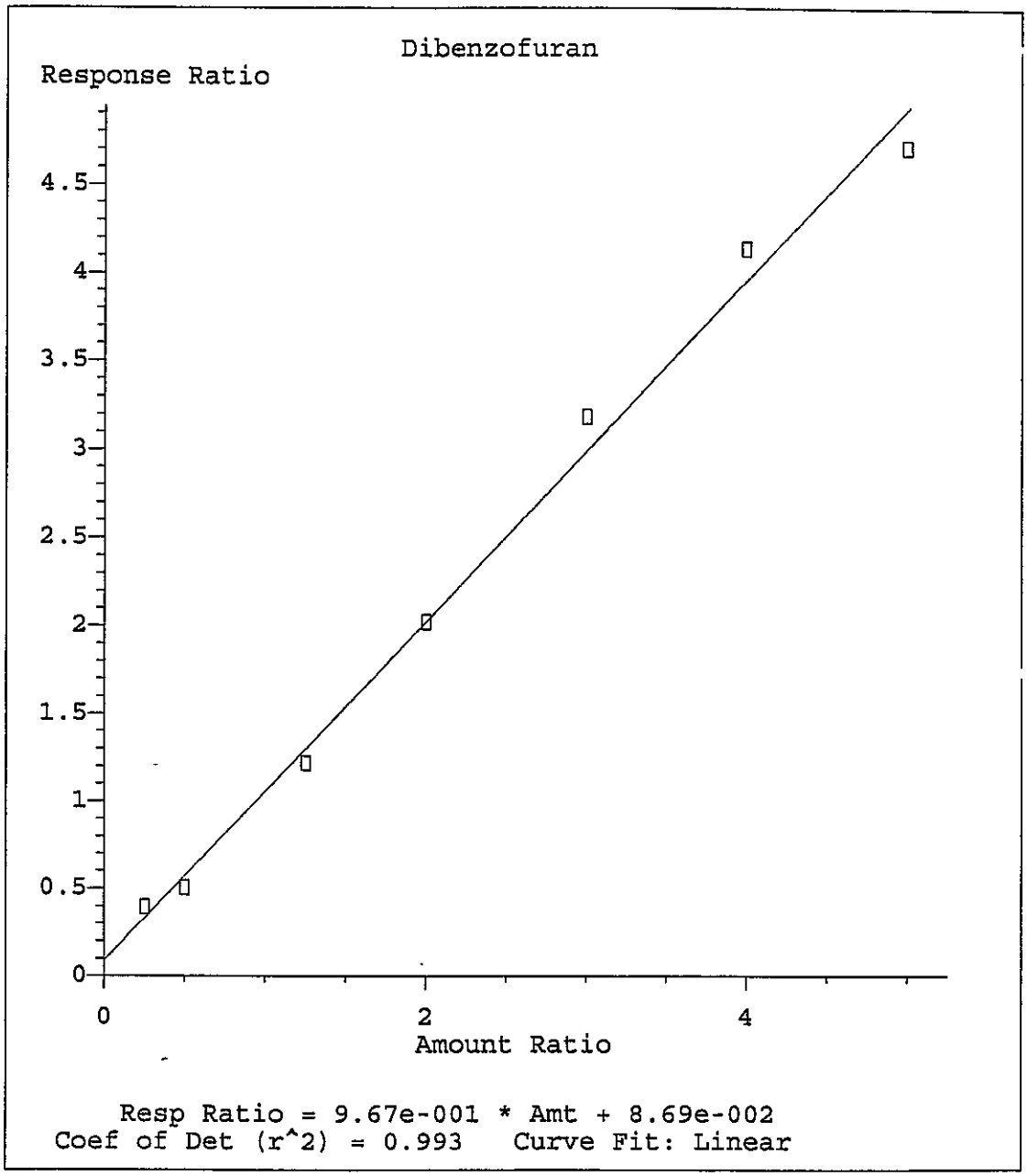
Method Name: D:\MSDCHEM\1\METHODS\8270S.M
Calibration Table Last Updated: Thu Jan 04 15:31:27 2001



Method Name: D:\MSDCHEM\1\METHODS\8270S.M
Calibration Table Last Updated: Thu Jan 04 15:33:02 2001



Method Name: D:\MSDCHEM\1\METHODS\8270S.M
Calibration Table Last Updated: Thu Jan 04 15:32:27 2001



Method Name: D:\MSDCHEM\1\METHODS\8270S.M
Calibration Table Last Updated: Thu Jan 04 15:32:42 2001

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00561.D Vial: 11
Acq On : 4 Jan 2001 11:57 am Operator: JP
Sample : BNA 10 PPM S01002 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 12:21:26 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:19:24 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	62724	40.00	ul/l	0.00
21) Naphthalene-d8	8.85	136	158942	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	185720	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	127817	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	120096	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	80040	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.69	112	18497	7.75	ul/l	0.02
Spiked Amount 100.000			Recovery = 7.75%			
7) Phenol-d5	6.82	99	25245	8.86	ul/l	0.00
Spiked Amount 100.000			Recovery = 8.86%			
22) Nitrobenzene-d5	7.98	82	28712	8.84	ul/l	0.01
Spiked Amount 50.000			Recovery = 17.68%			
42) 2-Fluorobiphenyl	10.19	172	43556	10.07	ul/l	0.00
Spiked Amount 50.000			Recovery = 20.14%			
63) 2,4,6-Tribromophenol	12.05	330	4340	7.58	ul/l	0.00
Spiked Amount 100.000			Recovery = 7.58%			
74) Terphenyl-d14	14.89	244	25770	9.88	ul/l	0.00
Spiked Amount 50.000			Recovery = 19.76%			

Target Compounds						Qvalue
2) Pyridine	4.09	79	11964m	9.68	ul/l	
3) N-nitrosodimethylamine	3.90	42	5055m	7.34	ul/l	
4) Methylmethanesufonate	5.54	80	7291m	8.83	ul/l	
6) Ethylmethanesulfonate	6.40	79	12058	9.47	ul/l #	92
8) Phenol	6.84	94	29698	8.87	ul/l	99
9) bis(2-Chloroethyl)ether	6.96	63	27720	9.59	ul/l	97
10) 2-Chlorophenol	7.03	128	22513	9.18	ul/l	99
11) 1,3-Dichlorobenzene	7.21	146	23617	9.97	ul/l	98
12) 1,4-Dichlorobenzene	7.27	146	30276	10.70	ul/l	98
13) Benzyl alcohol	7.44	108	43840	13.45	ul/l	99
14) 1,2-Dichlorobenzene	7.51	146	23142	9.99	ul/l	99
15) 2-Methylphenol	7.58	108	24215	10.28	ul/l	96
16) bis(2-chloroisopropyl)ethe	7.63	45	31512	10.73	ul/l	97
17) 3,4-Methylphenol	7.75	108	53054	19.46	ul/l	100
18) Total Cresol	7.75	108	38982m	30.38	ul/l	
19) n-Nitroso-di-n-propylamine	7.80	70	18683	9.44	ul/l	99
20) Hexachloroethane	7.89	117	14328	10.25	ul/l	100
23) Nitrobenzene	8.00	77	25517	9.29	ul/l	97
24) Isophorone	8.29	82	30430	9.54	ul/l	99
25) 2-Nitrophenol	8.40	139	11985	8.09	ul/l	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00561.D Vial: 11
Acq On : 4 Jan 2001 11:57 am Operator: JP
Sample : BNA 10 PPM S01002 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 12:21:26 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:19:24 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	31028	9.37 ul/l		99
28)	bis(2-Chloroethoxy)methane	8.54	93	21700	9.35 ul/l		97
29)	2,4-Dichlorophenol	8.68	162	18567	8.60 ul/l		98
30)	1,2,4-Trichlorobenzene	8.79	180	28484	10.20 ul/l		99
31)	Naphthalene	8.87	128	46235	10.14 ul/l		98
32)	4-Chloroaniline	8.95	127	35986	13.54 ul/l		99
33)	2,6-Dichlorophenol	8.96	162	10147	9.46 ul/l		95
34)	Hexachlorobutadiene	9.08	225	13743	10.10 ul/l		99
35)	4-Chloro-3-methylphenol	9.52	107	20107	8.32 ul/l		99
36)	2-Methylnaphthalene	9.73	142	77879	14.52 ul/l		100
37)	1-Methylnaphthalene	9.87	142	29593	10.39 ul/l		97
39)	Hexachlorocyclopentadiene	10.01	237	10916	8.92 ul/l		98
40)	2,4,6-Trichlorophenol	10.11	196	14263	8.85 ul/l		98
41)	2,4,5-Trichlorophenol	10.15	196	15280	8.71 ul/l		96
43)	2-Chloronaphthalene	10.34	162	41186	9.96 ul/l		98
45)	Dimethylphthalate	10.74	163	27441	9.18 ul/l		84
46)	Acenaphthylene	10.88	152	48990	9.76 ul/l		100
47)	2,6-Dinitrotoluene	10.83	165	9658	8.61 ul/l		99
49)	Acenaphthene	11.10	153	53398	10.14 ul/l		98
52)	Dibenzofuran	11.29	168	73204	14.47 ul/l		99
53)	2,4-Dinitrotoluene	11.32	165	8765	8.38 ul/l		90
54)	Diethylphthalate	11.60	149	29411	9.56 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	4178	7.54 ul/l		98
56)	Fluorene	11.73	166	47460	9.75 ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	21824	9.35 ul/l		99
60)	4,6-Dinitro-2-methylphenol	11.83	198	4302	5.80 ul/l		97
61)	n-Nitrosodiphenylamine	11.85	169	32551	9.92 ul/l		99
62)	Azobenzene	11.90	77	30217	10.45 ul/l		99
64)	4-Bromophenyl-phenylether	12.31	248	16124	9.86 ul/l		99
65)	Hexachlorobenzene	12.52	284	9727	10.25 ul/l		99
67)	Phenanthrene	12.93	178	47307	10.30 ul/l		100
68)	Anthracene	12.99	178	42920	10.02 ul/l		98
69)	Carbazole	13.17	167	28014	9.24 ul/l	#	98
70)	Di-n-butylphthalate	13.61	149	36579	9.00 ul/l		100
71)	Fluoranthene	14.43	202	39933	9.48 ul/l		99
73)	Pyrene	14.71	202	42927	9.90 ul/l		100
75)	Butylbenzylphthalate	15.61	149	25293	8.22 ul/l		100
76)	3,3'-Dichlorobenzidine	16.46	252	8159	8.46 ul/l		98
77)	Benzo[a]anthracene	16.51	228	40424	9.58 ul/l		100
78)	Chyrsene	16.58	228	42334	10.31 ul/l		99
79)	bis(2-Ethylhexyl)phthalate	16.54	149	30094	10.42 ul/l		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00561.D Vial: 11
Acq On : 4 Jan 2001 11:57 am Operator: JP
Sample : BNA 10 PPM S01002 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 12:21:26 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:19:24 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

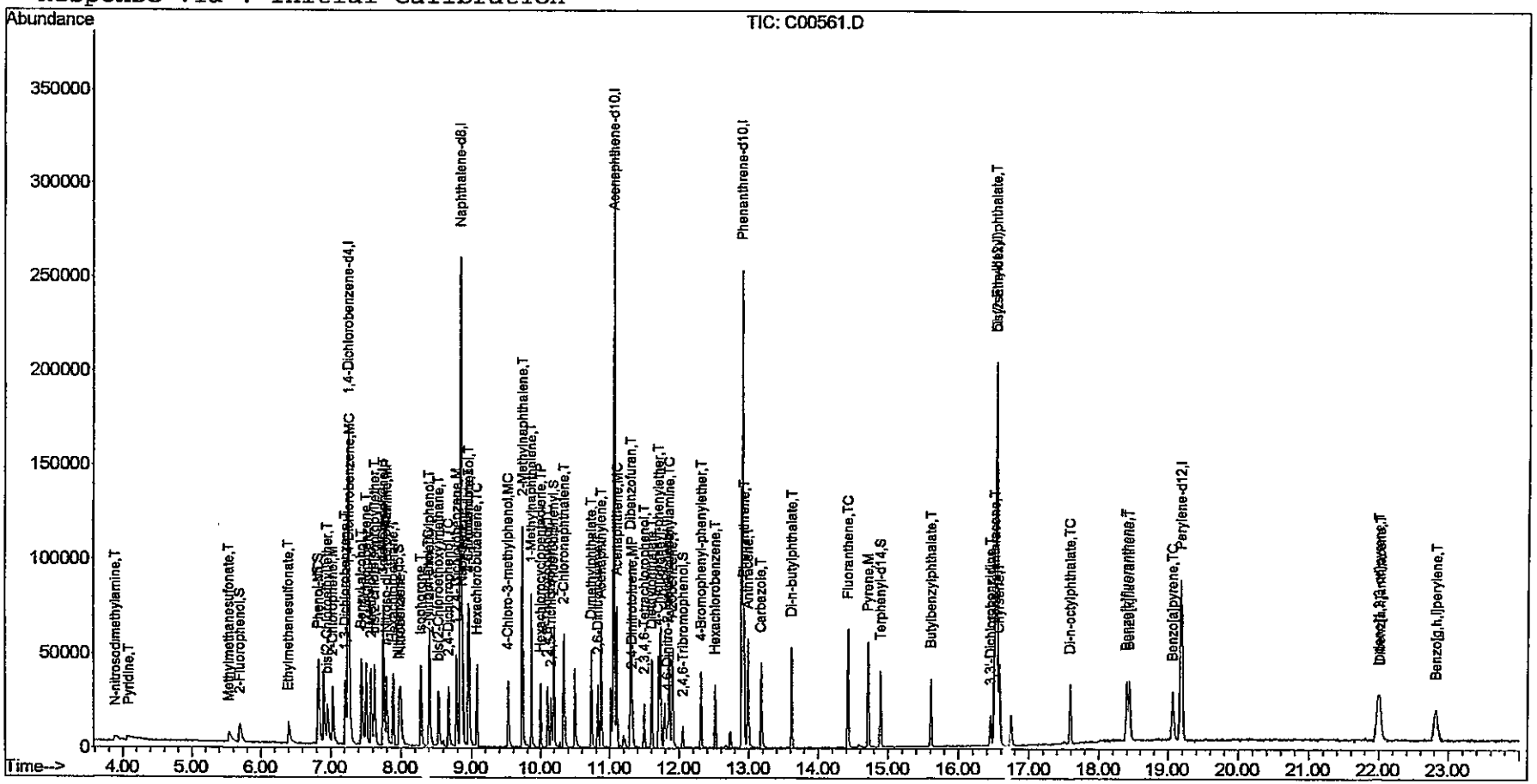
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Di-n-octylphthalate	17.59	149	29606	8.73	ul/l	98
82)	Benzo[b]fluoranthene	18.40	252	34944	10.40	ul/l	98
83)	Benzo[k]fluoranthene	18.44	252	37029	11.39	ul/l	96
84)	Benzo[a]pyrene	19.06	252	33455	10.59	ul/l	95
85)	Indeno[1,2,3-cd]pyrene	21.98	276	42239	12.18	ul/l	98
86)	Dibenz[a,h]anthracene	22.02	278	33705	12.20	ul/l	99
87)	Benzo[g,h,i]perylene	22.82	276	39475	11.94	ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00561.D Vial: 11
Acq On : 4 Jan 2001 11:57 am Operator: JP
Sample : BNA 10 PPM S01002 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 12:24 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00555.D Vial: 5
Acq On : 4 Jan 2001 8:27 am Operator: JP
Sample : BNA 20 PPM S01003 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:39 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	54516	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	135900	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	164169	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	126288	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	121039	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	83567	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.69	112	35708	17.79	ul/l	0.01
Spiked Amount 100.000			Recovery = 17.79%			
7) Phenol-d5	6.82	99	46668	18.91	ul/l	0.00
Spiked Amount 100.000			Recovery = 18.91%			
22) Nitrobenzene-d5	7.97	82	53442	19.17	ul/l	0.00
Spiked Amount 50.000			Recovery = 38.34%			
42) 2-Fluorobiphenyl	10.19	172	75376	19.61	ul/l	0.00
Spiked Amount 50.000			Recovery = 39.22%			
63) 2,4,6-Tribromophenol	12.05	330	10382	18.47	ul/l	0.00
Spiked Amount 100.000			Recovery = 18.47%			
74) Terphenyl-d14	14.89	244	51297	19.62	ul/l	0.00
Spiked Amount 50.000			Recovery = 39.24%			

Target Compounds						Qvalue
2) Pyridine	4.07	79	13591m	13.85	ul/l	
3) N-nitrosodimethylamine	3.86	42	10576m	19.27	ul/l	
4) Methylmethanesufonate	5.53	80	13413m	19.27	ul/l	
6) Ethylmethanesulfonate	6.39	79	20596	18.79	ul/l	97
8) Phenol	6.83	94	54825	18.92	ul/l	100
9) bis(2-Chloroethyl)ether	6.95	63	49725	19.88	ul/l	94
10) 2-Chlorophenol	7.03	128	40582	19.13	ul/l	99
11) 1,3-Dichlorobenzene	7.21	146	40360	19.42	ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	51064	20.46	ul/l	99
13) Benzyl alcohol	7.44	108	48823	19.37	ul/l	99
14) 1,2-Dichlorobenzene	7.51	146	40036	19.64	ul/l	99
15) 2-Methylphenol	7.57	108	43303	21.23	ul/l	100
16) bis(2-chloroisopropyl)ethe	7.62	45	53436	20.43	ul/l	99
17) 3,4-Methylphenol	7.75	108	92033	38.37	ul/l	100
18) Total Cresol	7.75	108	67136m	59.82	ul/l	
19) n-Nitroso-di-n-propylamine	7.80	70	33390	19.57	ul/l	99
20) Hexachloroethane	7.89	117	24557	19.96	ul/l	99
23) Nitrobenzene	8.00	77	44925	19.16	ul/l	100
24) Isophorone	8.28	82	53251	19.46	ul/l	100
25) 2-Nitrophenol	8.40	139	23439	18.56	ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00555.D Vial: 5
Acq On : 4 Jan 2001 8:27 am Operator: JP
Sample : BNA 20 PPM S01003 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:39 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	53709	18.92 ul/l		99
28)	bis(2-Chloroethoxy)methane	8.53	93	37752	19.00 ul/l		98
29)	2,4-Dichlorophenol	8.67	162	35290	19.05 ul/l		100
30)	1,2,4-Trichlorobenzene	8.78	180	47433	19.44 ul/l		99
31)	Naphthalene	8.87	128	79164	19.92 ul/l		100
32)	4-Chloroaniline	8.96	127	40340	19.15 ul/l		99
33)	2,6-Dichlorophenol	8.96	162	18115	19.27 ul/l		98
34)	Hexachlorobutadiene	9.08	225	23466	19.71 ul/l		99
35)	4-Chloro-3-methylphenol	9.53	107	39284	18.79 ul/l		98
36)	2-Methylnaphthalene	9.73	142	84230	19.52 ul/l		99
37)	1-Methylnaphthalene	9.87	142	49985	19.96 ul/l		99
39)	Hexachlorocyclopentadiene	10.01	237	19668	18.68 ul/l		100
40)	2,4,6-Trichlorophenol	10.10	196	27814	19.63 ul/l		99
41)	2,4,5-Trichlorophenol	10.15	196	29509	19.01 ul/l		100
43)	2-Chloronaphthalene	10.34	162	71721	19.54 ul/l		99
44)	2-Nitroaniline	10.49	65	35641	17.84 ul/l		100
45)	Dimethylphthalate	10.73	163	53919	20.25 ul/l		100
46)	Acenaphthylene	10.87	152	88682	19.71 ul/l		100
47)	2,6-Dinitrotoluene	10.82	165	19061	19.15 ul/l		99
48)	3-Nitroaniline	11.01	138	24407	18.41 ul/l		99
49)	Acenaphthene	11.10	153	95129	20.06 ul/l		99
51)	4-Nitrophenol	11.19	109	21247	16.63 ul/l		93
52)	Dibenzofuran	11.29	168	82842	19.73 ul/l		99
53)	2,4-Dinitrotoluene	11.32	165	17636	18.87 ul/l		98
54)	Diethylphthalate	11.60	149	54398	19.74 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	9347	18.88 ul/l		99
56)	Fluorene	11.73	166	87719	20.10 ul/l		99
57)	4-Chlorophenyl-phenylether	11.70	204	40660	19.35 ul/l		99
58)	4-Nitroaniline	11.78	138	22758	16.93 ul/l		99
60)	4,6-Dinitro-2-methylphenol	11.83	198	11404	15.62 ul/l		99
61)	n-Nitrosodiphenylamine	11.85	169	64537	19.74 ul/l		100
62)	Azobenzene	11.90	77	56641	19.86 ul/l		99
64)	4-Bromophenyl-phenylether	12.31	248	30458	18.90 ul/l		100
65)	Hexachlorobenzene	12.52	284	18865	19.78 ul/l		98
66)	Pentachlorophenol	12.73	266	12570	15.54 ul/l		99
67)	Phenanthrene	12.93	178	92907	20.02 ul/l		100
68)	Anthracene	12.99	178	86619	20.18 ul/l		98
69)	Carbazole	13.17	167	59634	19.40 ul/l	#	99
70)	Di-n-butylphthalate	13.61	149	75479	18.71 ul/l		99
71)	Fluoranthene	14.43	202	82752	19.51 ul/l		98
73)	Pyrene	14.71	202	87569	20.05 ul/l		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00555.D Vial: 5
Acq On : 4 Jan 2001 8:27 am Operator: JP
Sample : BNA 20 PPM S01003 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:39 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

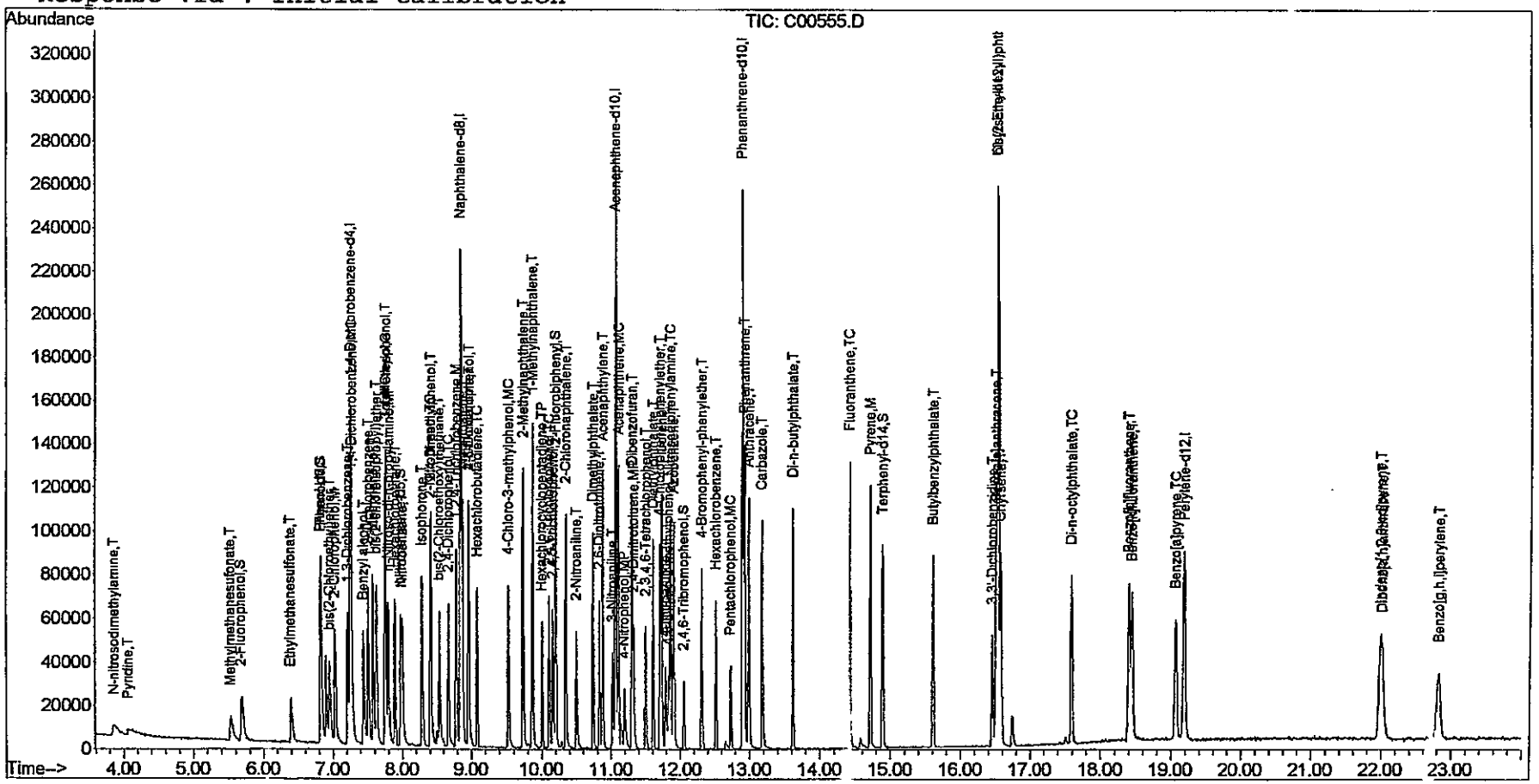
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75)	Butylbenzylphthalate	15.61	149	55028	18.14 ul/l	99
76)	3,3'-Dichlorobenzidine	16.45	252	18929	19.25 ul/l	97
77)	Benzo[a]anthracene	16.51	228	83996	19.30 ul/l	99
78)	Chyrsene	16.58	228	83291	19.80 ul/l	98
79)	bis(2-Ethylhexyl)phthalate	16.54	149	57904	19.43 ul/l	99
81)	Di-n-octylphthalate	17.59	149	70752	19.43 ul/l	99
82)	Benzo[b]fluoranthene	18.40	252	74136	19.99 ul/l	99
83)	Benzo[k]fluoranthene	18.44	252	76013	20.66 ul/l	98
84)	Benzo[a]pyrene	19.06	252	69733	20.23 ul/l	98
85)	Indeno[1,2,3-cd]pyrene	21.99	276	74939	19.90 ul/l	100
86)	Dibenz[a,h]anthracene	22.01	278	59305	19.76 ul/l	99
87)	Benzo[g,h,i]perylene	22.82	276	70326	19.57 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00555.D Vial: 5
Acq On : 4 Jan 2001 8:27 am Operator: JP
Sample : BNA 20 PPM S01003 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 10:36 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00560.D Vial: 10
Acq On : 4 Jan 2001 11:21 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 11:45:38 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:42:20 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	70708	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	182605	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	217328	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	163873	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	144106	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	102433	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.67	112	138537	52.38	ul/l	0.00
Spiked Amount 100.000			Recovery = 52.38%			
7) Phenol-d5	6.82	99	160814	50.10	ul/l	0.00
Spiked Amount 100.000			Recovery = 50.10%			
22) Nitrobenzene-d5	7.97	82	182069	48.67	ul/l	0.00
Spiked Amount 50.000			Recovery = 97.34%			
42) 2-Fluorobiphenyl	10.19	172	243385	48.22	ul/l	0.00
Spiked Amount 50.000			Recovery = 96.44%			
63) 2,4,6-Tribromophenol	12.05	330	35960	48.95	ul/l	0.00
Spiked Amount 100.000			Recovery = 48.95%			
74) Terphenyl-d14	14.89	244	163871	52.99	ul/l	0.00
Spiked Amount 50.000			Recovery = 105.98%			

Target Compounds						Qvalue
2) Pyridine	3.89	79	63570	48.79	ul/l #	70
3) N-nitrosodimethylamine	3.78	42	40095	54.73	ul/l	89
4) Methylmethanesufonate	5.51	80	47720	52.17	ul/l	98
6) Ethylmethanesulfonate	6.38	79	72574	50.88	ul/l	96
8) Phenol	6.83	94	190082	50.36	ul/l	100
9) bis(2-Chloroethyl)ether	6.95	63	166870	51.47	ul/l	97
10) 2-Chlorophenol	7.02	128	139563	50.73	ul/l	100
11) 1,3-Dichlorobenzene	7.20	146	134049	50.25	ul/l	99
12) 1,4-Dichlorobenzene	7.27	146	156539	49.04	ul/l	100
13) Benzyl alcohol	7.43	108	173362	52.46	ul/l	99
14) 1,2-Dichlorobenzene	7.50	146	132734	50.74	ul/l	100
15) 2-Methylphenol	7.57	108	129903	49.32	ul/l	99
16) bis(2-chloroisopropyl)ethe	7.62	45	164798	49.39	ul/l	97
17) 3,4-Methylphenol	7.75	108	310928	100.51	ul/l	100
18) Total Cresol	7.75	108	216990m	149.96	ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	115698	52.30	ul/l	100
20) Hexachloroethane	7.89	117	78151	49.62	ul/l	100
23) Nitrobenzene	7.99	77	154561	49.11	ul/l	99
24) Isophorone	8.27	82	177447	48.40	ul/l	99
25) 2-Nitrophenol	8.39	139	82667	48.51	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00560.D Vial: 10
Acq On : 4 Jan 2001 11:21 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 11:45:38 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:42:20 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	182666	47.92	ul/l		99
27)	Benzoic Acid	8.51	105	42479	41.40	ul/l		96
28)	bis(2-Chloroethoxy)methane	8.53	93	127382	47.76	ul/l		99
29)	2,4-Dichlorophenol	8.67	162	121298	48.69	ul/l		99
30)	1,2,4-Trichlorobenzene	8.78	180	152583	47.12	ul/l		100
31)	Naphthalene	8.87	128	250331	47.34	ul/l		99
32)	4-Chloroaniline	8.95	127	139520	49.47	ul/l		99
33)	2,6-Dichlorophenol	8.96	162	60128	48.12	ul/l		98
34)	Hexachlorobutadiene	9.08	225	73884	46.86	ul/l		99
35)	4-Chloro-3-methylphenol	9.53	107	136249	48.51	ul/l		99
36)	2-Methylnaphthalene	9.73	142	274204	47.83	ul/l		99
37)	1-Methylnaphthalene	9.87	142	158258	47.79	ul/l		100
39)	Hexachlorocyclopentadiene	10.01	237	69133	49.18	ul/l		100
40)	2,4,6-Trichlorophenol	10.10	196	91606	48.82	ul/l		99
41)	2,4,5-Trichlorophenol	10.15	196	100126	48.64	ul/l		97
43)	2-Chloronaphthalene	10.34	162	231489	47.95	ul/l		99
44)	2-Nitroaniline	10.49	65	125388	47.29	ul/l		99
45)	Dimethylphthalate	10.73	163	173671	49.49	ul/l		100
46)	Acenaphthylene	10.87	152	285218	48.27	ul/l		100
47)	2,6-Dinitrotoluene	10.82	165	64620	49.01	ul/l		100
48)	3-Nitroaniline	11.01	138	84275	47.99	ul/l		99
49)	Acenaphthene	11.10	153	296781	47.84	ul/l		100
50)	2,4-Dinitrophenol	11.13	184	37200	44.67	ul/l		91
51)	4-Nitrophenol	11.18	109	77690	45.21	ul/l		99
52)	Dibenzofuran	11.29	168	264552	48.01	ul/l		99
53)	2,4-Dinitrotoluene	11.32	165	58889	47.40	ul/l		95
54)	Diethylphthalate	11.60	149	175059	48.30	ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	32393	49.32	ul/l		100
56)	Fluorene	11.73	166	278886	48.70	ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	131307	47.52	ul/l		100
58)	4-Nitroaniline	11.78	138	83089	46.56	ul/l		100
60)	4,6-Dinitro-2-methylphenol	11.83	198	45546	47.58	ul/l		99
61)	n-Nitrosodiphenylamine	11.85	169	203821	48.47	ul/l		99
62)	Azobenzene	11.90	77	178090	48.56	ul/l		100
64)	4-Bromophenyl-phenylether	12.31	248	101339	48.66	ul/l		100
65)	Hexachlorobenzene	12.52	284	57279	46.91	ul/l		98
66)	Pentachlorophenol	12.73	266	49464	46.69	ul/l		100
67)	Phenanthrene	12.93	178	282602	47.54	ul/l		100
68)	Anthracene	12.99	178	266059	48.39	ul/l		99
69)	Carbazole	13.17	167	187923	47.58	ul/l	#	99
70)	Di-n-butylphthalate	13.61	149	248167	47.52	ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00560.D Vial: 10
Acq On : 4 Jan 2001 11:21 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 11:45:38 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:42:20 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

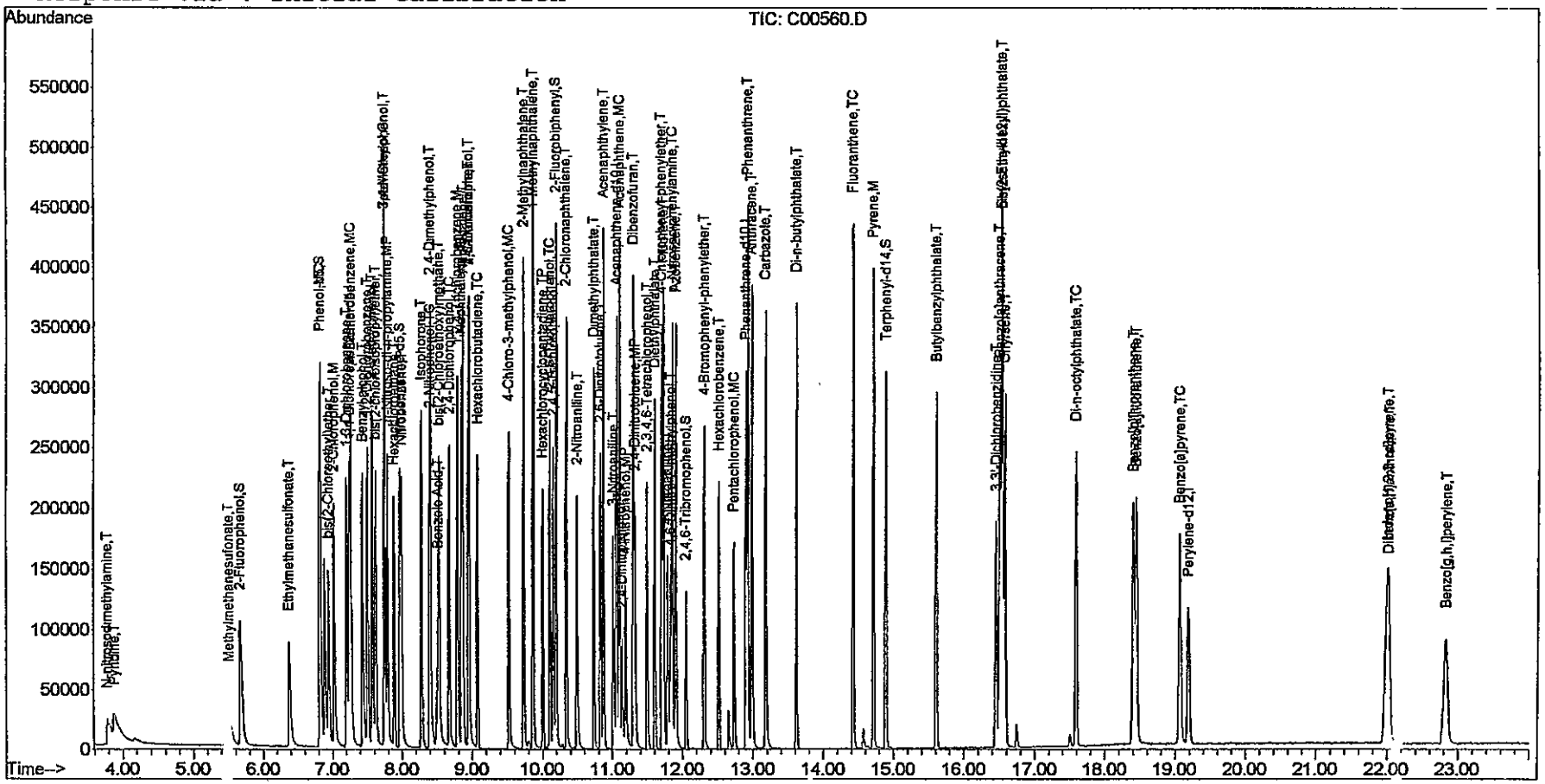
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	259130	47.50 ul/l	100
73)	Pyrene	14.71	202	272624	52.84 ul/l	99
75)	Butylbenzylphthalate	15.61	149	188717	51.72 ul/l	100
76)	3,3'-Dichlorobenzidine	16.45	252	57943	49.38 ul/l	100
77)	Benzo[a]anthracene	16.51	228	250625	48.72 ul/l	100
78)	Chyrsene	16.58	228	244237	49.28 ul/l	99
79)	bis(2-Ethylhexyl)phthalate	16.54	149	168236	47.89 ul/l	99
81)	Di-n-octylphthalate	17.59	149	218789	49.40 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	202708	45.33 ul/l	99
83)	Benzo[k]fluoranthene	18.44	252	206170	47.38 ul/l	98
84)	Benzo[a]pyrene	19.07	252	195053	46.97 ul/l	100
85)	Indeno[1,2,3-cd]pyrene	21.99	276	211905	46.33 ul/l	100
86)	Dibenz[a,h]anthracene	22.02	278	169536	46.54 ul/l	99
87)	Benzo[g,h,i]perylene	22.83	276	200224	45.79 ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00560.D Vial: 10
Acq On : 4 Jan 2001 11:21 am Operator: JP
Sample : BNA 50 PPM S01001 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 11:45 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00557.D Vial: 7
Acq On : 4 Jan 2001 9:36 am Operator: JP
Sample : BNA 80 PPM S01005 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:45 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	51500	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	122712	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	137919	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	95945	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	99697	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	77676	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.68	112	163540	86.23	ul/l	0.00
Spiked Amount 100.000			Recovery = 86.23%			
7) Phenol-d5	6.82	99	186903	80.17	ul/l	0.00
Spiked Amount 100.000			Recovery = 80.17%			
22) Nitrobenzene-d5	7.97	82	206992	82.22	ul/l	0.00
Spiked Amount 50.000			Recovery = 164.44%			
42) 2-Fluorobiphenyl	10.19	172	269832	83.58	ul/l	0.00
Spiked Amount 50.000			Recovery = 167.16%			
63) 2,4,6-Tribromophenol	12.05	330	36593	85.69	ul/l	0.00
Spiked Amount 100.000			Recovery = 85.69%			
74) Terphenyl-d14	14.89	244	167708	77.86	ul/l	0.00
Spiked Amount 50.000			Recovery = 155.72%			

Target Compounds						Qvalue
2) Pyridine	3.88	79	87323m	94.17	ul/l	
3) N-nitrosodimethylamine	3.80	42	47694m	92.01	ul/l	
4) Methylmethanesufonate	5.51	80	54895m	83.49	ul/l	
6) Ethylmethanesulfonate	6.38	79	81903	79.08	ul/l	96
8) Phenol	6.83	94	219184	80.09	ul/l	100
9) bis(2-Chloroethyl)ether	6.95	63	185235	78.37	ul/l	100
10) 2-Chlorophenol	7.03	128	163449	81.57	ul/l	100
11) 1,3-Dichlorobenzene	7.20	146	157510	80.21	ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	182451	77.37	ul/l	100
13) Benzyl alcohol	7.43	108	195132	81.96	ul/l	100
14) 1,2-Dichlorobenzene	7.50	146	152424	79.16	ul/l	100
15) 2-Methylphenol	7.57	108	148221	76.92	ul/l	98
16) bis(2-chloroisopropyl)ethe	7.62	45	190814	77.22	ul/l	96
17) 3,4-Methylphenol	7.75	108	355757	157.02	ul/l	99
18) Total Cresol	7.75	108	245155m	231.21	ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	127691	79.21	ul/l	100
20) Hexachloroethane	7.89	117	92902	79.94	ul/l	100
23) Nitrobenzene	7.99	77	174057	82.20	ul/l	99
24) Isophorone	8.27	82	201218	81.45	ul/l	99
25) 2-Nitrophenol	8.39	139	95136	83.45	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00557.D Vial: 7
Acq On : 4 Jan 2001 9:36 am Operator: JP
Sample : BNA 80 PPM S01005 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:45 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	2,4-Dimethylphenol	8.41	107	209686	81.80 ul/l	99
27)	Benzoic Acid	8.51	105	47078	71.19 ul/l	97
28)	bis(2-Chloroethoxy)methane	8.53	93	149713	83.46 ul/l	99
29)	2,4-Dichlorophenol	8.67	162	137862	82.42 ul/l	99
30)	1,2,4-Trichlorobenzene	8.78	180	176597	80.17 ul/l	99
31)	Naphthalene	8.87	128	286669	79.89 ul/l	100
32)	4-Chloroaniline	8.95	127	154965	81.46 ul/l	99
33)	2,6-Dichlorophenol	8.96	162	68060	80.17 ul/l	99
34)	Hexachlorobutadiene	9.08	225	85865	79.87 ul/l	99
35)	4-Chloro-3-methylphenol	9.52	107	149941	79.45 ul/l	99
36)	2-Methylnaphthalene	9.73	142	307461	78.91 ul/l	99
37)	1-Methylnaphthalene	9.87	142	174254	77.06 ul/l	99
39)	Hexachlorocyclopentadiene	10.01	237	77659	87.81 ul/l	99
40)	2,4,6-Trichlorophenol	10.10	196	100706	84.58 ul/l	100
41)	2,4,5-Trichlorophenol	10.15	196	108265	83.00 ul/l	98
43)	2-Chloronaphthalene	10.34	162	259912	84.29 ul/l	100
44)	2-Nitroaniline	10.49	65	132992	79.23 ul/l	99
45)	Dimethylphthalate	10.73	163	178038	79.59 ul/l	100
46)	Acenaphthylene	10.87	152	308662	81.65 ul/l	100
47)	2,6-Dinitrotoluene	10.83	165	67679	80.96 ul/l	99
48)	3-Nitroaniline	11.01	138	82711	74.27 ul/l	99
49)	Acenaphthene	11.10	153	316204	79.37 ul/l	100
50)	2,4-Dinitrophenol	11.13	184	35171	69.01 ul/l	98
51)	4-Nitrophenol	11.18	109	78078	72.74 ul/l	100
52)	Dibenzofuran	11.29	168	278915	79.05 ul/l	99
53)	2,4-Dinitrotoluene	11.32	165	60849	77.50 ul/l	100
54)	Diethylphthalate	11.60	149	175503	75.82 ul/l	100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	32945	79.23 ul/l	99
56)	Fluorene	11.73	166	284653	77.65 ul/l	99
57)	4-Chlorophenyl-phenylether	11.70	204	136959	77.57 ul/l	99
58)	4-Nitroaniline	11.78	138	83506	73.93 ul/l	99
60)	4,6-Dinitro-2-methylphenol	11.83	198	44406	80.06 ul/l	99
61)	n-Nitrosodiphenylamine	11.85	169	204222	82.22 ul/l	99
62)	Azobenzene	11.90	77	181468	83.76 ul/l	98
64)	4-Bromophenyl-phenylether	12.31	248	100513	82.08 ul/l	99
65)	Hexachlorobenzene	12.52	284	58536	80.77 ul/l	99
66)	Pentachlorophenol	12.73	266	49192	80.03 ul/l	99
67)	Phenanthrene	12.93	178	281572	79.87 ul/l	100
68)	Anthracene	12.99	178	259372	79.52 ul/l	100
69)	Carbazole	13.17	167	189767	81.25 ul/l #	100
70)	Di-n-butylphthalate	13.61	149	250233	81.66 ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00557.D Vial: 7
Acq On : 4 Jan 2001 9:36 am Operator: JP
Sample : BNA 80 PPM S01005 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:45 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

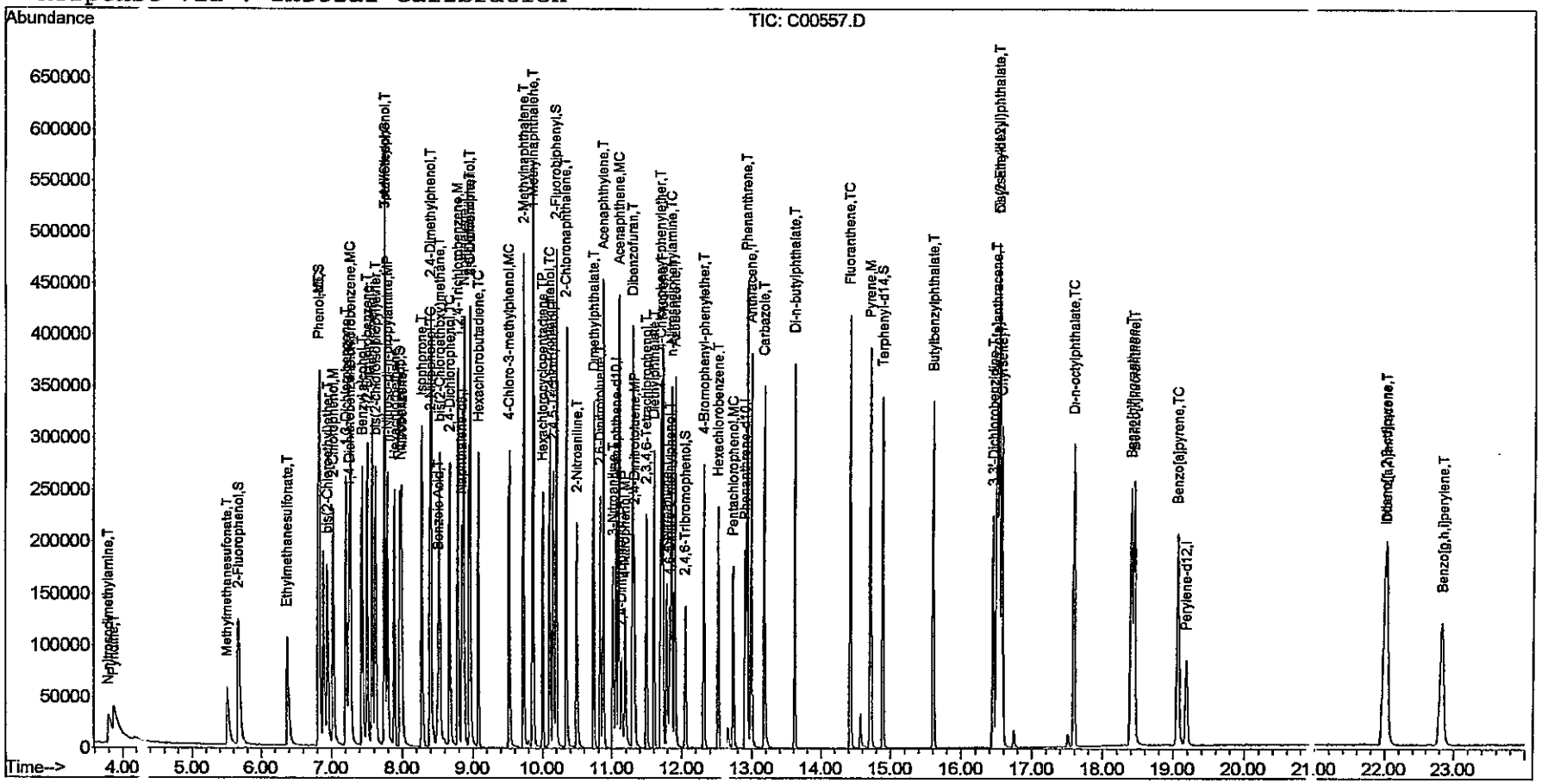
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	259841	80.65 ul/l	100
73)	Pyrene	14.71	202	276914	76.98 ul/l	100
75)	Butylbenzylphthalate	15.61	149	208775	83.57 ul/l	99
76)	3,3'-Dichlorobenzidine	16.45	252	67160	82.94 ul/l	98
77)	Benzo[a]anthracene	16.51	228	283539	79.08 ul/l	100
78)	Chyrsene	16.58	228	271026	78.22 ul/l	99
79)	bis(2-Ethylhexyl)phthalate	16.54	149	194473	79.23 ul/l	99
81)	Di-n-octylphthalate	17.59	149	263120	77.75 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	256814	74.49 ul/l	99
83)	Benzo[k]fluoranthene	18.44	252	234624	68.60 ul/l	98
84)	Benzo[a]pyrene	19.06	252	235577	73.52 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	21.99	276	277495	79.28 ul/l	100
86)	Dibenz[a,h]anthracene	22.02	278	221739	79.48 ul/l	99
87)	Benzo[g,h,i]perylene	22.83	276	264765	79.27 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00557.D Vial: 7
Acq On : 4 Jan 2001 9:36 am Operator: JP
Sample : BNA 80 PPM S01005 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 10:38 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00554.D Vial: 4
Acq On : 4 Jan 2001 7:52 am Operator: JP
Sample : BNA 120 PPM S01006 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 10:14:36 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	41685	40.00	ul/l	0.00
21) Naphthalene-d8	8.85	136	101168	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	123430	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	95020	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	95685	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	69587	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.67	112	208872	136.06	ul/l	0.00
Spiked Amount 100.000			Recovery	=	136.06%	
7) Phenol-d5	6.82	99	237911	126.07	ul/l	0.00
Spiked Amount 100.000			Recovery	=	126.07%	
22) Nitrobenzene-d5	7.97	82	259331	124.94	ul/l	0.00
Spiked Amount 50.000			Recovery	=	249.88%	
42) 2-Fluorobiphenyl	10.19	172	357820	123.84	ul/l	0.00
Spiked Amount 50.000			Recovery	=	247.68%	
63) 2,4,6-Tribromophenol	12.05	330	56583	133.79	ul/l	0.00
Spiked Amount 100.000			Recovery	=	133.79%	
74) Terphenyl-d14	14.89	244	258422	125.01	ul/l	0.00
Spiked Amount 50.000			Recovery	=	250.02%	

Target Compounds						Qvalue
2) Pyridine	3.85	79	112714m	150.18	ul/l	
3) N-nitrosodimethylamine	3.79	42	61188	145.83	ul/l #	93
4) Methylmethanesufonate	5.51	80	68353	128.44	ul/l	99
6) Ethylmethanesulfonate	6.37	79	105490	125.83	ul/l	97
8) Phenol	6.83	94	277204	125.13	ul/l	99
9) bis(2-Chloroethyl)ether	6.94	63	228934	119.67	ul/l	100
10) 2-Chlorophenol	7.02	128	204229	125.93	ul/l	100
11) 1,3-Dichlorobenzene	7.20	146	195536	123.02	ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	228890	119.92	ul/l	99
13) Benzyl alcohol	7.43	108	244523	126.89	ul/l	99
14) 1,2-Dichlorobenzene	7.50	146	189985	121.89	ul/l	100
15) 2-Methylphenol	7.57	108	180913	115.99	ul/l	98
16) bis(2-chloroisopropyl)ethe	7.62	45	237251	118.62	ul/l	97
17) 3,4-Methylphenol	7.75	108	439202	239.49	ul/l	100
18) Total Cresol	7.75	108	304832m	355.19	ul/l	
19) n-Nitroso-di-n-propylamine	7.79	70	159314	122.09	ul/l	99
20) Hexachloroethane	7.89	117	114821	122.07	ul/l	99
23) Nitrobenzene	7.99	77	219205	125.57	ul/l	100
24) Isophorone	8.27	82	251266	123.36	ul/l	99
25) 2-Nitrophenol	8.39	139	122792	130.64	ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00554.D Vial: 4
Acq On : 4 Jan 2001 7:52 am Operator: JP
Sample : BNA 120 PPM S01006 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:36 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	264774	125.28 ul/l		100
27)	Benzoic Acid	8.53	105	70569	129.44 ul/l		100
28)	bis(2-Chloroethoxy)methane	8.53	93	186867	126.36 ul/l		99
29)	2,4-Dichlorophenol	8.67	162	174581	126.60 ul/l		99
30)	1,2,4-Trichlorobenzene	8.78	180	222638	122.60 ul/l		100
31)	Naphthalene	8.87	128	355288	120.11 ul/l		100
32)	4-Chloroaniline	8.95	127	198082	126.30 ul/l		99
33)	2,6-Dichlorophenol	8.96	162	85275	121.83 ul/l		97
34)	Hexachlorobutadiene	9.08	225	109198	123.21 ul/l		99
35)	4-Chloro-3-methylphenol	9.53	107	196170	126.07 ul/l		99
36)	2-Methylnaphthalene	9.73	142	395868	123.24 ul/l		99
37)	1-Methylnaphthalene	9.87	142	225192	120.79 ul/l		99
39)	Hexachlorocyclopentadiene	10.01	237	104210	131.67 ul/l		100
40)	2,4,6-Trichlorophenol	10.10	196	135565	127.23 ul/l		100
41)	2,4,5-Trichlorophenol	10.15	196	150177	128.65 ul/l		98
43)	2-Chloronaphthalene	10.34	162	338862	122.80 ul/l		100
44)	2-Nitroaniline	10.49	65	186038	123.84 ul/l		100
45)	Dimethylphthalate	10.74	163	248695	124.22 ul/l		100
46)	Acenaphthylene	10.87	152	413077	122.10 ul/l		100
47)	2,6-Dinitrotoluene	10.83	165	95494	127.64 ul/l		100
48)	3-Nitroaniline	11.01	138	121686	122.09 ul/l		100
49)	Acenaphthene	11.10	153	438166	122.90 ul/l		100
50)	2,4-Dinitrophenol	11.14	184	56516	123.91 ul/l		100
51)	4-Nitrophenol	11.18	109	125227	130.36 ul/l		99
52)	Dibenzofuran	11.29	168	392979	124.46 ul/l		100
53)	2,4-Dinitrotoluene	11.32	165	89724	127.69 ul/l		100
54)	Diethylphthalate	11.61	149	263843	127.37 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	48870	131.32 ul/l		99
56)	Fluorene	11.73	166	408757	124.59 ul/l		99
57)	4-Chlorophenyl-phenylether	11.70	204	202424	128.11 ul/l		100
58)	4-Nitroaniline	11.78	138	129098	127.70 ul/l		98
60)	4,6-Dinitro-2-methylphenol	11.83	198	69863	127.18 ul/l		99
61)	n-Nitrosodiphenylamine	11.85	169	303956	123.57 ul/l		99
62)	Azobenzene	11.90	77	262996	122.57 ul/l		99
64)	4-Bromophenyl-phenylether	12.31	248	155328	128.07 ul/l		100
65)	Hexachlorobenzene	12.52	284	88732	123.62 ul/l		99
66)	Pentachlorophenol	12.73	266	79187	130.08 ul/l		100
67)	Phenanthrene	12.93	178	421173	120.64 ul/l		100
68)	Anthracene	12.99	178	394730	122.20 ul/l		100
69)	Carbazole	13.17	167	287272	124.19 ul/l	#	99
70)	Di-n-butylphthalate	13.61	149	401538	132.31 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00554.D Vial: 4
Acq On : 4 Jan 2001 7:52 am Operator: JP
Sample : BNA 120 PPM S01006 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 10:14:36 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 10:05:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

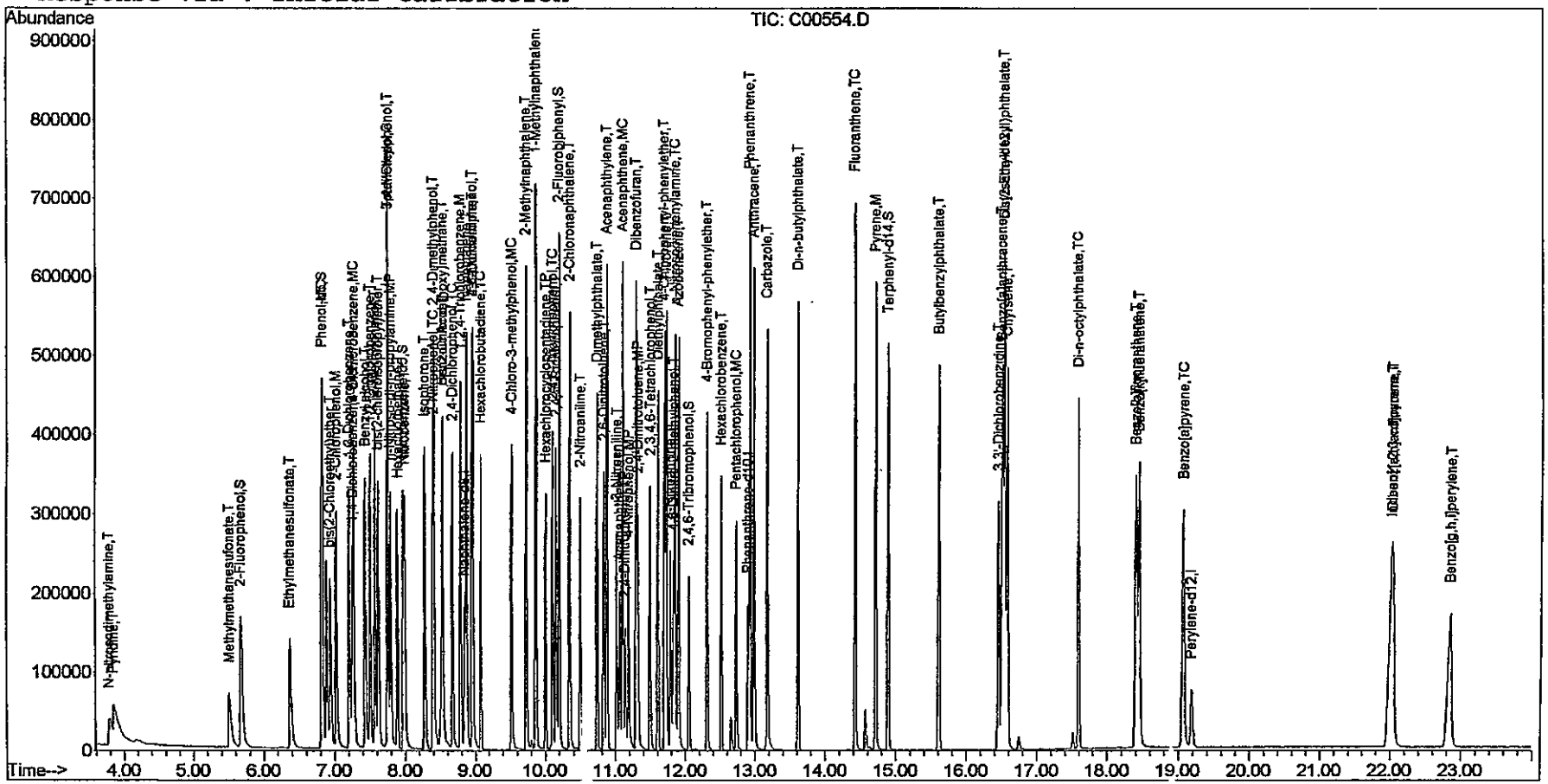
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	401471	125.83 ul/l	100
73)	Pyrene	14.71	202	420823	121.90 ul/l	100
75)	Butylbenzylphthalate	15.61	149	318962	133.03 ul/l	100
76)	3,3'-Dichlorobenzidine	16.45	252	95039	122.29 ul/l	100
77)	Benzo[a]anthracene	16.51	228	417544	121.34 ul/l	100
78)	Chyrsene	16.58	228	395807	119.02 ul/l	99
79)	bis(2-Ethylhexyl)phthalate	16.54	149	284206	120.64 ul/l	99
81)	Di-n-octylphthalate	17.59	149	387135	127.70 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	356047	115.29 ul/l	99
83)	Benzo[k]fluoranthene	18.45	252	335548	109.51 ul/l	98
84)	Benzo[a]pyrene	19.07	252	336660	117.29 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	22.00	276	381444	121.65 ul/l	99
86)	Dibenz[a,h]anthracene	22.03	278	303750	121.53 ul/l	100
87)	Benzo[g,h,i]perylene	22.85	276	366628	122.53 ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00554.D Vial: 4
Acq On : 4 Jan 2001 7:52 am Operator: JP
Sample : BNA 120 PPM S01006 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 10:39 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00563.D Vial: 13
Acq On : 4 Jan 2001 1:09 pm Operator: JP
Sample : BNA 160 PPM S01007 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 13:33:04 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	59354	40.00	ul/l	0.00
21) Naphthalene-d8	8.85	136	143780	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	171878	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	131961	40.00	ul/l	0.00
72) Chyrsene-d12	16.54	240	126002	40.00	ul/l	0.00
80) Perylene-d12	19.19	264	93649	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.66	112	421762	186.66	ul/l	0.00
Spiked Amount 100.000			Recovery	=	186.66%	
7) Phenol-d5	6.82	99	472481	175.22	ul/l	0.00
Spiked Amount 100.000			Recovery	=	175.22%	
22) Nitrobenzene-d5	7.97	82	508301	173.07	ul/l	0.00
Spiked Amount 50.000			Recovery	=	346.14%	
42) 2-Fluorobiphenyl	10.19	172	647724	161.85	ul/l	0.00
Spiked Amount 50.000			Recovery	=	323.70%	
63) 2,4,6-Tribromophenol	12.05	330	104967	177.64	ul/l	0.00
Spiked Amount 100.000			Recovery	=	177.64%	
74) Terphenyl-d14	14.89	244	453987	165.82	ul/l	0.00
Spiked Amount 50.000			Recovery	=	331.64%	

Target Compounds						Qvalue
2) Pyridine	3.78	79	230757m	174.74	ul/l	
3) N-nitrosodimethylamine	3.75	42	122225m	187.64	ul/l	
4) Methylmethanesufonate	5.49	80	133087	170.30	ul/l	99
6) Ethylmethanesulfonate	6.36	79	202869	168.31	ul/l	99
8) Phenol	6.83	94	553341	174.59	ul/l	99
9) bis(2-Chloroethyl)ether	6.94	63	474957	173.62	ul/l	99
10) 2-Chlorophenol	7.02	128	403045	173.69	ul/l	99
11) 1,3-Dichlorobenzene	7.20	146	376591	168.01	ul/l	99
12) 1,4-Dichlorobenzene	7.26	146	436147	162.91	ul/l	100
13) Benzyl alcohol	7.43	108	503430	167.35	ul/l	99
14) 1,2-Dichlorobenzene	7.50	146	363336	165.73	ul/l	100
15) 2-Methylphenol	7.57	108	374425	167.98	ul/l	100
16) bis(2-chloroisopropyl)ethe	7.62	45	429971	154.71	ul/l	97
17) 3,4-Methylphenol	7.76	108	868163	336.51	ul/l	100
18) Total Cresol	7.76	108	611619m	503.72	ul/l	
19) n-Nitroso-di-n-propylamine	7.80	70	315682	168.60	ul/l	98
20) Hexachloroethane	7.89	117	214793	162.39	ul/l	99
23) Nitrobenzene	7.99	77	425413	171.20	ul/l	100
24) Isophorone	8.27	82	476577	165.08	ul/l	100
25) 2-Nitrophenol	8.39	139	238064	177.65	ul/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00563.D Vial: 13
Acq On : 4 Jan 2001 1:09 pm Operator: JP
Sample : BNA 160 PPM S01007 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 13:33:04 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	516005	172.29 ul/l		99
27)	Benzoic Acid	8.56	105	163004	195.92 ul/l		97
28)	bis(2-Chloroethoxy)methane	8.53	93	356679	169.88 ul/l		99
29)	2,4-Dichlorophenol	8.67	162	343411	175.77 ul/l		99
30)	1,2,4-Trichlorobenzene	8.78	180	414722	164.12 ul/l		100
31)	Naphthalene	8.87	128	680126	164.91 ul/l		100
32)	4-Chloroaniline	8.96	127	377481	157.04 ul/l		99
33)	2,6-Dichlorophenol	8.96	162	162743	167.77 ul/l		97
34)	Hexachlorobutadiene	9.08	225	197818	160.78 ul/l		100
35)	4-Chloro-3-methylphenol	9.53	107	386368	176.67 ul/l		99
36)	2-Methylnaphthalene	9.73	142	728845	150.24 ul/l		100
37)	1-Methylnaphthalene	9.87	142	415815	161.40 ul/l		100
39)	Hexachlorocyclopentadiene	10.01	237	192013	169.51 ul/l		99
40)	2,4,6-Trichlorophenol	10.10	196	254427	170.59 ul/l		99
41)	2,4,5-Trichlorophenol	10.15	196	279982	172.54 ul/l		97
43)	2-Chloronaphthalene	10.34	162	626318	163.69 ul/l		99
44)	2-Nitroaniline	10.49	65	363968	175.17 ul/l		100
45)	Dimethylphthalate	10.74	163	450973	162.93 ul/l		100
46)	Acenaphthylene	10.87	152	761447	163.90 ul/l		100
47)	2,6-Dinitrotoluene	10.83	165	179279	172.73 ul/l		99
48)	3-Nitroaniline	11.01	138	243349	177.19 ul/l		100
49)	Acenaphthene	11.10	153	794269	162.90 ul/l		100
50)	2,4-Dinitrophenol	11.13	184	127221	188.85 ul/l		96
51)	4-Nitrophenol	11.19	109	249594	185.05 ul/l		100
52)	Dibenzofuran	11.30	168	710280	151.68 ul/l		100
53)	2,4-Dinitrotoluene	11.32	165	173833	179.66 ul/l		98
54)	Diethylphthalate	11.61	149	471319	165.56 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	92158	179.82 ul/l		99
56)	Fluorene	11.73	166	743780	165.07 ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	358033	165.75 ul/l		100
58)	4-Nitroaniline	11.79	138	253692	181.97 ul/l		100
60)	4,6-Dinitro-2-methylphenol	11.83	198	140039	182.91 ul/l		99
61)	n-Nitrosodiphenylamine	11.86	169	557589	164.61 ul/l		100
62)	Azobenzene	11.90	77	473337	158.57 ul/l		98
64)	4-Bromophenyl-phenylether	12.31	248	275641	163.33 ul/l		100
65)	Hexachlorobenzene	12.52	284	156765	160.04 ul/l		99
66)	Pentachlorophenol	12.73	266	151933	179.24 ul/l		100
67)	Phenanthrene	12.93	178	772916	162.96 ul/l		100
68)	Anthracene	12.99	178	725071	164.03 ul/l		100
69)	Carbazole	13.18	167	524295	167.45 ul/l	#	99
70)	Di-n-butylphthalate	13.61	149	697531	166.27 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00563.D Vial: 13
Acq On : 4 Jan 2001 1:09 pm Operator: JP
Sample : BNA 160 PPM S01007 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 13:33:04 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

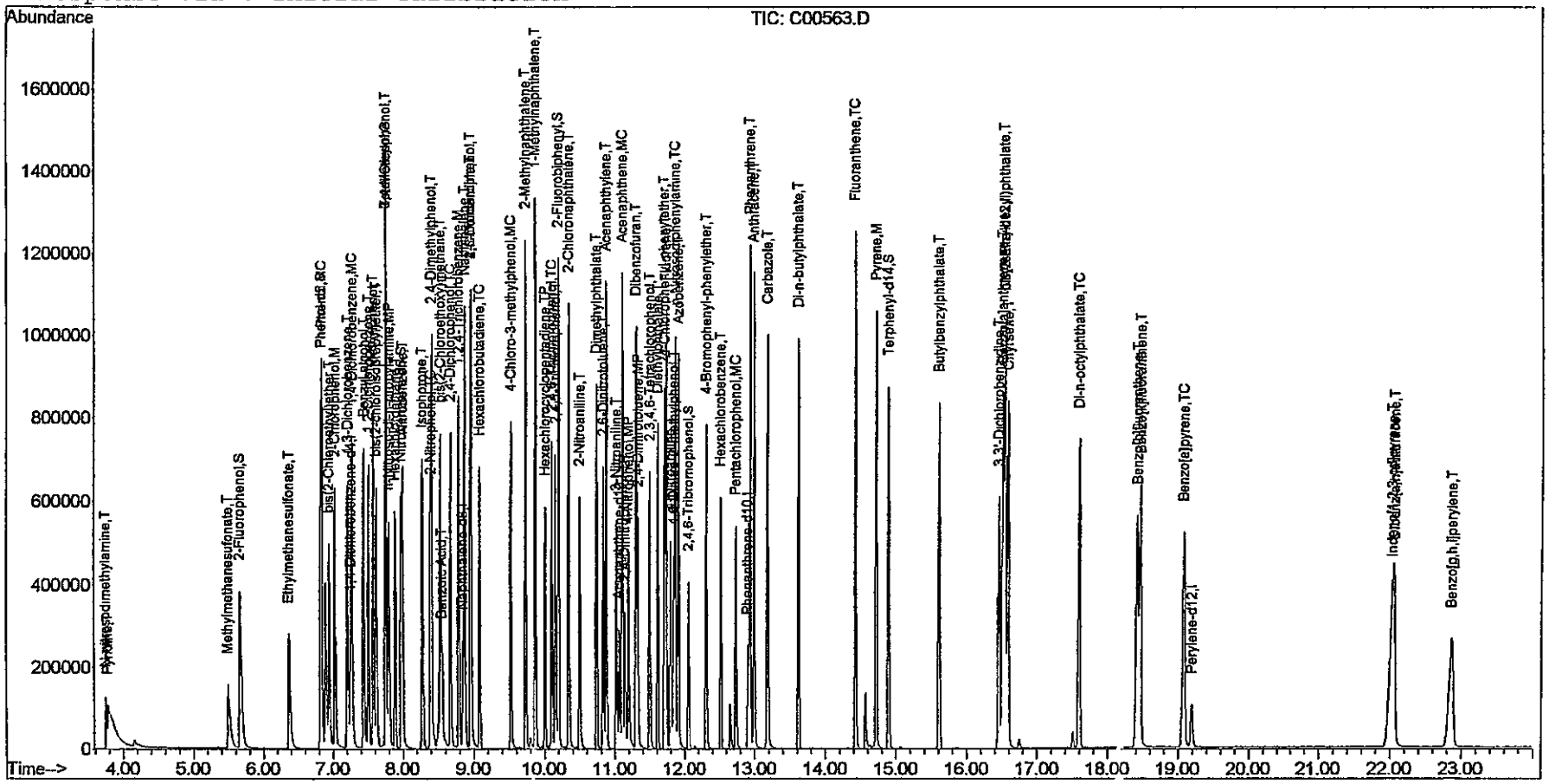
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	722982	166.18 ul/l	99
73)	Pyrene	14.72	202	757458	166.50 ul/l	99
75)	Butylbenzylphthalate	15.61	149	562627	174.38 ul/l	100
76)	3,3'-Dichlorobenzidine	16.46	252	183306	181.21 ul/l	100
77)	Benzo[a]anthracene	16.51	228	748458	169.01 ul/l	100
78)	Chyrsene	16.59	228	700639	162.65 ul/l	100
79)	bis(2-Ethylhexyl)phthalate	16.54	149	481595	158.93 ul/l	100
81)	Di-n-octylphthalate	17.60	149	673858	169.76 ul/l	100
82)	Benzo[b]fluoranthene	18.41	252	623935	158.67 ul/l	100
83)	Benzo[k]fluoranthene	18.46	252	575414	151.23 ul/l	98
84)	Benzo[a]pyrene	19.07	252	593403	160.50 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	22.02	276	655000	154.19 ul/l	100
86)	Dibenz[a,h]anthracene	22.05	278	522803	154.52 ul/l	99
87)	Benzo[g,h,i]perylene	22.86	276	626409	154.56 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00563.D Vial: 13
Acq On : 4 Jan 2001 1:09 pm Operator: JP
Sample : BNA 160 PPM S01007 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 13:37 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00562.D Vial: 12
Acq On : 4 Jan 2001 12:33 pm Operator: JP
Sample : BNA 200 PPM S01008 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 12:57:20 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	62505	40.00	ul/l	0.00
21) Naphthalene-d8	8.85	136	148129	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	163458	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	116734	40.00	ul/l	0.00
72) Chyrsene-d12	16.54	240	113622	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	85050	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.66	112	513097	215.63	ul/l	0.00
Spiked Amount 100.000			Recovery	=	215.63%	
7) Phenol-d5	6.82	99	562807	198.20	ul/l	0.00
Spiked Amount 100.000			Recovery	=	198.20%	
22) Nitrobenzene-d5	7.97	82	604351	199.73	ul/l	0.00
Spiked Amount 50.000			Recovery	=	399.46%	
42) 2-Fluorobiphenyl	10.19	172	736303	193.47	ul/l	0.00
Spiked Amount 50.000			Recovery	=	386.94%	
63) 2,4,6-Tribromophenol	12.05	330	110684	211.75	ul/l	0.00
Spiked Amount 100.000			Recovery	=	211.75%	
74) Terphenyl-d14	14.89	244	474734	192.29	ul/l	0.00
Spiked Amount 50.000			Recovery	=	384.58%	

Target Compounds						Qvalue
2) Pyridine	3.83	79	280956m	201.06	ul/l	
3) N-nitrosodimethylamine	3.76	42	147411	214.89	ul/l #	98
4) Methylmethanesufonate	5.49	80	163928	199.19	ul/l	99
6) Ethylmethanesulfonate	6.36	79	248342	195.65	ul/l	98
8) Phenol	6.83	94	661076	198.07	ul/l	99
9) bis(2-Chloroethyl)ether	6.95	63	573842	199.19	ul/l	100
10) 2-Chlorophenol	7.02	128	487433	199.46	ul/l	99
11) 1,3-Dichlorobenzene	7.20	146	447784	189.71	ul/l	99
12) 1,4-Dichlorobenzene	7.27	146	518529	183.91	ul/l	99
13) Benzyl alcohol	7.43	108	610019	192.42	ul/l	99
14) 1,2-Dichlorobenzene	7.50	146	433355	187.70	ul/l	99
15) 2-Methylphenol	7.57	108	438145	186.65	ul/l	99
16) bis(2-chloroisopropyl)ethe	7.62	45	531191	181.50	ul/l	97
17) 3,4-Methylphenol	7.76	108	1023700	376.79	ul/l	100
18) Total Cresol	7.76	108	719597m	562.78	ul/l	
19) n-Nitroso-di-n-propylamine	7.80	70	368027	186.65	ul/l	99
20) Hexachloroethane	7.89	117	258639	185.68	ul/l	100
23) Nitrobenzene	8.00	77	501652	195.95	ul/l	100
24) Isophorone	8.28	82	554427	186.41	ul/l	99
25) 2-Nitrophenol	8.39	139	282405	204.55	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00562.D Vial: 12
Acq On : 4 Jan 2001 12:33 pm Operator: JP
Sample : BNA 200 PPM S01008 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 12:57:20 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	603935	195.73 ul/l		100
27)	Benzoic Acid	8.57	105	181256	211.46 ul/l		98
28)	bis(2-Chloroethoxy)methane	8.53	93	421333	194.78 ul/l		99
29)	2,4-Dichlorophenol	8.67	162	398816	198.14 ul/l		99
30)	1,2,4-Trichlorobenzene	8.79	180	490419	188.38 ul/l		100
31)	Naphthalene	8.87	128	796943	187.56 ul/l		100
32)	4-Chloroaniline	8.95	127	432606	174.68 ul/l		99
33)	2,6-Dichlorophenol	8.96	162	187155	187.27 ul/l		99
34)	Hexachlorobutadiene	9.08	225	237823	187.62 ul/l		100
35)	4-Chloro-3-methylphenol	9.53	107	432477	191.95 ul/l		99
36)	2-Methylnaphthalene	9.73	142	855228	171.11 ul/l		100
37)	1-Methylnaphthalene	9.87	142	488254	183.95 ul/l		99
39)	Hexachlorocyclopentadiene	10.01	237	233557	216.80 ul/l		99
40)	2,4,6-Trichlorophenol	10.11	196	289550	204.14 ul/l		99
41)	2,4,5-Trichlorophenol	10.15	196	308002	199.59 ul/l		98
43)	2-Chloronaphthalene	10.34	162	715947	196.75 ul/l		98
44)	2-Nitroaniline	10.49	65	394571	199.68 ul/l		99
45)	Dimethylphthalate	10.74	163	494808	187.98 ul/l		100
46)	Acenaphthylene	10.87	152	849589	192.29 ul/l		99
47)	2,6-Dinitrotoluene	10.83	165	190304	192.80 ul/l		99
48)	3-Nitroaniline	11.02	138	250250	191.60 ul/l		99
49)	Acenaphthene	11.10	153	875900	188.89 ul/l		99
50)	2,4-Dinitrophenol	11.14	184	136572	213.18 ul/l		98
51)	4-Nitrophenol	11.19	109	258770	201.74 ul/l		99
52)	Dibenzofuran	11.29	168	769048	172.69 ul/l		100
53)	2,4-Dinitrotoluene	11.32	165	180925	196.63 ul/l		95
54)	Diethylphthalate	11.61	149	491016	181.36 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	97974	201.02 ul/l		99
56)	Fluorene	11.73	166	795509	185.64 ul/l		99
57)	4-Chlorophenyl-phenylether	11.70	204	391137	190.41 ul/l		99
58)	4-Nitroaniline	11.79	138	257262	194.03 ul/l		99
60)	4,6-Dinitro-2-methylphenol	11.83	198	144246	212.98 ul/l		100
61)	n-Nitrosodiphenylamine	11.86	169	583235	194.65 ul/l		100
62)	Azobenzene	11.90	77	509753	193.05 ul/l		99
64)	4-Bromophenyl-phenylether	12.31	248	295194	197.73 ul/l		100
65)	Hexachlorobenzene	12.52	284	165716	191.25 ul/l		100
66)	Pentachlorophenol	12.73	266	157743	210.37 ul/l		100
67)	Phenanthrene	12.93	178	792338	188.84 ul/l		100
68)	Anthracene	12.99	178	742534	189.90 ul/l		99
69)	Carbazole	13.18	167	542568	195.89 ul/l	#	99
70)	Di-n-butylphthalate	13.61	149	731084	197.00 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00562.D Vial: 12
Acq On : 4 Jan 2001 12:33 pm Operator: JP
Sample : BNA 200 PPM S01008 Inst : Instrumen
Misc : Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jan 04 12:57:20 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

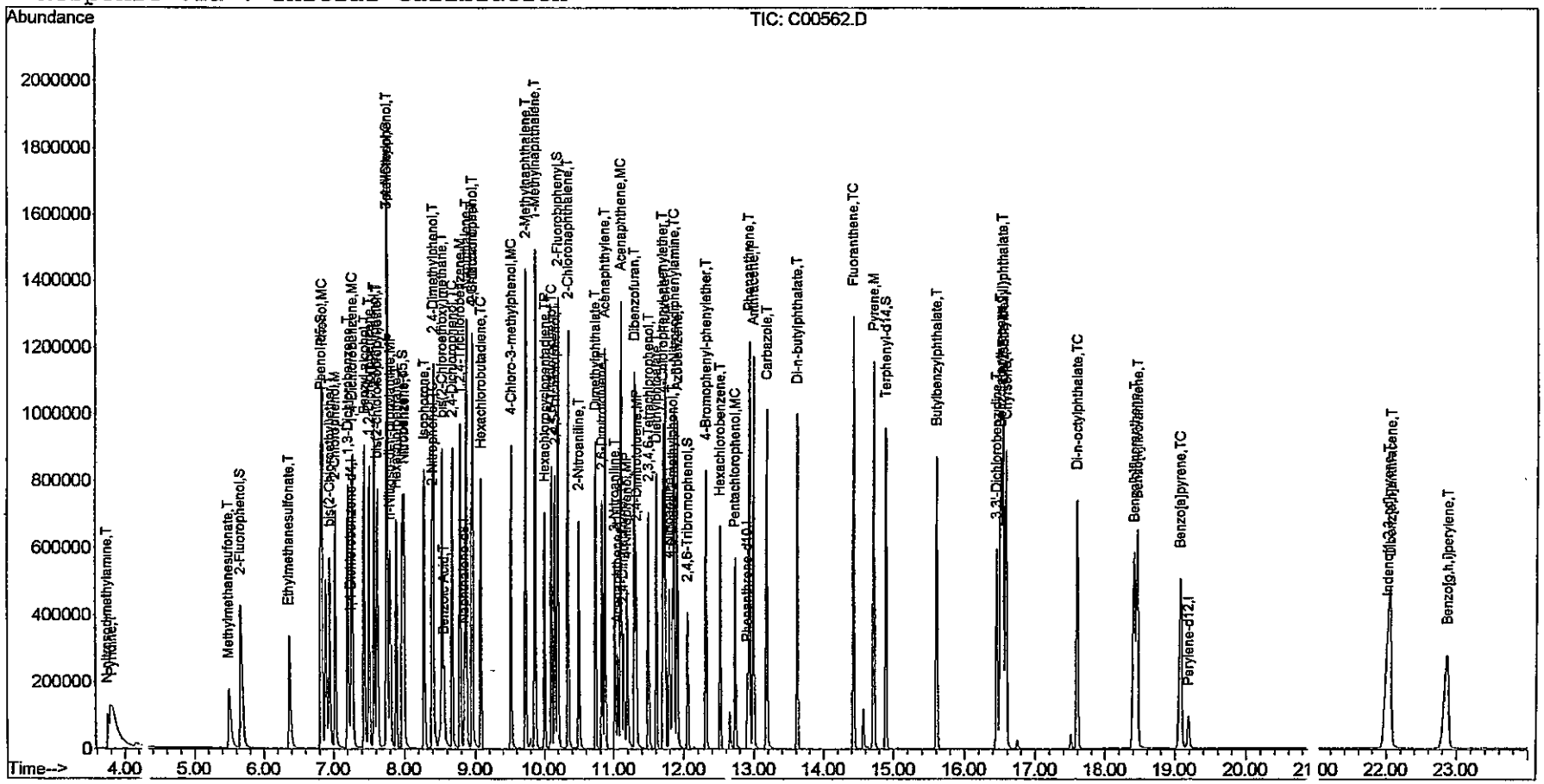
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	752254	195.47 ul/l	99
73)	Pyrene	14.72	202	796243	194.09 ul/l	99
75)	Butylbenzylphthalate	15.61	149	587151	201.81 ul/l	100
76)	3,3'-Dichlorobenzidine	16.46	252	178007	195.15 ul/l	100
77)	Benzo[a]anthracene	16.51	228	757996	189.82 ul/l	100
78)	Chyrsene	16.59	228	724243	186.45 ul/l	99
79)	bis(2-Ethylhexyl)phthalate	16.55	149	501083	183.37 ul/l	99
81)	Di-n-octylphthalate	17.60	149	677175	187.84 ul/l	100
82)	Benzo[b]fluoranthene	18.41	252	674944	189.00 ul/l	98
83)	Benzo[k]fluoranthene	18.46	252	576180	166.74 ul/l	98
84)	Benzo[a]pyrene	19.08	252	607642	180.96 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	22.01	276	710538	184.18 ul/l	100
86)	Dibenz[a,h]anthracene	22.05	278	563656	183.44 ul/l	99
87)	Benzo[g,h,i]perylene	22.86	276	685223	186.16 ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Rep~~rt (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00562.D Vial: 12
Acq On : 4 Jan 2001 12:33 pm Operator: JP
Sample : BNA 200 PPM S01008 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 15:31 2001 Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 15:31:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D Vial: 16
Acq On : 4 Jan 2001 2:56 pm Operator: JP
Sample : BNA ICV 50 PPM S01009 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 15:20:15 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.25	152	52156	40.00	ul/l	0.00
21) Naphthalene-d8	8.84	136	130016	40.00	ul/l	0.00
38) Acenaphthene-d10	11.06	164	152839	40.00	ul/l	0.00
59) Phenanthrene-d10	12.90	188	112156	40.00	ul/l	0.00
72) Chyrsene-d12	16.53	240	107604	40.00	ul/l	0.00
80) Perylene-d12	19.18	264	74133	40.00	ul/l	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.68	112	100610	50.67	ul/l	0.00
Spiked Amount 100.000			Recovery = 50.67%			
7) Phenol-d5	6.82	99	120122	50.70	ul/l	0.00
Spiked Amount 100.000			Recovery = 50.70%			
22) Nitrobenzene-d5	7.97	82	133834	50.39	ul/l	0.00
Spiked Amount 50.000			Recovery = 100.78%			
42) 2-Fluorobiphenyl	10.19	172	180179	50.63	ul/l	0.00
Spiked Amount 50.000			Recovery = 101.26%			
63) 2,4,6-Tribromophenol	12.05	330	26248	52.26	ul/l	0.00
Spiked Amount 100.000			Recovery = 52.26%			
74) Terphenyl-d14	14.89	244	119625	51.16	ul/l	0.00
Spiked Amount 50.000			Recovery = 102.32%			

Target Compounds						Qvalue
2) Pyridine	3.93	79	49753m	47.53	ul/l	
3) N-nitrosodimethylamine	3.82	42	27076	47.30	ul/l #	94
4) Methylmethanesufonate	5.52	80	26771m	38.98	ul/l	
6) Ethylmethanesulfonate	6.38	79	52086	49.18	ul/l	100
8) Phenol	6.83	94	147392	52.92	ul/l	99
9) bis(2-Chloroethyl)ether	6.95	63	116419	48.43	ul/l	98
10) 2-Chlorophenol	7.03	128	110643	54.26	ul/l	99
11) 1,3-Dichlorobenzene	7.21	146	108260	54.97	ul/l	100
12) 1,4-Dichlorobenzene	7.27	146	117878	50.11	ul/l	99
13) Benzyl alcohol	7.43	108	132625	50.84	ul/l	99
14) 1,2-Dichlorobenzene	7.50	146	108266	56.20	ul/l	100
15) 2-Methylphenol	7.57	108	104044	53.12	ul/l	97
16) bis(2-chloroisopropyl)ethe	7.62	45	129804	53.15	ul/l	98
17) 3,4-Methylphenol	7.74	108	135497	59.77	ul/l	95
18) Total Cresol	7.74	108	116778m	109.45	ul/l #	
19) n-Nitroso-di-n-propylamine	7.79	70	80109	48.69	ul/l	99
20) Hexachloroethane	7.89	117	58996	50.76	ul/l	100
23) Nitrobenzene	7.99	77	111170	49.47	ul/l	99
24) Isophorone	8.28	82	105502	40.41	ul/l	99
25) 2-Nitrophenol	8.39	139	63098	52.07	ul/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D Vial: 16
Acq On : 4 Jan 2001 2:56 pm Operator: JP
Sample : BNA ICV 50 PPM S01009 Inst : Instrumen
Misc : Multiplr: 1.00
4S Integration Params: rteint.p
Quant Time: Jan 04 15:20:15 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	8.41	107	148398	54.80 ul/l		100
27)	Benzoic Acid	8.51	105	33498	44.53 ul/l		95
28)	bis(2-Chloroethoxy)methane	8.53	93	94905	49.99 ul/l		100
29)	2,4-Dichlorophenol	8.67	162	94579	53.53 ul/l		100
30)	1,2,4-Trichlorobenzene	8.78	180	112497	49.23 ul/l		100
31)	Naphthalene	8.87	128	205379	55.07 ul/l		100
32)	4-Chloroaniline	8.95	127	96890	44.57 ul/l		99
33)	2,6-Dichlorophenol	8.96	162	46656	53.19 ul/l		96
34)	Hexachlorobutadiene	9.08	225	59940	53.87 ul/l		99
35)	4-Chloro-3-methylphenol	9.53	107	102474	51.82 ul/l		100
36)	2-Methylnaphthalene	9.73	142	211918	48.31 ul/l		100
37)	1-Methylnaphthalene	9.87	142	101106	43.40 ul/l		100
39)	Hexachlorocyclopentadiene	10.01	237	44265	43.94 ul/l		99
40)	2,4,6-Trichlorophenol	10.10	196	69770	52.61 ul/l		98
41)	2,4,5-Trichlorophenol	10.15	196	78370	54.31 ul/l		98
43)	2-Chloronaphthalene	10.34	162	170608	50.14 ul/l		100
44)	2-Nitroaniline	10.49	65	94859	51.34 ul/l		99
45)	Dimethylphthalate	10.73	163	126397	51.35 ul/l		100
46)	Acenaphthylene	10.87	152	210044	50.84 ul/l		100
47)	2,6-Dinitrotoluene	10.83	165	46241	50.10 ul/l		99
48)	3-Nitroaniline	11.01	138	62149	50.89 ul/l		99
49)	Acenaphthene	11.10	153	235616	54.34 ul/l		100
50)	2,4-Dinitrophenol	11.14	184	25199	42.07 ul/l		92
51)	4-Nitrophenol	11.18	109	59851	49.90 ul/l		99
52)	Dibenzofuran	11.29	168	201773	48.46 ul/l		100
53)	2,4-Dinitrotoluene	11.32	165	47219	54.88 ul/l		97
54)	Diethylphthalate	11.60	149	135629	53.58 ul/l		100
55)	2,3,4,6-Tetrachlorophenol	11.49	232	23737	52.09 ul/l		99
56)	Fluorene	11.72	166	219370	54.75 ul/l		100
57)	4-Chlorophenyl-phenylether	11.70	204	100627	52.39 ul/l		100
58)	4-Nitroaniline	11.78	138	63019	50.83 ul/l		99
60)	4,6-Dinitro-2-methylphenol	11.83	198	32227	49.53 ul/l		98
61)	n-Nitrosodiphenylamine	11.85	169	150376	52.23 ul/l		99
62)	Azobenzene	11.90	77	125123	49.32 ul/l		98
64)	4-Bromophenyl-phenylether	12.31	248	71769	50.04 ul/l		100
65)	Hexachlorobenzene	12.52	284	46571	55.94 ul/l		98
66)	Pentachlorophenol	12.73	266	41864	58.11 ul/l		100
67)	Phenanthrene	12.93	178	201212	49.91 ul/l		100
68)	Anthracene	12.99	178	197327	52.52 ul/l		99
69)	Carbazole	13.17	167	138544	52.06 ul/l	#	100
70)	Di-n-butylphthalate	13.61	149	182952	51.31 ul/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D Vial: 16
Acq On : 4 Jan 2001 2:56 pm Operator: JP
Sample : BNA ICV 50 PPM S01009 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 04 15:20:15 2001 Quant Results File: 8270S.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 12:56:17 2001
Response via : Initial Calibration
DataAcq Meth : 8270S

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	14.43	202	181709	49.14 ul/l	100
73)	Pyrene	14.71	202	212539	54.71 ul/l	100
75)	Butylbenzylphthalate	15.61	149	134979	48.99 ul/l	100
76)	3,3'-Dichlorobenzidine	16.45	252	41748	48.33 ul/l	99
77)	Benzo[a]anthracene	16.51	228	189530	50.12 ul/l	100
78)	Chyrsene	16.58	228	183068	49.77 ul/l	100
79)	bis(2-Ethylhexyl)phthalate	16.54	149	127287	49.19 ul/l	99
81)	Di-n-octylphthalate	17.59	149	160082	50.94 ul/l	100
82)	Benzo[b]fluoranthene	18.40	252	161026	51.73 ul/l	99
83)	Benzo[k]fluoranthene	18.44	252	160750	53.37 ul/l	100
84)	Benzo[a]pyrene	19.06	252	143143	48.91 ul/l	99
85)	Indeno[1,2,3-cd]pyrene	21.99	276	173602	51.63 ul/l	100
86)	Dibenz[a,h]anthracene	22.02	278	139910	52.24 ul/l	99
87)	Benzo[g,h,i]perylene	22.82	276	170442	53.12 ul/l	99

(#) = qualifier out of range (m) = manual integration

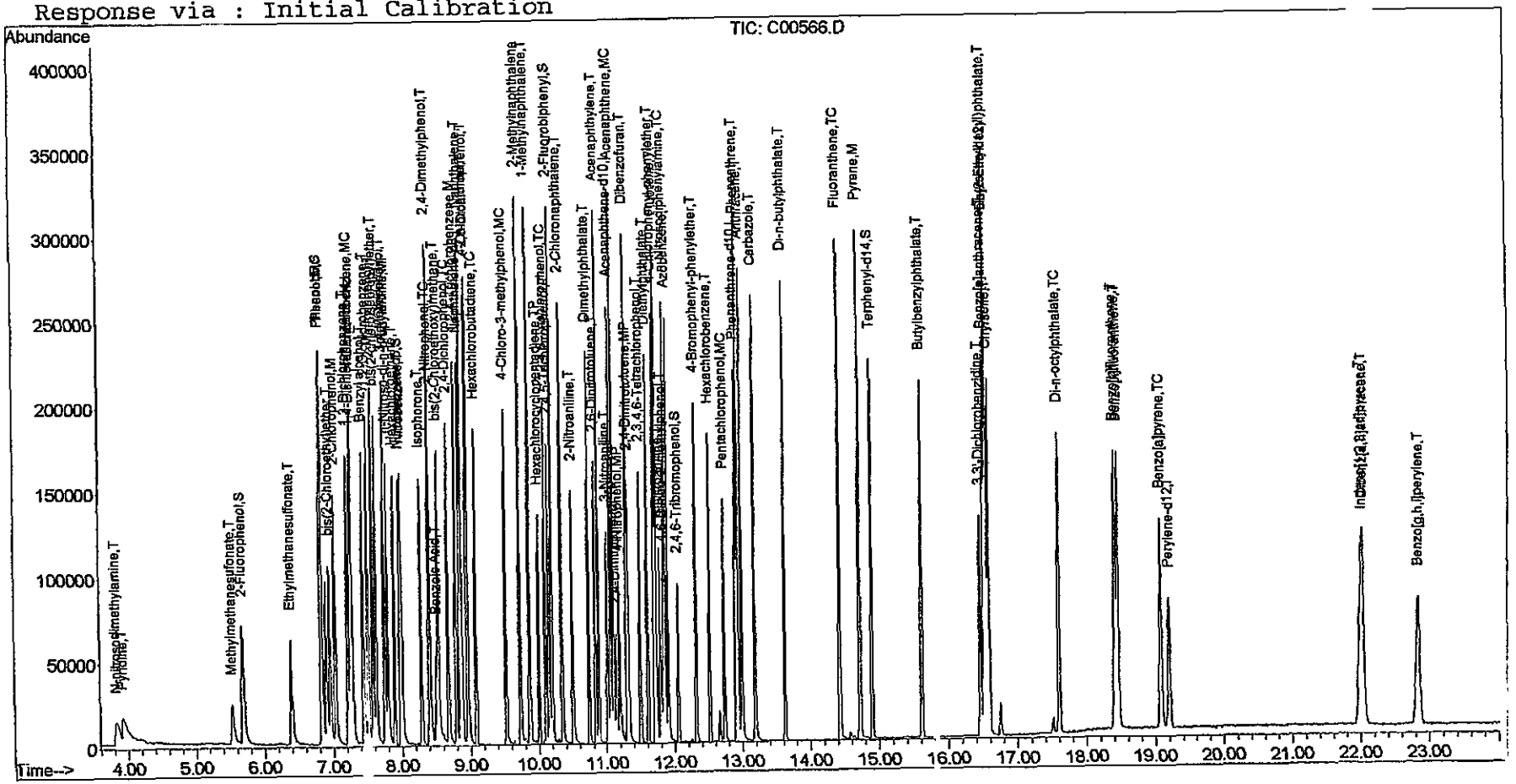
Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D
Acq On : 4 Jan 2001 2:56 pm
Sample : BNA ICV 50 PPM S01009
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 4 15:20 2001

Vial: 16
Operator: JP
Inst : Instrumen
Multiplr: 1.00

Quant Results File: 8270S.RES

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D Vial: 16
Acq On : 4 Jan 2001 2:56 pm Operator: JP
Sample : BNA ICV 50 PPM S01009 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	74	0.00
2	T	Pyridine	0.786	0.763	2.9	78	0.04
3	T	N-nitrosodimethylamine	0.443	0.415	6.3	68	0.04
4	T	Methylmethanesufonate	0.523	0.411	21.4#	56	0.02
5	S	2-Fluorophenol	1.533	1.543	-0.7	73	0.00
6	T	Ethylmethanesulfonate	0.805	0.799	0.7	72	0.00
7	S	Phenol-d5	1.807	1.843	-2.0	75	0.00
8	MC	Phenol	2.121	2.261	-6.6	78	0.00
9	T	bis(2-Chloroethyl)ether	1.849	1.786	3.4	70	0.00
10	M	2-Chlorophenol	1.569	1.697	-8.2	79	0.00
11	T	1,3-Dichlorobenzene	1.516	1.661	-9.6	81	0.00
12	MC	1,4-Dichlorobenzene	1.810	1.808	0.1	75	0.00
13	T	Benzyl alcohol	2.067	2.034	1.6	77	0.00
14	T	1,2-Dichlorobenzene	1.480	1.661	-12.2	82	0.00
15	T	2-Methylphenol	1.495	1.596	-6.8	80	0.00
16	T	bis(2-chloroisopropyl)ether	1.871	1.991	-6.4	79	0.00
17	T	3,4-Methylphenol	1.727	1.039	39.8#	44#	0.00
18	G	Total Cresol	0.814	0.597	26.7#	54	0.00
19	MP	n-Nitroso-di-n-propylamine	1.249	1.229	1.6	69	0.00
20	T	Hexachloroethane	0.893	0.905	-1.3	75	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	71	0.00
22	S	Nitrobenzene-d5	0.815	0.823	-1.0	74	0.00
23	T	Nitrobenzene	0.690	0.684	0.9	72	0.00
24	T	Isophorone	0.793	0.649	18.2	59	0.00
25	TC	2-Nitrophenol	0.371	0.388	-4.6	76	0.00
26	T	2,4-Dimethylphenol	0.830	0.913	-10.0	81	0.00
27	T	Benzoic Acid	0.228	0.206	9.6	79	0.00
28	T	bis(2-Chloroethoxy)methane	0.582	0.584	-0.3	75	0.00
29	TC	2,4-Dichlorophenol	0.542	0.582	-7.4	78	0.00
30	M	1,2,4-Trichlorobenzene	0.703	0.692	1.6	74	0.00
31	T	Naphthalene	1.146	1.264	-10.3	82	0.00
32	T	4-Chloroaniline	0.662	0.596	10.0	69	0.00
33	T	2,6-Dichlorophenol	0.268	0.287	-7.1	78	0.00
34	TC	Hexachlorobutadiene	0.341	0.369	-8.2	81	0.00
35	MC	4-Chloro-3-methylphenol	0.599	0.631	-5.3	75	0.00
36	T	2-Methylnaphthalene	1.340	1.304	2.7	77	0.00
37	T	1-Methylnaphthalene	0.715	0.622	13.0	64	0.00
38	I	Acenaphthene-d10	1.000	1.000	0.0	70	0.00
39	TP	Hexachlorocyclopentadiene	0.265	0.232	12.5	64	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D Vial: 16
Acq On : 4 Jan 2001 2:56 pm Operator: JP
Sample : BNA ICV 50 PPM S01009 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	TC	2,4,6-Trichlorophenol	0.348	0.365	-4.9	76	0.00
41	T	2,4,5-Trichlorophenol	0.377	0.410	-8.8	78	0.00
42	S	2-Fluorobiphenyl	0.934	0.943	-1.0	74	0.00
43	T	2-Chloronaphthalene	0.894	0.893	0.1	74	0.00
44	T	2-Nitroaniline	0.482	0.497	-3.1	76	0.00
45	T	Dimethylphthalate	0.638	0.662	-3.8	73	0.00
46	T	Acenaphthylene	1.081	1.099	-1.7	74	0.00
47	T	2,6-Dinitrotoluene	0.239	0.242	-1.3	72	0.00
48	T	3-Nitroaniline	0.316	0.325	-2.8	74	0.00
49	MC	Acenaphthene	1.137	1.233	-8.4	79	0.00
50	TP	2,4-Dinitrophenol	0.154	0.132	14.3	68	0.00
51	MP	4-Nitrophenol	0.308	0.313	-1.6	77	0.00
52	T	Dibenzofuran	1.087	1.056	2.9	76	0.00
53	MP	2,4-Dinitrotoluene	0.223	0.247	-10.8	80	0.00
54	T	Diethylphthalate	0.654	0.710	-8.6	77	0.00
55	T	2,3,4,6-Tetrachlorophenol	0.118	0.124	-5.1	73	0.00
56	T	Fluorene	1.044	1.148	-10.0	79	0.00
57	T	4-Chlorophenyl-phenylether	0.499	0.527	-5.6	77	0.00
58	T	4-Nitroaniline	0.320	0.330	-3.1	76	0.00
59	I	Phenanthrene-d10	1.000	1.000	0.0	68	0.00
60	T	4,6-Dinitro-2-methylphenol	0.232	0.230	0.9	71	0.00
61	TC	n-Nitrosodiphenylamine	1.032	1.073	-4.0	74	0.00
62	T	Azobenzene	0.907	0.892	1.7	70	0.00
63	S	2,4,6-Tribromophenol	0.179	0.187	-4.5	73	0.00
64	T	4-Bromophenyl-phenylether	0.511	0.512	-0.2	71	0.00
65	T	Hexachlorobenzene	0.297	0.332	-11.8	81	0.00
66	MC	Pentachlorophenol	0.255	0.299	-17.3	85	0.00
67	T	Phenanthrene	1.443	1.435	0.6	71	0.00
68	T	Anthracene	1.342	1.408	-4.9	74	0.00
69	T	Carbazole	0.951	0.988	-3.9	74	0.00
70	T	Di-n-butylphthalate	1.263	1.305	-3.3	74	0.00
71	TC	Fluoranthene	1.321	1.296	1.9	70	0.00
72	I	Chyrsene-d12	1.000	1.000	0.0	75	0.00
73	M	Pyrene	1.450	1.580	-9.0	78	0.00
74	S	Terphenyl-d14	0.870	0.889	-2.2	73	0.00
75	T	Butylbenzylphthalate	1.015	1.004	1.1	72	0.00
76	T	3,3'-Dichlorobenzidine	0.322	0.310	3.7	72	0.00
77	T	Benzo[a]anthracene	1.403	1.409	-0.4	76	0.00
78	T	Chyrsene	1.364	1.361	0.2	75	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\010401\C00566.D Vial: 16
Acq On : 4 Jan 2001 2:56 pm Operator: JP
Sample : BNA ICV 50 PPM S01009 Inst : Instrumen
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270S.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Jan 04 14:47:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	bis(2-Ethylhexyl)phthalate	0.957	0.946	1.1	76	0.00
80	I	Perylene-d12	1.000	1.000	0.0	72	0.00
81	TC	Di-n-octylphthalate	1.689	1.728	-2.3	73	0.00
82	T	Benzo[b]fluoranthene	1.674	1.738	-3.8	79	0.00
83	T	Benzo[k]fluoranthene	1.613	1.735	-7.6	78	0.00
84	TC	Benzo[a]pyrene	1.572	1.545	1.7	73	0.00
85	T	Indeno[1,2,3-cd]pyrene	1.799	1.873	-4.1	82	0.00
86	T	Dibenz[a,h]anthracene	1.433	1.510	-5.4	83	0.00
87	T	Benzo[g,h,i]perylene	1.709	1.839	-7.6	85	0.00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: BENZ 120
Lab Standard ID# S00219
Prepared By: JP

Date Made: 11.15.2000
Expire Date: 05.15.2001
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
DFTPP MIX	S00A217	1000ppm	120ul	120ppm
MeCl2	EX00098	-	to 1ml	-
ISTD	S00A158	1000ppm	10ul	10ppm

Standard Name: DFTPP
Lab Standard ID# S00220
Prepared By: JP

Date Made: 11.16.2000
Expire Date: 05.16.2001
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
DFTPP MIX	S00A217	1000ppm	500ul	50ppm
MeCl2	EX00098	-	to 10ml	-

Stprigfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: BNA 10
Lab Standard ID# S01002
Prepared By: JP

Date Made: 01.03.2001
Expire Date: 03.29.2001
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	50µl	10ppm
MeCl2	EX00128	-	to 1ml	-
ISTD	S00A285	4000ppm	10µl	40ppm

Standard Name: BNA 20
Lab Standard ID# S01003
Prepared By: JP

Date Made: 01.03.2001
Expire Date: 03.29.2001
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	100µl	20ppm
MeCl2	EX00128	-	to 1ml	-
ISTD	S00A285	4000ppm	10µl	40ppm

Stprlgfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: BNA 50
Lab Standard ID# S01004
Prepared By: JP

Date Made: 01.03.2001
Expire Date: 03.29.2001
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	250µl	50ppm
MeCl2	EX00128	-	to 1ml	-
ISTD	S00A285	4000ppm	10µl	40ppm

Standard Name: BNA 80
Lab Standard ID# S01005
Prepared By: JP

Date Made: 01.03.2001
Expire Date: 03.29.2001
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	400µl	80ppm
MeCl2	EX00128	-	to 1ml	-
ISTD	S00A285	4000ppm	10µl	40ppm

Stprlgfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: BNA 120
Lab Standard ID#: S01006
Prepared By: JP

Date Made: 01.03.2001
Expire Date: 03.29.2001
Matrix: $MeCl_2$

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	600µl	120ppm
$MeCl_2$	EX00128	-	to 1ml	-
ISTD	S00N285	4000ppm	10µl	40ppm

Standard Name: BNA 160
Lab Standard ID#: S01007
Prepared By: JP

Date Made: 01.03.2001
Expire Date: 03.29.2001
Matrix: $MeCl_2$

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
BNA INTERMEDIATE	S00174	200ppm	800µl	160ppm
$MeCl_2$	EX00128	-	to 1ml	-
ISTD	S00N285	4000ppm	10µl	40ppm

Sprigfr.xls

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

GC\MS SEMI-VOLATILE INSTRUMENT LOG

Initial Cal. Date: 01.04.2001 / 11.15.2000

Calib. File: 8270S.~ / BNZ.~

Quant ID File: 8270S.~ / BNZ.~

DDT % breakdown (<20): 0%

MS Conditions

EM: 1400

Tune File: DFTPP

Scan Delay: 3.50

CCV IS Areas

#1	70708
#2	182605
#3	217328
#4	163873
#5	144106
#6	102433

Date: 01.04.2001

Analyst(s): JP

File Name	Lab Sample ID	Matrix	Analysis	DF	ALS#	Comments	IS	SS	OK
C00551	DFTPP	-	DFTPP		1	S00220 0627	-	-	✓
52	BNA 160	-	8270S		2	S01007 NOT USED	✓	-	X
53	BNA 10	-	↓		3	S01002 NOT USED	✓	-	X
54	BNA 120	-			4	S01006	✓	-	✓
55	BNA 20	-			5	S01003	✓	-	✓
56	BNA 50	-			6	S01004 NOT USED	✓	-	X
57	BNA 80	-			7	S01005	✓	-	✓
58	BNA 200	-			8	S01008 NOT USED	✓	-	X
59	BNA 10	-			9	S01002 NOT USED	✓	-	X
60	BNA 50	-			10	S01001	✓	-	✓
61	BNA 10	-			11	S01002	✓	-	✓
62	BNA 200	-			12	S01008	✓	-	✓
63	BNA 160	-			13	S01007	✓	-	✓
64	BNA 160	-			14	S01007 NOT USED	✓	-	X
65	BNA 120	-			15	S01006 NOT USED	✓	-	X
66	BNA ICV 50	-	↓		16	S01009 1456	✓	-	✓

Sign\Date: JP 01.04.2001

Approved By\Date:

VOA GC/MS QC CHECKLIST
SW-846-8260B

Project specific QC

BATCH #: C122200W	METHOD: 8260B
MATRIX: water	

Are BS/BSD/MS/MSD recoveries within recovery ranges?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all surrogate recoveries within recovery ranges?	Y	N	NA
Are all Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Are all MS/MSD compounds below the high standard?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined out, initialled, & dated?	Y	N	NA

Analyst: VR		Reviewer: Thomas A. Dotts	
Date: 12/28/00	Time: 10:00	Date: 1/4/2001	Time: 00:40

Spike Recovery and RPD Summary Report - WATER

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration

Non-Spiked Sample: C18213.D

	Spike Sample			Spike Duplicate Sample		
File ID :	C18222.D			C18223.D		
Sample :	AC05503ms	5ml	DF=1	AC05503msd	5ml	DF=1
Acq Time:	27 Dec 2000	19:37		27 Dec 2000	20:05	

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	Rec
1,1-Dichloroethene	0.0	50	50	48	99	96	4	20	81-115
Benzene	0.0	50	49	49	97	98	1	20	83-117
Trichloroethene	9.1	50	59	61	101	103	3	20	82-111
Toluene	0.0	50	50	51	100	101	1	20	84-105
Chlorobenzene	0.0	50	51	51	101	102	1	20	86-115

- Fails Limit Check

122700W.M Thu Dec 28 10:01:03 2000 RPT1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18222.D Vial: 4
Acq On : 27 Dec 2000 19:37 Operator: TAG/VR
Sample : AC05503ms 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 20:02 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	417614	50.00 ug\L	0.00
45) Chlorobenzene-d5	12.78	117	372521	50.00 ug\L	-0.01
61) 1,2-Dichlorobenzene-d4	16.89	152	225816	50.00 ug\L	-0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	189952	49.87 ug\L	-0.01
Spiked Amount 50.000	Range 84 - 124		Recovery = 99.74%		
46) Toluene-d8	10.27	98	500485	51.00 ug\L	-0.02
Spiked Amount 50.000	Range 86 - 107		Recovery = 102.00%		
65) Bromofluorobenzene	14.86	95	318053	49.08 ug\L	-0.02
Spiked Amount 50.000	Range 91 - 110		Recovery = 98.16%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	162471	30.65 ug\L	99
3) Chloromethane	1.76	50	77742	38.11 ug\L	100
4) Vinyl Chloride	1.83	62	109351	46.46 ug\L	100
5) Bromomethane	2.11	94	115746	62.94 ug\L	99
6) Chloroethane	2.21	64	51889	54.09 ug\L #	54
7) Trichlorofluoromethane	2.44	101	348168	48.91 ug\L #	100
8) Acrolein	2.84	56	5238	40.89 ug\L	91
9) Acrylonitrile	3.86	53	38203	100.35 ug\L #	72
10) 1,1-Dichloroethene	2.94	96	138312	49.73 ug\L #	59
11) Acetone	3.05	58	6061	59.56 ug\L #	45
12) Iodomethane	3.14	142	139025	29.99 ug\L #	88
13) Allylchloride	3.36	41	210909	49.62 ug\L #	93
14) Carbon Disulfide	3.16	76	290399	43.44 ug\L	97
15) Acetonitrile	3.36	41	210909	496.18 ug\L #	93
16) Methylene Chloride	3.53	84	124697	47.50 ug\L #	80
17) trans-1,2-Dichloroethene	3.82	96	141583	47.82 ug\L #	72
18) MethylTertButylEther	3.82	73	317627	47.52 ug\L	98
19) 1,1-Dichloroethane	4.44	63	254828	48.55 ug\L #	88
20) Vinyl Acetate	4.55	43	164088	43.55 ug\L #	82
21) 2,2-Dichloropropane	5.42	77	264974	48.71 ug\L #	89
22) cis-1,2-Dichloroethene	5.47	96	149696	49.94 ug\L #	73
23) 2-Butanone	5.56	72	8327	47.62 ug\L #	100
24) Propionitrile	5.74	54	66987	481.02 ug\L #	90
25) Methacrylonitrile	5.95	41	451167	484.76 ug\L #	48
26) Bromochloromethane	5.94	128	87690	48.69 ug\L #	68
27) Chloroform	6.09	83	358688	53.07 ug\L	99
28) 1,1,1-Trichloroethane	6.30	97	329186	49.90 ug\L	95
29) Carbon Tetrachloride	6.59	119	285500	48.58 ug\L	97
30) 1,4-Dioxane	8.89	88	17815	966.10 ug\L #	71

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18222.D Vial: 6
Acq On : 27 Dec 2000 19:37 Operator: TAG/VR
Sample : AC05503ms 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 20:02 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.60	75	289407	55.22 ug\L	#	93
33)	Benzene	6.98	78	427911	48.54 ug\L		100
34)	Isobutyl alcohol	7.17	43	52073	900.38 ug\L		98
36)	Trichloroethene	8.15	95	253632	59.41 ug\L		91
37)	1,2-Dichloropropane	8.57	63	174808	51.48 ug\L	#	94
38)	Dibromomethane	8.80	93	135357	50.77 ug\L		90
39)	Methylmethacrylate	8.86	69	78339	49.01 ug\L	#	69
40)	Bromodichloromethane	9.11	83	323585	51.12 ug\L		98
41)	2-Nitropropane	9.55	43	22077	46.79 ug\L		92
42)	2-Chloroethyl-vinyl ether	9.73	63	127	-2.11 ug\L	#	38
43)	cis-1,3-Dichloropropene	9.87	75	252133	51.12 ug\L	#	88
44)	4-Methyl-2-Pentanone	10.19	85	16704	48.48 ug\L	#	43
47)	Toluene	10.38	92	317690	49.92 ug\L		97
48)	trans-1,3-Dichloropropene	10.89	75	214105	50.15 ug\L		94
49)	Ethylmethacrylate	11.06	69	178865	49.76 ug\L	#	85
50)	1,1,2-Trichloroethane	11.20	83	126892	50.18 ug\L		98
51)	Tetrachloroethene	11.30	164	192030	51.12 ug\L		97
52)	1,3-Dichloropropane	11.46	76	242397	49.83 ug\L		97
53)	2-Hexanone	11.66	43	59556	47.36 ug\L	#	84
54)	Dibromochloromethane	11.84	129	255252	49.91 ug\L		99
55)	1,2-Dibromoethane	11.98	107	201361	49.94 ug\L		97
56)	Chlorobenzene	12.82	112	415517	50.71 ug\L		91
57)	1,1,1,2-Tetrachloroethane	13.01	131	218969	52.52 ug\L		97
58)	Ethylbenzene	13.03	91	658366	50.71 ug\L		96
59)	total-Xylene	13.23	106	751634m	153.58 ug\L		
60)	Styrene	13.98	104	416634	51.93 ug\L	#	82
62)	Bromoform	14.31	173	166472	51.19 ug\L		99
63)	Isopropylbenzene	14.58	105	804219	52.01 ug\L	#	95
64)	1,4-dichloro-2-Butene	14.80	53	47658	50.39 ug\L	#	92
66)	Bromobenzene	15.08	156	206091	50.00 ug\L		78
67)	1,1,2,2-Tetrachloroethane	15.24	83	211096	50.91 ug\L		99
68)	1,2,3-Trichloropropane	15.27	75	214646	52.40 ug\L		100
69)	n-Propylbenzene	15.31	91	815997	49.61 ug\L		99
70)	2-Chlorotoluene	15.43	91	542128	53.78 ug\L		92
71)	4-Chlorotoluene	15.63	91	717453	55.59 ug\L		95
72)	1,3,5-Trimethylbenzene	15.64	105	647073	50.55 ug\L		91
73)	Pentachloroethane	16.25	167	156351	53.16 ug\L	#	96
74)	tert-Butylbenzene	16.20	119	808072	52.24 ug\L		98
75)	1,2,4-Trimethylbenzene	16.29	105	637823	49.96 ug\L		94
76)	sec-Butylbenzene	16.59	105	900633	51.61 ug\L		99
77)	1,3-Dichlorobenzene	16.76	146	350188	51.60 ug\L		93
78)	Isopropyltoluene	16.86	119	725664	50.65 ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18222.D Vial: 8
Acq On : 27 Dec 2000 19:37 Operator: TAG/VR
Sample : AC05503ms 5ml DF=1 Inst : 1 DA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 20:02 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
79) 1,4-Dichlorobenzene	16.92	146	414116	49.94 ug\L		98
80) 1,2-Dichlorobenzene	17.57	146	345920	50.87 ug\L		97
81) n-Butylbenzene	17.59	91	691191	50.55 ug\L		94
82) 1,2-Dibromo-3-chloropropan	19.02	75	48689	51.98 ug\L	#	76
83) 1,2,4-trichlorobenzene	20.45	180	244583	44.81 ug\L		100
84) Hexachlorobutadiene	20.77	225	214281	51.51 ug\L		100
85) Naphthalene	20.88	128	329533	46.14 ug\L		100
86) 1,2,3-Trichlorobenzene	21.32	180	202278	47.17 ug\L		97

(#) = qualifier out of range (m) = manual integration

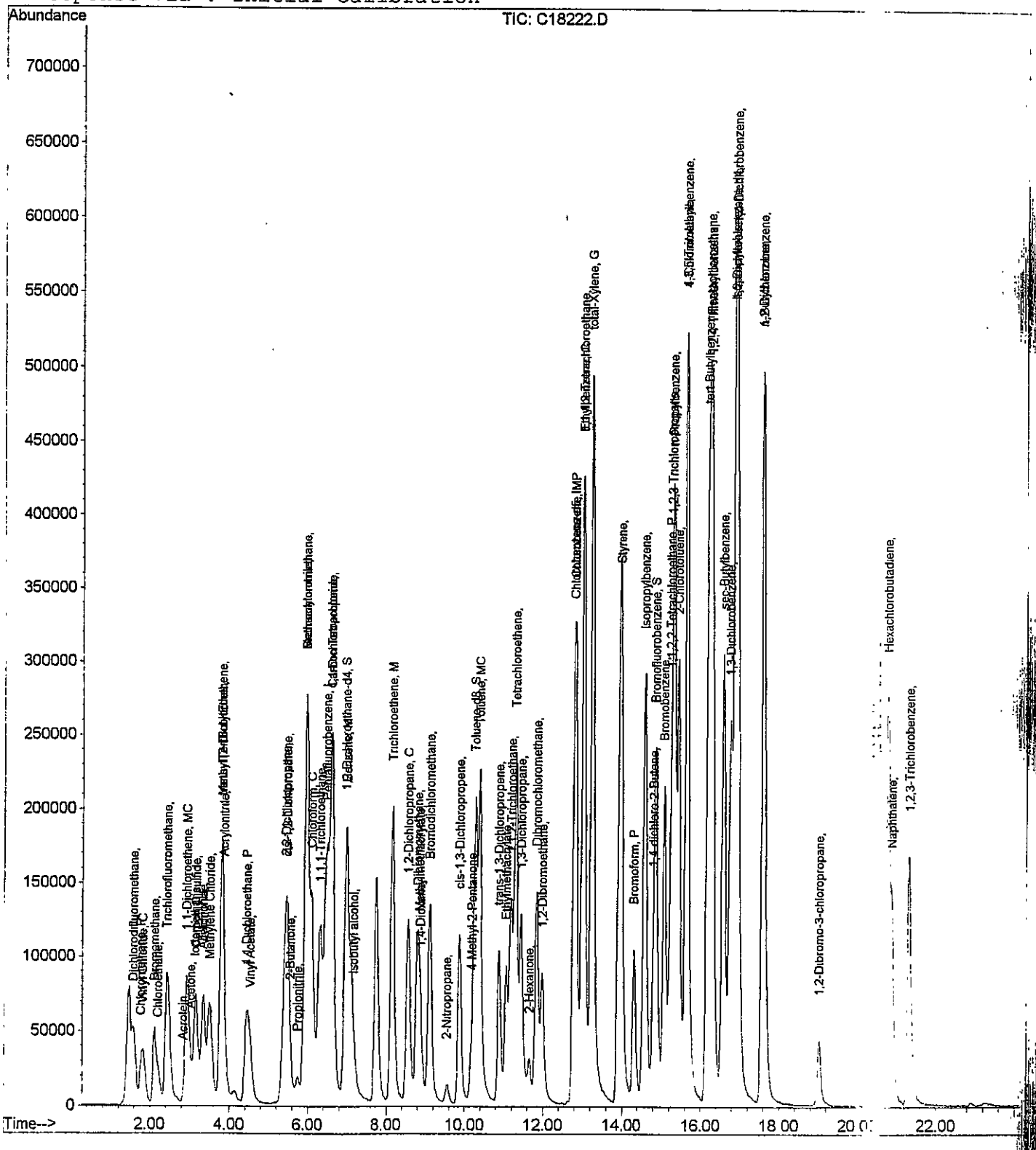
Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18222.D
Acq On : 27 Dec 2000 19:37
Sample : AC05503ms 5ml DF=1
Misc : 26553/C122200W
MS Integration Params: rteint.p
Quant Time: Dec 27 20:02 2000

Vial: 8
Operator: 1 G/VR
Inst : 1 A-C
Multiplr: 1 00

Quant Results File: 1 2700W.RES

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18223.D Vial:
Acq On : 27 Dec 2000 20:05 Operator: TAG/VR
Sample : AC05503msd 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 20:30 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.46	168	403614	50.00 ug\l	0.00
45) Chlorobenzene-d5	12.78	117	362994	50.00 ug\l	-0.01
61) 1,2-Dichlorobenzene-d4	16.89	152	221048	50.00 ug\l	-0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.96	65	183746	49.91 ug\L	0.00
Spiked Amount 50.000	Range 84 - 124		Recovery = 99.82%		
46) Toluene-d8	10.27	98	479302	50.12 ug\L	-0.01
Spiked Amount 50.000	Range 86 - 107		Recovery = 100.24%		
65) Bromofluorobenzene	14.86	95	308303	48.60 ug\L	-0.02
Spiked Amount 50.000	Range 91 - 110		Recovery = 97.20%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.60	85	154487	30.16 ug\l	99
3) Chloromethane	1.75	50	74877	37.98 ug\L	98
4) Vinyl Chloride	1.84	62	104003	45.72 ug\l	99
5) Bromomethane	2.11	94	104961	58.72 ug\L	97
6) Chloroethane	2.22	64	49669	53.42 ug\l #	57
7) Trichlorofluoromethane	2.43	101	335754	48.80 ug\l #	100
8) Acrolein	2.85	56	11735	94.78 ug\l #	50
9) Acrylonitrile	3.85	53	36345	98.78 ug\L #	82
10) 1,1-Dichloroethene	2.93	96	128793	47.91 ug\l #	56
11) Acetone	3.03	58	6342	64.49 ug\L #	67
12) Iodomethane	3.13	142	167850	37.37 ug\L #	86
13) Allylchloride	3.35	41	209035	50.88 ug\L #	92
14) Carbon Disulfide	3.17	76	329139	50.94 ug\L #	94
15) Acetonitrile	3.35	41	209035	508.83 ug\L #	88
16) Methylene Chloride	3.51	84	124454	49.05 ug\L #	80
17) trans-1,2-Dichloroethene	3.81	96	134825	47.12 ug\L #	71
18) MethylTertButylEther	3.80	73	321206	49.72 ug\L #	56
19) 1,1-Dichloroethane	4.43	63	247760	48.84 ug\l	97
20) Vinyl Acetate	4.54	43	164972	45.31 ug\l #	81
22) cis-1,2-Dichloroethene	5.46	96	146054	50.42 ug\L #	74
23) 2-Butanone	5.54	72	8471	49.98 ug\L #	100
24) Propionitrile	5.75	54	64915	482.32 ug\L #	89
25) Methacrylonitrile	5.94	41	449640	499.88 ug\L #	85
26) Bromochloromethane	5.93	128	88045	50.58 ug\L #	70
27) Chloroform	6.08	83	348282	53.32 ug\L	99
28) 1,1,1-Trichloroethane	6.31	97	318110	49.89 ug\l	95
29) Carbon Tetrachloride	6.58	119	277358	48.84 ug\l	100
30) 1,4-Dioxane	8.90	88	18239	1023.40 ug\L #	69
31) 1,1-Dichloropropene	6.60	75	275595	54.41 ug\L	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18223.D Vial: 7
Acq On : 27 Dec 2000 20:05 Operator: TAG/VR
Sample : AC05503msd 5ml DF=1 Inst : VOA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 20:30 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33) Benzene	6.97	78	419340	49.21 ug\L		100
34) Isobutyl alcohol	7.16	43	53210	951.95 ug\L		96
35) 1,2-Dichloroethane	7.09	62	216622	51.09 ug\L	#	84
36) Trichloroethene	8.15	95	251008	60.83 ug\L		90
37) 1,2-Dichloropropane	8.55	63	167817	51.14 ug\L	#	94
38) Dibromomethane	8.79	93	133299	51.73 ug\L		90
39) Methylmethacrylate	8.87	69	77661	50.28 ug\L	#	67
40) Bromodichloromethane	9.11	83	324730	53.08 ug\L		99
41) 2-Nitropropane	9.55	43	23096	50.64 ug\L		91
42) 2-Chloroethyl-vinyl ether	9.76	63	79	-2.17 ug\L	#	38
43) cis-1,3-Dichloropropene	9.87	75	246970	51.81 ug\L	#	88
44) 4-Methyl-2-Pentanone	10.20	85	18372	55.17 ug\L	#	68
47) Toluene	10.38	92	313375	50.53 ug\L		98
48) trans-1,3-Dichloropropene	10.89	75	214071	51.46 ug\L		93
49) Ethylmethacrylate	11.05	69	183188	52.30 ug\L	#	85
50) 1,1,2-Trichloroethane	11.18	83	128448	52.13 ug\L		99
51) Tetrachloroethene	11.30	164	183431	50.12 ug\L		95
52) 1,3-Dichloropropane	11.45	76	245977	51.89 ug\L		98
53) 2-Hexanone	11.66	43	63463	51.79 ug\L	#	81
54) Dibromochloromethane	11.83	129	257104	51.59 ug\L		97
55) 1,2-Dibromoethane	11.98	107	201698	51.33 ug\L		100
56) Chlorobenzene	12.82	112	407110	50.99 ug\L		92
57) 1,1,1,2-Tetrachloroethane	13.01	131	219106	53.93 ug\L		96
58) Ethylbenzene	13.03	91	637067	50.36 ug\L		96
59) total-Xylene	13.24	106	742928m	155.78 ug\L		
60) Styrene	13.97	104	411129	52.59 ug\L	#	83
62) Bromoform	14.31	173	168734	53.00 ug\L	#	38
63) Isopropylbenzene	14.58	105	793067	52.40 ug\L	#	95
64) 1,4-dichloro-2-Butene	14.80	53	48840	52.75 ug\L	#	91
66) Bromobenzene	15.09	156	211711	52.47 ug\L		80
67) 1,1,2,2-Tetrachloroethane	15.24	83	214499	52.85 ug\L		98
68) 1,2,3-Trichloropropane	15.26	75	214257	53.43 ug\L		96
69) n-Propylbenzene	15.30	91	811559	50.40 ug\L		98
70) 2-Chlorotoluene	15.42	91	525261	53.23 ug\L		93
71) 4-Chlorotoluene	15.42	91	671009	53.11 ug\L		96
72) 1,3,5-Trimethylbenzene	15.64	105	642449	51.27 ug\L		91
73) Pentachloroethane	16.24	167	156410	54.32 ug\L	#	96
74) tert-Butylbenzene	16.20	119	788500	52.08 ug\L		99
75) 1,2,4-Trimethylbenzene	16.29	105	646780	51.75 ug\L		93
76) sec-Butylbenzene	16.58	105	887777	51.97 ug\L		97
77) 1,3-Dichlorobenzene	16.76	146	347378	52.29 ug\L		94
78) Isopropyltoluene	16.86	119	702184	50.07 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18223.D Vial: [illegible]
Acq On : 27 Dec 2000 20:05 Operator: [illegible]G/VR
Sample : AC05503msd 5ml DF=1 Inst : [illegible]A-C
Misc : 26553/C122200W Multiplr: [illegible]00
MS Integration Params: rteint.p
Quant Time: Dec 27 20:30 2000 Quant Results File: [illegible]2700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrato[illegible]
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
79)	1,4-Dichlorobenzene	16.92	146	417602	51.44 ug\L		98
80)	1,2-Dichlorobenzene	17.57	146	344768	51.80 ug\L		97
81)	n-Butylbenzene	17.59	91	683235	51.05 ug\L		94
82)	1,2-Dibromo-3-chloropropan	19.02	75	49528	54.02 ug\L	#	79
83)	1,2,4-trichlorobenzene	20.46	180	261729	48.98 ug\L		100
84)	Hexachlorobutadiene	20.76	225	215869	53.01 ug\L		100
85)	Naphthalene	20.88	128	378831	54.57 ug\L		100
86)	1,2,3-Trichlorobenzene	21.32	180	220440	52.87 ug\L		98

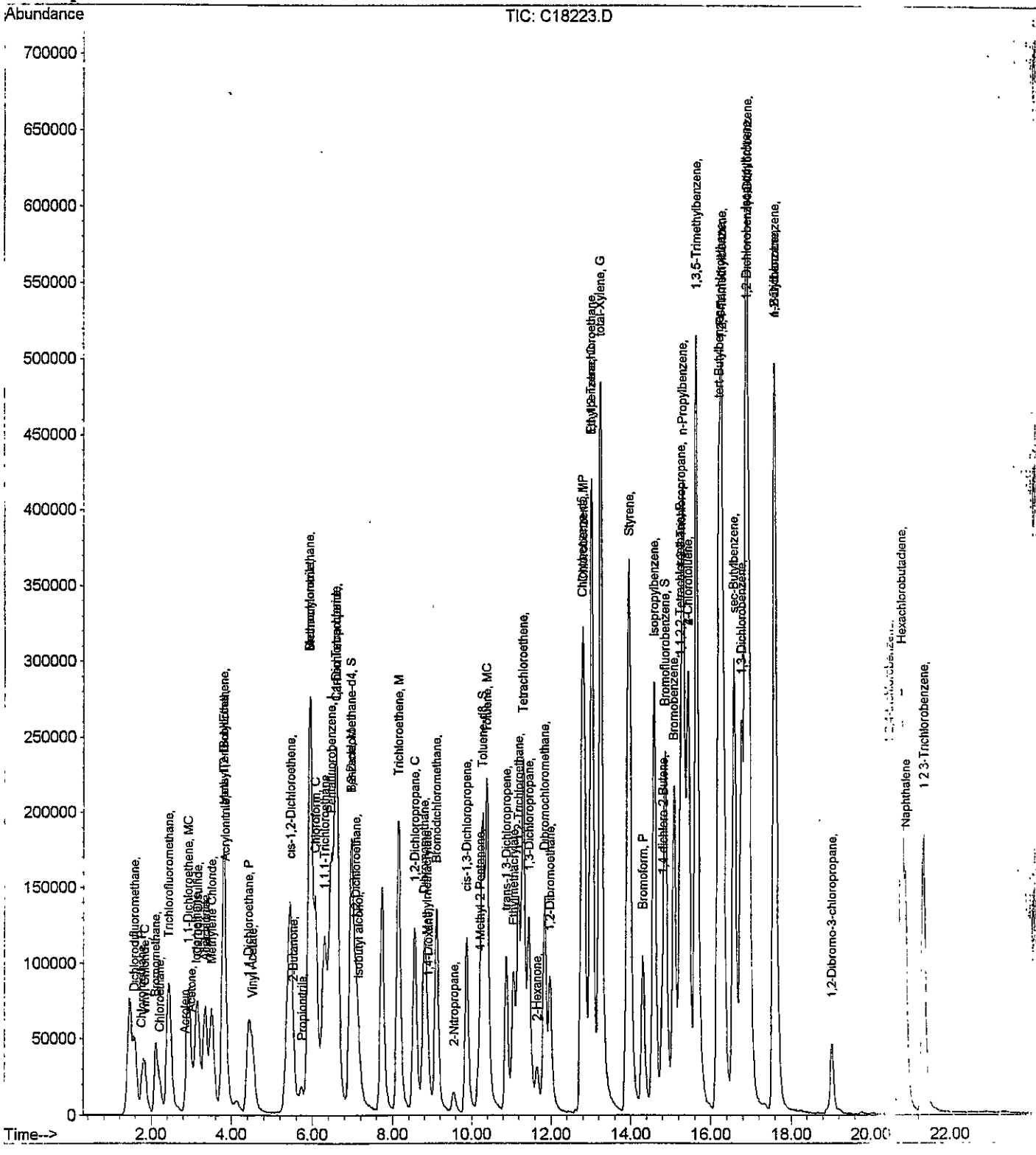
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18223.D
Acq On : 27 Dec 2000 20:05
Sample : AC05503msd 5ml DF=1
Misc : 26553/C122200W
MS Integration Params: rteint.p
Quant Time: Dec 27 20:30 2000

Vial: -
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1 00
Quant Results File: 122700W.RES

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18213.D Vial: 1
Acq On : 27 Dec 2000 15:24 Operator: 1 :G/VR
Sample : AC05503 5ml DF=1 Inst : \ )A-C
Misc : 26553/C122200W Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 27 15:49 2000 Quant Results File: 1 :2700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc Units	)ev(Min)
1) Pentafluorobenzene	6.47	168	402472	50.00 ug\I	0.00
45) Chlorobenzene-d5	12.78	117	363419	50.00 ug\I	-0.01
61) 1,2-Dichlorobenzene-d4	16.90	152	209818	50.00 ug\I	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	155644	42.40 ug\I	-0.01
Spiked Amount 50.000	Range 84 - 124		Recovery = 84.:0%		
46) Toluene-d8	10.28	98	441617	46.13 ug\I	-0.01
Spiked Amount 50.000	Range 86 - 107		Recovery = 92..:6%		
65) Bromofluorobenzene	14.87	95	274032	45.51 ug\L	-0.01
Spiked Amount 50.000	Range 91 - 110		Recovery = 91.02%		

Target Compounds					Qvalue
11) Acetone	3.03	58	217	2.21 ug\I # NOL	1
27) Chloroform	6.08	83	10395	1.60 ug\I	99
30) 1,4-Dioxane	8.77	88	70	~~3.94 ug\I~~ #	62
34) Isobutyl alcohol	7.14	43	146	~~2.62 ug\I~~ #	50
36) Trichloroethene	8.15	95	37524	9.12 ug\I	88
85) Naphthalene	20.89	128	2187	~~1.84 ug\I~~	100

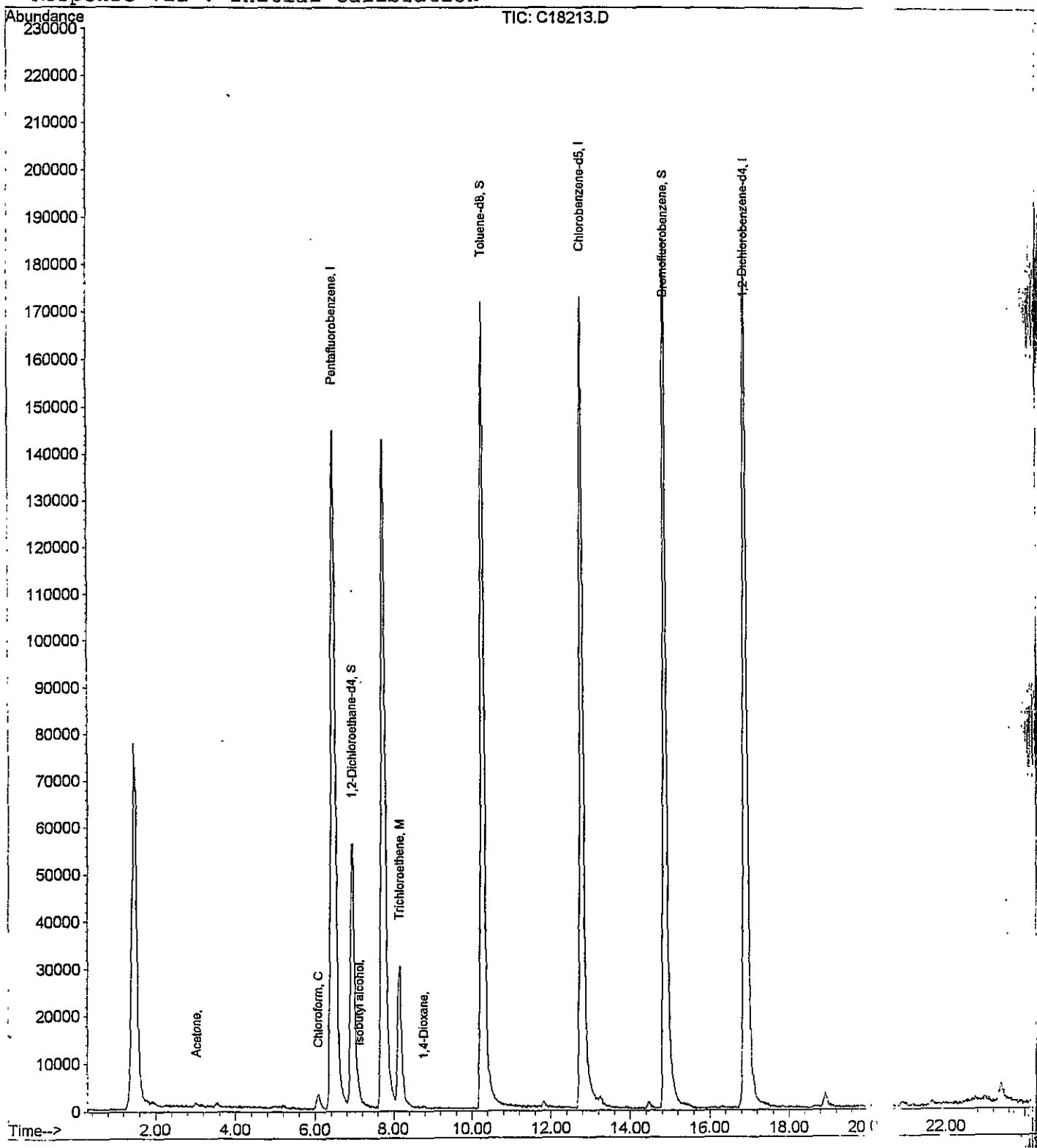
VK
12/28/00

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18213.D Vial: 1
Acq On : 27 Dec 2000 15:24 Operator: 1 AG/VR
Sample : AC05503 5ml DF=1 Inst : 1 GA-C
Misc : 26553/C122200W Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 15:49 2000 Quant Results File: 122700W.RES

Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18205.D Vial: 4
Acq On : 27 Dec 2000 11:31 Operator: TAG/VR
Sample : QVWBS 122700 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 5ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 12:10 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.45	168	401766	50.00	ug\L	0.00
45) Chlorobenzene-d5	12.78	117	350057	50.00	ug\L	-0.01
61) 1,2-Dichlorobenzene-d4	16.89	152	211110	50.00	ug\L	-0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.94	65	179485m	48.98	ug\L	-0.02
Spiked Amount 50.000	Range 84 - 124		Recovery = 97.96%			
46) Toluene-d8	10.27	98	468601	50.81	ug\L	-0.01
Spiked Amount 50.000	Range 86 - 107		Recovery = 101.62%			
65) Bromofluorobenzene	14.86	95	289394	47.77	ug\L	-0.02
Spiked Amount 50.000	Range 91 - 110		Recovery = 95.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.57	85	157502	30.89	ug\L #	43
3) Chloromethane	1.77	50	75304	38.38	ug\L	99
4) Vinyl Chloride	1.83	62	100250	44.28	ug\L	98
5) Bromomethane	2.12	94	88711	49.05	ug\L	100
6) Chloroethane	2.21	64	51058	55.68	ug\L #	63
7) Trichlorofluoromethane	2.43	101	326209	47.63	ug\L #	100
8) Acrolein	2.86	56	8290	67.27	ug\L #	49
9) Acrylonitrile	3.87	53	34379	93.86	ug\L #	21
10) 1,1-Dichloroethene	2.91	96	125512	46.91	ug\L #	57
11) Acetone	3.03	58	5641	57.62	ug\L #	1
12) Iodomethane	3.11	142	203950	45.53	ug\L #	88
13) Allylchloride	3.33	41	195986	47.93	ug\L #	93
14) Carbon Disulfide	3.16	76	328933	51.15	ug\L #	93
15) Acetonitrile	3.33	41	195986	479.26	ug\L #	88
16) Methylene Chloride	3.52	84	121046	47.93	ug\L #	83
17) trans-1,2-Dichloroethene	3.80	96	131391	46.13	ug\L #	74
18) MethylTertButylEther	3.79	73	305637	47.53	ug\L	99
19) 1,1-Dichloroethane	4.42	63	241994	47.93	ug\L	97
20) Vinyl Acetate	4.53	43	163113	45.00	ug\L #	81
21) 2,2-Dichloropropane	5.40	77	256657	49.04	ug\L #	89
22) cis-1,2-Dichloroethene	5.45	96	139764	48.47	ug\L #	72
23) 2-Butanone	5.57	72	8584	50.83	ug\L #	100
24) Propionitrile	5.73	54	57505	429.22	ug\L #	88
25) Methacrylonitrile	5.92	41	410854	458.86	ug\L #	85
26) Bromochloromethane	5.93	128	82903	47.85	ug\L #	69
27) Chloroform	6.07	83	325267	50.03	ug\L	99
28) 1,1,1-Trichloroethane	6.29	97	313531	49.40	ug\L	92
29) Carbon Tetrachloride	6.56	119	275422	48.72	ug\L	99
30) 1,4-Dioxane	8.87	88	16058	905.17	ug\L #	81

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18205.D Vial: -
Acq On : 27 Dec 2000 11:31 Operator: [illegible]G/VR
Sample : QVWBS 122700 C1 Inst : [illegible]A-C
Misc : WATER BLANK SPIKE 5ml DF=1 Multiplr: [illegible] 00
MS Integration Params: rteint.p
Quant Time: Dec 27 12:10 2000 Quant Results File: [illegible]2700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.59	75	262056	51.98 ug\l	#	93
33)	Benzene	6.97	78	406241	47.90 ug\l		100
34)	Isobutyl alcohol	7.14	43	42828	769.73 ug\l		94
35)	1,2-Dichloroethane	7.08	62	209854	49.72 ug\l	#	85
36)	Trichloroethene	8.13	95	197079	47.98 ug\l		91
37)	1,2-Dichloropropane	8.55	63	160263	49.06 ug\l	#	79
38)	Dibromomethane	8.78	93	123920	48.31 ug\l		91
39)	Methylmethacrylate	8.85	69	72325	47.04 ug\L	#	70
40)	Bromodichloromethane	9.11	83	307798	50.54 ug\L		100
41)	2-Nitropropane	9.55	43	21311	46.94 ug\L		87
42)	2-Chloroethyl-vinyl ether	9.69	63	8024	7.54 ug\l	#	56
43)	cis-1,3-Dichloropropene	9.87	75	232365	48.97 ug\l	#	86
44)	4-Methyl-2-Pentanone	10.17	85	16798	50.67 ug\l	#	64
47)	Toluene	10.37	92	297268	49.70 ug\l		97
48)	trans-1,3-Dichloropropene	10.88	75	205035	51.11 ug\l		95
49)	Ethylmethacrylate	11.07	69	166019	49.15 ug\l	#	85
50)	1,1,2-Trichloroethane	11.18	83	118692	49.95 ug\l		98
51)	Tetrachloroethene	11.31	164	181470	51.41 ug\l		99
52)	1,3-Dichloropropane	11.44	76	228291	49.94 ug\l		98
53)	2-Hexanone	11.64	43	54872	46.43 ug\l	#	82
54)	Dibromochloromethane	11.83	129	241110	50.17 ug\l		100
55)	1,2-Dibromoethane	11.97	107	187922	49.60 ug\l		99
56)	Chlorobenzene	12.82	112	398032	51.70 ug\l		92
57)	1,1,1,2-Tetrachloroethane	13.00	131	205678	52.50 ug\l		98
58)	Ethylbenzene	13.02	91	610503	50.05 ug\L		97
59)	total-Xylene	13.24	106	708998m	154.16 ug\L		
60)	Styrene	13.97	104	387100	51.34 ug\L	#	82
62)	Bromoform	14.30	173	155553	51.16 ug\L	#	96
63)	Isopropylbenzene	14.57	105	744856	51.53 ug\L	#	95
64)	1,4-dichloro-2-Butene	14.79	53	44152	49.93 ug\l	#	90
66)	Bromobenzene	15.08	156	204442	53.05 ug\l		86
67)	1,1,2,2-Tetrachloroethane	15.23	83	200076	51.61 ug\l		97
68)	1,2,3-Trichloropropane	15.26	75	197930	51.68 ug\l	#	25
69)	n-Propylbenzene	15.30	91	786758	51.16 ug\l		96
70)	2-Chlorotoluene	15.42	91	489019	51.89 ug\l	#	93
71)	4-Chlorotoluene	15.42	91	629554	52.17 ug\l		95
72)	1,3,5-Trimethylbenzene	15.64	105	601168	50.24 ug\L		93
73)	Pentachloroethane	16.24	167	152695	55.53 ug\l	#	95
74)	tert-Butylbenzene	16.19	119	761345	52.65 ug\l		98
75)	1,2,4-Trimethylbenzene	16.28	105	606974	50.86 ug\l		92
76)	sec-Butylbenzene	16.57	105	842087	51.62 ug\l		98
77)	1,3-Dichlorobenzene	16.75	146	331144	52.19 ug\l		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122700\C18205.D Vial: -
Acq On : 27 Dec 2000 11:31 Operator: T.G/VR
Sample : QVWBS 122700 C1 Inst : DA-C
Misc : WATER BLANK SPIKE 5ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 12:10 2000 Quant Results File: 122700W.RES

Quant Method : c:\hpchem\1\data\122700\122700W.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 122700W

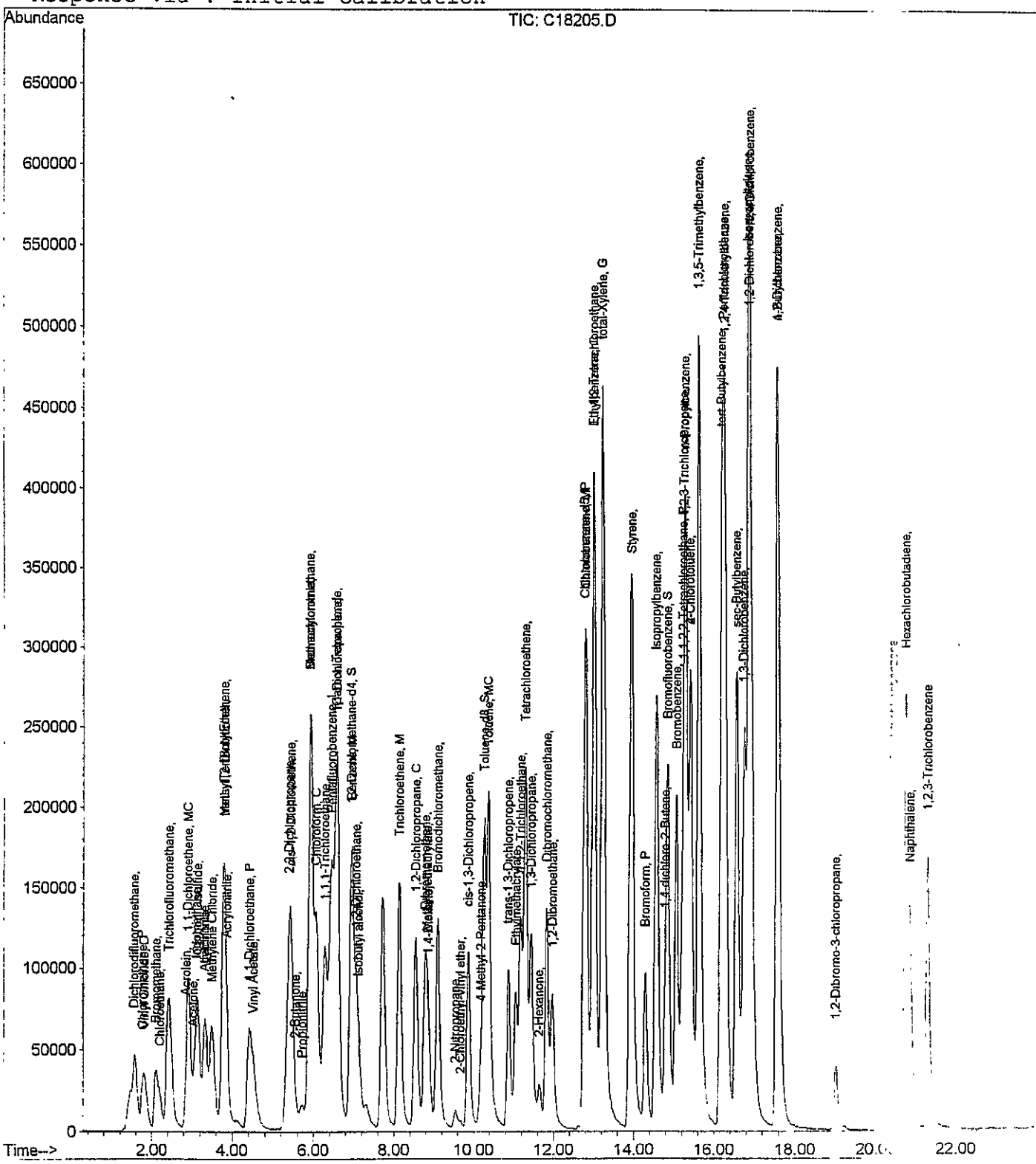
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.85	119	681400	50.88 ug\I		97
79)	1,4-Dichlorobenzene	16.92	146	397639	51.29 ug\I		98
80)	1,2-Dichlorobenzene	17.57	146	333493	52.46 ug\I		98
81)	n-Butylbenzene	17.58	91	662385	51.82 ug\I		94
82)	1,2-Dibromo-3-chloropropan	19.03	75	43322	49.47 ug\I	#	79
83)	1,2,4-trichlorobenzene	20.44	180	242140	47.45 ug\I		100
84)	Hexachlorobutadiene	20.74	225	207981	53.48 ug\I		100
85)	Naphthalene	20.86	128	297725	44.52 ug\I		100
86)	1,2,3-Trichlorobenzene	21.31	180	197689	49.46 ug\I		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122700\C18205.D Vial: 4
Acq On : 27 Dec 2000 11:31 Operator: T G/VR
Sample : QVWBS 122700 C1 Inst : A-C
Misc : WATER BLANK SPIKE 5ml DF=1 Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 27 12:10 2000 Quant Results File: 2700W.RES

Method : C:\HPCHEM\1\DATA\122700\122700W.M (RTE Integrato
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 12/18/00 /C	METHOD: 8260B
MATRIX: water	

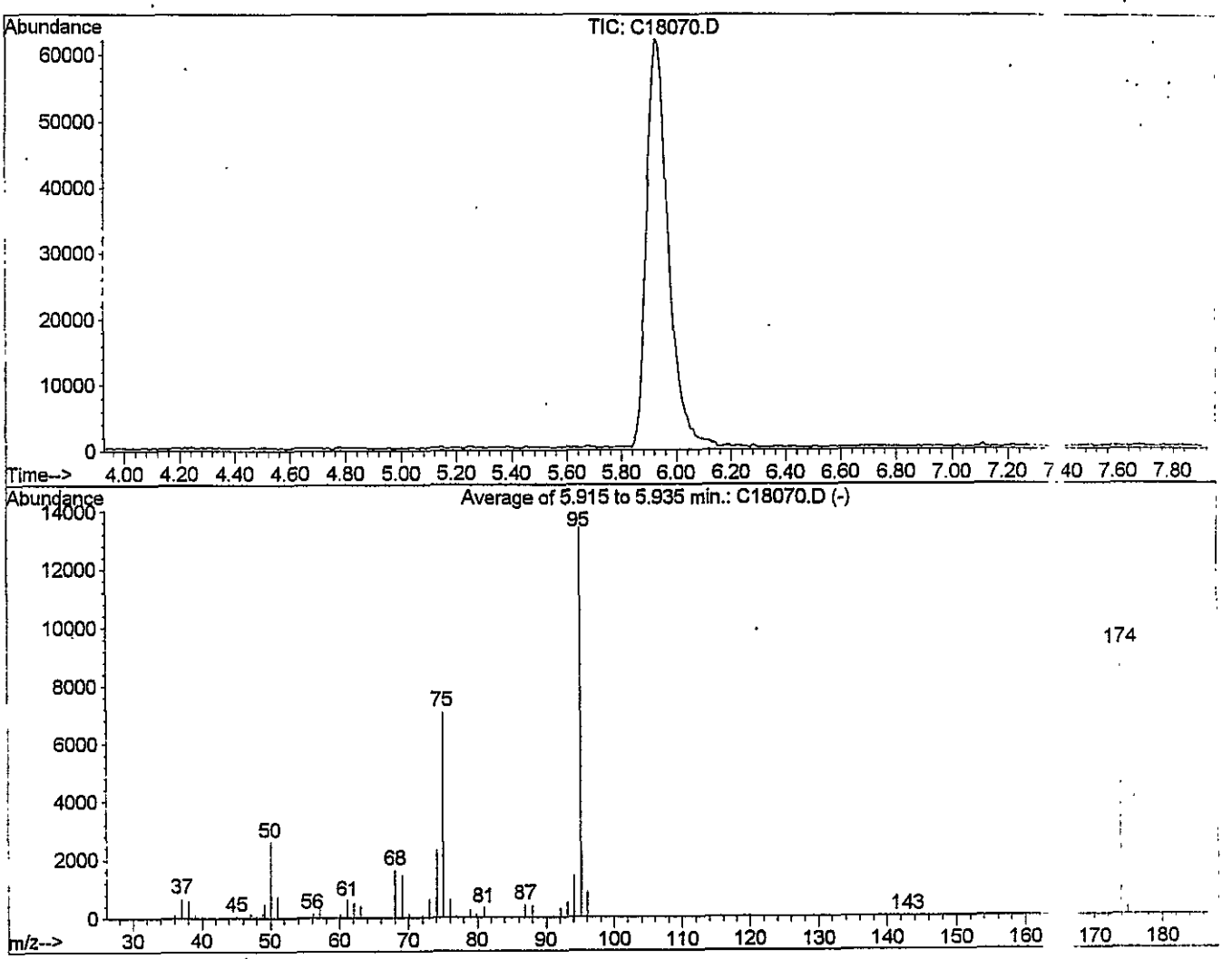
Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: VR	Reviewer: Thomas A. Jake
Date: 12/19/00 Time: 9:08	Date: 12/20/00 Time: 23:38

BFB

Data File : C:\HPCHEM\1\DATA\121800A\C18070.D Vial: 1
Acq On : 18 Dec 2000 21:16 Operator: TAG/VR
Sample : BFB 50ng V00048 Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :



AutoFind: Scans 476, 477, 478; Background Corrected with Scan 466

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	2629	PASS
75	95	30	60	53.1	7114	PASS
95	95	100	100	100.0	13389	PASS
96	95	5	9	6.6	885	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	68.6	9181	PASS
175	174	5	9	7.4	682	PASS
176	174	95	101	95.3	8753	PASS
177	176	5	9	7.5	653	PASS

C18070.D BFB01.M Mon Dec 18 21:29:29 2000 RPT1

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrat:
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:48:30 2000
Response via : Initial Calibration

Calibration Files

2	=C18076.D	5	=C18075.D	20	=C18074.D
50	=C18073.D	100	=C18077.D	200	=C18078.D

		Compound	2	5	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)		Dichlorodifluoromet		0.652	0.624	0.618	0.659	0.620	0.635	3.06
3)	P	Chloromethane		0.241	0.243	0.237	0.259	0.241	0.244	3.41
4)	C	Vinyl Chloride	0.306	0.283	0.264	0.273	0.298	0.268	0.282	5.99
5)		Bromomethane		0.310	0.251	0.221	0.230	0.205	0.243	16.80
6)		Chloroethane		0.168	0.154	0.129	0.116	0.092	0.132	22.81
7)		Trichlorofluorometh		0.876	0.878	0.864	0.925	0.719	0.852	9.18
8)		Acrolein		0.016	0.014	0.016	0.016	0.015	0.015	6.77
9)		Acrylonitrile		0.047	0.045	0.045	0.049	0.043	0.046	4.80
10)	MC	1,1-Dichloroethene		0.332	0.330	0.321	0.357	0.325	0.333	4.30
11)		Acetone		0.011	0.011	0.013	0.014	0.012	0.012	10.21
12)		Iodomethane		0.406	0.472	0.533	0.619	0.549	0.516	15.63
13)		Allylchloride		0.488	0.534	0.517	0.535	0.471	0.509	5.60
14)		Carbon Disulfide		0.687	0.843	0.859	0.733	0.880	0.800	10.64
15)		Acetonitrile		0.049	0.053	0.052	0.054	0.047	0.051	5.60
16)		Methylene Chloride		0.329	0.306	0.301	0.329	0.306	0.314	4.39
17)		trans-1,2-Dichloroe		0.357	0.347	0.349	0.371	0.348	0.354	2.85
18)		MethylTertButylEthe		0.832	0.790	0.773	0.834	0.773	0.800	3.80
19)	P	1,1-Dichloroethane		0.646	0.616	0.614	0.668	0.598	0.628	4.48
20)		Vinyl Acetate		0.422	0.444	0.457	0.470	0.462	0.451	4.20
21)		2,2-Dichloropropane		0.628	0.635	0.643	0.690	0.660	0.651	3.80
22)		cis-1,2-Dichloroeth		0.357	0.350	0.344	0.385	0.358	0.359	4.38
23)		2-Butanone		0.007	0.020	0.021	0.022	0.022	0.018	35.55
24)		Propionitrile		0.016	0.016	0.016	0.018	0.017	0.017	4.77
25)		Methacrylonitrile		0.117	0.111	0.109	0.116	0.104	0.111	4.67
26)		Bromochloromethane		0.222	0.214	0.208	0.223	0.210	0.216	3.15
27)	C	Chloroform		0.827	0.791	0.778	0.851	0.799	0.809	3.67
28)		1,1,1-Trichloroetha		0.780	0.761	0.764	0.848	0.797	0.790	4.48
29)		Carbon Tetrachlorid		0.685	0.681	0.681	0.751	0.720	0.704	4.42
30)		1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	11.99
31)		1,1-Dichloropropene		0.522	0.638	0.688	0.681	0.608	0.627	10.71
32)	S	1,2-Dichloroethane-		0.438	0.472	0.451	0.478	0.441	0.456	3.96
33)	M	Benzene		1.077	1.057	1.020	1.109	1.014	1.056	3.77
34)		Isobutyl alcohol		0.008	0.007	0.006	0.007	0.006	0.007	9.34
35)		1,2-Dichloroethane		0.534	0.513	0.516	0.552	0.511	0.525	3.32
36)	M	Trichloroethene		0.533	0.495	0.491	0.531	0.506	0.511	3.85
37)	C	1,2-Dichloropropane		0.432	0.385	0.397	0.422	0.398	0.407	4.77
38)		Dibromomethane		0.324	0.317	0.317	0.342	0.296	0.319	5.14
39)		Methylmethacrylate		0.195	0.184	0.184	0.203	0.191	0.191	4.22
40)		Bromodichloromethan		0.696	0.719	0.749	0.837	0.788	0.758	7.42
41)		2-Nitropropane		0.050	0.052	0.057	0.058	0.065	0.056	10.32
42)		2-Chloroethyl-vinyl		0.069	0.105	0.093	0.125	0.099	0.098	20.52
43)		cis-1,3-Dichloropro		0.553	0.568	0.570	0.645	0.616	0.591	6.57
44)		4-Methyl-2-Pentanon		0.032	0.044	0.043	0.047	0.040	0.041	13.38

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:48:30 2000
Response via : Initial Calibration

Calibration Files
2 =C18076.D 5 =C18075.D 20 =C18074.D
50 =C18073.D 100 =C18077.D 200 =C18078.D

		Compound	2	5	20	50	100	200	Avg	%RSD
45)	I	Chlorobenzene-d5	----------ISTD----------							
46)	S	Toluene-d8	1.305	1.341	1.277	1.368	1.295	1.317		2.79
47)	MC	Toluene	0.895	0.846	0.808	0.895	0.827	0.854		4.64
48)		trans-1,3-Dichlorop	0.540	0.562	0.549	0.621	0.593	0.573		5.87
49)		Ethylmethacrylate	0.475	0.473	0.477	0.514	0.473	0.482		3.69
50)		1,1,2-Trichloroetha	0.343	0.343	0.331	0.352	0.328	0.339		2.89
51)		Tetrachloroethene	0.537	0.507	0.480	0.512	0.485	0.504		4.56
52)		1,3-Dichloropropane	0.673	0.639	0.636	0.686	0.629	0.653		3.85
53)		2-Hexanone	0.169	0.181	0.160	0.169	0.165	0.169		4.65
54)		Dibromochloromethan	0.634	0.662	0.673	0.754	0.708	0.686		6.74
55)		1,2-Dibromoethane	0.542	0.533	0.525	0.573	0.533	0.541		3.46
56)	MP	Chlorobenzene	1.138	1.099	1.061	1.126	1.075	1.100		2.98
57)		1,1,1,2-Tetrachloro	0.543	0.547	0.541	0.604	0.563	0.560		4.73
58)	C	Ethylbenzene	1.822	1.742	1.681	1.811	1.656	1.742		4.28
59)	G	total-Xylene	0.688	0.644	0.641	0.675	0.636	0.657		3.51
60)		Styrene	1.055	1.064	1.066	1.144	1.056	1.077		3.52
61)	I	1,2-Dichlorobenzene-d	----------ISTD----------							
62)	P	Bromoform	0.594	0.690	0.700	0.822	0.793	0.720		12.59
63)		Isopropylbenzene	3.494	3.388	3.236	3.599	3.402	3.424		3.94
64)		1,4-dichloro-2-Bute	0.184	0.199	0.212	0.232	0.219	0.209		8.75
65)	S	Bromofluorobenzene	1.516	1.477	1.332	1.469	1.381	1.435		5.29
66)		Bromobenzene	0.888	0.897	0.862	0.987	0.929	0.913		5.26
67)	P	1,1,2,2-Tetrachloro	0.954	0.918	0.888	0.957	0.873	0.918		4.12
68)		1,2,3-Trichloroprop	0.837	0.932	0.918	0.959	0.888	0.907		5.13
69)		n-Propylbenzene	3.889	3.498	3.367	3.898	3.558	3.642		6.58
70)		2-Chlorotoluene	2.402	2.279	2.180	2.216	2.083	2.232		5.31
71)		4-Chlorotoluene	2.407	2.969	2.964	3.244	2.705	2.858		11.06
72)		1,3,5-Trimethylbenz	3.040	2.807	2.669	2.939	2.716	2.834		5.44
73)		Pentachloroethane	0.593	0.624	0.634	0.722	0.683	0.651		7.85
74)		tert-Butylbenzene	3.518	3.445	3.254	3.576	3.331	3.415		3.86
75)		1,2,4-Trimethylbenz	3.052	2.808	2.687	2.910	2.677	2.827		5.59
76)		sec-Butylbenzene	4.051	3.837	3.675	3.998	3.758	3.864		4.11
77)		1,3-Dichlorobenzene	1.524	1.501	1.432	1.573	1.484	1.503		3.45
78)		Isopropyltoluene	3.357	3.170	3.011	3.270	3.053	3.112		4.57
79)		1,4-Dichlorobenzene	2.076	1.845	1.704	1.875	1.681	1.836		8.63
80)		1,2-Dichlorobenzene	1.676	1.478	1.402	1.539	1.432	1.506		7.22
81)		n-Butylbenzene	3.108	3.032	2.897	3.182	2.919	3.028		4.02
82)		1,2-Dibromo-3-chlor	0.193	0.198	0.205	0.225	0.216	0.207		6.35
83)		1,2,4-trichlorobenz	1.460	1.156	1.092	1.196	1.139	1.209		12.05
84)		Hexachlorobutadiene	0.991	0.945	0.882	0.935	0.853	0.921		5.91
85)		Naphthalene	2.656	1.792	1.401	1.584	1.526	1.792		28.08
86)		1,2,3-Trichlorobenz	1.310	1.023	0.923	0.951	0.898	1.021		16.49

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18076.D Vial: 8
Acq On : 19 Dec 2000 00:07 Operator: TAG/VR
Sample : ICAL 2ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:35 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

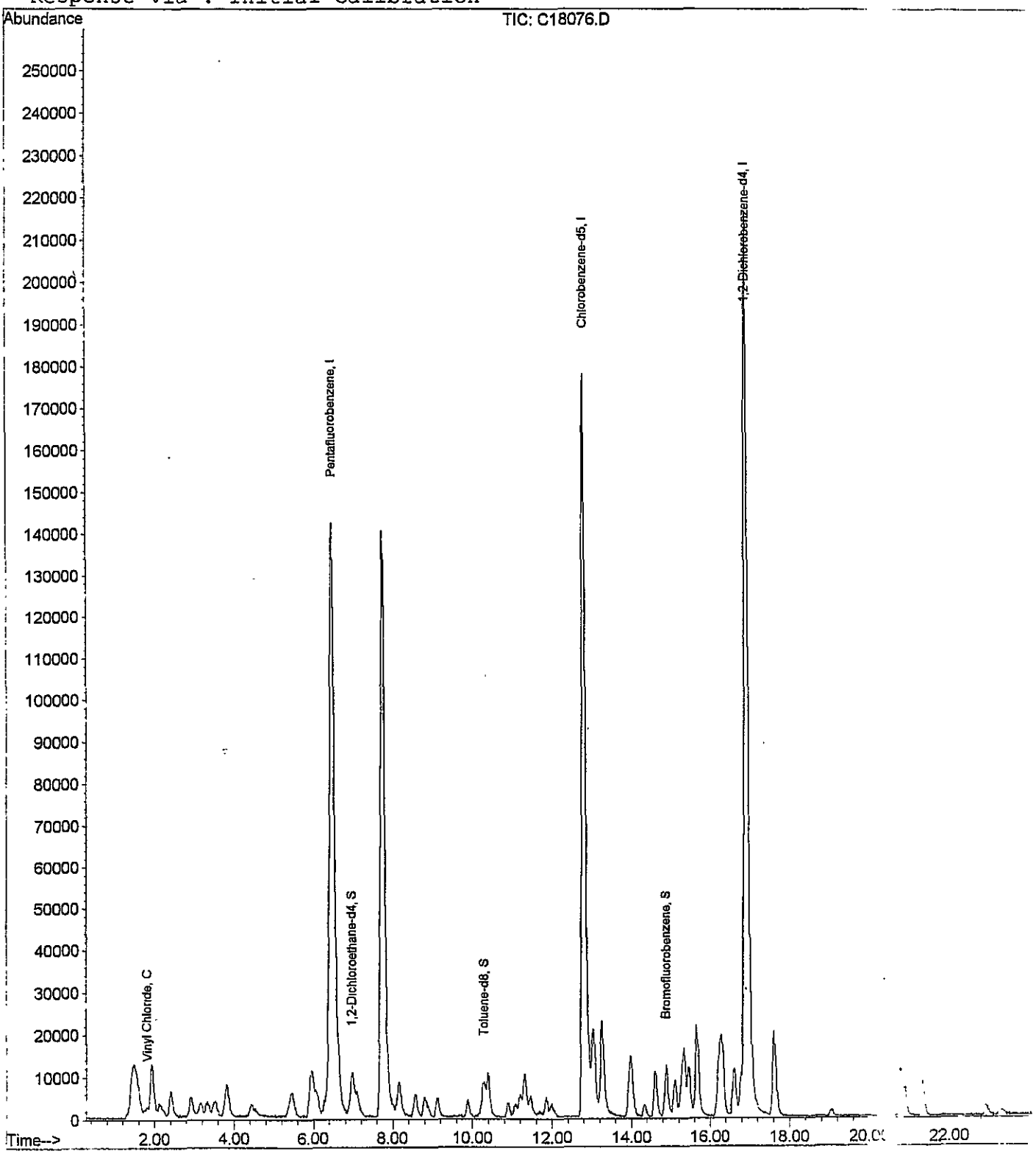
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	396407m	50.00 ug\L	-0.01
45) Chlorobenzene-d5	12.80	117	369673	50.00 ug\L	0.00
61) 1,2-Dichlorobenzene-d4	16.92	152	214205	50.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.98	65	10686	3.52 ug\L	0.00
Spiked Amount 50.000	Range 84 - 124		Recovery = 7.04%#		
46) Toluene-d8	10.29	98	22166	2.55 ug\L	0.00
Spiked Amount 50.000	Range 86 - 107		Recovery = 5.10%#		
65) Bromofluorobenzene	14.89	95	15862	2.81 ug\L	0.00
Spiked Amount 50.000	Range 91 - 110		Recovery = 5.62%#		
Target Compounds					Qvalue
4) Vinyl Chloride	1.83	62	4847	2.32 ug\L	#
11) Acetone	0.00	58	0	2.46 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18076.D Vial: 6
Acq On : 19 Dec 2000 00:07 Operator: T.G/VR
Sample : ICAL 2ppb (V00075,V00057) Inst : 'A-C
Misc : QC Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:35 2000 Quant Results File: 1 1800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrat
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18075.D Vial: 5
Acq On : 18 Dec 2000 23:39 Operator: TAG/VR
Sample : ICAL 5ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:42 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	396046	50.00	ug\L	0.00
45) Chlorobenzene-d5	12.78	117	352150	50.00	ug\L	-0.01
61) 1,2-Dichlorobenzene-d4	16.91	152	216030	50.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.98	65	17360	5.72	ug\L	0.00
Spiked Amount 50.000	Range 84 - 124		Recovery = 11.44%#			
46) Toluene-d8	10.28	98	45949	5.54	ug\L	-0.02
Spiked Amount 50.000	Range 86 - 107		Recovery = 11.08%#			
65) Bromofluorobenzene	14.87	95	32749	5.76	ug\L	-0.01
Spiked Amount 50.000	Range 91 - 110		Recovery = 11.52%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.60	85	25806	5.71	ug\L	99
3) Chloromethane	1.76	50	9552	6.41	ug\L	95
4) Vinyl Chloride	1.83	62	11210	5.36	ug\L	98
5) Bromomethane	2.14	94	12275	6.78	ug\L	100
6) Chloroethane	2.21	64	6639	-3.99	ug\L #	59
7) Trichlorofluoromethane	2.42	101	34691	5.63	ug\L #	100
8) Acrolein	2.89	56	1274m	12.07	ug\L	
9) Acrylonitrile	3.87	53	3694m	12.14	ug\L	
10) 1,1-Dichloroethene	2.93	96	13135	5.52	ug\L #	59
11) Acetone	3.03	58	424m	7.28	ug\L	
12) Iodomethane	3.14	142	16082m	5.18	ug\L	
13) Allylchloride	3.33	41	19323	5.71	ug\L #	78
14) Carbon Disulfide	3.19	76	27206	5.55	ug\L #	83
15) Acetonitrile	3.33	41	19323	57.11	ug\L #	76
16) Methylene Chloride	3.52	84	13045m	5.69	ug\L	
17) trans-1,2-Dichloroethene	3.82	96	14153	5.63	ug\L #	73
18) MethylTertButylEther	3.83	73	32934	5.99	ug\L	98
19) 1,1-Dichloroethane	4.45	63	25592	6.29	ug\L #	73
20) Vinyl Acetate	4.58	43	16698	7.47	ug\L #	65
21) 2,2-Dichloropropane	5.43	77	24880m	5.23	ug\L	
22) cis-1,2-Dichloroethene	5.47	96	14127	5.58	ug\L #	31
23) 2-Butanone	5.62	72	267m	1.99	ug\L	
24) Propionitrile	5.79	54	6303m	58.92	ug\L	
25) Methacrylonitrile	5.96	41	46279	65.77	ug\L #	82
26) Bromochloromethane	5.95	128	8797	5.76	ug\L #	76
27) Chloroform	6.10	83	32765m	5.89	ug\L	
28) 1,1,1-Trichloroethane	6.33	97	30887	5.40	ug\L #	39
29) Carbon Tetrachloride	6.60	119	27127	5.28	ug\L #	1
30) 1,4-Dioxane	8.89	88	1380m	81.50	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18075.D Vial: 5
Acq On : 18 Dec 2000 23:39 Operator: TAG/VR
Sample : ICAL 5ppb (V00075,V00057) Inst : HP-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:42 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.61	75	20693	4.46 ug\L	#	90
33)	Benzene	6.99	78	42669	6.01 ug\L		100
34)	Isobutyl alcohol	7.18	43	6283m	138.41 ug\L		
35)	1,2-Dichloroethane	7.12	62	21155	6.05 ug\L	#	74
36)	Trichloroethene	8.17	95	21107	5.72 ug\L		88
37)	1,2-Dichloropropane	8.56	63	17094	6.36 ug\L	#	80
38)	Dibromomethane	8.82	93	12846	5.79 ug\L		88
39)	Methylmethacrylate	8.88	69	7737	5.92 ug\L	#	64
40)	Bromodichloromethane	9.13	83	27574	5.28 ug\L	#	99
41)	2-Nitropropane	9.58	43	1981m	10.75 ug\L		
42)	2-Chloroethyl-vinyl ether	9.71	63	2747m	8.61 ug\L		
43)	cis-1,3-Dichloropropene	9.88	75	21887	5.23 ug\L	#	85
44)	4-Methyl-2-Pentanone	10.21	85	1279m	4.26 ug\L		
47)	Toluene	10.40	92	31506	5.87 ug\L		97
48)	trans-1,3-Dichloropropene	10.91	75	19003	5.07 ug\L	#	90
49)	Ethylmethacrylate	11.08	69	16722m	5.49 ug\L		
50)	1,1,2-Trichloroethane	11.20	83	12067	5.71 ug\L		98
51)	Tetrachloroethene	11.30	164	18916	2.52 ug\L		98
52)	1,3-Dichloropropane	11.46	76	23714	5.92 ug\L		96
53)	2-Hexanone	11.68	43	5967	5.78 ug\L	#	30
54)	Dibromochloromethane	11.85	129	22335	5.03 ug\L		94
55)	1,2-Dibromoethane	11.99	107	19098	5.51 ug\L	#	95
56)	Chlorobenzene	12.85	112	40065	5.77 ug\L	#	81
57)	1,1,1,2-Tetrachloroethane	13.01	131	19128	5.26 ug\L	#	92
58)	Ethylbenzene	13.04	91	64164	5.85 ug\L		95
59)	total-Xylene	13.26	106	72644m	17.34 ug\L		
60)	Styrene	13.98	104	37146m	5.26 ug\L		
62)	Bromoform	14.32	173	12842	4.44 ug\L	#	92
63)	Isopropylbenzene	14.60	105	75474	5.72 ug\L	#	91
64)	1,4-dichloro-2-Butene	14.80	53	3984	4.85 ug\L	#	81
66)	Bromobenzene	15.09	156	19180	5.45 ug\L	#	66
67)	1,1,2,2-Tetrachloroethane	15.26	83	20614	6.09 ug\L	#	98
68)	1,2,3-Trichloropropane	15.29	75	18092	5.15 ug\L		95
69)	n-Propylbenzene	15.32	91	84018	5.99 ug\L		92
70)	2-Chlorotoluene	15.44	91	51882	6.06 ug\L	#	93
71)	4-Chlorotoluene	15.44	91	51991m	4.36 ug\L		
72)	1,3,5-Trimethylbenzene	15.65	105	65669	6.10 ug\L		90
73)	Pentachloroethane	16.25	167	12811	4.90 ug\L	#	92
74)	tert-Butylbenzene	16.22	119	75996	5.62 ug\L		98
75)	1,2,4-Trimethylbenzene	16.30	105	65927	6.16 ug\L		93
76)	sec-Butylbenzene	16.60	105	87512	5.74 ug\L		98
77)	1,3-Dichlorobenzene	16.76	146	32919	5.51 ug\L		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18075.D Vial: 5
Acq On : 18 Dec 2000 23:39 Operator: TAG/VR
Sample : ICAL 5ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:42 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

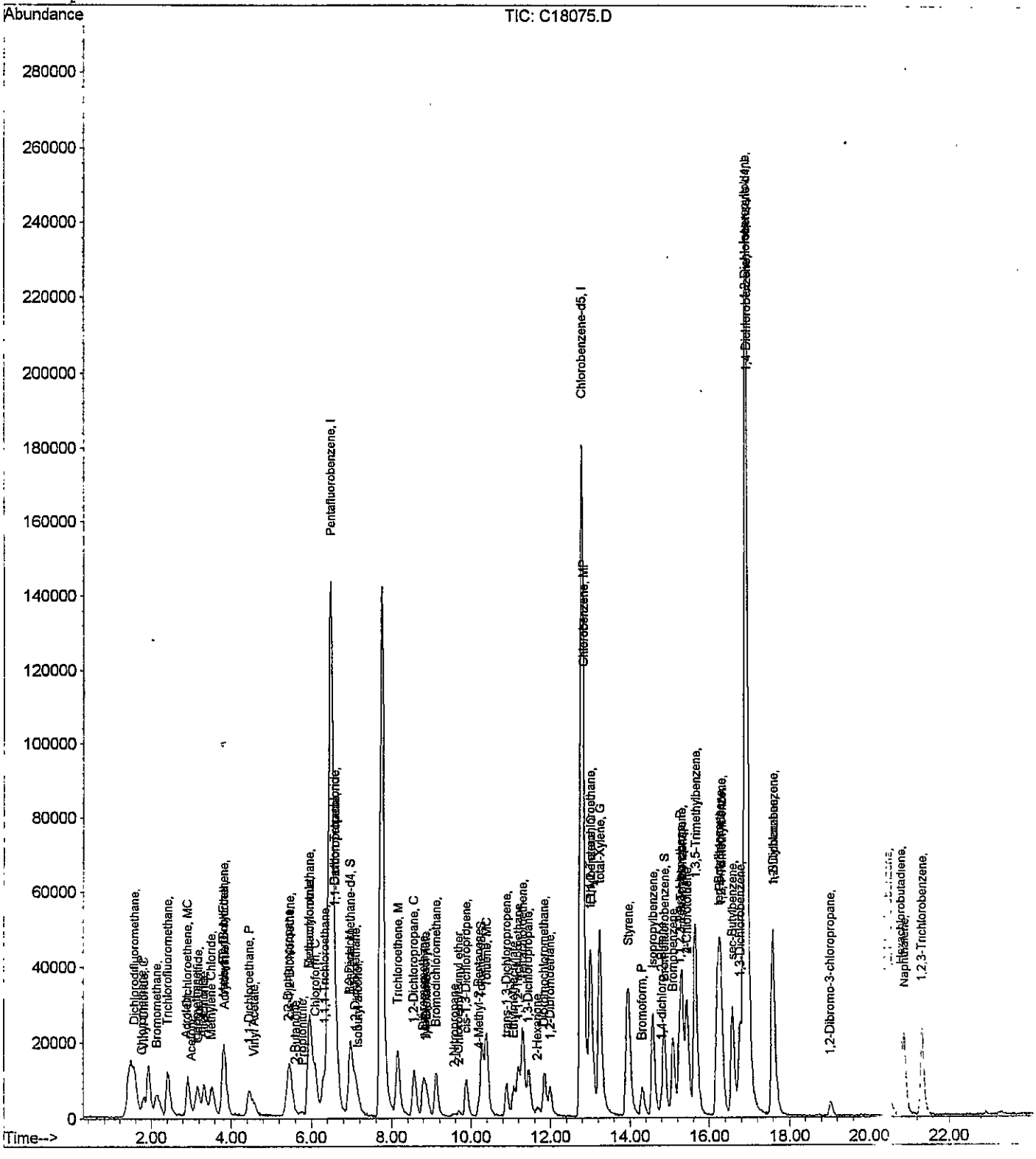
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.87	119	72522	5.81 ug\L	95
79)	1,4-Dichlorobenzene	16.94	146	44839	6.23 ug\L	92
80)	1,2-Dichlorobenzene	17.58	146	36216	6.15 ug\L	96
81)	n-Butylbenzene	17.60	91	67144	5.68 ug\L	92
82)	1,2-Dibromo-3-chloropropan	19.01	75	4163	4.94 ug\L #	62
83)	1,2,4-trichlorobenzene	20.47	180	31551	6.44 ug\L	100
84)	Hexachlorobutadiene	20.79	225	21410	5.53 ug\L	100
85)	Naphthalene	20.89	128	57367m	8.75 ug\L	
86)	1,2,3-Trichlorobenzene	21.32	180	28309	6.83 ug\L	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18075.D Vial: 5
Acq On : 18 Dec 2000 23:39 Operator: JAG/VR
Sample : ICAL 5ppb (V00075,V00057) Inst : V0A-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:42 2000 Quant Results File: 121800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18074.D Vial: 4
Acq On : 18 Dec 2000 23:11 Operator: TAG/VR
Sample : ICAL 20ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:43 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	405225m	50.00 ug\L	-0.02
45) Chlorobenzene-d5	12.78	117	356968	50.00 ug\L	-0.01
61) 1,2-Dichlorobenzene-d4	16.90	152	216556	50.00 ug\L	-0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.95	65	76541	24.63 ug\L	-0.03
Spiked Amount 50.000	Range 84 - 124		Recovery = 49.26%#		
46) Toluene-d8	10.28	98	191423	22.77 ug\L	-0.02
Spiked Amount 50.000	Range 86 - 107		Recovery = 45.54%#		
65) Bromofluorobenzene	14.86	95	127927	22.43 ug\L	-0.02
Spiked Amount 50.000	Range 91 - 110		Recovery = 44.86%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.62	85	101140	21.86 ug\L	
3) Chloromethane	1.77	50	39412	25.86 ug\L	
4) Vinyl Chloride	1.85	62	42743	19.98 ug\L	#
5) Bromomethane	2.13	94	40763	22.02 ug\L	
6) Chloroethane	2.23	64	24922	26.18 ug\L	
7) Trichlorofluoromethane	2.45	101	142347	22.59 ug\L	#
8) Acrolein	2.87	56	4493	41.59 ug\L	
9) Acrylonitrile	3.86	53	14587m	46.85 ug\L	
10) 1,1-Dichloroethene	2.95	96	53502	21.98 ug\L	#
11) Acetone	3.03	58	1834m	22.84 ug\L	
12) Iodomethane	3.14	142	76441	20.43 ug\L	#
13) Allylchloride	3.34	41	86525	24.99 ug\L	#
14) Carbon Disulfide	3.18	76	136683	27.23 ug\L	#
15) Acetonitrile	3.34	41	86525	249.94 ug\L	#
16) Methylene Chloride	3.52	84	49605	21.15 ug\L	#
17) trans-1,2-Dichloroethene	3.83	96	56310	21.89 ug\L	#
18) MethylTertButylEther	3.83	73	128100	22.76 ug\L	
19) 1,1-Dichloroethane	4.46	63	99854	24.00 ug\L	
20) Vinyl Acetate	4.57	43	72045m	31.48 ug\L	
21) 2,2-Dichloropropane	5.43	77	102964	21.15 ug\L	#
22) cis-1,2-Dichloroethene	5.48	96	56735	21.90 ug\L	#
23) 2-Butanone	5.59	72	3170m	23.12 ug\L	
24) Propionitrile	5.75	54	26620	243.19 ug\L	#
25) Methacrylonitrile	5.96	41	180670	250.93 ug\L	#
26) Bromochloromethane	5.94	128	34716	22.23 ug\L	#
27) Chloroform	6.09	83	128146	22.53 ug\L	
28) 1,1,1-Trichloroethane	6.31	97	123428	21.08 ug\L	#
29) Carbon Tetrachloride	6.59	119	110388m	20.98 ug\L	
30) 1,4-Dioxane	8.90	88	7397m	426.96 ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18074.D Vial: 4
Acq On : 18 Dec 2000 23:11 Operator: TAG/VR
Sample : ICAL 20ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:43 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.61	75	103360	21.77 ug\L		
33)	Benzene	7.00	78	171339	23.58 ug\L		
34)	Isobutyl alcohol	7.17	43	21902	471.57 ug\L	#	
35)	1,2-Dichloroethane	7.10	62	83227	23.25 ug\L	#	
36)	Trichloroethene	8.17	95	80282	21.27 ug\L		
37)	1,2-Dichloropropane	8.57	63	62384	22.68 ug\L	#	
38)	Dibromomethane	8.81	93	51362	22.61 ug\L		
39)	Methylmethacrylate	8.87	69	29804	22.30 ug\L	#	
40)	Bromodichloromethane	9.12	83	116471	21.79 ug\L		
41)	2-Nitropropane	9.57	43	8445	22.56 ug\L		
42)	2-Chloroethyl-vinyl ether	9.68	63	16990m	19.16 ug\L		
43)	cis-1,3-Dichloropropene	9.89	75	92046	21.50 ug\L	#	
44)	4-Methyl-2-Pentanone	10.21	85	7163	23.31 ug\L	#	
47)	Toluene	10.39	92	120820	22.22 ug\L		98
48)	trans-1,3-Dichloropropene	10.89	75	80258	21.12 ug\L		93
49)	Ethylmethacrylate	11.07	69	67545	21.89 ug\L	#	82
50)	1,1,2-Trichloroethane	11.20	83	49011	22.89 ug\L		95
51)	Tetrachloroethene	11.31	164	72431	19.14 ug\L		98
52)	1,3-Dichloropropane	11.46	76	91300	22.48 ug\L		99
53)	2-Hexanone	11.66	43	25842	24.69 ug\L	#	77
54)	Dibromochloromethane	11.84	129	94560	21.03 ug\L		98
55)	1,2-Dibromoethane	11.99	107	76167	21.68 ug\L	#	99
56)	Chlorobenzene	12.83	112	156971	22.30 ug\L	#	88
57)	1,1,1,2-Tetrachloroethane	13.02	131	78049	21.16 ug\L		99
58)	Ethylbenzene	13.03	91	248790	22.38 ug\L		96
59)	total-Xylene	13.25	106	275929m	64.96 ug\L		
60)	Styrene	13.98	104	151938	21.23 ug\L	#	84
62)	Bromoform	14.32	173	59806	20.63 ug\L	#	96
63)	Isopropylbenzene	14.59	105	293442	22.19 ug\L	#	95
64)	1,4-dichloro-2-Butene	14.80	53	17268	20.96 ug\L	#	87
66)	Bromobenzene	15.10	156	77714	22.02 ug\L	#	74
67)	1,1,2,2-Tetrachloroethane	15.25	83	79554	23.45 ug\L		99
68)	1,2,3-Trichloropropane	15.28	75	80724	22.91 ug\L		95
69)	n-Propylbenzene	15.31	91	302977	21.56 ug\L		98
70)	2-Chlorotoluene	15.43	91	197383m	23.00 ug\L		
71)	4-Chlorotoluene	15.43	91	257185	21.50 ug\L		95
72)	1,3,5-Trimethylbenzene	15.65	105	243157	22.53 ug\L		92
73)	Pentachloroethane	16.25	167	54045	20.63 ug\L	#	94
74)	tert-Butylbenzene	16.21	119	298380	22.00 ug\L		97
75)	1,2,4-Trimethylbenzene	16.31	105	243267	22.66 ug\L		95
76)	sec-Butylbenzene	16.60	105	332361	21.77 ug\L		97
77)	1,3-Dichlorobenzene	16.78	146	130054	21.70 ug\L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18074.D Vial: 4
Acq On : 18 Dec 2000 23:11 Operator: TAG/VR
Sample : ICAL 20ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:43 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

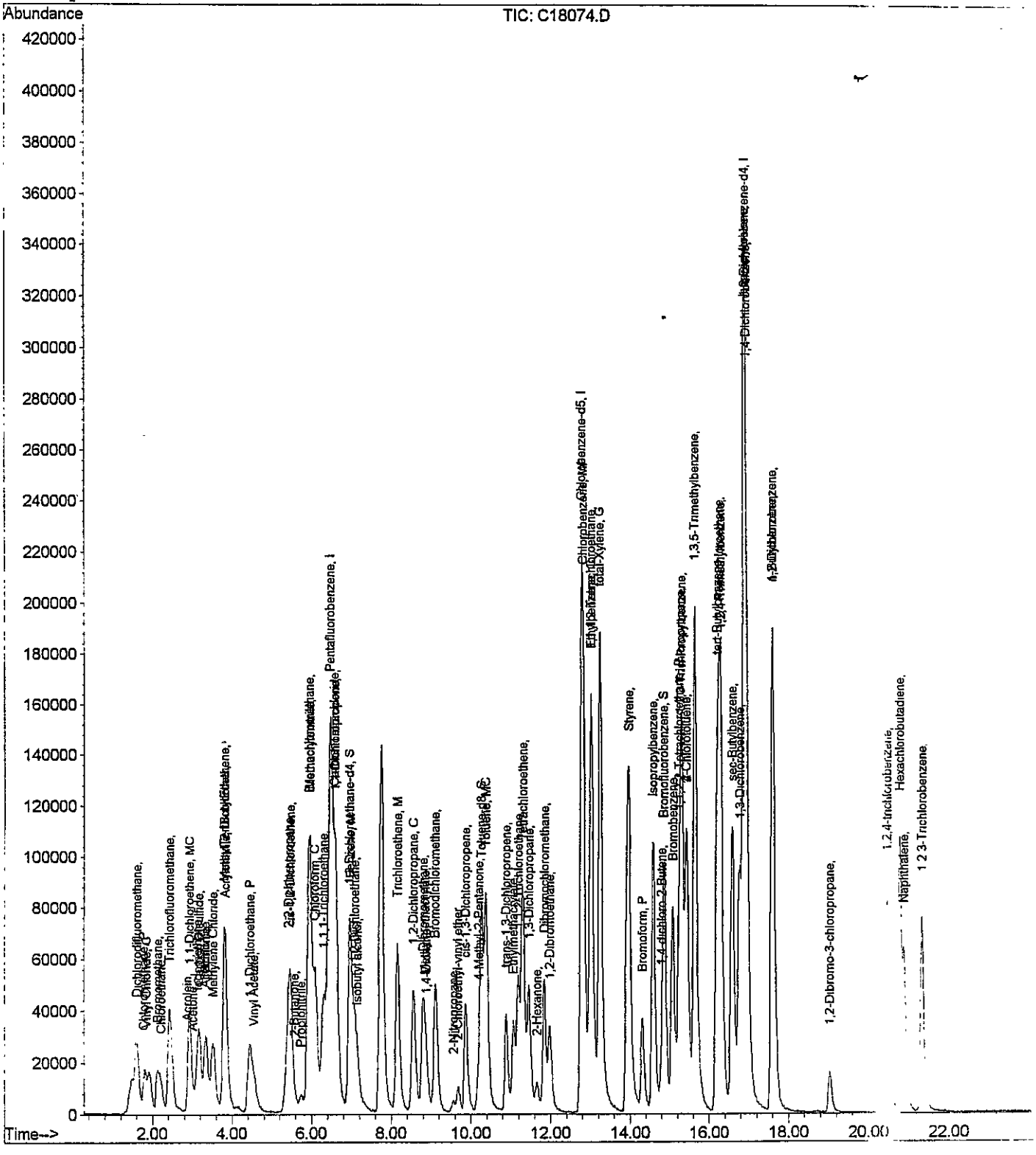
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.88	119	274613	21.94 ug\L	97
79)	1,4-Dichlorobenzene	16.95	146	159842	22.14 ug\L	96
80)	1,2-Dichlorobenzene	17.59	146	128068	21.70 ug\L	95
81)	n-Butylbenzene	17.61	91	262605	22.17 ug\L	92
82)	1,2-Dibromo-3-chloropropan	19.04	75	17160	20.30 ug\L #	79
83)	1,2,4-trichlorobenzene	20.48	180	100129	20.39 ug\L	100
84)	Hexachlorobutadiene	20.78	225	81818	21.08 ug\L	100
85)	Naphthalene	20.90	128	155210	23.90 ug\L	100
86)	1,2,3-Trichlorobenzene	21.34	180	88576	21.32 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18074.D Vial: [illegible]
Acq On : 18 Dec 2000 23:11 Operator: [illegible]G/VR
Sample : ICAL 20ppb (V00075,V00057) Inst : [illegible]A-C
Misc : QC Multiplr: [illegible]00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:43 2000 Quant Results File: [illegible]1800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18073.D Vial: 3
Acq On : 18 Dec 2000 22:43 Operator: TAG/VR
Sample : ICAL 50ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:44 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.46	168	387180	50.00	ug\L	-0.03
45) Chlorobenzene-d5	12.79	117	347719	50.00	ug\L	0.00
61) 1,2-Dichlorobenzene-d4	16.90	152	213422	50.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.96	65	174634	58.81	ug\L	-0.02
Spiked Amount 50.000	Range 84 - 124		Recovery = 117.62%			
46) Toluene-d8	10.29	98	444139	54.23	ug\L	0.00
Spiked Amount 50.000	Range 86 - 107		Recovery = 108.46%#			
65) Bromofluorobenzene	14.88	95	284241	50.56	ug\L	0.00
Spiked Amount 50.000	Range 91 - 110		Recovery = 101.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.61	85	239380	54.14	ug\L	99
3) Chloromethane	1.78	50	91860	63.08	ug\L	98
4) Vinyl Chloride	1.83	62	105700	51.72	ug\L	98
5) Bromomethane	2.12	94	85533	48.35	ug\L	97
6) Chloroethane	2.23	64	49955	71.73	ug\L #	50
7) Trichlorofluoromethane	2.44	101	334356	55.53	ug\L #	100
8) Acrolein	2.88	56	12326	119.41	ug\L #	19
9) Acrylonitrile	3.86	53	34840	117.12	ug\L	93
10) 1,1-Dichloroethene	2.94	96	124165	53.38	ug\L #	54
11) Acetone	3.04	58	5148m	62.34	ug\L	
12) Iodomethane	3.12	142	206252	55.87	ug\L #	79
13) Allylchloride	3.34	41	199989	60.46	ug\L #	90
14) Carbon Disulfide	3.19	76	332397	69.31	ug\L #	94
15) Acetonitrile	3.34	41	199989	604.62	ug\L #	89
16) Methylene Chloride	3.51	84	116686	52.07	ug\L #	78
17) trans-1,2-Dichloroethene	3.83	96	135090	54.97	ug\L #	73
18) MethylTertButylEther	3.83	73	299342	55.65	ug\L	99
19) 1,1-Dichloroethane	4.44	63	237804	59.82	ug\L	97
20) Vinyl Acetate	4.56	43	176862m	80.88	ug\L	
21) 2,2-Dichloropropane	5.41	77	248906	53.51	ug\L #	50
22) cis-1,2-Dichloroethene	5.49	96	133367	53.87	ug\L #	31
23) 2-Butanone	5.61	72	8077m	61.65	ug\L	
24) Propionitrile	5.76	54	62493	597.52	ug\L #	88
25) Methacrylonitrile	5.95	41	420379	611.07	ug\L #	84
26) Bromochloromethane	5.94	128	80702	54.08	ug\L #	69
27) Chloroform	6.09	83	301215	55.41	ug\L	100
28) 1,1,1-Trichloroethane	6.31	97	295627	52.84	ug\L	92
29) Carbon Tetrachloride	6.59	119	263667	52.45	ug\L	98
30) 1,4-Dioxane	8.91	88	17755	1072.59	ug\L #	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18073.D Vial: 3
Acq On : 18 Dec 2000 22:43 Operator: TAG/VR
Sample : ICAL 50ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:44 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.62	75	266484	58.74 ug\l	#	92
33) Benzene	6.99	78	394799	56.86 ug\l		100
34) Isobutyl alcohol	7.17	43	50264	1132.66 ug\l		94
35) 1,2-Dichloroethane	7.10	62	199597	58.35 ug\L	#	84
36) Trichloroethene	8.17	95	190104	52.71 ug\L		90
37) 1,2-Dichloropropane	8.57	63	153604	58.45 ug\L	#	94
38) Dibromomethane	8.81	93	122868	56.61 ug\L		89
39) Methylmethacrylate	8.88	69	71115	55.68 ug\L	#	64
40) Bromodichloromethane	9.13	83	290058	56.78 ug\L		98
41) 2-Nitropropane	9.56	43	22161	49.69 ug\L		97
42) 2-Chloroethyl-vinyl ether	9.69	63	35992m	34.55 ug\L		
43) cis-1,3-Dichloropropene	9.89	75	220878	54.01 ug\L	#	87
44) 4-Methyl-2-Pentanone	10.21	85	16564	56.42 ug\L	#	45
47) Toluene	10.40	92	280978	53.06 ug\L		97
48) trans-1,3-Dichloropropene	10.90	75	191042	51.61 ug\l	#	92
49) Ethylmethacrylate	11.07	69	165899	55.20 ug\l	#	83
50) 1,1,2-Trichloroethane	11.19	83	115171	55.23 ug\l		96
51) Tetrachloroethene	11.32	164	166775	49.99 ug\L		94
52) 1,3-Dichloropropane	11.46	76	221258	55.92 ug\l		99
53) 2-Hexanone	11.67	43	55514	54.45 ug\l	#	86
54) Dibromochloromethane	11.86	129	234159	53.45 ug\l		98
55) 1,2-Dibromoethane	11.99	107	182388	53.30 ug\L		97
56) Chlorobenzene	12.84	112	368763	53.79 ug\L		91
57) 1,1,1,2-Tetrachloroethane	13.02	131	188012	52.32 ug\L		98
58) Ethylbenzene	13.04	91	584461	53.98 ug\L		97
59) total-Xylene	13.25	106	668663m	161.61 ug\L		
60) Styrene	13.98	104	370605	53.16 ug\L	#	82
62) Bromoform	14.33	173	149414	52.29 ug\L		99
63) Isopropylbenzene	14.60	105	690631	53.00 ug\L	#	96
64) 1,4-dichloro-2-Butene	14.81	53	45252	55.74 ug\L	#	88
66) Bromobenzene	15.10	156	183973	52.90 ug\L	#	77
67) 1,1,2,2-Tetrachloroethane	15.26	83	189513	56.68 ug\L		97
68) 1,2,3-Trichloropropane	15.28	75	195902	56.42 ug\l		99
69) n-Propylbenzene	15.32	91	718665	51.89 ug\L		96
70) 2-Chlorotoluene	15.43	91	465348m	55.02 ug\l		
71) 4-Chlorotoluene	15.65	91	632654	53.66 ug\l		94
72) 1,3,5-Trimethylbenzene	15.65	105	569600	53.56 ug\l		92
73) Pentachloroethane	16.26	167	135362	52.42 ug\l	#	95
74) tert-Butylbenzene	16.22	119	694523	51.96 ug\l		97
75) 1,2,4-Trimethylbenzene	16.30	105	573446	54.21 ug\L		92
76) sec-Butylbenzene	16.60	105	784297	52.12 ug\L		98
77) 1,3-Dichlorobenzene	16.78	146	305604	51.73 ug\L		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18073.D Vial: 3
Acq On : 18 Dec 2000 22:43 Operator: T G/VR
Sample : ICAL 50ppb (V00075,V00057) Inst : A-C
Misc : QC Multiplr: 1 00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:44 2000 Quant Results File: 1 1800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrato
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.87	119	642542	52.09 ug\L		98
79)	1,4-Dichlorobenzene	16.94	146	363713	51.13 ug\L		98
80)	1,2-Dichlorobenzene	17.58	146	299206	51.44 ug\L		97
81)	n-Butylbenzene	17.60	91	618199	52.95 ug\L		93
82)	1,2-Dibromo-3-chloropropan	19.02	75	43808	52.59 ug\L	#	75
83)	1,2,4-trichlorobenzene	20.46	180	233038	48.14 ug\L		100
84)	Hexachlorobutadiene	20.79	225	188147	49.18 ug\L		100
85)	Naphthalene	20.90	128	299050	46.89 ug\L		100
86)	1,2,3-Trichlorobenzene	21.34	180	196916m	48.09 ug\L		

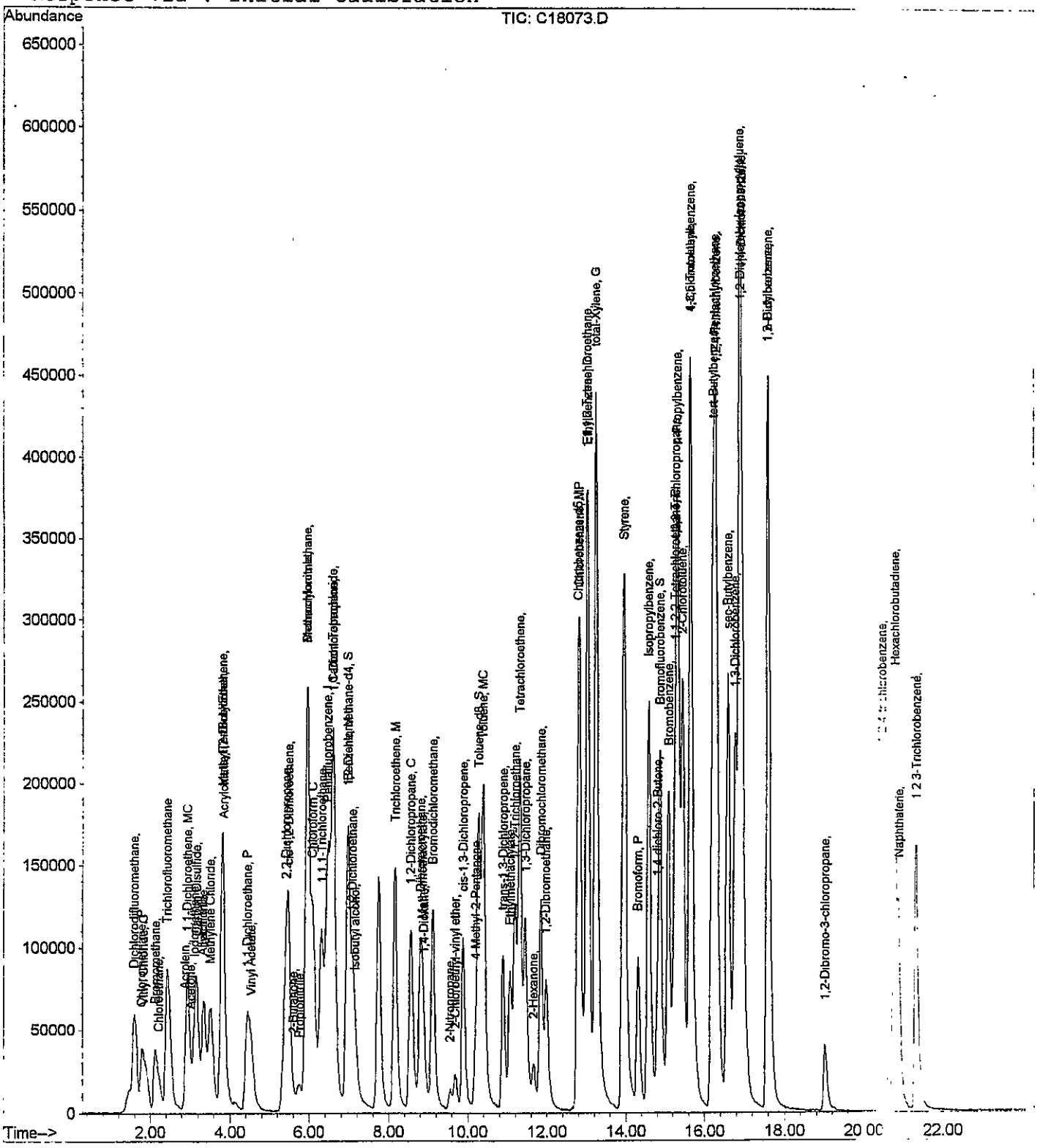
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18073.D
Acq On : 18 Dec 2000 22:43
Sample : ICAL 50ppb (V00075,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 19 8:44 2000

Vial: 3
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 121800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18077.D
Acq On : 19 Dec 2000 00:35
Sample : ICAL 100ppb (V00075,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 19 8:45 2000

Vial: 7
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.47	168	362350	50.00	ug\L	-0.02
45) Chlorobenzene-d5	12.78	117	325407	50.00	ug\L	0.00
61) 1,2-Dichlorobenzene-d4	16.89	152	194584	50.00	ug\L	-0.02
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	6.95	65	346267	124.61	ug\L	-0.03
Spiked Amount 50.000	Range 84 - 124		Recovery = 249.22%#			
46) Toluene-d8	10.28	98	890466	116.18	ug\L	-0.02
Spiked Amount 50.000	Range 86 - 107		Recovery = 232.36%#			
65) Bromofluorobenzene	14.87	95	571687	111.54	ug\L	0.00
Spiked Amount 50.000	Range 91 - 110		Recovery = 223.08%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.60	85	477934	115.50	ug\L	98
3) Chloromethane	1.78	50	187422	137.53	ug\L	99
4) Vinyl Chloride	1.86	62	215604	112.72	ug\L #	42
5) Bromomethane	2.12	94	166358	100.49	ug\L	99
6) Chloroethane	2.19	64	83734	140.57	ug\L #	57
7) Trichlorofluoromethane	2.44	101	670445	118.97	ug\L #	100
8) Acrolein	2.88	56	23474	242.99	ug\L	87
9) Acrylonitrile	3.88	53	70426	252.98	ug\L #	73
10) 1,1-Dichloroethene	2.95	96	259050	118.99	ug\L #	59
11) Acetone	3.05	58	9849	124.87	ug\L #	57
12) Iodomethane	3.13	142	448386	128.45	ug\L #	86
13) Allylchloride	3.36	41	387939	125.32	ug\L #	92
14) Carbon Disulfide	3.17	76	531170	118.34	ug\L	98
15) Acetonitrile	3.36	41	387939	1253.22	ug\L #	91
16) Methylene Chloride	3.53	84	238571	113.76	ug\L #	80
17) trans-1,2-Dichloroethene	3.83	96	268876	116.90	ug\L #	72
18) MethylTertButylEther	3.82	73	604309	120.05	ug\L	99
19) 1,1-Dichloroethane	4.47	63	483961	130.08	ug\L	97
20) Vinyl Acetate	4.56	43	340790	166.53	ug\L #	82
21) 2,2-Dichloropropane	5.41	77	500209	114.91	ug\L #	50
22) cis-1,2-Dichloroethene	5.48	96	279205	120.51	ug\L #	74
23) 2-Butanone	5.56	72	15889	129.59	ug\L #	100
24) Propionitrile	5.75	54	129740	1325.49	ug\L #	94
25) Methacrylonitrile	5.95	41	840178	1305.00	ug\L #	84
26) Bromochloromethane	5.94	128	161824	115.88	ug\L #	70
27) Chloroform	6.09	83	616958	121.28	ug\L	100
28) 1,1,1-Trichloroethane	6.31	97	614380	117.34	ug\L	93
29) Carbon Tetrachloride	6.58	119	544196	115.67	ug\L	94
30) 1,4-Dioxane	8.91	88	34875m	2251.20	ug\L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18077.D Vial: 7
Acq On : 19 Dec 2000 00:35 Operator: TAG/VR
Sample : ICAL 100ppb (V00075,V00057) Inst : 70A-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:45 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.61	75	493550	116.25 ug\L		95
33) Benzene	6.98	78	803867	123.71 ug\L		100
34) Isobutyl alcohol	7.17	43	103549	2493.29 ug\L		98
35) 1,2-Dichloroethane	7.10	62	400016m	124.95 ug\L		
36) Trichloroethene	8.16	95	384682	113.97 ug\L		90
37) 1,2-Dichloropropane	8.56	63	305691	124.30 ug\L		96
38) Dibromomethane	8.80	93	247532	121.86 ug\L		90
39) Methylmethacrylate	8.86	69	146930	122.92 ug\L	#	67
40) Bromodichloromethane	9.11	83	606689	126.90 ug\L		98
41) 2-Nitropropane	9.55	43	42162	93.78 ug\L		82
42) 2-Chloroethyl-vinyl ether	9.68	63	90612	81.93 ug\L	#	86
43) cis-1,3-Dichloropropene	9.88	75	467686	122.19 ug\L	#	88
44) 4-Methyl-2-Pentanone	10.20	85	33855	123.21 ug\L	#	52
47) Toluene	10.39	92	582790	117.60 ug\L		98
48) trans-1,3-Dichloropropene	10.88	75	404472	116.76 ug\L		93
49) Ethylmethacrylate	11.07	69	334642	118.98 ug\L	#	85
50) 1,1,2-Trichloroethane	11.19	83	229049	117.36 ug\L		98
51) Tetrachloroethene	11.31	164	332930	110.56 ug\L		95
52) 1,3-Dichloropropane	11.46	76	446527	120.60 ug\L		98
53) 2-Hexanone	11.66	43	109799	115.08 ug\L	#	85
54) Dibromochloromethane	11.84	129	490974	119.76 ug\L		98
55) 1,2-Dibromoethane	11.98	107	372753	116.40 ug\L		98
56) Chlorobenzene	12.84	112	732927	114.24 ug\L		91
57) 1,1,1,2-Tetrachloroethane	13.01	131	393274	116.94 ug\L		97
58) Ethylbenzene	13.05	91	1178370	116.29 ug\L		96
59) total-Xylene	13.25	106	1318648m	340.56 ug\L		
60) Styrene	13.98	104	744559	114.11 ug\L	#	81
62) Bromoform	14.33	173	320022	122.84 ug\L		99
63) Isopropylbenzene	14.60	105	1400708	117.89 ug\L	#	95
64) 1,4-dichloro-2-Butene	14.81	53	90323	122.03 ug\L	#	93
66) Bromobenzene	15.10	156	384046	121.12 ug\L		79
67) 1,1,2,2-Tetrachloroethane	15.25	83	372319	122.14 ug\L		99
68) 1,2,3-Trichloropropane	15.28	75	373377	117.93 ug\L	#	25
69) n-Propylbenzene	15.33	91	1516869	120.12 ug\L		94
70) 2-Chlorotoluene	15.44	91	862379m	111.84 ug\L		
71) 4-Chlorotoluene	15.64	91	1262478	117.46 ug\L		94
72) 1,3,5-Trimethylbenzene	15.65	105	1143804	117.97 ug\L		91
73) Pentachloroethane	16.25	167	281000	119.36 ug\L		96
74) tert-Butylbenzene	16.21	119	1391786	114.20 ug\L		97
75) 1,2,4-Trimethylbenzene	16.31	105	1132383	117.41 ug\L		93
76) sec-Butylbenzene	16.59	105	1555822	113.39 ug\L		98
77) 1,3-Dichlorobenzene	16.77	146	612148	113.66 ug\L		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18077.D Vial: -
Acq On : 19 Dec 2000 00:35 Operator: TAG/VR
Sample : ICAL 100ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:45 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) Isopropyltoluene	16.88	119	1272567	113.15 ug\L	98
79) 1,4-Dichlorobenzene	16.93	146	729528	112.48 ug\L	97
80) 1,2-Dichlorobenzene	17.59	146	599057	112.96 ug\L	98
81) n-Butylbenzene	17.59	91	1238421	116.35 ug\L	94
82) 1,2-Dibromo-3-chloropropan	19.03	75	87652	115.41 ug\L #	79
83) 1,2,4-trichlorobenzene	20.46	180	465453	105.46 ug\L	100
84) Hexachlorobutadiene	20.79	225	363873	104.33 ug\L	100
85) Naphthalene	20.89	128	616558	106.25 ug\L	100
86) 1,2,3-Trichlorobenzene	21.34	180	370251	99.18 ug\L	97

(#) = qualifier out of range (m) = manual integration

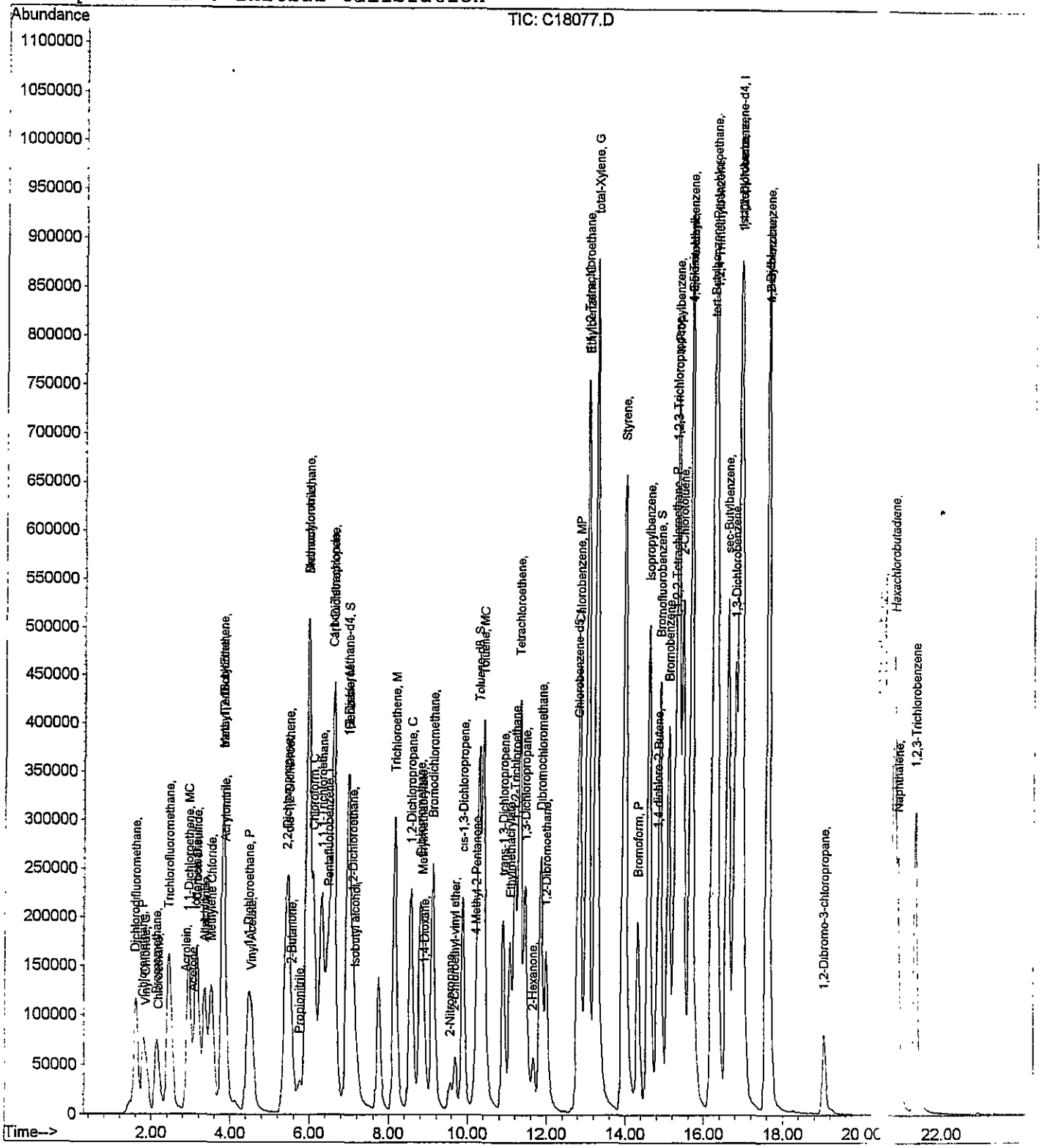
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18077.D
Acq On : 19 Dec 2000 00:35
Sample : ICAL 100ppb (V00075,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 19 8:45 2000

Vial: 1
Operator: 1 G/VR
Inst : A-C
Multiplr: 1 00

Quant Results File: 1 1800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrat)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18078.D Vial: 8
Acq On : 19 Dec 2000 1:04 Operator: TAG/VR
Sample : ICAL 200ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:48 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.48	168	391364m	50.00 ug\L	-0.01
45) Chlorobenzene-d5	12.79	117	349507	50.00 ug\L	0.00
61) 1,2-Dichlorobenzene-d4	16.91	152	203635	50.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	6.98	65	690082	229.93 ug\L	0.00
Spiked Amount 50.000	Range 84 - 124		Recovery =	459.86%#	
46) Toluene-d8	10.29	98	1810487	219.92 ug\L	-0.01
Spiked Amount 50.000	Range 86 - 107		Recovery =	439.84%#	
65) Bromofluorobenzene	14.88	95	1124985	209.74 ug\L	0.00
Spiked Amount 50.000	Range 91 - 110		Recovery =	419.48%#	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.62	85	970403	217.13 ug\L	
3) Chloromethane	1.77	50	377005	256.14 ug\L	
4) Vinyl Chloride	1.86	62	419065	202.86 ug\L	
5) Bromomethane	2.14	94	320477	179.24 ug\L	
6) Chloroethane	2.23	64	144348	233.49 ug\L	#
7) Trichlorofluoromethane	2.46	101	1125188	184.86 ug\L	#
8) Acrolein	2.88	56	45805	439.00 ug\L	
9) Acrylonitrile	3.90	53	133672	444.56 ug\L	#
10) 1,1-Dichloroethene	2.94	96	509062	216.50 ug\L	#
11) Acetone	3.09	58	18798	218.77 ug\L	#
12) Iodomethane	3.14	142	859014	227.07 ug\L	#
13) Allylchloride	3.36	41	737395	220.55 ug\L	#
14) Carbon Disulfide	3.17	76	1377881	284.23 ug\L	#
15) Acetonitrile	3.36	41	737395	2205.52 ug\L	#
16) Methylene Chloride	3.53	84	478453	211.23 ug\L	#
17) trans-1,2-Dichloroethene	3.85	96	544439	219.15 ug\L	#
18) MethylTertButylEther	3.84	73	1209518	222.47 ug\L	
19) 1,1-Dichloroethane	4.50	63	935753	232.87 ug\L	
20) Vinyl Acetate	4.56	43	723704	327.43 ug\L	#
21) 2,2-Dichloropropane	5.41	77	1033049	219.72 ug\L	#
22) cis-1,2-Dichloroethene	5.50	96	560141	223.85 ug\L	#
23) 2-Butanone	5.60	72	34133	257.74 ug\L	#
24) Propionitrile	5.80	54	265891	2515.10 ug\L	#
25) Methacrylonitrile	5.99	41	1633221	2348.71 ug\L	#
26) Bromochloromethane	5.95	128	329003	218.13 ug\L	#
27) Chloroform	6.12	83	1250407	227.58 ug\L	
28) 1,1,1-Trichloroethane	6.32	97	1247491	220.59 ug\L	#
29) Carbon Tetrachloride	6.59	119	1127010	221.79 ug\L	
30) 1,4-Dioxane	8.96	88	72510	4333.56 ug\L	#

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18078.D Vial: 8
Acq On : 19 Dec 2000 1:04 Operator: TAG/VR
Sample : ICAL 200ppb (V00075,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:48 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	1,1-Dichloropropene	6.62	75	951447	207.49 ug\L		
33)	Benzene	6.99	78	1588043	226.28 ug\L		
34)	Isobutyl alcohol	7.24	43	197201	4396.26 ug\L	#	
35)	1,2-Dichloroethane	7.11	62	800549	231.53 ug\L	#	
36)	Trichloroethene	8.17	95	791894	217.21 ug\L		
37)	1,2-Dichloropropane	8.58	63	622581	234.39 ug\L	#	
38)	Dibromomethane	8.82	93	463272	211.16 ug\L		
39)	Methylmethacrylate	8.88	69	299216	231.76 ug\L	#	
40)	Bromodichloromethane	9.12	83	1234356	239.05 ug\L		
41)	2-Nitropropane	9.57	43	101672	200.72 ug\L		
42)	2-Chloroethyl-vinyl ether	9.68	63	154615	125.65 ug\L	#	
43)	cis-1,3-Dichloropropene	9.89	75	964819	233.38 ug\L	#	
44)	4-Methyl-2-Pentanone	10.22	85	63090	212.59 ug\L	#	
47)	Toluene	10.39	92	1155936	217.17 ug\L		98
48)	trans-1,3-Dichloropropene	10.90	75	828465	222.67 ug\L	#	93
49)	Ethylmethacrylate	11.08	69	661306	218.92 ug\L	#	85
50)	1,1,2-Trichloroethane	11.20	83	458309	218.64 ug\L		98
51)	Tetrachloroethene	11.32	164	678241	212.82 ug\L		96
52)	1,3-Dichloropropane	11.47	76	879950	221.26 ug\L		99
53)	2-Hexanone	11.68	43	230877	225.29 ug\L	#	81
54)	Dibromochloromethane	11.85	129	989473	224.71 ug\L		98
55)	1,2-Dibromoethane	11.99	107	745126	216.64 ug\L		98
56)	Chlorobenzene	12.84	112	1502826	218.09 ug\L		93
57)	1,1,1,2-Tetrachloroethane	13.02	131	787619	218.06 ug\L		96
58)	Ethylbenzene	13.06	91	2315503	212.75 ug\L		95
59)	total-Xylene	13.26	106	2668864m	641.75 ug\L		
60)	Styrene	13.99	104	1475795m	210.59 ug\L		
62)	Bromoform	14.33	173	646134	237.00 ug\L		100
63)	Isopropylbenzene	14.60	105	2771271	222.88 ug\L	#	95
64)	1,4-dichloro-2-Butene	14.82	53	178540	230.49 ug\L	#	94
66)	Bromobenzene	15.11	156	757098	228.17 ug\L		82
67)	1,1,2,2-Tetrachloroethane	15.26	83	711179	222.93 ug\L		98
68)	1,2,3-Trichloropropane	15.30	75	723623	218.40 ug\L		99
69)	n-Propylbenzene	15.33	91	2898215	219.30 ug\L		95
70)	2-Chlorotoluene	15.45	91	1696433	210.22 ug\L	#	95
71)	4-Chlorotoluene	15.45	91	2203553	195.90 ug\L		96
72)	1,3,5-Trimethylbenzene	15.66	105	2212649	218.06 ug\L		90
73)	Pentachloroethane	16.26	167	556388	225.82 ug\L		97
74)	tert-Butylbenzene	16.22	119	2713445	212.76 ug\L		97
75)	1,2,4-Trimethylbenzene	16.31	105	2180606	216.05 ug\L		94
76)	sec-Butylbenzene	16.61	105	3060863	213.16 ug\L		98
77)	1,3-Dichlorobenzene	16.78	146	1208804	214.46 ug\L		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18078.D
Acq On : 19 Dec 2000 1:04
Sample : ICAL 200ppb (V00075,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 19 8:48 2000

Vial: [illegible]
Operator: T[illegible]G/VR
Inst : [illegible]A-C
Multiplr: 1.00

Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Sat Dec 09 15:38:57 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

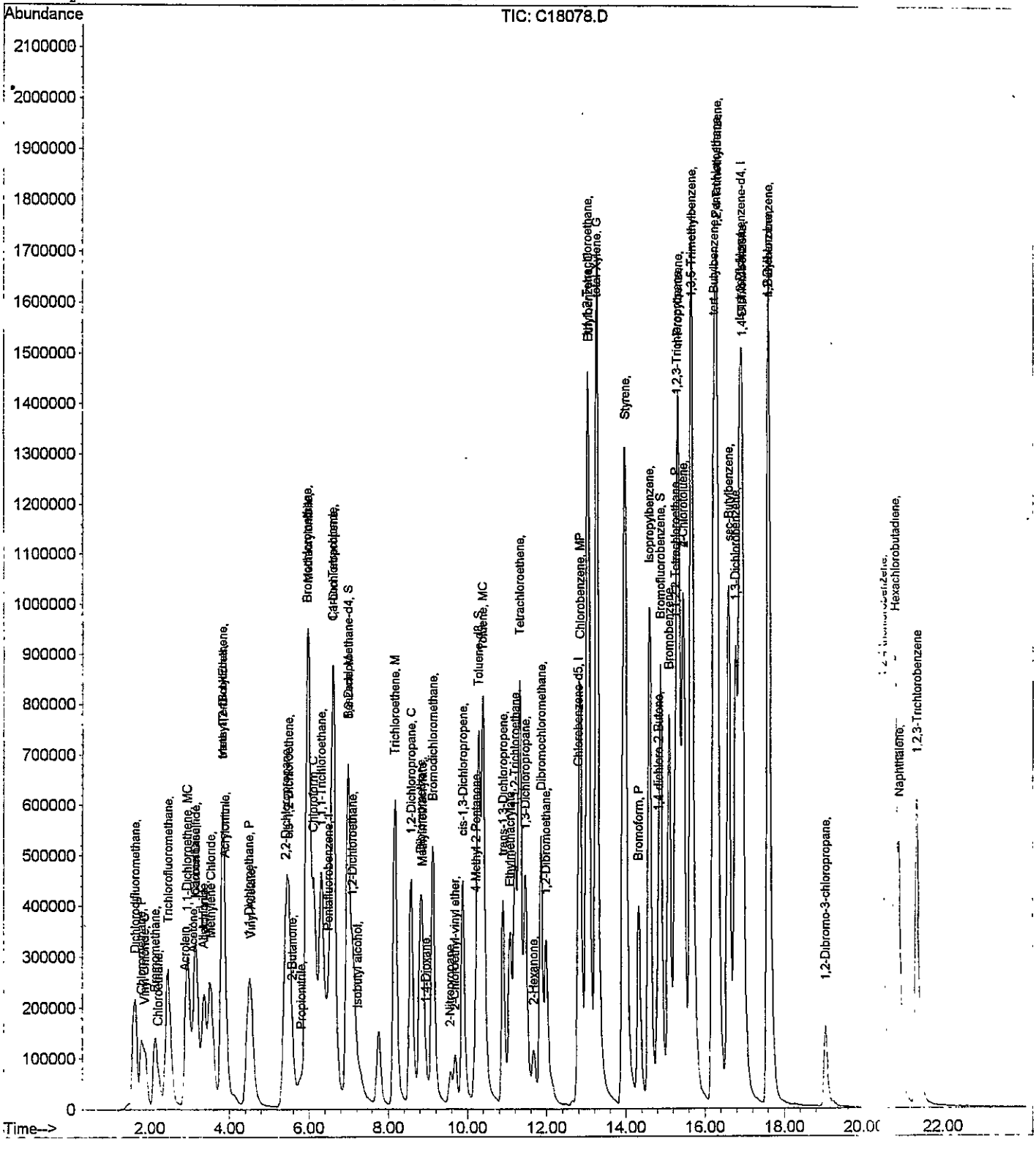
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	Isopropyltoluene	16.88	119	2486592	211.26 ug\L	97
79)	1,4-Dichlorobenzene	16.95	146	1369343	201.74 ug\L	99
80)	1,2-Dichlorobenzene	17.60	146	1166300	210.14 ug\L	98
81)	n-Butylbenzene	17.61	91	2377765	213.47 ug\L	94
82)	1,2-Dibromo-3-chloropropan	19.04	75	175679	221.04 ug\L	81
83)	1,2,4-trichlorobenzene	20.47	180	927469	200.81 ug\L	100
84)	Hexachlorobutadiene	20.78	225	694829	190.37 ug\L	100
85)	Naphthalene	20.90	128	1242602	204.77 ug\L	100
86)	1,2,3-Trichlorobenzene	21.34	180	731490	187.24 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18078.D Vial: [illegible]
Acq On : 19 Dec 2000 1:04 Operator: T[illegible]G/VR
Sample : ICAL 200ppb (V00075,V00057) Inst : [illegible]A-C
Misc : QC Multiplr: [illegible]00
MS Integration Params: rteint.p
Quant Time: Dec 19 8:48 2000 Quant Results File: [illegible]1800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrat[illegible]
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D Vial: 9
Acq On : 19 Dec 2000 1:32 Operator: TAG/VR
Sample : ICV 50ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 14:13 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.47	168	381189	50.00	ug\L		0.00
45) Chlorobenzene-d5	12.78	117	338691	50.00	ug\L		-0.01
61) 1,2-Dichlorobenzene-d4	16.90	152	204192	50.00	ug\L		0.00
System Monitoring Compounds							
32) 1,2-Dichloroethane-d4	6.97	65	182133	52.39	ug\L		0.00
Spiked Amount 50.000	Range 84 - 124		Recovery = 104.78%				
46) Toluene-d8	10.27	98	478989	53.68	ug\L		-0.01
Spiked Amount 50.000	Range 86 - 107		Recovery = 107.36%				
65) Bromofluorobenzene	14.87	95	308146	52.58	ug\L		-0.01
Spiked Amount 50.000	Range 91 - 110		Recovery = 105.16%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.61	85	164983	34.10	ug\L		100
3) Chloromethane	1.77	50	73309	39.38	ug\L		99
4) Vinyl Chloride	1.84	62	96168	44.77	ug\L		99
5) Bromomethane	2.12	94	91975	54.09	ug\L		98
6) Chloroethane	2.23	64	45819	51.81	ug\L	#	52
7) Trichlorofluoromethane	2.44	101	305150	46.96	ug\L	#	100
8) Acrolein	2.88	56	10345m	88.47	ug\L		
9) Acrylonitrile	3.87	53	34920m	100.49	ug\L		
10) 1,1-Dichloroethene	2.96	96	114401	45.06	ug\L	#	54
11) Acetone	3.03	58	4248m	45.74	ug\L		
12) Iodomethane	3.14	142	164021	38.65	ug\L	#	83
13) Allylchloride	3.36	41	185141	47.72	ug\L	#	91
14) Carbon Disulfide	3.17	76	267279	43.80	ug\L		98
15) Acetonitrile	3.36	41	185141	477.18	ug\L	#	90
16) Methylene Chloride	3.53	84	109070	45.52	ug\L	#	80
17) trans-1,2-Dichloroethene	3.83	96	123880	45.84	ug\L	#	73
18) MethylTertButylEther	3.81	73	290368	47.59	ug\L		100
19) 1,1-Dichloroethane	4.45	63	219939	45.91	ug\L		98
20) Vinyl Acetate	4.56	43	175420m	51.01	ug\L		
21) 2,2-Dichloropropane	5.43	77	245461	49.44	ug\L	#	89
22) cis-1,2-Dichloroethene	5.47	96	129381	47.29	ug\L	#	70
23) 2-Butanone	5.58	72	4880	31.52	ug\L	#	100
24) Propionitrile	5.73	54	60201	473.60	ug\L	#	66
25) Methacrylonitrile	5.96	41	401514	472.63	ug\L	#	84
26) Bromochloromethane	5.95	128	80562	49.00	ug\L	#	70
27) Chloroform	6.09	83	303155	49.14	ug\L		100
28) 1,1,1-Trichloroethane	6.31	97	292999	48.65	ug\L		96
29) Carbon Tetrachloride	6.58	119	257785	48.06	ug\L		99
30) 1,4-Dioxane	8.89	88	13051	775.38	ug\L	#	62

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D Vial: 9
Acq On : 19 Dec 2000 1:32 Operator: TAG/VR
Sample : ICV 50ppb (V00073,V00057) Inst : GC/MS-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 14:13 2000 Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	6.61	75	229455	47.97 ug\L		94
33) Benzene	6.98	78	380763	47.32 ug\L		100
34) Isobutyl alcohol	7.17	43	49043	929.02 ug\L		100
35) 1,2-Dichloroethane	7.09	62	198994m	49.69 ug\L		
36) Trichloroethene	8.16	95	191534	49.15 ug\L		88
37) 1,2-Dichloropropane	8.57	63	154296	49.78 ug\L	#	94
38) Dibromomethane	8.81	93	122472	50.33 ug\L		91
39) Methylmethacrylate	8.86	69	68794	47.16 ug\L	#	50
40) Bromodichloromethane	9.11	83	287999	49.84 ug\L		98
41) 2-Nitropropane	9.55	43	22365	51.92 ug\L		88
42) 2-Chloroethyl-vinyl ether	9.67	63	39998	49.25 ug\L	#	88
43) cis-1,3-Dichloropropene	9.87	75	225953	50.19 ug\L	#	89
44) 4-Methyl-2-Pentanone	10.20	85	16239	51.63 ug\L	#	56
47) Toluene	10.40	92	277465	47.95 ug\L		98
48) trans-1,3-Dichloropropene	10.90	75	198856	51.23 ug\L		94
49) Ethylmethacrylate	11.06	69	164476	50.33 ug\L	#	85
50) 1,1,2-Trichloroethane	11.19	83	116213	50.55 ug\L		98
51) Tetrachloroethene	11.31	164	164923	48.29 ug\L		97
52) 1,3-Dichloropropane	11.47	76	221999	50.19 ug\L		99
53) 2-Hexanone	11.67	43	55256	48.33 ug\L	#	84
54) Dibromochloromethane	11.85	129	237035	50.98 ug\L		99
55) 1,2-Dibromoethane	11.99	107	183733	50.12 ug\L		99
56) Chlorobenzene	12.83	112	371549	49.88 ug\L		91
57) 1,1,1,2-Tetrachloroethane	13.02	131	196739	51.90 ug\L		97
58) Ethylbenzene	13.04	91	565966	47.95 ug\L		97
59) total-Xylene	13.24	106	642633m	144.42 ug\L		
60) Styrene	13.97	104	371863m	50.98 ug\L		
62) Bromoform	14.32	173	157642	53.61 ug\L		97
63) Isopropylbenzene	14.58	105	688962	49.27 ug\L		96
64) 1,4-dichloro-2-Butene	14.81	53	43007	50.29 ug\L	#	91
66) Bromobenzene	15.09	156	190749	51.18 ug\L		81
67) 1,1,2,2-Tetrachloroethane	15.25	83	185872	49.58 ug\L		98
68) 1,2,3-Trichloropropane	15.27	75	189975	51.29 ug\L		97
69) n-Propylbenzene	15.32	91	747313	50.25 ug\L		95
70) 2-Chlorotoluene	15.44	91	434077	47.62 ug\L	#	96
71) 4-Chlorotoluene	15.44	91	567079	48.59 ug\L		97
72) 1,3,5-Trimethylbenzene	15.65	105	562588	48.61 ug\L		92
73) Pentachloroethane	16.25	167	143724	54.04 ug\L		97
74) tert-Butylbenzene	16.21	119	702998	50.26 ug\L		97
75) 1,2,4-Trimethylbenzene	16.31	105	559837	48.50 ug\L		94
76) sec-Butylbenzene	16.59	105	780287	49.45 ug\L		97
77) 1,3-Dichlorobenzene	16.77	146	314982	51.32 ug\L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D
Acq On : 19 Dec 2000 1:32
Sample : ICV 50ppb (V00073,V00057)
Misc : QC
MS Integration Params: rteint.p
Quant Time: Dec 19 14:13 2000

Vial: 9
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 121800A.RES

Quant Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration
DataAcq Meth : 121800A

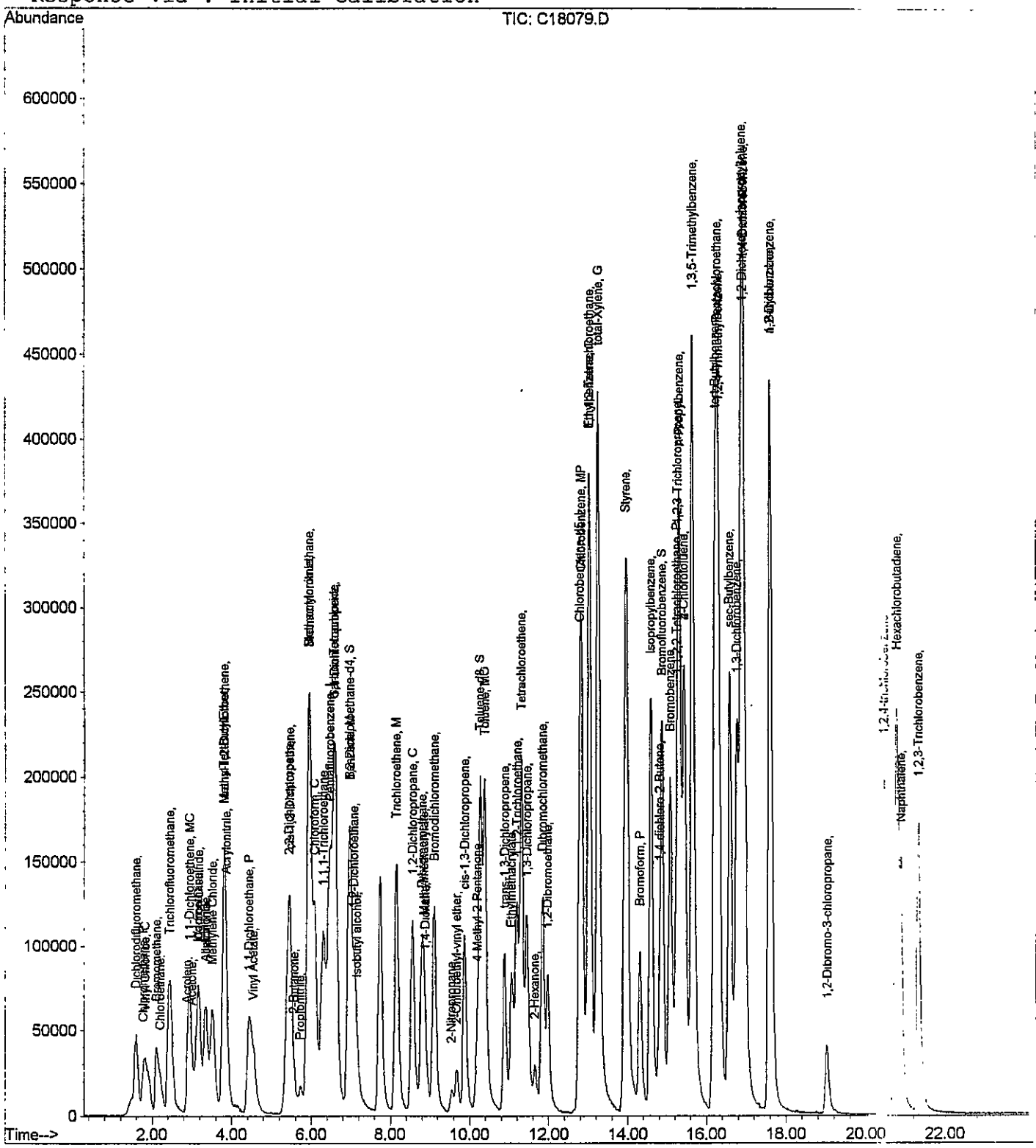
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
78)	Isopropyltoluene	16.87	119	618787	47.77 ug\L		98
79)	1,4-Dichlorobenzene	16.94	146	375526	50.08 ug\L		98
80)	1,2-Dichlorobenzene	17.59	146	307494	50.01 ug\L		98
81)	n-Butylbenzene	17.59	91	580143	46.92 ug\L		94
82)	1,2-Dibromo-3-chloropropan	19.04	75	45283	53.46 ug\L	#	76
83)	1,2,4-trichlorobenzene	20.46	180	240535	48.73 ug\L		100
84)	Hexachlorobutadiene	20.78	225	191514	50.92 ug\L		100
85)	Naphthalene	20.90	128	364520	56.93 ug\L		100
86)	1,2,3-Trichlorobenzene	21.34	180	205998	53.52 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D Vial: [illegible]
Acq On : 19 Dec 2000 1:32 Operator: TAG/VR
Sample : ICV 50ppb (V00073,V00057) Inst : [illegible]A-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 19 14:13 2000 Quant Results File: 121800A.RES

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator)
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D Vial: 9
Acq On : 19 Dec 2000 1:32 Operator: TAG/VR
Sample : ICV 50ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	98	0.00
2		Dichlorodifluoromethane	0.635	0.433	31.8#	69	0.00
3	P	Chloromethane	0.244	0.192	21.3#	80	0.00
4	C	Vinyl Chloride	0.282	0.252	10.6	91	0.00
5		Bromomethane	0.243	0.241	0.8	108	0.00
6		Chloroethane	0.132	0.120	9.1	92	0.00
7		Trichlorofluoromethane	0.852	0.801	6.0	91	0.00
8		Acrolein	0.015	0.014	6.7	84	0.00
9		Acrylonitrile	0.046	0.046	0.0	100	0.02
10	MC	1,1-Dichloroethene	0.333	0.300	9.9	92	0.02
11		Acetone	0.012	0.011	8.3	83	-0.01
12		Iodomethane	0.516	0.430	16.7	80	0.03
13		Allylchloride	0.509	0.486	4.5	93	0.02
14		Carbon Disulfide	0.800	0.701	12.4	80	-0.01
15		Acetonitrile	0.051	0.049	3.9	93	0.02
16		Methylene Chloride	0.314	0.286	8.9	93	0.02
17		trans-1,2-Dichloroethene	0.354	0.325	8.2	92	0.00
18		MethylTertButylEther	0.800	0.762	4.8	97	-0.02
19	P	1,1-Dichloroethane	0.628	0.577	8.1	92	0.00
20		Vinyl Acetate	0.451	0.460	-2.0	99	0.00
21		2,2-Dichloropropane	0.651	0.644	1.1	99	0.02
22		cis-1,2-Dichloroethene	0.359	0.339	5.6	97	-0.02
23		2-Butanone	0.018	0.013	27.8#	60	-0.03
24		Propionitrile	0.017	0.016	5.9	96	-0.03
25		Methacrylonitrile	0.111	0.105	5.4	96	0.00
26		Bromochloromethane	0.216	0.211	2.3	100	0.00
27	C	Chloroform	0.809	0.795	1.7	101	0.00
28		1,1,1-Trichloroethane	0.790	0.769	2.7	99	0.00
29		Carbon Tetrachloride	0.704	0.676	4.0	98	-0.01
30		1,4-Dioxane	0.002	0.002	0.0	74	-0.01
31		1,1-Dichloropropene	0.627	0.602	4.0	86	-0.01
32	S	1,2-Dichloroethane-d4	0.456	0.478	-4.8	104	0.00
33	M	Benzene	1.056	0.999	5.4	96	-0.01
34		Isobutyl alcohol	0.007	0.006	14.3	98	0.00
35		1,2-Dichloroethane	0.525	0.522	0.6	100	-0.01
36	M	Trichloroethene	0.511	0.502	1.8	101	0.00
37	C	1,2-Dichloropropane	0.407	0.405	0.5	100	0.00
38		Dibromomethane	0.319	0.321	-0.6	100	0.00
39		Methylmethacrylate	0.191	0.180	5.8	97	-0.01
40		Bromodichloromethane	0.758	0.756	0.3	99	-0.02
41		2-Nitropropane	0.056	0.059	-5.4	101	0.00
42		2-Chloroethyl-vinyl ether	0.098	0.105	-7.1	111	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D Vial: 9
Acq On : 19 Dec 2000 1:32 Operator: TAG/VR
Sample : ICV 50ppb (V00073,V00057) Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.5 min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area	Dev(min)
43		cis-1,3-Dichloropropene	0.591	0.593	-0.3	102	-0.02
44		4-Methyl-2-Pentanone	0.041	0.043	-4.9	98	-0.01
45	I	Chlorobenzene-d5	1.000	1.000	0.0	97	-0.01
46	S	Toluene-d8	1.317	1.414	-7.4	108	-0.01
47	MC	Toluene	0.854	0.819	4.1	99	0.00
48		trans-1,3-Dichloropropene	0.573	0.587	-2.4	104	0.00
49		Ethylmethacrylate	0.482	0.486	-0.8	99	-0.01
50		1,1,2-Trichloroethane	0.339	0.343	-1.2	101	0.00
51		Tetrachloroethene	0.504	0.487	3.4	99	-0.01
52		1,3-Dichloropropane	0.653	0.655	-0.3	100	0.00
53		2-Hexanone	0.169	0.163	3.6	100	0.00
54		Dibromochloromethane	0.686	0.700	-2.0	101	-0.01
55		1,2-Dibromoethane	0.541	0.542	-0.2	101	0.00
56	MP	Chlorobenzene	1.100	1.097	0.3	101	-0.01
57		1,1,1,2-Tetrachloroethane	0.560	0.581	-3.7	105	0.00
58	C	Ethylbenzene	1.742	1.671	4.1	97	0.00
59	G	total-Xylene	0.657	0.632	3.8	96	-0.01
60		Styrene	1.077	1.098	-1.9	100	-0.01
61	I	1,2-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
62	P	Bromoform	0.720	0.772	-7.2	106	-0.01
63		Isopropylbenzene	3.424	3.374	1.5	100	-0.01
64		1,4-dichloro-2-Butene	0.209	0.211	-1.0	95	0.00
65	S	Bromofluorobenzene	1.435	1.509	-5.2	108	-0.01
66		Bromobenzene	0.913	0.934	-2.3	104	-0.01
67	P	1,1,2,2-Tetrachloroethane	0.918	0.910	0.9	98	-0.01
68		1,2,3-Trichloropropane	0.907	0.930	-2.5	97	0.00
69		n-Propylbenzene	3.642	3.660	-0.5	104	0.00
70		2-Chlorotoluene	2.232	2.126	4.7	93	0.00
71		4-Chlorotoluene	2.858	2.777	2.8	90	-0.21
72		1,3,5-Trimethylbenzene	2.834	2.755	2.8	99	0.00
73		Pentachloroethane	0.651	0.704	-8.1	106	-0.01
74		tert-Butylbenzene	3.425	3.443	-0.5	101	-0.01
75		1,2,4-Trimethylbenzene	2.827	2.742	3.0	98	0.00
76		sec-Butylbenzene	3.864	3.821	1.1	99	-0.01
77		1,3-Dichlorobenzene	1.503	1.543	-2.7	103	0.00
78		Isopropyltoluene	3.172	3.030	4.5	96	0.00
79		1,4-Dichlorobenzene	1.836	1.839	-0.2	103	0.00
80		1,2-Dichlorobenzene	1.506	1.506	0.0	103	0.00
81		n-Butylbenzene	3.028	2.841	6.2	94	-0.01
82		1,2-Dibromo-3-chloropropane	0.207	0.222	-7.2	103	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121800A\C18079.D Vial: 9
Acq On : 19 Dec 2000 1:32 Operator: T[illegible]VR
Sample : ICV 50ppb (V00073,V00057) Inst : V[illegible]-C
Misc : QC Multiplr: 1.[illegible]0
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\121800A\121800A.M (RTE Integrator
Title : 8260 CALIBRATION FOR WATER
Last Update : Tue Dec 19 08:53:52 2000
Response via : Multiple Level Calibration

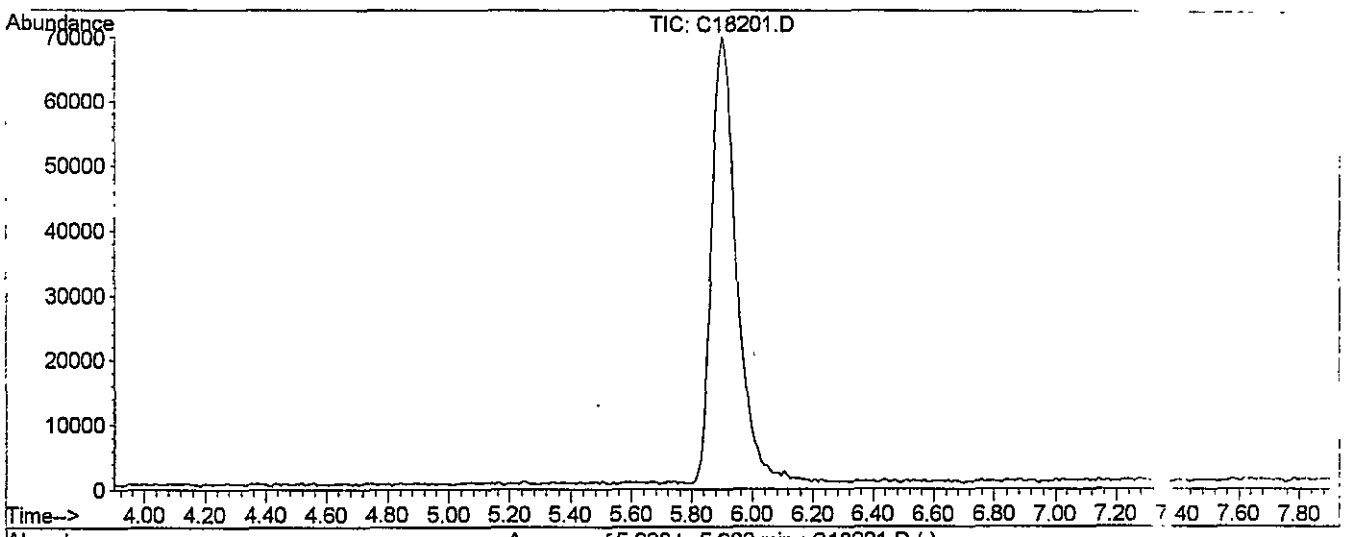
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

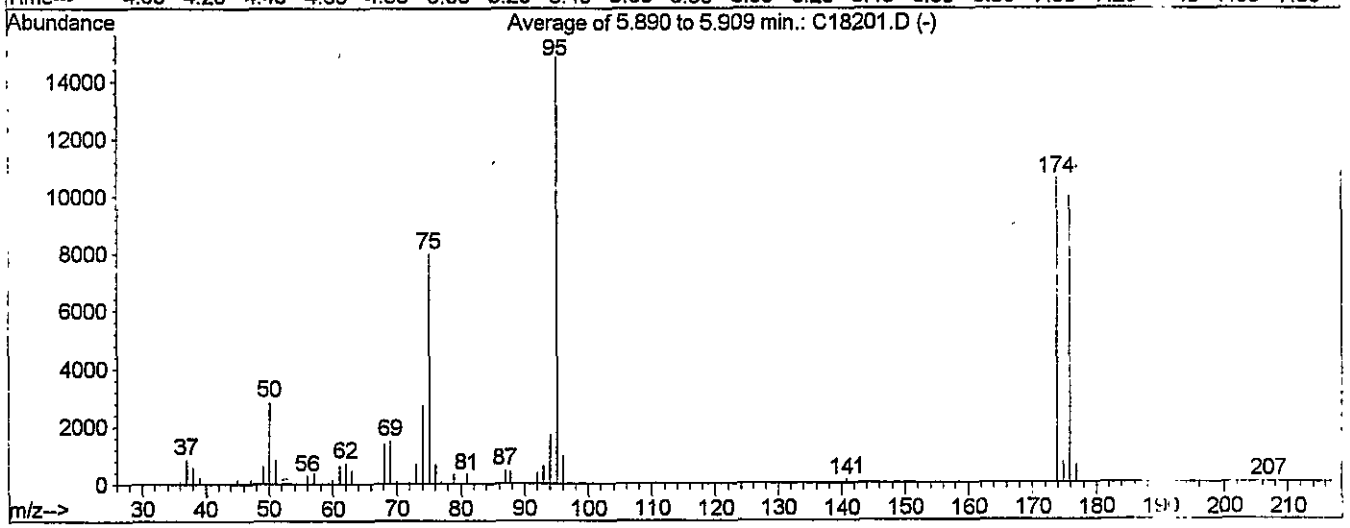
	Compound	AvgRF	CCRF	%Dev	Area	Dev(min)
83	1,2,4-trichlorobenzene	1.209	1.178	2.6	103	0.00
84	Hexachlorobutadiene	0.921	0.938	-1.8	102	-0.01
85	Naphthalene	1.792	1.785	0.4	122	0.00
86	1,2,3-Trichlorobenzene	1.021	1.009	1.2	105	0.00

BFB

Data File : C:\HPCHEM\1\DATA\122700\C18201.D
Acq On : 27 Dec 2000 9:00
Sample : BFB 50ng V00048
Misc : QC
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\BFB01.M (RTE Integrator)
Title :

Vial:
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 474, 475, 476; Background Corrected with Scan 463

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	2866	PASS
75	95	30	60	53.8	8001	PASS
95	95	100	100	100.0	14866	PASS
96	95	5	9	6.6	985	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.2	10588	PASS
175	174	5	9	7.0	737	PASS
176	174	95	101	96.1	10178	PASS
177	176	5	9	6.2	631	PASS

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 27303
Client Project: CTO 17-NTC Orlando – Study Area 36 / 152044.32.12.01.08
CTO Manager: S.Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 03/15/01 at 1505:

Client I.D.	Laboratory I.D.
017-OLD-36-28B-Q1-01	AC09818
017-OLD-36-30C-Q1-01	AC09819
017-OLD-36-31C-Q1-01	AC09820
017-OLD-36-06A-Q1-01	AC09821
017-OLD-36-07A-Q1-01	AC09822
017-OLD-36-DUP1-Q1-01	AC09823
017-OLD-36-FB1-Q1-01	AC09824
017-OLD-36-26A-Q1-01	AC09825
017-OLD-36-TB2-Q1-01	AC09826

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

3. The "J" values noted for the VOC and FL-PRO results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. The "B" value noted for the FL-PRO analysis indicates that the compound was detected in the samples and in the Method Blank, and the results should be considered estimated due to Method Blank contamination.

5. The "E" values noted for the Nitrate Nitrogen and Nitrite Nitrogen analyses indicate estimated concentrations due to the samples were analyzed outside the EPA recommended holding time.

6. The Chloride, TOC, Nitrate Nitrogen, and Nitrite Nitrogen analyses were performed by subcontract laboratories.

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

CCI NAVY RAC PMO
APR 18 2001

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

8. The following samples were analyzed outside the EPA recommended holding time:

Nitrate Nitrogen – EPA – 300.0	Nitrite Nitrogen – EPA – 300.0
017-OLD-36-28B-Q1-01	017-OLD-36-28B-Q1-01
017-OLD-36-30C-Q1-01	017-OLD-36-30C-Q1-01
017-OLD-36-31C-Q1-01	017-OLD-36-31C-Q1-01
017-OLD-36-06A-Q1-01	017-OLD-36-06A-Q1-01
017-OLD-36-07A-Q1-01	017-OLD-36-07A-Q1-01
017-OLD-36-DUP1-Q1-01	017-OLD-36-DUP1-Q1-01
017-OLD-36-FB1-Q1-01	017-OLD-36-FB1-Q1-01
017-OLD-36-26A-Q1-01	017-OLD-36-26A-Q1-01

The results for these samples should be considered estimated.

9. The following samples required dilution due to high analyte concentration or matrix interference, resulting in elevated detection limits:

VOC – SW-846-8260B
017-OLD-36-28B-Q1-01
017-OLD-36-30C-Q1-01 (Trichloroethylene)
017-OLD-36-07A-Q1-01
017-OLD-36-DUP1-Q1-01
017-OLD-36-FB1-Q1-01 (Methylene Chloride)

10. The following surrogate was outside the method specified limit due to matrix interference:

FL-PRO

o-Terphenyl -	017-OLD-36-28B-Q1-01
	017-OLD-36-30C-Q1-01
	017-OLD-36-07A-Q1-01
	Laboratory Control Sample

11. The following surrogates were outside the method specified limits:

FL-PRO

Nonatriacontane/C39 -	017-OLD-36-28B-Q1-01
	017-OLD-36-30C-Q1-01
	017-OLD-36-31C-Q1-01
	017-OLD-36-06A-Q1-01
	017-OLD-36-FB1-Q1-01
	017-OLD-36-26A-Q1-01
	Method Blank
	Laboratory Control Sample
	Laboratory Control Sample Duplicate

The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

12. Project Specific QC for the Alkalinity and FL-PRO analyses consists of laboratory control sample and laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as the matrix spike matrix spike recoveries on the QC spreadsheet.

13. The laboratory control sample recovery was outside the project specified limit for the following analyte:

    FL-PRO

    The recovery was within historical limits established in the laboratory; therefore the data was accepted.

14. The relative percent difference between the matrix spike and matrix spike duplicate was outside the project specified limit for the following analyte:

    VOC – SW-846-8260B
    Trichloroethylene

15. The relative percent difference between the laboratory control sample and laboratory control sample duplicate was outside the project specified limit for the following analyte:

    FL-PRO

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

AAL # 27303 @ 5°C

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No. (770) 604-9182
Fax No. (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No , and Fax No)
NTC Orlando	152044.32.12.01.08	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK	[6] CTO OR DO NUMBER	[9] LAB PO NUMBER	[12] FAX AND MAIL REPORTS/EDD TO. RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No , and Fax No.).
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Pkwy Cocoa FL 32922
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO	[10] LAB TEL NO AND FAX NO	[13] FAX AND MAIL REPORTS/EDD TO RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No)
Steve Tsangaris	813 874-0777	770 449-8800 X 233		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260B	Nitrate	Nitrite	Chloride	Alkalinity	TDS	TOC	FL Pro			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-28B-Q1-01		W	3-14-01	0846	III	14	X	X	X	X	X	X	X	X			Grab		A09818
2	017-OLD-36-30C-Q1-01				1000			X	X	X	X	X	X	X	X					9819
3	017-OLD-36-31C-Q1-01				1053			X	X	X	X	X	X	X	X					9820
4	017-OLD-36-06A-Q1-01				1130			X	X	X	X	X	X	X	X					9821
5	017-OLD-36-07A-Q1-01				1224			X	X	X	X	X	X	X	X					9822
6	017-OLD-36-Dup1-Q1-01				—			X	X	X	X	X	X	X	X			QC		9823
7	017-OLD-36-FB1-Q1-01				0948			X	X	X	X	X	X	X	X			QC ~~Grab~~	TP	9824
8	017-OLD-36-26A-Q1-01				1330			X	X	X	X	X	X	X	X			Grab		9825
9	017-OLD-36-TB2-Q1-01				—			X										QC		9826
10																				

[29] SAMPLER(S) AND COMPANY (please print): Tammy Plumlee / CCI, Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER: Fedex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use): 5°C

[32] RELINQUISHED BY (Printed Name and Signature)	DATE	TIME	[33] RECEIVED BY (Printed Name and Signature)	DATE	TIME
Tammy Plumlee / Tammy Plumlee	3-14-01	1955	FEDEX		
FEDEX	03.15.01	15:05		03.15.01	~~03.15.05~~ 03.15.01

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

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09818 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-28B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	37		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	7.0		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	0.01		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.35	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	270		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	6		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		12
1,1,1-Trichloroethane	<RL		20
1,1,2,2-Tetrachloroethane	<RL		10
1,1,2-Trichloroethane	<RL		25
1,1-Dichloroethane	<RL		10
1,1-Dichloroethene	<RL		30
1,2,3-Trichlorobenzene	<RL		7.5
1,2,3-Trichloropropane	<RL		80
1,2,4-Trichlorobenzene	<RL		10
1,2,4-Trimethylbenzene	<RL		32
1,2-Dibromo-3-chloropropane	<RL		65
1,2-Dichlorobenzene	<RL		7.5
1,2-Dichloroethane	<RL		15
1,2-Dichloropropane	<RL		10
1,2-Ethylene Dibromide	<RL		15
1,3,5-Trimethylbenzene	<RL		12
1,3-Dichlorobenzene	<RL		30
1,3-Dichloropropane	<RL		10
1,4-Dichlorobenzene	<RL		7.5
2,2-Dichloropropane	<RL		88
2-Chlorotoluene	<RL		10
4-Chlorotoluene	<RL		15
Benzene	<RL		5.0
Bromobenzene	<RL		7.5
Bromochloromethane	<RL		10
Bromodichloromethane	<RL		20
Bromoform	<RL		30
Bromomethane	<RL		28
Carbon tetrachloride	<RL		52
Chlorobenzene	<RL		10
Chloroethane	<RL		25
Chloroform	<RL		7.5
Chloromethane	<RL		32
cis-1,2-Dichloroethene	<RL		30
cis-1,3-Dichloropropene	<RL		25
Dibromochloromethane	<RL		12
Dibromomethane	<RL		60
Dichlorodifluoromethane	<RL		25
Ethylbenzene	<RL		15
Hexachlorobutadiene	<RL		28
Isopropylbenzene	<RL		12
Methylene chloride	5.6	J	7.5
Naphthalene	<RL		10
n-Butylbenzene	<RL		28
n-Propylbenzene	<RL		10
p-Isopropyltoluene	<RL		30
Sec-Butylbenzene	<RL		32
Styrene	<RL		10
Tert-Butylbenzene	<RL		35
Tetrachloroethylene	<RL		35
Toluene	<RL		28
Total Xylenes	<RL		25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	66	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	0.2	*	
o-Terphenyl (Range 82-142)	67	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	96		
Toluene-d8 (84-108)	100		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09819 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-30C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	25		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	8.0		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	0.02		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.38	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	110		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	1		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	1.3	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.60	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	57	25
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	29	*	
o-Terphenyl (Range 82-142)	173	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	103		
4-Bromofluorobenzene (86-112)	100		
Toluene-d8 (84-108)	104		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09820 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-31C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	26		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	6.9		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	5.9		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	140		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	49		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.57	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	13	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	42	*	
o-Terphenyl (Range 82-142)	94		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	96		
Toluene-d8 (84-108)	100		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09821 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-06A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	6.0		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	8.4		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	0.09		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.42	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	150		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	12		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.64	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	9.5	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	23	*	
o-Terphenyl (Range 82-142)	85		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	95		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	100		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09822 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-07A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	16		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	7.7		0.1

ANALYSIS: Nitrate Nitrogen_EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	0.09		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.40	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	170		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	11		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		12
1,1,1-Trichloroethane	<RL		20
1,1,2,2-Tetrachloroethane	<RL		10
1,1,2-Trichloroethane	<RL		25
1,1-Dichloroethane	<RL		10
1,1-Dichloroethene	<RL		30
1,2,3-Trichlorobenzene	<RL		7.5
1,2,3-Trichloropropane	<RL		80
1,2,4-Trichlorobenzene	<RL		10
1,2,4-Trimethylbenzene	<RL		32
1,2-Dibromo-3-chloropropane	<RL		65
1,2-Dichlorobenzene	<RL		7.5
1,2-Dichloroethane	<RL		15
1,2-Dichloropropane	<RL		10
1,2-Ethylene Dibromide	<RL		15
1,3,5-Trimethylbenzene	<RL		12
1,3-Dichlorobenzene	<RL		30
1,3-Dichloropropane	<RL		10
1,4-Dichlorobenzene	<RL		7.5
2,2-Dichloropropane	<RL		88
2-Chlorotoluene	<RL		10
4-Chlorotoluene	<RL		15
Benzene	<RL		5.0
Bromobenzene	<RL		7.5
Bromochloromethane	<RL		10
Bromodichloromethane	<RL		20
Bromoform	<RL		30
Bromomethane	<RL		28
Carbon tetrachloride	<RL		52
Chlorobenzene	<RL		10
Chloroethane	<RL		25
Chloroform	<RL		7.5
Chloromethane	<RL		32
cis-1,2-Dichloroethene	<RL		30
cis-1,3-Dichloropropene	<RL		25
Dibromochloromethane	<RL		12
Dibromomethane	<RL		60
Dichlorodifluoromethane	<RL		25
Ethylbenzene	<RL		15
Hexachlorobutadiene	<RL		28
Isopropylbenzene	<RL		12
Methylene chloride	5.2	J	7.5
Naphthalene	<RL		10
n-Butylbenzene	<RL		28
n-Propylbenzene	<RL		10
p-Isopropyltoluene	<RL		30
Sec-Butylbenzene	<RL		32
Styrene	<RL		10
Tert-Butylbenzene	<RL		35
Tetrachloroethylene	<RL		35
Toluene	<RL		28
Total Xylenes	<RL		25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	35	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	42		
o-Terphenyl (Range 82-142)	62	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	95		
4-Bromofluorobenzene (86-112)	97		
Toluene-d8 (84-108)	104		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09823 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-DUP1-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	22		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	8.0		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	0.02		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.29	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	110		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	<RL		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		12
1,1,1-Trichloroethane	<RL		20
1,1,2,2-Tetrachloroethane	<RL		10
1,1,2-Trichloroethane	<RL		25
1,1-Dichloroethane	<RL		10
1,1-Dichloroethene	<RL		30
1,2,3-Trichlorobenzene	<RL		7.5
1,2,3-Trichloropropane	<RL		80
1,2,4-Trichlorobenzene	<RL		10
1,2,4-Trimethylbenzene	<RL		32
1,2-Dibromo-3-chloropropane	<RL		65
1,2-Dichlorobenzene	<RL		7.5
1,2-Dichloroethane	<RL		15
1,2-Dichloropropane	<RL		10
1,2-Ethylene Dibromide	<RL		15
1,3,5-Trimethylbenzene	<RL		12
1,3-Dichlorobenzene	<RL		30
1,3-Dichloropropane	<RL		10
1,4-Dichlorobenzene	<RL		7.5
2,2-Dichloropropane	<RL		88
2-Chlorotoluene	<RL		10
4-Chlorotoluene	<RL		15
Benzene	<RL		5.0
Bromobenzene	<RL		7.5
Bromochloromethane	<RL		10
Bromodichloromethane	<RL		20
Bromoform	<RL		30
Bromomethane	<RL		28
Carbon tetrachloride	<RL		52
Chlorobenzene	<RL		10
Chloroethane	<RL		25
Chloroform	<RL		7.5
Chloromethane	<RL		32
cis-1,2-Dichloroethene	<RL		30
cis-1,3-Dichloropropene	<RL		25
Dibromochloromethane	<RL		12
Dibromomethane	<RL		60
Dichlorodifluoromethane	<RL		25
Ethylbenzene	<RL		15
Hexachlorobutadiene	<RL		28
Isopropylbenzene	<RL		12
Methylene chloride	4.1	J	7.5
Naphthalene	<RL		10
n-Butylbenzene	<RL		28
n-Propylbenzene	<RL		10
p-Isopropyltoluene	<RL		30
Sec-Butylbenzene	<RL		32
Styrene	<RL		10
Tert-Butylbenzene	<RL		35
Tetrachloroethylene	<RL		35
Toluene	<RL		28
Total Xylenes	<RL		25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	63	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	43		
o-Terphenyl (Range 82-142)	103		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	94		
4-Bromofluorobenzene (86-112)	96		
Toluene-d8 (84-108)	102		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09824 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-FB1-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	2.5		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.30	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	<RL		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	84	7.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	27	*	
o-Terphenyl (Range 82-142)	98		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	89		
Toluene-d8 (84-108)	95		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09825 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-26A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	18		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	9.9		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	0.02		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	2.7	B	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	61		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	25		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.65	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.53	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	10	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	34	*	
o-Terphenyl (Range 82-142)	91		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	91		
Toluene-d8 (84-108)	95		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09826 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB2-Q1-01

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.67	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	98		
4-Bromofluorobenzene (86-112)	95		
Toluene-d8 (84-108)	101		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09827 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/6/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.41	J	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	<RL		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	0.11		
o-Terphenyl (Range 82-142)	99		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-114)	84		
4-Bromofluorobenzene (85-111)	95		
Toluene-d8 (88-106)	102		

Accura Analytical Laboratory, Inc.

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT 27303

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	95	95			60-140	20-150	1%		<30	<50	97		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	96	94			60-140	20-150	2%		<30	<50	97		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	86	89			60-140	20-150	3%		<30	<50	92		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	90	90			60-140	20-150	0%		<30	<50	90		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	96	94			60-140	20-150	2%		<30	<50	98		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	98	95			60-140	20-150	3%		<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	80	87			60-140	20-150	8%		<30	<50	90		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	88	85			60-140	20-150	3%		<30	<50	95		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	88	85			60-140	20-150	3%		<30	<50	95		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	95	93			60-140	20-150	3%		<30	<50	106		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	93	90			60-140	20-150	3%		<30	<50	87		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	91	89			60-140	20-150	2%		<30	<50	100		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	72	77			60-140	20-150	6%		<30	<50	69		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	94	96			60-140	20-150	3%		<30	<50	98		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	88	91			60-140	20-150	3%		<30	<50	90		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	94	93			60-140	20-150	2%		<30	<50	108		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	92	91			60-140	20-150	1%		<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	93	93			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	89	90			60-140	20-150	1%		<30	<50	100		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	93	93			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	92	91			60-140	20-150	2%		<30	<50	104		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	95	93			60-140	20-150	2%		<30	<50	106		64-135	64-135			<50	<75
8260B	Benzene	98	97			60-140	20-150	2%		<30	<50	103		65-135	65-135			<50	<75
8260B	Bromobenzene	87	87			60-140	20-150	1%		<30	<50	97		65-135	65-135			<50	<75
8260B	Bromochloromethane	97	93			60-140	20-150	5%		<30	<50	96		63-135	63-135			<50	<75
8260B	Bromodichloromethane	93	95			60-140	20-150	2%		<30	<50	91		65-135	65-135			<50	<75
8260B	Bromoform	76	83			60-140	20-150	8%		<30	<50	87		65-135	65-135			<50	<75
8260B	Bromomethane	90	85			60-140	20-150	6%		<30	<50	105		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	94	94			60-140	20-150	1%		<30	<50	97		52-135	52-135			<50	<75
8260B	Chlorobenzene	92	90			60-140	20-150	2%		<30	<50	98		65-135	65-135			<50	<75
8260B	Chloroethane	90	86			60-140	20-150	5%		<30	<50	87		55-135	55-135			<50	<75
8260B	Chloroform	96	94			60-140	20-150	1%		<30	<50	94		64-135	64-135			<50	<75
8260B	Chloromethane	94	91			60-140	20-150	4%		<30	<50	100		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	99	99			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	90	94			60-140	20-150	4%		<30	<50	95		64-135	64-135			<50	<75
8260B	Dibromochloromethane	88	89			60-140	20-150	2%		<30	<50	88		63-135	63-135			<50	<75
8260B	Dibromomethane	91	93			60-140	20-150	2%		<30	<50	89		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	88	81			60-140	20-150	9%		<30	<50	88		65-135	65-135			<50	<75
8260B	Ethylbenzene	98	96			60-140	20-150	2%		<30	<50	105		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	111	100			60-140	20-150	10%		<30	<50	125		65-135	65-135			<50	<75
8260B	Isopropylbenzene	94	92			60-140	20-150	2%		<30	<50	109		65-135	65-135			<50	<75
8260B	total-Xylene	98	97			60-140	20-150	1%		<30	<50	106		65-135	65-135			<50	<75
8260B	Methylene Chloride	96	93			60-140	20-150	3%		<30	<50	96		65-135	65-135			<50	<75
8260B	n-Butylbenzene	100	97			60-140	20-150	3%		<30	<50	110		65-135	65-135			<50	<75
8260B	n-Propylbenzene	95	94			60-140	20-150	1%		<30	<50	110		65-135	65-135			<50	<75
8260B	Naphthalene	65	67			60-140	20-150	4%		<30	<50	74		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	102	101			60-140	20-150	1%		<30	<50	112		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	96	95			60-140	20-150	2%		<30	<50	110		65-135	65-135			<50	<75
8260B	Styrene	96	96			60-140	20-150	0%		<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	98	66			60-140	20-150	40%		<30	<50	102		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	95	94			60-140	20-150	1%		<30	<50	109		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	99	95			60-140	20-150	4%		<30	<50	104		61-135	61-135			<50	<75

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

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT 27303

8260B	Toluene	96	94			60-140	20-150	3%		<30	<50	104		64-135	64-135			<50	<75	
8260B	Trans-1,2-Dichloroethene	98	96			60-140	20-150	2%		<30	<50	104		65-135	65-135			<50	<75	
8260B	Trans-1,3-Dichloropropene	86	87			60-140	20-150	1%		<30	<50	88		56-135	56-135			<50	<75	
8260B	Trichlorofluoromethane	89	88			60-140	20-150	2%		<30	<50	87		57-135	57-135			<50	<75	
8260B	Vinyl Chloride	86	87			60-140	20-150	1%		<30	<50	94		36-144	36-144			<50	<75	
8260B	Toluene-d8 (surr)	100	93			75-125	65-135	7%		NA	NA	100		NA	NA			NA	NA	
8260B	4-Bromofluorobenzene (surr)	92	90			75-125	65-135	2%		NA	NA	94		NA	NA			NA	NA	
8260B	1,2-Dichloroethane-d4 (surr)	95	91			62-139	52-149	4%		NA	NA	83		NA	NA			NA	NA	
	WET CHEMISTRY																			
310.1	Alkalinity	95	95			70-130	N/A	0%	#DIV/0!	<30	N/A			70-130	N/A			<30	N/A	
PETROLEUM HYDROCARBONS						%	%			%	%			%	%			%	%	
FL-PRO	TPH	97	71			50-150	30-170	31%	#DIV/0!	<30	<50			75-125	70-130			<50	<75	

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

NS = Not Specified
NA = Not Applicable

HYGEIA LABORATORIES, INC.

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

ANALYTICAL REPORT

Client: **Accura Analytical Laboratory**
6071 Financial Drive
Norcross, GA 30071

Attention: **Bonnie Hogue**

Project ID: 27303
Received: 3/16/01
Lab Project No. 38352

Report Date: 4/2/01

CASE NARRATIVE

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

Reviewed by: MC

Respectfully Submitted,

Hygeia Laboratories, Inc.

LAB ID	CLIENT ID	MATRIX	COLLECTED
281257	AC 09818	WATER	3/14/01
281258	AC 09819	WATER	3/14/01
281259	AC 09820	WATER	3/14/01
281260	AC 09821	WATER	3/14/01
281261	AC 09822	WATER	3/14/01
281262	AC 09823	WATER	3/14/01
281263	AC 09824	WATER	3/14/01
281264	AC 09825	WATER	3/14/01

HYGEIA LABORATORIES, INC.

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

Lab Project No. 38352

Report Date: 4/2/01

Total Organic Carbon Units: **mg/L (ppm)** Method: **EPA 9060**

Matrix: Water Analysis Date: 3/23/01 Prep. Date: 3/23/01 Analyst: ASI

Lab ID	Client ID	Result	Report Limit
281257	AC 09818	6	1
281258	AC 09819	1	1
281259	AC 09820	49	1
281260	AC 09821	12	1
281261	AC 09822	11	1
281262	AC 09823	BRL	1
281263	AC 09824	BRL	1
281264	AC 09825	25	1

The method blank for the above analysis was below the detection limit.

LCS/LCSD Results Summary

Parameter: Total Organic Carbon Method: EPA 415.2

Matrix: Water Sample: Blank Analysis Date: 3/22/01

Analyte	Sample Result	Spike Recovery	Spike Dupl. Recovery	Relative Percent Difference
Total Organic Carbon	BRL	103%	106%	3%
		Recovery Limits		RPD Limits
units: mg/L (ppm)		80%	120%	20%

Matrix Spike/Matrix Spike Duplicate Summary

Parameter: Total Organic Carbon Method: EPA 415.2

Matrix: Water Sample: 281263 Analysis Date: 3/22/01

Analyte	Sample Result	Spike Recovery	Spike Dupl. Recovery	Relative Percent Difference
Total Organic Carbon	BRL	106%	98%	8%
		Recovery Limits		RPD Limits
units: mg/L (ppm)		80%	120%	20%

HYGEIA LABORATORIES, INC.

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

Lab Project No. 38352

Report Date: 4/2/01

NOTES:

- Results relate only to the samples tested as received (see chain-of-custody).
- BRL = "Below Reporting Limit"
- RL = "Reporting Limit"
- Dates are presented in the format "month/day/year"

Certifications

Alabama - Lab ID 40970; Arkansas; Connecticut - No. PH 0208; Delaware; Florida - E87257, FL CompQAP No. 970048; Georgia - No. 804; Indiana - Lab ID C-GA-01; Kentucky - Lab ID 90053; Louisianna; Maryland - No. 293; Massachussetts No. M - GA040; North Carolina - No. 409; South Carolina - No. 98012001; Tennessee - Lab ID 02827 (DW), UST Program; Virginia - Lab ID 00024

Accreditations

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

This report may not be reproduced, except in full, without the written permission of Hygeia Laboratories, Inc.

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **134708**

Project: AAL Project #27303

Prepared For:
Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue

March 28, 2001

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

G. Wyn Jones
Project Manager

Kathryn Smith
Quality Assurance

Analytical Services Inc., Norcross Laboratory maintains the following certifications, approvals, and accreditations:
Georgia Laboratory Certification No.'s 812/351/1301; Alabama Laboratory I.D. No · 41090; Arkansas Certification; California Laboratory Certification No.:2290; Connecticut Laboratory I.D. No.. PH-0250; Florida Certification No.: E87315, Louisiana A.I. No : 30742; National Sanitation Foundation International Certification No.: 04180; Nebraska Certification; North Carolina Certification No.: 381, North Dakota Certification No.. R-116, Oklahoma Laboratory I.D. 9907; Rhode Island License No.: 219; South Carolina Laboratory I.D No.· 98011; Tennessee Laboratory I D No.· 02994; United States Army Corps of Engineers-MRD Certification; USDA Soil Import License No · S-36027; and Virginia Laboratory I D. No · 00026 All analysis performed by or under the supervision of a Georgia Drinking Water or Wastewater Certified Analyst. Analyst certification numbers available upon request.

This report may not be reproduced, except in full, without written approval from Analytical Services, Inc.

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-1**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09818, 03/14/2001, 08:46, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	0.01E	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	7.0	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-2**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09819, 03/14/2001, 10:00, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	0.02E	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	8.0	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-3**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09820, 03/14/2001, 10:53, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	6.9	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-4**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09821, 03/14/2001, 11:30, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	0.09E	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	8.4	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-5**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09822, 03/14/2001, 12:24, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	0.09E	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	7.7	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-6**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09823, 03/14/2001, 08:00, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	0.02E	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	8.0	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI
ANALYTICAL SERVICES, INC.
Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-7**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09824, 03/14/2001, 09:48, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	BDL	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134708-8**

March 28, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27303, AC09825, 03/14/2001, 13:30, received 03/15/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	0.02E	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDLE	0.01	mg/L
EPA 300.0	Chloride (Cl)	9.9	0.1	mg/L

BDL - Below Detection Limit
E - Estimated concentration

Inorganic Anions by Method EPA 300.0
Spike Recovery

Batch # 66331 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	95	96	1	75 - 125	0 - 10
Chloride	95	95	0	75 - 125	0 - 10
Fluoride	97	96	1	75 - 125	0 - 10
Nitrate-Nitrogen	96	96	0	75 - 125	0 - 10
Nitrite-Nitrogen	104	104	0	75 - 125	0 - 10
Sulfate	98	98	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	96	94	2	75 - 125	0 - 10
Chloride	95	96	1	75 - 125	0 - 10
Fluoride	82	82	0	75 - 125	0 - 10
Nitrate-Nitrogen	96	96	0	75 - 125	0 - 10
Nitrite-Nitrogen	102	101	1	75 - 125	0 - 10
Sulfate	100	101	1	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0
Surrogate Recovery

Batch # 66331 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0
Blank Results Information

Batch # 66331 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Nitrate Nitrogen	BDL	0.01
Nitrite Nitrogen	BDL	0.01
Chloride	BDL	0.1

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 66331 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
66331BLK	03/16/01	1200	CJ/AMC		03/16/01	2125	CJ/AMC	IC
66331CALHIGH	03/16/01	1200	CJ/AMC		03/16/01	2145	CJ/AMC	IC
66331CALMID	03/16/01	1200	CJ/AMC		03/16/01	2205	CJ/AMC	IC
66331CALLOW	03/16/01	1200	CJ/AMC		03/16/01	2225	CJ/AMC	IC
66331LCS	03/16/01	1200	CJ/AMC		03/16/01	2246	CJ/AMC	IC
66331LCSD	03/16/01	1200	CJ/AMC		03/16/01	2306	CJ/AMC	IC
134708-1	03/16/01	1315	CJ/AMC		03/16/01	2326	CJ/AMC	IC
134708-2	03/16/01	1315	CJ/AMC		03/16/01	2346	CJ/AMC	IC
134708-3	03/16/01	1315	CJ/AMC		03/17/01	0006	CJ/AMC	IC
134708-4	03/16/01	1315	CJ/AMC		03/17/01	0027	CJ/AMC	IC
134708-5	03/16/01	1315	CJ/AMC		03/17/01	0047	CJ/AMC	IC
134708-6	03/16/01	1315	CJ/AMC		03/17/01	0107	CJ/AMC	IC
134708-7	03/16/01	1315	CJ/AMC		03/17/01	0127	CJ/AMC	IC
134708-7DUP	03/16/01	1315	CJ/AMC		03/17/01	0147	CJ/AMC	IC
134708-8	03/16/01	1315	CJ/AMC		03/17/01	0208	CJ/AMC	IC
134826-1	03/16/01	1315	CJ/AMC		03/17/01	0228	CJ/AMC	IC
134826-2	03/16/01	1315	CJ/AMC		03/17/01	0248	CJ/AMC	IC
DBL3/16	03/16/01	1200	CJ/AMC		03/17/01	0308	CJ/AMC	IC
134826-3	03/16/01	1315	CJ/AMC		03/17/01	0349	CJ/AMC	IC
134826-4	03/16/01	1315	CJ/AMC		03/17/01	0409	CJ/AMC	IC
134826-5	03/16/01	1315	CJ/AMC		03/17/01	0429	CJ/AMC	IC
134826-6	03/16/01	1315	CJ/AMC		03/17/01	0449	CJ/AMC	IC
134826-7	03/16/01	1315	CJ/AMC		03/17/01	0509	CJ/AMC	IC
134825-2	03/16/01	1700	CJ/AMC		03/17/01	0529	CJ/AMC	IC
134825-2DUP	03/16/01	1700	CJ/AMC		03/17/01	0550	CJ/AMC	IC
134825-3	03/16/01	1700	CJ/AMC		03/17/01	0610	CJ/AMC	IC
134825-1	03/16/01	1700	CJ/AMC		03/17/01	0630	CJ/AMC	IC
134786-1	03/16/01	1730	CJ/AMC		03/17/01	0650	CJ/AMC	IC
134786-2	03/16/01	1730	CJ/AMC		03/17/01	0710	CJ/AMC	IC
DBL3/16	03/16/01	1200	CJ/AMC		03/17/01	0731	CJ/AMC	IC
DBL3/19	03/19/01	1330	CJ/AMC		03/19/01	1514	CJ/AMC	IC
134708-3MS	03/19/01	1500	CJ/AMC		03/19/01	1715	CJ/AMC	IC
134708-3MSD	03/19/01	1500	CJ/AMC		03/19/01	1735	CJ/AMC	IC
DBL3/19	03/19/01	1330	CJ/AMC		03/19/01	1836	CJ/AMC	IC

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	Final wt. (g) 2	Final wt. (g) 3	TDS (mg/L)	Comments
3/19/01	BP	13.00	11.10	RWWC319011	1	114.2912	100.	114.2910	114.2911		<DL	B1
			on	09717	2	104.0007		104.0203	104.0205		196	
			3/20/01	09718	3	114.2292		114.2360	114.2358		68	
				09719	4	120.8053		120.8144	120.8148		91	
				09684	5	103.8290		103.8289	103.8293		<DL	
				09818	6	117.0478		117.0748	117.0749		270	
				09819	7	108.6152		108.6258	108.6260		106	
				09820	8	110.4869		110.5010	110.5007		141	
				09821	9	98.8409		98.8557	98.8559		148	
				09822	10	107.3268		107.3437	107.3437		169	
				09823	11	114.5623		114.5731	114.5735		108	
				09823D	12	96.6211		96.6323	96.6324		112	4% RPD
				09824	13	107.7559		107.7561	107.7565		<DL	
				09825	14	107.4823		107.4884	107.4885		61	
				09839	15	114.9286		114.9394	114.9391		208	
				09840	16	116.8555		116.8606	116.8606		51	
				09841	17	114.3001	BP 3/20/01	114.3469	114.3273		268	
				09842	18	113.5898		113.6230	113.6234		332	
				09843	19	117.1793		117.1866	117.1865		73	
				09844	20	104.4964		104.4300	104.4301		136	
				09845	21	118.9674		118.9794	118.9792		120	
				09461	22	115.0040		115.0037	115.0033		<DL	
				09844D	23	115.8634		115.8767	115.8768		133	2% RPD

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 27303 **Test Performed:** TDS

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? — If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____ _____ _____ _____ _____ _____
   Reason for dilution. _____
4. Duplicate AAL sample number 09823, 09824
   Is the RPD acceptable? ✓ If not, what is the reason? _____
5. MS/MSD AAL sample number —
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. _____
7. Any additional comments. —

Reviewer Questions:

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

Analyst entering results in Labworks. BP Date: 3/20/01

Peer Reviewer. [illegible] Date: 3/21/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 3/19-01
Analyst: FT
Time Started: 1030
1215

Lot #'s: **0.02N H2SO4:** 00090
Phenolphthalein Indicator: — 2650
Na_2CO_3 (0.0500N) Std: 00108 (~~2560~~ mg/L)
FT 3/19/01

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
							mg/L as $CaCO_3$			
QWW031901 1	100	—			<0.05	<DL				BLK
QWW031901 2	+5ml	-			12.60	2520, R=95%				LCS
QWW031901 3	↓ ↓	-			12.60	2520, R=95%				LCS
09717	100				2.60	26				
09718					1.10	11				
09719			FT 3/19-01		6.15	62				
09818					3.65	37				
09819					2.45	25				
09820					2.55	26				
09821					0.60	6.0				
09822					1.60	16				
09823					2.20	22				
09824					0.25	2.5		FT		
09825					1.80	18		3/19/01		
09839					3.20	32				
09840					1.55	16				
09841					2.15	22				
09842					3.05	31				
09843					2.20	22				
09844	↓	↓			2.85	29				

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{\text{mL sample}}$

where: A = mL acid used
N = Normality of acid

P-alkalinity = phenolphthalein alkalinity
T-alkalinity = total alkalinity

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:
ALKALNTY.XLS Page No. 79

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date:_____

Analyst:_____

Time Started:_____

Lot#'s: See page 79

0.02N H2SO4:_____

Phenolphthalein Indicator:_____

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
							mg/L as $CaCO_3$			
09845	10→100	1:10			3.25	330				
↓ d	10→100	1:10			3.30	330				
09824 MS	100+5ml	–	FT 3/19-01		12.90	2530, R=95%				
↓ MSD	↓	–			12.85	2520, R=95%				
09901	100ml	–			0.75	7.5				27319
										FT 3/19/01

=r 1/9/01

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{\text{mL sample}}$

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

where: A = mL acid used

N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:_____

ALKALNTY.XLS Page No. 80

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 27303 **Test Performed:** Alkalinity

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____ _____ _____ _____ _____ _____
   Reason for dilution. _____
4. Duplicate AAL sample number 09845
   Is the RPD acceptable? ✓ If not, what is the reason? _____
5. MS/MSD AAL sample number 09824
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. _____
7. Any additional comments. —

Reviewer Questions:

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

Analyst entering results in Labworks. FT Date: 3/19/01

Peer Reviewer. AG Date: 3/21/01

Peer Reviewer is responsible for reviewing all above questions.

SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 27303	METHOD: FL-PRO
MATRIX: Water	

INITIAL ANALYST ASSESSMENT			
Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are continuing calibrations compliant with method requirements?	Y	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are multicomponent patterns resolvable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	Y	N	NA
Are all analytes to be reported indicated as such on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: KL	
Date: 03.28.01	Time: 11:35

PEER REVIEW			
Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	~~N~~ YCK 03/28	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (~~including review signature/date~~)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: YCK	
Date: 03/28/01	Time: 16:00

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: DRO / PAH (FLPRO)

DATE/TIME: 8/20/01 930

MATRIX: WATER

ANALYST: KC

EXT. METHOD: 3510 / (3520)

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
QFW0320011	1L	<2	KC		1.0mL	
QFW0320012		<2		KC		
QFW0320013		<2				
09818		<2				
09819		<2				
09820		<2				
09821		<2				
09822		<2				
09823		<2				
09824		<2				
09961		<2				

KC 8/21/01

START TIME: 1115 STOP TIME: 645 SOLVENT ID #: EX01185

SURROGATE I.D.: D01E043 CONC.: 50 ppm INITAL: KC

SURROGATE I.D.: FL01E045 CONC.: 300 ppm INITAL: KC

SPIKE I.D.: FL01E044 CONC.: 250 ppm INITIAL: KC

SPIKE I.D.: — CONC.: — INITIAL: —

EXTRACT STORAGE: REFRIG.# 5, BOX #: D183 RapidVap TEMP.: 45°C

Sequence Date: 03.23.01
Analyst Initials: RL
Run Method: PRO0322
Quant Method: ↓ ↓

	Sample	Blank/LCS
Water OTP/C(39) Limits	82-142 / 42-193	82-142 / 42-193
Soil OTP/C(39) Limits	62-109 / 60-118	62-109 / 60-118

Compound: PRO
Date: 03.22.01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250PHS PROCEV	NA	Standard	1X	105 / 87	96	03.22.01 015V058	✓	
2	Solvent Blank	↓	MeCl2	↓	NA / NA			↓	
3	QFW0320011	3.20.01	water		99 / 10.11			↓	
4	QFW0320012	↓	↓		69 / 12.3	97%		X	Low surrogate; rerun
5	09818				67 / 10.22			✓	
6	09819				173 / 29			↓	
7	09820				94 / 42				
8	09821				85 / 23				
9	09822				62 / 42				
10	09823				103 / 43				
11	09824				98 / 27				
12	09961	↓	↓		107 / 12				
13	4250PHSPROCEV	NA	Standard		105 / 103	89%	03.22.01 015V058		
14	Solvent Blank	↓	MeCl2	↓	NA / NA			↓	

RL 03.26.01

Initials / Date: RL 03.26.01

Sequence Date: 03.26.01
Analyst Initials: RL
Run Method: PRO0322
Quant Method: ↓ ↓

	Sample	Blank/LCS
Water OTP/C(39) Limits	|	|
Soil OTP/C(39) Limits	|	|

Compound: PRO
Date: 03.22.01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250PHSPROCCV	NA	Standard	1X	107 | 93	106	015V058	✓	
2	Solvent Blank	↓	MeCl2		NA | NA				
3	QFW0320013	03.20.01	Water		89 | 8.9	71			
4	4250PHSPROCCV	NA	Standard		104 | 95	103	015V058		
5	Solvent Blank	↓	MeCl2	↓	NA | NA			↓	

RL
03.26.01

Initials / Date: RL 3.26.01

Runlog_DRO-B.xls

Sequence Date: 03.28.01
Analyst Initials: RL
Run Method: PRO0322
Quant Method: ↓↓

	Sample	Blank/LCS
Water OTP/C(39) Limits	42-142 / 42-193	42-142 / 42-193
Soil OTP/C(39) Limits	62-109 / 60-118	62-109 / 60-118

Compound: PRO
Date: 03.22.01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250PH5PROCCV	NA	Standard	1X	110 / 104	110	015V058	✓	
2	Solvent Blank	↓	MeCl2	↓	NA →			↓	
3	09825	03.20.01	Water	↓	91 / 34			↓	
4	4250PH5PROCCV	NA	Standard	↓	111 / 109	108	015V058	↓	
5	Solvent Blank	↓	MeCl2	↓	NA →			↓	

RL 03.28.01

Initials / Date: RL 03.28.01

062

Runlog_DRO-B.xls

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230101.D Vial: 1
Acq On : 23 Mar 2001 6:43 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 8:12 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.97	2525414	52.288 ug/mlm
Spiked Amount 50.000		Recovery =	104.58%
3) SC C(39)	33.84	11385142	262.141 ug/mlm
Spiked Amount 300.000		Recovery =	87.38%
Target Compounds			
1) HM Florida PRO	3.70	224057621	4077.623 ug/ml

96%

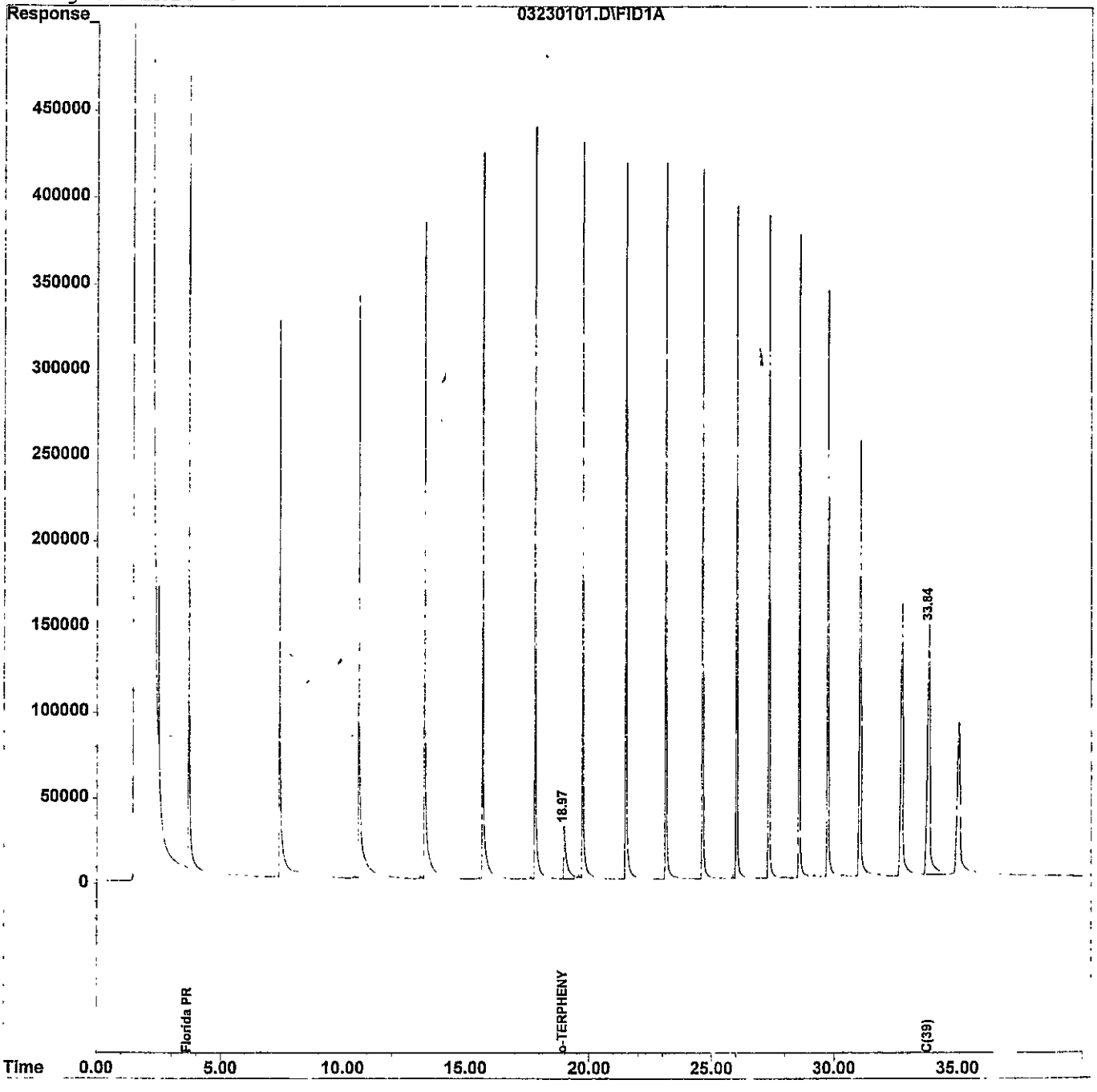
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230101.D Vial: 1
Acq On : 23 Mar 2001 6:43 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 8:12 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230113.D Vial: 13
Acq On : 23 Mar 2001 16:41 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 25 9:05 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2543478	52.662 ug/mlm
Spiked Amount 50.000		Recovery =	105.32%
3) SC C(39)	33.78	13361214	307.640 ug/mlm
Spiked Amount 300.000		Recovery =	102.55%
Target Compounds			
1) HM Florida PRO	3.70	208545202	3795.312 ug/ml

4250 = 89%

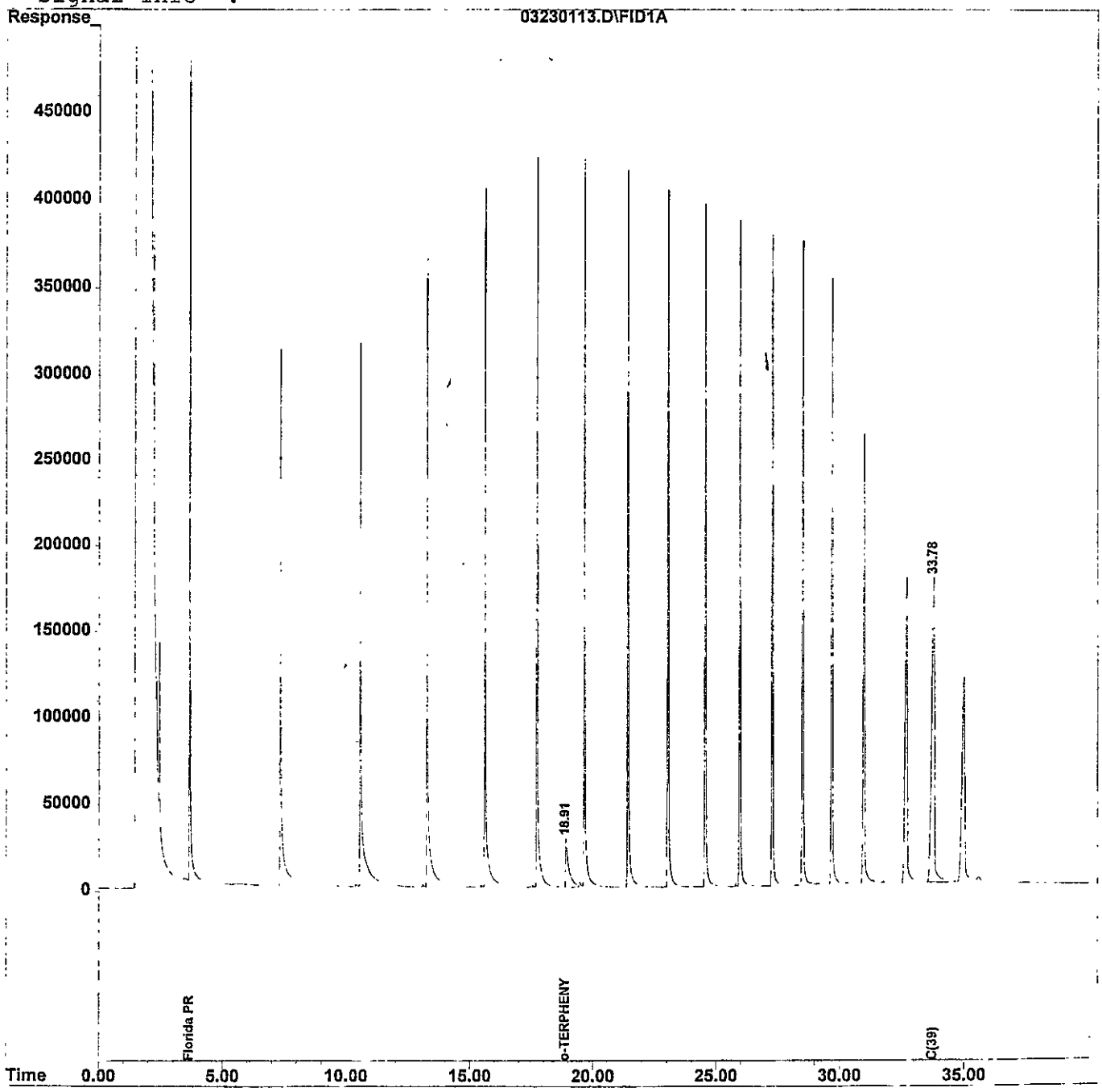
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230113.D Vial: 13
Acq On : 23 Mar 2001 16:41 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 25 9:05 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032601\03260101.D Vial: 1
Acq On : 26 Mar 2001 9:13 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 9:55 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2583308	53.487 ug/mlm
Spiked Amount 50.000		Recovery =	106.97%
3) SC C(39)	33.79	12158127	279.939 ug/mlm
Spiked Amount 300.000		Recovery =	93.31%
Target Compounds			
1) HM Florida PRO	3.70	248300980	4518.828 ug/ml

106%

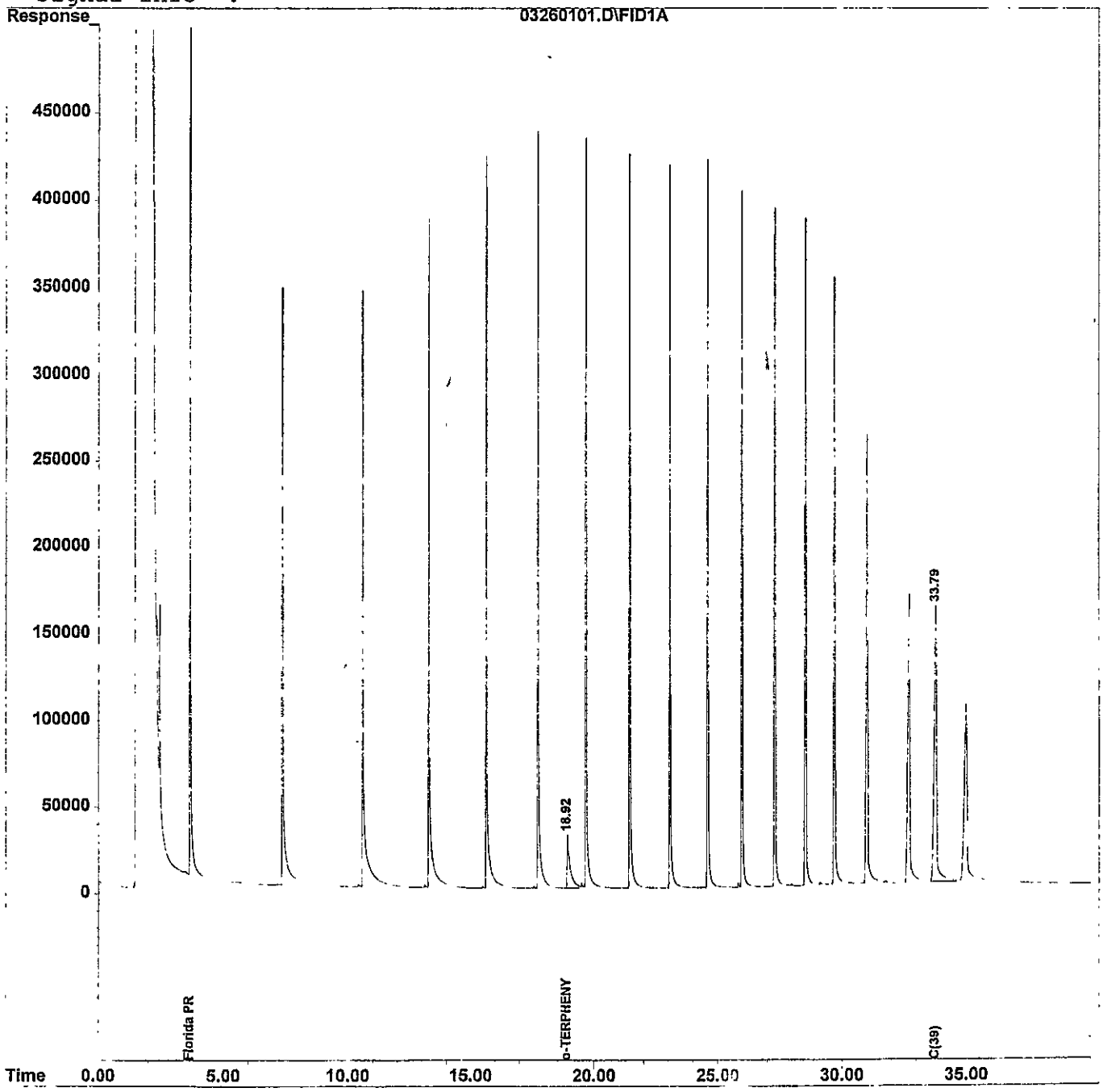
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032601\03260101.D Vial: 1
Acq On : 26 Mar 2001 9:13 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 9:55 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032601\03260104.D Vial: 4
Acq On : 26 Mar 2001 11:38 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 12:28 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2505808	51.882 ug/mlm
Spiked Amount 50.000		Recovery =	103.76%
3) SC C(39)	33.74	12380193	285.052 ug/mlm
Spiked Amount 300.000		Recovery =	95.02%
Target Compounds			
1) HM Florida PRO	3.70	240261146	4372.511 ug/ml

103%

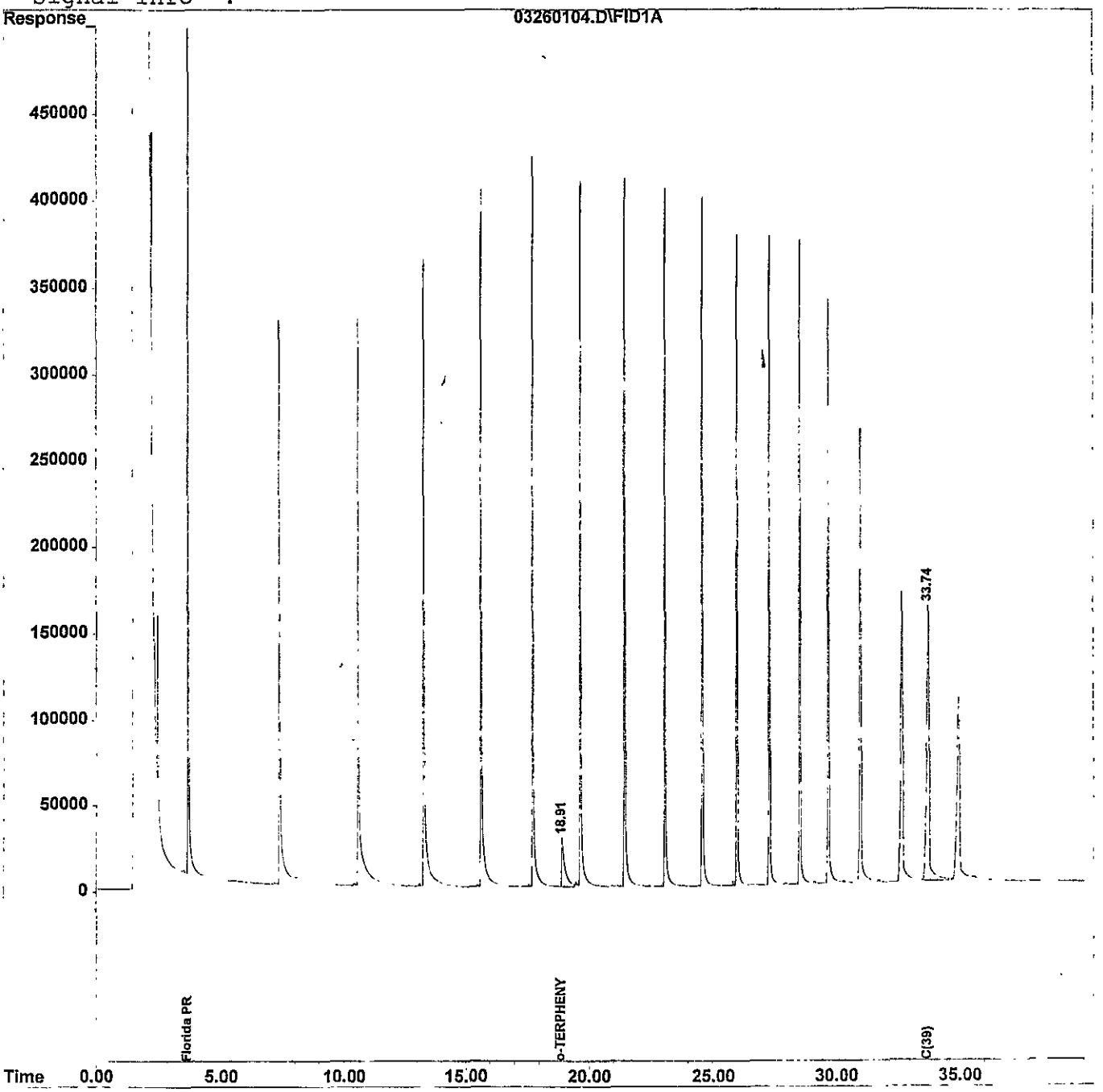
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032601\03260104.D Vial: 4
Acq On : 26 Mar 2001 11:38 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 12:28 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801\03280101.D Vial: 1
Acq On : 28 Mar 2001 7:41 Operator: RL/BP
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 8:23 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.96	2663808	55.154 ug/mlm
Spiked Amount 50.000		Recovery =	110.31%
3) SC C(39)	33.86	13600850	313.157 ug/mlm
Spiked Amount 300.000		Recovery =	104.39%
Target Compounds			
1) HM Florida PRO	3.70	256294375	4664.299 ug/ml

110% ✓ RL

(f)=RT Delta > 1/2 Window (m)=manual int.

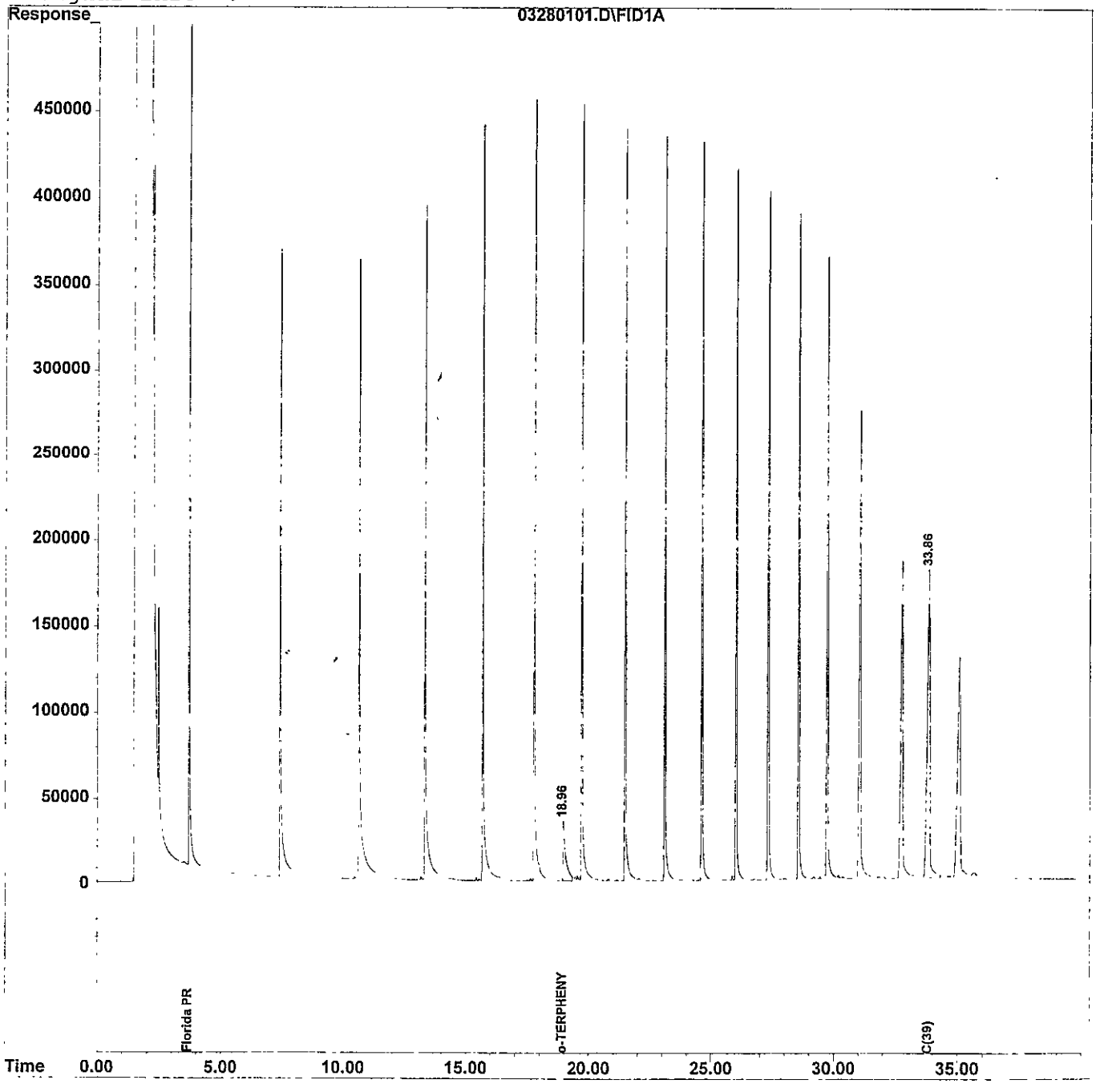
Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801\03280101.D
Acq On : 28 Mar 2001 7:41
Sample : 4250 PHS PRO CCV
Misc :
IntFile : events.e
Quant Time: Mar 28 8:23 2001 Quant Results File: PRO0322.RES

Vial: 1
Operator: RL/BP
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801\03280104.D Vial: 4
Acq On : 28 Mar 2001 10:06 Operator: RL/BP
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 10:53 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.98f	2681373	55.518 ug/mlm
Spiked Amount 50.000		Recovery =	111.04%
3) SC C(39)	33.96	14308904	329.460 ug/mlm
Spiked Amount 300.000		Recovery =	109.82%
Target Compounds			
1) HM Florida PRO	3.70	251866123	4583.710 ug/ml

108% ✓RL

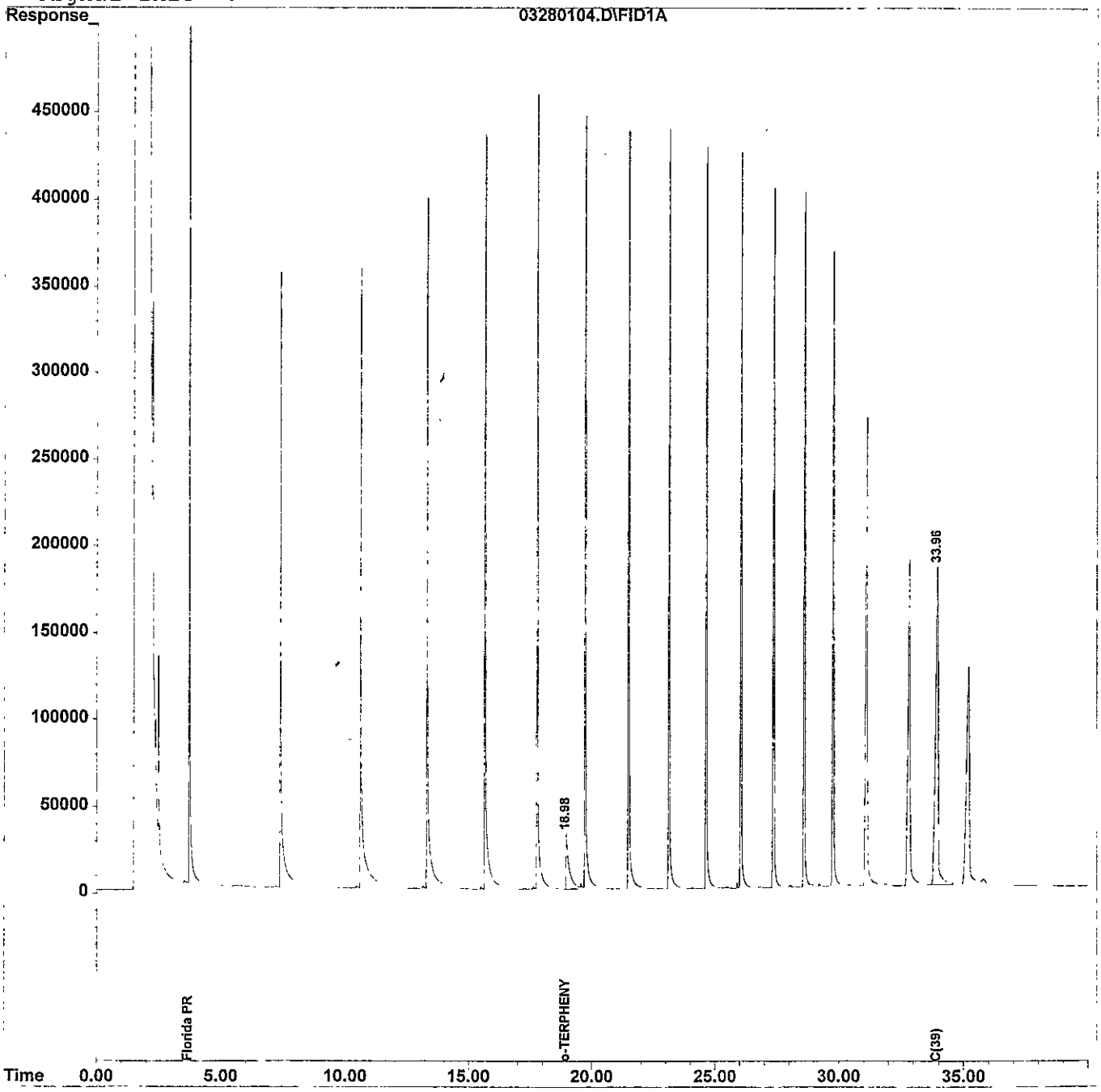
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801\03280104.D Vial: 4
Acq On : 28 Mar 2001 10:06 Operator: RL/BP
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 10:53 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230105.D Vial: 5
Acq On : 23 Mar 2001 9:57 Operator: RL
Sample : 09818W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 10:39 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.22f	1608961	33.313 ug/mlm
Spiked Amount 50.000		Recovery =	66.63%
3) SC C(39)	33.81	28732	0.662 ug/mlm
Spiked Amount 300.000		Recovery =	0.22%
Target Compounds			
1) HM Florida PRO	3.70	19139859	348.326 ug/ml

1000 = 0.35 JB

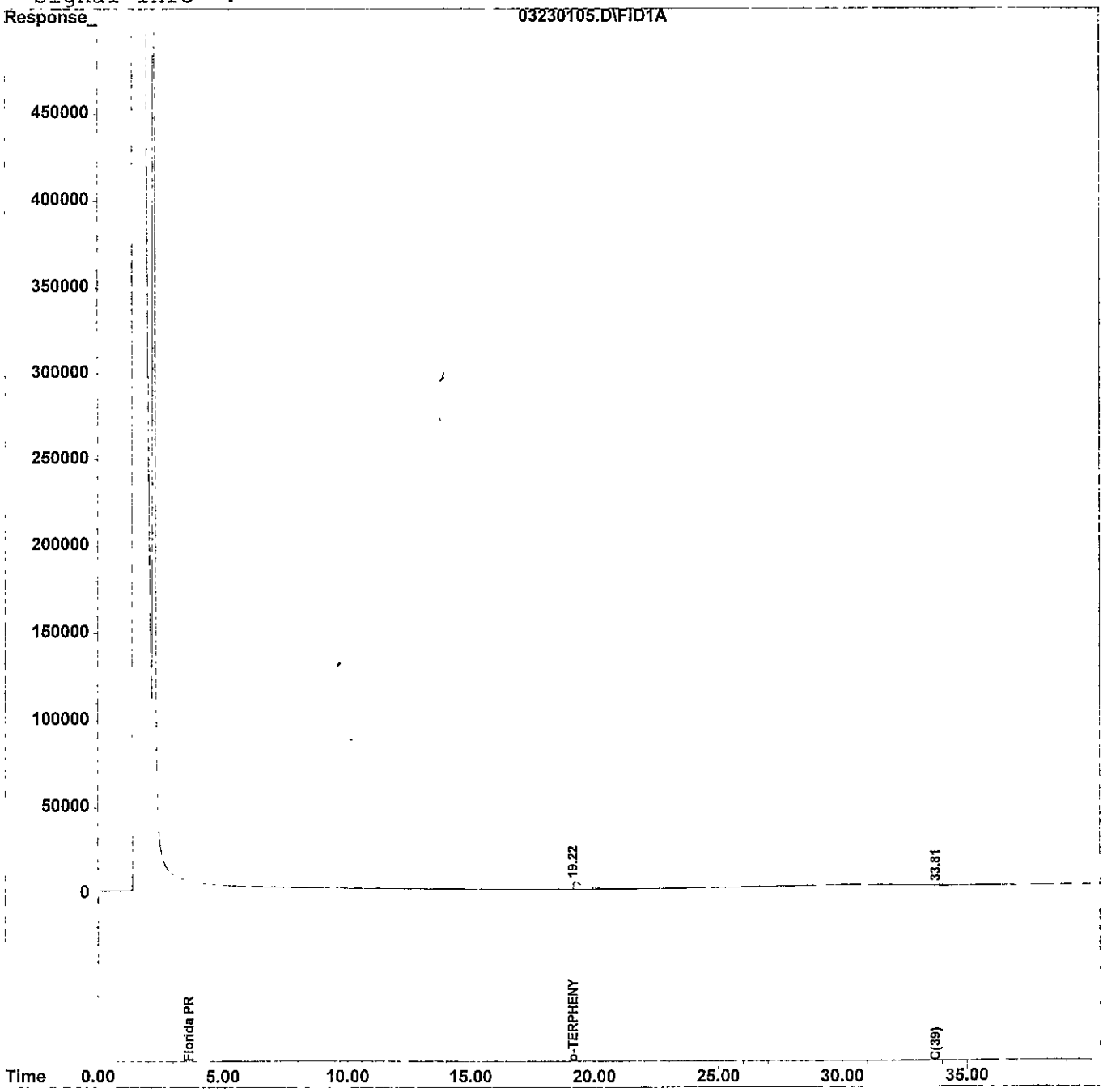
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230105.D Vial: 5
Acq On : 23 Mar 2001 9:57 Operator: RL
Sample : 09818W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 10:39 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230106.D Vial: 6
Acq On : 23 Mar 2001 11:02 Operator: RL
Sample : 09819W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 12:04 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	4179233	86.531 ug/mlm
Spiked Amount 50.000		Recovery =	173.06%
3) SC C(39)	33.72	3793155	87.337 ug/mlm
Spiked Amount 300.000		Recovery =	29.11%
Target Compounds			
1) HM Florida PRO	3.70	20855808	379.555 ug/ml

1000 =
0.38JB

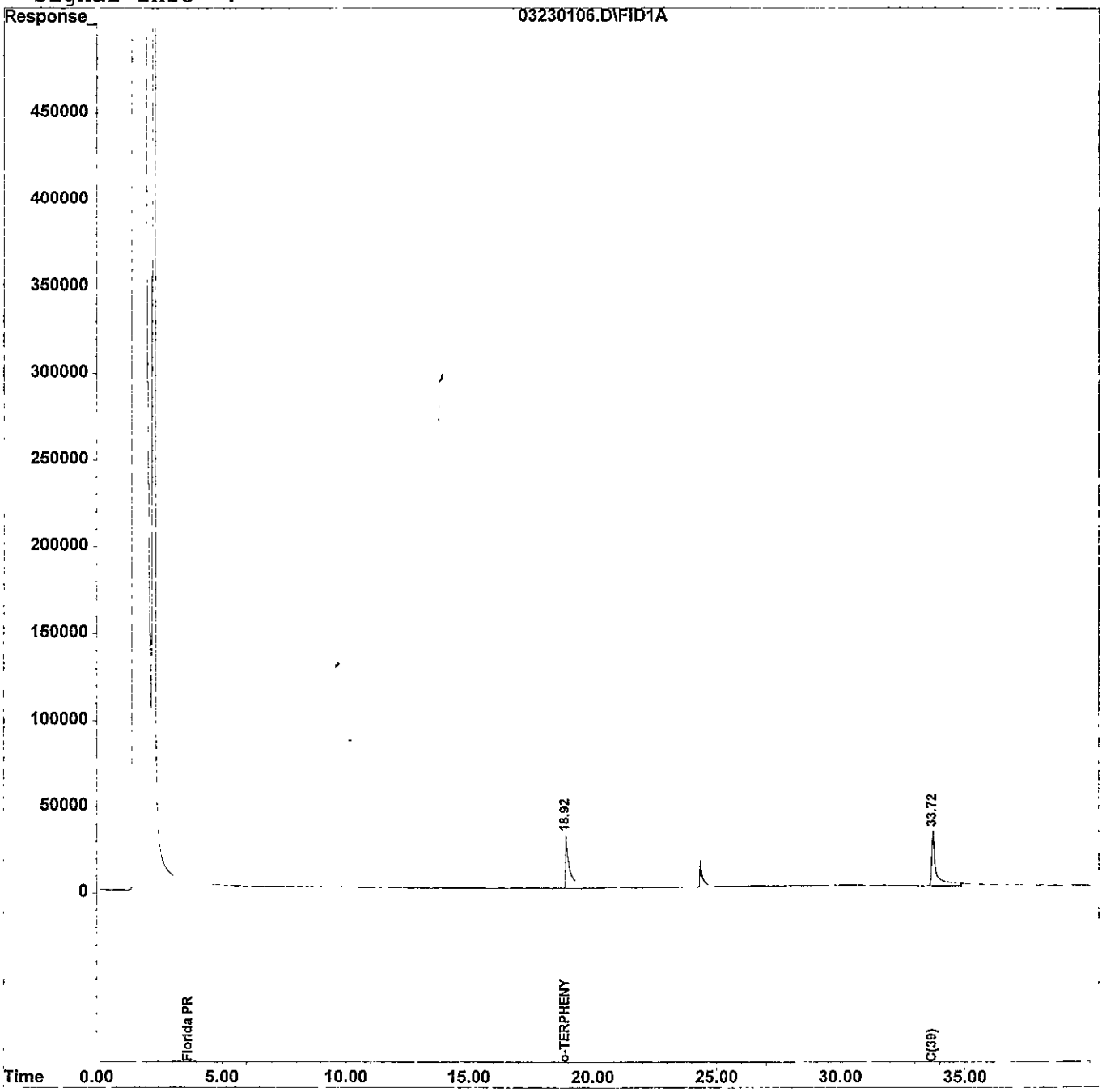
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230106.D Vial: 6
Acq On : 23 Mar 2001 11:02 Operator: RL
Sample : 09819W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 12:04 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230107.D Vial: 7
Acq On : 23 Mar 2001 11:50 Operator: RL
Sample : 09820W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 12:44 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.87f	2275803	47.120 ug/mlm
Spiked Amount 50.000		Recovery =	94.24%
3) SC C(39)	33.70	5448166	125.443 ug/mlm
Spiked Amount 300.000		Recovery =	41.81%
Target Compounds			
1) HM Florida PRO	3.70	324893280	5912.730 ug/ml

$\frac{5912}{1000}$ = 5.9 ppm = 5.9 B

RL 03.26.01

DL = 1.0 ppm

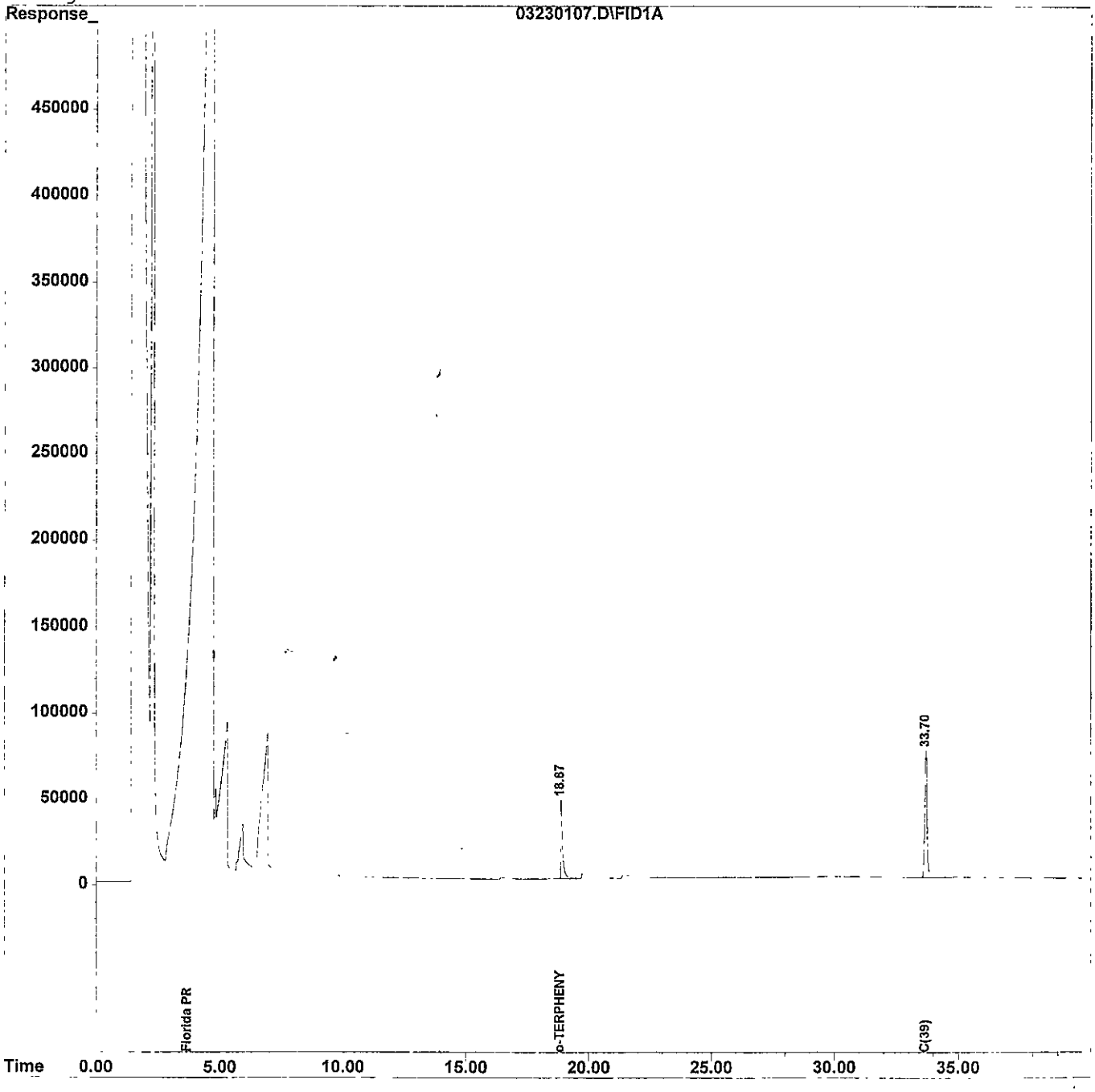
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230107.D Vial: 7
Acq On : 23 Mar 2001 11:50 Operator: RL
Sample : 09820W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 12:44 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230108.D Vial: 8
Acq On : 23 Mar 2001 12:39 Operator: RL
Sample : 09821W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 13:24 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.05f	2048556	42.415 ug/mlm
Spiked Amount 50.000		Recovery =	84.83%
3) SC C(39)	33.67	2931576	67.499 ug/mlm
Spiked Amount 300.000		Recovery =	22.50%
Target Compounds			
1) HM Florida PRO	3.70	23038369	419.275 ug/ml

1000

0.42JB

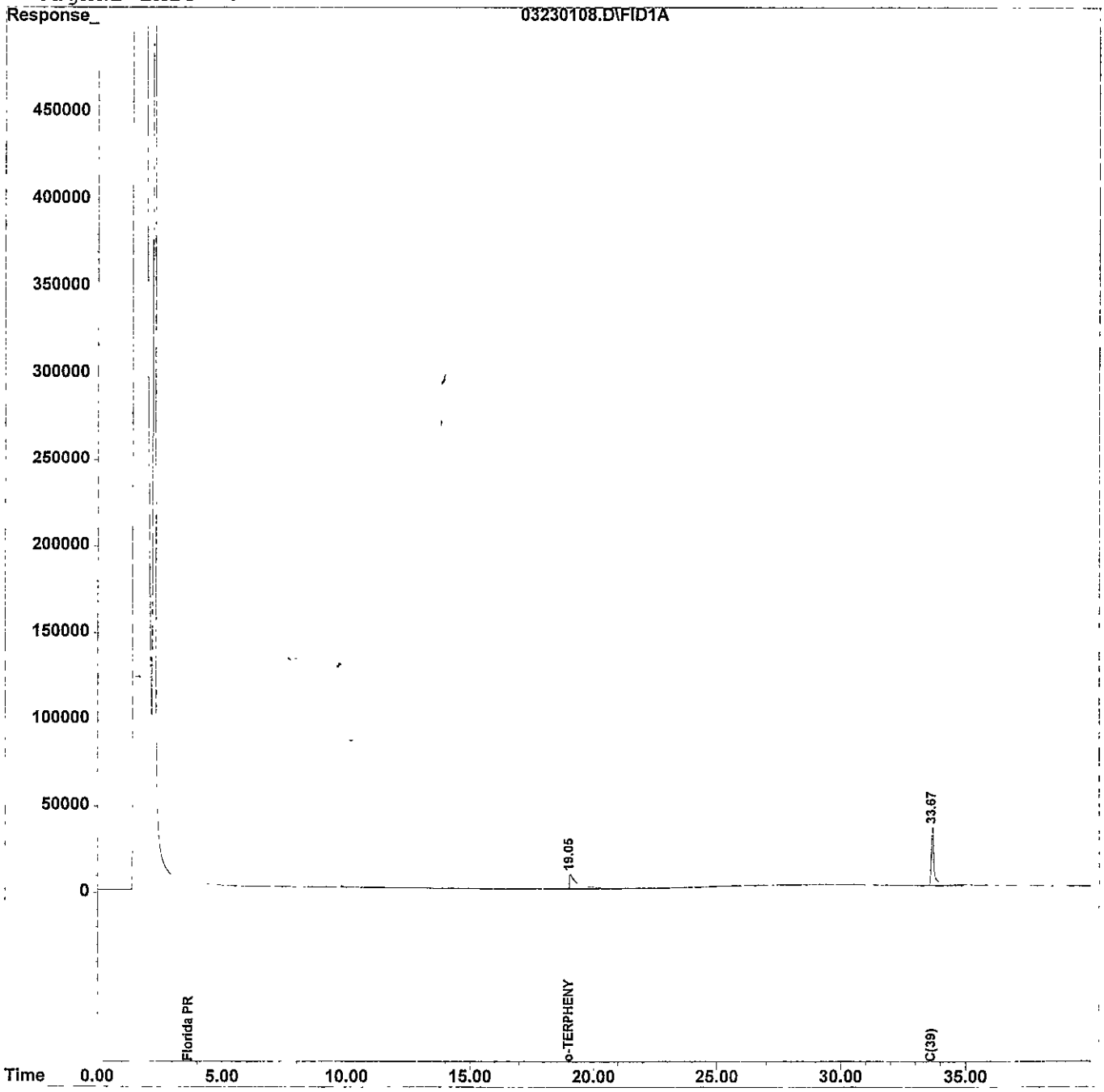
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230108.D Vial: 8
Acq On : 23 Mar 2001 12:39 Operator: RL
Sample : 09821W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 13:24 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230109.D Vial: 9
Acq On : 23 Mar 2001 13:27 Operator: RL
Sample : 09822W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 14:24 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.09f	1506749	31.197 ug/mlm
Spiked Amount 50.000		Recovery =	62.39%
3) SC C(39)	33.68	5486518	126.326 ug/mlm
Spiked Amount 300.000		Recovery =	42.11%
Target Compounds			
1) HM Florida PRO	3.70	21927246	399.054 ug/ml

1000

0.40JB

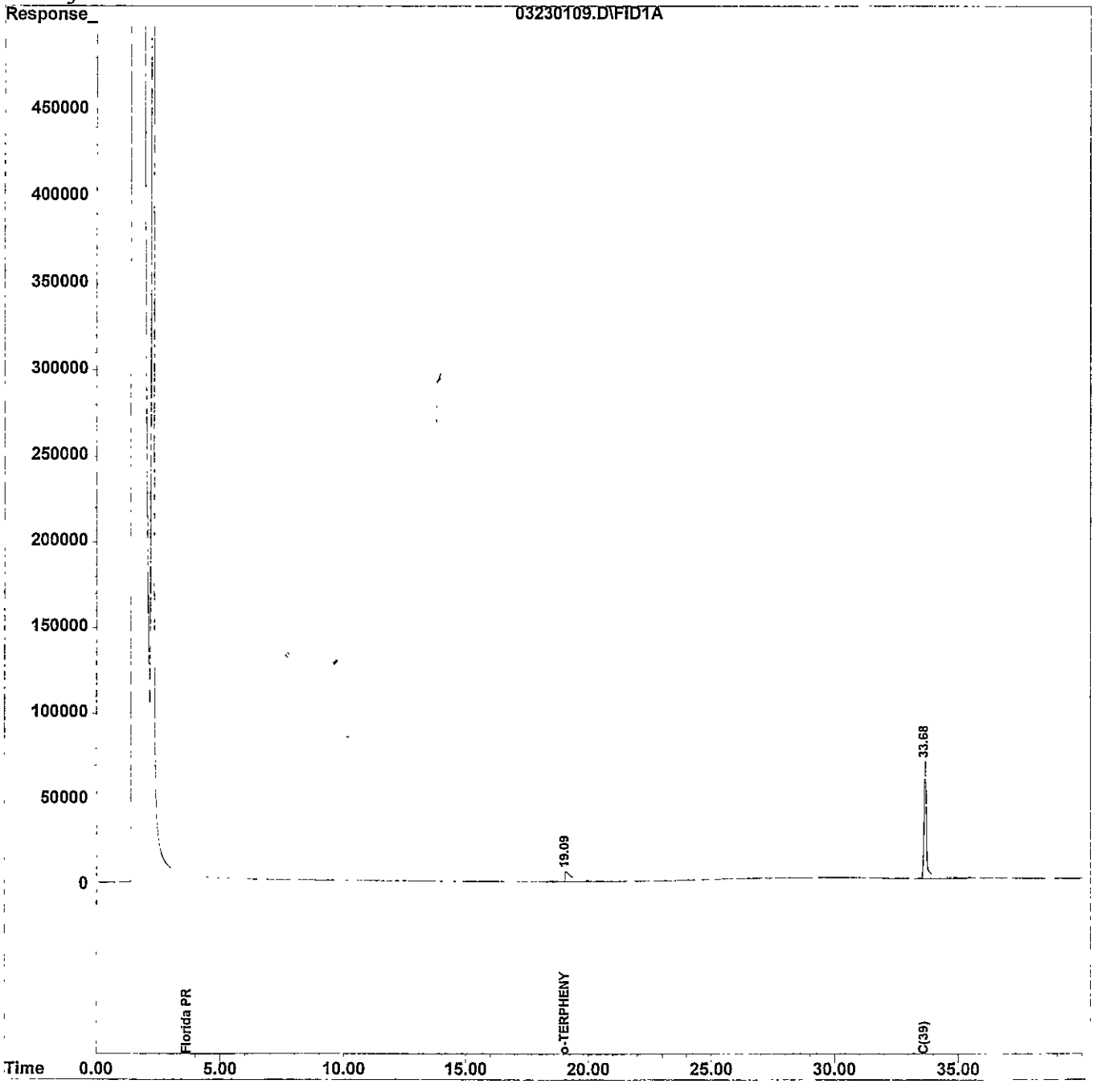
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230109.D Vial: 9
Acq On : 23 Mar 2001 13:27 Operator: RL
Sample : 09822W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 14:24 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230110.D Vial: 10
Acq On : 23 Mar 2001 14:16 Operator: RL
Sample : 09823W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 14:59 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.94	2497935	51.719 ug/mlm
Spiked Amount 50.000		Recovery =	103.44%
3) SC C(39)	33.68	5595498	128.835 ug/mlm
Spiked Amount 300.000		Recovery =	42.95%
Target Compounds			
1) HM Florida PRO	3.70	15874956	288.908 ug/ml

1000 =

0.29JB

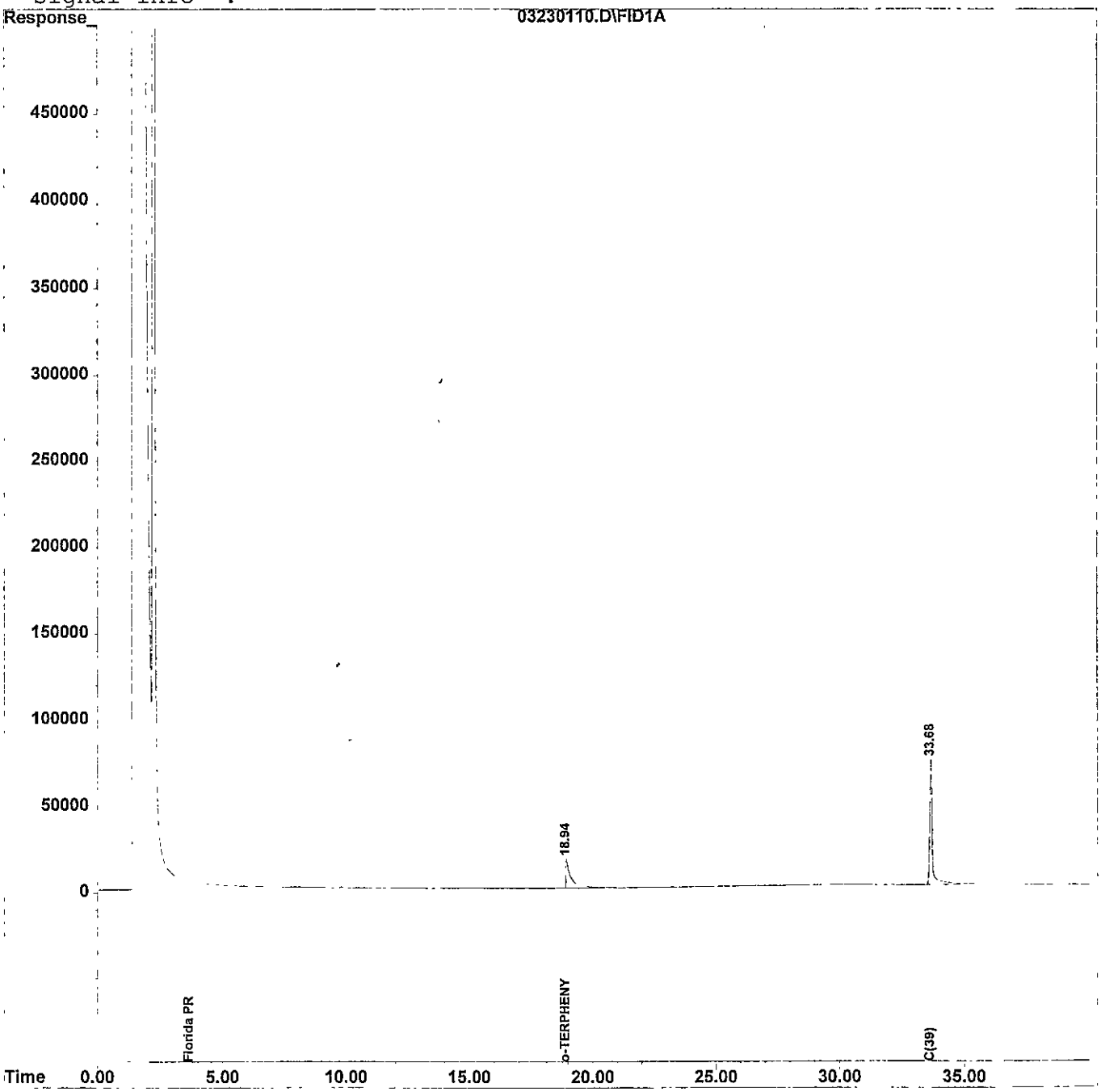
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230110.D Vial: 10
Acq On : 23 Mar 2001 14:16 Operator: RL
Sample : 09823W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 14:59 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230111.D Vial: 11
Acq On : 23 Mar 2001 15:05 Operator: RL
Sample : 09824W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 10:42 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.02f	2362733	48.920 ug/mlm
Spiked Amount 50.000		Recovery =	97.84%
3) SC C(39)	33.67	3474850	80.008 ug/mlm
Spiked Amount 300.000		Recovery =	26.67%
Target Compounds			
1) HM Florida PRO	3.70	16267538	296.053 ug/ml

1000 = 0.30JB

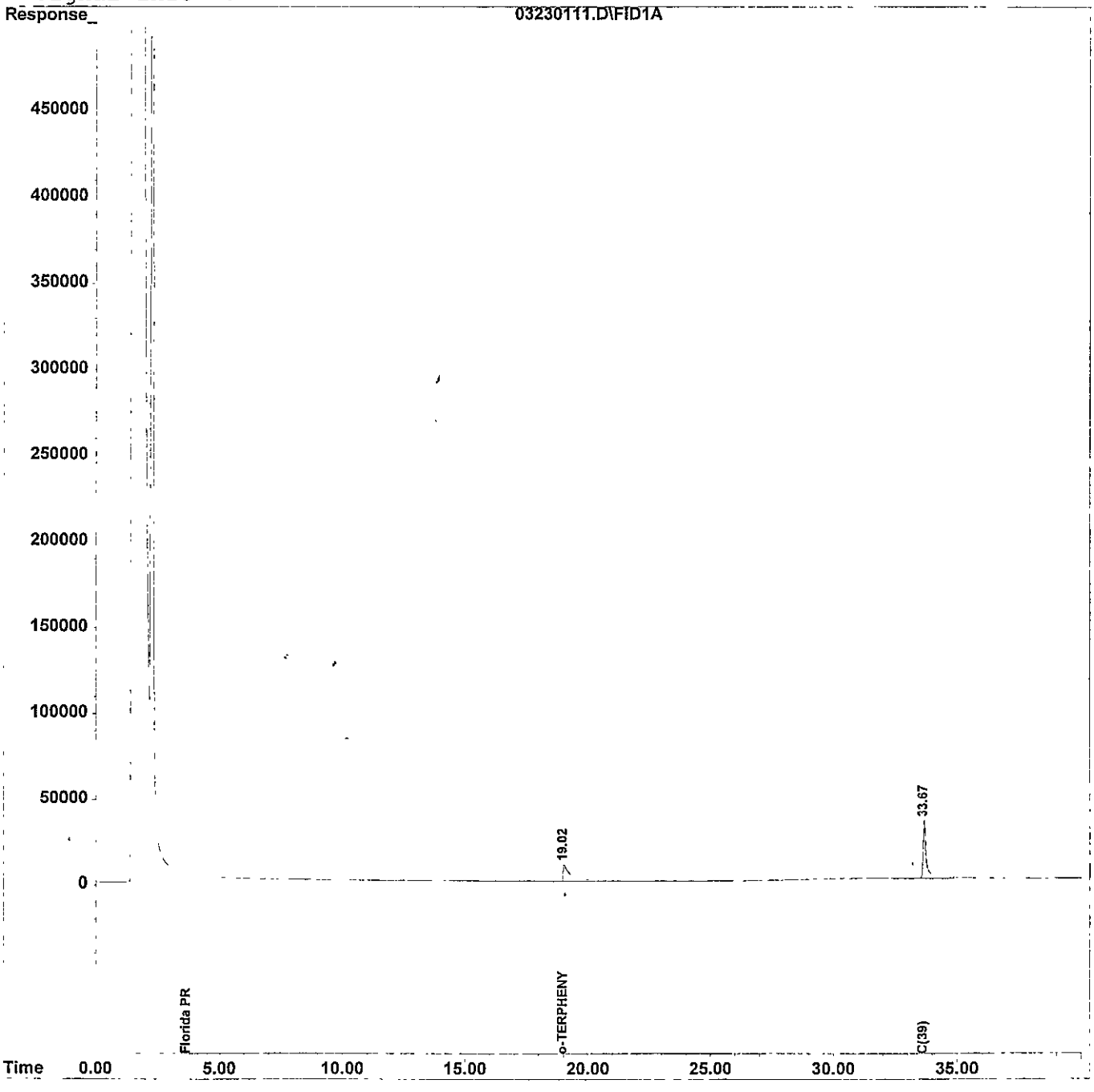
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230111.D Vial: 11
Acq On : 23 Mar 2001 15:05 Operator: RL
Sample : 09824W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 10:42 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801\03280103.D Vial: 3
Acq On : 28 Mar 2001 9:18 Operator: RL/BP
Sample : 09825W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 10:49 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.98f	2198600	45.522 ug/mlm
Spiked Amount 50.000		Recovery =	91.04%
3) SC C(39)	33.83	4370899	100.639 ug/mlm
Spiked Amount 300.000		Recovery =	33.55%
Target Compounds			
1) HM Florida PRO	3.70	146947906	2674.304 ug/ml

$\frac{2674.304}{1000} = 2.67 \div 4.25$ RL 03.28.01

2.7ppm (2.7B)

DL: 1.0

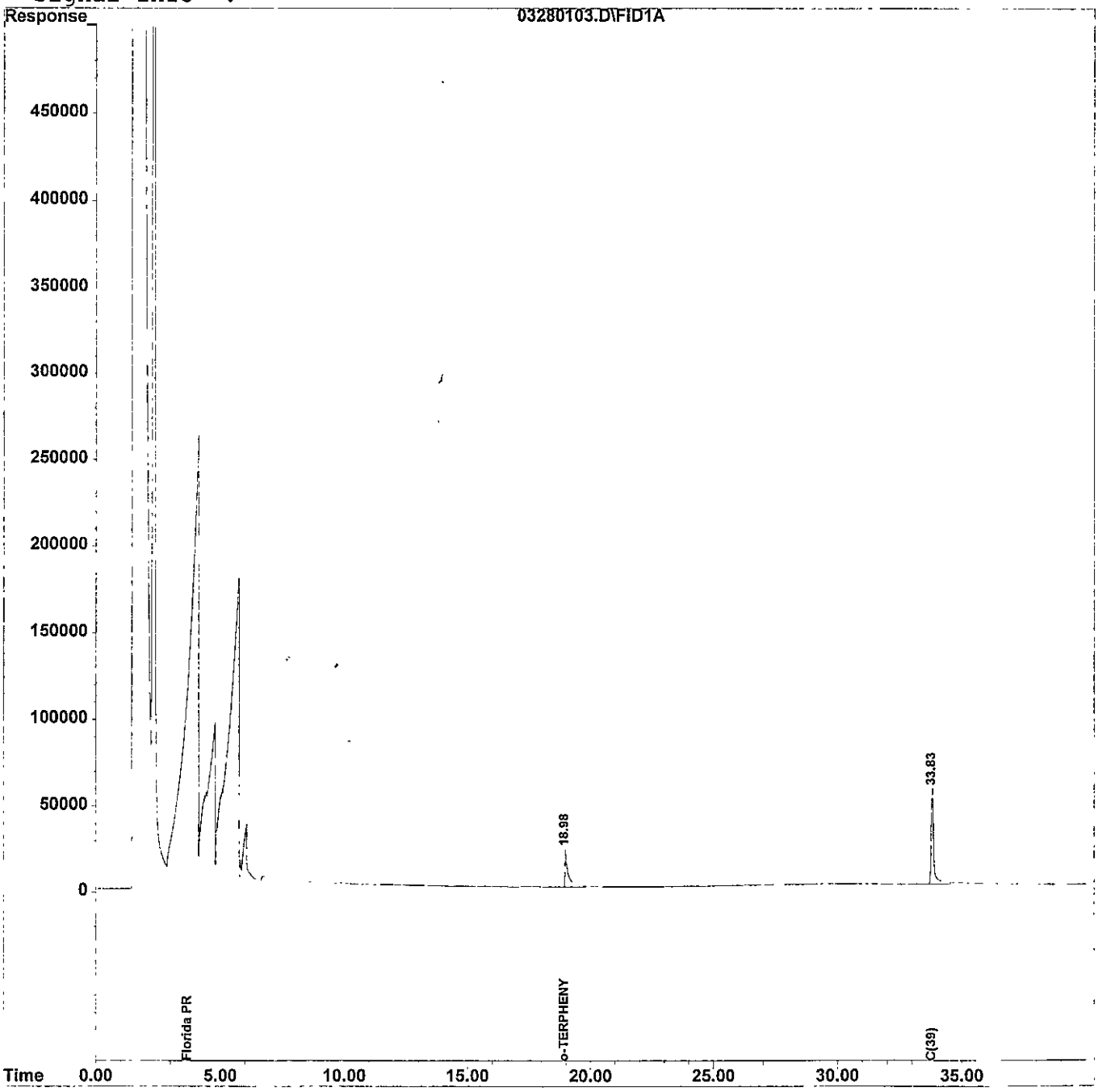
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801\03280103.D Vial: 3
Acq On : 28 Mar 2001 9:18 Operator: RL/BP
Sample : 09825W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 10:49 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230103.D Vial: 3
Acq On : 23 Mar 2001 8:20 Operator: RL
Sample : QFW0320011 Inst : DRO-B
Misc : PRO BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 10:37 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.11f	2382732	49.334 ug/mlm
Spiked Amount 50.000		Recovery =	98.67%
3) SC C(39)	33.57	13702	0.315 ug/mlm
Spiked Amount 300.000		Recovery =	0.11%
Target Compounds			
1) HM Florida PRO	3.70	22739331	413.833 ug/ml

1000 =
0.41 J

(f)=RT Delta > 1.2 Window (m)=manual int.

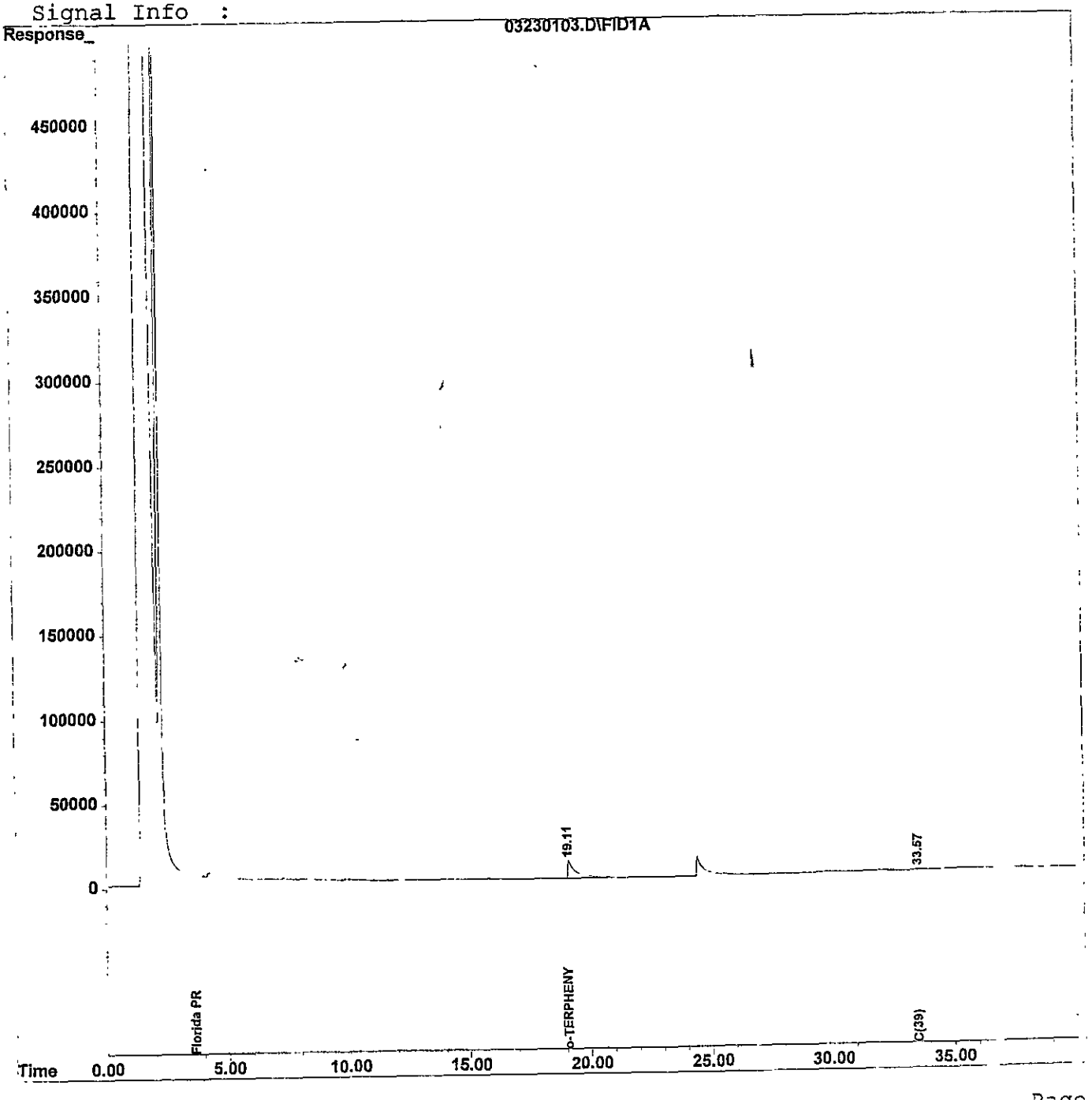
Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230103.D
Acq On : 23 Mar 2001 8:20
Sample : QFW0320011
Misc : PRO BLANK
IntFile : events.e
Quant Time: Mar 26 10:37 2001 Quant Results File: PRO0322.RES

Vial: 3
Operator: RL
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032301\03230104.D Vial: 4
Acq On : 23 Mar 2001 9:08 Operator: RL
Sample : QFW0320012 Inst : DRO-B
Misc : PRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 10:12 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.90	1677061	34.723 ug/mlm
Spiked Amount 50.000		Recovery =	69.45%
3) SC C(39)	33.71	299117	6.887 ug/mlm
Spiked Amount 300.000		Recovery =	2.30%
Target Compounds			
1) HM Florida PRO	3.70	226319179	4118.781 ug/ml

4119÷1000= 4.12÷4.25=97%

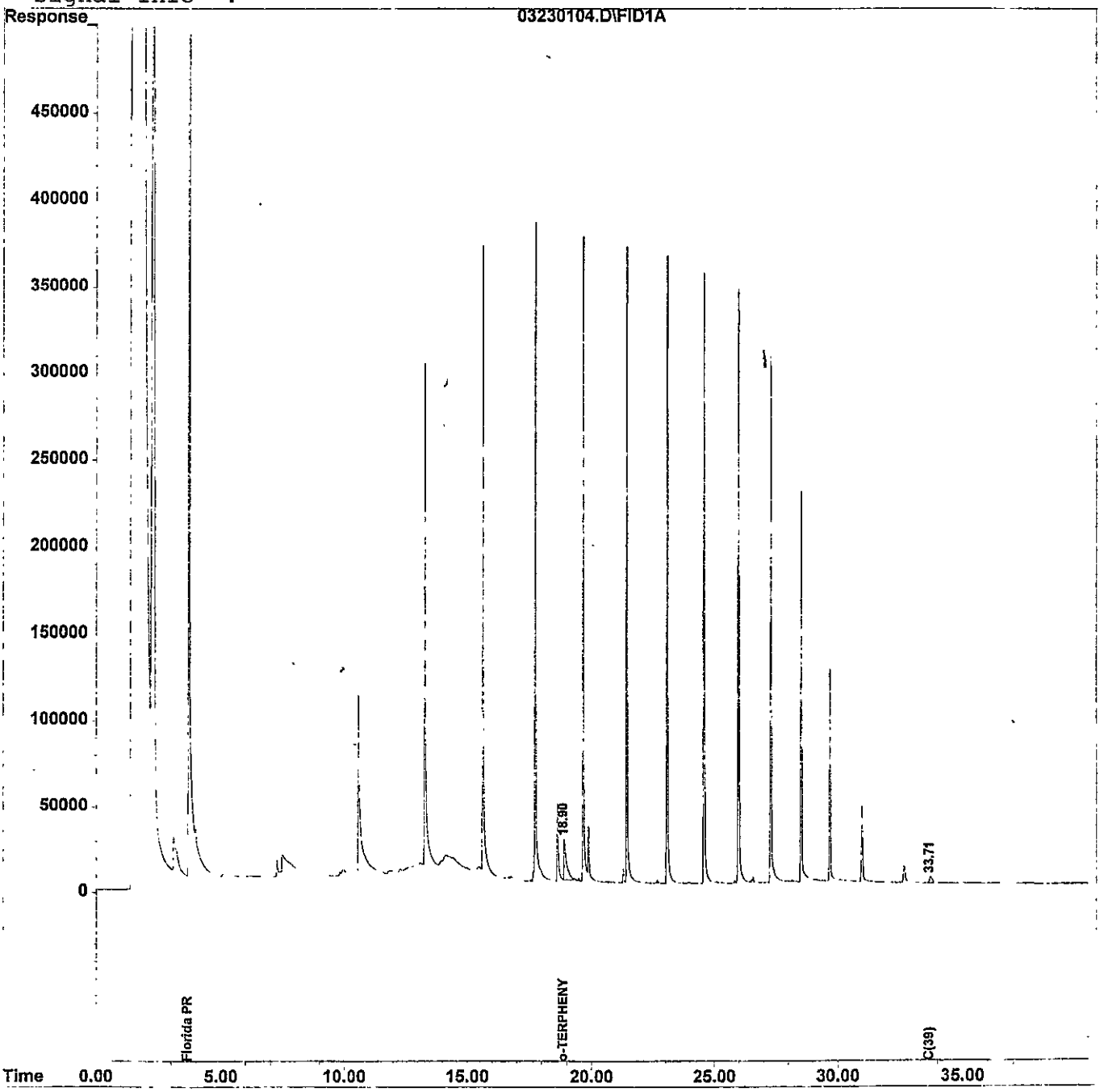
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032301\03230104.D Vial: 4
Acq On : 23 Mar 2001 9:08 Operator: RL
Sample : QFW0320012 Inst : DRO-B
Misc : PRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 10:12 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032601\03260103.D Vial: 3
Acq On : 26 Mar 2001 10:49 Operator: RL
Sample : QFW0320013 Inst : DRO-B
Misc : PRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 11:50 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2160016	44.723 ug/mlm
Spiked Amount 50.000		Recovery =	89.45%
3) SC C(39)	33.97	372836	8.584 ug/mlm
Spiked Amount 300.000		Recovery =	2.86%
Target Compounds			
1) HM Florida PRO	3.70	166874946	3036.956 ug/ml

1000 =

304÷4.25= 71%

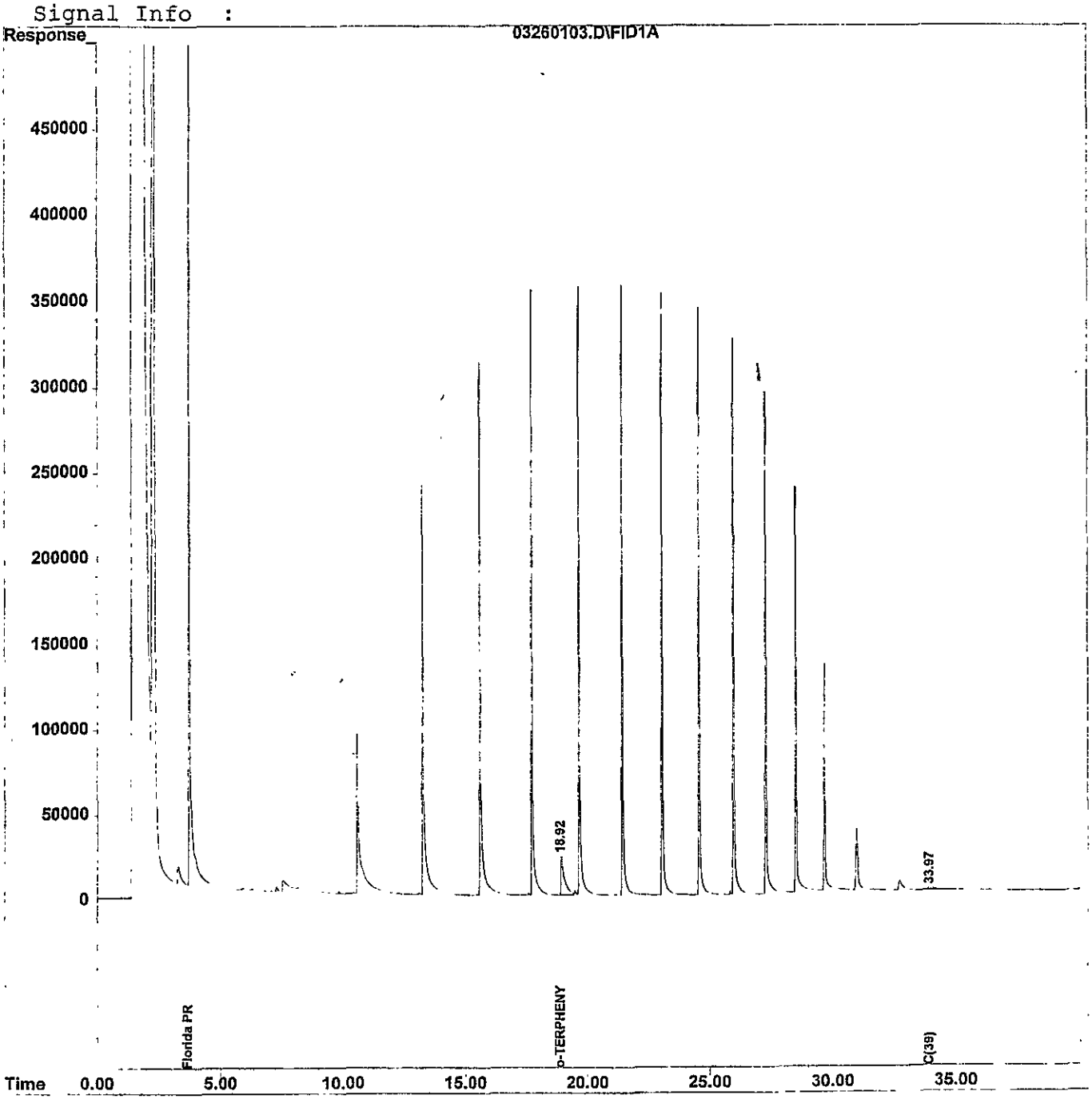
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032601\03260103.D Vial: 3
Acq On : 26 Mar 2001 10:49 Operator: RL
Sample : QFW0320013 Inst : DRO-B
Misc : DRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 11:50 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.

LCS/LCSD Report

Sample ID:	QFW0320012+13	**Date Acquired:**	3/21/01
Operator:	RL	**Instrument ID:**	DRO-B
Data File:	03230104+05	**Bottle #:**	4+5
Method:	FL-PRO	**Matrix:**	Water

Compound	Expected Rec. (ppm)	LCS Rec. (ppm)	LCS % Recovery	LCSD Rec. (ppm)	LCSD % Recovery	Recovery Limits (%)	MS Pass/ Fail	MSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
FL. PRO	4.25	4.119	97%	3.037	71%	55 - 118	Pass	Pass	30%	< 25	Fail

Surrogates	Expected Rec. (ppm)	LCS Rec. (ppm)	LCS % Recovery	LCSD Rec. (ppm)	LCSD % Recovery	Recovery Limits (%)*	LCS Pass/ Fail	LCSD Pass/ Fail
O-TERPHENYL	50	34.723	93%	44.723	89%	82 - 142	Pass	Pass
C (39)	300	6.887	2%	8.584	3%	42 - 193	Fail	Fail

SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: 3/22/01 ORO-B	METHOD: 8000
MATRIX: FL-PRO (Real Media)	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: RL		Reviewer: YGR	
Date: 03/26/01	Time: 16:05	Date: 03/27/01	Time: 13:10

INITIAL CALIBRATION
5 POINT DRO

DATE:	3/22/01			
METHOD:	FL-PRO			
INSTRUMENT:	DRO-B ; FRONT COLUMN			
ANALYST:	RL			
ICAL ID:	PRO0322			
CONCENTRATION (PPM)			**AREA**	**Rf**
850			55009551	64717.1
2550			148731650	58326.1
4250			228292638	53715.9
5950			304533890	51182.2
7692			359979107	46799.2
AVERAGE Rf:			54948.1	
% RSD:			12.5	

Sequence Date: 03.22.01
Analyst Initials: RL
Run Method: PRO0315
Quant Method: PRO0322

	Sample	Blank/LCS
Water OTP/C(39) Limits	82-142 / 42-193	82-142 / 42-193
Soil OTP/C(39) Limits	62-109 / 62-118	62-109 / 62-118

Compound: FL-PRO
Date: 03.22.01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery	Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solvent Blank	NA	MeCl2	1X	NA / NA			✓	
2	850PHSPROICAL		Standard		78 / 76		015V052		
3	1250PHSPROICAL				74 / 78		53		
4	4250PHSPROICAL				79 / 84		54		
5	5950PHSPROICAL				80 / 80		55		
6	7692PHSPROICAL				65 / 71		56		
7	4250PHSPROICV				101 / 101	99	015V058	RL 03.22.01	
8	Solvent Blank		MeCl2		NA / NA				

RL 03.22.01

Initials / Date: RL 03.22.01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PROCCV
Lab Standard ID#: 015V058
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL-PRO Standard	EX01187-9	500ppm	500ul	4250PHS
CC391	501A055	3,000	100ul	300ppm
OTP	EX00151-1	10,000	5ul	50ppm
MeCl2	EX01185	—	395ul	—
			Diluted to 1000ul	
		RL		
		03.22.01		

Standard Name: PAH Intermediate
Lab Standard ID#: 015V059
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
PAH Standard	501A021	1,000ppm	1ml=1,000ul	200ppm
1methylnaphthalene	501A023	2,000ppm	500ul	200ppm
MeCl2	EX00185	—	3,500ul	—
		RL		
		03.22.01		

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PRO ICAL
Lab Standard ID# 015V052-056
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc	Amount Used	Final Conc
FL-PRO Standard	EX01187-9,-7,8	500 ppm	100 ul	850 PHS
			300 ul	2550
			500 ul	4250
			700 ul	5950
			1000 ul	7692
OTP	EX00151-1	10,000 RL 03.22.01	~~50 ul~~ ~~100~~ 5.0 ul	50 ppm
CC39/PRO	S01A055	3,000 RL 03.22.01	~~50 ul~~ 100 ul	300 ppm
MeCl2	EX00185	–	Dilute to 1000 ul	–

OTP + C(39) were added to each standard then standard diluted to 1000 ul with MeCl2. For last point the total volume is 1,105 ul leading to a PHS of 7692 not 8500. Also because of volume change the OTP = 45.2 and C(39) = 271.5. These values have been changed in curve.

Standard Name: FL-PRO ICV
Lab Standard ID# 015V057
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc	Amount Used	Final Conc
FL-PRO Standard	S01A063	500 ppm	500 ul	4250 PHS
CC39/PRO Surrogate	S01A054	3,000 ppm	100 ul	300 ppm
OTP	EX00151-2	10,000 ppm	5 ul	50 ppm
MeCl2	EX00185	–	395 ul	–
		RL 03.22.01		

Response Factor Report DRO-B

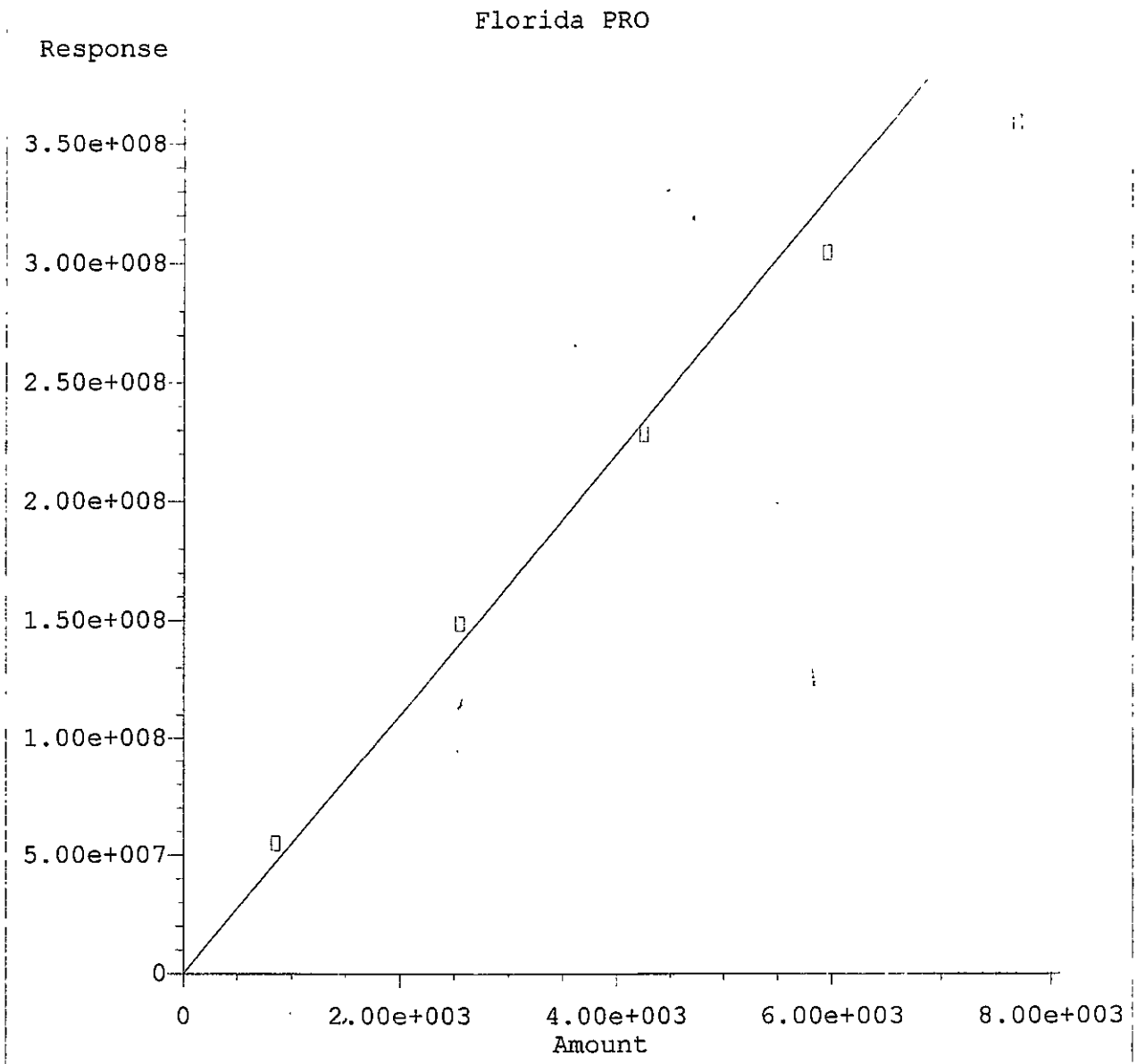
Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Mar 27 11:02:18 2001

Calibration Files
1 =03220102.D 2 =03220103.D 3 =03220104.D
4 =03220105.D 5 =03220106.D

	Compound	1	2	3	4	5	Avg	%RSD
1) HM	Florida PRO	6.472	5.833	5.372	5.118	4.680	5.495 E4	12.51
2) SC	o-TERPHENYL	4.992	4.766	5.060	5.128	4.648	4.919 E4	4.14
3) SC	C(39)	4.258	4.365	4.678	4.479	4.349	4.426 E4	3.65

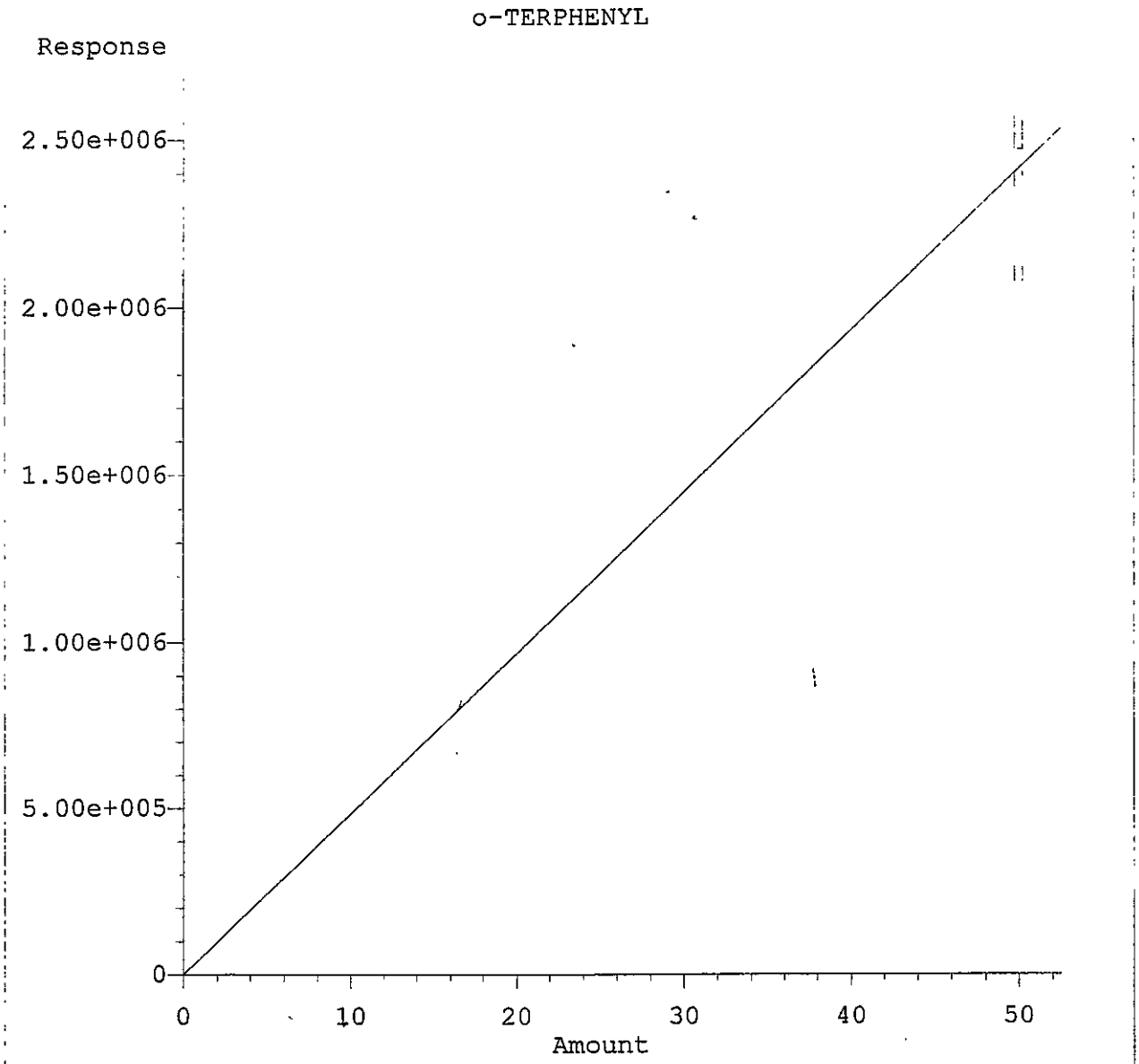
(#) = Out of Range

PRO0322.M Tue Mar 27 11:02:26 2001



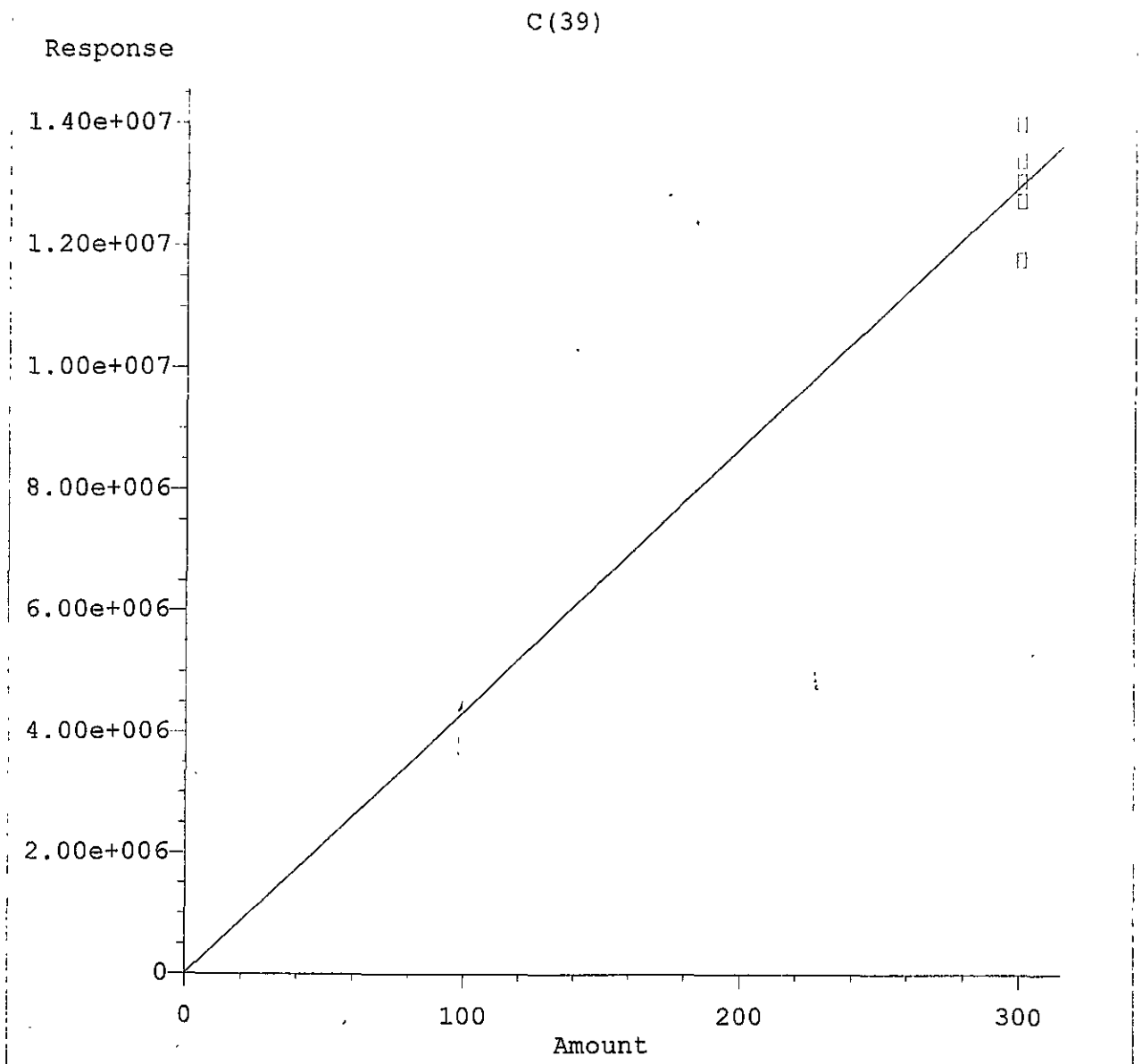
Response = 5.49e+004 * Amt
RF Rel Std Dev = 12.5% Curve Fit: Avg RF

Method Name: C:\HPCHEM\2\METHODS\PRO0322.M
Calibration Table Last Updated: Tue Jan 02 11:40:23 2001



Response = 4.83e+004 * Amt
RF Rel Std Dev = 7.8% Curve Fit: Avg RF

Method Name: C:\HPCHEM\2\METHODS\PRO0322.M
Calibration Table Last Updated: Tue Jan 02 11:40:23 2001



Response = 4.34e+004 * Amt
RF Rel Std Dev = 6.4% Curve Fit: Avg RF

Method Name: C:\HPCHEM\2\METHODS\PRO0322.M
Calibration Table Last Updated: Tue Jan 02 11:40:23 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220102.D Vial: 2
Acq On : 22 Mar 2001 9:35 Operator: RL
Sample : 850PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 10:17 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.96	2496228	38.776 ug/mlm
Spiked Amount 50.000		Recovery =	77.55%
3) SC C(39)	33.77f	12774466	229.186 ug/mlm
Spiked Amount 300.000		Recovery =	76.40%
Target Compounds			
1) HM Florida PRO	3.70	55009551	795.344 ug/ml

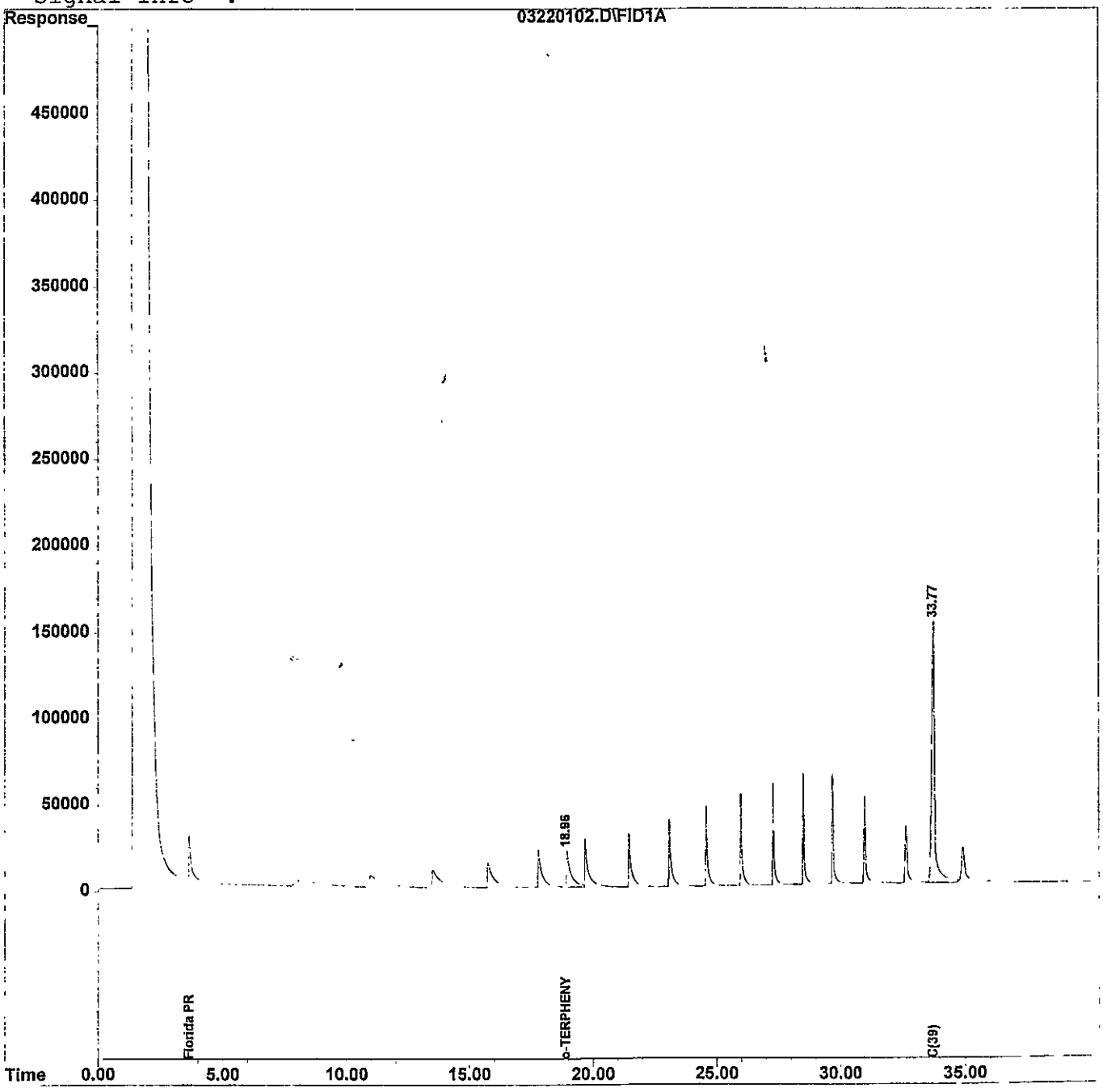
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220102.D Vial: 2
Acq On : 22 Mar 2001 9:35 Operator: RL
Sample : 850PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 10:17 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220103.D Vial: 3
Acq On : 22 Mar 2001 10:24 Operator: RL
Sample : 2550PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 11:18 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2382941	37.016 ug/mlm
Spiked Amount 50.000		Recovery =	74.03%
3) SC C(39)	33.77f	13095040	234.938 ug/mlm
Spiked Amount 300.000		Recovery =	78.31%
Target Compounds			
1) HM Florida PRO	3.70	148731650	2150.405 ug/ml

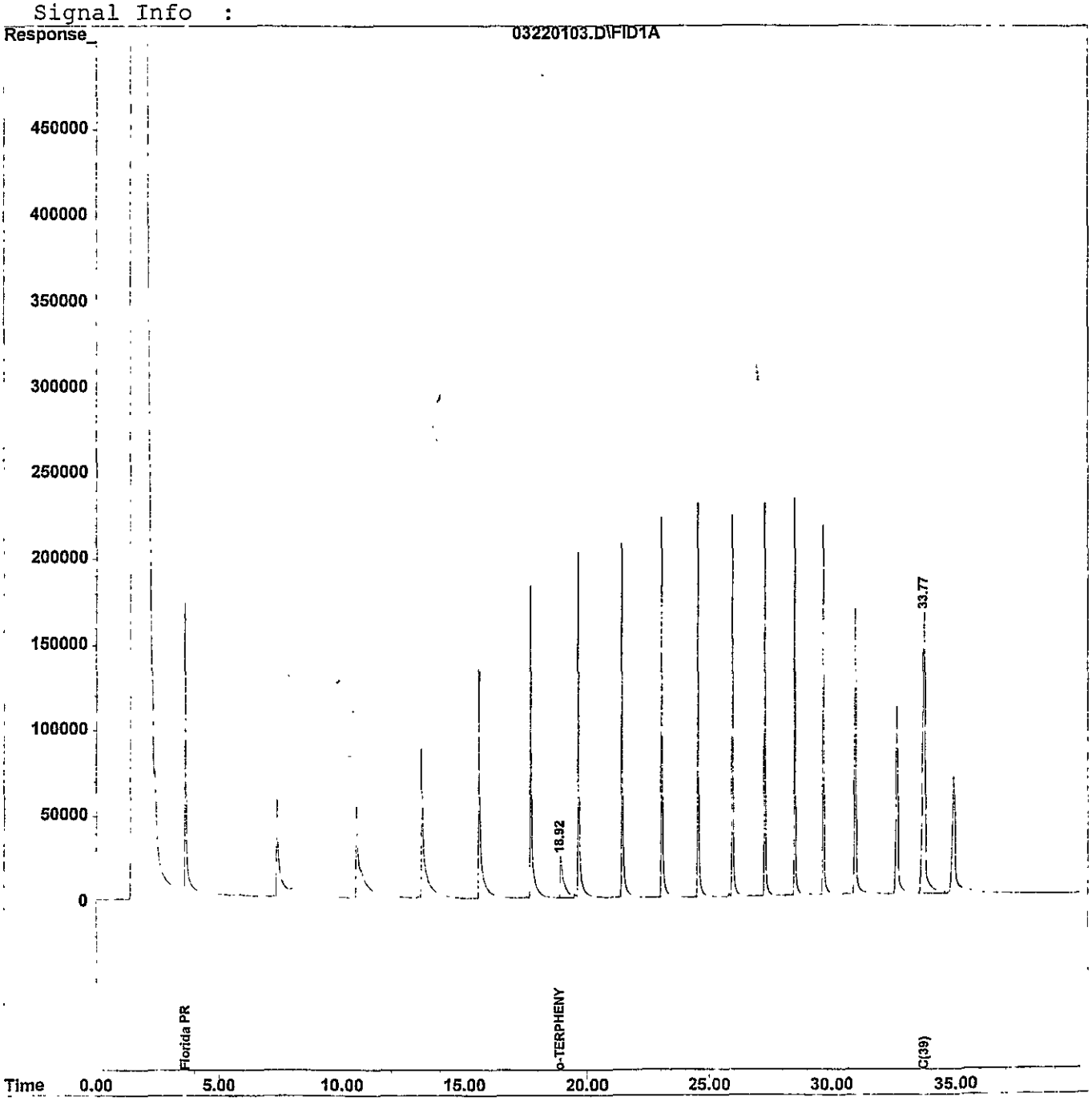
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220103.D Vial: 3
Acq On : 22 Mar 2001 10:24 Operator: RL
Sample : 2550PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 11:18 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220104.D Vial: 4
Acq On : 22 Mar 2001 11:12 Operator: RL
Sample : 4250PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:02 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2530154	39.303 ug/mlm
Spiked Amount 50.000		Recovery =	78.61%
3) SC C(39)	33.78	14035475	251.810 ug/mlm
Spiked Amount 300.000		Recovery =	83.94%
Target Compounds			
1) HM Florida PRO	3.70	228292638	3300.720 ug/ml

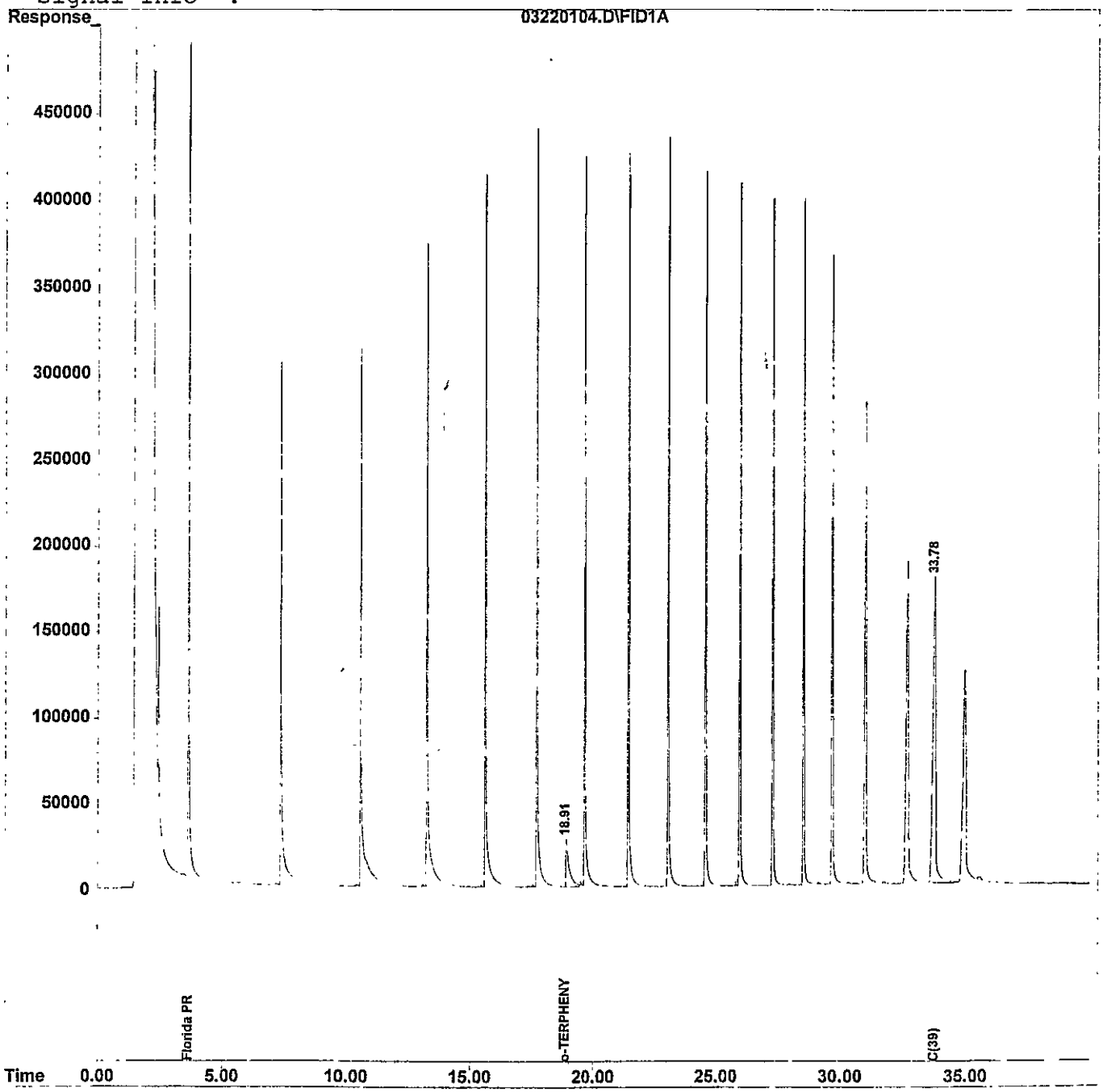
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220104.D Vial: 4
Acq On : 22 Mar 2001 11:12 Operator: RL
Sample : 4250PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:02 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220105.D Vial: 5
Acq On : 22 Mar 2001 12:01 Operator: RL
Sample : 5950PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:44 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2564073	39.830 ug/mlm
Spiked Amount 50.000		Recovery =	79.66%
3) SC C(39)	33.77f	13435562	241.047 ug/mlm
Spiked Amount 300.000		Recovery =	80.35%
Target Compounds			
1) HM Florida PRO	3.70	304533890	4403.038 ug/ml

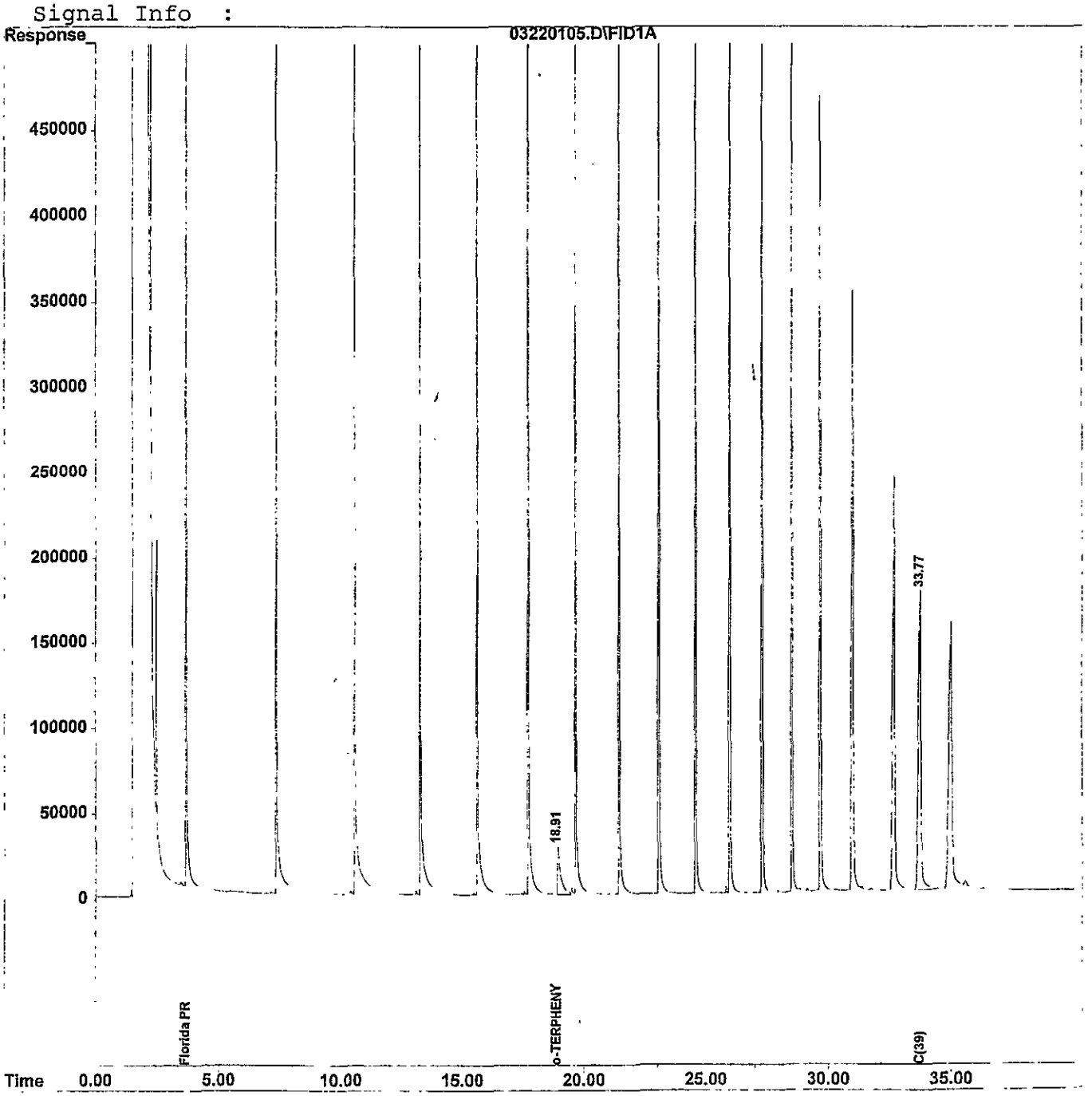
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220105.D Vial: 5
Acq On : 22 Mar 2001 12:01 Operator: RL
Sample : 5950PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:44 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220106.D Vial: 6
Acq On : 22 Mar 2001 12:49 Operator: RL
Sample : 7692PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 13:36 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2101045	32.637 ug/mlm
Spiked Amount 50.000		Recovery =	65.27%
3) SC C(39)	33.76f	11806484	211.820 ug/mlm
Spiked Amount 300.000		Recovery =	70.61%
Target Compounds			
1) HM Florida PRO	3.70	359979107	5204.681 ug/ml

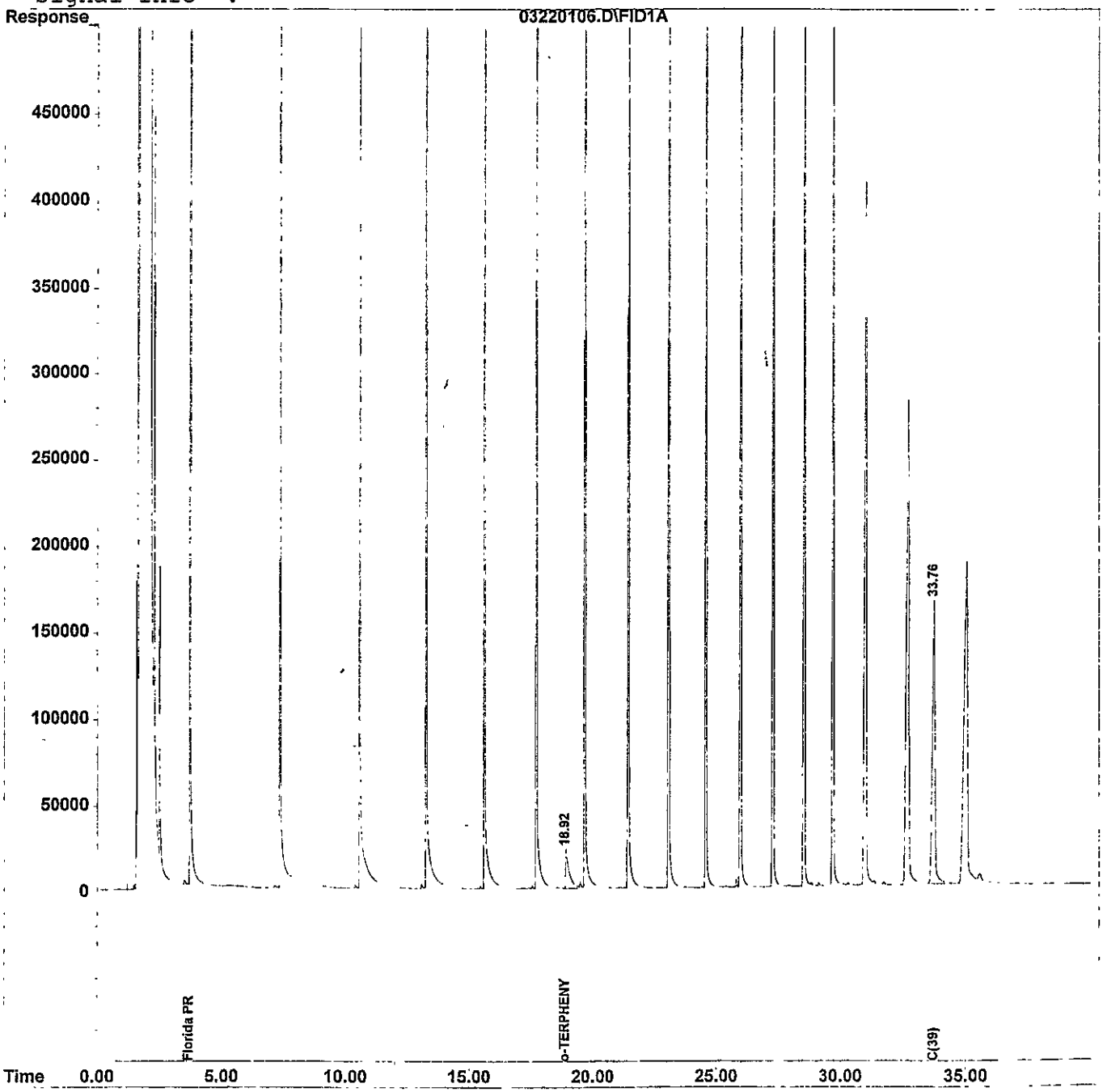
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220106.D Vial: 6
Acq On : 22 Mar 2001 12:49 Operator: RL
Sample : 7692PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 13:36 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220107.D Vial: 7
Acq On : 22 Mar 2001 13:38 Operator: RL
Sample : 4250PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 14:20 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2431101	50.336 ug/mlm
Spiked Amount 50.000		Recovery =	100.67%
3) SC C(39)	33.76	13192041	303.745 ug/mlm
Spiked Amount 300.000		Recovery =	101.25%
Target Compounds			
1) HM Florida PRO	3.70	231160012	4206.879 ug/ml

99% ✓RL

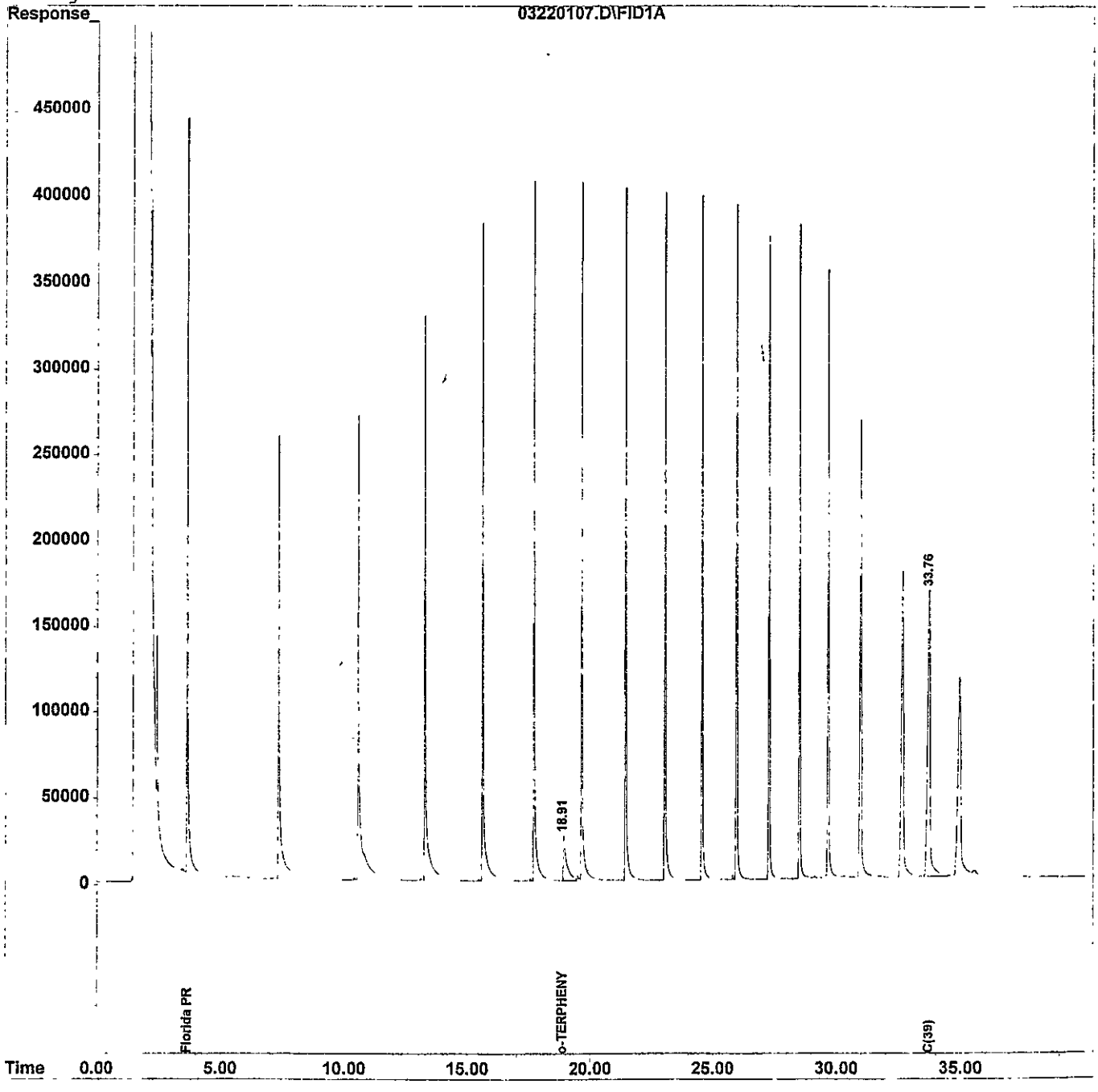
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220107.D Vial: 7
Acq On : 22 Mar 2001 13:38 Operator: RL
Sample : 4250PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 14:20 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [ ] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: VOA0103-004

Reported By: JP Date Reported: 03/27/2001

Department: VOA Project(s): 27286/27303/27307 PM: BJH

Discrepancy:
High RPD for Trichloroethene in MS/MSD. Separate sample vials were received for MS/MSD. Trichloroethene was in sample, but not at the same concentration in MS/MSD vials.

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
NOTE ON CASE NARRATIVE

Resolution recorded by: [signature] Date: 03.27.2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

File Name: Lab quality communication form.doc Date: 03/27/01

VOA GC/MS DATA CHECKLIST
SW-846-8260B

3-26-01

PROJECT #: 27303	METHOD: 8260B
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	Y	N	NA
Are all SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	Y	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	Y	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the Blank Spike?	Y	N	NA
Are all surrogate standard recoveries acceptable (Blank, Blank Spike, samples)?	Y	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	NA
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	Y	N	NA
Are all mistakes single lined out, initialled, & dated?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all analytes not to be reported lined off, initialed, and dated on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: AP	
Date: 3-26-01	Time: 10:25

PEER REVIEW

Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	Y	N	NA
Are all sample Internal Standard areas and retention times within method limits?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all applicable runlog sheets signed, dated, and included?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: VRR	
Date: 3-27-01	Time: 14:45

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC/MS VOLATILE INSTRUMENT C RUNLOG

Date: 3.22.01
Calib. File: 02280125.m
ACQ. Method: 03220125.m
BFB Std ID #: V01018

Internal Standard ID #: V01014
Surrogate Standard ID #: V01015
Calib.Standard ID #: V01019, V01004
LCS/MS Standard ID #: —

GC Conditions
BFB: 80°C-10°C/10min-155°C
Samples: 40°C(4m)-8°C/min-180°C(2m)

	CCV IS RT	CV IS Areas
#1	6.97	617279
#2	12.32	834225
#3	15.57	335244

Surrogate Limits

	DCE	TOL-d8	BFB
QC	78-114	88-106	85-111
Sample	78-124	84-108	86-112

MS Conditions
EMV: 1800
Tune File: BFB01.M
Scan Delay: 1.00 min

File Name	Project ID	Lab Sam. ID	Client Sam. ID	Matrix	Volume	DF	ALS #	pH	-Cl	Inj.Time	Comments
C19088	QC	BFB 50ng	—	—	2 ul	—	—	—	—	5:47	
C19089	↓	CCV 10ppb	—	W	25 ml	1	1	—	—	06:08	
C19090	↓	Blank	—	W	25 ml	1	2	—	—	07:22	QVW032201 C1
C19091	↓	LCS	—	W	25 ml	1	3	—	—	08:01	QVWLCS 032201C1
C19092	27286	AC09717	—	W	25 ml	1	4	1	X	08:48	
C19093	↓	AC09718	—	W	2.5 ml	10	5	1	X	09:13	
C19094	↓	AC09719	—	W	5 ml	5	6	1	X	09:39	
C19095	↓	AC09720	—	W	25 ml	1	7	1	X	10:05	
C19096	27303	AC09818	—	W	5 ml	5	8	1	X	10:30	
C19097	↓	AC09822	—	W	5 ml	5	9	1	X	10:56	
C19098	↓	AC09823	—	W	5 ml	5	10	1	X	11:21	
C19099	↓	AC09819	—	W	25 ml	1	11	1	X	11:47	NDIL
C19100	↓	AC09820	—	W	25 ml	1	12	1	X	12:15	
C19101	↓	AC09821	—	W	25 ml	1	13 ~~14~~	1	X	12:41	VRR 3.22.01
C19102	↓	AC09824	—	W	25 ml	1	15	1	X	13:06	
C19103	↓	AC09826	—	W	25 ml	1	16	1	X	13:32	
C19104	↓	AC09825	—	W	25 ml	1	1	1	X	13:58	
C19105	27307	AC09841	—	W	2.5 ml	10	2	1	X	14:24	
C19106	↓	AC09842	—	W	2.5 ml	10	3	1	X	14:49	
C19107	↓	AC09845	—	W	2.5 ml	10	4	1	X	15:15	
C19108	↓	AC09841	—	W	25 ml	1	5	1	X	15:41	
C19109	27303	AC09819	—	W	5 ml	5	6	1	X	16:06	
C19110	27307	AC09839	—	W	25 ml	1	7	1	X	16:32	
C19111	27307	AC09843	MS —	W	25 ml	1	8	1	X	16:58	
C19112	↓	AC09844	MSD —	W	25 ml	1	9	1	X	17:24	
C											
C											

Note: NDIL=Need Dilution NRI=Needs Reinjection MI=Matrix Interferences NC=Needs Concentrated

VRR 3.23.01

Analyst / Date: VRR 3.23.01

Reviewer / Date: _____

Logbook ID: VOC-118

Page 020

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC/MS VOLATILE INSTRUMENT C RUNLOG

Date: 3·23·01
Calib. File: 02280125·M
ACQ. Method: 032301 25·M
BFB Std ID #: V01018

Internal Standard ID #: V01014
Surrogate Standard ID #: V01015
Calib.Standard ID #: V01019, V01004
LCS/MS Standard ID #: —

GC Conditions
BFB: 80°C-10°C/10min-155°C
Samples: 40°C(4m)-8°C/min-180°C(2m)

	CCV IS RT	CV IS Areas
#1	6·96	552290
#2	12·32	759182
#3	15·56	301723

Surrogate Limits

	DCE	TOL-d8	BFB
QC	78-114	88-106	85-111
Sample	78-124	84-108	86-112

MS Conditions
EMV: 1800
Tune File: BF601·M
Scan Delay: 1·00 min

File Name	Project ID	Lab Sam. ID	Client Sam. ID	Matrix	Volume	DF	ALS #	pH	-Cl	Inj.Time	Comments
C 19113	QC	BFB 50ng	—	—	2 ul	—	—	—	—	10:30	
C 19114	↓	CCV 10ppb	—	W	25 ml	1	1	—	—	11:21	
C 19115	↓	Blank	—	W	25 ml	1	2	—	—	12:34	QVW032301 d1
C 19116	↓	LCS	—	W	25 ml	1	3	—	—	13:08	
C 19117	27303	Ac09824	—	W	25 ml	1	4	1	X	14:25	NDIL
C 19118	27307	Ac09844	MSD —	W	25 ml	1	5	1	X	14:50	
C 19119	↓	Ac09842	—	W	25 ml	1	6	1	X	15:28	
C 19120	↓	Ac09840	—	W	25 ml	1	7	1	X	15:54	
C 19121	27319	Ac09956	—	W	25 ml	1	8	1	X	16:19	
C 19122	↓	Ac09957	—	W	25 ml	1	9	1	X	16:45	
C 19123	↓	Ac09958	—	W	25 ml	1	10	1	X	17:10	
C 19124	↓	Ac09959	—	W	25 ml	1	11	1	X	17:36	
C 19125	↓	Ac09960	—	W	25 ml	1	12	1	X	18:02	
C 19126	27307	Ac09846	—	W	25 ml	1	14	1	X	18:53	
C 19127	27319	Ac09961	—	W	25 ml	1	15	1	X	19:18	
C 19128	↓	Ac09962	—	W	25 ml	1	16	1	X	19:44	
C 19129	27307	Ac09824	—	W	5 ml	5	1	1	X	20:09	
C 19130	27319	Ac09963	—	W	25 ml	1	2	1	X	20:35	
C 19131	↓	Ac09956	MS —	W	25 ml	1	3	1	X	—	Data not
C 19132	↓	Ac09956	MSD —	W	25 ml	1	4	1	X	—	collected
C											
C											
C											
C											
C											
C											
C											

Note: NDIL=Need Dilution NRI=Needs Reinjection MI=Matrix Interferences NC=Needs Concentrated

VRR 3-25-01

Analyst / Date: VRR 3·25·01

Reviewer / Date: _____

Logbook ID: VOC-118

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

VOA SAMPLE BATCHBOOK

Inst. ID: VOA-C **Batch ID:** C032201 25. **Matrix:** water - 25 ml

LCS/BS ID: C19091 **MS ID:** Aco9843MS **MSD ID:** Aco9844MSD

	Lab. Proj. #	LIMS ID #	Analysis Date	Comment
1	27286	Aco 9717	3·22·01	
2		Aco 9718		
3		Aco9719		
4		Aco9720		
5	27303	Aco9818		
6		Aco9819		
7		Aco9820		
8		Aco9821		
9		Aco9822		
10		Aco9823		
11		Aco9824		
12		Aco9825		
13		Aco9826		
14	27307	Aco9841		
15		Aco9842		
16		Aco9843MS		
17		Aco9844MSD		
18		Aco9845		
19	27307	Aco9840	3·23·01	
20		Aco9846		

VRR
3·23·01

Review: _____ **Date:** _____

Page 00001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19096.D Vial: 8
Acq On : 03/22/01 10:30 Operator: JP/VRR
Sample : AC09818 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:14 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.03	168	542497	10.00 ug\L	0.06
45) Chlorobenzene-d5	12.33	117	666652	10.00 ug\L	0.01
61) 1,4-Dichlorobenzene-d4	15.57	152	238738	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.50	65	198295	9.10 ug\L	0.06
Spiked Amount 10.000	Range 80 - 120		Recovery =	91.00%	
46) Toluene-d8	10.29	98	1029710	10.04 ug\L	0.03
Spiked Amount 10.000	Range 87 - 104		Recovery =	100.40%	
66) Bromofluorobenzene	13.97	95	280445	9.60 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery =	96.00%	
Target Compounds					Qvalue
16) Methylene Chloride	3.98	86	15436	1.12 ug\L	94 5.6J
36) Trichloroethene	8.52	95	414403	13.22 ug\L	99

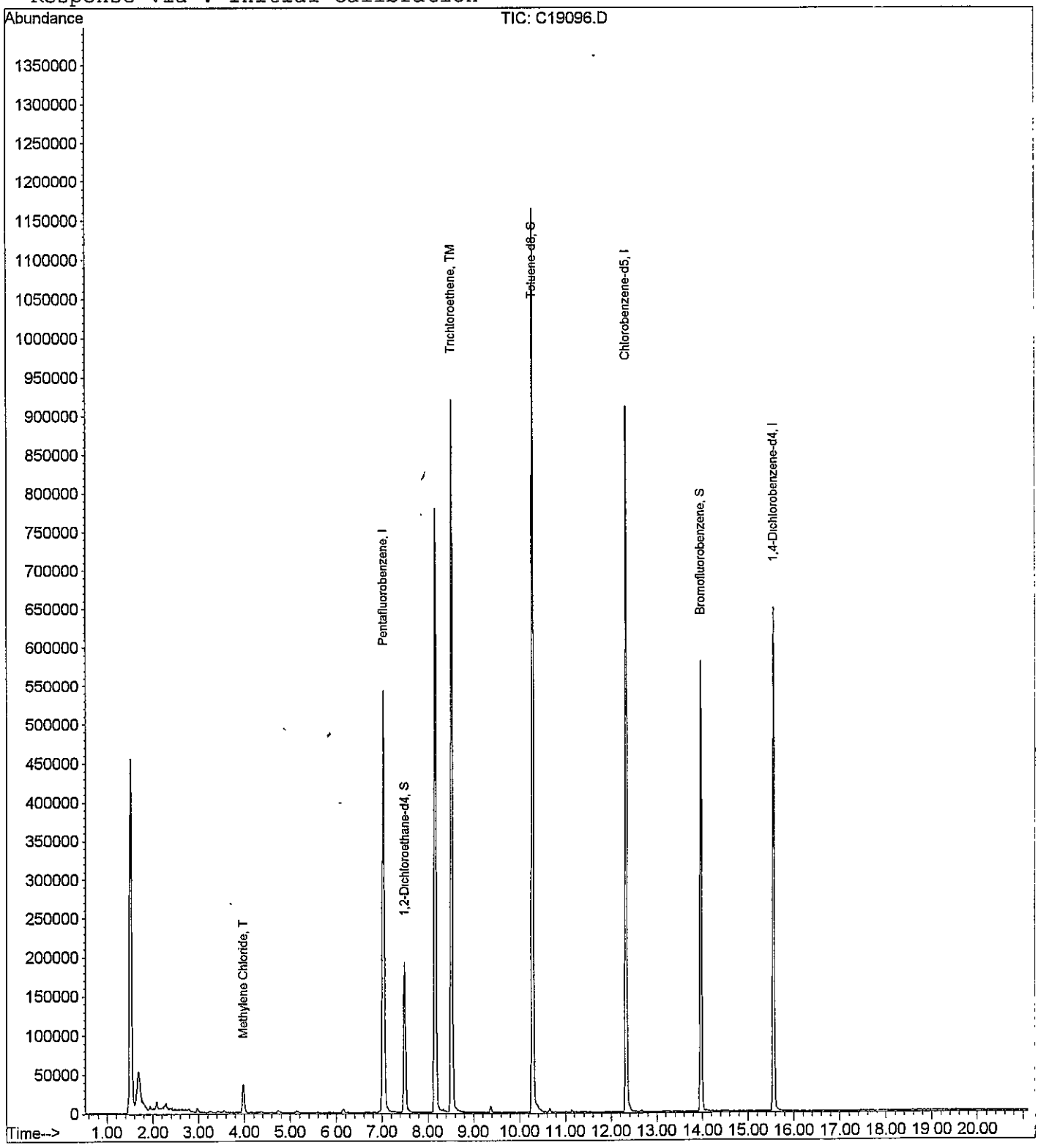
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19096.D Vial: 8
Acq On : 03/22/01 10:30 Operator: JP/VRR
Sample : AC09818 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:14 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19096.D Vial: 8
Acq On : 03/22/01 10:30 Operator: JP/VRR
Sample : AC09818 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

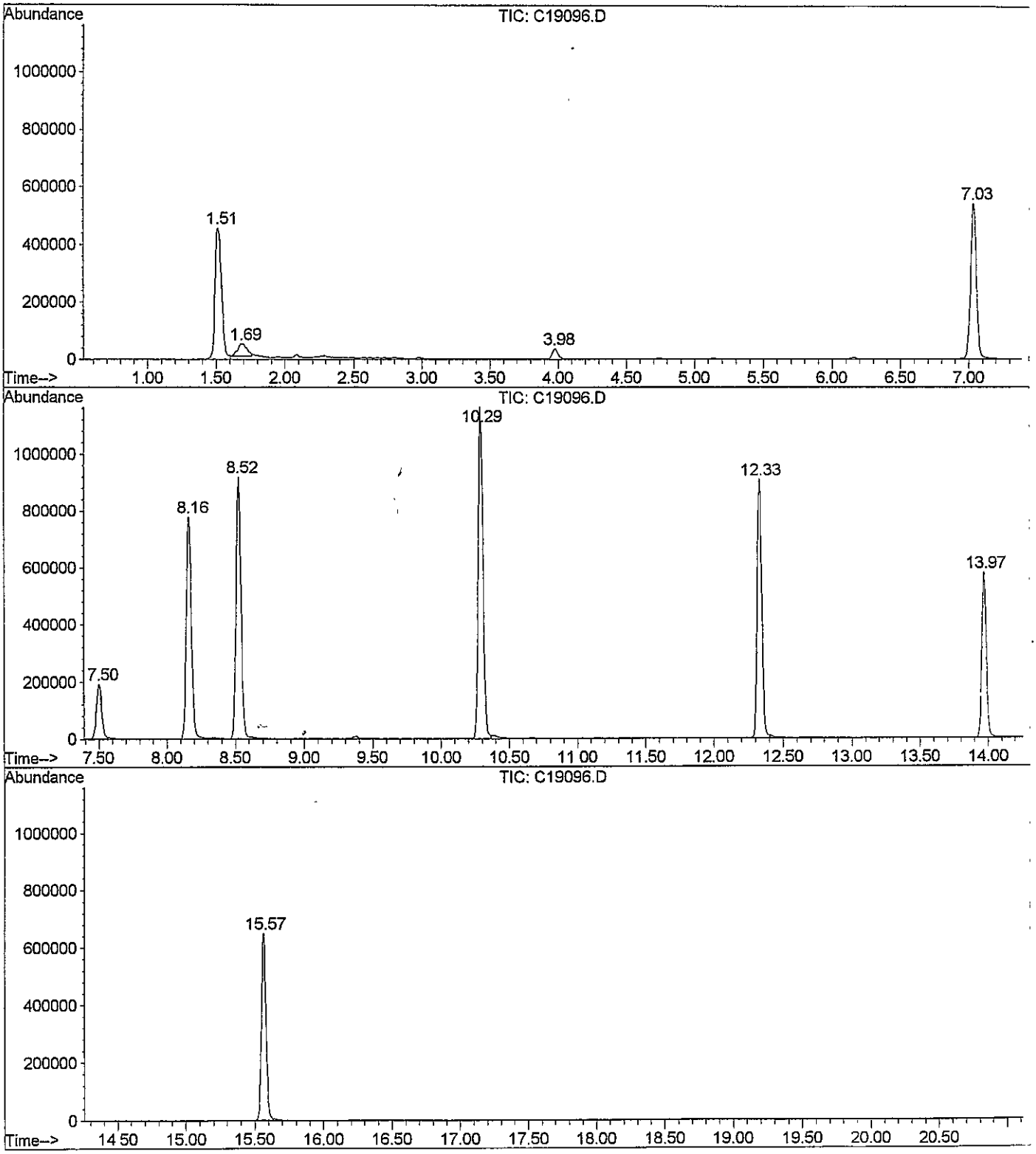
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.512	148	165	180	rBV	455569	1503243	54.92%	9.414%
2	1.686	182	194	206	rVV	42546	204099	7.46%	1.278%
3	3.978	566	575	592	rVB3	36359	109244	3.99%	0.684%
4	7.033	1069	1083	1106	rVB	540265	1617776	59.11%	10.131%
5	7.502	1151	1161	1172	rBV	191640	516135	18.86%	3.232%
6	8.164	1255	1271	1288	rBV	779078	2034380	74.33%	12.740%
7	8.525	1320	1331	1352	rBV	919217	2322024	84.84%	14.542%
8	10.293	1614	1625	1637	rBV	1164307	2737088	100.00%	17.141%
9	12.332	1951	1964	1976	rBV	910889	2079196	75.96%	13.021%
10	13.973	2226	2237	2251	rBV	581102	1336215	48.82%	8.368%
11	15.567	2490	2502	2513	rBV	649386	1508541	55.11%	9.447%

Sum of corrected areas: 15967941

C19096.D 03220125.M Thu Mar 22 13:16:13 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19096.D
Operator : JP/VRR
Acquired : 22 Mar 2001 10:30 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09818 5ml DF =5
Misc Info : 27303/C03220125
Vial Number: 8
Quant File :03220125.RES (RTE Integrator)



C19096.D 03220125.M Thu Mar 22 13:16:14 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19096.D
Acq On : 03/22/01 10:30
Sample : AC09818 5ml DF =5
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 8
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

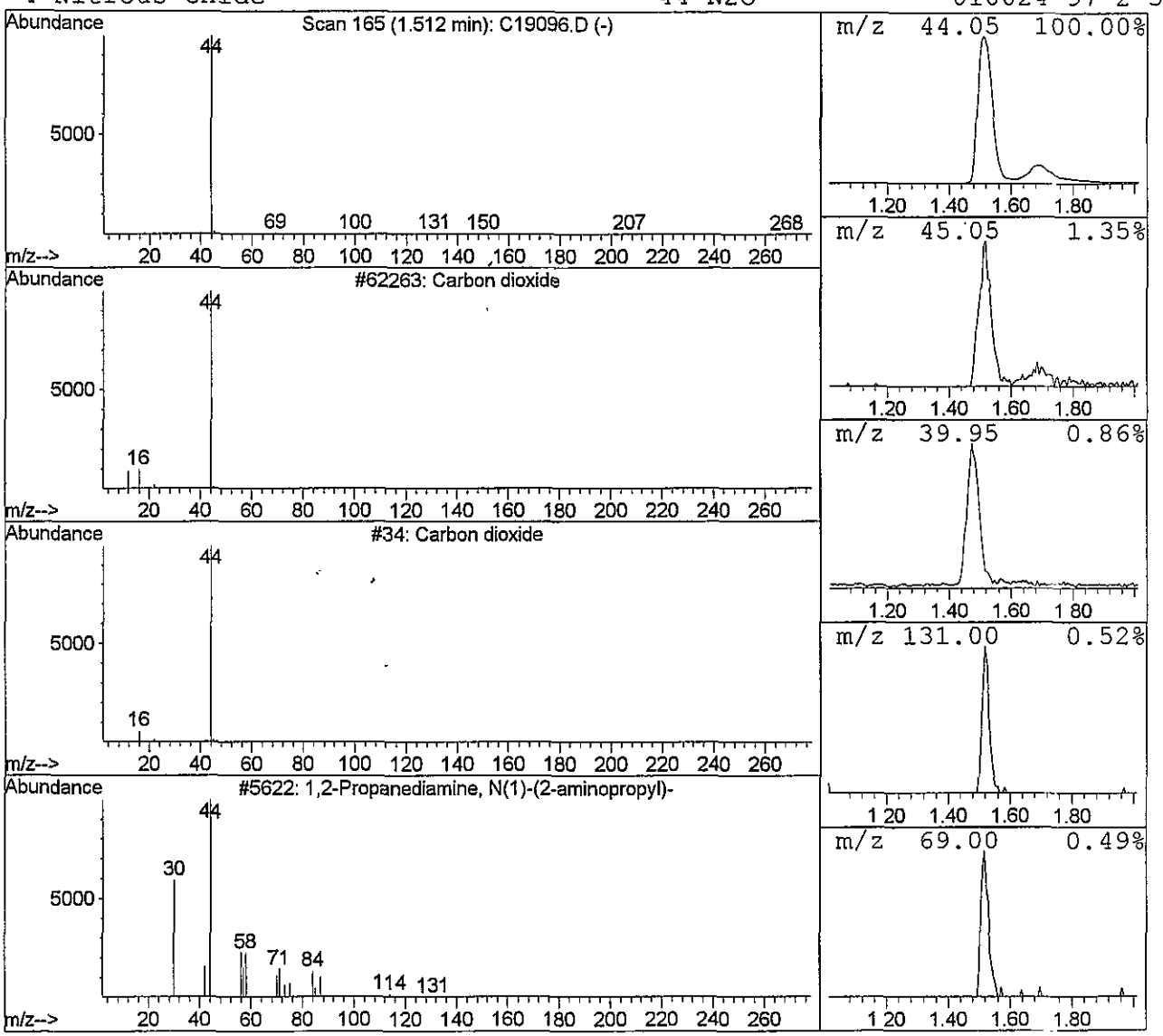
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.51	15032400.00 ug\L	15032401.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19096.D Vial: 8
Acq On : 03/22/01 10:30 Operator: JP/VRR
Sample : AC09818 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

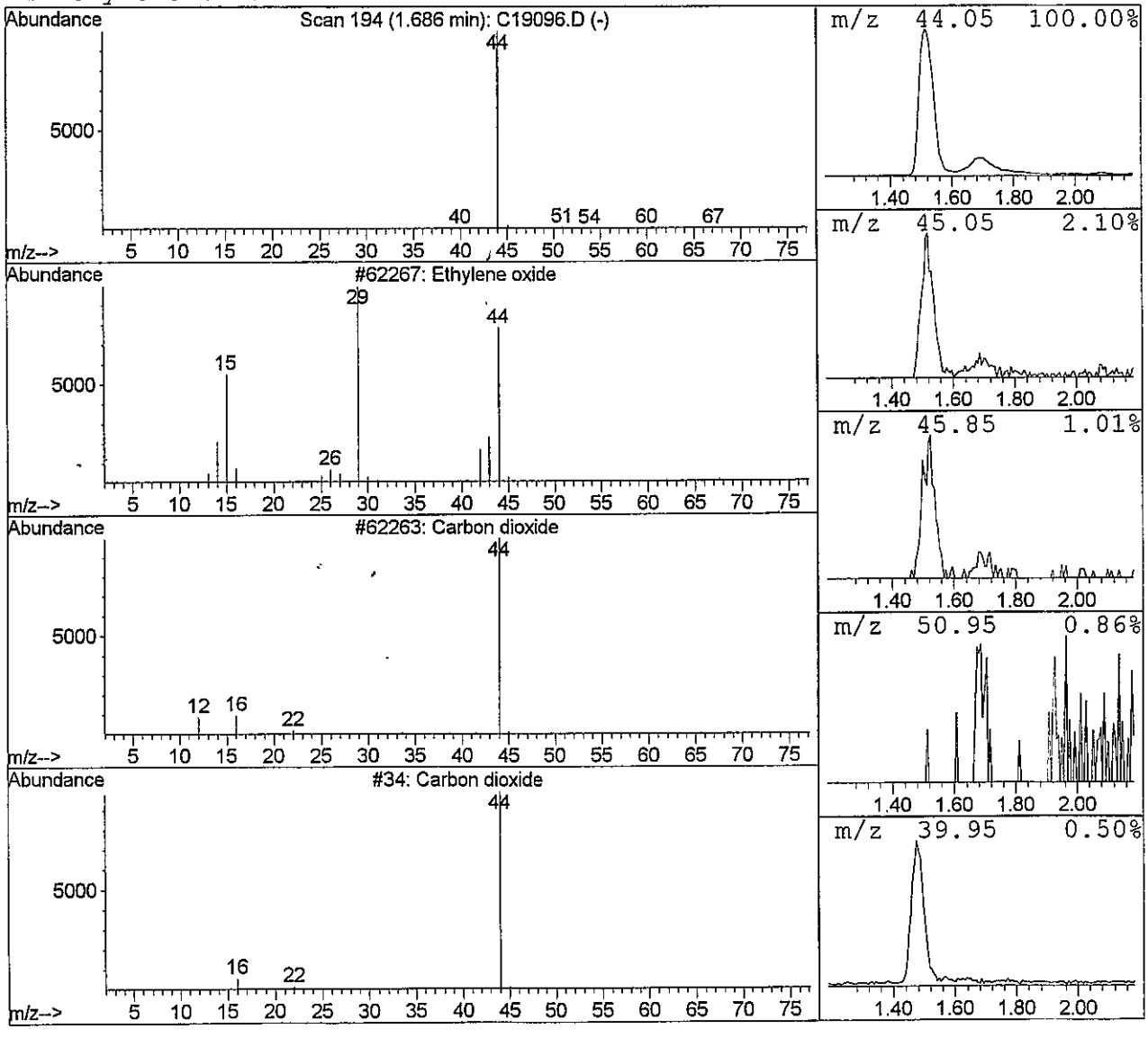
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.69	2040990.00 ug\L	204099	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19096.D Vial: 8
Acq On : 03/22/01 10:30 Operator: JP/VRR
Sample : AC09818 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

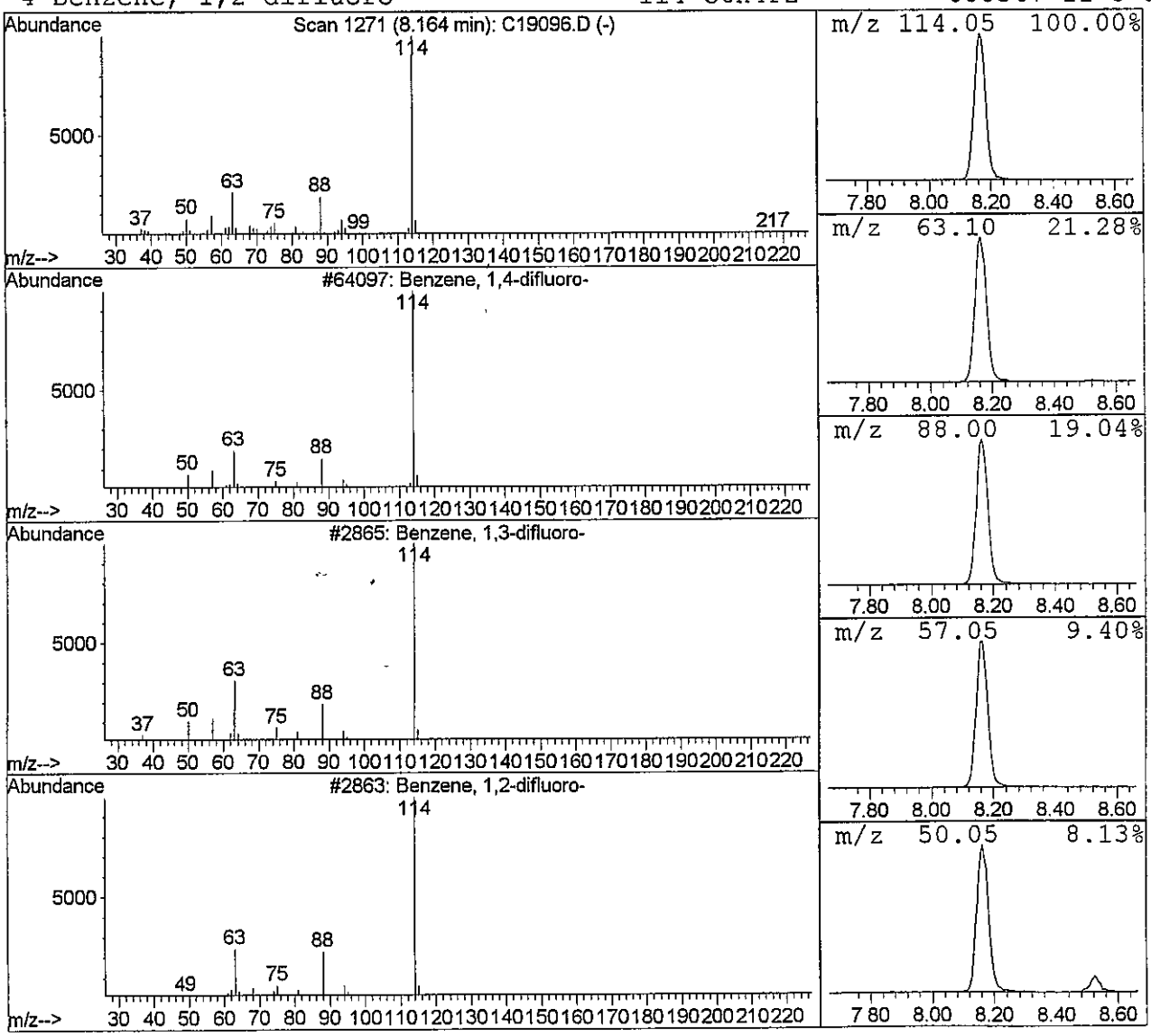
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.16	12.58 ug\L	2034380	Pentafluorobenzene	7.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 10:30
Data File: C:\HPCHEM\1\DATA\032201\C19096.D
Name: AC09818 5ml DF =5
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.51	15032400.0	ug\L	1503240	ISTD01	0.00	1	10.0
Ethylene oxide	1.69	2040990.0	ug\L	204099	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.16	12.6	ug\L	2034380	ISTD02	7.03	1617780	10.0

C19096.D 03220125.M Thu Mar 22 13:16:20 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19099.D Vial: 11
Acq On : 03/22/01 11:47 Operator: JP/VRR
Sample : AC09819 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:23 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	455023	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	576030	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	212936	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	187534	10.26 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.60%		
46) Toluene-d8	10.27	98	919453	10.37 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.70%		
66) Bromofluorobenzene	13.97	95	261635	10.04 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.40%		
Target Compounds					Qvalue
16) Methylene Chloride	3.86	86	6957	0.60 ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	27874	1.32 ug\L	86
36) Trichloroethene	8.48	95	1953480	74.29 ug\L	99

0.60J
1.3

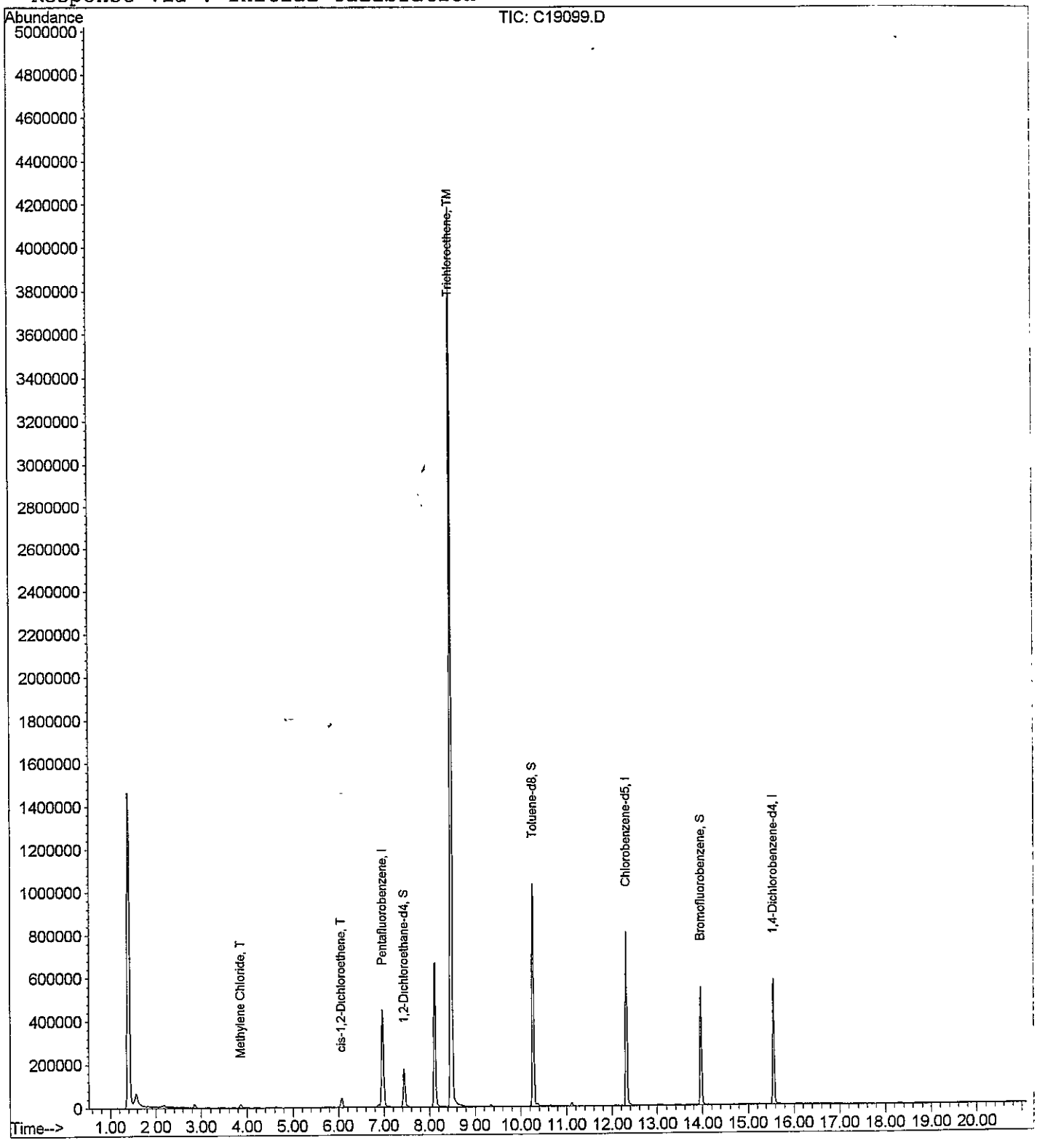
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19099.D Vial: 11
Acq On : 03/22/01 11:47 Operator: JP/VRR
Sample : AC09819 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:23 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19099.D
Acq On : 03/22/01 11:47
Sample : AC09819 25ml DF =1
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 11
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

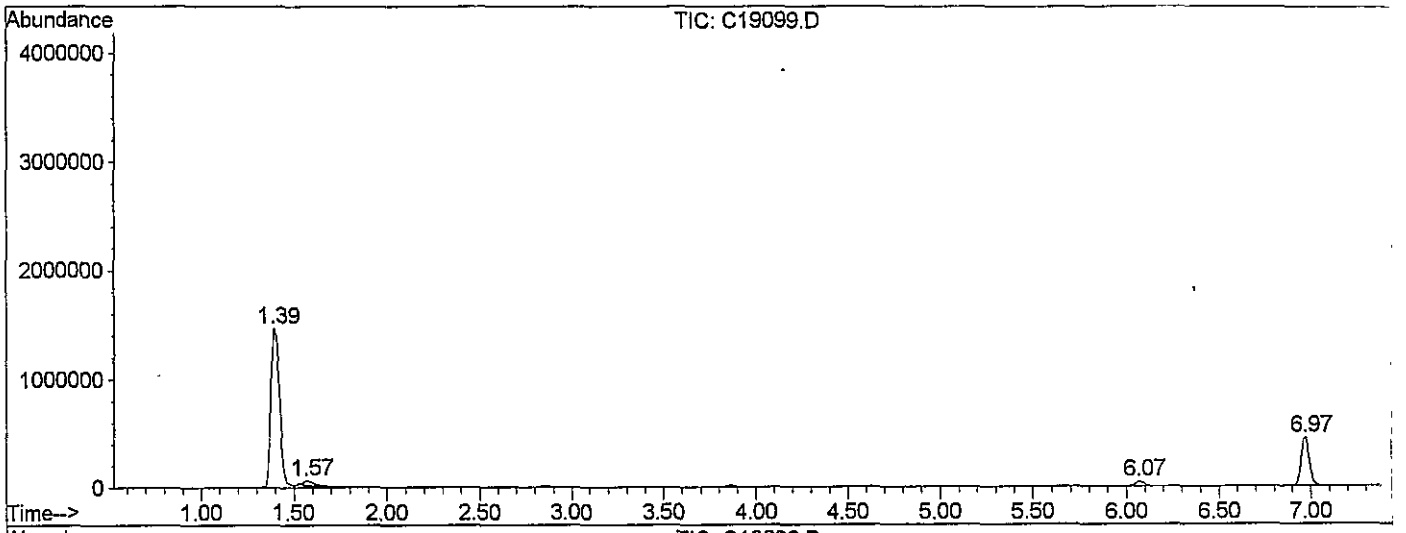
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.391	133	145	163	rBV	1464311	4817988	43.77%	18.172%
2	1.572	171	175	189	rVB	50107	161417	1.47%	0.609%
3	6.070	911	923	934	rBV3	41289	129302	1.17%	0.488%
4	6.972	1062	1073	1088	rVB	443183	1336379	12.14%	5.040%
5	7.448	1141	1152	1162	rBV2	175310	487586	4.43%	1.839%
6	8.121	1253	1264	1278	rBV	667092	1721277	15.64%	6.492%
7	8.482	1312	1324	1346	rBV	4183203	11007824	100.00%	41.518%
8	10.268	1612	1621	1633	rBV	1032758	2442388	22.19%	9.212%
9	12.319	1950	1962	1979	rBV	807157	1815465	16.49%	6.847%
10	13.967	2226	2236	2252	rBV2	550306	1256824	11.42%	4.740%
11	15.567	2493	2502	2515	rBV	581325	1336880	12.14%	5.042%

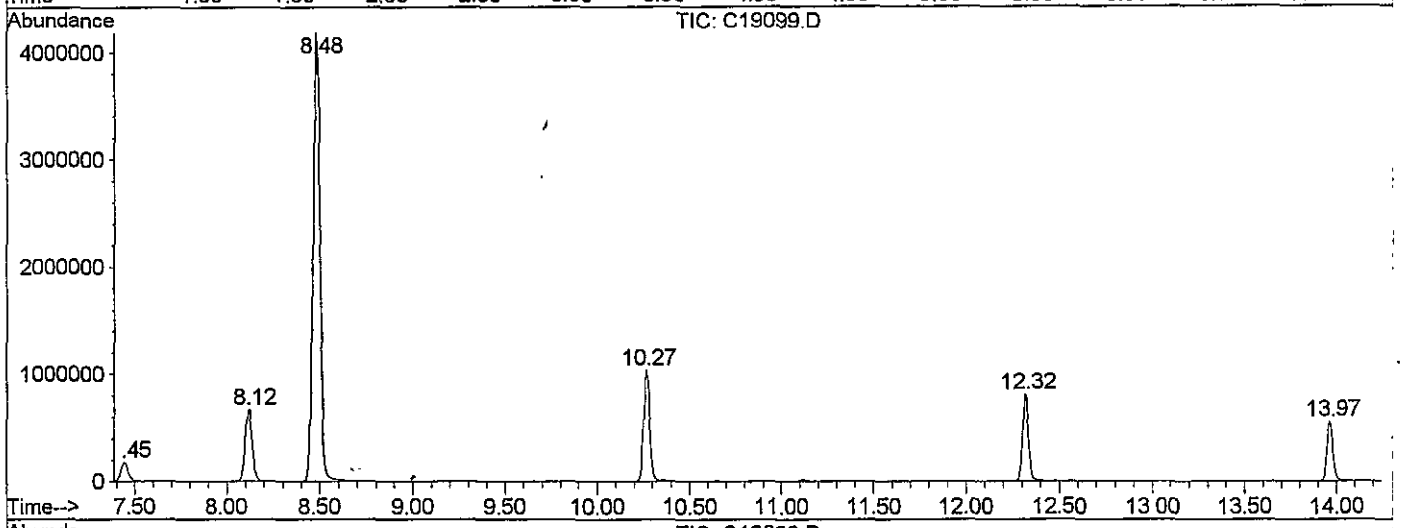
Sum of corrected areas: 26513330

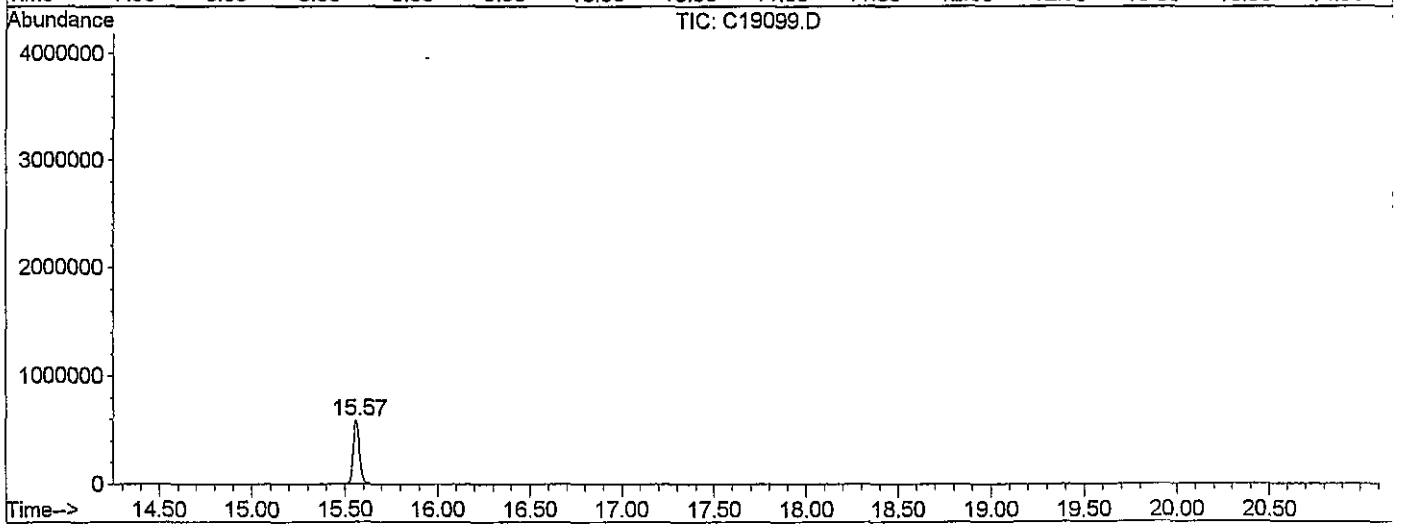
C19099.D 03220125.M Thu Mar 22 13:24:39 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19099.D
Operator : JP/VRR
Acquired : 22 Mar 2001 11:47 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09819 25ml DF =1
Misc Info : 27303/C03220125
Vial Number: 11
Quant File :03220125.RES (RTE Integrator)







C19099.D 03220125.M Thu Mar 22 13:24:40 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19099.D Vial: 11
Acq On : 03/22/01 11:47 Operator: JP/VRR
Sample : AC09819 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

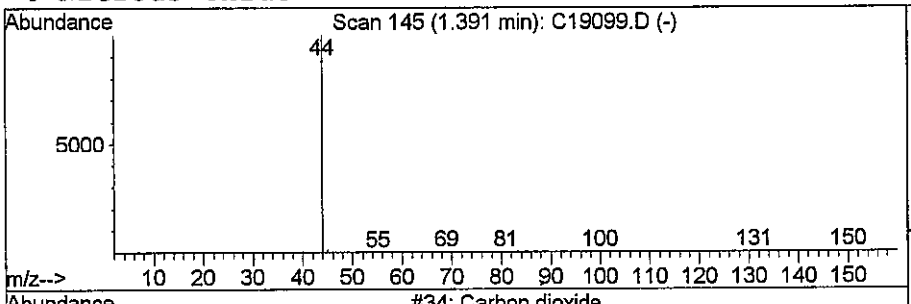
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

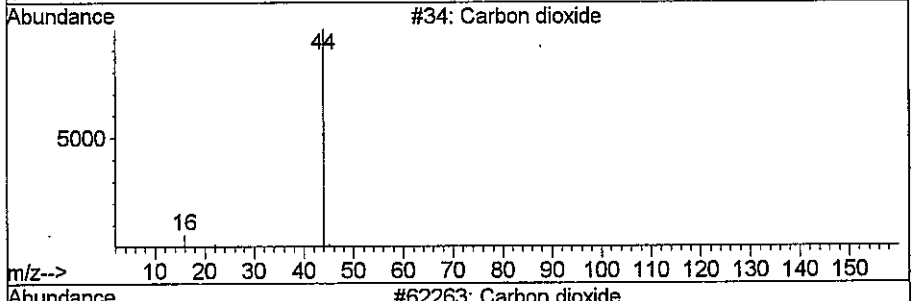
****

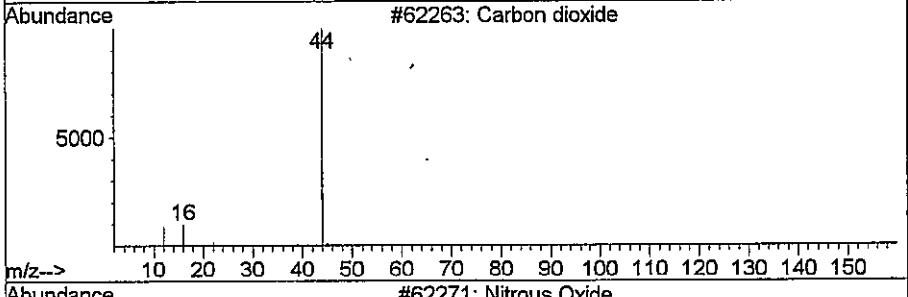
Peak Number 1 Carbon dioxide Concentration Rank 1

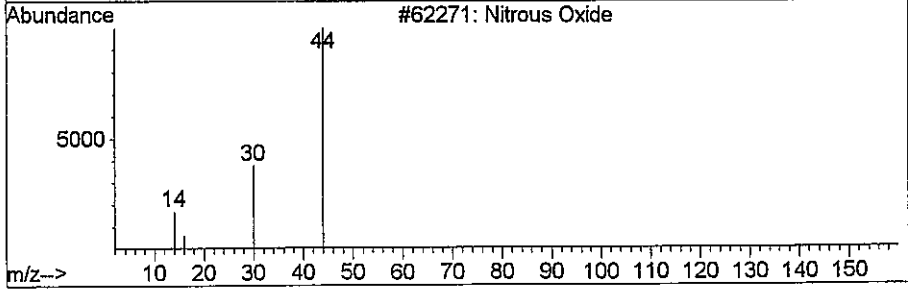
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.39	48179900.00 ug\L	48179901	4-Difluorobenzene	0.00

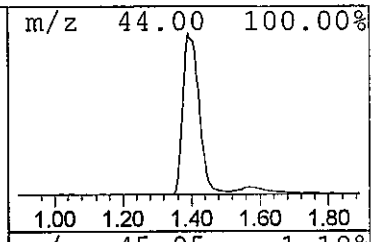
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

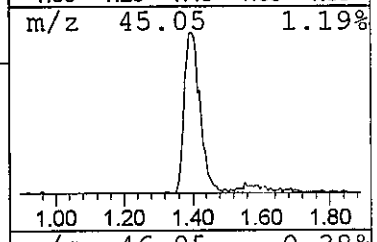


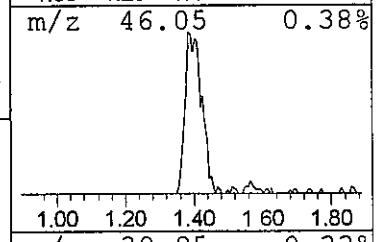


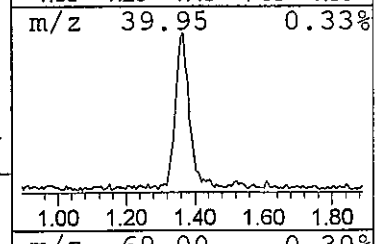


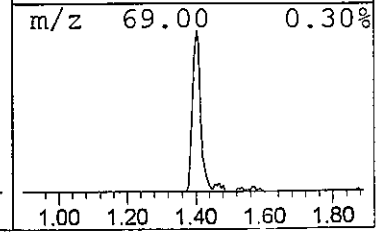












Data File : C:\HPCHEM\1\DATA\032201\C19099.D Vial: 11
Acq On : 03/22/01 11:47 Operator: JP/VRR
Sample : AC09819 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

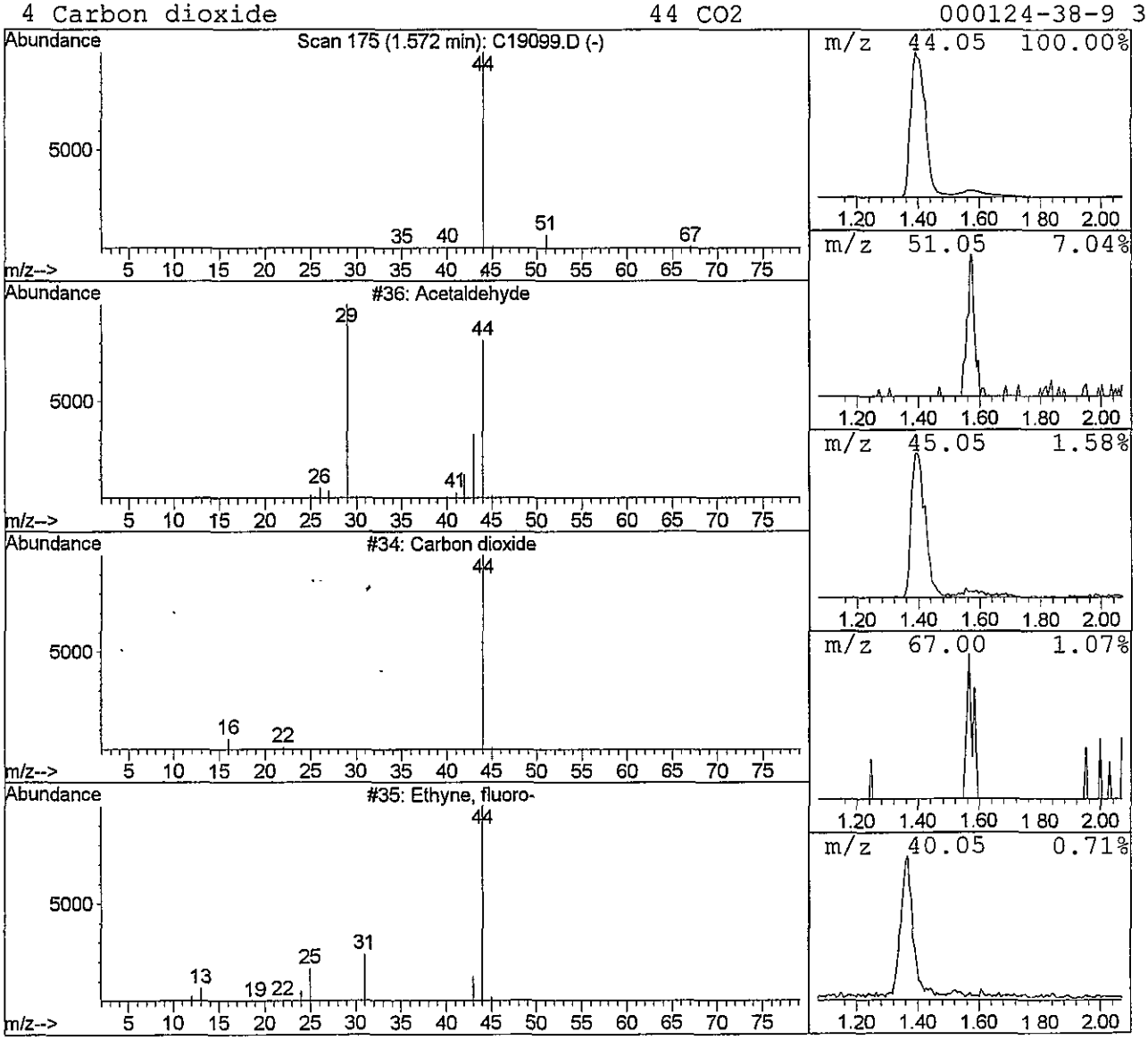
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Acetaldehyde Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1614170.00 ug\L	161417	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	4
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Ethyne, fluoro-	44	C2HF	002713-09-9	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Data File : C:\HPCHEM\1\DATA\032201\C19099.D Vial: 11
Acq On : 03/22/01 11:47 Operator: JP/VRR
Sample : AC09819 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

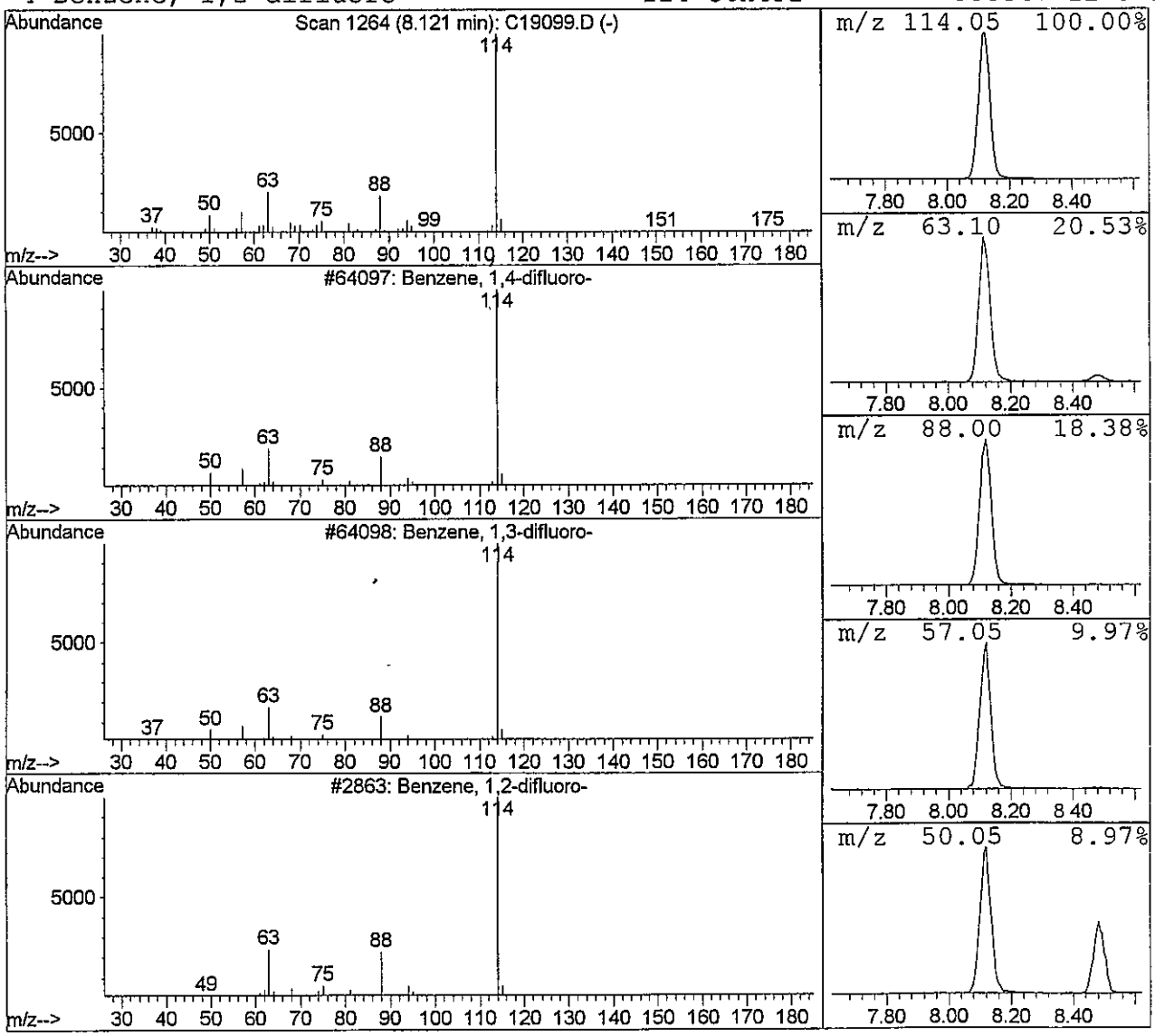
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.88 ug\L	1721280	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 11:47
Data File: C:\HPCHEM\1\DATA\032201\C19099.D
Name: AC09819 25ml DF =1
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.39	48179900.0	ug\L	4817990	ISTD01	0.00	1	10.0
Acetaldehyde	1.57	1614170.0	ug\L	161417	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.9	ug\L	1721280	ISTD02	6.97	1336380	10.0

C19099.D 03220125.M Thu Mar 22 13:24:46 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19109.D Vial: 6
Acq On : 03/22/01 16:06 Operator: JP/VRR
Sample : AC09819 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:36 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	430254	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.33	117	554585	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	218273	10.00 ug\L	0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	162098	9.38 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.80%		
46) Toluene-d8	10.27	98	798342	9.35 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.50%		
66) Bromofluorobenzene	13.97	95	233580	8.75 ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 87.50%		
Target Compounds					Qvalue
36) Trichloroethene	8.49	95	281311	11.31 ug\L	99

57

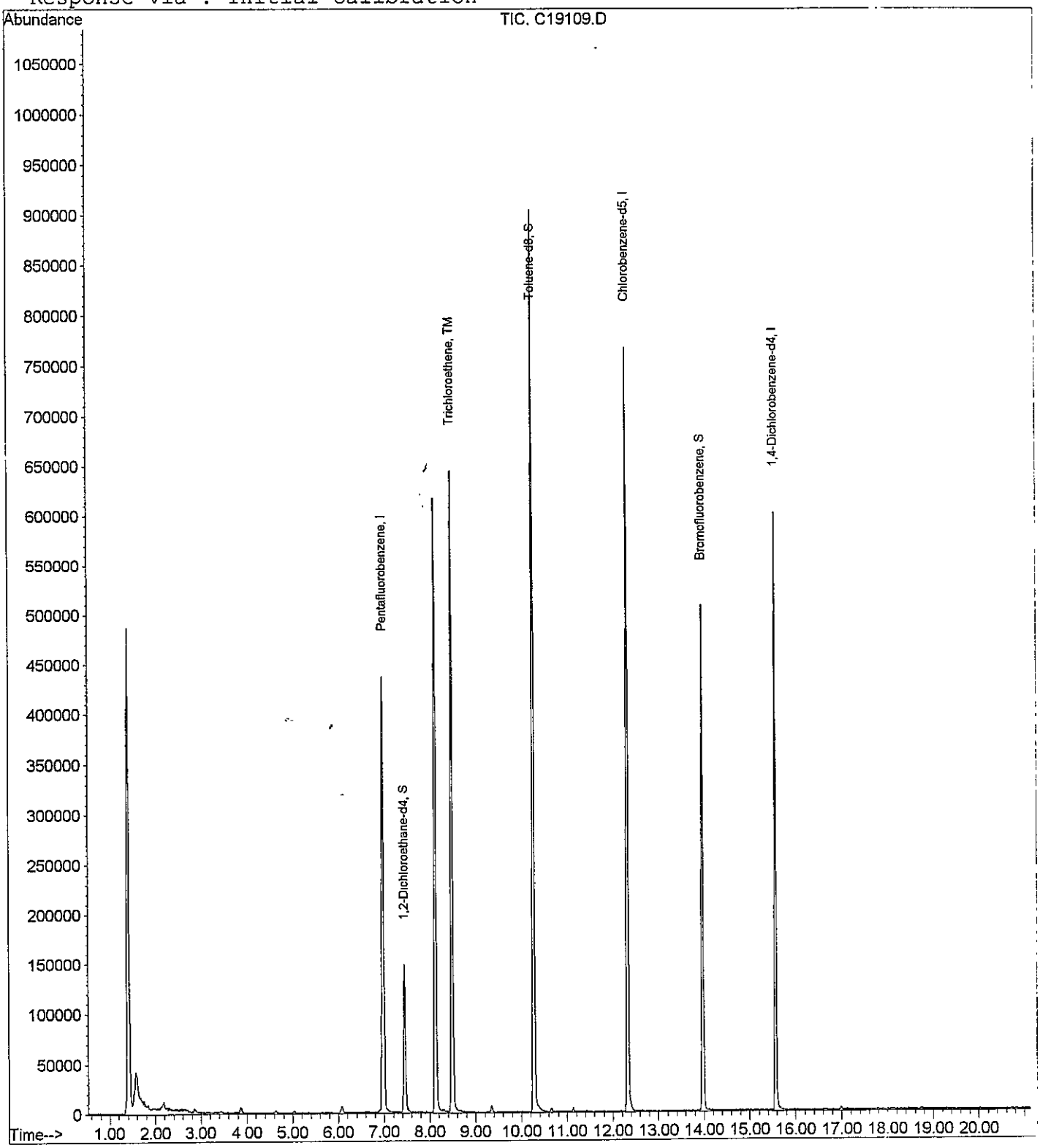
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19109.D Vial: 6
Acq On : 03/22/01 16:06 Operator: JP/VRR
Sample : AC09819 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:36 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:26 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	521142	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	670654	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	249221	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	190707	9.11 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.10%		
46) Toluene-d8	10.27	98	1035060	10.03 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.30%		
66) Bromofluorobenzene	13.97	95	292599	9.60 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.00%		
Target Compounds					Qvalue
16) Methylene Chloride	3.86	86	7593	0.57 ug\L	95 0.57J
23) 2-Butanone	6.16	72	1835m	2.70 ug\L	2.7
36) Trichloroethene	8.48	95	379935	12.62 ug\L	99 13

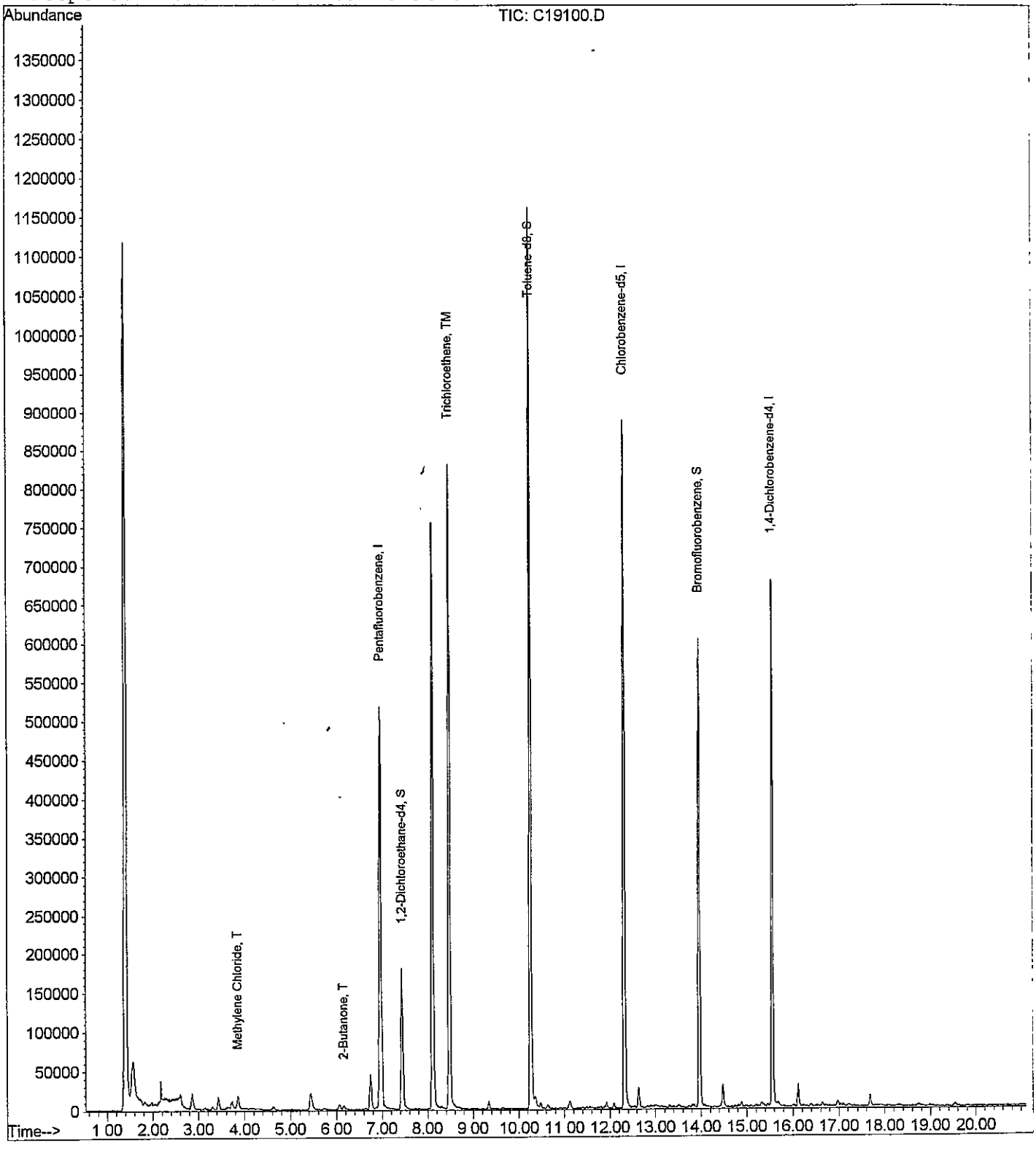
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:26 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

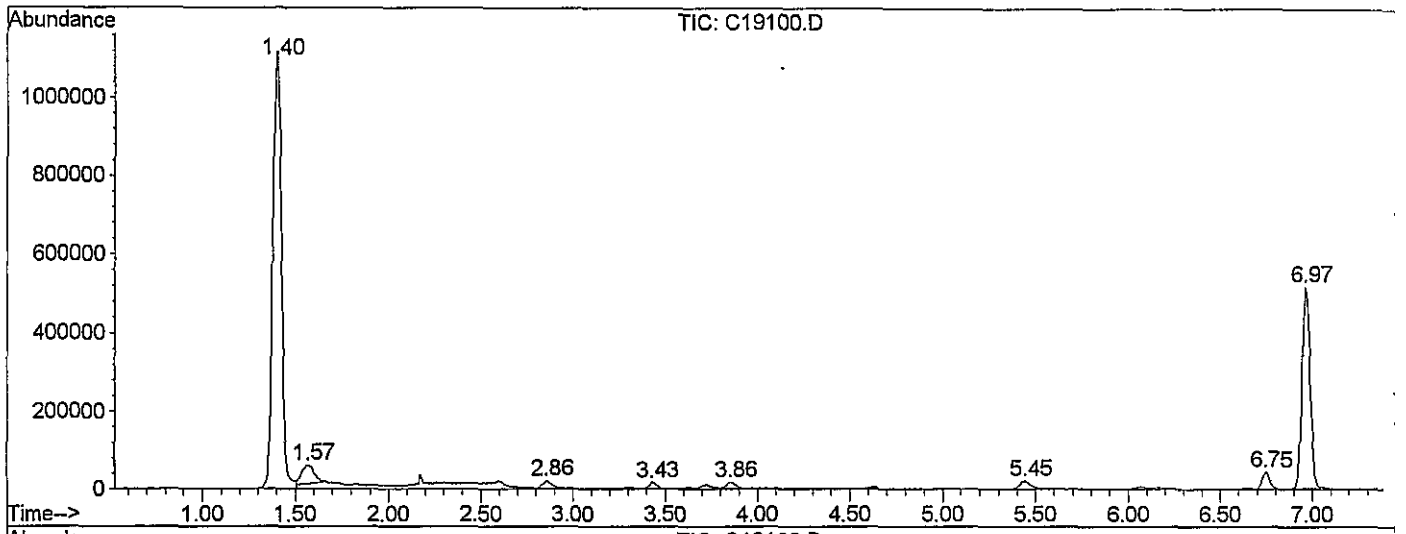
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.404	130	147	164	rBV	1117654	3614230	100.00%	19.780%
2	1.572	164	175	188	rVB2	46387	224265	6.21%	1.227%
3	2.859	380	389	400	rBV3	19284	53763	1.49%	0.294%
4	3.431	476	484	494	rBV	16318	40633	1.12%	0.222%
5	3.858	546	555	567	rVB2	16506	50197	1.39%	0.275%
6	5.445	808	819	829	rBV6	20733	80379	2.22%	0.440%
7	6.750	1027	1036	1045	rBV2	44925	124850	3.45%	0.683%
8	6.967	1059	1072	1085	rBV	514981	1549448	42.87%	8.480%
9	7.442	1140	1151	1161	rBV2	179372	501744	13.88%	2.746%
10	8.116	1252	1263	1280	rBV	754380	1943505	53.77%	10.636%
11	8.483	1308	1324	1340	rBV	830254	2150047	59.49%	11.767%
12	10.269	1610	1621	1632	rBV	1161669	2715081	75.12%	14.859%
13	12.320	1952	1962	1975	rBV	887839	2096121	58.00%	11.472%
14	12.638	2007	2015	2024	rBV6	26145	63789	1.76%	0.349%
15	13.967	2226	2236	2250	rBV2	603116	1386503	38.36%	7.588%
16	14.485	2311	2322	2328	rBV2	28592	62021	1.72%	0.339%
17	15.561	2493	2501	2515	rBV	674862	1551552	42.93%	8.491%
18	16.121	2587	2594	2601	rBV3	29149	63975	1.77%	0.350%

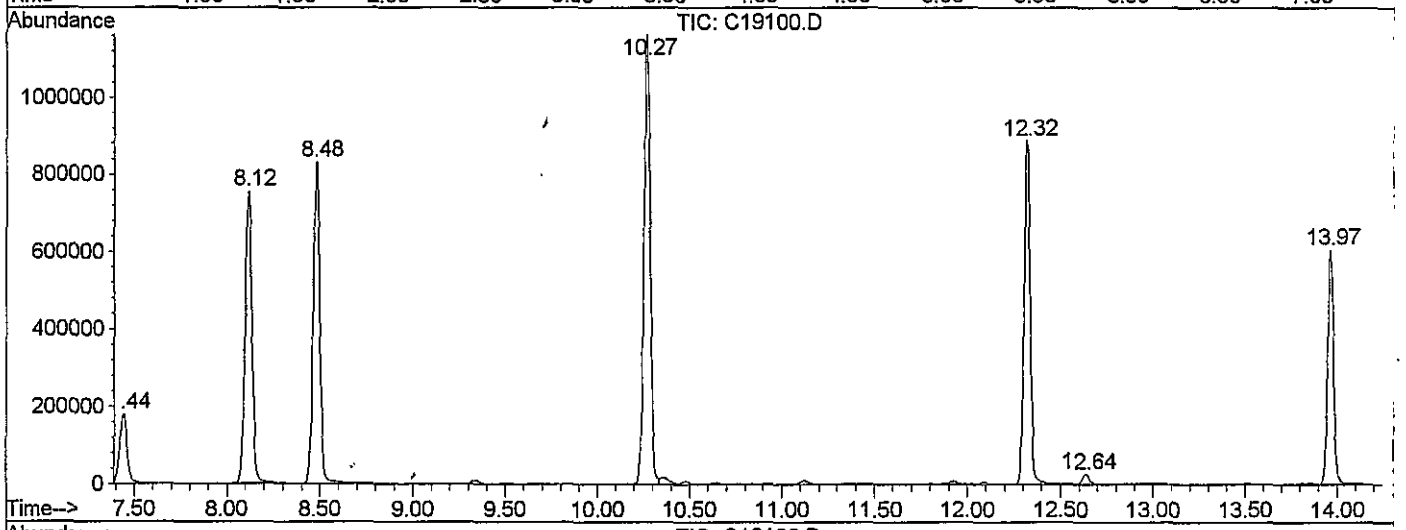
Sum of corrected areas: 18272103

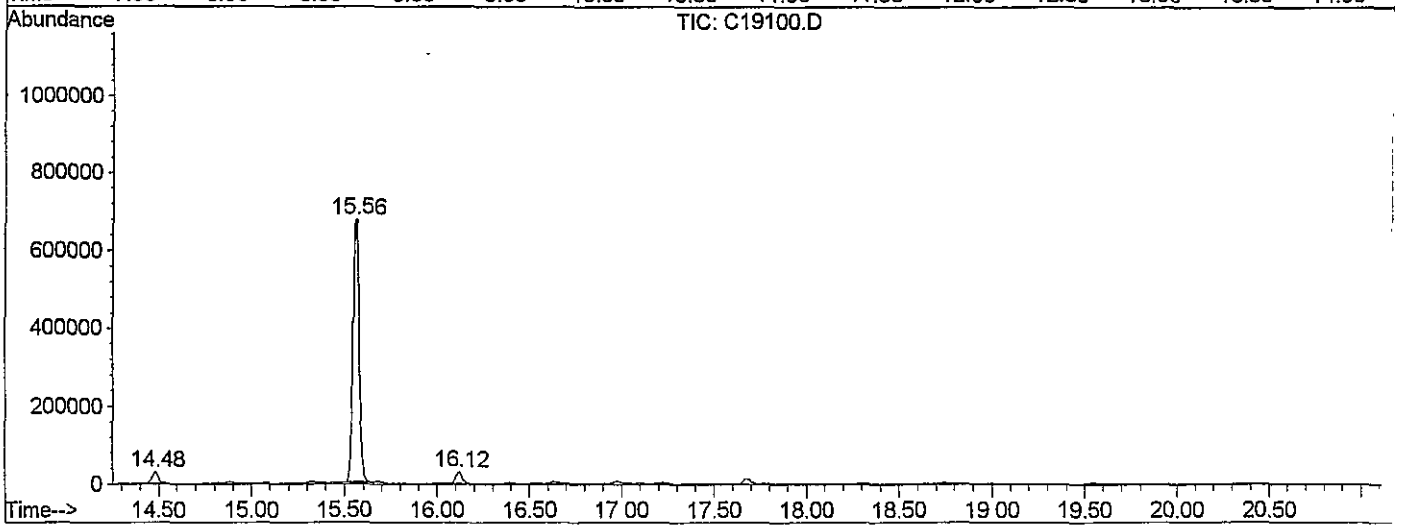
C19100.D 03220125.M Thu Mar 22 13:27:20 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19100.D
Operator : JP/VRR
Acquired : 22 Mar 2001 12:15 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09820 25ml DF =1
Misc Info : 27303/C03220125
Vial Number: 12
Quant File :03220125.RES (RTE Integrator)







C19100.D 03220125.M Thu Mar 22 13:27:21 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

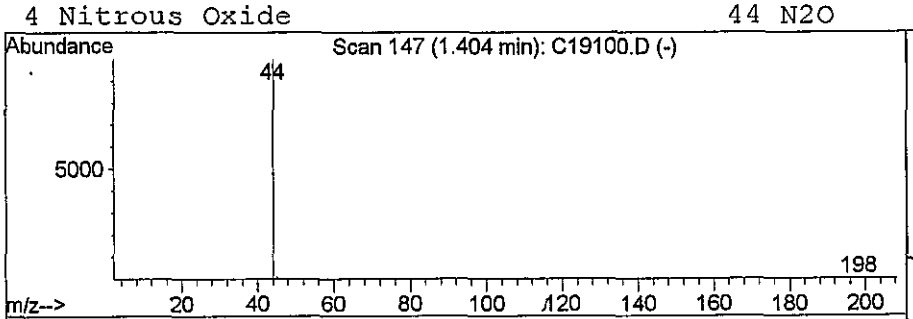
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

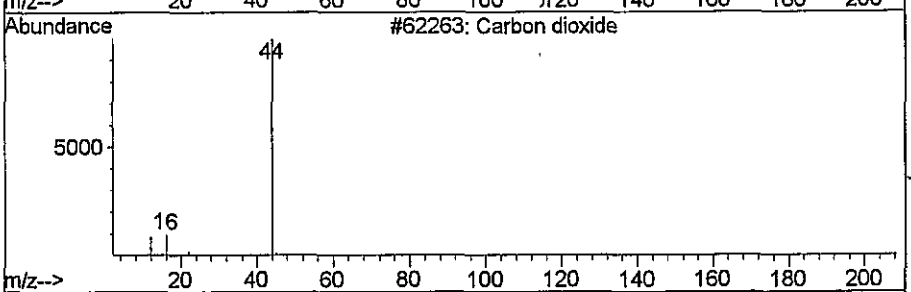
****

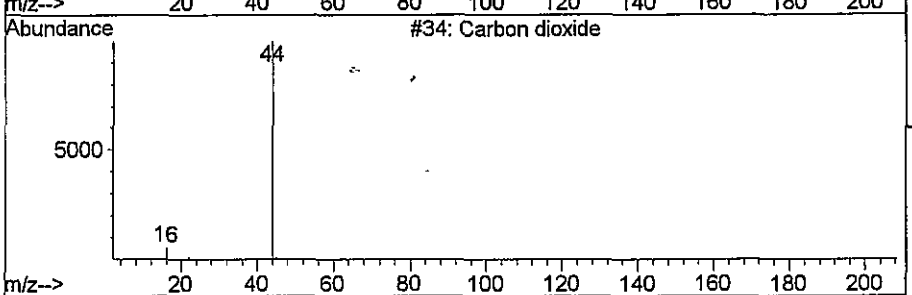
Peak Number 1 Carbon dioxide Concentration Rank 1

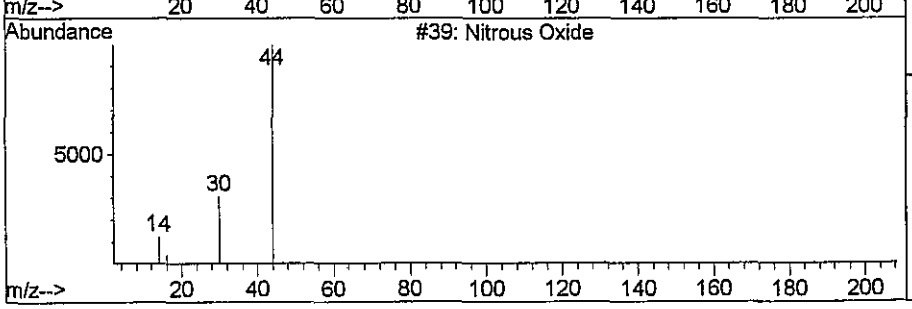
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	36142300.00 ug\L	36142301	1,4-Difluorobenzene	0.00

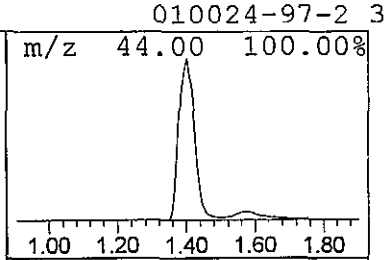
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

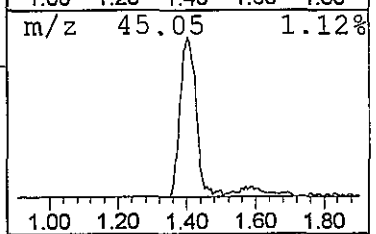


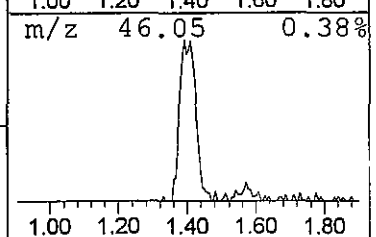


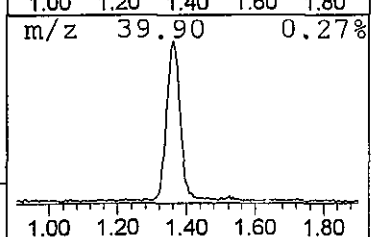


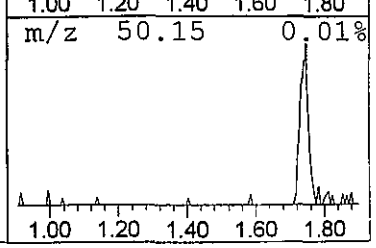












Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

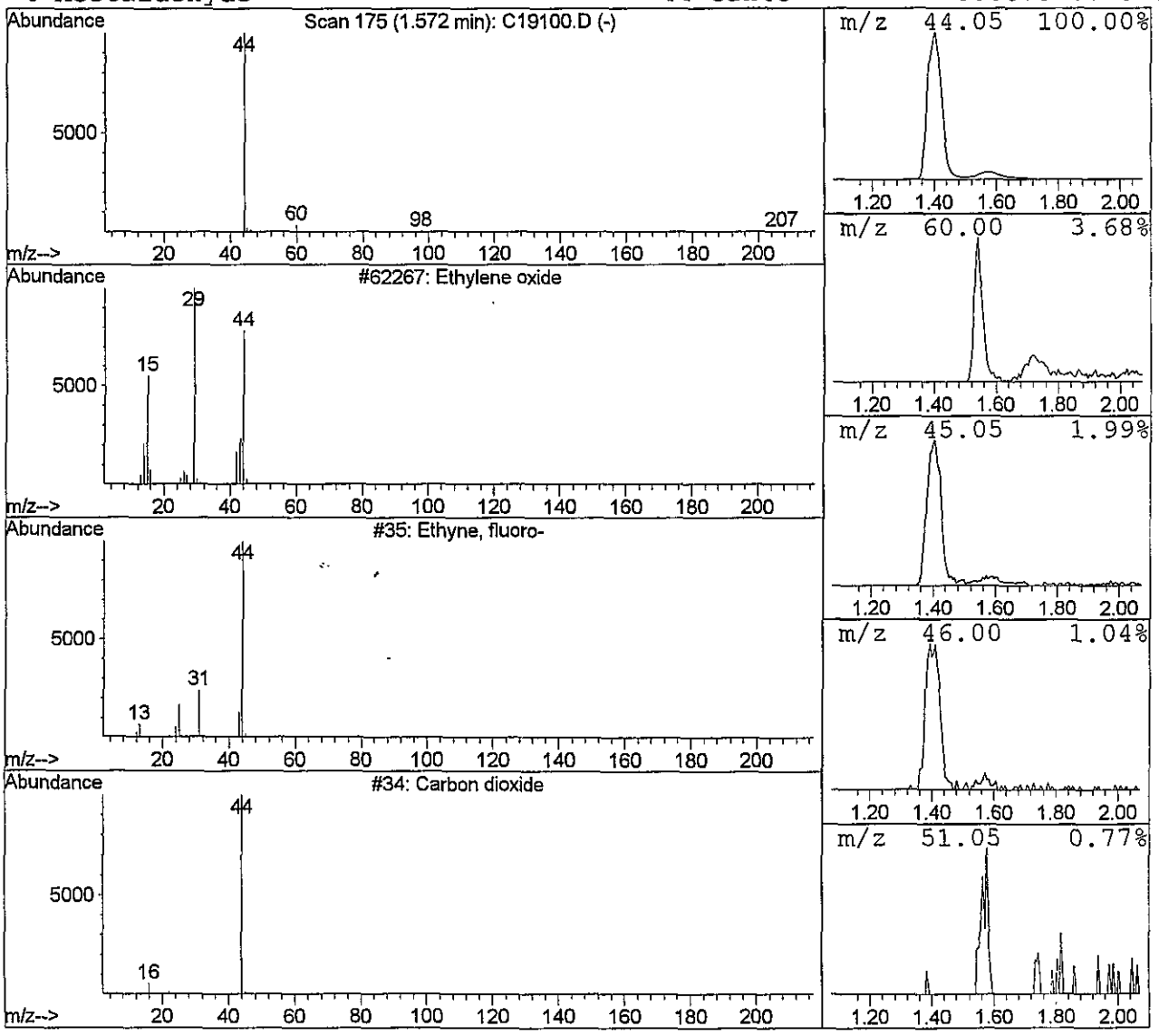
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	2242650.00 ug\L	224265	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethyne, fluoro-	44	C2HF	002713-09-9	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Acetaldehyde	44	C2H4O	000075-07-0	3



Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

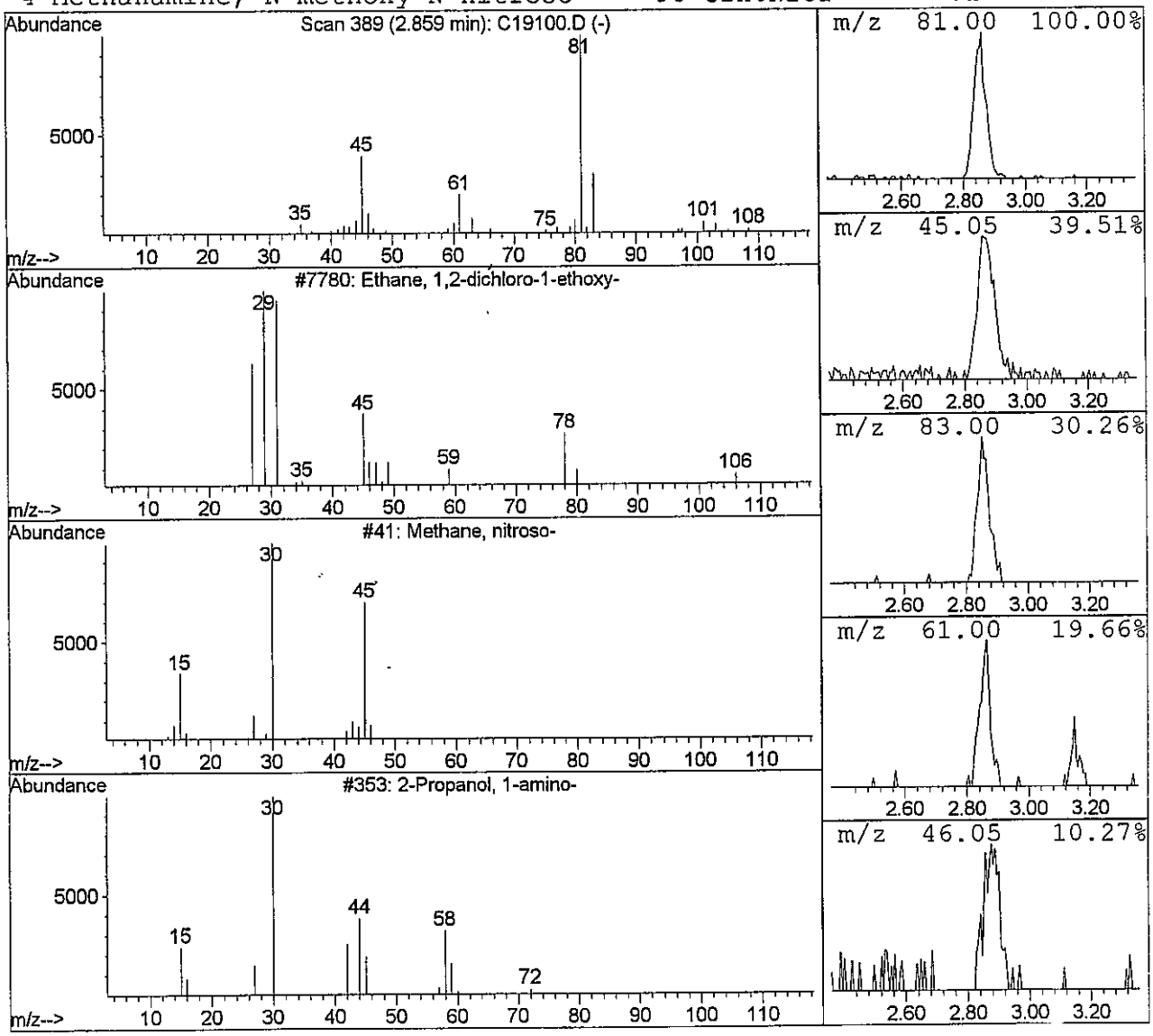
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Ethane, 1,2-dichloro-1-ethoxy- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.86	537630.00 ug\L	53763	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,2-dichloro-1-ethoxy-	142	C4H8Cl2O	000623-46-1	9
2	Methane, nitroso-	45	CH3NO	000865-40-7	4
3	2-Propanol, 1-amino-	75	C3H9NO	000078-96-6	4
4	Methanamine, N-methoxy-N-nitroso-	90	C2H6N2O2	016339-12-1	4



Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

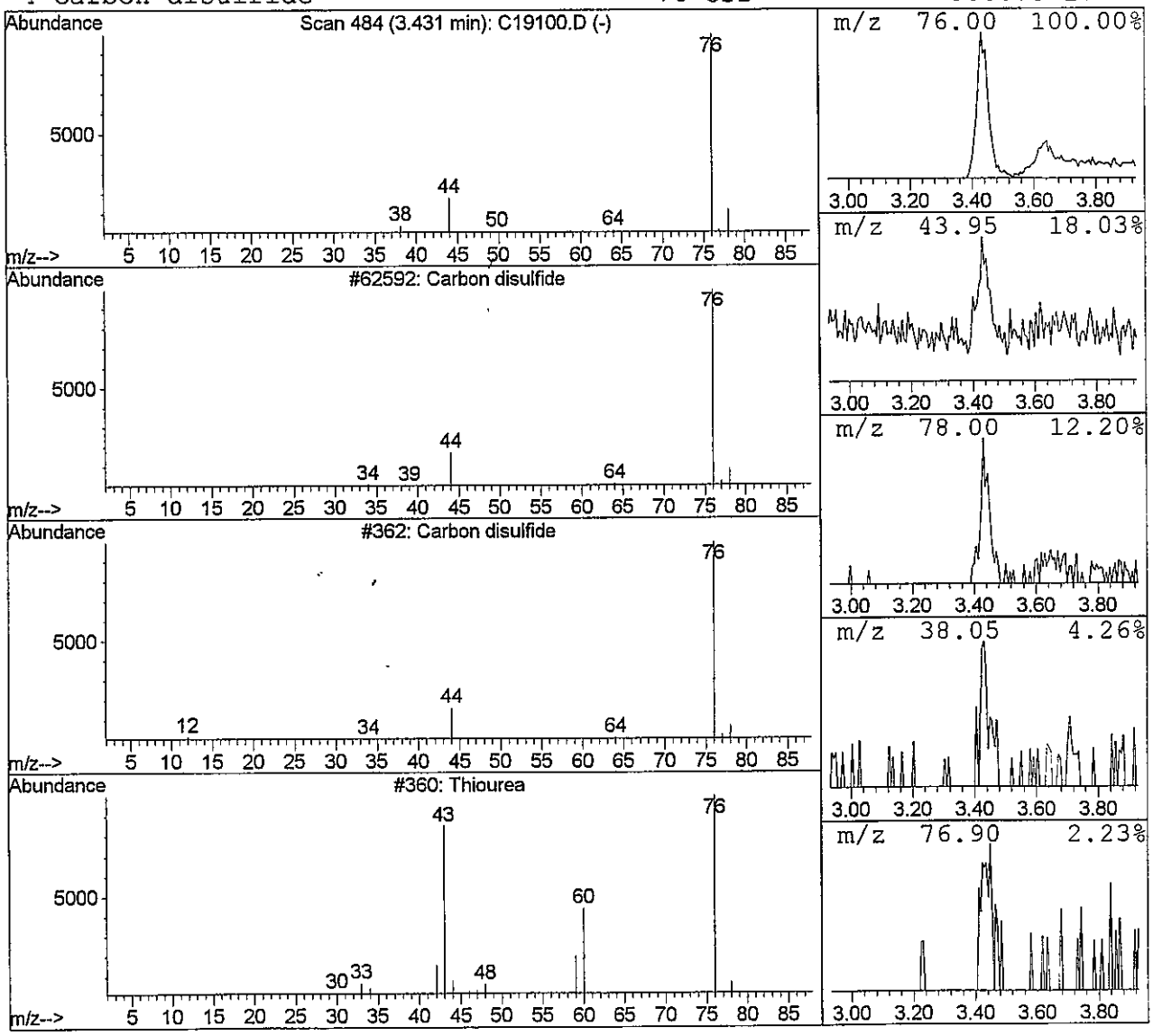
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Carbon disulfide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.43	406330.00 ug\L	40633	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	74
2	Carbon disulfide	76	CS2	000075-15-0	74
3	Thiourea	76	CH4N2S	000062-56-6	7
4	Carbon disulfide	76	CS2	000075-15-0	5



Data File : C:\HPCHEM\1\DATA\032201\C19100.D Vial: 12
Acq On : 03/22/01 12:15 Operator: JP/VRR
Sample : AC09820 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

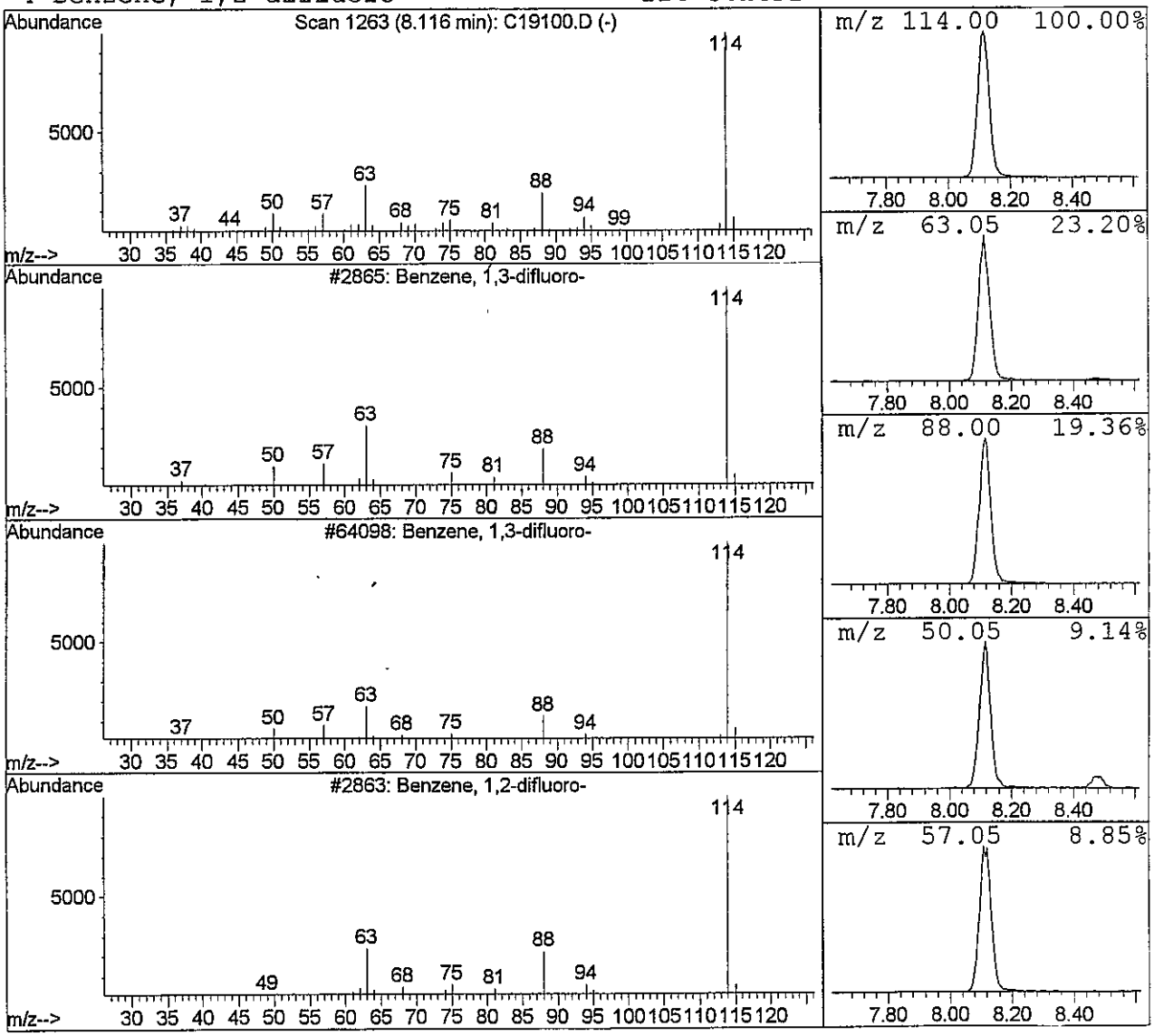
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Benzene, 1,3-difluoro- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.54 ug\L	1943510	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 12:15
Data File: C:\HPCHEM\1\DATA\032201\C19100.D
Name: AC09820 25ml DF =1
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	36142300.0	ug\L	3614230	ISTD01	0.00	1	10.0
Ethylene oxide	1.57	2242650.0	ug\L	224265	ISTD01	0.00	1	10.0
Ethane, 1,2-dichloro	2.86	537630.0	ug\L	53763	ISTD01	0.00	1	10.0
Carbon disulfide	3.43	406330.0	ug\L	40633	ISTD01	0.00	1	10.0
Benzene, 1,3-difluor	8.12	12.5	ug\L	1943510	ISTD02	6.97	1549450	10.0

C19100.D 03220125.M Thu Mar 22 13:27:29 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19101.D Vial: 14
Acq On : 03/22/01 12:41 Operator: JP/VRR
Sample : AC09821 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:41 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	505766	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	661602	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	257645	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	192456	9.47 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.70%		
46) Toluene-d8	10.27	98	1019332	10.01 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.10%		
66) Bromofluorobenzene	13.97	95	293976	9.33 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.30%		
Target Compounds					Qvalue
16) Methylene Chloride	3.87	86	8242	0.64 ug\L	90 0.64 J
36) Trichloroethene	8.48	95	276946	9.48 ug\L	99 9.5

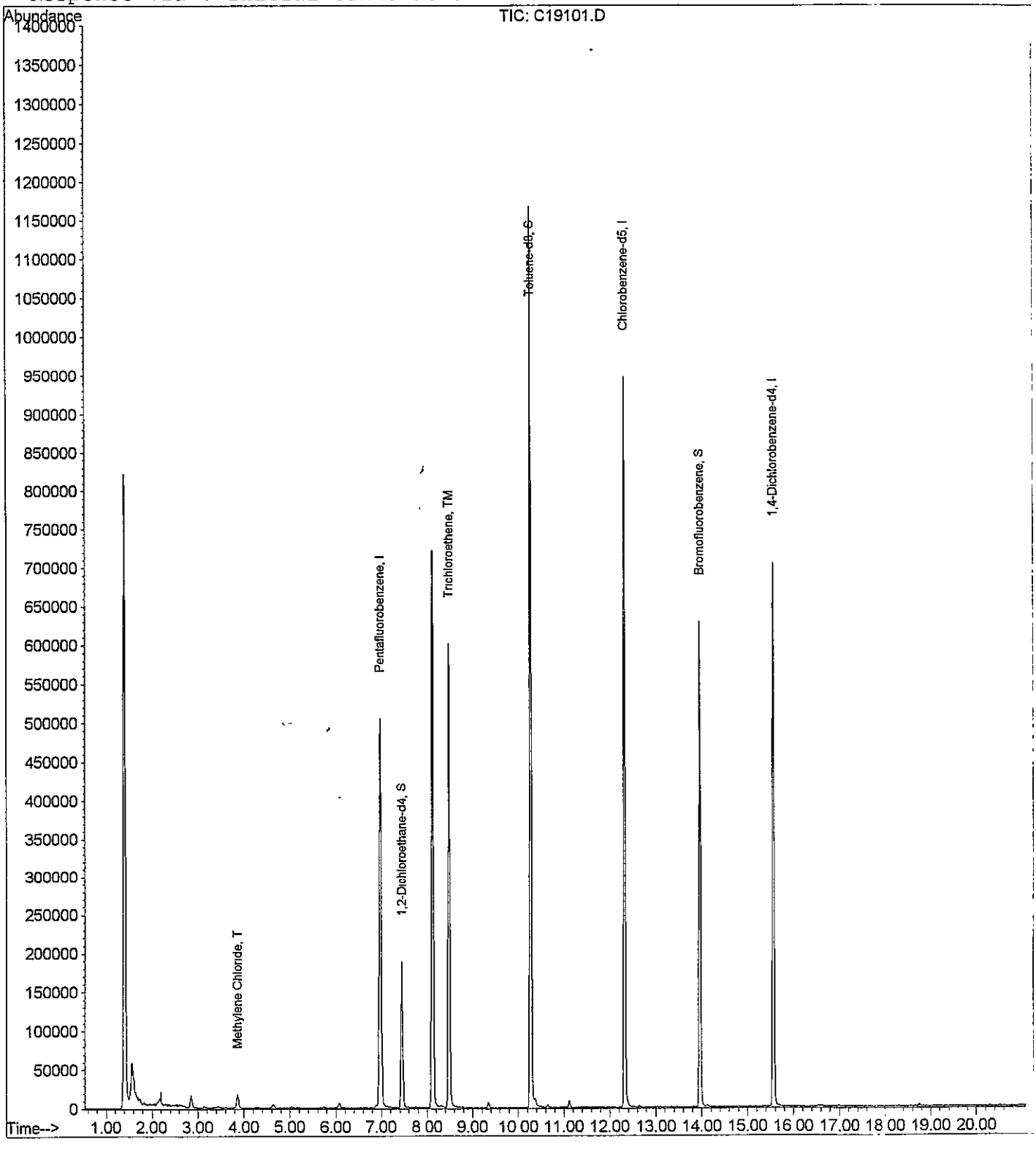
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19101.D Vial: 14
Acq On : 03/22/01 12:41 Operator: JP/VRR
Sample : AC09821 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:41 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19101.D Vial: 14
Acq On : 03/22/01 12:41 Operator: JP/VRR
Sample : AC09821 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

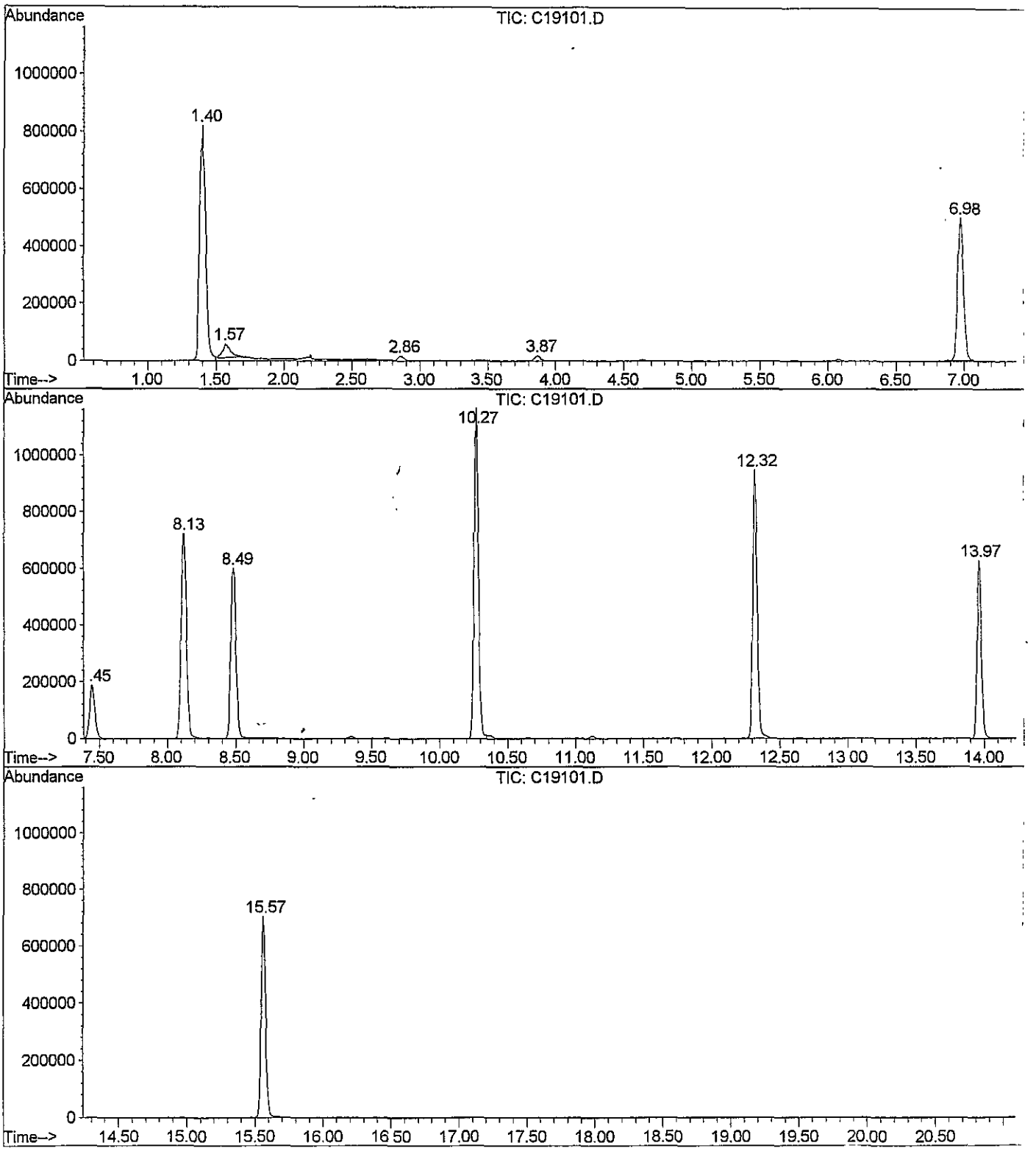
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.402	130	146	162	rBV	821619	2495306	92.57%	15.558%
2	1.571	165	174	190	rVV	46115	187008	6.94%	1.166%
3	2.858	378	388	398	rVB3	16520	47564	1.76%	0.297%
4	3.868	544	556	563	rBV2	17125	48854	1.81%	0.305%
5	6.977	1061	1073	1089	rVB	501029	1506395	55.88%	9.392%
6	7.447	1138	1151	1166	rBV	188565	508613	18.87%	3.171%
7	8.126	1252	1264	1278	rBV	721152	1907058	70.75%	11.890%
8	8.487	1313	1324	1340	rBV	600299	1566304	58.11%	9.766%
9	10.273	1609	1621	1633	rBV	1166029	2695637	100.00%	16.807%
10	12.324	1952	1962	1982	rBV	946817	2077571	77.07%	12.954%
11	13.966	2225	2235	2256	rBV	627786	1392345	51.65%	8.681%
12	15.566	2489	2501	2513	rBV2	703266	1605862	59.57%	10.013%

Sum of corrected areas: 16038517

C19101.D 03220125.M Thu Mar 22 14:44:08 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19101.D
Operator : JP/VRR
Acquired : 22 Mar 2001 12:41 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09821 25ml DF =1
Misc Info : 27303/C03220125
Vial Number: 14
Quant File :03220125.RES (RTE Integrator)



C19101.D 03220125.M Thu Mar 22 14:44:09 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19101.D Vial: 14
Acq On : 03/22/01 12:41 Operator: JP/VRR
Sample : AC09821 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

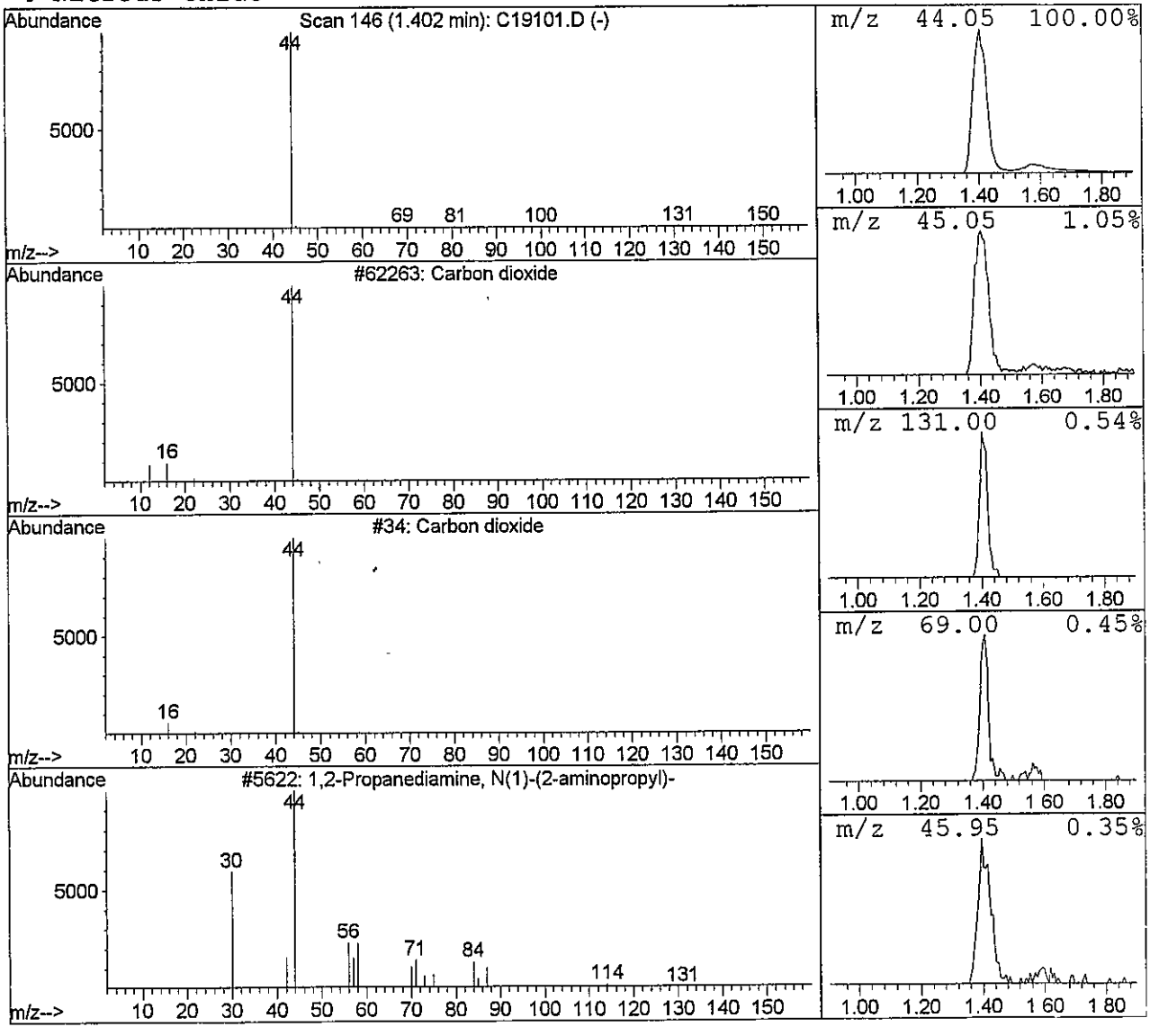
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	24953100.00 ug\L	24953101.4	-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19101.D Vial: 14
Acq On : 03/22/01 12:41 Operator: JP/VRR
Sample : AC09821 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

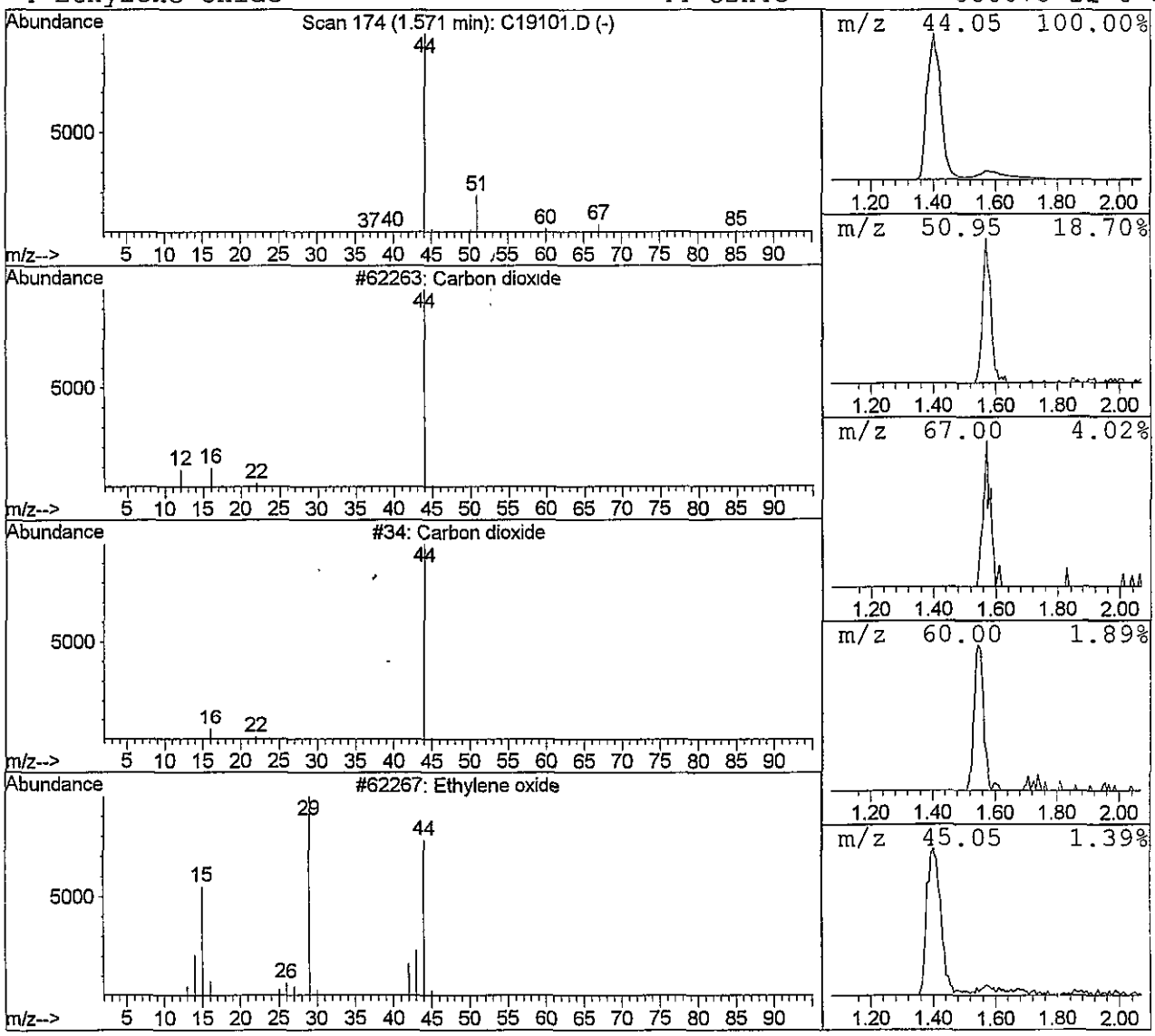
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1870080.00 ug\L	187008	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19101.D Vial: 14
Acq On : 03/22/01 12:41 Operator: JP/VRR
Sample : AC09821 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

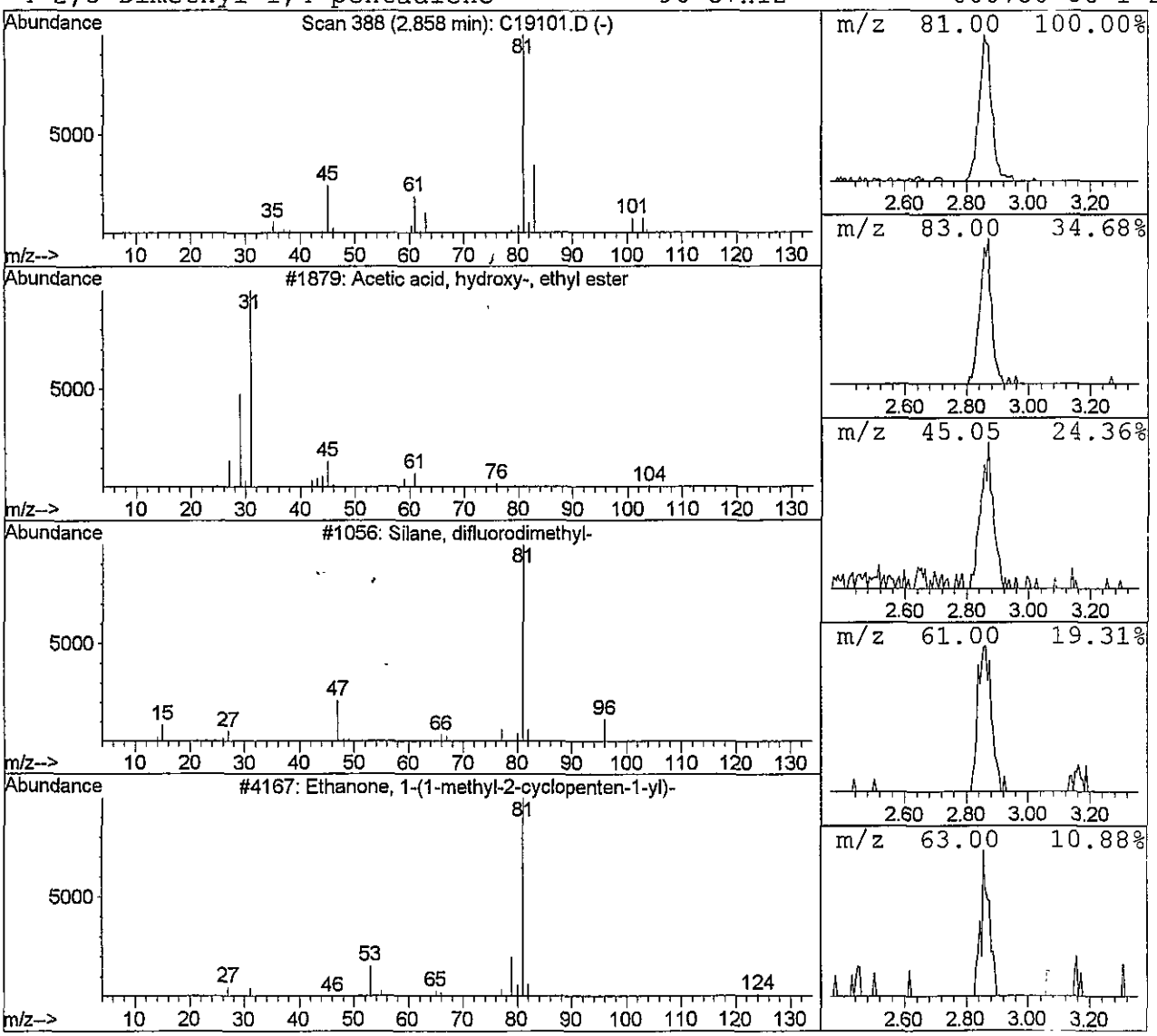
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Acetic acid, hydroxy-, ethyl e Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.86	475640.00 ug\L	47564	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, hydroxy-, ethyl ester	104	C4H8O3	000623-50-7	7
2	Silane, difluorodimethyl-	96	C2H6F2Si	000353-66-2	2
3	Ethanone, 1-(1-methyl-2-cyclopenten	124	C8H12O	068752-16-9	2
4	2,3-Dimethyl-1,4-pentadiene	96	C7H12	000758-86-1	2



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19101.D
Acq On : 03/22/01 12:41
Sample : AC09821 25ml DF =1
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 14
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

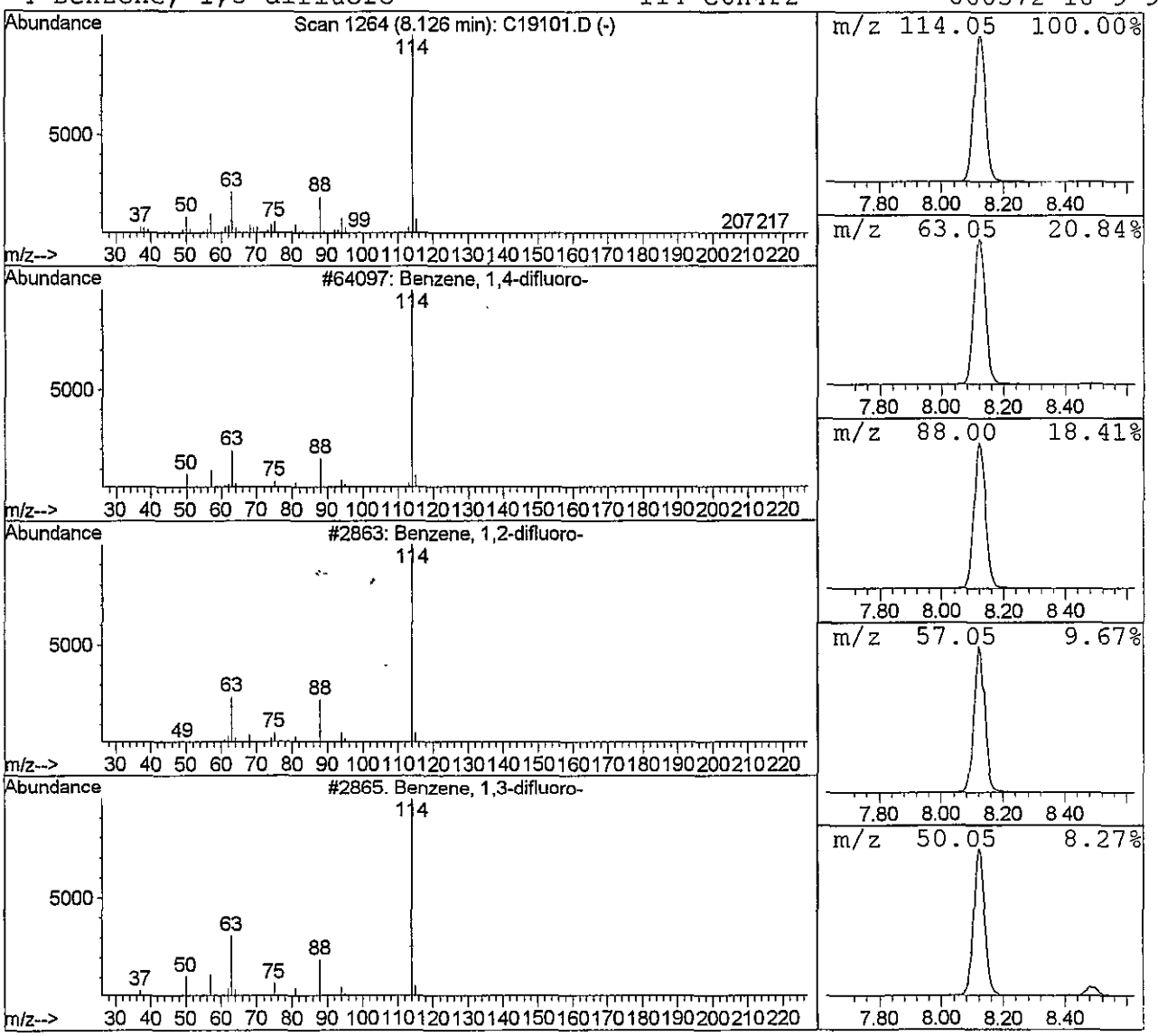
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.13	12.66 ug\L	1907060	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	91



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 12:41
Data File: C:\HPCHEM\1\DATA\032201\C19101.D
Name: AC09821 25ml DF =1
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	24953100.0	ug\L	2495310	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1870080.0	ug\L	187008	ISTD01	0.00	1	10.0
Acetic acid, hydroxy	2.86	475640.0	ug\L	47564	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.13	12.7	ug\L	1907060	ISTD02	6.98	1506400	10.0

C19101.D 03220125.M Thu Mar 22 14:44:16 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19097.D Vial: 9
Acq On : 03/22/01 10:56 Operator: JP/VRR
Sample : AC09822 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:17 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	506614	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	658008	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	246203	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	193667	9.51	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.10%			
46) Toluene-d8	10.27	98	1048311	10.35	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.50%			
66) Bromofluorobenzene	13.97	95	293429	9.74	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.40%			
Target Compounds						Qvalue
16) Methylene Chloride	3.87	86	13275	1.03	ug\L	96 5.0J
36) Trichloroethene	8.48	95	205198	7.01	ug\L	99 35.0

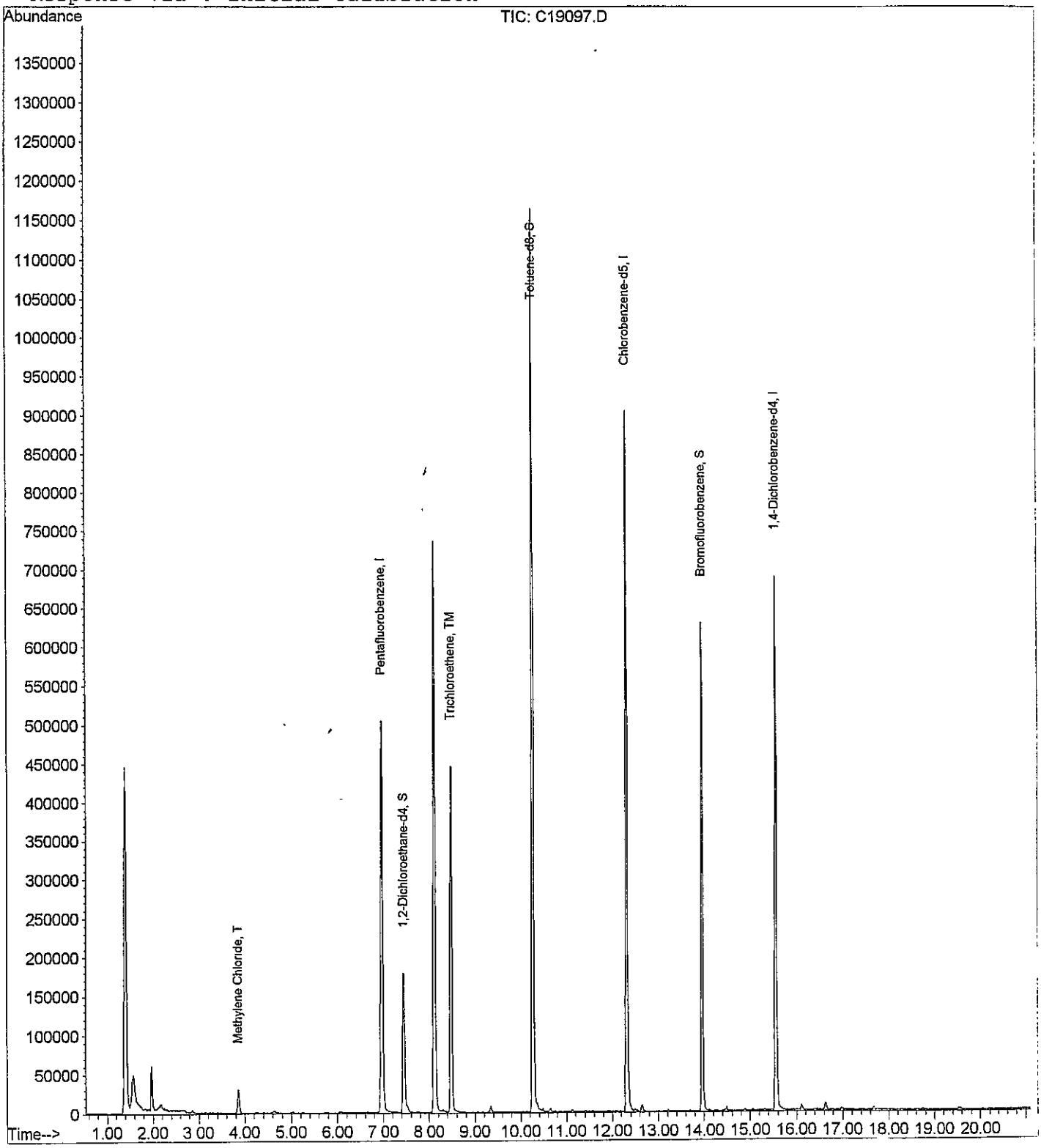
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19097.D Vial: 9
Acq On : 03/22/01 10:56 Operator: JP/VRR
Sample : AC09822 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:17 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19097.D Vial: 9
Acq On : 03/22/01 10:56 Operator: JP/VRR
Sample : AC09822 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

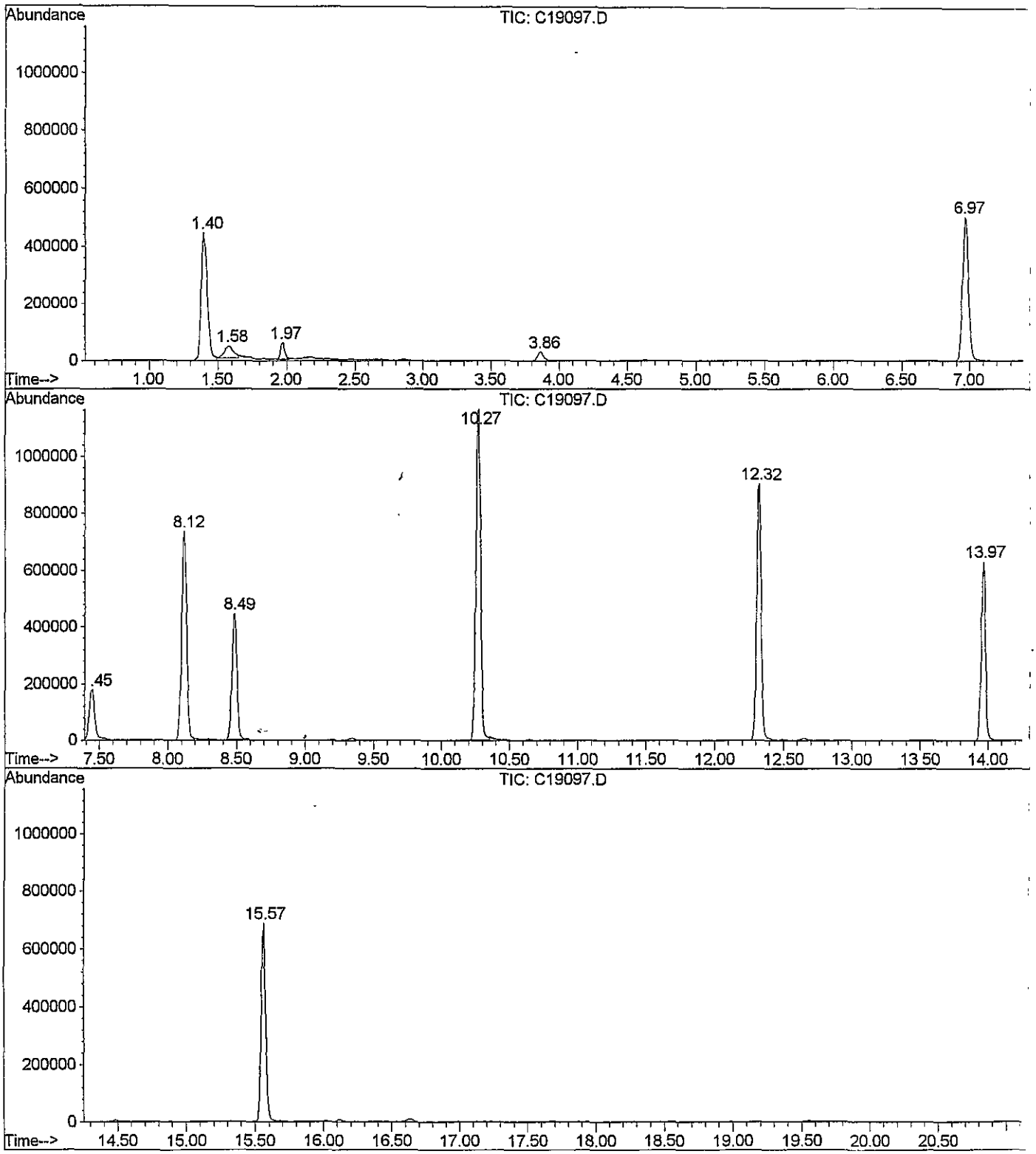
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.397	132	145	160	rBV	445780	1392450	50.38%	9.483%
2	1.577	162	175	187	rBV	40795	179804	6.51%	1.224%
3	1.968	234	240	250	rBV	56523	119918	4.34%	0.817%
4	3.862	545	555	566	rVB	30392	87684	3.17%	0.597%
5	6.972	1054	1072	1085	rBV	503955	1529483	55.34%	10.416%
6	7.447	1140	1151	1173	rBV2	178272	521745	18.88%	3.553%
7	8.120	1251	1263	1275	rBV	735778	1916767	69.35%	13.053%
8	8.487	1313	1324	1338	rBV	444786	1144722	41.42%	7.796%
9	10.273	1610	1621	1634	rBV	1164018	2763996	100.00%	18.823%
10	12.324	1950	1962	1985	rBV	903462	2079126	75.22%	14.159%
11	13.966	2225	2235	2249	rBV	628776	1397713	50.57%	9.518%
12	15.566	2490	2501	2519	rBV	688022	1550981	56.11%	10.562%

Sum of corrected areas: 14684389

C19097.D 03220125.M Thu Mar 22 13:18:22 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19097.D
Operator : JP/VRR
Acquired : 22 Mar 2001 10:56 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09822 5ml DF =5
Misc Info : 27303/C03220125
Vial Number: 9
Quant File :03220125.RES (RTE Integrator)



C19097.D 03220125.M Thu Mar 22 13:18:23 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19097.D Vial: 9
Acq On : 03/22/01 10:56 Operator: JP/VRR
Sample : AC09822 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

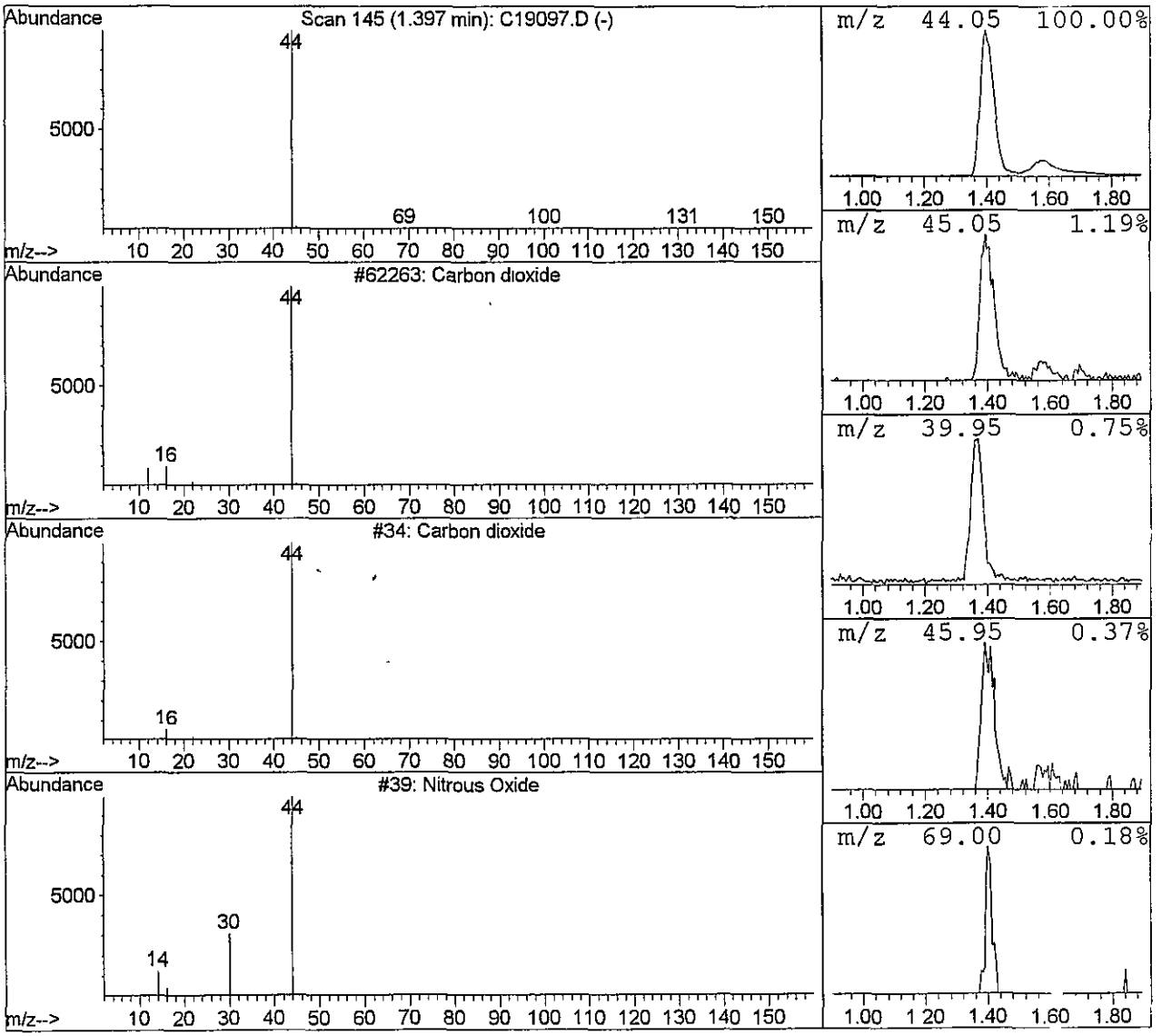
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	13924500.00 ug\L	13924501.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19097.D Vial: 9
Acq On : 03/22/01 10:56 Operator: JP/VRR
Sample : AC09822 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

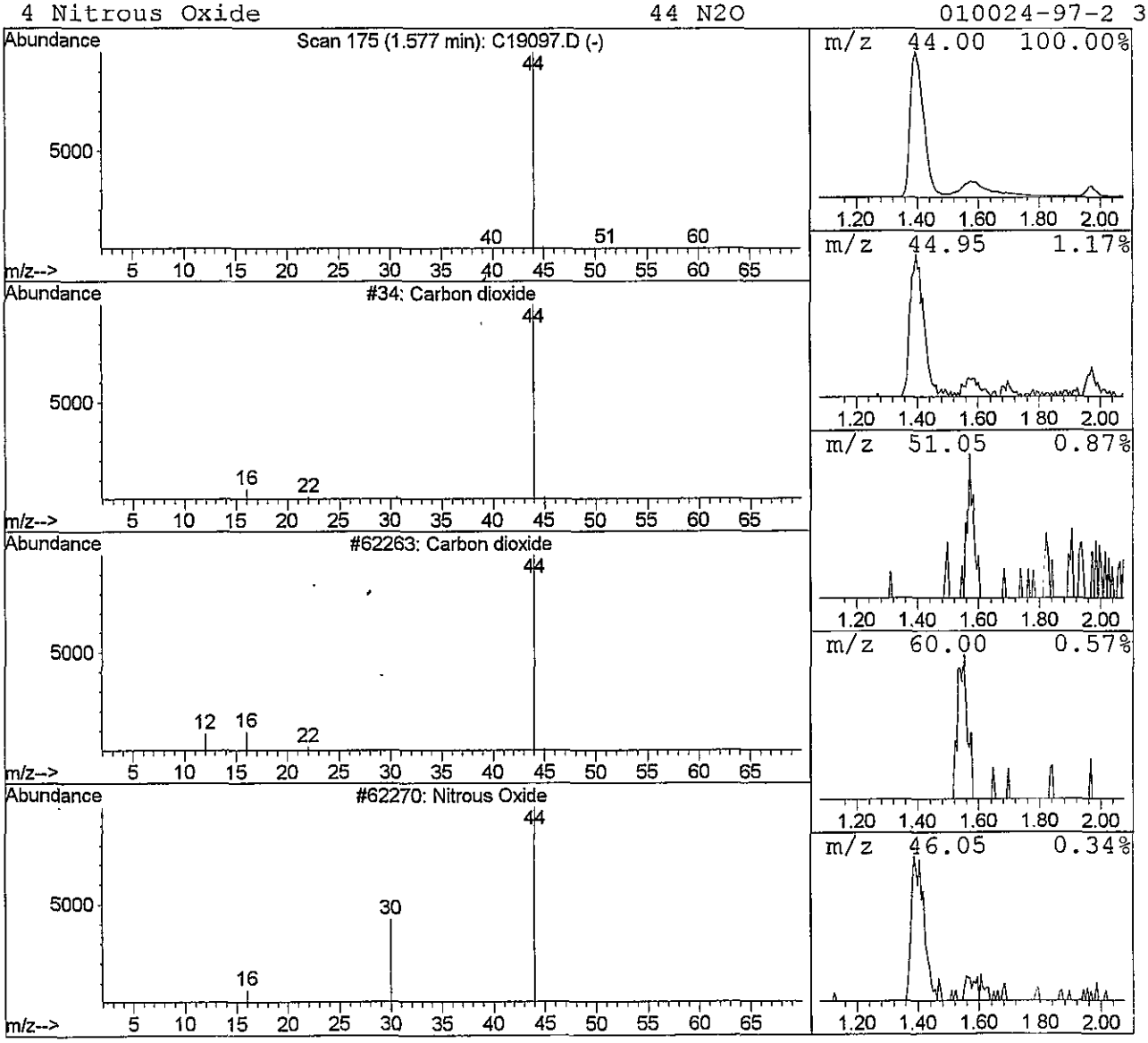
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.58	1798040.00 ug\L	179804	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19097.D Vial: 9
Acq On : 03/22/01 10:56 Operator: JP/VRR
Sample : AC09822 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

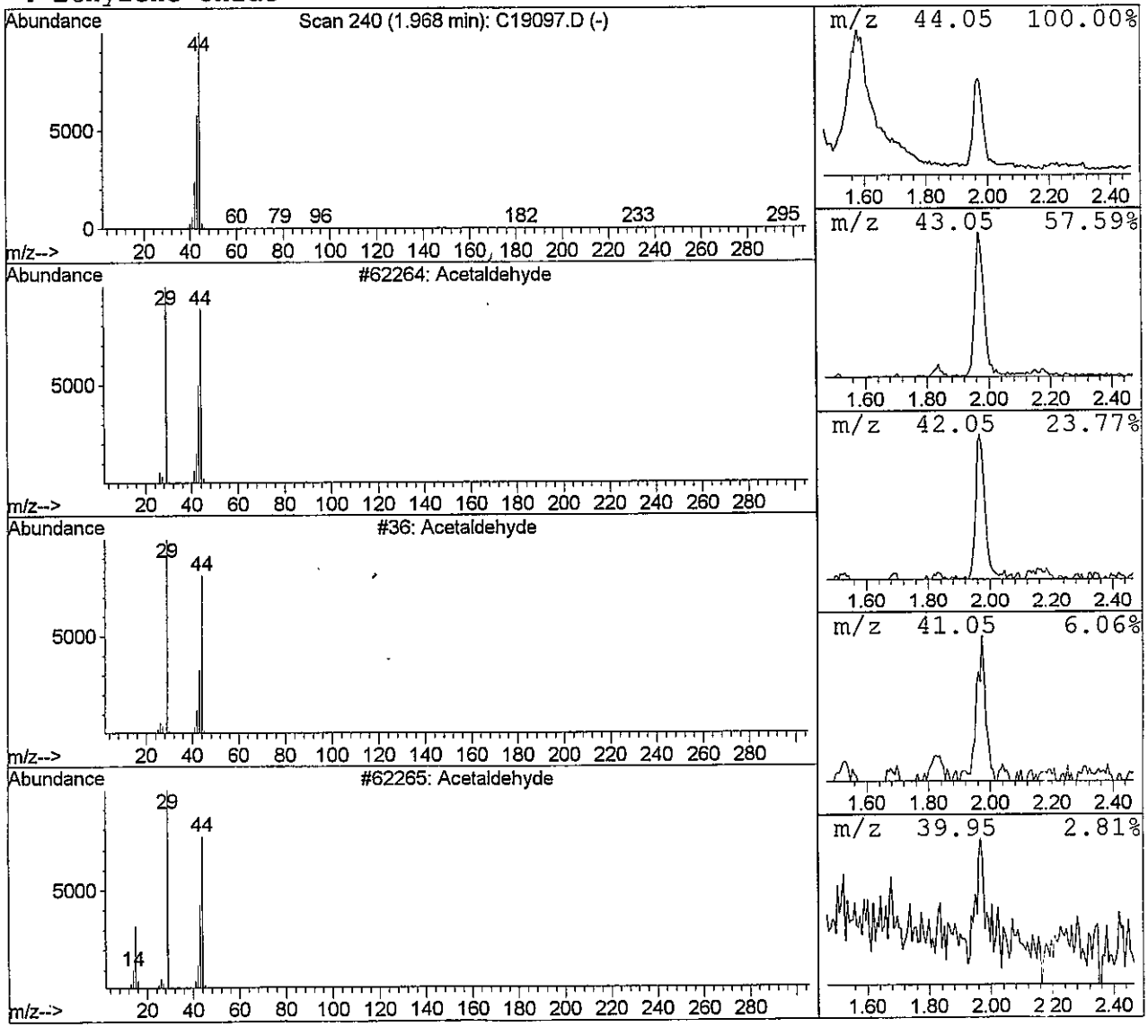
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.97	1199180.00 ug\L	119918	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Acetaldehyde	44	C2H4O	000075-07-0	7
3	Acetaldehyde	44	C2H4O	000075-07-0	7
4	Ethylene oxide	44	C2H4O	000075-21-8	5



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19097.D
Acq On : 03/22/01 10:56
Sample : AC09822 5ml DF =5
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 9
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

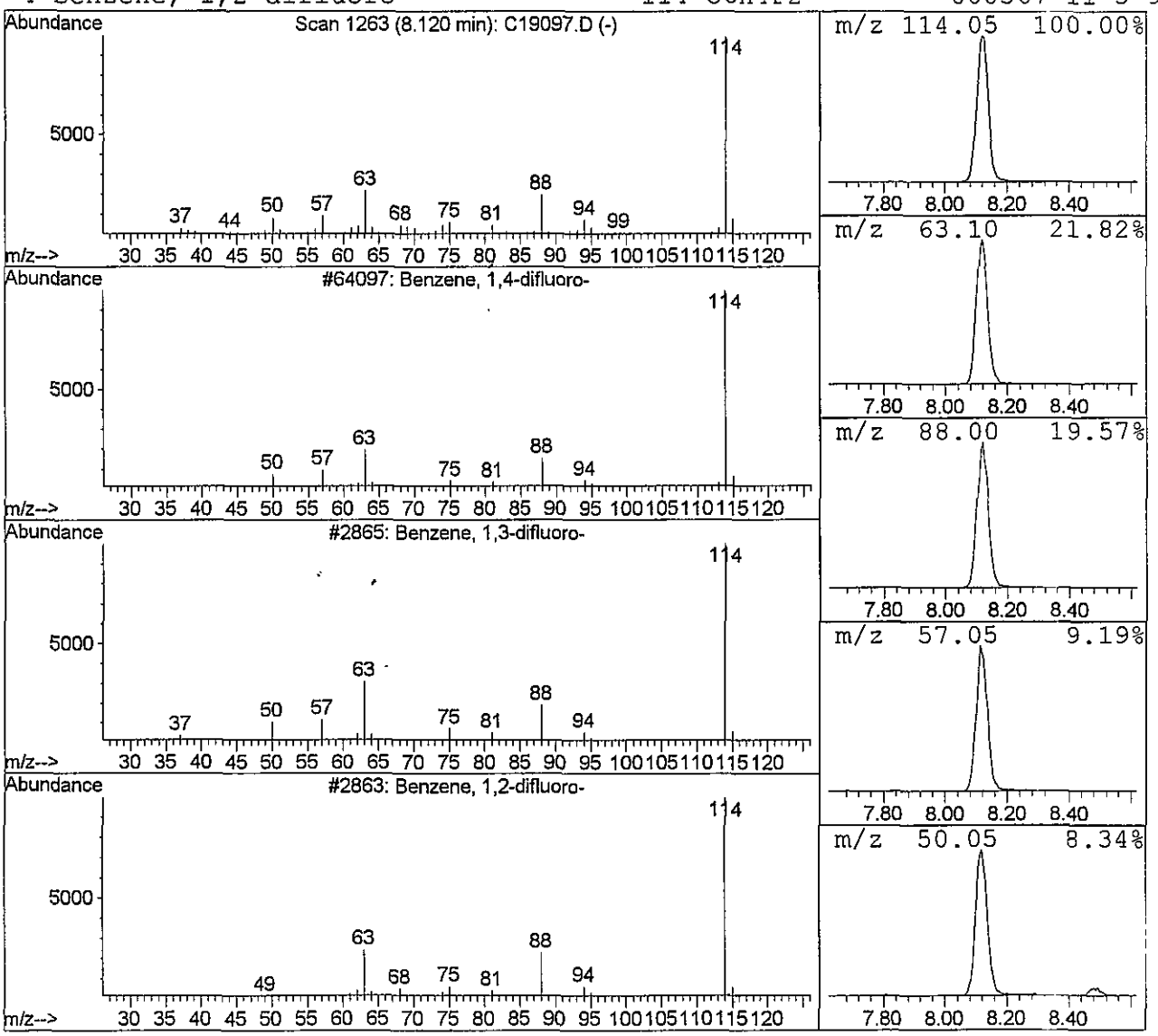
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.53 ug\L	1916770	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 10:56
Data File: C:\HPCHEM\1\DATA\032201\C19097.D
Name: AC09822 5ml DF =5
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	13924500.0	ug\L	1392450	ISTD01	0.00	1	10.0
Carbon dioxide	1.58	1798040.0	ug\L	179804	ISTD01	0.00	1	10.0
Acetaldehyde	1.97	1199180.0	ug\L	119918	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	1916770	ISTD02	6.97	1529480	10.0

C19097.D 03220125.M Thu Mar 22 13:18:30 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19098.D Vial: 10
Acq On : 03/22/01 11:21 Operator: JP/VRR
Sample : AC09823 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:20 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	501295	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	635134	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	237659	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	189556	9.41 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.10%		
46) Toluene-d8	10.27	98	992610	10.15 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%		
66) Bromofluorobenzene	13.97	95	279774	9.62 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.20%		
Target Compounds					Qvalue
16) Methylene Chloride	3.86	86	10468	0.82 ug\L	87
36) Trichloroethene	8.48	95	364968	12.60 ug\L	99

4.15
63

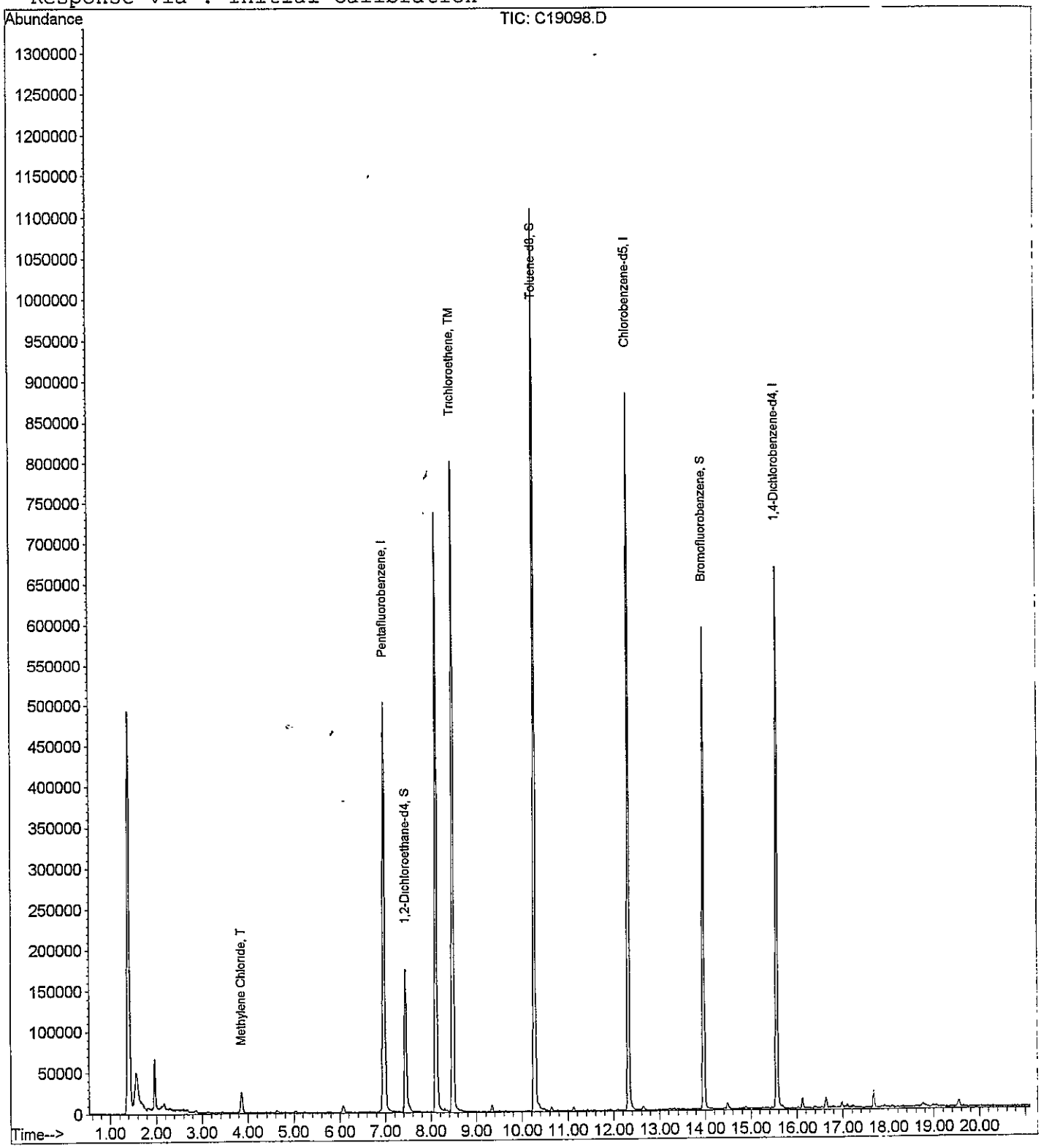
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19098.D Vial: 10
Acq On : 03/22/01 11:21 Operator: JP/VRR
Sample : AC09823 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 13:20 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19098.D Vial: 10
Acq On : 03/22/01 11:21 Operator: JP/VRR
Sample : AC09823 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

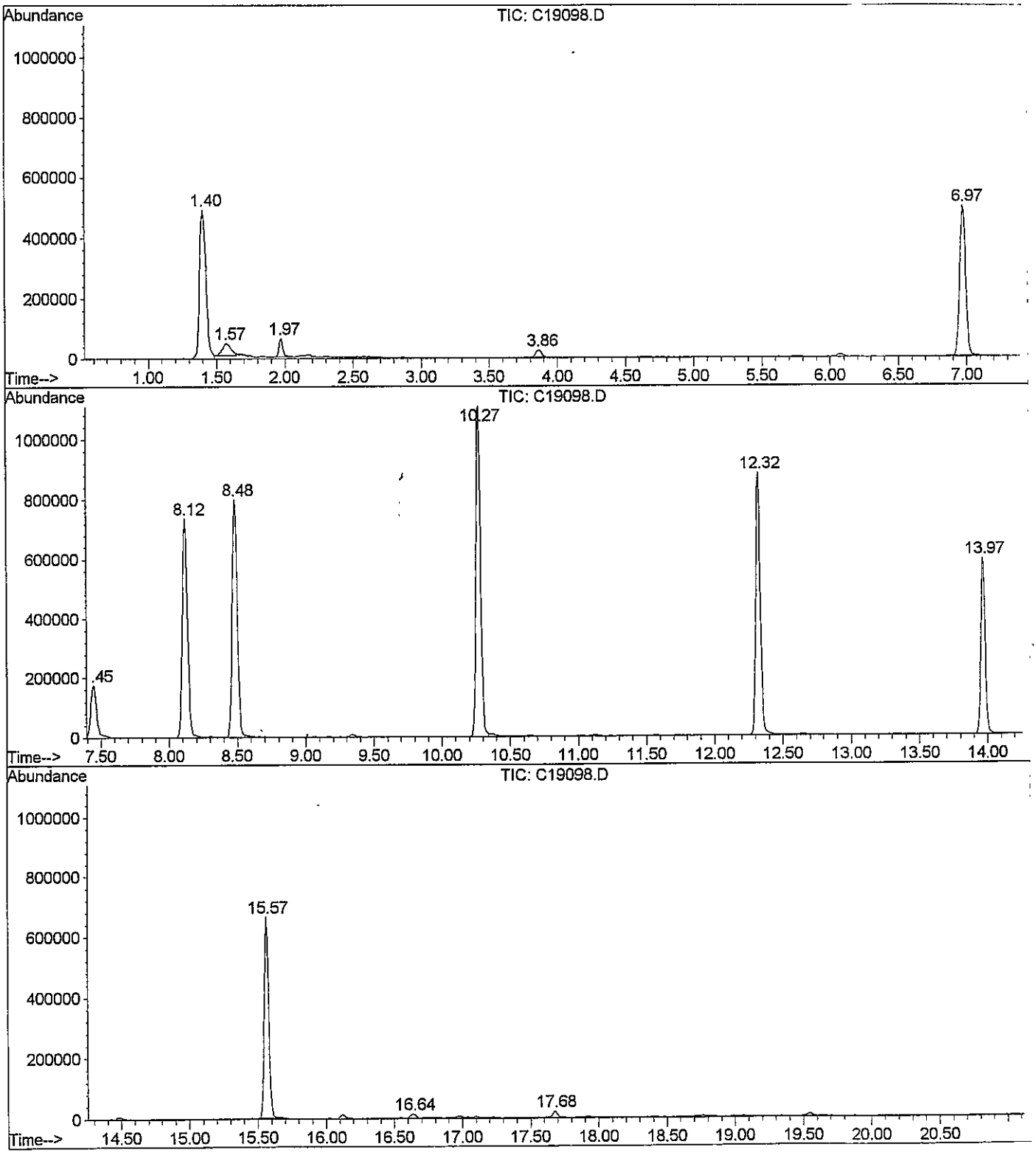
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.397	130	145	159	rBV	492309	1585483	60.93%	10.277%
2	1.572	163	174	186	rVV	38957	176984	6.80%	1.147%
3	1.968	233	240	251	rBV	60539	125241	4.81%	0.812%
4	3.863	547	555	568	rVB2	24602	71125	2.73%	0.461%
5	6.972	1057	1072	1088	rBV	500067	1501204	57.69%	9.731%
6	7.447	1141	1151	1177	rBV2	173758	510873	19.63%	3.311%
7	8.121	1251	1263	1278	rBV	736202	1882361	72.34%	12.201%
8	8.482	1312	1323	1335	rBV	800148	2069012	79.52%	13.411%
9	10.274	1608	1621	1632	rBV	1108213	2601970	100.00%	16.866%
10	12.325	1951	1962	1983	rBV	882705	2007298	77.15%	13.011%
11	13.967	2225	2235	2248	rBV	591923	1325149	50.93%	8.590%
12	15.567	2491	2501	2516	rBV	663562	1494195	57.43%	9.685%
13	16.637	2670	2679	2687	rVB2	12777	33379	1.28%	0.216%
14	17.678	2845	2852	2860	rVB3	19504	43147	1.66%	0.280%

Sum of corrected areas: 15427421

C19098.D 03220125.M Thu Mar 22 13:21:21 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19098.D
Operator : JP/VRR
Acquired : 22 Mar 2001 11:21 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09823 5ml DF =5
Misc Info : 27303/C03220125
Vial Number: 10
Quant File :03220125.RES (RTE Integrator)



C19098.D 03220125.M Thu Mar 22 13:21:22 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19098.D Vial: 10
Acq On : 03/22/01 11:21 Operator: JP/VRR
Sample : AC09823 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

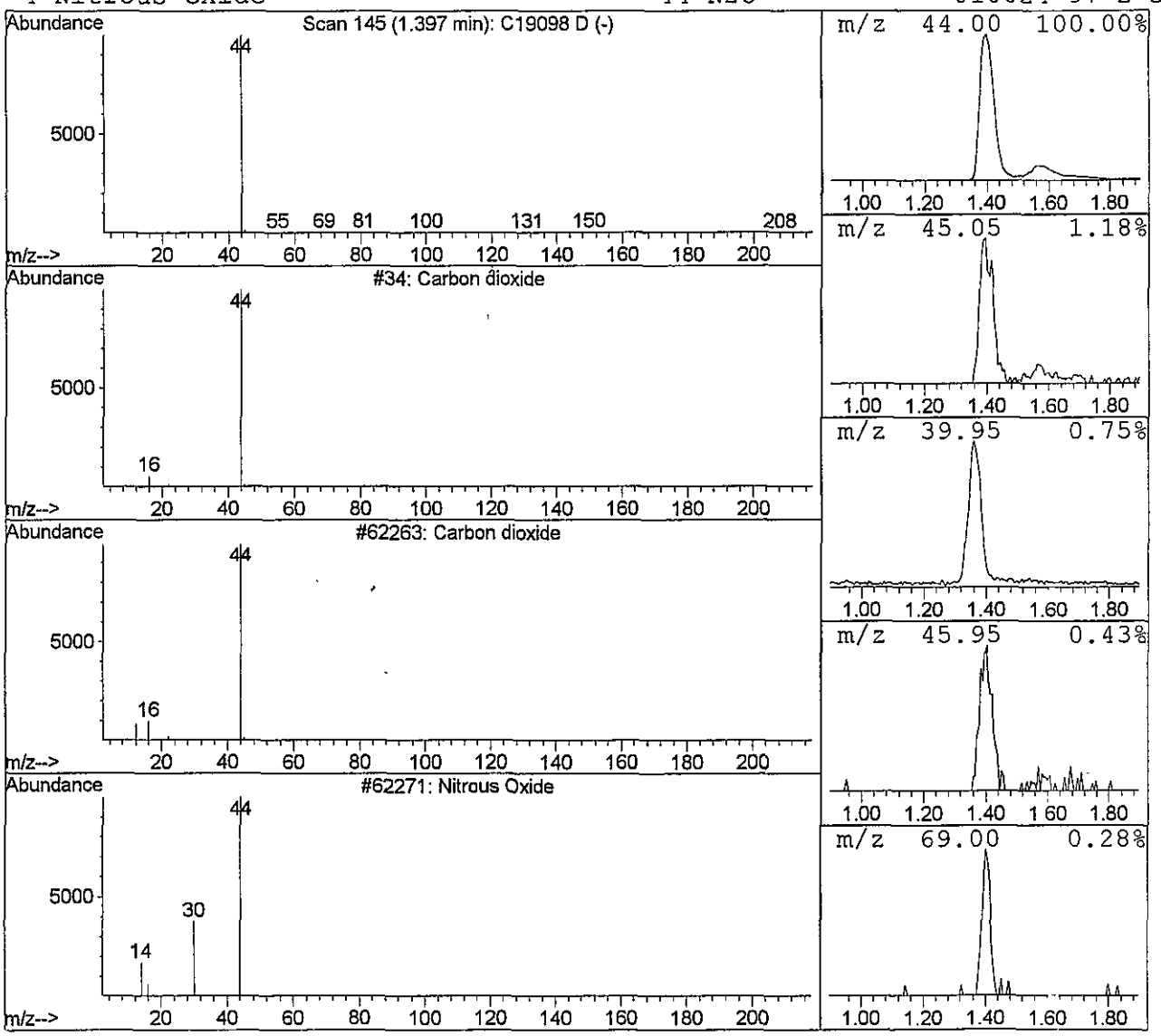
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	15854800.00 ug\L	15854801.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032201\C19098.D Vial: 10
Acq On : 03/22/01 11:21 Operator: JP/VRR
Sample : AC09823 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

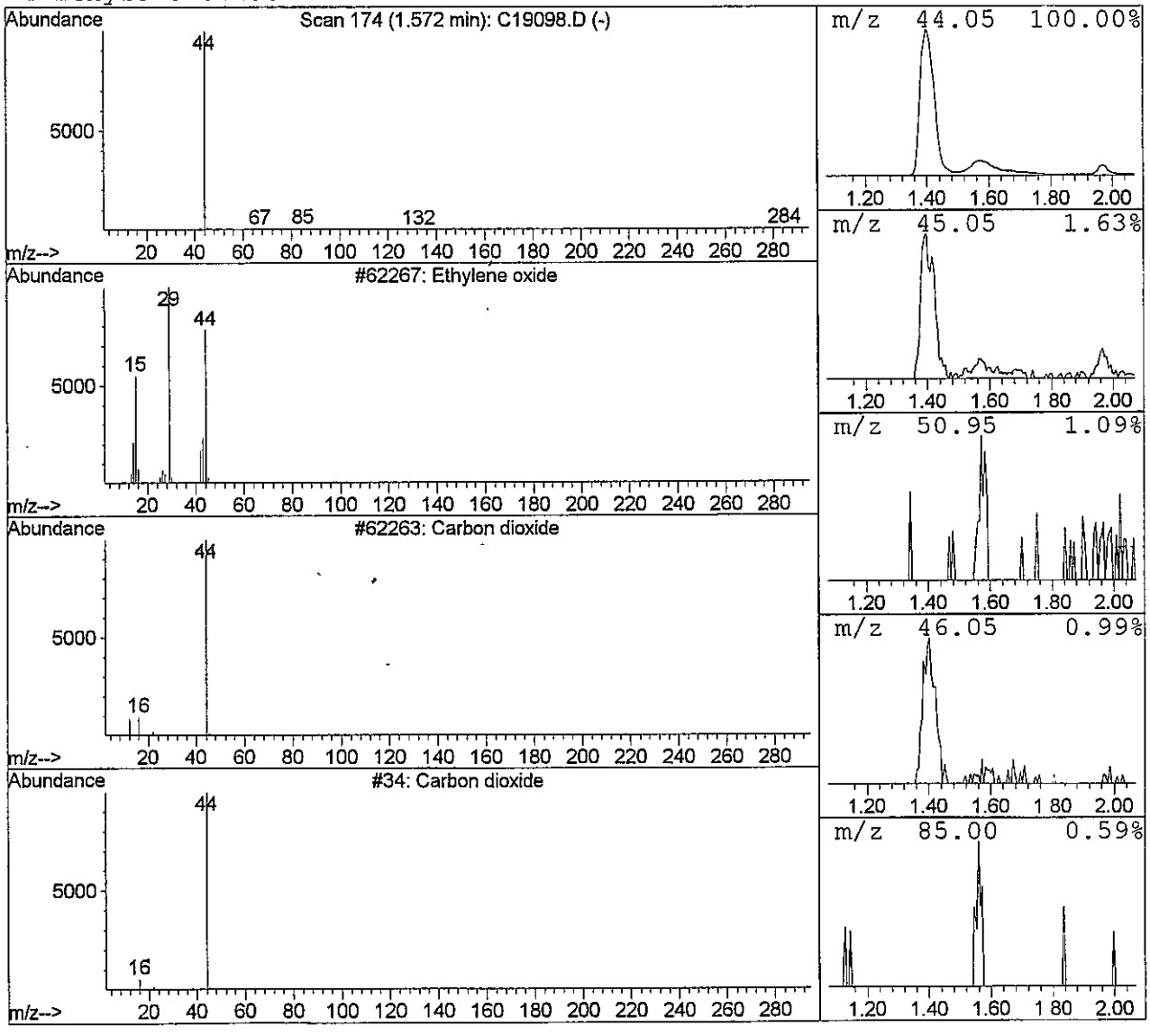
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1769840.00 ug\L	176984	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19098.D Vial: 10
Acq On : 03/22/01 11:21 Operator: JP/VRR
Sample : AC09823 5ml DF =5 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

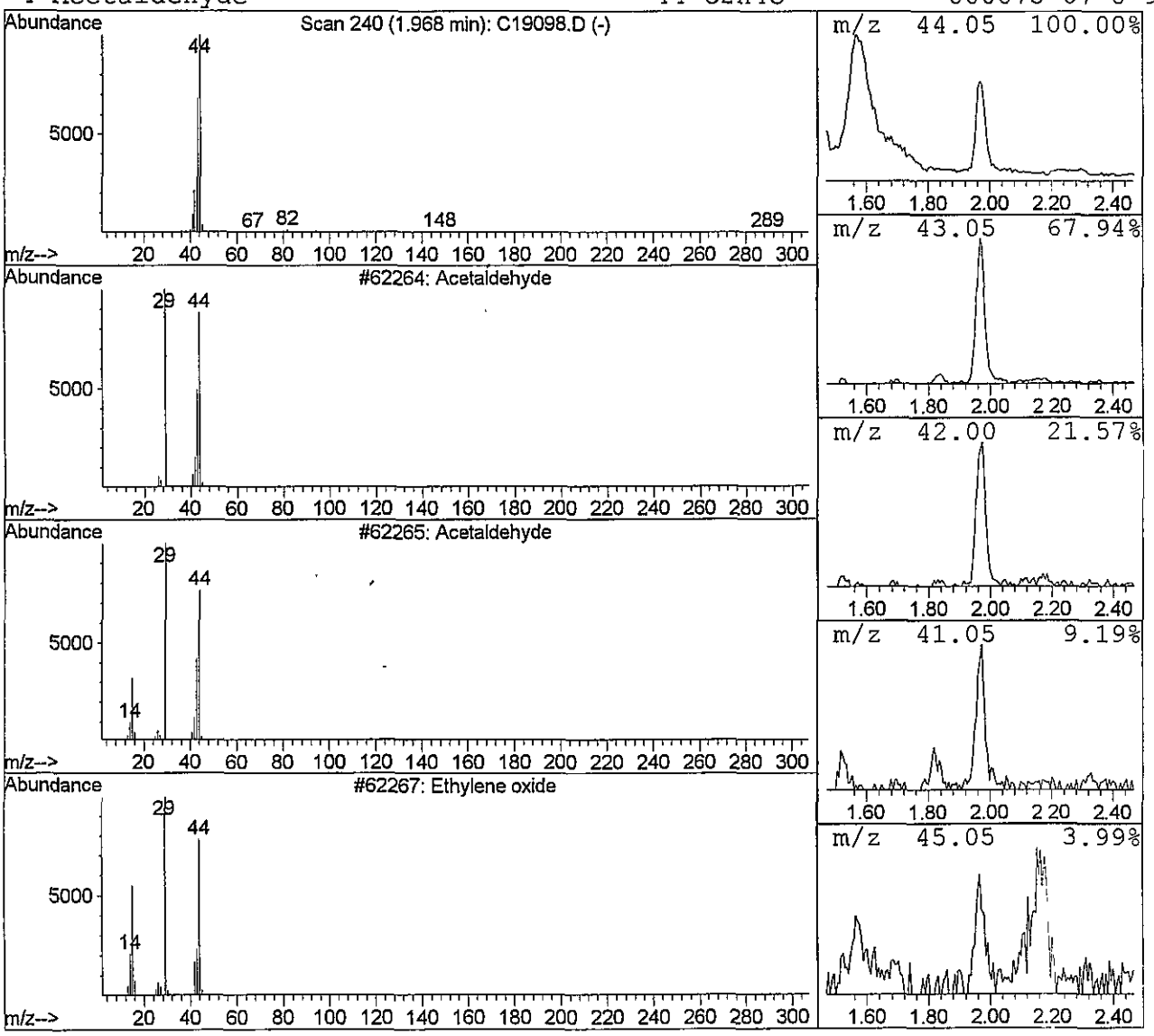
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.97	1252410.00 ug\L	125241	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	80
2	Acetaldehyde	44	C2H4O	000075-07-0	56
3	Ethylene oxide	44	C2H4O	000075-21-8	9
4	Acetaldehyde	44	C2H4O	000075-07-0	9



Data File : C:\HPCHEM\1\DATA\032201\C19098.D
Acq On : 03/22/01 11:21
Sample : AC09823 5ml DF =5
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

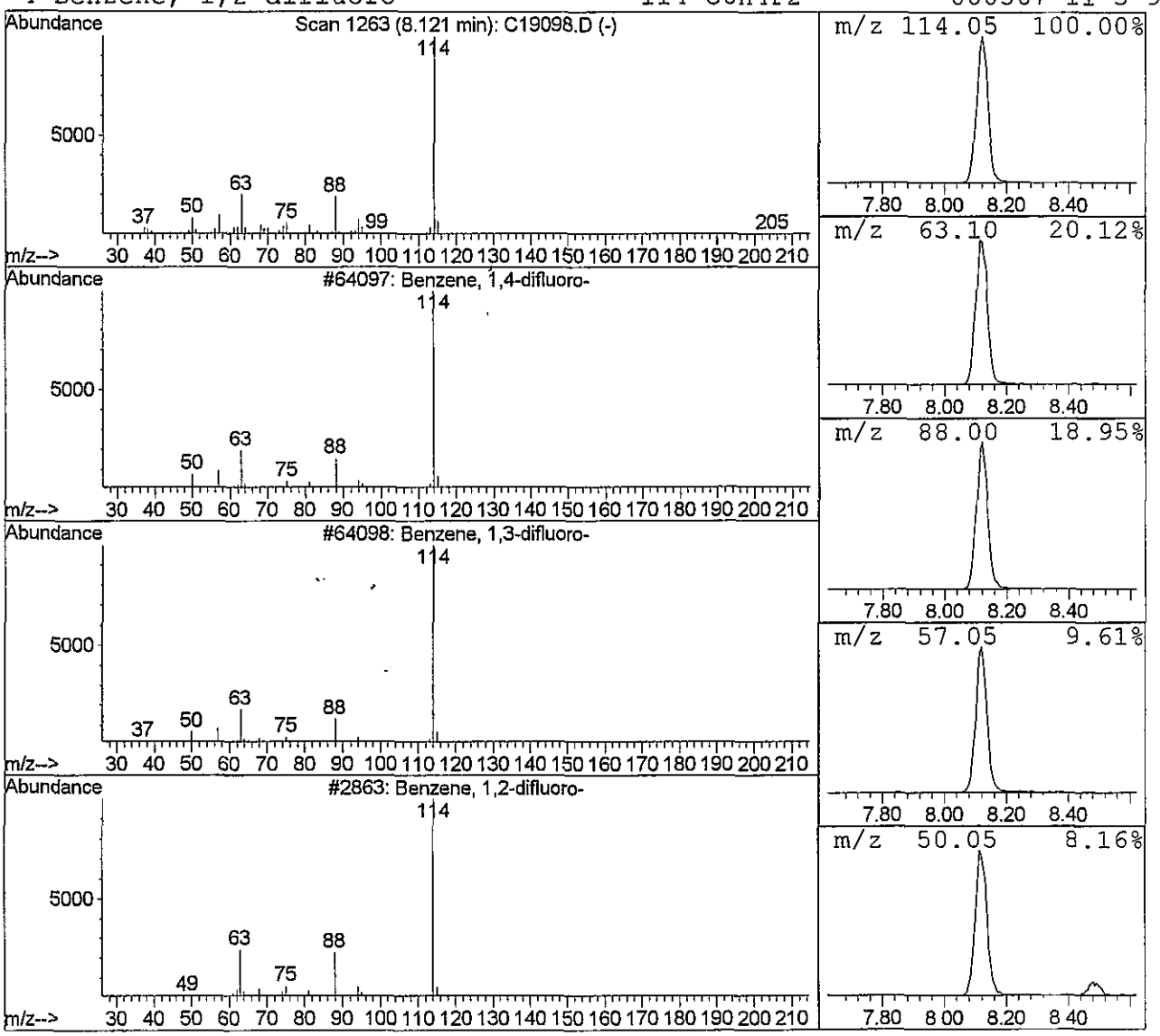
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.54 ug\L	1882360	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 11:21
Data File: C:\HPCHEM\1\DATA\032201\C19098.D
Name: AC09823 5ml DF =5
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	15854800.0	ug\L	1585480	ISTD01	0.00	1	10.0
Ethylene oxide	1.57	1769840.0	ug\L	176984	ISTD01	0.00	1	10.0
Acetaldehyde	1.97	1252410.0	ug\L	125241	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	1882360	ISTD02	6.97	1501200	10.0

C19098.D 03220125.M Thu Mar 22 13:21:29 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19102.D Vial: 15
Acq On : 03/22/01 13:06 Operator: JP/VRR
Sample : AC09824 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:45 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	464466	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.33	117	598901	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	230684	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	171380	9.18 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.80%		
46) Toluene-d8	10.27	98	878959	9.53 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.30%		
66) Bromofluorobenzene	13.97	95	251610	8.92 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 89.20%		
Target Compounds					Qvalue
16) Methylene Chloride	3.86	86	846597	71.90 ug\L *C3	96 72

VRR
3.23.01

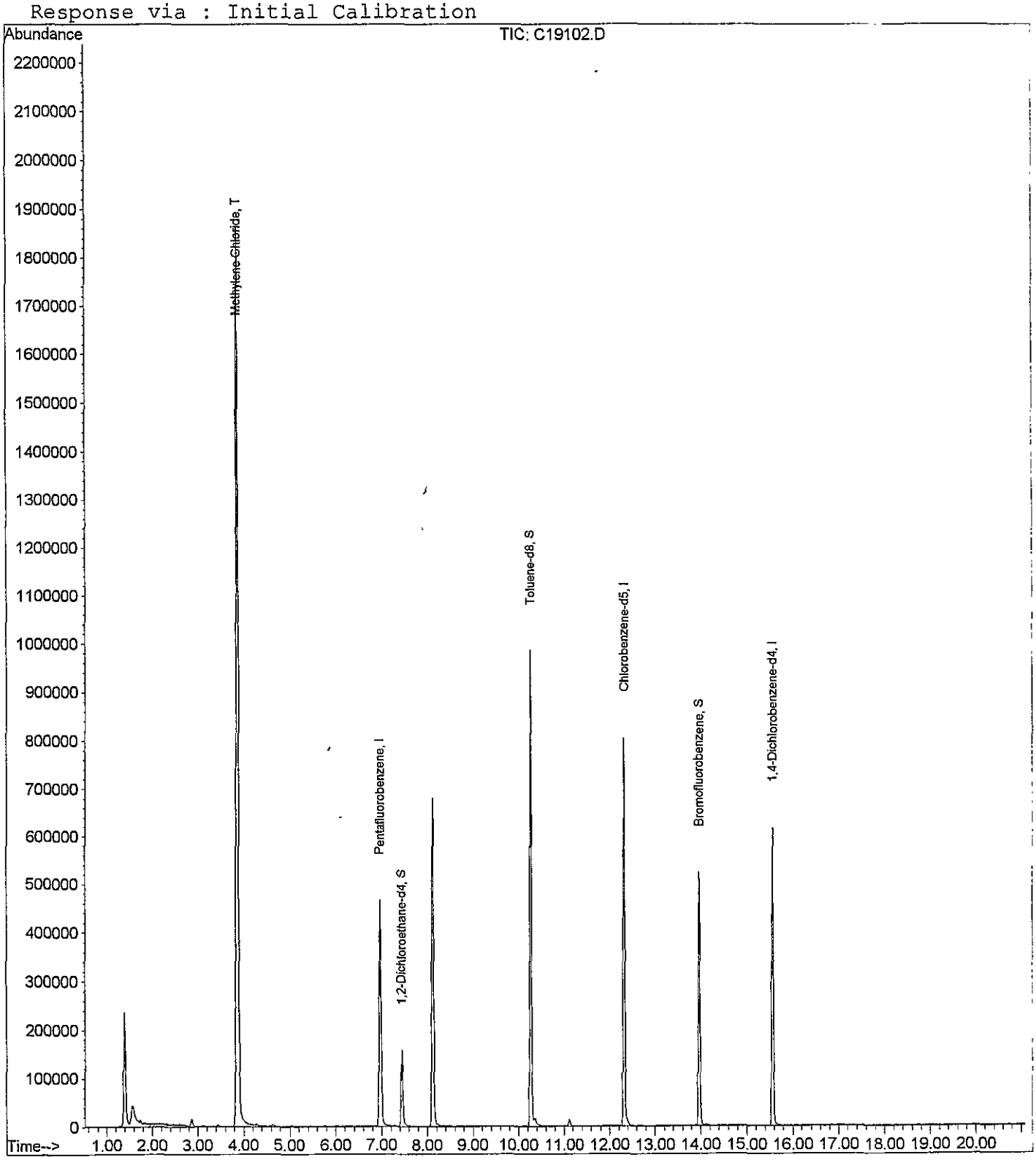
RI for confirmation
VRR

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19102.D Vial: 15
Acq On : 03/22/01 13:06 Operator: JP/VRR
Sample : AC09824 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:45 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19129.D Vial: 1
Acq On : 03/23/01 20:09 Operator: JP/VRR
Sample : AC09824 5ml DF=5 Inst : VOA-C
Misc : 27303/C0220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	374963	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.31	117	509826	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	189411	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	174169	11.56 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 115.60%		
46) Toluene-d8	10.26	98	809134	10.31 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.10%		
66) Bromofluorobenzene	13.96	95	231960	10.01 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.10%		
Target Compounds					Qvalue
16) Methylene Chloride	3.86	86	160267	16.86 ug\L	96

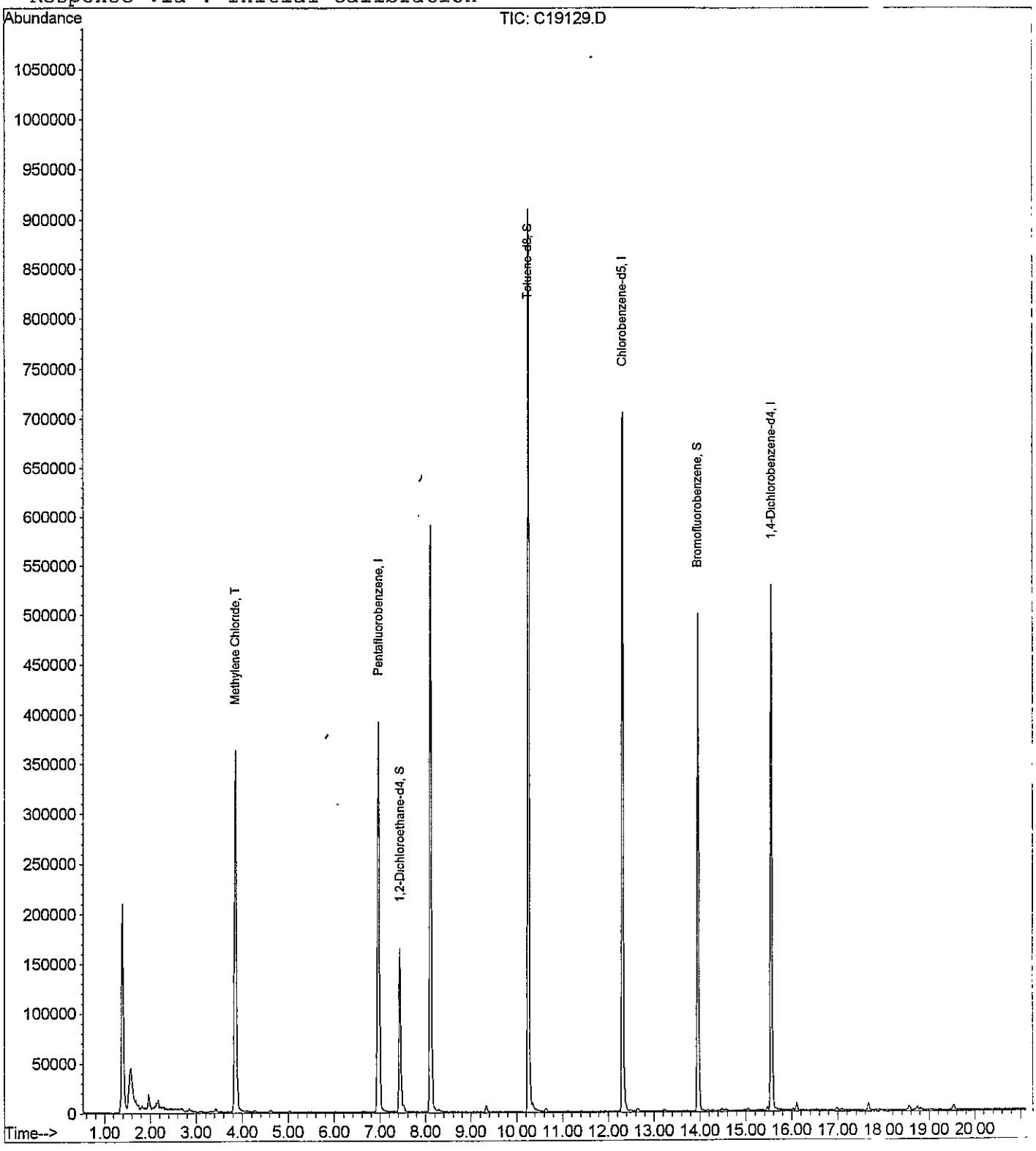
VRR
3-25-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19129.D Vial: 1
Acq On : 03/23/01 20:09 Operator: JP/VRR
Sample : AC09824 5ml DF=5 Inst : VOA-C
Misc : 27303/C0220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:42 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19102.D Vial: 15
Acq On : 03/22/01 13:06 Operator: JP/VRR
Sample : AC09824 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

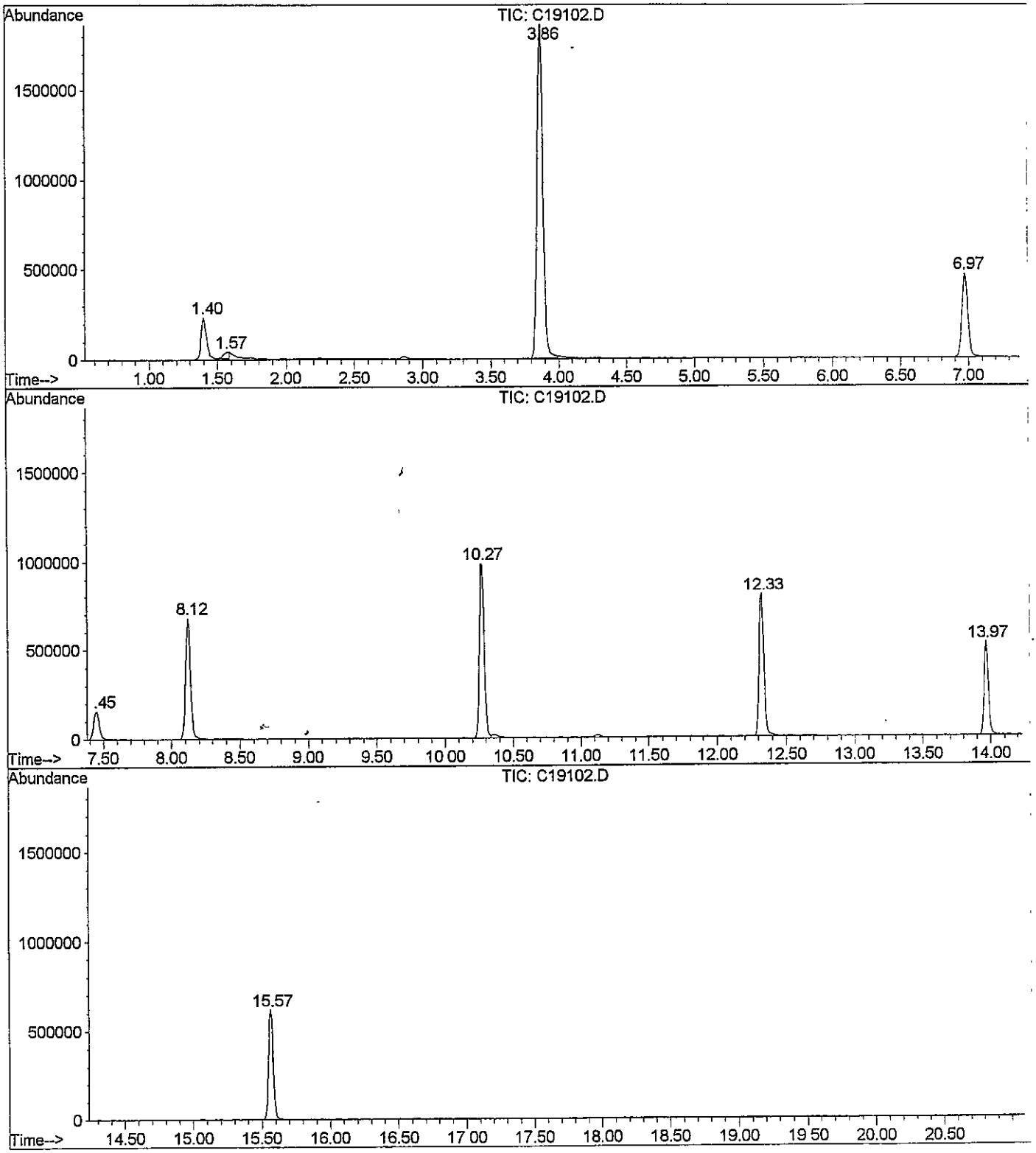
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.398	132	146	161	rBV	235124	660625	11.67%	3.910%
2	1.573	163	175	177	rBV	37152	106187	1.88%	0.628%
3	3.864	544	556	577	rBV	1863845	5659551	100.00%	33.497%
4	6.973	1061	1073	1088	rBV	465288	1402729	24.79%	8.302%
5	7.449	1141	1152	1165	rBV2	156987	450631	7.96%	2.667%
6	8.122	1252	1264	1278	rBV	679762	1754295	31.00%	10.383%
7	10.269	1610	1621	1632	rBV	983142	2329979	41.17%	13.790%
8	12.326	1953	1963	1985	rBV	802072	1898944	33.55%	11.239%
9	13.968	2227	2236	2251	rBV	523586	1206089	21.31%	7.139%
10	15.568	2492	2502	2521	rBV	615703	1426520	25.21%	8.443%

Sum of corrected areas: 16895550

C19102.D 03220125.M Thu Mar 22 14:48:11 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19102.D
Operator : JP/VRR
Acquired : 22 Mar 2001 13:06 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09824 25ml DF =1
Misc Info : 27303/C03220125
Vial Number: 15
Quant File :03220125.RES (RTE Integrator)



C19102.D 03220125.M Thu Mar 22 14:48:12 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19102.D Vial: 15
Acq On : 03/22/01 13:06 Operator: JP/VRR
Sample : AC09824 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

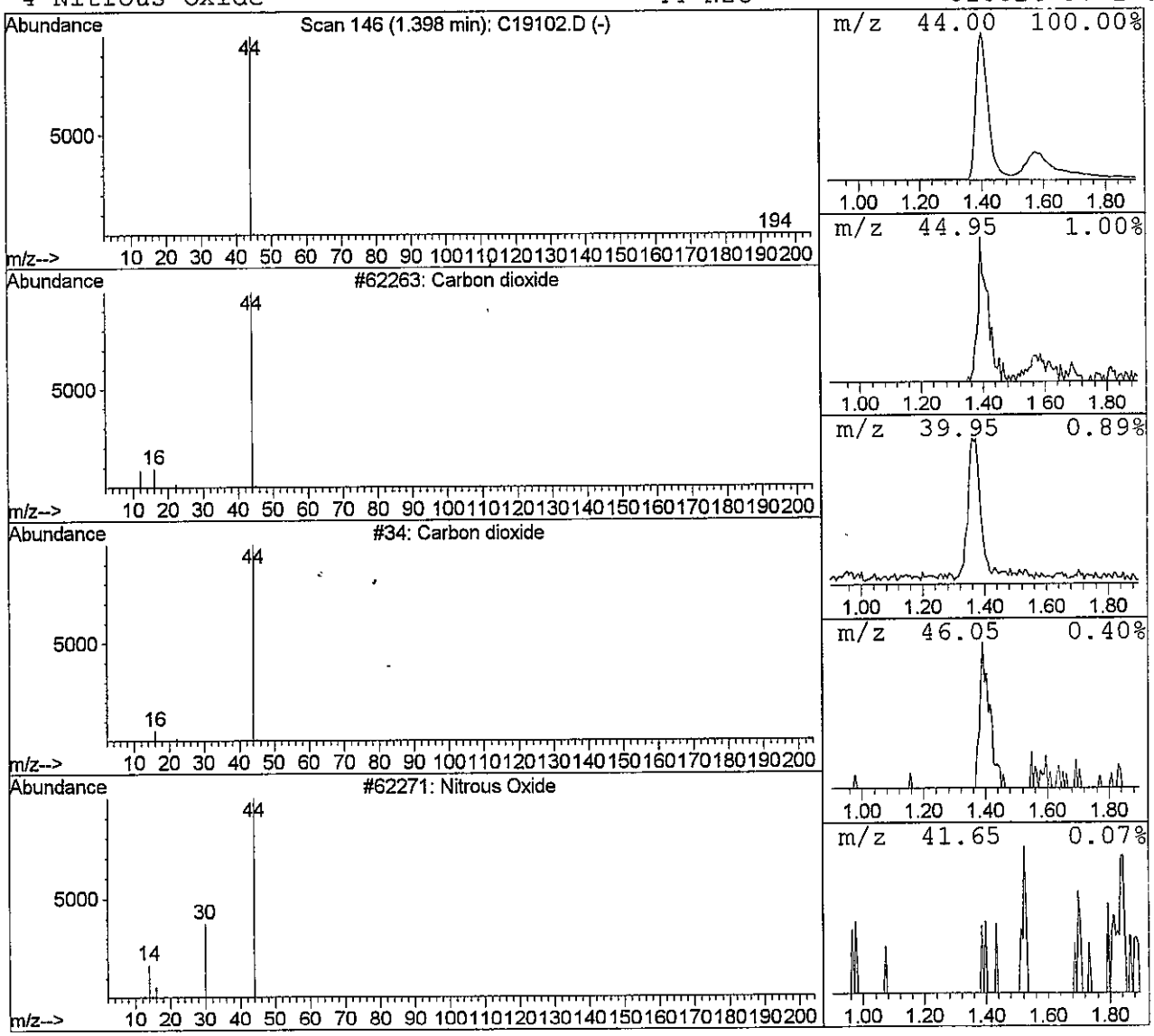
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	6606250.00 ug\L	660625	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19102.D Vial: 15
Acq On : 03/22/01 13:06 Operator: JP/VRR
Sample : AC09824 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

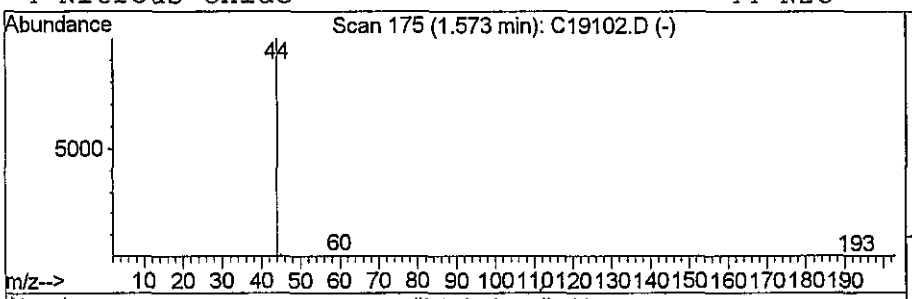
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

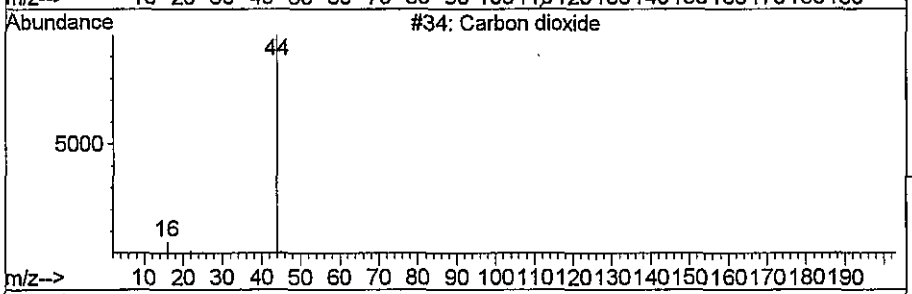
****

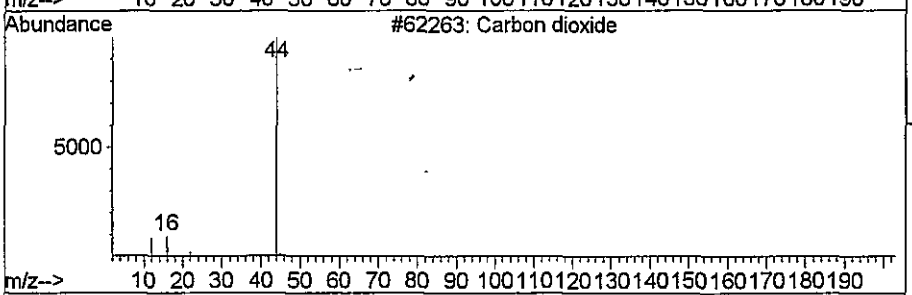
Peak Number 2 Carbon dioxide Concentration Rank 2

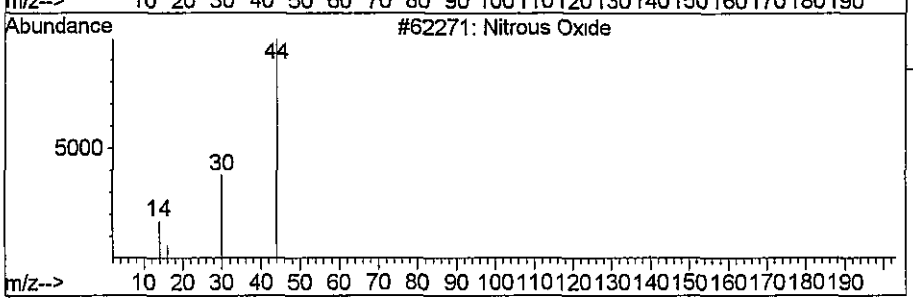
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1061870.00 ug\L	106187	1.4-Difluorobenzene	0.00

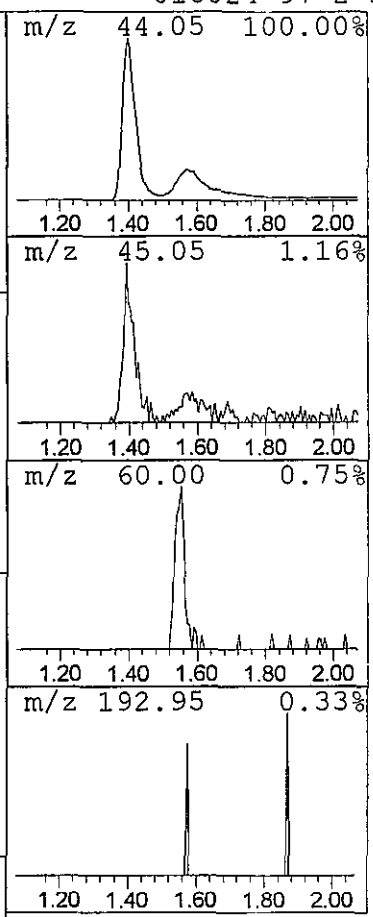
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19102.D Vial: 15
Acq On : 03/22/01 13:06 Operator: JP/VRR
Sample : AC09824 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

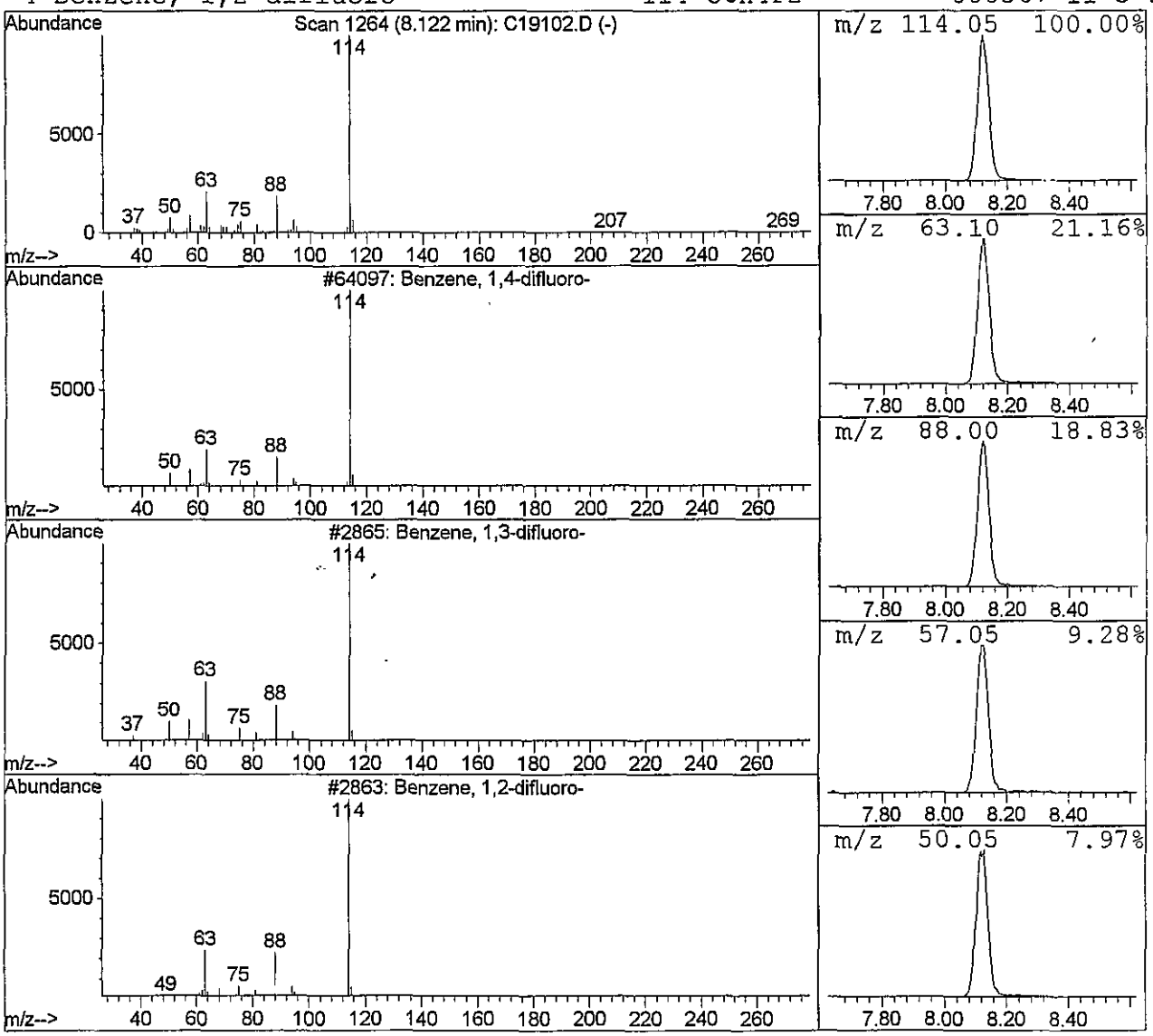
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.51 ug\L	1754300	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 13:06
Data File: C:\HPCHEM\1\DATA\032201\C19102.D
Name: AC09824 25ml DF =1
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	6606250.0	ug\L	660625	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1061870.0	ug\L	106187	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	1754300	ISTD02	6.97	1402730	10.0

C19102.D 03220125.M Thu Mar 22 14:48:18 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19117.D Vial: 4
Acq On : 03/23/01 14:25 Operator: JP/VRR
Sample : AC09824 25ml DF=1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:06 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	534069	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	677211	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	244469	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.43	65	188614	8.79	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 87.90%			
46) Toluene-d8	10.26	98	1011173	9.70	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.00%			
66) Bromofluorobenzene	13.97	95	285135	9.53	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%			
Target Compounds						Qvalue
16) Methylene Chloride	3.85	86	1077523	79.59	ug\L	98

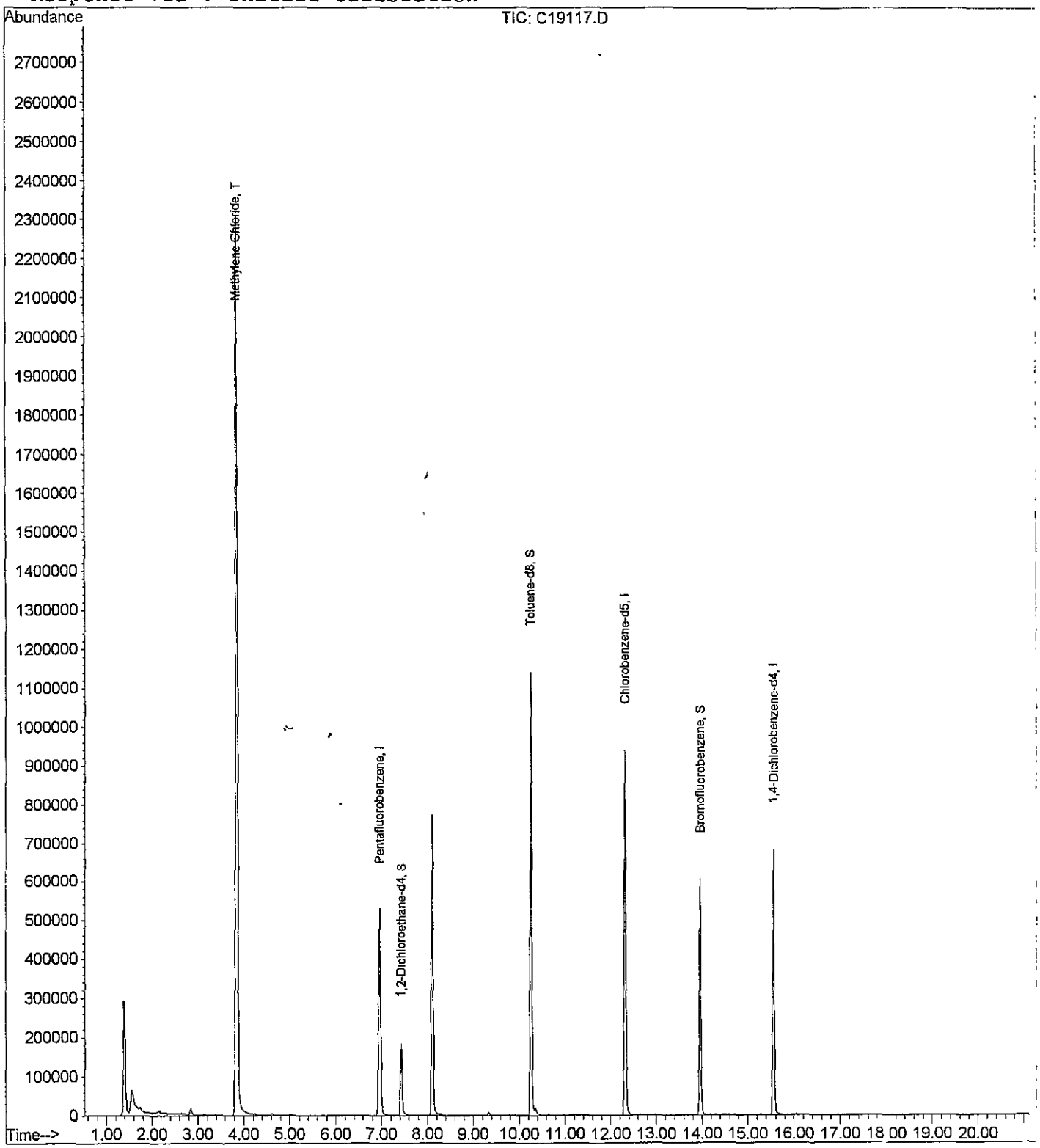
Confirmed
VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19117.D Vial: 4
Acq On : 03/23/01 14:25 Operator: JP/VRR
Sample : AC09824 25ml DF=1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:06 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19104.D Vial: 1
Acq On : 03/22/01 13:58 Operator: JP/VRR
Sample : AC09825 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:54 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	500006	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.32	117	641154	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	238526	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11

System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	184927	9.20 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 92.00%		
46) Toluene-d8	10.27	98	941465	9.54 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.40%		
66) Bromofluorobenzene	13.97	95	266068	9.12 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 91.20%		

Target Compounds					Qvalue	
3) Chloromethane	1.75	50	19571	0.65 ug\L	98	0.65J
11) Acetone	3.32	58	5581	8.18 ug\L	95	
16) Methylene Chloride	3.86	86	6699	0.53 ug\L	95	0.53J
23) 2-Butanone	6.17	72	1898m	2.96 ug\L		
36) Trichloroethene	8.48	95	295004	10.21 ug\L	99	10

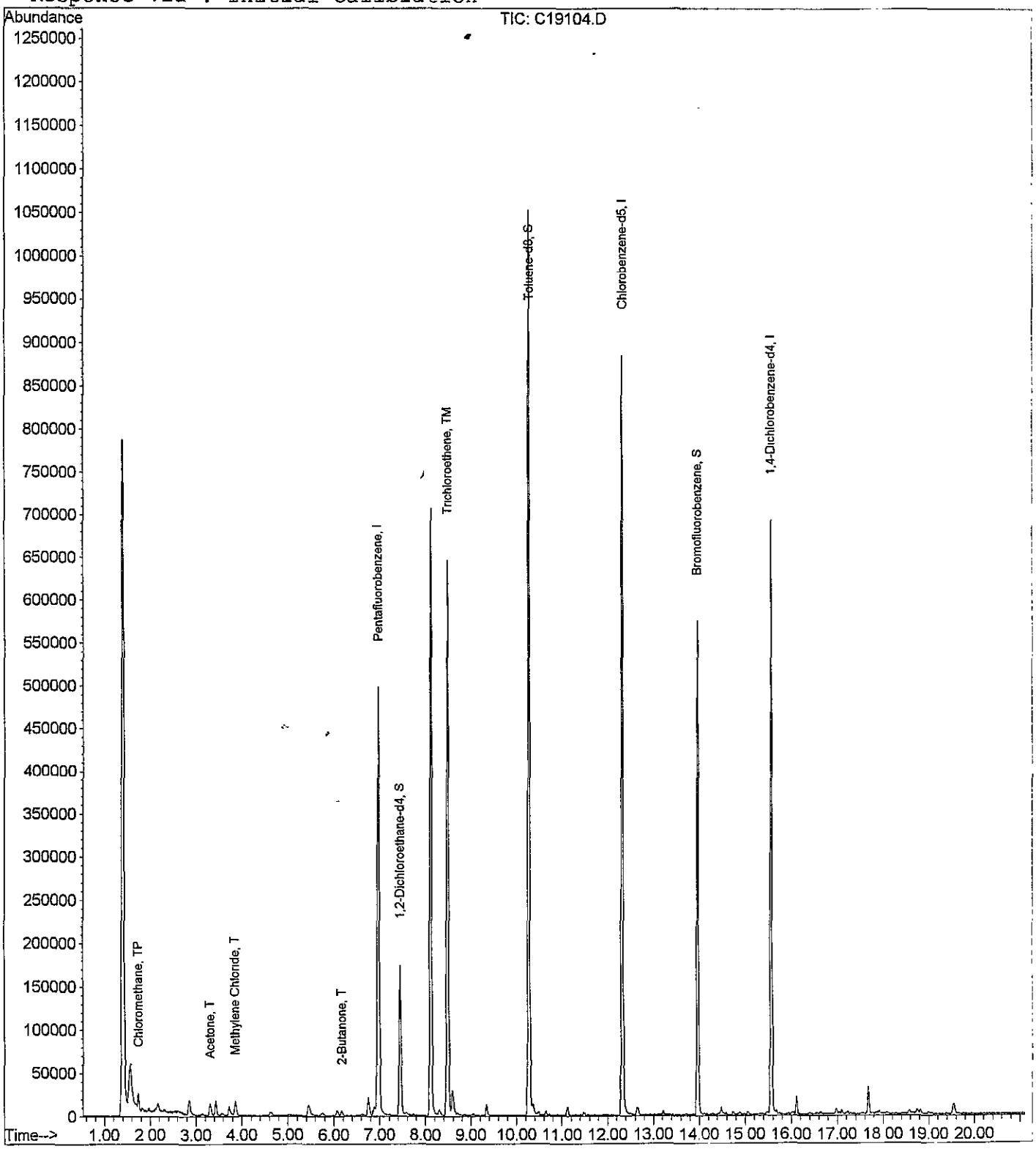
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19104.D Vial: 1
Acq On : 03/22/01 13:58 Operator: JP/VRR
Sample : AC09825 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:54 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19104.D
Acq On : 03/22/01 13:58
Sample : AC09825 25ml DF =1
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

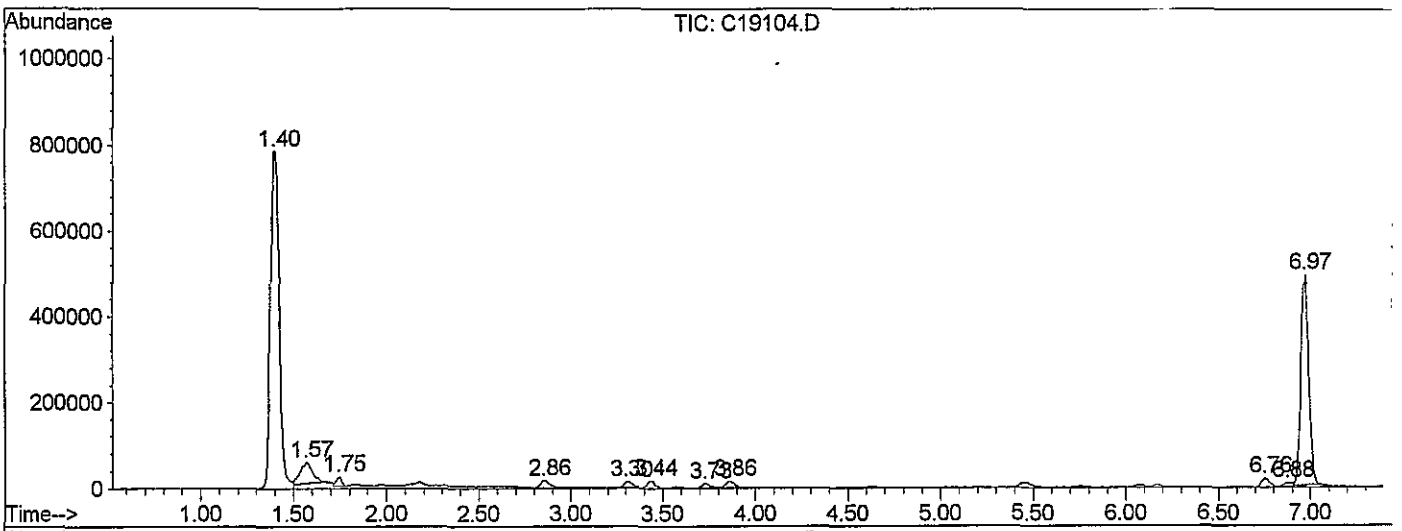
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.398	131	146	163	rBV	786482	2609857	100.00%	16.004%
2	1.572	163	175	190	rVB2	46816	224574	8.60%	1.377%
3	1.746	198	204	211	rVB3	20432	42361	1.62%	0.260%
4	2.859	380	389	401	rBV4	16865	50402	1.93%	0.309%
5	3.304	455	463	472	rBV2	13376	38842	1.49%	0.238%
6	3.436	477	485	496	rVB	17152	47313	1.81%	0.290%
7	3.731	524	534	543	rBV2	10429	29264	1.12%	0.179%
8	3.863	547	556	564	rVV3	15474	45145	1.73%	0.277%
9	6.756	1028	1037	1048	rBV2	20894	59197	2.27%	0.363%
10	6.877	1048	1057	1062	rBV5	9417	30254	1.16%	0.186%
11	6.973	1062	1073	1086	rVB2	492181	1470254	56.33%	9.016%
12	7.448	1142	1152	1165	rBV	173377	486418	18.64%	2.983%
13	8.121	1252	1264	1281	rBV	707347	1890510	72.44%	11.593%
14	8.488	1313	1325	1336	rBV	645122	1656203	63.46%	10.156%
15	8.597	1336	1343	1352	rVB3	25691	72180	2.77%	0.443%
16	9.342	1459	1467	1480	rVB3	12939	33534	1.28%	0.206%
17	10.275	1610	1622	1634	rBV	1050977	2497437	95.69%	15.315%
18	10.365	1634	1637	1647	rVB5	11482	28396	1.09%	0.174%
19	12.325	1951	1963	1983	rBV	883507	2026879	77.66%	12.429%
20	13.967	2226	2236	2250	rBV	573719	1286368	49.29%	7.888%
21	15.567	2493	2502	2514	rBV	689639	1523794	58.39%	9.344%
22	16.126	2588	2595	2602	rBV3	19702	41846	1.60%	0.257%
23	17.678	2844	2853	2863	rBV4	31728	75722	2.90%	0.464%
24	19.548	3152	3164	3173	rBV6	12447	40357	1.55%	0.247%

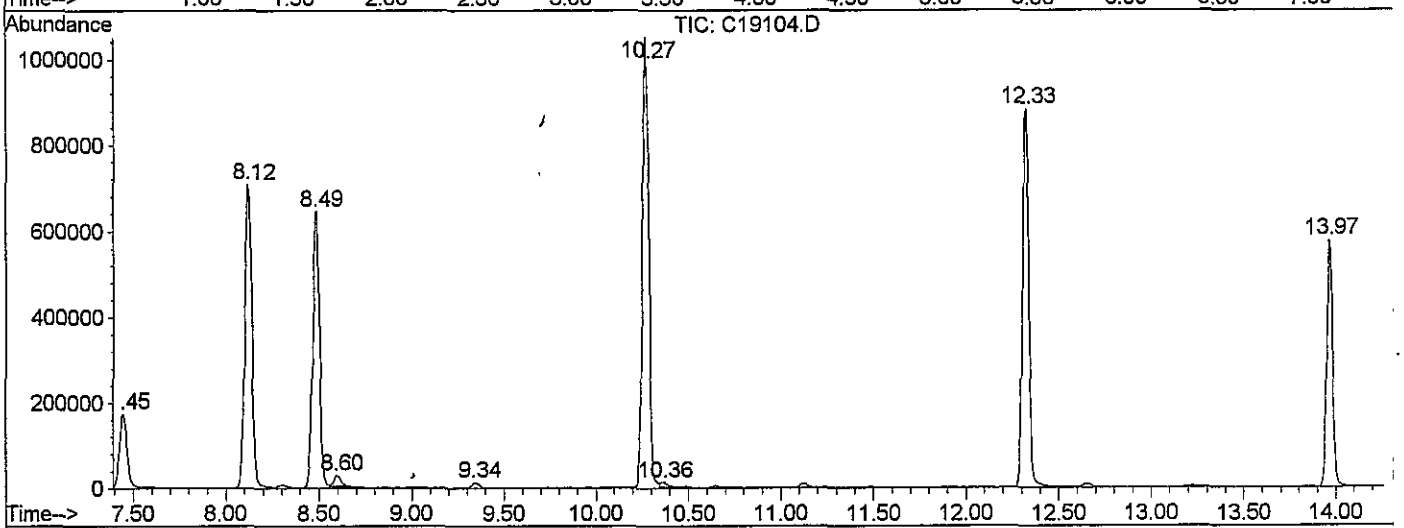
Sum of corrected areas: 16307107

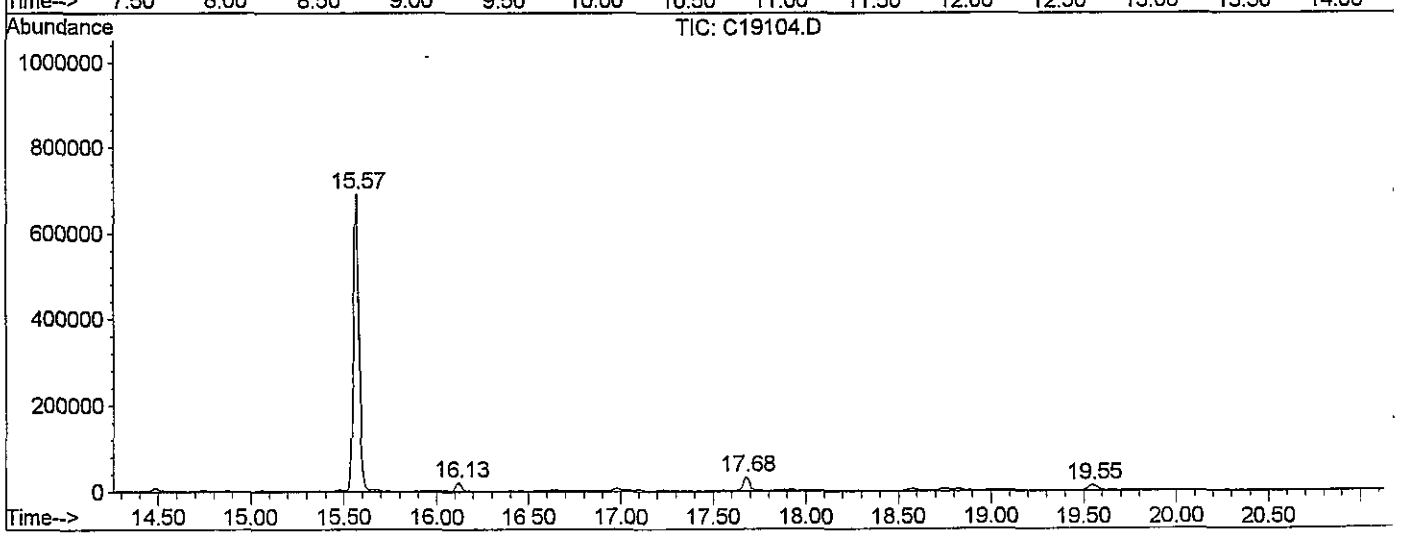
C19104.D 03220125.M Thu Mar 22 14:55:46 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19104.D
Operator : JP/VRR
Acquired : 22 Mar 2001 13:58 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09825 25ml DF =1
Misc Info : 27303/C03220125
Vial Number: 1
Quant File :03220125.RES (RTE Integrator)







C19104.D 03220125.M Thu Mar 22 14:55:47 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19104.D Vial: 1
Acq On : 03/22/01 13:58 Operator: JP/VRR
Sample : AC09825 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

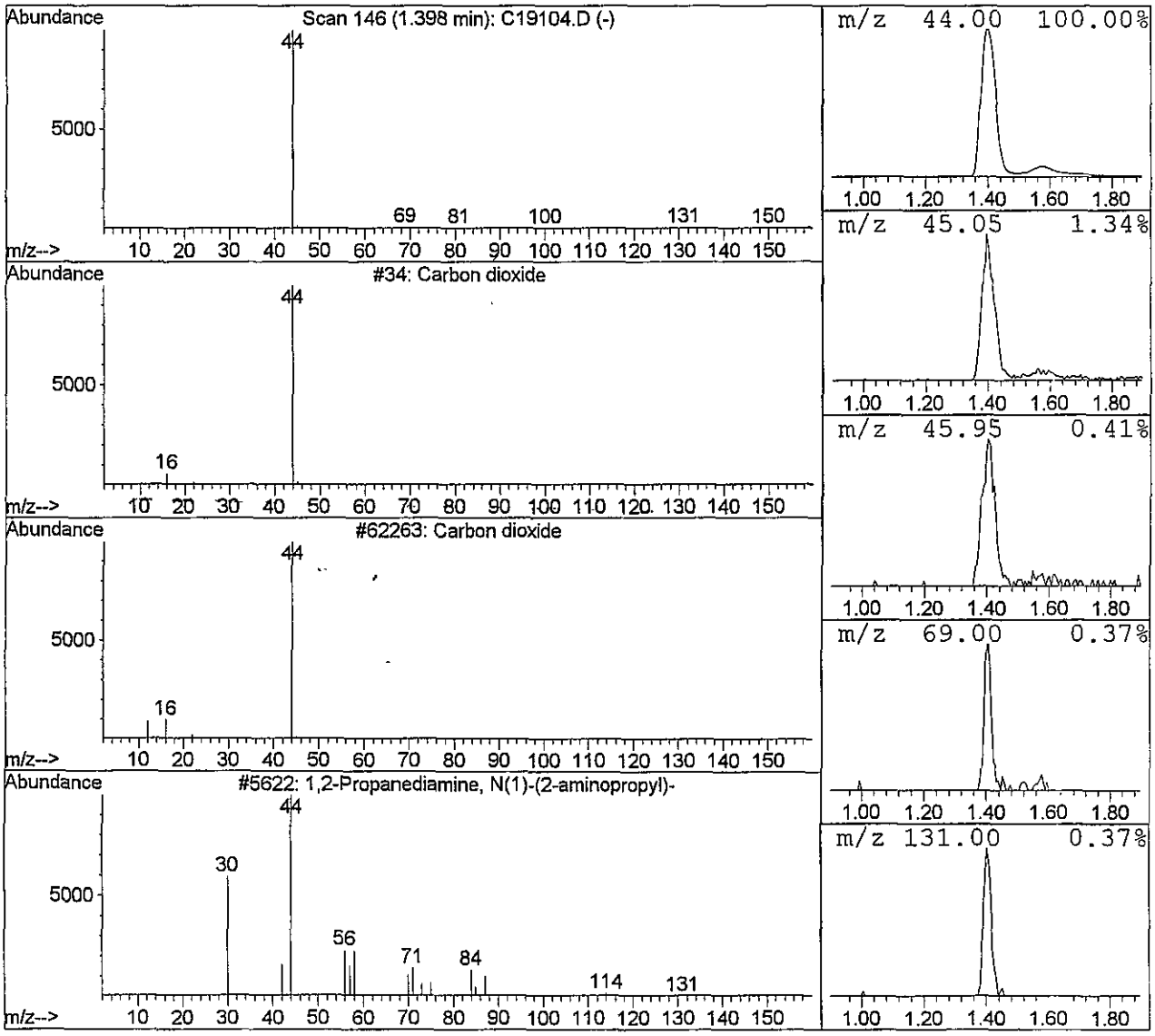
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	26098600.00 ug\L	26098601.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032201\C19104.D Vial: 1
Acq On : 03/22/01 13:58 Operator: JP/VRR
Sample : AC09825 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

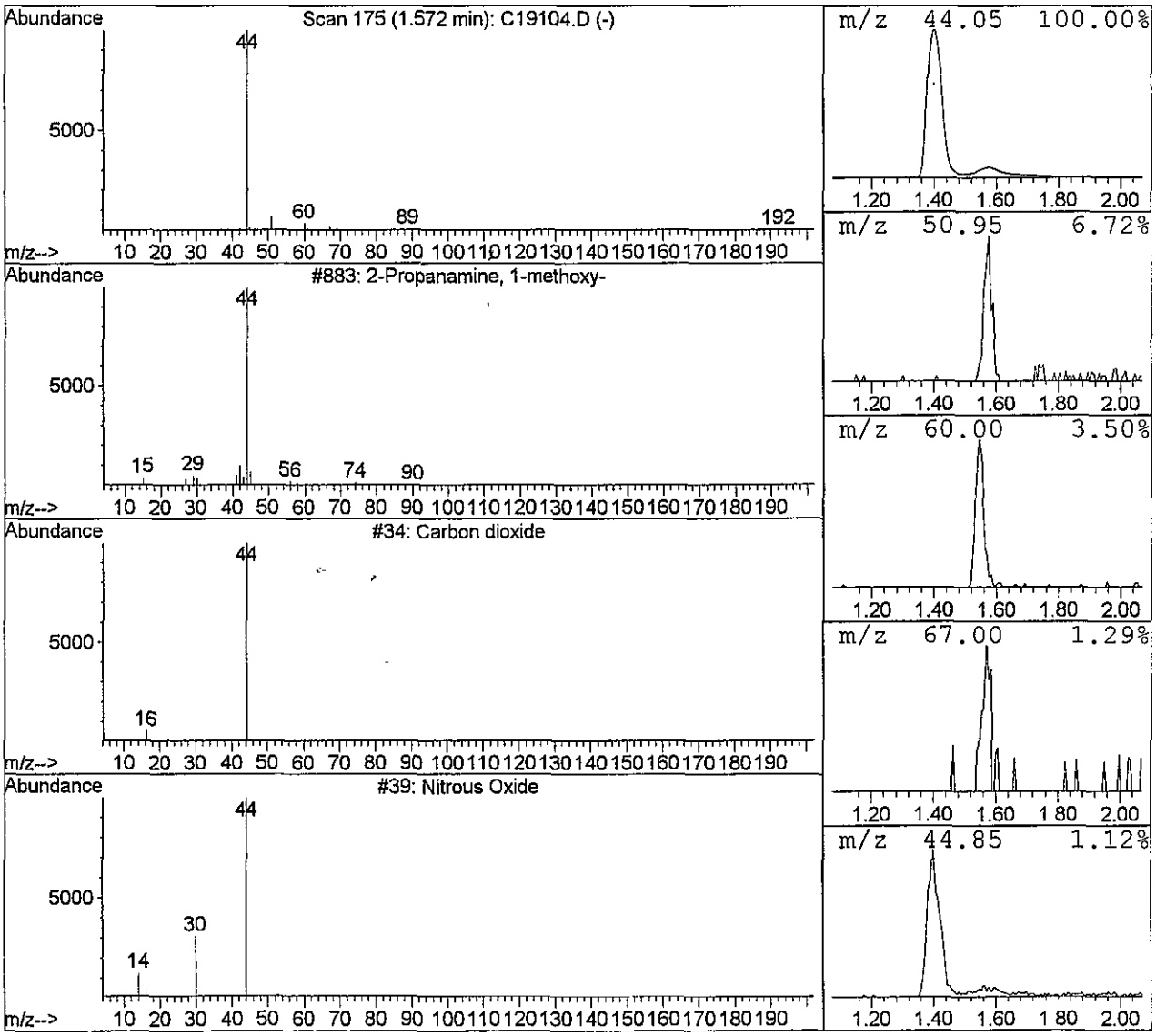
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 2-Propanamine, 1-methoxy- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	2245740.00 ug\L	224574	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propanamine, 1-methoxy-	89	C4H11NO	037143-54-7	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032201\C19104.D Vial: 1
Acq On : 03/22/01 13:58 Operator: JP/VRR
Sample : AC09825 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

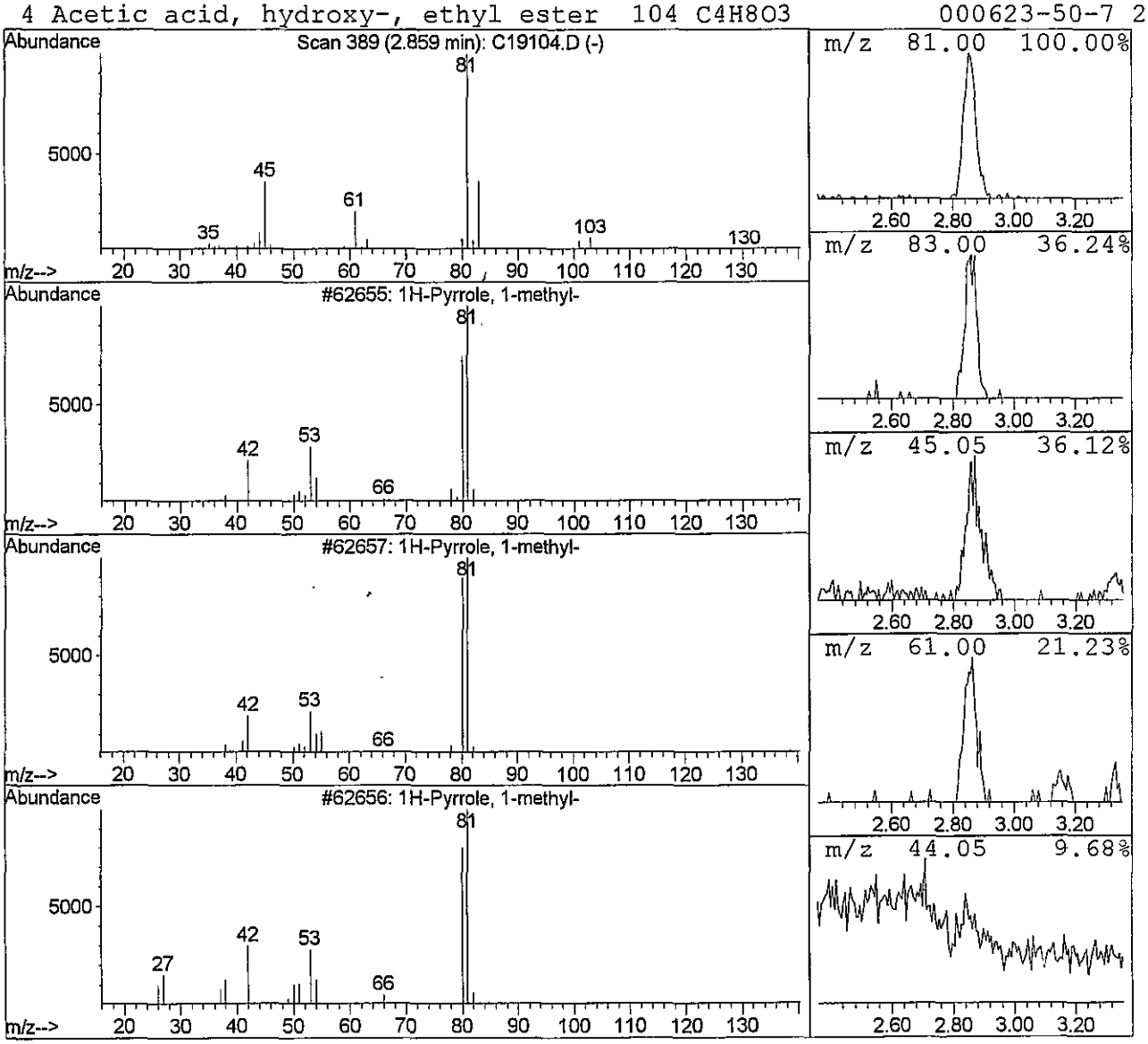
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 1H-Pyrrole, 1-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.86	504020.00 ug\L	50402	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Pyrrole, 1-methyl-	81	C5H7N	000096-54-8	5
2	1H-Pyrrole, 1-methyl-	81	C5H7N	000096-54-8	3
3	1H-Pyrrole, 1-methyl-	81	C5H7N	000096-54-8	3
4	Acetic acid, hydroxy-, ethyl ester	104	C4H8O3	000623-50-7	2



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19104.D
Acq On : 03/22/01 13:58
Sample : AC09825 25ml DF =1
Misc : 27303/C03220125
MS Integration Params: LSCINT.P

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

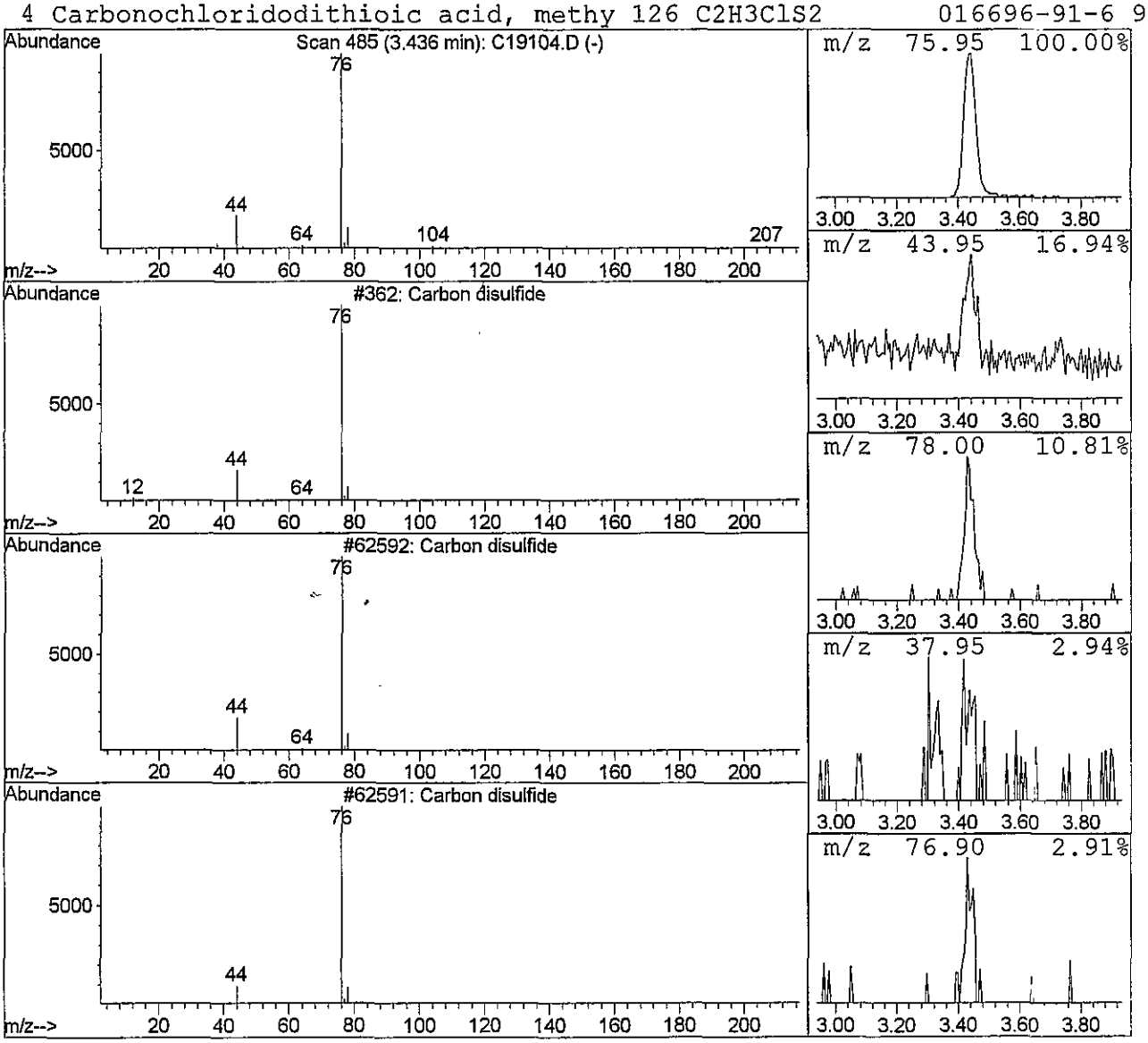
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Carbon disulfide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.44	473130.00 ug\L	47313	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	83
2	Carbon disulfide	76	CS2	000075-15-0	83
3	Carbon disulfide	76	CS2	000075-15-0	9
4	Carbonochloridodithioic acid, methy	126	C2H3ClS2	016696-91-6	9



Data File : C:\HPCHEM\1\DATA\032201\C19104.D Vial: 1
Acq On : 03/22/01 13:58 Operator: JP/VRR
Sample : AC09825 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

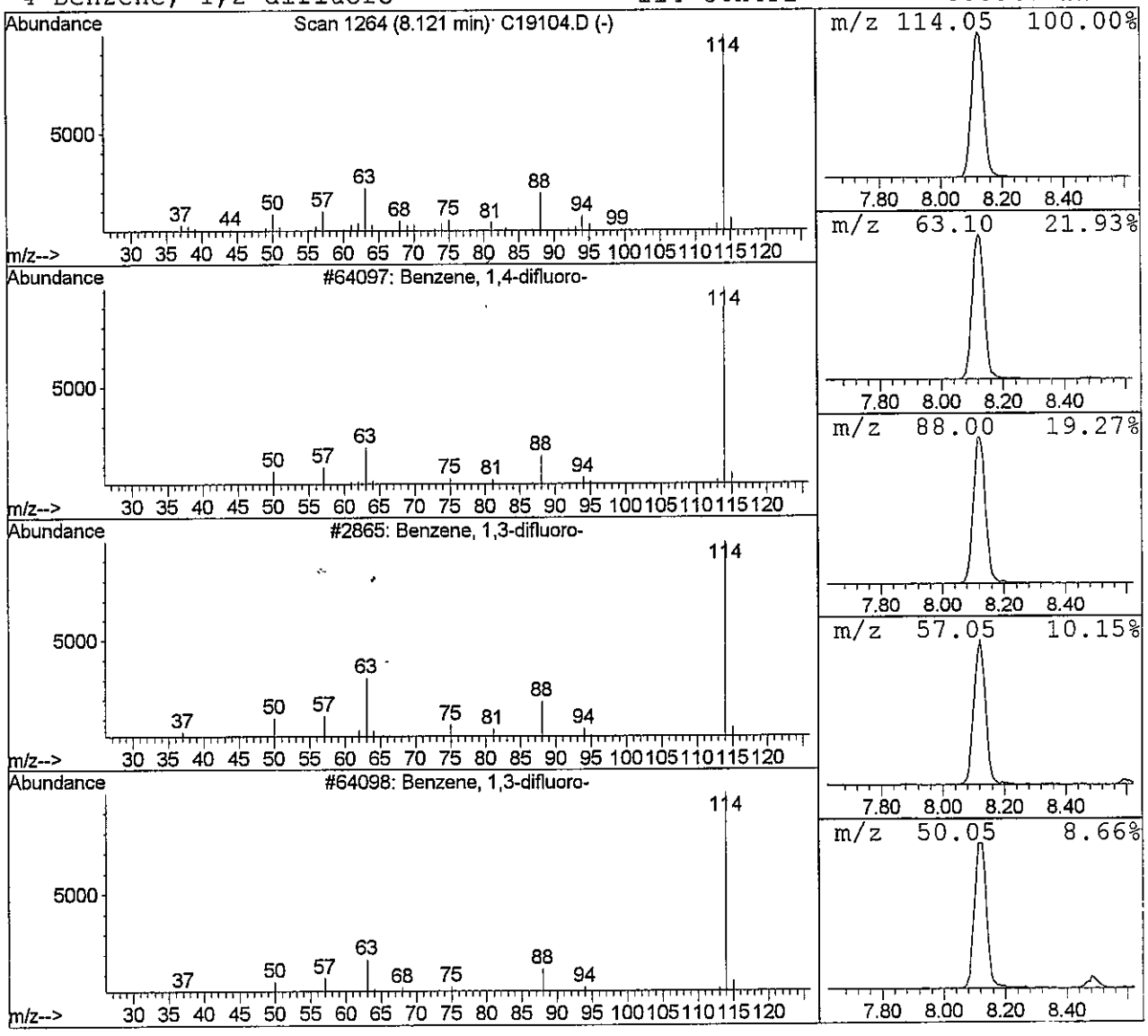
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Benzene, 1,4-difluoro- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.86 ug\L	1890510	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 13:58
Data File: C:\HPCHEM\1\DATA\032201\C19104.D
Name: AC09825 25ml DF =1
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	26098600.0	ug\L	2609860	ISTD01	0.00	1	10.0
2-Propanamine, 1-met	1.57	2245740.0	ug\L	224574	ISTD01	0.00	1	10.0
1H-Pyrrole, 1-methyl	2.86	504020.0	ug\L	50402	ISTD01	0.00	1	10.0
Carbon disulfide	3.44	473130.0	ug\L	47313	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.9	ug\L	1890510	ISTD02	6.98	1470250	10.0

C19104.D 03220125.M Thu Mar 22 14:55:56 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19103.D Vial: 16
Acq On : 03/22/01 13:32 Operator: JP/VRR
Sample : AC09826 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:50 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	454163	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	570623	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	212640	10.00	ug\L	0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	179314	9.83	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.30%			
46) Toluene-d8	10.27	98	887697	10.11	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.10%			
66) Bromofluorobenzene	13.97	95	247991	9.53	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%			
Target Compounds						Qvalue
16) Methylene Chloride	3.87	86	7670	0.67	ug\L	96 0.675

ACO VRR
3.23.01

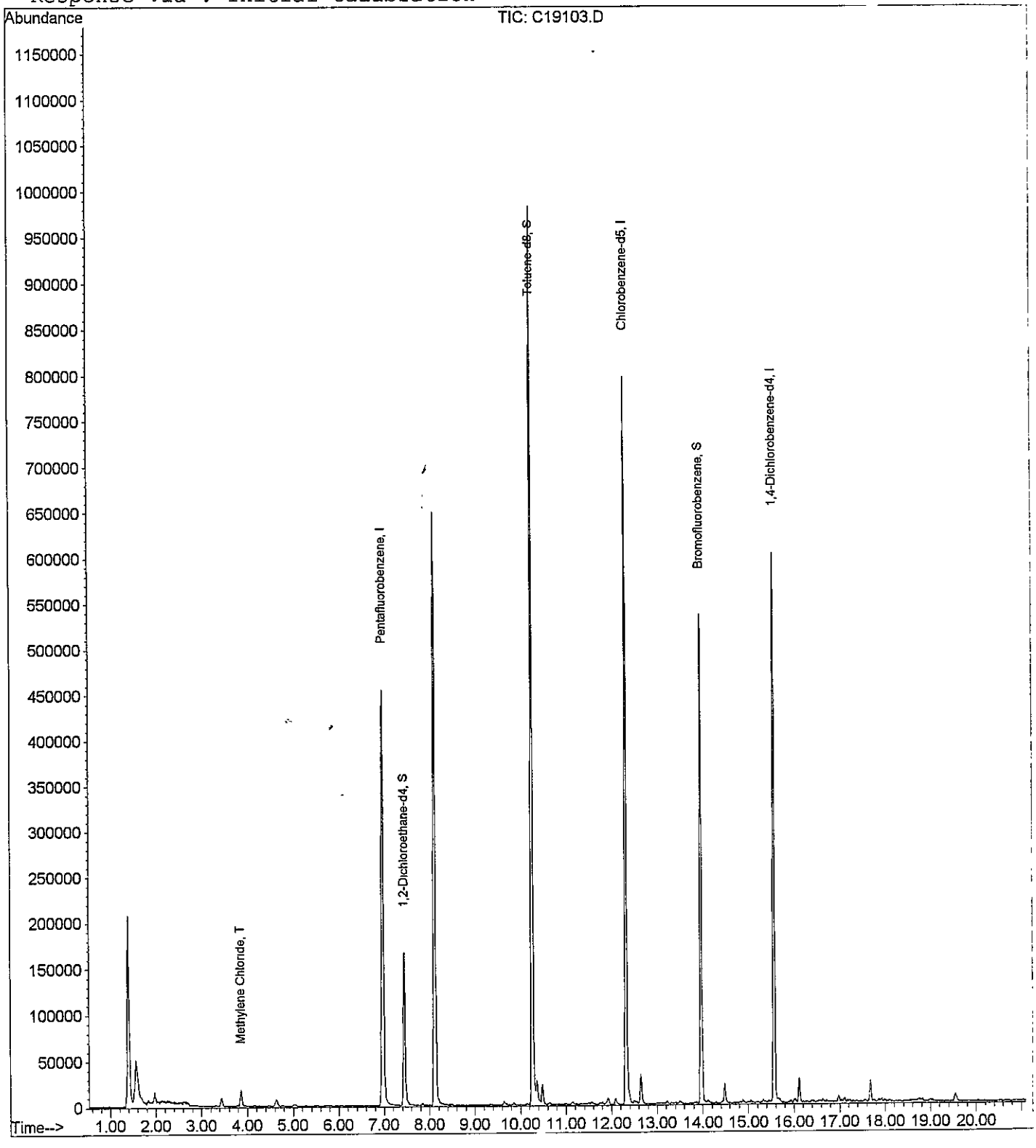
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19103.D
Acq On : 03/22/01 13:32
Sample : AC09826 25ml DF =1
Misc : 27303/C03220125
MS Integration Params: rteint.p
Quant Time: Mar 22 14:50 2001

Vial: 16
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19103.D Vial: 16
Acq On : 03/22/01 13:32 Operator: JP/VRR
Sample : AC09826 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

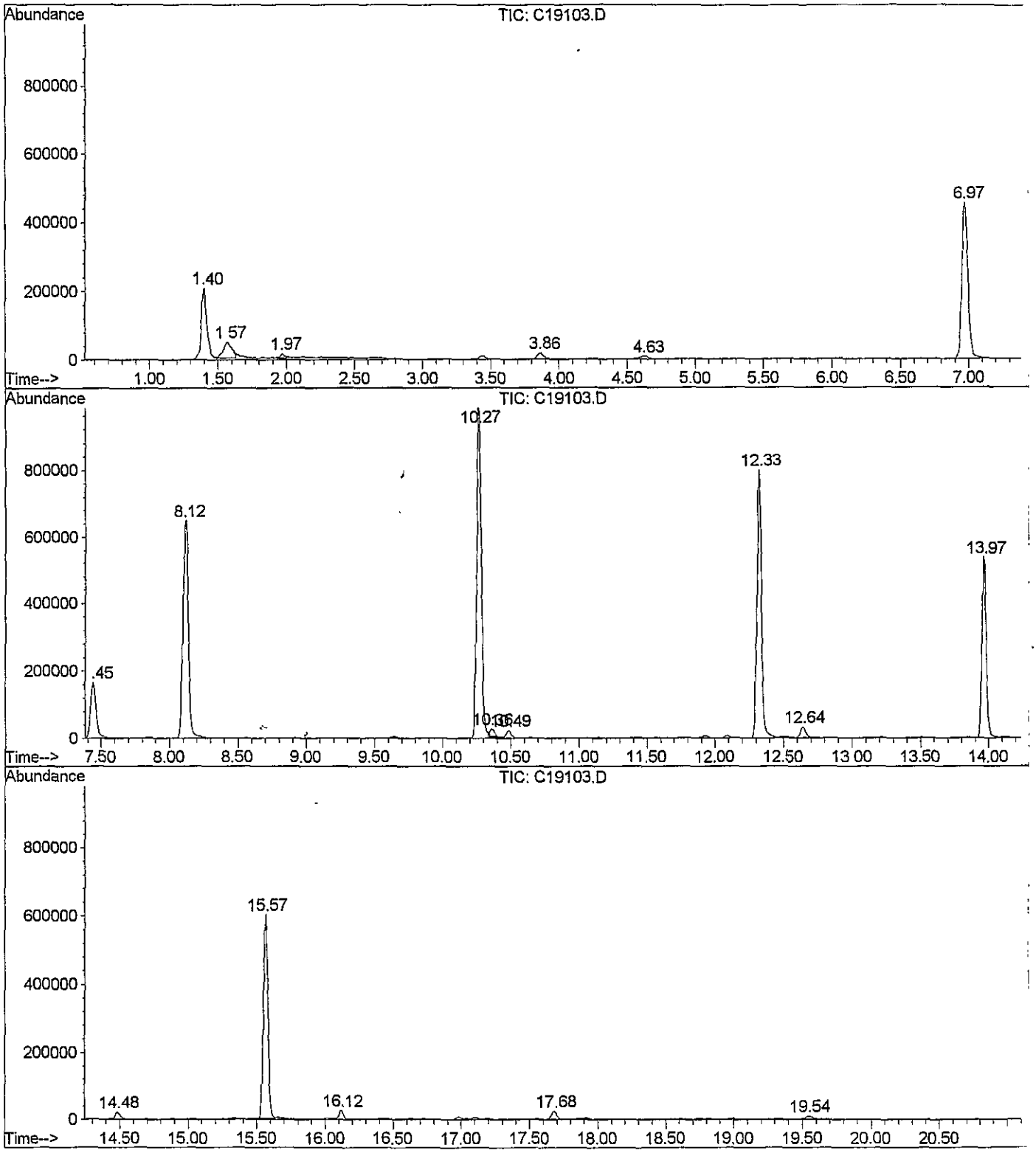
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.398	131	146	162	rBV	207082	607546	25.94%	5.252%
2	1.566	162	174	185	rBV	44949	186666	7.97%	1.614%
3	1.969	234	241	247	rBV	12152	25428	1.09%	0.220%
4	3.864	548	556	564	rBV3	17516	46810	2.00%	0.405%
5	4.627	672	683	693	rBV6	7287	24808	1.06%	0.214%
6	6.973	1059	1073	1093	rBV2	455231	1390858	59.39%	12.025%
7	7.448	1139	1152	1167	rBV	165899	464431	19.83%	4.015%
8	8.122	1251	1264	1283	rBV	649018	1737011	74.17%	15.017%
9	10.269	1611	1621	1632	rBV	982147	2341998	100.00%	20.248%
10	10.359	1634	1636	1645	rVB2	22768	46701	1.99%	0.404%
11	10.491	1650	1658	1665	rVB4	21454	53947	2.30%	0.466%
12	12.326	1953	1963	1987	rBV	797287	1819365	77.68%	15.729%
13	12.644	2007	2016	2027	rBV5	32014	81259	3.47%	0.703%
14	13.968	2228	2236	2251	rBV	535105	1193221	50.95%	10.316%
15	14.485	2316	2322	2333	rVB4	21541	46737	2.00%	0.404%
16	15.567	2493	2502	2513	rBV2	600664	1352916	57.77%	11.697%
17	16.121	2587	2594	2606	rVB4	26631	60396	2.58%	0.522%
18	17.684	2844	2854	2861	rBV4	24755	60979	2.60%	0.527%
19	19.543	3157	3163	3175	rVB7	8648	25723	1.10%	0.222%

Sum of corrected areas: 11566800

C19103.D 03220125.M Thu Mar 22 14:51:11 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19103.D
Operator : JP/VRR
Acquired : 22 Mar 2001 13:32 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09826 25ml DF =1
Misc Info : 27303/C03220125
Vial Number: 16
Quant File :03220125.RES (RTE Integrator)



C19103.D 03220125.M Thu Mar 22 14:51:13 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19103.D Vial: 16
Acq On : 03/22/01 13:32 Operator: JP/VRR
Sample : AC09826 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

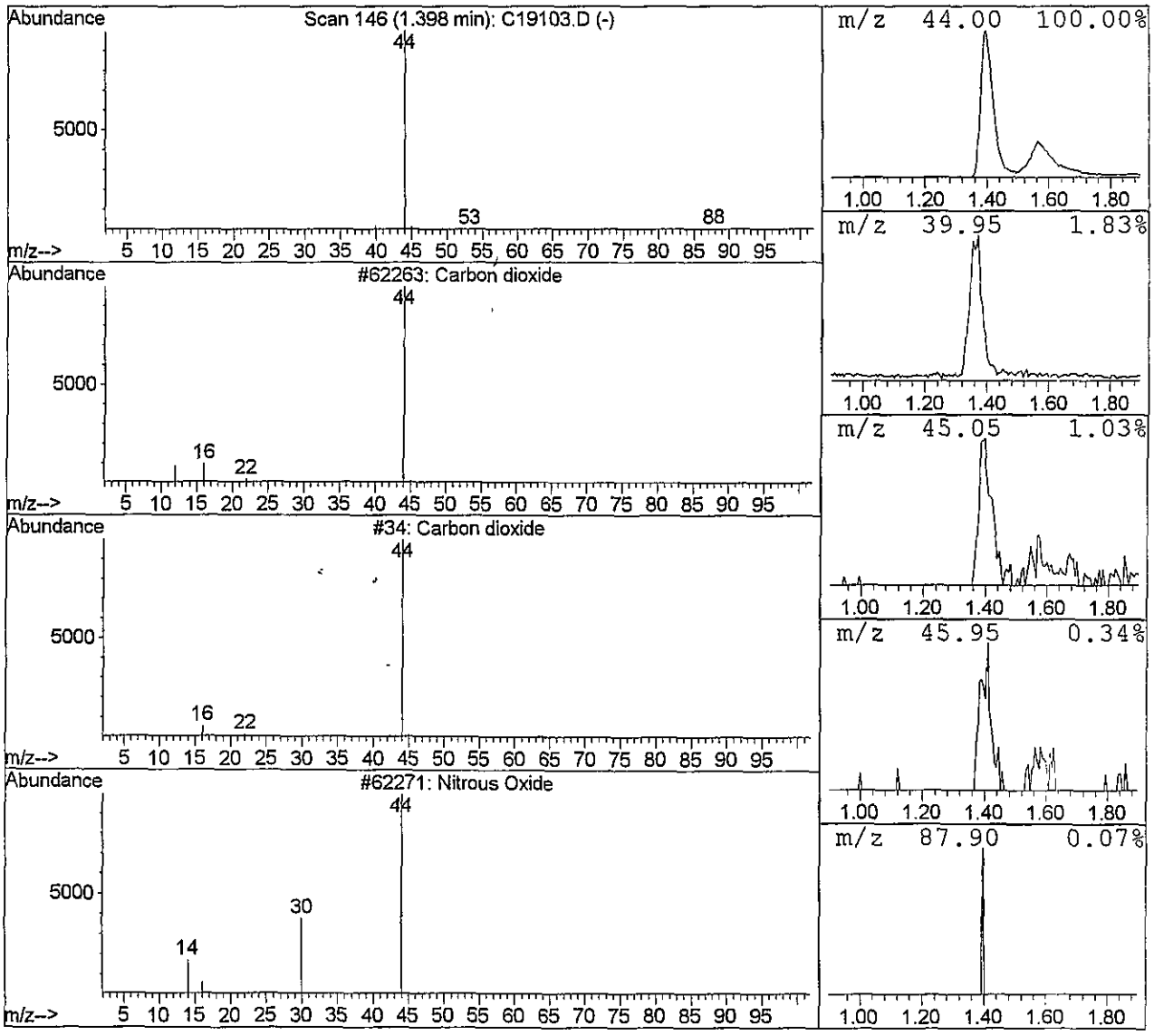
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	6075460.00 ug\L	607546	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19103.D Vial: 16
Acq On : 03/22/01 13:32 Operator: JP/VRR
Sample : AC09826 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

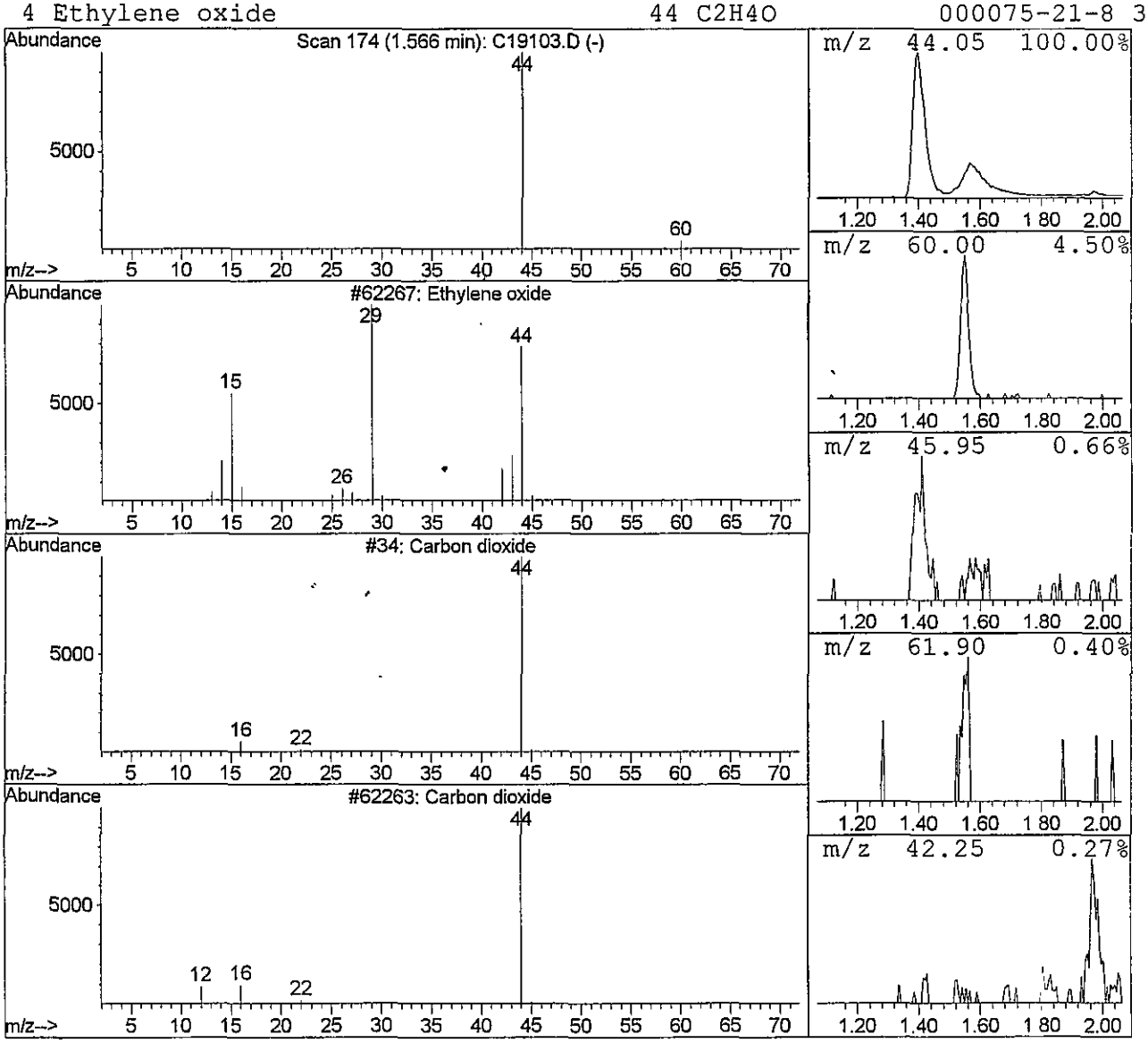
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1866660.00 ug\L	186666	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19103.D Vial: 16
Acq On : 03/22/01 13:32 Operator: JP/VRR
Sample : AC09826 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

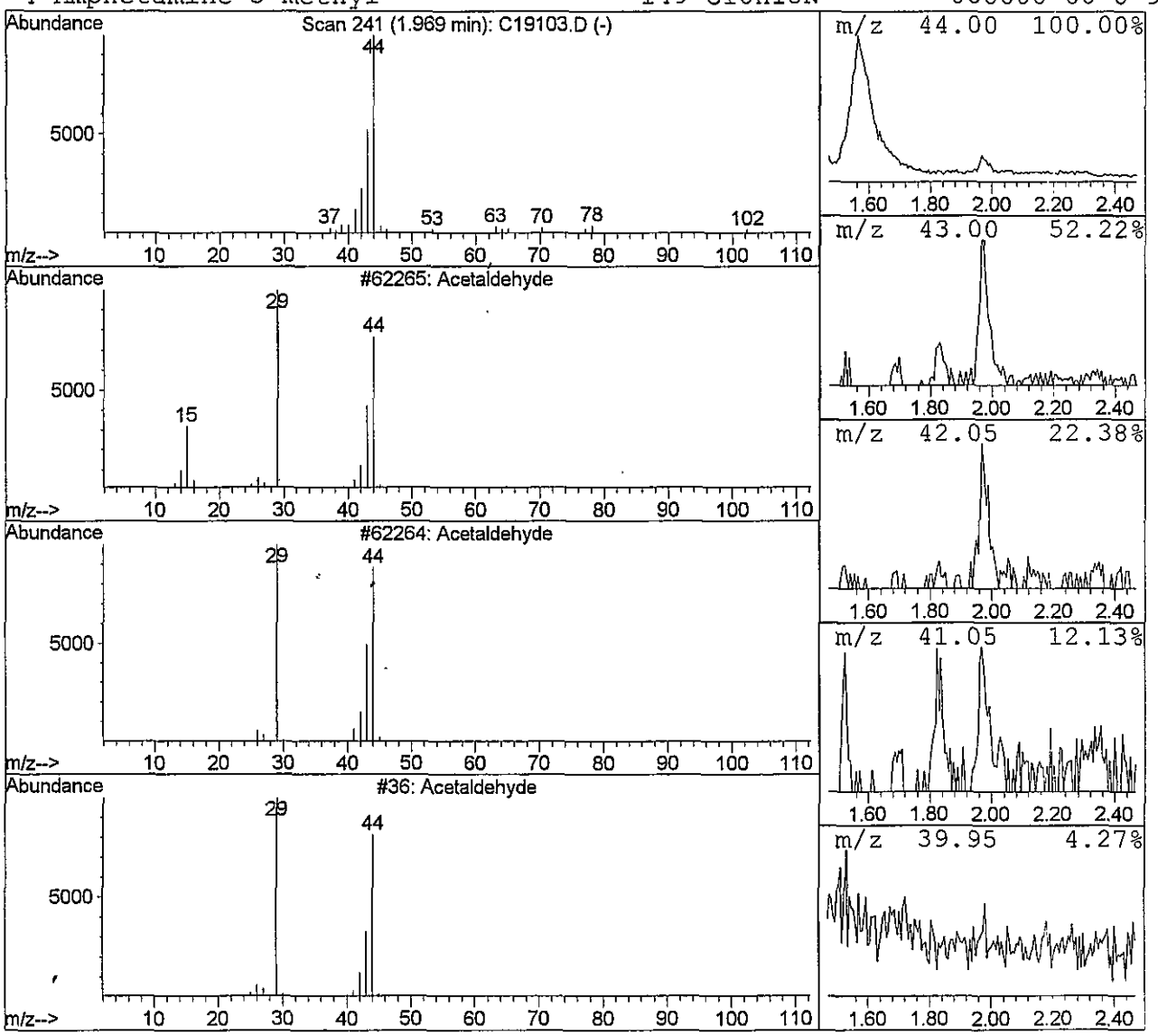
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.97	254280.00 ug\L	25428	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	56
2	Acetaldehyde	44	C2H4O	000075-07-0	56
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Amphetamine-3-methyl	149	C10H15N	000000-00-0	9



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19103.D Vial: 16
Acq On : 03/22/01 13:32 Operator: JP/VRR
Sample : AC09826 25ml DF =1 Inst : VOA-C
Misc : 27303/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

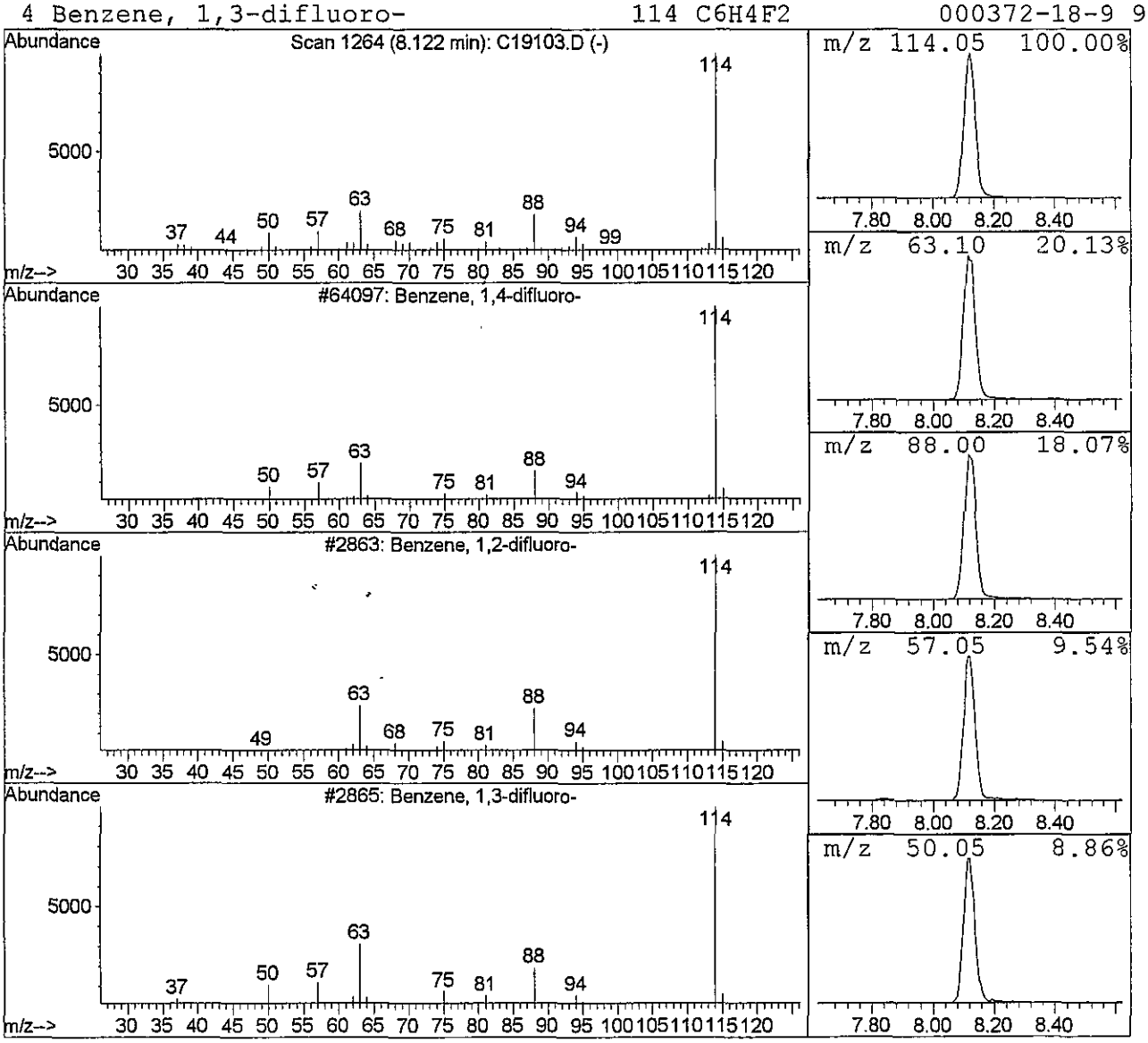
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.49 ug\L	1737010	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	91



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 13:32
Data File: C:\HPCHEM\1\DATA\032201\C19103.D
Name: AC09826 25ml DF =1
Misc: 27303/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	6075460.0	ug\L	607546	ISTD01	0.00	1	10.0
Ethylene oxide	1.57	1866660.0	ug\L	186666	ISTD01	0.00	1	10.0
Acetaldehyde	1.97	254280.0	ug\L	25428	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	1737010	ISTD02	6.97	1390860	10.0

C19103.D 03220125.M Thu Mar 22 14:51:20 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 12:57 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	638252	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	771615	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	270765	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	214077	8.35	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 83.50%			
46) Toluene-d8	10.27	98	1210192	10.19	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.90%			
66) Bromofluorobenzene	13.97	95	314277	9.49	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.90%			

Target Compounds Qvalue

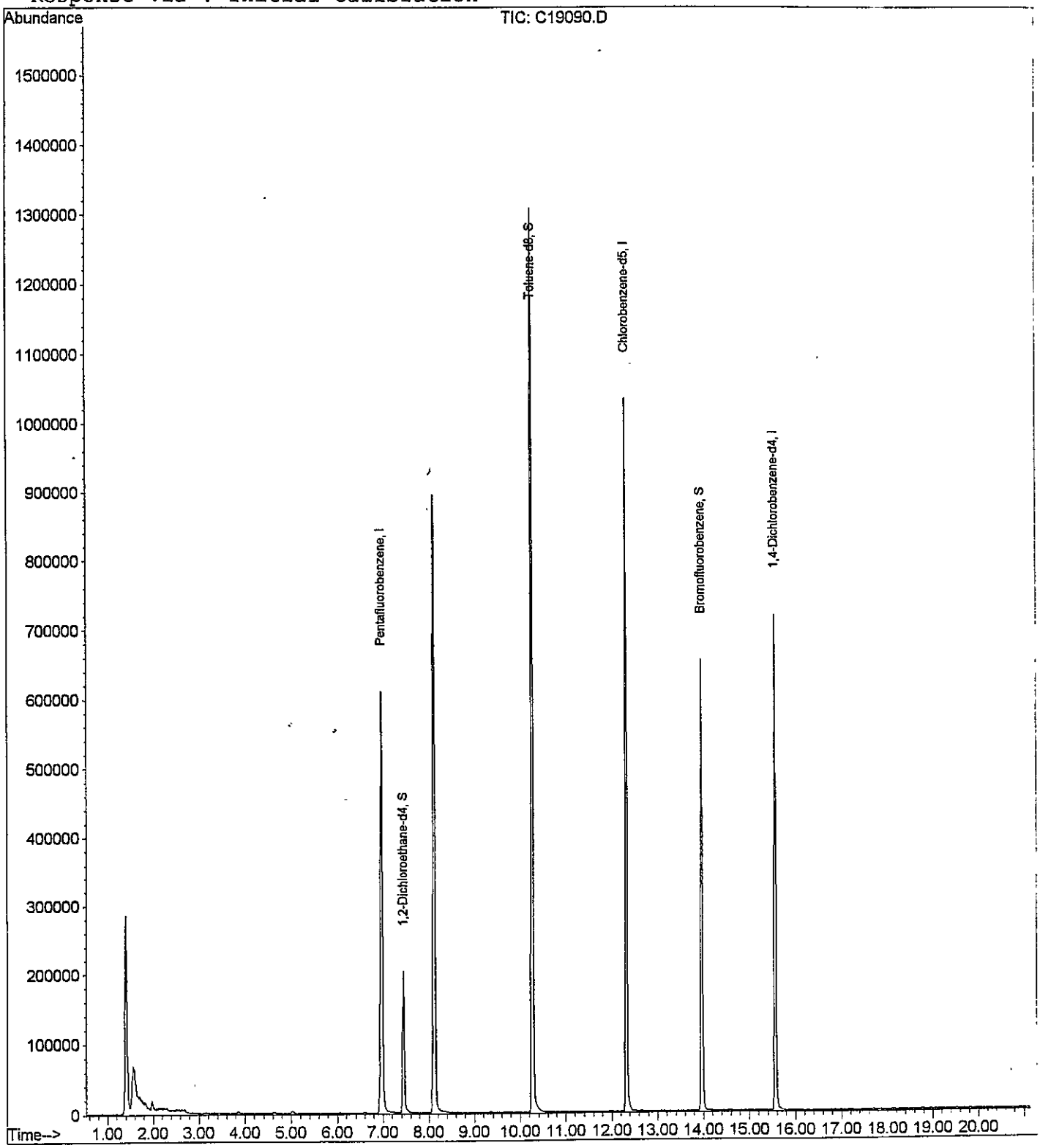
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 12:57 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

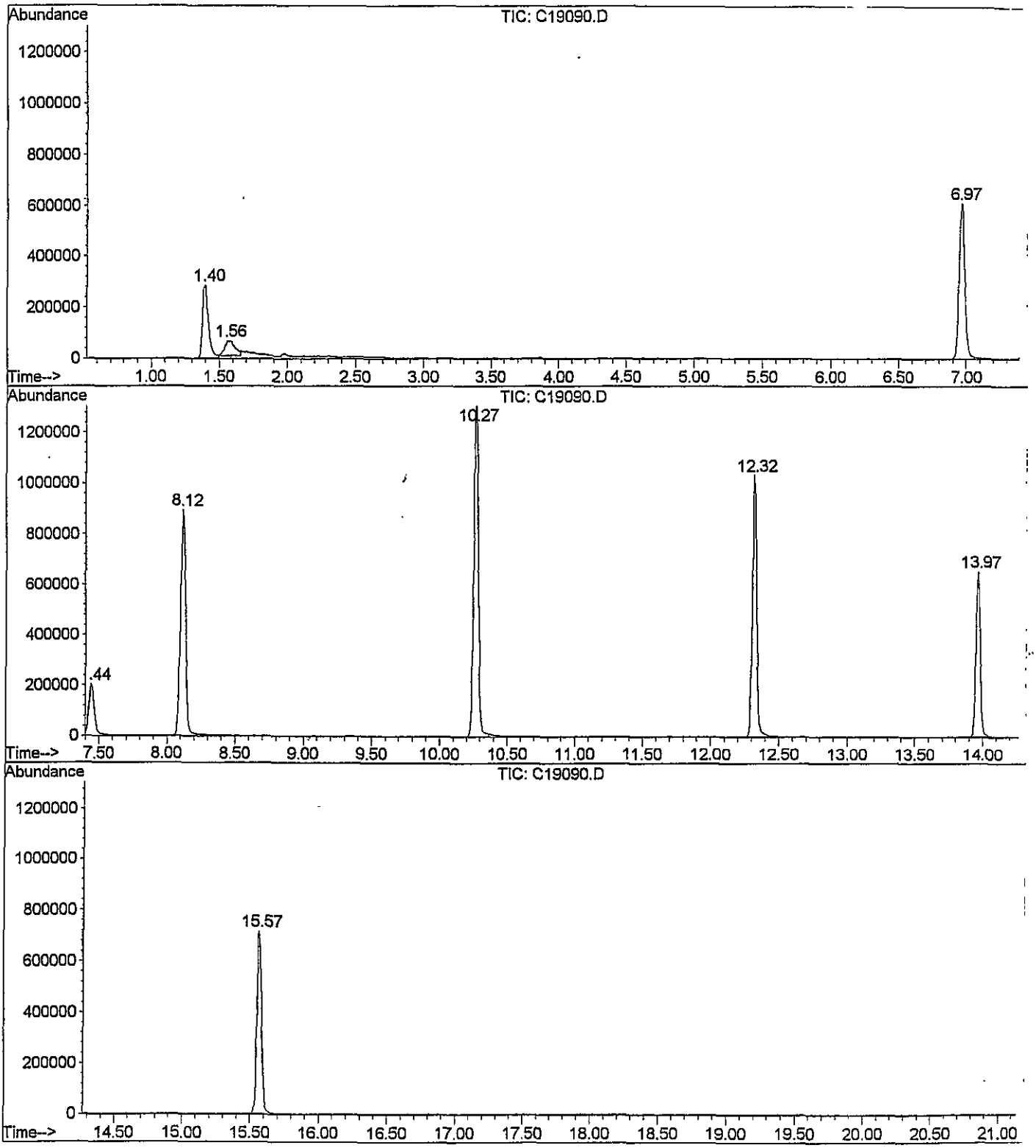
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.399	133	146	162	rBV	284708	860767	26.79%	5.844%
2	1.562	162	173	189	rBV	59097	308079	9.59%	2.092%
3	6.968	1058	1072	1087	rBV	609240	1889766	58.82%	12.831%
4	7.444	1141	1151	1171	rBV2	202088	569924	17.74%	3.870%
5	8.117	1250	1263	1280	rBV	894655	2363160	73.56%	16.045%
6	10.270	1610	1621	1637	rBV	1305842	3212646	100.00%	21.813%
7	12.321	1950	1962	1983	rBV	1033107	2380856	74.11%	16.165%
8	13.969	2226	2236	2255	rBV	652165	1476644	45.96%	10.026%
9	15.569	2490	2502	2516	rBV	716638	1666372	51.87%	11.314%

Sum of corrected areas: 14728214

C19090.D 03220125.M Thu Mar 22 13:04:33 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19090.D
Operator : JP/VRR
Acquired : 22 Mar 2001 7:22 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: QVW032201 C1
Misc Info : WATER BLANK 25ml DF=1
Vial Number: 2
Quant File :03220125.RES (RTE Integrator)



C19090.D 03220125.M Thu Mar 22 13:04:34 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

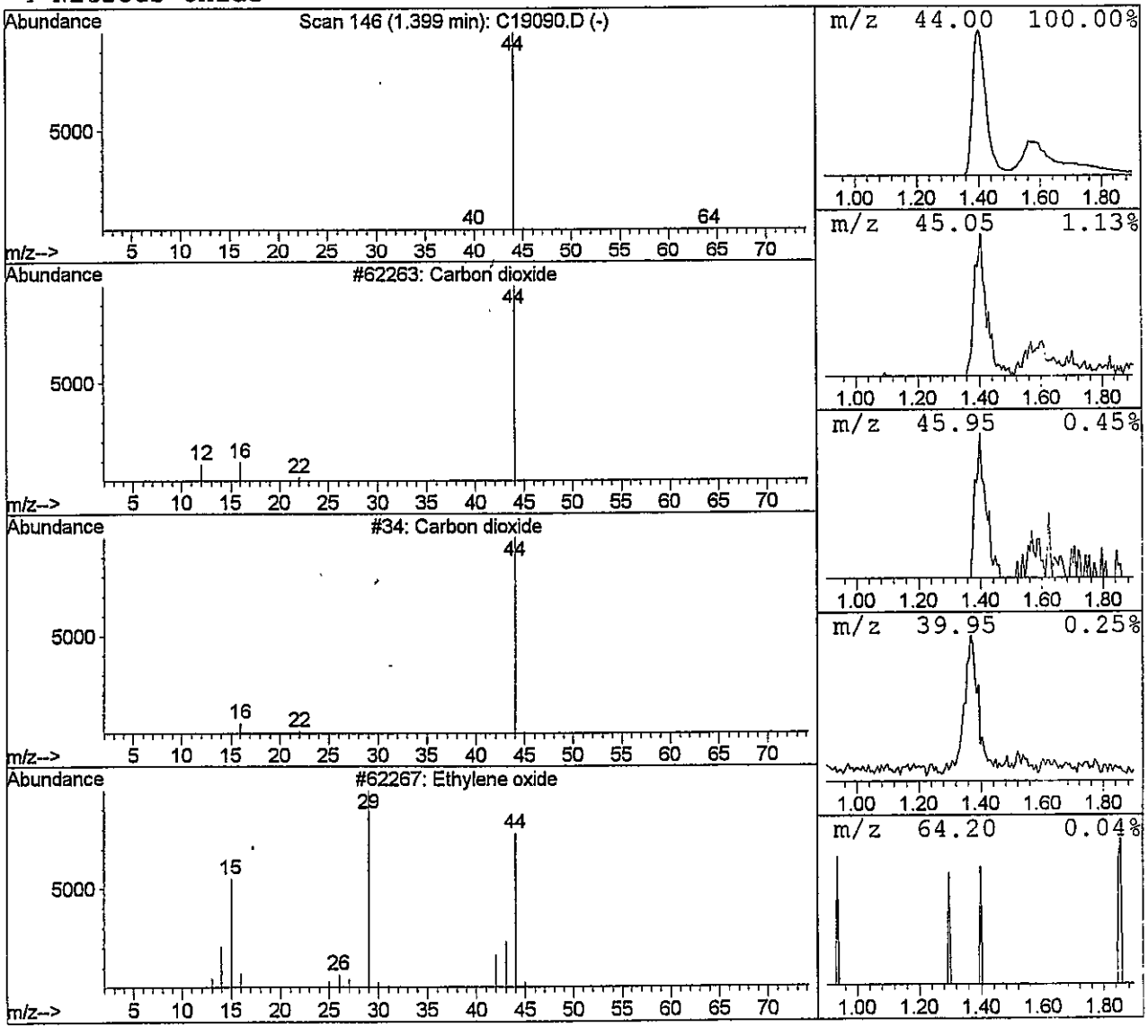
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	8607670.00 ug\L	860767	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

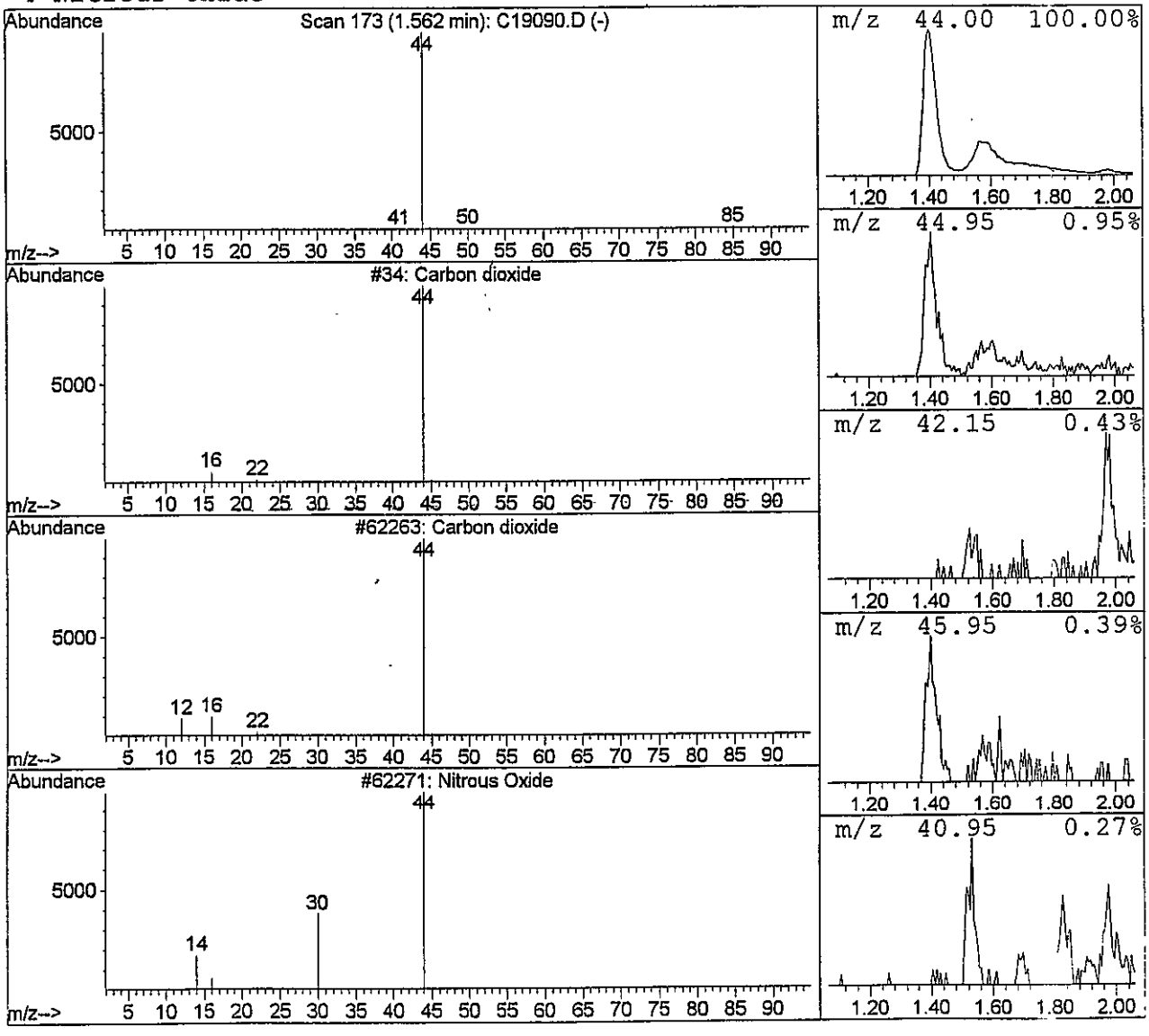
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.56	3080790.00 ug\L	308079	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

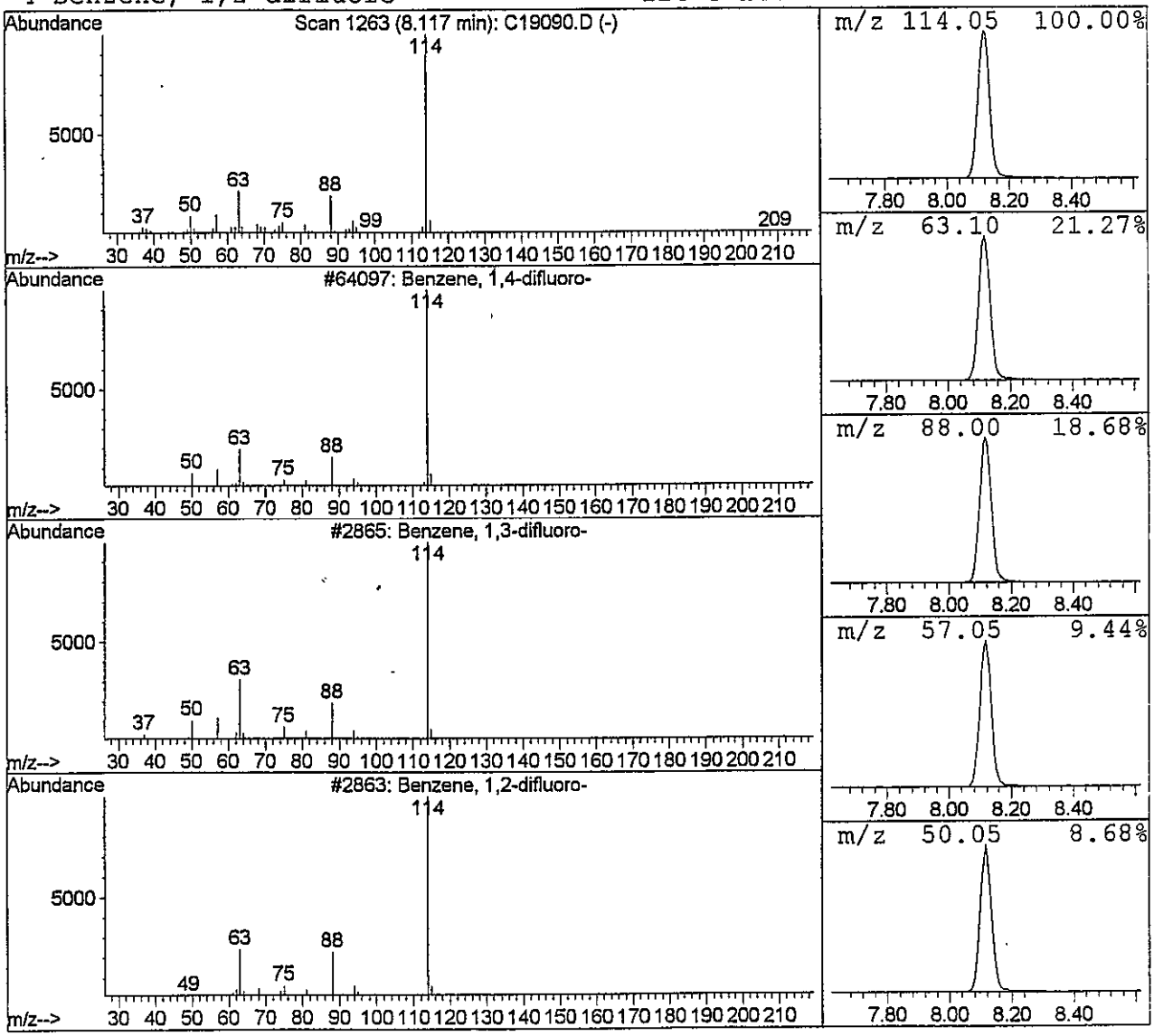
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.51 ug\L	2363160	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 7:22
Data File: C:\HPCHEM\1\DATA\032201\C19090.D
Name: QVW032201 C1
Misc: WATER BLANK 25ml DF=1
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	8607670.0	ug\L	860767	ISTD01	0.00	1	10.0
Carbon dioxide	1.56	3080790.0	ug\L	308079	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	2363160	ISTD02	6.97	1889770	10.0

C19090.D 03220125.M Thu Mar 22 13:04:40 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	522014	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	615164	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	225294	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11

System Monitoring Compounds

32) 1,2-Dichloroethane-d4	7.43	65	177953	8.48	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%			
46) Toluene-d8	10.26	98	960599	10.15	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%			
66) Bromofluorobenzene	13.96	95	257599	9.35	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.50%			

Target Compounds Qvalue

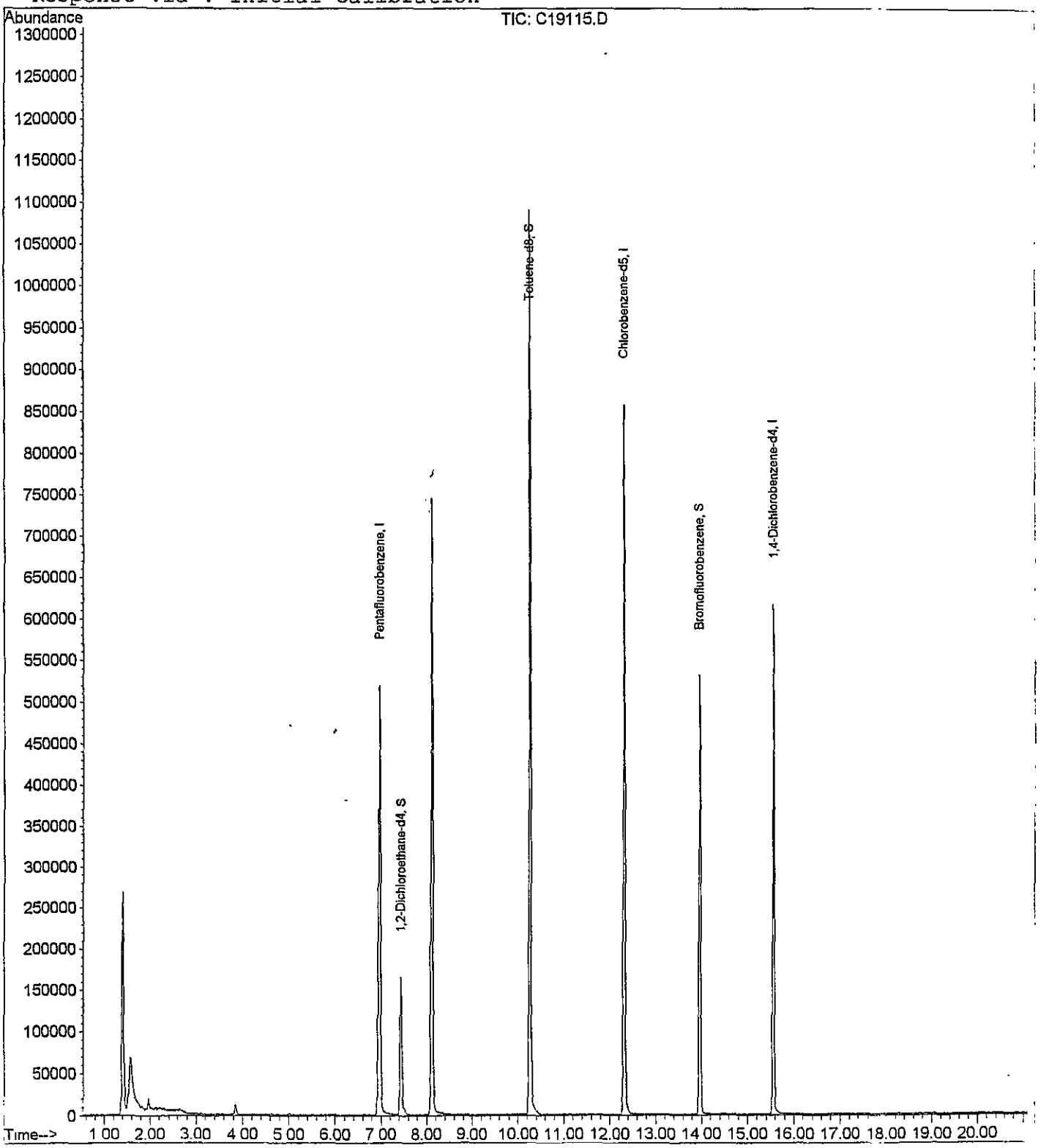
VRR
3-25-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 2/28/01	METHOD: 8260B
MATRIX: water - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: VR	Reviewer: [signature]
Date: 3/1/01 Time: 12:40	Date: 23.03.2001 Time: 1500

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files
1 =C18786.D 4 =C18785.D 10 =C18784.D
20 =C18787.D 30 =C18788.D 40 =C18789.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	----------	ISTD	----------	----------	----------	
2)	T	Dichlorodifluoromet	0.924	0.887	0.882	0.849	0.812	0.812	0.861	5.19
3)	TP	Chloromethane	0.653	0.637	0.619	0.571	0.553	0.559	0.599	7.19
4)	TC	Vinyl Chloride	0.561	0.550	0.544	0.493	0.487	0.495	0.522	6.43
5)	T	Bromomethane	0.193	0.151	0.143	0.127	0.120	0.126	0.143	18.80
6)	T	Chloroethane	0.283	0.280	0.286	0.250	0.249	0.251	0.266	6.85
7)	T	Trichlorofluorometh	0.863	0.811	0.833	0.787	0.765	0.783	0.807	4.48
8)	T	Acrolein	0.008	0.007	0.007	0.008	0.008	0.009	0.008	10.02
9)	T	Acrylonitrile	0.040	0.037	0.035	0.040	0.039	0.041	0.039	5.89
10)	TMC	1,1-Dichloroethene	0.480	0.495	0.481	0.462	0.447	0.463	0.471	3.65
11)	T	Acetone		0.020	0.012	0.012	0.010	0.010	0.013	30.91
12)	T	Iodomethane	0.580	0.590	0.607	0.671	0.651	0.642	0.623	5.84
13)	T	Allylchloride	0.670	0.685	0.677	0.673	0.652	0.660	0.669	1.80
14)	T	Carbon Disulfide	1.562	1.565	1.546	1.597	1.561	1.604	1.573	1.46
15)	T	Acetonitrile	0.090	0.093	0.089	0.088	0.086	0.087	0.089	2.64
16)	T	Methylene Chloride	0.294	0.263	0.245	0.242	0.235	0.242	0.253	8.60
17)	T	trans-1,2-Dichloroe	0.501	0.514	0.498	0.469	0.460	0.466	0.485	4.62
18)	T	MethylTertButylEthe	0.578	0.557	0.514	0.546	0.534	0.549	0.546	3.97
19)	TP	1,1-Dichloroethane	0.888	0.881	0.835	0.822	0.825	0.828	0.847	3.51
20)	T	Vinyl Acetate	0.213	0.208	0.187	0.216	0.221	0.236	0.213	7.51
21)	T	2,2-Dichloropropane	0.860	0.860	0.861	0.797	0.753	0.750	0.814	6.66
22)	T	cis-1,2-Dichloroeth	0.472	0.484	0.467	0.458	0.453	0.454	0.465	2.58
23)	T	2-Butanone	0.021	0.014	0.011	0.010	0.011	0.011	0.013	31.48
24)	T	Propionitrile	0.014	0.014	0.012	0.013	0.014	0.014	0.013	4.66
25)	T	Methacrylonitrile	0.085	0.087	0.079	0.085	0.081	0.083	0.083	3.49
26)	T	Bromochloromethane	0.152	0.153	0.147	0.144	0.142	0.146	0.147	2.86
27)	TC	Chloroform	0.953	0.903	0.891	0.872	0.871	0.879	0.895	3.48
28)	T	1,1,1-Trichloroetha	0.881	0.924	0.915	0.891	0.890	0.895	0.899	1.84
29)	T	Carbon Tetrachlorid	0.759	0.759	0.758	0.755	0.755	0.757	0.757	0.26
30)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	20.51
31)	T	1,1-Dichloropropene	0.255	0.258	0.251	0.237	0.229	0.235	0.244	4.87
32)	S	1,2-Dichloroethane-	0.408	0.438	0.369	0.409	0.390	0.397	0.402	5.70
33)	TM	Benzene	2.019	1.923	1.859	1.782	1.784	1.787	1.859	5.18
34)	T	Isobutyl alcohol	0.002	0.004	0.003	0.004	0.004	0.004	0.004	20.80
35)	T	1,2-Dichloroethane	0.452	0.450	0.409	0.427	0.421	0.429	0.431	3.84
36)	TM	Trichloroethene	0.601	0.587	0.581	0.562	0.563	0.573	0.578	2.60
37)	TC	1,2-Dichloropropane	0.417	0.417	0.389	0.396	0.401	0.405	0.404	2.81
38)	T	Dibromomethane	0.161	0.158	0.147	0.150	0.150	0.152	0.153	3.47
39)	T	Methylmethacrylate	0.097	0.099	0.098	0.104	0.106	0.112	0.103	5.70
40)	T	Bromodichloromethan	0.508	0.531	0.532	0.550	0.572	0.575	0.545	4.74
41)	T	2-Nitropropane	0.029	0.029	0.026	0.031	0.035	0.037	0.031	13.47
42)	T	2-Chloroethyl-vinyl	0.065	0.069	0.064	0.083	0.086	0.085	0.075	14.03
43)	T	cis-1,3-Dichloropro	0.485	0.549	0.524	0.535	0.559	0.576	0.538	5.90
44)	T	4-Methyl-2-Pentanon	0.022	0.018	0.017	0.020	0.021	0.023	0.020	10.78

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files
1 =C18786.D 4 =C18785.D 10 =C18784.D
20 =C18787.D 30 =C18788.D 40 =C18789.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	----------	----------	----------	ISTD	----------	----------	----------	
46)	S	Toluene-d8	1.477	1.656	1.602	1.531	1.504	1.466	1.539	4.87
47)	TMC	Toluene	1.019	0.966	1.013	0.892	0.923	0.902	0.953	5.82
48)	T	trans-1,3-Dichlorop	0.254	0.281	0.295	0.303	0.314	0.321	0.295	8.23
49)	T	Ethylmethacrylate	0.162	0.177	0.186	0.197	0.203	0.207	0.188	9.09
50)	T	1,1,2-Trichloroetha	0.135	0.135	0.132	0.131	0.135	0.137	0.134	1.62
51)	T	Tetrachloroethene	0.374	0.359	0.377	0.340	0.344	0.346	0.357	4.48
52)	T	1,3-Dichloropropane	0.301	0.300	0.298	0.292	0.294	0.302	0.298	1.33
53)	T	2-Hexanone	0.056	0.052	0.053	0.060	0.061	0.063	0.057	7.99
54)	T	Dibromochloromethan	0.177	0.199	0.209	0.215	0.224	0.231	0.209	9.20
55)	T	1,2-Dibromoethane	0.137	0.141	0.145	0.145	0.149	0.154	0.145	4.12
56)	TMP	Chlorobenzene	1.171	1.012	1.014	0.931	0.940	0.936	1.001	9.14
57)	T	1,1,1,2-Tetrachloro	0.278	0.291	0.304	0.288	0.293	0.293	0.291	2.85
58)	TC	Ethylbenzene	2.019	1.997	2.037	1.833	1.822	1.764	1.912	6.20
59)	TG	total-Xylene	0.693	0.685	0.693	0.628	0.627	0.614	0.657	5.69
60)	T	Styrene	0.929	0.947	0.993	0.909	0.938	0.928	0.941	3.03
61)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------	----------	
62)	TP	Bromoform	0.171	0.194	0.209	0.221	0.249	0.255	0.216	14.89
63)	T	Isopropylbenzene	4.997	5.098	5.214	4.578	4.859	4.742	4.915	4.78
64)	T	cis-1,4-dichloro-2-	0.068	0.085	0.093	0.101	0.115	0.120	0.097	19.94
65)	T	trans-1,4-dichloro-	0.427	0.437	0.426	0.423	0.445	0.447	0.434	2.33
66)	S	Bromofluorobenzene		1.291	1.199	1.179	1.225	1.224	1.223	3.45
67)	T	Bromobenzene	0.815	0.796	0.787	0.748	0.813	0.820	0.797	3.39
68)	TP	1,1,2,2-Tetrachloro	0.358	0.382	0.363	0.365	0.390	0.397	0.376	4.25
69)	T	1,2,3-Trichloroprop	0.427	0.437	0.426	0.423	0.445	0.447	0.434	2.33
70)	T	n-Propylbenzene	6.102	6.233	6.358	5.591	5.839	5.667	5.965	5.25
71)	T	2-Chlorotoluene	3.454	3.373	3.461	3.086	3.283	3.235	3.315	4.34
72)	T	4-Chlorotoluene	3.787	3.340	3.392	3.375	3.601	3.553	3.508	4.90
73)	T	1,3,5-Trimethylbenz	4.040	4.088	4.184	3.671	3.884	3.739	3.934	5.17
74)	T	Pentachloroethane	0.461	0.502	0.484	0.471	0.496	0.498	0.485	3.41
75)	T	tert-Butylbenzene	3.381	3.484	3.570	3.043	3.245	3.182	3.317	5.94
76)	T	1,2,4-Trimethylbenz	3.773	3.884	3.978	3.478	3.635	3.509	3.710	5.47
77)	T	sec-Butylbenzene	5.159	5.133	5.293	4.585	4.810	4.712	4.949	5.75
78)	T	1,3-Dichlorobenzene	1.737	1.643	1.659	1.490	1.548	1.534	1.602	5.81
79)	T	Isopropyltoluene	3.866	4.016	4.154	3.592	3.669	3.583	3.813	6.23
80)	T	1,4-Dichlorobenzene	1.652	1.575	1.583	1.453	1.534	1.540	1.556	4.24
81)	T	1,2-Dichlorobenzene	1.302	1.218	1.198	1.136	1.179	1.205	1.206	4.56
82)	T	n-Butylbenzene	3.649	3.820	4.001	3.513	3.644	3.641	3.711	4.64
83)	T	1,2-Dibromo-3-chlor	0.047	0.038	0.035	0.042	0.042	0.048	0.042	11.90
84)	T	1,2,4-trichlorobenz	0.706	0.642	0.613	0.613	0.625	0.655	0.642	5.50
85)	T	Hexachlorobutadiene	0.628	0.566	0.524	0.440	0.411	0.423	0.499	17.67
86)	T	Naphthalene	0.946	0.716	0.603	0.699	0.753	0.821	0.756	15.48
87)	T	1,2,3-Trichlorobenz	0.480	0.429	0.412	0.425	0.425	0.457	0.438	5.82

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files

1	=C18786.D	4	=C18785.D	10	=C18784.D
20	=C18787.D	30	=C18788.D	40	=C18789.D

Compound	1	4	10	20	30	40	Avg	%RSD
88) i 1.4-Difluorobenzene	----------ISTD----------							

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	586839	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	729179	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	287042	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1716	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	216666	9.19 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.90%		
46) Toluene-d8	10.26	98	1168180	10.41 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.10%		
66) Bromofluorobenzene	13.96	95	344083	9.80 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.00%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	517879	10.25 ug\L	99
3) Chloromethane	1.74	50	363063	10.33 ug\L	98
4) Vinyl Chloride	1.85	62	319513	10.44 ug\L	99
5) Bromomethane	2.16	94	83912	10.84 ug\L	94
6) Chloroethane	2.28	64	167851	10.74 ug\L	94
7) Trichlorofluoromethane	2.54	101	488684	10.32 ug\L #	100
8) Acrolein	3.10	56	7889	17.18 ug\L #	98
9) Acrylonitrile	4.29	53	40944	18.10 ug\L	89
10) 1,1-Dichloroethene	3.16	96	282038	10.20 ug\L	100
11) Acetone	3.31	58	6814	8.65 ug\L	91
12) Iodomethane	3.37	142	356367	9.74 ug\L	99
13) Allylchloride	3.65	39	397304	10.11 ug\L	97
14) Carbon Disulfide	3.44	76	907199	9.83 ug\L	99
15) Acetonitrile	3.65	41	522405	100.31 ug\L	97
16) Methylene Chloride	3.86	86	143532	9.65 ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	292339	10.27 ug\L	99
18) MethylTertButylEther	4.23	73	301439	9.40 ug\L	100
19) 1,1-Dichloroethane	5.00	63	490069	9.86 ug\L	98
20) Vinyl Acetate	5.13	43	109892	8.77 ug\L	97
21) 2,2-Dichloropropane	6.01	77	505476	10.59 ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	274086	10.05 ug\L	99
23) 2-Butanone	6.17	72	3249	4.60 ug\L #	1
24) Propionitrile	6.31	54	72207	91.22 ug\L #	98
25) Methacrylonitrile	6.52	41	462720	94.44 ug\L	99
26) Bromochloromethane	6.49	128	86428	10.01 ug\L	94
27) Chloroform	6.64	83	522798	9.96 ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	537244	10.18 ug\L	99
29) Carbon Tetrachloride	7.10	119	445027	10.01 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.09	88	9585	181.53 ug\L #	90
31) 1,1-Dichloropropene	7.12	77	147362	10.28 ug\L	98
33) Benzene	7.47	78	1090721	10.00 ug\L	100
34) Isobutyl alcohol	7.57	43	39621	166.98 ug\L	99
35) 1,2-Dichloroethane	7.56	62	240229	9.49 ug\L	99
36) Trichloroethene	8.48	95	341074	10.06 ug\L	99
37) 1,2-Dichloropropane	8.84	63	228178	9.62 ug\L	99
38) Dibromomethane	9.05	93	86336	9.62 ug\L	97
39) Methylmethacrylate	9.06	69	57395	9.52 ug\L	95
40) Bromodichloromethane	9.30	83	312144	9.76 ug\L	99
41) 2-Nitropropane	9.67	43	14981	8.20 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	37476	8.49 ug\L	100
43) cis-1,3-Dichloropropene	9.93	75	307661	9.75 ug\L	98
44) 4-Methyl-2-Pentanone	10.16	85	10209	8.68 ug\L #	93
47) Toluene	10.36	92	738449	10.63 ug\L	99
48) trans-1,3-Dichloropropene	10.75	75	215205	10.02 ug\L	99
49) Ethylmethacrylate	10.85	69	135755	9.88 ug\L	98
50) 1,1,2-Trichloroethane	11.02	83	96304	9.84 ug\L	96
51) Tetrachloroethene	11.12	164	274557	10.56 ug\L	99
52) 1,3-Dichloropropane	11.23	76	217596	10.02 ug\L	99
53) 2-Hexanone	11.35	43	38629	9.21 ug\L	94
54) Dibromochloromethane	11.56	129	152377	9.98 ug\L	100
55) 1,2-Dibromoethane	11.70	107	105765	9.99 ug\L	100
56) Chlorobenzene	12.36	112	739119	10.13 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	221502	10.43 ug\L	98
58) Ethylbenzene	12.50	91	1485085	10.65 ug\L	99
59) total-Xylene	12.66	106	1518622m	31.72 ug\L	
60) Styrene	13.25	104	724021	10.55 ug\L	99
62) Bromoform	13.56	173	59950	9.65 ug\L	98
63) Isopropylbenzene	13.72	105	1496562	10.61 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	26618	9.22 ug\L #	87
65) trans-1,4-dichloro-2-Buten	14.27	75	122396	9.82 ug\L #	72
67) Bromobenzene	14.17	156	225972	9.88 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.22	83	104121	9.66 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	122396	9.82 ug\L #	100
70) n-Propylbenzene	14.29	91	1824958	10.66 ug\L	99
71) 2-Chlorotoluene	14.43	91	993376	10.44 ug\L	99
72) 4-Chlorotoluene	14.58	91	973687	9.67 ug\L	95
73) 1,3,5-Trimethylbenzene	14.53	105	1200845	10.63 ug\L	99
74) Pentachloroethane	15.05	167	138919	9.97 ug\L	97
75) tert-Butylbenzene	14.98	119	1024829	10.76 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	1141799	10.72 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

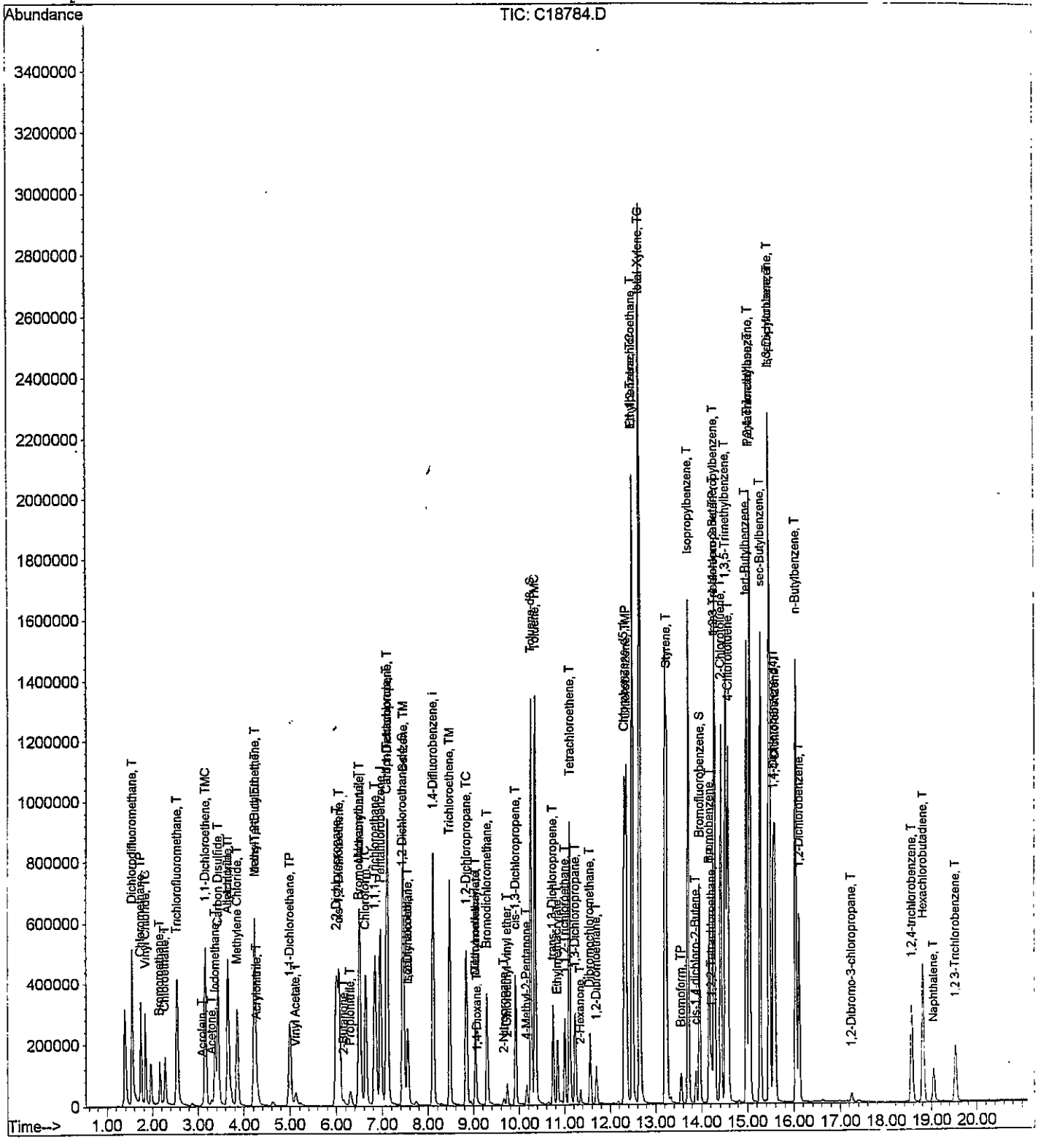
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1519439	10.70 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	476281	10.36 ug\L	97
79) Isopropyltoluene	15.47	119	1192340	10.89 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	454367	10.17 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	343830	9.93 ug\L	100
82) n-Butylbenzene	16.04	91	1148357	10.78 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	10113	8.35 ug\L	96
84) 1,2,4-trichlorobenzene	18.57	180	175883	9.54 ug\L	100
85) Hexachlorobutadiene	18.82	225	150390	11.42 ug\L	100
86) Naphthalene	19.05	128	173126	7.76 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	118222	9.40 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	559630	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	747345	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	291670	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1426	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	98048	4.36 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery	= 43.60%#	
46) Toluene-d8	10.27	98	494974	4.30 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery	= 43.00%#	
66) Bromofluorobenzene	13.96	95	150590	4.22 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery	= 42.20%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	198548	4.12 ug\L	100
3) Chloromethane	1.75	50	142695	4.26 ug\L	99
4) Vinyl Chloride	1.85	62	123015	4.21 ug\L	99
5) Bromomethane	2.17	94	33788	4.03 ug\L	97
6) Chloroethane	2.28	64	62631	4.20 ug\L	94
7) Trichlorofluoromethane	2.54	101	181513	4.02 ug\L #	100
8) Acrolein	3.09	56	3300	7.53 ug\L #	95
9) Acrylonitrile	4.32	53	16434	7.62 ug\L	88
10) 1,1-Dichloroethene	3.17	96	110807	4.20 ug\L	98
11) Acetone	3.30	58	4433	4.79 ug\L	90
12) Iodomethane	3.38	142	132070	3.79 ug\L	98
13) Allylchloride	3.67	39	153372	4.09 ug\L	99
14) Carbon Disulfide	3.44	76	350343	3.98 ug\L	99
15) Acetonitrile	3.66	41	207602	41.80 ug\L	99
16) Methylene Chloride	3.86	86	58969	4.16 ug\L	98
17) trans-1,2-Dichloroethene	4.25	96	115140	4.24 ug\L	100
18) MethylTertButylEther	4.24	73	124736	4.08 ug\L	100
19) 1,1-Dichloroethane	5.01	63	197311	4.16 ug\L	99
20) Vinyl Acetate	5.14	43	46462	3.89 ug\L	97
21) 2,2-Dichloropropane	6.02	77	192596	4.23 ug\L	98
22) cis-1,2-Dichloroethene	6.07	96	108295	4.16 ug\L	99
23) 2-Butanone	6.16	72	3183	4.74 ug\L #	1
24) Propionitrile	6.32	54	30623	40.57 ug\L #	90
25) Methacrylonitrile	6.53	41	194000	41.52 ug\L	98
26) Bromochloromethane	6.50	128	34185	4.15 ug\L	95
27) Chloroform	6.65	83	202057	4.04 ug\L	100
28) 1,1,1-Trichloroethane	6.86	97	206784	4.11 ug\L	98
29) Carbon Tetrachloride	7.11	119	169961	4.01 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.08	88	3150	81.91 ug\L #	72
31) 1,1-Dichloropropene	7.14	77	57699	4.22 ug\L	97
33) Benzene	7.47	78	430546	4.14 ug\L	100
34) Isobutyl alcohol	7.58	43	19716	82.53 ug\L #	83
35) 1,2-Dichloroethane	7.56	62	100697	4.17 ug\L	97
36) Trichloroethene	8.49	95	131395	4.06 ug\L	99
37) 1,2-Dichloropropane	8.84	63	93367	4.13 ug\L	99
38) Dibromomethane	9.05	93	35442	4.14 ug\L	97
39) Methylmethacrylate	9.05	69	22182	3.86 ug\L	98
40) Bromodichloromethane	9.30	83	118929	3.90 ug\L	99
41) 2-Nitropropane	9.67	43	6585	3.78 ug\L	91
42) 2-Chloroethyl-vinyl ether	9.75	63	15416	3.66 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	122843	4.08 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	3976	3.54 ug\L #	85
47) Toluene	10.36	92	288918	4.06 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	83884	3.81 ug\L	98
49) Ethylmethacrylate	10.85	69	52853	3.75 ug\L	94
50) 1,1,2-Trichloroethane	11.01	83	40426	4.03 ug\L	98
51) Tetrachloroethene	11.12	164	107449	4.03 ug\L	99
52) 1,3-Dichloropropane	11.23	76	89604	4.03 ug\L	99
53) 2-Hexanone	11.35	43	15572	3.62 ug\L	95
54) Dibromochloromethane	11.56	129	59441	3.80 ug\L	99
55) 1,2-Dibromoethane	11.70	107	42083	3.88 ug\L	92
56) Chlorobenzene	12.36	112	302598	4.05 ug\L	97
57) 1,1,1,2-Tetrachloroethane	12.49	131	87092	4.00 ug\L	98
58) Ethylbenzene	12.49	91	596898	4.18 ug\L	100
59) total-Xylene	12.66	106	614873m	12.53 ug\L	
60) Styrene	13.25	104	283181	4.03 ug\L	95
62) Bromoform	13.56	173	22588	3.58 ug\L	98
63) Isopropylbenzene	13.71	105	594751	4.15 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.88	75	9920	4.40 ug\L #	80
65) trans-1,4-dichloro-2-Buten	14.27	75	50989	4.03 ug\L #	71
67) Bromobenzene	14.17	156	92896	4.00 ug\L	99
68) 1,1,2,2-Tetrachloroethane	14.22	83	44511	4.06 ug\L	96
69) 1,2,3-Trichloropropane	14.27	75	50989	4.03 ug\L #	100
70) n-Propylbenzene	14.28	91	727178	4.18 ug\L	98
71) 2-Chlorotoluene	14.42	91	393498	4.07 ug\L	98
72) 4-Chlorotoluene	14.58	91	389674	3.81 ug\L	95
73) 1,3,5-Trimethylbenzene	14.53	105	476941	4.16 ug\L	100
74) Pentachloroethane	15.05	167	58621	4.14 ug\L	95
75) tert-Butylbenzene	14.98	119	406423	4.20 ug\L	98
76) 1,2,4-Trimethylbenzene	15.05	105	453121	4.19 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

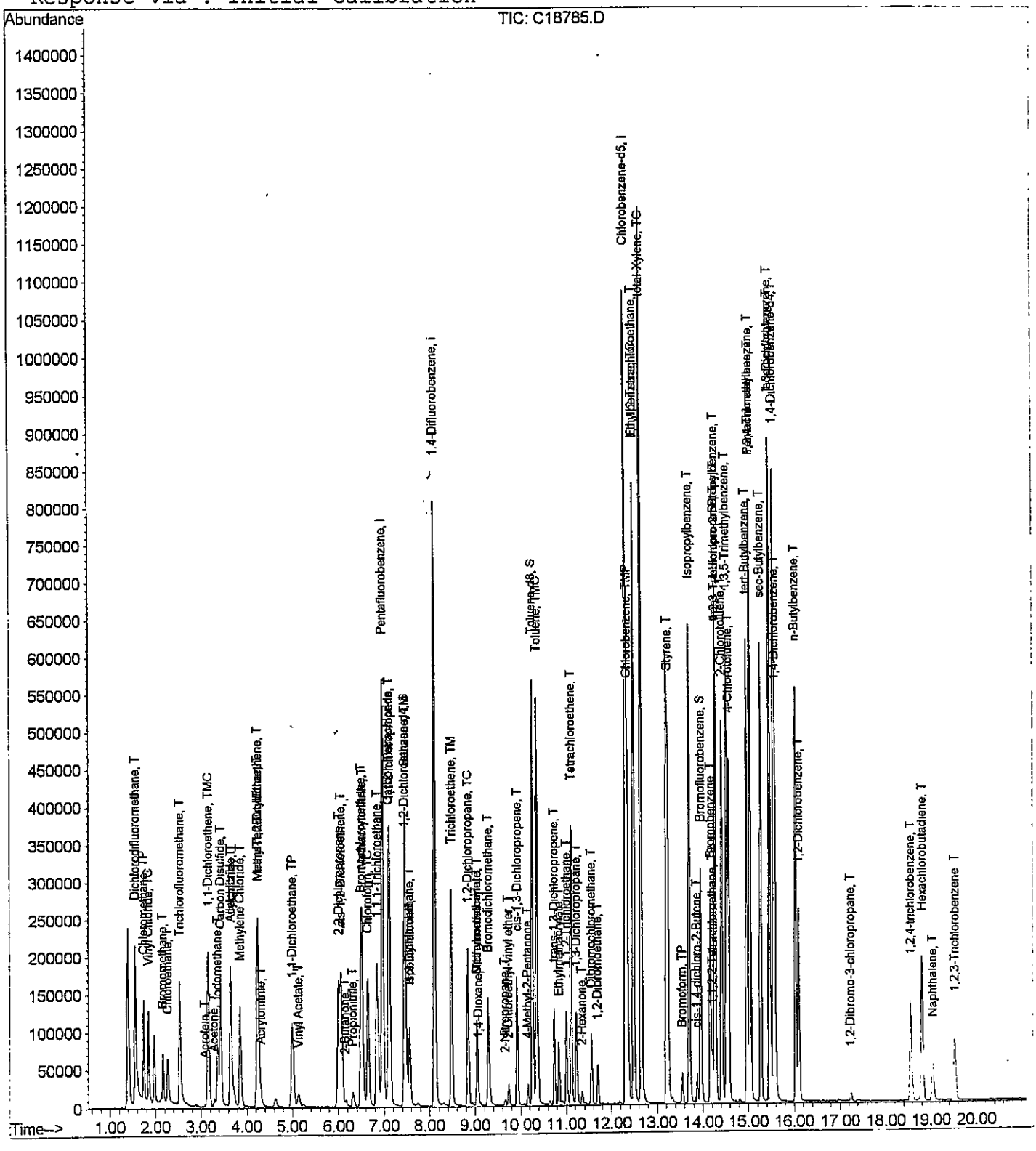
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	598897	4.15 ug\L	99
78)	1,3-Dichlorobenzene	15.46	146	191640	4.10 ug\L	96
79)	Isopropyltoluene	15.48	119	468540	4.21 ug\L	100
80)	1,4-Dichlorobenzene	15.59	146	183753	4.05 ug\L	98
81)	1,2-Dichlorobenzene	16.12	146	142055	4.04 ug\L	99
82)	n-Butylbenzene	16.04	91	445705	4.12 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.25	75	4484	3.64 ug\L	90
84)	1,2,4-trichlorobenzene	18.57	180	74868	4.00 ug\L	100
85)	Hexachlorobutadiene	18.81	225	66024	4.05 ug\L	100
86)	Naphthalene	19.06	128	83529	3.69 ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	50002	3.91 ug\L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	471435	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	622100	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	241683	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.13	116	1373	10.00	ug\L	0.02
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	19225	1.01	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.10%#			
46) Toluene-d8	10.27	98	91902	0.96	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.60%#			
66) Bromofluorobenzene	13.96	95	28569	0.97	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.70%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	43546	1.07	ug\L	100
3) Chloromethane	1.75	50	30774	1.09	ug\L	95
4) Vinyl Chloride	1.85	62	26461	1.08	ug\L	98
5) Bromomethane	2.17	94	9104	0.65	ug\L	93
6) Chloroethane	2.28	64	13343	1.06	ug\L	90
7) Trichlorofluoromethane	2.54	101	40685	1.07	ug\L #	100
8) Acrolein	3.09	56	463	1.25	ug\L #	14
9) Acrylonitrile	4.31	53	3755	2.07	ug\L	95
10) 1,1-Dichloroethene	3.16	96	22613	1.02	ug\L	95
11) Acetone	3.30	58	2599	2.27	ug\L	82
12) Iodomethane	3.38	142	27332	0.93	ug\L	98
13) Allylchloride	3.65	39	31608	1.00	ug\L	98
14) Carbon Disulfide	3.44	76	73636	0.99	ug\L	99
15) Acetonitrile	3.65	41	42195	10.09	ug\L	98
16) Methylene Chloride	3.86	86	13837	1.16	ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	23632	1.03	ug\L	98
18) MethylTertButylEther	4.24	73	27241	1.06	ug\L	98
19) 1,1-Dichloroethane	4.99	63	41840	1.05	ug\L	98
20) Vinyl Acetate	5.13	43	10040	1.00	ug\L #	92
21) 2,2-Dichloropropane	6.02	77	40548	1.06	ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	22273	1.02	ug\L	99
23) 2-Butanone	6.16	72	977	1.33	ug\L #	1
24) Propionitrile	6.34	54	6506	10.23	ug\L #	96
25) Methacrylonitrile	6.52	41	40228	10.22	ug\L	98
26) Bromochloromethane	6.50	128	7145	1.03	ug\L	93
27) Chloroform	6.65	83	44939	1.07	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	41519	0.98	ug\L	97
29) Carbon Tetrachloride	7.11	119	35781	1.00	ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	587	41.12 ug\L #	49
31) 1,1-Dichloropropene	7.13	77	12029	1.04 ug\L	98
33) Benzene	7.47	78	95160	1.09 ug\L	100
34) Isobutyl alcohol	7.57	43	2118	2.13 ug\L #	18
35) 1,2-Dichloroethane	7.56	62	21295	1.05 ug\L	97
36) Trichloroethene	8.48	95	28329	1.04 ug\L	98
37) 1,2-Dichloropropane	8.85	63	19660	1.03 ug\L	97
38) Dibromomethane	9.05	93	7575	1.05 ug\L	96
39) Methylmethacrylate	9.05	69	4581	0.95 ug\L #	89
40) Bromodichloromethane	9.29	83	23960	0.93 ug\L	97
41) 2-Nitropropane	9.66	43	1386	0.94 ug\L	82
42) 2-Chloroethyl-vinyl ether	9.74	63	3042	0.86 ug\L	94
43) cis-1,3-Dichloropropene	9.93	75	22844	0.90 ug\L	94
44) 4-Methyl-2-Pentanone	10.19	85	1025	1.08 ug\L #	1
47) Toluene	10.37	92	63417	1.07 ug\L	97
48) trans-1,3-Dichloropropene	10.74	75	15827	0.86 ug\L	97
49) Ethylmethacrylate	10.85	69	10056	0.86 ug\L	97
50) 1,1,2-Trichloroethane	11.00	83	8401	1.01 ug\L	96
51) Tetrachloroethene	11.12	164	23287	1.05 ug\L	96
52) 1,3-Dichloropropane	11.24	76	18705	1.01 ug\L	98
53) 2-Hexanone	11.35	43	3459	0.97 ug\L #	90
54) Dibromochloromethane	11.56	129	11037	0.85 ug\L	92
55) 1,2-Dibromoethane	11.69	107	8513	0.94 ug\L #	97
56) Chlorobenzene	12.36	112	72825	1.17 ug\L	94
57) 1,1,1,2-Tetrachloroethane	12.49	131	17303	0.96 ug\L	98
58) Ethylbenzene	12.49	91	125604	1.06 ug\L	100
59) total-Xylene	12.66	106	129653m	3.17 ug\L	
60) Styrene	13.25	104	57808	0.99 ug\L	98
62) Bromoform	13.55	173	4136	0.79 ug\L	99
63) Isopropylbenzene	13.72	105	120764	1.02 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	1648	2.17 ug\L #	70
65) trans-1,4-dichloro-2-Buten	14.27	75	10325	0.98 ug\L #	69
67) Bromobenzene	14.17	156	19708	1.02 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.21	83	8644	0.95 ug\L #	97
69) 1,2,3-Trichloropropane	14.27	75	10325	0.98 ug\L #	100
70) n-Propylbenzene	14.29	91	147471	1.02 ug\L	97
71) 2-Chlorotoluene	14.43	91	83484	1.04 ug\L	99
72) 4-Chlorotoluene	14.58	91	91519	1.08 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	97647	1.03 ug\L	96
74) Pentachloroethane	15.06	167	11143	0.95 ug\L #	89
75) tert-Butylbenzene	14.98	119	81711	1.02 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	91194	1.02 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

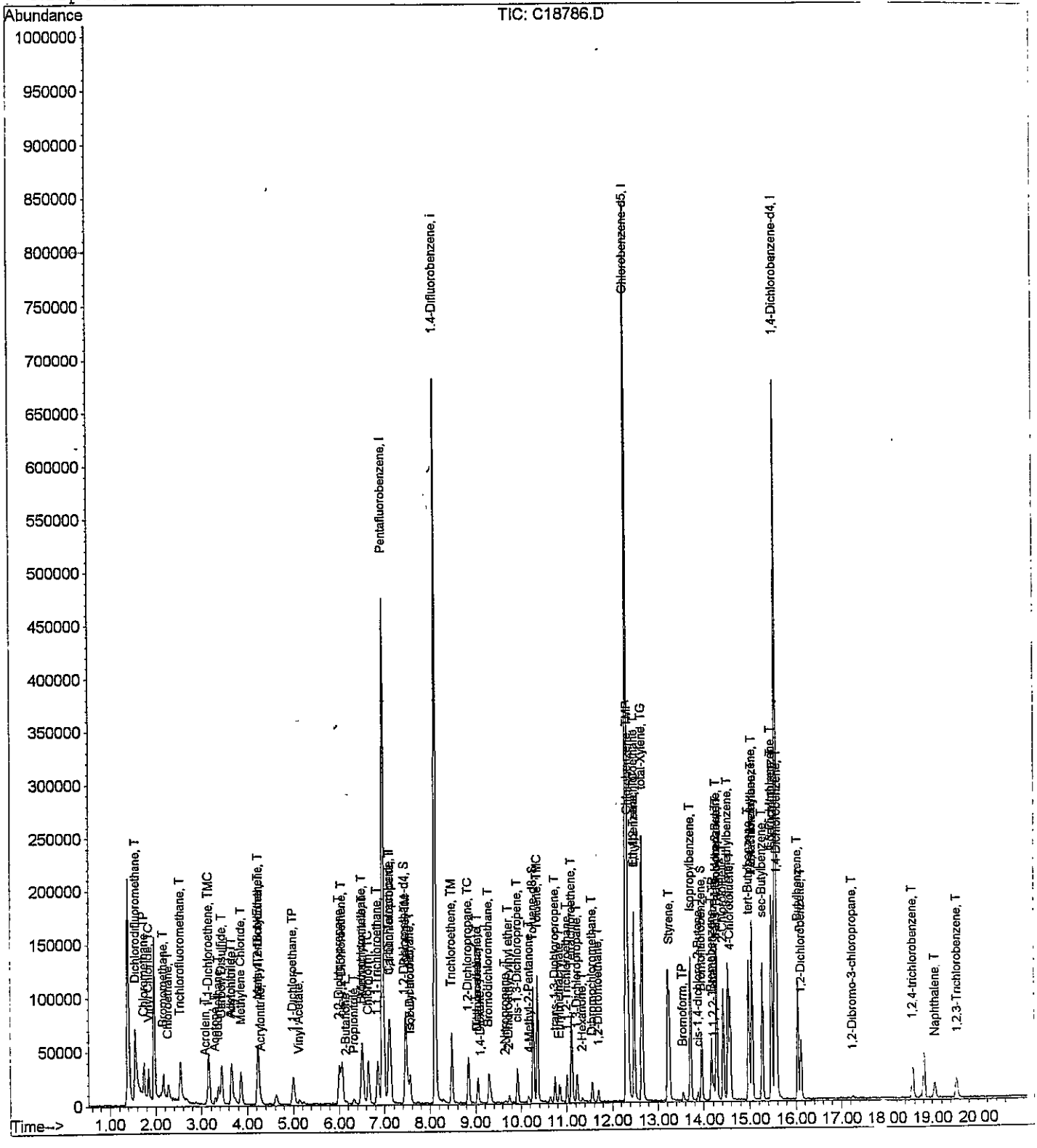
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	124689	1.04 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	41985	1.08 ug\L	96
79) Isopropyltoluene	15.48	119	93423	1.01 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	39933	1.06 ug\L	92
81) 1,2-Dichlorobenzene	16.12	146	31476	1.08 ug\L	96
82) n-Butylbenzene	16.04	91	88195	0.98 ug\L	97
83) 1,2-Dibromo-3-chloropropan	17.24	75	1147	1.13 ug\L #	20
84) 1,2,4-trichlorobenzene	18.56	180	17063	1.10 ug\L	100
86) Naphthalene	19.06	128	22866	1.22 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	11611	1.10 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	500810	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	658286	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	263843	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.10	116	628	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	409632	20.36	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 203.60%#			
46) Toluene-d8	10.27	98	2015205	19.89	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 198.90%#			
66) Bromofluorobenzene	13.97	95	622056	19.27	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 192.70%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	849938	19.71	ug\L	99
3) Chloromethane	1.75	50	571628	19.07	ug\L	99
4) Vinyl Chloride	1.85	62	493910	18.91	ug\L	99
5) Bromomethane	2.17	94	127107	19.98	ug\L	94
6) Chloroethane	2.27	64	250191	18.75	ug\L	93
7) Trichlorofluoromethane	2.55	101	788700	19.51	ug\L #	100
8) Acrolein	3.09	56	15781	40.26	ug\L #	90
9) Acrylonitrile	4.31	53	80339	41.62	ug\L	95
10) 1,1-Dichloroethene	3.16	96	463082	19.63	ug\L	98
11) Acetone	3.31	58	11765	21.07	ug\L	98
12) Iodomethane	3.38	142	672010	21.52	ug\L	99
13) Allylchloride	3.66	39	673989	20.10	ug\L	96
14) Carbon Disulfide	3.44	76	1599912	20.31	ug\L	99
15) Acetonitrile	3.66	41	884255	198.96	ug\L	97
16) Methylene Chloride	3.86	86	242777	19.12	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	469808	19.35	ug\L	98
18) MethylTertButylEther	4.24	73	546801	19.99	ug\L	98
19) 1,1-Dichloroethane	5.00	63	823702	19.43	ug\L	99
20) Vinyl Acetate	5.13	43	215991	20.21	ug\L	97
21) 2,2-Dichloropropane	6.02	77	797945	19.58	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	458639	19.71	ug\L	97
23) 2-Butanone	6.17	72	10048	18.31	ug\L	71
24) Propionitrile	6.31	54	133806	198.07	ug\L	98
25) Methacrylonitrile	6.53	41	854200	204.29	ug\L	98
26) Bromochloromethane	6.49	128	143861	19.52	ug\L	97
27) Chloroform	6.65	83	873276	19.49	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	892672	19.82	ug\L	99
29) Carbon Tetrachloride	7.10	119	756447	19.95	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	19865	398.68 ug\L #	94
31) 1,1-Dichloropropene	7.13	77	237343	19.40 ug\L	100
33) Benzene	7.47	78	1784876	19.17 ug\L	100
34) Isobutyl alcohol	7.57	43	80646	411.60 ug\L	97
35) 1,2-Dichloroethane	7.57	62	428065	19.81 ug\L	98
36) Trichloroethene	8.48	95	562850	19.45 ug\L	98
37) 1,2-Dichloropropane	8.84	63	396550	19.59 ug\L	99
38) Dibromomethane	9.05	93	150157	19.60 ug\L	96
39) Methylmethacrylate	9.05	69	104594	20.32 ug\L	97
40) Bromodichloromethane	9.30	83	551361	20.21 ug\L	99
41) 2-Nitropropane	9.66	43	30648	19.65 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.74	63	83497	22.16 ug\L	98
43) cis-1,3-Dichloropropene	9.92	75	535952	19.89 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	19876	19.80 ug\L #	96
47) Toluene	10.36	92	1174100	18.72 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	399055	20.57 ug\L	100
49) Ethylmethacrylate	10.85	69	259195	20.89 ug\L	96
50) 1,1,2-Trichloroethane	11.01	83	173041	19.58 ug\L	99
51) Tetrachloroethene	11.12	164	447735	19.07 ug\L	98
52) 1,3-Dichloropropane	11.23	76	384484	19.62 ug\L	100
53) 2-Hexanone	11.35	43	78925	20.85 ug\L	97
54) Dibromochloromethane	11.56	129	283443	20.57 ug\L	100
55) 1,2-Dibromoethane	11.70	107	191365	20.03 ug\L	99
56) Chlorobenzene	12.36	112	1226119	18.61 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	379501	19.80 ug\L	98
58) Ethylbenzene	12.49	91	2413806	19.18 ug\L	100
59) total-Xylene	12.66	106	2481548m	57.41 ug\L	
60) Styrene	13.25	104	1196957	19.33 ug\L	96
62) Bromoform	13.56	173	116771	20.44 ug\L	99
63) Isopropylbenzene	13.72	105	2415988	18.63 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	53130	18.15 ug\L #	90
65) trans-1,4-dichloro-2-Buten	14.27	75	223291	19.49 ug\L #	69
67) Bromobenzene	14.17	156	394608	18.77 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.23	83	192683	19.45 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	223291	19.49 ug\L #	100
70) n-Propylbenzene	14.29	91	2950053	18.74 ug\L	99
71) 2-Chlorotoluene	14.43	91	1628688	18.62 ug\L	99
72) 4-Chlorotoluene	14.58	91	1780868	19.24 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1937320	18.66 ug\L	98
74) Pentachloroethane	15.06	167	248444	19.40 ug\L	98
75) tert-Butylbenzene	14.98	119	1605978	18.35 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	1835334	18.75 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

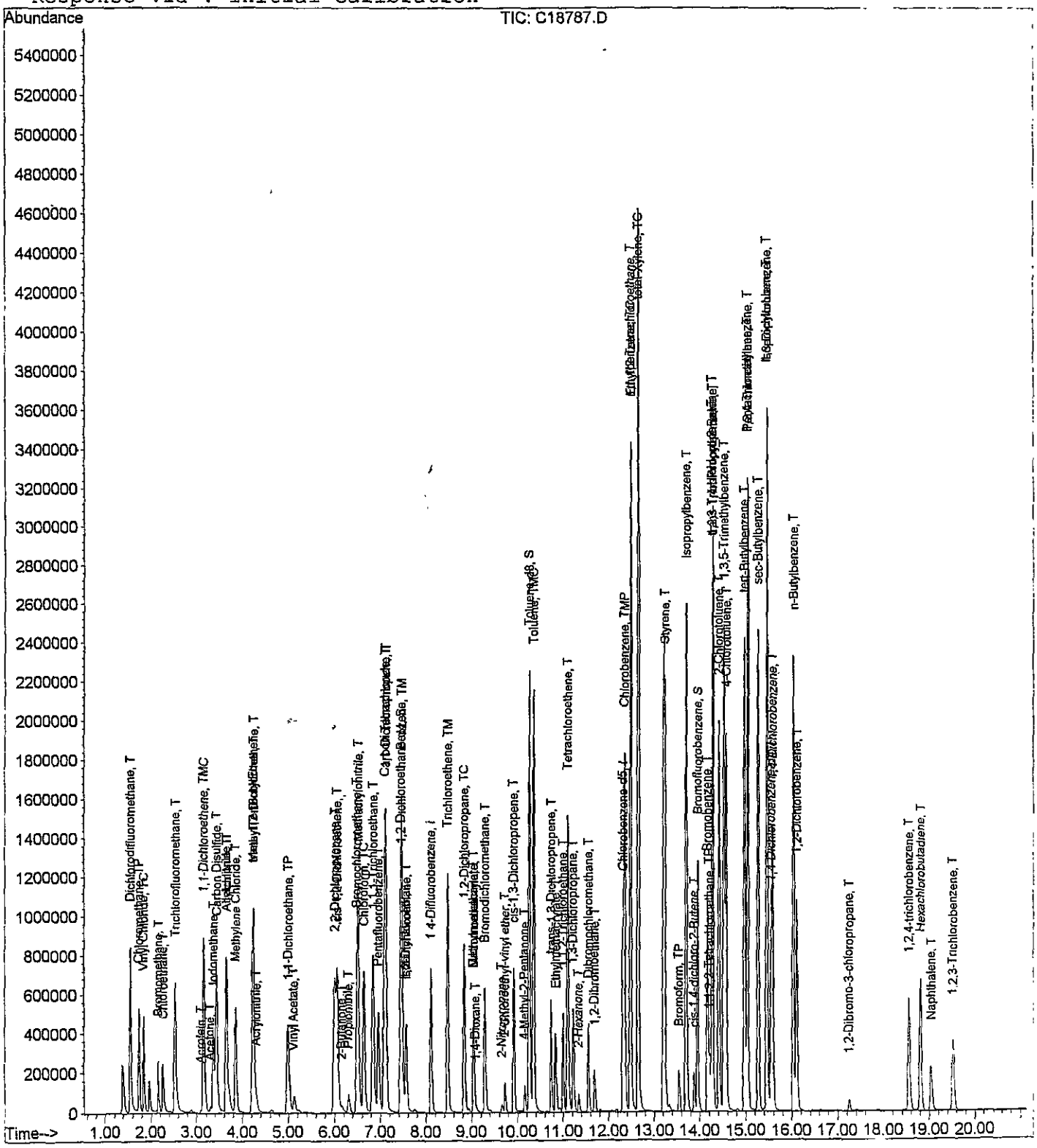
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	2419306	18.53 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	786090	18.60 ug\L	97
79) Isopropyltoluene	15.48	119	1895622	18.84 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	766469	18.67 ug\L	100
81) 1,2-Dichlorobenzene	16.12	146	599505	18.84 ug\L	99
82) n-Butylbenzene	16.05	91	1853619	18.93 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	22103	19.86 ug\L	96
84) 1,2,4-trichlorobenzene	18.57	180	323566	19.09 ug\L	100
85) Hexachlorobutadiene	18.81	225	232293	20.25 ug\L	100
86) Naphthalene	19.05	128	369081	18.01 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	224521	19.42 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	33093	568.80 ug\L #	96
31) 1,1-Dichloropropene	7.13	77	392868	28.16 ug\L	97
33) Benzene	7.47	78	3055959	28.79 ug\L	100
34) Isobutyl alcohol	7.57	43	131371	592.08 ug\L	95
35) 1,2-Dichloroethane	7.57	62	720688	29.25 ug\L	98
36) Trichloroethene	8.48	95	964222	29.22 ug\L	99
37) 1,2-Dichloropropane	8.84	63	687376	29.78 ug\L	99
38) Dibromomethane	9.05	93	257158	29.43 ug\L	97
39) Methylmethacrylate	9.05	69	181581	30.93 ug\L	98
40) Bromodichloromethane	9.30	83	979332	31.48 ug\L	99
41) 2-Nitropropane	9.67	43	59272	33.32 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	147638	34.36 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	958315	31.19 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	35465	30.98 ug\L #	96
47) Toluene	10.36	92	2089002	29.07 ug\L	99
48) trans-1,3-Dichloropropene	10.74	75	709754	31.93 ug\L	99
49) Ethylmethacrylate	10.85	69	458716	32.26 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	304585	30.07 ug\L	98
51) Tetrachloroethene	11.12	164	778175	28.92 ug\L	99
52) 1,3-Dichloropropane	11.23	76	664375	29.58 ug\L	99
53) 2-Hexanone	11.34	43	138019	31.82 ug\L	99
54) Dibromochloromethane	11.56	129	507815	32.16 ug\L	99
55) 1,2-Dibromoethane	11.70	107	337199	30.79 ug\L	99
56) Chlorobenzene	12.36	112	2127564	28.18 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	662993	30.17 ug\L	99
58) Ethylbenzene	12.49	91	4123377	28.58 ug\L	99
59) total-Xylene	12.66	106	4263175m	86.05 ug\L	
60) Styrene	13.25	104	2123772	29.92 ug\L	97
62) Bromoform	13.56	173	214082	34.57 ug\L	99
63) Isopropylbenzene	13.71	105	4170325	29.66 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	98998	30.03 ug\L #	93
65) trans-1,4-dichloro-2-Buten	14.27	75	381944	30.74 ug\L #	69
67) Bromobenzene	14.17	156	698070	30.63 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	334338	31.12 ug\L	97
69) 1,2,3-Trichloropropane	14.27	75	381944	30.74 ug\L #	100
70) n-Propylbenzene	14.29	91	5011543	29.37 ug\L	99
71) 2-Chlorotoluene	14.42	91	2817240	29.70 ug\L	99
72) 4-Chlorotoluene	14.57	91	3090232	30.79 ug\L	98
73) 1,3,5-Trimethylbenzene	14.53	105	3333433	29.62 ug\L	99
74) Pentachloroethane	15.05	167	425572	30.65 ug\L	99
75) tert-Butylbenzene	14.98	119	2785020	29.34 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	3120180	29.40 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

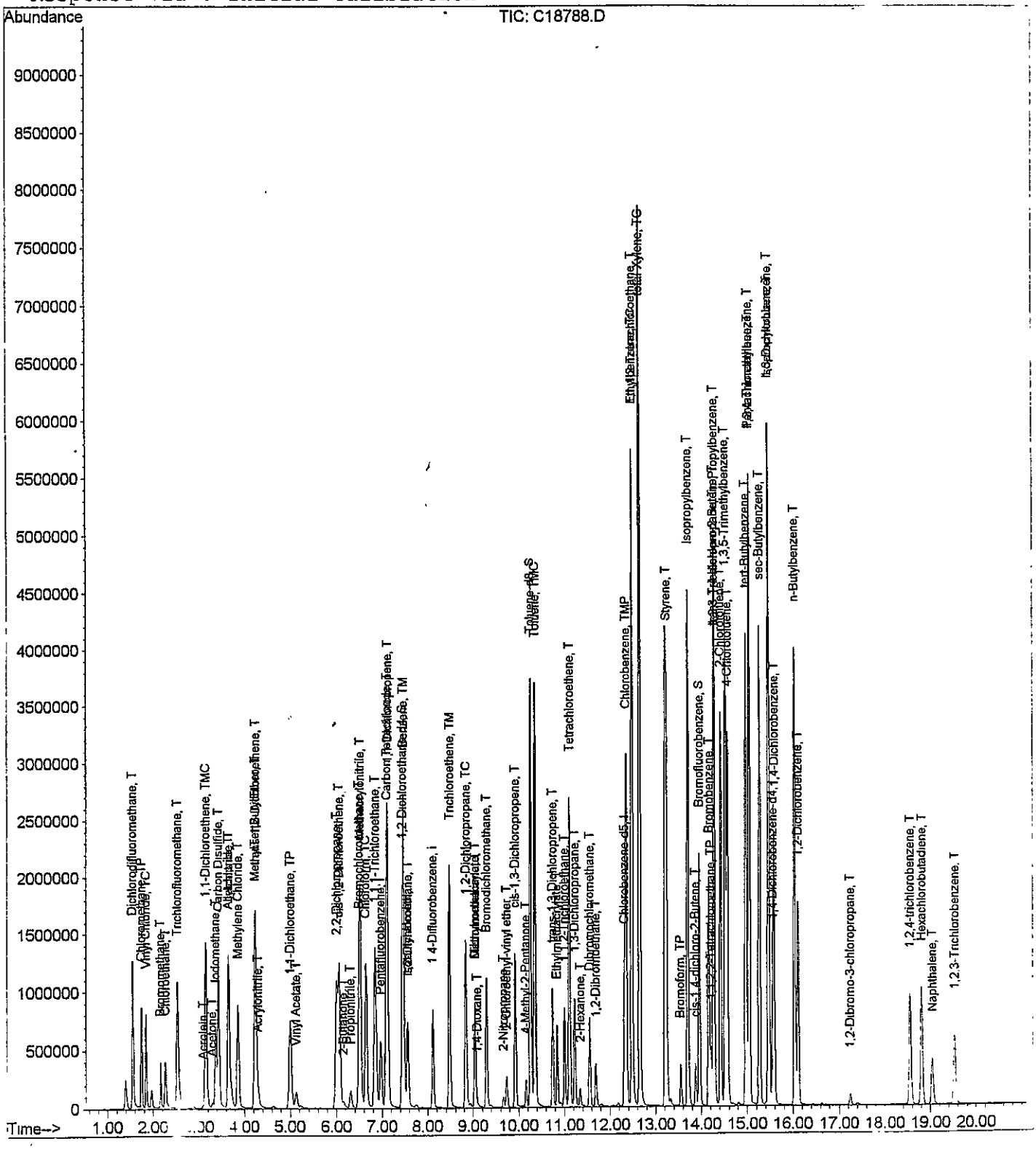
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	4128425	29.16 ug\L	100
78) 1,3-Dichlorobenzene	15.46	146	1328462	28.99 ug\L	96
79) Isopropyltoluene	15.48	119	3149213	28.87 ug\L	98
80) 1,4-Dichlorobenzene	15.59	146	1316968	29.58 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	1011735	29.32 ug\L	99
82) n-Butylbenzene	16.04	91	3127152	29.45 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	35985	29.82 ug\L	98
84) 1,2,4-trichlorobenzene	18.56	180	536514	29.20 ug\L	100
85) Hexachlorobutadiene	18.82	225	352558	28.97 ug\L	100
86) Naphthalene	19.05	128	646150	29.07 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	364987	29.12 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	548568	10.00	ug\L	0.01
45) Chlorobenzene-d5	12.32	117	736724	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	280244	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1499	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	870054	39.47	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 394.70%#			
46) Toluene-d8	10.27	98	4319815	38.09	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 380.90%#			
66) Bromofluorobenzene	13.96	95	1372009	40.02	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 400.20%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	1782483	37.74	ug\L	100
3) Chloromethane	1.74	50	1227662	37.38	ug\L	98
4) Vinyl Chloride	1.85	62	1085109	37.92	ug\L	100
5) Bromomethane	2.17	94	277321	40.74	ug\L	96
6) Chloroethane	2.28	64	550488	37.67	ug\L	91
7) Trichlorofluoromethane	2.54	101	1717209	38.79	ug\L #	100
8) Acrolein	3.10	56	39194	91.29	ug\L #	89
9) Acrylonitrile	4.31	53	178629	84.48	ug\L	97
10) 1,1-Dichloroethene	3.16	96	1014904	39.27	ug\L	100
11) Acetone	3.31	58	23028	40.41	ug\L	91
12) Iodomethane	3.38	142	1408693	41.19	ug\L	99
13) Allylchloride	3.66	39	1447319	39.41	ug\L	97
14) Carbon Disulfide	3.45	76	3520296	40.81	ug\L	99
15) Acetonitrile	3.66	41	1904483	391.20	ug\L	97
16) Methylene Chloride	3.87	86	531400	38.21	ug\L	100
17) trans-1,2-Dichloroethene	4.25	96	1023206	38.46	ug\L	98
18) MethylTertButylEther	4.23	73	1205319	40.22	ug\L	99
19) 1,1-Dichloroethane	5.01	63	1816764	39.12	ug\L	100
20) Vinyl Acetate	5.14	43	517278	44.18	ug\L	97
21) 2,2-Dichloropropane	6.02	77	1645846	36.88	ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	995919	39.06	ug\L	99
23) 2-Butanone	6.16	72	23807	40.33	ug\L	100
24) Propionitrile	6.31	54	309529	418.29	ug\L	99
25) Methacrylonitrile	6.53	41	1829195	399.39	ug\L	99
26) Bromochloromethane	6.50	128	319349	39.55	ug\L	98
27) Chloroform	6.66	83	1928666	39.29	ug\L	99
28) 1,1,1-Trichloroethane	6.86	97	1964056	39.81	ug\L	100
29) Carbon Tetrachloride	7.10	119	1660683	39.98	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	47063	827.96 ug\L	96
31) 1,1-Dichloropropene	7.13	77	516083	38.52 ug\L	100
33) Benzene	7.48	78	3920526	38.45 ug\L	100
34) Isobutyl alcohol	7.57	43	171394	807.66 ug\L	91
35) 1,2-Dichloroethane	7.57	62	942228	39.82 ug\L	99
36) Trichloroethene	8.49	95	1258414	39.70 ug\L	99
37) 1,2-Dichloropropane	8.85	63	889288	40.10 ug\L	99
38) Dibromomethane	9.05	93	333274	39.71 ug\L	98
39) Methylmethacrylate	9.05	69	246220	43.67 ug\L	96
40) Bromodichloromethane	9.30	83	1261322	42.21 ug\L	100
41) 2-Nitropropane	9.67	43	81899	47.94 ug\L	95
42) 2-Chloroethyl-vinyl ether	9.74	63	185556	44.97 ug\L	99
43) cis-1,3-Dichloropropene	9.93	75	1262869	42.80 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	50099	45.56 ug\L #	96
47) Toluene	10.37	92	2658910	37.89 ug\L	99
48) trans-1,3-Dichloropropene	10.75	75	946026	43.58 ug\L	99
49) Ethylmethacrylate	10.85	69	609408	43.88 ug\L	99
50) 1,1,2-Trichloroethane	11.02	83	404531	40.89 ug\L	98
51) Tetrachloroethene	11.12	164	1018374	38.76 ug\L	99
52) 1,3-Dichloropropane	11.23	76	888992	40.54 ug\L	100
53) 2-Hexanone	11.35	43	186672	44.07 ug\L	99
54) Dibromochloromethane	11.57	129	680414	44.13 ug\L	100
55) 1,2-Dibromoethane	11.70	107	453473	42.41 ug\L	98
56) Chlorobenzene	12.37	112	2759686	37.43 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	863282	40.24 ug\L	99
58) Ethylbenzene	12.50	91	5198884	36.91 ug\L	98
59) total-Xylene	12.66	106	5432479m	112.29 ug\L	
60) Styrene	13.25	104	2733483	39.44 ug\L	96
62) Bromoform	13.56	173	285335	47.03 ug\L	99
63) Isopropylbenzene	13.72	105	5315502	38.59 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.88	75	134518	41.03 ug\L #	95
65) trans-1,4-dichloro-2-Buten	14.28	75	500742	41.15 ug\L #	69
67) Bromobenzene	14.18	156	918824	41.16 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	444692	42.25 ug\L	98
69) 1,2,3-Trichloropropane	14.28	75	500742	41.15 ug\L #	100
70) n-Propylbenzene	14.29	91	6352622	38.00 ug\L	99
71) 2-Chlorotoluene	14.43	91	3626573	39.03 ug\L	98
72) 4-Chlorotoluene	14.58	91	3982407	40.51 ug\L	98
73) 1,3,5-Trimethylbenzene	14.53	105	4191844	38.02 ug\L	99
74) Pentachloroethane	15.05	167	558475	41.06 ug\L	100
75) tert-Butylbenzene	14.98	119	3566604	38.36 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	3933494	37.84 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

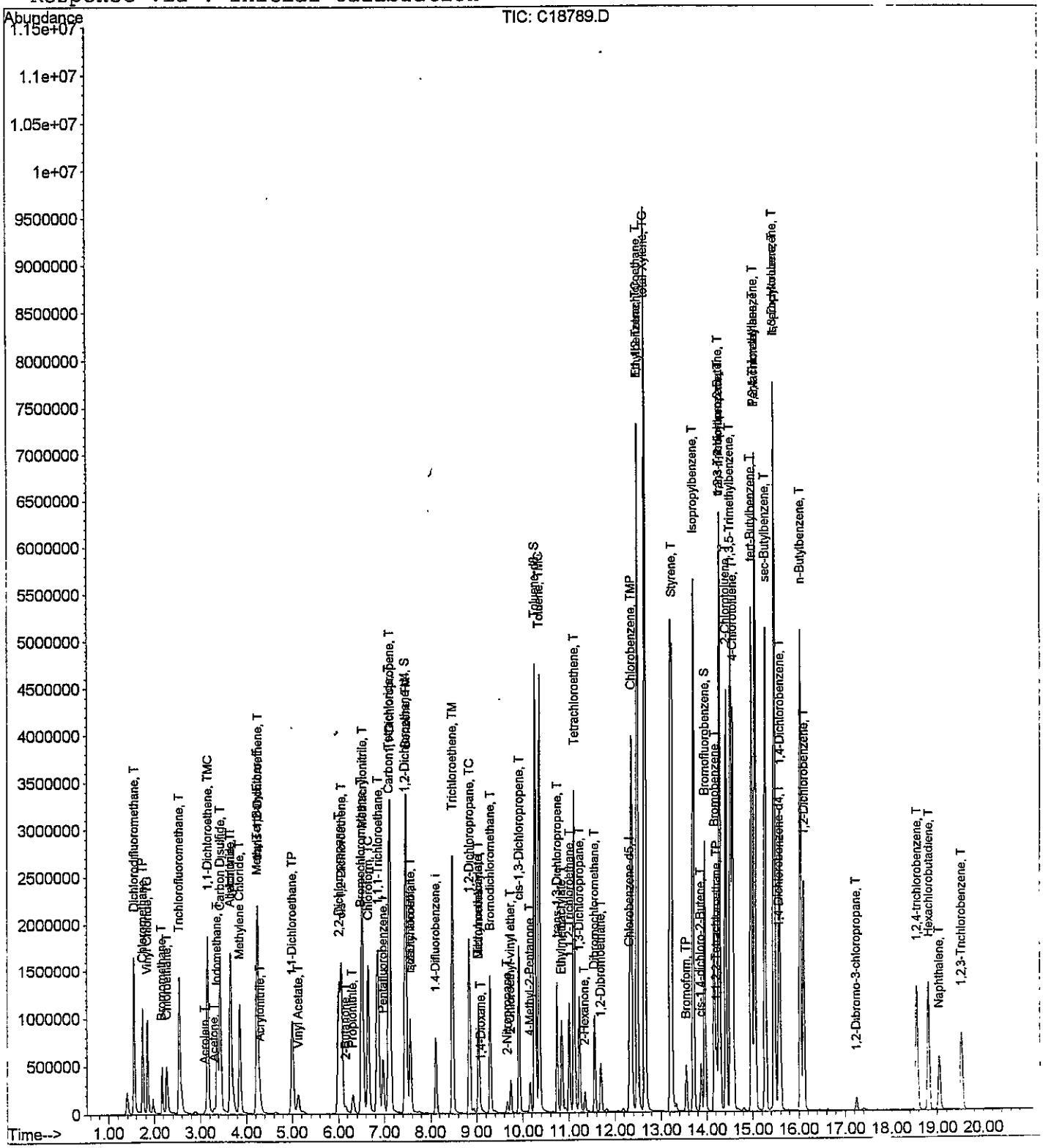
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	5282416	38.09 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	1719970	38.31 ug\L	97
79) Isopropyltoluene	15.48	119	4016499	37.58 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	1726773	39.59 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	1350276	39.94 ug\L	99
82) n-Butylbenzene	16.05	91	4081234	39.24 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	53968	45.66 ug\L	97
84) 1,2,4-trichlorobenzene	18.57	180	734047	40.78 ug\L	100
85) Hexachlorobutadiene	18.82	225	473784	40.32 ug\L	100
86) Naphthalene	19.05	128	920372	42.28 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	512162	41.72 ug\L	99

(#) = qualifier out of range (m) = manual integration
C18789.D 02280125.M Wed Feb 28 13:40:54 2001 INST:VOA-C

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	89	0.00
2	T	Dichlorodifluoromethane	0.861	0.561	34.8#	57	0.00
3	TP	Chloromethane	0.599	0.470	21.5	68	0.00
4	TC	Vinyl Chloride	0.522	0.472	9.6	78	0.00
5	T	Bromomethane	0.143	0.128	10.5	80	0.00
6	T	Chloroethane	0.266	0.236	11.3	74	0.00
7	T	Trichlorofluoromethane	0.807	0.733	9.2	79	0.00
8	T	Acrolein	0.008	0.008	0.0	113	0.00
9	T	Acrylonitrile	0.039	0.039	0.0	99	0.02
10	TMC	1,1-Dichloroethene	0.471	0.444	5.7	83	0.00
11	T	Acetone	0.013	0.013	0.0	99	0.00
12	T	Iodomethane	0.623	0.593	4.8	87	0.00
13	T	Allylchloride	0.669	0.663	0.9	88	0.00
14	T	Carbon Disulfide	1.573	1.612	-2.5	93	0.00
15	T	Acetonitrile	0.089	0.089	0.0	89	0.00
16	T	Methylene Chloride	0.253	0.241	4.7	88	0.00
17	T	trans-1,2-Dichloroethene	0.485	0.455	6.2	82	0.00
18	T	MethylTertButylEther	0.546	0.546	0.0	95	0.00
19	TP	1,1-Dichloroethane	0.847	0.805	5.0	86	0.00
20	T	Vinyl Acetate	0.213	0.210	1.4	100	0.00
21	T	2,2-Dichloropropane	0.814	0.778	4.4	81	0.00
22	T	cis-1,2-Dichloroethene	0.465	0.453	2.6	87	0.00
23	T	2-Butanone	0.013	0.012	7.7	101	0.00
24	T	Propionitrile	0.013	0.013	0.0	97	0.00
25	T	Methacrylonitrile	0.083	0.084	-1.2	96	0.00
26	T	Bromochloromethane	0.147	0.138	6.1	84	0.00
27	TC	Chloroform	0.895	0.859	4.0	86	0.00
28	T	1,1,1-Trichloroethane	0.899	0.851	5.3	83	0.00
29	T	Carbon Tetrachloride	0.757	0.704	7.0	83	0.00
30	T	1,4-Dioxane	0.001	0.001	0.0	109	0.02
31	T	1,1-Dichloropropene	0.244	0.229	6.1	82	0.00
32	S	1,2-Dichloroethane-d4	0.402	0.402	0.0	97	0.00
33	TM	Benzene	1.859	1.775	4.5	85	0.00
34	T	Isobutyl alcohol	0.005	0.004	20.0	112	0.00
35	T	1,2-Dichloroethane	0.431	0.403	6.5	88	0.00
36	TM	Trichloroethene	0.578	0.555	4.0	85	0.00
37	TC	1,2-Dichloropropane	0.404	0.398	1.5	91	0.00
38	T	Dibromomethane	0.153	0.145	5.2	88	0.00
39	T	Methylmethacrylate	0.103	0.102	1.0	93	0.00
40	T	Bromodichloromethane	0.545	0.527	3.3	89	0.00
41	T	2-Nitropropane	0.031	0.029	6.5	103	0.00
42	T	2-Chloroethyl-vinyl ether	0.075	0.069	8.0	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.538	0.523	2.8	89	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.019	5.0	97	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
46	S	Toluene-d8	1.539	1.648	-7.1	98	0.00
47	TMC	Toluene	0.953	0.921	3.4	86	0.00
48	T	trans-1,3-Dichloropropene	0.295	0.288	2.4	93	0.00
49	T	Ethylmethacrylate	0.188	0.192	-2.1	98	0.00
50	T	1,1,2-Trichloroethane	0.134	0.132	1.5	95	0.00
51	T	Tetrachloroethene	0.357	0.346	3.1	87	0.00
52	T	1,3-Dichloropropane	0.298	0.285	4.4	91	0.00
53	T	2-Hexanone	0.057	0.059	-3.5	106	0.00
54	T	Dibromochloromethane	0.209	0.197	5.7	89	0.00
55	T	1,2-Dibromoethane	0.145	0.142	2.1	93	0.00
56	TMP	Chlorobenzene	1.001	0.966	3.5	90	0.00
57	T	1,1,1,2-Tetrachloroethane	0.291	0.293	-0.7	92	0.00
58	TC	Ethylbenzene	1.912	1.890	1.2	88	0.00
59	TG	total-Xylene	0.657	0.664	-1.1	91	0.00
60	T	Styrene	0.941	0.957	-1.7	91	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
62	TP	Bromoform	0.216	0.201	6.9	93	0.00
63	T	Isopropylbenzene	4.915	4.867	1.0	90	0.00
64	T	cis-1,4-dichloro-2-Butene	0.097	0.094	3.1	98	0.00
65	T	trans-1,4-dichloro-2-Butene	0.434	0.418	3.7	95	0.00
66	S	Bromofluorobenzene	1.223	1.225	-0.2	99	0.00
67	T	Bromobenzene	0.797	0.764	4.1	94	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.376	0.360	4.3	96	0.00
69	T	1,2,3-Trichloropropane	0.434	0.418	3.7	95	0.00
70	T	n-Propylbenzene	5.965	5.894	1.2	90	0.00
71	T	2-Chlorotoluene	3.315	3.227	2.7	90	0.00
72	T	4-Chlorotoluene	3.508	3.588	-2.3	103	0.00
73	T	1,3,5-Trimethylbenzene	3.934	3.873	1.6	90	0.00
74	T	Pentachloroethane	0.485	0.516	-6.4	103	0.00
75	T	tert-Butylbenzene	3.317	3.343	-0.8	91	0.00
76	T	1,2,4-Trimethylbenzene	3.710	3.671	1.1	89	0.00
77	T	sec-Butylbenzene	4.949	4.988	-0.8	91	0.00
78	T	1,3-Dichlorobenzene	1.602	1.609	-0.4	94	0.00
79	T	Isopropyltoluene	3.813	3.877	-1.7	90	0.00
80	T	1,4-Dichlorobenzene	1.556	1.573	-1.1	96	0.00
81	T	1,2-Dichlorobenzene	1.206	1.201	0.4	97	0.00
82	T	n-Butylbenzene	3.711	3.746	-0.9	91	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.042	0.040	4.8	110	0.00
84	T	1,2,4-trichlorobenzene	0.642	0.662	-3.1	105	0.00
85	T	Hexachlorobutadiene	0.499	0.522	-4.6	96	0.00
86	T	Naphthalene	0.756	0.794	-5.0	128	0.00
87	T	1,2,3-Trichlorobenzene	0.438	0.458	-4.6	108	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	72	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	524703	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	692212	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	278173	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1232	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	210700	9.99	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
46) Toluene-d8	10.27	98	1140788	10.71	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 107.10%#			
66) Bromofluorobenzene	13.97	95	340630	10.01	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.10%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	294457	6.52	ug\L	99
3) Chloromethane	1.75	50	246706	7.85	ug\L	99
4) Vinyl Chloride	1.85	62	247742	9.05	ug\L	98
5) Bromomethane	2.17	94	67097	9.60	ug\L	94
6) Chloroethane	2.28	64	123990	8.87	ug\L	93
7) Trichlorofluoromethane	2.55	101	384609	9.08	ug\L #	100
8) Acrolein	3.11	56	8916	21.71	ug\L #	90
9) Acrylonitrile	4.31	53	40597	20.07	ug\L	94
10) 1,1-Dichloroethene	3.17	96	233002	9.43	ug\L	100
11) Acetone	3.30	58	6756	9.97	ug\L	89
12) Iodomethane	3.38	142	311385	9.52	ug\L	98
13) Allylchloride	3.66	39	347911	9.90	ug\L	98
14) Carbon Disulfide	3.44	76	845971	10.25	ug\L	99
15) Acetonitrile	3.66	41	465896	100.05	ug\L	99
16) Methylene Chloride	3.87	86	126373	9.50	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	238728	9.38	ug\L	97
18) MethylTertButylEther	4.24	73	286288	9.99	ug\L	97
19) 1,1-Dichloroethane	5.01	63	422648	9.52	ug\L	100
20) Vinyl Acetate	5.14	43	110259	9.85	ug\L	96
21) 2,2-Dichloropropane	6.02	77	408035	9.56	ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	237722	9.75	ug\L	98
23) 2-Butanone	6.17	72	6373	10.84	ug\L #	86
24) Propionitrile	6.32	54	69888	98.74	ug\L #	98
25) Methacrylonitrile	6.53	41	442900	101.10	ug\L	99
26) Bromochloromethane	6.49	128	72525	9.39	ug\L	97
27) Chloroform	6.65	83	450635	9.60	ug\L	99
28) 1,1,1-Trichloroethane	6.85	97	446682	9.47	ug\L	99
29) Carbon Tetrachloride	7.10	119	369549	9.30	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

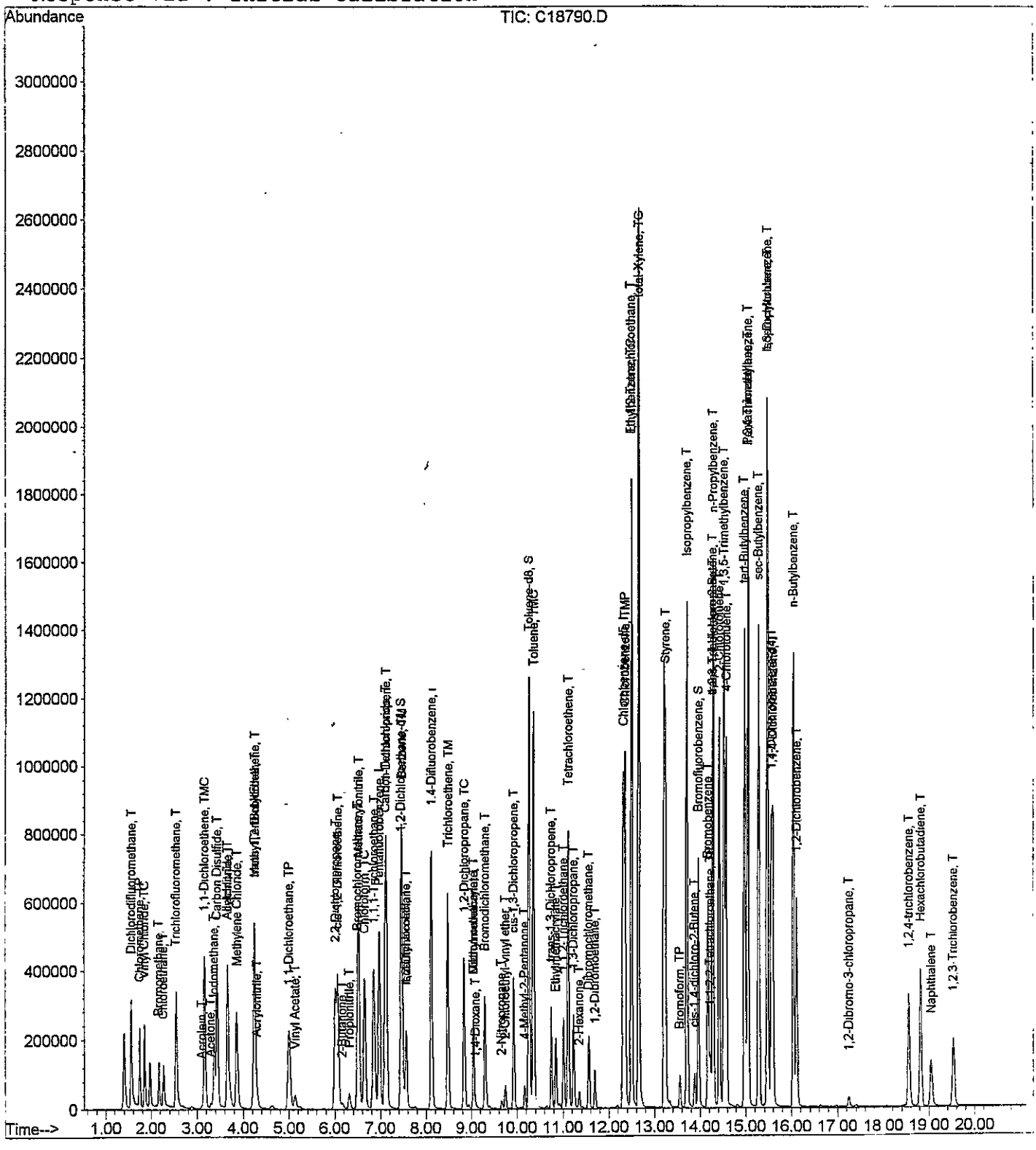
Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) 1,4-Dioxane	9.11	88	10449	214.86 ug\L	#	90
31) 1,1-Dichloropropene	7.12	77	120298	9.39 ug\L		98
33) Benzene	7.47	78	931379	9.55 ug\L		100
34) Isobutyl alcohol	7.57	43	44375	211.60 ug\L		97
35) 1,2-Dichloroethane	7.56	62	211644	9.35 ug\L		99
36) Trichloroethene	8.48	95	291189	9.60 ug\L		99
37) 1,2-Dichloropropane	8.85	63	208734	9.84 ug\L		99
38) Dibromomethane	9.05	93	76070	9.48 ug\L		98
39) Methylmethacrylate	9.05	69	53294	9.88 ug\L		96
40) Bromodichloromethane	9.30	83	276612	9.68 ug\L		98
41) 2-Nitropropane	9.66	43	15401	9.42 ug\L		93
42) 2-Chloroethyl-vinyl ether	9.74	63	36122	9.15 ug\L		98
43) cis-1,3-Dichloropropene	9.93	75	274235	9.72 ug\L		99
44) 4-Methyl-2-Pentanone	10.17	85	9910	9.42 ug\L	#	91
47) Toluene	10.36	92	637262	9.66 ug\L		98
48) trans-1,3-Dichloropropene	10.75	75	199205	9.77 ug\L		99
49) Ethylmethacrylate	10.85	69	132611	10.16 ug\L		99
50) 1,1,2-Trichloroethane	11.01	83	91402	9.83 ug\L		97
51) Tetrachloroethene	11.12	164	239711	9.71 ug\L		97
52) 1,3-Dichloropropane	11.24	76	197478	9.58 ug\L		99
53) 2-Hexanone	11.36	43	40781	10.25 ug\L		98
54) Dibromochloromethane	11.57	129	136271	9.41 ug\L		100
55) 1,2-Dibromoethane	11.71	107	98433	9.80 ug\L		98
56) Chlorobenzene	12.36	112	668869	9.66 ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.49	131	203098	10.07 ug\L		99
58) Ethylbenzene	12.50	91	1308376	9.89 ug\L		99
59) total-Xylene	12.66	106	1378588m	30.33 ug\L		
60) Styrene	13.25	104	662322	10.17 ug\L		99
62) Bromoform	13.56	173	55827	9.27 ug\L		100
63) Isopropylbenzene	13.71	105	1353737	9.90 ug\L		100
64) cis-1,4-dichloro-2-Butene	13.88	75	26059	9.30 ug\L	#	93
65) trans-1,4-dichloro-2-Buten	14.27	75	116188	9.62 ug\L	#	72
67) Bromobenzene	14.17	156	212535	9.59 ug\L		95
68) 1,1,2,2-Tetrachloroethane	14.22	83	100066	9.58 ug\L		98
69) 1,2,3-Trichloropropane	14.27	75	116188	9.62 ug\L	#	100
70) n-Propylbenzene	14.29	91	1639566	9.88 ug\L		99
71) 2-Chlorotoluene	14.43	91	897800	9.74 ug\L		98
72) 4-Chlorotoluene	14.58	91	998152	10.23 ug\L		100
73) 1,3,5-Trimethylbenzene	14.53	105	1077394	9.84 ug\L		98
74) Pentachloroethane	15.06	167	143456	10.62 ug\L		98
75) tert-Butylbenzene	14.98	119	929816	10.08 ug\L		99
76) 1,2,4-Trimethylbenzene	15.06	105	1021078	9.90 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	571111	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	754459	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	286086	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1682	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	668742	29.14 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 291.40%#		
46) Toluene-d8	10.27	98	3403157	29.31 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 293.10%#		
66) Bromofluorobenzene	13.96	95	1051227	30.03 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 300.30%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	1391206	28.29 ug\L	100
3) Chloromethane	1.75	50	947147	27.70 ug\L	99
4) Vinyl Chloride	1.85	62	834431	28.01 ug\L	100
5) Bromomethane	2.17	94	205735	28.76 ug\L	99
6) Chloroethane	2.28	64	426396	28.03 ug\L	93
7) Trichlorofluoromethane	2.54	101	1311352	28.45 ug\L #	100
8) Acrolein	3.09	56	26097	58.38 ug\L #	99
9) Acrylonitrile	4.30	53	133752	60.76 ug\L	95
10) 1,1-Dichloroethene	3.16	96	765510	28.45 ug\L	98
11) Acetone	3.31	58	17796	29.09 ug\L	84
12) Iodomethane	3.37	142	1114576	31.31 ug\L	99
13) Allylchloride	3.66	39	1116740	29.21 ug\L	97
14) Carbon Disulfide	3.44	76	2674206	29.78 ug\L	98
15) Acetonitrile	3.65	41	1475706	291.16 ug\L	98
16) Methylene Chloride	3.86	86	402456	27.80 ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	788861	28.48 ug\L	98
18) MethylTertButylEther	4.23	73	914153	29.30 ug\L	99
19) 1,1-Dichloroethane	5.01	63	1413409	29.23 ug\L	99
20) Vinyl Acetate	5.13	43	379185	31.11 ug\L	97
21) 2,2-Dichloropropane	6.01	77	1289645	27.76 ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	776867	29.27 ug\L	99
23) 2-Butanone	6.16	72	18968	30.72 ug\L	91
24) Propionitrile	6.32	54	234483	304.37 ug\L	99
25) Methacrylonitrile	6.52	41	1395586	292.68 ug\L	99
26) Bromochloromethane	6.49	128	243893	29.02 ug\L	99
27) Chloroform	6.65	83	1492346	29.20 ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	1525310	29.69 ug\L	99
29) Carbon Tetrachloride	7.10	119	1293114	29.90 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18791.D Vial: 8
Acq On : 02/28/01 14:00 Operator: TAG/VR
Sample : QVW022801 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 15:17 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	573091	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	669357	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	236157	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	197260	8.57	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 85.70%			
46) Toluene-d8	10.27	98	1087753	10.56	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#			
66) Bromofluorobenzene	13.97	95	278898	9.65	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.50%			

Target Compounds Qvalue

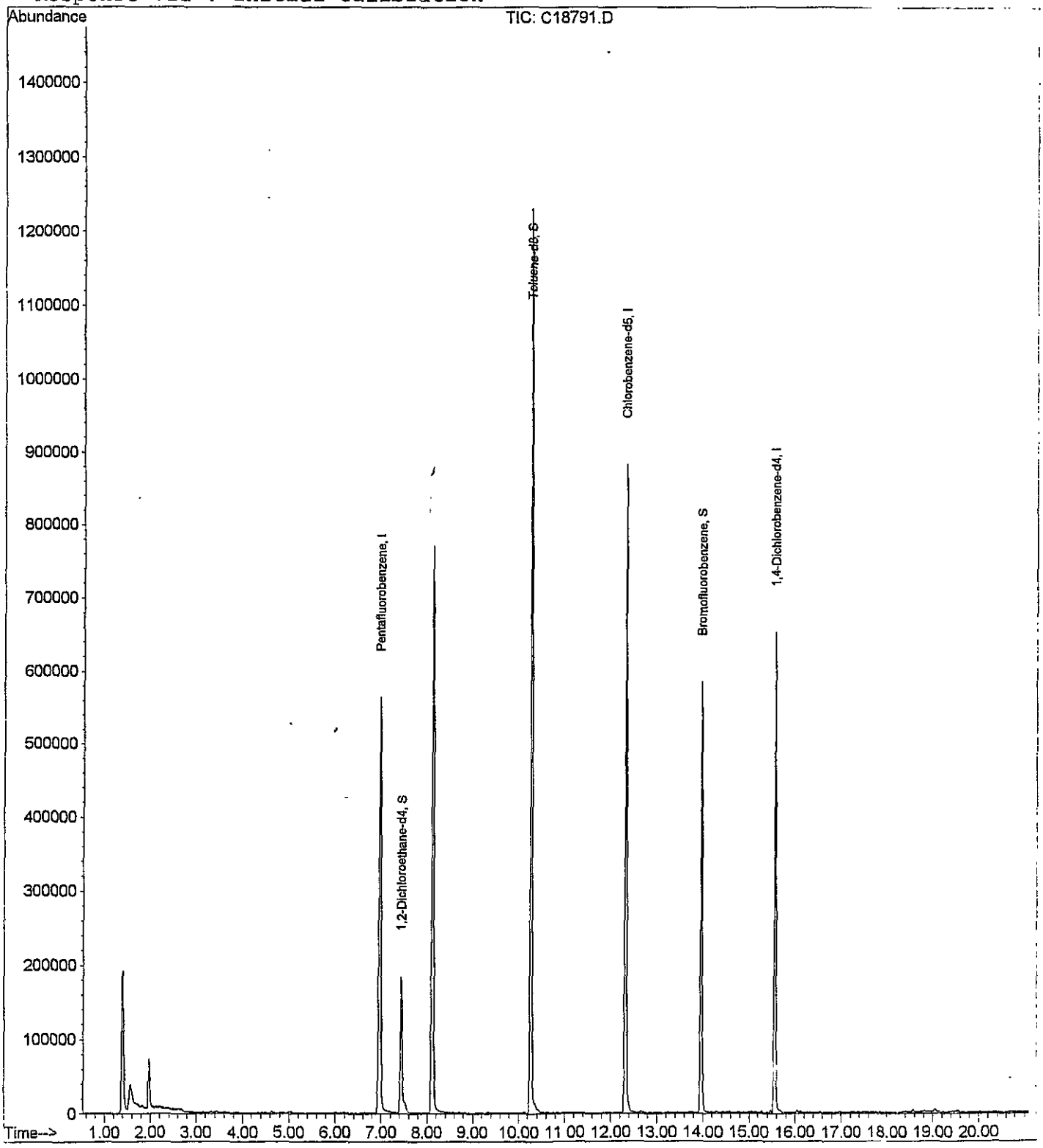
VR
2/28/01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18791.D Vial: 8
Acq On : 02/28/01 14:00 Operator: TAG/VR
Sample : QVW022801 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 15:17 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	532925	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	651927	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253542	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1566	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	197201	9.21	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 92.10%			
46) Toluene-d8	10.27	98	1047561	10.44	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.40%			
66) Bromofluorobenzene	13.97	95	304801	9.83	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.30%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	442549	9.64	ug\L	99
3) Chloromethane	1.75	50	304439	9.54	ug\L	97
4) Vinyl Chloride	1.85	62	263023	9.46	ug\L	100
5) Bromomethane	2.17	94	67187	9.45	ug\L	98
6) Chloroethane	2.27	64	139609	9.83	ug\L	93
7) Trichlorofluoromethane	2.54	101	410238	9.54	ug\L #	100
8) Acrolein	3.10	56	7910	18.96	ug\L #	97
9) Acrylonitrile	4.30	53	36366	17.70	ug\L	93
10) 1,1-Dichloroethene	3.16	96	248454	9.90	ug\L	100
11) Acetone	3.29	58	4621	5.57	ug\L	94
12) Iodomethane	3.38	142	339738	10.23	ug\L	100
13) Allylchloride	3.66	39	346006	9.70	ug\L	98
14) Carbon Disulfide	3.44	76	857701	10.23	ug\L	99
15) Acetonitrile	3.66	41	460437	97.36	ug\L	98
16) Methylene Chloride	3.86	86	126266	9.35	ug\L	98
17) trans-1,2-Dichloroethene	4.24	96	253728	9.82	ug\L	100
18) MethylTertButylEther	4.24	73	256655	8.82	ug\L	99
19) 1,1-Dichloroethane	5.00	63	424903	9.42	ug\L	98
20) Vinyl Acetate	5.13	43	95715	8.42	ug\L	98
21) 2,2-Dichloropropane	6.01	77	443848	10.24	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	239942	9.69	ug\L	97
23) 2-Butanone	6.16	72	4939	8.12	ug\L	86
24) Propionitrile	6.32	54	65738	91.45	ug\L	98
25) Methacrylonitrile	6.52	41	402582	90.48	ug\L	99
26) Bromochloromethane	6.49	128	72787	9.28	ug\L	98
27) Chloroform	6.65	83	452508	9.49	ug\L	97
28) 1,1,1-Trichloroethane	6.86	97	457599	9.55	ug\L	99
29) Carbon Tetrachloride	7.10	119	391738	9.71	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	9011	186.89 ug\L	93
31) 1,1-Dichloropropene	7.13	77	128213	9.85 ug\L	96
33) Benzene	7.47	78	953732	9.63 ug\L	100
34) Isobutyl alcohol	7.57	43	34351	158.98 ug\L	96
35) 1,2-Dichloroethane	7.57	62	204929	8.91 ug\L	100
36) Trichloroethene	8.48	95	296017	9.61 ug\L	99
37) 1,2-Dichloropropane	8.84	63	198247	9.20 ug\L	99
38) Dibromomethane	9.05	93	71602	8.78 ug\L	99
39) Methylmethacrylate	9.05	69	48962	8.94 ug\L	96
40) Bromodichloromethane	9.30	83	269727	9.29 ug\L	100
41) 2-Nitropropane	9.66	43	12762	7.69 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.74	63	36398	9.08 ug\L	98
43) cis-1,3-Dichloropropene	9.93	75	263896	9.21 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	9272	8.68 ug\L #	92
47) Toluene	10.36	92	623564	10.04 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	184647	9.61 ug\L	98
49) Ethylmethacrylate	10.85	69	117099	9.53 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	83602	9.55 ug\L	95
51) Tetrachloroethene	11.12	164	237520	10.22 ug\L	99
52) 1,3-Dichloropropane	11.24	76	185049	9.54 ug\L	99
53) 2-Hexanone	11.35	43	34034	9.08 ug\L	100
54) Dibromochloromethane	11.57	129	131798	9.66 ug\L	99
55) 1,2-Dibromoethane	11.70	107	92684	9.79 ug\L	98
56) Chlorobenzene	12.36	112	630095	9.66 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	191710	10.10 ug\L	100
58) Ethylbenzene	12.50	91	1265820	10.16 ug\L	99
59) total-Xylene	12.66	106	1308232m	30.56 ug\L	
60) Styrene	13.25	104	612501	9.99 ug\L	98
62) Bromoform	13.56	173	52988	9.65 ug\L	96
63) Isopropylbenzene	13.72	105	1281557	10.28 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	22914	9.03 ug\L #	92
65) trans-1,4-dichloro-2-Buten	14.28	75	105764	9.61 ug\L #	72
67) Bromobenzene	14.18	156	195145	9.66 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.22	83	89676	9.42 ug\L	99
69) 1,2,3-Trichloropropane	14.28	75	105809	9.61 ug\L #	100
70) n-Propylbenzene	14.29	91	1559356	10.31 ug\L	100
71) 2-Chlorotoluene	14.43	91	847104	10.08 ug\L	99
72) 4-Chlorotoluene	14.59	91	923597	10.38 ug\L	100
73) 1,3,5-Trimethylbenzene	14.54	105	1022978	10.25 ug\L	100
74) Pentachloroethane	15.05	167	121933	9.91 ug\L	98
75) tert-Butylbenzene	14.98	119	873352	10.38 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	964203	10.25 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

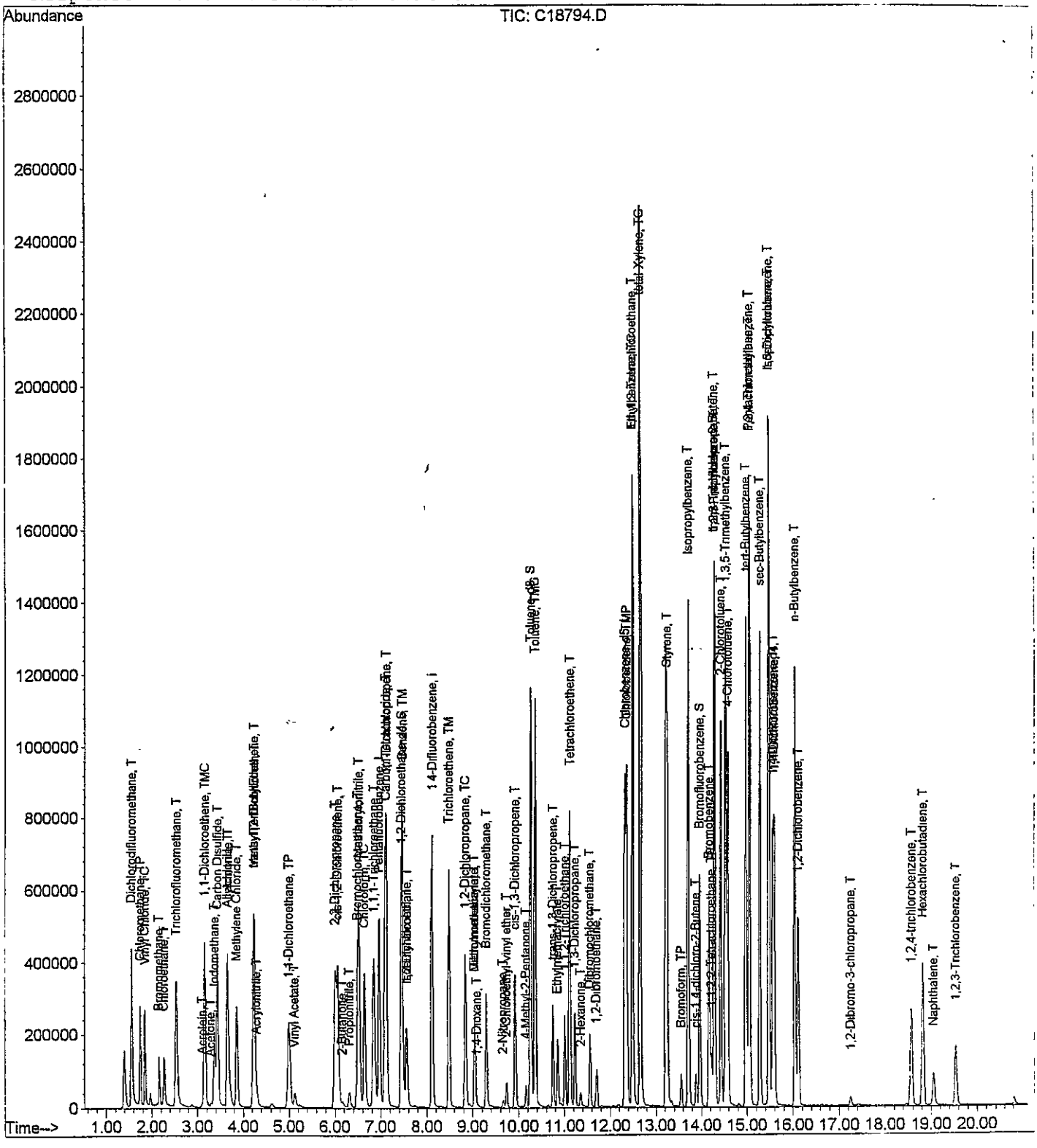
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1320053	10.52 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	400364	9.86 ug\L	96
79) Isopropyltoluene	15.48	119	1030815	10.66 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	387498	9.82 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	298669	9.77 ug\L	97
82) n-Butylbenzene	16.05	91	962971	10.23 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	8564	8.01 ug\L	98
84) 1,2,4-trichlorobenzene	18.57	180	154628	9.50 ug\L	100
85) Hexachlorobutadiene	18.83	225	136085	11.74 ug\L	100
86) Naphthalene	19.06	128	145956	7.41 ug\L	100
87) 1,2,3-Trichlorobenzene	19.55	180	102849	9.26 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

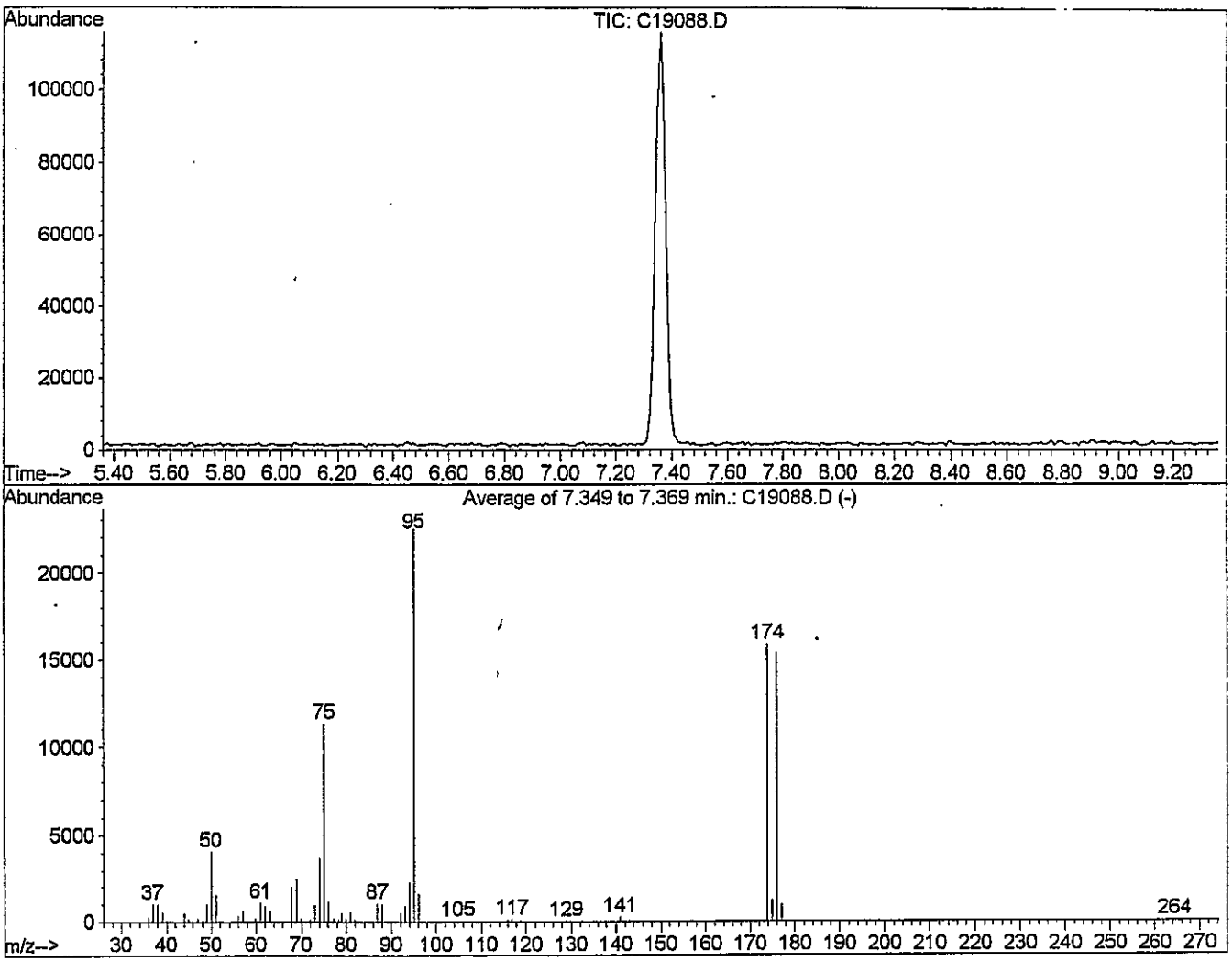
Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\032201\C19088.D
Acq On : 03/22/01 05:47
Sample : BFB 50ng V01018
Misc : QC
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00



AutoFind: Scans 622, 623, 624; Background Corrected with Scan 614

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	4052	PASS
75	95	30	60	50.5	11351	PASS
95	95	100	100	100.0	22493	PASS
96	95	5	9	7.2	1612	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.7	15895	PASS
175	174	5	9	7.6	1202	PASS
176	174	95	101	97.1	15428	PASS
177	176	5	9	6.2	957	PASS

C19088.D BFB01.M Thu Mar 22 05:59:48 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Quant Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	617279	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	834225	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	335244	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1418	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	225110	9.08	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 90.80%			
46) Toluene-d8	10.27	98	1350602	10.52	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.20%#			
66) Bromofluorobenzene	13.97	95	411136	10.02	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.20%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	466542	8.78	ug\L	100
3) Chloromethane	1.74	50	396858	10.74	ug\L	98
4) Vinyl Chloride	1.85	62	317555	9.86	ug\L	100
5) Bromomethane	2.17	94	67645	8.09	ug\L	98
6) Chloroethane	2.27	64	155158	9.44	ug\L	92
7) Trichlorofluoromethane	2.54	101	422588	8.48	ug\L #	100
8) Acrolein	3.09	56	9813	20.31	ug\L #	90
9) Acrylonitrile	4.31	53	46161	19.40	ug\L	95
10) 1,1-Dichloroethene	3.16	96	310297	10.67	ug\L	95
11) Acetone	3.30	58	7503	9.21	ug\L	89
12) Iodomethane	3.37	142	383961	9.98	ug\L	96
13) Allylchloride	3.66	39	402927	9.75	ug\L	95
14) Carbon Disulfide	3.44	76	987538	10.17	ug\L	99
15) Acetonitrile	3.66	41	572512	104.51	ug\L	96
16) Methylene Chloride	3.87	86	158881	10.15	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	317439	10.60	ug\L	99
18) MethylTertButylEther	4.24	73	326831	9.69	ug\L	97
19) 1,1-Dichloroethane	5.00	63	537826	10.29	ug\L	100
20) Vinyl Acetate	5.13	43	132534	10.06	ug\L	99
21) 2,2-Dichloropropane	6.01	77	534106	10.64	ug\L	98
22) cis-1,2-Dichloroethene	6.07	96	309302	10.78	ug\L	96
23) 2-Butanone	6.17	72	7014	10.10	ug\L	85
24) Propionitrile	6.32	54	84726	101.75	ug\L #	96
25) Methacrylonitrile	6.52	41	526737	102.21	ug\L	98
26) Bromochloromethane	6.50	128	96519	10.62	ug\L	97
27) Chloroform	6.65	83	544703	9.86	ug\L	100
28) 1,1,1-Trichloroethane	6.86	97	550590	9.92	ug\L	100
29) Carbon Tetrachloride	7.10	119	448642	9.60	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Quant Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	11092	196.76 ug\L #	90
31) 1,1-Dichloropropene	7.13	77	160414	10.64 ug\L	99
33) Benzene	7.47	78	1240954	10.82 ug\L	100
34) Isobutyl alcohol	7.58	43	41838	167.67 ug\L	93
35) 1,2-Dichloroethane	7.57	62	252693	9.49 ug\L	97
36) Trichloroethene	8.49	95	380327	10.66 ug\L	99
37) 1,2-Dichloropropane	8.85	63	263306	10.55 ug\L	100
38) Dibromomethane	9.05	93	97736	10.35 ug\L	98
39) Methylmethacrylate	9.05	69	65510	10.33 ug\L	94
40) Bromodichloromethane	9.30	83	323163	9.61 ug\L	98
41) 2-Nitropropane	9.67	43	18288	9.51 ug\L	85
42) 2-Chloroethyl-vinyl ether	9.74	63	40691	8.76 ug\L	98
43) cis-1,3-Dichloropropene	9.93	75	353474	10.65 ug\L	97
44) 4-Methyl-2-Pentanone	10.17	85	12181	9.84 ug\L #	98
47) Toluene	10.37	92	862032	10.85 ug\L	100
48) trans-1,3-Dichloropropene	10.75	75	246334	10.02 ug\L	96
49) Ethylmethacrylate	10.85	69	160546	10.21 ug\L	99
50) 1,1,2-Trichloroethane	11.02	83	116765	10.42 ug\L	97
51) Tetrachloroethene	11.12	164	313957	10.55 ug\L	99
52) 1,3-Dichloropropane	11.24	76	253911	10.22 ug\L	98
53) 2-Hexanone	11.36	43	44119	9.20 ug\L	98
54) Dibromochloromethane	11.57	129	167653	9.60 ug\L	100
55) 1,2-Dibromoethane	11.70	107	124573	10.29 ug\L	99
56) Chlorobenzene	12.37	112	854191	10.23 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.49	131	250515	10.31 ug\L	99
58) Ethylbenzene	12.50	91	1742350	10.92 ug\L	98
59) total-Xylene	12.66	106	1821642m	33.25 ug\L	
60) Styrene	13.25	104	858864	10.94 ug\L	96
62) Bromoform	13.56	173	68113	9.39 ug\L	98
63) Isopropylbenzene	13.72	105	1791604	10.87 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.89	75	31909	9.43 ug\L #	92
65) trans-1,4-dichloro-2-Buten	14.27	75	145602	10.00 ug\L #	72
67) Bromobenzene	14.18	156	266538	9.98 ug\L	95
68) 1,1,2,2-Tetrachloroethane	14.23	83	126804	10.07 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	145602	10.00 ug\L #	100
70) n-Propylbenzene	14.29	91	2152868	10.77 ug\L	99
71) 2-Chlorotoluene	14.43	91	1155467	10.40 ug\L	97
72) 4-Chlorotoluene	14.59	91	1249381	10.62 ug\L	99
73) 1,3,5-Trimethylbenzene	14.54	105	1417663	10.75 ug\L	98
74) Pentachloroethane	15.06	167	159719	9.82 ug\L	97
75) tert-Butylbenzene	14.98	119	1203730	10.82 ug\L	98
76) 1,2,4-Trimethylbenzene	15.05	105	1340654	10.78 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Quant Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

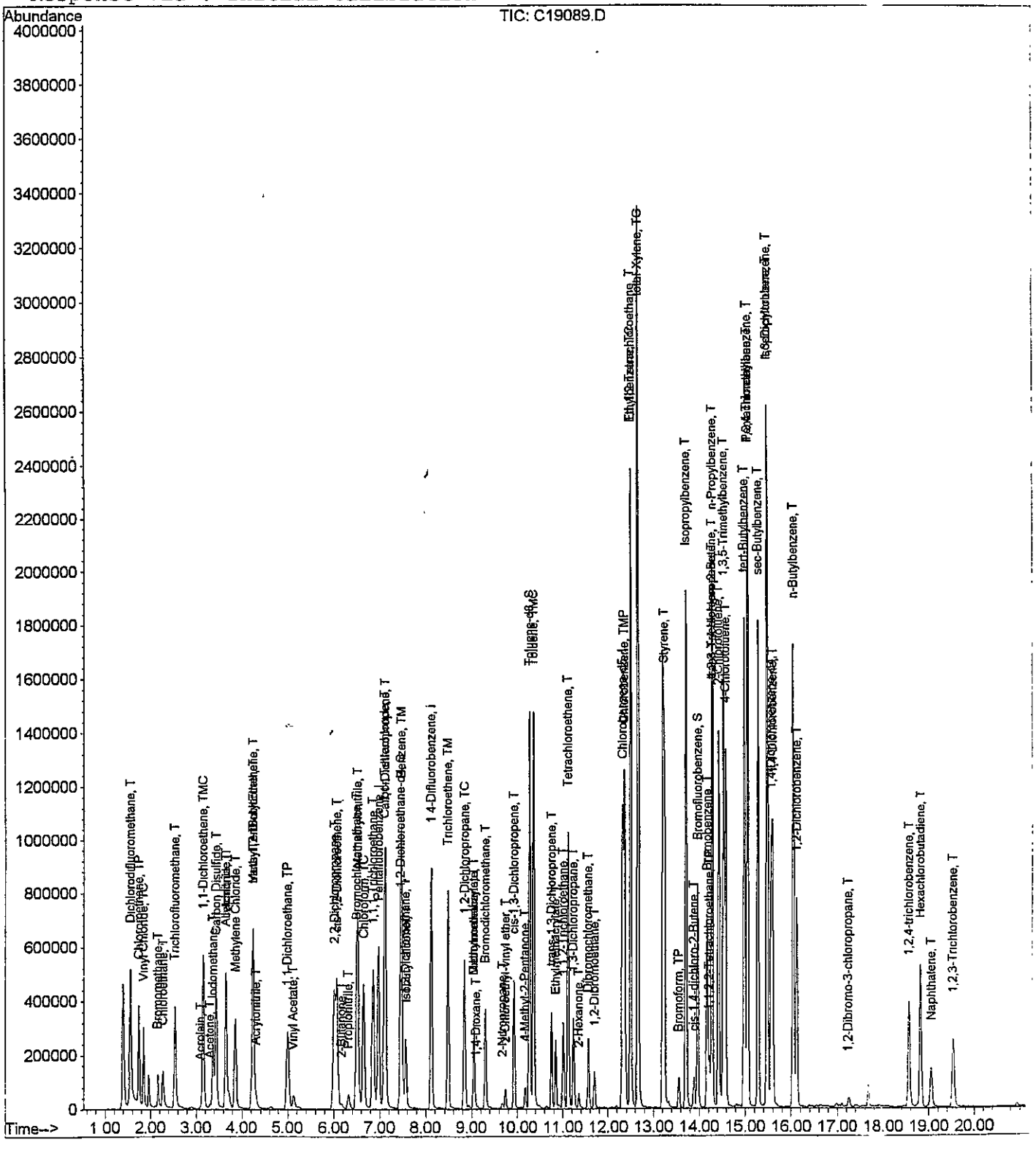
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1827394	11.01 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	562007	10.47 ug\L	97
79) Isopropyltoluene	15.48	119	1445302	11.31 ug\L	98
80) 1,4-Dichlorobenzene	15.60	146	541219	10.37 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	420165	10.39 ug\L	98
82) n-Butylbenzene	16.05	91	1382720	11.11 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.24	75	11432	8.08 ug\L	88
84) 1,2,4-trichlorobenzene	18.57	180	223694	10.39 ug\L	100
85) Hexachlorobutadiene	18.83	225	188948	12.40 ug\L	100
86) Naphthalene	19.06	128	241889	9.29 ug\L	100
87) 1,2,3-Trichlorobenzene	19.55	180	154684	10.53 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	105	0.00
2	T	Dichlorodifluoromethane	0.861	0.756	12.2	90	0.00
3	TP	Chloromethane	0.599	0.643	-7.3	109	0.00
4	TC	Vinyl Chloride	0.522	0.514	1.5	99	0.00
5	T	Bromomethane	0.143	0.110	23.1	81	0.00
6	T	Chloroethane	0.266	0.251	5.6	92	0.00
7	T	Trichlorofluoromethane	0.807	0.685	15.1	86	0.00
8	T	Acrolein	0.008	0.008	0.0	124	0.00
9	T	Acrylonitrile	0.039	0.037	5.1	113	0.02
10	TMC	1,1-Dichloroethene	0.471	0.503	-6.8	110	0.00
11	T	Acetone	0.013	0.012	7.7	110	0.00
12	T	Iodomethane	0.623	0.622	0.2	108	0.00
13	T	Allylchloride	0.669	0.653	2.4	101	0.00
14	T	Carbon Disulfide	1.573	1.600	-1.7	109	0.00
15	T	Acetonitrile	0.089	0.093	-4.5	110	0.00
16	T	Methylene Chloride	0.253	0.257	-1.6	111	0.00
17	T	trans-1,2-Dichloroethene	0.485	0.514	-6.0	109	0.00
18	T	MethylTertButylEther	0.546	0.529	3.1	108	0.00
19	TP	1,1-Dichloroethane	0.847	0.871	-2.8	110	0.00
20	T	Vinyl Acetate	0.213	0.215	-0.9	121	0.00
21	T	2,2-Dichloropropane	0.814	0.865	-6.3	106	0.00
22	T	cis-1,2-Dichloroethene	0.465	0.501	-7.7	113	0.00
23	T	2-Butanone	0.013	0.011	15.4	111	0.00
24	T	Propionitrile	0.013	0.014	-7.7	117	0.00
25	T	Methacrylonitrile	0.083	0.085	-2.4	114	0.00
26	T	Bromochloromethane	0.147	0.156	-6.1	112	0.00
27	TC	Chloroform	0.895	0.882	1.5	104	0.00
28	T	1,1,1-Trichloroethane	0.899	0.892	0.8	102	0.00
29	T	Carbon Tetrachloride	0.757	0.727	4.0	101	0.00
30	T	1,4-Dioxane	0.001	0.001	0.0	116	0.00
31	T	1,1-Dichloropropene	0.244	0.260	-6.6	109	0.00
32	S	1,2-Dichloroethane-d4	0.402	0.365	9.2	104	0.00
33	TM	Benzene	1.859	2.010	-8.1	114	0.00
34	T	Isobutyl alcohol	0.005	0.003	40.0#	106	0.02
35	T	1,2-Dichloroethane	0.431	0.409	5.1	105	0.00
36	TM	Trichloroethene	0.578	0.616	-6.6	112	0.00
37	TC	1,2-Dichloropropane	0.404	0.427	-5.7	115	0.00
38	T	Dibromomethane	0.153	0.158	-3.3	113	0.00
39	T	Methylmethacrylate	0.103	0.106	-2.9	114	0.00
40	T	Bromodichloromethane	0.545	0.524	3.9	104	0.00
41	T	2-Nitropropane	0.031	0.030	3.2	122	0.00
42	T	2-Chloroethyl-vinyl ether	0.075	0.066	12.0	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.538	0.573	-6.5	115	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.020	0.0	119	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
46	S	Toluene-d8	1.539	1.619	-5.2	116	0.00
47	TMC	Toluene	0.953	1.033	-8.4	117	0.00
48	T	trans-1,3-Dichloropropene	0.295	0.295	0.0	114	0.00
49	T	Ethylmethacrylate	0.188	0.192	-2.1	118	0.00
50	T	1,1,2-Trichloroethane	0.134	0.140	-4.5	121	0.00
51	T	Tetrachloroethene	0.357	0.376	-5.3	114	0.00
52	T	1,3-Dichloropropane	0.298	0.304	-2.0	117	0.00
53	T	2-Hexanone	0.057	0.053	7.0	114	0.00
54	T	Dibromochloromethane	0.209	0.201	3.8	110	0.00
55	T	1,2-Dibromoethane	0.145	0.149	-2.8	118	0.00
56	TMP	Chlorobenzene	1.001	1.024	-2.3	116	0.00
57	T	1,1,1,2-Tetrachloroethane	0.291	0.300	-3.1	113	0.00
58	TC	Ethylbenzene	1.912	2.089	-9.3	117	0.00
59	TG	total-Xylene	0.657	0.728	-10.8	120	0.00
60	T	Styrene	0.941	1.030	-9.5	119	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	117	0.00
62	TP	Bromoform	0.216	0.203	6.0	114	0.00
63	T	Isopropylbenzene	4.915	5.344	-8.7	120	0.00
64	T	cis-1,4-dichloro-2-Butene	0.097	0.095	2.1	120	0.00
65	T	trans-1,4-dichloro-2-Butene	0.434	0.434	0.0	119	0.00
66	S	Bromofluorobenzene	1.223	1.226	-0.2	119	0.00
67	T	Bromobenzene	0.797	0.795	0.3	118	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.376	0.378	-0.5	122	0.00
69	T	1,2,3-Trichloropropane	0.434	0.434	0.0	119	0.00
70	T	n-Propylbenzene	5.965	6.422	-7.7	118	0.00
71	T	2-Chlorotoluene	3.315	3.447	-4.0	116	0.00
72	T	4-Chlorotoluene	3.508	3.727	-6.2	128	0.00
73	T	1,3,5-Trimethylbenzene	3.934	4.229	-7.5	118	0.00
74	T	Pentachloroethane	0.485	0.476	1.9	115	0.00
75	T	tert-Butylbenzene	3.317	3.591	-8.3	117	0.00
76	T	1,2,4-Trimethylbenzene	3.710	3.999	-7.8	117	0.00
77	T	sec-Butylbenzene	4.949	5.451	-10.1	120	0.00
78	T	1,3-Dichlorobenzene	1.602	1.676	-4.6	118	0.00
79	T	Isopropyltoluene	3.813	4.311	-13.1	121	0.00
80	T	1,4-Dichlorobenzene	1.556	1.614	-3.7	119	0.00
81	T	1,2-Dichlorobenzene	1.206	1.253	-3.9	122	0.00
82	T	n-Butylbenzene	3.711	4.125	-11.2	120	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.042	0.034	19.0	113	0.00
84	T	1,2,4-trichlorobenzene	0.642	0.667	-3.9	127	0.00
85	T	Hexachlorobutadiene	0.499	0.564	-13.0	126	0.00
86	T	Naphthalene	0.756	0.722	4.5	140	0.00
87	T	1,2,3-Trichlorobenzene	0.438	0.461	-5.3	131	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	83	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

PROJECT QUALITY CONTROL RESULTS

Method No.[1]	Analyte Compounds	Project Control Rec. MS Water	Project Control Rec. MSD Water	Project Control Rec. MS Soil[2]	Project Control Rec. MSD Soil[2]	Accuracy Limits MS/MSD Recoveries Water	Accuracy Limits MS/MSD Recoveries Soil[2]	Precision Limits MS/MSD Deviation Water	Precision Limits MS/MSD Deviation Soil[2]	Precision Limits MS/MSD Deviation Water	Precision Limits MS/MSD Deviation Soil[2]	Project Control Recoveries LCS Water	Project Control Recoveries LCS Soil[2]	Accuracy Limits LCS Recoveries Water	Accuracy Limits LCS Recoveries Soil[2]	Project Control Field Dup % Deviation Water	Project Control Field Dup % Deviation Soil[2]	Precision Limits Field Dup Deviation Water	Precision Limits Field Dup Deviation Soil[2]
	VOLATILES BY EC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	95	95			60-140	20-150	17%		30	50	97		62-170	62-170			50	75
8260B	1,1,1-Trichloroethane	96	91			60-140	20-150	2%		30	50	97		65-135	65-135			50	75
8260B	1,1,2,2-Tetrachloroethane	89	89			60-140	20-150	3%		30	50	92		64-135	64-135			50	75
8260B	1,1,2-Trichloroethane	90	90			60-140	20-150	0%		30	50	98		65-135	65-135			50	75
8260B	1,1-Dichloroethane	96	91			60-140	20-150	2%		30	50	98		62-135	62-135			50	75
8260B	1,1-Dichloroethene	98	95			60-140	20-150	3%		30	50	101		65-135	65-135			50	75
8260B	1,2,3-Trichlorobenzene	89	87			60-140	20-150	0%		30	50	90		65-147	65-147			50	75
8260B	1,2,3-Trichloropropane	88	85			60-140	20-150	3%		30	50	95		65-135	65-135			50	75
8260B	1,2,4-Trichlorobenzene	90	85			60-140	20-150	3%		30	50	95		65-145	65-145			50	75
8260B	1,2,4-Trimethylbenzene	95	93			60-140	20-150	2%		30	50	106		65-135	65-135			50	75
8260B	1,2-Dibromoethane	93	91			60-140	20-150	3%		30	50	87		58-137	58-137			50	75
8260B	1,2-Dichlorobenzene	91	89			60-140	20-150	2%		30	50	100		64-135	64-135			50	75
8260B	1,2-Dibromo-3-chloropropane	72	77			60-140	20-150	6%		30	50	69		49-135	49-135			50	75
8260B	1,2-Dichloropropane	91	90			60-140	20-150	1%		30	50	98		60-135	60-135			50	75
8260B	1,2-Dichloroethane Dibromide	88	91			60-140	20-150	3%		30	50	98		65-135	65-135			50	75
8260B	1,3,5-Trimethylbenzene	91	93			60-140	20-150	2%		30	50	106		62-135	62-135			50	75
8260B	1,3-Dichlorobenzene	92	91			60-140	20-150	1%		30	50	102		65-135	65-135			50	75
8260B	1,3-Dichloropropane	93	93			60-140	20-150	1%		30	50	101		65-135	65-135			50	75
8260B	1,4-Dichlorobenzene	89	90			60-140	20-150	1%		30	50	100		64-135	65-135			50	75
8260B	2,2-Dichloropropane	93	93			60-140	20-150	1%		30	50	101		65-135	65-135			50	75
8260B	2-Chlorotoluene	92	91			60-140	20-150	2%		30	50	104		63-135	63-135			50	75
8260B	4-Chlorotoluene	95	93			60-140	20-150	2%		30	50	106		64-135	64-135			50	75
8260B	Benzene	98	97			60-140	20-150	2%		30	50	103		65-135	65-135			50	75
8260B	Bromobenzene	87	87			60-140	20-150	1%		30	50	97		65-135	65-135			50	75
8260B	Bromochloromethane	97	93			60-140	20-150	4%		30	50	96		63-135	63-135			50	75
8260B	Bromodichloromethane	93	95			60-140	20-150	2%		30	50	91		65-135	65-135			50	75
8260B	Bromoform	76	83			60-140	20-150	8%		30	50	87		65-135	65-135			50	75
8260B	Bromomethane	91	85			60-140	20-150	6%		30	50	104		62-135	62-135			50	75
8260B	Carbon Tetrachloride	98	91			60-140	20-150	1%		30	50	97		62-135	62-135			50	75
8260B	Chlorobenzene	92	90			60-140	20-150	2%		30	50	92		65-135	65-135			50	75
8260B	Chloroethane	95	86			60-140	20-150	6%		30	50	87		55-135	55-135			50	75
8260B	Chloroform	96	91			60-140	20-150	1%		30	50	91		63-135	63-135			50	75
8260B	Chloromethane	91	91			60-140	20-150	4%		30	50	100		65-135	65-135			50	75
8260B	Cis-1,2-Dichloroethene	99	99			60-140	20-150	1%		30	50	101		65-135	65-135			50	75
8260B	Cis-1,3-Dichloropropene	90	94			60-140	20-150	4%		30	50	95		61-135	61-135			50	75
8260B	Dibromodichloromethane	88	89			60-140	20-150	2%		30	50	88		63-135	63-135			50	75
8260B	Dibromomethane	91	93			60-140	20-150	2%		30	50	89		60-135	60-135			50	75
8260B	Dichlorodifluoromethane	88	87			60-140	20-150	0%		30	50	88		65-135	65-135			50	75
8260B	Ethylbenzene	99	96			60-140	20-150	2%		30	50	105		65-135	65-135			50	75
8260B	Hexachlorobutadiene	111	110			60-140	20-150	10%		30	50	122		65-135	65-135			50	75
8260B	Isopropylbenzene	93	92			60-140	20-150	2%		30	50	109		65-135	65-135			50	75
8260B	total Xylene	98	97			60-140	20-150	1%		30	50	106		65-135	65-135			50	75
8260B	Methylene Chloride	96	93			60-140	20-150	1%		30	50	96		65-135	65-135			50	75
8260B	n-Butylbenzene	110	97			60-140	20-150	3%		30	50	110		65-135	65-135			50	75
8260B	n-Propylbenzene	95	92			60-140	20-150	1%		30	50	110		65-135	65-135			50	75
8260B	Naphthalene	85	87			60-140	20-150	4%		30	50	74		65-135	65-135			50	75
8260B	p-Isopropyltoluene	102	102			60-140	20-150	1%		30	50	112		65-135	65-135			50	75
8260B	Sec-Butylbenzene	96	95			60-140	20-150	2%		30	50	110		65-135	65-135			50	75
8260B	Styrene	96	96			60-140	20-150	0%		30	50	102		65-135	65-135			50	75
8260B	Tetrachloroethylene	99	96			60-140	20-150	0%		30	50	102		61-135	61-135			50	75
8260B	Tert-Butylbenzene	95	93			60-140	20-150	1%		30	50	109		65-135	65-135			50	75
8260B	Tetrachloroethylene	99	94			60-140	20-150	4%		30	50	104		61-135	61-135			50	75
8260B	Toluene	96	93			60-140	20-150	3%		30	50	101		64-135	64-135			50	75
8260B	Trans-1,2-Dichloroethene	99	96			60-140	20-150	2%		30	50	101		65-135	65-135			50	75
8260B	Trans-1,3-Dichloropropene	86	87			60-140	20-150	1%		30	50	88		56-135	56-135			50	75
8260B	Trichlorofluoromethane	89	88			60-140	20-150	2%		30	50	87		57-135	57-135			50	75
8260B	Vinyl Chloride	86	87			60-140	20-150	1%		30	50	91		36-144	36-144			50	75
8260B	Toluene-d8 (surr)	100	93			75-125	65-135	7%		NA	NA	100		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	95	96			75-125	65-135	2%		NA	NA	91		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	95	91			62-139	52-149	4%		NA	NA	83		NA	NA			NA	NA
	WET CHEMISTRY																		
310.1	Alkalinity					70-130	NA	10% or	10% or	30	NA			70-130	NA			30	NA
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
418.1	TPH	71				50-150	50-150	10%	10% or	30	50	97		75-125	70-130			50	75

WATER

	SAMPLE C18485 D	MS C18503 D	MSD C18504 D	BLANK C18483 D	BS C18484 D
1,1,1,2-Tetrachloroethane					
1,1,1-Trichloroethane					
1,1,2,2-Tetrachloroethane					
1,1,2-Trichloroethane					
1,1-Dichloroethane					
1,1-Dichloroethene					
1,2,3-Trichlorobenzene					
1,2,3-Trichloropropane					
1,2,4-Trichlorobenzene					
1,2,4-Trimethylbenzene					
1,2-Dibromoethane					
1,2-Dichlorobenzene					
1,2-Dibromo-3-chloropropane					
1,2-Dichloropropane					
1,2-Dichloroethane Dibromide					
1,3,5-Trimethylbenzene					
1,3-Dichlorobenzene					
1,3-Dichloropropane					
1,4-Dichlorobenzene					
2,2-Dichloropropane					
2-Chlorotoluene					
4-Chlorotoluene					
Benzene					
Bromobenzene					
Bromochloromethane					
Bromodichloromethane					
Bromoform					
Bromomethane					
Carbon Tetrachloride					
Chlorobenzene					
Chloroethane					
Chloroform					
Chloromethane					
Cis-1,2-Dichloroethene					
Cis-1,3-Dichloropropene					
Dibromodichloromethane					
Dibromomethane					
Dichlorodifluoromethane					
Ethylbenzene					
Hexachlorobutadiene					
Isopropylbenzene					
total Xylene					
Methylene Chloride					
n-Butylbenzene					
n-Propylbenzene					
Naphthalene					
p-Isopropyltoluene					
Sec-butylbenzene					
Styrene					
Tetrachloroethylene					
Tert-butylbenzene					
Tetrachloroethylene					
Toluene					
Trans-1,2-Dichloroethene					
Trans-1,3-Dichloropropene					
Trichlorofluoromethane					
Vinyl Chloride					
Toluene-d8 (surr)					
4-Bromofluorobenzene (surr)					
1,2-Dichloroethane-d4 (surr)					

SOIL

SAMPLE	MS	MSD	BLANK	BS

VOA GC/MS QC CHECKLIST
SW-846-8260B

BATCH #: C032201 25.M	METHOD: 8260B
MATRIX: water -25 ml	

Are BS/BSD/MS/MSD recoveries within recovery ranges?	Y	~~N~~	NA
Is/Are blank result(s) less than 1/2 RDL for analytes of interest?	~~Y~~	N	NA
Are all surrogate recoveries within recovery ranges?	~~Y~~	N	NA
Are all Internal Standard areas w/in -50% to +100% of that in the CCV?	~~Y~~	N	NA
Are all Internal Standard retention times w/in 30 seconds of that in the CCV?	~~Y~~	N	NA
Are all MS/MSD compounds below the high standard?	~~Y~~	N	NA
Were sample analyses performed within holding times?	~~Y~~	N	NA
Were analyses performed such that carryover was not a problem?	~~Y~~	N	NA
Is the run log completely filled out (including review signature/date)?	~~Y~~	N	NA
Are all mistakes single lined out, initialled, & dated?	~~Y~~	N	NA

Analyst: VRR	Reviewer:
Date: 3·23·01 Time: 15:20	Date: Time:

Spike Recovery and RPD Summary Report - WATER

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration

Non-Spiked Sample: C19108.D

	Spike Sample	Spike Duplicate Sample
File ID :	C19111.D	C19118.D
Sample :	AC09843MS 25ml DF =1	AC09844MSD 25ml DF=1
Acq Time:	22 Mar 2001 16:58	23 Mar 2001 14:50

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
1,1-Dichloroethene	0.0	10	10	9	98	95	3	20	88-118
Benzene	0.0	10	10	10	98	97	2	20	83-121
Trichloroethene	35.1	10	45	42	98	66#	40#	20	68-109
Toluene	0.0	10	10	9	96	94	3	20	85-109
Chlorobenzene	0.0	10	9	9	92	90	2	20	82-110

- Fails Limit Check

03220125.M Fri Mar 23 15:17:45 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	464235	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.33	117	615186	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253889	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1247	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	176471	9.46 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.60%		
46) Toluene-d8	10.27	98	950370	10.04 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.40%		
66) Bromofluorobenzene	13.97	95	285261	9.18 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 91.80%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	351482	8.79 ug\L	99
3) Chloromethane	1.74	50	262261	9.44 ug\L	98
4) Vinyl Chloride	1.84	62	208821	8.62 ug\L	100
5) Bromomethane	2.16	94	56048	9.01 ug\L	97
6) Chloroethane	2.26	64	111610	9.02 ug\L	94
7) Trichlorofluoromethane	2.53	101	334874	8.94 ug\L #	100
8) Acrolein	3.10	56	6464	17.79 ug\L #	92
9) Acrylonitrile	4.30	53	33618	18.79 ug\L	95
10) 1,1-Dichloroethene	3.15	96	214080	9.79 ug\L	98
11) Acetone	3.30	58	4847	7.42 ug\L	92
12) Iodomethane	3.37	142	262365	9.07 ug\L	99
13) Allylchloride	3.65	39	303002	9.75 ug\L	96
14) Carbon Disulfide	3.43	76	727789	9.97 ug\L	99
15) Acetonitrile	3.66	41	395520	96.00 ug\L	97
16) Methylene Chloride	3.86	86	112583	9.57 ug\L	96
17) trans-1,2-Dichloroethene	4.24	96	220542	9.80 ug\L	98
18) MethylTertButylEther	4.24	73	204275	8.06 ug\L	96
19) 1,1-Dichloroethane	5.00	63	378790	9.64 ug\L	100
20) Vinyl Acetate	5.13	43	89832	9.07 ug\L	98
21) 2,2-Dichloropropane	6.02	77	349957	9.27 ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	212498	9.85 ug\L	99
23) 2-Butanone	6.16	72	4346	8.21 ug\L #	91
24) Propionitrile	6.31	54	54251	86.63 ug\L #	96
25) Methacrylonitrile	6.52	41	353754	91.27 ug\L	98
26) Bromochloromethane	6.49	128	66498	9.73 ug\L	97
27) Chloroform	6.65	83	397338	9.57 ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	398855	9.55 ug\L	98
29) Carbon Tetrachloride	7.10	119	331256	9.42 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	8726	204.46 ug\L #	86
31) 1,1-Dichloropropene	7.12	77	113054	9.97 ug\L	98
33) Benzene	7.47	78	847813	9.82 ug\L	100
34) Isobutyl alcohol	7.57	43	24613	129.06 ug\L	94
35) 1,2-Dichloroethane	7.57	62	185440	9.26 ug\L	99
36) Trichloroethene	8.48	95	1203839	44.87 ug\L	99
37) 1,2-Dichloropropane	8.85	63	175985	9.38 ug\L	98
38) Dibromomethane	9.05	93	64719	9.11 ug\L	99
39) Methylmethacrylate	9.05	69	38800	8.13 ug\L	91
40) Bromodichloromethane	9.30	83	234685	9.28 ug\L	100
41) 2-Nitropropane	9.67	43	10653	7.37 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.75	63	8357	2.39 ug\L	96
43) cis-1,3-Dichloropropene	9.93	75	225485	9.03 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	7553	8.12 ug\L #	96
47) Toluene	10.36	92	564339	9.63 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	155684	8.59 ug\L	99
49) Ethylmethacrylate	10.85	69	96786	8.35 ug\L	97
50) 1,1,2-Trichloroethane	11.01	83	74122	8.97 ug\L	98
51) Tetrachloroethene	11.12	164	217330	9.91 ug\L	98
52) 1,3-Dichloropropane	11.24	76	164272	8.97 ug\L	97
53) 2-Hexanone	11.36	43	28112	7.95 ug\L	97
54) Dibromochloromethane	11.57	129	112849	8.76 ug\L	99
55) 1,2-Dibromoethane	11.71	107	78422	8.78 ug\L	99
56) Chlorobenzene	12.37	112	568695	9.24 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	170653	9.53 ug\L	100
58) Ethylbenzene	12.50	91	1152587	9.80 ug\L	99
59) total-Xylene	12.66	106	1190650m	29.47 ug\L	
60) Styrene	13.25	104	554889	9.59 ug\L	98
62) Bromoform	13.56	173	41805	7.61 ug\L #	99
63) Isopropylbenzene	13.72	105	1177266	9.43 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	17157	7.16 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.28	75	88239	8.00 ug\L #	79
67) Bromobenzene	14.18	156	176014	8.70 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.22	83	82213	8.62 ug\L	96
69) 1,2,3-Trichloropropane	14.28	75	88239	8.00 ug\L #	100
70) n-Propylbenzene	14.29	91	1440880	9.51 ug\L	99
71) 2-Chlorotoluene	14.43	91	775856	9.22 ug\L	98
72) 4-Chlorotoluene	14.59	91	845582	9.49 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	940147	9.41 ug\L	100
74) Pentachloroethane	15.06	167	103713	8.42 ug\L #	95
75) tert-Butylbenzene	14.98	119	798504	9.48 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	898965	9.54 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

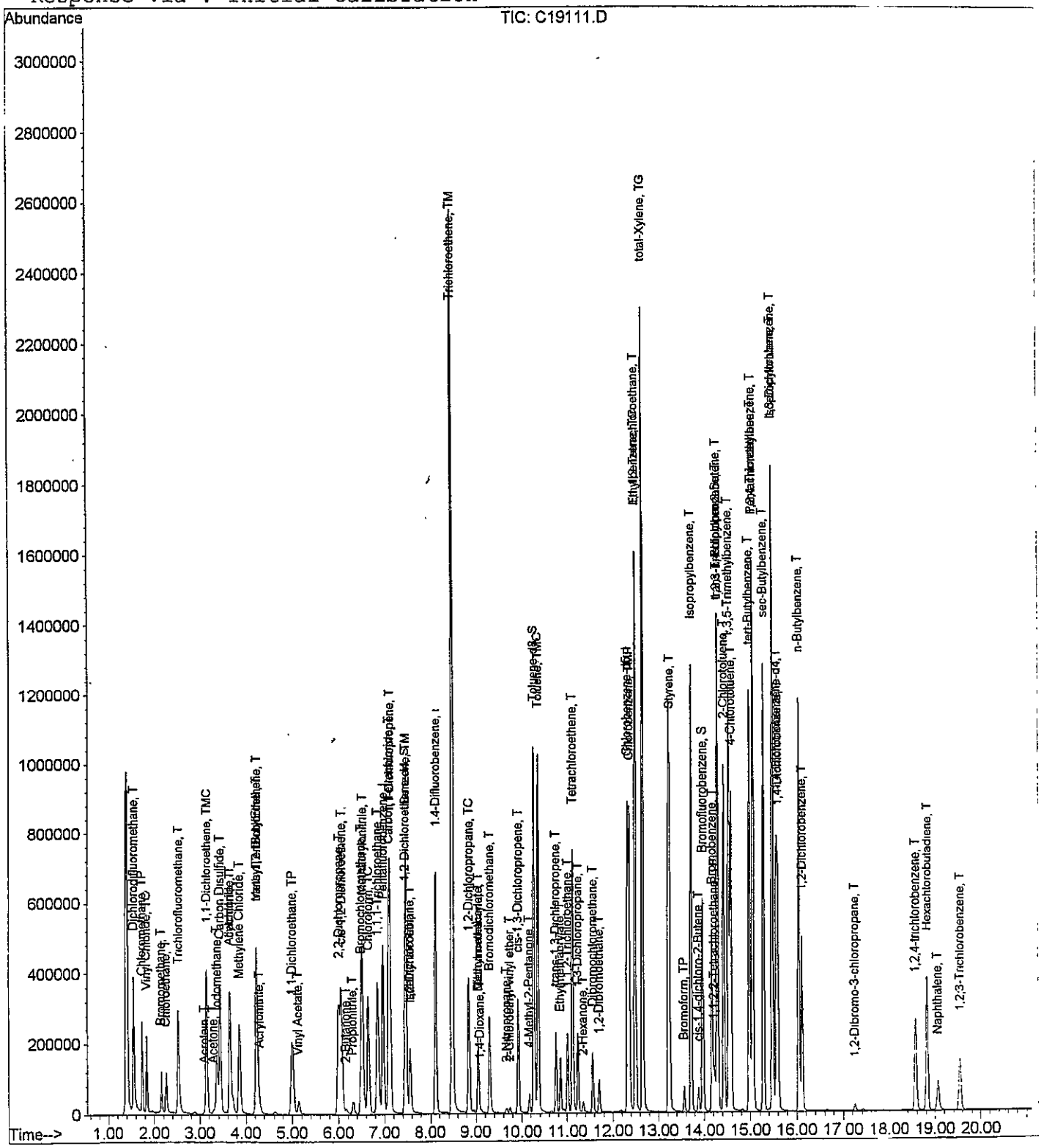
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1209749	9.63 ug\L	100
78)	1,3-Dichlorobenzene	15.48	146	374835	9.22 ug\L	97
79)	Isopropyltoluene	15.48	119	989179	10.22 ug\L	99
80)	1,4-Dichlorobenzene	15.60	146	352123	8.91 ug\L	98
81)	1,2-Dichlorobenzene	16.13	146	279190	9.12 ug\L	98
82)	n-Butylbenzene	16.05	91	938056	9.96 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.25	75	7708	7.20 ug\L	92
84)	1,2,4-trichlorobenzene	18.57	180	142634	8.75 ug\L	100
85)	Hexachlorobutadiene	18.83	225	129989	11.12 ug\L	100
86)	Naphthalene	19.06	128	127770	6.48 ug\L	100
87)	1,2,3-Trichlorobenzene	19.54	180	96725	8.70 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	531918	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	745967	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	308654	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1524	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	195198	9.13	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.30%			
46) Toluene-d8	10.27	98	1072753	9.34	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.40%			
66) Bromofluorobenzene	13.97	95	340341	9.01	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.10%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	368649	8.05	ug\L	100
3) Chloromethane	1.74	50	290067	9.11	ug\L	99
4) Vinyl Chloride	1.85	62	242039	8.72	ug\L	99
5) Bromomethane	2.17	94	60649	8.46	ug\L	99
6) Chloroethane	2.27	64	121855	8.60	ug\L	93
7) Trichlorofluoromethane	2.54	101	375543	8.75	ug\L #	100
8) Acrolein	3.10	56	7432	17.85	ug\L #	97
9) Acrylonitrile	4.31	53	35219	17.18	ug\L	93
10) 1,1-Dichloroethene	3.16	96	237036	9.46	ug\L	100
11) Acetone	3.31	58	5700	7.71	ug\L	99
12) Iodomethane	3.37	142	319081	9.62	ug\L	99
13) Allylchloride	3.66	39	333106	9.35	ug\L	97
14) Carbon Disulfide	3.43	76	775018	9.27	ug\L	99
15) Acetonitrile	3.66	41	441666	93.56	ug\L	98
16) Methylene Chloride	3.86	86	125511	9.31	ug\L	96
17) trans-1,2-Dichloroethene	4.25	96	248513	9.63	ug\L	99
18) MethylTertButylEther	4.24	73	243208	8.37	ug\L	96
19) 1,1-Dichloroethane	5.00	63	424720	9.43	ug\L	99
20) Vinyl Acetate	5.14	43	105248	9.27	ug\L	98
21) 2,2-Dichloropropane	6.01	77	404085	9.34	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	245286	9.92	ug\L	97
23) 2-Butanone	6.16	72	5114	8.45	ug\L #	87
24) Propionitrile	6.32	54	67307	93.81	ug\L	98
25) Methacrylonitrile	6.53	41	424559	95.60	ug\L	98
26) Bromochloromethane	6.50	128	72774	9.30	ug\L	96
27) Chloroform	6.65	83	449081	9.44	ug\L	98
28) 1,1,1-Trichloroethane	6.86	97	449885	9.40	ug\L	98
29) Carbon Tetrachloride	7.10	119	377298	9.37	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	9681	198.91 ug\L #	92
31) 1,1-Dichloropropene	7.13	77	127483	9.81 ug\L	97
33) Benzene	7.47	78	954487	9.65 ug\L	100
34) Isobutyl alcohol	7.58	43	32168	148.57 ug\L	88
35) 1,2-Dichloroethane	7.57	62	207266	9.03 ug\L	99
36) Trichloroethene	8.48	95	1279483	41.62 ug\L	99
37) 1,2-Dichloropropane	8.85	63	206879	9.62 ug\L	99
38) Dibromomethane	9.05	93	75866	9.32 ug\L	98
39) Methylmethacrylate	9.05	69	49912	9.13 ug\L	97
40) Bromodichloromethane	9.30	83	274056	9.46 ug\L	100
41) 2-Nitropropane	9.67	43	14305	8.64 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	269771	9.43 ug\L	100
44) 4-Methyl-2-Pentanone	10.16	85	8788	8.24 ug\L #	81
47) Toluene	10.36	92	666853	9.38 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	191469	8.71 ug\L	98
49) Ethylmethacrylate	10.85	69	123698	8.80 ug\L	98
50) 1,1,2-Trichloroethane	11.02	83	89893	8.97 ug\L	99
51) Tetrachloroethene	11.12	164	252983	9.51 ug\L	98
52) 1,3-Dichloropropane	11.23	76	201356	9.07 ug\L	99
53) 2-Hexanone	11.36	43	35750	8.34 ug\L	98
54) Dibromochloromethane	11.57	129	139063	8.91 ug\L	100
55) 1,2-Dibromoethane	11.70	107	98157	9.07 ug\L	99
56) Chlorobenzene	12.36	112	674583	9.04 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	205864	9.48 ug\L	99
58) Ethylbenzene	12.50	91	1371535	9.62 ug\L	99
59) total-Xylene	12.66	106	1428403m	29.16 ug\L	
60) Styrene	13.25	104	670611	9.56 ug\L	100
62) Bromoform	13.56	173	55228	8.27 ug\L	97
63) Isopropylbenzene	13.72	105	1400060	9.23 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.89	75	23051	7.74 ug\L #	87
65) trans-1,4-dichloro-2-Buten	14.27	75	115989	8.65 ug\L #	74
67) Bromobenzene	14.18	156	212622	8.65 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	102935	8.88 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	115989	8.65 ug\L #	100
70) n-Propylbenzene	14.28	91	1733448	9.42 ug\L	99
71) 2-Chlorotoluene	14.43	91	929006	9.08 ug\L	99
72) 4-Chlorotoluene	14.58	91	1010246	9.33 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1124276	9.26 ug\L	99
74) Pentachloroethane	15.05	167	131508	8.78 ug\L	96
75) tert-Butylbenzene	14.98	119	964869	9.42 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	1063360	9.29 ug\L	98
77) sec-Butylbenzene	15.28	105	1443231	9.45 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

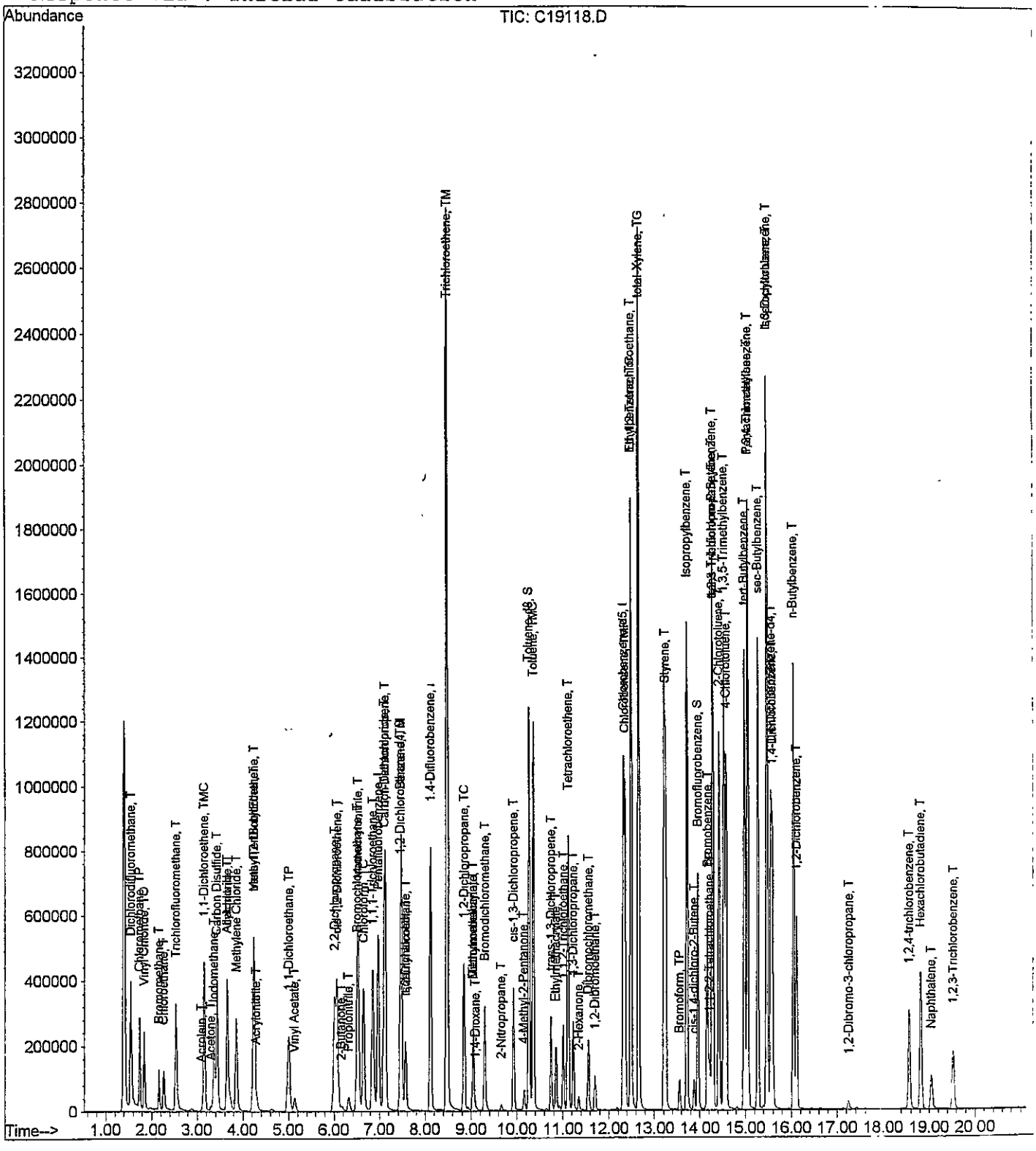
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) 1,3-Dichlorobenzene	15.47	146	451253	9.13	ug\L	97
79) Isopropyltoluene	15.48	119	1190263	10.11	ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	433868	9.03	ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	331228	8.90	ug\L	98
82) n-Butylbenzene	16.05	91	1106113	9.66	ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	9984	7.67	ug\L	95
84) 1,2,4-trichlorobenzene	18.57	180	168737	8.51	ug\L	100
85) Hexachlorobutadiene	18.82	225	144463	10.04	ug\L	100
86) Naphthalene	19.05	128	161278	6.73	ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	114688	8.48	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:31 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

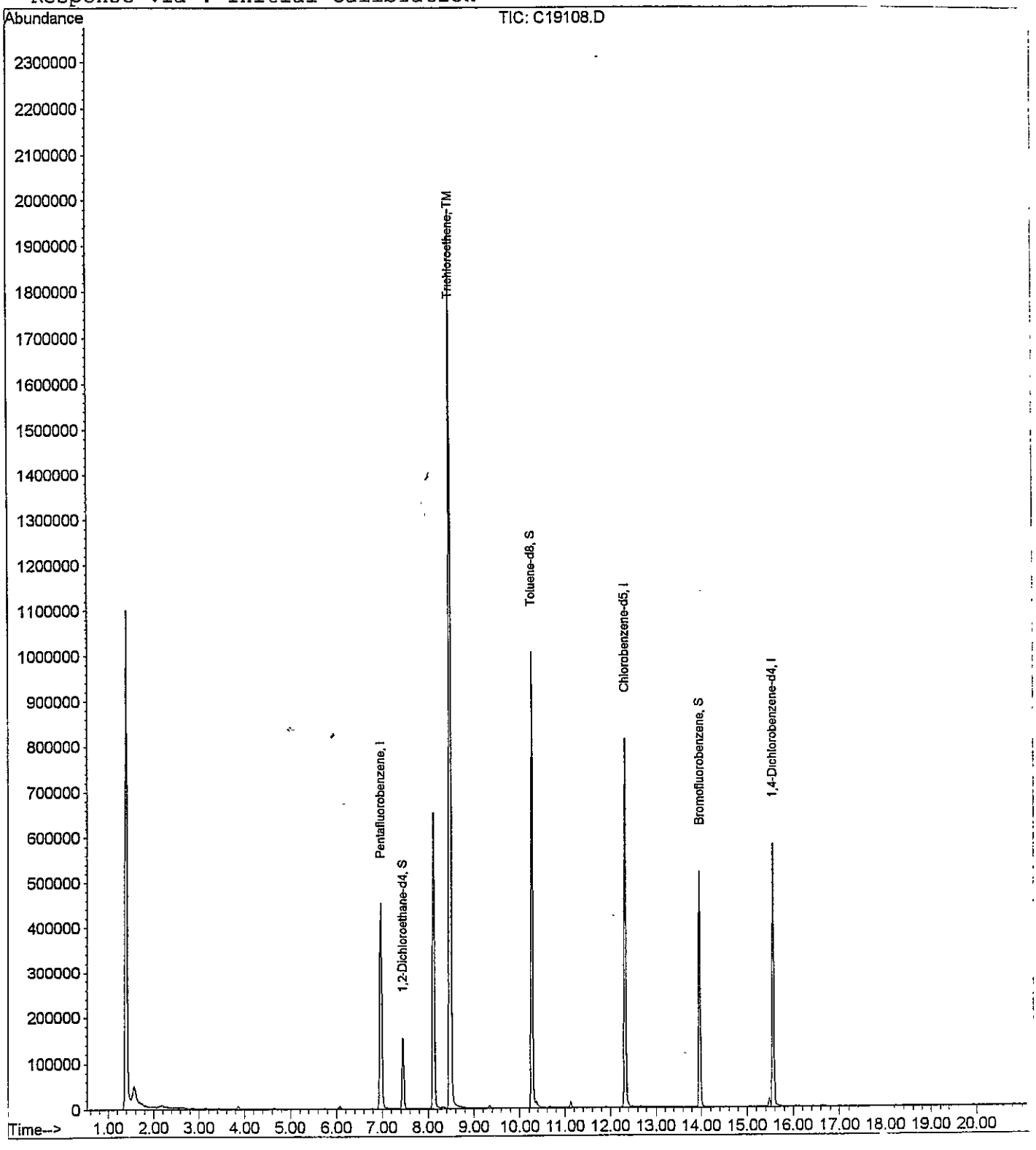
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	449284	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.33	117	569770	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	211618	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	165188	9.15 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.50%		
46) Toluene-d8	10.28	98	896814	10.23 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.30%		
66) Bromofluorobenzene	13.97	95	246075	9.50 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.00%		
Target Compounds					Qvalue
36) Trichloroethene	8.49	95	910270	35.06 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:31 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	570896	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	750300	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	283135	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1320	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	189761	8.27 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.70%		
46) Toluene-d8	10.26	98	1148802	9.95 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%		
66) Bromofluorobenzene	13.97	95	326794	9.43 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.30%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	433685	8.82 ug\L	100
3) Chloromethane	1.75	50	342953	10.03 ug\L	99
4) Vinyl Chloride	1.85	62	279955	9.40 ug\L	98
5) Bromomethane	2.17	94	79145	10.49 ug\L	97
6) Chloroethane	2.28	64	132234	8.69 ug\L	92
7) Trichlorofluoromethane	2.53	101	398451	8.65 ug\L #	100
8) Acrolein	3.09	56	8007	17.92 ug\L #	98
9) Acrylonitrile	4.30	53	36933	16.78 ug\L	95
10) 1,1-Dichloroethene	3.15	96	278940	10.37 ug\L	96
11) Acetone	3.30	58	4744	5.19 ug\L	84
12) Iodomethane	3.37	142	352482	9.90 ug\L	97
13) Allylchloride	3.65	39	362256	9.48 ug\L	98
14) Carbon Disulfide	3.44	76	848569	9.45 ug\L	99
15) Acetonitrile	3.65	41	498098	98.31 ug\L	99
16) Methylene Chloride	3.86	86	138461	9.57 ug\L	98
17) trans-1,2-Dichloroethene	4.24	96	286750	10.36 ug\L	98
18) MethylTertButylEther	4.23	73	249418	8.00 ug\L	97
19) 1,1-Dichloroethane	5.00	63	474844	9.83 ug\L	100
20) Vinyl Acetate	5.13	43	98370	8.07 ug\L	98
21) 2,2-Dichloropropane	6.01	77	468534	10.09 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	267306	10.07 ug\L	96
23) 2-Butanone	6.16	72	4873	7.43 ug\L	93
24) Propionitrile	6.32	54	62747	81.48 ug\L	99
25) Methacrylonitrile	6.52	41	407913	85.58 ug\L	99
26) Bromochloromethane	6.49	128	80217	9.55 ug\L	99
27) Chloroform	6.65	83	482343	9.44 ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	497247	9.68 ug\L	99
29) Carbon Tetrachloride	7.09	119	417369	9.65 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	9543	185.10 ug\L	91
31) 1,1-Dichloropropene	7.12	77	143321	10.28 ug\L	99
33) Benzene	7.47	78	1091929	10.29 ug\L	100
34) Isobutyl alcohol	7.57	43	29268	124.48 ug\L	90
35) 1,2-Dichloroethane	7.56	62	213561	8.67 ug\L	100
36) Trichloroethene	8.48	95	336441	10.20 ug\L	99
37) 1,2-Dichloropropane	8.84	63	226183	9.80 ug\L	100
38) Dibromomethane	9.05	93	77398	8.86 ug\L	98
39) Methylmethacrylate	9.05	69	49113	8.37 ug\L	96
40) Bromodichloromethane	9.30	83	283728	9.12 ug\L	99
41) 2-Nitropropane	9.66	43	12601	7.09 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.75	63	27083	6.31 ug\L	99
43) cis-1,3-Dichloropropene	9.93	75	291714	9.50 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	8280	7.24 ug\L #	95
47) Toluene	10.37	92	742211	10.38 ug\L	100
48) trans-1,3-Dichloropropene	10.74	75	195150	8.83 ug\L	97
49) Ethylmethacrylate	10.85	69	118629	8.39 ug\L	98
50) 1,1,2-Trichloroethane	11.01	83	90730	9.01 ug\L	98
51) Tetrachloroethene	11.12	164	277893	10.39 ug\L	98
52) 1,3-Dichloropropane	11.23	76	205092	9.18 ug\L	98
53) 2-Hexanone	11.35	43	29117	6.75 ug\L	96
54) Dibromochloromethane	11.56	129	137987	8.79 ug\L	99
55) 1,2-Dibromoethane	11.70	107	98235	9.02 ug\L	97
56) Chlorobenzene	12.36	112	736301	9.81 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	211069	9.66 ug\L	98
58) Ethylbenzene	12.49	91	1512426	10.54 ug\L	99
59) total-Xylene	12.66	106	1564289m	31.75 ug\L	
60) Styrene	13.25	104	716227	10.15 ug\L	97
62) Bromoform	13.56	173	53070	8.66 ug\L	99
63) Isopropylbenzene	13.72	105	1520767	10.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	21959	7.98 ug\L #	88
65) trans-1,4-dichloro-2-Buten	14.27	75	110598	9.00 ug\L #	76
67) Bromobenzene	14.17	156	218387	9.68 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	97362	9.16 ug\L	98
69) 1,2,3-Trichloropropane	14.27	75	110598	9.00 ug\L #	100
70) n-Propylbenzene	14.29	91	1858438	11.00 ug\L	100
71) 2-Chlorotoluene	14.43	91	978538	10.42 ug\L	98
72) 4-Chlorotoluene	14.58	91	1055314	10.63 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1200224	10.77 ug\L	99
74) Pentachloroethane	15.06	167	128401	9.34 ug\L	97
75) tert-Butylbenzene	14.98	119	1019938	10.86 ug\L	99
76) 1,2,4-Trimethylbenzene	15.06	105	1117356	10.64 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

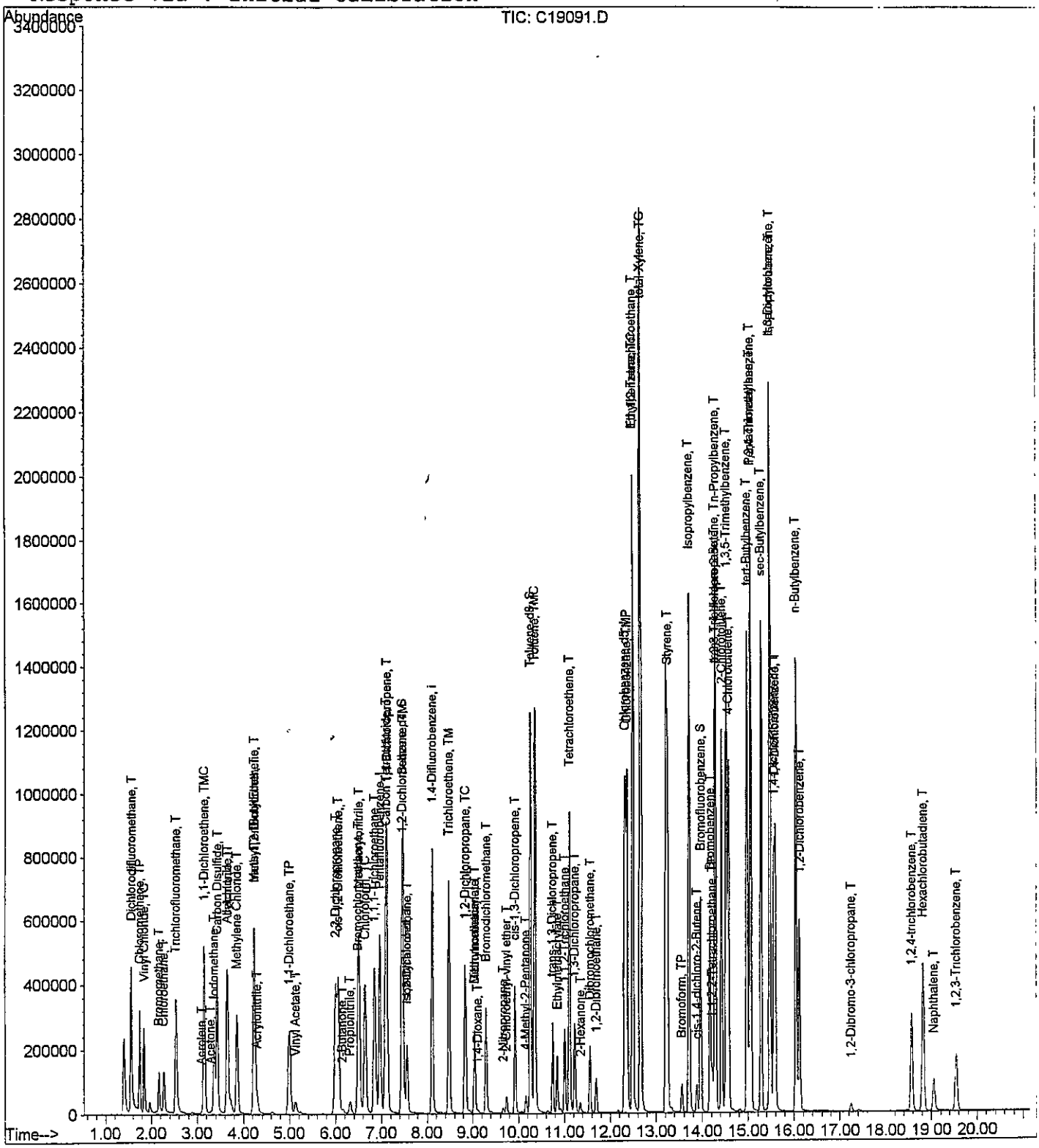
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1538894	10.98 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	462825	10.20 ug\L	97
79) Isopropyltoluene	15.48	119	1206834	11.18 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	440095	9.99 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	341519	10.00 ug\L	97
82) n-Butylbenzene	16.04	91	1153172	10.97 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	8213	6.88 ug\L	93
84) 1,2,4-trichlorobenzene	18.57	180	173335	9.53 ug\L	100
85) Hexachlorobutadiene	18.82	225	160740	12.50 ug\L	100
86) Naphthalene	19.06	128	161962	7.36 ug\L	100
87) 1,2,3-Trichlorobenzene	19.55	180	118563	9.56 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

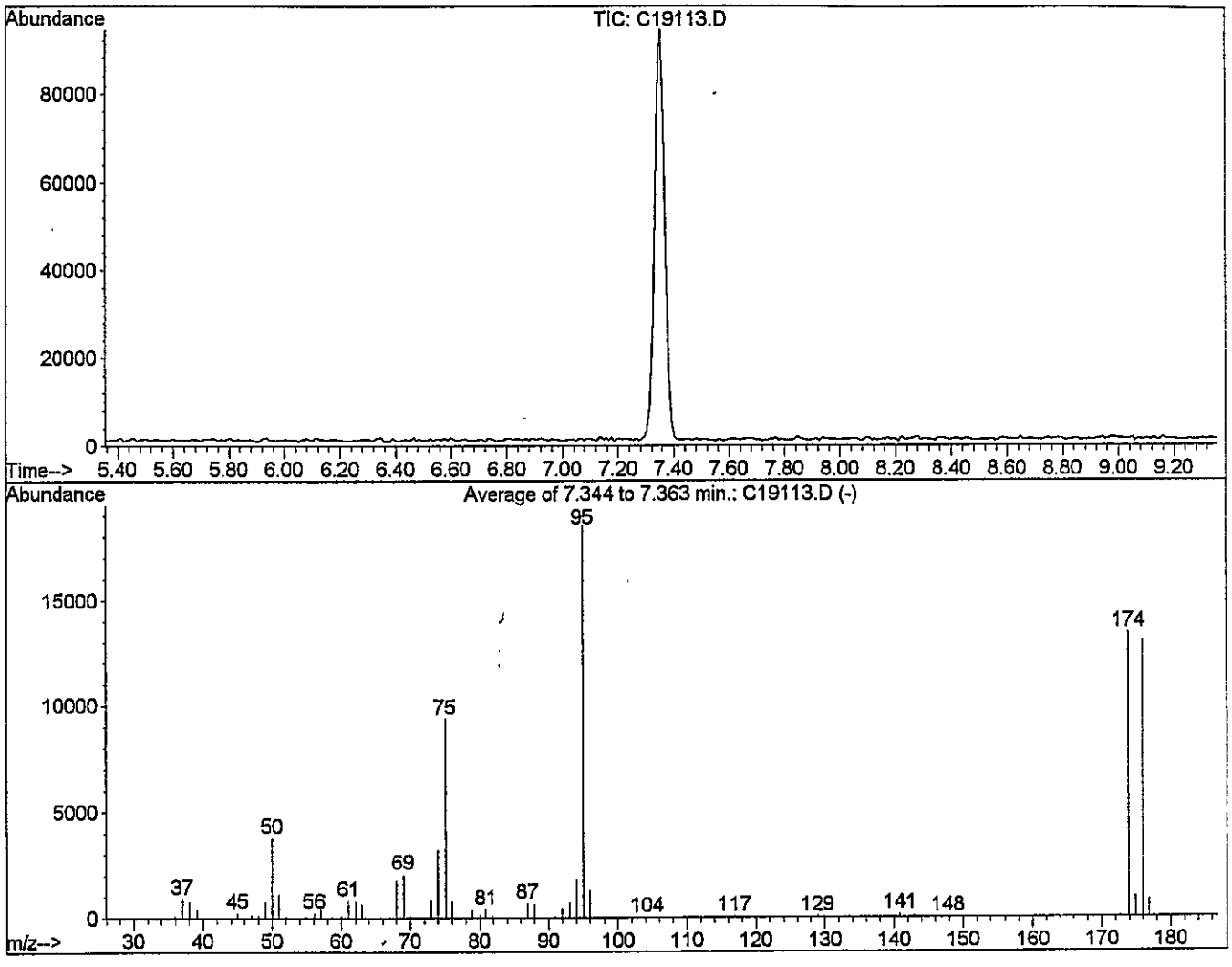
Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\032301\C19113.D Vial: 1
Acq On : 03/23/01 10:30 Operator: JP/VRR
Sample : BFB 50ng V01018 Inst : VOA-C
Misc : QC Multiplr: 1.00
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :



AutoFind: Scans 621, 622, 623; Background Corrected with Scan 613

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	3802	PASS
75	95	30	60	50.5	9362	PASS
95	95	100	100	100.0	18537	PASS
96	95	5	9	7.0	1297	PASS
173	174	0.00	2	0.4	60	PASS
174	95	50	100	72.6	13456	PASS
175	174	5	9	7.4	999	PASS
176	174	95	101	97.6	13134	PASS
177	176	5	9	6.6	871	PASS

C19113.D BFB01.M Fri Mar 23 10:42:54 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	552290	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	759182	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	301723	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1746	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	196028	8.83 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery	= 88.30%	
46) Toluene-d8	10.26	98	1167744	9.99 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery	= 99.90%	
66) Bromofluorobenzene	13.96	95	352707	9.55 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery	= 95.50%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	448787	9.44 ug\L	100
3) Chloromethane	1.74	50	346148	10.47 ug\L	97
4) Vinyl Chloride	1.84	62	290190	10.07 ug\L	100
5) Bromomethane	2.16	94	72059	9.81 ug\L	98
6) Chloroethane	2.27	64	147314	10.01 ug\L	92
7) Trichlorofluoromethane	2.53	101	426670	9.57 ug\L #	100
8) Acrolein	3.09	56	7870	18.21 ug\L #	99
9) Acrylonitrile	4.30	53	39551	18.58 ug\L	96
10) 1,1-Dichloroethene	3.15	96	292463	11.24 ug\L	98
11) Acetone	3.29	58	5580	7.07 ug\L	88
12) Iodomethane	3.36	142	380274	11.04 ug\L	98
13) Allylchloride	3.65	39	388759	10.51 ug\L	98
14) Carbon Disulfide	3.43	76	973522	11.21 ug\L	99
15) Acetonitrile	3.65	41	522199	106.54 ug\L	99
16) Methylene Chloride	3.85	86	144054	10.29 ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	293496	10.96 ug\L	98
18) MethylTertButylEther	4.24	73	263756	8.74 ug\L	98
19) 1,1-Dichloroethane	4.99	63	500100	10.70 ug\L	99
20) Vinyl Acetate	5.12	43	110665	9.39 ug\L	98
21) 2,2-Dichloropropane	6.00	77	493487	10.98 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	282746	11.02 ug\L	99
23) 2-Butanone	6.15	72	5723	9.15 ug\L #	96
24) Propionitrile	6.31	54	70115	94.11 ug\L	98
25) Methacrylonitrile	6.52	41	444324	96.36 ug\L	99
26) Bromochloromethane	6.48	128	83467	10.27 ug\L	97
27) Chloroform	6.64	83	520763	10.54 ug\L	100
28) 1,1,1-Trichloroethane	6.84	97	529136	10.65 ug\L	98
29) Carbon Tetrachloride	7.09	119	447308	10.70 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.09	88	10571	207.66 ug\L	#	86
31)	1,1-Dichloropropene	7.12	77	150078	11.13 ug\L		99
33)	Benzene	7.46	78	1126895	10.98 ug\L		100
34)	Isobutyl alcohol	7.57	43	34935	155.84 ug\L		97
35)	1,2-Dichloroethane	7.56	62	232857	9.77 ug\L		100
36)	Trichloroethene	8.47	95	357715	11.21 ug\L		99
37)	1,2-Dichloropropane	8.84	63	239015	10.71 ug\L		99
38)	Dibromomethane	9.04	93	82758	9.79 ug\L		98
39)	Methylmethacrylate	9.04	69	53290	9.39 ug\L		99
40)	Bromodichloromethane	9.29	83	303828	10.10 ug\L		99
41)	2-Nitropropane	9.66	43	13731	7.98 ug\L		96
42)	2-Chloroethyl-vinyl ether	9.74	63	32802	7.90 ug\L		98
43)	cis-1,3-Dichloropropene	9.92	75	308684	10.39 ug\L		99
44)	4-Methyl-2-Pentanone	10.16	85	9684	8.75 ug\L	#	96
47)	Toluene	10.36	92	788033	10.90 ug\L		99
48)	trans-1,3-Dichloropropene	10.74	75	206433	9.23 ug\L		99
49)	Ethylmethacrylate	10.84	69	130828	9.14 ug\L		98
50)	1,1,2-Trichloroethane	11.00	83	98209	9.63 ug\L		99
51)	Tetrachloroethene	11.11	164	294795	10.89 ug\L		99
52)	1,3-Dichloropropane	11.23	76	217819	9.64 ug\L		99
53)	2-Hexanone	11.35	43	35020	8.02 ug\L		98
54)	Dibromochloromethane	11.56	129	149430	9.40 ug\L		99
55)	1,2-Dibromoethane	11.70	107	106734	9.69 ug\L		98
56)	Chlorobenzene	12.35	112	774548	10.20 ug\L		100
57)	1,1,1,2-Tetrachloroethane	12.48	131	227067	10.27 ug\L		99
58)	Ethylbenzene	12.49	91	1630459	11.23 ug\L		100
59)	total-Xylene	12.65	106	1668244m	33.46 ug\L		
60)	Styrene	13.24	104	774039	10.84 ug\L		99
62)	Bromoform	13.55	173	58856	9.01 ug\L	#	97
63)	Isopropylbenzene	13.71	105	1651876	11.14 ug\L		100
64)	cis-1,4-dichloro-2-Butene	13.87	75	23578	8.03 ug\L	#	89
65)	trans-1,4-dichloro-2-Buten	14.26	75	121861	9.30 ug\L	#	78
67)	Bromobenzene	14.17	156	240865	10.02 ug\L		97
68)	1,1,2,2-Tetrachloroethane	14.21	83	103112	9.10 ug\L		99
69)	1,2,3-Trichloropropane	14.26	75	121861	9.30 ug\L	#	100
70)	n-Propylbenzene	14.28	91	2044096	11.36 ug\L		100
71)	2-Chlorotoluene	14.42	91	1067609	10.67 ug\L		99
72)	4-Chlorotoluene	14.57	91	1182388	11.17 ug\L		99
73)	1,3,5-Trimethylbenzene	14.52	105	1324306	11.16 ug\L		100
74)	Pentachloroethane	15.05	167	139595	9.53 ug\L		96
75)	tert-Butylbenzene	14.97	119	1136641	11.36 ug\L		100
76)	1,2,4-Trimethylbenzene	15.05	105	1258957	11.25 ug\L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

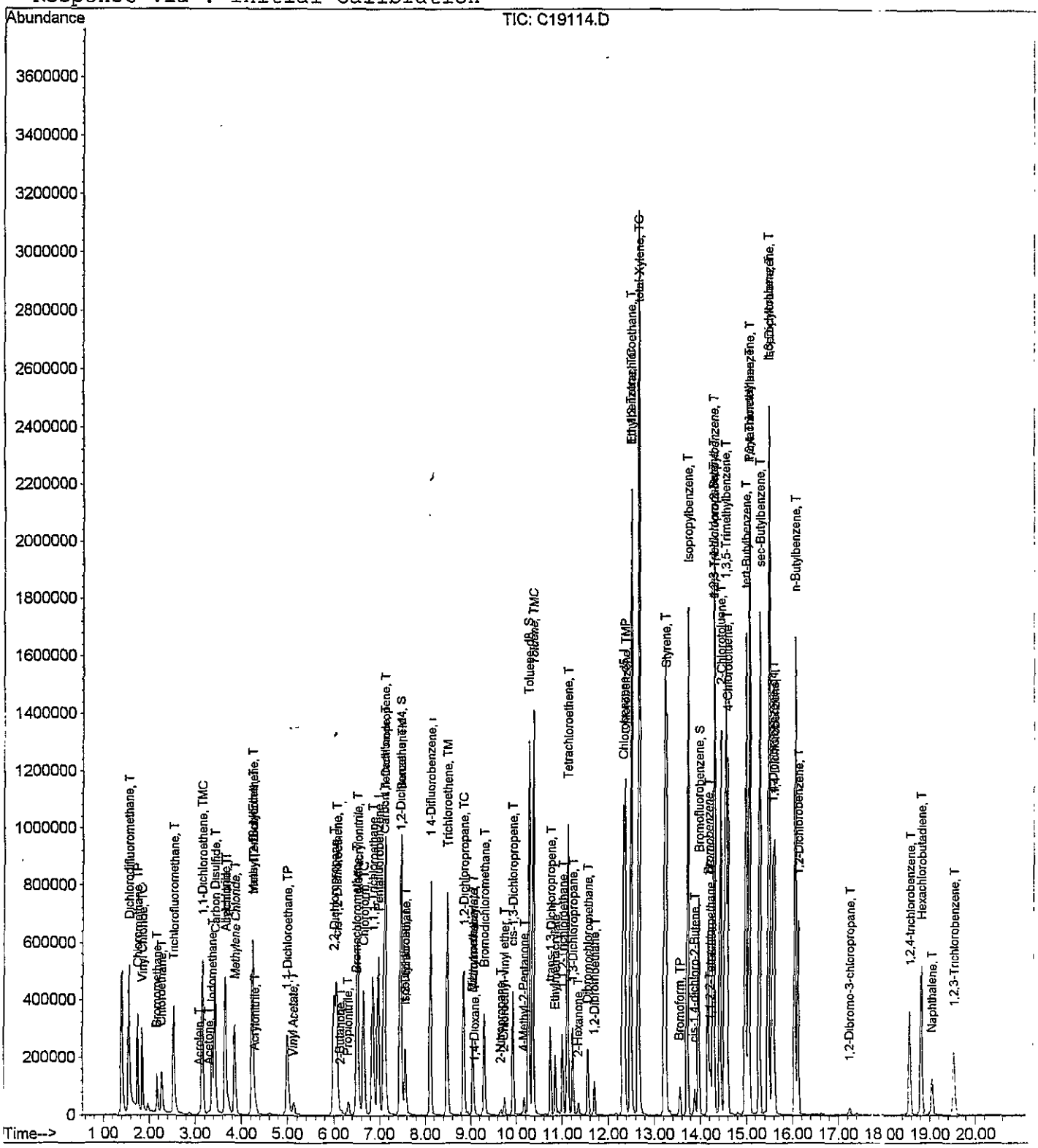
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1711650	11.46 ug\L	100
78)	1,3-Dichlorobenzene	15.47	146	507533	10.50 ug\L	97
79)	Isopropyltoluene	15.47	119	1347298	11.71 ug\L	99
80)	1,4-Dichlorobenzene	15.59	146	486948	10.37 ug\L	99
81)	1,2-Dichlorobenzene	16.11	146	375244	10.31 ug\L	98
82)	n-Butylbenzene	16.04	91	1320760	11.80 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.24	75	9639	7.57 ug\L	97
84)	1,2,4-trichlorobenzene	18.56	180	200776	10.36 ug\L	100
85)	Hexachlorobutadiene	18.81	225	178582	13.10 ug\L	100
86)	Naphthalene	19.05	128	197610	8.43 ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	136287	10.31 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	522014	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	615164	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	225294	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.43	65	177953	8.48	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%			
46) Toluene-d8	10.26	98	960599	10.15	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%			
66) Bromofluorobenzene	13.96	95	257599	9.35	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.50%			

Target Compounds Qvalue

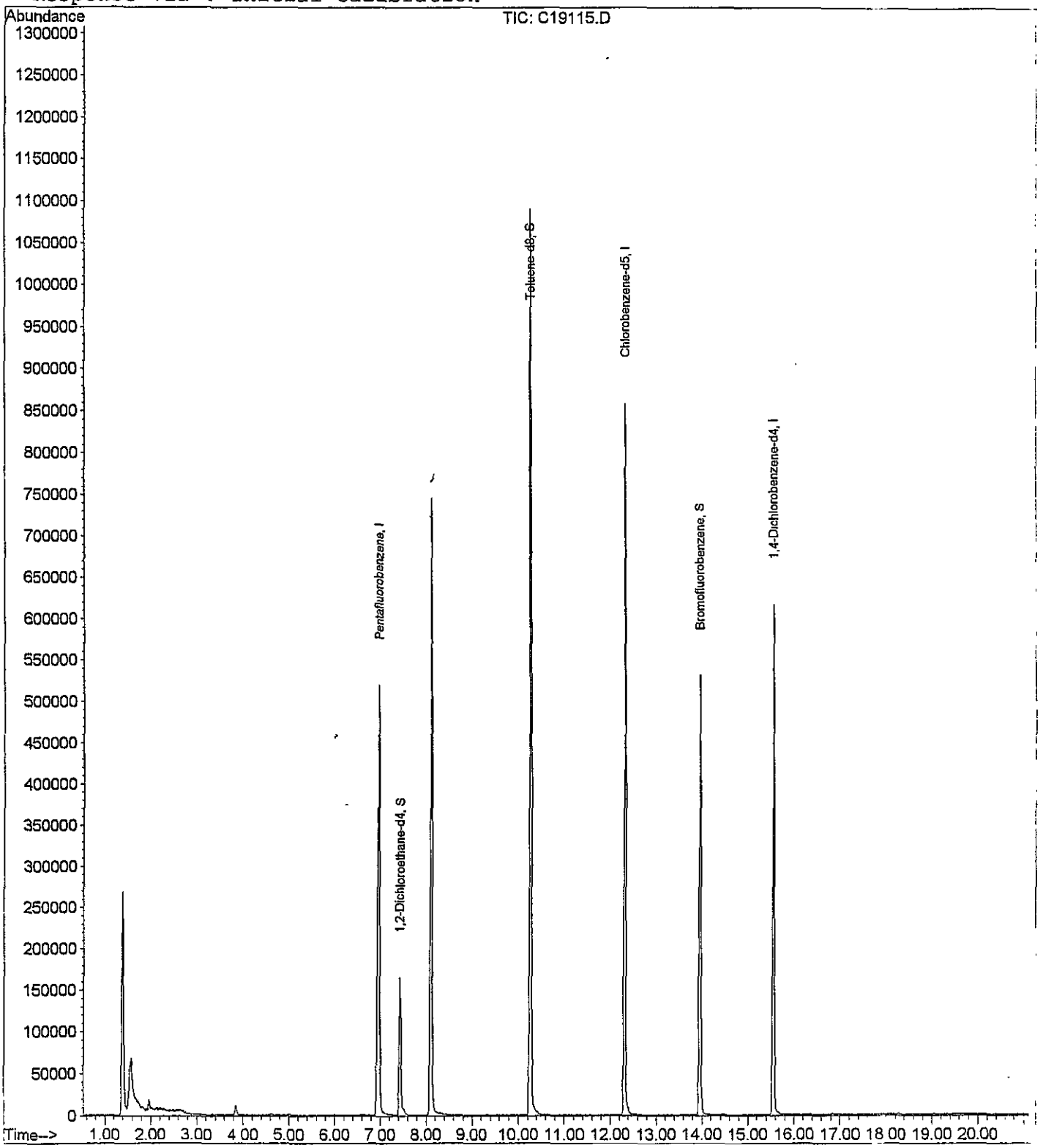
VRR
3-25-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	493377	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	631379	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	260324	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1329	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	159855	8.06	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 80.60%			
46) Toluene-d8	10.26	98	922319	9.49	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.90%			
66) Bromofluorobenzene	13.96	95	278946	8.76	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 87.60%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	368894	8.68	ug\L	100
3) Chloromethane	1.74	50	281846	9.54	ug\L	99
4) Vinyl Chloride	1.84	62	234010	9.09	ug\L	99
5) Bromomethane	2.16	94	58983	8.91	ug\L	94
6) Chloroethane	2.26	64	119581	9.10	ug\L	92
7) Trichlorofluoromethane	2.53	101	352943	8.86	ug\L #	100
8) Acrolein	3.09	56	5991	15.51	ug\L #	100
9) Acrylonitrile	4.30	53	32500	17.09	ug\L	95
10) 1,1-Dichloroethene	3.15	96	229089	9.86	ug\L	100
11) Acetone	3.29	58	3809	4.58	ug\L	81
12) Iodomethane	3.36	142	295211	9.60	ug\L	100
13) Allylchloride	3.65	39	313801	9.50	ug\L	97
14) Carbon Disulfide	3.42	76	739110	9.53	ug\L	99
15) Acetonitrile	3.65	41	416996	95.24	ug\L	98
16) Methylene Chloride	3.86	86	116568	9.32	ug\L	96
17) trans-1,2-Dichloroethene	4.24	96	235381	9.84	ug\L	99
18) MethylTertButylEther	4.23	73	200413	7.44	ug\L	97
19) 1,1-Dichloroethane	4.99	63	391605	9.38	ug\L	99
20) Vinyl Acetate	5.12	43	86713	8.24	ug\L	99
21) 2,2-Dichloropropane	6.00	77	379722	9.46	ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	218348	9.52	ug\L	99
23) 2-Butanone	6.14	72	2063	3.32	ug\L #	1
24) Propionitrile	6.30	54	51922	78.02	ug\L	98
25) Methacrylonitrile	6.51	41	339387	82.39	ug\L	98
26) Bromochloromethane	6.49	128	65644	9.04	ug\L	98
27) Chloroform	6.64	83	404981	9.17	ug\L	99
28) 1,1,1-Trichloroethane	6.84	97	417466	9.41	ug\L	97
29) Carbon Tetrachloride	7.09	119	353189	9.45	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	6852	158.78 ug\L #	95
31) 1,1-Dichloropropene	7.12	77	117061	9.71 ug\L	99
33) Benzene	7.45	78	863006	9.41 ug\L	100
34) Isobutyl alcohol	7.57	43	25377	124.92 ug\L	98
35) 1,2-Dichloroethane	7.56	62	176390	8.29 ug\L	99
36) Trichloroethene	8.48	95	269788	9.46 ug\L	99
37) 1,2-Dichloropropane	8.84	63	177992	8.92 ug\L	99
38) Dibromomethane	9.04	93	64125	8.49 ug\L	98
39) Methylmethacrylate	9.05	69	36926	7.28 ug\L	96
40) Bromodichloromethane	9.29	83	235572	8.77 ug\L	99
41) 2-Nitropropane	9.66	43	11354	7.39 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	23000	6.20 ug\L	94
43) cis-1,3-Dichloropropene	9.93	75	232967	8.78 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	6292	6.36 ug\L #	83
47) Toluene	10.36	92	587965	9.78 ug\L	98
48) trans-1,3-Dichloropropene	10.74	75	153647	8.26 ug\L	99
49) Ethylmethacrylate	10.85	69	94768	7.96 ug\L	96
50) 1,1,2-Trichloroethane	11.01	83	73037	8.62 ug\L	99
51) Tetrachloroethene	11.11	164	220991	9.81 ug\L	99
52) 1,3-Dichloropropane	11.23	76	165509	8.81 ug\L	99
53) 2-Hexanone	11.35	43	25049	6.90 ug\L	99
54) Dibromochloromethane	11.56	129	114224	8.64 ug\L	98
55) 1,2-Dibromoethane	11.70	107	78133	8.53 ug\L	97
56) Chlorobenzene	12.35	112	588117	9.31 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.48	131	175975	9.57 ug\L	100
58) Ethylbenzene	12.49	91	1230695	10.19 ug\L	99
59) total-Xylene	12.66	106	1257870m	30.34 ug\L	
60) Styrene	13.25	104	582304	9.80 ug\L	100
62) Bromoform	13.55	173	43139	7.65 ug\L	99
63) Isopropylbenzene	13.71	105	1272217	9.94 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	17422	7.11 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.27	75	90612	8.02 ug\L #	79
67) Bromobenzene	14.17	156	184233	8.88 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.21	83	80742	8.26 ug\L	100
69) 1,2,3-Trichloropropane	14.27	75	90612	8.02 ug\L #	100
70) n-Propylbenzene	14.29	91	1558294	10.04 ug\L	100
71) 2-Chlorotoluene	14.42	91	824951	9.56 ug\L	99
72) 4-Chlorotoluene	14.57	91	897035	9.82 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1014281	9.90 ug\L	99
74) Pentachloroethane	15.05	167	108436	8.58 ug\L	96
75) tert-Butylbenzene	14.98	119	857522	9.93 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	960468	9.95 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

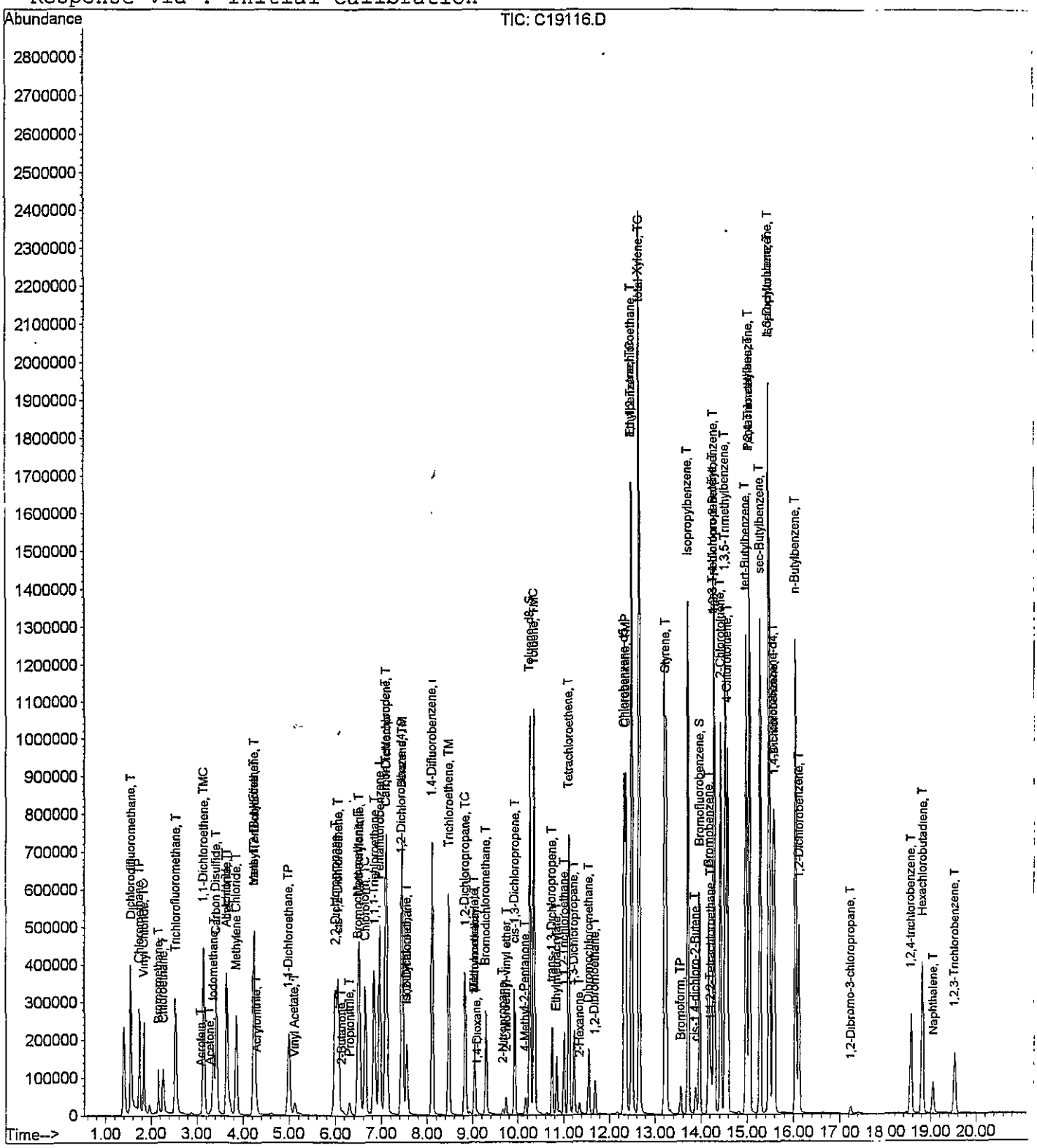
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1305308	10.13 ug\L	100
78) 1,3-Dichlorobenzene	15.46	146	394418	9.46 ug\L	97
79) Isopropyltoluene	15.48	119	1020213	10.28 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	375559	9.27 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	285030	9.08 ug\L	98
82) n-Butylbenzene	16.04	91	992182	10.27 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	7122	6.49 ug\L	94
84) 1,2,4-trichlorobenzene	18.56	180	146051	8.74 ug\L	100
85) Hexachlorobutadiene	18.81	225	138950	11.66 ug\L	100
86) Naphthalene	19.05	128	132145	6.53 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	98580	8.64 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 27307
Client Project: CTO 17-NTC Orlando – Study Area 36 / 152044.32.12.01.08
CTO Manager: S.Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 03/16/01 at 0915:

Client I.D.	Laboratory I.D.
017-OLD-36-10B-Q1-01	AC09839
017-OLD-36-11C-Q1-01	AC09840
017-OLD-36-08B-Q1-01	AC09841
017-OLD-36-DUP-Q1-01	AC09842
017-OLD-36-08B-MS-Q1-01	AC09843
017-OLD-36-08B-MSD-Q1-01	AC09844
017-OLD-36-09C-Q1-01	AC09845
017-OLD-36-TB3-Q1-01	AC09846

CCI NAVY RAC PMO
APR 18 2001

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

3. The "J" values noted for the VOC and FL-PRO results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. The "B" value noted for the FL-PRO analysis indicates that the compound was detected in the samples and in the Method Blank, and the results should be considered estimated due to Method Blank contamination.

5. The Chloride, TOC, Nitrate Nitrogen, and Nitrite Nitrogen analyses were performed by subcontract laboratories.

6. The pH of the samples was 1.0 for the VOC analysis.

7. The following samples required dilution due to high analyte concentration or matrix interference, resulting in elevated detection limits:

FL-PRO	VOC – SW-846-8260B
017-OLD-36-10B-Q1-01	017-OLD-36-09C-Q1-01
017-OLD-36-DUP2-Q1-01	
017-OLD-36-08B-MS-Q1-01	
017-OLD-36-08B-MSD-Q1-01	
017-OLD-36-09C-Q1-01	

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

8. The following samples were re-extracted 5 days outside the EPA recommended holding time due to poor extraction efficiency:

   FL-PRO
   017-OLD-36-10B-Q1-01
   017-OLD-36-11C-Q1-01
   017-OLD-36-08B-Q1-01
   017-OLD-36-DUP-Q1-01
   017-OLD-36-09C-Q1-01

   As a result, the FL-PRO data results have been reported as quantitative estimate. Note that samples 017-OLD-36-08B-MS-Q1-01 and 017-OLD-36-08B-MSD-Q1-01 could not be re-extracted due to insufficient sample volume, and the results for these two samples were reported from the original extraction and should also be considered as quantitative estimate.

9. The following surrogate was outside the method specified limit due to matrix interference:

   FL-PRO

o-Terphenyl -	017-OLD-36-10B-Q1-01
	017-OLD-36-08B-MS-Q1-01
	017-OLD-36-08B-MSD-Q1-01

10. The following surrogates were outside the method specified limits:

   FL-PRO

Nonatriacontane/C39 -	017-OLD-36-DUP2-Q1-01
	017-OLD-36-08B-MS-Q1-01
	017-OLD-36-08B-MSD-Q1-01
	Method Blank
	Laboratory Control Sample Duplicate

   The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

11. Project Specific QC for the FL-PRO analysis consists of laboratory control sample and laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as the matrix spike matrix spike recoveries on the QC spreadsheet.

12. The laboratory control sample and laboratory control sample duplicate recoveries were outside the project specified limit for the following analyte:

   FL-PRO

   The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

13. The relative percent difference between the matrix spike and matrix spike duplicate was outside the project specified limit for the following analyte:

VOC – SW-846-8260B
Trichloroethylene

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

AAL # 27307 TEMP 4°C

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO. RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No , and Fax No):
NTC Orlando	152044.32.12.01.08	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK	[6] CTO OR DO NUMBER	[9] LAB PO NUMBER.	[12] FAX AND MAIL REPORTS/EDD TO RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No)
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO	[10] LAB TEL NO AND FAX NO	[13] FAX AND MAIL REPORTS/EDD TO RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No).
Steve Tsangaris	813 874-0777	770 449-8800 x 233		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC	Nitrate	Nitrite	Chloride	Alkalinity	TDS	TOC	FL Pro			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-	10B-Q1-01	W	3-15-01	0920	III	14	X	X	X	X	X	X	X	X			Grab		AC09839
2	017-OLD-36-	11C-Q1-01			1058			X	X	X	X	X	X	X	X					AC09840
3	017-OLD-36-	08B-Q1-01			1455			X	X	X	X	X	X	X	X					AC09841
4	017-OLD-36-D	UP2-Q1-01			—			X	X	X	X	X	X	X	X			QC		AC09842
5	017-OLD-36-	08B-MS-Q1-01			1455			X	X	X	X	X	X	X	X			QC		AC09843
6	017-OLD-36-	08B-MSD-Q1-01			1455			X	X	X	X	X	X	X	X			QC		AC09844
7	017-OLD-36-	09C-Q1-01			1345			X	X	X	X	X	X	X	X			Grab		AC09845
8	017-OLD-36-	TB3-Q1-01			—			X										QC		AC09846
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER.
Fed ex

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

CCI NAVY RAD PMO APR 1 8 2001

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-15-01	1720	Printed Name and Signature FED EX		
Printed Name and Signature: FED EX	3-16-01	0915	Printed Name and Signature: Annwell B Leigh	3-16-01	0915
Printed Name and Signature			Printed Name and Signature		

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

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09839 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-10B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	32		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	3.3		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	1.3	JB	4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	210		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	17		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	11		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	1.6	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	12	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	48		
o-Terphenyl (Range 82-142)	74	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	94		
Toluene-d8 (84-108)	101		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09840 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-11C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	16		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	5.7		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.75	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	51		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	11		1

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	5.3	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	2.5	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	10	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	65		
o-Terphenyl (Range 82-142)	98		

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	88		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	97		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09841 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	22		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	6.1		0.1

ANALYSIS: Nitrate Nitrogen_EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.66	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	270		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	3		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	35	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	63		
o-Terphenyl (Range 82-142)	105		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	95		
Toluene-d8 (84-108)	102		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09842 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-DUP2-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	31		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	3.3		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	1.6	JB	4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	330		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	23		1

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	12		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	1.6	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	12	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	39	*	
o-Terphenyl (Range 82-142)	86		

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	97		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09843 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-MS-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	22		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	6.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	1.4	JB	4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	73		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	2		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	9.5	2.5
1,1,1-Trichloroethane	9.6	4
1,1,2,2-Tetrachloroethane	8.6	2
1,1,2-Trichloroethane	9.0	5
1,1-Dichloroethane	9.6	2
1,1-Dichloroethene	9.8	6
1,2,3-Trichlorobenzene	8.7	1.5
1,2,3-Trichloropropane	8.0	16
1,2,4-Trichlorobenzene	8.8	2
1,2,4-Trimethylbenzene	9.5	6.5
1,2-Dibromo-3-chloropropane	7.2	13
1,2-Dichlorobenzene	9.1	1.5
1,2-Dichloroethane	9.3	3
1,2-Dichloropropane	9.4	2
1,2-Ethylene Dibromide	8.8	3
1,3,5-Trimethylbenzene	9.4	2.5
1,3-Dichlorobenzene	9.2	6
1,3-Dichloropropane	9.0	2
1,4-Dichlorobenzene	8.9	1.5
2,2-Dichloropropane	9.3	17.5
2-Chlorotoluene	9.2	2
4-Chlorotoluene	9.5	3
Benzene	9.8	1
Bromobenzene	8.7	1.5
Bromochloromethane	9.7	2
Bromodichloromethane	9.3	4
Bromoform	7.6	6
Bromomethane	9.0	5.5
Carbon tetrachloride	9.4	10.5
Chlorobenzene	9.2	2
Chloroethane	9.0	5
Chloroform	9.6	1.5
Chloromethane	9.4	6.5
cis-1,2-Dichloroethene	9.9	6
cis-1,3-Dichloropropene	9.0	5
Dibromochloromethane	8.8	2.5
Dibromomethane	9.1	12
Dichlorodifluoromethane	8.8	5
Ethylbenzene	9.8	3
Hexachlorobutadiene	11	5.5
Isopropylbenzene	9.4	2.5
Methylene chloride	9.6	1.5
Naphthalene	6.5	2
n-Butylbenzene	10	5.5
n-Propylbenzene	9.5	2
p-Isopropyltoluene	10	6
Sec-Butylbenzene	9.6	6.5
Styrene	9.6	2
Tert-Butylbenzene	9.5	7
Tetrachloroethylene	9.9	7
Toluene	9.6	5.5
Total Xylenes	29	5

trans-1,2-Dichloroethene	9.8	3
trans-1,3-Dichloropropene	8.6	5
Trichloroethylene	45	5
Trichlorofluoromethane	8.9	4
Vinyl chloride	8.6	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	5.9	*	
o-Terphenyl (Range 82-142)	66	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	95		
4-Bromofluorobenzene (86-112)	92		
Toluene-d8 (84-108)	100		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09844 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-MSD-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	29		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	6.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	1.4	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	140		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	2		1

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	9.5	2.5
1,1,1-Trichloroethane	9.4	4
1,1,2,2-Tetrachloroethane	8.9	2
1,1,2-Trichloroethane	9.0	5
1,1-Dichloroethane	9.4	2
1,1-Dichloroethene	9.5	6
1,2,3-Trichlorobenzene	8.5	1.5
1,2,3-Trichloropropane	8.7	16
1,2,4-Trichlorobenzene	8.5	2
1,2,4-Trimethylbenzene	9.3	6.5
1,2-Dibromo-3-chloropropane	7.7	13
1,2-Dichlorobenzene	8.9	1.5
1,2-Dichloroethane	9.0	3
1,2-Dichloropropane	9.6	2
1,2-Ethylene Dibromide	9.1	3
1,3,5-Trimethylbenzene	9.3	2.5
1,3-Dichlorobenzene	9.1	6
1,3-Dichloropropane	9.1	2
1,4-Dichlorobenzene	9.0	1.5
2,2-Dichloropropane	9.3	17.5
2-Chlorotoluene	9.1	2
4-Chlorotoluene	9.3	3
Benzene	9.7	1
Bromobenzene	8.7	1.5
Bromochloromethane	9.3	2
Bromodichloromethane	9.5	4
Bromoform	8.3	6
Bromomethane	8.5	5.5
Carbon tetrachloride	9.4	10.5
Chlorobenzene	9.0	2
Chloroethane	8.6	5
Chloroform	9.4	1.5
Chloromethane	9.1	6.5
cis-1,2-Dichloroethene	9.9	6
cis-1,3-Dichloropropene	9.4	5
Dibromochloromethane	8.9	2.5
Dibromomethane	9.3	12
Dichlorodifluoromethane	8.1	5
Ethylbenzene	9.6	3
Hexachlorobutadiene	10	5.5
Isopropylbenzene	9.2	2.5
Methylene chloride	9.3	1.5
Naphthalene	6.7	2
n-Butylbenzene	9.7	5.5
n-Propylbenzene	9.4	2
p-Isopropyltoluene	10	6
Sec-Butylbenzene	9.5	6.5
Styrene	9.6	2
Tert-Butylbenzene	9.4	7
Tetrachloroethylene	9.5	7
Toluene	9.4	5.5
Total Xylenes	29	5

trans-1,2-Dichloroethene	9.6	3
trans-1,3-Dichloropropene	8.7	5
Trichloroethylene	42	5
Trichlorofluoromethane	8.8	4
Vinyl chloride	8.7	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	4.6	*	
o-Terphenyl (Range 82-142)	60	*	

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	90		
Toluene-d8 (84-108)	93		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09845 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-09C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	330		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	9.5		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	2.0	JB	4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	120		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	14		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL		25
1,1,1-Trichloroethane	<RL		40
1,1,2,2-Tetrachloroethane	<RL		20
1,1,2-Trichloroethane	<RL		50
1,1-Dichloroethane	<RL		20
1,1-Dichloroethene	<RL		60
1,2,3-Trichlorobenzene	<RL		15
1,2,3-Trichloropropane	<RL		160
1,2,4-Trichlorobenzene	<RL		20
1,2,4-Trimethylbenzene	<RL		65
1,2-Dibromo-3-chloropropane	<RL		130
1,2-Dichlorobenzene	<RL		15
1,2-Dichloroethane	<RL		30
1,2-Dichloropropane	<RL		20
1,2-Ethylene Dibromide	<RL		30
1,3,5-Trimethylbenzene	<RL		25
1,3-Dichlorobenzene	<RL		60
1,3-Dichloropropane	<RL		20
1,4-Dichlorobenzene	<RL		15
2,2-Dichloropropane	<RL		180
2-Chlorotoluene	<RL		20
4-Chlorotoluene	<RL		30
Benzene	<RL		10
Bromobenzene	<RL		15
Bromochloromethane	<RL		20
Bromodichloromethane	<RL		40
Bromoform	<RL		60
Bromomethane	<RL		55
Carbon tetrachloride	<RL		110
Chlorobenzene	<RL		20
Chloroethane	<RL		50
Chloroform	<RL		15
Chloromethane	<RL		65
cis-1,2-Dichloroethene	20	J	60
cis-1,3-Dichloropropene	<RL		50
Dibromochloromethane	<RL		25
Dibromomethane	<RL		120
Dichlorodifluoromethane	<RL		50
Ethylbenzene	<RL		30
Hexachlorobutadiene	<RL		55
Isopropylbenzene	<RL		25
Methylene chloride	<RL		15
Naphthalene	<RL		20
n-Butylbenzene	<RL		55
n-Propylbenzene	<RL		20
p-Isopropyltoluene	<RL		60
Sec-Butylbenzene	<RL		65
Styrene	<RL		20
Tert-Butylbenzene	<RL		70
Tetrachloroethylene	<RL		70
Toluene	<RL		55
Total Xylenes	<RL		50

trans-1,2-Dichloroethene	<RL	30
trans-1,3-Dichloropropene	<RL	50
Trichloroethylene	180	50
Trichlorofluoromethane	<RL	40
Vinyl chloride	<RL	55

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	55		
o-Terphenyl (Range 82-142)	89		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	100		
4-Bromofluorobenzene (86-112)	94		
Toluene-d8 (84-108)	98		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09846 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB3-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.51	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-128)	99		
4-Bromofluorobenzene (86-112)	97		
Toluene-d8 (84-108)	97		

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09847 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/4/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Petroleum Range Organics (PRO)	0.34	J	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit
Total Organic Carbon	<RL		1

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reporting Limit

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
C(39) (Range 42-193)	42	*	
o-Terphenyl (Range 82-142)	100		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reporting Limit
1,2-Dichloroethane-d4 (78-114)	84		
4-Bromofluorobenzene (85-111)	95		
Toluene-d8 (88-106)	102		

Accura Analytical Laboratory, Inc.

PROJECT QUALITY CONTROL RESULTS

		Project Control Rec				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	95	95			60-140	20-150	1%		<30	<50	97		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	96	94			60-140	20-150	2%		<30	<50	97		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	86	89			60-140	20-150	3%		<30	<50	92		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	90	90			60-140	20-150	0%		<30	<50	90		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	96	94			60-140	20-150	2%		<30	<50	98		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	98	95			60-140	20-150	3%		<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	80	87			60-140	20-150	8%		<30	<50	90		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	88	85			60-140	20-150	3%		<30	<50	95		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	88	85			60-140	20-150	3%		<30	<50	95		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	95	93			60-140	20-150	3%		<30	<50	106		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	93	90			60-140	20-150	3%		<30	<50	87		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	91	89			60-140	20-150	2%		<30	<50	100		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	72	77			60-140	20-150	6%		<30	<50	69		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	94	96			60-140	20-150	3%		<30	<50	98		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	88	91			60-140	20-150	3%		<30	<50	90		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	94	93			60-140	20-150	2%		<30	<50	108		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	92	91			60-140	20-150	1%		<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	93	93			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	89	90			60-140	20-150	1%		<30	<50	100		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	93	93			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	92	91			60-140	20-150	2%		<30	<50	104		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	95	93			60-140	20-150	2%		<30	<50	106		64-135	64-135			<50	<75
8260B	Benzene	98	97			60-140	20-150	2%		<30	<50	103		65-135	65-135			<50	<75
8260B	Bromobenzene	87	87			60-140	20-150	1%		<30	<50	97		65-135	65-135			<50	<75
8260B	Bromochloromethane	97	93			60-140	20-150	5%		<30	<50	96		63-135	63-135			<50	<75
8260B	Bromodichloromethane	93	95			60-140	20-150	2%		<30	<50	91		65-135	65-135			<50	<75
8260B	Bromoform	76	83			60-140	20-150	8%		<30	<50	87		65-135	65-135			<50	<75
8260B	Bromomethane	90	85			60-140	20-150	6%		<30	<50	105		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	94	94			60-140	20-150	1%		<30	<50	97		52-135	52-135			<50	<75
8260B	Chlorobenzene	92	90			60-140	20-150	2%		<30	<50	98		65-135	65-135			<50	<75
8260B	Chloroethane	90	86			60-140	20-150	5%		<30	<50	87		55-135	55-135			<50	<75
8260B	Chloroform	96	94			60-140	20-150	1%		<30	<50	94		64-135	64-135			<50	<75
8260B	Chloromethane	94	91			60-140	20-150	4%		<30	<50	100		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	99	99			60-140	20-150	1%		<30	<50	101		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	90	94			60-140	20-150	4%		<30	<50	95		64-135	64-135			<50	<75
8260B	Dibromochloromethane	88	89			60-140	20-150	2%		<30	<50	88		63-135	63-135			<50	<75
8260B	Dibromomethane	91	93			60-140	20-150	2%		<30	<50	89		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	88	81			60-140	20-150	9%		<30	<50	88		65-135	65-135			<50	<75
8260B	Ethylbenzene	98	96			60-140	20-150	2%		<30	<50	105		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	111	100			60-140	20-150	10%		<30	<50	125		65-135	65-135			<50	<75
8260B	Isopropylbenzene	94	92			60-140	20-150	2%		<30	<50	109		65-135	65-135			<50	<75
8260B	total-Xylene	98	97			60-140	20-150	1%		<30	<50	106		65-135	65-135			<50	<75
8260B	Methylene Chloride	96	93			60-140	20-150	3%		<30	<50	96		65-135	65-135			<50	<75
8260B	n-Butylbenzene	100	97			60-140	20-150	3%		<30	<50	110		65-135	65-135			<50	<75
8260B	n-Propylbenzene	95	94			60-140	20-150	1%		<30	<50	110		65-135	65-135			<50	<75
8260B	Naphthalene	65	67			60-140	20-150	4%		<30	<50	74		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	102	101			60-140	20-150	1%		<30	<50	112		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	96	95			60-140	20-150	2%		<30	<50	110		65-135	65-135			<50	<75

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

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS

8260B	Styrene	96	96			60-140	20-150	0%		<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	98	66			60-140	20-150	40%		<30	<50	102		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	95	94			60-140	20-150	1%		<30	<50	109		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	99	95			60-140	20-150	4%		<30	<50	104		61-135	61-135			<50	<75
8260B	Toluene	96	94			60-140	20-150	3%		<30	<50	104		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	98	96			60-140	20-150	2%		<30	<50	104		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	86	87			60-140	20-150	1%		<30	<50	88		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	89	88			60-140	20-150	2%		<30	<50	87		57-135	57-135			<50	<75
8260B	Vinyl Chloride	86	87			60-140	20-150	1%		<30	<50	94		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	100	93			75-125	65-135	7%		NA	NA	100		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	92	90			75-125	65-135	2%		NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	95	91			62-139	52-149	4%		NA	NA	83		NA	NA			NA	NA
	WET CHEMISTRY																		
310 1	Alkalinity	95	95			70-130	N/A	0%	#DIV/0!	<30	N/A	95		70-130	N/A			<30	N/A
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH	71	66			50-150	30-170	7%	#DIV/0!	<30	<50			75-125	70-130			<50	<75

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

NS = Not Specified
NA = Not Applicable

HYGEIA LABORATORIES, INC.

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

ANALYTICAL REPORT

Client: **Accura Analytical Laboratory**
6071 Financial Drive
Norcross, GA 30071

Attention: **Bonnie Hogue**

Project ID: 27307
Received: 3/16/01
Lab Project No. 38351

Report Date: 3/30/01

CASE NARRATIVE

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

Reviewed by: ME

Respectfully Submitted,

Hygeia Laboratories, Inc.

LAB ID	CLIENT ID	MATRIX	COLLECTED
281250	AC 09839	WATER	3/15/01
281251	AC 09840	WATER	3/15/01
281252	AC 09841	WATER	3/15/01
281253	AC 09842	WATER	3/15/01
281254	AC 09843	WATER	3/15/01
281255	AC 09844	WATER	3/15/01
281256	AC 09845	WATER	3/15/01

HYGEIA LABORATORIES, INC.

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

Lab Project No. 38351

Report Date: 3/30/01

Total Organic Carbon Units: **mg/L (ppm)** Method: **EPA 9060**

Matrix: Soil Analysis Date: 3/23/01 Prep. Date: 3/23/01 Analyst: ASI

Lab ID	Client ID	Result	Report Limit
281250	AC 09839	17	1
281251	AC 09840	11	1
281252	AC 09841	3	1
281253	AC 09842	23	1
281254	AC 09843	2	1
281255	AC 09844	2	1
281256	AC 09845	14	1

The method blank for the above analysis was below the detection limit.

LCS/LCSD Results Summary

Parameter: Total Organic Carbon Method: EPA 415.2

Matrix: Water Sample: Blank Analysis Date: 3/22/01

Analyte	Sample Result	Spike Recovery	Spike Dupl. Recovery	Relative Percent Difference
Total Organic Carbon	BRL	103%	106%	3%

	Recovery Limits		RPD Limits
units: mg/L (ppm)	80%	120%	20%

Matrix Spike/Matrix Spike Duplicate Summary

Parameter: Total Organic Carbon Method: EPA 415.2

Matrix: Water Sample: 281263 Analysis Date: 3/22/01

Analyte	Sample Result	Spike Recovery	Spike Dupl. Recovery	Relative Percent Difference
Total Organic Carbon	BRL	106%	98%	8%

	Recovery Limits		RPD Limits
units: mg/L (ppm)	80%	120%	20%

HYGEIA LABORATORIES, INC.

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

Lab Project No. 38351

Report Date: 3/30/01

NOTES:

- Results relate only to the samples tested as received (see chain-of-custody).
- BRL = "Below Reporting Limit"
- RL = "Reporting Limit"
- Dates are presented in the format "month/day/year"

Certifications

Alabama - Lab ID 40970; Arkansas; Connecticut - No. PH 0208; Delaware; Florida - E87257, FL CompQAP No. 970048; Georgia - No. 804; Indiana - Lab ID C-GA-01; Kentucky - Lab ID 90053; Louisianna; Maryland - No. 293; Massachussetts No. M - GA040; North Carolina - No. 409; South Carolina - No. 98012001; Tennessee - Lab ID 02827 (DW), UST Program; Virginia - Lab ID 00024

Accreditations

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

This report may not be reproduced, except in full, without the written permission of Hygeia Laboratories, Inc.

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **134826**

Project: AAL Project #27307

Prepared For:
Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue

March 27, 2001

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Adrian Tuck
Project Manager

Kathryn Smith
Quality Assurance

Analytical Services Inc., Norcross Laboratory maintains the following certifications, approvals, and accreditations:
Georgia Laboratory Certification No's 812/351/1301; Alabama Laboratory I.D. No.: 41090; Arkansas Certification; California Laboratory Certification No :2290; Connecticut Laboratory I.D. No.. PH-0250, Florida Certification No . E87315; Louisiana A I No · 30742, National Sanitation Foundation International Certification No 04180; Nebraska Certification; North Carolina Certification No.: 381; North Dakota Certification No. R-116; Oklahoma Laboratory I.D. 9907; Rhode Island License No : 219; South Carolina Laboratory I.D. No.: 98011; Tennessee Laboratory I.D No. 02994; United States Army Corps of Engineers-MRD Certification, USDA Soil Import License No.: S-36027, and Virginia Laboratory I.D No.. 00026 All analysis performed by or under the supervision of a Georgia Drinking Water or Wastewater Certified Analyst. Analyst certification numbers available upon request

This report may not be reproduced, except in full, without written approval from Analytical Services, Inc.

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-1**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09839, 03/15/2001, 09:20, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	3.3	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-2**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09840, 03/15/2001, 10:58, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.7	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI
ANALYTICAL SERVICES, INC.
Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-3**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09841, 03/15/2001, 14:55, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	6.1	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-4**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09842, 03/15/2001, 09:20, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	3.3	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-5**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09843, 03/15/2001, 14:55, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	6.2	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-6**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09844, 03/15/2001, 14:55, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	6.2	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **134826-7**

March 27, 2001

Sample Description

Accura Analytical Laboratory
Water, grab, AAL Project #27307, AC09845, 03/15/2001, 13:45, recieved 03/16/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	9.5	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

Inorganic Anions by Method EPA 300.0
Spike Recovery

Batch # 66331 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	95	96	1	75 - 125	0 - 10
Chloride	95	95	0	75 - 125	0 - 10
Fluoride	97	96	1	75 - 125	0 - 10
Nitrate-Nitrogen	96	96	0	75 - 125	0 - 10
Nitrite-Nitrogen	104	104	0	75 - 125	0 - 10
Sulfate	98	98	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	96	94	2	75 - 125	0 - 10
Chloride	95	96	1	75 - 125	0 - 10
Fluoride	82	82	0	75 - 125	0 - 10
Nitrate-Nitrogen	96	96	0	75 - 125	0 - 10
Nitrite-Nitrogen	102	101	1	75 - 125	0 - 10
Sulfate	100	101	1	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0
Surrogate Recovery

Batch # 66331 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0
Blank Results Information

Batch # 66331 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrite Nitrogen	BDL	0.01
Nitrate Nitrogen	BDL	0.01

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 66331 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
66331BLK	03/16/01	1200	CJ/AMC		03/16/01	2125	CJ/AMC	IC
66331CALHIGH	03/16/01	1200	CJ/AMC		03/16/01	2145	CJ/AMC	IC
66331CALMID	03/16/01	1200	CJ/AMC		03/16/01	2205	CJ/AMC	IC
66331CALLOW	03/16/01	1200	CJ/AMC		03/16/01	2225	CJ/AMC	IC
66331LCS	03/16/01	1200	CJ/AMC		03/16/01	2246	CJ/AMC	IC
66331LCSD	03/16/01	1200	CJ/AMC		03/16/01	2306	CJ/AMC	IC
134708-1	03/16/01	1315	CJ/AMC		03/16/01	2326	CJ/AMC	IC
134708-2	03/16/01	1315	CJ/AMC		03/16/01	2346	CJ/AMC	IC
134708-3	03/16/01	1315	CJ/AMC		03/17/01	0006	CJ/AMC	IC
134708-4	03/16/01	1315	CJ/AMC		03/17/01	0027	CJ/AMC	IC
134708-5	03/16/01	1315	CJ/AMC		03/17/01	0047	CJ/AMC	IC
134708-6	03/16/01	1315	CJ/AMC		03/17/01	0107	CJ/AMC	IC
134708-7	03/16/01	1315	CJ/AMC		03/17/01	0127	CJ/AMC	IC
134708-7DUP	03/16/01	1315	CJ/AMC		03/17/01	0147	CJ/AMC	IC
134708-8	03/16/01	1315	CJ/AMC		03/17/01	0208	CJ/AMC	IC
134826-1	03/16/01	1315	CJ/AMC		03/17/01	0228	CJ/AMC	IC
134826-2	03/16/01	1315	CJ/AMC		03/17/01	0248	CJ/AMC	IC
DBL3/16	03/16/01	1200	CJ/AMC		03/17/01	0308	CJ/AMC	IC
134826-3	03/16/01	1315	CJ/AMC		03/17/01	0349	CJ/AMC	IC
134826-4	03/16/01	1315	CJ/AMC		03/17/01	0409	CJ/AMC	IC
134826-5	03/16/01	1315	CJ/AMC		03/17/01	0429	CJ/AMC	IC
134826-6	03/16/01	1315	CJ/AMC		03/17/01	0449	CJ/AMC	IC
134826-7	03/16/01	1315	CJ/AMC		03/17/01	0509	CJ/AMC	IC
134825-2	03/16/01	1700	CJ/AMC		03/17/01	0529	CJ/AMC	IC
134825-2DUP	03/16/01	1700	CJ/AMC		03/17/01	0550	CJ/AMC	IC
134825-3	03/16/01	1700	CJ/AMC		03/17/01	0610	CJ/AMC	IC
134825-1	03/16/01	1700	CJ/AMC		03/17/01	0630	CJ/AMC	IC
134786-1	03/16/01	1730	CJ/AMC		03/17/01	0650	CJ/AMC	IC
134786-2	03/16/01	1730	CJ/AMC		03/17/01	0710	CJ/AMC	IC
DBL3/16	03/16/01	1200	CJ/AMC		03/17/01	0731	CJ/AMC	IC
DBL3/19	03/19/01	1330	CJ/AMC		03/19/01	1514	CJ/AMC	IC
134708-3MS	03/19/01	1500	CJ/AMC		03/19/01	1715	CJ/AMC	IC
134708-3MSD	03/19/01	1500	CJ/AMC		03/19/01	1735	CJ/AMC	IC
DBL3/19	03/19/01	1330	CJ/AMC		03/19/01	1836	CJ/AMC	IC

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

J5

SUBCONTRACTED TO: ASI

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC
Address: 6017 Financial Drive, Norcross, GA 30071
Accura Lab Contact Name: Ms. Bonnie Hogue
Contact Phone # (770) 449 - 8800, ext. 233
Fax Number: (770) 449 - 5477

AAL PROJECT # 27307

For Laboratory Use Only

Custody Seal: Y N
QC Level: N 1 2 3 4
Entered into LIMS:
Sample Condition: Good
Page 1 OF 1
Init/Temp: 13.0 1112
LAB Project #

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	NITRATE (300.0)	NITRITE (300.0)	CHLORIDE (310.1)	Remarks	LAB #
AC 09839	03-15-01/0920		✓	W			1	✓	✓	✓		-1
AC 09840	1058		✓	W								-2
AC 09841	1455		✓	W								-3
AC 09842	0920		✓	W								-4
AC 09843	1455		✓	W								-5
AC 09844	1455		✓	W								-6
AC 09845	1345		✓	W								-7
AC												
AC												
AC												

ANALYTICAL SERVICES, INC.
CHAIN OF CUSTODY
ASI REPORT # 134826
PAGE 1 OF 1
JW 3/19
Initial/Date

	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
				PLEASE FAX RESULTS!!
Arnold B Lingle	Date / Time 3-16-01 0300	Received By: B Rufo	Date / Time 3-16 1:00	Turnaround Time Requested: ONE WEEK

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

Subcoc-hjh.xls
Revised 05/10/97

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 3/19-01
Analyst: FT
Time Started: 1030
1215

Lot #'s: 0.02N H2SO4: 00090
Phenolphthalein Indicator: — 2650
Na_2CO_3 (0.0500N) Std: 00108 (~~2560~~ mg/L)
FT 3/19/01

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
							mg/L as $CaCO_3$			
QWW031901 1	100	—			<0.05	<DL				BLK
QWW031901 2	+5ml	—			12.60	2520, R=95%				LCS
QWW031901 3	↓ ↓	—			12.60	2520, R=95%				LCS
09717	100				2.60	26				
09718					1.10	11				
09719			FT 3/19-01		6.15	62				
09818					3.65	37				
09819					2.45	25				
09820					2.55	26				
09821					0.60	6.0				
09822					1.60	16				
09823					2.20	22				
09824					0.25	2.5		FT 3/19/01		
09825					1.80	18				
09839					3.20	32				
09840					1.55	16				
09841					2.15	22				
09842					3.05	31				
09843					2.20	22				
09844	↓	↓			2.85	29				

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{\text{mL sample}}$

P-alkalinity = phenolphthalein alkalinity
T-alkalinity = total alkalinity

where: A = mL acid used
N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:
ALKALNTY.XLS Page No. 79

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date:_____

Analyst:_____

Time Started:_____

Lot #'s: See page 7 of 7

0.02N H2SO4:_____

Phenolphthalein Indicator:_____

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
							mg/L as $CaCO_3$			
09845	10→100	1:10			3.25	330				
↓ d	10→100	1:10			3.30	330				
09824 MS	100+5ml	–	FT 3/19-01		12.90	2530, R=95%				
↓ MSD	↓	–			12.85	2520, R=95%				
FT 3/19/01 09901	100 ml	–			0.75	7.5				27319
										FT 3/19/01

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{\text{mL sample}}$

where: A = mL acid used

N = Normality of acid

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:_____

ALKALNTY.XLS Page No. 80

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 27307 **Test Performed:** Alkalinity

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? 09845
   Reason for dilution. high cond.
4. Duplicate AAL sample number 09845
   Is the RPD acceptable? ✓ If not, what is the reason? _____
5. MS/MSD AAL sample number 09824
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. _____
7. Any additional comments. —

Reviewer Questions:

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

Analyst entering results in Labworks. FT Date: 3/19/01

Peer Reviewer. AP Date: 3/21/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	Final wt. (g) 2	Final wt. (g) 3	TDS (mg/L)	Comments
3/19/01	BP	13.00	11.10	QHW031901 11	1	114.2912	100.	114.2910	114.2911		<DL	B1
			on	09717	2	104.0007		104.0203	104.0205		196	
			3/20/01	09718	3	114.2292		114.2360	114.2358		68	
				09719	4	120.8053		120.8144	120.8148		91	
				09684	5	103.8290		103.8289	103.8293		<DL	
				09818	6	117.0478		117.0748	117.0749		270	
				09819	7	108.6152		108.6258	108.6260		106	
				09820	8	110.4869		110.5010	110.5007		141	
				09821	9	98.8409		98.8557	98.8559		148	
				09822	10	107.3268		107.3437	107.3437		169	
				09823	11	114.5623		114.5731	114.5735		108	
				09823 D	12	96.6211		96.6323	96.6324		112	4% RPD
				09824	13	107.7559		107.7561	107.7565		<DL	
				09825	14	107.4823		107.4884	107.4885		61	
				09839	15	114.9386		114.9394	114.9391		208	
				09840	16	116.8555		116.8606	116.8606		51	
				09841	17	114.3001	BP 3/20/01	114.3269	114.3273		268	
				09842	18	113.5898		113.6230	113.6234		332	
				09843	19	117.1793		117.1866	117.1865		73	
				09844	20	104.4964		104.4300	104.4301		136	
				09845	21	118.9674		118.9794	118.9792		120	
				09961	22	115.0040		115.0037	115.0033		<DL	
				09844 D	23	115.8634		115.8767	115.8768		133	2% RPD

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 27307 **Test Performed:** TDS

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? — If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____ _____ _____ _____ _____ _____
   Reason for dilution. _____
4. Duplicate AAL sample number 09823, 09824
   Is the RPD acceptable? ✓ If not, what is the reason? _____
5. MS/MSD AAL sample number —
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. _____
7. Any additional comments. —

Reviewer Questions:

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

Analyst entering results in Labworks. BP Date: 3/20/01

Peer Reviewer. T Date: 3/21/01

Peer Reviewer is responsible for reviewing all above questions.

SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 27307	METHOD: FL-PRO
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are continuing calibrations compliant with method requirements?	Y	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA See QCK
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are multicomponent patterns resolvable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	Y	N	NA
Are all analytes to be reported indicated as such on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: RL	
Date: 03.29.01	Time: 10.05

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: YGK	
Date: 03.29.01	Time: 14:35

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ALYSIS: DRO / PAH (FLPRO)

TRIX: WATER

T. METHOD: 3510 / (3520)

DATE/TIME: 3/21/01 830

ANALYST: KC

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
FW032101	1L	<2	KC		1.0mL	
FW032101		<2		KC		
MS 09843		<2				instructed in notes to use
MS 09844		<2				different samples for MS
09839		<2				
09840		<2				
09841		<2				
09842		<2				
09843		<2				
09844		<2				
09845		<2				

KC 3/21/01

START TIME: 1250 STOP TIME: 730 SOLVENT ID #: EX0485

SURROGATE I.D.: D01E043 CONC.: 50 ppm INITAL: KC

SURROGATE I.D.: FL01E045 CONC.: 300 ppm INITAL: KC

SPIKE I.D.: FL01E055 CONC.: 250 INITIAL: KC

SPIKE I.D.: — CONC.: — INITIAL: —

EXTRACT STORAGE: REFRIG.# 5, BOX #: D183 RapidVap TEMP.: 45°C

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: DRO / PAH (FL PRO)

DATE/TIME: 3/27/01 930

MATRIX: WATER

ANALYST: KC

EXT. METHOD: 3510 / (3520)

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
QFW0327011	1L		KC		1.0mL	
QFW0327012	↓		↓	KC	↓	
QFW0327013	↓		↓	↓	↓	
09839	↓	<2	↓	↓	↓	
09840	↓	<2	↓	↓	↓	
09841	↓	<2	↓	↓	↓	
09842	↓	<2	↓	↓	↓	
09845	↓	<2	↓	↓	↓	

KC 3/27/01

START TIME: 1230 **STOP TIME:** 915 **SOLVENT ID #:** EX01194

SURROGATE I.D. : D01E057 **CONC. :** 50 ppm **INITAL :** KC

SURROGATE I.D. : FL01E045 **CONC. :** 300 ppm **INITAL :** KC

SPIKE I.D. : FL01E055 **CONC. :** 250 ppm **INITIAL :** KC

SPIKE I.D. : — **CONC. :** — **INITIAL :** —

EXTRACT STORAGE: REFRIG.# 5, **BOX # :** _____ **RapidVap TEMP.:** 45°C

witness DR

INITIAL CALIBRATION
5 POINT DRO

DATE:	3/22/01		
METHOD:	FL-PRO		
INSTRUMENT:	DRO-B ; FRONT COLUMN		
ANALYST:	RL		
ICAL ID:	PRO0322		
CONCENTRATION (PPM)		**AREA**	**Rf**
850		55009551	64717.1
2550		148731650	58326.1
4250		228292638	53715.9
5950		304533890	51182.2
7692		359979107	46799.2
AVERAGE Rf:		54948.1	
% RSD:		12.5	

Sequence Date: 03·28·01
Analyst Initials: RL
Run Method: PRO0322
Quant Method: ↓ ↓

	Sample		Blank/LCS	
Water OTP/C(39) Limits	82-142	42-193	82-142	42-193
Soil OTP/C(39) Limits	62-109	60-118	62-109	60-118

Compound: FL-PRO
Date: 03·22·01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery		Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250PHSPROCCV	NA	Standard	1X	114	109	104	015V058	✓	
2	Solvent Blank	↓	meCl2	↓	NA	NA			↓	
3	QFW0327011	03·27·01	Water	↓	100	42				
4	QFW0327012	↓	↓	↓	102	64	71			
5	QFW0327013			↓	103	31	66			
6	09839W 4X			4X	74	48				
7	09840W			1X	98	65				
8	09841W			↓	105	63				
9	09842W 4X			4X	86	39				
10	09845W 4X	↓	↓	4X	89	55				
11	4250PHSPROCCV	NA	Standard	1X	116	112	102	015V05		
12	Solvent Blank	NA	meCl2	↓	NA	NA				

RL
03·29·01

Initials / Date:

Runlog_DRO-B.xls

Sequence Date: 03.27.01
Analyst Initials: RL
Run Method: PRO0322
Quant Method: ↓ ↓

	Sample		Blank/LCS	
Water OTP/C(39) Limits	82-142	42-193	82-142	42-193
Soil OTP/C(39) Limits	62-109	60-118	62-109	60-118

Compound: FL-PRO
Date: 03.22.01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery		Spike Recovery	AAL Std. I.D. #	Status	Comments
1	4250PHS PROCCV	NA	Standard	1X	105	102	103	015V058	✓	
2	Solvent Blank	↓	MeCl2	↓	NA	NA				
3	ms 09843 4X	3.21.01	Water	4X	84	3	62			
4	msD 09844 4X				86	4.7	82			
5	09843 4X				66	5.9				
6	09844 4X	↓	↓	↓	60	4.6				
7	4250PHS PROCCV	NA	Standard	1X	105	101	92	015V058		
8	Solvent Blank	↓	MeCl2	↓	NA	NA			↓	

RL
03.22.01

Initials / Date: RL 03.29.01

063

Runlog_DRO-B.xls

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280106.D Vial: 6
Acq On : 28 Mar 2001 17:01 Operator: RL
Sample : 09839W 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:35 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.47f	448578	9.288 ug/mlm
Spiked Amount 50.000		Recovery =	18.58% 9.29x4=37.15÷50=74
3) SC C(39)	33.77	1562242	35.970 ug/mlm
Spiked Amount 300.000		Recovery =	11.99% 35.97x4=144÷300=48%
Target Compounds			
1) HM Florida PRO	3.70	18099982	329.401 ug/ml

329.4x4=1317.6÷1000=
1.3 = <DL = 1.3JB
DL=1.0x4=4.0

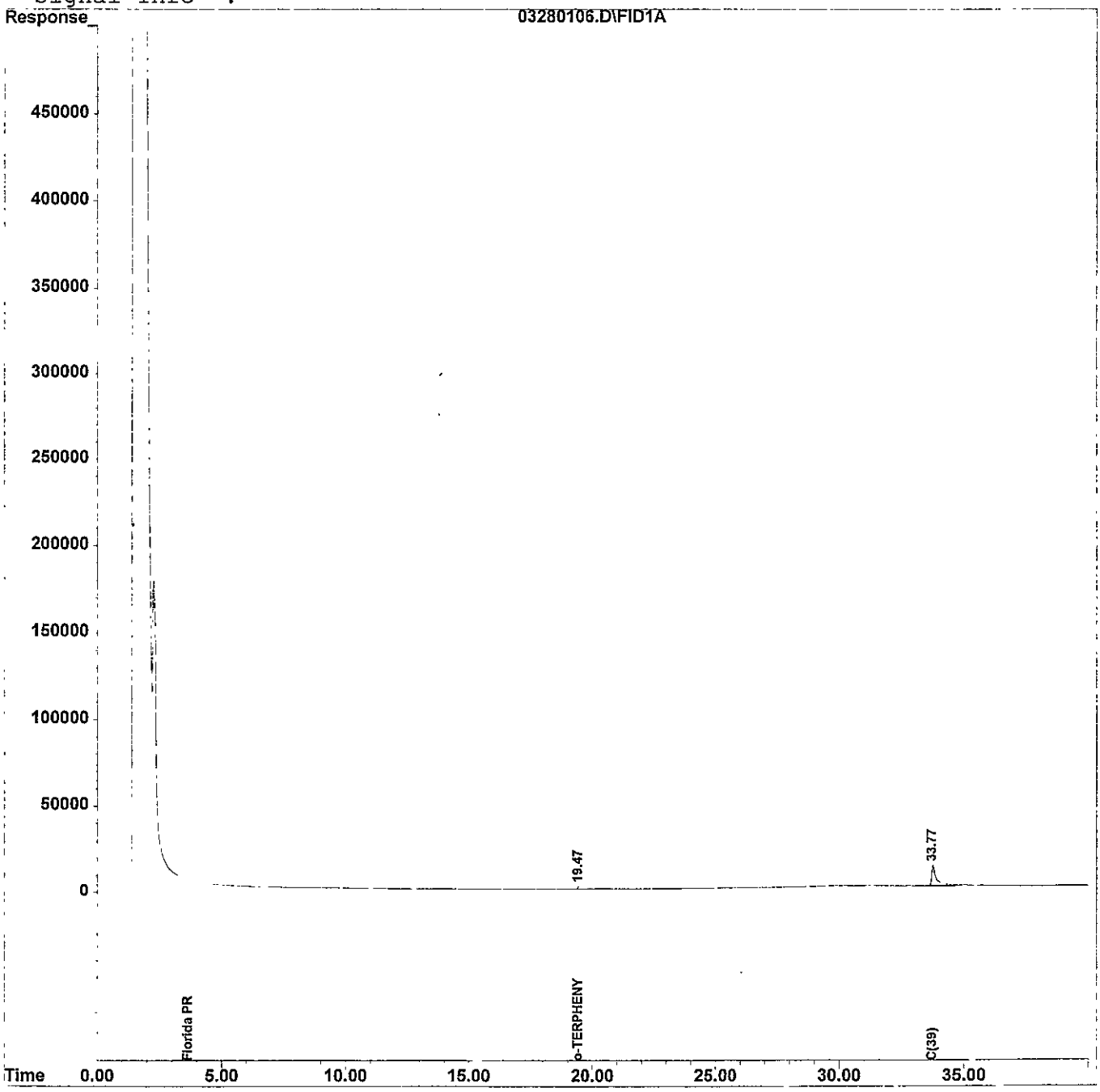
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280106.D Vial: 6
Acq On : 28 Mar 2001 17:01 Operator: RL
Sample : 09839W 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:35 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280107.D Vial: 7
Acq On : 28 Mar 2001 17:50 Operator: RL
Sample : 09840W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:36 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.95	2374590	49.166 ug/mlm
Spiked Amount 50.000		Recovery =	98.33%
3) SC C(39)	33.82	8486369	195.397 ug/mlm
Spiked Amount 300.000		Recovery =	65.13%
Target Compounds			
1) HM Florida PRO	3.70	41159947	749.070 ug/ml

$\frac{749.070}{1000} = 0.749 = <DL = 0.75JB$

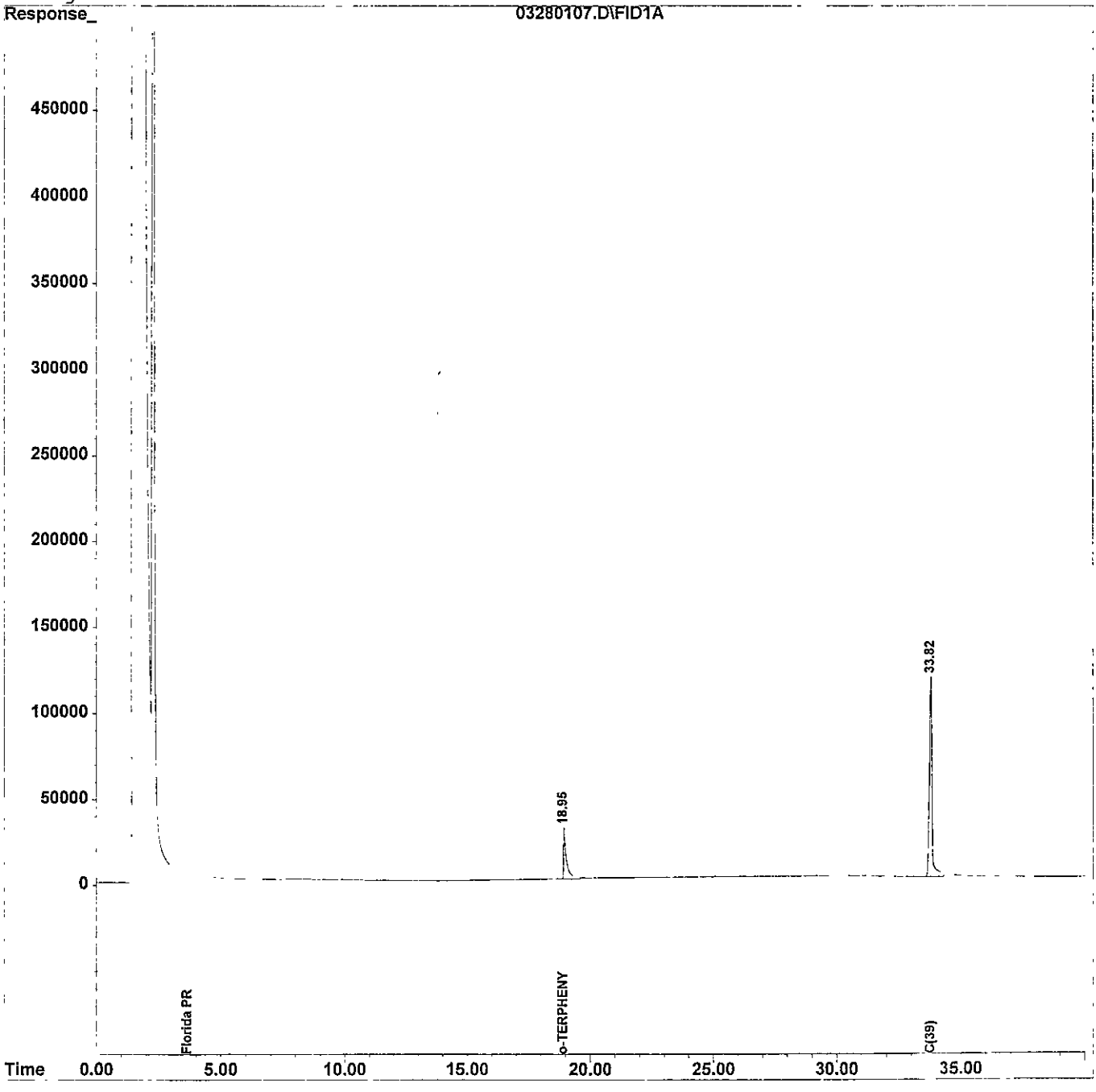
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280107.D Vial: 7
Acq On : 28 Mar 2001 17:50 Operator: RL
Sample : 09840W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:36 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280108.D Vial: 8
Acq On : 28 Mar 2001 18:38 Operator: RL
Sample : 09841W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:37 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.97f	2533598	52.458 ug/mlm
Spiked Amount 50.000		Recovery =	104.92%
3) SC C(39)	33.75	8242672	189.786 ug/mlm
Spiked Amount 300.000		Recovery =	63.26%
Target Compounds			
1) HM Florida PRO	3.70	36466170	663.648 ug/ml

100 = <DL:
0.663 = 0.67JB
6
RL
03.29.01

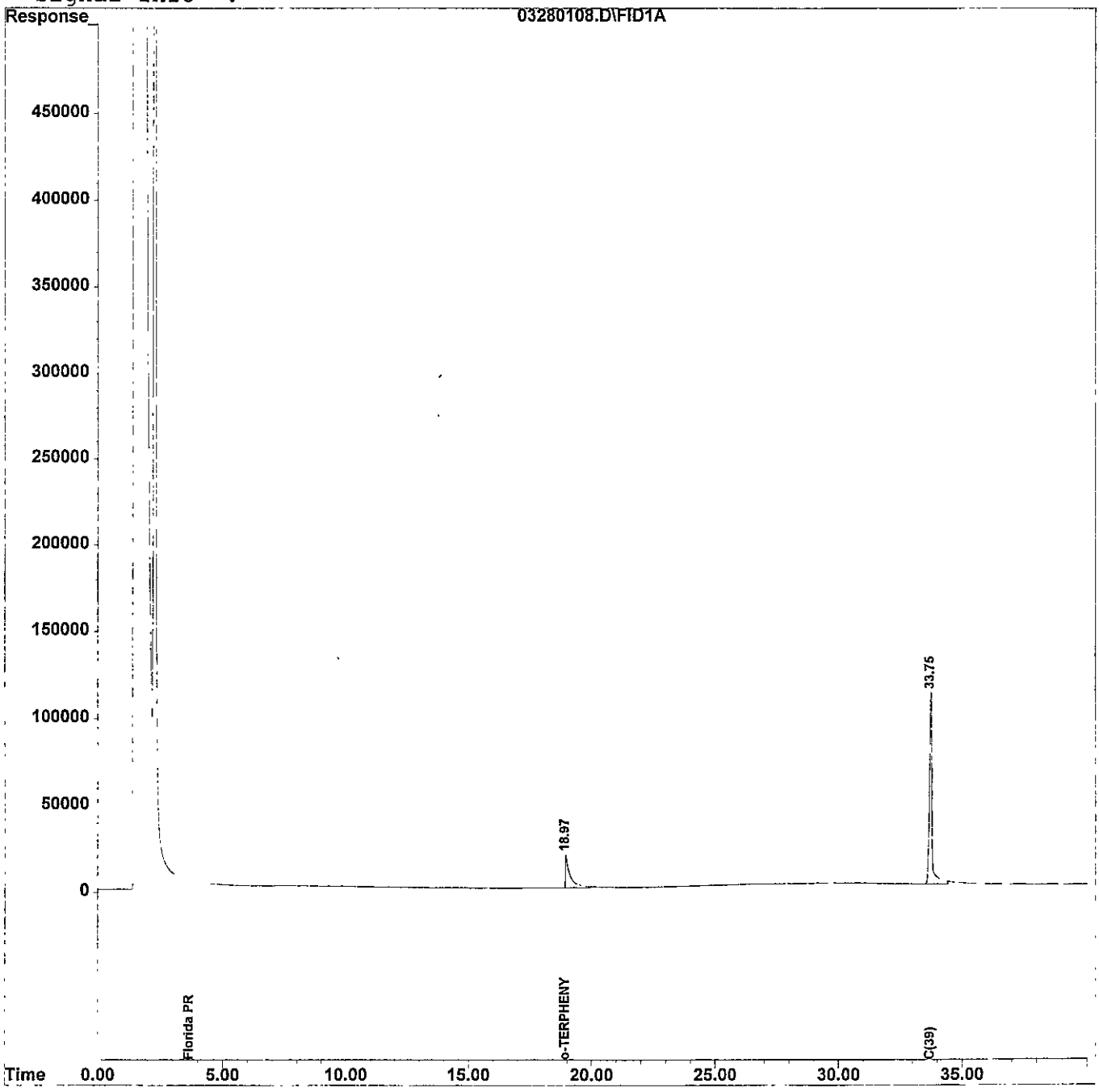
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280108.D Vial: 8
Acq On : 28 Mar 2001 18:38 Operator: RL
Sample : 09841W Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:37 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280109.D Vial: 9
Acq On : 28 Mar 2001 19:26 Operator: RL
Sample : 09842W 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:38 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.26f	521718	10.802 ug/mlm
Spiked Amount 50.000		Recovery =	21.60% 10.8x4=43.2÷50=86
3) SC C(39)	33.72	1275958	29.379 ug/mlm
Spiked Amount 300.000		Recovery =	9.79%
			29.38x4=117.52÷300=39
Target Compounds			
1) HM Florida PRO	3.70	22039347	401.094 ug/ml

<DL

DL=1.0x4=4.0

$\frac{401.09}{1000} \times 4 = 1.6$ JB

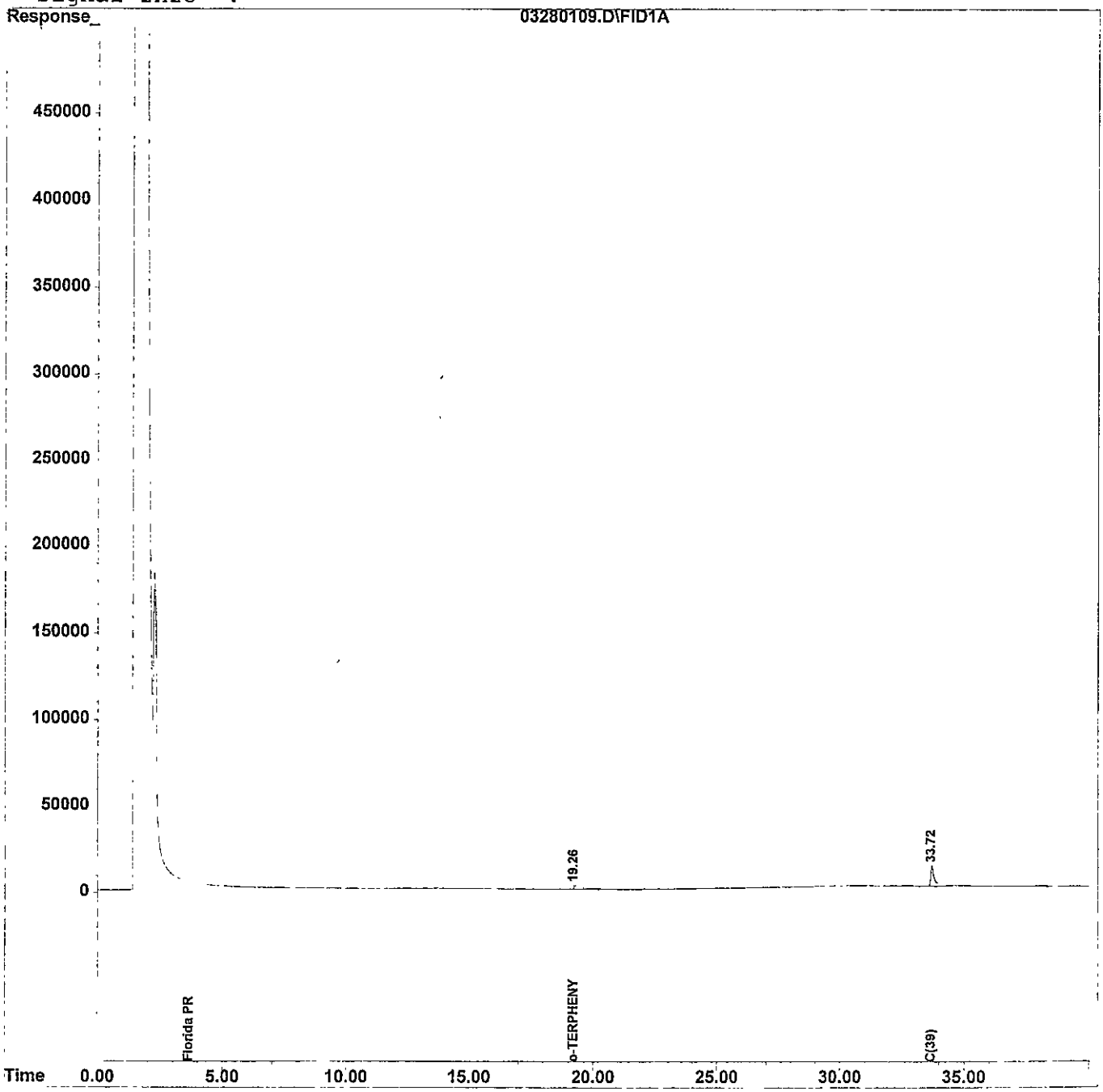
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280109.D Vial: 9
Acq On : 28 Mar 2001 19:26 Operator: RL
Sample : 09842W 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:38 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280110.D Vial: 10
Acq On : 28 Mar 2001 20:14 Operator: RL
Sample : 09845W 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:38 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.18f	534716	11.071 ug/mlm
Spiked Amount 50.000		Recovery =	22.14% 11.07x4=44.28÷50=89
3) SC C(39)	33.67	1796037	41.353 ug/mlm
Spiked Amount 300.000		Recovery =	13.78% 41.353x4=165÷300=55
Target Compounds			
1) HM Florida PRO	3.70	27886091	507.499 ug/ml

507.499/1000 = <DL = 0.507x4 = 2.0JB
DL = 1.0x4 = 4.0

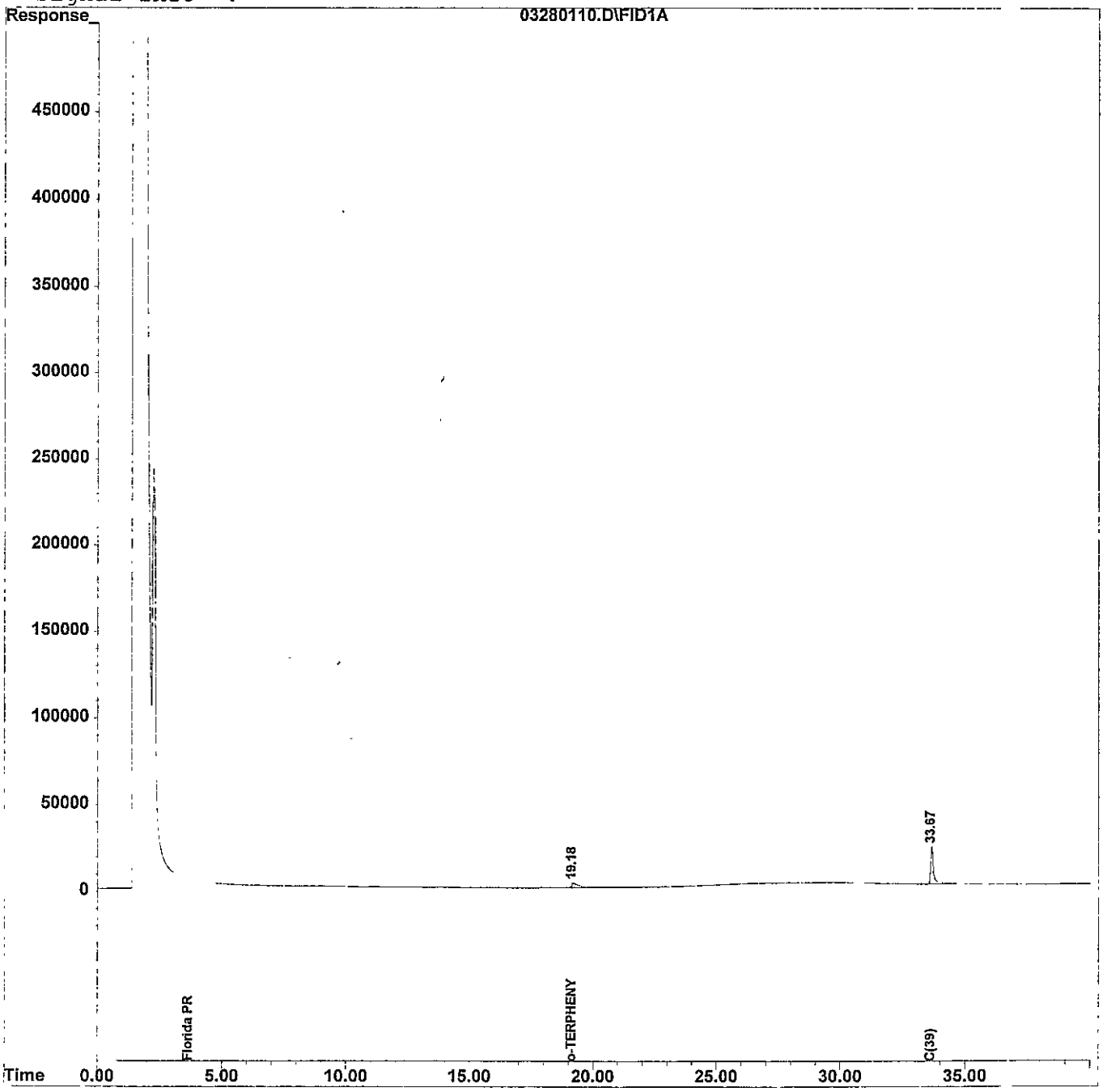
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280110.D Vial: 10
Acq On : 28 Mar 2001 20:14 Operator: RL
Sample : 09845W 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:38 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280104.D Vial: 4
Acq On : 28 Mar 2001 14:23 Operator: RL
Sample : QFW0327012 Inst : DRO-B
Misc : PRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 15:05 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.96	2466960	51.078 ug/mlm
Spiked Amount 50.000		Recovery =	102.16%
3) SC C(39)	33.83	8381632	192.986 ug/mlm
Spiked Amount 300.000		Recovery =	64.33%
Target Compounds			
1) HM Florida PRO	3.70	164740596	2998.113 ug/ml

4250 = 71%

(f)=RT Delta > 1/2 Window (m)=manual int.

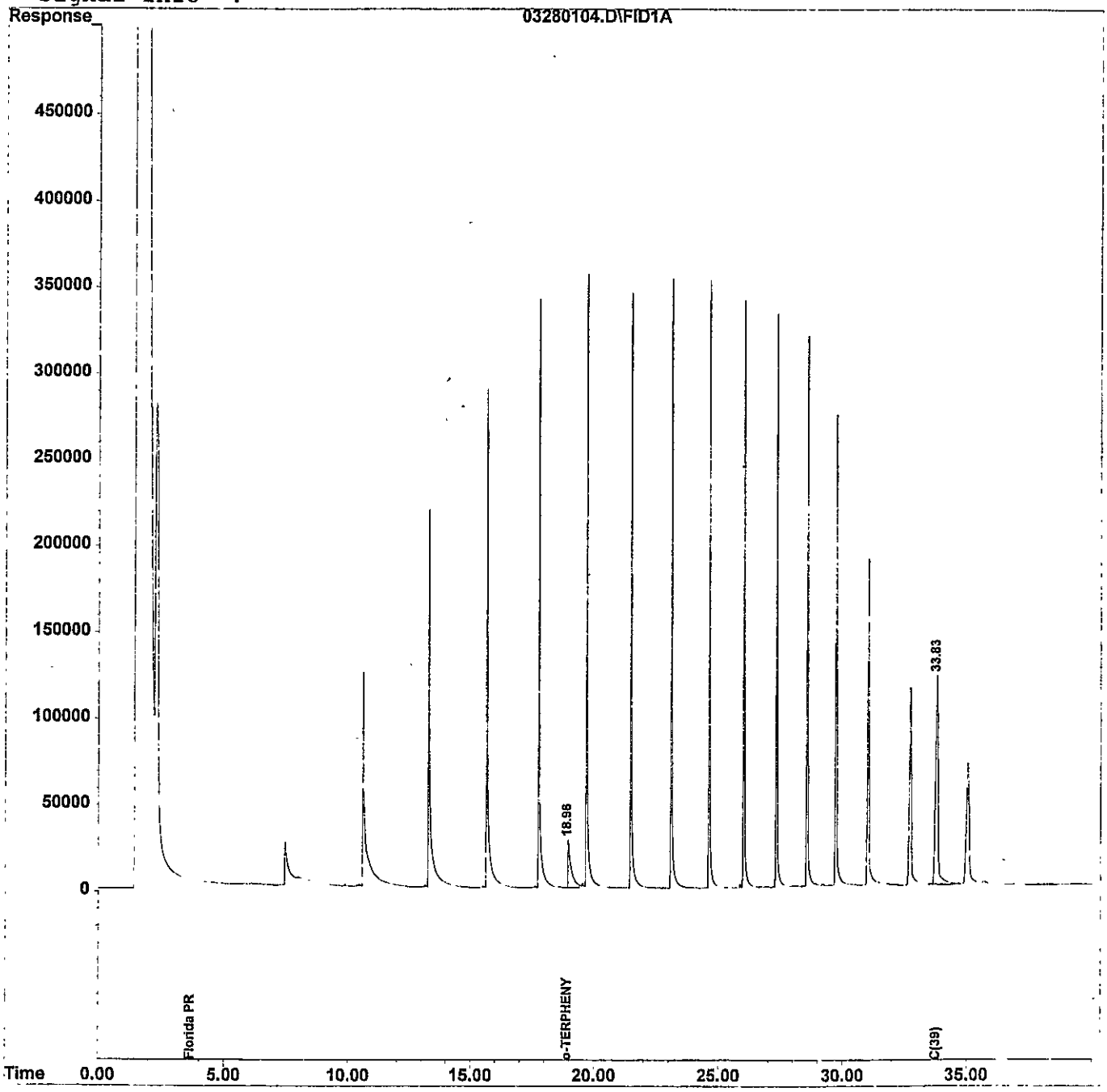
Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280104.D
Acq On : 28 Mar 2001 14:23
Sample : QFW0327012
Misc : PRO LCS
IntFile : events.e
Quant Time: Mar 28 15:05 2001 Quant Results File: PRO0322.RES

Vial: 4
Operator: RL
Inst : DRO-B
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280105.D Vial: 5
Acq On : 28 Mar 2001 15:11 Operator: RL
Sample : QFW0327013 Inst : DRO-B
Misc : PRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 15:54 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2490589	51.567 ug/mlm
Spiked Amount 50.000		Recovery =	103.13%
3) SC C(39)	33.68	4007283	92.267 ug/mlm
Spiked Amount 300.000		Recovery =	30.76%
Target Compounds			
1) HM Florida PRO	3.70	155025377	2821.306 ug/ml

4250 = 66

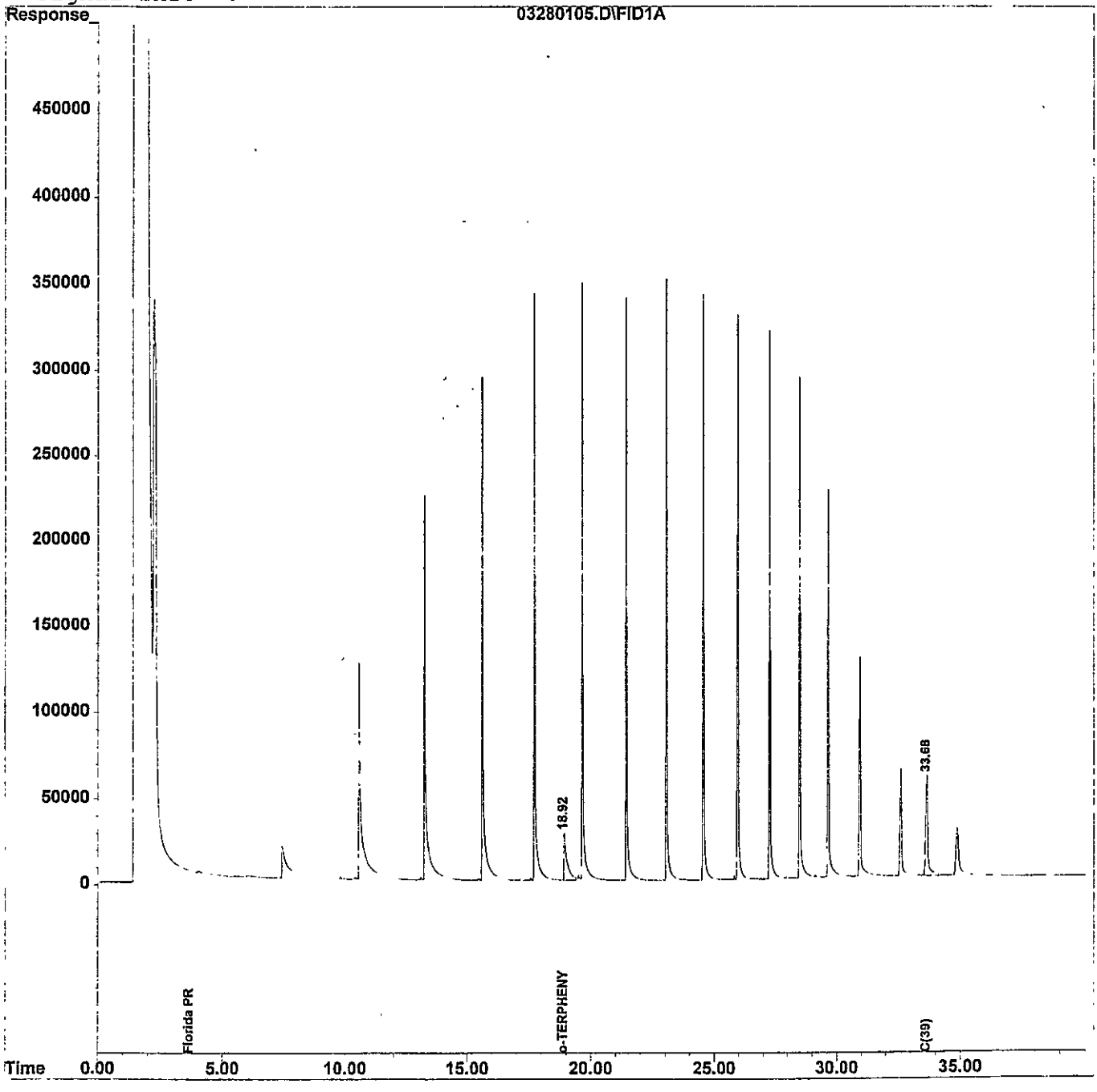
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280105.D Vial: 5
Acq On : 28 Mar 2001 15:11 Operator: RL
Sample : QFW0327013 Inst : DRO-B
Misc : PRO LCS Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 15:54 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032701\03270105.D Vial: 5
Acq On : 27 Mar 2001 14:52 Operator: RL
Sample : 09843 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 8:00 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.68f	399823	8.278 ug/mlm
Spiked Amount 50.000	Recovery =		16.56% 8.278x4=33.11÷50=66%
3) SC C(39)	34.71f	192309	4.428 ug/mlm
Spiked Amount 300.000	Recovery =		1.48%
			4.43x4=17.71÷300=5.9%
Target Compounds			
1) HM Florida PRO	3.70	18788718	341.936 ug/ml

$\frac{341.936}{1000} \times 4 = 1.37 = 1.4$ JB

DL = ~~0.3~~ 1.0 RL x 4 = ~~1.2~~ 4.0 RL
03.29.01 03.29.01

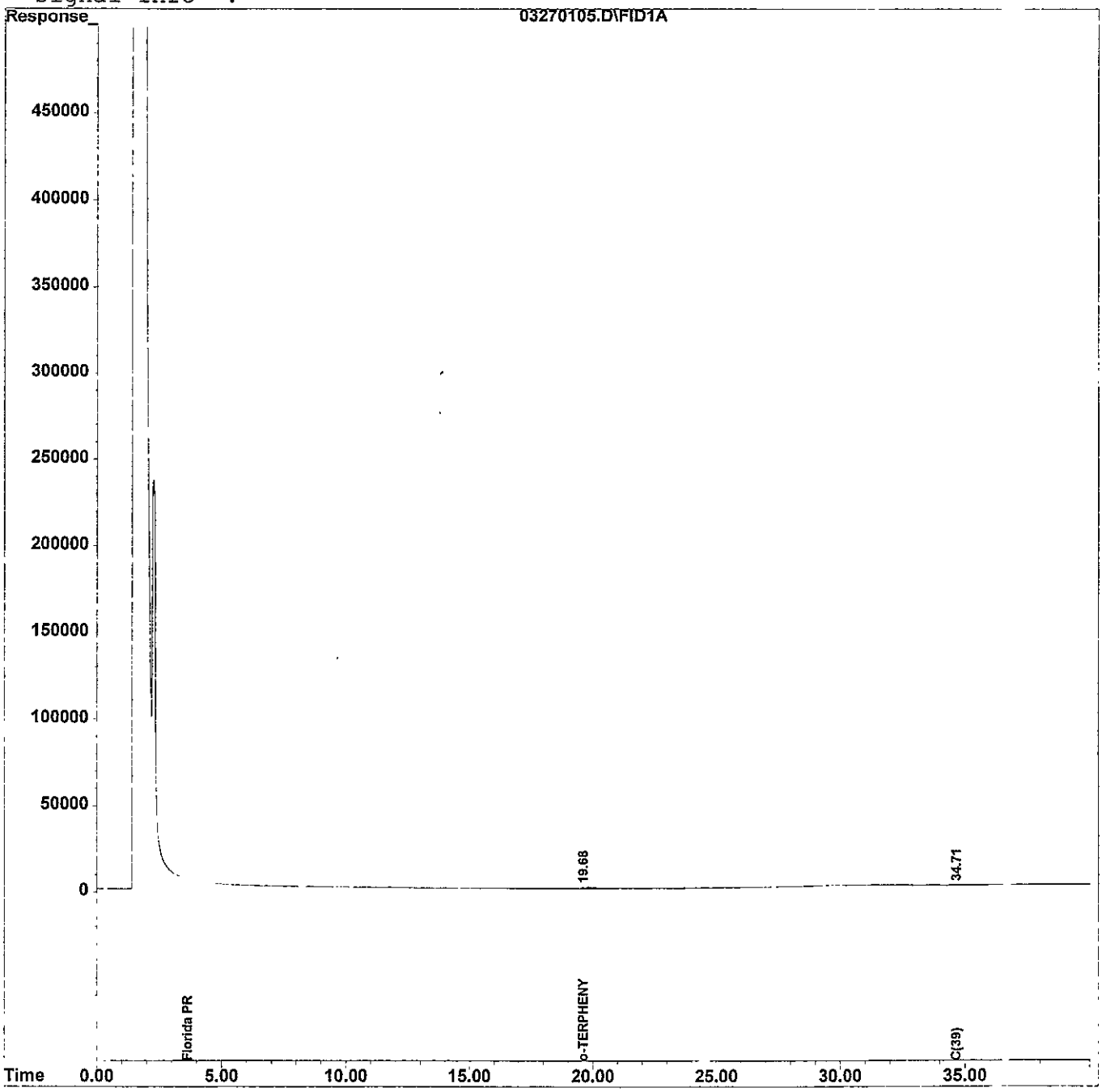
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032701\03270105.D Vial: 5
Acq On : 27 Mar 2001 14:52 Operator: RL
Sample : 09843 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 8:00 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032701\03270106.D Vial: 6
Acq On : 27 Mar 2001 15:40 Operator: RL
Sample : 09844 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:59 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.70f	361470	7.484 ug/mlm
Spiked Amount 50.000	Recovery =		14.97% 7.48x4 = 29.94÷50=60
3) SC C(39)	34.79f	149572	3.444 ug/mlm
Spiked Amount 300.000	Recovery =		1.15%
			3.44x4 = 13.78÷300=4.6%
Target Compounds			
1) HM Florida PRO	3.70	18548435	337.563 ug/ml

$\frac{337.563}{1000} \times 4 = 1.35 = 1.4$ JB
RL 03.27.01
DL = ~~0.3x4=1.2~~
1.0x4 = 4.0

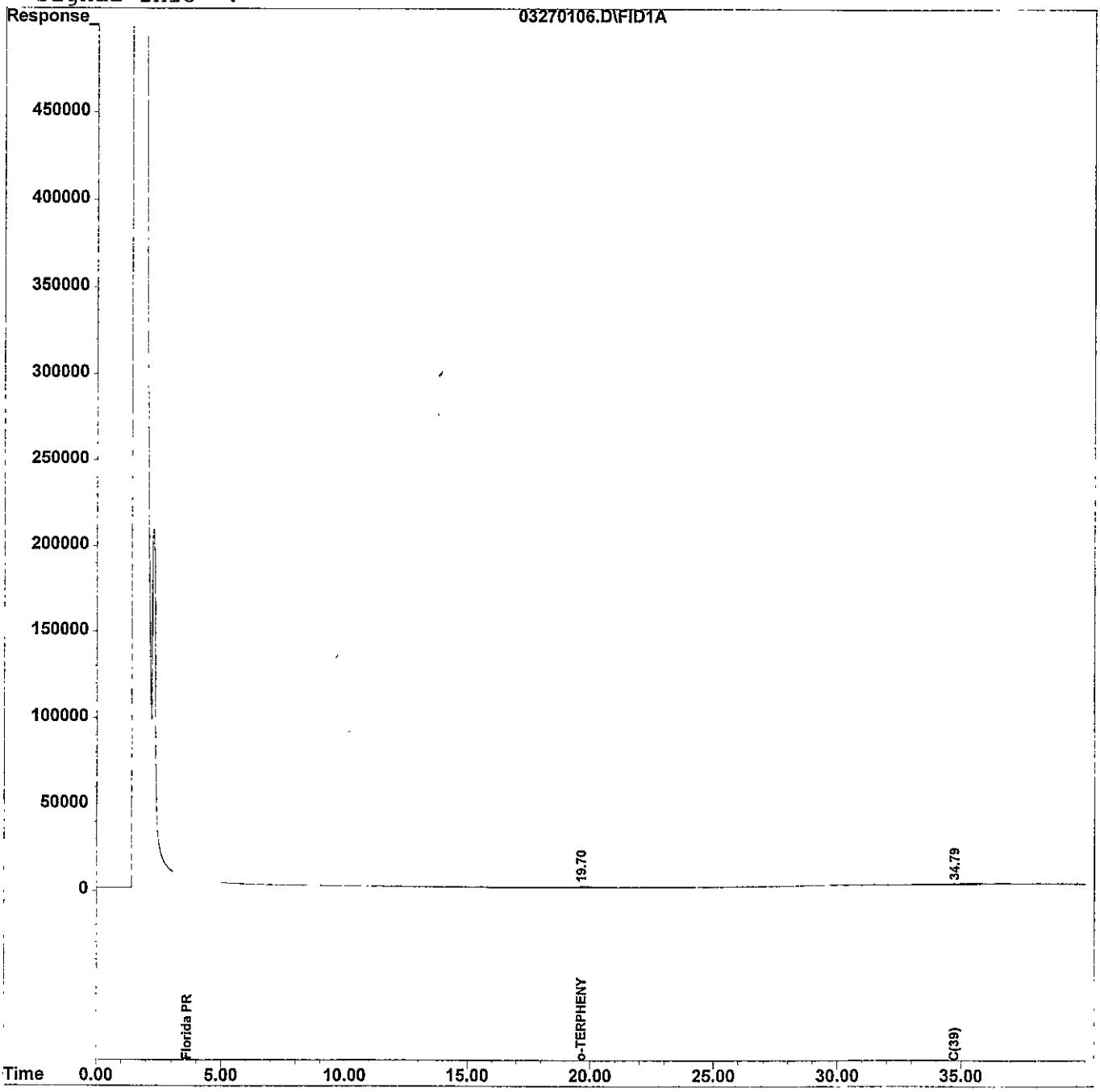
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032701\03270106.D Vial: 6
Acq On : 27 Mar 2001 15:40 Operator: RL
Sample : 09844 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:59 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220109.D Vial: 9
Acq On : 22 Mar 2001 16:13 Operator: RL
Sample : QFW0320011 Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 16:53 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	0.00	0	N.D. ug/ml
Spiked Amount 50.000	Recovery	=	0.00%
3) SC C(39)	0.00	0	N.D. ug/ml
Spiked Amount 300.000	Recovery	=	0.00%
Target Compounds			
1) HM Florida PRO	3.70	27617063	399.295 ug/ml

1000 = 0.40B

File only to report J+B

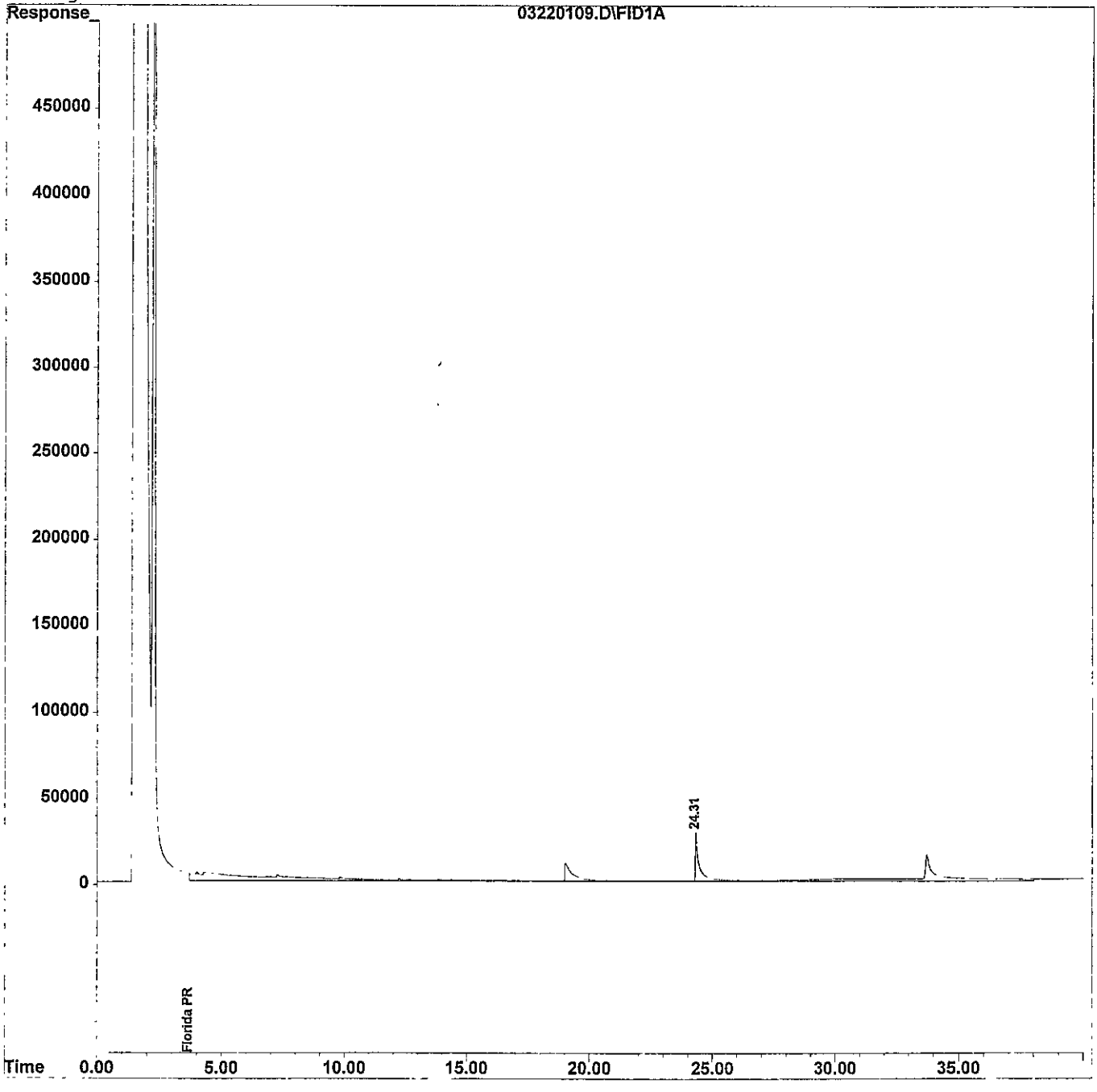
(f)=RT Delta > 1/2 Window (m)=manual int.
03220109.D PRO0322.M Thu Mar 29 09:55:00 2001 Page

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220109.D Vial: 9
Acq On : 22 Mar 2001 16:13 Operator: RL
Sample : QFW0320011 Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 16:53 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220110.D Vial: 10
Acq On : 22 Mar 2001 17:01 Operator: RL
Sample : QFW0320012 Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 6:44 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.89	1565294	24.315 ug/mlm
Spiked Amount 50.000		Recovery =	48.63%
3) SC C(39)	0.00	0	N.D. ug/ml
Spiked Amount 300.000		Recovery =	0.00%
Target Compounds			
1) HM Florida PRO	3.70	240830898	3482.002 ug/ml

Failed LCS

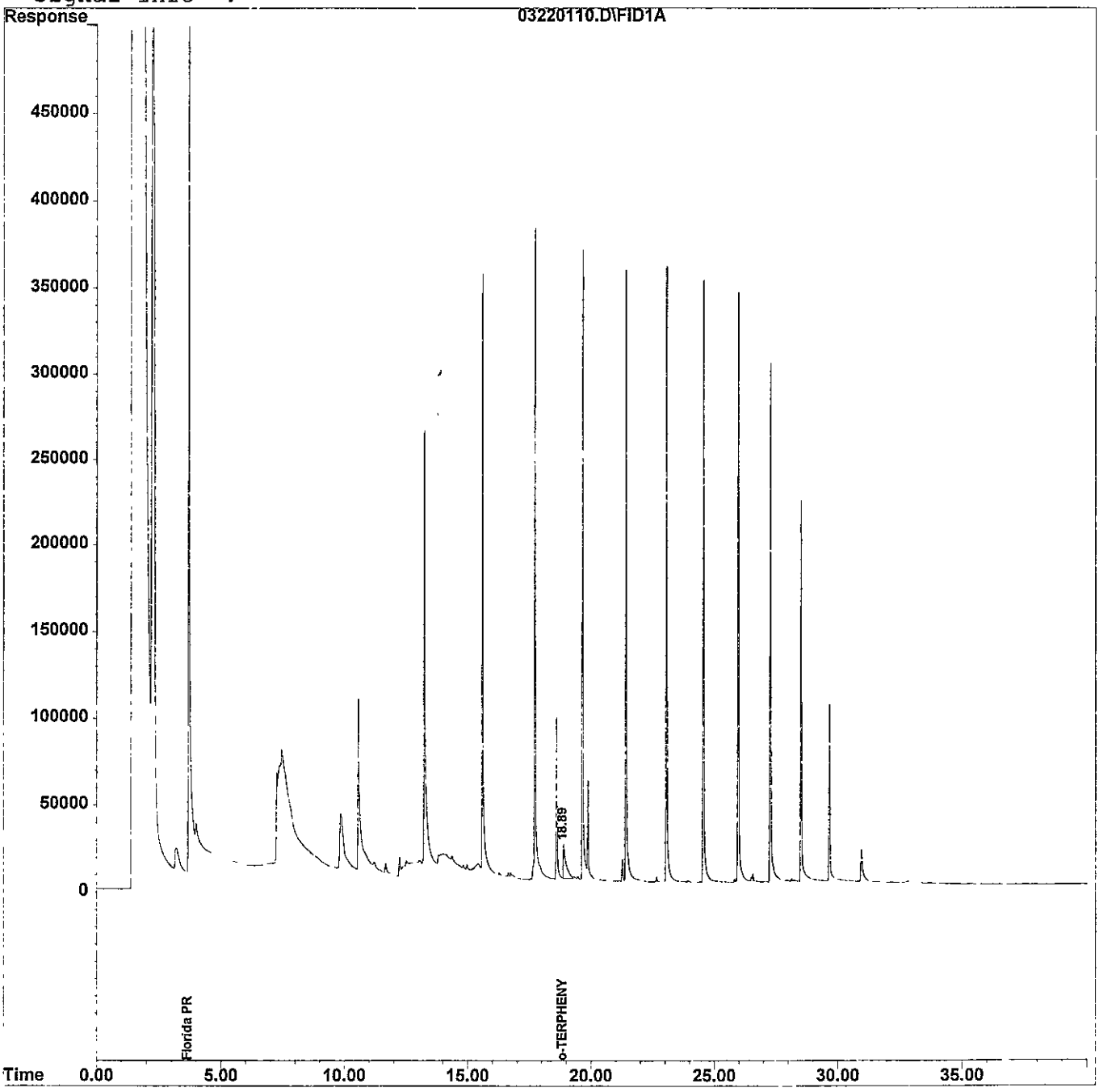
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220110.D Vial: 10
Acq On : 22 Mar 2001 17:01 Operator: RL
Sample : QFW0320012 Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 23 6:44 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032701\03270101.D Vial: 1
Acq On : 27 Mar 2001 10:48 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 27 11:47 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.95	2547156	52.739 ug/mlm
Spiked Amount 50.000		Recovery =	105.48%
3) SC C(39)	33.85	13302436	306.286 ug/mlm
Spiked Amount 300.000		Recovery =	102.10%
Target Compounds			
1) HM Florida PRO	3.70	241248559	4390.481 ug/ml

4390 / 4250 = 103%

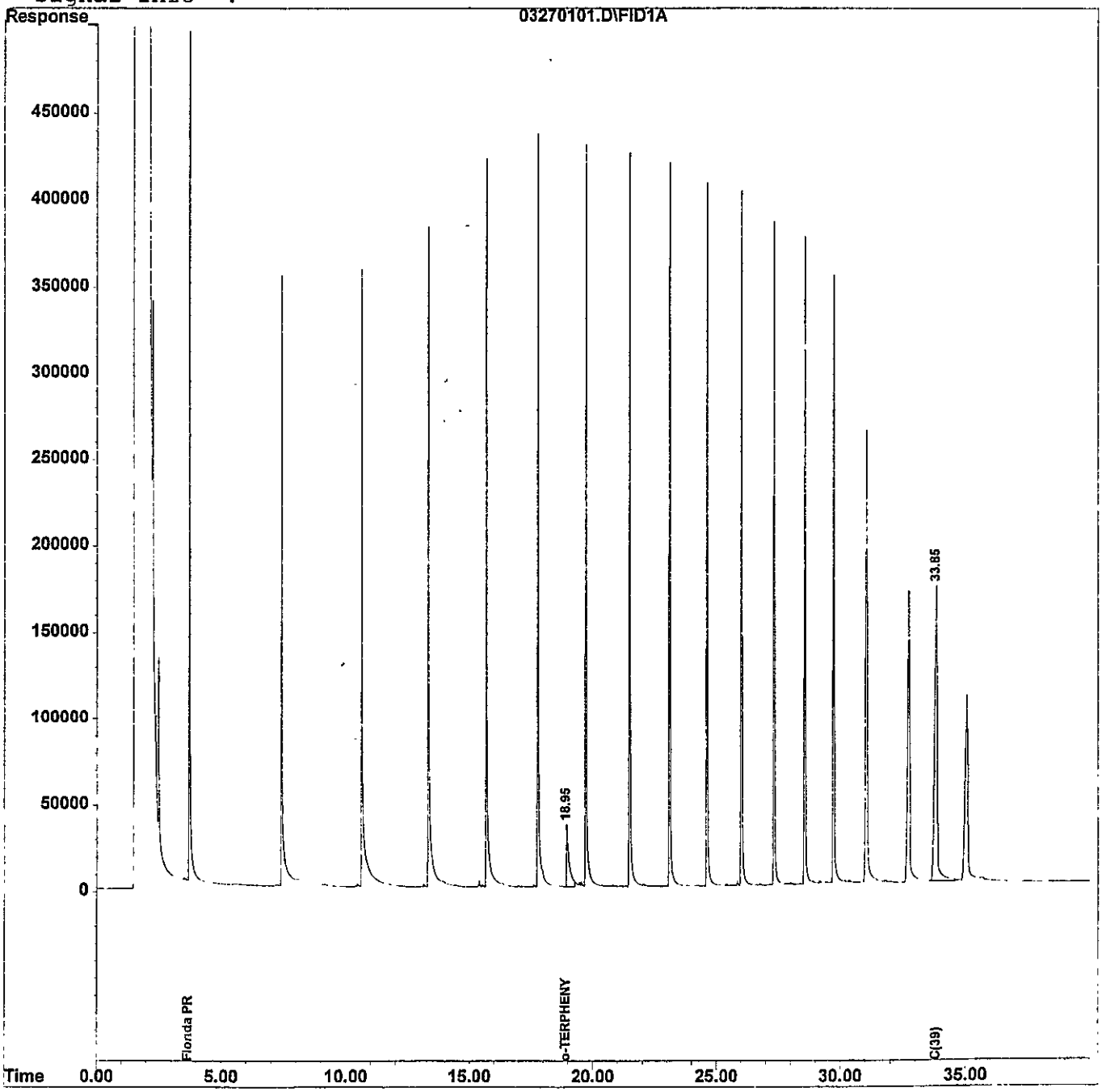
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032701\03270101.D Vial: 1
Acq On : 27 Mar 2001 10:48 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 27 11:47 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032701\03270107.D Vial: 7
Acq On : 27 Mar 2001 16:29 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 8:01 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2540780	52.607 ug/mlm
Spiked Amount 50.000		Recovery =	105.21%
3) SC C(39)	33.78	13200538	303.940 ug/mlm
Spiked Amount 300.000		Recovery =	101.31%
Target Compounds			
1) HM Florida PRO	3.70	215403638	3920.129 ug/ml

4250

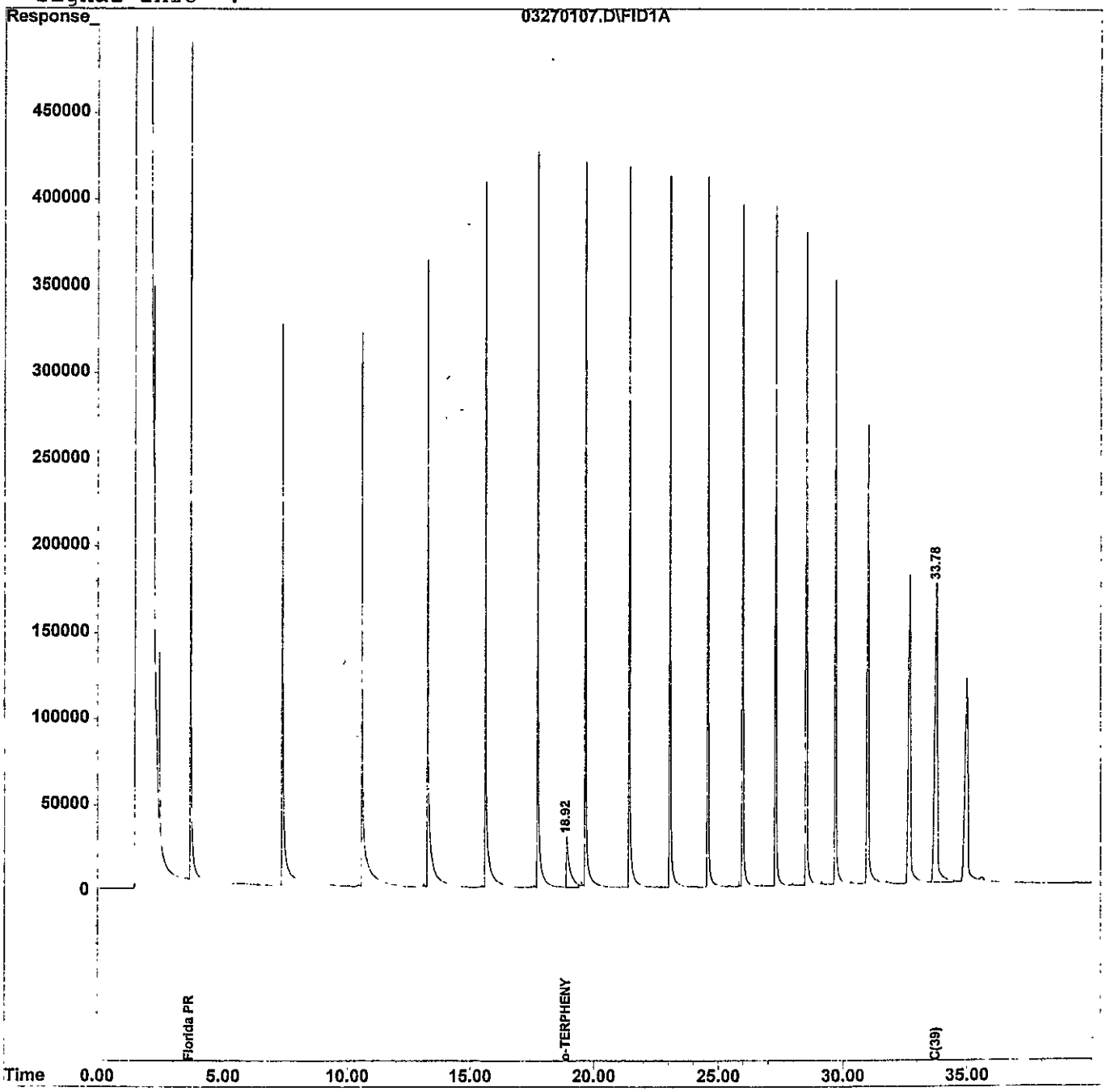
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032701\03270107.D Vial: 7
Acq On : 27 Mar 2001 16:29 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 8:01 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280101.D Vial: 1
Acq On : 28 Mar 2001 11:49 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 12:58 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.98f	2742107	56.775 ug/mlm
Spiked Amount 50.000		Recovery =	113.55%
3) SC C(39)	33.95	14242733	327.937 ug/mlm
Spiked Amount 300.000		Recovery =	109.31%
Target Compounds			
1) HM Florida PRO	3.70	243914074	4438.990 ug/ml

4250 = 104%

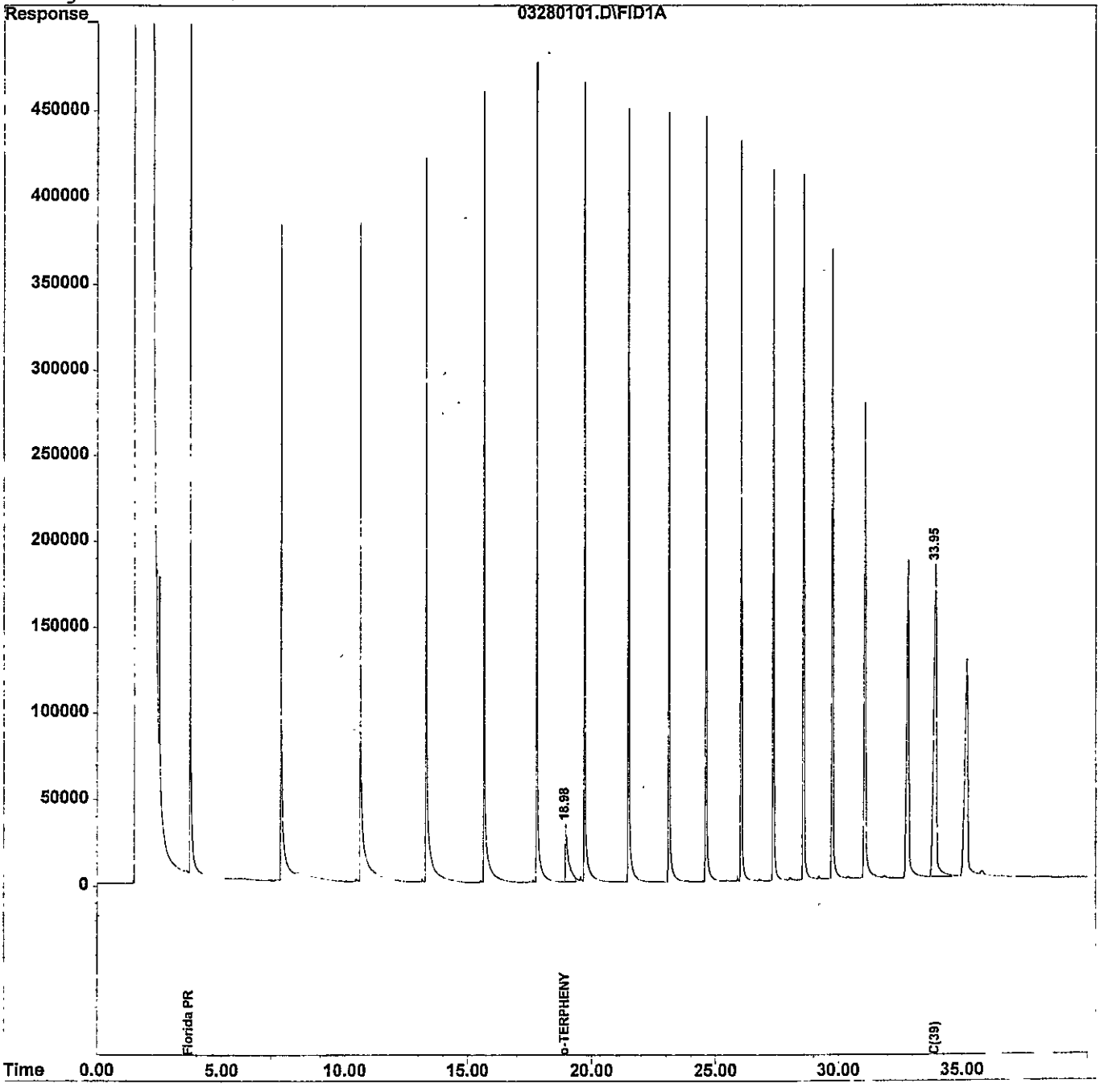
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280101.D Vial: 1
Acq On : 28 Mar 2001 11:49 Operator: RL
Sample : 4250 PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 12:58 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280111.D Vial: 11
Acq On : 28 Mar 2001 21:03 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:23 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.89	2803362	58.043 ug/mlm
Spiked Amount 50.000		Recovery =	116.09%
3) SC C(39)	33.78	14618657	336.592 ug/mlm
Spiked Amount 300.000		Recovery =	112.20%
Target Compounds			
1) HM Florida PRO	3.70	237878729	4329.153 ug/ml

4250 = 102

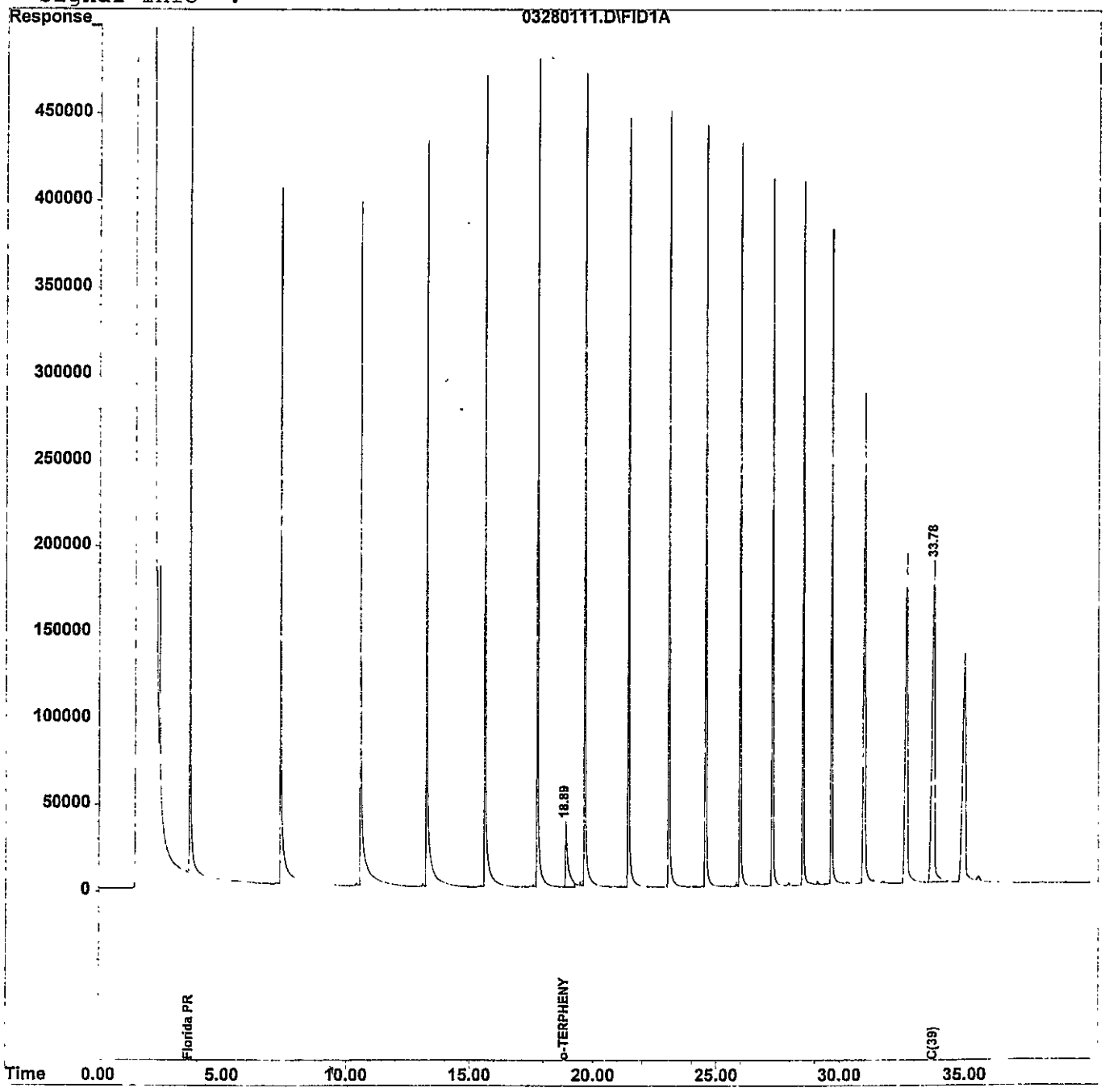
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280111.D Vial: 11
Acq On : 28 Mar 2001 21:03 Operator: RL
Sample : 4250PHS PRO CCV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 29 7:23 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032701\03270103.D Vial: 3
Acq On : 27 Mar 2001 13:15 Operator: RL
Sample : MS 09843 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 27 14:16 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.14f	506644	10.490 ug/mlm
Spiked Amount 50.000		Recovery =	20.98% 10.49x4=41.96 ÷50 = 84%
3) SC C(39)	34.04f	88008	2.026 ug/mlm
Spiked Amount 300.000		Recovery =	0.68%
			2.026x4=8.104÷300 = 2.7%
Target Compounds			
1) HM Florida PRO	3.70	55860236	1016.600 ug/ml

1016.600-341.936=674.664x4=
2698.7÷1000=2.699÷4.250
63%

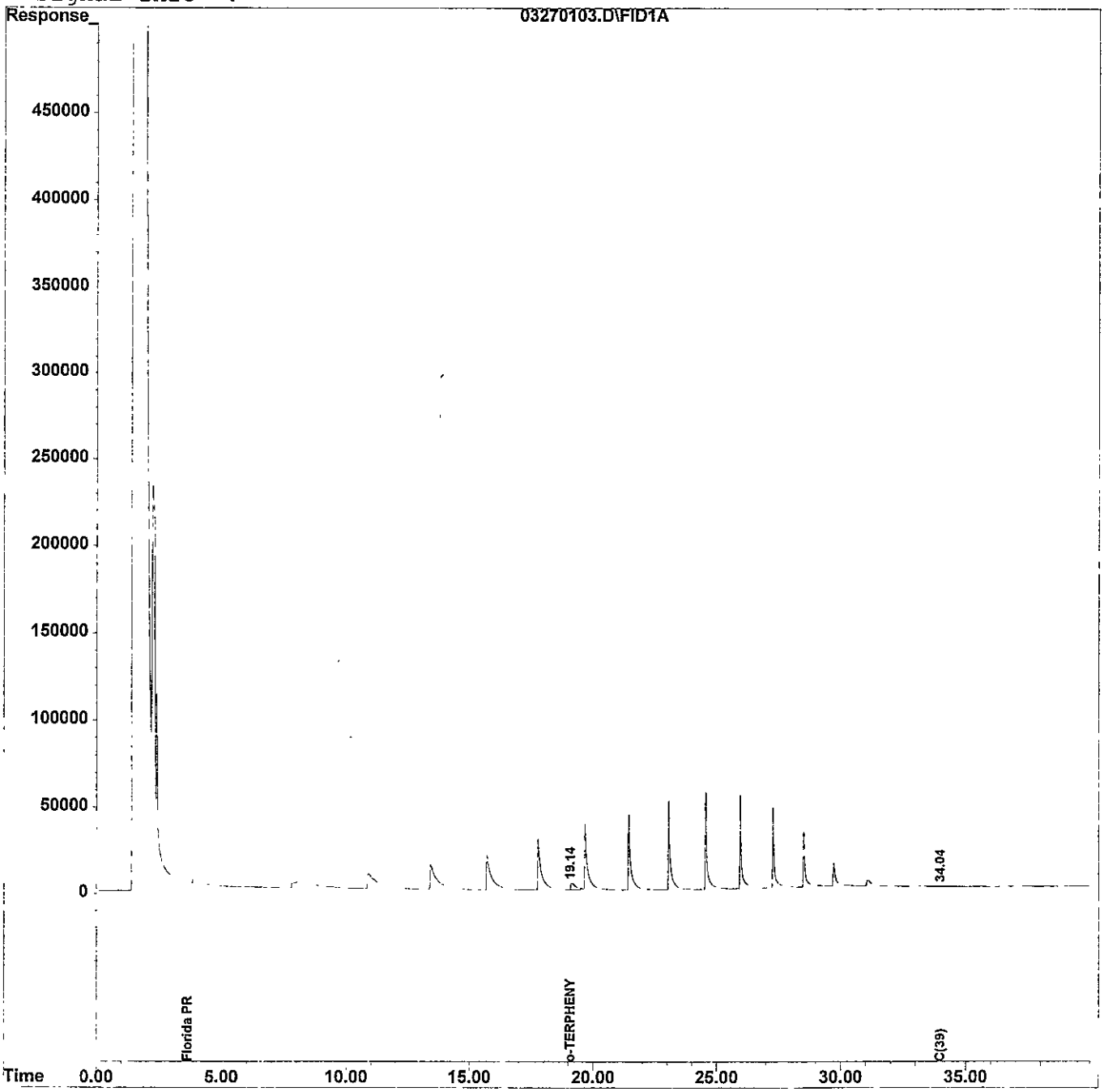
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032701\03270103.D Vial: 3
Acq On : 27 Mar 2001 13:15 Operator: RL
Sample : MS 09843 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 27 14:16 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032701\03270104.D Vial: 4
Acq On : 27 Mar 2001 14:03 Operator: RL
Sample : MSD 09844 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 27 15:05 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.13f	518214	10.730 ug/mlm
Spiked Amount 50.000		Recovery =	21.46% 10.73x4=42.92÷50=86%
3) SC C(39)	34.01	154243	3.551 ug/mlm
Spiked Amount 300.000		Recovery =	1.18%
			3.55x4=14.20÷300=4.7%
Target Compounds			
1) HM Florida PRO	3.70	67012423	1219.559 ug/ml

1219.559-337.563=881.99x4=
3527.98=3.528÷4.250
83%

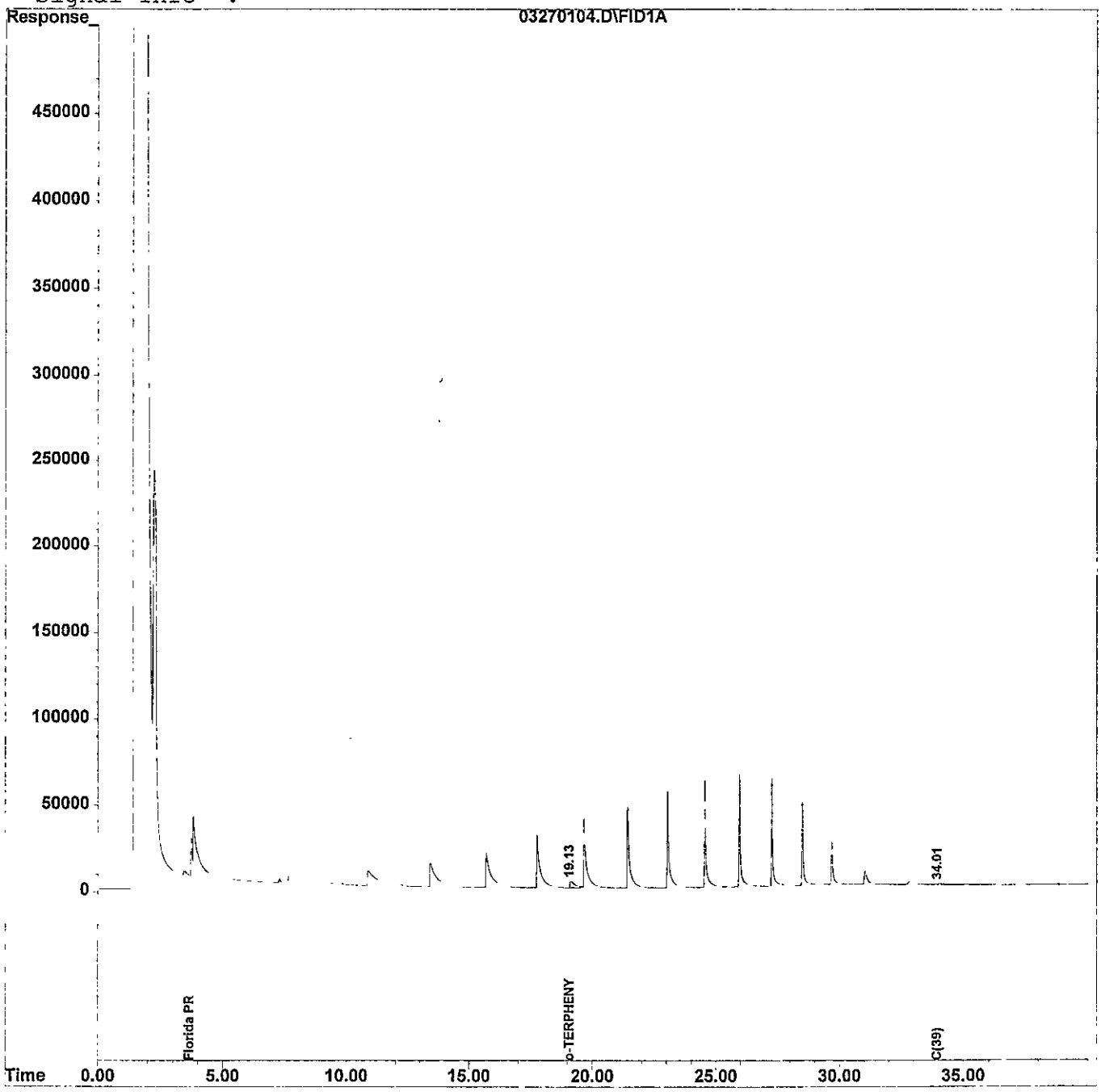
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032701\03270104.D Vial: 4
Acq On : 27 Mar 2001 14:03 Operator: RL
Sample : MSD 09844 4X Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 27 15:05 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.

LCS/LCSD Report

Sample ID:	QFW0327012+13	**Date Acquired:**	3/28/01
Operator:	RL	**Instrument ID:**	DRO-B
Data File:	03280104+05	**Bottle #:**	4+5
Method:	FL-PRO	**Matrix:**	Water

Compound	Expected Rec. (ppm)	LCS Rec. (ppm)	LCS % Recovery	LCSD Rec. (ppm)	LCSD % Recovery	Recovery Limits (%)	MS Pass/ Fail	MSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
FL. PRO	4.25	2.998	71%	2.821	66%	55 - 118	Pass	Pass	6%	< 25	Pass

Surrogates	Expected Rec. (ppm)	LCS Rec. (ppm)	LCS % Recovery	LCSD Rec. (ppm)	LCSD % Recovery	Recovery Limits (%)*	LCS Pass/ Fail	LCSD Pass/ Fail
O-TERPHENYL	50	51.078	93%	51.567	103%	82 - 142	Pass	Pass
C (39)	300	192.986	64%	92.267	31%	42 - 193	Pass	Fail

SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: 3/22/01 ORO-B	METHOD: 8000
MATRIX: FL-PRO TCAL (MeCl2)	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: RL	Reviewer: YGR
Date: 03/26/01 Time: 16:05	Date: 03/27/01 Time: 13:10

INITIAL CALIBRATION
5 POINT DRO

DATE:	3/22/01			
METHOD:	FL-PRO			
INSTRUMENT:	DRO-B ; FRONT COLUMN			
ANALYST:	RL			
ICAL ID:	PRO0322			
CONCENTRATION (PPM)			**AREA**	**Rf**
850			55009551	64717.1
2550			148731650	58326.1
4250			228292638	53715.9
5950			304533890	51182.2
7692			359979107	46799.2
AVERAGE Rf:			54948.1	
% RSD:			12.5	

Sequence Date: 03.22.01
Analyst Initials: RL
Run Method: PRO0315
Quant Method: PRO0322

	Sample	Blank/LCS
Water OTP/C(39) Limits	82-142 / 42-193	82-142 / 42-193
Soil OTP/C(39) Limits	62-109 / 60-118	62-109 / 62-118

Compound: FL-PRO
Date: 03.22.01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C(39) Recovery		Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solvent Blank	NA	MeCl2	1X	NA	NA			✓	
2	850PHSPROICAL		Standard		78	76		015V052		
3	4250PHSPROICAL				74	78		53		
4	4250PHSPROICAL				79	84		54		
5	5950PHSPROICAL				80	80		55		
6	7692PHSPROICAL				65	71		57		
7	4250PHSPROICV				101	101	99	015V058	03.22.01	
8	Solvent Blank		MeCl2		NA	NA				

RL 03.22.01

RL 03.22.01

Initials / Date: RL 03.22.01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PROCCV
Lab Standard ID#: 015V058
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL-PRO Standard	EX01187-9	500ppm	500ul	4250PHS
C(39)	501A055	3,000	100ul	300ppm
OrP	EX00151-1	10,000	5ul	50ppm
MeCl2	EX01185	—	395ul	—
			Diluted to 1000ul	
		RL		
		03.22.01		

Standard Name: PAH Intermediate
Lab Standard ID#: 015V059
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
PAH Standard	501A021	1,000ppm	1ml=1,000ul	200ppm
1methylnaphthalene	501A023	2,000ppm	500ul	200ppm
MeCl2	EX00185	—	3,500ul	—
		RL		
		03.22.01		

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PRO ICAL
Lab Standard ID# 015V052-056
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL-PRO Standard	EX01187-9,7,8	500 ppm	100 ul	850 PHS
			300 ul	2550
			500 ul	4250
			700 ul	5950
			1000 ul	7692
OTP	EX00151-1	10,000 RL 03.22.01	~~5 ul~~ ~~100~~ 500 ul	50 ppm
C(39) PRO	S01A055	3,000 RL 03.22.01	~~50 ul~~ 100 ul	300 ppm
MeCl2	EX00185	–	Dilute to 1000 ul	–

OTP + C(39) were added to each standard then standard diluted to 1,000 ul with MeCl2. For last point the total volume is 1,105 ul leading to a PHS of 7692 not 8500. Also because of volume change the OTP = 45.2 and C(39) = 271.5. These values have been changed in curve.

Standard Name: FL-PRO ICV
Lab Standard ID# 015V057
Prepared By: RL

Date Made: 03.22.01
Expire Date: 09.22.01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL-PRO Standard	S01A063	500 ppm	500 ul	4250 PHS
C(39) PRO Surrogate	S01A054	3,000 ppm	100 ul	300 ppm
OTP	EX00151-2	10,000 ppm	5 ul	50 ppm
MeCl2	EX00185	–	395 ul	–
		RL 03.22.01		

Response Factor Report DRO-B

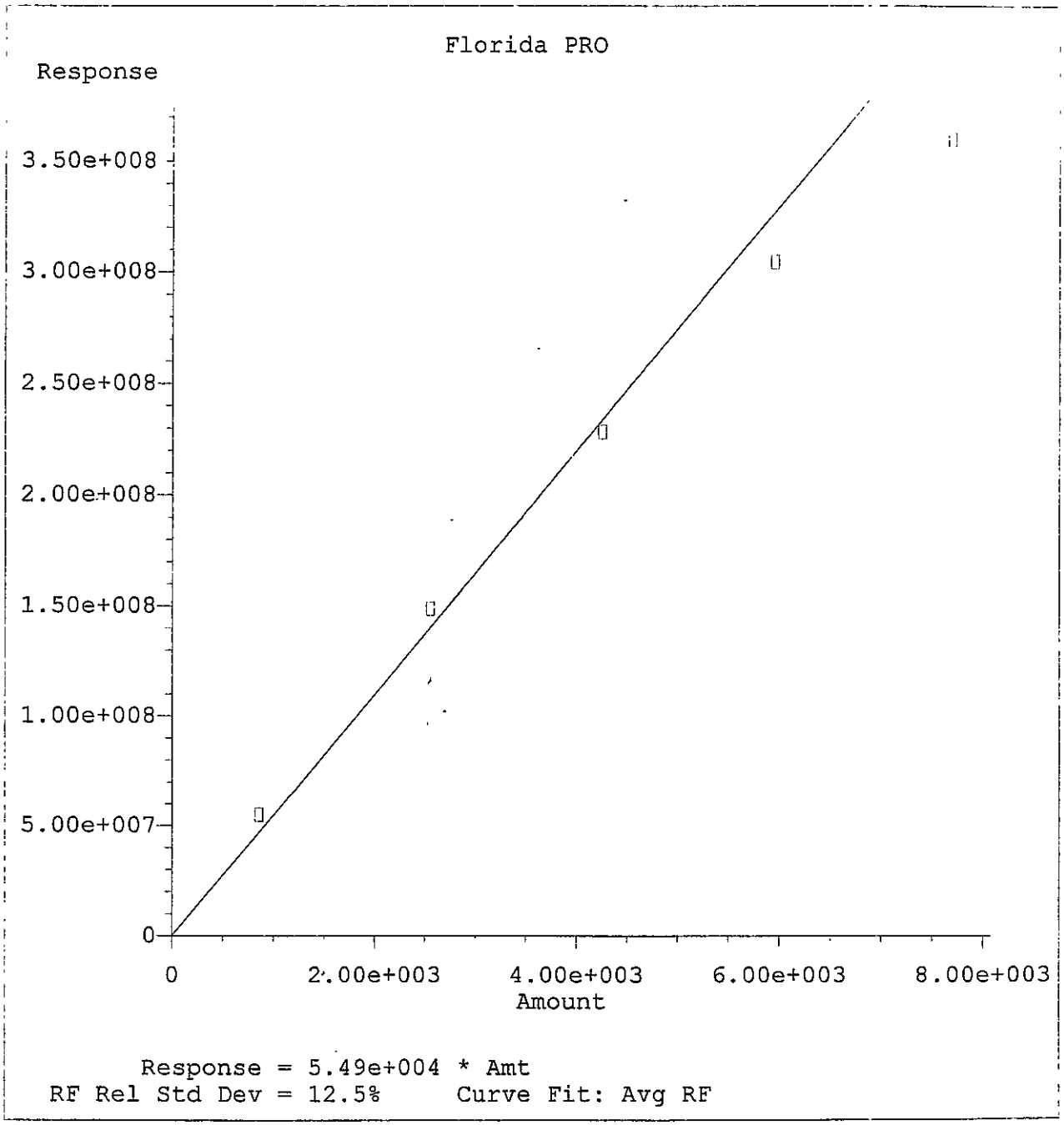
Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Mar 27 11:02:18 2001

Calibration Files
1 =03220102.D 2 =03220103.D 3 =03220104.D
4 =03220105.D 5 =03220106.D

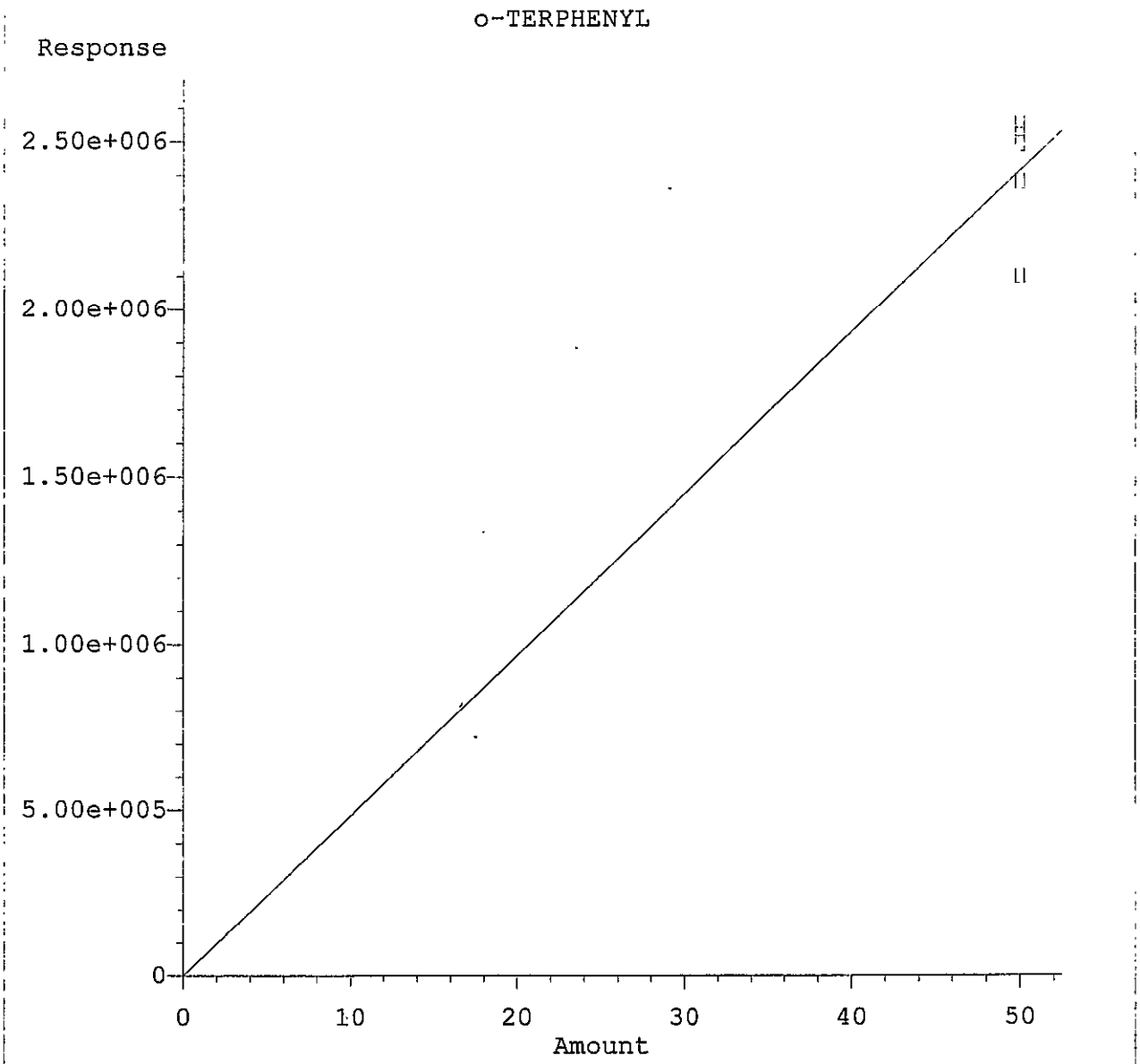
	Compound	1	2	3	4	5	Avg	%RSD
1) HM	Florida PRO	6.472	5.833	5.372	5.118	4.680	5.495 E4	12.51
2) SC	o-TERPHENYL	4.992	4.766	5.060	5.128	4.648	4.919 E4	4.14
3) SC	C(39)	4.258	4.365	4.678	4.479	4.349	4.426 E4	3.65

(#) = Out of Range

PRO0322.M Tue Mar 27 11:02:26 2001

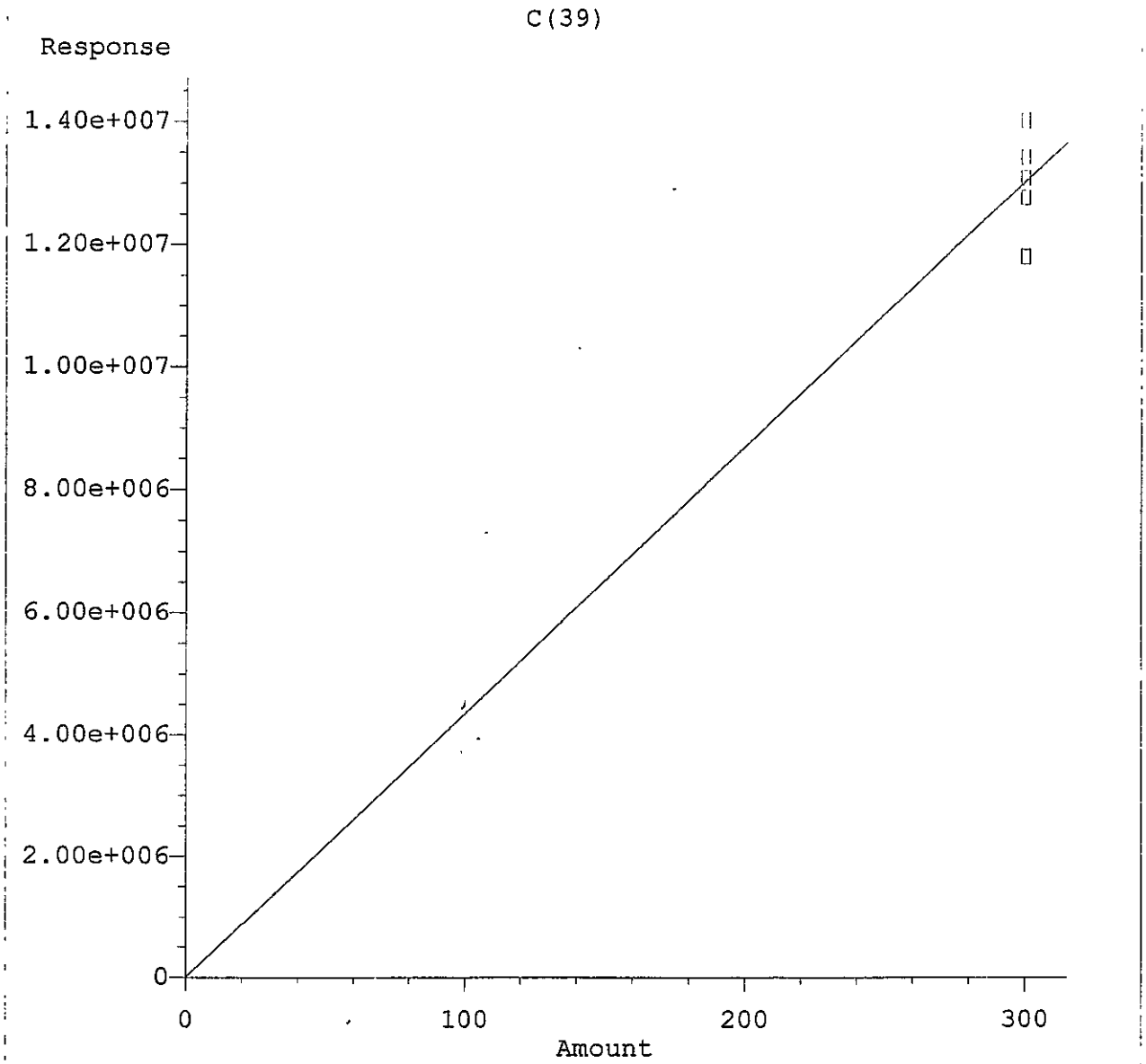


Method Name: C:\HPCHEM\2\METHODS\PRO0322.M
Calibration Table Last Updated: Tue Jan 02 11:40:23 2001



Response = 4.83e+004 * Amt
RF Rel Std Dev = 7.8% Curve Fit: Avg RF

Method Name: C:\HPCHEM\2\METHODS\PRO0322.M
Calibration Table Last Updated: Tue Jan 02 11:40:23 2001



Response = 4.34e+004 * Amt
RF Rel Std Dev = 6.4% Curve Fit: Avg RF

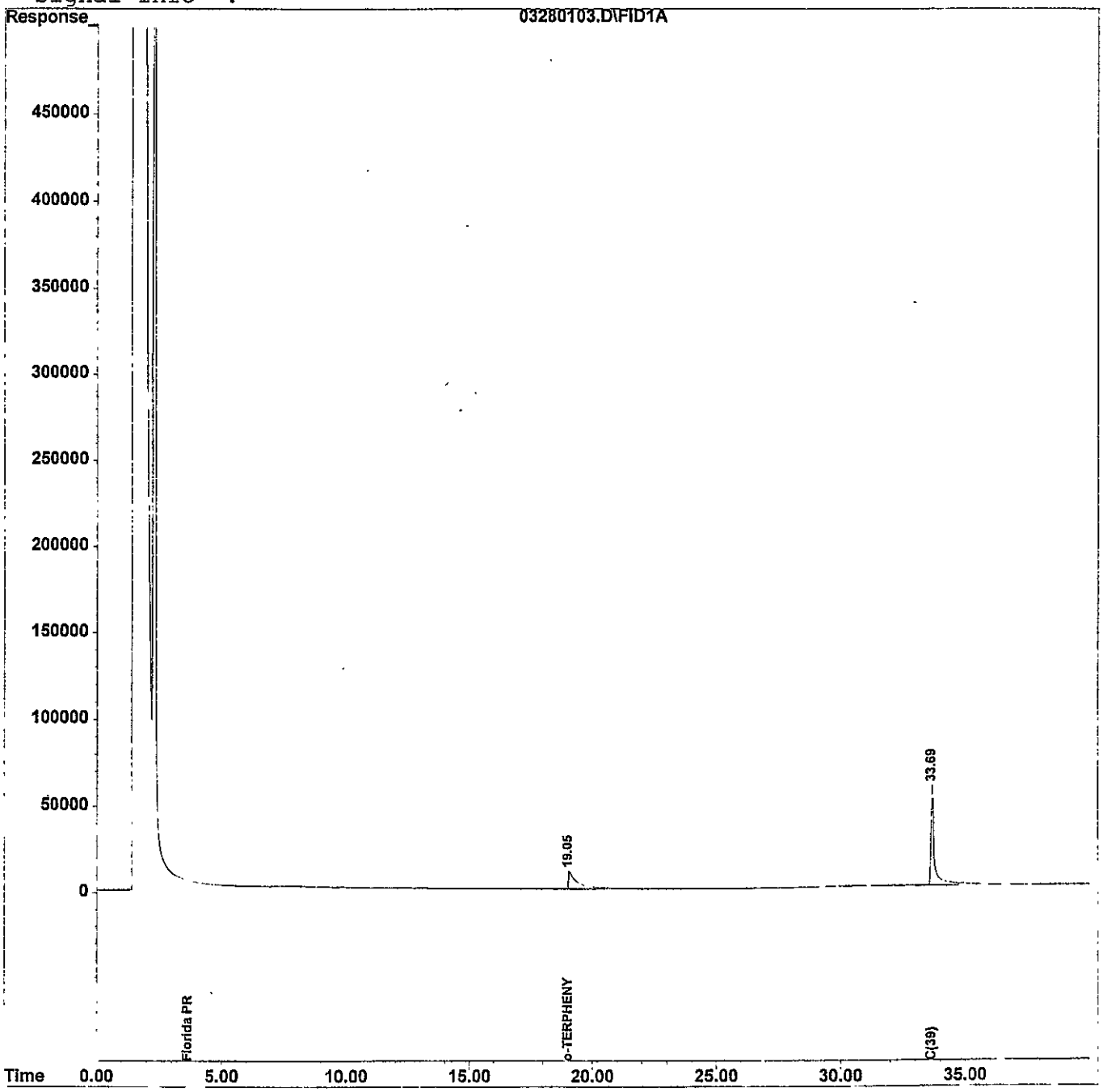
Method Name: C:\HPCHEM\2\METHODS\PRO0322.M
Calibration Table Last Updated: Tue Jan 02 11:40:23 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032801A\03280103.D Vial: 3
Acq On : 28 Mar 2001 13:30 Operator: RL
Sample : QFW0327011 Inst : DRO-B
Misc : PRO BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 14:22 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032801A\03280103.D Vial: 3
Acq On : 28 Mar 2001 13:30 Operator: RL
Sample : QFW0327011 Inst : DRO-B
Misc : PRO BLANK Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 28 14:22 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0322.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	19.05f	2425696	50.224 ug/mlm
Spiked Amount 50.000		Recovery =	100.45%
3) SC C(39)	33.69	5420038	124.796 ug/mlm
Spiked Amount 300.000		Recovery =	41.60%
Target Compounds			
1) HM Florida PRO	3.70	18863956	343.305 ug/ml

$\frac{343.3}{1000} = 0.34$ J

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220102.D Vial: 2
Acq On : 22 Mar 2001 9:35 Operator: RL
Sample : 850PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 10:17 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.96	2496228	38.776 ug/mlm
Spiked Amount 50.000		Recovery =	77.55%
3) SC C(39)	33.77f	12774466	229.186 ug/mlm
Spiked Amount 300.000		Recovery =	76.40%
Target Compounds			
1) HM Florida PRO	3.70	55009551	795.344 ug/ml

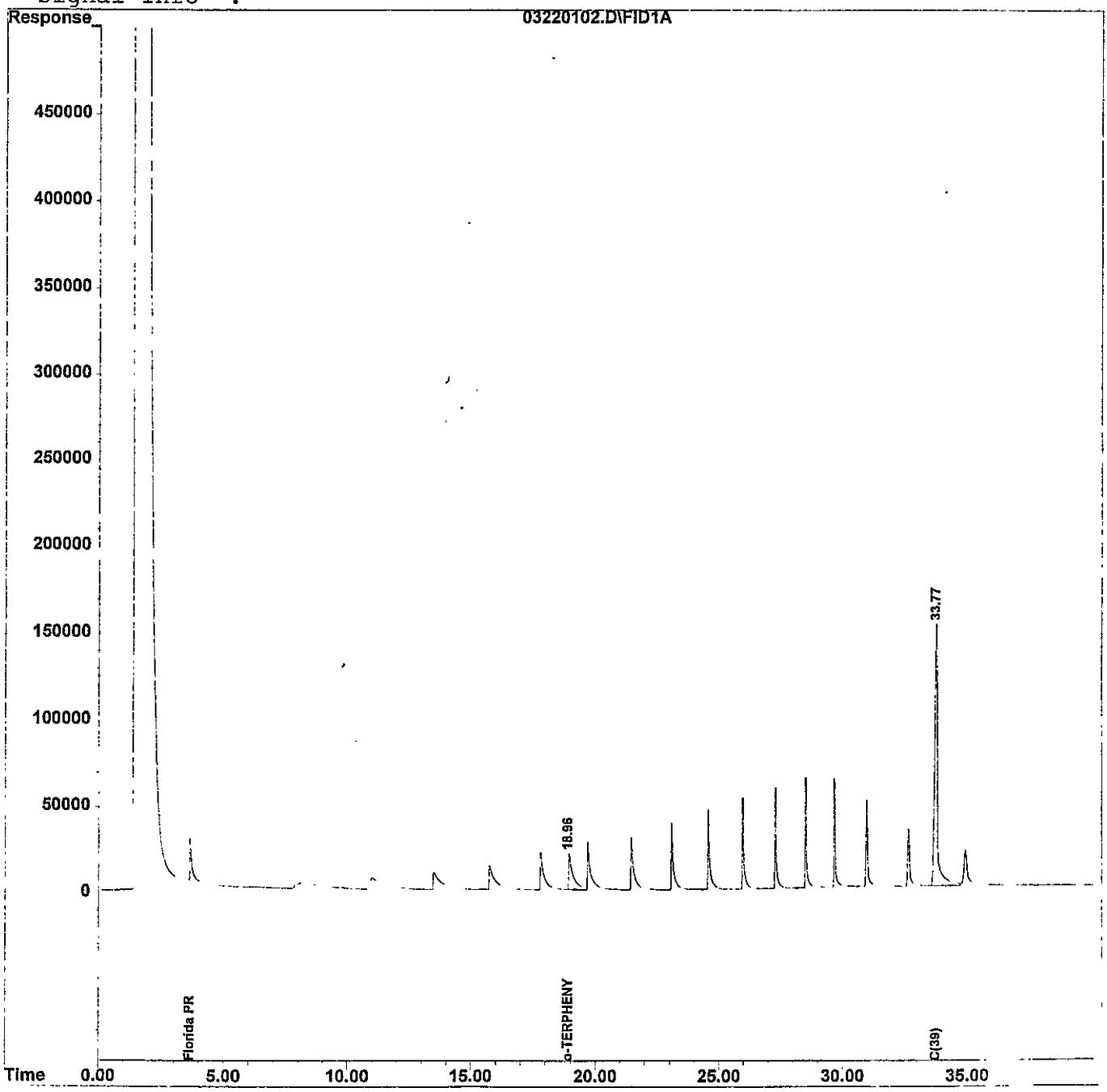
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220102.D Vial: 2
Acq On : 22 Mar 2001 9:35 Operator: RL
Sample : 850PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 10:17 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220103.D Vial: 3
Acq On : 22 Mar 2001 10:24 Operator: RL
Sample : 2550PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 11:18 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2382941	37.016 ug/mlm
Spiked Amount 50.000		Recovery =	74.03%
3) SC C(39)	33.77f	13095040	234.938 ug/mlm
Spiked Amount 300.000		Recovery =	78.31%
Target Compounds			
1) HM Florida PRO	3.70	148731650	2150.405 ug/ml

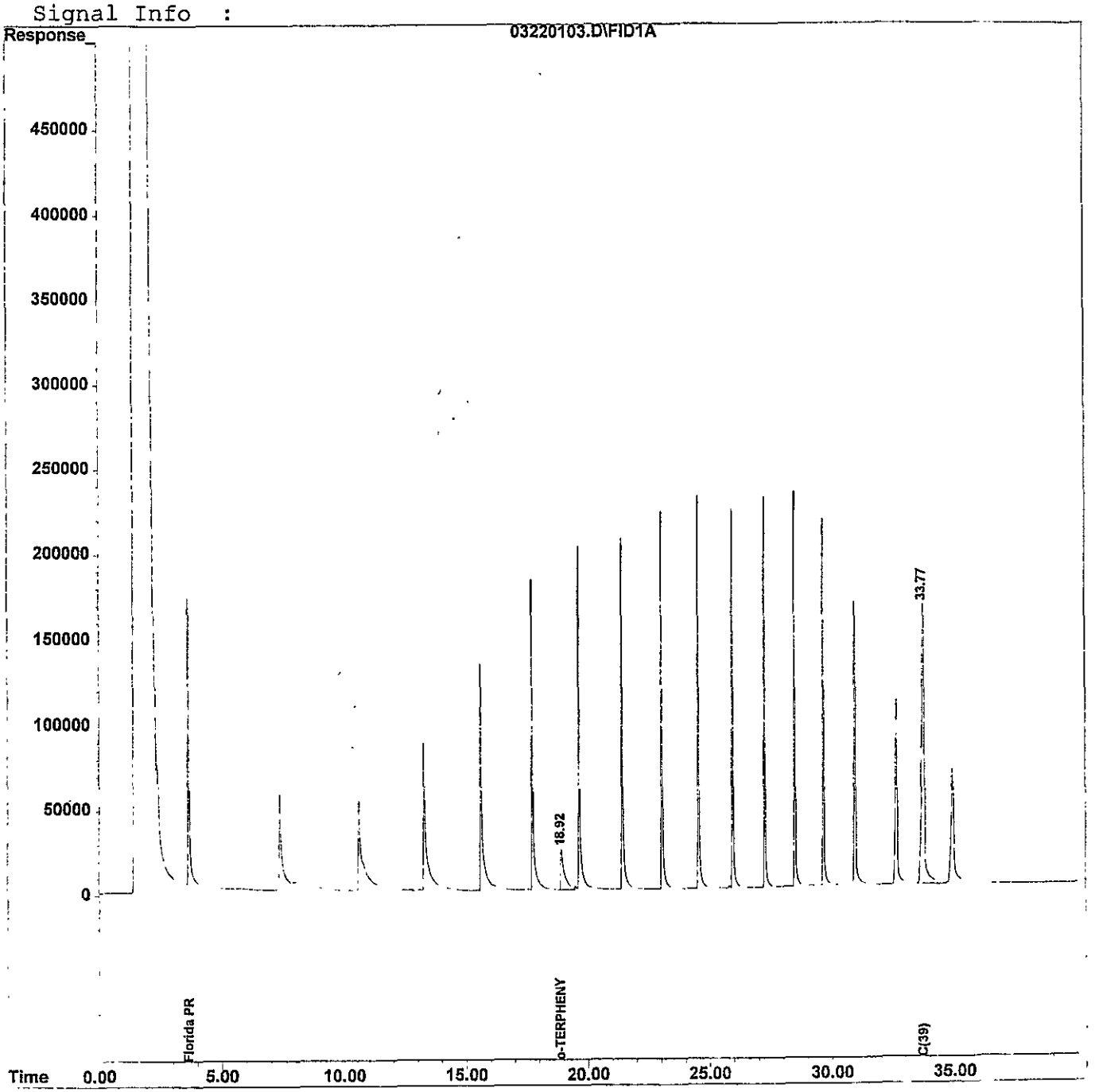
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220103.D Vial: 3
Acq On : 22 Mar 2001 10:24 Operator: RL
Sample : 2550PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 11:18 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220104.D Vial: 4
Acq On : 22 Mar 2001 11:12 Operator: RL
Sample : 4250PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:02 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2530154	39.303 ug/mlm
Spiked Amount 50.000		Recovery =	78.61%
3) SC C(39)	33.78	14035475	251.810 ug/mlm
Spiked Amount 300.000		Recovery =	83.94%
Target Compounds			
1) HM Florida PRO	3.70	228292638	3300.720 ug/ml

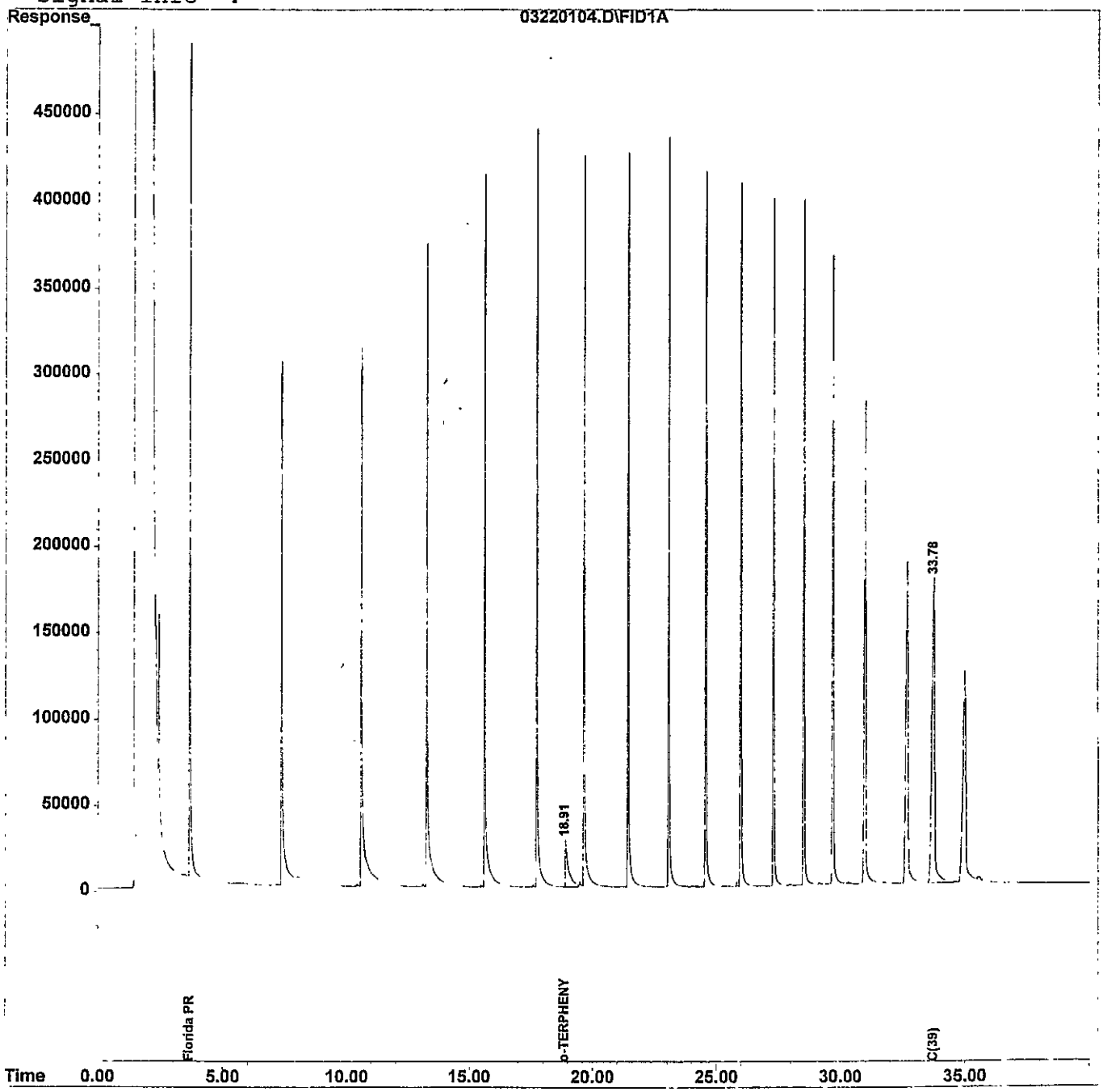
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220104.D Vial: 4
Acq On : 22 Mar 2001 11:12 Operator: RL
Sample : 4250PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:02 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220105.D Vial: 5
Acq On : 22 Mar 2001 12:01 Operator: RL
Sample : 5950PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:44 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2564073	39.830 ug/mlm
Spiked Amount 50.000		Recovery =	79.66%
3) SC C(39)	33.77f	13435562	241.047 ug/mlm
Spiked Amount 300.000		Recovery =	80.35%
Target Compounds			
1) HM Florida PRO	3.70	304533890	4403.038 ug/ml

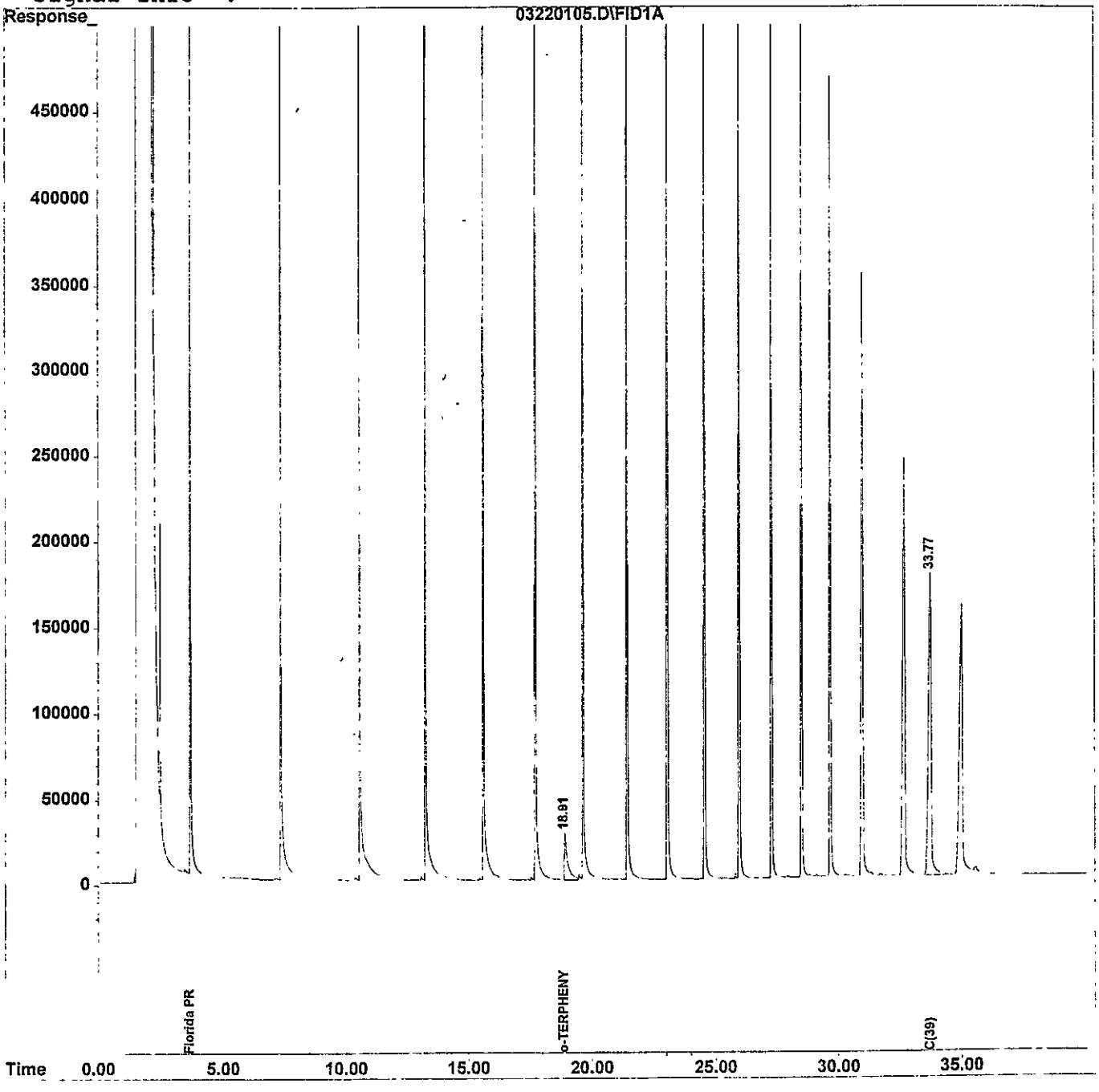
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220105.D Vial: 5
Acq On : 22 Mar 2001 12:01 Operator: RL
Sample : 5950PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 12:44 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220106.D Vial: 6
Acq On : 22 Mar 2001 12:49 Operator: RL
Sample : 7692PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 13:36 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.92	2101045	32.637 ug/mlm
Spiked Amount 50.000		Recovery =	65.27%
3) SC C(39)	33.76f	11806484	211.820 ug/mlm
Spiked Amount 300.000		Recovery =	70.61%
Target Compounds			
1) HM Florida PRO	3.70	359979107	5204.681 ug/ml

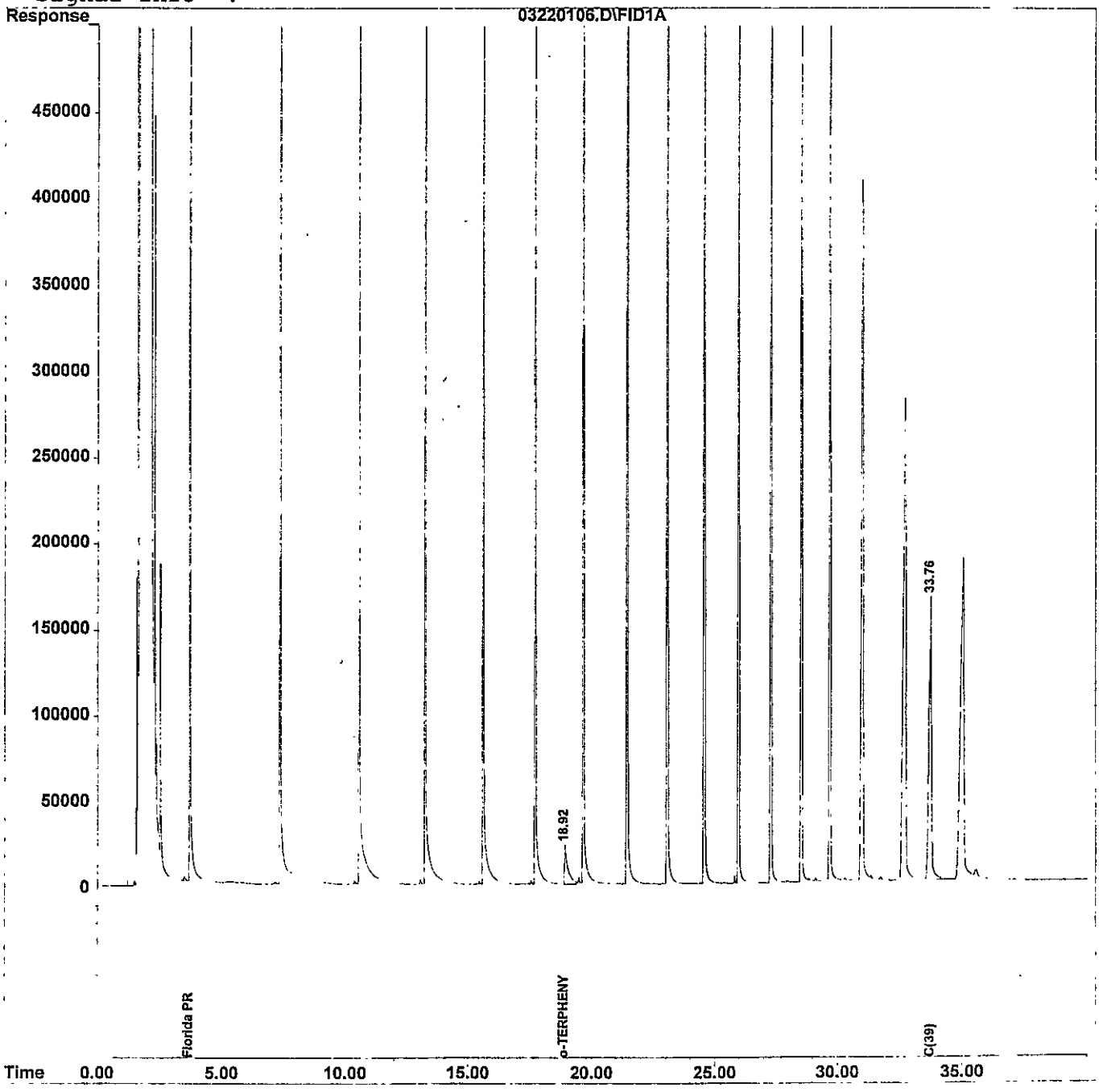
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220106.D Vial: 6
Acq On : 22 Mar 2001 12:49 Operator: RL
Sample : 7692PHS PRO ICAL Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 13:36 2001 Quant Results File: PRO0315.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0315.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032201\03220107.D Vial: 7
Acq On : 22 Mar 2001 13:38 Operator: RL
Sample : 4250PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 14:20 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Initial Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-TERPHENYL	18.91	2431101	50.336 ug/mlm
Spiked Amount 50.000		Recovery =	100.67%
3) SC C(39)	33.76	13192041	303.745 ug/mlm
Spiked Amount 300.000		Recovery =	101.25%
Target Compounds			
1) HM Florida PRO	3.70	231160012	4206.879 ug/ml

99% ✓RL

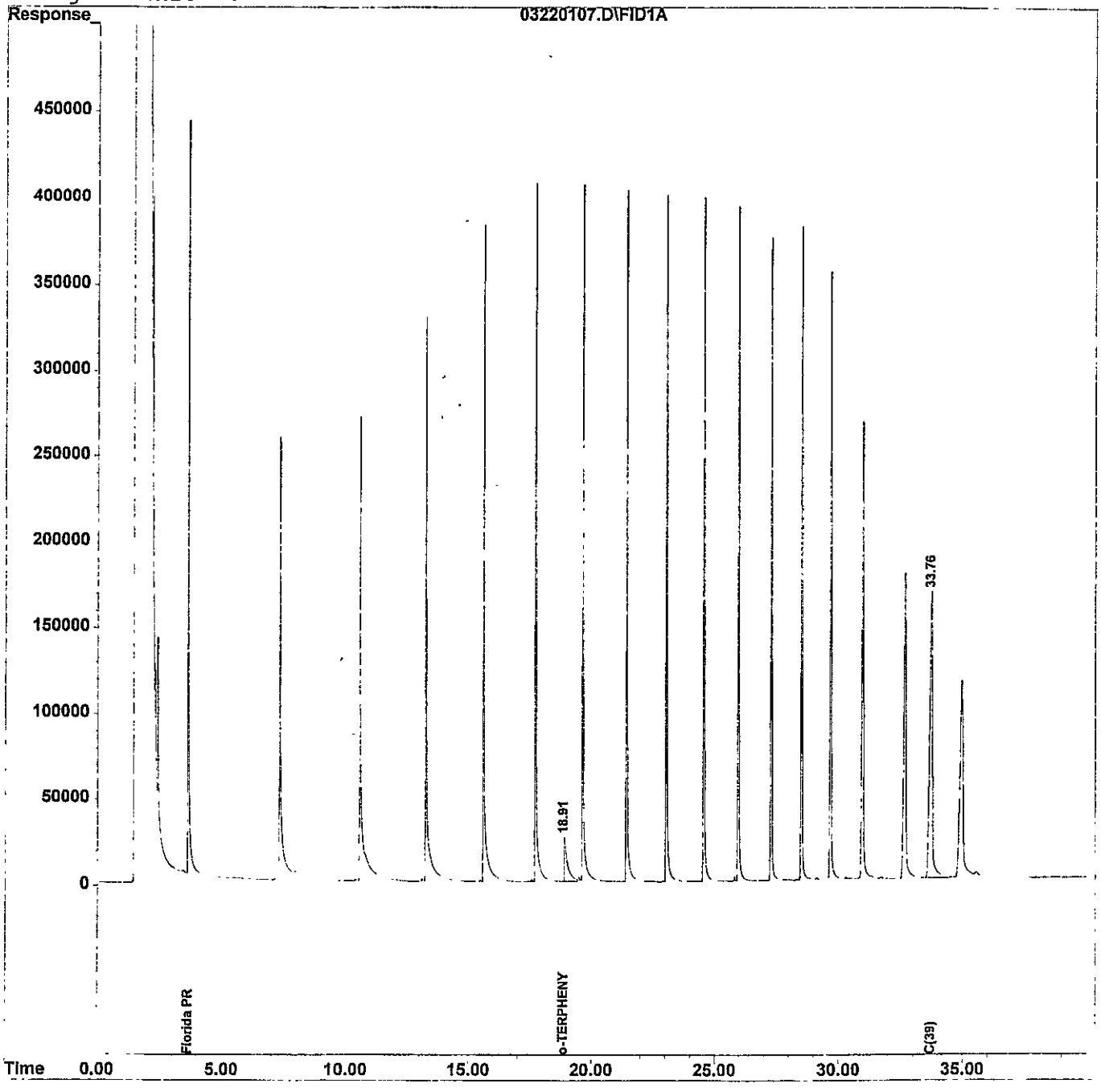
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032201\03220107.D Vial: 7
Acq On : 22 Mar 2001 13:38 Operator: RL
Sample : 4250PHS PRO ICV Inst : DRO-B
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 22 14:20 2001 Quant Results File: PRO0322.RES

Quant Method : C:\HPCHEM\2\METHODS\PRO0322.M (Chemstation Integrator)
Title : FLORIDA PRO BY GC; INST. #2
Last Update : Tue Jan 02 11:40:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0315.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [ ] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: VOA0103-004

Reported By: JP Date Reported: 03/27/2001

Department: VOA Project(s): 27286/27303/27307 PM: BJH

Discrepancy:
High RPD for Trichloroethene in MS/MSD. Separate sample vials were received for MS/MSD. Trichloroethene was in sample, but not at the same concentration in MS/MSD vials.

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
NOTE ON CASE NARRATIVE

Resolution recorded by: [signature] Date: 03.27.2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

File Name: Lab quality communication form.doc Date: 03/27/01

VOA GC/MS DATA CHECKLIST
SW-846-8260B

3-28-01

PROJECT #: 27307	METHOD: 8260B
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	Y	N	NA
Are all SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	Y	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	Y	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the Blank Spike?	Y	N	NA
Are all surrogate standard recoveries acceptable (Blank, Blank Spike, samples)?	Y	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	NA
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	Y	N	NA
Are all mistakes single lined out, initialled, & dated?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all analytes not to be reported lined off, initialed, and dated on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: [illegible]	
Date: 3-21-01	Time: 12:15

PEER REVIEW

Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	Y	N	NA
Are all sample Internal Standard areas and retention times within method limits?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all applicable runlog sheets signed, dated, and included?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: VRR	
Date: 3-27-01	Time: 14:24

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC/MS VOLATILE INSTRUMENT C RUNLOG

Date: 3.22.01
Calib. File: 02280125.m
QC. Method: 03220125.m
BFB Std ID #: V01018

Internal Standard ID #: V01014
Surrogate Standard ID #: V01015
Calib.Standard ID #: V01019, V01004
LCS/MS Standard ID #: —

GC Conditions
BFB: 80°C-10°C/10min-155°C
Samples: 40°C(4m)-8°C/min-180°C(2m)

	CCV IS RT	CV IS Areas
1	6.97	617279
2	12.32	834225
3	15.57	335244

Surrogate Limits

	DCE	TOL-d8	BFB
QC	78-114	88-106	85-111
Sample	78-124	84-108	86-112

MS Conditions
EMV: 1800
Tune File: BFB01.M
Scan Delay: 1.00 min

File Name	Project ID	Lab Sam. ID	Client Sam. ID	Matrix	Volume	DF	ALS #	pH	-Cl	Inj.Time	Comments
C19088	QC	BFB 50ng	—	—	2 ul	—	—	—	—	5:47	
C19089	↓	CCV 10ppb	—	W	25 ml	1	1	—	—	06:08	
C19090	↓	Blank	—	W	25 ml	1	2	—	—	07:22	QVW032201 C1
C19091	↓	LCS	—	W	25 ml	1	3	—	—	08:01	QVWLCS 032201 C1
C19092	27286	AC09717	—	W	25 ml	1	4	1	X	08:48	
C19093	↓	AC09718	—	W	2.5 ml	10	5	1	X	09:13	
C19094	↓	AC09719	—	W	5 ml	5	6	1	X	09:39	
C19095	↓	AC09720	—	W	25 ml	1	7	1	X	10:05	
C19096	27303	AC09818	—	W	5 ml	5	8	1	X	10:30	
C19097	↓	AC09822	—	W	5 ml	5	9	1	X	10:56	
C19098	↓	AC09823	—	W	5 ml	5	10	1	X	11:21	
C19099	↓	AC09819	—	W	25 ml	1	11	1	X	11:47	NDIL
C19100	↓	AC09820	—	W	25 ml	1	12	1	X	12:15	
C19101	↓	AC09821	—	W	25 ml	1	13 ~~14~~	1	X	12:41	VRR 3.22.01
C19102	↓	AC09824	—	W	25 ml	1	15	1	X	13:06	
C19103	↓	AC09826	—	W	25 ml	1	16	1	X	13:32	
C19104	↓	AC09825	—	W	25 ml	1	1	1	X	13:58	
C19105	27307	AC09841	—	W	2.5 ml	10	2	1	X	14:24	
C19106	↓	AC09842	—	W	2.5 ml	10	3	1	X	14:49	
C19107	↓	AC09845	—	W	2.5 ml	10	4	1	X	15:15	
C19108	↓	AC09841	—	W	25 ml	1	5	1	X	15:41	
C19109	27303	AC09819	—	W	5 ml	5	6	1	X	16:06	
C19110	27307	AC09839	—	W	25 ml	1	7	1	X	16:32	
C19111	27307	AC09843	MS —	W	25 ml	1	8	1	X	16:58	
C19112	↓	AC09844	MSD —	W	25 ml	1	9	1	X	17:24	
C											
C											

Note: NDIL=Need Dilution NRI=Needs Reinjection MI=Matrix Interferences NC=Needs Concentrated

VRR 3.23.01

Analyst / Date: VRR 3.23.01

Reviewer / Date: _____

Logbook ID: VOC-118

Page 020

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC/MS VOLATILE INSTRUMENT C RUNLOG

Date: 3·23·01
Calib. File: 02280125·M
QC. Method: 032301 25·M
FB Std ID #: V01018

Internal Standard ID #: V01014
Surrogate Standard ID #: V01015
Calib.Standard ID #: V01019, V01004
LCS/MS Standard ID #: —

GC Conditions
BFB: 80°C-10°C/10min-155°C
Samples: 40°C(4m)-8°C/min-180°C(2m)

	CCV IS RT	CV IS Areas
1	6·96	552290
2	12·32	759182
3	15·56	301723

Surrogate Limits

	DCE	TOL-d8	BFB
QC	78-114	88-106	85-111
Sample	78-124	84-108	86-112

MS Conditions
EMV: 1800
Tune File: BFB01·M
Scan Delay: 1·00 min

File Name	Project ID	Lab Sam. ID	Client Sam. ID	Matrix	Volume	DF	ALS #	pH	-Cl	Inj.Time	Comments
C 19113	Qc	BFB 50ng	—	—	2 ul	—	—	—	—	10:30	
C 19114	↓	CCV 10ppb	—	W	25 ml	1	1	—	—	11:21	
C 19115	↓	Blank	—	W	25 ml	1	2	—	—	12:34	QVW032301 d1
C 19116	↓	LCS	—	W	25 ml	1	3	—	—	13:08	
C 19117	27303	Ac09824	—	W	25 ml	1	4	1	X	14:25	NDIL
C 19118	27307	Ac09844	MSD —	W	25 ml	1	5	1	X	14:50	
C 19119	↓	Ac09842	" —	W	25 ml	1	6	1	X	15:28	
C 19120	↓	Ac09840	" —	W	25 ml	1	7	1	X	15:54	
C 19121	27319	Ac09956	—	W	25 ml	1	8	1	X	16:19	
C 19122	↓	Ac09957	—	W	25 ml	1	9	1	X	16:45	
C 19123	↓	Ac09958	—	W	25 ml	1	10	1	X	17:10	
C 19124	↓	Ac09959	—	W	25 ml	1	11	1	X	17:36	
C 19125	↓	Ac09960	—	W	25 ml	1	12	1	X	18:02	
C 19126	27307	Ac09846	" —	W	25 ml	1	14	1	X	18:53	
C 19127	27319	Ac09961	—	W	25 ml	1	15	1	X	19:18	
C 19128	↓	Ac09962	—	W	25 ml	1	16	1	X	19:44	
C 19129	27307	Ac09824	—	W	5 ml	5	1	1	X	20:09	
C 19130	27319	Ac09963	—	W	25 ml	1	2	1	X	20:35	
C 19131	↓	Ac09956	MS —	W	25 ml	1	3	1	X	—	Data not
C 19132	↓	Ac09956	MSD —	W	25 ml	1	4	1	X	—	collected
C											
C											
C											
C											
C											
C											
C											

Note: NDIL=Need Dilution NRI=Needs Reinjection MI=Matrix Interferences NC=Needs Concentrated

VRR 3·25·01

Analyst / Date: VRR 3·25·01

Reviewer / Date: _____

Logbook ID: VOC-118

Page 021

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

VOA SAMPLE BATCHBOOK

Inst. ID: VOA-C **Batch ID:** C032201 25. **Matrix:** water- 25 ml

LCS/BS ID: C19091 **MS ID:** AC09843MS **MSD ID:** AC09844MSD

	Lab. Proj. #	LIMS ID #	Analysis Date	Comment
1	27286	AC09717	3·22·01	
2		AC09718		
3		AC09719		
4		AC09720		
5	27303	AC09818		
6		AC09819		
7		AC09820		
8		AC09821		
9		AC09822		
10		AC09823		
11		AC09824		
12		AC09825		
13		AC09826		
14	27307	AC09841		
15		AC09842		
16		AC09843MS		
17		AC09844MSD		
18		AC09845		
19	27307	AC09840	3·23·01	
20		AC09846		

VRR
3·23·01

Review: _____ **Date:** _____

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:56 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	440839	10.00	ug\L	0.01
45) Chlorobenzene-d5	12.33	117	550532	10.00	ug\L	0.01
61) 1,4-Dichlorobenzene-d4	15.57	152	208194	10.00	ug\L	0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	162192	9.16	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.60%			
46) Toluene-d8	10.27	98	858608	10.13	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.30%			
66) Bromofluorobenzene	13.97	95	238497	9.36	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.60%			
Target Compounds						Qvalue
22) cis-1,2-Dichloroethene	6.08	96	227869	11.12	ug\L	87 11
36) Trichloroethene	8.49	95	300605	11.80	ug\L	99 10
51) Tetrachloroethene	11.13	164	30969	1.58	ug\L	98 1.6J

VRR
3.23.01

(#) = qualifier out of range (m) = manual integration
[illegible] M Thu Mar 22 16:56:43 2001 INST VOA Page

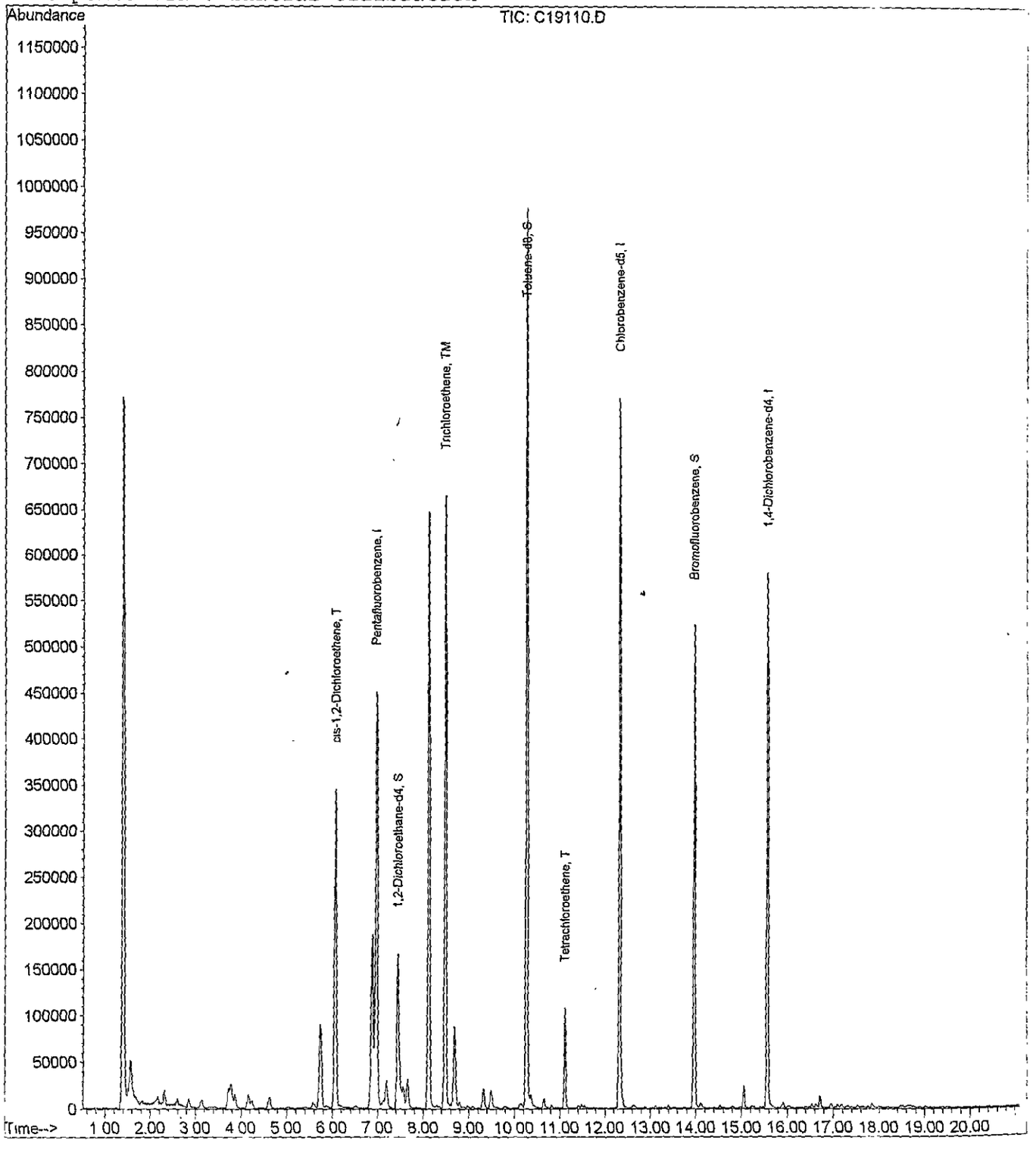
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D
Acq On : 03/22/01 16:32
Sample : AC09839 25ml DF =1
Misc : 27307/C03220125
MS Integration Params: rteint.p
Quant Time: Mar 22 16:56 2001

Vial: 7
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

ata File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
.cq On : 03/22/01 16:32 Operator: JP/VRR
ample : AC09839 25ml DF =1 Inst : VOA-C
isc : 27307/C03220125 Multiplr: 1.00
S Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.397	133	146	162	rBV	771692	2416372	100.00%	13.410%
2	1.572	164	175	185	rVV	38749	151904	6.29%	0.843%
3	2.179	264	276	281	rVB8	8492	28273	1.17%	0.157%
4	2.329	292	301	307	rVB3	15068	39719	1.64%	0.220%
5	2.859	381	389	399	rVB3	9228	25821	1.07%	0.143%
6	3.147	425	437	447	rVB9	8893	31238	1.29%	0.173%
7	3.749	523	537	538	rBV2	21190	59758	2.47%	0.332%
8	3.785	539	543	551	rVV5	25544	84199	3.48%	0.467%
9	3.875	553	558	570	rVB6	14396	46368	1.92%	0.257%
10	4.170	598	607	616	rBV7	14234	49785	2.06%	0.276%
11	4.248	616	620	631	rVB5	8419	24422	1.01%	0.136%
12	5.751	856	870	882	rBV2	89530	345878	14.31%	1.919%
13	6.076	911	924	937	rBV2	346088	1072239	44.37%	5.951%
14	6.888	1042	1059	1065	rBV3	188038	668775	27.68%	3.711%
15	6.972	1065	1073	1090	rVB	448387	1403726	58.09%	7.790%
16	7.201	1104	1111	1123	rVB6	28970	96909	4.01%	0.538%
17	7.447	1142	1152	1165	rBV2	166485	564185	23.35%	3.131%
18	7.568	1170	1172	1180	rVV6	23367	55472	2.30%	0.308%
19	7.664	1180	1188	1199	rVB4	30367	98734	4.09%	0.548%
20	8.121	1251	1264	1281	rBV	647002	1699818	70.35%	9.433%
21	8.488	1312	1325	1343	rBV2	665066	1713638	70.92%	9.510%
22	8.692	1346	1359	1372	rVV2	86625	288170	11.93%	1.599%
23	9.336	1453	1466	1478	rBV4	21422	68443	2.83%	0.380%
24	9.492	1483	1492	1503	rBV4	18604	57986	2.40%	0.322%
25	10.274	1612	1622	1634	rBV	976353	2298150	95.11%	12.754%
26	10.370	1634	1638	1647	rVB9	12313	32578	1.35%	0.181%
27	10.659	1678	1686	1695	rBV7	9423	25070	1.04%	0.139%
28	11.122	1753	1763	1775	rVB	107889	254825	10.55%	1.414%
29	12.325	1953	1963	1982	rBV	771145	1765686	73.07%	9.799%
30	13.973	2226	2237	2250	rBV	523246	1147256	47.48%	6.367%
31	15.061	2411	2418	2427	rBV2	23228	52816	2.19%	0.293%
32	15.573	2493	2503	2514	rBV	579524	1320854	54.66%	7.330%

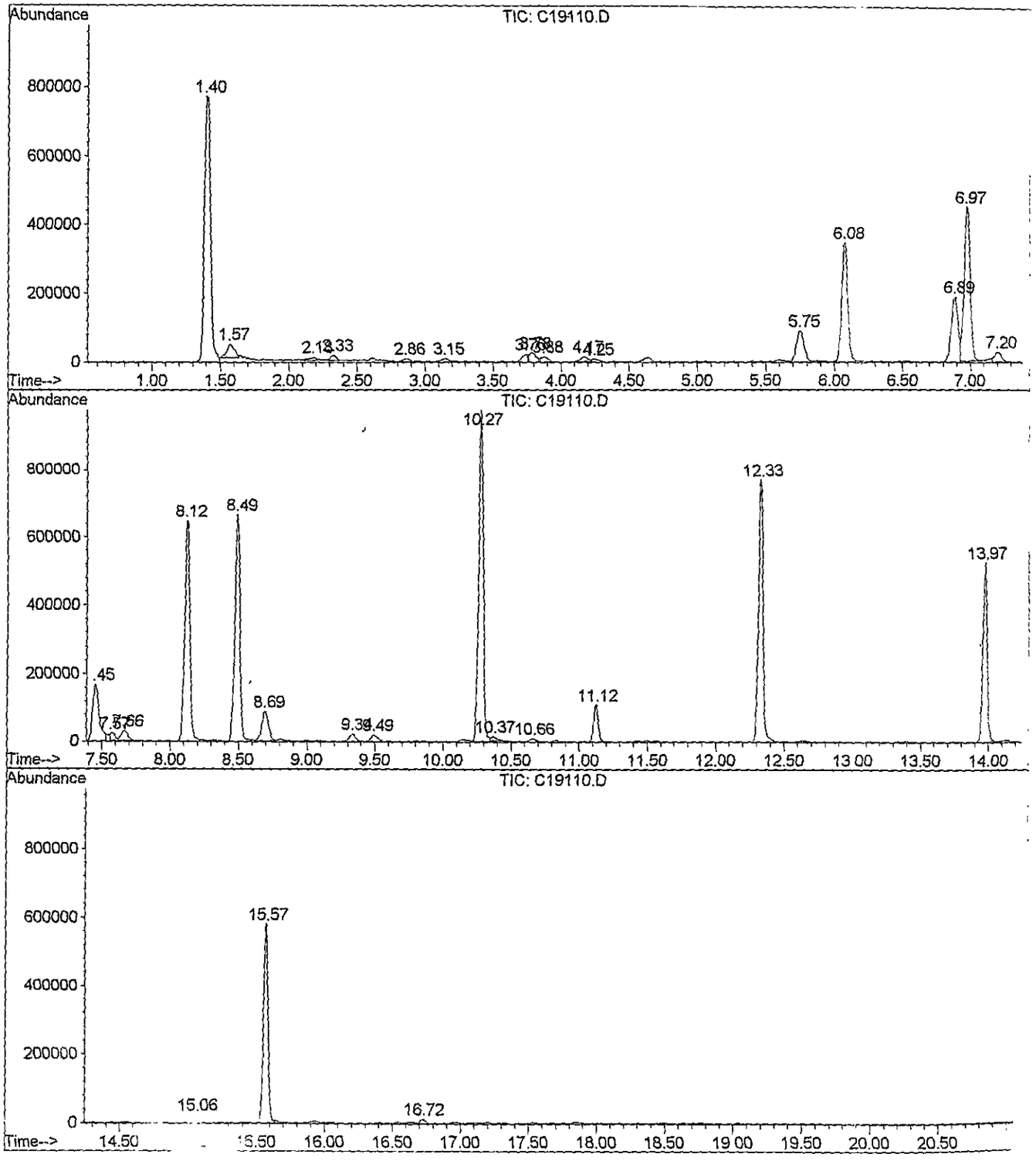
33	16.721	2687	2694	2702	rVB5	12151	30197	1.25%	0.168%

Sum of corrected areas: 18019264

C19110.D 03220125.M Thu Mar 22 16:57:15 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19110.D
Operator : JP/VRR
Acquired : 22 Mar 2001 16:32 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09839 25ml DF =1
Misc Info : 27307/C03220125
Vial Number: 7
Quant File :03220125.RES (RTE Integrator)



Thu Mar 22 16:57:17 2001 INST:V

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

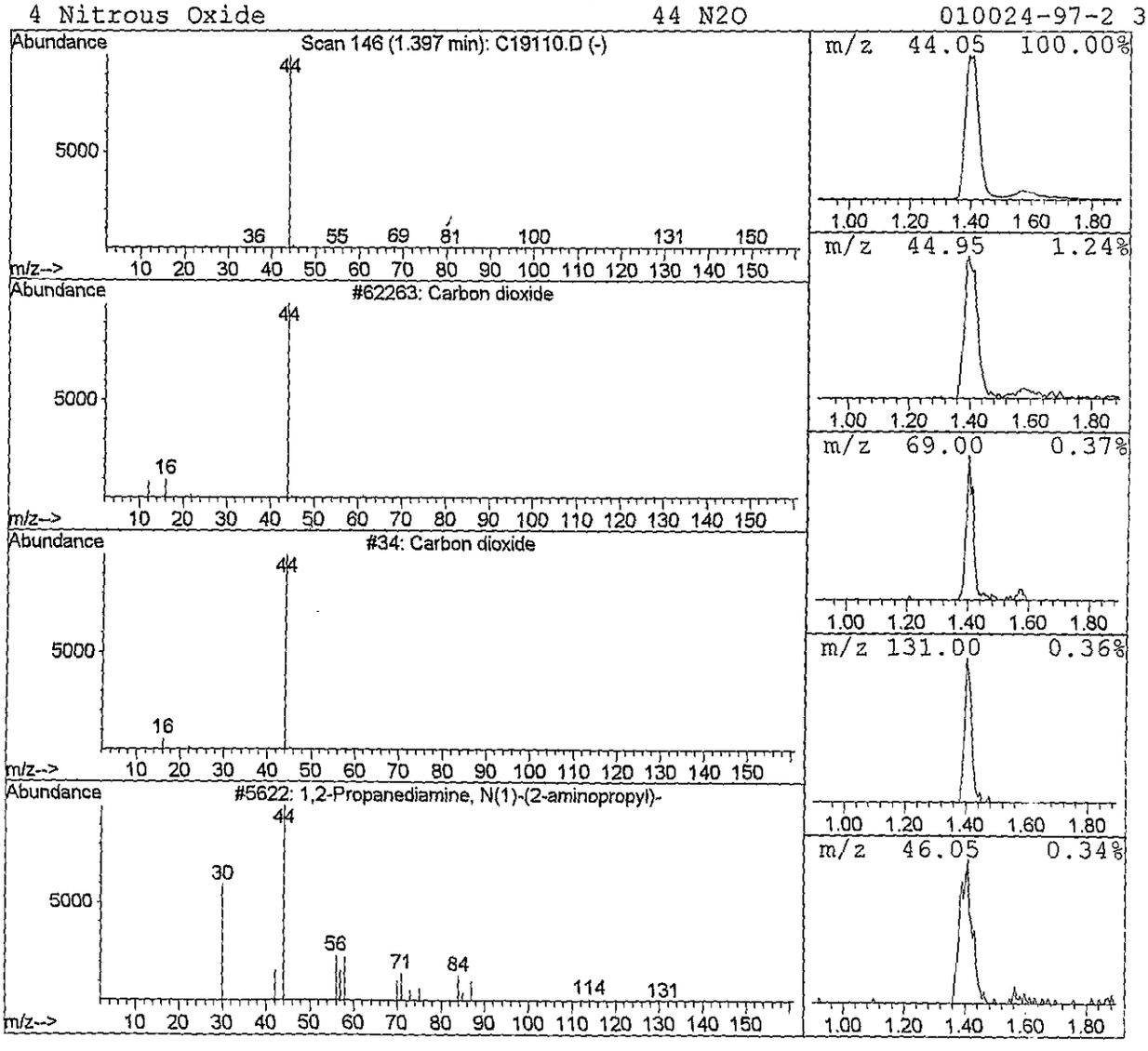
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	24163700.00 ug\L	24163701.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

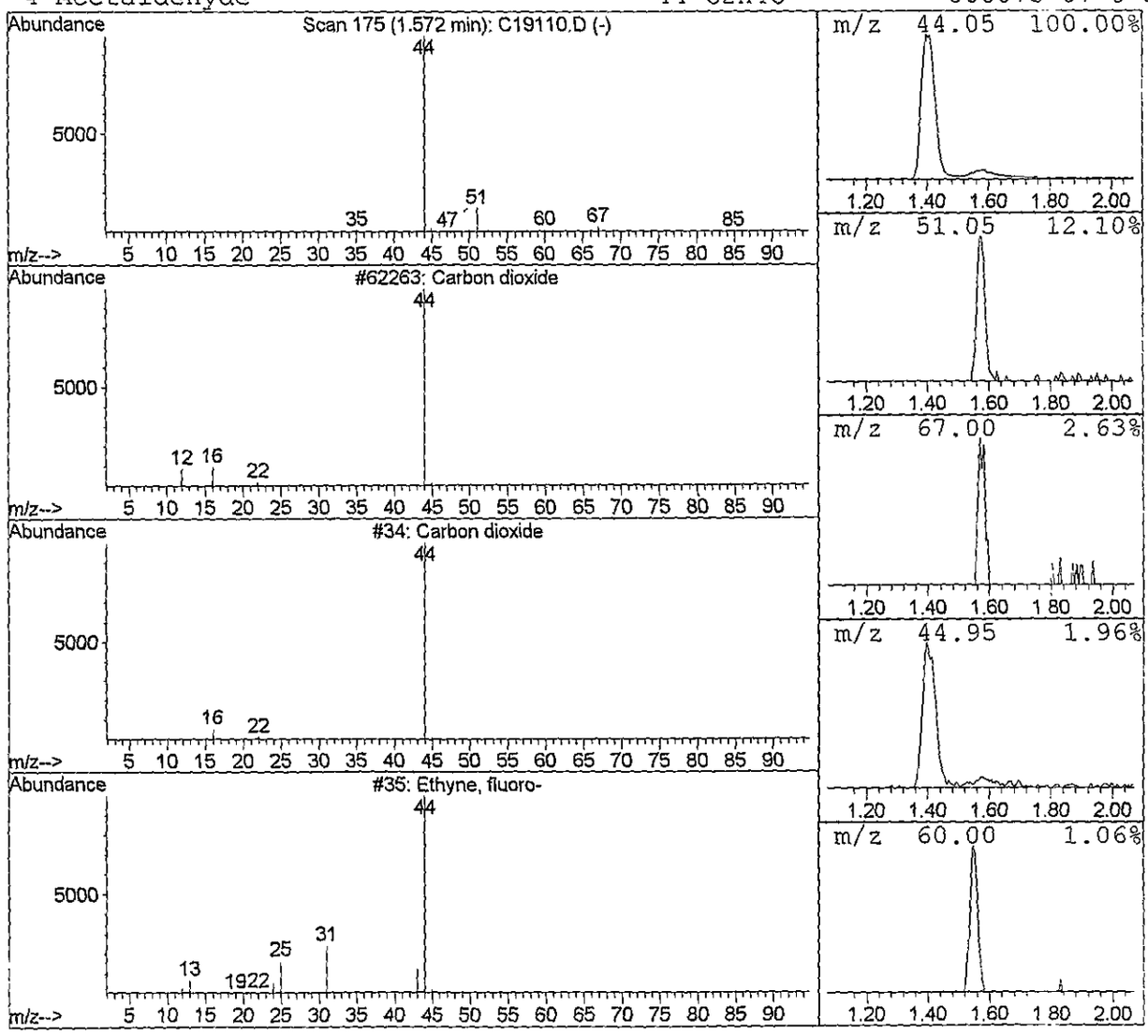
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1519040.00 ug\L	151904	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethyne, fluoro-	44	C2HF	002713-09-9	3
4	Acetaldehyde	44	C2H4O	000075-07-0	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D
Acq On : 03/22/01 16:32
Sample : AC09839 25ml DF =1
Misc : 27307/C03220125
MS Integration Params: LSCINT.P

Vial: 7
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

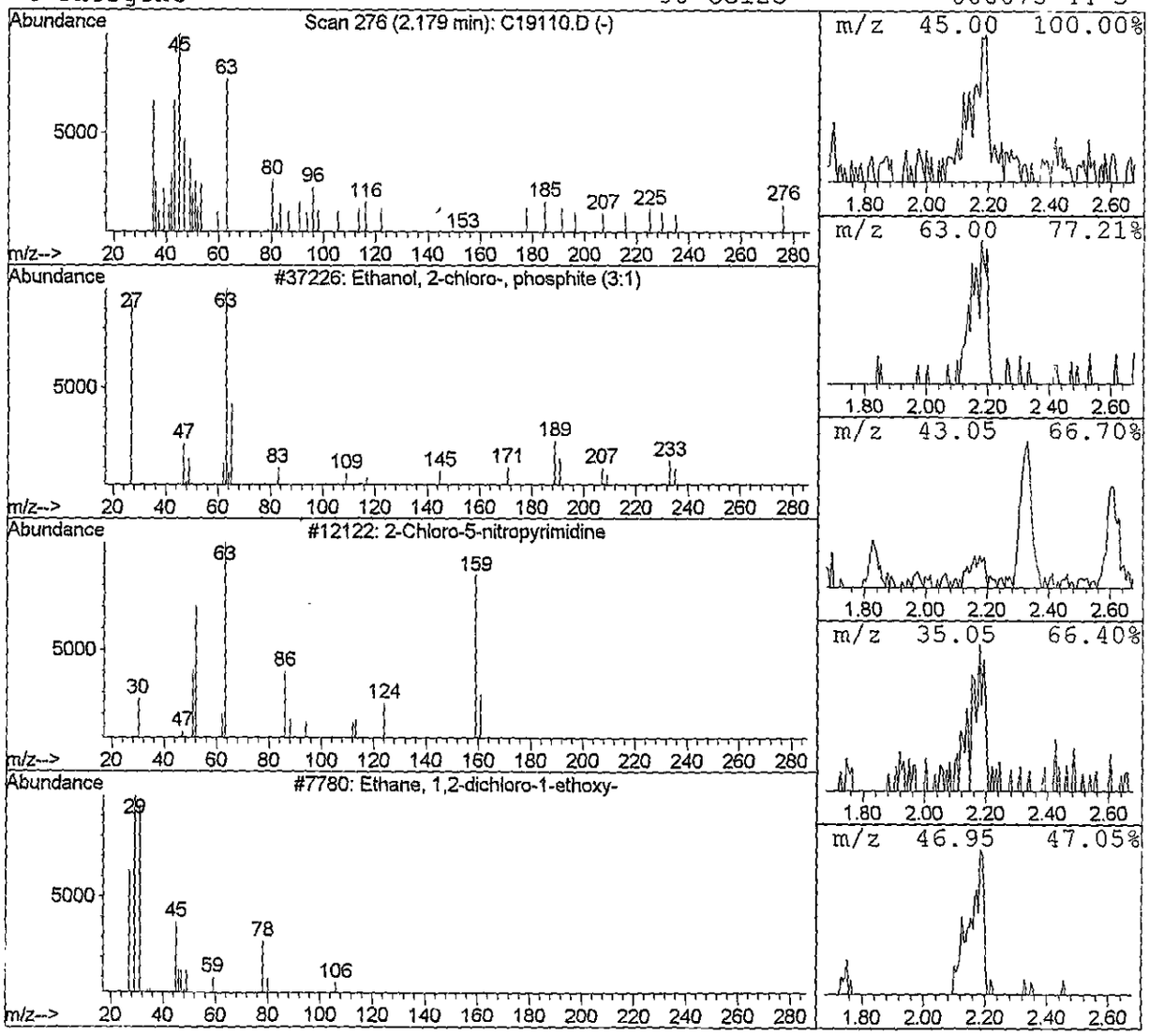
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Ethanol, 2-chloro-, phosphite Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.18	282730.00 ug\L	28273	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-chloro-, phosphite (3:1)	268	C6H12Cl3O3P	000140-08-9	17
2	2-Chloro-5-nitropyrimidine	159	C4H2ClN3O2	010320-42-0	10
3	Ethane, 1,2-dichloro-1-ethoxy-	142	C4H8Cl2O	000623-46-1	9
4	Phosgene	98	CCl2O	000075-44-5	7



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

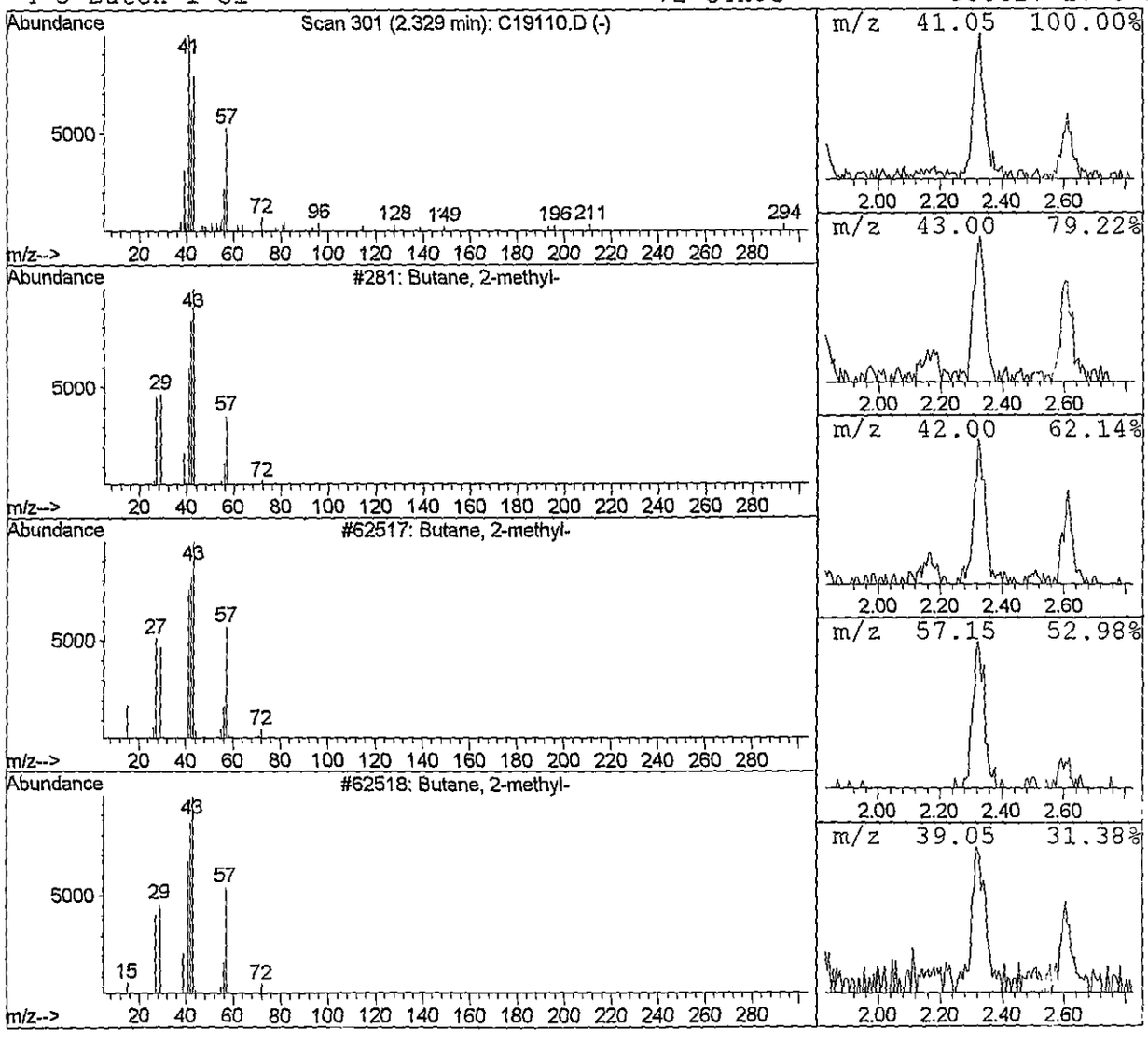
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.33	397190.00 ug\L	39719	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	43
2	Butane, 2-methyl-	72	C5H12	000078-78-4	38
3	Butane, 2-methyl-	72	C5H12	000078-78-4	37
4	3-Buten-1-ol	72	C4H8O	000627-27-0	35



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

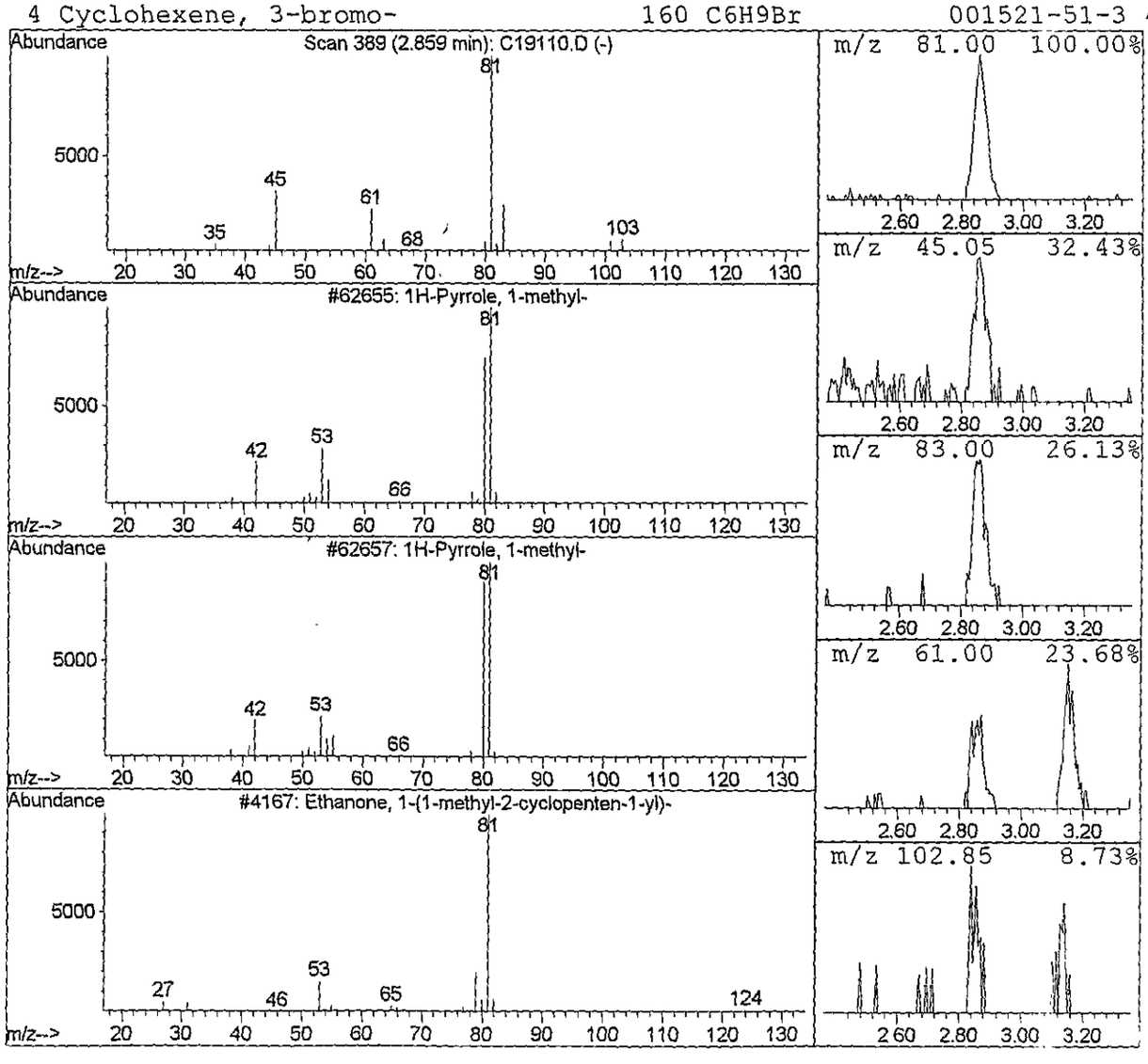
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 1H-Pyrrole, 1-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.86	258210.00 ug\L	25821	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Pyrrole, 1-methyl-	81	C5H7N	000096-54-8	7
2	1H-Pyrrole, 1-methyl-	81	C5H7N	000096-54-8	5
3	Ethanone, 1-(1-methyl-2-cyclopenten	124	C8H12O	068752-16-9	4
4	Cyclohexene, 3-bromo-	160	C6H9Br	001521-51-3	4



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

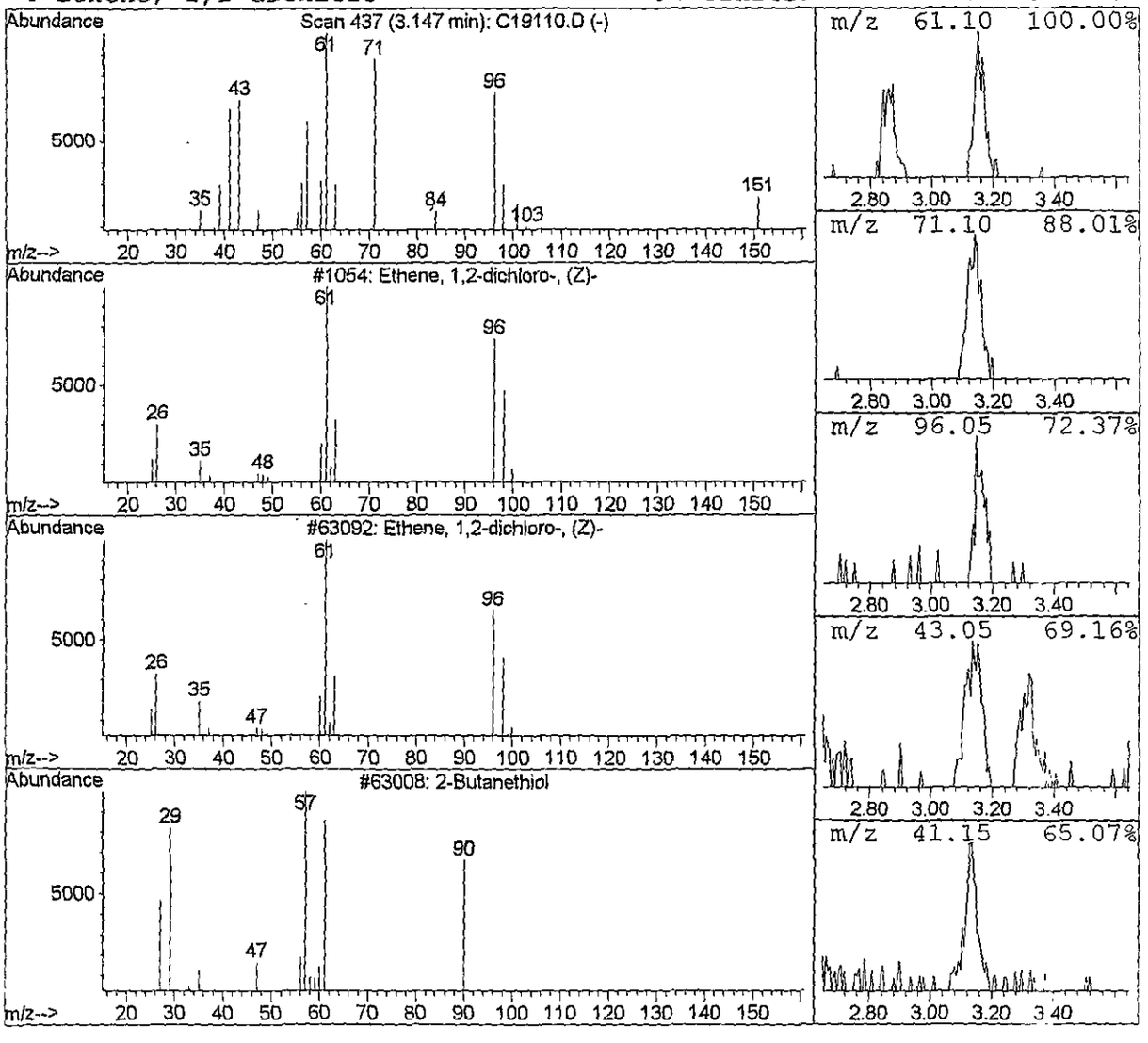
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 Ethene, 1,2-dichloro-, (Z)- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.15	312380.00 ug\L	31238	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	000156-59-2	43
2	Ethene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	000156-59-2	32
3	2-Butanethiol	90	C4H10S	000513-53-1	10
4	Ethene, 1,1-dichloro-	96	C2H2Cl2	000075-35-4	9



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

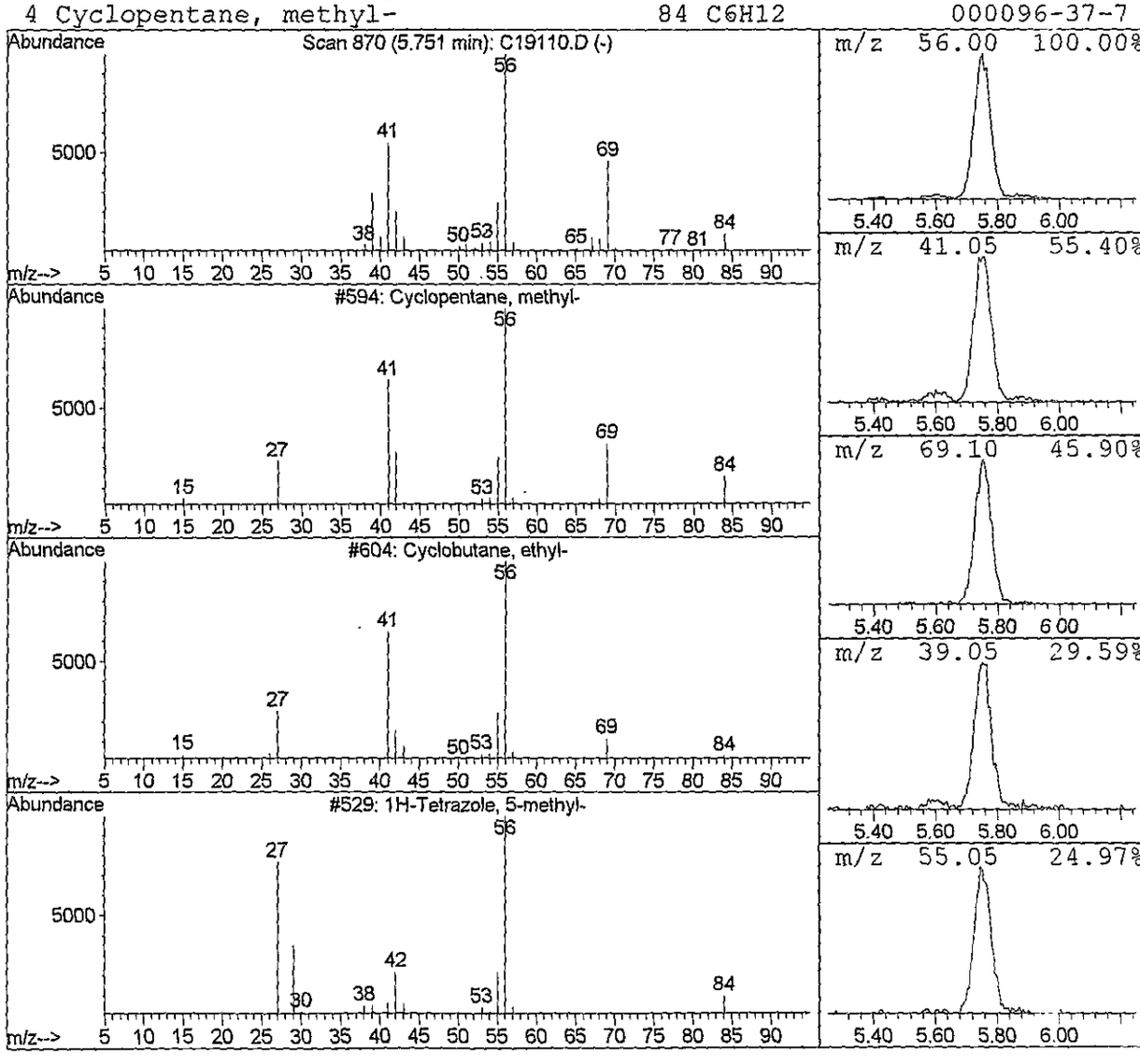
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Cyclopentane, methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.75	2.46 ug\L	345878	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	90
2	Cyclobutane, ethyl-	84	C6H12	004806-61-5	80
3	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	80
4	Cyclopentane, methyl-	84	C6H12	000096-37-7	78



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

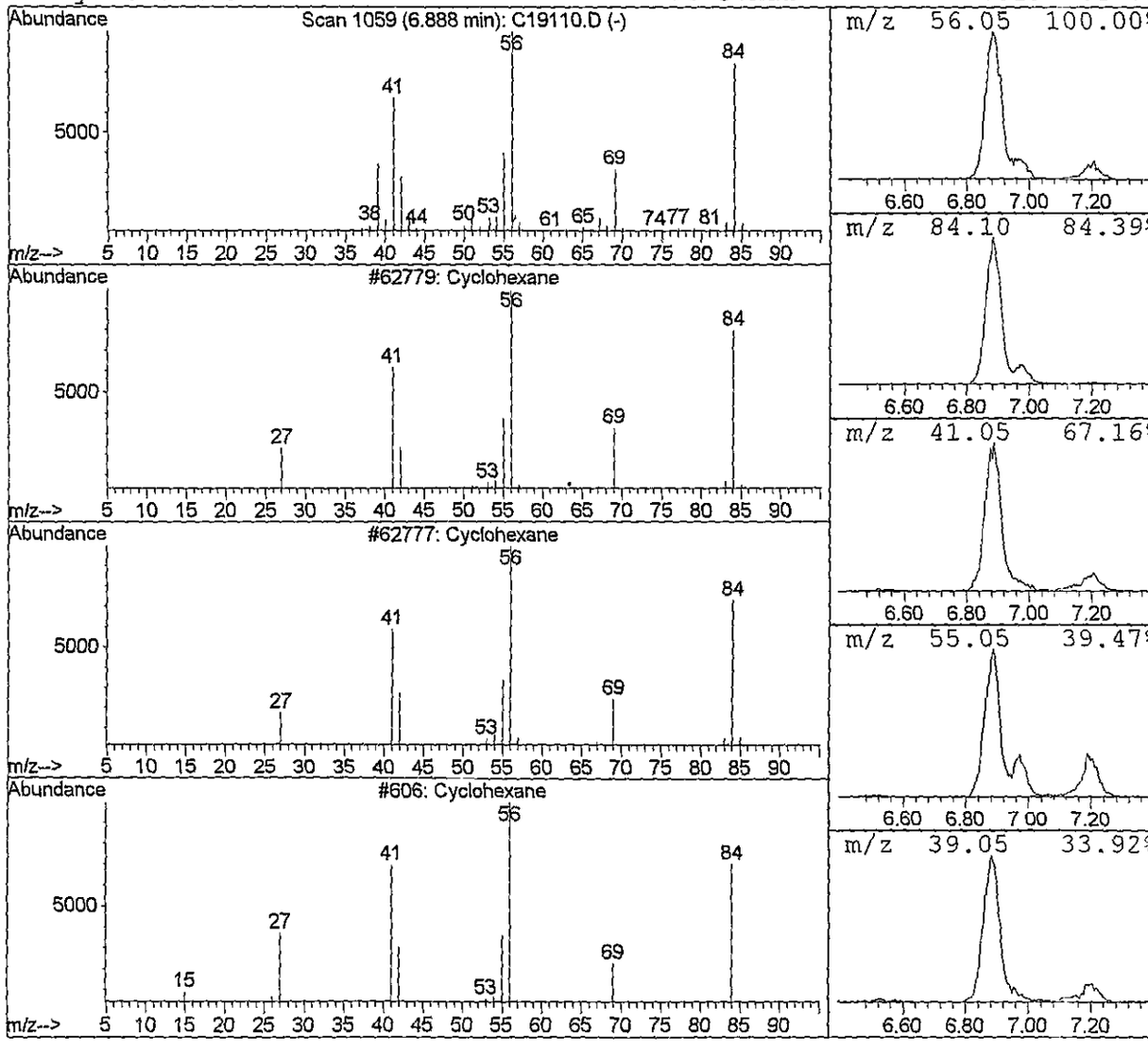
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 8 Cyclohexane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.89	4.76 ug\L	668775	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	94
2	Cyclohexane	84	C6H12	000110-82-7	91
3	Cyclohexane	84	C6H12	000110-82-7	91
4	Cyclohexane	84	C6H12	000110-82-7	91



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

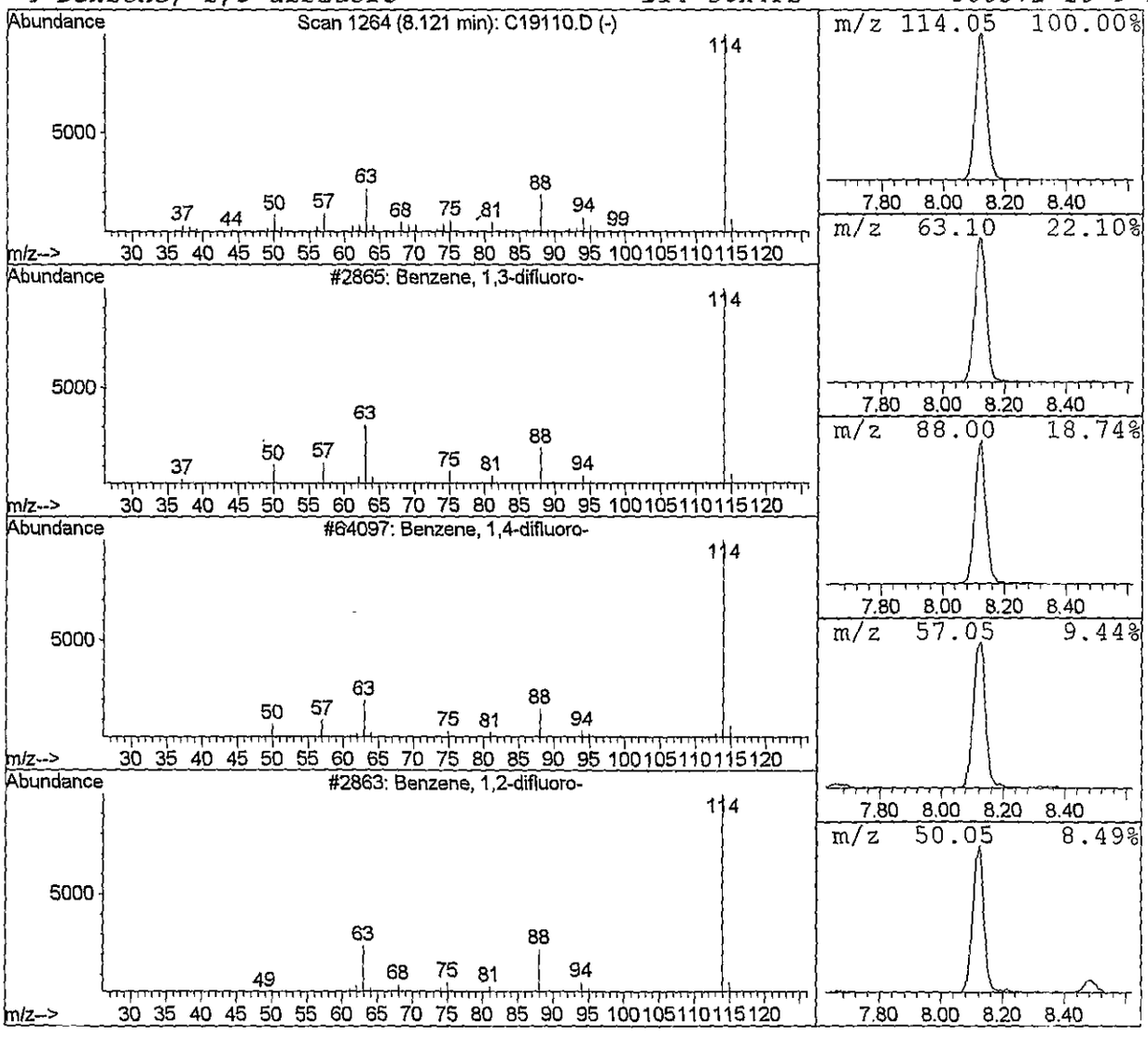
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 9 Benzene, 1,3-difluoro- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.11 ug\L	1699820	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19110.D Vial: 7
Acq On : 03/22/01 16:32 Operator: JP/VRR
Sample : AC09839 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

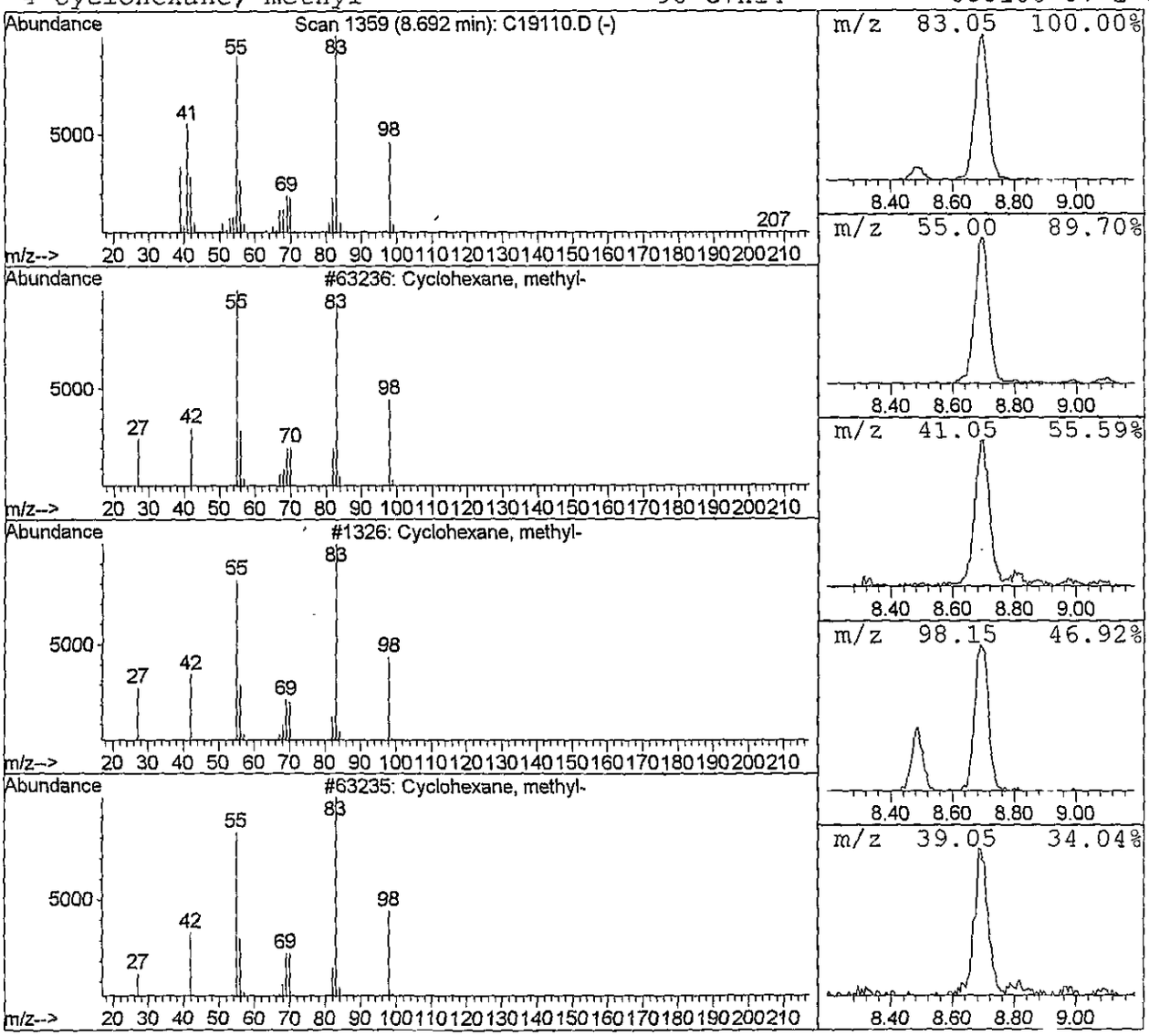
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 10 Cyclohexane, methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.69	2.05 ug\L	288170	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	90
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	87
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	86



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 16:32
Data File: C:\HPCHEM\1\DATA\032201\C19110.D
Name: AC09839 25ml DF =1
Misc: 27307/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	24163700.0	ug\L	2416370	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1519040.0	ug\L	151904	ISTD01	0.00	1	10.0
Ethanol, 2-chloro-,	2.18	282730.0	ug\L	28273	ISTD01	0.00	1	10.0
Butane, 2-methyl-	2.33	397190.0	ug\L	39719	ISTD01	0.00	1	10.0
1H-Pyrrole, 1-methyl	2.86	258210.0	ug\L	25821	ISTD01	0.00	1	10.0
Ethene, 1,2-dichloro	3.15	312380.0	ug\L	31238	ISTD01	0.00	1	10.0
Cyclopentane, methyl	5.75	2.5	ug\L	345878	ISTD02	6.98	1403730	10.0
Cyclohexane	6.89	4.8	ug\L	668775	ISTD02	6.98	1403730	10.0
Benzene, 1,3-difluor	8.12	12.1	ug\L	1699820	ISTD02	6.98	1403730	10.0
Cyclohexane, methyl-	8.69	2.1	ug\L	288170	ISTD02	6.98	1403730	10.0

C19110.D 03220125.M Thu Mar 22 16:57:31 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19120.D Vial: 7
Acq On : 03/23/01 15:54 Operator: JP/VRR
Sample : AC09840 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:11 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	535397	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	678781	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	254868	10.00	ug\L	0.00
88) 1,4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	189285	8.80	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery	=	88.00%	
46) Toluene-d8	10.27	98	1015078	9.72	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery	=	97.20%	
66) Bromofluorobenzene	13.97	95	289696	9.29	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery	=	92.90%	
Target Compounds						Qvalue
22) cis-1,2-Dichloroethene	6.08	96	131052	5.27	ug\L	83 5.3J
36) Trichloroethene	8.48	95	308743	9.98	ug\L	99 10
51) Tetrachloroethene	11.12	164	61531	2.54	ug\L	99 2.5J

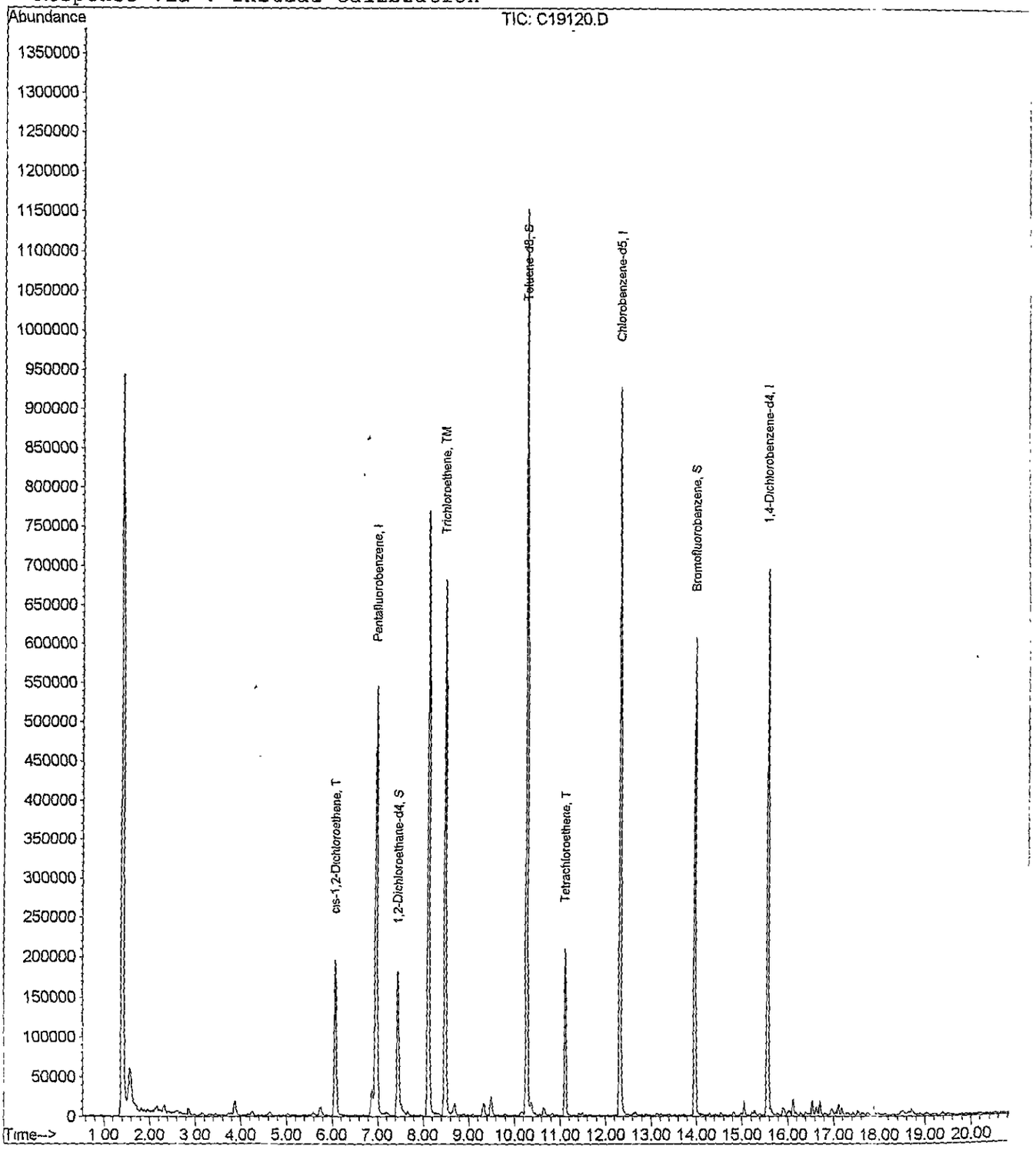
VRR
3-28-01

(#) = qualifier out of range (m) = manual integration
03230125.M Sun Mar 25 11:11:16 2001 INST:VOA-C Pag

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19120.D Vial: 7
Acq On : 03/23/01 15:54 Operator: JP/VRR
Sample : AC09840 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:11 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19120.D Vial: 7
Acq On : 03/23/01 15:54 Operator: JP/VRR
Sample : AC09840 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

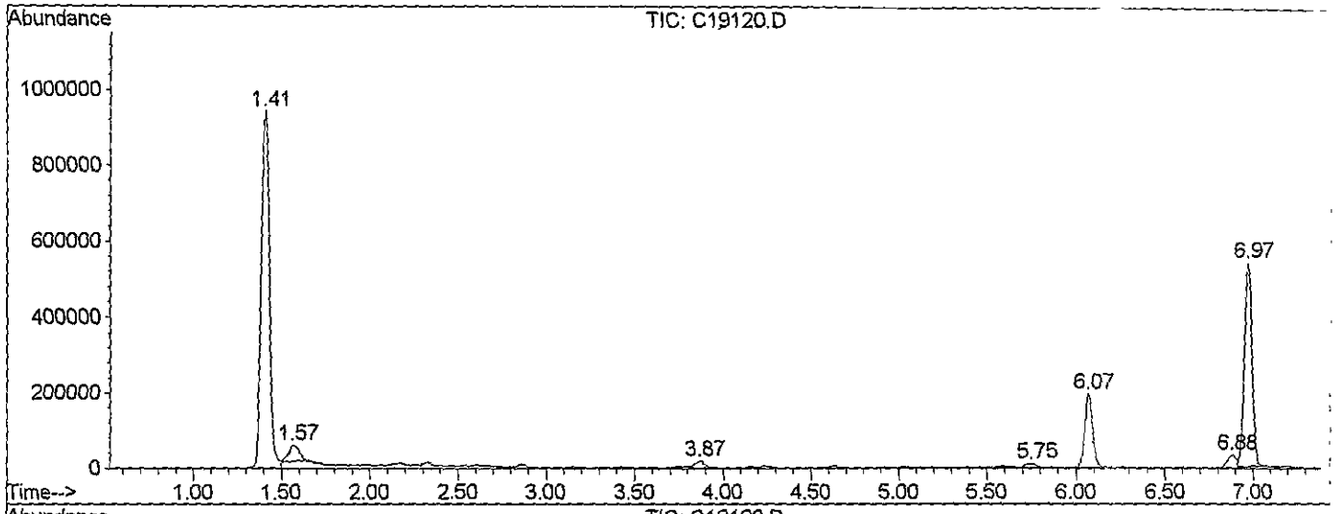
Signal : TIC

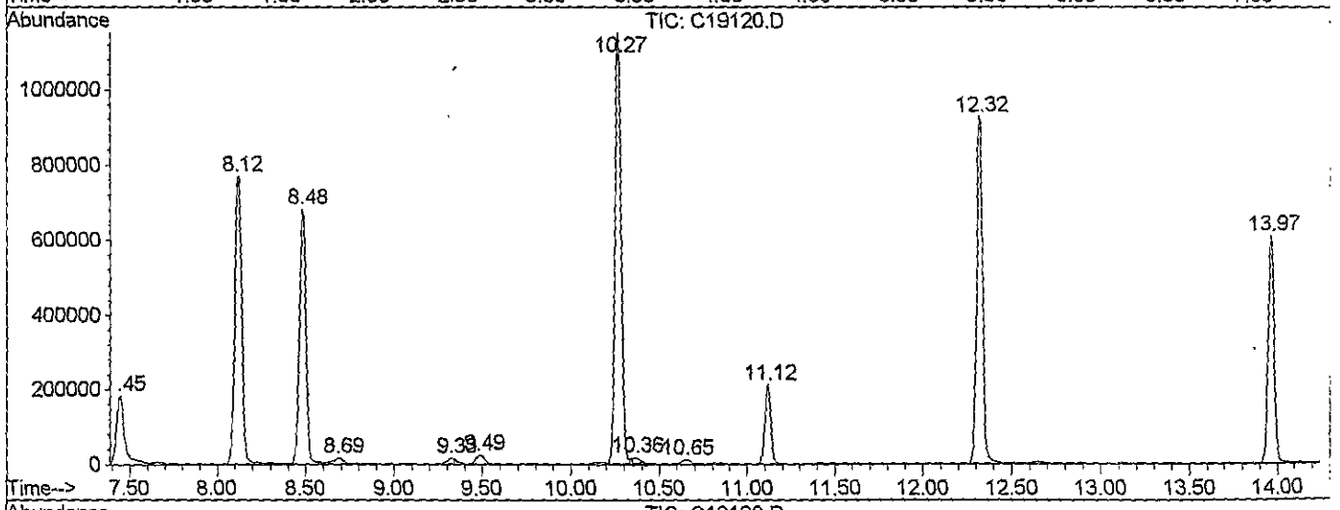
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.410	132	148	163	rBV	943696	3059109	100.00%	16.228%
2	1.566	164	174	184	rVV	41665	174781	5.71%	0.927%
3	3.869	549	557	569	rVB4	17551	61024	1.99%	0.324%
4	5.752	862	870	882	rVB7	11116	40254	1.32%	0.214%
5	6.071	910	923	938	rBV	196046	603328	19.72%	3.201%
6	6.883	1044	1058	1063	rBV4	34377	115893	3.79%	0.615%
7	6.973	1063	1073	1087	rVB	540740	1631672	53.34%	8.656%
8	7.448	1141	1152	1162	rBV	182907	546624	17.87%	2.900%
9	8.115	1251	1263	1279	rBV	768137	2043238	66.79%	10.839%
10	8.482	1313	1324	1339	rBV2	680307	1748324	57.15%	9.275%
11	8.687	1349	1358	1371	rVB5	15350	54188	1.77%	0.287%
12	9.330	1454	1465	1467	rBV4	16612	40585	1.33%	0.215%
13	9.487	1483	1491	1504	rVB4	24217	74055	2.42%	0.393%
14	10.269	1611	1621	1632	rBV	1150168	2713653	88.71%	14.396%
15	10.365	1634	1637	1648	rVB6	14822	38418	1.26%	0.204%
16	10.647	1678	1684	1694	rVB7	11185	31574	1.03%	0.167%
17	11.117	1753	1762	1779	rBV	210436	490273	16.03%	2.601%
18	12.319	1952	1962	1987	rBV	927127	2172001	71.00%	11.522%
19	13.967	2226	2236	2250	rBV	607467	1389436	45.42%	7.371%
20	15.050	2408	2416	2425	rVB3	17980	37759	1.23%	0.200%
21	15.561	2491	2501	2511	rBV2	694205	1614830	52.79%	8.567%
22	16.126	2587	2595	2600	rBV4	19654	49706	1.62%	0.264%
23	16.541	2657	2664	2672	rBV2	18919	42490	1.39%	0.225%
24	16.716	2687	2693	2702	rVB4	18808	46397	1.52%	0.246%
25	17.852	2873	2882	2883	rBV4	14971	30892	1.01%	0.164%

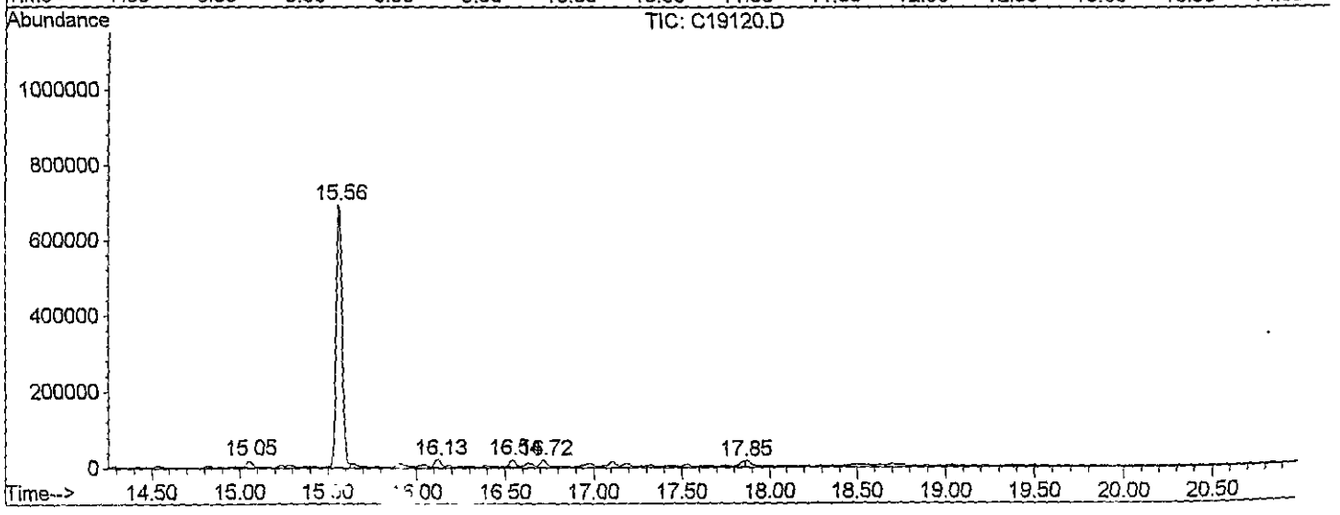
Sum of corrected areas: 18850504

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19120.D
Operator : JP/VRR
Acquired : 23 Mar 2001 15:54 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09840 25ml DF=1
Misc Info : 27307/C03220125
Vial Number: 7
Quant File :03230125.RES (RTE Integrator)







Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19120.D Vial: 7
Acq On : 03/23/01 15:54 Operator: JP/VRR
Sample : AC09840 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

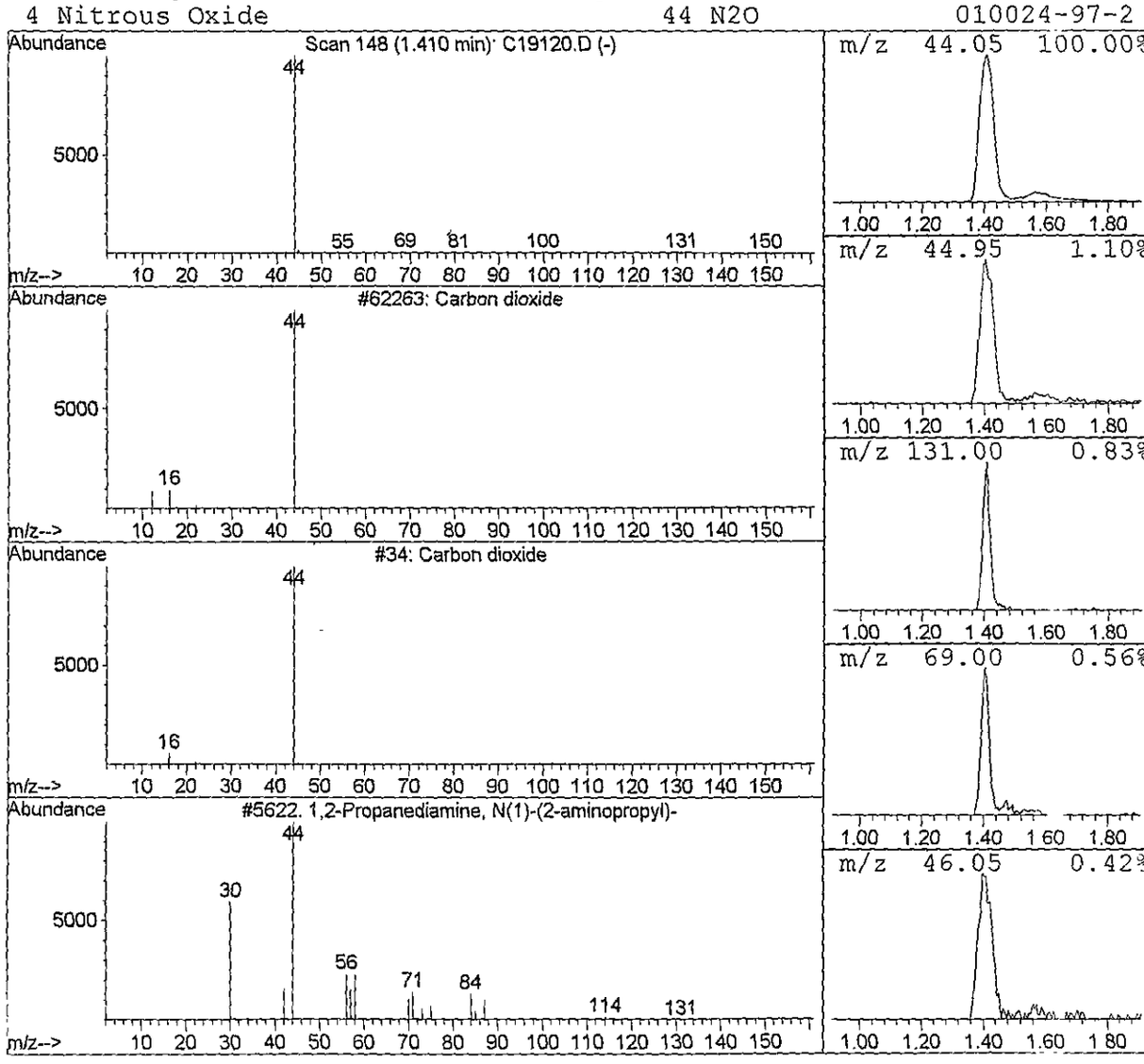
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.41	30591100.00 ug\L	30591101	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19120.D Vial: 7
Acq On : 03/23/01 15:54 Operator: JP/VRR
Sample : AC09840 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

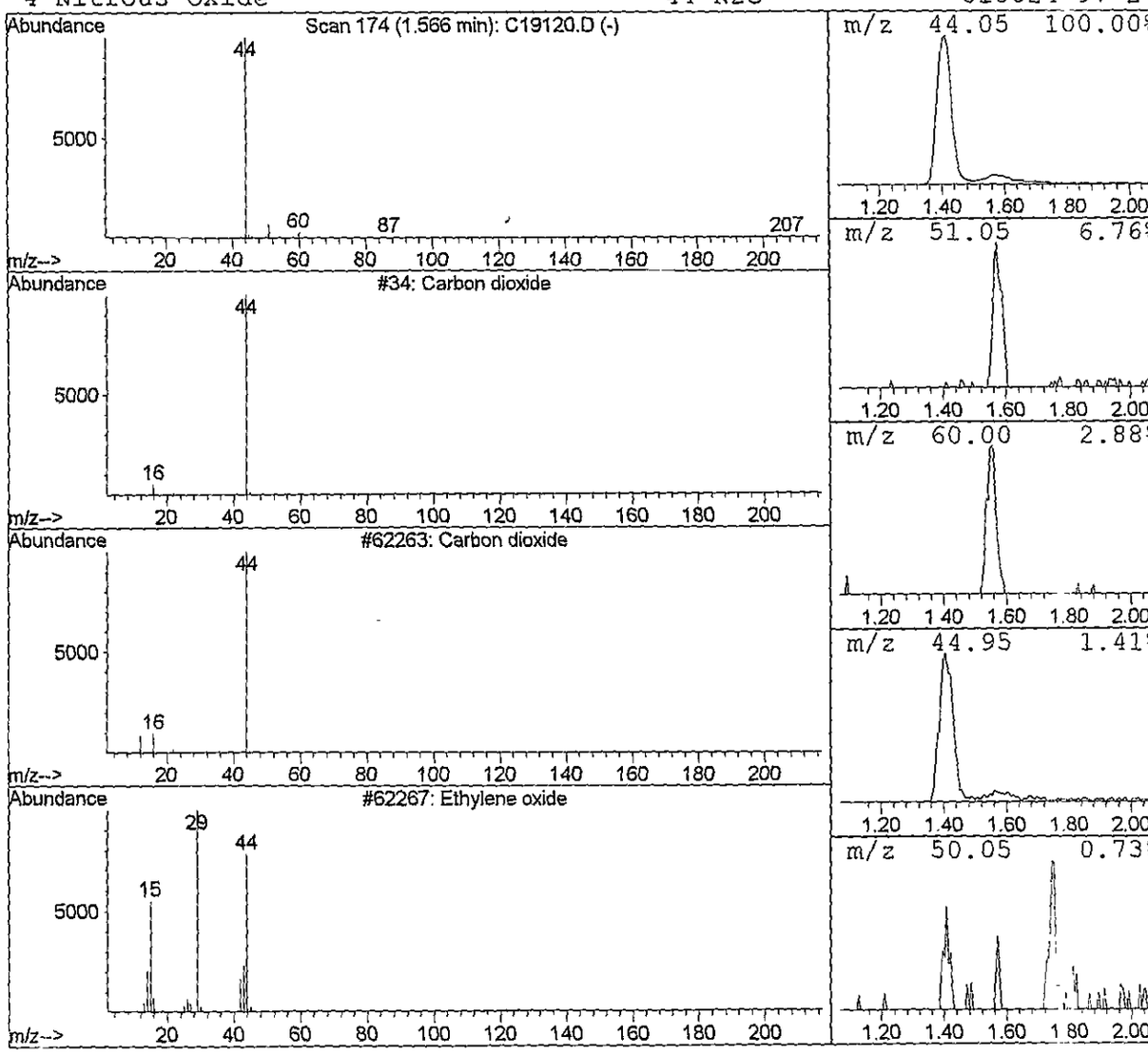
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1747810.00 ug\L	174781	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19120.D Vial: 7
Acq On : 03/23/01 15:54 Operator: JP/VRR
Sample : AC09840 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

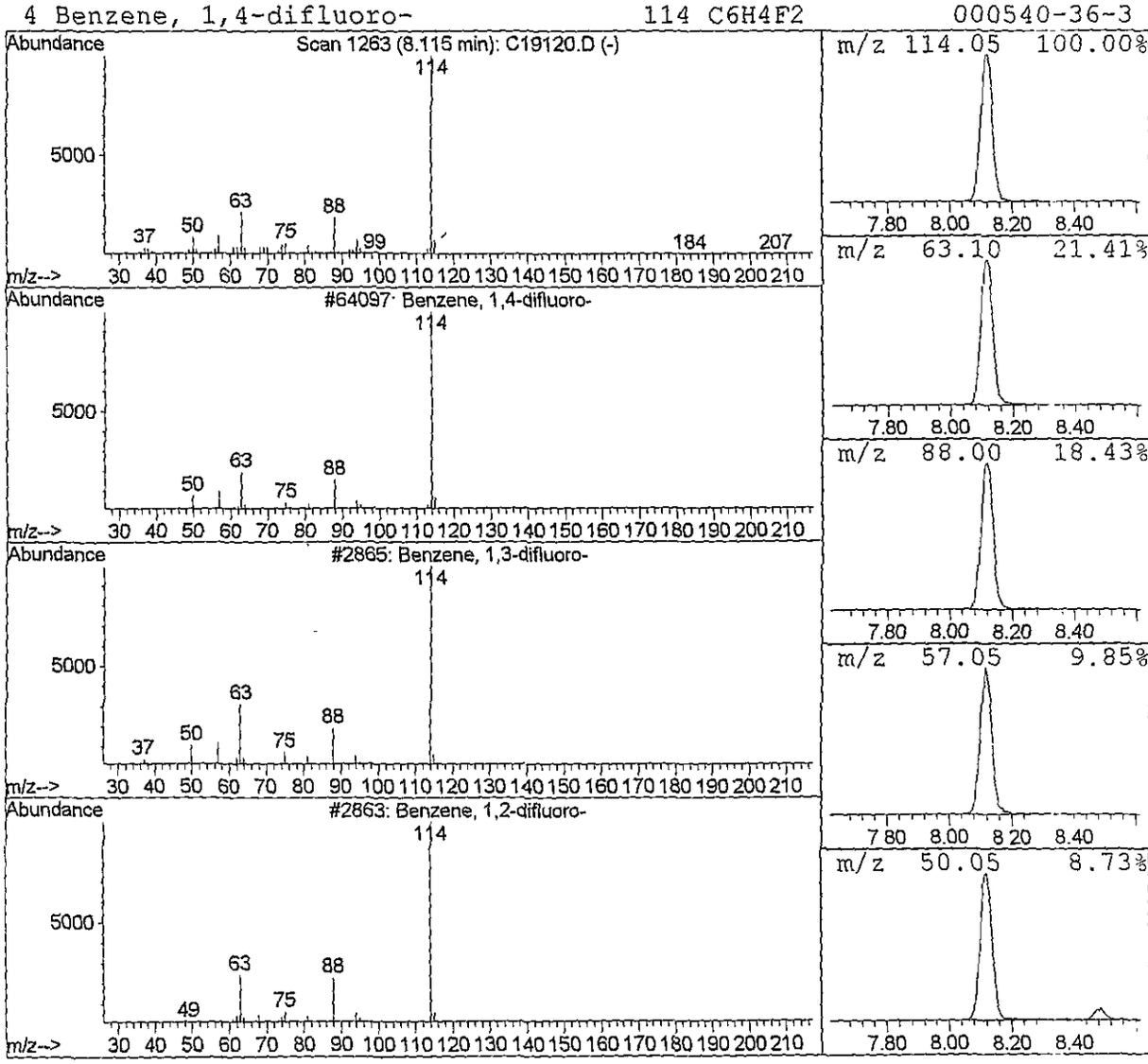
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.52 ug\L	2043240	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	91



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 15:54
Data File: C:\HPCHEM\1\DATA\032301\C19120.D
Name: AC09840 25ml DF=1
Misc: 27307/C03220125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.41	30591100.0	ug\L	3059110	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1747810.0	ug\L	174781	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	2043240	ISTD02	6.97	1631670	10.0

C19120.D 03230125.M Sun Mar 25 11:11:58 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:31 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	449284	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.33	117	569770	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	211618	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	165188	9.15 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.50%		
46) Toluene-d8	10.28	98	896814	10.23 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.30%		
66) Bromofluorobenzene	13.97	95	246075	9.50 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.00%		
Target Compounds					Qvalue
36) Trichloroethene	8.49	95	910270	35.06 ug\L	99

JS

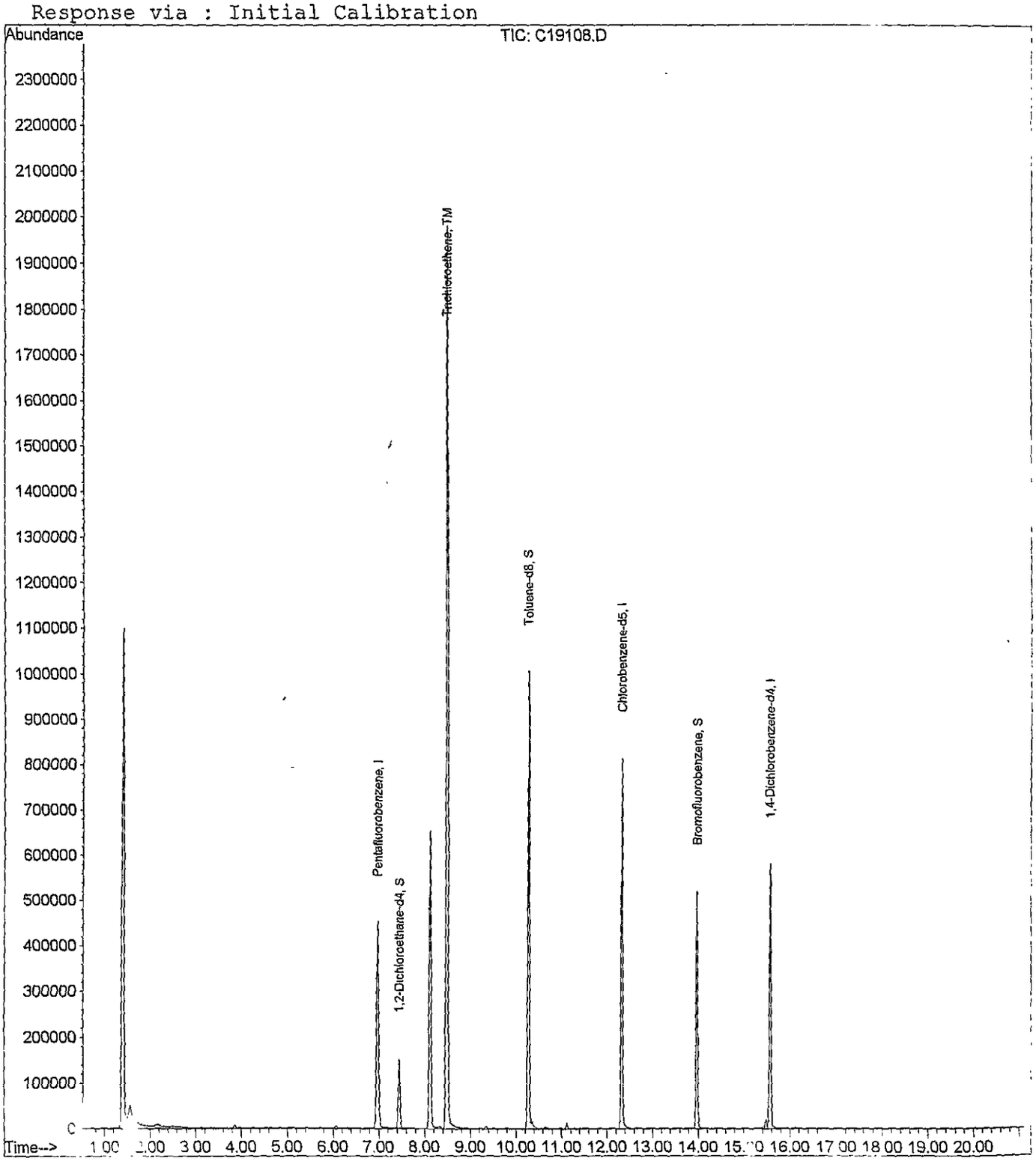
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:31 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

.ta File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
:q On : 03/22/01 15:41 Operator: JP/VRR
ımple : AC09841 25ml DF =1 Inst : VOA-C
.sc : 27307/C03220125 Multiplr: 1.00
5 Integration Params: LSCINT.P

ethod : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
itle : 8260 CALIBRATION FOR 25ML WATER
moothing : OFF Filtering: 5
ampling : 1 Min Area: 1 % of largest Peak
tart Thrs: 0.2 Max Peaks: 100
top Thrs : 0 Peak Location: TOP

:f leading or trailing edge < 100 prefer < Baseline drop else tangent >
?eak separation: 5

Signal : TIC

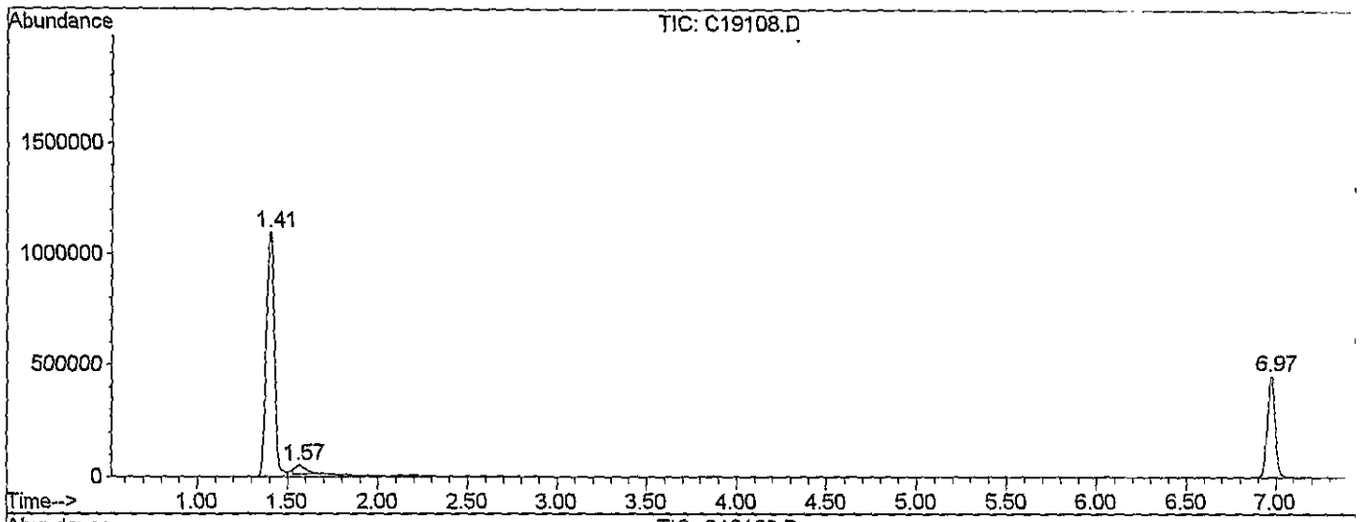
eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.411	132	148	163	rBV	1099042	3422604	66.44%	18.099%
2	1.567	168	174	189	rVB	36714	158851	3.08%	0.840%
3	6.974	1062	1073	1088	rBV	451163	1356334	26.33%	7.172%
4	7.449	1140	1152	1165	rBV2	153458	429061	8.33%	2.269%
5	8.122	1253	1264	1282	rBV	651712	1701603	33.03%	8.998%
6	8.489	1313	1325	1340	rBV	1978020	5151138	100.00%	27.240%
7	10.275	1610	1622	1633	rBV	1003100	2377775	46.16%	12.574%
8	12.326	1952	1963	1975	rBV	812449	1798046	34.91%	9.508%
9	13.974	2227	2237	2252	rBV	520308	1184602	23.00%	6.264%
10	15.568	2493	2502	2520	rVB	577899	1330253	25.82%	7.035%

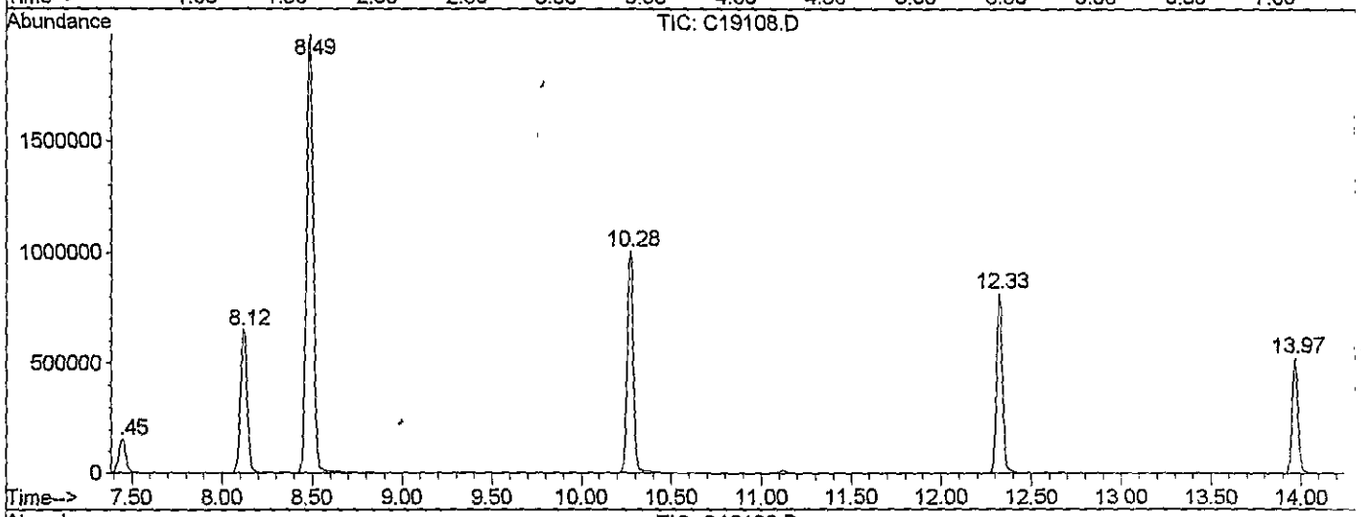
Sum of corrected areas: 18910267

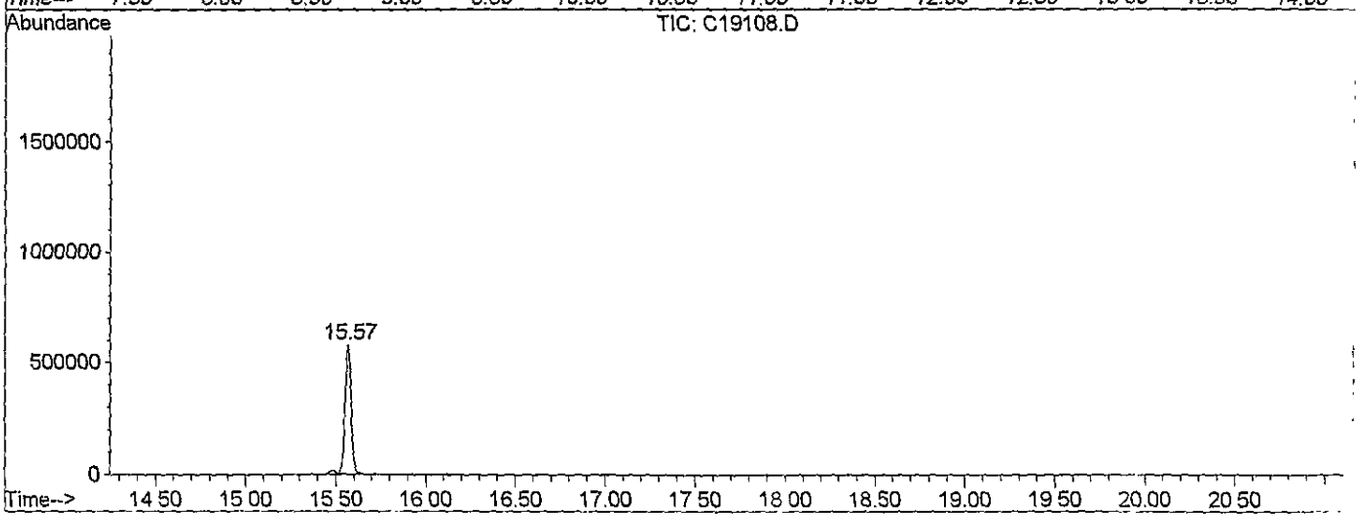
C19108.D 03220125.M Thu Mar 22 16:32:34 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19108.D
Operator : JP/VRR
Acquired : 22 Mar 2001 15:41 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09841 25ml DF =1
Misc Info : 27307/C03220125
Vial Number: 5
Quant File :03220125.RES (RTE Integrator)







C19108.D 03220125.M Thu Mar 22 [illegible] 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

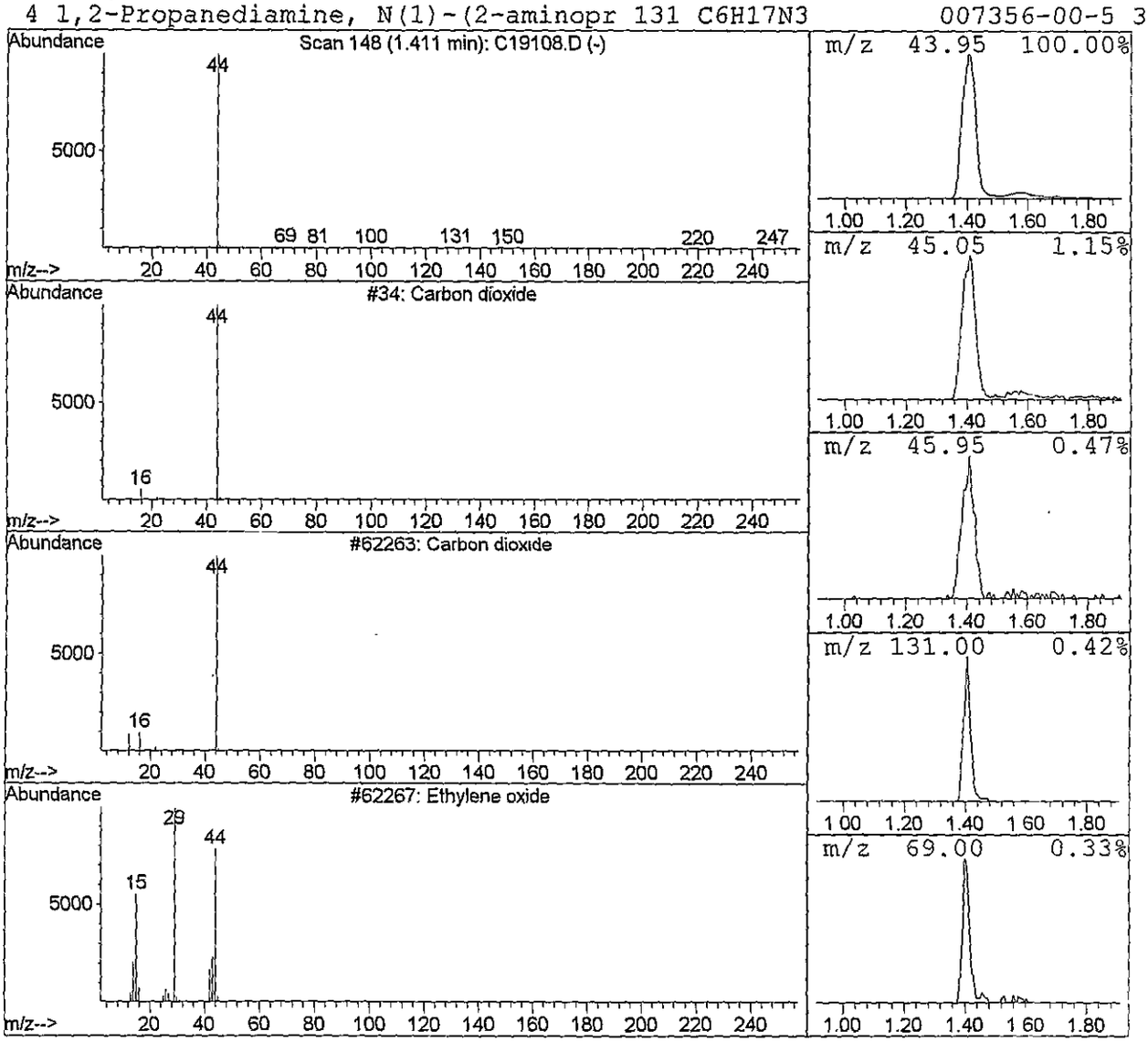
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.41	34226000.00 ug\L	34226001.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

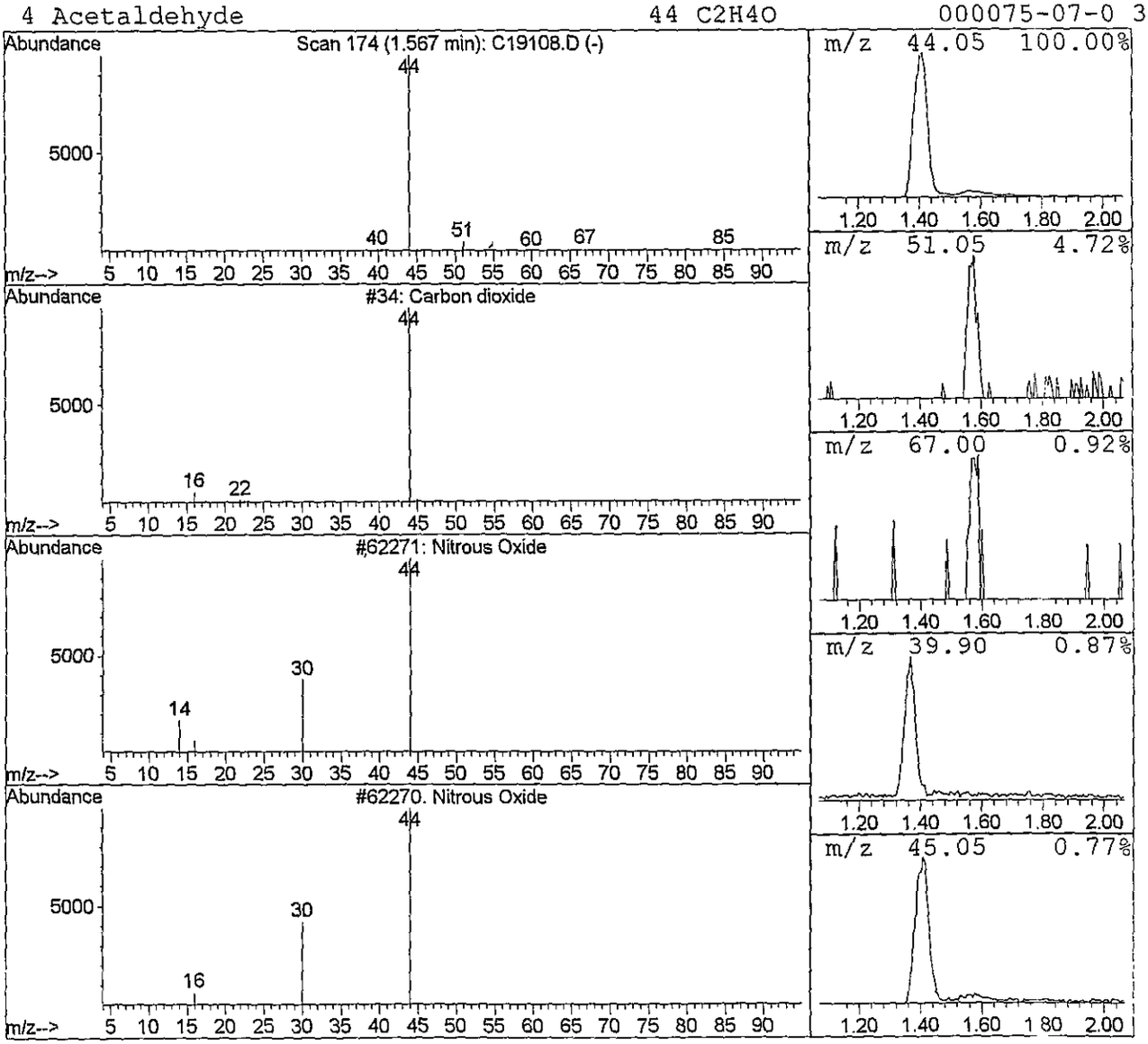
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1588510.00 ug\L	158851	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	3
2	Nitrous Oxide	44	N2O	010024-97-2	3
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Acetaldehyde	44	C2H4O	000075-07-0	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

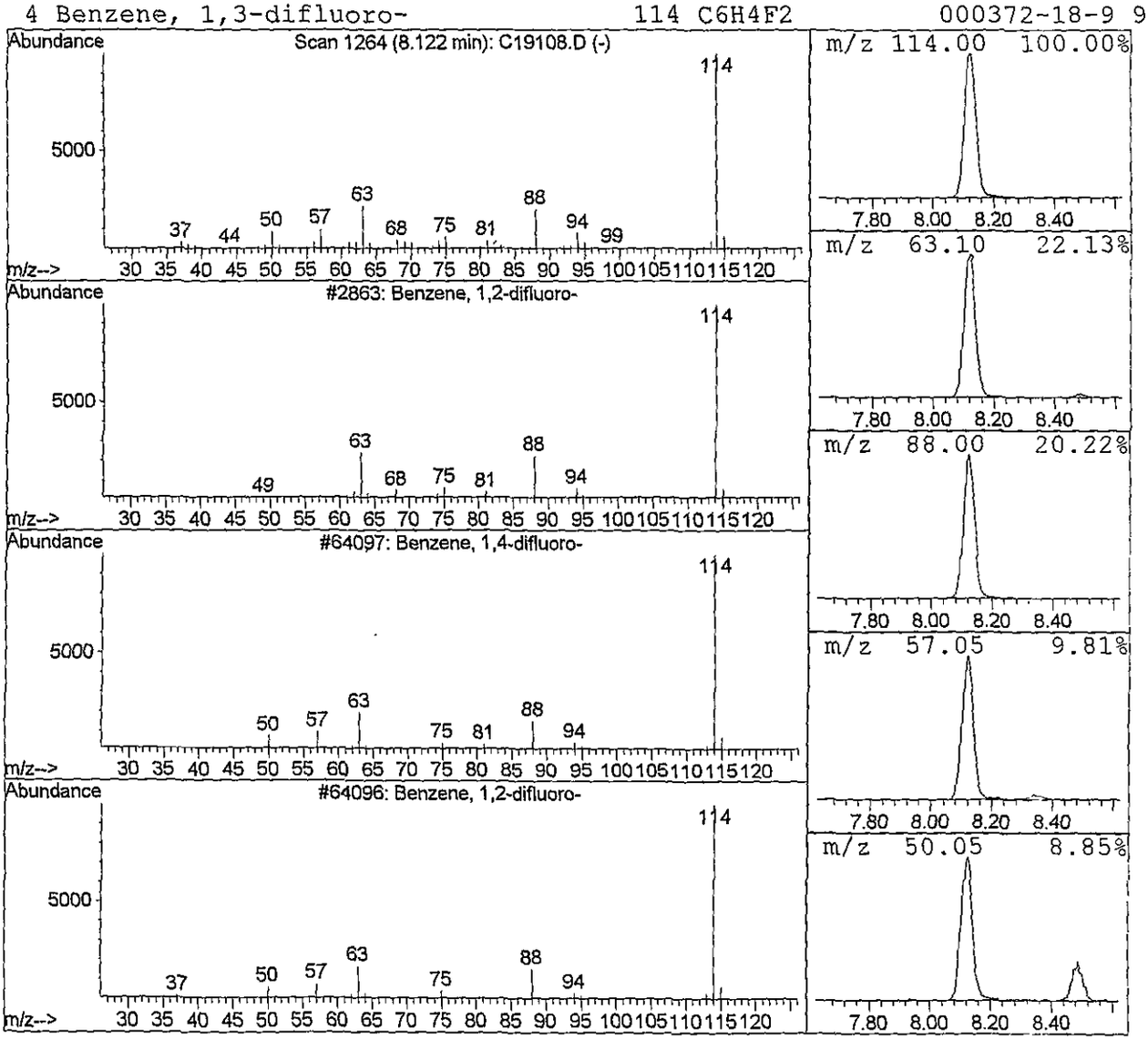
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,2-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.55 ug\L	1701600	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	93
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	90



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 15:41
Data File: C:\HPCHEM\1\DATA\032201\C19108.D
Name: AC09841 25ml DF =1
Misc: 27307/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.41	34226000.0	ug\L	3422600	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1588510.0	ug\L	158851	ISTD01	0.00	1	10.0
Benzene, 1,2-difluor	8.12	12.5	ug\L	1701600	ISTD02	6.98	1356330	10.0

C19108.D 03220125.M Thu Mar 22 16:32:40 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19105.D Vial: 2
Acq On : 03/22/01 14:24 Operator: JP/VRR
Sample : AC09841 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:57 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

File copy

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	517029	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.33	117	666657	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	243822	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	199550	9.61 ug\L	0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.10%		
46) Toluene-d8	10.27	98	1004285	9.79 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.90%		
66) Bromofluorobenzene	13.97	95	285879	9.58 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.80%		
Target Compounds					Qvalue
36) Trichloroethene	8.49	95	91907	3.08 ug\L	97

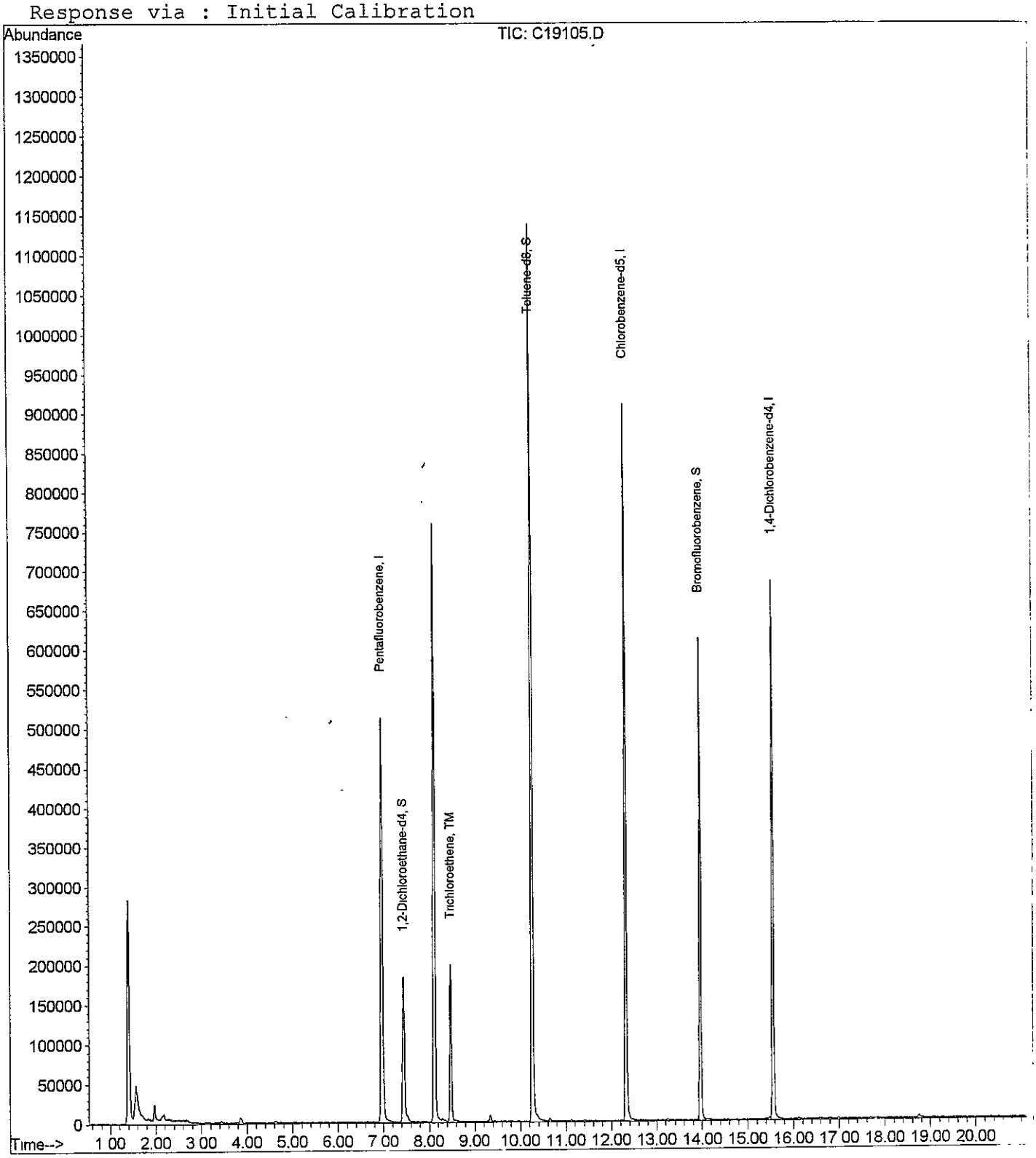
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19105.D Vial: 2
Acq On : 03/22/01 14:24 Operator: JP/VRR
Sample : AC09841 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 14:57 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:08 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	523857	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	661344	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	251461	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11

System Monitoring Compounds

32) 1,2-Dichloroethane-d4	7.44	65	191698	9.11 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.10%		
46) Toluene-d8	10.26	98	987180	9.70 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.00%		
66) Bromofluorobenzene	13.96	95	286112	9.30 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.00%		

Target Compounds

					Qvalue	
22) cis-1,2-Dichloroethene	6.06	96	283739	11.65 ug\L	87	10
36) Trichloroethene	8.48	95	359879	11.89 ug\L	99	10
51) Tetrachloroethene	11.12	164	37022	1.57 ug\L	93	1.6 J

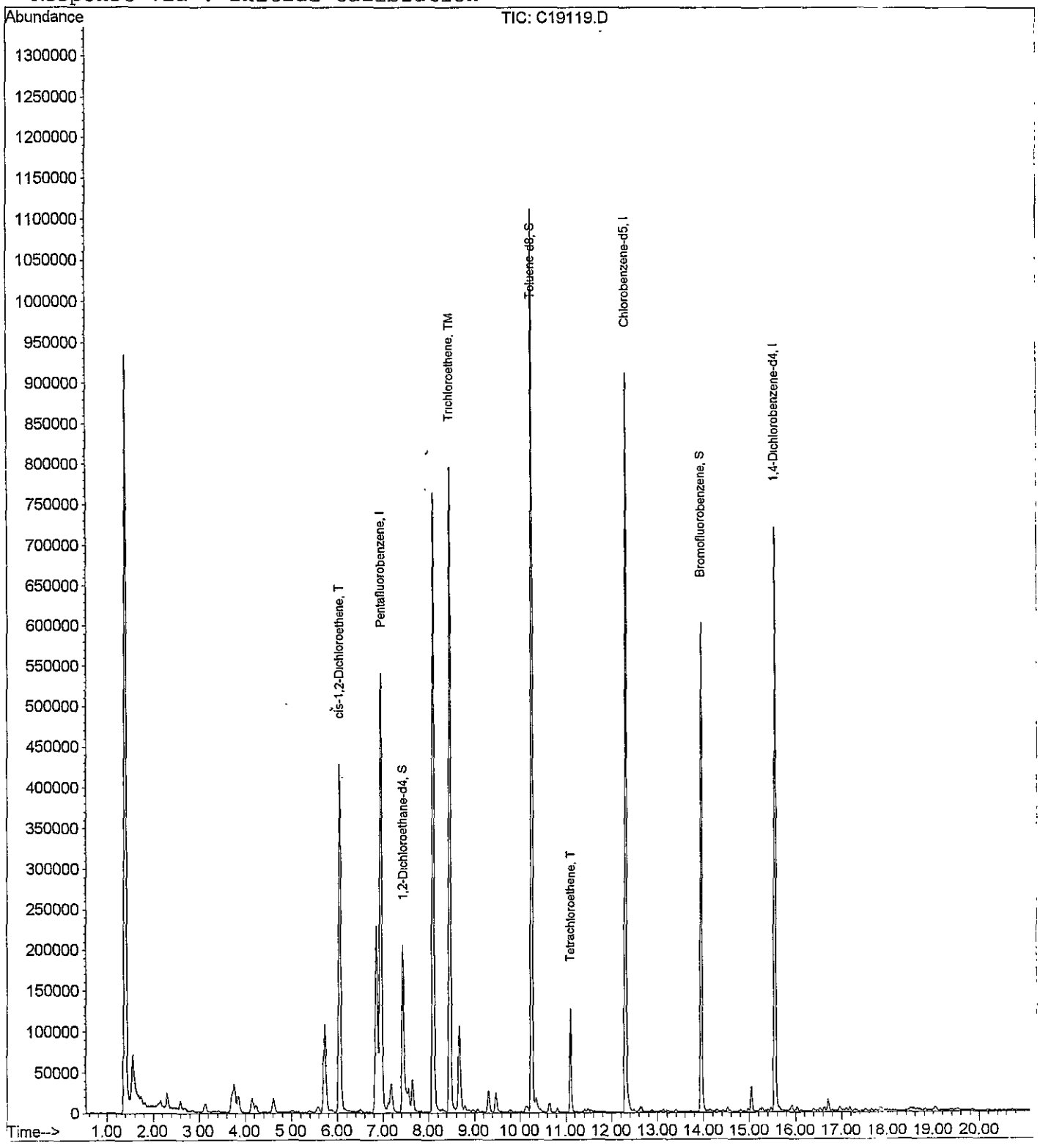
VRR
3-27-01

(#) = qualifier out of range (m) = manual integration
C19119.D 03230125.M Sun Mar [illegible] 59 2001 INST:VOA-C Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:08 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

ata File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
cq On : 03/23/01 15:28 Operator: JP/VRR
ample : AC09842 25ml DF=1 Inst : VOA-C
isc : 27307/C03220125 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

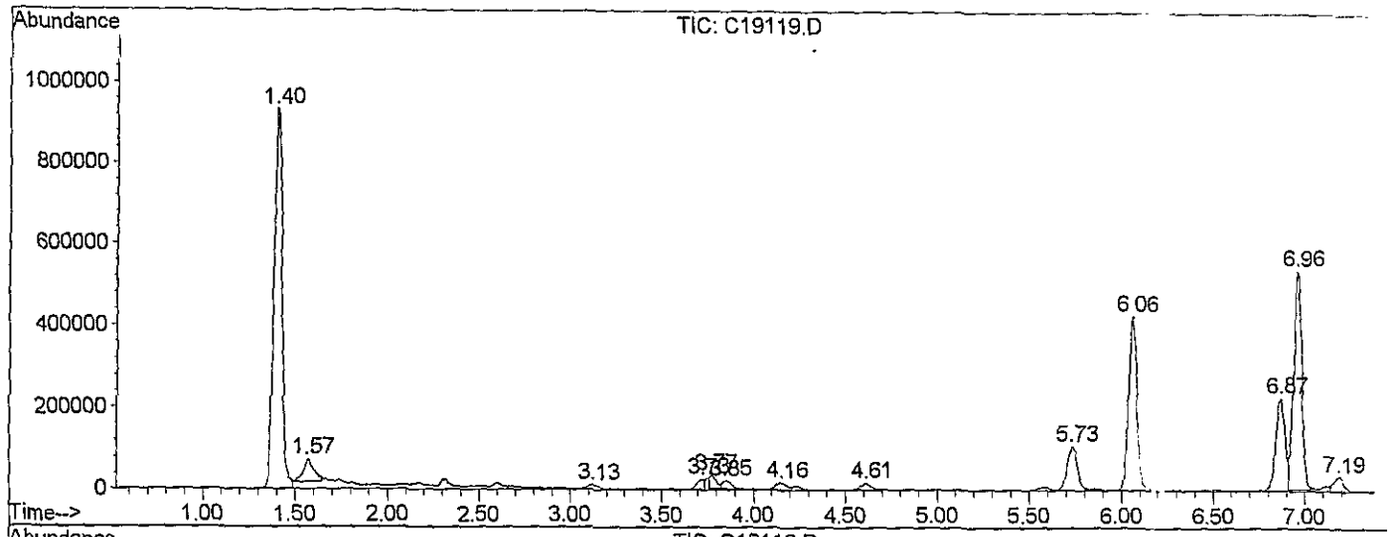
Signal : TIC

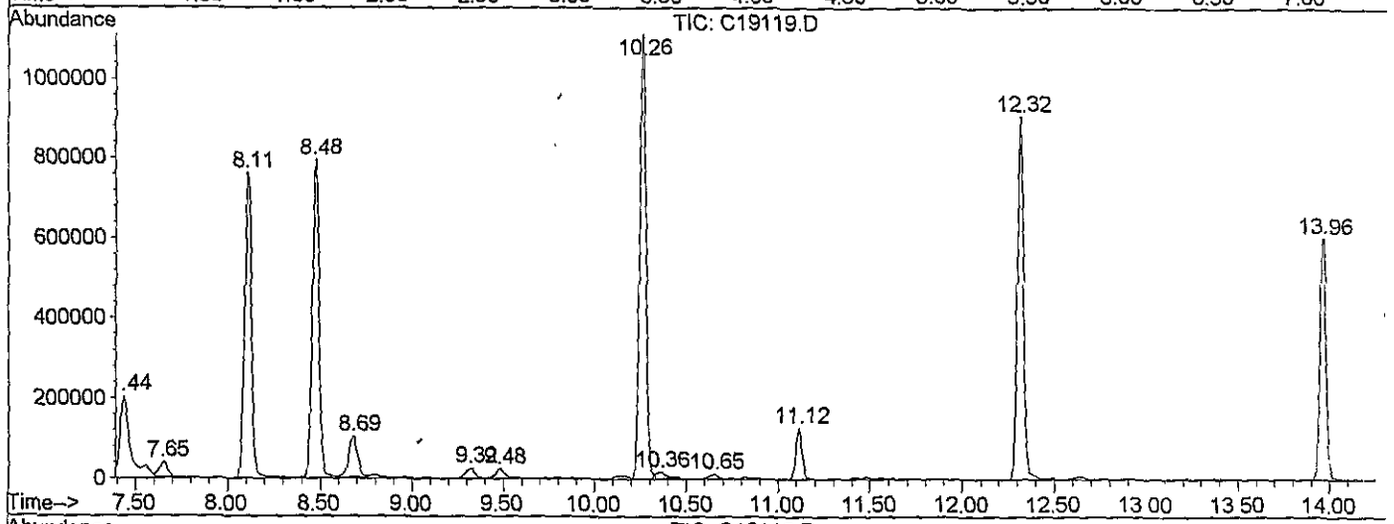
eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.403	130	146	160	rBV	933029	2929558	100.00%	13.733%
2	1.571	162	174	186	rVV	55516	214953	7.34%	1.008%
3	3.129	424	433	445	rVB9	10316	37084	1.27%	0.174%
4	3.730	520	533	534	rBV4	24004	62429	2.13%	0.293%
5	3.772	538	540	549	rVV	33850	81263	2.77%	0.381%
6	3.851	549	553	563	rVB5	18011	56510	1.93%	0.265%
7	4.157	592	604	613	rBV4	16733	65393	2.23%	0.307%
8	4.614	668	680	691	rBV5	16944	58335	1.99%	0.273%
9	5.733	851	866	880	rBV3	106828	405766	13.85%	1.902%
10	6.058	905	920	937	rBV	426352	1334458	45.55%	6.256%
11	6.870	1038	1055	1062	rBV2	228154	807570	27.57%	3.786%
12	6.960	1062	1070	1085	rVB	535910	1642880	56.08%	7.702%
13	7.188	1100	1108	1120	rVB5	33910	117900	4.02%	0.553%
14	7.441	1137	1150	1165	rBV	204142	711342	24.28%	3.335%
15	7.652	1177	1185	1195	rVB3	37577	112923	3.85%	0.529%
16	8.109	1251	1261	1279	rBV	761454	1982078	67.66%	9.292%
17	8.476	1311	1322	1336	rBV2	794209	2040177	69.64%	9.564%
18	8.686	1341	1357	1369	rVV3	103259	344347	11.75%	1.614%
19	9.323	1450	1463	1477	rBV6	26331	86604	2.96%	0.406%
20	9.480	1479	1489	1499	rBV3	23797	72992	2.49%	0.342%
21	10.262	1609	1619	1629	rBV	1109830	2612994	89.19%	12.249%
22	10.358	1631	1635	1647	rVB6	15018	45291	1.55%	0.212%
23	10.653	1676	1684	1691	rVB7	10999	30551	1.04%	0.143%
24	11.116	1750	1761	1771	rBV2	127826	289799	9.89%	1.359%
25	12.319	1950	1961	1982	rBV	910164	2113184	72.13%	9.906%
26	13.960	2225	2234	2251	rBV	600908	1372389	46.85%	6.433%
27	15.049	2409	2415	2423	rVB	30032	64802	2.21%	0.304%
28	15.560	2490	2500	2513	rBV	717857	1603336	54.73%	7.516%
29	16.715	2686	2692	2701	rVB5	14315	35024	1.20%	0.164%

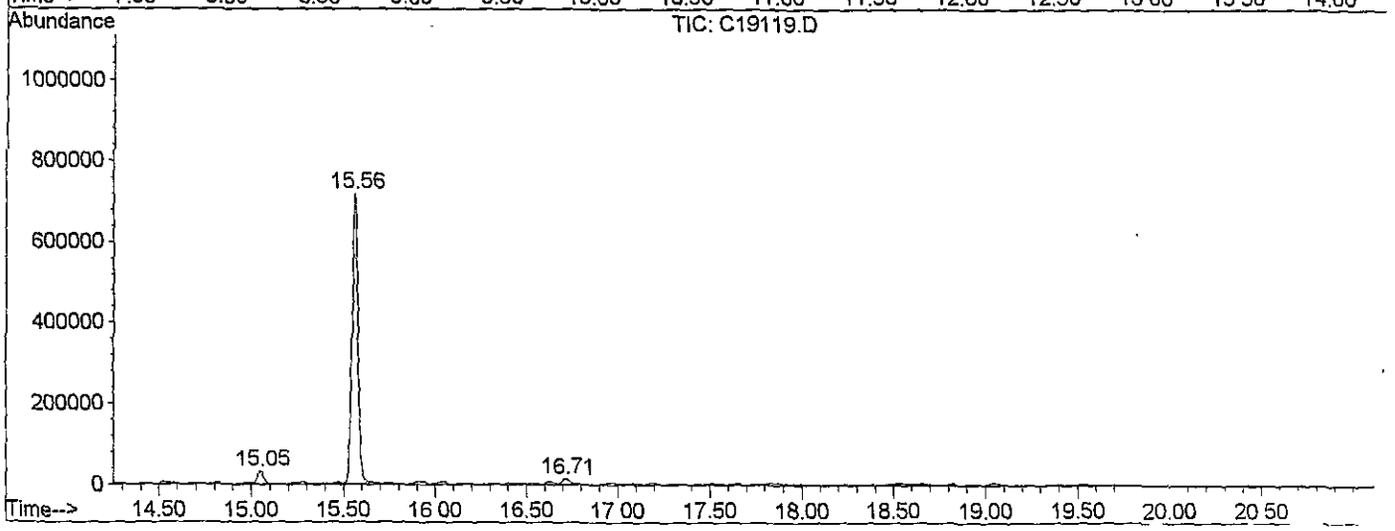
Sum of corrected areas: 21331932

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19119.D
Operator : JP/VRR
Acquired : 23 Mar 2001 15:28 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09842 25ml DF=1
Misc Info : 27307/C03220125
Vial Number: 6
Quant File :03230125.RES (RTE Integrator)







C19119.D 03230125.M Sun Mar 25 11: 9:34 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

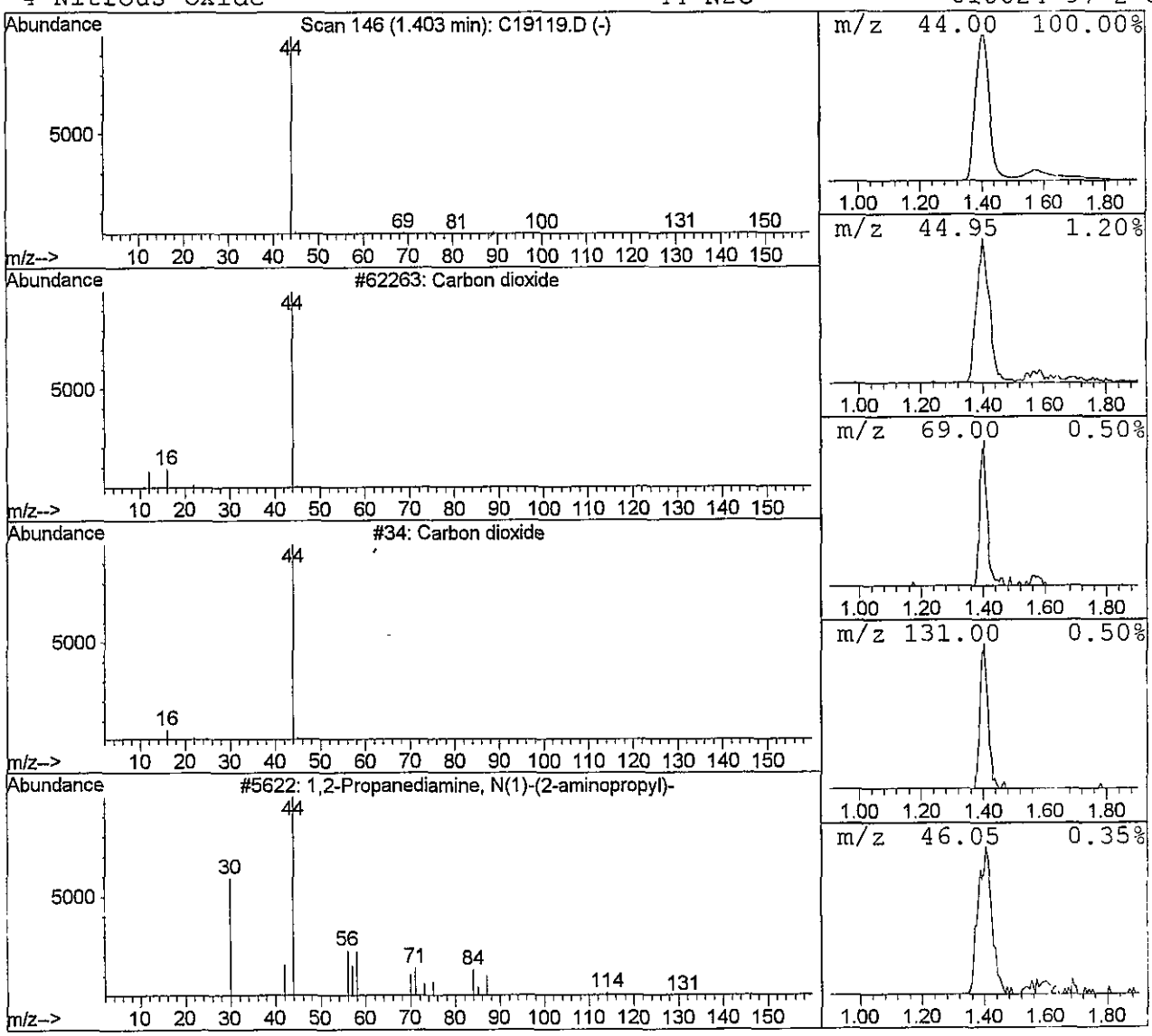
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	29295600.00 ug\L	29295601.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

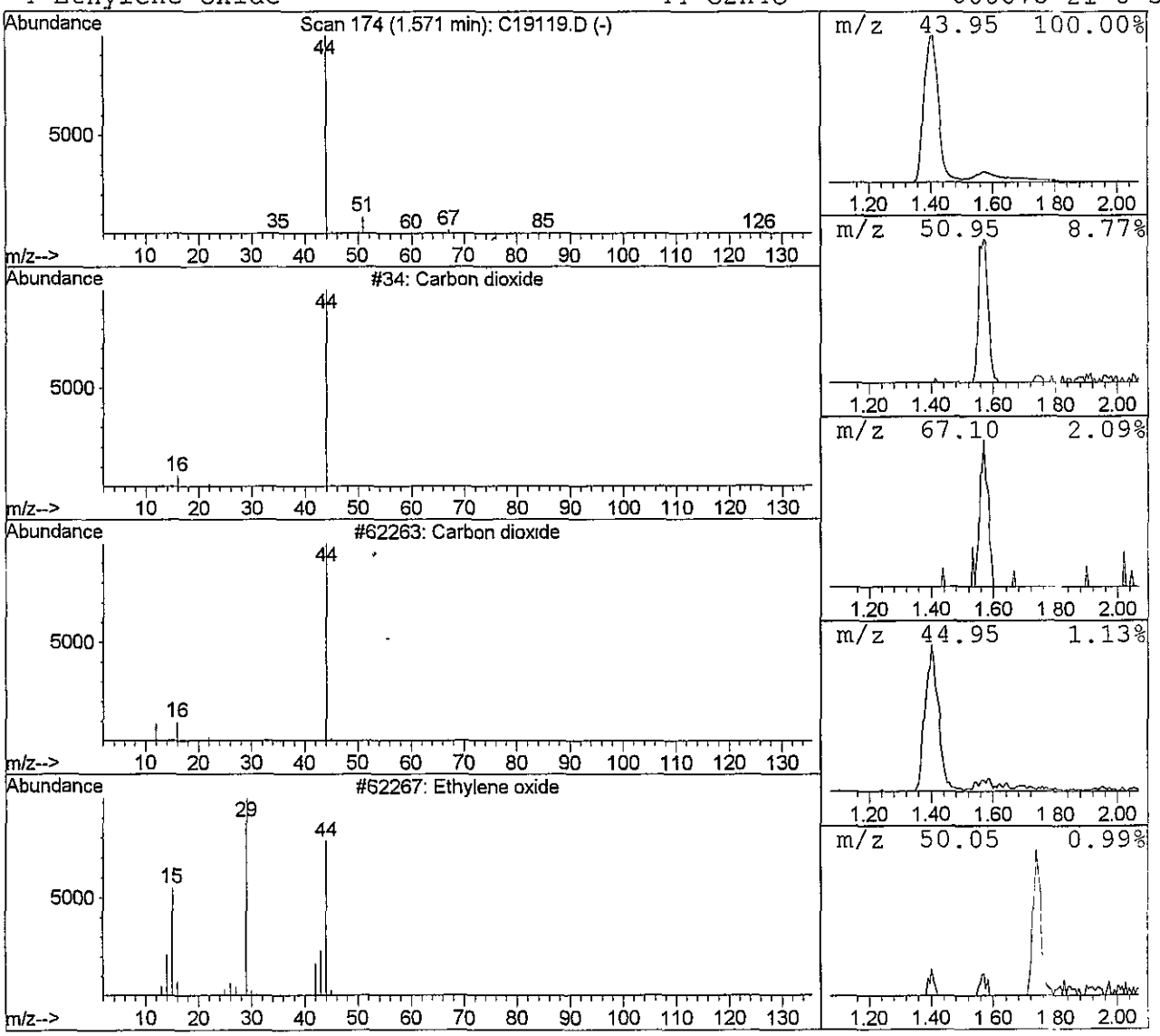
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	2149530.00 ug\L	214953	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D
Acq On : 03/23/01 15:28
Sample : AC09842 25ml DF=1
Misc : 27307/C03220125
MS Integration Params: LSCINT.P

Vial: 6
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

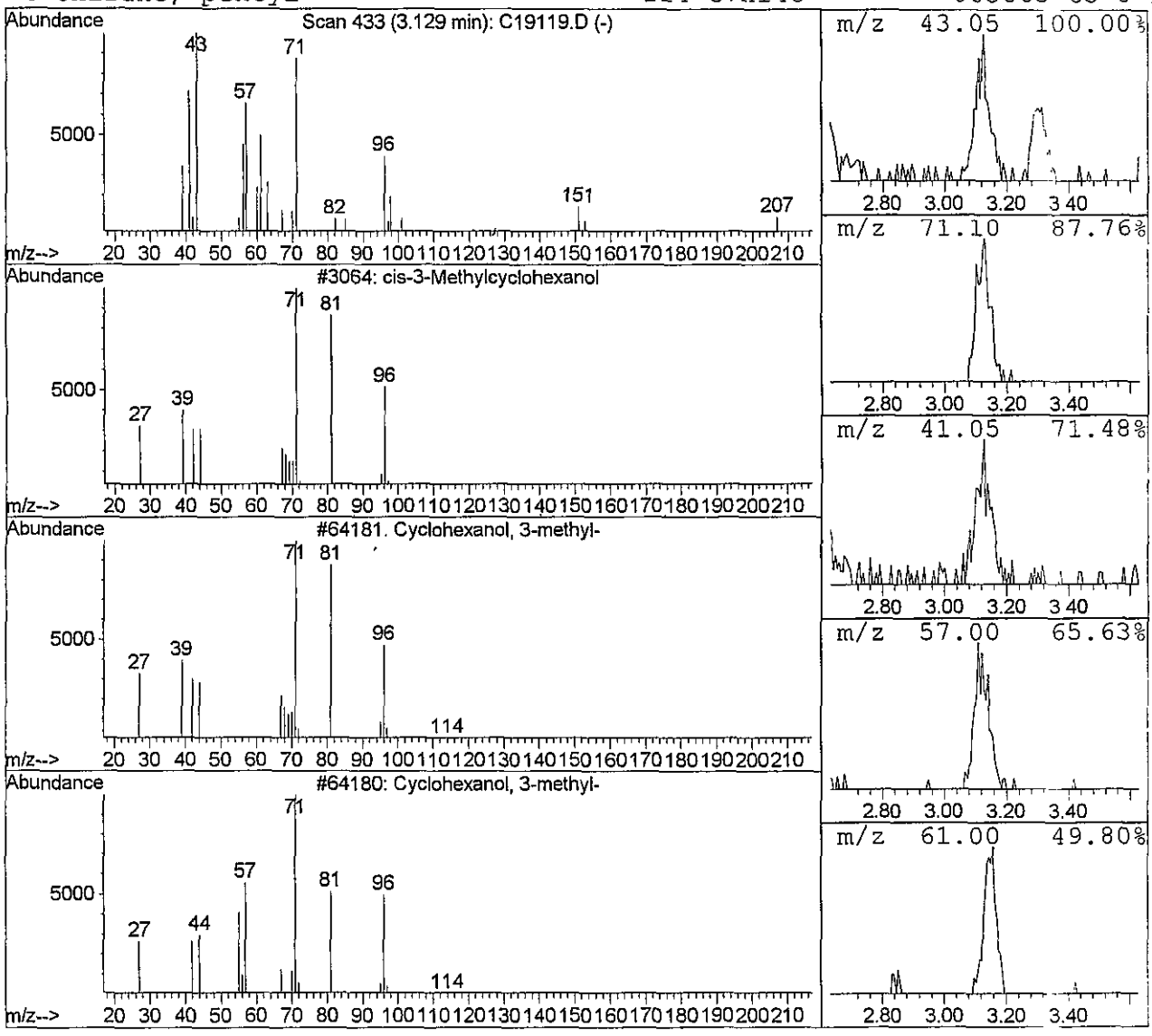
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 cis-3-Methylcyclohexanol Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.13	370840.00 ug\L	37084	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	cis-3-Methylcyclohexanol	114	C7H14O	005454-79-5	16
2	Cyclohexanol, 3-methyl-	114	C7H14O	000591-23-1	16
3	Cyclohexanol, 3-methyl-	114	C7H14O	000591-23-1	16
4	Oxirane, pentyl-	114	C7H14O	005063-65-0	12



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

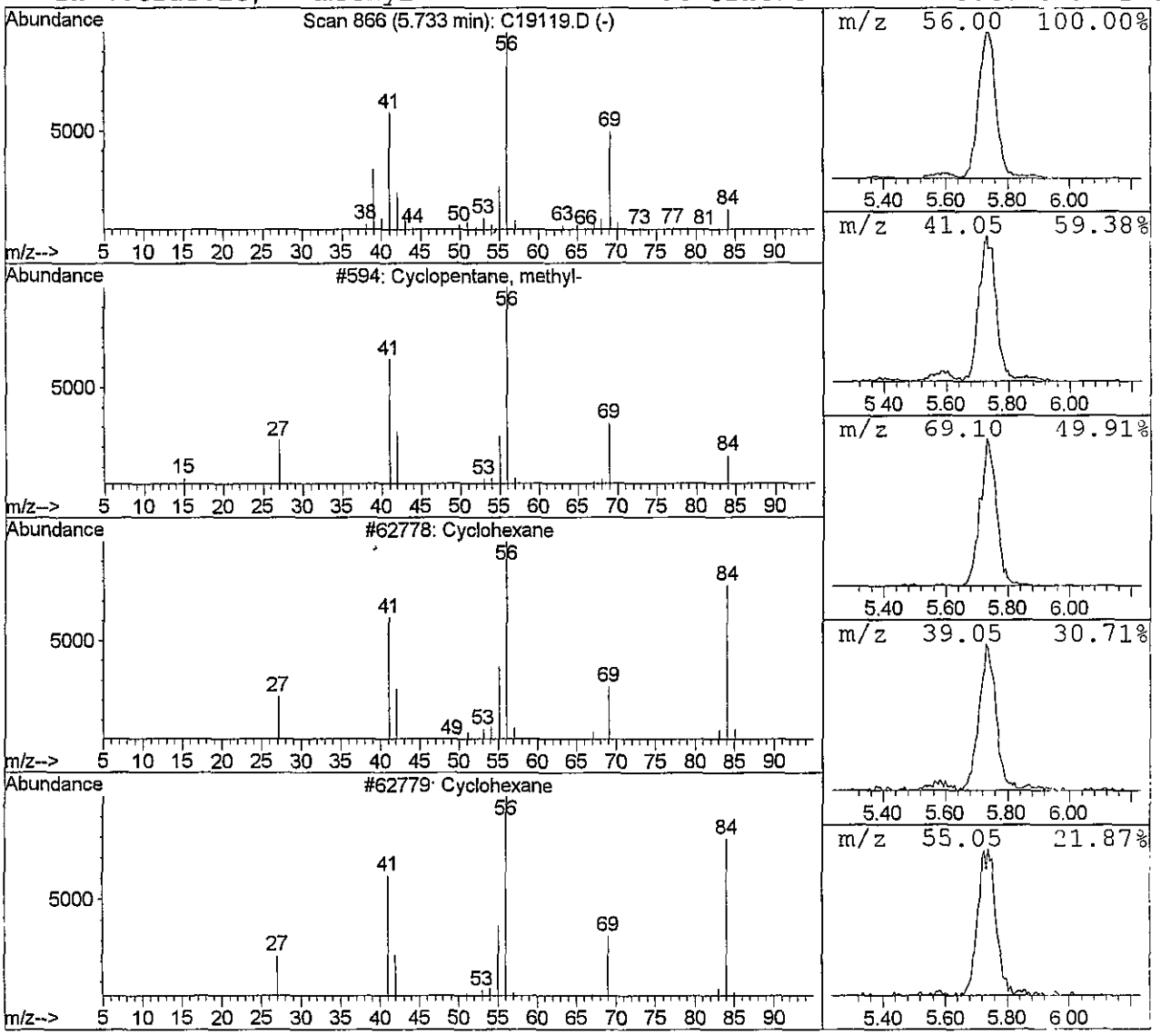
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Cyclopentane, methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.73	2.47 ug\L	405766	Pentafluorobenzene	6.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	86
2	Cyclohexane	84	C6H12	000110-82-7	72
3	Cyclohexane	84	C6H12	000110-82-7	64
4	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	53



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

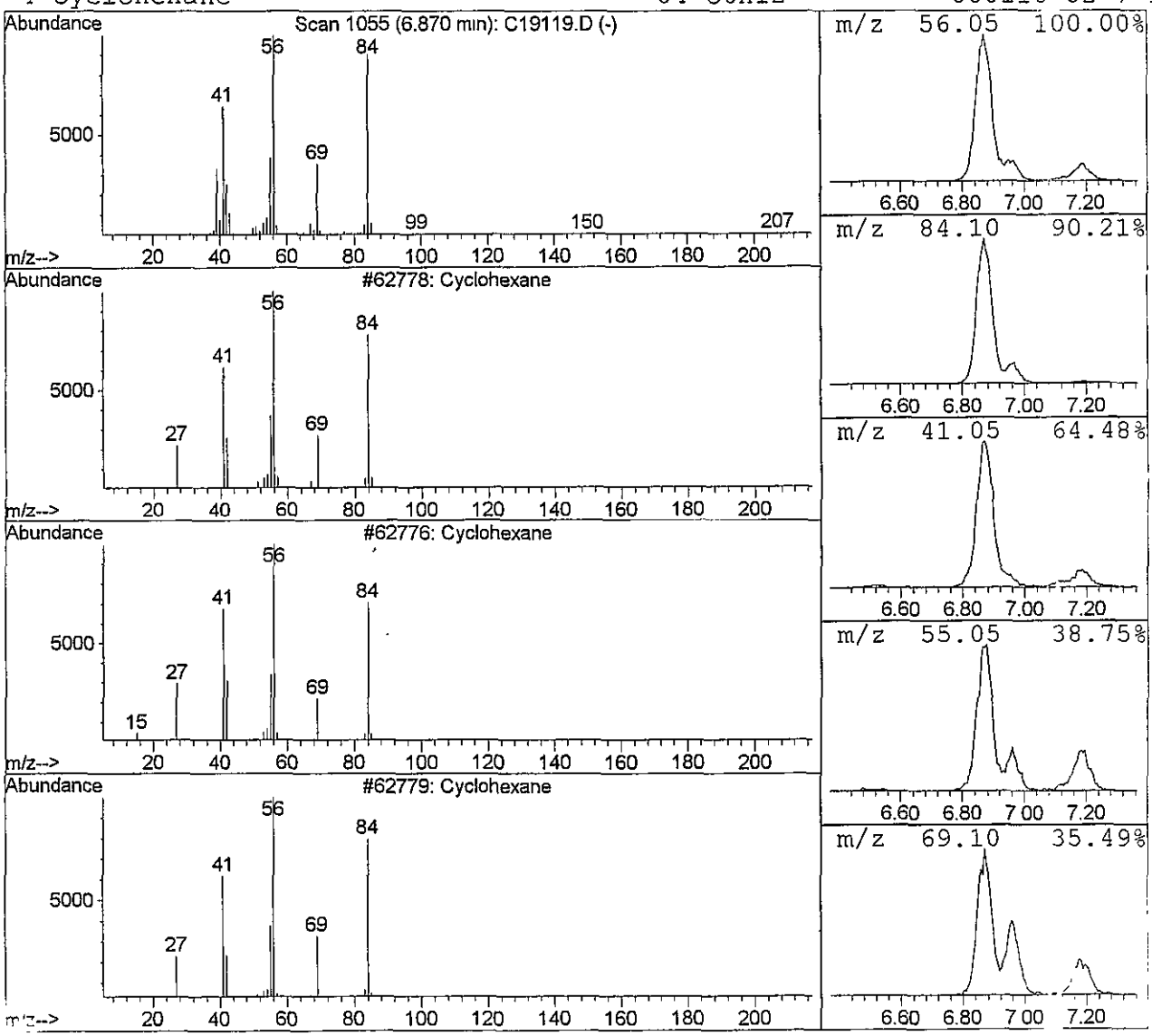
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Cyclohexane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.87	4.92 ug\L	807570	Pentafluorobenzene	6.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	94
2	Cyclohexane	84	C6H12	000110-82-7	91
3	Cyclohexane	84	C6H12	000110-82-7	91
4	Cyclohexane	84	C6H12	000110-82-7	91



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

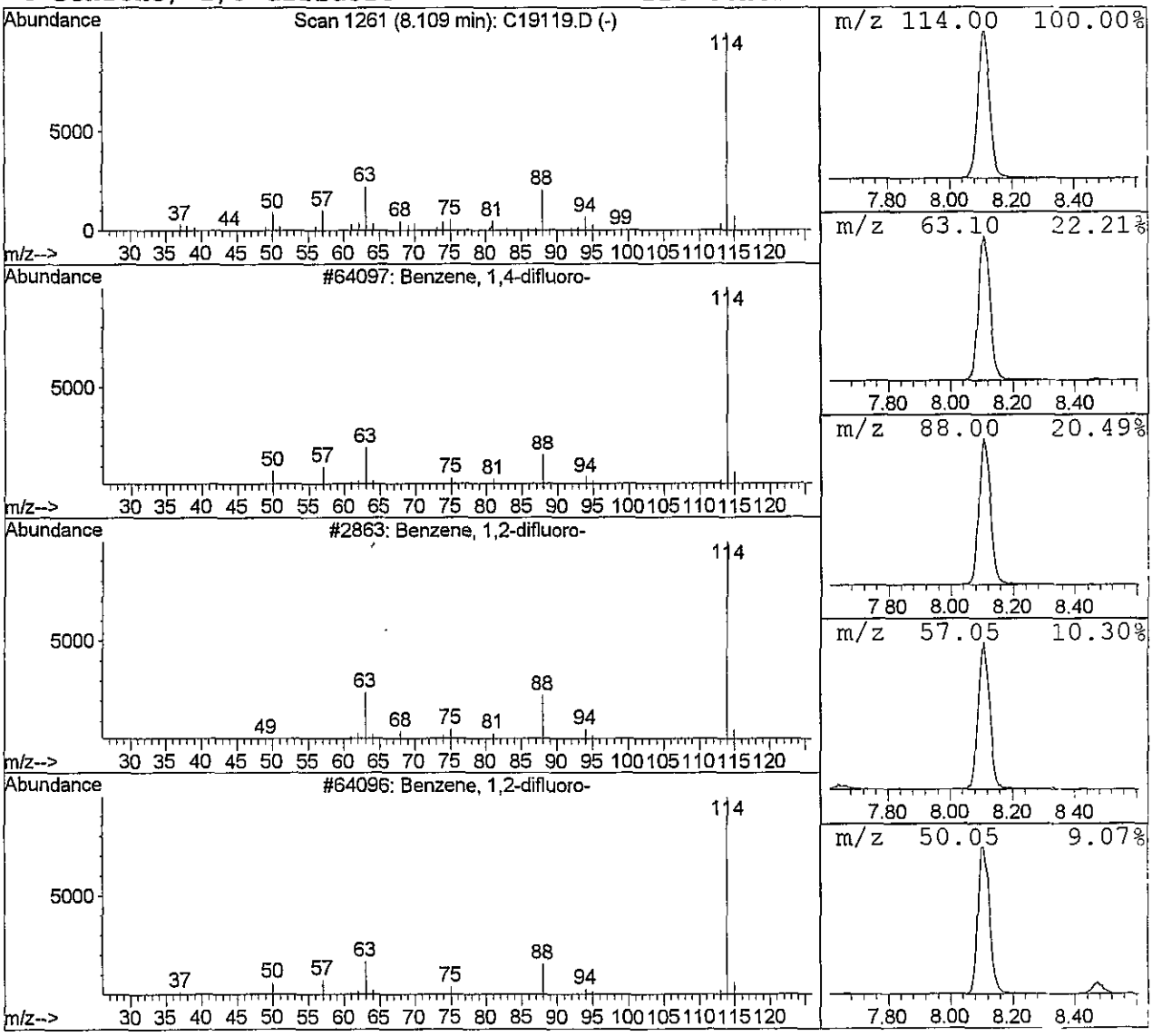
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.11	12.06 ug\L	1982080	Pentafluorobenzene	6.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19119.D Vial: 6
Acq On : 03/23/01 15:28 Operator: JP/VRR
Sample : AC09842 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

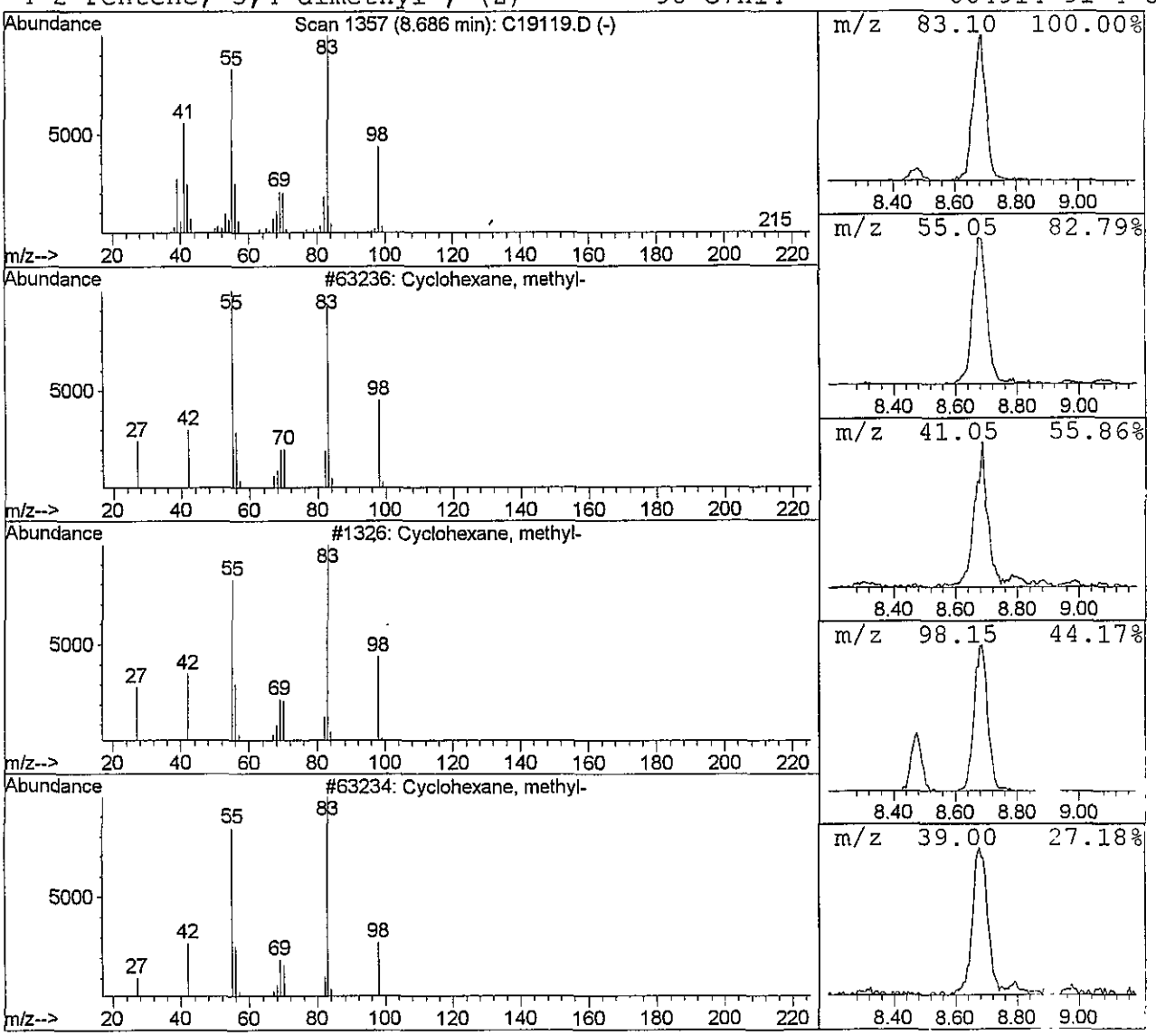
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Cyclohexane, methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.69	2.10 ug\L	344347	Pentafluorobenzene	6.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	95
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	91
4	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	53



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 15:28
Data File: C:\HPCHEM\1\DATA\032301\C19119.D
Name: AC09842 25ml DF=1
Misc: 27307/C03220125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	29295600.0	ug\L	2929560	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	2149530.0	ug\L	214953	ISTD01	0.00	1	10.0
cis-3-Methylcyclohex	3.13	370840.0	ug\L	37084	ISTD01	0.00	1	10.0
Cyclopentane, methyl	5.73	2.5	ug\L	405766	ISTD02	6.96	1642880	10.0
Cyclohexane	6.87	4.9	ug\L	807570	ISTD02	6.96	1642880	10.0
Benzene, 1,4-difluor	8.11	12.1	ug\L	1982080	ISTD02	6.96	1642880	10.0
Cyclohexane, methyl-	8.69	2.1	ug\L	344347	ISTD02	6.96	1642880	10.0

C19119.D 03230125.M Sun Mar 25 11:09:44 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19106.D Vial: 3
Acq On : 03/22/01 14:49 Operator: JP/VRR
Sample : AC09842 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 15:39 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	465938	10.00	ug\L	0.01
45) Chlorobenzene-d5	12.33	117	614561	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	227938	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	193533	10.34	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.40%			
46) Toluene-d8	10.28	98	980388	10.36	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.60%			
66) Bromofluorobenzene	13.97	95	279840	10.04	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.40%			
Target Compounds						Qvalue
22) cis-1,2-Dichloroethene	6.08	96	23016	1.06	ug\L	85
36) Trichloroethene	8.48	95	33340	1.24	ug\L	97

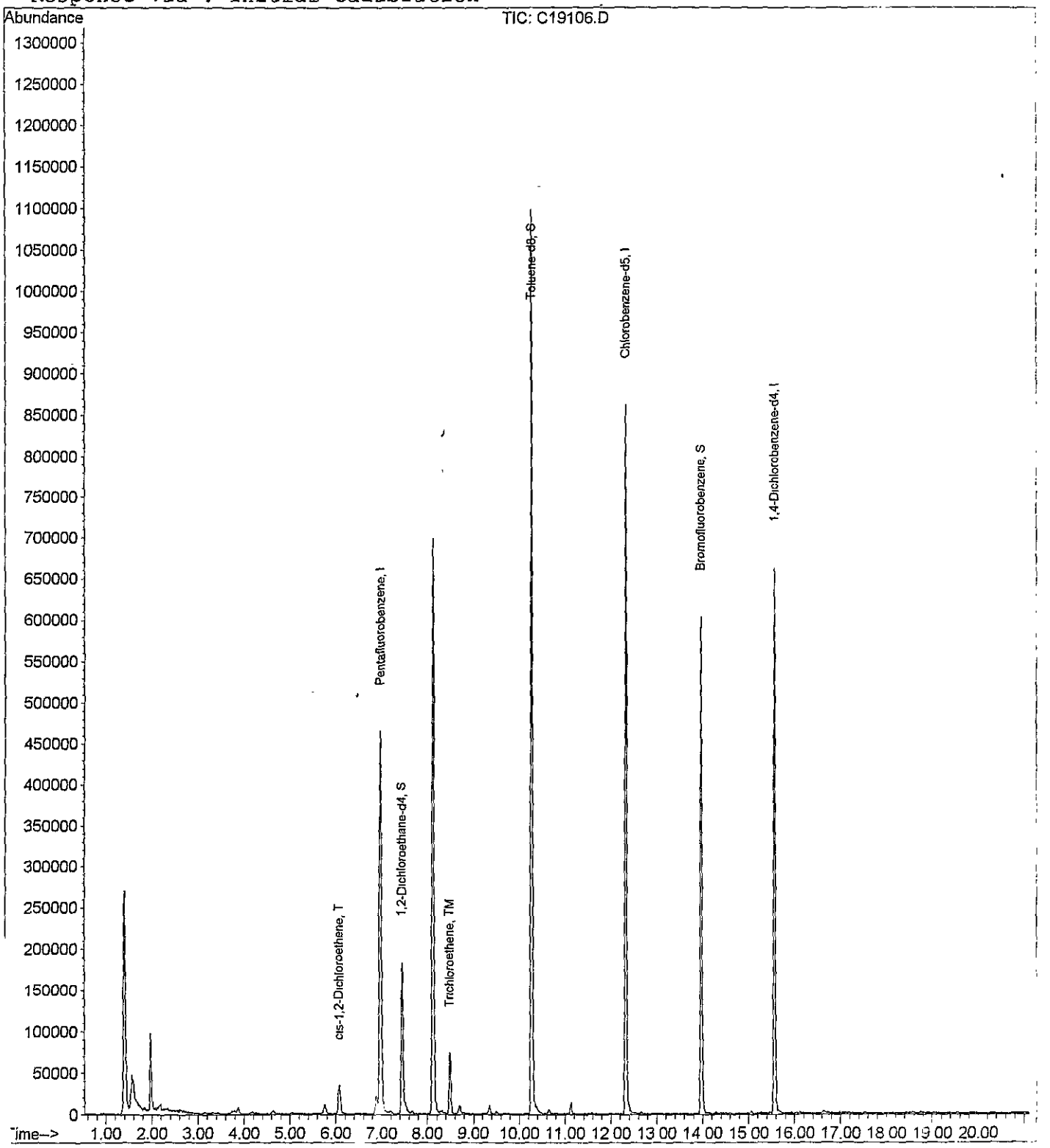
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19106.D Vial: 3
Acq On : 03/22/01 14:49 Operator: JP/VRR
Sample : AC09842 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 15:39 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	464235	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	615186	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253889	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1247	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	176471	9.46	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.60%			
46) Toluene-d8	10.27	98	950370	10.04	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.40%			
66) Bromofluorobenzene	13.97	95	285261	9.18	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 91.80%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	351482	8.79	ug\L	99
3) Chloromethane	1.74	50	262261	9.44	ug\L	98
4) Vinyl Chloride	1.84	62	208821	8.62	ug\L	100
5) Bromomethane	2.16	94	56048	9.01	ug\L	97
6) Chloroethane	2.26	64	111610	9.02	ug\L	94
7) Trichlorofluoromethane	2.53	101	334874	8.94	ug\L #	100
8) Acrolein	3.10	56	6464	17.79	ug\L #	92
9) Acrylonitrile	4.30	53	33618	18.79	ug\L	95
10) 1,1-Dichloroethene	3.15	96	214080	9.79	ug\L	98
11) Acetone	3.30	58	4847	7.42	ug\L	92
12) Iodomethane	3.37	142	262365	9.07	ug\L	99
13) Allylchloride	3.65	39	303002	9.75	ug\L	96
14) Carbon Disulfide	3.43	76	727789	9.97	ug\L	99
15) Acetonitrile	3.66	41	395520	96.00	ug\L	97
16) Methylene Chloride	3.86	86	112583	9.57	ug\L	96
17) trans-1,2-Dichloroethene	4.24	96	220542	9.80	ug\L	98
18) MethylTertButylEther	4.24	73	204275	8.06	ug\L	96
19) 1,1-Dichloroethane	5.00	63	378790	9.64	ug\L	100
20) Vinyl Acetate	5.13	43	89832	9.07	ug\L	98
21) 2,2-Dichloropropane	6.02	77	349957	9.27	ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	212498	9.85	ug\L	99
23) 2-Butanone	6.16	72	4346	8.21	ug\L #	91
24) Propionitrile	6.31	54	54251	86.63	ug\L #	96
25) Methacrylonitrile	6.52	41	353754	91.27	ug\L	98
26) Bromochloromethane	6.49	128	66498	9.73	ug\L	97
27) Chloroform	6.65	83	397338	9.57	ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	398855	9.55	ug\L	98
29) Carbon Tetrachloride	7.10	119	331256	9.42	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	8726	204.46 ug\L #	86
31) 1,1-Dichloropropene	7.12	77	113054	9.97 ug\L	98
33) Benzene	7.47	78	847813	9.82 ug\L	100
34) Isobutyl alcohol	7.57	43	24613	129.06 ug\L	94
35) 1,2-Dichloroethane	7.57	62	185440	9.26 ug\L	99
36) Trichloroethene	8.48	95	1203839	44.87 ug\L	99
37) 1,2-Dichloropropane	8.85	63	175985	9.38 ug\L	98
38) Dibromomethane	9.05	93	64719	9.11 ug\L	99
39) Methylmethacrylate	9.05	69	38800	8.13 ug\L	91
40) Bromodichloromethane	9.30	83	234685	9.28 ug\L	100
41) 2-Nitropropane	9.67	43	10653	7.37 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.75	63	8357	2.39 ug\L	96
43) cis-1,3-Dichloropropene	9.93	75	225485	9.03 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	7553	8.12 ug\L #	96
47) Toluene	10.36	92	564339	9.63 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	155684	8.59 ug\L	99
49) Ethylmethacrylate	10.85	69	96786	8.35 ug\L	97
50) 1,1,2-Trichloroethane	11.01	83	74122	8.97 ug\L	98
51) Tetrachloroethene	11.12	164	217330	9.91 ug\L	98
52) 1,3-Dichloropropane	11.24	76	164272	8.97 ug\L	97
53) 2-Hexanone	11.36	43	28112	7.95 ug\L	97
54) Dibromochloromethane	11.57	129	112849	8.76 ug\L	99
55) 1,2-Dibromoethane	11.71	107	78422	8.78 ug\L	99
56) Chlorobenzene	12.37	112	568695	9.24 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	170653	9.53 ug\L	100
58) Ethylbenzene	12.50	91	1152587	9.80 ug\L	99
59) total-Xylene	12.66	106	1190650m	29.47 ug\L	
60) Styrene	13.25	104	554889	9.59 ug\L	98
62) Bromoform	13.56	173	41805	7.61 ug\L #	99
63) Isopropylbenzene	13.72	105	1177266	9.43 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	17157	7.16 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.28	75	88239	8.00 ug\L #	79
67) Bromobenzene	14.18	156	176014	8.70 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.22	83	82213	8.62 ug\L	96
69) 1,2,3-Trichloropropane	14.28	75	88239	8.00 ug\L #	100
70) n-Propylbenzene	14.29	91	1440880	9.51 ug\L	99
71) 2-Chlorotoluene	14.43	91	775856	9.22 ug\L	98
72) 4-Chlorotoluene	14.59	91	845582	9.49 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	940147	9.41 ug\L	100
74) Pentachloroethane	15.06	167	103713	8.42 ug\L #	95
75) tert-Butylbenzene	14.98	119	798504	9.48 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	898965	9.54 ug\L	100

(# = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1209749	9.63 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	374835	9.22 ug\L	97
79) Isopropyltoluene	15.48	119	989179	10.22 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	352123	8.91 ug\L	98
81) 1,2-Dichlorobenzene	16.13	146	279190	9.12 ug\L	98
82) n-Butylbenzene	16.05	91	938056	9.96 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	7708	7.20 ug\L	92
84) 1,2,4-trichlorobenzene	18.57	180	142634	8.75 ug\L	100
85) Hexachlorobutadiene	18.83	225	129989	11.12 ug\L	100
86) Naphthalene	19.06	128	127770	6.48 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	96725	8.70 ug\L	99

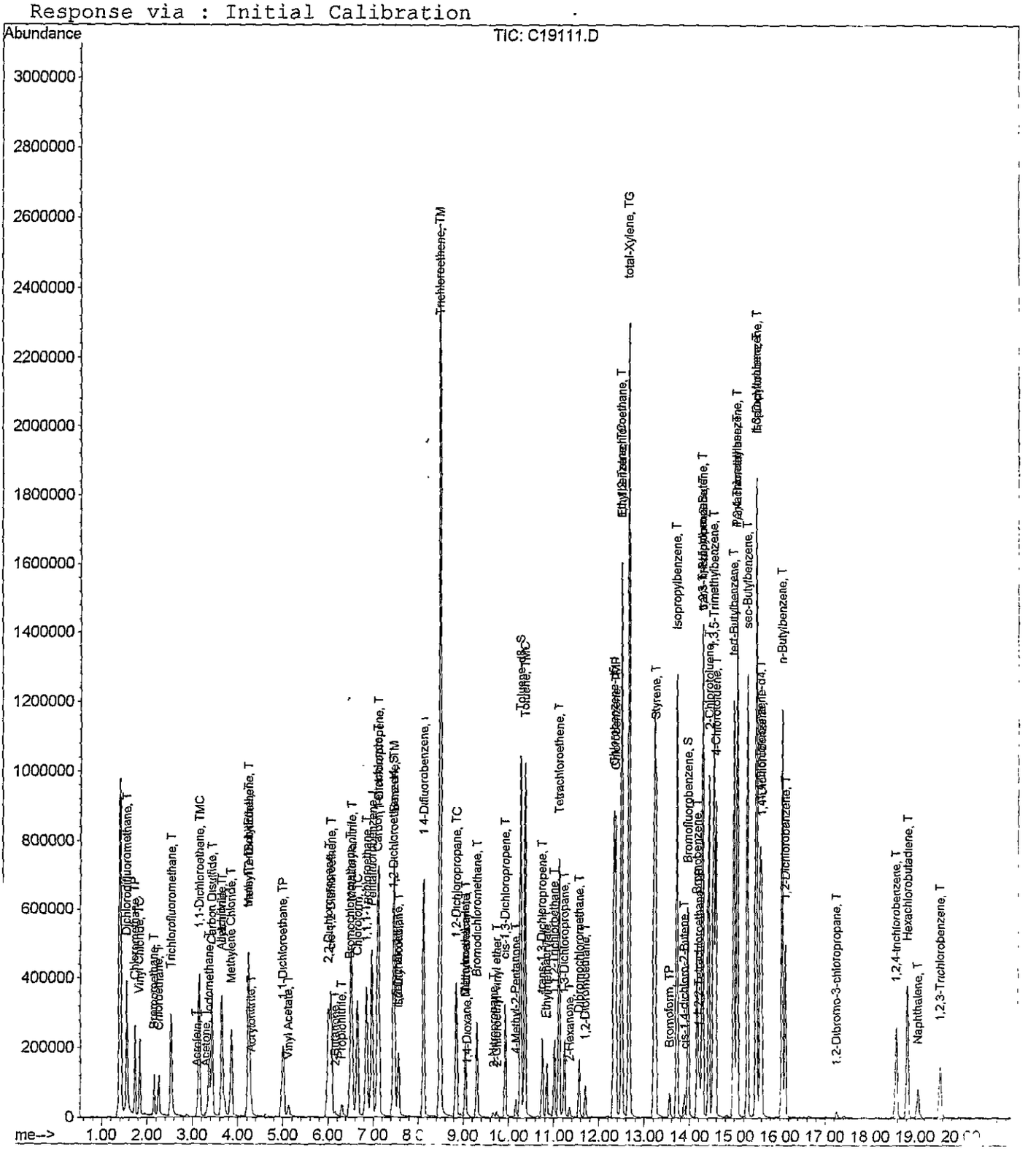
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration
C19111.D 03220125.M Thu Mar 22 17:38:07 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



19111.D 03220125.M Th. Mar 22 17:38 16 ...

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D
Acq On : 03/23/01 14:50
Sample : AC09844MSD 25ml DF=1
Misc : 27307/C03220125
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001

Vial: 5
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	531918	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	745967	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	308654	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1524	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	195198	9.13 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.30%		
46) Toluene-d8	10.27	98	1072753	9.34 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.40%		
66) Bromofluorobenzene	13.97	95	340341	9.01 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.10%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	368649	8.05 ug\L	100
3) Chloromethane	1.74	50	290067	9.11 ug\L	99
4) Vinyl Chloride	1.85	62	242039	8.72 ug\L	99
5) Bromomethane	2.17	94	60649	8.46 ug\L	99
6) Chloroethane	2.27	64	121855	8.60 ug\L	93
7) Trichlorofluoromethane	2.54	101	375543	8.75 ug\L #	100
8) Acrolein	3.10	56	7432	17.85 ug\L #	97
9) Acrylonitrile	4.31	53	35219	17.18 ug\L	93
10) 1,1-Dichloroethene	3.16	96	237036	9.46 ug\L	100
11) Acetone	3.31	58	5700	7.71 ug\L	99
12) Iodomethane	3.37	142	319081	9.62 ug\L	99
13) Allylchloride	3.66	39	333106	9.35 ug\L	97
14) Carbon Disulfide	3.43	76	775018	9.27 ug\L	99
15) Acetonitrile	3.66	41	441666	93.56 ug\L	98
16) Methylene Chloride	3.86	86	125511	9.31 ug\L	96
17) trans-1,2-Dichloroethene	4.25	96	248513	9.63 ug\L	99
18) MethylTertButylEther	4.24	73	243208	8.37 ug\L	96
19) 1,1-Dichloroethane	5.00	63	424720	9.43 ug\L	99
20) Vinyl Acetate	5.14	43	105248	9.27 ug\L	98
21) 2,2-Dichloropropane	6.01	77	404085	9.34 ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	245286	9.92 ug\L	97
23) 2-Butanone	6.16	72	5114	8.45 ug\L #	87
24) Propionitrile	6.32	54	67307	93.81 ug\L	98
25) Methacrylonitrile	6.53	41	424559	95.60 ug\L	98
26) Bromochloromethane	6.50	128	72774	9.30 ug\L	96
27) Chloroform	6.65	83	449081	9.44 ug\L	98
28) 1,1,1-Trichloroethane	6.86	97	449885	9.40 ug\L	98
29) Carbon Tetrachloride	7.10	119	377298	9.37 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	9681	198.91 ug\L #	92
31) 1,1-Dichloropropene	7.13	77	127483	9.81 ug\L	97
33) Benzene	7.47	78	954487	9.65 ug\L	100
34) Isobutyl alcohol	7.58	43	32168	148.57 ug\L	88
35) 1,2-Dichloroethane	7.57	62	207266	9.03 ug\L	99
36) Trichloroethene	8.48	95	1279483	41.62 ug\L	99
37) 1,2-Dichloropropane	8.85	63	206879	9.62 ug\L	99
38) Dibromomethane	9.05	93	75866	9.32 ug\L	98
39) Methylmethacrylate	9.05	69	49912	9.13 ug\L	97
40) Bromodichloromethane	9.30	83	274056	9.46 ug\L	100
41) 2-Nitropropane	9.67	43	14305	8.64 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	269771	9.43 ug\L	100
44) 4-Methyl-2-Pentanone	10.16	85	8788	8.24 ug\L #	81
47) Toluene	10.36	92	666853	9.38 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	191469	8.71 ug\L	98
49) Ethylmethacrylate	10.85	69	123698	8.80 ug\L	98
50) 1,1,2-Trichloroethane	11.02	83	89893	8.97 ug\L	99
51) Tetrachloroethene	11.12	164	252983	9.51 ug\L	98
52) 1,3-Dichloropropane	11.23	76	201356	9.07 ug\L	99
53) 2-Hexanone	11.36	43	35750	8.34 ug\L	98
54) Dibromochloromethane	11.57	129	139063	8.91 ug\L	100
55) 1,2-Dibromoethane	11.70	107	98157	9.07 ug\L	99
56) Chlorobenzene	12.36	112	674583	9.04 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	205864	9.48 ug\L	99
58) Ethylbenzene	12.50	91	1371535	9.62 ug\L	99
59) total-Xylene	12.66	106	1428403m	29.16 ug\L	
60) Styrene	13.25	104	670611	9.56 ug\L	100
62) Bromoform	13.56	173	55228	8.27 ug\L	97
63) Isopropylbenzene	13.72	105	1400060	9.23 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.89	75	23051	7.74 ug\L #	87
65) trans-1,4-dichloro-2-Buten	14.27	75	115989	8.65 ug\L #	74
67) Bromobenzene	14.18	156	212622	8.65 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	102935	8.88 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	115989	8.65 ug\L #	100
70) n-Propylbenzene	14.28	91	1733448	9.42 ug\L	99
71) 2-Chlorotoluene	14.43	91	929006	9.08 ug\L	99
72) 4-Chlorotoluene	14.58	91	1010246	9.33 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1124276	9.26 ug\L	99
74) Pentachloroethane	15.05	167	131508	8.78 ug\L	96
75) tert-Butylbenzene	14.98	119	964869	9.42 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	1063360	9.29 ug\L	98
77) sec-Butylbenzene	15.28	105	1443231	9.45 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

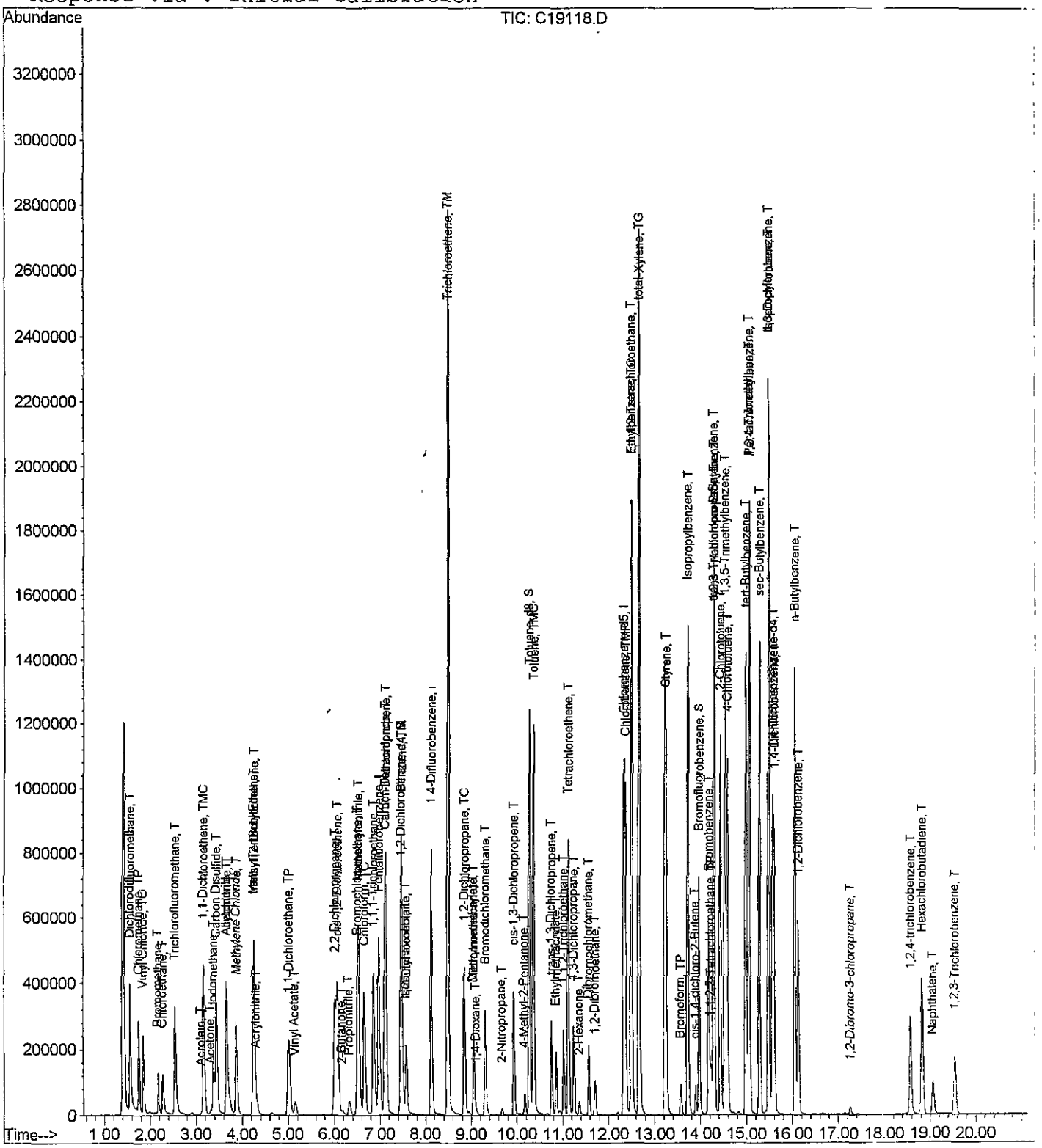
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78)	1,3-Dichlorobenzene	15.47	146	451253	9.13	ug\L	97
79)	Isopropyltoluene	15.48	119	1190263	10.11	ug\L	99
80)	1,4-Dichlorobenzene	15.60	146	433868	9.03	ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	331228	8.90	ug\L	98
82)	n-Butylbenzene	16.05	91	1106113	9.66	ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.26	75	9984	7.67	ug\L	95
84)	1,2,4-trichlorobenzene	18.57	180	168737	8.51	ug\L	100
85)	Hexachlorobutadiene	18.82	225	144463	10.04	ug\L	100
86)	Naphthalene	19.05	128	161278	6.73	ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	114688	8.48	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19112.D Vial: 9
Acq On : 03/22/01 17:24 Operator: JP/VRR
Sample : AC09844MSD 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:45 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	534027	10.00	ug\L	0.02
45) Chlorobenzene-d5	12.32	117	696552	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	287504	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1464	10.00	ug\L	0.02
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	191279	8.91	ug\L	0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.10%			
46) Toluene-d8	10.27	98	1042723	9.73	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.30%			
66) Bromofluorobenzene	13.97	95	312107	8.87	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 88.70%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	381761	8.30	ug\L	100
3) Chloromethane	1.75	50	292042	9.14	ug\L	99
4) Vinyl Chloride	1.85	62	231045	8.29	ug\L	99
5) Bromomethane	2.17	94	61135	8.49	ug\L	95
6) Chloroethane	2.27	64	124119	8.72	ug\L	95
7) Trichlorofluoromethane	2.54	101	377734	8.76	ug\L #	100
8) Acrolein	3.10	56	7733	18.50	ug\L #	100
9) Acrylonitrile	4.32	53	37184	18.07	ug\L	96
10) 1,1-Dichloroethene	3.17	96	240555	9.56	ug\L	100
11) Acetone	3.32	58	5849	7.96	ug\L	94
12) Iodomethane	3.38	142	293326	8.81	ug\L	99
13) Allylchloride	3.66	39	333450	9.33	ug\L	97
14) Carbon Disulfide	3.44	76	757957	9.03	ug\L	99
15) Acetonitrile	3.66	41	442059	93.28	ug\L	98
16) Methylene Chloride	3.86	86	126472	9.34	ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	248098	9.58	ug\L	98
18) MethylTertButylEther	4.25	73	235197	8.06	ug\L	98
19) 1,1-Dichloroethane	5.01	63	428905	9.49	ug\L	99
20) Vinyl Acetate	5.14	43	101007	8.86	ug\L	97
21) 2,2-Dichloropropane	6.02	77	399631	9.20	ug\L	100
22) cis-1,2-Dichloroethene	6.08	96	245119	9.88	ug\L	99
23) 2-Butanone	6.18	72	4941	8.11	ug\L	98
24) Propionitrile	6.33	54	65867	91.44	ug\L	98
25) Methacrylonitrile	6.53	41	407933	91.49	ug\L	99
26) Bromochloromethane	6.50	128	74836	9.52	ug\L	97
27) Chloroform	6.66	83	455319	9.53	ug\L	100
28) 1,1,1-Trichloroethane	6.86	97	450193	9.37	ug\L	98
29) Carbon Tetrachloride	7.11	119	381520	9.43	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19112.D Vial: 9
Acq On : 03/22/01 17:24 Operator: JP/VRR
Sample : AC09844MSD 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:45 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.11	88	9531	195.63 ug\L	#	92
31)	1,1-Dichloropropene	7.13	77	126783	9.72 ug\L		100
33)	Benzene	7.47	78	964333	9.71 ug\L		100
34)	Isobutyl alcohol	7.58	43	30432	139.44 ug\L		90
35)	1,2-Dichloroethane	7.57	62	211835	9.20 ug\L		99
36)	Trichloroethene	8.49	95	1215202	39.38 ug\L		99
37)	1,2-Dichloropropane	8.85	63	205639	9.53 ug\L		98
38)	Dibromomethane	9.05	93	75437	9.23 ug\L		99
39)	Methylmethacrylate	9.06	69	48746	8.88 ug\L		97
40)	Bromodichloromethane	9.31	83	261050	8.97 ug\L		99
41)	2-Nitropropane	9.67	43	12977	7.80 ug\L		98
43)	cis-1,3-Dichloropropene	9.94	75	259898	9.05 ug\L		100
44)	4-Methyl-2-Pentanone	10.17	85	9068	8.47 ug\L	#	95
47)	Toluene	10.37	92	648423	9.77 ug\L		98
48)	trans-1,3-Dichloropropene	10.76	75	178627	8.70 ug\L		98
49)	Ethylmethacrylate	10.85	69	118848	9.05 ug\L		96
50)	1,1,2-Trichloroethane	11.02	83	84400	9.02 ug\L		98
51)	Tetrachloroethene	11.13	164	249877	10.06 ug\L		99
52)	1,3-Dichloropropane	11.24	76	190203	9.17 ug\L		98
53)	2-Hexanone	11.36	43	34588	8.64 ug\L		94
54)	Dibromochloromethane	11.57	129	130116	8.93 ug\L		98
55)	1,2-Dibromoethane	11.71	107	93126	9.21 ug\L		99
56)	Chlorobenzene	12.37	112	652712	9.36 ug\L		100
57)	1,1,1,2-Tetrachloroethane	12.49	131	191004	9.42 ug\L		98
58)	Ethylbenzene	12.50	91	1337783	10.05 ug\L		100
59)	total-Xylene	12.66	106	1369719m	29.95 ug\L		
60)	Styrene	13.26	104	643114	9.81 ug\L		99
62)	Bromoform	13.56	173	49516	7.96 ug\L		97
63)	Isopropylbenzene	13.72	105	1360594	9.63 ug\L		99
64)	cis-1,4-dichloro-2-Butene	13.89	75	20314	7.41 ug\L	#	88
65)	trans-1,4-dichloro-2-Buten	14.27	75	107443	8.61 ug\L	#	75
67)	Bromobenzene	14.18	156	205572	8.98 ug\L		97
68)	1,1,2,2-Tetrachloroethane	14.23	83	94602	8.76 ug\L		99
69)	1,2,3-Trichloropropane	14.27	75	107443	8.61 ug\L	#	100
70)	n-Propylbenzene	14.29	91	1682209	9.81 ug\L		99
71)	2-Chlorotoluene	14.43	91	897918	9.42 ug\L		99
72)	4-Chlorotoluene	14.59	91	981624	9.73 ug\L		99
73)	1,3,5-Trimethylbenzene	14.54	105	1107424	9.79 ug\L		98
74)	Pentachloroethane	15.06	167	122445	8.77 ug\L	#	96
75)	tert-Butylbenzene	14.98	119	934032	9.79 ug\L		100
76)	1,2,4-Trimethylbenzene	15.06	105	1051144	9.86 ug\L		100
77)	sec-Butylbenzene	15.28	105	1419279	9.98 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19112.D Vial: 9
Acq On : 03/22/01 17:24 Operator: JP/VRR
Sample : AC09844MSD 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:45 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	15.48	146	435979	9.47 ug\L	97
79) Isopropyltoluene	15.48	119	1163132	10.61 ug\L	100
80) 1,4-Dichlorobenzene	15.60	146	417543	9.33 ug\L	99
81) 1,2-Dichlorobenzene	16.13	146	324820	9.37 ug\L	97
82) n-Butylbenzene	16.05	91	1100942	10.32 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	8527	7.03 ug\L	97
84) 1,2,4-trichlorobenzene	18.57	180	170316	9.22 ug\L	100
85) Hexachlorobutadiene	18.83	225	155984	11.88 ug\L	100
86) Naphthalene	19.06	128	172273	7.71 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	118474	9.41 ug\L	99

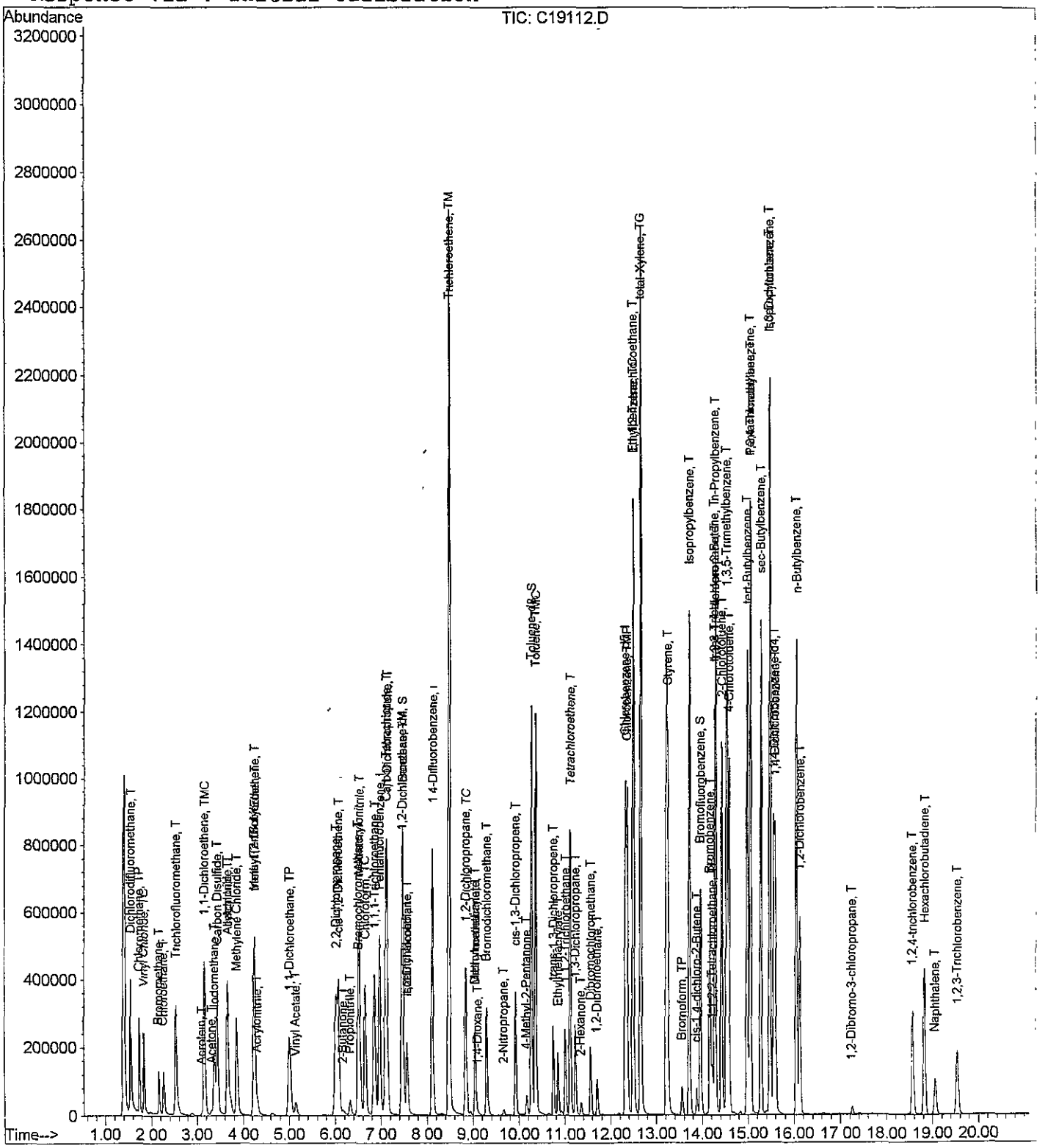
VRR
3.23.01

(#) = qualifier out of range (m) = manual integration
C19112.D 03220125.M Thu Mar 22 17:55:03 2001 INST:VOA-C Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19112.D Vial: 9
Acq On : 03/22/01 17:24 Operator: JP/VRR
Sample : AC09844MSD 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:45 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 15:43 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	489699	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	670417	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253809	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	196839	10.00	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.00%			
46) Toluene-d8	10.27	98	1008814	9.78	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.80%			
66) Bromofluorobenzene	13.97	95	291768	9.40	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.00%			
Target Compounds						Qvalue
11) Acetone	3.31	58	2724	2.32	ug\L	83
22) cis-1,2-Dichloroethene	6.08	96	44574	1.96	ug\L	89
36) Trichloroethene	8.49	95	516128	18.24	ug\L	99

03
20 5
180

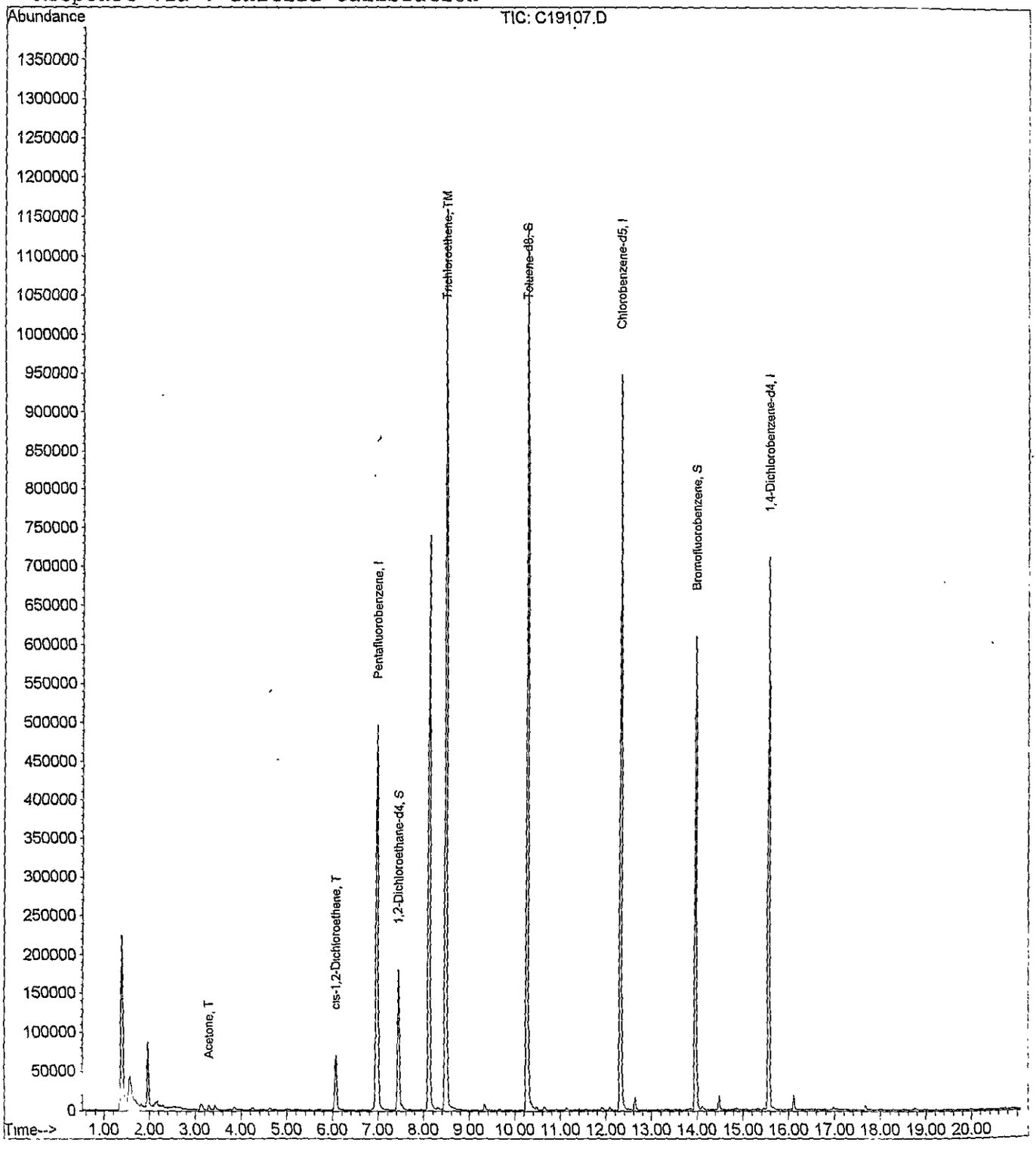
VRR
3.23.01

= qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 15:43 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

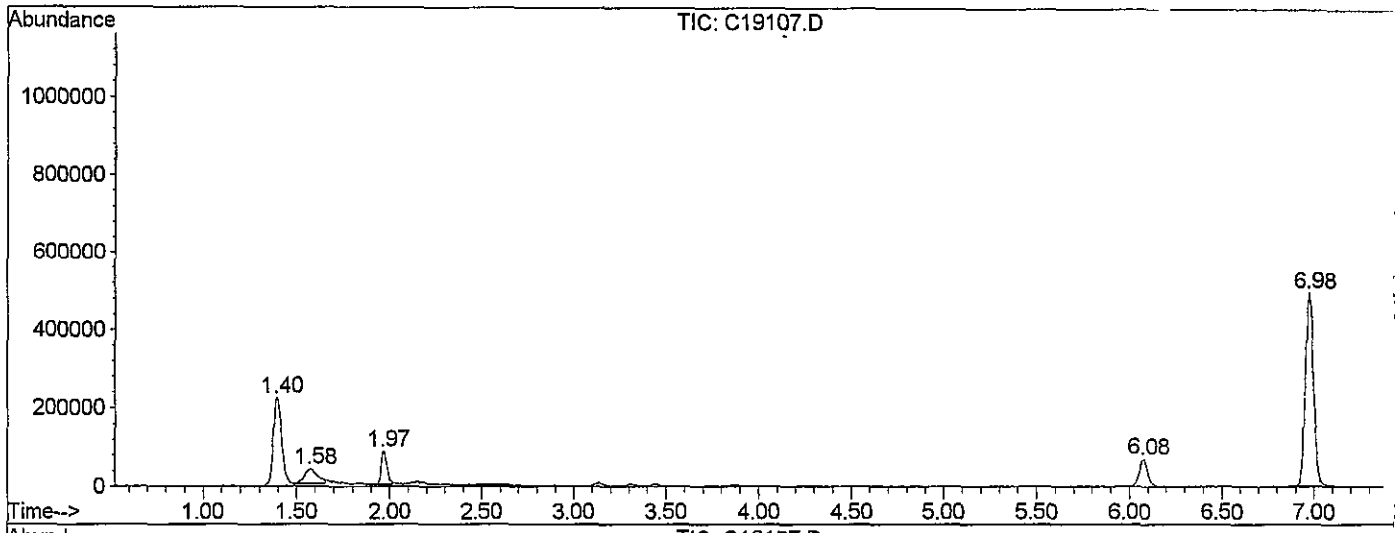
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.397	134	146	162	rBV	223741	721755	24.48%	4.484%
2	1.577	162	176	189	rBV	37553	178652	6.06%	1.110%
3	1.968	233	241	249	rBV	82956	177535	6.02%	1.103%
4	6.076	913	924	936	rBV2	69189	214792	7.28%	1.334%
5	6.978	1062	1074	1094	rVB	494041	1480304	50.21%	9.196%
6	7.447	1140	1152	1163	rBV	180300	510845	17.33%	3.173%
7	8.127	1254	1265	1282	rBV	738144	1911479	64.83%	11.875%
8	8.488	1313	1325	1343	rBV	1158616	2948420	100.00%	18.316%
9	10.274	1612	1622	1637	rBV	1141686	2680823	90.92%	16.654%
10	12.325	1952	1963	1985	rBV	947336	2138020	72.51%	13.282%
11	12.650	2007	2017	2022	rBV5	16221	40231	1.36%	0.250%
12	13.973	2227	2237	2253	rBV	608661	1412205	47.90%	8.773%
13	14.490	2316	2323	2331	rVB3	18052	36181	1.23%	0.225%
14	15.566	2492	2502	2515	rBV	708385	1606623	54.49%	9.981%
15	16.120	2586	2594	2601	rBV3	18452	39471	1.34%	0.245%

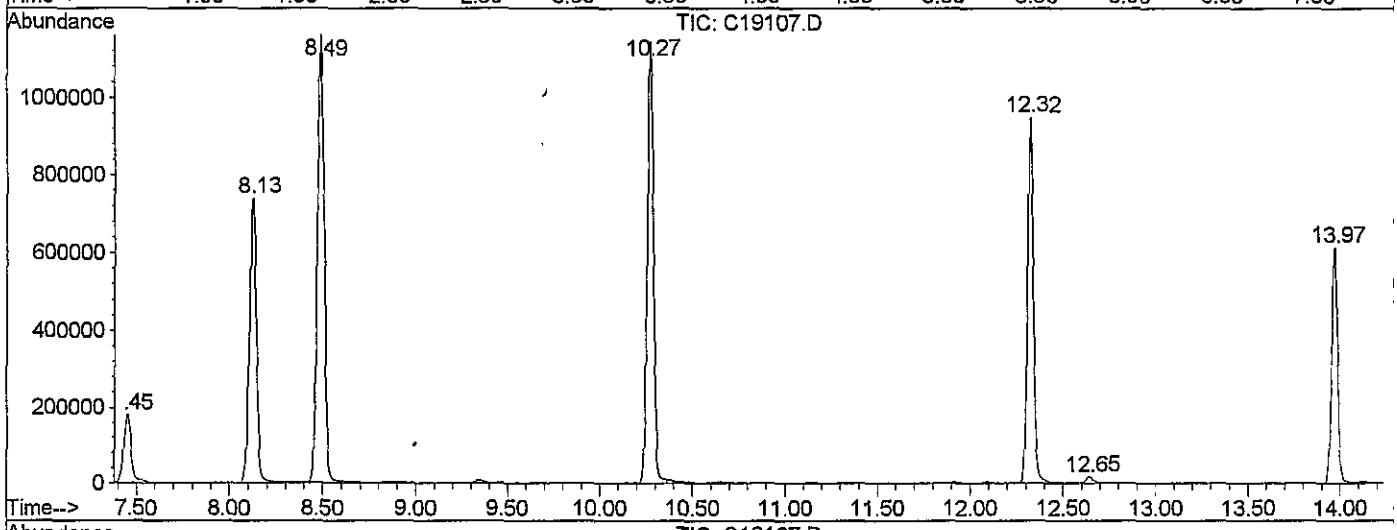
Sum of corrected areas: 16097336

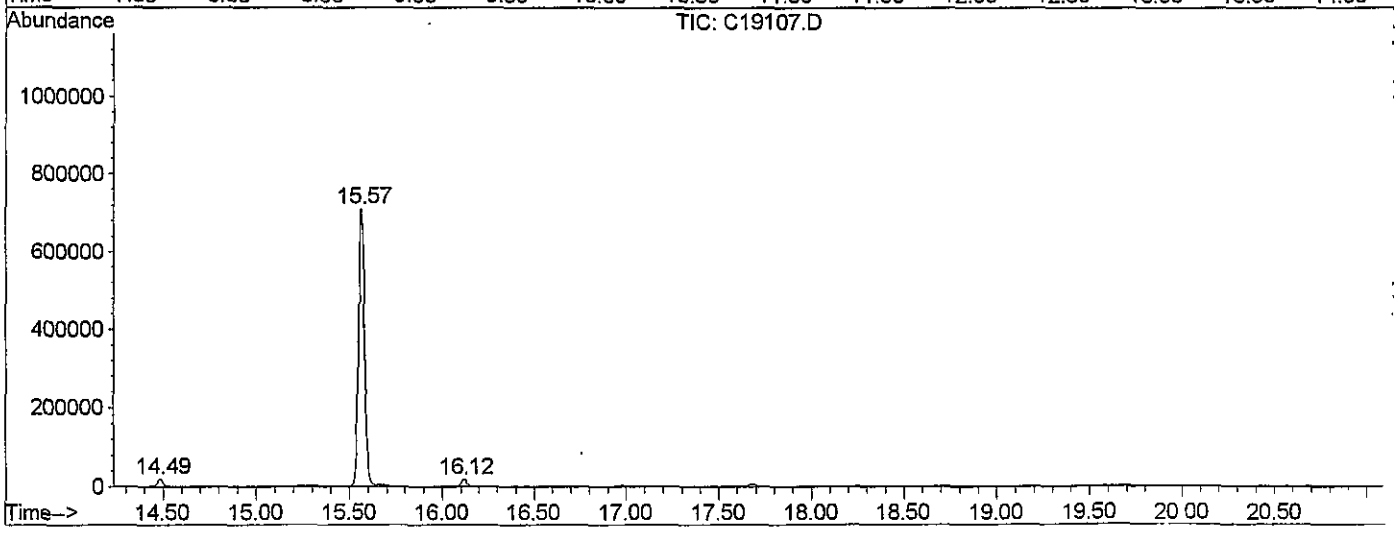
C19107.D 03220125.M Thu Mar 22 15:44:20 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19107.D
Operator : JP/VRR
Acquired : 22 Mar 2001 15:15 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: AC09845 2.5ml DF =10
Misc Info : 27307/C03220125
Vial Number: 4
Quant File :03220125.RES (RTE Integrator)







C19107.D 03220125.M Thu Mar 22 15:44:21 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

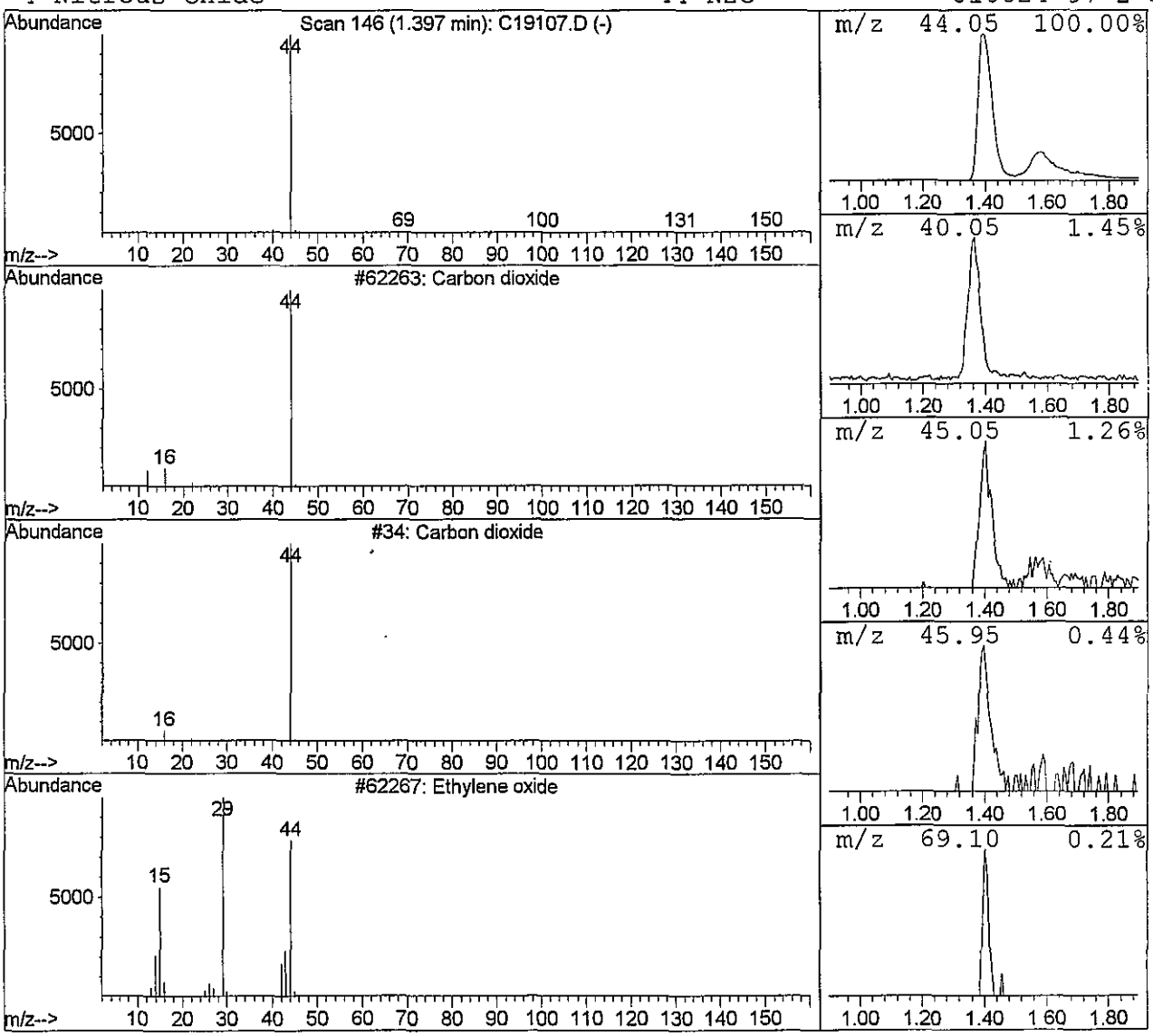
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	7217550.00 ug\L	721755	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

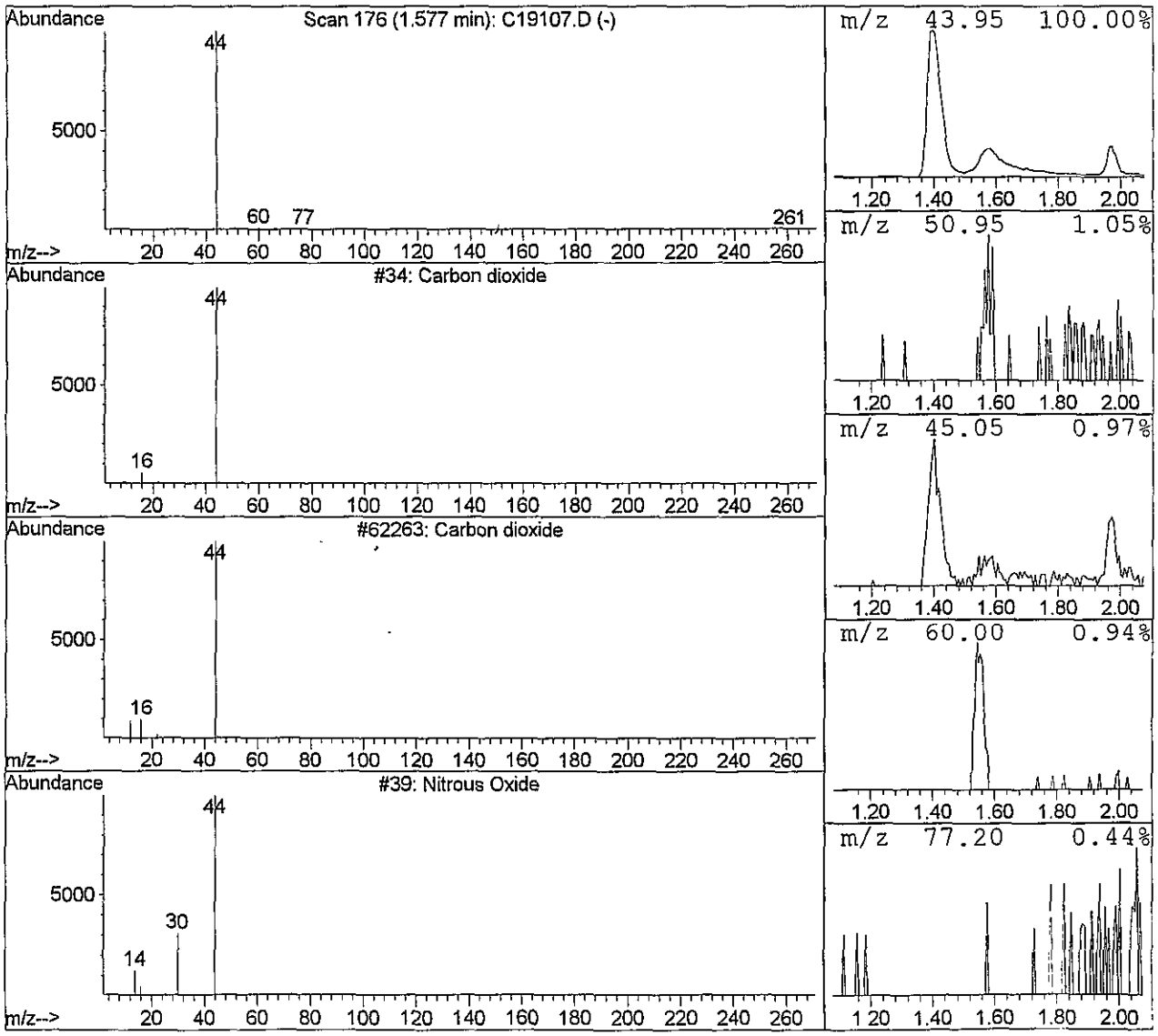
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.58	1786520.00 ug\L	178652	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

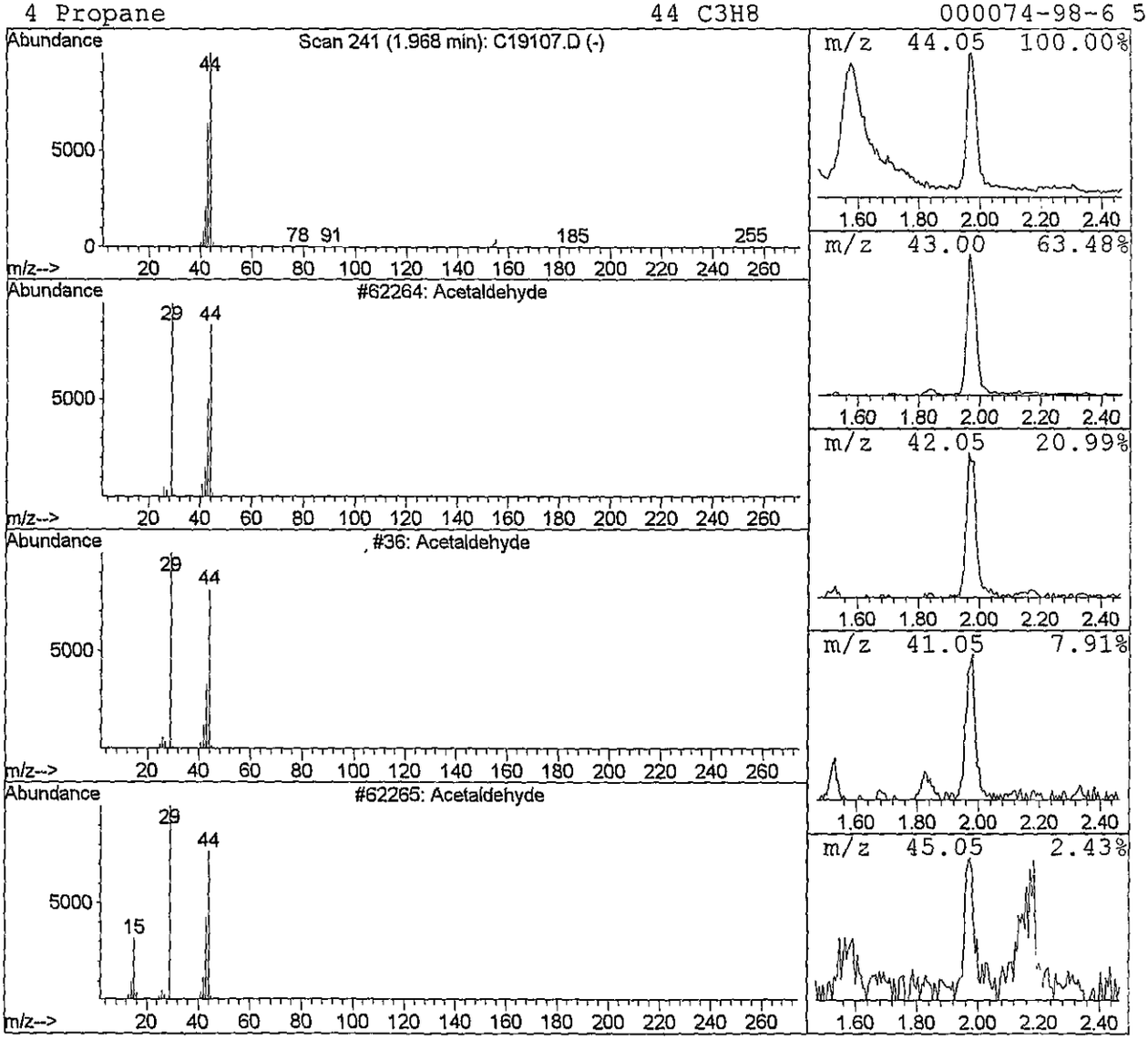
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.97	1775350.00 ug\L	177535	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	86
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Propane	44	C3H8	000074-98-6	5



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19107.D Vial: 4
Acq On : 03/22/01 15:15 Operator: JP/VRR
Sample : AC09845 2.5ml DF =10 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

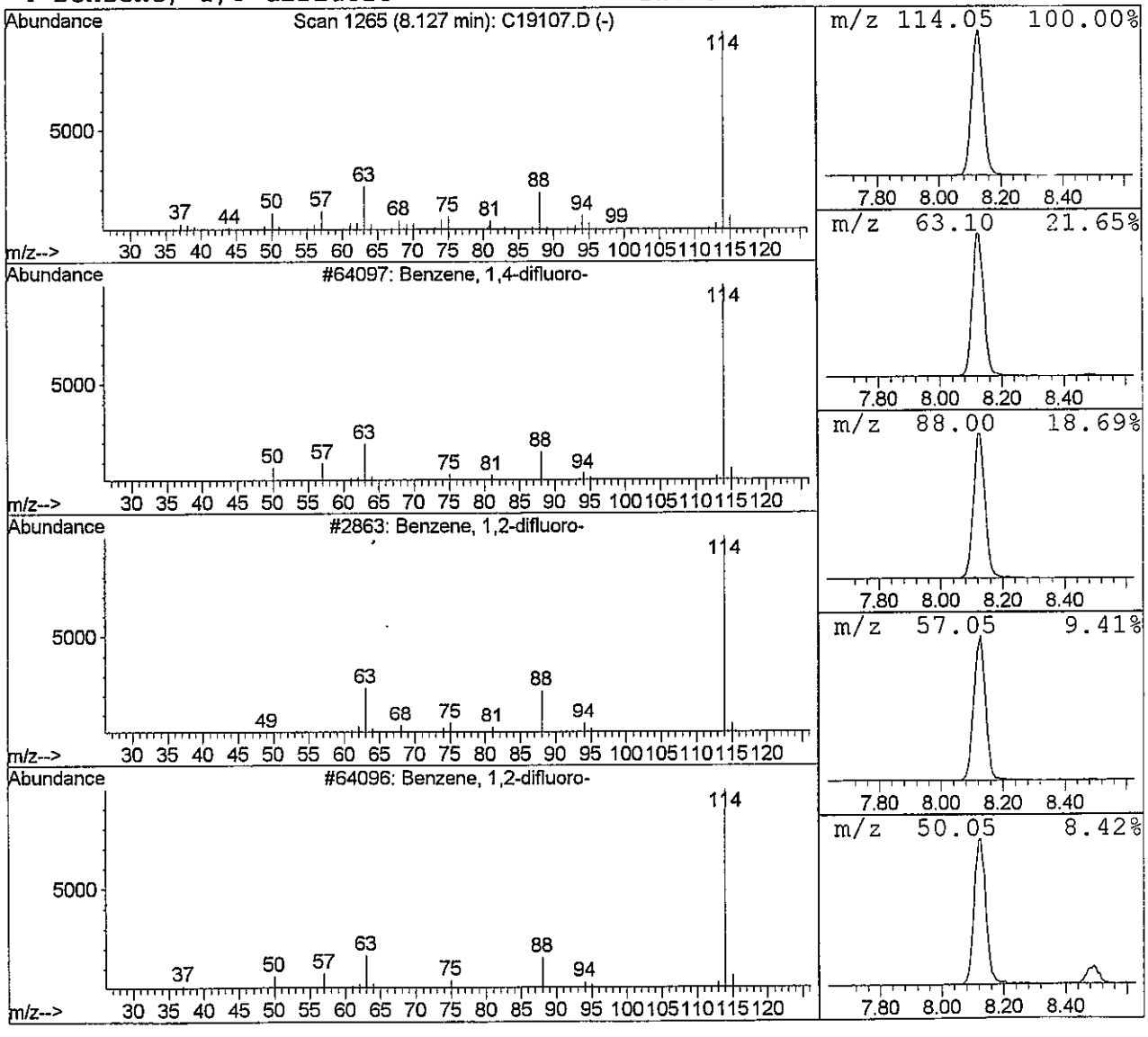
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.13	12.91 ug\L	1911480	Pentafluorobenzene	6.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	91



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 15:15
Data File: C:\HPCHEM\1\DATA\032201\C19107.D
Name: AC09845 2.5ml DF =10
Misc: 27307/C03220125
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	7217550.0	ug\L	721755	ISTD01	0.00	1	10.0
Carbon dioxide	1.58	1786520.0	ug\L	178652	ISTD01	0.00	1	10.0
Acetaldehyde	1.97	1775350.0	ug\L	177535	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.13	12.9	ug\L	1911480	ISTD02	6.98	1480300	10.0

C19107.D 03220125.M Thu Mar 22 15:44:28 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:35 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	439656	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	595318	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	220506	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	174797	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.27	98	888074	9.69	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.90%			
66) Bromofluorobenzene	13.96	95	262258	9.72	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.20%			
Target Compounds						Qvalue
16) Methylene Chloride	3.86	86	5648	0.51	ug\L	98

0.51J

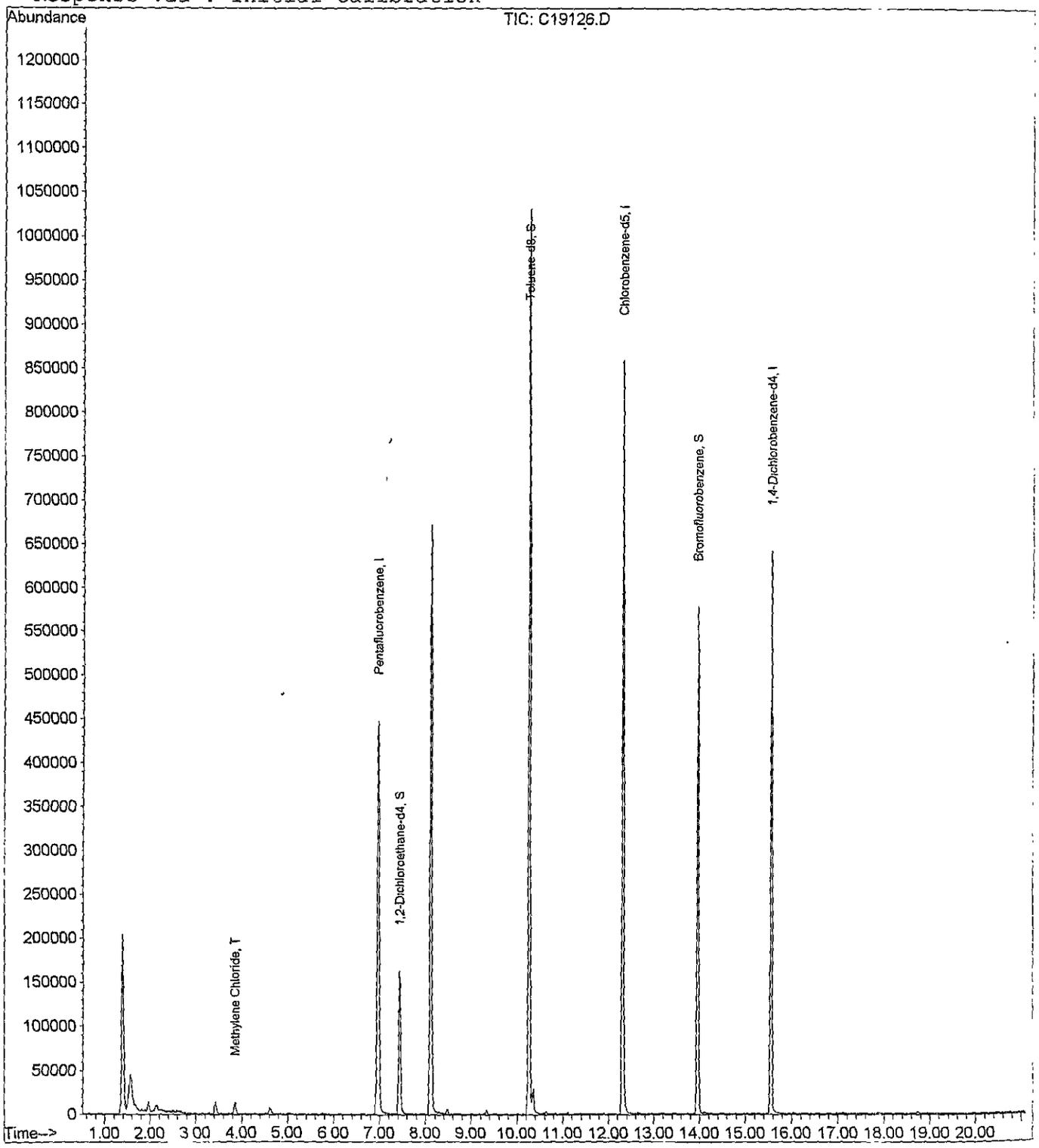
VRR
3-27-01

(#) = qualifier out of range (m) = manual integration
C19126.D 03230125.M Sun Mar 25 11:35:56 2001 INST:VOA-C Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:35 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

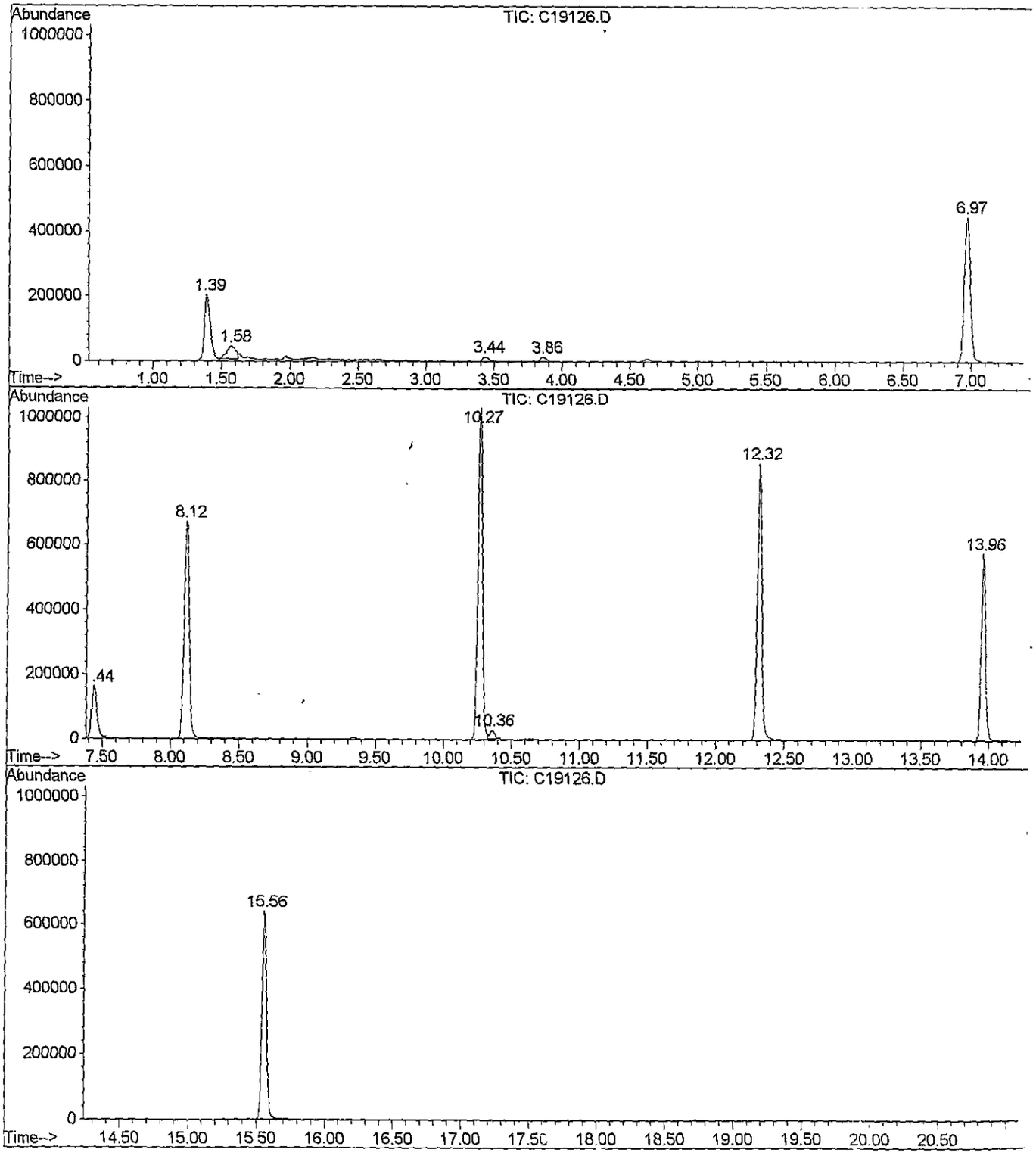
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.392	131	145	160	rBV	203124	616180	25.90%	5.357%
2	1.578	160	176	183	rBV	39740	176301	7.41%	1.533%
3	3.437	476	485	495	rBV2	13883	39974	1.68%	0.348%
4	3.864	547	556	564	rVB3	12865	34333	1.44%	0.298%
5	6.973	1059	1073	1094	rBV2	446971	1364733	57.37%	11.865%
6	7.442	1140	1151	1162	rBV	162076	446416	18.77%	3.881%
7	8.116	1251	1263	1279	rBV	671554	1745728	73.38%	15.177%
8	10.269	1609	1621	1631	rBV	1030013	2378958	100.00%	20.683%
9	10.365	1631	1637	1645	rVB2	26276	68382	2.87%	0.595%
10	12.319	1951	1962	1980	rBV	857885	1934693	81.33%	16.820%
11	13.961	2226	2235	2251	rBV	577431	1251199	52.59%	10.878%
12	15.561	2491	2501	2516	rBV	640646	1445266	60.75%	12.565%

Sum of corrected areas: 11502163

C19126.D 03230125.M Sun Mar 25 11:36:16 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19126.D
Operator : JP/VRR
Acquired : 23 Mar 2001 18:53 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09846 25ml DF=1
Misc Info : 27307/C0220125
Vial Number: 14
Quant File :03230125.RES (RTE Integrator)



C19126.D 03230125.M Sun Mar 25 11:36:1[illegible] 2[illegible]1 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

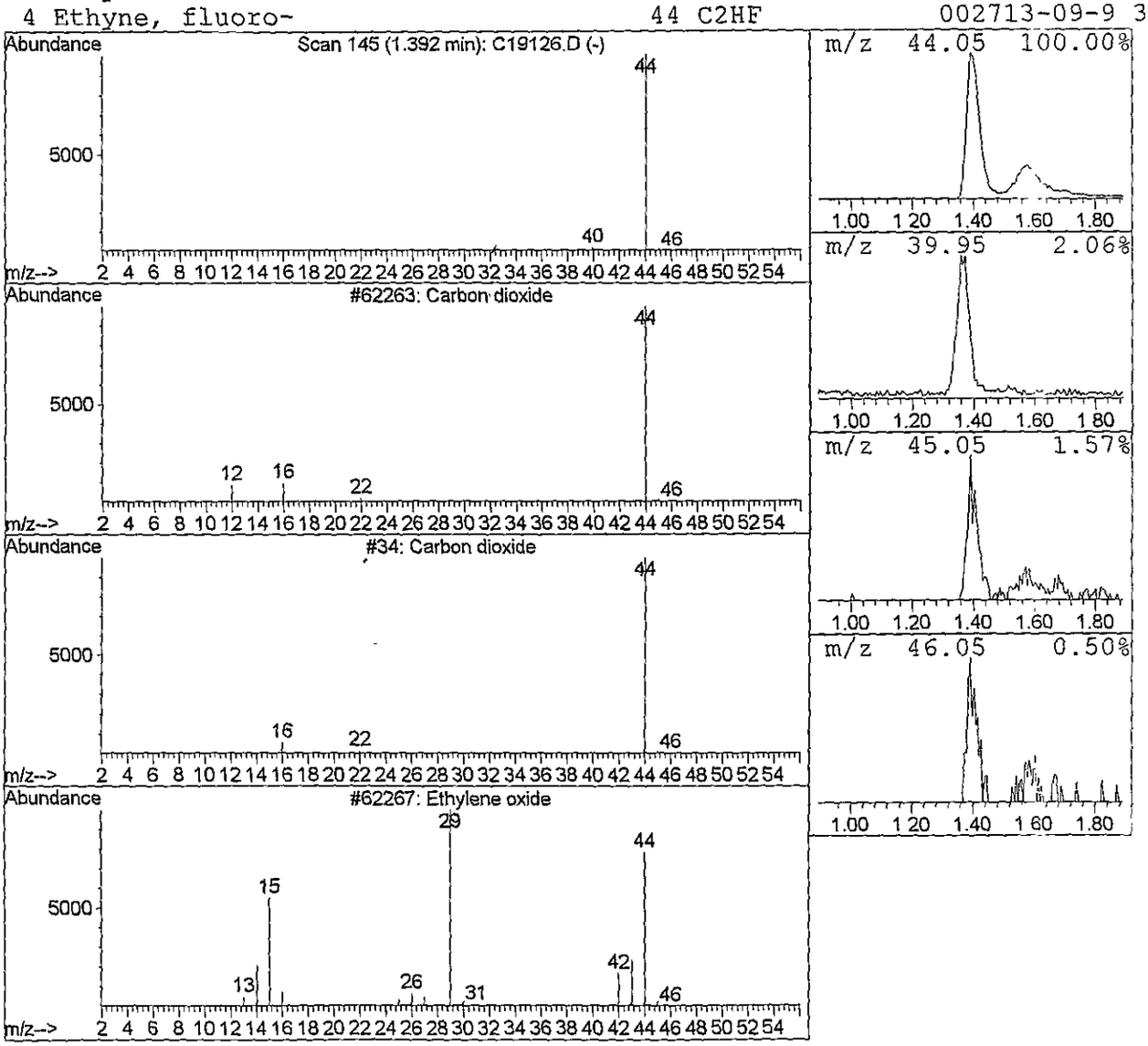
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.39	6161800.00 ug\L	616180	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

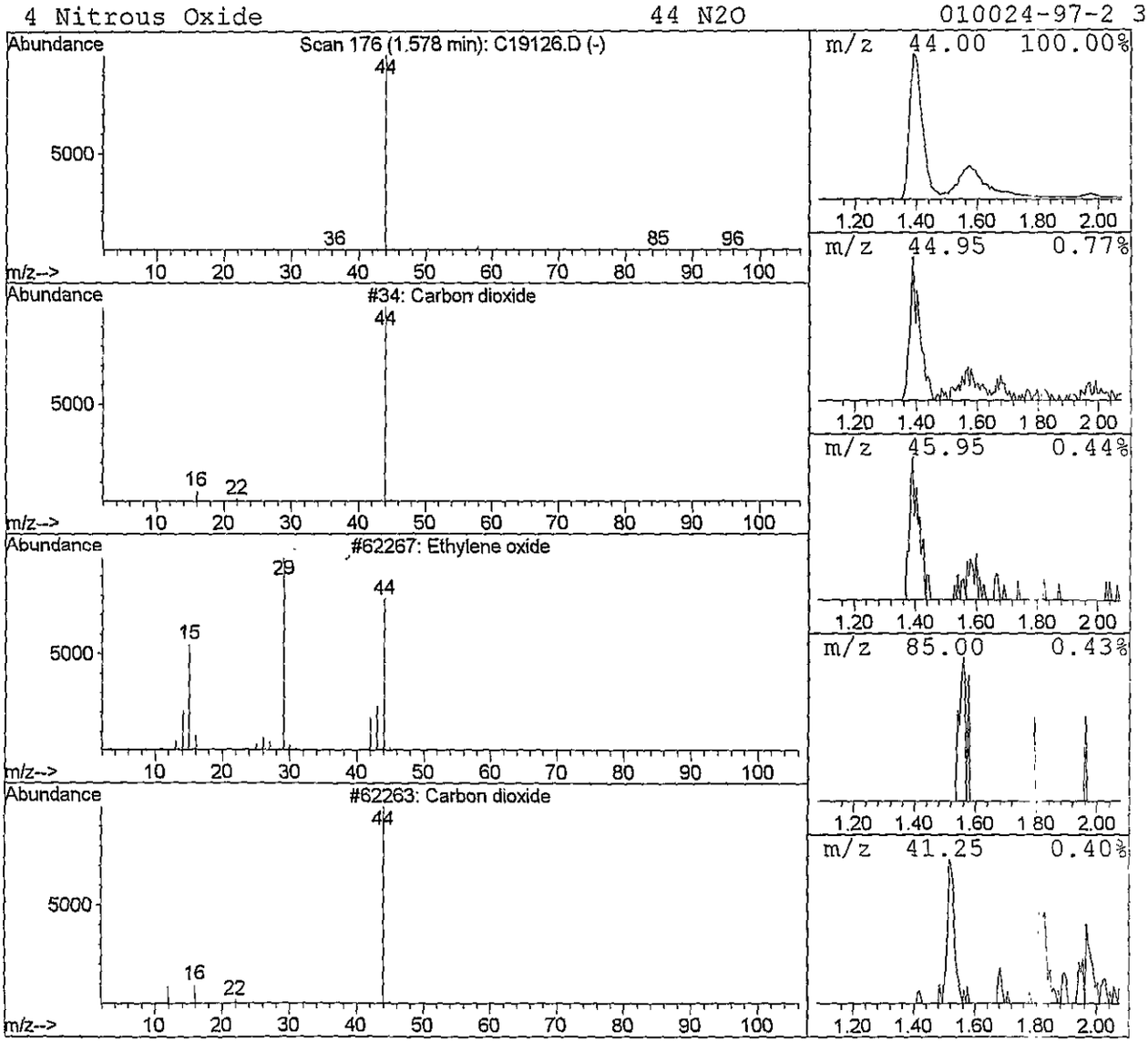
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.58	1763010.00 ug\L	176301	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

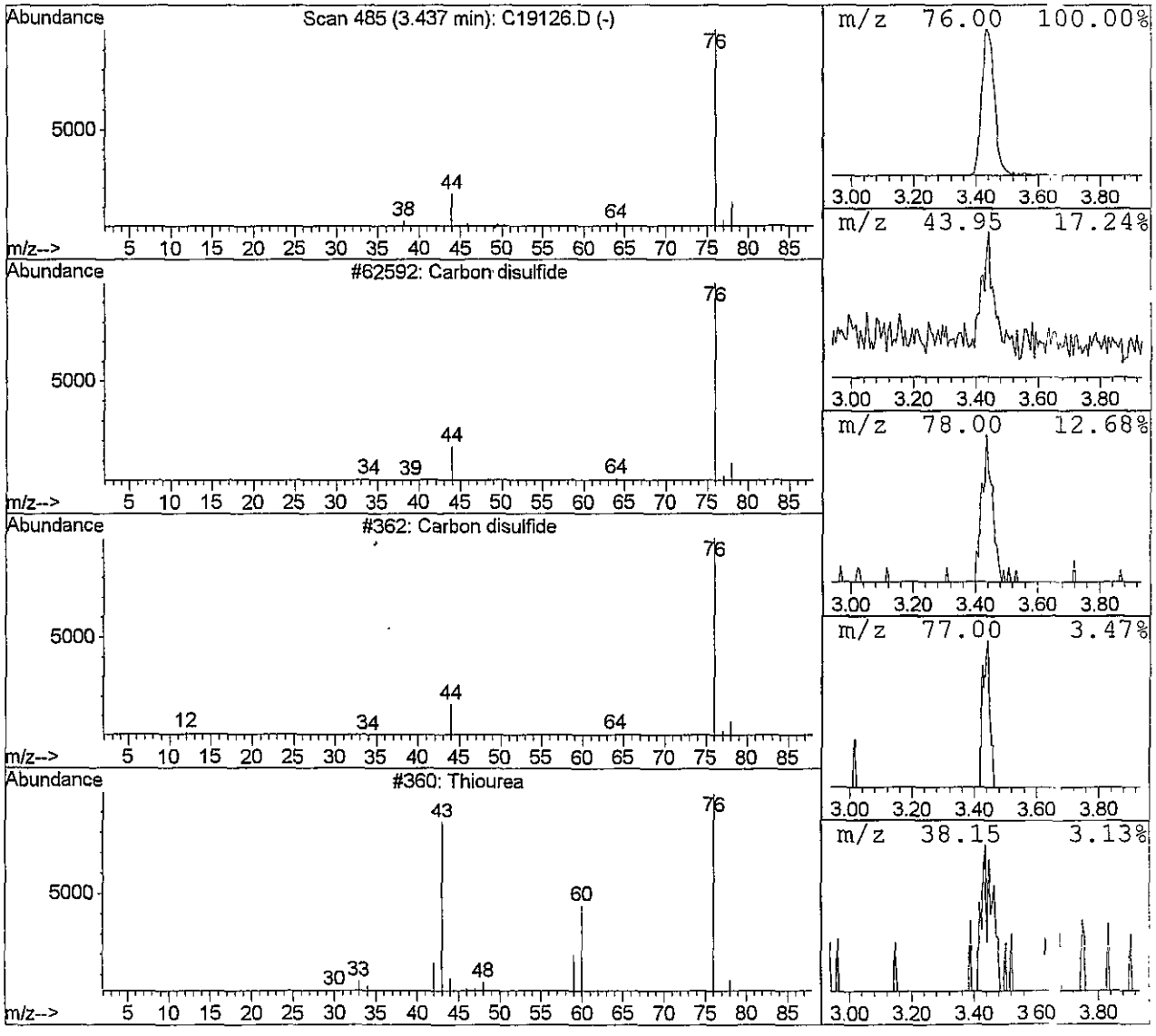
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Carbon disulfide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.44	399740.00 ug\L	39974	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	83
2	Carbon disulfide	76	CS2	000075-15-0	74
3	Thiourea	76	CH4N2S	000062-56-6	7
4	Carbon disulfide	76	CS2	000075-15-0	5



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19126.D Vial: 14
Acq On : 03/23/01 18:53 Operator: JP/VRR
Sample : AC09846 25ml DF=1 Inst : VOA-C
Misc : 27307/C0220125 Multiplr: 1.00
MS Integration Params: LSCINT.P

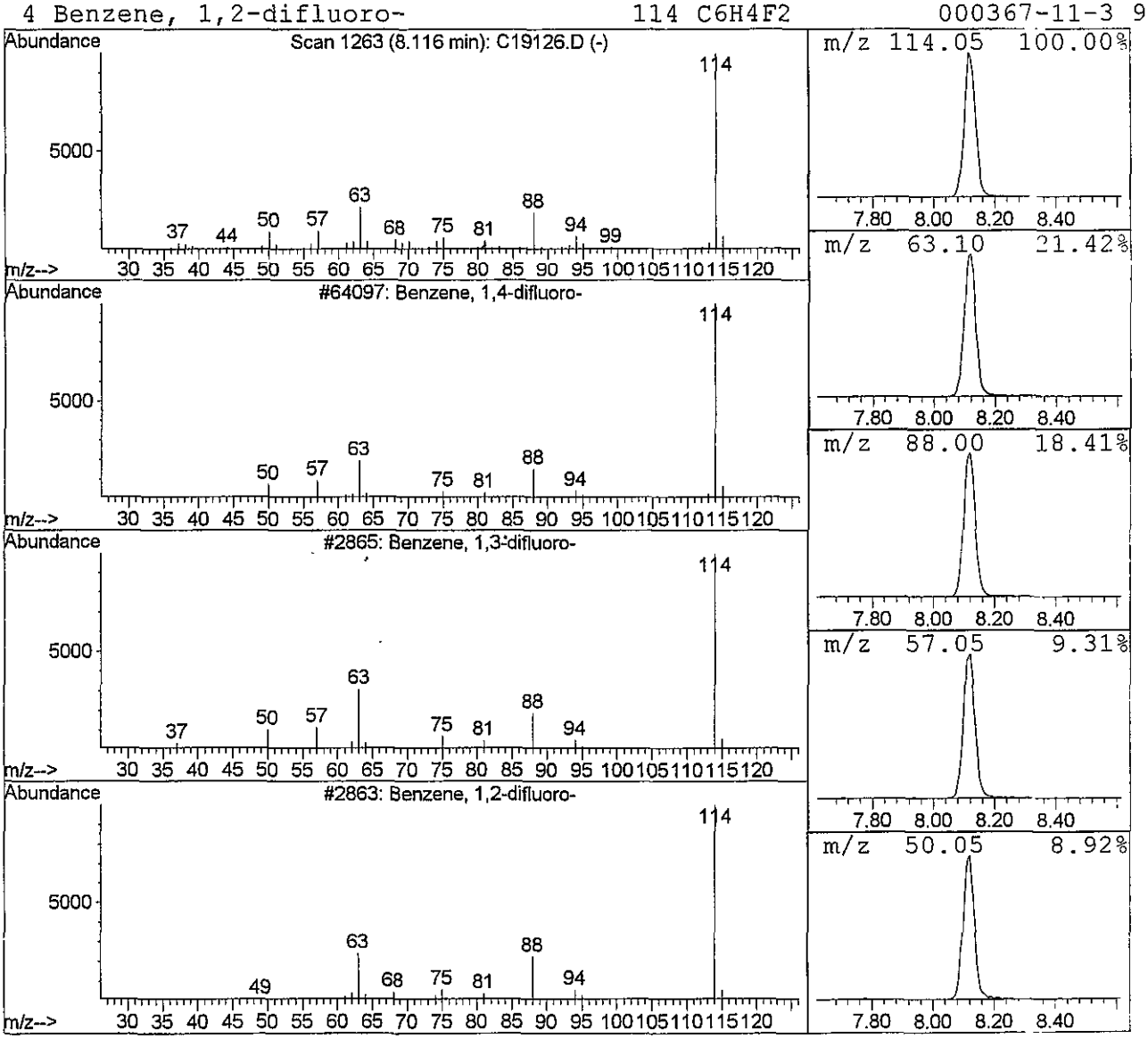
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.79 ug\L	1745730	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 18:53
Data File: C:\HPCHEM\1\DATA\032301\C19126.D
Name: AC09846 25ml DF=1
Misc: 27307/C0220125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.39	6161800.0	ug\L	616180	ISTD01	0.00	1	10.0
Carbon dioxide	1.58	1763010.0	ug\L	176301	ISTD01	0.00	1	10.0
Carbon disulfide	3.44	399740.0	ug\L	39974	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.8	ug\L	1745730	ISTD02	6.97	1364730	10.0

C19126.D 03230125.M Sun Mar 25 11:36:24 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 12:57 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	638252	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	771615	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	270765	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	214077	8.35 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 83.50%		
46) Toluene-d8	10.27	98	1210192	10.19 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.90%		
66) Bromofluorobenzene	13.97	95	314277	9.49 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.90%		

Target Compounds Qvalue

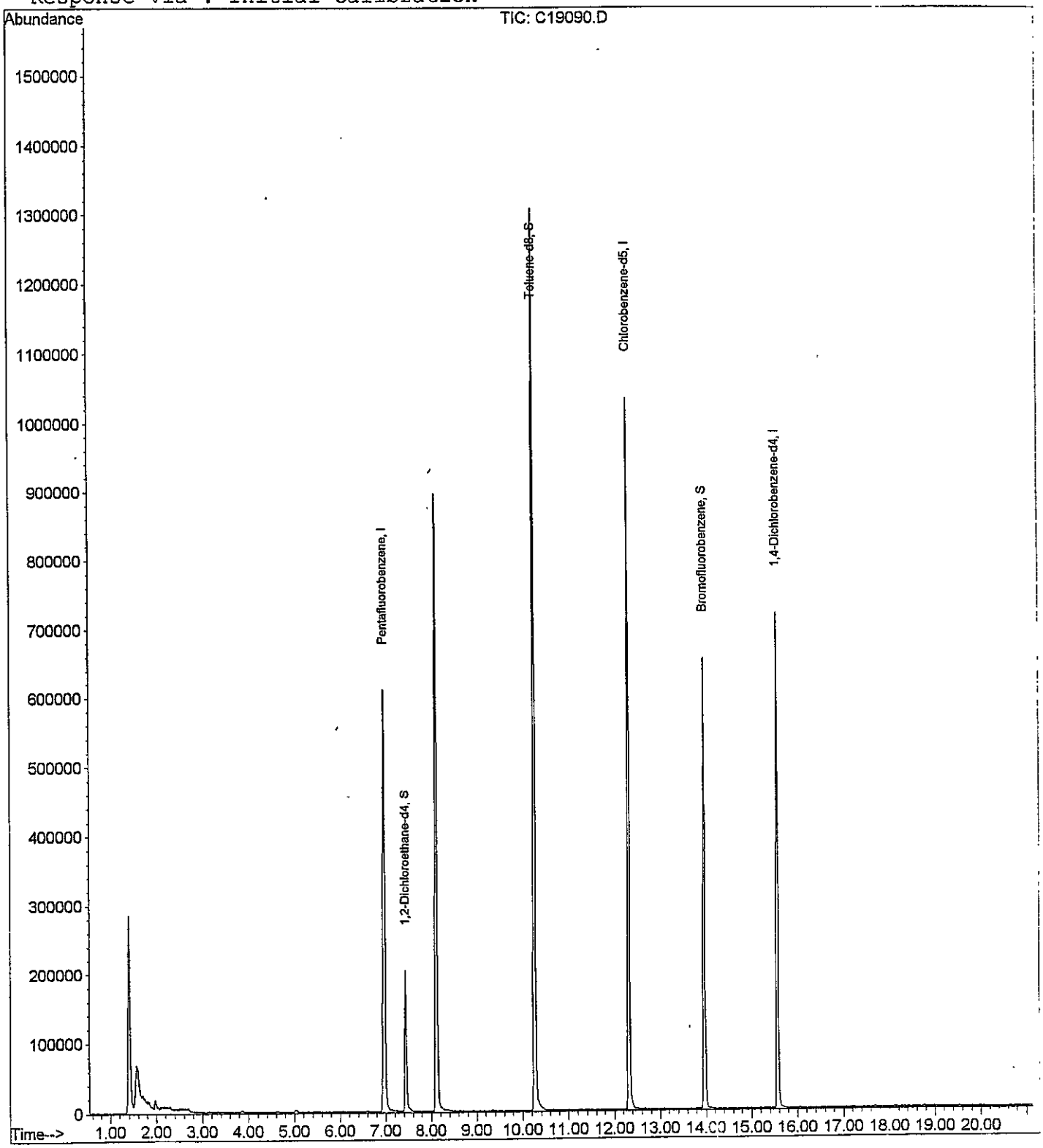
VRR
3-23-01

(#) = qualifier out of range (m) = manual integration
C19090.D 03220125.M Thu Mar 22 12:58:07 2001 INST:VOA-C Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 12:57 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

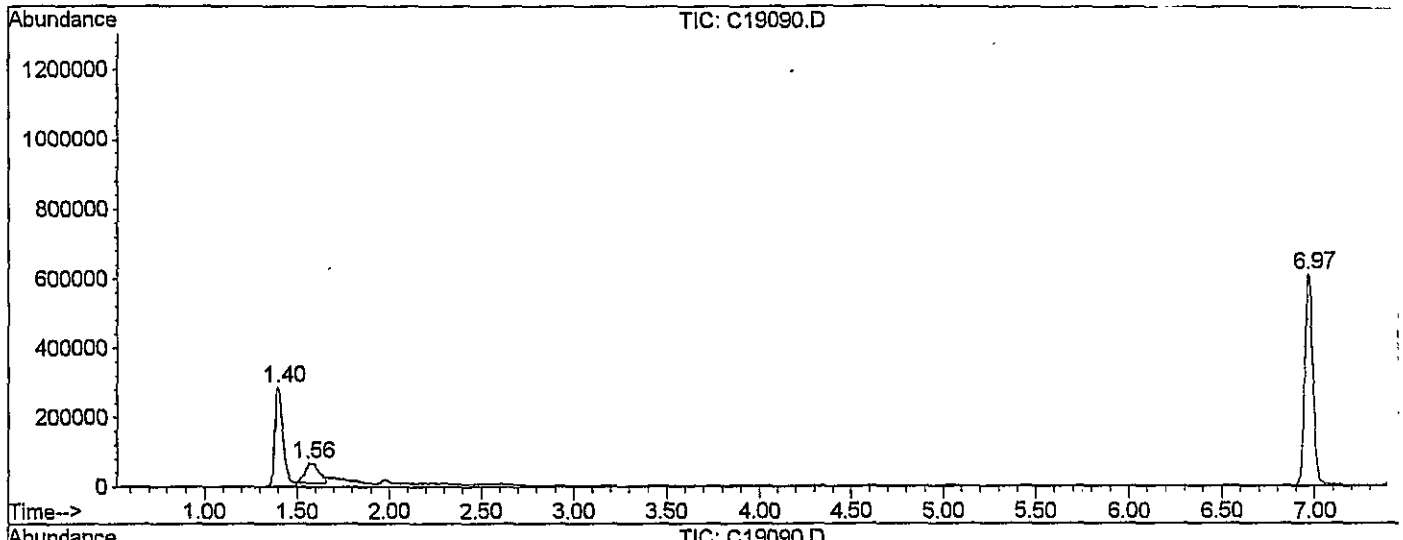
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.399	133	146	162	rBV	284708	860767	26.79%	5.844%
2	1.562	162	173	189	rBV	59097	308079	9.59%	2.092%
3	6.968	1058	1072	1087	rBV	609240	1889766	58.82%	12.831%
4	7.444	1141	1151	1171	rBV2	202088	569924	17.74%	3.870%
5	8.117	1250	1263	1280	rBV	894655	2363160	73.56%	16.045%
6	10.270	1610	1621	1637	rBV	1305842	3212646	100.00%	21.813%
7	12.321	1950	1962	1983	rBV	1033107	2380856	74.11%	16.165%
8	13.969	2226	2236	2255	rBV	652165	1476644	45.96%	10.026%
9	15.569	2490	2502	2516	rBV	716638	1666372	51.87%	11.314%

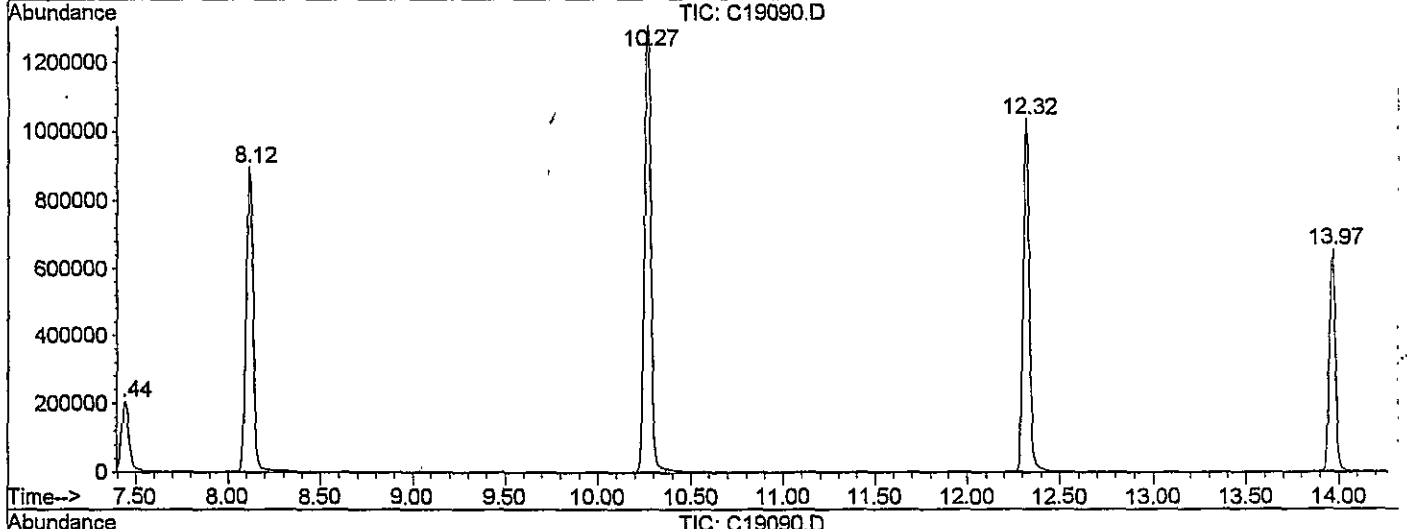
Sum of corrected areas: 14728214

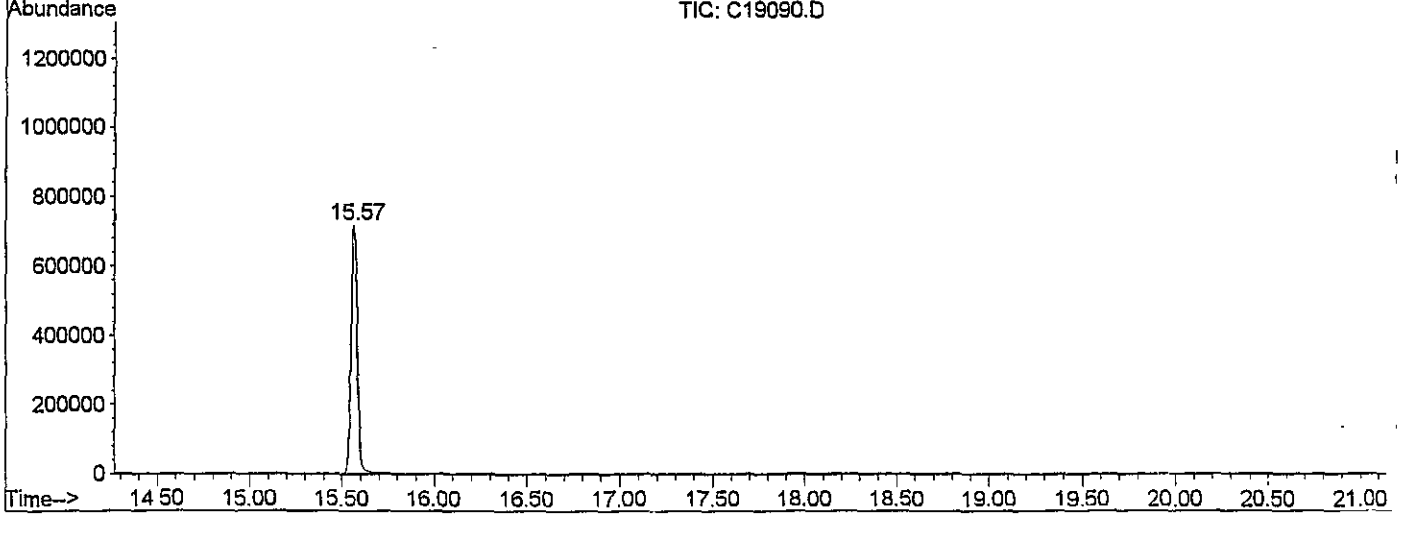
C19090.D 03220125.M Thu Mar 22 13:04:33 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032201\C19090.D
Operator : JP/VRR
Acquired : 22 Mar 2001 7:22 using AcqMethod 03220125
Instrument : VOA-C
Sample Name: QVW032201 C1
Misc Info : WATER BLANK 25ml DF=1
Vial Number: 2
Quant File :03220125.RES (RTE Integrator)







C19090.D 03220125.M Thu Mar 2. 13:[illegible]:34 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

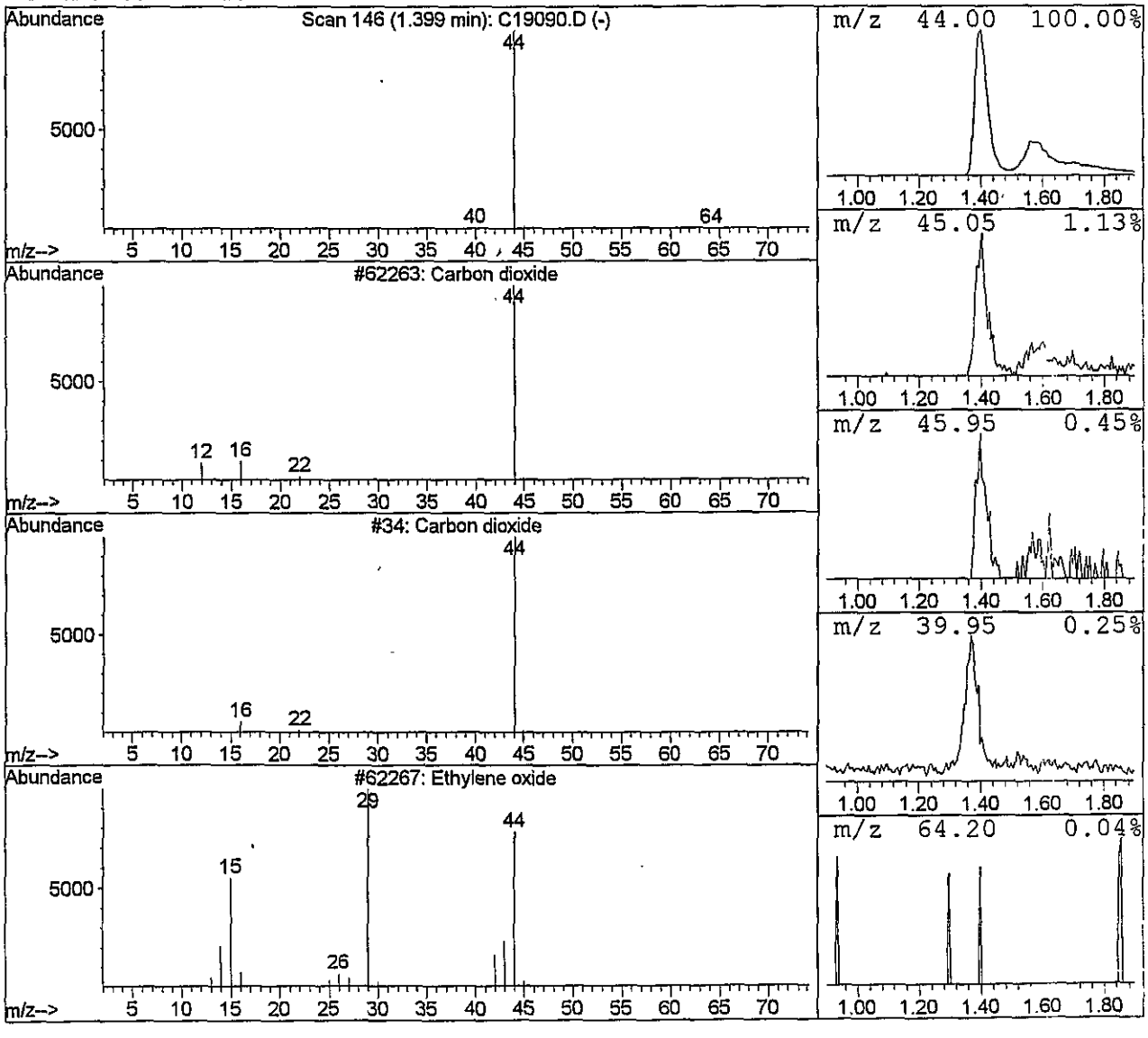
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	8607670.00 ug\L	860767	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

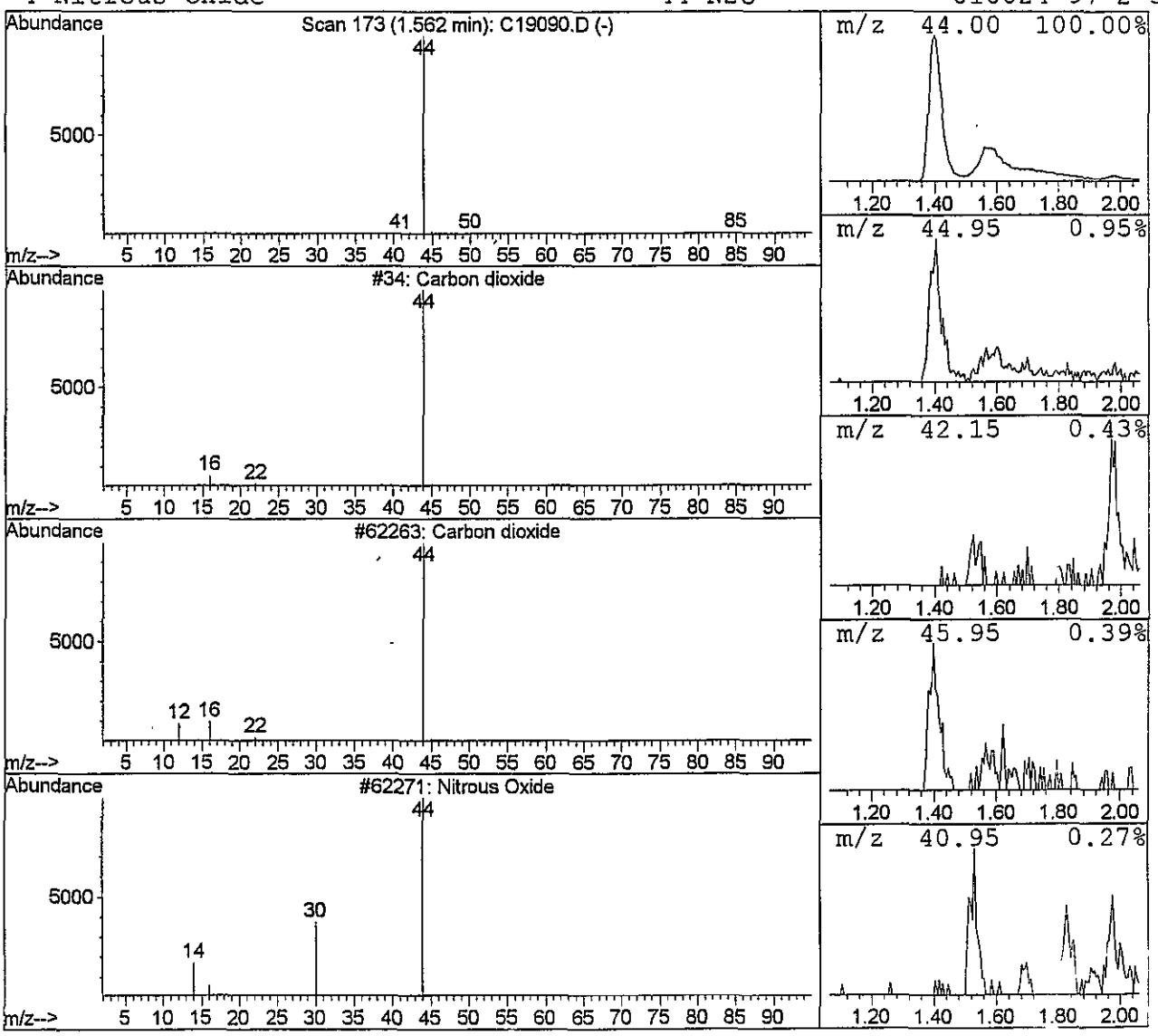
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.56	3080790.00 ug\L	308079	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032201\C19090.D Vial: 2
Acq On : 03/22/01 07:22 Operator: JP/VRR
Sample : QVW032201 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

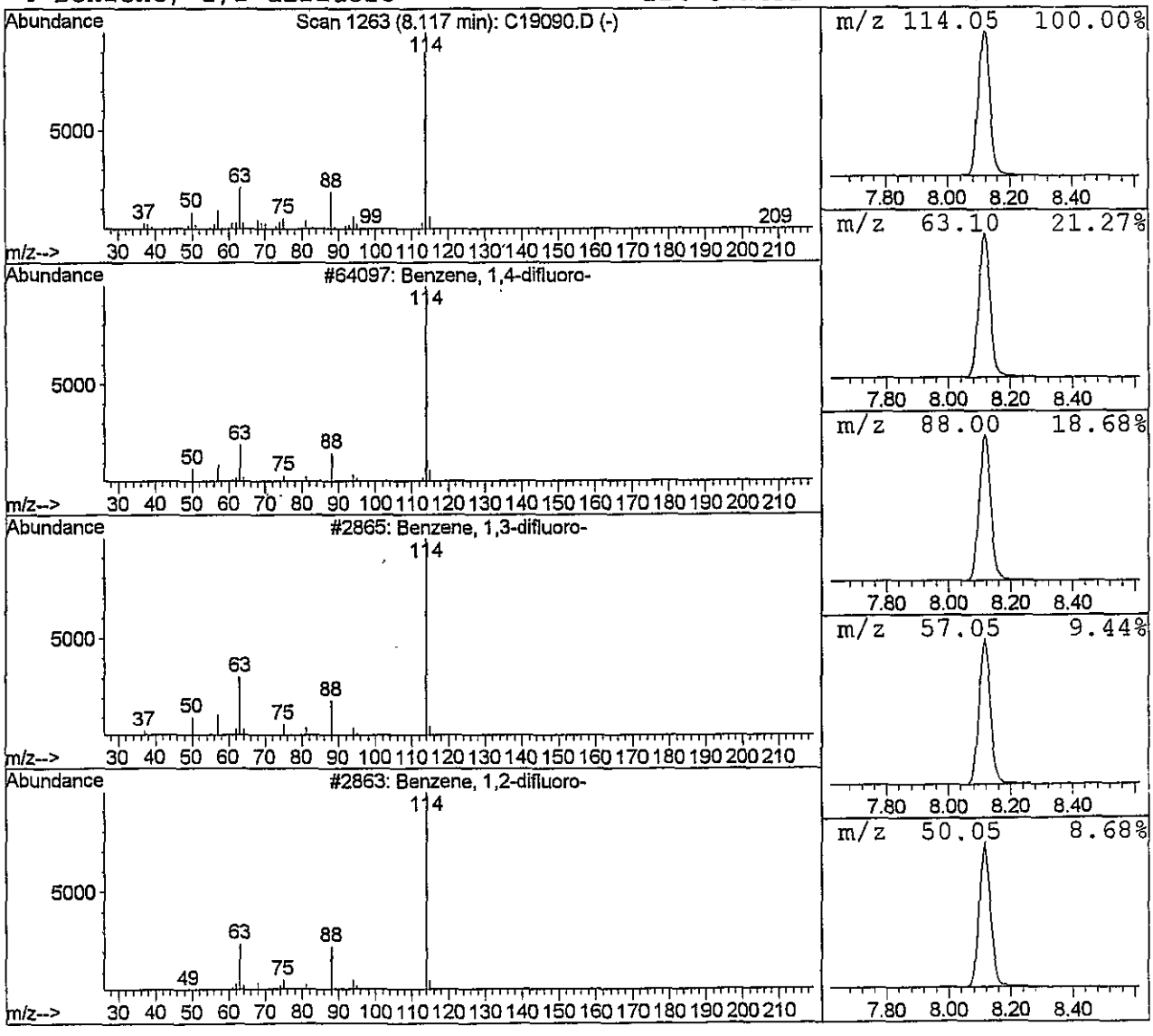
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.51 ug\L	2363160	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 22 Mar 2001 7:22
Data File: C:\HPCHEM\1\DATA\032201\C19090.D
Name: QVW032201 C1
Misc: WATER BLANK 25ml DF=1
Method: c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	8607670.0	ug\L	860767	ISTD01	0.00	1	10.0
Carbon dioxide	1.56	3080790.0	ug\L	308079	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	2363160	ISTD02	6.97	1889770	10.0

C19090.D 03220125.M Thu Mar 22 13:04:40 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	522014	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	615164	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	225294	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.43	65	177953	8.48	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%			
46) Toluene-d8	10.26	98	960599	10.15	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%			
66) Bromofluorobenzene	13.96	95	257599	9.35	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.50%			

Target Compounds Qvalue

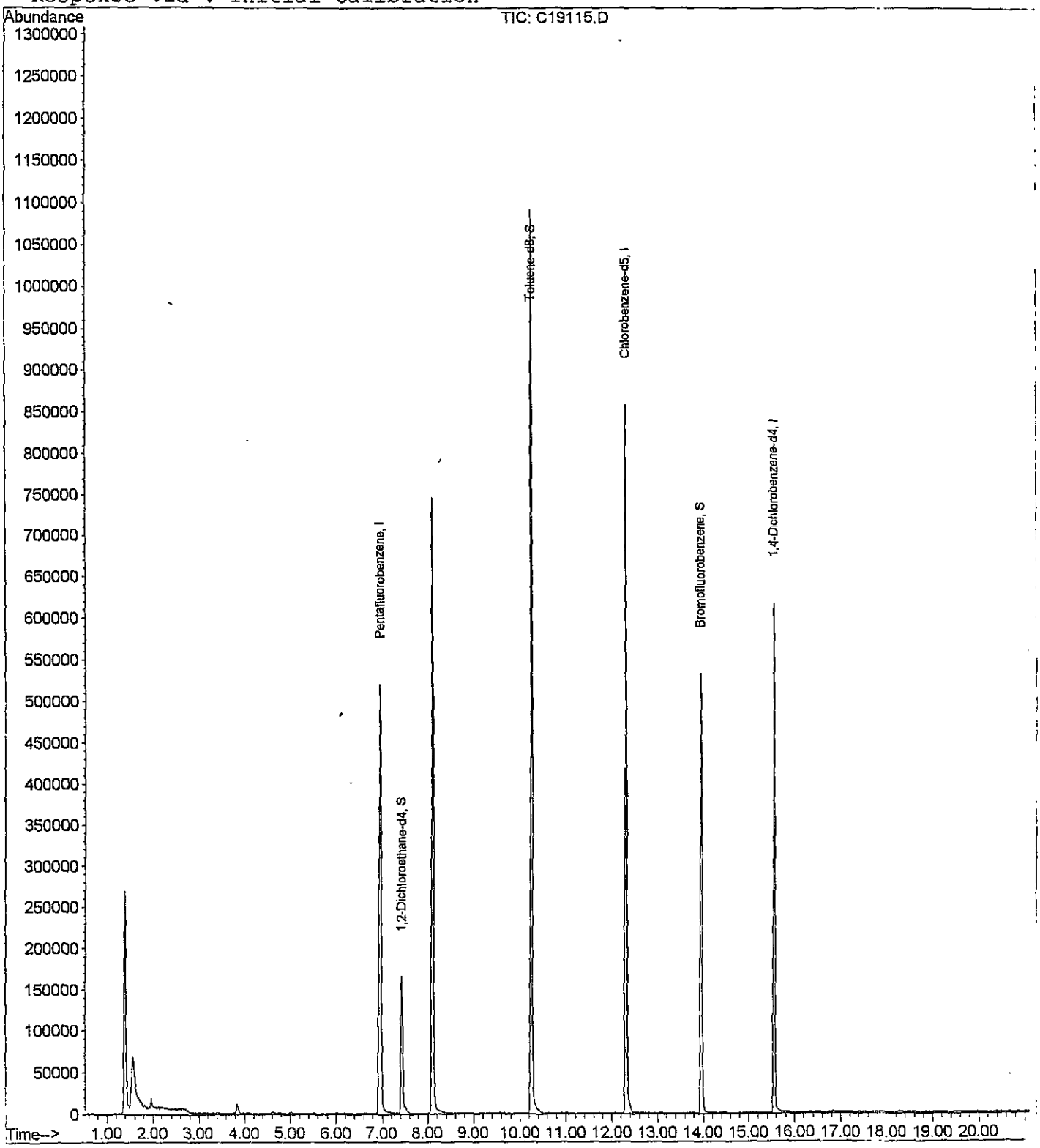
VRR
3-25-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 2/28/01	METHOD: 8260B
MATRIX: water - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: VR	Reviewer:
Date: 3/1/01 Time: 12:40	Date: 03.05.2001 Time: 1500

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files
1 =C18786.D 4 =C18785.D 10 =C18784.D
20 =C18787.D 30 =C18788.D 40 =C18789.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	----------	ISTD	----------	----------	----------	
2)	T	Dichlorodifluoromet	0.924	0.887	0.882	0.849	0.812	0.812	0.861	5.19
3)	TP	Chloromethane	0.653	0.637	0.619	0.571	0.553	0.559	0.599	7.19
4)	TC	Vinyl Chloride	0.561	0.550	0.544	0.493	0.487	0.495	0.522	6.43
5)	T	Bromomethane	0.193	0.151	0.143	0.127	0.120	0.126	0.143	18.80
6)	T	Chloroethane	0.283	0.280	0.286	0.250	0.249	0.251	0.266	6.85
7)	T	Trichlorofluorometh	0.863	0.811	0.833	0.787	0.765	0.783	0.807	4.48
8)	T	Acrolein	0.008	0.007	0.007	0.008	0.008	0.009	0.008	10.02
9)	T	Acrylonitrile	0.040	0.037	0.035	0.040	0.039	0.041	0.039	5.89
10)	TMC	1,1-Dichloroethene	0.480	0.495	0.481	0.462	0.447	0.463	0.471	3.65
11)	T	Acetone		0.020	0.012	0.012	0.010	0.010	0.013	30.91
12)	T	Iodomethane	0.580	0.590	0.607	0.671	0.651	0.642	0.623	5.84
13)	T	Allylchloride	0.670	0.685	0.677	0.673	0.652	0.660	0.669	1.80
14)	T	Carbon Disulfide	1.562	1.565	1.546	1.597	1.561	1.604	1.573	1.46
15)	T	Acetonitrile	0.090	0.093	0.089	0.088	0.086	0.087	0.089	2.64
16)	T	Methylene Chloride	0.294	0.263	0.245	0.242	0.235	0.242	0.253	8.60
17)	T	trans-1,2-Dichloroe	0.501	0.514	0.498	0.469	0.460	0.466	0.485	4.62
18)	T	MethylTertButylEthe	0.578	0.557	0.514	0.546	0.534	0.549	0.546	3.97
19)	TP	1,1-Dichloroethane	0.888	0.881	0.835	0.822	0.825	0.828	0.847	3.51
20)	T	Vinyl Acetate	0.213	0.208	0.187	0.216	0.221	0.236	0.213	7.51
21)	T	2,2-Dichloropropane	0.860	0.860	0.861	0.797	0.753	0.750	0.814	6.66
22)	T	cis-1,2-Dichloroeth	0.472	0.484	0.467	0.458	0.453	0.454	0.465	2.58
23)	T	2-Butanone	0.021	0.014	0.011	0.010	0.011	0.011	0.013	31.48
24)	T	Propionitrile	0.014	0.014	0.012	0.013	0.014	0.014	0.013	4.66
25)	T	Methacrylonitrile	0.085	0.087	0.079	0.085	0.081	0.083	0.083	3.49
26)	T	Bromochloromethane	0.152	0.153	0.147	0.144	0.142	0.146	0.147	2.86
27)	TC	Chloroform	0.953	0.903	0.891	0.872	0.871	0.879	0.895	3.48
28)	T	1,1,1-Trichloroetha	0.881	0.924	0.915	0.891	0.890	0.895	0.899	1.84
29)	T	Carbon Tetrachlorid	0.759	0.759	0.758	0.755	0.755	0.757	0.757	0.26
30)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	20.51
31)	T	1,1-Dichloropropene	0.255	0.258	0.251	0.237	0.229	0.235	0.244	4.87
32)	S	1,2-Dichloroethane-	0.408	0.438	0.369	0.409	0.390	0.397	0.402	5.70
33)	TM	Benzene	2.019	1.923	1.859	1.782	1.784	1.787	1.859	5.18
34)	T	Isobutyl alcohol	0.002	0.004	0.003	0.004	0.004	0.004	0.004	20.80
35)	T	1,2-Dichloroethane	0.452	0.450	0.409	0.427	0.421	0.429	0.431	3.84
36)	TM	Trichloroethene	0.601	0.587	0.581	0.562	0.563	0.573	0.578	2.60
37)	TC	1,2-Dichloropropane	0.417	0.417	0.389	0.396	0.401	0.405	0.404	2.81
38)	T	Dibromomethane	0.161	0.158	0.147	0.150	0.150	0.152	0.153	3.47
39)	T	Methylmethacrylate	0.097	0.099	0.098	0.104	0.106	0.112	0.103	5.70
40)	T	Bromodichloromethan	0.508	0.531	0.532	0.550	0.572	0.575	0.545	4.74
41)	T	2-Nitropropane	0.029	0.029	0.026	0.031	0.035	0.037	0.031	13.47
42)	T	2-Chloroethyl-vinyl	0.065	0.069	0.064	0.083	0.086	0.085	0.075	14.03
43)	T	cis-1,3-Dichloropro	0.485	0.549	0.524	0.535	0.559	0.576	0.538	5.90
44)	T	4-Methyl-2-Pentanon	0.022	0.018	0.017	0.020	0.021	0.023	0.020	10.78

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files
1 =C18786.D 4 =C18785.D 10 =C18784.D
20 =C18787.D 30 =C18788.D 40 =C18789.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	----------	----------	----------	ISTD	----------	----------	----------	
46)	S	Toluene-d8	1.477	1.656	1.602	1.531	1.504	1.466	1.539	4.87
47)	TMC	Toluene	1.019	0.966	1.013	0.892	0.923	0.902	0.953	5.82
48)	T	trans-1,3-Dichlorop	0.254	0.281	0.295	0.303	0.314	0.321	0.295	8.23
49)	T	Ethylmethacrylate	0.162	0.177	0.186	0.197	0.203	0.207	0.188	9.09
50)	T	1,1,2-Trichloroetha	0.135	0.135	0.132	0.131	0.135	0.137	0.134	1.62
51)	T	Tetrachloroethene	0.374	0.359	0.377	0.340	0.344	0.346	0.357	4.48
52)	T	1,3-Dichloropropane	0.301	0.300	0.298	0.292	0.294	0.302	0.298	1.33
53)	T	2-Hexanone	0.056	0.052	0.053	0.060	0.061	0.063	0.057	7.99
54)	T	Dibromochloromethan	0.177	0.199	0.209	0.215	0.224	0.231	0.209	9.20
55)	T	1,2-Dibromoethane	0.137	0.141	0.145	0.145	0.149	0.154	0.145	4.12
56)	TMP	Chlorobenzene	1.171	1.012	1.014	0.931	0.940	0.936	1.001	9.14
57)	T	1,1,1,2-Tetrachloro	0.278	0.291	0.304	0.288	0.293	0.293	0.291	2.85
58)	TC	Ethylbenzene	2.019	1.997	2.037	1.833	1.822	1.764	1.912	6.20
59)	TG	total-Xylene	0.693	0.685	0.693	0.628	0.627	0.614	0.657	5.69
60)	T	Styrene	0.929	0.947	0.993	0.909	0.938	0.928	0.941	3.03
61)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------	----------	
62)	TP	Bromoform	0.171	0.194	0.209	0.221	0.249	0.255	0.216	14.89
63)	T	Isopropylbenzene	4.997	5.098	5.214	4.578	4.859	4.742	4.915	4.78
64)	T	cis-1,4-dichloro-2-	0.068	0.085	0.093	0.101	0.115	0.120	0.097	19.94
65)	T	trans-1,4-dichloro-	0.427	0.437	0.426	0.423	0.445	0.447	0.434	2.33
66)	S	Bromofluorobenzene		1.291	1.199	1.179	1.225	1.224	1.223	3.45
67)	T	Bromobenzene	0.815	0.796	0.787	0.748	0.813	0.820	0.797	3.39
68)	TP	1,1,2,2-Tetrachloro	0.358	0.382	0.363	0.365	0.390	0.397	0.376	4.25
69)	T	1,2,3-Trichloroprop	0.427	0.437	0.426	0.423	0.445	0.447	0.434	2.33
70)	T	n-Propylbenzene	6.102	6.233	6.358	5.591	5.839	5.667	5.965	5.25
71)	T	2-Chlorotoluene	3.454	3.373	3.461	3.086	3.283	3.235	3.315	4.34
72)	T	4-Chlorotoluene	3.787	3.340	3.392	3.375	3.601	3.553	3.508	4.90
73)	T	1,3,5-Trimethylbenz	4.040	4.088	4.184	3.671	3.884	3.739	3.934	5.17
74)	T	Pentachloroethane	0.461	0.502	0.484	0.471	0.496	0.498	0.485	3.41
75)	T	tert-Butylbenzene	3.381	3.484	3.570	3.043	3.245	3.182	3.317	5.94
76)	T	1,2,4-Trimethylbenz	3.773	3.884	3.978	3.478	3.635	3.509	3.710	5.47
77)	T	sec-Butylbenzene	5.159	5.133	5.293	4.585	4.810	4.712	4.949	5.75
78)	T	1,3-Dichlorobenzene	1.737	1.643	1.659	1.490	1.548	1.534	1.602	5.81
79)	T	Isopropyltoluene	3.866	4.016	4.154	3.592	3.669	3.583	3.813	6.23
80)	T	1,4-Dichlorobenzene	1.652	1.575	1.583	1.453	1.534	1.540	1.556	4.24
81)	T	1,2-Dichlorobenzene	1.302	1.218	1.198	1.136	1.179	1.205	1.206	4.56
82)	T	n-Butylbenzene	3.649	3.820	4.001	3.513	3.644	3.641	3.711	4.64
83)	T	1,2-Dibromo-3-chlor	0.047	0.038	0.035	0.042	0.042	0.048	0.042	11.90
84)	T	1,2,4-trichlorobenz	0.706	0.642	0.613	0.613	0.625	0.655	0.642	5.50
85)	T	Hexachlorobutadiene	0.628	0.566	0.524	0.440	0.411	0.423	0.499	17.67
86)	T	Naphthalene	0.946	0.716	0.603	0.699	0.753	0.821	0.756	15.48
87)	T	1,2,3-Trichlorobenz	0.480	0.429	0.412	0.425	0.425	0.457	0.438	5.82

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files

1	=C18786.D	4	=C18785.D	10	=C18784.D
20	=C18787.D	30	=C18788.D	40	=C18789.D

Compound	1	4	10	20	30	40	Avg	%RSD
88) i 1.4-Difluorobenzene	----------ISTD----------							

(#) = Out of Range
02280125.M Wed Feb 28 13:30:08 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	586839	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	729179	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	287042	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1716	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	216666	9.19	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.90%			
46) Toluene-d8	10.26	98	1168180	10.41	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.10%			
66) Bromofluorobenzene	13.96	95	344083	9.80	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.00%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	517879	10.25	ug\L	99
3) Chloromethane	1.74	50	363063	10.33	ug\L	98
4) Vinyl Chloride	1.85	62	319513	10.44	ug\L	99
5) Bromomethane	2.16	94	83912	10.84	ug\L	94
6) Chloroethane	2.28	64	167851	10.74	ug\L	94
7) Trichlorofluoromethane	2.54	101	488684	10.32	ug\L #	100
8) Acrolein	3.10	56	7889	17.18	ug\L #	98
9) Acrylonitrile	4.29	53	40944	18.10	ug\L	89
10) 1,1-Dichloroethene	3.16	96	282038	10.20	ug\L	100
11) Acetone	3.31	58	6814	8.65	ug\L	91
12) Iodomethane	3.37	142	356367	9.74	ug\L	99
13) Allylchloride	3.65	39	397304	10.11	ug\L	97
14) Carbon Disulfide	3.44	76	907199	9.83	ug\L	99
15) Acetonitrile	3.65	41	522405	100.31	ug\L	97
16) Methylene Chloride	3.86	86	143532	9.65	ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	292339	10.27	ug\L	99
18) MethylTertButylEther	4.23	73	301439	9.40	ug\L	100
19) 1,1-Dichloroethane	5.00	63	490069	9.86	ug\L	98
20) Vinyl Acetate	5.13	43	109892	8.77	ug\L	97
21) 2,2-Dichloropropane	6.01	77	505476	10.59	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	274086	10.05	ug\L	99
23) 2-Butanone	6.17	72	3249	4.60	ug\L #	1
24) Propionitrile	6.31	54	72207	91.22	ug\L #	98
25) Methacrylonitrile	6.52	41	462720	94.44	ug\L	99
26) Bromochloromethane	6.49	128	86428	10.01	ug\L	94
27) Chloroform	6.64	83	522798	9.96	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	537244	10.18	ug\L	99
29) Carbon Tetrachloride	7.10	119	445027	10.01	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.09	88	9585	181.53 ug\L	#	90
31)	1,1-Dichloropropene	7.12	77	147362	10.28 ug\L		98
33)	Benzene	7.47	78	1090721	10.00 ug\L		100
34)	Isobutyl alcohol	7.57	43	39621	166.98 ug\L		99
35)	1,2-Dichloroethane	7.56	62	240229	9.49 ug\L		99
36)	Trichloroethene	8.48	95	341074	10.06 ug\L		99
37)	1,2-Dichloropropane	8.84	63	228178	9.62 ug\L		99
38)	Dibromomethane	9.05	93	86336	9.62 ug\L		97
39)	Methylmethacrylate	9.06	69	57395	9.52 ug\L		95
40)	Bromodichloromethane	9.30	83	312144	9.76 ug\L		99
41)	2-Nitropropane	9.67	43	14981	8.20 ug\L		98
42)	2-Chloroethyl-vinyl ether	9.74	63	37476	8.49 ug\L		100
43)	cis-1,3-Dichloropropene	9.93	75	307661	9.75 ug\L		98
44)	4-Methyl-2-Pentanone	10.16	85	10209	8.68 ug\L	#	93
47)	Toluene	10.36	92	738449	10.63 ug\L		99
48)	trans-1,3-Dichloropropene	10.75	75	215205	10.02 ug\L		99
49)	Ethylmethacrylate	10.85	69	135755	9.88 ug\L		98
50)	1,1,2-Trichloroethane	11.02	83	96304	9.84 ug\L		96
51)	Tetrachloroethene	11.12	164	274557	10.56 ug\L		99
52)	1,3-Dichloropropane	11.23	76	217596	10.02 ug\L		99
53)	2-Hexanone	11.35	43	38629	9.21 ug\L		94
54)	Dibromochloromethane	11.56	129	152377	9.98 ug\L		100
55)	1,2-Dibromoethane	11.70	107	105765	9.99 ug\L		100
56)	Chlorobenzene	12.36	112	739119	10.13 ug\L		100
57)	1,1,1,2-Tetrachloroethane	12.49	131	221502	10.43 ug\L		98
58)	Ethylbenzene	12.50	91	1485085	10.65 ug\L		99
59)	total-Xylene	12.66	106	1518622m	31.72 ug\L		
60)	Styrene	13.25	104	724021	10.55 ug\L		99
62)	Bromoform	13.56	173	59950	9.65 ug\L		98
63)	Isopropylbenzene	13.72	105	1496562	10.61 ug\L		99
64)	cis-1,4-dichloro-2-Butene	13.88	75	26618	9.22 ug\L	#	87
65)	trans-1,4-dichloro-2-Buten	14.27	75	122396	9.82 ug\L	#	72
67)	Bromobenzene	14.17	156	225972	9.88 ug\L		98
68)	1,1,2,2-Tetrachloroethane	14.22	83	104121	9.66 ug\L		99
69)	1,2,3-Trichloropropane	14.27	75	122396	9.82 ug\L	#	100
70)	n-Propylbenzene	14.29	91	1824958	10.66 ug\L		99
71)	2-Chlorotoluene	14.43	91	993376	10.44 ug\L		99
72)	4-Chlorotoluene	14.58	91	973687	9.67 ug\L		95
73)	1,3,5-Trimethylbenzene	14.53	105	1200845	10.63 ug\L		99
74)	Pentachloroethane	15.05	167	138919	9.97 ug\L		97
75)	tert-Butylbenzene	14.98	119	1024829	10.76 ug\L		100
76)	1,2,4-Trimethylbenzene	15.05	105	1141799	10.72 ug\L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

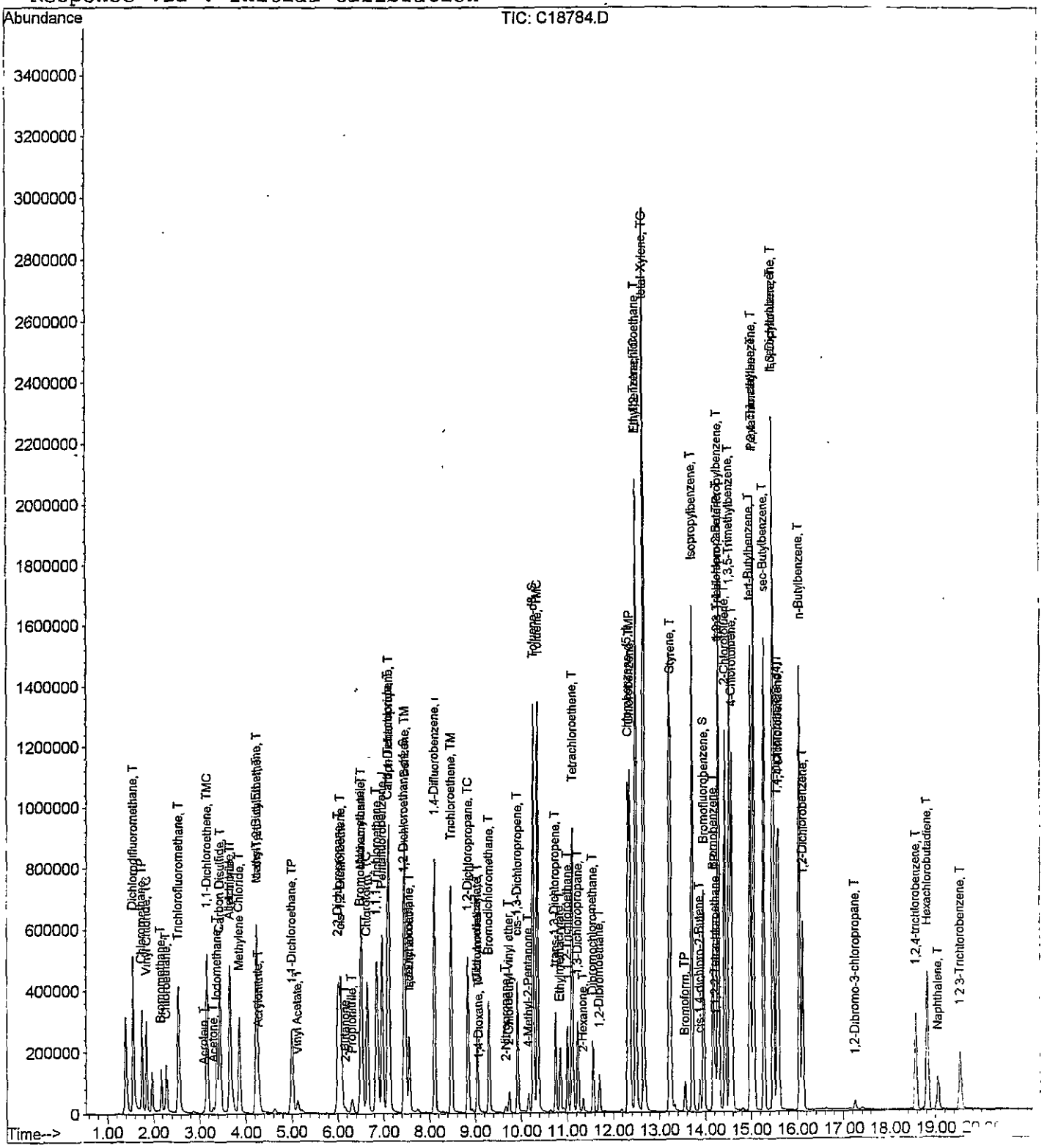
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1519439	10.70 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	476281	10.36 ug\L	97
79) Isopropyltoluene	15.47	119	1192340	10.89 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	454367	10.17 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	343830	9.93 ug\L	100
82) n-Butylbenzene	16.04	91	1148357	10.78 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	10113	8.35 ug\L	96
84) 1,2,4-trichlorobenzene	18.57	180	175883	9.54 ug\L	100
85) Hexachlorobutadiene	18.82	225	150390	11.42 ug\L	100
86) Naphthalene	19.05	128	173126	7.76 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	118222	9.40 ug\L	99

(#) = qualifier out of range (m) = manual integration
C1 [illegible]84.D 02280125.M Wed Feb 28 13:36:55 2001 INST: VOA-C

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D
Acq On : 02/28/01 11:08
Sample : ICAL 4 ppb (V01010,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001

Vial: 2
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	559630	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	747345	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	291670	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1426	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	98048	4.36 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery	= 43.60%#	
46) Toluene-d8	10.27	98	494974	4.30 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery	= 43.00%#	
66) Bromofluorobenzene	13.96	95	150590	4.22 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery	= 42.20%#	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	198548	4.12 ug\L	100
3) Chloromethane	1.75	50	142695	4.26 ug\L	99
4) Vinyl Chloride	1.85	62	123015	4.21 ug\L	99
5) Bromomethane	2.17	94	33788	4.03 ug\L	97
6) Chloroethane	2.28	64	62631	4.20 ug\L	94
7) Trichlorofluoromethane	2.54	101	181513	4.02 ug\L #	100
8) Acrolein	3.09	56	3300	7.53 ug\L #	95
9) Acrylonitrile	4.32	53	16434	7.62 ug\L	88
10) 1,1-Dichloroethene	3.17	96	110807	4.20 ug\L	98
11) Acetone	3.30	58	4433	4.79 ug\L	90
12) Iodomethane	3.38	142	132070	3.79 ug\L	98
13) Allylchloride	3.67	39	153372	4.09 ug\L	99
14) Carbon Disulfide	3.44	76	350343	3.98 ug\L	99
15) Acetonitrile	3.66	41	207602	41.80 ug\L	99
16) Methylene Chloride	3.86	86	58969	4.16 ug\L	98
17) trans-1,2-Dichloroethene	4.25	96	115140	4.24 ug\L	100
18) MethylTertButylEther	4.24	73	124736	4.08 ug\L	100
19) 1,1-Dichloroethane	5.01	63	197311	4.16 ug\L	99
20) Vinyl Acetate	5.14	43	46462	3.89 ug\L	97
21) 2,2-Dichloropropane	6.02	77	192596	4.23 ug\L	98
22) cis-1,2-Dichloroethene	6.07	96	108295	4.16 ug\L	99
23) 2-Butanone	6.16	72	3183	4.74 ug\L #	1
24) Propionitrile	6.32	54	30623	40.57 ug\L #	90
25) Methacrylonitrile	6.53	41	194000	41.52 ug\L	98
26) Bromochloromethane	6.50	128	34185	4.15 ug\L	95
27) Chloroform	6.65	83	202057	4.04 ug\L	100
28) 1,1,1-Trichloroethane	6.86	97	206784	4.11 ug\L	98
29) Carbon Tetrachloride	7.11	119	169961	4.01 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.08	88	3150	81.91 ug\L #	72
31) 1,1-Dichloropropene	7.14	77	57699	4.22 ug\L	97
33) Benzene	7.47	78	430546	4.14 ug\L	100
34) Isobutyl alcohol	7.58	43	19716	82.53 ug\L #	83
35) 1,2-Dichloroethane	7.56	62	100697	4.17 ug\L	97
36) Trichloroethene	8.49	95	131395	4.06 ug\L	99
37) 1,2-Dichloropropane	8.84	63	93367	4.13 ug\L	99
38) Dibromomethane	9.05	93	35442	4.14 ug\L	97
39) Methylmethacrylate	9.05	69	22182	3.86 ug\L	98
40) Bromodichloromethane	9.30	83	118929	3.90 ug\L	99
41) 2-Nitropropane	9.67	43	6585	3.78 ug\L	91
42) 2-Chloroethyl-vinyl ether	9.75	63	15416	3.66 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	122843	4.08 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	3976	3.54 ug\L #	85
47) Toluene	10.36	92	288918	4.06 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	83884	3.81 ug\L	98
49) Ethylmethacrylate	10.85	69	52853	3.75 ug\L	94
50) 1,1,2-Trichloroethane	11.01	83	40426	4.03 ug\L	98
51) Tetrachloroethene	11.12	164	107449	4.03 ug\L	99
52) 1,3-Dichloropropane	11.23	76	89604	4.03 ug\L	99
53) 2-Hexanone	11.35	43	15572	3.62 ug\L	95
54) Dibromochloromethane	11.56	129	59441	3.80 ug\L	99
55) 1,2-Dibromoethane	11.70	107	42083	3.88 ug\L	92
56) Chlorobenzene	12.36	112	302598	4.05 ug\L	97
57) 1,1,1,2-Tetrachloroethane	12.49	131	87092	4.00 ug\L	98
58) Ethylbenzene	12.49	91	596898	4.18 ug\L	100
59) total-Xylene	12.66	106	614873m	12.53 ug\L	
60) Styrene	13.25	104	283181	4.03 ug\L	95
62) Bromoform	13.56	173	22588	3.58 ug\L	98
63) Isopropylbenzene	13.71	105	594751	4.15 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.88	75	9920	4.40 ug\L #	80
65) trans-1,4-dichloro-2-Buten	14.27	75	50989	4.03 ug\L #	71
67) Bromobenzene	14.17	156	92896	4.00 ug\L	99
68) 1,1,2,2-Tetrachloroethane	14.22	83	44511	4.06 ug\L	96
69) 1,2,3-Trichloropropane	14.27	75	50989	4.03 ug\L #	100
70) n-Propylbenzene	14.28	91	727178	4.18 ug\L	98
71) 2-Chlorotoluene	14.42	91	393498	4.07 ug\L	98
72) 4-Chlorotoluene	14.58	91	389674	3.81 ug\L	95
73) 1,3,5-Trimethylbenzene	14.53	105	476941	4.16 ug\L	100
74) Pentachloroethane	15.05	167	58621	4.14 ug\L	95
75) tert-Butylbenzene	14.98	119	406423	4.20 ug\L	98
76) 1,2,4-Trimethylbenzene	15.05	105	453121	4.19 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

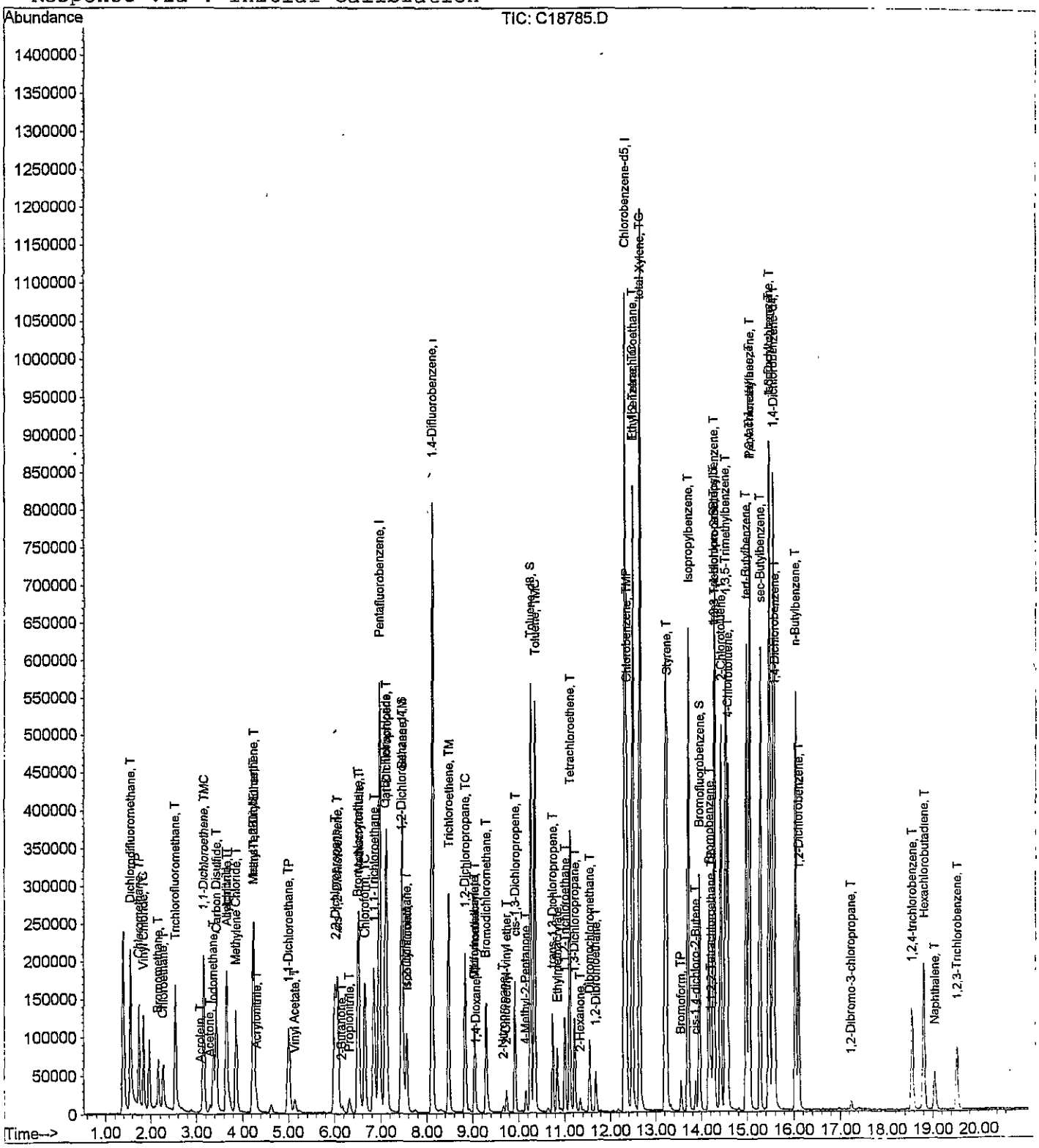
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	598897	4.15 ug\L	99
78) 1,3-Dichlorobenzene	15.46	146	191640	4.10 ug\L	96
79) Isopropyltoluene	15.48	119	468540	4.21 ug\L	100
80) 1,4-Dichlorobenzene	15.59	146	183753	4.05 ug\L	98
81) 1,2-Dichlorobenzene	16.12	146	142055	4.04 ug\L	99
82) n-Butylbenzene	16.04	91	445705	4.12 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	4484	3.64 ug\L	90
84) 1,2,4-trichlorobenzene	18.57	180	74868	4.00 ug\L	100
85) Hexachlorobutadiene	18.81	225	66024	4.05 ug\L	100
86) Naphthalene	19.06	128	83529	3.69 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	50002	3.91 ug\L	95

(#) = qualifier out of range (m) = manual integration
C18785.D 02280125.M Wed Feb 28 13:37:50 2001 INST:VOA-C

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	471435	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	622100	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	241683	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.13	116	1373	10.00	ug\L	0.02
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	19225	1.01	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.10%#			
46) Toluene-d8	10.27	98	91902	0.96	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.60%#			
66) Bromofluorobenzene	13.96	95	28569	0.97	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.70%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	43546	1.07	ug\L	100
3) Chloromethane	1.75	50	30774	1.09	ug\L	95
4) Vinyl Chloride	1.85	62	26461	1.08	ug\L	98
5) Bromomethane	2.17	94	9104	0.65	ug\L	93
6) Chloroethane	2.28	64	13343	1.06	ug\L	90
7) Trichlorofluoromethane	2.54	101	40685	1.07	ug\L #	100
8) Acrolein	3.09	56	463	1.25	ug\L #	14
9) Acrylonitrile	4.31	53	3755	2.07	ug\L	95
10) 1,1-Dichloroethene	3.16	96	22613	1.02	ug\L	95
11) Acetone	3.30	58	2599	2.27	ug\L	82
12) Iodomethane	3.38	142	27332	0.93	ug\L	98
13) Allylchloride	3.65	39	31608	1.00	ug\L	98
14) Carbon Disulfide	3.44	76	73636	0.99	ug\L	99
15) Acetonitrile	3.65	41	42195	10.09	ug\L	98
16) Methylene Chloride	3.86	86	13837	1.16	ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	23632	1.03	ug\L	98
18) MethylTertButylEther	4.24	73	27241	1.06	ug\L	98
19) 1,1-Dichloroethane	4.99	63	41840	1.05	ug\L	98
20) Vinyl Acetate	5.13	43	10040	1.00	ug\L #	92
21) 2,2-Dichloropropane	6.02	77	40548	1.06	ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	22273	1.02	ug\L	99
23) 2-Butanone	6.16	72	977	1.33	ug\L #	1
24) Propionitrile	6.34	54	6506	10.23	ug\L #	96
25) Methacrylonitrile	6.52	41	40228	10.22	ug\L	98
26) Bromochloromethane	6.50	128	7145	1.03	ug\L	93
27) Chloroform	6.65	83	44939	1.07	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	41519	0.98	ug\L	97
29) Carbon Tetrachloride	7.11	119	35781	1.00	ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	587	41.12 ug\L #	49
31) 1,1-Dichloropropene	7.13	77	12029	1.04 ug\L	98
33) Benzene	7.47	78	95160	1.09 ug\L	100
34) Isobutyl alcohol	7.57	43	2118	2.13 ug\L #	18
35) 1,2-Dichloroethane	7.56	62	21295	1.05 ug\L	97
36) Trichloroethene	8.48	95	28329	1.04 ug\L	98
37) 1,2-Dichloropropane	8.85	63	19660	1.03 ug\L	97
38) Dibromomethane	9.05	93	7575	1.05 ug\L	96
39) Methylmethacrylate	9.05	69	4581	0.95 ug\L #	89
40) Bromodichloromethane	9.29	83	23960	0.93 ug\L	97
41) 2-Nitropropane	9.66	43	1386	0.94 ug\L	82
42) 2-Chloroethyl-vinyl ether	9.74	63	3042	0.86 ug\L	94
43) cis-1,3-Dichloropropene	9.93	75	22844	0.90 ug\L	94
44) 4-Methyl-2-Pentanone	10.19	85	1025	1.08 ug\L #	1
47) Toluene	10.37	92	63417	1.07 ug\L	97
48) trans-1,3-Dichloropropene	10.74	75	15827	0.86 ug\L	97
49) Ethylmethacrylate	10.85	69	10056	0.86 ug\L	97
50) 1,1,2-Trichloroethane	11.00	83	8401	1.01 ug\L	96
51) Tetrachloroethene	11.12	164	23287	1.05 ug\L	96
52) 1,3-Dichloropropane	11.24	76	18705	1.01 ug\L	98
53) 2-Hexanone	11.35	43	3459	0.97 ug\L #	90
54) Dibromochloromethane	11.56	129	11037	0.85 ug\L	92
55) 1,2-Dibromoethane	11.69	107	8513	0.94 ug\L #	97
56) Chlorobenzene	12.36	112	72825	1.17 ug\L	94
57) 1,1,1,2-Tetrachloroethane	12.49	131	17303	0.96 ug\L	98
58) Ethylbenzene	12.49	91	125604	1.06 ug\L	100
59) total-Xylene	12.66	106	129653m	3.17 ug\L	
60) Styrene	13.25	104	57808	0.99 ug\L	98
62) Bromoform	13.55	173	4136	0.79 ug\L	99
63) Isopropylbenzene	13.72	105	120764	1.02 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	1648	2.17 ug\L #	70
65) trans-1,4-dichloro-2-Buten	14.27	75	10325	0.98 ug\L #	69
67) Bromobenzene	14.17	156	19708	1.02 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.21	83	8644	0.95 ug\L #	97
69) 1,2,3-Trichloropropane	14.27	75	10325	0.98 ug\L #	100
70) n-Propylbenzene	14.29	91	147471	1.02 ug\L	97
71) 2-Chlorotoluene	14.43	91	83484	1.04 ug\L	99
72) 4-Chlorotoluene	14.58	91	91519	1.08 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	97647	1.03 ug\L	96
74) Pentachloroethane	15.06	167	11143	0.95 ug\L #	89
75) tert-Butylbenzene	14.98	119	81711	1.02 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	91194	1.02 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

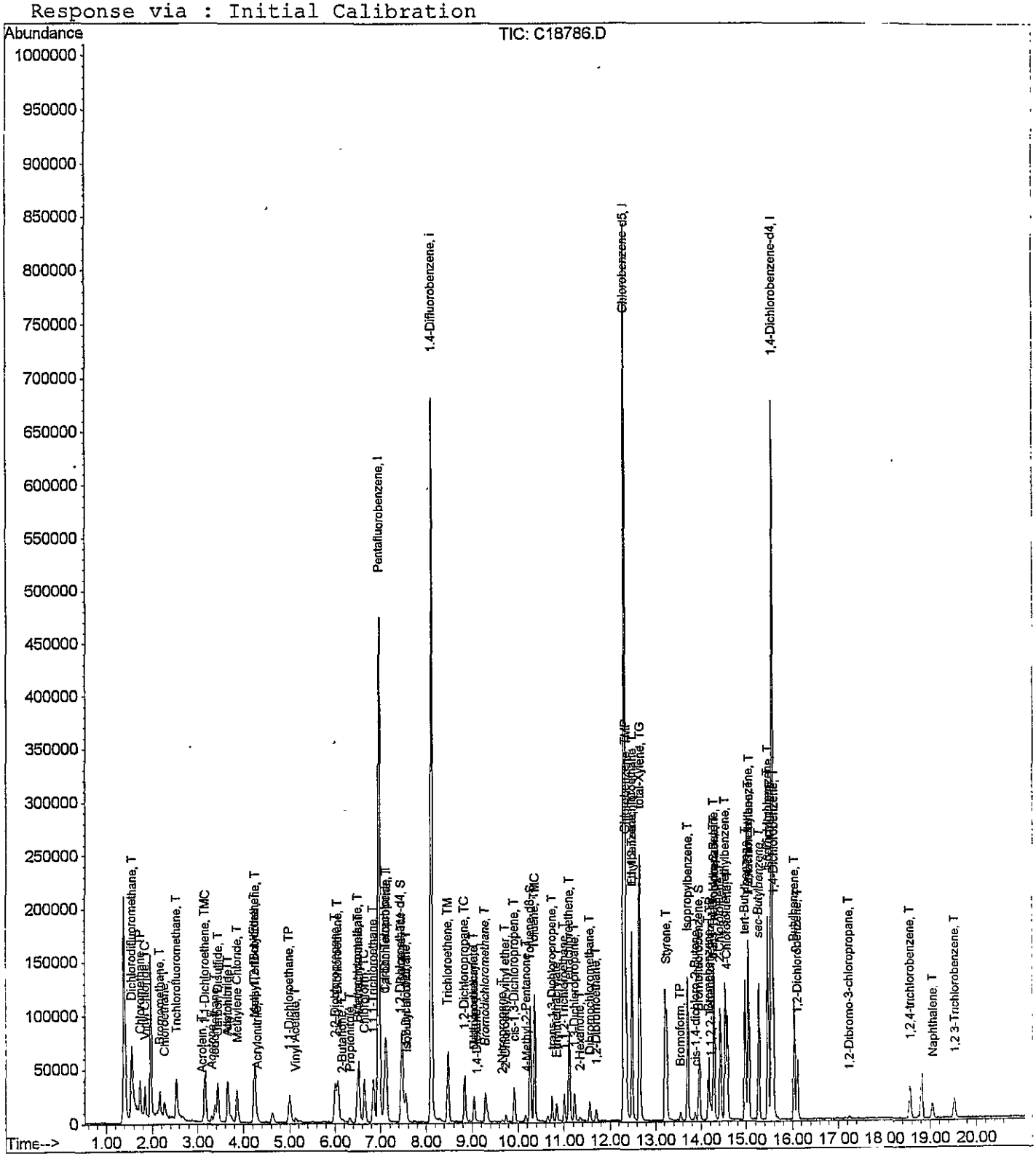
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	124689	1.04 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	41985	1.08 ug\L	96
79) Isopropyltoluene	15.48	119	93423	1.01 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	39933	1.06 ug\L	92
81) 1,2-Dichlorobenzene	16.12	146	31476	1.08 ug\L	96
82) n-Butylbenzene	16.04	91	88195	0.98 ug\L	97
83) 1,2-Dibromo-3-chloropropan	17.24	75	1147	1.13 ug\L #	20
84) 1,2,4-trichlorobenzene	18.56	180	17063	1.10 ug\L	100
86) Naphthalene	19.06	128	22866	1.22 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	11611	1.10 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	500810	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	658286	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	263843	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.10	116	628	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	409632	20.36	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 203.60%#			
46) Toluene-d8	10.27	98	2015205	19.89	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 198.90%#			
66) Bromofluorobenzene	13.97	95	622056	19.27	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 192.70%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	849938	19.71	ug\L	99
3) Chloromethane	1.75	50	571628	19.07	ug\L	99
4) Vinyl Chloride	1.85	62	493910	18.91	ug\L	99
5) Bromomethane	2.17	94	127107	19.98	ug\L	94
6) Chloroethane	2.27	64	250191	18.75	ug\L	93
7) Trichlorofluoromethane	2.55	101	788700	19.51	ug\L #	100
8) Acrolein	3.09	56	15781	40.26	ug\L #	90
9) Acrylonitrile	4.31	53	80339	41.62	ug\L	95
10) 1,1-Dichloroethene	3.16	96	463082	19.63	ug\L	98
11) Acetone	3.31	58	11765	21.07	ug\L	98
12) Iodomethane	3.38	142	672010	21.52	ug\L	99
13) Allylchloride	3.66	39	673989	20.10	ug\L	96
14) Carbon Disulfide	3.44	76	1599912	20.31	ug\L	99
15) Acetonitrile	3.66	41	884255	198.96	ug\L	97
16) Methylene Chloride	3.86	86	242777	19.12	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	469808	19.35	ug\L	98
18) MethylTertButylEther	4.24	73	546801	19.99	ug\L	98
19) 1,1-Dichloroethane	5.00	63	823702	19.43	ug\L	99
20) Vinyl Acetate	5.13	43	215991	20.21	ug\L	97
21) 2,2-Dichloropropane	6.02	77	797945	19.58	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	458639	19.71	ug\L	97
23) 2-Butanone	6.17	72	10048	18.31	ug\L	71
24) Propionitrile	6.31	54	133806	198.07	ug\L	98
25) Methacrylonitrile	6.53	41	854200	204.29	ug\L	98
26) Bromochloromethane	6.49	128	143861	19.52	ug\L	97
27) Chloroform	6.65	83	873276	19.49	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	892672	19.82	ug\L	99
29) Carbon Tetrachloride	7.10	119	756447	19.95	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	19865	398.68 ug\L #	94
31) 1,1-Dichloropropene	7.13	77	237343	19.40 ug\L	100
33) Benzene	7.47	78	1784876	19.17 ug\L	100
34) Isobutyl alcohol	7.57	43	80646	411.60 ug\L	97
35) 1,2-Dichloroethane	7.57	62	428065	19.81 ug\L	98
36) Trichloroethene	8.48	95	562850	19.45 ug\L	98
37) 1,2-Dichloropropane	8.84	63	396550	19.59 ug\L	99
38) Dibromomethane	9.05	93	150157	19.60 ug\L	96
39) Methylmethacrylate	9.05	69	104594	20.32 ug\L	97
40) Bromodichloromethane	9.30	83	551361	20.21 ug\L	99
41) 2-Nitropropane	9.66	43	30648	19.65 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.74	63	83497	22.16 ug\L	98
43) cis-1,3-Dichloropropene	9.92	75	535952	19.89 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	19876	19.80 ug\L #	96
47) Toluene	10.36	92	1174100	18.72 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	399055	20.57 ug\L	100
49) Ethylmethacrylate	10.85	69	259195	20.89 ug\L	96
50) 1,1,2-Trichloroethane	11.01	83	173041	19.58 ug\L	99
51) Tetrachloroethene	11.12	164	447735	19.07 ug\L	98
52) 1,3-Dichloropropane	11.23	76	384484	19.62 ug\L	100
53) 2-Hexanone	11.35	43	78925	20.85 ug\L	97
54) Dibromochloromethane	11.56	129	283443	20.57 ug\L	100
55) 1,2-Dibromoethane	11.70	107	191365	20.03 ug\L	99
56) Chlorobenzene	12.36	112	1226119	18.61 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	379501	19.80 ug\L	98
58) Ethylbenzene	12.49	91	2413806	19.18 ug\L	100
59) total-Xylene	12.66	106	2481548m	57.41 ug\L	
60) Styrene	13.25	104	1196957	19.33 ug\L	96
62) Bromoform	13.56	173	116771	20.44 ug\L	99
63) Isopropylbenzene	13.72	105	2415988	18.63 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	53130	18.15 ug\L #	90
65) trans-1,4-dichloro-2-Buten	14.27	75	223291	19.49 ug\L #	69
67) Bromobenzene	14.17	156	394608	18.77 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.23	83	192683	19.45 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	223291	19.49 ug\L #	100
70) n-Propylbenzene	14.29	91	2950053	18.74 ug\L	99
71) 2-Chlorotoluene	14.43	91	1628688	18.62 ug\L	99
72) 4-Chlorotoluene	14.58	91	1780868	19.24 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1937320	18.66 ug\L	98
74) Pentachloroethane	15.06	167	248444	19.40 ug\L	98
75) tert-Butylbenzene	14.98	119	1605978	18.35 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	1835334	18.75 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

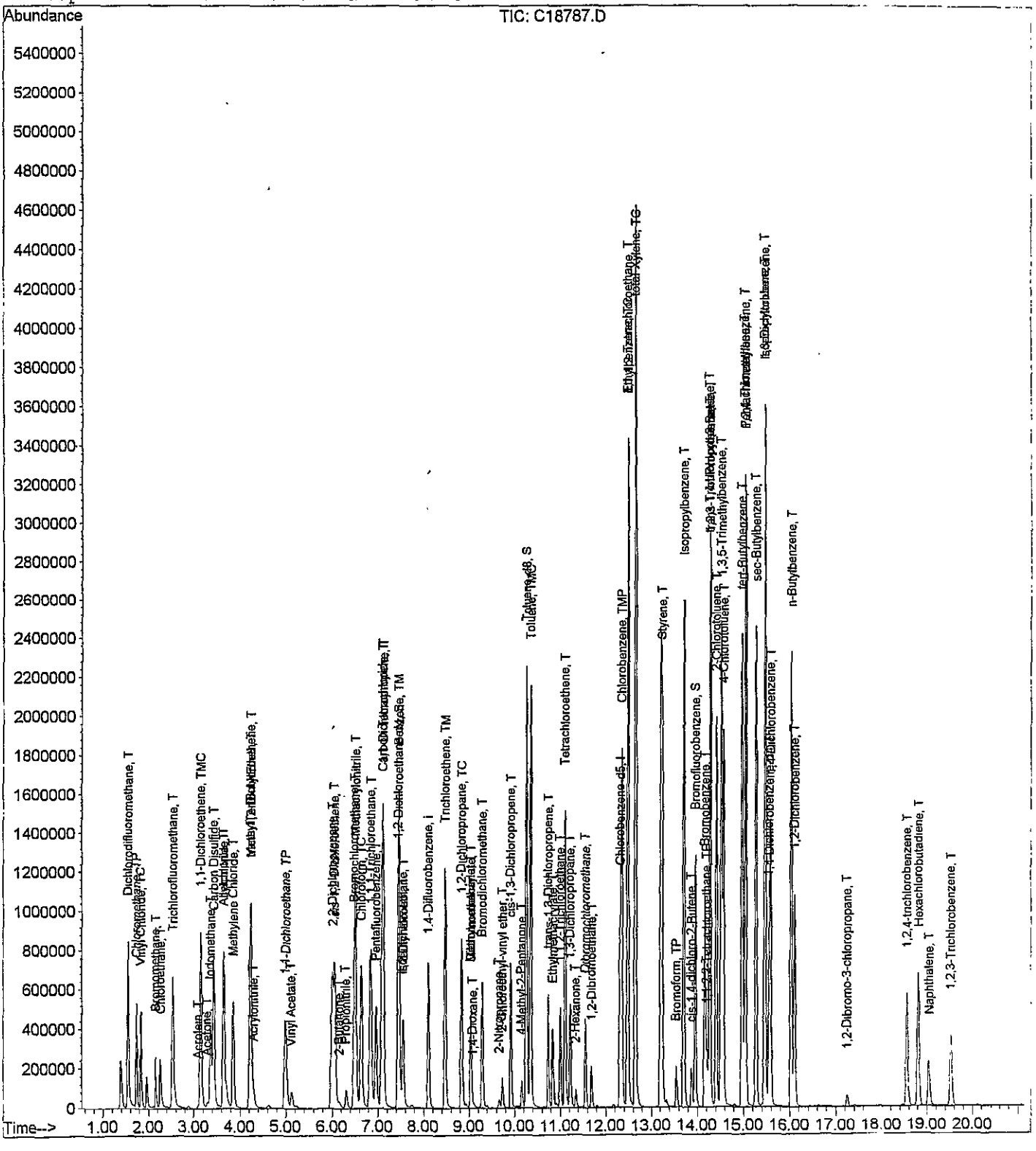
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	2419306	18.53 ug\L	100
78)	1,3-Dichlorobenzene	15.47	146	786090	18.60 ug\L	97
79)	Isopropyltoluene	15.48	119	1895622	18.84 ug\L	99
80)	1,4-Dichlorobenzene	15.60	146	766469	18.67 ug\L	100
81)	1,2-Dichlorobenzene	16.12	146	599505	18.84 ug\L	99
82)	n-Butylbenzene	16.05	91	1853619	18.93 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.26	75	22103	19.86 ug\L	96
84)	1,2,4-trichlorobenzene	18.57	180	323566	19.09 ug\L	100
85)	Hexachlorobutadiene	18.81	225	232293	20.25 ug\L	100
86)	Naphthalene	19.05	128	369081	18.01 ug\L	100
87)	1,2,3-Trichlorobenzene	19.54	180	224521	19.42 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	33093	568.80 ug\L #	96
31) 1,1-Dichloropropene	7.13	77	392868	28.16 ug\L	97
33) Benzene	7.47	78	3055959	28.79 ug\L	100
34) Isobutyl alcohol	7.57	43	131371	592.08 ug\L	95
35) 1,2-Dichloroethane	7.57	62	720688	29.25 ug\L	98
36) Trichloroethene	8.48	95	964222	29.22 ug\L	99
37) 1,2-Dichloropropane	8.84	63	687376	29.78 ug\L	99
38) Dibromomethane	9.05	93	257158	29.43 ug\L	97
39) Methylmethacrylate	9.05	69	181581	30.93 ug\L	98
40) Bromodichloromethane	9.30	83	979332	31.48 ug\L	99
41) 2-Nitropropane	9.67	43	59272	33.32 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	147638	34.36 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	958315	31.19 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	35465	30.98 ug\L #	96
47) Toluene	10.36	92	2089002	29.07 ug\L	99
48) trans-1,3-Dichloropropene	10.74	75	709754	31.93 ug\L	99
49) Ethylmethacrylate	10.85	69	458716	32.26 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	304585	30.07 ug\L	98
51) Tetrachloroethene	11.12	164	778175	28.92 ug\L	99
52) 1,3-Dichloropropane	11.23	76	664375	29.58 ug\L	99
53) 2-Hexanone	11.34	43	138019	31.82 ug\L	99
54) Dibromochloromethane	11.56	129	507815	32.16 ug\L	99
55) 1,2-Dibromoethane	11.70	107	337199	30.79 ug\L	99
56) Chlorobenzene	12.36	112	2127564	28.18 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	662993	30.17 ug\L	99
58) Ethylbenzene	12.49	91	4123377	28.58 ug\L	99
59) total-Xylene	12.66	106	4263175m	86.05 ug\L	
60) Styrene	13.25	104	2123772	29.92 ug\L	97
62) Bromoform	13.56	173	214082	34.57 ug\L	99
63) Isopropylbenzene	13.71	105	4170325	29.66 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	98998	30.03 ug\L #	93
65) trans-1,4-dichloro-2-Buten	14.27	75	381944	30.74 ug\L #	69
67) Bromobenzene	14.17	156	698070	30.63 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	334338	31.12 ug\L	97
69) 1,2,3-Trichloropropane	14.27	75	381944	30.74 ug\L #	100
70) n-Propylbenzene	14.29	91	5011543	29.37 ug\L	99
71) 2-Chlorotoluene	14.42	91	2817240	29.70 ug\L	99
72) 4-Chlorotoluene	14.57	91	3090232	30.79 ug\L	98
73) 1,3,5-Trimethylbenzene	14.53	105	3333433	29.62 ug\L	99
74) Pentachloroethane	15.05	167	425572	30.65 ug\L	99
75) tert-Butylbenzene	14.98	119	2785020	29.34 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	3120180	29.40 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

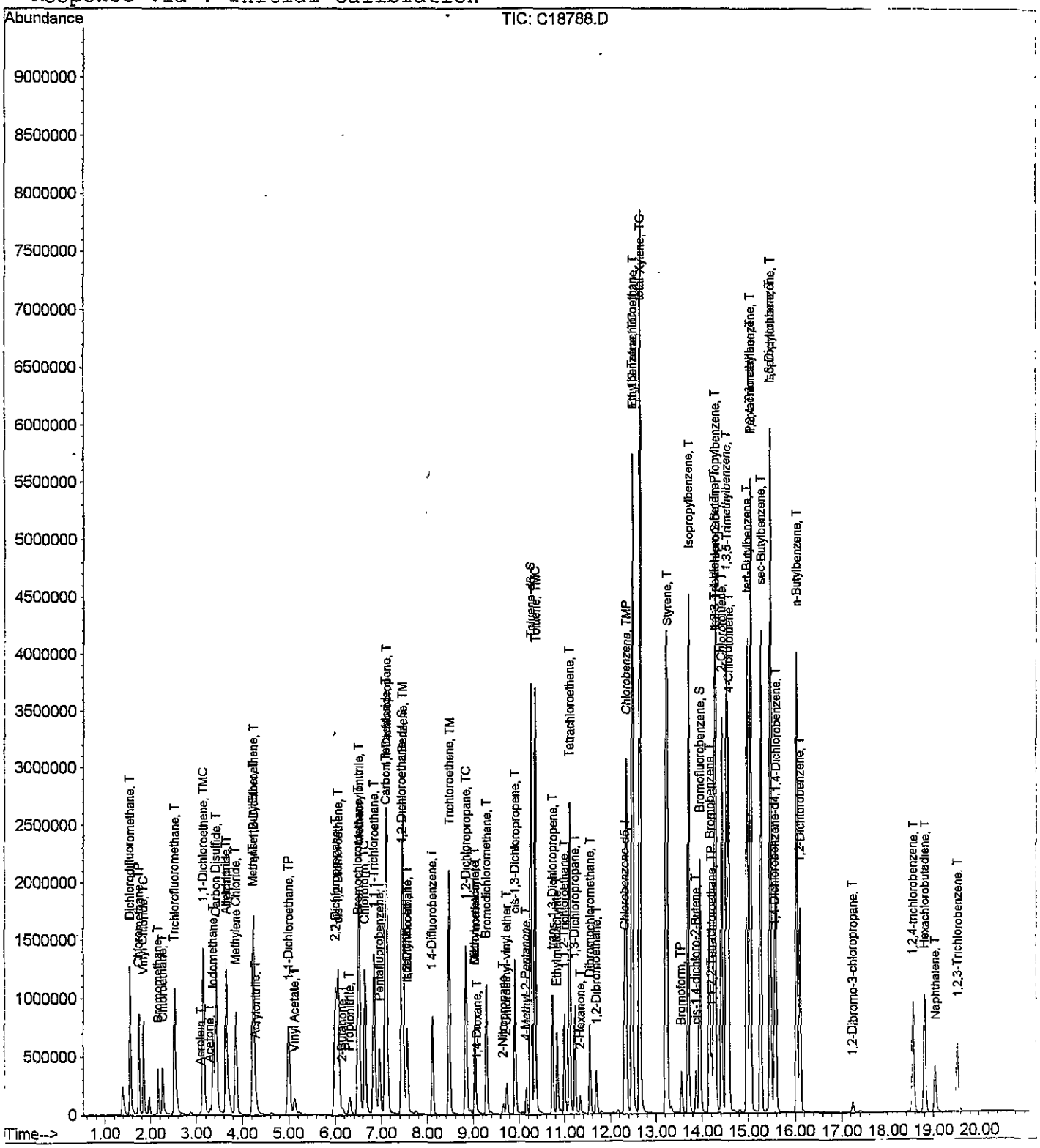
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	4128425	29.16 ug\L	100
78)	1,3-Dichlorobenzene	15.46	146	1328462	28.99 ug\L	96
79)	Isopropyltoluene	15.48	119	3149213	28.87 ug\L	98
80)	1,4-Dichlorobenzene	15.59	146	1316968	29.58 ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	1011735	29.32 ug\L	99
82)	n-Butylbenzene	16.04	91	3127152	29.45 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.25	75	35985	29.82 ug\L	98
84)	1,2,4-trichlorobenzene	18.56	180	536514	29.20 ug\L	100
85)	Hexachlorobutadiene	18.82	225	352558	28.97 ug\L	100
86)	Naphthalene	19.05	128	646150	29.07 ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	364987	29.12 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	548568	10.00 ug\L	0.01
45) Chlorobenzene-d5	12.32	117	736724	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	280244	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1499	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	870054	39.47 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 394.70%#		
46) Toluene-d8	10.27	98	4319815	38.09 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 380.90%#		
66) Bromofluorobenzene	13.96	95	1372009	40.02 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 400.20%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	1782483	37.74 ug\L	100
3) Chloromethane	1.74	50	1227662	37.38 ug\L	98
4) Vinyl Chloride	1.85	62	1085109	37.92 ug\L	100
5) Bromomethane	2.17	94	277321	40.74 ug\L	96
6) Chloroethane	2.28	64	550488	37.67 ug\L	91
7) Trichlorofluoromethane	2.54	101	1717209	38.79 ug\L #	100
8) Acrolein	3.10	56	39194	91.29 ug\L #	89
9) Acrylonitrile	4.31	53	178629	84.48 ug\L	97
10) 1,1-Dichloroethene	3.16	96	1014904	39.27 ug\L	100
11) Acetone	3.31	58	23028	40.41 ug\L	91
12) Iodomethane	3.38	142	1408693	41.19 ug\L	99
13) Allylchloride	3.66	39	1447319	39.41 ug\L	97
14) Carbon Disulfide	3.45	76	3520296	40.81 ug\L	99
15) Acetonitrile	3.66	41	1904483	391.20 ug\L	97
16) Methylene Chloride	3.87	86	531400	38.21 ug\L	100
17) trans-1,2-Dichloroethene	4.25	96	1023206	38.46 ug\L	98
18) MethylTertButylEther	4.23	73	1205319	40.22 ug\L	99
19) 1,1-Dichloroethane	5.01	63	1816764	39.12 ug\L	100
20) Vinyl Acetate	5.14	43	517278	44.18 ug\L	97
21) 2,2-Dichloropropane	6.02	77	1645846	36.88 ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	995919	39.06 ug\L	99
23) 2-Butanone	6.16	72	23807	40.33 ug\L	100
24) Propionitrile	6.31	54	309529	418.29 ug\L	99
25) Methacrylonitrile	6.53	41	1829195	399.39 ug\L	99
26) Bromochloromethane	6.50	128	319349	39.55 ug\L	98
27) Chloroform	6.66	83	1928666	39.29 ug\L	99
28) 1,1,1-Trichloroethane	6.86	97	1964056	39.81 ug\L	100
29) Carbon Tetrachloride	7.10	119	1660683	39.98 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.11	88	47063	827.96 ug\L		96
31)	1,1-Dichloropropene	7.13	77	516083	38.52 ug\L		100
33)	Benzene	7.48	78	3920526	38.45 ug\L		100
34)	Isobutyl alcohol	7.57	43	171394	807.66 ug\L		91
35)	1,2-Dichloroethane	7.57	62	942228	39.82 ug\L		99
36)	Trichloroethene	8.49	95	1258414	39.70 ug\L		99
37)	1,2-Dichloropropane	8.85	63	889288	40.10 ug\L		99
38)	Dibromomethane	9.05	93	333274	39.71 ug\L		98
39)	Methylmethacrylate	9.05	69	246220	43.67 ug\L		96
40)	Bromodichloromethane	9.30	83	1261322	42.21 ug\L		100
41)	2-Nitropropane	9.67	43	81899	47.94 ug\L		95
42)	2-Chloroethyl-vinyl ether	9.74	63	185556	44.97 ug\L		99
43)	cis-1,3-Dichloropropene	9.93	75	1262869	42.80 ug\L		99
44)	4-Methyl-2-Pentanone	10.17	85	50099	45.56 ug\L	#	96
47)	Toluene	10.37	92	2658910	37.89 ug\L		99
48)	trans-1,3-Dichloropropene	10.75	75	946026	43.58 ug\L		99
49)	Ethylmethacrylate	10.85	69	609408	43.88 ug\L		99
50)	1,1,2-Trichloroethane	11.02	83	404531	40.89 ug\L		98
51)	Tetrachloroethene	11.12	164	1018374	38.76 ug\L		99
52)	1,3-Dichloropropane	11.23	76	888992	40.54 ug\L		100
53)	2-Hexanone	11.35	43	186672	44.07 ug\L		99
54)	Dibromochloromethane	11.57	129	680414	44.13 ug\L		100
55)	1,2-Dibromoethane	11.70	107	453473	42.41 ug\L		98
56)	Chlorobenzene	12.37	112	2759686	37.43 ug\L		99
57)	1,1,1,2-Tetrachloroethane	12.49	131	863282	40.24 ug\L		99
58)	Ethylbenzene	12.50	91	5198884	36.91 ug\L		98
59)	total-Xylene	12.66	106	5432479m	112.29 ug\L		
60)	Styrene	13.25	104	2733483	39.44 ug\L		96
62)	Bromoform	13.56	173	285335	47.03 ug\L		99
63)	Isopropylbenzene	13.72	105	5315502	38.59 ug\L		98
64)	cis-1,4-dichloro-2-Butene	13.88	75	134518	41.03 ug\L	#	95
65)	trans-1,4-dichloro-2-Buten	14.28	75	500742	41.15 ug\L	#	69
67)	Bromobenzene	14.18	156	918824	41.16 ug\L		96
68)	1,1,2,2-Tetrachloroethane	14.22	83	444692	42.25 ug\L		98
69)	1,2,3-Trichloropropane	14.28	75	500742	41.15 ug\L	#	100
70)	n-Propylbenzene	14.29	91	6352622	38.00 ug\L		99
71)	2-Chlorotoluene	14.43	91	3626573	39.03 ug\L		98
72)	4-Chlorotoluene	14.58	91	3982407	40.51 ug\L		98
73)	1,3,5-Trimethylbenzene	14.53	105	4191844	38.02 ug\L		99
74)	Pentachloroethane	15.05	167	558475	41.06 ug\L		100
75)	tert-Butylbenzene	14.98	119	3566604	38.36 ug\L		100
76)	1,2,4-Trimethylbenzene	15.05	105	3933494	37.84 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

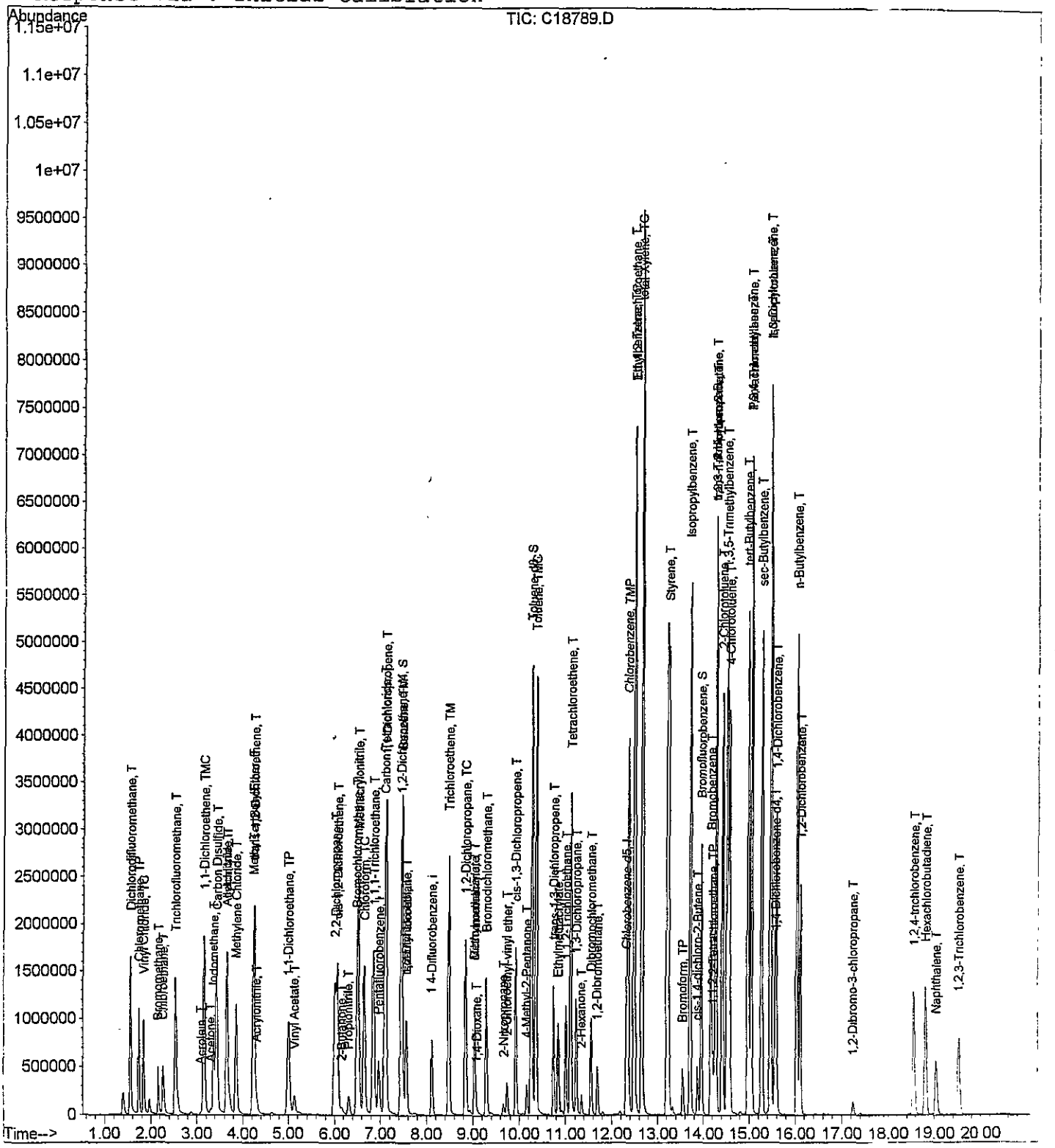
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	5282416	38.09 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	1719970	38.31 ug\L	97
79) Isopropyltoluene	15.48	119	4016499	37.58 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	1726773	39.59 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	1350276	39.94 ug\L	99
82) n-Butylbenzene	16.05	91	4081234	39.24 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	53968	45.66 ug\L	97
84) 1,2,4-trichlorobenzene	18.57	180	734047	40.78 ug\L	100
85) Hexachlorobutadiene	18.82	225	473784	40.32 ug\L	100
86) Naphthalene	19.05	128	920372	42.28 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	512162	41.72 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	89	0.00
2	T	Dichlorodifluoromethane	0.861	0.561	34.8#	57	0.00
3	TP	Chloromethane	0.599	0.470	21.5	68	0.00
4	TC	Vinyl Chloride	0.522	0.472	9.6	78	0.00
5	T	Bromomethane	0.143	0.128	10.5	80	0.00
6	T	Chloroethane	0.266	0.236	11.3	74	0.00
7	T	Trichlorofluoromethane	0.807	0.733	9.2	79	0.00
8	T	Acrolein	0.008	0.008	0.0	113	0.00
9	T	Acrylonitrile	0.039	0.039	0.0	99	0.02
10	TMC	1,1-Dichloroethene	0.471	0.444	5.7	83	0.00
11	T	Acetone	0.013	0.013	0.0	99	0.00
12	T	Iodomethane	0.623	0.593	4.8	87	0.00
13	T	Allylchloride	0.669	0.663	0.9	88	0.00
14	T	Carbon Disulfide	1.573	1.612	-2.5	93	0.00
15	T	Acetonitrile	0.089	0.089	0.0	89	0.00
16	T	Methylene Chloride	0.253	0.241	4.7	88	0.00
17	T	trans-1,2-Dichloroethene	0.485	0.455	6.2	82	0.00
18	T	MethylTertButylEther	0.546	0.546	0.0	95	0.00
19	TP	1,1-Dichloroethane	0.847	0.805	5.0	86	0.00
20	T	Vinyl Acetate	0.213	0.210	1.4	100	0.00
21	T	2,2-Dichloropropane	0.814	0.778	4.4	81	0.00
22	T	cis-1,2-Dichloroethene	0.465	0.453	2.6	87	0.00
23	T	2-Butanone	0.013	0.012	7.7	101	0.00
24	T	Propionitrile	0.013	0.013	0.0	97	0.00
25	T	Methacrylonitrile	0.083	0.084	-1.2	96	0.00
26	T	Bromochloromethane	0.147	0.138	6.1	84	0.00
27	TC	Chloroform	0.895	0.859	4.0	86	0.00
28	T	1,1,1-Trichloroethane	0.899	0.851	5.3	83	0.00
29	T	Carbon Tetrachloride	0.757	0.704	7.0	83	0.00
30	T	1,4-Dioxane	0.001	0.001	0.0	109	0.02
31	T	1,1-Dichloropropene	0.244	0.229	6.1	82	0.00
32	S	1,2-Dichloroethane-d4	0.402	0.402	0.0	97	0.00
33	TM	Benzene	1.859	1.775	4.5	85	0.00
34	T	Isobutyl alcohol	0.005	0.004	20.0	112	0.00
35	T	1,2-Dichloroethane	0.431	0.403	6.5	88	0.00
36	TM	Trichloroethene	0.578	0.555	4.0	85	0.00
37	TC	1,2-Dichloropropane	0.404	0.398	1.5	91	0.00
38	T	Dibromomethane	0.153	0.145	5.2	88	0.00
39	T	Methylmethacrylate	0.103	0.102	1.0	93	0.00
40	T	Bromodichloromethane	0.545	0.527	3.3	89	0.00
41	T	2-Nitropropane	0.031	0.029	6.5	103	0.00
42	T	2-Chloroethyl-vinyl ether	0.075	0.069	8.0	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.538	0.523	2.8	89	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.019	5.0	97	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
46	S	Toluene-d8	1.539	1.648	-7.1	98	0.00
47	TMC	Toluene	0.953	0.921	3.4	86	0.00
48	T	trans-1,3-Dichloropropene	0.295	0.288	2.4	93	0.00
49	T	Ethylmethacrylate	0.188	0.192	-2.1	98	0.00
50	T	1,1,2-Trichloroethane	0.134	0.132	1.5	95	0.00
51	T	Tetrachloroethene	0.357	0.346	3.1	87	0.00
52	T	1,3-Dichloropropane	0.298	0.285	4.4	91	0.00
53	T	2-Hexanone	0.057	0.059	-3.5	106	0.00
54	T	Dibromochloromethane	0.209	0.197	5.7	89	0.00
55	T	1,2-Dibromoethane	0.145	0.142	2.1	93	0.00
56	TMP	Chlorobenzene	1.001	0.966	3.5	90	0.00
57	T	1,1,1,2-Tetrachloroethane	0.291	0.293	-0.7	92	0.00
58	TC	Ethylbenzene	1.912	1.890	1.2	88	0.00
59	TG	total-Xylene	0.657	0.664	-1.1	91	0.00
60	T	Styrene	0.941	0.957	-1.7	91	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
62	TP	Bromoform	0.216	0.201	6.9	93	0.00
63	T	Isopropylbenzene	4.915	4.867	1.0	90	0.00
64	T	cis-1,4-dichloro-2-Butene	0.097	0.094	3.1	98	0.00
65	T	trans-1,4-dichloro-2-Butene	0.434	0.418	3.7	95	0.00
66	S	Bromofluorobenzene	1.223	1.225	-0.2	99	0.00
67	T	Bromobenzene	0.797	0.764	4.1	94	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.376	0.360	4.3	96	0.00
69	T	1,2,3-Trichloropropane	0.434	0.418	3.7	95	0.00
70	T	n-Propylbenzene	5.965	5.894	1.2	90	0.00
71	T	2-Chlorotoluene	3.315	3.227	2.7	90	0.00
72	T	4-Chlorotoluene	3.508	3.588	-2.3	103	0.00
73	T	1,3,5-Trimethylbenzene	3.934	3.873	1.6	90	0.00
74	T	Pentachloroethane	0.485	0.516	-6.4	103	0.00
75	T	tert-Butylbenzene	3.317	3.343	-0.8	91	0.00
76	T	1,2,4-Trimethylbenzene	3.710	3.671	1.1	89	0.00
77	T	sec-Butylbenzene	4.949	4.988	-0.8	91	0.00
78	T	1,3-Dichlorobenzene	1.602	1.609	-0.4	94	0.00
79	T	Isopropyltoluene	3.813	3.877	-1.7	90	0.00
80	T	1,4-Dichlorobenzene	1.556	1.573	-1.1	96	0.00
81	T	1,2-Dichlorobenzene	1.206	1.201	0.4	97	0.00
82	T	n-Butylbenzene	3.711	3.746	-0.9	91	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.042	0.040	4.8	110	0.00
84	T	1,2,4-trichlorobenzene	0.642	0.662	-3.1	105	0.00
85	T	Hexachlorobutadiene	0.499	0.522	-4.6	96	0.00
86	T	Naphthalene	0.756	0.794	-5.0	128	0.00
87	T	1,2,3-Trichlorobenzene	0.438	0.458	-4.6	108	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	72	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	524703	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	692212	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	278173	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1232	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	210700	9.99	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
46) Toluene-d8	10.27	98	1140788	10.71	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 107.10%#			
66) Bromofluorobenzene	13.97	95	340630	10.01	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.10%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	294457	6.52	ug\L	99
3) Chloromethane	1.75	50	246706	7.85	ug\L	99
4) Vinyl Chloride	1.85	62	247742	9.05	ug\L	98
5) Bromomethane	2.17	94	67097	9.60	ug\L	94
6) Chloroethane	2.28	64	123990	8.87	ug\L	93
7) Trichlorofluoromethane	2.55	101	384609	9.08	ug\L #	100
8) Acrolein	3.11	56	8916	21.71	ug\L #	90
9) Acrylonitrile	4.31	53	40597	20.07	ug\L	94
10) 1,1-Dichloroethene	3.17	96	233002	9.43	ug\L	100
11) Acetone	3.30	58	6756	9.97	ug\L	89
12) Iodomethane	3.38	142	311385	9.52	ug\L	98
13) Allylchloride	3.66	39	347911	9.90	ug\L	98
14) Carbon Disulfide	3.44	76	845971	10.25	ug\L	99
15) Acetonitrile	3.66	41	465896	100.05	ug\L	99
16) Methylene Chloride	3.87	86	126373	9.50	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	238728	9.38	ug\L	97
18) MethylTertButylEther	4.24	73	286288	9.99	ug\L	97
19) 1,1-Dichloroethane	5.01	63	422648	9.52	ug\L	100
20) Vinyl Acetate	5.14	43	110259	9.85	ug\L	96
21) 2,2-Dichloropropane	6.02	77	408035	9.56	ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	237722	9.75	ug\L	98
23) 2-Butanone	6.17	72	6373	10.84	ug\L #	86
24) Propionitrile	6.32	54	69888	98.74	ug\L #	98
25) Methacrylonitrile	6.53	41	442900	101.10	ug\L	99
26) Bromochloromethane	6.49	128	72525	9.39	ug\L	97
27) Chloroform	6.65	83	450635	9.60	ug\L	99
28) 1,1,1-Trichloroethane	6.85	97	446682	9.47	ug\L	99
29) Carbon Tetrachloride	7.10	119	369549	9.30	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

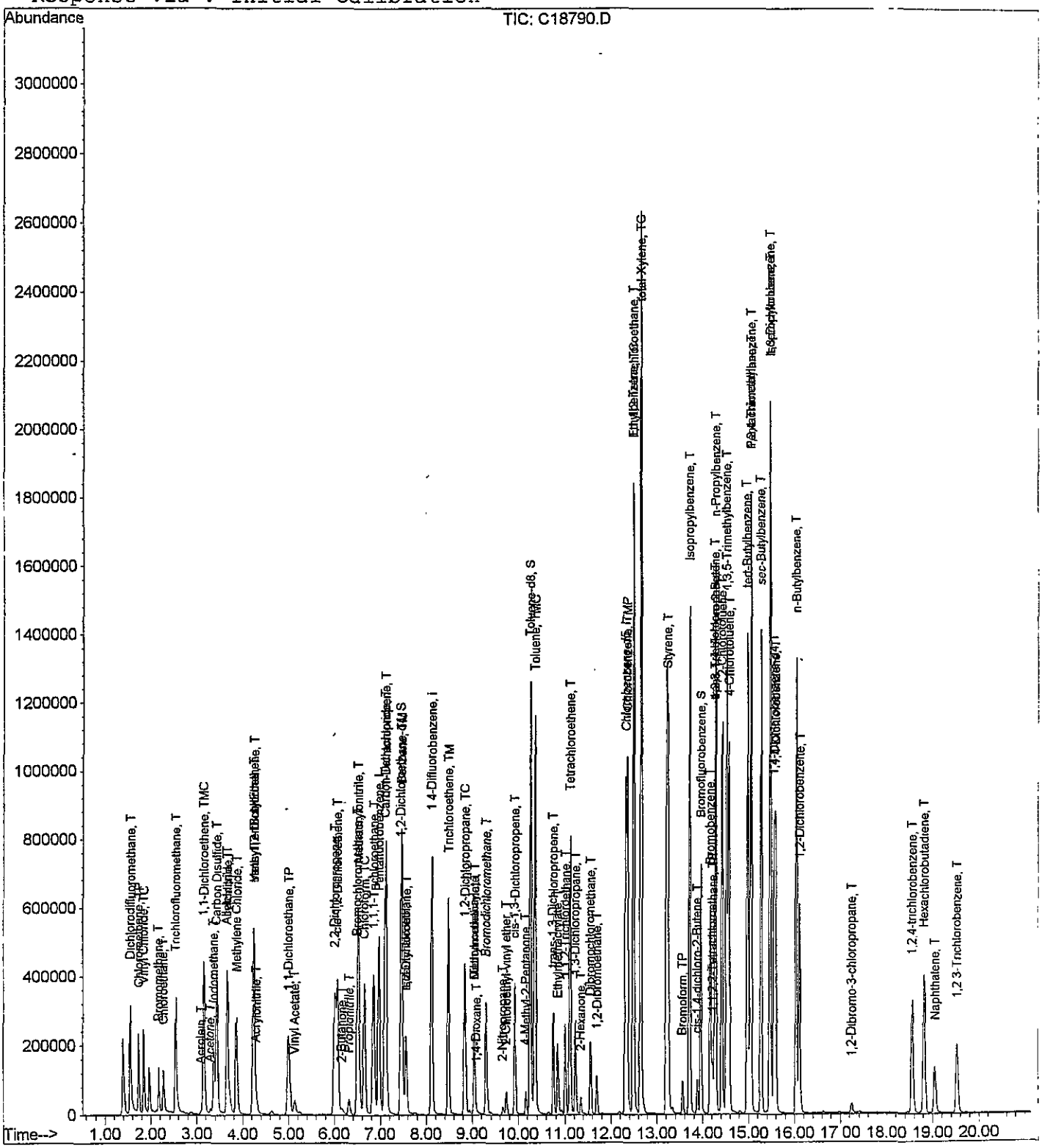
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	10449	214.86 ug\L #	90
31) 1,1-Dichloropropene	7.12	77	120298	9.39 ug\L	98
33) Benzene	7.47	78	931379	9.55 ug\L	100
34) Isobutyl alcohol	7.57	43	44375	211.60 ug\L	97
35) 1,2-Dichloroethane	7.56	62	211644	9.35 ug\L	99
36) Trichloroethene	8.48	95	291189	9.60 ug\L	99
37) 1,2-Dichloropropane	8.85	63	208734	9.84 ug\L	99
38) Dibromomethane	9.05	93	76070	9.48 ug\L	98
39) Methylmethacrylate	9.05	69	53294	9.88 ug\L	96
40) Bromodichloromethane	9.30	83	276612	9.68 ug\L	98
41) 2-Nitropropane	9.66	43	15401	9.42 ug\L	93
42) 2-Chloroethyl-vinyl ether	9.74	63	36122	9.15 ug\L	98
43) cis-1,3-Dichloropropene	9.93	75	274235	9.72 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	9910	9.42 ug\L #	91
47) Toluene	10.36	92	637262	9.66 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	199205	9.77 ug\L	99
49) Ethylmethacrylate	10.85	69	132611	10.16 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	91402	9.83 ug\L	97
51) Tetrachloroethene	11.12	164	239711	9.71 ug\L	97
52) 1,3-Dichloropropane	11.24	76	197478	9.58 ug\L	99
53) 2-Hexanone	11.36	43	40781	10.25 ug\L	98
54) Dibromochloromethane	11.57	129	136271	9.41 ug\L	100
55) 1,2-Dibromoethane	11.71	107	98433	9.80 ug\L	98
56) Chlorobenzene	12.36	112	668869	9.66 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	203098	10.07 ug\L	99
58) Ethylbenzene	12.50	91	1308376	9.89 ug\L	99
59) total-Xylene	12.66	106	1378588m	30.33 ug\L	
60) Styrene	13.25	104	662322	10.17 ug\L	99
62) Bromoform	13.56	173	55827	9.27 ug\L	100
63) Isopropylbenzene	13.71	105	1353737	9.90 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	26059	9.30 ug\L #	93
65) trans-1,4-dichloro-2-Buten	14.27	75	116188	9.62 ug\L #	72
67) Bromobenzene	14.17	156	212535	9.59 ug\L	95
68) 1,1,2,2-Tetrachloroethane	14.22	83	100066	9.58 ug\L	98
69) 1,2,3-Trichloropropane	14.27	75	116188	9.62 ug\L #	100
70) n-Propylbenzene	14.29	91	1639566	9.88 ug\L	99
71) 2-Chlorotoluene	14.43	91	897800	9.74 ug\L	98
72) 4-Chlorotoluene	14.58	91	998152	10.23 ug\L	100
73) 1,3,5-Trimethylbenzene	14.53	105	1077394	9.84 ug\L	98
74) Pentachloroethane	15.06	167	143456	10.62 ug\L	98
75) tert-Butylbenzene	14.98	119	929816	10.08 ug\L	99
76) 1,2,4-Trimethylbenzene	15.06	105	1021078	9.90 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	571111	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	754459	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	286086	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1682	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	668742	29.14	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 291.40%#			
46) Toluene-d8	10.27	98	3403157	29.31	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 293.10%#			
66) Bromofluorobenzene	13.96	95	1051227	30.03	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 300.30%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	1391206	28.29	ug\L	100
3) Chloromethane	1.75	50	947147	27.70	ug\L	99
4) Vinyl Chloride	1.85	62	834431	28.01	ug\L	100
5) Bromomethane	2.17	94	205735	28.76	ug\L	99
6) Chloroethane	2.28	64	426396	28.03	ug\L	93
7) Trichlorofluoromethane	2.54	101	1311352	28.45	ug\L #	100
8) Acrolein	3.09	56	26097	58.38	ug\L #	99
9) Acrylonitrile	4.30	53	133752	60.76	ug\L	95
10) 1,1-Dichloroethene	3.16	96	765510	28.45	ug\L	98
11) Acetone	3.31	58	17796	29.09	ug\L	84
12) Iodomethane	3.37	142	1114576	31.31	ug\L	99
13) Allylchloride	3.66	39	1116740	29.21	ug\L	97
14) Carbon Disulfide	3.44	76	2674206	29.78	ug\L	98
15) Acetonitrile	3.65	41	1475706	291.16	ug\L	98
16) Methylene Chloride	3.86	86	402456	27.80	ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	788861	28.48	ug\L	98
18) MethylTertButylEther	4.23	73	914153	29.30	ug\L	99
19) 1,1-Dichloroethane	5.01	63	1413409	29.23	ug\L	99
20) Vinyl Acetate	5.13	43	379185	31.11	ug\L	97
21) 2,2-Dichloropropane	6.01	77	1289645	27.76	ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	776867	29.27	ug\L	99
23) 2-Butanone	6.16	72	18968	30.72	ug\L	91
24) Propionitrile	6.32	54	234483	304.37	ug\L	99
25) Methacrylonitrile	6.52	41	1395586	292.68	ug\L	99
26) Bromochloromethane	6.49	128	243893	29.02	ug\L	99
27) Chloroform	6.65	83	1492346	29.20	ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	1525310	29.69	ug\L	99
29) Carbon Tetrachloride	7.10	119	1293114	29.90	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18791.D Vial: 8
Acq On : 02/28/01 14:00 Operator: TAG/VR
Sample : QVW022801 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 15:17 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	573091	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	669357	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	236157	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11

System Monitoring Compounds

32) 1,2-Dichloroethane-d4	7.44	65	197260	8.57	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 85.70%			
46) Toluene-d8	10.27	98	1087753	10.56	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#			
66) Bromofluorobenzene	13.97	95	278898	9.65	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.50%			

Target Compounds Qvalue

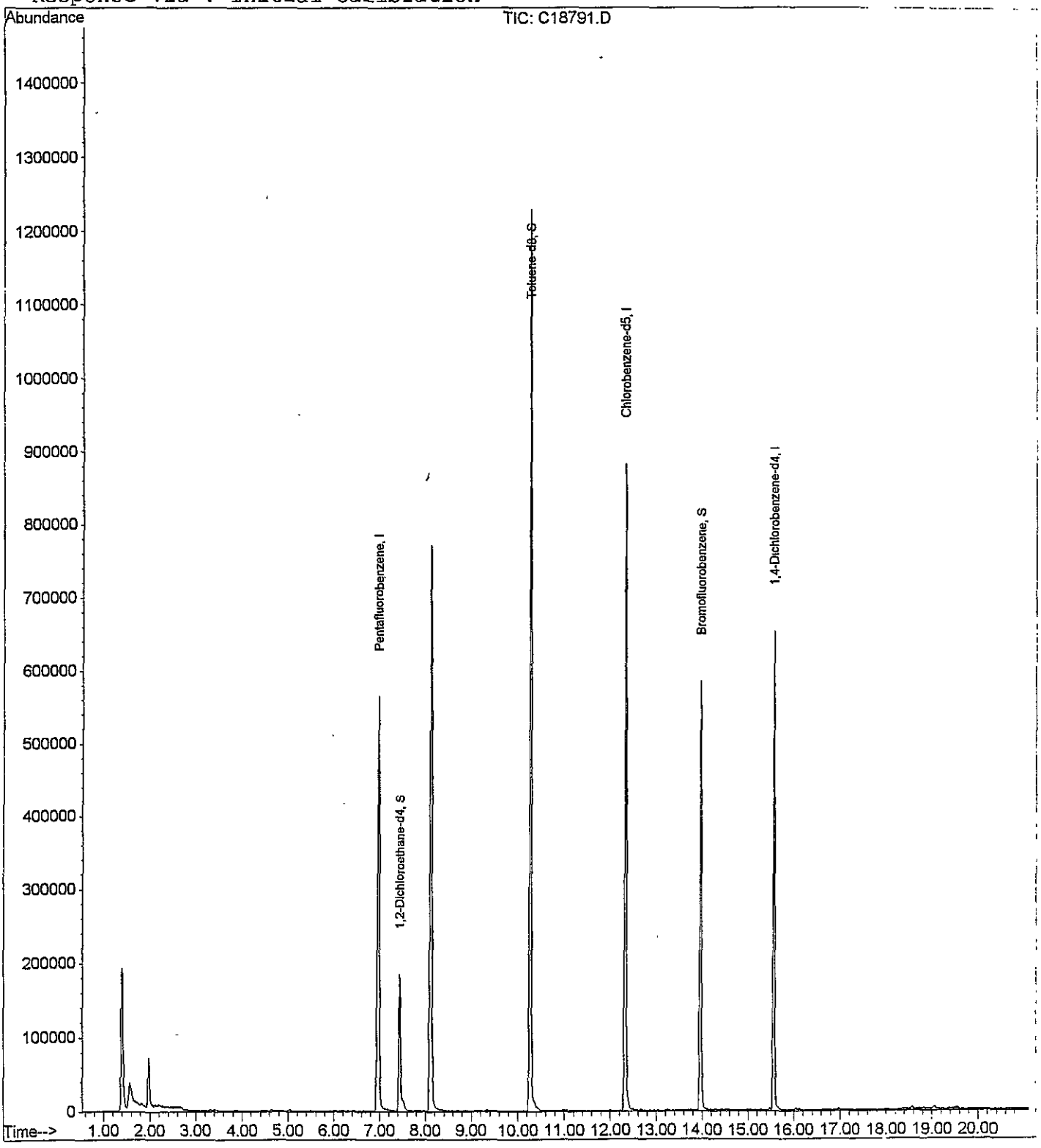
VR
2/28/01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18791.D Vial: 8
Acq On : 02/28/01 14:00 Operator: TAG/VR
Sample : QVW022801 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 15:17 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	532925	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	651927	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253542	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1566	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	197201	9.21 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 92.10%		
46) Toluene-d8	10.27	98	1047561	10.44 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.40%		
66) Bromofluorobenzene	13.97	95	304801	9.83 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.30%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	442549	9.64 ug\L	99
3) Chloromethane	1.75	50	304439	9.54 ug\L	97
4) Vinyl Chloride	1.85	62	263023	9.46 ug\L	100
5) Bromomethane	2.17	94	67187	9.45 ug\L	98
6) Chloroethane	2.27	64	139609	9.83 ug\L	93
7) Trichlorofluoromethane	2.54	101	410238	9.54 ug\L #	100
8) Acrolein	3.10	56	7910	18.96 ug\L #	97
9) Acrylonitrile	4.30	53	36366	17.70 ug\L	93
10) 1,1-Dichloroethene	3.16	96	248454	9.90 ug\L	100
11) Acetone	3.29	58	4621	5.57 ug\L	94
12) Iodomethane	3.38	142	339738	10.23 ug\L	100
13) Allylchloride	3.66	39	346006	9.70 ug\L	98
14) Carbon Disulfide	3.44	76	857701	10.23 ug\L	99
15) Acetonitrile	3.66	41	460437	97.36 ug\L	98
16) Methylene Chloride	3.86	86	126266	9.35 ug\L	98
17) trans-1,2-Dichloroethene	4.24	96	253728	9.82 ug\L	100
18) MethylTertButylEther	4.24	73	256655	8.82 ug\L	99
19) 1,1-Dichloroethane	5.00	63	424903	9.42 ug\L	98
20) Vinyl Acetate	5.13	43	95715	8.42 ug\L	98
21) 2,2-Dichloropropane	6.01	77	443848	10.24 ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	239942	9.69 ug\L	97
23) 2-Butanone	6.16	72	4939	8.12 ug\L	86
24) Propionitrile	6.32	54	65738	91.45 ug\L	98
25) Methacrylonitrile	6.52	41	402582	90.48 ug\L	99
26) Bromochloromethane	6.49	128	72787	9.28 ug\L	98
27) Chloroform	6.65	83	452508	9.49 ug\L	97
28) 1,1,1-Trichloroethane	6.86	97	457599	9.55 ug\L	99
29) Carbon Tetrachloride	7.10	119	391738	9.71 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.10	88	9011	186.89 ug\L		93
31)	1,1-Dichloropropene	7.13	77	128213	9.85 ug\L		96
33)	Benzene	7.47	78	953732	9.63 ug\L		100
34)	Isobutyl alcohol	7.57	43	34351	158.98 ug\L		96
35)	1,2-Dichloroethane	7.57	62	204929	8.91 ug\L		100
36)	Trichloroethene	8.48	95	296017	9.61 ug\L		99
37)	1,2-Dichloropropane	8.84	63	198247	9.20 ug\L		99
38)	Dibromomethane	9.05	93	71602	8.78 ug\L		99
39)	Methylmethacrylate	9.05	69	48962	8.94 ug\L		96
40)	Bromodichloromethane	9.30	83	269727	9.29 ug\L		100
41)	2-Nitropropane	9.66	43	12762	7.69 ug\L		100
42)	2-Chloroethyl-vinyl ether	9.74	63	36398	9.08 ug\L		98
43)	cis-1,3-Dichloropropene	9.93	75	263896	9.21 ug\L		98
44)	4-Methyl-2-Pentanone	10.17	85	9272	8.68 ug\L	#	92
47)	Toluene	10.36	92	623564	10.04 ug\L		98
48)	trans-1,3-Dichloropropene	10.75	75	184647	9.61 ug\L		98
49)	Ethylmethacrylate	10.85	69	117099	9.53 ug\L		99
50)	1,1,2-Trichloroethane	11.01	83	83602	9.55 ug\L		95
51)	Tetrachloroethene	11.12	164	237520	10.22 ug\L		99
52)	1,3-Dichloropropane	11.24	76	185049	9.54 ug\L		99
53)	2-Hexanone	11.35	43	34034	9.08 ug\L		100
54)	Dibromochloromethane	11.57	129	131798	9.66 ug\L		99
55)	1,2-Dibromoethane	11.70	107	92684	9.79 ug\L		98
56)	Chlorobenzene	12.36	112	630095	9.66 ug\L		100
57)	1,1,1,2-Tetrachloroethane	12.49	131	191710	10.10 ug\L		100
58)	Ethylbenzene	12.50	91	1265820	10.16 ug\L		99
59)	total-Xylene	12.66	106	1308232m	30.56 ug\L		
60)	Styrene	13.25	104	612501	9.99 ug\L		98
62)	Bromoform	13.56	173	52988	9.65 ug\L		96
63)	Isopropylbenzene	13.72	105	1281557	10.28 ug\L		99
64)	cis-1,4-dichloro-2-Butene	13.88	75	22914	9.03 ug\L	#	92
65)	trans-1,4-dichloro-2-Buten	14.28	75	105764	9.61 ug\L	#	72
67)	Bromobenzene	14.18	156	195145	9.66 ug\L		97
68)	1,1,2,2-Tetrachloroethane	14.22	83	89676	9.42 ug\L		99
69)	1,2,3-Trichloropropane	14.28	75	105809	9.61 ug\L	#	100
70)	n-Propylbenzene	14.29	91	1559356	10.31 ug\L		100
71)	2-Chlorotoluene	14.43	91	847104	10.08 ug\L		99
72)	4-Chlorotoluene	14.59	91	923597	10.38 ug\L		100
73)	1,3,5-Trimethylbenzene	14.54	105	1022978	10.25 ug\L		100
74)	Pentachloroethane	15.05	167	121933	9.91 ug\L		98
75)	tert-Butylbenzene	14.98	119	873352	10.38 ug\L		99
76)	1,2,4-Trimethylbenzene	15.05	105	964203	10.25 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

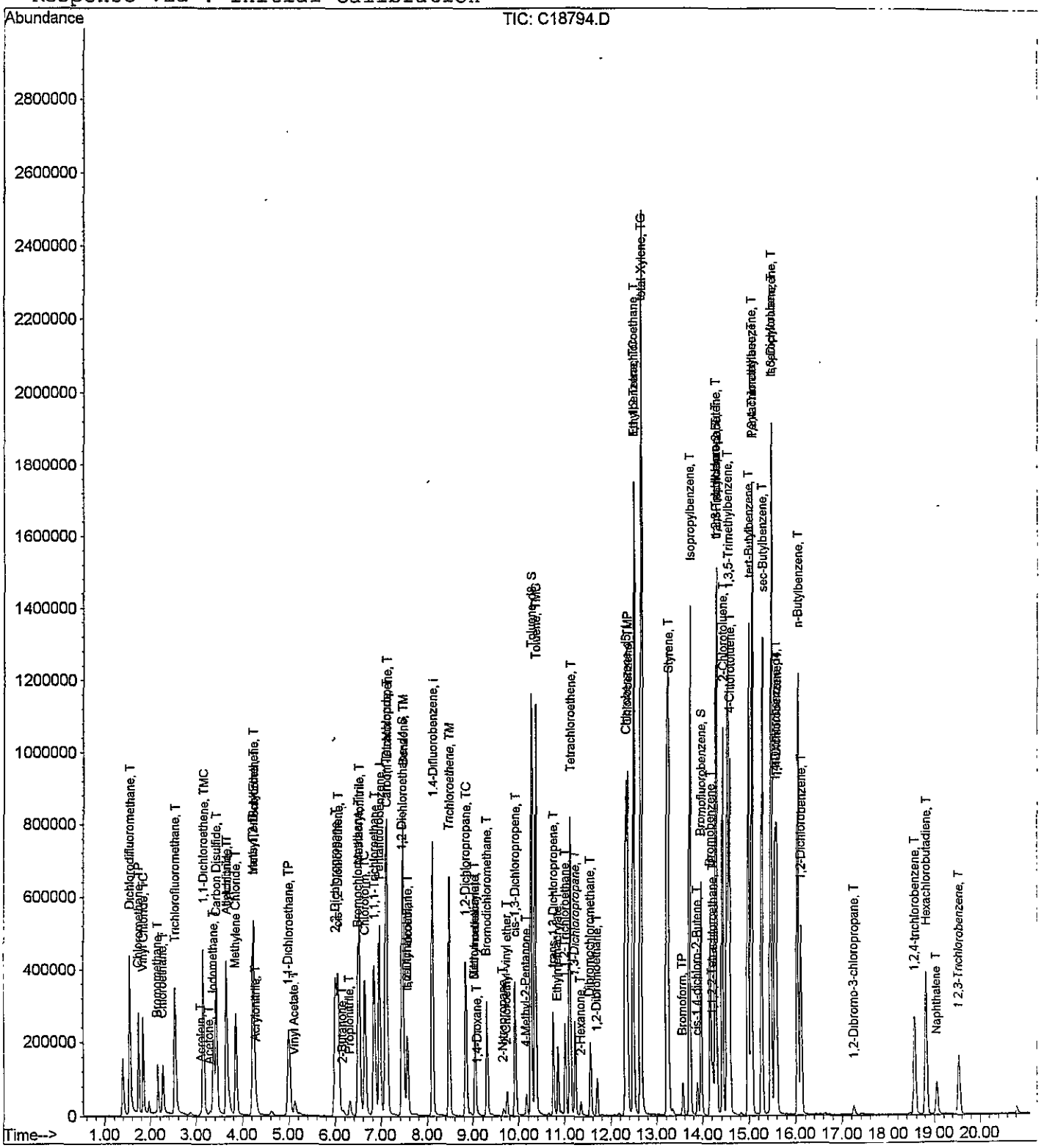
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1320053	10.52 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	400364	9.86 ug\L	96
79) Isopropyltoluene	15.48	119	1030815	10.66 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	387498	9.82 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	298669	9.77 ug\L	97
82) n-Butylbenzene	16.05	91	962971	10.23 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	8564	8.01 ug\L	98
84) 1,2,4-trichlorobenzene	18.57	180	154628	9.50 ug\L	100
85) Hexachlorobutadiene	18.83	225	136085	11.74 ug\L	100
86) Naphthalene	19.06	128	145956	7.41 ug\L	100
87) 1,2,3-Trichlorobenzene	19.55	180	102849	9.26 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

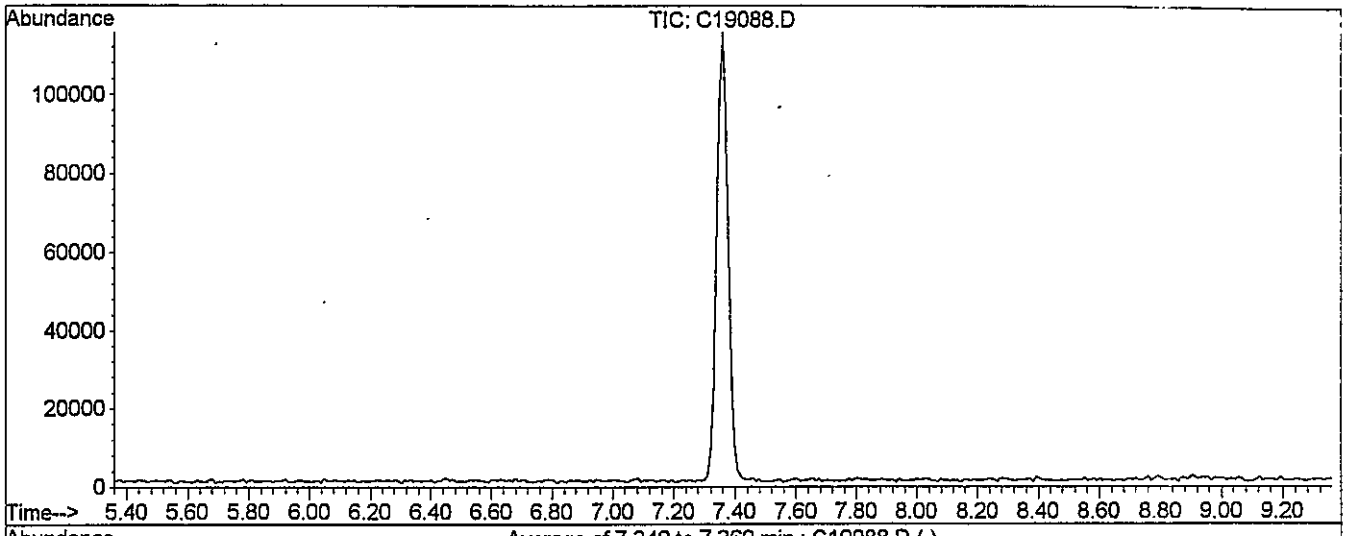
Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration

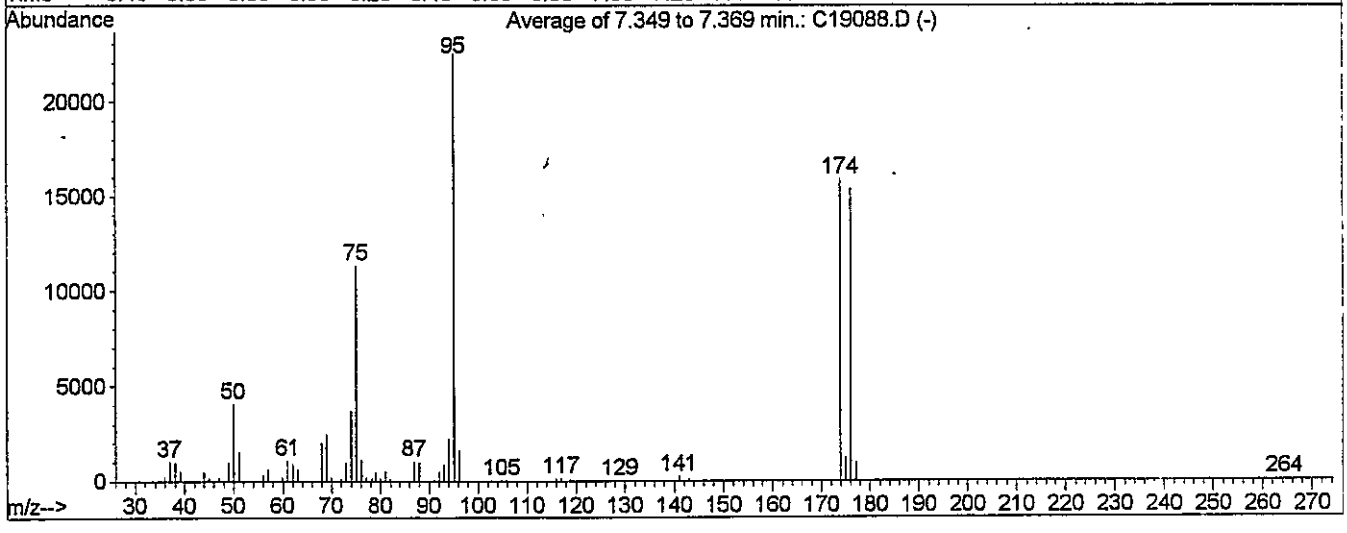


BFB

Data File : C:\HPCHEM\1\DATA\032201\C19088.D
Acq On : 03/22/01 05:47
Sample : BFB 50ng V01018
Misc : QC
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00





AutoFind: Scans 622, 623, 624; Background Corrected with Scan 614

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	4052	PASS
75	95	30	60	50.5	11351	PASS
95	95	100	100	100.0	22493	PASS
96	95	5	9	7.2	1612	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.7	15895	PASS
175	174	5	9	7.6	1202	PASS
176	174	95	101	97.1	15428	PASS
177	176	5	9	6.2	957	PASS

C19088.D BFB01.M Thu Mar 22 05:59:48 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Quant Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	617279	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	834225	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	335244	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1418	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	225110	9.08	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 90.80%			
46) Toluene-d8	10.27	98	1350602	10.52	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.20%#			
66) Bromofluorobenzene	13.97	95	411136	10.02	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.20%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	466542	8.78	ug\L	100
3) Chloromethane	1.74	50	396858	10.74	ug\L	98
4) Vinyl Chloride	1.85	62	317555	9.86	ug\L	100
5) Bromomethane	2.17	94	67645	8.09	ug\L	98
6) Chloroethane	2.27	64	155158	9.44	ug\L	92
7) Trichlorofluoromethane	2.54	101	422588	8.48	ug\L #	100
8) Acrolein	3.09	56	9813	20.31	ug\L #	90
9) Acrylonitrile	4.31	53	46161	19.40	ug\L	95
10) 1,1-Dichloroethene	3.16	96	310297	10.67	ug\L	95
11) Acetone	3.30	58	7503	9.21	ug\L	89
12) Iodomethane	3.37	142	383961	9.98	ug\L	96
13) Allylchloride	3.66	39	402927	9.75	ug\L	95
14) Carbon Disulfide	3.44	76	987538	10.17	ug\L	99
15) Acetonitrile	3.66	41	572512	104.51	ug\L	96
16) Methylene Chloride	3.87	86	158881	10.15	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	317439	10.60	ug\L	99
18) MethylTertButylEther	4.24	73	326831	9.69	ug\L	97
19) 1,1-Dichloroethane	5.00	63	537826	10.29	ug\L	100
20) Vinyl Acetate	5.13	43	132534	10.06	ug\L	99
21) 2,2-Dichloropropane	6.01	77	534106	10.64	ug\L	98
22) cis-1,2-Dichloroethene	6.07	96	309302	10.78	ug\L	96
23) 2-Butanone	6.17	72	7014	10.10	ug\L	85
24) Propionitrile	6.32	54	84726	101.75	ug\L #	96
25) Methacrylonitrile	6.52	41	526737	102.21	ug\L	98
26) Bromochloromethane	6.50	128	96519	10.62	ug\L	97
27) Chloroform	6.65	83	544703	9.86	ug\L	100
28) 1,1,1-Trichloroethane	6.86	97	550590	9.92	ug\L	100
29) Carbon Tetrachloride	7.10	119	448642	9.60	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Quant Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	11092	196.76 ug\L #	90
31) 1,1-Dichloropropene	7.13	77	160414	10.64 ug\L	99
33) Benzene	7.47	78	1240954	10.82 ug\L	100
34) Isobutyl alcohol	7.58	43	41838	167.67 ug\L	93
35) 1,2-Dichloroethane	7.57	62	252693	9.49 ug\L	97
36) Trichloroethene	8.49	95	380327	10.66 ug\L	99
37) 1,2-Dichloropropane	8.85	63	263306	10.55 ug\L	100
38) Dibromomethane	9.05	93	97736	10.35 ug\L	98
39) Methylmethacrylate	9.05	69	65510	10.33 ug\L	94
40) Bromodichloromethane	9.30	83	323163	9.61 ug\L	98
41) 2-Nitropropane	9.67	43	18288	9.51 ug\L	85
42) 2-Chloroethyl-vinyl ether	9.74	63	40691	8.76 ug\L	98
43) cis-1,3-Dichloropropene	9.93	75	353474	10.65 ug\L	97
44) 4-Methyl-2-Pentanone	10.17	85	12181	9.84 ug\L #	98
47) Toluene	10.37	92	862032	10.85 ug\L	100
48) trans-1,3-Dichloropropene	10.75	75	246334	10.02 ug\L	96
49) Ethylmethacrylate	10.85	69	160546	10.21 ug\L	99
50) 1,1,2-Trichloroethane	11.02	83	116765	10.42 ug\L	97
51) Tetrachloroethene	11.12	164	313957	10.55 ug\L	99
52) 1,3-Dichloropropane	11.24	76	253911	10.22 ug\L	98
53) 2-Hexanone	11.36	43	44119	9.20 ug\L	98
54) Dibromochloromethane	11.57	129	167653	9.60 ug\L	100
55) 1,2-Dibromoethane	11.70	107	124573	10.29 ug\L	99
56) Chlorobenzene	12.37	112	854191	10.23 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.49	131	250515	10.31 ug\L	99
58) Ethylbenzene	12.50	91	1742350	10.92 ug\L	98
59) total-Xylene	12.66	106	1821642m	33.25 ug\L	
60) Styrene	13.25	104	858864	10.94 ug\L	96
62) Bromoform	13.56	173	68113	9.39 ug\L	98
63) Isopropylbenzene	13.72	105	1791604	10.87 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.89	75	31909	9.43 ug\L #	92
65) trans-1,4-dichloro-2-Buten	14.27	75	145602	10.00 ug\L #	72
67) Bromobenzene	14.18	156	266538	9.98 ug\L	95
68) 1,1,2,2-Tetrachloroethane	14.23	83	126804	10.07 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	145602	10.00 ug\L #	100
70) n-Propylbenzene	14.29	91	2152868	10.77 ug\L	99
71) 2-Chlorotoluene	14.43	91	1155467	10.40 ug\L	97
72) 4-Chlorotoluene	14.59	91	1249381	10.62 ug\L	99
73) 1,3,5-Trimethylbenzene	14.54	105	1417663	10.75 ug\L	98
74) Pentachloroethane	15.06	167	159719	9.82 ug\L	97
75) tert-Butylbenzene	14.98	119	1203730	10.82 ug\L	98
76) 1,2,4-Trimethylbenzene	15.05	105	1340654	10.78 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Quant Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

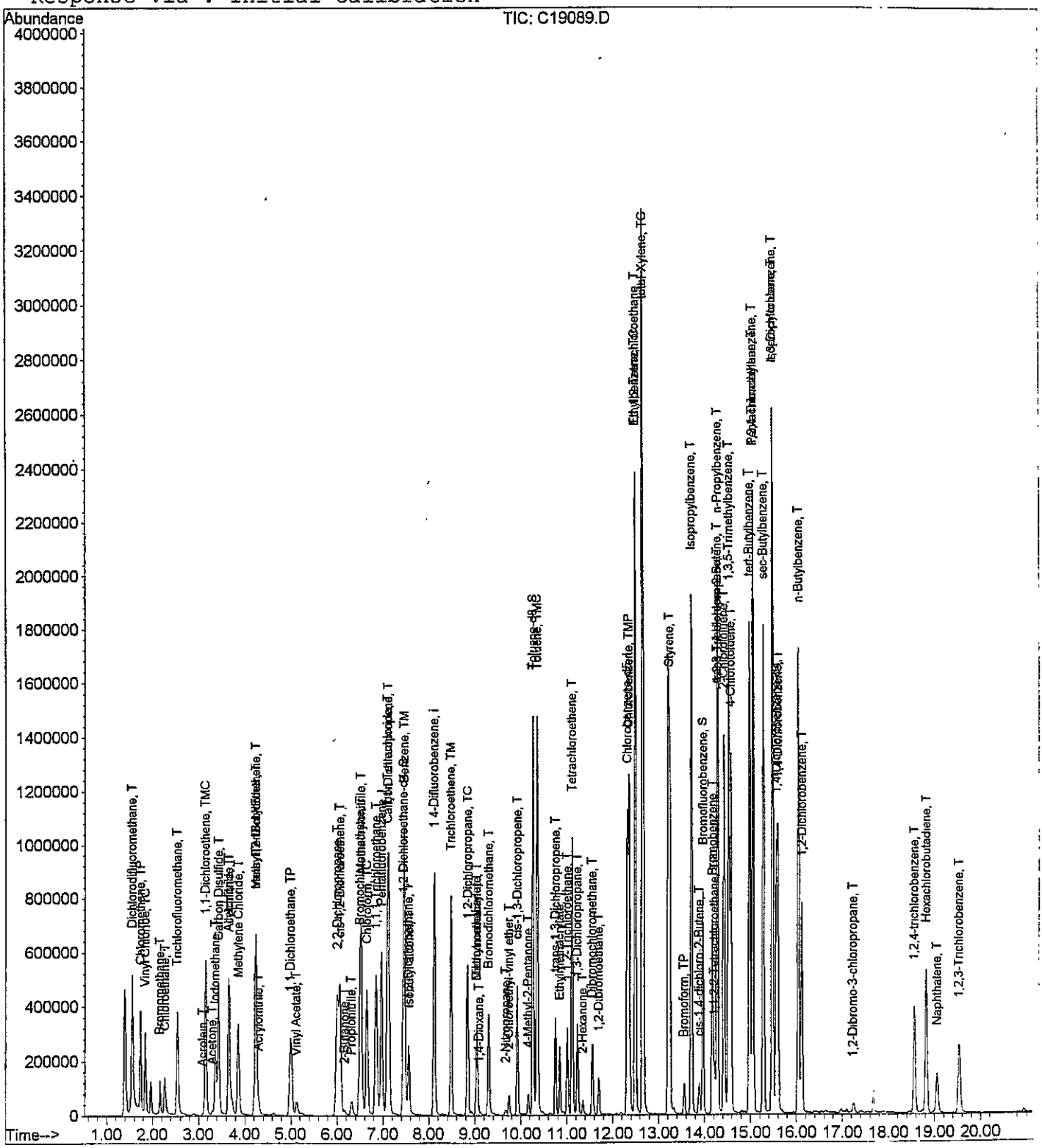
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1827394	11.01 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	562007	10.47 ug\L	97
79) Isopropyltoluene	15.48	119	1445302	11.31 ug\L	98
80) 1,4-Dichlorobenzene	15.60	146	541219	10.37 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	420165	10.39 ug\L	98
82) n-Butylbenzene	16.05	91	1382720	11.11 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.24	75	11432	8.08 ug\L	88
84) 1,2,4-trichlorobenzene	18.57	180	223694	10.39 ug\L	100
85) Hexachlorobutadiene	18.83	225	188948	12.40 ug\L	100
86) Naphthalene	19.06	128	241889	9.29 ug\L	100
87) 1,2,3-Trichlorobenzene	19.55	180	154684	10.53 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 6:29 2001 Quant Results File: 03220125.RES

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	105	0.00
2	T	Dichlorodifluoromethane	0.861	0.756	12.2	90	0.00
3	TP	Chloromethane	0.599	0.643	-7.3	109	0.00
4	TC	Vinyl Chloride	0.522	0.514	1.5	99	0.00
5	T	Bromomethane	0.143	0.110	23.1	81	0.00
6	T	Chloroethane	0.266	0.251	5.6	92	0.00
7	T	Trichlorofluoromethane	0.807	0.685	15.1	86	0.00
8	T	Acrolein	0.008	0.008	0.0	124	0.00
9	T	Acrylonitrile	0.039	0.037	5.1	113	0.02
10	TMC	1,1-Dichloroethene	0.471	0.503	-6.8	110	0.00
11	T	Acetone	0.013	0.012	7.7	110	0.00
12	T	Iodomethane	0.623	0.622	0.2	108	0.00
13	T	Allylchloride	0.669	0.653	2.4	101	0.00
14	T	Carbon Disulfide	1.573	1.600	-1.7	109	0.00
15	T	Acetonitrile	0.089	0.093	-4.5	110	0.00
16	T	Methylene Chloride	0.253	0.257	-1.6	111	0.00
17	T	trans-1,2-Dichloroethene	0.485	0.514	-6.0	109	0.00
18	T	MethylTertButylEther	0.546	0.529	3.1	108	0.00
19	TP	1,1-Dichloroethane	0.847	0.871	-2.8	110	0.00
20	T	Vinyl Acetate	0.213	0.215	-0.9	121	0.00
21	T	2,2-Dichloropropane	0.814	0.865	-6.3	106	0.00
22	T	cis-1,2-Dichloroethene	0.465	0.501	-7.7	113	0.00
23	T	2-Butanone	0.013	0.011	15.4	111	0.00
24	T	Propionitrile	0.013	0.014	-7.7	117	0.00
25	T	Methacrylonitrile	0.083	0.085	-2.4	114	0.00
26	T	Bromochloromethane	0.147	0.156	-6.1	112	0.00
27	TC	Chloroform	0.895	0.882	1.5	104	0.00
28	T	1,1,1-Trichloroethane	0.899	0.892	0.8	102	0.00
29	T	Carbon Tetrachloride	0.757	0.727	4.0	101	0.00
30	T	1,4-Dioxane	0.001	0.001	0.0	116	0.00
31	T	1,1-Dichloropropene	0.244	0.260	-6.6	109	0.00
32	S	1,2-Dichloroethane-d4	0.402	0.365	9.2	104	0.00
33	TM	Benzene	1.859	2.010	-8.1	114	0.00
34	T	Isobutyl alcohol	0.005	0.003	40.0#	106	0.02
35	T	1,2-Dichloroethane	0.431	0.409	5.1	105	0.00
36	TM	Trichloroethene	0.578	0.616	-6.6	112	0.00
37	TC	1,2-Dichloropropane	0.404	0.427	-5.7	115	0.00
38	T	Dibromomethane	0.153	0.158	-3.3	113	0.00
39	T	Methylmethacrylate	0.103	0.106	-2.9	114	0.00
40	T	Bromodichloromethane	0.545	0.524	3.9	104	0.00
41	T	2-Nitropropane	0.031	0.030	3.2	122	0.00
42	T	2-Chloroethyl-vinyl ether	0.075	0.066	12.0	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.538	0.573	-6.5	115	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.020	0.0	119	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
46	S	Toluene-d8	1.539	1.619	-5.2	116	0.00
47	TMC	Toluene	0.953	1.033	-8.4	117	0.00
48	T	trans-1,3-Dichloropropene	0.295	0.295	0.0	114	0.00
49	T	Ethylmethacrylate	0.188	0.192	-2.1	118	0.00
50	T	1,1,2-Trichloroethane	0.134	0.140	-4.5	121	0.00
51	T	Tetrachloroethene	0.357	0.376	-5.3	114	0.00
52	T	1,3-Dichloropropane	0.298	0.304	-2.0	117	0.00
53	T	2-Hexanone	0.057	0.053	7.0	114	0.00
54	T	Dibromochloromethane	0.209	0.201	3.8	110	0.00
55	T	1,2-Dibromoethane	0.145	0.149	-2.8	118	0.00
56	TMP	Chlorobenzene	1.001	1.024	-2.3	116	0.00
57	T	1,1,1,2-Tetrachloroethane	0.291	0.300	-3.1	113	0.00
58	TC	Ethylbenzene	1.912	2.089	-9.3	117	0.00
59	TG	total-Xylene	0.657	0.728	-10.8	120	0.00
60	T	Styrene	0.941	1.030	-9.5	119	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	117	0.00
62	TP	Bromoform	0.216	0.203	6.0	114	0.00
63	T	Isopropylbenzene	4.915	5.344	-8.7	120	0.00
64	T	cis-1,4-dichloro-2-Butene	0.097	0.095	2.1	120	0.00
65	T	trans-1,4-dichloro-2-Butene	0.434	0.434	0.0	119	0.00
66	S	Bromofluorobenzene	1.223	1.226	-0.2	119	0.00
67	T	Bromobenzene	0.797	0.795	0.3	118	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.376	0.378	-0.5	122	0.00
69	T	1,2,3-Trichloropropane	0.434	0.434	0.0	119	0.00
70	T	n-Propylbenzene	5.965	6.422	-7.7	118	0.00
71	T	2-Chlorotoluene	3.315	3.447	-4.0	116	0.00
72	T	4-Chlorotoluene	3.508	3.727	-6.2	128	0.00
73	T	1,3,5-Trimethylbenzene	3.934	4.229	-7.5	118	0.00
74	T	Pentachloroethane	0.485	0.476	1.9	115	0.00
75	T	tert-Butylbenzene	3.317	3.591	-8.3	117	0.00
76	T	1,2,4-Trimethylbenzene	3.710	3.999	-7.8	117	0.00
77	T	sec-Butylbenzene	4.949	5.451	-10.1	120	0.00
78	T	1,3-Dichlorobenzene	1.602	1.676	-4.6	118	0.00
79	T	Isopropyltoluene	3.813	4.311	-13.1	121	0.00
80	T	1,4-Dichlorobenzene	1.556	1.614	-3.7	119	0.00
81	T	1,2-Dichlorobenzene	1.206	1.253	-3.9	122	0.00
82	T	n-Butylbenzene	3.711	4.125	-11.2	120	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032201\C19089.D Vial: 1
Acq On : 03/22/01 06:08 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.042	0.034	19.0	113	0.00
84	T	1,2,4-trichlorobenzene	0.642	0.667	-3.9	127	0.00
85	T	Hexachlorobutadiene	0.499	0.564	-13.0	126	0.00
86	T	Naphthalene	0.756	0.722	4.5	140	0.00
87	T	1,2,3-Trichlorobenzene	0.438	0.461	-5.3	131	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	83	0.00

PROJECT QUALITY CONTROL RESULTS

Method No.[1]	Analyte / Compound	Percent Control Rec. MS (Water)	MSD (Water)	MS (Soil[2])	MSD (Soil[2])	Accuracy Limits MS/MSD Recoveries Water	Soil[2]	Project Control MS/MSD % Deviation Water	Soil[2]	Precision Limits MS/MSD Deviation Water	Soil[2]	Project Control Recoveries LCS Water	LCS Soil[2]	Accuracy Limits LCS Recoveries Water	Soil[2]	Project Control Field Dup % Deviation Water	Soil[2]	Precision Limits Field Dup Deviation Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	95	95			60-140	20-150	1%		30	50	97		62-108	62-108			50	75
8260B	1,1,1-Trichloroethane	90	91			60-140	20-150	2%		30	50	97		65-135	65-135			50	75
8260B	1,1,2,2-Tetrachloroethane	80	89			60-140	20-150	9%		30	50	92		64-135	64-135			50	75
8260B	1,1,2-Trichloroethane	90	90			60-140	20-150	0%		30	50	90		65-135	65-135			50	75
8260B	1,1-Dichloroethane	91	91			60-140	20-150	2%		30	50	98		62-135	62-135			50	75
8260B	1,1-Dichloroethene	96	95			60-140	20-150	3%		30	50	103		65-135	65-135			50	75
8260B	1,2,3-Trichlorobenzene	80	87			60-140	20-150	8%		30	50	90		65-147	65-147			50	75
8260B	1,2,3-Trichloropropane	88	85			60-140	20-150	3%		30	50	95		65-135	65-135			50	75
8260B	1,2,4-Trichlorobenzene	89	85			60-140	20-150	3%		30	50	95		65-145	65-145			50	75
8260B	1,2,4-Trimethylbenzene	95	93			60-140	20-150	1%		30	50	106		65-135	65-135			50	75
8260B	1,2-Dichloroethane	93	90			60-140	20-150	3%		30	50	87		58-137	58-137			50	75
8260B	1,2-Dichlorobenzene	91	89			60-140	20-150	2%		30	50	100		65-135	65-135			50	75
8260B	1,2-Dibromo-3-chloropropane	72	77			60-140	20-150	6%		30	50	69		19-135	19-135			50	75
8260B	1,2-Dichloropropane	94	96			60-140	20-150	3%		30	50	98		66-135	66-135			50	75
8260B	1,2-Ethylene Dibromide	88	91			60-140	20-150	3%		30	50	90		65-135	65-135			50	75
8260B	1,3,5-Trimethylbenzene	91	93			60-140	20-150	2%		30	50	108		62-135	62-135			50	75
8260B	1,3-Dichlorobenzene	92	91			60-140	20-150	1%		30	50	102		65-135	65-135			50	75
8260B	1,3-Dichloropropane	93	93			60-140	20-150	5%		30	50	101		65-135	65-135			50	75
8260B	1,4-Dichlorobenzene	87	90			60-140	20-150	3%		30	50	100		65-135	65-135			50	75
8260B	2,2-Dichloropropane	93	91			60-140	20-150	1%		30	50	101		65-135	65-135			50	75
8260B	2-Chlorotoluene	92	91			60-140	20-150	2%		30	50	104		63-135	63-135			50	75
8260B	4-Chlorotoluene	95	93			60-140	20-150	2%		30	50	106		64-135	64-135			50	75
8260B	Benzene	98	97			60-140	20-150	2%		30	50	103		65-135	65-135			50	75
8260B	Bromobenzene	87	87			60-140	20-150	1%		30	50	97		65-135	65-135			50	75
8260B	Bromochloromethane	97	93			60-140	20-150	5%		30	50	96		63-135	63-135			50	75
8260B	Bromodichloromethane	93	95			60-140	20-150	2%		30	50	91		65-135	65-135			50	75
8260B	Bromoform	76	83			60-140	20-150	8%		30	50	87		65-135	65-135			50	75
8260B	Bromomethane	90	85			60-140	20-150	6%		30	50	105		62-135	62-135			50	75
8260B	Carbon Tetrachloride	93	91			60-140	20-150	1%		30	50	97		52-135	52-135			50	75
8260B	Chlorobenzene	92	90			60-140	20-150	2%		30	50	98		65-135	65-135			50	75
8260B	Chloroethane	90	86			60-140	20-150	5%		30	50	87		55-135	55-135			50	75
8260B	Chloroform	90	91			60-140	20-150	1%		30	50	95		64-135	64-135			50	75
8260B	Chloromethane	93	91			60-140	20-150	4%		30	50	100		65-135	65-135			50	75
8260B	Cis-1,2-Dichloroethene	99	99			60-140	20-150	1%		30	50	101		65-135	65-135			50	75
8260B	Cis-1,3-Dichloropropene	90	91			60-140	20-150	3%		30	50	95		64-135	64-135			50	75
8260B	Dibromochloromethane	88	89			60-140	20-150	2%		30	50	88		63-135	63-135			50	75
8260B	Dibromomethane	92	93			60-140	20-150	2%		30	50	89		59-137	59-137			50	75
8260B	Dichlorodifluoromethane	88	81			60-140	20-150	9%		30	50	88		65-135	65-135			50	75
8260B	Ethylbenzene	98	96			60-140	20-150	2%		30	50	105		65-135	65-135			50	75
8260B	Hexachlorobutadiene	111	100			60-140	20-150	10%		30	50	125		65-135	65-135			50	75
8260B	Isopropylbenzene	94	92			60-140	20-150	2%		30	50	109		65-135	65-135			50	75
8260B	total-Xylene	98	97			60-140	20-150	1%		30	50	106		65-135	65-135			50	75
8260B	Methylene Chloride	90	93			60-140	20-150	3%		30	50	96		65-135	65-135			50	75
8260B	n-Butylbenzene	100	97			60-140	20-150	3%		30	50	110		65-135	65-135			50	75
8260B	n-Propylbenzene	95	94			60-140	20-150	1%		30	50	110		65-135	65-135			50	75
8260B	Naphthalene	65	67			60-140	20-150	3%		30	50	74		65-135	65-135			50	75
8260B	p-Isopropyltoluene	102	101			60-140	20-150	1%		30	50	112		65-135	65-135			50	75
8260B	Sec-Butylbenzene	96	95			60-140	20-150	2%		30	50	110		65-135	65-135			50	75
8260B	Styrene	96	96			60-140	20-150	0%		30	50	102		65-135	65-135			50	75
8260B	Trichloroethylene	98	66			60-140	20-150	9%		30	50	102		61-135	61-135			50	75
8260B	Tert-Butylbenzene	95	94			60-140	20-150	1%		30	50	109		65-135	65-135			50	75
8260B	Tetrachloroethylene	99	95			60-140	20-150	4%		30	50	104		61-135	61-135			50	75
8260B	Toluene	96	94			60-140	20-150	3%		30	50	104		65-135	65-135			50	75
8260B	Trans-1,2-Dichloroethene	98	96			60-140	20-150	2%		30	50	104		65-135	65-135			50	75
8260B	Trans-1,3-Dichloropropene	86	87			60-140	20-150	1%		30	50	88		56-135	56-135			50	75
8260B	Trichlorofluoromethane	89	88			60-140	20-150	2%		30	50	87		57-135	57-135			50	75
8260B	Vinyl Chloride	86	87			60-140	20-150	1%		30	50	94		36-141	36-144			50	75
8260B	Toluene-d8 (surr)	100	93			75-125	65-135	7%		NA	NA	100		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	92	90			75-125	65-135	2%		NA	NA	91		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	85	87			62-139	52-149	4%		NA	NA	89		NA	NA			NA	NA
	WET CHEMISTRY																		
310.1	Alkalinity					70-130	NA	#DIV/0!	#DIV/0!	30	NA			70-130	NA			30	NA
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH					50-150	36-170	#DIV/0!	#DIV/0!	30	50			75-125	70-130			50	75

Analyte	WATER SAMPLE C18485 D	WATER MS C18503 D	WATER MSD C18504 D	WATER BLANK C18483 D	WATER BS C18484 D	SOIL SAMPLE	SOIL MS	SOIL MSD	SOIL BLANK	SOIL BS
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dichloroethane										
1,2-Dichlorobenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dichloropropane										
1,2-Ethylene Dibromide										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Chlorotoluene										
4-Chlorotoluene										
Benzene										
Bromobenzene										
Bromochloromethane										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon Tetrachloride										
Chlorobenzene										
Chloroethane										
Chloroform										
Chloromethane										
Cis-1,2-Dichloroethene										
Cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
total-Xylene										
Methylene Chloride										
n-Butylbenzene										
n-Propylbenzene										
Naphthalene										
p-Isopropyltoluene										
Sec-Butylbenzene										
Styrene										
Trichloroethylene										
Tert-Butylbenzene										
Tetrachloroethylene										
Toluene										
Trans-1,2-Dichloroethene										
Trans-1,3-Dichloropropene										
Trichlorofluoromethane										
Vinyl Chloride										
Toluene-d8 (surr)										
4-Bromofluorobenzene (surr)										
1,2-Dichloroethane-d4 (surr)										

VOA GC/MS QC CHECKLIST
SW-846-8260B

BATCH #: C032201 25·M	METHOD: 8260B
MATRIX: water -25 ml	

Are BS/BSD/MS/MSD recoveries within recovery ranges?	Y	~~N~~	NA
Is/Are blank result(s) less than 1/2 RDL for analytes of interest?	~~Y~~	N	NA
Are all surrogate recoveries within recovery ranges?	~~Y~~	N	NA
Are all Internal Standard areas w/in -50% to +100% of that in the CCV?	~~Y~~	N	NA
Are all Internal Standard retention times w/in 30 seconds of that in the CCV?	~~Y~~	N	NA
Are all MS/MSD compounds below the high standard?	~~Y~~	N	NA
Were sample analyses performed within holding times?	~~Y~~	N	NA
Were analyses performed such that carryover was not a problem?	~~Y~~	N	NA
Is the run log completely filled out (including review signature/date)?	~~Y~~	N	NA
Are all mistakes single lined out, initialled, & dated?	~~Y~~	N	NA

Analyst: VRR	Reviewer:
Date: 3·23·01 Time: 15:20	Date: Time:

Spike Recovery and RPD Summary Report - WATER

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration

Non-Spiked Sample: C19108.D

	Spike Sample			Spike Duplicate Sample		
File ID :	C19111.D			C19118.D		
Sample :	AC09843MS	25ml	DF =1	AC09844MSD	25ml	DF=1
Acq Time:	22 Mar 2001	16:58		23 Mar 2001	14:50	

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
1,1-Dichloroethene	0.0	10	10	9	98	95	3	20	88-118
Benzene	0.0	10	10	10	98	97	2	20	83-121
Trichloroethene	35.1	10	45	42	98	66#	40#	20	68-109
Toluene	0.0	10	10	9	96	94	3	20	85-109
Chlorobenzene	0.0	10	9	9	92	90	2	20	82-110

- Fails Limit Check

03220125.M Fri Mar 23 15:17:45 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	464235	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.33	117	615186	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253889	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1247	10.00 ug\L	0.01
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	176471	9.46 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.60%		
46) Toluene-d8	10.27	98	950370	10.04 ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.40%		
66) Bromofluorobenzene	13.97	95	285261	9.18 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 91.80%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	351482	8.79 ug\L	99
3) Chloromethane	1.74	50	262261	9.44 ug\L	98
4) Vinyl Chloride	1.84	62	208821	8.62 ug\L	100
5) Bromomethane	2.16	94	56048	9.01 ug\L	97
6) Chloroethane	2.26	64	111610	9.02 ug\L	94
7) Trichlorofluoromethane	2.53	101	334874	8.94 ug\L #	100
8) Acrolein	3.10	56	6464	17.79 ug\L #	92
9) Acrylonitrile	4.30	53	33618	18.79 ug\L	95
10) 1,1-Dichloroethene	3.15	96	214080	9.79 ug\L	98
11) Acetone	3.30	58	4847	7.42 ug\L	92
12) Iodomethane	3.37	142	262365	9.07 ug\L	99
13) Allylchloride	3.65	39	303002	9.75 ug\L	96
14) Carbon Disulfide	3.43	76	727789	9.97 ug\L	99
15) Acetonitrile	3.66	41	395520	96.00 ug\L	97
16) Methylene Chloride	3.86	86	112583	9.57 ug\L	96
17) trans-1,2-Dichloroethene	4.24	96	220542	9.80 ug\L	98
18) MethylTertButylEther	4.24	73	204275	8.06 ug\L	96
19) 1,1-Dichloroethane	5.00	63	378790	9.64 ug\L	100
20) Vinyl Acetate	5.13	43	89832	9.07 ug\L	98
21) 2,2-Dichloropropane	6.02	77	349957	9.27 ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	212498	9.85 ug\L	99
23) 2-Butanone	6.16	72	4346	8.21 ug\L #	91
24) Propionitrile	6.31	54	54251	86.63 ug\L #	96
25) Methacrylonitrile	6.52	41	353754	91.27 ug\L	98
26) Bromochloromethane	6.49	128	66498	9.73 ug\L	97
27) Chloroform	6.65	83	397338	9.57 ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	398855	9.55 ug\L	98
29) Carbon Tetrachloride	7.10	119	331256	9.42 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	8726	204.46 ug\L #	86
31) 1,1-Dichloropropene	7.12	77	113054	9.97 ug\L	98
33) Benzene	7.47	78	847813	9.82 ug\L	100
34) Isobutyl alcohol	7.57	43	24613	129.06 ug\L	94
35) 1,2-Dichloroethane	7.57	62	185440	9.26 ug\L	99
36) Trichloroethene	8.48	95	1203839	44.87 ug\L	99
37) 1,2-Dichloropropane	8.85	63	175985	9.38 ug\L	98
38) Dibromomethane	9.05	93	64719	9.11 ug\L	99
39) Methylmethacrylate	9.05	69	38800	8.13 ug\L	91
40) Bromodichloromethane	9.30	83	234685	9.28 ug\L	100
41) 2-Nitropropane	9.67	43	10653	7.37 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.75	63	8357	2.39 ug\L	96
43) cis-1,3-Dichloropropene	9.93	75	225485	9.03 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	7553	8.12 ug\L #	96
47) Toluene	10.36	92	564339	9.63 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	155684	8.59 ug\L	99
49) Ethylmethacrylate	10.85	69	96786	8.35 ug\L	97
50) 1,1,2-Trichloroethane	11.01	83	74122	8.97 ug\L	98
51) Tetrachloroethene	11.12	164	217330	9.91 ug\L	98
52) 1,3-Dichloropropane	11.24	76	164272	8.97 ug\L	97
53) 2-Hexanone	11.36	43	28112	7.95 ug\L	97
54) Dibromochloromethane	11.57	129	112849	8.76 ug\L	99
55) 1,2-Dibromoethane	11.71	107	78422	8.78 ug\L	99
56) Chlorobenzene	12.37	112	568695	9.24 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	170653	9.53 ug\L	100
58) Ethylbenzene	12.50	91	1152587	9.80 ug\L	99
59) total-Xylene	12.66	106	1190650m	29.47 ug\L	
60) Styrene	13.25	104	554889	9.59 ug\L	98
62) Bromoform	13.56	173	41805	7.61 ug\L #	99
63) Isopropylbenzene	13.72	105	1177266	9.43 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	17157	7.16 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.28	75	88239	8.00 ug\L #	79
67) Bromobenzene	14.18	156	176014	8.70 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.22	83	82213	8.62 ug\L	96
69) 1,2,3-Trichloropropane	14.28	75	88239	8.00 ug\L #	100
70) n-Propylbenzene	14.29	91	1440880	9.51 ug\L	99
71) 2-Chlorotoluene	14.43	91	775856	9.22 ug\L	98
72) 4-Chlorotoluene	14.59	91	845582	9.49 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	940147	9.41 ug\L	100
74) Pentachloroethane	15.06	167	103713	8.42 ug\L #	95
75) tert-Butylbenzene	14.98	119	798504	9.48 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	898965	9.54 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

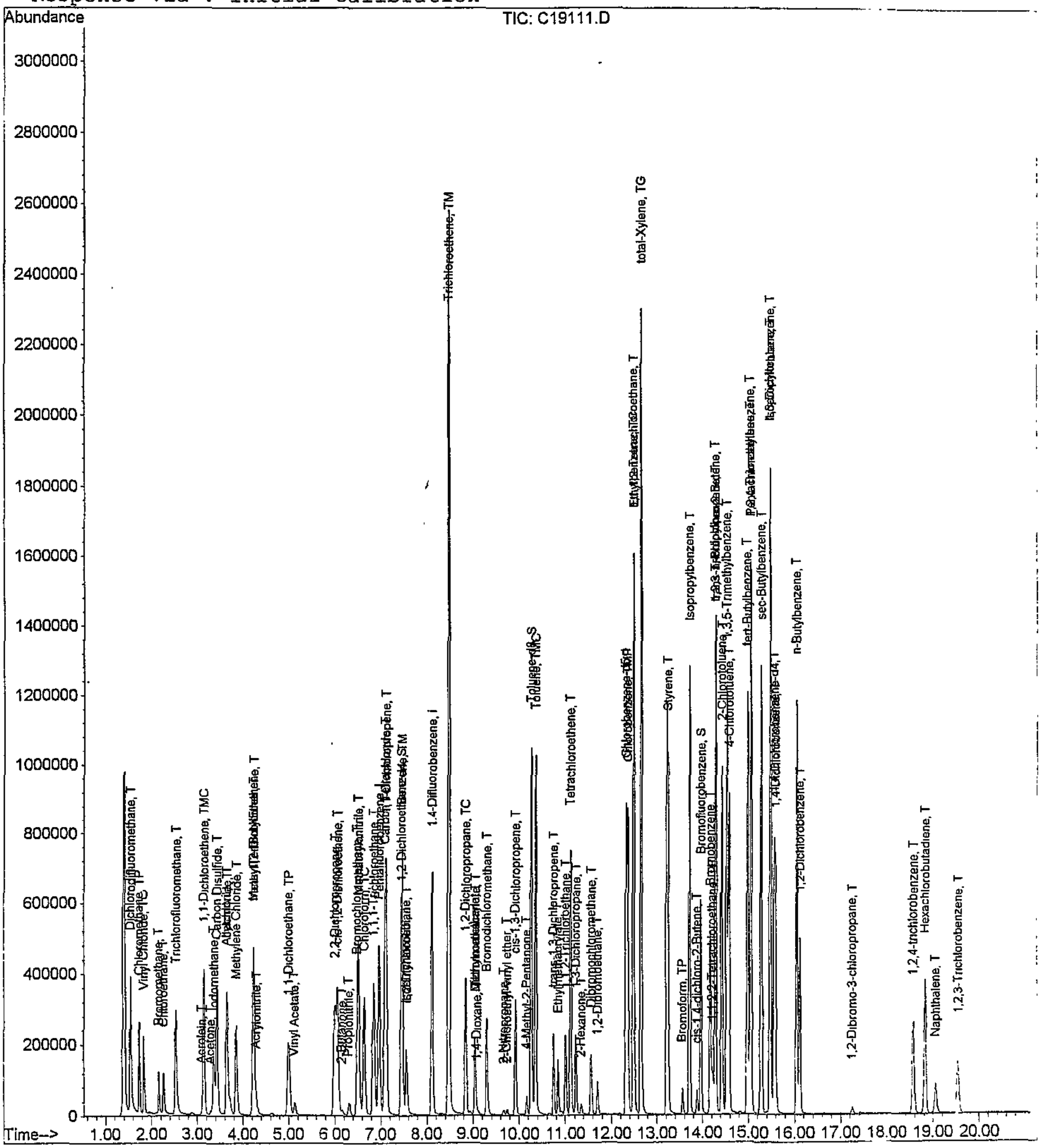
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1209749	9.63 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	374835	9.22 ug\L	97
79) Isopropyltoluene	15.48	119	989179	10.22 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	352123	8.91 ug\L	98
81) 1,2-Dichlorobenzene	16.13	146	279190	9.12 ug\L	98
82) n-Butylbenzene	16.05	91	938056	9.96 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	7708	7.20 ug\L	92
84) 1,2,4-trichlorobenzene	18.57	180	142634	8.75 ug\L	100
85) Hexachlorobutadiene	18.83	225	129989	11.12 ug\L	100
86) Naphthalene	19.06	128	127770	6.48 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	96725	8.70 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19111.D Vial: 8
Acq On : 03/22/01 16:58 Operator: JP/VRR
Sample : AC09843MS 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 17:19 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	531918	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	745967	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	308654	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1524	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	195198	9.13	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery	=	91.30%	
46) Toluene-d8	10.27	98	1072753	9.34	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery	=	93.40%	
66) Bromofluorobenzene	13.97	95	340341	9.01	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery	=	90.10%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	368649	8.05	ug\L	100
3) Chloromethane	1.74	50	290067	9.11	ug\L	99
4) Vinyl Chloride	1.85	62	242039	8.72	ug\L	99
5) Bromomethane	2.17	94	60649	8.46	ug\L	99
6) Chloroethane	2.27	64	121855	8.60	ug\L	93
7) Trichlorofluoromethane	2.54	101	375543	8.75	ug\L #	100
8) Acrolein	3.10	56	7432	17.85	ug\L #	97
9) Acrylonitrile	4.31	53	35219	17.18	ug\L	93
10) 1,1-Dichloroethene	3.16	96	237036	9.46	ug\L	100
11) Acetone	3.31	58	5700	7.71	ug\L	99
12) Iodomethane	3.37	142	319081	9.62	ug\L	99
13) Allylchloride	3.66	39	333106	9.35	ug\L	97
14) Carbon Disulfide	3.43	76	775018	9.27	ug\L	99
15) Acetonitrile	3.66	41	441666	93.56	ug\L	98
16) Methylene Chloride	3.86	86	125511	9.31	ug\L	96
17) trans-1,2-Dichloroethene	4.25	96	248513	9.63	ug\L	99
18) MethylTertButylEther	4.24	73	243208	8.37	ug\L	96
19) 1,1-Dichloroethane	5.00	63	424720	9.43	ug\L	99
20) Vinyl Acetate	5.14	43	105248	9.27	ug\L	98
21) 2,2-Dichloropropane	6.01	77	404085	9.34	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	245286	9.92	ug\L	97
23) 2-Butanone	6.16	72	5114	8.45	ug\L #	87
24) Propionitrile	6.32	54	67307	93.81	ug\L	98
25) Methacrylonitrile	6.53	41	424559	95.60	ug\L	98
26) Bromochloromethane	6.50	128	72774	9.30	ug\L	96
27) Chloroform	6.65	83	449081	9.44	ug\L	98
28) 1,1,1-Trichloroethane	6.86	97	449885	9.40	ug\L	98
29) Carbon Tetrachloride	7.10	119	377298	9.37	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D Vial: 5
Acq On : 03/23/01 14:50 Operator: JP/VRR
Sample : AC09844MSD 25ml DF=1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	9681	198.91 ug\L #	92
31) 1,1-Dichloropropene	7.13	77	127483	9.81 ug\L	97
33) Benzene	7.47	78	954487	9.65 ug\L	100
34) Isobutyl alcohol	7.58	43	32168	148.57 ug\L	88
35) 1,2-Dichloroethane	7.57	62	207266	9.03 ug\L	99
36) Trichloroethene	8.48	95	1279483	41.62 ug\L	99
37) 1,2-Dichloropropane	8.85	63	206879	9.62 ug\L	99
38) Dibromomethane	9.05	93	75866	9.32 ug\L	98
39) Methylmethacrylate	9.05	69	49912	9.13 ug\L	97
40) Bromodichloromethane	9.30	83	274056	9.46 ug\L	100
41) 2-Nitropropane	9.67	43	14305	8.64 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	269771	9.43 ug\L	100
44) 4-Methyl-2-Pentanone	10.16	85	8788	8.24 ug\L #	81
47) Toluene	10.36	92	666853	9.38 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	191469	8.71 ug\L	98
49) Ethylmethacrylate	10.85	69	123698	8.80 ug\L	98
50) 1,1,2-Trichloroethane	11.02	83	89893	8.97 ug\L	99
51) Tetrachloroethene	11.12	164	252983	9.51 ug\L	98
52) 1,3-Dichloropropane	11.23	76	201356	9.07 ug\L	99
53) 2-Hexanone	11.36	43	35750	8.34 ug\L	98
54) Dibromochloromethane	11.57	129	139063	8.91 ug\L	100
55) 1,2-Dibromoethane	11.70	107	98157	9.07 ug\L	99
56) Chlorobenzene	12.36	112	674583	9.04 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	205864	9.48 ug\L	99
58) Ethylbenzene	12.50	91	1371535	9.62 ug\L	99
59) total-Xylene	12.66	106	1428403m	29.16 ug\L	
60) Styrene	13.25	104	670611	9.56 ug\L	100
62) Bromoform	13.56	173	55228	8.27 ug\L	97
63) Isopropylbenzene	13.72	105	1400060	9.23 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.89	75	23051	7.74 ug\L #	87
65) trans-1,4-dichloro-2-Buten	14.27	75	115989	8.65 ug\L #	74
67) Bromobenzene	14.18	156	212622	8.65 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	102935	8.88 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	115989	8.65 ug\L #	100
70) n-Propylbenzene	14.28	91	1733448	9.42 ug\L	99
71) 2-Chlorotoluene	14.43	91	929006	9.08 ug\L	99
72) 4-Chlorotoluene	14.58	91	1010246	9.33 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1124276	9.26 ug\L	99
74) Pentachloroethane	15.05	167	131508	8.78 ug\L	96
75) tert-Butylbenzene	14.98	119	964869	9.42 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	1063360	9.29 ug\L	98
77) sec-Butylbenzene	15.28	105	1443231	9.45 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19118.D
Acq On : 03/23/01 14:50
Sample : AC09844MSD 25ml DF=1
Misc : 27307/C03220125
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001

Vial: 5
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	15.47	146	451253	9.13 ug\L	97
79) Isopropyltoluene	15.48	119	1190263	10.11 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	433868	9.03 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	331228	8.90 ug\L	98
82) n-Butylbenzene	16.05	91	1106113	9.66 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	9984	7.67 ug\L	95
84) 1,2,4-trichlorobenzene	18.57	180	168737	8.51 ug\L	100
85) Hexachlorobutadiene	18.82	225	144463	10.04 ug\L	100
86) Naphthalene	19.05	128	161278	6.73 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	114688	8.48 ug\L	100

(#) = qualifier out of range (m) = manual integration

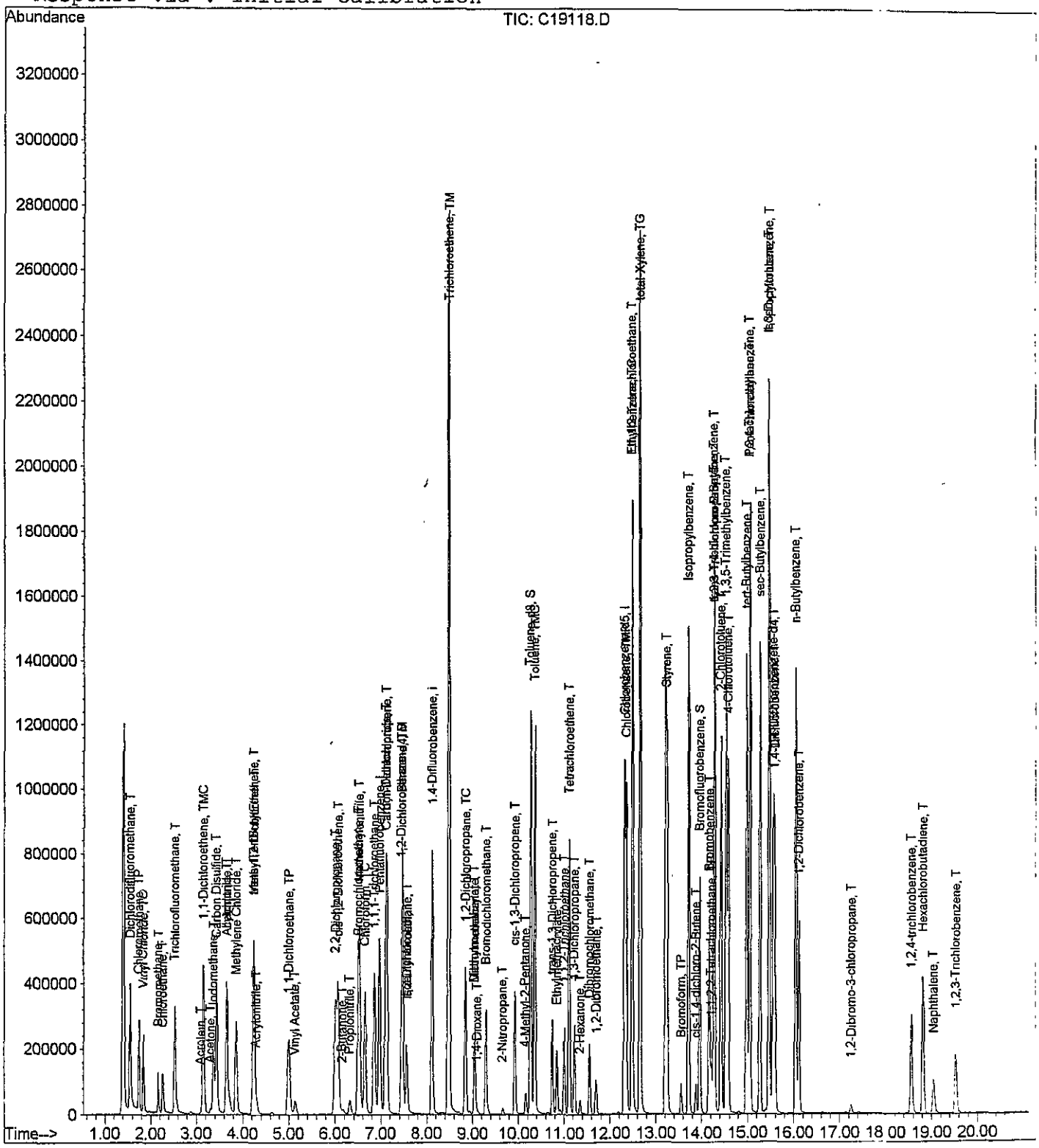
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19118.D
Acq On : 03/23/01 14:50
Sample : AC09844MSD 25ml DF=1
Misc : 27307/C03220125
MS Integration Params: rteint.p
Quant Time: Mar 23 15:12 2001

Vial: 5
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19108.D
Acq On : 03/22/01 15:41
Sample : AC09841 25ml DF =1
Misc : 27307/C03220125
MS Integration Params: rteint.p
Quant Time: Mar 22 16:31 2001

Vial: 5
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	449284	10.00	ug\L	0.01
45) Chlorobenzene-d5	12.33	117	569770	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	211618	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11

System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	165188	9.15	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.50%			
46) Toluene-d8	10.28	98	896814	10.23	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.30%			
66) Bromofluorobenzene	13.97	95	246075	9.50	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.00%			

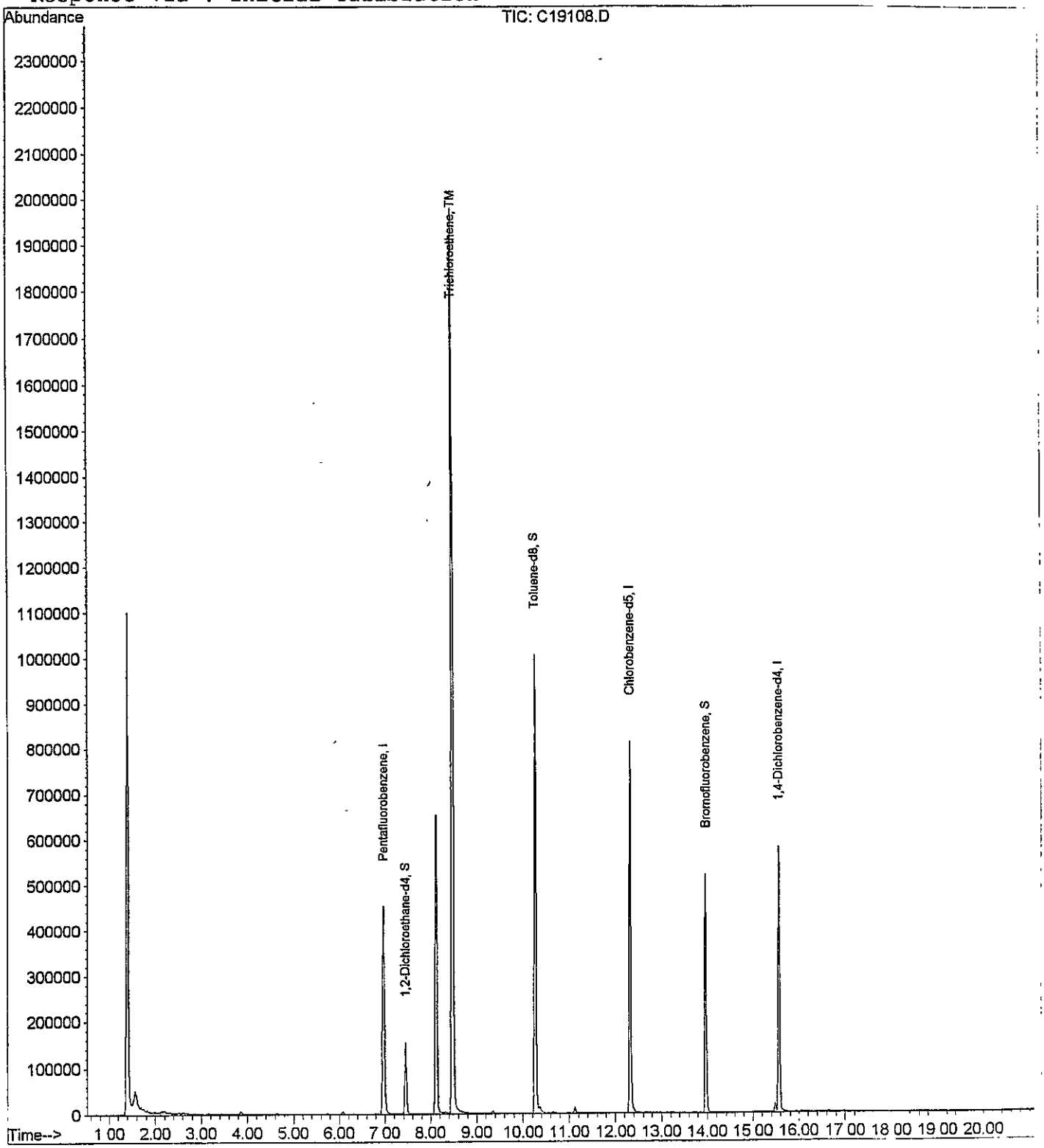
Target Compounds						Qvalue
36) Trichloroethene	8.49	95	910270	35.06	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032201\C19108.D Vial: 5
Acq On : 03/22/01 15:41 Operator: JP/VRR
Sample : AC09841 25ml DF =1 Inst : VOA-C
Misc : 27307/C03220125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 16:31 2001 Quant Results File: 03220125.RES

Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	570896	10.00	ug\L	0:00
45) Chlorobenzene-d5	12.32	117	750300	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	283135	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1320	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	189761	8.27	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 82.70%			
46) Toluene-d8	10.26	98	1148802	9.95	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%			
66) Bromofluorobenzene	13.97	95	326794	9.43	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.30%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	433685	8.82	ug\L	100
3) Chloromethane	1.75	50	342953	10.03	ug\L	99
4) Vinyl Chloride	1.85	62	279955	9.40	ug\L	98
5) Bromomethane	2.17	94	79145	10.49	ug\L	97
6) Chloroethane	2.28	64	132234	8.69	ug\L	92
7) Trichlorofluoromethane	2.53	101	398451	8.65	ug\L #	100
8) Acrolein	3.09	56	8007	17.92	ug\L #	98
9) Acrylonitrile	4.30	53	36933	16.78	ug\L	95
10) 1,1-Dichloroethene	3.15	96	278940	10.37	ug\L	96
11) Acetone	3.30	58	4744	5.19	ug\L	84
12) Iodomethane	3.37	142	352482	9.90	ug\L	97
13) Allylchloride	3.65	39	362256	9.48	ug\L	98
14) Carbon Disulfide	3.44	76	848569	9.45	ug\L	99
15) Acetonitrile	3.65	41	498098	98.31	ug\L	99
16) Methylene Chloride	3.86	86	138461	9.57	ug\L	98
17) trans-1,2-Dichloroethene	4.24	96	286750	10.36	ug\L	98
18) MethylTertButylEther	4.23	73	249418	8.00	ug\L	97
19) 1,1-Dichloroethane	5.00	63	474844	9.83	ug\L	100
20) Vinyl Acetate	5.13	43	98370	8.07	ug\L	98
21) 2,2-Dichloropropane	6.01	77	468534	10.09	ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	267306	10.07	ug\L	96
23) 2-Butanone	6.16	72	4873	7.43	ug\L	93
24) Propionitrile	6.32	54	62747	81.48	ug\L	99
25) Methacrylonitrile	6.52	41	407913	85.58	ug\L	99
26) Bromochloromethane	6.49	128	80217	9.55	ug\L	99
27) Chloroform	6.65	83	482343	9.44	ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	497247	9.68	ug\L	99
29) Carbon Tetrachloride	7.09	119	417369	9.65	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	9543	185.10 ug\L	91
31) 1,1-Dichloropropene	7.12	77	143321	10.28 ug\L	99
33) Benzene	7.47	78	1091929	10.29 ug\L	100
34) Isobutyl alcohol	7.57	43	29268	124.48 ug\L	90
35) 1,2-Dichloroethane	7.56	62	213561	8.67 ug\L	100
36) Trichloroethene	8.48	95	336441	10.20 ug\L	99
37) 1,2-Dichloropropane	8.84	63	226183	9.80 ug\L	100
38) Dibromomethane	9.05	93	77398	8.86 ug\L	98
39) Methylmethacrylate	9.05	69	49113	8.37 ug\L	96
40) Bromodichloromethane	9.30	83	283728	9.12 ug\L	99
41) 2-Nitropropane	9.66	43	12601	7.09 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.75	63	27083	6.31 ug\L	99
43) cis-1,3-Dichloropropene	9.93	75	291714	9.50 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	8280	7.24 ug\L #	95
47) Toluene	10.37	92	742211	10.38 ug\L	100
48) trans-1,3-Dichloropropene	10.74	75	195150	8.83 ug\L	97
49) Ethylmethacrylate	10.85	69	118629	8.39 ug\L	98
50) 1,1,2-Trichloroethane	11.01	83	90730	9.01 ug\L	98
51) Tetrachloroethene	11.12	164	277893	10.39 ug\L	98
52) 1,3-Dichloropropane	11.23	76	205092	9.18 ug\L	98
53) 2-Hexanone	11.35	43	29117	6.75 ug\L	96
54) Dibromochloromethane	11.56	129	137987	8.79 ug\L	99
55) 1,2-Dibromoethane	11.70	107	98235	9.02 ug\L	97
56) Chlorobenzene	12.36	112	736301	9.81 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	211069	9.66 ug\L	98
58) Ethylbenzene	12.49	91	1512426	10.54 ug\L	99
59) total-Xylene	12.66	106	1564289m	31.75 ug\L	
60) Styrene	13.25	104	716227	10.15 ug\L	97
62) Bromoform	13.56	173	53070	8.66 ug\L	99
63) Isopropylbenzene	13.72	105	1520767	10.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	21959	7.98 ug\L #	88
65) trans-1,4-dichloro-2-Buten	14.27	75	110598	9.00 ug\L #	76
67) Bromobenzene	14.17	156	218387	9.68 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	97362	9.16 ug\L	98
69) 1,2,3-Trichloropropane	14.27	75	110598	9.00 ug\L #	100
70) n-Propylbenzene	14.29	91	1858438	11.00 ug\L	100
71) 2-Chlorotoluene	14.43	91	978538	10.42 ug\L	98
72) 4-Chlorotoluene	14.58	91	1055314	10.63 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1200224	10.77 ug\L	99
74) Pentachloroethane	15.06	167	128401	9.34 ug\L	97
75) tert-Butylbenzene	14.98	119	1019938	10.86 ug\L	99
76) 1,2,4-Trimethylbenzene	15.06	105	1117356	10.64 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

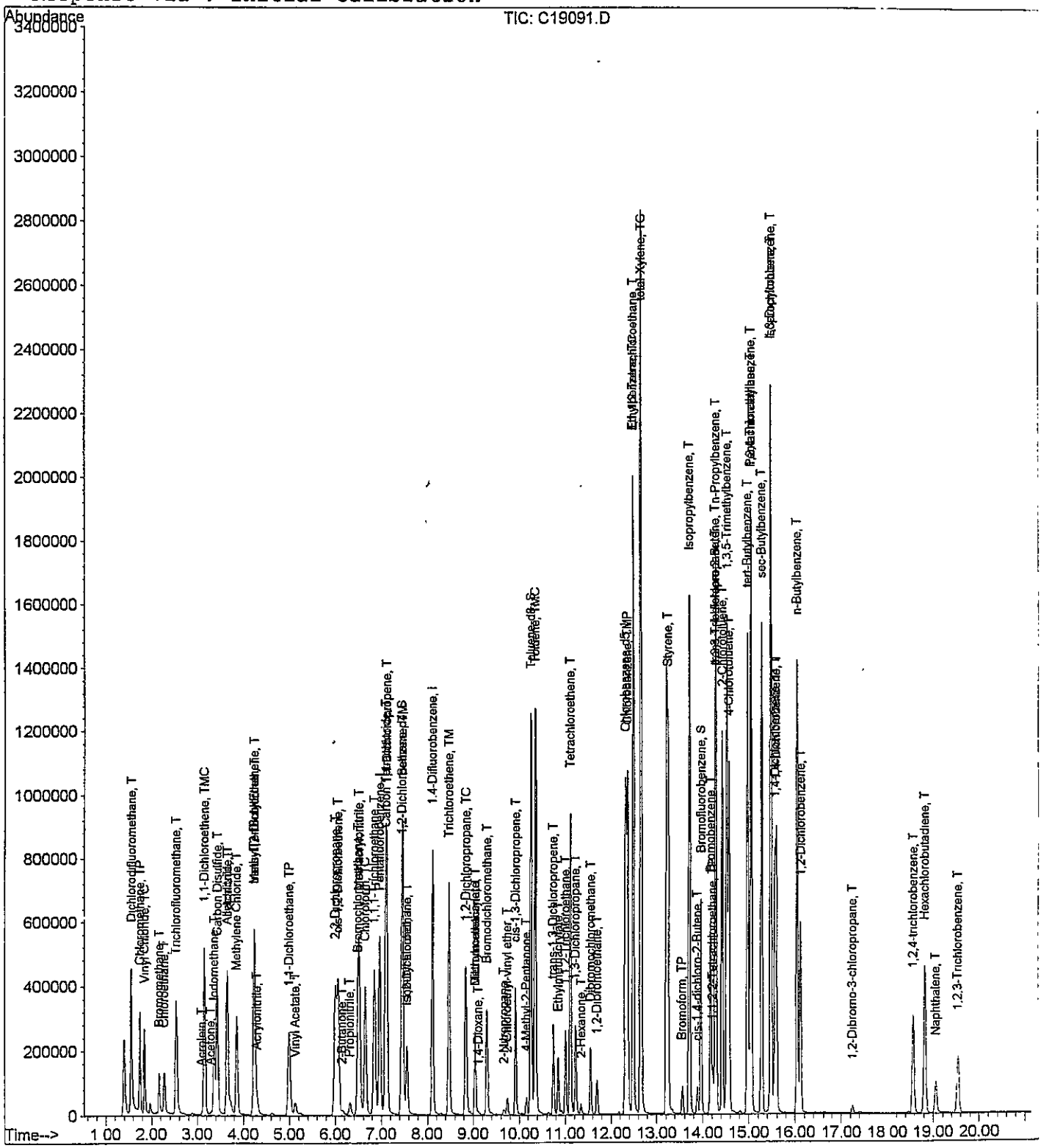
Quant Method : c:\hpchem\1\data\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03220125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1538894	10.98 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	462825	10.20 ug\L	97
79) Isopropyltoluene	15.48	119	1206834	11.18 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	440095	9.99 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	341519	10.00 ug\L	97
82) n-Butylbenzene	16.04	91	1153172	10.97 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	8213	6.88 ug\L	93
84) 1,2,4-trichlorobenzene	18.57	180	173335	9.53 ug\L	100
85) Hexachlorobutadiene	18.82	225	160740	12.50 ug\L	100
86) Naphthalene	19.06	128	161962	7.36 ug\L	100
87) 1,2,3-Trichlorobenzene	19.55	180	118563	9.56 ug\L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\032201\C19091.D Vial: 3
Acq On : 03/22/01 08:01 Operator: JP/VRR
Sample : QVWLCS032201 C1 Inst : VOA-C
Misc : WATER LCS 5 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 8:22 2001 Quant Results File: 03220125.RES

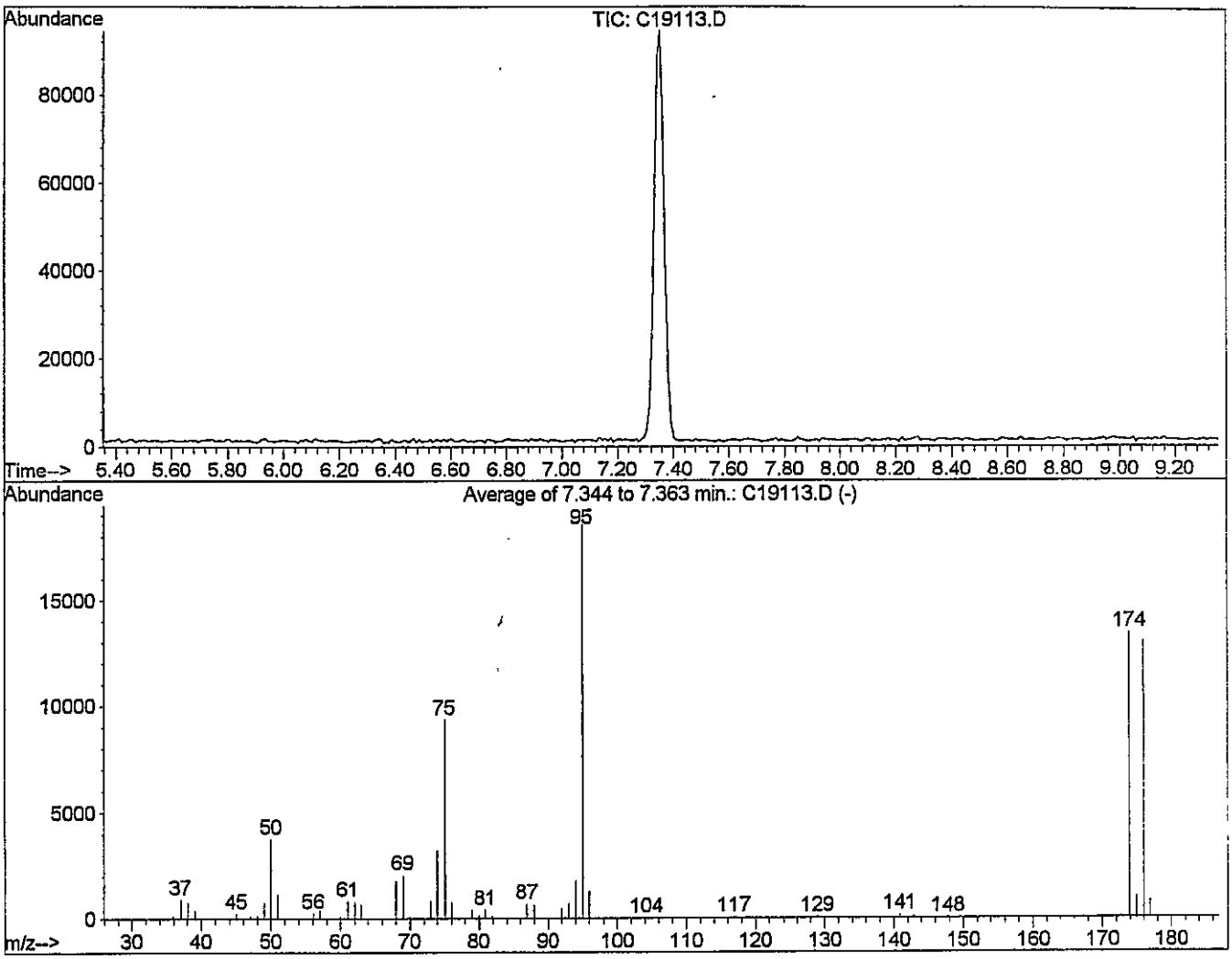
Method : C:\HPCHEM\1\DATA\032201\03220125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\032301\C19113.D
Acq On : 03/23/01 10:30
Sample : BFB 50ng V01018
Misc : QC
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00



AutoFind: Scans 621, 622, 623; Background Corrected with Scan 613

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	3802	PASS
75	95	30	60	50.5	9362	PASS
95	95	100	100	100.0	18537	PASS
96	95	5	9	7.0	1297	PASS
173	174	0.00	2	0.4	60	PASS
174	95	50	100	72.6	13456	PASS
175	174	5	9	7.4	999	PASS
176	174	95	101	97.6	13134	PASS
177	176	5	9	6.6	871	PASS

C19113.D BFB01.M Fri Mar 23 10:42:54 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	552290	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	759182	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	301723	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1746	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	196028	8.83 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 88.30%		
46) Toluene-d8	10.26	98	1167744	9.99 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.90%		
66) Bromofluorobenzene	13.96	95	352707	9.55 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.50%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	448787	9.44 ug\L	100
3) Chloromethane	1.74	50	346148	10.47 ug\L	97
4) Vinyl Chloride	1.84	62	290190	10.07 ug\L	100
5) Bromomethane	2.16	94	72059	9.81 ug\L	98
6) Chloroethane	2.27	64	147314	10.01 ug\L	92
7) Trichlorofluoromethane	2.53	101	426670	9.57 ug\L #	100
8) Acrolein	3.09	56	7870	18.21 ug\L #	99
9) Acrylonitrile	4.30	53	39551	18.58 ug\L	96
10) 1,1-Dichloroethene	3.15	96	292463	11.24 ug\L	98
11) Acetone	3.29	58	5580	7.07 ug\L	88
12) Iodomethane	3.36	142	380274	11.04 ug\L	98
13) Allylchloride	3.65	39	388759	10.51 ug\L	98
14) Carbon Disulfide	3.43	76	973522	11.21 ug\L	99
15) Acetonitrile	3.65	41	522199	106.54 ug\L	99
16) Methylene Chloride	3.85	86	144054	10.29 ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	293496	10.96 ug\L	98
18) MethylTertButylEther	4.24	73	263756	8.74 ug\L	98
19) 1,1-Dichloroethane	4.99	63	500100	10.70 ug\L	99
20) Vinyl Acetate	5.12	43	110665	9.39 ug\L	98
21) 2,2-Dichloropropane	6.00	77	493487	10.98 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	282746	11.02 ug\L	99
23) 2-Butanone	6.15	72	5723	9.15 ug\L #	96
24) Propionitrile	6.31	54	70115	94.11 ug\L	98
25) Methacrylonitrile	6.52	41	444324	96.36 ug\L	99
26) Bromochloromethane	6.48	128	83467	10.27 ug\L	97
27) Chloroform	6.64	83	520763	10.54 ug\L	100
28) 1,1,1-Trichloroethane	6.84	97	529136	10.65 ug\L	98
29) Carbon Tetrachloride	7.09	119	447308	10.70 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.09	88	10571	207.66 ug\L #	86
31) 1,1-Dichloropropene	7.12	77	150078	11.13 ug\L	99
33) Benzene	7.46	78	1126895	10.98 ug\L	100
34) Isobutyl alcohol	7.57	43	34935	155.84 ug\L	97
35) 1,2-Dichloroethane	7.56	62	232857	9.77 ug\L	100
36) Trichloroethene	8.47	95	357715	11.21 ug\L	99
37) 1,2-Dichloropropane	8.84	63	239015	10.71 ug\L	99
38) Dibromomethane	9.04	93	82758	9.79 ug\L	98
39) Methylmethacrylate	9.04	69	53290	9.39 ug\L	99
40) Bromodichloromethane	9.29	83	303828	10.10 ug\L	99
41) 2-Nitropropane	9.66	43	13731	7.98 ug\L	96
42) 2-Chloroethyl-vinyl ether	9.74	63	32802	7.90 ug\L	98
43) cis-1,3-Dichloropropene	9.92	75	308684	10.39 ug\L	99
44) 4-Methyl-2-Pentanone	10.16	85	9684	8.75 ug\L #	96
47) Toluene	10.36	92	788033	10.90 ug\L	99
48) trans-1,3-Dichloropropene	10.74	75	206433	9.23 ug\L	99
49) Ethylmethacrylate	10.84	69	130828	9.14 ug\L	98
50) 1,1,2-Trichloroethane	11.00	83	98209	9.63 ug\L	99
51) Tetrachloroethene	11.11	164	294795	10.89 ug\L	99
52) 1,3-Dichloropropane	11.23	76	217819	9.64 ug\L	99
53) 2-Hexanone	11.35	43	35020	8.02 ug\L	98
54) Dibromochloromethane	11.56	129	149430	9.40 ug\L	99
55) 1,2-Dibromoethane	11.70	107	106734	9.69 ug\L	98
56) Chlorobenzene	12.35	112	774548	10.20 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.48	131	227067	10.27 ug\L	99
58) Ethylbenzene	12.49	91	1630459	11.23 ug\L	100
59) total-Xylene	12.65	106	1668244m	33.46 ug\L	
60) Styrene	13.24	104	774039	10.84 ug\L	99
62) Bromoform	13.55	173	58856	9.01 ug\L #	97
63) Isopropylbenzene	13.71	105	1651876	11.14 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.87	75	23578	8.03 ug\L #	89
65) trans-1,4-dichloro-2-Buten	14.26	75	121861	9.30 ug\L #	78
67) Bromobenzene	14.17	156	240865	10.02 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.21	83	103112	9.10 ug\L	99
69) 1,2,3-Trichloropropane	14.26	75	121861	9.30 ug\L #	100
70) n-Propylbenzene	14.28	91	2044096	11.36 ug\L	100
71) 2-Chlorotoluene	14.42	91	1067609	10.67 ug\L	99
72) 4-Chlorotoluene	14.57	91	1182388	11.17 ug\L	99
73) 1,3,5-Trimethylbenzene	14.52	105	1324306	11.16 ug\L	100
74) Pentachloroethane	15.05	167	139595	9.53 ug\L	96
75) tert-Butylbenzene	14.97	119	1136641	11.36 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	1258957	11.25 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

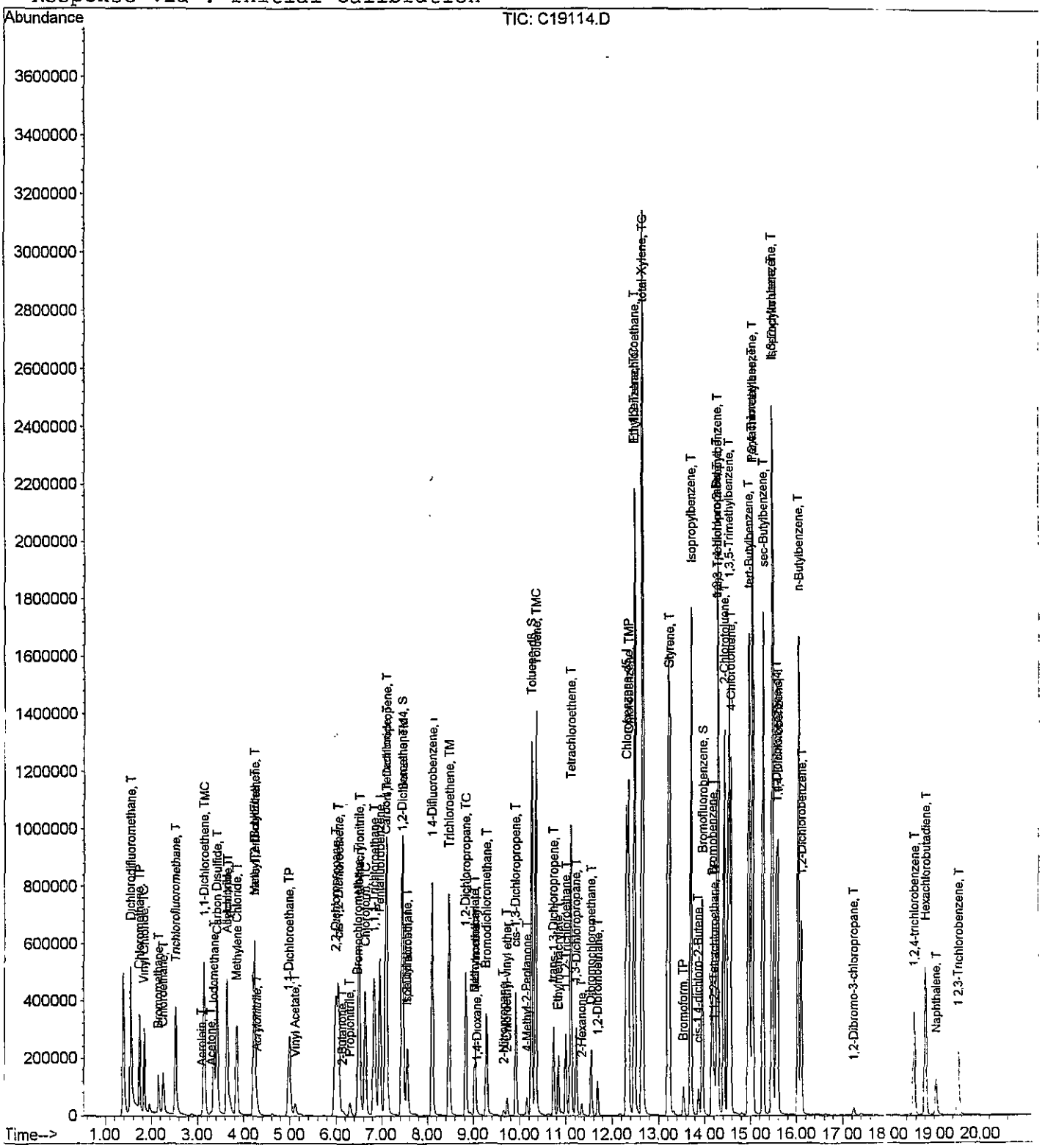
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1711650	11.46 ug\L	100
78)	1,3-Dichlorobenzene	15.47	146	507533	10.50 ug\L	97
79)	Isopropyltoluene	15.47	119	1347298	11.71 ug\L	99
80)	1,4-Dichlorobenzene	15.59	146	486948	10.37 ug\L	99
81)	1,2-Dichlorobenzene	16.11	146	375244	10.31 ug\L	98
82)	n-Butylbenzene	16.04	91	1320760	11.80 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.24	75	9639	7.57 ug\L	97
84)	1,2,4-trichlorobenzene	18.56	180	200776	10.36 ug\L	100
85)	Hexachlorobutadiene	18.81	225	178582	13.10 ug\L	100
86)	Naphthalene	19.05	128	197610	8.43 ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	136287	10.31 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19114.D Vial: 1
Acq On : 03/23/01 11:21 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	522014	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	615164	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	225294	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.43	65	177953	8.48 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%		
46) Toluene-d8	10.26	98	960599	10.15 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%		
66) Bromofluorobenzene	13.96	95	257599	9.35 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.50%		

Target Compounds Qvalue

VRR
3-25-01

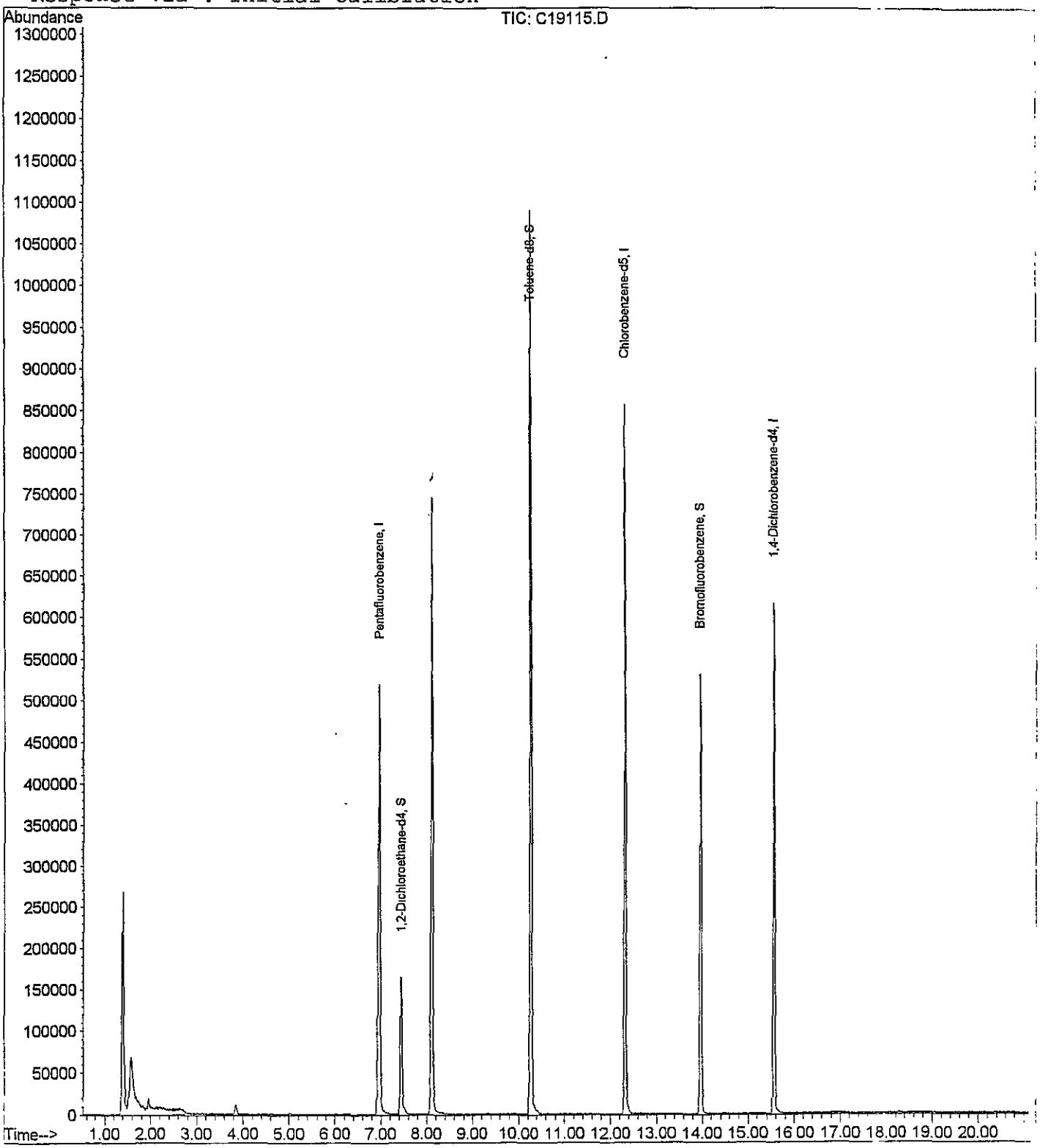
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D
Acq On : 03/23/01 12:34
Sample : QVW032301 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001

Vial: 2
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	493377	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	631379	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	260324	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1329	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	159855	8.06 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 80.60%		
46) Toluene-d8	10.26	98	922319	9.49 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.90%		
66) Bromofluorobenzene	13.96	95	278946	8.76 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 87.60%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	368894	8.68 ug\L	100
3) Chloromethane	1.74	50	281846	9.54 ug\L	99
4) Vinyl Chloride	1.84	62	234010	9.09 ug\L	99
5) Bromomethane	2.16	94	58983	8.91 ug\L	94
6) Chloroethane	2.26	64	119581	9.10 ug\L	92
7) Trichlorofluoromethane	2.53	101	352943	8.86 ug\L #	100
8) Acrolein	3.09	56	5991	15.51 ug\L #	100
9) Acrylonitrile	4.30	53	32500	17.09 ug\L	95
10) 1,1-Dichloroethene	3.15	96	229089	9.86 ug\L	100
11) Acetone	3.29	58	3809	4.58 ug\L	81
12) Iodomethane	3.36	142	295211	9.60 ug\L	100
13) Allylchloride	3.65	39	313801	9.50 ug\L	97
14) Carbon Disulfide	3.42	76	739110	9.53 ug\L	99
15) Acetonitrile	3.65	41	416996	95.24 ug\L	98
16) Methylene Chloride	3.86	86	116568	9.32 ug\L	96
17) trans-1,2-Dichloroethene	4.24	96	235381	9.84 ug\L	99
18) MethylTertButylEther	4.23	73	200413	7.44 ug\L	97
19) 1,1-Dichloroethane	4.99	63	391605	9.38 ug\L	99
20) Vinyl Acetate	5.12	43	86713	8.24 ug\L	99
21) 2,2-Dichloropropane	6.00	77	379722	9.46 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	218348	9.52 ug\L	99
23) 2-Butanone	6.14	72	2063	3.32 ug\L #	1
24) Propionitrile	6.30	54	51922	78.02 ug\L	98
25) Methacrylonitrile	6.51	41	339387	82.39 ug\L	98
26) Bromochloromethane	6.49	128	65644	9.04 ug\L	98
27) Chloroform	6.64	83	404981	9.17 ug\L	99
28) 1,1,1-Trichloroethane	6.84	97	417466	9.41 ug\L	97
29) Carbon Tetrachloride	7.09	119	353189	9.45 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	6852	158.78 ug\L #	95
31) 1,1-Dichloropropene	7.12	77	117061	9.71 ug\L	99
33) Benzene	7.45	78	863006	9.41 ug\L	100
34) Isobutyl alcohol	7.57	43	25377	124.92 ug\L	98
35) 1,2-Dichloroethane	7.56	62	176390	8.29 ug\L	99
36) Trichloroethene	8.48	95	269788	9.46 ug\L	99
37) 1,2-Dichloropropane	8.84	63	177992	8.92 ug\L	99
38) Dibromomethane	9.04	93	64125	8.49 ug\L	98
39) Methylmethacrylate	9.05	69	36926	7.28 ug\L	96
40) Bromodichloromethane	9.29	83	235572	8.77 ug\L	99
41) 2-Nitropropane	9.66	43	11354	7.39 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	23000	6.20 ug\L	94
43) cis-1,3-Dichloropropene	9.93	75	232967	8.78 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	6292	6.36 ug\L #	83
47) Toluene	10.36	92	587965	9.78 ug\L	98
48) trans-1,3-Dichloropropene	10.74	75	153647	8.26 ug\L	99
49) Ethylmethacrylate	10.85	69	94768	7.96 ug\L	96
50) 1,1,2-Trichloroethane	11.01	83	73037	8.62 ug\L	99
51) Tetrachloroethene	11.11	164	220991	9.81 ug\L	99
52) 1,3-Dichloropropane	11.23	76	165509	8.81 ug\L	99
53) 2-Hexanone	11.35	43	25049	6.90 ug\L	99
54) Dibromochloromethane	11.56	129	114224	8.64 ug\L	98
55) 1,2-Dibromoethane	11.70	107	78133	8.53 ug\L	97
56) Chlorobenzene	12.35	112	588117	9.31 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.48	131	175975	9.57 ug\L	100
58) Ethylbenzene	12.49	91	1230695	10.19 ug\L	99
59) total-Xylene	12.66	106	1257870m	30.34 ug\L	
60) Styrene	13.25	104	582304	9.80 ug\L	100
62) Bromoform	13.55	173	43139	7.65 ug\L	99
63) Isopropylbenzene	13.71	105	1272217	9.94 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	17422	7.11 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.27	75	90612	8.02 ug\L #	79
67) Bromobenzene	14.17	156	184233	8.88 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.21	83	80742	8.26 ug\L	100
69) 1,2,3-Trichloropropane	14.27	75	90612	8.02 ug\L #	100
70) n-Propylbenzene	14.29	91	1558294	10.04 ug\L	100
71) 2-Chlorotoluene	14.42	91	824951	9.56 ug\L	99
72) 4-Chlorotoluene	14.57	91	897035	9.82 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1014281	9.90 ug\L	99
74) Pentachloroethane	15.05	167	108436	8.58 ug\L	96
75) tert-Butylbenzene	14.98	119	857522	9.93 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	960468	9.95 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

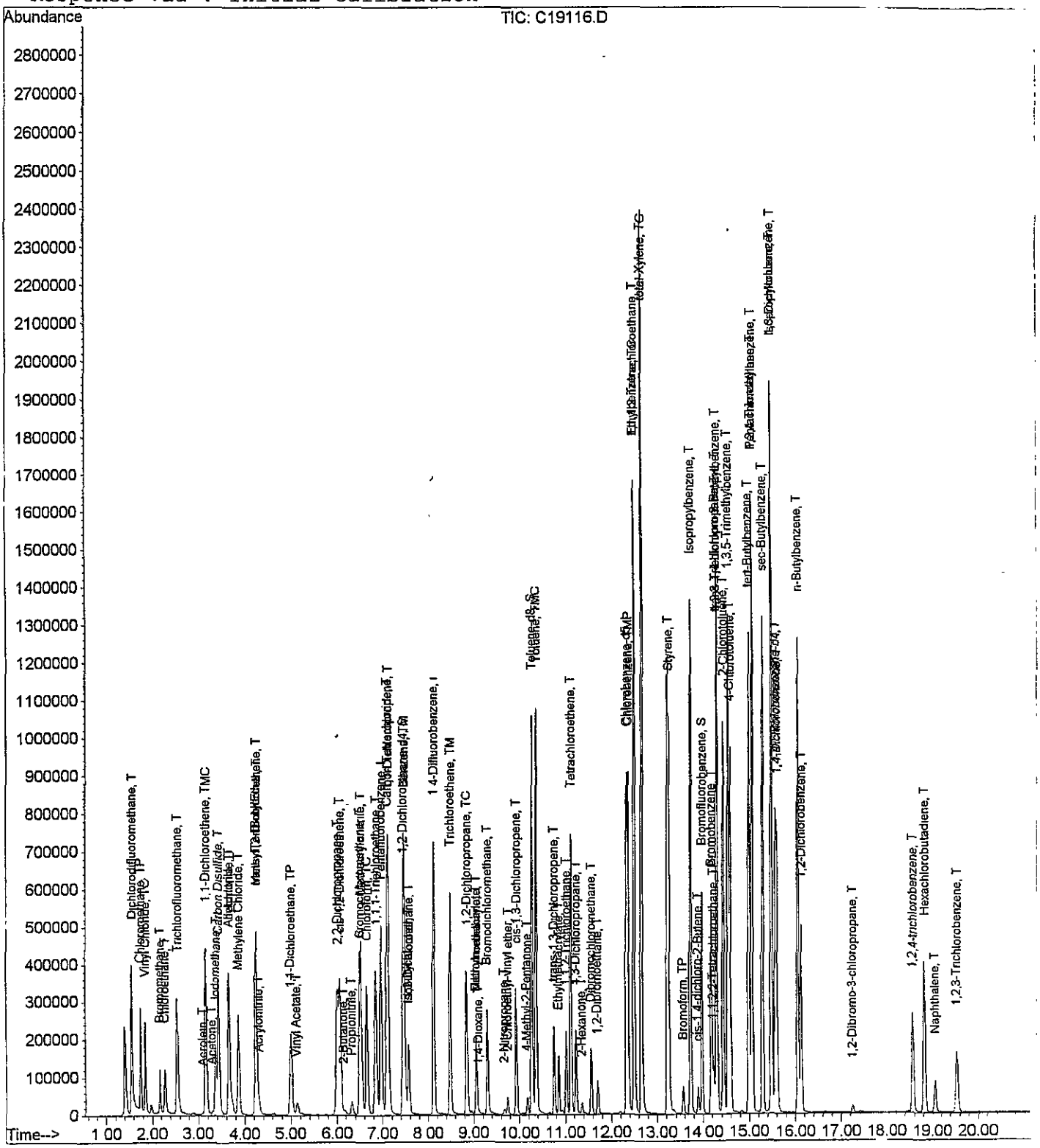
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1305308	10.13 ug\L	100
78) 1,3-Dichlorobenzene	15.46	146	394418	9.46 ug\L	97
79) Isopropyltoluene	15.48	119	1020213	10.28 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	375559	9.27 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	285030	9.08 ug\L	98
82) n-Butylbenzene	16.04	91	992182	10.27 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	7122	6.49 ug\L	94
84) 1,2,4-trichlorobenzene	18.56	180	146051	8.74 ug\L	100
85) Hexachlorobutadiene	18.81	225	138950	11.66 ug\L	100
86) Naphthalene	19.05	128	132145	6.53 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	98580	8.64 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



AAL # 27307 TEMP 4°C

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[5] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No , and Fax No.)
NTC Orlando	152044.3.2.12.01.03	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[1] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.).
Steve Tsangaris	813 874-0777	770 449-8800 x 233		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC	Nitrate	Nitrite	Chloride	Alkalinity	TDS	TOC	FL Pro			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB (for lab use)
1	017-OLD-36-	10B-Q1-01	W	3-15-01	0920	III	14	X	X	X	X	X	X	X	X			Grab		AC09
2	017-OLD-36-	11C-Q1-01			1058			X	X	X	X	X	X	X	X					AC09
3	017-OLD-36-	08B-Q1-01			1455			X	X	X	X	X	X	X	X					AC09
4	017-OLD-36-D	Dup2-Q1-01			—			X	X	X	X	X	X	X	X			QC		AC09
5	017-OLD-36-	08B-MS-Q1-01			1455			X	X	X	X	X	X	X	X			QC		AC09
6	017-OLD-36-	08B-MSD-Q1-01			1455			X	X	X	X	X	X	X	X			QC		AC09
7	017-OLD-36-	09C-Q1-01			1345			X	X	X	X	X	X	X	X			Grab		AC09
8	017-OLD-36-	TB3-Q1-01			—			X										QC		AC09
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER:
Fed ex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-15-01	1720	Printed Name and Signature: FED EX		
Printed Name and Signature: FED EX	3-16-01	0915	Printed Name and Signature: [illegible]	3-16-01	0915
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 27307-Revision
Client Project: CTO 17-NTC Orlando – Study Area 36 / 152044.32.12.01.08
CTO Manager: S.Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 03/16/01 at 0915:

Client I.D.	Laboratory I.D.
017-OLD-36-10B-Q1-01	AC09839
017-OLD-36-11C-Q1-01	AC09840
017-OLD-36-08B-Q1-01	AC09841
017-OLD-36-DUP-Q1-01	AC09842
017-OLD-36-08B-MS-Q1-01	AC09843
017-OLD-36-08B-MSD-Q1-01	AC09844
017-OLD-36-09C-Q1-01	AC09845
017-OLD-36-TB3-Q1-01	AC09846

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

3. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. Per client request, the FL-PRO results are reported out as greater than or equal to Accura Analytical Laboratory's reported detection limit.

5. The Chloride, TOC, Nitrate Nitrogen, and Nitrite Nitrogen analyses were performed by subcontract laboratories.

6. The pH of the samples was 1.0 for the VOC analysis.

7. The following samples required dilution due to high analyte concentration or matrix interference, resulting in elevated detection limits:

FL-PRO	VOC – SW-846-8260B
017-OLD-36-10B-Q1-01	017-OLD-36-09C-Q1-01
017-OLD-36-DUP2-Q1-01	
017-OLD-36-08B-MS-Q1-01	
017-OLD-36-08B-MSD-Q1-01	
017-OLD-36-09C-Q1-01	

CCI NAVY PAC PMO
APR 26 2001

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

8. The following samples were re-extracted 5 days outside the EPA recommended holding time due to poor extraction efficiency:

   FL-PRO
   017-OLD-36-10B-Q1-01
   017-OLD-36-11C-Q1-01
   017-OLD-36-08B-Q1-01
   017-OLD-36-DUP-Q1-01
   017-OLD-36-09C-Q1-01

   As a result, the FL-PRO data results have been reported as quantitative estimate. Note that samples 017-OLD-36-08B-MS-Q1-01 and 017-OLD-36-08B-MSD-Q1-01 could not be re-extracted due to insufficient sample volume, and the results for these two samples were reported from the original extraction and should also be considered as quantitative estimate.

9. The following surrogate was outside the method specified limit due to matrix interference:

   FL-PRO

o-Terphenyl -	017-OLD-36-10B-Q1-01
	017-OLD-36-08B-MS-Q1-01
	017-OLD-36-08B-MSD-Q1-01

10. The following surrogates were outside the method specified limits:

   FL-PRO

Nonatriacontane/C39 -	017-OLD-36-DUP2-Q1-01
	017-OLD-36-08B-MS-Q1-01
	017-OLD-36-08B-MSD-Q1-01
	Method Blank
	Laboratory Control Sample Duplicate

   The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

11. Project Specific QC for the FL-PRO analysis consists of laboratory control sample and laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as the matrix spike matrix spike recoveries on the QC spreadsheet.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

12. The laboratory control sample and laboratory control sample duplicate recoveries were outside the project specified limit for the following analyte:

    FL-PRO

    The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

13. The relative percent difference between the matrix spike and matrix spike duplicate was outside the project specified limit for the following analyte:

    VOC – SW-846-8260B
    Trichloroethylene

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017 Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09839 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01
Client Contact: S. TSANGARIS Date Received: 3/16/01
Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01
Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER
Client Sample ID: 017-OLD-36-10B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed. 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	32		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	3.3		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed· 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	210		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	17		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	11		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	1.6	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	12	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	48		
o-Terphenyl (Range 82-142)	74	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	94		
Toluene-d8 (84-108)	101		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09840 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-11C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	16		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	5.7		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	51		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	11		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	5.3	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	2.5	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	10	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	65		
o-Terphenyl (Range 82-142)	98		

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	88		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	97		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09841 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	22		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	6.1		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	270		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed. 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	3		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	35	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	63		
o-Terphenyl (Range 82-142)	105		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	95		
Toluene-d8 (84-108)	102		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09842 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-DUP2-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	31		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	3.3		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	330		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	23		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	12		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	1.6	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	12	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	39	*	
o-Terphenyl (Range 82-142)	86		

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	97		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09843 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-MS-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	22		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	6.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	73		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	2		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	9.5	2.5
1,1,1-Trichloroethane	9.6	4
1,1,2,2-Tetrachloroethane	8.6	2
1,1,2-Trichloroethane	9.0	5
1,1-Dichloroethane	9.6	2
1,1-Dichloroethene	9.8	6
1,2,3-Trichlorobenzene	8.7	1.5
1,2,3-Trichloropropane	8.0	16
1,2,4-Trichlorobenzene	8.8	2
1,2,4-Trimethylbenzene	9.5	6.5
1,2-Dibromo-3-chloropropane	7.2	13
1,2-Dichlorobenzene	9.1	1.5
1,2-Dichloroethane	9.3	3
1,2-Dichloropropane	9.4	2
1,2-Ethylene Dibromide	8.8	3
1,3,5-Trimethylbenzene	9.4	2.5
1,3-Dichlorobenzene	9.2	6
1,3-Dichloropropane	9.0	2
1,4-Dichlorobenzene	8.9	1.5
2,2-Dichloropropane	9.3	17.5
2-Chlorotoluene	9.2	2
4-Chlorotoluene	9.5	3
Benzene	9.8	1
Bromobenzene	8.7	1.5
Bromochloromethane	9.7	2
Bromodichloromethane	9.3	4
Bromoform	7 6	6
Bromomethane	9.0	5.5
Carbon tetrachloride	9.4	10.5
Chlorobenzene	9.2	2
Chloroethane	9.0	5
Chloroform	9.6	1.5
Chloromethane	9.4	6.5
cis-1,2-Dichloroethene	9.9	6
cis-1,3-Dichloropropene	9.0	5
Dibromochloromethane	8.8	2.5
Dibromomethane	9.1	12
Dichlorodifluoromethane	8.8	5
Ethylbenzene	9.8	3
Hexachlorobutadiene	11	5.5
Isopropylbenzene	9.4	2.5
Methylene chloride	9.6	1.5
Naphthalene	6.5	2
n-Butylbenzene	10	5.5
n-Propylbenzene	9.5	2
p-Isopropyltoluene	10	6
Sec-Butylbenzene	9.6	6.5
Styrene	9.6	2
Tert-Butylbenzene	9.5	7
Tetrachloroethylene	9.9	7
Toluene	9.6	5.5
Total Xylenes	29	5

trans-1,2-Dichloroethene	9.8	3
trans-1,3-Dichloropropene	8.6	5
Trichloroethylene	45	5
Trichlorofluoromethane	8.9	4
Vinyl chloride	8.6	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	5.9	*	
o-Terphenyl (Range 82-142)	66	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	95		
4-Bromofluorobenzene (86-112)	92		
Toluene-d8 (84-108)	100		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09844 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-08B-MSD-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	29		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	6.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	140		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	2		1

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	9.5	2.5
1,1,1-Trichloroethane	9.4	4
1,1,2,2-Tetrachloroethane	8.9	2
1,1,2-Trichloroethane	9.0	5
1,1-Dichloroethane	9.4	2
1,1-Dichloroethene	9.5	6
1,2,3-Trichlorobenzene	8.5	1.5
1,2,3-Trichloropropane	8.7	16
1,2,4-Trichlorobenzene	8.5	2
1,2,4-Trimethylbenzene	9.3	6.5
1,2-Dibromo-3-chloropropane	7.7	13
1,2-Dichlorobenzene	8.9	1.5
1,2-Dichloroethane	9.0	3
1,2-Dichloropropane	9.6	2
1,2-Ethylene Dibromide	9.1	3
1,3,5-Trimethylbenzene	9.3	2.5
1,3-Dichlorobenzene	9.1	6
1,3-Dichloropropane	9.1	2
1,4-Dichlorobenzene	9.0	1.5
2,2-Dichloropropane	9.3	17.5
2-Chlorotoluene	9.1	2
4-Chlorotoluene	9.3	3
Benzene	9.7	1
Bromobenzene	8.7	1.5
Bromochloromethane	9.3	2
Bromodichloromethane	9.5	4
Bromoform	8.3	6
Bromomethane	8.5	5.5
Carbon tetrachloride	9.4	10.5
Chlorobenzene	9.0	2
Chloroethane	8.6	5
Chloroform	9.4	1.5
Chloromethane	9.1	6.5
cis-1,2-Dichloroethene	9.9	6
cis-1,3-Dichloropropene	9.4	5
Dibromochloromethane	8.9	2.5
Dibromomethane	9.3	12
Dichlorodifluoromethane	8.1	5
Ethylbenzene	9.6	3
Hexachlorobutadiene	10	5.5
Isopropylbenzene	9.2	2.5
Methylene chloride	9.3	1.5
Naphthalene	6.7	2
n-Butylbenzene	9.7	5.5
n-Propylbenzene	9.4	2
p-Isopropyltoluene	10	6
Sec-Butylbenzene	9.5	6.5
Styrene	9.6	2
Tert-Butylbenzene	9.4	7
Tetrachloroethylene	9.5	7
Toluene	9.4	5.5
Total Xylenes	29	5

trans-1,2-Dichloroethene	9.6	3
trans-1,3-Dichloropropene	8.7	5
Trichloroethylene	42	5
Trichlorofluoromethane	8.8	4
Vinyl chloride	8.7	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	4.6	*	
o-Terphenyl (Range 82-142)	60	*	

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	90		
Toluene-d8 (84-108)	93		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09845 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-09C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	330		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	9.5		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	RL		4.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	120		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	14		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		25
1,1,1-Trichloroethane	<RL		40
1,1,2,2-Tetrachloroethane	<RL		20
1,1,2-Trichloroethane	<RL		50
1,1-Dichloroethane	<RL		20
1,1-Dichloroethene	<RL		60
1,2,3-Trichlorobenzene	<RL		15
1,2,3-Trichloropropane	<RL		160
1,2,4-Trichlorobenzene	<RL		20
1,2,4-Trimethylbenzene	<RL		65
1,2-Dibromo-3-chloropropane	<RL		130
1,2-Dichlorobenzene	<RL		15
1,2-Dichloroethane	<RL		30
1,2-Dichloropropane	<RL		20
1,2-Ethylene Dibromide	<RL		30
1,3,5-Trimethylbenzene	<RL		25
1,3-Dichlorobenzene	<RL		60
1,3-Dichloropropane	<RL		20
1,4-Dichlorobenzene	<RL		15
2,2-Dichloropropane	<RL		180
2-Chlorotoluene	<RL		20
4-Chlorotoluene	<RL		30
Benzene	<RL		10
Bromobenzene	<RL		15
Bromochloromethane	<RL		20
Bromodichloromethane	<RL		40
Bromoform	<RL		60
Bromomethane	<RL		55
Carbon tetrachloride	<RL		110
Chlorobenzene	<RL		20
Chloroethane	<RL		50
Chloroform	<RL		15
Chloromethane	<RL		65
cis-1,2-Dichloroethene	20	J	60
cis-1,3-Dichloropropene	<RL		50
Dibromochloromethane	<RL		25
Dibromomethane	<RL		120
Dichlorodifluoromethane	<RL		50
Ethylbenzene	<RL		30
Hexachlorobutadiene	<RL		55
Isopropylbenzene	<RL		25
Methylene chloride	<RL		15
Naphthalene	<RL		20
n-Butylbenzene	<RL		55
n-Propylbenzene	<RL		20
p-Isopropyltoluene	<RL		60
Sec-Butylbenzene	<RL		65
Styrene	<RL		20
Tert-Butylbenzene	<RL		70
Tetrachloroethylene	<RL		70
Toluene	<RL		55
Total Xylenes	<RL		50

trans-1,2-Dichloroethene	<RL	30
trans-1,3-Dichloropropene	<RL	50
Trichloroethylene	180	50
Trichlorofluoromethane	<RL	40
Vinyl chloride	<RL	55

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	55		
o-Terphenyl (Range 82-142)	89		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	100		
4-Bromofluorobenzene (86-112)	94		
Toluene-d8 (84-108)	98		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09846 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/15/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB3-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.51	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	99		
4-Bromofluorobenzene (86-112)	97		
Toluene-d8 (84-108)	97		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09847 **Accura Project #: 27307**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/16/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	42	*	
o-Terphenyl (Range 82-142)	100		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	84		
4-Bromofluorobenzene (85-111)	95		
Toluene-d8 (88-106)	102		

MILL-H 01/30/2 #22

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No., and Fax No.):
NTC Orlando	152044.32.12.01.08	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No., and Fax No.):
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Pkwy Cocoa FL 32922
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No., and Fax No.):
Steve Tsangaris	813 874-0777	770 449-8800 X233		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260B	Nitrate	Nitrite	Chloride	Alkalinity	TDS	TOC	FL Pro			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-28B-Q1-01		W	3-14-01	0846	III	14	X	X	X	X	X	X	X	X			Grab		AC09818
2	017-OLD-36-30C-Q1-01				1000			X	X	X	X	X	X	X	X					9819
3	017-OLD-36-31C-Q1-01				1053			X	X	X	X	X	X	X	X					9820
4	017-OLD-36-06A-Q1-01				1130			X	X	X	X	X	X	X	X					9821
5	017-OLD-36-07A-Q1-01				1224			X	X	X	X	X	X	X	X					9822
6	017-OLD-36-Dup1-Q1-01				—			X	X	X	X	X	X	X	X			QC		9823
7	017-OLD-36-FB1-Q1-01				0948			X	X	X	X	X	X	X	X			QC ~~Grab~~	TP	9824
8	017-OLD-36-26A-Q1-01				1330			X	X	X	X	X	X	X	X			Grab		9825
9	017-OLD-36-TB2-Q1-01				—			X										QC		9826
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER: Fedex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use): BB / 5°C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-14-01	1955	Printed Name and Signature: FEDEX		
Printed Name and Signature: FEDEX	03.15.01	15.05	Printed Name and Signature:	03.15.01	~~03.15.05~~ 03.15.01
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 27303-Revision
Client Project: CTO 17-NTC Orlando – Study Area 36 / 152044.32.12.01.08
CTO Manager: S.Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 03/15/01 at 1505:

Client I.D.	Laboratory I.D.
017-OLD-36-28B-Q1-01	AC09818
017-OLD-36-30C-Q1-01	AC09819
017-OLD-36-31C-Q1-01	AC09820
017-OLD-36-06A-Q1-01	AC09821
017-OLD-36-07A-Q1-01	AC09822
017-OLD-36-DUP1-Q1-01	AC09823
017-OLD-36-FB1-Q1-01	AC09824
017-OLD-36-26A-Q1-01	AC09825
017-OLD-36-TB2-Q1-01	AC09826

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

3. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. Per client request, the FL-PRO results are reported out as greater than or equal to Accura Analytical Laboratory's reported detection limit.

5. The "E" values noted for the Nitrate Nitrogen and Nitrite Nitrogen analyses indicate estimated concentrations due to the samples were analyzed outside the EPA recommended holding time.

6. The Chloride, TOC, Nitrate Nitrogen, and Nitrite Nitrogen analyses were performed by subcontract laboratories.

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

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

8. The following samples were analyzed outside the EPA recommended holding time:

Nitrate Nitrogen – EPA – 300.0	Nitrite Nitrogen – EPA – 300.0
017-OLD-36-28B-Q1-01	017-OLD-36-28B-Q1-01
017-OLD-36-30C-Q1-01	017-OLD-36-30C-Q1-01
017-OLD-36-31C-Q1-01	017-OLD-36-31C-Q1-01
017-OLD-36-06A-Q1-01	017-OLD-36-06A-Q1-01
017-OLD-36-07A-Q1-01	017-OLD-36-07A-Q1-01
017-OLD-36-DUP1-Q1-01	017-OLD-36-DUP1-Q1-01
017-OLD-36-FB1-Q1-01	017-OLD-36-FB1-Q1-01
017-OLD-36-26A-Q1-01	017-OLD-36-26A-Q1-01

The results for these samples should be considered estimated.

9. The following samples required dilution due to high analyte concentration or matrix interference, resulting in elevated detection limits:

VOC – SW-846-8260B
017-OLD-36-28B-Q1-01
017-OLD-36-30C-Q1-01 (Trichloroethylene)
017-OLD-36-07A-Q1-01
017-OLD-36-DUP1-Q1-01
017-OLD-36-FB1-Q1-01 (Methylene Chloride)

10. The following surrogate was outside the method specified limit due to matrix interference:

FL-PRO

o-Terphenyl -	017-OLD-36-28B-Q1-01
	017-OLD-36-30C-Q1-01
	017-OLD-36-07A-Q1-01
	Laboratory Control Sample

11. The following surrogates were outside the method specified limits:

FL-PRO

Nonatriacontane/C39 -	017-OLD-36-28B-Q1-01
	017-OLD-36-30C-Q1-01
	017-OLD-36-31C-Q1-01
	017-OLD-36-06A-Q1-01
	017-OLD-36-FB1-Q1-01
	017-OLD-36-26A-Q1-01
	Method Blank
	Laboratory Control Sample
	Laboratory Control Sample Duplicate

The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

12. Project Specific QC for the Alkalinity and FL-PRO analyses consists of laboratory control sample and laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as the matrix spike matrix spike recoveries on the QC spreadsheet.

13. The laboratory control sample recovery was outside the project specified limit for the following analyte:

    FL-PRO

    The recovery was within historical limits established in the laboratory; therefore the data was accepted.

14. The relative percent difference between the matrix spike and matrix spike duplicate was outside the project specified limit for the following analyte:

    VOC – SW-846-8260B
    Trichloroethylene

15. The relative percent difference between the laboratory control sample and laboratory control sample duplicate was outside the project specified limit for the following analyte:

    FL-PRO

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09818 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-28B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	37		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.0		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.01		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	270		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	6		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		12
1,1,1-Trichloroethane	<RL		20
1,1,2,2-Tetrachloroethane	<RL		10
1,1,2-Trichloroethane	<RL		25
1,1-Dichloroethane	<RL		10
1,1-Dichloroethene	<RL		30
1,2,3-Trichlorobenzene	<RL		7.5
1,2,3-Trichloropropane	<RL		80
1,2,4-Trichlorobenzene	<RL		10
1,2,4-Trimethylbenzene	<RL		32
1,2-Dibromo-3-chloropropane	<RL		65
1,2-Dichlorobenzene	<RL		7.5
1,2-Dichloroethane	<RL		15
1,2-Dichloropropane	<RL		10
1,2-Ethylene Dibromide	<RL		15
1,3,5-Trimethylbenzene	<RL		12
1,3-Dichlorobenzene	<RL		30
1,3-Dichloropropane	<RL		10
1,4-Dichlorobenzene	<RL		7.5
2,2-Dichloropropane	<RL		88
2-Chlorotoluene	<RL		10
4-Chlorotoluene	<RL		15
Benzene	<RL		5.0
Bromobenzene	<RL		7.5
Bromochloromethane	<RL		10
Bromodichloromethane	<RL		20
Bromoform	<RL		30
Bromomethane	<RL		28
Carbon tetrachloride	<RL		52
Chlorobenzene	<RL		10
Chloroethane	<RL		25
Chloroform	<RL		7.5
Chloromethane	<RL		32
cis-1,2-Dichloroethene	<RL		30
cis-1,3-Dichloropropene	<RL		25
Dibromochloromethane	<RL		12
Dibromomethane	<RL		60
Dichlorodifluoromethane	<RL		25
Ethylbenzene	<RL		15
Hexachlorobutadiene	<RL		28
Isopropylbenzene	<RL		12
Methylene chloride	5.6	J	7.5
Naphthalene	<RL		10
n-Butylbenzene	<RL		28
n-Propylbenzene	<RL		10
p-Isopropyltoluene	<RL		30
Sec-Butylbenzene	<RL		32
Styrene	<RL		10
Tert-Butylbenzene	<RL		35
Tetrachloroethylene	<RL		35
Toluene	<RL		28
Total Xylenes	<RL		25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	66	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	0.2	*	
o-Terphenyl (Range 82-142)	67	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	96		
Toluene-d8 (84-108)	100		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09819 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-30C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	25		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.0		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.02		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	110		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	1		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1 5
2,2-Dichloropropane	<RL		17 5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	1.3	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.60	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	57	25
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	29	*	
o-Terphenyl (Range 82-142)	173	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	103		
4-Bromofluorobenzene (86-112)	100		
Toluene-d8 (84-108)	104		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09820 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-31C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	26		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	6.9		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	5.9		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed. 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	140		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed. 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	49		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.57	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	13	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	42	*	
o-Terphenyl (Range 82-142)	94		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	91		
4-Bromofluorobenzene (86-112)	96		
Toluene-d8 (84-108)	100		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09821 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-06A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	6.0		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.4		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.09		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	150		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	12		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.64	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	9 5	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	23	*	
o-Terphenyl (Range 82-142)	85		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed· 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	95		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	100		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09822 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-07A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	16		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.7		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.09		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed. 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	170		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	11		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		12
1,1,1-Trichloroethane	<RL		20
1,1,2,2-Tetrachloroethane	<RL		10
1,1,2-Trichloroethane	<RL		25
1,1-Dichloroethane	<RL		10
1,1-Dichloroethene	<RL		30
1,2,3-Trichlorobenzene	<RL		7.5
1,2,3-Trichloropropane	<RL		80
1,2,4-Trichlorobenzene	<RL		10
1,2,4-Trimethylbenzene	<RL		32
1,2-Dibromo-3-chloropropane	<RL		65
1,2-Dichlorobenzene	<RL		7.5
1,2-Dichloroethane	<RL		15
1,2-Dichloropropane	<RL		10
1,2-Ethylene Dibromide	<RL		15
1,3,5-Trimethylbenzene	<RL		12
1,3-Dichlorobenzene	<RL		30
1,3-Dichloropropane	<RL		10
1,4-Dichlorobenzene	<RL		7.5
2,2-Dichloropropane	<RL		88
2-Chlorotoluene	<RL		10
4-Chlorotoluene	<RL		15
Benzene	<RL		5.0
Bromobenzene	<RL		7.5
Bromochloromethane	<RL		10
Bromodichloromethane	<RL		20
Bromoform	<RL		30
Bromomethane	<RL		28
Carbon tetrachloride	<RL		52
Chlorobenzene	<RL		10
Chloroethane	<RL		25
Chloroform	<RL		7.5
Chloromethane	<RL		32
cis-1,2-Dichloroethene	<RL		30
cis-1,3-Dichloropropene	<RL		25
Dibromochloromethane	<RL		12
Dibromomethane	<RL		60
Dichlorodifluoromethane	<RL		25
Ethylbenzene	<RL		15
Hexachlorobutadiene	<RL		28
Isopropylbenzene	<RL		12
Methylene chloride	5.2	J	7.5
Naphthalene	<RL		10
n-Butylbenzene	<RL		28
n-Propylbenzene	<RL		10
p-Isopropyltoluene	<RL		30
Sec-Butylbenzene	<RL		32
Styrene	<RL		10
Tert-Butylbenzene	<RL		35
Tetrachloroethylene	<RL		35
Toluene	<RL		28
Total Xylenes	<RL		25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	35	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	42		
o-Terphenyl (Range 82-142)	62	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	95		
4-Bromofluorobenzene (86-112)	97		
Toluene-d8 (84-108)	104		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09823 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01
Client Contact: S. TSANGARIS Date Received: 3/15/01
Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01
Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER
Client Sample ID: 017-OLD-36-DUP1-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	22		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.0		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.02		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	110		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		12
1,1,1-Trichloroethane	<RL		20
1,1,2,2-Tetrachloroethane	<RL		10
1,1,2-Trichloroethane	<RL		25
1,1-Dichloroethane	<RL		10
1,1-Dichloroethene	<RL		30
1,2,3-Trichlorobenzene	<RL		7.5
1,2,3-Trichloropropane	<RL		80
1,2,4-Trichlorobenzene	<RL		10
1,2,4-Trimethylbenzene	<RL		32
1,2-Dibromo-3-chloropropane	<RL		65
1,2-Dichlorobenzene	<RL		7.5
1,2-Dichloroethane	<RL		15
1,2-Dichloropropane	<RL		10
1,2-Ethylene Dibromide	<RL		15
1,3,5-Trimethylbenzene	<RL		12
1,3-Dichlorobenzene	<RL		30
1,3-Dichloropropane	<RL		10
1,4-Dichlorobenzene	<RL		7.5
2,2-Dichloropropane	<RL		88
2-Chlorotoluene	<RL		10
4-Chlorotoluene	<RL		15
Benzene	<RL		5.0
Bromobenzene	<RL		7.5
Bromochloromethane	<RL		10
Bromodichloromethane	<RL		20
Bromoform	<RL		30
Bromomethane	<RL		28
Carbon tetrachloride	<RL		52
Chlorobenzene	<RL		10
Chloroethane	<RL		25
Chloroform	<RL		7.5
Chloromethane	<RL		32
cis-1,2-Dichloroethene	<RL		30
cis-1,3-Dichloropropene	<RL		25
Dibromochloromethane	<RL		12
Dibromomethane	<RL		60
Dichlorodifluoromethane	<RL		25
Ethylbenzene	<RL		15
Hexachlorobutadiene	<RL		28
Isopropylbenzene	<RL		12
Methylene chloride	4.1	J	7.5
Naphthalene	<RL		10
n-Butylbenzene	<RL		28
n-Propylbenzene	<RL		10
p-Isopropyltoluene	<RL		30
Sec-Butylbenzene	<RL		32
Styrene	<RL		10
Tert-Butylbenzene	<RL		35
Tetrachloroethylene	<RL		35
Toluene	<RL		28
Total Xylenes	<RL		25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	63	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	43		
o-Terphenyl (Range 82-142)	103		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	94		
4-Bromofluorobenzene (86-112)	96		
Toluene-d8 (84-108)	102		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09824 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-FB1-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	2.5		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	84	7.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	27	*	
o-Terphenyl (Range 82-142)	98		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	89		
Toluene-d8 (84-108)	95		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09825 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-26A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	18		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	9.9		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.02		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/28/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	2.7		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	61		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	25		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.65	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.53	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	10	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/28/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	34	*	
o-Terphenyl (Range 82-142)	91		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed. 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	92		
4-Bromofluorobenzene (86-112)	91		
Toluene-d8 (84-108)	95		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09826 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/15/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB2-Q1-01

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.67	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	98		
4-Bromofluorobenzene (86-112)	95		
Toluene-d8 (84-108)	101		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017 Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09827 **Accura Project #: 27303**

Client: CH2M HILL - CCI Date Sampled: 3/15/01
Client Contact: S. TSANGARIS Date Received: 3/15/01
Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01
Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER
Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/16/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	0.11		
o-Terphenyl (Range 82-142)	99		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	84		
4-Bromofluorobenzene (85-111)	95		
Toluene-d8 (88-106)	102		

AALT # 27286

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

AALT#27286

[1] COC NUMBER:

[2] PROJECT NAME.	[3] PROJECT NUMBER:	[6] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[4] PROJECT PHASE/SITE/TASK:	[5] CTO OR DO NUMBER	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA 36	0017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[5] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO.	[10] LAB TEL NO AND FAX NO.	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Steve Tsangaris	813 874-0777	770 449 8800 X 233		

[25] ANALYSES REQUIRED (Include Method Numbers)

	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260B	Nitrate-300.1	Nitrite-300.1	Chloride	Alkalinity 310.1	TOC	FL PRO	TDS			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-	32C-Q1-01	W	3-13-01	1400	III	14	X	X	X	X	X	X	X	X			Grab		AC09717
2	017-OLD-36-	29B-Q1-01	↓	↓	1508	↓	↓	X	X	X	X	X	X	X	X			↓		9718
3	017-OLD-36-	27A-Q1-01	↓	↓	1600	↓	↓	X	X	X	X	X	X	X	X			↓		9719
4	017-OLD-36-	TB1-Q1-01	W	↓	—	↓	↓	X										QC		9720
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER:
Fed ex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
BGB / 2 °C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-13-01	1815	Printed Name and Signature: FEDEX		
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature: FEDEX	03-14-01	0925	Printed Name and Signature: BRIAN BURNS	3-14-01	0925

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

Form CC1001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 27286-Revision
Client Project: CTO 17-NTC Orlando – Study Area-39 / 152044.32.12.01.08
CTO Manager: S.Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 03/14/01 at 0925:

Client I.D.	Laboratory I.D.
017-OLD-36-32C-Q1-01	AC09717
017-OLD-36-29B-Q1-01	AC09718
017-OLD-36-27A-Q1-01	AC09719
017-OLD-36-TB1-Q1-01	AC09720

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

3. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. Per client request, the FL-PRO results are reported out as greater than or equal to Accura Analytical Laboratory's reported detection limit.

5. The Chloride, TOC, Nitrate Nitrogen, and Nitrite Nitrogen analyses were performed by a subcontract laboratory.

6. The samples were preserved upon receipt at the laboratory for the TOC analysis.

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

8. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits:

   VOC – SW-846-8260B
   017-OLD-36-29B-Q1-01
   017-OLD-36-27A-Q1-01

9. The following surrogate was outside the method specified limit due to matrix interference:

FL-PRO	
o-Terphenyl -	017-OLD-36-32C-Q1-01
	017-OLD-36-29B-Q1-01
	017-OLD-36-27A-Q1-01

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

10. The following surrogates were outside the method specified limits:

FL-PRO

Nonatriacontane/C39 -	017-OLD-36-32C-Q1-01
	017-OLD-36-29B-Q1-01
	017-OLD-36-27A-Q1-01
	Method Blank
	Laboratory Control Sample
	Matrix Spike
	Matrix Spike Duplicate

The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

11. Project Specific QC for the Alkalinity analysis consists of laboratory control sample and laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as the matrix spike matrix spike recoveries on the QC spreadsheet.

12. Batch QC is reported for the FL-PRO analysis due to limited sample volume.

13. The laboratory control sample recovery was outside the project specified limit for the following analyte:

FL-PRO

The recovery was within historical limits established in the laboratory; therefore the data was accepted.

14. The relative percent difference between the matrix spike and matrix spike duplicate was outside the project specified limit for the following analyte:

VOC – SW-846-8260B
Trichloroethylene

Quality Assurance

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09717 **Accura Project #: 27286**

Client: CH2M HILL - CCI Date Sampled: 3/13/01

Client Contact: S. TSANGARIS Date Received: 3/14/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-32C-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	26		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.8		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/19/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	200		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	7		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	13	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/19/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	31	*	
o-Terphenyl (Range 82-142)	65	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	79		
4-Bromofluorobenzene (86-112)	97		
Toluene-d8 (84-108)	105		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09718 **Accura Project #: 27286**

Client: CH2M HILL - CCI Date Sampled: 3/13/01

Client Contact: S. TSANGARIS Date Received: 3/14/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-29B-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	11		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	9 6		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/19/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	68		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	12		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		25
1,1,1-Trichloroethane	<RL		40
1,1,2,2-Tetrachloroethane	<RL		20
1,1,2-Trichloroethane	<RL		50
1,1-Dichloroethane	<RL		20
1,1-Dichloroethene	<RL		60
1,2,3-Trichlorobenzene	<RL		15
1,2,3-Trichloropropane	<RL		160
1,2,4-Trichlorobenzene	<RL		20
1,2,4-Trimethylbenzene	<RL		65
1,2-Dibromo-3-chloropropane	<RL		130
1,2-Dichlorobenzene	<RL		15
1,2-Dichloroethane	<RL		30
1,2-Dichloropropane	<RL		20
1,2-Ethylene Dibromide	<RL		30
1,3,5-Trimethylbenzene	<RL		25
1,3-Dichlorobenzene	<RL		60
1,3-Dichloropropane	<RL		20
1,4-Dichlorobenzene	<RL		15
2,2-Dichloropropane	<RL		180
2-Chlorotoluene	<RL		20
4-Chlorotoluene	<RL		30
Benzene	<RL		10
Bromobenzene	<RL		15
Bromochloromethane	<RL		20
Bromodichloromethane	<RL		40
Bromoform	<RL		60
Bromomethane	<RL		55
Carbon tetrachloride	<RL		110
Chlorobenzene	<RL		20
Chloroethane	<RL		50
Chloroform	<RL		15
Chloromethane	<RL		65
cis-1,2-Dichloroethene	<RL		60
cis-1,3-Dichloropropene	<RL		50
Dibromochloromethane	<RL		25
Dibromomethane	<RL		120
Dichlorodifluoromethane	<RL		50
Ethylbenzene	<RL		30
Hexachlorobutadiene	<RL		55
Isopropylbenzene	<RL		25
Methylene chloride	14	J	15
Naphthalene	<RL		20
n-Butylbenzene	<RL		55
n-Propylbenzene	<RL		20
p-Isopropyltoluene	<RL		60
Sec-Butylbenzene	<RL		65
Styrene	<RL		20
Tert-Butylbenzene	<RL		70
Tetrachloroethylene	<RL		70
Toluene	<RL		55
Total Xylenes	<RL		50

trans-1,2-Dichloroethene	<RL	30
trans-1,3-Dichloropropene	<RL	50
Trichloroethylene	150	50
Trichlorofluoromethane	<RL	40
Vinyl chloride	<RL	55

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/19/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	35	*	
o-Terphenyl (Range 82-142)	72	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	83		
4-Bromofluorobenzene (86-112)	97		
Toluene-d8 (84-108)	101		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017. Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09719 **Accura Project #: 27286**

Client: CH2M HILL - CCI Date Sampled: 3/13/01

Client Contact: S. TSANGARIS Date Received: 3/14/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-27A-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	62		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.7		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/19/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	91		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	3		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	12
1,1,1-Trichloroethane	<RL	20
1,1,2,2-Tetrachloroethane	<RL	10
1,1,2-Trichloroethane	<RL	25
1,1-Dichloroethane	<RL	10
1,1-Dichloroethene	<RL	30
1,2,3-Trichlorobenzene	<RL	7.5
1,2,3-Trichloropropane	<RL	80
1,2,4-Trichlorobenzene	<RL	10
1,2,4-Trimethylbenzene	<RL	32
1,2-Dibromo-3-chloropropane	<RL	65
1,2-Dichlorobenzene	<RL	7.5
1,2-Dichloroethane	<RL	15
1,2-Dichloropropane	<RL	10
1,2-Ethylene Dibromide	<RL	15
1,3,5-Trimethylbenzene	<RL	12
1,3-Dichlorobenzene	<RL	30
1,3-Dichloropropane	<RL	10
1,4-Dichlorobenzene	<RL	7.5
2,2-Dichloropropane	<RL	88
2-Chlorotoluene	<RL	10
4-Chlorotoluene	<RL	15
Benzene	<RL	5.0
Bromobenzene	<RL	7.5
Bromochloromethane	<RL	10
Bromodichloromethane	<RL	20
Bromoform	<RL	30
Bromomethane	<RL	28
Carbon tetrachloride	<RL	52
Chlorobenzene	<RL	10
Chloroethane	<RL	25
Chloroform	<RL	7.5
Chloromethane	<RL	32
cis-1,2-Dichloroethene	<RL	30
cis-1,3-Dichloropropene	<RL	25
Dibromochloromethane	<RL	12
Dibromomethane	<RL	60
Dichlorodifluoromethane	<RL	25
Ethylbenzene	<RL	15
Hexachlorobutadiene	<RL	28
Isopropylbenzene	<RL	12
Methylene chloride	8.7	7.5
Naphthalene	<RL	10
n-Butylbenzene	<RL	28
n-Propylbenzene	<RL	10
p-Isopropyltoluene	<RL	30
Sec-Butylbenzene	<RL	32
Styrene	<RL	10
Tert-Butylbenzene	<RL	35
Tetrachloroethylene	<RL	35
Toluene	<RL	28
Total Xylenes	<RL	25

trans-1,2-Dichloroethene	<RL	15
trans-1,3-Dichloropropene	<RL	25
Trichloroethylene	97	25
Trichlorofluoromethane	<RL	20
Vinyl chloride	<RL	28

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/16/01 Date Analyzed. 3/19/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	40	*	
o-Terphenyl (Range 82-142)	80	*	

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	90		
4-Bromofluorobenzene (86-112)	94		
Toluene-d8 (84-108)	98		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09720 **Accura Project #: 27286**

Client: CH2M HILL - CCI Date Sampled: 3/13/01

Client Contact: S. TSANGARIS Date Received: 3/14/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB1-Q1-01

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.91	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	85		
4-Bromofluorobenzene (86-112)	95		
Toluene-d8 (84-108)	99		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09721 **Accura Project #: 27286**

Client: CH2M HILL - CCI Date Sampled: 3/14/01

Client Contact: S. TSANGARIS Date Received: 3/14/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/23/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300 0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0
Date Ext/Dig/Prep: 3/14/01 Date Analyzed: 3/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1
Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060
Date Ext/Dig/Prep: 3/20/01 Date Analyzed. 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B
Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL	2.5
1,1,1-Trichloroethane	<RL	4
1,1,2,2-Tetrachloroethane	<RL	2
1,1,2-Trichloroethane	<RL	5
1,1-Dichloroethane	<RL	2
1,1-Dichloroethene	<RL	6
1,2,3-Trichlorobenzene	<RL	1.5
1,2,3-Trichloropropane	<RL	16
1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/16/01 Date Analyzed: 3/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	30		
o-Terphenyl (Range 82-142)	82		

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	84		
4-Bromofluorobenzene (85-111)	95		
Toluene-d8 (88-106)	102		

MICROSEEPS

Client Name:	CH2M Hill	Page:	Page 1 of 4
Contact:	Steve Tsangaris	Order #:	P0103094
Address:	4330 West Cypress St.	Report Date:	03/09/01
	Suite 600	Client Proi Name:	OU-4/SA-13
		Client Proj #:	161919.34.02.05.02
	Tampa, FL 33607		

Sample Identification

Lab Sample #	Client Sample ID
P0103094-01	017-OLD-13-21B-Q1-01
P0103094-02	017-OLD-13-17C-Q1-01
P0103094-03	017-OLD-13-OW12A-Q1-01

CCI NAVY RAC PMO
JUN 1 2001

Approved By: Rebecca J. Hans

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0103094
Report Date: 03/09/01
Client Proi Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103094-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-21B-Q1-01	Vapor	05 Mar. 01 9:38	06 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	1.2	0.030	nM	AM20GAX

Order #: P0103094
Report Date: 03/09/01
Client Proi Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103094-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-17C-Q1-01	Vapor	05 Mar. 01 12:45	06 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.82	0.030	nM	AM20GAX

Order #: P0103094
Report Date: 03/09/01
Client Proi Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103094-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-OW12A-Q1-01	Vapor	05 Mar. 01 13:31	06 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.62	0.030	nM	AM20GAX

MICROSEEPS

Client Name:	CH2M Hill	Page:	Page 1 of 5
Contact:	Steve Tsangaris	Order #:	P0103029
Address:	4330 West Cypress St.	Report Date:	03/09/01
	Suite 600	Client Proj Name:	OU-4/SA-13
		Client Proj #:	161919.34.02.05.02
	Tampa, FL 33607		

Sample Identification

Lab Sample #	Client Sample ID
P0103029-01	017-OLD-13-22B-Q1-01
P0103029-02	017-OLD-13-12A-Q1-01
P0103029-03	017-OLD-13-14C-Q1-01
P0103029-04	017-OLD-13-23B-Q1-01

CCI NAVY RAC PMO JUN 1 2001

Approved By: Rebecca J. Hans

NOTES:did not rec sample 017-OLD-13-15A-Q1-01.
(CW 3-2-01) As per conv. with customer, run all samples as recd. (MM 03/05/2001)

Order #: P0103029
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103029-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-22B-Q1-01	Vapor	01 Mar. 01 9:15	02 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.65	0.030	nM	AM20GAX

Order #: P0103029
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103029-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-12A-Q1-01	Vapor	01 Mar. 01 11:40	02 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.75	0.030	nM	AM20GAX

Order #: P0103029
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103029-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-14C-Q1-01	Vapor	01 Mar. 01 12:20	02 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.88	0.030	nM	AM20GAX

Order #: P0103029
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103029-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-23B-Q1-01	Vapor	01 Mar. 01 15:45	02 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.71	0.030	nM	AM20GAX

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600

Tampa, FL 33607

Page: Page 1 of 7
Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Sample Identification

Lab Sample #	Client Sample ID
P0103059-01	017-OLD-13-11C-Q1-01
P0103059-02	017-OLD-13-09A-Q1-01
P0103059-03	017-OLD-13-10B-Q1-01
P0103059-04	017-OLD-13-25B-Q1-01
P0103059-05	017-OLD-13-24A-Q1-01
P0103059-06	017-OLD-13-DP-3-Q1-01

CCI NAVY RAC PMO
JUN 4 2001

Approved By: Rebecca J. Adams

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103059-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-11C-Q1-01	Vapor	02 Mar. 01 10:30	05 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	4.0	0.030	nM	AM20GAX

Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103059-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-09A-Q1-01	Vapor	02 Mar. 01 9:20	05 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.69	0.030	nM	AM20GAX

Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103059-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-10B-Q1-01	Vapor	02 Mar. 01 11:20	05 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.52	0.030	nM	AM20GAX

Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103059-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-25B-Q1-01	Vapor	02 Mar. 01 13:55	05 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.65	0.030	nM	AM20GAX

Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103059-05

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-24A-Q1-01	Vapor	02 Mar. 01 14:45	05 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	0.83	0.030	nM	AM20GAX

Order #: P0103059
Report Date: 03/09/01
Client Proj Name: OU-4/SA-13
Client Proj #: 161919.34.02.05.02

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103059-06

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-13-DP-3-Q1-01	Vapor	02 Mar. 01 15:45	05 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Vapor				
Hydrogen	1.5	0.030	nM	AM20GAX

Client Name:	CH2M Hill	Page:	Page 1 of 8
Contact:	Steve Tsangaris	Order #:	P0103256
Address:	4330 West Cypress St. Suite 600 Tampa, FL 33607	Report Date:	04/06/01
		Client Proj Name:	SA-36 NTC Orlando
		Client Proj #:	152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0103256-01	017-OLD-36-10B-Q1-01
P0103256-02	017-OLD-36-11C-Q1-01
P0103256-03	017-OLD-36-09C-Q1-01
P0103256-04	017-OLD-36-08B-Q1-01
P0103256-05	017-OLD-36-DUP2-Q1-01
P0103256-06	017-OLD-36-08B-MS-Q1-01
P0103256-07	017-OLD-36-08B-MSD-Q1-01

CCI NAVY RAC PMO
MAY 29 2001

Approved By: Rebecca Johnson

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-10B-Q1-01	Water	15 Mar. 01 9:20	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	35	5.0	ng/L	AM18
Ethene	63	5.0	ng/L	
Methane	9.9	0.015	ug/L	

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-11C-Q1-01	Water	15 Mar. 01 10:58	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	18	5.0	ng/L	AM18
Ethene	57	5.0	ng/L	
Methane	4.8	0.015	ug/L	

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-09C-Q1-01	Water	15 Mar. 01 13:45	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	210	5.0	ng/L	AM18
Ethene	670	5.0	ng/L	
Methane	51	0.015	ug/L	

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-08B-Q1-01	Water	15 Mar. 01 14:55	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	18	5.0	ng/L	AM18
Ethene	110	5.0	ng/L	
Methane	80	0.015	ug/L	

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-05

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-DUP2-Q1-01	Water	15 Mar. 01 0:00	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	40	5.0	ng/L	AM18
Ethene	67	5.0	ng/L	
Methane	9.1	0.015	ug/L	

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-06

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-08B-MS-Q1-01	Water	15 Mar. 01 14:55	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	95	1.0	mg/L	AM21G
Butyric acid	110	1.0	mg/L	
Lactic Acid	86	25	mg/L	
Propionic acid	110	1.0	mg/L	
Pyruvic acid	97	10	mg/L	
RiskAnalysis				
Water				
Ethane	41000	5.0	ng/L	AM18
Ethene	39000	5.0	ng/L	
Methane	160	0.015	ug/L	

Order #: P0103256
Report Date: 04/06/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103256-07

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-08B-MSD-Q1-01	Water	15 Mar. 01 14:55	16 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	98	1.0	mg/L	AM21G
Butyric acid	115	1.0	mg/L	
Lactic Acid	81	25	mg/L	
Propionic acid	115	1.0	mg/L	
Pyruvic acid	108	10	mg/L	
RiskAnalysis				
Water				
Ethane	40000	5.0	ng/L	AM18
Ethene	37000	5.0	ng/L	
Methane	160	0.015	ug/L	

P105256

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No , and Fax No.):
NTC Orlando	152044.32.12.01.08	Microseeps Becky Hans	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa, FL 33607
[3] PROJECT PHASE/SITE/TASK:	**[6] CTO OR DO NUMBER:**	**[9] LAB PO NUMBER:**	**[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)**	**[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):**
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT	**[7] PROJECT TEL NO AND FAX NO:**	**[10] LAB TEL NO AND FAX NO:**	**[13] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 3 (Name and Company)**	**[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):**
Steve Tsangaris	813874-0777	800 659-2887		

[25] ANALYSES REQUIRED (Include Method Numbers)

	[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	MEE	Volatile Fatty Acids								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
01	1	017-OLD-36-	10B-Q1-01	W	3-15-01	0920	III	14	X	X								Grab		
02	2	017-OLD-36-	11C-Q1-01	↓	↓	1058	↓	↓	X	X								↓		
03	3	017-OLD-36-	09C-Q1-01	↓	↓	1345	↓	↓	X	X								↓		
04	4	017-OLD-36-	08B-Q1-01	↓	↓	1455	↓	↓	X	X								↓		
05	5	017-OLD-36-	Dup2-Q1-01	↓	↓	—	↓	↓	X	X								QC		
MP 06	6	017-OLD-36-	~~MA~~ 08B-MS-Q1~~0~~-01	↓	↓	1455	↓	↓	X	X								↓		
07	7	017-OLD-36-	08B-MSD-Q1-01	↓	↓	1455	↓	↓										↓		
	8																			
	9																			
	10																			

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
Tammy Plumlee / CCI Gareth Bands / CCI	Fed ex	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Tammy Plumlee / Tammy Plumlee	3-16-01	1720	CWashlesky CWashlesky	3/16/01	
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

Client Name:	CH2M Hill	Page:	Page 1 of 2
Contact:	Steve Tsangaris	Order #:	P0103257
Address:	4330 West Cypress St.	Report Date:	04/09/01
	Suite 600	Client Proj Name:	SA-36 NTC Orlando
		Client Proj #:	152044.32.12.01.08
	Tampa, FL 33607		

Sample Identification

Lab Sample #	Client Sample ID
P0103257-01	017-OLD-36-EB1-Q1-01

CCI NAVY PAC PMO
MAY 29 2001

Approved By: Rebecca J. Stano

Order #: P0103257
Report Date: 04/09/01
Client Proj Name: SA-36 NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103257-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-EB1-Q1-01	Water	16 Mar. 01 0:00	19 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	40	5.0	ng/L	AM18
Ethene	37	5.0	ng/L	
Methane	1.4	0.015	ug/L	

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

P10-9W-01

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Microseeps Becky Hans	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER.	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA 36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO	[13] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Steve Tsangaris	813 874-0777	800 659-2887		

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[25] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	MEE	Volatile Fatty Acids								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	~~017-OLD-36-35C-Q1-01~~		~~W~~	~~3-16-01~~		~~III~~	~~14~~												
2	~~017-OLD-36-34B-Q1-01~~																		
3	~~017-OLD-36-37C-Q1-01~~																		
4	017-OLD-36-EB1-Q1-01		W	3-16-01		III	14	X	X								QC		
5																			
6																			
7																			
8																			
9																			
10																			

TP TP TP 01

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER:
Fed Ex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-16-01	1545	Printed Name and Signature: C Washlash	3/19/01	
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

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

CASE NARRATIVE for Project Number: 27319
Client Project: CTO 17-NTC Orlando – Study Area-36 / 152044.32.12.01.08
CTO Manager: S.Tsangaris

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 03/17/01 at 1115:

Client I.D.	Laboratory I.D.
017-OLD-36-35C-Q1-01	AC09956
017-OLD-36-34B-Q1-01	AC09957
017-OLD-36-37C-Q1-01	AC09958
017-OLD-36-33A-Q1-01	AC09959
017-OLD-36-36C-Q1-01	AC09960
017-OLD-36-EB1-Q1-01	AC09961
017-OLD-36-TB4-Q1-01	AC09962
017-OLD-36-IDW1-Q1-01	AC09963

CCI NAVY PAC PMO
APR 26 2001

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

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

4. The "B" values noted for the FL-PRO and Metals-TAL analyses indicate that the compounds were detected in the samples and in the Method Blank, and the results should be considered estimated due to Method Blank contamination.

5. The Chloride, TOC, Nitrate Nitrogen, and Nitrite Nitrogen analyses were performed by a subcontract laboratory.

6. The pH of the samples was 1.0 for the VOC analysis.

7. One of the surrogates (Nonatriacontane/C39), associated with the FL-PRO analysis was outside the method specified limit for sample 017-OLD 36-EB1-Q1-01 and all Q.C. analyses performed for this project. The recoveries were within historical limits established in the laboratory; therefore the data was accepted.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

8. The following sample was analyzed 5 days after sampling:

Reactive Cyanide – SW846-7.332	Reactive Sulfide – SW846-7.342
017-OLD-36-IDW1-Q1-01	017-OLD-36-IDW1-Q1-01

9. The following sample was analyzed 2 days outside the EPA recommended holding time:

   pH – SW-846-9040B
   017-OLD-36-IDW1-Q1-01

   The EPA recommends that the pH analysis should be performed within 24 hours after sampling; therefore the result for this sample should be considered estimated.

10. The detection limits were elevated for the following sample due to matrix interference:

    Herbicides – SW-846-8151A
    017-OLD-36-IDW1-Q1-01

11. There were hits of Aluminum, Calcium, and Sodium in the Method Blank for the Metals-TAL analysis. The hits of these analytes in sample 017-OLD-36-IDW1-Q1-01 were 10 times greater than the concentration of the hits in the blank; therefore the sample results were not affected.

12. The following surrogate was outside the project specified limits due to matrix interference:

    Pesticides – SW-846-8081A
    Tetrachloro-m-xylene - Matrix Spike Matrix Spike Duplicate

13. Batch QC is reported for the following analyses:

SVOC – SW-846-8270C	Alkalinity – EPA – 310.1
Pesticides – SW-846-8081A	Metals-TAL – SW-846-6010B
Mercury – SW-846-7470A	

14. Batch QC consists of a laboratory control sample and a laboratory control sample duplicate for the following analyses due to limited sample volume:

FL-PRO	PCB – SW-846-8082
Herbicides – SW-846-8151A	

    Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as the matrix spike and matrix spike duplicate recoveries on the QC spreadsheet.

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

15. The laboratory control sample recovery was outside the project specified limit for the following analytes:

SVOC – SW-846-8260B
2-Chloronaphthalene

Pesticides – SW-846-8081A
Endolsulfan II

VOC – SW-846-8260B
Hexachlorobutadiene

The laboratory control sample recoveries were bias low for 2-Chloronaphthalene and Endolsulfan II, and high for Hexachlorobutadiene, but there were no hits of 2-Chloronaphthalene, Endolsulfan II, and Hexachlorobutadiene in the samples. Also the recoveries were within in-house limits; therefore the data results were accepted.

16. The laboratory control sample duplicate recovery was outside the project specified limit for the following analyte:

FL-PRO

The recovery was within historical limits established in the laboratory; therefore the data was accepted.

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

SVOC – SW-846-8270C
Matrix Spike - 3,4-Methylphenol Nitrobenzene Bis(2-chloroethoxy)methane 4-Chloroaniline Hexachlorocyclopentadiene 3-Nitroaniline 4-Nitroaniline 3,3'-Dichlorobenzidine
Matrix Spike Duplicate - Phenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 2-Methylphenol Hexachloroethane Nitrobenzene Bis(2-chloroethoxy)methane 1,2,4-Trichlorobenzene Naphthalene 4-Chloroaniline Hexachlorobutadiene Hexachlorocyclopentadiene 3-Nitroaniline 3,3'-Dichlorobenzidine

Pesticides – SW-846-8081A
Matrix Spike - Endolsulfan I

Metals-TAL – SW-846-6010B
Matrix Spike - Aluminum
Matrix Spike Duplicate - Aluminum

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

18. The relative percent difference between the matrix spike and matrix spike duplicate was outside the project specified limits for the following analytes:

SVOC – SW-846-8270C

Phenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene
2-Methylphenol Nitrobenzene 2,4-Dimethylphenol 4-Chloroaniline
3-Nitroaniline 4-Nitroaniline 3,3'-Dichlorobenzidine

Pesticides – SW-846-8081A

Endolsulfan I Tetrachloro-m-xylene (TCMX surrogate)

19. The relative percent difference between the laboratory control sample and laboratory control sample duplicate was outside the project specified limit for the following analyses:

FL-PRO

20. Note that the VOC quality control spreadsheet corresponds to the VOC SW-846 list and VOC-TCL list due to all samples were analyzed on the same batch.

Quality Assurance Officer
Camden L. Robinson

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09956 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-35C-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.53	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	94		
4-Bromofluorobenzene (86-112)	92		
Toluene-d8 (84-108)	94		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09957 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-34B-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.52	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	97		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	98		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09958 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-37C-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	0.65	J	2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	24		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5

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

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	90		
4-Bromofluorobenzene (86-112)	91		
Toluene-d8 (84-108)	98		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09959 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-33A-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.65	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	103		
4-Bromofluorobenzene (86-112)	95		
Toluene-d8 (84-108)	97		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09960 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-36C-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

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

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	94		
4-Bromofluorobenzene (86-112)	93		
Toluene-d8 (84-108)	97		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09961 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-EB1-Q1-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	7.5		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	2.1		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	0.29	JB	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.51	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	1.0	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5

trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	12	*	
o-Terphenyl (Range 82-142)	107		

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	104		
4-Bromofluorobenzene (86-112)	94		
Toluene-d8 (84-108)	97		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09962 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB4-Q1-01

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	0.64	J	1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	97		
4-Bromofluorobenzene (86-112)	91		
Toluene-d8 (84-108)	94		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09963 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/16/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-IDW1-Q1-01

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		5.0
2,4,5-TP (Silvex)	<RL		5.0
2,4-D	<RL		5.0

ANALYSIS: Ignitability/Flash Point Method Ref: 1010

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/21/01 Result Units: °F

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

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

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/27/01 Result Units: mg/L

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

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	22		0.050
Antimony	0.0052	J	0.0060
Arsenic	<RL		0.050
Barium	0.15	J	0.50
Beryllium	0.00070	JB	0.0030
Cadmium	<RL		0.0050
Calcium	28		0.050
Chromium	0.033	J	0.050
Cobalt	0.0022	JB	0.010
Copper	0.015	J	0.050
Iron	4.9		0.10
Lead	0.033	B	0.010
Magnesium	1.0		0.050
Manganese	0.037	J	0.050
Nickel	0.0078	JB	0.010
Potassium	7.0		0.10
Selenium	0.0064	JB	0.050
Silver	<RL		0.050

Sodium	7.8		0.20
Thallium	<RL		0.0050
Vanadium	0.017		0.010
Zinc	0.14	JB	1.0

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		1.0
Aroclor-1232	<RL		1.0
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Method Ref: 8081A

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.050
4,4'-DDE	<RL		0.050
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	<RL		0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.050
delta-BHC	<RL		0.050
Dieldrin	<RL		0.050
Endosulfan sulfate	<RL		0.050
Endrin	<RL		0.050
Endrin aldehyde	0.015	J	0.050
Endrin ketone	<RL		0.050
gamma-BHC	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.25
Total Chlordane (Technical)	<RL		0.50
Toxaphene	<RL		2.5

ANALYSIS: pH (Water) Method Ref: 9040B

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: pH units

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
pH	6.7		

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/21/01 Result Units: mg/Kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.20

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/21/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

Reactive Sulfide	<RL	10

ANALYSIS: SVOC's - TCL Method Ref: 8270C

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Di-n-octylphthalate	<RL	10
Fluoranthene	<RL	10
Fluorene	<RL	10
Hexachlorobenzene	<RL	10
Hexachlorobutadiene	<RL	10
Hexachlorocyclopentadiene	<RL	10
Hexachloroethane	<RL	10
Indeno(1,2,3-cd)pyrene	<RL	10
Isophorone	<RL	10
Naphthalene	<RL	10
Nitrobenzene	<RL	10
N-Nitroso-di-n-propylamine	<RL	10
N-Nitrosodiphenylamine	<RL	10
Pentachlorophenol	<RL	20
Phenanthrene	<RL	10
Phenol	<RL	10
Pyrene	<RL	10

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	3.3	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	18		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X Herbicide Sample Surrogates-W Method Ref: 8151A
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range D-164)	78		

ANALYSIS: X PCB Sample Surrogates (Waters Method Ref: 8082
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-138)	15		

ANALYSIS: X Pest Sample Surrogates (Water Method Ref: 8081A
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-163)	12		
Tetrachloro-m-xylene (Range 27-128)	56		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B
Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-128)	104		
4-Bromofluorobenzene (86-112)	98		
Toluene-d8 (84-108)	99		

ANALYSIS: X SVOC Sample Surrogates (Waters Method Ref: 8270C
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

2,4,6-Tribromophenol	(Range 62-117)	85
2-Fluorobiphenyl	(Range 53-107)	78
2-Fluorophenol	(Range 39-97)	70
Nitrobenzene-d5	(Range 47-109)	76
Phenol-d6	(Range 16-125)	62
p-Terphenyl-d14	(Range 55-128)	22

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC09964 **Accura Project #: 27319**

Client: CH2M HILL - CCI Date Sampled: 3/17/01

Client Contact: S. TSANGARIS Date Received: 3/17/01

Client Project Number: 152044.32.12.01.08 Date Reported: 4/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/19/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: ug/L

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

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

Date Ext/Dig/Prep: 3/27/01 Date Analyzed: 3/27/01 Result Units: mg/L

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

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

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.13		0.050
Antimony	<RL		0.0060
Arsenic	<RL		0.050
Barium	0.00040	J	0.50
Beryllium	0.00040	J	0.0030
Cadmium	<RL		0.0050
Calcium	0.22		0.050
Chromium	0.0015	J	0.050
Cobalt	0.0028	J	0.010
Copper	<RL		0.050
Iron	<RL		0.10
Lead	0.0049	J	0.010
Magnesium	<RL		0.050

Manganese	<RL		0.050
Nickel	0.0028	J	0.010
Potassium	0.086	J	0.10
Selenium	0.0039	J	0.050
Silver	<RL		0.050
Sodium	0.27		0.20
Thallium	<RL		0.0050
Vanadium	<RL		0.010
Zinc	0.021	J	1.0

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		1.0
Aroclor-1232	<RL		1.0
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Method Ref: 8081A

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.050
4,4'-DDE	<RL		0.050
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	<RL		0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.050
delta-BHC	<RL		0.050
Dieldrin	<RL		0.050
Endosulfan sulfate	<RL		0.050
Endrin	<RL		0.050
Endrin aldehyde	<RL		0.050
Endrin ketone	<RL		0.050
gamma-BHC	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.25
Total Chlordane (Technical)	<RL		0.50

Toxaphene	<RL	2.5

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO
Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	0.41	J	1.0

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/21/01 Result Units: mg/Kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.20

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/21/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	<RL		10

ANALYSIS: SVOC's - TCL Method Ref: 8270C
Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		10
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		20
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		10
3-Nitroaniline	<RL		20
4,6-Dinitro-2-methylphenol	<RL		20
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		10
4-Chloroaniline	<RL		10
4-Chlorophenyl phenyl ether	<RL		10
4-Methylphenol	<RL		10
4-Nitroaniline	<RL		20
4-Nitrophenol	<RL		20
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10

Benzo(g,h,i)perylene	<RL	10
Benzo(k)fluoranthene	<RL	10
bis(2-Chloroethoxy)methane	<RL	10
bis(2-Chloroethyl)ether	<RL	10
bis(2-Chloroisopropyl)ether	<RL	10
bis(2-Ethylhexyl)phthalate	<RL	10
Butyl benzyl phthalate	<RL	10
Carbazole	<RL	10
Chrysene	<RL	10
Dibenz(a,h)anthracene	<RL	10
Dibenzofuran	<RL	10
Diethylphthalate	<RL	10
Dimethylphthalate	<RL	10
Di-n-butylphthalate	<RL	10
Di-n-octylphthalate	<RL	10
Fluoranthene	<RL	10
Fluorene	<RL	10
Hexachlorobenzene	<RL	10
Hexachlorobutadiene	<RL	10
Hexachlorocyclopentadiene	<RL	10
Hexachloroethane	<RL	10
Indeno(1,2,3-cd)pyrene	<RL	10
Isophorone	<RL	10
Naphthalene	<RL	10
Nitrobenzene	<RL	10
N-Nitroso-di-n-propylamine	<RL	10
N-Nitrosodiphenylamine	<RL	10
Pentachlorophenol	<RL	20
Phenanthrene	<RL	10
Phenol	<RL	10
Pyrene	<RL	10

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 3/19/01 Date Analyzed: 3/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 3/22/01 Date Analyzed: 3/22/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16

1,2,4-Trichlorobenzene	<RL	2
1,2,4-Trimethylbenzene	<RL	6.5
1,2-Dibromo-3-chloropropane	<RL	13
1,2-Dichlorobenzene	<RL	1.5
1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

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

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range 58-110)	76		

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

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 49-148)	81		

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

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-136)	83		
Tetrachloro-m-xylene (Range 38-107)	88		

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 3/20/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	0.11		
o-Terphenyl (Range 82-142)	99		

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

Date Ext/Dig/Prep: 3/23/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (78-114)	85		
4-Bromofluorobenzene (85-111)	94		
Toluene-d8 (88-106)	102		

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

Date Ext/Dig/Prep: 3/21/01 Date Analyzed: 3/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,6-Tribromophenol (Range 65-103)	84		
2-Fluorobiphenyl (Range 17-127)	78		
2-Fluorophenol (Range 43-93)	72		
Nitrobenzene-d5 (Range 15-120)	79		
Phenol-d6 (Range 7-120)	41		
p-Terphenyl-d14 (Range 32-137)	97		

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT # 27319

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%
8260B	Chloromethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			38-116	38-116		
8260B	Bromomethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			49-117	49-117		
8260B	Vinyl Chloride					60-140	20-150	#VALUE!	#VALUE!	<30	<50			31-121	31-121		
8260B	Chloroethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			62-116	62-116		
8260B	Methylene Chloride					60-140	20-150	#VALUE!	#VALUE!	<30	<50			55-126	55-126		
8260B	Acetone					60-140	20-150	#VALUE!	#VALUE!	<30	<50			43-165	43-165		
8260B	Carbon Disulfide					60-140	20-150	#VALUE!	#VALUE!	<30	<50			76-119	76-119		
8260B	1,1-Dichloroethene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			54-128	54-128		
8260B	1,1-Dichloroethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			62-141	62-141		
8260B	cis-1,2-Dichloroethene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			70-131	60-141		
8260B	trans-1,2-Dichloroethene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			61-138	51-148		
8260B	Chloroform					60-140	20-150	#VALUE!	#VALUE!	<30	<50			65-129	65-129		
8260B	1,2-Dichloroethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			68-135	68-135		
8260B	2-Butanone					60-140	20-150	#VALUE!	#VALUE!	<30	<50			50-163	50-163		
8260B	1,1,1-Trichloroethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			68-135	68-135		
8260B	Carbon Tetrachloride					60-140	20-150	#VALUE!	#VALUE!	<30	<50			67-125	67-125		
8260B	Bromodichloromethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			68-135	58-145		
8260B	1,2-Dichloropropane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			76-132	76-132		
8260B	Cis-1,3-Dichloropropene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			70-122	70-122		
8260B	Trichloroethylene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			67-137	67-137		
8260B	Dibromochloromethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			64-120	64-120		
8260B	1,1,2-Trichloroethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			70-141	70-141		
8260B	Benzene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			51-139	51-139		
8260B	trans-1,3-Dichloropropene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			42-154	42-154		
8260B	Bromoform					60-140	20-150	#VALUE!	#VALUE!	<30	<50			67-129	67-129		
8260B	4-Methyl-2-Pentanone					60-140	20-150	#VALUE!	#VALUE!	<30	<50			77-119	77-119		
8260B	2-Hexanone					60-140	20-150	#VALUE!	#VALUE!	<30	<50			47-165	47-165		
8260B	Tetrachloroethylene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			67-131	67-131		
8260B	Toluene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			31-137	31-137		
8260B	1,1,2,2-Tetrachloroethane					60-140	20-150	#VALUE!	#VALUE!	<30	<50			55-138	55-138		
8260B	Chlorobenzene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			69-140	69-140		
8260B	Ethylbenzene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			59-140	59-140		
8260B	Styrene					60-140	20-150	#VALUE!	#VALUE!	<30	<50			71-133	71-133		
8260B	Xylenes, Total					60-140	20-150	#VALUE!	#VALUE!	<30	<50			68-133	68-133		
8260B	4-Bromofluorobenzene (Surr)					75-125	65-135	#VALUE!	#VALUE!								
8260B	1,2-Dichloroethane-d4 (Surr)					62-139	52-149	#VALUE!	#VALUE!								
8260B	Toluene-d8 (Surr)					75-125	65-135	#VALUE!	#VALUE!								
TCL SEMI-VOLATILES BY GC/MS						ug/L	ug/kg			%	%			%	%		
8270C	Phenol	79	47			60-140	20-150	51%	#VALUE!	<30	<50	53		25-125	25-135		
8270C	Bis (2-chloroethyl) ether	93	77			60-140	20-150	19%	#VALUE!	<30	<50	44		44-125	34-135		
8270C	2-Chlorophenol	89	76			60-140	20-150	16%	#VALUE!	<30	<50	54		41-125	31-135		
8270C	1,3-Dichlorobenzene	63	41			60-140	20-150	42%	#VALUE!	<30	<50	47		36-125	26-135		
8270C	1,4-Dichlorobenzene	60	30			60-140	20-150	67%	#VALUE!	<30	<50	46		30-125	25-135		
8270C	1,2-Dichlorobenzene	63	21			60-140	20-150	100%	#VALUE!	<30	<50	49		42-155	32-135		

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

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT # 27319

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8270C	2-Methylphenol	85	58			60-140	20-150	38%	#VALUE!	<30	<50	55		25-125	25-135		
8270C	2,2'-Oxybis (1-Chloropropane) [bis (2-Chloroisopropyl) ether]	90	78			60-140	20-150	14%	#VALUE!	<30	<50	48		36-166	26-175		
8270C	3,4-Methylphenol	149	127			60-140	20-150	16%	#VALUE!	<30	<50	93		33-125	25-135		
8270C	N-Nitroso-di-n-propylamine	73	70			60-140	20-150	4%	#VALUE!	<30	<50	51		37-125	27-135		
8270C	Hexachloroethane	71	59			60-140	20-150	18%	#VALUE!	<30	<50	51		25-153	25-163		
8270C	Nitrobenzene	58	24			60-140	20-150	83%	#VALUE!	<30	<50	49		46-133	36-143		
8270C	Isophorone	87	80			60-140	20-150	8%	#VALUE!	<30	<50	64		26-175	25-175		
8270C	2-Nitrophenol	117	107			60-140	20-150	9%	#VALUE!	<30	<50	60		44-125	34-135		
8270C	2,4-Dimethylphenol	87	62			60-140	20-150	34%	#VALUE!	<30	<50	63		45-139	35-149		
8270C	Bis (2-chloroethoxy) methane	215	195			60-140	20-150	10%	#VALUE!	<30	<50	54		49-125	39-135		
8270C	2,4-Dichlorophenol	95	83			60-140	20-150	13%	#VALUE!	<30	<50	59		46-125	36-135		
8270C	1,2,4-Trichlorobenzene	67	57			60-140	20-150	16%	#VALUE!	<30	<50	51		44-142	34-152		
8270C	Naphthalene	72	57			60-140	20-150	23%	#VALUE!	<30	<50	51		50-125	40-135		
8270C	4-Chloroaniline	9	28			60-140	20-150	103%	#VALUE!	<30	<50	61		45-136	35-146		
8270C	Hexachlorobutadiene	62	51			60-140	20-150	19%	#VALUE!	<30	<50	51		25-125	25-135		
8270C	4-Chloro-3-methylphenol	111	102			60-140	20-150	8%	#VALUE!	<30	<50	76		44-125	34-135		
8270C	2-Methylnaphthalene	79	68			60-140	20-150	15%	#VALUE!	<30	<50	58		41-125	31-135		
8270C	Hexachlorocyclopentadiene	40	36			60-140	20-150	11%	#VALUE!	<30	<50	45		41-125	31-135		
8270C	2,4,6-Trichlorophenol	106	100			60-140	20-150	6%	#VALUE!	<30	<50	69		39-128	29-138		
8270C	2,4,5-Trichlorophenol	108	104			60-140	20-150	4%	#VALUE!	<30	<50	71		25-175	25-175		
8270C	2-Chloronaphthalene	79	74			60-140	20-150	7%	#VALUE!	<30	<50	55		60-125	50-135		
8270C	2-Nitroaniline	97	95			60-140	20-150	2%	#VALUE!	<30	<50	72		50-125	40-135		
8270C	Dimethyl phthalate	94	93			60-140	20-150	1%	#VALUE!	<30	<50	80		25-175	25-175		
8270C	Acenaphthylene	84	78			60-140	20-150	7%	#VALUE!	<30	<50	61		47-125	37-135		
8270C	2,6-Dinitrotoluene	96	92			60-140	20-150	4%	#VALUE!	<30	<50	77		51-125	41-135		
8270C	3-Nitroaniline	25	48			60-140	20-150	63%	#VALUE!	<30	<50	80		51-125	41-135		
8270C	Acenaphthene	85	82			60-140	20-150	4%	#VALUE!	<30	<50	64		49-124	39-135		
8270C	2,4-Dinitrophenol	89	84			60-140	20-150	6%	#VALUE!	<30	<50	67		30-151	25-161		
8270C	4-Nitrophenol	121	136			60-140	20-150	12%	#VALUE!	<30	<50	93		25-131	25-141		
8270C	Dibenzofuran	89	86			60-140	20-150	3%	#VALUE!	<30	<50	70		52-125	42-135		
8270C	2,4-Dinitrotoluene	97	95			60-140	20-150	2%	#VALUE!	<30	<50	86		39-139	29-149		
8270C	Diethyl phthalate	93	93			60-140	20-150	0%	#VALUE!	<30	<50	85		37-125	27-135		
8270C	4-Chlorophenyl-phenyl ether	91	87			60-140	20-150	4%	#VALUE!	<30	<50	72		51-132	41-142		
8270C	Fluorene	90	87			60-140	20-150	3%	#VALUE!	<30	<50	72		48-139	38-149		
8270C	4-Nitroaniline	42	60			60-140	20-150	35%	#VALUE!	<30	<50	87		40-143	30-153		
8270C	4,6-Dinitro-2-methylphenol	126	128			60-140	20-150	2%	#VALUE!	<30	<50	94		26-134	25-144		
8270C	N-Nitrosodiphenylamine	80	77			60-140	20-150	4%	#VALUE!	<30	<50	78		27-125	25-135		
8270C	4-Bromophenyl-phenyl ether	89	87			60-140	20-150	2%	#VALUE!	<30	<50	74		53-127	43-137		
8270C	Hexachlorobenzene	90	85			60-140	20-150	6%	#VALUE!	<30	<50	81		46-133	36-143		
8270C	Pentachlorophenol	123	125			60-140	20-150	2%	#VALUE!	<30	<50	98		28-136	38-146		
8270C	Phenanthrene	87	89			60-140	20-150	2%	#VALUE!	<30	<50	80		54-125	44-135		
8270C	Anthracene	93	93			60-140	20-150	0%	#VALUE!	<30	<50	84		45-165	35-175		
8270C	Carbazole	92	92			60-140	20-150	0%	#VALUE!	<30	<50	86		34-132	34-132		
8270C	Di-n-butylphthalate	98	102			60-140	20-150	4%	#VALUE!	<30	<50	91		34-126	25-136		

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

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT # 27319

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8270C	Fluoranthene	89	91			60-140	20-150	2%	#VALUE!	<30	<50	85		47-125	37-135		
8270C	Pyrene	99	90			60-140	20-150	10%	#VALUE!	<30	<50	86		47-136	37-146		
8270C	Butylbenzylphthalate	108	106			60-140	20-150	2%	#VALUE!	<30	<50	93		26-125	25-135		
8270C	3,3'-Dichlorobenzidine	0	0			60-140	20-150	#DIV/0!	#VALUE!	<30	<50	81		29-175	25-175		
8270C	Benzo (a) anthracene	95	94			60-140	20-150	1%	#VALUE!	<30	<50	88		51-133	41-143		
8270C	Chrysene	91	93			60-140	20-150	2%	#VALUE!	<30	<50	87		55-133	45-143		
8270C	bis (2-Ethylhexyl) phthalate	92	90			60-140	20-150	2%	#VALUE!	<30	<50	88		33-129	25-139		
8270C	Di-n-octylphthalate	110	106			60-140	20-150	4%	#VALUE!	<30	<50	85		38-127	28-137		
8270C	Benzo (b) fluoranthene	91	87			60-140	20-150	4%	#VALUE!	<30	<50	75		37-125	27-135		
8270C	Benzo (k) fluoranthene	98	100			60-140	20-150	2%	#VALUE!	<30	<50	90		37-123	37-123		
8270C	Benzo (a) pyrene	89	89			60-140	20-150	0%	#VALUE!	<30	<50	79		41-125	31-135		
8270C	Indeno (1,2,3-cd) pyrene	88	88			60-140	20-150	0%	#VALUE!	<30	<50	75		27-160	25-170		
8270C	Dibenzo (a,h) anthracene	85	87			60-140	20-150	2%	#VALUE!	<30	<50	73		50-125	40-135		
8270C	Benzo (g,h,i) perylene	81	82			60-140	20-150	1%	#VALUE!	<30	<50	62		34-149	25-159		
8270C	Nitrobenzene-d5	84	73			35-114	23-120	14%	#VALUE!			53					
8270C	2-Fluorobiphenyl	90	81			43-116	30-115	11%	#VALUE!			60					
8270C	Terphenyl-d14	97	100			33-141	18-137	3%	#VALUE!			94					
8270C	Phenol-d5	84	71			10-110	24-113	17%	#VALUE!			48					
8270C	2-Fluorophenol	79	64			21-110	25-121	21%	#VALUE!			45					
8270C	2,4,6-Tribromophenol	110	108			10-123	19-122	2%	#VALUE!			92					
8270C	2-Chlorophenol-d4					33-110	20-130	#VALUE!	#VALUE!								
8270C	1,2-Dichorobenzene-d4					16-110	20-130	#VALUE!	#VALUE!								
TCL PESTICIDES/AROCHLORS						%	%			%	%			%	%		
8081A	alpha-BHC	90	81			60-140	20-150	11%	#VALUE!	<30	<50	95		75-125	65-135		
8081A	beta-BHC	85	80			60-140	20-150	6%	#VALUE!	<30	<50	89		51-125	41-133		
8081A	delta-BHC	93	88			60-140	20-150	6%	#VALUE!	<30	<50	104		75-126	65-136		
8081A	gamma-BHC (Lindane)	85	78			60-140	20-150	9%	#VALUE!	<30	<50	87		73-125	63-130		
8081A	Heptachlor	86	89			60-140	20-150	3%	#VALUE!	<30	<50	92		45-128	35-138		
8081A	Aldrin	74	76			60-140	20-150	3%	#VALUE!	<30	<50	87		47-125	37-126		
8081A	Heptachlor epoxide	72	78			60-140	20-150	8%	#VALUE!	<30	<50	96		53-134	43-144		
8081A	Endosulfan I	53	75			60-140	20-150	34%	#VALUE!	<30	<50	64		49-143	39-153		
8081A	Dieldrin	92	94			60-140	20-150	2%	#VALUE!	<30	<50	102		42-132	32-142		
8081A	4,4'-DDE	83	104			60-140	20-150	22%	#VALUE!	<30	<50	101		45-139	35-149		
8081A	Endrin	112	114			60-140	20-150	2%	#VALUE!	<30	<50	111		43-134	33-144		
8081A	Endosulfan II	60	60			60-140	20-150	0%	#VALUE!	<30	<50	56		75-159	65-169		
8081A	4,4'-DDD	94	101			60-140	20-150	7%	#VALUE!	<30	<50	97		48-136	38-146		
8081A	Endosulfan sulfate	97	94			60-140	20-150	3%	#VALUE!	<30	<50	100		46-141	36-151		
8081A	4,4'-DDT	80	105			60-140	20-150	27%	#VALUE!	<30	<50	101		34-143	25-153		
8081A	Methoxychlor	99	106			60-140	20-150	7%	#VALUE!	<30	<50	101		73-142	63-152		
8081A	Endrin ketone	95	92			60-140	20-150	3%	#VALUE!	<30	<50	90		43-134	33-144		
8081A	Endrin aldehyde	91	84			60-140	20-150	8%	#VALUE!	<30	<50	91		75-150	35-160		
8081A	alpha-Chlordane	88	91			60-140	20-150	3%	#VALUE!	<30	<50	105		41-125	31-135		
8081A	gamma-Chlordane	83	84			60-140	20-150	1%	#VALUE!	<30	<50	96		41-125	31-133		
8082A	Arochlor-1016	98	104			60-140	20-150	6%	#VALUE!	<30	<50	84		54-125	44-127		
8082A	Arochlor-1260	98	104			60-140	20-150	6%	#VALUE!	<30	<50	91		41-126	31-136		

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

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT # 27319

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8081A	Decachlorobiphenyl (DCBP) (Surr)	77	68			34-133	25-143	12%	#VALUE!			83					
8081A	Tetrachloro-m-xylene (TCMX) (Surr)	22	41			45-125	35-135	60%	#VALUE!			41					
8151	2,4-D	88	89			60-140	20-150	1%	#VALUE!	<30	<50	92		30-150	31-136		
8151	2,4,5-T	88	96			60-140	20-150	9%	#VALUE!	<30	<50	96		30-150	31-136		
8151	2,4,5-TP	93	100			60-140	20-150	7%	#VALUE!	<30	<50	10		30-150	31-136		
TAL METALS BY ICP						mg/L	mg/kg			%	%			%	%		
6010B	Aluminum	175	180			50-150	30-170	3%	#VALUE!	<30	<50	106		80-120	80-120		
6010B	Antimony	98	101			50-150	30-170	3%	#VALUE!	<30	<50	95		80-120	80-120		
6010B	Arsenic	104	108			50-150	30-170	4%	#VALUE!	<30	<50	103		80-120	80-120		
6010B	Barium	104	107			50-150	30-170	3%	#VALUE!	<30	<50	97		80-120	80-120		
6010B	Beryllium	100	104			50-150	30-170	4%	#VALUE!	<30	<50	98		80-120	80-120		
6010B	Cadmium	98	101			50-150	30-170	3%	#VALUE!	<30	<50	95		80-120	80-120		
6010B	Calcium	101	78			50-150	30-170	26%	#VALUE!	<30	<50	114		80-120	80-120		
6010B	Chromium	100	103			50-150	30-170	3%	#VALUE!	<30	<50	96		80-120	80-120		
6010B	Cobalt	103	106			50-150	30-170	3%	#VALUE!	<30	<50	100		80-120	80-120		
6010B	Copper	110	114			50-150	30-170	4%	#VALUE!	<30	<50	104		80-120	80-120		
6010B	Iron	94	100			50-150	30-170	6%	#VALUE!	<30	<50	101		80-120	80-120		
6010B	Lead	111	114			50-150	30-170	3%	#VALUE!	<30	<50	104		80-120	80-120		
6010B	Magnesium	93	94			50-150	30-170	1%	#VALUE!	<30	<50	97		80-120	80-120		
6010B	Manganese	102	106			50-150	30-170	4%	#VALUE!	<30	<50	100		80-120	80-120		
6010B	Nickel	96	99			50-150	30-170	3%	#VALUE!	<30	<50	92		80-120	80-120		
6010B	Potassium	80	80			50-150	30-170	0%	#VALUE!	<30	<50	81		80-120	80-120		
6010B	Selenium	103	106			50-150	30-170	3%	#VALUE!	<30	<50	101		80-120	80-120		
6010B	Silver	106	111			50-150	30-170	5%	#VALUE!	<30	<50	102		80-120	80-120		
6010B	Sodium	62	59			50-150	30-170	5%	#VALUE!	<30	<50	114		80-120	80-120		
6010B	Thallium	112	116			50-150	30-170	4%	#VALUE!	<30	<50	106		80-120	80-120		
6010B	Vanadium	100	104			50-150	30-170	4%	#VALUE!	<30	<50	97		80-120	80-120		
6010B	Zinc	107	109			50-150	30-170	2%	#VALUE!	<30	<50	93		80-120	80-120		
MERCURY BY COLD VAPOR						%	%			%	%			%	%		
7470	Mercury	97	104			50-150	NA	7%	#VALUE!	<30	NA	93		70-130	NA		

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

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #27319

Method No[1]	Analyte / Component	Project Control Rec. MS Water	Project Control Rec. MSD Water	Project Control Rec. MS Soil[2]	Project Control Rec. MSD Soil[2]	Accuracy Limits MS/MSD Recoveries Water	Accuracy Limits MS/MSD Recoveries Soil[2]	Project Control MS/MSD % Deviation Water	Project Control MS/MSD % Deviation Soil[2]	Precision Limits MS/MSD Deviation Water	Precision Limits MS/MSD Deviation Soil[2]	Project Control Recoveries LCS Water	Project Control Recoveries LCS Soil[2]	Accuracy Limits LCS Recoveries Water	Accuracy Limits LCS Recoveries Soil[2]	Project Control Field Dup % Deviation Water	Project Control Field Dup % Deviation Soil[2]	Precision Limits Field Dup Deviation Water	Precision Limits Field Dup Deviation Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	96	105			60-140	20-150	8%	#VALUE!	<30	<50	104		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	95	102			60-140	20-150	8%	#VALUE!	<30	<50	105		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	90	100			60-140	20-150	10%	#VALUE!	<30	<50	96		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	90	99			60-140	20-150	10%	#VALUE!	<30	<50	98		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	96	104			60-140	20-150	8%	#VALUE!	<30	<50	104		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	96	102			60-140	20-150	7%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	91	100			60-140	20-150	10%	#VALUE!	<30	<50	95		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	90	99			60-140	20-150	10%	#VALUE!	<30	<50	105		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	90	99			60-140	20-150	10%	#VALUE!	<30	<50	105		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	108			60-140	20-150	7%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	91	99			60-140	20-150	9%	#VALUE!	<30	<50	99		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	96	105			60-140	20-150	9%	#VALUE!	<30	<50	105		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	75	86			60-140	20-150	13%	#VALUE!	<30	<50	82		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	93	103			60-140	20-150	10%	#VALUE!	<30	<50	102		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	90	101			60-140	20-150	11%	#VALUE!	<30	<50	97		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	102	105			60-140	20-150	3%	#VALUE!	<30	<50	108		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	96	106			60-140	20-150	10%	#VALUE!	<30	<50	105		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	98	104			60-140	20-150	6%	#VALUE!	<30	<50	110		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	94	103			60-140	20-150	9%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	98	104			60-140	20-150	6%	#VALUE!	<30	<50	110		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	106			60-140	20-150	7%	#VALUE!	<30	<50	105		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	102	109			60-140	20-150	7%	#VALUE!	<30	<50	108		64-135	64-135			<50	<75
8260B	Benzene	97	106			60-140	20-150	9%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Bromobenzene	92	101			60-140	20-150	9%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	91	102			60-140	20-150	12%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Bromodichloromethane	90	100			60-140	20-150	11%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Bromoform	87	95			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	Bromomethane	99	92			60-140	20-150	7%	#VALUE!	<30	<50	121		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	94	104			60-140	20-150	10%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	92	100			60-140	20-150	9%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	90	94			60-140	20-150	4%	#VALUE!	<30	<50	103		55-135	55-135			<50	<75
8260B	Chloroform	94	101			60-140	20-150	8%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Chloromethane	91	98			60-140	20-150	8%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	94	103			60-140	20-150	9%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	90	101			60-140	20-150	12%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	90	100			60-140	20-150	11%	#VALUE!	<30	<50	97		63-135	63-135			<50	<75
8260B	Dibromomethane	87	100			60-140	20-150	14%	#VALUE!	<30	<50	99		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	79	87			60-140	20-150	9%	#VALUE!	<30	<50	93		65-135	65-135			<50	<75
8260B	Ethylbenzene	99	107			60-140	20-150	7%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	120	130			60-140	20-150	8%	#VALUE!	<30	<50	139		65-135	65-135			<50	<75
8260B	Isopropylbenzene	101	108			60-140	20-150	7%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	total-Xylene	99	106			60-140	20-150	7%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Methylene Chloride	92	99			60-140	20-150	7%	#VALUE!	<30	<50	98		65-135	65-135			<50	<75
8260B	n-Butylbenzene	100	112			60-140	20-150	12%	#VALUE!	<30	<50	110		65-135	65-135			<50	<75
8260B	n-Propylbenzene	102	109			60-140	20-150	7%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Naphthalene	68	85			60-140	20-150	22%	#VALUE!	<30	<50	86		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	103	113			60-140	20-150	8%	#VALUE!	<30	<50	112		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	101	110			60-140	20-150	9%	#VALUE!	<30	<50	110		65-135	65-135			<50	<75

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

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #27319

8260B	Styrene	94	100			60-140	20-150	6%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	Trichloroethylene	96	107			60-140	20-150	11%	#VALUE!	<30	<50	103		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	101	109			60-140	20-150	8%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	97	104			60-140	20-150	7%	#VALUE!	<30	<50	103		61-135	61-135			<50	<75
8260B	Toluene	98	104			60-140	20-150	5%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	97	103			60-140	20-150	6%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	92	98			60-140	20-150	7%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	85	93			60-140	20-150	9%	#VALUE!	<30	<50	100		57-135	57-135			<50	<75
8260B	Vinyl Chloride	87	93			60-140	20-150	6%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	94	101			75-125	65-135	6%	#VALUE!	NA	NA	102		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	89	96			75-125	65-135	8%	#VALUE!	NA	NA	98		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	87	94			62-139	52-149	8%	#VALUE!	NA	NA	97		NA	NA			NA	NA
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH	97	71			50-150	30-170	31%	#DIV/0!	<30	<50			75-125	70-130			<50	<75
	REACTIVE CYANIDE					%	%			%	%			%	%			%	%
7.332	Cyanide	90	87			NA	30-170	3%	#VALUE!	NA	<50	93		NA	75-125			NA	<50
	REACTIVE SULFIDE					%	%			%	%			%	%			%	%
7.342	Sulfide	84	82			NA	30-170	2%	#VALUE!	NA	<50	89		NA	75-125			NA	<50
	ALKALINITY					%	%			%	%			%	%			%	%
310.1	Alkalinity	95	95			NA	30-170	#DIV/0!	#VALUE!	NA	<50	95		NA	75-125			NA	<50

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

NS = Not Specified
NA = Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

SAMPLE RECEIPT CHECKLIST VERSION 4 Client Code: D397-07 AAL Project Mg: BJH

Client Project Name: CTO 17 NTC ORLANDO - STUDY AREA 36 ACCURA Lab Project#: 27319

Are there any tests requested with holding times or TAT's less than 48 HOURS? (YES) ~~NO~~

If YES, you must communicate this to the appropriate analyst(s) immediately!!!

Preliminary Examination: Initials: [illegible] Date received: 3/17/07 Date cooler was opened: 3/17/07

1. Did cooler/package come with a shipping slip (airbill, Etc.)? (YES) NO
   If YES, enter carrier name and airbill number here: FedEX 8260 5007 1948

   Describe type of packing in cooler: _____

   ******If cooler was hand delivered, CIRCLE HERE, skip to item #5******

2. Were custody seals on outside of cooler? (YES) NO
   If YES, how many: 2 seal dated: 3/16/07 seal name: Tommy Plumlee
3. Were custody seals unbroken and intact at the date and time of arrival? (YES) N/A NO
4. Were custody papers sealed in a plastic bag to prevent damage to chain of custody? (YES) NO
5. If required, was enough ice used? **(Internal cooler temperature, 2°C)** (YES) N/A NO
6. Did you sign custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? YES NO
   If YES, enter project name at the top.

Complete project file with green sheet, proper file tag, and shipping documentation. Line up samples following chain. Complete Container Count Sheet including extra containers for dissolved metals filtrates. Complete login in Labworks and generate AAL ID Barcode Labels.

8. Did all containers arrive unbroken and were labels in good condition? (YES) NO
9. Were custody papers filled out properly and did all labels agree with custody papers? YES (NO) →
10. Were correct containers and sufficient amount of sample sent for the test indicated? (YES) NO
11. All samples collected within three days of date received for these analyses
    (Reactive Cn & S, Solids in H2O, Sulfide, Sulfite, !ALL! Extractable Organic Waters)? (YES) NO
    If NO, coordinate with the project manager to ensure that no samples go out of hold!!!
12. No residual chlorine found in waters for these analyses:
    (Cyanide, PAH, SVOC, Pesticides, PCB's, Herbicides)? (YES) N/A NO
    Checked by: [illegible] **(Initials)**
13. Were samples properly chemically preserved, if required, upon receipt? (YES) N/A NO
    (For example: pH checked for waters for all Metals, Wet Chemistry, Pesticides, PCB's, Herbicides, and low level VOC/BTEX soil samples submitted in either Encore samplers or $NaHSO_4$ labeled vials)
    Preservation checked by: [illegible] **(Initials)**
14. Were air bubbles (>1/4 inch) absent in VOC/BTEX samples? (YES) N/A NO
    If NO, list ID # on back:
15. If there are samples for dissolved metals, were they field filtered? YES (N/A) NO
    If NO, list date and time samples were filtered and preserved in lab: _____

16. Were Encore samplers included? YES (NO)
    If YES, date and time preserved with $NaHSO_4$: _____ By whom: _____
17. Does this submittal contain soil $NaHSO_4$ vials for BTEX/GRO/VOC'S? YES (NO)
    If YES, vials weighed by and entered into vial database by: _____
18. Initials of laboratory personnel responsible for labeling laboratory I.D. numbers on containers: [illegible]

Keep samples and chain out. Before logging samples to their appropriate location, another person must review the entire project ensuring that information on the AAL ID Barcode label matches the container label, and that all information is consistent with the chain.
Final check and samples logged to locations by: [illegible] **(Initials)**

19. Was it necessary to call the assigned project manager in order to proceed with login? YES (NO)
    If YES, give details on the back of this form.
20. Who was called? _____ By whom? _____ Date/Time: _____

Project Mgr. Review: BJH **(Initials)** 3/20/07 **(Date)**

1 of 2

27319 / 2C3P

27

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Steve Tsangaris	813874.0777	770 449-8800 X233		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC	Nitrate	Nitrite	Chloride	Alkalinity	TDS	TOC	FL Pro			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-	35C-Q1-01	W	3-16-01	0907	III	14	X										Grab		AC09956
2	017-OLD-36-	34B-Q1-01			0944			X												9957
3	017-OLD-36-	37C-Q1-01			1105			X												9958
4	017-OLD-36-	33A-Q1-01			1410			X												9959
5	017-OLD-36-	36C-Q1-01			1332			X												9960
6	017-OLD-36-	EB1-Q1-01			1500			X	X	X	X	X	X	X	X			QC		9961
7	017-OLD-36-	TB4-Q1-01	W	—	—			X										QC		9962
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER:
Fed ex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Tammy Plumlee / Tammy Plumlee	3-16-01	15:45	Fedex	→	
Printed Name and Signature:			Printed Name and Signature:		
Fedex	3/17/01	11:15	[signature]	3/17/01	11:15
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

2 of 2

AAL #27319 2°C / 7NP

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

27319

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Accura Labs Bonnie Hogue	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA 36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Steve Tsangaris	813-874-0777	770 449-8800 K233		

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC TCL	TCL PCBs	TAL Metals	Semi Volatiles	TCL Pesticides	TCL Herbicides	Cyanide	Reactivity	Corrosivity	Ignitability	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36	-IDW1-Q1-01	W	3-16-01	1500	III	14	X	X	X	X	X	X	X	X	X	X	QC		AC09963
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER:
Fed Ex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee	3-16-01	1545	Printed Name and Signature: FEDEX		
Printed Name and Signature: FEDEX	3.17.01	1115	Printed Name and Signature:	3.17.01	1115
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

VOA GC/MS DATA CHECKLIST
SW-846-8260B

3-28-01

PROJECT #: 27319	METHOD: 8260B
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	Y	N	NA
Are all SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	Y	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	Y	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the Blank Spike?	Y	N	NA
Are all surrogate standard recoveries acceptable (Blank, Blank Spike, samples)?	Y	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	NA
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	Y	N	NA
Are all mistakes single lined out, initialled, & dated?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all analytes not to be reported lined off, initialed, and dated on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: DA	
Date: 3-26-01	Time: 14:35

PEER REVIEW

Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	Y	N	NA
Are all sample Internal Standard areas and retention times within method limits?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all applicable runlog sheets signed, dated, and included?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: VRR	
Date: 3-27-01	Time: 13:43

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [ ] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: VOA0103-005

Reported By: JP Date Reported: 03/30/2001

Department: VOA Project(s): 27319 PM: BJH

Discrepancy:
Hexachlorobutadiene is out of range in the lab spike.

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

REPORT ON CN

Resolution recorded by: [signature] Date: 03.30.01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments:

QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

File Name: qcform.doc Date: 03/30/01

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC/MS VOLATILE INSTRUMENT C RUNLOG

Date: 3·23·01
Calib. File: 02280125·M
ACQ. Method: 032301 25·M
BFB Std ID #: V01018

Internal Standard ID #: V01014
Surrogate Standard ID #: V01015
Calib.Standard ID #: V01019, V01004
LCS/MS Standard ID #: —

GC Conditions
BFB: 80°C-10°C/10min-155°C
Samples: 40°C(4m)-8°C/min-180°C(2m)

	CCV IS RT	CV IS Areas
#1	6·96	552290
#2	12·32	759182
#3	15·56	301723

Surrogate Limits

	DCE	TOL-d8	BFB
QC	78-114	88-106	85-111
Sample	78-124	84-108	86-112

MS Conditions
EMV: 1800
Tune File: BFB01·M
Scan Delay: 1·00 min

File Name	Project ID	Lab Sam. ID	Client Sam. ID	Matrix	Volume	DF	ALS #	pH	-Cl	Inj.Time	Comments
C 19113	QC	BFB 50ng	—	—	2 ul	—	—	—	—	10:30	
C 19114	↓	CCV 10ppb	—	W	25 ml	1	1	—	—	11:21	
C 19115	↓	Blank	—	W	25 ml	1	2	—	—	12:34	QVW032301Q1
C 19116	↓	LCS	—	W	25 ml	1	3	—	—	13:08	
C 19117	27303	Ac09824	—	W	25 ml	1	4	1	X	14:25	NDIL
C 19118	27307	Ac09844	MSD	—	W	25 ml	1	5	1	X	14:50
C 19119	↓	Ac09842	—	W	25 ml	1	6	1	X	15:28	
C 19120	↓	Ac09840	—	W	25 ml	1	7	1	X	15:54	
C 19121	27319	Ac09956	—	W	25 ml	1	8	1	X	16:19	
C 19122	↓	Ac09957	—	W	25 ml	1	9	1	X	16:45	
C 19123	↓	Ac09958	—	W	25 ml	1	10	1	X	17:10	
C 19124	↓	Ac09959	—	W	25 ml	1	11	1	X	17:36	
C 19125	↓	Ac09960	—	W	25 ml	1	12	1	X	18:02	
C 19126	27307	Ac09846	—	W	25 ml	1	14	1	X	18:53	
C 19127	27319	Ac09961	—	W	25 ml	1	15	1	X	19:18	
C 19128	↓	Ac09962	—	W	25 ml	1	16	1	X	19:44	
C 19129	27307	Ac09824	—	W	5 ml	5	1	1	X	20:09	
C 19130	27319	Ac09963	—	W	25 ml	1	2	1	X	20:35	
C 19131	↓	Ac09956	MS	—	W	25 ml	1	3	1	X	—	Data not
C 19132	↓	Ac09956	MSD	—	W	25 ml	1	4	1	X	—	collected
C											
C											
C											
C											
C											
C											
C											

Note: NDIL=Need Dilution NRI=Needs Reinjection MI=Matrix Interferences NC=Needs Concentrated

VRR 3·25·01

Analyst / Date: VRR 3·25·01

Reviewer / Date: _____

Logbook ID: VOC-118

Page 021

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC/MS VOLATILE INSTRUMENT C RUNLOG

Date: 3·25·01
Calib. File: 02280125·m
Q. Method: 03250125·m
BFB Std ID #: _____

Internal Standard ID #: V01014
Surrogate Standard ID #: V01015
Calib.Standard ID #: V01019, V01004
LCS/MS Standard ID #: —

GC Conditions
BFB: 80°C-10°C/10min-155°C
Samples: 40°C(4m)-8°C/min-180°C(2m)

	CCV IS RT	CV IS Areas
1	6·96	562465
2	12·31	755726
3	15·55	314021

Surrogate Limits

	DCE	TOL-d8	BFB
QC	78-114	88-106	85-111
Sample	78-124	84-108	86-112

MS Conditions
EMV: 1800
Tune File: BF801·M
Scan Delay: 1·00 min

File Name	Project ID	Lab Sam. ID	Client Sam. ID	Matrix	Volume	DF	ALS #	pH	-Cl	Inj.Time	Comments
C 19131	QC	BFB50ng	—	—	2 ul	—	—	—	—	11:53	
C 19132	↓	CCV 10ppb	—	W	25 ml	1	1	—	—	12:14	
C 19133	↓	Blank	—	W	25 ml	1	2	—	—	13:27	
C 19134	↓	LCS	—	W	25 ml	1	3	—	—	14:54	
C 19135	27819	AC09960	MS —	W	25 ml	1	4	1	X	15:37	
C 19136	↓	AC09960	MSD —	W	25 ml	1	5	1	X	16:03	
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											
C											

Note: NDIL=Need Dilution NRI=Needs Reinjection MI=Matrix Interferences NC=Needs Concentrated

VRR 3·26·01

Analyst / Date: VRR 3·26·01

Reviewer / Date: _____

Logbook ID: VOC-118

Page 022

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

VOA SAMPLE BATCHBOOK

Inst. ID: VOA-C **Batch ID:** C03230125.M **Matrix:** water - 25 ml

LCS/BS ID: C19134 **MS ID:** Ac09960 **MSD ID:** Ac09960

	Lab. Proj. #	LIMS ID #	Analysis Date	Comment
1	27319	Ac09956	3/23/01	
2		Ac09957		
3		Ac09958		
4		Ac09959		
5		Ac09960		
6		Ac09961		
7		Ac09962		
8		Ac09963		
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Review: _____ **Date:** _____

Page 00002

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19121.D
Acq On : 03/23/01 16:19
Sample : AC09956 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 11:13 2001

Vial: 8
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	483293	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	644995	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	246685	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11

System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	182168	9.38 ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.80%		
46) Toluene-d8	10.27	98	934723	9.42 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.20%		
66) Bromofluorobenzene	13.96	95	277974	9.21 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 92.10%		

Target Compounds					Qvalue
11) Acetone	3.30	58	3522	4.12 ug\L	86
16) Methylene Chloride	3.86	86	6476	0.53 ug\L	89 0.53 J

VRR
3.25.01

(#) = qualifier out of range (m) = manual integration
C19121.D 03230125.M Sun Mar 25 11:13:16 2001 INST:VOA-C

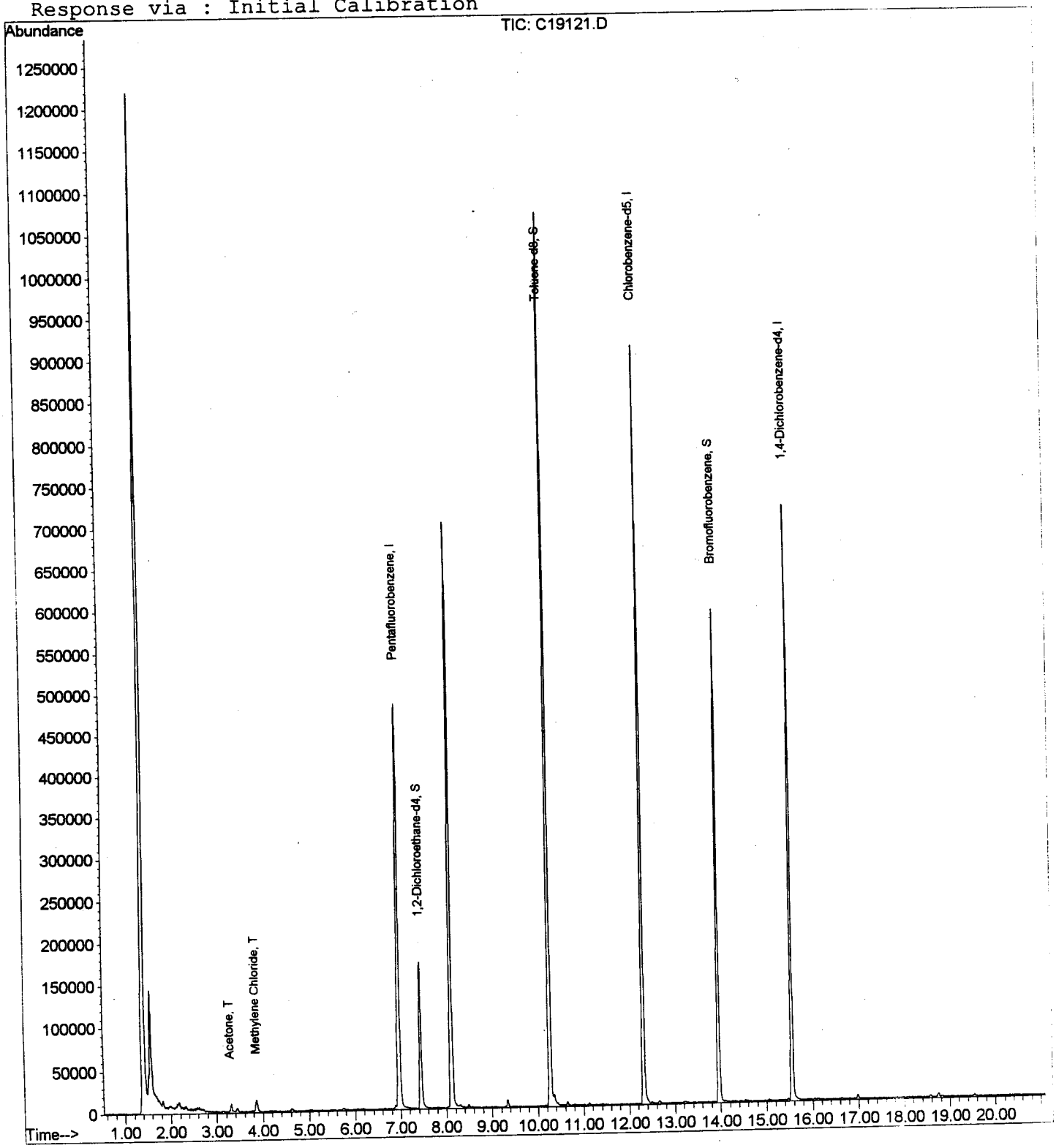
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19121.D
Acq On : 03/23/01 16:19
Sample : AC09956 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 11:13 2001

Vial: 8
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19121.D
Acq On : 03/23/01 16:19
Sample : AC09956 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 8
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

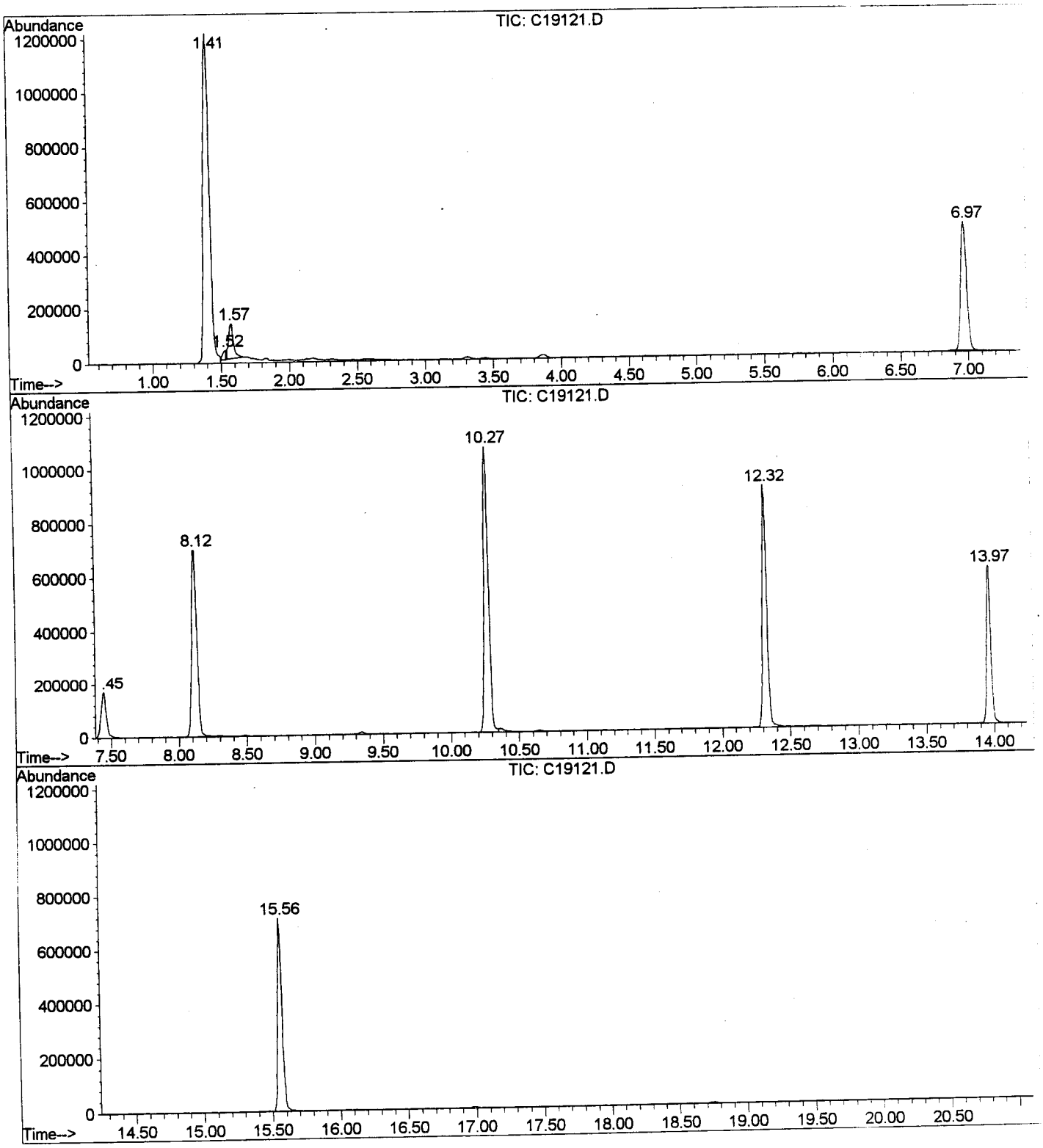
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.410	133	148	162	rBV	1219571	3791909	100.00%	24.628%
2	1.524	163	167	168	rVV2	34065	45843	1.21%	0.298%
3	1.572	170	175	191	rVB2	126379	330539	8.72%	2.147%
4	6.973	1061	1073	1091	rVB	481376	1461335	38.54%	9.491%
5	7.448	1135	1152	1170	rBV	172286	481012	12.69%	3.124%
6	8.115	1253	1263	1276	rBV	700387	1843580	48.62%	11.974%
7	10.269	1611	1621	1634	rBV	1069784	2506640	66.10%	16.281%
8	12.319	1952	1962	1984	rBV	908526	2052052	54.12%	13.328%
9	13.967	2224	2236	2247	rBV	590650	1315173	34.68%	8.542%
10	15.561	2492	2501	2513	rBV	713881	1568371	41.36%	10.187%

Sum of corrected areas: 15396454

C19121.D 03230125.M Sun Mar 25 11:13:34 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19121.D
Operator : JP/VRR
Acquired : 23 Mar 2001 16:19 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09956 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 8
Quant File :03230125.RES (RTE Integrator)



C19121.D 03230125.M Sun Mar 25 11:13:35 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19121.D Vial: 8
Acq On : 03/23/01 16:19 Operator: JP/VRR
Sample : AC09956 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

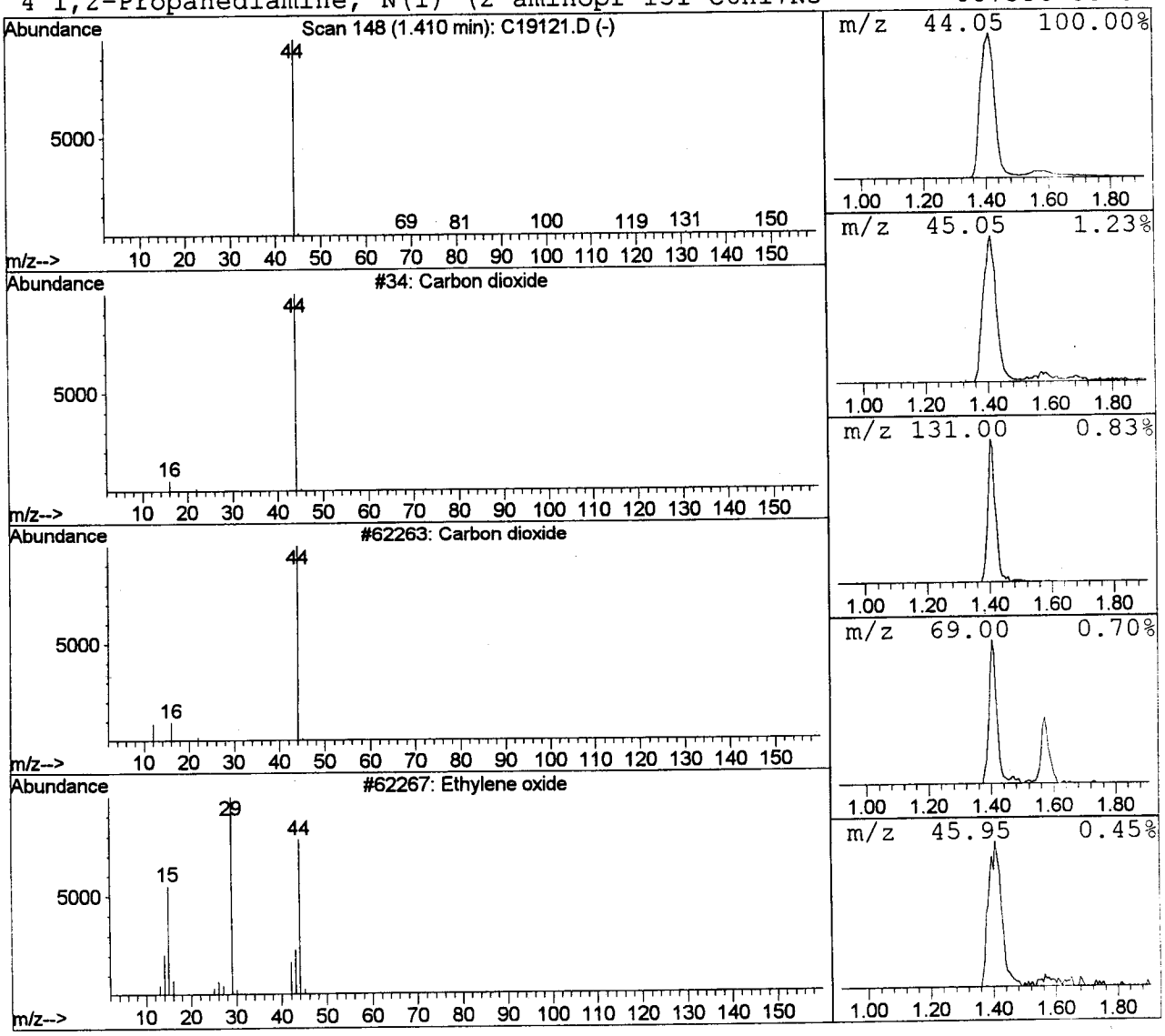
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.41	37919100.00 ug\L	37919101	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3



Data File : C:\HPCHEM\1\DATA\032301\C19121.D Vial: 8
Acq On : 03/23/01 16:19 Operator: JP/VRR
Sample : AC09956 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

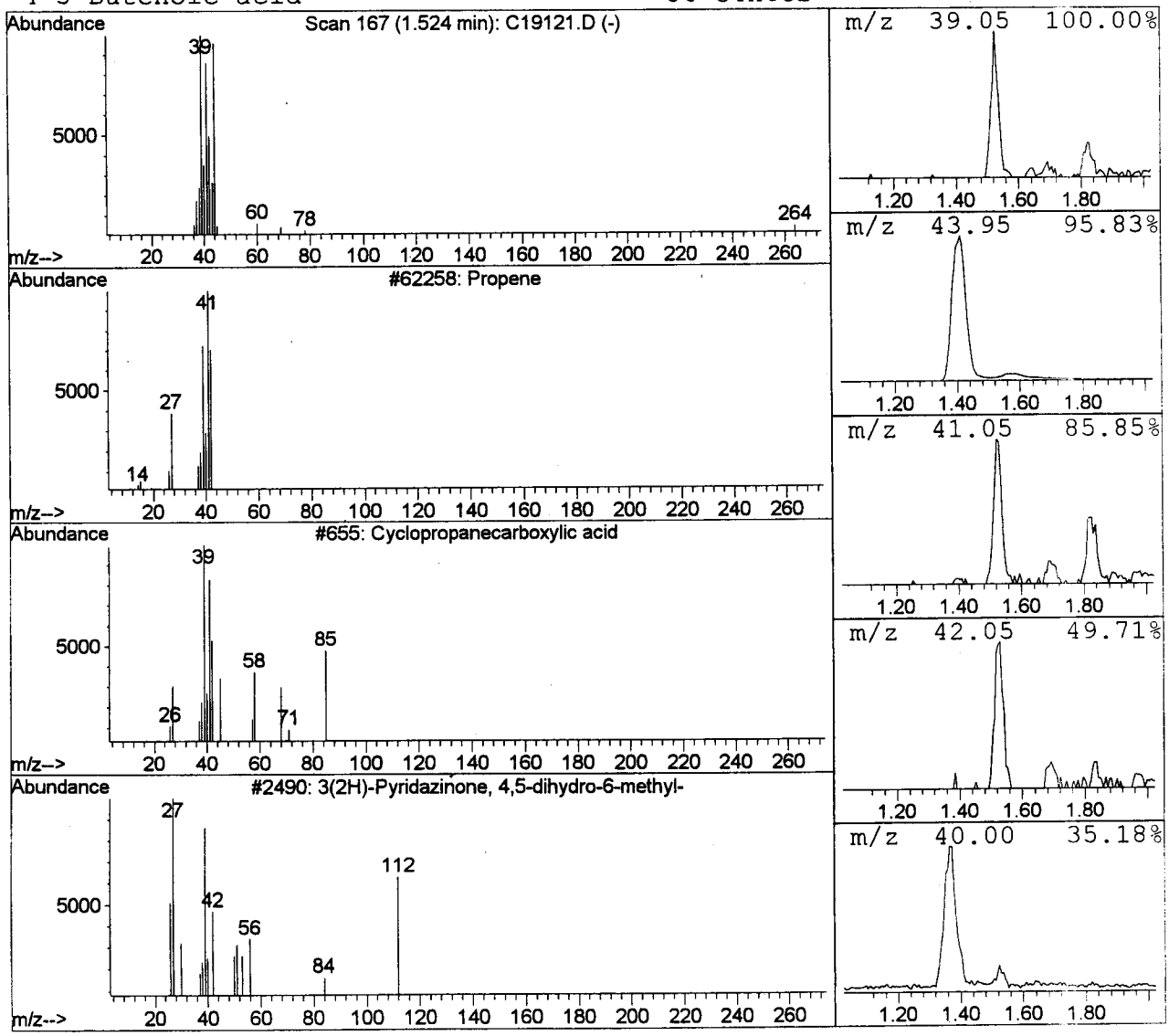
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Propene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.52	458430.00 ug\L	45843	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	72
2	Cyclopropanecarboxylic acid	86	C4H6O2	001759-53-1	64
3	3(2H)-Pyridazinone, 4,5-dihydro-6-m	112	C5H8N2O	005157-08-4	64
4	3-Butenoic acid	86	C4H6O2	000625-38-7	56



Data File : C:\HPCHEM\1\DATA\032301\C19121.D Vial: 8
Acq On : 03/23/01 16:19 Operator: JP/VRR
Sample : AC09956 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

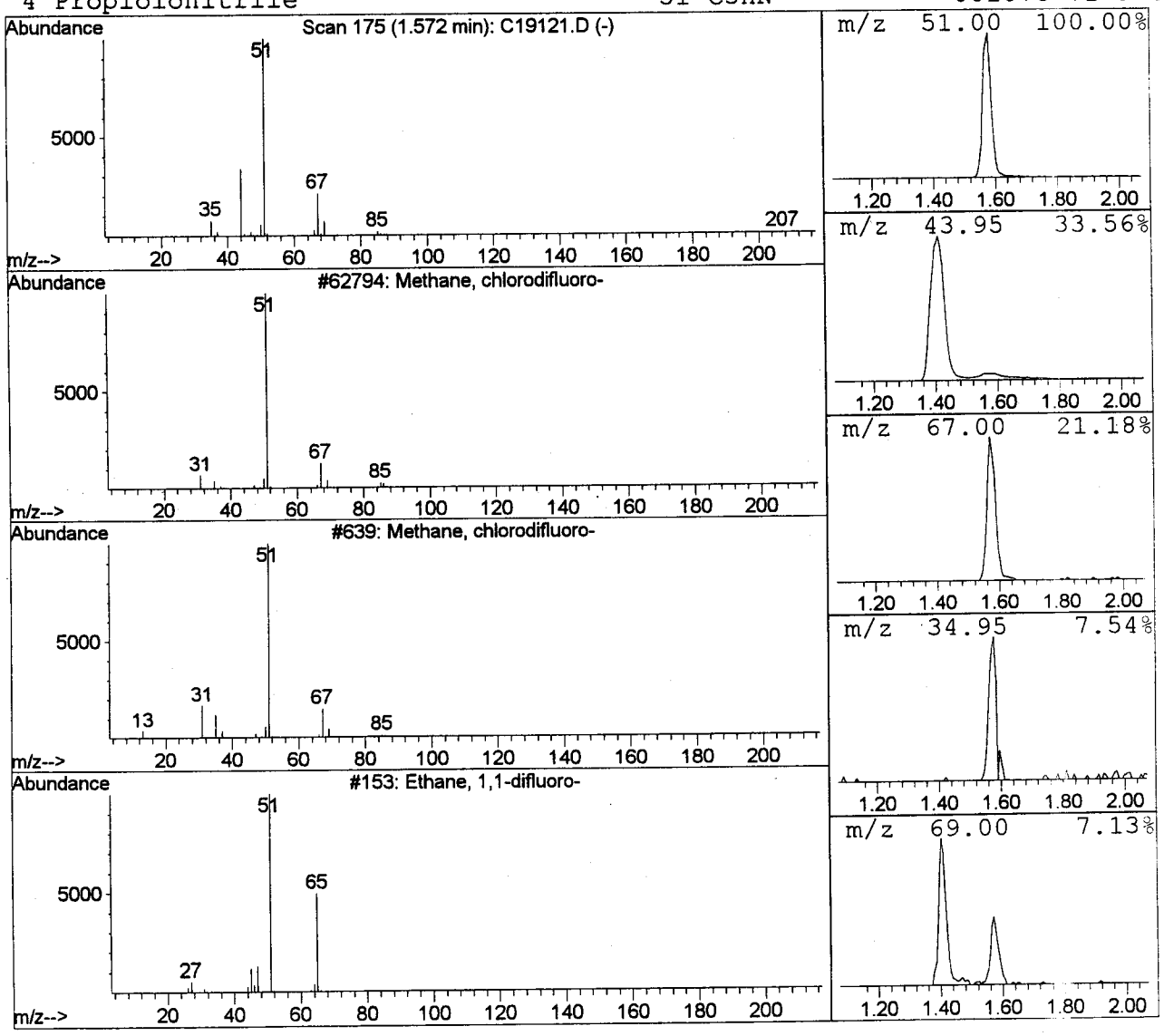
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Methane, chlorodifluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	3305390.00 ug\L	330539	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	64
2	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	40
3	Ethane, 1,1-difluoro-	66	C2H4F2	000075-37-6	5
4	Propiolonitrile	51	C3HN	001070-71-9	3



Data File : C:\HPCHEM\1\DATA\032301\C19121.D Vial: 8
Acq On : 03/23/01 16:19 Operator: JP/VRR
Sample : AC09956 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

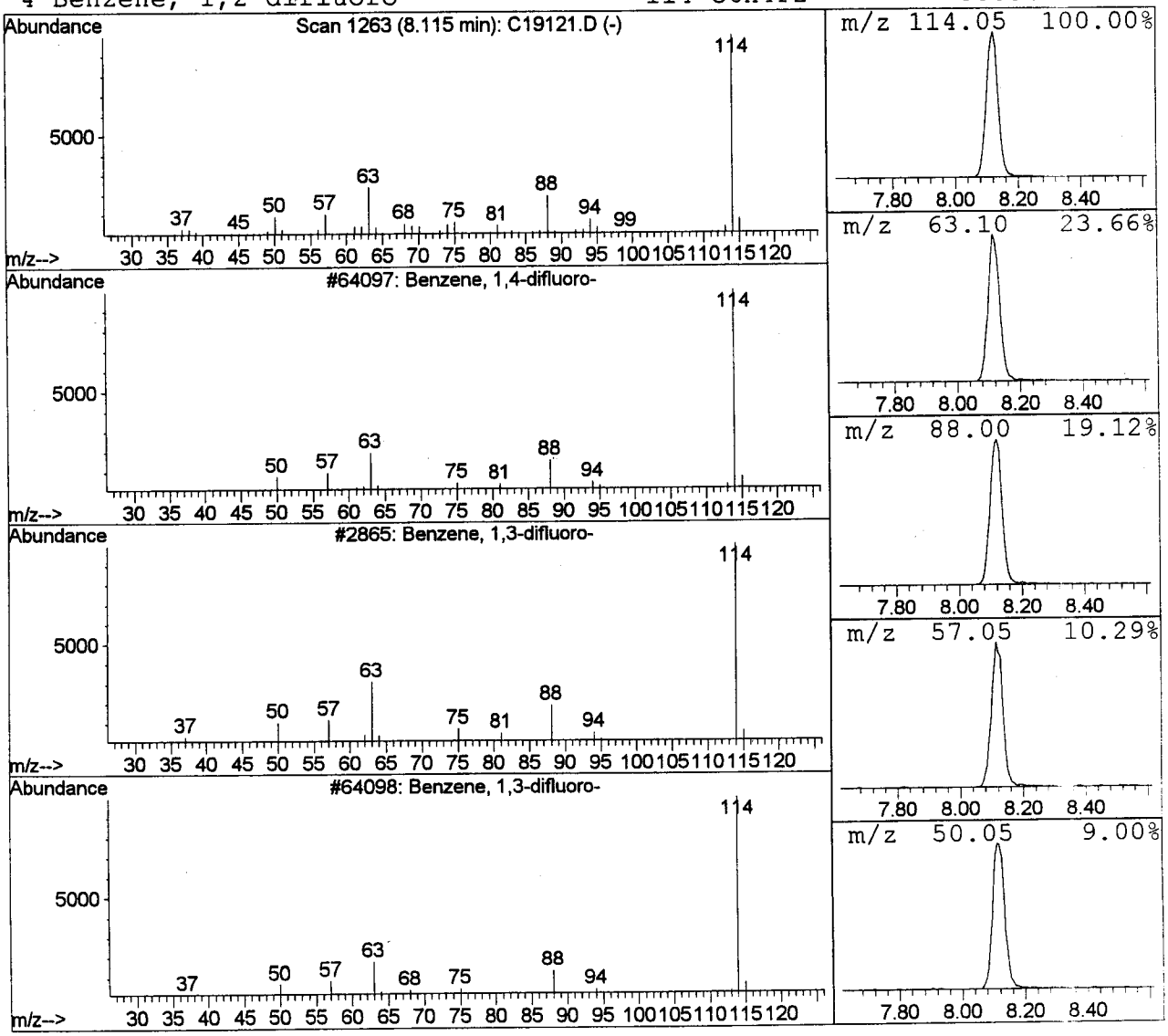
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.62 ug\L	1843580	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 16:19
Data File: C:\HPCHEM\1\DATA\032301\C19121.D
Name: AC09956 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.41	37919100.0	ug\L	3791910	ISTD01	0.00	1	10.0
Propene	1.52	458430.0	ug\L	45843	ISTD01	0.00	1	10.0
Methane, chlorodiflu	1.57	3305390.0	ug\L	330539	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.6	ug\L	1843580	ISTD02	6.97	1461340	10.0

C19121.D 03230125.M Sun Mar 25 11:13:42 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19122.D Vial: 9
Acq On : 03/23/01 16:45 Operator: JP/VRR
Sample : AC09957 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:14 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	463209	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	602157	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	234186	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	180235	9.68 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.80%		
46) Toluene-d8	10.27	98	906411	9.78 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.80%		
66) Bromofluorobenzene	13.96	95	267036	9.32 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.20%		
Target Compounds					Qvalue
16) Methylene Chloride	3.87	86	6058	0.52 ug\L	97

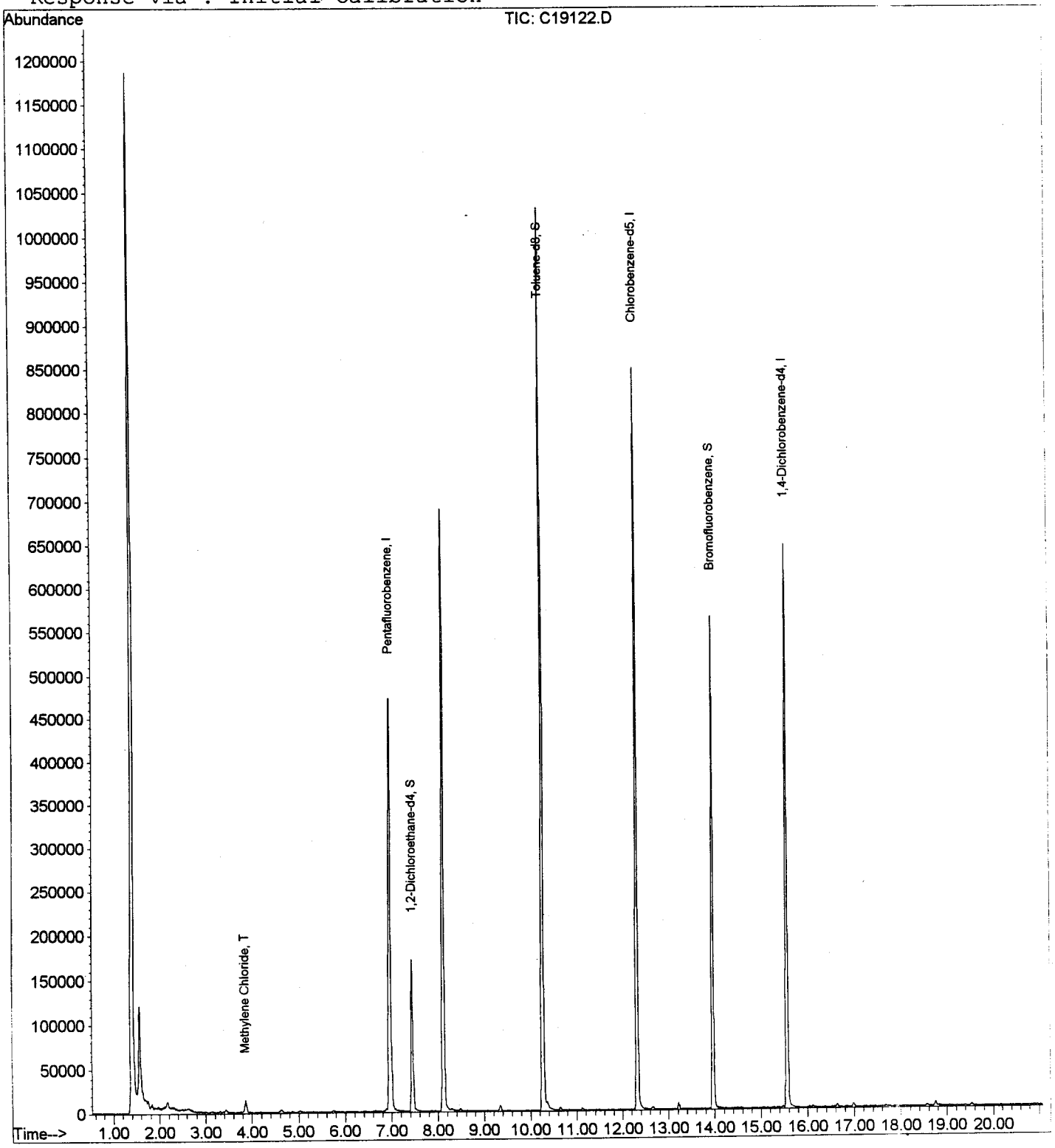
VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19122.D Vial: 9
Acq On : 03/23/01 16:45 Operator: JP/VRR
Sample : AC09957 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:14 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19122.D Vial: 9
Acq On : 03/23/01 16:45 Operator: JP/VRR
Sample : AC09957 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

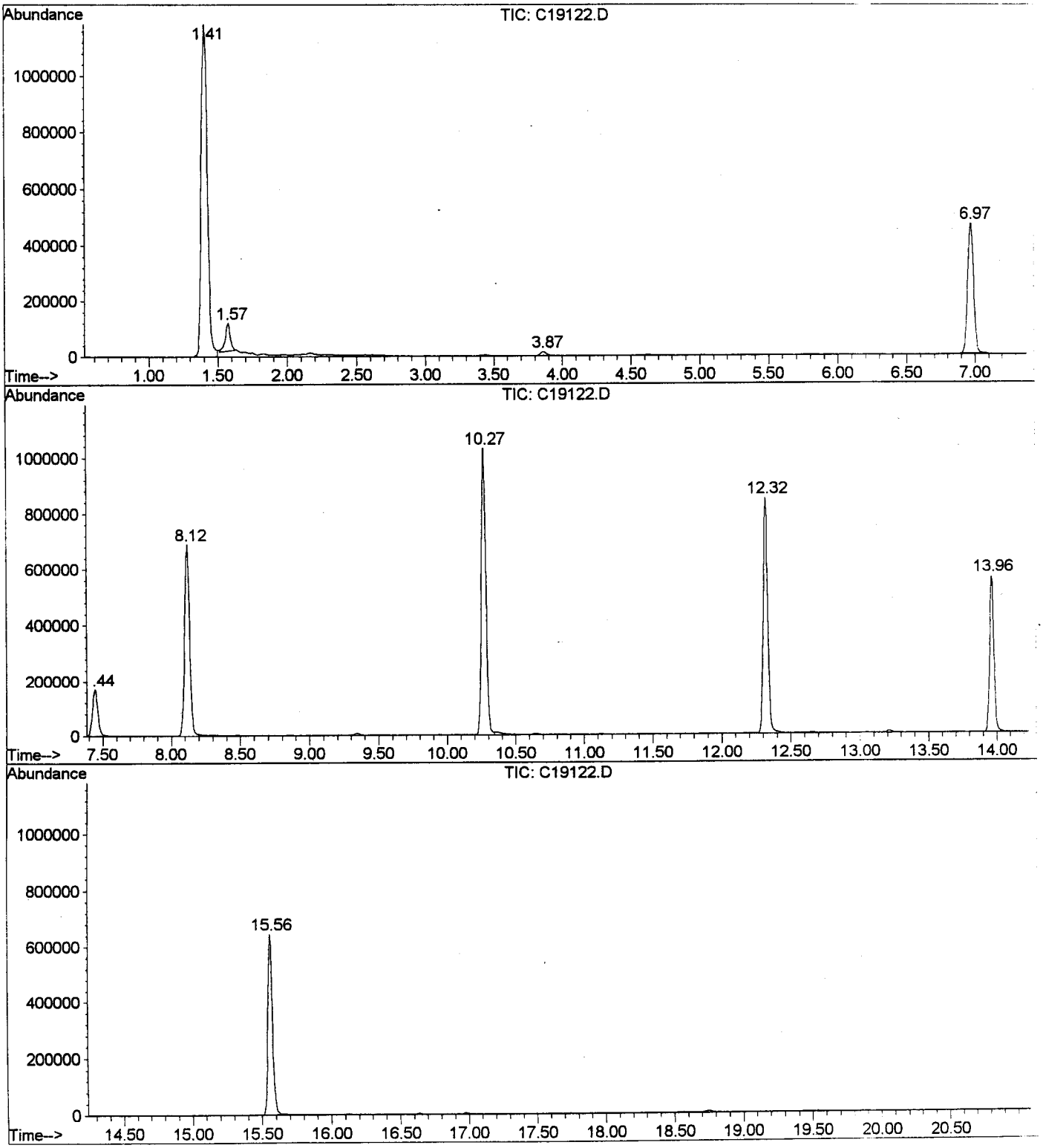
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.406	133	147	162	rBV	1186648	3733561	100.00%	25.255%
2	1.574	165	175	183	rVV2	99494	259640	6.95%	1.756%
3	3.865	547	556	565	rVB2	14590	39048	1.05%	0.264%
4	6.975	1061	1073	1086	rBV	468582	1406780	37.68%	9.516%
5	7.444	1141	1151	1161	rBV	171239	461638	12.36%	3.123%
6	8.117	1252	1263	1276	rBV	689318	1788525	47.90%	12.098%
7	10.270	1610	1621	1633	rBV	1030743	2418935	64.79%	16.363%
8	12.321	1952	1962	1981	rBV	847865	1925198	51.56%	13.023%
9	13.963	2226	2235	2248	rBV2	562760	1261114	33.78%	8.531%
10	15.563	2492	2501	2517	rBV	644964	1488816	39.88%	10.071%

Sum of corrected areas: 14783255

C19122.D 03230125.M Sun Mar 25 11:16:11 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19122.D
Operator : JP/VRR
Acquired : 23 Mar 2001 16:45 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09957 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 9
Quant File :03230125.RES (RTE Integrator)



C19122.D 03230125.M Sun Mar 25 11:16:12 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19122.D Vial: 9
Acq On : 03/23/01 16:45 Operator: JP/VRR
Sample : AC09957 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

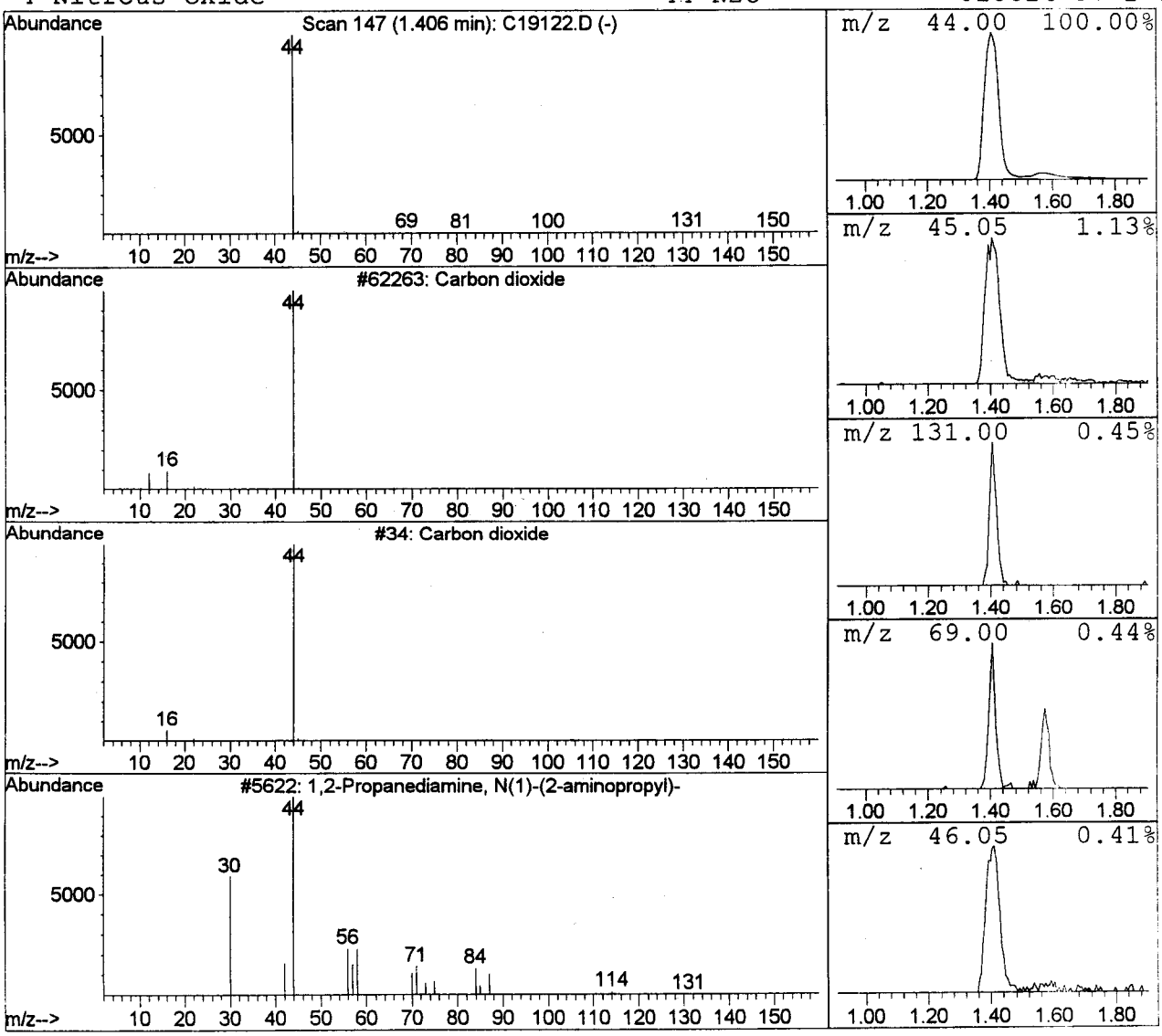
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.41	37335600.00 ug\L	37335601	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19122.D Vial: 9
Acq On : 03/23/01 16:45 Operator: JP/VRR
Sample : AC09957 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

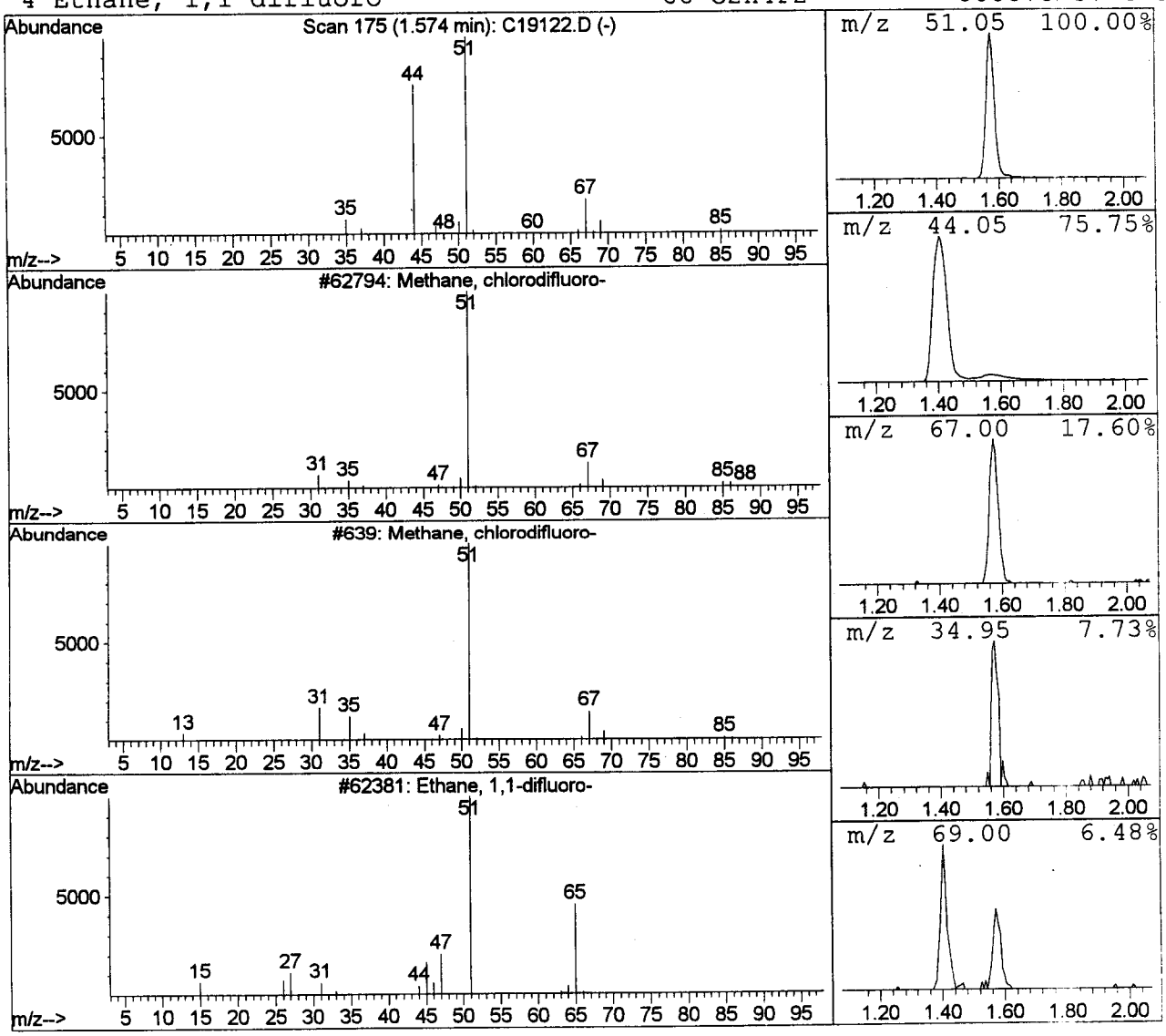
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Methane, chlorodifluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	2596400.00 ug\L	259640	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	64
2	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	64
3	Ethane, 1,1-difluoro-	66	C2H4F2	000075-37-6	7
4	Ethane, 1,1-difluoro-	66	C2H4F2	000075-37-6	5



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19122.D Vial: 9
Acq On : 03/23/01 16:45 Operator: JP/VRR
Sample : AC09957 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

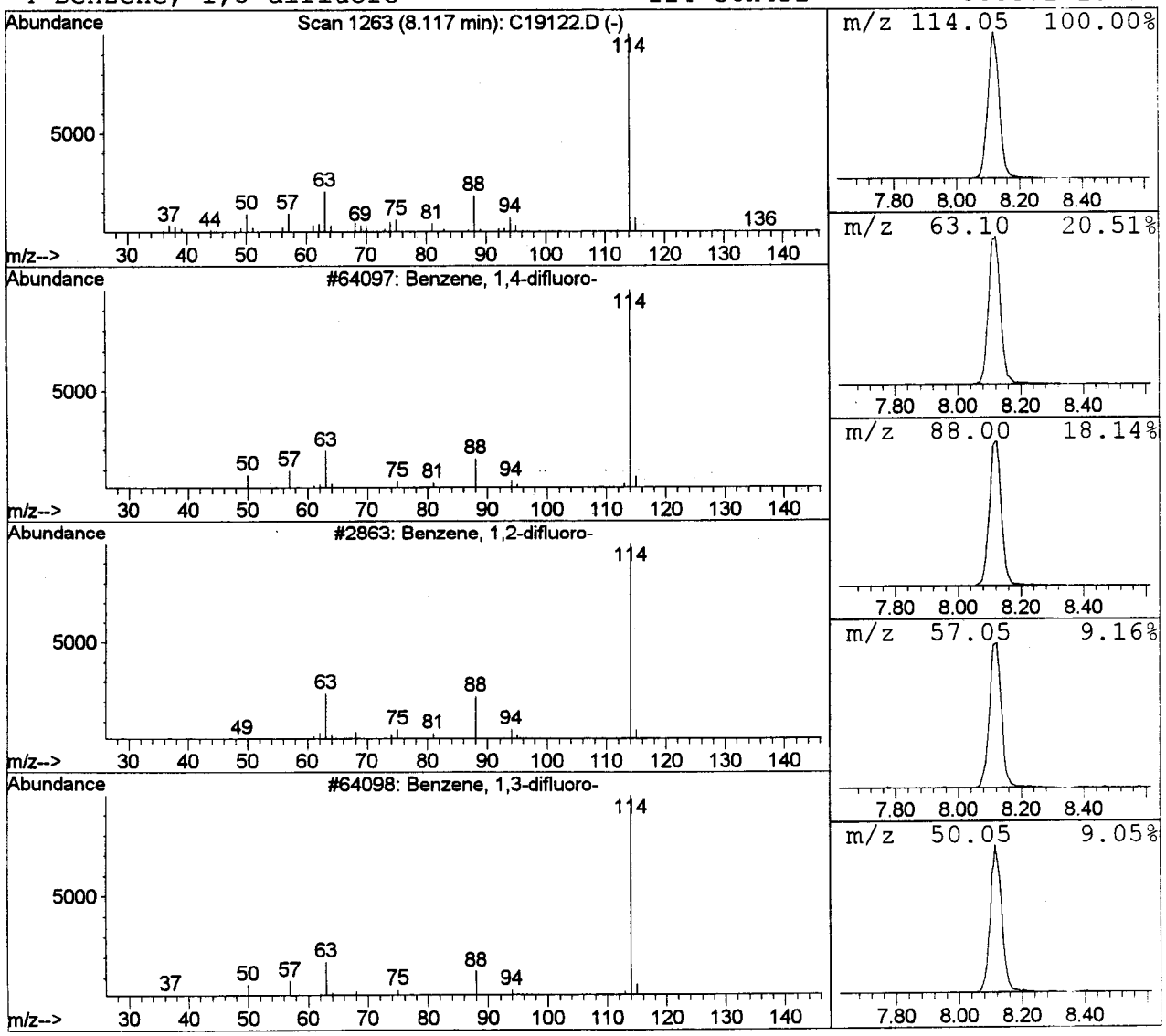
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.71 ug\L	1788530	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	95
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 16:45
Data File: C:\HPCHEM\1\DATA\032301\C19122.D
Name: AC09957 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.41	37335600.0	ug\L	3733560	ISTD01	0.00	1	10.0
Methane, chlorodiflu	1.57	2596400.0	ug\L	259640	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.7	ug\L	1788530	ISTD02	6.97	1406780	10.0

C19122.D 03230125.M Sun Mar 25 11:16:18 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:18 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	478713	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	593696	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	234662	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	172064	8.95 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.50%		
46) Toluene-d8	10.27	98	896657	9.81 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 98.10%		
66) Bromofluorobenzene	13.97	95	261127	9.10 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 91.00%		
Target Compounds					Qvalue
18) MethylTertButylEther	4.24	73	568370	21.74 ug\L	94 ~~22~~
33) Benzene	7.47	78	2119243	23.82 ug\L	100 24
73) 1,3,5-Trimethylbenzene	14.53	105	59874	0.65 ug\L	96 0.65J

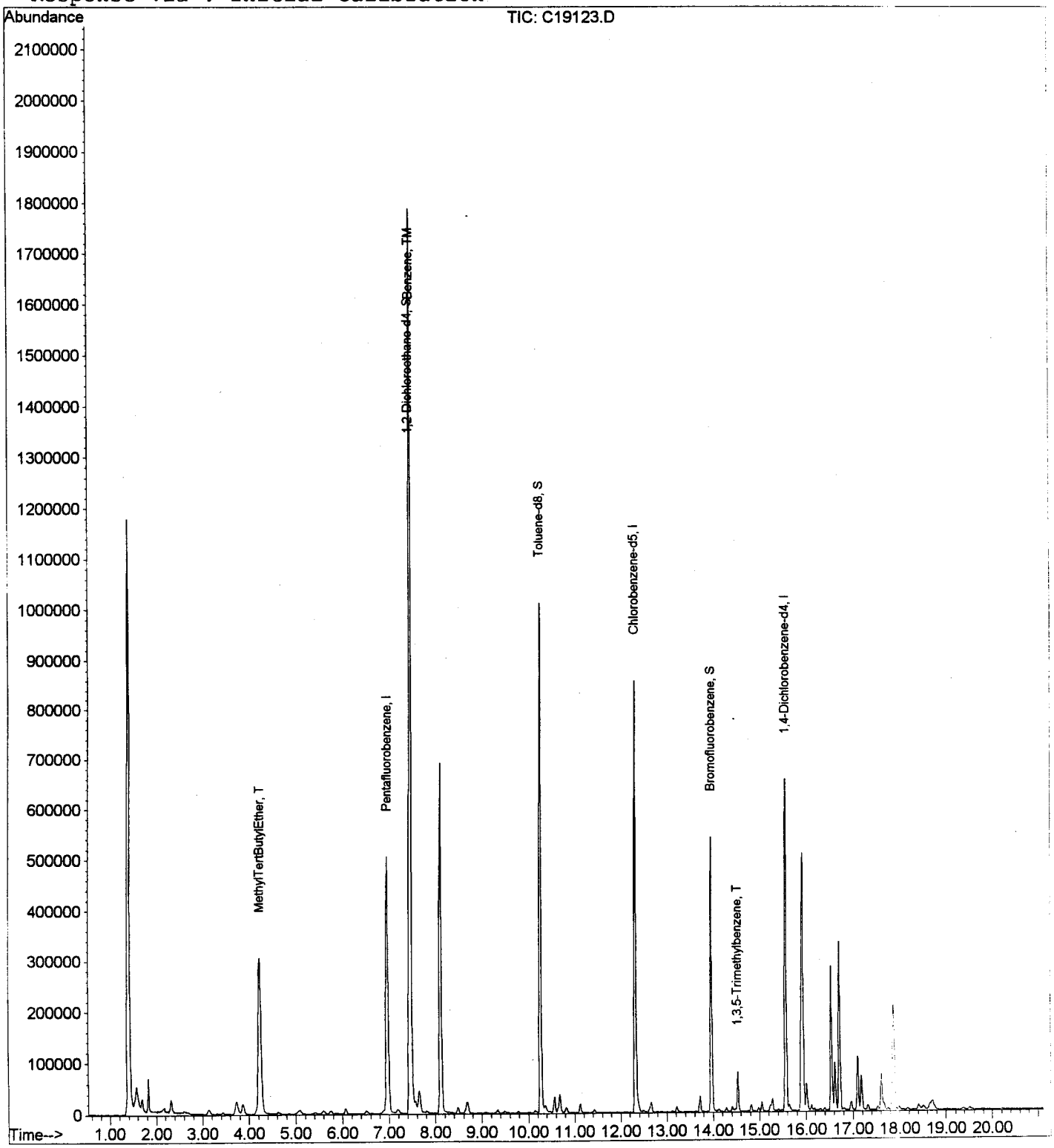
VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:18 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

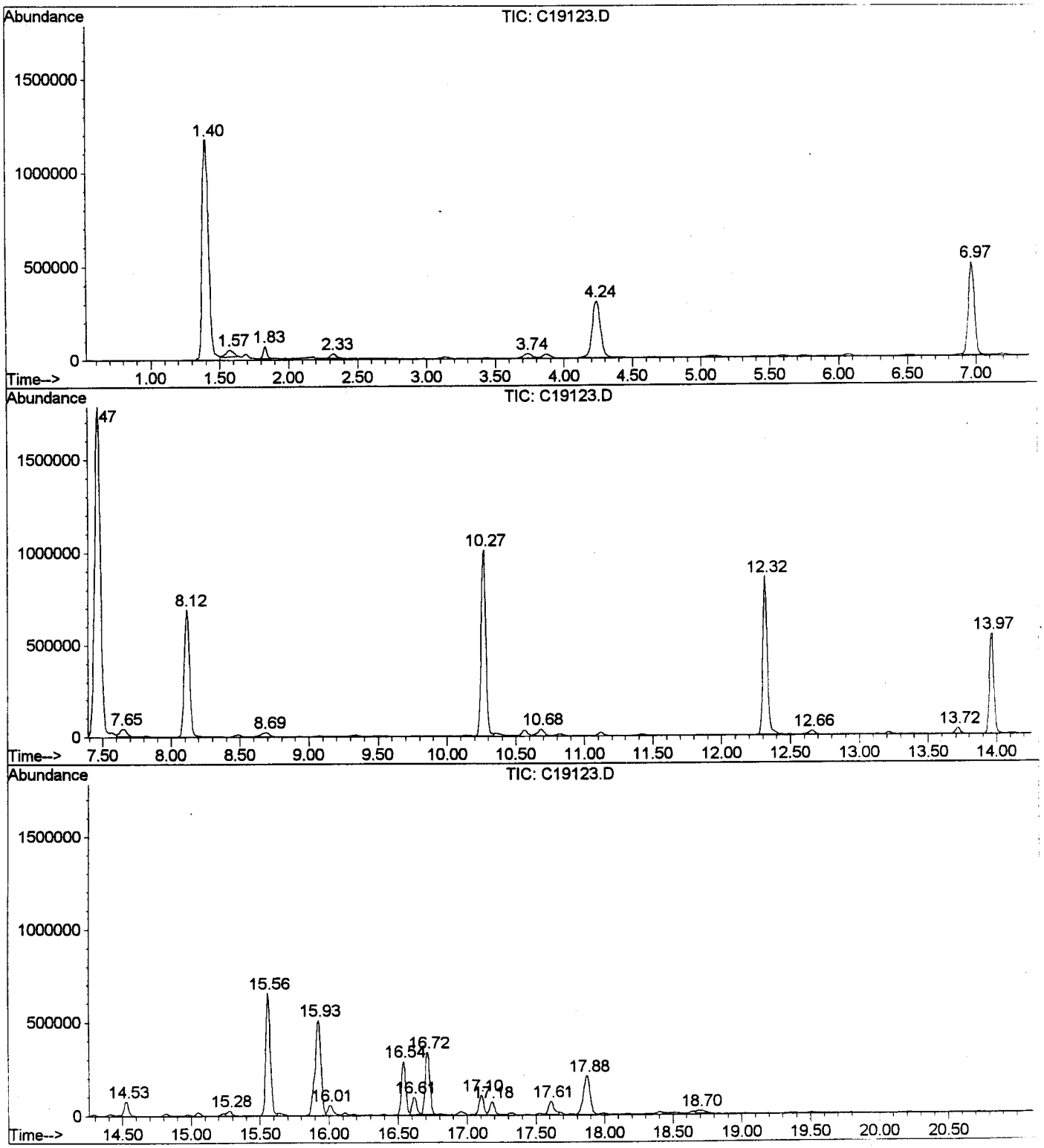
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.399	131	146	163	rBV	1178734	3732424	69.75%	14.070%
2	1.573	163	175	184	rVV	38039	149597	2.80%	0.564%
3	1.832	210	218	225	rBV	65658	120992	2.26%	0.456%
4	2.325	293	300	310	rVB3	27145	68746	1.28%	0.259%
5	3.739	520	535	548	rBV2	24925	107225	2.00%	0.404%
6	4.238	594	618	640	rBV3	306792	1279923	23.92%	4.825%
7	6.968	1060	1072	1090	rVB2	502818	1537305	28.73%	5.795%
8	7.467	1139	1155	1169	rBV	1786260	5350903	100.00%	20.171%
9	7.648	1177	1185	1196	rVB3	40999	143289	2.68%	0.540%
10	8.117	1251	1263	1276	rBV	691619	1811410	33.85%	6.828%
11	8.688	1342	1358	1370	rVB5	22720	88710	1.66%	0.334%
12	10.270	1610	1621	1632	rBV	1009120	2383312	44.54%	8.984%
13	10.685	1678	1690	1699	rVB3	35937	106684	1.99%	0.402%
14	12.321	1952	1962	1983	rBV	856659	1926179	36.00%	7.261%
15	12.658	2004	2018	2026	rBV3	19911	60195	1.12%	0.227%
16	13.716	2186	2194	2204	rBV2	31445	69563	1.30%	0.262%
17	13.969	2226	2236	2251	rBV	541948	1236282	23.10%	4.660%
18	14.534	2322	2330	2339	rVB	77624	172937	3.23%	0.652%
19	15.280	2449	2454	2465	rVB	25500	57672	1.08%	0.217%
20	15.562	2491	2501	2511	rBV	655976	1491884	27.88%	5.624%
21	15.929	2546	2562	2570	rBV3	508929	1514456	28.30%	5.709%
22	16.007	2570	2575	2588	rVB2	53817	134978	2.52%	0.509%
23	16.543	2654	2664	2671	rBV	285087	620100	11.59%	2.338%
24	16.615	2671	2676	2685	rVV2	93403	214827	4.01%	0.810%
25	16.717	2685	2693	2702	rVB	331724	780707	14.59%	2.943%
26	17.102	2749	2757	2764	rBV	105053	249767	4.67%	0.942%
27	17.180	2764	2770	2782	rVB	67595	164235	3.07%	0.619%
28	17.613	2833	2842	2851	rBV2	69611	196845	3.68%	0.742%
29	17.878	2872	2886	2899	rBV3	206715	685628	12.81%	2.585%
30	18.696	3017	3022	3037	rVB7	17168	70766	1.32%	0.267%

Sum of corrected areas: 26527541

C19123.D 03230125.M Sun Mar 25 11:20:12 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19123.D
Operator : JP/VRR
Acquired : 23 Mar 2001 17:10 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09958 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 10
Quant File :03230125.RES (RTE Integrator)



C19123.D 03230125.M Sun Mar 25 11:20:13 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

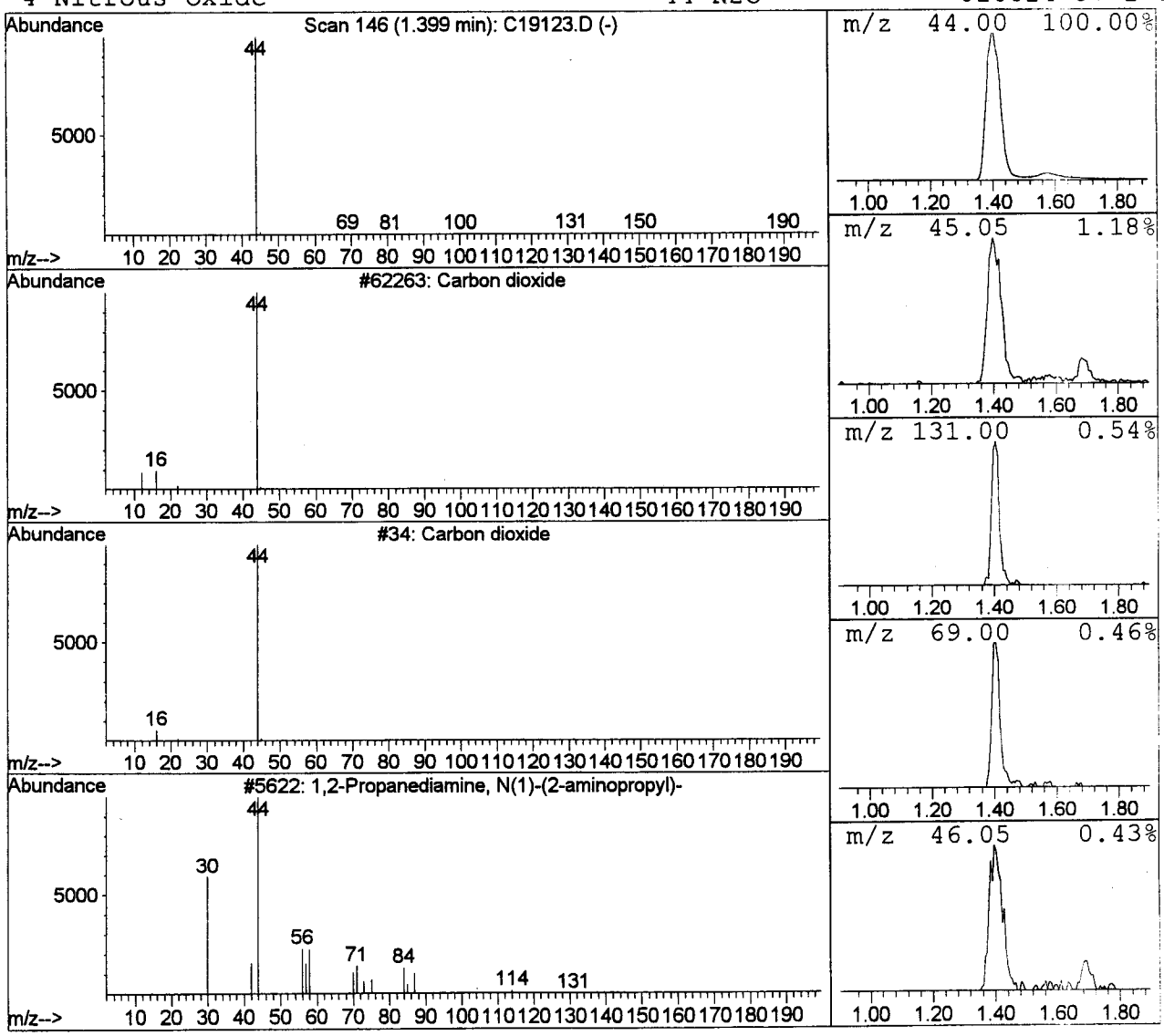
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	37324200.00 ug\L	37324201	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

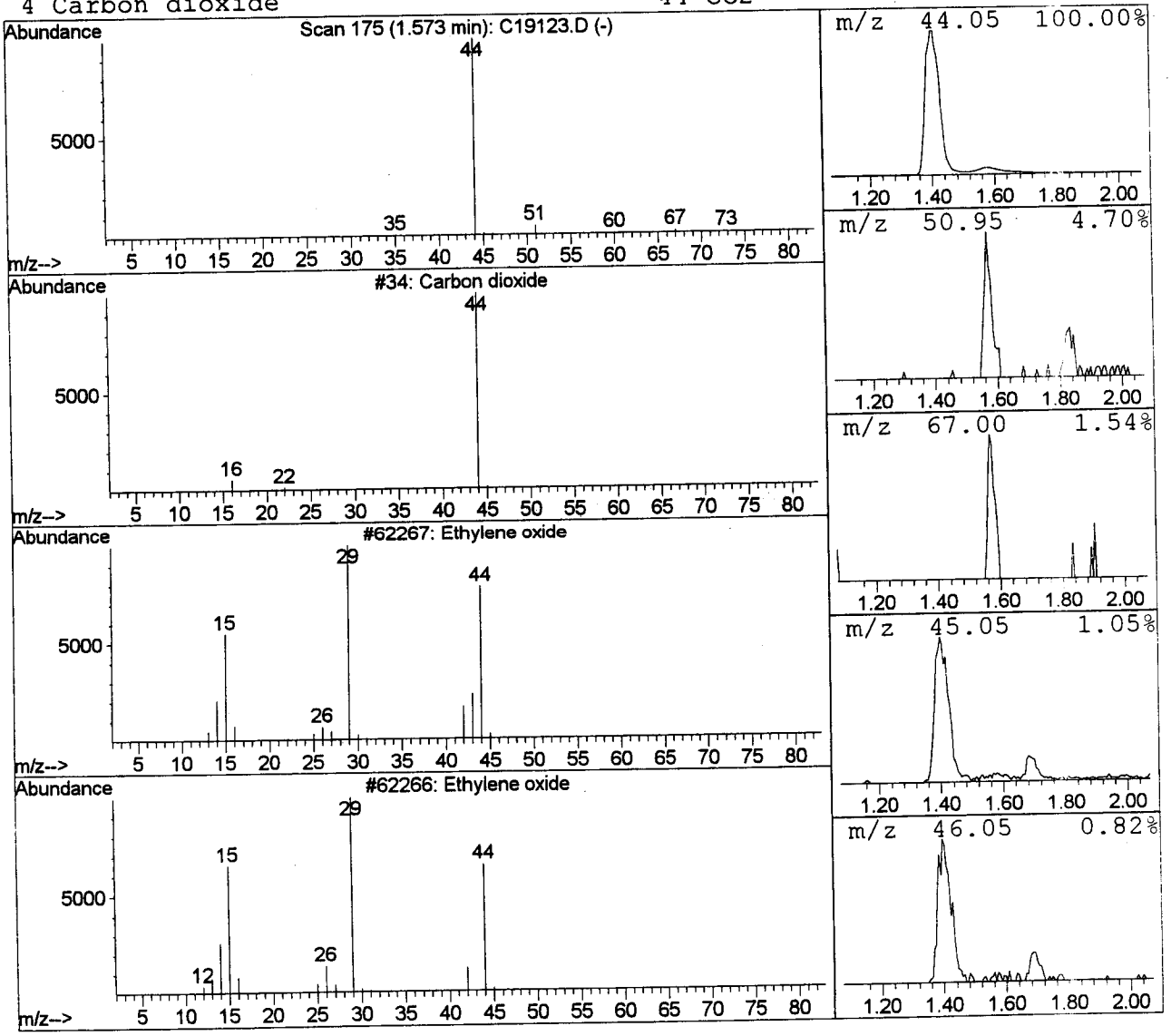
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1495970.00 ug\L	149597	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

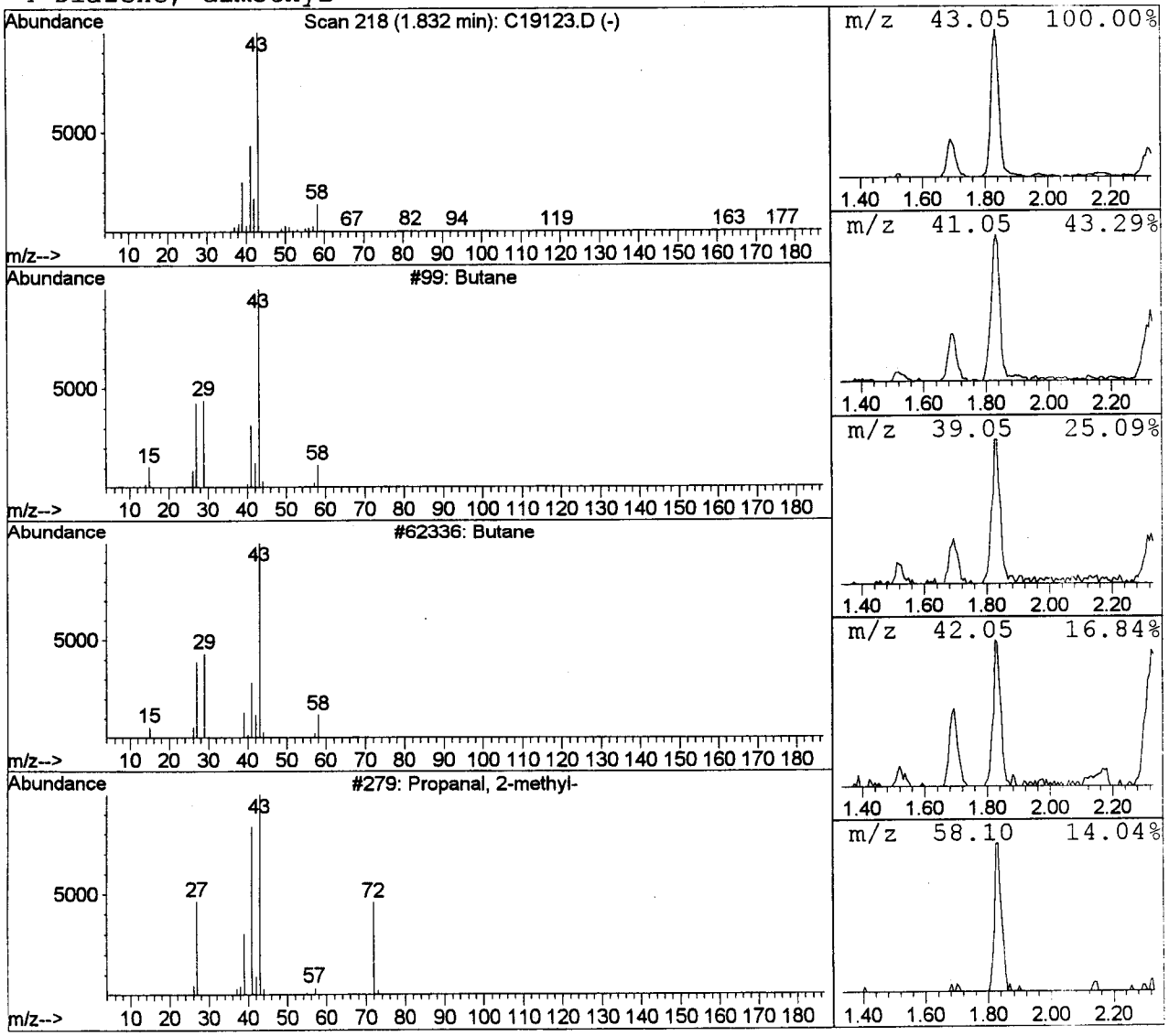
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Butane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.83	1209920.00 ug\L	120992	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	59
2	Butane	58	C4H10	000106-97-8	40
3	Propanal, 2-methyl-	72	C4H8O	000078-84-2	9
4	Diazene, dimethyl-	58	C2H6N2	000503-28-6	5



Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

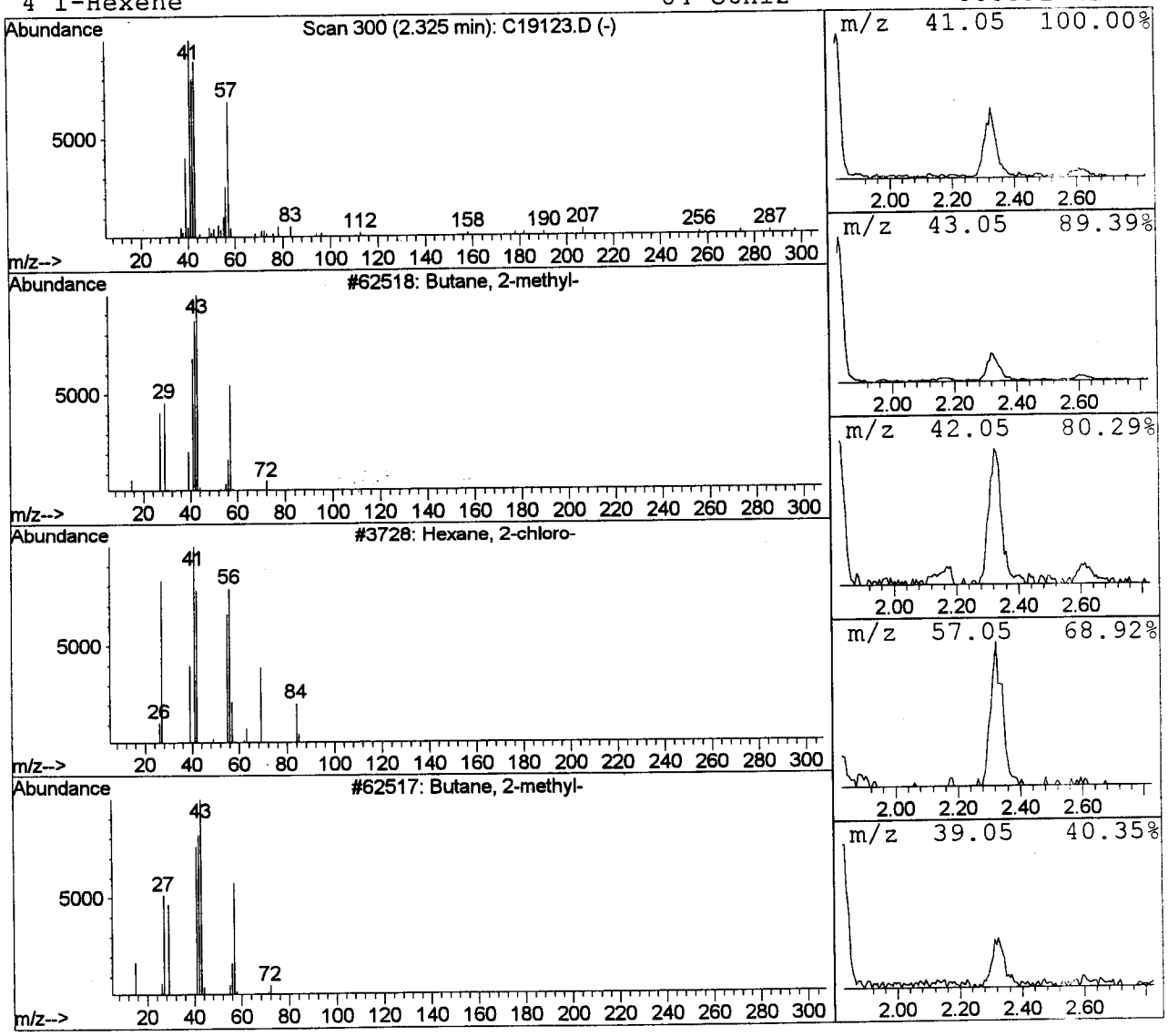
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.33	687460.00 ug\L	68746	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	52
2	Hexane, 2-chloro-	120	C6H13Cl	000638-28-8	38
3	Butane, 2-methyl-	72	C5H12	000078-78-4	37
4	1-Hexene	84	C6H12	000592-41-6	36



Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

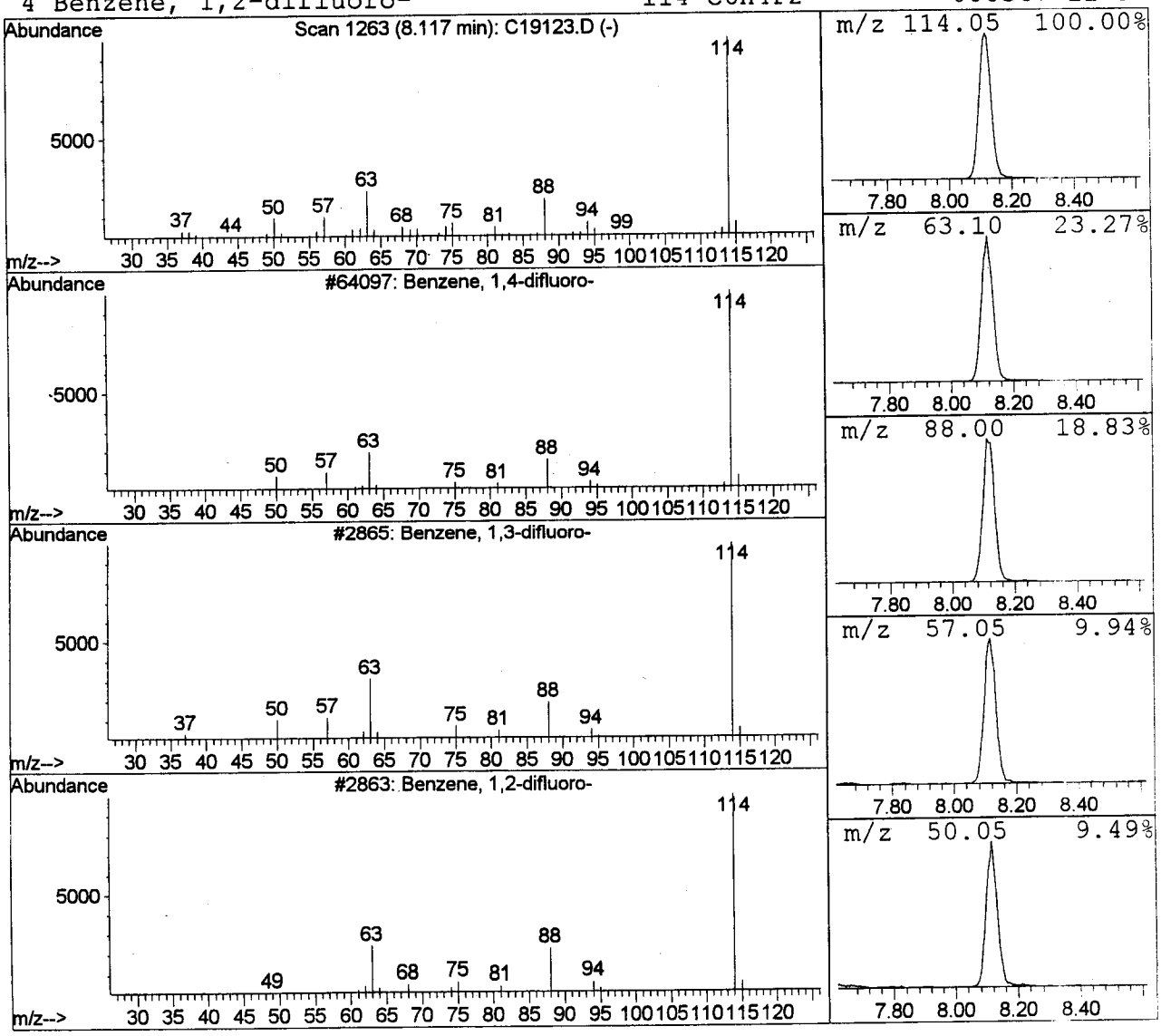
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Benzene, 1,4-difluoro- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	11.78 ug\L	1811410	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

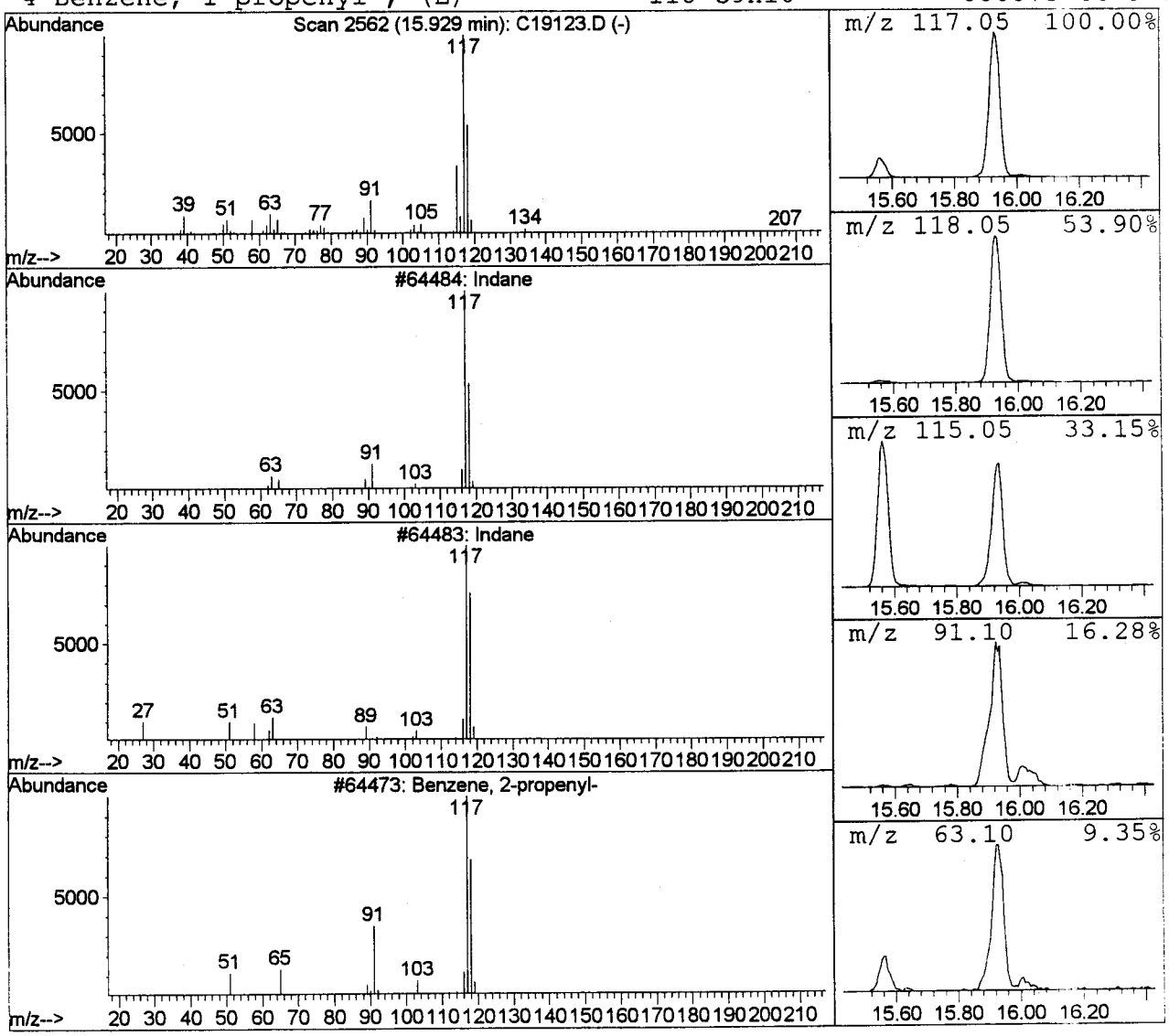
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 Indane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.93	10.15 ug\L	1514460	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	90
2	Indane	118	C9H10	000496-11-7	90
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	81
4	Benzene, 1-propenyl-, (E)-	118	C9H10	000873-66-5	74



Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

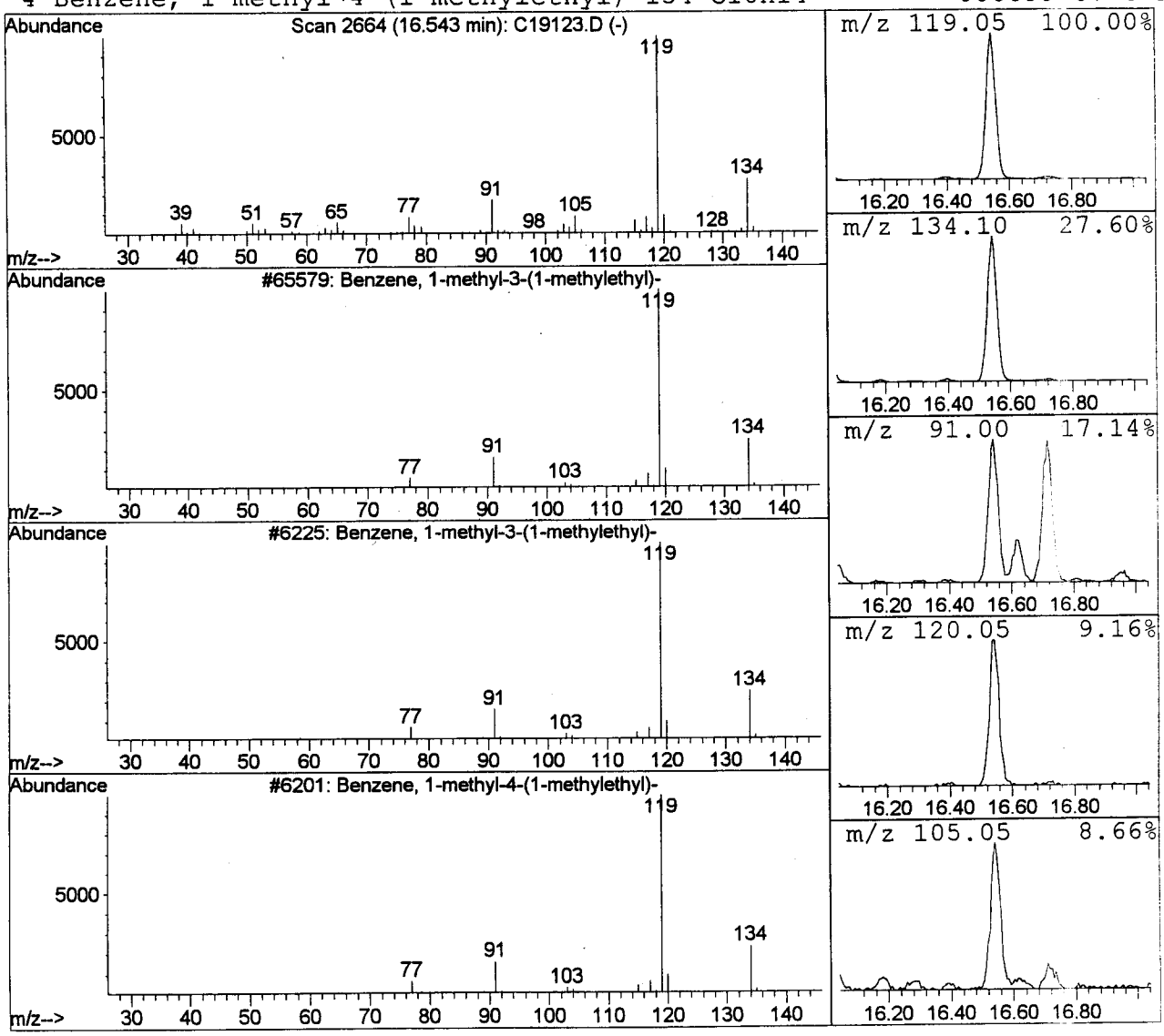
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Benzene, 1-methyl-3-(1-methyle Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.54	4.16 ug\L	620100	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	95
2	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	95
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	95
4	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	94



Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

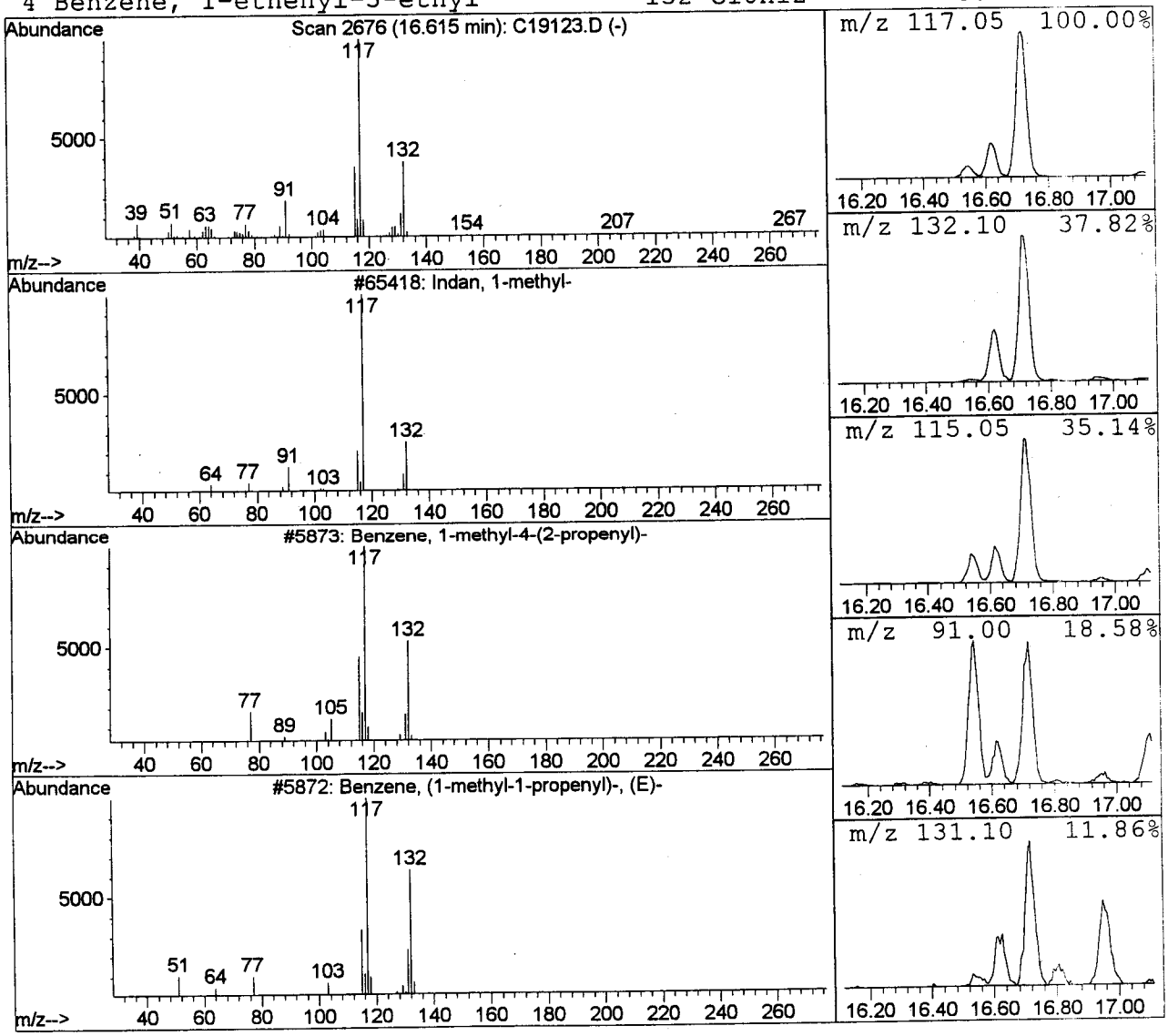
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 8 Indan, 1-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.61	1.44 ug\L	214827	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	90
2	Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	86
3	Benzene, (1-methyl-1-propenyl)-, (E	132	C10H12	000768-00-3	83
4	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	80



Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

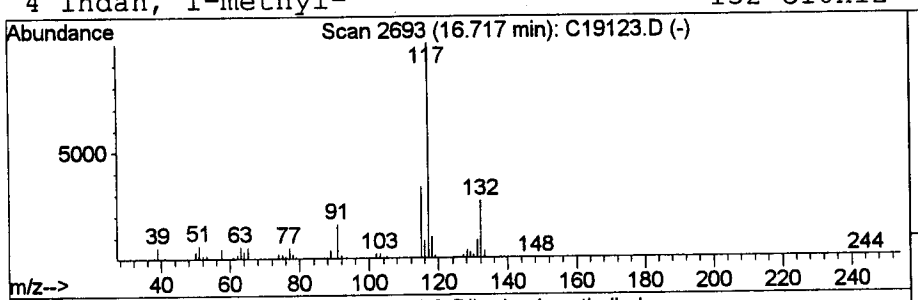
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

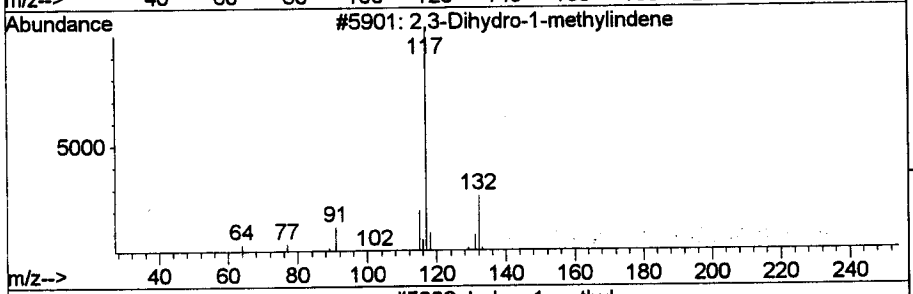
****

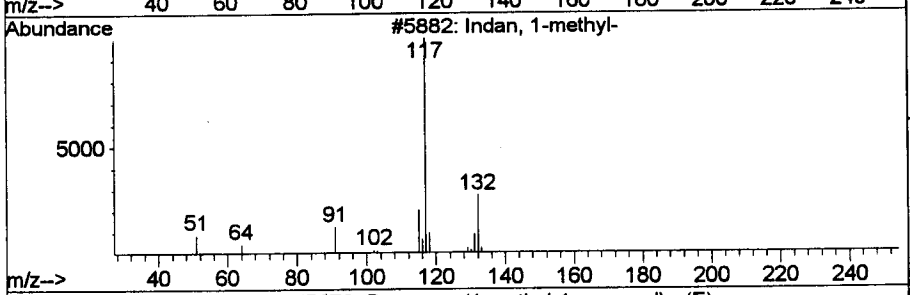
Peak Number 9 2,3-Dihydro-1-methylindene Concentration Rank 7

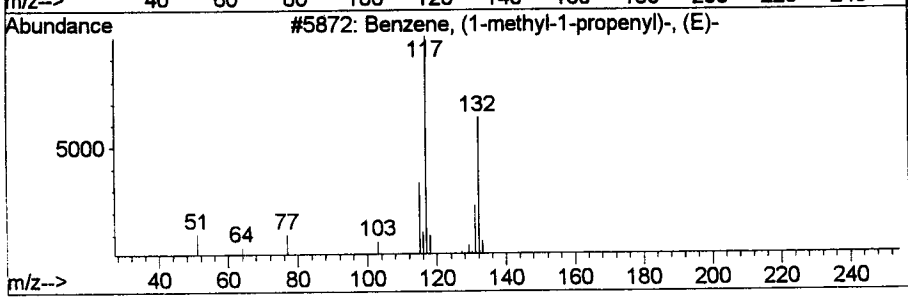
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.72	5.23 ug\L	780707	1,4-Dichlorobenzene-d4	15.56

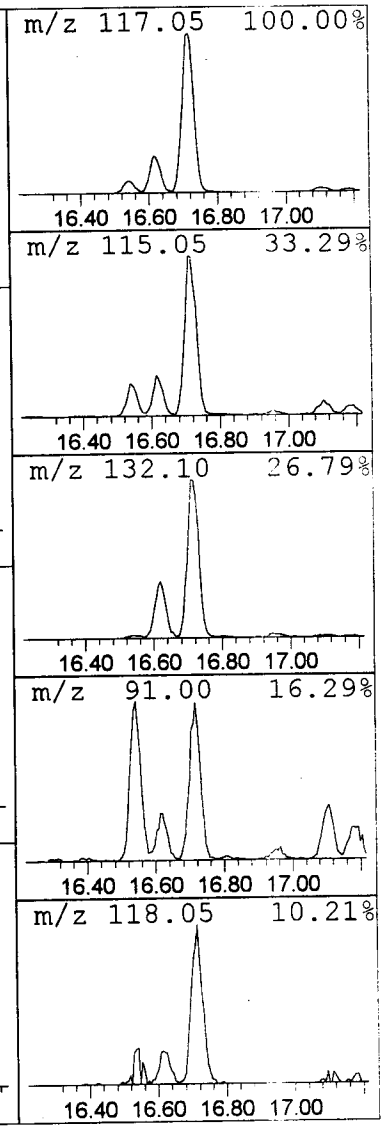
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	87
3	Benzene, (1-methyl-1-propenyl)-, (E	132	C10H12	000768-00-3	87
4	Indan, 1-methyl-	132	C10H12	000767-58-8	81











Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

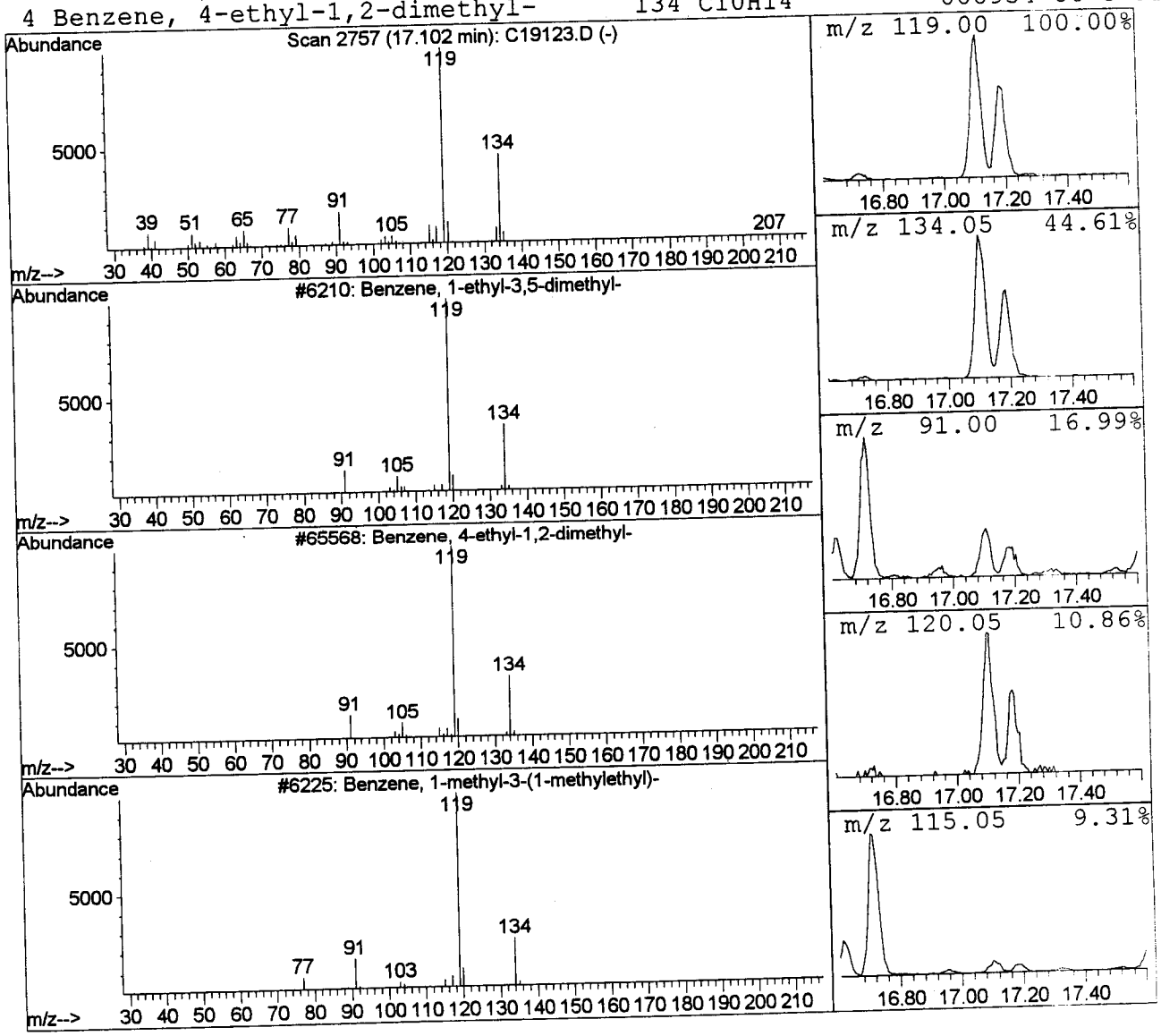
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 10 Benzene, 1-ethyl-3,5-dimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.10	1.67 ug\L	249767	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	91
2	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	91
3	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	91
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	91



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D
Acq On : 03/23/01 17:10
Sample : AC09958 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 10
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

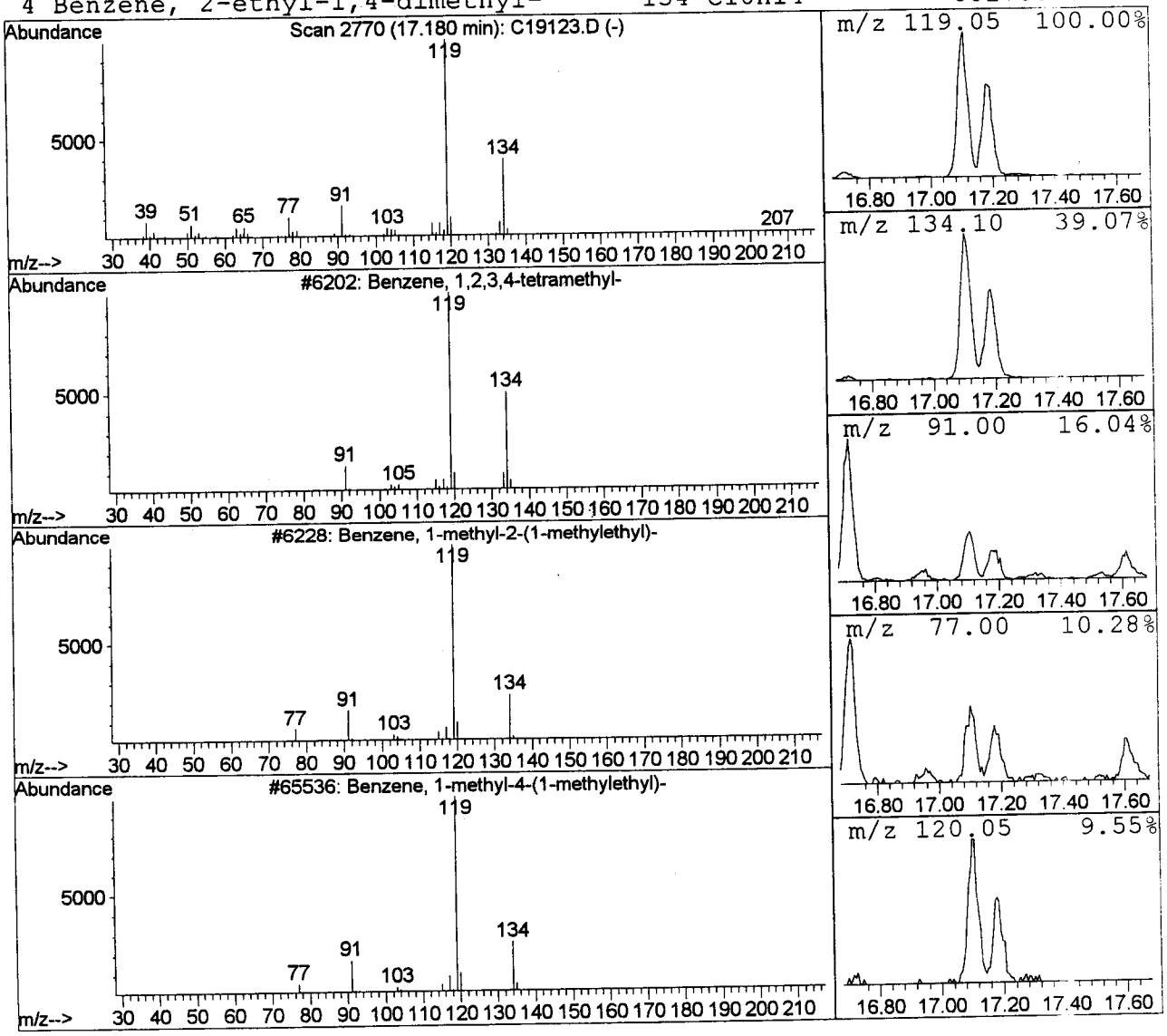
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 11 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.18	1.10 ug\L	164235	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	92
2	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	91
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	91
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	91



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

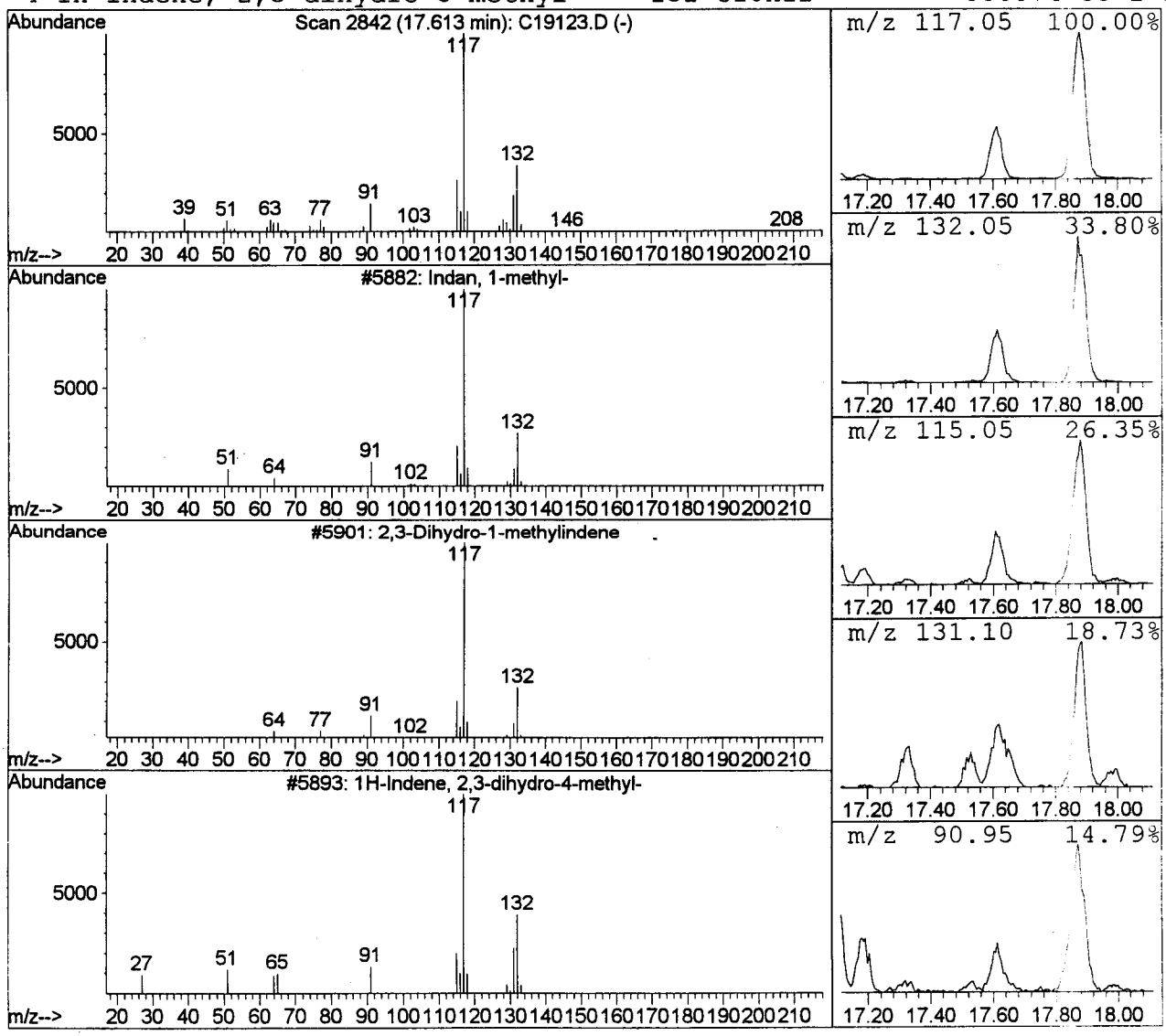
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 12 Indan, 1-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.61	1.32 ug\L	196845	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	94
2	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	93
3	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	91
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	90



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19123.D Vial: 10
Acq On : 03/23/01 17:10 Operator: JP/VRR
Sample : AC09958 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

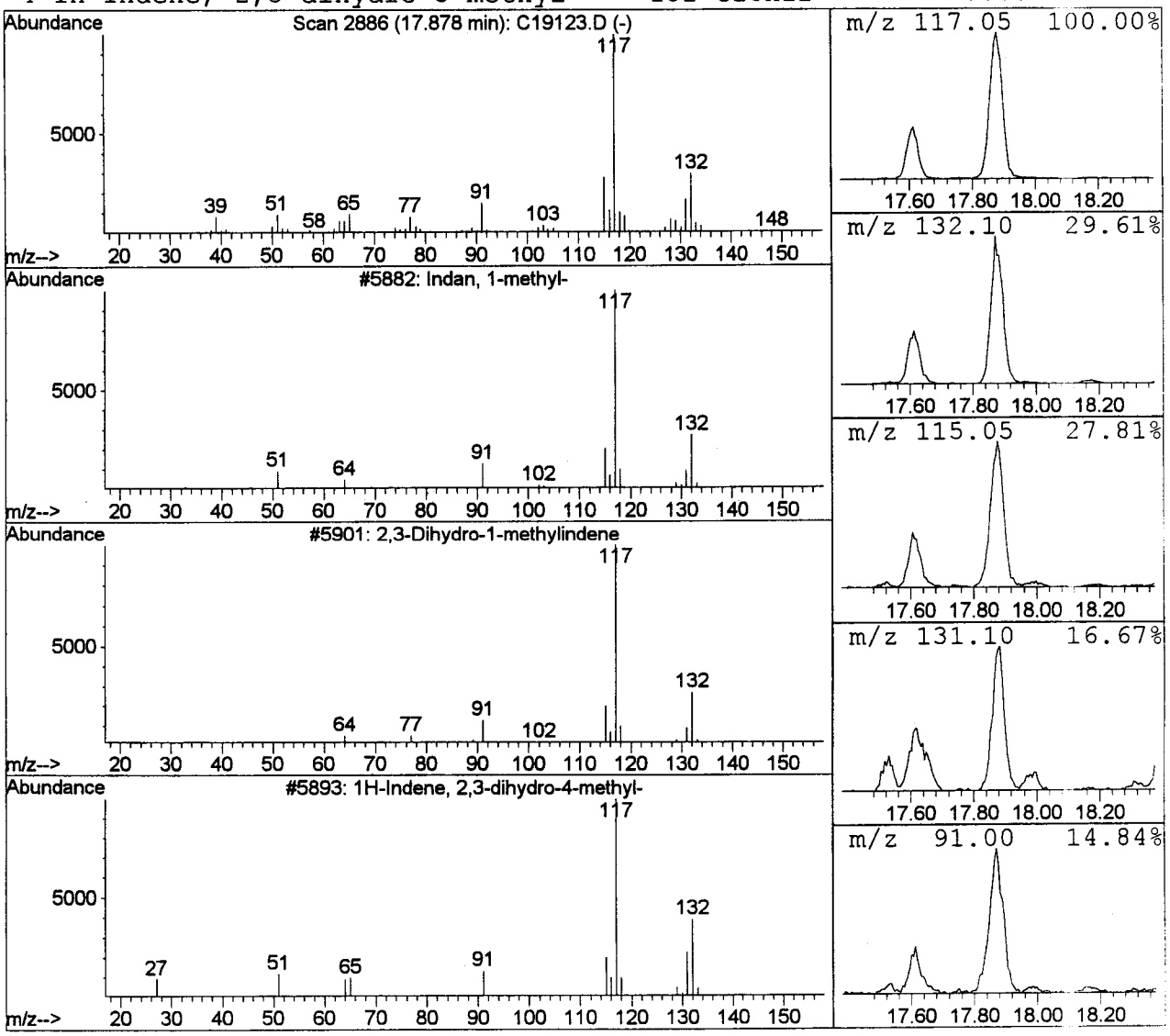
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 13 Indan, 1-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.88	4.60 ug\L	685628	1,4-Dichlorobenzene-d4	15.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	94
2	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	93
3	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	91
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	91



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 17:10
Data File: C:\HPCHEM\1\DATA\032301\C19123.D
Name: AC09958 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	37324200.0	ug\L	3732420	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1495970.0	ug\L	149597	ISTD01	0.00	1	10.0
Butane	1.83	1209920.0	ug\L	120992	ISTD01	0.00	1	10.0
Butane, 2-methyl-	2.33	687460.0	ug\L	68746	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	11.8	ug\L	1811410	ISTD02	6.97	1537310	10.0
Indane	15.93	10.2	ug\L	1514460	ISTD04	15.56	1491880	10.0
Benzene, 1-methyl-3-	16.54	4.2	ug\L	620100	ISTD04	15.56	1491880	10.0
Indan, 1-methyl-	16.61	1.4	ug\L	214827	ISTD04	15.56	1491880	10.0
2,3-Dihydro-1-methyl	16.72	5.2	ug\L	780707	ISTD04	15.56	1491880	10.0
Benzene, 1-ethyl-3,5	17.10	1.7	ug\L	249767	ISTD04	15.56	1491880	10.0
Benzene, 1,2,3,4-tet	17.18	1.1	ug\L	164235	ISTD04	15.56	1491880	10.0
Indan, 1-methyl-	17.61	1.3	ug\L	196845	ISTD04	15.56	1491880	10.0
Indan, 1-methyl-	17.88	4.6	ug\L	685628	ISTD04	15.56	1491880	10.0

C19123.D 03230125.M Sun Mar 25 11:20:30 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19124.D
Acq On : 03/23/01 17:36
Sample : AC09959 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 11:21 2001

Vial: 11
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	416055	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	534010	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	197924	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	171821	10.28 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.80%		
46) Toluene-d8	10.27	98	800731	9.74 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.40%		
66) Bromofluorobenzene	13.96	95	229680	9.49 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.90%		
Target Compounds					Qvalue
16) Methylene Chloride	3.86	86	6848	0.65 ug\L	95

0.65J

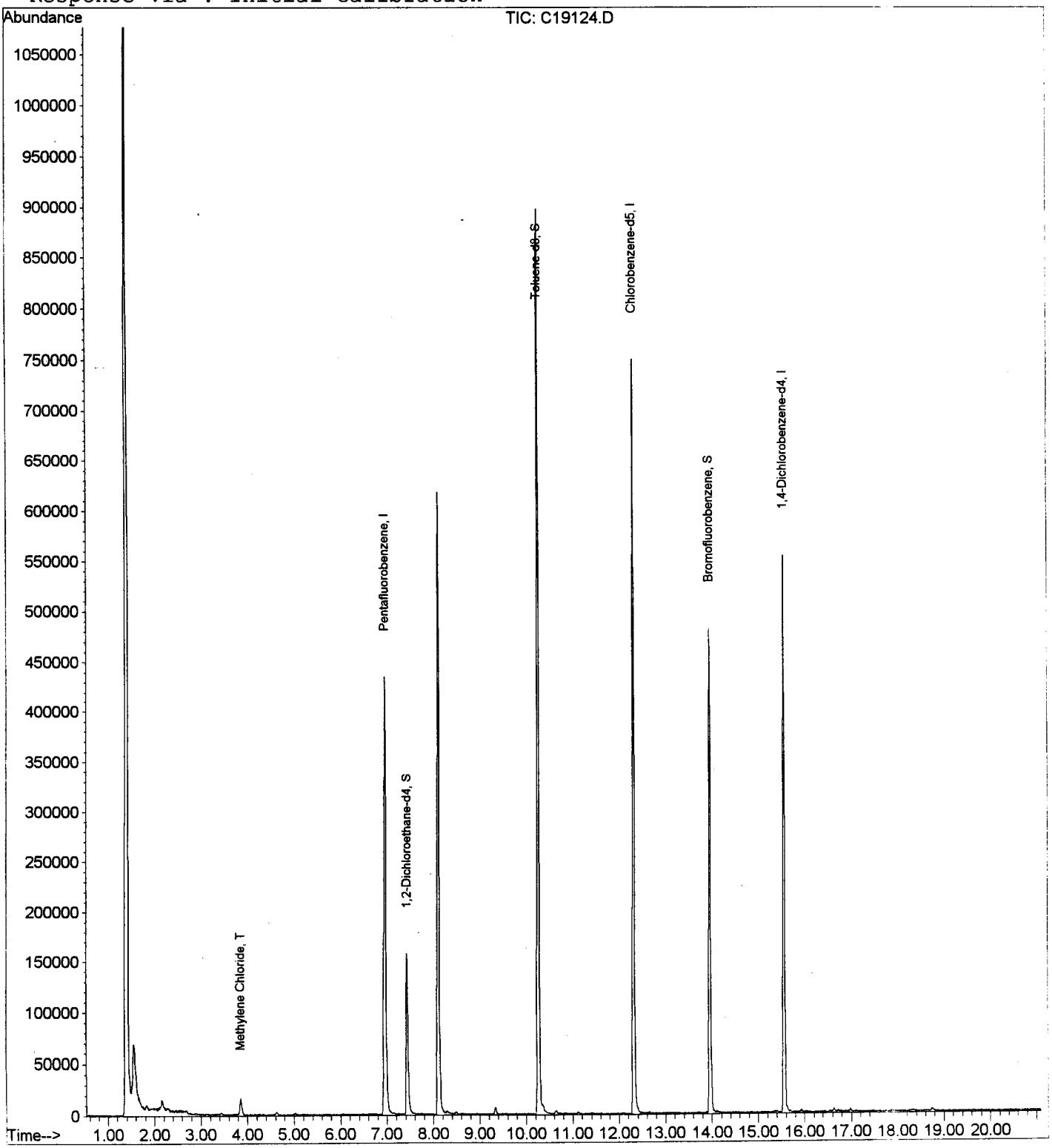
VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19124.D Vial: 11
Acq On : 03/23/01 17:36 Operator: JP/VRR
Sample : AC09959 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:21 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19124.D Vial: 11
Acq On : 03/23/01 17:36 Operator: JP/VRR
Sample : AC09959 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

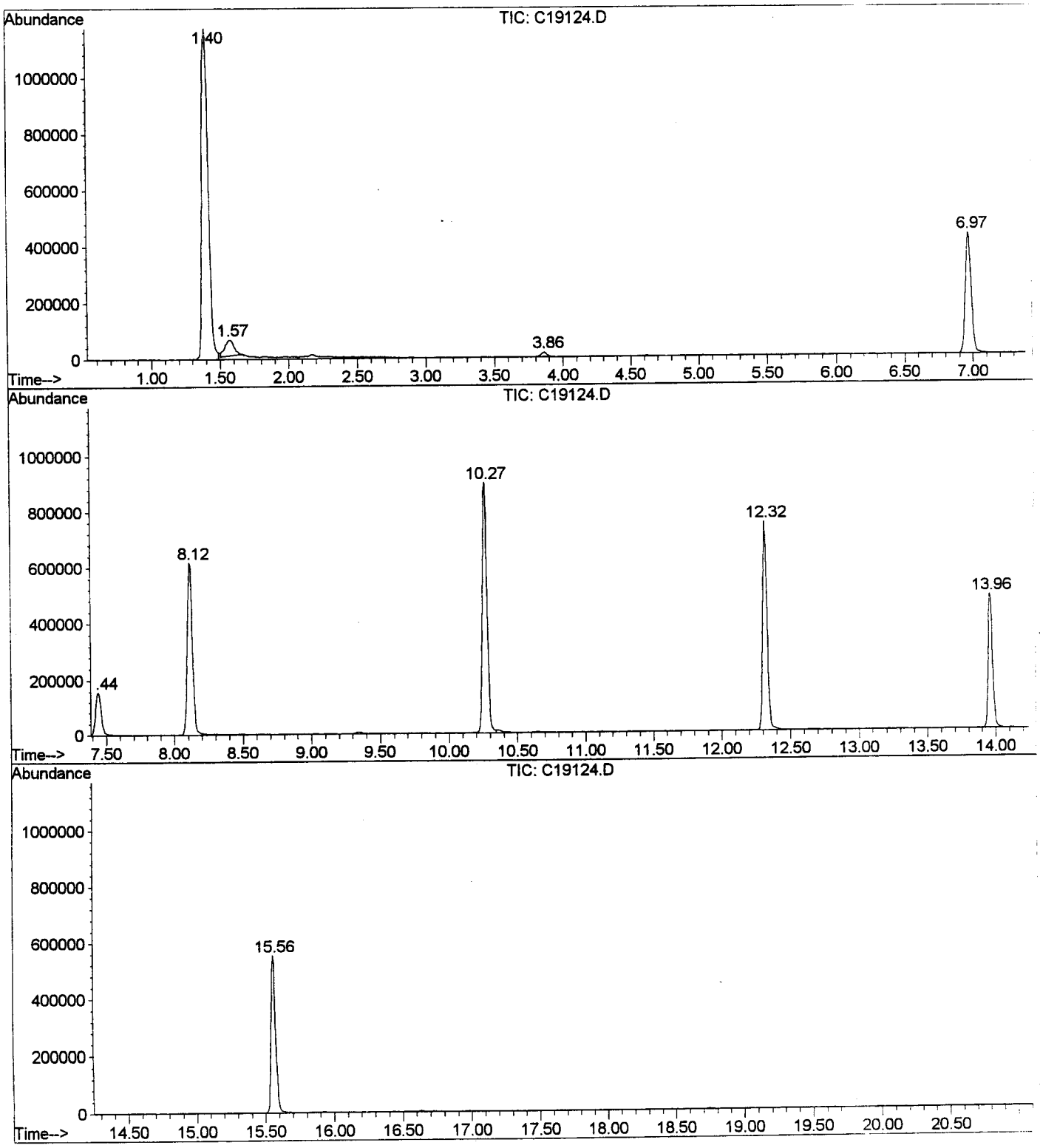
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.398	132	146	161	rBV	1174809	3898366	100.00%	28.187%
2	1.567	163	174	188	rVB	54685	261165	6.70%	1.888%
3	3.864	547	556	567	rVB2	16455	44663	1.15%	0.323%
4	6.967	1060	1072	1090	rBV	433980	1298575	33.31%	9.389%
5	7.443	1139	1151	1164	rBV	157680	450341	11.55%	3.256%
6	8.116	1251	1263	1279	rBV	617026	1619902	41.55%	11.713%
7	10.269	1610	1621	1633	rBV	896938	2163328	55.49%	15.642%
8	12.320	1951	1962	1979	rBV	748533	1716074	44.02%	12.408%
9	13.962	2226	2235	2247	rBV	480724	1100338	28.23%	7.956%
10	15.562	2490	2501	2516	rBV	553006	1277650	32.77%	9.238%

Sum of corrected areas: 13830402

C19124.D 03230125.M Sun Mar 25 11:22:50 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19124.D
Operator : JP/VRR
Acquired : 23 Mar 2001 17:36 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09959 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 11
Quant File :03230125.RES (RTE Integrator)



C19124.D 03230125.M Sun Mar 25 11:22:51 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19124.D Vial: 11
Acq On : 03/23/01 17:36 Operator: JP/VRR
Sample : AC09959 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

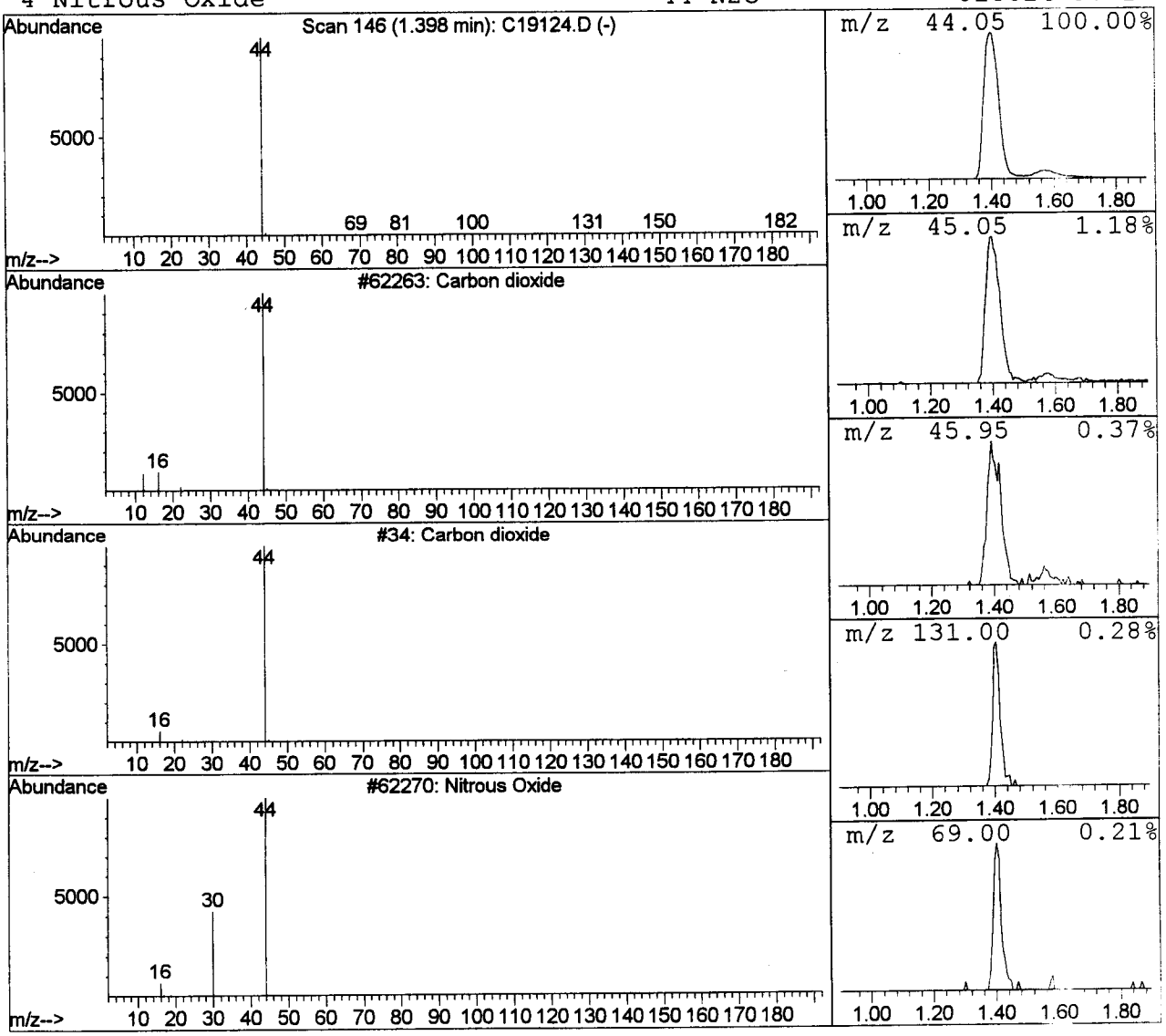
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	38983700.00 ug\L	38983701.	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19124.D
Acq On : 03/23/01 17:36
Sample : AC09959 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 11
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

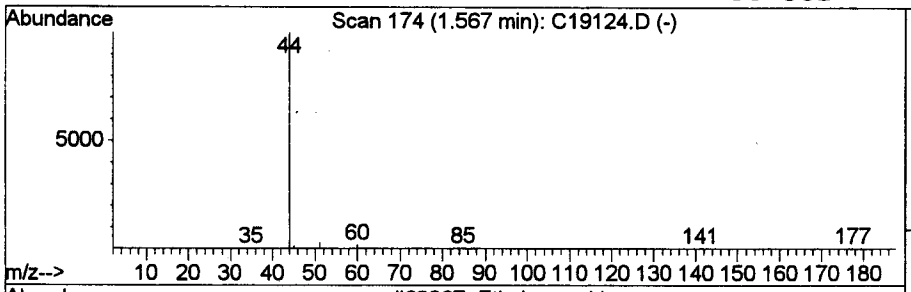
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

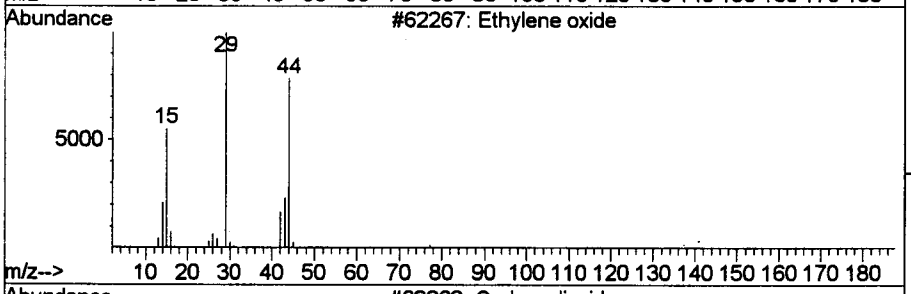
****

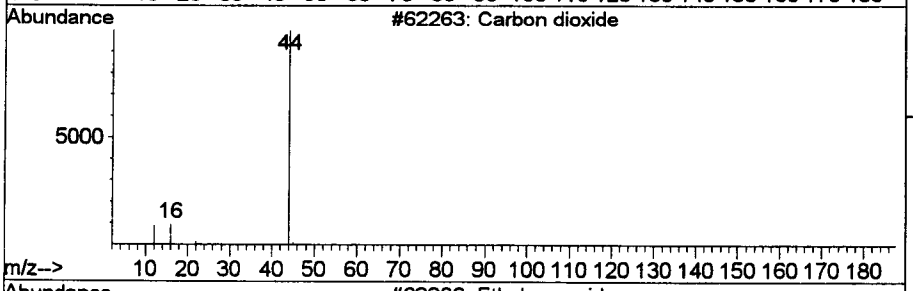
Peak Number 2 Ethylene oxide Concentration Rank 2

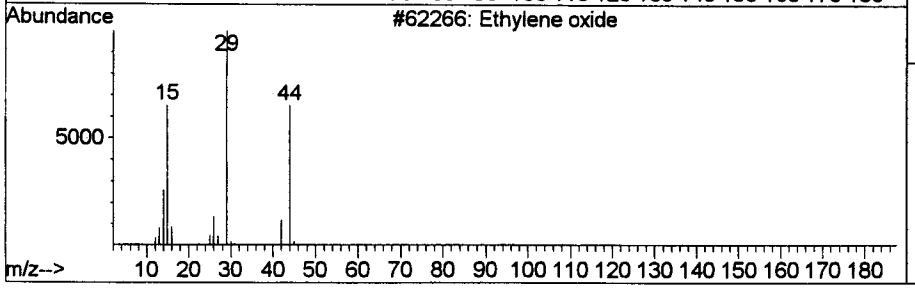
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	2611650.00 ug\L	261165	1.4-Difluorobenzene	0.00

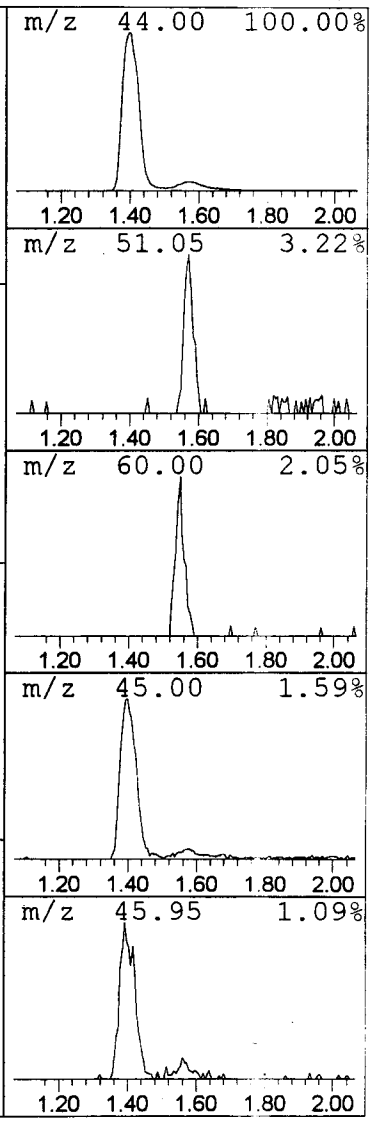
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Carbon dioxide	44	CO2	000124-38-9	3











Data File : C:\HPCHEM\1\DATA\032301\C19124.D Vial: 11
Acq On : 03/23/01 17:36 Operator: JP/VRR
Sample : AC09959 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

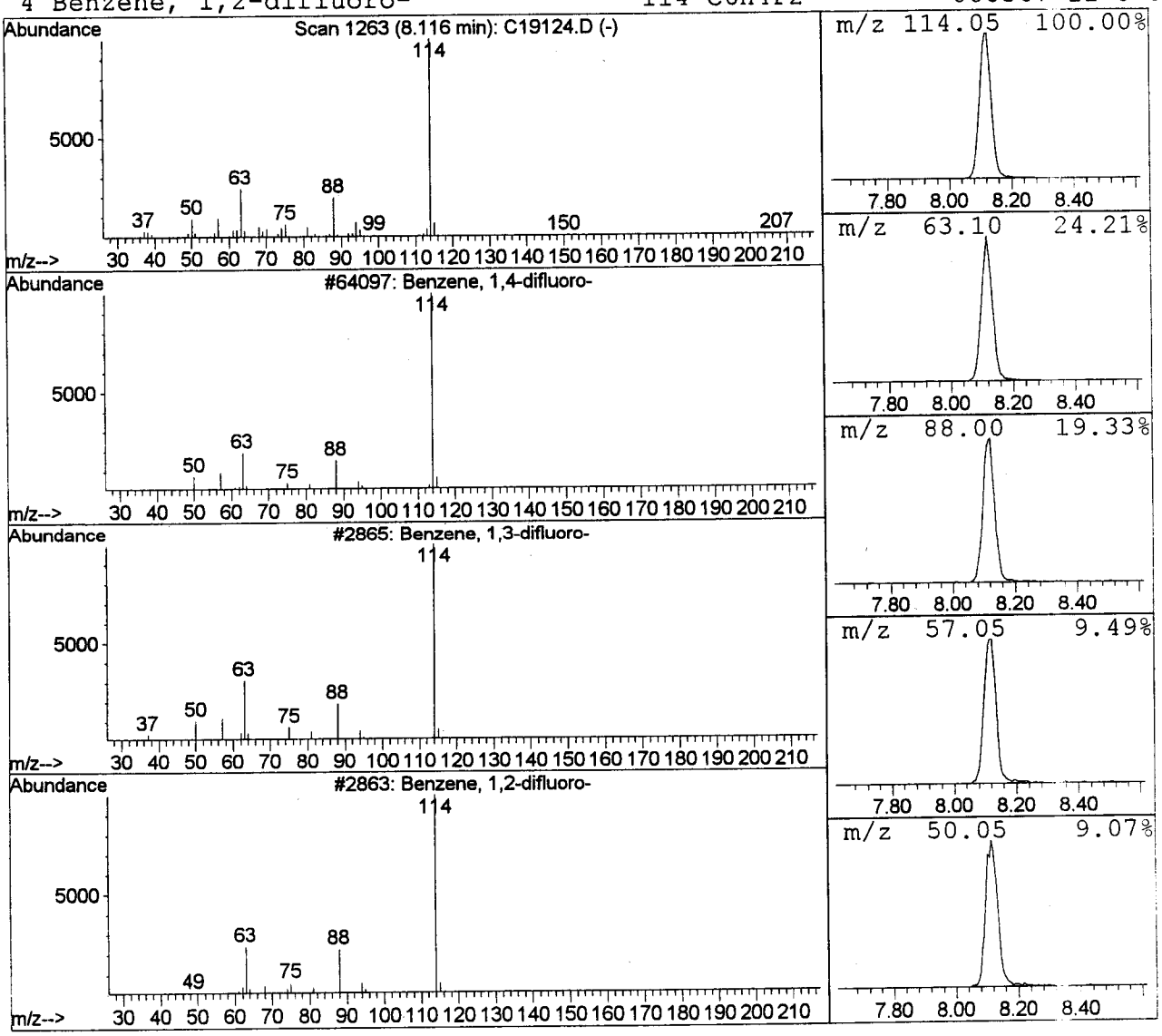
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.47 ug\L	1619900	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 17:36
Data File: C:\HPCHEM\1\DATA\032301\C19124.D
Name: AC09959 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	38983700.0	ug\L	3898370	ISTD01	0.00	1	10.0
Ethylene oxide	1.57	2611650.0	ug\L	261165	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.5	ug\L	1619900	ISTD02	6.97	1298580	10.0

C19124.D 03230125.M Sun Mar 25 11:22:57 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 11:32 2001

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	475692	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	604392	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	229409	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11

System Monitoring Compounds

32) 1,2-Dichloroethane-d4	7.44	65	179510	9.39	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.90%			
46) Toluene-d8	10.27	98	906028	9.74	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.40%			
66) Bromofluorobenzene	13.97	95	262238	9.34	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.40%			

Target Compounds Qvalue

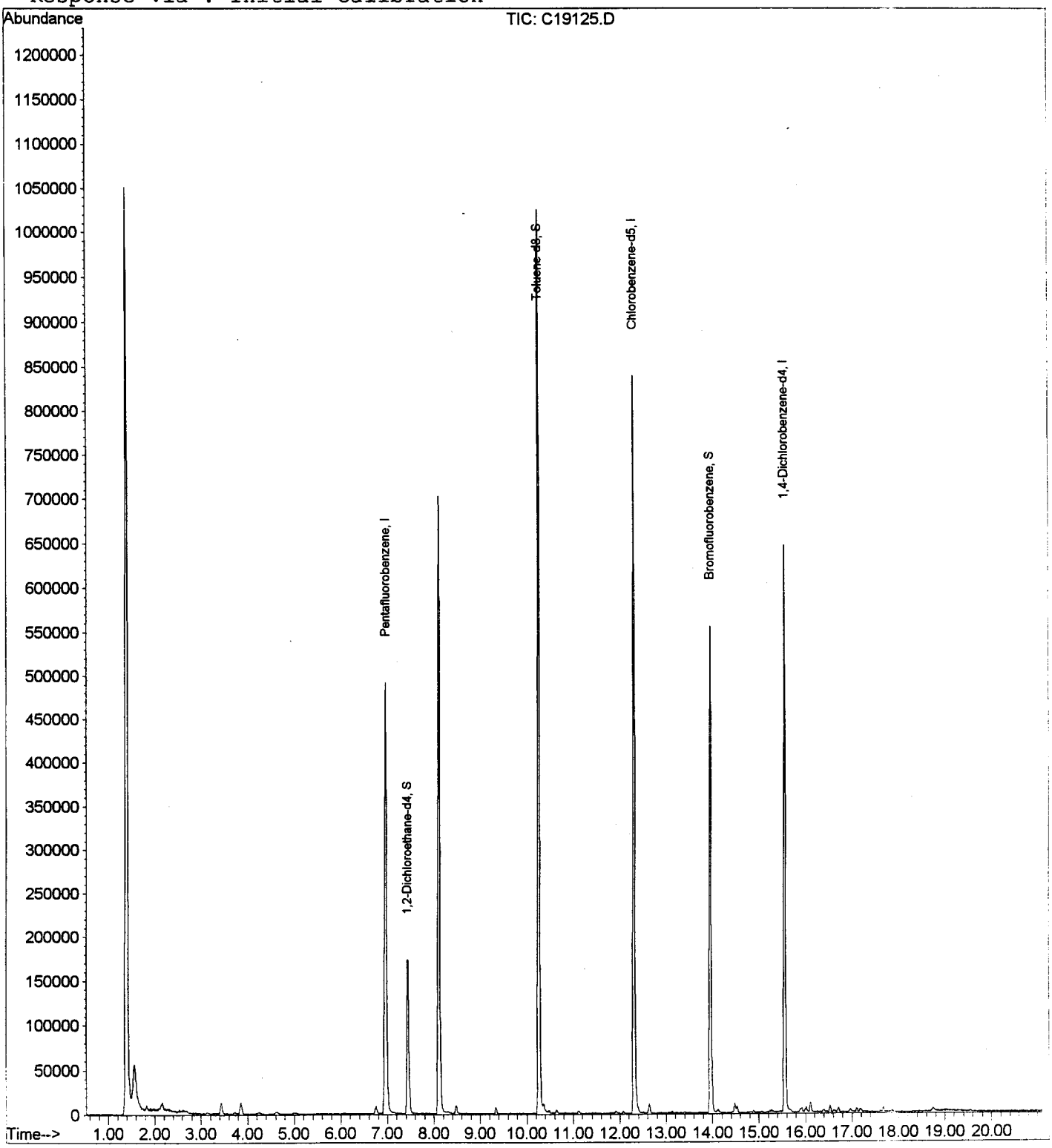
VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19125.D Vial: 12
Acq On : 03/23/01 18:02 Operator: JP/VRR
Sample : AC09960 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:32 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

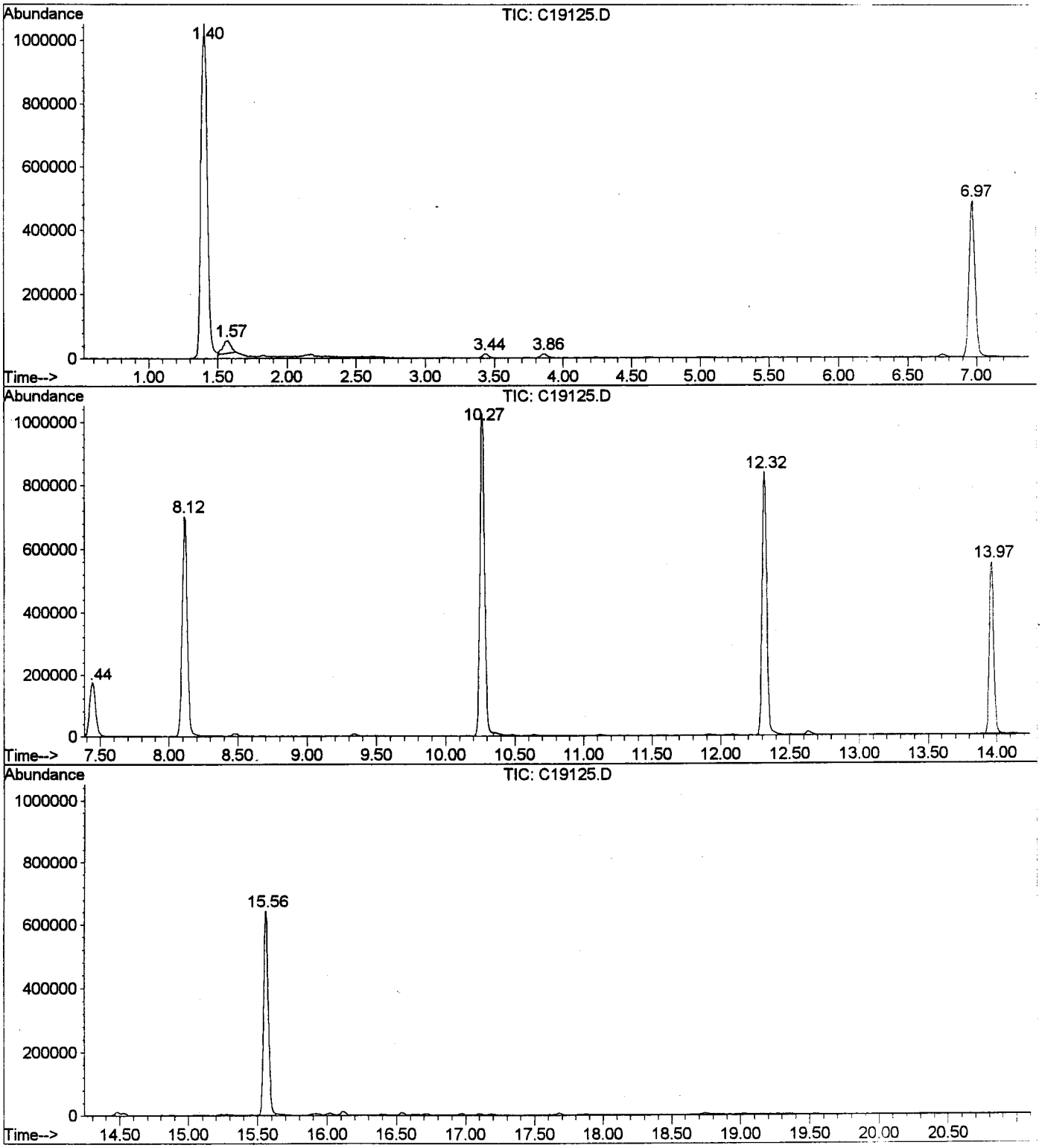
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.404	132	147	163	rBV	1051093	3405353	100.00%	23.306%
2	1.572	164	175	185	rVB	37852	165465	4.86%	1.132%
3	3.436	477	485	495	rVB2	13091	37349	1.10%	0.256%
4	3.863	548	556	566	rVB4	13189	38247	1.12%	0.262%
5	6.973	1058	1073	1088	rBV	491838	1468175	43.11%	10.048%
6	7.442	1138	1151	1169	rBV3	173329	523279	15.37%	3.581%
7	8.115	1251	1263	1285	rBV	701334	1852183	54.39%	12.676%
8	10.269	1610	1621	1634	rBV2	1024422	2448059	71.89%	16.754%
9	12.319	1952	1962	1983	rBV	837328	1956743	57.46%	13.392%
10	13.967	2226	2236	2250	rBV	554163	1254842	36.85%	8.588%
11	15.561	2492	2501	2512	rBV	643172	1461995	42.93%	10.006%

Sum of corrected areas: 14611690

C19125.D 03230125.M Sun Mar 25 11:33:43 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19125.D
Operator : JP/VRR
Acquired : 23 Mar 2001 18:02 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09960 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 12
Quant File :03230125.RES (RTE Integrator)



C19125.D 03230125.M Sun Mar 25 11:33:44 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

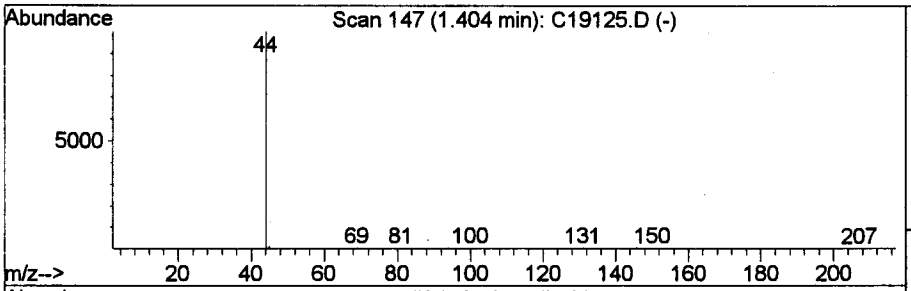
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

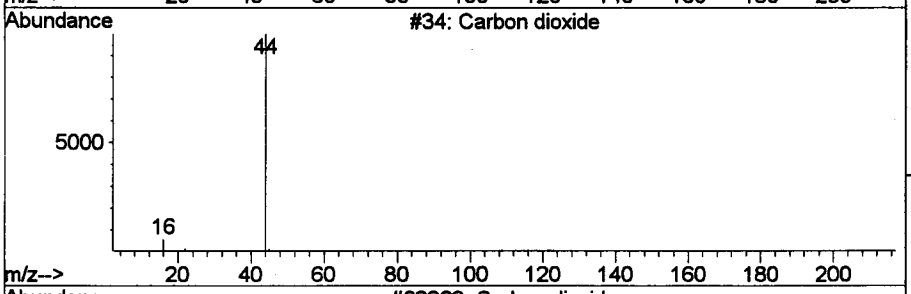
****

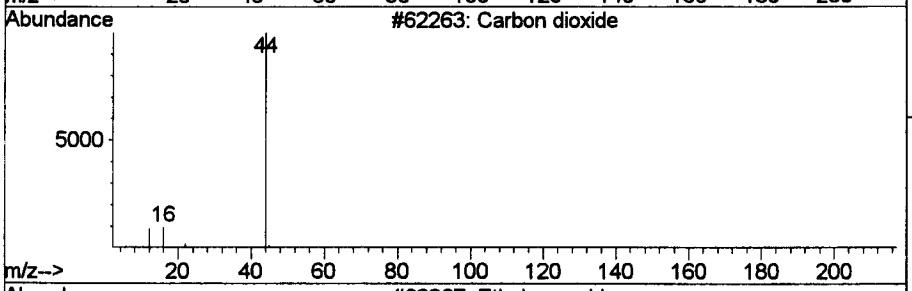
Peak Number 1 Carbon dioxide Concentration Rank 1

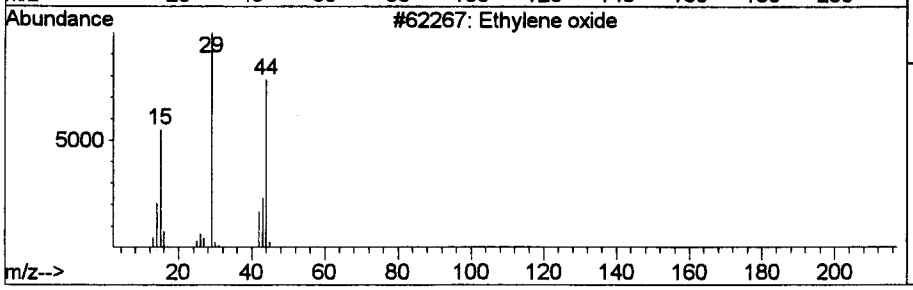
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	34053500.00 ug\L	34053501.	4-Difluorobenzene	0.00

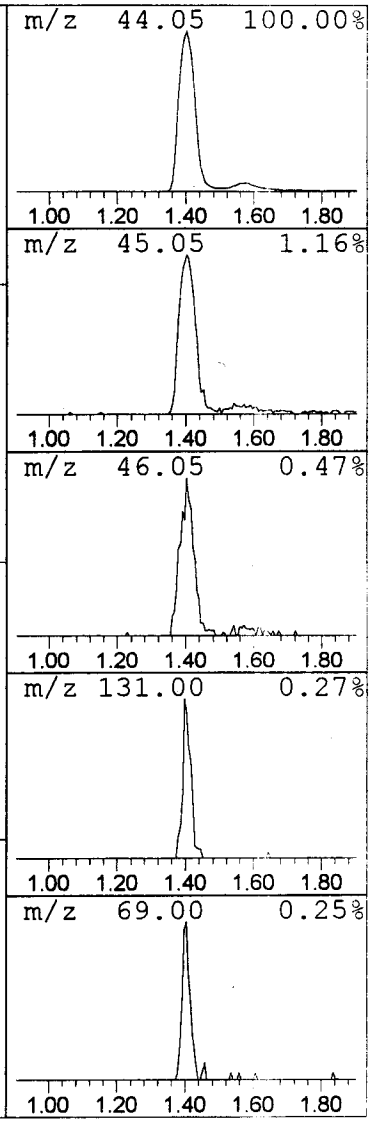
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

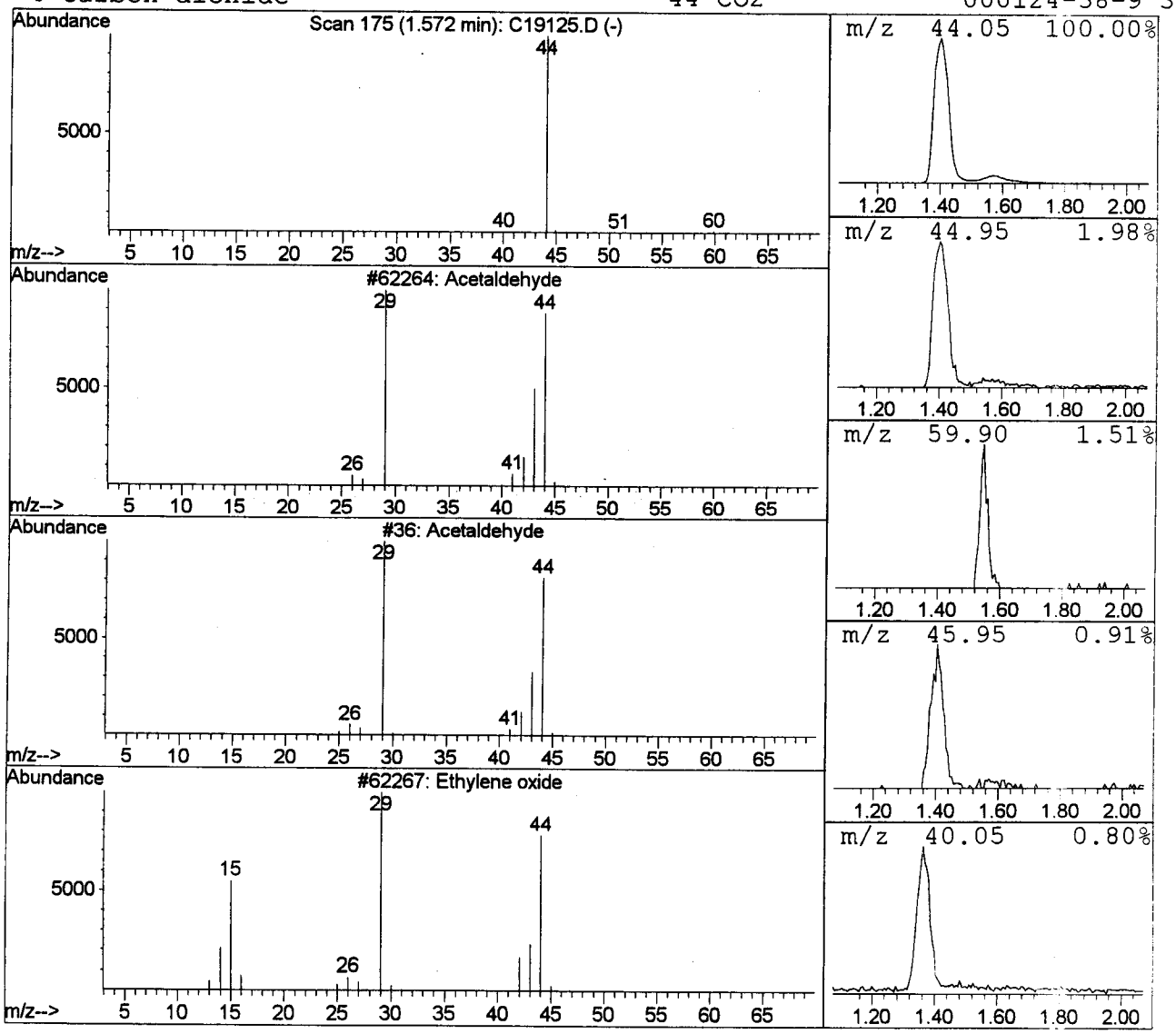
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Acetaldehyde Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1654650.00 ug\L	165465	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	4
2	Acetaldehyde	44	C2H4O	000075-07-0	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

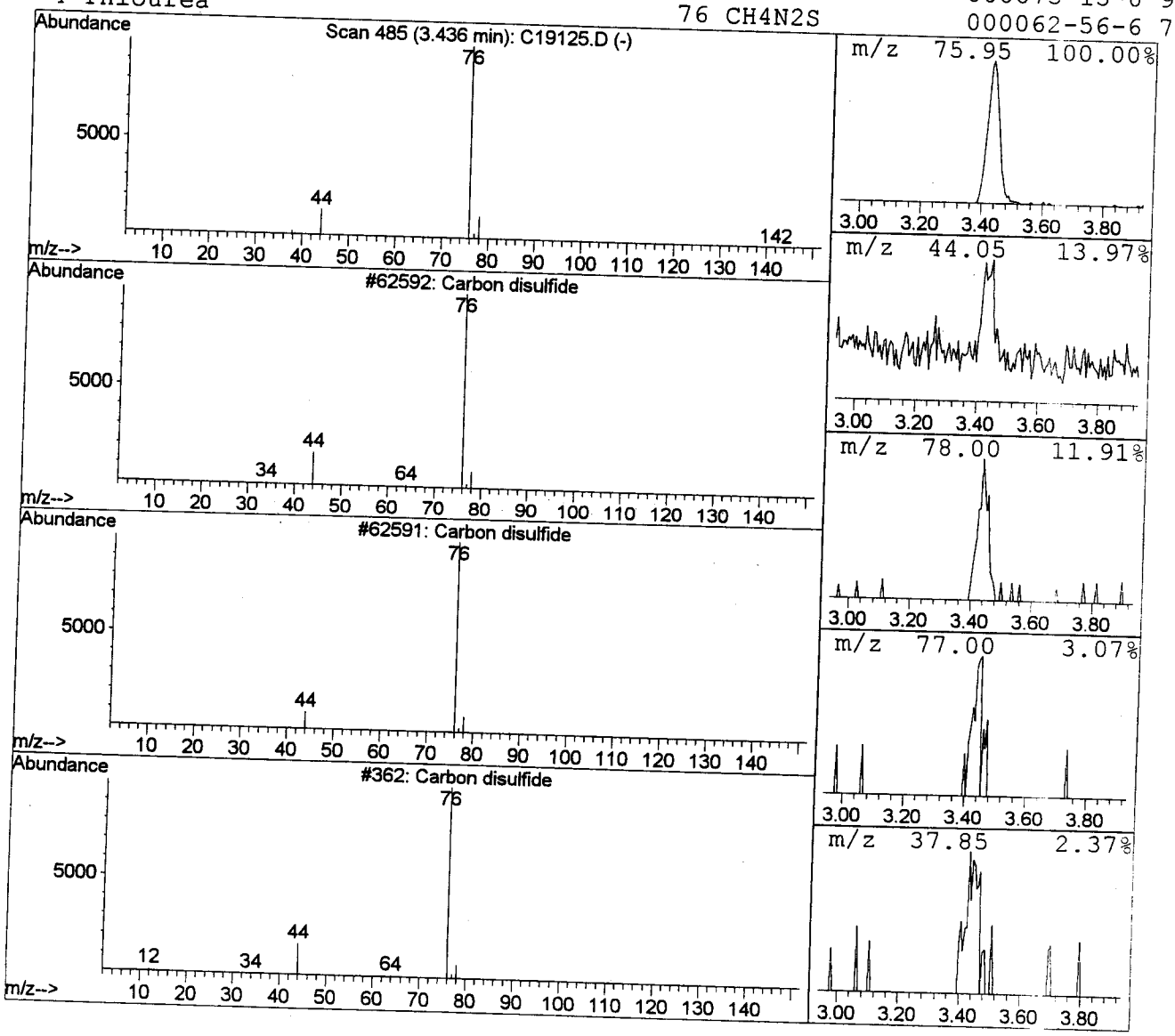
****

Peak Number 3 Carbon disulfide

Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.44	373490.00 ug\L	37349	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	9
2	Carbon disulfide	76	CS2	000075-15-0	9
3	Carbon disulfide	76	CS2	000075-15-0	9
4	Thiourea	76	CH4N2S	000062-56-6	7



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19125.D Vial: 12
Acq On : 03/23/01 18:02 Operator: JP/VRR
Sample : AC09960 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

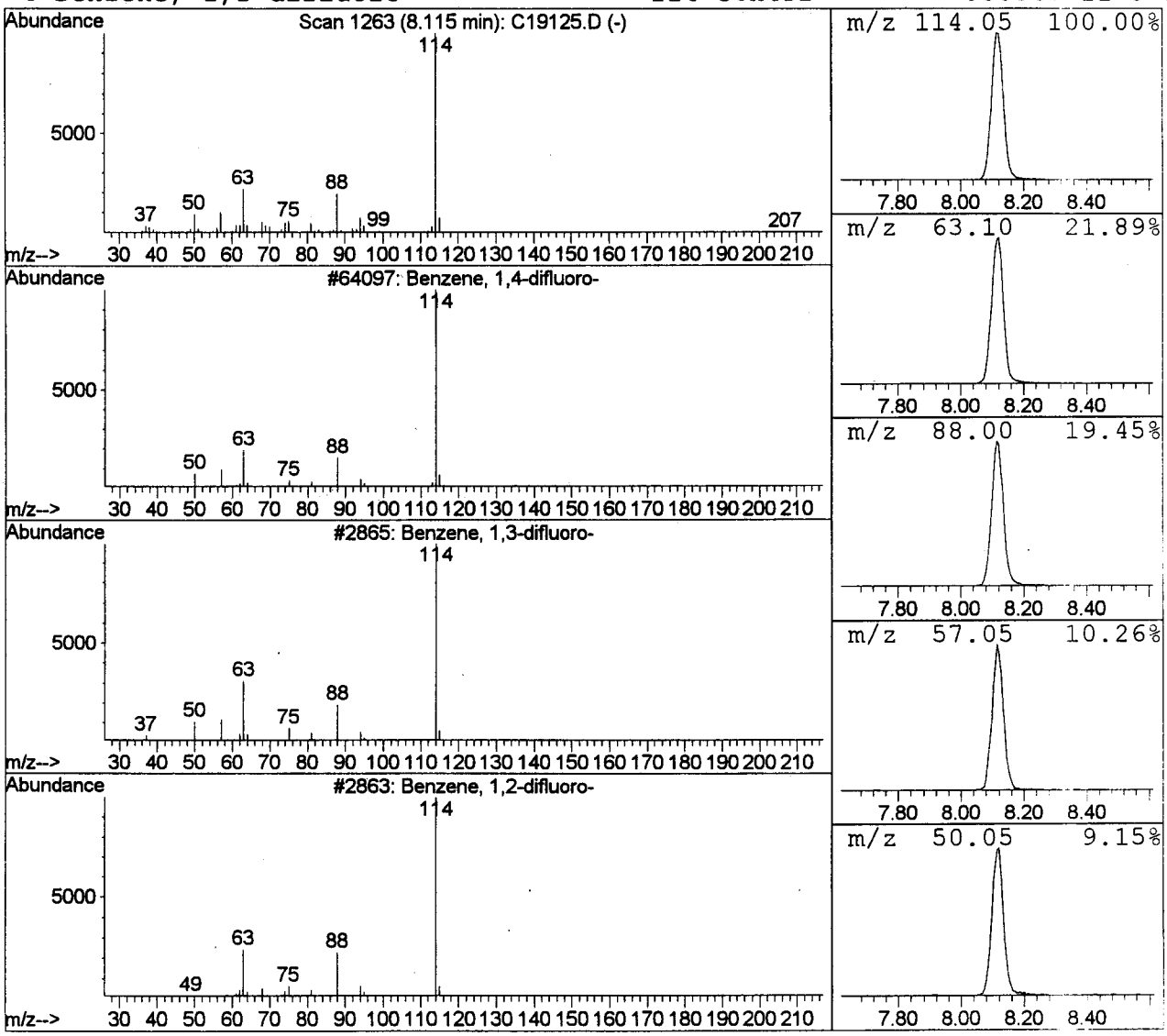
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Benzene, 1,4-difluoro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.62 ug\L	1852180	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 18:02
Data File: C:\HPCHEM\1\DATA\032301\C19125.D
Name: AC09960 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	34053500.0	ug\L	3405350	ISTD01	0.00	1	10.0
Acetaldehyde	1.57	1654650.0	ug\L	165465	ISTD01	0.00	1	10.0
Carbon disulfide	3.44	373490.0	ug\L	37349	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.6	ug\L	1852180	ISTD02	6.97	1468180	10.0

C19125.D 03230125.M Sun Mar 25 11:33:51 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19127.D Vial: 15
Acq On : 03/23/01 19:18 Operator: JP/VRR
Sample : AC09961 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:38 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	379656	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	527667	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	204914	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	158192	10.37 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.70%		
46) Toluene-d8	10.27	98	787067	9.69 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.90%		
66) Bromofluorobenzene	13.97	95	236498	9.43 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 94.30%		
Target Compounds					Qvalue
3) Chloromethane	1.74	50	11549	0.51 ug\L	95 0.51J
16) Methylene Chloride	3.86	86	9710	1.01 ug\L	91 1.0J

VRR
3.25.01

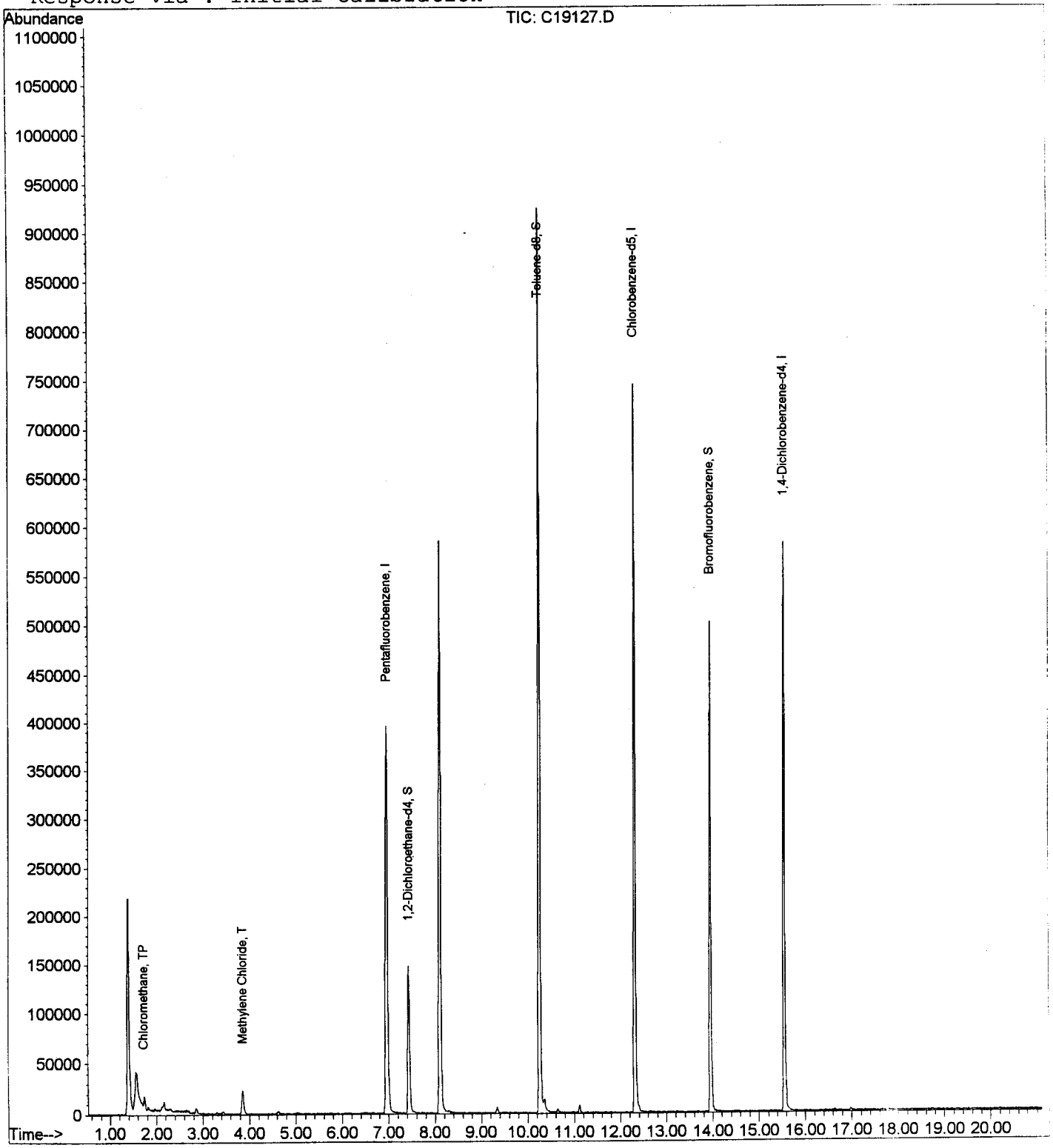
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19127.D
Acq On : 03/23/01 19:18
Sample : AC09961 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 11:38 2001

Vial: 15
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19127.D
Acq On : 03/23/01 19:18
Sample : AC09961 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 15
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

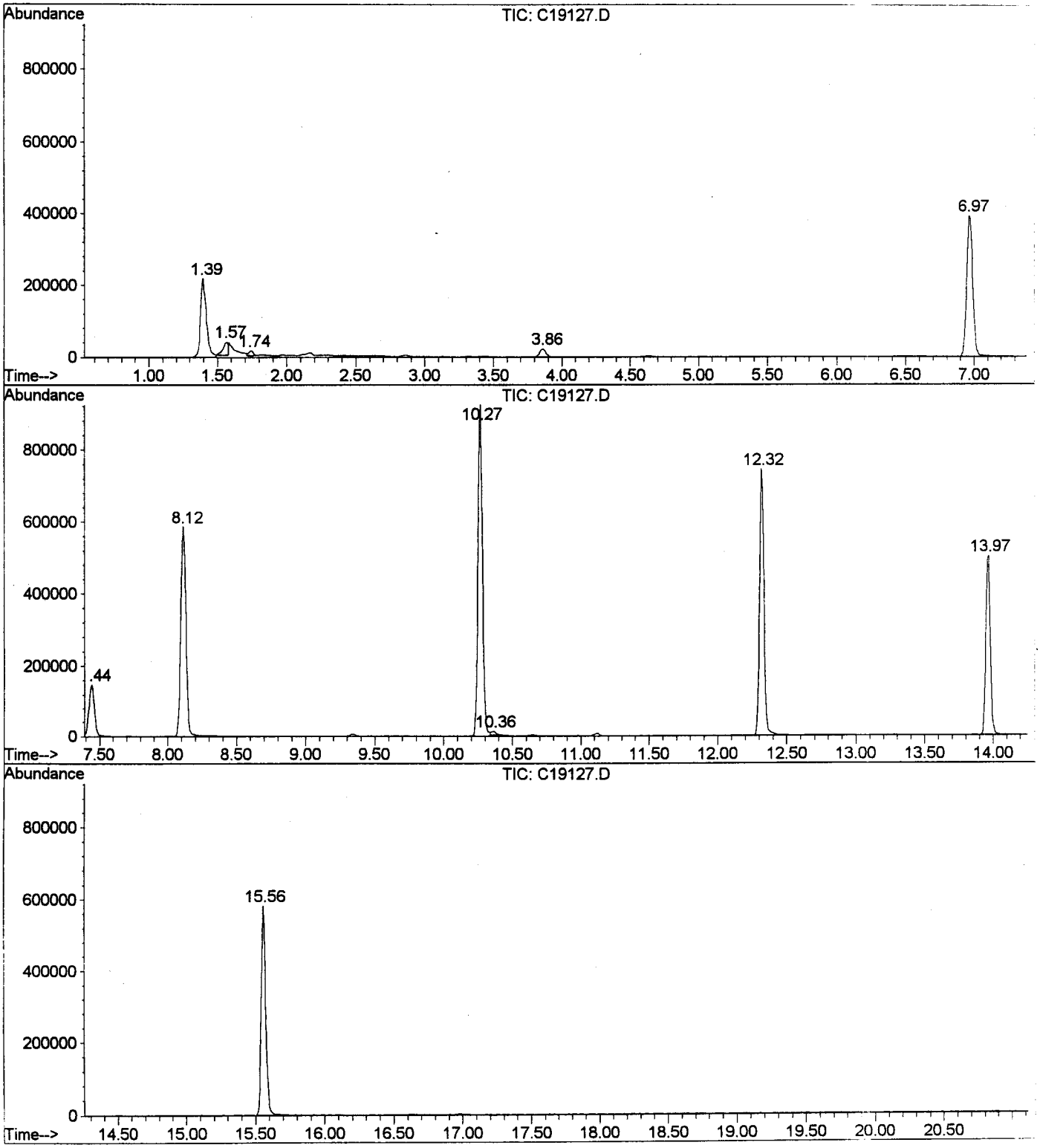
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.392	131	145	161	rBV	218224	635838	29.88%	6.196%
2	1.566	161	174	176	rBV	36626	97737	4.59%	0.952%
3	1.741	198	203	210	rVB3	13491	30258	1.42%	0.295%
4	3.864	545	556	568	rVB2	22805	67058	3.15%	0.653%
5	6.967	1061	1072	1088	rBV	395178	1190362	55.95%	11.599%
6	7.442	1139	1151	1162	rBV2	148128	402774	18.93%	3.925%
7	8.116	1250	1263	1278	rBV	585484	1527944	71.81%	14.889%
8	10.269	1610	1621	1632	rBV	923391	2127684	100.00%	20.733%
9	10.365	1632	1637	1647	rVB3	11531	31351	1.47%	0.305%
10	12.320	1951	1962	1982	rBV	744069	1702075	80.00%	16.586%
11	13.967	2225	2236	2248	rBV	502386	1137677	53.47%	11.086%
12	15.561	2491	2501	2517	rBV	582296	1311444	61.64%	12.779%

Sum of corrected areas: 10262202

C19127.D 03230125.M Sun Mar 25 11:38:56 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19127.D
Operator : JP/VRR
Acquired : 23 Mar 2001 19:18 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09961 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 15
Quant File :03230125.RES (RTE Integrator)



C19127.D 03230125.M Sun Mar 25 11:38:57 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19127.D Vial: 15
Acq On : 03/23/01 19:18 Operator: JP/VRR
Sample : AC09961 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

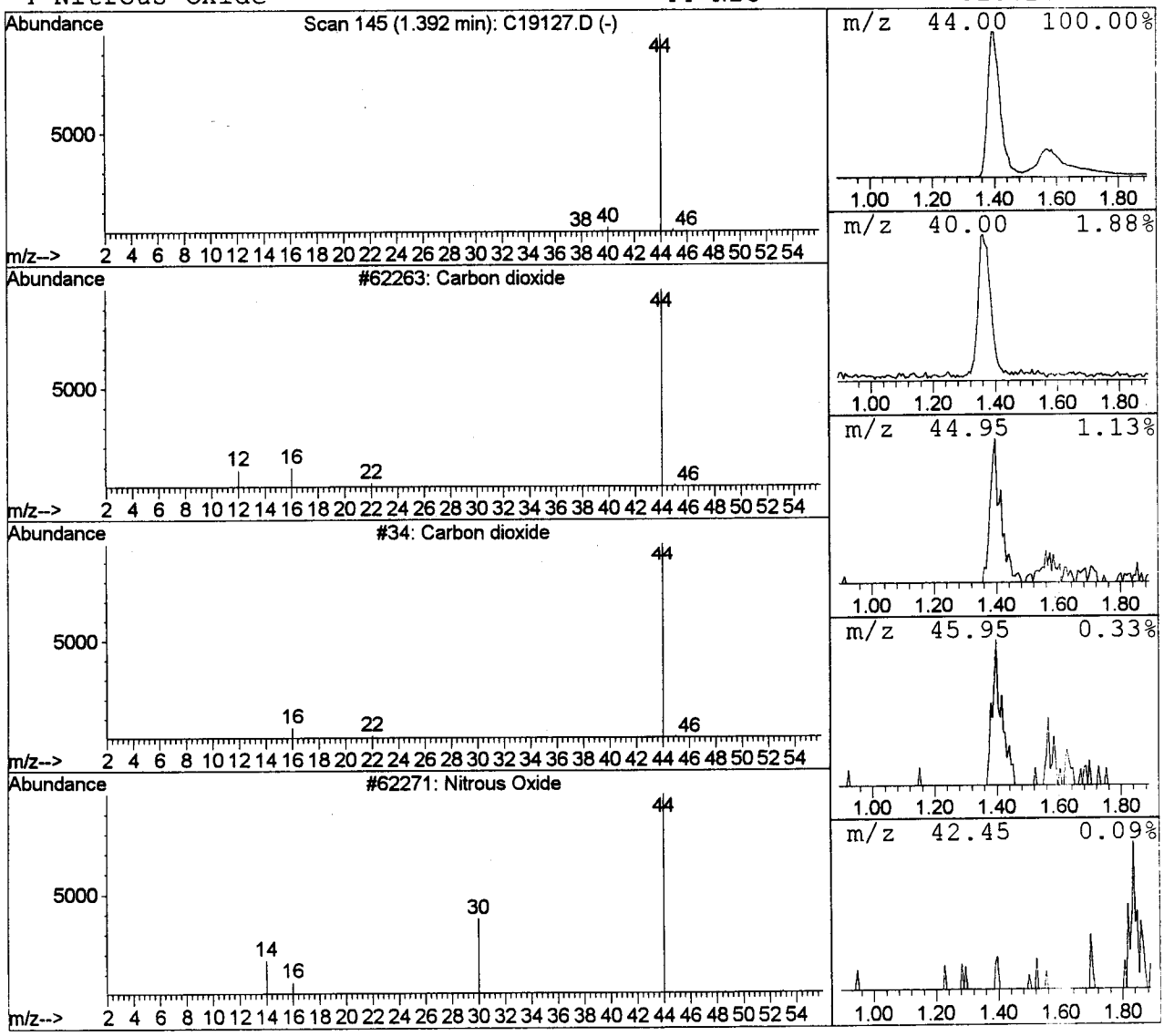
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.39	6358380.00 ug\L	635838	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19127.D Vial: 15
Acq On : 03/23/01 19:18 Operator: JP/VRR
Sample : AC09961 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

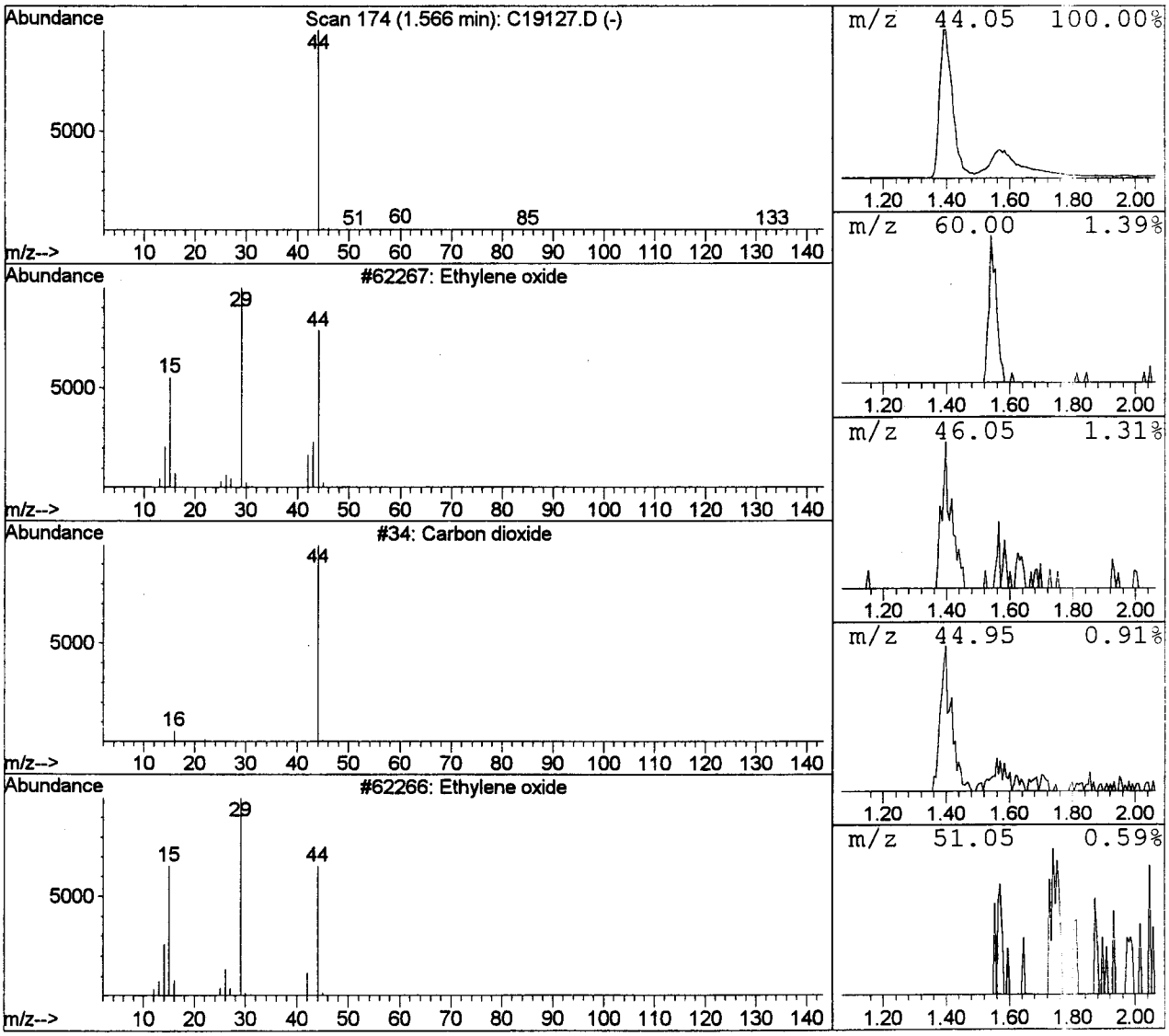
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	977370.00 ug\L	97737	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19127.D Vial: 15
Acq On : 03/23/01 19:18 Operator: JP/VRR
Sample : AC09961 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

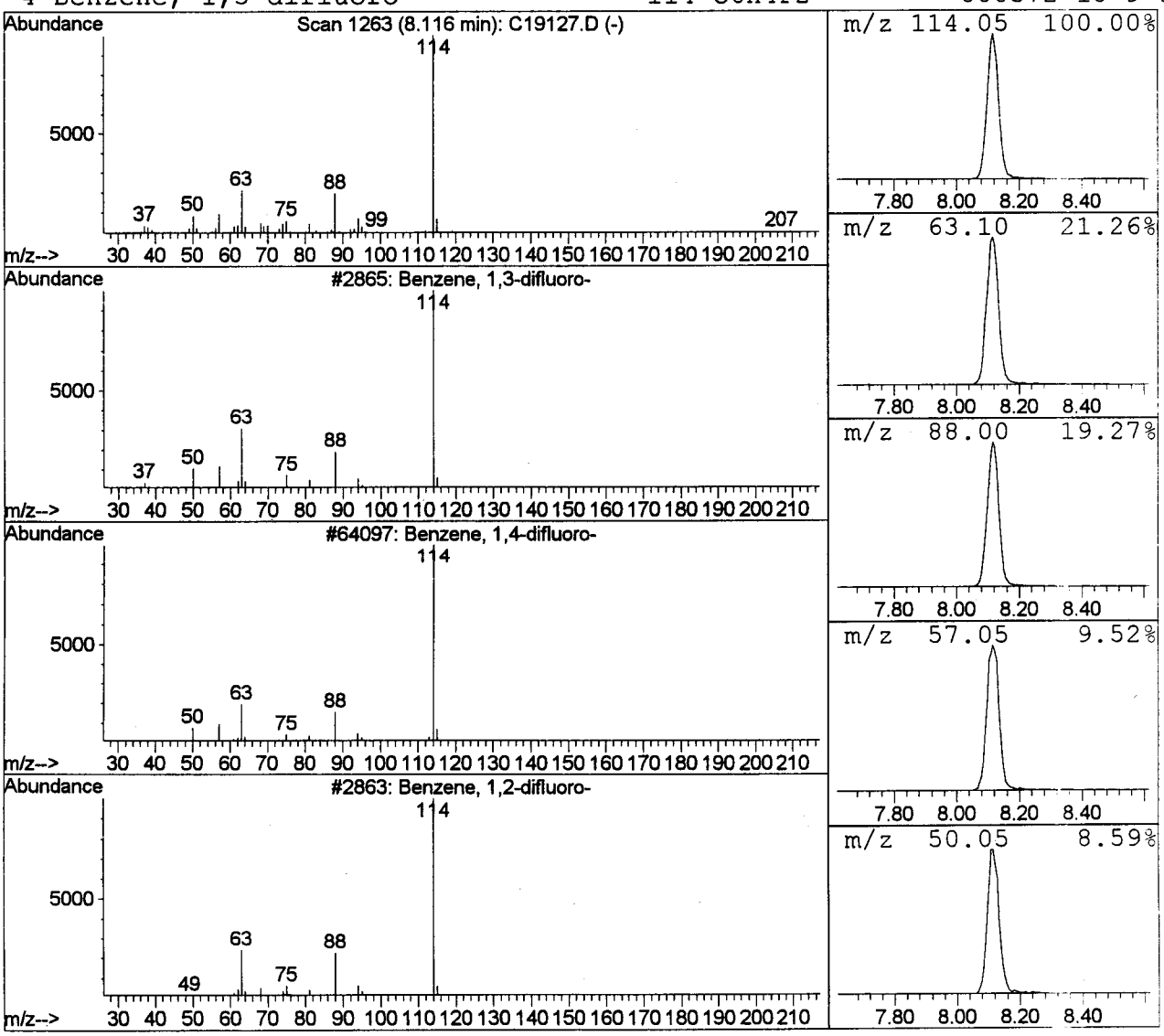
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,3-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.84 ug\L	1527940	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 19:18
Data File: C:\HPCHEM\1\DATA\032301\C19127.D
Name: AC09961 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.39	6358380.0	ug\L	635838	ISTD01	0.00	1	10.0
Ethylene oxide	1.57	977370.0	ug\L	97737	ISTD01	0.00	1	10.0
Benzene, 1,3-difluor	8.12	12.8	ug\L	1527940	ISTD02	6.97	1190360	10.0

C19127.D 03230125.M Sun Mar 25 11:39:03 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:40 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	403187	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	533889	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	207249	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	157247	9.71	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.10%			
46) Toluene-d8	10.27	98	770039	9.37	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.70%			
66) Bromofluorobenzene	13.97	95	229431	9.05	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.50%			
Target Compounds						Qvalue
16) Methylene Chloride	3.86	86	6539	0.64	ug\L	95

0.64 J

VRR
3-25-01

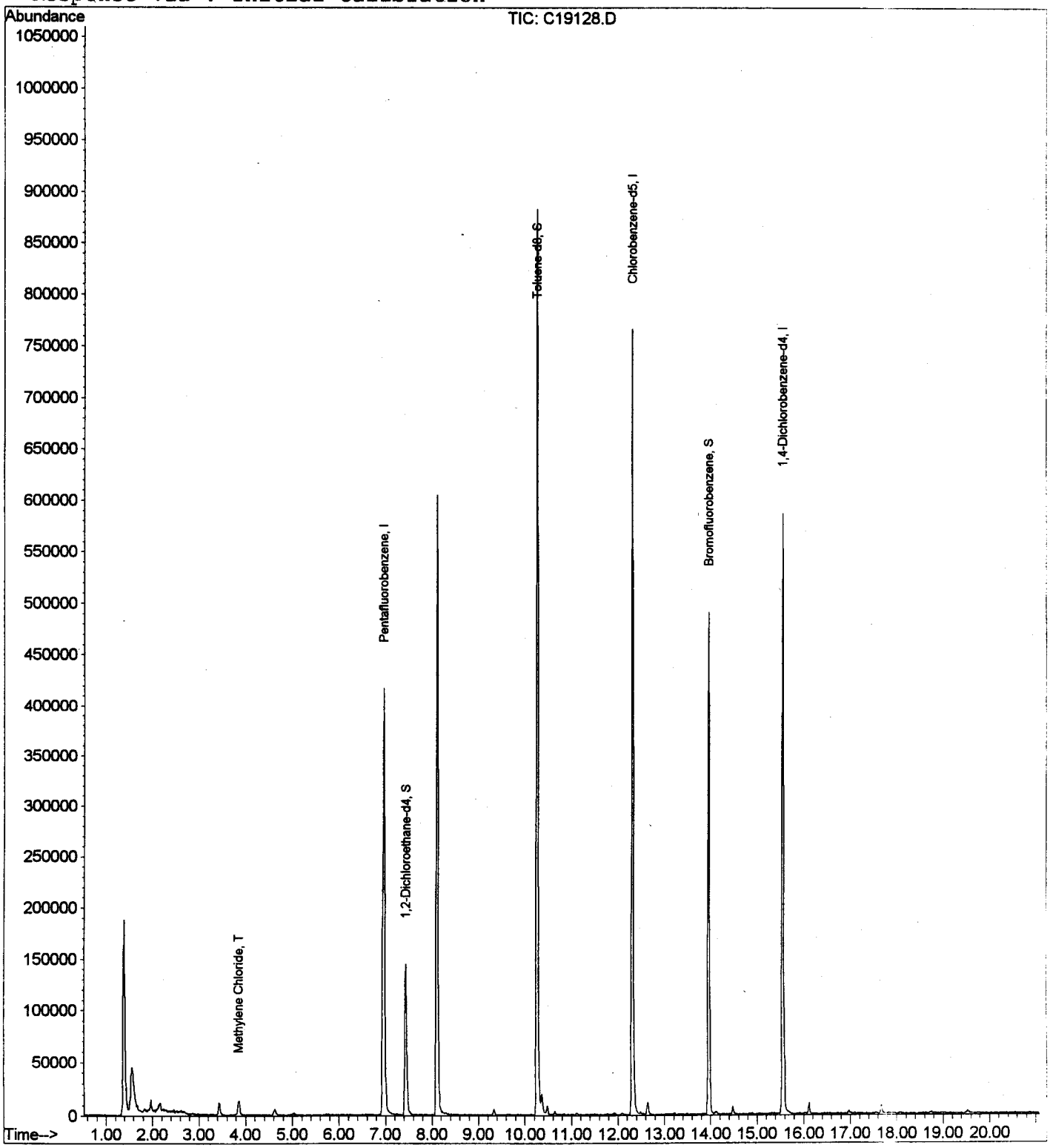
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19128.D
Acq On : 03/23/01 19:44
Sample : AC09962 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 11:40 2001

Vial: 16
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

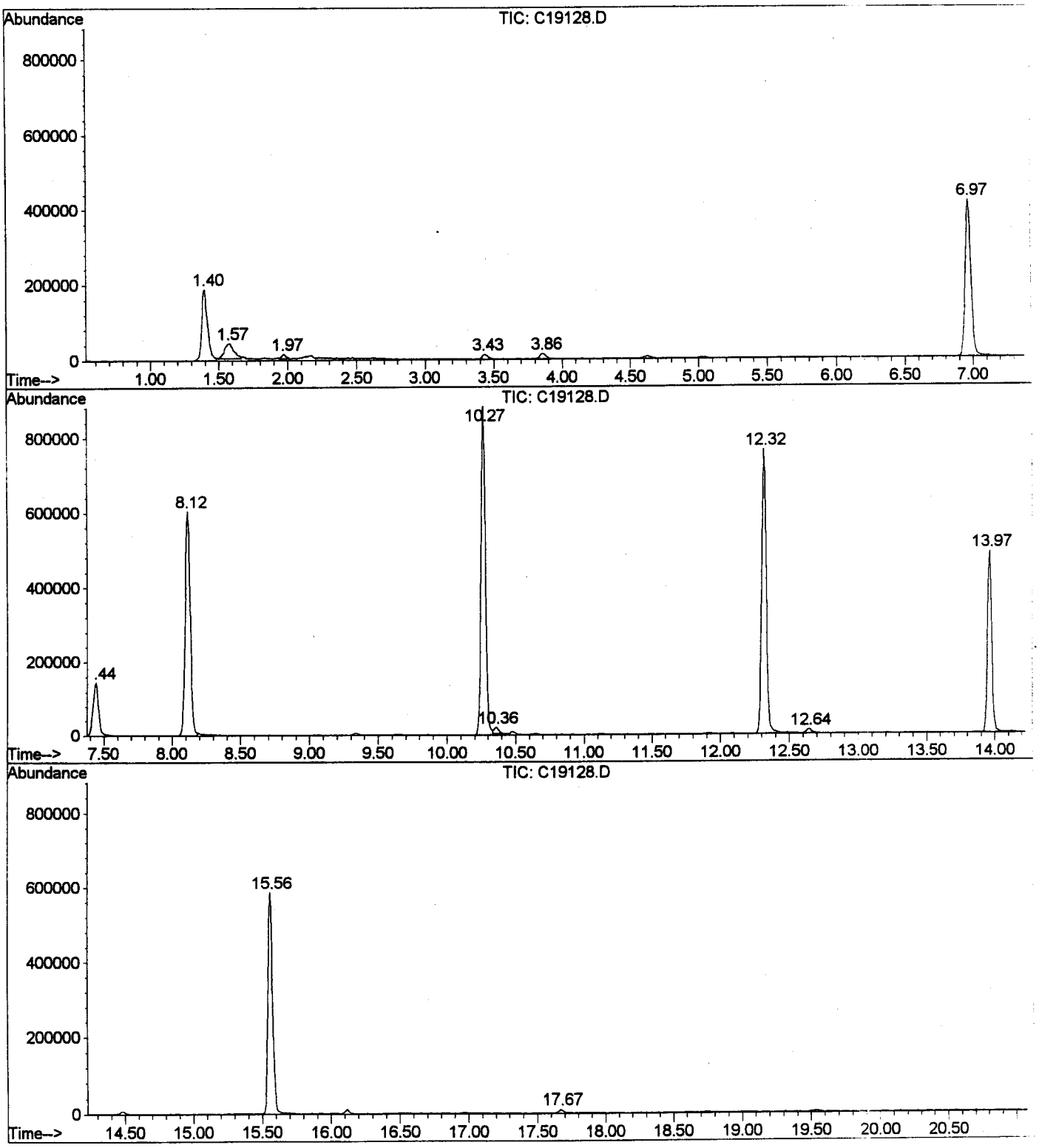
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.397	129	146	160	rBV	188015	545764	26.36%	5.237%
2	1.572	163	175	190	rVV2	39159	189473	9.15%	1.818%
3	1.969	235	241	250	rVB2	11328	23051	1.11%	0.221%
4	3.430	478	484	496	rVB2	12180	32658	1.58%	0.313%
5	3.857	545	555	565	rVB3	13159	40915	1.98%	0.393%
6	6.967	1057	1072	1087	rBV	417164	1247775	60.26%	11.972%
7	7.442	1139	1151	1164	rBV2	144486	406329	19.62%	3.899%
8	8.115	1252	1263	1274	rBV2	604197	1579462	76.27%	15.155%
9	10.268	1611	1621	1632	rBV	882262	2070751	100.00%	19.869%
10	10.359	1632	1636	1643	rVB2	16516	37403	1.81%	0.359%
11	12.319	1952	1962	1977	rBV	765070	1740724	84.06%	16.702%
12	12.644	2007	2016	2025	rBV7	11703	30634	1.48%	0.294%
13	13.967	2225	2236	2247	rBV	490224	1112736	53.74%	10.677%
14	15.561	2491	2501	2518	rBV	585701	1343292	64.87%	12.889%
15	17.672	2844	2852	2859	rBV6	9217	21101	1.02%	0.202%

Sum of corrected areas: 10422068

C19128.D 03230125.M Sun Mar 25 11:40:55 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19128.D
Operator : JP/VRR
Acquired : 23 Mar 2001 19:44 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09962 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 16
Quant File :03230125.RES (RTE Integrator)



C19128.D 03230125.M Sun Mar 25 11:40:56 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

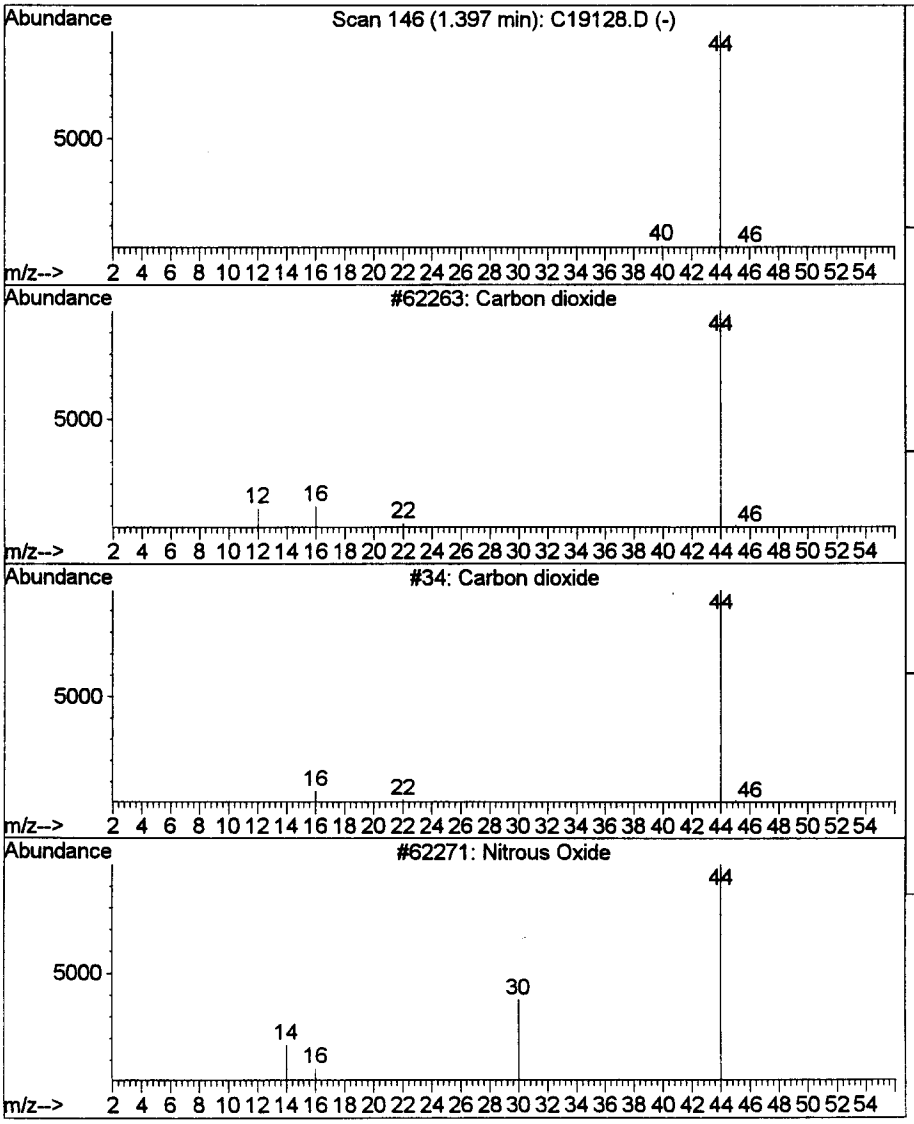
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

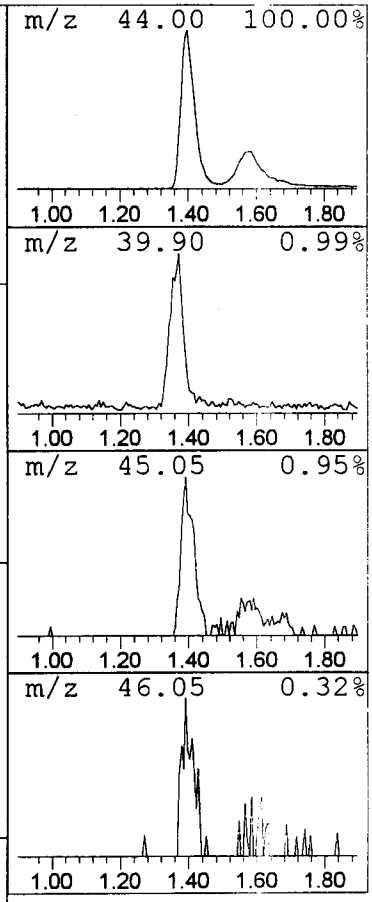
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	5457640.00 ug\L	545764	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

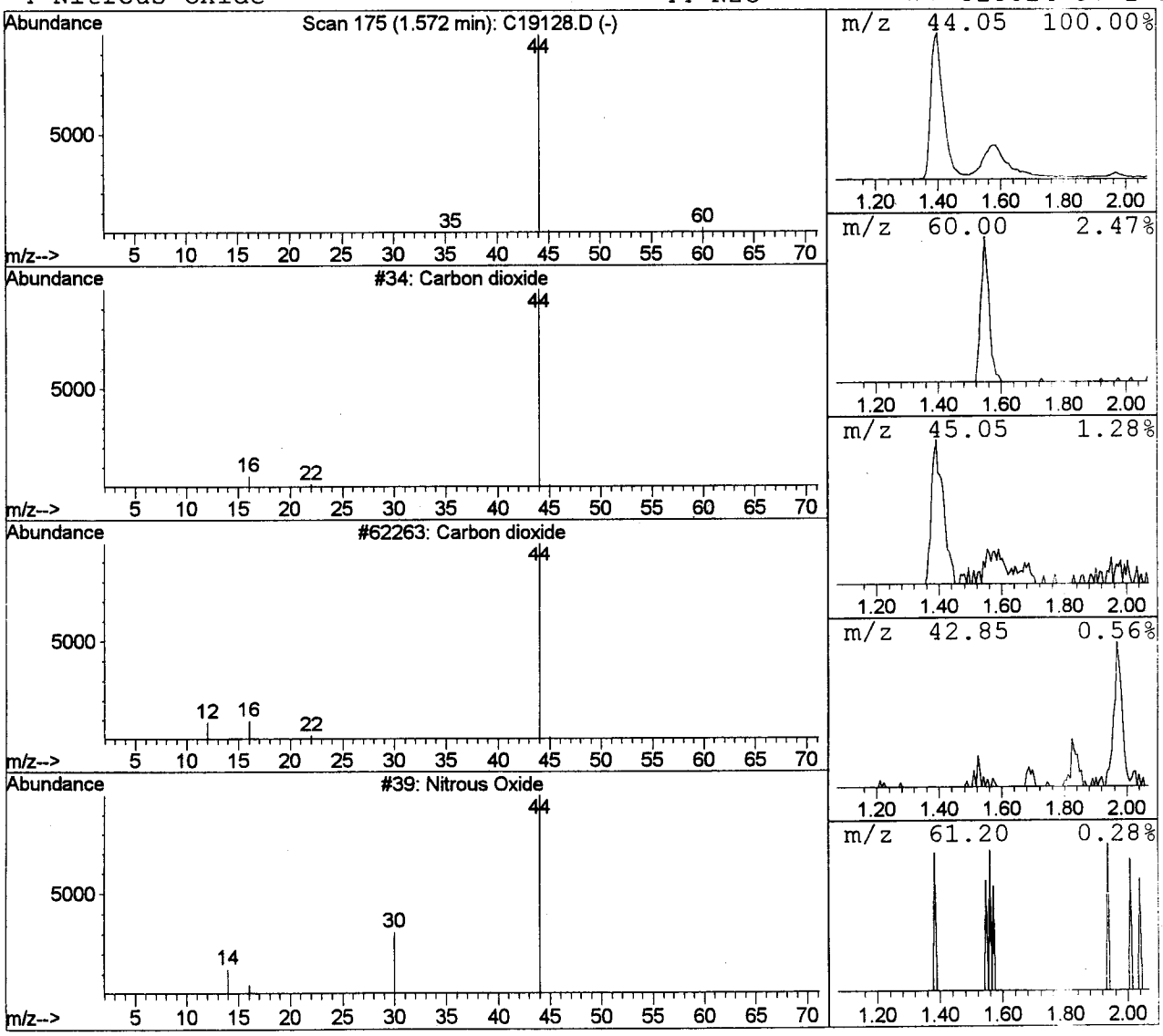
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	1894730.00 ug\L	189473	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

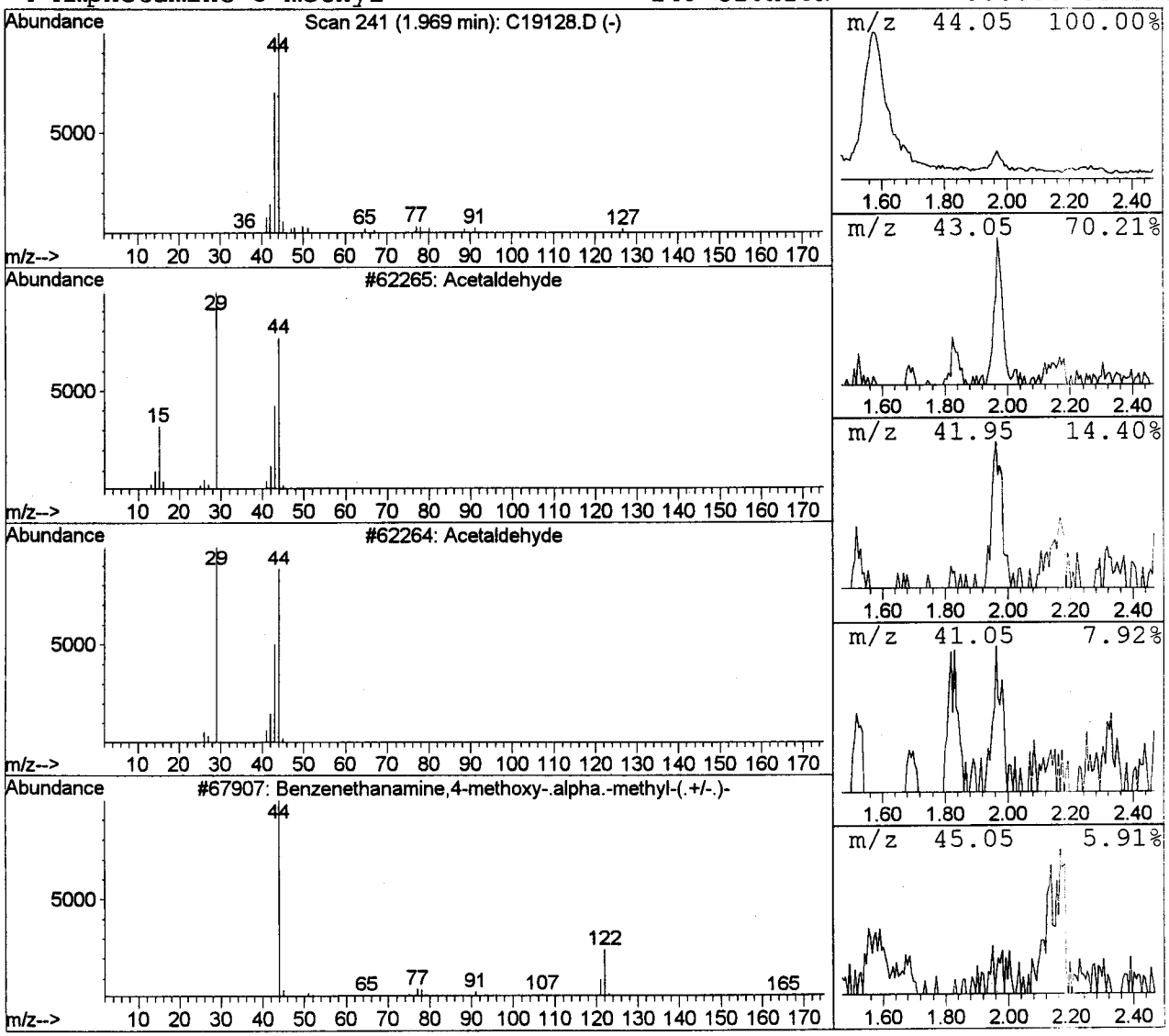
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Acetaldehyde Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.97	230510.00 ug\L	23051	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	64
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Benzenethanamine,4-methoxy-.alpha.-	165	C10H15NO	023239-32-9	9
4	Amphetamine-3-methyl	149	C10H15N	000000-00-0	9



Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

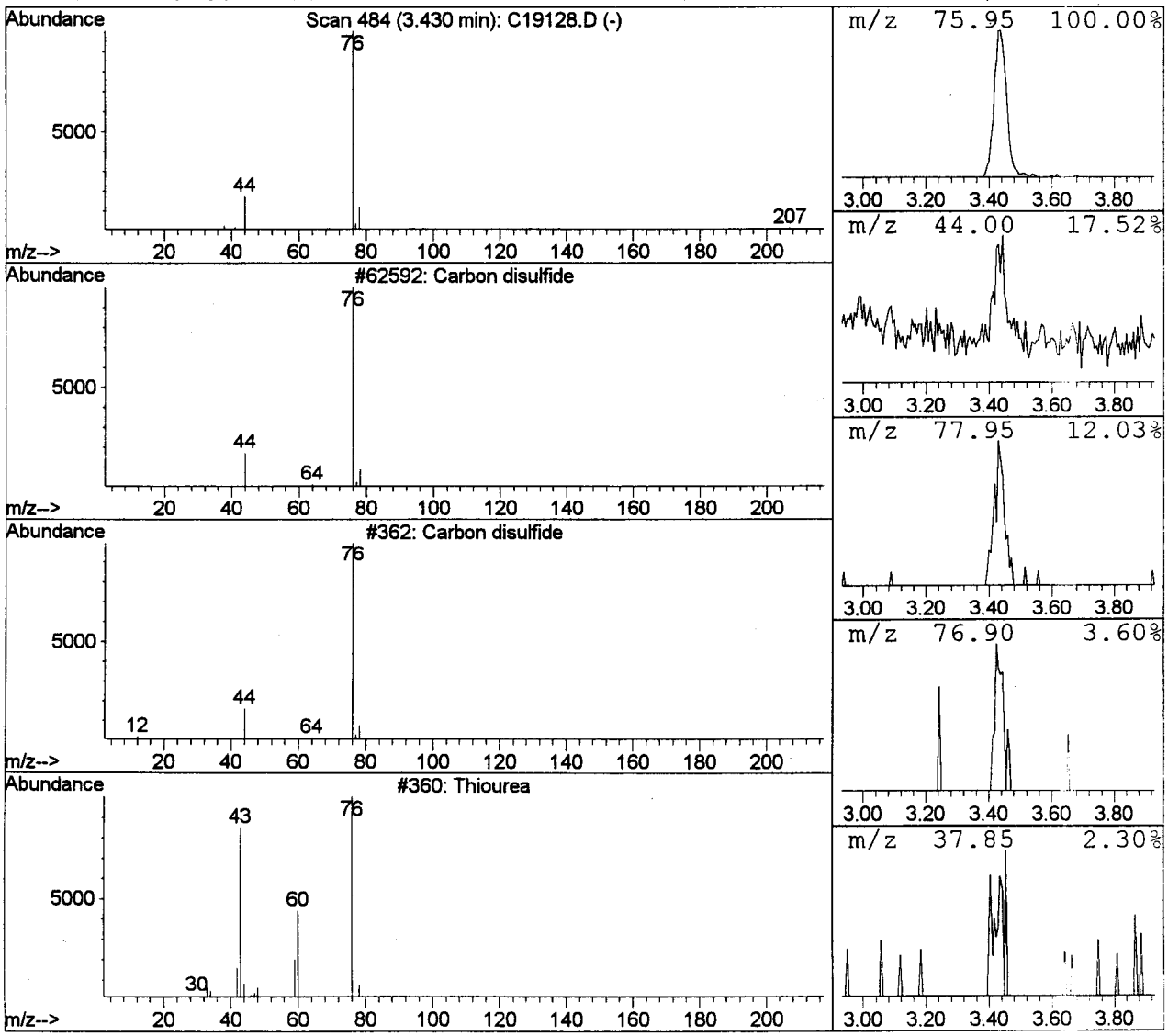
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Carbon disulfide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.43	326580.00 ug\L	32658	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	9
2	Carbon disulfide	76	CS2	000075-15-0	9
3	Thiourea	76	CH4N2S	000062-56-6	7
4	Carbon disulfide	76	CS2	000075-15-0	5



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19128.D Vial: 16
Acq On : 03/23/01 19:44 Operator: JP/VRR
Sample : AC09962 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

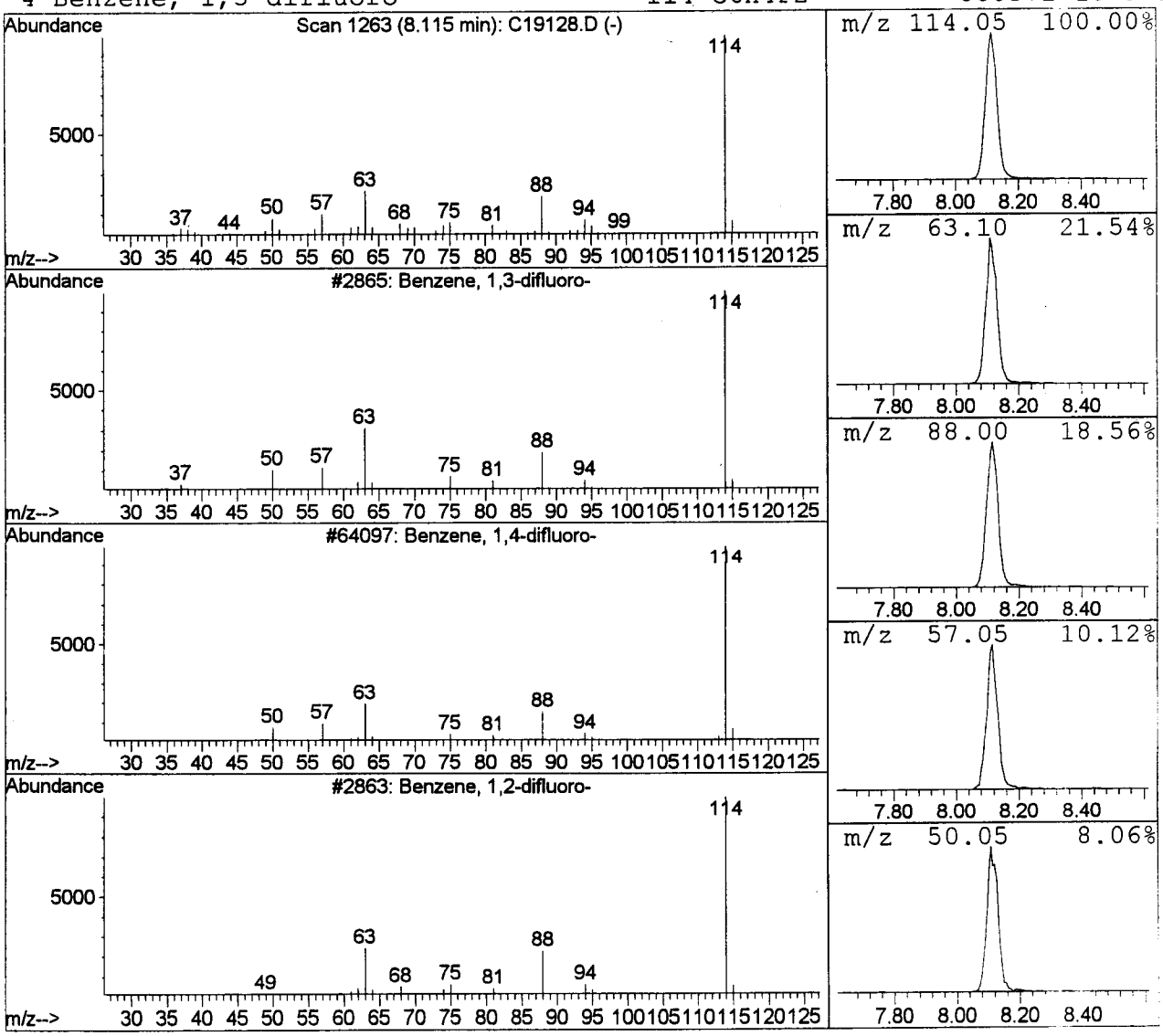
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Benzene, 1,3-difluoro- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.66 ug\L	1579460	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	97
2	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 19:44
Data File: C:\HPCHEM\1\DATA\032301\C19128.D
Name: AC09962 25ml DF=1
Misc: 27319/C0230125
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	5457640.0	ug\L	545764	ISTD01	0.00	1	10.0
Carbon dioxide	1.57	1894730.0	ug\L	189473	ISTD01	0.00	1	10.0
Acetaldehyde	1.97	230510.0	ug\L	23051	ISTD01	0.00	1	10.0
Carbon disulfide	3.43	326580.0	ug\L	32658	ISTD01	0.00	1	10.0
Benzene, 1,3-difluor	8.12	12.7	ug\L	1579460	ISTD02	6.97	1247780	10.0

C19128.D 03230125.M Sun Mar 25 11:41:05 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19130.D Vial: 2
Acq On : 03/23/01 20:35 Operator: JP/VRR
Sample : AC09963 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:48 2001 Quant Results File: 03230125.RES

Quant Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	456737	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.31	117	602008	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.55	152	221057	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	190467	10.38	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.80%			
46) Toluene-d8	10.27	98	918105	9.91	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.10%			
66) Bromofluorobenzene	13.96	95	264414	9.78	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.80%			

Target Compounds						Qvalue	
11) Acetone	3.30	58	8107	15.07	ug\L	86	15
22) cis-1,2-Dichloroethene	6.06	96	70349	3.31	ug\L	90	3.3J
23) 2-Butanone	6.17	72	968	1.37	ug\L #	74	
36) Trichloroethene	8.48	95	483597	18.32	ug\L	98	18

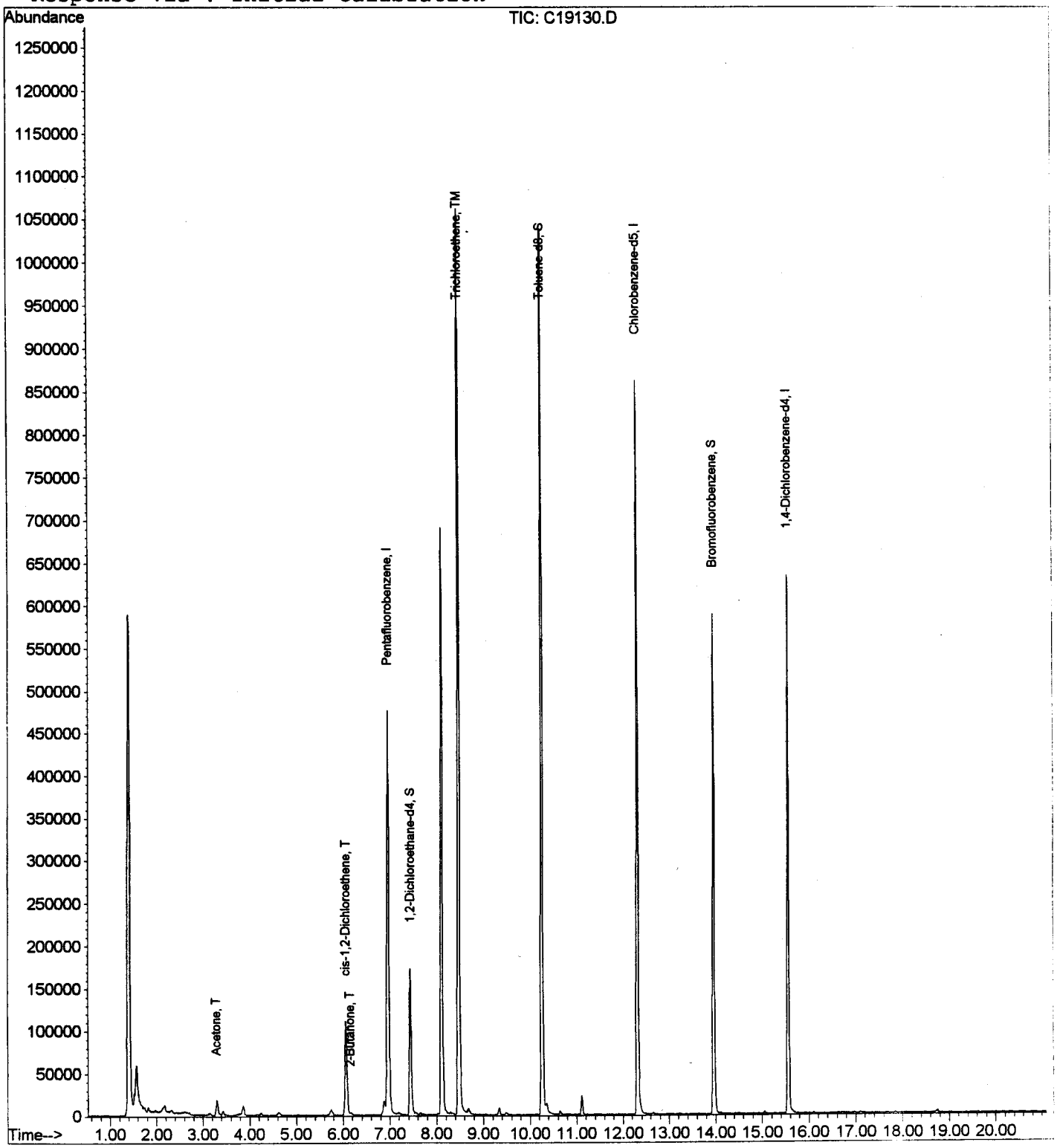
VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19130.D Vial: 2
Acq On : 03/23/01 20:35 Operator: JP/VRR
Sample : AC09963 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:48 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19130.D Vial: 2
Acq On : 03/23/01 20:35 Operator: JP/VRR
Sample : AC09963 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

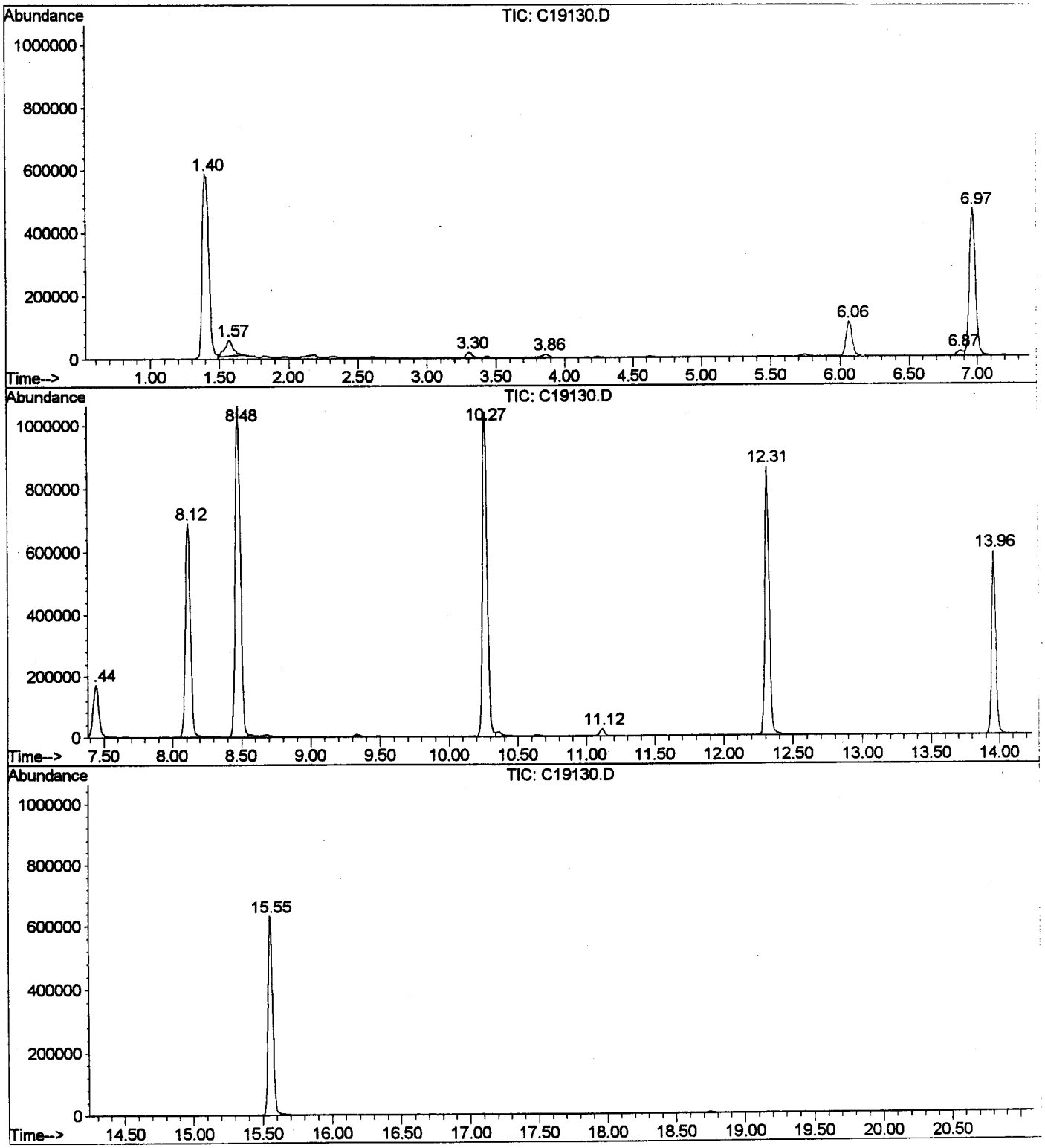
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.397	132	146	161	rBV	589062	1965287	71.73%	12.051%
2	1.572	163	175	193	rVB2	48740	213330	7.79%	1.308%
3	3.304	455	463	471	rBV	17585	50200	1.83%	0.308%
4	3.863	546	556	564	rVB6	10560	29877	1.09%	0.183%
5	6.064	909	922	935	rBV	110958	339141	12.38%	2.080%
6	6.870	1045	1056	1062	rBV5	16283	53271	1.94%	0.327%
7	6.967	1062	1072	1091	rVB2	473555	1425507	52.03%	8.741%
8	7.442	1139	1151	1165	rBV	172779	499433	18.23%	3.063%
9	8.115	1251	1263	1281	rBV	689800	1815962	66.28%	11.136%
10	8.482	1312	1324	1335	rBV2	1060185	2739855	100.00%	16.801%
11	10.268	1609	1621	1632	rBV	1037909	2475456	90.35%	15.180%
12	11.116	1754	1762	1770	rVB3	22443	49985	1.82%	0.307%
13	12.313	1950	1961	1983	rBV	861421	1949842	71.17%	11.956%
14	13.961	2223	2235	2251	rBV	587550	1275485	46.55%	7.821%
15	15.555	2491	2500	2513	rBV	632654	1425178	52.02%	8.739%

Sum of corrected areas: 16307809

C19130.D 03230125.M Sun Mar 25 11:49:08 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19130.D
Operator : JP/VRR
Acquired : 23 Mar 2001 20:35 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: AC09963 25ml DF=1
Misc Info : 27319/C0230125
Vial Number: 2
Quant File :03230125.RES (RTE Integrator)



C19130.D 03230125.M Sun Mar 25 11:49:09 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19130.D Vial: 2
Acq On : 03/23/01 20:35 Operator: JP/VRR
Sample : AC09963 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

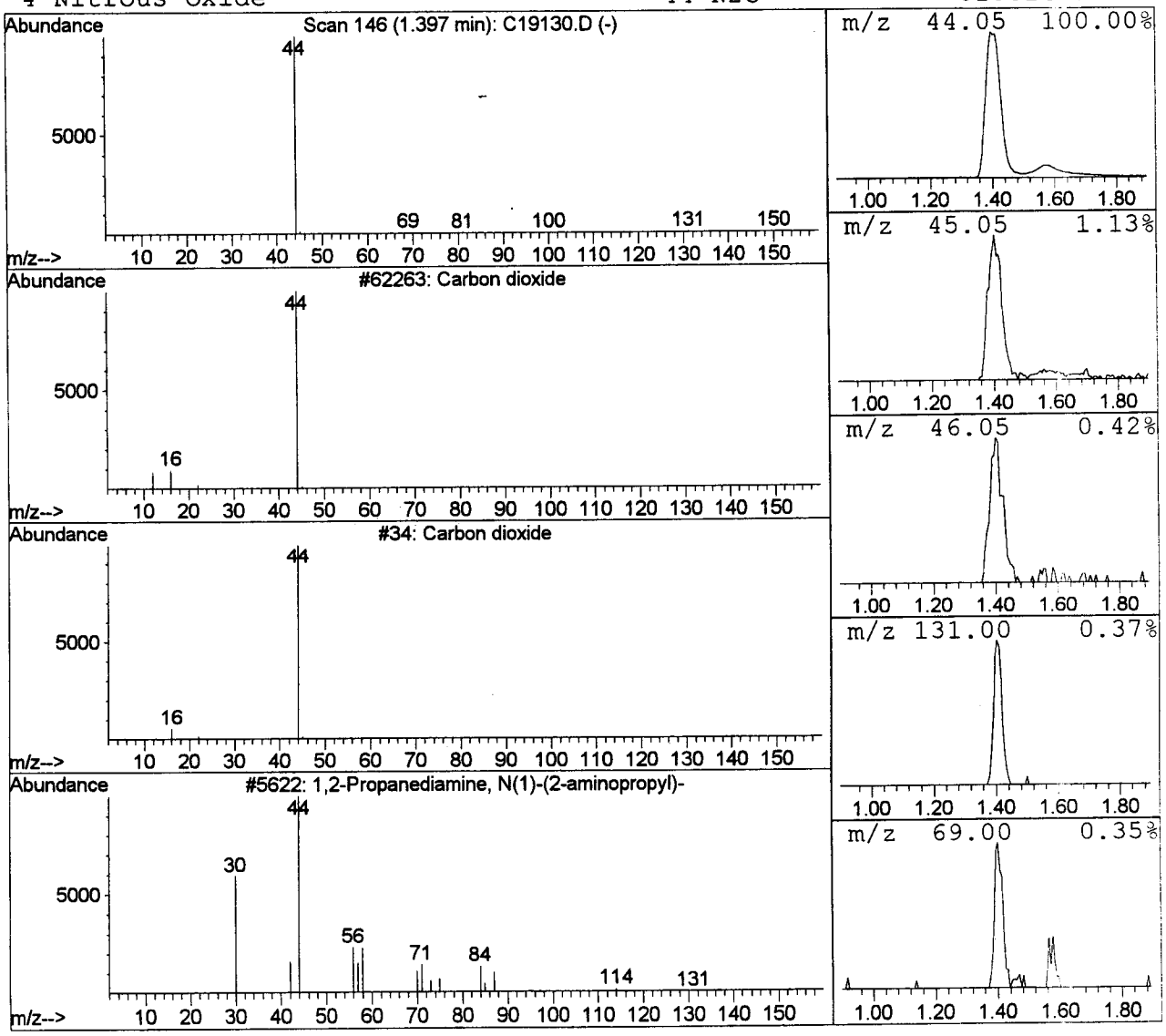
Quant Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	19652900.00 ug\L	19652901	4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	1,2-Propanediamine, N(1)-(2-aminopr	131	C6H17N3	007356-00-5	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19130.D Vial: 2
Acq On : 03/23/01 20:35 Operator: JP/VRR
Sample : AC09963 25ml DF=1 Inst : VOA-C
Misc : 27319/C0230125 Multiplr: 1.00
MS Integration Params: LSCINT.P

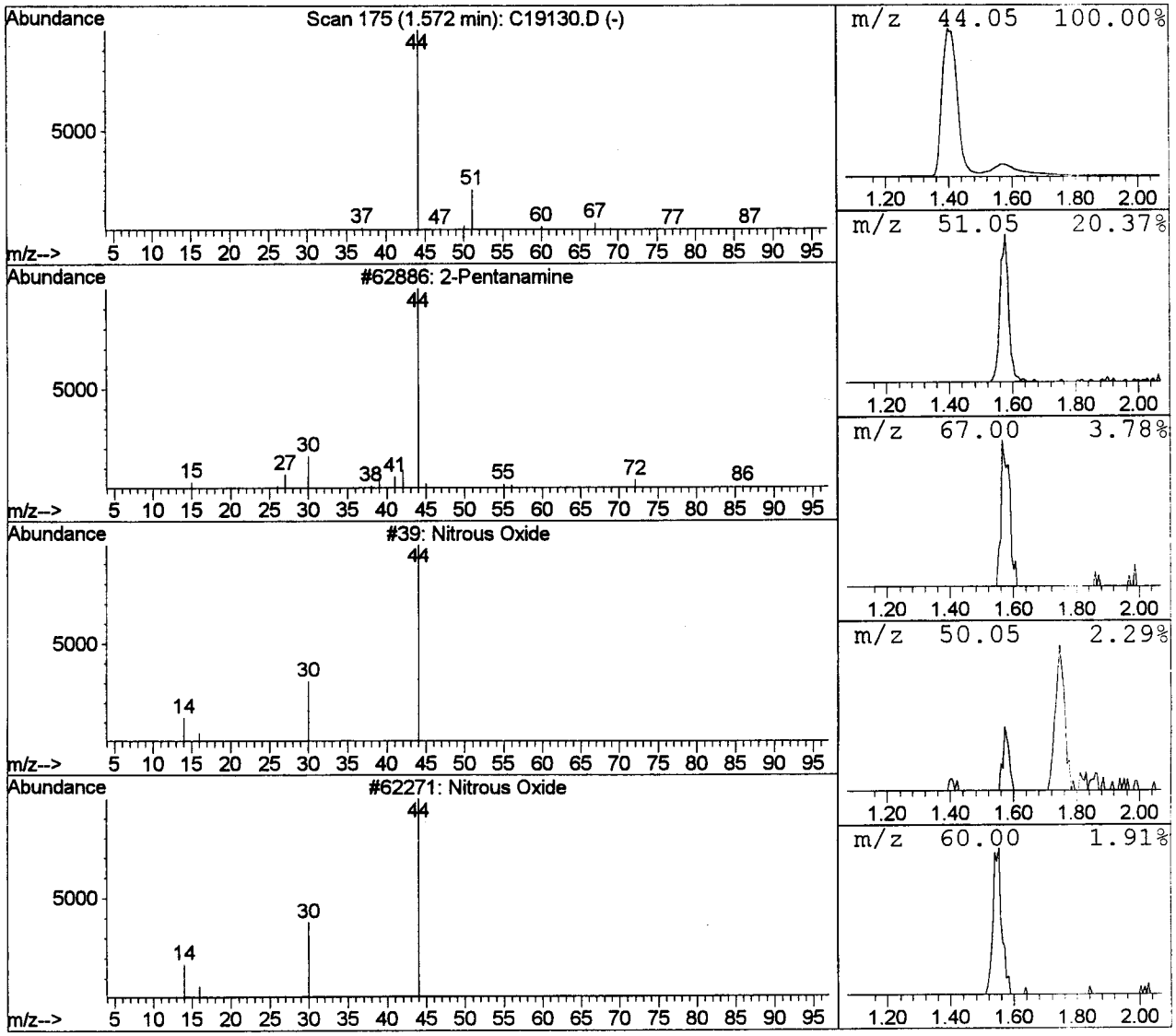
Quant Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 2-Pentanamine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.57	2133300.00 ug\L	213330	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanamine	87	C5H13N	000625-30-9	3
2	Nitrous Oxide	44	N2O	010024-97-2	3
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19130.D
Acq On : 03/23/01 20:35
Sample : AC09963 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: LSCINT.P

Vial: 2
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

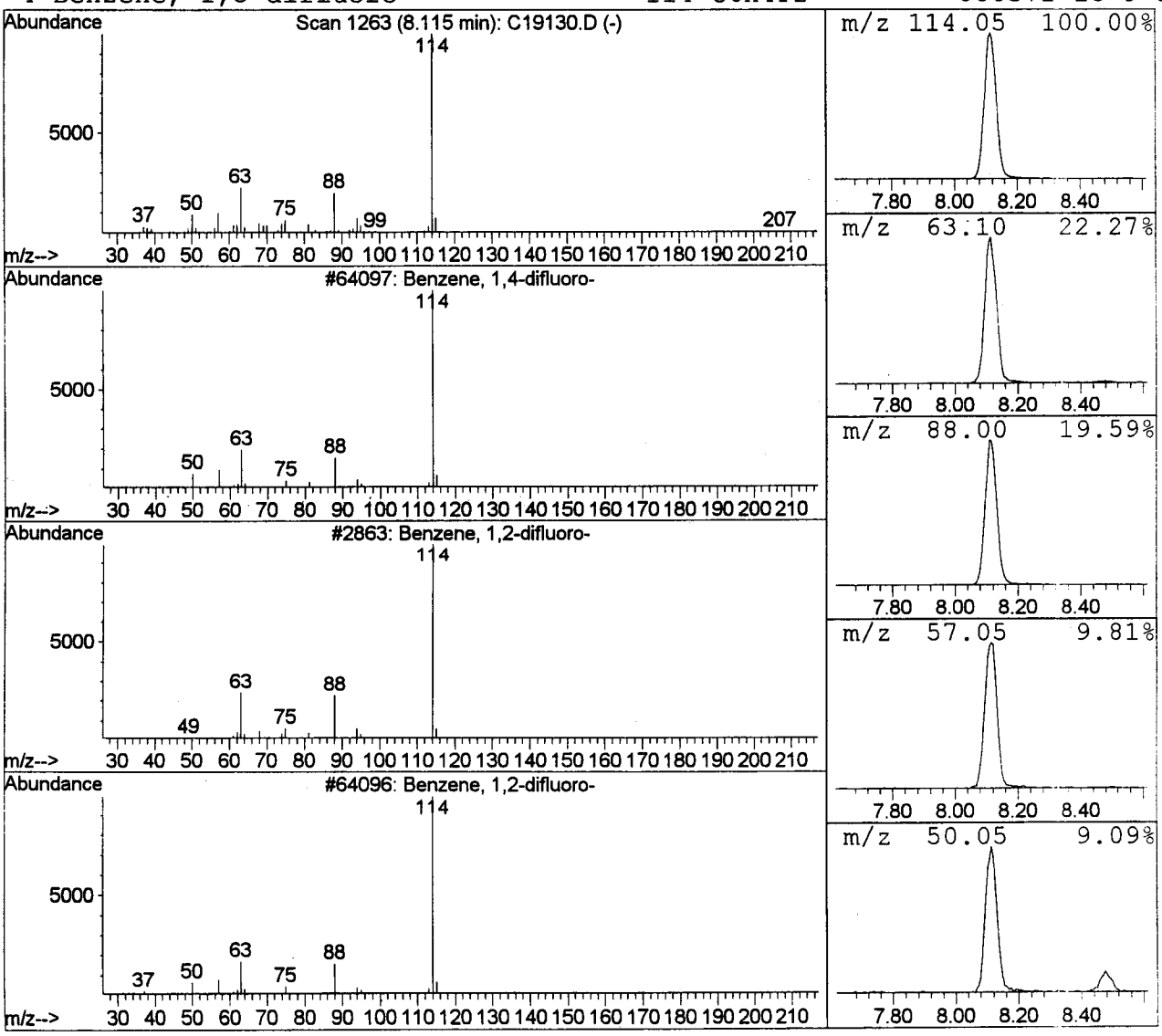
Quant Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	12.74 ug\L	1815960	Pentafluorobenzene	6.97

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	95
2	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	91
4	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	90



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 20:35
Data File: C:\HPCHEM\1\DATA\032301\C19130.D
Name: AC09963 25ml DF=1
Misc: 27319/C0230125
Method: C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	19652900.0	ug\L	1965290	ISTD01	0.00	1	10.0
2-Pentanamine	1.57	2133300.0	ug\L	213330	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.12	12.7	ug\L	1815960	ISTD02	6.97	1425510	10.0

C19130.D 03230125.M Sun Mar 25 11:49:15 2001 INST:VOA-C

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	522014	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	615164	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	225294	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.43	65	177953	8.48	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%			
46) Toluene-d8	10.26	98	960599	10.15	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%			
66) Bromofluorobenzene	13.96	95	257599	9.35	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.50%			

Target Compounds Qvalue

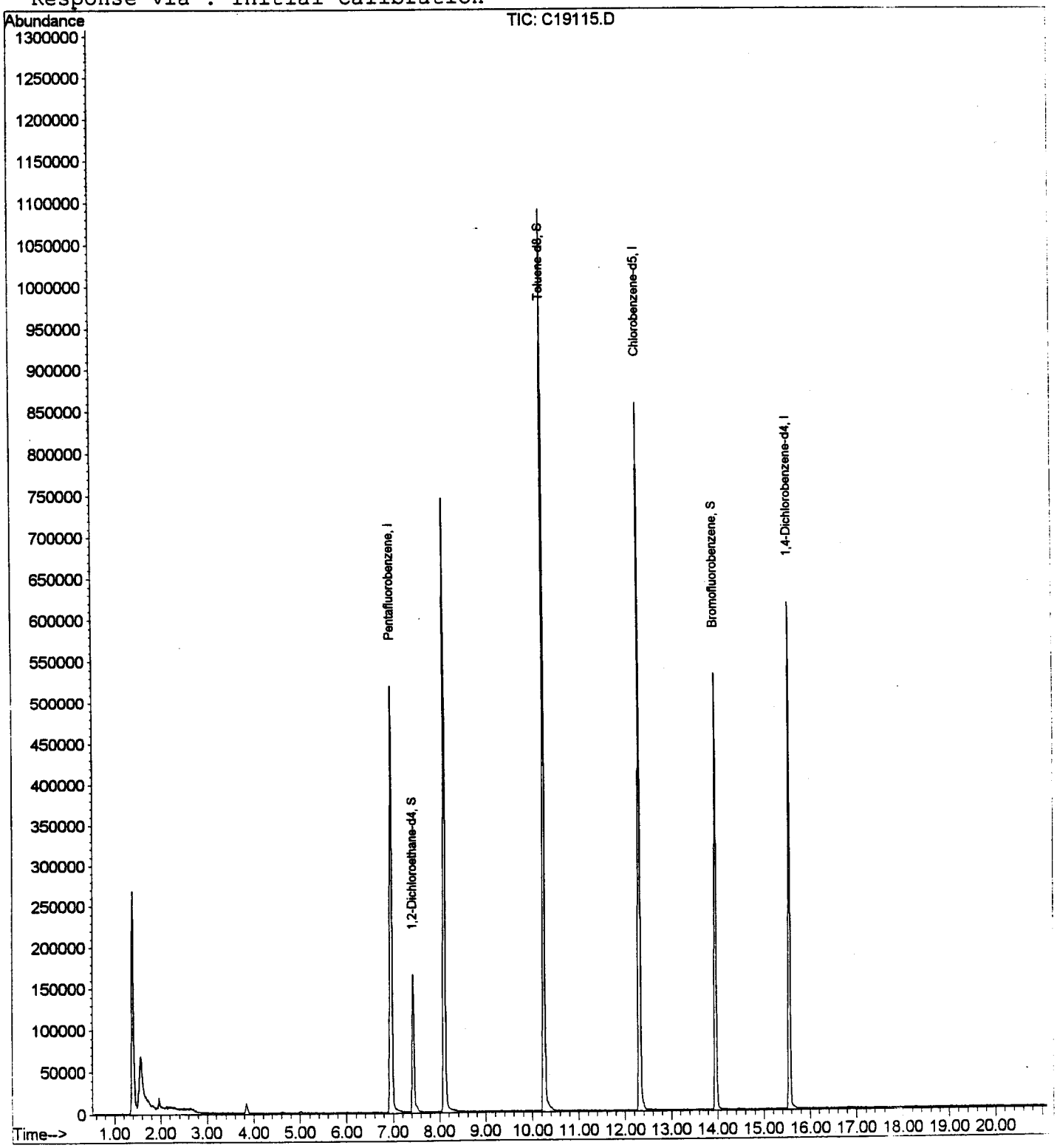
VRR
3-25-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

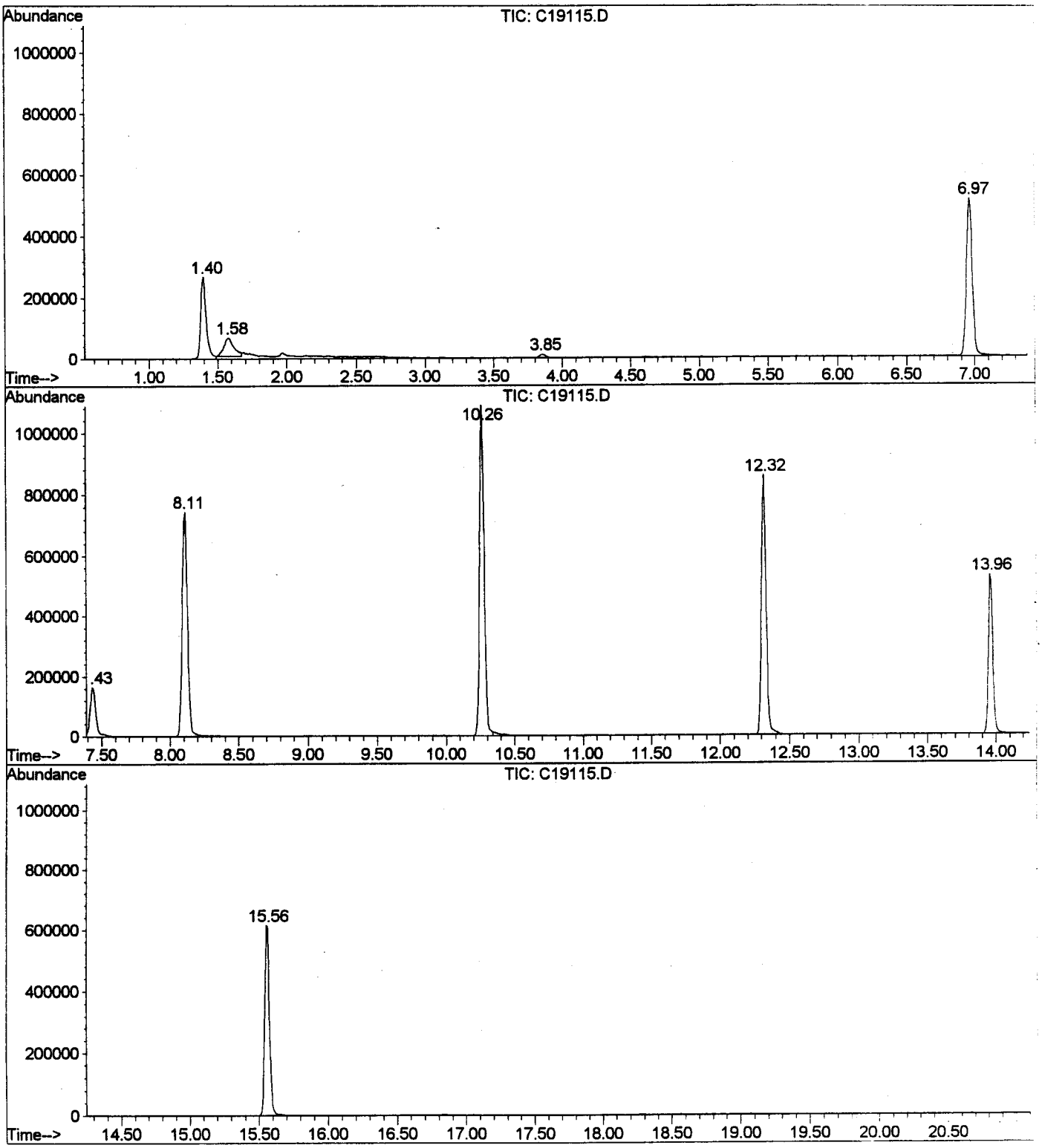
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.396	129	145	160	rBV	268390	753914	29.47%	6.136%
2	1.576	161	175	191	rBV	59810	306152	11.97%	2.492%
3	3.850	546	553	563	rVB3	11967	33159	1.30%	0.270%
4	6.965	1055	1071	1087	rBV	518636	1594722	62.34%	12.979%
5	7.434	1139	1149	1159	rBV	163804	450942	17.63%	3.670%
6	8.114	1250	1262	1279	rBV	743769	1952585	76.33%	15.892%
7	10.261	1608	1619	1632	rBV	1089241	2558006	100.00%	20.819%
8	12.318	1950	1961	1984	rBV	856176	1972913	77.13%	16.057%
9	13.960	2223	2234	2249	rBV	529044	1225902	47.92%	9.977%
10	15.560	2489	2500	2512	rBV	614371	1438498	56.24%	11.708%

Sum of corrected areas: 12286793

C19115.D 03230125.M Sun Mar 25 12:49:50 2001 INST:VOA-C

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\032301\C19115.D
Operator : JP/VRR
Acquired : 23 Mar 2001 12:34 using AcqMethod 03230125
Instrument : VOA-C
Sample Name: QVW032301 C1
Misc Info : WATER BLANK 25ml DF=1
Vial Number: 2
Quant File :03230125.RES (RTE Integrator)



C19115.D 03230125.M Sun Mar 25 12:49:51 2001 INST:VOA-C

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

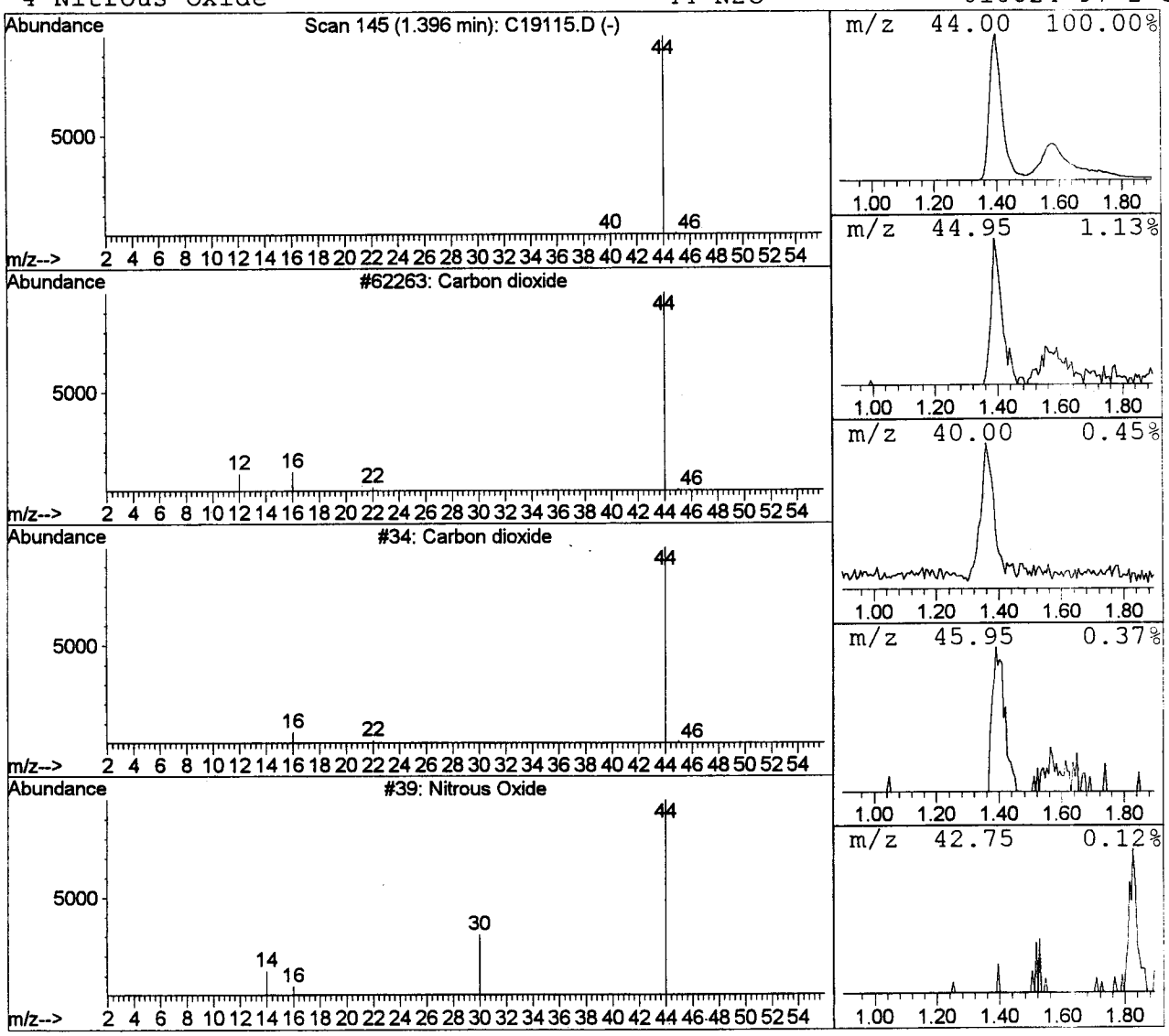
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	7539140.00 ug\L	753914	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

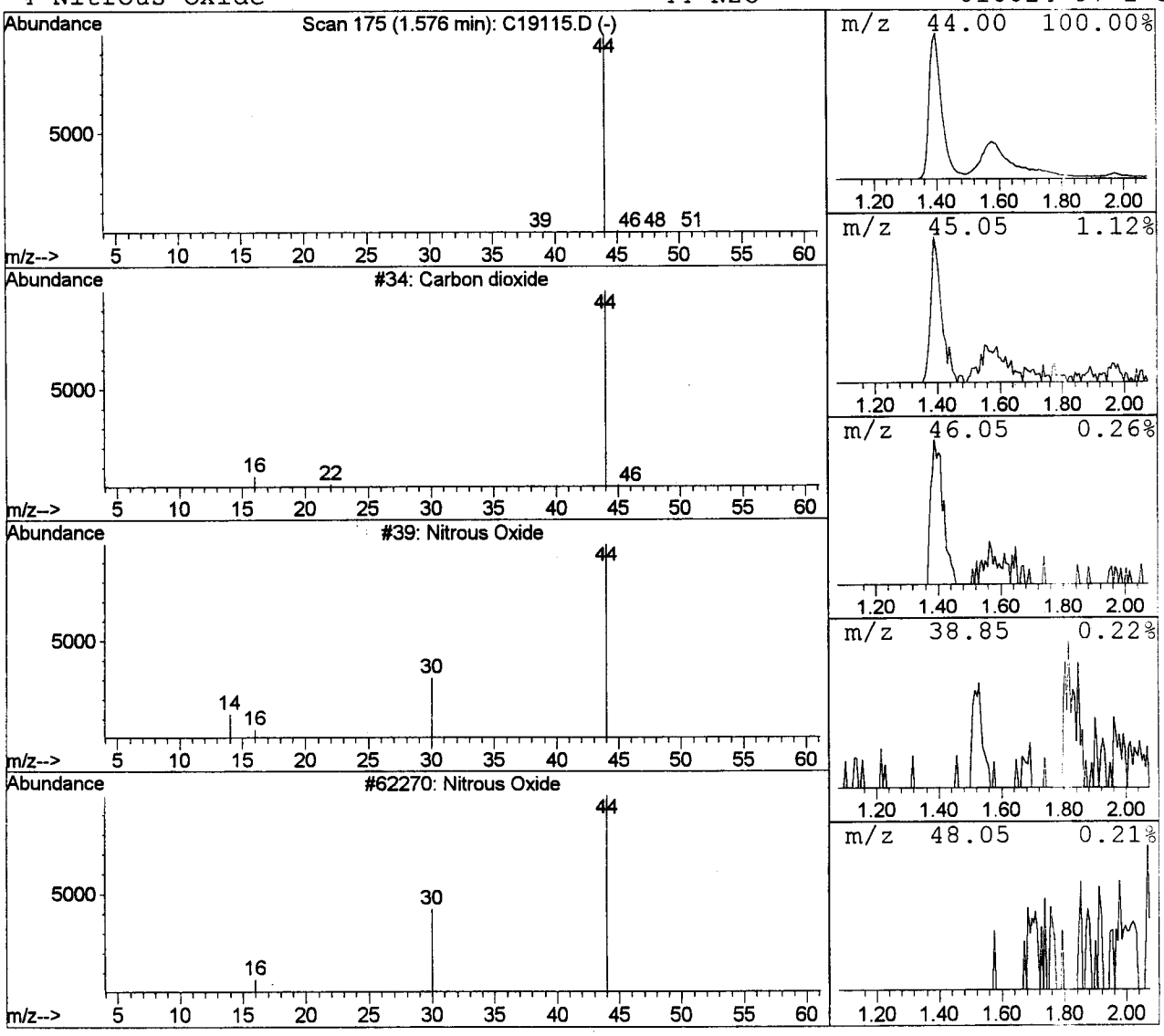
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.58	3061520.00 ug\L	306152	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	3
2	Nitrous Oxide	44	N2O	010024-97-2	3
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: LSCINT.P

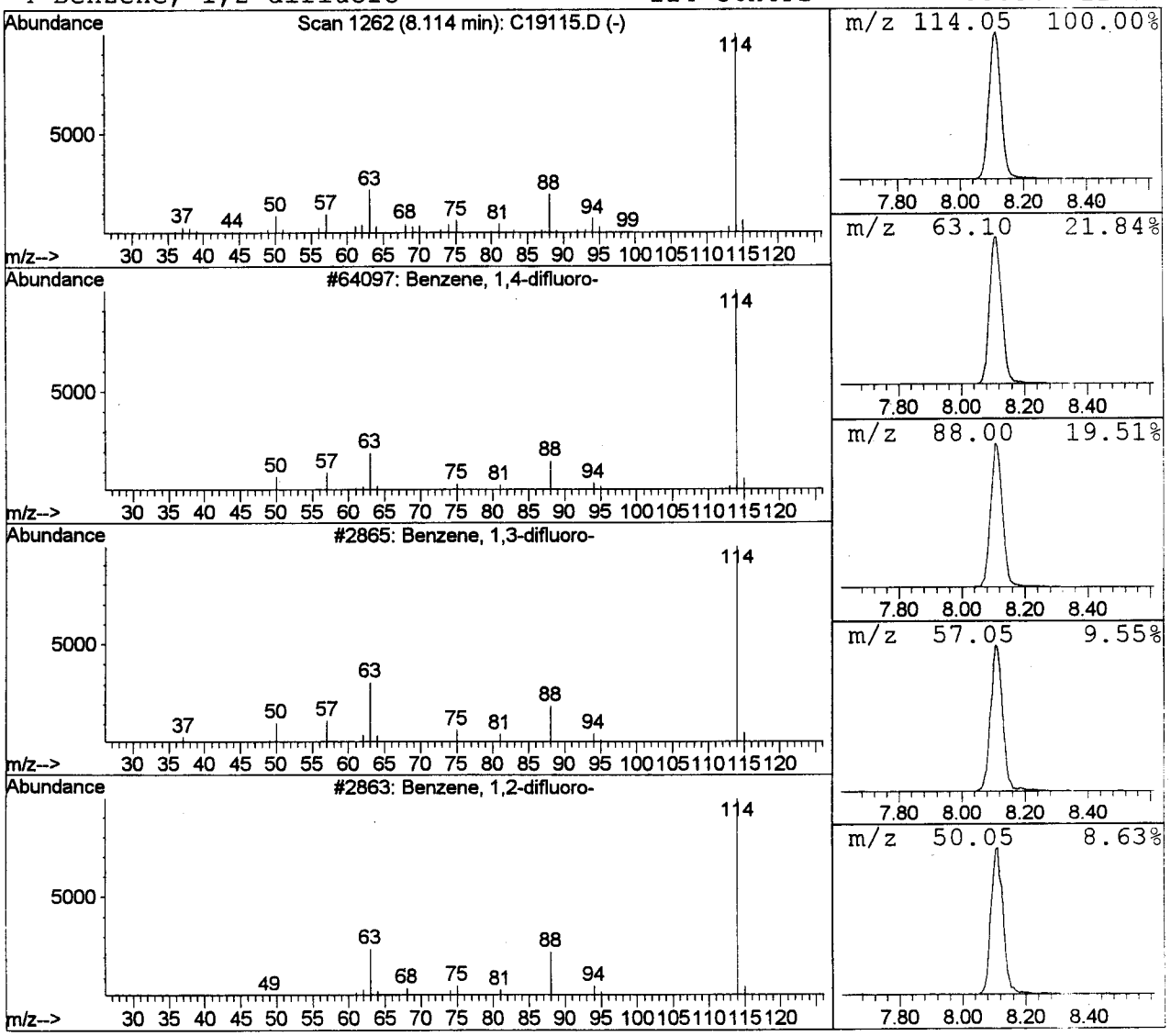
Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Benzene, 1,4-difluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.11	12.24 ug\L	1952590	Pentafluorobenzene	6.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-difluoro-	114	C6H4F2	000540-36-3	97
2	Benzene, 1,3-difluoro-	114	C6H4F2	000372-18-9	96
3	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	95
4	Benzene, 1,2-difluoro-	114	C6H4F2	000367-11-3	94



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR Date Acquired: 23 Mar 2001 12:34
Data File: C:\HPCHEM\1\DATA\032301\C19115.D
Name: QVW032301 C1
Misc: WATER BLANK 25ml DF=1
Method: c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.40	7539140.0	ug\L	753914	ISTD01	0.00	1	10.0
Carbon dioxide	1.58	3061520.0	ug\L	306152	ISTD01	0.00	1	10.0
Benzene, 1,4-difluor	8.11	12.2	ug\L	1952590	ISTD02	6.96	1594720	10.0

C19115.D 03230125.M Sun Mar 25 12:49:56 2001 INST:VOA-C

VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 2/28/01	METHOD: 8260B
MATRIX: water - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Is the runlog completely filled out (including review signature/date)? Y N NA

Are all mistakes single lined, initialled, and dated? Y N NA

Analyst: VR	Reviewer:
Date: 3/1/01 Time: 12:40	Date: 03.05.2001 Time: 1500

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files

1	=C18786.D	4	=C18785.D	10	=C18784.D
20	=C18787.D	30	=C18788.D	40	=C18789.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluoromet	0.924	0.887	0.882	0.849	0.812	0.812	0.861	5.19
3)	TP	Chloromethane	0.653	0.637	0.619	0.571	0.553	0.559	0.599	7.19
4)	TC	Vinyl Chloride	0.561	0.550	0.544	0.493	0.487	0.495	0.522	6.43
5)	T	Bromomethane	0.193	0.151	0.143	0.127	0.120	0.126	0.143	18.80
6)	T	Chloroethane	0.283	0.280	0.286	0.250	0.249	0.251	0.266	6.85
7)	T	Trichlorofluorometh	0.863	0.811	0.833	0.787	0.765	0.783	0.807	4.48
8)	T	Acrolein	0.008	0.007	0.007	0.008	0.008	0.009	0.008	10.02
9)	T	Acrylonitrile	0.040	0.037	0.035	0.040	0.039	0.041	0.039	5.89
10)	TMC	1,1-Dichloroethene	0.480	0.495	0.481	0.462	0.447	0.463	0.471	3.65
11)	T	Acetone		0.020	0.012	0.012	0.010	0.010	0.013	30.91
12)	T	Iodomethane	0.580	0.590	0.607	0.671	0.651	0.642	0.623	5.84
13)	T	Allylchloride	0.670	0.685	0.677	0.673	0.652	0.660	0.669	1.80
14)	T	Carbon Disulfide	1.562	1.565	1.546	1.597	1.561	1.604	1.573	1.46
15)	T	Acetonitrile	0.090	0.093	0.089	0.088	0.086	0.087	0.089	2.64
16)	T	Methylene Chloride	0.294	0.263	0.245	0.242	0.235	0.242	0.253	8.60
17)	T	trans-1,2-Dichloroe	0.501	0.514	0.498	0.469	0.460	0.466	0.485	4.62
18)	T	MethylTertButylEthe	0.578	0.557	0.514	0.546	0.534	0.549	0.546	3.97
19)	TP	1,1-Dichloroethane	0.888	0.881	0.835	0.822	0.825	0.828	0.847	3.51
20)	T	Vinyl Acetate	0.213	0.208	0.187	0.216	0.221	0.236	0.213	7.51
21)	T	2,2-Dichloropropane	0.860	0.860	0.861	0.797	0.753	0.750	0.814	6.66
22)	T	cis-1,2-Dichloroeth	0.472	0.484	0.467	0.458	0.453	0.454	0.465	2.58
23)	T	2-Butanone	0.021	0.014	0.011	0.010	0.011	0.011	0.013	31.48
24)	T	Propionitrile	0.014	0.014	0.012	0.013	0.014	0.014	0.013	4.66
25)	T	Methacrylonitrile	0.085	0.087	0.079	0.085	0.081	0.083	0.083	3.49
26)	T	Bromochloromethane	0.152	0.153	0.147	0.144	0.142	0.146	0.147	2.86
27)	TC	Chloroform	0.953	0.903	0.891	0.872	0.871	0.879	0.895	3.48
28)	T	1,1,1-Trichloroetha	0.881	0.924	0.915	0.891	0.890	0.895	0.899	1.84
29)	T	Carbon Tetrachlorid	0.759	0.759	0.758	0.755	0.755	0.757	0.757	0.26
30)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	20.51
31)	T	1,1-Dichloropropene	0.255	0.258	0.251	0.237	0.229	0.235	0.244	4.87
32)	S	1,2-Dichloroethane-	0.408	0.438	0.369	0.409	0.390	0.397	0.402	5.70
33)	TM	Benzene	2.019	1.923	1.859	1.782	1.784	1.787	1.859	5.18
34)	T	Isobutyl alcohol	0.002	0.004	0.003	0.004	0.004	0.004	0.004	20.80
35)	T	1,2-Dichloroethane	0.452	0.450	0.409	0.427	0.421	0.429	0.431	3.84
36)	TM	Trichloroethene	0.601	0.587	0.581	0.562	0.563	0.573	0.578	2.60
37)	TC	1,2-Dichloropropane	0.417	0.417	0.389	0.396	0.401	0.405	0.404	2.81
38)	T	Dibromomethane	0.161	0.158	0.147	0.150	0.150	0.152	0.153	3.47
39)	T	Methylmethacrylate	0.097	0.099	0.098	0.104	0.106	0.112	0.103	5.70
40)	T	Bromodichloromethan	0.508	0.531	0.532	0.550	0.572	0.575	0.545	4.74
41)	T	2-Nitropropane	0.029	0.029	0.026	0.031	0.035	0.037	0.031	13.47
42)	T	2-Chloroethyl-vinyl	0.065	0.069	0.064	0.083	0.086	0.085	0.075	14.03
43)	T	cis-1,3-Dichloropro	0.485	0.549	0.524	0.535	0.559	0.576	0.538	5.90
44)	T	4-Methyl-2-Pentanon	0.022	0.018	0.017	0.020	0.021	0.023	0.020	10.78

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files
1 =C18786.D 4 =C18785.D 10 =C18784.D
20 =C18787.D 30 =C18788.D 40 =C18789.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	----------ISTD----------							
46)	S	Toluene-d8	1.477	1.656	1.602	1.531	1.504	1.466	1.539	4.87
47)	TMC	Toluene	1.019	0.966	1.013	0.892	0.923	0.902	0.953	5.82
48)	T	trans-1,3-Dichlorop	0.254	0.281	0.295	0.303	0.314	0.321	0.295	8.23
49)	T	Ethylmethacrylate	0.162	0.177	0.186	0.197	0.203	0.207	0.188	9.09
50)	T	1,1,2-Trichloroetha	0.135	0.135	0.132	0.131	0.135	0.137	0.134	1.62
51)	T	Tetrachloroethene	0.374	0.359	0.377	0.340	0.344	0.346	0.357	4.48
52)	T	1,3-Dichloropropane	0.301	0.300	0.298	0.292	0.294	0.302	0.298	1.33
53)	T	2-Hexanone	0.056	0.052	0.053	0.060	0.061	0.063	0.057	7.99
54)	T	Dibromochloromethan	0.177	0.199	0.209	0.215	0.224	0.231	0.209	9.20
55)	T	1,2-Dibromoethane	0.137	0.141	0.145	0.145	0.149	0.154	0.145	4.12
56)	TMP	Chlorobenzene	1.171	1.012	1.014	0.931	0.940	0.936	1.001	9.14
57)	T	1,1,1,2-Tetrachloro	0.278	0.291	0.304	0.288	0.293	0.293	0.291	2.85
58)	TC	Ethylbenzene	2.019	1.997	2.037	1.833	1.822	1.764	1.912	6.20
59)	TG	total-Xylene	0.693	0.685	0.693	0.628	0.627	0.614	0.657	5.69
60)	T	Styrene	0.929	0.947	0.993	0.909	0.938	0.928	0.941	3.03
61)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
62)	TP	Bromoform	0.171	0.194	0.209	0.221	0.249	0.255	0.216	14.89
63)	T	Isopropylbenzene	4.997	5.098	5.214	4.578	4.859	4.742	4.915	4.78
64)	T	cis-1,4-dichloro-2-	0.068	0.085	0.093	0.101	0.115	0.120	0.097	19.94
65)	T	trans-1,4-dichloro-	0.427	0.437	0.426	0.423	0.445	0.447	0.434	2.33
66)	S	Bromofluorobenzene		1.291	1.199	1.179	1.225	1.224	1.223	3.45
67)	T	Bromobenzene	0.815	0.796	0.787	0.748	0.813	0.820	0.797	3.39
68)	TP	1,1,2,2-Tetrachloro	0.358	0.382	0.363	0.365	0.390	0.397	0.376	4.25
69)	T	1,2,3-Trichloroprop	0.427	0.437	0.426	0.423	0.445	0.447	0.434	2.33
70)	T	n-Propylbenzene	6.102	6.233	6.358	5.591	5.839	5.667	5.965	5.25
71)	T	2-Chlorotoluene	3.454	3.373	3.461	3.086	3.283	3.235	3.315	4.34
72)	T	4-Chlorotoluene	3.787	3.340	3.392	3.375	3.601	3.553	3.508	4.90
73)	T	1,3,5-Trimethylbenz	4.040	4.088	4.184	3.671	3.884	3.739	3.934	5.17
74)	T	Pentachloroethane	0.461	0.502	0.484	0.471	0.496	0.498	0.485	3.41
75)	T	tert-Butylbenzene	3.381	3.484	3.570	3.043	3.245	3.182	3.317	5.94
76)	T	1,2,4-Trimethylbenz	3.773	3.884	3.978	3.478	3.635	3.509	3.710	5.47
77)	T	sec-Butylbenzene	5.159	5.133	5.293	4.585	4.810	4.712	4.949	5.75
78)	T	1,3-Dichlorobenzene	1.737	1.643	1.659	1.490	1.548	1.534	1.602	5.81
79)	T	Isopropyltoluene	3.866	4.016	4.154	3.592	3.669	3.583	3.813	6.23
80)	T	1,4-Dichlorobenzene	1.652	1.575	1.583	1.453	1.534	1.540	1.556	4.24
81)	T	1,2-Dichlorobenzene	1.302	1.218	1.198	1.136	1.179	1.205	1.206	4.56
82)	T	n-Butylbenzene	3.649	3.820	4.001	3.513	3.644	3.641	3.711	4.64
83)	T	1,2-Dibromo-3-chlor	0.047	0.038	0.035	0.042	0.042	0.048	0.042	11.90
84)	T	1,2,4-trichlorobenz	0.706	0.642	0.613	0.613	0.625	0.655	0.642	5.50
85)	T	Hexachlorobutadiene	0.628	0.566	0.524	0.440	0.411	0.423	0.499	17.67
86)	T	Naphthalene	0.946	0.716	0.603	0.699	0.753	0.821	0.756	15.48
87)	T	1,2,3-Trichlorobenz	0.480	0.429	0.412	0.425	0.425	0.457	0.438	5.82

(#) = Out of Range

Response Factor Report VOA-C

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:29:30 2001
Response via : Initial Calibration

Calibration Files

1	=C18786.D	4	=C18785.D	10	=C18784.D
20	=C18787.D	30	=C18788.D	40	=C18789.D

Compound	1	4	10	20	30	40	Avg	%RSD
88) i 1.4-Difluorobenzene	----------ISTD----------							

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	586839	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	729179	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	287042	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1716	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	216666	9.19	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 91.90%			
46) Toluene-d8	10.26	98	1168180	10.41	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.10%			
66) Bromofluorobenzene	13.96	95	344083	9.80	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.00%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	517879	10.25	ug\L	99
3) Chloromethane	1.74	50	363063	10.33	ug\L	98
4) Vinyl Chloride	1.85	62	319513	10.44	ug\L	99
5) Bromomethane	2.16	94	83912	10.84	ug\L	94
6) Chloroethane	2.28	64	167851	10.74	ug\L	94
7) Trichlorofluoromethane	2.54	101	488684	10.32	ug\L #	100
8) Acrolein	3.10	56	7889	17.18	ug\L #	98
9) Acrylonitrile	4.29	53	40944	18.10	ug\L	89
10) 1,1-Dichloroethene	3.16	96	282038	10.20	ug\L	100
11) Acetone	3.31	58	6814	8.65	ug\L	91
12) Iodomethane	3.37	142	356367	9.74	ug\L	99
13) Allylchloride	3.65	39	397304	10.11	ug\L	97
14) Carbon Disulfide	3.44	76	907199	9.83	ug\L	99
15) Acetonitrile	3.65	41	522405	100.31	ug\L	97
16) Methylene Chloride	3.86	86	143532	9.65	ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	292339	10.27	ug\L	99
18) MethylTertButylEther	4.23	73	301439	9.40	ug\L	100
19) 1,1-Dichloroethane	5.00	63	490069	9.86	ug\L	98
20) Vinyl Acetate	5.13	43	109892	8.77	ug\L	97
21) 2,2-Dichloropropane	6.01	77	505476	10.59	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	274086	10.05	ug\L	99
23) 2-Butanone	6.17	72	3249	4.60	ug\L #	1
24) Propionitrile	6.31	54	72207	91.22	ug\L #	98
25) Methacrylonitrile	6.52	41	462720	94.44	ug\L	99
26) Bromochloromethane	6.49	128	86428	10.01	ug\L	94
27) Chloroform	6.64	83	522798	9.96	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	537244	10.18	ug\L	99
29) Carbon Tetrachloride	7.10	119	445027	10.01	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.09	88	9585	181.53 ug\L #	90
31) 1,1-Dichloropropene	7.12	77	147362	10.28 ug\L	98
33) Benzene	7.47	78	1090721	10.00 ug\L	100
34) Isobutyl alcohol	7.57	43	39621	166.98 ug\L	99
35) 1,2-Dichloroethane	7.56	62	240229	9.49 ug\L	99
36) Trichloroethene	8.48	95	341074	10.06 ug\L	99
37) 1,2-Dichloropropane	8.84	63	228178	9.62 ug\L	99
38) Dibromomethane	9.05	93	86336	9.62 ug\L	97
39) Methylmethacrylate	9.06	69	57395	9.52 ug\L	95
40) Bromodichloromethane	9.30	83	312144	9.76 ug\L	99
41) 2-Nitropropane	9.67	43	14981	8.20 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	37476	8.49 ug\L	100
43) cis-1,3-Dichloropropene	9.93	75	307661	9.75 ug\L	98
44) 4-Methyl-2-Pentanone	10.16	85	10209	8.68 ug\L #	93
47) Toluene	10.36	92	738449	10.63 ug\L	99
48) trans-1,3-Dichloropropene	10.75	75	215205	10.02 ug\L	99
49) Ethylmethacrylate	10.85	69	135755	9.88 ug\L	98
50) 1,1,2-Trichloroethane	11.02	83	96304	9.84 ug\L	96
51) Tetrachloroethene	11.12	164	274557	10.56 ug\L	99
52) 1,3-Dichloropropane	11.23	76	217596	10.02 ug\L	99
53) 2-Hexanone	11.35	43	38629	9.21 ug\L	94
54) Dibromochloromethane	11.56	129	152377	9.98 ug\L	100
55) 1,2-Dibromoethane	11.70	107	105765	9.99 ug\L	100
56) Chlorobenzene	12.36	112	739119	10.13 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	221502	10.43 ug\L	98
58) Ethylbenzene	12.50	91	1485085	10.65 ug\L	99
59) total-Xylene	12.66	106	1518622m	31.72 ug\L	
60) Styrene	13.25	104	724021	10.55 ug\L	99
62) Bromoform	13.56	173	59950	9.65 ug\L	98
63) Isopropylbenzene	13.72	105	1496562	10.61 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	26618	9.22 ug\L #	87
65) trans-1,4-dichloro-2-Buten	14.27	75	122396	9.82 ug\L #	72
67) Bromobenzene	14.17	156	225972	9.88 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.22	83	104121	9.66 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	122396	9.82 ug\L #	100
70) n-Propylbenzene	14.29	91	1824958	10.66 ug\L	99
71) 2-Chlorotoluene	14.43	91	993376	10.44 ug\L	99
72) 4-Chlorotoluene	14.58	91	973687	9.67 ug\L	95
73) 1,3,5-Trimethylbenzene	14.53	105	1200845	10.63 ug\L	99
74) Pentachloroethane	15.05	167	138919	9.97 ug\L	97
75) tert-Butylbenzene	14.98	119	1024829	10.76 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	1141799	10.72 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

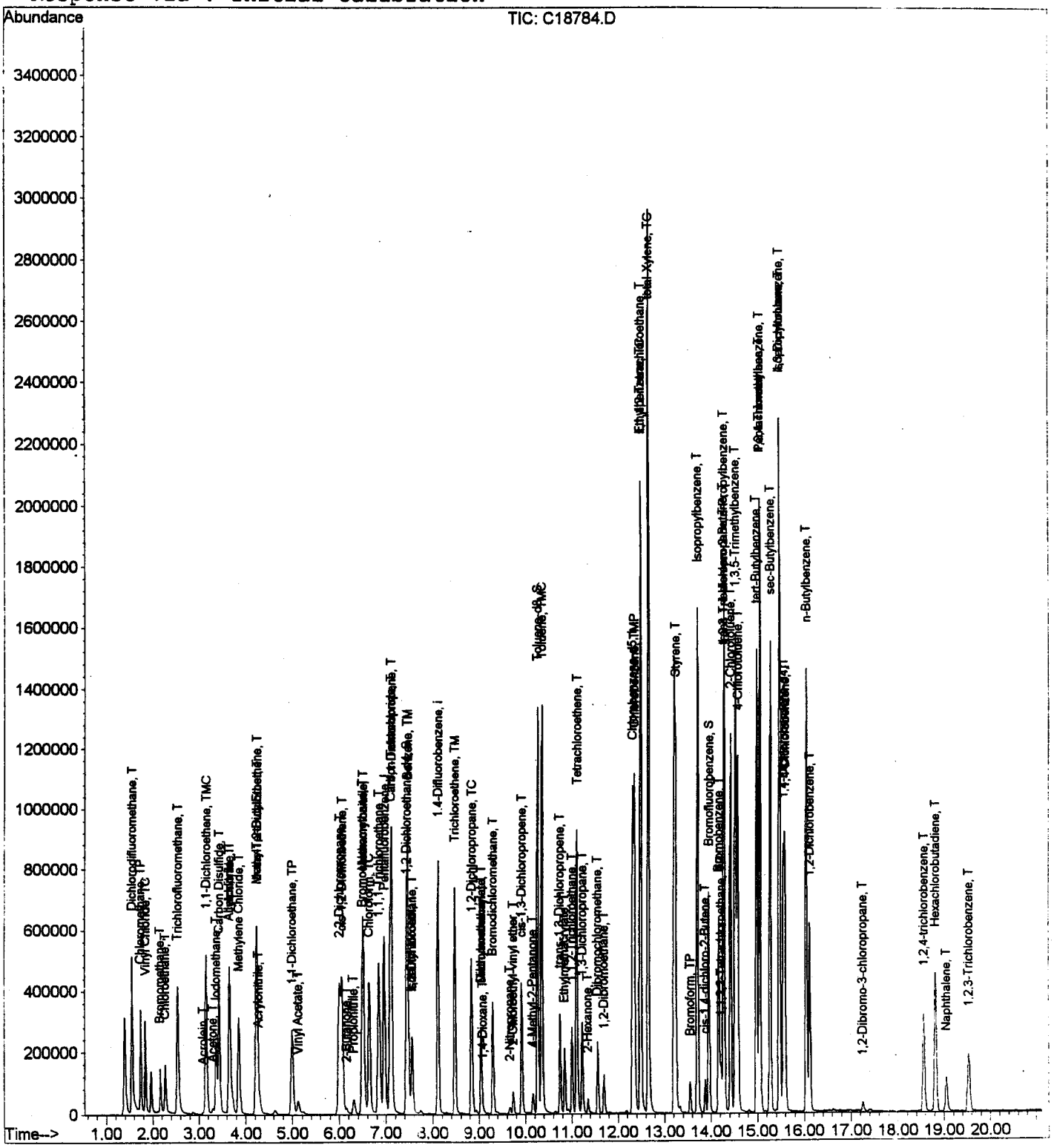
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1519439	10.70 ug\L	99
78) 1,3-Dichlorobenzene	15.47	146	476281	10.36 ug\L	97
79) Isopropyltoluene	15.47	119	1192340	10.89 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	454367	10.17 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	343830	9.93 ug\L	100
82) n-Butylbenzene	16.04	91	1148357	10.78 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	10113	8.35 ug\L	96
84) 1,2,4-trichlorobenzene	18.57	180	175883	9.54 ug\L	100
85) Hexachlorobutadiene	18.82	225	150390	11.42 ug\L	100
86) Naphthalene	19.05	128	173126	7.76 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	118222	9.40 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18784.D Vial: 1
Acq On : 02/28/01 10:43 Operator: TAG/VR
Sample : ICAL 10 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:36 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	559630	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	747345	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	291670	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1426	10.00	ug\L	0.02
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	98048	4.36	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 43.60%#			
46) Toluene-d8	10.27	98	494974	4.30	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 43.00%#			
66) Bromofluorobenzene	13.96	95	150590	4.22	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 42.20%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	198548	4.12	ug\L	100
3) Chloromethane	1.75	50	142695	4.26	ug\L	99
4) Vinyl Chloride	1.85	62	123015	4.21	ug\L	99
5) Bromomethane	2.17	94	33788	4.03	ug\L	97
6) Chloroethane	2.28	64	62631	4.20	ug\L	94
7) Trichlorofluoromethane	2.54	101	181513	4.02	ug\L #	100
8) Acrolein	3.09	56	3300	7.53	ug\L #	95
9) Acrylonitrile	4.32	53	16434	7.62	ug\L	88
10) 1,1-Dichloroethene	3.17	96	110807	4.20	ug\L	98
11) Acetone	3.30	58	4433	4.79	ug\L	90
12) Iodomethane	3.38	142	132070	3.79	ug\L	98
13) Allylchloride	3.67	39	153372	4.09	ug\L	99
14) Carbon Disulfide	3.44	76	350343	3.98	ug\L	99
15) Acetonitrile	3.66	41	207602	41.80	ug\L	99
16) Methylene Chloride	3.86	86	58969	4.16	ug\L	98
17) trans-1,2-Dichloroethene	4.25	96	115140	4.24	ug\L	100
18) MethylTertButylEther	4.24	73	124736	4.08	ug\L	100
19) 1,1-Dichloroethane	5.01	63	197311	4.16	ug\L	99
20) Vinyl Acetate	5.14	43	46462	3.89	ug\L	97
21) 2,2-Dichloropropane	6.02	77	192596	4.23	ug\L	98
22) cis-1,2-Dichloroethene	6.07	96	108295	4.16	ug\L	99
23) 2-Butanone	6.16	72	3183	4.74	ug\L #	1
24) Propionitrile	6.32	54	30623	40.57	ug\L #	90
25) Methacrylonitrile	6.53	41	194000	41.52	ug\L	98
26) Bromochloromethane	6.50	128	34185	4.15	ug\L	95
27) Chloroform	6.65	83	202057	4.04	ug\L	100
28) 1,1,1-Trichloroethane	6.86	97	206784	4.11	ug\L	98
29) Carbon Tetrachloride	7.11	119	169961	4.01	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.08	88	3150	81.91 ug\L #	72
31) 1,1-Dichloropropene	7.14	77	57699	4.22 ug\L	97
33) Benzene	7.47	78	430546	4.14 ug\L	100
34) Isobutyl alcohol	7.58	43	19716	82.53 ug\L #	83
35) 1,2-Dichloroethane	7.56	62	100697	4.17 ug\L	97
36) Trichloroethene	8.49	95	131395	4.06 ug\L	99
37) 1,2-Dichloropropane	8.84	63	93367	4.13 ug\L	99
38) Dibromomethane	9.05	93	35442	4.14 ug\L	97
39) Methylmethacrylate	9.05	69	22182	3.86 ug\L	98
40) Bromodichloromethane	9.30	83	118929	3.90 ug\L	99
41) 2-Nitropropane	9.67	43	6585	3.78 ug\L	91
42) 2-Chloroethyl-vinyl ether	9.75	63	15416	3.66 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	122843	4.08 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	3976	3.54 ug\L #	85
47) Toluene	10.36	92	288918	4.06 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	83884	3.81 ug\L	98
49) Ethylmethacrylate	10.85	69	52853	3.75 ug\L	94
50) 1,1,2-Trichloroethane	11.01	83	40426	4.03 ug\L	98
51) Tetrachloroethene	11.12	164	107449	4.03 ug\L	99
52) 1,3-Dichloropropane	11.23	76	89604	4.03 ug\L	99
53) 2-Hexanone	11.35	43	15572	3.62 ug\L	95
54) Dibromochloromethane	11.56	129	59441	3.80 ug\L	99
55) 1,2-Dibromoethane	11.70	107	42083	3.88 ug\L	92
56) Chlorobenzene	12.36	112	302598	4.05 ug\L	97
57) 1,1,1,2-Tetrachloroethane	12.49	131	87092	4.00 ug\L	98
58) Ethylbenzene	12.49	91	596898	4.18 ug\L	100
59) total-Xylene	12.66	106	614873m	12.53 ug\L	
60) Styrene	13.25	104	283181	4.03 ug\L	95
62) Bromoform	13.56	173	22588	3.58 ug\L	98
63) Isopropylbenzene	13.71	105	594751	4.15 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.88	75	9920	4.40 ug\L #	80
65) trans-1,4-dichloro-2-Buten	14.27	75	50989	4.03 ug\L #	71
67) Bromobenzene	14.17	156	92896	4.00 ug\L	99
68) 1,1,2,2-Tetrachloroethane	14.22	83	44511	4.06 ug\L	96
69) 1,2,3-Trichloropropane	14.27	75	50989	4.03 ug\L #	100
70) n-Propylbenzene	14.28	91	727178	4.18 ug\L	98
71) 2-Chlorotoluene	14.42	91	393498	4.07 ug\L	98
72) 4-Chlorotoluene	14.58	91	389674	3.81 ug\L	95
73) 1,3,5-Trimethylbenzene	14.53	105	476941	4.16 ug\L	100
74) Pentachloroethane	15.05	167	58621	4.14 ug\L	95
75) tert-Butylbenzene	14.98	119	406423	4.20 ug\L	98
76) 1,2,4-Trimethylbenzene	15.05	105	453121	4.19 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

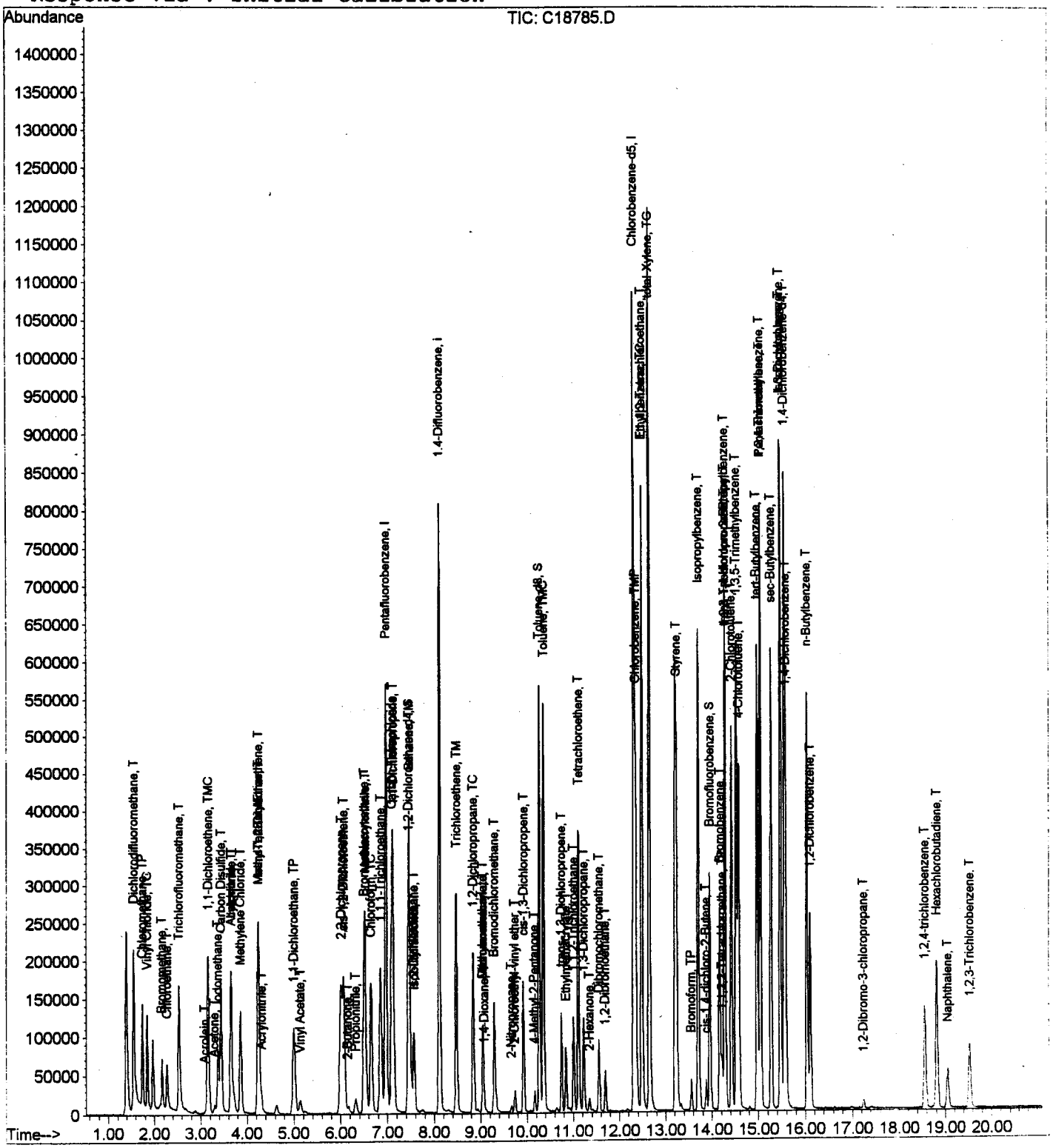
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	598897	4.15 ug\L	99
78) 1,3-Dichlorobenzene	15.46	146	191640	4.10 ug\L	96
79) Isopropyltoluene	15.48	119	468540	4.21 ug\L	100
80) 1,4-Dichlorobenzene	15.59	146	183753	4.05 ug\L	98
81) 1,2-Dichlorobenzene	16.12	146	142055	4.04 ug\L	99
82) n-Butylbenzene	16.04	91	445705	4.12 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	4484	3.64 ug\L	90
84) 1,2,4-trichlorobenzene	18.57	180	74868	4.00 ug\L	100
85) Hexachlorobutadiene	18.81	225	66024	4.05 ug\L	100
86) Naphthalene	19.06	128	83529	3.69 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	50002	3.91 ug\L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18785.D Vial: 2
Acq On : 02/28/01 11:08 Operator: TAG/VR
Sample : ICAL 4 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:37 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	471435	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.33	117	622100	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	241683	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.13	116	1373	10.00 ug\L	0.02
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	19225	1.01 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.10%#		
46) Toluene-d8	10.27	98	91902	0.96 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.60%#		
66) Bromofluorobenzene	13.96	95	28569	0.97 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.70%#		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	43546	1.07 ug\L	100
3) Chloromethane	1.75	50	30774	1.09 ug\L	95
4) Vinyl Chloride	1.85	62	26461	1.08 ug\L	98
5) Bromomethane	2.17	94	9104	0.65 ug\L	93
6) Chloroethane	2.28	64	13343	1.06 ug\L	90
7) Trichlorofluoromethane	2.54	101	40685	1.07 ug\L #	100
8) Acrolein	3.09	56	463	1.25 ug\L #	14
9) Acrylonitrile	4.31	53	3755	2.07 ug\L	95
10) 1,1-Dichloroethene	3.16	96	22613	1.02 ug\L	95
11) Acetone	3.30	58	2599	2.27 ug\L	82
12) Iodomethane	3.38	142	27332	0.93 ug\L	98
13) Allylchloride	3.65	39	31608	1.00 ug\L	98
14) Carbon Disulfide	3.44	76	73636	0.99 ug\L	99
15) Acetonitrile	3.65	41	42195	10.09 ug\L	98
16) Methylene Chloride	3.86	86	13837	1.16 ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	23632	1.03 ug\L	98
18) MethylTertButylEther	4.24	73	27241	1.06 ug\L	98
19) 1,1-Dichloroethane	4.99	63	41840	1.05 ug\L	98
20) Vinyl Acetate	5.13	43	10040	1.00 ug\L #	92
21) 2,2-Dichloropropane	6.02	77	40548	1.06 ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	22273	1.02 ug\L	99
23) 2-Butanone	6.16	72	977	1.33 ug\L #	1
24) Propionitrile	6.34	54	6506	10.23 ug\L #	96
25) Methacrylonitrile	6.52	41	40228	10.22 ug\L	98
26) Bromochloromethane	6.50	128	7145	1.03 ug\L	93
27) Chloroform	6.65	83	44939	1.07 ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	41519	0.98 ug\L	97
29) Carbon Tetrachloride	7.11	119	35781	1.00 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	587	41.12 ug\L #	49
31) 1,1-Dichloropropene	7.13	77	12029	1.04 ug\L	98
33) Benzene	7.47	78	95160	1.09 ug\L	100
34) Isobutyl alcohol	7.57	43	2118	2.13 ug\L #	18
35) 1,2-Dichloroethane	7.56	62	21295	1.05 ug\L	97
36) Trichloroethene	8.48	95	28329	1.04 ug\L	98
37) 1,2-Dichloropropane	8.85	63	19660	1.03 ug\L	97
38) Dibromomethane	9.05	93	7575	1.05 ug\L	96
39) Methylmethacrylate	9.05	69	4581	0.95 ug\L #	89
40) Bromodichloromethane	9.29	83	23960	0.93 ug\L	97
41) 2-Nitropropane	9.66	43	1386	0.94 ug\L	82
42) 2-Chloroethyl-vinyl ether	9.74	63	3042	0.86 ug\L	94
43) cis-1,3-Dichloropropene	9.93	75	22844	0.90 ug\L	94
44) 4-Methyl-2-Pentanone	10.19	85	1025	1.08 ug\L #	1
47) Toluene	10.37	92	63417	1.07 ug\L	97
48) trans-1,3-Dichloropropene	10.74	75	15827	0.86 ug\L	97
49) Ethylmethacrylate	10.85	69	10056	0.86 ug\L	97
50) 1,1,2-Trichloroethane	11.00	83	8401	1.01 ug\L	96
51) Tetrachloroethene	11.12	164	23287	1.05 ug\L	96
52) 1,3-Dichloropropane	11.24	76	18705	1.01 ug\L	98
53) 2-Hexanone	11.35	43	3459	0.97 ug\L #	90
54) Dibromochloromethane	11.56	129	11037	0.85 ug\L	92
55) 1,2-Dibromoethane	11.69	107	8513	0.94 ug\L #	97
56) Chlorobenzene	12.36	112	72825	1.17 ug\L	94
57) 1,1,1,2-Tetrachloroethane	12.49	131	17303	0.96 ug\L	98
58) Ethylbenzene	12.49	91	125604	1.06 ug\L	100
59) total-Xylene	12.66	106	129653m	3.17 ug\L	
60) Styrene	13.25	104	57808	0.99 ug\L	98
62) Bromoform	13.55	173	4136	0.79 ug\L	99
63) Isopropylbenzene	13.72	105	120764	1.02 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	1648	2.17 ug\L #	70
65) trans-1,4-dichloro-2-Buten	14.27	75	10325	0.98 ug\L #	69
67) Bromobenzene	14.17	156	19708	1.02 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.21	83	8644	0.95 ug\L #	97
69) 1,2,3-Trichloropropane	14.27	75	10325	0.98 ug\L #	100
70) n-Propylbenzene	14.29	91	147471	1.02 ug\L	97
71) 2-Chlorotoluene	14.43	91	83484	1.04 ug\L	99
72) 4-Chlorotoluene	14.58	91	91519	1.08 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	97647	1.03 ug\L	96
74) Pentachloroethane	15.06	167	11143	0.95 ug\L #	89
75) tert-Butylbenzene	14.98	119	81711	1.02 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	91194	1.02 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

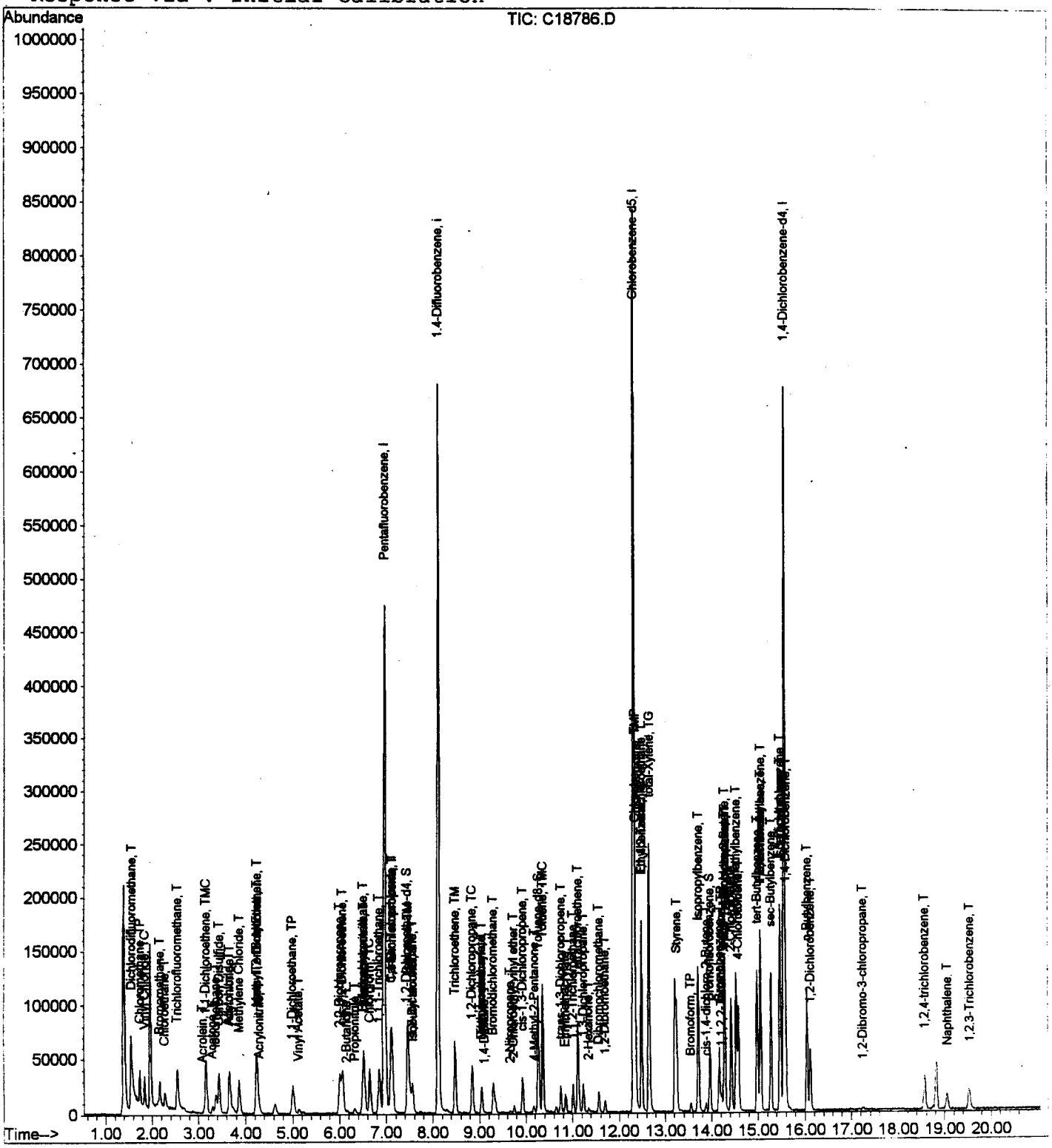
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	124689	1.04 ug\L	99
78)	1,3-Dichlorobenzene	15.47	146	41985	1.08 ug\L	96
79)	Isopropyltoluene	15.48	119	93423	1.01 ug\L	99
80)	1,4-Dichlorobenzene	15.60	146	39933	1.06 ug\L	92
81)	1,2-Dichlorobenzene	16.12	146	31476	1.08 ug\L	96
82)	n-Butylbenzene	16.04	91	88195	0.98 ug\L	97
83)	1,2-Dibromo-3-chloropropan	17.24	75	1147	1.13 ug\L #	20
84)	1,2,4-trichlorobenzene	18.56	180	17063	1.10 ug\L	100
86)	Naphthalene	19.06	128	22866	1.22 ug\L	100
87)	1,2,3-Trichlorobenzene	19.54	180	11611	1.10 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18786.D Vial: 3
Acq On : 02/28/01 11:33 Operator: TAG/VR
Sample : ICAL 1 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:38 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	500810	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	658286	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	263843	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.10	116	628	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	409632	20.36	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 203.60%#			
46) Toluene-d8	10.27	98	2015205	19.89	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 198.90%#			
66) Bromofluorobenzene	13.97	95	622056	19.27	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 192.70%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	849938	19.71	ug\L	99
3) Chloromethane	1.75	50	571628	19.07	ug\L	99
4) Vinyl Chloride	1.85	62	493910	18.91	ug\L	99
5) Bromomethane	2.17	94	127107	19.98	ug\L	94
6) Chloroethane	2.27	64	250191	18.75	ug\L	93
7) Trichlorofluoromethane	2.55	101	788700	19.51	ug\L #	100
8) Acrolein	3.09	56	15781	40.26	ug\L #	90
9) Acrylonitrile	4.31	53	80339	41.62	ug\L	95
10) 1,1-Dichloroethene	3.16	96	463082	19.63	ug\L	98
11) Acetone	3.31	58	11765	21.07	ug\L	98
12) Iodomethane	3.38	142	672010	21.52	ug\L	99
13) Allylchloride	3.66	39	673989	20.10	ug\L	96
14) Carbon Disulfide	3.44	76	1599912	20.31	ug\L	99
15) Acetonitrile	3.66	41	884255	198.96	ug\L	97
16) Methylene Chloride	3.86	86	242777	19.12	ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	469808	19.35	ug\L	98
18) MethylTertButylEther	4.24	73	546801	19.99	ug\L	98
19) 1,1-Dichloroethane	5.00	63	823702	19.43	ug\L	99
20) Vinyl Acetate	5.13	43	215991	20.21	ug\L	97
21) 2,2-Dichloropropane	6.02	77	797945	19.58	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	458639	19.71	ug\L	97
23) 2-Butanone	6.17	72	10048	18.31	ug\L	71
24) Propionitrile	6.31	54	133806	198.07	ug\L	98
25) Methacrylonitrile	6.53	41	854200	204.29	ug\L	98
26) Bromochloromethane	6.49	128	143861	19.52	ug\L	97
27) Chloroform	6.65	83	873276	19.49	ug\L	98
28) 1,1,1-Trichloroethane	6.85	97	892672	19.82	ug\L	99
29) Carbon Tetrachloride	7.10	119	756447	19.95	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	19865	398.68 ug\L #	94
31) 1,1-Dichloropropene	7.13	77	237343	19.40 ug\L	100
33) Benzene	7.47	78	1784876	19.17 ug\L	100
34) Isobutyl alcohol	7.57	43	80646	411.60 ug\L	97
35) 1,2-Dichloroethane	7.57	62	428065	19.81 ug\L	98
36) Trichloroethene	8.48	95	562850	19.45 ug\L	98
37) 1,2-Dichloropropane	8.84	63	396550	19.59 ug\L	99
38) Dibromomethane	9.05	93	150157	19.60 ug\L	96
39) Methylmethacrylate	9.05	69	104594	20.32 ug\L	97
40) Bromodichloromethane	9.30	83	551361	20.21 ug\L	99
41) 2-Nitropropane	9.66	43	30648	19.65 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.74	63	83497	22.16 ug\L	98
43) cis-1,3-Dichloropropene	9.92	75	535952	19.89 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	19876	19.80 ug\L #	96
47) Toluene	10.36	92	1174100	18.72 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	399055	20.57 ug\L	100
49) Ethylmethacrylate	10.85	69	259195	20.89 ug\L	96
50) 1,1,2-Trichloroethane	11.01	83	173041	19.58 ug\L	99
51) Tetrachloroethene	11.12	164	447735	19.07 ug\L	98
52) 1,3-Dichloropropane	11.23	76	384484	19.62 ug\L	100
53) 2-Hexanone	11.35	43	78925	20.85 ug\L	97
54) Dibromochloromethane	11.56	129	283443	20.57 ug\L	100
55) 1,2-Dibromoethane	11.70	107	191365	20.03 ug\L	99
56) Chlorobenzene	12.36	112	1226119	18.61 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	379501	19.80 ug\L	98
58) Ethylbenzene	12.49	91	2413806	19.18 ug\L	100
59) total-Xylene	12.66	106	2481548m	57.41 ug\L	
60) Styrene	13.25	104	1196957	19.33 ug\L	96
62) Bromoform	13.56	173	116771	20.44 ug\L	99
63) Isopropylbenzene	13.72	105	2415988	18.63 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	53130	18.15 ug\L #	90
65) trans-1,4-dichloro-2-Buten	14.27	75	223291	19.49 ug\L #	69
67) Bromobenzene	14.17	156	394608	18.77 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.23	83	192683	19.45 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	223291	19.49 ug\L #	100
70) n-Propylbenzene	14.29	91	2950053	18.74 ug\L	99
71) 2-Chlorotoluene	14.43	91	1628688	18.62 ug\L	99
72) 4-Chlorotoluene	14.58	91	1780868	19.24 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1937320	18.66 ug\L	98
74) Pentachloroethane	15.06	167	248444	19.40 ug\L	98
75) tert-Butylbenzene	14.98	119	1605978	18.35 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	1835334	18.75 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18787.D Vial: 4
Acq On : 02/28/01 11:59 Operator: TAG/VR
Sample : ICAL 20 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	2419306	18.53 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	786090	18.60 ug\L	97
79) Isopropyltoluene	15.48	119	1895622	18.84 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	766469	18.67 ug\L	100
81) 1,2-Dichlorobenzene	16.12	146	599505	18.84 ug\L	99
82) n-Butylbenzene	16.05	91	1853619	18.93 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.26	75	22103	19.86 ug\L	96
84) 1,2,4-trichlorobenzene	18.57	180	323566	19.09 ug\L	100
85) Hexachlorobutadiene	18.81	225	232293	20.25 ug\L	100
86) Naphthalene	19.05	128	369081	18.01 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	224521	19.42 ug\L	100

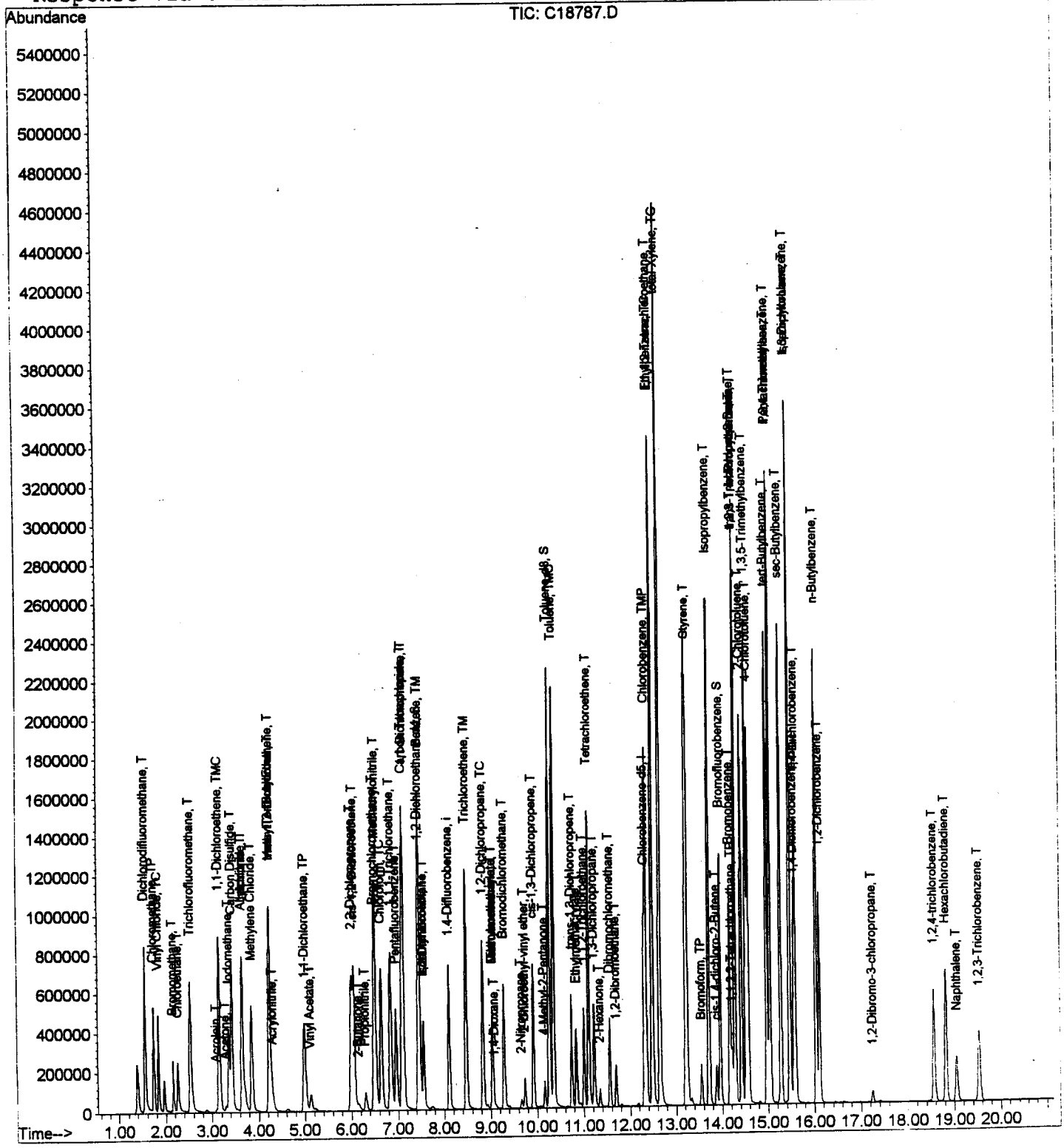
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18787.D
Acq On : 02/28/01 11:59
Sample : ICAL 20 ppb (V01010,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Feb 28 13:39 2001

Vial: 4
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	33093	568.80 ug\L #	96
31) 1,1-Dichloropropene	7.13	77	392868	28.16 ug\L	97
33) Benzene	7.47	78	3055959	28.79 ug\L	100
34) Isobutyl alcohol	7.57	43	131371	592.08 ug\L	95
35) 1,2-Dichloroethane	7.57	62	720688	29.25 ug\L	98
36) Trichloroethene	8.48	95	964222	29.22 ug\L	99
37) 1,2-Dichloropropane	8.84	63	687376	29.78 ug\L	99
38) Dibromomethane	9.05	93	257158	29.43 ug\L	97
39) Methylmethacrylate	9.05	69	181581	30.93 ug\L	98
40) Bromodichloromethane	9.30	83	979332	31.48 ug\L	99
41) 2-Nitropropane	9.67	43	59272	33.32 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	147638	34.36 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	958315	31.19 ug\L	98
44) 4-Methyl-2-Pentanone	10.17	85	35465	30.98 ug\L #	96
47) Toluene	10.36	92	2089002	29.07 ug\L	99
48) trans-1,3-Dichloropropene	10.74	75	709754	31.93 ug\L	99
49) Ethylmethacrylate	10.85	69	458716	32.26 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	304585	30.07 ug\L	98
51) Tetrachloroethene	11.12	164	778175	28.92 ug\L	99
52) 1,3-Dichloropropane	11.23	76	664375	29.58 ug\L	99
53) 2-Hexanone	11.34	43	138019	31.82 ug\L	99
54) Dibromochloromethane	11.56	129	507815	32.16 ug\L	99
55) 1,2-Dibromoethane	11.70	107	337199	30.79 ug\L	99
56) Chlorobenzene	12.36	112	2127564	28.18 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	662993	30.17 ug\L	99
58) Ethylbenzene	12.49	91	4123377	28.58 ug\L	99
59) total-Xylene	12.66	106	4263175m	86.05 ug\L	
60) Styrene	13.25	104	2123772	29.92 ug\L	97
62) Bromoform	13.56	173	214082	34.57 ug\L	99
63) Isopropylbenzene	13.71	105	4170325	29.66 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	98998	30.03 ug\L #	93
65) trans-1,4-dichloro-2-Buten	14.27	75	381944	30.74 ug\L #	69
67) Bromobenzene	14.17	156	698070	30.63 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	334338	31.12 ug\L	97
69) 1,2,3-Trichloropropane	14.27	75	381944	30.74 ug\L #	100
70) n-Propylbenzene	14.29	91	5011543	29.37 ug\L	99
71) 2-Chlorotoluene	14.42	91	2817240	29.70 ug\L	99
72) 4-Chlorotoluene	14.57	91	3090232	30.79 ug\L	98
73) 1,3,5-Trimethylbenzene	14.53	105	3333433	29.62 ug\L	99
74) Pentachloroethane	15.05	167	425572	30.65 ug\L	99
75) tert-Butylbenzene	14.98	119	2785020	29.34 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	3120180	29.40 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

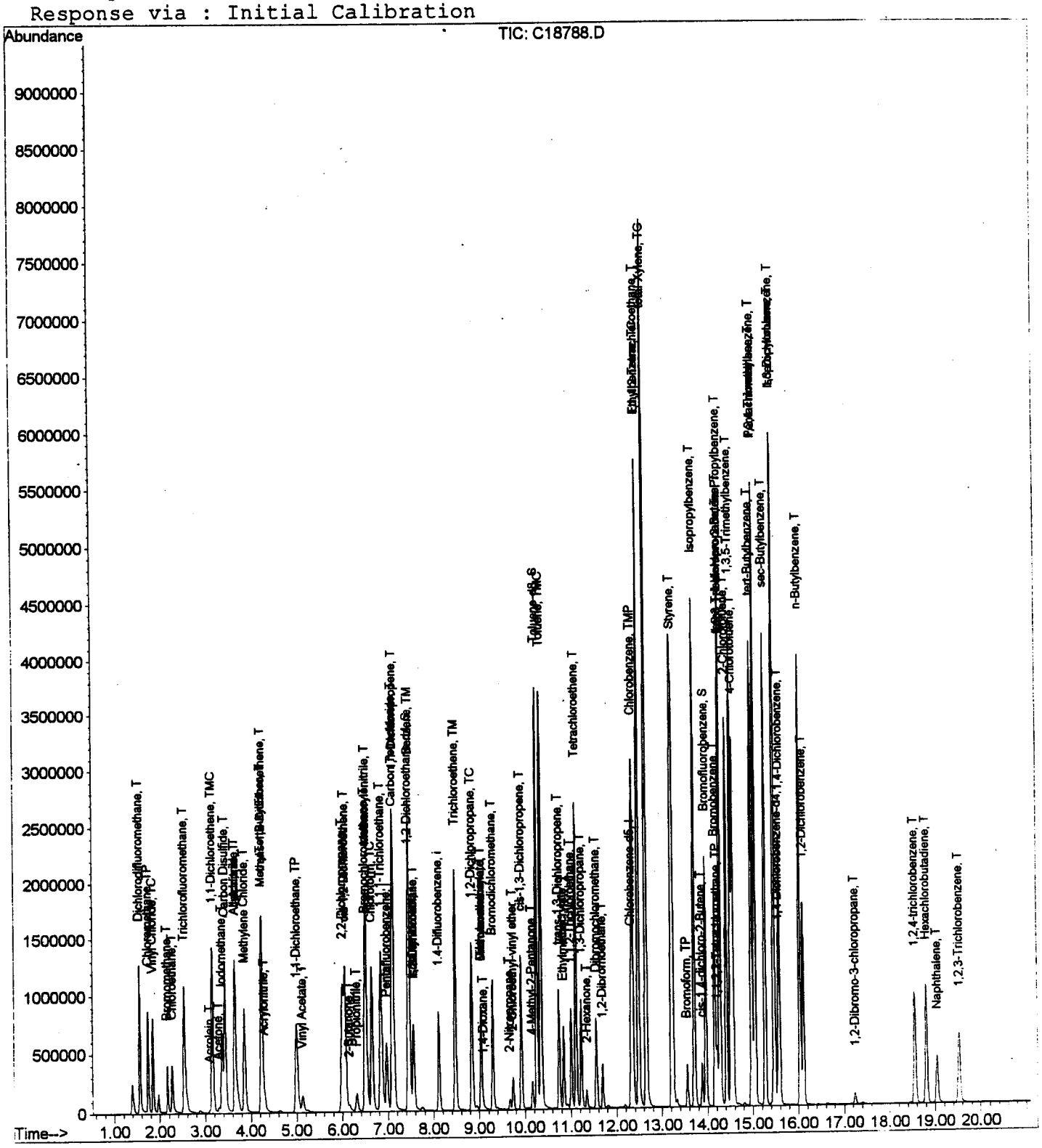
Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	4128425	29.16 ug\L	100
78) 1,3-Dichlorobenzene	15.46	146	1328462	28.99 ug\L	96
79) Isopropyltoluene	15.48	119	3149213	28.87 ug\L	98
80) 1,4-Dichlorobenzene	15.59	146	1316968	29.58 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	1011735	29.32 ug\L	99
82) n-Butylbenzene	16.04	91	3127152	29.45 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	35985	29.82 ug\L	98
84) 1,2,4-trichlorobenzene	18.56	180	536514	29.20 ug\L	100
85) Hexachlorobutadiene	18.82	225	352558	28.97 ug\L	100
86) Naphthalene	19.05	128	646150	29.07 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	364987	29.12 ug\L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.98	168	548568	10.00	ug\L	0.01
45) Chlorobenzene-d5	12.32	117	736724	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	280244	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1499	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	870054	39.47	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 394.70%#			
46) Toluene-d8	10.27	98	4319815	38.09	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 380.90%#			
66) Bromofluorobenzene	13.96	95	1372009	40.02	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 400.20%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	1782483	37.74	ug\L	100
3) Chloromethane	1.74	50	1227662	37.38	ug\L	98
4) Vinyl Chloride	1.85	62	1085109	37.92	ug\L	100
5) Bromomethane	2.17	94	277321	40.74	ug\L	96
6) Chloroethane	2.28	64	550488	37.67	ug\L	91
7) Trichlorofluoromethane	2.54	101	1717209	38.79	ug\L #	100
8) Acrolein	3.10	56	39194	91.29	ug\L #	89
9) Acrylonitrile	4.31	53	178629	84.48	ug\L	97
10) 1,1-Dichloroethene	3.16	96	1014904	39.27	ug\L	100
11) Acetone	3.31	58	23028	40.41	ug\L	91
12) Iodomethane	3.38	142	1408693	41.19	ug\L	99
13) Allylchloride	3.66	39	1447319	39.41	ug\L	97
14) Carbon Disulfide	3.45	76	3520296	40.81	ug\L	99
15) Acetonitrile	3.66	41	1904483	391.20	ug\L	97
16) Methylene Chloride	3.87	86	531400	38.21	ug\L	100
17) trans-1,2-Dichloroethene	4.25	96	1023206	38.46	ug\L	98
18) MethylTertButylEther	4.23	73	1205319	40.22	ug\L	99
19) 1,1-Dichloroethane	5.01	63	1816764	39.12	ug\L	100
20) Vinyl Acetate	5.14	43	517278	44.18	ug\L	97
21) 2,2-Dichloropropane	6.02	77	1645846	36.88	ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	995919	39.06	ug\L	99
23) 2-Butanone	6.16	72	23807	40.33	ug\L	100
24) Propionitrile	6.31	54	309529	418.29	ug\L	99
25) Methacrylonitrile	6.53	41	1829195	399.39	ug\L	99
26) Bromochloromethane	6.50	128	319349	39.55	ug\L	98
27) Chloroform	6.66	83	1928666	39.29	ug\L	99
28) 1,1,1-Trichloroethane	6.86	97	1964056	39.81	ug\L	100
29) Carbon Tetrachloride	7.10	119	1660683	39.98	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	47063	827.96 ug\L	96
31) 1,1-Dichloropropene	7.13	77	516083	38.52 ug\L	100
33) Benzene	7.48	78	3920526	38.45 ug\L	100
34) Isobutyl alcohol	7.57	43	171394	807.66 ug\L	91
35) 1,2-Dichloroethane	7.57	62	942228	39.82 ug\L	99
36) Trichloroethene	8.49	95	1258414	39.70 ug\L	99
37) 1,2-Dichloropropane	8.85	63	889288	40.10 ug\L	99
38) Dibromomethane	9.05	93	333274	39.71 ug\L	98
39) Methylmethacrylate	9.05	69	246220	43.67 ug\L	96
40) Bromodichloromethane	9.30	83	1261322	42.21 ug\L	100
41) 2-Nitropropane	9.67	43	81899	47.94 ug\L	95
42) 2-Chloroethyl-vinyl ether	9.74	63	185556	44.97 ug\L	99
43) cis-1,3-Dichloropropene	9.93	75	1262869	42.80 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	50099	45.56 ug\L #	96
47) Toluene	10.37	92	2658910	37.89 ug\L	99
48) trans-1,3-Dichloropropene	10.75	75	946026	43.58 ug\L	99
49) Ethylmethacrylate	10.85	69	609408	43.88 ug\L	99
50) 1,1,2-Trichloroethane	11.02	83	404531	40.89 ug\L	98
51) Tetrachloroethene	11.12	164	1018374	38.76 ug\L	99
52) 1,3-Dichloropropane	11.23	76	888992	40.54 ug\L	100
53) 2-Hexanone	11.35	43	186672	44.07 ug\L	99
54) Dibromochloromethane	11.57	129	680414	44.13 ug\L	100
55) 1,2-Dibromoethane	11.70	107	453473	42.41 ug\L	98
56) Chlorobenzene	12.37	112	2759686	37.43 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	863282	40.24 ug\L	99
58) Ethylbenzene	12.50	91	5198884	36.91 ug\L	98
59) total-Xylene	12.66	106	5432479m	112.29 ug\L	
60) Styrene	13.25	104	2733483	39.44 ug\L	96
62) Bromoform	13.56	173	285335	47.03 ug\L	99
63) Isopropylbenzene	13.72	105	5315502	38.59 ug\L	98
64) cis-1,4-dichloro-2-Butene	13.88	75	134518	41.03 ug\L #	95
65) trans-1,4-dichloro-2-Buten	14.28	75	500742	41.15 ug\L #	69
67) Bromobenzene	14.18	156	918824	41.16 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	444692	42.25 ug\L	98
69) 1,2,3-Trichloropropane	14.28	75	500742	41.15 ug\L #	100
70) n-Propylbenzene	14.29	91	6352622	38.00 ug\L	99
71) 2-Chlorotoluene	14.43	91	3626573	39.03 ug\L	98
72) 4-Chlorotoluene	14.58	91	3982407	40.51 ug\L	98
73) 1,3,5-Trimethylbenzene	14.53	105	4191844	38.02 ug\L	99
74) Pentachloroethane	15.05	167	558475	41.06 ug\L	100
75) tert-Butylbenzene	14.98	119	3566604	38.36 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	3933494	37.84 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

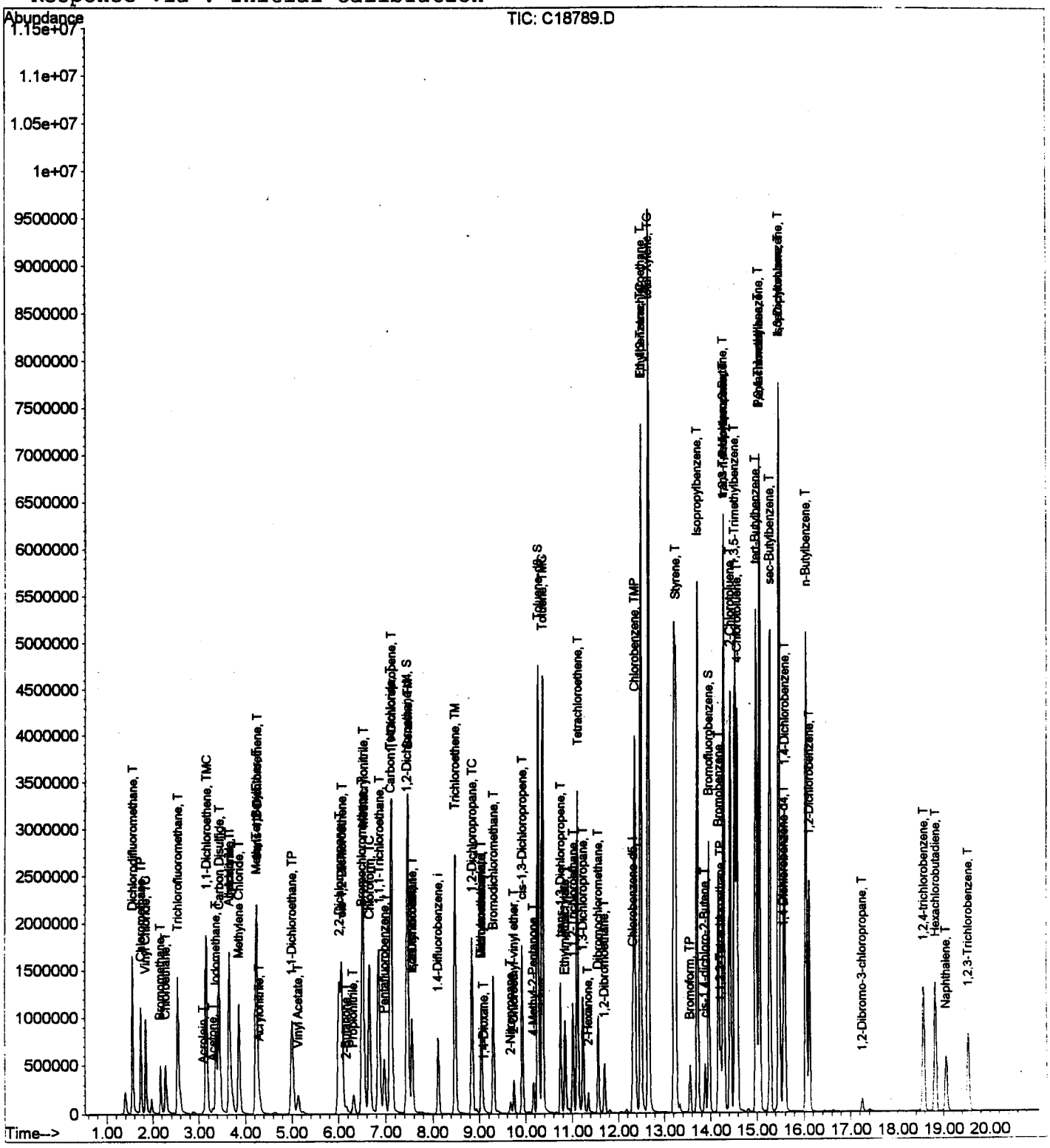
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	5282416	38.09 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	1719970	38.31 ug\L	97
79) Isopropyltoluene	15.48	119	4016499	37.58 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	1726773	39.59 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	1350276	39.94 ug\L	99
82) n-Butylbenzene	16.05	91	4081234	39.24 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	53968	45.66 ug\L	97
84) 1,2,4-trichlorobenzene	18.57	180	734047	40.78 ug\L	100
85) Hexachlorobutadiene	18.82	225	473784	40.32 ug\L	100
86) Naphthalene	19.05	128	920372	42.28 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	512162	41.72 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18789.D Vial: 6
Acq On : 02/28/01 12:51 Operator: TAG/VR
Sample : ICAL 40 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	89	0.00
2	T	Dichlorodifluoromethane	0.861	0.561	34.8#	57	0.00
3	TP	Chloromethane	0.599	0.470	21.5	68	0.00
4	TC	Vinyl Chloride	0.522	0.472	9.6	78	0.00
5	T	Bromomethane	0.143	0.128	10.5	80	0.00
6	T	Chloroethane	0.266	0.236	11.3	74	0.00
7	T	Trichlorofluoromethane	0.807	0.733	9.2	79	0.00
8	T	Acrolein	0.008	0.008	0.0	113	0.00
9	T	Acrylonitrile	0.039	0.039	0.0	99	0.02
10	TMC	1,1-Dichloroethene	0.471	0.444	5.7	83	0.00
11	T	Acetone	0.013	0.013	0.0	99	0.00
12	T	Iodomethane	0.623	0.593	4.8	87	0.00
13	T	Allylchloride	0.669	0.663	0.9	88	0.00
14	T	Carbon Disulfide	1.573	1.612	-2.5	93	0.00
15	T	Acetonitrile	0.089	0.089	0.0	89	0.00
16	T	Methylene Chloride	0.253	0.241	4.7	88	0.00
17	T	trans-1,2-Dichloroethene	0.485	0.455	6.2	82	0.00
18	T	MethylTertButylEther	0.546	0.546	0.0	95	0.00
19	TP	1,1-Dichloroethane	0.847	0.805	5.0	86	0.00
20	T	Vinyl Acetate	0.213	0.210	1.4	100	0.00
21	T	2,2-Dichloropropane	0.814	0.778	4.4	81	0.00
22	T	cis-1,2-Dichloroethene	0.465	0.453	2.6	87	0.00
23	T	2-Butanone	0.013	0.012	7.7	101	0.00
24	T	Propionitrile	0.013	0.013	0.0	97	0.00
25	T	Methacrylonitrile	0.083	0.084	-1.2	96	0.00
26	T	Bromochloromethane	0.147	0.138	6.1	84	0.00
27	TC	Chloroform	0.895	0.859	4.0	86	0.00
28	T	1,1,1-Trichloroethane	0.899	0.851	5.3	83	0.00
29	T	Carbon Tetrachloride	0.757	0.704	7.0	83	0.00
30	T	1,4-Dioxane	0.001	0.001	0.0	109	0.02
31	T	1,1-Dichloropropene	0.244	0.229	6.1	82	0.00
32	S	1,2-Dichloroethane-d4	0.402	0.402	0.0	97	0.00
33	TM	Benzene	1.859	1.775	4.5	85	0.00
34	T	Isobutyl alcohol	0.005	0.004	20.0	112	0.00
35	T	1,2-Dichloroethane	0.431	0.403	6.5	88	0.00
36	TM	Trichloroethene	0.578	0.555	4.0	85	0.00
37	TC	1,2-Dichloropropane	0.404	0.398	1.5	91	0.00
38	T	Dibromomethane	0.153	0.145	5.2	88	0.00
39	T	Methylmethacrylate	0.103	0.102	1.0	93	0.00
40	T	Bromodichloromethane	0.545	0.527	3.3	89	0.00
41	T	2-Nitropropane	0.031	0.029	6.5	103	0.00
42	T	2-Chloroethyl-vinyl ether	0.075	0.069	8.0	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.538	0.523	2.8	89	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.019	5.0	97	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
46	S	Toluene-d8	1.539	1.648	-7.1	98	0.00
47	TMC	Toluene	0.953	0.921	3.4	86	0.00
48	T	trans-1,3-Dichloropropene	0.295	0.288	2.4	93	0.00
49	T	Ethylmethacrylate	0.188	0.192	-2.1	98	0.00
50	T	1,1,2-Trichloroethane	0.134	0.132	1.5	95	0.00
51	T	Tetrachloroethene	0.357	0.346	3.1	87	0.00
52	T	1,3-Dichloropropane	0.298	0.285	4.4	91	0.00
53	T	2-Hexanone	0.057	0.059	-3.5	106	0.00
54	T	Dibromochloromethane	0.209	0.197	5.7	89	0.00
55	T	1,2-Dibromoethane	0.145	0.142	2.1	93	0.00
56	TMP	Chlorobenzene	1.001	0.966	3.5	90	0.00
57	T	1,1,1,2-Tetrachloroethane	0.291	0.293	-0.7	92	0.00
58	TC	Ethylbenzene	1.912	1.890	1.2	88	0.00
59	TG	total-Xylene	0.657	0.664	-1.1	91	0.00
60	T	Styrene	0.941	0.957	-1.7	91	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
62	TP	Bromoform	0.216	0.201	6.9	93	0.00
63	T	Isopropylbenzene	4.915	4.867	1.0	90	0.00
64	T	cis-1,4-dichloro-2-Butene	0.097	0.094	3.1	98	0.00
65	T	trans-1,4-dichloro-2-Butene	0.434	0.418	3.7	95	0.00
66	S	Bromofluorobenzene	1.223	1.225	-0.2	99	0.00
67	T	Bromobenzene	0.797	0.764	4.1	94	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.376	0.360	4.3	96	0.00
69	T	1,2,3-Trichloropropane	0.434	0.418	3.7	95	0.00
70	T	n-Propylbenzene	5.965	5.894	1.2	90	0.00
71	T	2-Chlorotoluene	3.315	3.227	2.7	90	0.00
72	T	4-Chlorotoluene	3.508	3.588	-2.3	103	0.00
73	T	1,3,5-Trimethylbenzene	3.934	3.873	1.6	90	0.00
74	T	Pentachloroethane	0.485	0.516	-6.4	103	0.00
75	T	tert-Butylbenzene	3.317	3.343	-0.8	91	0.00
76	T	1,2,4-Trimethylbenzene	3.710	3.671	1.1	89	0.00
77	T	sec-Butylbenzene	4.949	4.988	-0.8	91	0.00
78	T	1,3-Dichlorobenzene	1.602	1.609	-0.4	94	0.00
79	T	Isopropyltoluene	3.813	3.877	-1.7	90	0.00
80	T	1,4-Dichlorobenzene	1.556	1.573	-1.1	96	0.00
81	T	1,2-Dichlorobenzene	1.206	1.201	0.4	97	0.00
82	T	n-Butylbenzene	3.711	3.746	-0.9	91	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.042	0.040	4.8	110	0.00
84	T	1,2,4-trichlorobenzene	0.642	0.662	-3.1	105	0.00
85	T	Hexachlorobutadiene	0.499	0.522	-4.6	96	0.00
86	T	Naphthalene	0.756	0.794	-5.0	128	0.00
87	T	1,2,3-Trichlorobenzene	0.438	0.458	-4.6	108	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	72	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18790.D
Acq On : 02/28/01 13:16
Sample : ICV 10 ppb (V01009,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001

Vial: 7
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	524703	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	692212	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	278173	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1232	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.45	65	210700	9.99 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%		
46) Toluene-d8	10.27	98	1140788	10.71 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 107.10%#		
66) Bromofluorobenzene	13.97	95	340630	10.01 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.10%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	294457	6.52 ug\L	99
3) Chloromethane	1.75	50	246706	7.85 ug\L	99
4) Vinyl Chloride	1.85	62	247742	9.05 ug\L	98
5) Bromomethane	2.17	94	67097	9.60 ug\L	94
6) Chloroethane	2.28	64	123990	8.87 ug\L	93
7) Trichlorofluoromethane	2.55	101	384609	9.08 ug\L #	100
8) Acrolein	3.11	56	8916	21.71 ug\L #	90
9) Acrylonitrile	4.31	53	40597	20.07 ug\L	94
10) 1,1-Dichloroethene	3.17	96	233002	9.43 ug\L	100
11) Acetone	3.30	58	6756	9.97 ug\L	89
12) Iodomethane	3.38	142	311385	9.52 ug\L	98
13) Allylchloride	3.66	39	347911	9.90 ug\L	98
14) Carbon Disulfide	3.44	76	845971	10.25 ug\L	99
15) Acetonitrile	3.66	41	465896	100.05 ug\L	99
16) Methylene Chloride	3.87	86	126373	9.50 ug\L	99
17) trans-1,2-Dichloroethene	4.25	96	238728	9.38 ug\L	97
18) MethylTertButylEther	4.24	73	286288	9.99 ug\L	97
19) 1,1-Dichloroethane	5.01	63	422648	9.52 ug\L	100
20) Vinyl Acetate	5.14	43	110259	9.85 ug\L	96
21) 2,2-Dichloropropane	6.02	77	408035	9.56 ug\L	99
22) cis-1,2-Dichloroethene	6.08	96	237722	9.75 ug\L	98
23) 2-Butanone	6.17	72	6373	10.84 ug\L #	86
24) Propionitrile	6.32	54	69888	98.74 ug\L #	98
25) Methacrylonitrile	6.53	41	442900	101.10 ug\L	99
26) Bromochloromethane	6.49	128	72525	9.39 ug\L	97
27) Chloroform	6.65	83	450635	9.60 ug\L	99
28) 1,1,1-Trichloroethane	6.85	97	446682	9.47 ug\L	99
29) Carbon Tetrachloride	7.10	119	369549	9.30 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18790.D
Acq On : 02/28/01 13:16
Sample : ICV 10 ppb (V01009,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001

Vial: 7
Operator: TAG/VR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

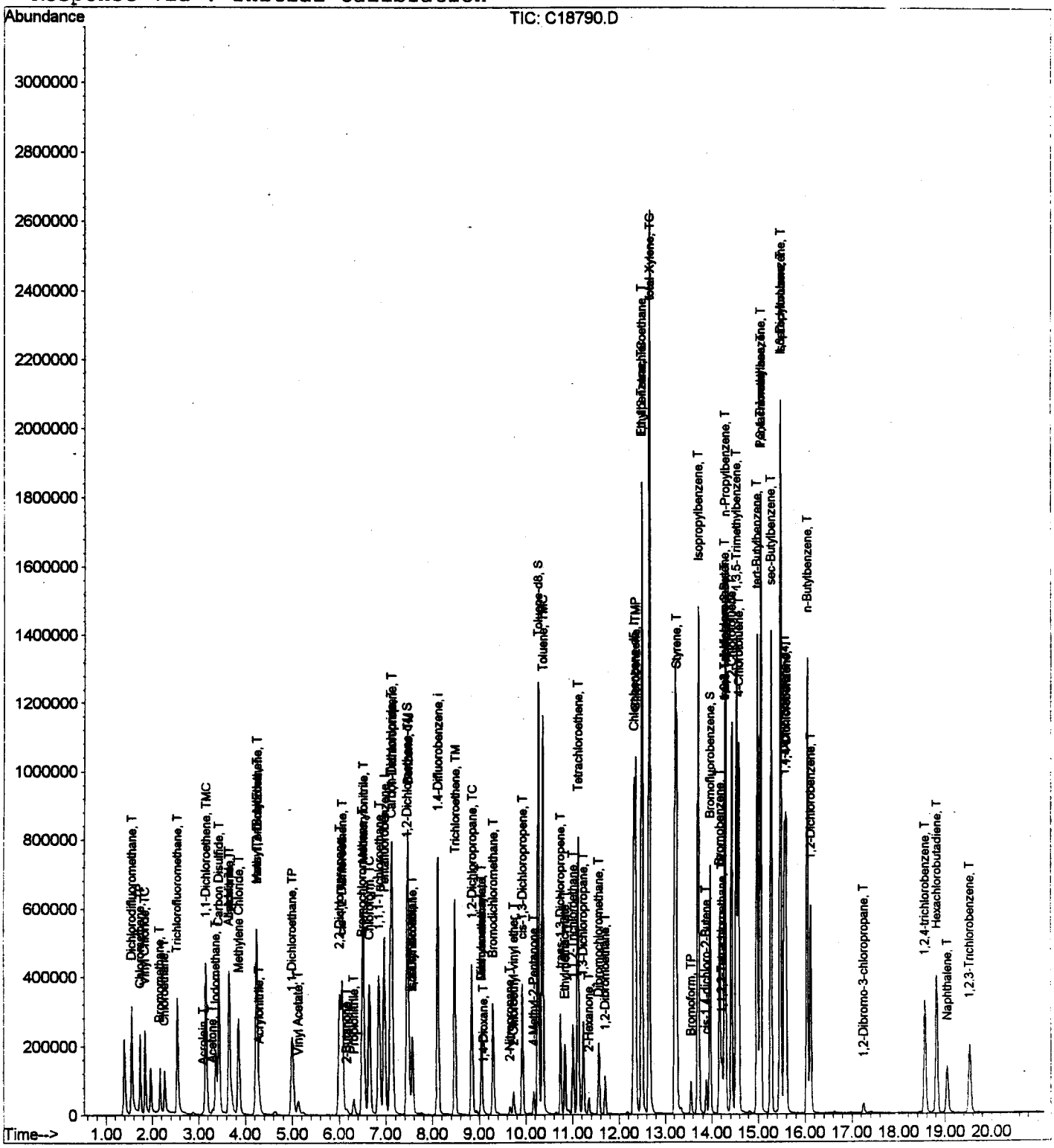
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	10449	214.86 ug\L #	90
31) 1,1-Dichloropropene	7.12	77	120298	9.39 ug\L	98
33) Benzene	7.47	78	931379	9.55 ug\L	100
34) Isobutyl alcohol	7.57	43	44375	211.60 ug\L	97
35) 1,2-Dichloroethane	7.56	62	211644	9.35 ug\L	99
36) Trichloroethene	8.48	95	291189	9.60 ug\L	99
37) 1,2-Dichloropropane	8.85	63	208734	9.84 ug\L	99
38) Dibromomethane	9.05	93	76070	9.48 ug\L	98
39) Methylmethacrylate	9.05	69	53294	9.88 ug\L	96
40) Bromodichloromethane	9.30	83	276612	9.68 ug\L	98
41) 2-Nitropropane	9.66	43	15401	9.42 ug\L	93
42) 2-Chloroethyl-vinyl ether	9.74	63	36122	9.15 ug\L	98
43) cis-1,3-Dichloropropene	9.93	75	274235	9.72 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	9910	9.42 ug\L #	91
47) Toluene	10.36	92	637262	9.66 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	199205	9.77 ug\L	99
49) Ethylmethacrylate	10.85	69	132611	10.16 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	91402	9.83 ug\L	97
51) Tetrachloroethene	11.12	164	239711	9.71 ug\L	97
52) 1,3-Dichloropropane	11.24	76	197478	9.58 ug\L	99
53) 2-Hexanone	11.36	43	40781	10.25 ug\L	98
54) Dibromochloromethane	11.57	129	136271	9.41 ug\L	100
55) 1,2-Dibromoethane	11.71	107	98433	9.80 ug\L	98
56) Chlorobenzene	12.36	112	668869	9.66 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	203098	10.07 ug\L	99
58) Ethylbenzene	12.50	91	1308376	9.89 ug\L	99
59) total-Xylene	12.66	106	1378588m	30.33 ug\L	
60) Styrene	13.25	104	662322	10.17 ug\L	99
62) Bromoform	13.56	173	55827	9.27 ug\L	100
63) Isopropylbenzene	13.71	105	1353737	9.90 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	26059	9.30 ug\L #	93
65) trans-1,4-dichloro-2-Buten	14.27	75	116188	9.62 ug\L #	72
67) Bromobenzene	14.17	156	212535	9.59 ug\L	95
68) 1,1,2,2-Tetrachloroethane	14.22	83	100066	9.58 ug\L	98
69) 1,2,3-Trichloropropane	14.27	75	116188	9.62 ug\L #	100
70) n-Propylbenzene	14.29	91	1639566	9.88 ug\L	99
71) 2-Chlorotoluene	14.43	91	897800	9.74 ug\L	98
72) 4-Chlorotoluene	14.58	91	998152	10.23 ug\L	100
73) 1,3,5-Trimethylbenzene	14.53	105	1077394	9.84 ug\L	98
74) Pentachloroethane	15.06	167	143456	10.62 ug\L	98
75) tert-Butylbenzene	14.98	119	929816	10.08 ug\L	99
76) 1,2,4-Trimethylbenzene	15.06	105	1021078	9.90 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18790.D Vial: 7
Acq On : 02/28/01 13:16 Operator: TAG/VR
Sample : ICV 10 ppb (V01009,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:41 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18788.D Vial: 5
Acq On : 02/28/01 12:25 Operator: TAG/VR
Sample : ICAL 30 ppb (V01010,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 13:40 2001 Quant Results File: 02280125.RES

Quant Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:32:36 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	571111	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	754459	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	286086	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1682	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	668742	29.14 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 291.40%#		
46) Toluene-d8	10.27	98	3403157	29.31 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 293.10%#		
66) Bromofluorobenzene	13.96	95	1051227	30.03 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 300.30%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	1391206	28.29 ug\L	100
3) Chloromethane	1.75	50	947147	27.70 ug\L	99
4) Vinyl Chloride	1.85	62	834431	28.01 ug\L	100
5) Bromomethane	2.17	94	205735	28.76 ug\L	99
6) Chloroethane	2.28	64	426396	28.03 ug\L	93
7) Trichlorofluoromethane	2.54	101	1311352	28.45 ug\L #	100
8) Acrolein	3.09	56	26097	58.38 ug\L #	99
9) Acrylonitrile	4.30	53	133752	60.76 ug\L	95
10) 1,1-Dichloroethene	3.16	96	765510	28.45 ug\L	98
11) Acetone	3.31	58	17796	29.09 ug\L	84
12) Iodomethane	3.37	142	1114576	31.31 ug\L	99
13) Allylchloride	3.66	39	1116740	29.21 ug\L	97
14) Carbon Disulfide	3.44	76	2674206	29.78 ug\L	98
15) Acetonitrile	3.65	41	1475706	291.16 ug\L	98
16) Methylene Chloride	3.86	86	402456	27.80 ug\L	97
17) trans-1,2-Dichloroethene	4.25	96	788861	28.48 ug\L	98
18) MethylTertButylEther	4.23	73	914153	29.30 ug\L	99
19) 1,1-Dichloroethane	5.01	63	1413409	29.23 ug\L	99
20) Vinyl Acetate	5.13	43	379185	31.11 ug\L	97
21) 2,2-Dichloropropane	6.01	77	1289645	27.76 ug\L	99
22) cis-1,2-Dichloroethene	6.07	96	776867	29.27 ug\L	99
23) 2-Butanone	6.16	72	18968	30.72 ug\L	91
24) Propionitrile	6.32	54	234483	304.37 ug\L	99
25) Methacrylonitrile	6.52	41	1395586	292.68 ug\L	99
26) Bromochloromethane	6.49	128	243893	29.02 ug\L	99
27) Chloroform	6.65	83	1492346	29.20 ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	1525310	29.69 ug\L	99
29) Carbon Tetrachloride	7.10	119	1293114	29.90 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18791.D Vial: 8
Acq On : 02/28/01 14:00 Operator: TAG/VR
Sample : QVW022801 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 15:17 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	573091	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	669357	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	236157	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11

System Monitoring Compounds

32) 1,2-Dichloroethane-d4	7.44	65	197260	8.57	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 85.70%			
46) Toluene-d8	10.27	98	1087753	10.56	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#			
66) Bromofluorobenzene	13.97	95	278898	9.65	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.50%			

Target Compounds Qvalue

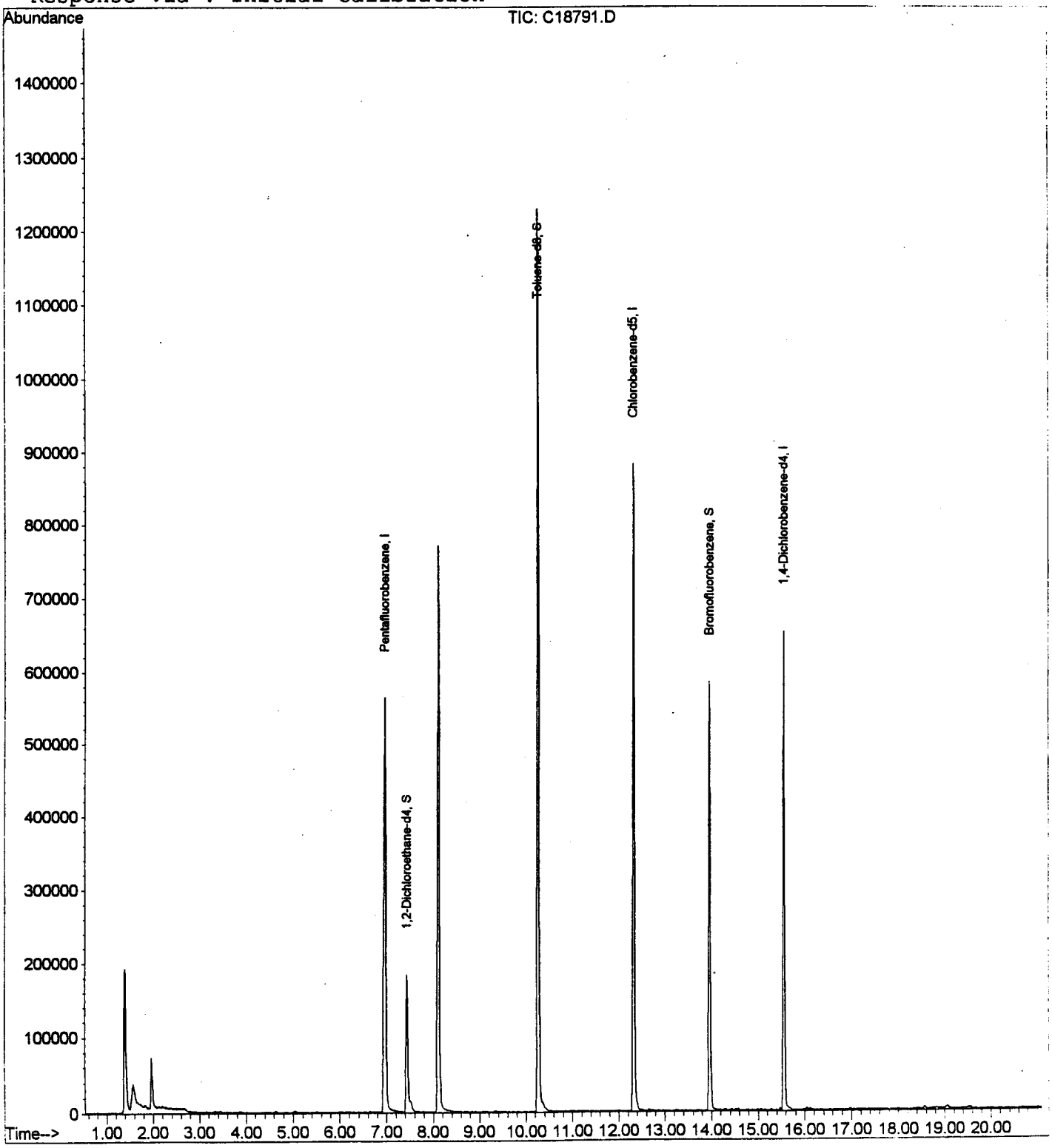
VR
2/28/01

(#) = qualifier out of range (m) = manual integration
C18791.D 02280125.M Wed Feb 28 15:17:33 2001 INST:VOA-C Page

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18791.D Vial: 8
Acq On : 02/28/01 14:00 Operator: TAG/VR
Sample : QVW022801 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 15:17 2001 Quant Results File: 02280125.RES

Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	532925	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	651927	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	253542	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1566	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	197201	9.21 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 92.10%		
46) Toluene-d8	10.27	98	1047561	10.44 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.40%		
66) Bromofluorobenzene	13.97	95	304801	9.83 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.30%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	442549	9.64 ug\L	99
3) Chloromethane	1.75	50	304439	9.54 ug\L	97
4) Vinyl Chloride	1.85	62	263023	9.46 ug\L	100
5) Bromomethane	2.17	94	67187	9.45 ug\L	98
6) Chloroethane	2.27	64	139609	9.83 ug\L	93
7) Trichlorofluoromethane	2.54	101	410238	9.54 ug\L #	100
8) Acrolein	3.10	56	7910	18.96 ug\L #	97
9) Acrylonitrile	4.30	53	36366	17.70 ug\L	93
10) 1,1-Dichloroethene	3.16	96	248454	9.90 ug\L	100
11) Acetone	3.29	58	4621	5.57 ug\L	94
12) Iodomethane	3.38	142	339738	10.23 ug\L	100
13) Allylchloride	3.66	39	346006	9.70 ug\L	98
14) Carbon Disulfide	3.44	76	857701	10.23 ug\L	99
15) Acetonitrile	3.66	41	460437	97.36 ug\L	98
16) Methylene Chloride	3.86	86	126266	9.35 ug\L	98
17) trans-1,2-Dichloroethene	4.24	96	253728	9.82 ug\L	100
18) MethylTertButylEther	4.24	73	256655	8.82 ug\L	99
19) 1,1-Dichloroethane	5.00	63	424903	9.42 ug\L	98
20) Vinyl Acetate	5.13	43	95715	8.42 ug\L	98
21) 2,2-Dichloropropane	6.01	77	443848	10.24 ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	239942	9.69 ug\L	97
23) 2-Butanone	6.16	72	4939	8.12 ug\L	86
24) Propionitrile	6.32	54	65738	91.45 ug\L	98
25) Methacrylonitrile	6.52	41	402582	90.48 ug\L	99
26) Bromochloromethane	6.49	128	72787	9.28 ug\L	98
27) Chloroform	6.65	83	452508	9.49 ug\L	97
28) 1,1,1-Trichloroethane	6.86	97	457599	9.55 ug\L	99
29) Carbon Tetrachloride	7.10	119	391738	9.71 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.10	88	9011	186.89 ug\L		93
31)	1,1-Dichloropropene	7.13	77	128213	9.85 ug\L		96
33)	Benzene	7.47	78	953732	9.63 ug\L		100
34)	Isobutyl alcohol	7.57	43	34351	158.98 ug\L		96
35)	1,2-Dichloroethane	7.57	62	204929	8.91 ug\L		100
36)	Trichloroethene	8.48	95	296017	9.61 ug\L		99
37)	1,2-Dichloropropane	8.84	63	198247	9.20 ug\L		99
38)	Dibromomethane	9.05	93	71602	8.78 ug\L		99
39)	Methylmethacrylate	9.05	69	48962	8.94 ug\L		96
40)	Bromodichloromethane	9.30	83	269727	9.29 ug\L		100
41)	2-Nitropropane	9.66	43	12762	7.69 ug\L		100
42)	2-Chloroethyl-vinyl ether	9.74	63	36398	9.08 ug\L		98
43)	cis-1,3-Dichloropropene	9.93	75	263896	9.21 ug\L		98
44)	4-Methyl-2-Pentanone	10.17	85	9272	8.68 ug\L	#	92
47)	Toluene	10.36	92	623564	10.04 ug\L		98
48)	trans-1,3-Dichloropropene	10.75	75	184647	9.61 ug\L		98
49)	Ethylmethacrylate	10.85	69	117099	9.53 ug\L		99
50)	1,1,2-Trichloroethane	11.01	83	83602	9.55 ug\L		95
51)	Tetrachloroethene	11.12	164	237520	10.22 ug\L		99
52)	1,3-Dichloropropane	11.24	76	185049	9.54 ug\L		99
53)	2-Hexanone	11.35	43	34034	9.08 ug\L		100
54)	Dibromochloromethane	11.57	129	131798	9.66 ug\L		99
55)	1,2-Dibromoethane	11.70	107	92684	9.79 ug\L		98
56)	Chlorobenzene	12.36	112	630095	9.66 ug\L		100
57)	1,1,1,2-Tetrachloroethane	12.49	131	191710	10.10 ug\L		100
58)	Ethylbenzene	12.50	91	1265820	10.16 ug\L		99
59)	total-Xylene	12.66	106	1308232m	30.56 ug\L		
60)	Styrene	13.25	104	612501	9.99 ug\L		98
62)	Bromoform	13.56	173	52988	9.65 ug\L		96
63)	Isopropylbenzene	13.72	105	1281557	10.28 ug\L		99
64)	cis-1,4-dichloro-2-Butene	13.88	75	22914	9.03 ug\L	#	92
65)	trans-1,4-dichloro-2-Buten	14.28	75	105764	9.61 ug\L	#	72
67)	Bromobenzene	14.18	156	195145	9.66 ug\L		97
68)	1,1,2,2-Tetrachloroethane	14.22	83	89676	9.42 ug\L		99
69)	1,2,3-Trichloropropane	14.28	75	105809	9.61 ug\L	#	100
70)	n-Propylbenzene	14.29	91	1559356	10.31 ug\L		100
71)	2-Chlorotoluene	14.43	91	847104	10.08 ug\L		99
72)	4-Chlorotoluene	14.59	91	923597	10.38 ug\L		100
73)	1,3,5-Trimethylbenzene	14.54	105	1022978	10.25 ug\L		100
74)	Pentachloroethane	15.05	167	121933	9.91 ug\L		98
75)	tert-Butylbenzene	14.98	119	873352	10.38 ug\L		99
76)	1,2,4-Trimethylbenzene	15.05	105	964203	10.25 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

Quant Method : c:\hpchem\1\data\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 02280125

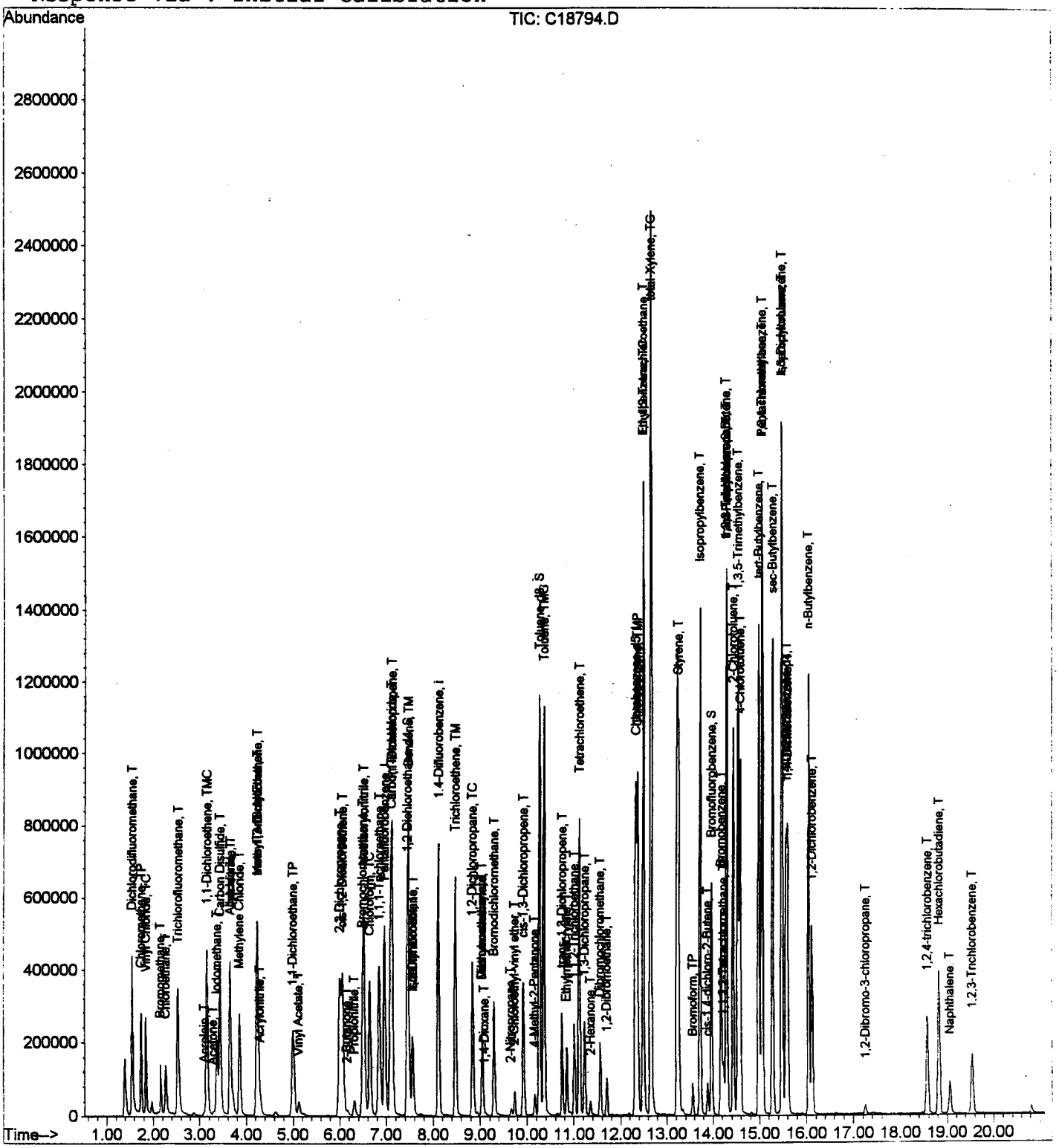
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1320053	10.52 ug\L	100
78)	1,3-Dichlorobenzene	15.48	146	400364	9.86 ug\L	96
79)	Isopropyltoluene	15.48	119	1030815	10.66 ug\L	99
80)	1,4-Dichlorobenzene	15.60	146	387498	9.82 ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	298669	9.77 ug\L	97
82)	n-Butylbenzene	16.05	91	962971	10.23 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.26	75	8564	8.01 ug\L	98
84)	1,2,4-trichlorobenzene	18.57	180	154628	9.50 ug\L	100
85)	Hexachlorobutadiene	18.83	225	136085	11.74 ug\L	100
86)	Naphthalene	19.06	128	145956	7.41 ug\L	100
87)	1,2,3-Trichlorobenzene	19.55	180	102849	9.26 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022801\C18794.D Vial: 10
Acq On : 02/28/01 15:45 Operator: TAG/VR
Sample : QVWLCS022801 C1 Inst : VOA-C
Misc : WATER BLANK SPIKE 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 28 16:07 2001 Quant Results File: 02280125.RES

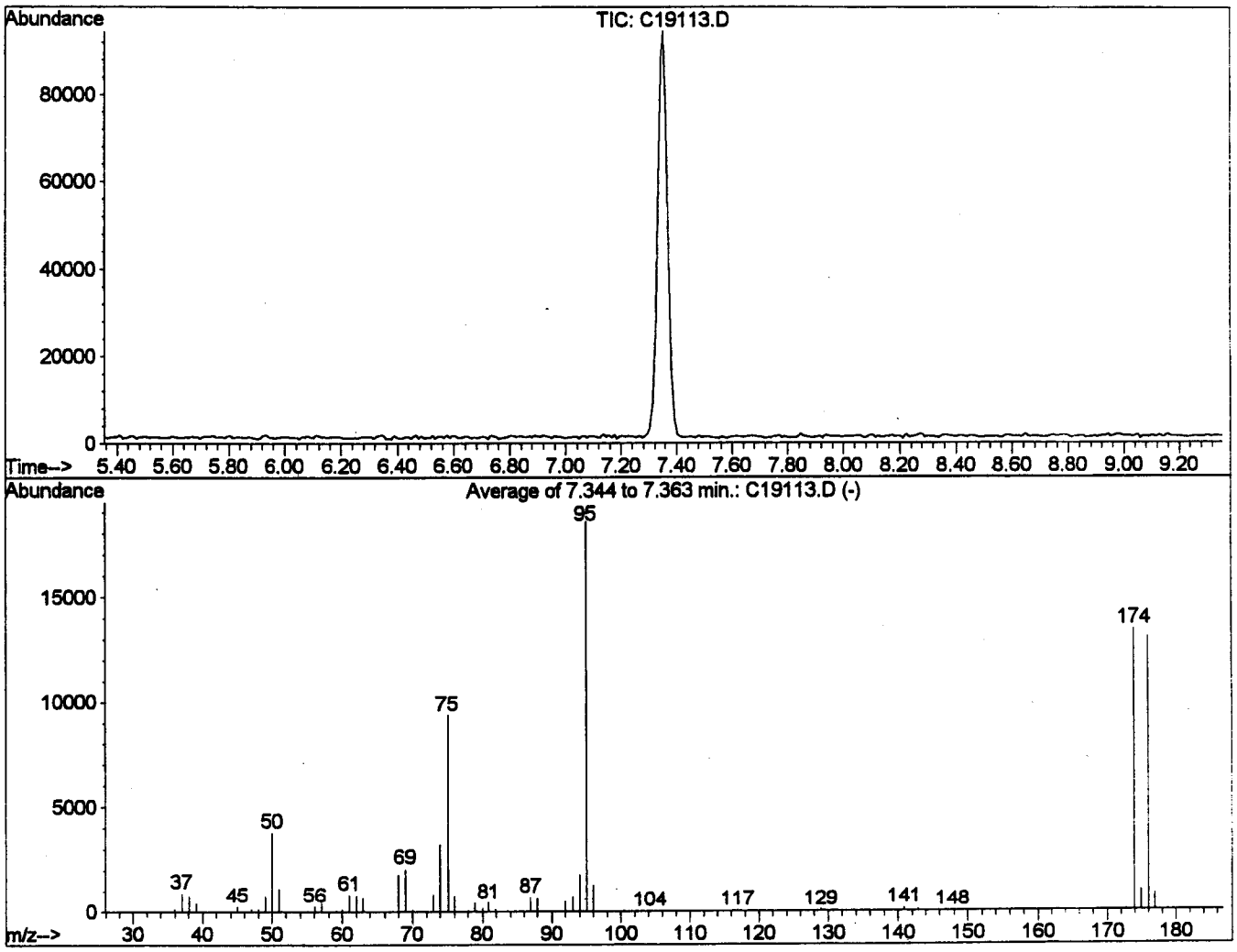
Method : C:\HPCHEM\1\DATA\022801\02280125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\032301\C19113.D
Acq On : 03/23/01 10:30
Sample : BFB 50ng V01018
Misc : QC
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00



AutoFind: Scans 621, 622, 623; Background Corrected with Scan 613

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	3802	PASS
75	95	30	60	50.5	9362	PASS
95	95	100	100	100.0	18537	PASS
96	95	5	9	7.0	1297	PASS
173	174	0.00	2	0.4	60	PASS
174	95	50	100	72.6	13456	PASS
175	174	5	9	7.4	999	PASS
176	174	95	101	97.6	13134	PASS
177	176	5	9	6.6	871	PASS

C19113.D BFB01.M Fri Mar 23 10:42:54 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D
Acq On : 03/23/01 11:21
Sample : CCV 10 ppb (V01019,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	552290	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	759182	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	301723	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1746	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	196028	8.83 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery	= 88.30%	
46) Toluene-d8	10.26	98	1167744	9.99 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery	= 99.90%	
66) Bromofluorobenzene	13.96	95	352707	9.55 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery	= 95.50%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	448787	9.44 ug\L	100
3) Chloromethane	1.74	50	346148	10.47 ug\L	97
4) Vinyl Chloride	1.84	62	290190	10.07 ug\L	100
5) Bromomethane	2.16	94	72059	9.81 ug\L	98
6) Chloroethane	2.27	64	147314	10.01 ug\L	92
7) Trichlorofluoromethane	2.53	101	426670	9.57 ug\L #	100
8) Acrolein	3.09	56	7870	18.21 ug\L #	99
9) Acrylonitrile	4.30	53	39551	18.58 ug\L	96
10) 1,1-Dichloroethene	3.15	96	292463	11.24 ug\L	98
11) Acetone	3.29	58	5580	7.07 ug\L	88
12) Iodomethane	3.36	142	380274	11.04 ug\L	98
13) Allylchloride	3.65	39	388759	10.51 ug\L	98
14) Carbon Disulfide	3.43	76	973522	11.21 ug\L	99
15) Acetonitrile	3.65	41	522199	106.54 ug\L	99
16) Methylene Chloride	3.85	86	144054	10.29 ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	293496	10.96 ug\L	98
18) MethylTertButylEther	4.24	73	263756	8.74 ug\L	98
19) 1,1-Dichloroethane	4.99	63	500100	10.70 ug\L	99
20) Vinyl Acetate	5.12	43	110665	9.39 ug\L	98
21) 2,2-Dichloropropane	6.00	77	493487	10.98 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	282746	11.02 ug\L	99
23) 2-Butanone	6.15	72	5723	9.15 ug\L #	96
24) Propionitrile	6.31	54	70115	94.11 ug\L	98
25) Methacrylonitrile	6.52	41	444324	96.36 ug\L	99
26) Bromochloromethane	6.48	128	83467	10.27 ug\L	97
27) Chloroform	6.64	83	520763	10.54 ug\L	100
28) 1,1,1-Trichloroethane	6.84	97	529136	10.65 ug\L	98
29) Carbon Tetrachloride	7.09	119	447308	10.70 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D
Acq On : 03/23/01 11:21
Sample : CCV 10 ppb (V01019,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.09	88	10571	207.66 ug\L #	86
31) 1,1-Dichloropropene	7.12	77	150078	11.13 ug\L	99
33) Benzene	7.46	78	1126895	10.98 ug\L	100
34) Isobutyl alcohol	7.57	43	34935	155.84 ug\L	97
35) 1,2-Dichloroethane	7.56	62	232857	9.77 ug\L	100
36) Trichloroethene	8.47	95	357715	11.21 ug\L	99
37) 1,2-Dichloropropane	8.84	63	239015	10.71 ug\L	99
38) Dibromomethane	9.04	93	82758	9.79 ug\L	98
39) Methylmethacrylate	9.04	69	53290	9.39 ug\L	99
40) Bromodichloromethane	9.29	83	303828	10.10 ug\L	99
41) 2-Nitropropane	9.66	43	13731	7.98 ug\L	96
42) 2-Chloroethyl-vinyl ether	9.74	63	32802	7.90 ug\L	98
43) cis-1,3-Dichloropropene	9.92	75	308684	10.39 ug\L	99
44) 4-Methyl-2-Pentanone	10.16	85	9684	8.75 ug\L #	96
47) Toluene	10.36	92	788033	10.90 ug\L	99
48) trans-1,3-Dichloropropene	10.74	75	206433	9.23 ug\L	99
49) Ethylmethacrylate	10.84	69	130828	9.14 ug\L	98
50) 1,1,2-Trichloroethane	11.00	83	98209	9.63 ug\L	99
51) Tetrachloroethene	11.11	164	294795	10.89 ug\L	99
52) 1,3-Dichloropropane	11.23	76	217819	9.64 ug\L	99
53) 2-Hexanone	11.35	43	35020	8.02 ug\L	98
54) Dibromochloromethane	11.56	129	149430	9.40 ug\L	99
55) 1,2-Dibromoethane	11.70	107	106734	9.69 ug\L	98
56) Chlorobenzene	12.35	112	774548	10.20 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.48	131	227067	10.27 ug\L	99
58) Ethylbenzene	12.49	91	1630459	11.23 ug\L	100
59) total-Xylene	12.65	106	1668244m	33.46 ug\L	
60) Styrene	13.24	104	774039	10.84 ug\L	99
62) Bromoform	13.55	173	58856	9.01 ug\L #	97
63) Isopropylbenzene	13.71	105	1651876	11.14 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.87	75	23578	8.03 ug\L #	89
65) trans-1,4-dichloro-2-Buten	14.26	75	121861	9.30 ug\L #	78
67) Bromobenzene	14.17	156	240865	10.02 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.21	83	103112	9.10 ug\L	99
69) 1,2,3-Trichloropropane	14.26	75	121861	9.30 ug\L #	100
70) n-Propylbenzene	14.28	91	2044096	11.36 ug\L	100
71) 2-Chlorotoluene	14.42	91	1067609	10.67 ug\L	99
72) 4-Chlorotoluene	14.57	91	1182388	11.17 ug\L	99
73) 1,3,5-Trimethylbenzene	14.52	105	1324306	11.16 ug\L	100
74) Pentachloroethane	15.05	167	139595	9.53 ug\L	96
75) tert-Butylbenzene	14.97	119	1136641	11.36 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	1258957	11.25 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19114.D
Vial: 1
Acq On : 03/23/01 11:21
Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004)
Inst : VOA-C
Misc : WATER 25ml DF=1
Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001
Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1711650	11.46 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	507533	10.50 ug\L	97
79) Isopropyltoluene	15.47	119	1347298	11.71 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	486948	10.37 ug\L	99
81) 1,2-Dichlorobenzene	16.11	146	375244	10.31 ug\L	98
82) n-Butylbenzene	16.04	91	1320760	11.80 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.24	75	9639	7.57 ug\L	97
84) 1,2,4-trichlorobenzene	18.56	180	200776	10.36 ug\L	100
85) Hexachlorobutadiene	18.81	225	178582	13.10 ug\L	100
86) Naphthalene	19.05	128	197610	8.43 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	136287	10.31 ug\L	98

(#) = qualifier out of range (m) = manual integration

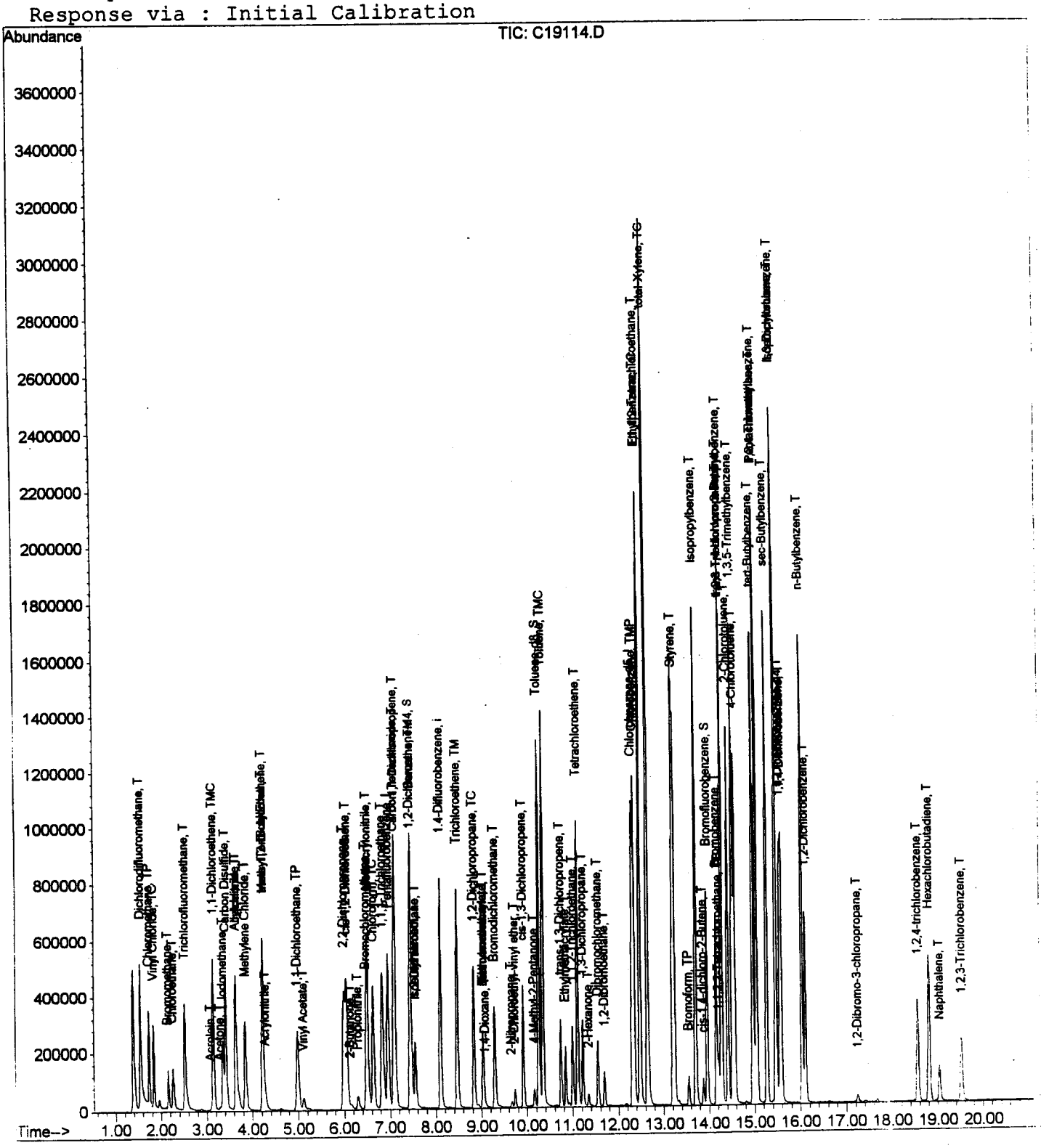
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19114.D
Acq On : 03/23/01 11:21
Sample : CCV 10 ppb (V01019,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 23 11:42 2001

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	522014	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	615164	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	225294	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11

System Monitoring Compounds

32) 1,2-Dichloroethane-d4	7.43	65	177953	8.48	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 84.80%			
46) Toluene-d8	10.26	98	960599	10.15	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.50%			
66) Bromofluorobenzene	13.96	95	257599	9.35	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.50%			

Target Compounds Qvalue

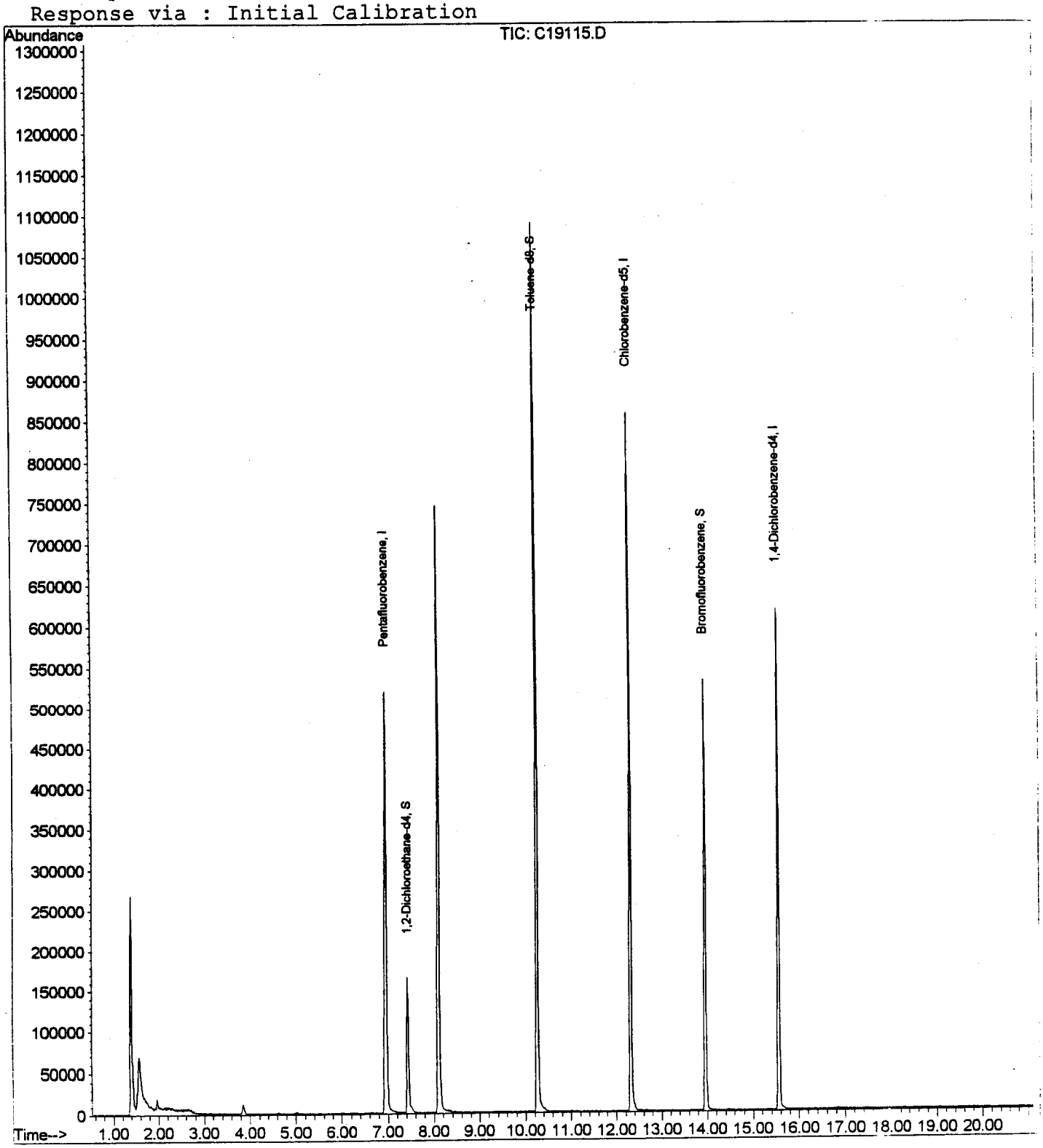
VRR
3-25-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19115.D Vial: 2
Acq On : 03/23/01 12:34 Operator: JP/VRR
Sample : QVW032301 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 11:04 2001 Quant Results File: 03230125.RES

Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D
Acq On : 03/23/01 13:08
Sample : QVWLCS032301 C1
Misc : WATER LCS 25 ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001

Vial: 3
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	493377	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	631379	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	260324	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1329	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	159855	8.06 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 80.60%		
46) Toluene-d8	10.26	98	922319	9.49 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.90%		
66) Bromofluorobenzene	13.96	95	278946	8.76 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 87.60%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	368894	8.68 ug\L	100
3) Chloromethane	1.74	50	281846	9.54 ug\L	99
4) Vinyl Chloride	1.84	62	234010	9.09 ug\L	99
5) Bromomethane	2.16	94	58983	8.91 ug\L	94
6) Chloroethane	2.26	64	119581	9.10 ug\L	92
7) Trichlorofluoromethane	2.53	101	352943	8.86 ug\L #	100
8) Acrolein	3.09	56	5991	15.51 ug\L #	100
9) Acrylonitrile	4.30	53	32500	17.09 ug\L	95
10) 1,1-Dichloroethene	3.15	96	229089	9.86 ug\L	100
11) Acetone	3.29	58	3809	4.58 ug\L	81
12) Iodomethane	3.36	142	295211	9.60 ug\L	100
13) Allylchloride	3.65	39	313801	9.50 ug\L	97
14) Carbon Disulfide	3.42	76	739110	9.53 ug\L	99
15) Acetonitrile	3.65	41	416996	95.24 ug\L	98
16) Methylene Chloride	3.86	86	116568	9.32 ug\L	96
17) trans-1,2-Dichloroethene	4.24	96	235381	9.84 ug\L	99
18) MethylTertButylEther	4.23	73	200413	7.44 ug\L	97
19) 1,1-Dichloroethane	4.99	63	391605	9.38 ug\L	99
20) Vinyl Acetate	5.12	43	86713	8.24 ug\L	99
21) 2,2-Dichloropropane	6.00	77	379722	9.46 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	218348	9.52 ug\L	99
23) 2-Butanone	6.14	72	2063	3.32 ug\L #	1
24) Propionitrile	6.30	54	51922	78.02 ug\L	98
25) Methacrylonitrile	6.51	41	339387	82.39 ug\L	98
26) Bromochloromethane	6.49	128	65644	9.04 ug\L	98
27) Chloroform	6.64	83	404981	9.17 ug\L	99
28) 1,1,1-Trichloroethane	6.84	97	417466	9.41 ug\L	97
29) Carbon Tetrachloride	7.09	119	353189	9.45 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.10	88	6852	158.78 ug\L #	95
31) 1,1-Dichloropropene	7.12	77	117061	9.71 ug\L	99
33) Benzene	7.45	78	863006	9.41 ug\L	100
34) Isobutyl alcohol	7.57	43	25377	124.92 ug\L	98
35) 1,2-Dichloroethane	7.56	62	176390	8.29 ug\L	99
36) Trichloroethene	8.48	95	269788	9.46 ug\L	99
37) 1,2-Dichloropropane	8.84	63	177992	8.92 ug\L	99
38) Dibromomethane	9.04	93	64125	8.49 ug\L	98
39) Methylmethacrylate	9.05	69	36926	7.28 ug\L	96
40) Bromodichloromethane	9.29	83	235572	8.77 ug\L	99
41) 2-Nitropropane	9.66	43	11354	7.39 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	23000	6.20 ug\L	94
43) cis-1,3-Dichloropropene	9.93	75	232967	8.78 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	6292	6.36 ug\L #	83
47) Toluene	10.36	92	587965	9.78 ug\L	98
48) trans-1,3-Dichloropropene	10.74	75	153647	8.26 ug\L	99
49) Ethylmethacrylate	10.85	69	94768	7.96 ug\L	96
50) 1,1,2-Trichloroethane	11.01	83	73037	8.62 ug\L	99
51) Tetrachloroethene	11.11	164	220991	9.81 ug\L	99
52) 1,3-Dichloropropane	11.23	76	165509	8.81 ug\L	99
53) 2-Hexanone	11.35	43	25049	6.90 ug\L	99
54) Dibromochloromethane	11.56	129	114224	8.64 ug\L	98
55) 1,2-Dibromoethane	11.70	107	78133	8.53 ug\L	97
56) Chlorobenzene	12.35	112	588117	9.31 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.48	131	175975	9.57 ug\L	100
58) Ethylbenzene	12.49	91	1230695	10.19 ug\L	99
59) total-Xylene	12.66	106	1257870m	30.34 ug\L	
60) Styrene	13.25	104	582304	9.80 ug\L	100
62) Bromoform	13.55	173	43139	7.65 ug\L	99
63) Isopropylbenzene	13.71	105	1272217	9.94 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	17422	7.11 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.27	75	90612	8.02 ug\L #	79
67) Bromobenzene	14.17	156	184233	8.88 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.21	83	80742	8.26 ug\L	100
69) 1,2,3-Trichloropropane	14.27	75	90612	8.02 ug\L #	100
70) n-Propylbenzene	14.29	91	1558294	10.04 ug\L	100
71) 2-Chlorotoluene	14.42	91	824951	9.56 ug\L	99
72) 4-Chlorotoluene	14.57	91	897035	9.82 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1014281	9.90 ug\L	99
74) Pentachloroethane	15.05	167	108436	8.58 ug\L	96
75) tert-Butylbenzene	14.98	119	857522	9.93 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	960468	9.95 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

Quant Method : c:\hpchem\1\data\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

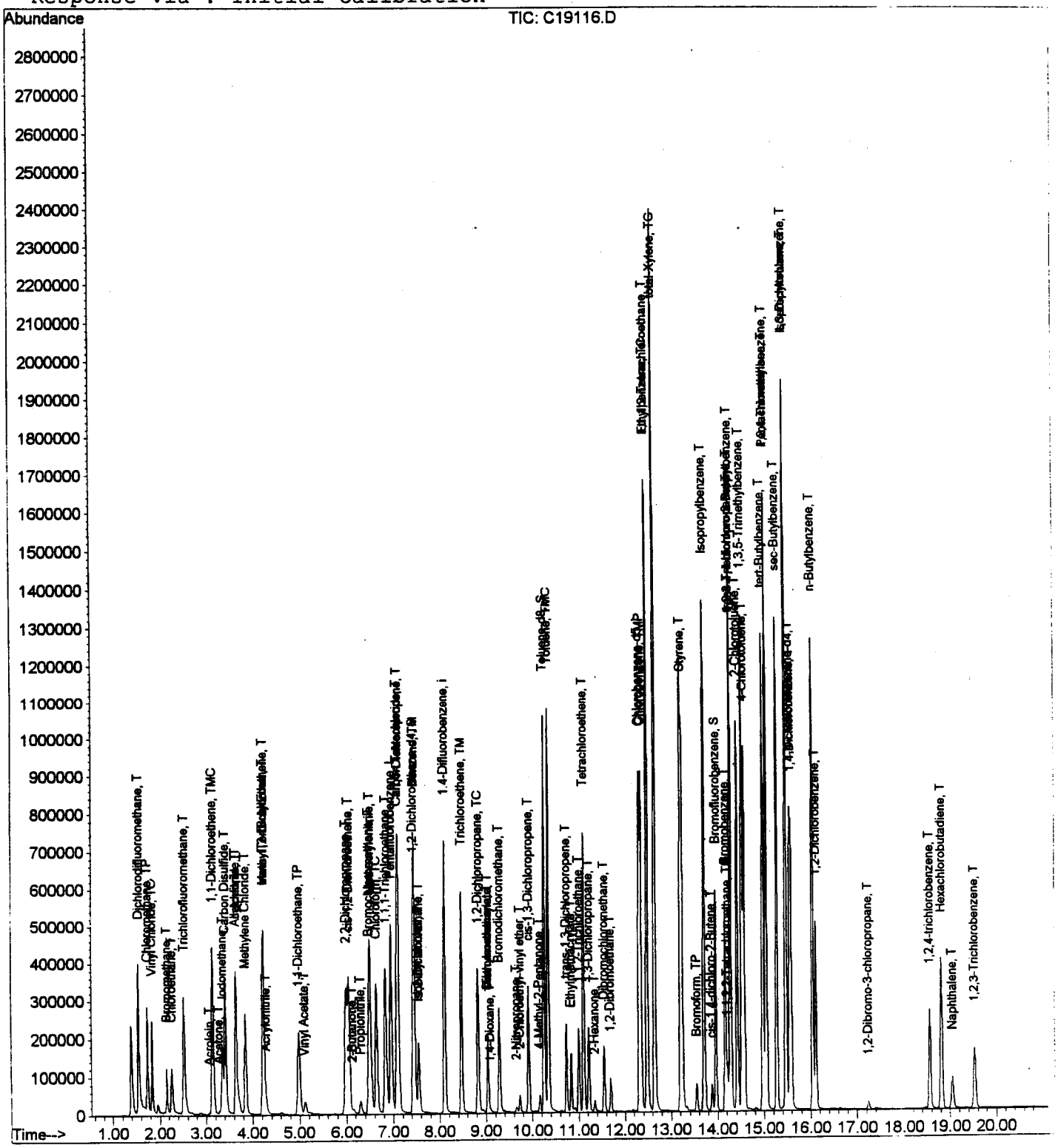
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1305308	10.13 ug\L	100
78) 1,3-Dichlorobenzene	15.46	146	394418	9.46 ug\L	97
79) Isopropyltoluene	15.48	119	1020213	10.28 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	375559	9.27 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	285030	9.08 ug\L	98
82) n-Butylbenzene	16.04	91	992182	10.27 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	7122	6.49 ug\L	94
84) 1,2,4-trichlorobenzene	18.56	180	146051	8.74 ug\L	100
85) Hexachlorobutadiene	18.81	225	138950	11.66 ug\L	100
86) Naphthalene	19.05	128	132145	6.53 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	98580	8.64 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032301\C19116.D Vial: 3
Acq On : 03/23/01 13:08 Operator: JP/VRR
Sample : QVWLCS032301 C1 Inst : VOA-C
Misc : WATER LCS 25 ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 13:29 2001 Quant Results File: 03230125.RES

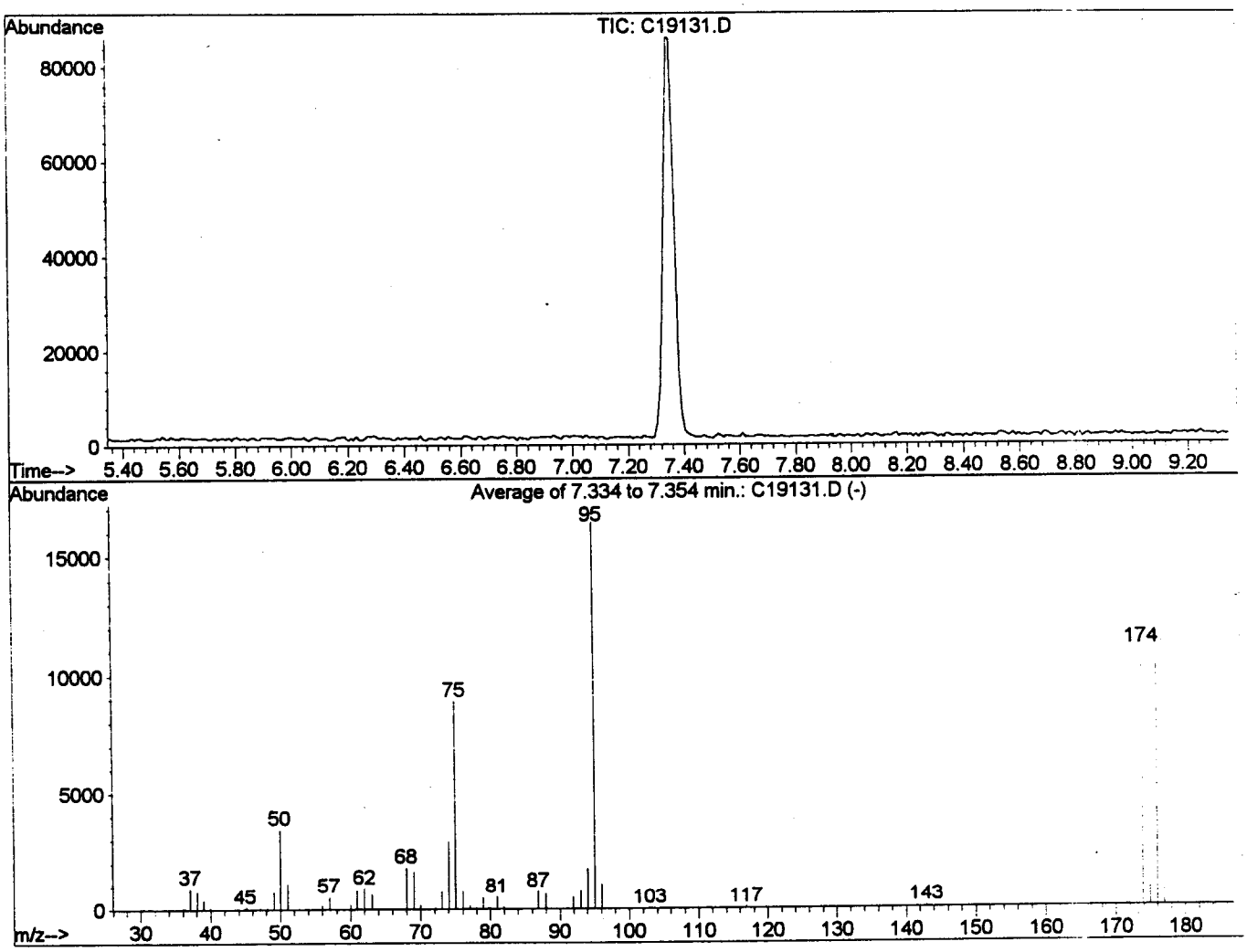
Method : C:\HPCHEM\1\DATA\032301\03230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\032501\C19131.D
Acq On : 03/25/01 11:53
Sample : BFB 50ng V01018
Misc : QC
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00



AutoFind: Scans 620, 621, 622; Background Corrected with Scan 613

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	3445	PASS
75	95	30	60	54.3	8902	PASS
95	95	100	100	100.0	16402	PASS
96	95	5	9	6.8	1117	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.8	10949	PASS
175	174	5	9	7.7	845	PASS
176	174	95	101	97.6	10682	PASS
177	176	5	9	6.9	741	PASS

C19131.D BFB01.M Sun Mar 25 12:05:42 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19132.D Vial: 1
Acq On : 03/25/01 12:14 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 12:35 2001 Quant Results File: 03250125.RES

Quant Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	562465	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.31	117	755726	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.55	152	314021	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.10	116	1514	10.00 ug\L	0.00
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	215924	9.55 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.50%		
46) Toluene-d8	10.26	98	1119502	9.62 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.20%		
66) Bromofluorobenzene	13.96	95	347173	9.04 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.40%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.55	85	420221	8.68 ug\L	99
3) Chloromethane	1.74	50	343682	10.21 ug\L	100
4) Vinyl Chloride	1.84	62	283141	9.65 ug\L	99
5) Bromomethane	2.16	94	64837	8.56 ug\L	95
6) Chloroethane	2.27	64	145188	9.69 ug\L	93
7) Trichlorofluoromethane	2.53	101	424441	9.35 ug\L #	100
8) Acrolein	3.09	56	8235	18.71 ug\L #	99
9) Acrylonitrile	4.29	53	41284	19.04 ug\L	92
10) 1,1-Dichloroethene	3.15	96	268740	10.14 ug\L	99
11) Acetone	3.30	58	5086	5.96 ug\L	68
12) Iodomethane	3.36	142	338481	9.65 ug\L	99
13) Allylchloride	3.65	39	380425	10.10 ug\L	98
14) Carbon Disulfide	3.43	76	905586	10.24 ug\L	99
15) Acetonitrile	3.65	41	505794	101.33 ug\L	98
16) Methylene Chloride	3.85	86	142444	9.99 ug\L	98
17) trans-1,2-Dichloroethene	4.24	96	276084	10.12 ug\L	97
18) MethylTertButylEther	4.23	73	294899	9.60 ug\L	98
19) 1,1-Dichloroethane	4.99	63	480516	10.09 ug\L	100
20) Vinyl Acetate	5.11	43	124187	10.35 ug\L #	87
21) 2,2-Dichloropropane	6.00	77	467351	10.21 ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	267904	10.25 ug\L	100
23) 2-Butanone	6.15	72	5538	8.67 ug\L	78
24) Propionitrile	6.30	54	75654	99.71 ug\L #	98
25) Methacrylonitrile	6.52	41	487344	103.78 ug\L	97
26) Bromochloromethane	6.49	128	84557	10.21 ug\L	96
27) Chloroform	6.64	83	508861	10.11 ug\L	99
28) 1,1,1-Trichloroethane	6.85	97	506165	10.01 ug\L	98
29) Carbon Tetrachloride	7.09	119	426187	10.01 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19132.D
Acq On : 03/25/01 12:14
Sample : CCV 10 ppb (V01019,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 25 12:35 2001

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03250125.RES

Quant Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	1,4-Dioxane	9.09	88	9969	194.48 ug\L	#	33
31)	1,1-Dichloropropene	7.11	77	141116	10.27 ug\L		99
33)	Benzene	7.46	78	1063299	10.17 ug\L		100
34)	Isobutyl alcohol	7.57	43	39691	174.96 ug\L		97
35)	1,2-Dichloroethane	7.56	62	246462	10.16 ug\L		99
36)	Trichloroethene	8.48	95	333847	10.27 ug\L		100
37)	1,2-Dichloropropane	8.84	63	233148	10.25 ug\L		99
38)	Dibromomethane	9.04	93	86680	10.07 ug\L		100
39)	Methylmethacrylate	9.04	69	56435	9.76 ug\L		96
40)	Bromodichloromethane	9.29	83	306254	10.00 ug\L		99
41)	2-Nitropropane	9.66	43	17322	9.89 ug\L		91
42)	2-Chloroethyl-vinyl ether	9.73	63	33749	7.98 ug\L		98
43)	cis-1,3-Dichloropropene	9.92	75	313037	10.35 ug\L		99
44)	4-Methyl-2-Pentanone	10.16	85	10791	9.57 ug\L	#	93
47)	Toluene	10.36	92	727048	10.10 ug\L		98
48)	trans-1,3-Dichloropropene	10.74	75	225082	10.11 ug\L		99
49)	Ethylmethacrylate	10.85	69	141771	9.95 ug\L		99
50)	1,1,2-Trichloroethane	11.01	83	100036	9.86 ug\L		99
51)	Tetrachloroethene	11.11	164	271584	10.08 ug\L		99
52)	1,3-Dichloropropane	11.22	76	230574	10.25 ug\L		99
53)	2-Hexanone	11.35	43	41264	9.50 ug\L		97
54)	Dibromochloromethane	11.56	129	156762	9.91 ug\L		99
55)	1,2-Dibromoethane	11.69	107	110451	10.07 ug\L		100
56)	Chlorobenzene	12.36	112	747339	9.88 ug\L		99
57)	1,1,1,2-Tetrachloroethane	12.48	131	225172	10.23 ug\L		98
58)	Ethylbenzene	12.49	91	1526024	10.56 ug\L		100
59)	total-Xylene	12.65	106	1567873m	31.59 ug\L		
60)	Styrene	13.24	104	752466	10.58 ug\L		100
62)	Bromoform	13.55	173	63721	9.37 ug\L		99
63)	Isopropylbenzene	13.71	105	1554695	10.07 ug\L		100
64)	cis-1,4-dichloro-2-Butene	13.87	75	27206	8.72 ug\L	#	88
65)	trans-1,4-dichloro-2-Buten	14.27	75	136549	10.01 ug\L	#	71
67)	Bromobenzene	14.17	156	237436	9.49 ug\L		99
68)	1,1,2,2-Tetrachloroethane	14.21	83	117195	9.94 ug\L		100
69)	1,2,3-Trichloropropane	14.27	75	136549	10.01 ug\L	#	100
70)	n-Propylbenzene	14.28	91	1910725	10.20 ug\L		99
71)	2-Chlorotoluene	14.42	91	1046739	10.05 ug\L		100
72)	4-Chlorotoluene	14.57	91	1032949	9.38 ug\L		95
73)	1,3,5-Trimethylbenzene	14.53	105	1263214	10.22 ug\L		99
74)	Pentachloroethane	15.04	167	147273	9.66 ug\L		97
75)	tert-Butylbenzene	14.97	119	1056414	10.14 ug\L		100
76)	1,2,4-Trimethylbenzene	15.05	105	1210347	10.39 ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19132.D Vial: 1
Acq On : 03/25/01 12:14 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 12:35 2001 Quant Results File: 03250125.RES

Quant Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.27	105	1592406	10.25 ug\L	99
78) 1,3-Dichlorobenzene	15.46	146	510586	10.15 ug\L	97
79) Isopropyltoluene	15.47	119	1261015	10.53 ug\L	99
80) 1,4-Dichlorobenzene	15.59	146	486699	9.96 ug\L	99
81) 1,2-Dichlorobenzene	16.11	146	385967	10.19 ug\L	99
82) n-Butylbenzene	16.04	91	1227241	10.53 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	11546	8.72 ug\L	97
84) 1,2,4-trichlorobenzene	18.56	180	205751	10.20 ug\L	100
85) Hexachlorobutadiene	18.81	225	173451	12.12 ug\L	100
86) Naphthalene	19.05	128	213277	8.74 ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	144863	10.53 ug\L	100

(#) = qualifier out of range (m) = manual integration

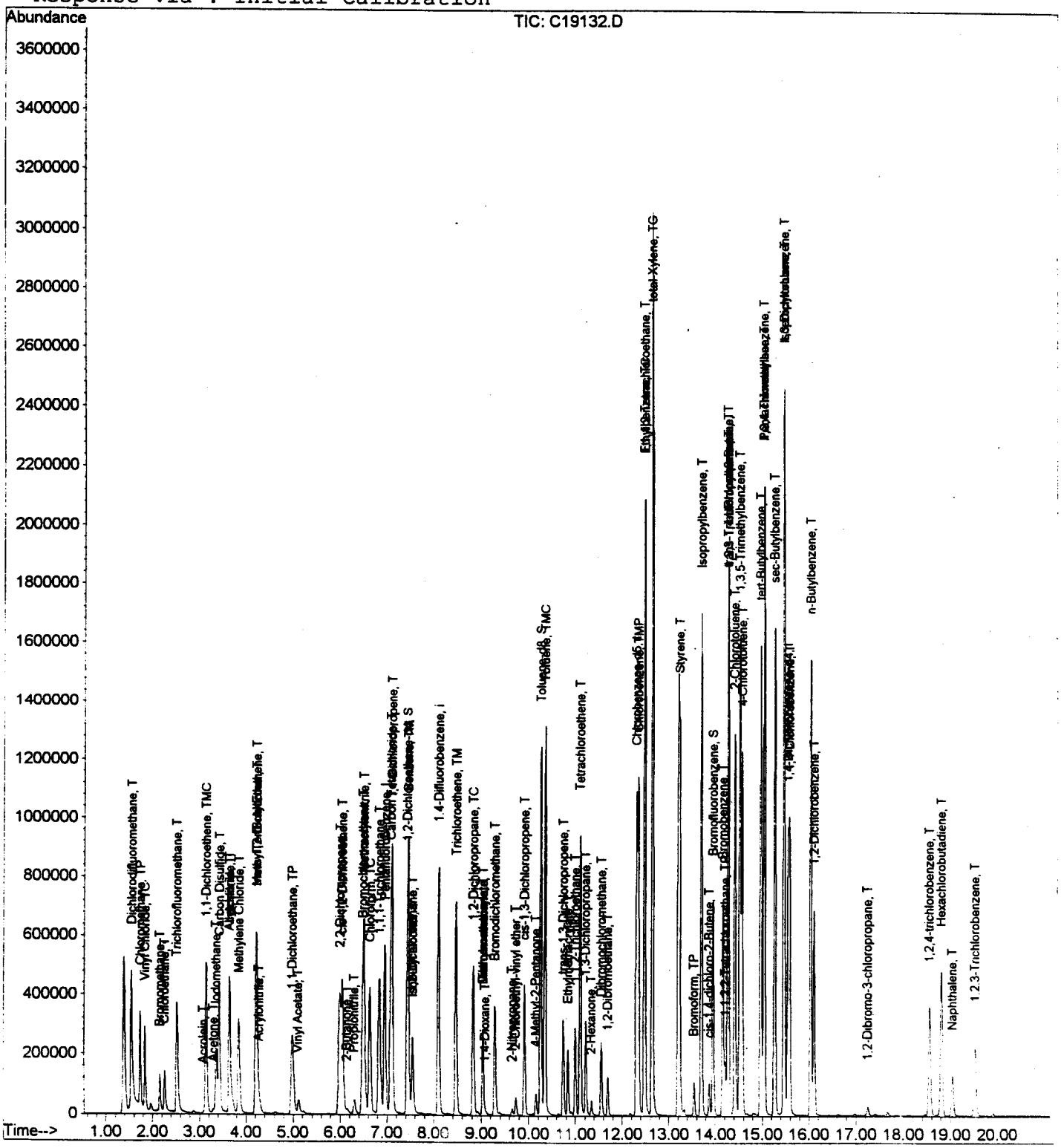
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032501\C19132.D
Acq On : 03/25/01 12:14
Sample : CCV 10 ppb (V01019,V01004)
Misc : WATER 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 25 12:35 2001

Vial: 1
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03250125.RES

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032501\C19132.D Vial: 1
Acq On : 03/25/01 12:14 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	96	0.00
2	T	Dichlorodifluoromethane	0.861	0.747	13.2	81	0.00
3	TP	Chloromethane	0.599	0.611	-2.0	95	0.00
4	TC	Vinyl Chloride	0.522	0.503	3.6	89	0.00
5	T	Bromomethane	0.143	0.115	19.6	77	0.00
6	T	Chloroethane	0.266	0.258	3.0	86	0.00
7	T	Trichlorofluoromethane	0.807	0.755	6.4	87	-0.01
8	T	Acrolein	0.008	0.007	12.5	104	0.00
9	T	Acrylonitrile	0.039	0.037	5.1	101	0.00
10	TMC	1,1-Dichloroethene	0.471	0.478	-1.5	95	0.00
11	T	Acetone	0.013	0.009	30.8#	75	0.00
12	T	Iodomethane	0.623	0.602	3.4	95	0.00
13	T	Allylchloride	0.669	0.676	-1.0	96	0.00
14	T	Carbon Disulfide	1.573	1.610	-2.4	100	0.00
15	T	Acetonitrile	0.089	0.090	-1.1	97	0.00
16	T	Methylene Chloride	0.253	0.253	0.0	99	0.00
17	T	trans-1,2-Dichloroethene	0.485	0.491	-1.2	94	0.00
18	T	MethylTertButylEther	0.546	0.524	4.0	98	0.00
19	TP	1,1-Dichloroethane	0.847	0.854	-0.8	98	-0.01
20	T	Vinyl Acetate	0.213	0.221	-3.8	113	-0.01
21	T	2,2-Dichloropropane	0.814	0.831	-2.1	92	0.00
22	T	cis-1,2-Dichloroethene	0.465	0.476	-2.4	98	0.00
23	T	2-Butanone	0.013	0.010	23.1	87	-0.03
24	T	Propionitrile	0.013	0.013	0.0	105	-0.01
25	T	Methacrylonitrile	0.083	0.087	-4.8	105	0.00
26	T	Bromochloromethane	0.147	0.150	-2.0	98	0.00
27	TC	Chloroform	0.895	0.905	-1.1	97	0.00
28	T	1,1,1-Trichloroethane	0.899	0.900	-0.1	94	0.00
29	T	Carbon Tetrachloride	0.757	0.758	-0.1	96	-0.01
30	T	1,4-Dioxane	0.001	0.001	0.0	104	0.00
31	T	1,1-Dichloropropene	0.244	0.251	-2.9	96	0.00
32	S	1,2-Dichloroethane-d4	0.402	0.384	4.5	100	0.00
33	TM	Benzene	1.859	1.890	-1.7	97	0.00
34	T	Isobutyl alcohol	0.005	0.004	20.0	100	0.00
35	T	1,2-Dichloroethane	0.431	0.438	-1.6	103	0.00
36	TM	Trichloroethene	0.578	0.594	-2.8	98	0.00
37	TC	1,2-Dichloropropane	0.404	0.415	-2.7	102	0.00
38	T	Dibromomethane	0.153	0.154	-0.7	100	-0.01
39	T	Methylmethacrylate	0.103	0.100	2.9	98	-0.01
40	T	Bromodichloromethane	0.545	0.544	0.2	98	0.00
41	T	2-Nitropropane	0.031	0.031	0.0	116	-0.01
42	T	2-Chloroethyl-vinyl ether	0.075	0.060	20.0	90	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032501\C19132.D Vial: 1
Acq On : 03/25/01 12:14 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.538	0.557	-3.5	102	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.019	5.0	106	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
46	S	Toluene-d8	1.539	1.481	3.8	96	0.00
47	TMC	Toluene	0.953	0.962	-0.9	98	0.00
48	T	trans-1,3-Dichloropropene	0.295	0.298	-1.0	105	0.00
49	T	Ethylmethacrylate	0.188	0.188	0.0	104	0.00
50	T	1,1,2-Trichloroethane	0.134	0.132	1.5	104	0.00
51	T	Tetrachloroethene	0.357	0.359	-0.6	99	0.00
52	T	1,3-Dichloropropane	0.298	0.305	-2.3	106	0.00
53	T	2-Hexanone	0.057	0.055	3.5	107	0.00
54	T	Dibromochloromethane	0.209	0.207	1.0	103	0.00
55	T	1,2-Dibromoethane	0.145	0.146	-0.7	104	0.00
56	TMP	Chlorobenzene	1.001	0.989	1.2	101	0.00
57	T	1,1,1,2-Tetrachloroethane	0.291	0.298	-2.4	102	0.00
58	TC	Ethylbenzene	1.912	2.019	-5.6	103	0.00
59	TG	total-Xylene	0.657	0.692	-5.3	103	0.00
60	T	Styrene	0.941	0.996	-5.8	104	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
62	TP	Bromoform	0.216	0.203	6.0	106	0.00
63	T	Isopropylbenzene	4.915	4.951	-0.7	104	0.00
64	T	cis-1,4-dichloro-2-Butene	0.097	0.087	10.3	102	0.00
65	T	trans-1,4-dichloro-2-Butene	0.434	0.435	-0.2	112	0.00
66	S	Bromofluorobenzene	1.223	1.106	9.6	101	0.00
67	T	Bromobenzene	0.797	0.756	5.1	105	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.376	0.373	0.8	113	0.00
69	T	1,2,3-Trichloropropane	0.434	0.435	-0.2	112	0.00
70	T	n-Propylbenzene	5.965	6.085	-2.0	105	0.00
71	T	2-Chlorotoluene	3.315	3.333	-0.5	105	0.00
72	T	4-Chlorotoluene	3.508	3.289	6.2	106	0.00
73	T	1,3,5-Trimethylbenzene	3.934	4.023	-2.3	105	0.00
74	T	Pentachloroethane	0.485	0.469	3.3	106	0.00
75	T	tert-Butylbenzene	3.317	3.364	-1.4	103	0.00
76	T	1,2,4-Trimethylbenzene	3.710	3.854	-3.9	106	0.00
77	T	sec-Butylbenzene	4.949	5.071	-2.5	105	0.00
78	T	1,3-Dichlorobenzene	1.602	1.626	-1.5	107	0.00
79	T	Isopropyltoluene	3.813	4.016	-5.3	106	0.00
80	T	1,4-Dichlorobenzene	1.556	1.550	0.4	107	0.00
81	T	1,2-Dichlorobenzene	1.206	1.229	-1.9	112	0.00
82	T	n-Butylbenzene	3.711	3.908	-5.3	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032501\C19132.D Vial: 1
Acq On : 03/25/01 12:14 Operator: JP/VRR
Sample : CCV 10 ppb (V01019,V01004) Inst : VOA-C
Misc : WATER 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.042	0.037	11.9	114	0.00
84	T	1,2,4-trichlorobenzene	0.642	0.655	-2.0	117	0.00
85	T	Hexachlorobutadiene	0.499	0.552	-10.6	115	-0.01
86	T	Naphthalene	0.756	0.679	10.2	123	0.00
87	T	1,2,3-Trichlorobenzene	0.438	0.461	-5.3	123	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	88	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19133.D Vial: 2
Acq On : 03/25/01 13:29 Operator: JP/VRR
Sample : QVW032501 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 14:57 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	514134	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.32	117	604232	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	213665	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00 ug\L	-8.11
System Monitoring Compounds					
32) 1,2-Dichloroethane-d4	7.44	65	181802	8.80 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 88.00%		
46) Toluene-d8	10.26	98	978879	10.53 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.30%#		
66) Bromofluorobenzene	13.96	95	251954	9.64 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.40%		

Target Compounds Qvalue

VRR
3.25.01

(#) = qualifier out of range (m) = manual integration

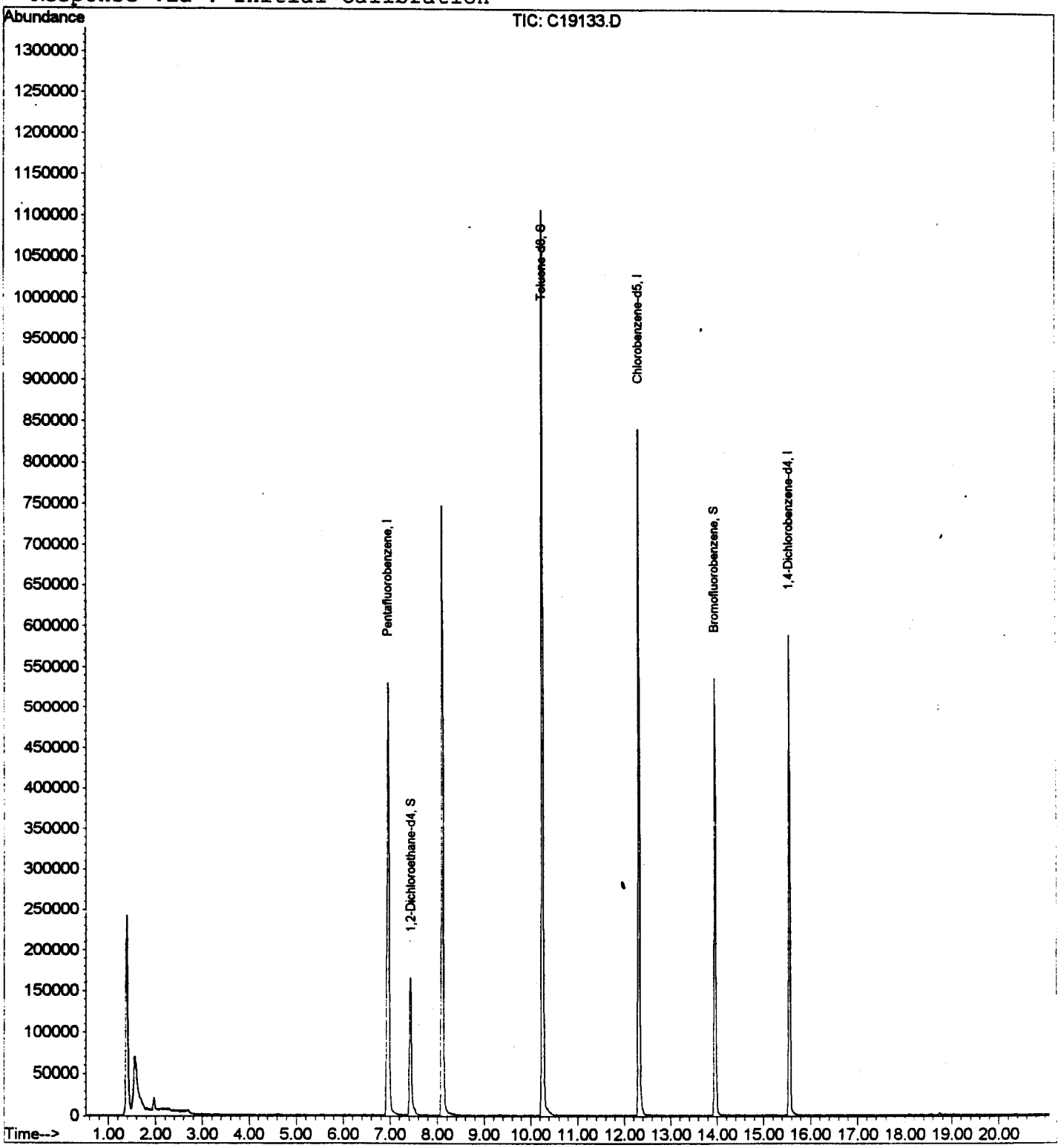
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032501\C19133.D
Acq On : 03/25/01 13:29
Sample : QVW032501 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 25 14:57 2001

Vial: 2
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03250125.RES

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



PROJECT QUALITY CONTROL RESULTS

Method No.[1]	Analyte Component	Project Control Rec. MS	MSD	MS	MS	Accuracy Limits MS/MSD Recoveries Water	Soil[2]	Project Control MS/MSD % Deviation Water	Soil[2]	Precision Limits MS/MSD Deviation Water	Soil[2]	Project Control Recoveries LCS Water	Soil[2]	Accuracy Limits LCS Recoveries Water	Soil[2]	Project Control Field Dup % Deviations Water	Soil[2]	Precision Limits Field Dup Deviations Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	96	105			60-140	20-150	8%	#VALUE!	<30	<50	104		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	95	102			60-140	20-150	8%	#VALUE!	30	50	105		65-135	65-135			50	<75
8260B	1,1,2,2-Tetrachloroethane	90	100			60-140	20-150	10%	#VALUE!	<30	<50	96		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	90	99			60-140	20-150	10%	#VALUE!	<30	<50	98		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	96	104			60-140	20-150	8%	#VALUE!	<30	<50	104		62-135	62-135			50	<75
8260B	1,1-Dichloroethene	96	102			60-140	20-150	7%	#VALUE!	30	50	104		65-135	65-135			50	<75
8260B	1,2,3-Trichlorobenzene	91	100			60-140	20-150	10%	#VALUE!	<30	<50	95		65-147	65-147			50	<75
8260B	1,2,3-Trichloropropane	90	99			60-140	20-150	10%	#VALUE!	30	50	105		65-135	65-135			50	<75
8260B	1,2,4-Trichlorobenzene	90	99			60-140	20-150	10%	#VALUE!	30	<50	105		65-145	65-145			50	<75
8260B	1,2,4-Trimethylbenzene	101	108			60-140	20-150	7%	#VALUE!	30	<50	108		65-135	65-135			50	<75
8260B	1,2-Dichloroethane	91	98			60-140	20-150	9%	#VALUE!	<30	<50	99		58-137	58-137			50	<75
8260B	1,2-Dichlorobenzene	96	105			60-140	20-150	9%	#VALUE!	<30	<50	105		65-135	65-135			50	<75
8260B	1,2-Dibromo-3-chloropropane	75	86			60-140	20-150	13%	#VALUE!	<30	50	82		49-135	49-135			50	<75
8260B	1,2-Dichloropropane	93	103			60-140	20-150	10%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	1,2-Ethylene Dibromide	90	101			60-140	20-150	11%	#VALUE!	<30	<50	97		65-135	65-135			50	<75
8260B	1,3,5-Trimethylbenzene	102	108			60-140	20-150	3%	#VALUE!	<30	50	108		62-135	62-135			50	<75
8260B	1,3-Dichlorobenzene	96	106			60-140	20-150	10%	#VALUE!	<30	<50	105		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	98	104			60-140	20-150	6%	#VALUE!	30	<50	110		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	94	103			60-140	20-150	9%	#VALUE!	<30	<50	103		65-135	65-135			50	<75
8260B	2,2-Dichloropropane	98	104			60-140	20-150	6%	#VALUE!	30	<50	110		65-135	65-135			50	<75
8260B	2-Chlorotoluene	99	106			60-140	20-150	7%	#VALUE!	<30	<50	105		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	102	109			60-140	20-150	7%	#VALUE!	<30	<50	108		64-135	64-135			<50	<75
8260B	Benzene	97	106			60-140	20-150	9%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Bromobenzene	92	101			60-140	20-150	9%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	91	102			60-140	20-150	12%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Bromodichloromethane	90	100			60-140	20-150	11%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Bromoform	87	95			60-140	20-150	9%	#VALUE!	30	<50	90		65-135	65-135			50	<75
8260B	Bromomethane	89	92			60-140	20-150	7%	#VALUE!	<30	<50	121		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	94	104			60-140	20-150	10%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	92	101			60-140	20-150	9%	#VALUE!	<30	<50	99		65-135	65-135			50	<75
8260B	Chloroethane	90	94			60-140	20-150	4%	#VALUE!	<30	<50	103		55-135	55-135			<50	<75
8260B	Chloroform	94	101			60-140	20-150	8%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Chloromethane	91	98			60-140	20-150	8%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	94	103			60-140	20-150	9%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	90	101			60-140	20-150	12%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	90	100			60-140	20-150	11%	#VALUE!	<30	<50	97		63-135	63-135			<50	<75
8260B	Dibromomethane	87	100			60-140	20-150	14%	#VALUE!	<30	<50	99		58-137	58-137			<50	<75
8260B	Dichlorodifluoromethane	79	87			60-140	20-150	9%	#VALUE!	<30	<50	93		65-135	65-135			<50	<75
8260B	Ethylbenzene	99	107			60-140	20-150	7%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	120	130			60-140	20-150	8%	#VALUE!	<30	<50	139		65-135	65-135			<50	<75
8260B	Isopropylbenzene	101	108			60-140	20-150	7%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	total-Xylene	99	106			60-140	20-150	7%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Methylene Chloride	92	99			60-140	20-150	7%	#VALUE!	30	<50	98		65-135	65-135			<50	<75
8260B	n-Butylbenzene	100	112			60-140	20-150	12%	#VALUE!	<30	<50	110		65-135	65-135			<50	<75
8260B	n-Propylbenzene	102	109			60-140	20-150	7%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Naphthalene	68	85			60-140	20-150	22%	#VALUE!	<30	<50	86		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	103	113			60-140	20-150	8%	#VALUE!	30	<50	112		65-135	65-135			<50	<75
8260B	Sec-butylbenzene	106	110			60-140	20-150	9%	#VALUE!	<30	<50	114		65-135	65-135			<50	<75
8260B	Styrene	94	100			60-140	20-150	6%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	96	107			60-140	20-150	11%	#VALUE!	<30	<50	103		61-135	61-135			<50	<75
8260B	tert-butylbenzene	104	109			60-140	20-150	8%	#VALUE!	<30	<50	108		65-135	65-135			<50	<75
8260B	Tetrachloromethylene	97	104			60-140	20-150	7%	#VALUE!	30	<50	103		61-135	61-135			<50	<75
8260B	Toluene	98	101			60-140	20-150	5%	#VALUE!	30	<50	103		64-135	64-135			50	<75
8260B	Trans-1,2-Dichloroethene	97	103			60-140	20-150	6%	#VALUE!	30	<50	104		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	92	98			60-140	20-150	7%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	85	93			60-140	20-150	9%	#VALUE!	<30	<50	100		57-135	57-135			<50	<75
8260B	Vinyl Chloride	87	93			60-140	20-150	6%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	94	101			75-125	65-135	6%	#VALUE!	NA	NA	102		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	89	96			75-125	65-135	8%	#VALUE!	NA	NA	98		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	87	94			62-139	52-149	8%	#VALUE!	NA	NA	97		NA	NA			NA	NA
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH	71				50-150	30-170	100%	#DIV/0!	30	<50	97		75-125	70-130			50	<75

	WATER SAMPLE C19125.D	MS C19135.D	MSD C19136.D	BLANK C19133.D	BS C19134.D	SOIL SAMPLE	MS	MSD	BLANK	BS
1,1,1,2-Tetrachloroethane	0	9.64	10.48	0	10.43					
1,1,1-Trichloroethane	0	9.48	10.23	0	10.47					
1,1,2,2-Tetrachloroethane	0	9.04	10	0	9.56					
1,1,2-Trichloroethane	0	8.98	9.89	0	9.83					
1,1-Dichloroethane	0	9.6	10.43	0	10.38					
1,1-Dichloroethene	0	9.55	10.23	0	10.36					
1,2,3-Trichlorobenzene	0	9.09	10.04	0	9.49					
1,2,3-Trichloropropane	0	9.02	9.94	0	10.48					
1,2,4-Trichlorobenzene	0	9.02	9.94	0	10.48					
1,2,4-Trimethylbenzene	0	10.11	10.79	0	10.8					
1,2-Dichloroethane	0	9.08	9.91	0	9.9					
1,2-Dichlorobenzene	0	9.55	10.49	0	10.45					
1,2-Dibromo-3-chloropropane	0	7.53	8.62	0	8.19					
1,2-Dichloropropane	0	9.26	10.26	0	10.19					
1,2-Ethylene Dibromide	0	9.04	10.13	0	9.73					
1,3,5-Trimethylbenzene	0	10.16	10.46	0	10.78					
1,3-Dichlorobenzene	0	9.62	10.61	0	10.53					
1,3-Dichloropropane	0	9.78	10.42	0	11.03					
1,4-Dichlorobenzene	0	9.39	10.28	0	10.33					
2,2-Dichloropropane	0	9.78	10.42	0	11.03					
2-Chlorotoluene	0	9.92	10.61	0	10.47					
4-Chlorotoluene	0	10.16	10.88	0	10.8					
Benzene	0	9.88	10.59	0	10.27					
Bromobenzene	0	9.22	10.07	0	9.87					
Bromochloromethane	0	9.07	10.19	0	10.25					
Bromodichloromethane	0	9.02	10.04	0	10.04					
Bromoform	0	8.69	9.49	0	9.01					
Bromomethane	0	9.88	9.19	0	12.13					
Carbon Tetrachloride	0	9.38	10.35	0	10.44					
Chlorobenzene	0	9.16	10.02	0	9.9					
Chloroethane	0	9.01	9.37	0	10.32					
Chloroform	0	9.38	10.14	0	10.19					
Chloromethane	0	9.08	9.8	0	10.23					
Cis-1,2-Dichloroethene	0	9.44	10.34	0	10.42					
Cis-1,3-Dichloropropene	0	8.98	10.12	0	10.2					
Dibromochloromethane	0	9.01	10.03	0	9.73					
Dibromomethane	0	8.69	10.02	0	9.9					
Dichlorodifluoromethane	0	7.93	8.67	0	9.3					
Ethylbenzene	0	9.94	10.71	0	10.84					
Hexachlorobutadiene	0	11.98	12.99	0	13.85					
Isopropylbenzene	0	10.1	10.84	0	10.77					
total-Xylene	0	29.71	31.79	0	32.11					
Methylene Chloride	0	9.22	9.93	0	9.77					
n-Butylbenzene	0	9.95	11.24	0	10.98					
n-Propylbenzene	0	10.16	10.9	0	10.74					
Naphthalene	0	8.76	8.47	0	8.6					
p-Isopropyltoluene	0	10.34	11.25	0	11.15					
Sec-butylbenzene	0	10.06	11.02	0	10.98					
Styrene	0	9.37	9.97	0	10.6					
Tetrachloroethylene	0	9.55	10.68	0	10.27					
tert-butylbenzene	0	10.09	10.91	0	10.79					
Tetrachloromethylene	0	9.67	10.41	0	10.29					
Toluene	0	9.81	10.35	0	10.27					
Trans-1,2-Dichloroethene	0	9.72	10.29	0	10.42					
Trans-1,3-Dichloropropene	0	9.16	9.8	0	9.75					
Trichlorofluoromethane	0	8.52	9.29	0	9.95					
Vinyl Chloride	0	8.72	9.28	0	10					
Toluene-d8 (surr)	9.74	9.43	10.05	10.53	10.24					
4-Bromofluorobenzene (surr)	9.34	8.89	9.6	9.64	9.81					
1,2-Dichloroethane-d4 (surr)	9.39	8.65	9.39	8.8	9.67					

VOA GC/MS QC CHECKLIST
SW-846-8260B

BATCH #: C03230125-M	METHOD: 8260B
MATRIX: water	

Are BS/BSD/MS/MSD recoveries within recovery ranges?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all surrogate recoveries within recovery ranges?	Y	N	NA
Are all Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Are all MS/MSD compounds below the high standard?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined out, initialled, & dated?	Y	N	NA

Analyst: VRR	Reviewer:
Date: 3·25·01 Time: 19:15	Date: Time:

Spike Recovery and RPD Summary Report - WATER

Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration

Non-Spiked Sample: C19125.D

	Spike Sample	Spike Duplicate Sample
File ID :	C19135.D	C19136.D
Sample :	AC09960MS 25ml DF=1	AC09960MSD 25ml DF=1
Acq Time:	25 Mar 2001 15:37	25 Mar 2001 16:03

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
1,1-Dichloroethene	0.0	10	10	10	96	102	7	20	88-118
Benzene	0.0	10	10	11	97	106	9	20	83-121
Trichloroethene	0.0	10	10	11	95	107	11	20	68-109
Toluene	0.0	10	10	10	98	103	5	20	85-109
Chlorobenzene	0.0	10	9	10	92	100	9	20	82-110

- Fails Limit Check

03250125.M Tue Mar 27 13:15:43 2001 INST:VOA-C

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19135.D Vial: 4
Acq On : 03/25/01 15:37 Operator: JP/VRR
Sample : AC09960MS 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 15:58 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	535394	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	676466	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	261436	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.10	116	1568	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.43	65	186111	8.65	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 86.50%			
46) Toluene-d8	10.26	98	981933	9.43	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.30%			
66) Bromofluorobenzene	13.96	95	284468	8.89	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 88.90%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	365707	7.93	ug\L	99
3) Chloromethane	1.74	50	291144	9.08	ug\L	99
4) Vinyl Chloride	1.84	62	243499	8.72	ug\L	99
5) Bromomethane	2.16	94	70181	9.86	ug\L	98
6) Chloroethane	2.26	64	128556	9.01	ug\L	94
7) Trichlorofluoromethane	2.53	101	368000	8.52	ug\L #	100
8) Acrolein	3.09	56	6879	16.42	ug\L #	100
9) Acrylonitrile	4.31	53	34663	16.80	ug\L	92
10) 1,1-Dichloroethene	3.15	96	240965	9.55	ug\L	100
11) Acetone	3.32	58	4623	5.53	ug\L #	1
12) Iodomethane	3.36	142	346018	10.37	ug\L	100
13) Allylchloride	3.65	39	344174	9.60	ug\L	89
14) Carbon Disulfide	3.43	76	842130	10.00	ug\L	99
15) Acetonitrile	3.65	41	405195	85.28	ug\L	88
16) Methylene Chloride	3.85	86	125069	9.22	ug\L	96
17) trans-1,2-Dichloroethene	4.23	96	252349	9.72	ug\L	99
18) MethylTertButylEther	4.23	73	239924	8.20	ug\L	97
19) 1,1-Dichloroethane	4.99	63	435090	9.60	ug\L	99
20) Vinyl Acetate	5.13	43	101776	8.91	ug\L	98
21) 2,2-Dichloropropane	6.00	77	426114	9.78	ug\L	100
22) cis-1,2-Dichloroethene	6.06	96	234804	9.44	ug\L	99
23) 2-Butanone	6.15	72	4829	7.89	ug\L	95
24) Propionitrile	6.31	54	57872	80.13	ug\L #	97
25) Methacrylonitrile	6.52	41	396398	88.68	ug\L	97
26) Bromochloromethane	6.48	128	71454	9.07	ug\L	97
27) Chloroform	6.65	83	449185	9.38	ug\L	99
28) 1,1,1-Trichloroethane	6.84	97	456649	9.48	ug\L	98
29) Carbon Tetrachloride	7.09	119	380323	9.38	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19135.D Vial: 4
Acq On : 03/25/01 15:37 Operator: JP/VRR
Sample : AC09960MS 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 15:58 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.09	88	8793	182.37 ug\L #	84
31) 1,1-Dichloropropene	7.11	77	124770	9.54 ug\L	99
33) Benzene	7.46	78	961706	9.66 ug\L	100
34) Isobutyl alcohol	7.57	43	27431	124.40 ug\L	89
35) 1,2-Dichloroethane	7.55	62	209767	9.08 ug\L	98
36) Trichloroethene	8.47	95	295464	9.55 ug\L	100
37) 1,2-Dichloropropane	8.84	63	200857	9.28 ug\L	99
38) Dibromomethane	9.04	93	71171	8.69 ug\L	97
39) Methylmethacrylate	9.05	69	44106	8.02 ug\L	96
40) Bromodichloromethane	9.29	83	263150	9.02 ug\L	100
41) 2-Nitropropane	9.66	43	13347	8.00 ug\L	95
43) cis-1,3-Dichloropropene	9.92	75	258752	8.98 ug\L	99
44) 4-Methyl-2-Pentanone	10.16	85	7980	7.44 ug\L #	84
47) Toluene	10.36	92	632462	9.81 ug\L	100
48) trans-1,3-Dichloropropene	10.74	75	182548	9.16 ug\L	100
49) Ethylmethacrylate	10.84	69	110262	8.65 ug\L	97
50) 1,1,2-Trichloroethane	11.01	83	81610	8.98 ug\L	98
51) Tetrachloroethene	11.11	164	233274	9.67 ug\L	99
52) 1,3-Dichloropropane	11.23	76	183905	9.13 ug\L	97
53) 2-Hexanone	11.35	43	32352	8.32 ug\L	95
54) Dibromochloromethane	11.56	129	127515	9.01 ug\L	99
55) 1,2-Dibromoethane	11.70	107	88712	9.04 ug\L	99
56) Chlorobenzene	12.36	112	620080	9.16 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	189985	9.64 ug\L	98
58) Ethylbenzene	12.49	91	1285953	9.94 ug\L	100
59) total-Xylene	12.65	106	1319867m	29.71 ug\L	
60) Styrene	13.24	104	596228	9.37 ug\L	99
62) Bromoform	13.56	173	49189	8.69 ug\L	98
63) Isopropylbenzene	13.71	105	1297880	10.10 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	20796	8.14 ug\L #	90
65) trans-1,4-dichloro-2-Buten	14.27	75	103213	9.09 ug\L #	76
67) Bromobenzene	14.17	156	192085	9.22 ug\L	99
68) 1,1,2,2-Tetrachloroethane	14.22	83	88713	9.04 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	103213	9.09 ug\L #	100
70) n-Propylbenzene	14.29	91	1588012	10.18 ug\L	99
71) 2-Chlorotoluene	14.43	91	859386	9.92 ug\L	99
72) 4-Chlorotoluene	14.58	91	931419	10.16 ug\L	100
73) 1,3,5-Trimethylbenzene	14.53	105	1045319	10.16 ug\L	99
74) Pentachloroethane	15.05	167	119135	9.39 ug\L	97
75) tert-Butylbenzene	14.98	119	875480	10.09 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	980480	10.11 ug\L	100
77) sec-Butylbenzene	15.28	105	1304647	10.08 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19135.D Vial: 4
Acq On : 03/25/01 15:37 Operator: JP/VRR
Sample : AC09960MS 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 15:58 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

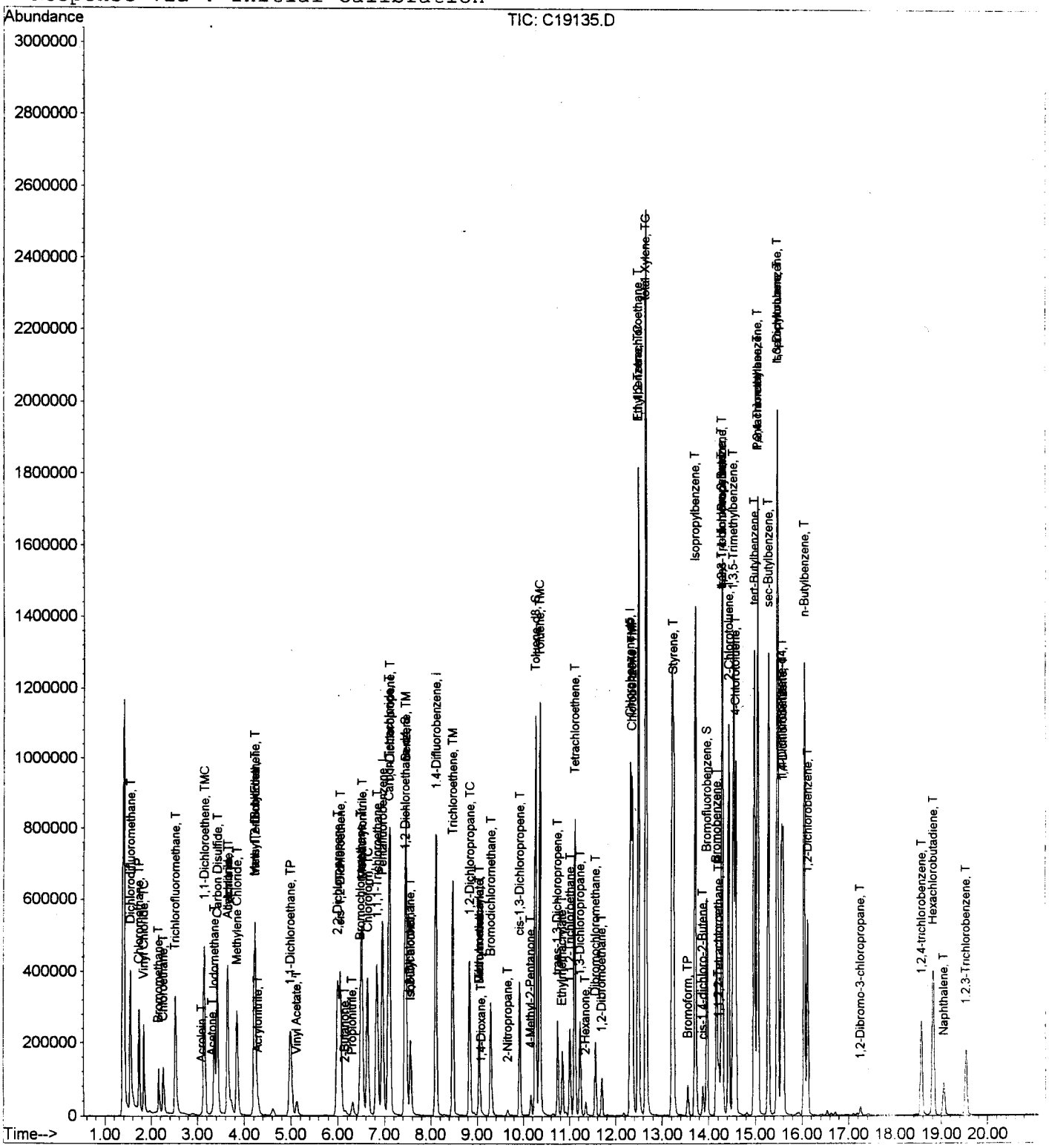
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	1,3-Dichlorobenzene	15.47	146	402733	9.62 ug\L	95
79)	Isopropyltoluene	15.48	119	1030432	10.34 ug\L	99
80)	1,4-Dichlorobenzene	15.59	146	382163	9.39 ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	301205	9.55 ug\L	98
82)	n-Butylbenzene	16.05	91	965190	9.95 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.25	75	8302	7.53 ug\L	94
84)	1,2,4-trichlorobenzene	18.57	180	151484	9.02 ug\L	100
85)	Hexachlorobutadiene	18.82	225	142852	11.98 ug\L	100
86)	Naphthalene	19.05	128	137207	6.76 ug\L	100
87)	1,2,3-Trichlorobenzene	19.54	180	105286	9.19 ug\L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\032501\C19135.D
Acq On : 03/25/01 15:37
Sample : AC09960MS 25ml DF=1
Misc : 27319/C03230125
MS Integration Params: rteint.p
Quant Time: Mar 25 15:58 2001

Vial: 4
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03250125.RES

Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19136.D Vial: 5
Acq On : 03/25/01 16:03 Operator: JP/VRR
Sample : AC09960MSD 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 16:24 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	531605	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	701392	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	275134	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.12	116	1356	10.00	ug\L	0.01
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.45	65	200491	9.39	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.90%			
46) Toluene-d8	10.27	98	1085342	10.05	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.50%			
66) Bromofluorobenzene	13.96	95	323063	9.60	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.56	85	396851	8.67	ug\L	100
3) Chloromethane	1.75	50	311878	9.80	ug\L	98
4) Vinyl Chloride	1.85	62	257440	9.28	ug\L	97
5) Bromomethane	2.16	94	65323	9.19	ug\L	96
6) Chloroethane	2.27	64	132702	9.37	ug\L	93
7) Trichlorofluoromethane	2.54	101	398555	9.29	ug\L #	100
8) Acrolein	3.10	56	8021	19.28	ug\L #	95
9) Acrylonitrile	4.32	53	41305	20.16	ug\L	96
10) 1,1-Dichloroethene	3.16	96	256319	10.23	ug\L	98
11) Acetone	3.31	58	5479	7.28	ug\L	96
12) Iodomethane	3.37	142	357970	10.80	ug\L	100
13) Allylchloride	3.65	39	366681	10.30	ug\L	89
14) Carbon Disulfide	3.44	76	852442	10.20	ug\L	99
15) Acetonitrile	3.66	41	430778	91.31	ug\L	87
16) Methylene Chloride	3.86	86	133825	9.93	ug\L	97
17) trans-1,2-Dichloroethene	4.24	96	265317	10.29	ug\L	98
18) MethylTertButylEther	4.24	73	269681	9.29	ug\L	96
19) 1,1-Dichloroethane	5.01	63	469599	10.43	ug\L	99
20) Vinyl Acetate	5.13	43	111407	9.82	ug\L	97
21) 2,2-Dichloropropane	6.02	77	450751	10.42	ug\L	100
22) cis-1,2-Dichloroethene	6.07	96	255519	10.34	ug\L	100
23) 2-Butanone	6.16	72	5354	8.88	ug\L	96
24) Propionitrile	6.32	54	70440	98.23	ug\L	99
25) Methacrylonitrile	6.52	41	446979	100.71	ug\L	97
26) Bromochloromethane	6.50	128	79736	10.19	ug\L	98
27) Chloroform	6.66	83	482464	10.14	ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	489162	10.23	ug\L	98
29) Carbon Tetrachloride	7.10	119	416603	10.35	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19136.D Vial: 5
Acq On : 03/25/01 16:03 Operator: JP/VRR
Sample : AC09960MSD 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 16:24 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	9493	195.72 ug\L #	86
31) 1,1-Dichloropropene	7.13	77	135863	10.46 ug\L	99
33) Benzene	7.47	78	1046713	10.59 ug\L	100
34) Isobutyl alcohol	7.58	43	33789	156.64 ug\L	89
35) 1,2-Dichloroethane	7.56	62	227266	9.91 ug\L	98
36) Trichloroethene	8.48	95	327957	10.68 ug\L	98
37) 1,2-Dichloropropane	8.84	63	220946	10.28 ug\L	99
38) Dibromomethane	9.05	93	81497	10.02 ug\L	97
39) Methylmethacrylate	9.06	69	51372	9.40 ug\L	95
40) Bromodichloromethane	9.30	83	290781	10.04 ug\L	100
41) 2-Nitropropane	9.66	43	15438	9.32 ug\L	96
43) cis-1,3-Dichloropropene	9.93	75	289511	10.12 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	9253	8.68 ug\L #	83
47) Toluene	10.36	92	691316	10.35 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	202608	9.80 ug\L	99
49) Ethylmethacrylate	10.85	69	128582	9.73 ug\L	98
50) 1,1,2-Trichloroethane	11.01	83	93104	9.89 ug\L	99
51) Tetrachloroethene	11.12	164	260498	10.41 ug\L	100
52) 1,3-Dichloropropane	11.23	76	210490	10.08 ug\L	99
53) 2-Hexanone	11.35	43	37907	9.40 ug\L	97
54) Dibromochloromethane	11.56	129	147277	10.03 ug\L	99
55) 1,2-Dibromoethane	11.70	107	103122	10.13 ug\L	100
56) Chlorobenzene	12.36	112	703549	10.02 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	214107	10.48 ug\L	98
58) Ethylbenzene	12.50	91	1435709	10.71 ug\L	99
59) total-Xylene	12.66	106	1463921m	31.79 ug\L	
60) Styrene	13.25	104	658183	9.97 ug\L	99
62) Bromoform	13.56	173	56549	9.49 ug\L #	97
63) Isopropylbenzene	13.72	105	1466433	10.84 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	75	23736	8.69 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.27	75	119993	10.04 ug\L #	74
67) Bromobenzene	14.17	156	220757	10.07 ug\L	96
68) 1,1,2,2-Tetrachloroethane	14.22	83	103373	10.00 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	119993	10.04 ug\L #	100
70) n-Propylbenzene	14.29	91	1789621	10.90 ug\L	99
71) 2-Chlorotoluene	14.43	91	967641	10.61 ug\L	99
72) 4-Chlorotoluene	14.58	91	1049771	10.88 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1132781	10.46 ug\L	99
74) Pentachloroethane	15.05	167	131954	9.88 ug\L	97
75) tert-Butylbenzene	14.98	119	996174	10.91 ug\L	99
76) 1,2,4-Trimethylbenzene	15.05	105	1101321	10.79 ug\L	99
77) sec-Butylbenzene	15.28	105	1500051	11.02 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19136.D Vial: 5
Acq On : 03/25/01 16:03 Operator: JP/VRR
Sample : AC09960MSD 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 16:24 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

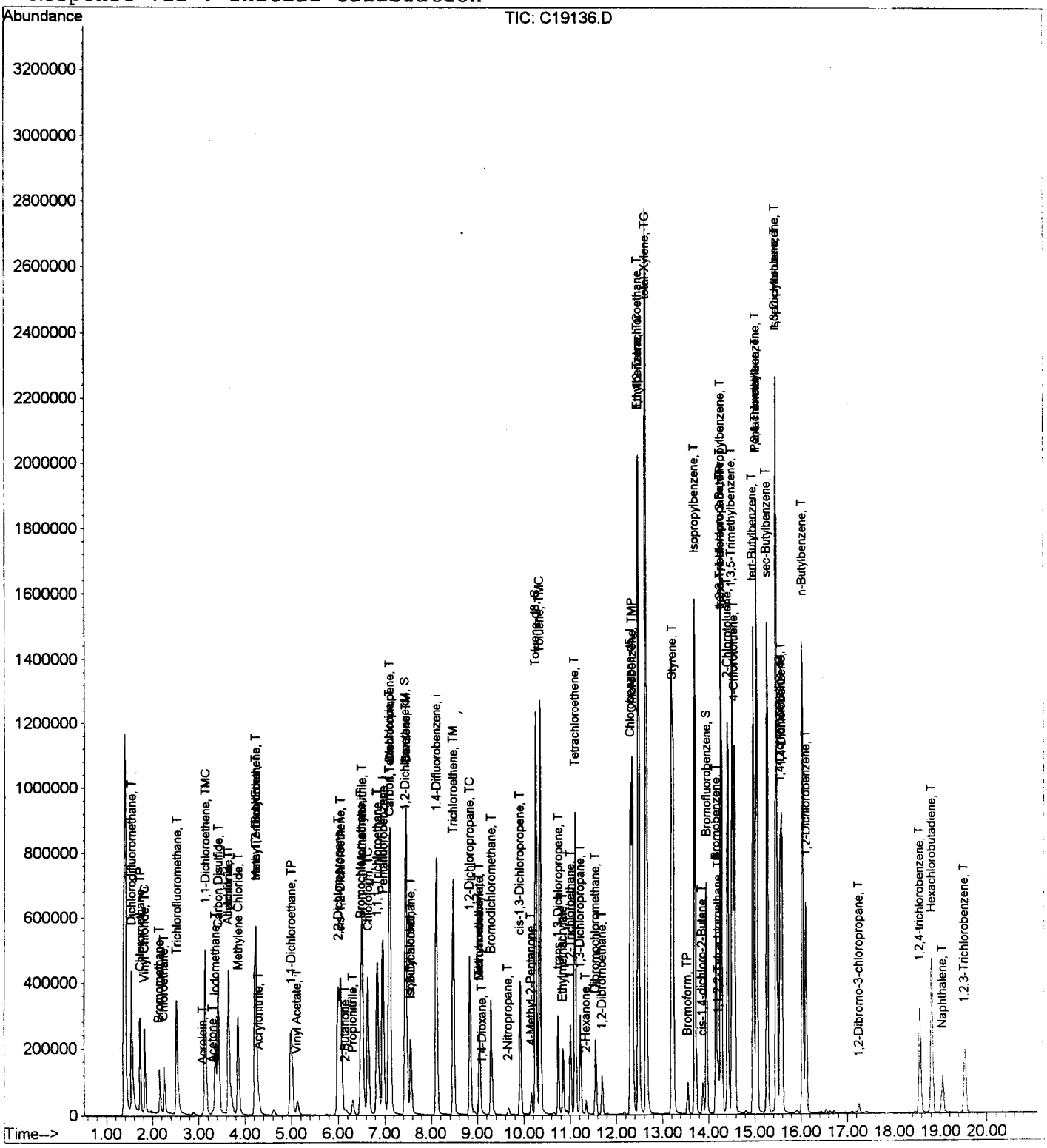
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78)	1,3-Dichlorobenzene	15.47	146	467385	10.61 ug\L	96
79)	Isopropyltoluene	15.48	119	1180237	11.25 ug\L	99
80)	1,4-Dichlorobenzene	15.59	146	440042	10.28 ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	348220	10.49 ug\L	98
82)	n-Butylbenzene	16.04	91	1148083	11.24 ug\L	100
83)	1,2-Dibromo-3-chloropropan	17.25	75	10004	8.62 ug\L	98
84)	1,2,4-trichlorobenzene	18.57	180	175711	9.94 ug\L	100
85)	Hexachlorobutadiene	18.82	225	161620	12.99 ug\L	100
86)	Naphthalene	19.05	128	181044	8.47 ug\L	100
87)	1,2,3-Trichlorobenzene	19.54	180	121765	10.10 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032501\C19136.D Vial: 5
Acq On : 03/25/01 16:03 Operator: JP/VRR
Sample : AC09960MSD 25ml DF=1 Inst : VOA-C
Misc : 27319/C03230125 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 16:24 2001 Quant Results File: 03250125.RES

Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed).

Data File : C:\HPCHEM\1\DATA\032501\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 15:01 2001

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03250125.RES

Quant Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	475692	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	604392	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	229409	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	179510	9.39	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.90%			
46) Toluene-d8	10.27	98	906028	9.74	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.40%			
66) Bromofluorobenzene	13.97	95	262238	9.34	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.40%			

Target Compounds Qvalue

VRR
3·25·01

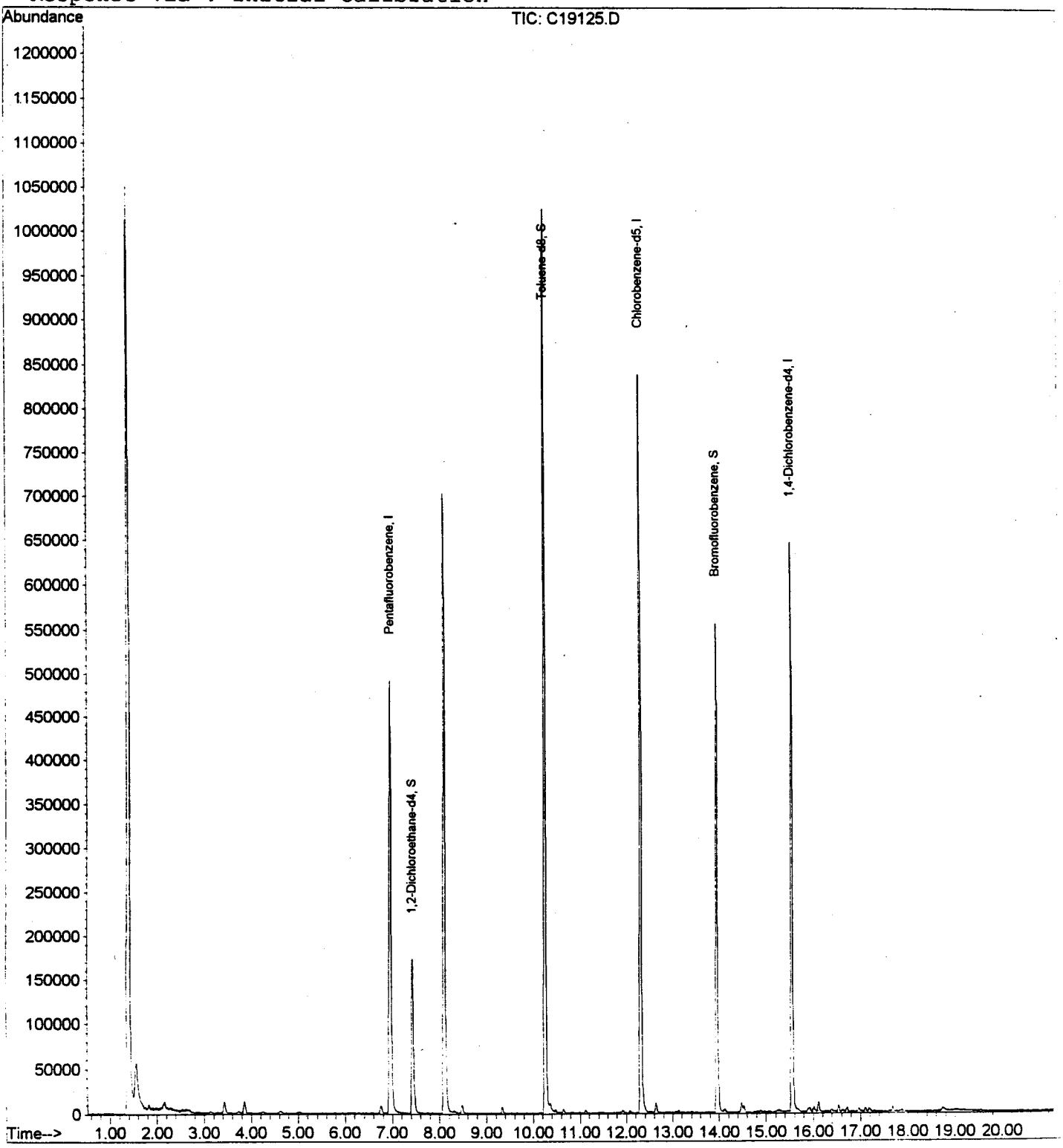
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032501\C19125.D
Acq On : 03/23/01 18:02
Sample : AC09960 25ml DF=1
Misc : 27319/C0230125
MS Integration Params: rteint.p
Quant Time: Mar 25 15:01 2001

Vial: 12
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00
Quant Results File: 03250125.RES

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19134.D Vial: 3
Acq On : 03/25/01 14:54 Operator: JP/VRR
Sample : QVWLCS032501 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 15:15 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	476948	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	636222	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	254849	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	1198	10.00	ug\L	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d4	7.44	65	185295	9.67	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.70%			
46) Toluene-d8	10.26	98	1002981	10.24	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.40%			
66) Bromofluorobenzene	13.96	95	305718	9.81	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.10%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	381840	9.30	ug\L	99
3) Chloromethane	1.74	50	292041	10.23	ug\L	100
4) Vinyl Chloride	1.84	62	248705	10.00	ug\L	98
5) Bromomethane	2.17	94	75611	12.13	ug\L	96
6) Chloroethane	2.27	64	131171	10.32	ug\L	92
7) Trichlorofluoromethane	2.53	101	383085	9.95	ug\L #	100
8) Acrolein	3.09	56	6794	18.20	ug\L #	92
9) Acrylonitrile	4.30	53	32736	17.81	ug\L	93
10) 1,1-Dichloroethene	3.15	96	232764	10.36	ug\L	97
11) Acetone	3.32	58	3716	4.65	ug\L	79
12) Iodomethane	3.36	142	310148	10.43	ug\L	99
13) Allylchloride	3.65	39	340616	10.67	ug\L	86
14) Carbon Disulfide	3.44	76	776994	10.36	ug\L	99
15) Acetonitrile	3.65	41	386606	91.34	ug\L #	84
16) Methylene Chloride	3.86	86	118139	9.77	ug\L	95
17) trans-1,2-Dichloroethene	4.24	96	241049	10.42	ug\L	98
18) MethylTertButylEther	4.23	73	233080	8.95	ug\L	98
19) 1,1-Dichloroethane	4.99	63	419126	10.38	ug\L	100
20) Vinyl Acetate	5.13	43	96864	9.52	ug\L	97
21) 2,2-Dichloropropane	6.00	77	428058	11.03	ug\L	99
22) cis-1,2-Dichloroethene	6.06	96	230903	10.42	ug\L	99
23) 2-Butanone	6.17	72	4458	8.19	ug\L	91
24) Propionitrile	6.30	54	57463	89.32	ug\L #	98
25) Methacrylonitrile	6.52	41	380669	95.60	ug\L	96
26) Bromochloromethane	6.49	128	71917	10.25	ug\L	96
27) Chloroform	6.65	83	434930	10.19	ug\L	100
28) 1,1,1-Trichloroethane	6.85	97	448949	10.47	ug\L	98
29) Carbon Tetrachloride	7.10	119	377160	10.44	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19134.D Vial: 3
Acq On : 03/25/01 14:54 Operator: JP/VRR
Sample : QVWLCS032501 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 15:15 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 1,4-Dioxane	9.11	88	8051	186.63 ug\L #	84
31) 1,1-Dichloropropene	7.12	77	122938	10.55 ug\L	98
33) Benzene	7.47	78	910919	10.27 ug\L	100
34) Isobutyl alcohol	7.57	43	27205	139.58 ug\L	97
35) 1,2-Dichloroethane	7.56	62	203757	9.90 ug\L	98
36) Trichloroethene	8.48	95	283015	10.27 ug\L	99
37) 1,2-Dichloropropane	8.84	63	196373	10.19 ug\L	100
38) Dibromomethane	9.05	93	72265	9.90 ug\L	98
39) Methylmethacrylate	9.05	69	43030	8.78 ug\L	94
40) Bromodichloromethane	9.29	83	260831	10.04 ug\L	97
41) 2-Nitropropane	9.65	43	12544	8.44 ug\L	93
42) 2-Chloroethyl-vinyl ether	9.73	63	22887	6.38 ug\L	96
43) cis-1,3-Dichloropropene	9.93	75	261651	10.20 ug\L	99
44) 4-Methyl-2-Pentanone	10.16	85	7626	7.98 ug\L #	93
47) Toluene	10.36	92	622416	10.27 ug\L	98
48) trans-1,3-Dichloropropene	10.75	75	182837	9.75 ug\L	98
49) Ethylmethacrylate	10.85	69	107749	8.98 ug\L	97
50) 1,1,2-Trichloroethane	11.01	83	84008	9.83 ug\L	97
51) Tetrachloroethene	11.12	164	233567	10.29 ug\L	100
52) 1,3-Dichloropropane	11.23	76	188325	9.94 ug\L	99
53) 2-Hexanone	11.36	43	29375	8.03 ug\L	94
54) Dibromochloromethane	11.56	129	129615	9.73 ug\L	100
55) 1,2-Dibromoethane	11.70	107	89871	9.73 ug\L	98
56) Chlorobenzene	12.36	112	630544	9.90 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	193314	10.43 ug\L	98
58) Ethylbenzene	12.49	91	1318809	10.84 ug\L	100
59) total-Xylene	12.66	106	1341435m	32.11 ug\L	
60) Styrene	13.25	104	634607	10.60 ug\L	100
62) Bromoform	13.56	173	49717	9.01 ug\L #	97
63) Isopropylbenzene	13.71	105	1349310	10.77 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	75	22472	8.85 ug\L #	89
65) trans-1,4-dichloro-2-Buten	14.27	75	104994	9.49 ug\L #	73
67) Bromobenzene	14.17	156	200383	9.87 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.22	83	91463	9.56 ug\L	98
69) 1,2,3-Trichloropropane	14.27	75	104994	9.49 ug\L #	100
70) n-Propylbenzene	14.29	91	1632529	10.74 ug\L	99
71) 2-Chlorotoluene	14.43	91	884637	10.47 ug\L	99
72) 4-Chlorotoluene	14.58	91	965337	10.80 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	1081328	10.78 ug\L	99
74) Pentachloroethane	15.06	167	123878	10.01 ug\L	96
75) tert-Butylbenzene	14.98	119	912543	10.79 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	1021296	10.80 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\032501\C19134.D Vial: 3
Acq On : 03/25/01 14:54 Operator: JP/VRR
Sample : QVWLCS032501 C1 Inst : VOA-C
Misc : WATER BLANK 25ml DF=1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 15:15 2001 Quant Results File: 03250125.RES

Quant Method : c:\hpchem\1\data\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration
DataAcq Meth : 03250125

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1385259	10.98 ug\L	100
78)	1,3-Dichlorobenzene	15.47	146	429858	10.53 ug\L	97
79)	Isopropyltoluene	15.48	119	1083319	11.15 ug\L	100
80)	1,4-Dichlorobenzene	15.60	146	409771	10.33 ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	321331	10.45 ug\L	99
82)	n-Butylbenzene	16.05	91	1038604	10.98 ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.25	75	8800	8.19 ug\L	97
84)	1,2,4-trichlorobenzene	18.57	180	171491	10.48 ug\L	100
85)	Hexachlorobutadiene	18.82	225	158573	13.85 ug\L	100
86)	Naphthalene	19.05	128	170246	8.60 ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	121738	10.90 ug\L	99

(#) = qualifier out of range (m) = manual integration

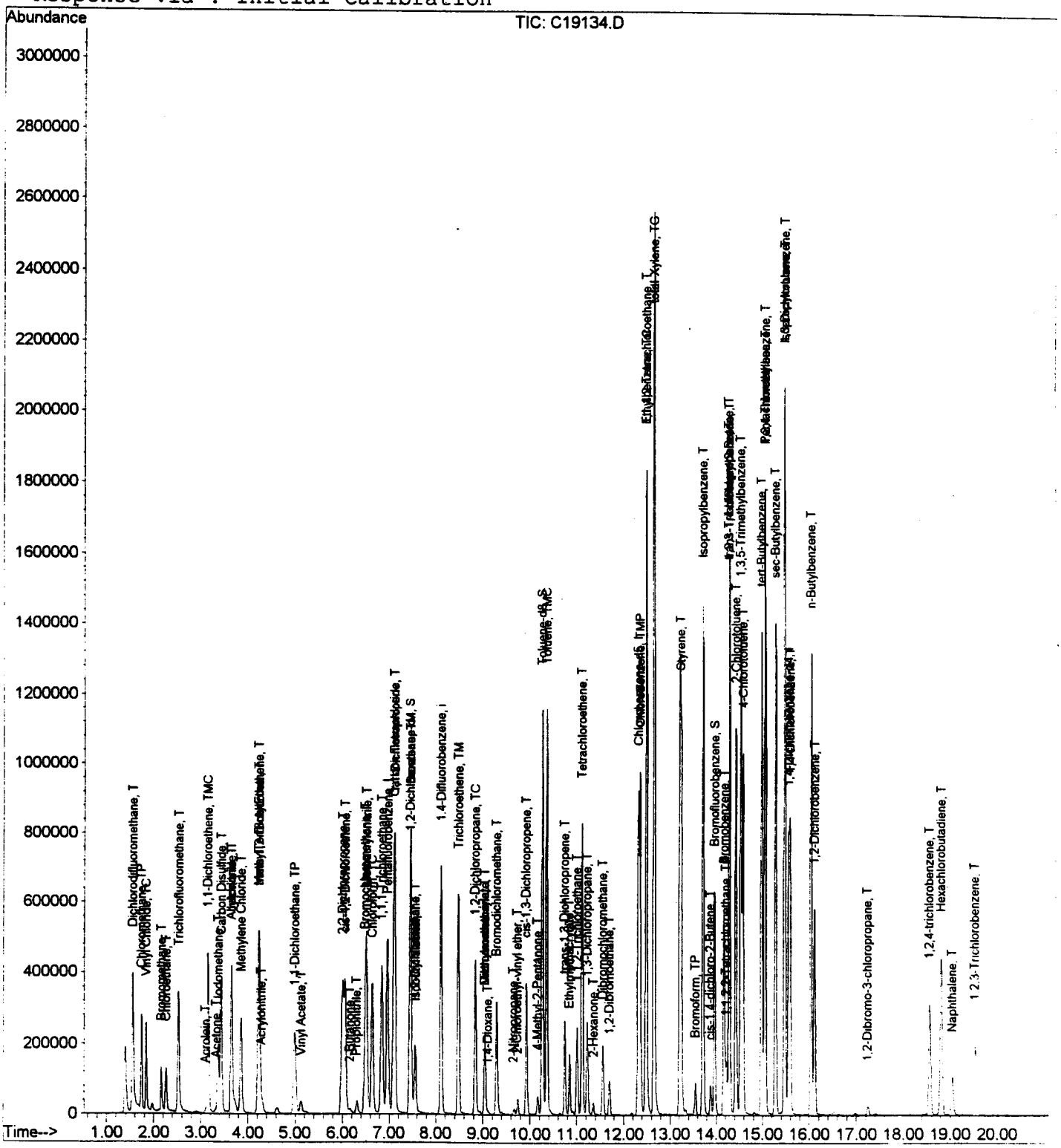
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032501\C19134.D
Acq On : 03/25/01 14:54
Sample : QVWLCS032501 C1
Misc : WATER BLANK 25ml DF=1
MS Integration Params: rteint.p
Quant Time: Mar 25 15:15 2001

Vial: 3
Operator: JP/VRR
Inst : VOA-C
Multiplr: 1.00

Quant Results File: 03250125.RES

Method : C:\HPCHEM\1\DATA\032501\03250125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Wed Feb 28 13:34:37 2001
Response via : Initial Calibration



SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C103316
Project: CH2M Hill
CTO-017, NTC Orlando

STL Sample ID	Client Sample ID
017-OLD-36-32C-Q1-01	C103316-1
017-OLD-36-29B-Q1-01	C103316-2
017-OLD-36-27A-Q1-01	C103316-3

The above samples were received in two coolers at STL Pensacola on March 14, 2001. The cooler temperature was 4°C.

Out-of-Control Events/Corrective Action:

Client requested dissolved iron on Chain-of-Custody (COC); however, the bottles were preserved and were not filtered in the field. Rick Hayes contacted Lisa Schwann and she instructed the laboratory to analyze for total iron.

No further actions required.

Rick Hayes
Senior Project Manager

3/26/01

CCI NAVY RAC PMO
MAR 27 2001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03316
Received: 14 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
03316-1	017-OLD-36-32C-Q1-01	03-13-01/14:00	CTO-017
03316-2	017-OLD-36-29B-Q1-01	03-13-01/15:08	CTO-017
03316-3	017-OLD-36-27A-Q1-01	03-13-01/16:00	CTO-017

PARAMETER	03316-1	03316-2	03316-3
Sulfide (376.1), mg/l	<1.0	<1.0	<1.0
Dilution Factor	1	1	1
Prep Date	03.14.01	03.14.01	03.14.01
Prep Time	12:15	12:15	12:15
Analysis Date	03.14.01	03.14.01	03.14.01
Analysis Time	12:25	12:25	12:25
Batch ID	FEW012	FEW012	FEW012
Prep Method	376.1	376.1	376.1
Analyst	BH	BH	BH
Iron (6010B), ug/l	330	1500	360
Dilution Factor	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01
Analysis Time	13:39	13:45	14:02
Batch ID	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A
Analyst	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03316
Received: 14 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03316-4	Method Blank	
03316-5	Lab Control Standard True Value	
03316-6	Lab Control Standard Result	
03316-7	Lab Control Standard % Recovery	
03316-8	LCS Accuracy Control Limit (%R)	

PARAMETER	03316-4	03316-5	03316-6	03316-7	03316-8
Sulfide (376.1), mg/l	<1.0	20.0	18.6	93 %	90-110
Dilution Factor	1	1	1	1	---
Prep Date	03.14.01	03.14.01	03.14.01	03.14.01	---
Prep Time	12:15	12:15	12:15	12:15	---
Analysis Date	03.14.01	03.14.01	03.14.01	03.14.01	---
Analysis Time	12:25	12:25	12:25	12:25	---
Batch ID	FEW012	FEW012	FEW012	FEW012	---
Prep Method	376.1	376.1	376.1	376.1	---
Analyst	BH	BH	BH	BH	---
Iron (6010B), ug/l	<7.0	10000.0	10735.7	107 %	80-120
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	12:21	12:26	12:26	12:26	12:26
Batch ID	PW078	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH	CH

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03316
Received: 14 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03316-9	MS True Value	
03316-10	Matrix Spike Result	
03316-11	Matrix Spike % Recovery	
03316-12	MSD True Value	
03316-13	Matrix Spike Duplicate Result	

PARAMETER	03316-9	03316-10	03316-11	03316-12	03316-13
Sulfide (376.1), mg/l	10.0	9.3	93 %	N/A	N/A
Dilution Factor	1	1	1	---	---
Prep Date	03.14.01	03.14.01	03.14.01	---	---
Prep Time	12:15	12:15	12:15	---	---
Analysis Date	03.14.01	03.14.01	03.14.01	---	---
Analysis Time	12:25	12:25	12:25	---	---
Batch ID	FEW012	FEW012	FEW012	---	---
Prep Method	376.1	376.1	376.1	---	---
Analyst	BH	BH	BH	---	---
Iron (6010B), ug/l	10000.0	11327.3	109 %	10000.0	11328.5
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	12:54	12:54	12:54	13:00	13:00
Batch ID	PW078	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03316
Received: 14 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03316-14	Matrix Spike Duplicate % Recovery	
03316-15	MS Accuracy Advisory Limit (%R)	
03316-16	Precision (%RPD) MS/MSD	
03316-17	MS Precision Advisory Limit (%RPD)	

PARAMETER	03316-14	03316-15	03316-16	03316-17
Sulfide (376.1), mg/l	N/A	N/A	N/A	N/A
Iron (6010B), ug/l	109 %	75-125	0.0	20
Dilution Factor	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	13:00	12:54	12:54	12:54
Batch ID	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH

Rick Hayes, Project Manager

Final Page Of Report

CH2MHILL Constructors, Inc.

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

C103316 CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No., and Fax No)
NTC Orlando	152044.32.12.01.08	STL Pensacola Rick Hayes	Steve Tsangaris CH2M/CCI/TPA	4350 W Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK	**[6] CTO OR DO NUMBER**	**[9] LAB PO NUMBER**	**[12] FAX AND MAIL REPORTS/EDD TO RECIPIENT 2 (Name and Company)**	**[15] RECIPIENT 2 (Address, Tel No, and Fax No)**
SA 36	0017	2622	Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT	**[7] PROJECT TEL NO AND FAX NO**	**[10] LAB TEL NO AND FAX NO**	**[13] FAX AND MAIL REPORTS/EDD TO RECIPIENT 3 (Name and Company)**	**[16] RECIPIENT 3 (Address, Tel No, and Fax No)**
Steve Tsangaris	813 874-0777	850 474-1001		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	Dissolved Iron	Sulfide								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-	32C-Q1-01	W	3-13-01	1400	III	14	X	X								Grab		1
2	017-OLD-36-	29B-Q1-01	↓	↓	1508	↓	↓	X	X								↓		2
3	017-OLD-36-	27A-Q1-01	↓	↓	1600	↓	↓	X	X										3
4																			
5																			
6																			
7																			
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY (please print)	[30] COURIER AND SHIPPING NUMBER	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
Tammy Plumlee Gareth Bonds / CCI	Fedex	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee	3-13-01	1815	Printed Name and Signature: R. EUPERMAN / Rob Elp, STL	3-14-01	0900
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C103316 Date Received: 3/14/01

1. Was there a Chain of Custody? (Yes) No*
2. Was Chain of Custody properly filled out and relinquished? (Yes) No*
3. Were samples received cold? (Criteria: 2° - 6°C: STL-SOP (Yes) No* N/A
4. Were all samples properly labeled and identified? (Yes) No*
5. Did samples require splitting or compositing♦? Yes* (No)
   Req By: PM Client Other♦
6. Were samples received in proper containers for analysis requested? (Yes) No*
7. Were all sample containers received intact? (Yes) No*
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+ (Yes) No* N/A
9. Is there sufficient volume for analysis requested? (Yes) No* N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) (Yes) No*
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* No (N/A)
12. If sent, were matrix spike bottles returned? Yes No* (N/A)
13. Was Project Manager notified of problems? (initials:_____) Yes No* (N/A)

Airbill Number(s): 826050071764

Shipped By: FedEx

Cooler Number(s): STL TLH

Shipping Charges: N/A

Cooler Weight(s): 29 #

Cooler Temp(s) (°C): 4°C CCK1

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHS **Date:** 3/14/01 **Logged By:** PFC **Date:** 3/14/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C103383
Project: CH2M Hill
CTO-017, NTC Orlando

STL Sample ID	Client Sample ID
017-OLD-36-28B-Q1-01	C103383-1
017-OLD-36-30C-Q1-01	C103383-2
017-OLD-36-31C-Q1-01	C103383-3
017-OLD-36-06A-Q1-01	C103383-4
017-OLD-36-07A-Q1-01	C103383-5
017-OLD-36-26A-Q1-01	C103383-6
017-OLD-36-DUP1-Q1-01	C103383-7
017-OLD-36-FB1-Q1-01	C103383-8

The above samples were received in two coolers at STL Pensacola on March 15, 2001. The cooler temperature was 3°C.

Out-of-Control Events/Corrective Action:

Client requested dissolved iron on Chain-of-Custody (COC); however, the bottles were preserved and were not filtered in the field. Rick Hayes contacted Lisa Schwann and she instructed the laboratory to analyze for total iron.

No further actions required.

Rick Hayes
Senior Project Manager

CCI NAVY RAC PMO
MAR 27 2001

3/26/01

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03383
Received: 15 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
03383-1	017-OLD-36-28B-Q1-01	03-14-01/08:46	CTO-017
03383-2	017-OLD-36-30C-Q1-01	03-14-01/10:00	CTO-017
03383-3	017-OLD-36-31C-Q1-01	03-14-01/10:53	CTO-017
03383-4	017-OLD-36-06A-Q1-01	03-14-01/11:30	CTO-017
03383-5	017-OLD-36-07A-Q1-01	03-14-01/12:24	CTO-017

PARAMETER	03383-1	03383-2	03383-3	03383-4	03383-5
Sulfide (376.1), mg/l	<1.0	<1.0	1.4	<1.0	<1.0
Dilution Factor	1	1	1	1	1
Prep Date	03.16.01	03.16.01	03.16.01	03.16.01	03.16.01
Prep Time	11:35	11:35	11:35	11:35	11:35
Analysis Date	03.16.01	03.16.01	03.16.01	03.16.01	03.16.01
Analysis Time	11:50	11:50	11:50	11:50	11:50
Batch ID	FEW012	FEW012	FEW012	FEW012	FEW012
Prep Method	376.1	376.1	376.1	376.1	376.1
Analyst	BH	BH	BH	BH	BH
Iron (6010B), ug/l	1400	560	1100	440	450
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	14:08	14:13	14:19	14:24	14:30
Batch ID	PW078	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03383
Received: 15 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
03383-6	017-OLD-36-26A-Q1-01	03-14-01/13:30	CTO-017
03383-7	017-OLD-36-DUP1-Q1-01	03-14-01	CTO-017
03383-8	017-OLD-36-FB1-Q1-01	03-14-01/09:48	CTO-017

PARAMETER	03383-6	03383-7	03383-8
Sulfide (376.1), mg/l	1.8	<1.0	<1.0
Dilution Factor	1	1	1
Prep Date	03.16.01	03.16.01	03.16.01
Prep Time	11:35	11:35	11:35
Analysis Date	03.16.01	03.16.01	03.16.01
Analysis Time	11:50	11:50	11:50
Batch ID	FEW012	FEW012	FEW012
Prep Method	376.1	376.1	376.1
Analyst	BH	BH	BH
Iron (6010B), ug/l	540	580	7.0U
Dilution Factor	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01
Analysis Time	14:36	14:41	14:47
Batch ID	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A
Analyst	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03383
Received: 15 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03383-9	Method Blank	
03383-10	Lab Control Standard True Value	
03383-11	Lab Control Standard Result	
03383-12	Lab Control Standard % Recovery	
03383-13	LCS Accuracy Control Limit (%R)	

PARAMETER	03383-9	03383-10	03383-11	03383-12	03383-13
Sulfide (376.1), mg/l	<1.0	20.0	18.6	93 %	90-110
Dilution Factor	1	1	1	1	---
Prep Date	03.16.01	03.16.01	03.16.01	03.16.01	---
Prep Time	11:35	11:35	11:35	11:35	---
Analysis Date	03.16.01	03.16.01	03.16.01	03.16.01	---
Analysis Time	11:50	11:50	11:50	11:50	---
Batch ID	FEW012	FEW012	FEW012	FEW012	---
Prep Method	376.1	376.1	376.1	376.1	---
Analyst	BH	BH	BH	BH	---
Iron (6010B), ug/l	7.0	10000.0	10735.7	107 %	80-120
Dilution Factor	1	1	1	1	---
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	---
Prep Time	11:56	11:56	11:56	11:56	---
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	---
Analysis Time	12:21	12:26	12:26	12:26	---
Batch ID	PW078	PW078	PW078	PW078	---
Prep Method	3010A	3010A	3010A	3010A	---
Analyst	CH	CH	CH	CH	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03383
Received: 15 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03383-14	MS True Value	
03383-15	Matrix Spike Result	
03383-16	Matrix Spike % Recovery	
03383-17	MSD True Value	
03383-18	Matrix Spike Duplicate Result	

PARAMETER	03383-14	03383-15	03383-16	03383-17	03383-18
Sulfide (376.1), mg/l	10.0	10.6	92 %	N/A	N/A
Dilution Factor	1	1	1	---	---
Prep Date	03.16.01	03.16.01	03.16.01	---	---
Prep Time	11:35	11:35	11:35	---	---
Analysis Date	03.16.01	03.16.01	03.16.01	---	---
Analysis Time	11:50	11:50	11:50	---	---
Batch ID	FEW012	FEW012	FEW012	---	---
Prep Method	376.1	376.1	376.1	---	---
Analyst	BH	BH	BH	---	---
Iron (6010B), ug/l	10000.0	11327.3	109 %	10000.0	11328.5
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	12:54	12:54	12:54	13:00	13:00
Batch ID	PW078	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03383
Received: 15 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03383-19	Matrix Spike Duplicate % Recovery	
03383-20	MS Accuracy Advisory Limit (%R)	
03383-21	Precision (%RPD) MS/MSD	
03383-22	MS Precision Advisory Limit (%RPD)	

PARAMETER	03383-19	03383-20	03383-21	03383-22
Sulfide (376.1), mg/l	N/A	N/A	N/A	N/A
Iron (6010B), ug/l	109 %	75-125	0.0	20
Dilution Factor	1	---	1	---
Prep Date	03.19.01	---	03.19.01	---
Prep Time	11:56	---	11:56	---
Analysis Date	03.20.01	---	03.20.01	---
Analysis Time	13:00	---	13:00	---
Batch ID	PW078	---	PW078	---
Prep Method	3010A	---	3010A	---
Analyst	CH	---	CH	---

Rick Hayes, Project Manager

Final Page Of Report

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C103383 Date Received: 3-13-01

1. Was there a Chain of Custody? **Yes** No♣
2. Was Chain of Custody properly filled out and relinquished? **Yes** No♣
3. Were samples received cold? (Criteria: 2° - 6°C: STL-SOP **Yes** No♣ N/A
4. Were all samples properly labeled and identified? **Yes** No♣
5. Did samples require splitting or compositing♦? Yes♣ **No**
   Req By: PM Client Other♦
6. Were samples received in proper containers for analysis requested? **Yes** No♣
7. Were all sample containers received intact? **Yes** No♣
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+ **Yes** No♣ N/A
9. Is there sufficient volume for analysis requested? **Yes** No♣ N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) **Yes** No♣
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes♣ No **N/A**
12. If sent, were matrix spike bottles returned? Yes No♣ **N/A**
13. Was Project Manager notified of problems? (initials:_____) Yes No♣ **N/A**

Airbill Number(s): 8260 3007 2006

Shipped By: Fed Ex

Cooler Number(s): client

Shipping Charges: N/A

Cooler Weight(s): 38#

Cooler Temp(s) (°C): 3° (CCK6)
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)
no temperature blank

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH **Date:** 3-13-01 **Logged By:** PLE **Date:** 3/15/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

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

C10383

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No)
NTC Orlando	152044.32.12.01.08	STL Pensacola Rick Hayes	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK	**[6] CTO OR DO NUMBER**	**[9] LAB PO NUMBER·**	**[12] FAX AND MAIL REPORTS/EDD TO . RECIPIENT 2 (Name and Company)**	**[15] RECIPIENT 2 (Address, Tel No , and Fax No)**
SA36	017	2622	Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT	**[7] PROJECT TEL NO AND FAX NO**	**[10] LAB TEL NO AND FAX NO**	**[13] FAX AND MAIL REPORTS/EDD TO·· RECIPIENT 3 (Name and Company)**	**[16] RECIPIENT 3 (Address, Tel No , and Fax No.)**
Steve Tsangaris	813874-0777	850 474-1001		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	Dissolved Iron	Sulfide								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-28B-Q1-01		W	3-14-01	0846	III	14	X	X								Grab		1
2	017-OLD-36-30C-Q1-01				1000			X	X										2
3	017-OLD-36-31C-Q1-01				1053			X	X										3
4	017-OLD-36-06A-Q1-01				1130			X	X										4
5	017-OLD-36-07A-Q1-01				1224			X	X										5
6	017-OLD-36-DUP1-Q1-01				—			X	X								QC		7
7	017-OLD-36-FB1-Q1-01				0948			X	X								QC		8
8	017-OLD-36-26A-Q1-01				1330			X	X								Grab		6
9																			
10																			

[29] SAMPLER(S) AND COMPANY· (please print): Tammy Plumlee / CCI; Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER·: Fed ex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tam Plumlee	3-14-01	1955	Printed Name and Signature: Dovette Howard / Dovette Howard	3-15-01	0910
Printed Name and Signature.			Printed Name and Signature:		
Printed Name and Signature.			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

SEVERN TRENT SERVICES

STL Pensacola

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (The STL-PN RL is at or above lowest calibration standard in the initial calibration curve).
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this qualifier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration).
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The reported value is ≤ Laboratory MDL (value for result will be the MDL, never below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

QCSHARE\FLAGS&QUALIFIERS\STL PENSACOLA\QUALIFIERPAGE Revised 12/20/00

STL PENSACOLA
STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)

*State of **California**, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)*

*State of **Connecticut**, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)*

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater)

Florida, Radioactive Materials License No. G0733-1

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)

*Commonwealth of **Kentucky**, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)*

*State of **Louisiana**, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water)*

Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental - Accreditation Pending)

*State of **Maryland**, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)*

*Commonwealth of **Massachusetts**, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)*

*State of **Michigan**, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)*

*New **Hampshire** DES ELAP, Laboratory ID No. 250599A (Wastewater)*

*State of New **Jersey**, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)*

*New **York** State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)*

***North Carolina** Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)*

***North Dakota** DH&Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida)*

*State of **Oklahoma**, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)*

*Commonwealth of **Pennsylvania**, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)*

***South Carolina** DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)*

***Tennessee** Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)*

***Virginia** Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)*

*State of **Washington**, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)*

***West Virginia** Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater by Reciprocity with FL)*

*American Industrial Hygiene Association (**AIHA**) Accredited Laboratory, Laboratory ID No. 100704*

SEVERN TRENT SERVICES
STL Pensacola

CASE NARRATIVE

STL Order Number: C103409
Project: CH2M Hill
CTO-017, NTC Orlando

STL Sample ID	Client Sample ID
017-OLD-36-10B-Q1-01	C103409-1
017-OLD-36-11C-Q1-01	C103409-2
017-OLD-36-09C-Q1-01	C103409-3
017-OLD-36-08B-Q1-01	C103409-4
017-OLD-36-08B-Q1-01-MS	C103409-5
017-OLD-36-08B-Q1-01-MSD	C103409-6
017-OLD-36-DUP2-Q1-01	C103409-7
017-OLD-36-EB1-Q1-01	C103409-8

The above samples were received in two coolers at STL Pensacola on March 16, 2001. The cooler temperature was 3.2°C. The equipment blank was received on March 17, 2001.

Out-of-Control Events/Corrective Action:

Client requested dissolved iron on Chain-of-Custody (COC); however, the bottles were preserved and were not filtered in the field. Rick Hayes contacted Lisa Schwann and she instructed the laboratory to analyze for total iron.

No further actions required.

CCI NAVY RAC PMO
MAR 27 2001

Rick Hayes
Rick Hayes
Senior Project Manager

3/26/01

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03409
Received: 16 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
03409-1	017-OLD-36-10B-Q1-01	03-15-01/09:20	CTO-017
03409-2	017-OLD-36-11C-Q1-01	03-15-01/10:58	CTO-017
03409-3	017-OLD-36-09C-Q1-01	03-15-01/13:45	CTO-017
03409-4	017-OLD-36-08B-Q1-01	03-15-01/14:55	CTO-017
03409-5	017-OLD-36-08B-Q1-01-MS	03-15-01/14:55	CTO-017

PARAMETER	03409-1	03409-2	03409-3	03409-4	03409-5
Sulfide (376.1), mg/l	<1.0	<1.0	2.7	<1.0	10.1
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	07:30	07:30	07:30	07:30	07:30
Analysis Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Analysis Time	08:20	08:20	08:20	08:20	08:20
Batch ID	FEW013	FEW013	FEW013	FEW013	FEW013
Prep Method	376.1	376.1	376.1	376.1	376.1
Analyst	BH	BH	BH	BH	BH
Iron (6010B), ug/l	210	220	180	400	11327.3
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	13:11	13:17	13:23	12:32	12:54
Batch ID	PW078	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03409
Received: 16 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
03409-6	017-OLD-36-08B-Q1-01-MSD	03-15-01/14:55	CTO-017
03409-7	017-OLD-36-DUP2-Q1-01	03-15-01	CTO-017
03409-8	017-OLD-36-EB1-Q1-01	03-16-01	CTO-017

PARAMETER	03409-6	03409-7	03409-8
Sulfide (376.1), mg/l	10.0	<1.0	<1.0
Dilution Factor	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01
Prep Time	07:30	07:30	07:30
Analysis Date	03.19.01	03.19.01	03.19.01
Analysis Time	08:20	08:20	08:20
Batch ID	FEW013	FEW013	FEW013
Prep Method	376.1	376.1	376.1
Analyst	BH	BH	BH
Iron (6010B), ug/l	11328.5	250	7.0U
Dilution Factor	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01
Analysis Time	13:00	13:28	13:34
Batch ID	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A
Analyst	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03409
Received: 16 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03409-9	Method Blank	
03409-10	Lab Control Standard True Value	
03409-11	Lab Control Standard Result	
03409-12	Lab Control Standard % Recovery	
03409-13	LCS Accuracy Control Limit (%R)	

PARAMETER	03409-9	03409-10	03409-11	03409-12	03409-13
Sulfide (376.1), mg/l	<1.0	20.0	19.4	97 %	90-110
Dilution Factor	1	1	1	1	---
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	---
Prep Time	07:30	07:30	07:30	07:30	---
Analysis Date	03.19.01	03.19.01	03.19.01	03.19.01	---
Analysis Time	08:20	08:20	08:20	08:20	---
Batch ID	FEW013	FEW013	FEW013	FEW013	---
Prep Method	376.1	376.1	376.1	376.1	---
Analyst	BH	BH	BH	BH	---
Iron (6010B), ug/l	7.0U	10000.0	10735.7	107 %	80-120
Dilution Factor	1	1	1	1	---
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	---
Prep Time	11:56	11:56	11:56	11:56	---
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	---
Analysis Time	12:21	12:26	12:26	12:26	---
Batch ID	PW078	PW078	PW078	PW078	---
Prep Method	3010A	3010A	3010A	3010A	---
Analyst	CH	CH	CH	CH	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03409
Received: 16 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03409-14	MS True Value	
03409-15	Matrix Spike Result	
03409-16	Matrix Spike % Recovery	
03409-17	MSD True Value	
03409-18	Matrix Spike Duplicate Result	

PARAMETER	03409-14	03409-15	03409-16	03409-17	03409-18
Sulfide (376.1), mg/l	10.0	10.1	101 %	10.0	10.0
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	07:30	07:30	07:30	07:30	07:30
Analysis Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Analysis Time	08:20	08:20	08:20	08:20	08:20
Batch ID	FEW013	FEW013	FEW013	FEW013	FEW013
Prep Method	376.1	376.1	376.1	376.1	376.1
Analyst	BH	BH	BH	BH	BH
Iron (6010B), ug/l	10000.0	11327.3	109 %	10000.0	11328.5
Dilution Factor	1	1	1	1	1
Prep Date	03.19.01	03.19.01	03.19.01	03.19.01	03.19.01
Prep Time	11:56	11:56	11:56	11:56	11:56
Analysis Date	03.20.01	03.20.01	03.20.01	03.20.01	03.20.01
Analysis Time	12:54	12:54	12:54	13:00	13:00
Batch ID	PW078	PW078	PW078	PW078	PW078
Prep Method	3010A	3010A	3010A	3010A	3010A
Analyst	CH	CH	CH	CH	CH

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-03409
Received: 16 MAR 01
Reported: 23 MAR 01

Mr. Steve Tsangaris
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 113310323

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
03409-19	Matrix Spike Duplicate % Recovery	
03409-20	MS Accuracy Advisory Limit (%R)	
03409-21	Precision (%RPD) MS/MSD	
03409-22	MS Precision Advisory Limit (%RPD)	

PARAMETER	03409-19	03409-20	03409-21	03409-22
Sulfide (376.1), mg/l	100 %	82-101	1	20
Dilution Factor	1	---	1	---
Prep Date	03.19.01	---	03.19.01	---
Prep Time	07:30	---	07:30	---
Analysis Date	03.19.01	---	03.19.01	---
Analysis Time	08:20	---	08:20	---
Batch ID	FEW013	---	FEW013	---
Prep Method	376.1	---	376.1	---
Analyst	BH	---	BH	---
Iron (6010B), ug/l	109 %	75-125	0.0	20
Dilution Factor	1	---	1	---
Prep Date	03.19.01	---	03.19.01	---
Prep Time	11:56	---	11:56	---
Analysis Date	03.20.01	---	03.20.01	---
Analysis Time	13:00	---	12:54	---
Batch ID	PW078	---	PW078	---
Prep Method	3010A	---	3010A	---
Analyst	CH	---	CH	---

EQUIPMENT BLANK RECEIVED 3-17-01!

Rick Hayes, Project Manager

Final Page Of Report

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C103409 Date Received: 3-16-01

1. Was there a Chain of Custody? (Yes) No*
2. Was Chain of Custody properly filled out and relinquished? (Yes) No*
3. Were samples received cold? (Criteria: 2° - 6°C: STL-SOP (Yes) No* N/A
4. Were all samples properly labeled and identified? (Yes) No*
5. Did samples require splitting or compositing♦? Yes* (No)
   Req By: PM Client Other♦
6. Were samples received in proper containers for analysis requested? (Yes) No*
7. Were all sample containers received intact? (Yes) No*
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+ (Yes) No* N/A
9. Is there sufficient volume for analysis requested? (Yes) No* N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) (Yes) No*
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* No (N/A)
12. If sent, were matrix spike bottles returned? Yes No* (N/A)
13. Was Project Manager notified of problems? (initials:_____) Yes No* (N/A)

Airbill Number(s): 826050071937

Shipped By: FEDEX

Cooler Number(s): client

Shipping Charges: N/A

Cooler Weight(s): N/A

Cooler Temp(s) (°C): 3.2 °C-IR

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

CoC request dissolved Iron, however metals bottles are preserved, hence samples cannot be filtered for dissolved analysis. PEK 3/16/01.
Equipment Blank received 3/17/01. PEK 3/17/01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: PEK **Date:** 3/16/01 **Logged By:** PEK **Date:** 3/16/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: _____ Date Received: 3/17/01

1. Was there a Chain of Custody? Yes No♣
2. Was Chain of Custody properly filled out and relinquished? Yes No♣
3. Were samples received cold? (Criteria: 2° - 6°C: STL-SOP) Yes No♣ N/A
4. Were all samples properly labeled and identified? Yes No♣
5. Did samples require splitting or compositing♦? Yes♣ No
   Req By: PM Client Other♦
6. Were samples received in proper containers for analysis requested? Yes No♣
7. Were all sample containers received intact? Yes No♣
8. Were samples checked for preservative? *(Check pH of all H2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+ Yes No♣ N/A
9. Is there sufficient volume for analysis requested? Yes No♣ N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) Yes No♣
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes♣ No N/A
12. If sent, were matrix spike bottles returned? Yes No♣ N/A
13. Was Project Manager notified of problems? (initials:_____) Yes No♣ N/A

Airbill Number(s): 826050071926

Shipped By: Fed Ex

Cooler Number(s): Client

Shipping Charges: _____

Cooler Weight(s): 30# 3/17/01

Cooler Temp(s) (°C): 3°C CCK4

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

VOID mh 3/17/01

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHJ **Date:** 3/16 **Logged By:** _____ **Date:** _____

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

SEVERN TRENT SERVICES

STL Pensacola

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (The STL-PN RL is at or above lowest calibration standard in the initial calibration curve).
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this qualifier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration).
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL <u>and</u> analyte is not detected <u>or</u> surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The reported value is ≤ Laboratory MDL (value for result will be the MDL, never below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

3355 McLemore Drive • Pensacola, FL 32514 • Tel: 850 474 1001 • Fax: 850 478 2671 • www.stl-inc.com

STL Pensacola is a part of Severn Trent Laboratories, Inc.

STL PENSACOLA
STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)

*State of **California**, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)*

*State of **Connecticut**, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)*

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater)

Florida, Radioactive Materials License No. G0733-1

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)

*Commonwealth of **Kentucky**, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)*

*State of **Louisiana**, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water)*

Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental - Accreditation Pending)

*State of **Maryland**, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)*

*Commonwealth of **Massachusetts**, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)*

*State of **Michigan**, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)*

*New **Hampshire** DES ELAP, Laboratory ID No. 250599A (Wastewater)*

*State of New **Jersey**, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)*

*New **York State**, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)*

*North **Carolina** Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)*

*North **Dakota** DH&Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida)*

*State of **Oklahoma**, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)*

*Commonwealth of **Pennsylvania**, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)*

*South **Carolina** DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)*

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)

*State of **Washington**, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)*

*West **Virginia** Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater by Reciprocity with FL)*

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604 9182
Fax No: (770) 604 9282

C103409

CHAIN-OF-CUSTODY RECORD

COC NUMBER:

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No., and Fax No.):
NTC Orlando	152044.32.12.01.08	STL Pensacola Rick Hayes	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
PROJECT PHASE/SITE/TASK	CTO OR DO NUMBER	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. and Fax No.):
SA36	017	2622	Jennifer Ollerson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
PROJECT CONTACT	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No., and Fax No.):
Steve Tsangaris	813874-0777	850 474-1001		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on SOP)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on SOP)	TAT (calendar days)	Dissolved Iron	Sulfide								SAMPLE TYPE (see codes on SOP)	COMMENTS/ SCREENING READINGS	LAB ID (for lab's use)
1	017-OLD-36-	10B-Q1-01	W	3-15-01	0920	III	14	X	X							1	Grab		
2	017-OLD-36-	11C-Q1-01	↓	↓	1058	↓	↓	X	X							2	↓		
3	017-OLD-36-	09C-Q1-01			1345			X	X							3			
4	017-OLD-36-	08B-Q1-01			1455			X	X							4			
5	017-OLD-36-	DUP2-Q1-01			—			X	X							7	QC		
6	017-OLD-36-	08B-MS-Q1-01			1455			X	X							5			
7	017-OLD-36-	08B-MSD-Q1-01			1455			X	X							6			
8	~~017-OLD~~																		
9																			
10																			

P

SAMPLER(S) AND COMPANY (please print): Tammy Plumlee / CCI; Gareth Birds / CCI

COURIER AND SHIPPING NUMBER: Fed ex

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

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-15-01	1720	Printed Name and Signature: Robert Sp, STL	3/16/01	0930
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CC1001, Rev 06/00

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182
Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

~~C103453~~ PA 3/17/01

[1] COC NUMBER:

[2] PROJECT NAME	[5] PROJECT NUMBER	[8] LAB NAME AND CONTACT	[11] FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No., and Fax No.)
NTC Orlando	152044.32.12.01.08	STL Pensacola Rick Hayes	Steve Tsangaris CH2M/CCI/TPA	
[3] PROJECT PHASE/SITE/TASK	**[6] CTO OR DO NUMBER**	**[9] LAB PO NUMBER**	**[12] FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)**	**[15] RECIPIENT 2 (Address, Tel No., and Fax No.)**
SA36	017		Jennifer Ottoson	
[4] PROJECT CONTACT	**[7] PROJECT TEL NO AND FAX NO.**	**[10] LAB TEL NO AND FAX NO**	**[13] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 3 (Name and Company)**	**[16] RECIPIENT 3 (Address, Tel No., and Fax No.)**
Steve Tsangaris	813 874-0777	850 474-1001		

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	Dissolved Iron	Sulfide									[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-	EB1-Q1-01	W	3-16-01		III	14	X	X								8	QC		
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY (please print)
Tammy Plumlee / CCI
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER
Fed Ex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee / Tammy Plumlee	3-16-01	1545	Printed Name and Signature: Mark Swafford / Mark Swafford STL PNS	3/17/01	1007
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CC1001, Rev 06/00

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.

Tampa, FL 33607

Page: Page 1 of 2
Order #: P0011195
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0011195-01	017-OLD-36-30C-Q4-00

Approved By: Rebecca J. Adams

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0011195
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0011195-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-30C-Q4-00	Water	29 Nov. 00 14:00	30 Nov. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.

Tampa, FL 33607

Page: Page 1 of 6
Order #: P0012030
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0012030-01	017-OLD-36-26A-Q4-00
P0012030-02	017-OLD-36-27A-Q4-00
P0012030-03	017-OLD-36-28B-Q4-00
P0012030-04	017-OLD-36-07A-Q4-00
P0012030-05	017-OLD-36-DUP1-Q4-00

Approved By: Rebecca J. Hano

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0012030
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012030-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-26A-Q4-00	Water	01 Dec. 00 9:15	04 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012030
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012030-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-27A-Q4-00	Water	01 Dec. 00 11:00	04 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012030
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012030-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-28B-Q4-00	Water	01 Dec. 00 13:30	04 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012030
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012030-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-07A-Q4-00	Water	01 Dec. 00 15:30	04 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012030
Report Date: 12/12/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012030-05

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-DUP1-Q4-00	Water	01 Dec. 00 0:00	04 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.

Tampa, FL 33607

Page: Page 1 of 7
Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0012036-01	017-OLD-36-06A-Q4-00
P0012036-02	017-OLD-36-08B-Q4-00
P0012036-03	017-OLD-36-08BMS-Q4-00
P0012036-04	017-OLD-36-08BMSD-Q4-00
P0012036-05	017-OLD-36-29B-Q4-00
P0012036-06	017-OLD-36-10B-Q4-00

Approved By: Rebecca J. Hans

Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012036-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-06A-Q4-00	Water	04 Dec. 00 8:30	05 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012036-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-08B-Q4-00	Water	04 Dec. 00 10:30	05 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012036-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-08BMS-Q4-00	Water	04 Dec. 00 10:30	05 Dec. 00

Analyte(s)	Result	POL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	93	1.0	mg/L	AM21G
Butyric acid	120	1.0	mg/L	
Lactic Acid	81	25	mg/L	
Propionic acid	110	1.0	mg/L	
Pyruvic acid	110	10	mg/L	

Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012036-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-08BMSD-Q4-00	Water	04 Dec. 00 10:30	05 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	93	1.0	mg/L	AM21G
Butyric acid	120	1.0	mg/L	
Lactic Acid	74	25	mg/L	
Propionic acid	110	1.0	mg/L	
Pyruvic acid	110	10	mg/L	

Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012036-05

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-29B-Q4-00	Water	04 Dec. 00 13:45	05 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012036
Report Date: 12/13/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012036-06

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-10B-Q4-00	Water	04 Dec. 00 15:00	05 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

QC Statistical Report

BatchID: M001213001 **Prep Analyst:** RW
Department: SemiVolatiles **Prep Date:** 12/13/00 0:00
Prep Method: AM21G **Analyst:** bw
Analysis Method: AM21G **Analysis Date:** 12/11/00 10:33

Precision and Accuracy

P0012036-01A

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	0.58	1.0		
Butyric acid	< 1.0	0.20	1.0		
Lactic Acid	< 25	17	25		
Propionic acid	< 1.0	0.21	1.0		
Pyruvic acid	< 10	4.4	10		

P0012036-02A

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	0.58	1.0		
Butyric acid	< 1.0	0.20	1.0		
Lactic Acid	< 25	17	25		
Propionic acid	< 1.0	0.21	1.0		
Pyruvic acid	< 10	4.4	10		

P0012036-03A

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	93	0.58	1.0		
Butyric acid	120	0.20	1.0		
Lactic Acid	81	17	25		
Propionic acid	110	0.21	1.0		
Pyruvic acid	110	4.4	10		

P0012036-04A

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	93	0.58	1.0		
Butyric acid	120	0.20	1.0		
Lactic Acid	74	17	25		
Propionic acid	110	0.21	1.0		
Pyruvic acid	110	4.4	10		

P0012036-05A

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	0.58	1.0		
Butyric acid	< 1.0	0.20	1.0		
Lactic Acid	< 25	17	25		
Propionic acid	< 1.0	0.21	1.0		
Pyruvic acid	< 10	4.4	10		

P0012036-06A

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	0.58	1.0		
Butyric acid	< 1.0	0.20	1.0		
Lactic Acid	< 25	17	25		
Propionic acid	< 1.0	0.21	1.0		
Pyruvic acid	< 10	4.4	10		

P0012036-02A-MS

P0012036-02A-MS

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits
Acetic Acid	93	0.58	1.0	93	70 - 130
Butyric acid	120	0.20	1.0	120	70 - 130
Lactic Acid	81	17	25	81	70 - 130
Propionic acid	110	0.21	1.0	110	70 - 130
Pyruvic acid	110	4.4	10	110	70 - 130

P0012036-02A-MSD

AnalyteName	Result	MDL	RDL	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	93	0.58	1.0	93	70 - 130	0.00	0 - 20
Butyric acid	120	0.20	1.0	120	70 - 130	0.00	0 - 20
Lactic Acid	74	17	25	74	70 - 130	9.03	0 - 20
Propionic acid	110	0.21	1.0	110	70 - 130	0.00	0 - 20
Pyruvic acid	110	4.4	10	110	70 - 130	0.00	0 - 20

Results out of limits

BatchID: M001213001

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.

Tampa, FL 33607

Page: Page 1 of 5
Order #: P0012055
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0012055-01	017-OLD-36-09C-Q4-00
P0012055-02	017-OLD-36-31C-Q4-00
P0012055-03	017-OLD-36-12C-Q4-00
P0012055-04	017-OLD-36-DUP2-Q4-00

Approved By: Rebecca J. Hans

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0012055
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012055-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-09C-Q4-00	Water	05 Dec. 00 9:00	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012055
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012055-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-31C-Q4-00	Water	05 Dec. 00 11:15	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012055
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012055-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-12C-Q4-00	Water	05 Dec. 00 15:00	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012055
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012055-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-DUP2-Q4-00	Water	05 Dec. 00 15:00	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.

Tampa, FL 33607

Page: Page 1 of 5
Order #: P0012061
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0012061-01	017-OLD-36-32C-Q4-00
P0012061-02	017-OLD-36-EB1-Q4-00
P0012061-03	017-OLD-36-11C-Q4-00
P0012061-04	017-OLD-36-23C-Q4-00

Approved By: Rebecca J. Adams

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0012061
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012061-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-32C-Q4-00	Water	06 Dec. 00 9:00	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012061
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012061-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-EB1-Q4-00	Water	06 Dec. 00 9:15	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012061
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012061-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-11C-Q4-00	Water	06 Dec. 00 11:30	07 Dec. 00

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

Order #: P0012061
Report Date: 12/20/00
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4350 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0012061-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-23C-Q4-00	Water	06 Dec. 00 14:00	07 Dec. 00

Analyte(s)	Result	POL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.

Suite 600

Tampa, FL 33607

Page: Page 1 of 4
Order #: P0103206
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0103206-01	017-OLD-36-32C-Q1-01
P0103206-02	017-OLD-36-29B-Q1-01
P0103206-03	017-OLD-36-27A-Q1-01

Approved By: Rebecca J. Adams

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0103206
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103206-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-32C-Q1-01	Water	13 Mar. 01 14:00	14 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	19	5.0	ng/L	AM18
Ethene	31	5.0	ng/L	
Methane	1.8	0.015	ug/L	

Order #: P0103206
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103206-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-29B-Q1-01	Water	13 Mar. 01 15:08	14 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	70	5.0	ng/L	AM18
Ethene	70	5.0	ng/L	
Methane	5.0	0.015	ug/L	

Order #: P0103206
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103206-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-27A-Q1-01	Water	13 Mar. 01 16:00	14 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	14	5.0	ng/L	AM18
Ethene	57	5.0	ng/L	
Methane	1.7	0.015	ug/L	

P103206

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Microseeps Becky Hans	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA36	0017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT.	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO : RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Steve Tsangaris	813 874 0777	800 659 2887		

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	MEE	AM19GA	Volatile Fatty Acids								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
01 1	017-OLD-36-32C-Q1-01		W	3-13-01	1400	III	4	X	X									Grab		
02 2	017-OLD-36-29B-Q1-01		↓		1508	↓	↓	X	X									↓		
03 3	017-OLD-36-27A-Q1-01		↓		1600	↓	↓	X	X									↓		
4																				
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Tammy Plumlee
Gareth Bonds / CCI

[30] COURIER AND SHIPPING NUMBER
Fedex

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

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Tammy Plumlee [signature]	3-13-01	1815	Printed Name and Signature: C Washlasky [signature]	3/14/01	10:40AM
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

MICROSEEPS

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.

Suite 600

Tampa, FL 33607

Page: Page 1 of 9
Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Sample Identification

Lab Sample #	Client Sample ID
P0103235-01	017-OLD-36-28B-Q1-01
P0103235-02	017-OLD-36-30C-Q1-01
P0103235-03	017-OLD-36-31C-Q1-01
P0103235-04	017-OLD-36-06A-Q1-01
P0103235-05	017-OLD-36-07A-Q1-01
P0103235-06	017-OLD-36-DUP1-Q1-01
P0103235-07	017-OLD-36-FB1-Q1-01
P0103235-08	017-OLD-36-26A-Q1-01

Approved By: Rebecca J. Adams

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-01

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-28B-Q1-01	Water	14 Mar. 01 8:46	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	50	5.0	ng/L	AM18
Ethene	110	5.0	ng/L	
Methane	3.6	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-02

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-30C-Q1-01	Water	14 Mar. 01 10:00	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	37	5.0	ng/L	AM18
Ethene	78	5.0	ng/L	
Methane	5.1	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-03

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-31C-Q1-01	Water	14 Mar. 01 10:53	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	84	5.0	ng/L	AM18
Ethene	270	5.0	ng/L	
Methane	400	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-04

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-06A-Q1-01	Water	14 Mar. 01 11:30	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	17	5.0	ng/L	AM18
Ethene	13	5.0	ng/L	
Methane	1.7	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-05

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-07A-Q1-01	Water	14 Mar. 01 12:24	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	24	5.0	ng/L	AM18
Ethene	21	5.0	ng/L	
Methane	4.7	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-06

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-DUP1-Q1-01	Water	14 Mar. 01 0:00	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	43	5.0	ng/L	AM18
Ethene	83	5.0	ng/L	
Methane	5.4	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-07

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-FB1-Q1-01	Water	14 Mar. 01 9:48	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	11	5.0	ng/L	AM18
Ethene	13	5.0	ng/L	
Methane	0.62	0.015	ug/L	

Order #: P0103235
Report Date: 03/21/01
Client Proj Name: NTC Orlando
Client Proj #: 152044.32.12.01.08

Client Name: CH2M Hill
Contact: Steve Tsangaris
Address: 4330 West Cypress St.
Suite 600
Tampa, FL 33607

Lab Sample #: P0103235-08

Sample Description	Matrix	Sampled Date/Time	Received
017-OLD-36-26A-Q1-01	Water	14 Mar. 01 13:30	15 Mar. 01

Analyte(s)	Result	PQL	Units	Method #
OrganicsPrep				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Lactic Acid	< 25	25	mg/L	
Propionic acid	< 1.0	1.0	mg/L	
Pyruvic acid	< 10	10	mg/L	
RiskAnalysis				
Water				
Ethane	64	5.0	ng/L	AM18
Ethene	120	5.0	ng/L	
Methane	8.5	0.015	ug/L	

P105235

CH2MHILL Constructors, Inc.

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

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER:

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.0108	~~Micro~~ MicroSeeps Becky Hins	Steve Tsangaris CH2M/CCI/TPA	4350 W. Cypress St Suite 600 Tampa FL 33607
[3] PROJECT PHASE/SITE/TASK.	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO.: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA36	017		Jennifer Ottoson CH2M/CCI/TPA	205 Indian River Dr Cocoa FL 32922
[4] PROJECT CONTACT	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Steve Tsangaris	813-874-0777	800 659-2887		

[25] ANALYSES REQUIRED (Include Method Numbers)

	[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	MEE	Volatile Fatty Acids								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
01	1	017-OLD-36	-28B-Q1-01	W	3-14-01	1846	III	14	X	X								Grab		
02	2	017-OLD-36	-30C-Q1-01			1000			X	X										
03	3	017-OLD-36	-31C-Q1-01			1053			X	X										
04	4	017-OLD-36	-06A-Q1-01			1130			X	X										
05	5	017-OLD-36	-07A-Q1-01			1224			X	X										
06	6	017-OLD-36	-Dupl-Q1-01			--			X	X								QC		
07	7	017-OLD-36	FB1-Q1-01			0948			X	X								QC		
08	8	017-OLD-36	-26A-Q1-01			1330			X	X								Grab		
	~~TP~~	~~017~~																		
	10																			

[29] SAMPLER(S) AND COMPANY (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
Tammy Plumlee / CCI Gareth Bonds / CCI	Fedex	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Tammy Plumlee / Tammy Plumlee	3-14-01	1955	CWashlaski / CWashlaski	3/15/01	15:50
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 06/00

Appendix C

Natural Attenuation Technical Memorandum

TECHNICAL MEMORANDUM

Enhanced Bioremediation Summary for Study Area 36 and Study Area 39, Naval Training Center, Orlando

PREPARED FOR:	**Orlando Partnering Team:**
	Barbara Nwokike - Southern Division / *David Grabka – FDEP*
	Nancy Rodriguez – USEPA / *Rick Allen – Harding ESE*
	Wayne Hansel – Southern Division / *Steve McCoy – TetraTech NUS*
PREPARED BY:	Steve Tsangaris – CH2M HILL
COPIES:	Cliff Casey – Southern Division Jennifer Ottoson – CH2M HILL
CONTRACT:	Navy Contract # N62467-98-D-0995
CTO:	CTO 0017, Naval Training Center (NTC) Orlando
DATE:	June 15, 2001

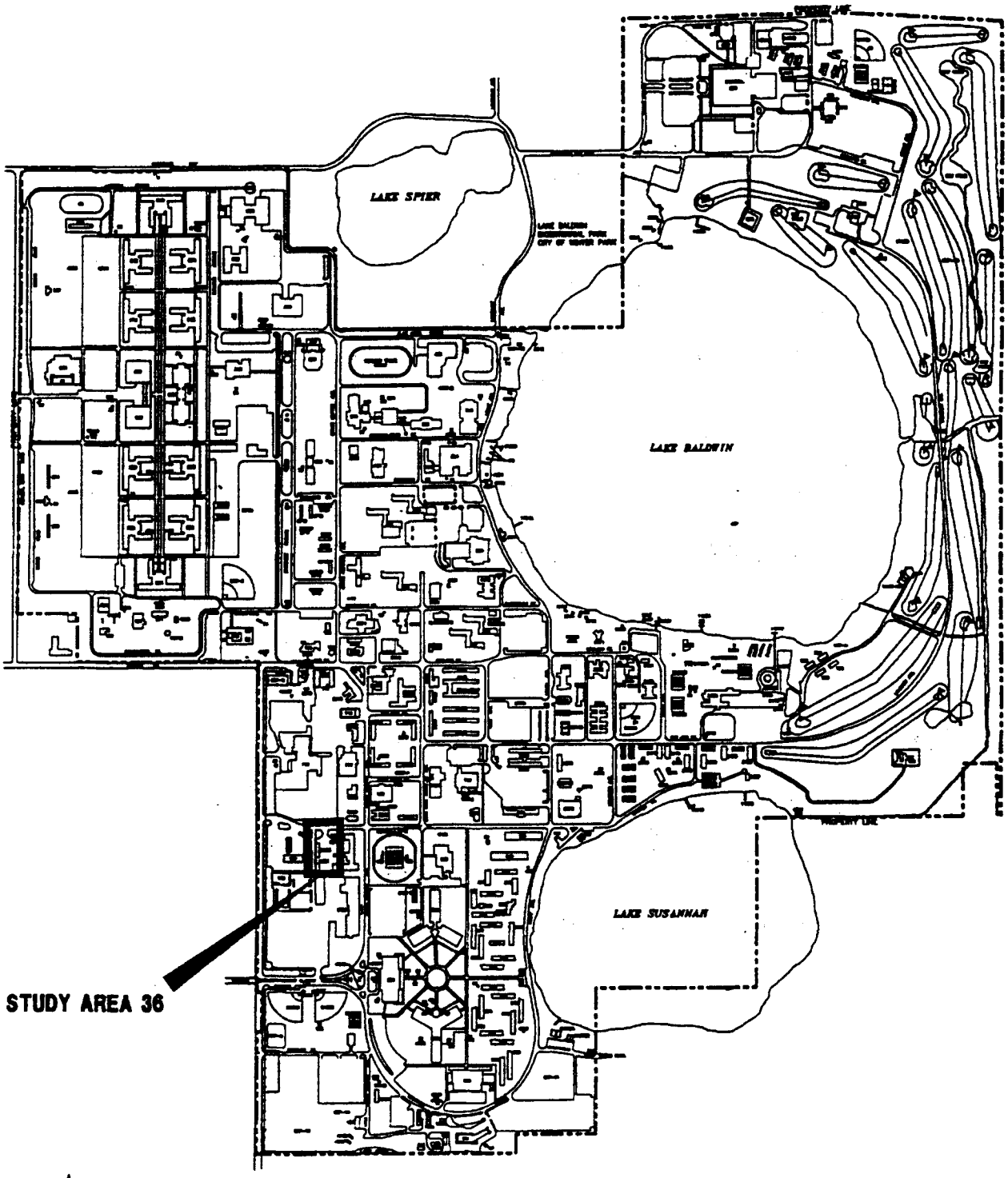
The purpose of this memorandum is to provide the results of the enhanced bioremediation effort performed at the Naval Training Center Orlando, Florida at Study Areas 36 and 39.

Site Descriptions

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

Study Area 39 (SA-39) is located in the southwest corner of the Main Base at the Naval Training Center in Orlando, Florida, as shown in Figure 2. SA-39 encompasses approximately 10 acres of land bounded on the south and west by the Main Base's property line, on the east by Grace Hopper Avenue, and on the north by Nautilus Street. The Main Base has been modified by Orlando NTC Partners to develop the land for residential use. Thus, the site used to contain two parking lots, a grassy area and a retention pond. Surface runoff drained into the retention pond and then into Lake Gear, located south of the Base.

152044.32.21.06.05 3/01 TPA



N

0 1000 2000

SCALE: 1 INCH = 2000 FEET

FIGURE 1

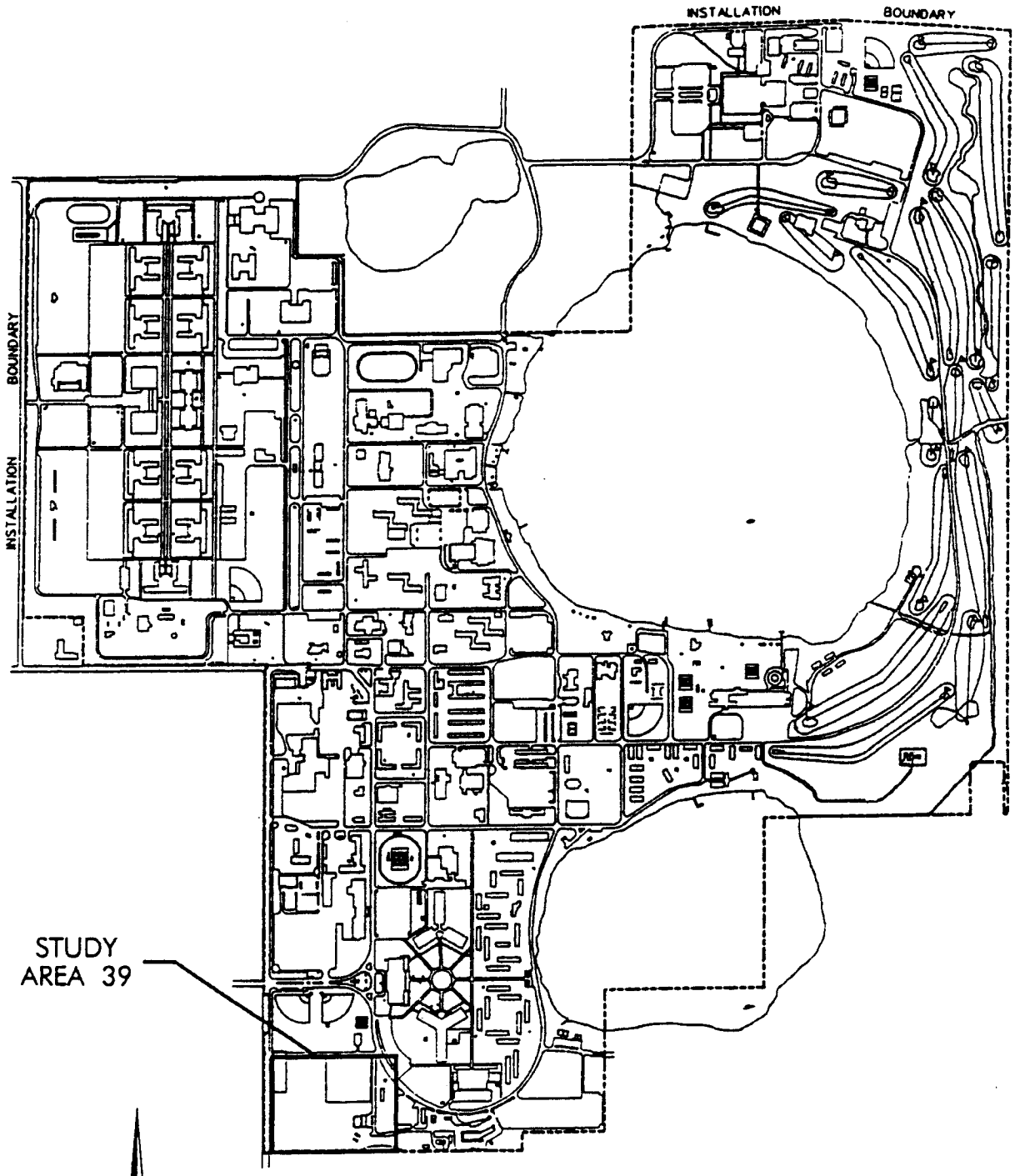
SITE LOCATION MAP

STUDY AREA 36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

CH2MHILL

Rev. 0
05/05/00



-N-

1200 0 1200
SCALE IN FEET

FIGURE 2
SITE LOCATION MAP
STUDY AREA 39

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

R4705001

CAD FILE NO./DATE: 7457M044.dgn/4-28-00

CH2MHILL

Since the land development activities, the site area has been cleared of any buildings, roadways or retention ponds.

Groundwater Contamination Descriptions

During 1997 through 1998, the groundwater beneath SA-36 was investigated in order to evaluate the perchloroethene (PCE) and trichloroethene (TCE) contamination reported in the groundwater. The results of the study indicated that concentrations of TCE and PCE were detected exceeding the Groundwater Cleanup Target Levels (GCTLs), as shown on Figure 3. The maximum TCE concentration detected in a monitoring well at the site was 300 µg/L. The results of the groundwater investigation at the site indicate that TCE and PCE concentrations in groundwater exceed the GCTL in an area of approximately 5,000 sq. ft. in the North Storage Area (HLA, 1999). Chlorinated solvent detections exceeded screening criteria to a depth of 35 ft below land surface (bls).

Data collected during the *Environmental Site Screening Report* (ESSR) (HLA 1999) during the groundwater investigation at SA-39 indicated tetrachloroethene (PCE) is present at concentrations exceeding the Florida Groundwater Cleanup Target Level (GCTL). Tetra Tech NUS then performed an additional investigation to delineate the lateral and vertical extent of PCE in groundwater at the site. Their *Site Investigation Report for Study Area 39* (SI) (Tetra Tech NUS 2000) also indicates PCE groundwater contamination in the shallow aquifer zone (A zone wells screened from 6 – 20 ft bls), the intermediate aquifer zone (B zone wells screened from 23 – 30 ft bls), and the deep aquifer zone (C zone wells screened from 34 – 45 ft bls). Specifically, PCE was detected in concentrations above the Florida GCTL in wells 03A, 08A, 09A, 04A and 11A (23 µg/L max. conc.) for the shallow zone, wells 07B, 15B, 33B, 35B, and 38B (94 µg/L max. conc.) for the intermediate zone, and wells 16C, 32C, and 37C (26 ug/L max. conc.) in the deep zone. The data and locations of these wells are shown on Figure 4. The Florida GCTL for PCE is 3 µg/L. According to the *SI Report for SA-39* (Tetra Tech NUS 2000), the intermediate component of the plume (aquifer zone B) is located slightly downgradient of the shallow zone (aquifer zone A), and the deeper component (aquifer zone C) further downgradient. This suggests that the plume is migrating downward as it nears Lake Gear. There was no PCE detected in the two wells screened at the base of the surficial aquifer.

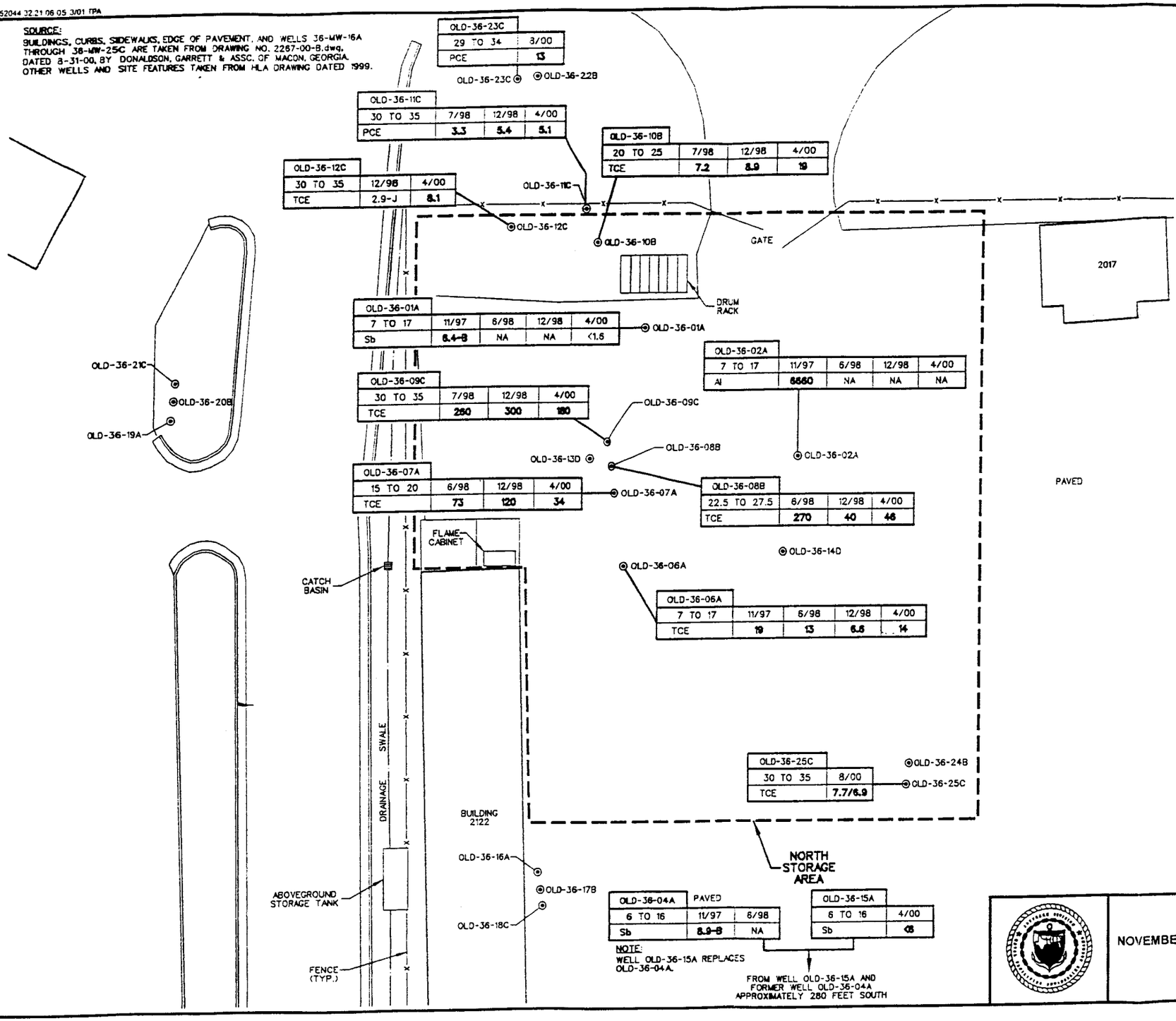
As a result of the PCE and TCE contamination detected at Study Areas 36 and 39, the Orlando Partnering Team (OPT) requested that CCI implement an IRA at the site consisting of enhanced bioremediation using vegetable oil.

Enhanced Bioremediation Study

The first task conducted for the enhanced bioremediation study was to install additional monitoring wells and injections points at each of the study areas. In total 15 injection points and seven downgradient monitoring wells were installed at SA-36. Likewise, 16 injection points and seven downgradient monitoring wells were installed at SA-39. In order to evaluate the permeability of the three groundwater zones beneath both study areas, slug testing was performed to calculate the hydraulic conductivity of the aquifers. Upon completion of the aquifer testing, a round of baseline samples were collected from the

152044 32 21 06 05 3/01 TPA

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



LEGEND

MONITORING WELL

WELL I.D. — SAMPLE COLLECTION DATE

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

ANALYTE — ANALYTE CONCENTRATION 1,2 — SCREENED INTERVAL TO NEAREST FOOT

INDICATES CONCENTRATION IS BETWEEN THE INSTRUMENT DETECTION LIMIT AND THE CONTRACT-REQUIRED DETECTION LIMIT	B
ESTIMATED VALUE	J
NOT ANALYZED	NA

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

SCREENING CRITERIA

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

GCTL-GROUNDWATER CLEANUP TARGET LEVEL
BGSV-BACKGROUND SCREENING VALUE

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

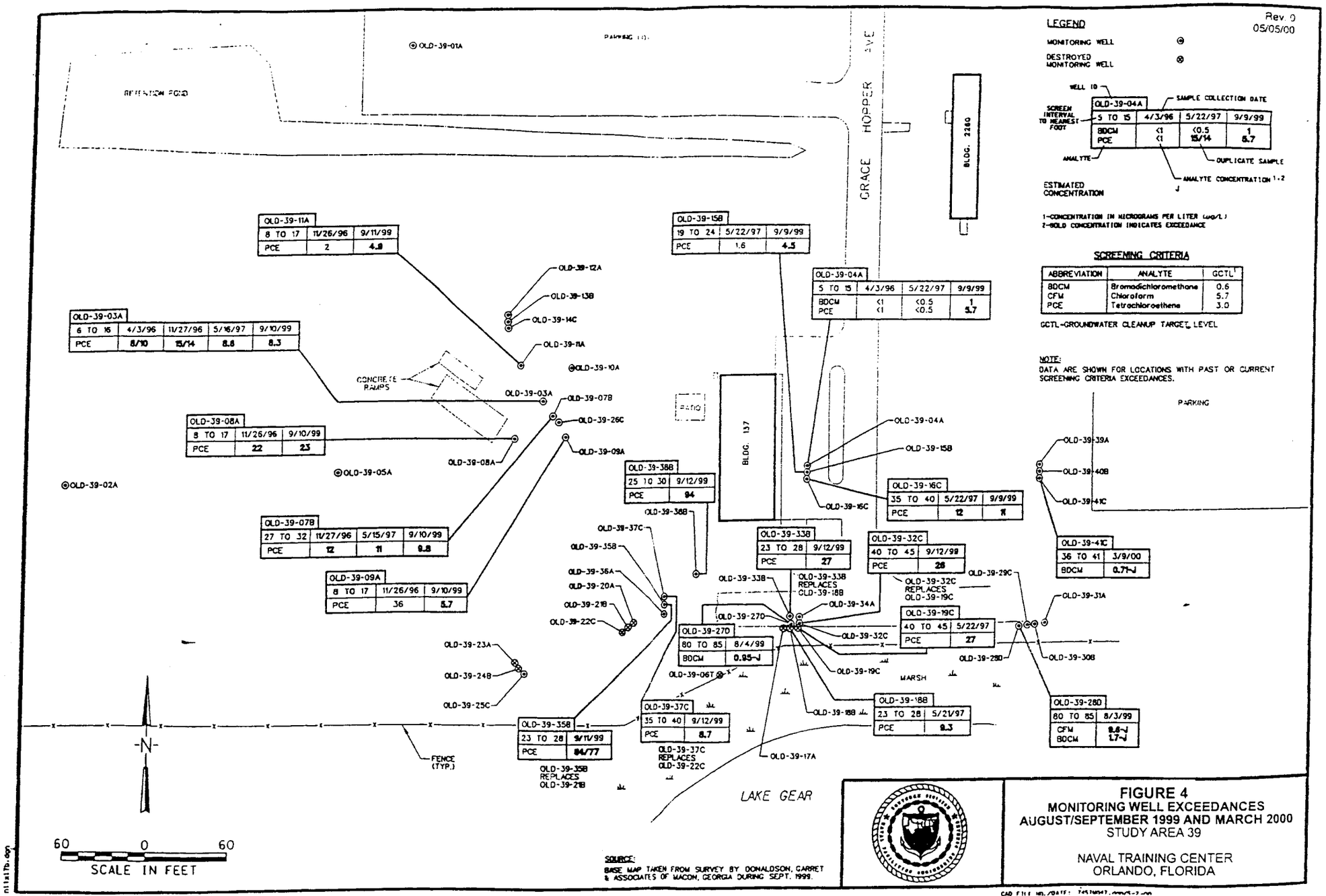
-N-

20 0 20
SCALE IN FEET

Source: TETRATECH NUS

FIGURE 3
MONITORING WELL EXCEEDANCES
NOVEMBER 1997, JUNE/DECEMBER 1998, AND APRIL 2000
STUDY AREA 36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA


Rev. 0
05/05/00
LEGEND
MONITORING WELL
DESTROYED MONITORING WELL
WELL ID
SAMPLE COLLECTION DATE
SCREEN INTERVAL TO NEAREST FOOT
ANALYTE
DUPLICATE SAMPLE
ANALYTE CONCENTRATION 1,2
ESTIMATED CONCENTRATION
1-CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
2-BOLD CONCENTRATION INDICATES EXCEEDANCE
SCREENING CRITERIA
ABBREVIATION | ANALYTE | GCTL[1]
BDCM | Bromodichloromethane | 0.6
CFM | Chloroform | 5.7
PCE | Tetrachloroethene | 3.0
GCTL-GROUNDWATER CLEANUP TARGET LEVEL
NOTE:
DATA ARE SHOWN FOR LOCATIONS WITH PAST OR CURRENT SCREENING CRITERIA EXCEEDANCES.
OLD-39-04A
5 TO 15 | 4/3/96 | 5/22/97 | 9/9/99
BDCM | <1 | <0.5 | 1
PCE | <1 | <0.5 | 5.7
OLD-39-11A
8 TO 17 | 11/26/96 | 9/11/99
PCE | 2 | 4.8
OLD-39-03A
6 TO 16 | 4/3/96 | 11/27/96 | 5/16/97 | 9/10/99
PCE | 8/10 | 15/14 | 8.8 | 8.3
OLD-39-08A
8 TO 17 | 11/26/96 | 9/10/99
PCE | 22 | 23
OLD-39-07B
27 TO 32 | 11/27/96 | 5/15/97 | 9/10/99
PCE | 12 | 11 | 9.8
OLD-39-09A
8 TO 17 | 11/26/96 | 9/10/99
PCE | 36 | 5.7
OLD-39-15B
19 TO 24 | 5/22/97 | 9/9/99
PCE | 1.6 | 4.5
OLD-39-16C
35 TO 40 | 5/22/97 | 9/9/99
PCE | 12 | 11
OLD-39-38B
25 TO 30 | 9/12/99
PCE | 94
OLD-39-33B
23 TO 28 | 9/12/99
PCE | 27
OLD-39-32C
40 TO 45 | 9/12/99
PCE | 28
OLD-39-41C
36 TO 41 | 3/9/00
BDCM | 0.71-J
OLD-39-27D
80 TO 85 | 8/4/99
BDCM | 0.95-J
OLD-39-19C
40 TO 45 | 5/22/97
PCE | 27
OLD-39-37C
35 TO 40 | 9/12/99
PCE | 8.7
OLD-39-18B
23 TO 28 | 5/21/97
PCE | 9.3
OLD-39-28D
80 TO 85 | 8/3/99
CFM | 9.6-J
BDCM | 1.7-J
OLD-39-35B
23 TO 28 | 9/11/99
PCE | 84/77
OLD-39-35B REPLACES OLD-39-21B
OLD-39-37C REPLACES OLD-39-22C
OLD-39-33B REPLACES OLD-39-18B
OLD-39-32C REPLACES OLD-39-19C
OLD-39-01A
OLD-39-12A
OLD-39-13B
OLD-39-14C
OLD-39-11A
OLD-39-10A
OLD-39-03A
OLD-39-07B
OLD-39-26C
OLD-39-09A
OLD-39-08A
OLD-39-05A
OLD-39-02A
OLD-39-04A
OLD-39-15B
OLD-39-16C
OLD-39-39A
OLD-39-40B
OLD-39-41C
OLD-39-38B
OLD-39-37C
OLD-39-35B
OLD-39-36A
OLD-39-20A
OLD-39-21B
OLD-39-22C
OLD-39-23A
OLD-39-24B
OLD-39-25C
OLD-39-33B
OLD-39-34A
OLD-39-27D
OLD-39-32C
OLD-39-19C
OLD-39-06T
OLD-39-18B
OLD-39-17A
OLD-39-29C
OLD-39-31A
OLD-39-28D
OLD-39-30B
OLD-39-35B
OLD-39-24B
OLD-39-25C
OLD-39-23A
OLD-39-20A
OLD-39-21B
OLD-39-22C
OLD-39-36A
OLD-39-37C
OLD-39-38B
OLD-39-33B
OLD-39-34A
OLD-39-27D
OLD-39-32C
OLD-39-19C
OLD-39-06T
OLD-39-18B
OLD-39-17A
OLD-39-29C
OLD-39-31A
OLD-39-28D
OLD-39-30B
OLD-39-41C
OLD-39-39A
OLD-39-40B
OLD-39-16C
OLD-39-15B
OLD-39-04A
BLDG. 2280
BLDG. 137
CRACE HOPPER AVE
PARKING
CONCRETE RAMPS
MARSH
LAKE GEAR
FENCE (TYP.)
-N-
60 0 60
SCALE IN FEET
SOURCE:
BASE MAP TAKEN FROM SURVEY BY DONALDSON, GARRET & ASSOCIATES OF MACON, GEORGIA DURING SEPT. 1999.
FIGURE 4
MONITORING WELL EXCEEDANCES
AUGUST/SEPTEMBER 1999 AND MARCH 2000
STUDY AREA 39
NAVAL TRAINING CENTER
ORLANDO, FLORIDA
R4705001

monitoring wells at both study areas. The parameters for which the groundwater was analyzed included:

- VOCs by EPA Method 8260B.
- Nitrate, Nitrite, Chloride, and Bromide by EPA Methods 352, 354, 325, 320.1, respectively
- Alkalinity by EPA Method 310.1
- Total organic carbon (TOC) by EPA Method 9060 Modified
- Total petroleum hydrocarbons (TPH) by FDEP Florida Petroleum Residual Organic Methods (FL-PRO)
- Volatile fatty acids
- Methane, ethane and ethene (MEE) by AM19GA

Food-grade vegetable oil was injected into the aquifers at both study areas once the baseline sampling was completed. In total, 60 gallons of vegetable oil was injected into each of the 15 locations at SA-36 during January 2001. In addition, 60 gallons of vegetable oil was injected into each of the 16 locations at SA-39 during December 2000. Details of the above activities can be found in *Construction Documentation Report Enhanced Biodegradation IRA at Study Area 36* (CH2M HILL, 2001) and *Construction Documentation Report Enhanced Biodegradation IRA at Study Area 39* (CH2M HILL, 2001).

Natural Attenuation Overview

Monitored Natural Attenuation (MNA) relies upon natural attenuation processes to reduce the contaminant concentrations in groundwater. The EPA defines MNA as:

> "The biodegradation, dispersion, dilution, sorption, volatilization, and/or chemical and biochemical stabilization of contaminants to effectively reduce contaminant toxicity, mobility, or volume to levels that are protective of human health and the ecosystem."

The biodegradation component of MNA is usually the dominant factor that dictates the ultimate fate and transport of groundwater contamination because it is most often the component of MNA that has the potential for the reducing the most contamination over a given time period. An understanding of the degree of biological activity present beneath the site, primarily in the contaminant "hot spot," is required in order to predict the rate of contamination reduction and which natural attenuation component is the dominant mechanism for reducing contamination levels in the subsurface. General guidelines established by the EPA require the contamination levels meet the GCTL established for the site within "a reasonable time-frame" which in practice is considered to be 10 to 15 years after initiating MNA as the remediation remedy. A tool that is used to predict the rate of contamination reduction that is widely used is BIOSCREEN. Site specific data about the groundwater aquifer can be entered into BIOSCREEN and the program can predict the length of time required for contamination levels to reach site specific GCTLs.

Monitoring contaminated groundwater to assess the effectiveness of the reductive dechlorination process is necessary to evaluate the progress towards meeting the GCTLs established for a site. The biodegradation process for chlorinated solvents is a complicated

process and numerous parameters must be analyzed in the site groundwater to evaluate the stages of reductive dechlorination. The reductive dechlorination process for PCE and TCE is shown below:

PCE → TCE → *cis*-1,2-DCE → Vinyl Chloride → Ethene → Ethane → Methane → Carbon Dioxide + H_2O + Cl^-

A series of oxidation reduction reactions are facilitated by microorganisms that allow the above process to take first. A series of electron acceptors will take an electron from two primary electron donors which are dissolved hydrogen and total organic carbon (TOC) sources. The dissolved hydrogen concentrations in groundwater also provide information on the terminal electron accepting process of the aquifer as listed in Table 1.

TABLE 1
Dissolved Hydrogen Concentrations and the Terminal Electron Accepting Process
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Terminal Electron Accepting Process	Dissolved Hydrogen Concentration
Denitrification	<0.1 nm/L
Iron III Reduction	0.2 – 0.8 nm/L
Sulfate Reduction	1- 4 nm/L
Methanogenesis	>5 nm/L

nm/L– nanomoles per liter

The electron acceptors present in groundwater are listed below:

- Dissolved Oxygen (DO)
- Nitrogen, Nitrate (as N)
- Manganese (total)
- Ferric Iron (Fe III)
- Sulfate (as SO_4)
- Carbon Dioxide

The above electron acceptors are consumed in the groundwater aquifer in the above order due to the thermodynamic nature of each electron accepting process. Therefore, the dissolved oxygen is utilized first, then the nitrogen, and so on and so forth until the terminal electron accepting condition is either sulfate reducing or methanogenic. Once the above electron acceptors are consumed, the reductive dechlorination process will begin and the PCE and TCE become the electron acceptors. Additional groundwater parameters and some parameters previously discussed and their role in the reductive dechlorination process are listed in Table 2.

TABLE 2
Parameters to Measure for Assessment of Natural Attenuation

Parameter	Comments
Dissolved Oxygen	DO is the electron acceptor most thermodynamically favored by microbes for the biodegradation of organic carbon, whether natural or anthropogenic. Reductive dechlorination will not occur, however, if DO concentrations are above approximately 0.5 mg/L.
Nitrate	After DO depletion, anaerobic microbes will use nitrate-containing compounds as an electron acceptor (denitrification).
Iron (III) (II)	After nitrate-compound depletion, anaerobic microbes will use iron (III)-containing compounds as an electron acceptor (bioavailable form). Iron (III) will be reduced to a more soluble form, iron (II), which is indicative of anaerobic degradation of fuel compounds or other hydrocarbons.
Sulfate	After iron (III)-compound depletion, anaerobic microbes will use sulfate-containing compounds as an electron acceptor (sulfate reduction). This will result in the production of sulfide-containing compounds such as hydrogen sulfide.
Carbon dioxide	After sulfate-compound depletion, anaerobic microbes will use carbon dioxide-containing compounds as an electron acceptor (methanogenesis). This will result in the production of methane. Carbon dioxide also will be produced by the oxidation of organic substrates.
Alkalinity	Total alkalinity is indicative of a water's capacity to neutralize acid. Alkalinity results from the presence of hydroxides, carbonates, and bicarbonates of elements (Ca, Mg, Na, K, or ammonia). Alkalinity helps to buffer the pH of the groundwater system from the acids generated during both aerobic and anaerobic degradation. Alkalinity may increase in areas with significant biological activity.
ORP	Oxidation-reduction potential is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons.
PH	pH has an effect on the presence and activity of microbial populations in the groundwater system (especially for methanogens). Microbes capable of degrading chlorinated aliphatic hydrocarbons and petroleum hydrocarbon compounds generally prefer pH values varying from 6 to 8 standard units.
Conductivity	Conductivity is a measure of the ability of a solution to conduct electricity (the direct correlation to the number of ions in solution). Conductivity measurements are used to ensure that collected groundwater samples representing the water in the saturated zone containing the dissolved contamination. If conductivities are radically different, the sample waters may be from different hydrogeologic zones.
Temperature	Temperature directly affects the solubility of oxygen and other geochemical species and will affect the metabolic activity of bacteria.
Chloride	When compared with background levels, chloride is an effective conservative tracer of groundwater contaminant plume migration, due to the release of chloride during degradation of chlorinated hydrocarbons in groundwater. Chloride ions generally do not enter into ORP reactions, form no important solute complexes with other ions, do not form salts of low solubility, are not significantly adsorbed on mineral surfaces, and play few vital biochemical roles.
Methane	Methane is generated as a result of methanorganic bacteria during anaerobic fermentation processes. Its presence indicates a strongly reducing environment.
Ethene	Vinyl chloride can be reduced to ethene in an anaerobic environment. Its presence indicates that vinyl chloride is being degraded via anaerobic processes.
Ethane	Ethene can be further reduced to ethane. Its presence indicates that reductive anaerobic processes are occurring.
TOC	Total organic carbon provides an indication of the amount of potentially degradable organic carbon available to act as an electron donor and a supply of organic carbon for biomass synthesis.

A system has been developed by AFCEE to evaluate the degree to which natural attenuation is occurring in a groundwater plume. The evaluation consists of "scoring" the previously discussed groundwater parameters by applying a numeric value to each parameter in the contamination source well of each plume on the basis of its role in the reductive dechlorination process. The score of each parameter is then summed up to give a final value or "score" to the plume's contamination source well. This process is described in detail in the *Draft EPA Region 4 Suggested Practices for Evaluation of a Site for Natural Attenuation (Biological Degradation) of Chlorinated Solvents* (EPA 1997). The parameters that are scored and their respective values are shown in Table 3.

TABLE 3
Analytical Parameters and Their Respective Values for Screening the Reductive Dechlorination Process
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Contaminated Zone Concentration	Description	Points Awarded
Dissolved Oxygen	<0.5 mg/L	Suppresses reductive dechlorination at higher concentrations.	3
	>1 mg/L	Vinyl chloride may be oxidized, but reductive dechlorination will not occur	-3
Nitrate	<1 mg/L	May complete the reductive dechlorination process at higher concentrations	2
Iron II	>1 mg/L	Reductive pathway possible, vinyl chloride may be oxidized under Iron III reducing conditions	3
Sulfate	<20 mg/L	May complete the reductive dechlorination process at higher concentrations	2
Sulfide	>1 mg/L	Reductive pathway possible	3
Methane	<0.5 mg/L	Vinyl chloride oxidizes	0
	>0.5 mg/L	Ultimate reductive daughter product, vinyl chloride accumulates	3
ORP	<50 mV	Reductive pathway possible	1
	<-100 mV	Reductive pathway likely	2
pH	5<pH<9	Optimal Range for reductive pathway	0
	5>pH>9	Outside Optimal range for reductive pathway	-2
TOC	>20 mg/L	Carbon and energy source	2
Temperature	>20 °C	Biological process is accelerated	1
CO_2	>2 times background	Ultimate oxidative daughter product	1
Alkalinity	> 2 times background	Results from interaction of carbon dioxide with aquifer materials	1
Chloride	>2 times background	Daughter product of organic chlorine	1

TABLE 3
Analytical Parameters and Their Respective Values for Screening the Reductive Dechlorination Process
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Contaminated Zone Concentration	Description	Points Awarded
Dissolved Hydrogen	>1 nm/L	Reductive pathway possible	3
	<1 nm/L	Vinyl chloride oxidized	0
Volatile fatty acids	>0.1 mg/L	Intermediates resulting from biodegradation of aromatic compounds; carbon and energy source	2
BTEX	>0.1 mg/L	Carbon and energy source	2
PCE		Material released	0
TCE		Material released	0
		Daughter product of PCE	2
Cis-1,2-DCE		Material released	0
		Daughter product of TCE and is greater than 80% of the total 1,2-DCE concentration	2
Vinyl Chloride		Material released	0
		Daughter product of DCE	2
Ethene/Ethane	>0.01 mg/L	Daughter product of vinyl chloride/ethene	2
	>0.1 mg/L		3

Notes: The total score for the above parameters are interpreted as follows:
0 to 5 Inadequate evidence for biodegradation of chlorinated organics
6 to 14 Limited evidence for biodegradation of chlorinated organics
15 to 20 Adequate evidence for biodegradation of chlorinated organics
>20 Strong evidence for biodegradation of chlorinated organics

The score for a plume is only one indicator for determining the degree to which natural attenuation is occurring. The amount of contamination reduction over time also needs to be considered when evaluating natural attenuation processes. Contamination concentrations should meet remediation goals for the site within a "reasonable time frame".

Enhanced Bioremediation Results

The results of the first round of enhanced bioremediation samples were collected at SA-36 and SA-39 during March 2001 and February 2001, respectively. Therefore, the samples were collected approximately two months after completing the vegetable oil injections. The data from the groundwater sampling event was evaluated using the process described below:

Step 1 – Tabulate the baseline and first round of groundwater sampling results

Step 2 – Evaluate the change in electron acceptor and donator concentrations

Step 3 – Plot the electron acceptor and donator values through the flow path of the plume (i.e., Upgradient → Source → Ingradient → Downgradient).

Step 4 – Evaluate the change in contamination (TCE, PCE) concentrations along with daughter product (*cis*-1,2-DCE, Vinyl Chloride, and MEE) and chloride formation.

Step 5 – Score the contamination source well according to the AFCEE protocol outlined in *Draft EPA Region 4 Suggested Practices for Evaluation of a Site for Natural Attenuation (Biological Degradation) of Chlorinated Solvents* (EPA 1997).

Study Area 36 Groundwater Sampling Results

Groundwater samples were collected from each of the three aquifer zones beneath SA-36. The groundwater samples were collected from the wells in each zone as listed in Table 4 and the analytical results for the baseline and March 2001 samples are listed in Table 5.

TABLE 4
Wells Sampled at Study Area 36
Enhanced Bioremediation Study, Naval Training Center Orlando, Florida

Zone A	Zone B	Zone C
OLD-36-06A	OLD-36-08B	OLD-36-09C
OLD-36-07A	OLD-36-10B	OLD-36-11C
OLD-36-26A	OLD-36-28B	OLD-36-30C
OLD-36-27A	OLD-36-29B	OLD-36-31C
--	--	OLD-36-32C

Study Area 36 Zone A Groundwater Results

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

- The dissolved oxygen was depleted by ½ to less than 0.5 mg/L in wells OLD-36-26A and OLD-36-27A which is an indication of microbial activity.
- Nitrate concentrations in every well except OLD-37-27A have decreased which is an indication of nitrate reducing conditions.
- The ORP in all four wells decreased to a negative value, two of which (OLD-36-07A and OLD-36-26A), reported ORP values less than –50 mV which indicates the potential for electron transfer has increased.
- The chloride, methane, ethane, and ethene concentrations increased in all four wells which indicates that the reductive dechlorination process may be occurring.
- The TOC concentrations, in every well except OLD-36-06A, have decreased which is an indication of microbial activity.
- The TCE concentrations decreased in every well except OLD-36-27A; however, the formation of *cis*-1,2-DCE or vinyl chloride did not occur.

TABLE 5
Natural Attenuation Parameters
SA-36, NTC Orlando

		Field Test Kit Parameters (mg/L)						Analytical Laboratory Data										
Station ID	Date	Ferrous Iron	Manganese	Hydrogen Sulfide	Sulfate	Dissolved Oxygen	Oxidation Reduction Potential (mV)	Alkalinity (mg/L)	Chloride (mg/L)	Nitrate/Nitrite (mg/L)	TOC (mg/L)	Methane (ug/L)	Ethane (ng/L)	Ethene (ng/L)	Volatile Fatty Acids (mg/L)	PCE (ug/L)	TCE (ug/L)	cis-1,2-DCE (ug/L)
OLD-36-06A	12/04/2000	0.5	0	0.0	90	0.79	151.6	1.5	4.2	0.33	10.70	ND	ND	ND	ND	ND	14	ND
OLD-36-06A	03/14/2001	0.4	0	0.0	125	2.35	-6.6	6.0	8.4	0.09	12	1.7	17	13	ND	ND	9.5	ND
OLD-36-07A	12/01/2000	0.2	0	0.1	<50	0.54	63.0	16	6.2	0.2	12.50	ND	ND	ND	ND	ND	59	ND
OLD-36-07A	03/14/2001	0.2	0	0.0	>200	1.06	-83.4	16	7.7	0.09	11	4.7	24	21	ND	ND	35	ND
OLD-36-26A	12/01/2000	1	0.2	0.3	>200	0.96	207.1	26	6.5	1.2	46.60	ND	ND	ND	ND	ND	15	ND
OLD-36-26A	03/14/2001	0.4	0	0.0	>200	0.43	-125.0	18	9.9	0.02	25	8.5	64	120	ND	ND	10	ND
OLD-36-27A	12/01/2000	0.1	0	0.0	<50	0.98	136.1	160	6.7	ND	8.36	ND	ND	ND	ND	ND	79	1.1 J
OLD-36-27A	03/13/2001	0.1	0	0.0	<50	0.27	-13.2	62	7.7	ND	3	1.7	14	57	ND	ND	97	ND
OLD-36-08B	12/04/2000	0.5	0.1	1.0	80	0.98	-81.8	24	7.0	ND	3.55	90	ND	ND	ND	ND	97	ND
OLD-36-08B	03/15/2001	6	0	0.5	<50	0.44	-134.1	22	6.1	ND	3	80	18	110	ND	ND	35	ND
OLD-36-10B	12/04/2000	0.2	0	0.3	>200	1.08	16.9	25	6.4	ND	15.70	ND	ND	ND	ND	1.7 J	4.5 J	2.3 J
OLD-36-10B	03/15/2001	0.8	0.3	0.1	>200	0.45	-105.7	32	3.3	ND	17	9.9	35	63	ND	1.6 J	12	11
OLD-36-28B	12/01/2000	2.5	0	0.3	>200	0.59	-51.6	300	8.7	ND	90.50	0.012	ND	ND	ND	ND	85	0.54J
OLD-36-28B	03/14/2001	1.1	0	0.7	150	0.38	-40.7	37	7.0	0.01	6	3.6	50	110	ND	ND	66	ND
OLD-36-29B	12/04/2000	2	0.1	NM	70.5	0.65	40.9	27	14	ND	5.18	ND	ND	ND	ND	ND	190	1.9 J
OLD-36-29B	03/13/2001	1	0	0.1	70	0.11	10.9	11	9.6	ND	12	5	70	70	ND	ND	150	ND
OLD-36-09C	12/05/2000	0.3	0.3	5.0	<50	0.71	-178.1	280	8.9	ND	19.80	ND	ND	ND	ND	ND	300	24
OLD-36-09C	03/15/2001	0.2	0	0.5	>200	0.41	-283.7	330	9.5	ND	14	51	210	670	ND	ND	180	20 J
OLD-36-11C	12/06/2000	0.1	0	0.7	100	0.79	18.1	14	6.3	ND	8.77	ND	ND	ND	ND	1.3 J	6.4	3.5 J
OLD-36-11C	03/15/2001	0.1	0.3	0.1	75	0.28	-63.1	16	5.7	ND	11	4.8	18	57	ND	2.5 J	10	5.3 J
OLD-36-12C	12/05/2000	0.2	0	0.0	>200	1.11	78.9	17	5.7	ND	22.70	ND	ND	ND	ND	ND	9	3.2 J
OLD-36-23C	12/06/2000	1.2	0.1	0.5	>200	0.75	-40.9	25	3.7	ND	15.00	37	ND	ND	ND	14	3.2 J	0.81 J
OLD-36-30C	11/29/2000	0.6	0	1.0	70	0.90	-32.0	41	9.4	ND	6.21	ND	ND	ND	ND	ND	37	ND
OLD-36-30C	03/14/2001	0.4	0.1	0.1	<50	0.27	-48.6	25	8.0	0.02	1	5.1	37	78	ND	ND	57	1.3 J
OLD-36-31C	12/05/2000	1.2	0.3	0.0	60	0.79	48.0	18	8.9	ND	6.41	ND	ND	ND	ND	ND	14	ND
OLD-36-31C	03/14/2001	0	0.15	5.0	<50	0.31	-112.9	26	6.9	ND	49	400	84	270	ND	ND	13	ND
OLD-36-32C	12/06/2000	0.1	0.1	0.2	>200	0.78	-26.1	83	7.9	ND	18.50	ND	ND	ND	ND	ND	17	ND
OLD-36-32C	03/13/2001	0.1	0	0.0	80	0.18	-5.8	26	7.8	ND	7	1.8	19	31	ND	ND	13	ND

NM = Not measured due to color of sample.

Reductive dechlorination brings about measurable changes in the chemistry of the groundwater in the affected area. By measuring these changes, one can document and quantitatively evaluate the reductive dechlorination process. Some of the common analytes measured during natural attenuation are discussed below:

Dissolved Oxygen - DO levels should be below 1.0 mg/L for anaerobic degradation

Nitrate - After oxygen is depleted during the degradation process, nitrate may be used as an electron acceptor for anaerobic degradation. Conc's should be low <1.

Ferrous Iron - Also used as an electron acceptor during anaerobic biodegradation. Conc's should be >1 mg/L for reductive pathway.

Sulfate - After oxygen, nitrate, and iron have been depleted, sulfate may be used as the electron acceptor. Sulfate reduction produces sulfide. Conc's should be low (<20)

Sulfide - Concentrations should increase if the sulfate reduction process is occurring. Conc's should be >1 mg/L.

Methane - After oxygen, nitrate, iron and sulfate have been depleted, methanogenesis occurs where carbon dioxide is used as the electron acceptor and methane is produced. The presence of methane in gw is indicative of strongly reducing conditions.

Ethane and Ethene - Are produced during reductive dechlorination. Conc's should increase.

TOC - Total Organic Carbon is used to determine whether anaerobic metabolism of chlorinated solvents is possible in the absence of anthropogenic carbon.

Alkalinity - The total alkalinity of the gw is indicative of a water's capacity to neutralize acid which is generated during aerobic and anaerobic biodegradation. Conc's should increase.

Oxidation Reduction Potential - The redox potential of gw is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox conc's should be <50 and even better if negative which shows iron, sulfate or methanogenesis reducing conditions.

Chloride - Chloride and conductivity data is used to ensure that water is being collected or measured in the correct hydrogeologic zone.

Volatile Fatty Acids - VFAs are produced as metabolic byproducts during the biodegradation of BTEX compounds. Concs should be >0.1 mg/L

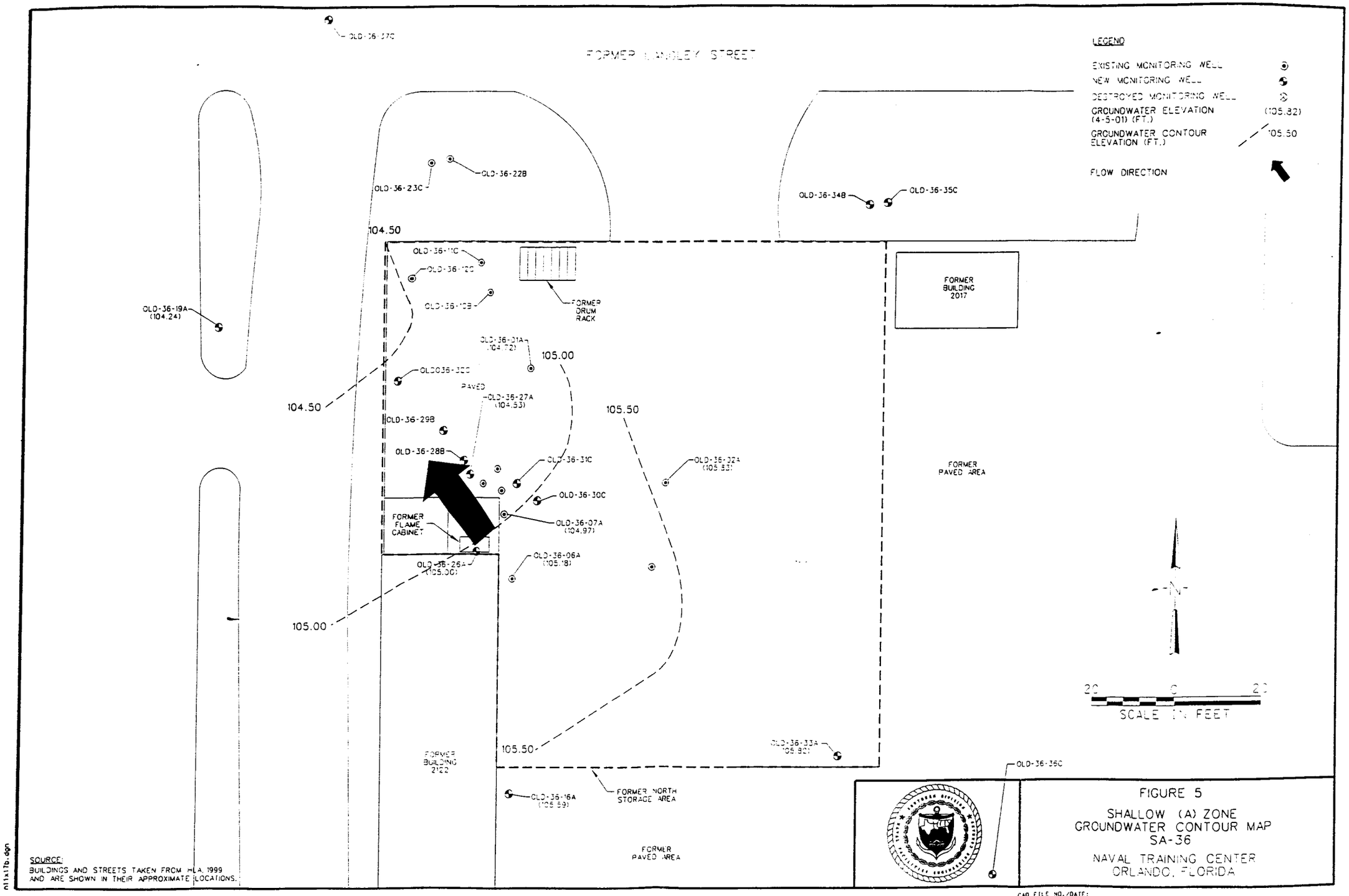
The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-36-06A was considered the upgradient well location on the basis of the potentiometric map shown in Figure 5. The remaining wells were considered source wells due to the elevated TCE concentrations in OLD-36-27A, the most downgradient well sampled.

The DO, ORP, and Cl concentrations are plotted along the flow path of the groundwater in Zone A in Figure 6. The plot shows a potential zone of reduction around well OLD-36-26A which is evidenced by a reduction in ORP and DO along with an associated spike in chloride level. In addition, this reductive zone shows an elevation in dissolved gas concentrations (Figure 7) and TOC (Figure 8) with an associated decrease in TCE concentration (Figure 8). However, there is no DCE or vinyl chloride reported in the reductive zone around OLD-36-26A or the remainder of the groundwater plume. On the basis of the groundwater parameters measured for Zone A at SA-36, the associated score for the reductive zone is 10 which is indicative of limited evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 6.

Study Area 36 Zone B Groundwater Results

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

- The dissolved oxygen concentrations have decreased in each monitoring well from the baseline concentrations
- The dissolved gas, MEE, concentrations have increased in each of the monitoring wells from the baseline levels.
- The ORP values have decreased in every well except OLD-36-28B from the baseline measurements.
- Ferrous iron and hydrogen sulfide are reported in the groundwater which are indicative of a reductive environment.
- Sulfate concentrations have reduced in every well except OLD-36-10B.
- The TOC concentrations have either remained relatively constant or decreased in Zone B after the addition of vegetable oil which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased in every well except OLD-36-10B, and the 1,2-DCE concentration has increased in one the monitoring well.



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

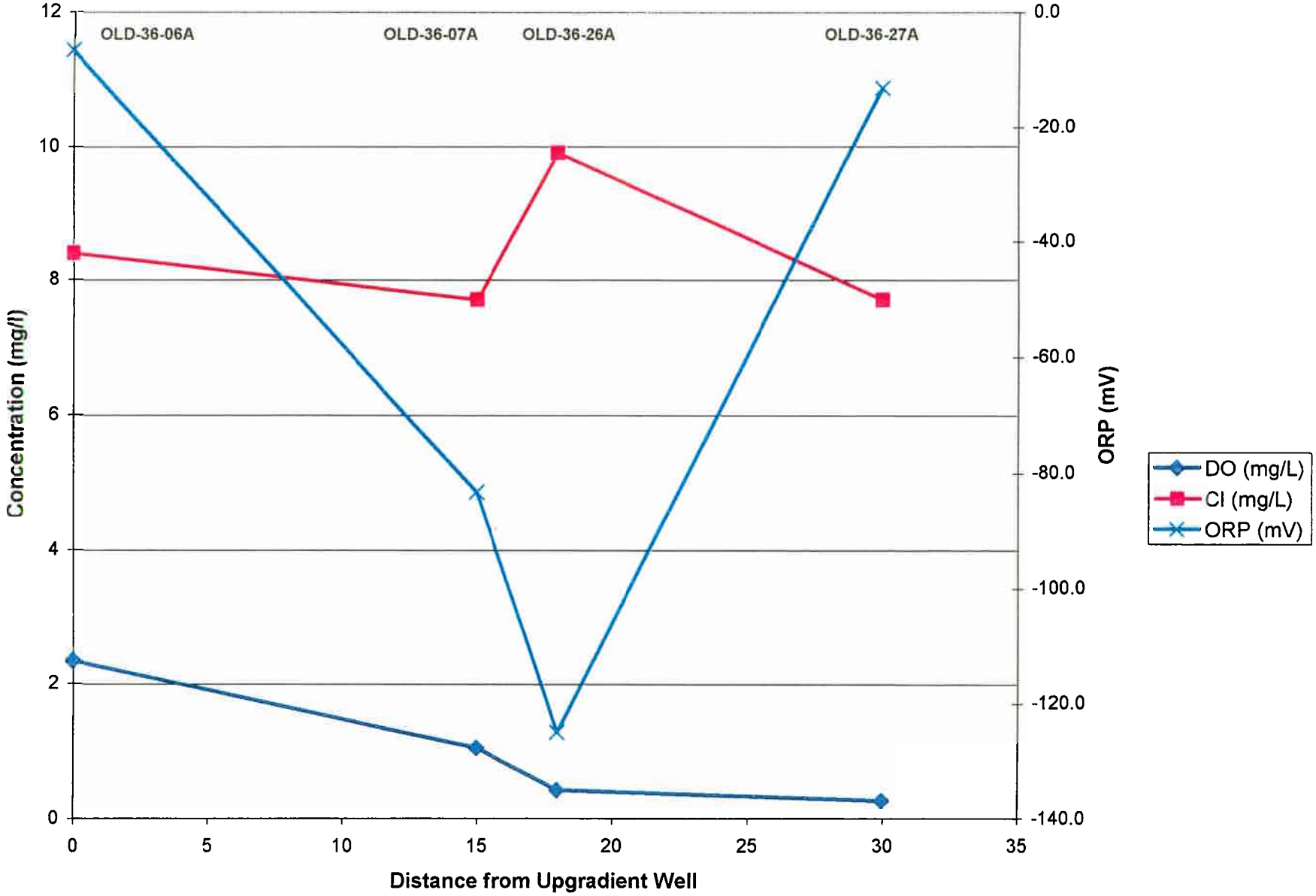
FIGURE 5

SHALLOW (A) ZONE GROUNDWATER CONTOUR MAP SA-36

NAVAL TRAINING CENTER ORLANDO, FLORIDA

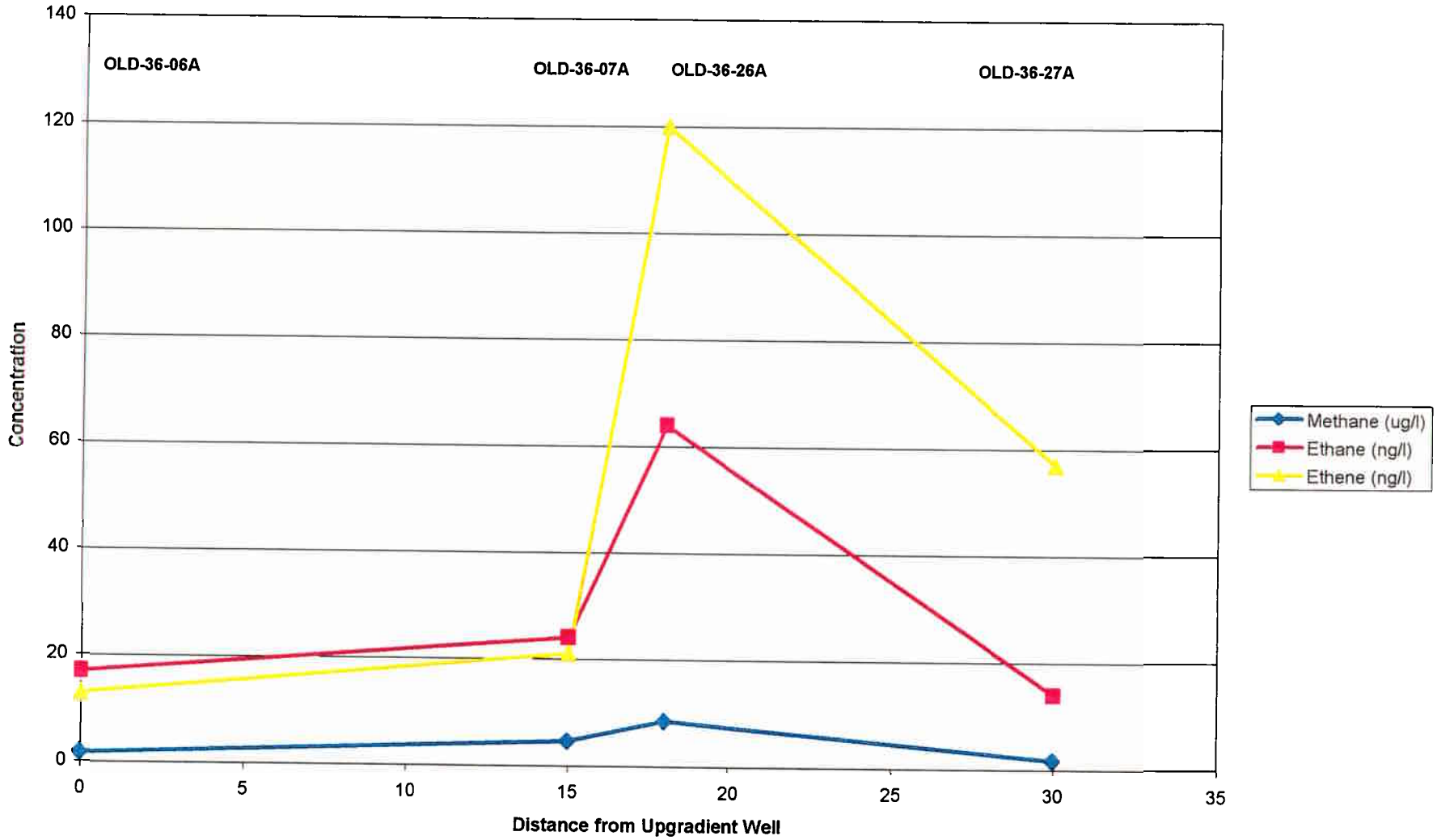
CAD FILE NO./DATE:

11x17b.dgn



CH2MHILL

Figure 6
DO, Cl, and ORP Concentrations in Zone A
Study Area 36 Enhanced Bioremediation Study



CH2MHILL

Figure 7
Ethene, Ethane, and Methane Concentrations in Zone A
Study Area 36 Enhanced Bioremediation Study

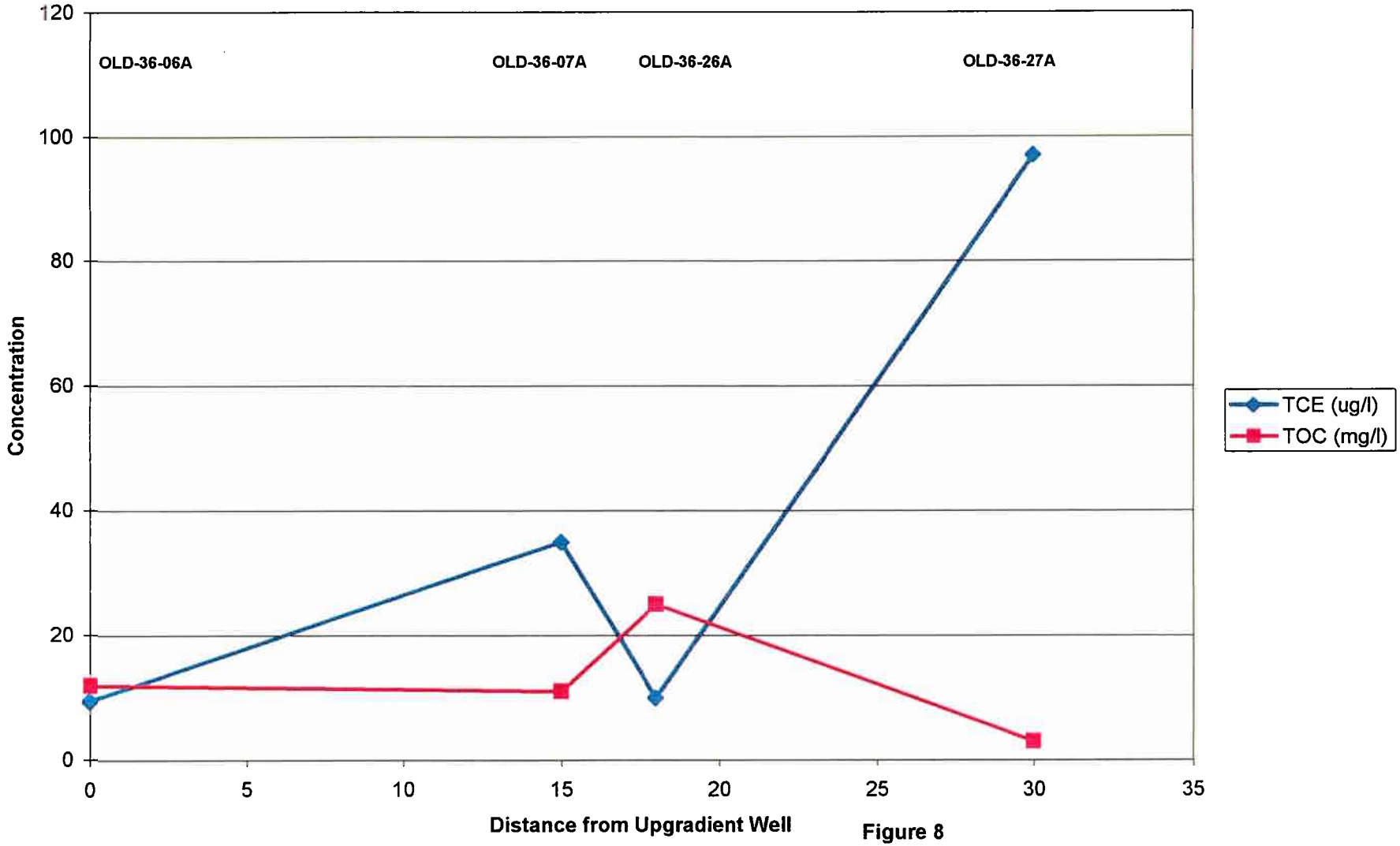


Figure 8
TCEand TOC Concentrations in Zone A
Study Area 36 Enhanced Bioremediation Study

CH2MHILL

TABLE 6
Values for Screening the Reductive Dechlorination Process in Groundwater Zone A at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-26A	Description	Points Awarded
Dissolved Oxygen	0.43 mg/L	Indicative of reductive dechlorination	3
Nitrate	0.02 mg/L	Indicative of Nitrate reducing conditions	2
Iron II	0.4 mg/L	Indicative of reductive dechlorination, concentration above 1 mg/L receives points	0
Sulfate	>200 mg/L	May complete the reductive dechlorination process	0
Sulfide	ND	No hydrogen sulfide reported	0
Methane	0.0085 mg/L	Concentration low to be indicative of reductive dechlorination, has increased from not being detected in previous sampling round	0
ORP	-125 mV	Reductive pathway likely	2
PH	5<pH<9	Optimal Range for reductive pathway	0
TOC	25 mg/L	Carbon and energy source	2
Temperature	>20 °C	Biological process is accelerated	1
CO_2	Not Measured	Ultimate oxidative daughter product	0
Alkalinity	3 times background	Indicative of reductive dechlorination	1
Chloride	1.2 times background	Concentration too low to be indicative of reductive dechlorination	0
Dissolved Hydrogen	Not Measured	High concentrations indicative of reductive dechlorination process	0
Volatile fatty acids	Not Detected	Concentration too low to be indicative of reductive dechlorination	0
BTEX	Not Detected	Carbon and energy source	0
PCE	Not Detected		0
TCE	10 µg/L	Material released	0
Cis-1,2-DCE	Not Detected		0
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.000120 / 0.000064 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**11**

Notes: The total score for the above parameters are interpreted as follows:

0 to 5	Inadequate evidence for biodegradation of chlorinated organics
6 to 14	Limited evidence for biodegradation of chlorinated organics
15 to 20	Adequate evidence for biodegradation of chlorinated organics
>20	Strong evidence for biodegradation of chlorinated organics

Study Area 36 Zone B Groundwater Results

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

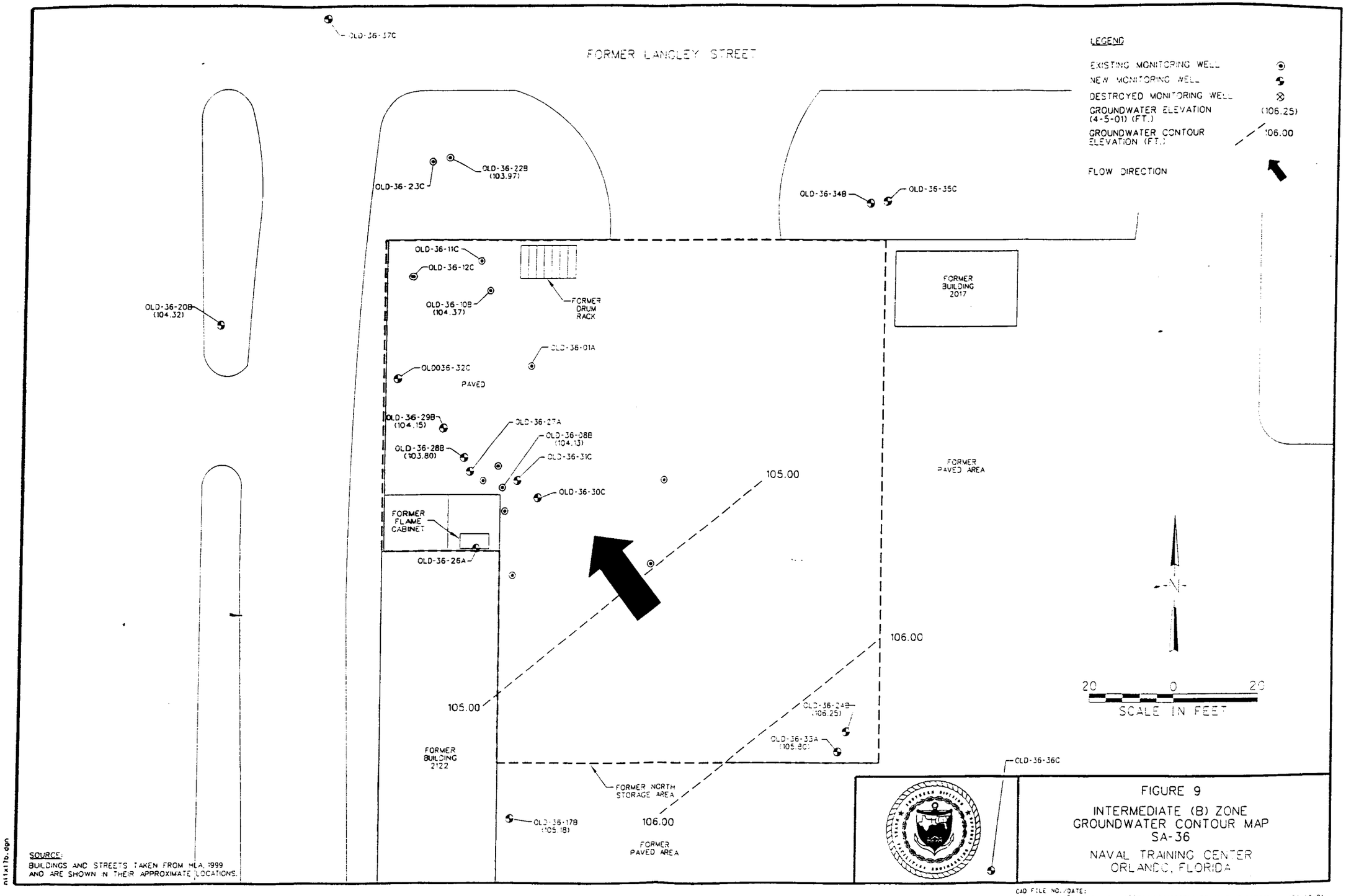
- The dissolved oxygen concentrations have decreased in each monitoring well from the baseline concentrations
- The dissolved gas, MEE, concentrations have increased in each of the monitoring wells from the baseline levels.
- The ORP values have decreased in every well except OLD-36-28B from the baseline measurements.
- Ferrous iron and hydrogen sulfide are reported in the groundwater which are indicative of a reductive environment.
- Sulfate concentrations have reduced in every well except OLD-36-10B.
- The TOC concentrations have either remained relatively constant or decreased in Zone B after the addition of vegetable oil which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased in every well except OLD-36-10B, and the 1,2-DCE concentration has increased in one the monitoring well.

The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-36-08B and OLD-36-10B were considered the upgradient and downgradient well locations, respectively, on the basis of the potentiometric map shown in Figure 9. The remaining two wells were considered source wells due to the elevated TCE concentrations.

The DO, ORP, and Cl concentrations are plotted along the flow path of the groundwater in Zone B in Figure 10. The plot shows a potential zone of reduction around well OLD-36-29B which is evidenced by a reduction in DO along with an associated spike in chloride level. However, the ORP is elevated at that location which indicates a strongly reducing environment may not exist.

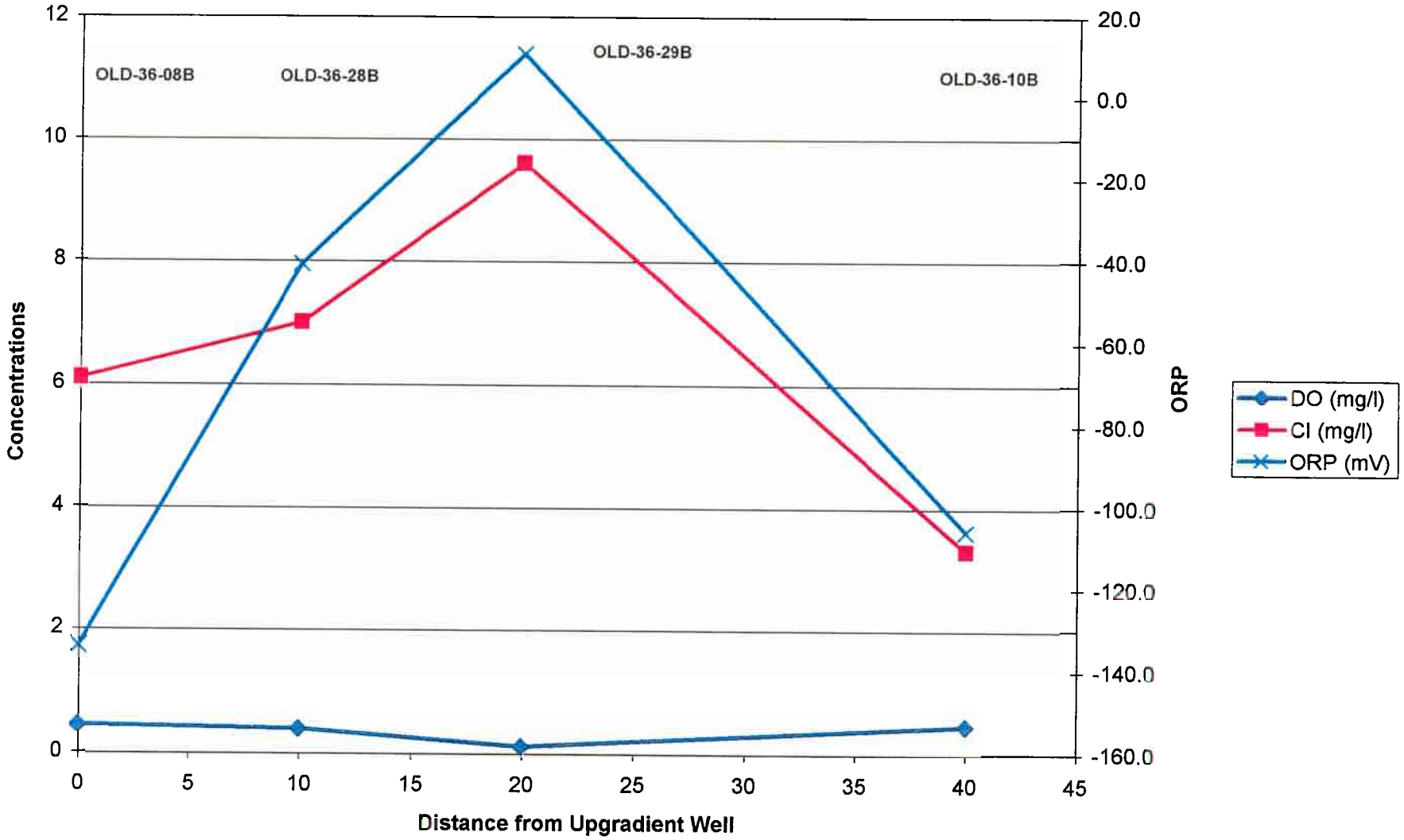
The groundwater conditions in the area of OLD-36-08B (upgradient) shows the dissolved gas concentrations, MEE, (Figure 11) are elevated upgradient of Zone B and decrease within the source zone, except for ethane. However, the dissolved gas concentrations are elevated in Zone A at location OLD-36-26A which is upgradient of OLD-36-08B. It is possible that the groundwater from Zone A is migrating to Zone B in the vicinity of OLD-36-26A and OLD-36-08B.

The TOC (Figure 12) in Zone B is below 20 mg/L which indicates it is being consumed by the microbes. The TCE concentrations (Figure 12) do spike at OLD-36-29B and then reduce along the flow path. In addition, the formation of 1,2-DCE is apparent in OLD-36-10B which is indicative of the reductive dechlorination process. On the basis of the groundwater parameters measured for Zone B at SA-36, the associated score for the reductive zone is 6 which is indicative of limited evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 7.



n11x17b.dgn

CAD FILE NO./DATE:



CH2MHILL

Figure 10
DO, Cl, and ORP Concentrations in Zone B
Study Area 36 Enhanced Bioremediation Study

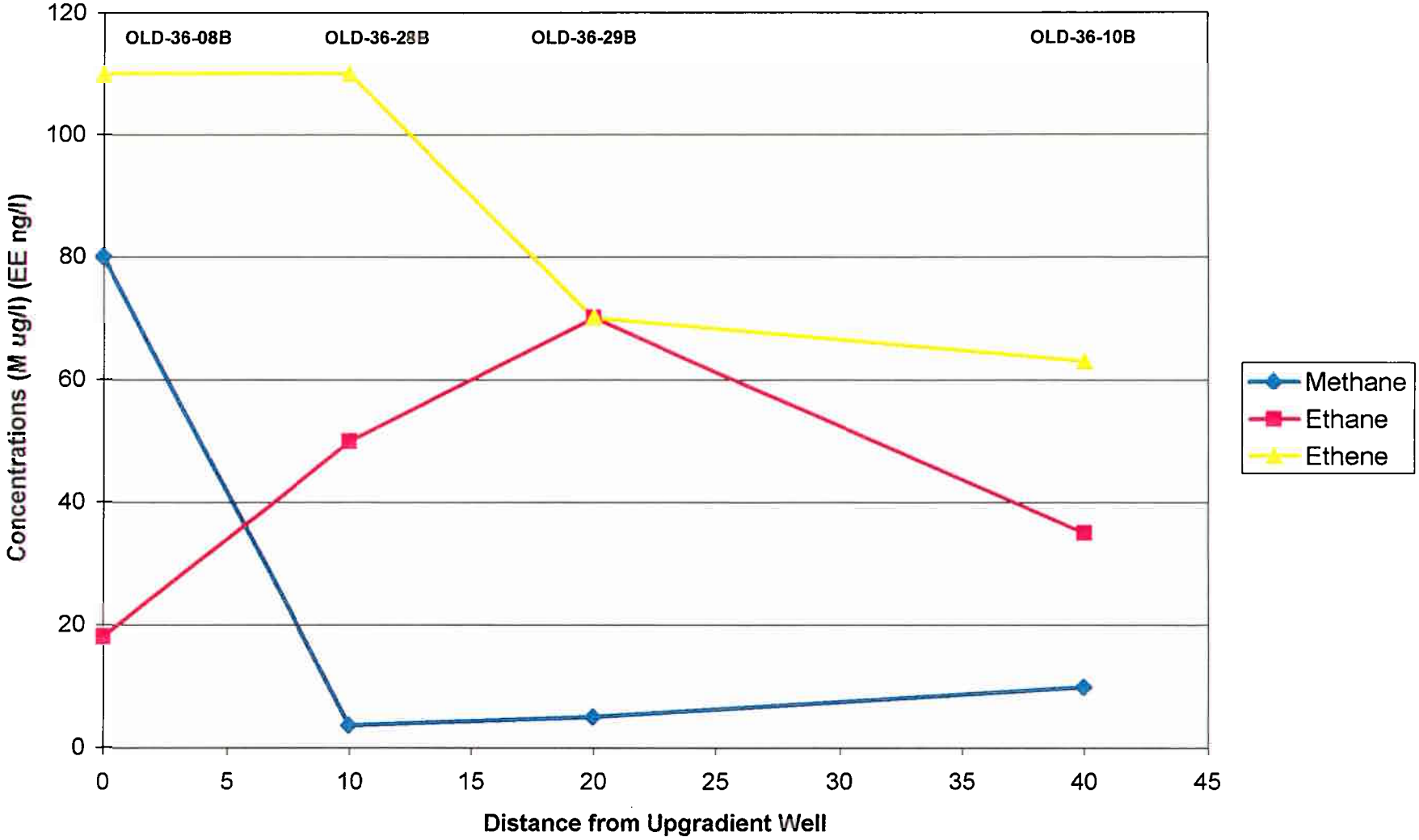
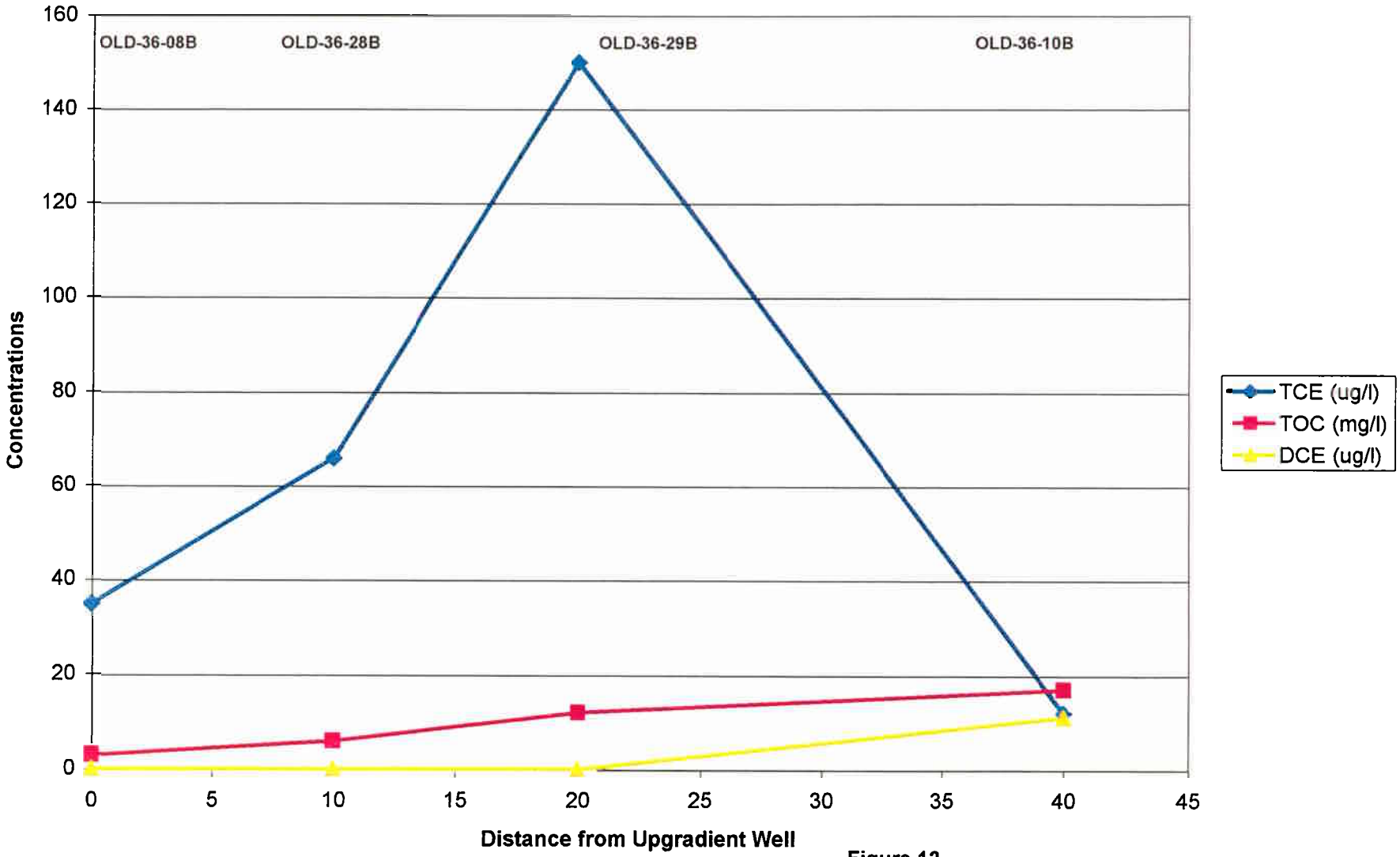


Figure 11
Methane, Ethene and Ethane Concentrations in Zone B
Study Area 36 Enhanced Bioremediation Study

CH2MHILL



CH2MHILL

Figure 12
TCE, DCE, and TOC Concentrations in Zone B
Study Area 36 Enhanced Bioremediation Study

TABLE 7
Values for Screening the Reductive Dechlorination Process in Groundwater Zone B at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-29B	Description	Points Awarded
Dissolved Oxygen	0.11 mg/L	Indicative of reductive dechlorination	3
Nitrate	Not Detected	Nitrate reduction pathway does not exist	2
Iron II	1.0 mg/L	Indicative of reductive dechlorination, however, concentration above 1 mg/L receives points	0
Sulfate	70 mg/L	May complete the reductive dechlorination process	0
Sulfide	0.1 mg/L	Indicative of reductive dechlorination, however, concentration above 1 mg/L receives points	0
Methane	0.005 mg/L	Concentration low to be indicative of reductive dechlorination, has increased from not being detected in previous sampling round	0
ORP	10.9 mV	Reductive pathway possible	1
pH	5<pH<9	Optimal Range for reductive pathway	0
TOC	12 mg/L	Carbon and energy source	0
Temperature	>20 °C	Biological process is accelerated	1
CO_2	Not Measured	Ultimate oxidative daughter product	0
Alkalinity	0.5 times background	Indicative of reductive dechlorination	0
Chloride	1.6 times background	Concentration too low to be indicative of reductive dechlorination	0
Dissolved Hydrogen	Not Measured	High concentrations indicative of reductive dechlorination process	0
Volatile fatty acids	Not Detected	Concentration too low to be indicative of reductive dechlorination	0
BTEX	Not Detected	Carbon and energy source	0
PCE	Not Detected		0
TCE	150 µg/L	Material released	0
Cis-1,2-DCE	Not Detected		0
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.000070 / 0.000070 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**7**

Notes: The total score for the above parameters are interpreted as follows:
0 to 5 Inadequate evidence for biodegradation of chlorinated organics
6 to 14 Limited evidence for biodegradation of chlorinated organics
15 to 20 Adequate evidence for biodegradation of chlorinated organics
>20 Strong evidence for biodegradation of chlorinated organics

Study Area 36 Zone C Groundwater Results

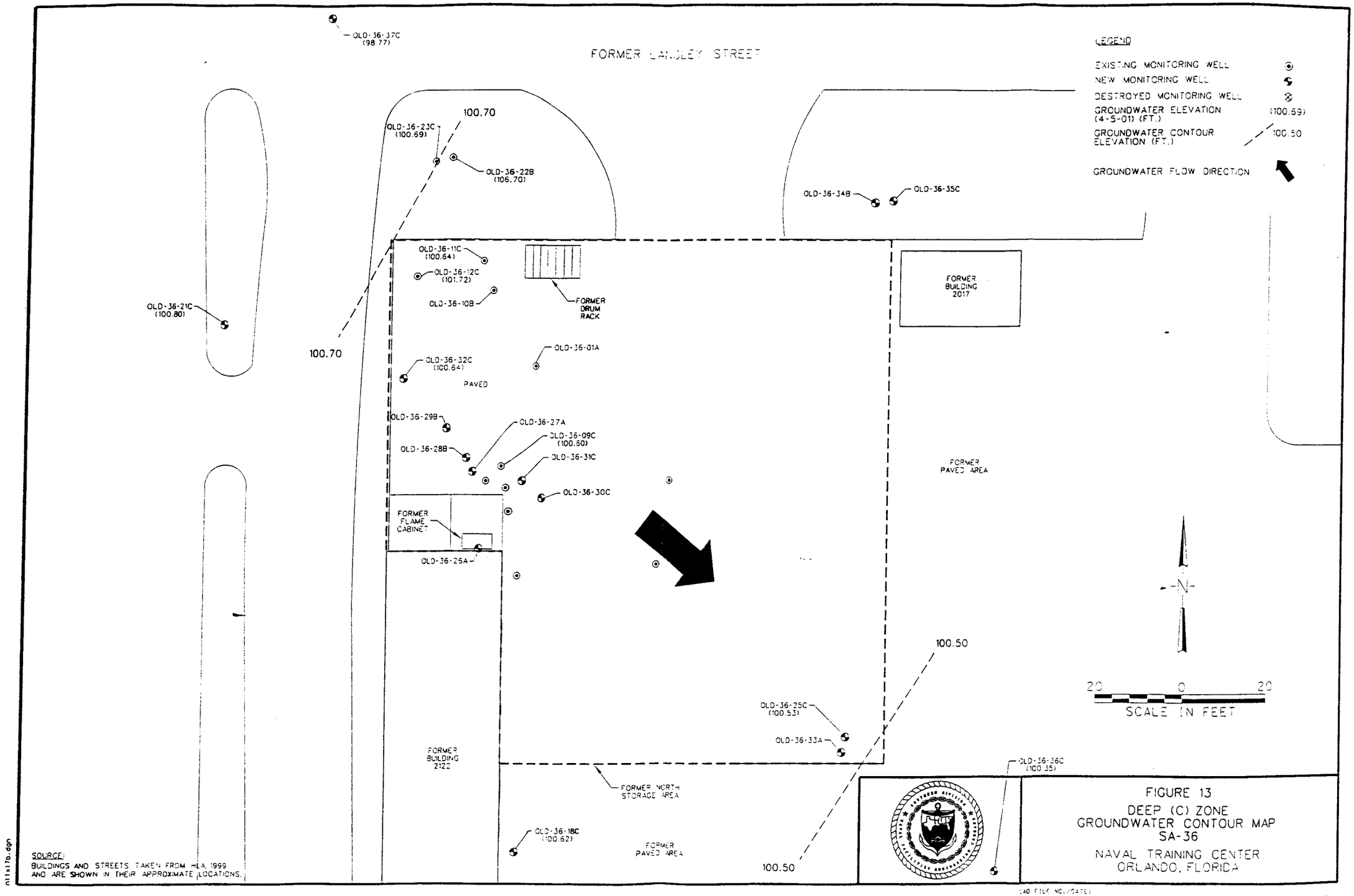
The groundwater data for Zone C at SA-36 shows a change in a few parameters between the baseline and March 2001 results. The parameter changes that are indicative of reductive dechlorination are listed below:

- The dissolved oxygen concentrations have decreased in each monitoring well from the baseline concentrations
- The dissolved gas, MEE, concentrations have increased in each of the monitoring wells from the baseline levels.
- The ORP values have decreased in every well except OLD-36-32C from the baseline measurements.
- Ferrous iron and hydrogen sulfide are reported in the groundwater which are indicative of a reductive environment.
- Sulfate concentrations have reduced in every well except OLD-36-09C.
- The TOC concentrations have either remained relatively constant or decreased in Zone C, except for well OLD-36-31C, after the addition of vegetable oil which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased or remained relatively constant in Zone C and the 1,2-DCE is present in three monitoring wells.

The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-36-11C and OLD-36-30C were considered the upgradient and downgradient well locations, respectively, on the basis of the potentiometric map shown in Figure 13. The remaining two wells were considered source wells due to the elevated TCE concentrations.

The DO, ORP, and Cl concentrations are plotted along the flow path of the groundwater in Zone B in Figure 14. The plot shows a potential zone of reduction around well OLD-36-09C that is evidenced by a reduction in ORP along with an associated spike in chloride level. In addition, the DO concentrations in Zone C are below 1 mg/L that indicates a reducing environment potentially exists. The groundwater conditions in the area of OLD-36-09C shows the dissolved gas concentrations, MEE, (Figure 15) spike, except for methane. Methane spikes in the next well along the flow path OLD-36-31C.

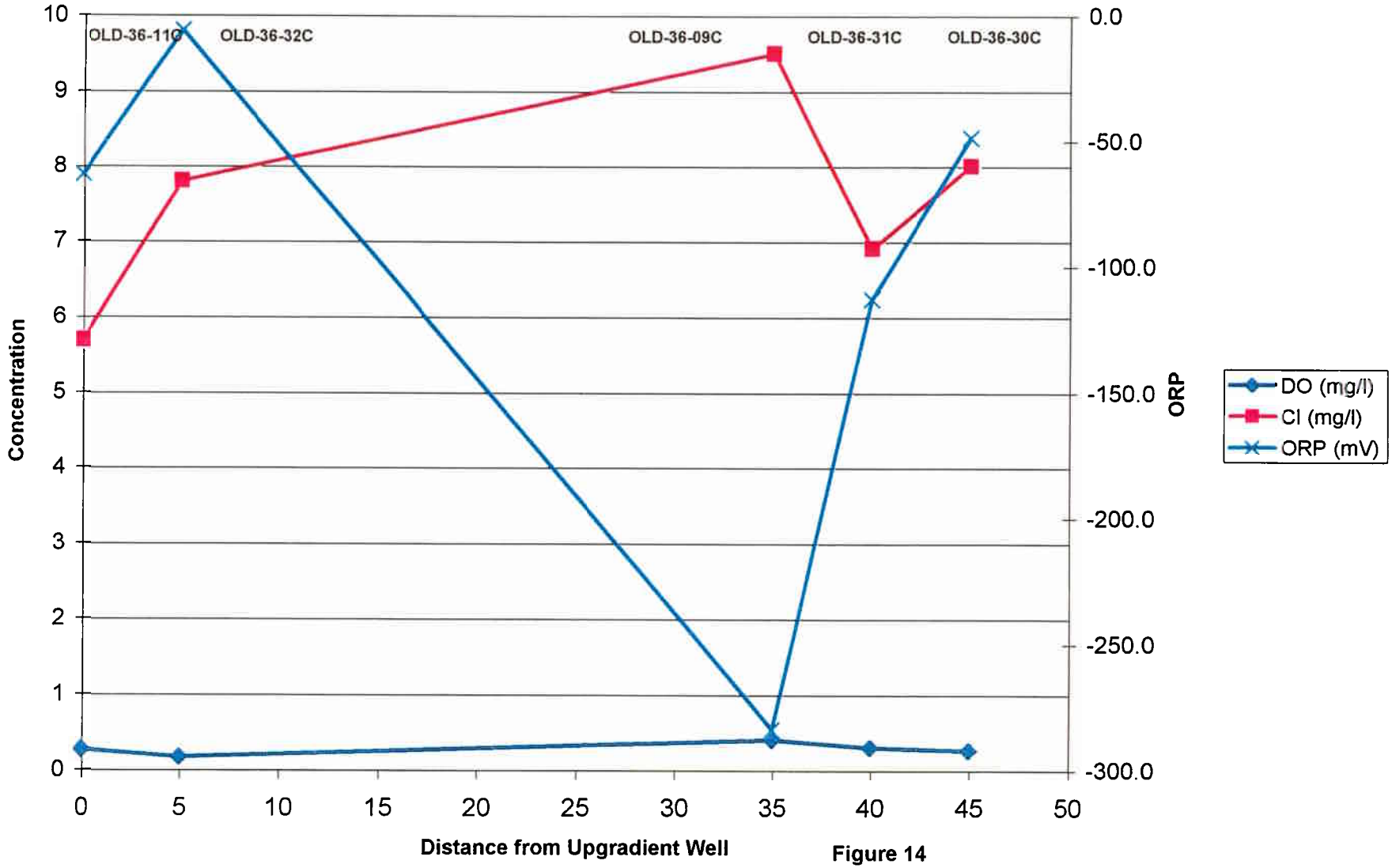
The TOC (Figure 16) in Zone C is below 20 mg/L, except OLD-36-31C, which indicates it is being consumed by the microbes. The TCE concentration (Figure 16) does spike at OLD-36-09C and then reduces along the flow path. In addition, the formation of 1,2-DCE is apparent in OLD-36-09C which is indicative of the reductive dechlorination process. On the basis of the groundwater parameters measured for Zone C at SA-36, the associated score for the reductive zone is 6 which is indicative of limited evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 8.



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

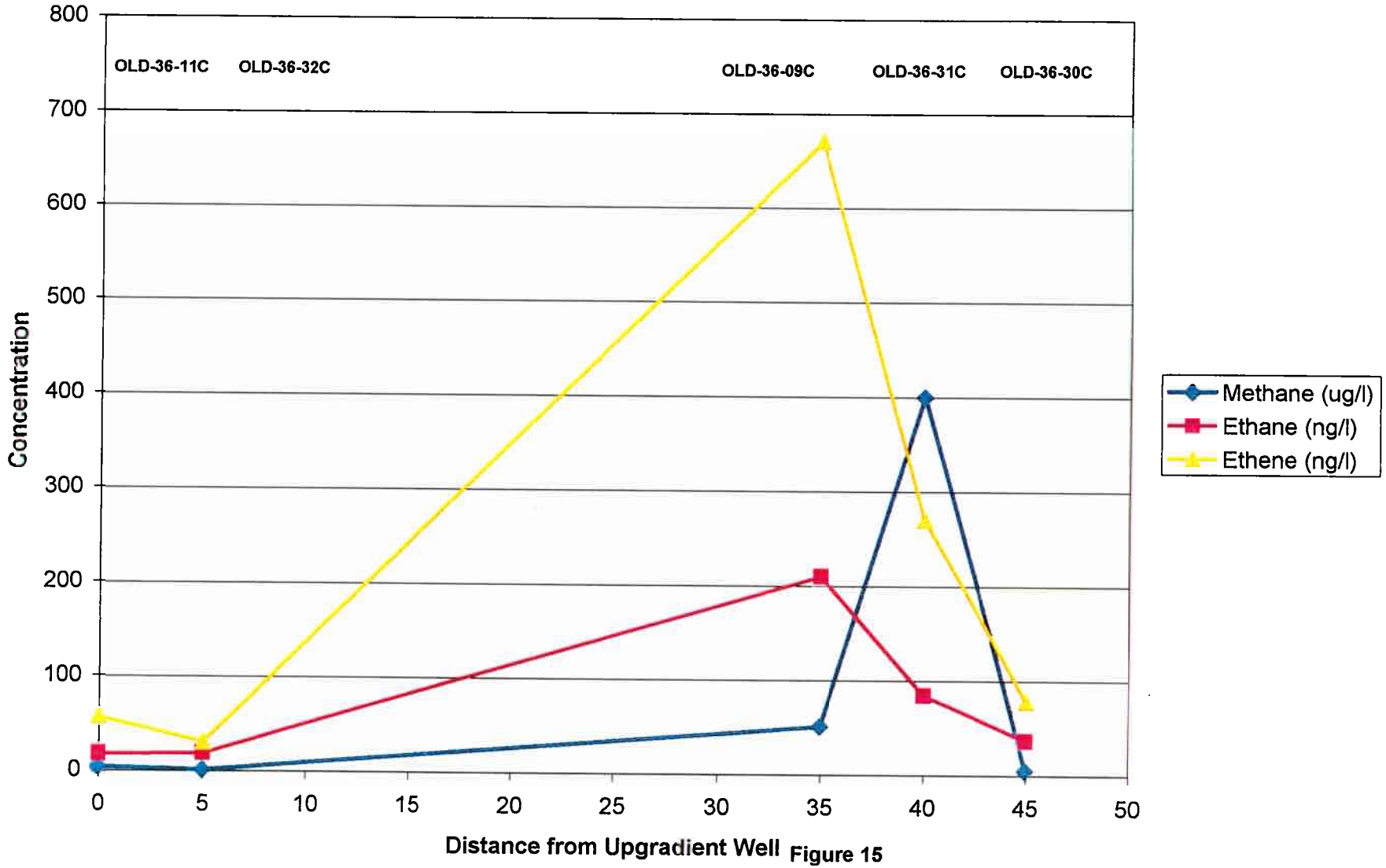
FIGURE 13
DEEP (C) ZONE
GROUNDWATER CONTOUR MAP
SA-36
NAVAL TRAINING CENTER
ORLANDO, FLORIDA

m11x17b.dgn



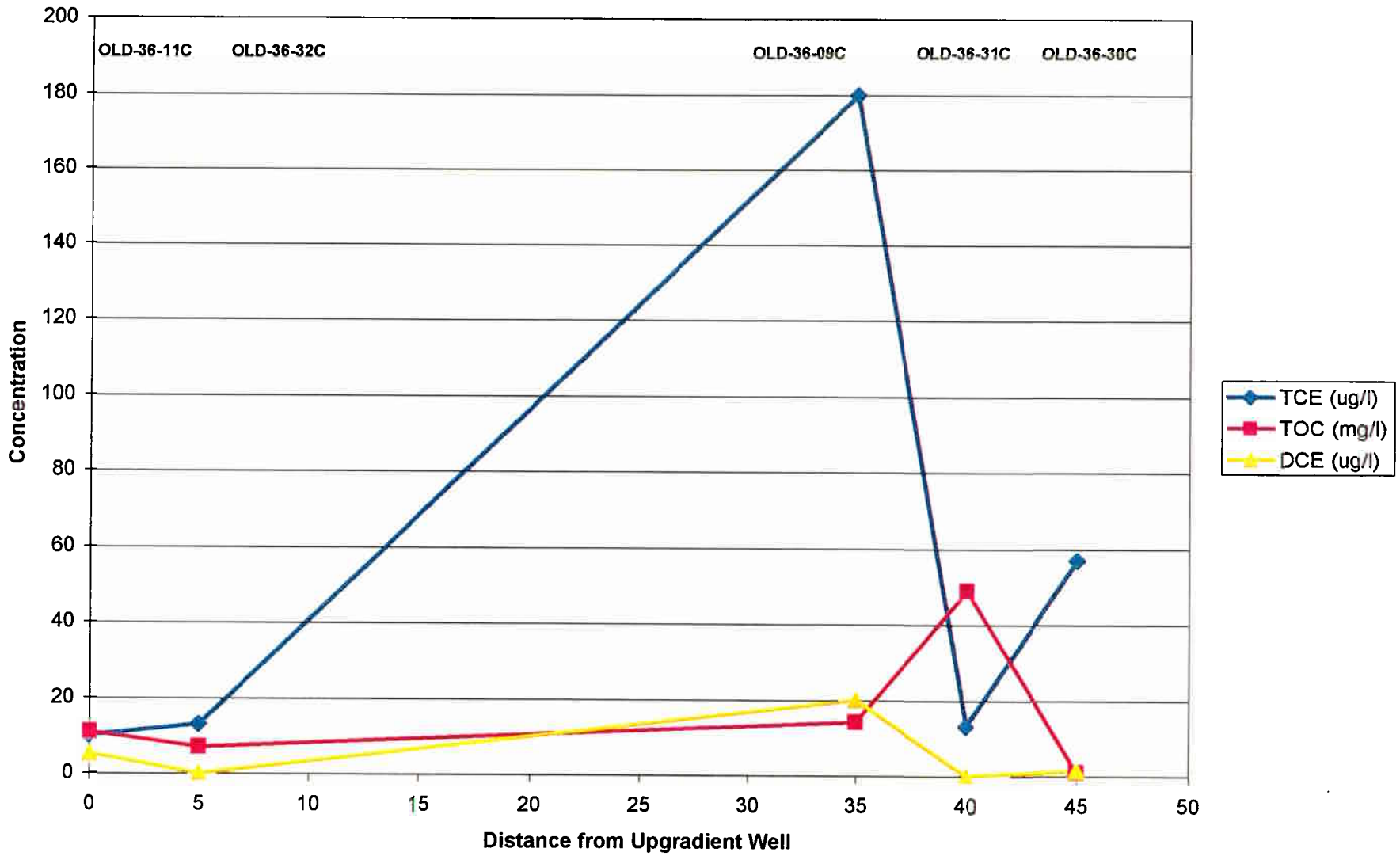
CH2MHILL

Figure 14
DO, Cl, and ORP Concentrations in Zone C
Study Area 36 Enhanced Bioremediation Study



CH2MHILL

Figure 15
Methane, Ethene, and Ethane Concentrations in Zone C
Study Area 36 Enhanced Bioremediation Study



CH2MHILL

Figure 16
TCE, TOC, and DCE Concentrations in Zone C
Study Area 36 Enhanced Bioremediation Study

TABLE 8
Values for Screening the Reductive Dechlorination Process in Groundwater Zone C at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-09C	Description	Points Awarded
Dissolved Oxygen	0.41 mg/L	Indicative of reductive dechlorination	3
Nitrate	Not Detected	Nitrate reducing pathway does not exist	2
Iron II	0.2 mg/L	Indicative of reductive dechlorination, however, concentration above 1 mg/L receives points	0
Sulfate	>200 mg/L	May complete the reductive dechlorination process	0
Sulfide	0.5 mg/L	Indicative of reductive dechlorination, however, concentration above 1 mg/L receives points	0
Methane	0.051 mg/L	Concentration low to be indicative of reductive dechlorination, has increased from not being detected in previous sampling round	0
ORP	-283.7 mV	Reductive pathway likely	2
PH	5<pH<9	Optimal Range for reductive pathway	0
TOC	14 mg/L	Carbon and energy source	0
Temperature	>20 °C	Biological process is accelerated	1
CO_2	Not Measured	Ultimate oxidative daughter product	0
Alkalinity	21 times background	Indicative of reductive dechlorination	1
Chloride	1.7 times background	Concentration too low to be indicative of reductive dechlorination	0
Dissolved Hydrogen	Not Measured	High concentrations indicative of reductive dechlorination process	0
Volatile fatty acids	Not Detected	Concentration too low to be indicative of reductive dechlorination	0
BTEX	Not Detected	Carbon and energy source	0
PCE	Not Detected		0
TCE	180 µg/L	Material released	0
Cis-1,2-DCE	180 µg/L	Daughter product of TCE	2
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.000670 / 0.000210 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**11**

Notes: The total score for the above parameters are interpreted as follows:
0 to 5 Inadequate evidence for biodegradation of chlorinated organics
6 to 14 Limited evidence for biodegradation of chlorinated organics
15 to 20 Adequate evidence for biodegradation of chlorinated organics
>20 Strong evidence for biodegradation of chlorinated organics

Study Area 36 Conclusions

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

- Dissolved oxygen concentrations have reduced to below 0.5 mg/L in almost every well at SA-36.
- ORP values have decreased to negative values in almost every well at SA-36, and the ORP is very negative at OLD-36-09C (-283.7 mV).
- The nitrate concentrations are below 1 mg/L in the groundwater zones beneath SA-36; therefore, nitrate reduction should not interfere with the reductive dechlorination process.

It appears that the addition of vegetable oil has created a reducing environment in the groundwater. However, it is apparent that elevated levels of sulfate reported in the baseline sampling round have reduced in almost every well at SA-36. The sulfate reductions are most noticeable in Zones B and C beneath SA-36. The TOC concentrations in most of the wells have either remained the same or reduced since the baseline sampling round and the addition of vegetable oil. Therefore, on the basis of the sulfate and TOC data, it appears that the microorganisms beneath SA-36 have utilized the added TOC (vegetable oil) to reduce the sulfate that is present beneath the site.

Study Area 36 Recommendations

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

- Groundwater monitoring should continue to be conducted on a quarterly basis.
- The groundwater analysis for methane, ethene, and ethane should be modified by adding carbon dioxide. Alternatively, carbon dioxide can be measured in the field using a HACH test kit.
- The reporting limit for sulfate should be reduced from 50 to 20 mg/L or lower in order to evaluate the potential for reductive dechlorination according to the scoring protocol.
- Dissolved hydrogen concentrations should be obtained using a method developed by Microseeps. The dissolved hydrogen concentrations will allow for the evaluation of the terminal electron accepting process and the proper scoring of the groundwater plume.
- One additional well should be sampled that is screened in Zone A that is located downgradient of OLD-36-27A due to the elevated levels of TCE reported in the well.
- One additional well should be sampled that is screened in Zone B that is located upgradient and/or in an unaffected area of the study area due to the elevated levels of TCE and dissolved gasses (MEE) in OLD-36-08B.
- Another round of vegetable oil injections should be performed at SA-36 due to the demand on the initial injections by the sulfate present in the groundwater. In order for the TCE to be reduced in the groundwater, the sulfate must be reduced first which will require additional TOC. The sulfate will most likely be reduced with an additional round of vegetable oil injections; however, a third round of vegetable oil injections may

be required for the TCE to be reductively dechlorinated due to the second round of vegetable oil injections being consumed by the sulfate reducing microorganisms.

Study Area 39 Groundwater Sampling Results

Groundwater samples were collected from each of the three aquifer zones beneath SA-39. The groundwater samples were collected from the wells in each zone as listed in Table 9 and the analytical results for the baseline and February 2001 samples are listed in Table 10.

TABLE 9
Wells Sampled at Study Area 39
Enhanced Bioremediation Study, Naval Training Center Orlando, Florida

Zone A	Zone B	Zone C
OLD-39-03A	OLD-39-35B	OLD-39-37C
OLD-39-08A	OLD-39-38B	
OLD-39-09A	OLD-39-42B	
OLD-39-47A	OLD-39-43B	
OLD-39-48A	OLD-39-44B	
	OLD-39-45B	
	OLD-39-46B	

Study Area 39 Zone A Groundwater Results

The groundwater data for Zone A at SA-39 shows a change in a few parameters between the baseline and February 2001 results. The significant findings which indicate that natural attenuation may be occurring are as follows:

- The dissolved oxygen in the monitoring wells either remained the same or decreased which is an indication of microbial activity.
- Nitrate concentrations in every well except OLD-39-48A have decreased which is an indication of nitrate reducing conditions.
- The methane, ethane, and ethene concentrations have increased overall in Zone A which indicates that the reductive dechlorination process may be occurring.
- The chloride concentrations have increased in all wells except OLD-39-03A and OLD-39-08A.

The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-39-03A was considered the upgradient well location on the basis of the potentiometric map shown in Figure 17. The two wells were considered source wells due to the elevated TCE concentrations OLD-39-47A and OLD-39-48A. The most downgradient well sampled was OLD-39-09A.

TABLE 10
Natural Attenuation Parameters
SA-39, NTC Orlando

		Field Test Kit Parameters (mg/L)						Analytical Laboratory Data									
Station ID	Date	Ferrous Iron	Manganese	Hydrogen Sulfide	Sulfate	Dissolved Oxygen	Oxidation Reduction Potential (mV)	Alkalinity (mg/L)	Chloride (mg/L)	Nitrate/Nitrite (mg/L)	TOC (mg/L)	Methane (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Volatile Fatty Acids (mg/L)	PCE (ug/L)	TCE (ug/L)
OLD-39-46B	10/04/2000	0.60	0	0.5	60	0.13	92	37	34.5	ND	44.5	9.5	0.045	0.18	ND	1.6 J	ND
OLD-39-46B	02/06/2001	0.65	0	0.3	<50	0.34	72.7	ND	26.5	ND	2.0	2.8	0.023	0.030	ND	15	ND
OLD-39-45B	10/04/2000	0.40	0	0.4	104	0.16	-12	200	32.0	ND	46.4	6.8	0.53	0.34	ND	18	ND
OLD-39-45B	02/06/2001	0.60	0	0.3	<50	0.31	-25.9	68	16.7	ND	6.0	2.6	0.046	0.061	ND	20	0.89 J
OLD-39-38B	10/06/2000	0.80	0	0.6	<50	0.05	26	ND	36.0	ND	3.58	0.68	0.037	0.064	ND	58	ND
OLD-39-38B	02/06/2001	0.75	0	0.4	<50	0.36	60	ND	14.1	ND	ND	4	0.064	0.099	ND	40	0.79 J
OLD-39-42B	10/06/2000	0.35	0.1	0.3	75	0.10	109	78	15.6	ND	23.7	2.0	0.084	0.140	ND	40	1.1 J
OLD-39-42B	02/05/2001	1.00	0	0.8	<50	0.44	-49.20	20	8.4	ND	11.0	38	0.034	0.087	ND	28	0.88 J
OLD-39-44B	10/06/2000	0.40	0	0.6	100	0.15	10	26	21.0	ND	37.8	1.7	0.078	0.120	ND	29	0.79 J
OLD-39-44B	02/06/2001	1.00	0	0.5	<50	0.40	52.1	2.5	8.5	ND	3.0	1.7	0.036	0.096	ND	28	0.73 J
OLD-39-36A	10/06/2000	0.20	0	0.4	>200	0.65	-21	260	18.5	2.24	37.2	22	ND	0.028	ND	0.54 J	ND
OLD-39-43B	10/09/2000	0.30	0.1	0.5	<100	0.10	-180	83	17.2	ND	34.6	1.1	0.036	0.098	ND	25	1.1 J
OLD-39-43B	02/07/2001	0.60	0	0.8	<50	0.42	19.60	8.5	7.0	ND	2.0	21	0.031	0.130	ND	20	0.81 J
OLD-39-35B	10/09/2000	0.70	0	0.25	<50	<0.05	21	ND	11.8	ND	4.41	1.8	ND	0.078	ND	52	1.8 J
OLD-39-35B	02/07/2001	0.50	0	1.5	<50	0.35	20.6	ND	7.9	0.01	ND	69	0.051	0.068	ND	48	1.9 J
OLD-39-37C	10/09/2000	0	0	0.5	<50	0.20	-119	210	5.40	ND	15.5	3.0	0.068	0.510	ND	7.0	0.66 J
OLD-39-37C	02/07/2001	0	0	0.3	40	0.20	-141.3	170	4.90	0.02	12.0	2.8	0.031	0.200	ND	7.2	0.79 J
OLD-39-47A	10/10/2000	0.20	0	0.2	<50	0.70	-136	81	4.60	ND	12.70	0.73	ND	0.029	ND	24	0.76 J
OLD-39-47A	02/07/2001	0	0	0.2	55	0.45	-13.1	29	7.90	ND	12.00	6.8	0.130	0.120	ND	42	1.4 J
OLD-39-48A	10/10/2000	0.10	0	0.1	<50	>1	-81	200	5.80	0.290	7.20	100	ND	0.025	ND	10	ND
OLD-39-48A	02/07/2001	0	0	0	125	1.49	8.5	140	16.10	1.020	8.00	7.9	0.130	0.100	ND	20	0.80 J
OLD-39-08A	10/10/2000	0	0	0.1	150	0.45	-160	74	42.00	7.25	7.69	1.7	ND	0.023	ND	27	ND
OLD-39-08A	02/08/2001	0	0	0	55	0.55	210.5	18	7.90	0.19	9.00	4.2	0.026	0.027	537	30	1.0 J
OLD-39-03A	10/10/2000	0	0	<0.1	<20	>1.0	-59	94	6.30	1.25	5.89	0.26	ND	ND	ND	5.4 J	ND
OLD-39-03A	02/08/2001	0	0	0	<50	>1.0	198.9	67	3.60	1.13	6.00	0.31	ND	ND	50	11	ND
OLD-39-09A	10/10/2000	0	0	<0.1	<50	>1.0	-100	160	2.90	0.360	5.16	0.4	ND	ND	ND	5.5 J	ND
OLD-39-09A	02/08/2001	0	0	0	<50	0.69	191	73	7.30	0.030	12.00	2.3	0.022	0.042	890	19	2.0 J
OLD-39-07B	10/10/2000	0.40	0	0.3	<50	0.1	-2	3.0	3.90	ND	9.92	0.73	ND	0.028	ND	9.6	ND

Reductive dechlorination brings about measurable changes in the chemistry of the groundwater in the affected area. By measuring these changes, one can document and quantitatively evaluate the reductive dechlorination process. Some of the common analytes measured during natural attenuation are discussed below.

Dissolved Oxygen - DO levels should be below 1.0 mg/L for anaerobic degradation

Nitrate - After oxygen is depleted during the degradation process, nitrate may be used as an electron acceptor for anaerobic degradation. Conc's should be low <1.

Ferrous Iron - Also used as an electron acceptor during anaerobic biodegradation. Conc's should be >1 mg/L for reductive pathway.

Sulfate - After oxygen, nitrate, and iron have been depleted, sulfate may be used as the electron acceptor. Sulfate reduction produces sulfide. Conc's should be low (<20)

Sulfide - Concentrations should increase if the sulfate reduction process is occurring. Conc's should be >1 mg/L.

Methane - After oxygen, nitrate, iron and sulfate have been depleted, methanogenesis occurs where carbon dioxide is used as the electron acceptor and methane is produced. The presence of methane in gw is indicative of strongly reducing conditions.

Ethane and Ethene - Are produced during reductive dechlorination. Conc's should increase.

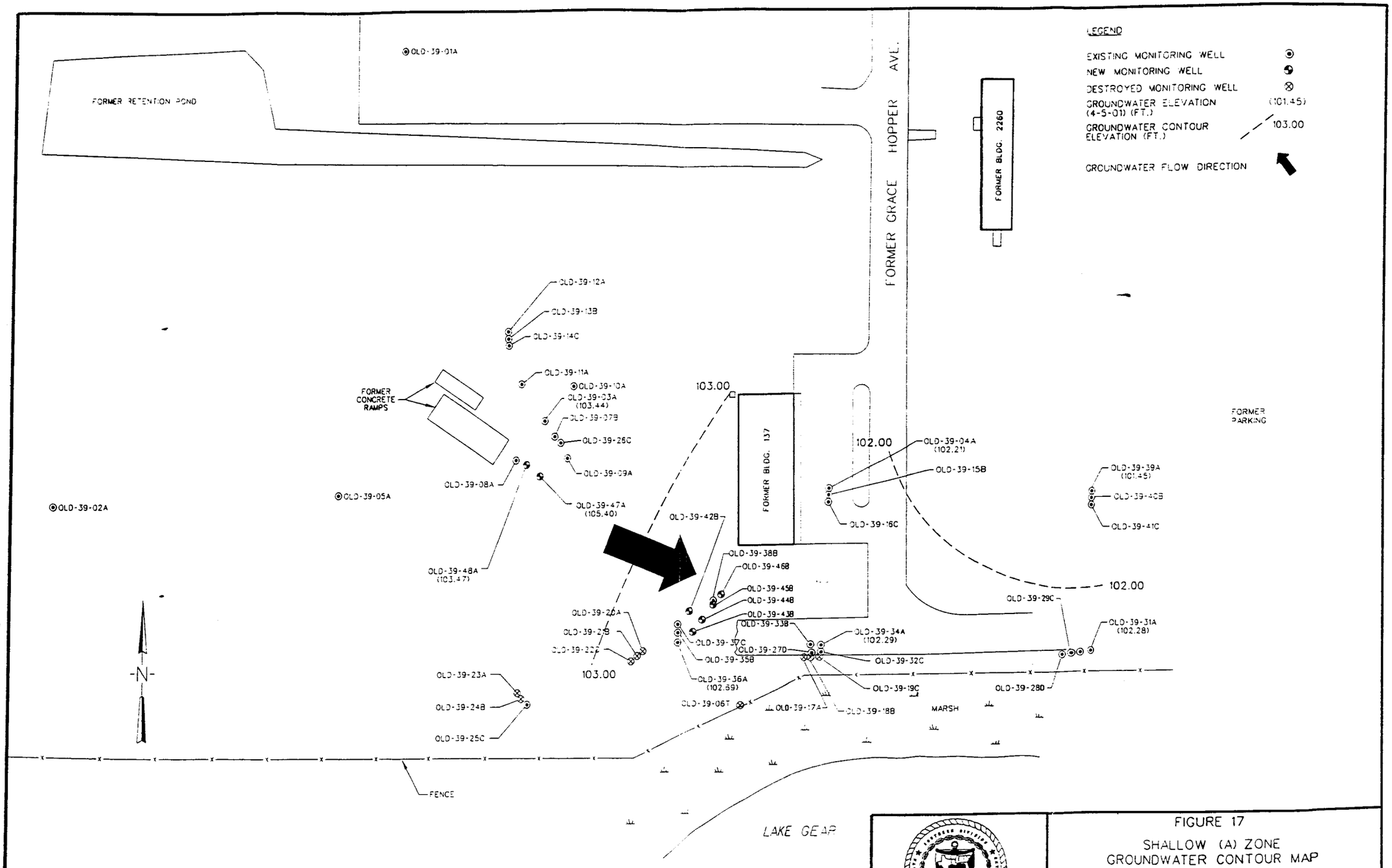
TOC - Total Organic Carbon is used to determine whether anaerobic metabolism of chlorinated solvents is possible in the absence of anthropogenic carbon.

Alkalinity - The total alkalinity of the gw is indicative of a water's capacity to neutralize acid which is generated during aerobic and anaerobic biodegradation. Conc's should increase.

Oxidation Reduction Potential - The redox potential of gw is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox conc's should be <50 and even better if negative which shows iron, sulfate or methanogenesis reducing conditions.

Chloride - Chloride and conductivity data is used to ensure that water is being collected or measured in the correct hydrogeologic zone.

Volatile Fatty Acids - VFAs are produced as metabolic byproducts during the biodegradation of BTEX compounds. Concs should be >0.1 mg/L



SOURCE
BASE MAP TAKEN FROM SURVEY BY DONALDSON, DARRET & ASSOCIATES OF MACON, GEORGIA DURING SEPT. 1993

FIGURE 17

SHALLOW (A) ZONE
GROUNDWATER CONTOUR MAP
SA-39

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

CAD FILE NO./DATE:

The DO, ORP, NO_3 and Cl concentrations are plotted along the flow path of the groundwater in Zone A in Figure 18. The plot shows a potential zone of reduction around well OLD-39-47A and OLD-39-48A which is evidenced by a reduction in ORP, NO_3 and DO along with an associated spike in chloride level. In addition, this reductive zone shows an elevation in methane concentration (Figure 19). The PCE and TOC (Figure 20) concentrations vary along the flow path; however, both parameters decrease at OLD-39-48A. There is no TCE, DCE, or vinyl chloride reported in the reductive zone around OLD-39-47A or the remainder of the groundwater plume. On the basis of the groundwater parameters measured for Zone A at SA-39, the associated score for the reductive zone is 10 which is indicative of limited evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 11.

Study Area 39 Zone B Groundwater Results

The groundwater data for Zone B at SA-39 shows a change in a few parameters between the baseline and February 2001 results. The intermediate (B zone) groundwater contour map is shown on Figure 21. The significant findings for the indicator parameters for natural attenuation are as follows:

- The dissolved oxygen concentrations increased in all monitoring wells at each site which indicates the microbial activity has reduced, groundwater recharge has increased significantly between sampling events, or the DO meters were not functioning correctly during either the baseline or February 2001 sampling event.
- The ORP in monitoring wells OLD-39-42B and OLD-39-45B decreased which is an indication of microbial activity. However, the ORP did increase in the groundwater at the remaining wells which can be attributed to the increase in DO in the groundwater.
- The ferrous iron concentrations have increased in 5 of the 7 wells and is the same in the remaining two wells which is indicative of iron reducing conditions.
- Sulfate concentrations have reduced in all 7 wells at SA-39 and sulfide concentrations have either increased or remained constant, which is indicative of sulfate reducing conditions.
- The methane, ethane, and ethene concentrations have decreased or remained constant in Zone B which indicates that the reductive dechlorination process may be decreasing or proceeding at a low rate.
- The chloride concentrations have decreased in all wells which indicates that the reductive dechlorination process may be decreasing or proceeding at a low rate.
- The TOC concentrations in each well has decreased which is indicative of microbial activity.

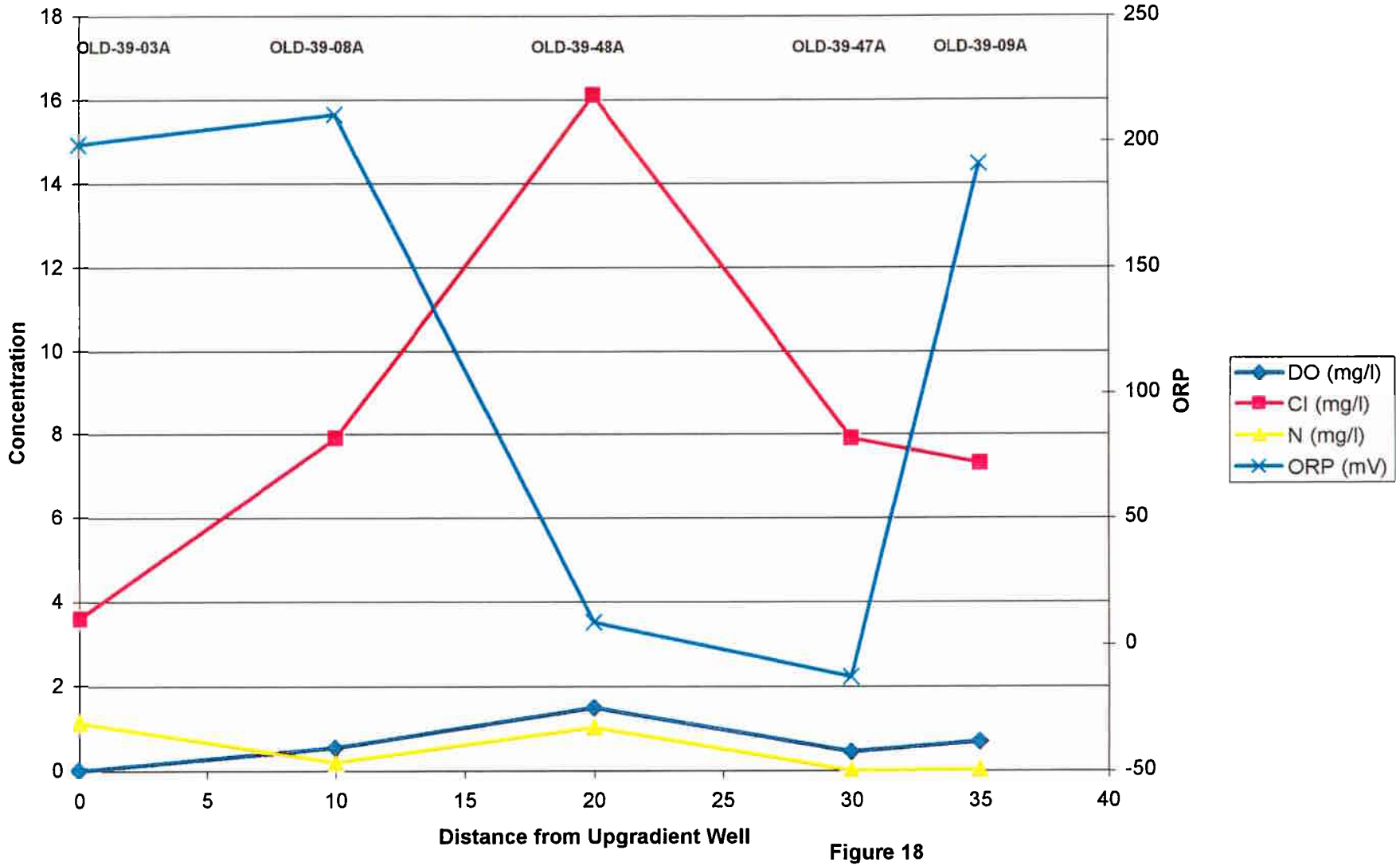


Figure 18
DO, Cl, NO3 and ORP Concentrations in Zone A
Study Area 39 Enhanced Bioremediation Study

CH2MHILL

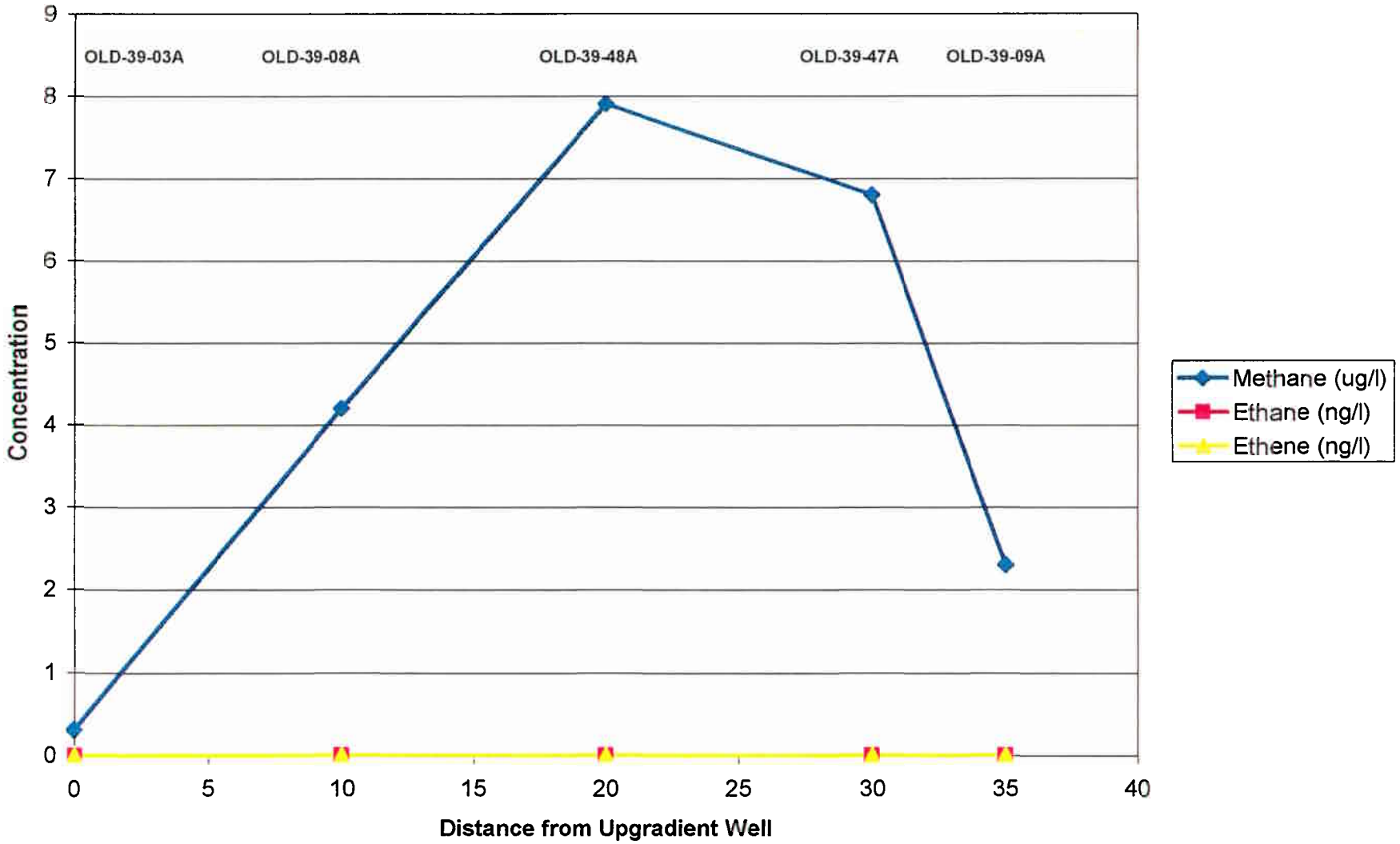
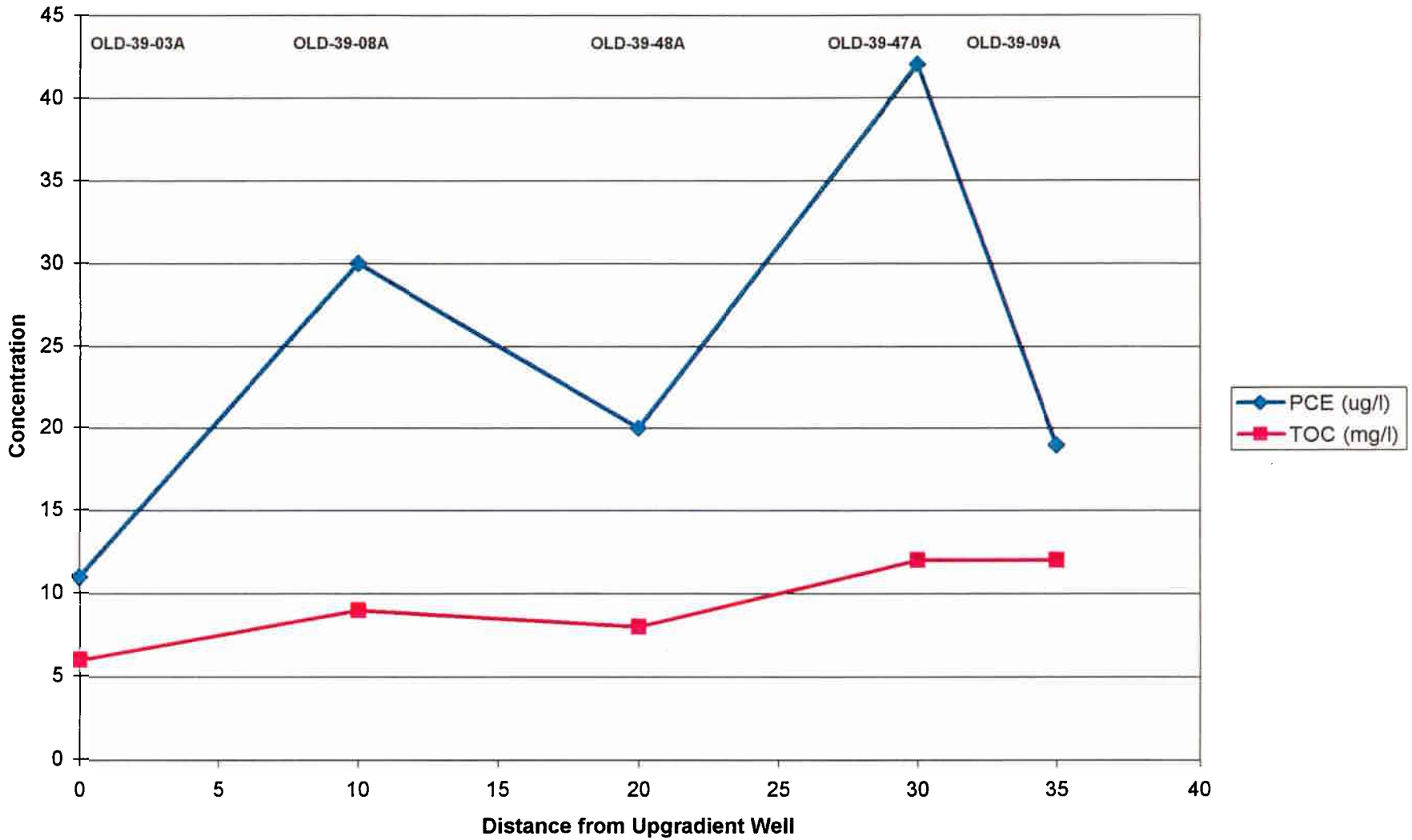


Figure 19
Methane, Ethene, and Ethane Concentrations in Zone A
Study Area 39 Enhanced Bioremediation Study

CH2MHILL



CH2MHILL

Figure 20
PCE and TOC Concentrations in Zone A
Study Area 39 Enhanced Bioremediation Study

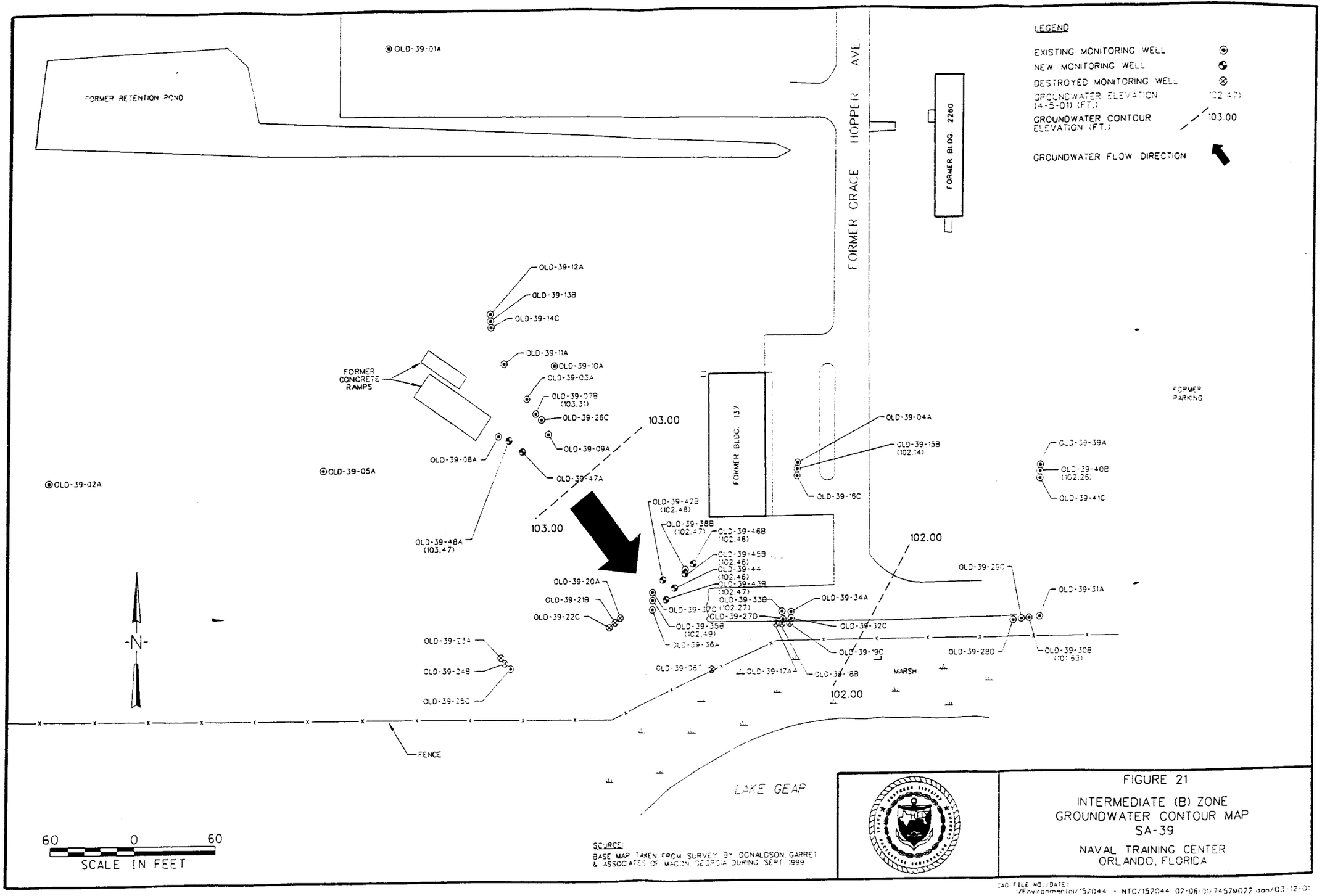

LEGEND
EXISTING MONITORING WELL
NEW MONITORING WELL
DESTROYED MONITORING WELL
GROUNDWATER ELEVATION (4-5-01) (FT.)
(102.47)
GROUNDWATER CONTOUR ELEVATION (FT.)
103.00
GROUNDWATER FLOW DIRECTION
FORMER RETENTION POND
OLD-39-01A
FORMER GRACE HOPPER AVE.
FORMER BLDG. 2260
FORMER BLDG. 137
FORMER CONCRETE RAMPS
OLD-39-12A
OLD-39-13B
OLD-39-14C
OLD-39-11A
OLD-39-10A
OLD-39-03A
OLD-39-07B (103.31)
OLD-39-26C
OLD-39-09A
OLD-39-08A
OLD-39-05A
OLD-39-47A
OLD-39-02A
OLD-39-48A (103.47)
103.00
OLD-39-42B (102.48)
OLD-39-38B (102.47)
OLD-39-46B (102.46)
OLD-39-45B (102.46)
OLD-39-44 (102.46)
OLD-39-43B (102.47)
OLD-39-33B (102.27)
OLD-39-27D
OLD-39-35B (102.49)
OLD-39-36A
OLD-39-20A
OLD-39-21B
OLD-39-22C
OLD-39-23A
OLD-39-24B
OLD-39-25C
OLD-39-04A
OLD-39-15B (102.14)
OLD-39-16C
OLD-39-34A
OLD-39-32C
OLD-39-19C
OLD-39-18B
OLD-39-17A
OLD-39-29C
OLD-39-28D
OLD-39-31A
OLD-39-30B (101.63)
OLD-39-39A
OLD-39-40B (102.25)
OLD-39-41C
FORMER PARKING
102.00
MARSH
FENCE
LAKE GEAP
-N-
60 0 60
SCALE IN FEET
SOURCE:
BASE MAP TAKEN FROM SURVEY BY DONALDSON, GARRET & ASSOCIATES OF MACON, GEORGIA DURING SEPT 1999
FIGURE 21
INTERMEDIATE (B) ZONE
GROUNDWATER CONTOUR MAP
SA-39
NAVAL TRAINING CENTER
ORLANDO, FLORIDA
n11x17b.dgn

TABLE 11
Values for Screening the Reductive Dechlorination Process in Groundwater Zone A at SA-39
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-39-47A	Description	Points Awarded
Dissolved Oxygen	0.45 mg/L	Indicative of reductive dechlorination	3
Nitrate	Not Detected	Nitrate reducing pathway not present	2
Iron II	Not Detected	Indicative of reductive dechlorination, concentration above 1 mg/L receives points	0
Sulfate	55 mg/L	May complete the reductive dechlorination process	0
Sulfide	0.2 mg/L	Sulfide concentration should be greater than 1 mg/L for reductive dechlorination in the presence of sulfate	0
Methane	0.0068 mg/L	Concentration low to be indicative of reductive dechlorination, has increased from not being detected in previous sampling round	0
ORP	-13.1 mV	Reductive pathway possible	1
PH	5<pH<9	Optimal Range for reductive pathway	0
TOC	12 mg/L	Carbon and energy source	0
Temperature	>20 °C	Biological process is accelerated	1
CO_2	Not Measured	Ultimate oxidative daughter product	0
Alkalinity	0.43 times background	Low alkalinity	0
Chloride	2.2 times background	Indicative of reductive dechlorination	2
Dissolved Hydrogen	Not Measured	High concentrations indicative of reductive dechlorination process	0
Volatile fatty acids	Not Detected	Concentration too low to be indicative of reductive dechlorination	0
BTEX	Not Detected	Carbon and energy source	0
PCE	42 µg/L	Material Released	0
TCE	1.4 J µg/L	Daughter product of PCE	2
Cis-1,2-DCE	Not Detected		0
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.000000130 / 0.000000120 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**11**

Notes: The total score for the above parameters are interpreted as follows:
0 to 5 Inadequate evidence for biodegradation of chlorinated organics
6 to 14 Limited evidence for biodegradation of chlorinated organics
15 to 20 Adequate evidence for biodegradation of chlorinated organics
>20 Strong evidence for biodegradation of chlorinated organics

On the basis of the groundwater parameters measured for Zone B at SA-39, the associated score for the reductive zone is 11 which is indicative of limited evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 12.

TABLE 12
Values for Screening the Reductive Dechlorination Process in Groundwater Zone B at SA-39
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-39-35B	Description	Points Awarded
Dissolved Oxygen	0.35 mg/L	Indicative of reductive dechlorination	3
Nitrate	0.01 mg/L	Nitrate reducing pathway not present	2
Iron II	0.50 mg/L	Indicative of reductive dechlorination, concentration above 1 mg/L receives points	0
Sulfate	<50 mg/L	May complete the reductive dechlorination process	0
Sulfide	1.5 mg/L	Sulfide is a byproduct of sulfate reduction	3
Methane	0.069 mg/L	Concentration low to be indicative of reductive dechlorination, has increased from not being detected in previous sampling round	0
ORP	20.6 mV	Reductive pathway possible	1
PH	5<pH<9	Optimal Range for reductive pathway	0
TOC	Not Detected	Carbon and energy source	0
Temperature	>20 °C	Biological process is accelerated	1
CO_2	Not Measured	Ultimate oxidative daughter product	0
Alkalinity	0.43 times background	Low alkalinity	0
Chloride	0.3 times background	Not indicative of reductive dechlorination	0
Dissolved Hydrogen	Not Measured	High concentrations indicative of reductive dechlorination process	0
Volatile fatty acids	Not Detected	Concentration too low to be indicative of reductive dechlorination	0
BTEX	Not Detected	Carbon and energy source	0
PCE	48 µg/L	Material Released	0
TCE	1.9 J µg/L	Daughter product of PCE	2
Cis-1,2-DCE	Not Detected		0
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.000000068 / 0.000000051 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**12**

Notes: The total score for the above parameters are interpreted as follows:
0 to 5 Inadequate evidence for biodegradation of chlorinated organics
6 to 14 Limited evidence for biodegradation of chlorinated organics
15 to 20 Adequate evidence for biodegradation of chlorinated organics
>20 Strong evidence for biodegradation of chlorinated organics

Study Area 39 Zone C Groundwater Results

One well was sampled that was screened in Zone C which is OLD-39-37C. The results of the groundwater sampling show that no significant changes were present between the baseline and February 2001 samples. The deep (C zone) groundwater contour map is shown on Figure 22. Therefore, the vegetable oil injections in Zones A and B have not affected Zone C within a time period of two months.

Study Area 39 Conclusions

The groundwater sampling results for SA-39 shows the potential for the enhanced biodegradation to be feasible as a remedial alternative for the PCE due to the following observations:

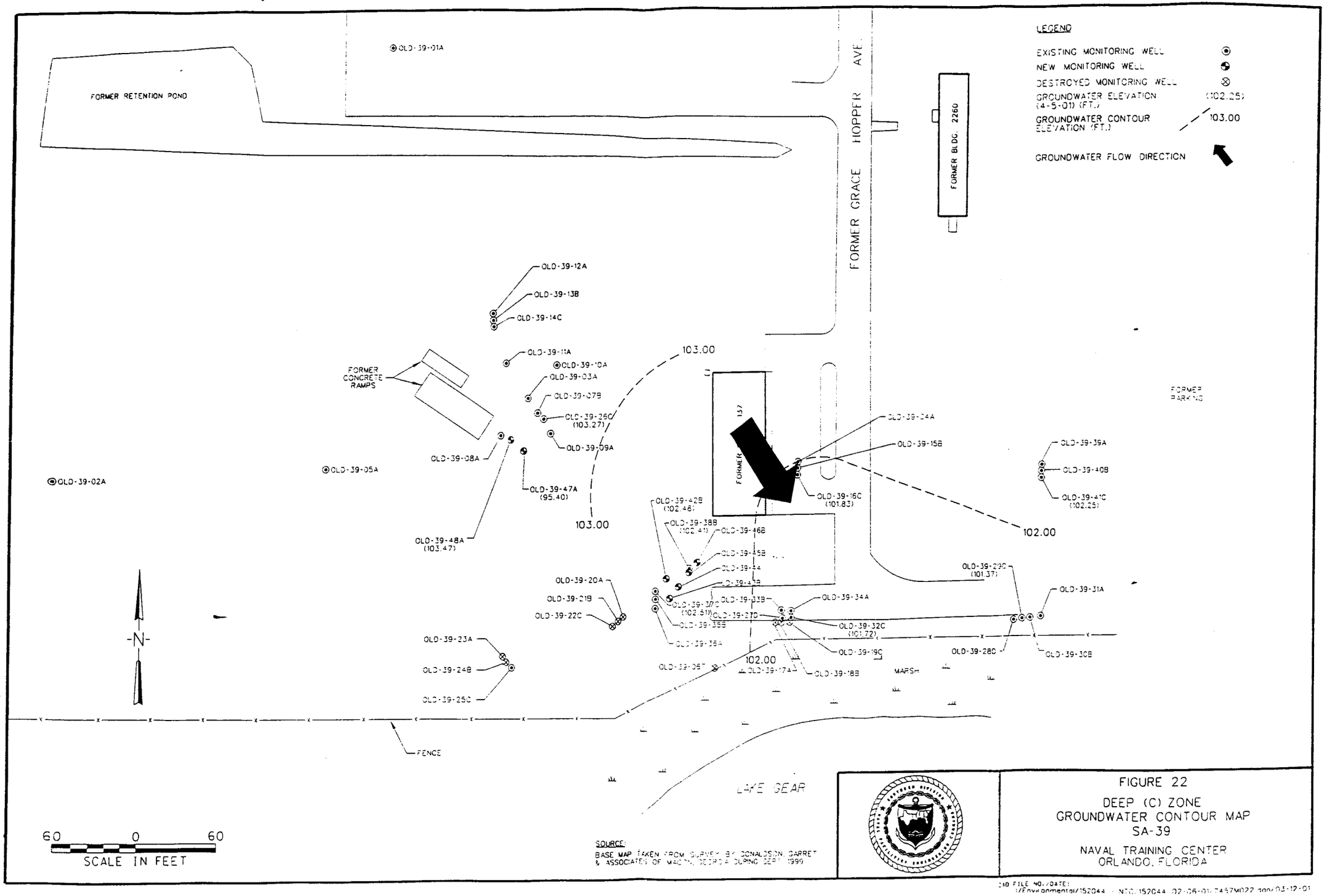
- The sulfate concentrations in the groundwater have reduced due to the vegetable oil injections increasing microbial activity that has produced sulfate reducing conditions. The sulfate reducing conditions are further evidenced by the sulfide concentrations increasing which is a byproduct of sulfate reduction.
- Iron reducing conditions are apparent in the groundwater due to the formation of ferrous iron. It is speculated that the increased microbial activity initiated by the vegetable oil injections has created iron reducing conditions which facilitates Fe III reducing to Fe II.
- The TOC concentrations have reduced significantly in Zone B which is indicative of microbial activity.

However, the chloride levels in Zone B have either stabilized or decreased and the DO levels have increased in the groundwater. In addition, the ORP in the groundwater in Zone B has increased most likely due to the DO increased. These indicator parameters indicate the microbial activity has either decreased or stabilized since the injections.

Although the DO, Cl, and ORP parameters suggest a stabilization in microbial activity in Zone B, it appears that the addition of vegetable oil has created a more reductive environment in the groundwater. The sulfate reduction and sulfide production are most noticeable in Zone B beneath SA-39. In addition, Fe II is being produced in Zone B which is indicative of Fe II being reduced. Finally, the TOC concentrations in most of the wells in Zone B have significantly reduced since the baseline sampling round and the addition of vegetable oil. Therefore, on the basis of the sulfate, sulfide, Fe II, and TOC data, it appears that the microorganisms beneath SA-39 have utilized the added TOC (vegetable oil) to reduce the sulfate and iron that is present beneath the site.

Study Area 39 Recommendations

The following recommendations, if implemented, should provide additional data for evaluating the enhanced biodegradation process and enhance the PCE reduction in the groundwater beneath SA-39.


LEGEND
EXISTING MONITORING WELL
NEW MONITORING WELL
DESTROYED MONITORING WELL
GROUNDWATER ELEVATION (4-5-01) (FT.) (102.25)
GROUNDWATER CONTOUR ELEVATION (FT.) 103.00
GROUNDWATER FLOW DIRECTION
FORMER RETENTION POND
FORMER GRACE HOPPER AVE.
FORMER BLDG. 226D
FORMER CONCRETE RAMPS
FORMER BLDG. 137
FORMER PARKING
OLD-39-01A
OLD-39-02A
OLD-39-05A
OLD-39-08A
OLD-39-09A
OLD-39-10A
OLD-39-11A
OLD-39-12A
OLD-39-13B
OLD-39-14C
OLD-39-03A
OLD-39-07B
OLD-39-26C (103.27)
OLD-39-47A (95.40)
OLD-39-48A (103.47)
OLD-39-24A
OLD-39-15B
OLD-39-16C (101.83)
OLD-39-39A
OLD-39-40B
OLD-39-41C (102.25)
OLD-39-42B (102.46)
OLD-39-38B (102.41)
OLD-39-46B
OLD-39-45B
OLD-39-29C (101.37)
OLD-39-31A
OLD-39-20A
OLD-39-21B
OLD-39-22C
OLD-39-37C (102.51)
OLD-39-33B
OLD-39-34A
OLD-39-27D
OLD-39-32C (101.72)
OLD-39-36B
OLD-39-36A
OLD-39-19C
OLD-39-28D
OLD-39-30B
OLD-39-23A
OLD-39-24B
OLD-39-25C
OLD-39-36T
OLD-39-17A
OLD-39-18B
MARSH
103.00
102.00
FENCE
LAKE GEAR
N
60 0 60
SCALE IN FEET
SOURCE:
BASE MAP TAKEN FROM SURVEY BY DONALDSON, GARRETT & ASSOCIATES OF MAITLAND, FLORIDA DURING SEPT. 1999
FIGURE 22
DEEP (C) ZONE
GROUNDWATER CONTOUR MAP
SA-39
NAVAL TRAINING CENTER
ORLANDO, FLORIDA
CAD FILE NO./DATE:
I:\Environmental\152044 - NTC\152044_02-06-01\7457M022.dgn/03-12-01
01x17b.dgn

- Groundwater monitoring should continue to be conducted on a quarterly basis.
- The groundwater analysis for methane, ethene, and ethane should be modified by adding carbon dioxide. Alternatively, carbon dioxide can be measured in the field using a HACH test kit.
- The reporting limit for sulfate should be reduced from 50 to 20 mg/L or lower in order to evaluate the potential for reductive dechlorination according to the scoring protocol.
- Dissolved hydrogen concentrations should be obtained using a method developed by Microseeps. The dissolved hydrogen concentrations will allow for the evaluation of the terminal electron accepting process and the proper scoring of the groundwater plume.
- The groundwater in Zone B should be analyzed for Fe III. The concentration of Fe III in the groundwater will determine the amount of Fe II that can be formed in the aquifer. The amount of iron reduction that can occur in the groundwater will determine the amount of additional TOC that will be required to reduce the Fe III along with the PCE.
- Two additional wells should be sampled that are screened in Zone B and located upgradient and/or in an unaffected area and downgradient of the study area. The data from the upgradient and downgradient wells will allow for the flow path of the groundwater in Zone B to be evaluated and the groundwater zone can be scored more effectively according to the EPA protocol.
- Another round of vegetable oil injections should be performed at SA-39 due to the demand on the initial injections by the sulfate and iron present in the groundwater. In order for the PCE to be reduced in the groundwater, the sulfate and iron must be reduced first which will require additional TOC. The sulfate and iron will most likely be reduced with an additional round of vegetable oil injections if the Fe III concentrations are not too elevated. However, a third round of vegetable oil injections may be required for the PCE to be reductively dechlorinated due to the second round of vegetable oil injections being consumed by the sulfate and iron reducing microorganisms.