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NAS CECIL FIELD, FL
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FIRST QUARTER 2002 OPERATIONS AND MAINTENANCE STATUS REPORT FOR NUTRIENT INJECTION SYSTEM AT BUILDING 9 FORMER TANKS 9L1 AND 9L2 NAS CECIL FIELD FL

7/1/2002

CH2MHILL CONSTRUCTORS INC

First Quarter 2002
Operations and Maintenance Status Report

Nutrient Injection System
Building 9, Former Tanks 9L1 and 9L2

January 1, 2002 – March 31, 2002

Naval Air Station Cecil Field
Jacksonville, Florida

Contract No. N62467-98-D-0995
Contract Task Order No. 0062

Submitted to:

U.S. Naval Facilities Engineering Command Southern Division

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Contents

Acronym List ..... **iii**
1.0 Introduction **1-1**
1.1 Objective 1-1
1.2 Site History 1-1
1.3 Remediation System / Technology Description 1-2
2.0 System Performance Monitoring **2-1**
2.1 Operational Efficiencies 2-1
2.1.1 Nutrient Injection System 2-1
2.2 Summary of Maintenance and System Downtime 2-1
2.2.1 Nutrient Injection System 2-1
2.3 Pressure / Flow Rate Monitoring 2-1
2.3.1 Nutrient Injection System 2-1
2.4 Water Level Measurements 2-2
3.0 Summary of Sampling and Laboratory Analytical Results **3-1**
3.1 Soil Monitoring 3-1
3.2 Groundwater Monitoring 3-1
4.0 Conclusions and Recommendations **4-1**
5.0 References **5-1**

Figure

1-1 Site Map 1-3

Tables

2-1 Injection Well Measurements 2-3
2-2 Injection System Data 2-5
2-3 Groundwater Monitoring Well-Water Level and Free Product Data 2-6
3-1 Soil Analytical Results 3-3
3-2 Groundwater Analytical Results 3-4
3-3 Groundwater Field Analytical Results 3-8

Appendices

A Laboratory Analytical Reports for Soil Samples (on CD only)
B Laboratory Analytical Reports for Groundwater Samples (on CD only)

Acronym List

ABB-ES	ABB Environmental Services, Inc.
acfh	actual cubic feet per hour
acfm	actual cubic feet per minute
AST	aboveground storage tank
bls	below land surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CCI	CH2M HILL Constructors, Inc.
cfm	cubic feet per minute
CTO	Contract Task Order
EPA	U.S. Environmental Protection Agency
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
FL PRO	Florida Petroleum Residual Organic
GCTLs	groundwater cleanup target levels
LNAPL	light non-aqueous phase liquid
MTBE	methyl-tert butyl ether
MW	monitoring well
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
O&M	operation and maintenance
OVA	organic vapor analyzer
PAHs	polycyclic aromatic hydrocarbons
ppb	parts per billion
psig	pounds per square inch gauge
RAP	Remedial Action Plan
RWP	Remediation Work Plan
SAR	Site Assessment Report
scfm	standard cubic feet per minute
SCTLs	soil cleanup target levels
SOUTHDIV	Department of the Navy, Southern Division
SVE	Soil Vapor Extraction
TEP	triethylphosphate
TRPH	total recoverable petroleum hydrocarbons
UST	underground storage tank
VEW	Vapor Extraction Well
VOCs	volatile organic compounds

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) has been contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (Southern Division, NAVFAC), to provide Operation and Maintenance (O&M) services at Building 9, NAS Cecil Field, Jacksonville, Florida, under the Remedial Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002 and subsequently 0062. The purpose of this First Quarter 2002 O&M Report is to provide a summary of activities performed at the site during the period of January 1, 2002 to March 31, 2002.

1.1 Objective

The objective of the remedial action at the Building 9 site is to reduce the concentrations of petroleum-related contaminants in the groundwater and unsaturated soils to target levels specified by Florida Administrative Code (FAC) 62-777. Nutrient injection using the PHOSter nutrient injection system is the technology being used to achieve this objective.

1.2 Site History

Building 9 served as the NAS Cecil Field main fire base station from 1953 until base closure. Prior to 1953, the site served as a public works center and incorporated a transportation garage and automotive hobby shop. As such, the site contained two gasoline underground storage tanks (USTs), Tanks 9L1 and 9L2, which were removed from the site around 1985 (TtNUS June 2000). A fuel storage tank was located west of the former UST location; the removal date of this tank is unknown (TtNUS February 1999).

A Site Assessment Report (SAR) prepared for Building 9 (Harding Lawson Associates [HLA], 1998) concluded that operation of the two former USTs had resulted in contamination of soil and groundwater with fuel-related compounds, including benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, acenaphthylene, and total recoverable petroleum hydrocarbons (TRPH). The SAR determined that an area of soil approximately 3,000 square feet at the location of the former USTs was highly contaminated to a depth of 7 feet below land surface (bls) and acted as a source of groundwater contamination. The SAR also established that groundwater contamination extends only to the shallow surficial aquifer (7 to 25 feet bls) to a depth of 20 feet bls over an approximately 3,000-square-foot area, which coincides with the area of soil contamination.

A nutrient injection system was installed at the site during the period of November 2000 to January 2001 to treat the impacted soil and groundwater to achieve State-mandated cleanup target levels. The nutrient injection system commenced operation on January 9, 2001.

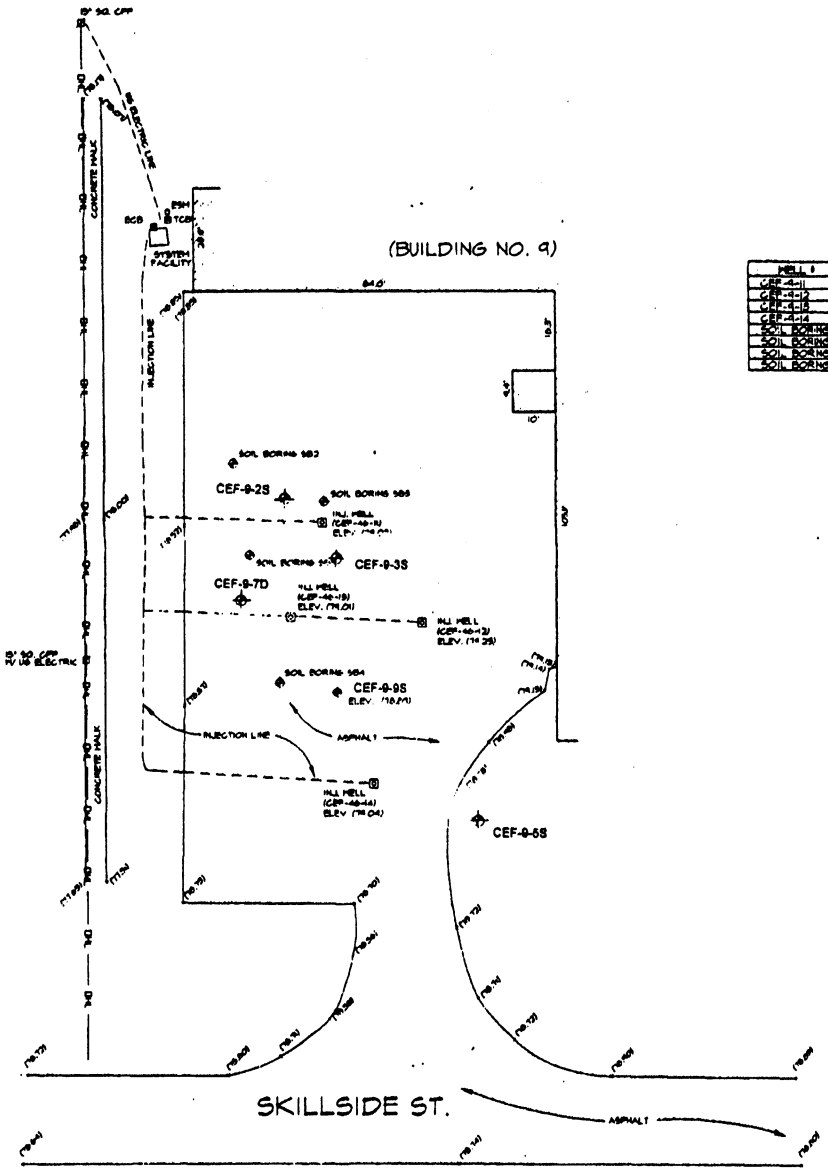
1.3 Remediation System/Technology Description

The PHOSter nutrient injection system provides subsurface delivery of oxygen, nitrogen, and phosphorus to enhance the development of naturally occurring heterotrophic bacteria that have the capability of metabolizing petroleum wastes. A compressor is used to inject air as the oxygen source, and the air flow is mixed with nitrous oxide and vapor-phase triethylphosphate (TEP) to provide nitrogen and phosphorus, respectively. Towards the end of cleanup operations, when contaminant concentrations have been reduced to the point where insufficient food (contaminant) is available to sustain an effective microorganism population, propane will also be injected as a carbon source (TtNUS June 2000).

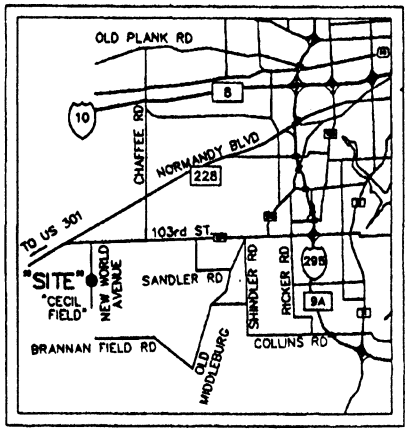
The Building 9 nutrient injection system consists of four 30-foot-deep injection wells (labeled as CEF-9-I1 through CEF-9-I4) that are screened from 27 to 30 feet bls, and a temporary trailer containing a compressor, injection gas storage containers, and associated piping and instrumentation. The nutrient injection system is designed for each injection well to operate at a flow rate of 3 to 5 cubic feet per minute (cfm) at an injection pressure of 15 pounds per square inch gauge (psig). The locations of the injection wells are shown on Figure 1-1.

MAP SHOWING SPECIFIC PURPOSE SURVEY OF

A PORTION OF SECTION 22, TOWNSHIP 3 SOUTH, RANGE 24 EAST, JACKSONVILLE HEIGHTS, PLAT BOOK 5, PAGE 93, OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA.



WELL #	NORTHING	EASTING
CEF-9-11	2142670.05	376265.68
CEF-9-12	2142646.27	376287.20
CEF-9-13	2142647.62	376256.09
CEF-9-14	2142608.87	376275.44
SOIL BORING SB1	2142662.16	376246.41
SOIL BORING SB2	2142664.15	376242.79
SOIL BORING SB3	2142673.29	376264.15
SOIL BORING SB4	2142652.16	376235.50



VICINITY MAP

NOT TO SCALE

LEGEND

BLDG - BUILDING
ELEV. - ELEVATION
INJ - INJECTION
CONC. - CONCRETE
SQ - SQUARE
CPP - CONCRETE POWER POLE
ESM - ELECTRIC SERVICE METER
TCB - TELEPHONE CONTROL BOX
ECB - ELECTRIC CONTROL BOX
US - UNDERGROUND
OHL - OVERHEAD LINE

N

SCALE: 1" = 20'

SURVEYOR'S NOTES

1) THE DESCRIPTION AS SHOWN HEREON WAS SUPPLIED BY CLIENT.
2) NORTH ARROW SHOWN HEREON IS BASED ON WELL COORDINATES FURNISHED BY CLIENT.
3) ALL MEASUREMENTS ARE IN U.S. STANDARD FEET AND WERE MADE WITH A THEODOLITE AND ELECTRONIC DISTANCE MEASURING DEVICE AND/OR STEEL TAPE.
4) THIS IS A COPYRIGHTED DOCUMENT, NO PORTION OF IT MAY BE REPRODUCED, WHOLLY OR IN PART, WITHOUT THE EXPRESSED WRITTEN PERMISSION OF HOLLAND & BASSETT SURVEYORS, INC.
5) THIS MAP IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
6) ELEVATIONS SHOWN THUS (10.0) ARE IN FEET & REFER TO NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
7) THE SPECIFIC PURPOSE OF THIS MAP IS TO GRAPHICALLY ILLUSTRATE THE AS-BUILT LOCATION OF INJECTION WELLS, MONITORING WELLS, AND SOIL BORINGS ON SUBJECT SITE AT BUILDING 9.
8) INJECTION LINES SHOWN HEREON ARE AS PER CONTRACTOR.
ELEVATIONS ON NEW MONITORING WELLS WERE TAKEN ON NORTH TOP OF PVC CASING.

Injection Well, Monitor Well, and Soil Boring Location Map

Building 9

NAS Cecil Field

Jacksonville, Florida

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ROBERT E. HOLLAND
FL REGISTRATION NO. 4242
CHARLES R. BASSETT, JR.
FL REGISTRATION NO. 4541

DATE: JANUARY 23, 2001
WORK ORDER NO.: 264.00
PROJECT NUMBER: 17100
SHEET 1 OF 1
DRAWING NO. 17100

PARTY CHIEF: LSW COMPUTED BY: JLV CADD TECH: JLV CADD FILE: 17100AB DC FILE NO.: 17100 F.B.: - P.G.: -

2.0 System Performance Monitoring

O&M checks of the system were performed daily for the first week of operation and periodically thereafter. System checks were performed daily during the first week of operation and periodically thereafter to coincide with the O&M check.

During an O&M check, a preventative maintenance checklist (based upon manufacturer's recommendations) is completed, and any required maintenance activity is performed. A system check consists of an O&M check and system performance monitoring, including reading of all meters and gauges.

2.1 Operational Efficiencies

2.1.1 Nutrient Injection System

	Period	To Date
Hours of Possible Operation:	2,160	10,728
Hours of Actual Operation:	2,057	10,373
Percent Hours of Operation:	95.2	96.7

2.2 Summary of Maintenance and System Downtime

2.2.1 Nutrient Injection System

During the period of January 1, 2002, to March 31, 2002, the nutrient injection system ran a total of 85.7 days out of a possible 90 days, resulting in 103 hours of down time. The system down time is detailed as follows:

- Down for a total of 100 hours due to the failure of both air compressors. The two air compressors were replaced with one rebuilt air compressor and the system was restarted. A second air compressor will be installed during the next quarter.
- Manually shutdown for a total of 3 hours for routine equipment maintenance.

2.3 Pressure/Flow Rate Monitoring

2.3.1 Nutrient Injection System

During the first quarter, the injection pressure at the compressors averaged 25.0 psig, compared to the design injection pressure of 15 psig. The total gas injection flow rate averaged 5.7 actual cubic feet per minute (acfm), compared to the design total gas injection flow rate of 12 to 20 acfm. The nitrous oxide injection rate averaged 0.40 actual cubic feet per hour (acfh) which is 0.12 percent by volume of air flow, compared to the design nitrous

oxide injection rate of 0.07 to 0.10 percent by volume of air flow. The triethylphosphate (TEP) injection mass for the first quarter totaled 3.6 pounds, compared to the design injection mass of 9.5 pounds per quarter. The data for the injection wells and injection system are provided on Tables 2-1 and 2-2, respectively.

The injection flow rates were re-balanced during the second quarter or 2001 to maximize injection in the area of monitoring well CEF-9-9S by diverting all flow equally between injection wells CEF-9-I3 and CEF-9-I4 on a continuous basis (see Table 2-1). The injection flow rates remained in this configuration during the third quarter of 2001. The previous configuration was to alternate injection on 12-hour cycles between the four injection wells. During the fourth quarter of 2001, the injection rates were adjusted to divert 100 percent of the air flow to a single injection well for one month each during the quarter as follows: CEF-9-I4 (October), CEF-9-I2 (November), and CEF-9-I3 (December). Diverting all flow to a single injection well increased the radius of influence for the active injection well in an attempt to affect monitoring well CEF-9-9S. This change caused a decrease in contaminant concentrations in CEF-9-9S during the fourth quarter of 2001. Injection rates were split between injection wells CEF-9-I1 and CEF-9-I3 in January 2002. All flow was diverted to CEF-9-I4 in February 2002, and split between CEF-9-I1 and CEF-9-I4 in March 2002.

2.4 Water Level Measurements

Depth to water measurements were recorded at selected monitoring wells on a quarterly basis during the monitoring period. Depth to water measurements for the first quarter 2002 were recorded on March 18, 2002. The top of casing elevation, depth to water measurements and calculated water level elevations are provided on Table 2-3.

Light non-aqueous phase liquid (LNAPL) was not noted in any monitoring well during the monitoring period.

TABLE 2-1
Injection Well Measurements

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-9-I1	01/09/2001	100	3
	02/28/2001	100	4.75
	03/30/2001	100	4
	04/13/2001	0	0
	05/10/2001	0	0
	06/07/2001	0	0
	07/02/2001	0	0
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/15/2001	0	0
	12/10/2001	0	0
	01/11/2002	100	4
	02/04/2002	0	0
	03/11/2002	25	1
CEF-9-I2	01/09/2001	100	4
	02/28/2001	50	4
	03/30/2001	100	4
	04/13/2001	100	5
	05/10/2001	0	0
	06/07/2001	0	0
	07/02/2001	0	0
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/15/2001	100	4
	12/10/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0

TABLE 2-1
Injection Well Measurements

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-9-I3	01/09/2001	100	4
	02/28/2001	0	0
	03/30/2001	100	3
	04/13/2001	100	5
	05/10/2001	100	3
	06/07/2001	100	3
	07/02/2001	100	3
	08/06/2001	100	3
	09/11/2001	100	3
	10/03/2001	0	0
	11/15/2001	0	0
	12/10/2001	100	4
	01/11/2002	100	4
	02/04/2002	0	0
	03/11/2002	0	0
CEF-9-I4	01/09/2001	100	2.75
	02/28/2001	50	5
	03/30/2001	100	3
	04/13/2001	100	4
	05/10/2001	100	3
	06/07/2001	100	3
	07/02/2001	100	3
	08/06/2001	100	3
	09/11/2001	100	3
	10/03/2001	100	6
	11/15/2001	0	0
	12/10/2001	0	0
	01/11/2002	0	0
	02/04/2002	100	4
	03/11/2002	100	4

NR = No Reading
acfm = actual cubic feet per minute

TABLE 2-2
Injection System Data

Date	Air Supply Pressure (psig)	Total Gas Flow (acfm)	NOX Flow (acfh)	TEP Injection (pounds)
01/09/2001	NR	6.5	1	--
02/28/2001	17	6.5	0.8	1.78
03/30/2001	16	6.5	0.8	1.52
04/13/2001	19	6.5	0.8	0.00
05/10/2001	28	6	0.5	2.68
06/07/2001	28	6	0.5	3.57
07/02/2001	23	6	0.5	1.78
08/06/2001	24	6	0.5	1.78
09/11/2001	18	6	0.5	7.14
10/03/2001	35	6	0.5	1.78
11/15/2001	30	4	0.25	0.89
12/10/2001	30	4	0.25	1.78
01/11/2002	24	8	0.4	1.78
02/04/2002	21	4	0.4	0.89
03/11/2002	30	5	0.4	0.89

NR = No Reading
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour

TABLE 2-3
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (Feet)	Depth to Product (Feet)	Depth to Water (Feet)	Water Level Elevation (Feet)
CEF-9-2S	14.45	12/18/2000	78.74	no product	7.93	70.81
		01/18/2001		no product	8.55	70.19
		01/24/2001		no product	8.60	70.14
		01/31/2001		no product	8.74	70.00
		02/07/2001		no product	8.58	70.16
		02/14/2001		no product	8.72	70.02
		02/21/2001		no product	8.75	69.99
		03/07/2001		no product	8.49	70.25
		03/20/2001		no product	7.46	71.28
		04/03/2001		no product	6.99	71.75
		04/17/2001		no product	7.61	71.13
		05/01/2001		no product	8.13	70.61
		06/14/2001		no product	7.62	71.12
		07/24/2001		no product	6.62	72.12
		08/13/2001		no product	5.38	73.36
		09/17/2001		no product	3.41	75.33
		10/22/2001		no product	5.72	73.02
		11/13/2001		no product	6.50	72.24
		12/17/2001		no product	6.73	72.01
		03/18/2002		no product	6.56	72.18
CEF-9-3S	15.54	12/18/2000	78.81	no product	8.04	70.77
		01/18/2001		no product	8.67	70.14
		01/24/2001		no product	8.72	70.09
		01/31/2001		no product	8.89	69.92
		02/07/2001		no product	8.69	70.12
		02/14/2001		no product	8.83	69.98
		02/21/2001		no product	8.87	69.94
		03/07/2001		no product	8.60	70.21
		03/20/2001		no product	7.55	71.26

TABLE 2-3
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (Feet)	Depth to Product (Feet)	Depth to Water (Feet)	Water Level Elevation (Feet)
		04/03/2001		no product	7.12	71.69
		04/17/2001		no product	7.72	71.09
		05/01/2001		no product	8.50	70.31
		06/14/2001		no product	7.75	71.06
		07/24/2001		no product	6.47	72.34
		08/13/2001		no product	5.50	73.31
		09/17/2001		no product	3.51	75.30
		10/22/2001		no product	5.86	72.95
		11/13/2001		no product	6.62	72.19
		12/17/2001		no product	6.87	71.94
		03/18/2002		no product	6.75	72.06
CEF-9-5S	13.72	12/18/2000	78.93	no product	8.34	70.59
		01/18/2001		no product	8.96	69.97
		01/24/2001		no product	9.03	69.90
		01/31/2001		no product	9.13	69.80
		02/07/2001		no product	8.97	69.96
		02/14/2001		no product	9.11	69.82
		02/21/2001		no product	9.10	69.83
		03/07/2001		no product	8.81	70.12
		03/20/2001		no product	7.61	71.32
		04/03/2001		no product	7.40	71.53
		04/17/2001		no product	8.02	70.91
		05/01/2001		no product	8.25	70.68
		06/14/2001		no product	7.99	70.94
		07/24/2001		no product	6.91	72.02
		08/13/2001		no product	5.78	73.15
		09/17/2001		no product	3.70	75.23
		10/22/2001		no product	6.21	72.72
		11/13/2001		no product	6.97	71.96
		12/17/2001		no product	7.17	71.76

TABLE 2-3
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (Feet)	Depth to Product (Feet)	Depth to Water (Feet)	Water Level Elevation (Feet)
		03/18/2002		no product	7.02	71.91
CEF-9-7D	29.23	12/18/2000	78.59	no product	7.83	70.76
		01/18/2001		no product	8.45	70.14
		01/24/2001		no product	8.50	70.09
		01/31/2001		no product	8.63	69.96
		02/07/2001		no product	8.46	70.13
		02/14/2001		no product	8.61	69.98
		02/21/2001		no product	8.62	69.97
		03/07/2001		no product	8.36	70.23
		03/20/2001		no product	7.29	71.30
		04/03/2001		no product	6.90	71.69
		04/17/2001		no product	7.52	71.07
		05/01/2001		no product	8.02	70.57
		06/14/2001		no product	7.51	71.08
		07/24/2001		no product	6.38	72.21
		08/13/2001		no product	5.28	73.31
		09/17/2001		no product	3.25	75.34
		10/22/2001		no product	5.66	72.93
		11/13/2001		no product	6.42	72.17
		12/17/2001		no product	6.65	71.94
		03/18/2002		no product	6.48	72.11
CEF-9-9S	14.23	12/18/2000	78.89	no product	8.39	70.50
		01/18/2001		no product	8.81	70.08
		01/24/2001		no product	8.88	70.01
		01/31/2001		no product	9.00	69.89
		02/07/2001		no product	8.85	70.04
		02/14/2001		no product	8.98	69.91
		02/21/2001		no product	8.97	69.92
		03/07/2001		no product	8.72	70.17
		03/20/2001		no product	7.66	71.23

TABLE 2-3
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (Feet)	Depth to Product (Feet)	Depth to Water (Feet)	Water Level Elevation (Feet)
		04/03/2001		no product	7.28	71.61
		04/17/2001		no product	7.89	71.00
		05/01/2001		no product	8.38	70.51
		06/14/2001		no product	7.87	71.02
		07/24/2001		no product	6.78	72.11
		08/13/2001		no product	5.67	73.22
		09/17/2001		no product	3.63	75.26
		10/22/2001		no product	6.09	72.80
		11/13/2001		no product	6.80	72.09
		12/17/2001		no product	7.01	71.88
		03/18/2002		no product	6.90	71.99

BGS = below ground surface
Elevation is referenced to National Geodetic Vertical Datum 1929 (NGVD 1929)
Depth to product measured from top of casing
Depth to water measured from top of casing

3.0 Summary of Sampling and Laboratory Analytical Results

3.1 Soil Monitoring

Quarterly soil screening and sampling was conducted on March 7, 2002 during the monitoring period. One soil boring, labeled as SB-4, was installed in the vicinity of the contaminated groundwater monitoring well (CEF-9-9S). This location was also sampled last quarter and the laboratory results indicated that TRPH exceeded the Soil Cleanup Target Levels (SCTLs). The soil was screened using an organic vapor analyzer (OVA) equipped with a flame ionization detector (FID) and a sample was collected for laboratory analysis on March 7, 2002. The water table was encountered at 7 feet bls. The OVA / FID readings are summarized below.

Date	Soil Boring No.	Depth (ft bls)	OVA/FID Unfiltered	OVA/FID Filtered	OVA/FID Net
3/7/02	SB-4	2	155	3	152
3/7/02	SB-4	4	14	2	12
3/7/02	SB-4	6	12	1	11

Note: laboratory sample collected at 2 feet bls

The laboratory soil sample was analyzed for BTEX and methyl tert-butyl ether (MTBE) by United States Environmental Protection Agency (EPA) Method 8021B, naphthalene and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8310, and TRPH by Florida Petroleum Residual Organic (FL PRO Method. The results indicated that no constituents are above the Leachability or Direct Exposure Residential SCTLs per Chapter 2-777 F.A.C. The location of SB-2 is shown on Figure 1-1. Copies of the analytical laboratory report from the soil sampling event are provided in Appendix A, and analytical results are summarized on Table 3-1.

3.2 Groundwater Monitoring

Monitoring wells CEF-9-2S, CEF-9-3S, CEF-9-5S, CEF-9-7D, and CEF-9-9S were sampled on a quarterly basis during the first quarter. The samples were analyzed for BTEX and MTBE by EPA Method 8021B, naphthalene and PAHs by EPA Method 8310, TRPH by FL PRO Method, and nitrate, nitrite, and phosphate by EPA Method 300.0. Only CEF-9-9S exhibited concentrations above the Groundwater Cleanup Target Levels (GCTLs) per Chapter 62-777 FAC. The locations of the monitoring wells are shown on Figure 1-1. Copies of the analytical laboratory reports from the groundwater sampling events are provided in Appendix B, and the analytical results are summarized on Table 3-2.

Field analytical tests were performed on the five monitoring wells during each sampling event. The groundwater was tested for pH, conductivity, temperature, dissolved oxygen, carbon dioxide, alkalinity, ferrous iron, and hydrogen sulfide. The results from the field analytical tests are summarized on Table 3-3. An evaluation of the field analytical tests for monitoring well CEF-9-9S show that pH and temperature are acceptable for biological activity. The conductivity values have remained relatively constant indicating that the groundwater samples represent the same groundwater system. The dissolved oxygen level is greater than 1 milligrams per liter, which indicates aerobic conditions. The carbon dioxide and alkalinity values are decreasing, which may indicate decreased aerobic activity. Ferrous iron values remain relatively constant. An increase in ferrous iron may indicate anaerobic activity and a depletion of oxygen, nitrite, and manganese. Hydrogen sulfide values continue to fluctuate after remaining relatively constant. This may indicate a reduction in natural hydrogen sulfide production.

TABLE 3-1
Soil Analytical Results

Soil Boring Number	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	TRPH (mg/kg)
SB-1	01/04/2001	0.00067	<0.0011	0.00081	<.0032	0.00148	<0.0011	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.0565	0.055	0.019	0.035	0.077	0.039	0.073	0.056	0.113	0.18	73
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/07/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-2	01/04/2001	<0.12	0.65	<0.12	0.53	1.18	<0.12	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	0.0285	0.056	0.01	0.027	0.065	0.022	0.062	0.046	0.055	0.0815	70
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	<0.0013	<0.0013	<0.004	0.0049	0.0049	<0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.02	<0.02	<0.02	0.006	0.025	0.01	0.016	<0.02	0.015	0.013	21
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/07/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	01/04/2001	<0.1	<0.1	0.5	4	4.5	<0.1	1.3	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	0.0425	<.018	0.017	0.042	0.02	0.042	0.028	0.041	0.0615	86
	06/27/2001	<0.0011	<0.0011	<0.0011	<0.0033	<0.0066	<0.0011	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	21
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/07/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	01/04/2001	<0.11	<0.11	0.15	3.2	3.35	<0.11	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.019	0.0119	<.019	0.05	0.024	0.012	0.024	0.014	0.064	0.0275	220
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	<0.0012	<0.0012	<0.0012	<0.0035	<0.0071	<0.0012	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.021	<0.021	<0.021	0.045	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	1100
	03/07/2002	<0.0012	<0.0012	<0.0012	<0.0035	<0.0071	<0.0012	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.015	0.01	<0.020	0.027	0.017	0.01	0.029	0.024	0.038	0.03	340
Direct Exposure Residential [1]		1.1	1100	380	5900	n/a	3200	40	1100	1900	2200	2000	18000	2900	2200	1.4	140	1.4	15	0.1	1.5	0.1	2300	340
Leachability from GW Criteria [1]		0.0007	0.6	0.5	0.2	n/a	0.2	1.7	27	2.1	160	250	2500	1200	880	3.2	77	10	25	8	28	30	32000	340

All values reported in mg/kg
Method 8310 compounds are the average of duplicate runs
1 = Ch 62-777 F.A.C Soil cleanup Target Level (SCTLs) reported in mg/kg
Shaded values indicate the compounds that exceed the SCTLs
NS = Not Sampled

TABLE 3-2
Groundwater Analytical Results

Well Identification	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate	Nitrite	Phosphate	TRPH
CEF-9-2S	12/18/2000	<1.0	6.9	<1.0	1.7	8.6	NA	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	01/18/2001	<1.0	<1.0	<1.0	4.2	4.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.21	<500
	01/24/2001	<1.0	1.6	<1.0	0.56	2.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.28	<530
	01/31/2001	0.41	3.0	0.30	4.0	7.71	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.31	<500
	02/07/2001	<1.0	0.98	<1.0	0.92	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.11	<0.40	0.29	<500
	02/14/2001	<1.0	0.42	<1.0	0.76	1.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.14	<0.40	0.20	220
	02/21/2001	<1.0	0.41	0.32	0.69	1.42	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.11	<0.40	0.33	<500
	03/07/2001	<1.0	0.24	<1.0	0.51	0.75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.12	<.40	0.19	<530
	03/20/2001	<1.0	1.1	<1.0	0.57	1.67	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.12	<0.40	0.28	<520
	04/03/2001	0.15	0.62	<1.0	0.51	1.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.24	<0.40	0.23	<500
	04/17/2001	0.13	0.5	<1.0	<1.0	0.63	<1.0	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.14	<0.40	0.17	<520
	05/01/2001	<1.0	1.2	<1.0	0.32	1.52	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	06/14/2001	<1.0	<1.0	<1.0	0.93	0.93	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.17	<0.40	0.36	280
	07/24/2001	<1.0	8.8	<1.0	6.7	15.5	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.3	<0.40	<1.0	1400
	08/13/2001	<1.0	7.6	<1.0	3.5	11.1	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.18	<0.40	<1.0	1200
	09/17/2001	<1.0	2.1	<1.0	<1.0	2.1	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	580
	10/22/2001	0.98	7.5	<1.0	0.98	9.46	<1.0	2.8	<1.0	<1.1	<1.1	<1.1	<1.1	<0.21	0.1	<0.21	<0.21	0.041	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	0.33	780
	11/13/2001	2.4	14	<1.0	2.7	19.1	<1.0	5.3	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.15	<0.40	<1.0	720
	12/17/2001	1.1	21	2.1	5.6	29.8	<1.0	3.3	<1.1	<1.1	<1.0	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	2000
	03/18/2002	<1.0	7.28	2.02	4.57	13.87	<1.0	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.21	0.165	<0.40	<1.0	736
CEF-9-3S	12/18/2000	18	130	8.9	170	326.9	NA	29	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1500
	01/18/2001	21	140	40	430	631	<1.0	20	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.20	1700
	01/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.21	720
	01/31/2001	<1.0	38	2.8	180	220.8	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	960
	02/07/2001	0.36	12	1.9	89	103.3	<1.0	0.75	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	0.039	<0.20	0.044	<0.20	<0.20	<0.20	<0.20	<0.20	0.074	<0.40	<1.0	720
	02/14/2001	0.21	8.0	2.8	53	64.01	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	520
	02/21/2001	0.24	7.2	3.7	45	56.14	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.15	<0.40	0.21	470
	03/07/2001	<1.0	<1.0	<1.0	4.6	4.6	<1.0	2.3	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.20	<0.40	<1.0	440

TABLE 3-2
Groundwater Analytical Results

Well Identification	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate	Nitrite	Phosphate	TRPH
	03/20/2001	<1.0	<1.0	<1.0	4.7	4.7	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.22	<0.40	<1.0	<270
	04/03/2001	<1.0	2.7	<1.0	3	5.7	<1.0	0.8	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.25	0.063	0.18	<520
	04/17/2001	<1.0	5.9	0.95	5.6	12.45	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	<1.0	300
	05/01/2001	0.65	6.2	1.9	12	20.75	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	600
	06/14/2001	0.52	3.3	<1.0	4.2	8.02	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.19	<0.40	<1.0	780
	07/24/2001	<1.0	11	<1.0	4.4	15.4	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.24	<0.40	<1.0	540
	08/13/2001	<1.0	11	<1.0	3.2	14.2	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.2	<0.40	<1.0	760
	09/17/2001	<1.0	11	<1.0	20	31	<1.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1200
	10/22/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	8.3	<1.0	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	780
	11/13/2001	<1.0	15	<1.0	5.9	20.9	<1.0	7.6	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	500
	12/17/2001	<1.0	11	1.1	3.1	15.2	<1.0	4.9	<1.0	<1.1	<1.0	<1.1	<1.1	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	440
	03/18/2002	<1.0	6.14	1.67	2.65	10.46	<1.0	2.72	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.60	<0.40	<1.0	630
CEF-9-5S	12/18/2000	<1.0	<1.0	<1.0	0.52	0.52	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.09	<0.40	<1.0	<530
	01/18/2001	0.12	<1.0	<1.0	<1.0	0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.31	<0.40	<1.0	<500
	01/24/2001	<1.0	0.77	0.30	2.2	3.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.30	<0.40	<1.0	<530
	01/31/2001	0.30	<1.0	<1.0	<1.0	0.3	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.26	<0.40	<1.0	<530
	02/07/2001	0.34	0.26	<1.0	<1.0	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.28	<0.40	<1.0	<500
	02/14/2001	0.84	0.66	<1.0	0.46	1.96	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.20	<0.40	<1.0	200
	02/21/2001	0.84	0.77	0.31	0.56	2.48	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.18	<0.40	<1.0	<500
	03/07/2001	0.75	0.85	0.31	0.87	2.78	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.20	<0.40	<1.0	<530
	03/20/2001	0.10	0.11	<1.0	<1.0	0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.15	<0.40	<1.0	<520
	04/03/2001	0.16	<1.0	<1.0	<1.0	0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0..074	<0.40	<1.0	<520
	04/17/2001	0.26	<1.0	<1.0	<1.0	0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.11	<0.40	<1.0	<520
	05/01/2001	<1.0	0.32	<1.0	<1.0	0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.22	<0.40	<1.0	<530
	06/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.25	<0.40	<1.0	<500
	07/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.2	<0.40	<1.0	<520
	08/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	<1.0	<520
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.32	<0.40	<1.0	<520
	10/22/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.0	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.2	<0.40	<1.0	<530

TABLE 3-2
Groundwater Analytical Results

Well Identification	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate	Nitrite	Phosphate	TRPH
	11/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.2	<0.40	<1.0	<530
	12/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.0	<1.0	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.36	<0.40	<1.0	<540
	03/18/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.394	<0.40	<1.0	<530
CEF-9-7D	12/18/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.30	<0.40	<1.0	<500
	01/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	01/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	01/31/2001	0.13	<1.0	<1.0	0.37	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<520
	02/07/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	02/21/2001	<1.0	<1.0	<1.0	0.24	0.24	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	03/07/2001	<1.0	<1.0	<1.0	0.36	0.36	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	03/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	0.47	<1.0	<1.0	1.1	1.57	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	0.072	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	05/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	06/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	07/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.21	<0.40	<1.0	<520
	08/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	<520
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	10/22/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	290
	11/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	12/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.0	<1.0	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	03/18/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
CEF-9-9S	01/18/2001	24	210	99	640	973	<1.0	63	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	2300
	01/24/2001	22	190	60	440	712	<1.0	45	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1400
	01/31/2001	16	160	49	430	655	<5.0	57	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1800
	02/07/2001	8.7	160	40	360	568.7	<2.0	53	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1900
	02/14/2001	16	260	74	590	940	<1.0	36	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	2300
	02/21/2001	9.5	150	36	290	485.5	<10	50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1800

TABLE 3-2
Groundwater Analytical Results

Well Identification	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate	Nitrite	Phosphate	TRPH
	03/07/2001	27	210	82	410	729	<20	37	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	2100
	03/20/2001	11	120	18	150	299	<5.0	45	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1600
	04/03/2001	14	140	36	250	440	<10	35	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.081	<0.40	<1.0	870
	04/17/2001	23	200	44	370	637	<5.0	49	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1300
	05/01/2001	12	210	38	310	570	<5.0	59	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1400
	06/14/2001	9.5	130	17	130	286.5	<10	24	1.2	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.18	<0.40	0.35	1200
	07/24/2001	16	150	10	120	296	<1.0	25	3.3	7	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.19	<0.40	<1.0	1200
	08/13/2001	16	140	9.1	130	295.1	3.5	26	3.2	7.2	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.2	<0.40	0.48	1500
	09/17/2001	18	150	30	290	488	2.9	23	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1500
	10/22/2001	1.9	6	0.67	13	21.6	<1.0	4.7	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.20	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.13	<0.40	<1.0	3100
	11/13/2001	6.8	54	2.8	44	107.6	<1.0	24	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1700
	12/17/2001	1.8	43	<1.0	36	80.8	<1.0	32	<1.0	<1.1	<1.0	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1400
	03/18/2002	1	30.4	1.81	46.6	79.81	<1.0	42.6	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	0.17	<0.40	<1.0	719
Groundwater Criteria [1]		1	30	40	20	n/a	50	20	210	20	280	210	2100	280	210	0.2	4.8	0.2	0.5	0.2	0.2	0.2	210	10,000	1000	n/a	5000
Natural Attenuation Default Source [1]		100	300	400	200	n/a	500	200	2100	200	2800	2100	21000	2800	2100	20	480	20	50	20	20	20	2100	100000	10000	n/a	50000

All values reported in ug/L
1 = Ch 62-777 F.A.C Groundwater Cleanup Target Levels (GCTLs) reported in ug/L
Shaded values indicate the compounds that exceed the GCTLs

TABLE 3-3
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-9-2S	12/18/2000	6.19	0.192	27.20	0.0	NR	80	1.2	0.3
	01/18/2001	6.19	0.106	23.40	2.5	1000+	400+	0.0	0.3
	01/24/2001	6.41	0.650	22.30	3.9	1000+	400+	0.0	0.1
	01/31/2001	6.49	0.062	25.10	4.7	1000+	400	0.0	0.2
	02/07/2001	6.42	0.060	22.40	5.2	1000+	400+	0.2	0.1
	02/14/2001	6.30	0.070	23.00	5.8	1000+	400+	0.0	0.7
	02/21/2001	6.30	0.070	23.00	6.3	NR	NR	0.0	0.1
	03/07/2001	6.60	0.080	22.00	6.0	NR	NR	0.2	0.1
	03/20/2001	6.37	0.092	22.60	6.6	1000+	400+	0.0	0.5
	04/03/2001	6.40	0.100	23.00	6.5	>	400+	0.2	0.5
	04/17/2001	8.55	0.110	23.00	4.0	1000+	400+	0.2	0.1
	05/01/2001	6.20	0.110	23.00	3.0	1000+	400+	0.2	0.1
	06/14/2001	5.74	0.128	25.00	2.0	1000+	400+	0.0	0.1
	07/24/2001	5.71	0.144	26.4	2.1	500	120	0.6	0.1
	08/13/2001	6.11	0.153	27.8	1.9	1000+	220	0.0	0.3
	09/17/2001	5.59	0.174	27.8	1.7	180	60	1.8	0.2
	10/22/2001	6.13	0.167	27.3	1.8	1000+	400+	1.0	0.1
	11/13/2001	6.38	0.163	26.1	1.6	160	60	1.0	0.5
	12/17/2001	6.00	0.146	25.6	1.5	240	60	1.0	1.0
	03/18/2002	6.13	0.140	23.6	1.2	200	60	0.6	0.3
CEF-9-3S	12/18/2000	6.49	0.348	25.40	0.0	17	160	3.4	0.5
	01/18/2001	6.50	0.131	23.00	1.6	1000+	600	0.2	0.5
	01/24/2001	6.67	0.087	22.30	1.5	1000+	300	0.4	0.3
	01/31/2001	6.67	0.087	23.50	2.6	1000+	400	0.0	0.6
	02/07/2001	6.47	0.074	22.20	1.6	1000+	400+	1.2	0.1
	02/14/2001	6.50	0.067	22.00	2.4	1000+	400+	0.0	0.5
	02/21/2001	6.40	0.070	23.00	2.2	400	100	0.2	0.1
	03/07/2001	6.70	0.080	22.00	2.5	300	60	0.8	0.1

TABLE 3-3
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
	03/20/2001	6.14	0.073	22.70	2.6	250	80	0.6	0.3
	04/03/2001	6.10	0.080	23.00	3.4	200	400+	0.1	0.1
	04/17/2001	5.90	0.080	23.00	1.8	160	80	0.8	0.5
	05/01/2001	6.20	0.090	24.00	1.7	120	60	1.2	0.3
	06/14/2001	5.41	0..098	26.10	1.9	228	80	1.1	2.0
	07/24/2001	6.82	0.111	27.20	3.1	120	40	2.0	2.0
	08/13/2001	6.61	0.108	27.90	2.5	84	60	2.2	0.5
	09/17/2001	6.24	0.139	28.20	2.1	60	60	1.0	0.3
	10/22/2001	6.82	0.119	27.40	1.8	120	80	1.4	0.7
	11/13/2001	6.58	0.121	26.30	0.5	100	40	1.4	0.8
	12/17/2001	5.00	0.118	25.60	1.7	100	60	1.2	1.0
	03/18/2002	6.19	0.138	23.4	3.9	60	40	1.0	0.4
CEF-9-5S	12/18/2000	6.20	0.186	22.70	0.0	10	100	0.0	0.1
	01/18/2001	6.43	0.158	22.40	3.8	1000+	400+	0.6	0.1
	01/24/2001	6.54	0.159	21.40	3.5	200	100	0.4	0.0
	01/31/2001	6.51	0.178	22.80	4.2	350	400	0.6	0.1
	02/07/2001	6.55	0.163	21.80	4.0	220	120	0.2	0.0
	02/14/2001	6.40	0.150	22.00	3.4	1000+	400+	0.0	0.2
	02/21/2001	6.40	0.150	21.00	4.5	140	100	0.2	0.1
	03/07/2001	6.57	0.141	20.90	3.3	300	80	0.2	0.0
	03/20/2001	6.20	0.130	21.00	3.5	300	160	0.1	0.1
	04/03/2001	5.90	0.070	21.00	5.7	500	120	0.4	0.1
	04/17/2001	6.10	0.080	22.00	4.3	260	100	0.9	0.1
	05/01/2001	6.10	0.110	22.00	3.4	280	100	0.4	0.1
	06/14/2001	6.11	0.119	25.20	NR	1000+	400+	0.0	3.0
	07/24/2001	5.36	0.062	25.50	3.8	260	120	1.0	0.1
	08/13/2001	6.85	0.058	26.60	3.8	1000+	180	0.0	0.1
	09/17/2001	6.57	0.164	26.50	5.5	200	80	0.6	0.1

TABLE 3-3
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
	10/22/2001	6.27	0.074	25.90	2.5	220	80	0.8	0.1
	11/13/2001	6.71	0.075	24.90	2.1	80	60	0.4	0.1
	12/17/2001	6.00	0.072	24.20	2.9	140	40	0.6	0.0
	03/18/2002	6.44	0.070	22.0	2.3	80	40	0.4	0.0
CEF-9-7D	12/18/2000	7.45	0.264	25.20	0.1	8	85	0.0	0.1
	01/18/2001	6.69	0.133	24.40	2.0	80	100	0.4	0.1
	01/24/2001	6.29	0.079	24.20	1.9	130	100	0.6	0.0
	01/31/2001	6.29	0.092	25.40	1.0	50	60	0.1	0.1
	02/07/2001	5.93	0.057	24.20	2.4	140	60	0.2	0.0
	02/14/2001	5.90	0.050	24.00	2.6	70	40	0.2	0.1
	02/21/2001	5.80	0.050	24.00	2.4	100	40	0.4	0.0
	03/07/2001	6.10	0.060	23.30	1.9	140	40	0.6	0.0
	03/20/2001	5.47	0.049	23.60	2.4	50	40	0.3	0.1
	04/03/2001	5.40	0.050	23.00	2.8	80	40	0.4	0.1
	04/17/2001	5.30	0.050	24.00	2.7	60	40	0.6	0.0
	05/01/2001	5.50	0.050	24.00	2.5	80	40	0.8	0.0
	06/14/2001	9.82	0.047	24.40	NR	102	40	0.6	0.0
	07/24/2001	5.42	0.043	24.30	2.5	80	20	0.6	0.0
	08/13/2001	5.44	0.041	24.80	2.5	66	40	0.8	0.0
	09/17/2001	5.47	0.065	25.00	8.1	50	40	0.6	0.1
	10/22/2001	4.87	0.029	26.00	2.9	60	20	0.4	0.0
	11/13/2001	6.21	0.043	24.50	2.6	80	40	0.6	0.0
	12/17/2001	5.00	0.033	25.00	1.7	90	20	0.6	0.0
	03/18/2002	5.47	0.036	25.1	1.6	50	20	0.0	0.0
CEF-9-9S	12/18/2001	5.31	0.121	26.30	0.0	NR	NR	NR	NR
	01/18/2001	5.44	0.058	23.00	2.1	500	400+	1.0	5.0
	01/24/2001	5.53	0.054	22.60	1.7	500	200	0.8	5.0
	01/31/2001	5.44	0.059	23.30	2.1	500	400	1.1	5.0

TABLE 3-3
Groundwater Field Analytical Results

Date	pH	Conductivity (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
02/07/2001	5.46	0.052	22.60	2.4	260	100	0.6	5.0
02/14/2001	5.40	0.050	23.00	2.0	120	140	1.0	4.0
02/21/2001	5.40	0.050	22.00	1.9	300	80	0.6	5.0
03/07/2001	5.56	0.540	22.00	1.5	200	80	0.6	5.0
03/20/2001	5.28	0.052	22.30	2.3	360	80	0.4	5.0
04/03/2001	5.00	0.060	22.00	2.4	280	160	0.3	5.0
04/17/2001	5.00	0.060	23.00	2.2	200	100	0.6	5.0
05/01/2001	5.20	0.060	23.00	2.2	220	60	0.4	5.0
06/14/2001	5.02	0.064	26.00	NR	88	60	1.8	0.5
07/24/2001	4.35	0.057	26.80	2.1	170	40	1.0	2.0
08/13/2001	8.54	0.049	27.40	2.5	220	40	1.0	5.0
09/17/2001	5.08	0.088	28.20	3.1	130	20	0.8	0.6
10/22/2001	4.94	0.095	27.20	2.7	160	40	1.0	5.0
11/13/2001	5.21	0.080	25.90	1.2	110	40	1.4	1.0
12/17/2001	5.00	0.068	25.40	1.7	80	20	1.0	1.0
03/18/2002	5.15	0.104	23.6	1.2	100	20	0.6	1.0

NR = No Reading

4.0 Conclusions and Recommendations

The soil screening results in the vicinity of the most contaminated groundwater monitoring well (CEF-9-9S) indicated that OVA/FID readings were greater than 50 ppm after methane subtraction at depths above the water table, which was encountered at 7 feet bls. Laboratory analysis of the soil indicated that all contaminant concentrations were below the Leachability and Direct Exposure Residential SCTLs.

The groundwater sampling results indicated that monitoring wells CEF-9-2S, CEF-9-3S, CEF-9-5S, and CEF-9-7D were below the GCTLs. Monitoring well CEF-9-9S exhibited contaminant concentrations greater than the GCTLs but was below the Natural Attenuation Default Source Criteria per Chapter 62-777 FAC. The contaminant concentrations in CEF-9-9S initially decreased during the first quarter 2001 sampling events then remained constant until the fourth quarter 2001. Currently, ethylbenzene, xylenes, and naphthalene concentrations in CEF-9-9S remain above the GCTLs. LNAPL was not noted in any monitoring well during the first quarter 2002.

It is recommended to continue to operate the nutrient injection system. The field parameter readings will be evaluated and if warranted, the airflow may be re-balanced as warranted. All five monitoring wells will continue to be sampled during the next quarter at a frequency of once per quarter. Soil sampling will continue to be conducted during the next quarter to monitor the soil contamination concentrations as part of the quarterly sampling program. The soil screening and sampling will be conducted at soil boring location SB-1 during the next quarter to evaluate the performance of the remediation system with respect to the soil in this location. If the soil sample at SB-1 is below the SCTL, then we will recommend that the soil be given no further action status.

5.0 References

Tetra Tech NUS, Inc. (TtNUS), June 2000. Remedial Action Plan Addendum; Building 9, Former Tanks 9L1 and 9L2; Naval Air Station Cecil Field, Jacksonville, Florida.

Priester and Associates, September 2000. PHA-ER Remediation System Design Specifications, Building 9 Site, Remedial Action Plan Addendum.

CH2M HILL Constructors, Inc. (CCI), September 2000. Work Plan Addendum No. 08 nutrient injection system Installations at Building 9, former Tanks 9L1 and 9L2 and building 46, Former Tanks 46R, 46D, 46SUL, and 46UL; Naval Air Station Cecil Field, Jacksonville, Florida.

Appendix A

Laboratory Analytical Reports for Soil Samples

(on CD Only)

KEMRON REPORT L0203155

PREPARED FOR CH2M HILL CONSTRUCTORS, INC.

WORK ID : NAS CECIL FIELD / BUILDING 9

Summary Report 1
Laboratory Report 2
Attachments 25

Full Sample Data Package..... 32
Volatiles Data 33
BTEX GC Data (8021) 34
QC Summary 37
Sample Data 62
Standards Data 69
Raw Data 129
Semivolatiles Data 143
DRO GC DATA (8015) 144
QC Summary 147
Sample Data 175
Standards Data 182
Raw QC Data 225
PAH HPLC DATA (8310) 248
QC Summary 251
Sample Data 293
Standards Data 310
Raw QC Data 369
General Chemistry Data..... 404

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0203155

CHAIN OF CUSTODY:

The chain of custody number was 163151-030.

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperature was 0 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

REVIEWED: Stephanie L Lepe DATE: 3/8/02

3

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203155

METHOD

Preparation: SW- 846 5030B, 5035
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: The average % drift option was used for CCV WG114205-01 (HP-11, 3/8/02). All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: Not associated with this SDG.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CBN REVIEWED: _____ DATE: 3/15/02

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203155

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CLK REVIEWED: _____ DATE: 3/19/02

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203155

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the water fraction yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit.
Matrix Spikes: Soil sample fraction 01 was chosen internally for MS/MSD treatment. The MS/MSD yielded percent recoveries for several analytes which were outside of advisory limits.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: RDC REVIEWED: _____ DATE: 3/20/02

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114264**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
026-CEF9-EQB-W-Q1-02	L0203155-02
026-CEF9-TB-W-Q1-02	L0203155-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114264

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 026-CEF9-EQB-W-Q1-02 Lab Sample ID: L0203155-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 11-MAR-02 09:05

Concentration Units: ug/L File ID: 5G12484

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	103	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114206**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF9-SB4-S-Q1-02	L0203155-01

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114206

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-01-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: HP11 25-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 08-MAR-02 14:29

Concentration Units: ug/kg File ID: 11G13725

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.588	1.2	0.588	.98	ND
Ethylbenzene	0.588	1.2	0.588	.98	ND
Methyl tert-butyl ether	0.588	1.2	0.588	.98	ND
Toluene	0.588	1.2	0.588	.98	ND
Xylenes, Total	0.588	3.5	0.588	.98	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	83.9	47 - 121	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG114336**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
026-CEF9-EQB-W-Q1-02	L0203155-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG114336

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 026-CEF9-EQB-W-Q1-02 Lab Sample ID: L0203155-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 11-MAR-02 Date Analyzed: 12-MAR-02 15:53

Concentration Units: ug/L File ID: 2G19289

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	275	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	73.0	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

AAB # : WG114391

Lab Name : Kemron Environmental Services

Contract # : Colleen Kurtz

Base/Command : NAS Cecil Field Jacksonville (

Prime Contractor : CCI

Field sample ID	Lab Sample ID
062-CEF9-SB4-S-Q1-02	L0203155-01

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 21-MAR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-Q1-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 04:29

Concentration Units: ug/kg File ID:4L002884.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.29	200	6.29	1	ND
2-Methylnaphthalene	5.47	200	5.47	1	ND
Acenaphthene	67.1	200	67.1	1	ND
Acenaphthylene	54.0	200	54.0	1	ND
Anthracene	49.1	200	49.1	1	ND
Benzo(a)anthracene	4.55	20	4.55	1	ND
Benzo(a)pyrene	3.48	20	29.0	1	
Benzo(b)fluoranthene	5.75	20	17.0	1	J
Benzo(g,h,i)perylene	4.32	20	30.0	1	
Benzo(k)fluoranthene	2.40	20	10.0	1	J
Chrysene	4.55	20	27.0	1	P
Dibenzo(a,h)anthracene	5.39	20	38.0	1	P
Fluoranthene	4.43	20	15.0	1	J
Fluorene	68.3	200	68.3	1	ND
Indeno(1,2,3-cd)pyrene	3.84	20	24.0	1	
Naphthalene	75.5	200	75.5	1	ND
Phenanthrene	56.3	200	56.3	1	ND
Pyrene	4.43	20	10.0	1	J

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-Q1-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 04:29

Concentration Units: % Recovery File ID:4L002884.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	108	50 - 150	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-Q1-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 04:29

Concentration Units: ug/kg File ID:4L002884.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.29	200	6.29	1	ND
2-Methylnaphthalene	5.47	200	5.47	1	ND
Acenaphthene	67.1	200	67.1	1	ND
Acenaphthylene	53.9	200	53.9	1	ND
Anthracene	49.1	200	49.1	1	ND
Benzo(a)anthracene	4.55	20	4.55	1	ND
Benzo(a)pyrene	3.48	20	26.0	1	
Benzo(b)fluoranthene	5.75	20	19.0	1	J
Benzo(g,h,i)perylene	4.32	20	32.0	1	
Benzo(k)fluoranthene	2.40	20	11.0	1	J
Chrysene	4.55	20	52.0	1	P
Dibenzo(a,h)anthracene	5.39	20	73.0	1	P
Fluoranthene	4.43	20	15.0	1	J
Fluorene	68.3	200	68.3	1	ND
Indeno(1,2,3-cd)pyrene	3.84	20	35.0	1	
Naphthalene	75.5	200	75.5	1	ND
Phenanthrene	56.3	200	56.3	1	ND
Pyrene	4.43	20	10.0	1	J

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-Q1-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 04:29

Concentration Units: % Recovery File ID:4L002884.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	121	50 - 150	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310 AAB # : WG114464

Lab Name : Kemron Environmental Services Contract # : Colleen Kurtz

Base/Command : NAS Cecil Field Jacksonville (Prime Contractor : CCI

Field sample ID	Lab Sample ID
026-CEF9-EQB-W-Q1-02	L0203155-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner Name: David L. Bumgarner

Date: 21-MAR-02 Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114464

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 026-CEF9-EQB-W-Q1-02 Lab Sample ID: L0203155-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 12-MAR-02 21:52

Concentration Units: ug/L File ID:4L002877.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	0.378	1	ND
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	91.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114264

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 026-CEF9-TB-W-Q1-02 Lab Sample ID: L0203155-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 11-MAR-02 10:10

Concentration Units: ug/L File ID: 5G12485

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	102	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **221690**

Lab Name : **Kemron Environmental Services**

Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG114324**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF9-SB4-S-Q1-02	L0203155-01

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 221690 Preparatory Method: D2216-90 AAB # : WG114324

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-Q1-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: OVEN 11-MAR-02

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 11-MAR-02 15:25

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	83.0	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

Lab Name : **Kemron Environmental Services**

Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG114337**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF9-SB4-S-Q1-02	L0203155-01

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3550B AAB # : WG114337

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-SB4-S-Q1-02 Lab Sample ID: L0203155-01 Matrix: Soil

% Solids: 83.4 Initial Calibration ID: HP2 25-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 11-MAR-02 Date Analyzed: 12-MAR-02 18:15

Concentration Units: ug/kg File ID: 2G19298

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5980	12000	340000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	66.7	43 - 136	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

01/28/2002

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SMW - SHARON M. WASHBURN
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

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

COC NUMBER: **163151-030**

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.):
N.A.S. Cecil Field Building 9	**163151**	**Debbie Tornes Kemron Environmental Services**	**Bill Canelos J.A Jones Env. Services**	**6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262**
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.):
Building 9 / Quarterly Soil Boring Sampling Event	**0062**	**3868**	**Christelle Newsome CH2M Hill Constuctors, Inc.**	**115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 (770)604-9182 Ext.561 FAX:604-9282**
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.):
Bill Canelos	**Phone: 904-777-4812 Fax:904-777-4262**	**Phone: 740-373-4071 Fax: 740-373-4835**		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calendar days)	BTEX and MTBE by 8021B(EnCore)	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO						SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	**062-CEF9-SB4-S-Q1-02**	**Soil Boring 4 @ 2' bls.**	**S**	**03/07/02**	**10:40**	**III/C**	**14**	**3**	**1**	**1**						**Grab**	**OVA : 152 ppm**	
2	**062-CEF9-EQB-W-Q1-02**	**Equipment Blank**	**W**	**03/07/02**	**10:55**	**III/C**	**14**	**2**	**2**	**2**						**Grab**		
3	**062-CEF9-TB-W-Q1-02**	**Trip Blank**	**W**	**--**	**--**	**III/C**	**14**	**2**									**Prepared by Lab**	
4		**Temperature Blank**	**W**	**--**	**--**						**1**							
5																		
6																		
7																		
8																		
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	**Federal Express Track # 7917 9084 2617.**

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Randy Dumaop	**3/7/02**	**17:00**	**Federal Express**	**3/7/02**	**17:00**
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory Brenda Gregory	3/8/02	0955

Cec Dated
Sp contact Temp 0 deg

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

Form CC1001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0203155 **Client:** CCI **# of Samples:** 3 **Due Date:** 3/15 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
01	8021	analysis	gs 3/8/02 @1110	login	WA/org 3	Blg				
02,03	8021	analysis	CSH 3/8/02 @1155	V-1	ORG 3	JKW				
02A	FLA-PRO	EXT	MM 3/11/02 @0700	walkin	SLB	CEB	02-12-02 DCL 0500	crusher	RWC	disposal
01A	PRO	EXT	CEB 3/11/02 @ 1401	WALKIN	ELAB	Blg	CEB 3/11/02 @1425	WALKIN	Blg	STORAGE
01	PCT-S	test	Tmm @ 3/11/02 1510	walkin	wet	Blg	Tmm 3/11/02 @1655	walkin	JKW	Hold
01 A	8310	EXT	MM 3/12/02 @0643	walkin	SLB	CEB	CEB 3/12/02 @ 0835	WALKIN	Blg	HOLD
02 A	8310	EXT	CEB 3/12/02 @ 1253	WALKIN	ELAB	Blg	03-13-02 DCL 0700	crusher	MC	Disposal

report sent 3/21 MR

29

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI - Jacksonville, FL BRG Other JKW	DATE: 3/8/02 955	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL 1058	COOLER ID:	COOLER ID:
INDEX # : 7917 9084 2617	INDEX # :	INDEX # :
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (C) (D) 0 °C	TEMP : (C) (D) °C	TEMP : (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS Encores Bldg 9	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 01/14/01

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 1

PROJECT: NAS Cecil Field/Building 9 LIMS# L0203155

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 3/8/02 C-of-C Number: 163151
by (print) Jane K. Warden (sign) Jane K. Warden

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
If YES, enter carrier name & air bill number here: Fed Ex - 791790842617
2. Were custody seals on outside of cooler? ..... (YES) NO
How many & where? 1-front, seal date: 3/7/02 seal name: Custody Seal
3. Were custody seals unbroken and intact at the data and time of arrival? ..... (YES) NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... (YES) NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES (NO)
6. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
7. Did you sign custody papers in the appropriate place? ..... (YES) NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... (YES) NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp 0 °C ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: JKW (date) 3/8/02

B. **LOG-IN PHASE:** Date samples were logged-in: 3/8/02
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: Divider/baggie
12. Were all bottles sealed in separate plastic bags? ..... YES (NO)
13. Did all bottles arrive unbroken & were labels in good condition? ..... (YES) NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO
15. Did all bottle labels agree with custody papers? ..... (YES) NO
16. Were correct containers used for the tests indicated? ..... (YES) NO
17. Were correct preservatives added to samples? ..... (YES) NO
18. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ (YES) NO
20 Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203155

METHOD

Preparation: SW- 846 5030B, 5035
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: The average % drift option was used for CCV WG114205-01 (HP-11, 3/8/02). All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: Not associated with this SDG.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CBN REVIEWED: _____ DATE: 3/15/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0203155

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

~A Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

~A Extraction bench sheets (for mid-level methanol extractions) (chronological)

✓ 5035 logs (if applicable) (chronological)

Checked By: _____ **Date:** _____

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0203155
Blank File ID: 11G13722
Date Analyzed: 03/08/02
Time Analyzed: 12:35
Analyst: CBN

Work Group: WG114206
Blank Sample ID: WG114206-01
Instrument ID: HP11
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114206-02	11G13723	03/08/02 13:09	
062-CEF9-SB4-S-Q1-02	L0203155-01	11G13725	03/08/02 14:29	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155 Run Date: 03/08/2002 Sample ID: WG114206-01
Instrument ID: HP11 Run Time: 12:35 Method: 8021B
File ID: 11G13722 Analyst: CBN Matrix: Solid
Workgroup (AAB#): WG114206 Units: ug/kg
Contract #: Cal ID: HP11-25-FEB-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	3.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	88.9	47 - 121	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/13/2002 14:19

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203155
Instrument ID: HP11
File ID: 11G13723
Workgroup (AAB#): WG114206
Contract #:

Run Date: 03/08/2002
Run Time: 13:09
Analyst: CBN

Sample ID: WG114206-02
Method: 8021B
Matrix: Solid
Units: ug/kg
Cal ID: HP11-25-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	17.1	85.5	64 - 123	
Benzene	20	19.3	96.3	77 - 120	
Toluene	20	20.2	101	75 - 120	
Ethylbenzene	20	19.7	98.7	79 - 122	
Total xylenes	60	59.5	99.2	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	95.0	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/13/2002 14:19

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B AAB#: WG114206

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF9-SB4-S-Q1-02	07-MAR-02	08-MAR-02	08-MAR-02	14	1.16	08-MAR-02	14	1.16	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/13/2002 14:19

SURROGATE STANDARDS

Login Number: L0203155
Instrument Id: HP11
Workgroup (AAB#): WG114206

Method: 8021
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0203155-01	0.980		83.9
WG114206-01	1.00		88.9
WG114206-02	1.00		95.0

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	47	-	121

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/13/2002 14:20

Calibration Table Report
Method: 8021S.M
Title: Method 8021B- Soil 2/25/02
Last Calibration: Mon Feb 25 21:49:28 2002

Calibration Files

	1	10	20	50	100	200	300		
	11G13609.D	11G13611.D	11G13612.D	11G13613.D	11G13614.D	11G13615.D	11G13616.D		
Compound								**Avg**	**%RSD**
MTBE	77217.4	72287.8	75422.6	69394.3	70405.5	65180.7	68604.3	71216.1	5.8
Benzene	157428.6	161526.1	166482.4	159577.8	163620.7	145349.8	158621.8	158944.0	4.2
TFT	43440.3	52315.6	50035.5	50309.3	51663.3	42417.6	51418.2	48800.0	8.4
Toluene	129311.4	157099.7	161710.2	152844.1	155877.5	138336.9	151706.1	149555.0	7.7
Chlorobenzene	141703.1	146097.7	156274.7	153652.6	160126.4	145030.6	157466.1	151479.0	4.7
Ethylbenzene	125383.2	134038.6	141020.1	136133.9	140363.8	124233.7	134695.6	133696.0	5.0
m-,p-Xylene	154651.5	171412.9	177592.5	165405.6	167778.1	148038.6	158992.9	163410.0	6.2
o-Xylene	118595.9	153565.1	155027.5	144632.6	146788.4	131241.7	140461.5	141473.0	9.1
BFB	126504.2	130650.1	130074.1	135465.5	138399.0	129974.5	144899.2	133710.0	4.7
1,3-Dichlorobenzene	133776.6	126214.9	134023.2	131631.3	139670.0	131906.9	141124.5	134050.0	3.8
1,4-Dichlorobenzene	135287.5	131750.7	140532.4	136017.7	141816.7	136153.1	142168.9	137675.0	2.8
1,2-Dichlorobenzene	145408.9	120354.8	132050.7	124134.1	126542.9	117384.1	124413.7	127184.0	7.3
BCB	143154.1	131109.9	125343.2	132951.0	137837.1	135815.3	150175.1	136627.0	6.0

Mon Feb 25 21:49:55 2002

Login Number: L0203155
File ID: 11G13619
ALT ID: WG113445-08
Units: ug/kg

Instrument ID: HP11
Run Date: 02/25/2002
Run Time: 22:36
Analyst: CSH
Cal ID: HP11 - 25-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.6	124000	2.0	
1,4-Dichlorobenzene		20	18.8	129000	6.0	
1,3-Dichlorobenzene		20	18.6	125000	7.0	
o-Xylene		20	20.3	144000	1.5	
m-,p-Xylene		40	40.9	167000	2.3	
Ethylbenzene		20	20.3	136000	1.5	
Chlorobenzene		20	19.5	147000	2.5	
Toluene		20	21.0	157000	5.0	
Benzene		20	20.5	163000	2.5	
MTBE		20	19.6	69700	2.0	

Login Number: L0203155
File ID: 11G13721
CCV ID: WG114205-01
Units: ug/kg

Instrument ID: HP11
Run Date: 03/08/2002
Run Time: 11:47
Analyst: CBN
Cal ID: HP11 - 25-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.9	120000	5.5	
1,4-Dichlorobenzene		20	19.1	131000	4.5	
1,3-Dichlorobenzene		20	18.8	126000	6.0	
o-Xylene		20	19.3	136000	3.5	
m-,p-Xylene		40	39.8	163000	0.5	
Ethylbenzene		20	19.8	133000	1.0	
Chlorobenzene		20	18.7	142000	6.5	
Toluene		20	22.2	166000	11.0	
Benzene		20	19.1	152000	4.5	
MTBE		20	16.4	58400	18.0	*

* Exceeds %D Limit

Login Number: L0203155
File ID: 11G13728
CCV ID: WG114205-02
Units: ug/kg

Instrument ID: HP11
Run Date: 03/08/2002
Run Time: 16:32
Analyst: CBN
Cal ID: HP11 - 25-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.3	123000	3.5	
1,4-Dichlorobenzene		20	19.0	131000	5.0	
1,3-Dichlorobenzene		20	18.7	125000	6.5	
o-Xylene		20	20.0	141000	0.0	
m-,p-Xylene		40	41.0	168000	2.5	
Ethylbenzene		20	20.2	135000	1.0	
Chlorobenzene		20	18.9	143000	5.5	
Toluene		20	19.9	149000	0.5	
Benzene		20	19.3	153000	3.5	
MTBE		20	18.0	64300	10.0	

* Exceeds %D Limit

Injection Log

Directory: C:\HPCHEM\1\DATA\022502

WG113445
1 446
557

ANALYST: CSI

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13597.d	1.	WG113445-01 8021 STD 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 08:3
2	2	11g13598.d	1.	WG113446-01 SOIL BLANK 5G	7,1 S-90-14	25 Feb 2002 09:2
3	3	11g13599.d	1.	WG113446-02 SOIL LCS 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 09:5
4	1	11g13600.d	1.	L0202375-02 5G	7,1 S-90-14	25 Feb 2002 10:5
5	2	11g13601.d	1.	L0202375-03 5G	7,1 S-90-14	25 Feb 2002 11:3
6	3	11g13602.d	1.	L0202375-04 5G	7,1 S-90-14	25 Feb 2002 12:0
7	4	11g13603.d	1.	L0202375-05 5G	7,1 S-90-14	25 Feb 2002 12:4
8	5	11g13604.d	1.	WG113446-03 L0202375-06 5G	7,1 S-90-14	25 Feb 2002 13:1
9	6	11g13605.d	1.	WG113446-04 L0202375-06 MS 5G	7,1 S-90-(28,14)	25 Feb 2002 13:5
10	7	11g13606.d	1.	WG113446-05 L0202375-06 MSD 5G	7,1 S-90-(28,14)	25 Feb 2002 14:2
11	8	11g13607.d	1.	L0202375-08 5G	7,1 S-90-14	25 Feb 2002 15:0
12	9	11g13608.d	1.	WG113445-02 8021 STD 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 15:3
13	1	11g13609.d	1.	WG113445-01 8021 STD 1 1PPB 5G	7,1 S-89-49, S-90-14	25 Feb 2002 16:4
14	2	11g13610.d	1.	WG113445-01 8021 STD 1 1PPB 5G	7,1 S-89-49, S-90-14	25 Feb 2002 17:2
15	3	11g13611.d	1.	WG113445-02 8021 STD 2 10PP...	7,1 S-89-49, S-90-14	25 Feb 2002 17:5
16	4	11g13612.d	1.	WG113445-03 8021 STD 3 20PP...	7,1 S-89-49, S-90-14	25 Feb 2002 18:3
17	5	11g13613.d	1.	WG113445-04 8021 STD 4 50PP...	7,1 S-89-49, S-90-14	25 Feb 2002 19:0
18	6	11g13614.d	1.	WG113445-05 8021 STD 5 100P...	7,1 S-89-49, S-90-14	25 Feb 2002 19:4
19	7	11g13615.d	1.	WG113445-06 8021 STD 6 200P...	7,1 S-89-49, S-90-14	25 Feb 2002 20:1
20	8	11g13616.d	1.	WG113445-07 8021 STD 7 300P...	7,1 S-89-49, S-90-14	25 Feb 2002 20:5
21	9	11g13617.d	1.	RINSE 5G	7,1 S-90-14	25 Feb 2002 21:2
22	10	11g13618.d	1.	RINSE 5G	7,1 S-90-14	25 Feb 2002 22:0
23	11	11g13619.d	1.	WG113445-08 8021 ALT SOURCE 5G	7,1 S-90-(28,14)	25 Feb 2002 22:3
24	1	11g13620.d	1.	WG113446-01 SOIL BLANK 5G	7,1 S-90-14	25 Feb 2002 23:2
25	2	11g13621.d	1.	WG113446-02 SOIL LCS 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 23:5
2	3	11g13622.d	1.	L0202375-02 5G	7,1 S-90-14	26 Feb 2002 00:3
2	4	11g13623.d	1.	L0202375-03 5G	7,1 S-90-14	26 Feb 2002 01:0
28	5	11g13624.d	1.	L0202375-04 5G	7,1 S-90-14	26 Feb 2002 01:3
29	6	11g13625.d	1.	L0202375-05 5G	7,1 S-90-14	26 Feb 2002 02:1
30	7	11g13626.d	1.	WG113446-03 L0202375-06 5G	7,1 S-90-14	26 Feb 2002 02:4
31	8	11g13627.d	1.	WG113446-04 L0202375-06 MS 5G	7,1 S-90-(28,14)	26 Feb 2002 03:2
32	9	11g13628.d	1.	WG113446-05 L0202375-06 MSD 5G	7,1 S-90-(28,14)	26 Feb 2002 03:5
33	10	11g13629.d	1.	L0202375-08 5G	7,1 S-90-14	26 Feb 2002 04:3
34	11	11g13630.d	1.	WG113445-09 8021 STD 20PPB 5G✓	7,1 S-90-(28,14)	26 Feb 2002 05:0
35	12	11g13631.d	1.	L0202375-09 5G	7,1 S-90-14	26 Feb 2002 05:4
36	13	11g13632.d	1.	L0202375-10 5G	7,1 S-90-14	26 Feb 2002 06:1
37	14	11g13633.d	1.	L0202375-11 5G	7,1 S-90-14	26 Feb 2002 06:5
38	15	11g13634.d	1.	L0202375-12 5G	7,1 S-90-14	26 Feb 2002 07:2
39	16	11g13635.d	1.	L0202375-13 5G	7,1 S-90-14	26 Feb 2002 08:0
40	17	11g13636.d	1.	L0202375-18 5G	7,1 S-90-14	26 Feb 2002 08:3
41	18	11g13637.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 09:1
42	19	11g13638.d	1.	L0202375-19 5G	7,1 S-90-14	26 Feb 2002 09:4
43	20	11g13639.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 10:2
44	21	11g13640.d	1.	L0202375-17 5X 1G	7,5 S-90-14	26 Feb 2002 10:5
45	22	11g13641.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 11:3
46	23	11g13642.d	1.	L0202375-02 5G	7,1,RE S-90-14	26 Feb 2002 12:0
47	24	11g13643.d	1.	L0202375-05 5G	7,1,RE S-90-14	26 Feb 2002 12:4
48	25	11g13644.d	1.	WG113445-10 8021 STD 20PPB 5G✓	7,1 S-90-(28,14)	26 Feb 2002 13:3
49	1	11g13645.d	1.	WG113557-01 SOIL BLANK 5G ✓	7,1 S-90-14	26 Feb 2002 14:1
50	2	11g13646.d	1.	WG113557-02 SOIL LCS 20PPB 5G✓	7,1 S-90-14	26 Feb 2002 14:4
51	3	11g13647.d	1.	L0202390-05 5G✓	7,1 S-90-14	26 Feb 2002 15:4
5	4	11g13648.d	1.	L0202390-06 5G ✓	7,1 S-90-14	26 Feb 2002 16:2
53	5	11g13649.d	1.	WG113557-03 L0202390-07 5G✓	7,1 S-90-14	26 Feb 2002 16:5
54	6	11g13650.d	1.	WG113557-04 L0202390-07 MS 5G✓	7,1 S-90-(28,14)	26 Feb 2002 17:3
55	7	11g13651.d	1.	WG113557-05 L0202390-07 MSD 5G✓	7,1 S-90-(28,14)	26 Feb 2002 18:0

ANALYST: CBA

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13721.d	1.	WG114205-01 8021 STD 20PPB 5G ✓	7,1 S-(90-28,91-29)	8 Mar 2002 11:47
2	2	11g13722.d	1.	WG114206-01 SOIL BLANK 5G ✓	7,1 S-91-29	8 Mar 2002 12:35
3	3	11g13723.d	1.	WG114206-02 SOIL LCS 20PPB 5G ✓	7,1 S-(90-28,91-29)	8 Mar 2002 13:09
4	1	11g13724.d	0.92	L0203154-03 A 5.41G 0.92X HIGH SSS ✓	7,0.92 S-91-29	8 Mar 2002 13:55
5	2	11g13725.d	0.98	L0203155-01 A 5.11G 0.98X ✓	7,0.98 S-91-29	8 Mar 2002 14:29
6	3	11g13726.d	0.91	L0203154-03 B 5.50G 0.91X CONF SMI	7,0.91 S-91-29	8 Mar 2002 15:23
7	3	11g13727.d	1.	5035 BLANK 5G ✓	7,1 S-91-29	8 Mar 2002 15:58
8	4	11g13728.d	1.	WG114205-02 8021 STD 20PPB 5G ✓	7,1 S-(90-28,91-29)	8 Mar 2002 16:32

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203155
Blank File ID: 5G12482
Date Analyzed: 03/11/02
Time Analyzed: 07:47
Analyst: CBN

Work Group: WG114264
Blank Sample ID: WG114264-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114264-02	5G12483	03/11/02 08:21	
026-CEF9-EQB-W-Q1-02	L0203155-02	5G12484	03/11/02 09:05	
026-CEF9-TB-W-Q1-02	L0203155-03	5G12485	03/11/02 10:10	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155 Run Date: 03/11/2002 Sample ID: WG114264-01
Instrument ID: HP5 Run Time: 07:47 Method: 8021B
File ID: 5G12482 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG114264 Units: ug/L
Contract #: Cal ID: HP5-20-FEB-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	102	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/13/2002 14:19

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203155
Instrument ID: HP5
File ID: 5G12483
Workgroup (AAB#): WG114264
Contract #:

Run Date: 03/11/2002
Run Time: 08:21
Analyst: CBN

Sample ID: WG114264-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-20-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.4	102	34 - 150	
Benzene	20	21.4	107	79 - 120	
Toluene	20	21.9	110	80 - 120	
Ethylbenzene	20	22.3	111	80 - 120	
Total xylenes	60	64.0	107	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	103	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/13/2002 14:19

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114264

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
026-CEF9-EQB-W-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	3.92	11-MAR-02	14	3.92	
026-CEF9-TB-W-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.42	11-MAR-02	14	4.42	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0203155
Instrument Id: HP5
Workgroup (AAB#): WG114264

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203155-02	1.00		103
L0203155-03	1.00		102
WG114264-01	1.00		102
WG114264-02	1.00		103

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/13/2002 14:20

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 02/20/02
Last Calibration: Wed Feb 20 13:38:18 2002

Calibration Files

Compound	1 5G12234.D	10 5G12235.D	20 5G12236.D	50 5G12237.D	100 5G12238.D	200 5G12239.D	300 5G12240.D	Avg	%RSD	
MTBE	12539.098	11196.949	11243.150	11041.255	10933.684	9845.119	10773.245	11081.800	7.192	
Benzene	62790.330	47015.533	60310.422	60394.203	62248.899	55692.162	60796.018	58463.900	9.482	
TFT	11675.944	16647.005	18691.041	16931.193	18308.322	18431.867	17514.953	16885.800	14.359	
Toluene	57450.429	41830.870	54992.322	55224.813	57150.005	51457.407	56493.530	53514.200	10.332	LR=0.999
Chlorobenzene	51107.594	47796.569	57648.045	58702.207	60282.238	53862.815	58927.160	55475.200	8.416	
Ethylbenzene	44734.021	33822.898	47197.088	47781.820	49450.708	44065.886	48876.353	45132.700	11.903	LR=0.998
m-,p-Xylene	54877.067	41916.389	56810.621	56708.147	57983.908	51196.233	56259.916	53678.900	10.487	LR=0.998
o-Xylene	46024.604	38803.321	48912.004	49234.646	50426.567	45138.795	49785.014	46903.600	8.690	
BFB	40807.196	48040.267	50130.380	49818.364	51211.872	50893.985	46902.798	48257.800	7.520	
1,3-Dichlorobenzene	43022.355	39773.416	46613.595	47301.443	48695.412	43962.076	48263.141	45375.900	7.171	
1,4-Dichlorobenzene	50593.879	45110.732	50592.251	50273.527	50626.153	45302.288	49211.494	48815.800	5.152	
1,2-Dichlorobenzene	38039.156	36942.905	40744.634	40929.219	41461.798	37452.005	40820.717	39484.300	4.855	
BCB	42403.048	46209.846	48055.779	48169.399	49155.647	48910.071	45036.779	46848.700	5.245	

Fri Feb 22 12:57:25 2002

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.883	5.6	93	0.00
2	TM	Benzene	20.000	20.634	-3.2	100	0.00
3	S	TFT	30.000	33.780	-12.6	102	0.00
4	TM	Toluene	20.000	21.185	-5.9	101	0.01
5	TM	Chlorobenzene	20.000	20.732	-3.7	100	0.02
6	TM	Ethylbenzene	20.000	21.461	-7.3	102	0.02
7	TM	m-,p-Xylene	40.000	41.777	-4.4	100	0.01
8	TM	o-Xylene	20.000	20.473	-2.4	98	0.00
9	S	BFB	30.000	32.137	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	20.000	21.006	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	20.000	21.101	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	20.000	21.435	-7.2	104	0.02
13	S	BCB	30.000	32.070	-6.9	104	0.02

Login Number: L0203155
File ID: 5G12481
CCV ID: WG114263-01
Units: ug/L

Instrument ID: HP5
Run Date: 03/11/2002
Run Time: 07:03
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.1	41800	5.5	
1,4-Dichlorobenzene		20	20.9	51000	4.5	
1,3-Dichlorobenzene		20	21.6	49000	8.0	
o-Xylene		20	21.4	50200	7.0	
m-,p-Xylene		40	43.4	58900	8.5	
Ethylbenzene		20	22.5	50700	12.5	
Chlorobenzene		20	22.3	61800	11.5	
Toluene		20	22.2	58300	11.0	
Benzene		20	21.4	62700	7.0	
MTBE		20	20.3	11200	1.5	

* Exceeds %D Limit

Login Number: L0203155
File ID: 5G12492
CCV ID: WG114263-02
Units: ug/L

Instrument ID: HP5
Run Date: 03/11/2002
Run Time: 14:21
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.1	41700	5.5	
1,4-Dichlorobenzene		20	20.8	50900	4.0	
1,3-Dichlorobenzene		20	20.8	47200	4.0	
o-Xylene		20	20.5	48200	2.5	
m-,p-Xylene		40	41.7	56500	4.3	
Ethylbenzene		20	21.6	48500	8.0	
Chlorobenzene		20	20.8	57800	4.0	
Toluene		20	21.1	55300	5.5	
Benzene		20	20.7	60500	3.5	
MTBE		20	18.8	10400	6.0	

* Exceeds %D Limit

Injection Log

Directory: c:\hpchem\2\data\022002

WG113234
1 278

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12231.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::0
2	2	5g12232.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::5
3	2	5g12233.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::4
4	3	5g12234.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::2
5	4	5g12235.d	1.	WG113244-02 STD 2 10PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::5
6	5	5g12236.d	1.	WG113244-03 STD 3 20PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::3
7	6	5g12237.d	1.	WG113244-04 STD 4 50PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::0
8	7	5g12238.d	1.	WG113244-05 STD 5 100PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::4
9	8	5g12239.d	1.	WG113244-06 STD 6 200PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::1
10	9	5g12240.d	1.	WG113244-07 STD 7 300PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::5
11	10	5g12241.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::2
12	11	5g12242.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::0
13	12	5g12243.d	1.	WG113244-08 ALT SOURCE 20PPB 5ML	1,1 S-90-(28,39)	20 Feb 102 12::3
14	1	5g12244.d	1.	WG113278-01 STD 1 90PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::4
15	2	5g12245.d	1.	WG113278-02 STD 2 360PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1
16	3	5g12246.d	1.	WG113278-03 STD 3 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::5
17	4	5g12247.d	1.	WG113278-04 STD 4 1800PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::2
18	5	5g12248.d	1.	WG113278-05 STD 5 3600PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::0
19	6	5g12249.d	1.	WG113278-06 STD 6 7200PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::3
20	7	5g12250.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::1
21	8	5g12251.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::4
22	9	5g12252.d	1.	WG113278-07 ALT SOURCE 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1

Injection Log

Directory: c:\hpchem\2\data\031102

WG114264
⊥ 322

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12481.d	1.	WG114263-01 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::0
2	2	5g12482.d	1.	WG114264-01 WATER BLANK 5ML ✓	1,1 S-91-01	11 Mar 102 12::4
3	3	5g12483.d	1.	WG114264-02 WATER LCS 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::2
4	1	5g12484.d	1.	L0203155-02 B 5ML pH<2 ✓	1,1 S-91-01	11 Mar 102 12::0
5	2	5g12485.d	1.	L0203155-03 B 5ML pH<2 ✓	1,1 S-91-01	11 Mar 102 13::1
6	3	5g12486.d	50.	WG114264-03 L0203165-01 A 5ML pH<2 50X ✓	1,50 S-91-01	11 Mar 102 13::4
7	4	5g12487.d	50.	L0203165-02 A 5ML pH<2 50X ✓	1,50 S-91-01	11 Mar 102 13::1
8	5	5g12488.d	1.	~~L0203165-03 A 5ML pH<2~~ RR c/o	1,1 S-91-01	11 Mar 102 13::5
9	6	5g12489.d	50.	L0203165-04 A 5ML pH<2 50X ✓	1,50 S-91-01	11 Mar 102 13::2
10	7	5g12490.d	50.	WG114264-04 L0203165-01 MS A 5ML pH<2 5 ✓	1,50 S-91-01	11 Mar 102 12::1
11	8	5g12491.d	50.	WG114264-05 L0203165-01 MSD A 5ML pH<2 ✓	1,50 S-91-01	11 Mar 102 12::4
12	9	5g12492.d	1.	WG114263-02 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::2
13	1	5g12493.d	50.	L0203165-05 A 5ML pH<2 50X RR @ 100X	1,50 S-91-01	11 Mar 102 12::0
14	2	5g12494.d	100.	L0203165-06 A 5ML pH<2 100X RR c/o	1,100 S-91-01	11 Mar 102 12::4
15	3	5g12495.d	50.	L0203165-07 A 5ML pH<2 50X ⊥	1,50 S-91-01	11 Mar 102 12::1
16	4	5g12496.d	1.	L0203165-03 A 5ML pH<2 ✓	1,1 S-91-01	11 Mar 102 12::5
17	5	5g12497.d	1.	L0203172-01 A 5ML pH<2	1,1 S-91-01	11 Mar 102 12::2
18	6	5g12498.d	1.	WG114263-03 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::0
19	7	5g12499.d	100.	WG114322-01 EXT BLANK 03/11/02 5G/10ML ✓	7,100 S-91-01	11 Mar 102 12::3
20	8	5g12500.d	100.	WG114322-02 EXT LCS 5G/10ML 100X ✓	7,100 S-(90-28,91-01)	11 Mar 102 12::1
21	9	5g12501.d	988.	L0203154-01 C 5.06G/10ML 988X ✓	7,988 S-91-01	11 Mar 102 12::4
22	10	5g12502.d	917.	L0203154-02 C 5.45G/10ML 917X ✓	7,917 S-91-01	11 Mar 102 12::1
23	11	5g12503.d	1.	RINSE ✓	1,1 S-91-01	11 Mar 102 12::5
24	12	5g12504.d	100.	BATCH BLANK 5G/10ML 100X ✓	7,100 S-91-01	11 Mar 102 12::3
25	13	5g12505.d	1.	WG114263-04 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 13::0

REANALYSIS

L0203165-05
⊥ -06
⊥ -07

FILE #

VOA - GC

Date: 3/8/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 114206

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	NA
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 3/11/02

Secondary Reviewers Initials & Date Checked: QS 3/11/02

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

_____

_____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 3/11/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 114264
1 322

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 3/12/02

Secondary Reviewers Initials & Date Checked: QS 3/12/02

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

_____

_____

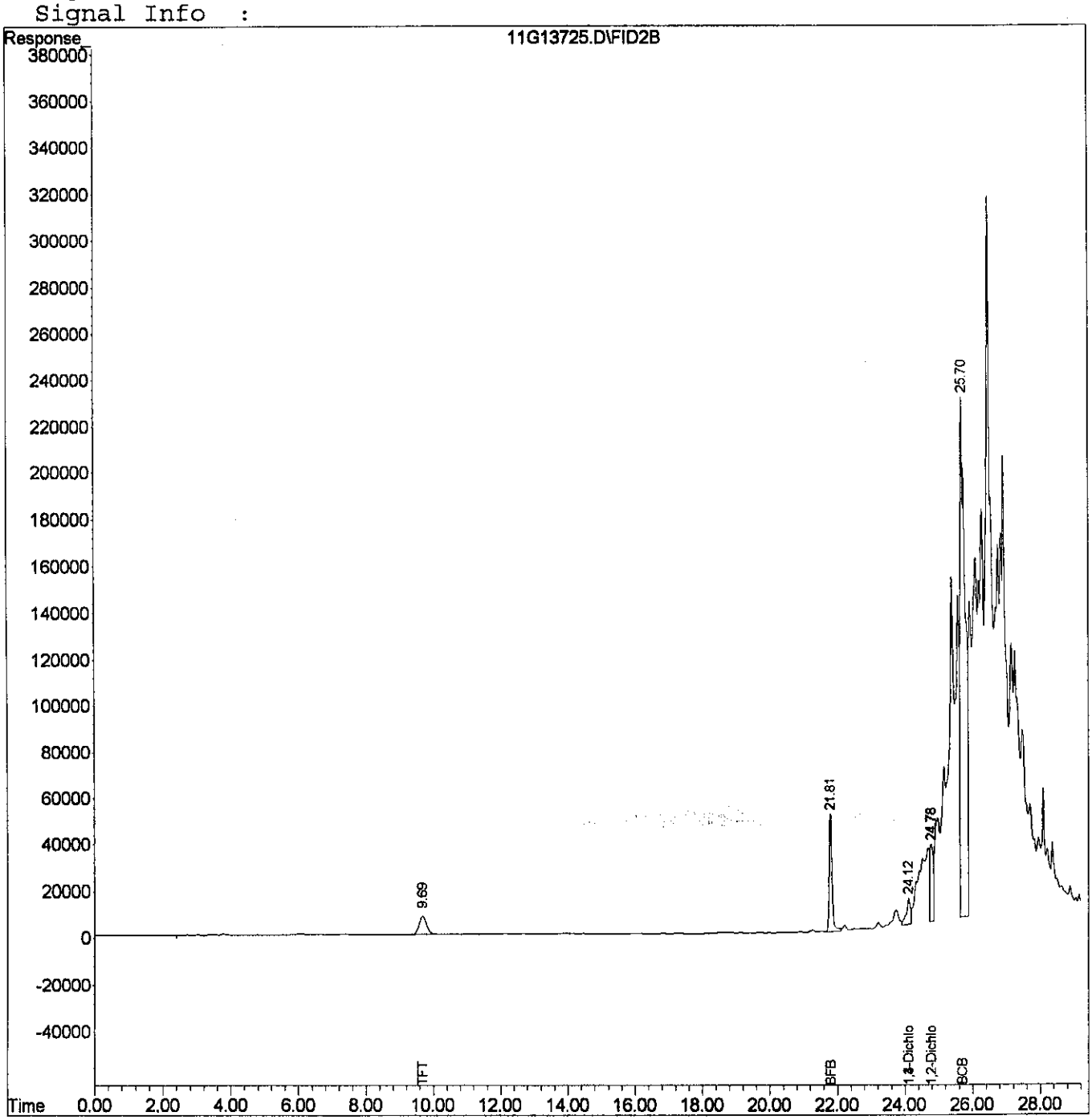
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\1\DATA\030802\11G13725.D Vial: 2
Acq On : 8 Mar 2002 2:29 pm Operator: CBN
Sample : L0203155-01 A 5.11G 0.98X Inst : HP11
Misc : 7,0.98 S-91-29 Multiplr: 0.98
IntFile : AUTOINT1.E
Quant Time: Mar 8 14:58 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13725.D Vial: 2
Acq On : 8 Mar 2002 2:29 pm Operator: CBN
Sample : L0203155-01 A 5.11G 0.98X Inst : HP11
Misc : 7,0.98 S-91-29 Multiplr: 0.98
IntFile : AUTOINT1.E
Quant Time: Mar 8 14:58 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

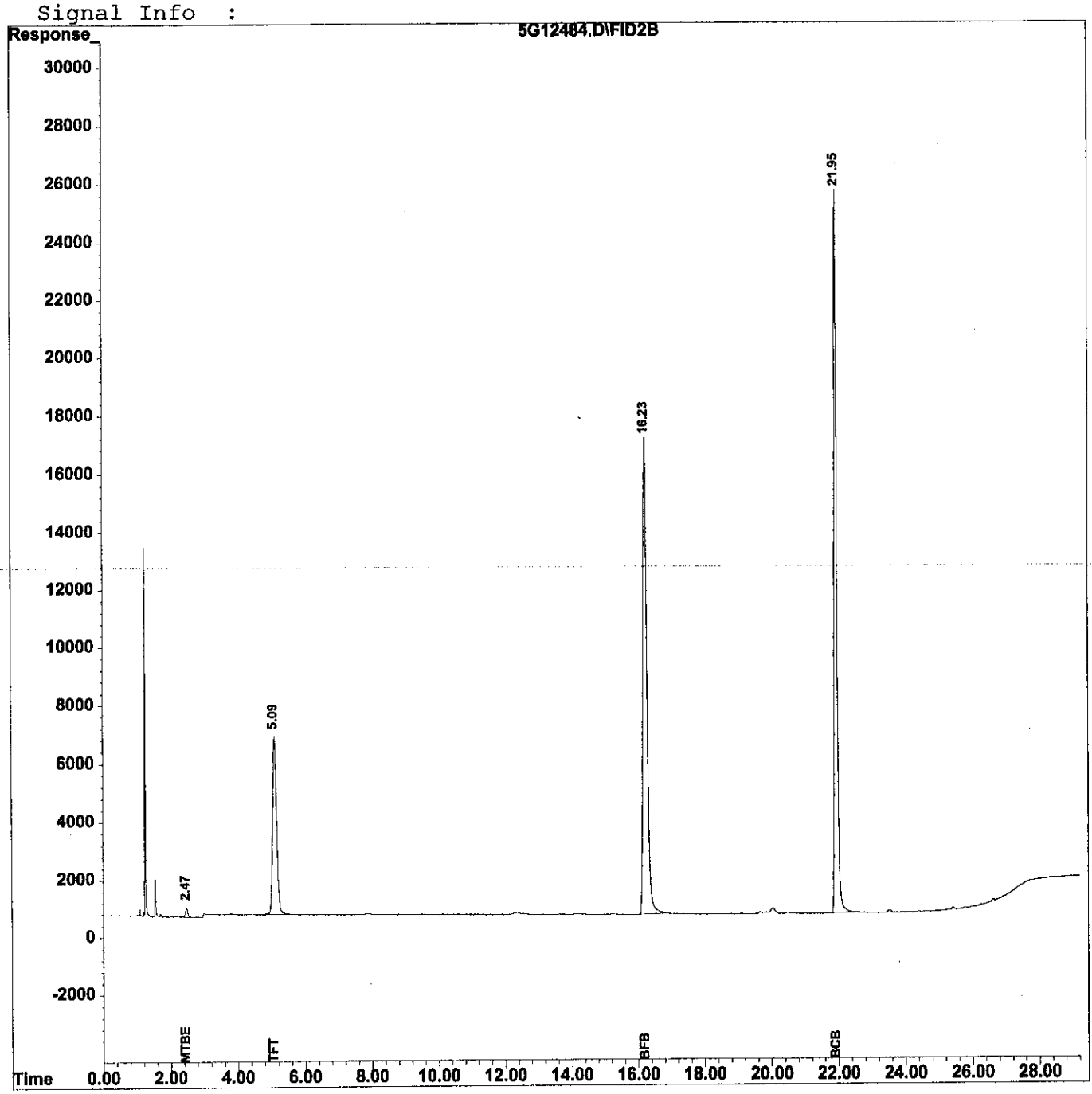
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.69	1228719	25.1787 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 83.93%
9) S BFB			21.81	2875235	21.5036 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 71.68%
13) S BCB			25.70	23835354	174.4563 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 581.52%#
Target Compounds					
1) TM MTBE			3.79	29944	<MDL UG/KG
2) TM Benzene			0.00	0	N.D. UG/KG
4) TM Toluene			0.00	0	N.D. UG/KG
5) TM Chlorobenzene			18.53	39836	<MDL UG/KG
6) TM Ethylbenzene			18.76	50773	<MDL UG/KG
7) TM m-,p-Xylene			19.13	26801	<MDL UG/KG
8) TM o-Xylene			20.31	21077	<MDL UG/KG
10) TM 1,3-Dichlorobenzene			24.12	934911	6~~.8349 UG/KG~~
11) TM 1,4-Dichlorobenzene			24.12	934911	6~~.6549 UG/KG~~
12) TM 1,2-Dichlorobenzene			24.78	2259494	17~~.4102 UG/KG~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031102\5G12484.D Vial: 1
Acq On : 11 Mar 2002 9:05 Operator: CBN
Sample : L0203155-02 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 9:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12484.D Vial: 1
Acq On : 11 Mar 2002 9:05 Operator: CBN
Sample : L0203155-02 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 9:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	521679	30.8946 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 102.98%	
9) S BFB	16.23	1362602	28.2359 ug/L
Spiked Amount 30.000		Recovery = 94.12%	
13) S BCB	21.95	1352727	28.8744 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 96.25%	
Target Compounds			
1) TM MTBE	2.47	16764	~~1.5128 ug/L~~
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	20.05	19220	<MDL ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

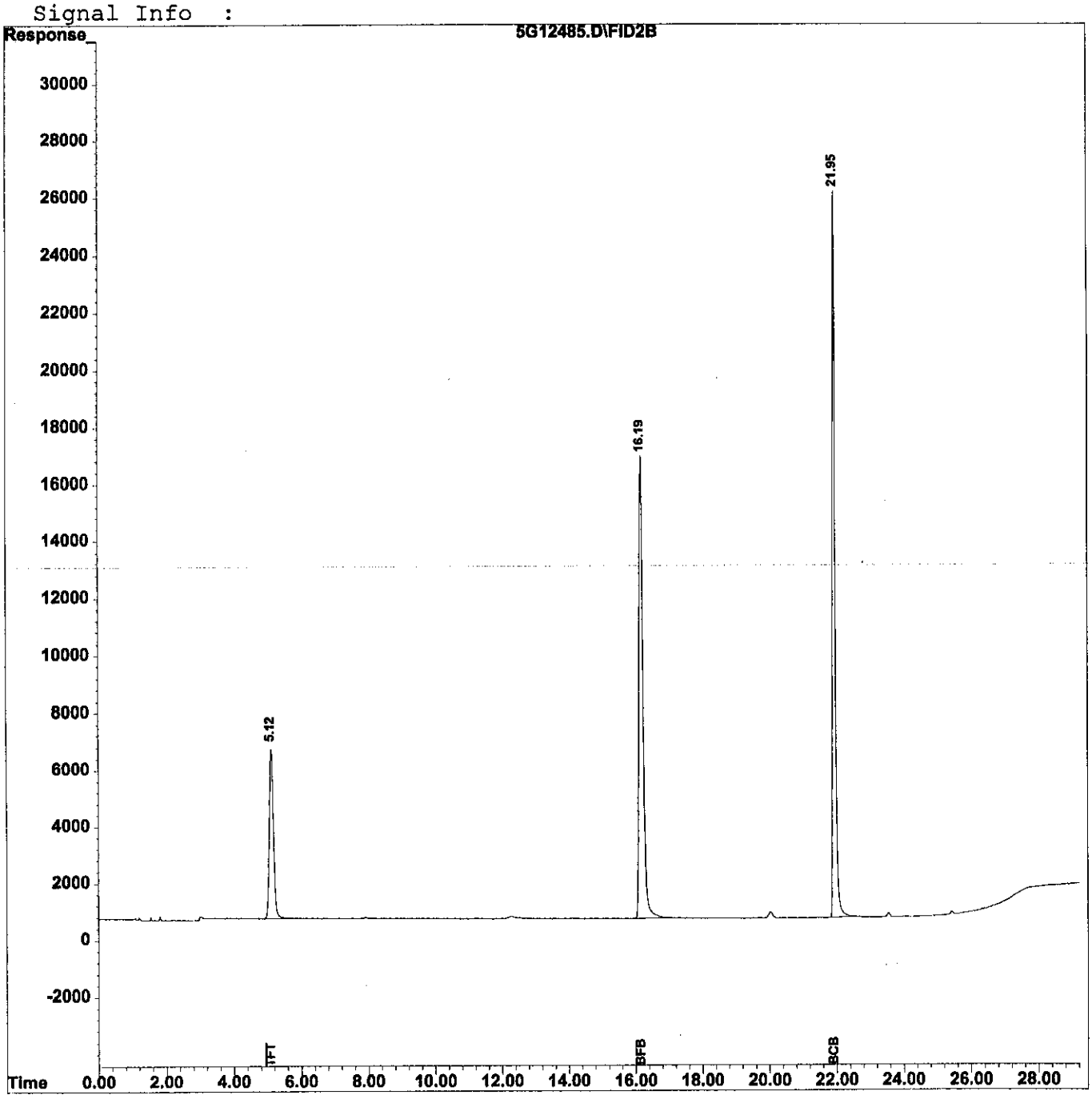
(f)=RT Delta > 1/2 Window (m)=manual int.
5G12484.D 8021W.M Mon Mar 11 09:34:41 2002 Page 1

66

Data File : C:\HPCHEM\2\DATA\031102\5G12485.D Vial: 2
Acq On : 11 Mar 2002 10:10 Operator: CBN
Sample : L0203155-03 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:39 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12485.D Vial: 2
Acq On : 11 Mar 2002 10:10 Operator: CBN
Sample : L0203155-03 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:39 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.12	517232	30.6313 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 102.10%	
9) S BFB	16.19	1362762	28.2392 ug/L
Spiked Amount 30.000		Recovery = 94.13%	
13) S BCB	21.95	1361774	29.0675 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 96.89%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	20.04	17602	<MDL ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

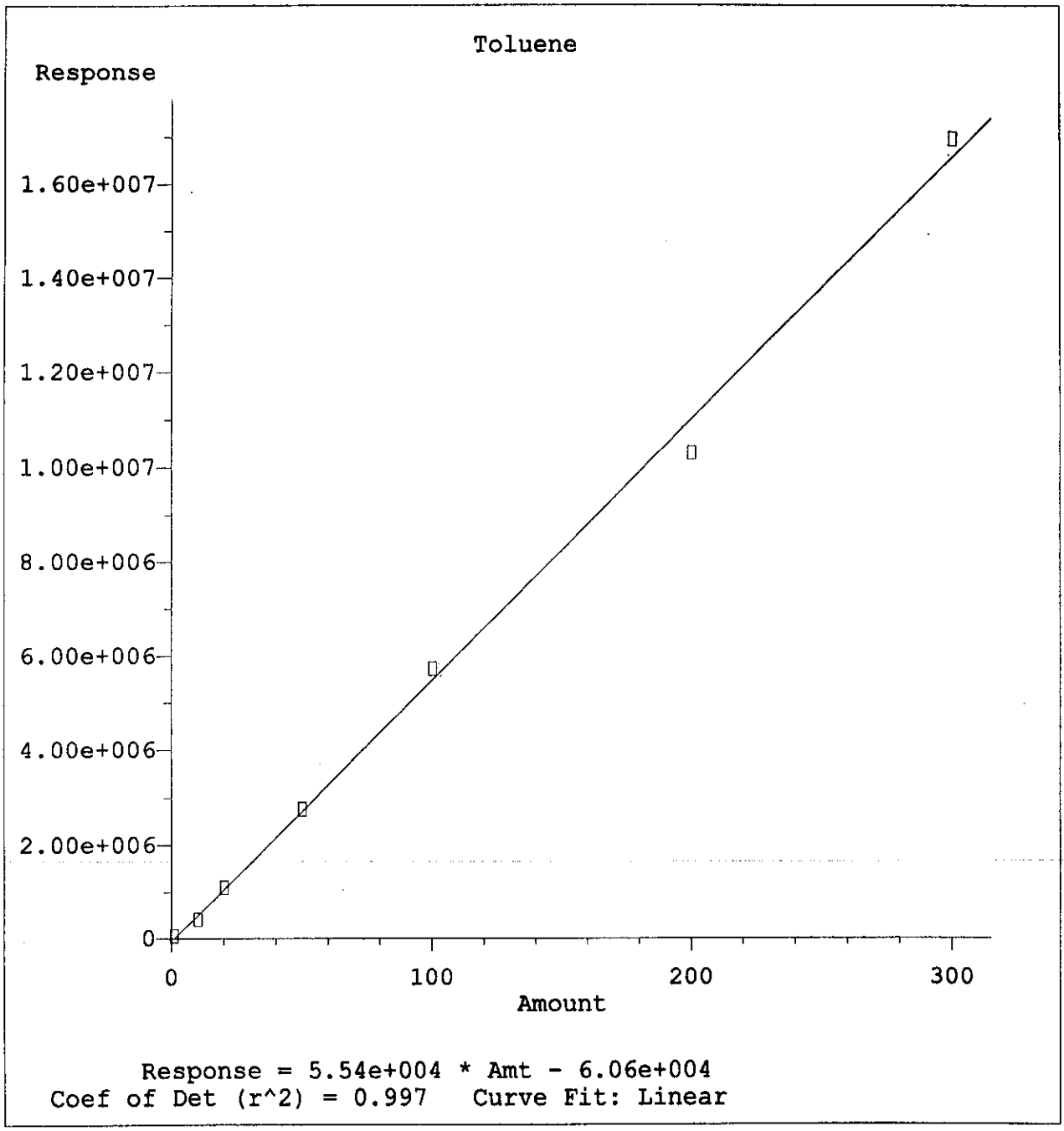
2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 02/20/02
Last Calibration: Wed Feb 20 13:38:18 2002

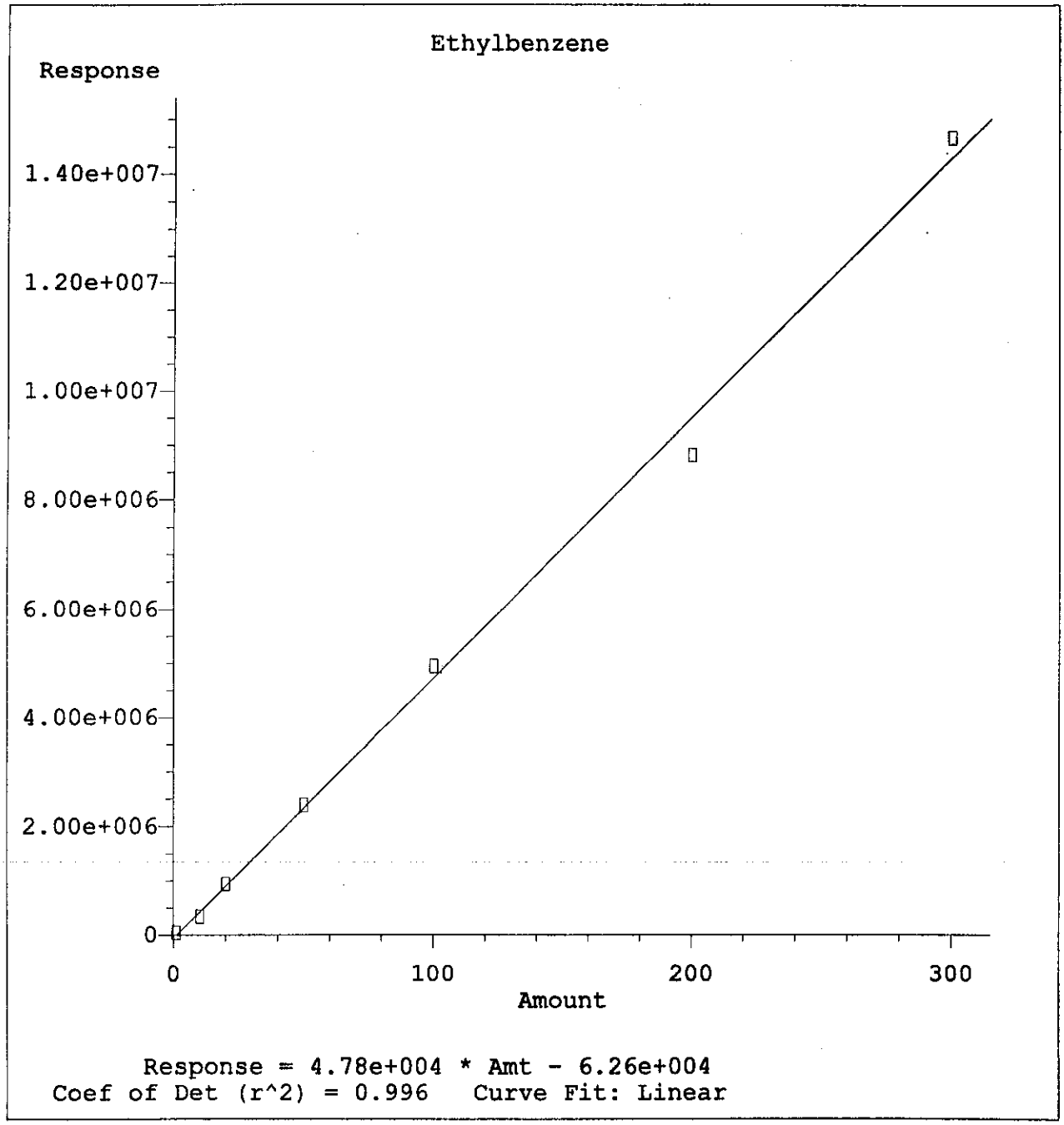
Calibration Files

Compound	1 5G12234.D	10 5G12235.D	20 5G12236.D	50 5G12237.D	100 5G12238.D	200 5G12239.D	300 5G12240.D	Avg	%RSD	
MTBE	12539.098	11196.949	11243.150	11041.255	10933.684	9845.119	10773.245	11081.800	7.192	
Benzene	62790.330	47015.533	60310.422	60394.203	62248.899	55692.162	60796.018	58463.900	9.482	
TFT	11675.944	16647.005	18691.041	16931.193	18308.322	18431.867	17514.953	16885.800	14.359	
Toluene	57450.429	41830.870	54992.322	55224.813	57150.005	51457.407	56493.530	53514.200	10.332	LR=0.999
Chlorobenzene	51107.594	47796.569	57648.045	58702.207	60282.238	53862.815	58927.160	55475.200	8.416	
Ethylbenzene	44734.021	33822.898	47197.088	47781.820	49450.708	44065.886	48876.353	45132.700	11.903	LR=0.998
m-,p-Xylene	54877.067	41916.389	56810.621	56708.147	57983.908	51196.233	56259.916	53678.900	10.487	LR=0.998
o-Xylene	46024.604	38803.321	48912.004	49234.646	50426.567	45138.795	49785.014	46903.600	8.690	
BFB	40807.196	48040.267	50130.380	49818.364	51211.872	50893.985	46902.798	48257.800	7.520	
1,3-Dichlorobenzene	43022.355	39773.416	46613.595	47301.443	48695.412	43962.076	48263.141	45375.900	7.171	
1,4-Dichlorobenzene	50593.879	45110.732	50592.251	50273.527	50626.153	45302.288	49211.494	48815.800	5.152	
1,2-Dichlorobenzene	38039.156	36942.905	40744.634	40929.219	41461.798	37452.005	40820.717	39484.300	4.855	
BCB	42403.048	46209.846	48055.779	48169.399	49155.647	48910.071	45036.779	46848.700	5.245	

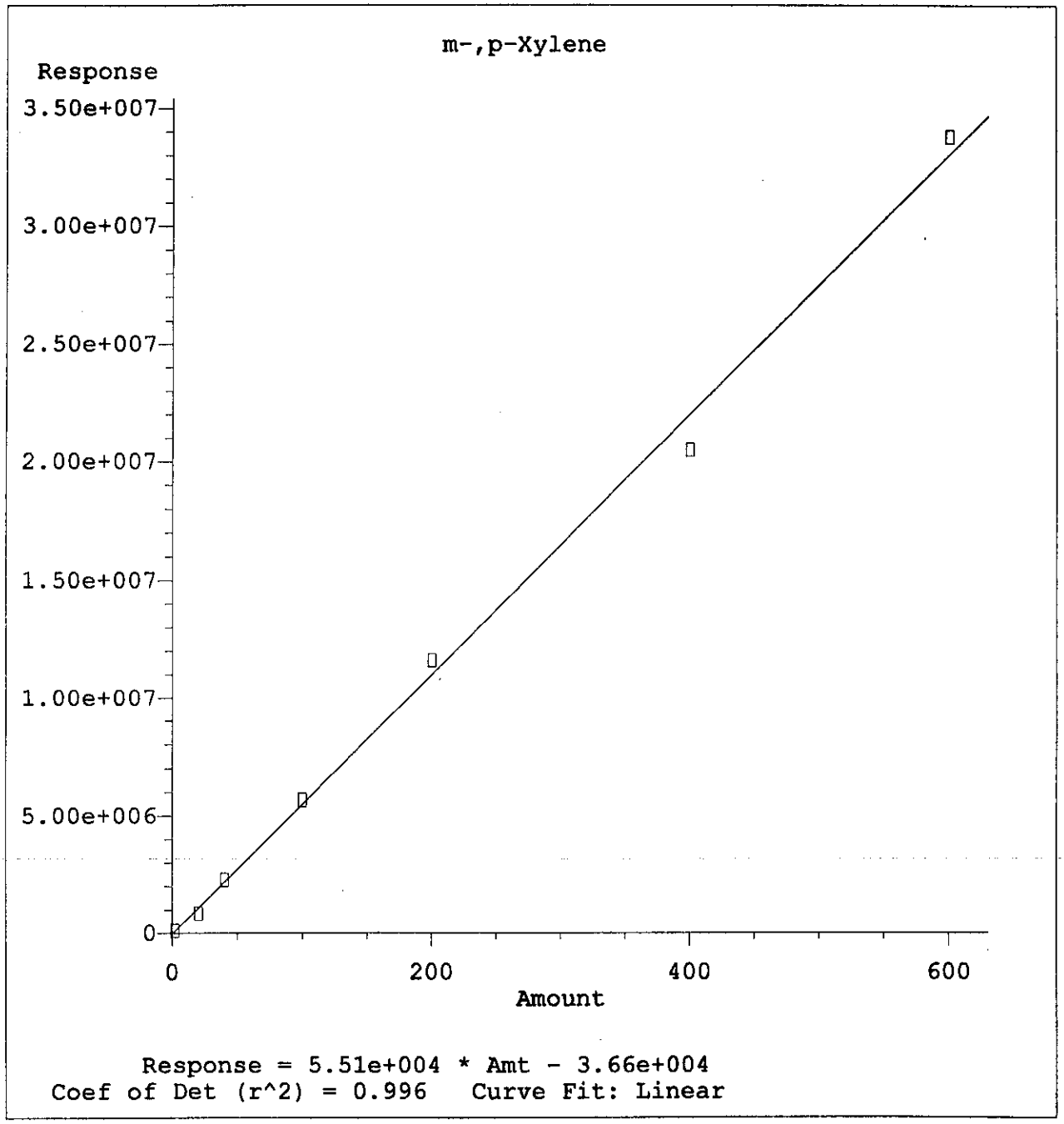
Fri Feb 22 12:57:25 2002



Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002



Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002



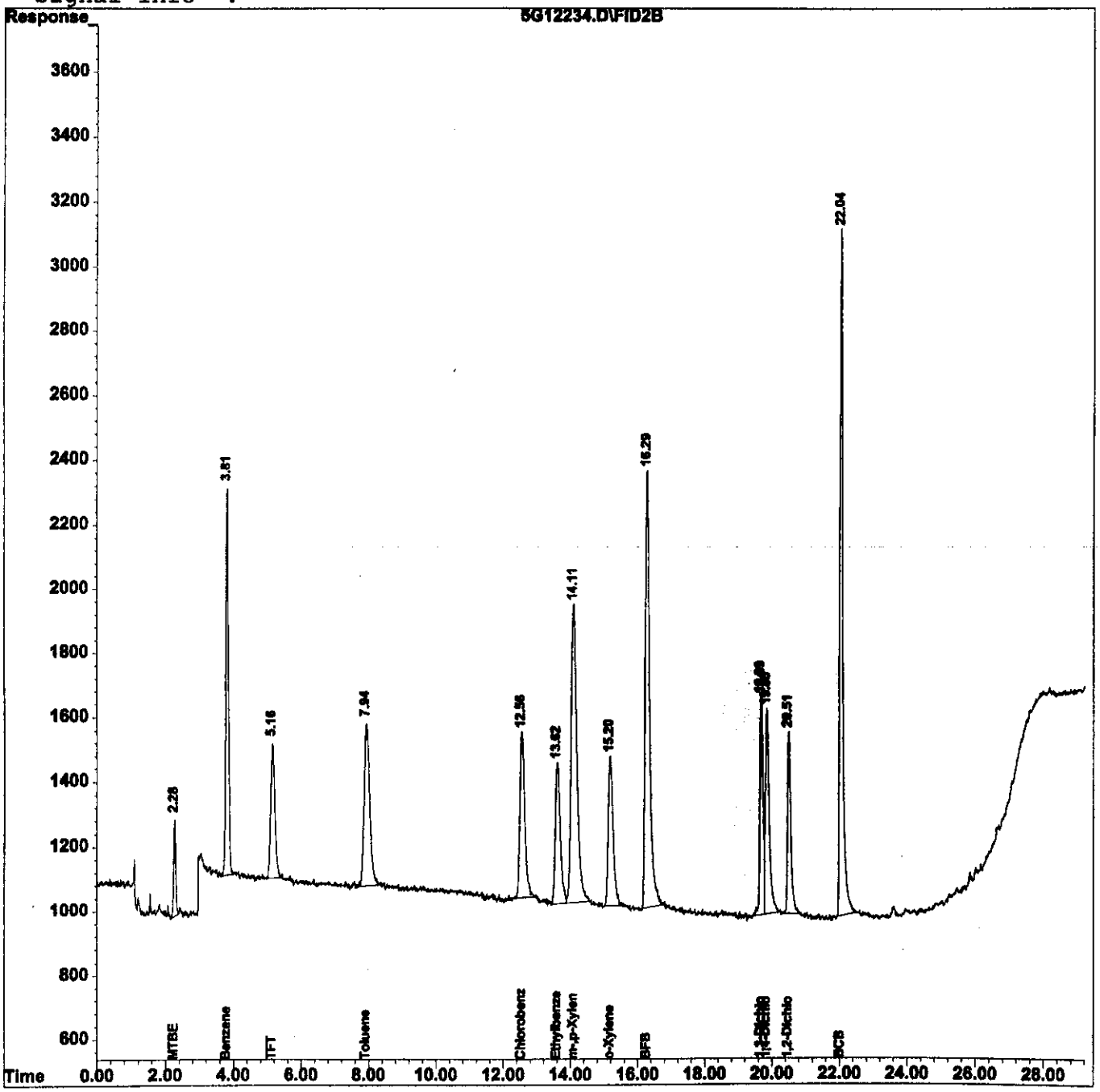
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12234.D Vial: 3
Acq On : 20 Feb 2002 9:22 Operator: CBN
Sample : WG113244-01 STD 1 1PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 9:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12234.D Vial: 3
Acq On : 20 Feb 2002 9:22 Operator: CBN
Sample : WG113244-01 STD 1 1PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 9:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.16	35028	1.7272 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	5.76%#
9) S BFB	16.29	122422	2.2088 ug/L
Spiked Amount 30.000		Recovery =	7.36%
13) S BCB	22.04	127209	2.3923 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	7.97%#
Target Compounds			
1) TM MTBE	2.28	12539	1.0376 ug/L
2) TM Benzene	3.82	62790	0.8887 ug/L
4) TM Toluene	7.94	57450	0.5403 ug/L
5) TM Chlorobenzene	12.56	51108	0.7568 ug/L
6) TM Ethylbenzene	13.62	44734	0.8046 ug/L
7) TM m-,p-Xylene	14.11	109754	1.6329 ug/L
8) TM o-Xylene	15.20	46025	0.7916 ug/L
10) TM 1,3-Dichlorobenzene	19.69	43022	0.7747 ug/L
11) TM 1,4-Dichlorobenzene	19.86	50594	0.8634 ug/L
12) TM 1,2-Dichlorobenzene	20.51	38039	0.7869 ug/L

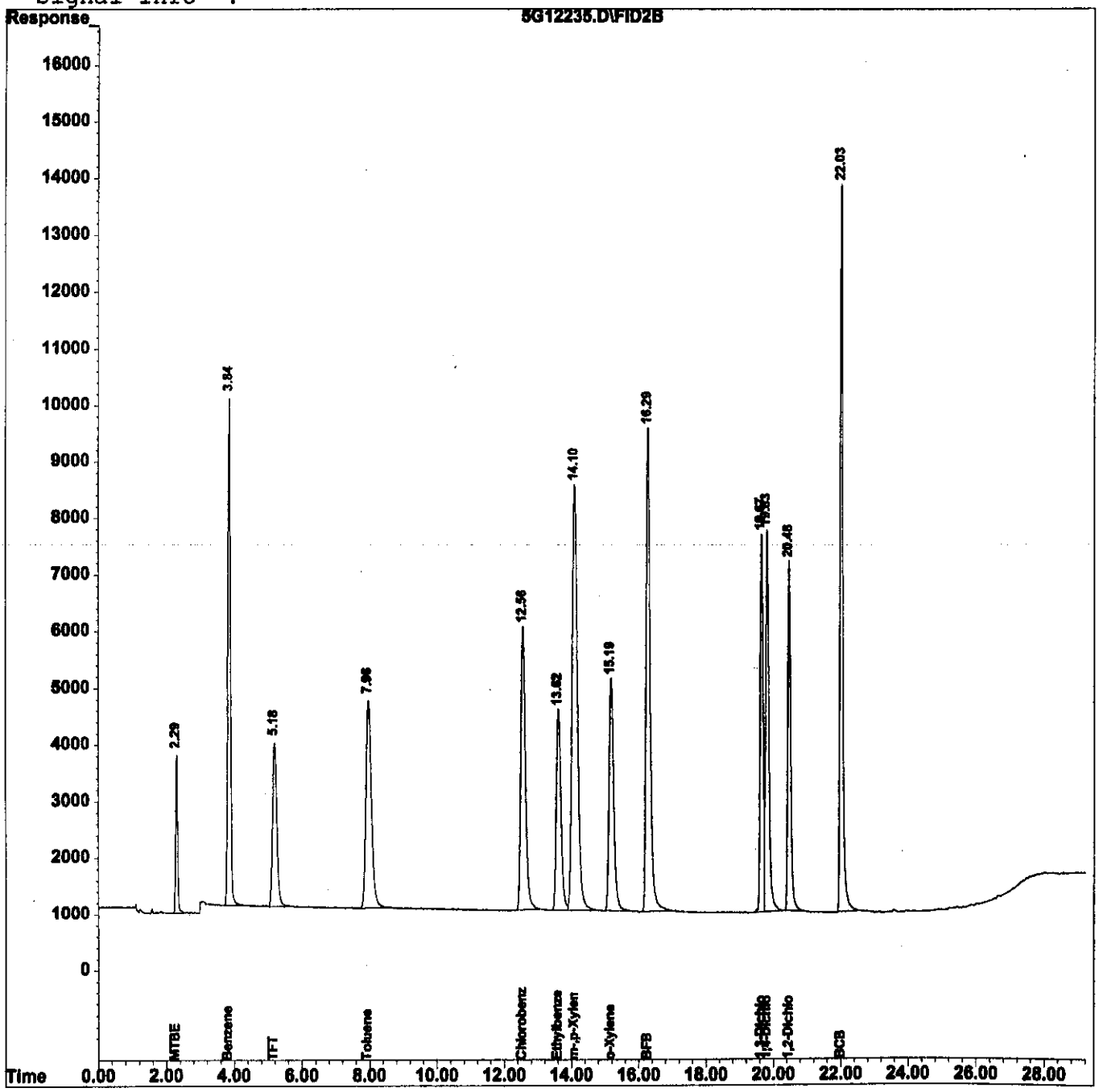
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12235.D Vial: 4
Acq On : 20 Feb 2002 9:56 Operator: CBN
Sample : WG113244-02 STD 2 10PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 10:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12235.D Vial: 4
Acq On : 20 Feb 2002 9:56 Operator: CBN
Sample : WG113244-02 STD 2 10PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 10:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	249705	12.3125 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 41.04%#	
9) S BFB	16.29	720604	13.0018 ug/L
Spiked Amount 30.000		Recovery = 43.34%	
13) S BCB	22.03	693148	13.0351 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 43.45%	
Target Compounds			
1) TM MTBE	2.29	111969	9.2658 ug/L
2) TM Benzene	3.84	470155	6.6547 ug/L
4) TM Toluene	7.96	418309	6.3797 ug/L
5) TM Chlorobenzene	12.56	477966	7.0781 ug/L
6) TM Ethylbenzene	13.62	338229	6.0834 ug/L
7) TM m-,p-Xylene	14.10	838328	12.4722 ug/L
8) TM o-Xylene	15.19	388033	6.6739 ug/L
10) TM 1,3-Dichlorobenzene	19.67	397734	7.1620 ug/L
11) TM 1,4-Dichlorobenzene	19.83	451107	7.6985 ug/L
12) TM 1,2-Dichlorobenzene	20.49	369429	7.6418 ug/L

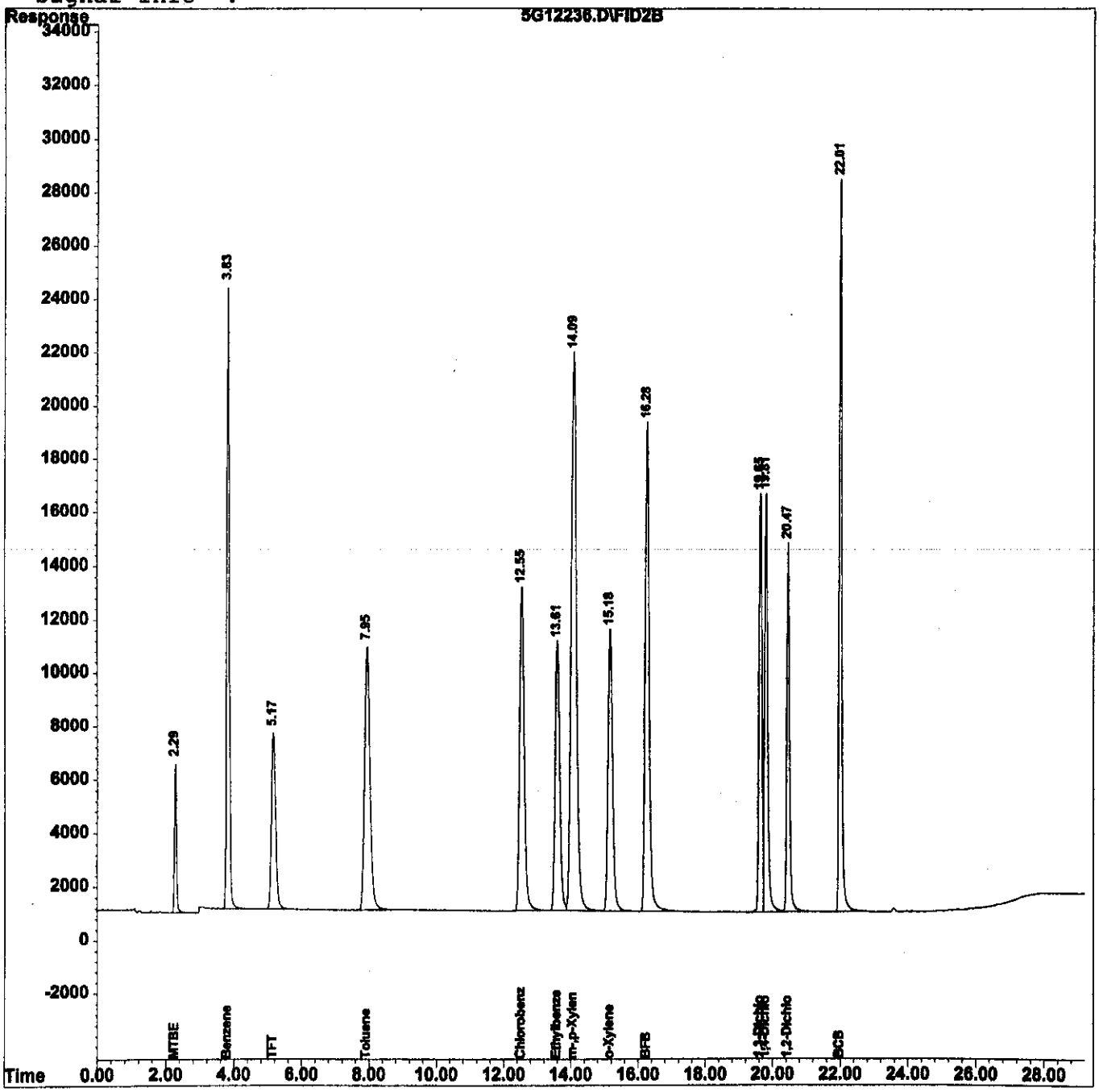
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12236.D Vial: 5
Acq On : 20 Feb 2002 10:31 Operator: CBN
Sample : WG113244-03 STD 3 20PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:01 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12236.D Vial: 5
Acq On : 20 Feb 2002 10:31 Operator: CBN
Sample : WG113244-03 STD 3 20PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:01 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	560731	27.6487 ug/L
Spiked Amount 30.000 Range 70 - 130	Recovery =	92.16%	
9) S BFB	16.28	1503911	27.1350 ug/L
Spiked Amount 30.000	Recovery =	90.45%	
13) S BCB	22.01	1441673	27.1117 ug/L
Spiked Amount 30.000 Range 37 - 137	Recovery =	90.37%	
Target Compounds			
1) TM MTBE	2.29	224863	18.6081 ug/L
2) TM Benzene	3.83	1206208	17.0729 ug/L
4) TM Toluene	7.95	1099846	17.4083 ug/L
5) TM Chlorobenzene	12.55	1152961	17.0740 ug/L
6) TM Ethylbenzene	13.61	943942	16.9778 ug/L
7) TM m-,p-Xylene	14.09	2272425	33.8079 ug/L
8) TM o-Xylene	15.18	978240	16.8250 ug/L
10) TM 1,3-Dichlorobenzene	19.65	932272	16.7874 ug/L
11) TM 1,4-Dichlorobenzene	19.81	1011845	17.2680 ug/L
12) TM 1,2-Dichlorobenzene	20.47	814893	16.8565 ug/L

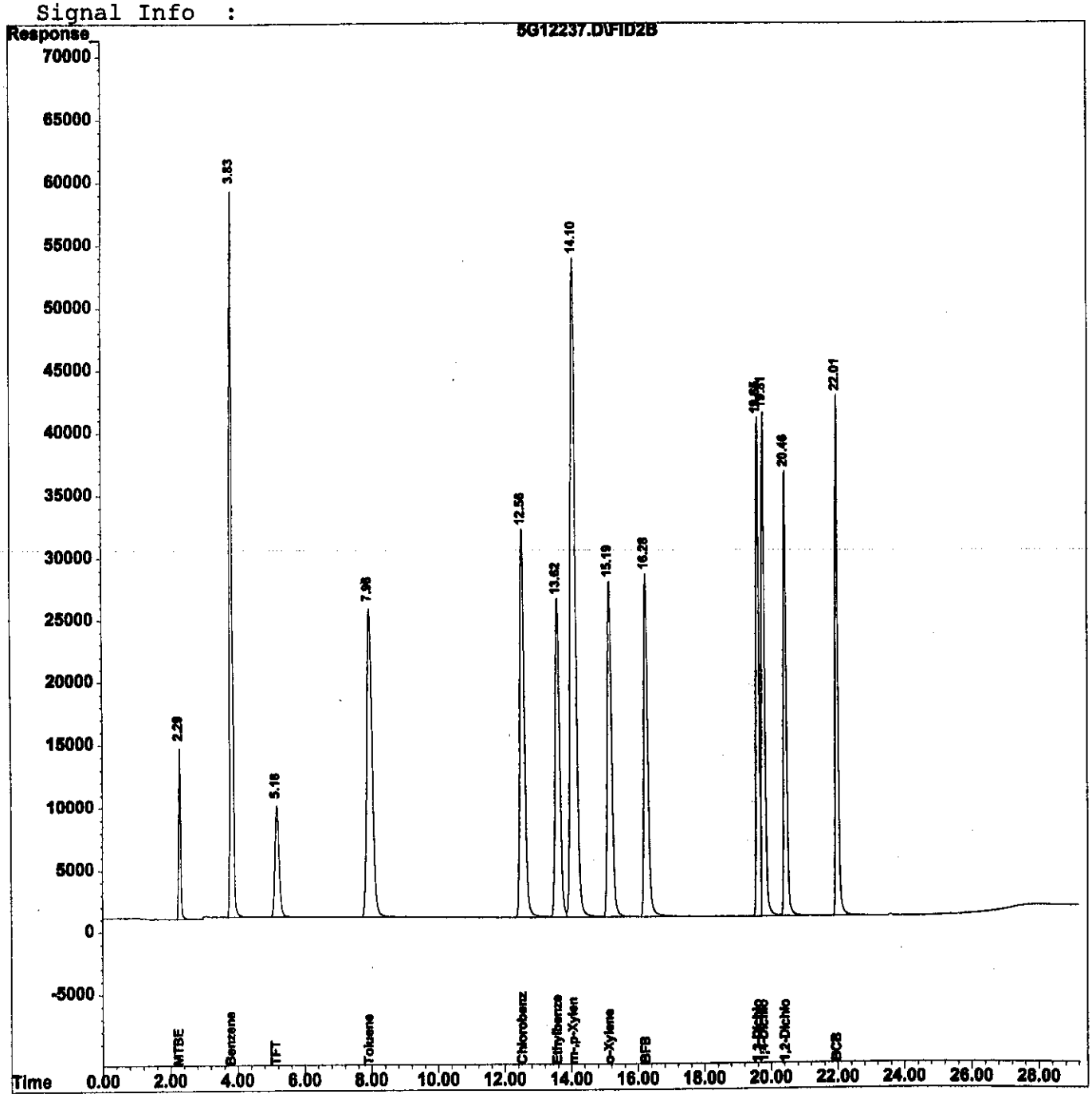
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12237.D Vial: 6
Acq On : 20 Feb 2002 11:06 Operator: CBN
Sample : WG113244-04 STD 4 50PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:36 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12237.D Vial: 6
Acq On : 20 Feb 2002 11:06 Operator: CBN
Sample : WG113244-04 STD 4 50PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:36 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	761904	37.5682 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 125.23%	
9) S BFB	16.28	2241826	40.4492 ug/L
Spiked Amount 30.000		Recovery = 134.83%	
13) S BCB	22.01	2167623	40.7637 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 135.88%	
Target Compounds			
1) TM MTBE	2.29	552063	45.6849 ug/L
2) TM Benzene	3.83	3019710	42.7415 ug/L
4) TM Toluene	7.96	2761241	44.2929 ug/L
5) TM Chlorobenzene	12.56	2935110	43.4655 ug/L
6) TM Ethylbenzene	13.62	2389091	42.9704 ug/L
7) TM m-,p-Xylene	14.10	5670815	84.3672 ug/L
8) TM o-Xylene	15.19	2461732	42.3400 ug/L
10) TM 1,3-Dichlorobenzene	19.65	2365072	42.5879 ug/L
11) TM 1,4-Dichlorobenzene	19.81	2513676	42.8981 ug/L
12) TM 1,2-Dichlorobenzene	20.47	2046461	42.3321 ug/L

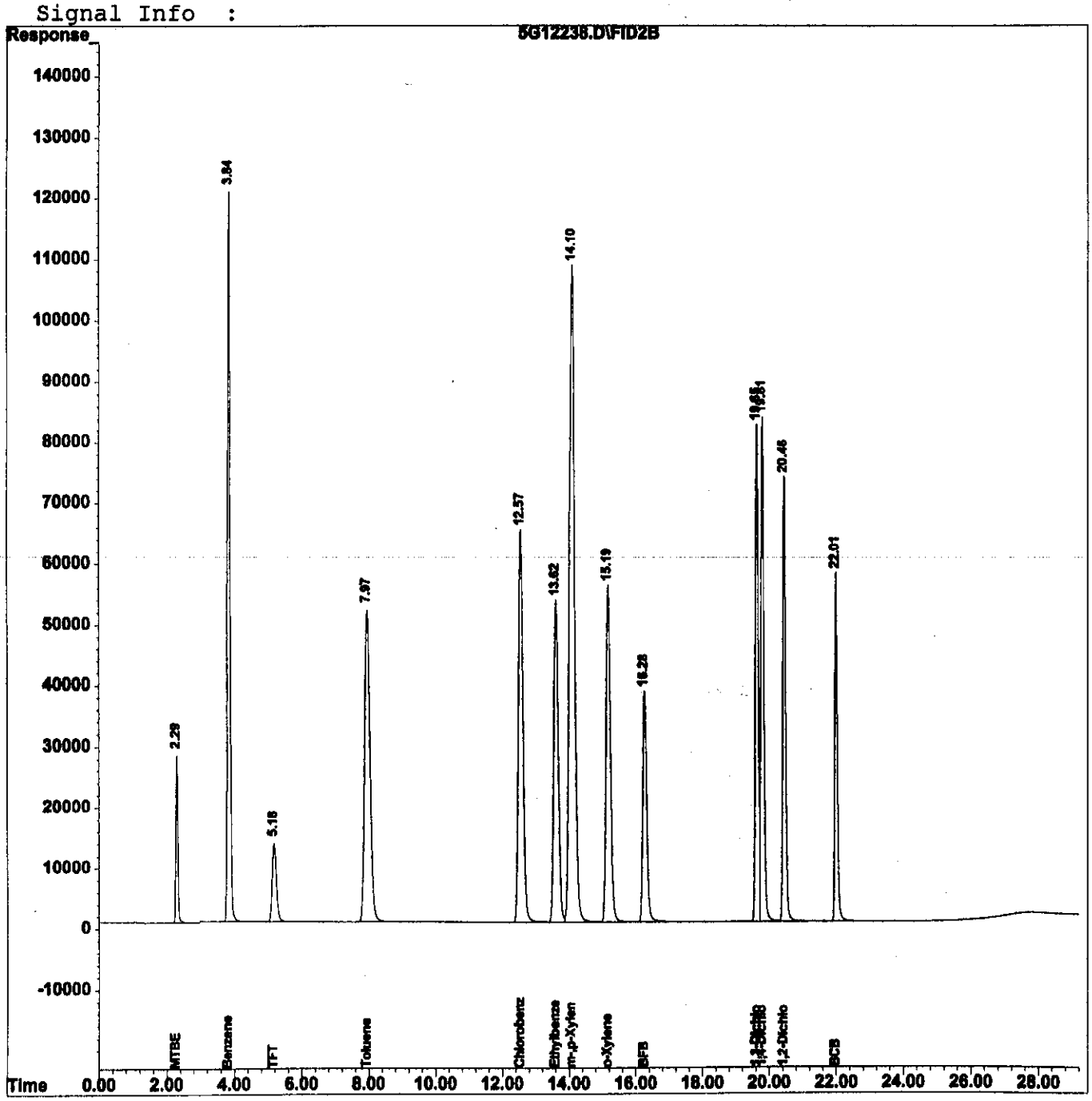
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12238.D Vial: 7
Acq On : 20 Feb 2002 11:41 Operator: CBN
Sample : WG113244-05 STD 5 100PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:11 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12238.D Vial: 7
Acq On : 20 Feb 2002 11:41 Operator: CBN
Sample : WG113244-05 STD 5 100PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:11 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	1098499	54.1651 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	180.55%#
9) S BFB	16.28	3072712	55.4408 ug/L
Spiked Amount 30.000		Recovery =	184.80%
13) S BCB	22.01	2949339	55.4644 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	184.88%#
Target Compounds			
1) TM MTBE	2.30	1093368	90.4797 ug/L
2) TM Benzene	3.84	6224890	88.1083 ug/L
4) TM Toluene	7.97	5715001	92.0904 ug/L
5) TM Chlorobenzene	12.57	6028224	89.2708 ug/L
6) TM Ethylbenzene	13.63	4945071	88.9425 ug/L
7) TM m-,p-Xylene	14.10	11596782	172.5304 ug/L
8) TM o-Xylene	15.19	5042657	86.7301 ug/L
10) TM 1,3-Dichlorobenzene	19.65	4869541	87.6859 ug/L
11) TM 1,4-Dichlorobenzene	19.81	5062615	86.3979 ug/L
12) TM 1,2-Dichlorobenzene	20.47	4146180	85.7659 ug/L

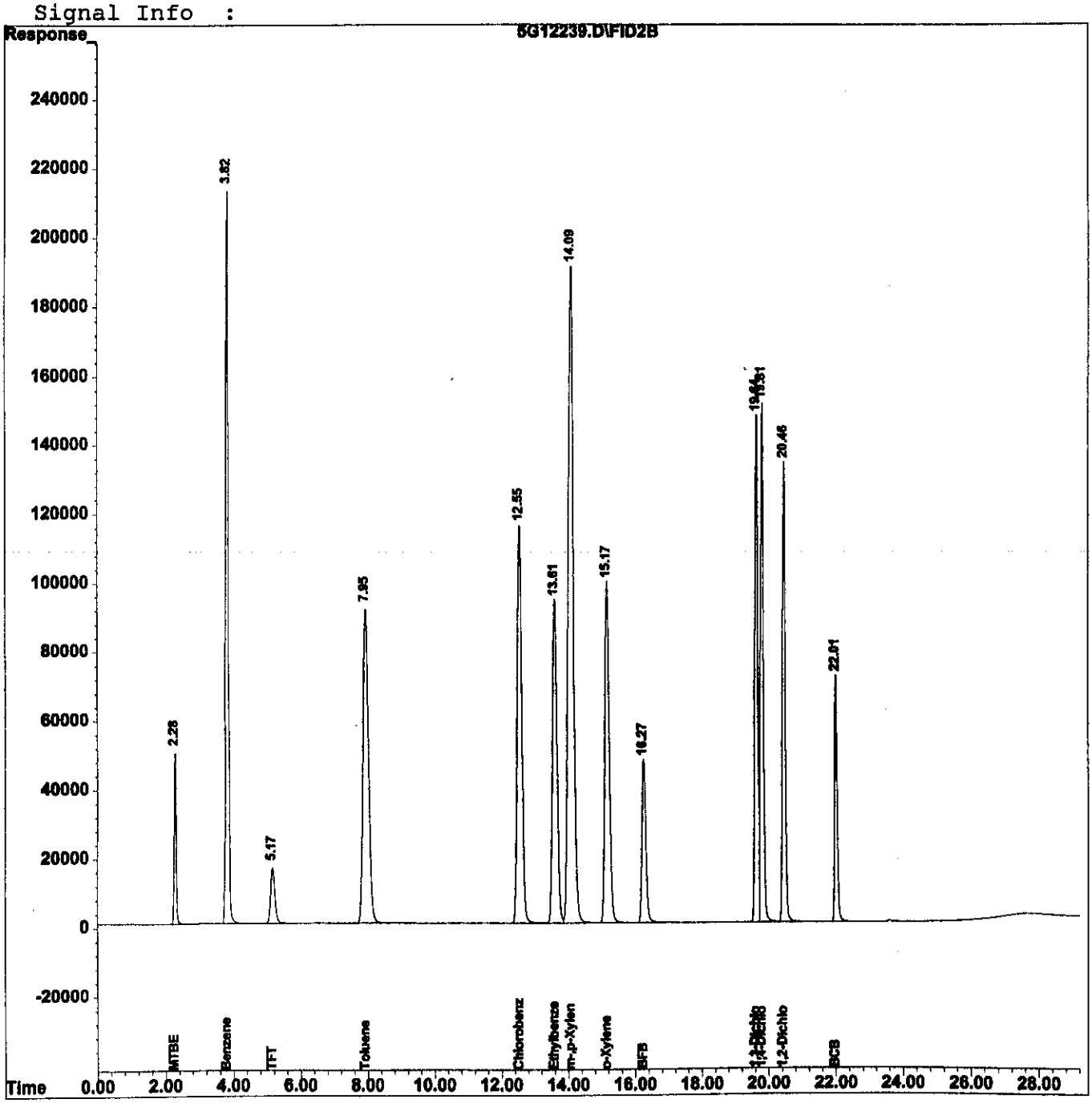
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12239.D Vial: 8
Acq On : 20 Feb 2002 12:16 Operator: CBN
Sample : WG113244-06 STD 6 200PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:46 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12239.D Vial: 8
Acq On : 20 Feb 2002 12:16 Operator: CBN
Sample : WG113244-06 STD 6 200PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:46 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	1382390	68.1633 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 227.21%#	
9) S BFB	16.27	3817049	68.8708 ug/L
Spiked Amount 30.000		Recovery = 229.57%	
13) S BCB	22.01	3668255	68.9841 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 229.95%#	
Target Compounds			
1) TM MTBE	2.28	1969024	162.9429 ug/L
2) TM Benzene	3.82	11138432	157.6555 ug/L
4) TM Toluene	7.95	10291481	166.1468 ug/L
5) TM Chlorobenzene	12.55	10772563	159.5289 ug/L
6) TM Ethylbenzene	13.61	8813177	158.5146 ug/L
7) TM m-,p-Xylene	14.09	20478493	304.6675 ug/L
8) TM o-Xylene	15.17	9027759	155.2710 ug/L
10) TM 1,3-Dichlorobenzene	19.64	8792415	158.3251 ug/L
11) TM 1,4-Dichlorobenzene	19.81	9060458	154.6246 ug/L
12) TM 1,2-Dichlorobenzene	20.46	7490401	154.9428 ug/L

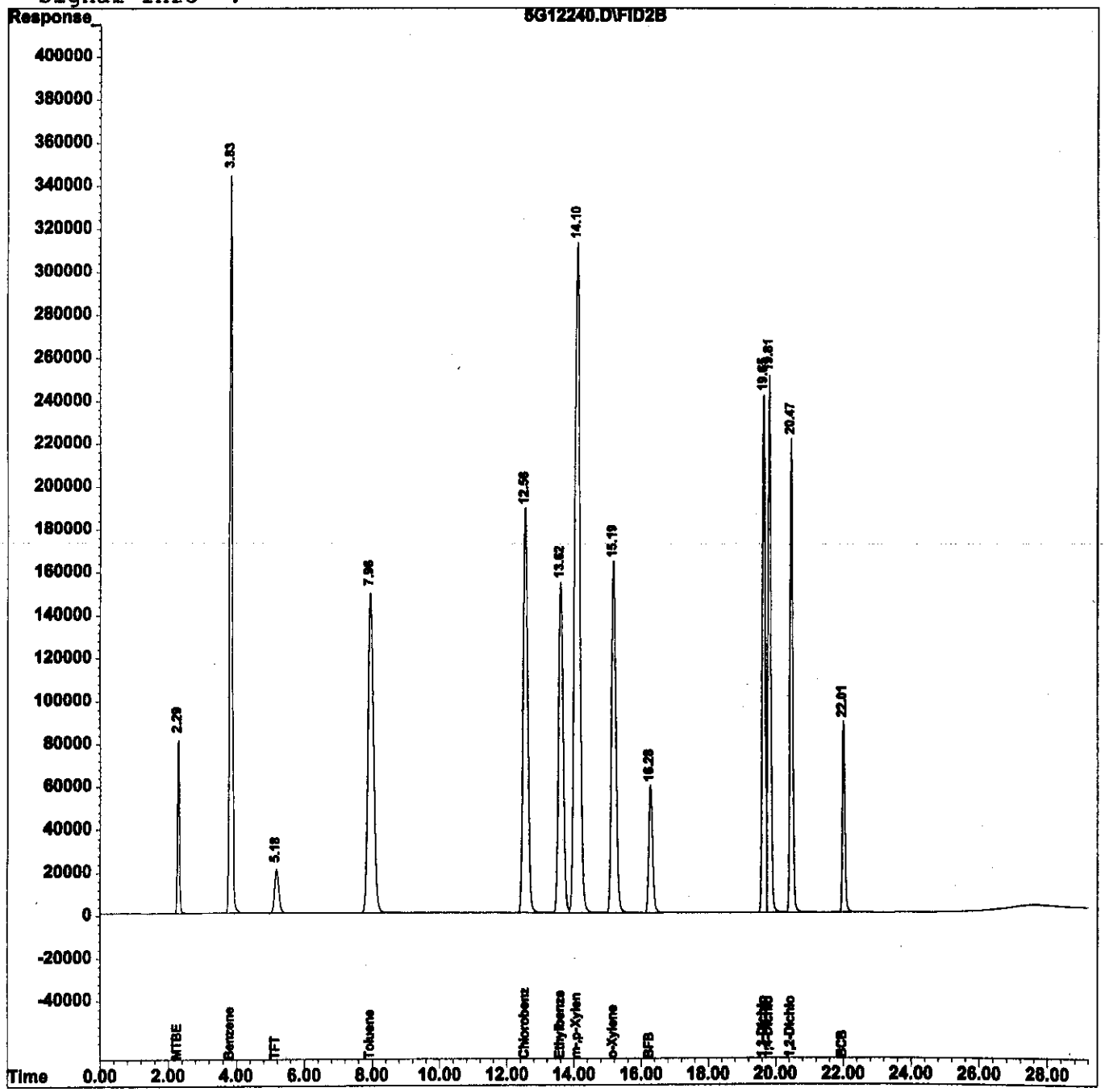
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12240.D Vial: 9
Acq On : 20 Feb 2002 12:51 Operator: CBN
Sample : WG113244-07 STD 7 300PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 13:20 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12240.D Vial: 9
Acq On : 20 Feb 2002 12:51 Operator: CBN
Sample : WG113244-07 STD 7 300PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 13:20 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			5.18	1751495	86.3632 ug/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	287.88%#
9) S BFB			16.28	4690280	84.6265 ug/L
Spiked Amount	30.000			Recovery =	282.09%
13) S BCB			22.01	4503678	84.6948 ug/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	282.32%#
Target Compounds					
1) TM MTBE			2.29	3231974	267.4560 ug/L
2) TM Benzene			3.83	18238806	258.1555 ug/L
4) TM Toluene			7.96	16948059	273.8631 ug/L
5) TM Chlorobenzene			12.56	17678148	261.7924 ug/L
6) TM Ethylbenzene			13.62	14662906	263.7283 ug/L
7) TM m-,p-Xylene			14.11	33755949	502.2021 ug/L
8) TM o-Xylene			15.19	14935504	256.8799 ug/L
10) TM 1,3-Dichlorobenzene			19.65	14478942	260.7224 ug/L
11) TM 1,4-Dichlorobenzene			19.82	14763448	251.9511 ug/L
12) TM 1,2-Dichlorobenzene			20.47	12246215	253.3193 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.463 E3	5.6	93	0.00
2	TM	Benzene	58.464	60.318 E3	-3.2	100	0.00
3	S	TFT	16.886	19.013 E3	-12.6	102	0.00
4	TM	Toluene	53.514	55.634 E3	-4.0	101	0.01
5	TM	Chlorobenzene	55.475	57.505 E3	-3.7	100	0.02
6	TM	Ethylbenzene	45.133	48.198 E3	-6.8	102	0.02
7	TM	m-,p-Xylene	53.679	56.581 E3	-5.4	100	0.01
8	TM	o-Xylene	46.904	48.014 E3	-2.4	98	0.00
9	S	BFB	48.258	51.695 E3	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	45.376	47.659 E3	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	48.816	51.504 E3	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	39.484	42.318 E3	-7.2	104	0.02
13	S	BCB	46.849	50.081 E3	-6.9	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12243.D 8021W.M Thu Feb 21 07:53:31 2002 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

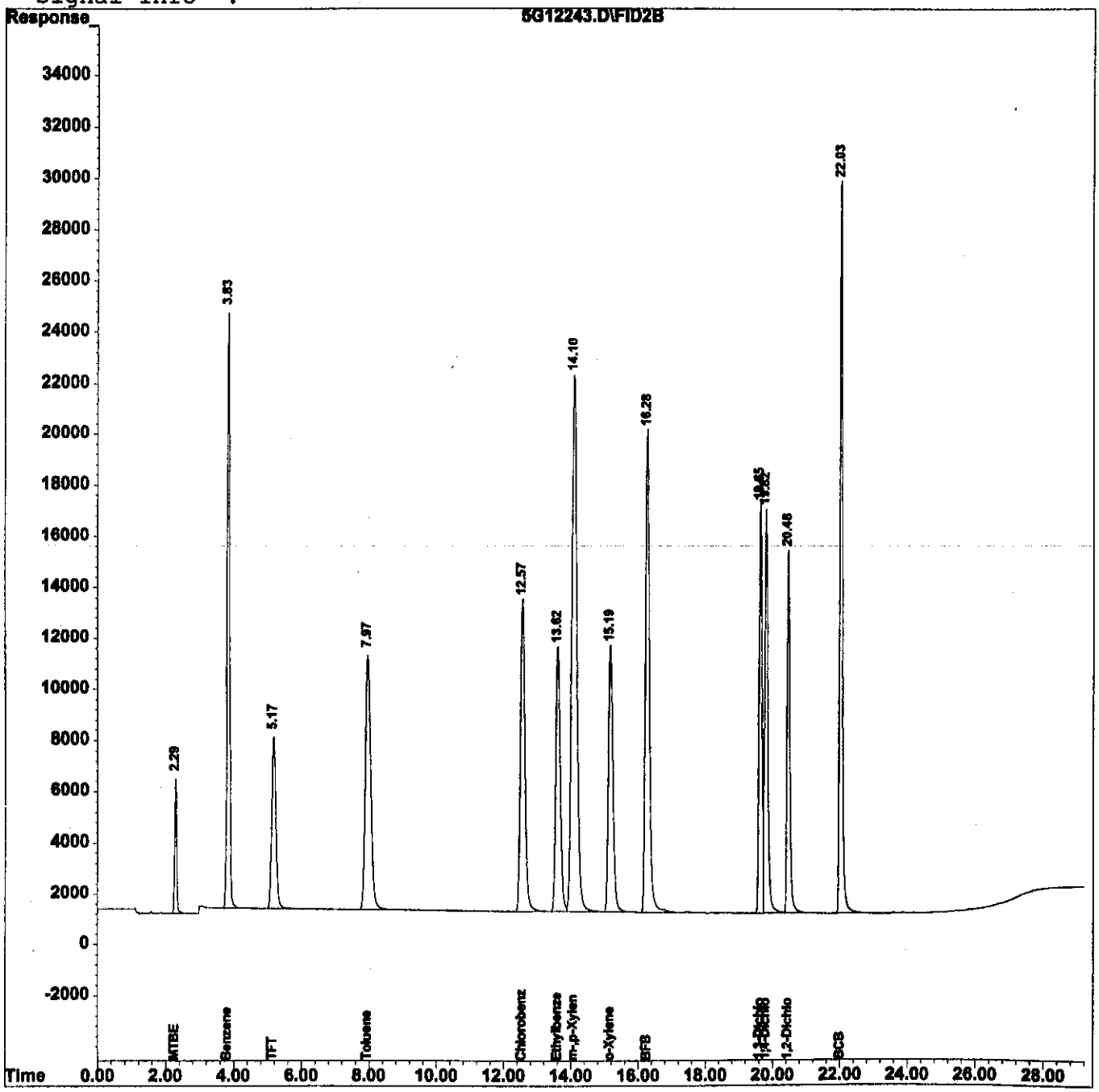
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.883	5.6	93	0.00
2	TM	Benzene	20.000	20.634	-3.2	100	0.00
3	S	TFT	30.000	33.780	-12.6	102	0.00
4	TM	Toluene	20.000	21.185	-5.9	101	0.01
5	TM	Chlorobenzene	20.000	20.732	-3.7	100	0.02
6	TM	Ethylbenzene	20.000	21.461	-7.3	102	0.02
7	TM	m-,p-Xylene	40.000	41.777	-4.4	100	0.01
8	TM	o-Xylene	20.000	20.473	-2.4	98	0.00
9	S	BFB	30.000	32.137	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	20.000	21.006	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	20.000	21.101	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	20.000	21.435	-7.2	104	0.02
13	S	BCB	30.000	32.070	-6.9	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12243.D 8021W.M Thu Feb 21 07:53:32 2002 Page 1

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 21 7:53 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 21 7:53 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	570396	33.7797 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 112.60%	
9) S BFB	16.28	1550865	32.1371 ug/L
Spiked Amount 30.000		Recovery = 107.12%	
13) S BCB	22.04	1502441	32.0701 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 106.90%	
Target Compounds			
1) TM MTBE	2.29	209259	18.8832 ug/L
2) TM Benzene	3.83	1206355	20.6342 ug/L
4) TM Toluene	7.97	1112678	21.1851 ug/L
5) TM Chlorobenzene	12.57	1150106	20.7319 ug/L
6) TM Ethylbenzene	13.63	963955	21.4608 ug/L
7) TM m-,p-Xylene	14.10	2263226	41.7771 ug/L
8) TM o-Xylene	15.19	960278	20.4735 ug/L
10) TM 1,3-Dichlorobenzene	19.66	953171	21.0061 ug/L
11) TM 1,4-Dichlorobenzene	19.82	1030076	21.1013 ug/L
12) TM 1,2-Dichlorobenzene	20.48	846365	21.4355 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Calibration Table Report
Method: 8021S.M
Title: Method 8021B- Soil 2/25/02
Last Calibration: Mon Feb 25 21:49:28 2002

Calibration Files

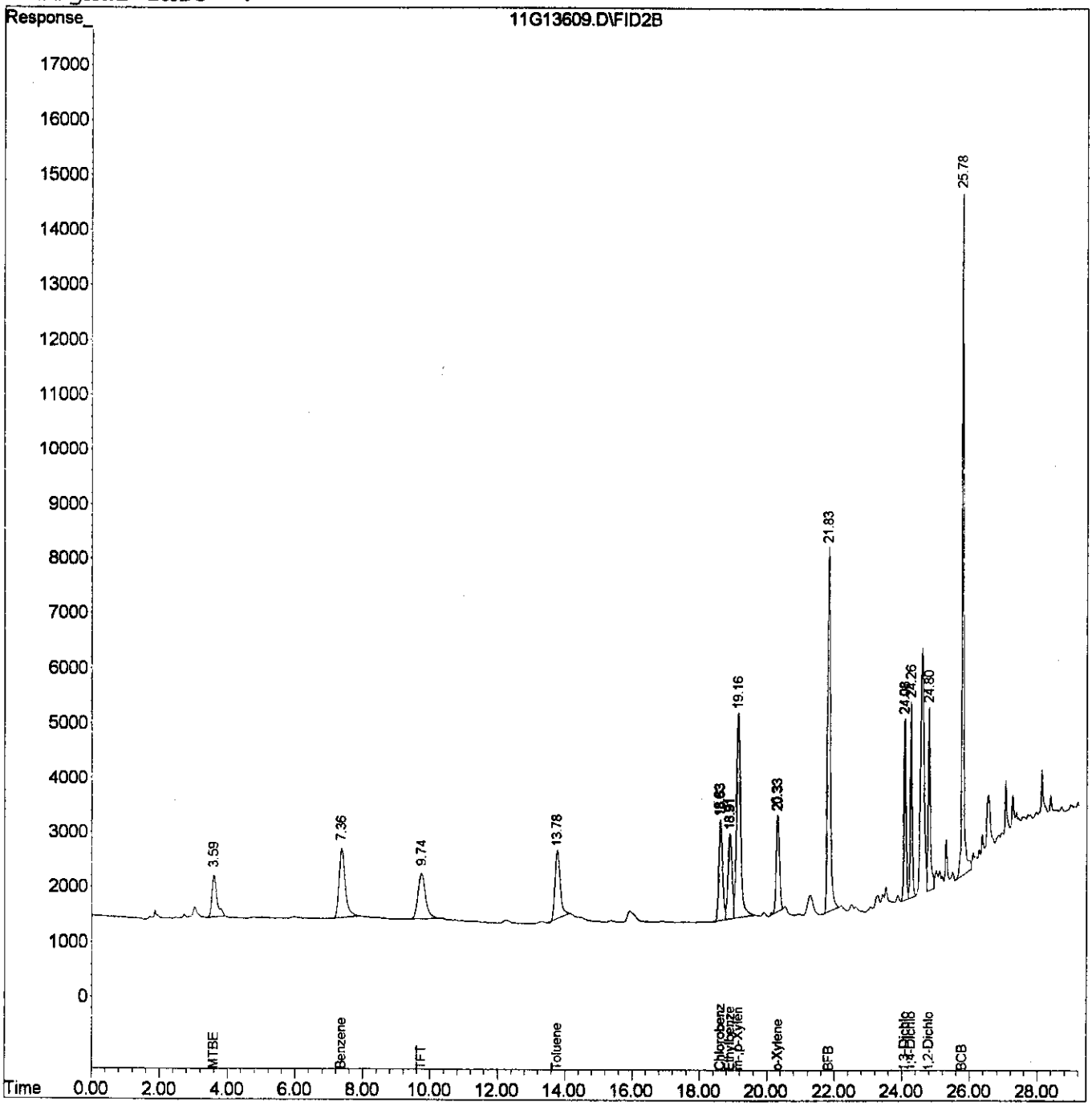
	1	10	20	50	100	200	300		
	11G13609.D	11G13611.D	11G13612.D	11G13613.D	11G13614.D	11G13615.D	11G13616.D		
Compound								**Avg**	**%RSD**
MTBE	77217.4	72287.8	75422.6	69394.3	70405.5	65180.7	68604.3	71216.1	5.8
Benzene	157428.6	161526.1	166482.4	159577.8	163620.7	145349.8	158621.8	158944.0	4.2
TFT	43440.3	52315.6	50035.5	50309.3	51663.3	42417.6	51418.2	48800.0	8.4
Toluene	129311.4	157099.7	161710.2	152844.1	155877.5	138336.9	151706.1	149555.0	7.7
Chlorobenzene	141703.1	146097.7	156274.7	153652.6	160126.4	145030.6	157466.1	151479.0	4.7
Ethylbenzene	125383.2	134038.6	141020.1	136133.9	140363.8	124233.7	134695.6	133696.0	5.0
m-,p-Xylene	154651.5	171412.9	177592.5	165405.6	167778.1	148038.6	158992.9	163410.0	6.2
o-Xylene	118595.9	153565.1	155027.5	144632.6	146788.4	131241.7	140461.5	141473.0	9.1
BFB	126504.2	130650.1	130074.1	135465.5	138399.0	129974.5	144899.2	133710.0	4.7
1,3-Dichlorobenzene	133776.6	126214.9	134023.2	131631.3	139670.0	131906.9	141124.5	134050.0	3.8
1,4-Dichlorobenzene	135287.5	131750.7	140532.4	136017.7	141816.7	136153.1	142168.9	137675.0	2.8
1,2-Dichlorobenzene	145408.9	120354.8	132050.7	124134.1	126542.9	117384.1	124413.7	127184.0	7.3
BCB	143154.1	131109.9	125343.2	132951.0	137837.1	135815.3	150175.1	136627.0	6.0

Mon Feb 25 21:49:55 2002

Data File : C:\HPCHEM\1\DATA\022502\11G13609.D Vial: 1
Acq On : 25 Feb 2002 4:48 pm Operator: CSH
Sample : WG113445-01 8021 STD 1 1PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 17:17 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13609.D Vial: 1
Acq On : 25 Feb 2002 4:48 pm Operator: CSH
Sample : WG113445-01 8021 STD 1 1PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 17:17 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

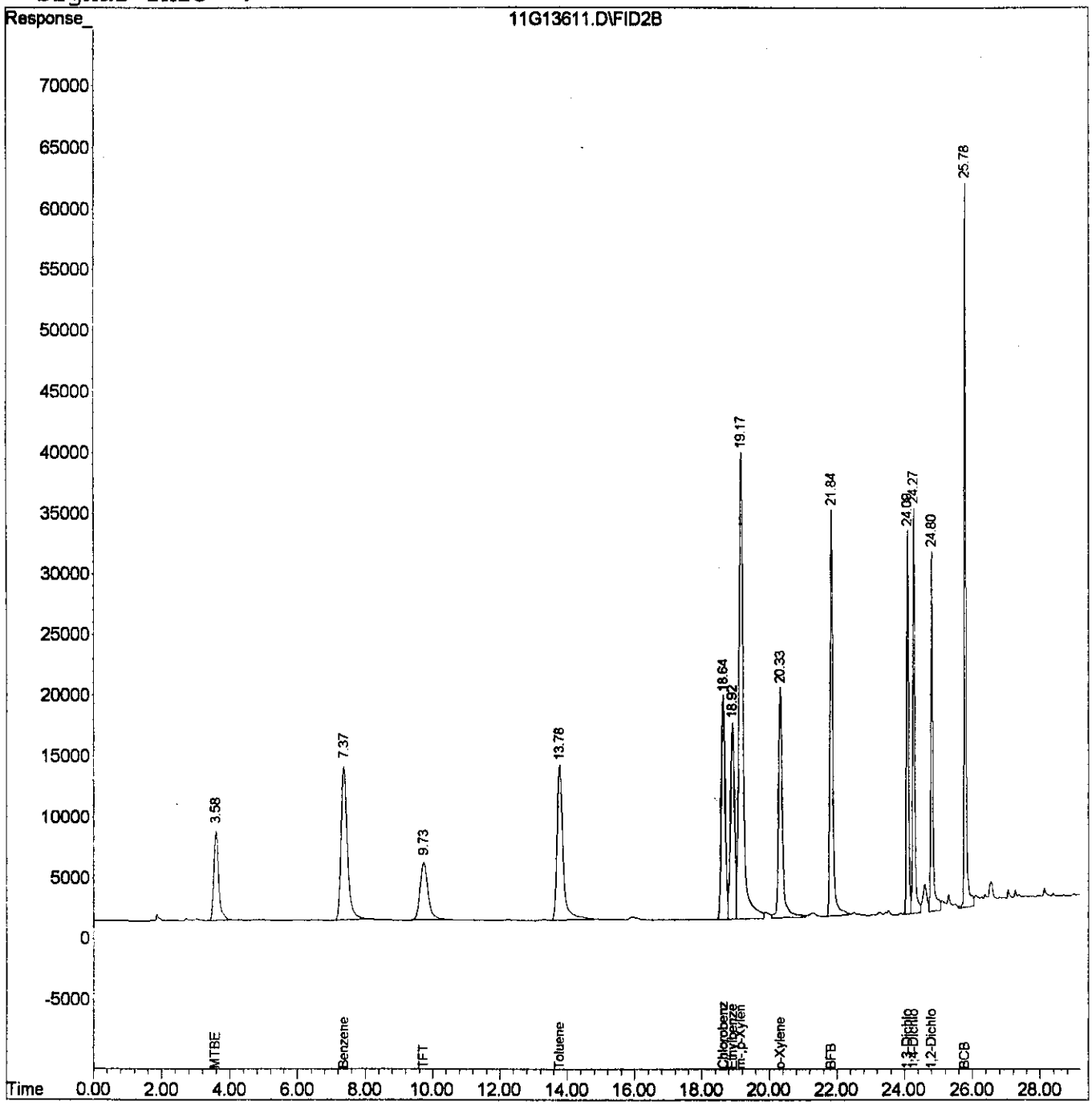
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.73	130321	2.2630 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery =	7.54%#
9) S BFB			21.83	379513	2.3226 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery =	7.74%#
13) S BCB			25.78	429462	2.7619 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery =	9.21%#
Target Compounds					
1) TM MTBE			3.58	77217	0.9996 UG/KG
2) TM Benzene			7.37	157429	0.8698 UG/KG
4) TM Toluene			13.78	129311	0.6936 UG/KG
5) TM Chlorobenzene			18.63	141703	0.8108 UG/KG
6) TM Ethylbenzene			18.91	125383	0.8089 UG/KG
7) TM m-,p-Xylene			19.16	309303	1.6164 UG/KG
8) TM o-Xylene			20.33	118596	0.7146 UG/KG
10) TM 1,3-Dichlorobenzene			24.08	133777	0.8584 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	135287	0.8275 UG/KG
12) TM 1,2-Dichlorobenzene			24.80	145409	0.9913 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\022502\11G13611.D Vial: 3
Acq On : 25 Feb 2002 5:57 pm Operator: CSH
Sample : WG113445-02 8021 STD 2 10PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 18:26 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13611.D Vial: 3
Acq On : 25 Feb 2002 5:57 pm Operator: CSH
Sample : WG113445-02 8021 STD 2 10PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 18:26 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

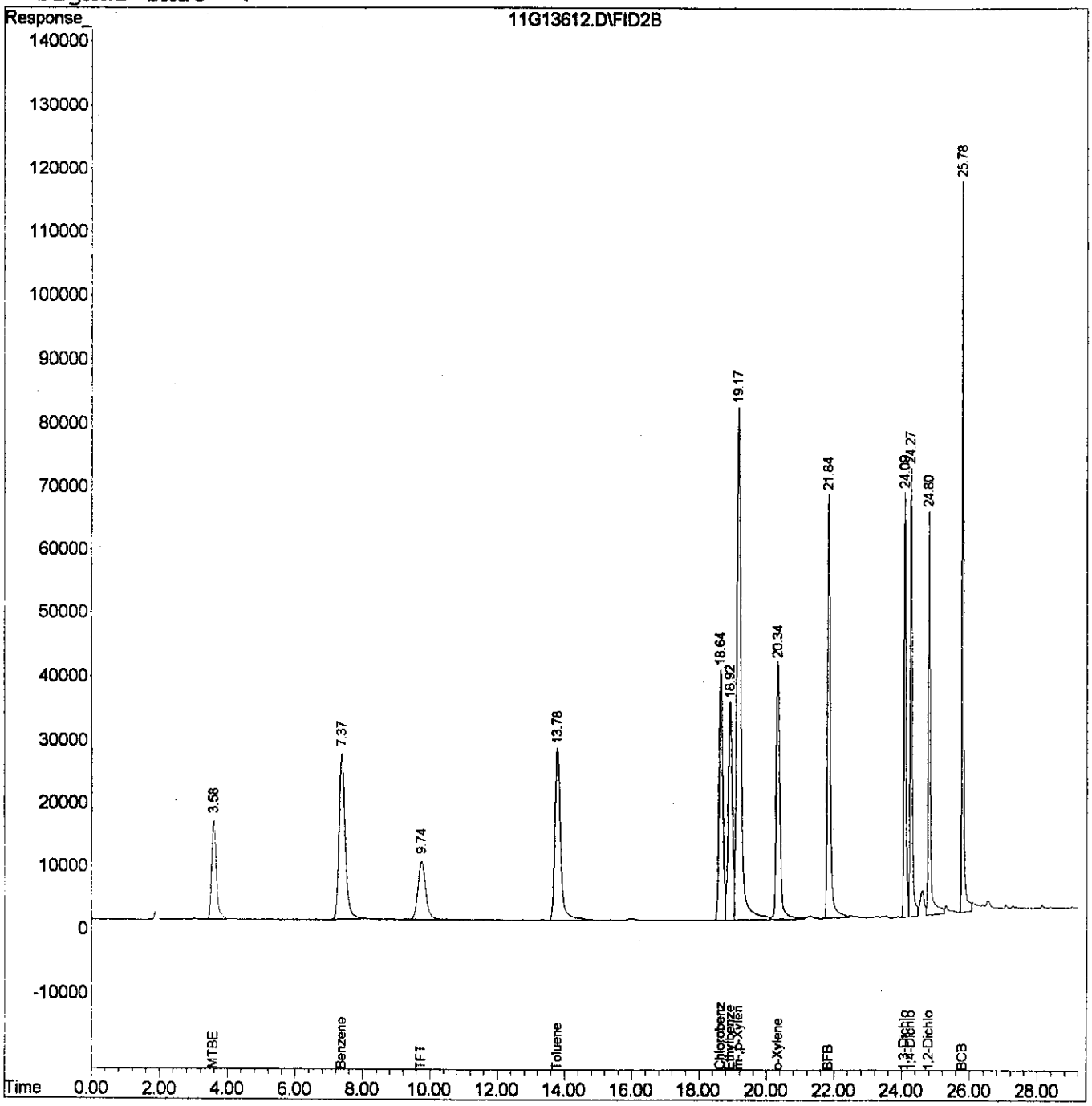
Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	784734	13.6268 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 45.42%#
9) S BFB			21.84	1959751	11.9936 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 39.98%#
13) S BCB			25.78	1966649	12.6477 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 42.16%
Target Compounds					
1) TM MTBE			3.58	722878	9.3574 UG/KG
2) TM Benzene			7.37	1615261	8.9240 UG/KG
4) TM Toluene			13.78	1570997	8.4263 UG/KG
5) TM Chlorobenzene			18.64	1460977	8.3594 UG/KG
6) TM Ethylbenzene			18.92	1340386	8.6475 UG/KG
7) TM m-,p-Xylene			19.17	3428258	17.9154 UG/KG
8) TM o-Xylene			20.34	1535651	9.2531 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	1262149	8.0985 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	1317507	8.0583 UG/KG
12) TM 1,2-Dichlorobenzene			24.81	1203548	8.2048 UG/KG

Data File : C:\HPCHEM\1\DATA\022502\11G13612.D Vial: 4
Acq On : 25 Feb 2002 6:32 pm Operator: CSH
Sample : WG113445-03 8021 STD 3 20PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 19:01 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13612.D Vial: 4
Acq On : 25 Feb 2002 6:32 pm Operator: CSH
Sample : WG113445-03 8021 STD 3 20PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 19:01 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

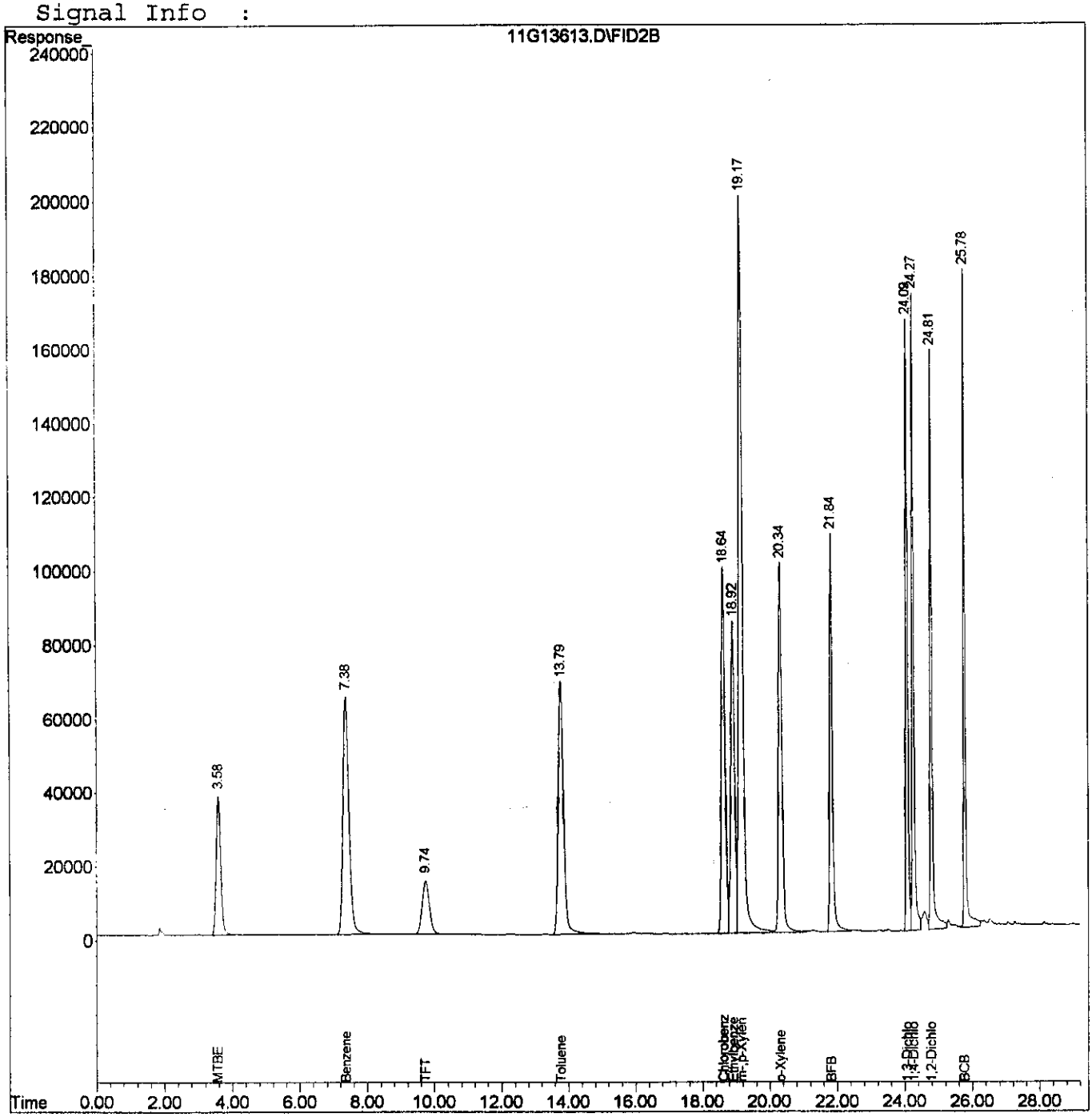
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	1501065	26.0658 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 86.89%
9) S BFB			21.84	3902222	23.8814 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 79.60%
13) S BCB			25.78	3760296	24.1828 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 80.61%
Target Compounds					
1) TM MTBE			3.58	1508451	19.5264 UG/KG
2) TM Benzene			7.37	3329649	18.3956 UG/KG
4) TM Toluene			13.78	3234205	17.3473 UG/KG
5) TM Chlorobenzene			18.64	3125494	17.8833 UG/KG
6) TM Ethylbenzene			18.92	2820402	18.1958 UG/KG
7) TM m-,p-Xylene			19.17	7103701	37.1226 UG/KG
8) TM o-Xylene			20.34	3100550	18.6824 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	2680464	17.1989 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	2810649	17.1907 UG/KG
12) TM 1,2-Dichlorobenzene			24.81	2641014	18.0042 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\022502\11G13613.D Vial: 5
Acq On : 25 Feb 2002 7:07 pm Operator: CSH
Sample : WG113445-04 8021 STD 4 50PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 19:36 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13613.D Vial: 5
Acq On : 25 Feb 2002 7:07 pm Operator: CSH
Sample : WG113445-04 8021 STD 4 50PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 19:36 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

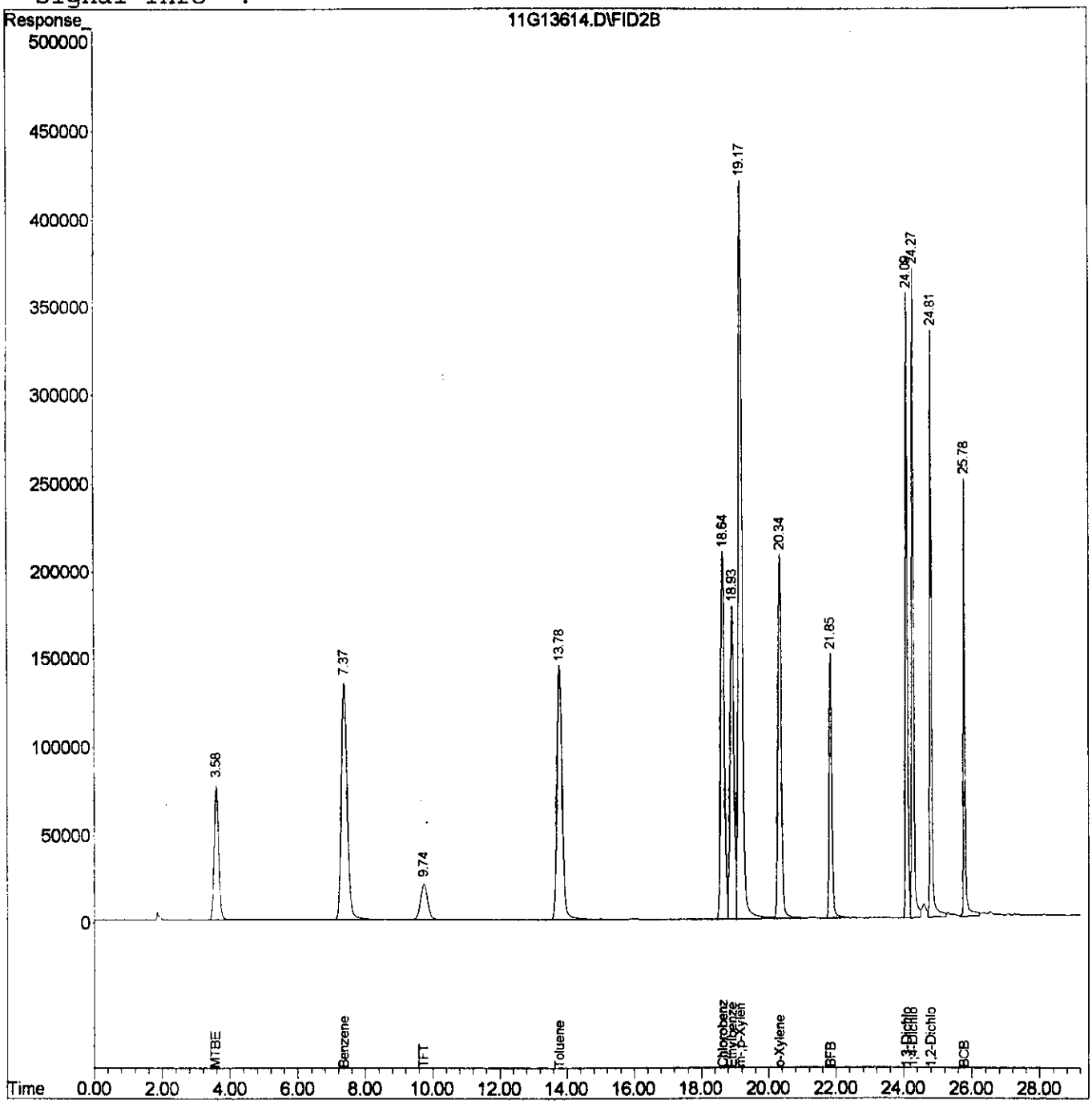
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	2263917	39.3126 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 131.04%#
9) S BFB			21.85	6095946	37.3069 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 124.36%
13) S BCB			25.78	5982794	38.4759 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 128.25%
Target Compounds					
1) TM MTBE			3.58	3469716	44.9144 UG/KG
2) TM Benzene			7.37	7978891	44.0817 UG/KG
4) TM Toluene			13.79	7642207	40.9904 UG/KG
5) TM Chlorobenzene			18.64	7682630	43.9582 UG/KG
6) TM Ethylbenzene			18.92	6806697	43.9133 UG/KG
7) TM m-,p-Xylene			19.17	16540563	86.4378 UG/KG
8) TM o-Xylene			20.34	7231630	43.5742 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	6581566	42.2300 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	6800883	41.5962 UG/KG
12) TM 1,2-Dichlorobenzene			24.81	6206706	42.3121 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\022502\11G13614.D Vial: 6
Acq On : 25 Feb 2002 7:42 pm Operator: CSH
Sample : WG113445-05 8021 STD 5 100PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 20:11 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13614.D Vial: 6
Acq On : 25 Feb 2002 7:42 pm Operator: CSH
Sample : WG113445-05 8021 STD 5 100PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 20:11 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

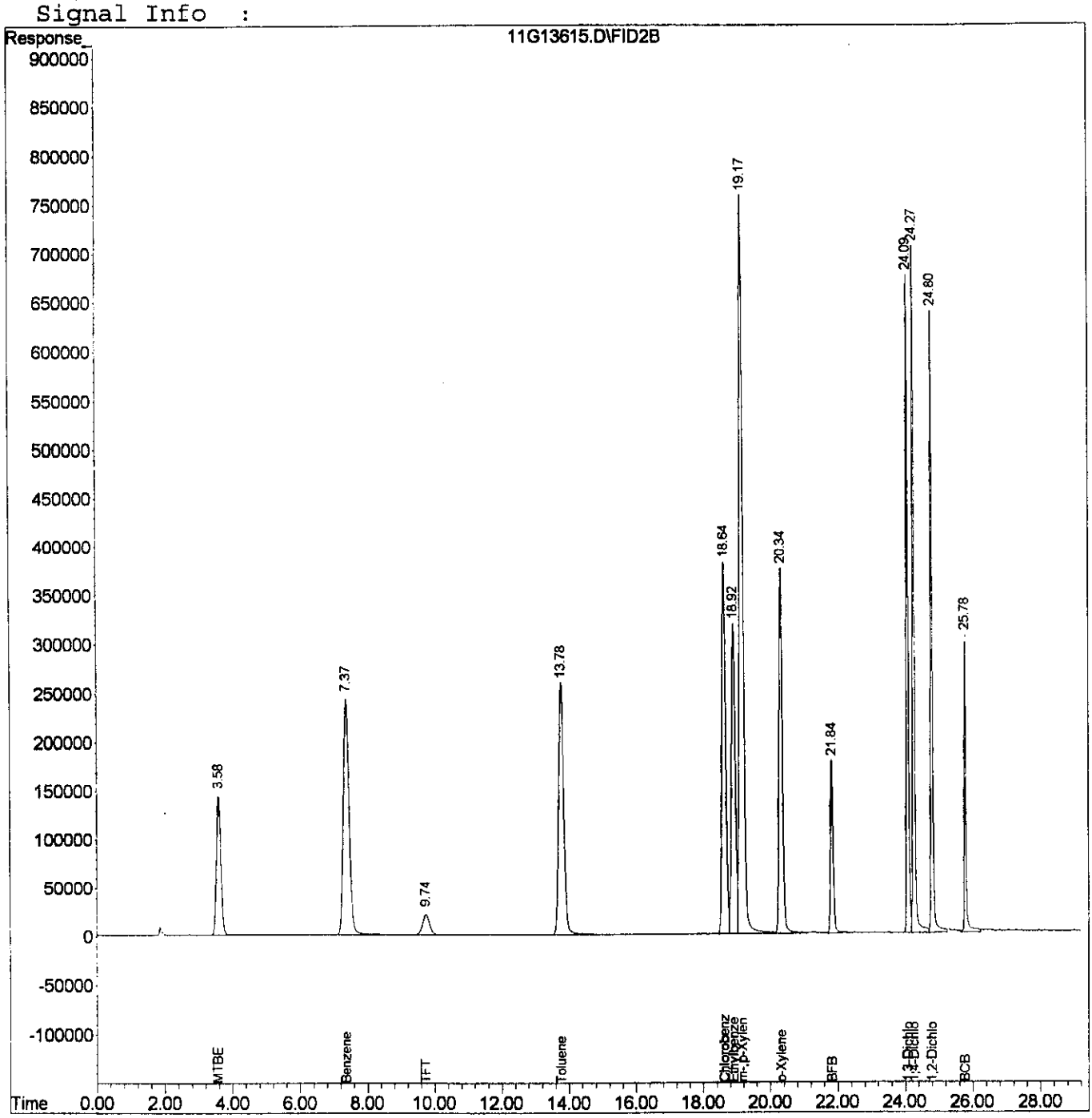
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.75	3099796	53.8275 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 179.43%#
9) S BFB			21.85	8303938	50.8197 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 169.40%#
13) S BCB			25.79	8270224	53.1865 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 177.29%#
Target Compounds					
1) TM MTBE			3.58	7040545	91.1376 UG/KG
2) TM Benzene			7.38	16362066	90.3969 UG/KG
4) TM Toluene			13.79	15587755	83.6079 UG/KG
5) TM Chlorobenzene			18.64	16012645	91.6205 UG/KG
6) TM Ethylbenzene			18.93	14036378	90.5554 UG/KG
7) TM m-,p-Xylene			19.17	33555618	175.3552 UG/KG
8) TM o-Xylene			20.34	14678840	88.4473 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	13967000	89.6180 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	14181670	86.7392 UG/KG
12) TM 1,2-Dichlorobenzene			24.81	12654286	86.2663 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\022502\11G13615.D Vial: 7
Acq On : 25 Feb 2002 8:17 pm Operator: CSH
Sample : WG113445-06 8021 STD 6 200PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 20:46 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13615.D Vial: 7
Acq On : 25 Feb 2002 8:17 pm Operator: CSH
Sample : WG113445-06 8021 STD 6 200PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 20:46 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

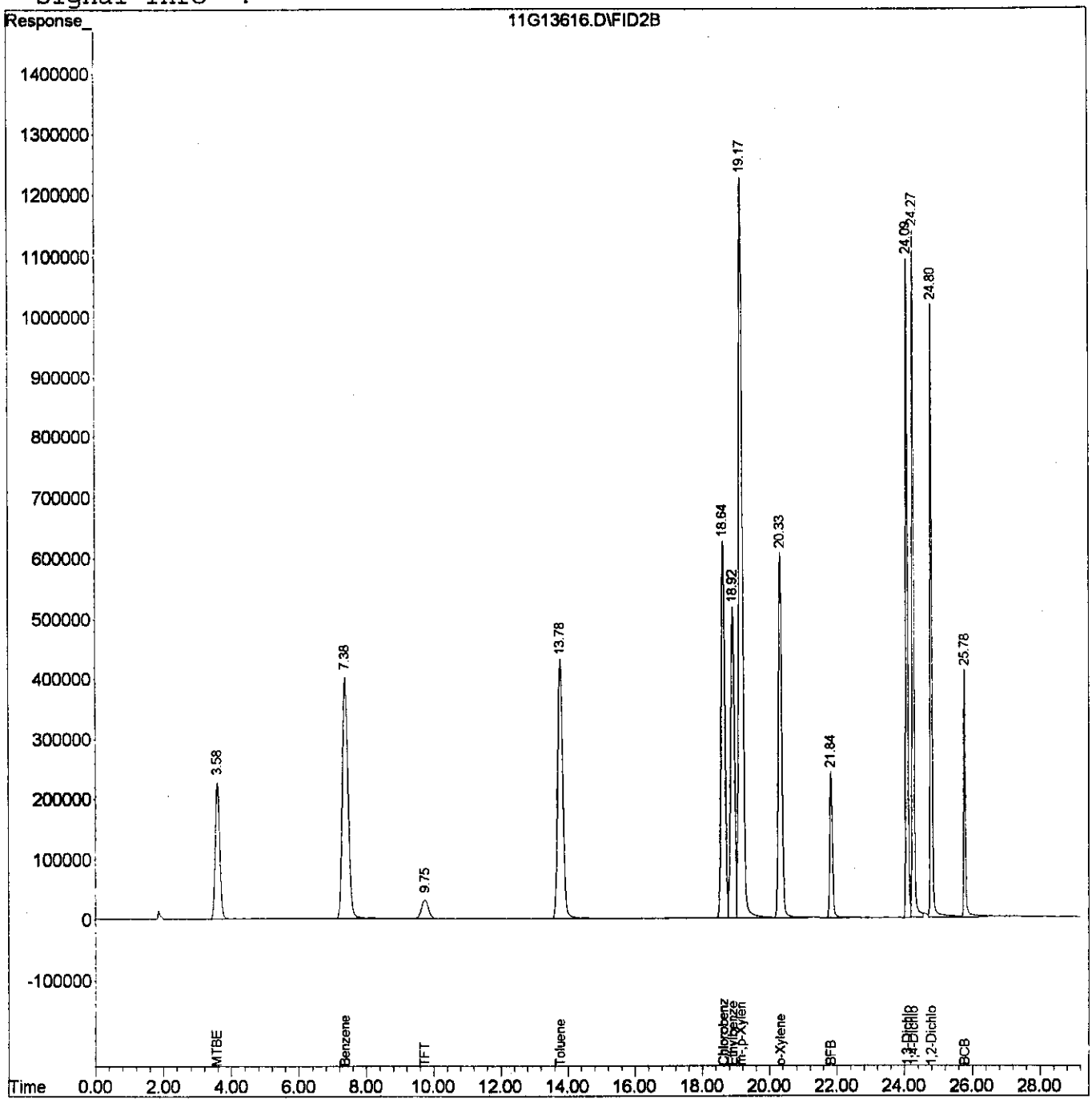
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	3181319	55.2432 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 184.14%#
9) S BFB			21.84	9748090	59.6579 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 198.86%#
13) S BCB			25.78	10186149	65.5080 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 218.36%#
Target Compounds					
1) TM MTBE			3.58	13036143	168.7487 UG/KG
2) TM Benzene			7.38	29069956	160.6053 UG/KG
4) TM Toluene			13.78	27667377	148.3993 UG/KG
5) TM Chlorobenzene			18.64	29006120	165.9661 UG/KG
6) TM Ethylbenzene			18.92	24846746	160.2982 UG/KG
7) TM m-,p-Xylene			19.17	59215425	309.4485 UG/KG
8) TM o-Xylene			20.34	26248343	158.1593 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	26381380	169.2737 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	27230630	166.5504 UG/KG
12) TM 1,2-Dichlorobenzene			24.81	23476822	160.0453 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\022502\11G13616.D Vial: 8
Acq On : 25 Feb 2002 8:51 pm Operator: CSH
Sample : WG113445-07 8021 STD 7 300PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 21:21 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13616.D Vial: 8
Acq On : 25 Feb 2002 8:51 pm Operator: CSH
Sample : WG113445-07 8021 STD 7 300PPB 5G Inst : HP11
Misc : 7,1 S-89-49, S-90-14 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 21:21 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 1/29/02
Last Update : Tue Jan 29 16:29:55 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.75	4627640	80.3583 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 267.86%#
9) S BFB			21.84	13040930	79.8099 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 266.03%#
13) S BCB			25.78	13515762	86.9210 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 289.74%#
Target Compounds					
1) TM MTBE			3.58	20581288	266.4182 UG/KG
2) TM Benzene			7.38	47586526	262.9054 UG/KG
4) TM Toluene			13.79	45511822	244.1114 UG/KG
5) TM Chlorobenzene			18.64	47239833	270.2950 UG/KG
6) TM Ethylbenzene			18.92	40408689	260.6958 UG/KG
7) TM m-,p-Xylene			19.17	95395750	498.5199 UG/KG
8) TM o-Xylene			20.34	42138464	253.9052 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	42337341	271.6536 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	42650662	260.8638 UG/KG
12) TM 1,2-Dichlorobenzene			24.81	37324122	254.4446 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\022502\11G13619.D Vial: 11
Acq On : 25 Feb 2002 22:36 Operator: CSH
Sample : WG113445-08 8021 ALT SOURCE 5G Inst : HP11
Misc : 7,1 S-90-(28,14) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.571	2.1	92	0.00
2	TM	Benzene	20.000	20.471	-2.4	98	0.00
3	S	TFT	30.000	31.697	-5.7	103	0.00
4	TM	Toluene	20.000	21.011	-5.1	97	0.00
5	TM	Chlorobenzene	20.000	19.465	2.7	94	0.00
6	TM	Ethylbenzene	20.000	20.326	-1.6	96	0.00
7	TM	m-,p-Xylene	40.000	40.914	-2.3	94	0.00
8	TM	o-Xylene	20.000	20.293	-1.5	93	0.00
9	S	BFB	30.000	29.611	1.3	101	0.00
10	TM	1,3-Dichlorobenzene	20.000	18.608	7.0	93	0.00
11	TM	1,4-Dichlorobenzene	20.000	18.784	6.1	92	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.569	2.2	94	0.00
13	S	BCB	30.000	28.041	6.5	102	0.00

Data File : C:\HPCHEM\1\DATA\022502\11G13619.D Vial: 11
Acq On : 25 Feb 2002 22:36 Operator: CSH
Sample : WG113445-08 8021 ALT SOURCE 5G Inst : HP11
Misc : 7,1 S-90-(28,14) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration

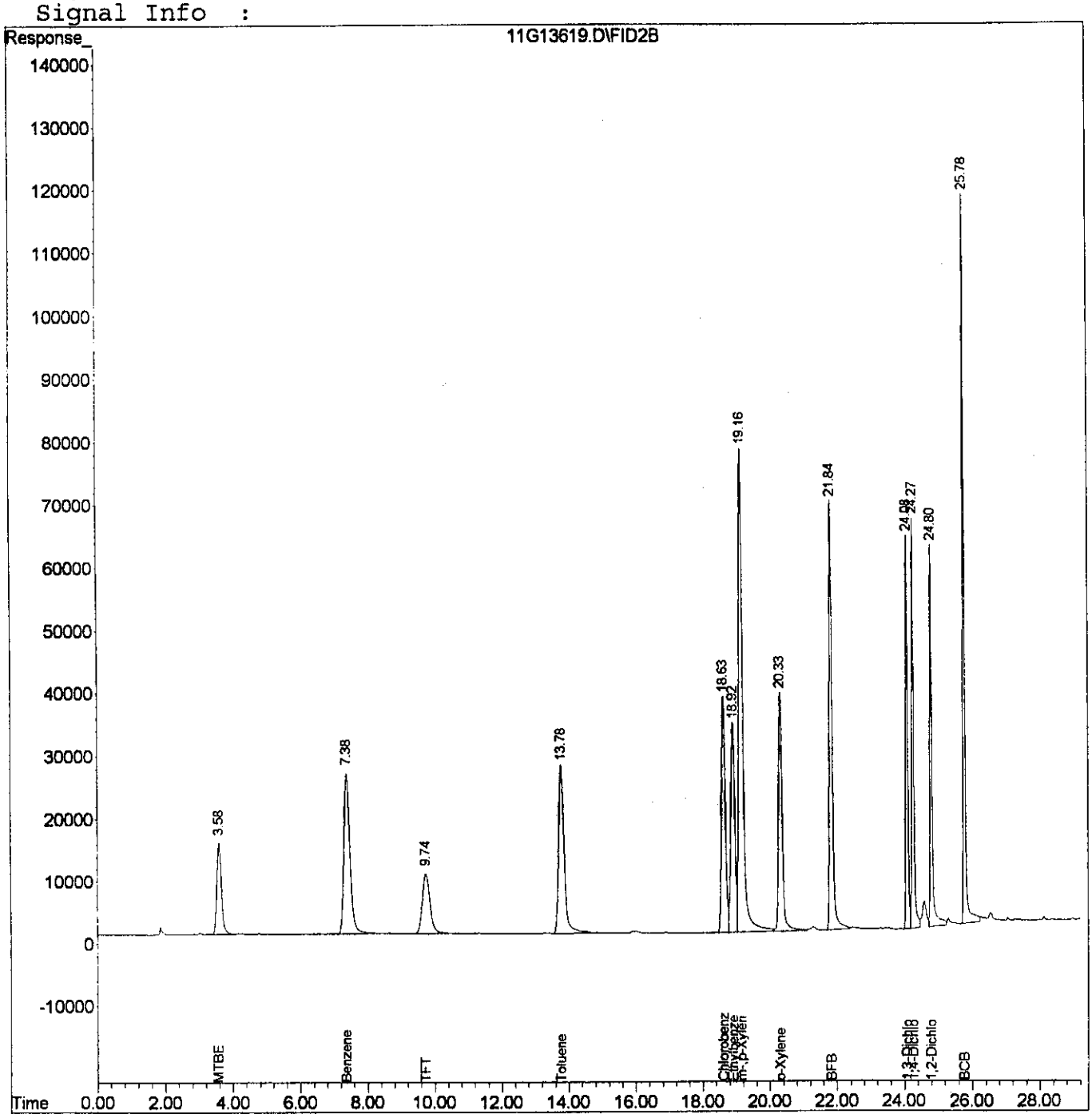
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	71.216	69.689	E3	2.1	92	0.00
2	TM	Benzene	158.944	162.686	E3	-2.4	98	0.00
3	S	TFT	48.800	51.560	E3	-5.7	103	0.00
4	TM	Toluene	149.555	157.114	E3	-5.1	97	0.00
5	TM	Chlorobenzene	151.479	147.430	E3	2.7	94	0.00
6	TM	Ethylbenzene	133.696	135.877	E3	-1.6	96	0.00
7	TM	m-,p-Xylene	163.410	167.143	E3	-2.3	94	0.00
8	TM	o-Xylene	141.473	143.543	E3	-1.5	93	0.00
9	S	BFB	133.710	131.975	E3	1.3	101	0.00
10	TM	1,3-Dichlorobenzene	134.050	124.722	E3	7.0	93	0.00
11	TM	1,4-Dichlorobenzene	137.675	129.302	E3	6.1	92	0.00
12	TM	1,2-Dichlorobenzene	127.184	124.444	E3	2.2	94	0.00
13	S	BCB	136.627	127.707	E3	6.5	102	0.00

Data File : C:\HPCHEM\1\DATA\022502\11G13619.D Vial: 11
Acq On : 25 Feb 2002 10:36 pm Operator: CSH
Sample : WG113445-08 8021 ALT SOURCE 5G Inst : HP11
Misc : 7,1 S-90-(28,14) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 23:05 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\022502\11G13619.D Vial: 11
Acq On : 25 Feb 2002 10:36 pm Operator: CSH
Sample : WG113445-08 8021 ALT SOURCE 5G Inst : HP11
Misc : 7,1 S-90-(28,14) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Feb 25 23:05 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	1546806	31.6969 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 105.66%
9) S BFB			21.84	3959247	29.6108 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 98.70%
13) S BCB			25.78	3831204	28.0414 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 93.47%
Target Compounds					
1) TM MTBE			3.58	1393770	19.5710 UG/KG
2) TM Benzene			7.38	3253714	20.4708 UG/KG
4) TM Toluene			13.78	3142287	21.0109 UG/KG
5) TM Chlorobenzene			18.64	2948603	19.4655 UG/KG
6) TM Ethylbenzene			18.92	2717534	20.3263 UG/KG
7) TM m-,p-Xylene			19.16	6685708	40.9136 UG/KG
8) TM o-Xylene			20.33	2870864	20.2926 UG/KG
10) TM 1,3-Dichlorobenzene			24.09	2494435	18.6083 UG/KG
11) TM 1,4-Dichlorobenzene			24.27	2586042	18.7836 UG/KG
12) TM 1,2-Dichlorobenzene			24.80	2488871	19.5690 UG/KG

Data File : C:\HPCHEM\1\DATA\030802\11G13721.D Vial: 1
Acq On : 8 Mar 2002 11:47 Operator: CBN
Sample : WG114205-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(90-28,91-29) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	71.216	58.365 E3	18.0#	77	-0.02
2	TM	Benzene	158.944	151.532 E3	4.7	91	-0.04
3	S	TFT	48.800	47.682 E3	2.3	95	-0.05
4	TM	Toluene	149.555	166.041 E3	-11.0	103	-0.05
5	TM	Chlorobenzene	151.479	141.899 E3	6.3	91	-0.04
6	TM	Ethylbenzene	133.696	132.676 E3	0.8	94	-0.04
7	TM	m-,p-Xylene	163.410	162.642 E3	0.5	92	-0.04
8	TM	o-Xylene	141.473	136.259 E3	3.7	88	-0.03
9	S	BFB	133.710	120.758 E3	9.7	93	-0.03
10	TM	1,3-Dichlorobenzene	134.050	125.672 E3	6.2	94	-0.02
11	TM	1,4-Dichlorobenzene	137.675	131.421 E3	4.5	94	-0.02
12	TM	1,2-Dichlorobenzene	127.184	120.447 E3	5.3	91	-0.02
13	S	BCB	136.627	126.935 E3	7.1	101	-0.02

AVE = 6.16

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13721.D 8021S.M Fri Mar 08 12:27:42 2002 Page 1

Data File : C:\HPCHEM\1\DATA\030802\11G13721.D Vial: 1
Acq On : 8 Mar 2002 11:47 Operator: CBN
Sample : WG114205-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(90-28,91-29) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

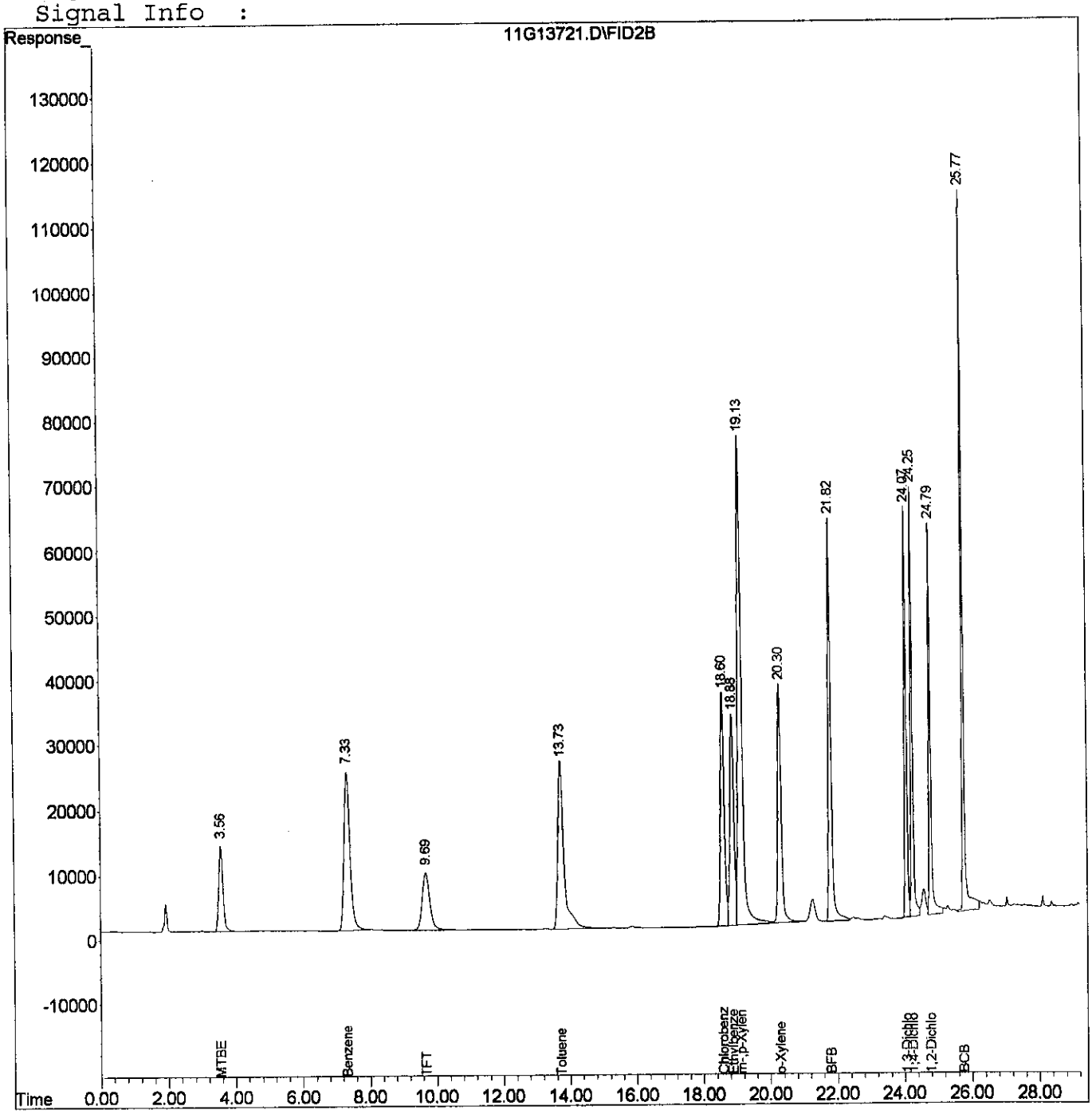
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	16.391	18.0#	77	-0.02
2	TM	Benzene	20.000	19.067	4.7	91	-0.04
3	S	TFT	30.000	29.313	2.3	95	-0.05
4	TM	Toluene	20.000	22.205	-11.0	103	-0.05
5	TM	Chlorobenzene	20.000	18.735	6.3	91	-0.04
6	TM	Ethylbenzene	20.000	19.847	0.8	94	-0.04
7	TM	m-,p-Xylene	40.000	39.812	0.5	92	-0.04
8	TM	o-Xylene	20.000	19.263	3.7	88	-0.03
9	S	BFB	30.000	27.094	9.7	93	-0.03
10	TM	1,3-Dichlorobenzene	20.000	18.750	6.3	94	-0.02
11	TM	1,4-Dichlorobenzene	20.000	19.091	4.5	94	-0.02
12	TM	1,2-Dichlorobenzene	20.000	18.941	5.3	91	-0.02
13	S	BCB	30.000	27.872	7.1	101	-0.02

Data File : C:\HPCHEM\1\DATA\030802\11G13721.D
Acq On : 8 Mar 2002 11:47 am
Sample : WG114205-01 8021 STD 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E
Quant Time: Mar 8 12:17 2002 Quant Results File: 8021S.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13721.D
Acq On : 8 Mar 2002 11:47 am
Sample : WG114205-01 8021 STD 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E
Quant Time: Mar 8 12:17 2002 Quant Results File: 8021S.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.69	1430463	29.3128 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery =	97.71%
9) S BFB			21.82	3622753	27.0942 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery =	90.31%
13) S BCB			25.77	3808056	27.8720 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery =	92.91%
Target Compounds					
1) TM MTBE			3.56	1167297	16.3909 UG/KG
2) TM Benzene			7.33	3030641	19.0674 UG/KG
4) TM Toluene			13.74	3320810	22.2046 UG/KG
5) TM Chlorobenzene			18.60	2837972	18.7351 UG/KG
6) TM Ethylbenzene			18.88	2653514	19.8474 UG/KG
7) TM m-,p-Xylene			19.13	6505666	39.8118 UG/KG
8) TM o-Xylene			20.30	2725174	19.2628 UG/KG
10) TM 1,3-Dichlorobenzene			24.07	2513433	18.7500 UG/KG
11) TM 1,4-Dichlorobenzene			24.25	2628426	19.0915 UG/KG
12) TM 1,2-Dichlorobenzene			24.79	2408939	18.9406 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\030802\11G13728.D
Acq On : 8 Mar 2002 16:32
Sample : WG114205-02 8021 STD 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E

Vial: 4
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	71.216	64.267 E3	9.8	85	0.00
2	TM	Benzene	158.944	153.172 E3	3.6	92	-0.03
3	S	TFT	48.800	45.473 E3	6.8	91	-0.03
4	TM	Toluene	149.555	148.598 E3	0.6	92	-0.03
5	TM	Chlorobenzene	151.479	142.954 E3	5.6	91	-0.04
6	TM	Ethylbenzene	133.696	134.933 E3	-0.9	96	-0.04
7	TM	m-,p-Xylene	163.410	167.673 E3	-2.6	94	-0.03
8	TM	o-Xylene	141.473	141.439 E3	0.0	91	-0.03
9	S	BFB	133.710	111.479 E3	16.6#	86	-0.03
10	TM	1,3-Dichlorobenzene	134.050	125.165 E3	6.6	93	-0.02
11	TM	1,4-Dichlorobenzene	137.675	130.677 E3	5.1	93	-0.02
12	TM	1,2-Dichlorobenzene	127.184	122.665 E3	3.6	93	-0.02
13	S	BCB	136.627	115.928 E3	15.2#	92	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13728.D 8021S.M Mon Mar 11 07:07:44 2002 Page 1

Data File : C:\HPCHEM\1\DATA\030802\11G13728.D
Acq On : 8 Mar 2002 16:32
Sample : WG114205-02 8021 STD 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E

Vial: 4
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

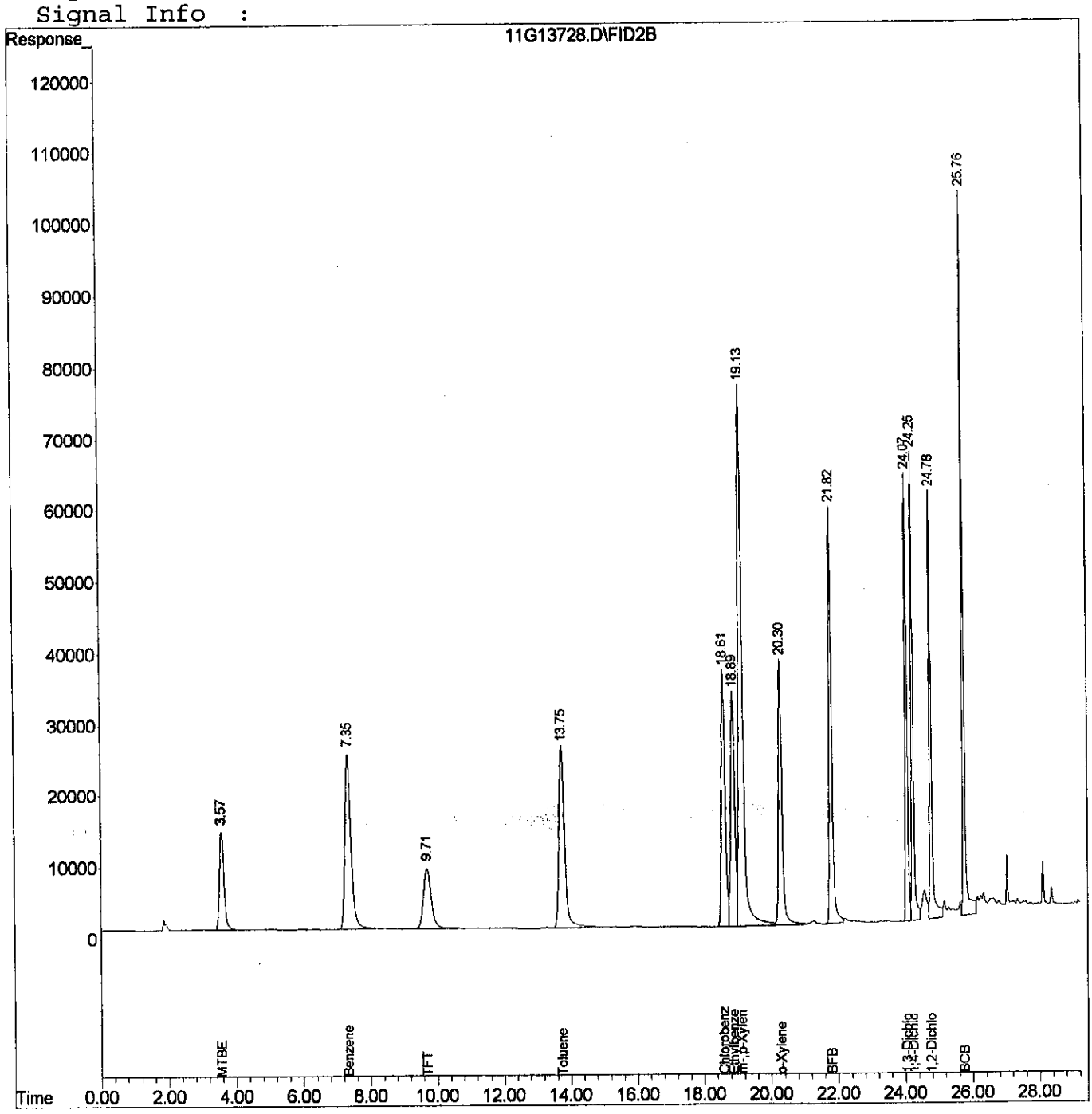
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.049	9.8	85	0.00
2	TM	Benzene	20.000	19.274	3.6	92	-0.03
3	S	TFT	30.000	27.955	6.8	91	-0.03
4	TM	Toluene	20.000	19.872	0.6	92	-0.03
5	TM	Chlorobenzene	20.000	18.875	5.6	91	-0.04
6	TM	Ethylbenzene	20.000	20.185	-0.9	96	-0.04
7	TM	m-,p-Xylene	40.000	41.043	-2.6	94	-0.03
8	TM	o-Xylene	20.000	19.995	0.0	91	-0.03
9	S	BFB	30.000	25.012	16.6#	86	-0.03
10	TM	1,3-Dichlorobenzene	20.000	18.674	6.6	93	-0.02
11	TM	1,4-Dichlorobenzene	20.000	18.983	5.1	93	-0.02
12	TM	1,2-Dichlorobenzene	20.000	19.289	3.6	93	-0.02
13	S	BCB	30.000	25.455	15.2#	92	-0.02

Data File : C:\HPCHEM\1\DATA\030802\11G13728.D
Acq On : 8 Mar 2002 4:32 pm
Sample : WG114205-02 8021 STD 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E
Quant Time: Mar 8 17:02 2002 Quant Results File: 8021S.RES

Vial: 4
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13728.D Vial: 4
Acq On : 8 Mar 2002 4:32 pm Operator: CBN
Sample : WG114205-02 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(90-28,91-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 8 17:02 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.71	1364199	27.9549 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery =	93.18%
9) S BFB			21.82	3344382	25.0123 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery =	83.37%
13) S BCB			25.76	3477852	25.4552 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery =	84.85%
Target Compounds					
1) TM MTBE			3.57	1285343	18.0485 UG/KG
2) TM Benzene			7.34	3063444	19.2737 UG/KG
4) TM Toluene			13.75	2971956	19.8720 UG/KG
5) TM Chlorobenzene			18.60	2859088	18.8745 UG/KG
6) TM Ethylbenzene			18.89	2698668	20.1852 UG/KG
7) TM m-,p-Xylene			19.14	6706925	41.0435 UG/KG
8) TM o-Xylene			20.31	2828789	19.9952 UG/KG
10) TM 1,3-Dichlorobenzene			24.07	2503290	18.6744 UG/KG
11) TM 1,4-Dichlorobenzene			24.25	2613546	18.9834 UG/KG
12) TM 1,2-Dichlorobenzene			24.79	2453296	19.2893 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031102\5G12481.D
Acq On : 11 Mar 2002 7:03
Sample : WG114263-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(90-28,91-01)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	11.236 E3	-1.4	100	-0.04
2	TM	Benzene	58.464	62.654 E3	-7.2	104	-0.05
3	S	TFT	16.886	17.557 E3	-4.0	94	-0.07
4	TM	Toluene	53.514	58.325 E3	-9.0	106	-0.10
5	TM	Chlorobenzene	55.475	61.821 E3	-11.4	107	-0.09
6	TM	Ethylbenzene	45.133	50.718 E3	-12.4	107	-0.09
7	TM	m-,p-Xylene	53.679	58.864 E3	-9.7	104	-0.09
8	TM	o-Xylene	46.904	50.221 E3	-7.1	103	-0.09
9	S	BFB	48.258	46.607 E3	3.4	93	-0.09
10	TM	1,3-Dichlorobenzene	45.376	48.977 E3	-7.9	105	-0.08
11	TM	1,4-Dichlorobenzene	48.816	51.000 E3	-4.5	101	-0.07
12	TM	1,2-Dichlorobenzene	39.484	41.753 E3	-5.7	102	-0.07
13	S	BCB	46.849	45.035 E3	3.9	94	-0.06

Data File : C:\HPCHEM\2\DATA\031102\5G12481.D Vial: 1
Acq On : 11 Mar 2002 7:03 Operator: CBN
Sample : WG114263-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

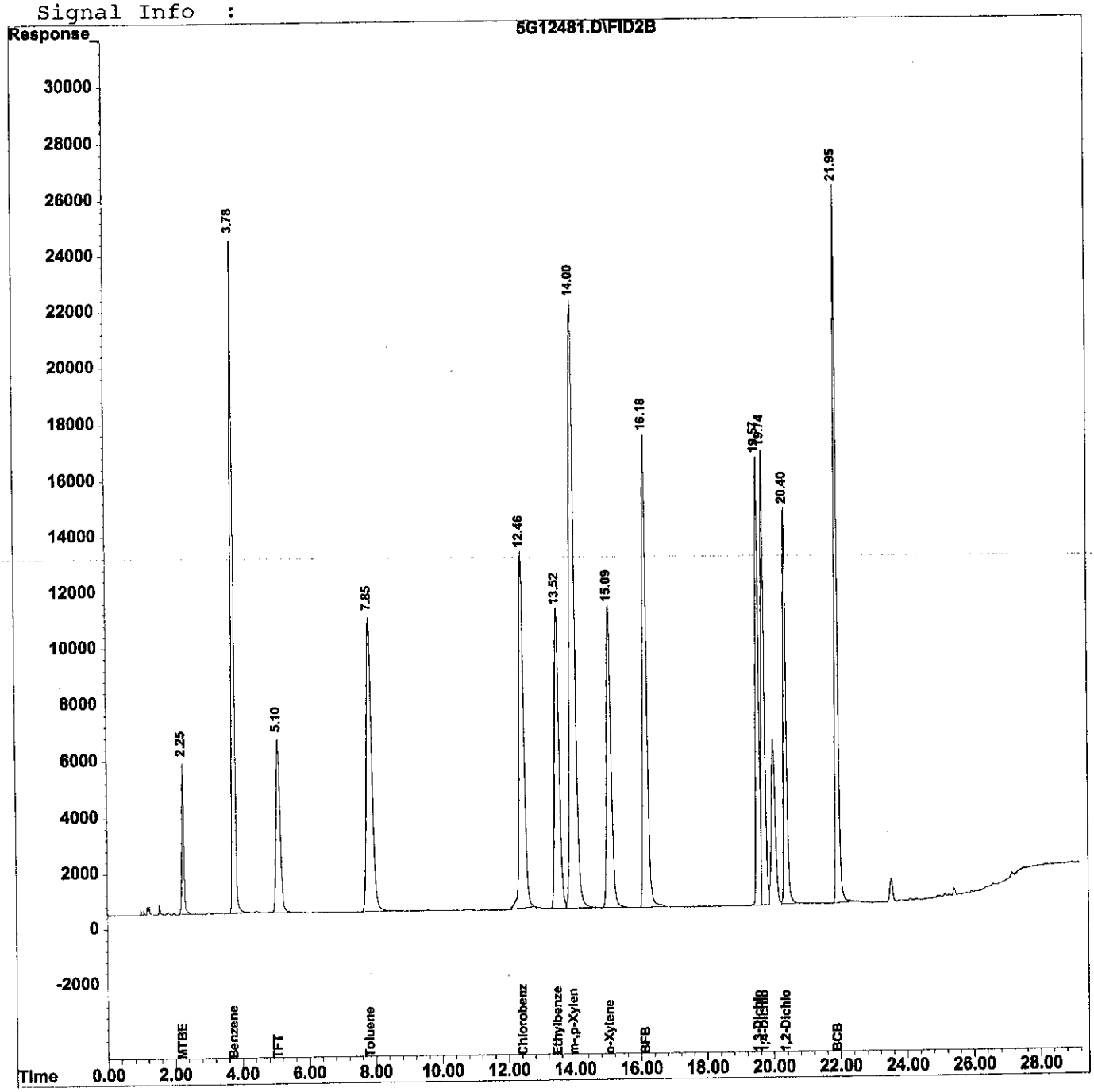
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.278	-1.4	100	-0.04
2	TM	Benzene	20.000	21.433	-7.2	104	-0.05
3	S	TFT	30.000	31.193	-4.0	94	-0.07
4	TM	Toluene	20.000	22.157	-10.8	106	-0.10
5	TM	Chlorobenzene	20.000	22.288	-11.4	107	-0.09
6	TM	Ethylbenzene	20.000	22.514	-12.6	107	-0.09
7	TM	m-,p-Xylene	40.000	43.436	-8.6	104	-0.09
8	TM	o-Xylene	20.000	21.415	-7.1	103	-0.09
9	S	BFB	30.000	28.973	3.4	93	-0.09
10	TM	1,3-Dichlorobenzene	20.000	21.587	-7.9	105	-0.08
11	TM	1,4-Dichlorobenzene	20.000	20.895	-4.5	101	-0.07
12	TM	1,2-Dichlorobenzene	20.000	21.149	-5.7	102	-0.07
13	S	BCB	30.000	28.839	3.9	94	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12481.D 8021W.M Mon Mar 11 07:33:49 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031102\5G12481.D Vial: 1
Acq On : 11 Mar 2002 7:03 Operator: CBN
Sample : WG114263-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 7:32 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12481.D Vial: 1
Acq On : 11 Mar 2002 7:03 Operator: CBN
Sample : WG114263-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 7:32 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.10	526713	31.1927 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 103.98%	
9) S BFB	16.18	1398197	28.9735 ug/L
Spiked Amount 30.000		Recovery = 96.58%	
13) S BCB	21.95	1351047	28.8385 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 96.13%	
Target Compounds			
1) TM MTBE	2.25	224713	20.2777 ug/L
2) TM Benzene	3.78	1253087	21.4335 ug/L
4) TM Toluene	7.85	1166491	22.1567 ug/L
5) TM Chlorobenzene	12.46	1236423	22.2878 ug/L
6) TM Ethylbenzene	13.52	1014355	22.5144 ug/L
7) TM m-,p-Xylene	14.00	2354554	43.4361 ug/L
8) TM o-Xylene	15.09	1004418	21.4145 ug/L
10) TM 1,3-Dichlorobenzene	19.57	979549	21.5874 ug/L
11) TM 1,4-Dichlorobenzene	19.74	1020000	20.8949 ug/L
12) TM 1,2-Dichlorobenzene	20.40	835063	21.1492 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031102\5G12492.D
Acq On : 11 Mar 2002 14:21
Sample : WG114263-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(90-28,91-01)
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.442 E3	5.8	93	-0.04
2	TM	Benzene	58.464	60.451 E3	-3.4	100	-0.06
3	S	TFT	16.886	16.979 E3	-0.6	91	-0.08
4	TM	Toluene	53.514	55.315 E3	-3.4	101	-0.12
5	TM	Chlorobenzene	55.475	57.762 E3	-4.1	100	-0.11
6	TM	Ethylbenzene	45.133	48.543 E3	-7.6	103	-0.10
7	TM	m-,p-Xylene	53.679	56.474 E3	-5.2	99	-0.08
8	TM	o-Xylene	46.904	48.185 E3	-2.7	99	-0.08
9	S	BFB	48.258	45.929 E3	4.8	92	-0.09
10	TM	1,3-Dichlorobenzene	45.376	47.211 E3	-4.0	101	-0.05
11	TM	1,4-Dichlorobenzene	48.816	50.888 E3	-4.2	101	-0.05
12	TM	1,2-Dichlorobenzene	39.484	41.723 E3	-5.7	102	-0.05
13	S	BCB	46.849	45.905 E3	2.0	96	-0.04

Data File : C:\HPCHEM\2\DATA\031102\5G12492.D
Acq On : 11 Mar 2002 14:21
Sample : WG114263-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(90-28,91-01)
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

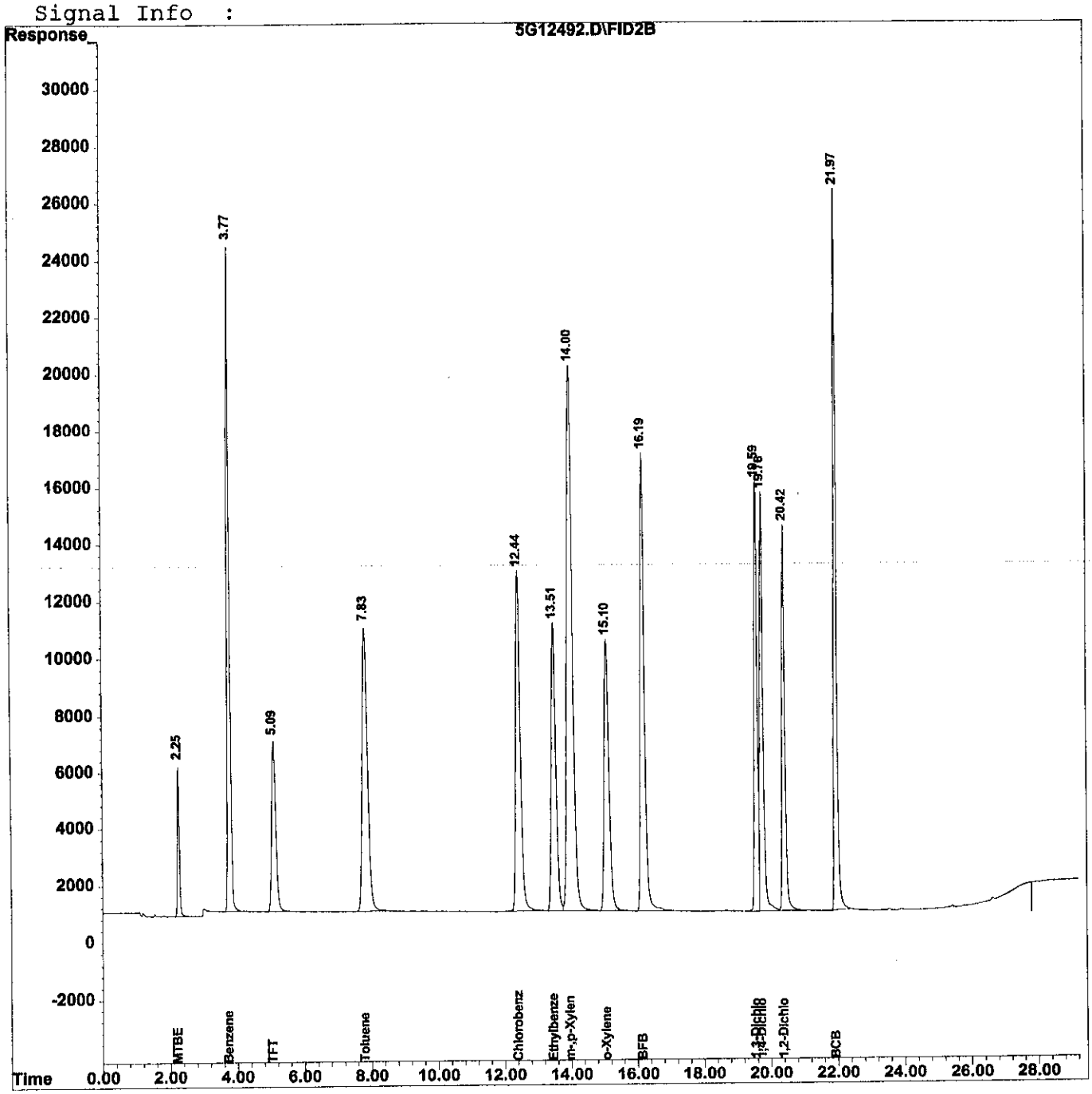
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.846	5.8	93	-0.04
2	TM	Benzene	20.000	20.680	-3.4	100	-0.06
3	S	TFT	30.000	30.165	-0.5	91	-0.08
4	TM	Toluene	20.000	21.070	-5.4	101	-0.12
5	TM	Chlorobenzene	20.000	20.825	-4.1	100	-0.11
6	TM	Ethylbenzene	20.000	21.605	-8.0	103	-0.10
7	TM	m-,p-Xylene	40.000	41.699	-4.2	99	-0.08
8	TM	o-Xylene	20.000	20.546	-2.7	99	-0.08
9	S	BFB	30.000	28.552	4.8	92	-0.09
10	TM	1,3-Dichlorobenzene	20.000	20.809	-4.0	101	-0.05
11	TM	1,4-Dichlorobenzene	20.000	20.849	-4.2	101	-0.05
12	TM	1,2-Dichlorobenzene	20.000	21.134	-5.7	102	-0.05
13	S	BCB	30.000	29.396	2.0	96	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12492.D 8021W.M Mon Mar 11 15:41:42 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031102\5G12492.D Vial: 9
Acq On : 11 Mar 2002 14:21 Operator: CBN
Sample : WG114263-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 14:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\031102\5G12492.D Vial: 9
Acq On : 11 Mar 2002 14:21 Operator: CBN
Sample : WG114263-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 14:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	509362	30.1652 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.55%
9) S BFB	16.19	1377858	28.5520 ug/L
Spiked Amount 30.000		Recovery =	95.17%
13) S BCB	21.98	1377152	29.3958 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	97.99%
Target Compounds			
1) TM MTBE	2.25	208843	18.8456 ug/L
2) TM Benzene	3.77	1209023	20.6798 ug/L
4) TM Toluene	7.83	1106296	21.0698 ug/L
5) TM Chlorobenzene	12.44	1155246	20.8245 ug/L
6) TM Ethylbenzene	13.51	970858	21.6051 ug/L
7) TM m-,p-Xylene	14.01	2258954	41.6995 ug/L
8) TM o-Xylene	15.10	963704	20.5465 ug/L
10) TM 1,3-Dichlorobenzene	19.59	944215	20.8087 ug/L
11) TM 1,4-Dichlorobenzene	19.76	1017762	20.8490 ug/L
12) TM 1,2-Dichlorobenzene	20.42	834464	21.1340 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 8-Mar-02
Filename: 11G13721
Sub Directory: 030802
Instrument: HP11
Matrix: SOIL

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.562	3.541	3.583
benzene	7.333	7.288	7.378
1,1,1-trifluorotoluene (SS)	9.691	9.626	9.756
toluene	13.735	13.679	13.791
chlorobenzene	18.599	18.549	18.649
ethylbenzene	18.883	18.835	18.931
m+p-xylene	19.132	19.085	19.179
o-xylene	20.305	20.263	20.347
bromofluorobenzene (SS)	21.817	21.779	21.855
1,3-dichlorobenzene	24.070	24.047	24.093
1,4-dichlorobenzene	24.253	24.245	24.276
1,2-dichlorobenzene	24.789	24.766	24.812

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G13143 **DATE #1:** 1/14/2002
CONT STD #2: 11G13159 **DATE #2:** 1/14/2002
CONT STD #3: 11G13183 **DATE #3:** 1/15/2002

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.584	3.598	3.589	3.590	0.007	0.021
benzene	7.471	7.496	7.469	7.479	0.015	0.045
1,1,1-trifluorotoluene (SS)	9.902	9.927	9.884	9.904	0.022	0.065
toluene	13.936	13.958	13.921	13.938	0.019	0.056
chlorobenzene	18.775	18.795	18.762	18.777	0.017	0.050
ethylbenzene	19.054	19.074	19.042	19.057	0.016	0.048
m+p-xylene	19.298	19.318	19.287	19.301	0.016	0.047
o-xylene	20.454	20.471	20.443	20.456	0.014	0.042
bromofluorbenzene (SS)	21.949	21.965	21.940	21.951	0.013	0.038
1,3-dichlorobenzene	24.169	24.180	24.165	24.171	0.008	0.023
1,4-dichlorobenzene	24.349	24.359	24.344	24.351	0.008	0.023
1,2-dichlorobenzene	24.878	24.888	24.873	24.880	0.008	0.023

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 11-Mar-02
Filename: 5G12481
Sub Directory: 031102
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.252	**2.229**	**2.275**
benzene	3.778	**3.748**	**3.808**
1,1,1-trifluorotoluene (SS)	5.105	**5.061**	**5.149**
toluene	7.850	**7.782**	**7.918**
chlorobenzene	12.458	**12.381**	**12.535**
ethylbenzene	13.520	**13.434**	**13.606**
m+p-xylene	14.000	**13.897**	**14.103**
o-xylene	15.089	**14.986**	**15.192**
bromofluorobenzene (SS)	16.183	**16.097**	**16.269**
1,3-dichlorobenzene	19.573	**19.508**	**19.638**
1,4-dichlorobenzene	19.740	**19.676**	**19.804**
1,2-dichlorobenzene	20.400	**20.343**	**20.457**
bromochlorobenzene (SS)	21.953	**21.900**	**22.006**

INSTRUMENT:	HP5	**MATRIX:**	WATER
CONT STD #1:	5G11797	**DATE #1:**	9-Jan-02
CONT STD #2:	5G11808	**DATE #2:**	10-Jan-02
CONT STD #3:	5G11824	**DATE #3:**	10-Jan-02

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683	12.635	12.643	12.654	0.026	**0.077**
ethylbenzene	13.748	13.695	13.702	13.715	0.029	**0.086**
m+p-xylene	14.244	14.182	14.187	14.204	0.034	**0.103**
o-xylene	15.328	15.266	15.271	15.288	0.034	**0.103**
bromofluorobenzene (SS)	16.400	16.347	16.355	16.367	0.029	**0.086**
1,3-dichlorobenzene	19.750	19.710	19.715	19.725	0.022	**0.065**
1,4-dichlorobenzene	19.915	19.876	19.880	19.890	0.021	**0.064**
1,2-dichlorobenzene	20.561	20.526	20.530	20.539	0.019	**0.057**
bromochlorobenzene (SS)	22.097	22.064	22.069	22.077	0.018	**0.053**

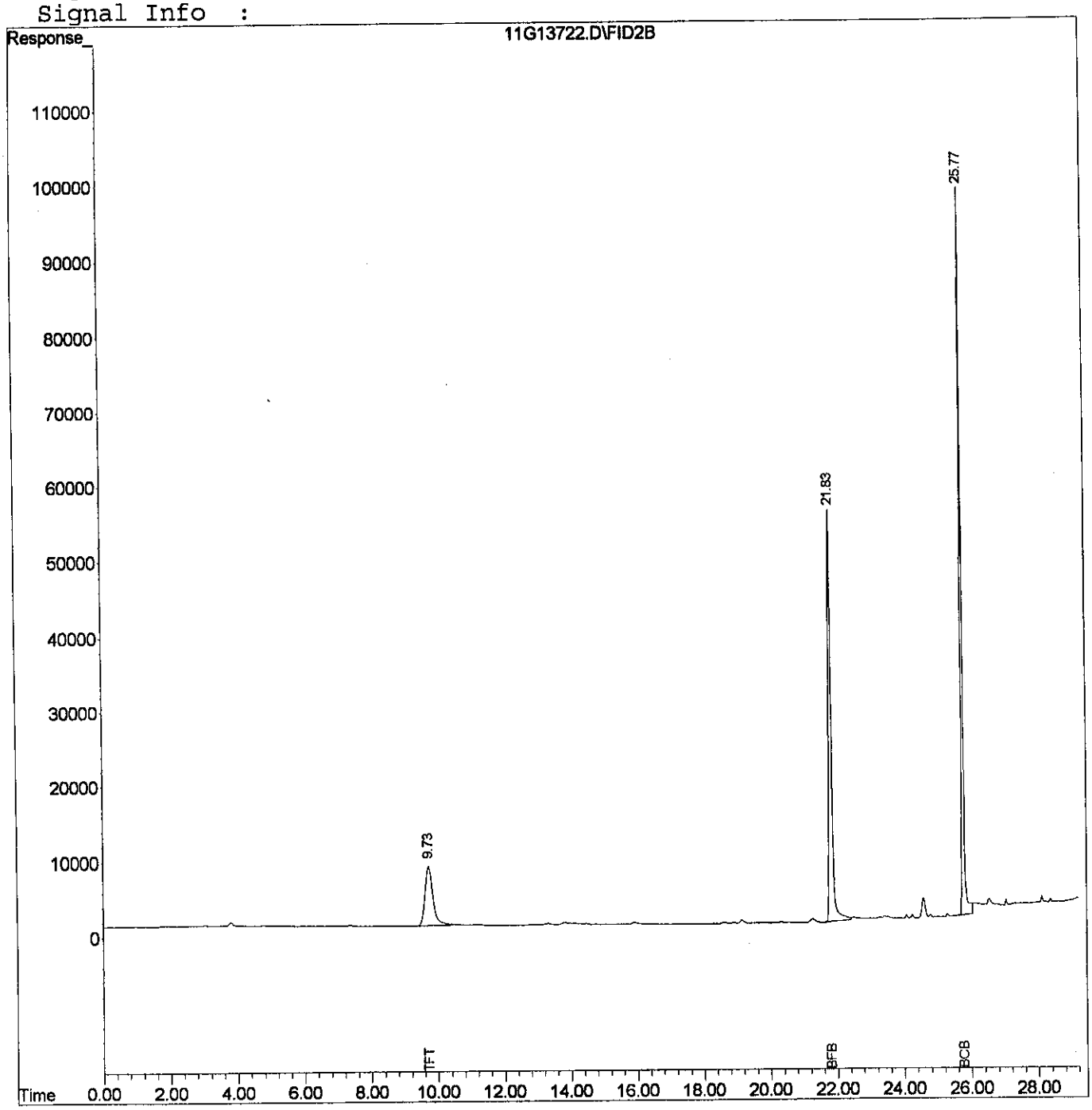
2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\030802\11G13722.D
Acq On : 8 Mar 2002 12:35 pm
Sample : WG114206-01 SOIL BLANK 5G
Misc : 7,1 S-91-29
IntFile : AUTOINT1.E
Quant Time: Mar 8 13:04 2002 Quant Results File: 8021S.RES

Vial: 2
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13722.D
Acq On : 8 Mar 2002 12:35 pm
Sample : WG114206-01 SOIL BLANK 5G
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Vial: 2
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.73	1300791	26.6556 UG/KG ✓
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 88.85%
9) S BFB			21.83	3178584	23.7723 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 79.24%
13) S BCB			25.77	3133548	22.9351 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 76.45%
Target Compounds					
1) TM MTBE			3.80	34918	<MDL UG/KG
2) TM Benzene			0.00	0	N.D. UG/KG
4) TM Toluene			13.82	22703	<MDL UG/KG
5) TM Chlorobenzene			0.00	0	N.D. UG/KG
6) TM Ethylbenzene			19.16	32627	<MDL UG/KG
7) TM m-,p-Xylene			19.16	32627	<MDL UG/KG
8) TM o-Xylene			0.00	0	N.D. UG/KG
10) TM 1,3-Dichlorobenzene			24.08	17306	<MDL UG/KG
11) TM 1,4-Dichlorobenzene			24.26	19566	<MDL UG/KG
12) TM 1,2-Dichlorobenzene			24.79	21139	<MDL UG/KG

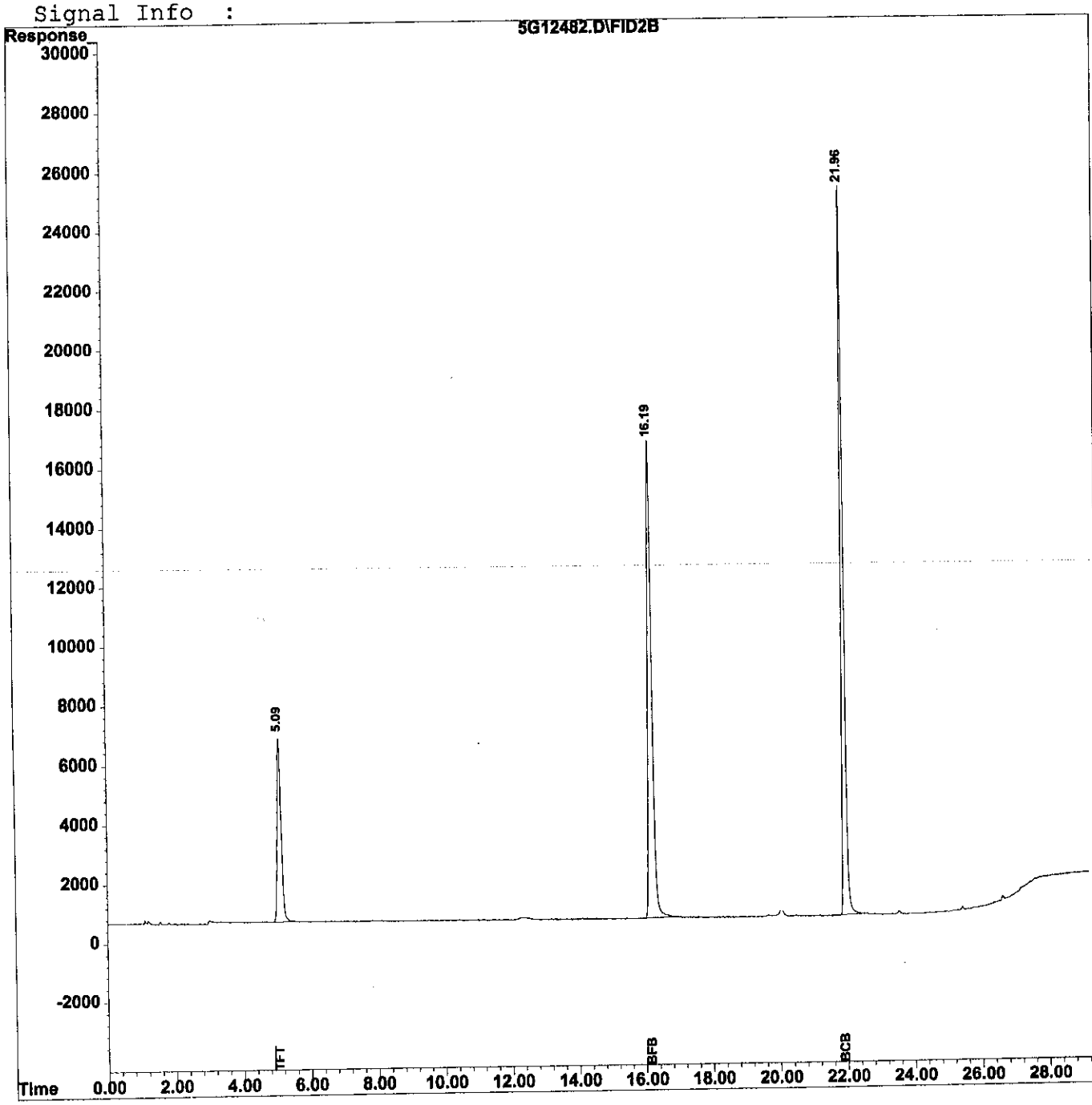
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031102\5G12482.D
Acq On : 11 Mar 2002 7:47
Sample : WG114264-01 WATER BLANK 5ML
Misc : 1,1 S-91-01
IntFile : autoint1.e
Quant Time: Mar 11 8:16 2002 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12482.D Vial: 2
Acq On : 11 Mar 2002 7:47 Operator: CBN
Sample : WG114264-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 8:16 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc	Units
System Monitoring Compounds						
3) S TFT			5.09	519003	30.7361	ug/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	102.45%	
9) S BFB			16.19	1376003	28.5136	ug/L
Spiked Amount	30.000			Recovery =	95.05%	
13) S BCB			21.96	1357998	28.9869	ug/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	96.62%	
Target Compounds						
1) TM MTBE			0.00	0	N.D.	ug/L
2) TM Benzene			0.00	0	N.D.	ug/L
4) TM Toluene			0.00	0	N.D.	ug/L
5) TM Chlorobenzene			0.00	0	N.D.	ug/L
6) TM Ethylbenzene			0.00	0	N.D.	ug/L
7) TM m-,p-Xylene			0.00	0	N.D.	ug/L
8) TM o-Xylene			0.00	0	N.D.	ug/L
10) TM 1,3-Dichlorobenzene			0.00	0	N.D.	ug/L
11) TM 1,4-Dichlorobenzene			20.06	23931	<MDL	ug/L
12) TM 1,2-Dichlorobenzene			0.00	0	N.D.	ug/L

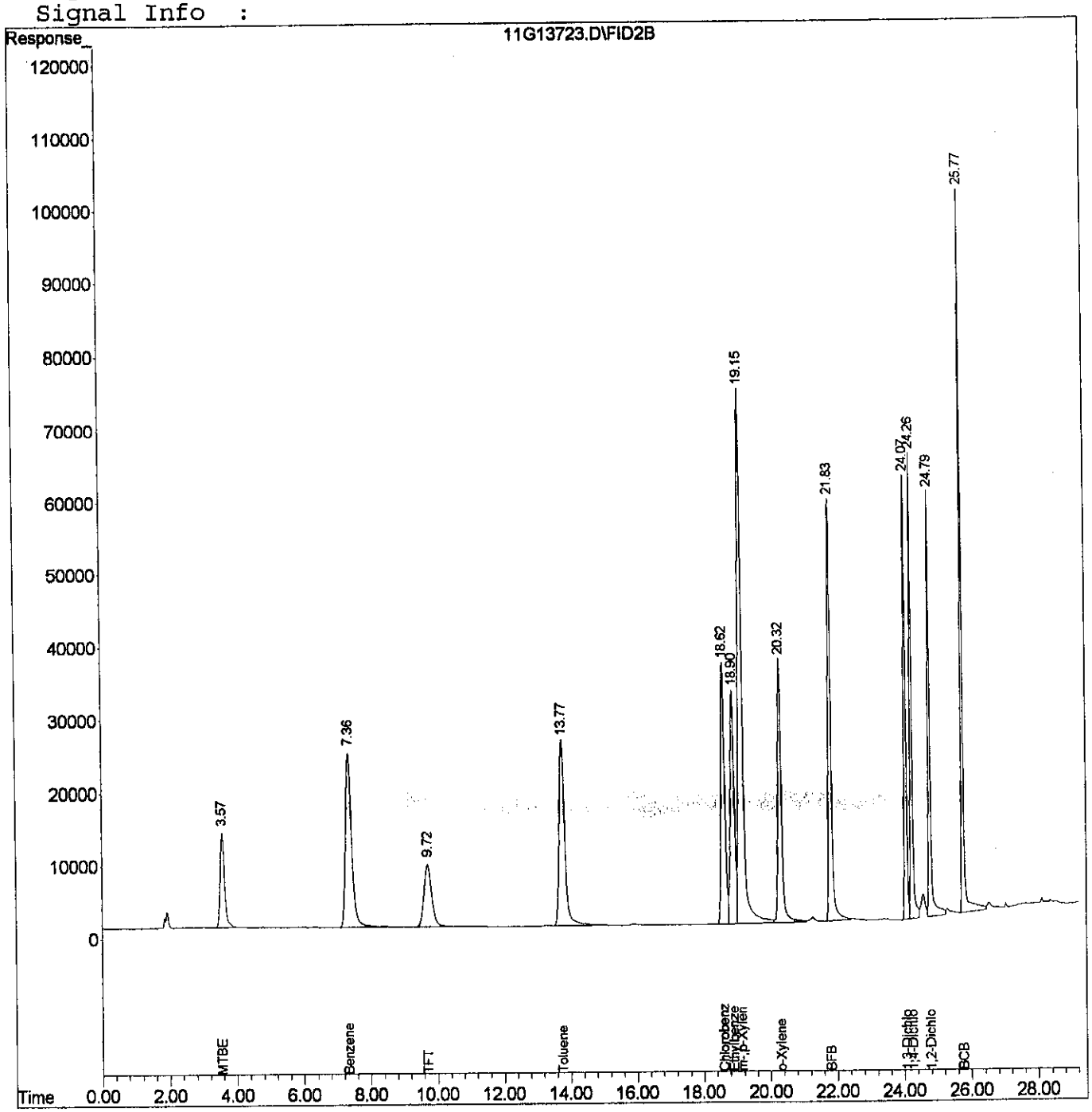
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\030802\11G13723.D
Acq On : 8 Mar 2002 1:09 pm
Sample : WG114206-02 SOIL LCS 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E
Quant Time: Mar 8 13:39 2002 Quant Results File: 8021S.RES

Vial: 3
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13723.D
Acq On : 8 Mar 2002 1:09 pm
Sample : WG114206-02 SOIL LCS 20PPB 5G
Misc : 7,1 S-(90-28,91-29)
IntFile : AUTOINT1.E
Quant Time: Mar 8 13:39 2002 Quant Results File: 8021S.RES

Vial: 3
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

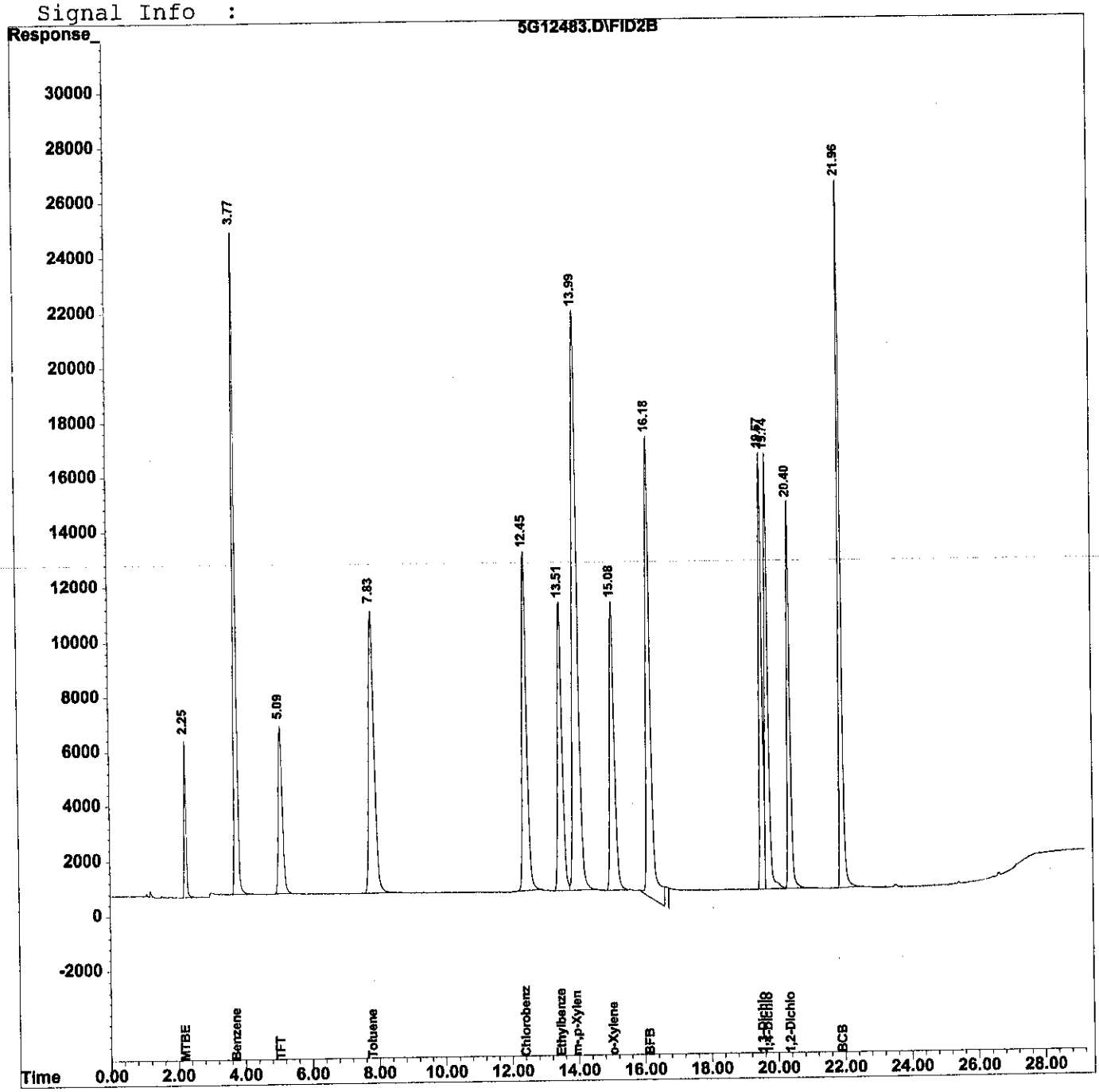
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.72	1390299	28.4897 UG/KG ✓
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 94.97%
9) S BFB			21.83	3377252	25.2581 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 84.19%
13) S BCB			25.77	3393513	24.8379 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 82.79%
Target Compounds					
1) TM MTBE			3.57	1218228	17.1061 UG/KG
2) TM Benzene			7.35	3061180	19.2595 UG/KG
4) TM Toluene			13.77	3014669	20.1576 UG/KG
5) TM Chlorobenzene			18.62	2828606	18.6733 UG/KG
6) TM Ethylbenzene			18.91	2640220	19.7480 UG/KG
7) TM m-,p-Xylene			19.15	6522341	39.9139 UG/KG
8) TM o-Xylene			20.32	2774042	19.6082 UG/KG
10) TM 1,3-Dichlorobenzene			24.08	2432288	18.1447 UG/KG
11) TM 1,4-Dichlorobenzene			24.26	2532759	18.3966 UG/KG
12) TM 1,2-Dichlorobenzene			24.79	2384943	18.7519 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031102\5G12483.D Vial: 3
Acq On : 11 Mar 2002 8:21 Operator: CBN
Sample : WG114264-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 8:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12483.D Vial: 3
Acq On : 11 Mar 2002 8:21 Operator: CBN
Sample : WG114264-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 8:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	521007	30.8548 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 102.85%	
9) S BFB	16.18	1508586	31.2610 ug/L
Spiked Amount 30.000		Recovery = 104.20%	
13) S BCB	21.96	1381998	29.4992 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 98.33%	
Target Compounds			
1) TM MTBE	2.25	226480	20.4372 ug/L
2) TM Benzene	3.77	1251269	21.4024 ug/L
4) TM Toluene	7.84	1154643	21.9428 ug/L
5) TM Chlorobenzene	12.45	1183883	21.3407 ug/L
6) TM Ethylbenzene	13.51	1002864	22.2742 ug/L
7) TM m-,p-Xylene	13.99	2323164	42.8659 ug/L
8) TM o-Xylene	15.08	992484	21.1601 ug/L
10) TM 1,3-Dichlorobenzene	19.57	966666	21.3035 ug/L
11) TM 1,4-Dichlorobenzene	19.74	1050676	21.5233 ug/L
12) TM 1,2-Dichlorobenzene	20.40	843037	21.3512 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: c:\hpchem\2\data\022002

WG113234
1 278

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12231.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::0
2	2	5g12232.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::5
3	2	5g12233.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::4
4	3	5g12234.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::2
5	4	5g12235.d	1.	WG113244-02 STD 2 10PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::5
6	5	5g12236.d	1.	WG113244-03 STD 3 20PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::3
7	6	5g12237.d	1.	WG113244-04 STD 4 50PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::0
8	7	5g12238.d	1.	WG113244-05 STD 5 100PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::4
9	8	5g12239.d	1.	WG113244-06 STD 6 200PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::1
10	9	5g12240.d	1.	WG113244-07 STD 7 300PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::5
11	10	5g12241.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::2
12	11	5g12242.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::0
13	12	5g12243.d	1.	WG113244-08 ALT SOURCE 20PPB 5ML	1,1 S-90-(28,39)	20 Feb 102 12::3
14	1	5g12244.d	1.	WG113278-01 STD 1 90PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::4
15	2	5g12245.d	1.	WG113278-02 STD 2 360PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1
16	3	5g12246.d	1.	WG113278-03 STD 3 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::5
17	4	5g12247.d	1.	WG113278-04 STD 4 1800PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::2
18	5	5g12248.d	1.	WG113278-05 STD 5 3600PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::0
19	6	5g12249.d	1.	WG113278-06 STD 6 7200PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::3
20	7	5g12250.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::1
21	8	5g12251.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::4
22	9	5g12252.d	1.	WG113278-07 ALT SOURCE 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1

Directory: C:\HPCHEM\1\DATA\022502

Injection Log
WG113445
1 446
557

ANALYST: CSF

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13597.d	1.	WG113445-01 8021 STD 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 08:3
2	2	11g13598.d	1.	WG113446-01 SOIL BLANK 5G	7,1 S-90-14	25 Feb 2002 09:2
3	3	11g13599.d	1.	WG113446-02 SOIL LCS 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 09:5
4	1	11g13600.d	1.	L0202375-02 5G	7,1 S-90-14	25 Feb 2002 10:5
5	2	11g13601.d	1.	L0202375-03 5G	7,1 S-90-14	25 Feb 2002 11:3
6	3	11g13602.d	1.	L0202375-04 5G	7,1 S-90-14	25 Feb 2002 12:0
7	4	11g13603.d	1.	L0202375-05 5G	7,1 S-90-14	25 Feb 2002 12:4
8	5	11g13604.d	1.	WG113446-03 L0202375-06 5G	7,1 S-90-14	25 Feb 2002 13:1
9	6	11g13605.d	1.	WG113446-04 L0202375-06 MS 5G	7,1 S-90-(28,14)	25 Feb 2002 13:5
10	7	11g13606.d	1.	WG113446-05 L0202375-06 MSD 5G	7,1 S-90-(28,14)	25 Feb 2002 14:2
11	8	11g13607.d	1.	L0202375-08 5G	7,1 S-90-14	25 Feb 2002 15:0
12	9	11g13608.d	1.	WG113445-02 8021 STD 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 15:3
13	1	11g13609.d	1.	WG113445-01 8021 STD 1 1PPB 5G	7,1 S-89-49, S-90-14	25 Feb 2002 16:4
14	2	11g13610.d	1.	WG113445-01 8021 STD 1 1PPB 5G	7,1 S-89-49, S-90-14	25 Feb 2002 17:2
15	3	11g13611.d	1.	WG113445-02 8021 STD 2 10PP...	7,1 S-89-49, S-90-14	25 Feb 2002 17:5
16	4	11g13612.d	1.	WG113445-03 8021 STD 3 20PP...	7,1 S-89-49, S-90-14	25 Feb 2002 18:3
17	5	11g13613.d	1.	WG113445-04 8021 STD 4 50PP...	7,1 S-89-49, S-90-14	25 Feb 2002 19:0
18	6	11g13614.d	1.	WG113445-05 8021 STD 5 100P...	7,1 S-89-49, S-90-14	25 Feb 2002 19:4
19	7	11g13615.d	1.	WG113445-06 8021 STD 6 200P...	7,1 S-89-49, S-90-14	25 Feb 2002 20:1
20	8	11g13616.d	1.	WG113445-07 8021 STD 7 300P...	7,1 S-89-49, S-90-14	25 Feb 2002 20:5
21	9	11g13617.d	1.	RINSE 5G	7,1 S-90-14	25 Feb 2002 21:2
22	10	11g13618.d	1.	RINSE 5G	7,1 S-90-14	25 Feb 2002 22:0
23	11	11g13619.d	1.	WG113445-08 8021 ALT SOURCE 5G	7,1 S-90-(28,14)	25 Feb 2002 22:3
24	1	11g13620.d	1.	WG113446-01 SOIL BLANK 5G	7,1 S-90-14	25 Feb 2002 23:2
25	2	11g13621.d	1.	WG113446-02 SOIL LCS 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 23:5
2	3	11g13622.d	1.	L0202375-02 5G	7,1 S-90-14	26 Feb 2002 00:3
2	4	11g13623.d	1.	L0202375-03 5G	7,1 S-90-14	26 Feb 2002 01:0
28	5	11g13624.d	1.	L0202375-04 5G	7,1 S-90-14	26 Feb 2002 01:3
29	6	11g13625.d	1.	L0202375-05 5G	7,1 S-90-14	26 Feb 2002 02:1
30	7	11g13626.d	1.	WG113446-03 L0202375-06 5G	7,1 S-90-14	26 Feb 2002 02:4
31	8	11g13627.d	1.	WG113446-04 L0202375-06 MS 5G	7,1 S-90-(28,14)	26 Feb 2002 03:2
32	9	11g13628.d	1.	WG113446-05 L0202375-06 MSD 5G	7,1 S-90-(28,14)	26 Feb 2002 03:5
33	10	11g13629.d	1.	L0202375-08 5G	7,1 S-90-14	26 Feb 2002 04:3
34	11	11g13630.d	1.	WG113445-09 8021 STD 20PPB 5G✓	7,1 S-90-(28,14)	26 Feb 2002 05:0
35	12	11g13631.d	1.	L0202375-09 5G	7,1 S-90-14	26 Feb 2002 05:4
36	13	11g13632.d	1.	L0202375-10 5G	7,1 S-90-14	26 Feb 2002 06:1
37	14	11g13633.d	1.	L0202375-11 5G	7,1 S-90-14	26 Feb 2002 06:5
38	15	11g13634.d	1.	L0202375-12 5G	7,1 S-90-14	26 Feb 2002 07:2
39	16	11g13635.d	1.	L0202375-13 5G	7,1 S-90-14	26 Feb 2002 08:0
40	17	11g13636.d	1.	L0202375-18 5G	7,1 S-90-14	26 Feb 2002 08:3
41	18	11g13637.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 09:1
42	19	11g13638.d	1.	L0202375-19 5G	7,1 S-90-14	26 Feb 2002 09:4
43	20	11g13639.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 10:2
44	21	11g13640.d	1.	L0202375-17 5X 1G	7,1 S-90-14	26 Feb 2002 10:5
45	22	11g13641.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 11:3
46	23	11g13642.d	1.	L0202375-02 5G	7,1,RE S-90-14	26 Feb 2002 12:0
47	24	11g13643.d	1.	L0202375-05 5G	7,1,RE S-90-14	26 Feb 2002 12:4
48	25	11g13644.d	1.	WG113445-10 8021 STD 20PPB 5G✓	7,1 S-90-(28,14)	26 Feb 2002 13:3
49	1	11g13645.d	1.	WG113557-01 SOIL BLANK 5G ✓	7,1 S-90-14	26 Feb 2002 14:1
50	2	11g13646.d	1.	WG113557-02 SOIL LCS 20PPB 5G✓	7,1 S-90-14	26 Feb 2002 14:4
51	3	11g13647.d	1.	L0202390-05 5G✓	7,1 S-90-14	26 Feb 2002 15:4
5	4	11g13648.d	1.	L0202390-06 5G ✓	7,1 S-90-14	26 Feb 2002 16:2
53	5	11g13649.d	1.	WG113557-03 L0202390-07 5G✓	7,1 S-90-14	26 Feb 2002 16:5
54	6	11g13650.d	1.	WG113557-04 L0202390-07 MS 5G✓	7,1 S-90-(28,14)	26 Feb 2002 17:3
55	7	11g13651.d	1.	WG113557-05 L0202390-07 MSD 5G✓	7,1 S-90-(28,14)	26 Feb 2002 18:0

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13721.d	1.	WG114205-01 8021 STD 20PPB 5G ✓	7,1 S-(90-28,91-29)	8 Mar 2002 11:47
2	2	11g13722.d	1.	WG114206-01 SOIL BLANK 5G ✓	7,1 S-91-29	8 Mar 2002 12:35
3	3	11g13723.d	1.	WG114206-02 SOIL LCS 20PPB 5G ✓	7,1 S-(90-28,91-29)	8 Mar 2002 13:09
4	1	11g13724.d	0.92	L0203154-03 A 5.41G 0.92X HIGH SSS ✓	7,0.92 S-91-29	8 Mar 2002 13:55
5	2	11g13725.d	0.98	L0203155-01 A 5.11G 0.98X ✓	7,0.98 S-91-29	8 Mar 2002 14:29
6	3	11g13726.d	0.91	L0203154-03 B 5.50G 0.91X CONF SMI	7,0.91 S-91-29	8 Mar 2002 15:23
7	3	11g13727.d	1.	5035 BLANK 5G ✓	7,1 S-91-29	8 Mar 2002 15:58
8	4	11g13728.d	1.	WG114205-02 8021 STD 20PPB 5G ✓	7,1 S-(90-28,91-29)	8 Mar 2002 16:32

Directory: c:\hpchem\2\data\031102

WG114264
⊥ 322

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12481.d	1.	WG114263-01 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::0
2	2	5g12482.d	1.	WG114264-01 WATER BLANK 5ML ✓	1,1 S-91-01	11 Mar 102 12::4
3	3	5g12483.d	1.	WG114264-02 WATER LCS 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::2
4	1	5g12484.d	1.	L0203155-02 B 5ML pH<2 ✓	1,1 S-91-01	11 Mar 102 12::0
5	2	5g12485.d	1.	L0203155-03 B 5ML pH<2 ✓	1,1 S-91-01	11 Mar 102 13::1
6	3	5g12486.d	50.	WG114264-03 L0203165-01 A 5ML pH<2 50X ✓	1,50 S-91-01	11 Mar 102 13::4
7	4	5g12487.d	50.	L0203165-02 A 5ML pH<2 50X ✓	1,50 S-91-01	11 Mar 102 13::1
8	5	5g12488.d	1.	~~L0203165-03 A 5ML pH<2~~ RR c/o	1,1 S-91-01	11 Mar 102 13::5
9	6	5g12489.d	50.	L0203165-04 A 5ML pH<2 50X ✓	1,50 S-91-01	11 Mar 102 13::2
10	7	5g12490.d	50.	WG114264-04 L0203165-01 MS A 5ML pH<2 5 ✓	1,50 S-91-01	11 Mar 102 12::1
11	8	5g12491.d	50.	WG114264-05 L0203165-01 MSD A 5ML pH<2 ✓	1,50 S-91-01	11 Mar 102 12::4
12	9	5g12492.d	1.	WG114263-02 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::2
13	1	5g12493.d	50.	L0203165-05 A 5ML pH<2 50X RR @ 100X	1,50 S-91-01	11 Mar 102 12::0
14	2	5g12494.d	100.	L0203165-06 A 5ML pH<2 100X RR c/o	1,100 S-91-01	11 Mar 102 12::4
15	3	5g12495.d	50.	L0203165-07 A 5ML pH<2 50X ⊥	1,50 S-91-01	11 Mar 102 12::1
16	4	5g12496.d	1.	L0203165-03 A 5ML pH<2 ✓	1,1 S-91-01	11 Mar 102 12::5
17	5	5g12497.d	1.	L0203172-01 A 5ML pH<2	1,1 S-91-01	11 Mar 102 12::2
18	6	5g12498.d	1.	WG114263-03 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 12::0
19	7	5g12499.d	100.	WG114322-01 EXT BLANK 03/11/02 5G/10ML ✓	7,100 S-91-01	11 Mar 102 12::3
20	8	5g12500.d	100.	WG114322-02 EXT LCS 5G/10ML 100X ✓	7,100 S-(90-28,91-01)	11 Mar 102 12::1
21	9	5g12501.d	988.	L0203154-01 C 5.06G/10ML 988X ✓	7,988 S-91-01	11 Mar 102 12::4
22	10	5g12502.d	917.	L0203154-02 C 5.45G/10ML 917X ✓	7,917 S-91-01	11 Mar 102 12::1
23	11	5g12503.d	1.	RINSE ✓	1,1 S-91-01	11 Mar 102 12::5
24	12	5g12504.d	100.	BATCH BLANK 5G/10ML 100X ✓	7,100 S-91-01	11 Mar 102 12::3
25	13	5g12505.d	1.	WG114263-04 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	11 Mar 102 13::0

REANALYSIS

L0203165-05
⊥ -06
⊥ -07

FILE #

Method 5035 Preservation and Extraction Log
VOA Laboratory

Client	Sample #	Fraction ID	Date Collected	Time Collected (Time Zone)	Date Preserved	Time Preserved (EST)	Sample Weight (g)	Volume of Water	Volume of Methanol	Analyst Initials	Comments
ITCORP TX	L0203056-06	B	3/4/02	1249	3/7/02	1540	6.33	5mL	NA	MES	□ = NOT turned • = turned wrong way
	-07	B	3.4.02	1259		1255	3.85				
	L0203086-01	A	3.5.02	0833		13:42	6.57				
	-02	A		0845		13:44	6.46				
	-03	A		1005		13:46	5.59				
	-04	A		1018		14:36	6.20				
	-05	A		1204		14:38	5.34				
	-06	A		1242		14:41	6.41				
	-07	A		1249		14:43	6.60				
	-08	A		1353		14:45	5.98				
	-09	A		1425		14:47	6.52				
	-10	A		1435		14:48	5.83				
	5035 BLANK	A	—	—		15:00	5.00				
	5035 BLANK	B	—	—		15:01	5.00				
CCI	L0203154-01	A	3/7/02	1410	3/8/02	1120	4.97	5mL	NA	CBN	Δ
	-02	A		1355		1122	5.47				□
	-03	A		1330		1124	5.41				
	L0203155-01	A		1040		1127	5.11				
	5035 BLANK	A	—	—		1130	5.00				
	5035 BLANK	B	—	—	3/8/02	1133		5mL	NA	CBN	
		C	—	—		1135		NA	5mL		
	L0203154-01	B	3/7/02	1410		1140	5.36	5mL	NA	CSH	Δ
		C		~~1355~~		1141	5.06	NA	10mL		
	-02	B		1355		1142	5.53	5mL	NA		
		C					5.45	NA	10mL		
	-03	B		1330		1144	5.50	5mL	NA		
CBN 3/8/02	~~L0203155-03~~	C				1145	5.48	NA	10mL		
	L0203155-01	B		1040		1146	4.49	5mL	NA		
		C					4.99	NA	10mL		

Supervisor Review: _____

Comments:

* = improperly sealed cap
• = improperly sealed plunger
EF = sample effervesced
□ = no NaHSO4

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203155

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CLK REVIEWED: _____ DATE: 3/19/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0203155

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- ___ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms (RIC) and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ___ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: CLK Date: 3/19/02

2.2.5.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0203155
Blank File ID: 2G19281
Date Analyzed: 03/12/02
Time Analyzed: 13:45
Analyst: CLK

Work Group: WG114336
Blank Sample ID: WG114271-01
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114271-02	2G19282	03/12/02 14:01	01
LCS2	WG114271-03	2G19283	03/12/02 14:16	01
026-CEF9-EQB-W-Q1-02	L0203155-02	2G19289	03/12/02 15:53	01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203155
Blank File ID: 2G19284
Date Analyzed: 03/12/02
Time Analyzed: 14:32
Analyst: CLK

Work Group: WG114337
Blank Sample ID: WG114312-02
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114312-03	2G19285	03/12/02 14:47	01
062-CEF9-SB4-S-Q1-02	L0203155-01	2G19298	03/12/02 18:15	01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/19/2002 14:54

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155
Instrument ID: HP2
File ID: 2G19281
Workgroup (AAB#): WG114336
Contract #:

Run Date: 03/12/2002
Run Time: 13:45
Analyst: CLK

Sample ID: WG114271-01
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-25-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	68.4	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/19/2002 14:54

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155
Instrument ID: HP2
File ID: 2G19284
Workgroup (AAB#): WG114337
Contract #:

Run Date: 03/12/2002
Run Time: 14:32
Analyst: CLK

Sample ID: WG114312-02
Method: 8015 MOD
Matrix: Solid
Units: ug/kg
Cal ID: HP2-25-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	4990	9980	4990	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	87.1	43 - 136	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/19/2002 14:54

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203155
Instrument ID: HP2
File ID: 2G19282
Workgroup (AAB#): WG114336
Contract #:

Run Date: 03/12/2002
Run Time: 14:01
Analyst: CLK

Sample ID: WG114271-02
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-25-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2130	62.7	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	76.0	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/19/2002 14:54

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0203155 Worknum:WG114336 Method:8015 MOD
Instrument ID:HP2 Cal ID: HP2-25-JAN-2002 Matrix:Water
Analyst:CLK Contract #: Units:ug/L
Sample ID:WG114271-02 LCS File ID:2G19282 Run Date:03/12/2002 14:01
Sample ID:WG114271-03 LCS2 File ID:2G19283 Run Date:03/12/2002 14:16

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
TRPH-Florida PRO	3400	2130	62.7	3400	2050	60.3	4	50 - 150	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
o-Terphenyl	76.0	76.9	49 - 174	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 02/27/2002
Version 1.2
Report generated 03/19/2002 14:55

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203155
Instrument ID: HP2
File ID: 2G19285
Workgroup (AAB#): WG114337
Contract #:

Run Date: 03/12/2002
Run Time: 14:47
Analyst: CLK

Sample ID: WG114312-03
Method: 8015 MOD
Matrix: Solid
Units: ug/kg
Cal ID: HP2-25-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	136000	94100	69.4	63 - 153	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	78.8	43 - 136	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/19/2002 14:54

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG114336

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
026-CEF9-EQB-W-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	7	3.86	12-MAR-02	7	1.35	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/19/2002 14:55

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG114337

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF9-SB4-S-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.16	12-MAR-02	40	1.15	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0203155
Instrument Id: HP2
Workgroup (AAB#): WG114337

Method: FLA-PRO
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0203155-01	1.00	01	66.7
WG114312-02	1.00	01	87.1
WG114312-03	1.00	01	78.8

Surrogates	Surrogate Limits		
1 - o-Terphenyl	43	-	136

Underline = Result out of surrogate limits

DL = surrogate diluted out

SURROGATE STANDARDS

Login Number: L0203155
Instrument Id: HP2
Workgroup (AAB#): WG114336

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203155-02	1.00	01	73.0
WG114271-01	1.00	01	68.4
WG114271-02	1.00	01	76.0
WG114271-03	1.00	01	76.9

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/19/2002 14:55

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Fri Jan 25 16:14:57 2002

Calibration Files
5 =2G18113.D 50 =2G18112.D 100 =2G18111.D
200 =2G18108.D 400 =2G18110.D 600 =2G18109.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.591	2.178	1.744	1.626	1.866	1.693	1.783	E4	12.13
2)	s	O-Terphenyl	2.014	2.711	2.194	1.988	2.365	2.090	2.227	E4	12.32
3)	s	n-Nonatriacontane	0.004	0.000	0.001	0.000	1.178	1.215	0.400	E4	154.46

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\012502\2G18114.D Vial: 9
Acq On : 25 Jan 2002 16:18 Operator: HV
Sample : WG111957-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2962.315	12.9	96	0.00
2	s	O-Terphenyl	66.700	0.001	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G18114.D FLASHPRO.M Sat Jan 26 11:38:34 2002 Page 1

Sample : WG114393-01 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3237.363	4.8	104	0.00
2	s	O-Terphenyl	66.700	63.048	5.5	106	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19280.D FLASHPRO.M Wed Mar 13 10:47:41 2002 HP2 Page 1

Acq On : 12 Mar 2002 15:18
Sample : WG114393-02 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3189.897	6.2	103	0.00
2	s	O-Terphenyl	66.700	61.333	8.0	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19287.D FLASHPRO.M Wed Mar 13 10:46:08 2002 HP2 Page 1

Sample : WG114393-03 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3604.667	-6.0	116	0.00
2	s	O-Terphenyl	66.700	69.437	-4.1	117	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19292.D FLASHPRO.M Wed Mar 13 10:46:52 2002 HP2 Page 1

Sample : WG114393-04 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3469.322	-2.0	112	0.00
2	s	O-Terphenyl	66.700	70.263	-5.3	118	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19297.D FLASHPRO.M Wed Mar 13 10:48:19 2002 HP2 Page 1

Acq On : 12 Mar 2002 [illegible]
Sample : WG114393-05 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3212.687	5.5	104	0.00
2	s	O-Terphenyl	66.700	63.020	5.5	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19302.D FLASHPRO.M Wed Mar 13 10:48:59 2002 HP2 Page 1

	1	2g18085.d	1.		mecl2	1,1	25 Jan 102 12::2
	1	2g18086.d	1.		WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
	2	2g18087.d	1.	✓	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::4
	3	2g18088.d	1.		WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::5
	4	2g18089.d	1.		WG111856-06 DRO @10000ppm	1,1 NS14-29	25 Jan 102 13::1
	5	2g18090.d	1.		WG111856-05 DRO @5000ppm	1,1 NS14-29	25 Jan 102 13::2
	6	2g18091.d	1.		WG111856-04 DRO @2500ppm	1,1 NS14-29	25 Jan 102 13::3
	7	2g18092.d	1.		WG111856-03 DRO @1000ppm	1,1 NS14-29	25 Jan 102 13::4
	8	2g18093.d	1.		WG111856-02 DRO @500ppm	1,1 NS14-29	25 Jan 102 13::5
0	9	2g18094.d	1.		WG111856-01 DRO @100ppm	1,1 NS14-29	25 Jan 102 13::0
1	10	2g18095.d	1.		WG111856-07 ALT 1000ppm	1,1 SOS55-36	25 Jan 102 13::2
2	11	2g18096.d	1.		WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 13::4
3	12	2g18097.d	1.	✓	WG111819-01 DRO water BLK	1,1 V179-P87	25 Jan 102 13::0
4	13	2g18098.d	1.		WG111819-02 DRO water LCS	1,1 V179-P87	25 Jan 102 13::1
5	14	2g18099.d	1.		WG111819-03 DRO water LCS2	1,1 V179-P87	25 Jan 102 13::2
6	15	2g18100.d	1.		L0201336-42 DRO water	1,1 water	25 Jan 102 13::3
7	16	2g18101.d	1.		L0201336-43 DRO water	1,1 water	25 Jan 102 13::4
8	17	2g18102.d	1.04		L0201381-01 DRO water	1,1 water	25 Jan 102 13::5
9	18	2g18103.d	1.25		L0201331-05 DRO water	1,1 water	25 Jan 102 12::0
0	19	2g18104.d	1.2		mecl2	1,1 water	25 Jan 102 12::1
1	20	2g18105.d	1.	✓	WG111856-08 DRO CCV	1,1 water	25 Jan 102 12::3
2	1	2g18106.d	1.		MECL2	1,1 water	25 Jan 102 12::1
3	2	2g18107.d	1.		WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
4	3	2g18108.d	1.	✓	WG111957-01 PRO CCV	1,1 SOS58-05	25 Jan 102 12::4
5	4	2g18109.d	1.		WG111901-01 PRO @600ppm	1,1 SOS58-05	25 Jan 102 12::0
6	5	2g18110.d	1.		WG111957-05 PRO @400ppm	1,1 SOS58-05	25 Jan 102 12::1
7	6	2g18111.d	1.		WG111957-03 PRO @100ppm	1,1 SOS58-05	25 Jan 102 12::3
8	7	2g18112.d	1.		WG111957-02 PRO @50ppm	1,1 SOS58-05	25 Jan 102 12::4
9	8	2g18113.d	1.		WG111957-01 PRO @5ppm	1,1 SOS58-05	25 Jan 102 12::0
0	9	2g18114.d	1.	✓	WG111957-07 ALT @200ppm	1,1 SOS58-05	25 Jan 102 12::1
1	10	2g18115.d	1.		WG111907-01 PRO water BLK	1,1 V179-P99	25 Jan 102 12::3
2	11	2g18116.d	1.		WG111907-02 PRO water LCS	1,1 V179-P99	25 Jan 102 12::5
3	12	2g18117.d	1.		WG111907-03 PRO water LCS2	1,1 V179-P99	25 Jan 102 12::0
4	13	2g18118.d	1.		L0201405-04 PRO water	1,1 water	25 Jan 102 12::2
5	14	2g18119.d	1.05		L0201408-10 PRO water	1,1 water	25 Jan 102 12::3
6	15	2g18120.d	1.		mecl2	1,1 water	25 Jan 102 12::5
7	1	2g18121.d	1.	✓	WG111957-08 PRO CCV	1,1 SOS58-05	25 Jan 102 12::0
8	16	2g18122.d	40.		WG111873-02 PRO soil BLK	7,1 soil V179-P97	25 Jan 102 12::2
9	17	2g18123.d	40.		WG111873-03 PRO soil LCS	7,1 V179-P97	25 Jan 102 12::3
0	18	2g18124.d	40.		L0201408-01 PRO soil	7,1 soil	25 Jan 102 12::5
1	19	2g18125.d	40.		L0201408-03 PRO soil	7,1 soil	25 Jan 102 12::0
2	20	2g18126.d	40.		L0201408-05 PRO soil	7,1 soil	25 Jan 102 12::2
3	21	2g18127.d	40.		WG111873-01 Ref PRO soil	7,1 I0201408-06 ref	25 Jan 102 12::3
4	22	2g18128.d	40.		WG111873-04 MS PRO soil	7,1 I0201408-07 MS	25 Jan 102 12::5
5	23	2g18129.d	40.		WG111873-05 MSD PRO soil	7,1 I0201408-08 MSD	25 Jan 102 12::1
6	24	2g18130.d	40.		mecl2	7,1 I0201408-08 MSD	25 Jan 102 12::2
7	24	2g18131.d	40.		mecl2	7,1 I0201408-08 MSD	25 Jan 102 12::4
8	1	2g18132.d	1.	✓	WG111957-09 PRO CCV	1,1 SOS58-05	25 Jan 102 12::5
9	25	2g18133.d	400.	PR	L0201408-02 10X PRO soil	7,10 soil	25 Jan 102 12::1
0	26	2g18134.d	400.	PR	L0201408-04 10X PRO soil	7,10 soil	25 Jan 102 12::2
1	27	2g18135.d	40.	✓	L0201408-09 PRO soil	7,1 soil	25 Jan 102 12::4
2	28	2g18136.d	800.		L0201404-01 20x PRO soil	7,20 soil	25 Jan 102 13::0
3	29	2g18137.d	800.		L0201404-02 20x PRO soil	7,20 soil	25 Jan 102 13::1
4	30	2g18138.d	800.		L0201405-01 20x PRO soil	7,20 soil	25 Jan 102 13::3
5	31	2g18139.d	2000.		L0201405-02 50x PRO soil	7,50 soil	25 Jan 102 13::4

56	32	2g18140.d	1.	mecl2	1,1	25 Jan 102 13::0
57	32	2g18141.d	1.	mecl2	1,1	25 Jan 102 13::2
58	2	2g18142.d	1.	WG111957-10 PRO CCV	1,1 SOS58-05	25 Jan 102 13::3
59	3	2g18143.d	40.	WG111941-02 PRO soil BLK	7,1 V179-P109	25 Jan 102 13::5
60	4	2g18144.d	40.	WG111941-03 PRO soil LCS	7,1 V179-P109	26 Jan 102 13::0
61	5	2g18145.d	2000.	WG111941-01 REF 50X PRO soil	7,1 I0201438-01 ref	26 Jan 102 13::2
62	6	2g18146.d	2000.	I0201439-01 50X PRO soil	7,1 I0201438-01 ref	26 Jan 102 13::4
63	7	2g18147.d	400.	WG111941-04 MS 10x	7,10 I0201438-01 MS	26 Jan 102 13::5
64	8	2g18148.d	400.	WG111941-05 MSD 10x	7,10 I0201438-01 MSD	26 Jan 102 12::1
65	32	2g18149.d	1.	mecl2	1,1	26 Jan 102 12::2
66	32	2g18150.d	1.	mecl2	1,1	26 Jan 102 12::4
67	2	2g18151.d	1.	WG111957-11 PRO CCV	1,1	26 Jan 102 12::0

HV 1/28/02

Analysis Date/Time Jan. 25 02 Instrument ID 4P2 Column ID RTX-5 Data Subdirectory 012502

Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 ✓ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check

☑ Gases >500 psi

Preventative Maintenance

☐ Change o-ring
☑ Change liner
☑ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

sg 18133 and sg 18134. DR. require to run straight.

Reviewed by _____

	1	2g19278.d	1.	✓ mecl2	1,1	12 Mar 102 13::4
	2	2g19279.d	1.	✓ win def std	1,1 NS14-41	12 Mar 102 13::5
	3	2g19280.d	1.	WG114393-01 PRO CCV	1,1 SOS 58-05	12 Mar 102 13::1
	4	2g19281.d	1.	WG114271-01 BLK 3/11 V181P137	1,1	12 Mar 102 12::4
	5	2g19282.d	1.	WG114271-02 LCS 3/11 V181P137	1,1	12 Mar 102 12::0
	6	2g19283.d	1.	WG114271-03 LCS DUP 3/11 V181P137	1,1	12 Mar 102 12::1
	7	2g19284.d	1.	WG114312-02 BLK 3/11 V181P149	7,1 SOIL	12 Mar 102 12::3
	8	2g19285.d	1.	WG114312-03 LCS 3/11 V181P149	7,1 SOIL	12 Mar 102 12::4
	9	2g19286.d	1.	MECL2	1,1	12 Mar 102 12::0
0	10	2g19287.d	1.	WG114393-02 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::1
1	11	2g19288.d	1.	L0203154-04 PRO	1,1	12 Mar 102 12::3
2	12	2g19289.d	1.	L0203155-02 PRO	1,1	12 Mar 102 12::5
3	13	2g19290.d	1.	L0203049-01 PRO	2,1	12 Mar 102 12::0
4	14	2g19291.d	1.	MECL2	1,1	12 Mar 102 12::2
5	15	2g19292.d	1.	WG114393-03 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::3
6	16	2g19293.d	1.	RR10 WG114312-01 L0203154-01 REF	7,1 SOIL	12 Mar 102 12::5
7	17	2g19294.d	1.	WG114312-04 L0203154-01 MS PRO	7,1 SOIL	12 Mar 102 12::1
8	18	2g19295.d	1.	WG114312-05 L0203154-01 MSD PRO	7,1 SOIL	12 Mar 102 12::2
9	19	2g19296.d	1.	MECL2	1,1	12 Mar 102 12::4
0	20	2g19297.d	1.	WG114393-04 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::0
1	21	2g19298.d	1.	L0203155-01 PRO	7,1 SOIL	12 Mar 102 12::1
2	22	2g19299.d	1.	RR10 L0203154-02 PRO	7,1 SOIL	12 Mar 102 12::3
3	23	2g19300.d	1.	✓ L0203154-03 PRO	7,1 SOIL	12 Mar 102 12::4
4	19	2g19301.d	1.	MECL2	1,1	12 Mar 102 12::0
5	20	2g19302.d	1.	WG114393-05 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::1

CLK 3/13/02
PRC 3/13/02

Analysis Date/Time 3/12/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 031202
Analyst Initials CLK/RDC

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☒ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☒ Change liner
☒ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0203049-01 PRO, ~~55~~ CLK 3/13/02 O-Terphenyl high, SMI

WG114312-01 L0203154-01 REF (PRO), Needs 10X

~~LOT~~ CLK 3/13/02 L0203154-02 PRO, Needs 10X

Reviewed By: RDC 3/13/02

Parameter: FLA-PRO H2SOP #: [illegible] Revision #: —
Extraction Analyst(s): REK TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 @ 0730 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: REK Witness: CEB
Surrogate #: ES50040-18 Earliest Hold Date: 03/11/02
Spike #: A = ES50040-19 Spike #: B = —

Extraction Work Group WG [illegible]
Analytical Work Group WG 114336

Extract Relinquished By: DP
Extract Received By & Date: [illegible] 3/11/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 114271-01
2	LCS		✓			⊥	⊥	1mL	⊥	T				WG ⊥ -02
3	LCS DUP		✓			⊥	⊥	⊥	⊥	T				WG ⊥ -03
1/13 4	03-049-01	FLA-PRO	✓			880 mL	⊥		⊥	C				
1/15 5	03-154-04	⊥	✓			910 mL	⊥		⊥	T				
3/15 6	03-155-02	⊥	✓			⊥	⊥		⊥	T				
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/11/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: F1 HCL Lot #: ER2034
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR2085

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/11/02

Extraction Notes For Volume # 121 Page # 154

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: PRO-S SOP #: EXPRO Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 @ 1435 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: DP Witness: CAH
Surrogate #: ES500140-18 Earliest Hold Date: 03/21/02
Spike #: A = ES500140-19 Spike #: B = —

Extraction Work Group WG —
Analytical Work Group WG 14337

Extract Relinquished By: DP
Extract Received By & Date: JAR 03/11/02

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank					25.04 g	1 mL		1 mL	T				WG 114312-02
2	LCS					.08 g		1 mL		T				WG -03
3	03-154-01	FLA-PRO				.08 g				C				WG -01
4	-01MS					.09 g		1 mL		C				WG -04
5	-01MSD					.06 g		1 mL		C				WG -05
6	-02					.06 g				C				
7	-03					.05 g				C				
8	-04					.06 g				C				
9	03-155-01													
10	DP 03/11/02													
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/11/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 3-11-02

Extraction Notes For Volume # 181 Page # 177

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.5.2 Sample Data

Acq On : 12 Mar 2002 18:15 Operator: CLK/RDC
Sample : L0203155-01 PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.82	297058	13.338	ppb	m
Spiked Amount 20.000	Range 43 - 136	Recovery =	66.69%		
3) s n-Nonatriacontane	0.00	0	N.D.	ppm	
Spiked Amount 800.000		Recovery =	0.00%		
Target Compounds					
1) H Petroleum Range	3.51	126339666	7086.586	ppb	

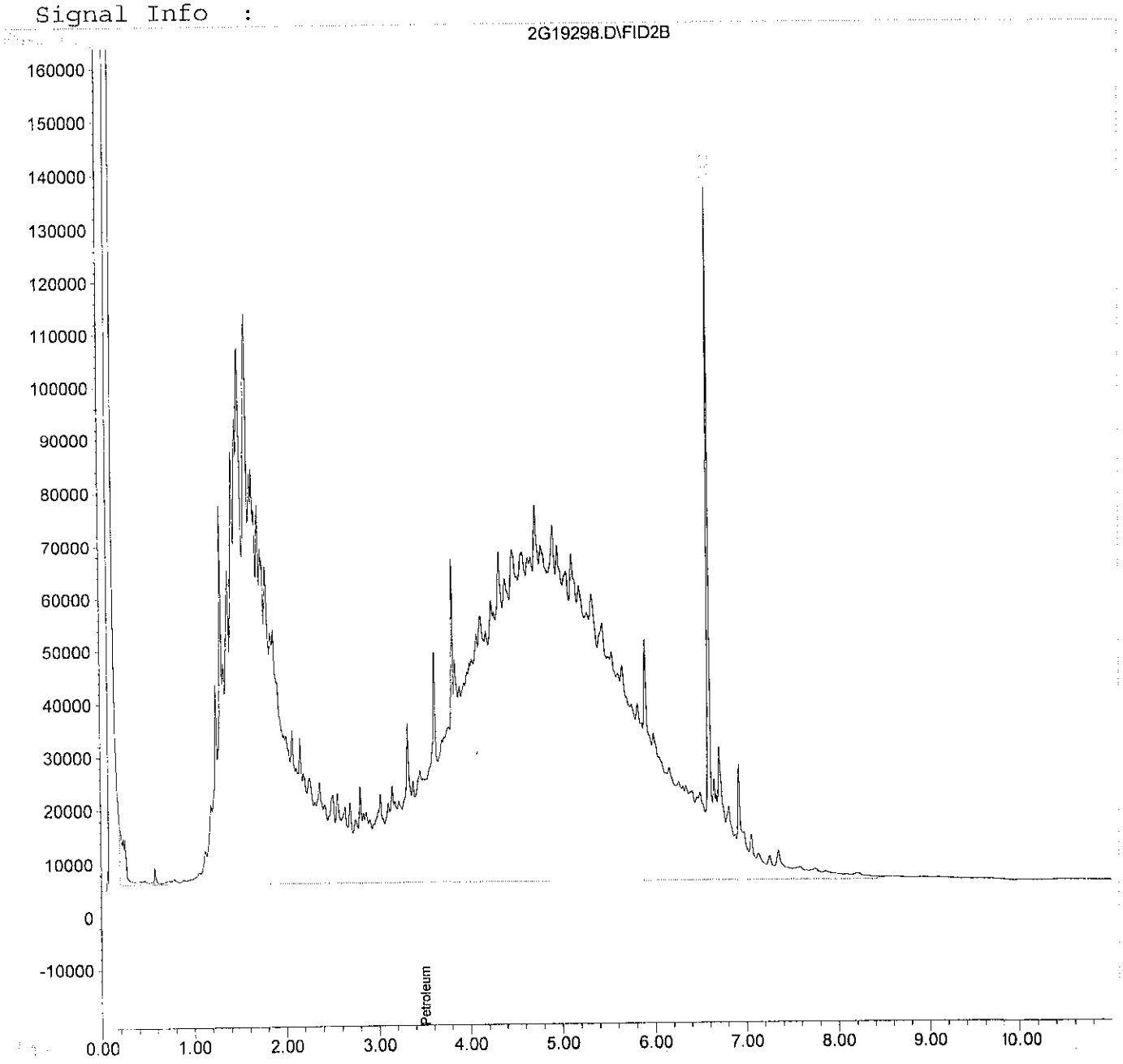
(f)=RT Delta > 1/2 Window (m)=manual int.
2G19298.D FLASHPRO.M Wed Mar 13 11:06:33 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\2G19298.D
Acq On : 12 Mar 2002 18:15
Sample : L0203155-01 PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Mar 13 11:06 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

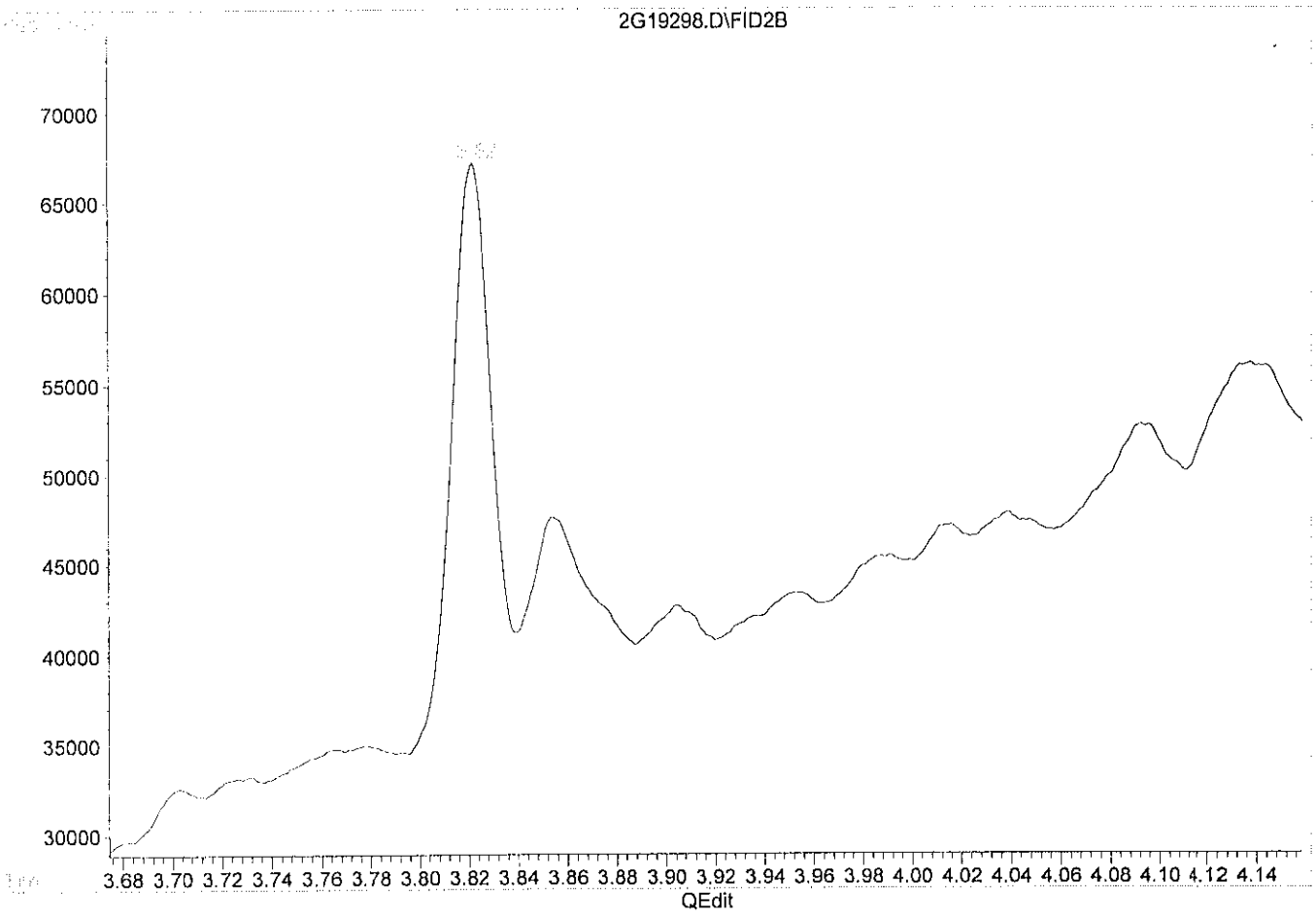
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 18:15 Operator: CLK/RDC
Sample : L0203155-01 PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.82min 51.833ppb

response 1154353

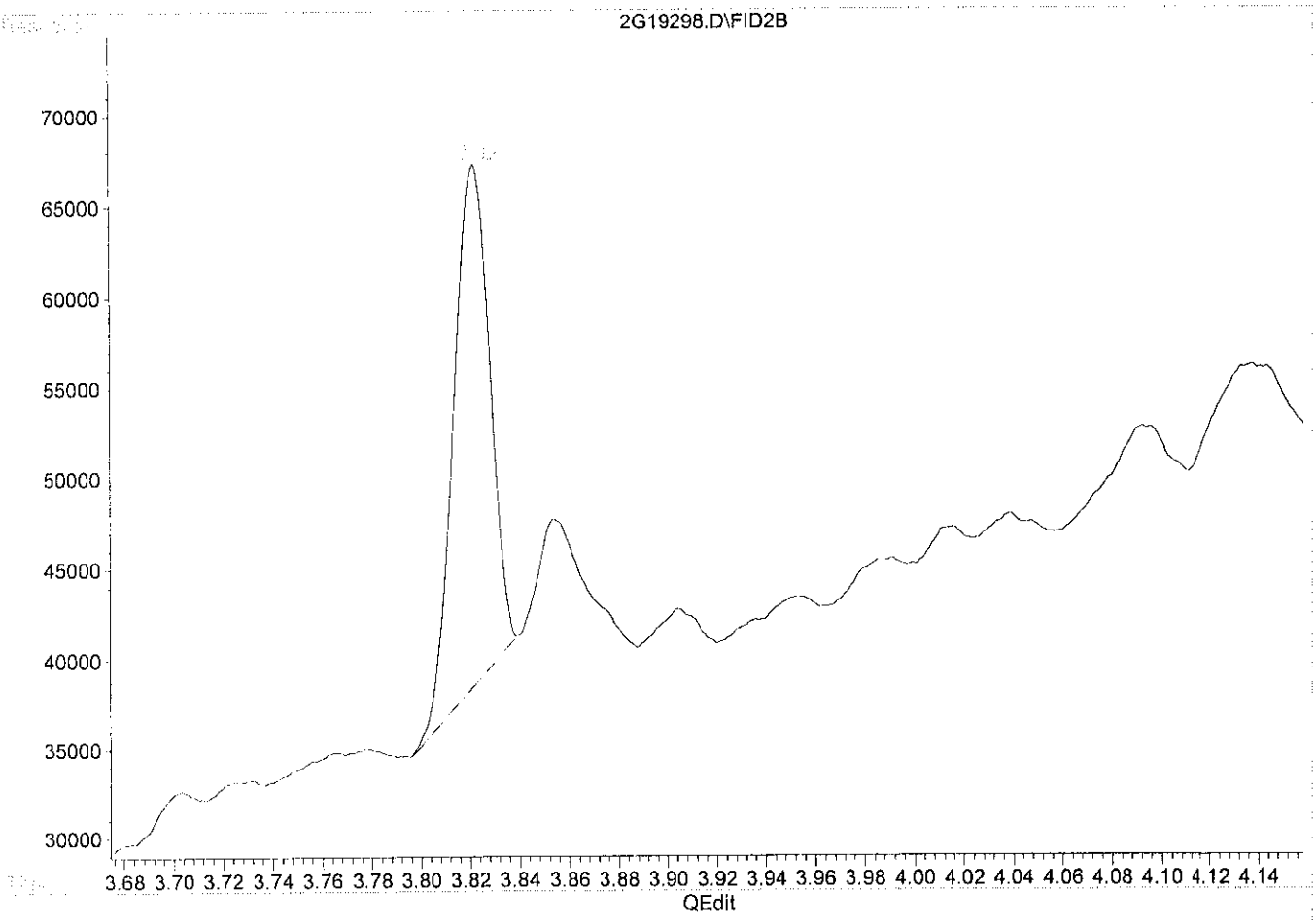
(+) = Expected Retention Time
2G19298.D FLASHPRO.M Wed Mar 13 11:06:02 2002 HP2

Data File : C:\HPCHEM\1\DATA\2G19298.D

Acq On : 12 Mar 2002 18:15
Sample : L0203155-01 PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.82min 13.338ppb m

response 297058

CLK 3/14/02

3/14/02

(+) = Expected Retention Time

2G19298.D FLASHPRO.M Wed Mar 13 11:06:26 2002 HP2

Acq On : 12 Mar 2002 15:53
Sample : L0203155-02 PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	324998	14.593 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	72.97%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	984680	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19289.D FLASHPRO.M Wed Mar 13 10:50:45 2002 HP2 Page 1

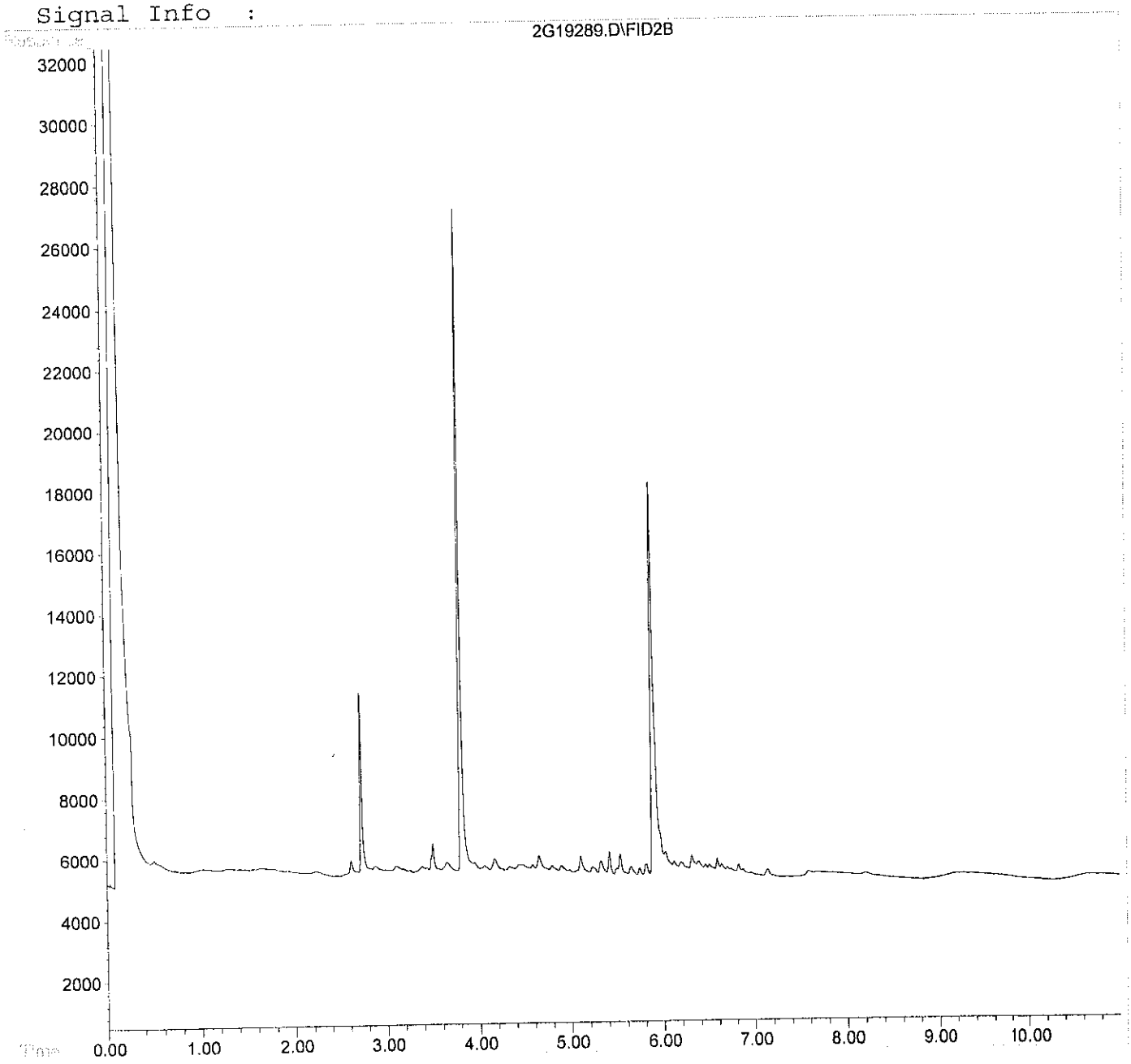
Data File : D:\...

Acq On : 12 Mar 2002 15:53
Sample : L0203155-02 PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Fri Jan 25 16:14:57 2002

Calibration Files
5 =2G18113.D 50 =2G18112.D 100 =2G18111.D
200 =2G18108.D 400 =2G18110.D 600 =2G18109.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.591	2.178	1.744	1.626	1.866	1.693	1.783	E4	12.13
2)	s	O-Terphenyl	2.014	2.711	2.194	1.988	2.365	2.090	2.227	E4	12.32
3)	s	n-Nonatriacontane	0.004	0.000	0.001	0.000	1.178	1.215	0.400	E4	154.46

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\012502\2G18109.D
Acq On : 25 Jan 2002 15:01
Sample : WG111901-01 PRO @600ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 26 11:04 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:04:34 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	4179263	187.657 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	938.29%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	172700859	9687.057 ppb

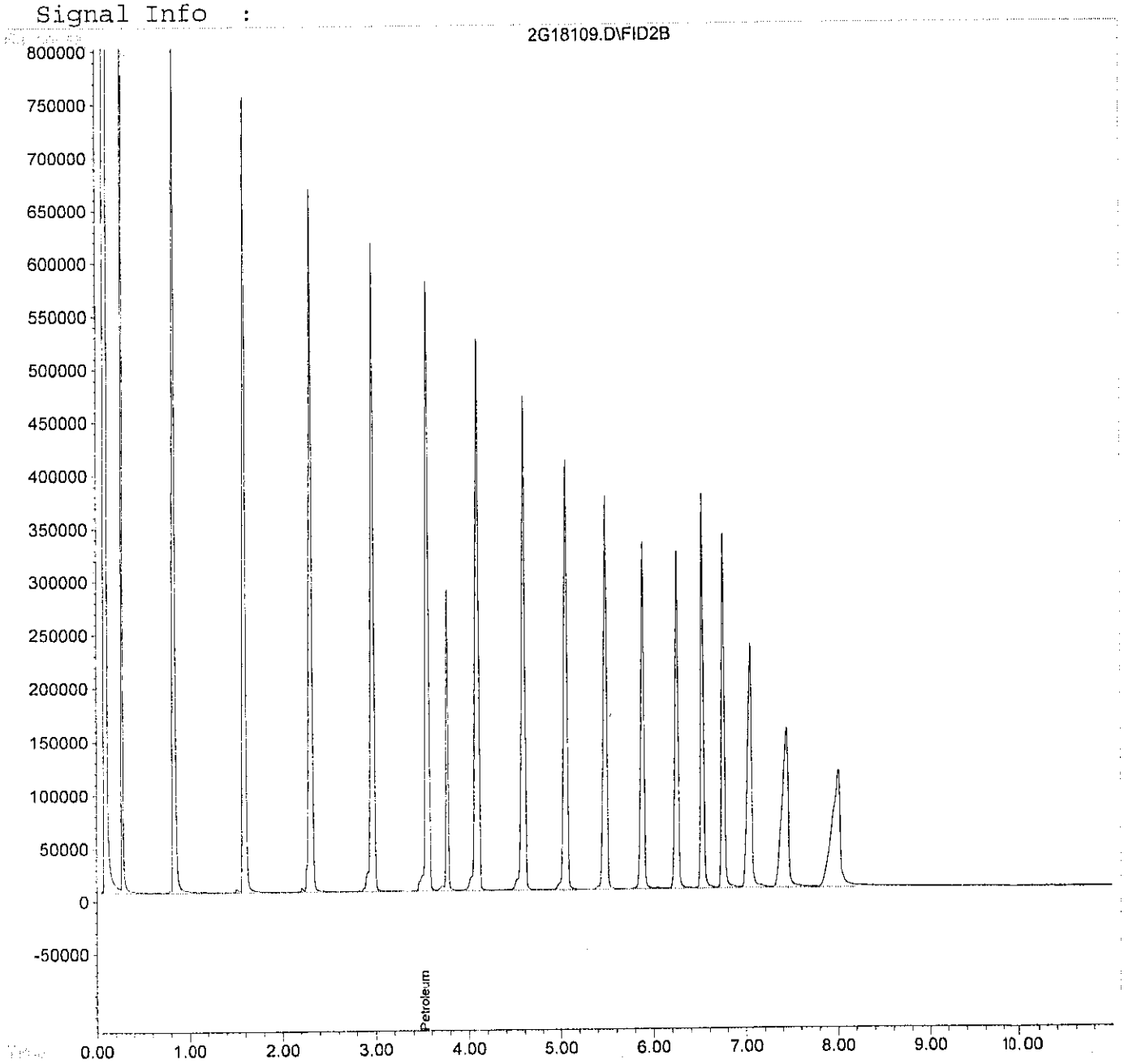
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18109.D
Acq On : 25 Jan 2002 15:01
Sample : WG111901-01 PRO @600ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 26 11:04 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:04:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18110.D
Acq On : 25 Jan 2002 15:16
Sample : WG111957-05 PRO @400ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:06:45 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	3146098	126.022 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	630.11%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	126857504	7083.604 ppb

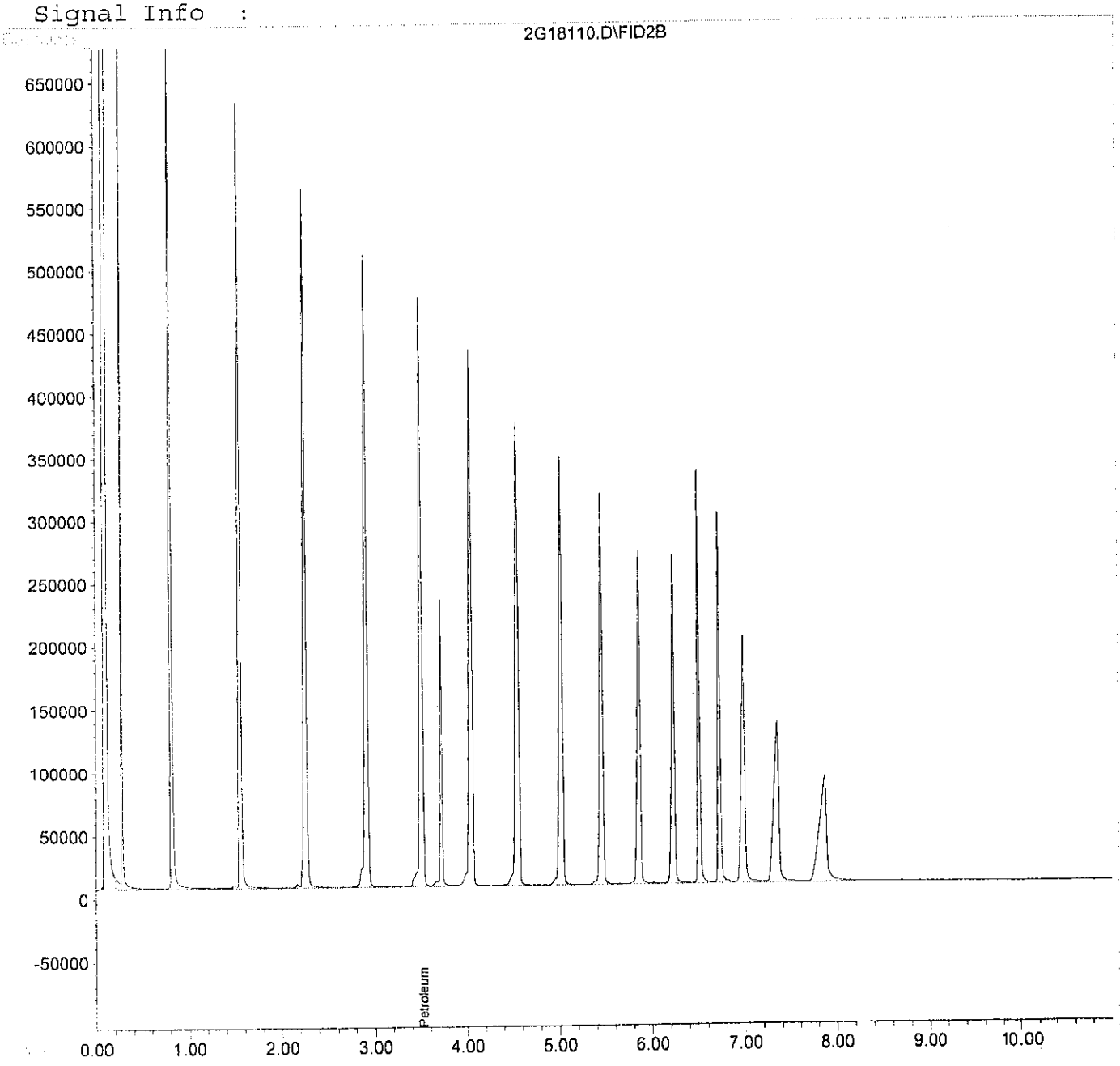
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18110.D
Acq On : 25 Jan 2002 15:16
Sample : WG111957-05 PRO @400ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:06:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18108.D
Acq On : 25 Jan 2002 14:45
Sample : WG111957-01 PRO CCV
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:07:51 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.75	1326044	53.117 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	265.59%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	55272132	3086.344 ppb

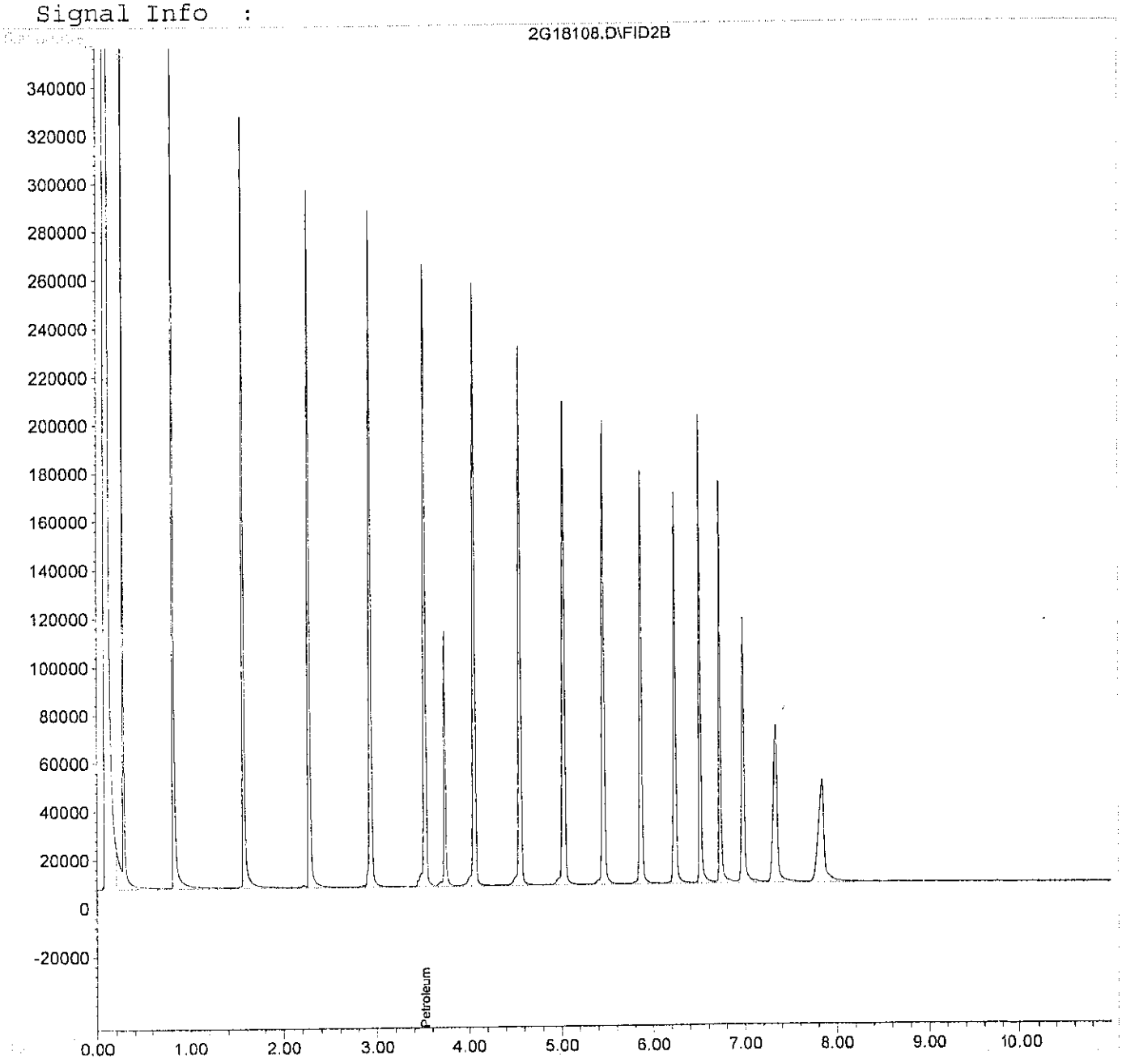
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18108.D
Acq On : 25 Jan 2002 14:45
Sample : WG111957-01 PRO CCV
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:07:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18111.D Vial: 6
Acq On : 25 Jan 2002 15:31 Operator: HV
Sample : WG111957-03 PRO @100ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 26 11:05 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:05:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	730745	32.812 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		164.06%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.51	29645395	1662.856 ppb

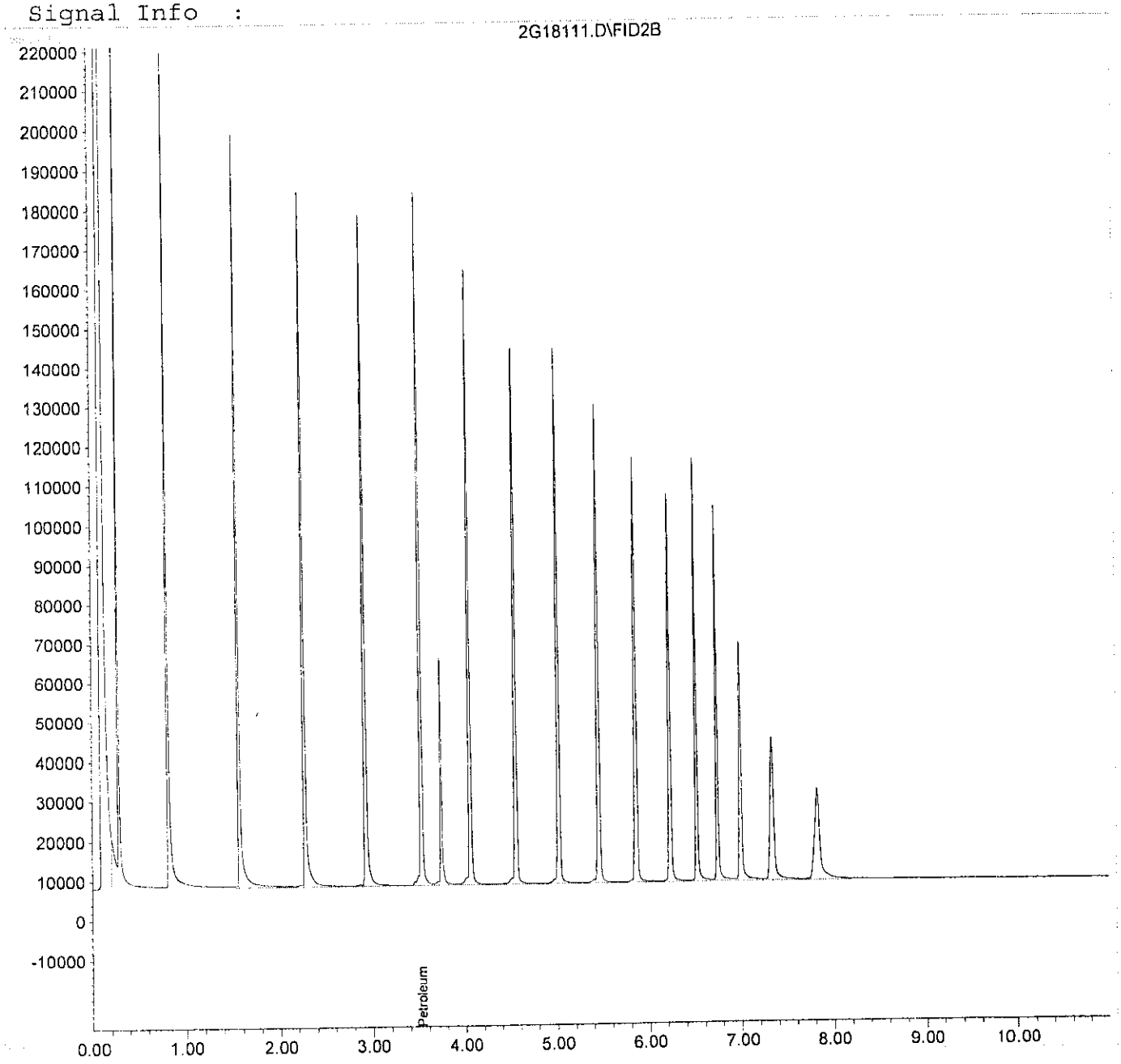
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18111.D
Acq On : 25 Jan 2002 15:31
Sample : WG111957-03 PRO @100ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 26 11:05 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:05:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18112.D
Acq On : 25 Jan 2002 15:46
Sample : WG111957-02 PRO @50ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:08 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:07:51 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	451413	18.082 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		90.41%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.51	18509473	1033.552 ppb

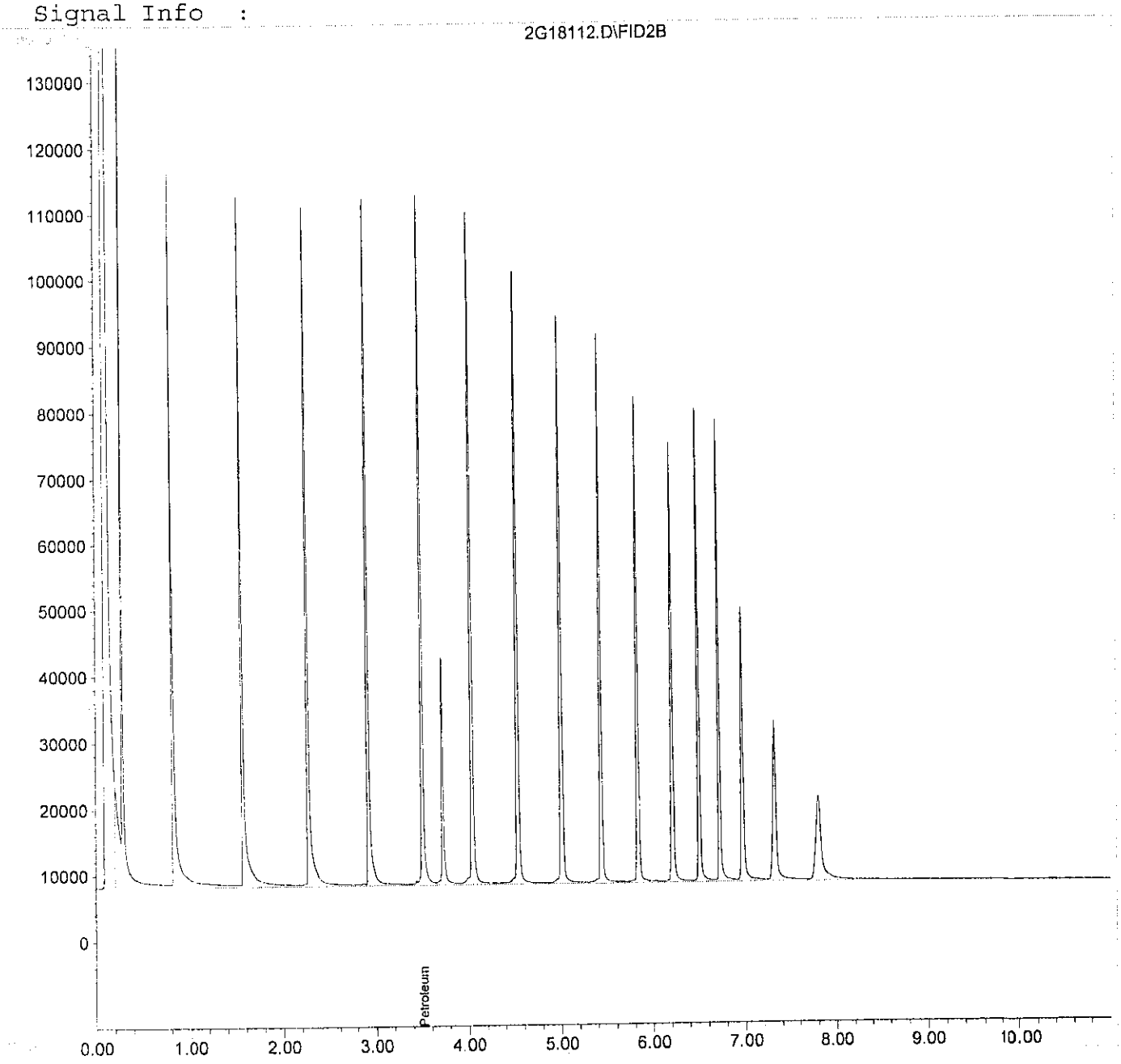
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18112.D
Acq On : 25 Jan 2002 15:46
Sample : WG111957-02 PRO @50ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:08 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:07:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18113.D
Acq On : 25 Jan 2002 16:02
Sample : WG111957-01 PRO @5ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:15 2002 Quant Results File: FLASHPRO.RES

Vial: 8
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:14:57 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	33527	1.343 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		6.72%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.51	1352368	<MDL ppb

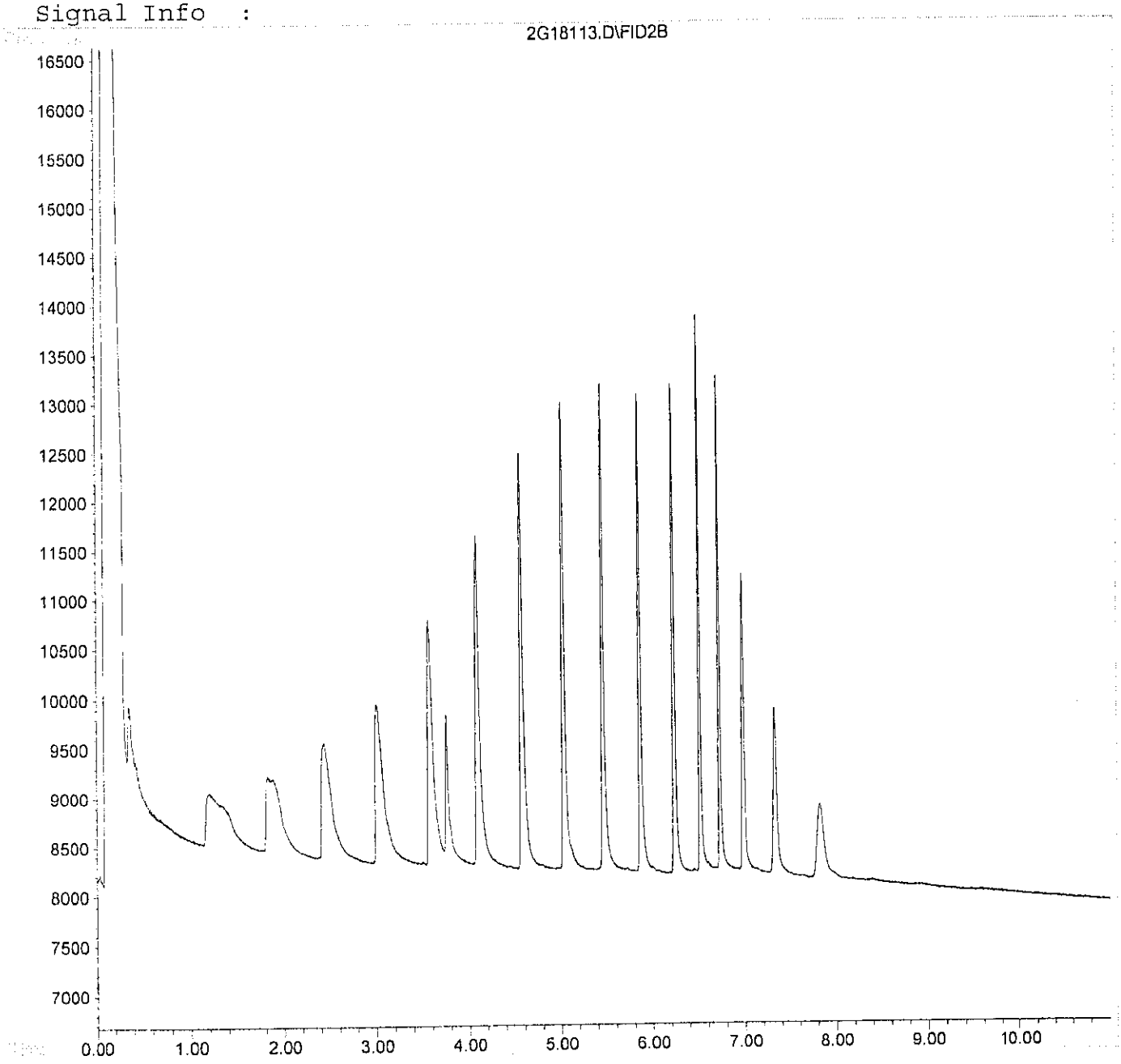
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18113.D
Acq On : 25 Jan 2002 16:02
Sample : WG111957-01 PRO @5ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:15 2002 Quant Results File: FLASHPRO.RES

Vial: 8
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:14:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

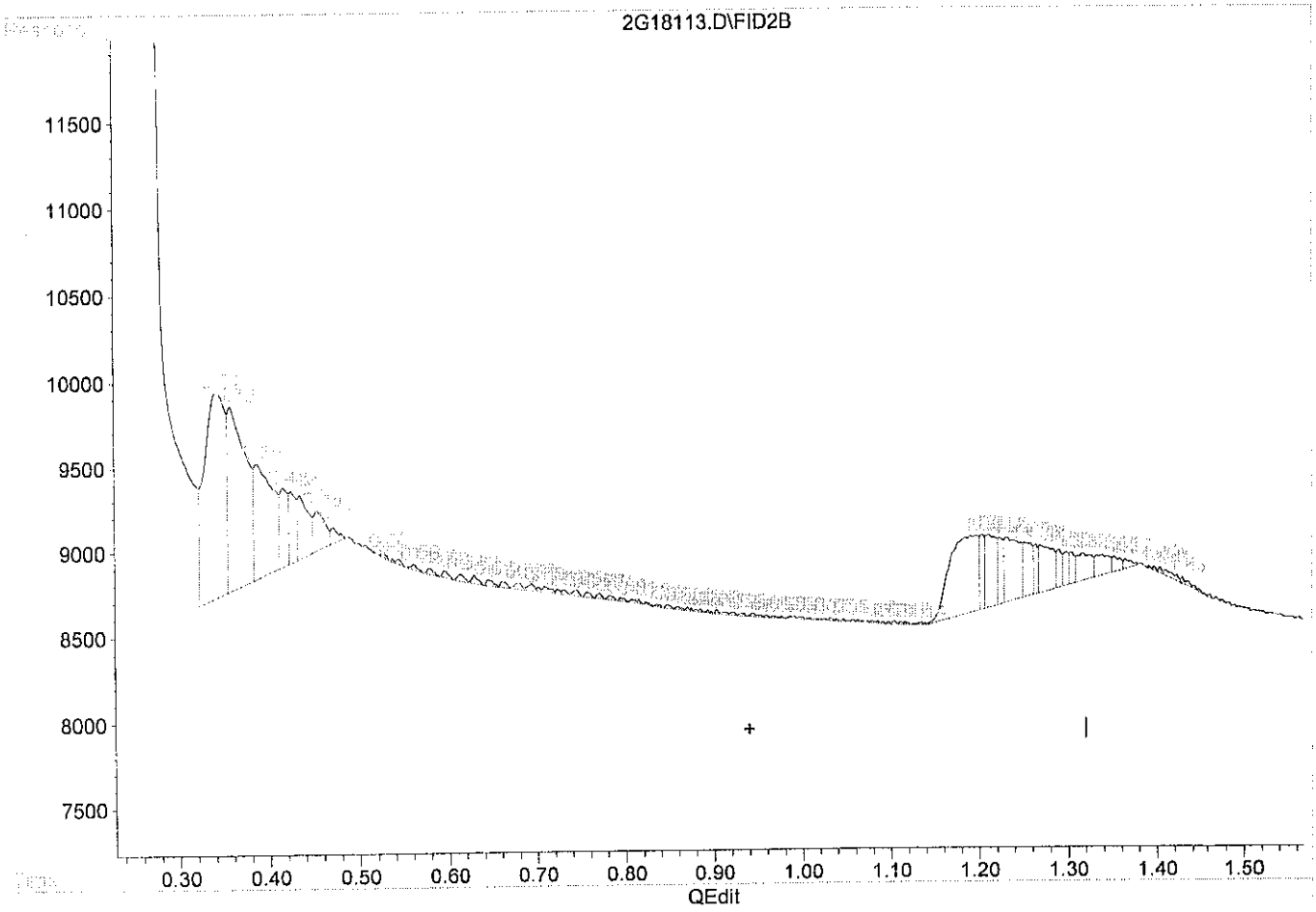
Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 25 Jan 2002 16:02
Sample : WG111957-01 PRO @5ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 28 12:41 2002 Quant Results File: PROSPE.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\PROSPE.M (Chemstation Integrator)
Title : PRO SPE. RANGE ORGANICS 01/25/02
Last Update : Mon Jan 28 13:01:42 2002
Response via : Multiple Level Calibration



(1) PRO #1 (C8-C10) 2pks. (h)

0.94min 2.137ppb m

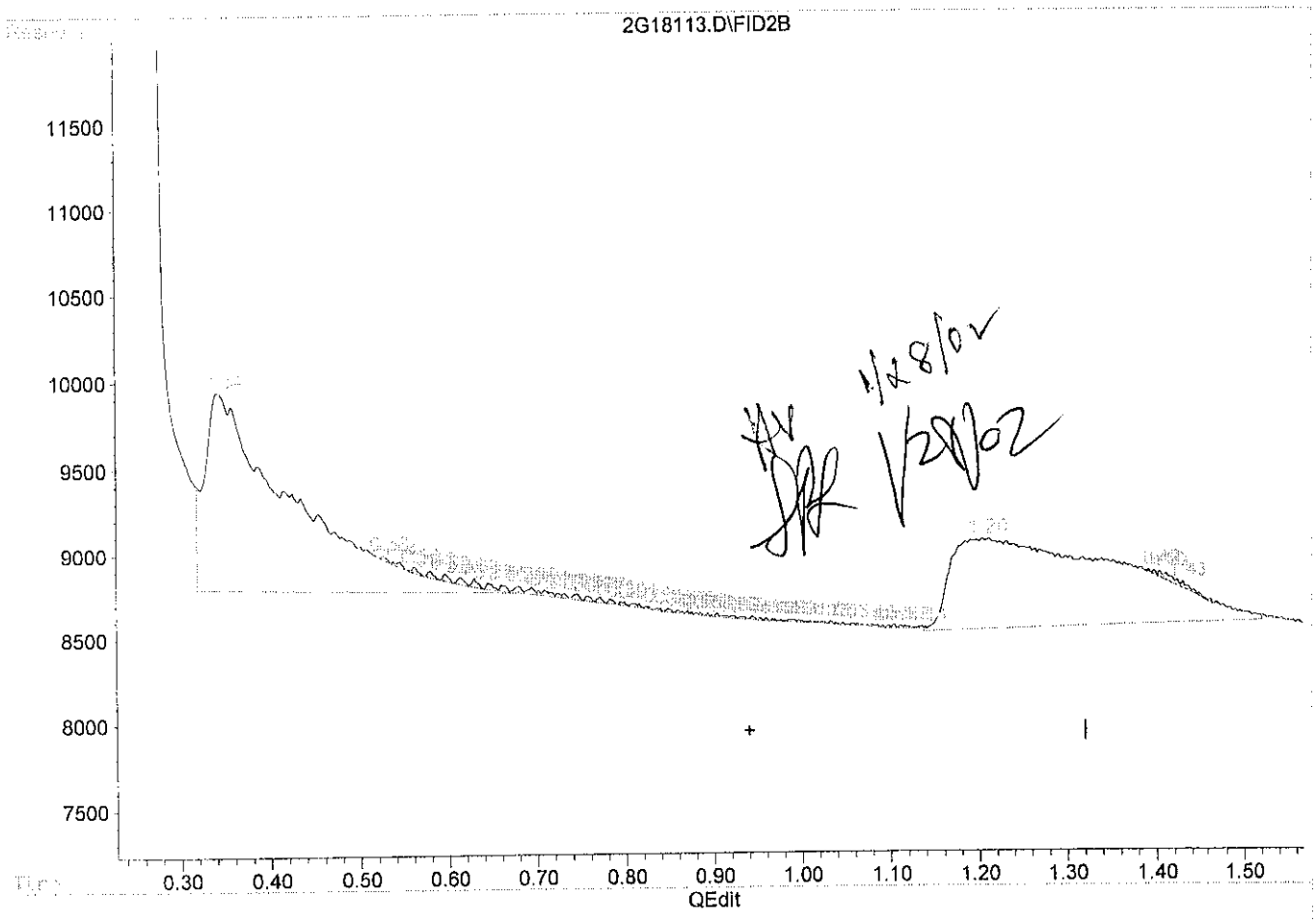
response 91945

(+) = Expected Retention Time
2G18113.D PROSPE.M Mon Jan 28 13:03:40 2002

Data File : C:\HPCHEM\1\[illegible]
Acq On : 25 Jan 2002 16:02
Sample : WG111957-01 PRO @5ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 28 12:41 2002 Quant Results File: PROSPE.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\PROSPE.M (Chemstation Integrator)
Title : PRO SPE. RANGE ORGANICS 01/25/02
Last Update : Mon Jan 28 13:01:42 2002
Response via : Multiple Level Calibration



(1) PRO #1 (C8-C10) 2pks. (h)

0.94min 3.659ppb m

response 157438

(+) = Expected Retention Time
2G18113.D PROSPE.M Mon Jan 28 13:04:48 2002

Data File : C:\HPCHEM\1\DATA\012502\2G18114.D
Acq On : 25 Jan 2002 16:18
Sample : WG111957-07 ALT @200ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E

Vial: 9
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2962.315	12.9	96	0.00
2	s	O-Terphenyl	66.700	0.001	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G18114.D FLASHPRO.M Sat Jan 26 11:38:34 2002 Page 1

Data File : C:\HPCHEM\1\DATA\012502\2G18114.D
Acq On : 25 Jan 2002 16:18
Sample : WG111957-07 ALT @200ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E

Vial: 9
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3	s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\012502\2G18114.D
Acq On : 25 Jan 2002 16:18
Sample : WG111957-07 ALT @200ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:30 2002 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Fri Jan 25 16:14:57 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	19	0.001 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		0.01%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.51	52812161	2962.315 ppb

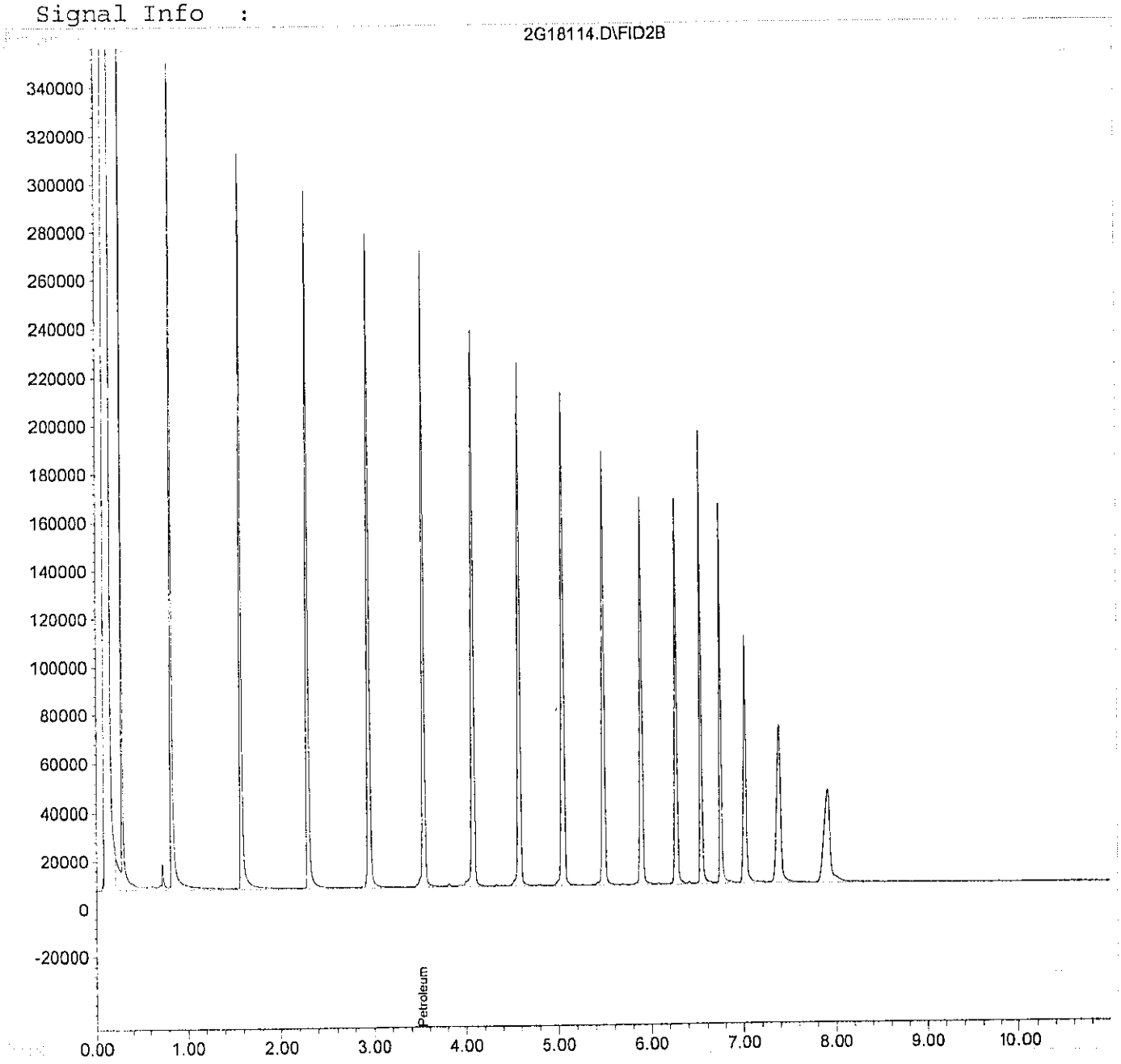
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\012502\2G18114.D
Acq On : 25 Jan 2002 16:18
Sample : WG111957-07 ALT @200ppm
Misc : 1,1 SOS58-05
IntFile : PETRO.E
Quant Time: Jan 25 16:30 2002 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Fri Jan 25 16:14:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 12 Mar 2002 12:12
Sample : WG114393-01 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3237.363	4.8	104	0.00
2	s	O-Terphenyl	66.700	63.048	5.5	106	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\[illegible]

Acq On : 12 Mar 2002 12:12
Sample : WG114393-01 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\2G19280.D

Acq On : 12 Mar 2002 12:12 Operator: CLK/RDC
Sample : WG114393-01 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	1404123	63.048 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	315.24%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	57715719	3237.363 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

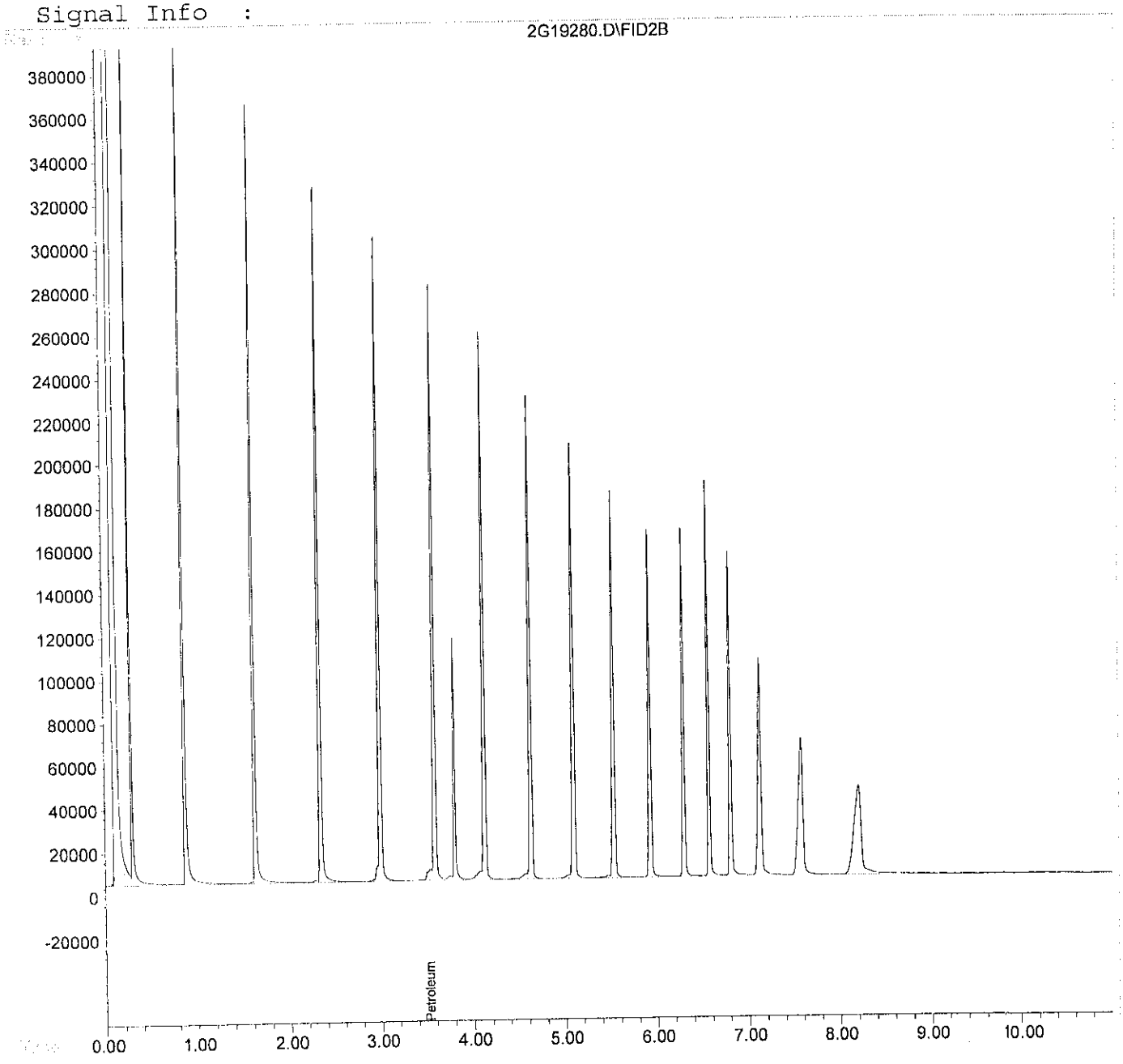
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 12 Mar 2002 12:12
Sample : WG114393-01 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E
Quant Time: Mar 13 10:47 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\031202\2G19287.D
Acq On : 12 Mar 2002 15:18
Sample : WG114393-02 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3189.897	6.2	103	0.00
2	s	O-Terphenyl	66.700	61.333	8.0	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19287.D FLASHPRO.M Wed Mar 13 10:46:08 2002 HP2 Page 1

266

Acq On : 12 Mar 2002 15:18 Operator: CLK/RDC
Sample : WG114393-02 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19287.D FLASHPRO.M Wed Mar 13 10:46:08 2002 HP2 Page 2

Acq On : 12 Mar 2002 15:18 Operator: CLK/RDC
Sample : WG114393-02 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:45 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

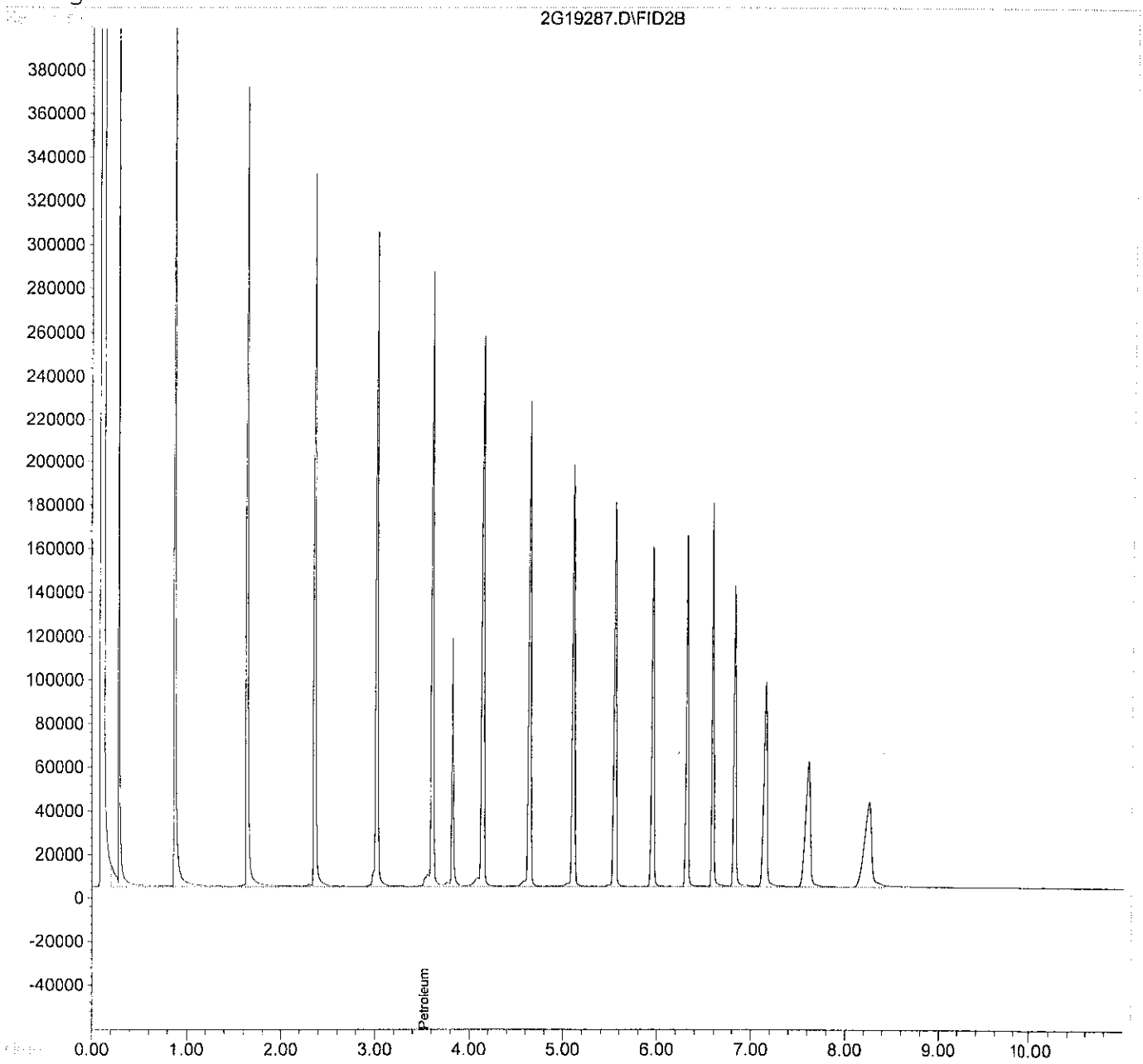
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.83	1365937	61.333	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	306.67%#		
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000	Recovery =	0.00%		
Target Compounds				
1) H Petroleum Range	3.51	56869487	3189.897	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19287.D FLASHPRO.M Wed Mar 13 10:45:55 2002 HP2 Page 1

Acq On : 12 Mar 2002 15:18 Operator: CLK/RDC
Sample : WG114393-02 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:45 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3604.667	-6.0	116	0.00
2	s	O-Terphenyl	66.700	69.437	-4.1	117	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19292.D FLASHPRO.M Wed Mar 13 10:46:52 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 12 Mar 2002 16:38
Sample : WG114393-03 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19292.D FLASHPRO.M Wed Mar 13 10:46:52 2002 HP2 Page 2

Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:46 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

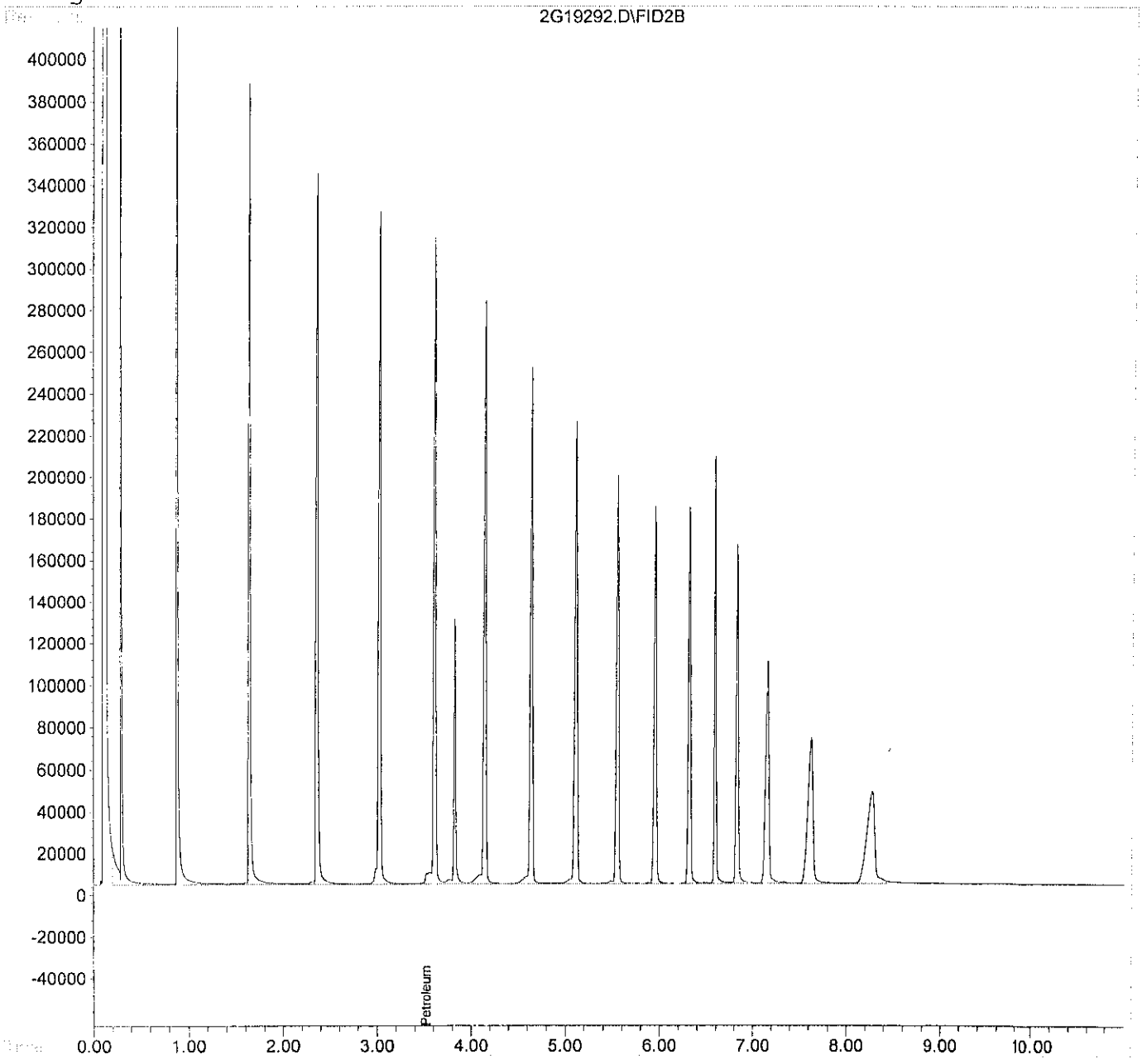
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	1546416	69.437 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		347.19%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.51	64264004	3604.667 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19292.D FLASHPRO.M Wed Mar 13 10:46:41 2002 HP2 Page 1

Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:46 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 18:00 Operator: CLK/RDC
Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3469.322	-2.0	112	0.00
2	s	O-Terphenyl	66.700	70.263	-5.3	118	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19297.D FLASHPRO.M Wed Mar 13 10:48:19 2002 HP2 Page 1

Acq On : 12 Mar 2002 18:00
Sample : WG114393-04 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 12 Mar 2002 18:00 Operator: CLK/RDC
Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

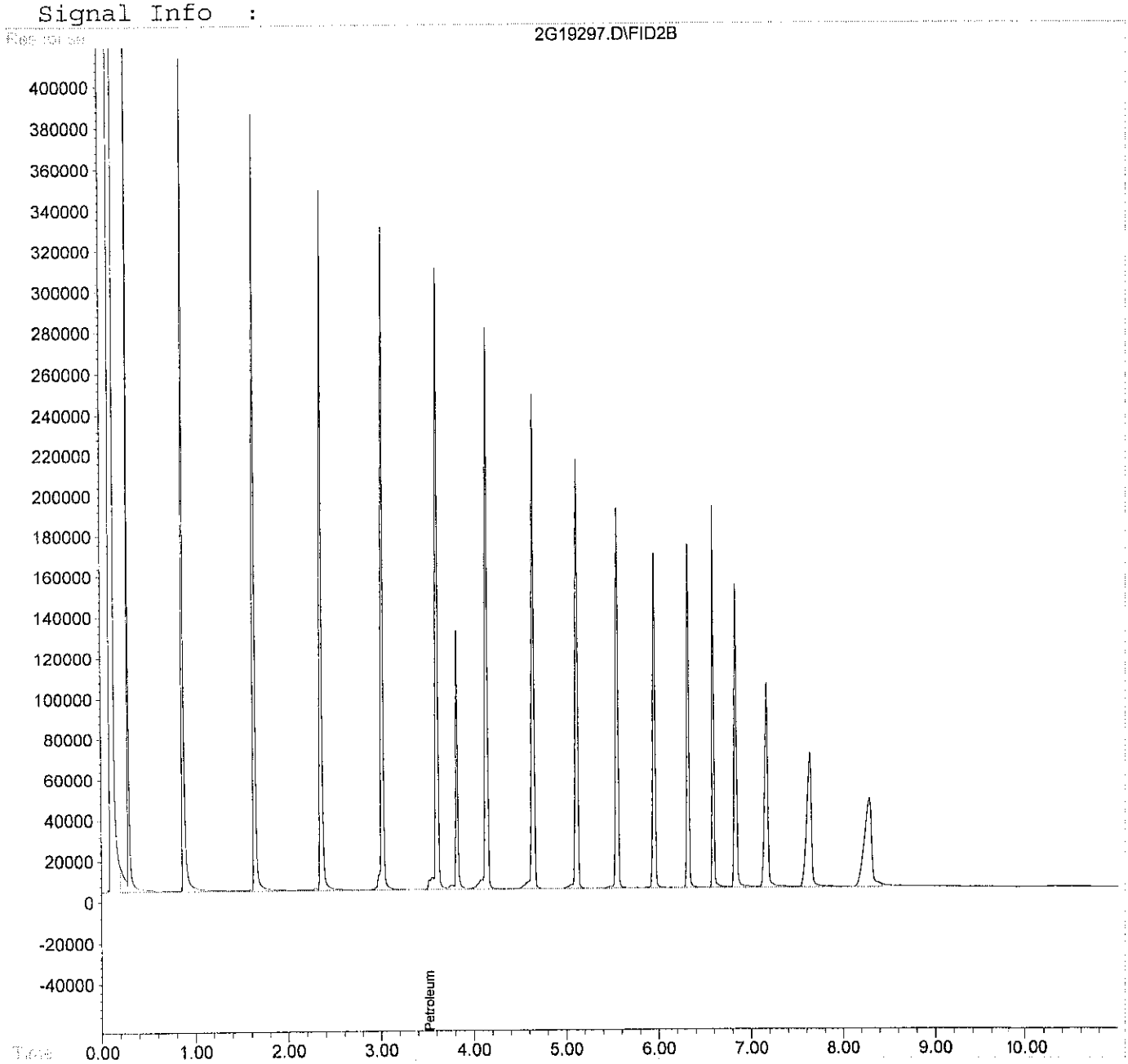
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.83	1564807	70.263	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	351.32%#	
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
1) H Petroleum Range	3.51	61851075	3469.322	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19297.D FLASHPRO.M Wed Mar 13 10:48:16 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\2G19297.D
Acq On : 12 Mar 2002 18:00 Operator: CLK/RDC
Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\2G19302.D

Acq On : 12 Mar 2002 19:17
Sample : WG114393-05 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3212.687	5.5	104	0.00
2	s	O-Terphenyl	66.700	63.020	5.5	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\031202\2G19302.D
Acq On : 12 Mar 2002 19:17 Operator: CLK/RDC
Sample : WG114393-05 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19302.D FLASHPRO.M Wed Mar 13 10:48:59 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 12 Mar 2002 19:17 Operator: CLK/RDC
Sample : WG114393-05 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	1403507	63.020 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	315.10%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	57275789	3212.687 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19302.D FLASHPRO.M Wed Mar 13 10:48:55 2002 HP2 Page 1

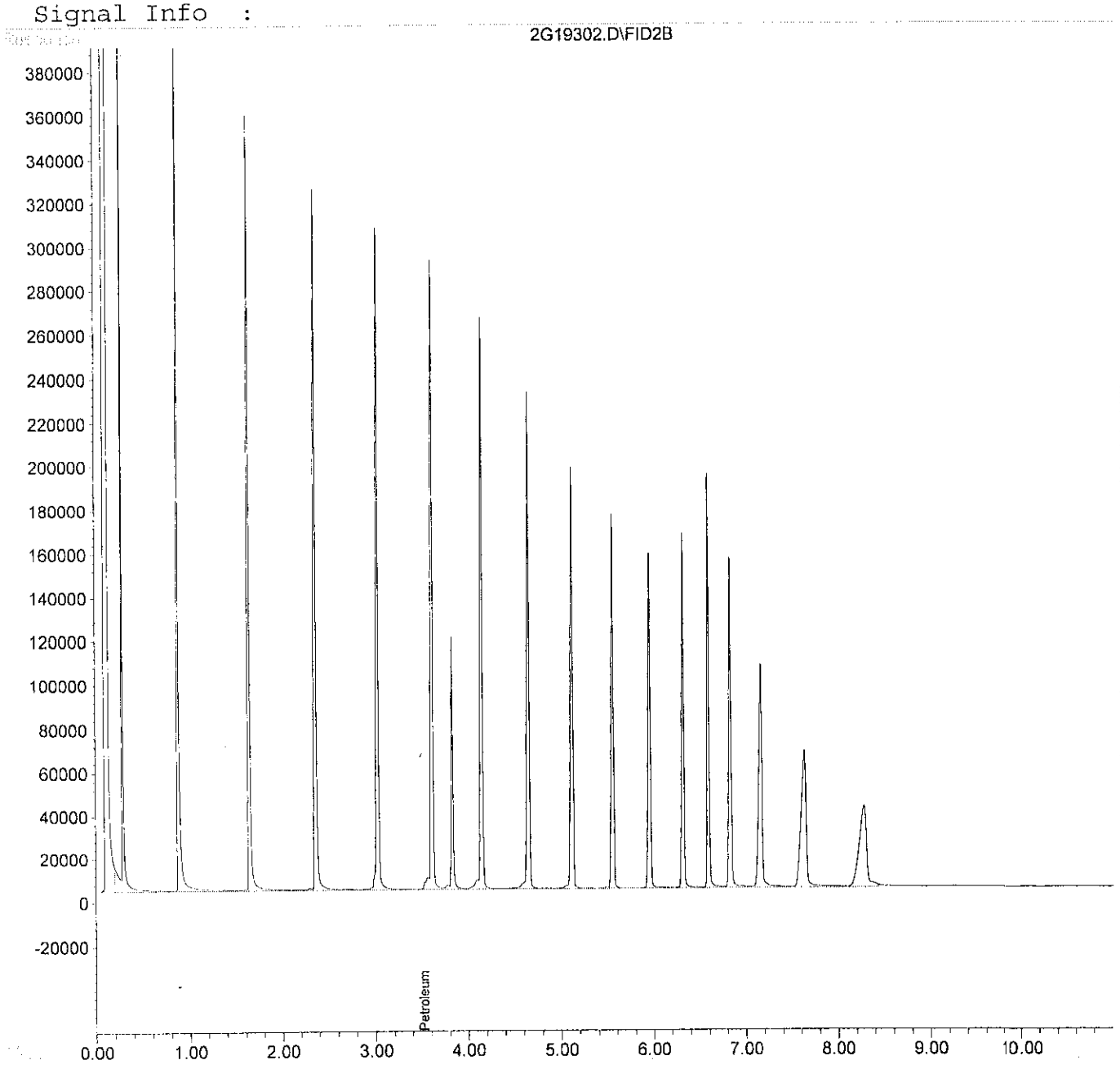
Data File : C:\HPCHEM\1\DATA\2G19302.D

Acq On : 12 Mar 2002 19:17
Sample : WG114393-05 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

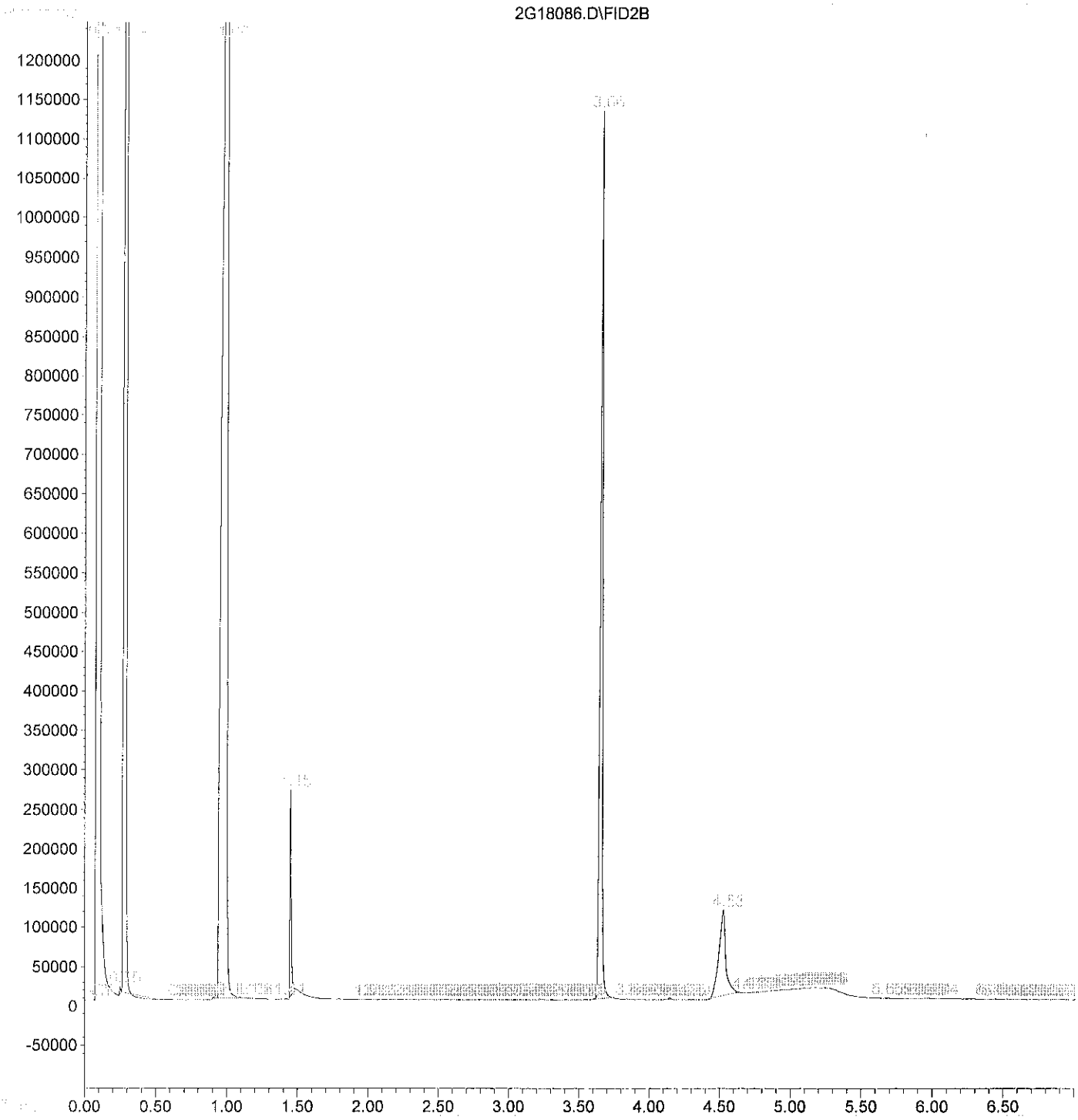
Instrument ID: HP-2

GC Column: RTX-5

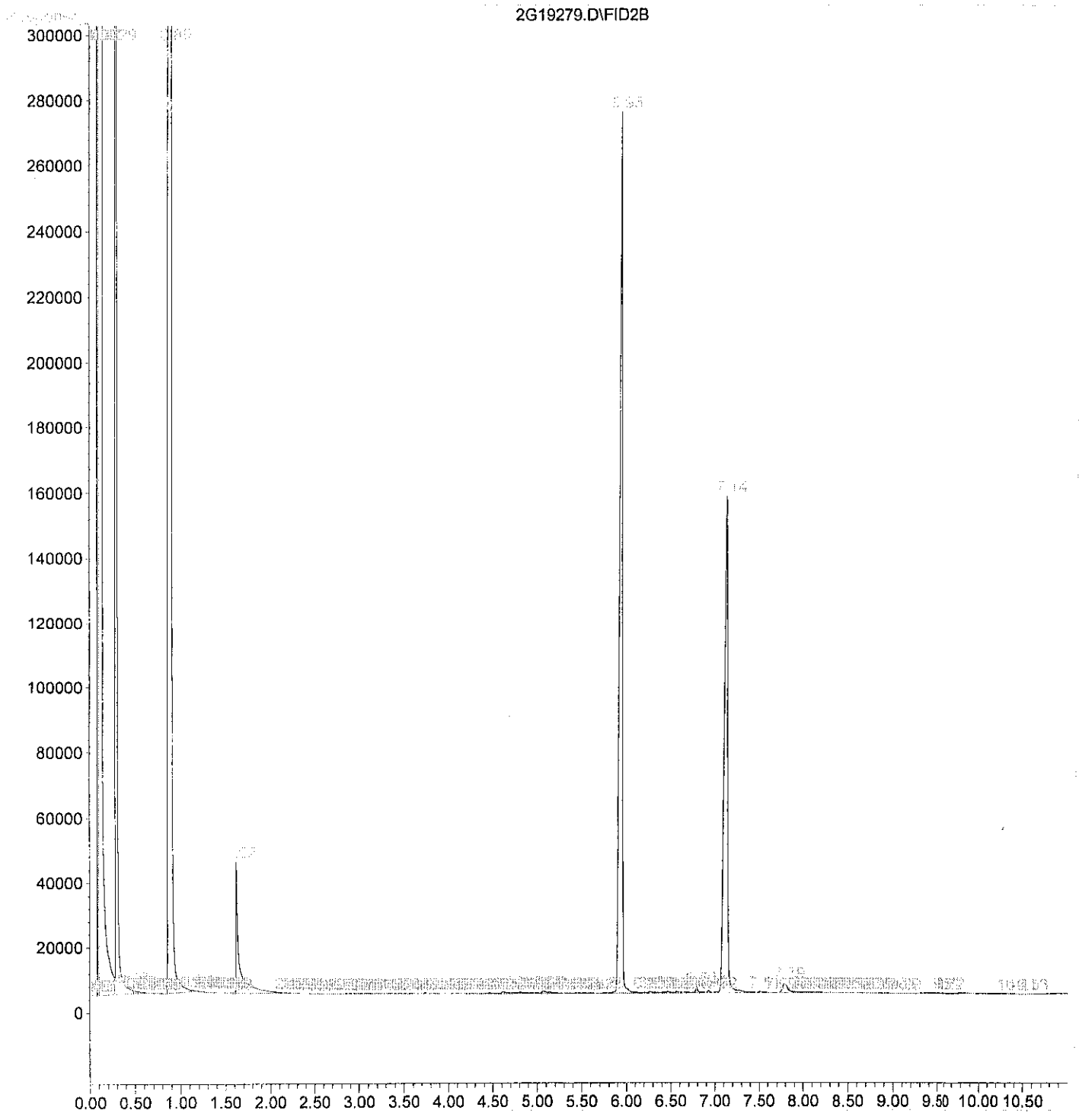
	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

File : K:\ORGANICS\SEMIVOA\HP2\DATA\012502\2G18086.D
Operator : HV
Acquired : 25 Jan 2002 9:34 using AcqMethod FLASHDRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : 1,1 NS14-41
Vial Number: 1



File : C:\HPCHEM\1\DATA\031202\2G19279.D
Operator : CLK/RDC
Acquired : 12 Mar 2002 11:56 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: win def std
Misc Info : 1,1 NS14-41
Vial Number: 2



2.2.5.4 Raw QC Data

Acq On : 12 Mar 2002 13:45 Operator: CLK/RDC
Sample : WG114271-01 BLK 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

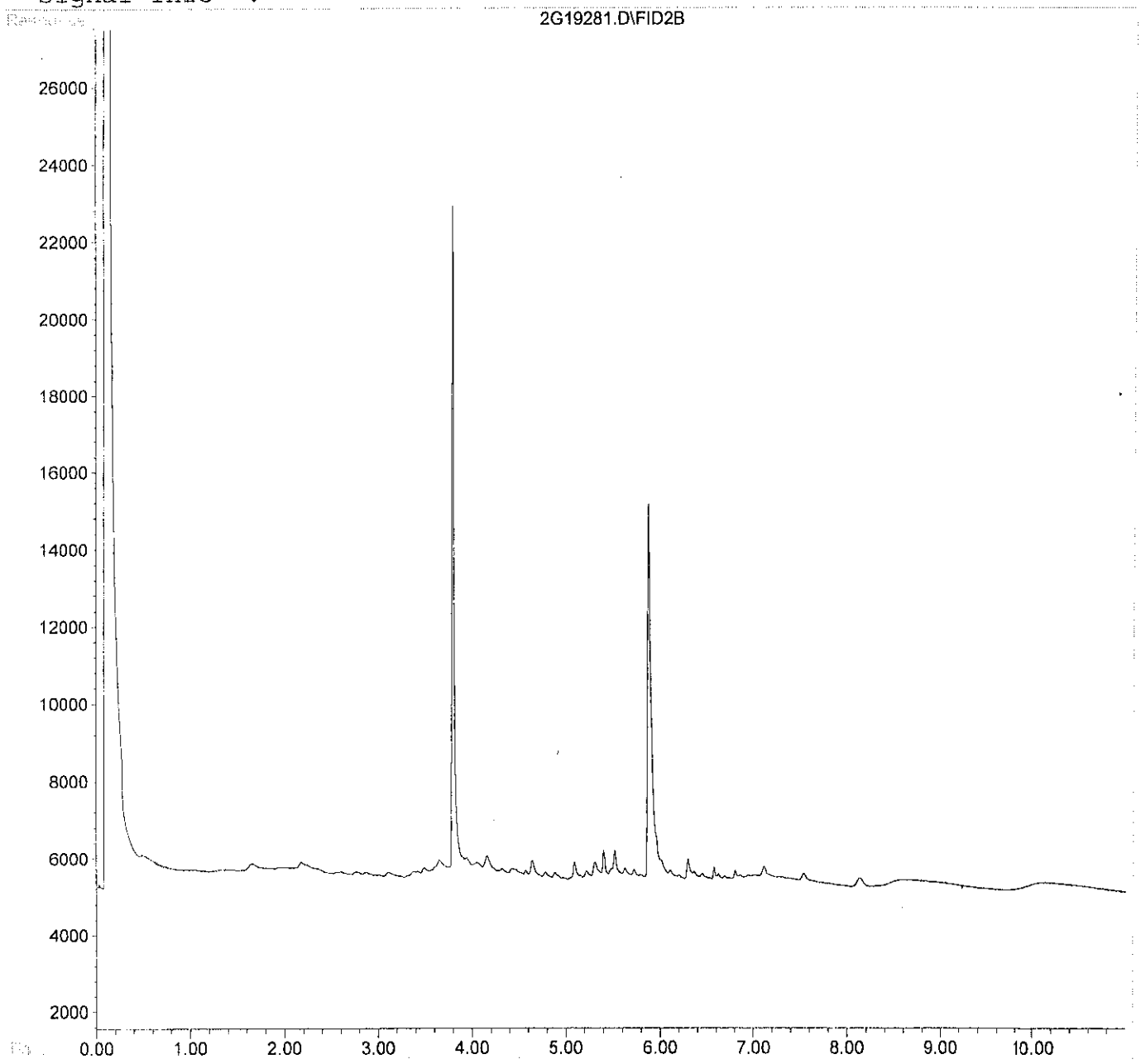
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	304584	13.676 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	68.38%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	960036	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19281.D FLASHPRO.M Wed Mar 13 14:37:04 2002 HP2 Page 1

Acq On : 12 Mar 2002 13:45 Operator: CLK/RDC
Sample : WG114271-01 BLK 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 10:45:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\031202\2G19284.D
Acq On : 12 Mar 2002 14:32 Operator: CLK/RDC
Sample : WG114312-02 BLK 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

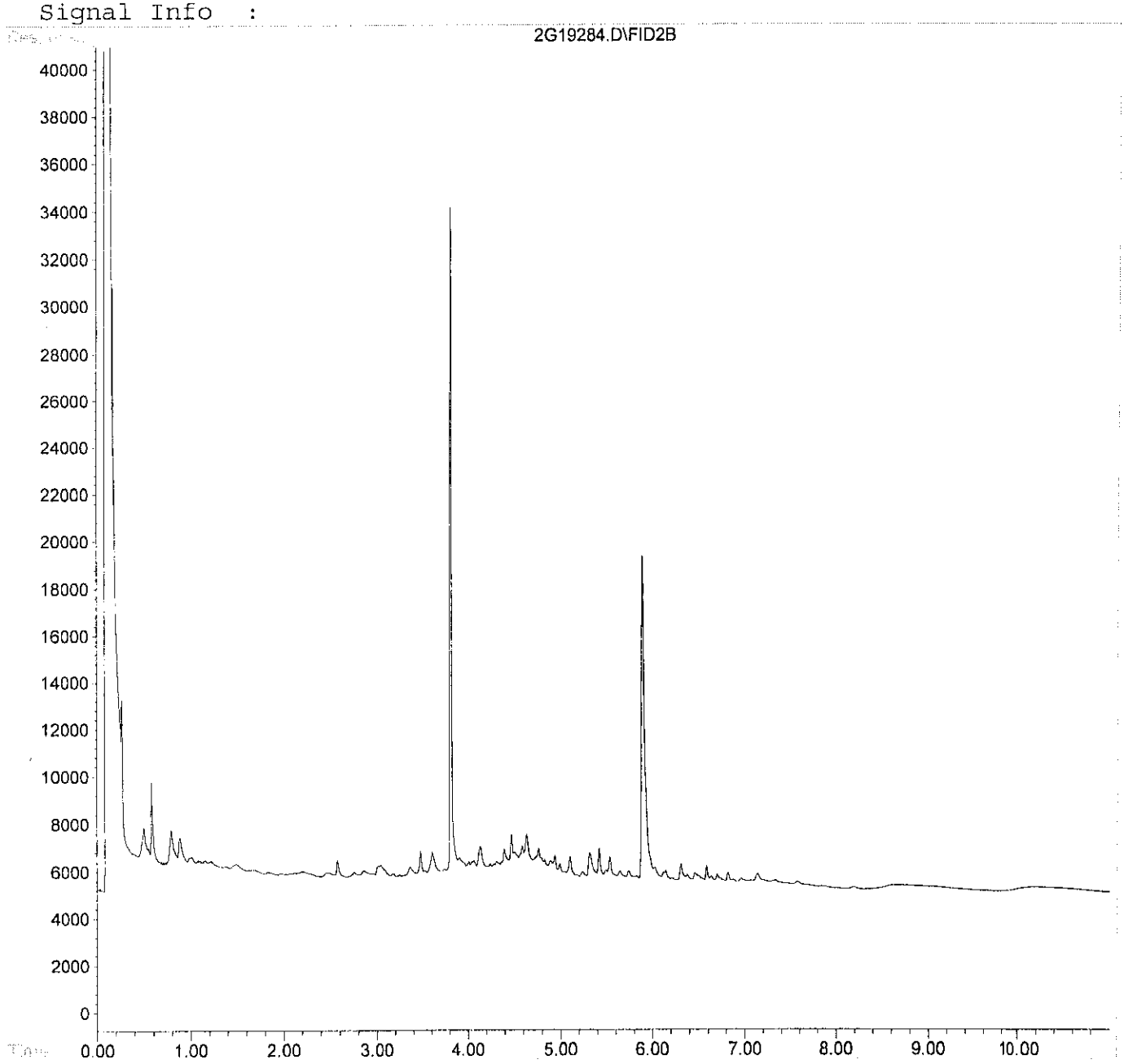
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	387993	17.422 ppb
Spiked Amount 20.000	Range 43 - 136	Recovery =	87.11%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	2077526	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19284.D FLASHPRO.M Wed Mar 13 10:50:33 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:32 Operator: CLK/RDC
Sample : WG114312-02 BLK 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 14:01 Operator: CLK/RDC
Sample : WG114271-02 LCS 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

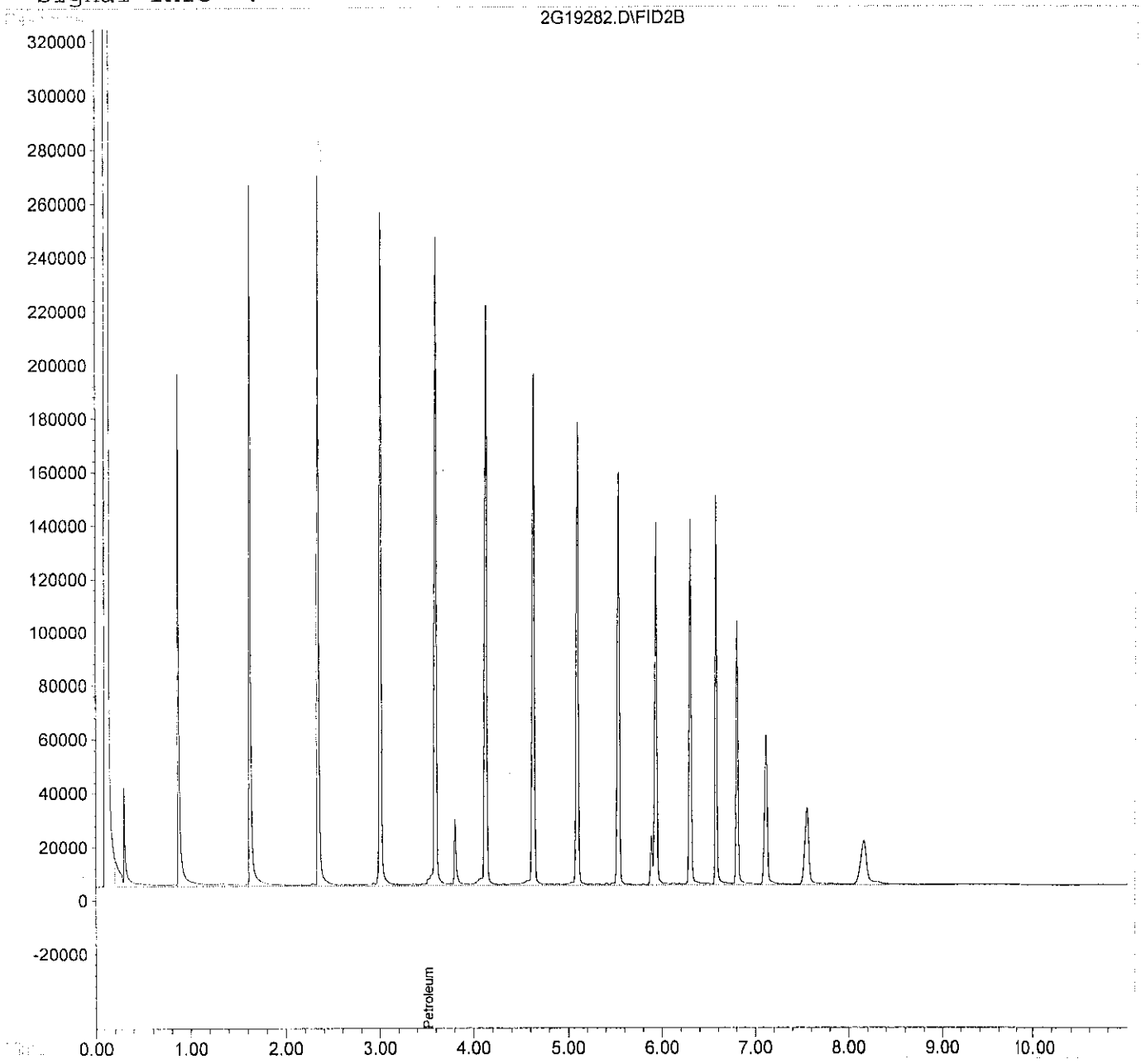
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.81	338579	15.203	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 76.02%				
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000 Recovery = 0.00%				
Target Compounds				
1) H Petroleum Range	3.51	38031186	2133.228	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19282.D FLASHPRO.M Wed Mar 13 10:50:23 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:01 Operator: CLK/RDC
Sample : WG114271-02 LCS 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 14:16 Operator: CLK/RDC
Sample : WG114271-03 LCS DUP 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

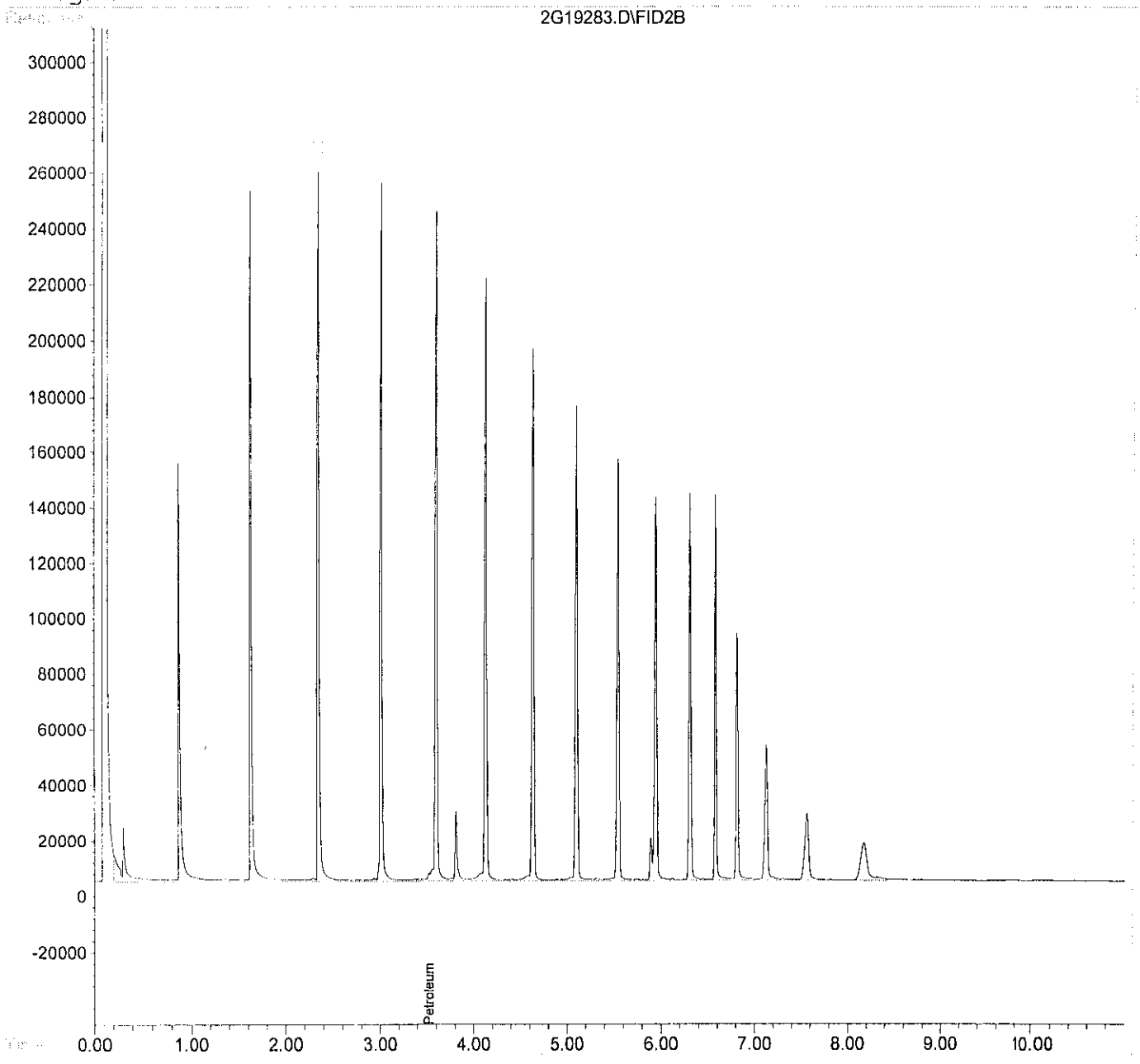
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.81	342465	15.377	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	76.89%	
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
1) H Petroleum Range	3.51	36540357	2049.605	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19283.D FLASHPRO.M Wed Mar 13 10:50:27 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:16 Operator: CLK/RDC
Sample : WG114271-03 LCS DUP 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 14:47 Operator: CLK/RDC
Sample : WG114312-03 LCS 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

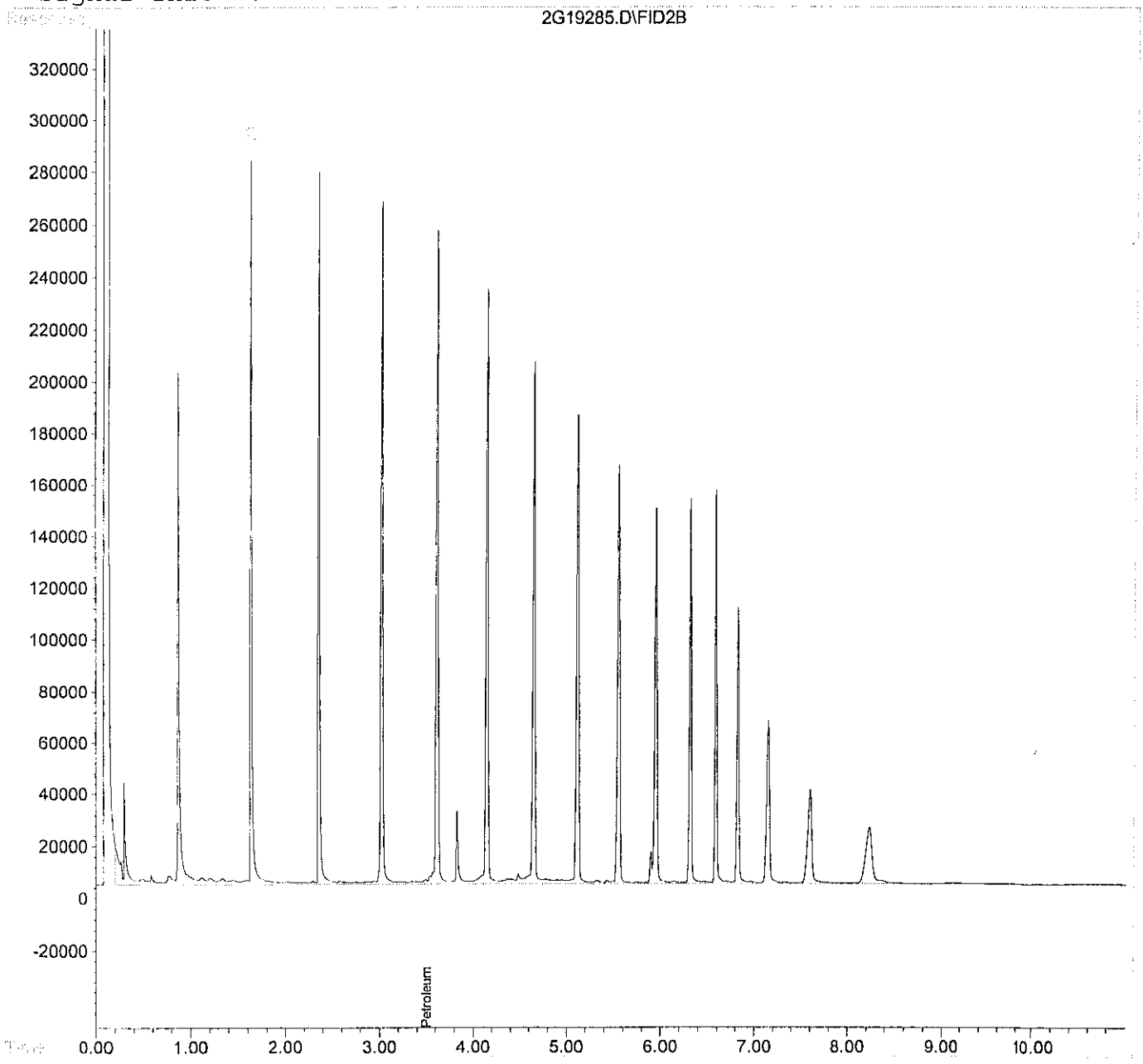
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	350978	15.760 ppb
Spiked Amount 20.000	Range 43 - 136	Recovery =	78.80%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	42055959	2358.983 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19285.D FLASHPRO.M Wed Mar 13 10:50:37 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:47 Operator: CLK/RDC
Sample : WG114312-03 LCS 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g18085.d	1.	mecl2	1,1	25 Jan 102 12::2
2	1	2g18086.d	1.	WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
3	2	2g18087.d	1.	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::4
4	3	2g18088.d	1.	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::5
5	4	2g18089.d	1.	WG111856-06 DRO @10000ppm	1,1 NS14-29	25 Jan 102 13::1
6	5	2g18090.d	1.	WG111856-05 DRO @5000ppm	1,1 NS14-29	25 Jan 102 13::2
7	6	2g18091.d	1.	WG111856-04 DRO @2500ppm	1,1 NS14-29	25 Jan 102 13::3
8	7	2g18092.d	1.	WG111856-03 DRO @1000ppm	1,1 NS14-29	25 Jan 102 13::4
9	8	2g18093.d	1.	WG111856-02 DRO @500ppm	1,1 NS14-29	25 Jan 102 13::5
10	9	2g18094.d	1.	WG111856-01 DRO @100ppm	1,1 NS14-29	25 Jan 102 13::0
11	10	2g18095.d	1.	WG111856-07 ALT 1000ppm	1,1 SOS55-36	25 Jan 102 13::2
12	11	2g18096.d	1.	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 13::4
13	12	2g18097.d	1.	WG111819-01 DRO water BLK	1,1 V179-P87	25 Jan 102 13::0
14	13	2g18098.d	1.	WG111819-02 DRO water LCS	1,1 V179-P87	25 Jan 102 13::1
15	14	2g18099.d	1.	WG111819-03 DRO water LCS2	1,1 V179-P87	25 Jan 102 13::2
16	15	2g18100.d	1.	L0201336-42 DRO water	1,1 water	25 Jan 102 13::3
17	16	2g18101.d	1.	L0201336-43 DRO water	1,1 water	25 Jan 102 13::4
18	17	2g18102.d	1.04	L0201381-01 DRO water	1,1 water	25 Jan 102 13::5
19	18	2g18103.d	1.25	L0201331-05 DRO water	1,1 water	25 Jan 102 12::0
20	19	2g18104.d	1.2	mecl2	1,1 water	25 Jan 102 12::1
21	20	2g18105.d	1.	WG111856-08 DRO CCV	1,1 water	25 Jan 102 12::3
22	1	2g18106.d	1.	MECL2	1,1 water	25 Jan 102 12::1
23	2	2g18107.d	1.	WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
24	3	2g18108.d	1.	WG111957-01 PRO CCV	1,1 SOS58-05	25 Jan 102 12::4
25	4	2g18109.d	1.	WG111901-01 PRO @600ppm	1,1 SOS58-05	25 Jan 102 12::0
26	5	2g18110.d	1.	WG111957-05 PRO @400ppm	1,1 SOS58-05	25 Jan 102 12::1
27	6	2g18111.d	1.	WG111957-03 PRO @100ppm	1,1 SOS58-05	25 Jan 102 12::3
28	7	2g18112.d	1.	WG111957-02 PRO @50ppm	1,1 SOS58-05	25 Jan 102 12::4
29	8	2g18113.d	1.	WG111957-01 PRO @5ppm	1,1 SOS58-05	25 Jan 102 12::0
30	9	2g18114.d	1.	WG111957-07 ALT @200ppm	1,1 SOS58-05	25 Jan 102 12::1
31	10	2g18115.d	1.	WG111907-01 PRO water BLK	1,1 V179-P99	25 Jan 102 12::3
32	11	2g18116.d	1.	WG111907-02 PRO water LCS	1,1 V179-P99	25 Jan 102 12::5
33	12	2g18117.d	1.	WG111907-03 PRO water LCS2	1,1 V179-P99	25 Jan 102 12::0
34	13	2g18118.d	1.	L0201405-04 PRO water	1,1 water	25 Jan 102 12::2
35	14	2g18119.d	1.05	L0201408-10 PRO water	1,1 water	25 Jan 102 12::3
36	15	2g18120.d	1.	mecl2	1,1 water	25 Jan 102 12::5
37	1	2g18121.d	1.	WG111957-08 PRO CCV	1,1 SOS58-05	25 Jan 102 12::0
38	16	2g18122.d	40.	WG111873-02 PRO soil BLK	7,1 soil V179-P97	25 Jan 102 12::2
39	17	2g18123.d	40.	WG111873-03 PRO soil LCS	7,1 V179-P97	25 Jan 102 12::3
40	18	2g18124.d	40.	L0201408-01 PRO soil	7,1 soil	25 Jan 102 12::5
41	19	2g18125.d	40.	L0201408-03 PRO soil	7,1 soil	25 Jan 102 12::0
42	20	2g18126.d	40.	L0201408-05 PRO soil	7,1 soil	25 Jan 102 12::2
43	21	2g18127.d	40.	WG111873-01 Ref PRO soil	7,1 I0201408-06 ref	25 Jan 102 12::3
44	22	2g18128.d	40.	WG111873-04 MS PRO soil	7,1 I0201408-07 MS	25 Jan 102 12::5
45	23	2g18129.d	40.	WG111873-05 MSD PRO soil	7,1 I0201408-08 MSD	25 Jan 102 12::1
46	24	2g18130.d	40.	mecl2	7,1 I0201408-08 MSD	25 Jan 102 12::2
47	24	2g18131.d	40.	mecl2	7,1 I0201408-08 MSD	25 Jan 102 12::4
48	1	2g18132.d	1.	WG111957-09 PRO CCV	1,1 SOS58-05	25 Jan 102 12::5
49	25	2g18133.d	400.	L0201408-02 10X PRO soil	7,10 soil	25 Jan 102 12::1
50	26	2g18134.d	400.	L0201408-04 10X PRO soil	7,10 soil	25 Jan 102 12::2
51	27	2g18135.d	40.	L0201408-09 PRO soil	7,1 soil	25 Jan 102 12::4
52	28	2g18136.d	800.	L0201404-01 20x PRO soil	7,20 soil	25 Jan 102 13::0
53	29	2g18137.d	800.	L0201404-02 20x PRO soil	7,20 soil	25 Jan 102 13::1
54	30	2g18138.d	800.	L0201405-01 20x PRO soil	7,20 soil	25 Jan 102 13::3
55	31	2g18139.d	2000.	L0201405-02 50x PRO soil	7,50 soil	25 Jan 102 13::4

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	32	2g18140.d	1.	mecl2	1,1	25 Jan 102 13::0
57	32	2g18141.d	1.	mecl2	1,1	25 Jan 102 13::2
58	2	2g18142.d	1.	WG111957-10 PRO CCV	1,1 SOS58-05	25 Jan 102 13::3
59	3	2g18143.d	40.	WG111941-02 PRO soil BLK	7,1 V179-P109	25 Jan 102 13::5
60	4	2g18144.d	40.	WG111941-03 PRO soil LCS	7,1 V179-P109	26 Jan 102 13::0
61	5	2g18145.d	2000.	WG111941-01 REF 50X PRO soil	7,1 I0201438-01 ref	26 Jan 102 13::2
62	6	2g18146.d	2000.	I0201439-01 50X PRO soil	7,1 I0201438-01 ref	26 Jan 102 13::4
63	7	2g18147.d	400.	WG111941-04 MS 10x	7,10 I0201438-01 MS	26 Jan 102 13::5
64	8	2g18148.d	400.	WG111941-05 MSD 10x	7,10 I0201438-01 MSD	26 Jan 102 12::1
65	32	2g18149.d	1.	mecl2	1,1	26 Jan 102 12::2
66	32	2g18150.d	1.	mecl2	1,1	26 Jan 102 12::4
67	2	2g18151.d	1.	WG111957-11 PRO CCV	1,1	26 Jan 102 12::0

HV 1/28/02

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Jan. 25 Cs Instrument ID HP2 Column ID RTX-5 Data Subdirectory 012502
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 ✓ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☑ Change liner
☑ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g 18133 and 2g 18134. DR. require to run straight.

Reviewed by _____ 1/27/02

ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g19278.d	1.	✓ mecl2	1,1	12 Mar 102 13::4
:	2	2g19279.d	1.	✓ win def std	1,1 NS14-41	12 Mar 102 13::5
;	3	2g19280.d	1.	WG114393-01 PRO CCV	1,1 SOS 58-05	12 Mar 102 13::1
.	4	2g19281.d	1.	WG114271-01 BLK 3/11 V181P137	1,1	12 Mar 102 12::4
;	5	2g19282.d	1.	WG114271-02 LCS 3/11 V181P137	1,1	12 Mar 102 12::0
;	6	2g19283.d	1.	WG114271-03 LCS DUP 3/11 V181P137	1,1	12 Mar 102 12::1
'	7	2g19284.d	1.	WG114312-02 BLK 3/11 V181P149	7,1 SOIL	12 Mar 102 12::3
)	8	2g19285.d	1.	WG114312-03 LCS 3/11 V181P149	7,1 SOIL	12 Mar 102 12::4
)	9	2g19286.d	1.	MECL2	1,1	12 Mar 102 12::0
0	10	2g19287.d	1.	WG114393-02 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::1
1	11	2g19288.d	1.	L0203154-04 PRO	1,1	12 Mar 102 12::3
2	12	2g19289.d	1.	L0203155-02 PRO	1,1	12 Mar 102 12::5
13	13	2g19290.d	1.	L0203049-01 PRO	2,1	12 Mar 102 12::0
14	14	2g19291.d	1.	MECL2	1,1	12 Mar 102 12::2
15	15	2g19292.d	1.	WG114393-03 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::3
16	16	2g19293.d	1.	PR10 WG114312-01 L0203154-01 REF	7,1 SOIL	12 Mar 102 12::5
17	17	2g19294.d	1.	WG114312-04 L0203154-01 MS PRO	7,1 SOIL	12 Mar 102 12::1
18	18	2g19295.d	1.	WG114312-05 L0203154-01 MSD PRO	7,1 SOIL	12 Mar 102 12::2
19	19	2g19296.d	1.	MECL2	1,1	12 Mar 102 12::4
20	20	2g19297.d	1.	WG114393-04 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::0
21	21	2g19298.d	1.	L0203155-01 PRO	7,1 SOIL	12 Mar 102 12::1
22	22	2g19299.d	1.	PR10 L0203154-02 PRO	7,1 SOIL	12 Mar 102 12::3
23	23	2g19300.d	1.	✓ L0203154-03 PRO	7,1 SOIL	12 Mar 102 12::4
24	19	2g19301.d	1.	MECL2	1,1	12 Mar 102 12::0
25	20	2g19302.d	1.	WG114393-05 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::1

CLK 3/13/02
RPC 3/13/02

Analysis Date/Time 3/12/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 031202
Analyst Initials CLK/RDC

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☒ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☒ Change liner
☒ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0203049-01 PRO, ~~55~~ CLK 3/13/02 O-Terpheny/ high, SMI

WG114312-01 L0203154-01 REF (PRO), Needs 10X

~~LOT~~ CLK 3/13/02 L0203154-02 PRO, Needs 10X

Reviewed By: RRC 3/13/02

Parameter: FLA-PRO HC SOP #: EXTRO Revision #: 2
Extraction Analyst(s): REK TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 0130 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: REK Witness: CB
Surrogate #: E550C40-18 Earliest Hold Date: 03/11/02
Spike #: A = E550C40-19 Spike #: B = ———

Extraction Work Group WG 114271
Analytical Work Group WG 114336

Extract Relinquished By: DP
Extract Received By & Date: KDC 3/11/02

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 114271-01
2	LCS		✓			〃	〃	1mL	〃	T				WG 〃 -02
3	LCS DUP		✓			〃	〃	〃	〃	T				WG 〃 -03
4	03-049-01	FLA-PRO	✓			880mL	〃		〃	C				3/13
5	03-154-04	〃	✓			910mL	〃		〃	T				3/15
6	03-155-02	〃	✓			〃	〃		〃	T				3/15
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/11/02

Methylene Chloride Lot #: 42015
Hexane Lot #: ———
Ether Lot #: ———
Methanol Lot #: ———
Solvent: ——— Lot #: ———
Reagent: ——— Lot #: ———
Reagent: ——— Lot #: ———
Reagent: ——— Lot #: ———
Acid: 1:1 HCL Lot #: EK2034
Florisil Lot #: ———
Silica Gel Lot #: V32555
IR Analyst / Date / Time: ———
Dried Na_2SO_4 Lot #: CK2085

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/11/02

Extraction Notes For Volume # 15' Page # 137

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: PRO-S SOP #: EXPRO Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 1435 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: DP Witness: CAH
Surrogate #: ESS0040-18 Earliest Hold Date: 03/21/02
Spike #: A = ESS0040-19 Spike #: B = —

Extraction Work Group WG 114312
Analytical Work Group WG 114337

Extract Relinquished By: DP
Extract Received By & Date: [illegible] 03/11/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank					25.04 g	1mL		1mL	T				WG 114312-02
2	LCS					.08 g		1mL		T				WG -03
3	03-154-01	FLA-PRO				.08 g				C				WG -01
4	-01MS					.09 g		1mL		C				WG -04
5	-01MSD					.06 g		1		C				WG -05
6	-02					.06 g				C				
7	-03					.05 g				C				
8	-04					.06 g				C				
9	03-155-01													
10	DP 03/11/02													
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/11/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 3-11-02

Extraction Notes For Volume # 181 Page # 149

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Analyst: [illegible]
Method: 8015 - TFA PRO soil - 01404 - specified - level 4
Instrument: HP2
Work Group: WG 11953
01405 - " "
01408 - " "

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HY 1/28/01

Secondary Reviewer Initials & Date Checked SPR 1/28/02

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked SPR 1/28/02

Comments: Several samples analyzed at dilutions and quantified for special range "PRO"

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Date: _____

Analyst: CLK/RDX

Method: 8015 - PRO

Instrument: HP2

Work Group: WG114336, WG114337

03-154 3/15
03-155 3/15
03-049 3/13 A1

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	NA
Average RF	|
Linear Reg or Higher Order Curve	|
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	NA
Special Standards	✓
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	NA
Check Sample Histories	✓
Ending Check Standards	
	✓
Excel Spreadsheets	
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 3/13/02

Secondary Reviewer Initials & Date Checked DJR 3/14/02

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked DJR 3/14/02

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203155

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the water fraction yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit.
Matrix Spikes: Soil sample fraction 01 was chosen internally for MS/MSD treatment. The MS/MSD yielded percent recoveries for several analytes which were outside of advisory limits.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: RDC REVIEWED: _____ DATE: 3/29/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number L0203155

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ✓ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: RDC Date: 3/20/12

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203155
Work Group: WG114464
Blank File ID: 4L002873.R
Blank Sample ID: WG114387-01
Date Analyzed: 03/12/02
Instrument ID: HPLC4
Time Analyzed: 18:06
Method: 8310
Analyst: RDC

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114387-02	4L002874.R	03/12/02 19:02	01
LCS2	WG114387-03	4L002875.R	03/12/02 19:59	01
026-CEF9-EQB-W-Q1-02	L0203155-02	4L002877.R	03/12/02 21:52	01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0203155
Blank File ID: 4L002871.R
Date Analyzed: 03/12/02
Time Analyzed: 16:13
Analyst: RDC

Work Group: WG114391
Blank Sample ID: WG114347-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114347-03	4L002872.R	03/12/02 17:09	01
062-CEF9-SB4-S-Q1-02	L0203155-01	4L002884.R	03/13/02 04:29	01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/20/2002 15:14

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203155
Work Group: WG114391
Blank File ID: 4L002871.F
Blank Sample ID: WG114347-02
Date Analyzed: 03/12/02
Instrument ID: HPLC4
Time Analyzed: 16:13
Method: 8310
Analyst: RDC

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114347-03	4L002872.F	03/12/02 17:09	CF01
062-CEF9-SB4-S-Q1-02	L0203155-01	4L002884.F	03/13/02 04:29	CF01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/20/2002 15:14

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155 Run Date: 03/12/2002 Sample ID: WG114347-02
Instrument ID: HPLC4 Run Time: 16:13 Method: 8310
File ID: 4L002871.R Analyst: RDC Matrix: Solid
Workgroup (AAB#): WG114391 Units: ug/kg
Contract #: Cal ID: HPLC4-14-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	55.9	165	55.9	1.00	ND
Acenaphthylene	45.0	165	45.0	1.00	ND
Anthracene	41.0	165	41.0	1.00	ND
Benzo(a)anthracene	3.80	16.5	3.80	1.00	ND
Benzo[a]pyrene	2.90	16.5	2.90	1.00	ND
Benzo(b)Fluoranthene	4.80	16.5	4.80	1.00	ND
Benzo[ghi]perylene	3.60	16.5	3.60	1.00	ND
Benzo[k]fluoranthene	2.00	16.5	2.00	1.00	ND
Chrysene	3.80	16.5	3.80	1.00	ND
Dibenz(a,h)Anthracene	4.50	16.5	4.50	1.00	ND
Fluoranthene	3.70	16.5	3.70	1.00	ND
Fluorene	56.9	165	56.9	1.00	ND
Indeno(1,2,3-cd)pyrene	3.20	16.5	3.20	1.00	ND
Naphthalene	62.9	165	62.9	1.00	ND
2-Methylnaphthalene	4.56	165	4.56	1.00	ND
Phenanthrene	47.0	165	47.0	1.00	ND
Pyrene	3.70	16.5	3.70	1.00	ND
1-Methylnaphthalene	5.24	165	5.24	1.00	ND

Surrogates	% Recovery	Surrogate Limits			Qualifier
p-terphenyl-d14	74.3	50	-	150	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/20/2002 15:14

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155 Run Date: 03/12/2002 Sample ID: WG114347-02
Instrument ID: HPLC4 Run Time: 16:13 Method: 8310
File ID: 4L002871.F Analyst: RDC Matrix: Solid
Workgroup (AAB#): WG114391 Units: ug/kg
Contract #: Cal ID: HPLC4-14-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	55.9	165	55.9	1.00	ND
Acenaphthylene	45.0	165	45.0	1.00	ND
Anthracene	41.0	165	41.0	1.00	ND
Benzo(a)anthracene	3.80	16.5	3.80	1.00	ND
Benzo[a]pyrene	2.90	16.5	2.90	1.00	ND
Benzo(b)Fluoranthene	4.80	16.5	4.80	1.00	ND
Benzo[ghi]perylene	3.60	16.5	3.60	1.00	ND
Benzo[k]fluoranthene	2.00	16.5	2.00	1.00	ND
Chrysene	3.80	16.5	3.80	1.00	ND
Dibenz(a,h)Anthracene	4.50	16.5	4.50	1.00	ND
Fluoranthene	3.70	16.5	3.70	1.00	ND
Fluorene	56.9	165	56.9	1.00	ND
Indeno(1,2,3-cd)pyrene	3.20	16.5	3.20	1.00	ND
Naphthalene	62.9	165	62.9	1.00	ND
2-Methylnaphthalene	4.56	165	4.56	1.00	ND
Phenanthrene	47.0	165	47.0	1.00	ND
Pyrene	3.70	16.5	3.70	1.00	ND
1-Methylnaphthalene	5.24	165	5.24	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	76.0	50 - 150	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/20/2002 15:14

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203155 Run Date: 03/12/2002 Sample ID: WG114387-01
Instrument ID: HPLC4 Run Time: 18:06 Method: 8310
File ID: 4L002873.R Analyst: RDC Matrix: Water
Workgroup (AAB#): WG114464 Units: ug/L
Contract #: Cal ID: HPLC4-14-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	95.0	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/20/2002 15:14

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203155 Run Date: 03/12/2002 Sample ID: WG114387-02
Instrument ID: HPLC4 Run Time: 19:02 Method: 8310
File ID: 4L002874.R Analyst: RDC Matrix: Water
Workgroup (AAB#): WG114464 Units: ug/L
Contract #: Cal ID: HPLC4-14-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	30.5	61.1	25 - 78	
Acenaphthylene	50	31.0	62.0	25 - 77	
Anthracene	50	44.3	88.5	47 - 101	
Benzo(a)anthracene	5	4.82	96.3	50 - 115	
Benzo[a]pyrene	5	4.70	94.0	29 - 113	
Benzo(b)Fluoranthene	5	4.66	93.2	41 - 110	
Benzo[ghi]perylene	5	4.40	87.9	11 - 84	*
Benzo[k]fluoranthene	2.5	2.31	92.6	25 - 107	
Chrysene	5	4.72	94.5	39 - 120	
Dibenz(a,h)Anthracene	5	4.25	85.1	10 - 92	
Fluoranthene	5	4.54	90.9	55 - 104	
Fluorene	50	32.7	65.3	29 - 84	
Indeno(1,2,3-cd)pyrene	5	4.32	86.4	16 - 98	
Naphthalene	50	28.1	56.2	25 - 68	
Phenanthrene	50	38.9	77.8	39 - 95	
Pyrene	5	4.60	92.0	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	99.1	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/20/2002 15:14

Marietta, OH

Semi-Volatiles Quality Control Summary, Soils

ANAL WORK GRP : WG114691
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG114347
EXT DATE : 3/12/2002
EXT BENCH SHEET : V181P151

RUN DATE : 03/12/02
BLK FLNM : 4L002871
LCS FLNM : 4L002872
LCS2 FLNM : NA

SAMP ID : L0203155 -01
SMPL FLNM : 4L002884
MS FLNM : 4L002885
MSD FLNM : 4L002886

ANALYTE	CONCENTRATION, µg/Kg									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	165	ND	1667	794	NA	ND	1667	812	1096	ND	47.6	#####	22	85	NA	48.7	65.7	22	85	30	50			##		
ACENAPTHYLENE	165	ND	1667	792	NA	ND	1667	999	1266	ND	47.5	#####	26	94	NA	59.9	77.1	26	94	25	50			##		
1-METHYLNAPHTHALENE	165	ND	1667	764	NA	ND	1667	868	1134	ND	45.8	#####	26	94	NA	51.9	68.0	26	94	26.8	50			##		
2-METHYLNAPHTHALENE	165	ND	1667	784	NA	ND	1667	867	1126	ND	47.0	#####	26	94	NA	52.0	67.5	26	94	26.0	50			##		
ACENAPHTHENE	165	ND	1667	799	NA	ND	1667	1020	1238	ND	47.9	#####	24	100	NA	61.2	74.3	24	100	19	50			##		
FLUORENE	165	ND	1667	887	NA	ND	1667	1120	1326	ND	53.2	#####	28	98	NA	67.2	79.5	28	98	17	50			##		
PHENANTHRENE	165	ND	1667	1010	NA	ND	1667	1310	1513	ND	60.6	#####	38	102	NA	78.6	90.8	38	102	14	50			##		
ANTHRACENE	165	ND	1667	1130	NA	ND	1667	1280	1488	ND	67.8	#####	40	92	NA	76.8	89.3	40	92	15	50			##		
FLUORANTHENE	16.5	ND	167	122	NA	12.1	167	141	169	ND	73.1	#####	54	105	NA	77.2	94	54	105	18	50			##		
PYRENE	16.5	ND	167	124	NA	8.60	167	131	156	ND	74.3	#####	50	108	NA	73.3	88.3	50	108	17	50			##		
BENZO[a]ANTHRANCENE	16.5	ND	167	133	NA	ND	167	108	122	ND	79.6	#####	60	107	NA	64.7	73.1	60	107	12	50			##		
CHRYSENE	16.5	ND	167	134	NA	42.9	167	148	173	ND	80.2	#####	60	104	NA	62.9	77.9	60	104	16	50			##		
BENZO[b]FLUORANTHENE	16.5	ND	167	135	NA	16.2	167	113	140	ND	80.8	#####	61	108	NA	58.0	74.1	61	108	21	50			##	L	
BENZO[k]FLUORANTHENE	16.5	ND	83.5	68.3	NA	8.90	83.5	125	146	ND	81.8	#####	59	112	NA	139	164	59	112	15	50			##	H	H
BENZO[a]PYRENE	16.5	ND	167	121	NA	21.9	167	159	220	ND	72.5	#####	51	101	NA	82.1	119	51	101	32	50			##		H
DIBENZO[a,h]ANTHRANCENE	16.5	ND	167	135	NA	60.5	167	151	195	ND	80.8	#####	58	113	NA	54.2	80.5	58	113	25	50			##	L	
BENZO[g,h,i]PERYLENE	16.5	ND	167	139	NA	26.8	167	161	193	ND	83.2	#####	53	118	NA	80.4	99.5	53	118	18	50			##		
INDENO[1,2,3-cd]PYRENE	16.5	ND	167	135	NA	29.4	167	209	303	ND	80.8	#####	58	105	NA	108	164	58	105	37	50			##	H	H
SURROGATE																										
p-TERPHENYL-d14		247	333	270	NA	404	333	416	557	74.3	81.1	NA	50	150	121	125	167	50	150							H

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
RDL = REPORTING DETECTION LIMIT

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

ANAL WORK GRP : WG114464
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG114382
EXT DATE : 12-Mar-02
EXT BENCH SHEET : V181P165

RUN DATE : 03/12/02
BLK FLNM : 4L002873
LCS FLNM : 4L002874
LCS2 FLNM : 4L002875

SAMP ID : NA -05
SMPL FLNM : NA
MS FLNM : NA
MSD FLNM : NA

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	LCS RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	28.1	24.0	NA	50.0	NA	NA	ND	56.2	48.0	25	68	NA	NA	NA	25	68	15.79	50					
ACENAPTHYLENE	1	ND	50	31.0	25.9	NA	50.0	NA	NA	ND	62.0	51.9	25	77	NA	NA	NA	25	77	17.8	50					
1-METHYLNAPHTHALENE	1	ND	50	28.8	24.0	NA	50.0	NA	NA	ND	57.6	48.0	26	71	NA	NA	NA	26	71	18.1	50					
2-METHYLNAPHTHALENE	1	ND	50	29.0	24.3	NA	50.0	NA	NA	ND	57.9	48.6	26	72	NA	NA	NA	26	72	17.46	50					
ACENAPHTHENE	1	ND	50	30.5	25.6	NA	50.0	NA	NA	ND	61.0	51.2	25	78	NA	NA	NA	25	78	17.5	50					
FLUORENE	1	ND	50	32.7	29.1	NA	50.0	NA	NA	ND	65.3	58.2	29	84	NA	NA	NA	29	84	11.60	50					
PHENANTHRENE	1	ND	50	38.9	36.6	NA	50.0	NA	NA	ND	77.8	73.2	39	95	NA	NA	NA	39	95	6.09	50					
ANTHRACENE	1	ND	50	44.3	41.7	NA	50.0	NA	NA	ND	88.6	83.4	47	101	NA	NA	NA	47	101	6.05	50					
FLUORANTHENE	0.2	ND	5	4.54	4.51	NA	5.00	NA	NA	ND	90.8	90.2	55	104	NA	NA	NA	55	104	0.66	50					
PYRENE	0.2	ND	5	4.60	4.59	NA	5.00	NA	NA	ND	92.0	91.8	56	104	NA	NA	NA	56	104	0.22	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.82	4.94	NA	5.00	NA	NA	ND	96.4	98.8	50	115	NA	NA	NA	50	115	2.46	50					
CHRYSENE	0.2	ND	5	4.72	4.91	NA	5.00	NA	NA	ND	94.4	98.2	39	120	NA	NA	NA	39	120	3.95	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	4.66	4.88	NA	5.00	NA	NA	ND	93.2	97.6	41	110	NA	NA	NA	41	110	4.6	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	2.31	2.44	NA	2.50	NA	NA	ND	92.4	97.6	25	107	NA	NA	NA	25	107	5.5	50					
BENZO[a]PYRENE	0.2	ND	5	4.70	4.91	NA	5.00	NA	NA	ND	94.0	98.2	29	113	NA	NA	NA	29	113	4.4	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	4.25	4.66	NA	5.00	NA	NA	ND	85.1	93.2	10	92	NA	NA	NA	10	92	9.1	50			H		
BENZO[g,h,i]PERYLENE	0.2	ND	5	4.40	4.78	NA	5.00	NA	NA	ND	87.9	95.6	11	84	NA	NA	NA	11	84	8.4	50		H	H		
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	4.32	4.71	NA	5.00	NA	NA	ND	86.4	94.2	16	98	NA	NA	NA	16	98	8.6	50					
SURROGATE p-TERPHENYL-d14		9.50	10	9.91	9.96	NA	10.0	NA	NA	95.0	99.1	99.6	40	132	NA	NA	NA	40	132							

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310 AAB#: WG114464

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
026-CEF9-EQB-W-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	7	5.09	12-MAR-02	40	0.370	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/20/2002 15:14

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310 AAB#: WG114391

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF9-SB4-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.93	13-MAR-02	40	0.812	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/20/2002 15:14

SURROGATE STANDARDS

Login Number:L0203155 Method:8310
Instrument Id:HPLC4 Matrix:WATER
Workgroup (AAB#):WG114464

Sample Number	Dilution	Tag	1
L0203155-02	1.00	01	91.2
WG114387-01	1.00	01	95.0
WG114387-02	1.00	01	99.1
WG114387-03	1.00	01	99.6

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/20/2002 15:24

SURROGATE STANDARDS

Login Number: L0203155 Method: 8310

Instrument Id: HPLC4 Matrix: SOLID

Workgroup (AAB#): WG114391

Sample Number	Dilution	Tag	1
L0203155-01	1.00	01	121
L0203155-01	1.00	CF01	108
WG114347-02	1.00	01	74.3
WG114347-02	1.00	CF01	76.0
WG114347-03	1.00	01	81.1
WG114347-03	1.00	CF01	81.5

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	50	-	150

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/20/2002 15:24

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

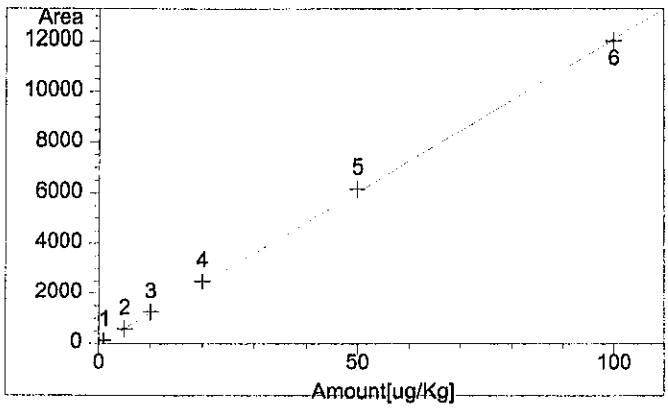
RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

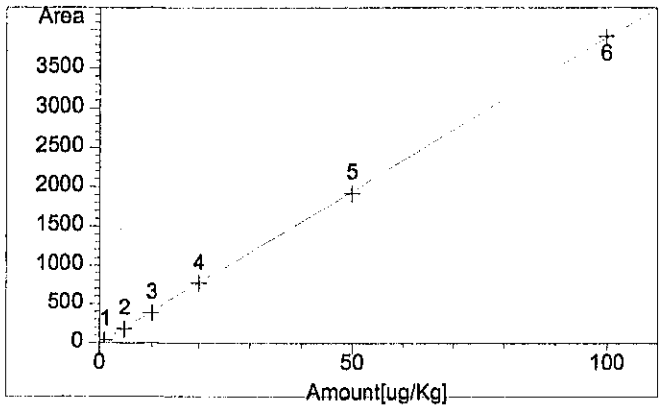
Peak Sum Table

No Entries in table

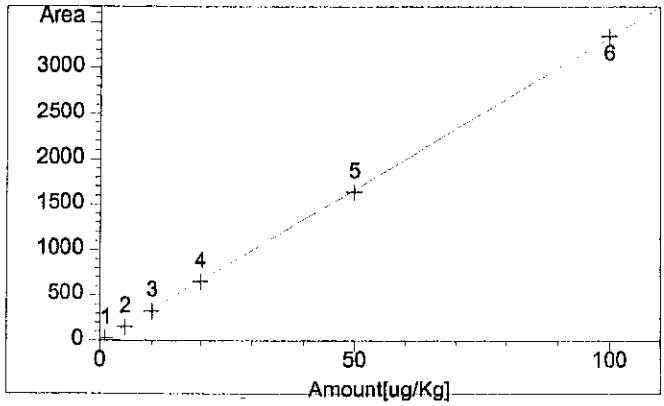
Calibration Curves



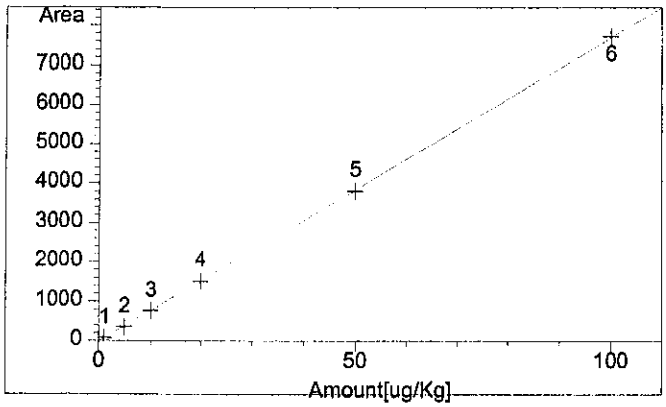
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount[ug/Kg]
y: Area



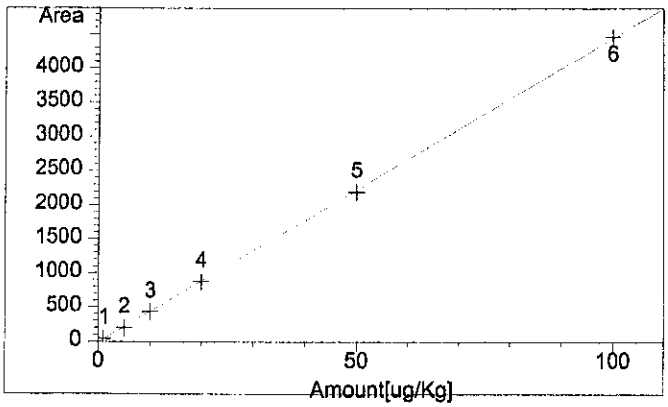
Naphthalene #1 at exp. RT: 9.250
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



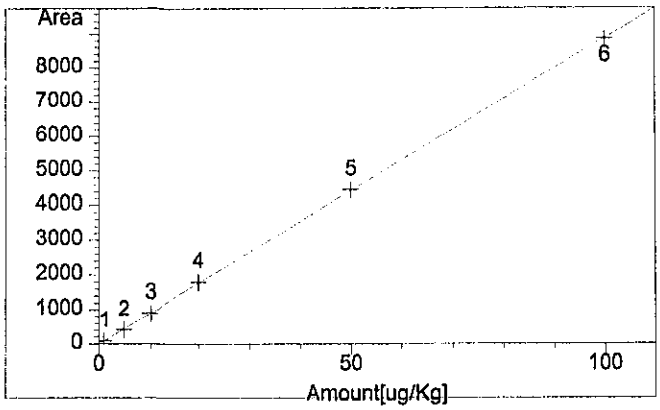
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



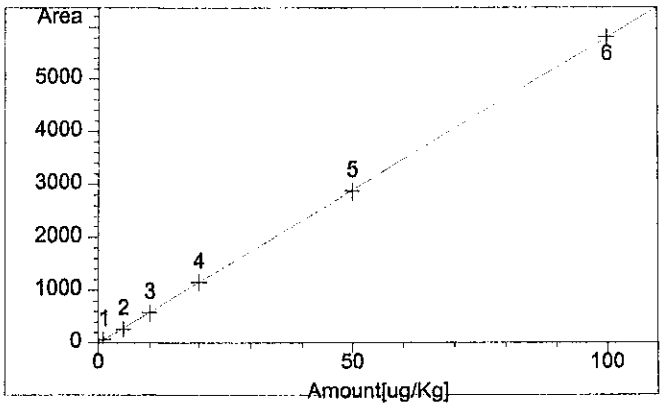
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



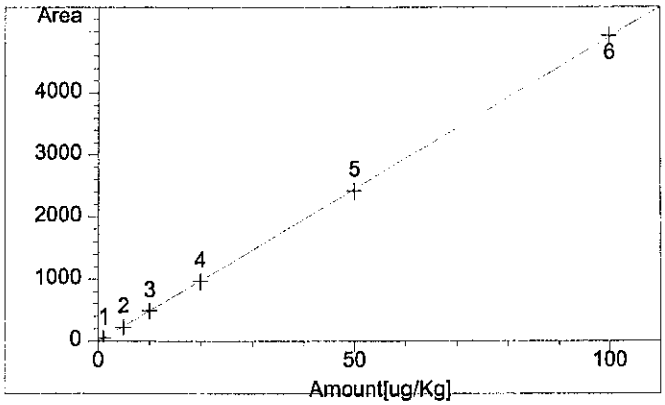
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



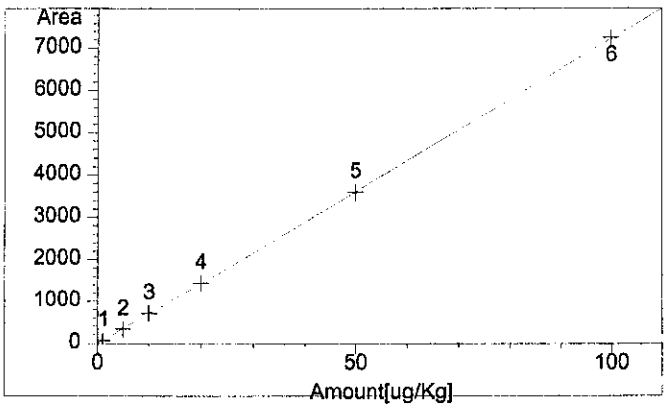
2-Methylnaphthalene #4 at exp. RT: 12.413
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount [ug/Kg]
y: Area



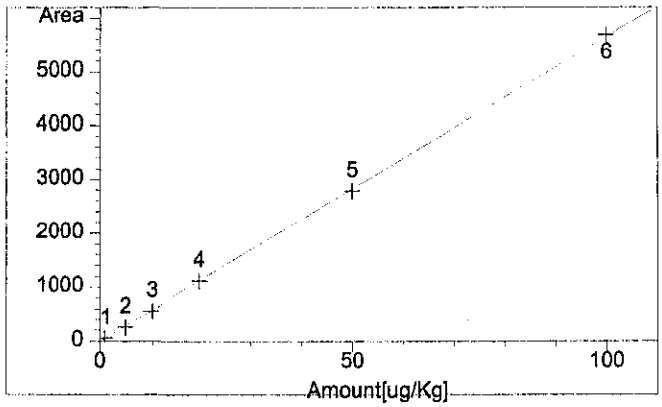
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount [ug/Kg]
y: Area



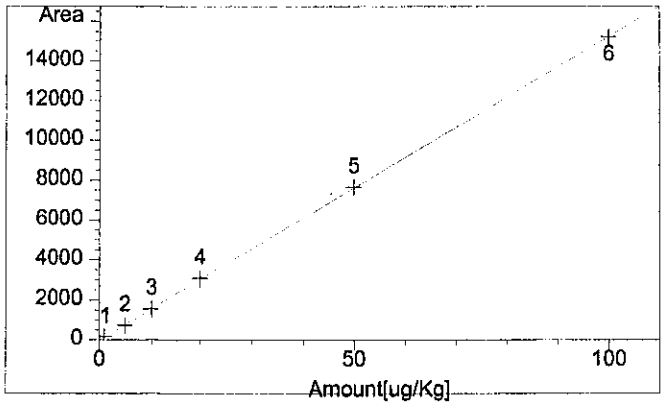
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount [ug/Kg]
y: Area



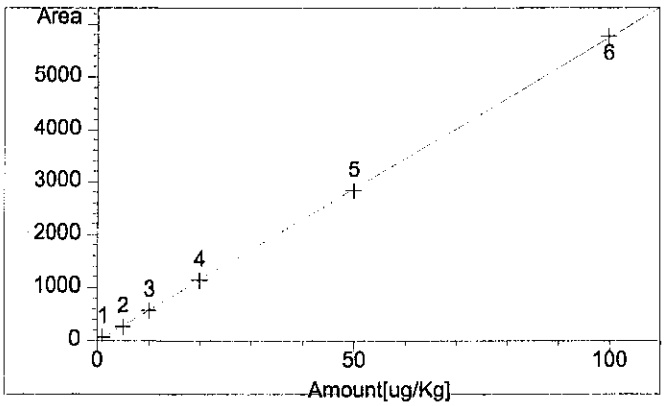
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount [ug/Kg]
y: Area



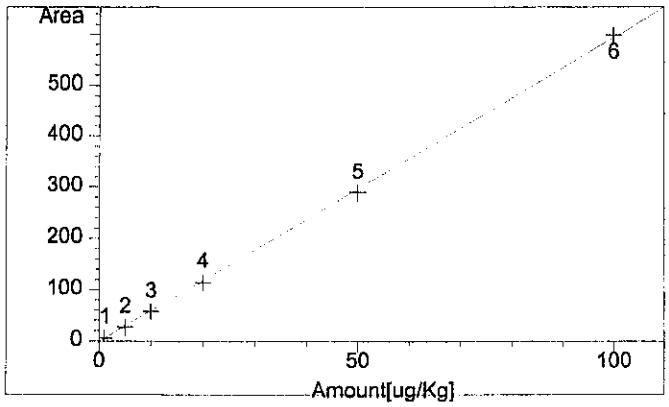
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



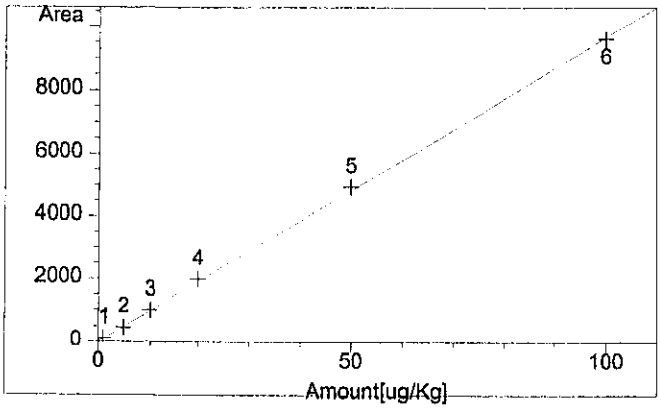
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



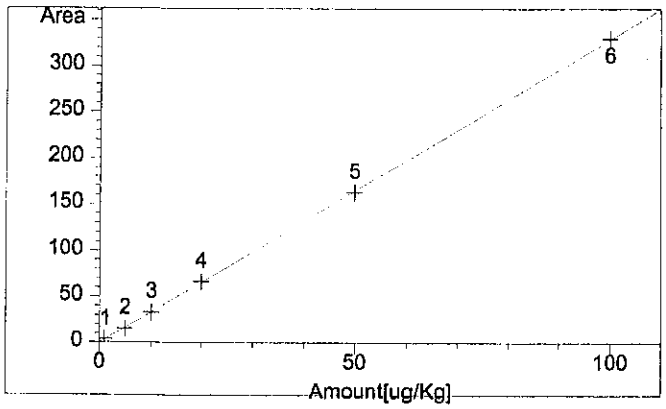
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



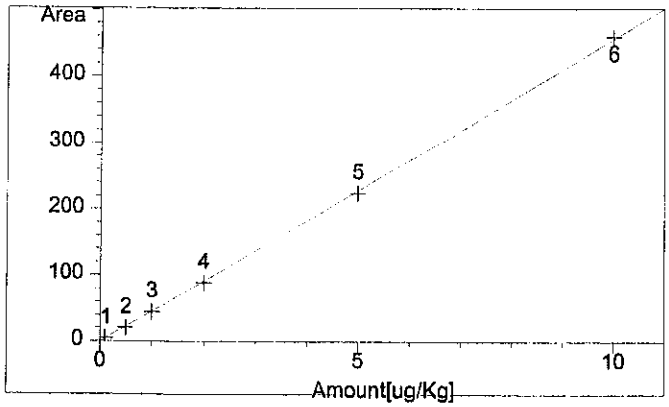
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



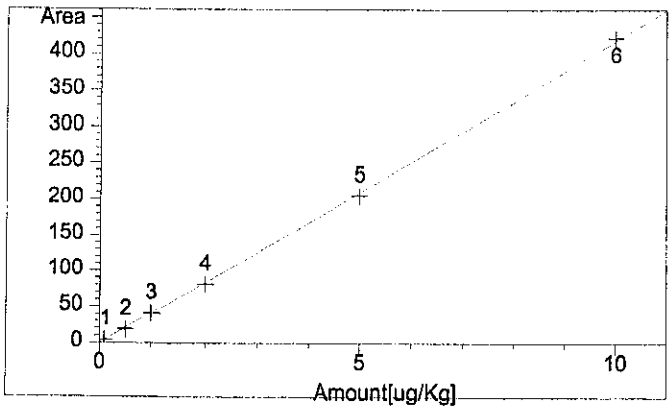
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



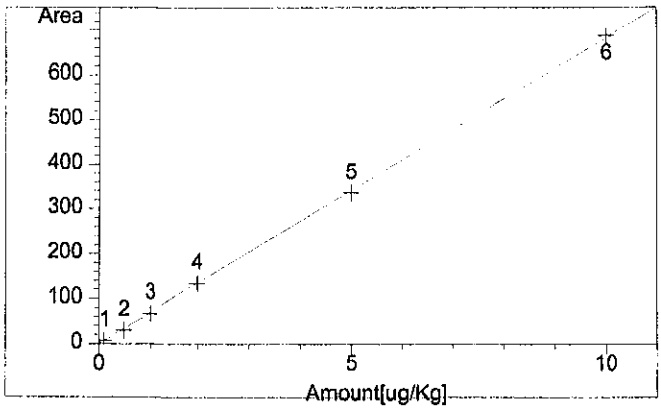
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



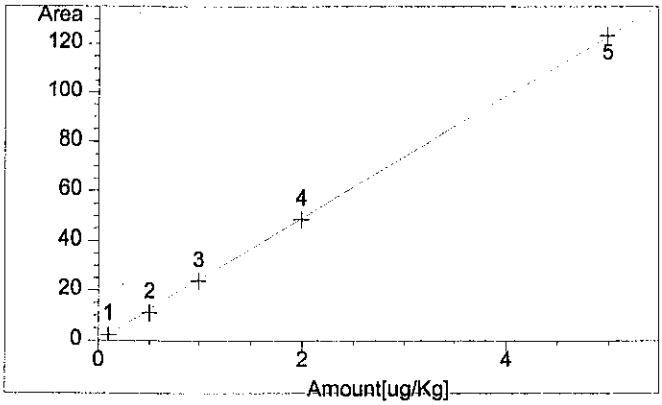
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



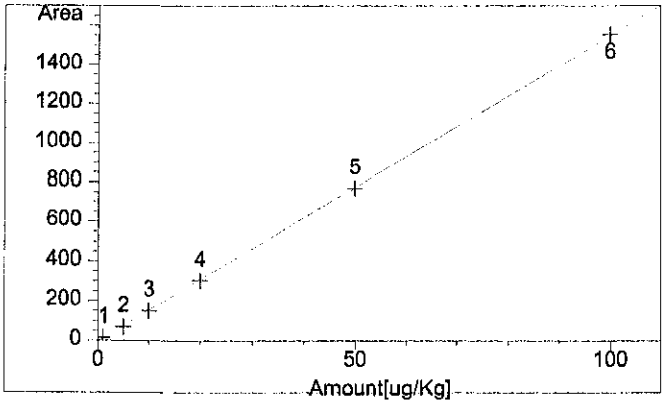
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



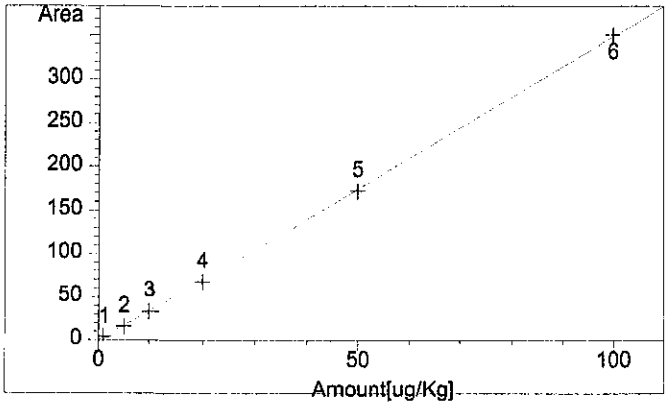
Pyrene #10 at exp. RT: 18.769
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount[ug/Kg]
y: Area



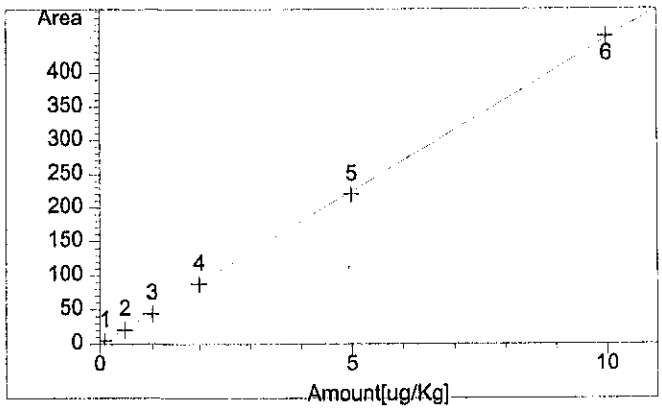
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount[ug/Kg]
y: Area



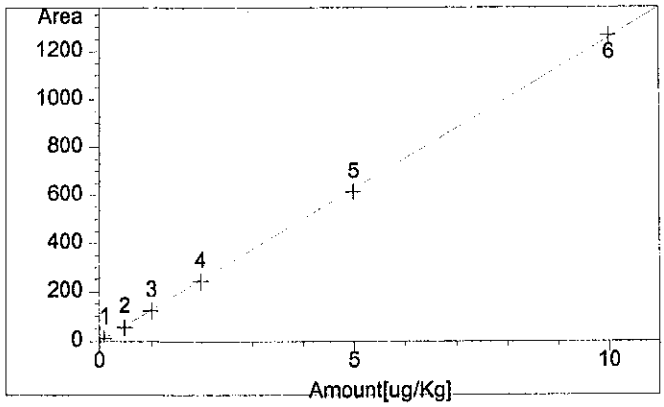
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount[ug/Kg]
y: Area



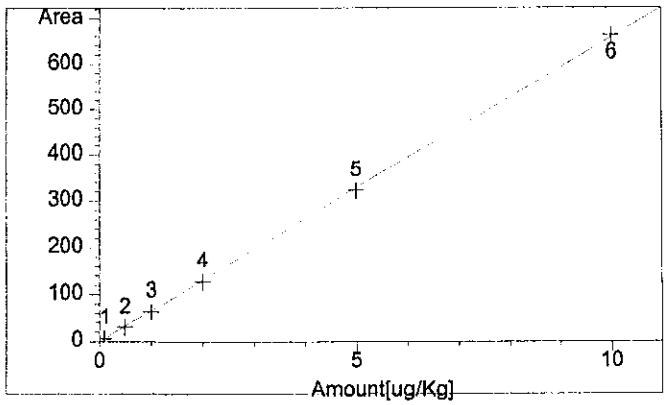
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount[ug/Kg]
y: Area



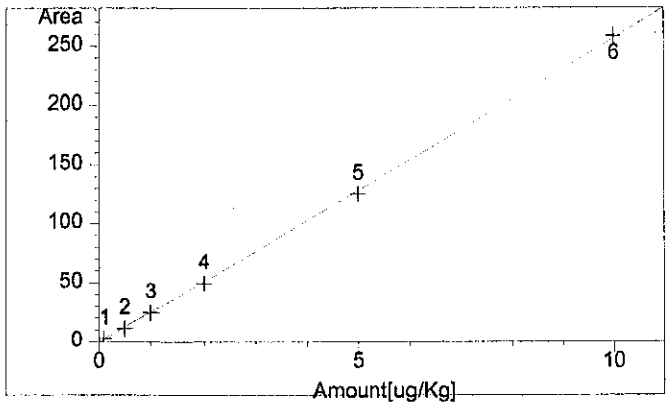
Benzo(a)anthracene #12 at exp. RT: 22.460
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



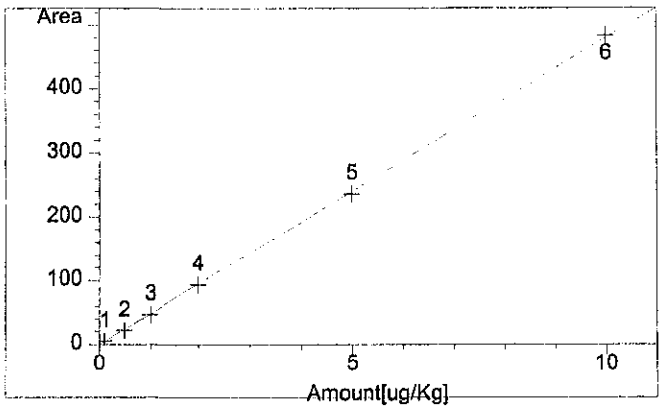
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



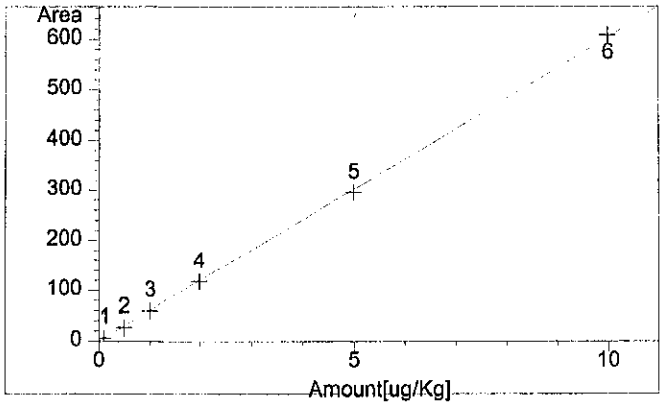
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



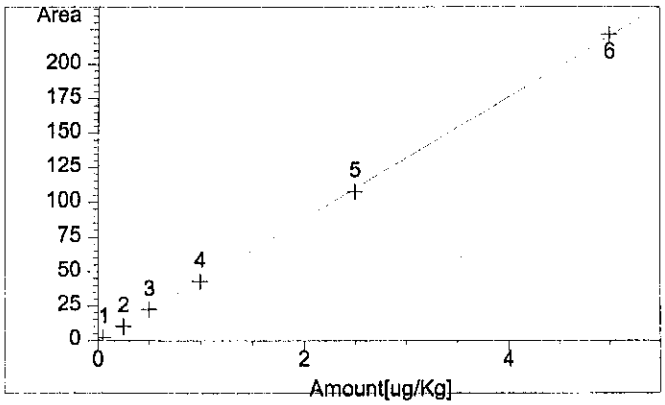
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



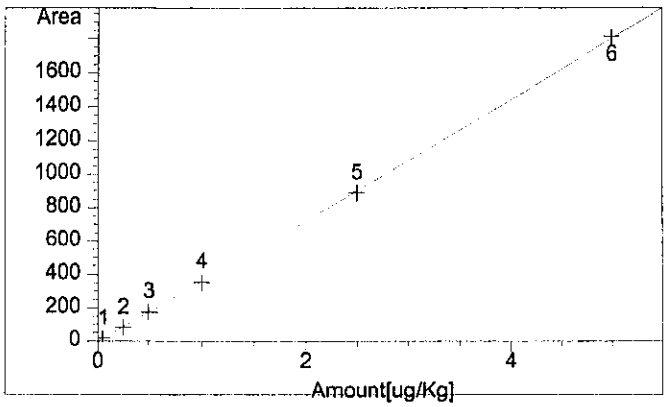
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



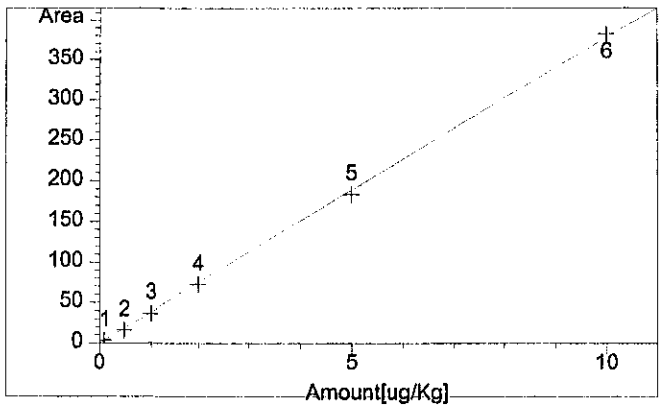
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



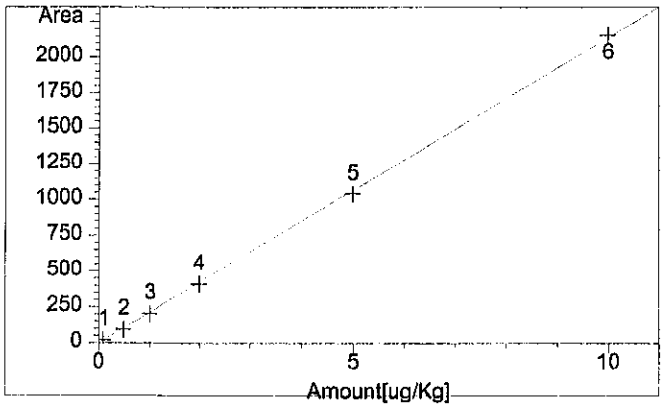
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



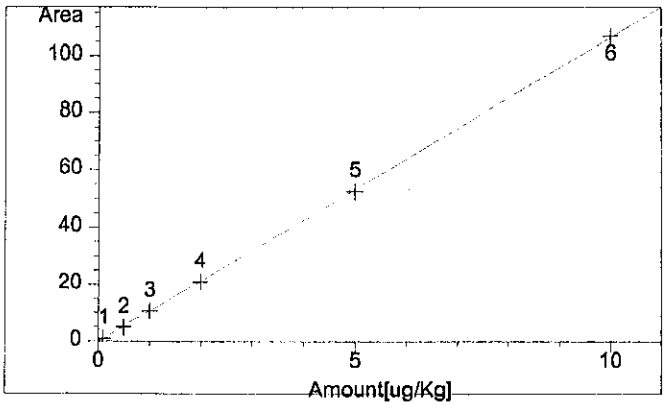
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



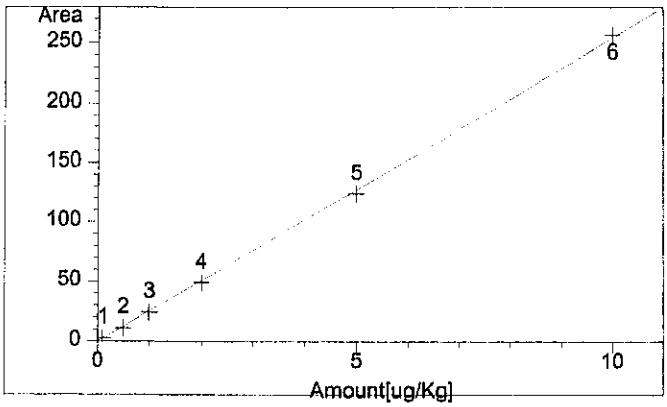
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount [ug/Kg]
y: Area



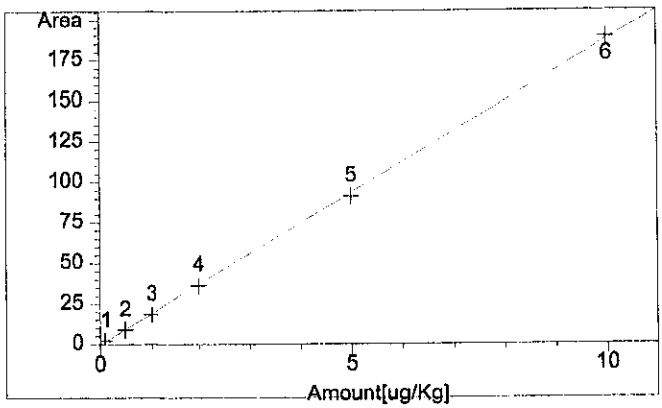
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount [ug/Kg]
y: Area



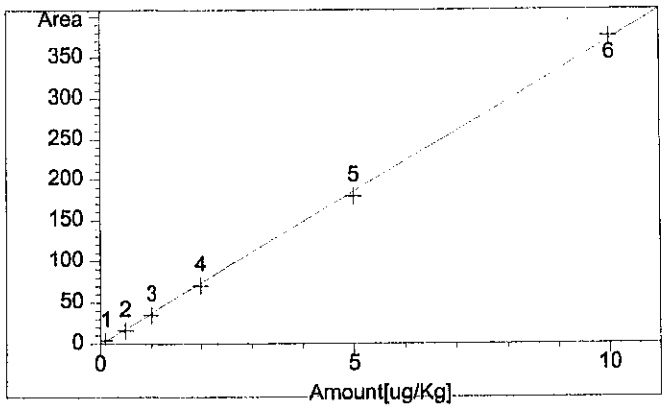
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount [ug/Kg]
y: Area



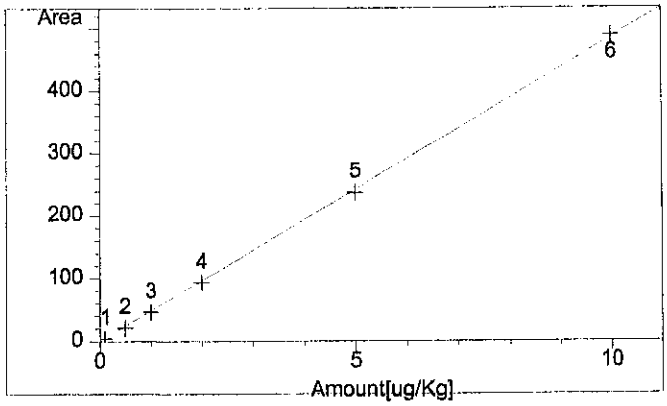
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount [ug/Kg]
y: Area



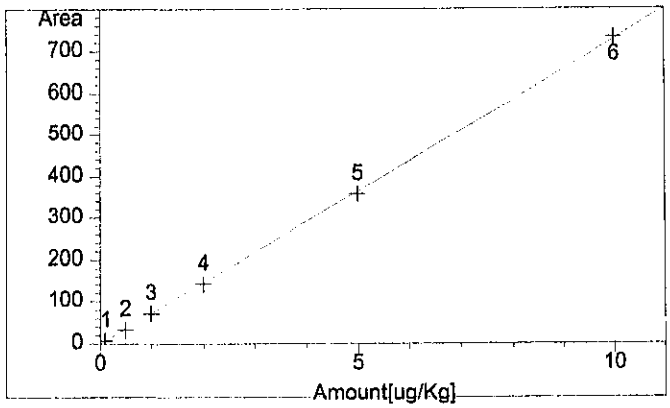
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount[ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount[ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount[ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount[ug/Kg]
y: Area

==========

Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\031202\4L002870.D Sample Name: WG114392-01 CCV
HPLC4 3/13/2002 11:18:41 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/12/2002 3:16:25 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	19.406	-3.0
1-Methylnaphthalene #3	12.006	20.0	19.550	-2.3
2-Methylnaphthalene #4	12.580	20.0	19.421	-2.9
Acenaphthene #5	13.059	20.0	19.708	-1.5
Fluorene #6	13.713	20.0	20.300	1.5
Phenanthrene #7	15.097	20.0	19.149	-4.3
Anthracene #8	16.495	20.0	20.262	1.3
Fluoranthene #9	17.871	2.0	1.945	-2.8
Pyrene #10	18.871	2.0	1.928	-3.6
p-Terphenyl d14 #11*	21.205	20.0	19.012	-4.9
Benzo(a)anthracene #12	22.519	2.0	1.932	-3.4
Chrysene #13	23.379	2.0	1.948	-2.6
Benzo(b)fluoranthene #14	26.093	2.0	1.927	-3.7
Benzo(k)fluoranthene #15	27.517	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.616	2.0	1.952	-2.4
Dibenz(a,h)anthracene #1	30.465	2.0	1.930	-3.5
Benzo(g,h,i)perylene #18	31.285	2.0	1.908	-4.6
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.926	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	20.729	3.6
Acenaphthylene #2	11.041	20.0	20.068	0.3
1-Methylnaphthalene #3	11.990	20.0	20.039	0.2
2-Methylnaphthalene #4	12.564	20.0	20.275	1.4
Acenaphthene #5	13.044	20.0	19.776	-1.1
Fluorene #6	13.697	20.0	19.811	-0.9
Phenanthrene #7	15.081	20.0	20.132	0.7
Anthracene #8	16.479	20.0	20.976	4.9
Fluoranthene #9	17.854	2.0	1.960	-2.0
Pyrene #10	18.854	2.0	1.987	-0.6
p-Terphenyl d14 #11*	21.190	20.0	19.068	-4.7
Benzo(a)anthracene #12	22.503	2.0	1.958	-2.1
Chrysene #13	23.363	2.0	1.956	-2.2
Benzo(b)fluoranthene #14	26.076	2.0	1.953	-2.4
Benzo(k)fluoranthene #15	27.500	1.0	0.987	-1.3
Benzo(a)pyrene #16	28.599	2.0	1.980	-1.0
Dibenz(a,h)anthracene #1	30.448	2.0	1.948	-2.6
Benzo(g,h,i)perylene #18	31.267	2.0	1.992	-0.4
Indeno(1,2,3-cd)pyrene #	32.204	2.0	1.937	-3.2

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\031202\4L002878.D Sample Name: WG114392-02 CCV
HPLC4 3/13/2002 11:27:25 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/12/2002 10:49:14 PM Seq. Line : 10

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.420	20.0	19.608	-2.0
1-Methylnaphthalene #3	11.993	20.0	19.762	-1.2
2-Methylnaphthalene #4	12.567	20.0	19.612	-1.9
Acenaphthene #5	13.045	20.0	19.859	-0.7
Fluorene #6	13.701	20.0	20.246	1.2
Phenanthrene #7	15.086	20.0	19.387	-3.1
Anthracene #8	16.489	20.0	20.065	0.3
Fluoranthene #9	17.867	2.0	1.857	-7.2
Pyrene #10	18.870	2.0	1.948	-2.6
p-Terphenyl d14 #11*	21.200	20.0	19.002	-5.0
Benzo(a)anthracene #12	22.515	2.0	1.938	-3.1
Chrysene #13	23.375	2.0	1.953	-2.3
Benzo(b)fluoranthene #14	26.080	2.0	1.928	-3.6
Benzo(k)fluoranthene #15	27.507	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.609	2.0	1.989	-0.5
Dibenz(a,h)anthracene #1	30.460	2.0	1.933	-3.4
Benzo(g,h,i)perylene #18	31.274	2.0	1.953	-2.3
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.934	-3.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.400	20.0	20.718	3.6
Acenaphthylene #2	11.027	20.0	20.024	0.1
1-Methylnaphthalene #3	11.974	20.0	20.004	0.0
2-Methylnaphthalene #4	12.548	20.0	20.248	1.2
Acenaphthene #5	13.025	20.0	19.760	-1.2
Fluorene #6	13.680	20.0	19.763	-1.2
Phenanthrene #7	15.066	20.0	20.102	0.5
Anthracene #8	16.469	20.0	20.885	4.4
Fluoranthene #9	17.846	2.0	1.958	-2.1
Pyrene #10	18.849	2.0	1.963	-1.9
p-Terphenyl d14 #11*	21.180	20.0	19.124	-4.4
Benzo(a)anthracene #12	22.495	2.0	1.946	-2.7
Chrysene #13	23.356	2.0	1.949	-2.5
Benzo(b)fluoranthene #14	26.059	2.0	1.947	-2.7
Benzo(k)fluoranthene #15	27.486	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.588	2.0	1.995	-0.2
Dibenz(a,h)anthracene #1	30.439	2.0	1.953	-2.3
Benzo(g,h,i)perylene #18	31.252	2.0	2.108	5.4
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.924	-3.8

= Failed 15.0% Criteria

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Data File C:\HPCHEM\2\DATA\031202\4L002887.D Sample Name: WG114392-03 CCV
HPLC4 3/13/2002 12:40:57 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/13/2002 7:18:58 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.412	20.0	19.431	-2.8
1-Methylnaphthalene #3	11.986	20.0	19.592	-2.0
2-Methylnaphthalene #4	12.561	20.0	19.542	-2.3
Acenaphthene #5	13.041	20.0	19.833	-0.8
Fluorene #6	13.696	20.0	20.394	2.0
Phenanthrene #7	15.082	20.0	19.234	-3.8
Anthracene #8	16.483	20.0	20.229	1.1
Fluoranthene #9	17.862	2.0	1.838	-8.1
Pyrene #10	18.867	2.0	1.899	-5.0
p-Terphenyl d14 #11*	21.203	20.0	18.886	-5.6
Benzo(a)anthracene #12	22.521	2.0	1.919	-4.0
Chrysene #13	23.384	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.093	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.514	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.610	2.0	1.955	-2.2
Dibenz(a,h)anthracene #1	30.443	2.0	1.911	-4.4
Benzo(g,h,i)perylene #18	31.254	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.194	2.0	1.895	-5.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.392	20.0	20.844	4.2
Acenaphthylene #2	11.018	20.0	20.116	0.6
1-Methylnaphthalene #3	11.966	20.0	20.107	0.5
2-Methylnaphthalene #4	12.541	20.0	20.346	1.7
Acenaphthene #5	13.021	20.0	19.866	-0.7
Fluorene #6	13.676	20.0	19.868	-0.7
Phenanthrene #7	15.062	20.0	20.191	1.0
Anthracene #8	16.462	20.0	20.959	4.8
Fluoranthene #9	17.841	2.0	1.967	-1.7
Pyrene #10	18.846	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.183	20.0	19.300	-3.5
Benzo(a)anthracene #12	22.501	2.0	1.967	-1.6
Chrysene #13	23.364	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	26.072	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.494	1.0	0.926	-7.4
Benzo(a)pyrene #16	28.589	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.423	2.0	1.837	-8.2
Benzo(g,h,i)perylene #18	31.232	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.170	2.0	1.956	-2.2

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	cc 02:01	505619/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	505 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	505 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	D.I'n. of 505 56 19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01	↓	WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	↓ 12:01	D.I'n. of 505 57-27/ 505 57-28	WG111292-08 AL

RDRC
11/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials BDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: Re-calibration

Comments

Reviewed By: [signature] 1/16/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114392-01 CCV	8310	1	Sample		
3	3	WG114347-02 SBLK	8310	1	Sample		
4	4	WG114347-03 SLCS	8310	1	Sample		
5	5	WG114387-01 WBLK	8310	1	Sample		
6	6	WG114387-02 WLCS	8310	1	Sample		
7	7	WG114387-03 WLCS	8310	1	Sample		
8	8	L0203154-04 831W	8310	1	Sample		
9	9	L0203155-02 831W	8310	1	Sample		
10	10	WG114392-02 CCV	8310	1	Sample		
11	11	L0203184-01 610W	8310	1	Sample		
12	12	L0203190-01 610W	8310	1	Sample		
13	13	L0203154-01 831S	8310	1	Sample		
14	14	L0203154-02 831S	8310	1	Sample		
15	15	L0203154-03 831S	8310	1	Sample		
16	16	WG114347-01 SREF	8310	1	Sample		
17	17	WG114347-04 SMS	8310	1	Sample		
18	18	WG114347-05 SMSD	8310	1	Sample		
19	10	WG114392-03 CCV	8310	1	Sample		

							Sample Name
No	1	1	8310	4L002869	01:01 ✓		
No	2	2	8310	4L002870	02:01 ✓	SOS 58-26/56-20	accn blk
No	3	3	8310	4L002871	03:01 ✓		WG114392-01 CC
No	4	4	8310	4L002872	04:01 ✓		WG114347-02 SB
No	5	5	8310	4L002873	05:01 ✓		WG114347-03 SL
No	6	6	8310	4L002874	06:01 ✓		WG114387-01 WB
No	7	7	8310	4L002875	07:01 ✓		WG114387-02 WL
No	8	8	8310	4L002876	08:01 ✓		WG114387-03 WL
No	9	9	8310	4L002877	09:01 ✓		L0203154-04 83
No	10	10	8310	4L002878	10:01 ✓	SOS 58-26/56-20	L0203155-02 83
No	11	11	8310	4L002879	11:01 ✓		WG114392-02 CC
No	12	12	8310	4L002880	12:01 ✓		L0203184-01 61
No	13	13	8310	4L002881	13:01 RR10		L0203190-01 61
No	14	14	8310	4L002882	14:01 ↓		L0203154-01 83
No	15	15	8310	4L002883	15:01 ↓		L0203154-02 83
No	16	16	8310	4L002884	16:01 ✓		L0203154-03 83
No	17	17	8310	4L002885	17:01 ✓		WG114347-01 SR
No	18	18	8310	4L002886	18:01 ✓		WG114347-04 SM
No	19	10	8310	4L002887	19:01 ✓	SOS 58-26/56-20	WG114347-05 SM
							WG114392-03 CC

RRec 3/15/12

3/8/12

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 12, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 031202
Analyst Initials RAK SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: RAK 3/18/02

Parameter: 8310 HPLC SOP #: EXHPLC01 Revision #: 6
Extraction Analyst(s): RSK TV/KD Analyst(s): DP
Date/Time Extracted: 3/12/02 @ 1300 Date TV/KD: 3/12/02
Spike/Surrogate Analyst: RSK Witness: DP
Surrogate #: ES00039-27 Earliest Hold Date: 3/14
Spike #: A = ES00040-34 Spike #: B = -

Extraction Work Group WG 114787
Analytical Work Group WG 114464
Extract Relinquished By: DP
Extract Received By & Date: EC 3/12/02

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank			✓		1L	1000µL		1mL					WG 114787-01
2	LCS			✓		1	1	500µL						WG 1 -02
3	LCS Dup			✓		1	1	1						1 -03
4	03-154-04	8310		✓		900 mL	1							
5	03-155-02	1		✓		950 mL	1							
6	03-184-01	610		✓		910 mL	1						✓	
7	03-190-01	1		✓		930 mL	1							
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

3/12/02

Methylene Chloride Lot #: 42015
Hexane Lot #: -
Ether Lot #: -
Methanol Lot #: -
Solvent: CH3CN Lot #: 41264
Reagent: - Lot #: -
Reagent: - Lot #: -
Reagent: - Lot #: -
Acid: - Lot #: -
Florisil Lot #: -
Silica Gel Lot #: -
IR Analyst / Date / Time: -
Dried Na_2SO_4 Lot #: EK2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/12/02

Extraction Notes For Volume # 181 Page # 165

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-S SOP #: EXHPLC2 Revision #: 6
Extraction Analyst(s): CAF TV/KD Analyst(s): DP
Date/Time Extracted: 03/12/02 @ 0900 Date TV/KD: 03/12/02
Spike/Surrogate Analyst: CAF Witness: DP
Surrogate #: ESS0039-27 Earliest Hold Date: 03/21/02
Spike #: A = ESS0039-37 Spike #: B = —

Extraction Work Group WG 114347
Analytical Work Group WG 114341

Extract Relinquished By: DP
Extract Received By & Date: EC2 3/12/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank					30.03 g	100 µL		1 mL	T				WG 114347-02
2	LCS					.05 g		500 µL		C				WG " -03
3	03-154-01	8310				.08 g				O				
4	" -02					.08 g				O				
5	" -03					.06 g				O				
6	03-155-01					.01 g				O				WG 114347-01
7	" -01MS					.00 g		500 µL		O				" -04
8	" -01MSD					.09 g		"		O				" -05
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/12/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2075

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 3-12-02

Extraction Notes For Volume # 181 Page # 151

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

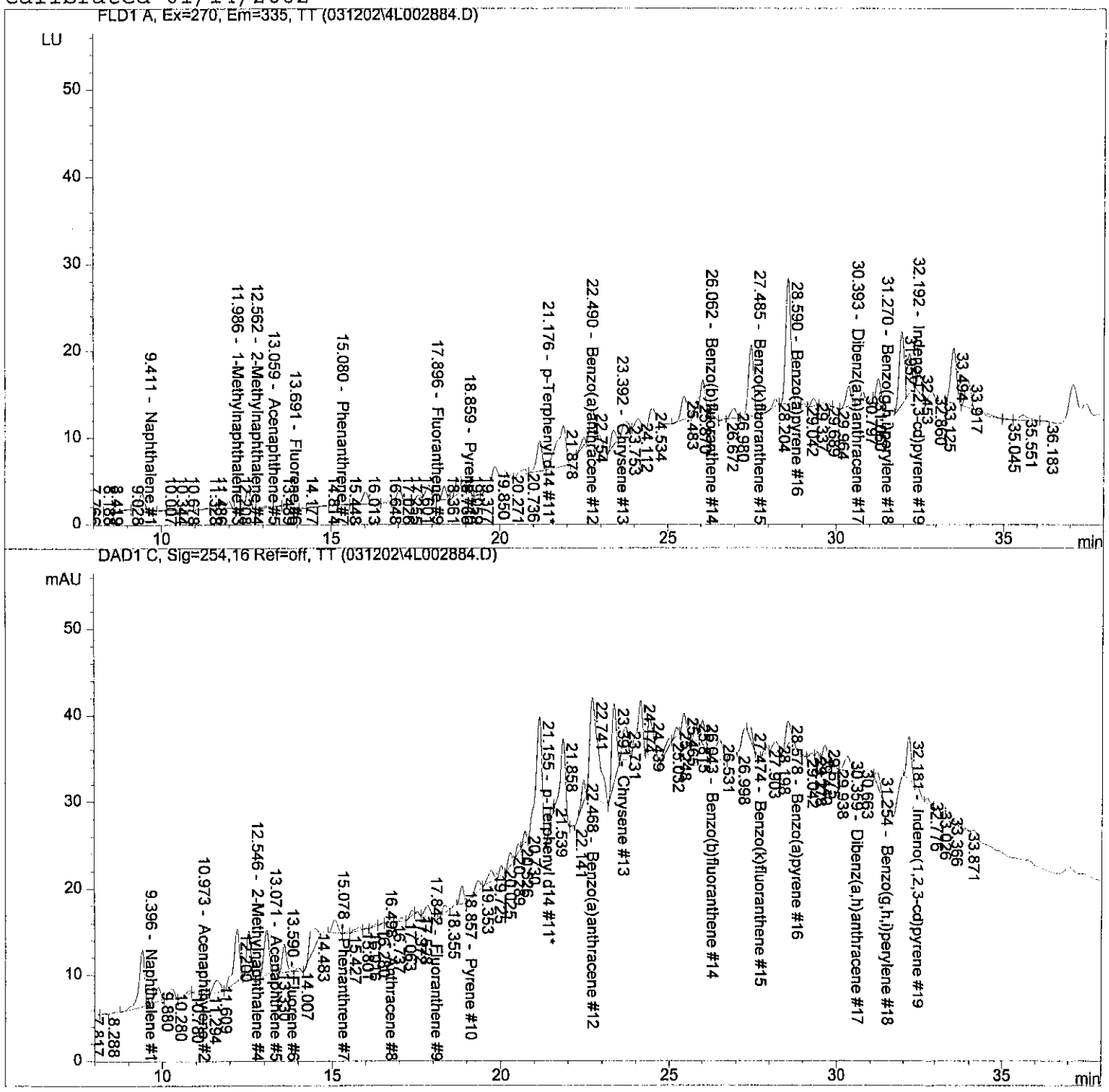
Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

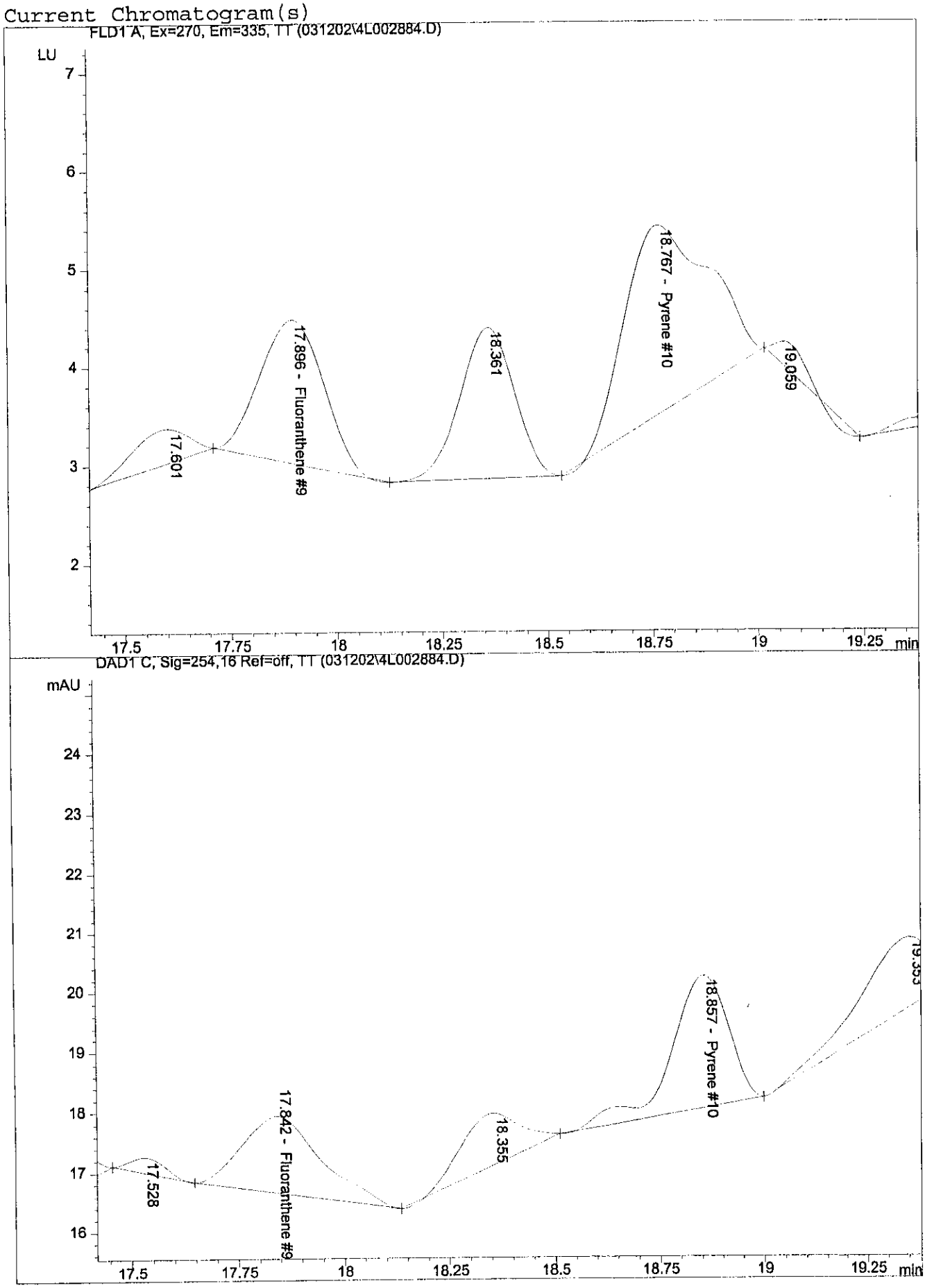
2.2.7.2 Sample Data

```
Injection Date   : 3/13/2002 4:29:01 AM              Seq. Line :  16
Sample Name      : WG114347-01 SREF                       Vial :  16
Acq. Operator    : RDC                                    Inj :   1
                                                  Inj Volume : 8 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8310.M
Last changed     : 2/11/2002 4:29:00 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed     : 3/13/2002 12:22:55 PM by RDC
                   (modified after loading)
Calibrated 01/14/2002
```

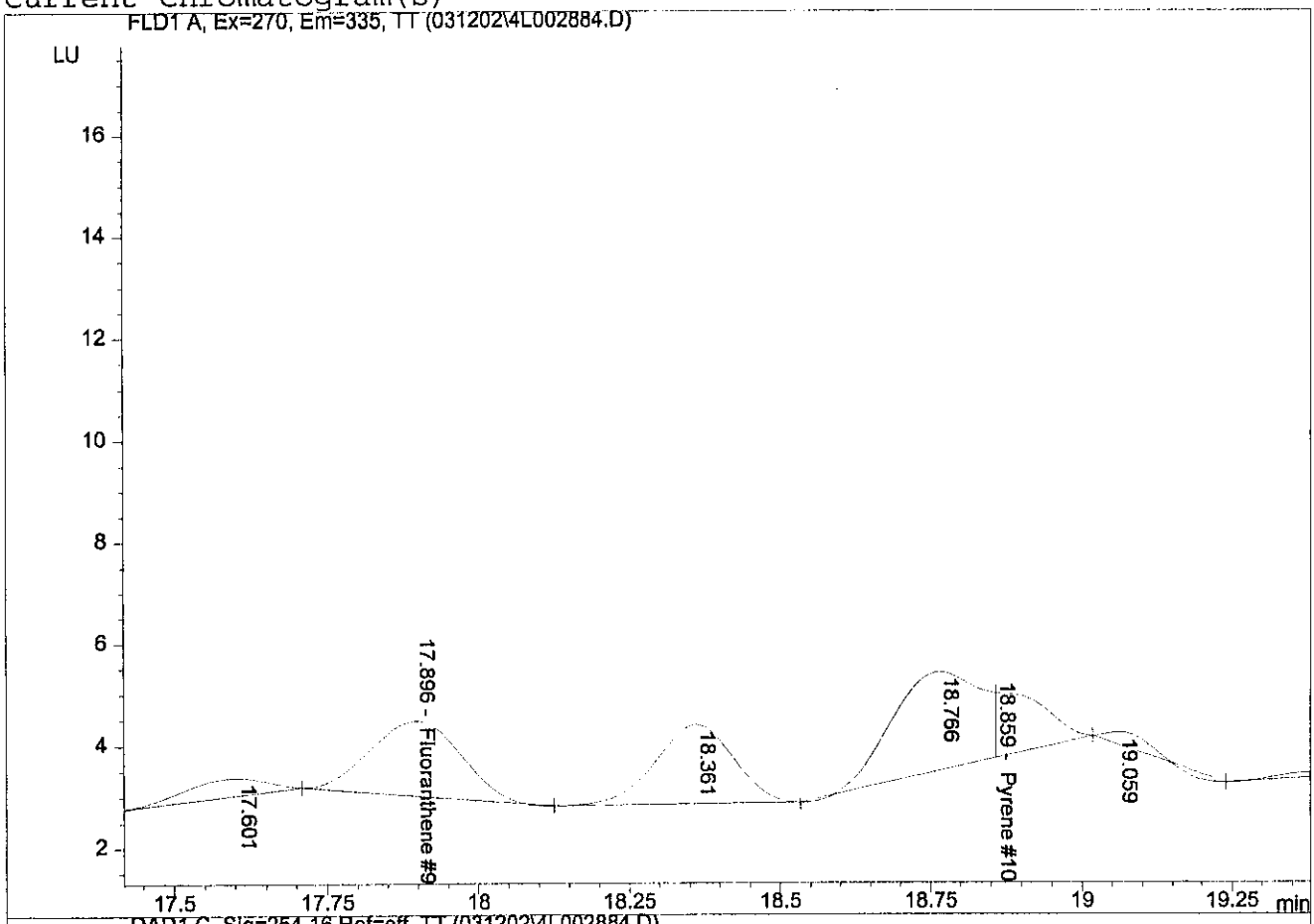


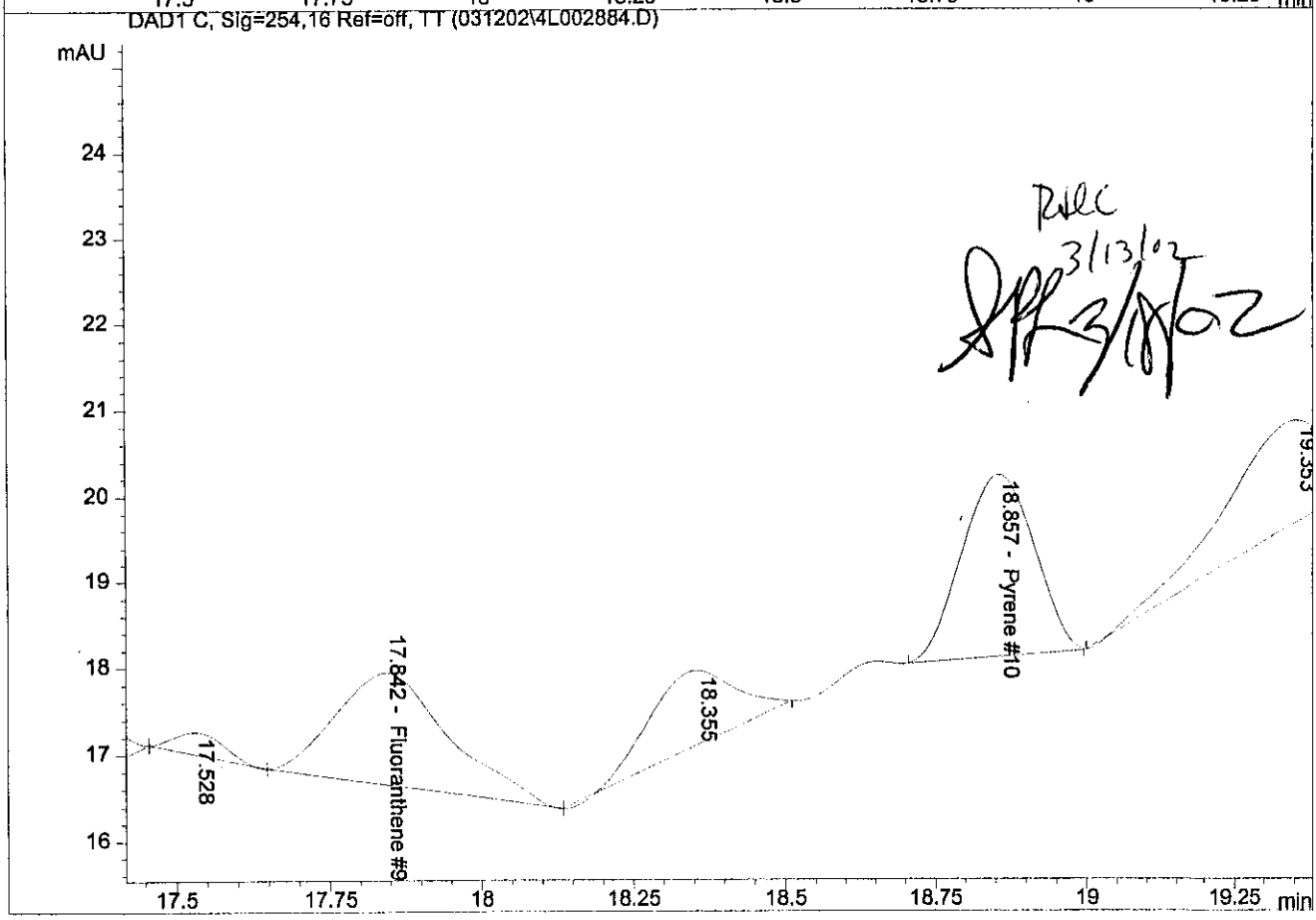
Current Chromatogram(s)



HPLC4 3/13/2002 12:23:43 PM RDC

Current Chromatogram(s)

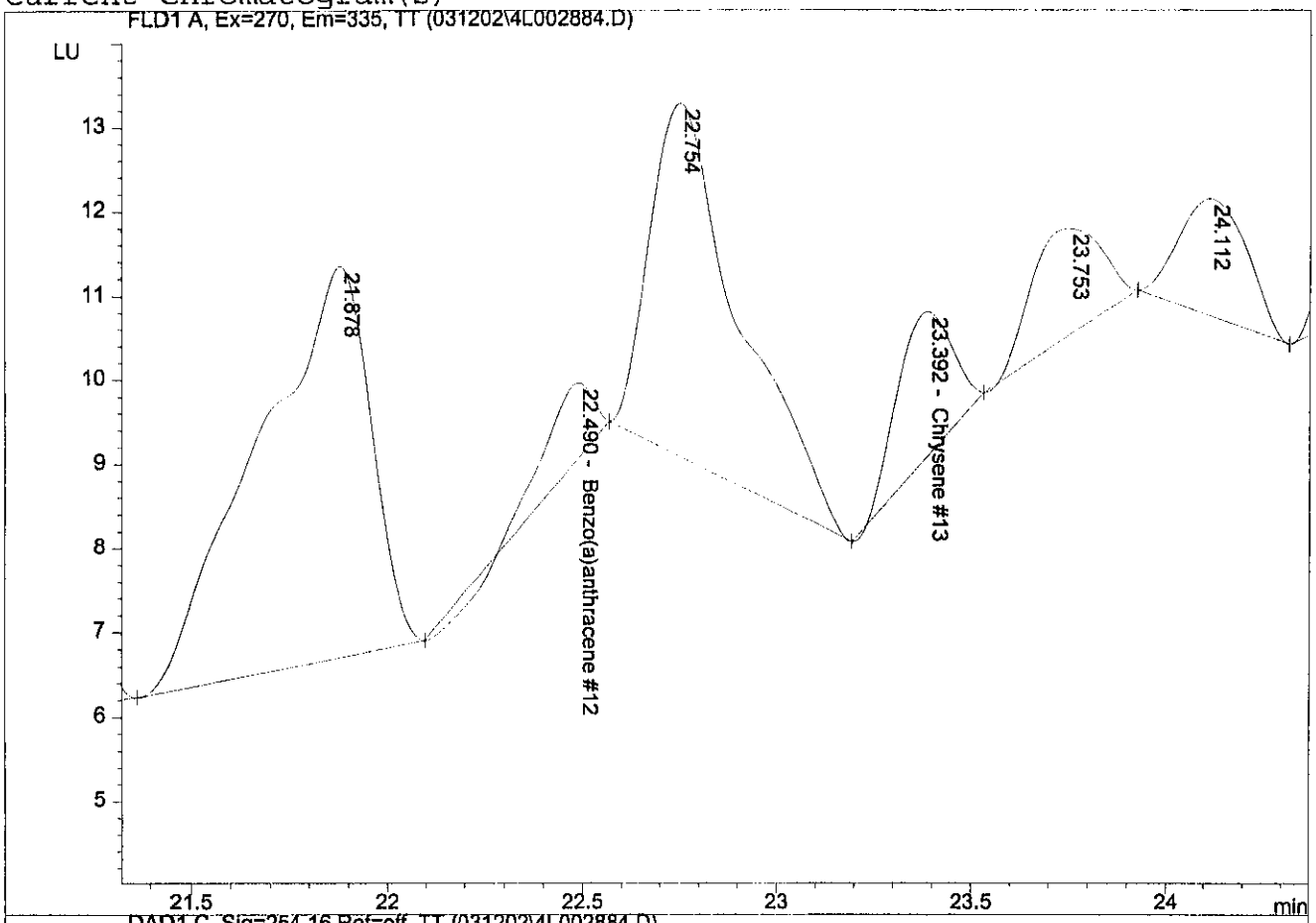


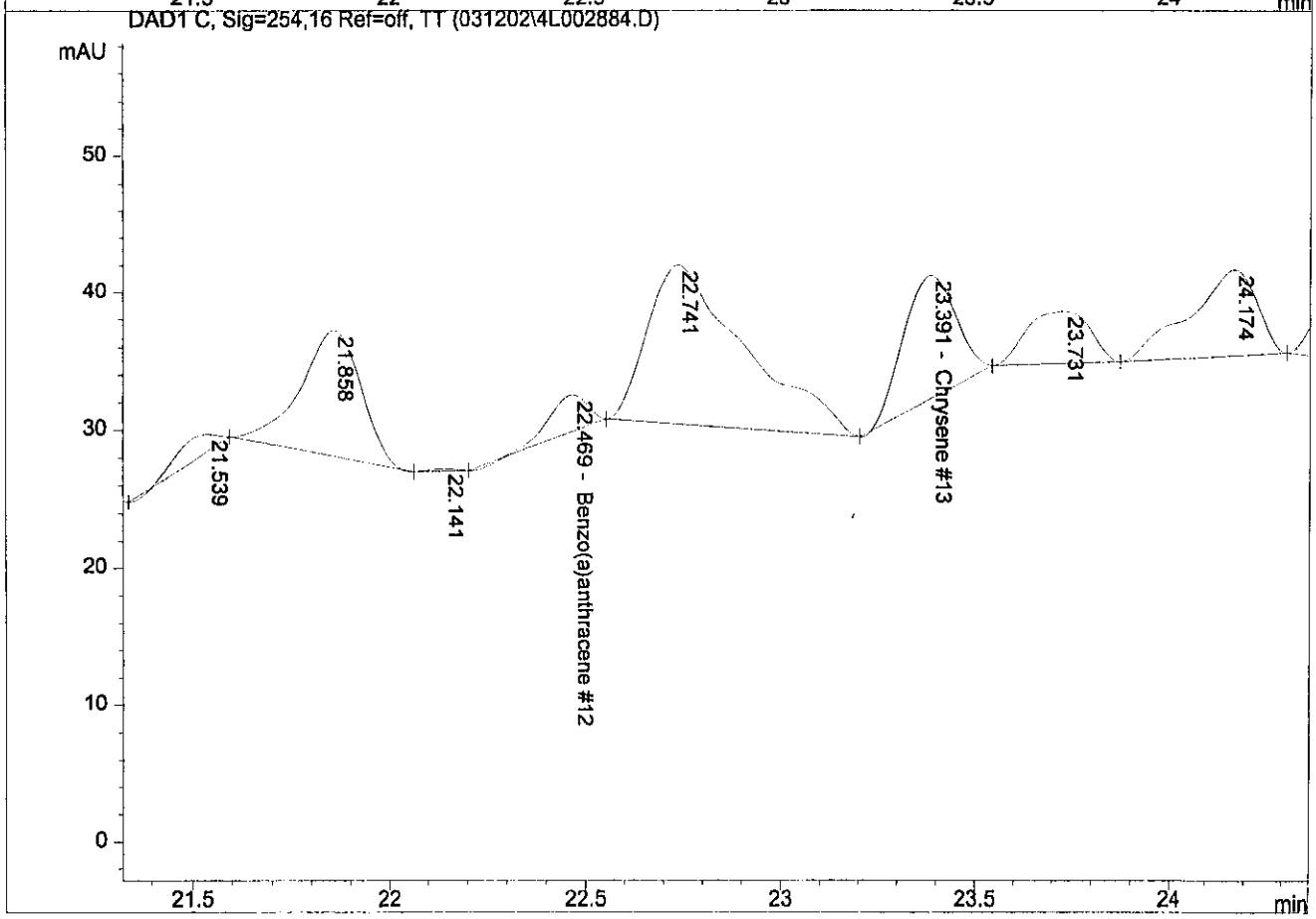


RDLC 3/13/02

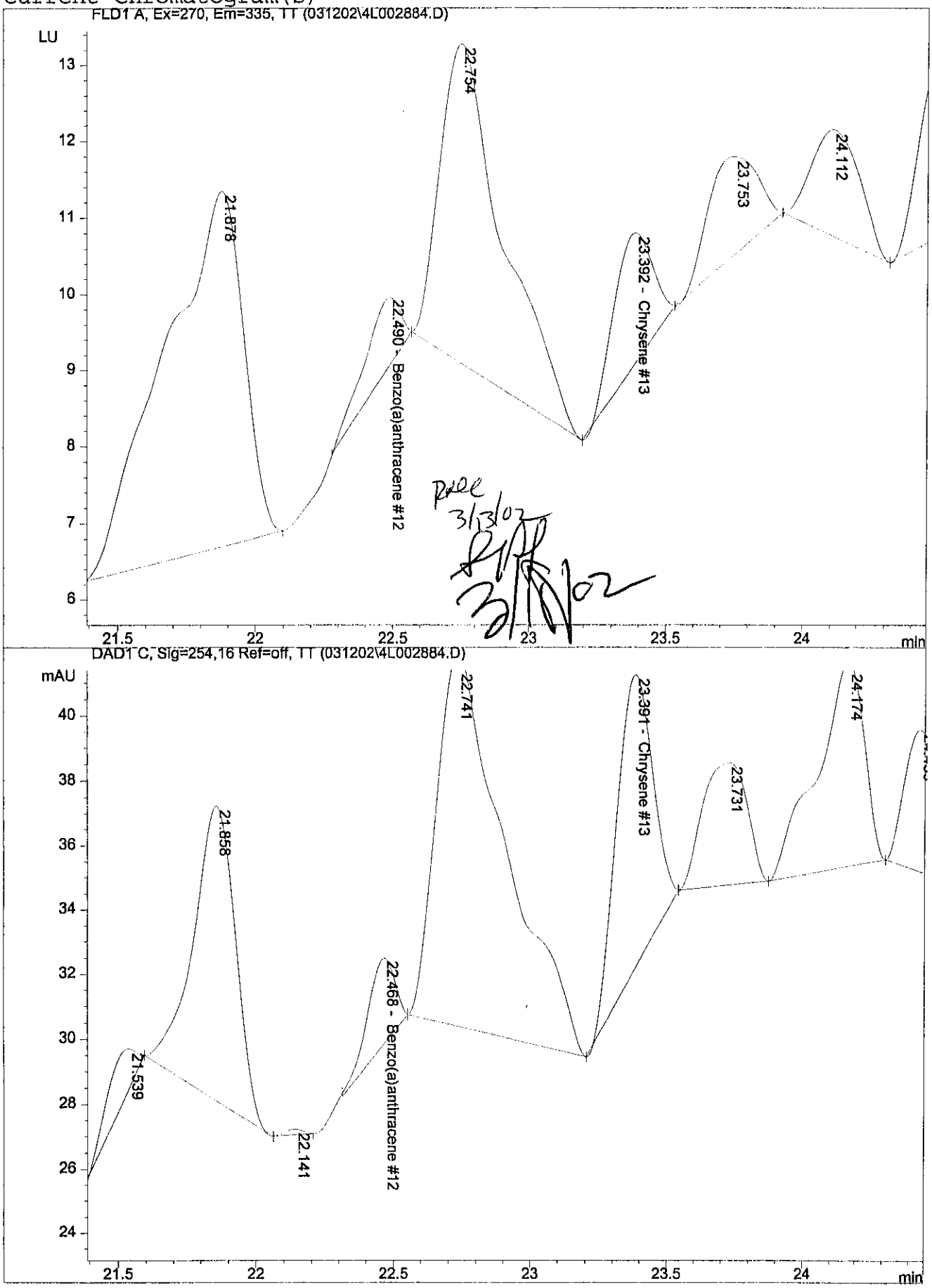
3/18/02

Current Chromatogram(s)





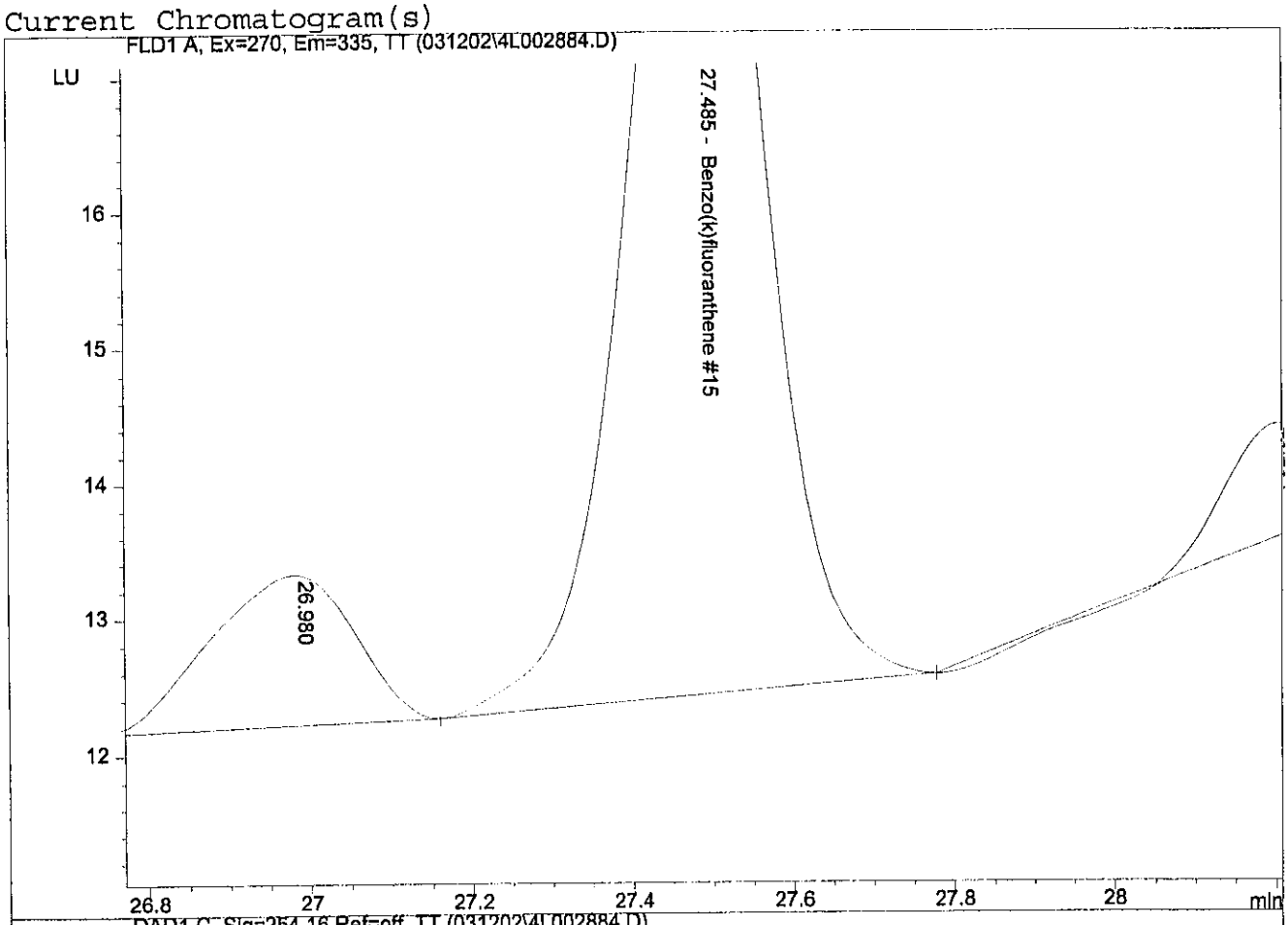
Current Chromatogram(s)

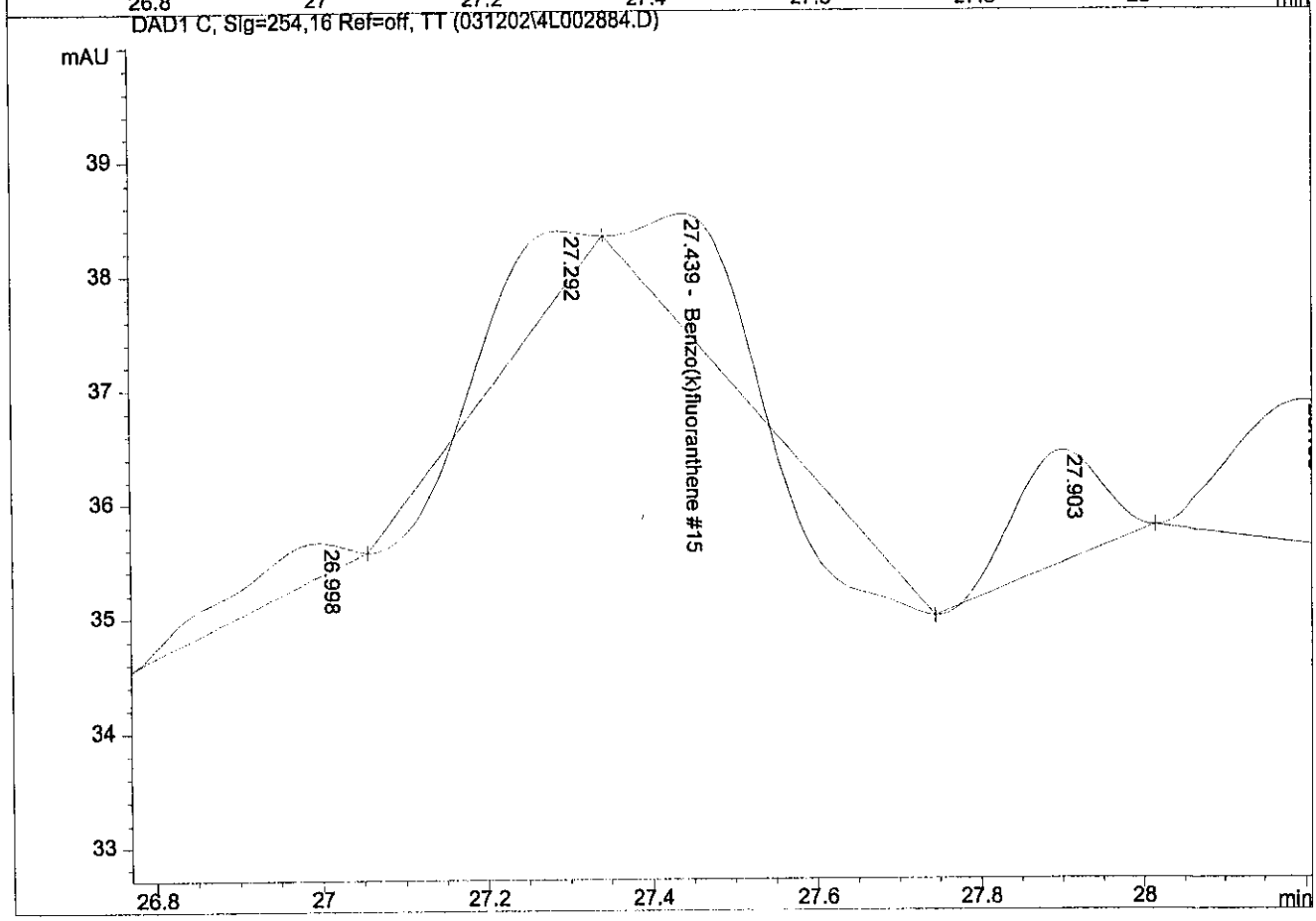


HPLC4 3/13/2002 12:25:37 PM RDC

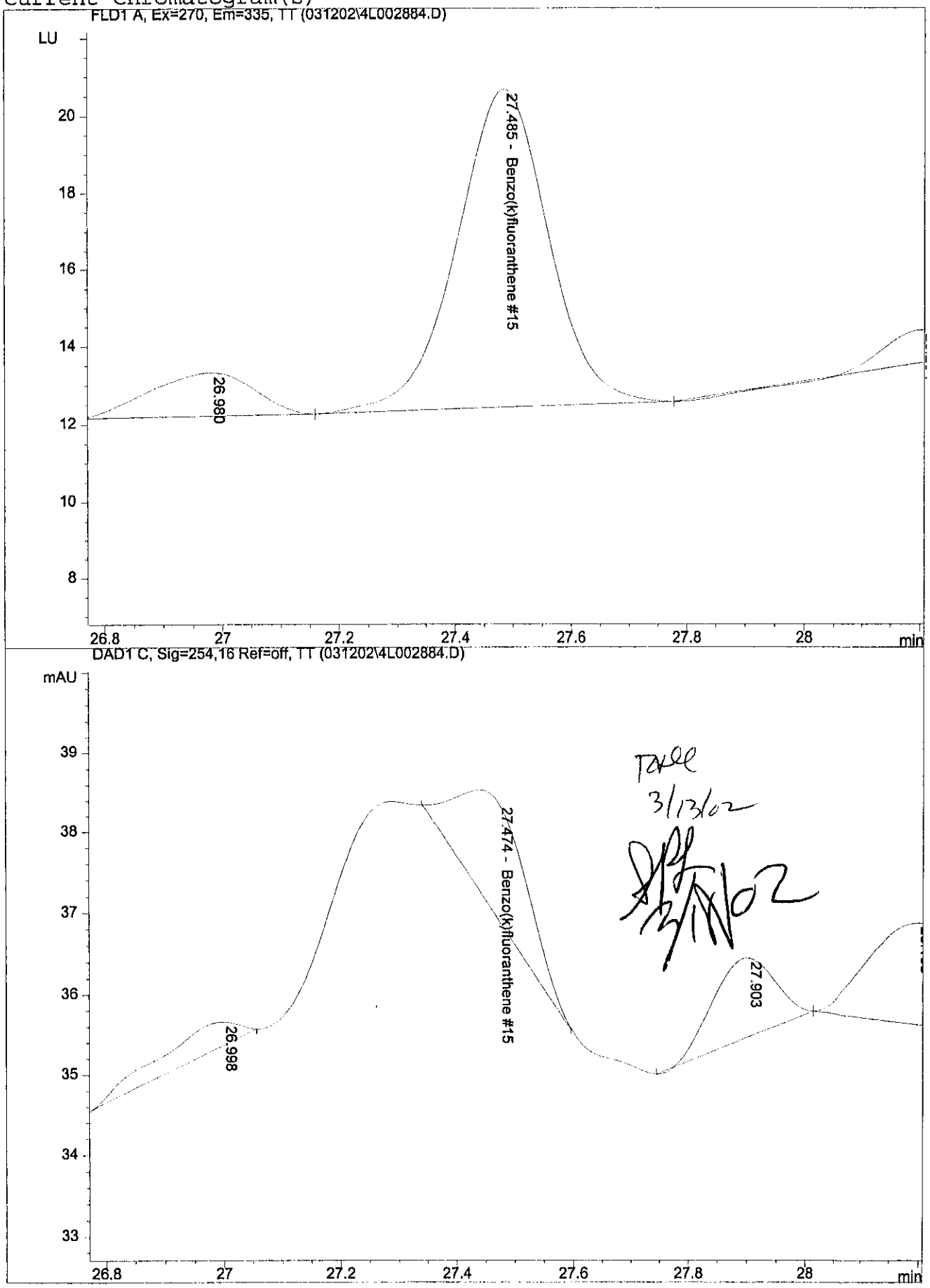
Page 1 of 1

Current Chromatogram(s)





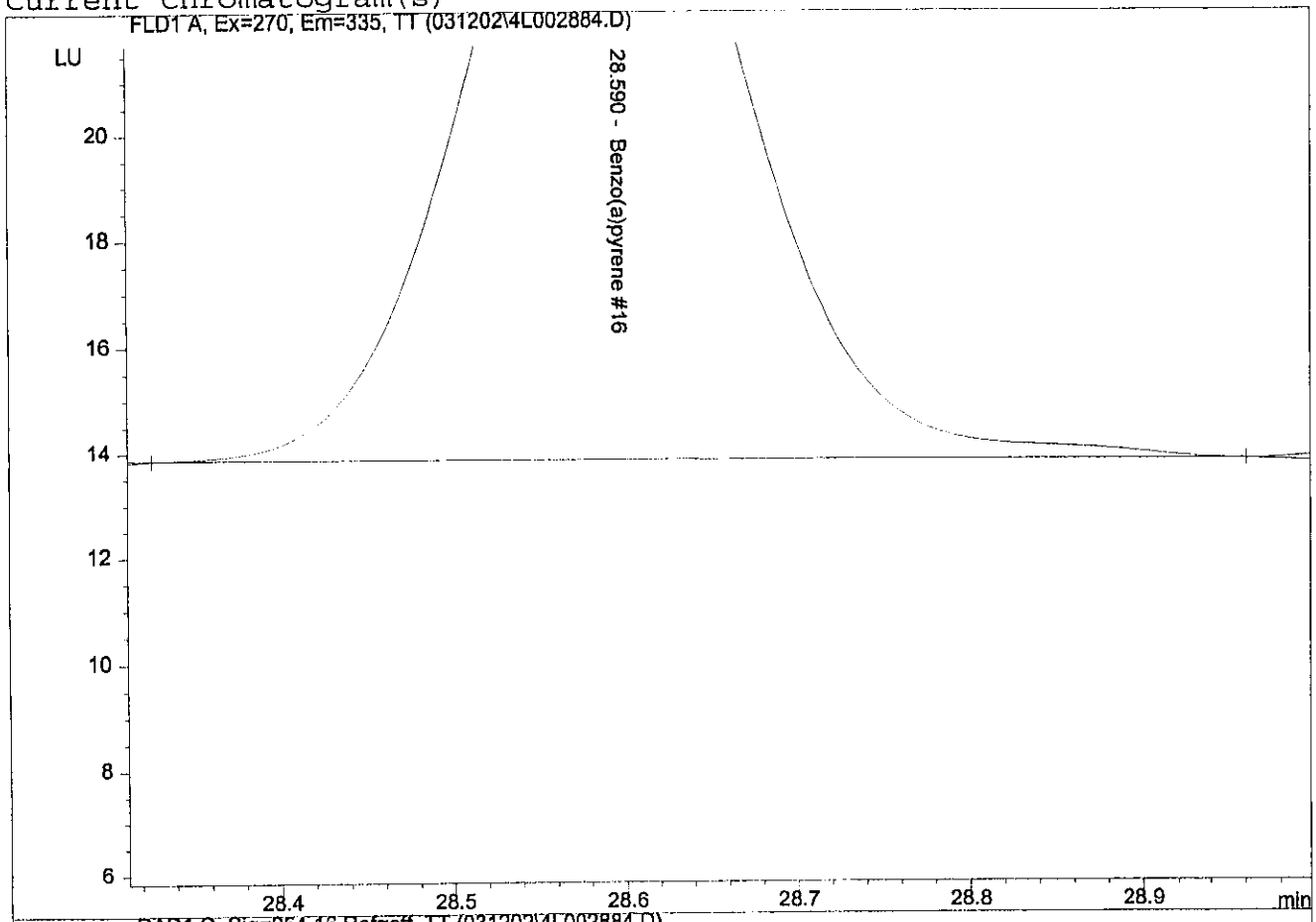
Current Chromatogram(s)

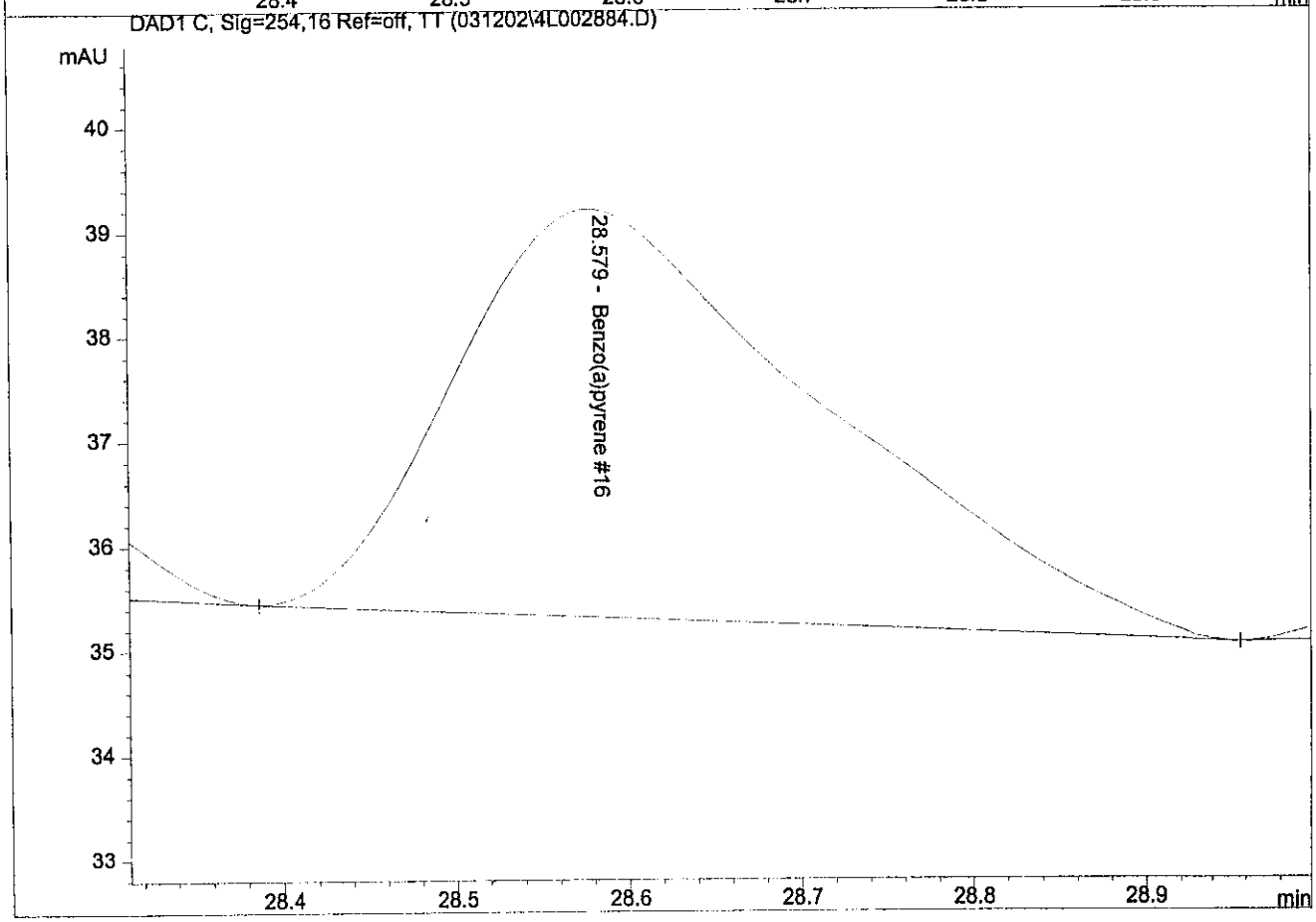


TAKE
3/13/02

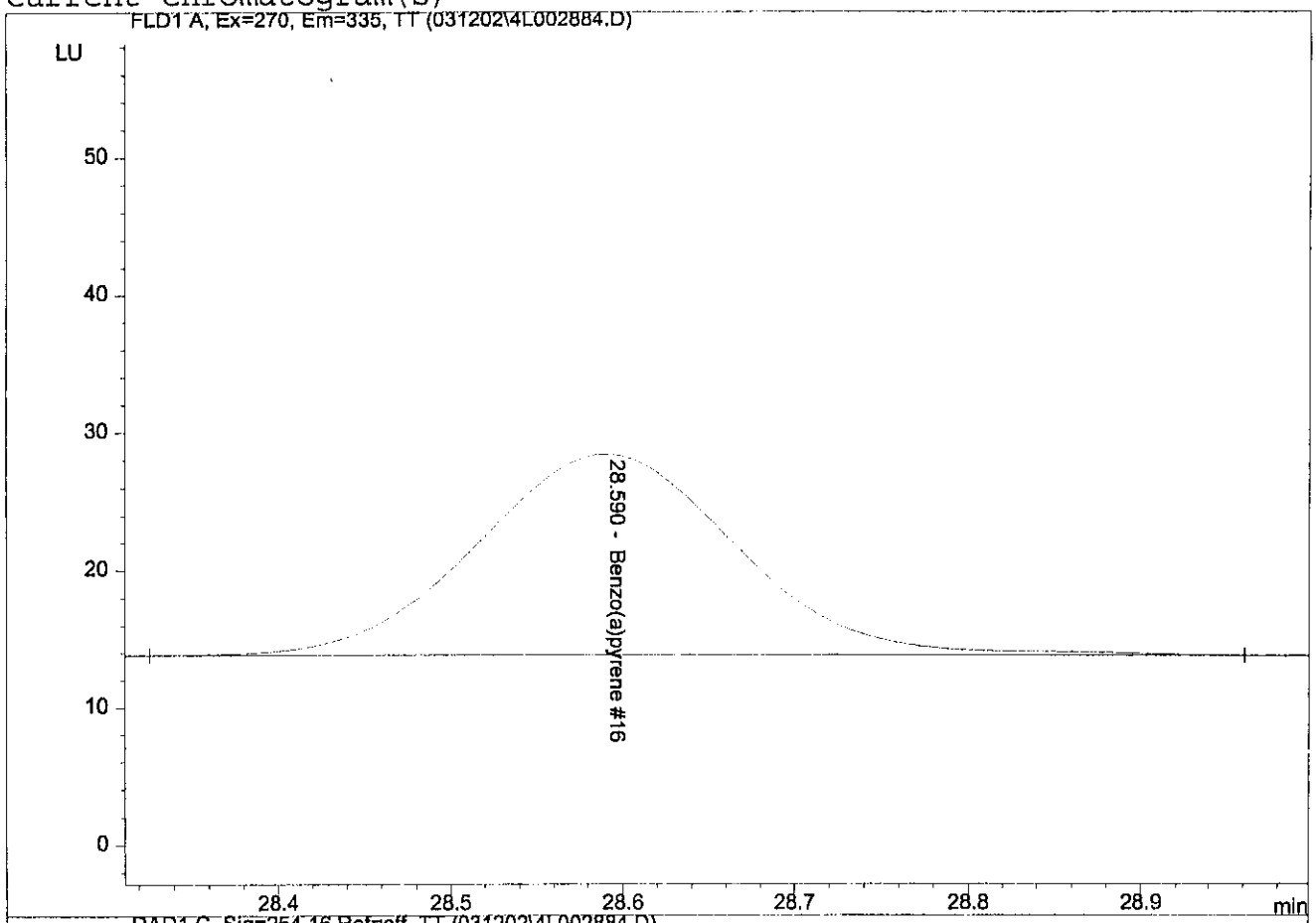
3/14/02

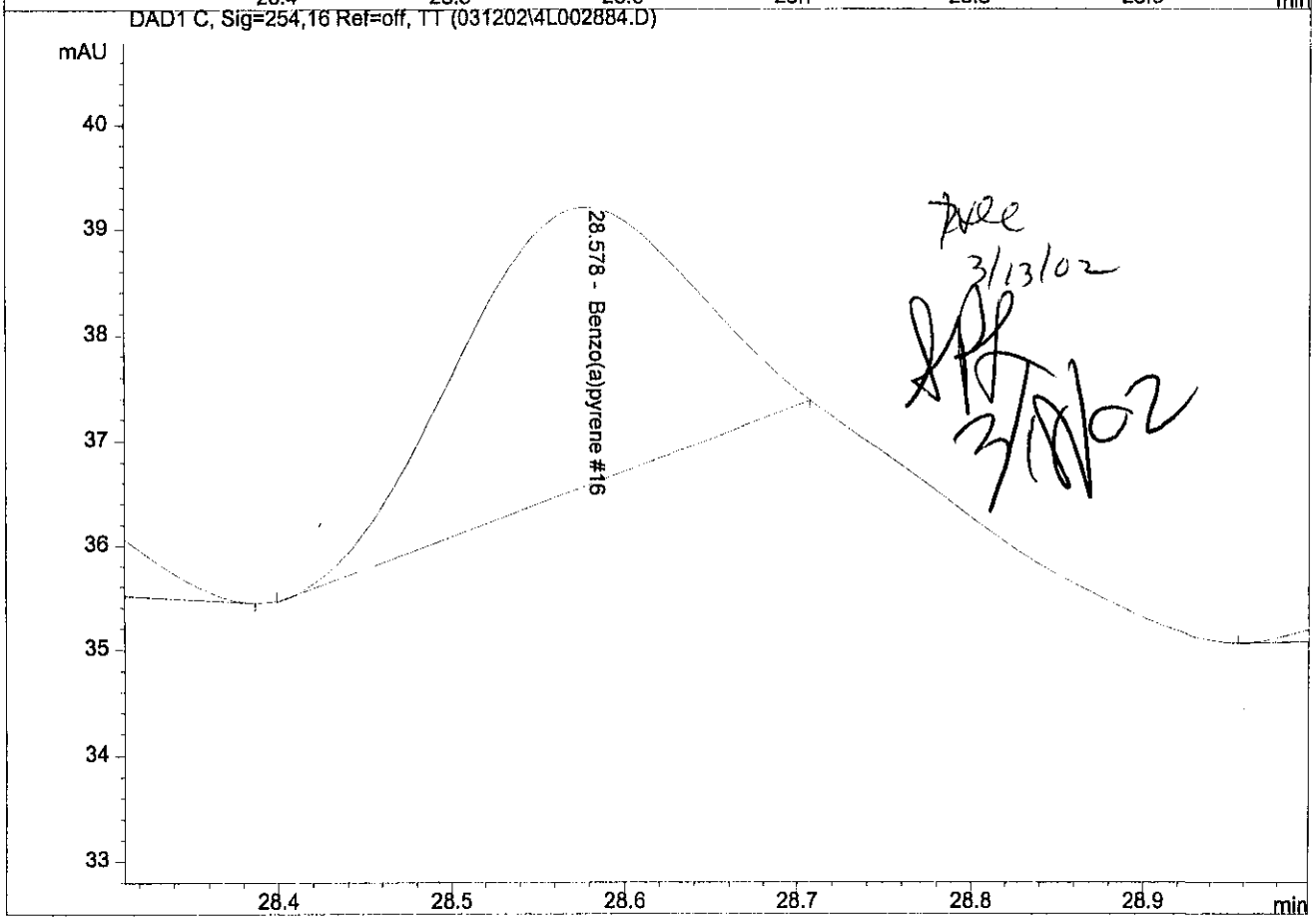
Current Chromatogram(s)





Current Chromatogram(s)





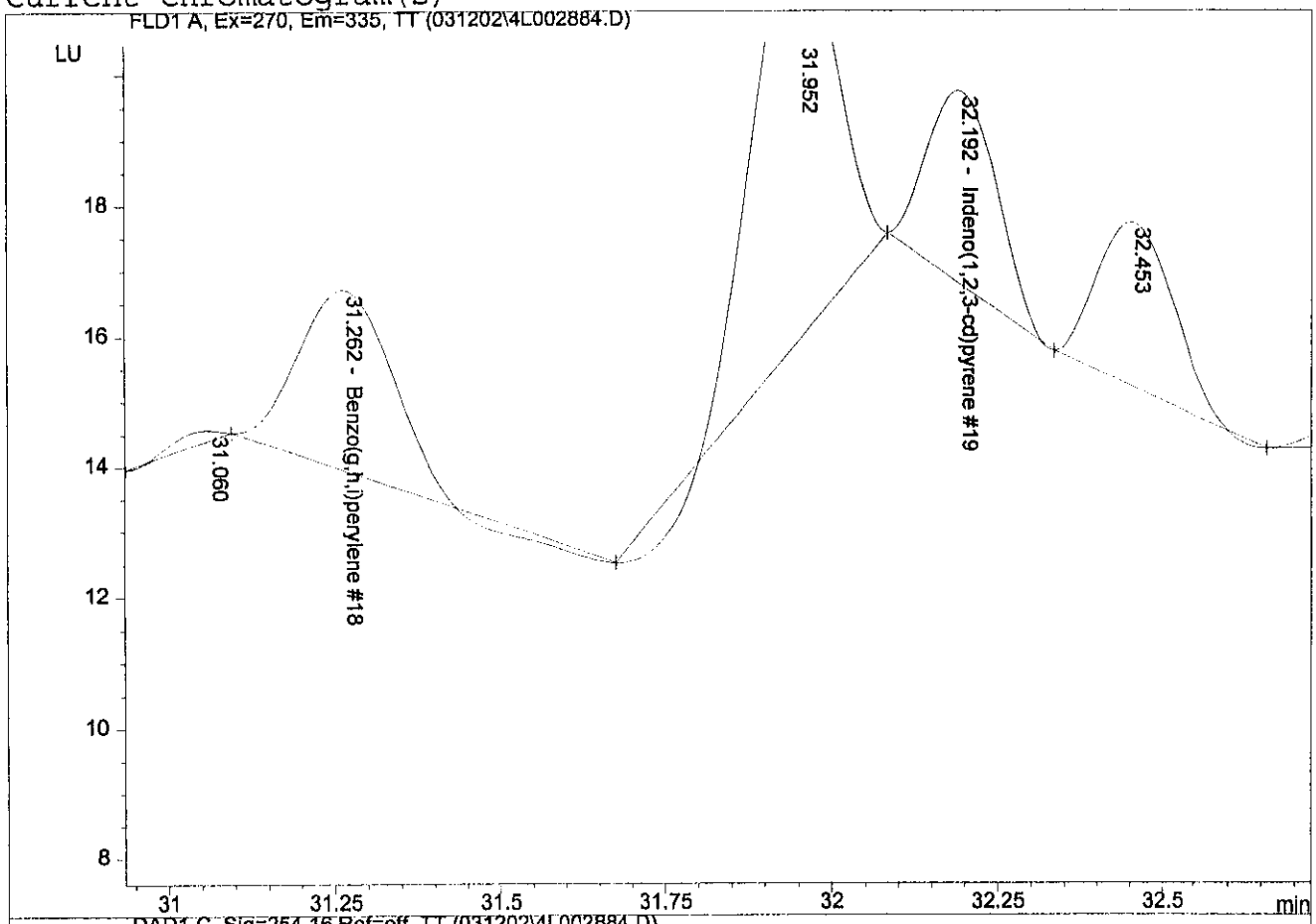
3/13/02

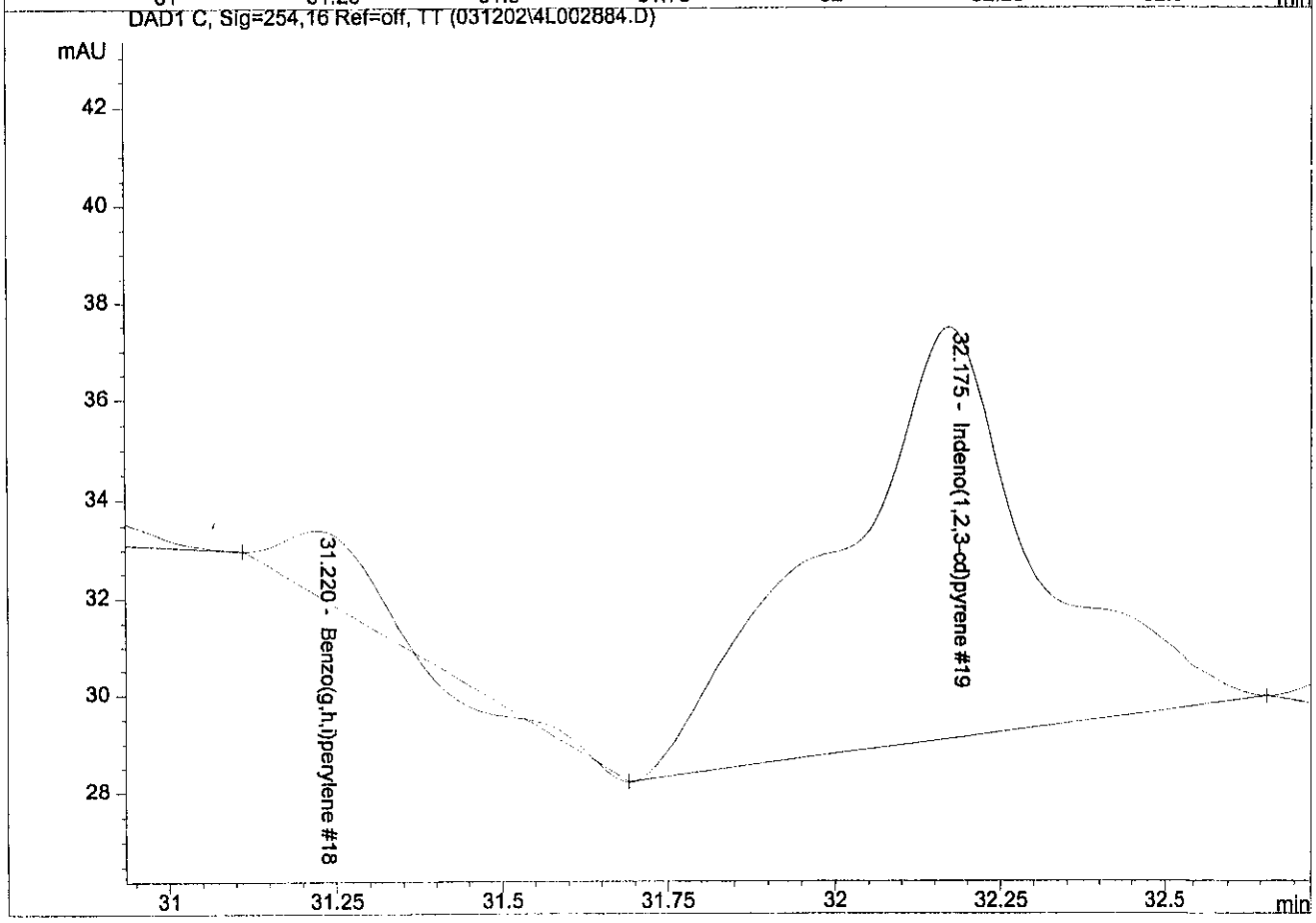
3/13/02

HPLC4 3/13/2002 12:29:55 PM RDC

Page 1 of 1

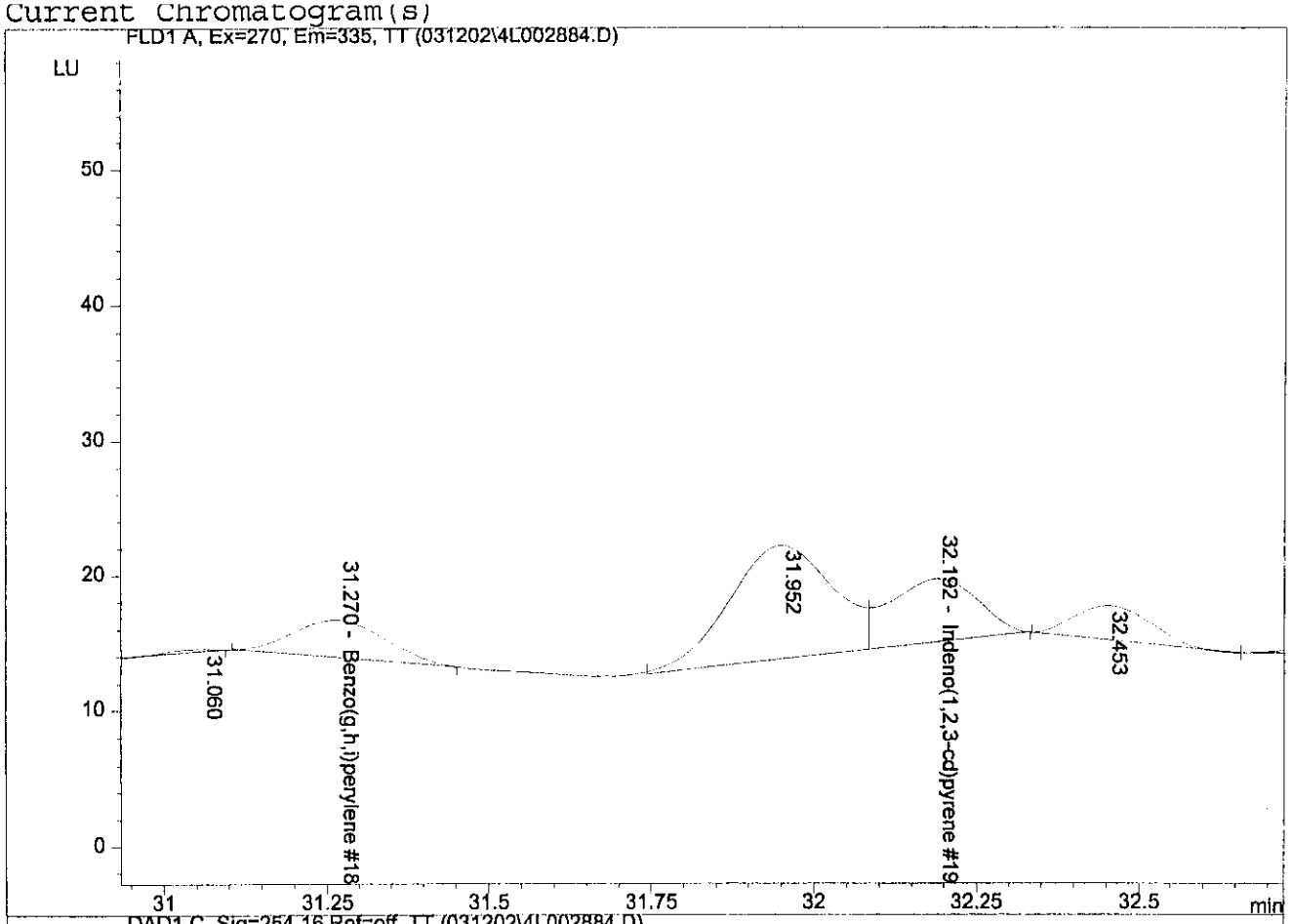
Current Chromatogram(s)

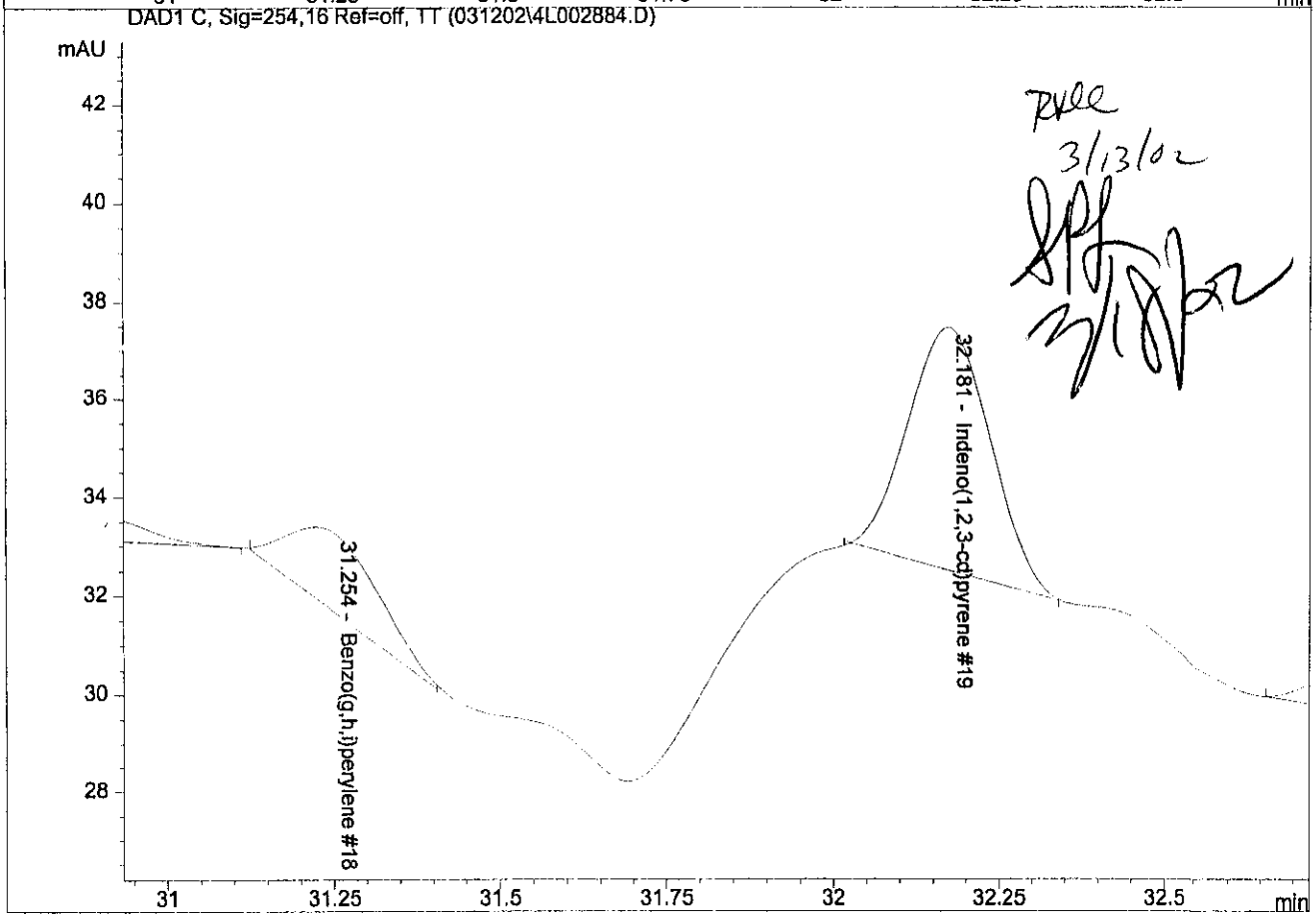




HPLC4 3/13/2002 12:31:00 PM RDC

Current Chromatogram(s)





RVee 3/13/02

HPLC4 3/13/2002 12:32:22 PM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.411	BB	24.47889	2.57003e-2	6.29114e-1		Naphthalene #1
11.986	BB	9.02330	2.24893e-2	2.02928e-1		1-Methylnaphthalene #3
12.562	BB	23.11526	1.72691e-2	3.99181e-1		2-Methylnaphthalene #4
13.059	BB	2.41891	1.38228e-2	3.34361e-2		Acenaphthene #5
13.691	BB	2.90039	6.56879e-3	1.90520e-2		Fluorene #6
15.080	BB	4.58467e-1	1.68488e-1	7.72461e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.896	BB	15.23488	2.38671e-2	3.63612e-1		Fluoranthene #9
18.859	FM	6.32594	4.06594e-2	2.57209e-1		Pyrene #10
21.176	BB	37.73116	2.86511e-1	10.81041		p-Terphenyl d14 #11*
22.490	FM	8.60462	7.96557e-3	6.85407e-2		Benzo(a)anthracene #12
23.392	BB	17.06864	3.90144e-2	6.65924e-1		Chrysene #13
26.062	BB	25.17405	1.65598e-2	4.16876e-1		Benzo(b)fluoranthene #14
27.485	BB	90.38326	2.77566e-3	2.50874e-1		Benzo(k)fluoranthene #15
28.590	BB	153.33936	4.67660e-3	7.17107e-1		Benzo(a)pyrene #16
30.393	BB	24.40924	3.93196e-2	9.59762e-1		Dibenz(a,h)anthracene #17
31.270	MM	27.42366	2.69466e-2	7.38975e-1		Benzo(g,h,i)perylene #18
32.192	FM	43.39983	1.37440e-2	5.96489e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 17.20673

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.396	BB	77.26891	8.27651e-3	6.39517e-1		Naphthalene #1
10.973	BB	2.71986	3.00095e-2	8.16217e-2		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.546	BB	52.98764	1.12713e-2	5.97237e-1		2-Methylnaphthalene #4
13.071	BB	52.68118	2.03841e-2	1.07386		Acenaphthene #5
13.590	BB	29.99203	1.76946e-2	5.30696e-1		Fluorene #6
15.078	BB	17.04341	1.74291e-2	2.97051e-1		Phenanthrene #7
16.498	BB	7.90778e-1	1.03455e-2	8.18099e-3		Anthracene #8
17.842	BB	16.61145	2.18958e-2	3.63721e-1		Fluoranthene #9
18.857	MM	17.63897	1.46349e-2	2.58144e-1		Pyrene #10
21.155	BB	187.72577	6.45989e-2	12.12688		p-Terphenyl d14 #11*
22.468	FM	18.49726	2.22878e-2	4.12264e-1		Benzo(a)anthracene #12
23.391	BB	84.79004	1.52051e-2	1.28924		Chrysene #13
26.043	BB	23.31417	2.08462e-2	4.86012e-1		Benzo(b)fluoranthene #14
27.474	MM	11.76387	2.27217e-2	2.67295e-1		Benzo(k)fluoranthene #15
28.578	MM	24.86107	2.64267e-2	6.56995e-1		Benzo(a)pyrene #16
30.359	BB	19.36182	9.39100e-2	1.81827		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.254	MM	15.04911	5.34666e-2	8.04626e-1		Benzo(g,h,i)perylene #18
32.181	MM	42.83115	2.06198e-2	8.83171e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 22.59479

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

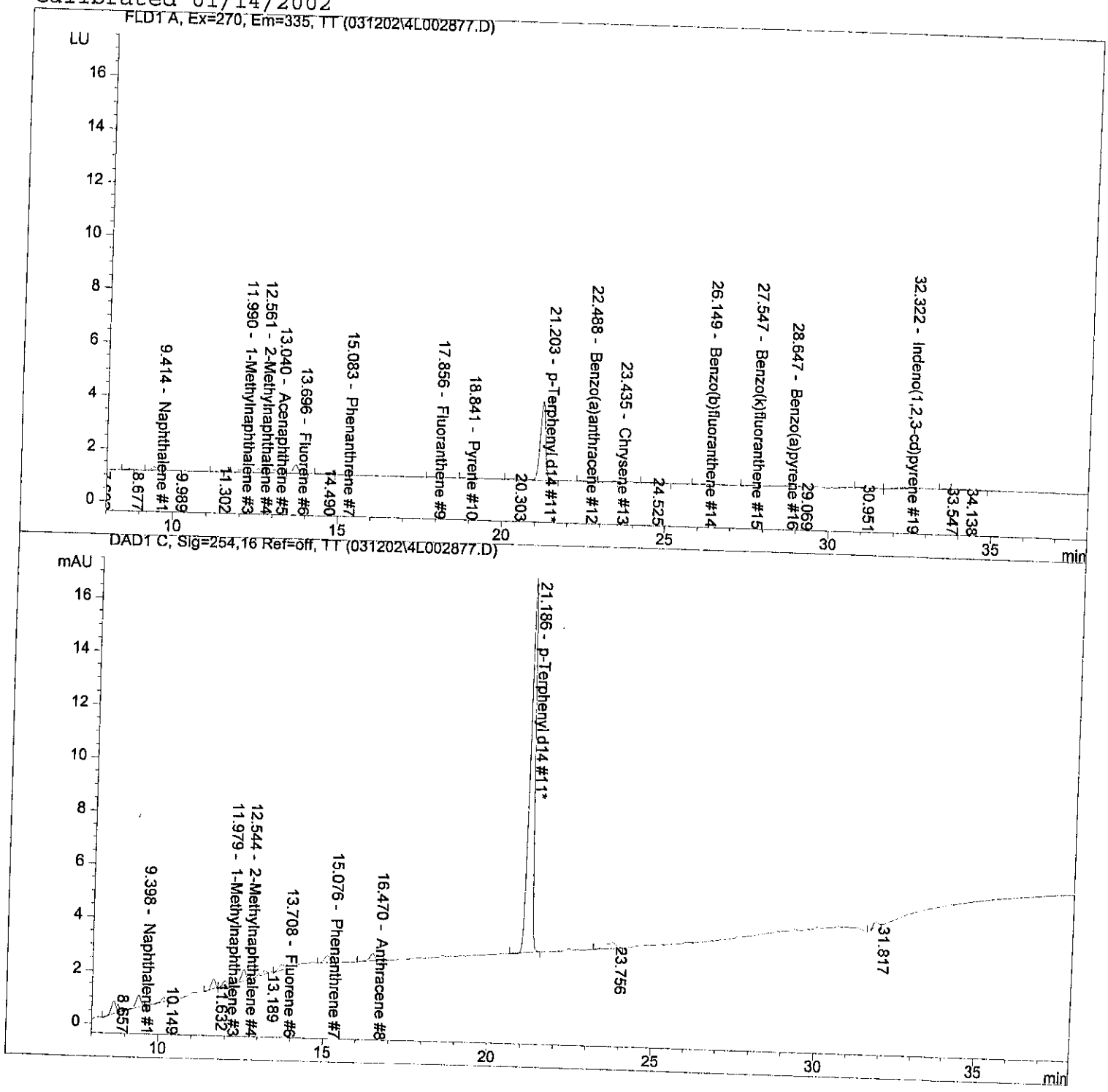
*** End of Report ***

Injection Date : 3/12/2002 9:52:37 PM
Sample Name : L0203155-02 831W
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002



IPLC4 3/13/2002 11:26:55 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.414	BB	1.49068	2.57003e-2	3.83108e-2		Naphthalene #1
11.990	BB	1.20572	2.24893e-2	2.71158e-2		1-Methylnaphthalene #3
12.561	BB	1.80652	1.72691e-2	3.11971e-2		2-Methylnaphthalene #4
13.040	BB	1.61656	1.38228e-2	2.23454e-2		Acenaphthene #5
13.696	BBA	3.70520	6.56879e-3	2.43387e-2		Fluorene #6
15.083	BBA	2.36342e-1	1.68488e-1	3.98206e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.856	BBA	3.60917e-1	2.38671e-2	8.61405e-3		Fluoranthene #9
18.841	BBA	1.53447e-1	4.06594e-2	6.23907e-3		Pyrene #10
21.203	BB	32.18673	2.86511e-1	9.22187		p-Terphenyl d14 #11*
22.488	BB	2.38242e-1	7.96557e-3	1.89773e-3		Benzo(a)anthracene #12
23.435	BB	1.51487e-1	3.90144e-2	5.91020e-3		Chrysene #13
26.149	PBA	1.78240e-1	1.65598e-2	2.95162e-3		Benzo(b)fluoranthene #14
27.547	PB	3.13785e-1	2.77566e-3	8.70961e-4		Benzo(k)fluoranthene #15
28.647	BB	1.76748e-1	4.67660e-3	8.26579e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.322	BB	1.51569	1.37440e-2	2.08317e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.45314

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.398	BB	5.06277	8.27651e-3	4.19021e-2		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.979	BB	1.47135	1.29932e-2	1.91175e-2		1-Methylnaphthalene #3
12.544	BB	4.93186	1.12713e-2	5.55883e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.708	BB	2.80867	1.76946e-2	4.96983e-2		Fluorene #6
15.076	BBA	3.62317	1.74291e-2	6.31486e-2		Phenanthrene #7
16.470	BBA	3.24421	1.03455e-2	3.35630e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.186	PBA	141.13272	6.45989e-2	9.11702		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.38004

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.3 Standards Data

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

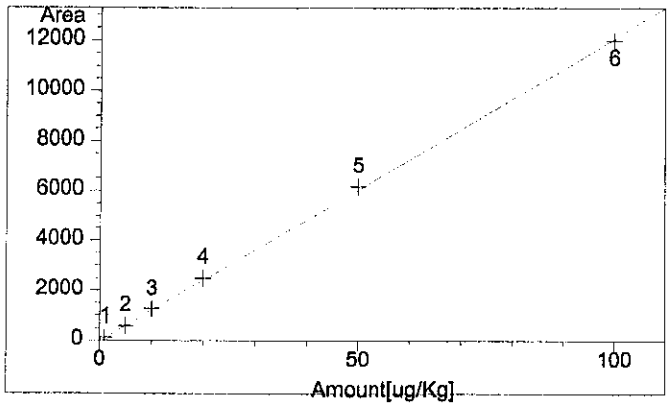
RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

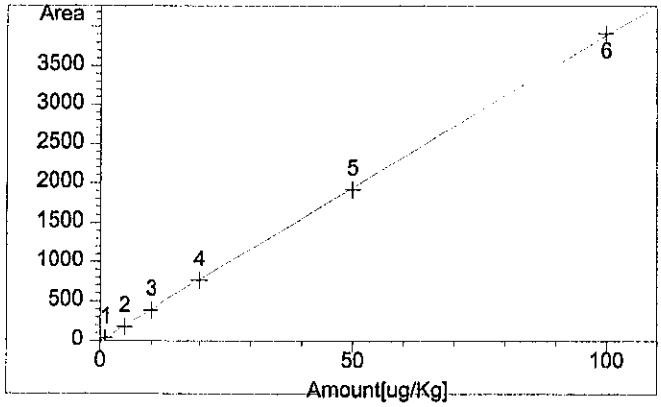
Peak Sum Table

No Entries in table

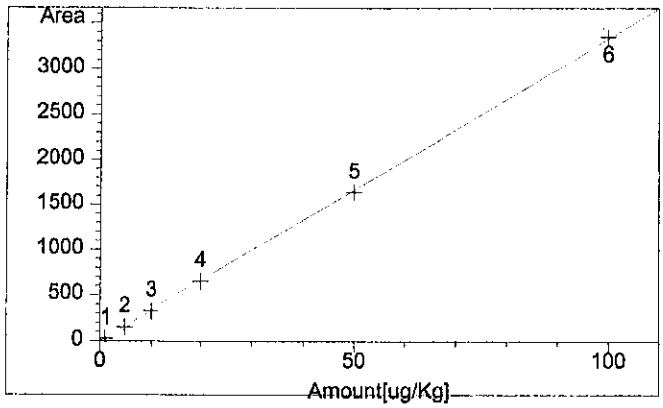
Calibration Curves



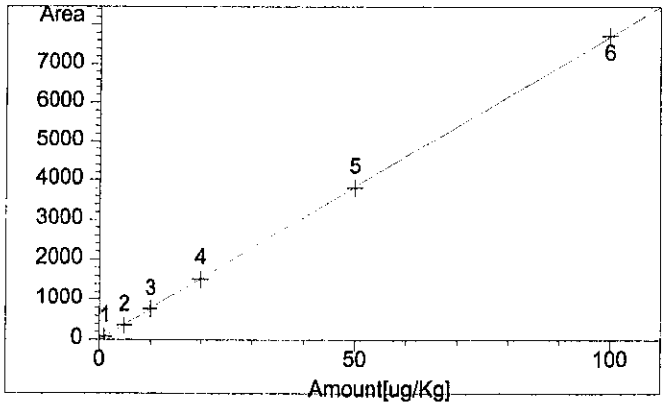
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount [ug/Kg]
y: Area



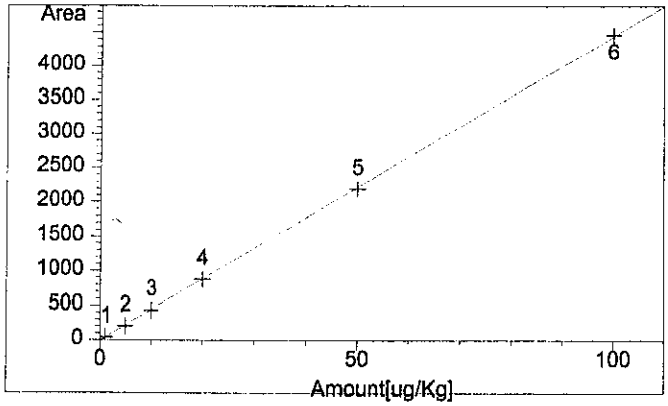
Naphthalene #1 at exp. RT: 9.250
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



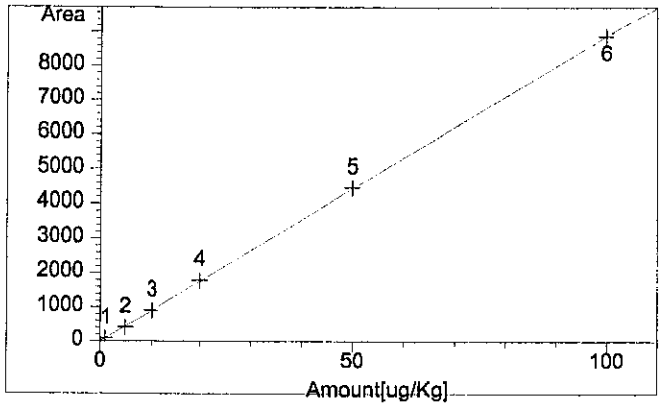
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



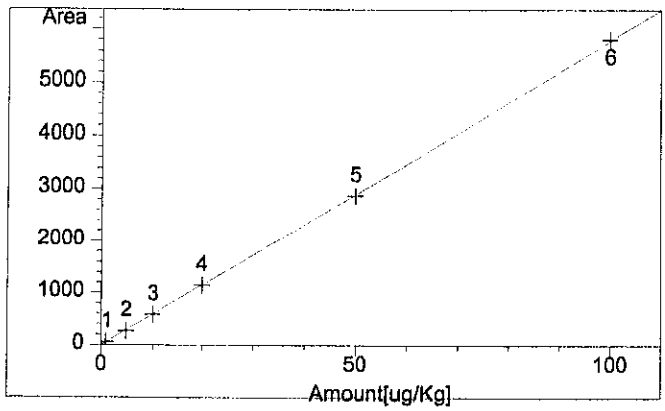
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



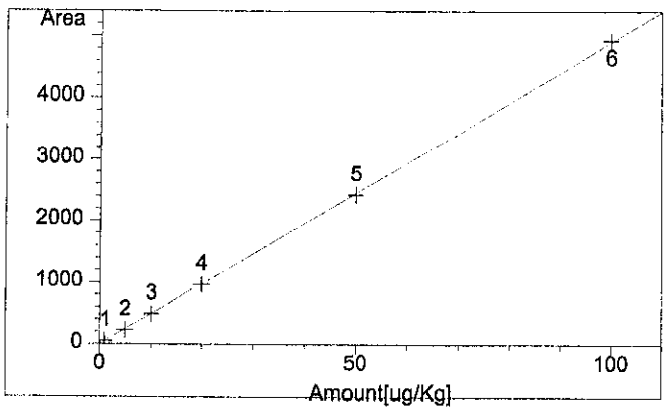
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



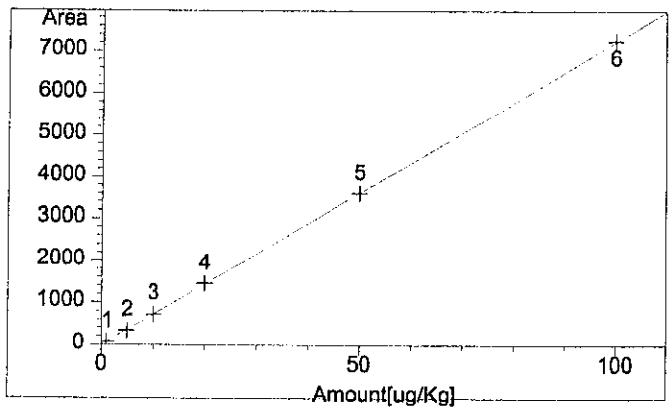
2-Methylnaphthalene #4 at exp. RT: 12.413
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount [ug/Kg]
y: Area



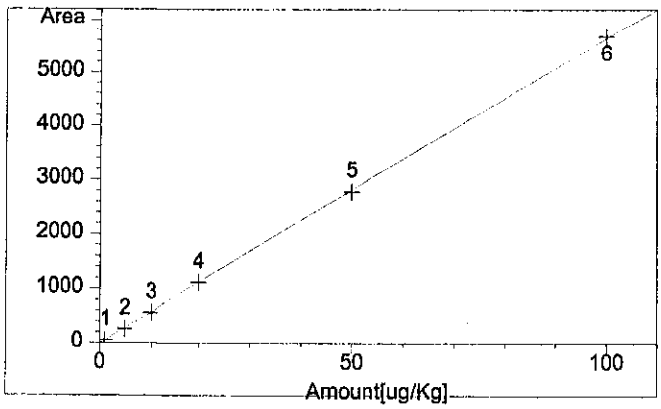
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount [ug/Kg]
y: Area



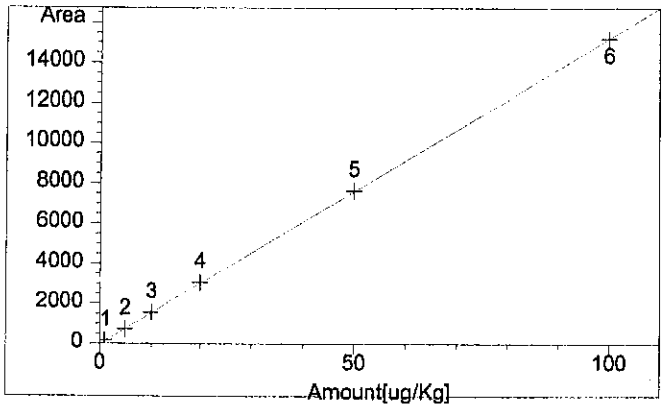
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount [ug/Kg]
y: Area



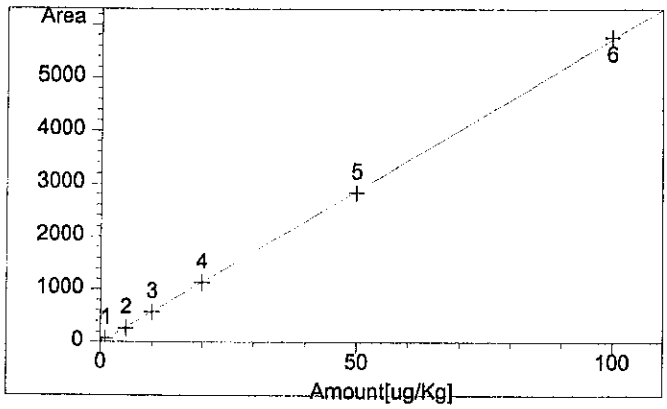
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount [ug/Kg]
y: Area



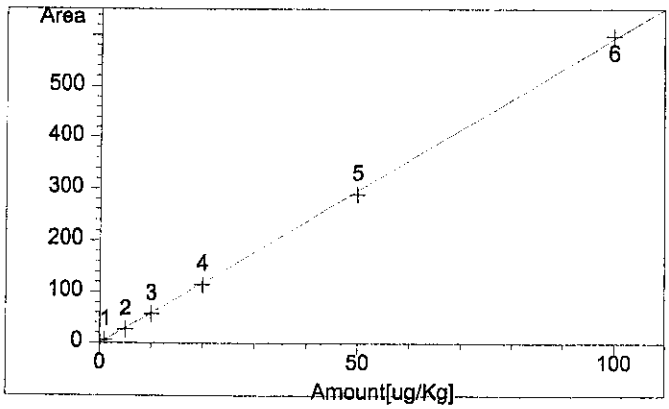
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



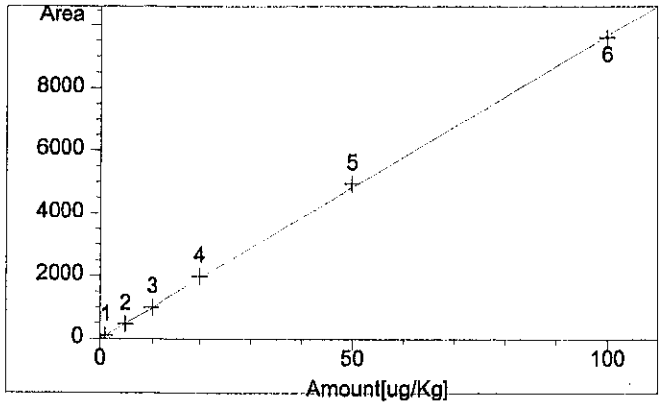
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



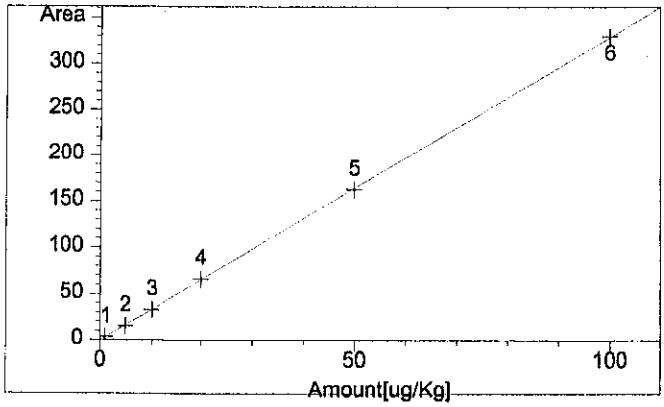
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



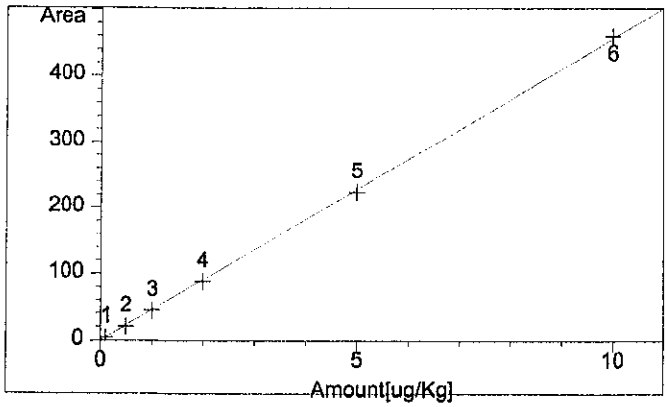
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



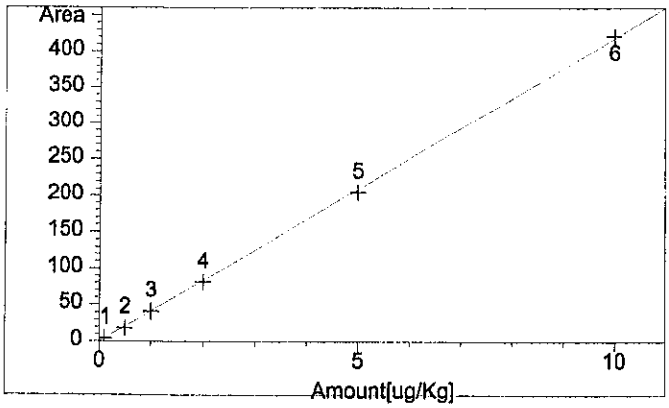
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



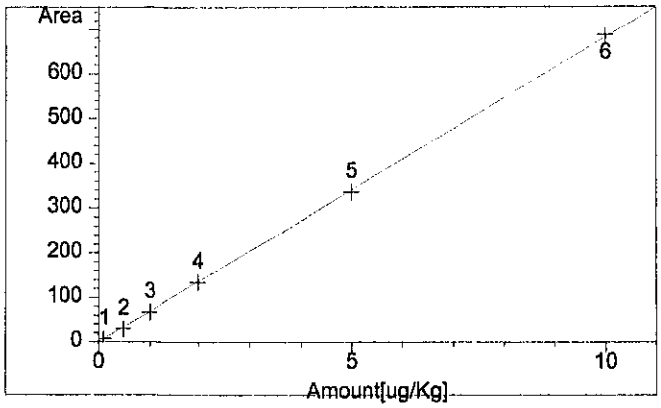
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



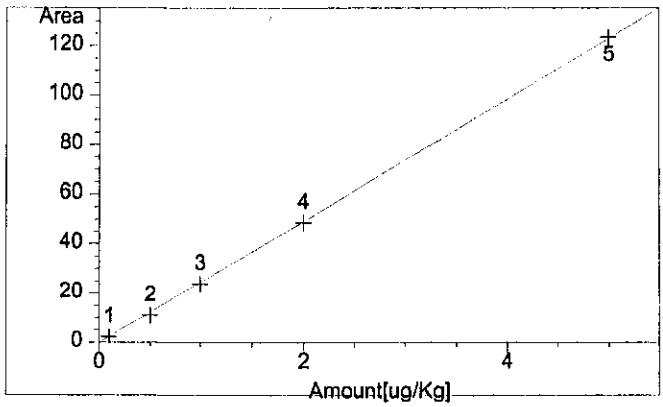
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



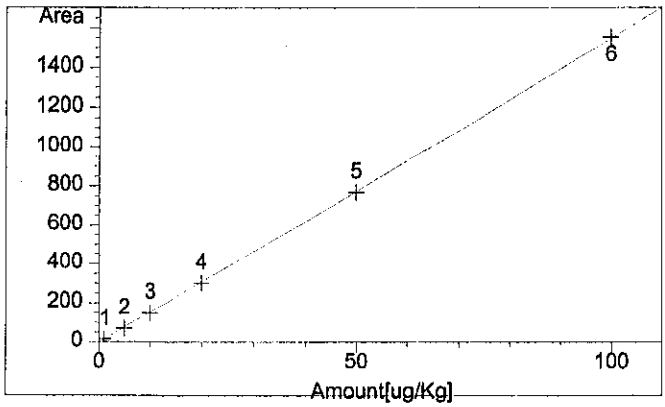
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



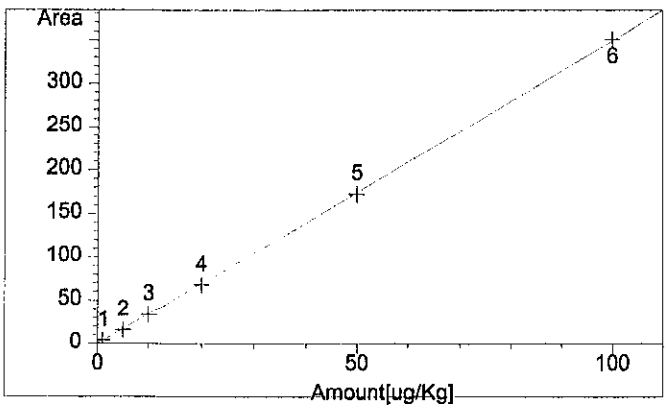
Pyrene #10 at exp. RT: 18.769
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



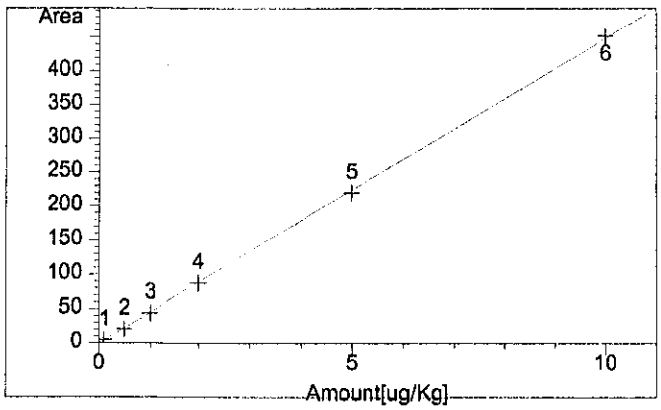
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



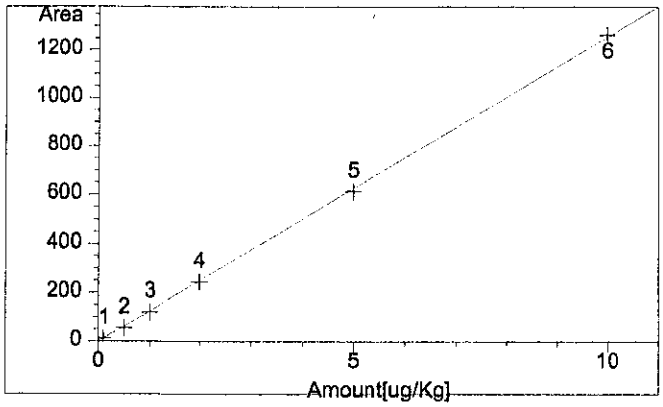
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



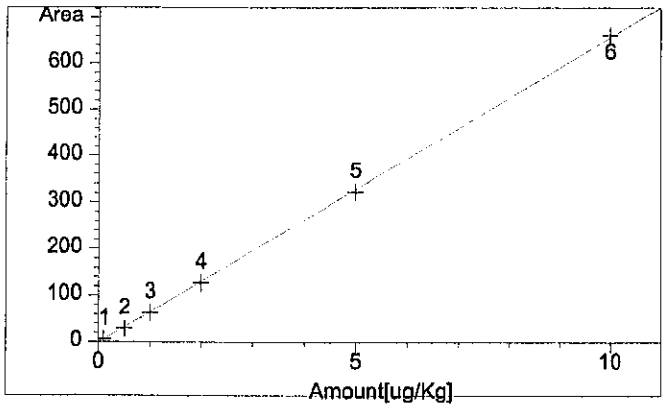
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



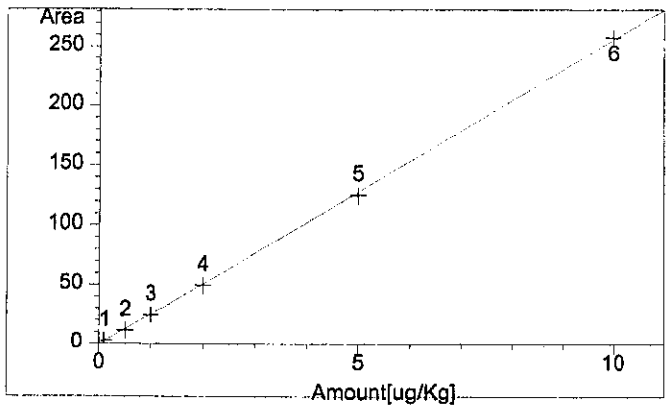
Benzo(a)anthracene #12 at exp. RT: 22.460
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



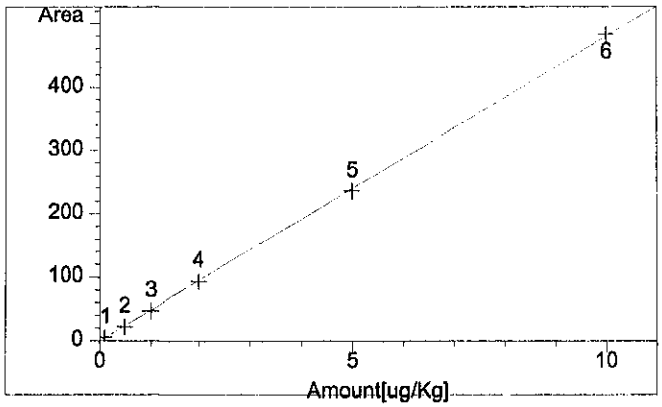
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



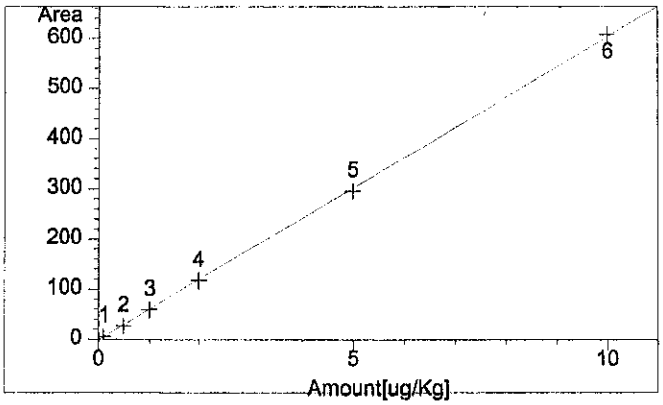
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



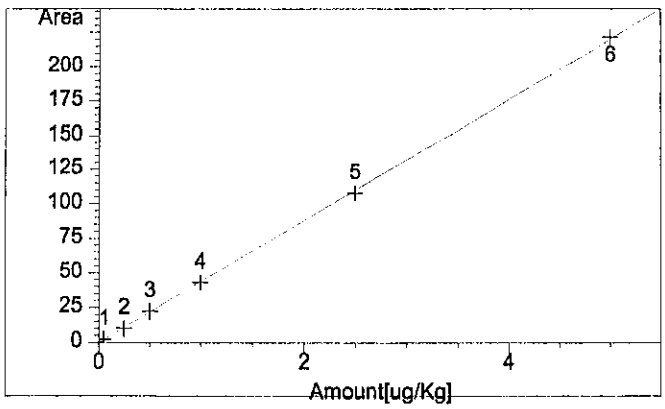
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



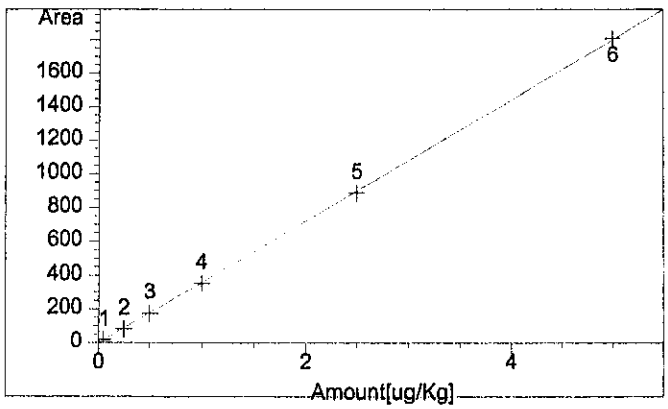
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



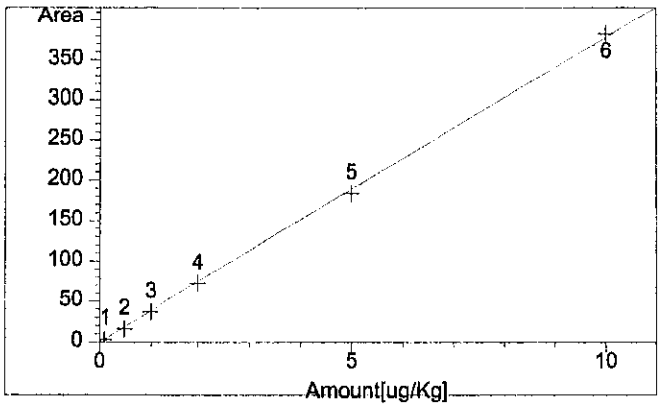
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



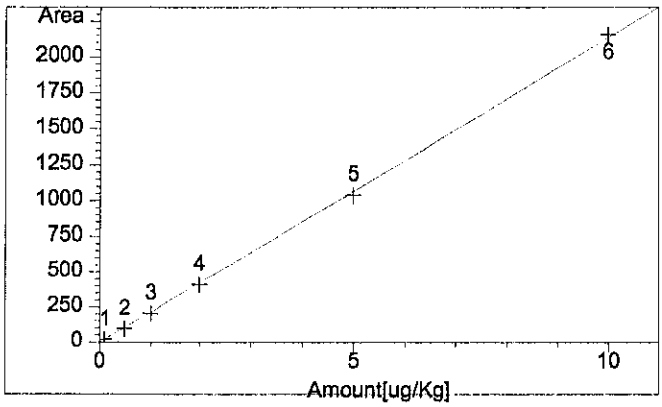
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



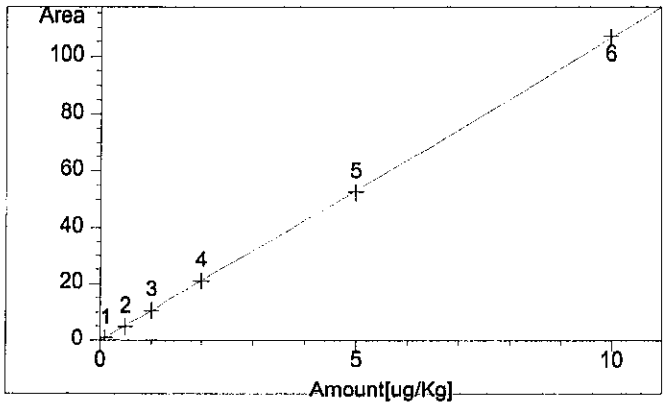
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



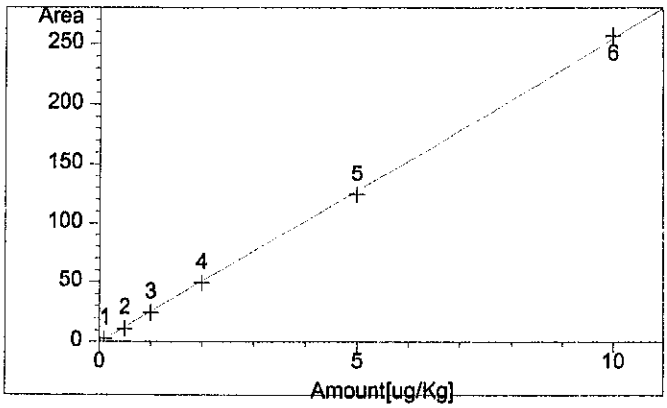
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount[ug/Kg]
y: Area



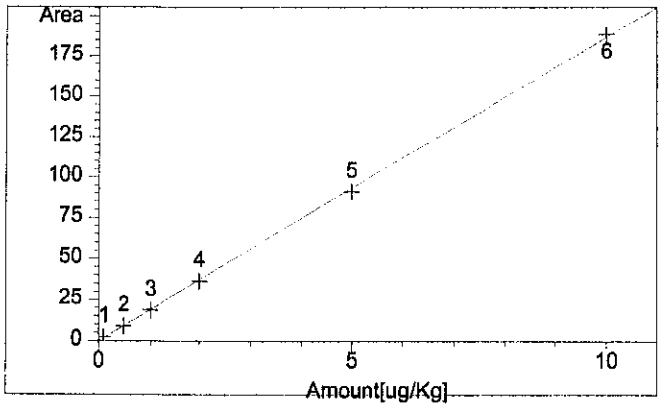
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount[ug/Kg]
y: Area



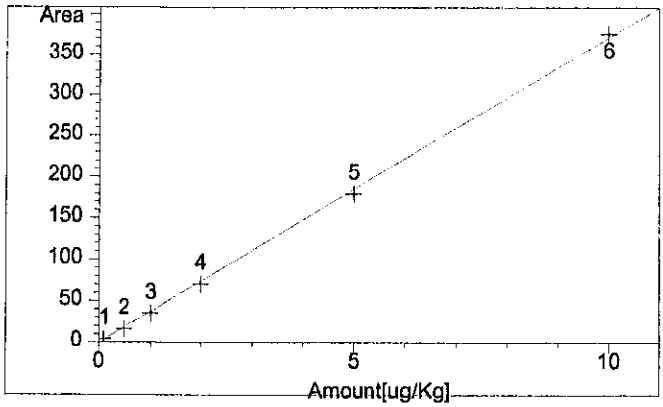
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount[ug/Kg]
y: Area



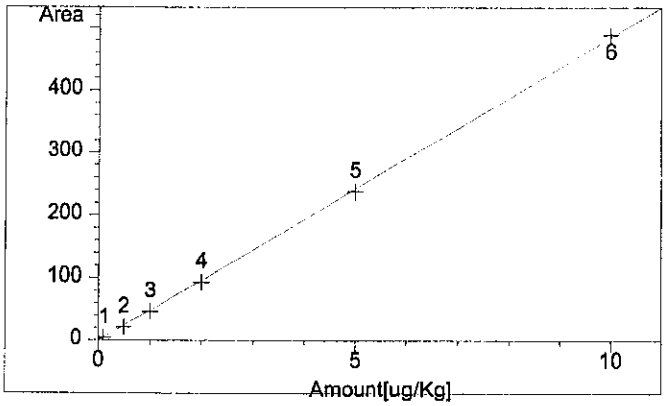
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount[ug/Kg]
y: Area



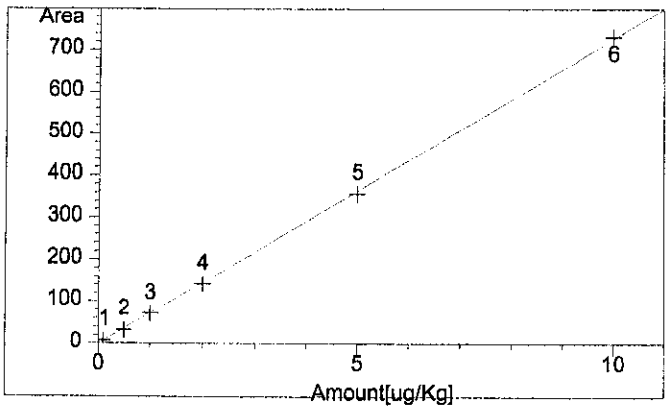
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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1,1 SOS56-19 SURROGATE LVL 6 100 ppm

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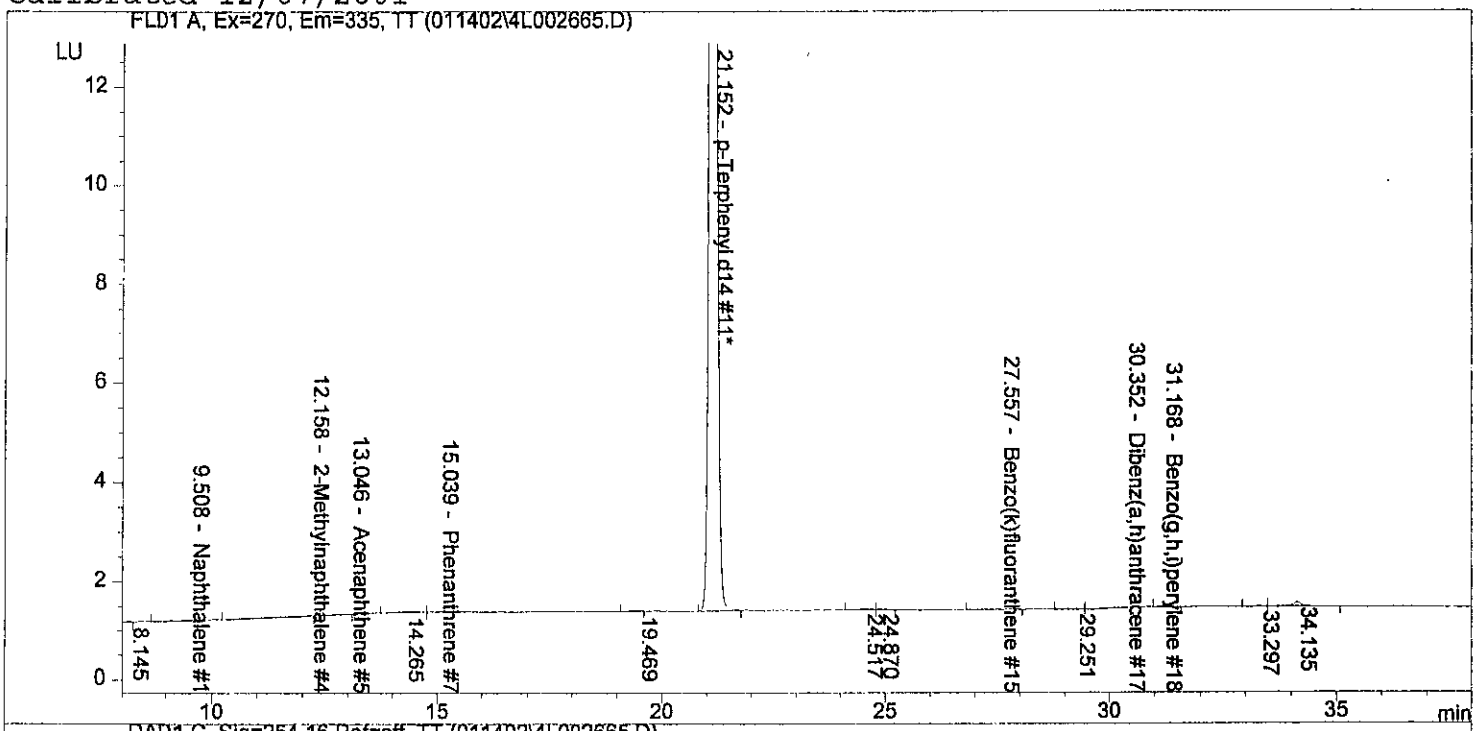
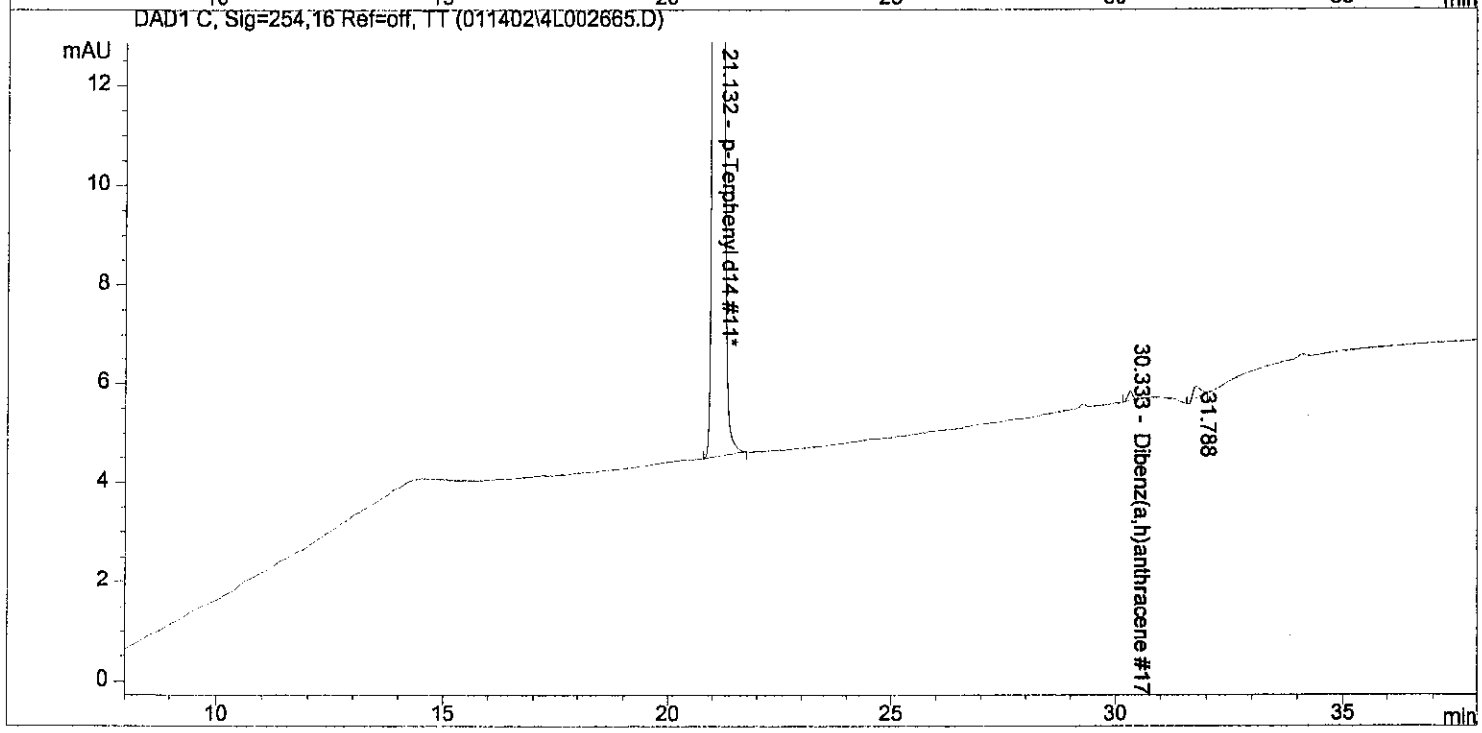
Injection Date	: 1/14/2002 4:49:46 PM	Seq. Line	: 5
Sample Name	: WG111292-01 STD6	Vial	: 5
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 8:55:14 AM by RDC (modified after loading)		

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:54:56 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.508	BB	4.34759e-1	1.16481e-1	5.06410e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.158	BB	1.07918	7.75522e-2	8.36927e-2		2-Methylnaphthalene #4
13.046	BB	1.89278e-1	6.17121e-2	1.16807e-2		Acenaphthene #5
13.592		-	-	-		Fluorene #6
15.039	BB	1.66581e-1	7.68372e-1	1.27997e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.152	BB	350.72665	2.88863e-1	101.31209		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.557	BB	2.49311e-1	1.22777e-2	3.06097e-3		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.352	BB	3.07933e-1	1.82908e-1	5.63234e-2		Dibenz(a,h)anthracene #17
31.168	BB	1.72865e-1	1.36072e-1	2.35222e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 101.66901

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.574		-	-	-		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.132	PBA	1553.40210	6.46122e-2	100.36876		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.333	PBA	1.41009	3.91388e-1	5.51892e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.92065

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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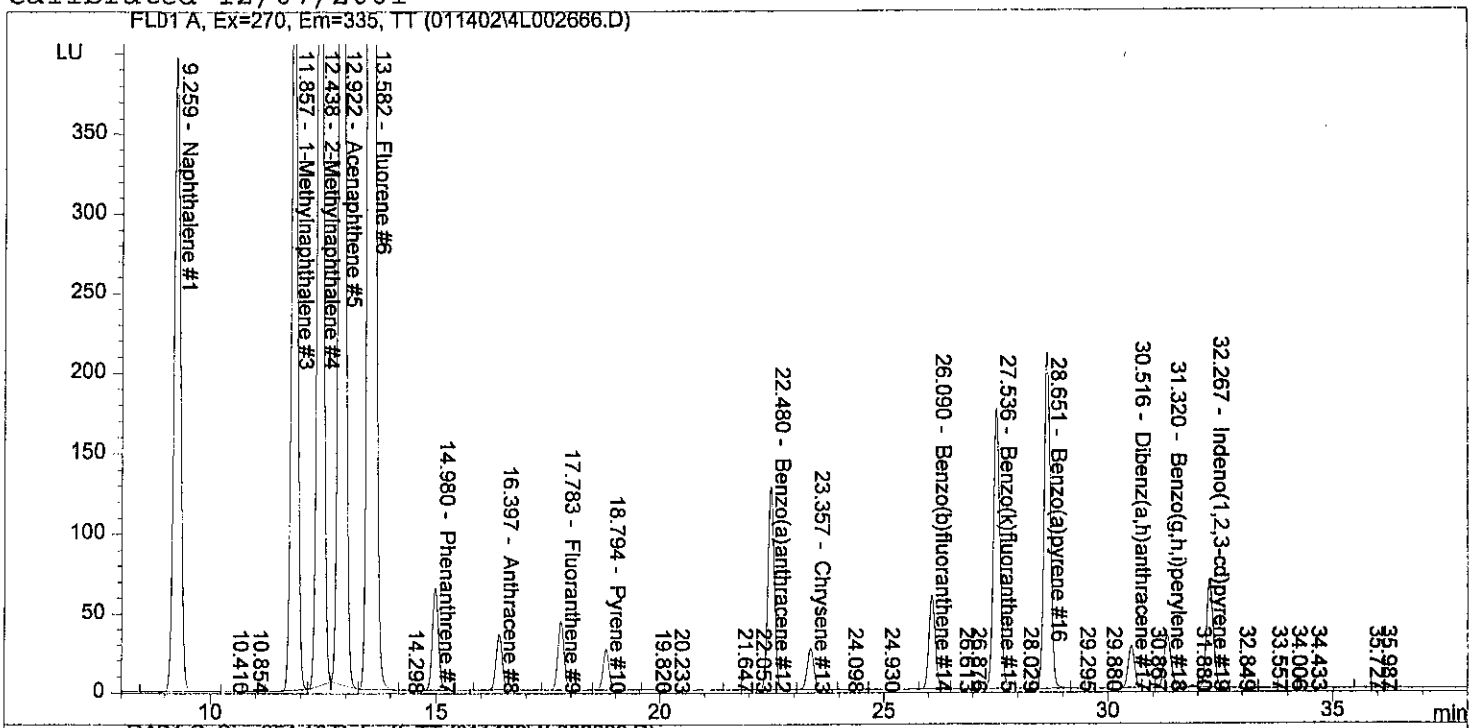
*** End of Report ***

1,1 SOS56-20 8310 MIX LVL 6 100/10/1 ppm

Injection Date	: 1/14/2002 5:46:24 PM	Seq. Line	: 6
Sample Name	: WG111292-02 STD6	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 8:56:15 AM by RDC (modified after loading)		

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.259	BB	3909.56982	2.59098e-2	101.29633		Naphthalene #1
11.857	BB	4464.79199	2.26593e-2	101.16897		1-Methylnaphthalene #3
12.438	BB	5805.80029	1.74043e-2	101.04580		2-Methylnaphthalene #4
12.922	BB	7244.47559	1.39240e-2	100.87222		Acenaphthene #5
13.582	BB	1.51952e4	6.58360e-3	100.03904		Fluorene #6
14.980	BBA	598.44012	1.69653e-1	101.52739		Phenanthrene #7
16.397	PB	330.05484	3.06735e-1	101.23935		Anthracene #8
17.783	BB	421.88382	2.42042e-2	10.21136		Fluoranthene #9
18.794	BBA	256.38925	4.52106e-2	11.59150		Pyrene #10
21.152		-	-	-		p-Terphenyl d14 #11*
22.480	BB	1264.77136	8.05530e-3	10.18811		Benzo(a)anthracene #12
23.357	BB	258.24448	3.94803e-2	10.19558		Chrysene #13
26.090	BB	607.99158	1.66154e-2	10.10204		Benzo(b)fluoranthene #14
27.536	BB	1810.23218	2.78279e-3	5.03750		Benzo(k)fluoranthene #15
28.651	BB	2156.77197	4.79942e-3	10.35126		Benzo(a)pyrene #16
30.516	BB	256.59177	3.97741e-2	10.20569		Dibenz(a,h)anthracene #17
31.320	BB	375.12704	2.76747e-2	10.38153		Benzo(g,h,i)perylene #18
32.267	BB	732.07330	1.37649e-2	10.07693		Indeno(1,2,3-cd)pyrene #1
Totals :				805.53062		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.239	BB	1.20010e4	8.25558e-3	99.07545		Naphthalene #1
10.882	BBA	3349.02344	2.99703e-2	100.37122		Acenaphthylene #2
11.838	PB	7715.90479	1.29630e-2	100.02135		1-Methylnaphthalene #3
12.418	BB	8860.92187	1.12528e-2	99.71030		2-Methylnaphthalene #4
12.902	BB	4924.77783	2.03626e-2	100.28115		Acenaphthene #5
13.562	BB	5678.37842	1.76507e-2	100.22728		Fluorene #6
14.960	BBA	5762.64355	1.73998e-2	100.26891		Phenanthrene #7
16.377	BBA	9595.33398	1.04250e-2	100.03098		Anthracene #8
17.762	PB	459.72919	2.18384e-2	10.03975		Fluoranthene #9
18.773	BBA	687.15900	1.45933e-2	10.02794		Pyrene #10
21.132		-	-	-		p-Terphenyl d14 #11*
22.460	BBA	451.63605	2.22799e-2	10.06240		Benzo(a)anthracene #12
23.338	BBA	661.99542	1.51643e-2	10.03871		Chrysene #13
26.069	BBA	482.47552	2.08014e-2	10.03615		Benzo(b)fluoranthene #14
27.516	BB	221.38257	2.26525e-2	5.01487		Benzo(k)fluoranthene #15
28.631	BB	382.09714	2.68748e-2	10.26877		Benzo(a)pyrene #16
30.496	PB	106.91074	9.38593e-2	10.03457		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.299	BB	188.48102	5.43668e-2	10.24712		Benzo(g,h,i)perylene #18
32.246	BB	488.50769	2.05620e-2	10.04469		Indeno(1,2,3-cd)pyrene #1

Totals : 895.80161

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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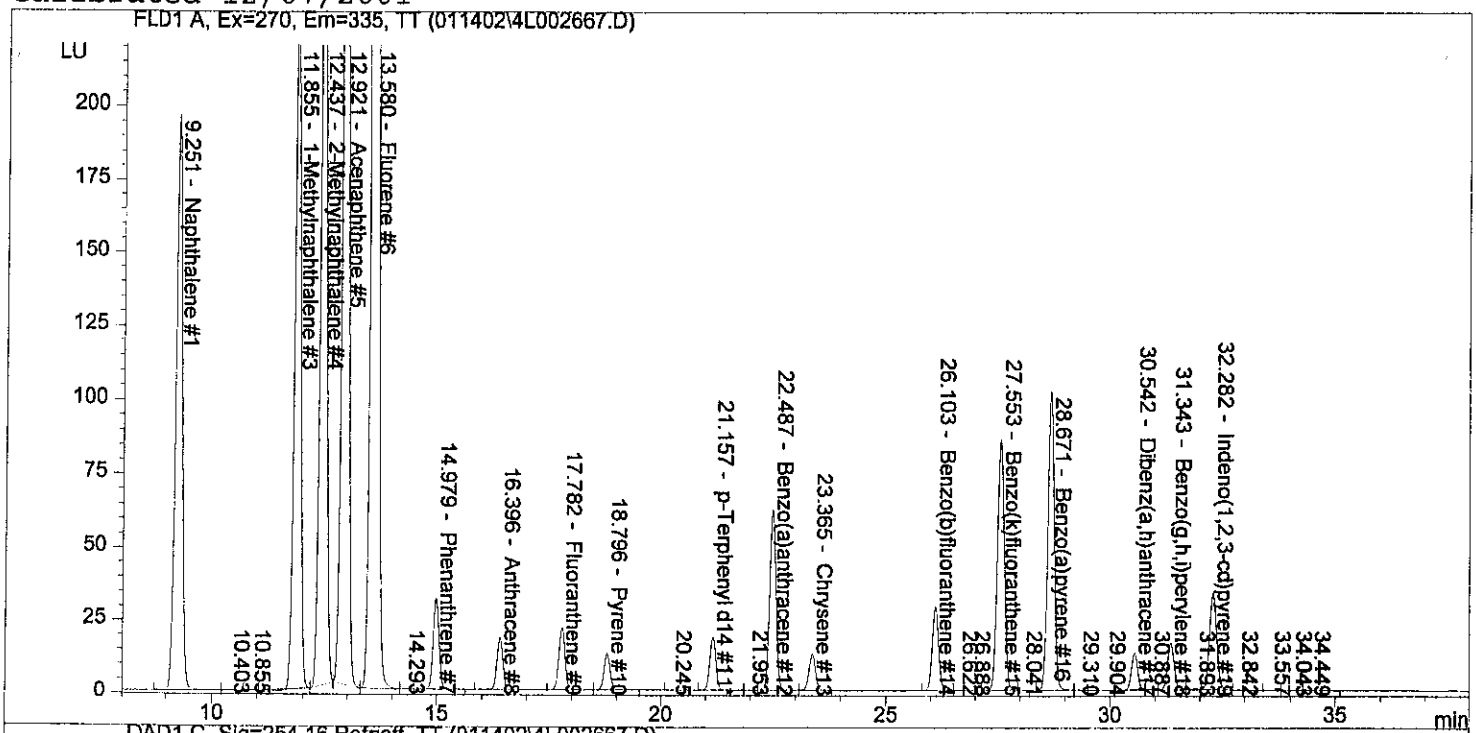
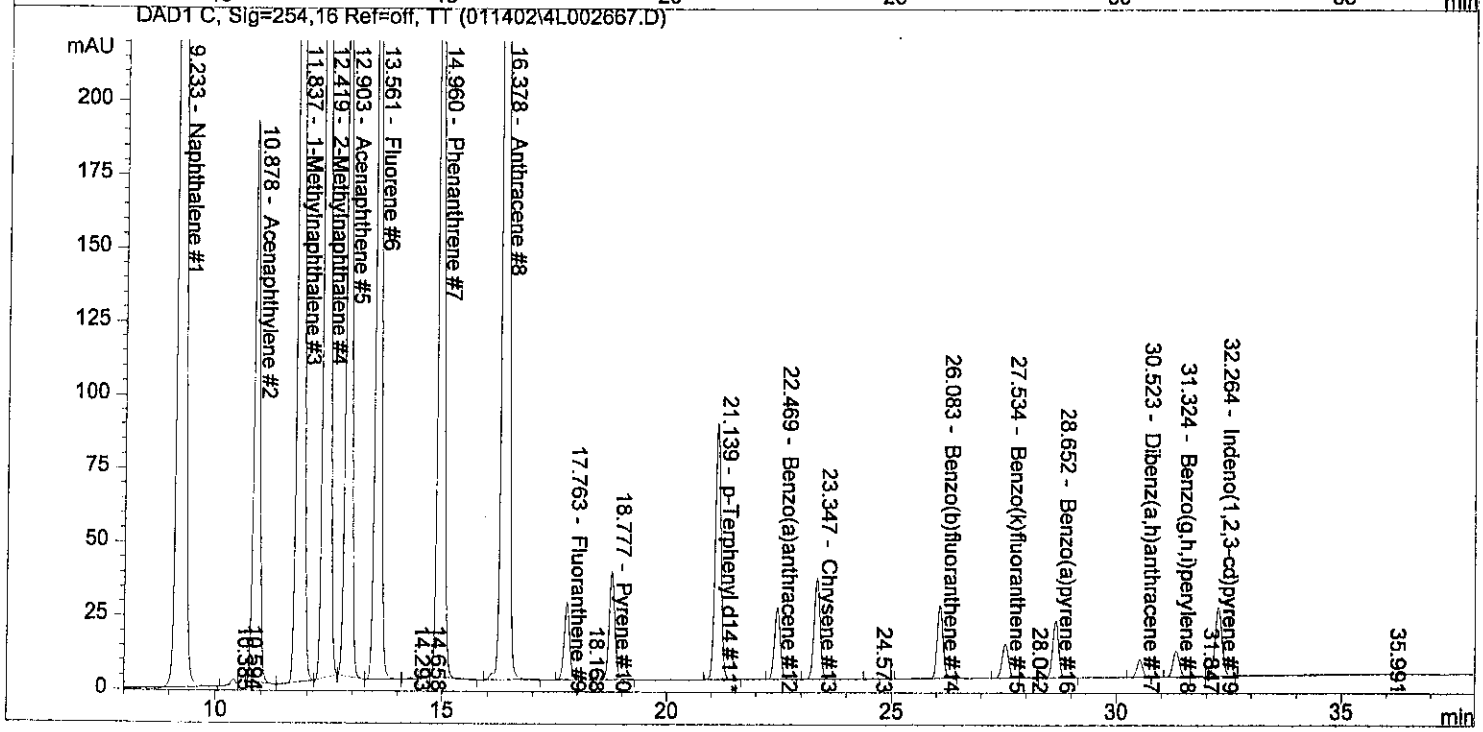
*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 5 50/5/2.5 ppm

Injection Date	: 1/14/2002 6:43:01 PM	Seq. Line	: 7
Sample Name	: WG111292-03 STD5	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 8:56:54 AM by RDC (modified after loading)		

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	PB	1917.75940	2.57391e-2	49.36141		Naphthalene #1
11.855	BB	2196.17188	2.25224e-2	49.46298		1-Methylnaphthalene #3
12.437	BB	2872.90649	1.72938e-2	49.68347		2-Methylnaphthalene #4
12.921	BB	3601.05908	1.38425e-2	49.84749		Acenaphthene #5
13.580	BB	7650.25977	6.57169e-3	50.27517		Fluorene #6
14.979	BBA	289.46243	1.68729e-1	48.84075		Phenanthrene #7
16.396	PB	163.06247	3.04476e-1	49.64867		Anthracene #8
17.782	PB	205.21196	2.39096e-2	4.90655		Fluoranthene #9
18.796	BBA	123.47372	4.13417e-2	5.10461		Pyrene #10
21.157	BB	172.45569	2.86901e-1	49.47773		p-Terphenyl d14 #11*
22.487	BB	613.80975	7.98167e-3	4.89922		Benzo(a)anthracene #12
23.365	BBA	125.29953	3.90970e-2	4.89883		Chrysene #13
26.103	BB	295.74701	1.65676e-2	4.89983		Benzo(b)fluoranthene #14
27.553	BB	887.50769	2.77706e-3	2.46466		Benzo(k)fluoranthene #15
28.671	BB	1042.10840	4.69783e-3	4.89565		Benzo(a)pyrene #16
30.542	BB	123.83313	3.94476e-2	4.88492		Dibenz(a,h)anthracene #17
31.343	BB	179.72395	2.70688e-2	4.86491		Benzo(g,h,i)perylene #18
32.282	BB	357.19571	1.37309e-2	4.90463		Indeno(1,2,3-cd)pyrene #1
Totals :				443.32149		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	6168.26709	8.27438e-3	51.03859		Naphthalene #1
10.878	BB	1640.81848	3.00057e-2	49.23384		Acenaphthylene #2
11.837	BB	3818.50562	1.29899e-2	49.60194		1-Methylnaphthalene #3
12.419	BB	4453.67236	1.12699e-2	50.19243		2-Methylnaphthalene #4
12.903	BB	2423.54761	2.03840e-2	49.40167		Acenaphthene #5
13.561	BB	2784.74756	1.76899e-2	49.26182		Fluorene #6
14.960	BBA	2829.81055	1.74269e-2	49.31471		Phenanthrene #7
16.378	BBA	4949.62500	1.03683e-2	51.31903		Anthracene #8
17.763	PB	223.85286	2.18887e-2	4.89985		Fluoranthene #9
18.777	BBA	335.84097	1.46312e-2	4.91376		Pyrene #10
21.139	PBA	768.36145	6.46010e-2	49.63695		p-Terphenyl d14 #11*
22.469	BBA	219.83919	2.22917e-2	4.90059		Benzo(a)anthracene #12
23.347	BBA	322.44791	1.52017e-2	4.90177		Chrysene #13
26.083	PBA	235.80293	2.08378e-2	4.91361		Benzo(b)fluoranthene #14
27.534	BB	107.77484	2.27191e-2	2.44855		Benzo(k)fluoranthene #15
28.652	BBA	183.75787	2.65103e-2	4.87147		Benzo(a)pyrene #16
30.523	PB	52.59206	9.36520e-2	4.92535		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.324	BB	91.19056	5.36419e-2	4.89163		Benzo(g,h,i)perylene #18
32.264	BBA	237.57994	2.05885e-2	4.89142		Indeno(1,2,3-cd)pyrene #1

Totals : 495.55898

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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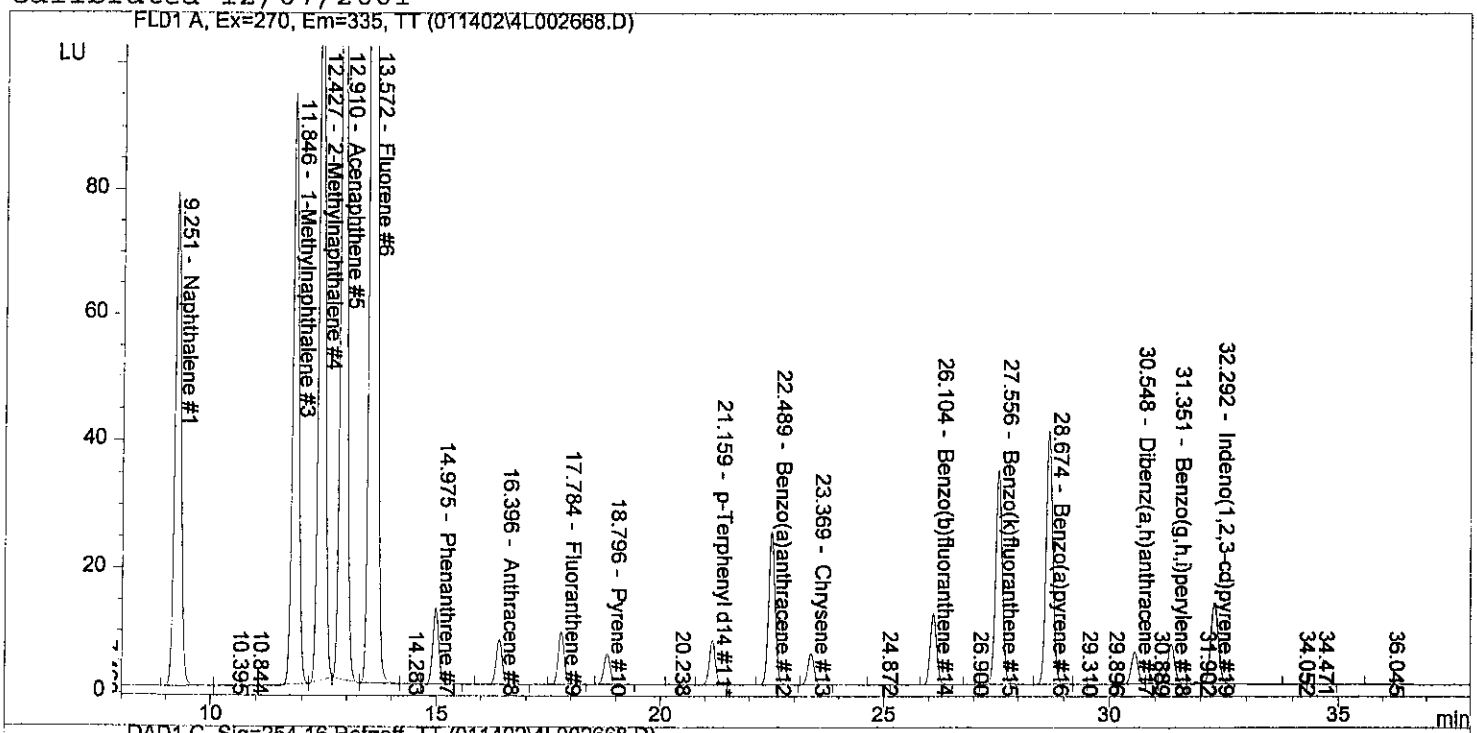
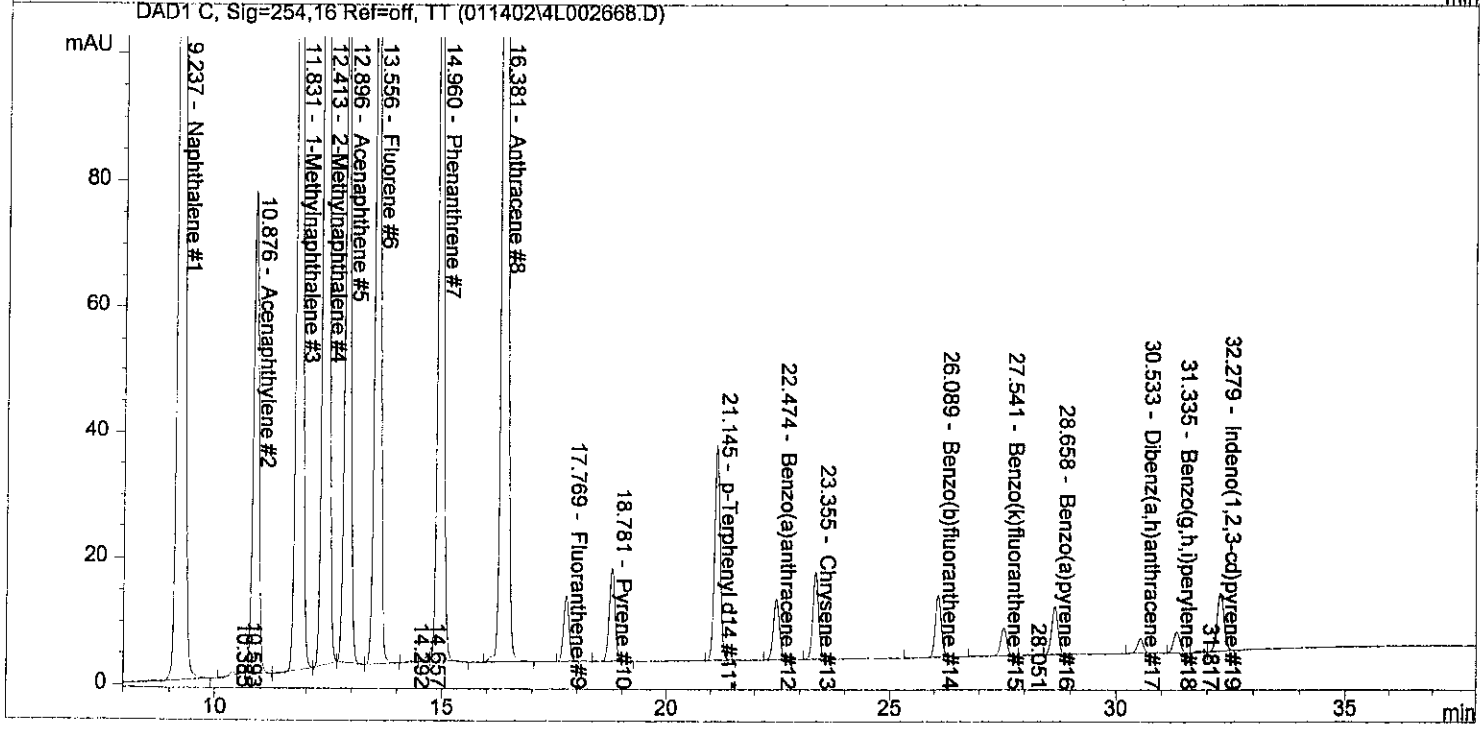
*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 4 20/2/1 ppm (CCV)

Injection Date	: 1/14/2002 7:39:37 PM	Seq. Line	: 8
Sample Name	: WG111292-04 STD4	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 8:57:31 AM by RDC (modified after loading)		

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:26 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	BB	764.84155	2.57113e-2	19.66506		Naphthalene #1
11.846	BB	876.57288	2.24980e-2	19.72111		1-Methylnaphthalene #3
12.427	BB	1149.51221	1.72762e-2	19.85915		2-Methylnaphthalene #4
12.910	BB	1447.01648	1.38282e-2	20.00960		Acenaphthene #5
13.572	BB	3090.21484	6.56989e-3	20.30237		Fluorene #6
14.975	BBA	114.46365	1.68568e-1	19.29489		Phenanthrene #7
16.396	PB	66.19009	3.03909e-1	20.11577		Anthracene #8
17.784	BBA	81.38047	2.38718e-2	1.94270		Fluoranthene #9
18.796	BBA	48.63459	4.08244e-2	1.98548		Pyrene #10
21.159	BB	67.61504	2.86614e-1	19.37940		p-Terphenyl d14 #11*
22.489	BBA	243.40866	7.97013e-3	1.94000		Benzo(a)anthracene #12
23.369	BB	49.65573	3.90341e-2	1.93827		Chrysene #13
26.104	BB	117.46639	1.65629e-2	1.94559		Benzo(b)fluoranthene #14
27.556	BB	353.46982	2.77623e-3	9.81314e-1		Benzo(k)fluoranthene #15
28.674	BB	411.81049	4.68187e-3	1.92804		Benzo(a)pyrene #16
30.548	BB	49.01668	3.93610e-2	1.92935		Dibenz(a,h)anthracene #17
31.351	BB	70.52281	2.69711e-2	1.90208		Benzo(g,h,i)perylene #18
32.292	BB	141.77130	1.37318e-2	1.94677		Indeno(1,2,3-cd)pyrene #1
Totals :				176.78695		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.237	BBA	2493.37891	8.27672e-3	20.63700		Naphthalene #1
10.876	BB	654.20630	3.00100e-2	19.63274		Acenaphthylene #2
11.831	BB	1527.97900	1.29933e-2	19.85351		1-Methylnaphthalene #3
12.413	BB	1790.56641	1.12718e-2	20.18291		2-Methylnaphthalene #4
12.896	BB	968.73480	2.03858e-2	19.74842		Acenaphthene #5
13.556	BBA	1111.38098	1.76946e-2	19.66540		Fluorene #6
14.960	BBA	1130.27087	1.74304e-2	19.70112		Phenanthrene #7
16.381	PBA	1988.68909	1.03512e-2	20.58537		Anthracene #8
17.769	PB	88.82484	2.18962e-2	1.94493		Fluoranthene #9
18.781	BBA	134.09285	1.46350e-2	1.96245		Pyrene #10
21.145	PBA	301.36755	6.46036e-2	19.46943		p-Terphenyl d14 #11*
22.474	BBA	87.40981	2.22922e-2	1.94856		Benzo(a)anthracene #12
23.355	BBA	127.90170	1.52055e-2	1.94481		Chrysene #13
26.089	BBA	93.43871	2.08450e-2	1.94773		Benzo(b)fluoranthene #14
27.541	BBA	43.15946	2.27263e-2	9.80857e-1		Benzo(k)fluoranthene #15
28.658	BBA	72.43052	2.64554e-2	1.91618		Benzo(a)pyrene #16
30.533	PBA	20.95795	9.37185e-2	1.96415		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.335	BB	36.23856	5.34889e-2	1.93836		Benzo(g,h,i)perylene #18
32.279	BBA	93.53850	2.06233e-2	1.92908		Indeno(1,2,3-cd)pyrene #1

Totals : 197.95301

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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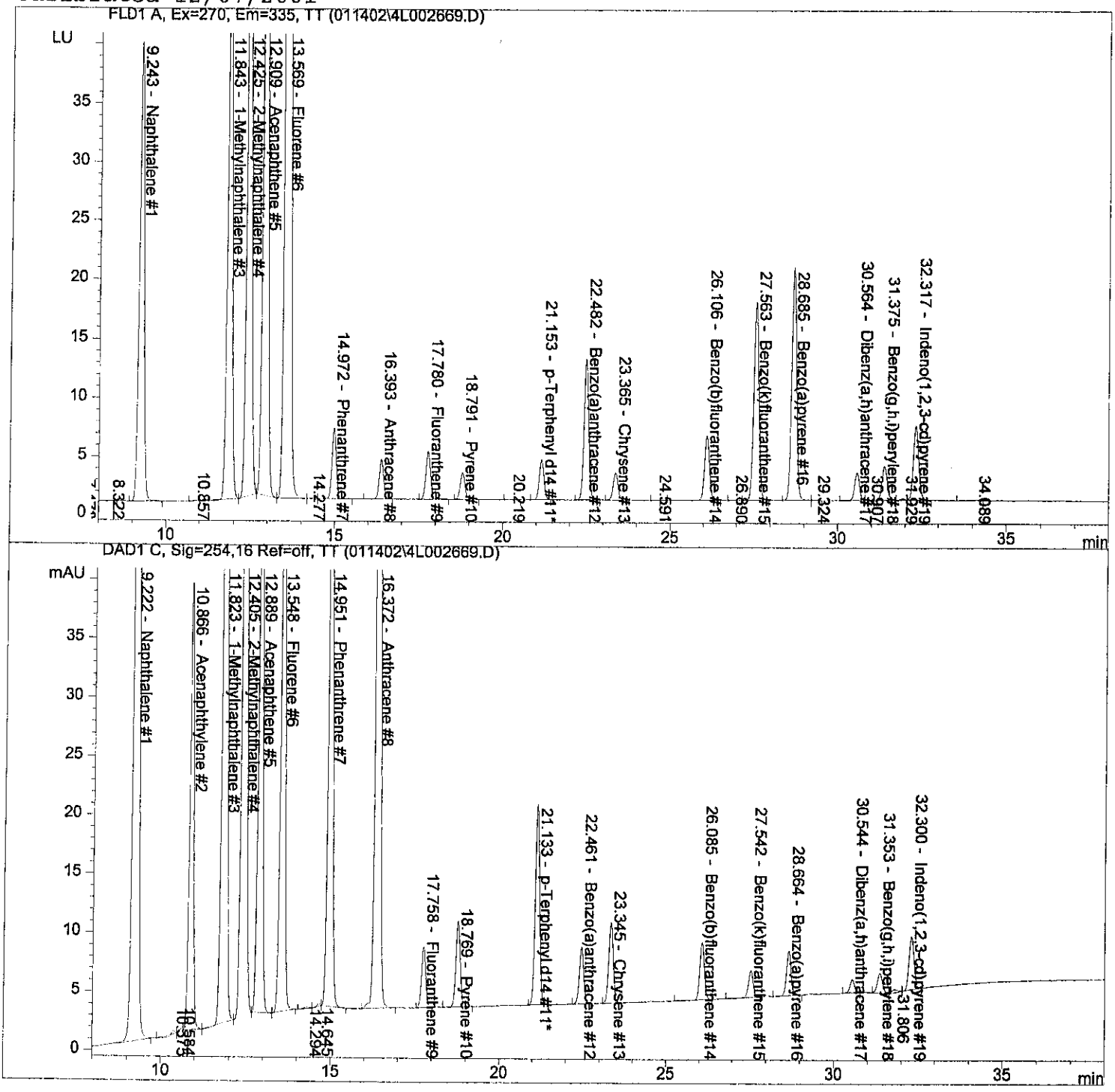
*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 3 10/1/.5 ppm

Injection Date	: 1/14/2002 8:36:14 PM	Seq. Line	: 9
Sample Name	: WG111292-05 STD3	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 8:58:04 AM by RDC (modified after loading)		

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:59 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.243	BBA	379.16129	2.57002e-2	9.74453		Naphthalene #1
11.843	BB	434.69620	2.24890e-2	9.77589		1-Methylnaphthalene #3
12.425	BB	570.62238	1.72690e-2	9.85408		2-Methylnaphthalene #4
12.909	BB	718.57635	1.38226e-2	9.93260		Acenaphthene #5
13.569	BB	1545.26501	6.56835e-3	10.14984		Fluorene #6
14.972	BBA	56.83334	1.68487e-1	9.57567		Phenanthrene #7
16.393	BB	32.77779	3.03723e-1	9.95538		Anthracene #8
17.780	BBA	40.55882	2.38651e-2	9.67941e-1		Fluoranthene #9
18.791	BBA	23.90537	4.06767e-2	9.72391e-1		Pyrene #10
21.153	BB	33.44160	2.86510e-1	9.58136		p-Terphenyl d14 #11*
22.482	BB	120.40920	7.96570e-3	9.59144e-1		Benzo(a)anthracene #12
23.365	BB	24.62586	3.90135e-2	9.60740e-1		Chrysene #13
26.106	BB	58.49529	1.65575e-2	9.68536e-1		Benzo(b)fluoranthene #14
27.563	BB	175.63820	2.77551e-3	4.87486e-1		Benzo(k)fluoranthene #15
28.685	BB	203.03578	4.67719e-3	9.49638e-1		Benzo(a)pyrene #16
30.564	BB	24.01385	3.93187e-2	9.44192e-1		Dibenz(a,h)anthracene #17
31.375	BB	34.73734	2.69479e-2	9.36098e-1		Benzo(g,h,i)perylene #18
32.317	BB	70.38887	1.37428e-2	9.67338e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				87.68286		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.222	PBA	1246.98584	8.27572e-3	10.31971		Naphthalene #1
10.866	BB	325.75351	3.00062e-2	9.77463		Acenaphthylene #2
11.823	BB	761.30933	1.29920e-2	9.89092		1-Methylnaphthalene #3
12.405	BB	894.14850	1.12702e-2	10.07728		2-Methylnaphthalene #4
12.889	BB	483.23654	2.03825e-2	9.84955		Acenaphthene #5
13.548	BBA	552.99121	1.76927e-2	9.78392		Fluorene #6
14.951	BBA	563.78040	1.74279e-2	9.82554		Phenanthrene #7
16.372	PBA	992.23688	1.03457e-2	10.26534		Anthracene #8
17.758	PB	44.30089	2.18935e-2	9.69901e-1		Fluoranthene #9
18.769	BBA	66.46920	1.46332e-2	9.72658e-1		Pyrene #10
21.133	BBA	149.64757	6.45954e-2	9.66654		p-Terphenyl d14 #11*
22.461	BBA	43.45026	2.22870e-2	9.68375e-1		Benzo(a)anthracene #12
23.345	BBA	63.55274	1.52040e-2	9.66253e-1		Chrysene #13
26.085	PBA	46.72572	2.08440e-2	9.73952e-1		Benzo(b)fluoranthene #14
27.542	BBA	22.23862	2.27170e-2	5.05194e-1		Benzo(k)fluoranthene #15
28.664	BBA	36.33923	2.64282e-2	9.60381e-1		Benzo(a)pyrene #16
30.544	PBA	10.59134	9.39051e-2	9.94581e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.353	BB	18.37240	5.34686e-2	9.82347e-1		Benzo(g,h,i)perylene #18
32.300	BBA	46.32841	2.06171e-2	9.55155e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.70222

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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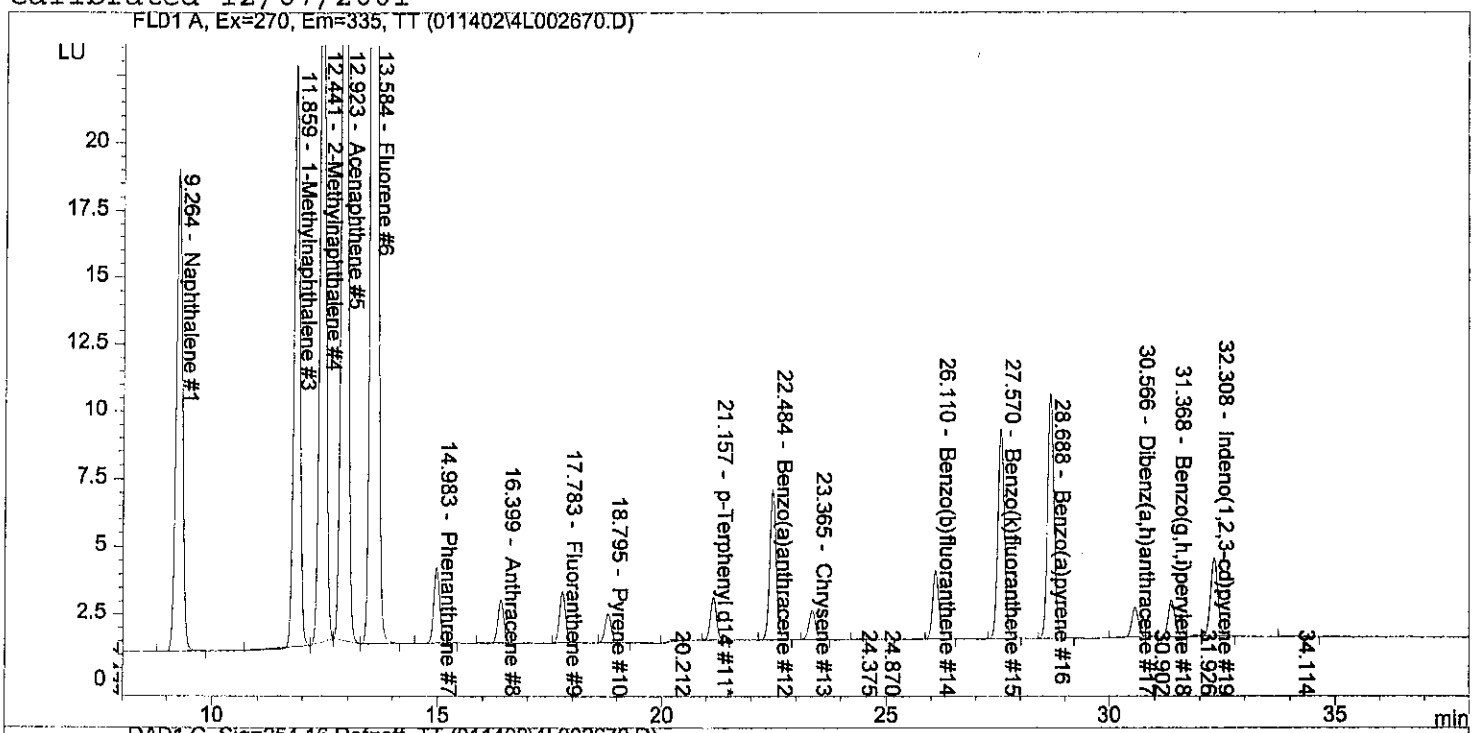
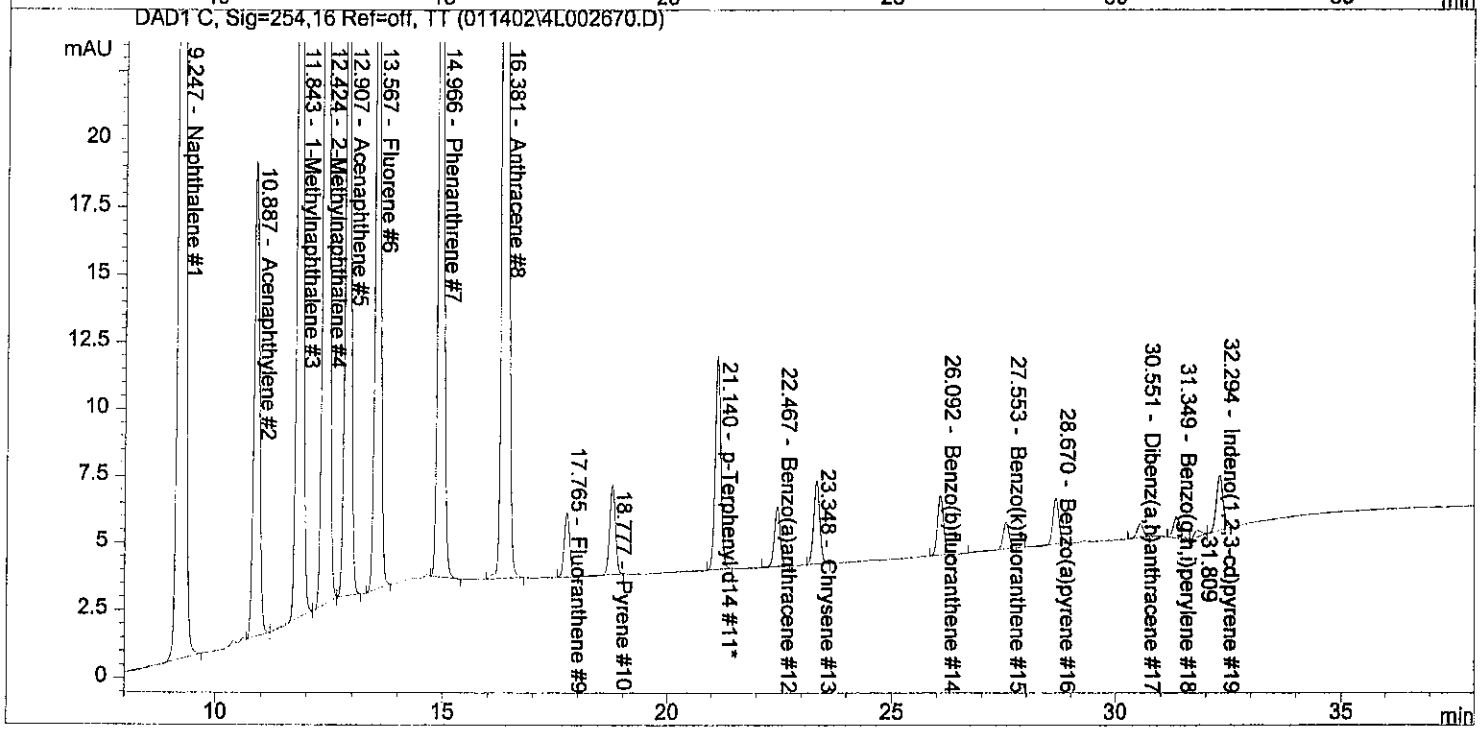
*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 2 5/.5/.25 ppm

Injection Date	: 1/14/2002 9:32:51 PM	Seq. Line	: 10
Sample Name	: WG111292-06 STD2	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 8:58:46 AM by RDC (modified after loading)		

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:58:38 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.264	BBA	174.72874	2.57004e-2	4.49059		Naphthalene #1
11.859	BB	200.14003	2.24894e-2	4.50103		1-Methylnaphthalene #3
12.441	BB	263.61240	1.72692e-2	4.55237		2-Methylnaphthalene #4
12.923	BB	332.58978	1.38228e-2	4.59733		Acenaphthene #5
13.584	BB	715.49780	6.56880e-3	4.69996		Fluorene #6
14.983	BBA	26.26655	1.68488e-1	4.42559		Phenanthrene #7
16.399	PBA	15.12442	3.03717e-1	4.59355		Anthracene #8
17.783	PBA	18.24046	2.38673e-2	4.35351e-1		Fluoranthene #9
18.795	PBA	10.94241	4.06617e-2	4.44937e-1		Pyrene #10
21.157	BB	15.68857	2.86514e-1	4.49500		p-Terphenyl d14 #11*
22.484	BBA	55.43239	7.96561e-3	4.41553e-1		Benzo(a)anthracene #12
23.365	BBA	11.26101	3.90146e-2	4.39344e-1		Chrysene #13
26.110	BBA	26.85213	1.65597e-2	4.44664e-1		Benzo(b)fluoranthene #14
27.570	PBA	81.11520	2.77567e-3	2.25149e-1		Benzo(k)fluoranthene #15
28.688	PB	93.51391	4.67664e-3	4.37331e-1		Benzo(a)pyrene #16
30.566	BB	10.98461	3.93199e-2	4.31913e-1		Dibenz(a,h)anthracene #17
31.368	BB	15.91699	2.69467e-2	4.28911e-1		Benzo(g,h,i)perylene #18
32.308	BBA	32.46655	1.37441e-2	4.46224e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				40.53080		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	PBA	576.60266	8.27651e-3	4.77226		Naphthalene #1
10.887	BB	150.79996	3.00090e-2	4.52535		Acenaphthylene #2
11.843	BB	352.56210	1.29932e-2	4.58091		1-Methylnaphthalene #3
12.424	BB	414.06625	1.12713e-2	4.66705		2-Methylnaphthalene #4
12.907	BBA	223.83940	2.03841e-2	4.56277		Acenaphthene #5
13.567	PBA	254.83487	1.76945e-2	4.50919		Fluorene #6
14.966	BBA	261.27347	1.74294e-2	4.55384		Phenanthrene #7
16.381	PBA	458.90207	1.03455e-2	4.74759		Anthracene #8
17.765	BBA	20.33956	2.18957e-2	4.45349e-1		Fluoranthene #9
18.777	BBA	29.23632	1.46348e-2	4.27869e-1		Pyrene #10
21.140	BBA	69.63579	6.45989e-2	4.49840		p-Terphenyl d14 #11*
22.467	BBA	20.37423	2.22879e-2	4.54100e-1		Benzo(a)anthracene #12
23.348	BBA	29.37774	1.52052e-2	4.46693e-1		Chrysene #13
26.092	BBA	21.54782	2.08463e-2	4.49192e-1		Benzo(b)fluoranthene #14
27.553	PBA	9.94531	2.27216e-2	2.25973e-1		Benzo(k)fluoranthene #15
28.670	BBA	15.71871	2.64268e-2	4.15396e-1		Benzo(a)pyrene #16
30.551	PBA	4.83241	9.39112e-2	4.53817e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.349	BB	8.91349	5.34670e-2	4.76577e-1		Benzo(g,h,i)perylene #18
32.294	BB	20.89905	2.06199e-2	4.30937e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 45.64325

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

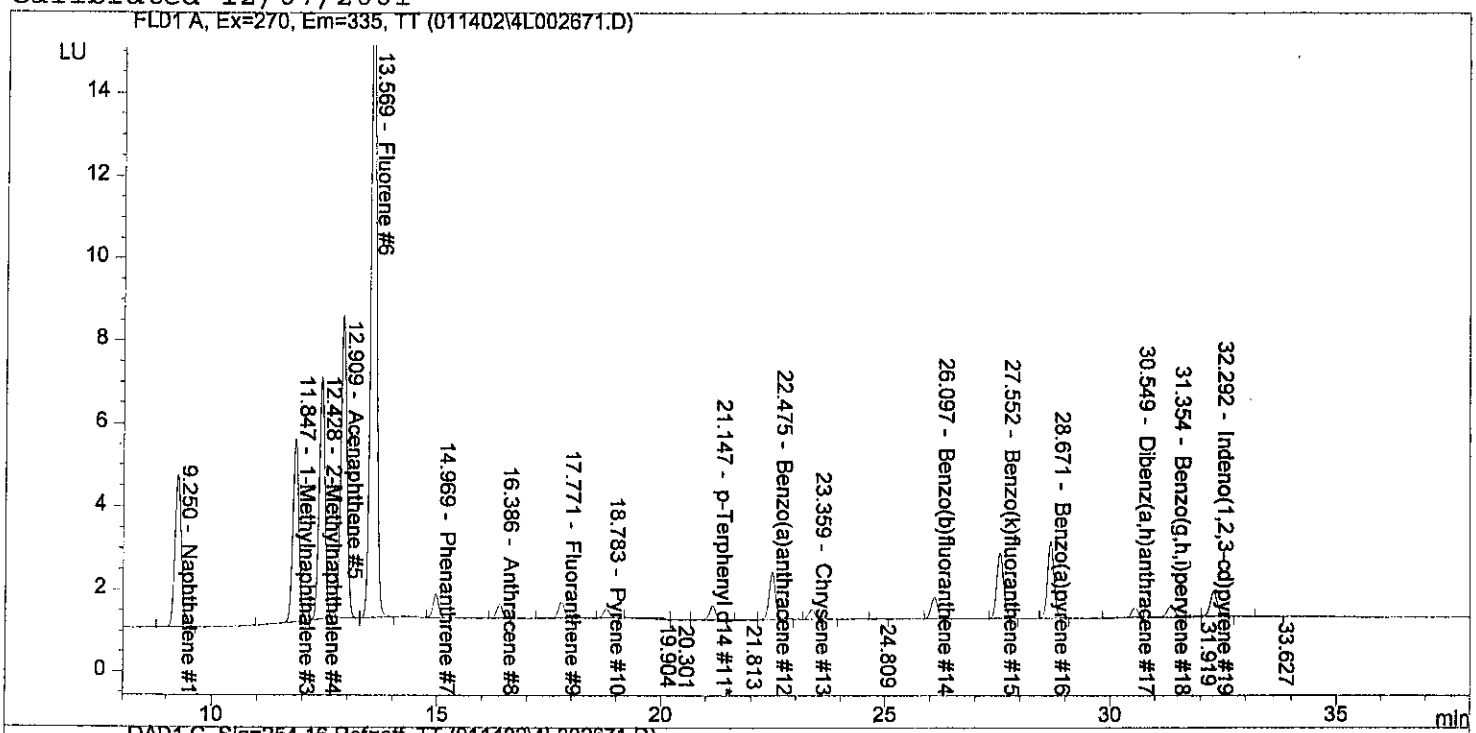
==========

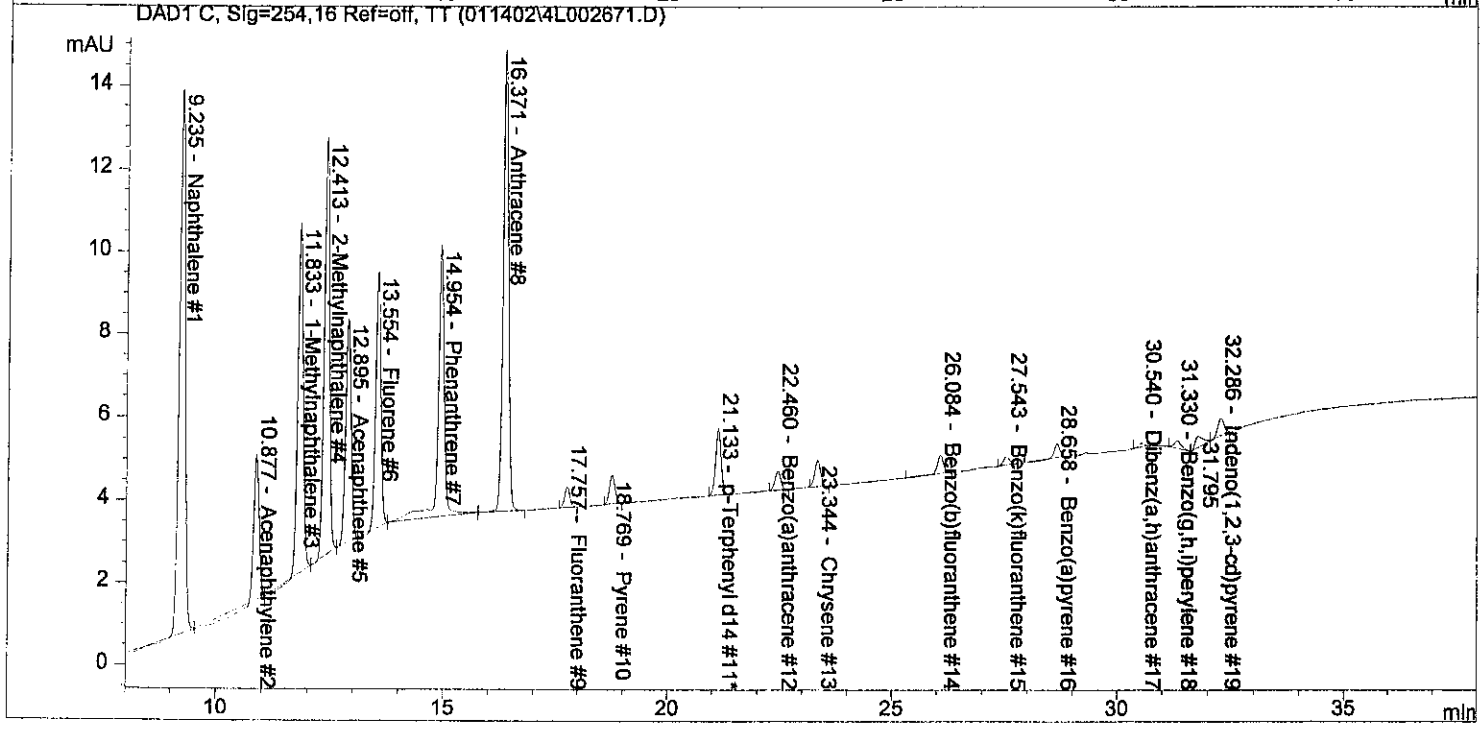
*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 1 1/.1/.05 ppm

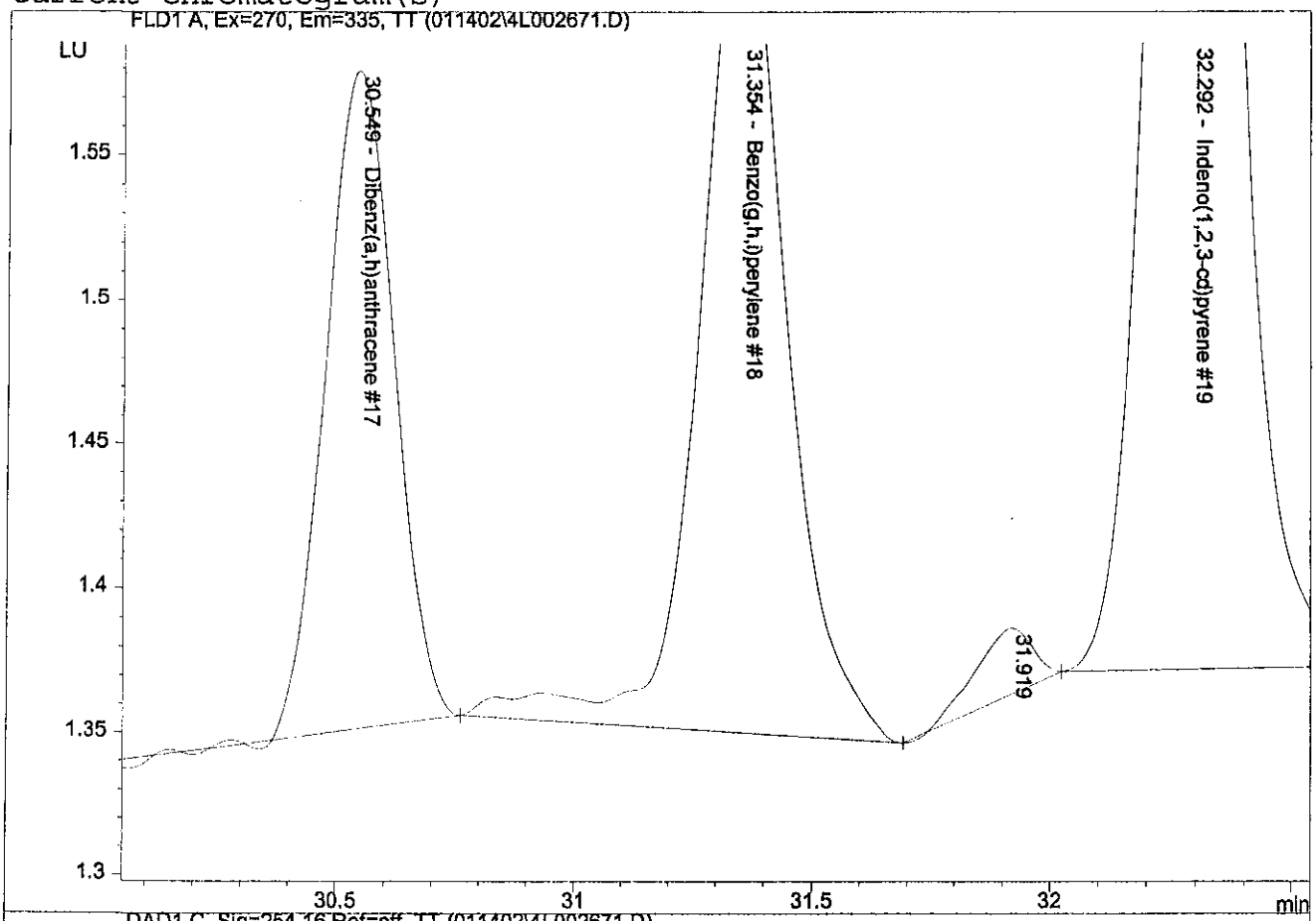
Injection Date	: 1/14/2002 10:29:31 PM	Seq. Line	: 11
Sample Name	: WG111292-07 STD1	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 9:02:17 AM by RDC (modified after loading)		

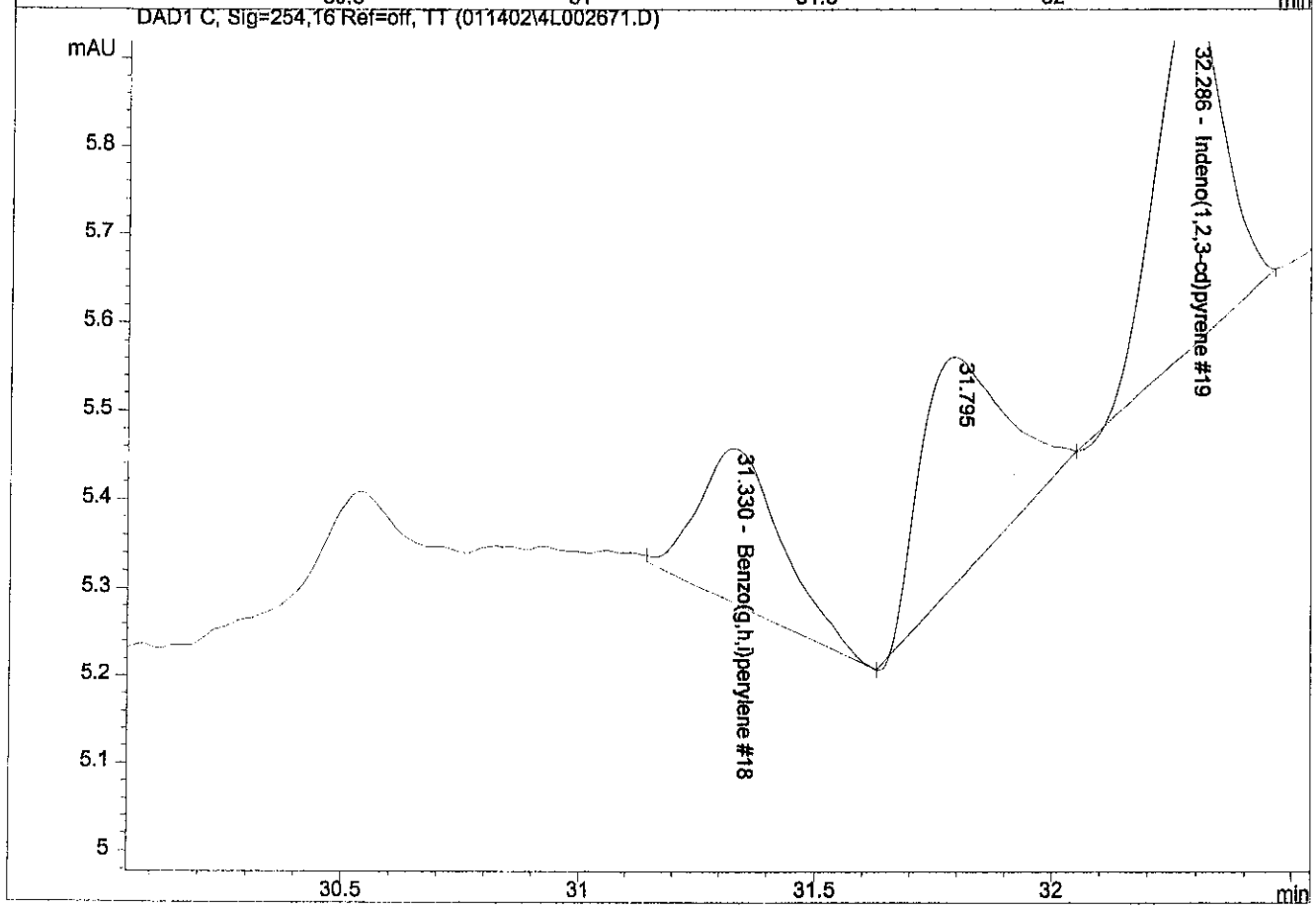
Calibrated 12/07/2001



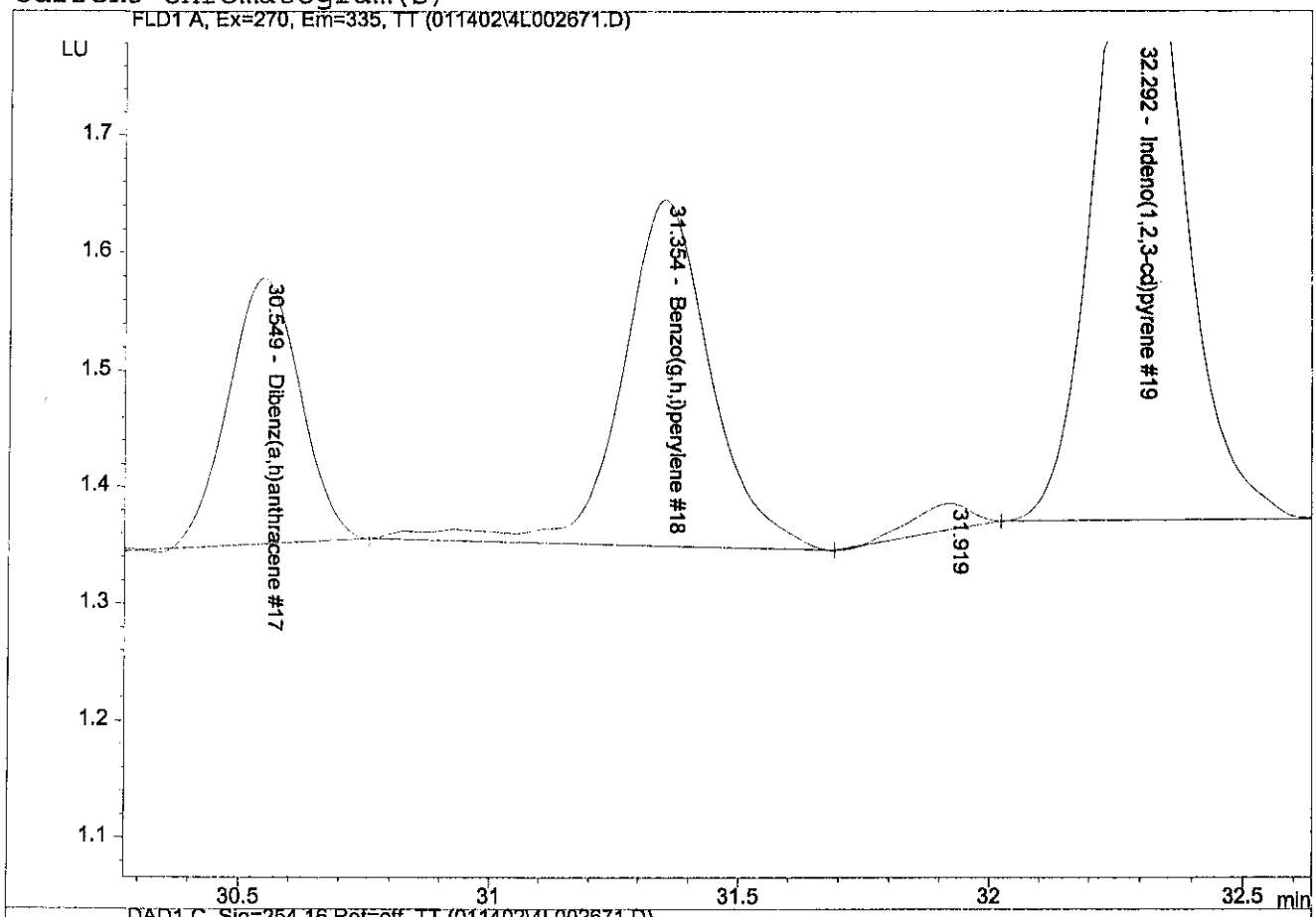


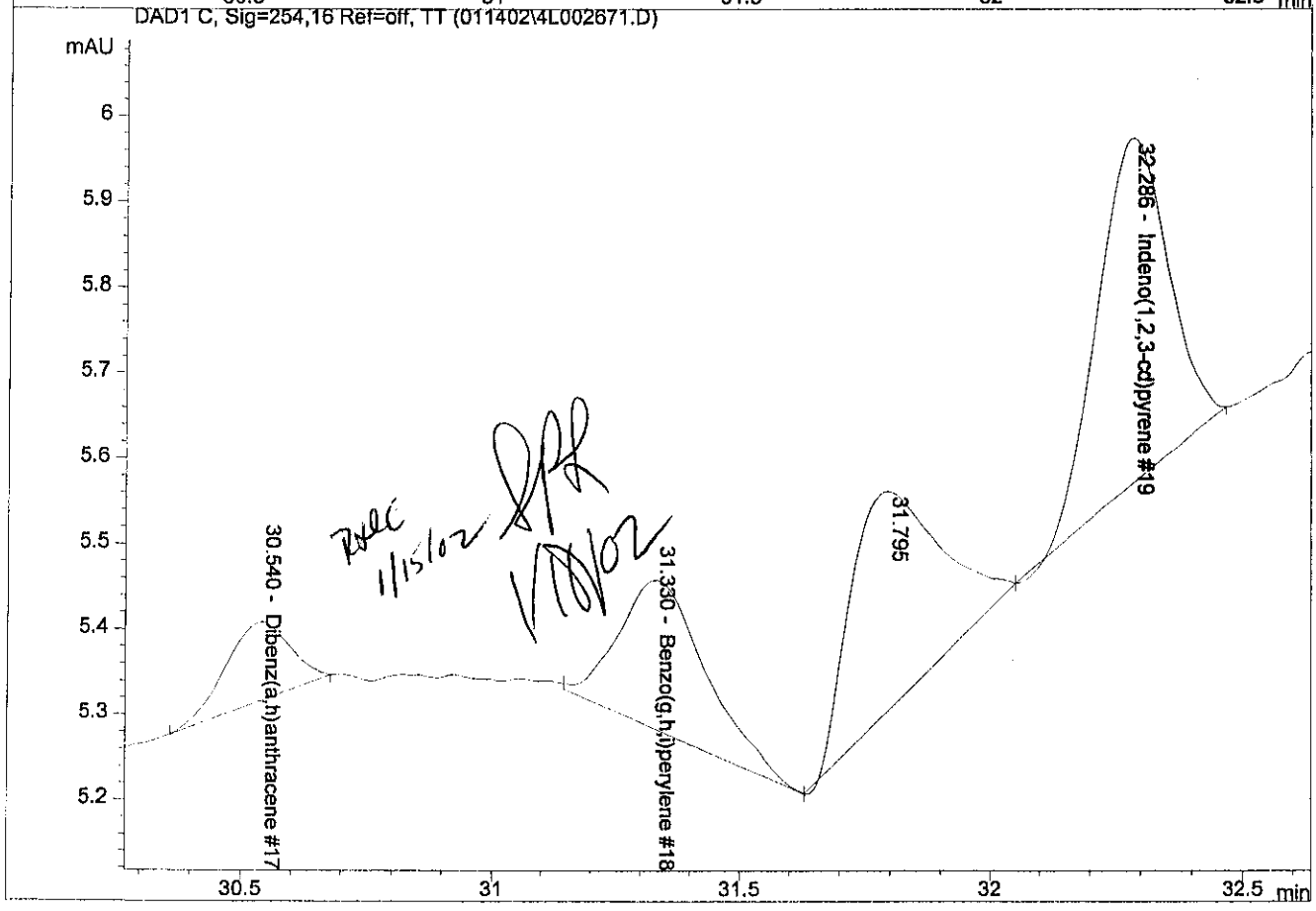
Current Chromatogram(s)





Current Chromatogram(s)





External Standard Report

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:02:14 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.250	PBA	35.78353	2.57003e-2	9.19647e-1		Naphthalene #1
11.847	BB	41.42604	2.24893e-2	9.31643e-1		1-Methylnaphthalene #3
12.428	BB	53.86543	1.72691e-2	9.30209e-1		2-Methylnaphthalene #4
12.909	BB	67.89028	1.38228e-2	9.38432e-1		Acenaphthene #5
13.569	BBA	146.82553	6.56879e-3	9.64466e-1		Fluorene #6
14.969	PBA	5.24433	1.68488e-1	8.83605e-1		Phenanthrene #7
16.386	BBA	3.17308	3.03714e-1	9.63711e-1		Anthracene #8
17.771	PBA	3.88309	2.38671e-2	9.26781e-2		Fluoranthene #9
18.783	PBA	2.17142	4.06594e-2	8.82885e-2		Pyrene #10
21.147	BB	3.53695	2.86511e-1	1.01338		p-Terphenyl d14 #11*
22.475	BBA	11.70344	7.96557e-3	9.32246e-2		Benzo(a)anthracene #12
23.359	PBA	2.53400	3.90144e-2	9.88624e-2		Chrysene #13
26.097	BBA	5.50489	1.65598e-2	9.11596e-2		Benzo(b)fluoranthene #14
27.552	BBA	16.52934	2.77566e-3	4.58799e-2		Benzo(k)fluoranthene #15
28.671	BBA	19.03635	4.67660e-3	8.90254e-2		Benzo(a)pyrene #16
30.549	PB	2.25618	3.93196e-2	8.87121e-2		Dibenz(a,h)anthracene #17
31.354	BB	3.69533	2.69466e-2	9.95766e-2		Benzo(g,h,i)perylene #18
32.292	BBA	6.81821	1.37440e-2	9.37098e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.42621

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.235	PB	114.71877	8.27651e-3	9.49471e-1		Naphthalene #1
10.877	BB	23.62006	3.00095e-2	7.08826e-1		Acenaphthylene #2
11.833	BB	70.63459	1.29932e-2	9.17772e-1		1-Methylnaphthalene #3
12.413	BB	84.19754	1.12713e-2	9.49012e-1		2-Methylnaphthalene #4
12.895	BB	45.25933	2.03841e-2	9.22572e-1		Acenaphthene #5
13.554	BB	50.57839	1.76946e-2	8.94964e-1		Fluorene #6
14.954	BB	66.64948	1.74291e-2	1.16164		Phenanthrene #7
16.371	BBA	94.15485	1.03455e-2	9.74078e-1		Anthracene #8
17.757	BBA	4.13764	2.18958e-2	9.05969e-2		Fluoranthene #9
18.769	BBA	6.03502	1.46349e-2	8.83217e-2		Pyrene #10
21.133	BBA	13.90859	6.45989e-2	8.98480e-1		p-Terphenyl d14 #11*
22.460	BBA	4.29036	2.22878e-2	9.56229e-2		Benzo(a)anthracene #12
23.344	BBA	5.99650	1.52051e-2	9.11777e-2		Chrysene #13
26.084	BBA	4.71873	2.08462e-2	9.83676e-2		Benzo(b)fluoranthene #14
27.543	PBA	1.94087	2.27217e-2	4.40999e-2		Benzo(k)fluoranthene #15
28.658	BBA	2.93301	2.64267e-2	7.75095e-2		Benzo(a)pyrene #16
30.540	MM	8.22757e-1	9.39100e-2	7.72651e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.330	BB	2.16289	5.34666e-2	1.15642e-1		Benzo(g,h,i)perylene #18
32.286	BB	3.89559	2.06198e-2	8.03264e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.23574

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

==========

Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

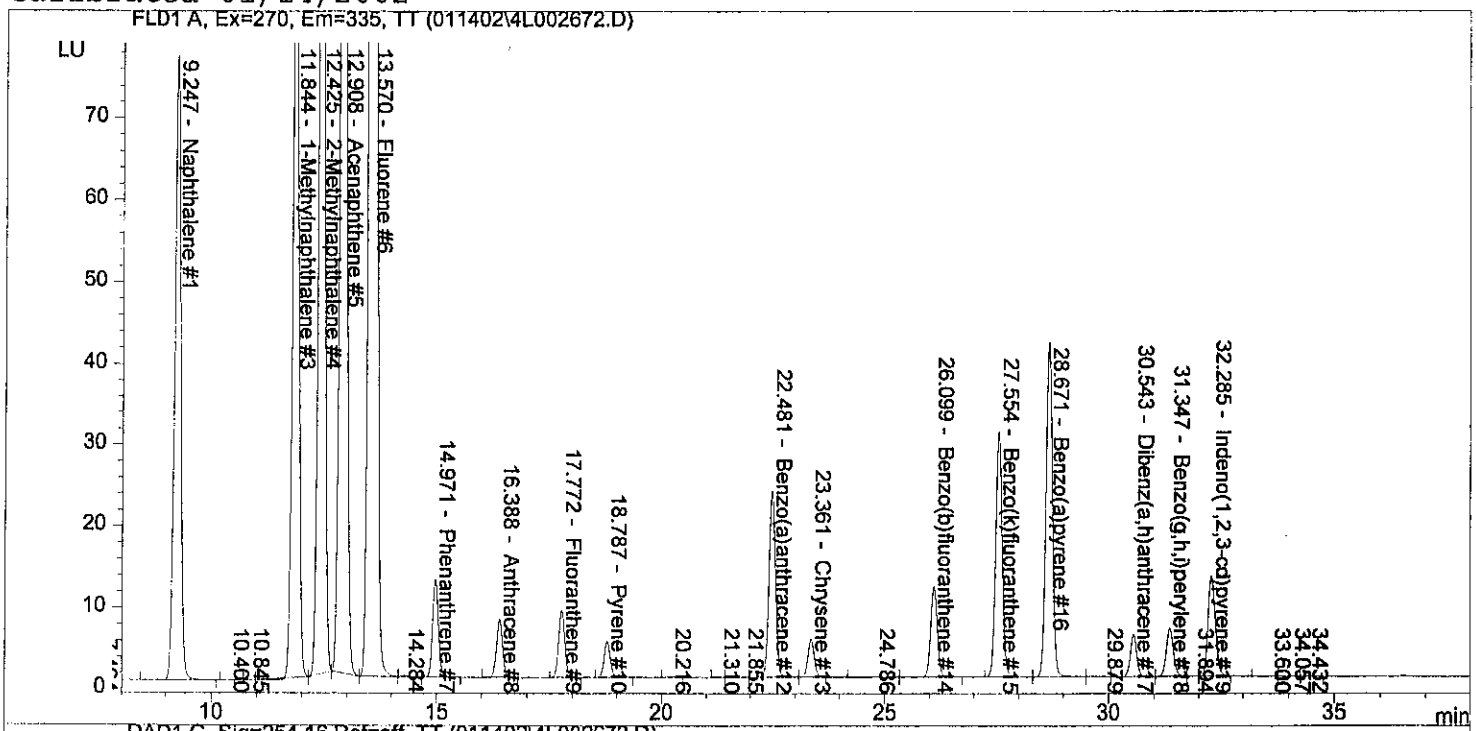
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

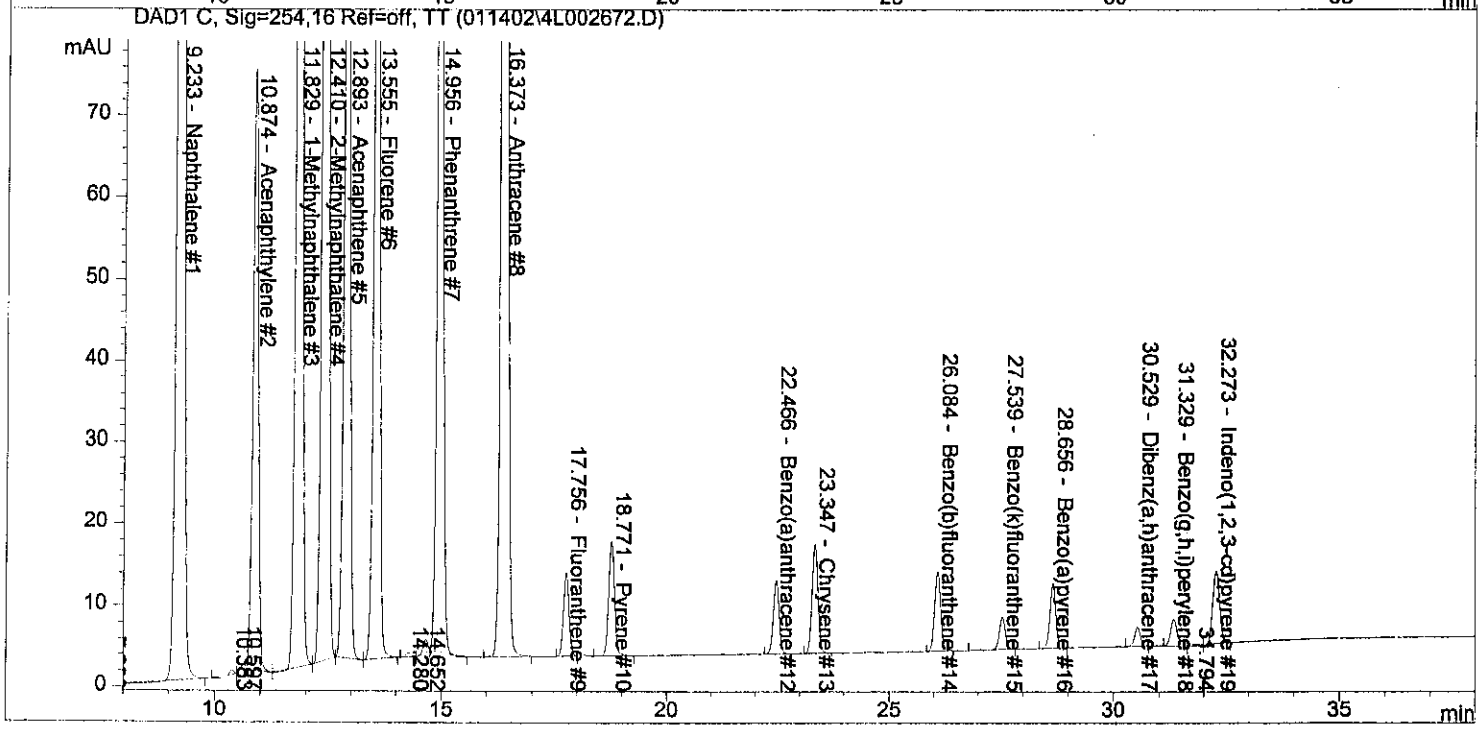
= Failed 15.0% Criteria

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

Injection Date	: 1/14/2002 11:26:07 PM	Seq. Line	: 12
Sample Name	: WG111292-08 ALT	Vial	: 12
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 1/15/2002 9:05:41 AM by RDC (modified after loading)		

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:05:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	BBA	748.52362	2.57003e-2	19.23726		Naphthalene #1
11.844	BB	877.28461	2.24893e-2	19.72953		1-Methylnaphthalene #3
12.425	BB	1090.29724	1.72691e-2	18.82849		2-Methylnaphthalene #4
12.908	BB	1448.90186	1.38228e-2	20.02785		Acenaphthene #5
13.570	BB	3083.72266	6.56879e-3	20.25632		Fluorene #6
14.971	BBA	111.55298	1.68488e-1	18.79530		Phenanthrene #7
16.388	PBA	66.76292	3.03714e-1	20.27686		Anthracene #8
17.772	PBA	79.23566	2.38671e-2	1.89112		Fluoranthene #9
18.787	BBA	45.12247	4.06594e-2	1.83465		Pyrene #10
21.147		-	-	-		p-Terphenyl d14 #11*
22.481	BB	226.27448	7.96557e-3	1.80241		Benzo(a)anthracene #12
23.361	BB	47.86744	3.90144e-2	1.86752		Chrysene #13
26.099	BBA	116.86459	1.65598e-2	1.93525		Benzo(b)fluoranthene #14
27.554	PB	314.46066	2.77566e-3	8.72837e-1		Benzo(k)fluoranthene #15
28.671	BB	423.19098	4.67660e-3	1.97909		Benzo(a)pyrene #16
30.543	BB	53.38907	3.93196e-2	2.09924		Dibenz(a,h)anthracene #17
31.347	BB	69.61732	2.69466e-2	1.87595		Benzo(g,h,i)perylene #18
32.285	BBA	136.55934	1.37440e-2	1.87688		Indeno(1,2,3-cd)pyrene #1
Totals :				155.18656		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	2468.22412	8.27651e-3	20.42828		Naphthalene #1
10.874	BB	630.04449	3.00095e-2	18.90732		Acenaphthylene #2
11.829	BB	1556.25403	1.29932e-2	20.22077		1-Methylnaphthalene #3
12.410	BB	1724.90198	1.12713e-2	19.44181		2-Methylnaphthalene #4
12.893	BB	983.60773	2.03841e-2	20.04998		Acenaphthene #5
13.555	BBA	1113.45837	1.76946e-2	19.70218		Fluorene #6
14.956	BBA	1113.83740	1.74291e-2	19.41317		Phenanthrene #7
16.373	PBA	2030.43079	1.03455e-2	21.00580		Anthracene #8
17.756	BB	88.16366	2.18958e-2	1.93041		Fluoranthene #9
18.771	BBA	129.84206	1.46349e-2	1.90022		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.466	BBA	82.83583	2.22878e-2	1.84623		Benzo(a)anthracene #12
23.347	BBA	125.89037	1.52051e-2	1.91418		Chrysene #13
26.084	BBA	93.34034	2.08462e-2	1.94579		Benzo(b)fluoranthene #14
27.539	BBA	38.95745	2.27217e-2	8.85179e-1		Benzo(k)fluoranthene #15
28.656	PBA	75.30036	2.64267e-2	1.98994		Benzo(a)pyrene #16
30.529	PBA	22.13976	9.39100e-2	2.07914		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.329	BB	36.24539	5.34666e-2	1.93792		Benzo(g,h,i)perylene #18
32.273	BB	90.78680	2.06198e-2	1.87201		Indeno(1,2,3-cd)pyrene #1

Totals : 177.47035

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\031202\4L002870.D Sample Name: WG114392-01 CCV
HPLC4 3/13/2002 11:18:41 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/12/2002 3:16:25 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	19.406	-3.0
1-Methylnaphthalene #3	12.006	20.0	19.550	-2.3
2-Methylnaphthalene #4	12.580	20.0	19.421	-2.9
Acenaphthene #5	13.059	20.0	19.708	-1.5
Fluorene #6	13.713	20.0	20.300	1.5
Phenanthrene #7	15.097	20.0	19.149	-4.3
Anthracene #8	16.495	20.0	20.262	1.3
Fluoranthene #9	17.871	2.0	1.945	-2.8
Pyrene #10	18.871	2.0	1.928	-3.6
p-Terphenyl d14 #11*	21.205	20.0	19.012	-4.9
Benzo(a)anthracene #12	22.519	2.0	1.932	-3.4
Chrysene #13	23.379	2.0	1.948	-2.6
Benzo(b)fluoranthene #14	26.093	2.0	1.927	-3.7
Benzo(k)fluoranthene #15	27.517	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.616	2.0	1.952	-2.4
Dibenz(a,h)anthracene #1	30.465	2.0	1.930	-3.5
Benzo(g,h,i)perylene #18	31.285	2.0	1.908	-4.6
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.926	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	20.729	3.6
Acenaphthylene #2	11.041	20.0	20.068	0.3
1-Methylnaphthalene #3	11.990	20.0	20.039	0.2
2-Methylnaphthalene #4	12.564	20.0	20.275	1.4
Acenaphthene #5	13.044	20.0	19.776	-1.1
Fluorene #6	13.697	20.0	19.811	-0.9
Phenanthrene #7	15.081	20.0	20.132	0.7
Anthracene #8	16.479	20.0	20.976	4.9
Fluoranthene #9	17.854	2.0	1.960	-2.0
Pyrene #10	18.854	2.0	1.987	-0.6
p-Terphenyl d14 #11*	21.190	20.0	19.068	-4.7
Benzo(a)anthracene #12	22.503	2.0	1.958	-2.1
Chrysene #13	23.363	2.0	1.956	-2.2
Benzo(b)fluoranthene #14	26.076	2.0	1.953	-2.4
Benzo(k)fluoranthene #15	27.500	1.0	0.987	-1.3
Benzo(a)pyrene #16	28.599	2.0	1.980	-1.0
Dibenz(a,h)anthracene #1	30.448	2.0	1.948	-2.6
Benzo(g,h,i)perylene #18	31.267	2.0	1.992	-0.4
Indeno(1,2,3-cd)pyrene #	32.204	2.0	1.937	-3.2

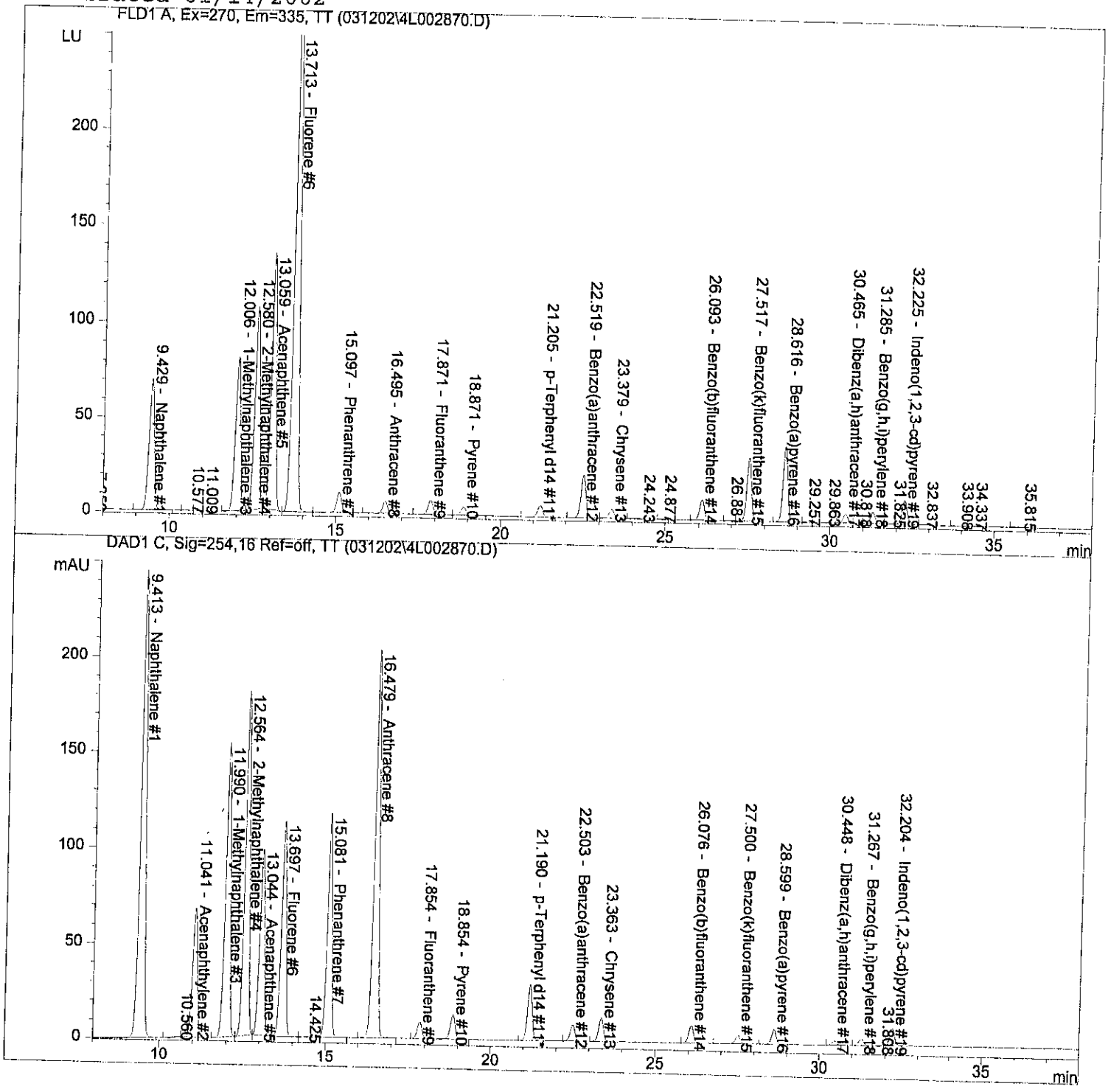
= Failed 15.0% Criteria

Injection Date : 3/12/2002 3:16:25 PM
Sample Name : WG114392-01 CCV
Acq. Operator : RDC

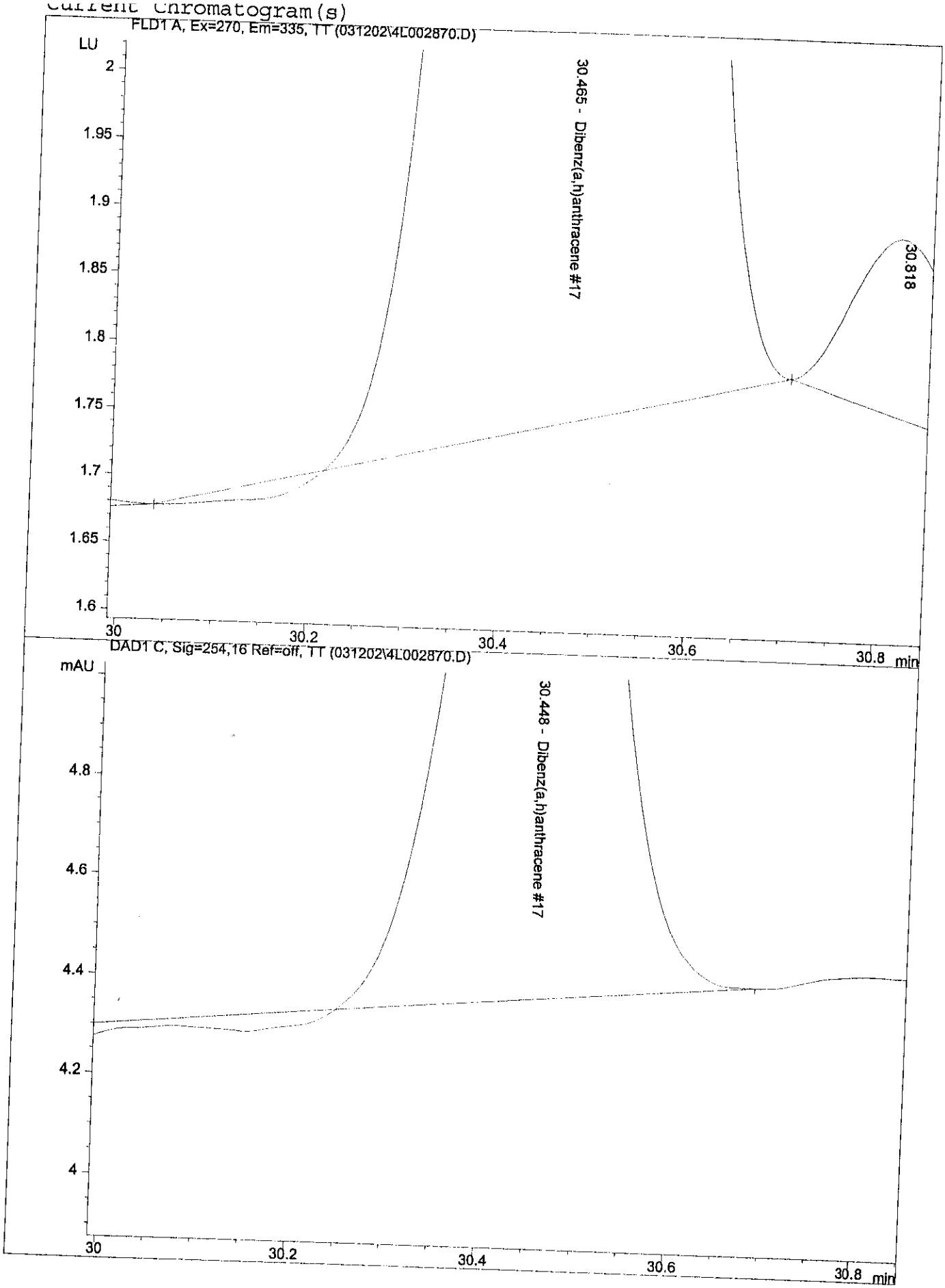
Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/9/2002 3:28:04 PM by RDC
(modified after loading)

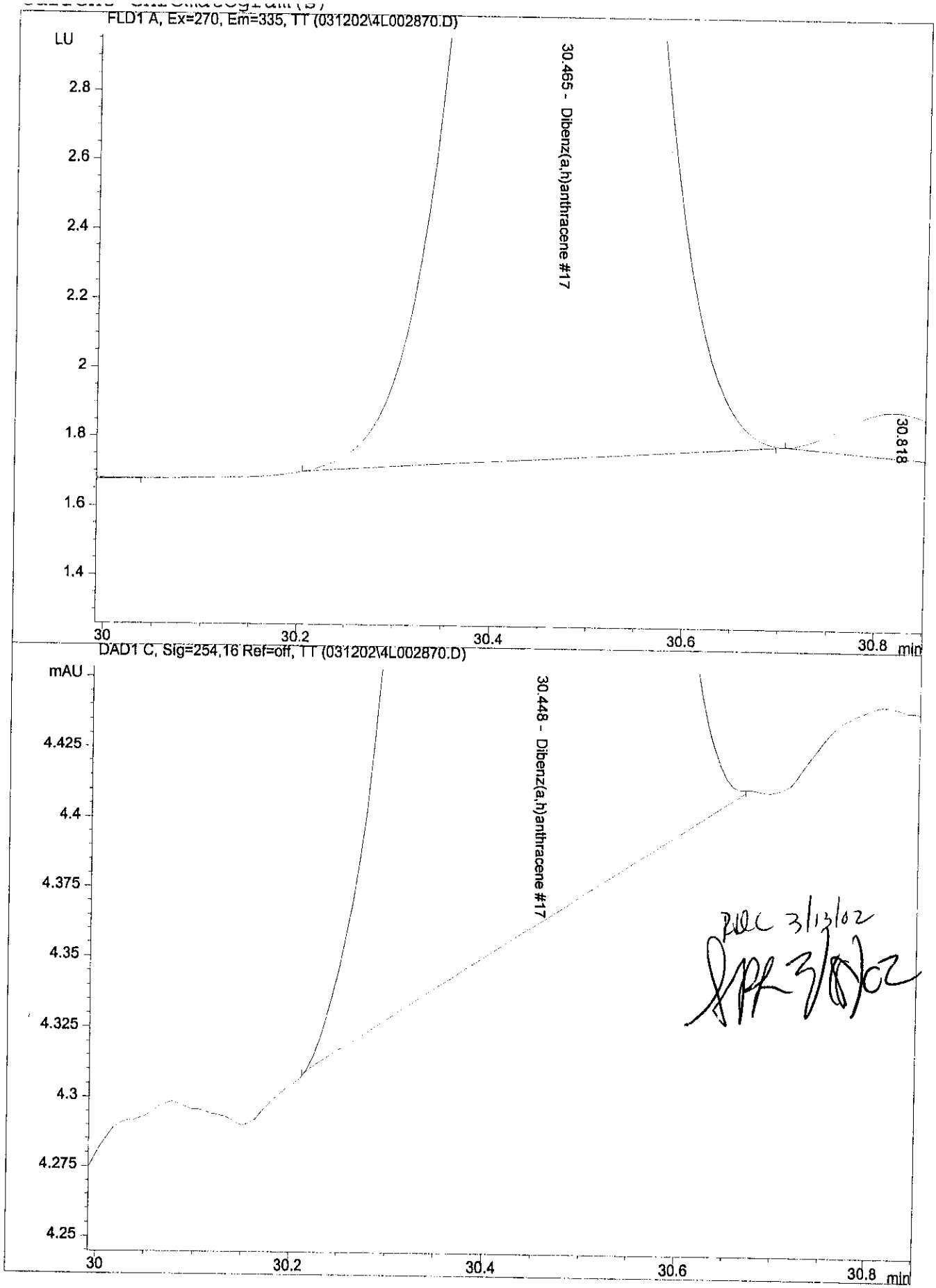
Calibrated 01/14/2002



HPLC4 3/13/2002 11:18:38 AM RDC



IPLC4 3/13/2002 11:17:58 AM RDC



HPLC4 3/13/2002 11:18:35 AM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.429	BB	755.10742	2.57003e-2	19.40647		Naphthalene #1
12.006	PB	869.30054	2.24893e-2	19.54998		1-Methylnaphthalene #3
12.580	BB	1124.60522	1.72691e-2	19.42096		2-Methylnaphthalene #4
13.059	BB	1425.79578	1.38228e-2	19.70846		Acenaphthene #5
13.713	BB	3090.41699	6.56879e-3	20.30029		Fluorene #6
15.097	BB	113.65086	1.68488e-1	19.14876		Phenanthrene #7
16.495	BBA	66.71284	3.03714e-1	20.26165		Anthracene #8
17.871	BB	81.49278	2.38671e-2	1.94499		Fluoranthene #9
18.871	BBA	47.43010	4.06594e-2	1.92848		Pyrene #10
21.205	BBA	66.35616	2.86511e-1	19.01180		p-Terphenyl d14 #11*
22.519	BB	242.55098	7.96557e-3	1.93206		Benzo(a)anthracene #12
23.379	BB	49.92602	3.90144e-2	1.94784		Chrysene #13
26.093	BB	116.35133	1.65598e-2	1.92675		Benzo(b)fluoranthene #14
27.517	BB	353.03226	2.77566e-3	9.79899e-1		Benzo(k)fluoranthene #15
28.616	BB	417.46262	4.67660e-3	1.95230		Benzo(a)pyrene #16
30.465	MM	49.08820	3.93196e-2	1.93013		Dibenz(a,h)anthracene #17
31.285	BB	70.80674	2.69466e-2	1.90800		Benzo(g,h,i)perylene #18
32.225	BB	140.16261	1.37440e-2	1.92640		Indeno(1,2,3-cd)pyrene #1

Totals : 175.18523

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.413	BBA	2504.56689	8.27651e-3	20.72908		Naphthalene #1
11.041	BBA	668.73120	3.00095e-2	20.06829		Acenaphthylene #2
11.990	PB	1542.26904	1.29932e-2	20.03906		1-Methylnaphthalene #3
12.564	BB	1798.80847	1.12713e-2	20.27483		2-Methylnaphthalene #4
13.044	BB	970.17285	2.03841e-2	19.77613		Acenaphthene #5
13.697	BB	1119.59497	1.76946e-2	19.81077		Fluorene #6
15.081	BBA	1155.08667	1.74291e-2	20.13211		Phenanthrene #7
16.479	PBA	2027.56604	1.03455e-2	20.97616		Anthracene #8
17.854	PB	89.50068	2.18958e-2	1.95969		Fluoranthene #9
18.854	BBA	135.78305	1.46349e-2	1.98716		Pyrene #10
21.190	PBA	295.18155	6.45989e-2	19.06841		p-Terphenyl d14 #11*
22.503	PBA	87.86678	2.22878e-2	1.95836		Benzo(a)anthracene #12
23.363	BBA	128.62001	1.52051e-2	1.95569		Chrysene #13
26.076	PBA	93.68447	2.08462e-2	1.95297		Benzo(b)fluoranthene #14
27.500	PB	43.42632	2.27217e-2	9.86719e-1		Benzo(k)fluoranthene #15
28.599	BB	74.94292	2.64267e-2	1.98049		Benzo(a)pyrene #16
30.448	MM	20.74457	9.39100e-2	1.94812		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.267	BB	37.25736	5.34666e-2	1.99203		Benzo(g,h,i)perylene #18
32.204	BB	93.91698	2.06198e-2	1.93655		Indeno(1,2,3-cd)pyrene #1

Totals : 199.53261

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\031202\4L002878.D Sample Name: WG114392-02 CCV
HPLC4 3/13/2002 11:27:25 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/12/2002 10:49:14 PM Seq. Line : 10

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.420	20.0	19.608	-2.0
1-Methylnaphthalene #3	11.993	20.0	19.762	-1.2
2-Methylnaphthalene #4	12.567	20.0	19.612	-1.9
Acenaphthene #5	13.045	20.0	19.859	-0.7
Fluorene #6	13.701	20.0	20.246	1.2
Phenanthrene #7	15.086	20.0	19.387	-3.1
Anthracene #8	16.489	20.0	20.065	0.3
Fluoranthene #9	17.867	2.0	1.857	-7.2
Pyrene #10	18.870	2.0	1.948	-2.6
p-Terphenyl d14 #11*	21.200	20.0	19.002	-5.0
Benzo(a)anthracene #12	22.515	2.0	1.938	-3.1
Chrysene #13	23.375	2.0	1.953	-2.3
Benzo(b)fluoranthene #14	26.080	2.0	1.928	-3.6
Benzo(k)fluoranthene #15	27.507	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.609	2.0	1.989	-0.5
Dibenz(a,h)anthracene #1	30.460	2.0	1.933	-3.4
Benzo(g,h,i)perylene #18	31.274	2.0	1.953	-2.3
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.934	-3.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

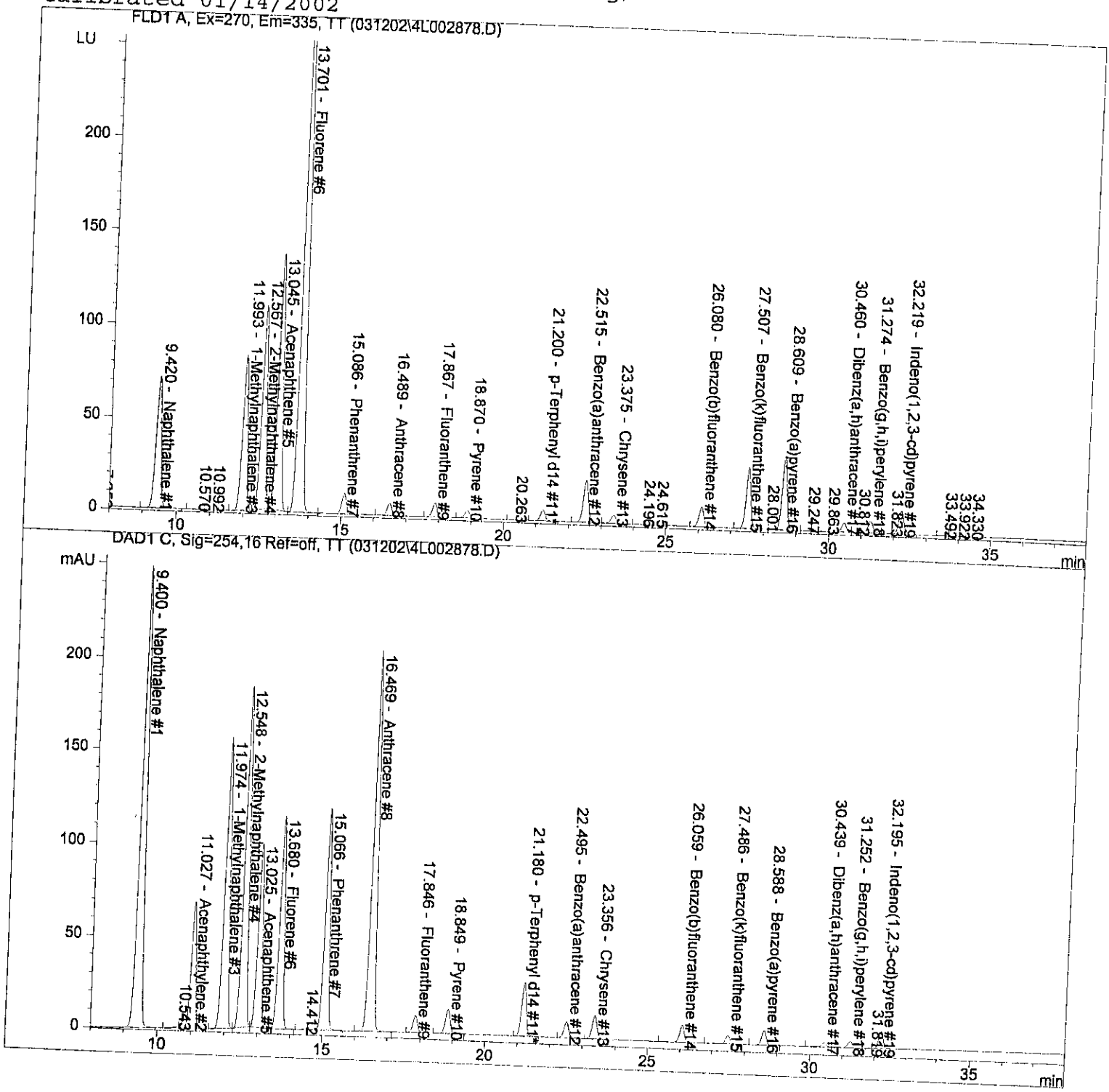
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.400	20.0	20.718	3.6
Acenaphthylene #2	11.027	20.0	20.024	0.1
1-Methylnaphthalene #3	11.974	20.0	20.004	0.0
2-Methylnaphthalene #4	12.548	20.0	20.248	1.2
Acenaphthene #5	13.025	20.0	19.760	-1.2
Fluorene #6	13.680	20.0	19.763	-1.2
Phenanthrene #7	15.066	20.0	20.102	0.5
Anthracene #8	16.469	20.0	20.885	4.4
Fluoranthene #9	17.846	2.0	1.958	-2.1
Pyrene #10	18.849	2.0	1.963	-1.9
p-Terphenyl d14 #11*	21.180	20.0	19.124	-4.4
Benzo(a)anthracene #12	22.495	2.0	1.946	-2.7
Chrysene #13	23.356	2.0	1.949	-2.5
Benzo(b)fluoranthene #14	26.059	2.0	1.947	-2.7
Benzo(k)fluoranthene #15	27.486	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.588	2.0	1.995	-0.2
Dibenz(a,h)anthracene #1	30.439	2.0	1.953	-2.3
Benzo(g,h,i)perylene #18	31.252	2.0	2.108	5.4
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.924	-3.8

= Failed 15.0% Criteria

Injection Date : 3/12/2002 10:49:14 PM
Sample Name : WG114392-02 CCV
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)
Calibrated 01/14/2002



PLC4 3/13/2002 11:27:23 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.420	BBA	762.96191	2.57003e-2	19.60833		Naphthalene #1
11.993	BB	878.74963	2.24893e-2	19.76248		1-Methylnaphthalene #3
12.567	BB	1135.69409	1.72691e-2	19.61245		2-Methylnaphthalene #4
13.045	BB	1436.72180	1.38228e-2	19.85949		Acenaphthene #5
13.701	BB	3082.14233	6.56879e-3	20.24594		Fluorene #6
15.086	BBA	115.06276	1.68488e-1	19.38665		Phenanthrene #7
16.489	BBA	66.06631	3.03714e-1	20.06529		Anthracene #8
17.867	PB	77.79558	2.38671e-2	1.85675		Fluoranthene #9
18.870	BBA	47.90224	4.06594e-2	1.94768		Pyrene #10
21.200	BBA	66.32146	2.86511e-1	19.00186		p-Terphenyl d14 #11*
22.515	PB	243.32472	7.96557e-3	1.93822		Benzo(a)anthracene #12
23.375	BB	50.06923	3.90144e-2	1.95342		Chrysene #13
26.080	BB	116.42439	1.65598e-2	1.92796		Benzo(b)fluoranthene #14
27.507	BB	352.97989	2.77566e-3	9.79754e-1		Benzo(k)fluoranthene #15
28.609	BB	425.37991	4.67660e-3	1.98933		Benzo(a)pyrene #16
30.460	BB	49.15282	3.93196e-2	1.93267		Dibenz(a,h)anthracene #17
31.274	BB	72.48253	2.69466e-2	1.95316		Benzo(g,h,i)perylene #18
32.219	BB	140.68425	1.37440e-2	1.93357		Indeno(1,2,3-cd)pyrene #1
Totals :				175.95501		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.400	BBA	2503.18848	8.27651e-3	20.71767		Naphthalene #1
11.027	BBA	667.23987	3.00095e-2	20.02353		Acenaphthylene #2
11.974	PB	1539.56030	1.29932e-2	20.00387		1-Methylnaphthalene #3
12.548	BB	1796.45471	1.12713e-2	20.24830		2-Methylnaphthalene #4
13.025	BB	969.37793	2.03841e-2	19.75992		Acenaphthene #5
13.680	BBA	1116.90369	1.76946e-2	19.76314		Fluorene #6
15.066	BBA	1153.38562	1.74291e-2	20.10246		Phenanthrene #7
16.469	PBA	2018.73853	1.03455e-2	20.88484		Anthracene #8
17.846	BB	89.42406	2.18958e-2	1.95801		Fluoranthene #9
18.849	BBA	134.13177	1.46349e-2	1.96300		Pyrene #10
21.180	BBA	296.04486	6.45989e-2	19.12418		p-Terphenyl d14 #11*
22.495	BBA	87.32359	2.22878e-2	1.94625		Benzo(a)anthracene #12
23.356	BBA	128.21199	1.52051e-2	1.94948		Chrysene #13
26.059	PBA	93.38898	2.08462e-2	1.94681		Benzo(b)fluoranthene #14
27.486	PB	43.10075	2.27217e-2	9.79322e-1		Benzo(k)fluoranthene #15
28.588	BB	75.49494	2.64267e-2	1.99508		Benzo(a)pyrene #16
30.439	PB	20.79709	9.39100e-2	1.95305		Dibenz(a,h)anthracene #17

31.252	BB	39.42996	5.34666e-2	2.10819	Benzo(g,h,i)perylene #18
32.195	BB	93.31442	2.06198e-2	1.92413	Indeno(1,2,3-cd)pyrene #1

Totals : 199.35124

Results obtained with enhanced integrator!

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\031202\4L002887.D Sample Name: WG114392-03 CCV
HPLC4 3/13/2002 12:40:57 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/13/2002 7:18:58 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.412	20.0	19.431	-2.8
1-Methylnaphthalene #3	11.986	20.0	19.592	-2.0
2-Methylnaphthalene #4	12.561	20.0	19.542	-2.3
Acenaphthene #5	13.041	20.0	19.833	-0.8
Fluorene #6	13.696	20.0	20.394	2.0
Phenanthrene #7	15.082	20.0	19.234	-3.8
Anthracene #8	16.483	20.0	20.229	1.1
Fluoranthene #9	17.862	2.0	1.838	-8.1
Pyrene #10	18.867	2.0	1.899	-5.0
p-Terphenyl d14 #11*	21.203	20.0	18.886	-5.6
Benzo(a)anthracene #12	22.521	2.0	1.919	-4.0
Chrysene #13	23.384	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.093	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.514	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.610	2.0	1.955	-2.2
Dibenz(a,h)anthracene #1	30.443	2.0	1.911	-4.4
Benzo(g,h,i)perylene #18	31.254	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.194	2.0	1.895	-5.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.392	20.0	20.844	4.2
Acenaphthylene #2	11.018	20.0	20.116	0.6
1-Methylnaphthalene #3	11.966	20.0	20.107	0.5
2-Methylnaphthalene #4	12.541	20.0	20.346	1.7
Acenaphthene #5	13.021	20.0	19.866	-0.7
Fluorene #6	13.676	20.0	19.868	-0.7
Phenanthrene #7	15.062	20.0	20.191	1.0
Anthracene #8	16.462	20.0	20.959	4.8
Fluoranthene #9	17.841	2.0	1.967	-1.7
Pyrene #10	18.846	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.183	20.0	19.300	-3.5
Benzo(a)anthracene #12	22.501	2.0	1.967	-1.6
Chrysene #13	23.364	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	26.072	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.494	1.0	0.926	-7.4
Benzo(a)pyrene #16	28.589	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.423	2.0	1.837	-8.2
Benzo(g,h,i)perylene #18	31.232	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.170	2.0	1.956	-2.2

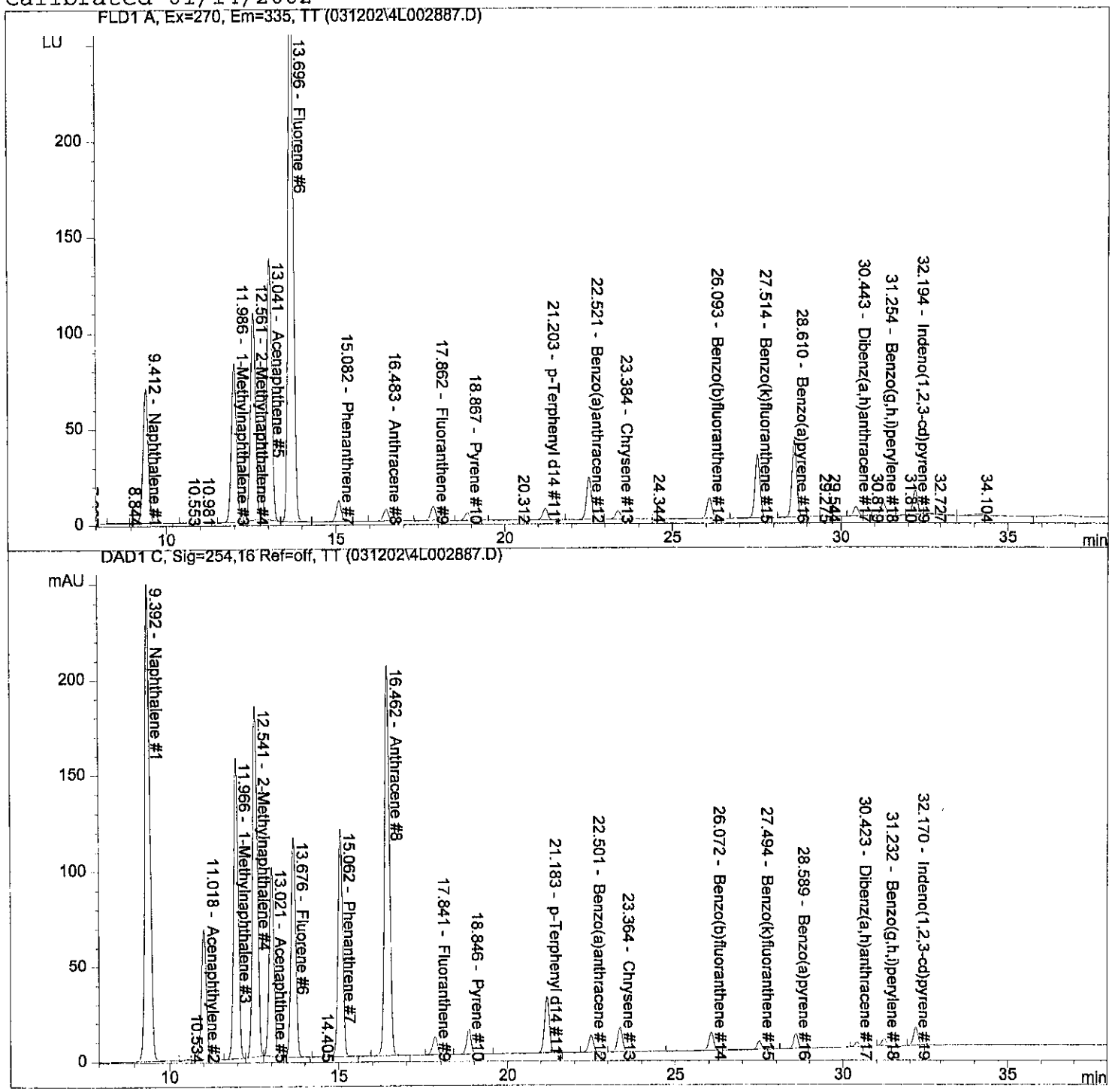
= Failed 15.0% Criteria

Injection Date : 3/13/2002 7:18:58 AM
Sample Name : WG114392-03 CCV
Acq. Operator : RDC

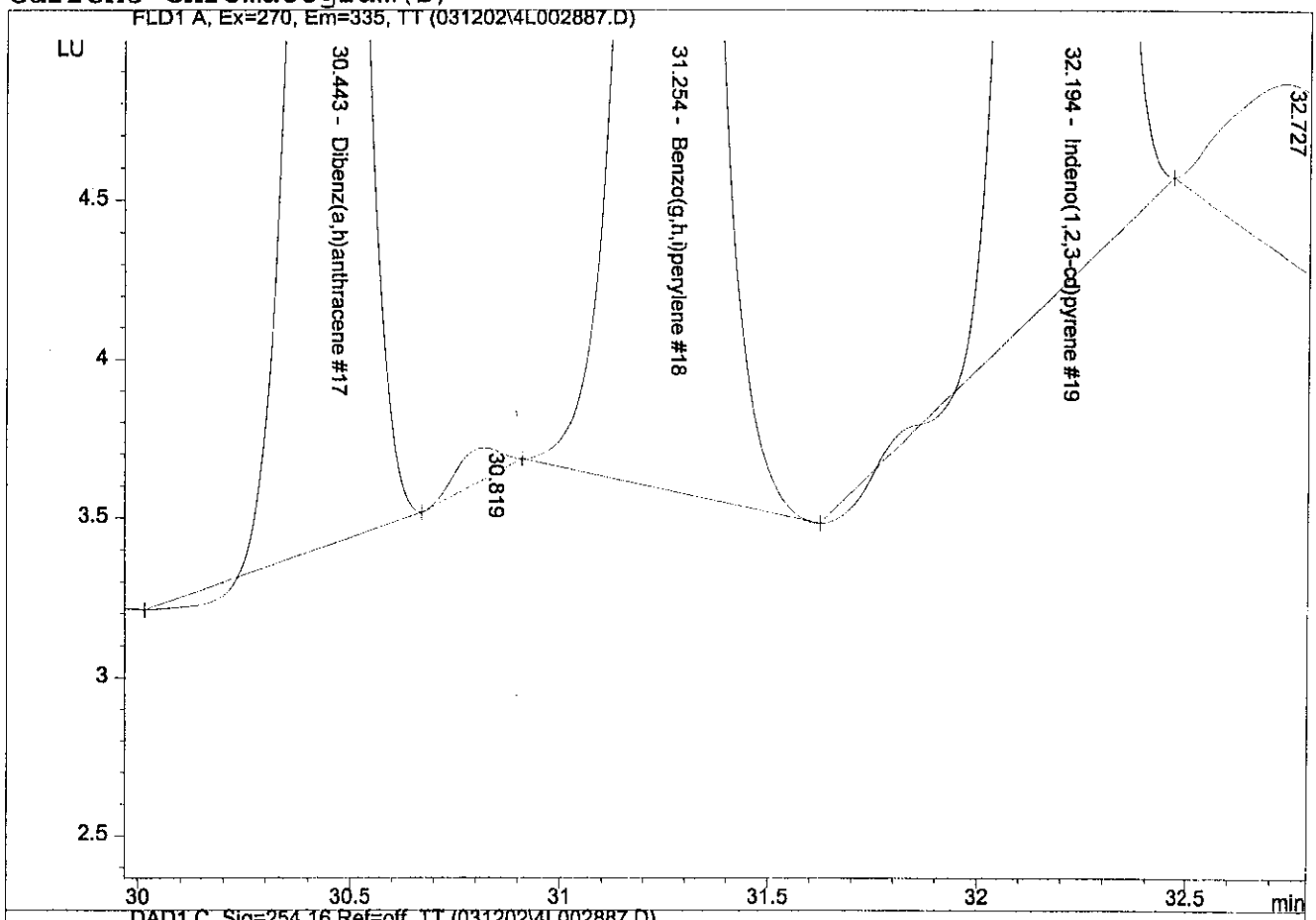
Seq. Line : 19
Vial : 10
Inj : 1
Inj Volume : 8 µl

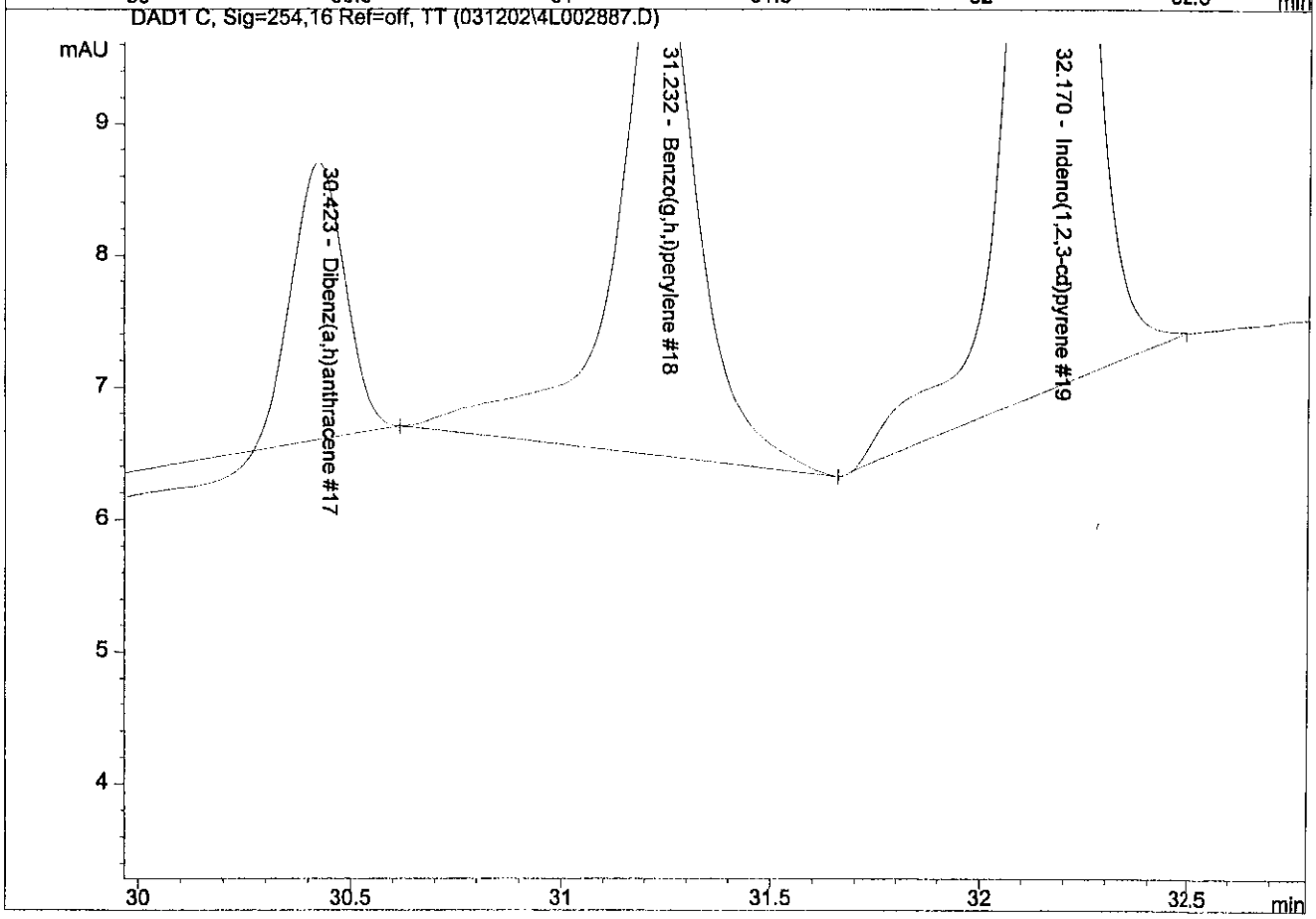
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 12:38:35 PM by RDC
(modified after loading)

Calibrated 01/14/2002



Current Chromatogram(s)

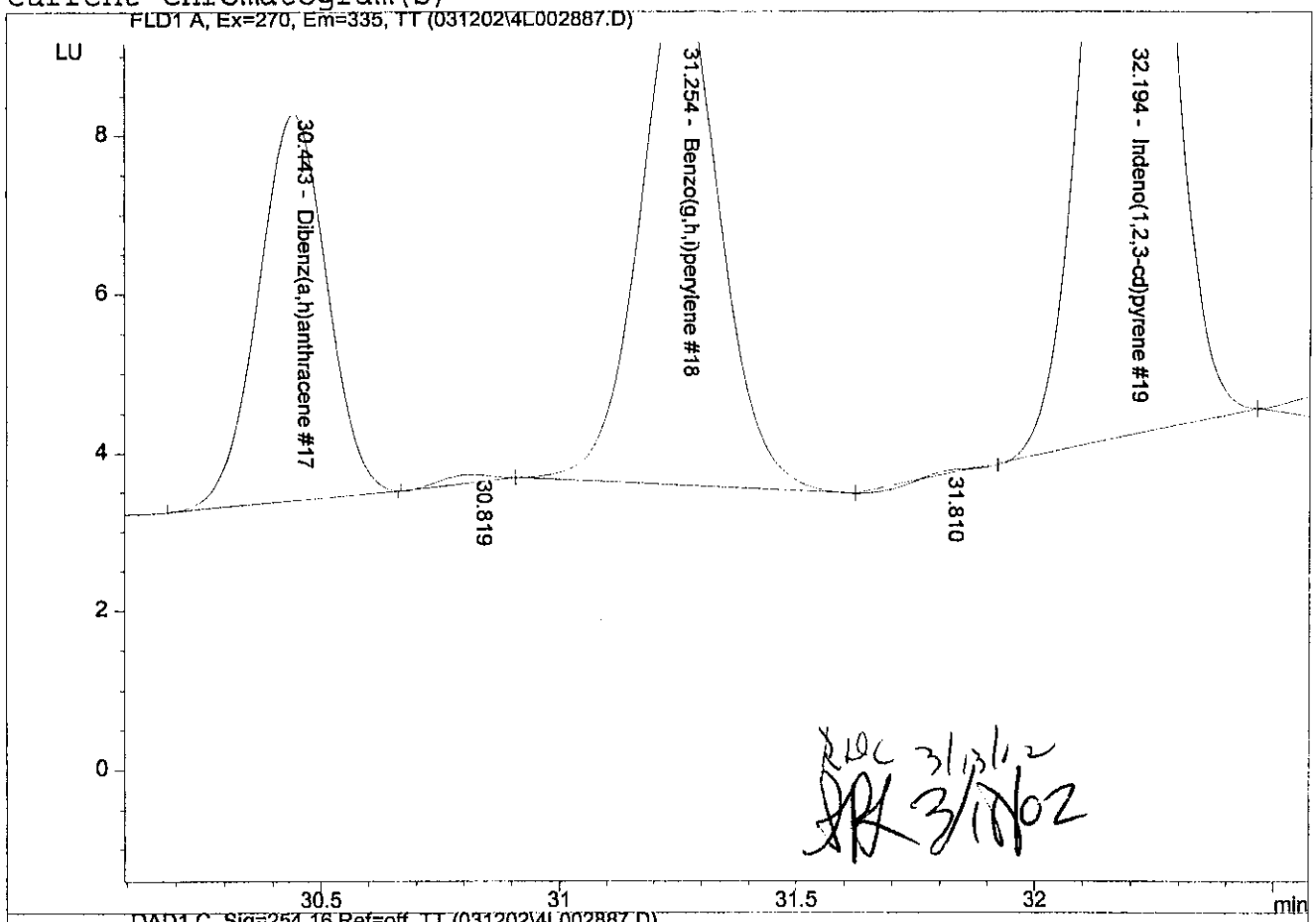


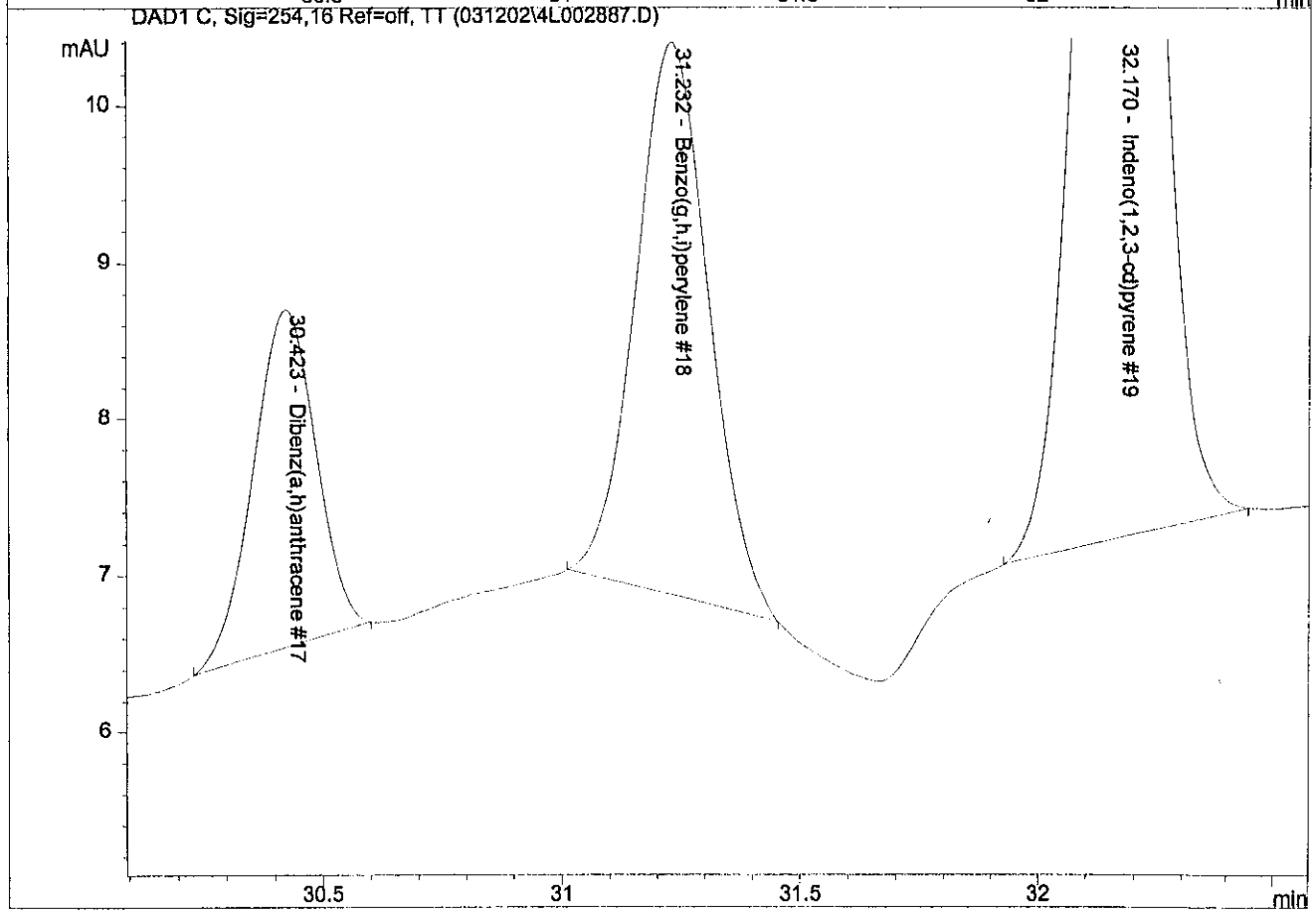


HPLC4 3/13/2002 12:39:13 PM RDC

Page 1 of 1

Current Chromatogram(s)





HPLC4 3/13/2002 12:40:51 PM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.412	BBA	756.04407	2.57003e-2	19.43054		Naphthalene #1
11.986	BB	871.16547	2.24893e-2	19.59192		1-Methylnaphthalene #3
12.561	BB	1131.63123	1.72691e-2	19.54229		2-Methylnaphthalene #4
13.041	BB	1434.79846	1.38228e-2	19.83290		Acenaphthene #5
13.696	BB	3104.69897	6.56879e-3	20.39411		Fluorene #6
15.082	BBA	114.15528	1.68488e-1	19.23375		Phenanthrene #7
16.483	PB	66.60610	3.03714e-1	20.22923		Anthracene #8
17.862	PB	77.02477	2.38671e-2	1.83836		Fluoranthene #9
18.867	BB	46.71184	4.06594e-2	1.89927		Pyrene #10
21.203	BB	65.91594	2.86511e-1	18.88567		p-Terphenyl d14 #11*
22.521	BB	240.96593	7.96557e-3	1.91943		Benzo(a)anthracene #12
23.384	BB	49.42521	3.90144e-2	1.92830		Chrysene #13
26.093	BB	115.80897	1.65598e-2	1.91777		Benzo(b)fluoranthene #14
27.514	BB	351.11832	2.77566e-3	9.74587e-1		Benzo(k)fluoranthene #15
28.610	BB	418.10858	4.67660e-3	1.95533		Benzo(a)pyrene #16
30.443	MM	48.60950	3.93196e-2	1.91131		Dibenz(a,h)anthracene #17
31.254	BB	75.67158	2.69466e-2	2.03909		Benzo(g,h,i)perylene #18
32.194	FM	137.84447	1.37440e-2	1.89454		Indeno(1,2,3-cd)pyrene #1

Totals : 175.41840

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.392	BBA	2518.47437	8.27651e-3	20.84418		Naphthalene #1
11.018	BBA	670.31409	3.00095e-2	20.11579		Acenaphthylene #2
11.966	PB	1547.49414	1.29932e-2	20.10695		1-Methylnaphthalene #3
12.541	BB	1805.14343	1.12713e-2	20.34623		2-Methylnaphthalene #4
13.021	BB	974.59479	2.03841e-2	19.86626		Acenaphthene #5
13.676	BBA	1122.84534	1.76946e-2	19.86828		Fluorene #6
15.062	BBA	1158.43970	1.74291e-2	20.19055		Phenanthrene #7
16.462	PBA	2025.87671	1.03455e-2	20.95869		Anthracene #8
17.841	PB	89.82968	2.18958e-2	1.96689		Fluoranthene #9
18.846	BBA	134.75768	1.46349e-2	1.97216		Pyrene #10
21.183	BBA	298.77328	6.45989e-2	19.30044		p-Terphenyl d14 #11*
22.501	PBA	88.26891	2.22878e-2	1.96732		Benzo(a)anthracene #12
23.364	BBA	128.81825	1.52051e-2	1.95870		Chrysene #13
26.072	BB	93.37017	2.08462e-2	1.94641		Benzo(b)fluoranthene #14
27.494	BB	40.77384	2.27217e-2	9.26450e-1		Benzo(k)fluoranthene #15
28.589	BB	75.30234	2.64267e-2	1.98999		Benzo(a)pyrene #16
30.423	MM	19.55744	9.39100e-2	1.83664		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.232	MM	37.86080	5.34666e-2	2.02429		Benzo(g,h,i)perylene #18
32.170	MM	94.85961	2.06198e-2	1.95599		Indeno(1,2,3-cd)pyrene #1

Totals : 200.14221

Results obtained with enhanced integrator!

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*** End of Report ***

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8310

Column: LC-PAH

	STD #1	STD #2	STD #3
Date Run	10/30/2001	10/31/2001	11/2/2001
File #	4L002247	4L002275	4L002311
Time	0:54	3:51	14:47

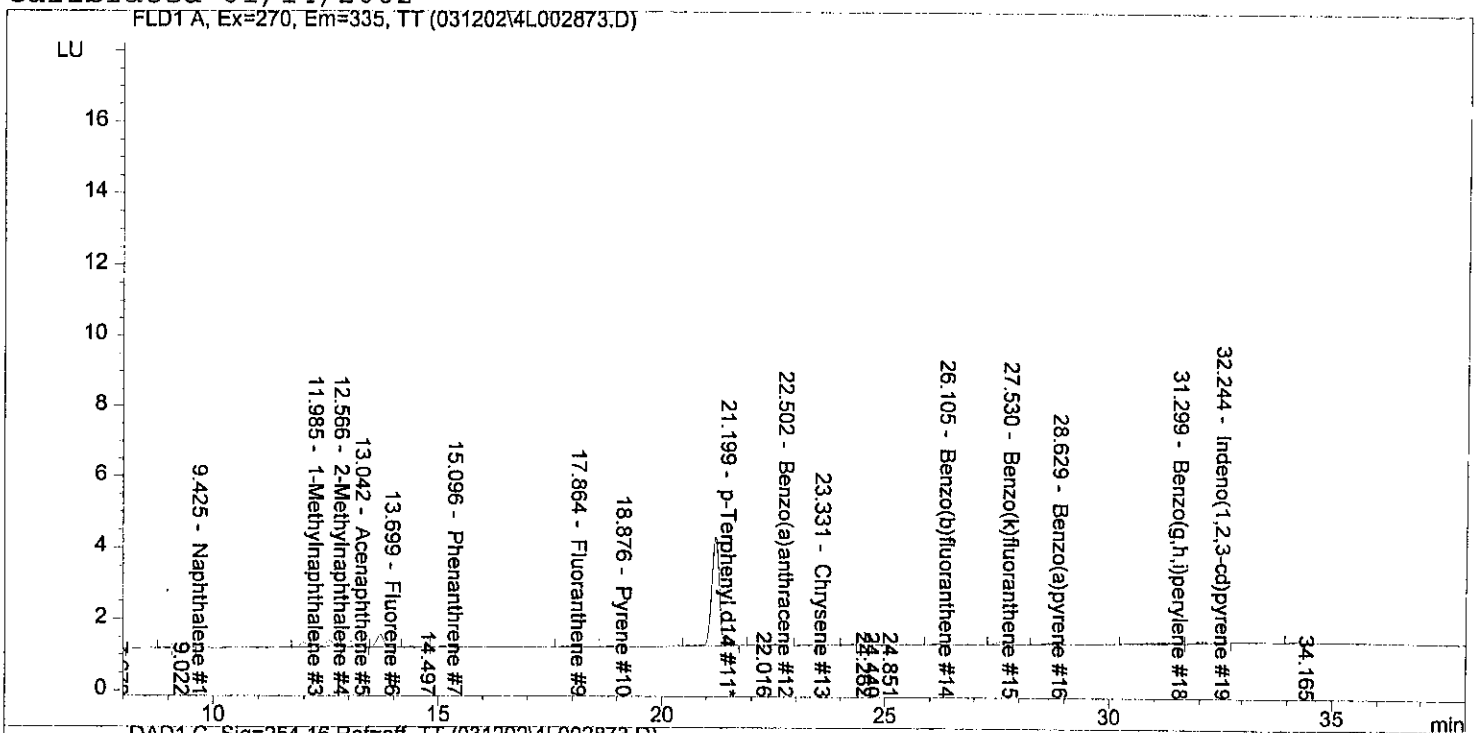
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Naphthalene (FLD)	9.337	9.362	9.352	0.038
1-Methylnaphthalene (FLD)	11.935	11.941	11.940	0.010
2-Methylnaphthalene (FLD)	12.517	12.523	12.521	0.009
Acenaphthene (FLD)	13.001	13.006	13.005	0.008
Fluorene (FLD)	13.664	13.667	13.669	0.008
Phenanthrene (FLD)	15.062	15.066	15.071	0.014
Anthracene (FLD)	16.475	16.483	16.493	0.027
Fluoranthene (FLD)	17.860	17.869	17.883	0.035
Pyrene (FLD)	18.868	18.881	18.897	0.044
p-Terphenyl-d14 (FLD)	21.217	21.244	21.262	0.068
Benzo(a)anthracene (FLD)	22.535	22.572	22.587	0.080
Chrysene (FLD)	23.401	23.449	23.467	0.102
Benzo(b)fluoranthene (FLD)	26.119	26.182	26.204	0.132
Benzo(k)fluoranthene (FLD)	27.554	27.629	27.650	0.151
Benzo(a)pyrene (FLD)	28.666	28.739	28.758	0.146
Dibenz(a,h)anthracene (FLD)	30.532	30.615	30.635	0.164
Benzo(g,h,i)perylene (FLD)	31.340	31.420	31.445	0.165
Indeno(1,2,3-cd)pyrene (FLD)	32.285	32.355	32.382	0.150
Naphthalene (VWD)	9.318	9.341	9.330	0.035
Acenaphthylene (VWD)	10.959	10.965	10.968	0.014
1-Methylnaphthalene (VWD)	11.916	11.920	11.922	0.009
2-Methylnaphthalene (VWD)	12.498	12.502	12.502	0.007
Acenaphthene (VWD)	12.982	12.986	12.986	0.007
Fluorene (VWD)	13.644	13.646	13.649	0.008
Phenanthrene (VWD)	15.042	15.045	15.052	0.015
Anthracene (VWD)	16.456	16.462	16.474	0.027
Fluoranthene (VWD)	17.840	17.848	17.863	0.035
Pyrene (VWD)	18.848	18.859	18.876	0.042
p-Terphenyl-d14 (VWD)	21.198	21.223	21.243	0.068
Benzo(a)anthracene (VWD)	22.516	22.551	22.568	0.080
Chrysene (VWD)	23.382	23.428	23.448	0.102
Benzo(b)fluoranthene (VWD)	26.099	26.160	26.184	0.131
Benzo(k)fluoranthene (VWD)	27.535	27.609	27.632	0.152
Benzo(a)pyrene (VWD)	28.646	28.717	28.738	0.145
Dibenz(a,h)anthracene (VWD)	30.513	30.595	30.617	0.164
Benzo(g,h,i)perylene (VWD)	31.320	31.398	31.426	0.165
Indeno(1,2,3-cd)pyrene (VWD)	32.266	32.338	32.367	0.156

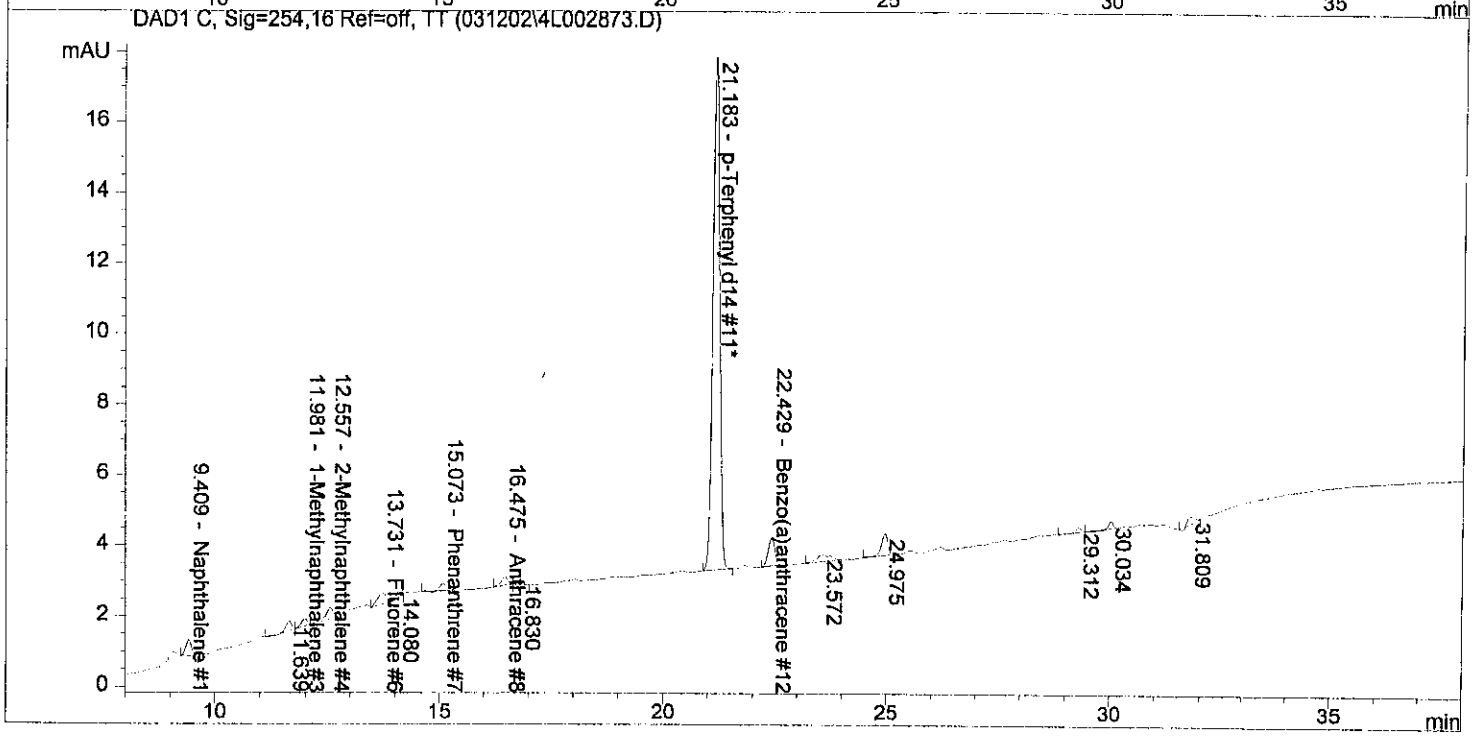
2.2.7.4 Raw QC Data

Injection Date	: 3/12/2002 6:06:11 PM	Seq. Line	: 5
Sample Name	: WG114387-01 WBLK	Vial	: 5
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.425	BBA	1.56744	2.57003e-2	4.02836e-2		Naphthalene #1
11.985	BB	1.31318	2.24893e-2	2.95326e-2		1-Methylnaphthalene #3
12.566	BB	1.99475	1.72691e-2	3.44476e-2		2-Methylnaphthalene #4
13.042	BBA	1.69261	1.38228e-2	2.33965e-2		Acenaphthene #5
13.699	BBA	3.73761	6.56879e-3	2.45516e-2		Fluorene #6
15.096	BB	2.79785e-1	1.68488e-1	4.71403e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.864	BBA	5.01522e-1	2.38671e-2	1.19699e-2		Fluoranthene #9
18.876	PBA	2.45992e-1	4.06594e-2	1.00019e-2		Pyrene #10
21.199	BBA	33.50660	2.86511e-1	9.60002	96.0%	p-Terphenyl d14 #11*
22.502	BB	4.15914e-1	7.96557e-3	3.31299e-3		Benzo(a)anthracene #12
23.331	BB	2.97052e-1	3.90144e-2	1.15893e-2		Chrysene #13
26.105	BBA	2.63912e-1	1.65598e-2	4.37031e-3		Benzo(b)fluoranthene #14
27.530	BBA	9.03413e-1	2.77566e-3	2.50757e-3		Benzo(k)fluoranthene #15
28.629	BB	5.94681e-1	4.67660e-3	2.78109e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.299	BB	2.22321	2.69466e-2	5.99079e-2		Benzo(g,h,i)perylene #18
32.244	BB	1.95276	1.37440e-2	2.68388e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.93266

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.409	BB	3.93190	8.27651e-3	3.25424e-2	<MDL	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.981	BB	1.91479	1.29932e-2	2.48793e-2		1-Methylnaphthalene #3
12.557	BB	4.15086	1.12713e-2	4.67854e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.731	BB	4.05903	1.76946e-2	7.18229e-2		Fluorene #6
15.073	BBA	2.18580	1.74291e-2	3.80966e-2		Phenanthrene #7
16.475	BB	2.65441	1.03455e-2	2.74612e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-	95.8%	Pyrene #10
21.183	BBA	147.11809	6.45989e-2	9.50367		p-Terphenyl d14 #11*
22.429	PBA	7.72486	2.22878e-2	1.72171e-1	NC	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

PLC4 3/13/2002 11:22:08 AM RDC

[min]		[mAU*s]		[ug/L]		
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.91743

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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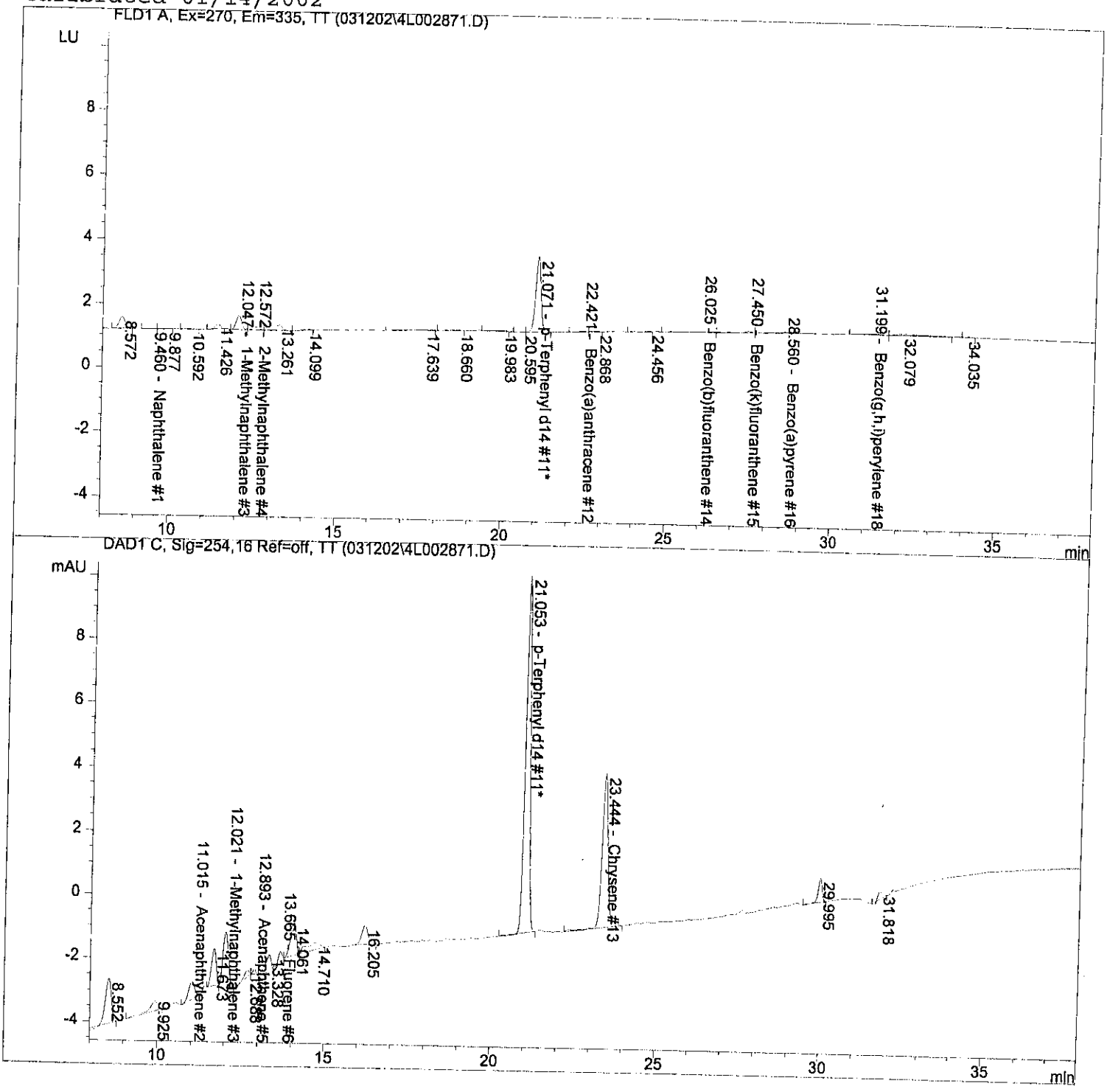
*** End of Report ***

Injection Date : 3/12/2002 4:13:01 PM
Sample Name : WG114347-02 SBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/9/2002 3:28:04 PM by RDC
(modified after loading)
Calibrated 01/14/2002



HPLC4 3/13/2002 11:20:47 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.460	BB	1.82447e-1	2.57003e-2	4.68893e-3		Naphthalene #1
12.047	BB	5.36383	2.24893e-2	1.20629e-1		1-Methylnaphthalene #3
12.572	BB	1.17064	1.72691e-2	2.02159e-2		2-Methylnaphthalene #4
13.027		-	-	-		Acenaphthene #5
13.681		-	-	-		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.846		-	-	-		Fluoranthene #9
18.848		-	-	-		Pyrene #10
21.071	BB	26.54337	2.86511e-1	7.60498		p-Terphenyl d14 #11*
22.421	PB	2.24855e-1	7.96557e-3	1.79110e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.025	BB	7.29737e-1	1.65598e-2	1.20843e-2		Benzo(b)fluoranthene #14
27.450	BB	5.29984e-1	2.77566e-3	1.47106e-3		Benzo(k)fluoranthene #15
28.560	BB	3.74254e-1	4.67660e-3	1.75024e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.199	BB	1.05345	2.69466e-2	2.83868e-2		Benzo(g,h,i)perylene #18
32.280		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.79600

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.384		-	-	-		Naphthalene #1
11.015	BB	6.99919	3.00095e-2	2.10042e-1		Acenaphthylene #2
12.021	BB	19.23196	1.29932e-2	2.49885e-1		1-Methylnaphthalene #3
12.533		-	-	-		2-Methylnaphthalene #4
12.893	BB	9.21903e-1	2.03841e-2	1.87922e-2		Acenaphthene #5
13.665	BB	2.80709	1.76946e-2	4.96702e-2		Fluorene #6
15.050		-	-	-		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.053	PB	115.01104	6.45989e-2	7.42959		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.444	PBA	62.66597	1.52051e-2	9.52845e-1	MC	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

		[mAU*s]		[ug/L]		
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.91083

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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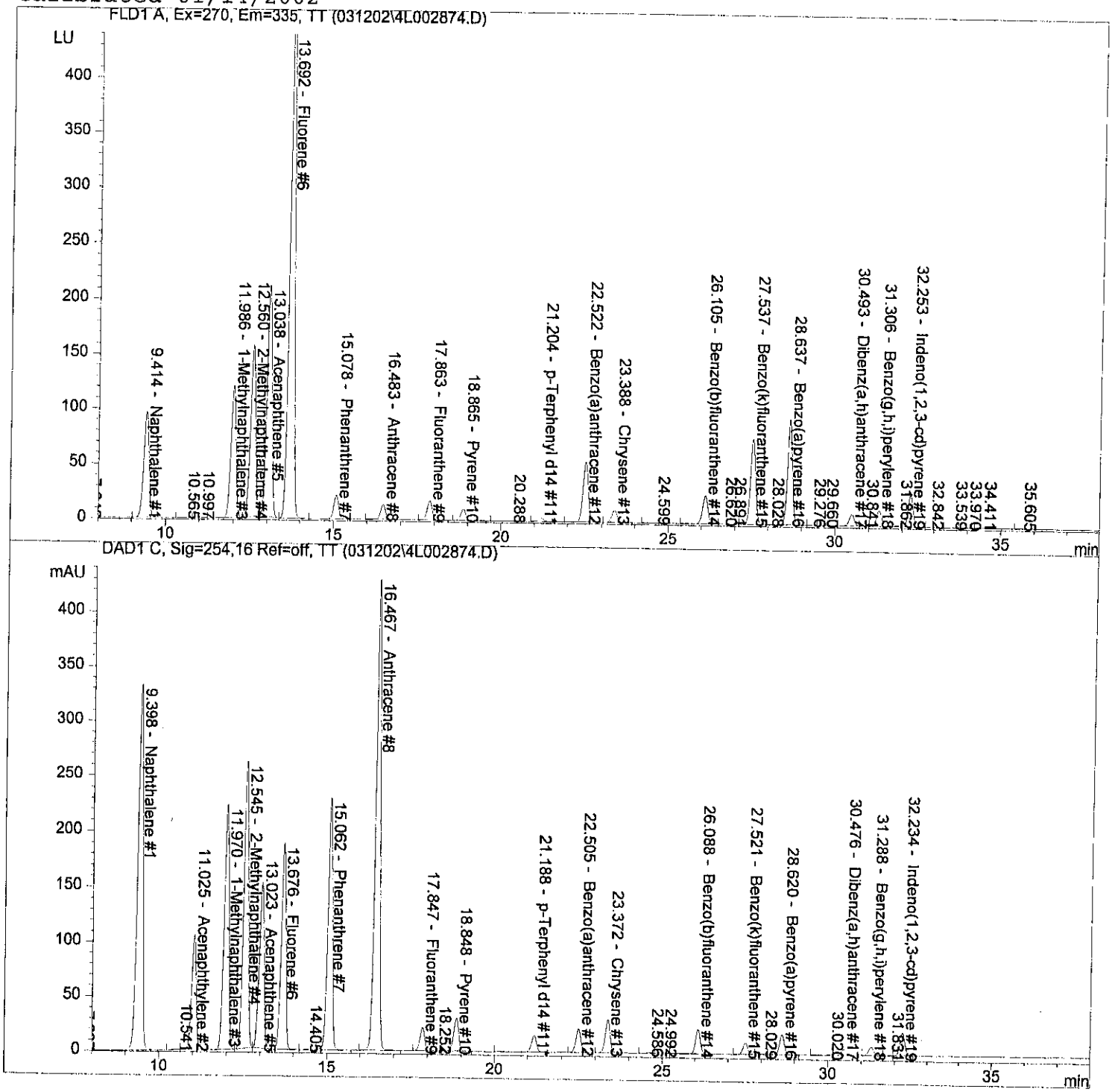
*** End of Report ***

Injection Date : 3/12/2002 7:02:49 PM
Sample Name : WG114387-02 WLCS
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.414	BBA	1039.92444	2.57003e-2	26.72634		Naphthalene #1
11.986	BB	1269.70605	2.24893e-2	28.55482		1-Methylnaphthalene #3
12.560	BB	1633.70447	1.72691e-2	28.21266		2-Methylnaphthalene #4
13.038	BB	2226.49121	1.38228e-2	30.77630		Acenaphthene #5
13.692	BB	5064.88623	6.56879e-3	33.27016		Fluorene #6
15.078	BB	223.97464	1.68488e-1	37.73695		Phenanthrene #7
16.483	BBA	140.47935	3.03714e-1	42.66560		Anthracene #8
17.863	PBA	185.65201	2.38671e-2	4.43097		Fluoranthene #9
18.865	BBA	117.11092	4.06594e-2	4.76166		Pyrene #10
21.204	BB	34.38607	2.86511e-1	9.85201	98%	p-Terphenyl d14 #11*
22.522	BB	594.56757	7.96557e-3	4.73607		Benzo(a)anthracene #12
23.388	BBA	121.99474	3.90144e-2	4.75956		Chrysene #13
26.105	PB	278.89572	1.65598e-2	4.61845		Benzo(b)fluoranthene #14
27.537	BB	824.51117	2.77566e-3	2.28857		Benzo(k)fluoranthene #15
28.637	BB	1005.96796	4.67660e-3	4.70451		Benzo(a)pyrene #16
30.493	BB	108.99740	3.93196e-2	4.28574		Dibenz(a,h)anthracene #17
31.306	BB	164.16704	2.69466e-2	4.42375		Benzo(g,h,i)perylene #18
32.253	BB	312.23349	1.37440e-2	4.29135		Indeno(1,2,3-cd)pyrene #1
Totals :				281.09546		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.398	BBA	3397.44873	8.27651e-3	28.11902		Naphthalene #1
11.025	BB	1033.35449	3.00095e-2	31.01045		Acenaphthylene #2
11.970	BB	2215.27588	1.29932e-2	28.78359		1-Methylnaphthalene #3
12.545	BB	2568.64429	1.12713e-2	28.95185		2-Methylnaphthalene #4
13.023	BB	1497.49719	2.03841e-2	30.52517		Acenaphthene #5
13.676	BB	1845.47668	1.76946e-2	32.65494		Fluorene #6
15.062	BBA	2232.51050	1.74291e-2	38.91063		Phenanthrene #7
16.467	BBA	4279.07812	1.03455e-2	44.26916		Anthracene #8
17.847	PB	207.48589	2.18958e-2	4.54307		Fluoranthene #9
18.848	BBA	314.44577	1.46349e-2	4.60187		Pyrene #10
21.188	PBA	153.45694	6.45989e-2	9.91315	99%	p-Terphenyl d14 #11*
22.505	BBA	216.08145	2.22878e-2	4.81599		Benzo(a)anthracene #12
23.372	BBA	310.72250	1.52051e-2	4.72458		Chrysene #13
26.088	BBA	223.57347	2.08462e-2	4.66066		Benzo(b)fluoranthene #14
27.521	BB	101.86652	2.27217e-2	2.31458		Benzo(k)fluoranthene #15
28.620	BB	177.78665	2.64267e-2	4.69831		Benzo(a)pyrene #16
30.476	BB	45.30573	9.39100e-2	4.25466		Dibenz(a,h)anthracene #17

		[mAU*s]		[ug/L]		
31.288	BB	82.20658	5.34666e-2	4.39531		Benzo(g,h,i)perylene #18
32.234	BB	209.57497	2.06198e-2	4.32140		Indeno(1,2,3-cd)pyrene #1
Totals :				316.46838		

Results obtained with enhanced integrator!

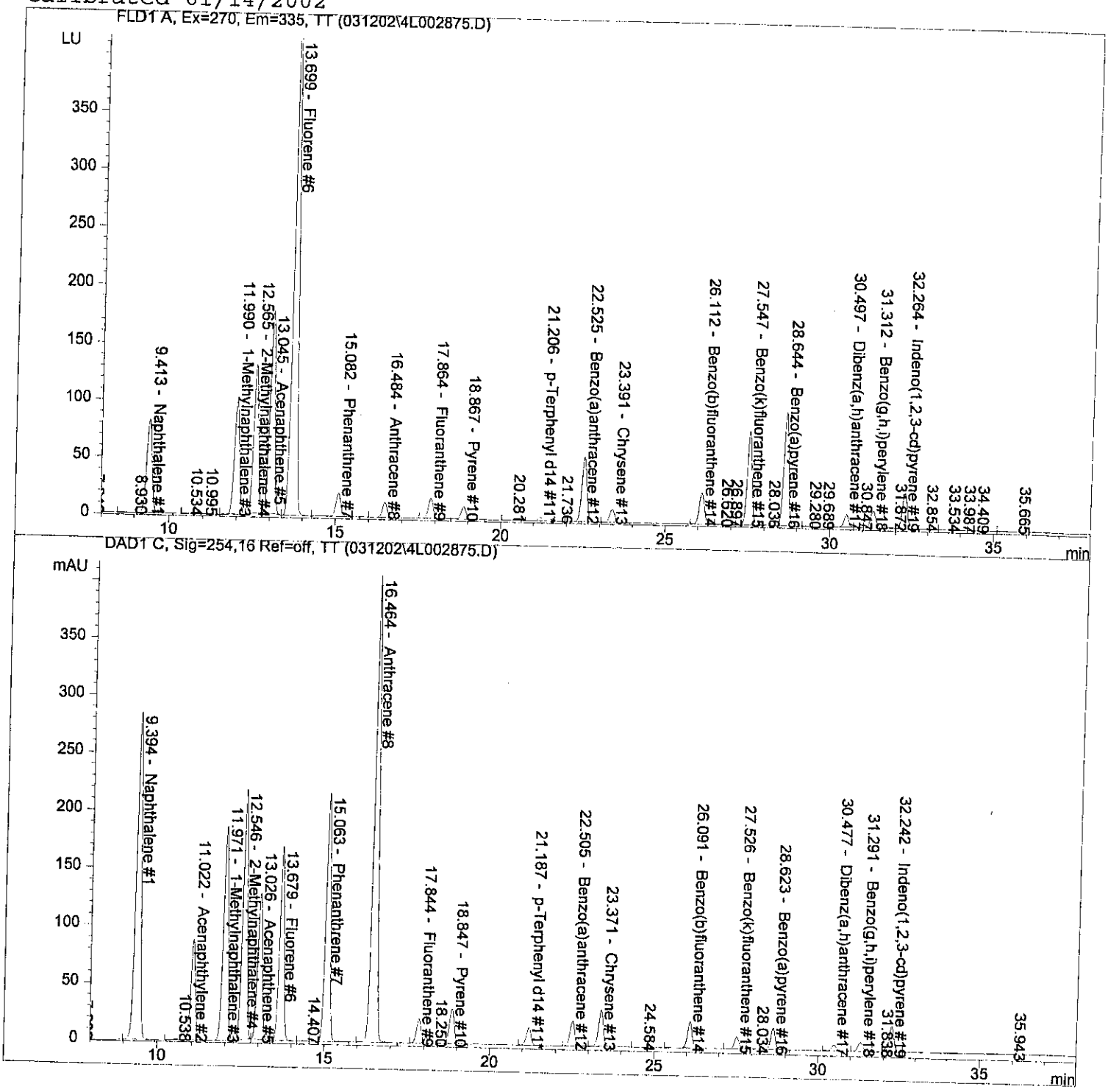
*** End of Report ***

Injection Date : 3/12/2002 7:59:25 PM
Sample Name : WG114387-03 WLCS
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 11:22:59 AM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.413	BBA	883.38129	2.57003e-2	22.70314		Naphthalene #1
11.990	BB	1059.22009	2.24893e-2	23.82114		1-Methylnaphthalene #3
12.565	BB	1367.34814	1.72691e-2	23.61292		2-Methylnaphthalene #4
13.045	BB	1865.85657	1.38228e-2	25.79133		Acenaphthene #5
13.699	BB	4513.41553	6.56879e-3	29.64767		Fluorene #6
15.082	BBA	212.35812	1.68488e-1	35.77972		Phenanthrene #7
16.484	PBA	132.38120	3.03714e-1	40.20607		Anthracene #8
17.864	PB	184.44533	2.38671e-2	4.40217		Fluoranthene #9
18.867	BBA	115.97721	4.06594e-2	4.71556		Pyrene #10
21.206	BBA	34.40644	2.86511e-1	9.85784	78%	p-Terphenyl d14 #11*
22.525	BB	612.61768	7.96557e-3	4.87985		Benzo(a)anthracene #12
23.391	BB	126.18076	3.90144e-2	4.92287		Chrysene #13
26.112	BB	293.40518	1.65598e-2	4.85872		Benzo(b)fluoranthene #14
27.547	BB	876.66565	2.77566e-3	2.43333		Benzo(k)fluoranthene #15
28.644	BB	1050.46814	4.67660e-3	4.91262		Benzo(a)pyrene #16
30.497	BB	119.52959	3.93196e-2	4.69986		Dibenz(a,h)anthracene #17
31.312	BB	178.25044	2.69466e-2	4.80325		Benzo(g,h,i)perylene #18
32.264	BB	340.19751	1.37440e-2	4.67569		Indeno(1,2,3-cd)pyrene #1
Totals :				256.72374		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BBA	2898.22754	8.27651e-3	23.98721		Naphthalene #1
11.022	BB	864.69995	3.00095e-2	25.94921		Acenaphthylene #2
11.971	BB	1848.13281	1.29932e-2	24.01322		1-Methylnaphthalene #3
12.546	BB	2154.99023	1.12713e-2	24.28945		2-Methylnaphthalene #4
13.026	BB	1257.83203	2.03841e-2	25.63981		Acenaphthene #5
13.679	BB	1643.92749	1.76946e-2	29.08861		Fluorene #6
15.063	BBA	2101.81689	1.74291e-2	36.63276		Phenanthrene #7
16.464	BBA	4029.91650	1.03455e-2	41.69146		Anthracene #8
17.844	BB	205.78946	2.18958e-2	4.50592		Fluoranthene #9
18.847	BBA	313.59424	1.46349e-2	4.58940		Pyrene #10
21.187	PBA	154.25529	6.45989e-2	9.96473	96%	p-Terphenyl d14 #11*
22.505	BBA	221.50462	2.22878e-2	4.93686		Benzo(a)anthracene #12
23.371	PBA	323.18375	1.52051e-2	4.91405		Chrysene #13
26.091	PBA	234.26752	2.08462e-2	4.88359		Benzo(b)fluoranthene #14
27.526	BB	107.32922	2.27217e-2	2.43870		Benzo(k)fluoranthene #15
28.623	BB	185.74564	2.64267e-2	4.90864		Benzo(a)pyrene #16
30.477	BB	49.64434	9.39100e-2	4.66210		Dibenz(a,h)anthracene #17

			[ug/L]		
31.291	BB	89.32413	5.34666e-2	4.77586	Benzo(g,h,i)perylene #18
32.242	BB	228.21756	2.06198e-2	4.70581	Indeno(1,2,3-cd)pyrene #1

Totals : 286.57739

Results obtained with enhanced integrator!

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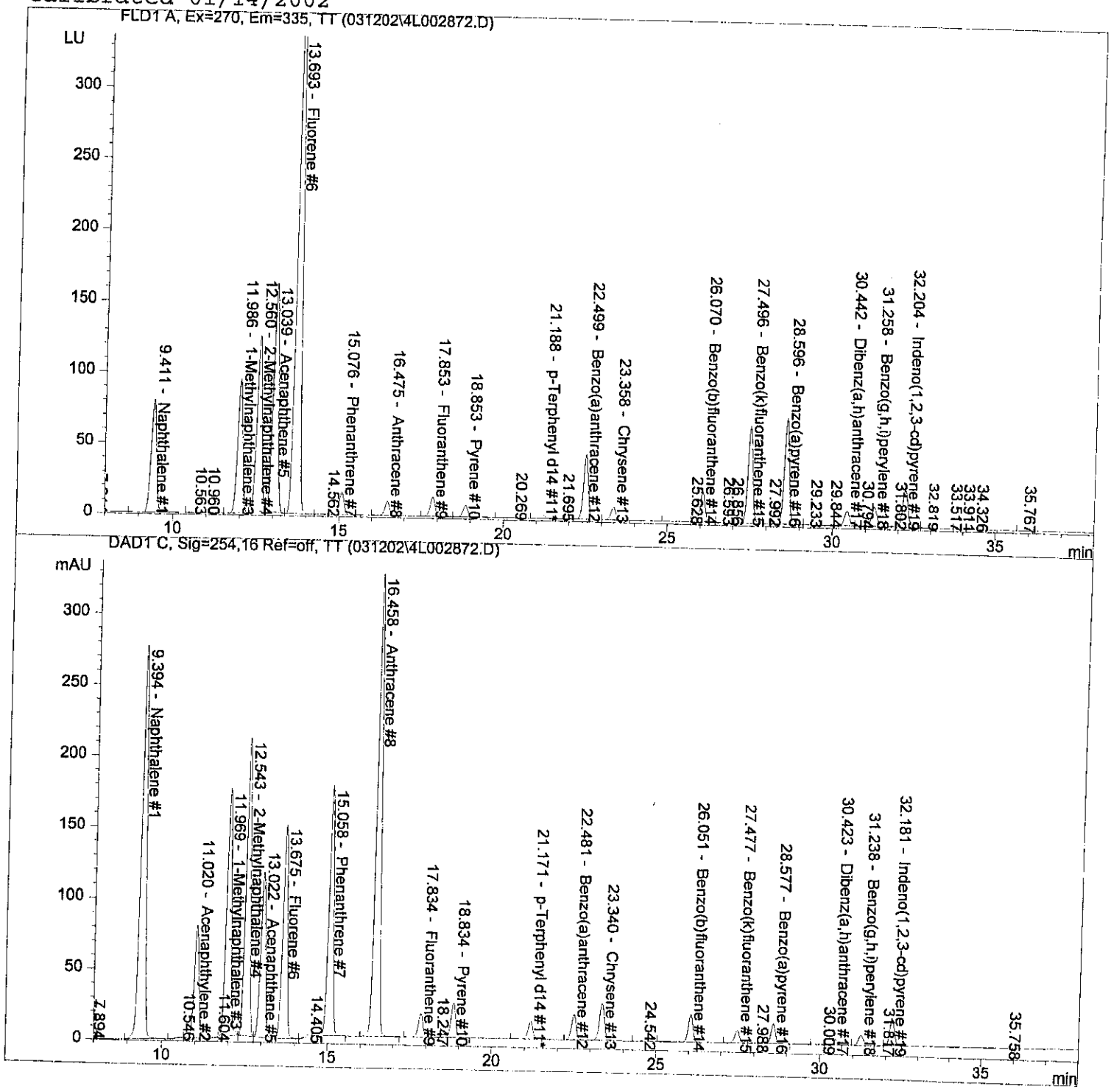
*** End of Report ***

Injection Date : 3/12/2002 5:09:36 PM
Sample Name : WG114347-03 SLCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:20 AM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 11:21:32 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.411	BB	866.71075	2.57003e-2	22.27470		Naphthalene #1
11.986	BB	1009.48029	2.24893e-2	22.70252		1-Methylnaphthalene #3
12.560	BB	1317.09167	1.72691e-2	22.74503		2-Methylnaphthalene #4
13.039	BB	1722.08313	1.38228e-2	23.80398		Acenaphthene #5
13.693	BB	4125.39893	6.56879e-3	27.09887		Fluorene #6
15.076	BBA	172.89401	1.68488e-1	29.13050		Phenanthrene #7
16.475	BB	106.98254	3.03714e-1	32.49214		Anthracene #8
17.853	BB	148.23669	2.38671e-2	3.53798		Fluoranthene #9
18.853	BBA	93.37865	4.06594e-2	3.79672		Pyrene #10
21.188	BB	28.44729	2.86511e-1	8.15048		p-Terphenyl d14 #11*
22.499	BB	498.54871	7.96557e-3	3.97123		Benzo(a)anthracene #12
23.358	BB	105.06821	3.90144e-2	4.09918		Chrysene #13
26.070	BB	245.19652	1.65598e-2	4.06040		Benzo(b)fluoranthene #14
27.496	BB	737.11145	2.77566e-3	2.04597		Benzo(k)fluoranthene #15
28.596	BB	789.09906	4.67660e-3	3.69030		Benzo(a)pyrene #16
30.442	BB	104.84826	3.93196e-2	4.12260		Dibenz(a,h)anthracene #17
31.258	BB	159.72047	2.69466e-2	4.30393		Benzo(g,h,i)perylene #18
32.204	BB	292.53354	1.37440e-2	4.02059		Indeno(1,2,3-cd)pyrene #1

Totals : 226.04711

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BBA	2880.14209	8.27651e-3	23.83753		Naphthalene #1
11.020	BB	792.90826	3.00095e-2	23.79478		Acenaphthylene #2
11.969	BB	1765.60571	1.29932e-2	22.94093		1-Methylnaphthalene #3
12.543	BB	2087.60547	1.12713e-2	23.52993		2-Methylnaphthalene #4
13.022	BB	1177.12158	2.03841e-2	23.99459		Acenaphthene #5
13.675	BB	1504.52808	1.76946e-2	26.62200		Fluorene #6
15.058	BBA	1734.34851	1.74291e-2	30.22812		Phenanthrene #7
16.458	PBA	3272.76831	1.03455e-2	33.85839		Anthracene #8
17.834	BB	166.34109	2.18958e-2	3.64217		Fluoranthene #9
18.834	BBA	253.52606	1.46349e-2	3.71032		Pyrene #10
21.171	BBA	125.51071	6.45989e-2	8.10786		p-Terphenyl d14 #11*
22.481	BBA	179.01579	2.22878e-2	3.98988		Benzo(a)anthracene #12
23.340	BB	265.39063	1.52051e-2	4.03530		Chrysene #13
26.051	BBA	194.87070	2.08462e-2	4.06231		Benzo(b)fluoranthene #14
27.477	BB	90.24921	2.27217e-2	2.05061		Benzo(k)fluoranthene #15
28.577	BBA	137.55101	2.64267e-2	3.63501		Benzo(a)pyrene #16
30.423	BB	43.14580	9.39100e-2	4.05182		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.238	BB	77.84627	5.34666e-2	4.16218		Benzo(g,h,i)perylene #18
32.181	BBA	196.17799	2.06198e-2	4.04516		Indeno(1,2,3-cd)pyrene #1

Totals : 254.29889

Results obtained with enhanced integrator!

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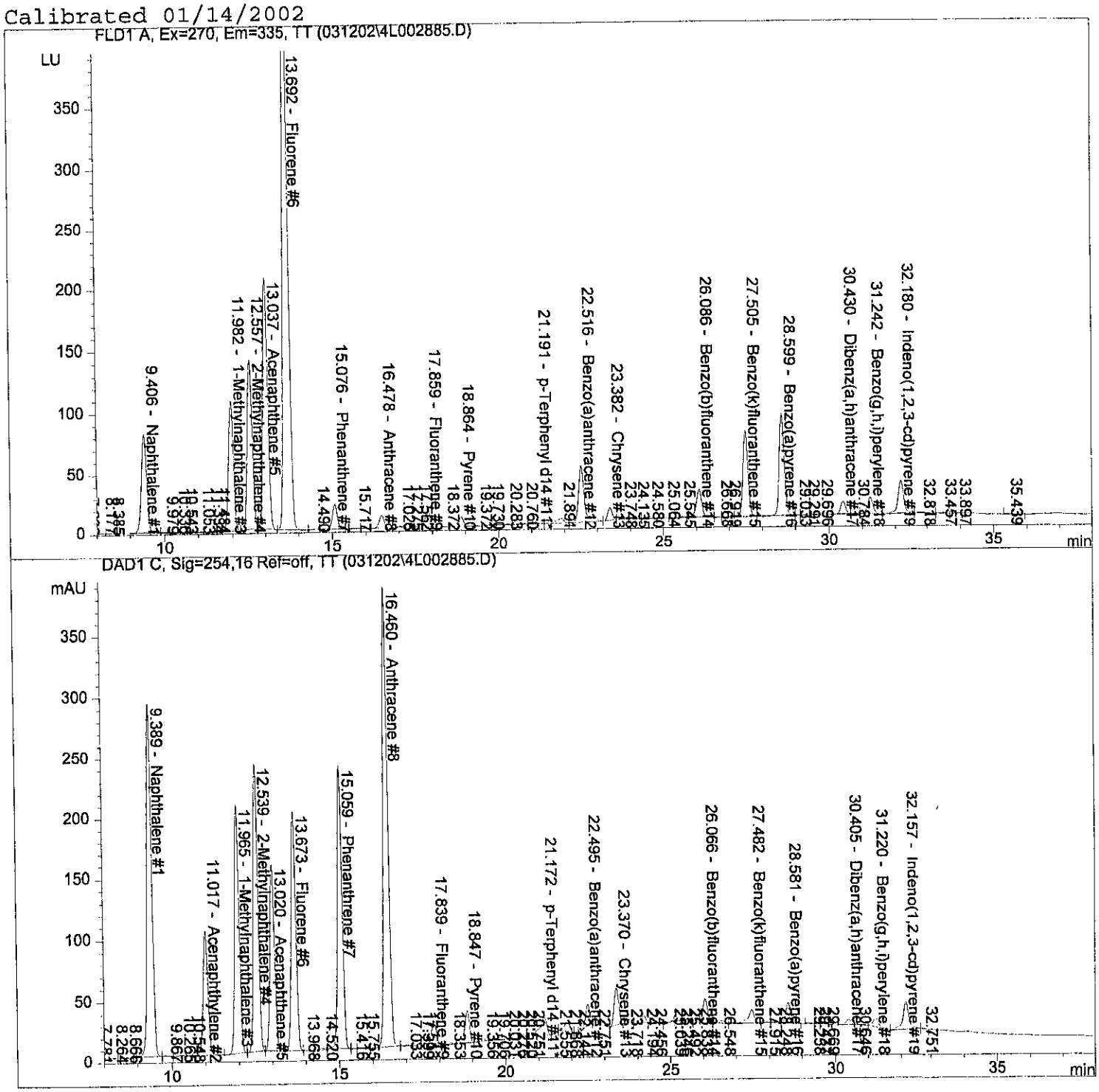
*** End of Report ***

Injection Date : 3/13/2002 5:25:41 AM
Sample Name : WG114347-04 SMS
Acq. Operator : RDC

Seq. Line : 17
Vial : 17
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 12:36:59 PM by RDC
(modified after loading)

Calibrated 01/14/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.406	BB	892.14862	2.57003e-2	22.92846		Naphthalene #1
11.982	BB	1140.57983	2.24893e-2	25.65086		1-Methylnaphthalene #3
12.557	BB	1455.28760	1.72691e-2	25.13156		2-Methylnaphthalene #4
13.037	BB	2165.24268	1.38228e-2	29.92967		Acenaphthene #5
13.692	BB	5275.20654	6.56879e-3	34.65171		Fluorene #6
15.076	BB	220.32349	1.68488e-1	37.12178		Phenanthrene #7
16.478	BB	124.70767	3.03714e-1	37.87551		Anthracene #8
17.859	BB	161.12721	2.38671e-2	3.84564		Fluoranthene #9
18.864	BB	108.18443	4.06594e-2	4.39871		Pyrene #10
21.191	BB	37.93264	2.86511e-1	10.86814		p-Terphenyl d14 #11*
22.516	BB	605.07990	7.96557e-3	4.81981		Benzo(a)anthracene #12
23.382	BB	104.03168	3.90144e-2	4.05874		Chrysene #13
26.086	BB	266.53925	1.65598e-2	4.41383		Benzo(b)fluoranthene #14
27.505	BB	750.03088	2.77566e-3	2.08183		Benzo(k)fluoranthene #15
28.599	BB	883.38373	4.67660e-3	4.13123		Benzo(a)pyrene #16
30.430	BB	104.95592	3.93196e-2	4.12683		Dibenz(a,h)anthracene #17
31.242	BB	159.24562	2.69466e-2	4.29113		Benzo(g,h,i)perylene #18
32.180	BB	328.16064	1.37440e-2	4.51026		Indeno(1,2,3-cd)pyrene #1
Totals :				264.83570		

Results obtained with enhanced integrator!

1333

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.389	BB	2946.81616	8.27651e-3	24.38936		Naphthalene #1
11.017	BB	999.24756	3.00095e-2	29.98692		Acenaphthylene #2
11.965	BB	2002.33154	1.29932e-2	26.01676		1-Methylnaphthalene #3
12.539	BB	2308.74414	1.12713e-2	26.02245		2-Methylnaphthalene #4
13.020	BB	1503.56958	2.03841e-2	30.64895		Acenaphthene #5
13.673	BB	1895.89172	1.76946e-2	33.54701		Fluorene #6
15.059	BB	2251.30273	1.74291e-2	39.23816		Phenanthrene #7
16.460	BB	3718.04346	1.03455e-2	38.46498		Anthracene #8
17.839	BB	193.44756	2.18958e-2	4.23569		Fluoranthene #9
18.847	BB	269.56332	1.46349e-2	3.94502		Pyrene #10
21.172	BB	193.42743	6.45989e-2	12.49521		p-Terphenyl d14 #11*
22.495	BB	145.77272	2.22878e-2	3.24896		Benzo(a)anthracene #12
23.370	BB	291.86050	1.52051e-2	4.43778		Chrysene #13
26.066	BB	162.94157	2.08462e-2	3.39671		Benzo(b)fluoranthene #14
27.482	BB	164.55864	2.27217e-2	3.73905		Benzo(k)fluoranthene #15
28.581	BB	180.39546	2.64267e-2	4.76725		Benzo(a)pyrene #16
30.405	BB	48.22239	9.39100e-2	4.52856		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.220	BB	90.30775	5.34666e-2	4.82845		Benzo(g,h,i)perylene #18
32.157	BB	304.04507	2.06198e-2	6.26936		Indeno(1,2,3-cd)pyrene #1

Totals : 304.20662

Results obtained with enhanced integrator!

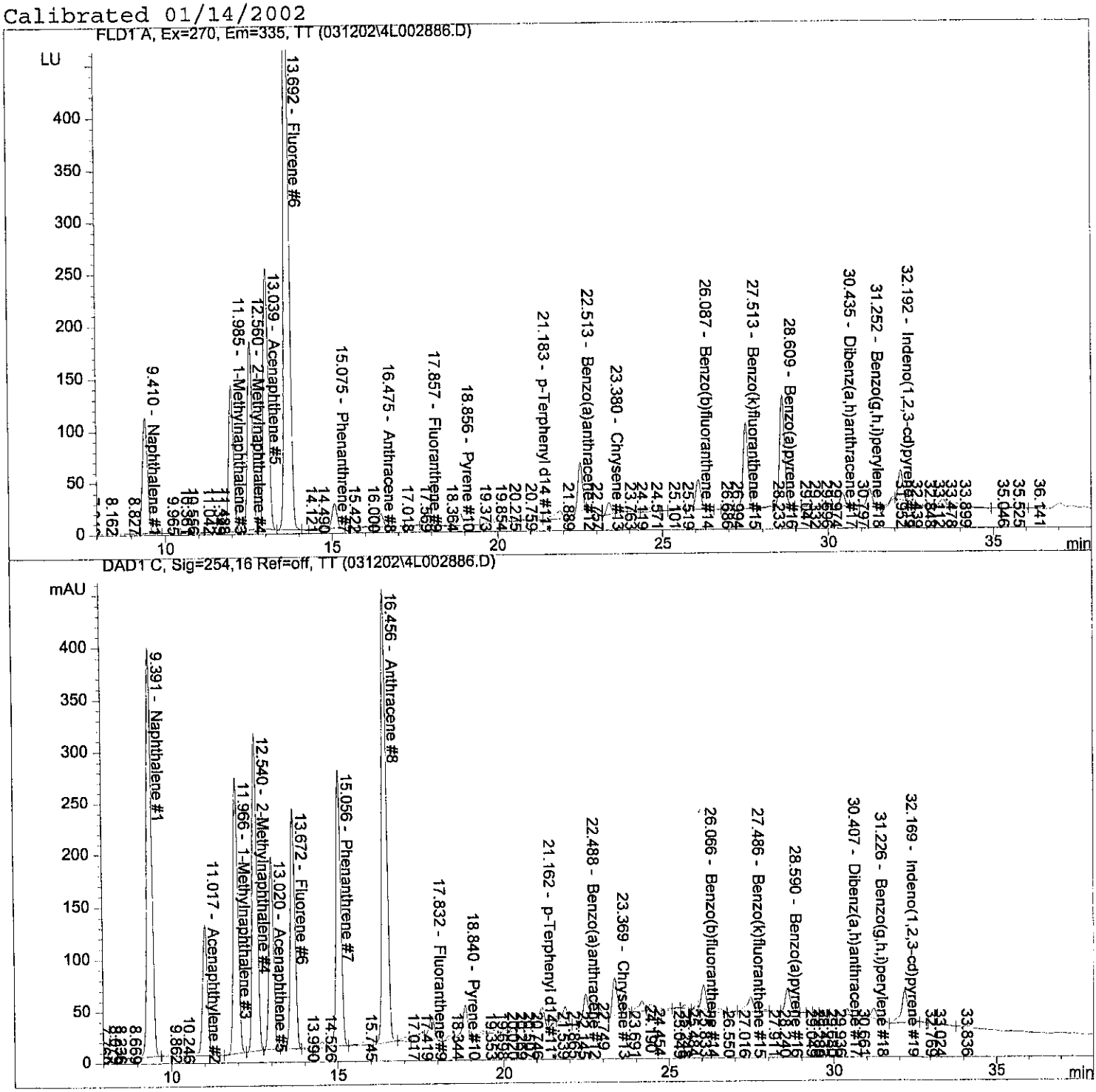
*** End of Report ***

Injection Date : 3/13/2002 6:22:16 AM
Sample Name : WG114347-05 SMSD
Acq. Operator : RDC

Seq. Line : 18
Vial : 18
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 12:38:02 PM by RDC
(modified after loading)

Calibrated 01/14/2002



Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.410	BB	1204.33228	2.57003e-2	30.95167		Naphthalene #1
11.985	BB	1491.60449	2.24893e-2	33.54517		1-Methylnaphthalene #3
12.560	BB	1890.28796	1.72691e-2	32.64364		2-Methylnaphthalene #4
13.039	BB	2640.67432	1.38228e-2	36.50146		Acenaphthene #5
13.692	BB	6194.01465	6.56879e-3	40.68717		Fluorene #6
15.075	BB	249.65923	1.68488e-1	42.06449		Phenanthrene #7
16.475	BB	136.73018	3.03714e-1	41.52692		Anthracene #8
17.857	BB	184.04745	2.38671e-2	4.39268		Fluoranthene #9
18.856	BB	162.10428	4.06594e-2	6.59106		Pyrene #10
21.183	BB	52.72516	2.86511e-1	15.10636		p-Terphenyl d14 #11*
22.513	BB	461.63074	7.96557e-3	3.67715		Benzo(a)anthracene #12
23.380	BB	119.34663	3.90144e-2	4.65624		Chrysene #13
26.087	BB	338.56448	1.65598e-2	5.60655		Benzo(b)fluoranthene #14
27.513	BB	882.78430	2.77566e-3	2.45031		Benzo(k)fluoranthene #15
28.609	BB	1118.13757	4.67660e-3	5.22908		Benzo(a)pyrene #16
30.435	BB	135.76402	3.93196e-2	5.33819		Dibenz(a,h)anthracene #17
31.252	BB	207.61703	2.69466e-2	5.59458		Benzo(g,h,i)perylene #18
32.192	BB	265.67621	1.37440e-2	3.65147		Indeno(1,2,3-cd)pyrene #1
Totals :				320.21419		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.391	BB	3977.98145	8.27651e-3	32.92381		Naphthalene #1
11.017	BB	1287.49023	3.00095e-2	38.63694		Acenaphthylene #2
11.966	BB	2621.31958	1.29932e-2	34.05942		1-Methylnaphthalene #3
12.540	BB	3000.71777	1.12713e-2	33.82186		2-Methylnaphthalene #4
13.020	BB	1824.47766	2.03841e-2	37.19038		Acenaphthene #5
13.672	BB	2251.82715	1.76946e-2	39.84514		Fluorene #6
15.056	BB	2607.06543	1.74291e-2	45.43878		Phenanthrene #7
16.456	BB	4318.07520	1.03455e-2	44.67260		Anthracene #8
17.832	BB	231.94649	2.18958e-2	5.07865		Fluoranthene #9
18.840	BB	319.13666	1.46349e-2	4.67052		Pyrene #10
21.162	BB	258.77310	6.45989e-2	16.71647		p-Terphenyl d14 #11*
22.488	BB	163.86610	2.22878e-2	3.65222		Benzo(a)anthracene #12
23.369	BB	342.47852	1.52051e-2	5.20743		Chrysene #13
26.066	BB	201.43343	2.08462e-2	4.19912		Benzo(b)fluoranthene #14
27.486	BB	193.40312	2.27217e-2	4.39445		Benzo(k)fluoranthene #15
28.590	BB	250.06818	2.64267e-2	6.60847		Benzo(a)pyrene #16
30.407	BB	62.41157	9.39100e-2	5.86107		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.226	BB	108.33672	5.34666e-2	5.79240		Benzo(g,h,i)perylene #18
32.169	BB	441.45361	2.06198e-2	9.10270		Indeno(1,2,3-cd)pyrene #1

Totals : 377.87241

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
							accn blk
No	1	1	8310	4L002661	✓ 01:01		WG111259-01 CC
No	2	2	8310	4L002662	cc 02:01	505619/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111292-01 ST
No	5	5	8310	4L002665	✓ 05:01	505 56-19	WG111292-02 ST
No	6	6	8310	4L002666	06:01	505 56-20	WG111292-03 ST
No	7	7	8310	4L002667	07:01	Dil'n. of 505 56 19/56-20	WG111292-04 ST
No	8	8	8310	4L002668	08:01	↓	WG111292-05 ST
No	9	9	8310	4L002669	09:01		WG111292-06 ST
No	10	10	8310	4L002670	10:01		WG111292-07 ST
No	11	11	8310	4L002671	11:01		WG111292-08 AL
No	12	12	8310	4L002672	12:01	Dil'n. of 505 57-27/ 505 57-28	

RRC
11/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials RDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114392-01 CCV	8310	1	Sample		
3	3	WG114347-02 SBLK	8310	1	Sample		
4	4	WG114347-03 SLCS	8310	1	Sample		
5	5	WG114387-01 WBLK	8310	1	Sample		
6	6	WG114387-02 WLCS	8310	1	Sample		
7	7	WG114387-03 WLCS	8310	1	Sample		
8	8	L0203154-04 831W	8310	1	Sample		
9	9	L0203155-02 831W	8310	1	Sample		
10	10	WG114392-02 CCV	8310	1	Sample		
11	11	L0203184-01 610W	8310	1	Sample		
12	12	L0203190-01 610W	8310	1	Sample		
13	13	L0203154-01 831S	8310	1	Sample		
14	14	L0203154-02 831S	8310	1	Sample		
15	15	L0203154-03 831S	8310	1	Sample		
16	16	WG114347-01 SREF	8310	1	Sample		
17	17	WG114347-04 SMS	8310	1	Sample		
18	18	WG114347-05 SMSD	8310	1	Sample		
19	10	WG114392-03 CCV	8310	1	Sample		

RDC 3/13/02

HPLC4 3/12/2002 3:50:19 PM RDC

							Sample Name
No	1	1	8310	4L002869	01:01 ✓		accn blk
No	2	2	8310	4L002870	02:01 ✓	SOS 58-26/56-20	WG114392-01 CC
No	3	3	8310	4L002871	03:01 ✓		WG114347-02 SB
No	4	4	8310	4L002872	04:01 ✓		WG114347-03 SL
No	5	5	8310	4L002873	05:01 ✓		WG114387-01 WB
No	6	6	8310	4L002874	06:01 ✓		WG114387-02 WL
No	7	7	8310	4L002875	07:01 ✓		WG114387-03 WL
No	8	8	8310	4L002876	08:01 ✓		L0203154-04 83
No	9	9	8310	4L002877	09:01 ✓		L0203155-02 83
No	10	10	8310	4L002878	10:01 ✓	SOS 58-26/56-20	WG114392-02 CC
No	11	11	8310	4L002879	11:01 ✓		L0203184-01 61
No	12	12	8310	4L002880	12:01 ✓		L0203190-01 61
No	13	13	8310	4L002881	13:01 RR10		L0203154-01 83
No	14	14	8310	4L002882	14:01 ↓		L0203154-02 83
No	15	15	8310	4L002883	15:01 ✓		L0203154-03 83
No	16	16	8310	4L002884	16:01 ✓		WG114347-01 SR
No	17	17	8310	4L002885	17:01 ✓		WG114347-04 SM
No	18	18	8310	4L002886	18:01 ✓		WG114347-05 SM
No	19	10	8310	4L002887	19:01 ✓	SOS 58-26/56-20	WG114392-03 CC

RRC 3/15/92

3/18/92

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 12, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 031202
Analyst Initials BKK SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: BKK 3/20/02

Parameter: 8310-S SOP #: EXHPLC2 Revision #: 6
Extraction Analyst(s): CAF TV/KD Analyst(s): DP
Date/Time Extracted: 03/12/02 @ 0900 Date TV/KD: 03/12/02
Spike/Surrogate Analyst: CAF Witness: DP
Surrogate #: ESS0039-27 Earliest Hold Date: 03/21/02
Spike #: A = ESS0039-37 Spike #: B = —

Extraction Work Group WG 114347
Analytical Work Group WG 114391
Extract Relinquished By: DP
Extract Received By & Date: EC 3/12/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank					30.03 g	100 µL		1 mL	T				WG 114347-02
2	LCS					.05 g		500 µL		C				WG " -03
3	03-154-01	8310				.08 g				O				
4	" -02	"				.08 g				O				
5	" -03	"				.06 g				O				
6	03-155-01	"				.01 g				O				WG 114347-01
7	" -01MS	"				.00 g		500 µL		O				" -04
8	" -01MSD	"				.09 g		"		O				" -05
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/12/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 3-12-02

397

Extraction Notes For Volume # 181 Page # 157

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

398

Parameter: 8310 HPLC SOP #: EXHPLC01 Revision #: 6
Extraction Analyst(s): RSK TV/KD Analyst(s): DP
Date/Time Extracted: 3/12/02 @ 1300 Date TV/KD: 3/12/02
Spike/Surrogate Analyst: RSK Witness: DP
Surrogate #: ES50039-27 Earliest Hold Date: 3/14
Spike #: A = ES50040-34 Spike #: B = -

Analytical Work Group WG 114464

Extract Relinquished By: DP
Extract Received By & Date: EC 3/12/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	1000µL		1mL					WG 114387-01
2	LCS			✓		"	"	500µL						WG " -02
3	LCS Dup			✓		"	"	"						" -03
4	03-154-04	8310		✓		900mL								
5	03-155-02	"		✓		950mL								
6	03-184-01	610		✓		910mL							✓	
7	03-190-01	"		✓		930mL								
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

3/12/02

Methylene Chloride Lot #: 42015
Hexane Lot #: -
Ether Lot #: -
Methanol Lot #: -
Solvent: CH3CN Lot #: 41264
Reagent: - Lot #: -
Reagent: - Lot #: -
Reagent: - Lot #: -
Acid: - Lot #: -
Florisil Lot #: -
Silica Gel Lot #: -
IR Analyst / Date / Time: -
Dried Na_2SO_4 Lot #: FL2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/12/02

Extraction Notes For Volume # 181 Page # 165

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Semi-Volatile 8310 Checklist

Run Date: 14-Jan-02

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	✓
Corrective Action:	✓
Results Reporting/Data Qualifiers:	✓
Client Data Package Assembly:	✓
Check for Completeness:	✓
Check for compliance with method and project requirements:	✓
Check the reasonableness of results:	✓

Comments:
Re-calibration

Primary Reviewer: ZQC 1/18/02

Secondary Reviewer: DPP 1/18/02

Supervisor Review: AR 1/18/02

√ = Checked & OK

NA = Not Applicable

Run Date: 12-Mar-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG114464 03-154	3/15/2002	
WG114464 03-155	3/15/2002	
WG114464 03-184	3/18/2002	A1
WG114464 03-190	3/19/2002	A1
WG114391 03-154	3/15	
↓ 03-155	↓	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

8310 WATER LCS WG114464 YIELDED PERCENT RECOVERY FOR BENZO(g,h,i)PERYLENE WHICH WAS ABOVE ADVISORY LIMIT.

L0203154-01 THROUGH 03 REQUIRE DIL'N.

Non-client requested MS/MSD for L0203155-01 yielded percent recoveries outside of advisory limits.

L0203154 SDG had significant SMI.

L0203155-01 MSD had high surr. recovery

L0203154-01 and 02 yielded high percent recovery for the surrogate by FLD.

Primary Reviewer: RDC 3/18/02

Secondary Reviewer:

Supervisor Review:

√ = Checked & OK

NA = Not Applicable

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:

	Example:
As = Area of the compound being measured in the standard	10000
Cs = Concentration of the compound being measured (ug/ml).	100
CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Example:

Where:

	Example:
Ax = Area of the compound being measured	10000
Vf = Final volume of sample extract (mL). (prep log)	1
D = Dilution factor for sample as a multiplier (10X = 10).	1
CF = Calibration factor from ICAL calculated above.	**0.01**
Vi = Initial volume of sample (mL). (prep log)	1000
1000 = conversion to ppb	
C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Example:

Where:

	Example:
Ax = Area of the compound being measured	10000
Vf = Final volume of sample extract (mL).	1
D = Dilution factor for sample as a multiplier (10X = 10).	1
CF = Calibration factor from ICAL calculated above.	0.01
Wi = Initial weight of sample (g).	30
C (ug/kg)	**3.333333**

2.4 General Chemistry Data

PERCENT SOLIDS DATA

Login Number: L0203155

✓ **Analysis benchsheet**

✓ **Calculation spreadsheet**

Example calculation:

[(WT3 - WT1)/(WT2 - WT1)] * 100 = % solids

100 - (% solids) = % moisture

where: WT1 = Weight (grams) of empty container
WT2 = Weight (grams) of container and wet sample
WT3 = Weight (grams) of container and dry sample
100 = factor to get units as percent weight

Checked By: dlh Date: 3/14/02

PERCENT SOLIDS

Workgroup: 114252 Approval: _____
ADT (on): Tmm 3/8/02@ 1620 ADT (off): Tmm 3/11/02@

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
03-107-21	1.24	23.02	18.37		
22	1.28	26.15	20.92		
03-045-01	1.28	29.49	28.24		
02	1.27	23.44	18.93		
03-079-01	1.27	30.32	24.66		
02	1.28	28.84	21.49		
03	1.28	18.08	14.84		
04	1.27	29.16	23.33		
05	1.26	24.45	20.13		
06	1.28	21.80	18.45		
07	1.23	26.24	21.79		
08	1.26	23.17	18.48		
09	1.25	27.54	22.35		
10	1.26	27.10	22.73		
02-441-01	1.27	16.90	11.24		
03-118-01	1.26	28.64	25.30		
02	1.26	29.39	25.72		
Duplicate 03-079-08	1.27	23.19	18.58		

Workgroup: 114324 Approval: dlh 3/12/02
ADT (on): Tmm 3/11/02@ 1525 ADT (off): Tmm 3/12/02@ 0930

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
03-059-01	1.26	15.47	13.36		
02	1.28	31.71	25.36		
03-088-01	1.24	22.55	4.38		
03-133-01	1.23	20.80	16.66		
02	1.23	26.43	20.88		
03	1.27	20.65	16.51		
03-154-01	1.24	28.12	24.04		
02	1.28	36.80	32.34		
03	1.27	32.58	28.06		
03-155-01	1.27	31.31	26.33		
03-176-01	1.26	25.55	21.17		
02	1.26	25.71	20.02		
03	1.26	32.36	25.33		
04	1.27	21.94	17.03		
05	1.31	18.02	14.03		
06	1.27	19.97	15.80		
07	1.27	26.22	18.67		
Tmm 8					
Duplicate 03-176-04	1.26	21.67	17.03		

KEMRON ENVIRONMENTAL SERVICES
PERCENT SOLID REPORT

Workgroup (AAB#):WG114324
Method:D2216-90

Run Date:03/11/2002
Run Time:15:25
Analyst:TMM

SAMPLE NUMBER	Pan WT.	Int WT.	Fnl WT.	% Solid	UNITS
L0203059-01	1.260	15.47	13.36	85.15	%
L0203059-02	1.280	31.71	28.36	88.99	%
L0203088-01	1.260	22.55	4.380	14.65	%
L0203133-01	1.230	20.80	16.66	78.85	%
L0203133-02	1.230	26.43	20.88	77.98	%
L0203133-03	1.270	20.65	16.51	78.64	%
L0203154-01	1.260	28.12	24.04	84.81	%
L0203154-02	1.280	36.80	32.34	87.44	%
L0203154-03	1.270	32.58	28.06	85.56	%
L0203155-01	1.270	31.31	26.33	83.42	%
L0203176-01	1.260	25.55	21.17	81.97	%
L0203176-02	1.260	25.71	20.02	76.73	%
L0203176-03	1.260	32.36	25.33	77.40	%
L0203176-04	1.270	21.94	17.03	76.25	%
L0203176-05	1.310	18.02	14.03	76.12	%
L0203176-06	1.270	19.97	15.80	77.70	%
L0203176-07	1.270	26.22	18.67	69.74	%
WG114324-01	1.270	21.94	17.03	76.25	%
WG114324-02	1.260	21.67	17.03	77.27	%

RON FORMS - Modified 03/05/2002
sion 1.2
ort generated 03/12/2002 10:29

Appendix B

Laboratory Analytical Reports for Groundwater Samples

(on CD Only)

KEMRON REPORT L0203327

PREPARED FOR CCI

WORK ID: NAS CECIL FIELD/BUILDING 9

Summary Report 1
Laboratory Report 2
Attachments 73

Full Sample Data Package..... 86
Volatiles Data 87
BTEX GC Data (8021) 88
QC Summary 91
Sample Data 120
Standards Data 141
Raw Data 190
Semivolatiles Data 202
Method 8011 203
QC Summary 206
Sample Data 222
Standards Data 241
Raw QC Data 268
PAH HPLC DATA (8310) 280
QC Summary 283
Sample Data 319
Standards Data 362
Raw QC Data 420
General Chemistry Data..... 438
Anions (9056)..... 439
QC Summary 442
Sample Data 458
Standards Data 468
Raw QC Data 490

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0203327

CHAIN OF CUSTODY:

The chain of custody number was 163151-034.

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperatures were 0, 1, 1, 2, 1 and 1 ° C.

SAMPLE MANAGEMENT:

One of the 8310 sample containers of fraction 062-CEF9-3S-Q1-02-15 was received without a lid. This container was not used. All other samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

REVIEWED: Stephanie Lopez DATE: 3/20/02

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203327

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: Average % drifts used for CCV WG114704-03 (HP5, 3/19/02). All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of fraction 05.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CBN REVIEWED: _____ DATE: 3/25/02

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203327

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample 04 was chosen by the client for MS/MSD analysis. The MS/MSD yielded a RPD greater than the advisory limit. All other acceptance criteria were met.
SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CLK

REVIEWED: _____ DATE: 3/28/02

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203327

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS yielded percent recoveries which were outside of advisory limits.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: RDC REVIEWED: _____ DATE: 4/2/02

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0203327

METHOD

Analysis: SW-846 9056 / 300

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met. All method 300 acceptance criteria were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: RDC REVIEWED: Stephanie A Lepse DATE: 4/2/02

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8021

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG114705

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID	Lab Sample ID
062-CEF9-2S-Q1-02-15	L0203327-01
062-CEF9-3S-Q1-02-15	L0203327-02
062-CEF9-5S-Q1-02-15	L0203327-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-APR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114705

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-2S-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 21:10

Concentration Units: ug/L File ID: 5G12642

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	7.30	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.00	1	
Xylenes, Total	0.500	1.0	4.60	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	118	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114705

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-Q1-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 21:45

Concentration Units: ug/L File ID: 5G12643

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	6.10	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.70	1	
Xylenes, Total	0.500	1.0	2.70	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	115	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114705

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-5S-Q1-02-15 Lab Sample ID: L0203327-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 22:20

Concentration Units: ug/L File ID: 5G12644

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8021

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG114773

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF9-7D-Q1-02-15	RS01	L0203327-04
062-CEF9-7D-Q1-02-15	MS01	L0203327-05
062-CEF9-7D-Q1-02-15	SD01	L0203327-06
062-CEF9-9S-Q1-02-15		L0203327-07
062-9DUP-Q1-02-15		L0203327-08
062-9EQB-Q1-02-15		L0203327-09
062-9TB-Q1-02-15		L0203327-10

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-APR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 08:59

Concentration Units: ug/L File ID: 5G12649

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 12:29

Concentration Units: ug/L File ID: 5G12655

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	19.0	1	
Ethylbenzene	0.500	1.0	20.0	1	
Methyl tert-butyl ether	0.500	1.0	17.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	57.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 13:04

Concentration Units: ug/L File ID: 5G12656

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	20.0	1	
Ethylbenzene	0.500	1.0	21.0	1	
Methyl tert-butyl ether	0.500	1.0	17.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	59.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-98-01-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 10:44

Concentration Units: ug/L File ID: 5G12652

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1.00	1	
Ethylbenzene	0.500	1.0	30.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.80	1	
Xylenes, Total	0.500	1.0	47.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	116	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 11:19

Concentration Units: ug/L File ID: 5G12653

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	18.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.50	1	
Xylenes, Total	0.500	1.0	25.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	115	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 11:54

Concentration Units: ug/L File ID: 5G12654

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.40	1	
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114773

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9TB-Q1-02-15 Lab Sample ID: L0203327-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 14:22

Concentration Units: ug/L File ID: 5G12658

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8015

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG115175

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF9-2S-Q1-02-15		L0203327-01
062-CEF9-3S-Q1-02-15		L0203327-02
062-CEF9-5S-Q1-02-15		L0203327-03
062-CEF9-7D-Q1-02-15	RS01	L0203327-04
062-CEF9-7D-Q1-02-15	MS01	L0203327-05
062-CEF9-7D-Q1-02-15	SD01	L0203327-06
062-CEF9-9S-Q1-02-15		L0203327-07
062-9DUP-Q1-02-15		L0203327-08
062-9EQB-Q1-02-15		L0203327-09

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-APR-02

Title: Laboratory Director

20

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-2S-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 21:59

Concentration Units: ug/L File ID: 2G19591

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	740	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-Q1-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 22:15

Concentration Units: ug/L File ID: 2G19592

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	630	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	111	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-5S-01-02-15 Lab Sample ID: L0203327-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 23:16

Concentration Units: ug/L File ID: 2G19596

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	84.0	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 23:31

Concentration Units: ug/L File ID: 2G19597

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	266	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	96.1	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 23:47

Concentration Units: ug/L File ID: 2G19598

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	2000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	109	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 27-MAR-02 00:02

Concentration Units: ug/L File ID: 2G19599

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	2600	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	108	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-9S-Q1-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 27-MAR-02 00:17

Concentration Units: ug/L File ID: 2G19600

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	720	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	117	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 27-MAR-02 00:33

Concentration Units: ug/L File ID: 2G19601

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	530	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	99.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 27-MAR-02 00:48

Concentration Units: ug/L File ID: 2G19602

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG114811

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF9-2S-Q1-02-15		L0203327-01
062-CEF9-3S-Q1-02-15		L0203327-02
062-CEF9-5S-Q1-02-15		L0203327-03
062-CEF9-7D-Q1-02-15	RS01	L0203327-04
062-CEF9-7D-Q1-02-15	MS01	L0203327-05
062-CEF9-7D-Q1-02-15	SD01	L0203327-06
062-CEF9-9S-Q1-02-15		L0203327-07
062-9DUP-Q1-02-15		L0203327-08
062-9EQB-Q1-02-15		L0203327-09

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-APR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-2S-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 21:27

Concentration Units: ug/L File ID:4L002905.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.750	1	J
2-Methylnaphthalene	0.348	1.0	1.40	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	3.00	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-2S-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 21:27

Concentration Units: % Recovery File ID:4L002905.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	97.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WQ114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-28-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 21:27

Concentration Units: ug/L File ID: 4L002905.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.530	1	J
2-Methylnaphthalene	0.348	1.0	1.40	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	3.30	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-2S-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 21:27

Concentration Units: % Recovery File ID: 4L002905.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	97.9	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-Q1-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 22:23

Concentration Units: ug/L File ID: 4L002906.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.10	1	
2-Methylnaphthalene	0.348	1.0	1.80	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	2.50	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-Q1-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 22:23

Concentration Units: % Recovery File ID: 4L002906.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-01-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 22:23

Concentration Units: ug/L File ID:4L002906.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.10	1	
2-Methylnaphthalene	0.348	1.0	1.80	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	2.70	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-Q1-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 22:23

Concentration Units: % Recovery File ID: 4L002906.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	97.5	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-5S-Q1-02-15 Lab Sample ID: L0203327-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 23:20

Concentration Units: ug/L File ID: 4L002907.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-5S-Q1-02-15 Lab Sample ID: L0203327-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 23:20

Concentration Units: % Recovery File ID: 4L002907.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	91.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 00:17

Concentration Units: ug/L File ID: 4L002908.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.375	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 00:17

Concentration Units: % Recovery File ID: 4L002908.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	101	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 02:10

Concentration Units: ug/L File ID: 4L002910.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	32.0	1	
2-Methylnaphthalene	0.348	1.0	31.0	1	
Acenaphthene	0.430	1.0	36.0	1	
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	53.0	1	
Benzo(a)anthracene	0.0311	0.21	5.80	1	
Benzo(a)pyrene	0.0549	0.21	5.80	1	
Benzo(b)fluoranthene	0.0352	0.21	5.80	1	
Benzo(g,h,i)perylene	0.0518	0.21	5.50	1	
Benzo(k)fluoranthene	0.0746	0.21	2.90	1	
Chrysene	0.0249	0.21	5.80	1	
Dibenzo(a,h)anthracene	0.0798	0.21	5.60	1	
Fluoranthene	0.0518	0.21	5.60	1	
Fluorene	0.579	1.0	43.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	5.70	1	
Naphthalene	0.372	1.0	30.0	1	
Phenanthrene	0.297	1.0	51.0	1	
Pyrene	0.0705	0.21	5.50	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 02:10

Concentration Units: % Recovery File ID:4L002910.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	120	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 02:10

Concentration Units: ug/L File ID: 4L002910.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	33.0	1	I
2-Methylnaphthalene	0.348	1.0	33.0	1	
Acenaphthene	0.430	1.0	36.0	1	
Acenaphthylene	0.364	1.0	37.0	1	
Anthracene	0.295	1.0	55.0	1	
Benzo(a)anthracene	0.0311	0.21	6.00	1	
Benzo(a)pyrene	0.0549	0.21	6.00	1	
Benzo(b)fluoranthene	0.0352	0.21	5.90	1	
Benzo(g,h,i)perylene	0.0518	0.21	5.90	1	
Benzo(k)fluoranthene	0.0746	0.21	3.00	1	
Chrysene	0.0249	0.21	6.10	1	
Dibenzo(a,h)anthracene	0.0798	0.21	5.70	1	
Fluoranthene	0.0518	0.21	5.80	1	
Fluorene	0.579	1.0	43.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	5.80	1	
Naphthalene	0.372	1.0	33.0	1	
Phenanthrene	0.297	1.0	53.0	1	
Pyrene	0.0705	0.21	5.80	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 02:10

Concentration Units: % Recovery File ID: 4L002910.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	121	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 03:06

Concentration Units: ug/L File ID: 4L002911.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	26.0	1	
2-Methylnaphthalene	0.348	1.0	25.0	1	
Acenaphthene	0.430	1.0	28.0	1	
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	40.0	1	
Benzo(a)anthracene	0.0311	0.21	4.50	1	
Benzo(a)pyrene	0.0549	0.21	4.40	1	
Benzo(b)fluoranthene	0.0352	0.21	4.50	1	
Benzo(g,h,i)perylene	0.0518	0.21	3.90	1	
Benzo(k)fluoranthene	0.0746	0.21	2.20	1	
Chrysene	0.0249	0.21	4.60	1	
Dibenzo(a,h)anthracene	0.0798	0.21	3.90	1	
Fluoranthene	0.0518	0.21	4.40	1	
Fluorene	0.579	1.0	33.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	4.20	1	
Naphthalene	0.372	1.0	24.0	1	
Phenanthrene	0.297	1.0	38.0	1	
Pyrene	0.0705	0.21	4.40	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 03:06

Concentration Units: % Recovery File ID: 4L002911.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-01-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 03:06

Concentration Units: ug/L File ID: 4L002911.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	27.0	1	
2-Methylnaphthalene	0.348	1.0	27.0	1	
Acenaphthene	0.430	1.0	29.0	1	
Acenaphthylene	0.364	1.0	29.0	1	
Anthracene	0.295	1.0	42.0	1	
Benzo(a)anthracene	0.0311	0.21	4.80	1	
Benzo(a)pyrene	0.0549	0.21	4.60	1	
Benzo(b)fluoranthene	0.0352	0.21	4.60	1	
Benzo(g,h,i)perylene	0.0518	0.21	4.20	1	
Benzo(k)fluoranthene	0.0746	0.21	2.30	1	
Chrysene	0.0249	0.21	4.80	1	
Dibenzo(a,h)anthracene	0.0798	0.21	4.00	1	
Fluoranthene	0.0518	0.21	4.60	1	
Fluorene	0.579	1.0	32.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	4.30	1	
Naphthalene	0.372	1.0	27.0	1	
Phenanthrene	0.297	1.0	40.0	1	
Pyrene	0.0705	0.21	4.60	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 03:06

Concentration Units: % Recovery File ID: 4L002911.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	95.8	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-9S-Q1-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 04:03

Concentration Units: ug/L File ID: 4L002912.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	3.80	1	
2-Methylnaphthalene	0.354	1.1	6.90	1	
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0316	0.21	0.0316	1	ND
Benzo(a)pyrene	0.0558	0.21	0.0558	1	ND
Benzo(b)fluoranthene	0.0358	0.21	0.0358	1	ND
Benzo(g,h,i)perylene	0.0526	0.21	0.0526	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.0811	0.21	0.0811	1	ND
Fluoranthene	0.0526	0.21	0.0526	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0842	0.21	0.0842	1	ND
Naphthalene	0.378	1.1	37.0	1	
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-9S-Q1-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 04:03

Concentration Units: % Recovery File ID: 4L002912.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	79.0	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-9S-Q1-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 04:03

Concentration Units: ug/L File ID: 4L002912.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	3.50	1	
2-Methylnaphthalene	0.354	1.1	9.60	1	
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.369	1.1	0.369	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0316	0.21	0.0316	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0526	0.21	0.0526	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	43.0	1	
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-9S-Q1-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 04:03

Concentration Units: % Recovery File ID: 4L002912.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	78.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:00

Concentration Units: ug/L File ID: 4L002913.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	2.20	1	
2-Methylnaphthalene	0.348	1.0	4.00	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	18.0	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:00

Concentration Units: % Recovery File ID: 4L002913.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	84.8	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:00

Concentration Units: ug/L File ID: 4L002913.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	2.20	1	
2-Methylnaphthalene	0.348	1.0	4.60	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.930	1	J
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	20.0	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:00

Concentration Units: % Recovery File ID: 4L002913.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:56

Concentration Units: ug/L File ID:4L002914.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.411	1.1	0.550	1	J
2-Methylnaphthalene	0.382	1.1	1.00	1	J
Acenaphthene	0.472	1.1	0.472	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.324	1.1	0.324	1	ND
Benzo(a)anthracene	0.0341	0.23	0.0341	1	ND
Benzo(a)pyrene	0.0602	0.23	0.0602	1	ND
Benzo(b)fluoranthene	0.0386	0.23	0.0386	1	ND
Benzo(g,h,i)perylene	0.0568	0.23	0.0568	1	ND
Benzo(k)fluoranthene	0.0818	0.23	0.0818	1	ND
Chrysene	0.0273	0.23	0.0273	1	ND
Dibenzo(a,h)anthracene	0.0875	0.23	0.0875	1	ND
Fluoranthene	0.0568	0.23	0.0568	1	ND
Fluorene	0.635	1.1	0.635	1	ND
Indeno(1,2,3-cd)pyrene	0.0909	0.23	0.0909	1	ND
Naphthalene	0.408	1.1	4.70	1	
Phenanthrene	0.326	1.1	0.326	1	ND
Pyrene	0.0773	0.23	0.0773	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:56

Concentration Units: % Recovery File ID:4L002914.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:56

Concentration Units: ug/L File ID: 4L002914.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.411	1.1	0.500	1	J
2-Methylnaphthalene	0.382	1.1	1.30	1	
Acenaphthene	0.472	1.1	0.472	1	ND
Acenaphthylene	0.399	1.1	0.399	1	ND
Anthracene	0.324	1.1	0.324	1	ND
Benzo(a)anthracene	0.0341	0.23	0.0341	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0568	0.23	0.0568	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.635	1.1	0.635	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.408	1.1	5.30	1	
Phenanthrene	0.326	1.1	0.326	1	ND
Pyrene	0.0773	0.23	0.0773	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 21-MAR-02 05:56

Concentration Units: % Recovery File ID: 4L002914.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 9056

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG114742

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF9-2S-Q1-02-15		L0203327-01
062-CEF9-3S-Q1-02-15		L0203327-02
062-CEF9-5S-Q1-02-15		L0203327-03
062-CEF9-7D-Q1-02-15	RS01	L0203327-04
062-CEF9-7D-Q1-02-15	MS01	L0203327-05
062-CEF9-7D-Q1-02-15	SD01	L0203327-06
062-CEF9-9S-Q1-02-15		L0203327-07
062-9DUP-Q1-02-15		L0203327-08
062-9EQB-Q1-02-15		L0203327-09

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify 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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-APR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-2S-Q1-02-15 Lab Sample ID: L0203327-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 14:10

Concentration Units: mg/L File ID: 031902.17

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.160	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-3S-Q1-02-15 Lab Sample ID: L0203327-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 14:28

Concentration Units: mg/L File ID: 031902.18

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-58-Q1-02-15 Lab Sample ID: L0203327-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 14:41

Concentration Units: mg/L File ID: 031902.19

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.390	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 14:52

Concentration Units: mg/L File ID: 031902.20

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 16:14

Concentration Units: mg/L File ID: 031902.27

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.40	1	
Nitrite	0.0610	0.40	3.90	1	
Phosphate	0.163	1.0	11.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-7D-Q1-02-15 Lab Sample ID: L0203327-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 16:26

Concentration Units: mg/L File ID: 031902.28

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.40	1	
Nitrite	0.0610	0.40	4.00	1	
Phosphate	0.163	1.0	11.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF9-9S-Q1-02-15 Lab Sample ID: L0203327-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 15:04

Concentration Units: mg/L File ID: 031902.21

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.170	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9DUP-Q1-02-15 Lab Sample ID: L0203327-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 15:15

Concentration Units: mg/L File ID: 031902.22

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.170	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-9EQB-Q1-02-15 Lab Sample ID: L0203327-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 15:38

Concentration Units: mg/L File ID: 031902.24

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.170	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.390	1	J

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

01/28/2002

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SMW - SHARON M. WASHBURN
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

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

COC NUMBER
163151-034

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.):
N.A.S. Cecil Field Building 9	163151	Debbie Tornes Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
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.):
Building 9 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
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.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0					SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	062-CEF9-2S-Q1-02-15	CEF-9-2S	W	03/18/02	10:10	III/C	14	2	2	2	1					Grab	Turbid	
2	062-CEF9-3S-Q1-02-15	CEF-9-3S	W	03/18/02	10:40	III/C	14	2	2 (*)	2	1					Grab	*(1)8310 recd w/ lid missing [illegible]	
3	062-CEF9-5S-Q1-02-15	CEF-9-5S	W	03/18/02	12:45	III/C	14	2	2	2	1					Grab	Turbid	
4	062-CEF9-7D-Q1-02-15	CEF-9-7D	W	03/18/02	11:35	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	062-CEF9-9S-Q1-02-15	CEF-9-9S	W	03/18/02	12:15	III/C	14	2	2	2	1					Grab		
6	062-9DUP-Q1-02-15	Duplicate	W	03/18/02	NA	III/C	14	2	2	2	1					Grab		
7	062-9EQB-Q1-02-15	Equipment Blank	W	03/18/02	11:45	III/C	14	2	2	2	1					Grab		
8	062-9TB-Q1-02-15	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track No's.792711934856, 791797142391, 791797142417, 792711934889, 792003085215.	C/C Dated Cooler Temps 0/1/2/1/1

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: R. Dumaop [signature]	3/18/02	14:00	Printed Name and Signature: Federal Express	3/18/02	14:00
Printed Name and Signature:			Printed Name and Signature: Brenda Gregory/Brenda Gregory	3/19/02	1030

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Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER: **163151-034**

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N.A.S. Cecil Field Building 9	163151	Debbie Tornes Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
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.):
Building 9 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

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								BTEX by 8021B	Naphthalene & 15 Methid Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0							
1	062-CEF9-2S-Q1-02-15	CEF-9-2S	W	03/18/02	10:10	III/C	14	2	2	2	1					Grab	Turbid	
2	062-CEF9-3S-Q1-02-15	CEF-9-3S	W	03/18/02	10:40	III/C	14	2	2	2	1					Grab		
3	062-CEF9-5S-Q1-02-15	CEF-9-5S	W	03/18/02	12:45	III/C	14	2	2	2	1					Grab	Turbid	
4	062-CEF9-7D-Q1-02-15	CEF-9-7D	W	03/18/02	11:35	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	062-CEF9-9S-Q1-02-15	CEF-9-9S	W	03/18/02	12:15	III/C	14	2	2	2	1					Grab		
6	062-9DUP-Q1-02-15	Duplicate	W	03/18/02	NA	III/C	14	2	2	2	1					Grab		
7	062-9EQB-Q1-02-15	Equipment Blank	W	03/18/02	11:45	III/C	14	2	2	2	1					Grab		
8	062-9TB-Q1-02-15	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track No's.792711934856, 791797142391, 791797142417, 792711934889, 792003085215.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/18/02	14:00	Federal Express	3/18/02	14:00
Printed Name and Signature:			Printed Name and Signature:		
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Building 9 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

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1	062-CEF9-2S-Q1-02-15	CEF-9-2S	W	03/18/02	10:10	III/C	14	2	2	2	1					Grab	Turbid	
2	062-CEF9-3S-Q1-02-15	CEF-9-3S	W	03/18/02	10:40	III/C	14	2	2	2	1					Grab		
3	062-CEF9-5S-Q1-02-15	CEF-9-5S	W	03/18/02	12:45	III/C	14	2	2	2	1					Grab	Turbid	
4	062-CEF9-7D-Q1-02-15	CEF-9-7D	W	03/18/02	11:35	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	062-CEF9-9S-Q1-02-15	CEF-9-9S	W	03/18/02	12:15	III/C	14	2	2	2	1					Grab		
6	062-9DUP-Q1-02-15	Duplicate	W	03/18/02	NA	III/C	14	2	2	2	1					Grab		
7	062-9EQB-Q1-02-15	Equipment Blank	W	03/18/02	11:45	III/C	14	2	2	2	1					Grab		
8	062-9TB-Q1-02-15	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
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CHAIN-OF-CUSTODY RECORD

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163151-034

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Building 9 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calendar days)	ANALYSES REQUIRED (Include Method Numbers) BTEX by 8021B	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0					SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
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2	062-CEF9-3S-Q1-02-15	CEF-9-3S	W	03/18/02	10:40	III/C	14	2	2	2	1					Grab		
3	062-CEF9-5S-Q1-02-15	CEF-9-5S	W	03/18/02	12:45	III/C	14	2	2	2	1					Grab	Turbid	
4	062-CEF9-7D-Q1-02-15	CEF-9-7D	W	03/18/02	11:35	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	062-CEF9-9S-Q1-02-15	CEF-9-9S	W	03/18/02	12:15	III/C	14	2	2	2	1					Grab		
6	062-9DUP-Q1-02-15	Duplicate	W	03/18/02	NA	III/C	14	2	2	2	1					Grab		
7	062-9EQB-Q1-02-15	Equipment Blank	W	03/18/02	11:45	III/C	14	2	2	2	1					Grab		
8	062-9TB-Q1-02-15	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track No's.792711934856, 791797142391, 791797142417, 792711934889, 792003085215.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/18/02	14:00	Federal Express	3/18/02	14:00
Printed Name and Signature:			Printed Name and Signature:		

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Form CCI001, Rev 02/00

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

CHAIN-OF-CUSTODY RECORD

163151-034

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N.A.S. Cecil Field Building 9	163151	Debbie Tornes Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
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Building 9 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
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.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calender days)	ANALYSES REQUIRED (Include Method Numbers) BTEX by 8021B	Naphthalene & 15 Methl Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0					SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	062-CEF9-2S-Q1-02-15	CEF-9-2S	W	03/18/02	10:10	III/C	14	2	2	2	1					Grab	Turbid	
2	062-CEF9-3S-Q1-02-15	CEF-9-3S	W	03/18/02	10:40	III/C	14	2	2	2	1					Grab		
3	062-CEF9-5S-Q1-02-15	CEF-9-5S	W	03/18/02	12:45	III/C	14	2	2	2	1					Grab	Turbid	
4	062-CEF9-7D-Q1-02-15	CEF-9-7D	W	03/18/02	11:35	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	062-CEF9-9S-Q1-02-15	CEF-9-9S	W	03/18/02	12:15	III/C	14	2	2	2	1					Grab		
6	062-9DUP-Q1-02-15	Duplicate	W	03/18/02	NA	III/C	14	2	2	2	1					Grab		
7	062-9EQB-Q1-02-15	Equipment Blank	W	03/18/02	11:45	III/C	14	2	2	2	1					Grab		
8	062-9TB-Q1-02-15	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track No's.792711934856, 791797142391, 791797142417, 792711934889, 792003085215.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/18/02	14:00	Federal Express	3/18/02	14:00
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 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0203327 **Client:** CCI **# of Samples:** 10 **Due Date:** **Page:**

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-10	BTEX	ANAL	CBN 3/19/02 @ 1250	V-1	ORG-3	BLG				
1-9A	PRO	EXT	CEB 3/19/02 @ 1252	WALKIN	ELAB	BLG	03-19-02 DAL @ 2300	Crusher	BLG	disposal
01-09A	9056	ANAL.	RREC 3/19/02 @ 1320	LOGIN	SV	BLG	RREC 3/27/02 @ 1535	Archive	JJ	Archive
1-9A	8310	EXT	CEB 3/19/02 @ 1439	WALKIN	ELAB	BLG	03-19-02 DAL @ 2300	Crusher	BLG	disposal

Reports sent 4/3 LR

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI (BRG) / Other ____	DATE: 3/19/02	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

	COOLER ID: KL850	COOLER ID: KL153	COOLER ID: KL973
INDEX # :	79179714241 7	79034730610 3	79179714239 1
SEALED	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
CUSTODY	( ) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
TEMP :	(C) (D) C °C	(C) (D) 1 °C	(C) (D) 1 °C
TEMP IN RANGE (4°C ± 2°)	( ) YES (✓) NO	( ) YES (✓) NO	( ) YES (✓) NO
WET ICE (✓)	BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE	FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED	(✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SALVAGEBLE	( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE:		SAMPLE TYPE:	SAMPLE TYPE:
WATER (✓)	SOIL ( ) OTHER ( )	WATER (✓) SOIL ( ) OTHER ( )	WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT	(✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO
LEGIBLE	(✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO
MATCH COC	(✓) YES ( ) NO	MATCH COC ( ) YES (✓) NO	MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE	(✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN?	( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	1135 (MS/MSD)	LOG-IN COMMENTS 1435 1510 (QC 035) (0.46)	LOG-IN COMMENTS 1245 VO'S

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

KEMRON Environmental Services | SAMPLES RECEIPT FORM | Marietta Laboratory

CLIENT: CCI	DATE: 3/19/02	SHIPPED BY: (X) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG Other		

	COOLER ID: KL944	COOLER ID: KL943	COOLER ID: KL940
	INDEX #: 792003085215	INDEX #: 792711934889	INDEX #: 792711934856
	SEALED (X) YES ( ) NO	SEALED (X) YES ( ) NO	SEALED (X) YES ( ) NO
	CUSTODY (X) YES ( ) NO	CUSTODY (X) YES ( ) NO	CUSTODY (X) YES ( ) NO
	TEMP: (C) (D) °C	TEMP: (C) (D) 1 °C	TEMP: (C) (D) 1 °C
	TEMP IN RANGE (4°C ± 2°) (X) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (X) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (X) NO
	WET ICE (X) BLUE ICE ( )	WET ICE (X) BLUE ICE ( )	WET ICE (X) BLUE ICE ( )
	ICE FROZEN (X) MELTED ( )	ICE FROZEN (X) MELTED ( )	ICE FROZEN (X) MELTED ( )
	RADIATION CHECKED (X) YES ( ) NO	RADIATION CHECKED (X) YES ( ) NO	RADIATION CHECKED (X) YES ( ) NO
	SAMPLE INTACT (X) YES ( ) NO	SAMPLE INTACT (X) YES ( ) NO	SAMPLE INTACT ( ) YES (X) NO
	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES (X) NO
	SAMPLE TYPE: WATER (X) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (X) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (X) SOIL ( ) OTHER ( )
	LABELS: INTACT (X) YES ( ) NO	LABELS: INTACT (X) YES ( ) NO	LABELS: INTACT (X) YES ( ) NO
	LEGIBLE (X) YES ( ) NO	LEGIBLE (X) YES ( ) NO	LEGIBLE (X) YES ( ) NO
	MATCH COC (X) YES ( ) NO	MATCH COC (X) YES ( ) NO	MATCH COC (X) YES ( ) NO
	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (X) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (X) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (X) YES ( ) NO
	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES (X) NO	SAMPLES FROZEN? ( ) YES (X) NO
	LOG-IN COMMENTS 1135	LOG-IN COMMENTS 1215	LOG-IN COMMENTS KC40 (1)8310
	1145	Dup-01-02	1010

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

CRF#4

Sample Receipt Form #2

Client: CCI Project: _____
Date Received: 3/19/02

_____Cooler temperature > than 6 degrees Celcius
Reason _____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody
NO Id on Dup except "Dup Blank"

✓ Sample containers received broken, leaking or not sealed (List sample ID)
CEF9-35-01-02-15 @1040 ~(1) 8310 Container rec'd w/ NO lid (1/4 full)

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:
Was client notified regarding information: (YES) NO
Name of person contacted: Colleen Kurtz Company: CCI
TSR: D. Jones Date: 3/19/02
Attach: Phone Logs, (e-mails), faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 4

PROJECT: NAS Cecil Field/Bldg. 9 LIMS# L0203327

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 3/19/02 C-of-C Number: 163151
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
If YES, enter carrier name & air bill number here: Fed Ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... (YES) NO
How many & where? 1 - front, seal date: 3/18/02 seal name: Custody Seal
3. Were custody seals unbroken and intact at the data and time of arrival? ..... (YES) NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... (YES) NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... (YES) ~~NO~~ BG 3-19-02
6. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
7. Did you sign custody papers in the appropriate place? ..... (YES) NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... (YES) NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CRF #3 (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: BG (date) 3/19/02

B. **LOG-IN PHASE:** Date samples were logged-in: 3/19/02
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: Divider; baggies
12. Were all bottles sealed in separate plastic bags? ..... YES (NO)
13. Did all bottles arrive unbroken & were labels in good condition? ..... (Y) (YES) NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES (NO)
15. Did all bottle labels agree with custody papers? ..... YES (NO)
16. Were correct containers used for the tests indicated? ..... (YES) NO
17. Were correct preservatives added to samples? ..... (YES) NO
18. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ (YES) NO
20 Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203327

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: Average % drifts used for CCV WG114704-03 (HP5, 3/19/02). All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of fraction 05.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CBN REVIEWED: _____ DATE: 3/25/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0203327

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

NA Extraction bench sheets (for mid-level methanol extractions) (chronological)

NA 5035 logs (if applicable) (chronological)

Checked By: [signature] **Date:** 3/25/02

2.1.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203327
Blank File ID: 5G12620
Date Analyzed: 03/19/02
Time Analyzed: 07:47
Analyst: CBN

Work Group: WG114705
Blank Sample ID: WG114705-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114705-02	5G12621	03/19/02 08:33	
062-CEF9-2S-Q1-02-15	L0203327-01	5G12642	03/19/02 21:10	
062-CEF9-3S-Q1-02-15	L0203327-02	5G12643	03/19/02 21:45	
062-CEF9-5S-Q1-02-15	L0203327-03	5G12644	03/19/02 22:20	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203327 Run Date: 03/19/2002 Sample ID: WG114705-01
Instrument ID: HP5 Run Time: 07:47 Method: 8021B
File ID: 5G12620 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG114705 Units: ug/L
Contract #: Cal ID: HP5-20-FEB-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	112	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203327 Run Date: 03/19/2002 Sample ID: WG114705-02
Instrument ID: HP5 Run Time: 08:33 Method: 8021B
File ID: 5G12621 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG114705 Units: ug/L
Contract #: Cal ID: HP5-20-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.9	94.4	41 - 161	
Benzene	20	20.4	102	80 - 122	
Toluene	20	21.0	105	80 - 124	
Ethylbenzene	20	21.4	107	80 - 125	
Total xylenes	60	61.7	103	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	112	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114705

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF9-2S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	14	1.46	19-MAR-02	14	1.46	
062-CEF9-3S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	14	1.46	19-MAR-02	14	1.46	
062-CEF9-5S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	14	1.40	19-MAR-02	14	1.40	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0203327
Instrument Id: HP5
Workgroup (AAB#): WG114705

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203327-01	1.00		118
L0203327-02	1.00		115
L0203327-03	1.00		110
WG114705-01	1.00		112
WG114705-02	1.00		112

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 02/20/02
Last Calibration: Wed Feb 20 13:38:18 2002

Calibration Files

Compound	1 5G12234.D	10 5G12235.D	20 5G12236.D	50 5G12237.D	100 5G12238.D	200 5G12239.D	300 5G12240.D	Avg	%RSD	
MTBE	12539.098	11196.949	11243.150	11041.255	10933.684	9845.119	10773.245	11081.800	7.192	
Benzene	62790.330	47015.533	60310.422	60394.203	62248.899	55692.162	60796.018	58463.900	9.482	
TFT	11675.944	16647.005	18691.041	16931.193	18308.322	18431.867	17514.953	16885.800	14.359	
Toluene	57450.429	41830.870	54992.322	55224.813	57150.005	51457.407	56493.530	53514.200	10.332	LR=0.999
Chlorobenzene	51107.594	47796.569	57648.045	58702.207	60282.238	53862.815	58927.160	55475.200	8.416	
Ethylbenzene	44734.021	33822.898	47197.088	47781.820	49450.708	44065.886	48876.353	45132.700	11.903	LR=0.998
m-,p-Xylene	54877.067	41916.389	56810.621	56708.147	57983.908	51196.233	56259.916	53678.900	10.487	LR=0.998
o-Xylene	46024.604	38803.321	48912.004	49234.646	50426.567	45138.795	49785.014	46903.600	8.690	
BFB	40807.196	48040.267	50130.380	49818.364	51211.872	50893.985	46902.798	48257.800	7.520	
1,3-Dichlorobenzene	43022.355	39773.416	46613.595	47301.443	48695.412	43962.076	48263.141	45375.900	7.171	
1,4-Dichlorobenzene	50593.879	45110.732	50592.251	50273.527	50626.153	45302.288	49211.494	48815.800	5.152	
1,2-Dichlorobenzene	38039.156	36942.905	40744.634	40929.219	41461.798	37452.005	40820.717	39484.300	4.855	
BCB	42403.048	46209.846	48055.779	48169.399	49155.647	48910.071	45036.779	46848.700	5.245	

Fri Feb 22 12:57:25 2002

Login Number: L0203327
File ID: 5G12243
ALT ID: WG113244-08
Units: ug/L

Instrument ID: HP5
Run Date: 02/20/2002
Run Time: 14:36
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.4	42300	7.0	
1,4-Dichlorobenzene		20	21.1	51500	5.5	
1,3-Dichlorobenzene		20	21.0	47700	5.0	
o-Xylene		20	20.5	48000	2.5	
m-,p-Xylene		40	41.8	56600	4.5	
Ethylbenzene		20	21.5	48200	7.5	
Chlorobenzene		20	20.7	57500	3.5	
Toluene		20	21.2	55600	6.0	
Benzene		20	20.6	60300	3.0	
MTBE		20	18.9	10500	5.5	

Login Number: L0203327
File ID: 5G12619
CCV ID: WG114704-01
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 07:03
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.8	41100	4.0	
1,4-Dichlorobenzene		20	20.4	49800	2.0	
1,3-Dichlorobenzene		20	20.7	47000	3.5	
o-Xylene		20	20.8	48700	4.0	
m-,p-Xylene		40	42.4	57500	6.0	
Ethylbenzene		20	22.0	49400	10.0	
Chlorobenzene		20	21.9	60800	9.5	
Toluene		20	21.3	55900	6.5	
Benzene		20	20.8	60700	4.0	
MTBE		20	19.8	11000	1.0	

* Exceeds %D Limit

Login Number: L0203327
File ID: 5G12630
CCV ID: WG114704-02
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 13:56
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.6	40600	3.0	
1,4-Dichlorobenzene		20	20.4	49800	2.0	
1,3-Dichlorobenzene		20	20.4	46200	2.0	
o-Xylene		20	20.2	47300	1.0	
m-,p-Xylene		40	40.8	55300	2.0	
Ethylbenzene		20	21.1	47400	5.5	
Chlorobenzene		20	20.1	55900	0.5	
Toluene		20	20.7	54400	3.5	
Benzene		20	20.2	58900	1.0	
MTBE		20	17.8	9840	11.0	

* Exceeds %D Limit

Login Number: L0203327
File ID: 5G12641
CCV ID: WG114704-03
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 20:35
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.8	37100	6.0	
1,4-Dichlorobenzene		20	18.6	45300	7.0	
1,3-Dichlorobenzene		20	18.1	41100	9.5	
o-Xylene		20	17.7	41500	11.5	
m-,p-Xylene		40	35.1	47400	12.3	
Ethylbenzene		20	18.2	40500	9.0	
Chlorobenzene		20	18.3	50700	8.5	
Toluene		20	18.1	47200	9.5	
Benzene		20	17.7	51800	11.5	
MTBE		20	17.0	9410	15.0	

* Exceeds %D Limit

Login Number: L0203327
File ID: 5G12645
CCV ID: WG114704-04
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 22:54
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.5	38600	2.5	
1,4-Dichlorobenzene		20	19.5	47500	2.5	
1,3-Dichlorobenzene		20	19.2	43600	4.0	
o-Xylene		20	19.1	44800	4.5	
m-,p-Xylene		40	38.5	52000	3.8	
Ethylbenzene		20	20.0	44600	0.0	
Chlorobenzene		20	19.4	53900	3.0	
Toluene		20	19.6	51300	2.0	
Benzene		20	19.1	55700	4.5	
MTBE		20	17.3	9570	13.5	

* Exceeds %D Limit

Injection Log

Directory: c:\hpchem\2\data\022002

WG113234
1 278

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12231.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::0
2	2	5g12232.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::5
3	2	5g12233.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::4
4	3	5g12234.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::2
5	4	5g12235.d	1.	WG113244-02 STD 2 10PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::5
6	5	5g12236.d	1.	WG113244-03 STD 3 20PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::3
7	6	5g12237.d	1.	WG113244-04 STD 4 50PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::0
8	7	5g12238.d	1.	WG113244-05 STD 5 100PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::4
9	8	5g12239.d	1.	WG113244-06 STD 6 200PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::1
10	9	5g12240.d	1.	WG113244-07 STD 7 300PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::5
11	10	5g12241.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::2
12	11	5g12242.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::0
13	12	5g12243.d	1.	WG113244-08 ALT SOURCE 20PPB 5ML	1,1 S-90-(28,39)	20 Feb 102 12::3
14	1	5g12244.d	1.	WG113278-01 STD 1 90PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::4
15	2	5g12245.d	1.	WG113278-02 STD 2 360PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1
16	3	5g12246.d	1.	WG113278-03 STD 3 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::5
17	4	5g12247.d	1.	WG113278-04 STD 4 1800PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::2
18	5	5g12248.d	1.	WG113278-05 STD 5 3600PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::0
19	6	5g12249.d	1.	WG113278-06 STD 6 7200PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::3
20	7	5g12250.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::1
21	8	5g12251.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::4
22	9	5g12252.d	1.	WG113278-07 ALT SOURCE 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1

Injection Log

Directory: c:\hpchem\2\data\031902

WG114705

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12619.d	1.	WG114704-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::0
2	2	5g12620.d	1.	WG114705-01 WATER BLANK 5ML ✓	1,1 S-91-31	19 Mar 102 12::4
3	3	5g12621.d	1.	WG114705-02 WATER LCS 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
4	1	5g12622.d	100.	WG114705-03 L0203296-04 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 12::1
5	2	5g12623.d	100.	WG114705-04 L0203296-04 MS A 5ML pH<2 1✓	1,100 S-91-(30,31)	19 Mar 102 12::5
6	3	5g12624.d	100.	WG114705-05 L0203296-04 MSD A 5ML pH<2 ✓	1,100 S-91-(30,31)	19 Mar 102 13::2
7	4	5g12625.d	100.	L0203296-05 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::0
8	5	5g12626.d	100.	L0203296-06 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::3
9	6	5g12627.d	100.	L0203296-07 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::1
10	7	5g12628.d	100.	L0203296-08 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::4
11	8	5g12629.d	1.	L0203296-09 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
12	9	5g12630.d	1.	WG114704-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::5
13	1	5g12631.d	1.	L0203296-10 B 5ML pH<2 HIGH SSS ✓	1,1 S-91-31	19 Mar 102 12::4
14	2	5g12632.d	1.	L0203296-10 B 5ML pH<2 CONF 5ML	1,1,RE S-91-31	19 Mar 102 12::2
15	3	5g12633.d	1.	L0203297-01 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
16	4	5g12634.d	1.	L0203321-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::3
17	5	5g12635.d	1.	L0203321-04 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
18	6	5g12636.d	1.	L0203321-05 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
19	7	5g12637.d	1.	L0203321-06 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
20	8	5g12638.d	1.	L0203326-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
21	9	5g12639.d	1.	L0203326-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
22	10	5g12640.d	1.	L0203326-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
23	11	5g12641.d	1.	WG114704-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
24	12	5g12642.d	1.	L0203327-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
25	13	5g12643.d	1.	L0203327-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
26	14	5g12644.d	1.	L0203327-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 13::2
27	15	5g12645.d	1.	WG114704-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 13::5

REANALYSIS	FILE #
L0203296-10	5G12632

METHOD BLANK SUMMARY

Login Number: L0203327
Blank File ID: 5G12647
Date Analyzed: 03/20/02
Time Analyzed: 07:40
Analyst: CBN

Work Group: WG114773
Blank Sample ID: WG114773-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114773-02	5G12648	03/20/02 08:15	
062-CEF9-7D-Q1-02-15	L0203327-04	5G12649	03/20/02 08:59	
062-CEF9-9S-Q1-02-15	L0203327-07	5G12652	03/20/02 10:44	
062-9DUP-Q1-02-15	L0203327-08	5G12653	03/20/02 11:19	
062-9EQB-Q1-02-15	L0203327-09	5G12654	03/20/02 11:54	
062-CEF9-7D-Q1-02-15	L0203327-05	5G12655	03/20/02 12:29	
062-CEF9-7D-Q1-02-15	L0203327-06	5G12656	03/20/02 13:04	
062-9TB-Q1-02-15	L0203327-10	5G12658	03/20/02 14:22	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203327 Run Date: 03/20/2002 Sample ID: WG114773-01
Instrument ID: HP5 Run Time: 07:40 Method: 8021B
File ID: 5G12647 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG114773 Units: ug/L
Contract #: Cal ID: HP5-20-FEB-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203327
Instrument ID: HP5
File ID: 5G12648
Workgroup (AAB#): WG114773
Contract #:

Run Date: 03/20/2002
Run Time: 08:15
Analyst: CBN

Sample ID: WG114773-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-20-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	19.3	96.4	41 - 161	
Benzene	20	20.7	104	80 - 122	
Toluene	20	21.1	105	80 - 124	
Ethylbenzene	20	21.5	108	80 - 125	
Total xylenes	60	62.1	104	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum:L0203327 Cal ID:HP5-20-FEB-2002 Worknum:WG114773
Instrument ID:HP5 Contract #: Method:8021B
Parent ID:L0203327-04 File ID:5G12649 Dil:1 Matrix:Water
Sample ID:L0203327-05 MS File ID:5G12655 Dil:1 Units:ug/L
Sample ID:L0203327-06 MSD File ID:5G12656 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	18.9	94.5	20.0	19.7	98.5	4.15	80 - 122	24	
Ethylbenzene	0	20.0	19.9	99.5	20.0	20.6	103	3.45	80 - 125	25	
Methyl tert-butyl ether	0	20.0	17.5	87.5	20.0	17.2	86.0	1.72	41 - 161	73	
Toluene	0	20.0	19.5	97.5	20.0	20.3	102	4.02	80 - 124	26	
Xylenes, Total	0	60.0	57.4	95.7	60.0	59.4	99.0	3.42	80 - 121	24	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114773

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-9DUP-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	2.47	20-MAR-02	14	2.47	
062-9EQB-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	2.01	20-MAR-02	14	2.01	
062-9TB-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	2.60	20-MAR-02	14	2.60	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	1.89	20-MAR-02	14	1.89	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	2.04	20-MAR-02	14	2.04	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	2.06	20-MAR-02	14	2.06	
062-CEF9-9S-Q1-02-15	18-MAR-02	19-MAR-02	20-MAR-02	14	1.94	20-MAR-02	14	1.94	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number: L0203327
Instrument Id: HP5
Workgroup (AAB#): WG114773

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203327-04	1.00		109
L0203327-05	1.00		110
L0203327-06	1.00		110
L0203327-07	1.00		116
L0203327-08	1.00		115
L0203327-09	1.00		110
L0203327-10	1.00		109
WG114773-01	1.00		109
WG114773-02	1.00		109

Surrogates	Surrogate Limits
1 - a,a,a-Trifluorotoluene	70 - 130

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 02/20/02
Last Calibration: Wed Feb 20 13:38:18 2002

Calibration Files

Compound	1 5G12234.D	10 5G12235.D	20 5G12236.D	50 5G12237.D	100 5G12238.D	200 5G12239.D	300 5G12240.D	Avg	%RSD	
MTBE	12539.098	11196.949	11243.150	11041.255	10933.684	9845.119	10773.245	11081.800	7.192	
Benzene	62790.330	47015.533	60310.422	60394.203	62248.899	55692.162	60796.018	58463.900	9.482	
TFT	11675.944	16647.005	18691.041	16931.193	18308.322	18431.867	17514.953	16885.800	14.359	
Toluene	57450.429	41830.870	54992.322	55224.813	57150.005	51457.407	56493.530	53514.200	10.332	LR=0.999
Chlorobenzene	51107.594	47796.569	57648.045	58702.207	60282.238	53862.815	58927.160	55475.200	8.416	
Ethylbenzene	44734.021	33822.898	47197.088	47781.820	49450.708	44065.886	48876.353	45132.700	11.903	LR=0.998
m-,p-Xylene	54877.067	41916.389	56810.621	56708.147	57983.908	51196.233	56259.916	53678.900	10.487	LR=0.998
o-Xylene	46024.604	38803.321	48912.004	49234.646	50426.567	45138.795	49785.014	46903.600	8.690	
BFB	40807.196	48040.267	50130.380	49818.364	51211.872	50893.985	46902.798	48257.800	7.520	
1,3-Dichlorobenzene	43022.355	39773.416	46613.595	47301.443	48695.412	43962.076	48263.141	45375.900	7.171	
1,4-Dichlorobenzene	50593.879	45110.732	50592.251	50273.527	50626.153	45302.288	49211.494	48815.800	5.152	
1,2-Dichlorobenzene	38039.156	36942.905	40744.634	40929.219	41461.798	37452.005	40820.717	39484.300	4.855	
BCB	42403.048	46209.846	48055.779	48169.399	49155.647	48910.071	45036.779	46848.700	5.245	

Fri Feb 22 12:57:25 2002

Login Number: L0203327
File ID: 5G12243
ALT ID: WG113244-08
Units: ug/L

Instrument ID: HP5
Run Date: 02/20/2002
Run Time: 14:36
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.4	42300	7.0	
1,4-Dichlorobenzene		20	21.1	51500	5.5	
1,3-Dichlorobenzene		20	21.0	47700	5.0	
o-Xylene		20	20.5	48000	2.5	
m-,p-Xylene		40	41.8	56600	4.5	
Ethylbenzene		20	21.5	48200	7.5	
Chlorobenzene		20	20.7	57500	3.5	
Toluene		20	21.2	55600	6.0	
Benzene		20	20.6	60300	3.0	
MTBE		20	18.9	10500	5.5	

Login Number: L0203327
File ID: 5G12646
CCV ID: WG114772-01
Units: ug/L

Instrument ID: HP5
Run Date: 03/20/2002
Run Time: 06:57
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.6	40600	3.0	
1,4-Dichlorobenzene		20	20.2	49300	1.0	
1,3-Dichlorobenzene		20	20.6	46800	3.0	
o-Xylene		20	20.4	47700	2.0	
m-,p-Xylene		40	41.4	56100	3.5	
Ethylbenzene		20	21.4	48000	7.0	
Chlorobenzene		20	20.8	57700	4.0	
Toluene		20	20.8	54700	4.0	
Benzene		20	20.4	59600	2.0	
MTBE		20	18.6	10300	7.0	

* Exceeds %D Limit

Login Number: L0203327
File ID: 5G12657
CCV ID: WG114772-02
Units: ug/L

Instrument ID: HP5
Run Date: 03/20/2002
Run Time: 13:38
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.3	40100	1.5	
1,4-Dichlorobenzene		20	20.3	49500	1.5	
1,3-Dichlorobenzene		20	20.2	45800	1.0	
o-Xylene		20	19.9	46800	0.5	
m-,p-Xylene		40	40.3	54600	0.8	
Ethylbenzene		20	20.8	46700	4.0	
Chlorobenzene		20	20.0	55600	0.0	
Toluene		20	20.5	53800	2.5	
Benzene		20	20.0	58400	0.0	
MTBE		20	17.3	9560	13.5	

* Exceeds %D Limit

Login Number: L0203327
File ID: 5G12661
CCV ID: WG114772-03
Units: ug/L

Instrument ID: HP5
Run Date: 03/20/2002
Run Time: 16:56
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.2	39800	1.0	
1,4-Dichlorobenzene		20	19.9	48500	0.5	
1,3-Dichlorobenzene		20	20.5	46600	2.5	
o-Xylene		20	20.0	47000	0.0	
m-,p-Xylene		40	40.3	54600	0.8	
Ethylbenzene		20	20.9	47000	4.5	
Chlorobenzene		20	20.1	55800	0.5	
Toluene		20	20.4	53600	2.0	
Benzene		20	19.7	57700	1.5	
MTBE		20	17.4	9650	13.0	

* Exceeds %D Limit

Injection Log

Directory: c:\hpchem\2\data\022002

WG113234
1 278

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12231.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::0
2	2	5g12232.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::5
3	2	5g12233.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::4
4	3	5g12234.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::2
5	4	5g12235.d	1.	WG113244-02 STD 2 10PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::5
6	5	5g12236.d	1.	WG113244-03 STD 3 20PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::3
7	6	5g12237.d	1.	WG113244-04 STD 4 50PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::0
8	7	5g12238.d	1.	WG113244-05 STD 5 100PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::4
9	8	5g12239.d	1.	WG113244-06 STD 6 200PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::1
10	9	5g12240.d	1.	WG113244-07 STD 7 300PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::5
11	10	5g12241.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::2
12	11	5g12242.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::0
13	12	5g12243.d	1.	WG113244-08 ALT SOURCE 20PPB 5ML	1,1 S-90-(28,39)	20 Feb 102 12::3
14	1	5g12244.d	1.	WG113278-01 STD 1 90PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::4
15	2	5g12245.d	1.	WG113278-02 STD 2 360PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1
16	3	5g12246.d	1.	WG113278-03 STD 3 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::5
17	4	5g12247.d	1.	WG113278-04 STD 4 1800PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::2
18	5	5g12248.d	1.	WG113278-05 STD 5 3600PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::0
19	6	5g12249.d	1.	WG113278-06 STD 6 7200PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::3
20	7	5g12250.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::1
21	8	5g12251.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::4
22	9	5g12252.d	1.	WG113278-07 ALT SOURCE 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1

Injection Log

Directory: c:\hpchem\2\data\032002

WG114773
L 836

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12646.d	1.	WG114772-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::5
2	2	5g12647.d	1.	WG114773-01 WATER BLANK 5ML ✓	1,1 S-91-31	20 Mar 102 12::4
3	3	5g12648.d	1.	WG114773-02 WATER LCS 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::1
4	1	5g12649.d	1.	WG114773-03 L0203327-04 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 12::5
5	2	5g12650.d	1.	WG114773-04 L0203327-05 MS A 5ML pH<2 NOT SPIKED	1,1 S-91-(30,31)	20 Mar 102 12::3
6	3	5g12651.d	1.	WG114773-05 L0203327-06 MSD A 5ML pH<2 NOT SPIKED	1,1 S-91-(30,31)	20 Mar 102 13::0
7	4	5g12652.d	1.	L0203327-07 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 13::4
8	5	5g12653.d	1.	L0203327-08 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 13::1
9	6	5g12654.d	1.	L0203327-09 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 13::5
10	7	5g12655.d	1.	WG114773-04 L0203327-05 MS A 5ML pH<2 ✓	1,1 S-91-(30,31)	20 Mar 102 13::2
11	8	5g12656.d	1.	WG114773-05 L0203327-06 MSD A 5ML pH<2 ✓	1,1 S-91-(30,31)	20 Mar 102 12::0
12	9	5g12657.d	1.	WG114772-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::3
13	10	5g12658.d	1.	L0203327-10 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 12::2
14	11	5g12659.d	500.	L0203302-02 A 5ML pH<2 500X ee @ 50x	1,500 S-91-31	20 Mar 102 12::5
15	1	5g12660.d	50.	L0203302-02 A 5ML pH<2 50X ✓	1,50 S-91-31	20 Mar 102 12::2
16	2	5g12661.d	1.	WG114772-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::5
17	3	5g12662.d	500.	WG114836-01 EXT BLANK 03/20/02 5G/10ML ✓	12,500 S-91-31	20 Mar 102 12::3
18	4	5g12663.d	500.	WG114836-02 EXT LCS 5G/10ML 500X	12,500 S-91-(30,31)	20 Mar 102 12::0
19	5	5g12664.d	500.	WG114836-03 L0203302-01 1G/10ML 500X ee @ 5000x	12,500 S-91-31	20 Mar 102 12::4
20	6	5g12665.d	500.	WG114836-04 L0203302-01 DUP 1G/10ML 500 ee @ 5000x	12,500 S-91-31	20 Mar 102 12::1
21	7	5g12666.d	1000.	L0203302-03 1G/10ML 1000X ee c/o	12,1000 S-91-31	20 Mar 102 12::5
22	8	5g12667.d	1000.	L0203302-03 1G/10ML 1000X ⊥	12,1000 S-91-31	20 Mar 102 12::2
23	9	5g12668.d	1.	RINSE ✓	1,1 S-91-31	20 Mar 102 12::5
24	10	5g12669.d	1.	WG114772-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::3

REANALYSIS

L0203302-01
⊥ -03

FILE #

VOA - GC

Date: 3/19/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 114705

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 3/20/02

Secondary Reviewers Initials & Date Checked: QS 3/20/02

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

_____

_____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 3/20/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 114773

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 3/21/02

Secondary Reviewers Initials & Date Checked: QJS 3/21/02

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

_____

_____

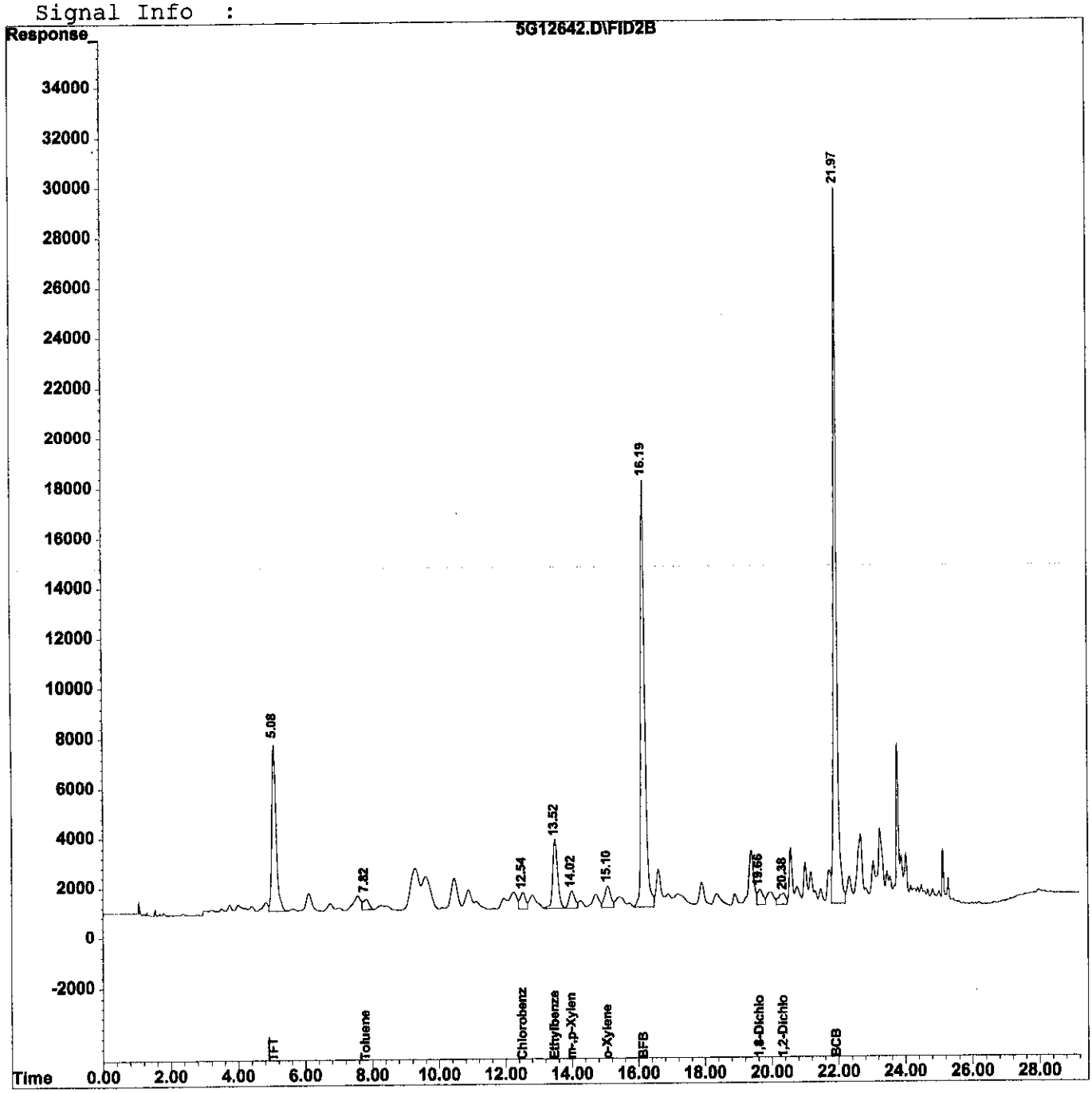
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\031902\5G12642.D Vial: 12
Acq On : 19 Mar 2002 21:10 Operator: CBN
Sample : L0203327-01 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 21:39 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12642.D
Acq On : 19 Mar 2002 21:10
Sample : L0203327-01 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 19 21:39 2002 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

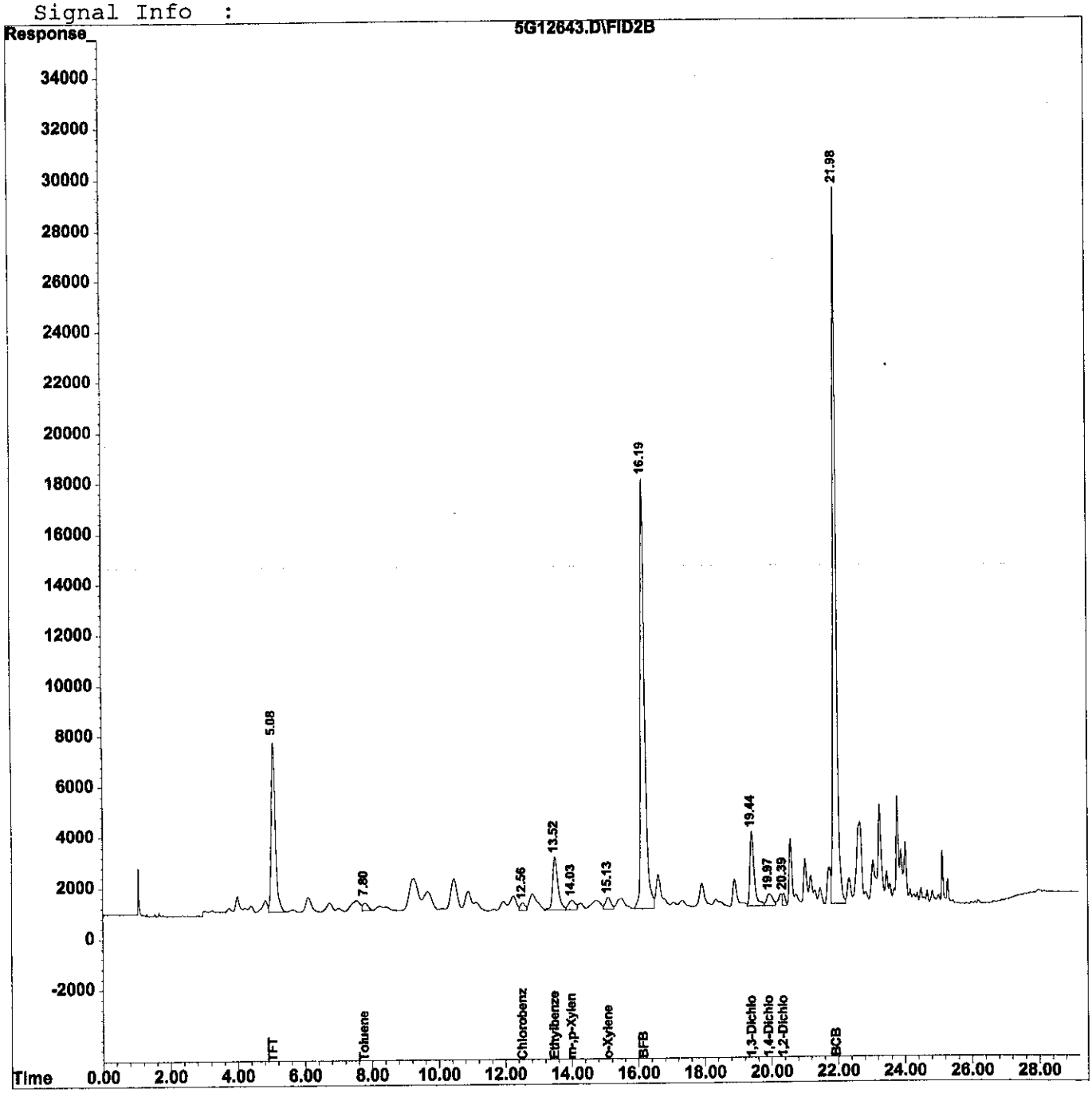
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	600102	35.5389 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	118.46%
9) S BFB	16.19	1463970	30.3364 ug/L
Spiked Amount 30.000		Recovery =	101.12%
13) S BCB	21.98	1828706	39.0343 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	130.11%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.76	20182	<MDL ug/L
4) TM Toluene	7.83 ✓	50997	2.0152 ug/L
5) TM Chlorobenzene	12.54	77024	~~1.3884 ug/L~~
6) TM Ethylbenzene	13.52 RT GOOD	285389	7.2751 ug/L
7) TM m-,p-Xylene	14.02 ✓	82865	2.1706 ug/L
8) TM o-Xylene	15.10 ✓	112664	2.4020 ug/L
10) TM 1,3-Dichlorobenzene	19.67	70345	~~1.5503 ug/L~~
11) TM 1,4-Dichlorobenzene	19.67	70345	~~1.4410 ug/L~~
12) TM 1,2-Dichlorobenzene	20.38	64707	~~1.6388 ug/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12643.D Vial: 13
Acq On : 19 Mar 2002 21:45 Operator: CBN
Sample : L0203327-02 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 22:14 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12643.D
Acq On : 19 Mar 2002 21:45
Sample : L0203327-02 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 19 22:14 2002 Quant Results File: 8021W.RES

Vial: 13
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	583156	34.5354 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 115.12%	
9) S BFB	16.20	1475043	30.5659 ug/L
Spiked Amount 30.000		Recovery = 101.89%	
13) S BCB	21.98	1851614	39.5233 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 131.74%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.76	10730	<MDL ug/L
4) TM Toluene	7.81✓	32046	1.6730 ug/L
5) TM Chlorobenzene	12.56	29239	~~0.5271 ug/L~~
6) TM Ethylbenzene	13.53✓	230888	6.1358 ug/L
7) TM m-,p-Xylene	14.03✓	49724	1.5686 ug/L
8) TM o-Xylene	15.12✓	50841	1.0840 ug/L
10) TM 1,3-Dichlorobenzene	19.44	260011	~~5.7302 ug/L~~
11) TM 1,4-Dichlorobenzene	19.97	56356	~~1.1545 ug/L~~
12) TM 1,2-Dichlorobenzene	20.38	26885	~~0.6809 ug/L~~

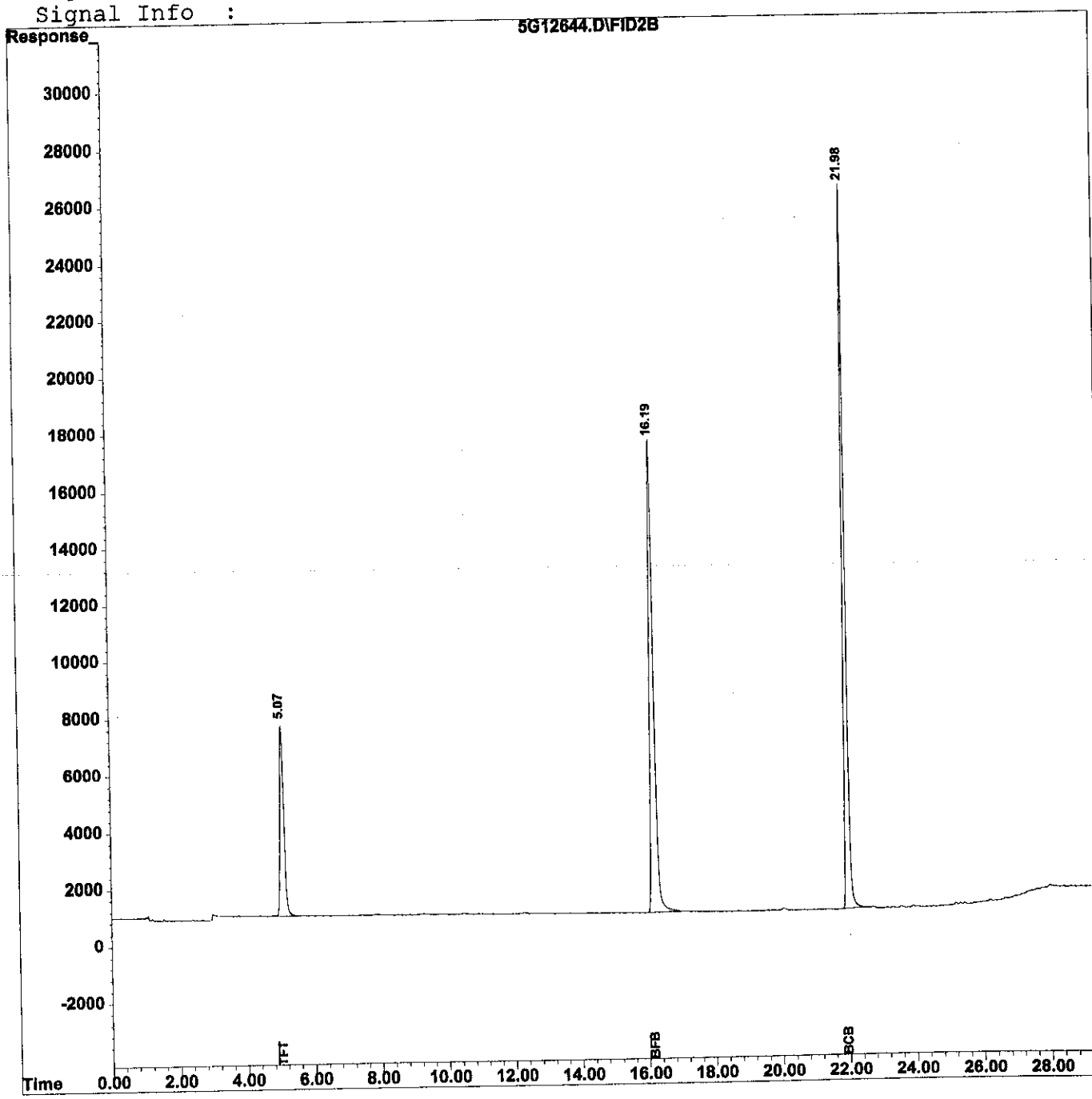
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12644.D
Acq On : 19 Mar 2002 22:20
Sample : L0203327-03 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 19 22:49 2002 Quant Results File: 8021W.RES

Vial: 14
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12644.D
Acq On : 19 Mar 2002 22:20
Sample : L0203327-03 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 19 22:49 2002 Quant Results File: 8021W.RES

Vial: 14
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	556685	32.9677 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.89%
9) S BFB	16.20	1400884	29.0292 ug/L
Spiked Amount 30.000		Recovery =	96.76%
13) S BCB	21.98	1378187	29.4179 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	98.06%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

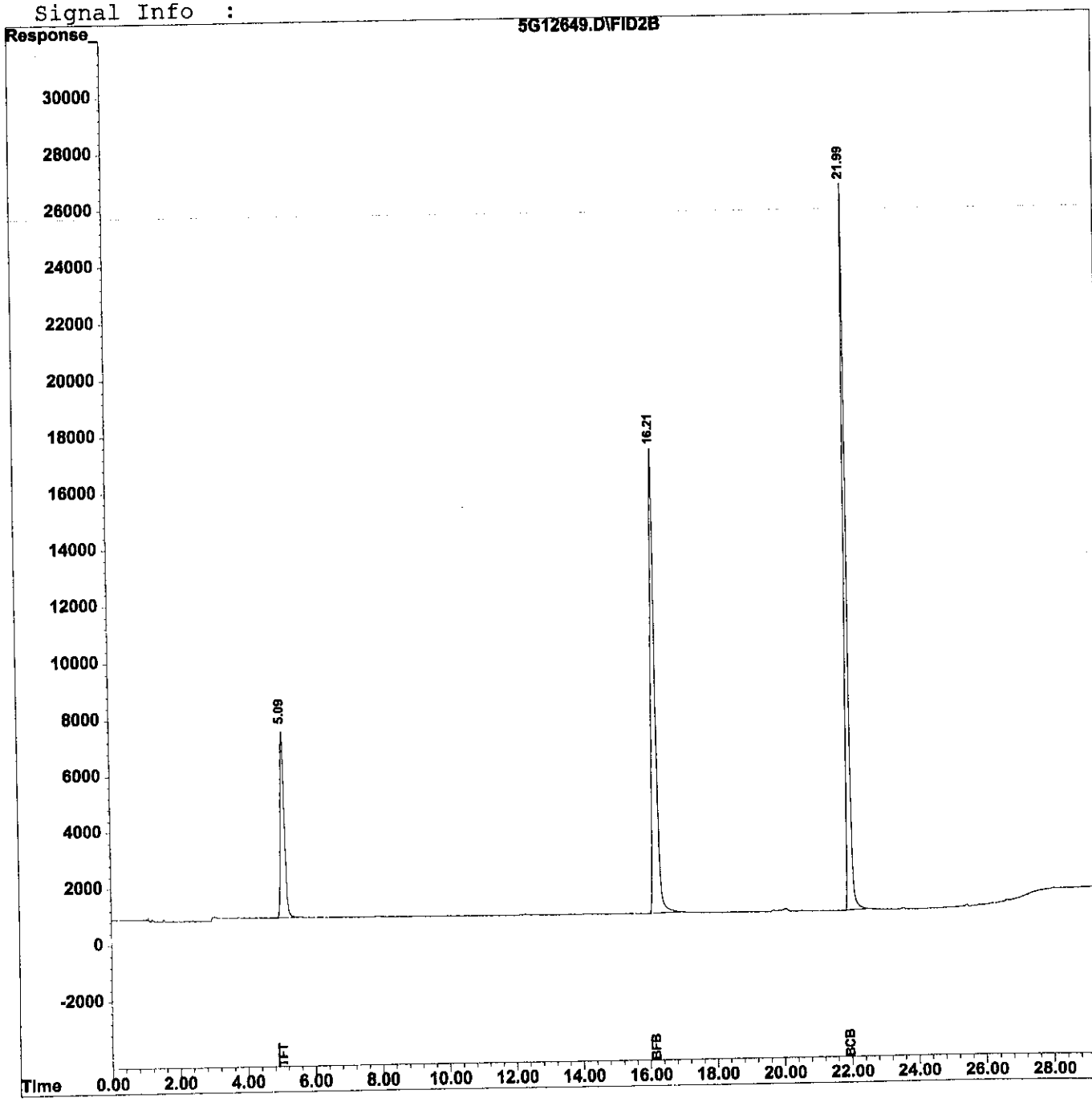
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12649.D
Acq On : 20 Mar 2002 8:59
Sample : WG114773-03 L0203327-04 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 20 9:28 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12649.D Vial: 1
Acq On : 20 Mar 2002 8:59 Operator: CBN
Sample : WG114773-03 L0203327-04 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 9:28 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	550501	32.6015 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	108.67%
9) S BFB	16.22	1393057	28.8670 ug/L
Spiked Amount 30.000		Recovery =	96.22%
13) S BCB	22.00	1398117	29.8433 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.48%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

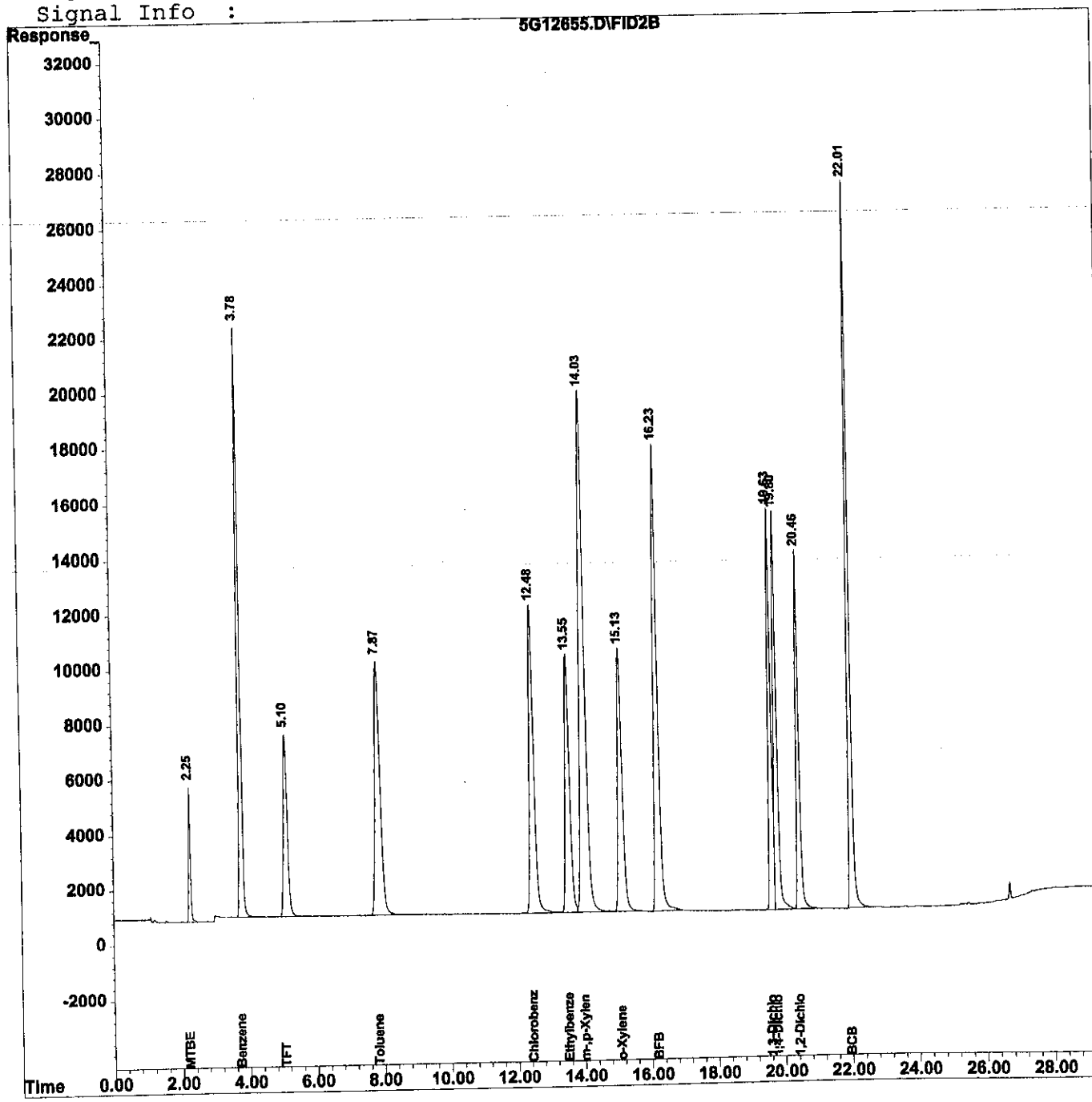
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12655.D
Acq On : 20 Mar 2002 12:29
Sample : WG114773-04 L0203327-05 MS A 5ML pH<2
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 20 12:58 2002 Quant Results File: 8021W.RES

Vial: 7
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



5G12655.D 8021W.M Wed Mar 20 12:58:25 2002 Page 2

Data File : C:\HPCHEM\2\DATA\032002\5G12655.D Vial: 7
Acq On : 20 Mar 2002 12:29 Operator: CBN
Sample : WG114773-04 L0203327-05 MS A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 12:58 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	555445	32.8943 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.65%
9) S BFB	16.24	1409900	29.2160 ug/L
Spiked Amount 30.000		Recovery =	97.39%
13) S BCB	22.01	1393903	29.7533 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.18%
Target Compounds			
1) TM MTBE	2.25	193612	17.4712 ug/L
2) TM Benzene	3.78	1107655	18.9460 ug/L
4) TM Toluene	7.87	1020729	19.5248 ug/L
5) TM Chlorobenzene	12.49	1081473	19.4947 ug/L
6) TM Ethylbenzene	13.56	887813	19.8690 ug/L
7) TM m-,p-Xylene	14.04	2071716	38.2983 ug/L
8) TM o-Xylene	15.13	895080	19.0834 ug/L
10) TM 1,3-Dichlorobenzene	19.63	873950	19.2602 ug/L
11) TM 1,4-Dichlorobenzene	19.80	950332	19.4677 ug/L
12) TM 1,2-Dichlorobenzene	20.46	778634	19.7201 ug/L

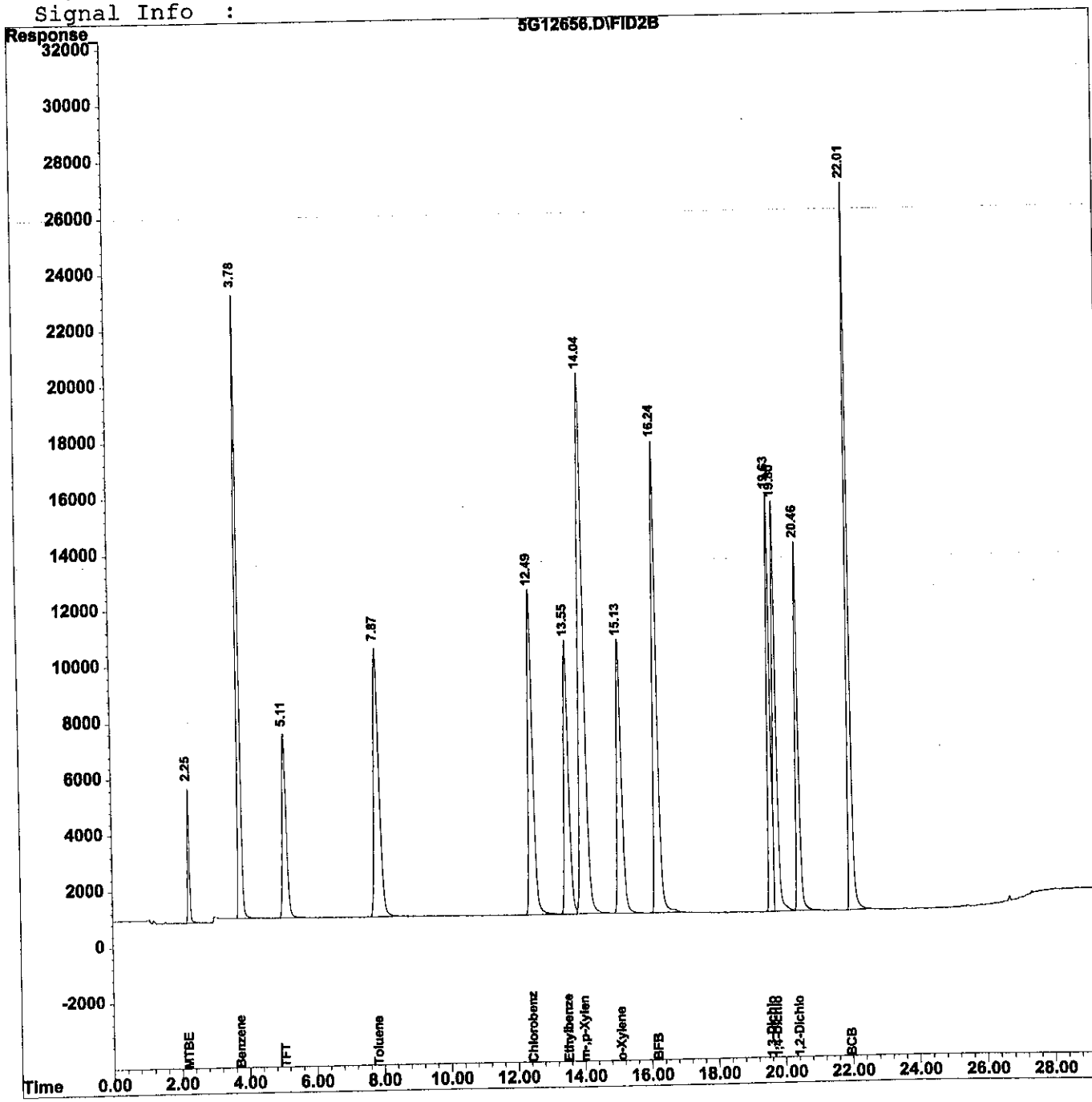
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12656.D
Acq On : 20 Mar 2002 13:04
Sample : WG114773-05 L0203327-06 MSD A 5ML pH<2
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 20 13:33 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12656.D
Acq On : 20 Mar 2002 13:04
Sample : WG114773-05 L0203327-06 MSD A 5ML pH<2
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 20 13:33 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	556105	32.9334 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 109.78%	
9) S BFB	16.24	1401316	29.0381 ug/L
Spiked Amount 30.000		Recovery = 96.79%	
13) S BCB	22.01	1388990	29.6485 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 98.83%	
Target Compounds			
1) TM MTBE	2.25	190167	17.1603 ug/L
2) TM Benzene	3.78	1152672	19.7159 ug/L
4) TM Toluene	7.87	1063574	20.2984 ug/L
5) TM Chlorobenzene	12.49	1117531	20.1447 ug/L
6) TM Ethylbenzene	13.56	921649	20.5764 ug/L
7) TM m-,p-Xylene	14.04	2144492	39.6203 ug/L
8) TM o-Xylene	15.14	926157	19.7460 ug/L
10) TM 1,3-Dichlorobenzene	19.64	897985	19.7899 ug/L
11) TM 1,4-Dichlorobenzene	19.80	972500	19.9218 ug/L
12) TM 1,2-Dichlorobenzene	20.46	788420	19.9679 ug/L

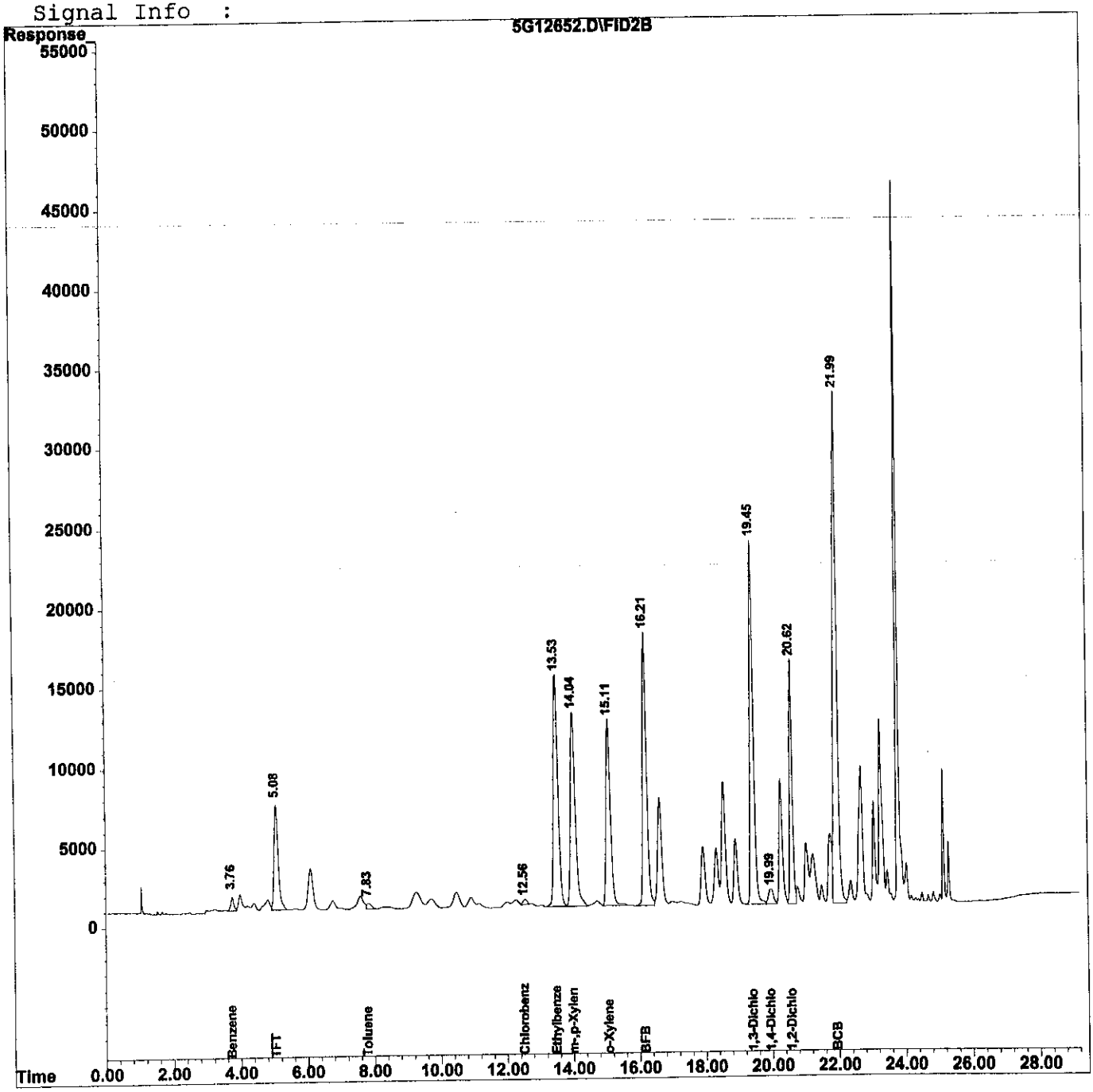
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12652.D
Acq On : 20 Mar 2002 10:44
Sample : L0203327-07 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 20 11:13 2002 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12652.D
Acq On : 20 Mar 2002 10:44
Sample : L0203327-07 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 20 11:13 2002 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			5.08	586132	34.7116 ug/L
Spiked Amount	30.000	Range 70 - 130		Recovery =	115.71%
9) S BFB			16.22	1419274	29.4102 ug/L
Spiked Amount	30.000			Recovery =	98.03%
13) S BCB			21.99	2509271	53.5612 ug/L
Spiked Amount	30.000	Range 37 - 137		Recovery =	178.54%#
Target Compounds					
1) TM MTBE			0.00	0	N.D. ug/L
2) TM Benzene			3.76	58559	1.0016 ug/L
4) TM Toluene			7.84	39484	1.8073 ug/L
5) TM Chlorobenzene			12.57	30208	0.5445 ug/L
6) TM Ethylbenzene			13.53	1389650	30.3601 ug/L
7) TM m-,p-Xylene			14.04	1246156	23.3019 ug/L
8) TM o-Xylene			15.11	1092366	23.2896 ug/L
10) TM 1,3-Dichlorobenzene			19.45	1670729	36.8197 ug/L
11) TM 1,4-Dichlorobenzene			19.99	104093	2.1324 ug/L
12) TM 1,2-Dichlorobenzene			20.62	878045	22.2378 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

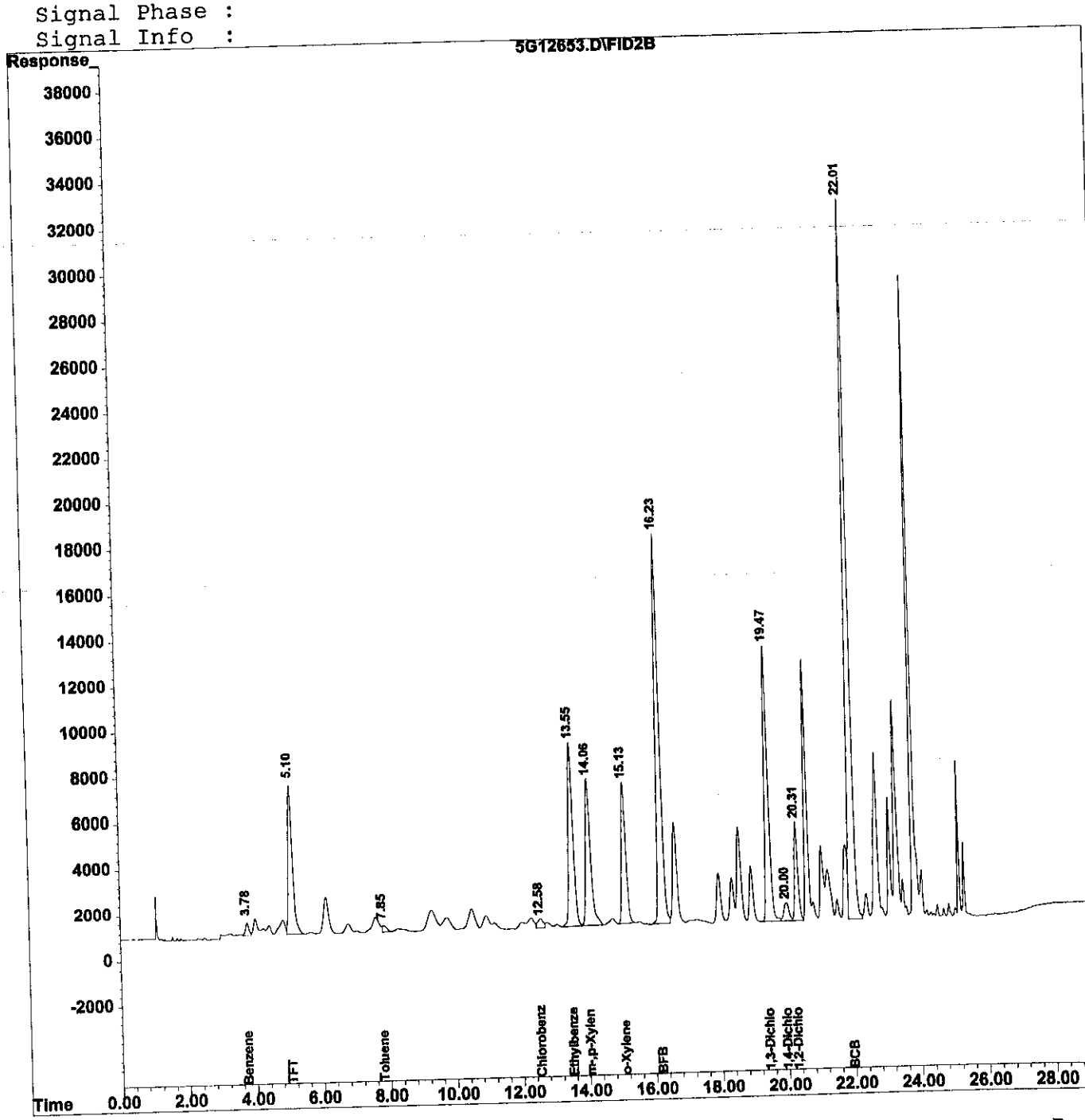
Page 124

Data File : C:\HPCHEM\2\DATA\032002\5G12653.D
Acq On : 20 Mar 2002 11:19
Sample : L0203327-08 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 20 11:48 2002 Quant Results File: 8021W.RES

Vial: 5
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\032002\5G12653.D Vial: 5
Acq On : 20 Mar 2002 11:19 Operator: CBN
Sample : L0203327-08 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 11:48 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.10	580258	34.3638 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	114.55%
9) S BFB	16.24	1405675	29.1284 ug/L
Spiked Amount 30.000		Recovery =	97.09%
13) S BCB	22.00	2343670	50.0264 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	166.75%#
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.78 ✓	35403	0.6055 ug/L
4) TM Toluene	7.85 ✓	21928	1.4903 ug/L
5) TM Chlorobenzene	12.59	47794	~~0.8615 ug/L~~
6) TM Ethylbenzene	13.55 ✓	785630	17.7328 ug/L
7) TM m-,p-Xylene	14.07 ✓	682174	13.0571 ug/L
8) TM o-Xylene	15.14 ✓	572475	12.2054 ug/L
10) TM 1,3-Dichlorobenzene	19.47	930025	~~20.4960 ug/L~~
11) TM 1,4-Dichlorobenzene	20.01	88751	~~1.8181 ug/L~~
12) TM 1,2-Dichlorobenzene	20.32	306365	~~7.7591 ug/L~~

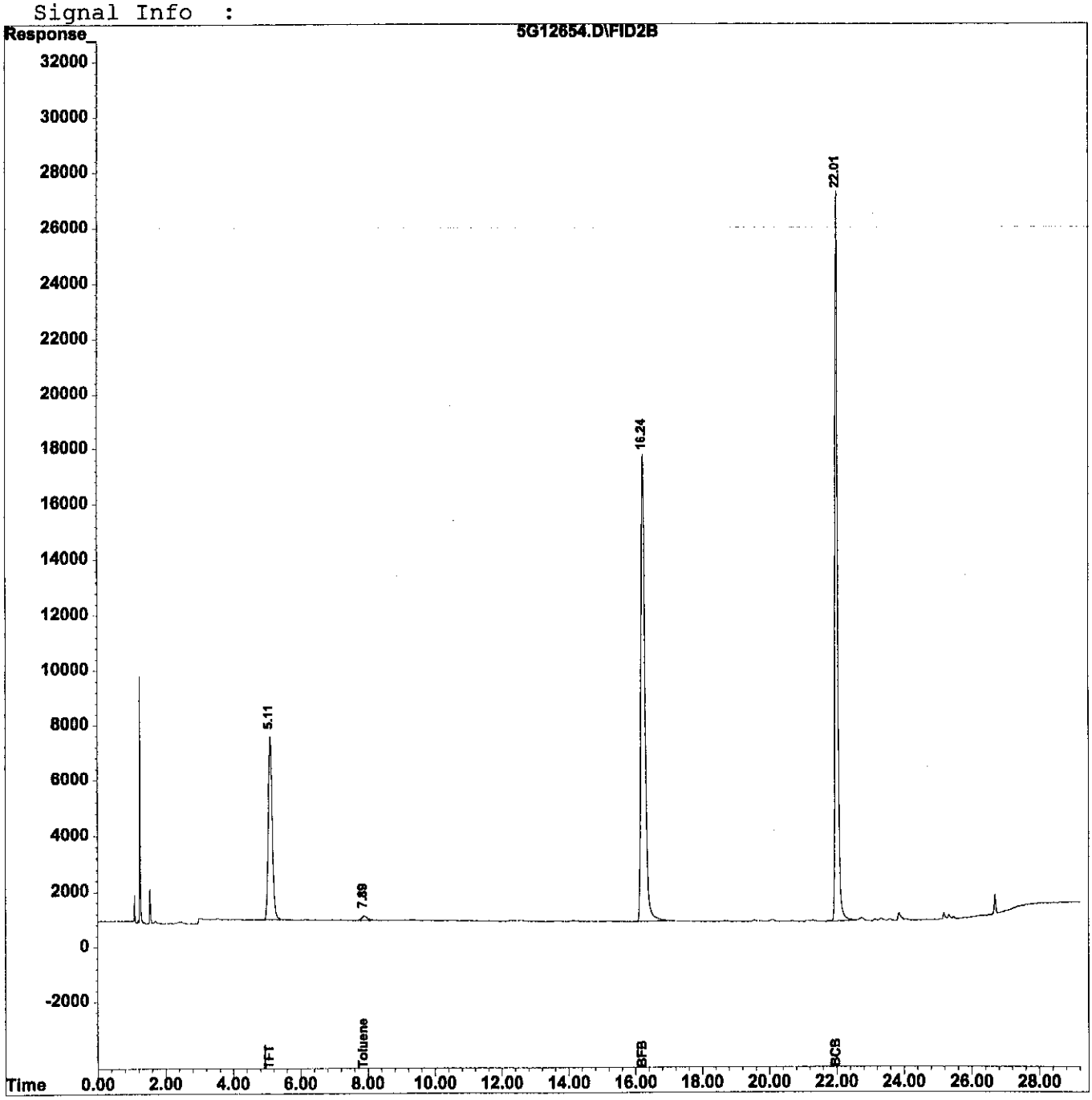
(f)=RT Delta > 1/2 Window (m)=manual int.

126

Data File : C:\HPCHEM\2\DATA\032002\5G12654.D Vial: 6
Acq On : 20 Mar 2002 11:54 Operator: CBN
Sample : L0203327-09 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 12:23 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\032002\5G12654.D Vial: 6
Acq On : 20 Mar 2002 11:54 Operator: CBN
Sample : L0203327-09 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 12:23 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

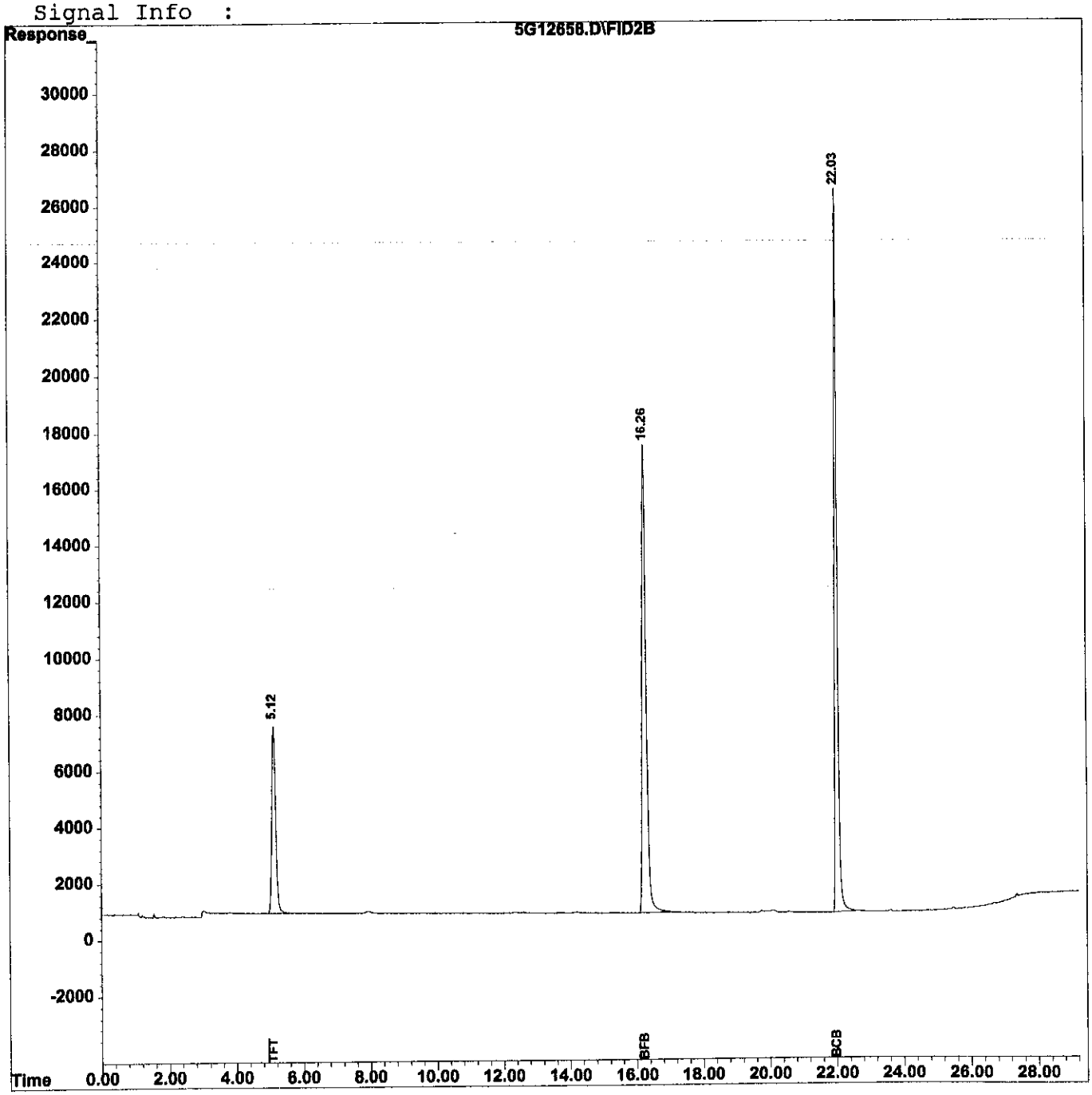
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	558867	33.0970 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	110.32%
9) S BFB	16.24	1407435	29.1649 ug/L
Spiked Amount 30.000		Recovery =	97.22%
13) S BCB	22.02	1402948	29.9464 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.82%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	7.89	19401	1.4447 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12658.D Vial: 10
Acq On : 20 Mar 2002 14:22 Operator: CBN
Sample : L0203327-10 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 14:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12658.D Vial: 10
Acq On : 20 Mar 2002 14:22 Operator: CBN
Sample : L0203327-10 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 14:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.13	551163	32.6407 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 108.80%	
9) S BFB	16.26	1394971	28.9066 ug/L
Spiked Amount 30.000		Recovery = 96.36%	
13) S BCB	22.03	1383215	29.5252 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 98.42%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

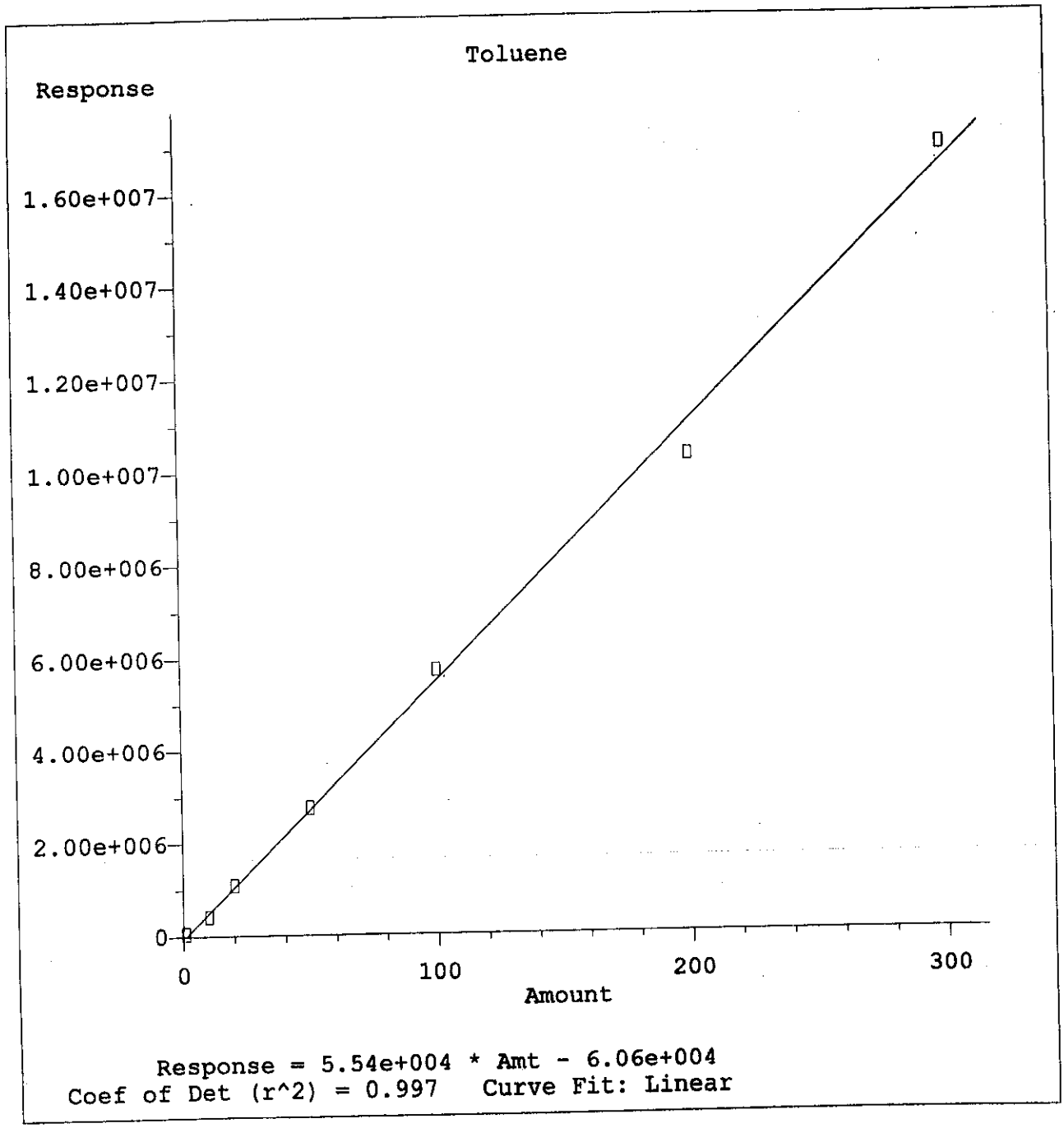
2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 02/20/02
Last Calibration: Wed Feb 20 13:38:18 2002

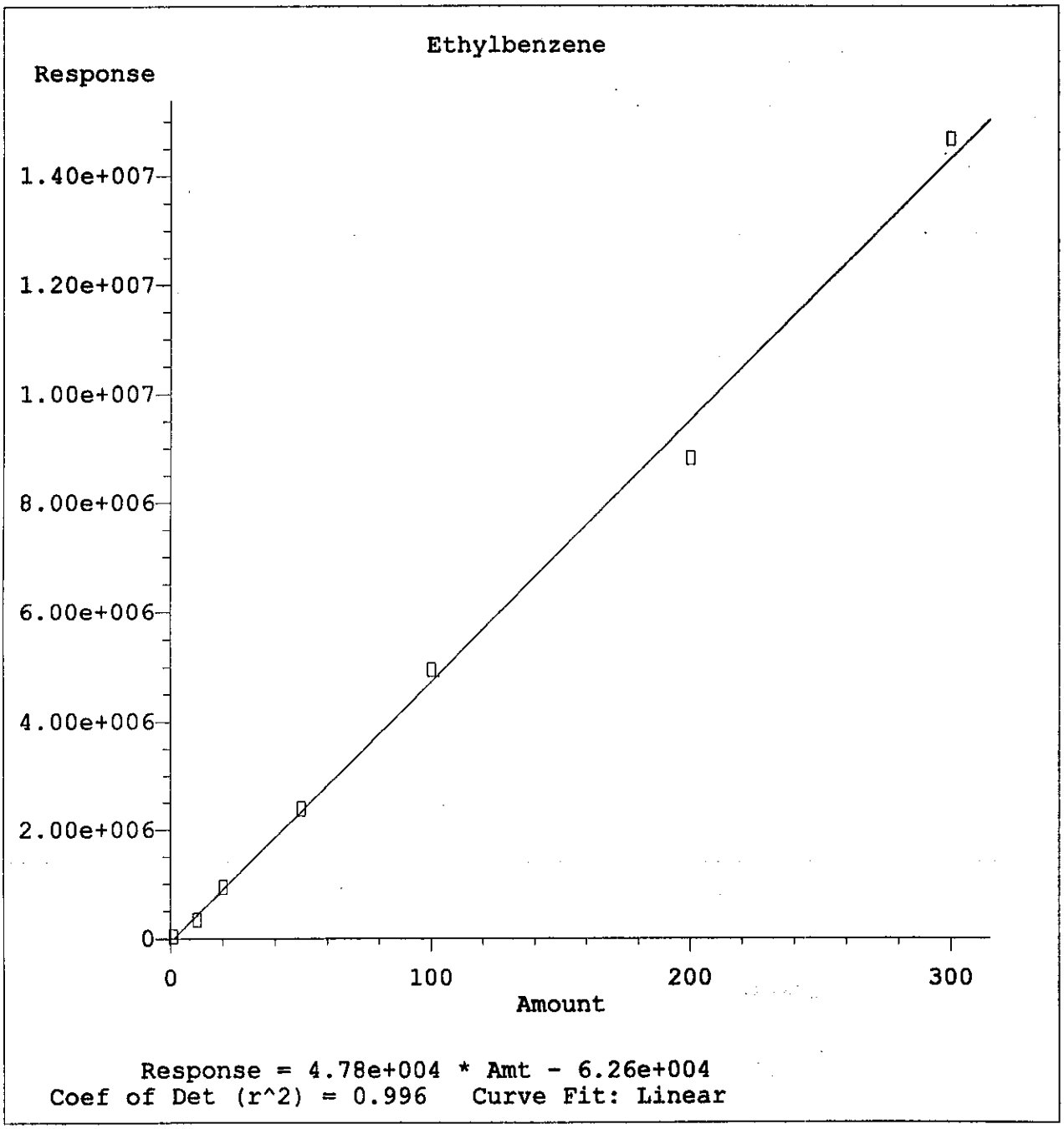
Calibration Files

Compound	1 5G12234.D	10 5G12235.D	20 5G12236.D	50 5G12237.D	100 5G12238.D	200 5G12239.D	300 5G12240.D	Avg	%RSD	
MTBE	12539.098	11196.949	11243.150	11041.255	10933.684	9845.119	10773.245	11081.800	7.192	
Benzene	62790.330	47015.533	60310.422	60394.203	62248.899	55692.162	60796.018	58463.900	9.482	
TFT	11675.944	16647.005	18691.041	16931.193	18308.322	18431.867	17514.953	16885.800	14.359	
Toluene	57450.429	41830.870	54992.322	55224.813	57150.005	51457.407	56493.530	53514.200	10.332	LR=0.999
Chlorobenzene	51107.594	47796.569	57648.045	58702.207	60282.238	53862.815	58927.160	55475.200	8.416	
Ethylbenzene	44734.021	33822.898	47197.088	47781.820	49450.708	44065.886	48876.353	45132.700	11.903	LR=0.998
m-,p-Xylene	54877.067	41916.389	56810.621	56708.147	57983.908	51196.233	56259.916	53678.900	10.487	LR=0.998
o-Xylene	46024.604	38803.321	48912.004	49234.646	50426.567	45138.795	49785.014	46903.600	8.690	
BFB	40807.196	48040.267	50130.380	49818.364	51211.872	50893.985	46902.798	48257.800	7.520	
1,3-Dichlorobenzene	43022.355	39773.416	46613.595	47301.443	48695.412	43962.076	48263.141	45375.900	7.171	
1,4-Dichlorobenzene	50593.879	45110.732	50592.251	50273.527	50626.153	45302.288	49211.494	48815.800	5.152	
1,2-Dichlorobenzene	38039.156	36942.905	40744.634	40929.219	41461.798	37452.005	40820.717	39484.300	4.855	
BCB	42403.048	46209.846	48055.779	48169.399	49155.647	48910.071	45036.779	46848.700	5.245	

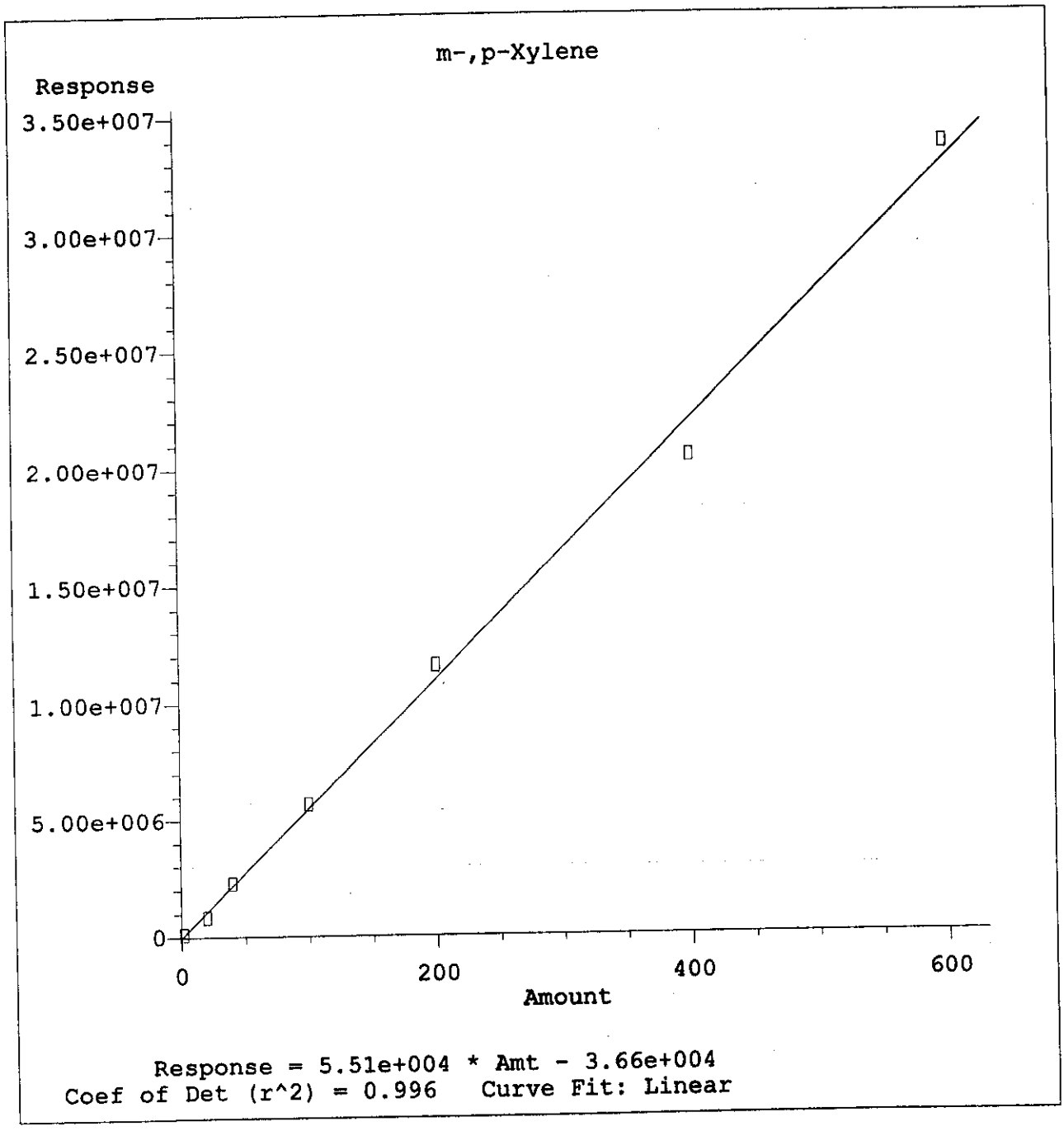
Fri Feb 22 12:57:25 2002



Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002



Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002



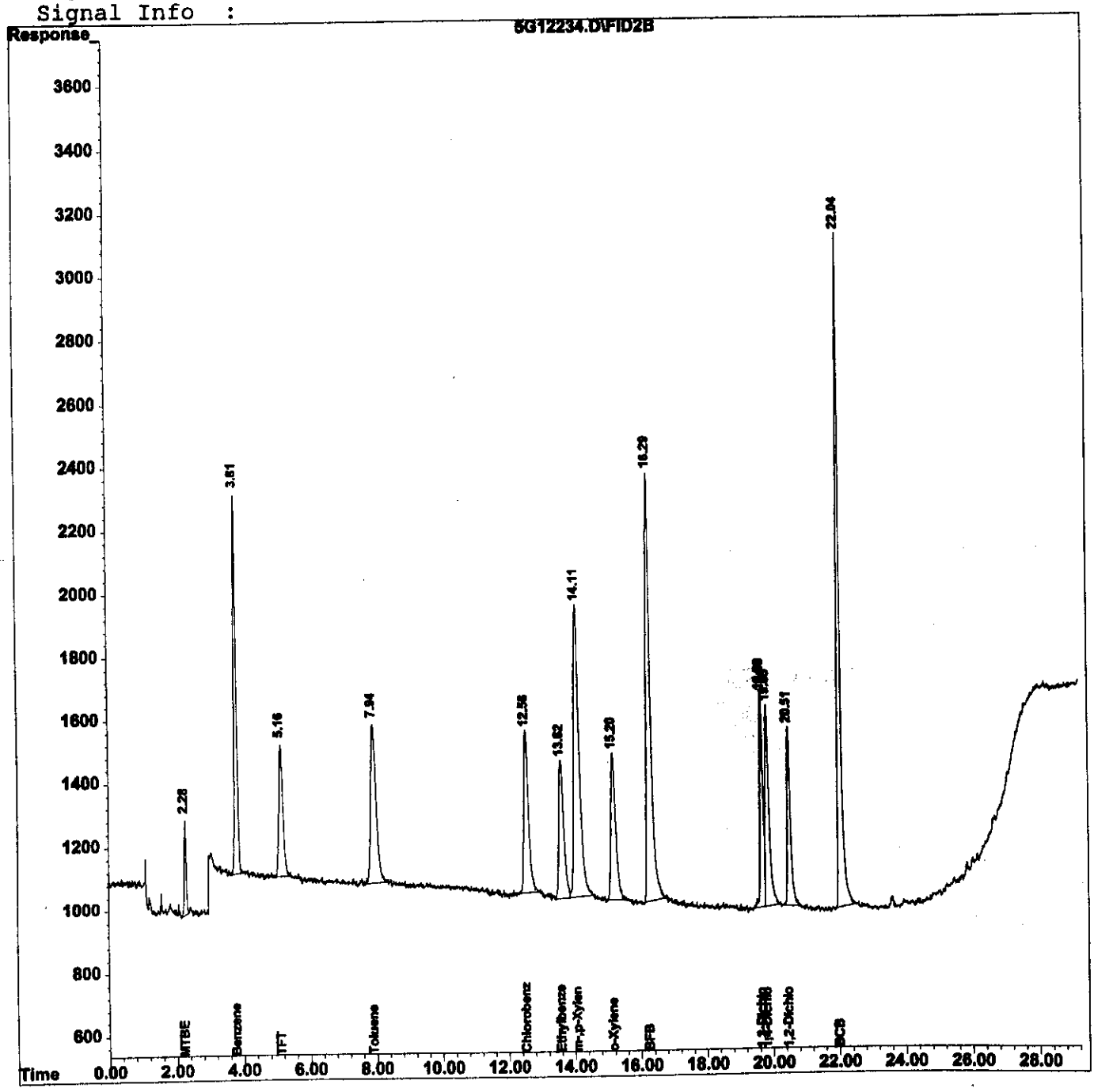
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002

Data File : C:\HPCHEM\2\DATA\022002\5G12234.D
Acq On : 20 Feb 2002 9:22
Sample : WG113244-01 STD 1 1PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 9:51 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12234.D Vial: 3
Acq On : 20 Feb 2002 9:22 Operator: CBN
Sample : WG113244-01 STD 1 1PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 9:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.16	35028	1.7272 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	5.76%#
9) S BFB	16.29	122422	2.2088 ug/L
Spiked Amount 30.000		Recovery =	7.36%
13) S BCB	22.04	127209	2.3923 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	7.97%#
Target Compounds			
1) TM MTBE	2.28	12539	1.0376 ug/L
2) TM Benzene	3.82	62790	0.8887 ug/L
4) TM Toluene	7.94	57450	0.5403 ug/L
5) TM Chlorobenzene	12.56	51108	0.7568 ug/L
6) TM Ethylbenzene	13.62	44734	0.8046 ug/L
7) TM m-,p-Xylene	14.11	109754	1.6329 ug/L
8) TM o-Xylene	15.20	46025	0.7916 ug/L
10) TM 1,3-Dichlorobenzene	19.69	43022	0.7747 ug/L
11) TM 1,4-Dichlorobenzene	19.86	50594	0.8634 ug/L
12) TM 1,2-Dichlorobenzene	20.51	38039	0.7869 ug/L

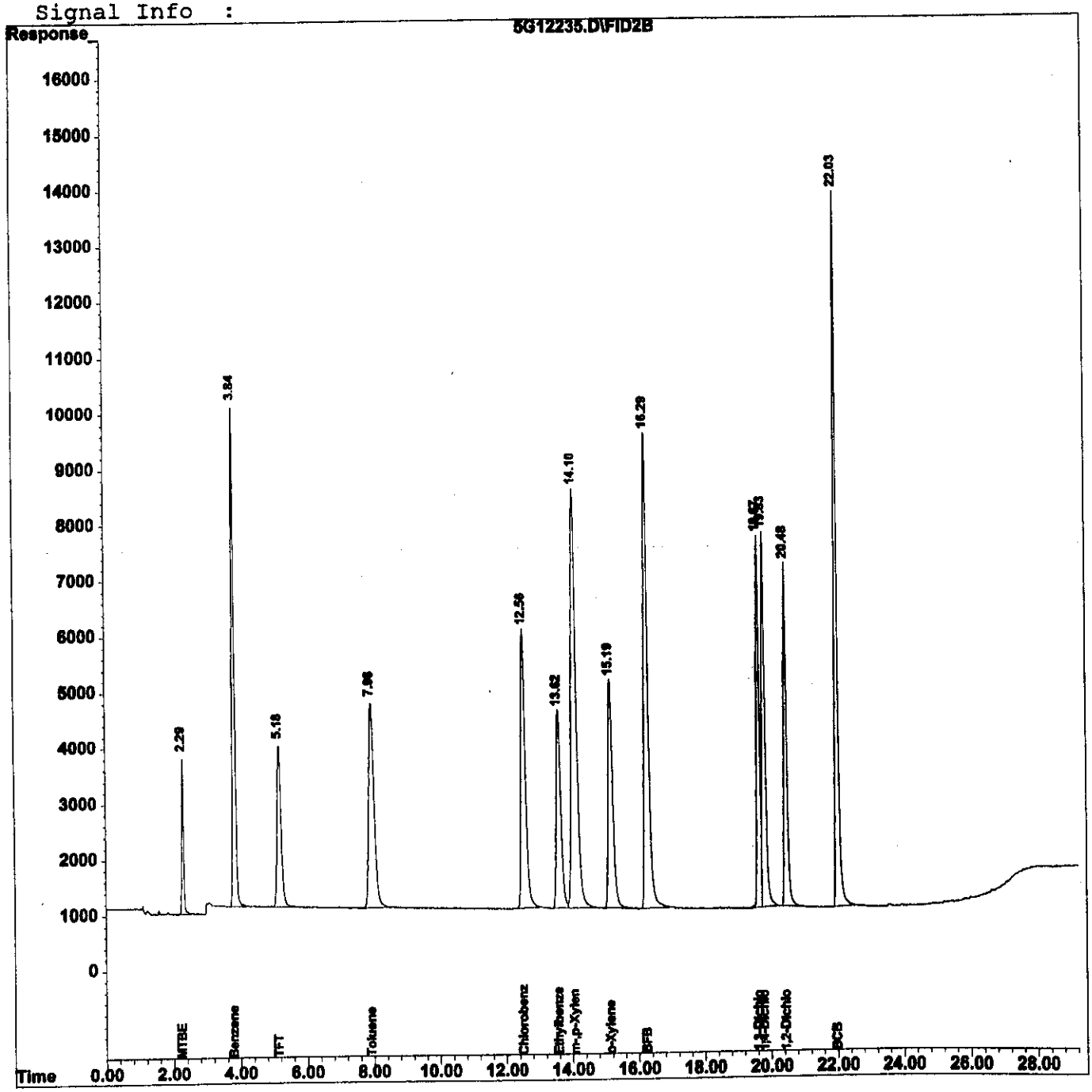
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12235.D Vial: 4
Acq On : 20 Feb 2002 9:56 Operator: CBN
Sample : WG113244-02 STD 2 10PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 10:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12235.D
Acq On : 20 Feb 2002 9:56
Sample : WG113244-02 STD 2 10PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 10:26 2002 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

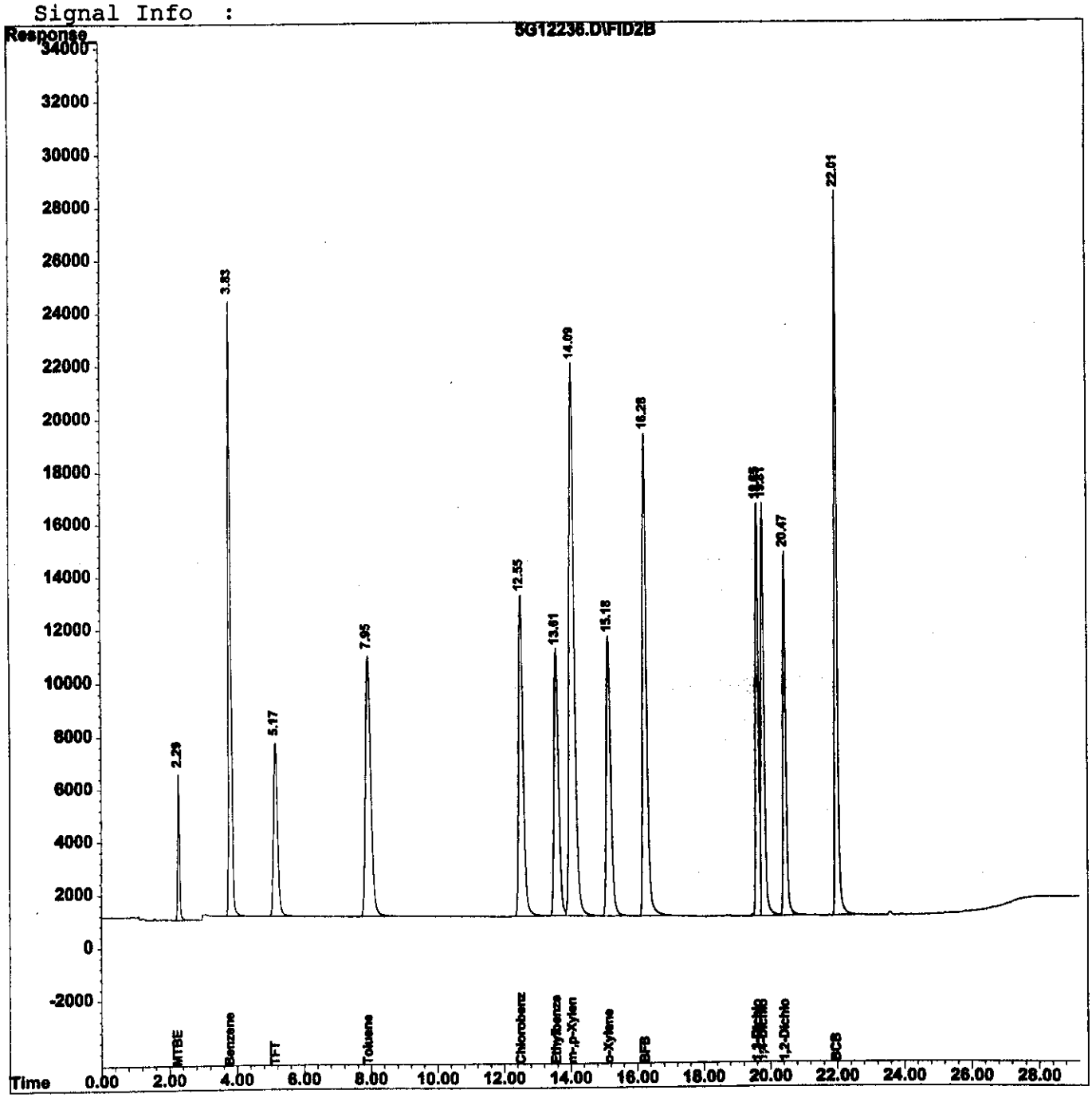
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	249705	12.3125 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	41.04%#
9) S BFB	16.29	720604	13.0018 ug/L
Spiked Amount 30.000		Recovery =	43.34%
13) S BCB	22.03	693148	13.0351 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	43.45%
Target Compounds			
1) TM MTBE	2.29	111969	9.2658 ug/L
2) TM Benzene	3.84	470155	6.6547 ug/L
4) TM Toluene	7.96	418309	6.3797 ug/L
5) TM Chlorobenzene	12.56	477966	7.0781 ug/L
6) TM Ethylbenzene	13.62	338229	6.0834 ug/L
7) TM m-,p-Xylene	14.10	838328	12.4722 ug/L
8) TM o-Xylene	15.19	388033	6.6739 ug/L
10) TM 1,3-Dichlorobenzene	19.67	397734	7.1620 ug/L
11) TM 1,4-Dichlorobenzene	19.83	451107	7.6985 ug/L
12) TM 1,2-Dichlorobenzene	20.49	369429	7.6418 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12236.D Vial: 5
Acq On : 20 Feb 2002 10:31 Operator: CBN
Sample : WG113244-03 STD 3 20PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:01 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12236.D Vial: 5
Acq On : 20 Feb 2002 10:31 Operator: CBN
Sample : WG113244-03 STD 3 20PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:01 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

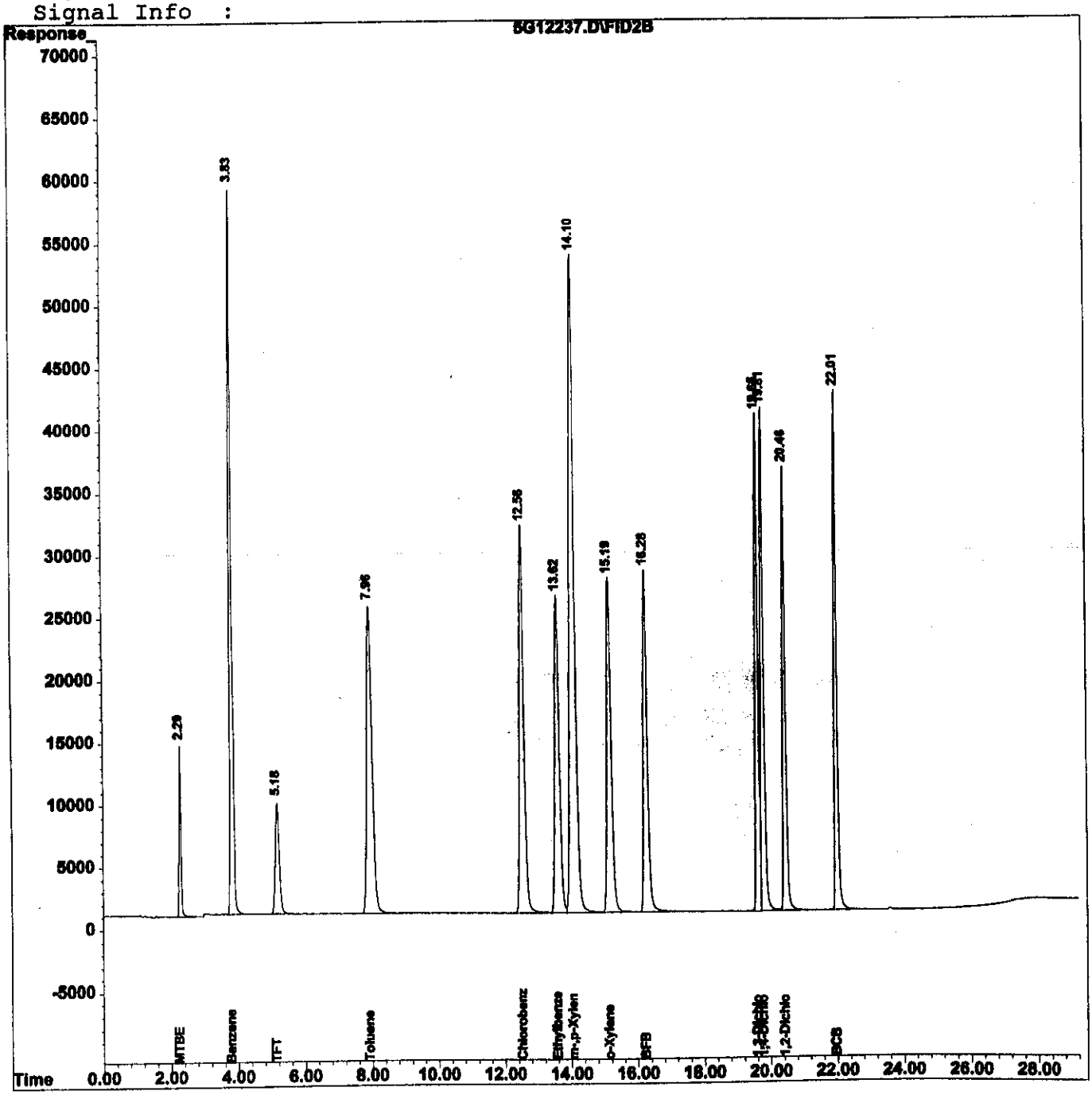
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	560731	27.6487 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	92.16%
9) S BFB	16.28	1503911	27.1350 ug/L
Spiked Amount 30.000		Recovery =	90.45%
13) S BCB	22.01	1441673	27.1117 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	90.37%
Target Compounds			
1) TM MTBE	2.29	224863	18.6081 ug/L
2) TM Benzene	3.83	1206208	17.0729 ug/L
4) TM Toluene	7.95	1099846	17.4083 ug/L
5) TM Chlorobenzene	12.55	1152961	17.0740 ug/L
6) TM Ethylbenzene	13.61	943942	16.9778 ug/L
7) TM m-,p-Xylene	14.09	2272425	33.8079 ug/L
8) TM o-Xylene	15.18	978240	16.8250 ug/L
10) TM 1,3-Dichlorobenzene	19.65	932272	16.7874 ug/L
11) TM 1,4-Dichlorobenzene	19.81	1011845	17.2680 ug/L
12) TM 1,2-Dichlorobenzene	20.47	814893	16.8565 ug/L

(m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12237.D Vial: 6
Acq On : 20 Feb 2002 11:06 Operator: CBN
Sample : WG113244-04 STD 4 50PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:36 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12237.D Vial: 6
Acq On : 20 Feb 2002 11:06 Operator: CBN
Sample : WG113244-04 STD 4 50PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:36 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

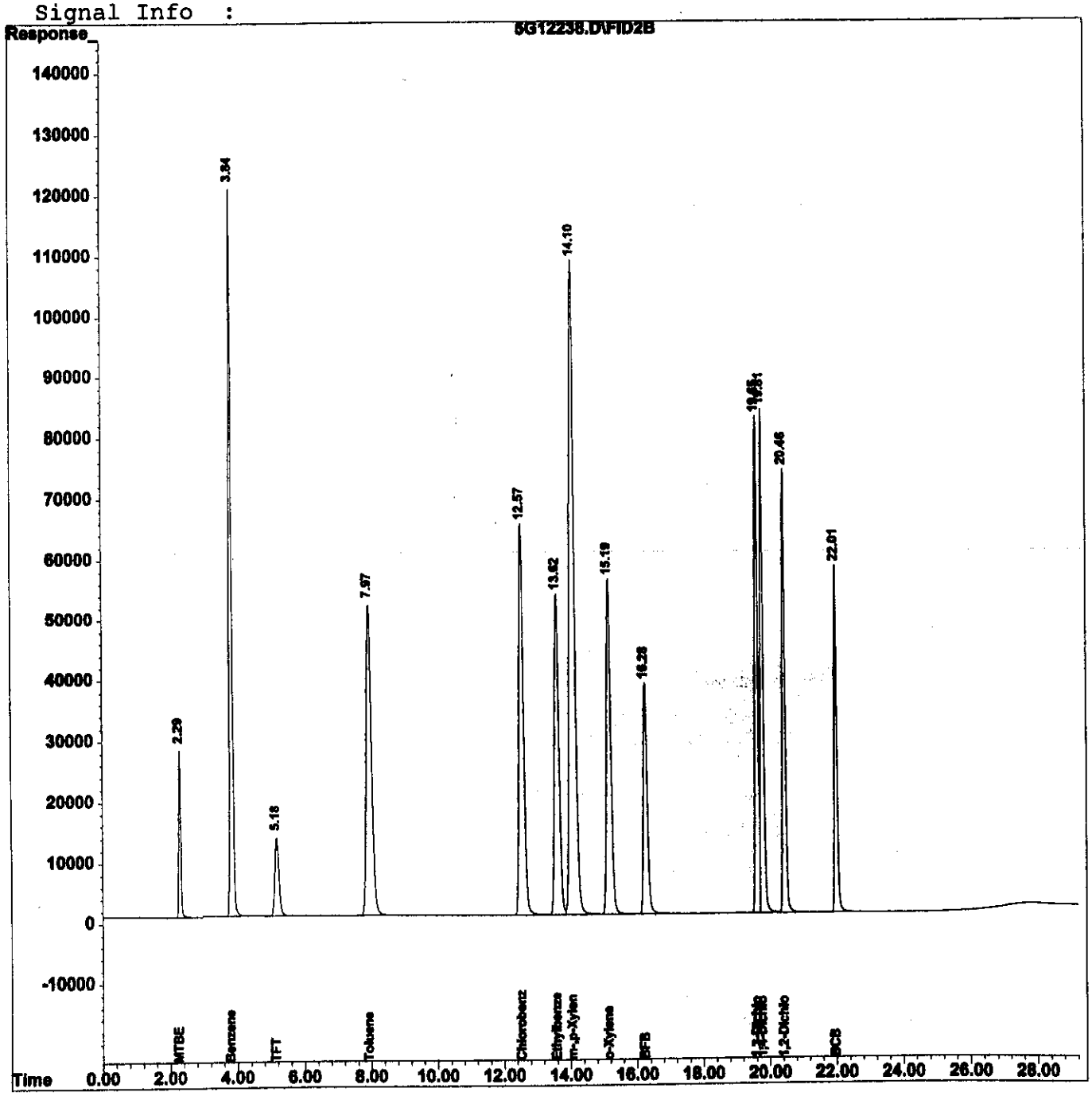
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	761904	37.5682 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 125.23%	
9) S BFB	16.28	2241826	40.4492 ug/L
Spiked Amount 30.000		Recovery = 134.83%	
13) S BCB	22.01	2167623	40.7637 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 135.88%	
Target Compounds			
1) TM MTBE	2.29	552063	45.6849 ug/L
2) TM Benzene	3.83	3019710	42.7415 ug/L
4) TM Toluene	7.96	2761241	44.2929 ug/L
5) TM Chlorobenzene	12.56	2935110	43.4655 ug/L
6) TM Ethylbenzene	13.62	2389091	42.9704 ug/L
7) TM m-,p-Xylene	14.10	5670815	84.3672 ug/L
8) TM o-Xylene	15.19	2461732	42.3400 ug/L
10) TM 1,3-Dichlorobenzene	19.65	2365072	42.5879 ug/L
11) TM 1,4-Dichlorobenzene	19.81	2513676	42.8981 ug/L
12) TM 1,2-Dichlorobenzene	20.47	2046461	42.3321 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12238.D Vial: 7
Acq On : 20 Feb 2002 11:41 Operator: CBN
Sample : WG113244-05 STD 5 100PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:11 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12238.D Vial: 7
Acq On : 20 Feb 2002 11:41 Operator: CBN
Sample : WG113244-05 STD 5 100PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:11 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	1098499	54.1651 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 180.55%#	
9) S BFB	16.28	3072712	55.4408 ug/L
Spiked Amount 30.000		Recovery = 184.80%	
13) S BCB	22.01	2949339	55.4644 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 184.88%#	
Target Compounds			
1) TM MTBE	2.30	1093368	90.4797 ug/L
2) TM Benzene	3.84	6224890	88.1083 ug/L
4) TM Toluene	7.97	5715001	92.0904 ug/L
5) TM Chlorobenzene	12.57	6028224	89.2708 ug/L
6) TM Ethylbenzene	13.63	4945071	88.9425 ug/L
7) TM m-,p-Xylene	14.10	11596782	172.5304 ug/L
8) TM o-Xylene	15.19	5042657	86.7301 ug/L
10) TM 1,3-Dichlorobenzene	19.65	4869541	87.6859 ug/L
11) TM 1,4-Dichlorobenzene	19.81	5062615	86.3979 ug/L
12) TM 1,2-Dichlorobenzene	20.47	4146180	85.7659 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

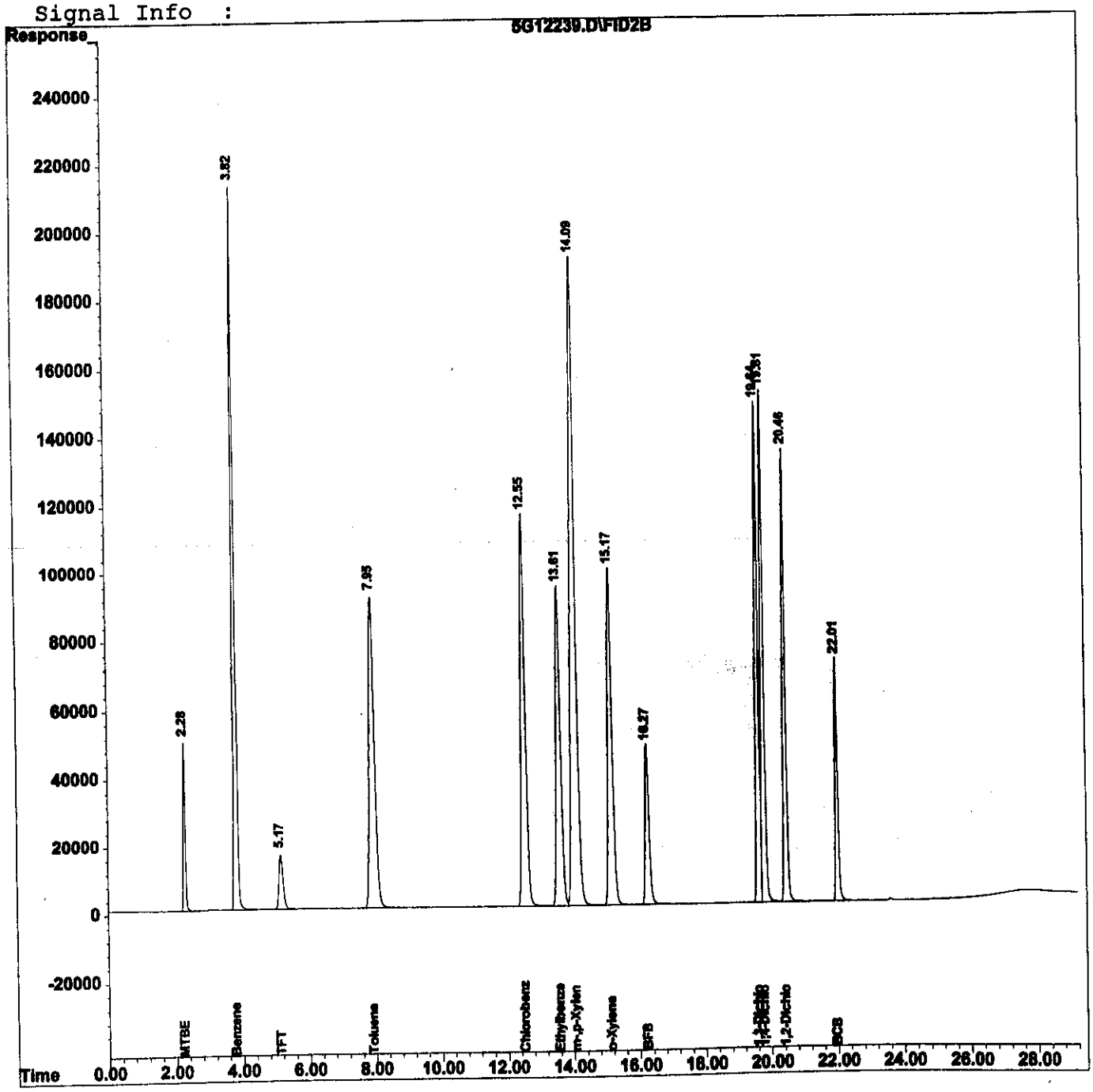
Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12239.D
Acq On : 20 Feb 2002 12:16
Sample : WG113244-06 STD 6 200PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 12:46 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12239.D Vial: 8
Acq On : 20 Feb 2002 12:16 Operator: CBN
Sample : WG113244-06 STD 6 200PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:46 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

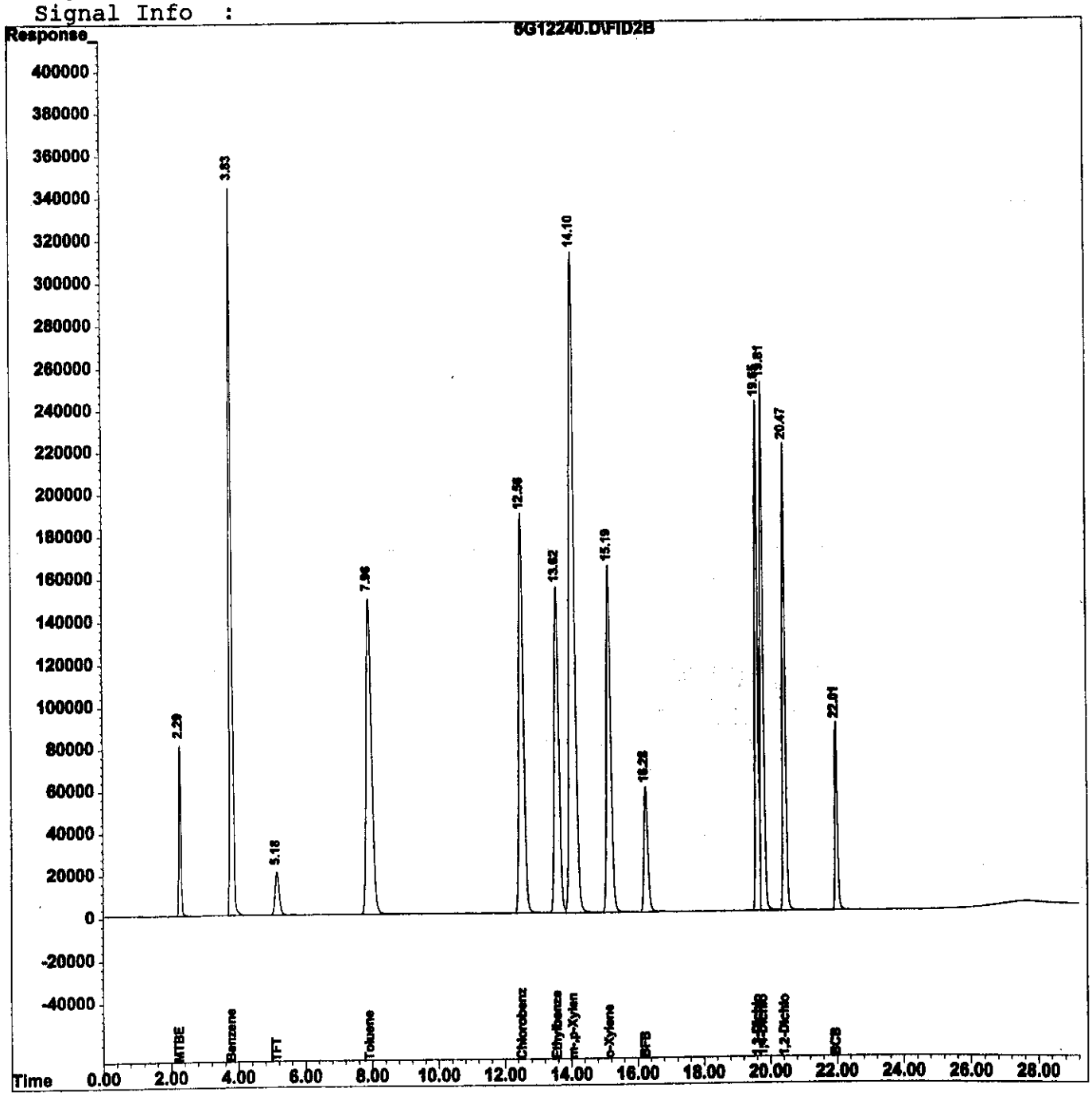
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	1382390	68.1633 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	227.21%#
9) S BFB	16.27	3817049	68.8708 ug/L
Spiked Amount 30.000		Recovery =	229.57%
13) S BCB	22.01	3668255	68.9841 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	229.95%#
Target Compounds			
1) TM MTBE	2.28	1969024	162.9429 ug/L
2) TM Benzene	3.82	11138432	157.6555 ug/L
4) TM Toluene	7.95	10291481	166.1468 ug/L
5) TM Chlorobenzene	12.55	10772563	159.5289 ug/L
6) TM Ethylbenzene	13.61	8813177	158.5146 ug/L
7) TM m-,p-Xylene	14.09	20478493	304.6675 ug/L
8) TM o-Xylene	15.17	9027759	155.2710 ug/L
10) TM 1,3-Dichlorobenzene	19.64	8792415	158.3251 ug/L
11) TM 1,4-Dichlorobenzene	19.81	9060458	154.6246 ug/L
12) TM 1,2-Dichlorobenzene	20.46	7490401	154.9428 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12240.D Vial: 9
Acq On : 20 Feb 2002 12:51 Operator: CBN
Sample : WG113244-07 STD 7 300PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 13:20 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12240.D Vial: 9
Acq On : 20 Feb 2002 12:51 Operator: CBN
Sample : WG113244-07 STD 7 300PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 13:20 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	1751495	86.3632 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 287.88%#	
9) S BFB	16.28	4690280	84.6265 ug/L
Spiked Amount 30.000		Recovery = 282.09%	
13) S BCB	22.01	4503678	84.6948 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 282.32%#	
Target Compounds			
1) TM MTBE	2.29	3231974	267.4560 ug/L
2) TM Benzene	3.83	18238806	258.1555 ug/L
4) TM Toluene	7.96	16948059	273.8631 ug/L
5) TM Chlorobenzene	12.56	17678148	261.7924 ug/L
6) TM Ethylbenzene	13.62	14662906	263.7283 ug/L
7) TM m-,p-Xylene	14.11	33755949	502.2021 ug/L
8) TM o-Xylene	15.19	14935504	256.8799 ug/L
10) TM 1,3-Dichlorobenzene	19.65	14478942	260.7224 ug/L
11) TM 1,4-Dichlorobenzene	19.82	14763448	251.9511 ug/L
12) TM 1,2-Dichlorobenzene	20.47	12246215	253.3193 ug/L

(6) RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.463 E3	5.6	93	0.00
2	TM	Benzene	58.464	60.318 E3	-3.2	100	0.00
3	S	TFT	16.886	19.013 E3	-12.6	102	0.00
4	TM	Toluene	53.514	55.634 E3	-4.0	101	0.01
5	TM	Chlorobenzene	55.475	57.505 E3	-3.7	100	0.02
6	TM	Ethylbenzene	45.133	48.198 E3	-6.8	102	0.02
7	TM	m-,p-Xylene	53.679	56.581 E3	-5.4	100	0.01
8	TM	o-Xylene	46.904	48.014 E3	-2.4	98	0.00
9	S	BFB	48.258	51.695 E3	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	45.376	47.659 E3	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	48.816	51.504 E3	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	39.484	42.318 E3	-7.2	104	0.02
13	S	BCB	46.849	50.081 E3	-6.9	104	0.02

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D
Acq On : 20 Feb 2002 14:36
Sample : WG113244-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-90-(28,39)
IntFile : autoint1.e

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.883	5.6	93	0.00
2	TM	Benzene	20.000	20.634	-3.2	100	0.00
3	S	TFT	30.000	33.780	-12.6	102	0.00
4	TM	Toluene	20.000	21.185	-5.9	101	0.01
5	TM	Chlorobenzene	20.000	20.732	-3.7	100	0.02
6	TM	Ethylbenzene	20.000	21.461	-7.3	102	0.02
7	TM	m-,p-Xylene	40.000	41.777	-4.4	100	0.01
8	TM	o-Xylene	20.000	20.473	-2.4	98	0.00
9	S	BFB	30.000	32.137	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	20.000	21.006	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	20.000	21.101	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	20.000	21.435	-7.2	104	0.02
13	S	BCB	30.000	32.070	-6.9	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

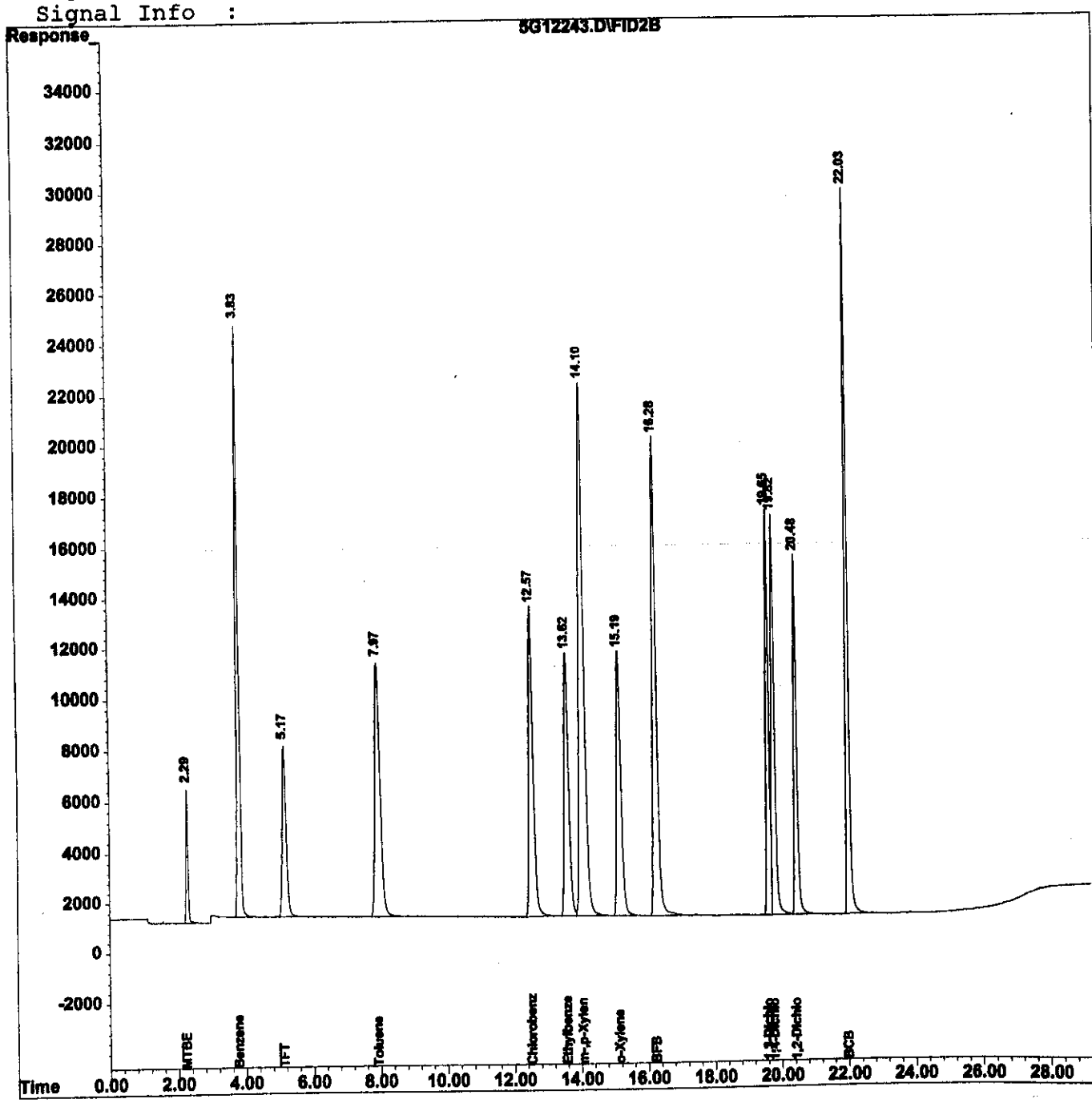
Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D
Acq On : 20 Feb 2002 14:36
Sample : WG113244-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-90-(28,39)
IntFile : autoint1.e
Quant Time: Feb 21 7:53 2002 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Page 126 9

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 21 7:53 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	570396	33.7797 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 112.60%	
9) S BFB	16.28	1550865	32.1371 ug/L
Spiked Amount 30.000		Recovery = 107.12%	
13) S BCB	22.04	1502441	32.0701 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 106.90%	
Target Compounds			
1) TM MTBE	2.29	209259	18.8832 ug/L
2) TM Benzene	3.83	1206355	20.6342 ug/L
4) TM Toluene	7.97	1112678	21.1851 ug/L
5) TM Chlorobenzene	12.57	1150106	20.7319 ug/L
6) TM Ethylbenzene	13.63	963955	21.4608 ug/L
7) TM m-,p-Xylene	14.10	2263226	41.7771 ug/L
8) TM o-Xylene	15.19	960278	20.4735 ug/L
10) TM 1,3-Dichlorobenzene	19.66	953171	21.0061 ug/L
11) TM 1,4-Dichlorobenzene	19.82	1030076	21.1013 ug/L
12) TM 1,2-Dichlorobenzene	20.48	846365	21.4355 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D Vial: 1
Acq On : 19 Mar 2002 7:03 Operator: CBN
Sample : WG114704-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.998 E3	0.8	98	-0.05
2	TM	Benzene	58.464	60.679 E3	-3.8	101	-0.07
3	S	TFT	16.886	18.895 E3	-11.9	101	-0.10
4	TM	Toluene	53.514	55.850 E3	-4.4	102	-0.14
5	TM	Chlorobenzene	55.475	60.783 E3	-9.6	105	-0.12
6	TM	Ethylbenzene	45.133	49.401 E3	-9.5	105	-0.11
7	TM	m-,p-Xylene	53.679	57.485 E3	-7.1	101	-0.10
8	TM	o-Xylene	46.904	48.736 E3	-3.9	100	-0.09
9	S	BFB	48.258	47.886 E3	0.8	96	-0.10
10	TM	1,3-Dichlorobenzene	45.376	47.046 E3	-3.7	101	-0.07
11	TM	1,4-Dichlorobenzene	48.816	49.785 E3	-2.0	98	-0.07
12	TM	1,2-Dichlorobenzene	39.484	41.104 E3	-4.1	101	-0.06
13	S	BCB	46.849	46.399 E3	1.0	97	-0.06

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D
Acq On : 19 Mar 2002 7:03
Sample : WG114704-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

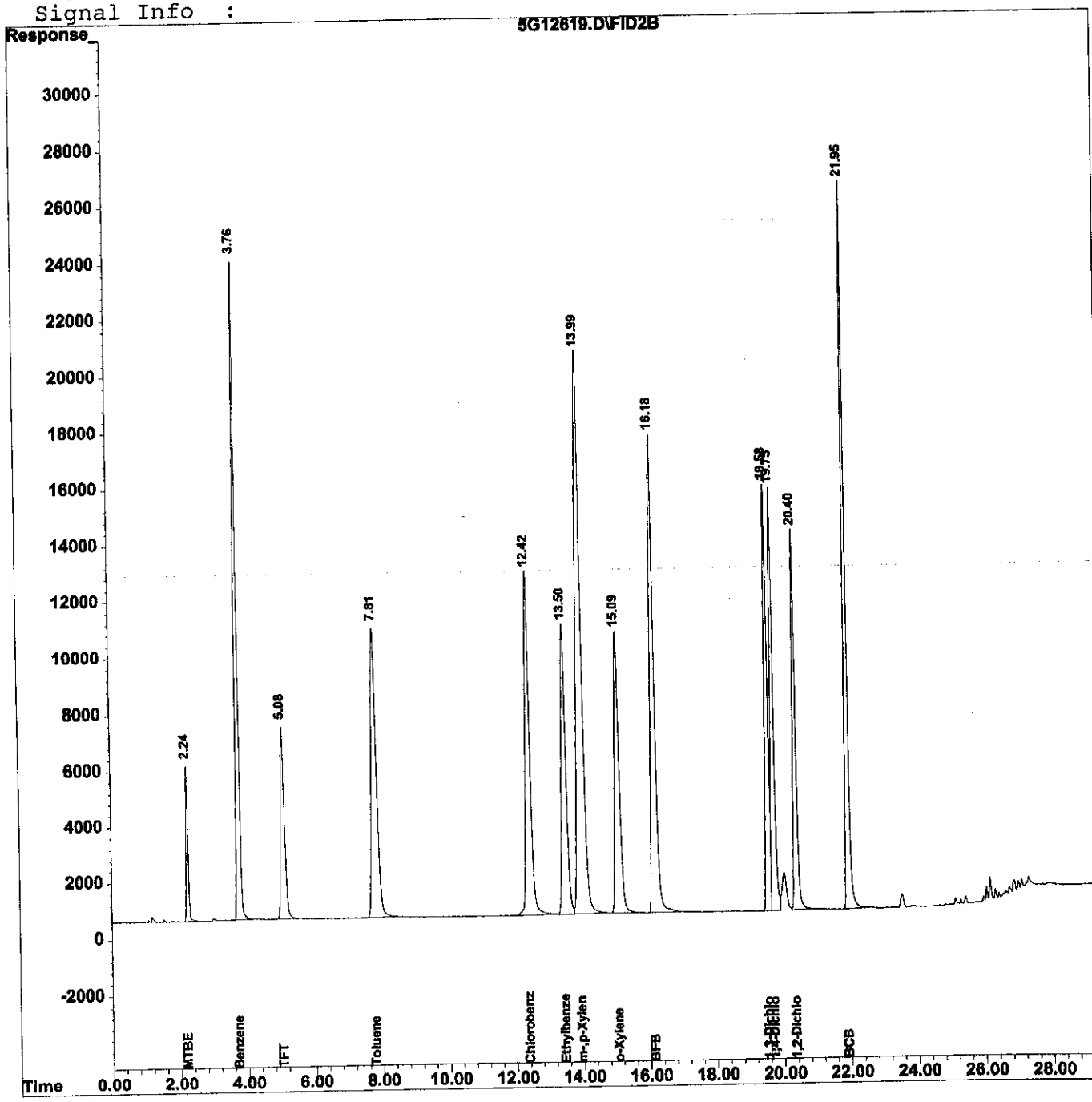
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.849	0.8	98	-0.05
2	TM	Benzene	20.000	20.758	-3.8	101	-0.07
3	S	TFT	30.000	33.570	-11.9	101	-0.10
4	TM	Toluene	20.000	21.263	-6.3	102	-0.14
5	TM	Chlorobenzene	20.000	21.914	-9.6	105	-0.12
6	TM	Ethylbenzene	20.000	21.964	-9.8	105	-0.11
7	TM	m-,p-Xylene	40.000	42.434	-6.1	101	-0.10
8	TM	o-Xylene	20.000	20.781	-3.9	100	-0.09
9	S	BFB	30.000	29.769	0.8	96	-0.10
10	TM	1,3-Dichlorobenzene	20.000	20.736	-3.7	101	-0.07
11	TM	1,4-Dichlorobenzene	20.000	20.397	-2.0	98	-0.07
12	TM	1,2-Dichlorobenzene	20.000	20.820	-4.1	101	-0.06
13	S	BCB	30.000	29.712	1.0	97	-0.06

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D
Acq On : 19 Mar 2002 7:03
Sample : WG114704-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 7:32 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



5G12619.D 8021W.M Tue Mar 19 07:32:45 2002 Page 2

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D
Acq On : 19 Mar 2002 7:03
Sample : WG114704-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 7:32 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	566861	33.5704 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.90%
9) S BFB	16.18	1436572	29.7687 ug/L
Spiked Amount 30.000		Recovery =	99.23%
13) S BCB	21.96	1391984	29.7124 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.04%
Target Compounds			
1) TM MTBE	2.24	219962	19.8490 ug/L
2) TM Benzene	3.76	1213585	20.7578 ug/L
4) TM Toluene	7.81	1117006	21.2632 ug/L
5) TM Chlorobenzene	12.42	1215665	21.9137 ug/L
6) TM Ethylbenzene	13.50	988019	21.9638 ug/L
7) TM m-,p-Xylene	13.99	2299390	42.4340 ug/L
8) TM o-Xylene	15.09	974721	20.7814 ug/L
10) TM 1,3-Dichlorobenzene	19.58	940915	20.7360 ug/L
11) TM 1,4-Dichlorobenzene	19.75	995704	20.3972 ug/L
12) TM 1,2-Dichlorobenzene	20.40	822079	20.8204 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12630.D
Acq On : 19 Mar 2002 13:56
Sample : WG114704-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.841 E3	11.2	88	-0.03
2	TM	Benzene	58.464	58.906 E3	-0.8	98	-0.05
3	S	TFT	16.886	18.881 E3	-11.8	101	-0.07
4	TM	Toluene	53.514	54.371 E3	-1.6	99	-0.10
5	TM	Chlorobenzene	55.475	55.878 E3	-0.7	97	-0.08
6	TM	Ethylbenzene	45.133	47.446 E3	-5.1	101	-0.07
7	TM	m-,p-Xylene	53.679	55.261 E3	-2.9	97	-0.07
8	TM	o-Xylene	46.904	47.333 E3	-0.9	97	-0.06
9	S	BFB	48.258	47.582 E3	1.4	95	-0.06
10	TM	1,3-Dichlorobenzene	45.376	46.176 E3	-1.8	99	-0.03
11	TM	1,4-Dichlorobenzene	48.816	49.798 E3	-2.0	98	-0.03
12	TM	1,2-Dichlorobenzene	39.484	40.589 E3	-2.8	100	-0.02
13	S	BCB	46.849	47.255 E3	-0.9	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12630.D 8021W.M Tue Mar 19 14:30:55 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12630.D
Acq On : 19 Mar 2002 13:56
Sample : WG114704-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

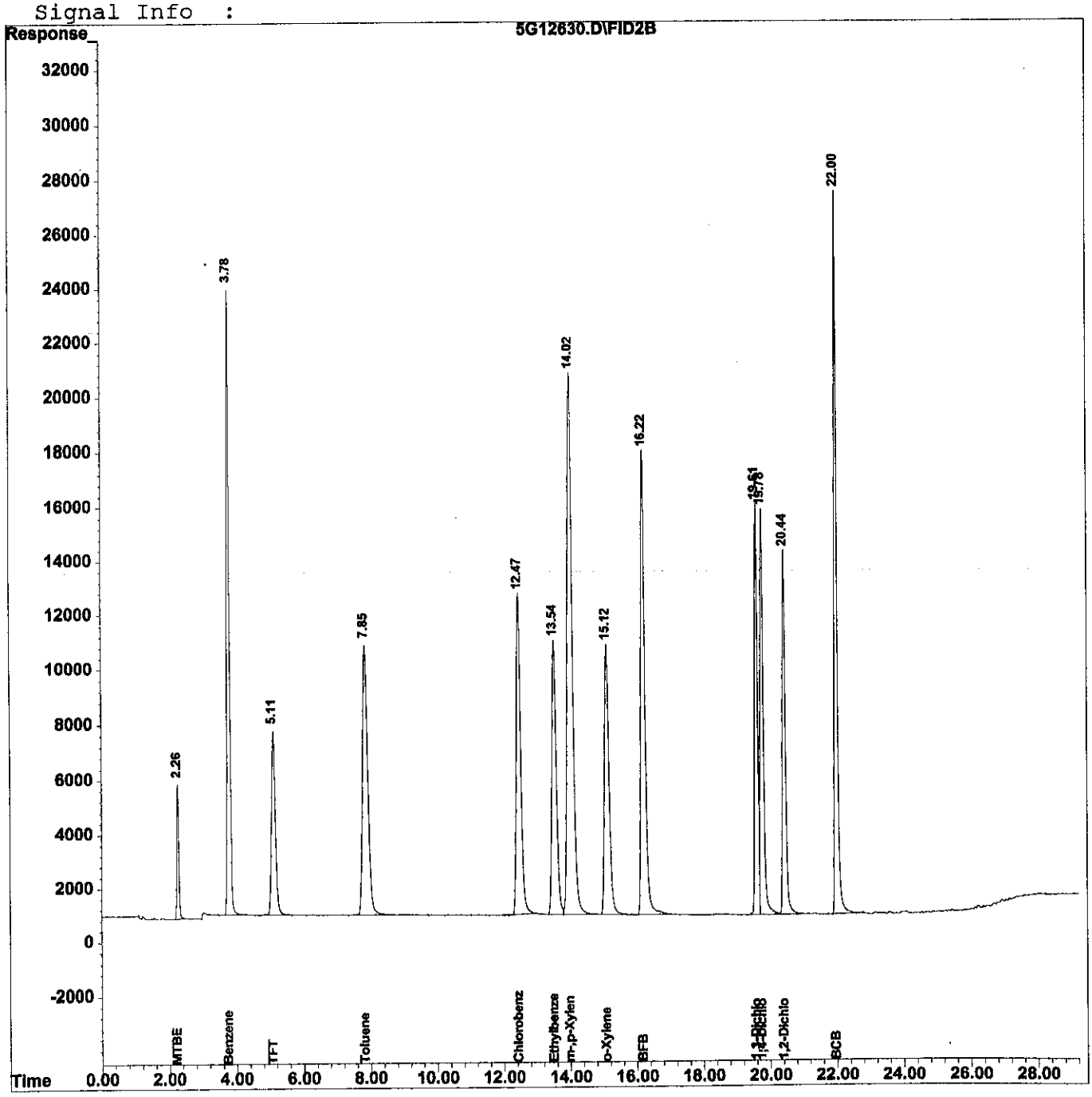
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.761	11.2	88	-0.03
2	TM	Benzene	20.000	20.151	-0.8	98	-0.05
3	S	TFT	30.000	33.545	-11.8	101	-0.07
4	TM	Toluene	20.000	20.729	-3.6	99	-0.10
5	TM	Chlorobenzene	20.000	20.145	-0.7	97	-0.08
6	TM	Ethylbenzene	20.000	21.146	-5.7	101	-0.07
7	TM	m-,p-Xylene	40.000	40.818	-2.0	97	-0.07
8	TM	o-Xylene	20.000	20.183	-0.9	97	-0.06
9	S	BFB	30.000	29.580	1.4	95	-0.06
10	TM	1,3-Dichlorobenzene	20.000	20.353	-1.8	99	-0.03
11	TM	1,4-Dichlorobenzene	20.000	20.402	-2.0	98	-0.03
12	TM	1,2-Dichlorobenzene	20.000	20.560	-2.8	100	-0.02
13	S	BCB	30.000	30.260	-0.9	98	0.00

Data File : C:\HPCHEM\2\DATA\031902\5G12630.D Vial: 9
Acq On : 19 Mar 2002 13:56 Operator: CBN
Sample : WG114704-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 14:25 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12630.D
Acq On : 19 Mar 2002 13:56
Sample : WG114704-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 14:25 2002 Quant Results File: 8021W.RES

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	566425	33.5445 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.82%
9) S BFB	16.22	1427472	29.5801 ug/L
Spiked Amount 30.000		Recovery =	98.60%
13) S BCB	22.00	1417650	30.2602 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	100.87%
Target Compounds			
1) TM MTBE	2.26	196823	17.7609 ug/L
2) TM Benzene	3.78	1178123	20.1513 ug/L
4) TM Toluene	7.85	1087422	20.7290 ug/L
5) TM Chlorobenzene	12.47	1117561	20.1452 ug/L
6) TM Ethylbenzene	13.54	948919	21.1464 ug/L
7) TM m-,p-Xylene	14.02	2210453	40.8185 ug/L
8) TM o-Xylene	15.12	946655	20.1830 ug/L
10) TM 1,3-Dichlorobenzene	19.61	923526	20.3528 ug/L
11) TM 1,4-Dichlorobenzene	19.78	995951	20.4022 ug/L
12) TM 1,2-Dichlorobenzene	20.45	811789	20.5598 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12641.D
Acq On : 19 Mar 2002 20:35
Sample : WG114704-03 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.411 E3	15.1#	84	-0.04
2	TM	Benzene	58.464	51.835 E3	11.3	86	-0.07
3	S	TFT	16.886	18.700 E3	-10.7	100	-0.09
4	TM	Toluene	53.514	47.155 E3	11.9	86	-0.13
5	TM	Chlorobenzene	55.475	50.695 E3	8.6	88	-0.10
6	TM	Ethylbenzene	45.133	40.454 E3	10.4	86	-0.09
7	TM	m-,p-Xylene	53.679	47.369 E3	11.8	83	-0.09
8	TM	o-Xylene	46.904	41.514 E3	11.5	85	-0.09
9	S	BFB	48.258	47.364 E3	1.9	94	-0.08
10	TM	1,3-Dichlorobenzene	45.376	41.073 E3	9.5	88	-0.05
11	TM	1,4-Dichlorobenzene	48.816	45.284 E3	7.2	90	-0.05
12	TM	1,2-Dichlorobenzene	39.484	37.086 E3	6.1	91	-0.04
13	S	BCB	46.849	46.586 E3	0.6	97	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12641.D 8021W.M Wed Mar 20 07:03:51 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12641.D Vial: 11
Acq On : 19 Mar 2002 20:35 Operator: CBN
Sample : WG114704-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	16.984	15.1#	84	-0.04
2	TM	Benzene	20.000	17.732	11.3	86	-0.07
3	S	TFT	30.000	33.223	-10.7	100	-0.09
4	TM	Toluene	20.000	18.123	9.4	86	-0.13
5	TM	Chlorobenzene	20.000	18.277	8.6	88	-0.10
6	TM	Ethylbenzene	20.000	18.223	8.9	86	-0.09
7	TM	m-,p-Xylene	40.000	35.084	12.3	83	-0.09
8	TM	o-Xylene	20.000	17.702	11.5	85	-0.09
9	S	BFB	30.000	29.444	1.9	94	-0.08
10	TM	1,3-Dichlorobenzene	20.000	18.103	9.5	88	-0.05
11	TM	1,4-Dichlorobenzene	20.000	18.553	7.2	90	-0.05
12	TM	1,2-Dichlorobenzene	20.000	18.785	6.1	91	-0.04
13	S	BCB	30.000	29.832	0.6	97	-0.03

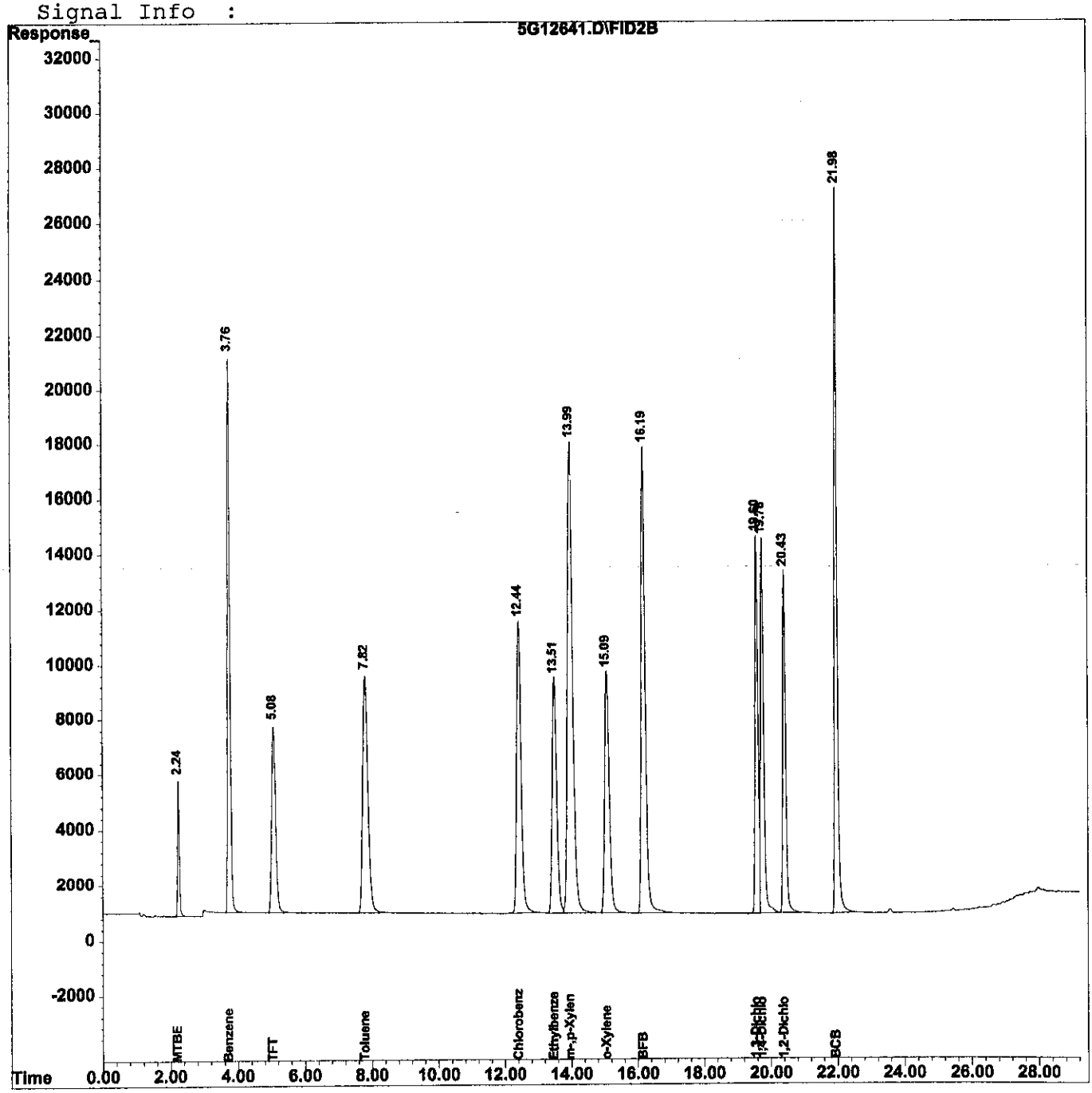
AVE = 8.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12641.D 8021W.M Wed Mar 20 07:03:49 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12641.D Vial: 11
Acq On : 19 Mar 2002 20:35 Operator: CBN
Sample : WG114704-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 21:05 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12641.D Vial: 11
Acq On : 19 Mar 2002 20:35 Operator: CBN
Sample : WG114704-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 21:05 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	561000	33.2232 ug/L
Spiked Amount 30.000 Range 70 - 130	Recovery = 110.74%		
9) S BFB	16.20	1420919	29.4443 ug/L
Spiked Amount 30.000	Recovery = 98.15%		
13) S BCB	21.98	1397582	29.8318 ug/L
Spiked Amount 30.000 Range 37 - 137	Recovery = 99.44%		
Target Compounds			
1) TM MTBE	2.25	188212	16.9839 ug/L
2) TM Benzene	3.76	1036706	17.7324 ug/L
4) TM Toluene	7.82	943099	18.1231 ug/L
5) TM Chlorobenzene	12.44	1013895	18.2765 ug/L
6) TM Ethylbenzene	13.52	809088	18.2232 ug/L
7) TM m-,p-Xylene	14.00	1894779	35.0842 ug/L
8) TM o-Xylene	15.09	830274	17.7017 ug/L
10) TM 1,3-Dichlorobenzene	19.60	821461	18.1035 ug/L
11) TM 1,4-Dichlorobenzene	19.77	905689	18.5532 ug/L
12) TM 1,2-Dichlorobenzene	20.43	741712	18.7850 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12645.D Vial: 15
Acq On : 19 Mar 2002 22:54 Operator: CBN
Sample : WG114704-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.566 E3	13.7	85	-0.05
2	TM	Benzene	58.464	55.702 E3	4.7	92	-0.08
3	S	TFT	16.886	18.505 E3	-9.6	99	-0.10
4	TM	Toluene	53.514	51.284 E3	4.2	93	-0.14
5	TM	Chlorobenzene	55.475	53.934 E3	2.8	94	-0.11
6	TM	Ethylbenzene	45.133	44.605 E3	1.2	95	-0.10
7	TM	m-,p-Xylene	53.679	52.044 E3	3.0	92	-0.09
8	TM	o-Xylene	46.904	44.815 E3	4.5	92	-0.08
9	S	BFB	48.258	47.026 E3	2.6	94	-0.08
10	TM	1,3-Dichlorobenzene	45.376	43.575 E3	4.0	93	-0.04
11	TM	1,4-Dichlorobenzene	48.816	47.476 E3	2.7	94	-0.04
12	TM	1,2-Dichlorobenzene	39.484	38.565 E3	2.3	95	-0.03
13	S	BCB	46.849	46.302 E3	1.2	96	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12645.D 8021W.M Wed Mar 20 07:04:00 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12645.D
Acq On : 19 Mar 2002 22:54
Sample : WG114704-04 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 15
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.264	13.7	85	-0.05
2	TM	Benzene	20.000	19.055	4.7	92	-0.08
3	S	TFT	30.000	32.876	-9.6	99	-0.10
4	TM	Toluene	20.000	19.614	1.9	93	-0.14
5	TM	Chlorobenzene	20.000	19.444	2.8	94	-0.11
6	TM	Ethylbenzene	20.000	19.959	0.2	95	-0.10
7	TM	m-,p-Xylene	40.000	38.481	3.8	92	-0.09
8	TM	o-Xylene	20.000	19.109	4.5	92	-0.08
9	S	BFB	30.000	29.234	2.6	94	-0.08
10	TM	1,3-Dichlorobenzene	20.000	19.206	4.0	93	-0.04
11	TM	1,4-Dichlorobenzene	20.000	19.451	2.7	94	-0.04
12	TM	1,2-Dichlorobenzene	20.000	19.534	2.3	95	-0.03
13	S	BCB	30.000	29.650	1.2	96	-0.02

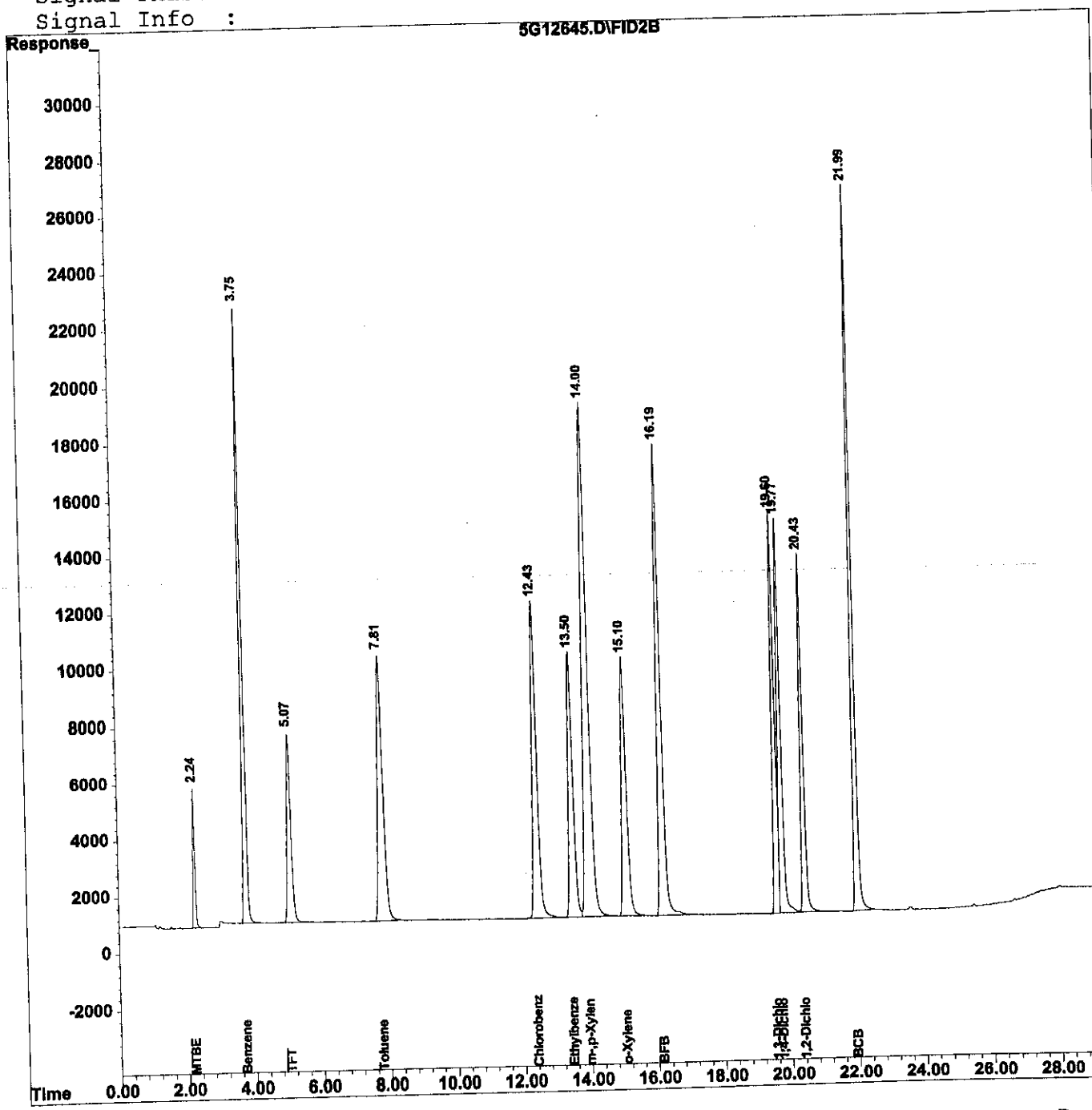
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12645.D 8021W.M Wed Mar 20 07:04:02 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12645.D
Acq On : 19 Mar 2002 22:54
Sample : WG114704-04 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 23:24 2002 Quant Results File: 8021W.RES

Vial: 15
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12645.D
Acq On : 19 Mar 2002 22:54
Sample : WG114704-04 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 23:24 2002 Quant Results File: 8021W.RES

Vial: 15
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	555143	32.8764 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.59%
9) S BFB	16.20	1410784	29.2343 ug/L
Spiked Amount 30.000		Recovery =	97.45%
13) S BCB	21.99	1389049	29.6497 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	98.83%
Target Compounds			
1) TM MTBE	2.24	191316	17.2640 ug/L
2) TM Benzene	3.75	1114039	19.0552 ug/L
4) TM Toluene	7.81	1025678	19.6142 ug/L
5) TM Chlorobenzene	12.44	1078671	19.4442 ug/L
6) TM Ethylbenzene	13.51	892098	19.9586 ug/L
7) TM m-,p-Xylene	14.00	2081780	38.4811 ug/L
8) TM o-Xylene	15.10	896294	19.1093 ug/L
10) TM 1,3-Dichlorobenzene	19.60	871492	19.2060 ug/L
11) TM 1,4-Dichlorobenzene	19.77	949511	19.4509 ug/L
12) TM 1,2-Dichlorobenzene	20.43	771300	19.5343 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12646.D Vial: 1
Acq On : 20 Mar 2002 6:57 Operator: CBN
Sample : WG114772-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.299 E3	7.1	92	-0.03
2	TM	Benzene	58.464	59.649 E3	-2.0	99	-0.05
3	S	TFT	16.886	18.633 E3	-10.3	100	-0.07
4	TM	Toluene	53.514	54.667 E3	-2.2	99	-0.11
5	TM	Chlorobenzene	55.475	57.742 E3	-4.1	100	-0.09
6	TM	Ethylbenzene	45.133	48.029 E3	-6.4	102	-0.09
7	TM	m-,p-Xylene	53.679	56.091 E3	-4.5	99	-0.08
8	TM	o-Xylene	46.904	47.748 E3	-1.8	98	-0.08
9	S	BFB	48.258	47.168 E3	2.3	94	-0.08
10	TM	1,3-Dichlorobenzene	45.376	46.777 E3	-3.1	100	-0.04
11	TM	1,4-Dichlorobenzene	48.816	49.301 E3	-1.0	97	-0.04
12	TM	1,2-Dichlorobenzene	39.484	40.579 E3	-2.8	100	-0.03
13	S	BCB	46.849	46.510 E3	0.7	97	-0.02

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032002\5G12646.D Vial: 1
Acq On : 20 Mar 2002 6:57 Operator: CBN
Sample : WG114772-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

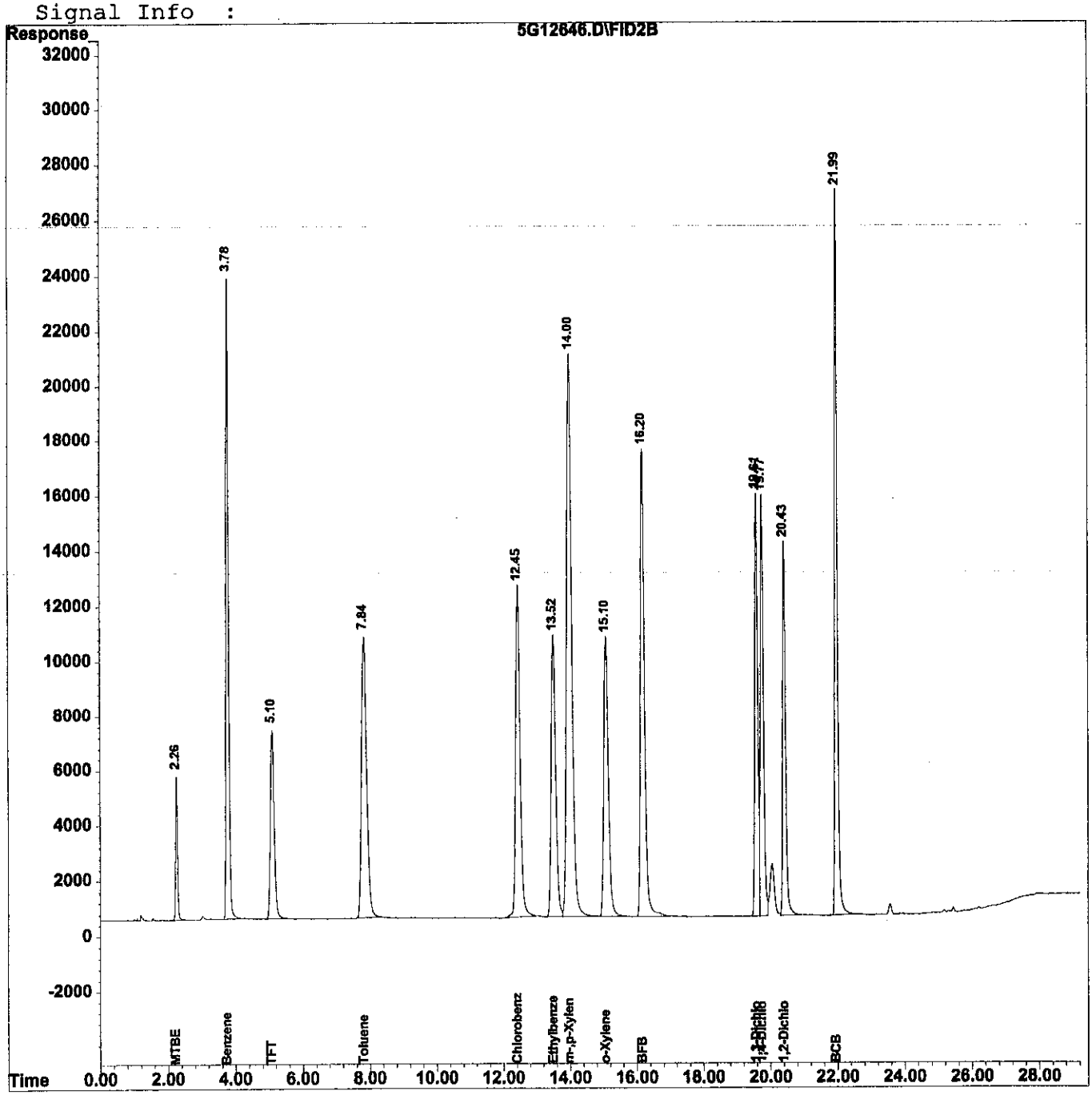
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.586	7.1	92	-0.03
2	TM	Benzene	20.000	20.405	-2.0	99	-0.05
3	S	TFT	30.000	33.104	-10.3	100	-0.07
4	TM	Toluene	20.000	20.836	-4.2	99	-0.11
5	TM	Chlorobenzene	20.000	20.817	-4.1	100	-0.09
6	TM	Ethylbenzene	20.000	21.390	-7.0	102	-0.09
7	TM	m-,p-Xylene	40.000	41.421	-3.6	99	-0.08
8	TM	o-Xylene	20.000	20.360	-1.8	98	-0.08
9	S	BFB	30.000	29.322	2.3	94	-0.08
10	TM	1,3-Dichlorobenzene	20.000	20.618	-3.1	100	-0.04
11	TM	1,4-Dichlorobenzene	20.000	20.199	-1.0	97	-0.04
12	TM	1,2-Dichlorobenzene	20.000	20.554	-2.8	100	-0.03
13	S	BCB	30.000	29.783	0.7	97	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12646.D 8021W.M Wed Mar 20 09:16:09 2002 Page 1

Data File : C:\HPCHEM\2\DATA\032002\5G12646.D Vial: 1
Acq On : 20 Mar 2002 6:57 Operator: CBN
Sample : WG114772-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 7:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12646.D Vial: 1
Acq On : 20 Mar 2002 6:57 Operator: CBN
Sample : WG114772-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 7:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.10	558990	33.1042 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 110.35%	
9) S BFB	16.20	1415034	29.3224 ug/L
Spiked Amount 30.000		Recovery = 97.74%	
13) S BCB	21.99	1395304	29.7832 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 99.28%	
Target Compounds			
1) TM MTBE	2.26	205971	18.5865 ug/L
2) TM Benzene	3.78	1192978	20.4054 ug/L
4) TM Toluene	7.84	1093341	20.8359 ug/L
5) TM Chlorobenzene	12.45	1154844	20.8173 ug/L
6) TM Ethylbenzene	13.52	960572	21.3901 ug/L
7) TM m-,p-Xylene	14.00	2243636	41.4212 ug/L
8) TM o-Xylene	15.10	954950	20.3599 ug/L
10) TM 1,3-Dichlorobenzene	19.61	935541	20.6176 ug/L
11) TM 1,4-Dichlorobenzene	19.78	986010	20.1986 ug/L
12) TM 1,2-Dichlorobenzene	20.44	811570	20.5542 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032002\5G12657.D Vial: 9
Acq On : 20 Mar 2002 13:38 Operator: CBN
Sample : WG114772-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.559 E3	13.7	85	-0.03
2	TM	Benzene	58.464	58.441 E3	0.0	97	-0.05
3	S	TFT	16.886	18.559 E3	-9.9	99	-0.06
4	TM	Toluene	53.514	53.756 E3	-0.5	98	-0.09
5	TM	Chlorobenzene	55.475	55.591 E3	-0.2	96	-0.06
6	TM	Ethylbenzene	45.133	46.720 E3	-3.5	99	-0.06
7	TM	m-,p-Xylene	53.679	54.603 E3	-1.7	96	-0.05
8	TM	o-Xylene	46.904	46.764 E3	0.3	96	-0.05
9	S	BFB	48.258	46.997 E3	2.6	94	-0.04
10	TM	1,3-Dichlorobenzene	45.376	45.812 E3	-1.0	98	0.00
11	TM	1,4-Dichlorobenzene	48.816	49.520 E3	-1.4	98	0.00
12	TM	1,2-Dichlorobenzene	39.484	40.103 E3	-1.6	98	0.00
13	S	BCB	46.849	46.810 E3	0.1	97	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12657.D 8021W.M Thu Mar 21 07:16:40 2002 Page 1

Data File : C:\HPCHEM\2\DATA\032002\5G12657.D Vial: 9
Acq On : 20 Mar 2002 13:38 Operator: CBN
Sample : WG114772-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.253	13.7	85	-0.03
2	TM	Benzene	20.000	19.992	0.0	97	-0.05
3	S	TFT	30.000	32.973	-9.9	99	-0.06
4	TM	Toluene	20.000	20.507	-2.5	98	-0.09
5	TM	Chlorobenzene	20.000	20.042	-0.2	96	-0.06
6	TM	Ethylbenzene	20.000	20.843	-4.2	99	-0.06
7	TM	m-,p-Xylene	40.000	40.340	-0.9	96	-0.05
8	TM	o-Xylene	20.000	19.940	0.3	96	-0.05
9	S	BFB	30.000	29.216	2.6	94	-0.04
10	TM	1,3-Dichlorobenzene	20.000	20.192	-1.0	98	0.00
11	TM	1,4-Dichlorobenzene	20.000	20.289	-1.4	98	0.00
12	TM	1,2-Dichlorobenzene	20.000	20.313	-1.6	98	0.00
13	S	BCB	30.000	29.975	0.1	97	0.01

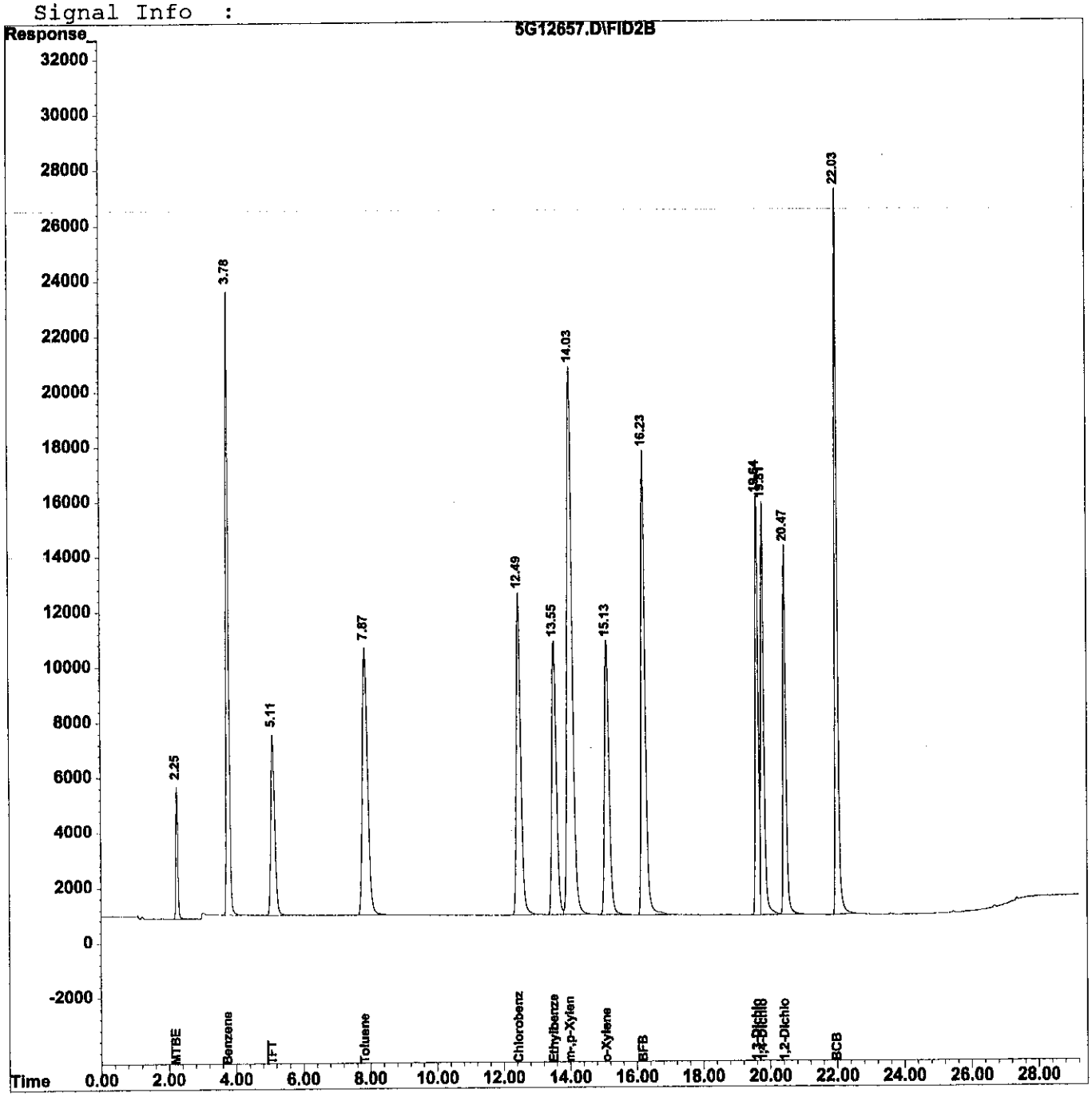
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12657.D 8021W.M Thu Mar 21 07:16:42 2002 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\032002\5G12657.D Vial: 9
Acq On : 20 Mar 2002 13:38 Operator: CBN
Sample : WG114772-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 14:08 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12657.D Vial: 9
Acq On : 20 Mar 2002 13:38 Operator: CBN
Sample : WG114772-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 14:08 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	556774	32.9730 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 109.91%	
9) S BFB	16.24	1409907	29.2161 ug/L
Spiked Amount 30.000		Recovery = 97.39%	
13) S BCB	22.03	1404304	29.9753 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 99.92%	
Target Compounds			
1) TM MTBE	2.25	191189	17.2526 ug/L
2) TM Benzene	3.78	1168820	19.9921 ug/L
4) TM Toluene	7.87	1075113	20.5068 ug/L
5) TM Chlorobenzene	12.49	1111814	20.0416 ug/L
6) TM Ethylbenzene	13.55	934406	20.8431 ug/L
7) TM m-,p-Xylene	14.04	2184104	40.3398 ug/L
8) TM o-Xylene	15.13	935270	19.9403 ug/L
10) TM 1,3-Dichlorobenzene	19.64	916245	20.1923 ug/L
11) TM 1,4-Dichlorobenzene	19.81	990403	20.2886 ug/L
12) TM 1,2-Dichlorobenzene	20.47	802054	20.3132 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 19-Mar-02
Filename: 5G12619
Sub Directory: 031902
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.241	**2.218**	**2.264**
benzene	3.759	**3.729**	**3.789**
1,1,1-trifluorotoluene (SS)	5.079	**5.035**	**5.123**
toluene	7.814	**7.746**	**7.882**
chlorobenzene	12.423	**12.346**	**12.500**
ethylbenzene	13.497	**13.411**	**13.583**
m+p-xylene	13.991	**13.888**	**14.094**
o-xylene	15.088	**14.985**	**15.191**
bromofluorobenzene (SS)	16.180	**16.094**	**16.266**
1,3-dichlorobenzene	19.577	**19.512**	**19.642**
1,4-dichlorobenzene	19.745	**19.681**	**19.809**
1,2-dichlorobenzene	20.403	**20.346**	**20.460**
bromochlorobenzene (SS)	21.956	**21.903**	**22.009**

INSTRUMENT: HP5 **MATRIX:** WATER
CONT STD #1: 5G11797 **DATE #1:** 9-Jan-02
CONT STD #2: 5G11808 **DATE #2:** 10-Jan-02
CONT STD #3: 5G11824 **DATE #3:** 10-Jan-02

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683	12.635	12.643	12.654	0.026	**0.077**
ethylbenzene	13.748	13.695	13.702	13.715	0.029	**0.086**
m+p-xylene	14.244	14.182	14.187	14.204	0.034	**0.103**
o-xylene	15.328	15.266	15.271	15.288	0.034	**0.103**
bromofluorobenzene (SS)	16.400	16.347	16.355	16.367	0.029	**0.086**
1,3-dichlorobenzene	19.750	19.710	19.715	19.725	0.022	**0.065**
1,4-dichlorobenzene	19.915	19.876	19.880	19.890	0.021	**0.064**
1,2-dichlorobenzene	20.561	20.526	20.530	20.539	0.019	**0.057**
bromochlorobenzene (SS)	22.097	22.064	22.069	22.077	0.018	**0.053**

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 20-Mar-02
Filename: 5G12646
Sub Directory: 032002
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.258	**2.235**	**2.281**
benzene	3.779	**3.749**	**3.809**
1,1,1-trifluorotoluene (SS)	5.101	**5.057**	**5.145**
toluene	7.841	**7.773**	**7.909**
chlorobenzene	12.453	**12.376**	**12.530**
ethylbenzene	13.520	**13.434**	**13.606**
m+p-xylene	14.004	**13.901**	**14.107**
o-xylene	15.099	**14.996**	**15.202**
bromofluorobenzene (SS)	16.198	**16.112**	**16.284**
1,3-dichlorobenzene	19.607	**19.542**	**19.672**
1,4-dichlorobenzene	19.775	**19.711**	**19.839**
1,2-dichlorobenzene	20.437	**20.380**	**20.494**
bromochlorobenzene (SS)	21.992	**21.939**	**22.045**

INSTRUMENT: HP5 **MATRIX:** WATER
CONT STD #1: 5G11797 **DATE #1:** 9-Jan-02
CONT STD #2: 5G11808 **DATE #2:** 10-Jan-02
CONT STD #3: 5G11824 **DATE #3:** 10-Jan-02

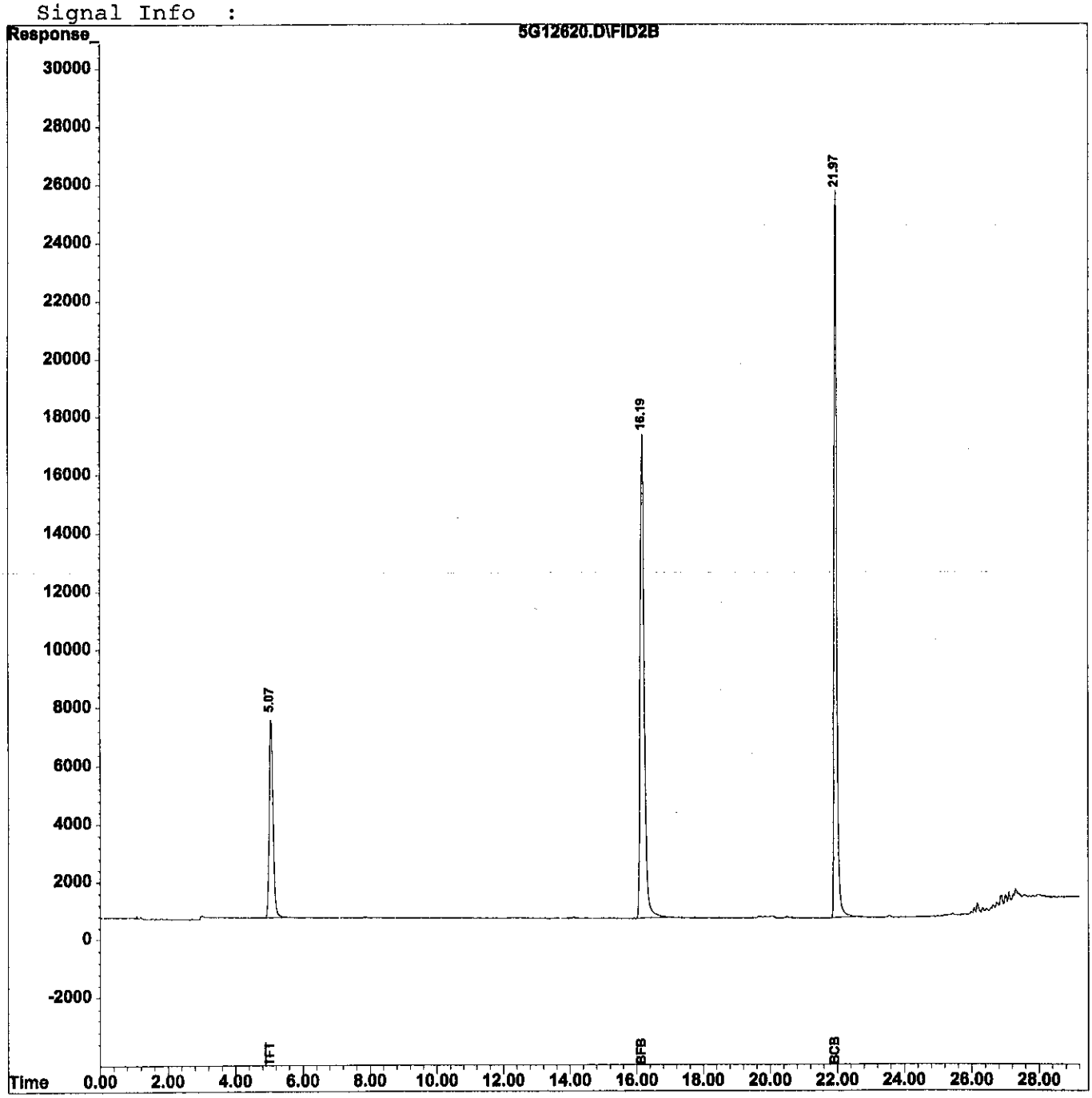
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683	12.635	12.643	12.654	0.026	**0.077**
ethylbenzene	13.748	13.695	13.702	13.715	0.029	**0.086**
m+p-xylene	14.244	14.182	14.187	14.204	0.034	**0.103**
o-xylene	15.328	15.266	15.271	15.288	0.034	**0.103**
bromofluorobenzene (SS)	16.400	16.347	16.355	16.367	0.029	**0.086**
1,3-dichlorobenzene	19.750	19.710	19.715	19.725	0.022	**0.065**
1,4-dichlorobenzene	19.915	19.876	19.880	19.890	0.021	**0.064**
1,2-dichlorobenzene	20.561	20.526	20.530	20.539	0.019	**0.057**
bromochlorobenzene (SS)	22.097	22.064	22.069	22.077	0.018	**0.053**

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\031902\5G12620.D Vial: 2
Acq On : 19 Mar 2002 7:47 Operator: CBN
Sample : WG114705-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 8:16 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12620.D Vial: 2
Acq On : 19 Mar 2002 7:47 Operator: CBN
Sample : WG114705-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 8:16 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	565424	33.4852 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.62%
9) S BFB	16.19	1397698	28.9631 ug/L
Spiked Amount 30.000		Recovery =	96.54%
13) S BCB	21.97	1353352	28.8877 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	96.29%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

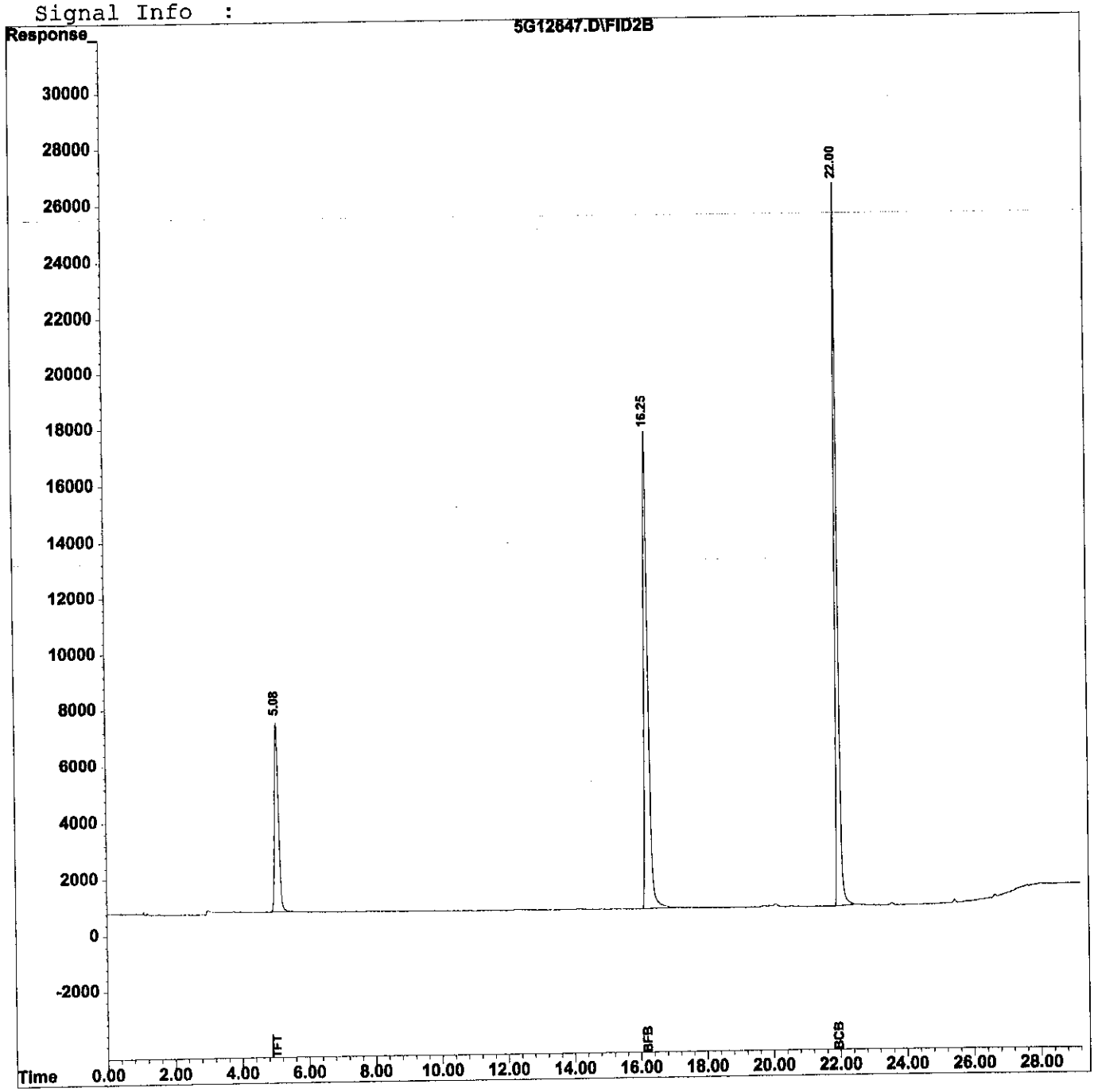
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12647.D
Acq On : 20 Mar 2002 7:40
Sample : WG114773-01 WATER BLANK 5ML
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 20 8:10 2002 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\2\DATA\032002\5G12647.D Vial: 2
Acq On : 20 Mar 2002 7:40 Operator: CBN
Sample : WG114773-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 20 8:10 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	552366	32.7120 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.04%
9) S BFB	16.25	1415229	29.3264 ug/L
Spiked Amount 30.000		Recovery =	97.75%
13) S BCB	22.00	1373880	29.3259 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	97.75%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

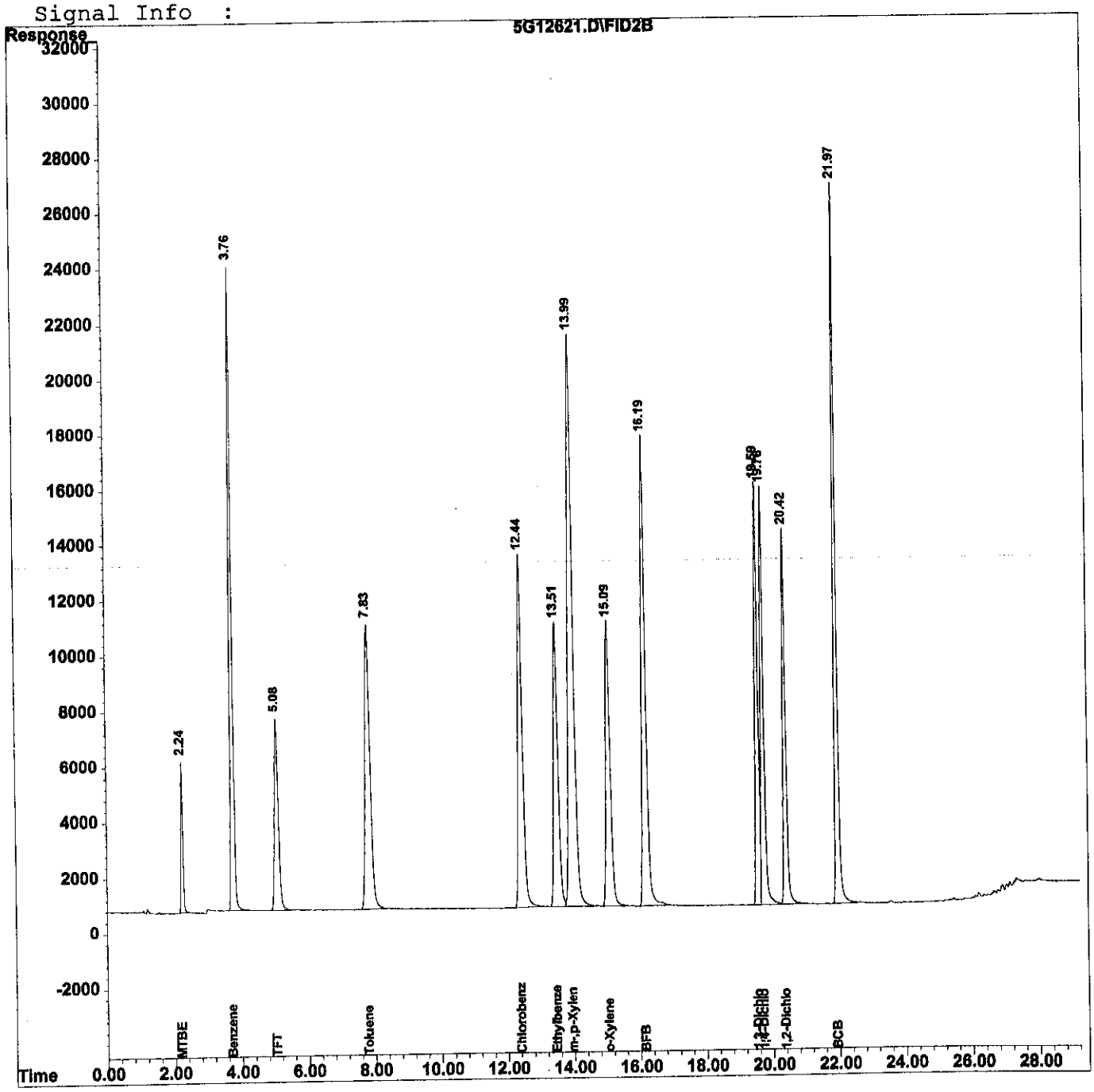
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12621.D
Acq On : 19 Mar 2002 8:33
Sample : WG114705-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 9:03 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12621.D
Acq On : 19 Mar 2002 8:33
Sample : WG114705-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 9:03 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	566300	33.5371 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.79%
9) S BFB	16.19	1417479	29.3730 ug/L
Spiked Amount 30.000		Recovery =	97.91%
13) S BCB	21.97	1392137	29.7156 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.05%
Target Compounds			
1) TM MTBE	2.24	209201	18.8779 ug/L
2) TM Benzene	3.76	1193377	20.4122 ug/L
4) TM Toluene	7.83	1103000	21.0103 ug/L
5) TM Chlorobenzene	12.44	1209559	21.8036 ug/L
6) TM Ethylbenzene	13.51	960573	21.3901 ug/L
7) TM m-,p-Xylene	13.99	2240533	41.3649 ug/L
8) TM o-Xylene	15.09	955614	20.3740 ug/L
10) TM 1,3-Dichlorobenzene	19.59	920547	20.2871 ug/L
11) TM 1,4-Dichlorobenzene	19.76	1002274	20.5318 ug/L
12) TM 1,2-Dichlorobenzene	20.42	812442	20.5763 ug/L

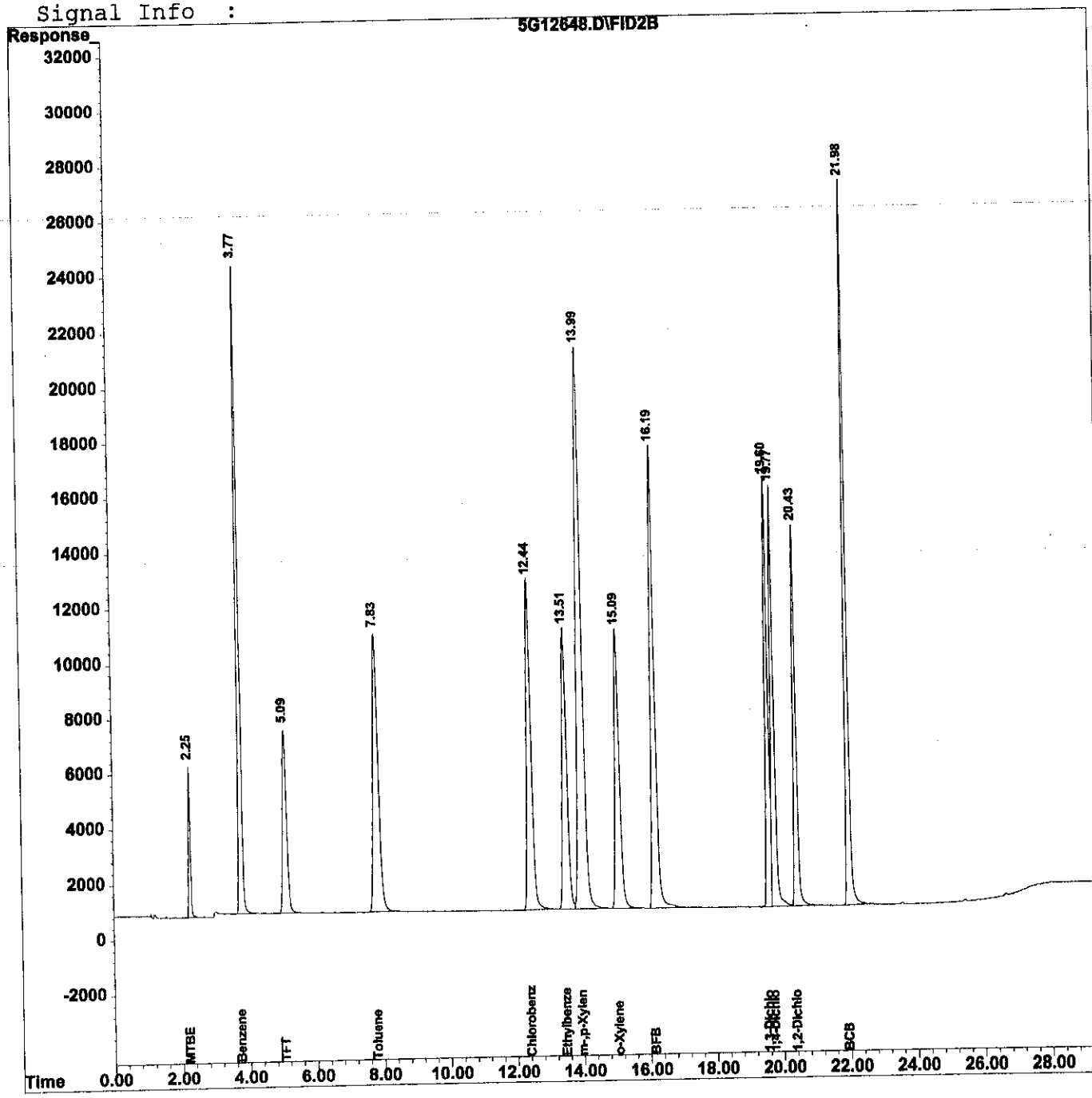
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\032002\5G12648.D
Acq On : 20 Mar 2002 8:15
Sample : WG114773-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 20 8:44 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\032002\5G12648.D
Acq On : 20 Mar 2002 8:15
Sample : WG114773-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 20 8:44 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	554561	32.8419 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.47%
9) S BFB	16.19	1414579	29.3129 ug/L
Spiked Amount 30.000		Recovery =	97.71%
13) S BCB	21.98	1403977	29.9684 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.89%
Target Compounds			
1) TM MTBE	2.26	213595	19.2744 ug/L
2) TM Benzene	3.77	1210391	20.7032 ug/L
4) TM Toluene	7.83	1107462	21.0909 ug/L
5) TM Chlorobenzene	12.45	1152397	20.7732 ug/L
6) TM Ethylbenzene	13.51	967601	21.5370 ug/L
7) TM m-,p-Xylene	14.00	2254602	41.6204 ug/L
8) TM o-Xylene	15.09	961920	20.5085 ug/L
10) TM 1,3-Dichlorobenzene	19.60	941977	20.7594 ug/L
11) TM 1,4-Dichlorobenzene	19.77	1024704	20.9913 ug/L
12) TM 1,2-Dichlorobenzene	20.43	830038	21.0220 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: c:\hpchem\2\data\022002

WG113234
1 278

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12231.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::0
2	2	5g12232.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::5
3	2	5g12233.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::4
4	3	5g12234.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::2
5	4	5g12235.d	1.	WG113244-02 STD 2 10PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::5
6	5	5g12236.d	1.	WG113244-03 STD 3 20PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::3
7	6	5g12237.d	1.	WG113244-04 STD 4 50PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::0
8	7	5g12238.d	1.	WG113244-05 STD 5 100PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::4
9	8	5g12239.d	1.	WG113244-06 STD 6 200PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::1
10	9	5g12240.d	1.	WG113244-07 STD 7 300PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 13::5
11	10	5g12241.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::2
12	11	5g12242.d	1.	RINSE	1,1 S-90-39	20 Feb 102 12::0
13	12	5g12243.d	1.	WG113244-08 ALT SOURCE 20PPB 5ML	1,1 S-90-(28,39)	20 Feb 102 12::3
14	1	5g12244.d	1.	WG113278-01 STD 1 90PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::4
15	2	5g12245.d	1.	WG113278-02 STD 2 360PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1
16	3	5g12246.d	1.	WG113278-03 STD 3 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::5
17	4	5g12247.d	1.	WG113278-04 STD 4 1800PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::2
18	5	5g12248.d	1.	WG113278-05 STD 5 3600PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::0
19	6	5g12249.d	1.	WG113278-06 STD 6 7200PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::3
20	7	5g12250.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::1
21	8	5g12251.d	1.	RINSE	1,1 S-90-42	20 Feb 102 12::4
22	9	5g12252.d	1.	WG113278-07 ALT SOURCE 900PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::1

Injection Log

Directory: c:\hpchem\2\data\031902

WG114705

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12619.d	1.	WG114704-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::0
2	2	5g12620.d	1.	WG114705-01 WATER BLANK 5ML ✓	1,1 S-91-31	19 Mar 102 12::4
3	3	5g12621.d	1.	WG114705-02 WATER LCS 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
4	1	5g12622.d	100.	WG114705-03 L0203296-04 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 12::1
5	2	5g12623.d	100.	WG114705-04 L0203296-04 MS A 5ML pH<2 1 ✓	1,100 S-91-(30,31)	19 Mar 102 12::5
6	3	5g12624.d	100.	WG114705-05 L0203296-04 MSD A 5ML pH<2 ✓	1,100 S-91-(30,31)	19 Mar 102 13::2
7	4	5g12625.d	100.	L0203296-05 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::0
8	5	5g12626.d	100.	L0203296-06 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::3
9	6	5g12627.d	100.	L0203296-07 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::1
10	7	5g12628.d	100.	L0203296-08 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::4
11	8	5g12629.d	1.	L0203296-09 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
12	9	5g12630.d	1.	WG114704-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::5
13	1	5g12631.d	1.	L0203296-10 B 5ML pH<2 HIGH SSS ✓	1,1 S-91-31	19 Mar 102 12::4
14	2	5g12632.d	1.	L0203296-10 B 5ML pH<2 CONF SMI	1,1,RE S-91-31	19 Mar 102 12::2
15	3	5g12633.d	1.	L0203297-01 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
16	4	5g12634.d	1.	L0203321-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::3
17	5	5g12635.d	1.	L0203321-04 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
18	6	5g12636.d	1.	L0203321-05 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
19	7	5g12637.d	1.	L0203321-06 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
20	8	5g12638.d	1.	L0203326-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
21	9	5g12639.d	1.	L0203326-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
22	10	5g12640.d	1.	L0203326-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
23	11	5g12641.d	1.	WG114704-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
24	12	5g12642.d	1.	L0203327-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
25	13	5g12643.d	1.	L0203327-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
26	14	5g12644.d	1.	L0203327-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 13::2
27	15	5g12645.d	1.	WG114704-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 13::5

REANALYSIS	FILE #
L0203296-10	5G12632

Injection Log

Directory: c:\hpchem\2\data\032002

WG114773
⊥ 836

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12646.d	1.	WG114772-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::5
2	2	5g12647.d	1.	WG114773-01 WATER BLANK 5ML ✓	1,1 S-91-31	20 Mar 102 12::4
3	3	5g12648.d	1.	WG114773-02 WATER LCS 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::1
4	1	5g12649.d	1.	WG114773-03 L0203327-04 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 12::5
5	2	5g12650.d	1.	WG114773-04 L0203327-05 MS A 5ML pH<2 NOT SPIKED	1,1 S-91-(30,31)	20 Mar 102 12::3
6	3	5g12651.d	1.	WG114773-05 L0203327-06 MSD A 5ML pH<2 NOT SPIKED	1,1 S-91-(30,31)	20 Mar 102 13::0
7	4	5g12652.d	1.	L0203327-07 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 13::4
8	5	5g12653.d	1.	L0203327-08 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 13::1
9	6	5g12654.d	1.	L0203327-09 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 13::5
10	7	5g12655.d	1.	WG114773-04 L0203327-05 MS A 5ML pH<2 ✓	1,1 S-91-(30,31)	20 Mar 102 13::2
11	8	5g12656.d	1.	WG114773-05 L0203327-06 MSD A 5ML pH<2 ✓	1,1 S-91-(30,31)	20 Mar 102 12::0
12	9	5g12657.d	1.	WG114772-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::3
13	10	5g12658.d	1.	L0203327-10 A 5ML pH<2 ✓	1,1 S-91-31	20 Mar 102 12::2
14	11	5g12659.d	500.	L0203302-02 A 5ML pH<2 500X RR @ 50X	1,500 S-91-31	20 Mar 102 12::5
15	1	5g12660.d	50.	L0203302-02 A 5ML pH<2 50X ✓	1,50 S-91-31	20 Mar 102 12::2
16	2	5g12661.d	1.	WG114772-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::5
17	3	5g12662.d	500.	WG114836-01 EXT BLANK 03/20/02 5G/10ML ✓	12,500 S-91-31	20 Mar 102 12::3
18	4	5g12663.d	500.	WG114836-02 EXT LCS 5G/10ML 500X	12,500 S-91-(30,31)	20 Mar 102 12::0
19	5	5g12664.d	500.	WG114836-03 L0203302-01 1G/10ML 500X RR @ 5000X	12,500 S-91-31	20 Mar 102 12::4
20	6	5g12665.d	500.	WG114836-04 L0203302-01 DUP 1G/10ML 500 RR @ 5000X	12,500 S-91-31	20 Mar 102 12::1
21	7	5g12666.d	1000.	L0203302-03 1G/10ML 1000X RR c/o	12,1000 S-91-31	20 Mar 102 12::5
22	8	5g12667.d	1000.	L0203302-03 1G/10ML 1000X ⊥	12,1000 S-91-31	20 Mar 102 12::2
23	9	5g12668.d	1.	RINSE ✓	1,1 S-91-31	20 Mar 102 12::5
24	10	5g12669.d	1.	WG114772-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	20 Mar 102 12::3

REANALYSIS

L0203302-01
⊥ -03

FILE #

2.2 Semivolatiles Data

2.2.6 Method 8011

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203327

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample 04 was chosen by the client for MS/MSD analysis. The MS/MSD yielded a RPD greater than the advisory limit. All other acceptance criteria were met.
SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: CLK

REVIEWED: _____ DATE: 3/28/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0203327

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms (RIC) and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ___ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: CLK Date: 3/28/02

2.2.6.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203327 — Work Group: WG115175

Blank File ID: 2G19587 — Blank Sample ID: WG114738-02

Date Analyzed: 03/26/02 — Instrument ID: HP2

Time Analyzed: 20:58 — Method: 8015 MOD

Analyst: CLK

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114738-03	2G19588	03/26/02 21:13	01
062-CEF9-2S-Q1-02-15	L0203327-01	2G19591	03/26/02 21:59	01
062-CEF9-3S-Q1-02-15	L0203327-02	2G19592	03/26/02 22:15	01
062-CEF9-5S-Q1-02-15	L0203327-03	2G19596	03/26/02 23:16	01
062-CEF9-7D-Q1-02-15	L0203327-04	2G19597	03/26/02 23:31	01
062-CEF9-7D-Q1-02-15	L0203327-05	2G19598	03/26/02 23:47	01
062-CEF9-7D-Q1-02-15	L0203327-06	2G19599	03/27/02 00:02	01
062-CEF9-9S-Q1-02-15	L0203327-07	2G19600	03/27/02 00:17	01
062-9DUP-Q1-02-15	L0203327-08	2G19601	03/27/02 00:33	01
062-9EQB-Q1-02-15	L0203327-09	2G19602	03/27/02 00:48	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203327 Run Date: 03/26/2002 Sample ID: WG114738-02
Instrument ID: HP2 Run Time: 20:58 Method: 8015 MOD
File ID: 2G19587 Analyst: CLK Matrix: Water
Workgroup (AAB#): WG115175 Units: ug/L
Contract #: Cal ID: HP2-26-MAR-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	114	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203327 Run Date: 03/26/2002 Sample ID: WG114738-03
Instrument ID: HP2 Run Time: 21:13 Method: 8015 MOD
File ID: 2G19588 Analyst: CLK Matrix: Water
Workgroup (AAB#): WG115175 Units: ug/L
Contract #: Cal ID: HP2-26-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2520	74.2	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	104	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum:L0203327 Cal ID: HP2-26-MAR-2002 Worknum:WG115175
Instrument ID:HP2 Contract #: Method:8015 MOD
Parent ID:L0203327-04 File ID:2G19597 Dil:1 Matrix:Water
Sample ID:L0203327-05 MS File ID:2G19598 Dil:1 Units:ug/L
Sample ID:L0203327-06 MSD File ID:2G19599 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
TRPH-Florida PRO	0	3580	1990	55.6	3580	2610	72.9	27.0	50 - 120	20	#

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 01/11/2001
Version 1.2
Report generated 03/07/2002 10:07

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD AAB#: WG115175

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-9DUP-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.61	27-MAR-02	7	7.41	*ANAL
062-9EQB-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.12	27-MAR-02	7	7.42	*ANAL
062-CEF9-2S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.19	26-MAR-02	7	7.30	*ANAL
062-CEF9-3S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.17	26-MAR-02	7	7.32	*ANAL
062-CEF9-5S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.08	26-MAR-02	7	7.36	*ANAL
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.13	26-MAR-02	7	7.37	*ANAL
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.13	26-MAR-02	7	7.38	*ANAL
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.13	27-MAR-02	7	7.39	*ANAL
062-CEF9-9S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.10	27-MAR-02	7	7.40	*ANAL

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

SURROGATE STANDARDS

Login Number:L0203327
Instrument Id:HP2
Workgroup (AAB#):WG115175

Method:FLA-PRO
Matrix:WATER

Sample Number	Dilution	Tag	1
L0203327-01	1.00	01	80.5
L0203327-02	1.00	01	111
L0203327-03	1.00	01	84.0
L0203327-04	1.00	01	96.1
L0203327-05	1.00	01	109
L0203327-06	1.00	01	108
L0203327-07	1.00	01	117
L0203327-08	1.00	01	99.1
L0203327-09	1.00	01	80.8
WG114738-02	1.00	01	114
WG114738-03	1.00	01	104

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002

Calibration Files
5 =2G19585.D 50 =2G19584.D 100 =2G19583.D
200 =2G19582.D 400 =2G19581.D 600 =2G19580.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.599	3.431	3.377	3.285	2.758	3.420	3.145	E4	11.72
2)	s	O-Terphenyl	2.787	2.811	2.957	2.676	1.993	2.979	2.700	E4	13.50
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range
FLASHPRO.M Wed Mar 27 16:52:45 2002 HP2 Page 1

Sample : WG115180-07 200ppm PRO Alt Source STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2770.051	18.5# ok	78	0.00
2	s	O-Terphenyl	200.000	2.666	98.7#	1	-0.03

ck 3/28/02
Limit 30%

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19586.D FLASHPRO.M Wed Mar 27 11:41:07 2002 HP2 Page 1

CONTINUING CALIBRATION REPORT

Login Number: L0203327
File ID: 2G19595
CCV ID: WG115180-08
Units: mg/L

Instrument ID: HP2
Run Date: 03/26/2002
Run Time: 23:01
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte	Expected	Found	RF	%D	Q
n-Nonatriacontane	200		0		
Petroleum Range	3400	3330	30800	2.1	

* Exceeds %D Limit

CONTINUING CALIBRATION REPORT

Login Number: L0203327
File ID: 2G19604
CCV ID: WG115180-09
Units: mg/L

Instrument ID: HP2
Run Date: 03/27/2002
Run Time: 01:19
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3760	34800	10.6	

* Exceeds %D Limit

1	1	2g19548.d	1.	NA CH2CL2	1,1	26 Mar 102 13::2
2	1	2g19549.d	1.	CH2CL2	1,1	26 Mar 102 13::4
3	2	2g19550.d	1.	✓ win def std	1,1 NS 14-41	26 Mar 102 13::5
4	3	2g19551.d	1.	✓ JP-4 2000ppm Qualitative STD	1,1 SOS 59-03	26 Mar 102 12::0
5	4	2g19552.d	1.	WG115131-03 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
6	5	2g19553.d	1.	WG115131-06 10000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::2
7	6	2g19554.d	1.	WG115131-05 5000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::3
8	7	2g19555.d	1.	WG115131-04 2500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::4
9	8	2g19556.d	1.	WG115131-02 500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::0
10	9	2g19557.d	1.	WG115131-01 100ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::1
11	10	2g19558.d	1.	WG115131-07 1000ppm DRO Alt Source STD	1,1 SOS 58-20	26 Mar 102 12::2
12	11	2g19559.d	1.	RR DRO SPK @ 1000ppm ESS0041-02	1,1	26 Mar 102 12::3
13	12	2g19560.d	1.	✓ L0203345-01 WATER DRO	1,1	26 Mar 102 12::5
14	13	2g19561.d	1.	L0203345-03 WATER DRO	1,1	26 Mar 102 12::0
15	14	2g19562.d	1.	L0203345-04 WATER DRO	1,1	26 Mar 102 12::1
16	15	2g19563.d	1.	L0203345-02 WATER DRO	1,1	26 Mar 102 12::2
17	1	2g19564.d	1.	NA CH2CL2	1,1	26 Mar 102 12::3
18	1	2g19565.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
19	4	2g19566.d	1.	✓ WG115131-08 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::5
20	16	2g19567.d	1.	RR L0203407-02 WATER DRO	1,1	26 Mar 102 12::2
21	17	2g19568.d	20.	✓ L0203407-02 WATER DRO 20X	1,20	26 Mar 102 12::3
22	1	2g19569.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
23	1	2g19570.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
24	4	2g19571.d	1.	✓ WG115131-09 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::0
25	18	2g19572.d	1.	L0203340-01 SOIL DRO	7,1 SOIL	26 Mar 102 12::2
26	19	2g19573.d	1.	L0203340-02 SOIL DRO	7,1 SOIL	26 Mar 102 12::3
27	20	2g19574.d	1.	L0203340-03 SOIL DRO	7,1 SOIL	26 Mar 102 12::4
28	1	2g19575.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
29	1	2g19576.d	1.	NA CH2CL2	1,1	26 Mar 102 12::0
30	4	2g19577.d	1.	✓ WG115131-10 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
31	21	2g19578.d	1.	RR DRO SPK @ 1000 ESS0041-02	1,1	26 Mar 102 12::3
32	1	2g19579.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
33	2	2g19580.d	1.	✓ WG115180-06 600ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
34	3	2g19581.d	1.	WG115180-05 400ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
35	4	2g19582.d	1.	WG115180-04 200ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::4
36	5	2g19583.d	1.	WG115180-03 100ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::5
37	6	2g19584.d	1.	WG115180-02 50ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
38	7	2g19585.d	1.	WG115180-01 5ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
39	8	2g19586.d	1.	WG115180-07 200ppm PRO Alt Source STD	1,1 SOS 59-1	26 Mar 102 12::4
40	9	2g19587.d	1.	WG114738-02 BLK 3/19 V182P27	1,1	26 Mar 102 12::5
41	10	2g19588.d	1.	WG114738-03 LCS 3/19 V182P27	1,1	26 Mar 102 12::1
42	11	2g19589.d	1.	L0203326-01 PRO WATER	1,1	26 Mar 102 12::2
43	12	2g19590.d	1.	L0203326-02 PRO WATER	1,1	26 Mar 102 12::4
44	13	2g19591.d	1.	L0203327-01 PRO WATER	1,1	26 Mar 102 12::5
45	14	2g19592.d	1.	L0203327-02 PRO WATER	1,1	26 Mar 102 13::1
46	1	2g19593.d	1.	NA CH2CL2	1,1	26 Mar 102 13::3
47	1	2g19594.d	1.	NA CH2CL2	1,1	26 Mar 102 13::4
48	4	2g19595.d	1.	✓ WG115180-08 200ppm PRO CCV	1,1 SOS 59-6	26 Mar 102 13::0
49	15	2g19596.d	1.	L0203327-03 PRO WATER	1,1	26 Mar 102 13::1
50	16	2g19597.d	1.	WG114738-01 L0203327-04 PRO WATER REF	1,1	26 Mar 102 13::3
51	17	2g19598.d	1.	WG114738-04 L0203327-05 PRO WATER MS	1,1	26 Mar 102 13::4

5	18	2g19599.d	1.	✓	WG114738-05 L0203327-06 PRO WATER MSD	1,1	27 Mar 102 13::0
53	19	2g19600.d	1.		L0203327-07 PRO WATER	1,1	27 Mar 102 13::1
54	20	2g19601.d	1.		L0203327-08 PRO WATER	1,1	27 Mar 102 13::3
55	21	2g19602.d	1.		L0203327-09 PRO WATER	1,1	27 Mar 102 13::4
56	1	2g19603.d	1.	NA	CH2CL2	1,1	27 Mar 102 12::0
57	4	2g19604.d	1.	✓	WG115180-09 200ppm CCV	1,1 SOS 59-6	27 Mar 102 12::1
58	22	2g19605.d	1.	NA	500ppm PRO ALT Check 1	1,1 SOS 59-1	27 Mar 102 12::5
59	23	2g19606.d	1.		600ppm PRO STD Check	1,1 SOS 59-6	27 Mar 102 13::2
60	24	2g19607.d	1.		500ppm PRO ALT CHECK II	1,1 STOCK (New Vial)	27 Mar 102 13::3
61	25	2g19608.d	1.		200ppm PRO STD CHK	1,1 SOS 59-6 Remix	27 Mar 102 13::5

CLK 3/27/02
Rec 3/27/02

Analysis Date/Time 3/26/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 032602

Analyst Initials ____

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check

- [x] Gases >500 psi

Preventative Maintenance

- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [x] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?

Yes ✓ No ____

Additional Maintenance

Problem: Injection Port Pressure low

Action Taken: Replaced instrument weld, Replaced pre-column, Changed Gold Seal

Comments

DRO SPK @ 1000 ppm ESS0041-02, low (2g19559)

L0203467-02 WATER DRO, Needs 20X
↓ -02 ↓ ↓ 20X, Dilution Good, Reported, SS DC

DRO SPK @ 1000 ESS0041-02, high (2g19578)

Files (2g19665 - 2g19663), (Check study)

Reviewed By: [illegible] 3/27/02

Extraction Analyst(s): RLL TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 0940 Date TV/KD: 03/19/02
Spike/Surrogate Analyst: RLL Witness: CEB
Surrogate #: ESS0040-18 Earliest Hold Date: 3/25
Spike #: A = ESS0040-19 Spike #: B = —

Analytical Work Group WG 114173

Extract Relinquished By: DP
Extract Received By & Date: CLK 3/19/02

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 114738-02
2	LCS		✓			1		1mL		T				WG 1 -03
3	03-326-01	FLA-PRO	✓			930mL				C	✓			*
4	-02		✓			950mL				T				
5	03-327-01		✓							C	✓			
6	-02		✓							C	✓			
7	-03		✓							C	✓			
8	-04		✓			940mL				T				WG 114738-01
9	-05MS		✓			950mL		1mL		T				* 1 -04
10	-06MD		✓			1		1		T				* 1 -05
11	-07		✓			940mL				T				
12	-08		✓			1				T				
13	-09		✓			950mL				T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/19/02

Methylene Chloride Lot #: 42015
Hexane Lot #: ✓
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: EL2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EL2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/19/02

Extraction Notes For Volume # 70 Page # _____

General Comments: * MS, MSD OF 03-327-04

Extraction Anomalies: & & Very Thick Emulsion during Extraction.

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.6.2 Sample Data

Data File : C:\HPCHEM\1\DATA\032602\2G19591.D
Acq On : 26 Mar 2002 21:59
Sample : L0203327-01 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 13
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	434865	16.103 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	80.52%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	21993175	699.312 ppb

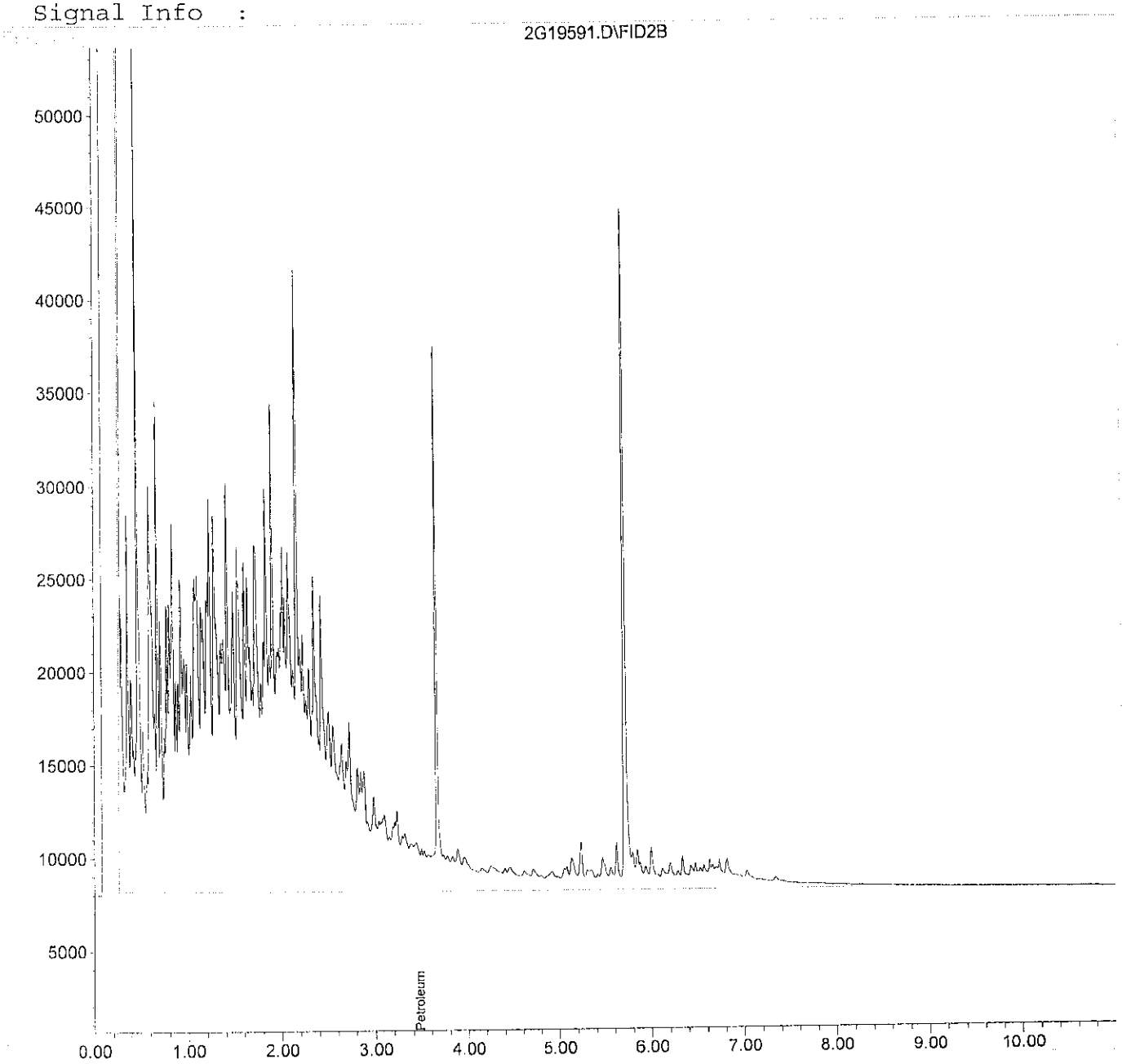
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19591.D
Acq On : 26 Mar 2002 21:59
Sample : L0203327-01 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 13
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19592.D
Acq On : 26 Mar 2002 22:15
Sample : L0203327-02 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:43 2002 Quant Results File: FLASHPRO.RES

Vial: 14
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	597388	22.122 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	110.61%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	18824670	598.563 ppb

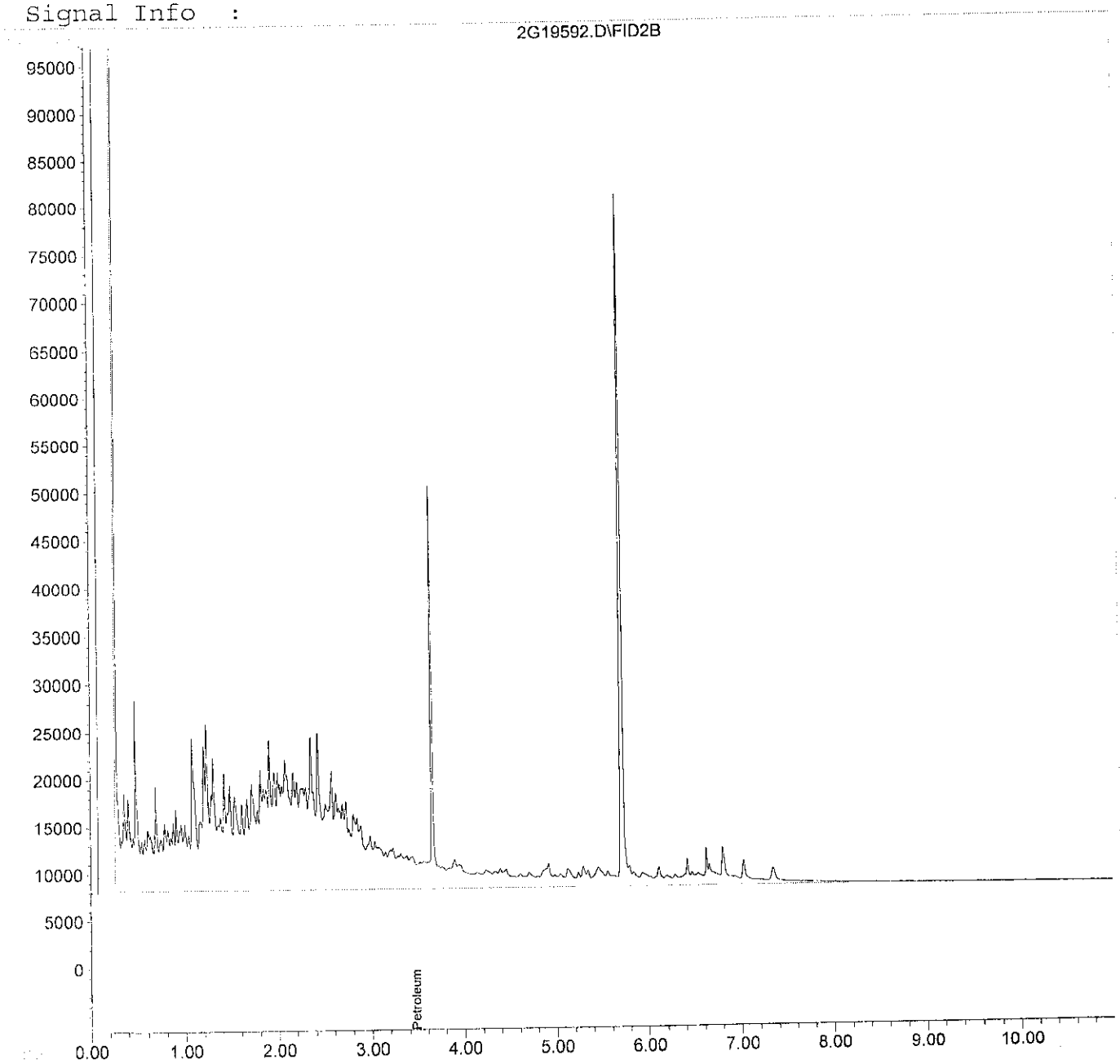
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19592.D
Acq On : 26 Mar 2002 22:15
Sample : L0203327-02 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:43 2002 Quant Results File: FLASHPRO.RES

Vial: 14
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19596.D
Acq On : 26 Mar 2002 23:16
Sample : L0203327-03 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:54 2002 Quant Results File: FLASHPRO.RES

Vial: 15
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	453367	16.789 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	83.95%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1472235	<MDL ppb

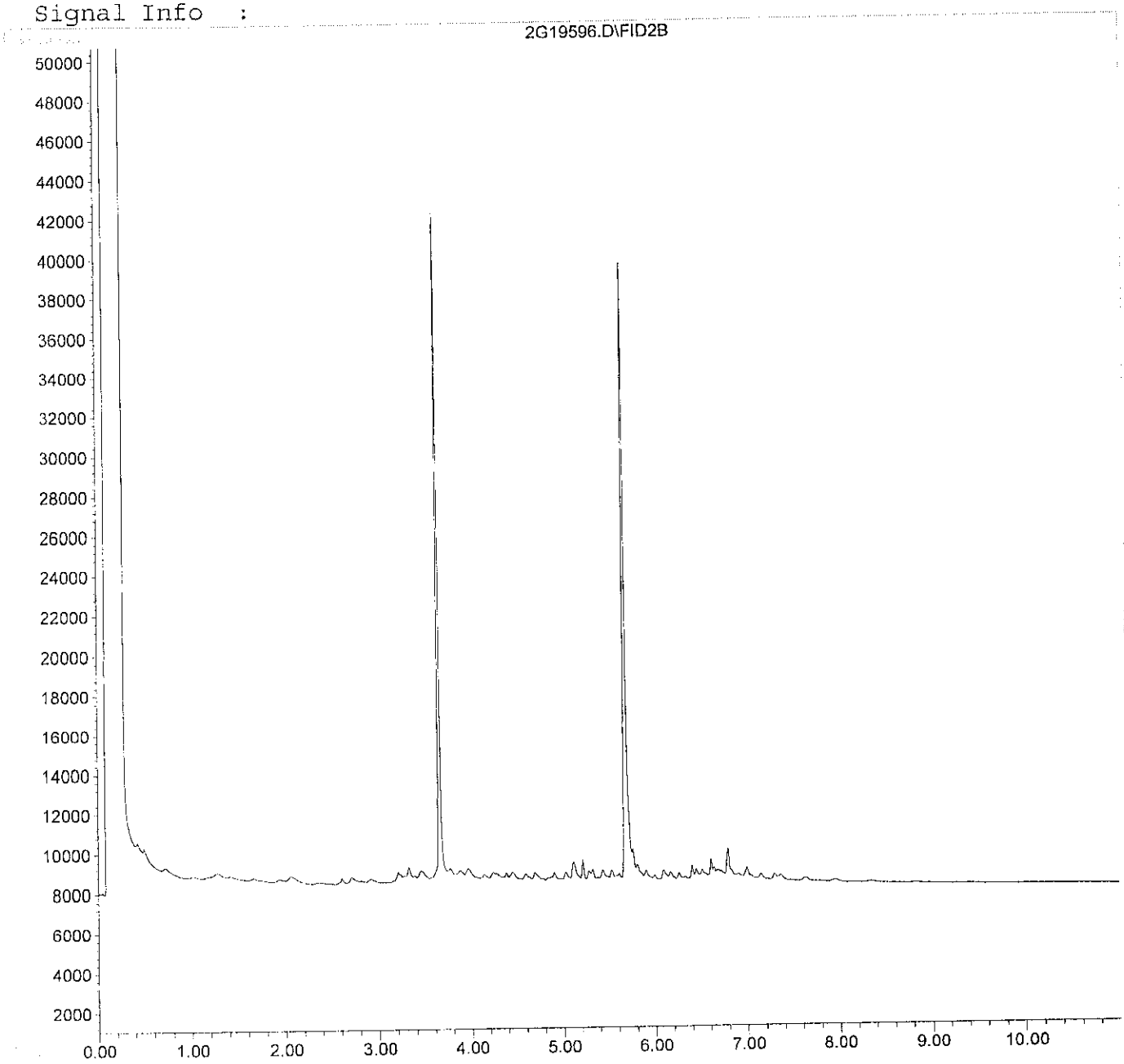
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19596.D
Acq On : 26 Mar 2002 23:16
Sample : L0203327-03 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:54 2002 Quant Results File: FLASHPRO.RES

Vial: 15
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19597.D
Acq On : 26 Mar 2002 23:31
Sample : WG114738-01 L0203327-04 PRO WATER REF
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:54 2002 Quant Results File: FLASHPRO.RES

Vial: 16
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.63	519054	19.221 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	96.10%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
N H Petroleum Range	3.48	1459183	<MDL ppb

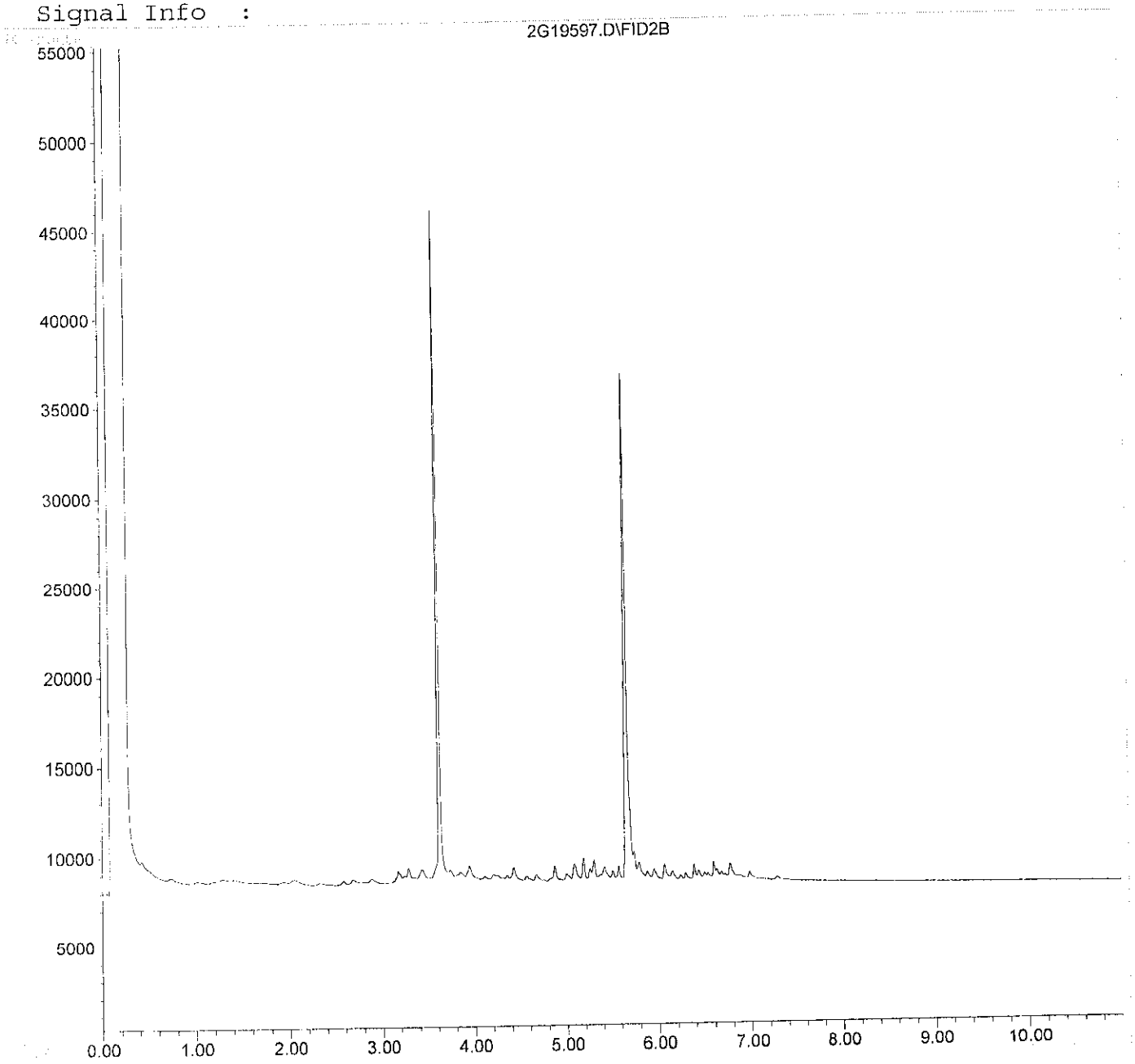
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19597.D
Acq On : 26 Mar 2002 23:31
Sample : WG114738-01 L0203327-04 PRO WATER REF
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:54 2002 Quant Results File: FLASHPRO.RES

Vial: 16
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19598.D
Acq On : 26 Mar 2002 23:47
Sample : WG114738-04 L0203327-05 PRO WATER MS
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 12:40 2002 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.64	589586	21.833 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	109.17%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	59527438	1892.779 ppb

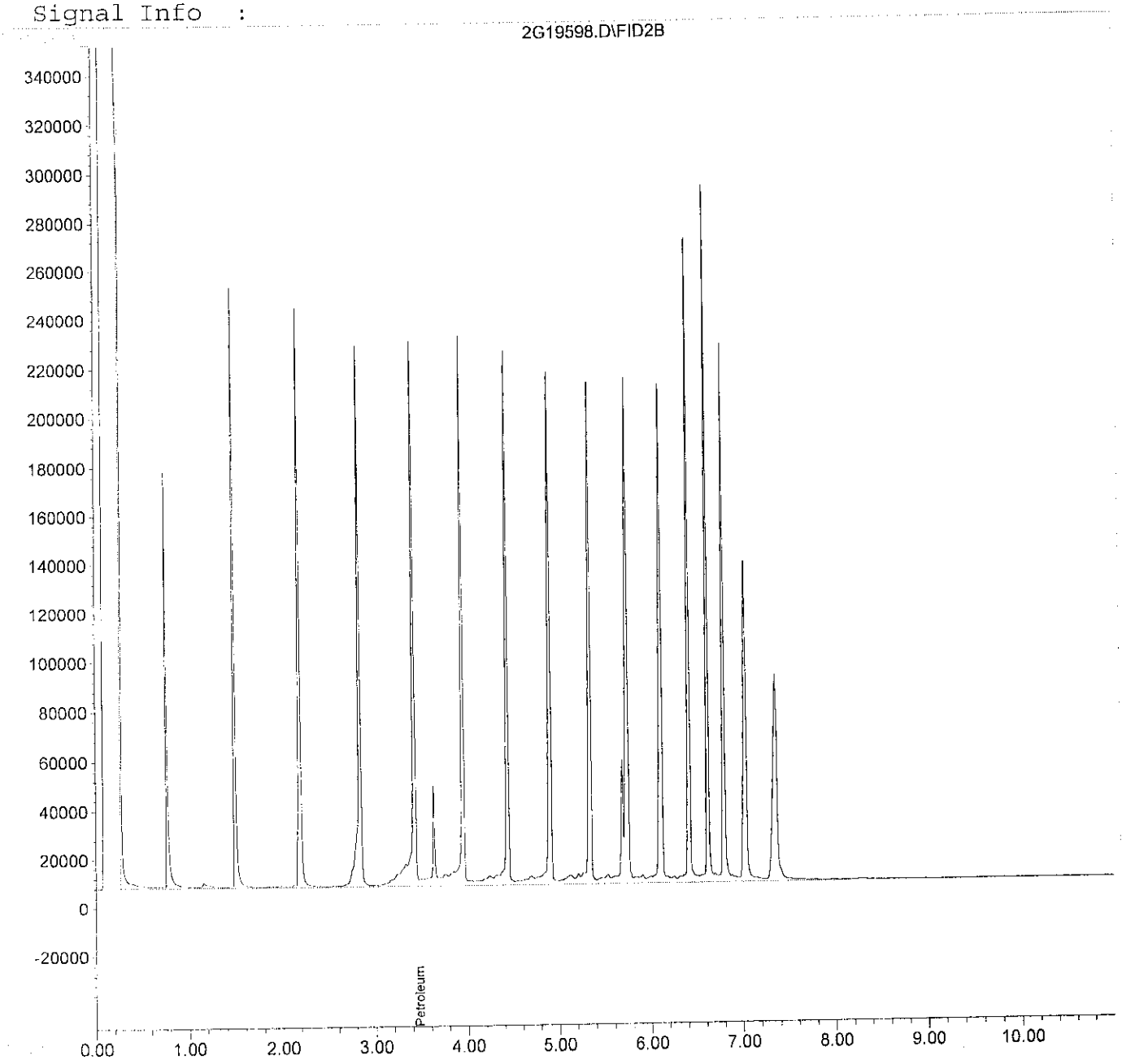
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19598.D
Acq On : 26 Mar 2002 23:47
Sample : WG114738-04 L0203327-05 PRO WATER MS
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 12:40 2002 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19599.D
Acq On : 27 Mar 2002 00:02
Sample : WG114738-05 L0203327-06 PRO WATER MSD
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 18
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	580821	21.508 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	107.54%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	78115527	2483.820 ppb

(f)=RT Delta > 1/2 Window

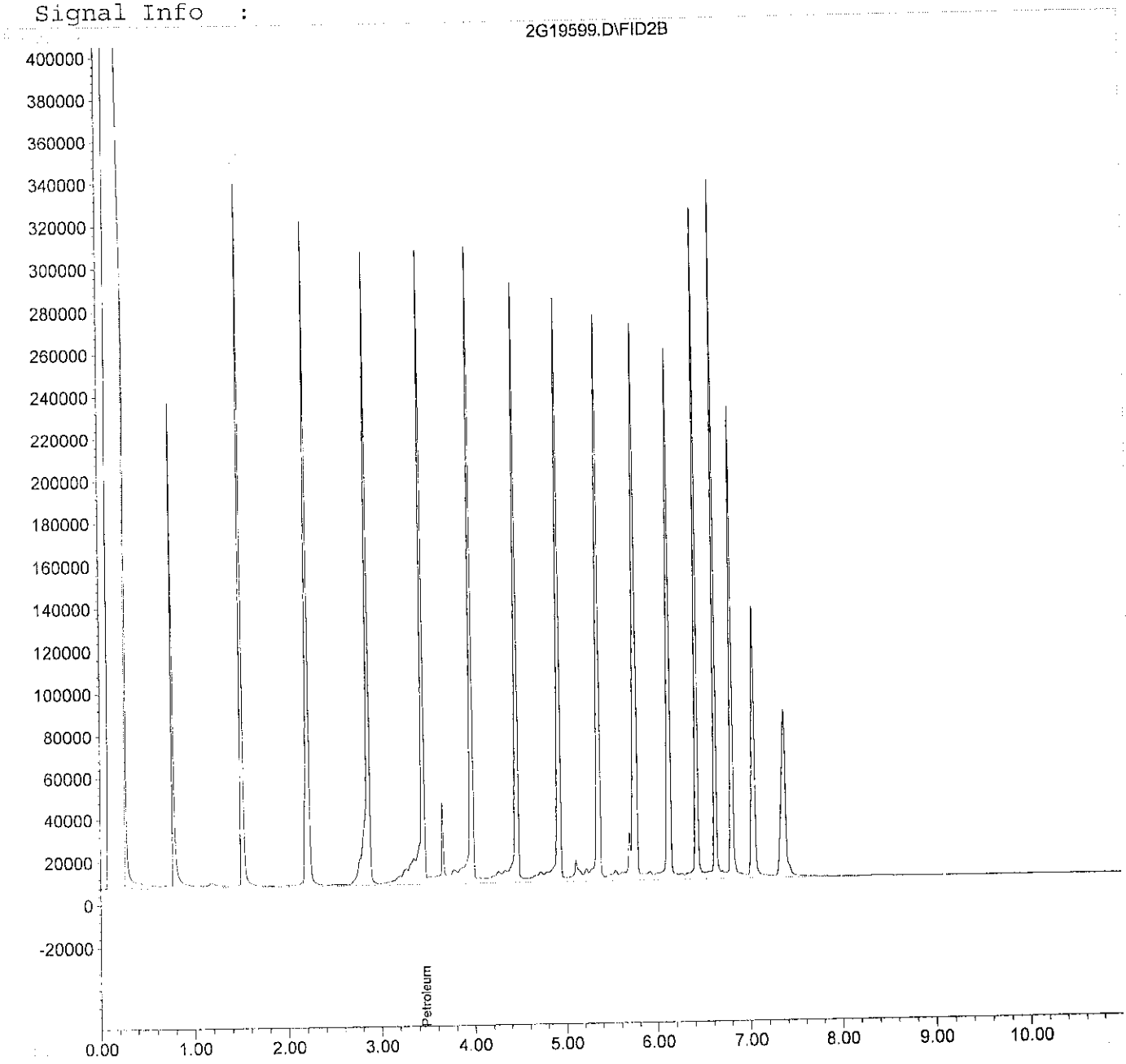
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19599.D
Acq On : 27 Mar 2002 00:02
Sample : WG114738-05 L0203327-06 PRO WATER MSD
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 18
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19600.D
Acq On : 27 Mar 2002 00:17
Sample : L0203327-07 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 19
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	634210	23.485 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	117.43%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	21260416	676.012 ppb

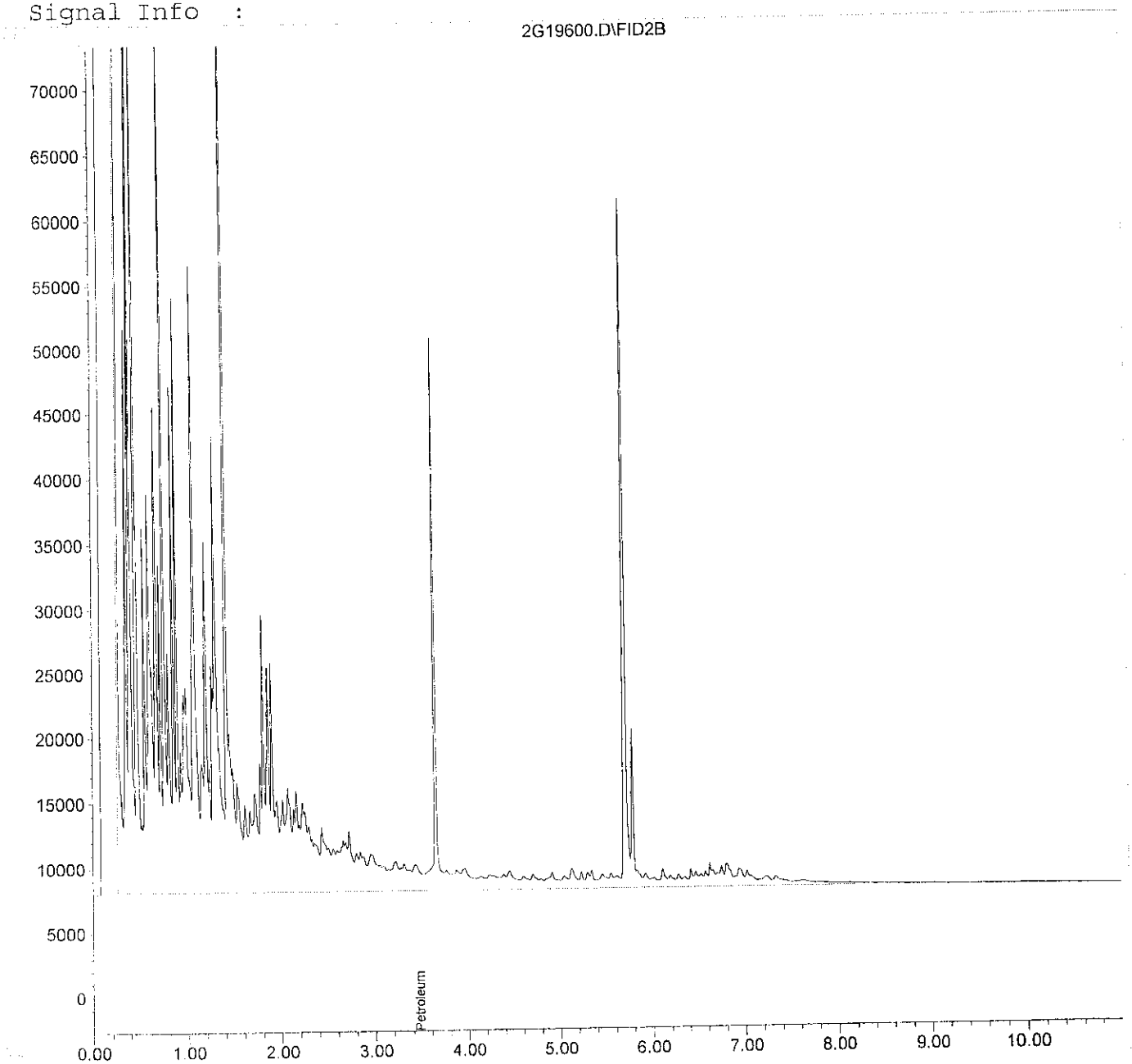
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19600.D
Acq On : 27 Mar 2002 00:17
Sample : L0203327-07 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 19
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19601.D
Acq On : 27 Mar 2002 00:33
Sample : L0203327-08 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 20
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	534984	19.811 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	99.06%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	15765773	501.300 ppb

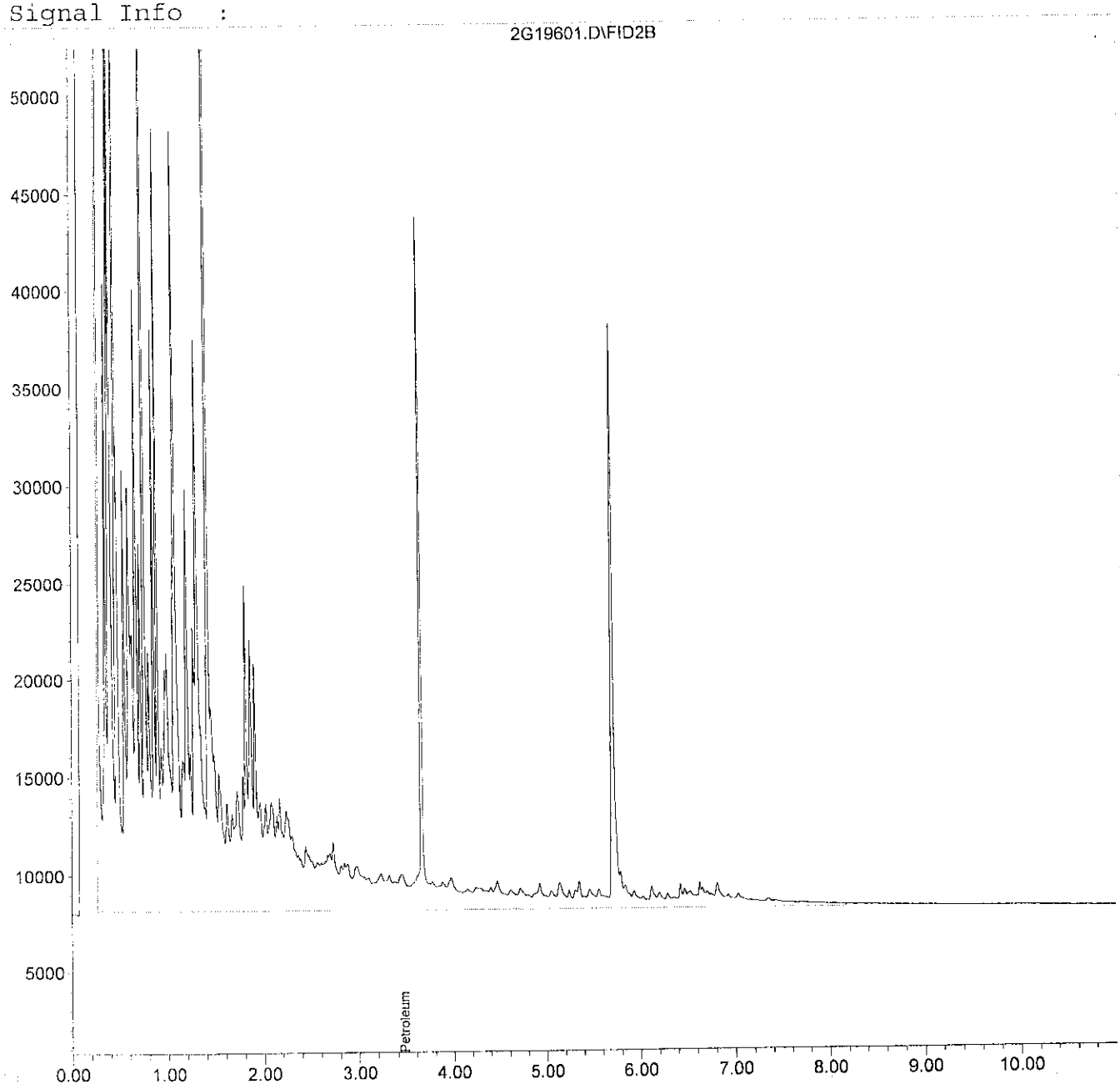
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19601.D
Acq On : 27 Mar 2002 00:33
Sample : L0203327-08 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 20
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19602.D Vial: 21
Acq On : 27 Mar 2002 00:48 Operator: CLK
Sample : L0203327-09 PRO WATER Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	436317	16.157 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	80.79%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2280930	<MDL ppb

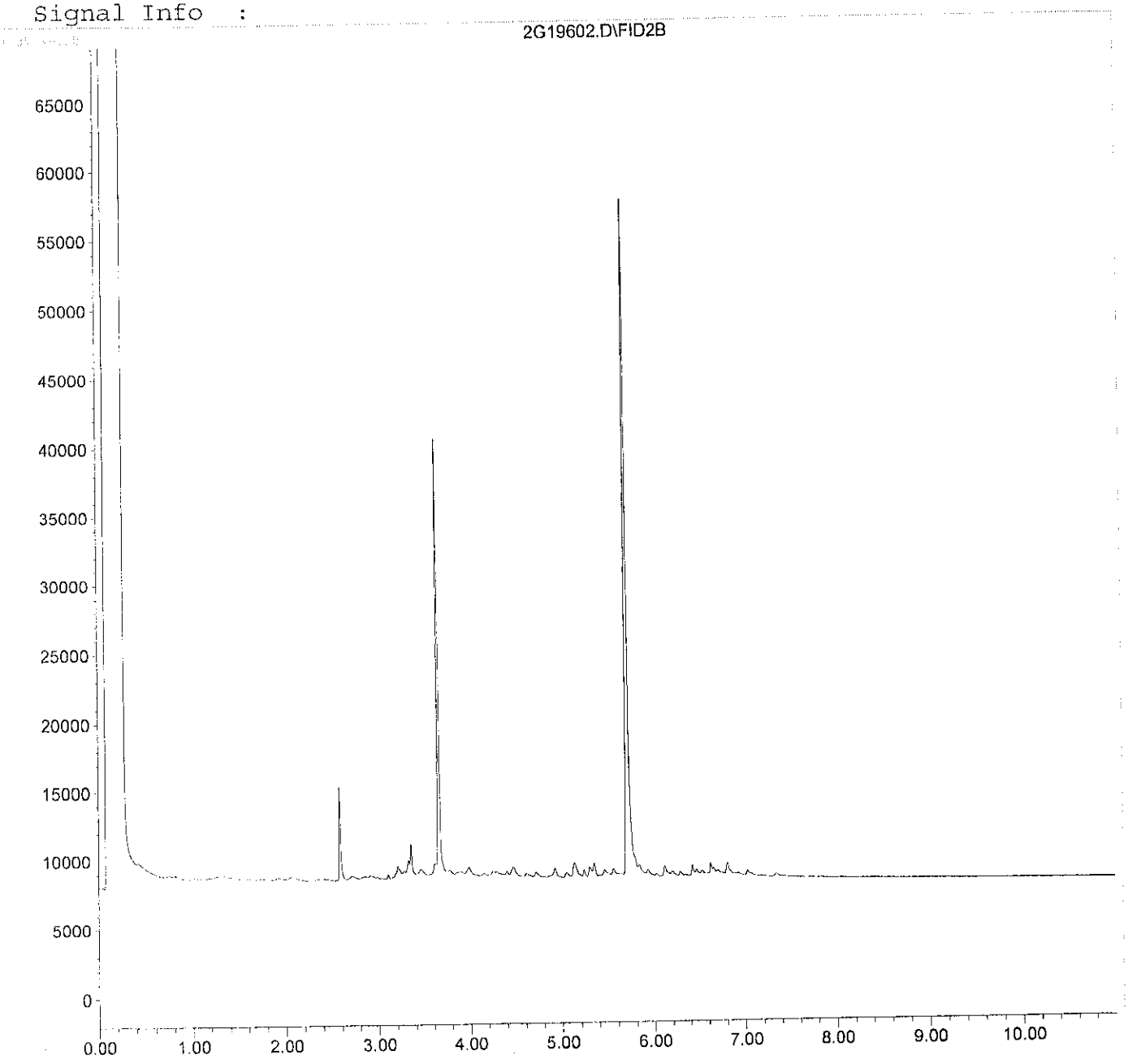
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19602.D
Acq On : 27 Mar 2002 00:48
Sample : L0203327-09 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:55 2002 Quant Results File: FLASHPRO.RES

Vial: 21
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.6.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002

Calibration Files
5 =2G19585.D 50 =2G19584.D 100 =2G19583.D
200 =2G19582.D 400 =2G19581.D 600 =2G19580.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.599	3.431	3.377	3.285	2.758	3.420	3.145	E4	11.72
2)	s	O-Terphenyl	2.787	2.811	2.957	2.676	1.993	2.979	2.700	E4	13.50
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range
FLASHPRO.M Wed Mar 27 16:52:55 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\032602\2G19580.D
Acq On : 26 Mar 2002 19:10
Sample : WG115180-06 600ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 2
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:23:38 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	17874205	661.898 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	= 3309.49%#	
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	348822762	11091.432 ppb

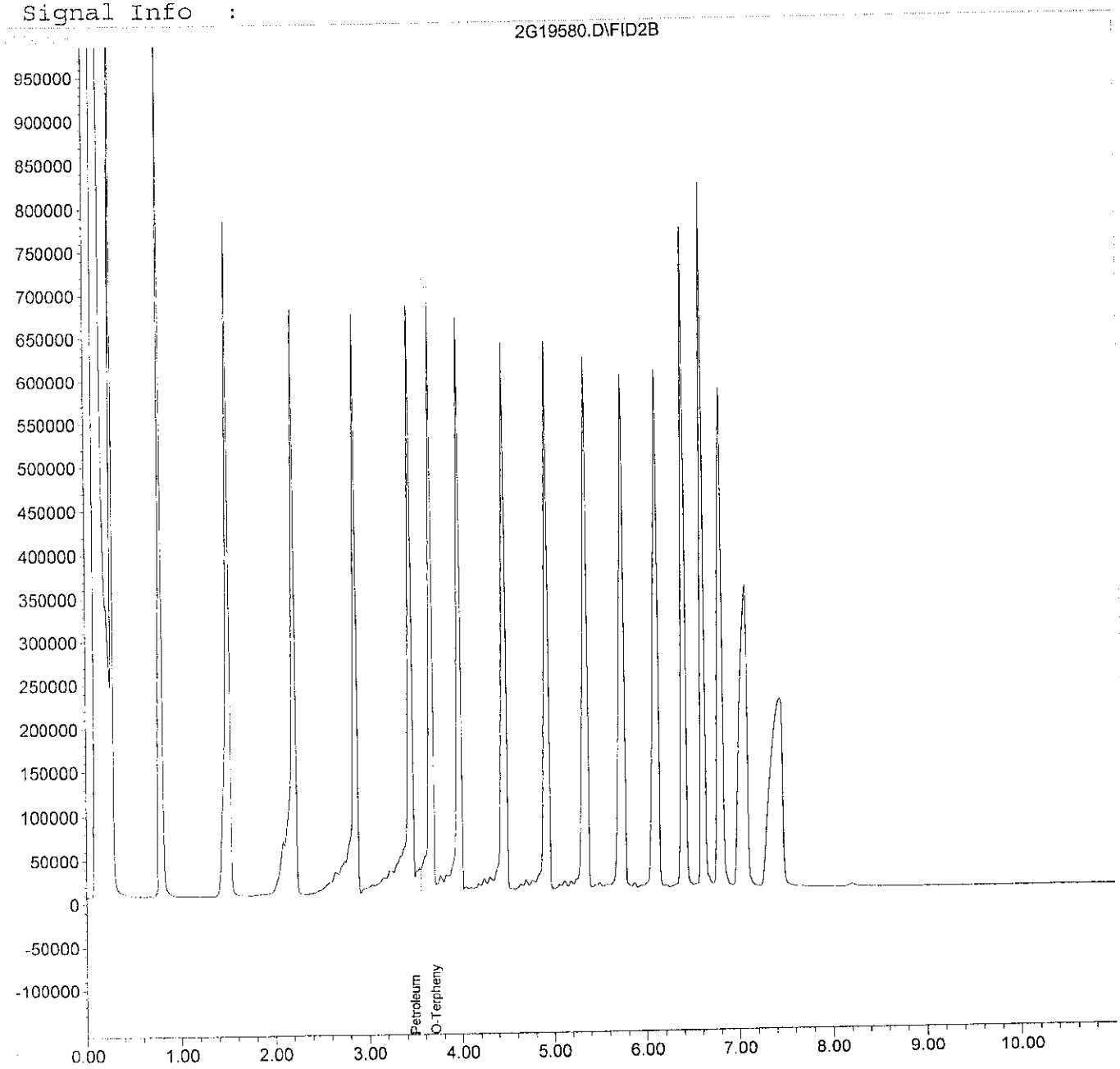
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19580.D
Acq On : 26 Mar 2002 19:10
Sample : WG115180-06 600ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 2
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:23:38 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19581.D
Acq On : 26 Mar 2002 19:26
Sample : WG115180-05 400ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	7972510	295.229 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery	= 1476.15%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	187550130	5963.485 ppb

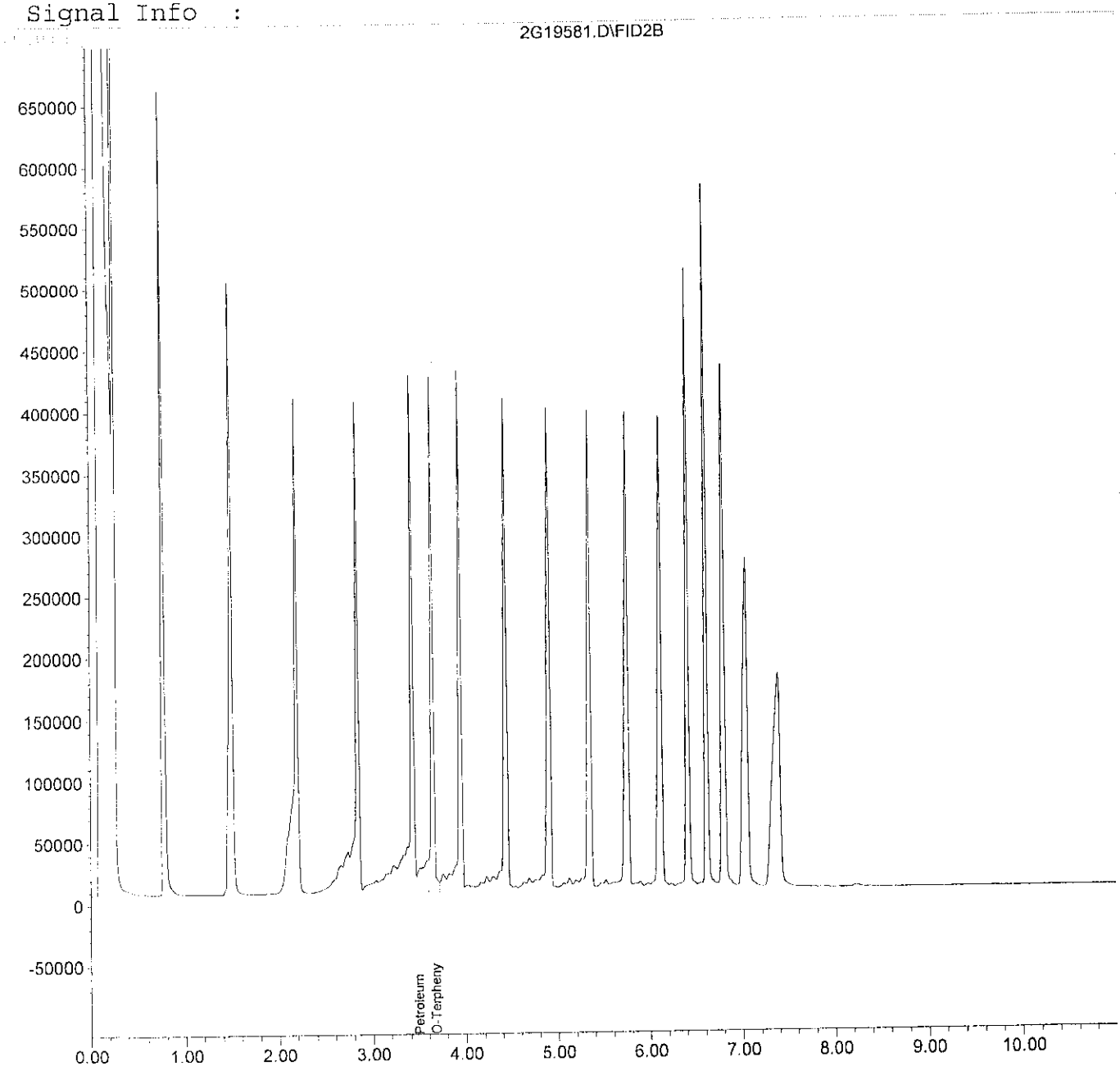
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19581.D
Acq On : 26 Mar 2002 19:26
Sample : WG115180-05 400ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19582.D
Acq On : 26 Mar 2002 19:41
Sample : WG115180-04 200ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.65	5351263	198.162 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		990.81%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.48	111694516	3551.523 ppb

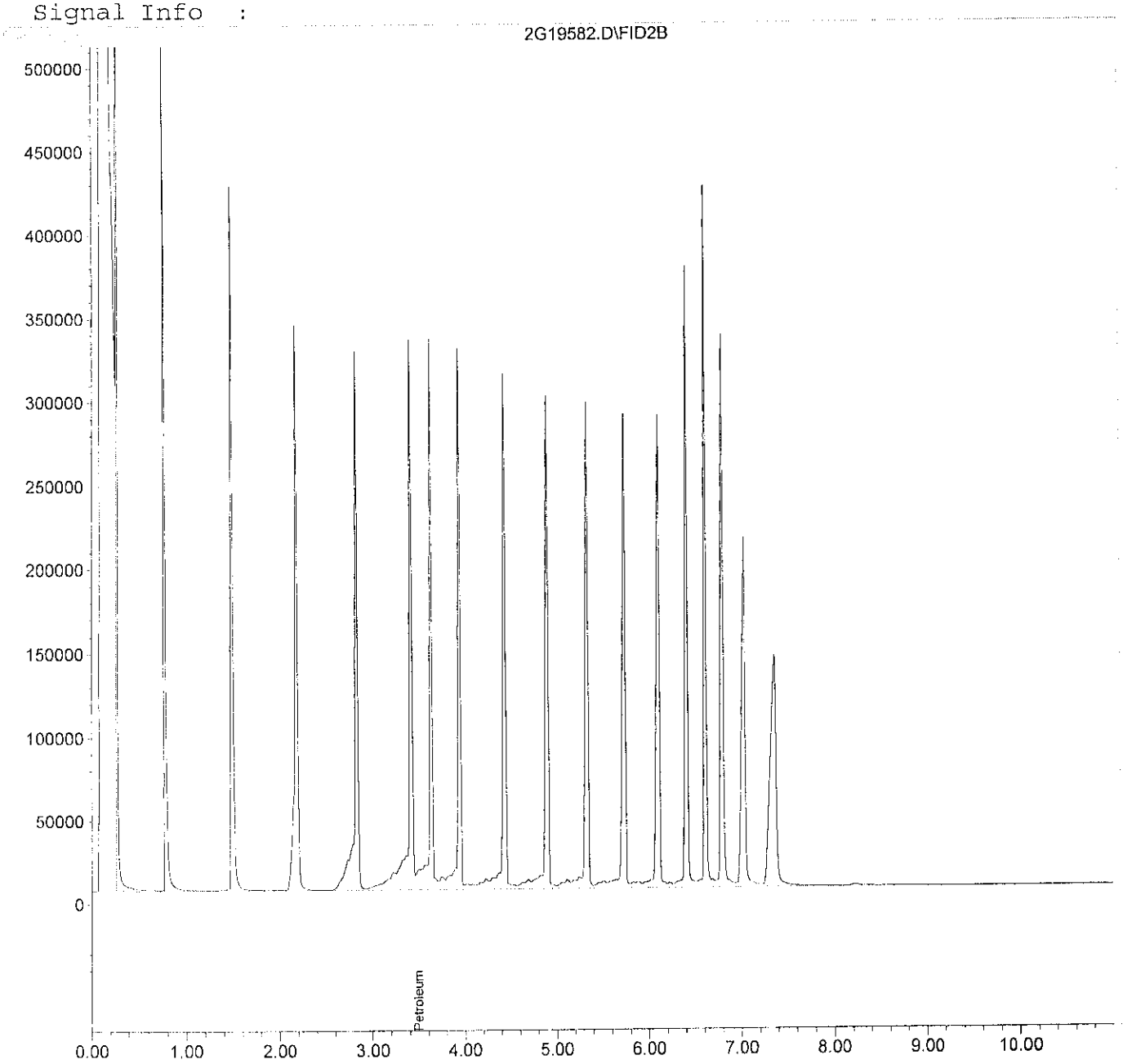
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19582.D
Acq On : 26 Mar 2002 19:41
Sample : WG115180-04 200ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19583.D
Acq On : 26 Mar 2002 19:56
Sample : WG115180-03 100ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	2957241	109.509 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		547.55%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.48	57410555	1825.469 ppb

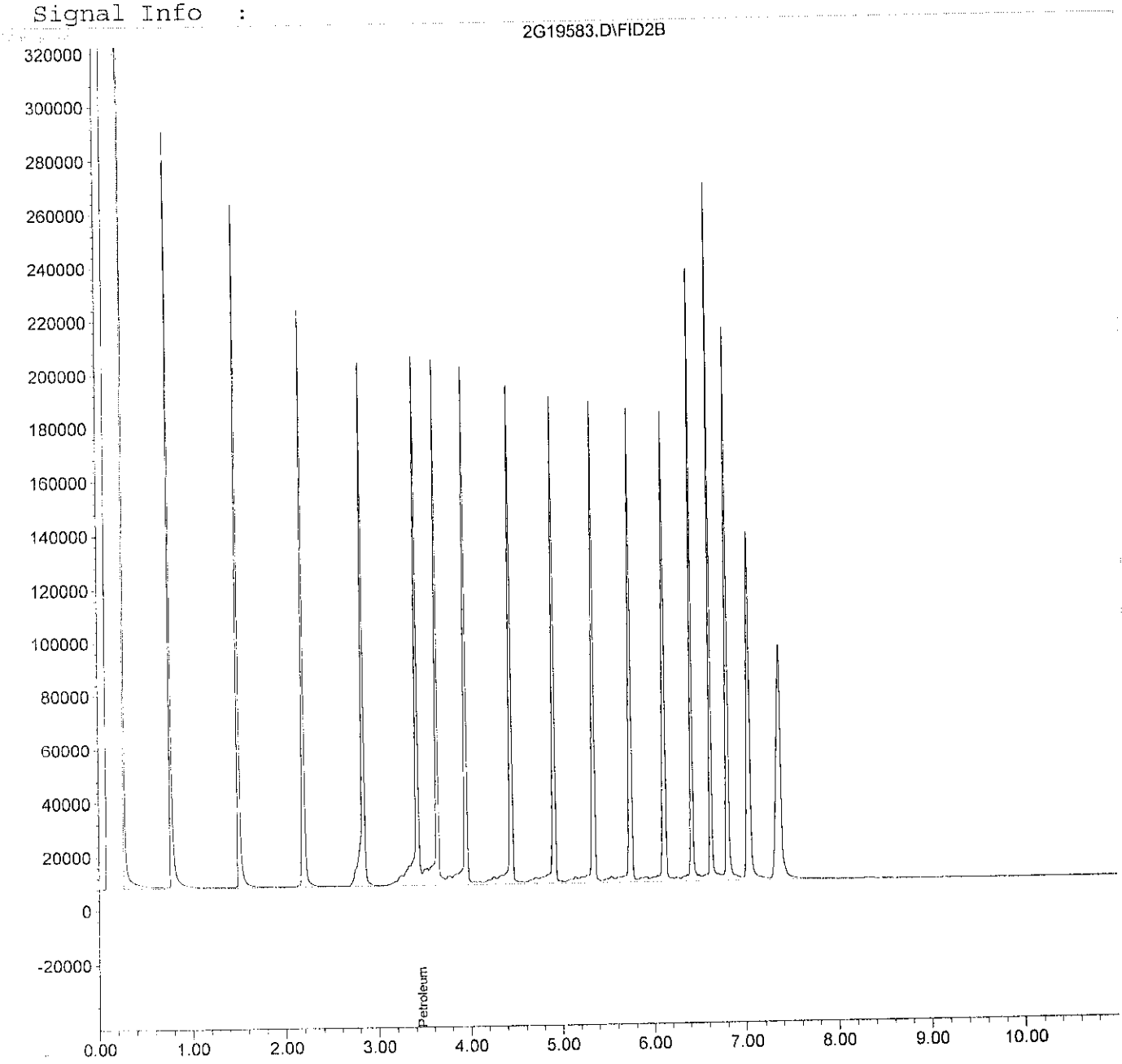
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19583.D
Acq On : 26 Mar 2002 19:56
Sample : WG115180-03 100ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19584.D
Acq On : 26 Mar 2002 20:12
Sample : WG115180-02 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	1405349	52.041 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	260.21%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	29163598	927.308 ppb

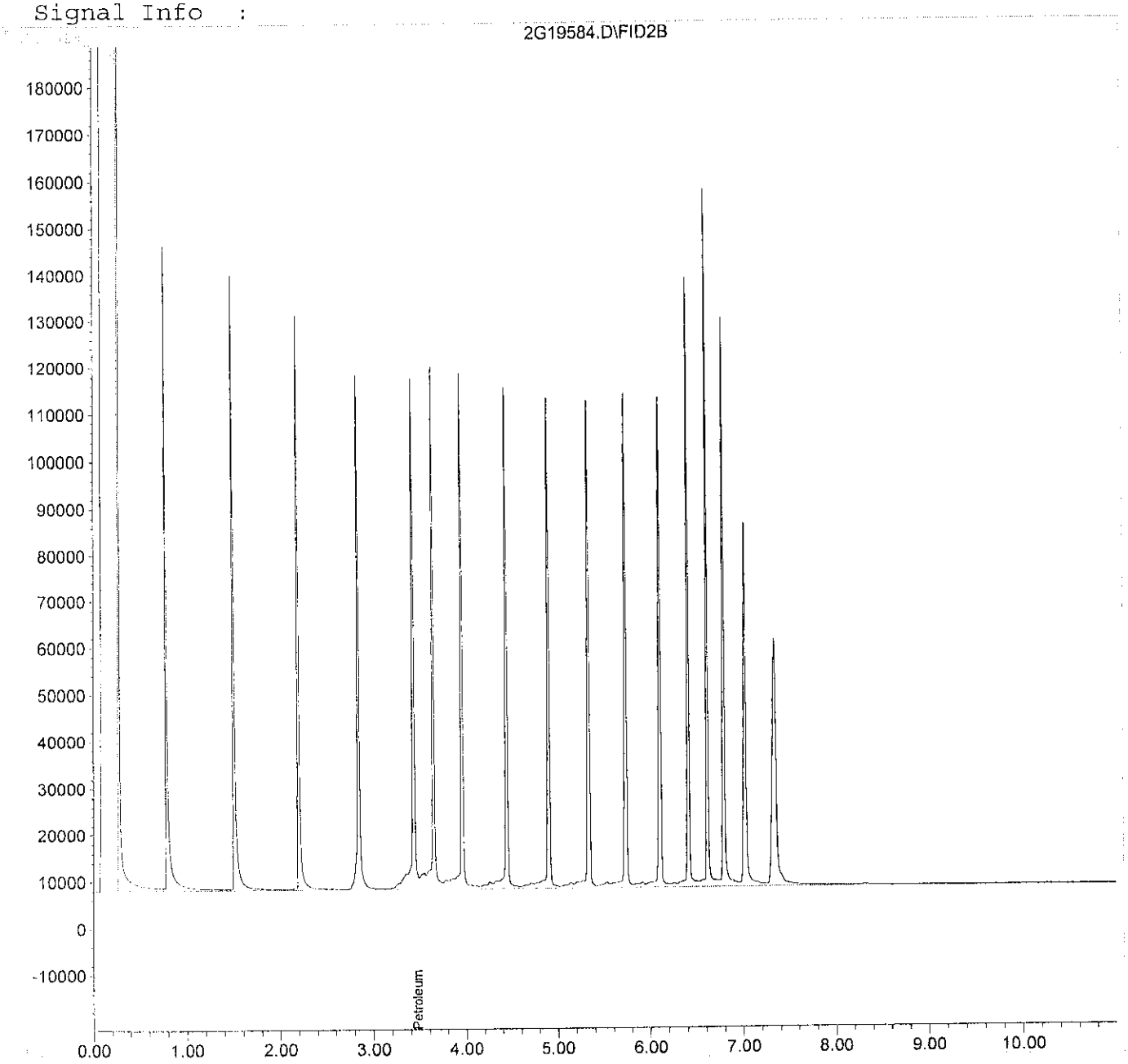
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19584.D
Acq On : 26 Mar 2002 20:12
Sample : WG115180-02 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19585.D
Acq On : 26 Mar 2002 20:27
Sample : WG115180-01 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	139347	5.160 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	25.80%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2208890	<MDL ppb

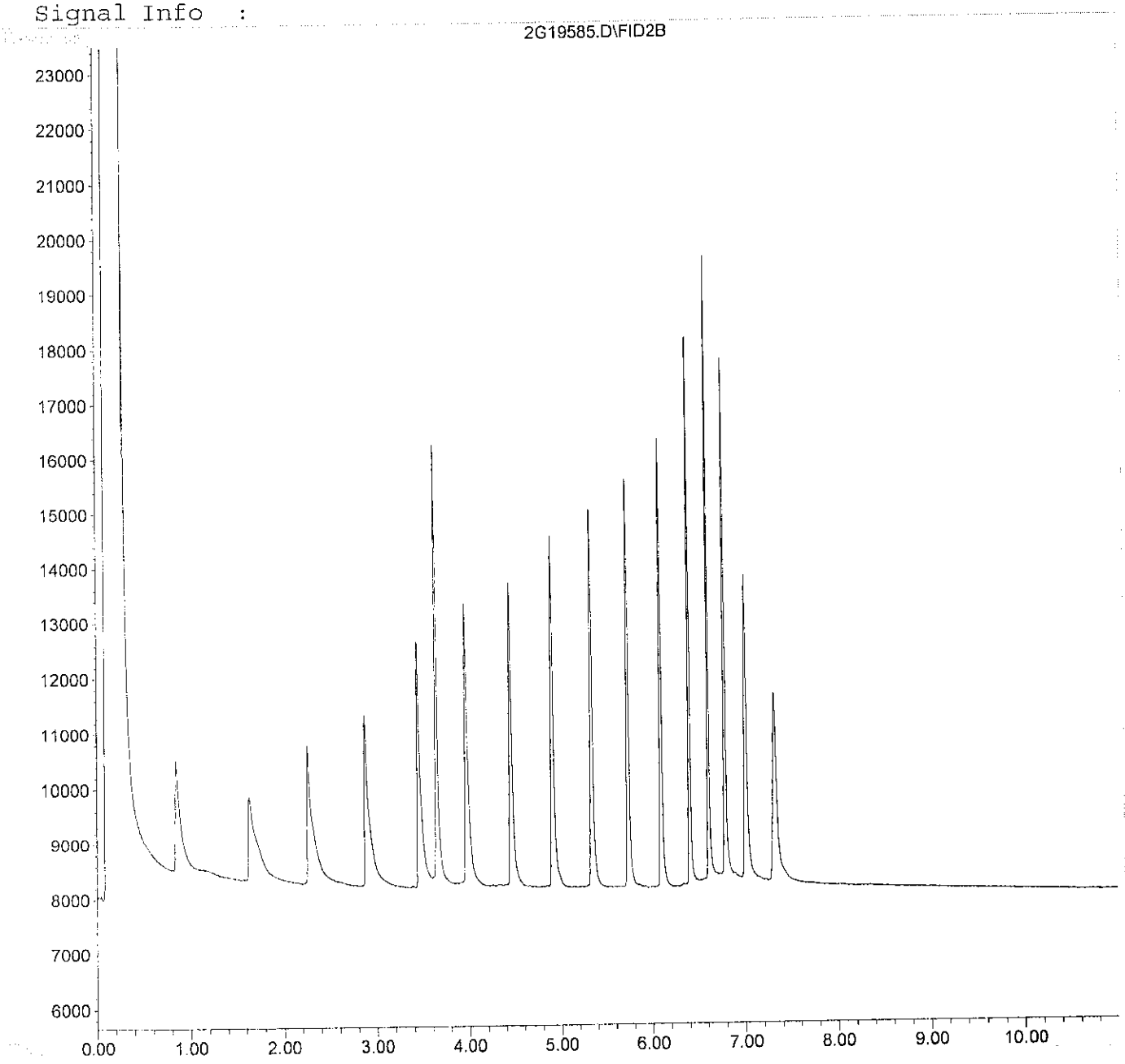
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19585.D
Acq On : 26 Mar 2002 20:27
Sample : WG115180-01 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2770.051	18.5# ok	78	0.00
2	s	O-Terphenyl	200.000	2.666	98.7#	1	-0.03

ok 3/28/02
Limit 20%

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19586.D FLASHPRO.M Wed Mar 27 11:41:07 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19586.D FLASHPRO.M Wed Mar 27 11:41:07 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Mar 27 11:40 2002 Quant Results File: FLASHPRO.RES

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.63	71990	2.666 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	13.33%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	87117421	2770.051 ppb

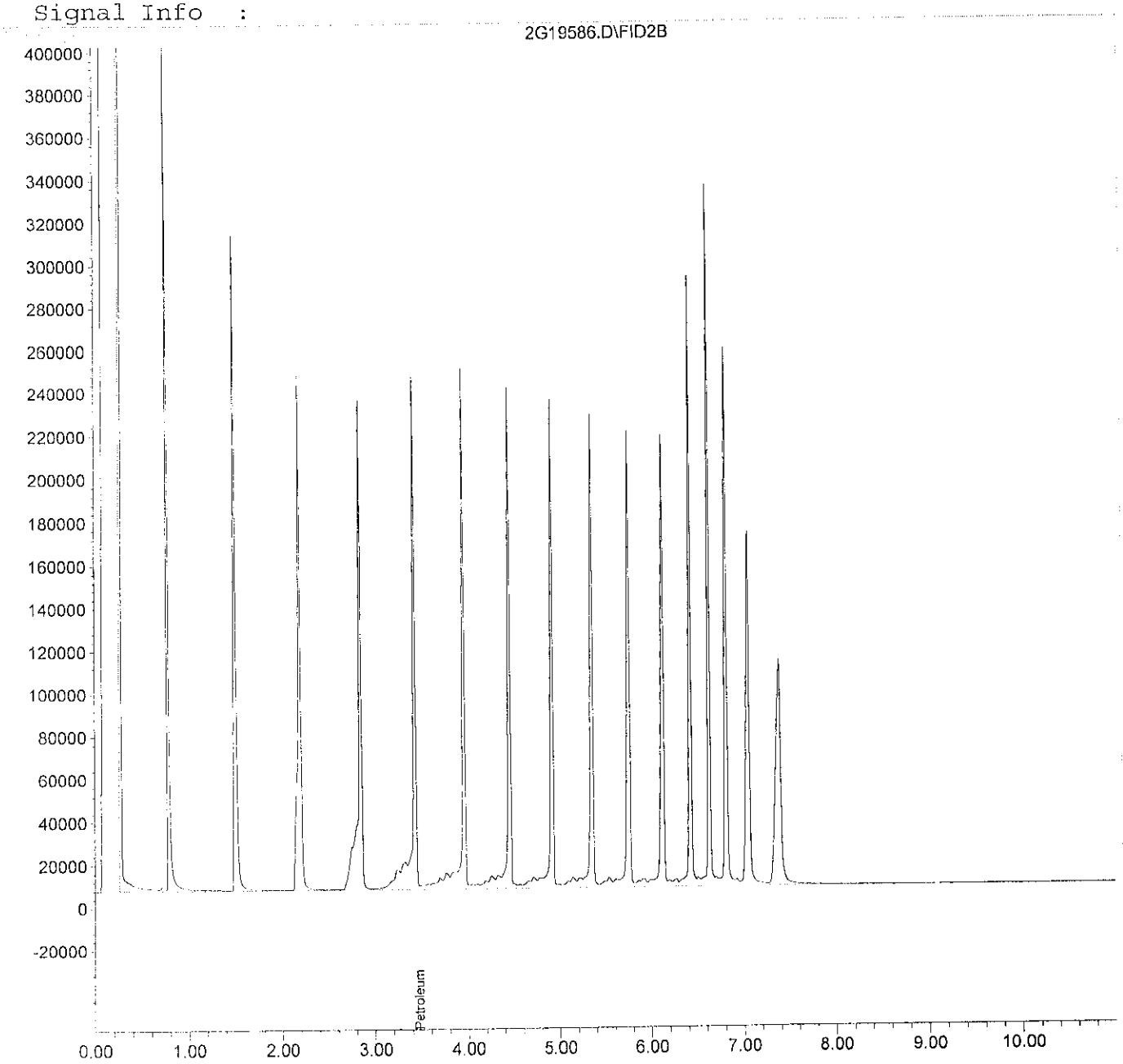
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Mar 27 11:40 2002 Quant Results File: FLASHPRO.RES

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19595.D Vial: 4
Acq On : 26 Mar 2002 23:01 Operator: CLK
Sample : WG115180-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3331.364	2.0	94	0.00
2	s	O-Terphenyl	200.000	184.006	8.0	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19595.D FLASHPRO.M Wed Mar 27 11:52:56 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\032602\2G19595.D Vial: 4
Acq On : 26 Mar 2002 23:01 Operator: CLK
Sample : WG115180-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19595.D FLASHPRO.M Wed Mar 27 11:52:56 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\032602\2G19595.D Vial: 4
Acq On : 26 Mar 2002 23:01 Operator: CLK
Sample : WG115180-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:52 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

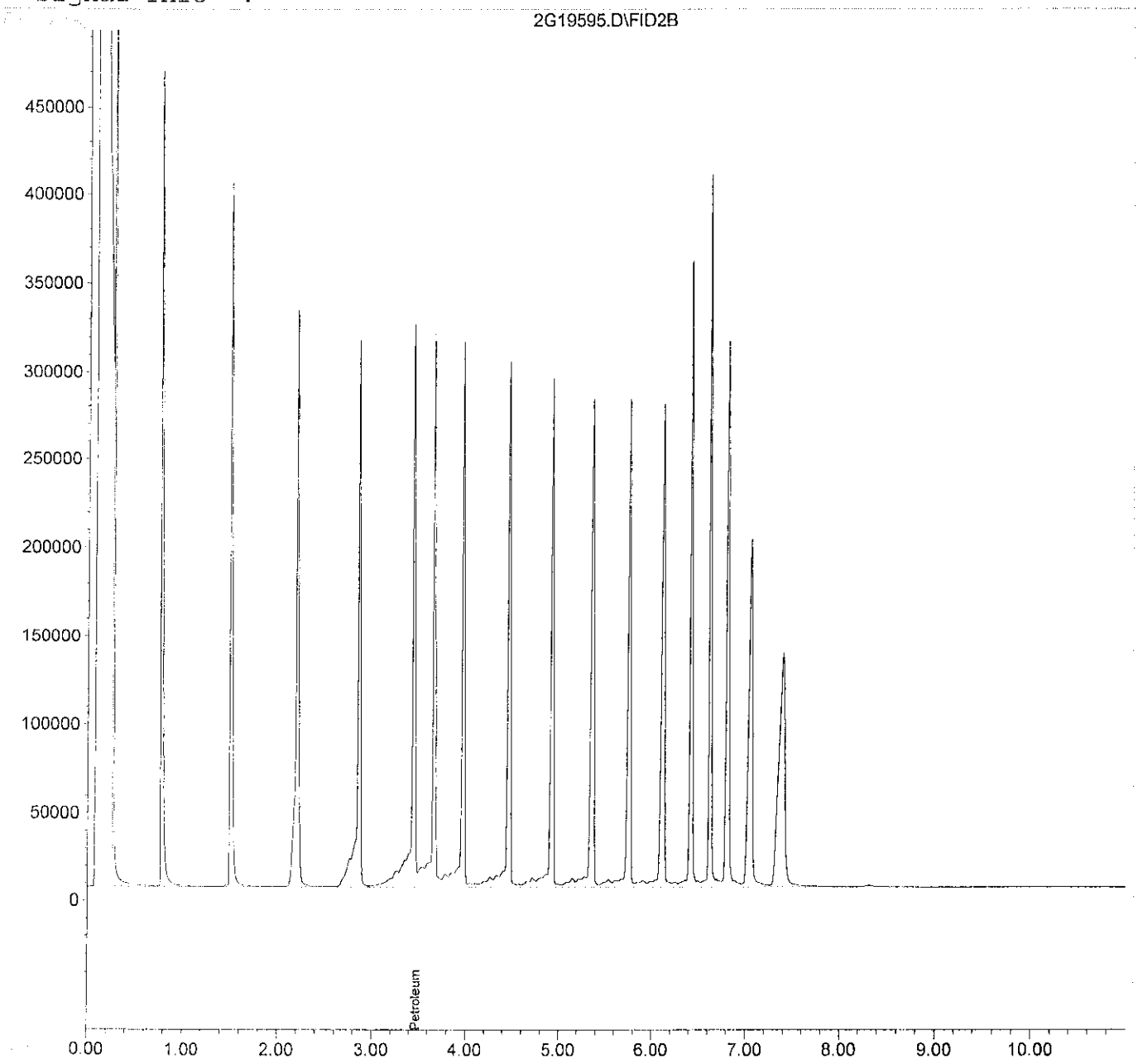
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	4968975	184.006 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		920.03%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.48	104770583	3331.364 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19595.D Vial: 4
Acq On : 26 Mar 2002 23:01 Operator: CLK
Sample : WG115180-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:52 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19604.D Vial: 4
Acq On : 27 Mar 2002 1:19 Operator: CLK
Sample : WG115180-09 200ppm CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3763.655	-10.7	106	0.00
2	s	O-Terphenyl	200.000	204.781	-2.4	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19604.D FLASHPRO.M Wed Mar 27 12:54:15 2002 HP2 Page 1

Evaluate Continuing

Data File : C:\HPCHEM\1\DATA\032602\2G19604.D
Acq On : 27 Mar 2002 1:19
Sample : WG115180-09 200ppm CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032602\2G19604.D
Acq On : 27 Mar 2002 1:19
Sample : WG115180-09 200ppm CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 12:54 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	5530010	204.781 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery	= 1023.91%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	118366018	3763.655 ppb

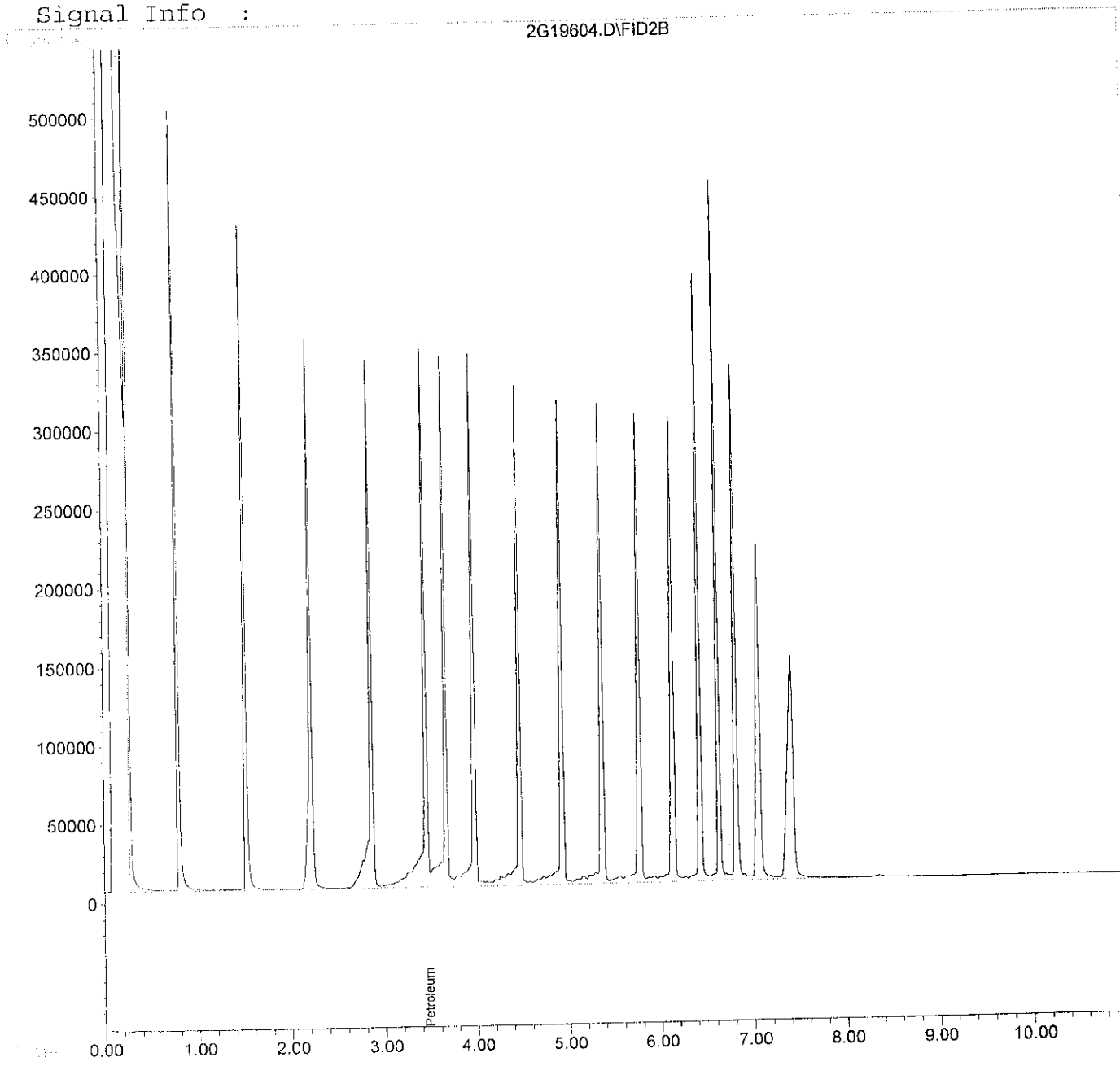
(f) RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19604.D
Acq On : 27 Mar 2002 1:19
Sample : WG115180-09 200ppm CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 12:54 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-2

GC Column: RTX-5

	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\032602\2G19587.D
Acq On : 26 Mar 2002 20:58
Sample : WG114738-02 BLK 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:48 2002 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.65	617033	22.849 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	114.25%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1714669	<MDL ppb

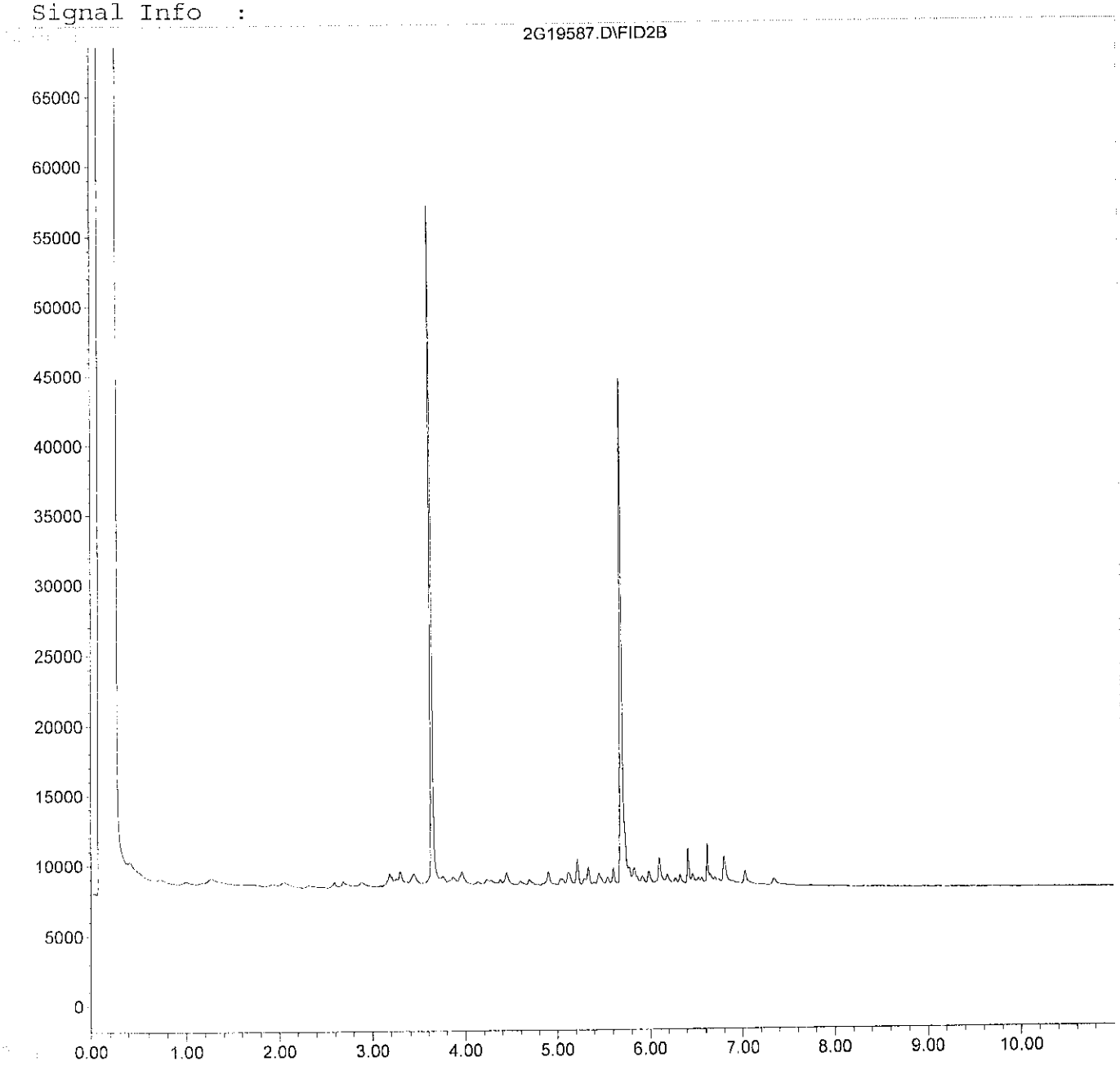
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19587.D
Acq On : 26 Mar 2002 20:58
Sample : WG114738-02 BLK 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:48 2002 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19588.D
Acq On : 26 Mar 2002 21:13
Sample : WG114738-03 LCS 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 10
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	562192	20.818 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	104.09%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	79357645	2523.316 ppb

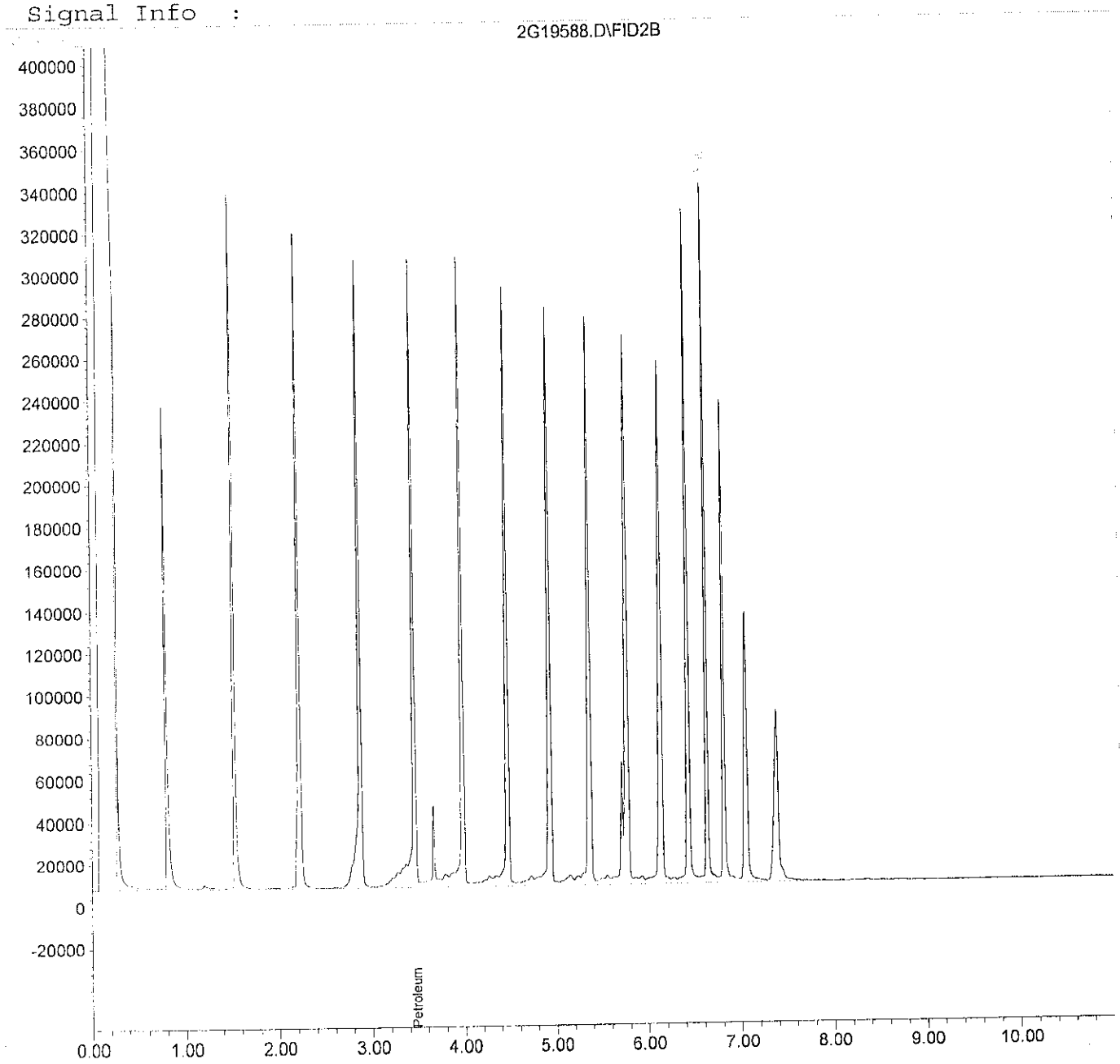
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19588.D
Acq On : 26 Mar 2002 21:13
Sample : WG114738-03 LCS 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 10
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g19548.d	1.	NA CH2CL2	1,1	26 Mar 102 13::2
2	1	2g19549.d	1.	CH2CL2	1,1	26 Mar 102 13::4
3	2	2g19550.d	1.	win def std	1,1 NS 14-41	26 Mar 102 13::5
4	3	2g19551.d	1.	JP-4 2000ppm Qualitative STD	1,1 SOS 59-03	26 Mar 102 12::0
5	4	2g19552.d	1.	WG115131-03 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
6	5	2g19553.d	1.	WG115131-06 10000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::2
7	6	2g19554.d	1.	WG115131-05 5000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::3
8	7	2g19555.d	1.	WG115131-04 2500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::4
9	8	2g19556.d	1.	WG115131-02 500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::0
10	9	2g19557.d	1.	WG115131-01 100ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::1
11	10	2g19558.d	1.	WG115131-07 1000ppm DRO Alt Source STD	1,1 SOS 58-20	26 Mar 102 12::2
12	11	2g19559.d	1.	DRO SPK @ 1000ppm ESS0041-02	1,1	26 Mar 102 12::3
13	12	2g19560.d	1.	L0203345-01 WATER DRO	1,1	26 Mar 102 12::5
14	13	2g19561.d	1.	L0203345-03 WATER DRO	1,1	26 Mar 102 12::0
15	14	2g19562.d	1.	L0203345-04 WATER DRO	1,1	26 Mar 102 12::1
16	15	2g19563.d	1.	L0203345-02 WATER DRO	1,1	26 Mar 102 12::2
17	1	2g19564.d	1.	NA CH2CL2	1,1	26 Mar 102 12::3
18	1	2g19565.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
19	4	2g19566.d	1.	WG115131-08 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::5
20	16	2g19567.d	1.	L0203407-02 WATER DRO	1,1	26 Mar 102 12::2
21	17	2g19568.d	20.	L0203407-02 WATER DRO 20X	1,20	26 Mar 102 12::3
22	1	2g19569.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
23	1	2g19570.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
24	4	2g19571.d	1.	WG115131-09 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::0
25	18	2g19572.d	1.	L0203340-01 SOIL DRO	7,1 SOIL	26 Mar 102 12::2
26	19	2g19573.d	1.	L0203340-02 SOIL DRO	7,1 SOIL	26 Mar 102 12::3
27	20	2g19574.d	1.	L0203340-03 SOIL DRO	7,1 SOIL	26 Mar 102 12::4
28	1	2g19575.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
29	1	2g19576.d	1.	NA CH2CL2	1,1	26 Mar 102 12::0
30	4	2g19577.d	1.	WG115131-10 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
31	21	2g19578.d	1.	DRO SPK @ 1000 ESS0041-02	1,1	26 Mar 102 12::3
32	1	2g19579.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
33	2	2g19580.d	1.	WG115180-06 600ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
34	3	2g19581.d	1.	WG115180-05 400ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
35	4	2g19582.d	1.	WG115180-04 200ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::4
36	5	2g19583.d	1.	WG115180-03 100ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::5
37	6	2g19584.d	1.	WG115180-02 50ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
38	7	2g19585.d	1.	WG115180-01 5ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
39	8	2g19586.d	1.	WG115180-07 200ppm PRO Alt Source STD	1,1 SOS 59-1	26 Mar 102 12::4
40	9	2g19587.d	1.	WG114738-02 BLK 3/19 V182P27	1,1	26 Mar 102 12::5
41	10	2g19588.d	1.	WG114738-03 LCS 3/19 V182P27	1,1	26 Mar 102 12::1
42	11	2g19589.d	1.	L0203326-01 PRO WATER	1,1	26 Mar 102 12::2
43	12	2g19590.d	1.	L0203326-02 PRO WATER	1,1	26 Mar 102 12::4
44	13	2g19591.d	1.	L0203327-01 PRO WATER	1,1	26 Mar 102 12::5
45	14	2g19592.d	1.	L0203327-02 PRO WATER	1,1	26 Mar 102 13::1
46	1	2g19593.d	1.	NA CH2CL2	1,1	26 Mar 102 13::3
47	1	2g19594.d	1.	NA CH2CL2	1,1	26 Mar 102 13::4
48	4	2g19595.d	1.	WG115180-08 200ppm PRO CCV	1,1 SOS 59-6	26 Mar 102 13::0
49	15	2g19596.d	1.	L0203327-03 PRO WATER	1,1	26 Mar 102 13::1
50	16	2g19597.d	1.	WG114738-01 L0203327-04 PRO WATER REF	1,1	26 Mar 102 13::3
51	17	2g19598.d	1.	WG114738-04 L0203327-05 PRO WATER MS	1,1	26 Mar 102 13::4

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
5	18	2g19599.d	1.	✓ WG114738-05 L0203327-06 PRO WATER MSD	1,1	27 Mar 102 13::0
53	19	2g19600.d	1.	L0203327-07 PRO WATER	1,1	27 Mar 102 13::1
54	20	2g19601.d	1.	L0203327-08 PRO WATER	1,1	27 Mar 102 13::3
55	21	2g19602.d	1.	L0203327-09 PRO WATER	1,1	27 Mar 102 13::4
56	1	2g19603.d	1.	N/A CH2CL2	1,1	27 Mar 102 12::0
57	4	2g19604.d	1.	✓ WG115180-09 200ppm CCV	1,1 SOS 59-6	27 Mar 102 12::1
58	22	2g19605.d	1.	N/A 500ppm PRO ALT Check 1	1,1 SOS 59-1	27 Mar 102 12::5
59	23	2g19606.d	1.	600ppm PRO STD Check	1,1 SOS 59-6	27 Mar 102 13::2
60	24	2g19607.d	1.	500ppm PRO ALT CHECK II	1,1 STOCK (New Vial)	27 Mar 102 13::3
61	25	2g19608.d	1.	200ppm PRO STD CHK	1,1 SOS 59-6 Remix	27 Mar 102 13::5

CLK 3/27/02
Rec 3/27/02

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/26/02 Instrument ID HP7 Column ID RTX-5 Data Subdirectory 032602
Analyst Initials ____

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☒ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☒ Change liner
☒ Change septum
☐ Clip column (___cm)
☒ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ✓ No ____

Additional Maintenance
Problem: Injection Port Pressure low

Action Taken: Replaced instrument weld, Replaced pre-column, Changed Gold Seal

Comments

DRO SPK @ 1000 ppm ESS0041-02, low (2g19559)

Lux03467-03 WATER DRO, Needs 20X
↓ -02 ↓ ↓ 20X, Dilution Lost, Reported, SS DC

DRO SPK @ 1000 ESS0041-02, high (2g19578)

Blks (2g19605 - 2g19608), (Check study)

Reviewed By: DC 3/27/02

Volume 182
Page 27

Parameter: PRO H_2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): RLK TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 1440 Date TV/KD: 03/19/02
Spike/Surrogate Analyst: RLK Witness: CEB
Surrogate #: ES30040-18 Earliest Hold Date: 3/25
Spike #: A = ES30040-19 Spike #: B = —

Extraction Work Group WG 114738
Analytical Work Group WG 115175

Extract Relinquished By: DP
Extract Received By & Date: CLK 3/19/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 114738-02
2	LCS		✓			〃		1mL		T				WG 〃 -03
3	03-326-01	FLA-PRO	✓			930mL				C	✓			*
4	-02		✓			950mL				T				
5	03-327-01		✓							C	✓			
6	-02		✓							C	✓			
7	-03		✓			〃				C	✓			
8	-04		✓			940mL				T				WG 114738-01
9	-05MS		✓			950mL		1mL		T				* 〃 -04
10	-06MSD		✓			〃		〃		T				* 〃 -05
11	-07		✓			940mL				T				
12	-08		✓			〃				T				
13	-09		✓			950mL				T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/19/02

Methylene Chloride Lot #: 42015
Hexane Lot #: /
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: EX2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EX2075

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/19/02

Extraction Notes For Volume # 182 Page # 27

General Comments: * MS, MSD OF 03-327-04

Extraction Anomalies: 8 & VERY THICK EMULSION DURING EXTRACTION.

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Date: 3/26/02
Analyst: CLK
Method: 8015 DRO, PRO
Instrument: HP2
Work Group: WG115125, WG114952
WG115089, WG114964

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	✓
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	NA
Check Sample Histories	NA
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

03-326 3/26 —
03-327 3/26 —
03-407 3/29 A1
05-340 4/2 —
05-345 3/26 P2

Primary Reviewer Initials & Date Checked CLK 3/27/02

Secondary Reviewer Initials & Date Checked [illegible] 3/27/02

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 3/27/02

Comments: _____

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
As = Area of the compound being measured in the standard		10000
Cs = Concentration of the compound being measured (ng/ml).		100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

		Example:
Where: Ax = Area of the compound being measured		10000
Vf = Final volume of sample extract (mL). (prep log)		1
D = Dilution factor for sample as a multiplier (10X = 10).		1
RF = Response factor from ICAL calculated above.		**100**
Vi = Initial volume of sample (mL). (prep log)		1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

		Example:
Ax = Area of the compound being measured		10000
Vf = Final volume of sample extract (mL).		1
Where: D = Dilution factor for sample as a multiplier (10X = 10).		1
RF = Response factor from ICAL calculated above.		100
Wi = Initial weight of sample (g).		30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203327

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS yielded percent recoveries which were outside of advisory limits.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: RDC REVIEWED: _____ DATE: 4/3/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number L0203327

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ✓ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: RDC Date: 4/1/02

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0203327
Blank File ID: 4L002901.R
Date Analyzed: 03/20/02
Time Analyzed: 17:40
Analyst: RDC

Work Group: WG114811
Blank Sample ID: WG114754-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114754-03	4L002902.R	03/20/02 18:37	01
062-CEF9-2S-Q1-02-15	L0203327-01	4L002905.R	03/20/02 21:27	01
062-CEF9-3S-Q1-02-15	L0203327-02	4L002906.R	03/20/02 22:23	01
062-CEF9-5S-Q1-02-15	L0203327-03	4L002907.R	03/20/02 23:20	01
062-CEF9-7D-Q1-02-15	L0203327-04	4L002908.R	03/21/02 00:17	01
062-CEF9-7D-Q1-02-15	L0203327-05	4L002910.R	03/21/02 02:10	01
062-CEF9-7D-Q1-02-15	L0203327-06	4L002911.R	03/21/02 03:06	01
062-CEF9-9S-Q1-02-15	L0203327-07	4L002912.R	03/21/02 04:03	01
062-9DUP-Q1-02-15	L0203327-08	4L002913.R	03/21/02 05:00	01
062-9EQB-Q1-02-15	L0203327-09	4L002914.R	03/21/02 05:56	01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0203327
Blank File ID: 4L002901.F
Date Analyzed: 03/20/02
Time Analyzed: 17:40
Analyst: RDC

Work Group: WG114811
Blank Sample ID: WG114754-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114754-03	4L002902.F	03/20/02 18:37	CF01
062-CEF9-2S-Q1-02-15	L0203327-01	4L002905.F	03/20/02 21:27	CF01
062-CEF9-3S-Q1-02-15	L0203327-02	4L002906.F	03/20/02 22:23	CF01
062-CEF9-7D-Q1-02-15	L0203327-05	4L002910.F	03/21/02 02:10	CF01
062-CEF9-7D-Q1-02-15	L0203327-06	4L002911.F	03/21/02 03:06	CF01
062-CEF9-9S-Q1-02-15	L0203327-07	4L002912.F	03/21/02 04:03	CF01
062-9DUP-Q1-02-15	L0203327-08	4L002913.F	03/21/02 05:00	CF01
062-9EQB-Q1-02-15	L0203327-09	4L002914.F	03/21/02 05:56	CF01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203327 Run Date: 03/20/2002 Sample ID: WG114754-02
Instrument ID: HPLC4 Run Time: 17:40 Method: 8310
File ID: 4L002901.R Analyst: RDC Matrix: Water
Workgroup (AAB#): WG114811 Units: ug/L
Contract #: Cal ID: HPLC4 -

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	99.1	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203327
Instrument ID: HPLC4
File ID: 4L002901.F
Workgroup (AAB#): WG114811
Contract #:

Run Date: 03/20/2002
Run Time: 17:40
Analyst: RDC

Sample ID: WG114754-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits			Qualifier
p-terphenyl-d14	98.8	40	-	132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203327 | Run Date: 03/20/2002 | Sample ID: WG114754-03
Instrument ID: HPLC4 | Run Time: 18:37 | Method: 8310
File ID: 4L002902.R | Analyst: RDC | Matrix: Water
Workgroup (AAB#): WG114811 | Units: ug/L
Contract #: | Cal ID: HPLC4-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	26.3	52.5	25 - 78	
Acenaphthylene	50	27.0	53.9	25 - 77	
Anthracene	50	40.2	80.4	47 - 101	
Benzo(a)anthracene	5	4.61	92.2	50 - 115	
Benzo[a]pyrene	5	3.76	75.2	29 - 113	
Benzo(b)Fluoranthene	5	4.01	80.2	41 - 110	
Benzo[ghi]perylene	5	2.73	54.6	11 - 84	
Benzo[k]fluoranthene	2.5	1.78	71.0	25 - 107	
Chrysene	5	4.21	84.2	39 - 120	
Dibenz(a,h)Anthracene	5	2.61	52.3	10 - 92	
Fluoranthene	5	4.36	87.1	55 - 104	
Fluorene	50	28.7	57.5	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.86	57.2	16 - 98	
Naphthalene	50	25.1	50.2	25 - 68	
2-Methylnaphthalene	50	25.3	50.6	26 - 72	
1-Methylnaphthalene	50	25.1	50.3	26 - 71	
Phenanthrene	50	34.4	68.8	39 - 95	
Pyrene	5	4.42	88.4	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	82.8	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203327
Instrument ID: HPLC4
File ID: 4L002902.F
Workgroup (AAB#): WG114811
Contract #:

Run Date: 03/20/2002
Run Time: 18:37
Analyst: RDC

Sample ID: WG114754-03
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	26.0	52.0	25 - 78	
Acenaphthylene	50		0	25 - 77	*
Anthracene	50	38.7	77.5	47 - 101	
Benzo(a)anthracene	5	4.43	88.5	50 - 115	
Benzo[a]pyrene	5	3.64	72.8	29 - 113	
Benzo(b)Fluoranthene	5	3.92	78.4	41 - 110	
Benzo[ghi]perylene	5	2.49	49.9	11 - 84	
Benzo[k]fluoranthene	2.5	1.73	69.4	25 - 107	
Chrysene	5	4.12	82.4	39 - 120	
Dibenz(a,h)Anthracene	5	2.50	50.1	10 - 92	
Fluoranthene	5	4.21	84.1	55 - 104	
Fluorene	50	29.2	58.4	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.81	56.1	16 - 98	
Naphthalene	50	23.3	46.5	25 - 68	
2-Methylnaphthalene	50	23.9	47.8	26 - 72	
1-Methylnaphthalene	50	24.3	48.7	26 - 71	
Phenanthrene	50	32.5	65.1	39 - 95	
Pyrene	5	4.26	85.3	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	83.0	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0203327 Cal ID: HPLC4-
Instrument ID: HPLC4 Contract #:
Parent ID: L0203327-04 File ID: 4L002908.R Dil: 1
Sample ID: L0203327-05 MS File ID: 4L002910.R Dil: 1
Sample ID: L0203327-06 MSD File ID: 4L002911.R Dil: 1

Worknum: WG114811
Method: 8310
Matrix: Water
Units: ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Naphthalene	0	51.8	33.0	63.7	51.8	26.6	51.4	21.5	25 - 68	40	
1-Methylnaphthalene	0	51.8	32.9	63.5	51.8	26.7	51.5	20.8	26 - 71	40	
2-Methylnaphthalene	0	51.8	33.0	63.7	51.8	26.8	51.7	20.7	26 - 72	40	
Acenaphthylene	0	51.8	36.9	71.2	51.8	29.2	56.4	23.3	25 - 77	40	
Acenaphthene	0	51.8	36.3	70.1	51.8	28.6	55.2	23.7	25 - 78	40	
Fluorene	0	51.8	43.0	83.0	51.8	32.4	62.5	28.1	29 - 84	40	
Phenanthrene	0	51.8	53.4	103	51.8	40.3	77.8	27.9	39 - 95	40	*
Anthracene	0	51.8	55.3	107	51.8	42.0	81.1	27.3	47 - 101	40	*
Fluoranthene	0	5.18	5.77	111	5.18	4.56	88.0	23.4	55 - 104	40	*
Pyrene	0	5.18	5.77	111	5.18	4.58	88.4	23.0	56 - 104	40	*
Benzo(a)anthracene	0	5.18	6.02	116	5.18	4.77	92.1	23.1	50 - 115	40	*
Chrysene	0	5.18	6.15	119	5.18	4.80	92.7	24.6	39 - 120	40	
Benzo(b)fluoranthene	0	5.18	5.94	115	5.18	4.61	89.0	25.2	41 - 110	40	*
Benzo(k)fluoranthene	0	2.59	2.98	115	2.59	2.28	88.0	26.6	25 - 107	40	*
Benzo(a)pyrene	0	5.18	5.95	115	5.18	4.55	87.8	26.7	29 - 113	40	*
Indeno(1,2,3-cd)pyrene	0	5.18	5.82	112	5.18	4.25	82.0	31.2	16 - 98	40	*
Dibenzo(a,h)anthracene	0	5.18	5.70	110	5.18	4.00	77.2	35.1	10 - 92	40	*
Benzo(g,h,i)perylene	0	5.18	5.87	113	5.18	4.23	81.7	32.5	11 - 84	40	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG114811

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-9DUP-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.65	21-MAR-02	40	1.56	
062-9EQB-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.16	21-MAR-02	40	1.59	
062-CEF9-2S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.23	20-MAR-02	40	1.24	
062-CEF9-3S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.21	20-MAR-02	40	1.28	
062-CEF9-5S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.12	20-MAR-02	40	1.32	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.17	21-MAR-02	40	1.36	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.17	21-MAR-02	40	1.44	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.17	21-MAR-02	40	1.48	
062-CEF9-9S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	7	1.14	21-MAR-02	40	1.52	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0203327
Instrument Id: HPLC4
Workgroup (AAB#): WG114811

Method: 8310
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203327-01	1.00	01	97.9
L0203327-01	1.00	CF01	97.0
L0203327-02	1.00	01	97.5
L0203327-02	1.00	CF01	96.1
L0203327-03	1.00	01	91.0
L0203327-04	1.00	01	101
L0203327-05	1.00	01	121
L0203327-05	1.00	CF01	120
L0203327-06	1.00	01	95.8
L0203327-06	1.00	CF01	96.1
L0203327-07	1.00	01	78.8
L0203327-07	1.00	CF01	79.0
L0203327-08	1.00	01	83.9
L0203327-08	1.00	CF01	84.8
L0203327-09	1.00	01	96.7
L0203327-09	1.00	CF01	96.5
WG114754-02	1.00	01	99.1
WG114754-02	1.00	CF01	98.8
WG114754-03	1.00	01	82.8
WG114754-03	1.00	CF01	83.0

Surrogates	Surrogate Limits
1 - p-terphenyl-d14	40 - 132

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

[min]	Sig		[ug/Kg]				
		2	5.00000	352.56210	1.41819e-2		
		3	10.00000	761.30933	1.31353e-2		
		4	20.00000	1527.97900	1.30892e-2		
		5	50.00000	3818.50562	1.30941e-2		
		6	100.00000	7715.90479	1.29602e-2		
11.847	1	1	1.00000	41.42604	2.41394e-2		1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2		
		3	10.00000	434.69620	2.30046e-2		
		4	20.00000	876.57288	2.28161e-2		
		5	50.00000	2196.17188	2.27669e-2		
		6	100.00000	4464.79199	2.23975e-2		
12.413	2	1	1.00000	84.19754	1.18768e-2		2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2		
		3	10.00000	894.14850	1.11838e-2		
		4	20.00000	1790.56641	1.11696e-2		
		5	50.00000	4453.67236	1.12267e-2		
		6	100.00000	8860.92187	1.12855e-2		
12.428	1	1	1.00000	53.86543	1.85648e-2		2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2		
		3	10.00000	570.62238	1.75247e-2		
		4	20.00000	1149.51221	1.73987e-2		
		5	50.00000	2872.90649	1.74040e-2		
		6	100.00000	5805.80029	1.72242e-2		
12.895	2	1	1.00000	45.25933	2.20949e-2		Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2		
		3	10.00000	483.23654	2.06938e-2		
		4	20.00000	968.73480	2.06455e-2		
		5	50.00000	2423.54761	2.06309e-2		
		6	100.00000	4924.77783	2.03055e-2		
12.909	1	1	1.00000	67.89028	1.47296e-2		Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2		
		3	10.00000	718.57635	1.39164e-2		
		4	20.00000	1447.01648	1.38215e-2		
		5	50.00000	3601.05908	1.38848e-2		
		6	100.00000	7244.47559	1.38036e-2		
13.554	2	1	1.00000	50.57839	1.97713e-2		Fluorene #6
		2	5.00000	254.83487	1.96205e-2		
		3	10.00000	552.99121	1.80835e-2		
		4	20.00000	1111.38098	1.79956e-2		
		5	50.00000	2784.74756	1.79549e-2		
		6	100.00000	5678.37842	1.76107e-2		
13.569	1	1	1.00000	146.82553	6.81080e-3		Fluorene #6
		2	5.00000	715.49780	6.98814e-3		
		3	10.00000	1545.26501	6.47138e-3		
		4	20.00000	3090.21484	6.47204e-3		
		5	50.00000	7650.25977	6.53573e-3		
		6	100.00000	1.51952e4	6.58103e-3		
14.954	2	1	1.00000	66.64948	1.50039e-2		Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2		
		3	10.00000	563.78040	1.77374e-2		
		4	20.00000	1130.27087	1.76949e-2		
		5	50.00000	2829.81055	1.76690e-2		
		6	100.00000	5762.64355	1.73531e-2		
14.969	1	1	1.00000	5.24433	1.90682e-1		Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1		
		3	10.00000	56.83334	1.75953e-1		

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

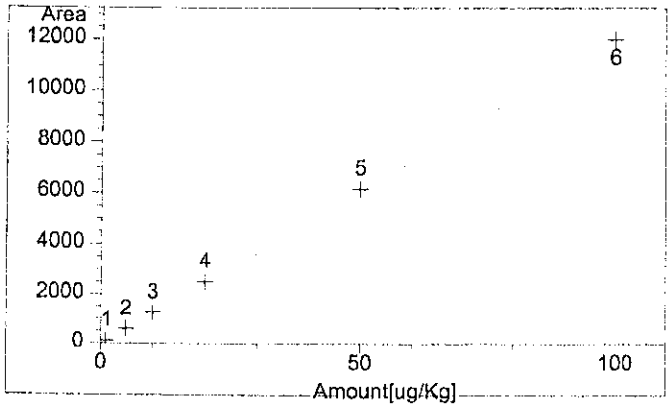
RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

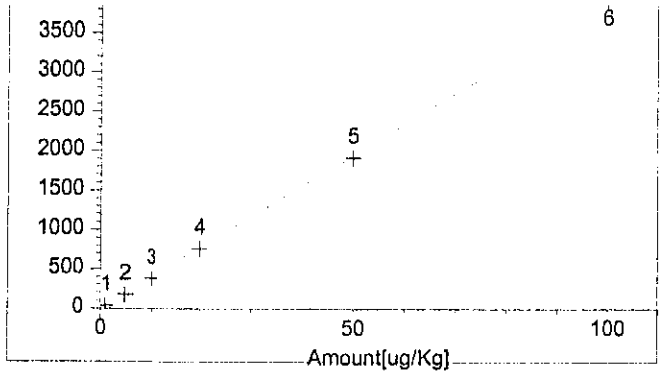
Peak Sum Table

No Entries in table

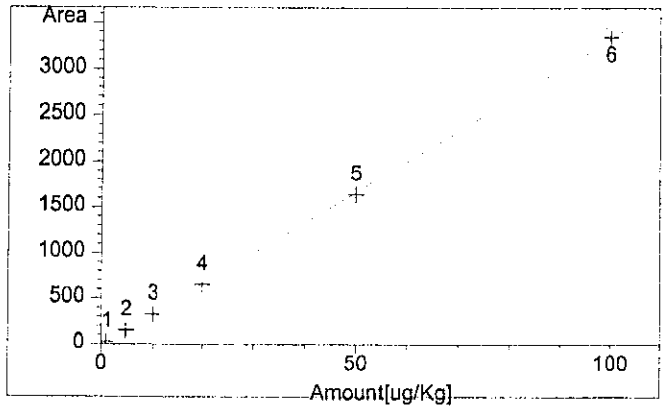
Calibration Curves



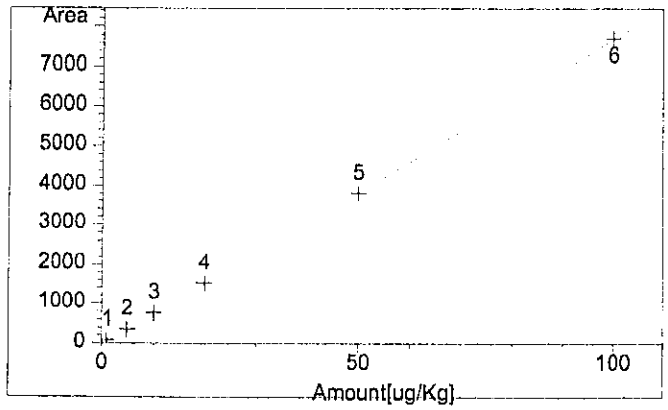
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount[ug/Kg]
y: Area



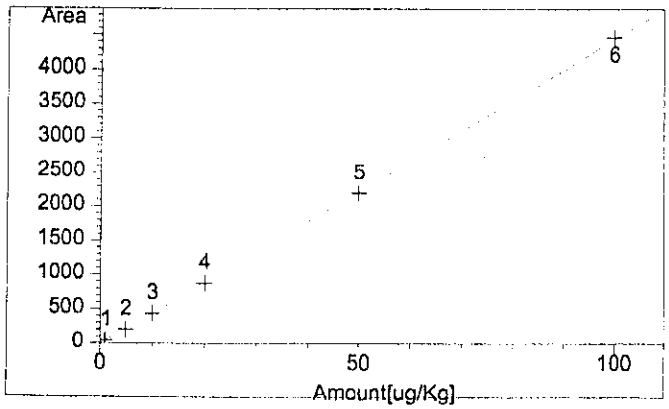
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



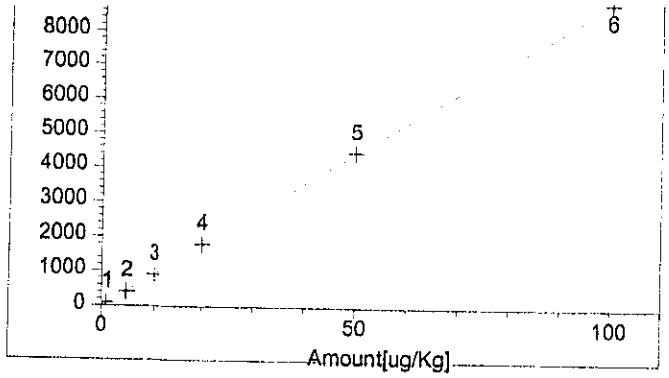
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



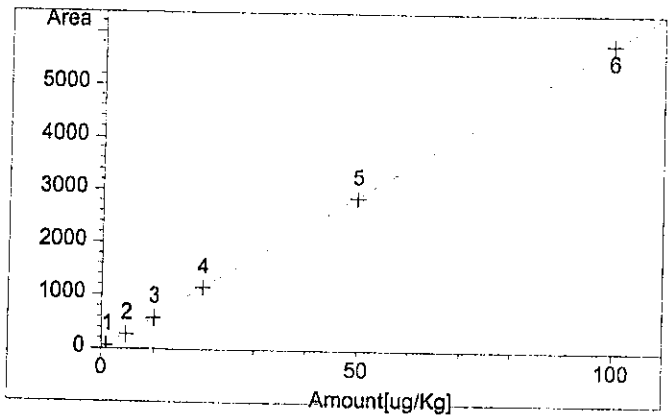
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



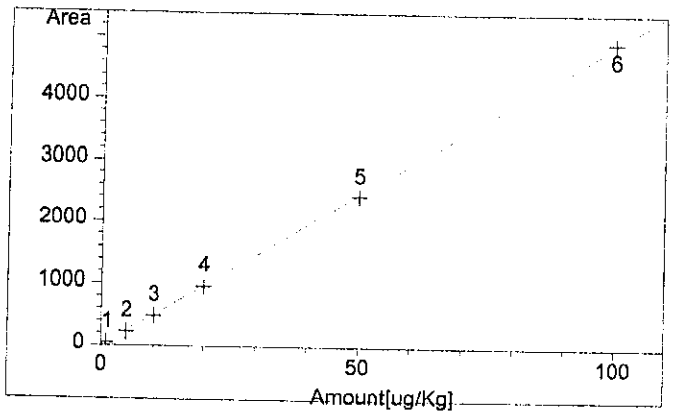
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



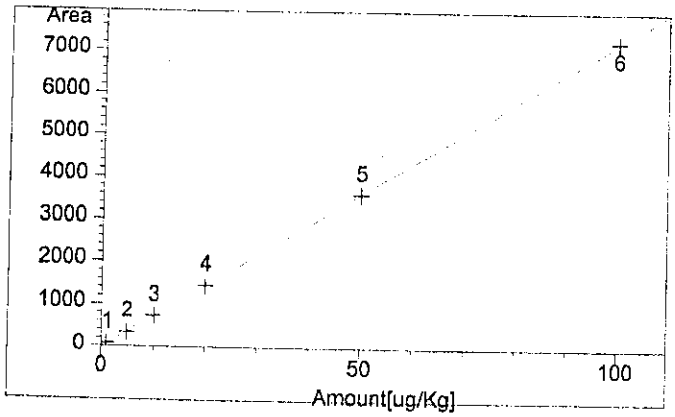
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount [ug/Kg]
y: Area



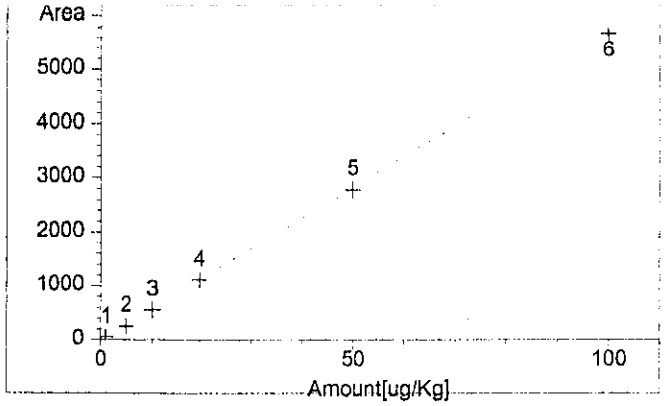
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount [ug/Kg]
y: Area



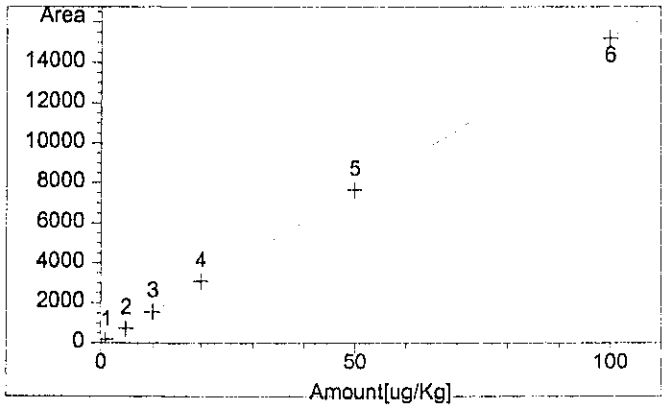
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount [ug/Kg]
y: Area



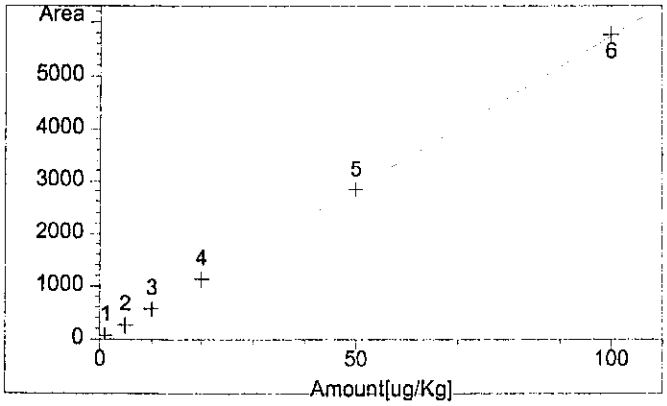
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount [ug/Kg]
y: Area



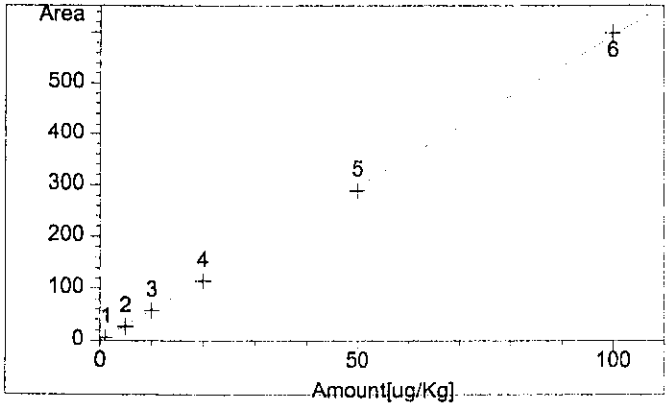
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



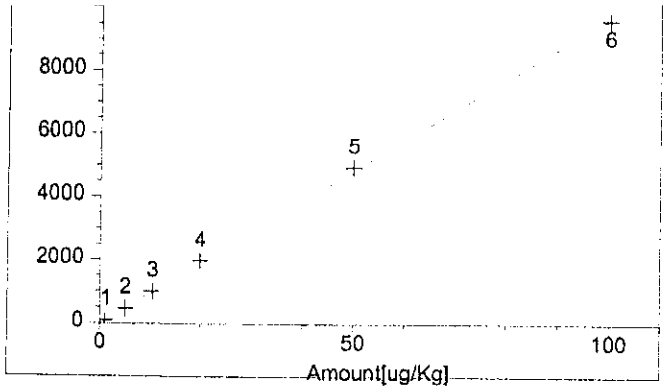
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



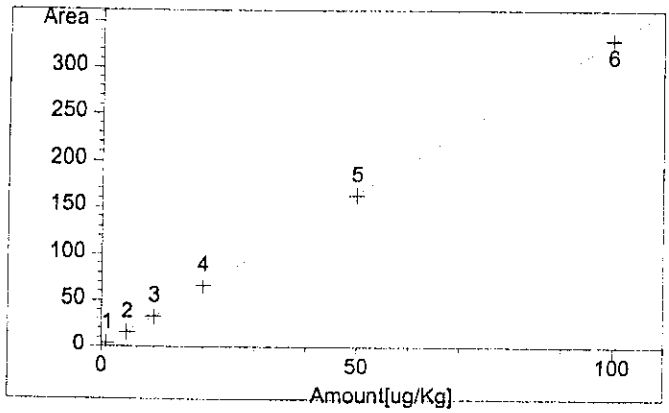
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



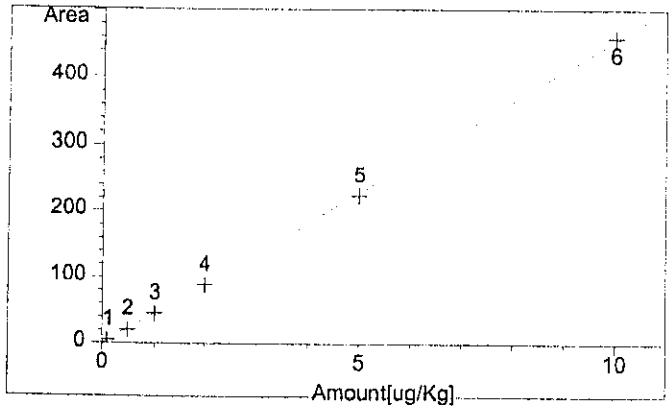
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



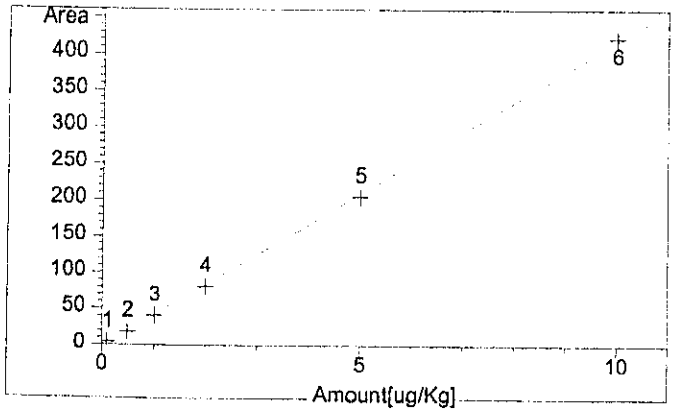
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount[ug/Kg]
y: Area



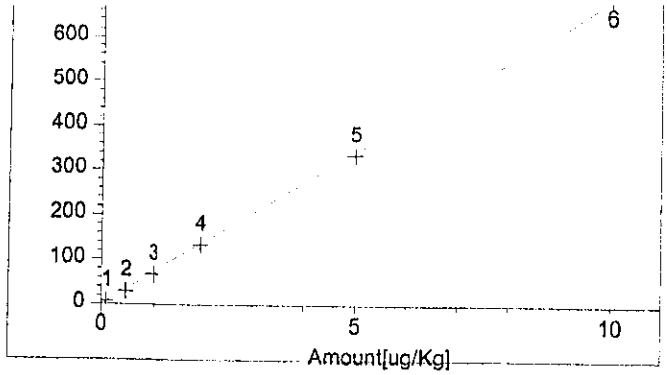
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount[ug/Kg]
y: Area



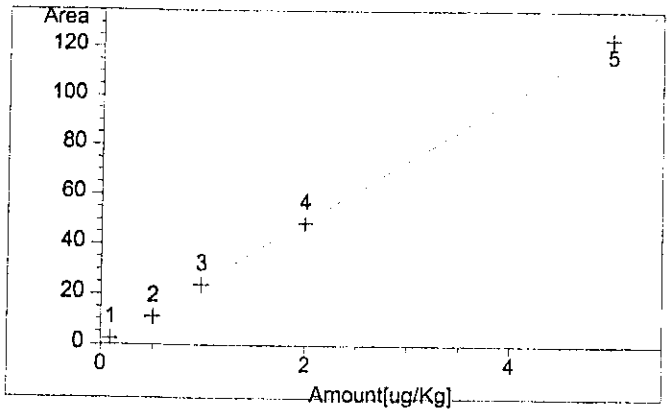
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount[ug/Kg]
y: Area



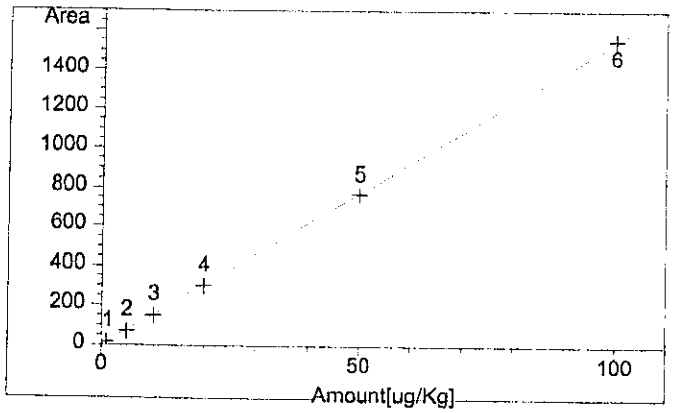
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount[ug/Kg]
y: Area



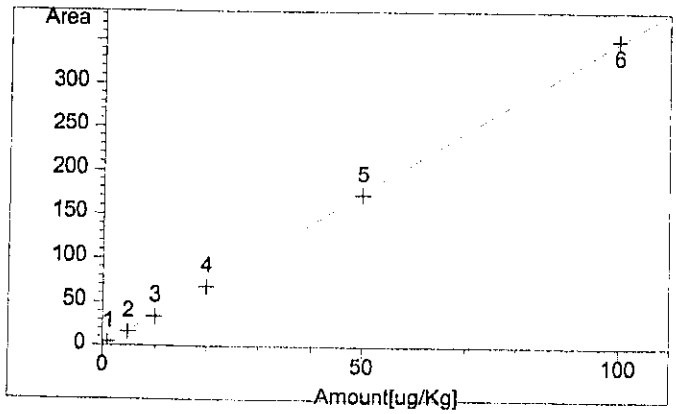
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



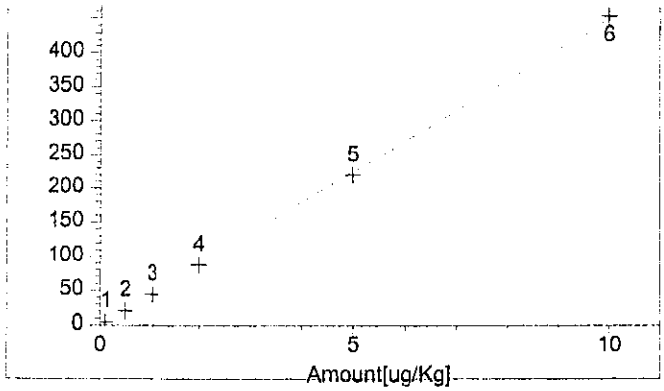
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



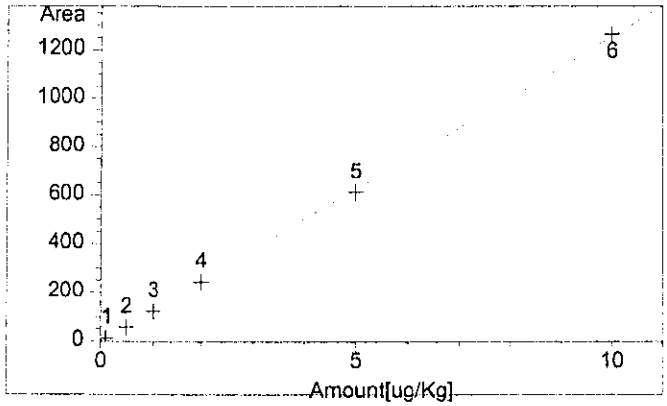
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



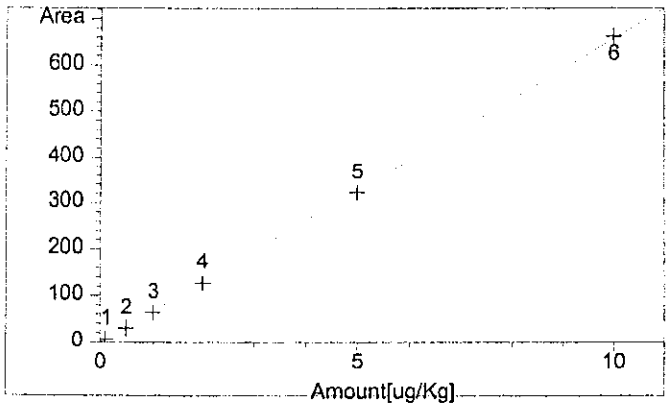
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



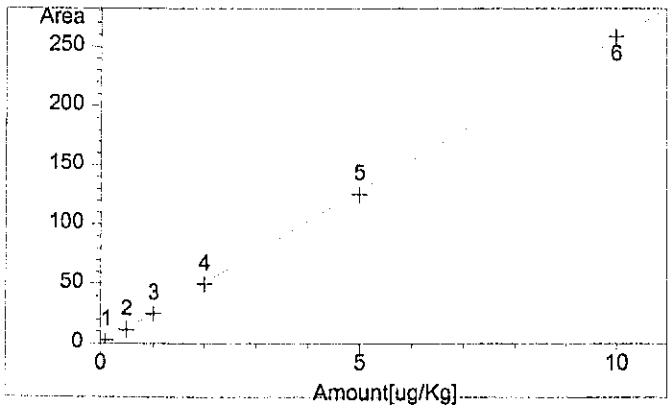
Benzo(a)anthracene #12 at exp. RT: 22.475
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



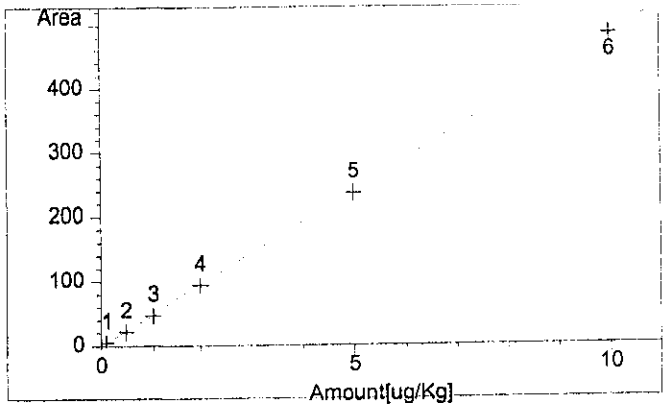
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



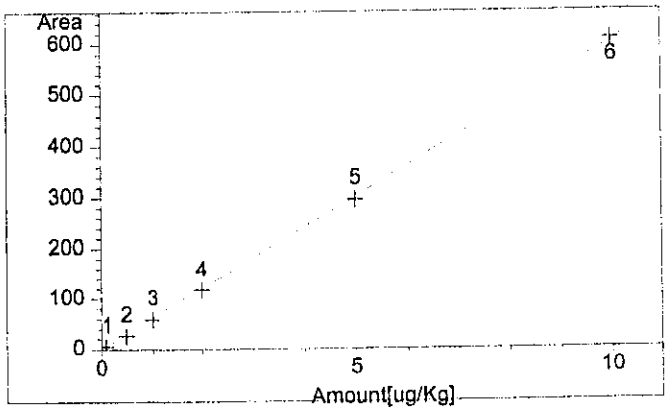
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



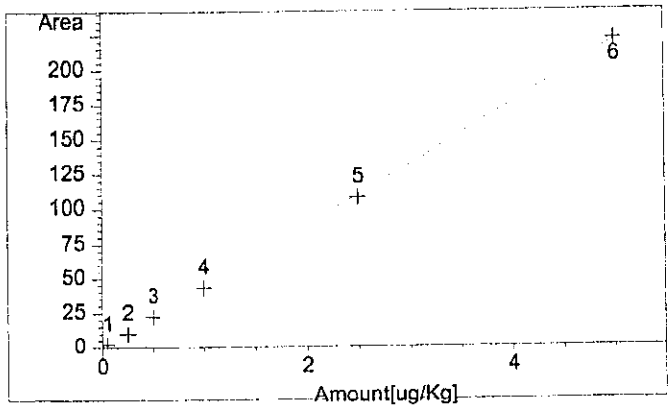
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



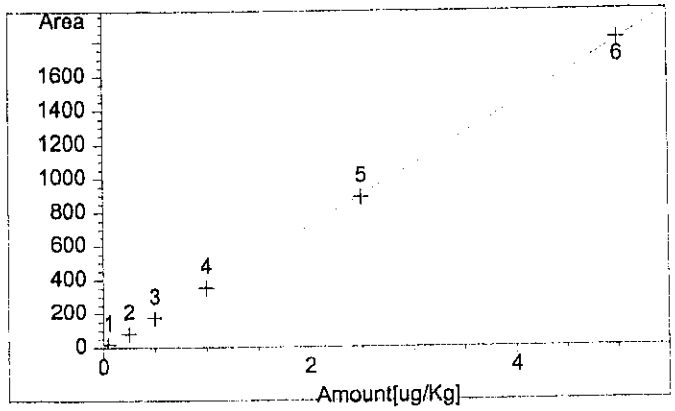
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount[ug/Kg]
y: Area



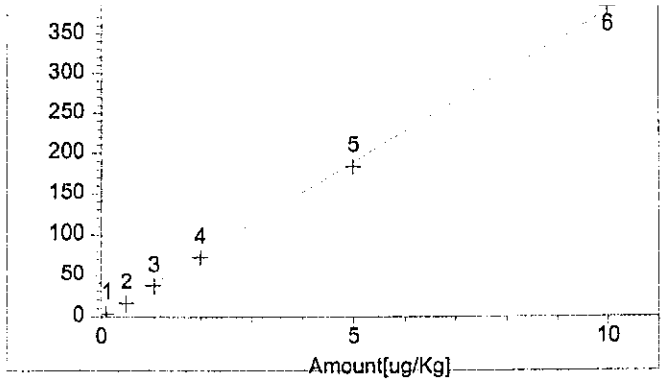
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount[ug/Kg]
y: Area



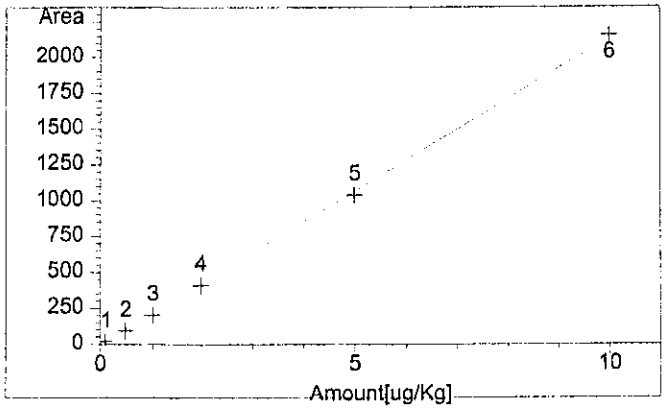
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount[ug/Kg]
y: Area



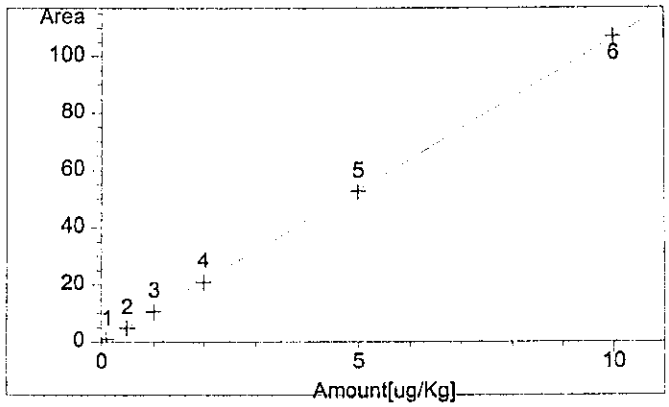
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount[ug/Kg]
y: Area



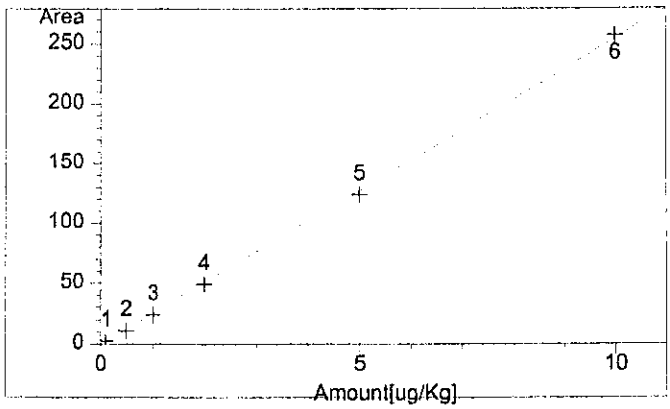
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount[ug/Kg]
y: Area



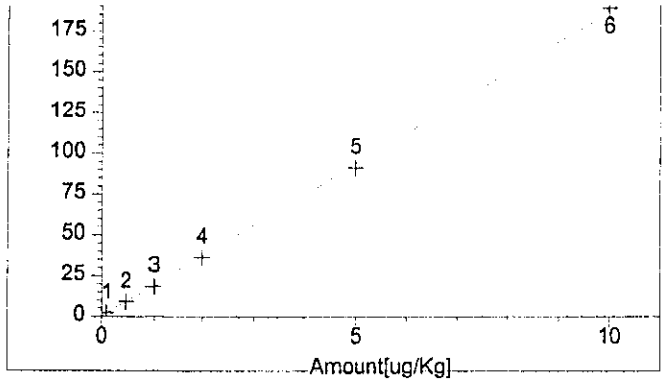
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount[ug/Kg]
y: Area



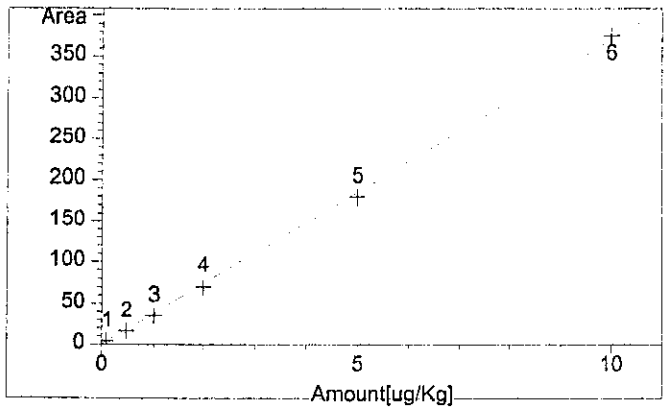
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount[ug/Kg]
y: Area



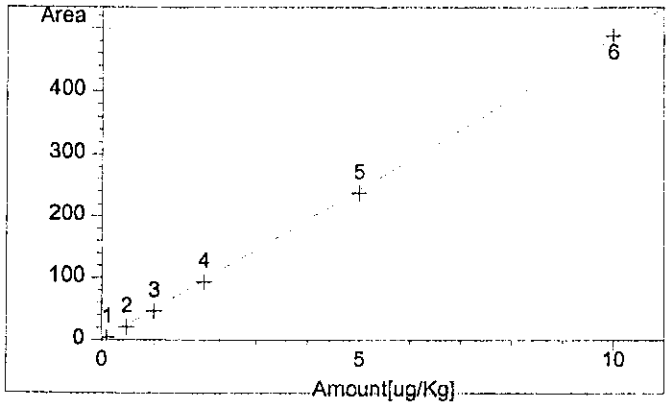
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount[ug/Kg]
y: Area



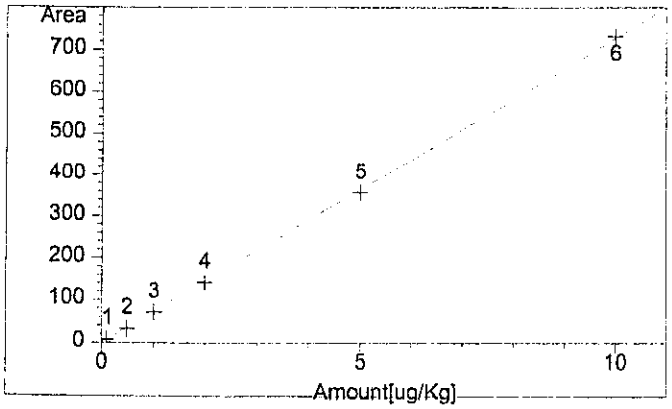
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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Check Standard Report

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Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

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Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\032002\4L002898.D Sample Name: WG114812-01 CCV
HPLC4 3/20/2002 4:46:16 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/20/2002 2:50:47 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	19.764	-1.2
1-Methylnaphthalene #3	12.004	20.0	19.722	-1.4
2-Methylnaphthalene #4	12.579	20.0	19.108	-4.5
Acenaphthene #5	13.057	20.0	19.424	-2.9
Fluorene #6	13.714	20.0	20.297	1.5
Phenanthrene #7	15.100	20.0	19.594	-2.0
Anthracene #8	16.501	20.0	20.148	0.7
Fluoranthene #9	17.877	2.0	1.930	-3.5
Pyrene #10	18.879	2.0	1.988	-0.6
p-Terphenyl d14 #11*	21.212	20.0	19.107	-4.5
Benzo(a)anthracene #12	22.530	2.0	1.947	-2.7
Chrysene #13	23.393	2.0	1.967	-1.6
Benzo(b)fluoranthene #14	26.110	2.0	1.956	-2.2
Benzo(k)fluoranthene #15	27.538	1.0	0.984	-1.6
Benzo(a)pyrene #16	28.640	2.0	1.993	-0.4
Dibenz(a,h)anthracene #1	30.493	2.0	1.929	-3.6
Benzo(g,h,i)perylene #18	31.311	2.0	1.931	-3.5
Indeno(1,2,3-cd)pyrene #	32.246	2.0	1.942	-2.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.415	20.0	20.685	3.4
Acenaphthylene #2	11.043	20.0	19.954	-0.2
1-Methylnaphthalene #3	11.988	20.0	19.935	-0.3
2-Methylnaphthalene #4	12.563	20.0	19.954	-0.2
Acenaphthene #5	13.041	20.0	19.254	-3.7
Fluorene #6	13.697	20.0	19.763	-1.2
Phenanthrene #7	15.084	20.0	20.092	0.5
Anthracene #8	16.485	20.0	20.818	4.1
Fluoranthene #9	17.860	2.0	1.953	-2.3
Pyrene #10	18.861	2.0	1.960	-2.0
p-Terphenyl d14 #11*	21.196	20.0	19.175	-4.1
Benzo(a)anthracene #12	22.514	2.0	1.961	-1.9
Chrysene #13	23.378	2.0	1.955	-2.2
Benzo(b)fluoranthene #14	26.093	2.0	1.959	-2.1
Benzo(k)fluoranthene #15	27.522	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.623	2.0	2.002	0.1
Dibenz(a,h)anthracene #1	30.477	2.0	1.937	-3.1
Benzo(g,h,i)perylene #18	31.293	2.0	2.121	6.1
Indeno(1,2,3-cd)pyrene #	32.228	2.0	1.936	-3.2

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\032002\4L002909.D Sample Name: WG114812-02 CCV
HPLC4 3/21/2002 8:37:14 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/21/2002 1:13:38 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.439	20.0	19.140	-4.3
1-Methylnaphthalene #3	12.015	20.0	19.189	-4.1
2-Methylnaphthalene #4	12.588	20.0	18.997	-5.0
Acenaphthene #5	13.066	20.0	19.332	-3.3
Fluorene #6	13.717	20.0	20.094	0.5
Phenanthrene #7	15.099	20.0	18.915	-5.4
Anthracene #8	16.498	20.0	19.958	-0.2
Fluoranthene #9	17.876	2.0	1.908	-4.6
Pyrene #10	18.879	2.0	1.882	-5.9
p-Terphenyl d14 #11*	21.208	20.0	18.962	-5.2
Benzo(a)anthracene #12	22.523	2.0	1.901	-5.0
Chrysene #13	23.385	2.0	1.911	-4.5
Benzo(b)fluoranthene #14	26.105	2.0	1.915	-4.2
Benzo(k)fluoranthene #15	27.531	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.633	2.0	1.916	-4.2
Dibenz(a,h)anthracene #1	30.476	2.0	1.898	-5.1
Benzo(g,h,i)perylene #18	31.288	2.0	1.874	-6.3
Indeno(1,2,3-cd)pyrene #	32.220	2.0	1.918	-4.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.424	20.0	20.723	3.6
Acenaphthylene #2	11.050	20.0	20.007	0.0
1-Methylnaphthalene #3	11.999	20.0	19.981	-0.1
2-Methylnaphthalene #4	12.572	20.0	20.145	0.7
Acenaphthene #5	13.051	20.0	19.572	-2.1
Fluorene #6	13.701	20.0	19.764	-1.2
Phenanthrene #7	15.082	20.0	20.091	0.5
Anthracene #8	16.482	20.0	20.684	3.4
Fluoranthene #9	17.859	2.0	1.959	-2.1
Pyrene #10	18.861	2.0	1.964	-1.8
p-Terphenyl d14 #11*	21.192	20.0	19.162	-4.2
Benzo(a)anthracene #12	22.507	2.0	1.952	-2.4
Chrysene #13	23.369	2.0	1.957	-2.1
Benzo(b)fluoranthene #14	26.087	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.514	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.615	2.0	1.974	-1.3
Dibenz(a,h)anthracene #1	30.459	2.0	1.997	-0.2
Benzo(g,h,i)perylene #18	31.271	2.0	2.130	6.5
Indeno(1,2,3-cd)pyrene #	32.200	2.0	1.919	-4.0

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\032002\4L002915.D Sample Name: WG114812-03 CCV
HPLC4 3/21/2002 8:44:33 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/21/2002 6:53:28 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.444	20.0	19.202	-4.0
1-Methylnaphthalene #3	12.022	20.0	19.284	-3.6
2-Methylnaphthalene #4	12.595	20.0	19.061	-4.7
Acenaphthene #5	13.074	20.0	19.406	-3.0
Fluorene #6	13.727	20.0	20.191	1.0
Phenanthrene #7	15.107	20.0	18.980	-5.1
Anthracene #8	16.502	20.0	19.921	-0.4
Fluoranthene #9	17.876	2.0	1.921	-4.0
Pyrene #10	18.874	2.0	1.898	-5.1
p-Terphenyl d14 #11*	21.191	20.0	19.214	-3.9
Benzo(a)anthracene #12	22.500	2.0	1.916	-4.2
Chrysene #13	23.357	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.069	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.490	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.595	2.0	1.935	-3.3
Dibenz(a,h)anthracene #1	30.442	2.0	1.919	-4.0
Benzo(g,h,i)perylene #18	31.259	2.0	1.894	-5.3
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.936	-3.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.790	3.9
Acenaphthylene #2	11.060	20.0	20.093	0.5
1-Methylnaphthalene #3	12.006	20.0	20.029	0.1
2-Methylnaphthalene #4	12.580	20.0	20.217	1.1
Acenaphthene #5	13.059	20.0	19.667	-1.7
Fluorene #6	13.711	20.0	19.827	-0.9
Phenanthrene #7	15.091	20.0	20.172	0.9
Anthracene #8	16.486	20.0	20.741	3.7
Fluoranthene #9	17.859	2.0	1.964	-1.8
Pyrene #10	18.858	2.0	1.966	-1.7
p-Terphenyl d14 #11*	21.176	20.0	19.251	-3.7
Benzo(a)anthracene #12	22.484	2.0	1.966	-1.7
Chrysene #13	23.341	2.0	1.965	-1.8
Benzo(b)fluoranthene #14	26.052	2.0	1.969	-1.6
Benzo(k)fluoranthene #15	27.474	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.578	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.426	2.0	1.973	-1.4
Benzo(g,h,i)perylene #18	31.242	2.0	2.068	3.4
Indeno(1,2,3-cd)pyrene #	32.175	2.0	1.935	-3.2

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

No	1	1	8310	4L002661	01:01		accn blk
No	2	2	8310	4L002662	02:01	SOS 56-19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	04:01		WG111259-01 CC
No	5	5	8310	4L002665	05:01	SOS 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	SOS 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	D.I'N. of SOS 56-19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01	↓	WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01	↓	WG111292-07 ST
No	12	12	8310	4L002672	12:01	D.I'N. of SOS 57-27/ SOS 57-28	WG111292-08 AL

REC
11/16/02

HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials RDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☐ Waste container

Returned to Control?

Yes ✓ No ____

Additional Maintenance

Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: RR 1/14/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114812-01 CCV	8310	1	Sample		
3	3	ESS0040-50 surr.	8310	1	Sample		
4	4	ESS0041-01 spk.	8310	1	Sample		
5	5	WG114754-02 ~~WBKL~~	8310	1	Sample		
6	6	WG114754-03 ~~WBKL~~	8310	1	Sample		
7	7	L0203326-01 831W	8310	1	Sample		
8	8	L0203326-02 831W	8310	1	Sample		
9	9	L0203327-01 831W	8310	1	Sample		
10	10	L0203327-02 831W	8310	1	Sample		
11	11	L0203327-03 831W	8310	1	Sample		
12	12	WG114754-01 WREF	8310	1	Sample		
13	13	WG114812-02 CCV	8310	1	Sample		
14	14	WG114754-04 WMS	8310	1	Sample		
15	15	WG114754-05 WMSD	8310	1	Sample		
16	16	L0203327-07 831W	8310	1	Sample		
17	17	L0203327-08 831W	8310	1	Sample		
18	18	L0203327-09 831W	8310	1	Sample		
19	13	WG114812-03 CCV	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002897	01:01 ✓		accn blk
No	2	2	8310	4L002898	02:01 ✓	SOS 56-20/58-26	WG114812-01 CC
No	3	3	8310	4L002899	03:01 ✓		ESS0040-50 sur
No	4	4	8310	4L002900	04:01 ✓		ESS0041-01 spk
No	5	5	8310	4L002901	05:01 ✓		WG114754-02 WB
No	6	6	8310	4L002902	06:01 ✓		WG114754-03 WB
No	7	7	8310	4L002903	07:01 ✓		L0203326-01 83
No	8	8	8310	4L002904	08:01 ✓		L0203326-02 83
No	9	9	8310	4L002905	09:01 ✓		L0203327-01 83
No	10	10	8310	4L002906	10:01 ✓		L0203327-02 83
No	11	11	8310	4L002907	11:01 ✓		L0203327-03 83
No	12	12	8310	4L002908	12:01 ✓		WG114754-01 WR
No	13	13	8310	4L002909	13:01 ✓	SOS 56-20/58-26	WG114812-02 CC
No	14	14	8310	4L002910	14:01 ✓		WG114754-04 WM
No	15	15	8310	4L002911	15:01 ✓		WG114754-05 WM
No	16	16	8310	4L002912	16:01 ✓	RR (conf.)	L0203327-07 83
No	17	17	8310	4L002913	17:01 ✓		L0203327-08 83
No	18	18	8310	4L002914	18:01 ✓		L0203327-09 83
No	19	13	8310	4L002915	19:01 ✓		WG114812-03 CC

RRC 3/7 2/02

mh 3/6/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 26 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 032002
Analyst Initials DWC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0203327-07 requires conf of acenaphthylene

Reviewed By: [signature] 3/12/02

Parameter: 8310 H2O SOP #: EXHILC01 Revision #: 6
Extraction Analyst(s): RCH TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 @ 1540 Date TV/KD: 3/20/02
Spike/Surrogate Analyst: RCH Witness: CEB
Surrogate #: ESS0039-27 Earliest Hold Date: 3/25
Spike #: A = ESS0040-34 Spike #: B = —

Extraction Work Group WG 114754
Analytical Work Group WG 114811

Extract Relinquished By: DP
Extract Received By & Date: CK 3/20/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100uL		1mL	T				WG 114754-02
2	LCS			✓		1		500uL		C				WG 1 -03
3	03-326-01	8310		✓		940 mL				T			✓	A
4	-02			✓		965mL				T				
5	03-327-01			✓						C				
6	-02			✓						T				
7	-03			✓						T				
8	-04			✓						T				wg 114754-01
9	-05 MS			✓				500uL		C				* 1 -04
10	-06 MSD			✓				1		C				* 1 -05
11	-07			✓		950mL				T				
12	-08			✓		965 mL				T				
13	-09			✓		980mL				T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/20/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH3CN Lot #: 41264
Reagent: Fort. Sul. Lot #: Ex2092
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: Ex2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/20/02

Extraction Notes For Volume # 182 Page # 29

General Comments: * MS, MD OF 03-327-04

Extraction Anomalies: * * VERY THICK EMULSION DURING EXTRACTION.

Concentration Anomalies: None

Clean-Up Anomalies: N/A

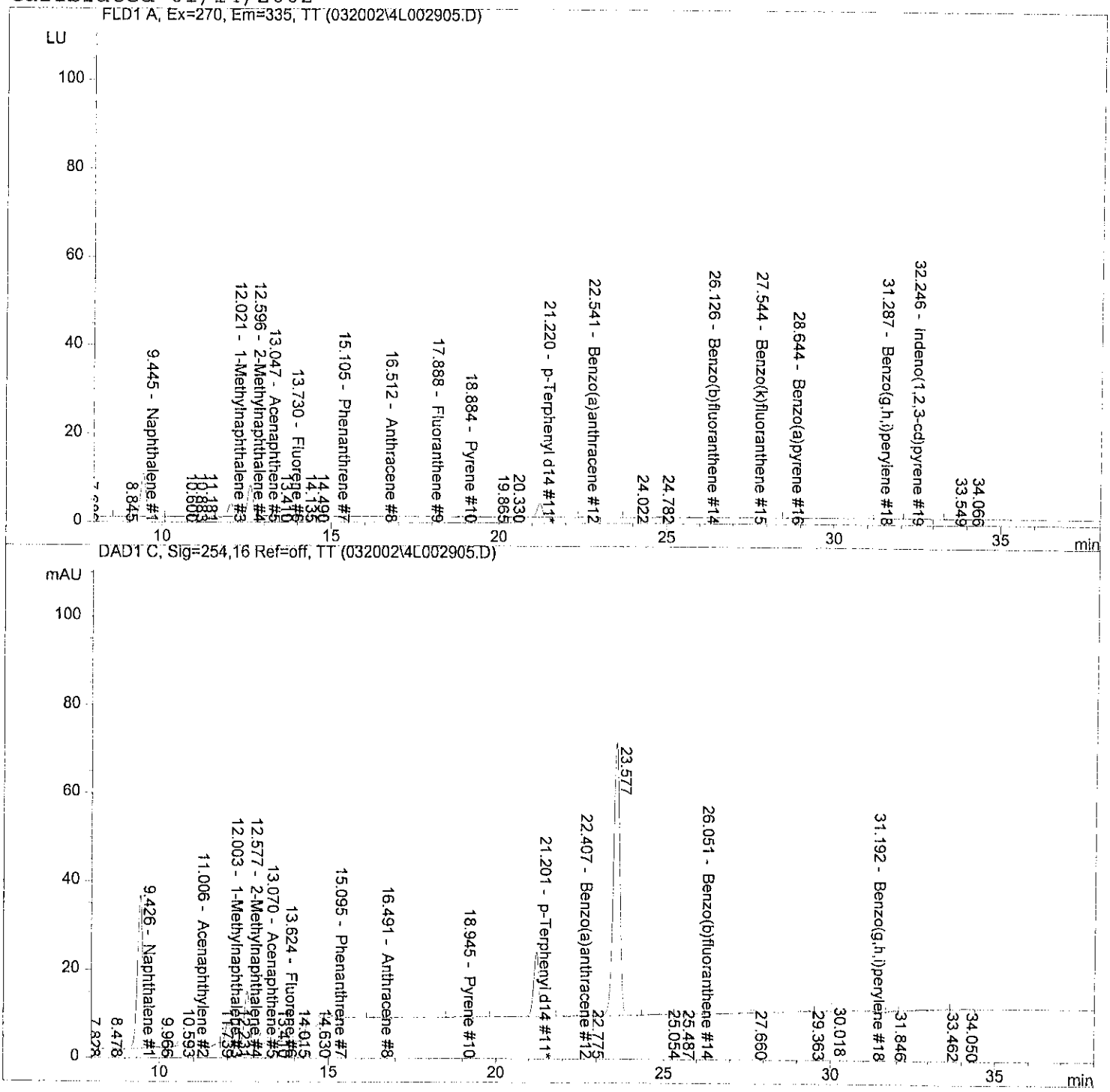
Supervisor Review: _____ Date: _____

2.2.7.2 Sample Data

Injection Date : 3/20/2002 9:27:06 PM
Sample Name : L0203327-01 831W
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)
Calibrated 01/14/2002



Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.445	BB	111.88149	2.57003e-2	2.87539	C	Naphthalene #1
12.021	BB	32.37971	2.24893e-2	7.28198e-1	F	1-Methylnaphthalene #3
12.596	BB	76.79272	1.72691e-2	1.32614	V	2-Methylnaphthalene #4
13.047	BB	1.69366	1.38228e-2	2.34111e-2		Acenaphthene #5
13.730	BB	6.58990	6.56879e-3	4.32877e-2		Fluorene #6
15.105	BB	4.87134e-1	1.68488e-1	8.20760e-2		Phenanthrene #7
16.512	BB	4.05186e-1	3.03714e-1	1.23061e-1		Anthracene #8
17.888	BB	1.18928	2.38671e-2	2.83845e-2		Fluoranthene #9
18.884	BB	5.86629e-1	4.06594e-2	2.38520e-2		Pyrene #10
21.220	BB	33.83817	2.86511e-1	9.69503		p-Terphenyl d14 #11*
22.541	BB	7.00191e-1	7.96557e-3	5.57742e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.126	BB	4.41293e-1	1.65598e-2	7.30771e-3		Benzo(b)fluoranthene #14
27.544	BB	9.77018e-1	2.77566e-3	2.71187e-3		Benzo(k)fluoranthene #15
28.644	BB	5.24333e-1	4.67660e-3	2.45210e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.287	BB	3.46229e-1	2.69466e-2	9.32971e-3		Benzo(g,h,i)perylene #18
32.246	BBA	3.14891e-1	1.37440e-2	4.32788e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 14.98053

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.426	BBA	384.96317	8.27651e-3	3.18615		Naphthalene #1
11.006	BB	4.75788	3.00095e-2	1.42782e-1		Acenaphthylene #2
12.003	BB	39.49397	1.29932e-2	5.13154e-1	F	1-Methylnaphthalene #3
12.577	BB	123.98870	1.12713e-2	1.39751	V	2-Methylnaphthalene #4
13.070	BB	44.63644	2.03841e-2	9.09875e-1		Acenaphthene #5
13.624	BB	5.57558	1.76946e-2	9.86575e-2		Fluorene #6
15.095	BB	5.00548	1.74291e-2	8.72410e-2		Phenanthrene #7
16.491	BB	7.20020	1.03455e-2	7.44896e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.945	BB	12.02910	1.46349e-2	1.76044e-1		Pyrene #10
21.201	BBA	151.47757	6.45989e-2	9.78529		p-Terphenyl d14 #11*
22.407	PB	1.86444	2.22878e-2	4.15542e-2		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.051	BB	4.88005	2.08462e-2	1.01730e-1		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]	[ug/L]			
31.192	BB	2.94266	5.34666e-2	1.57334e-1	NV	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 16.67181

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

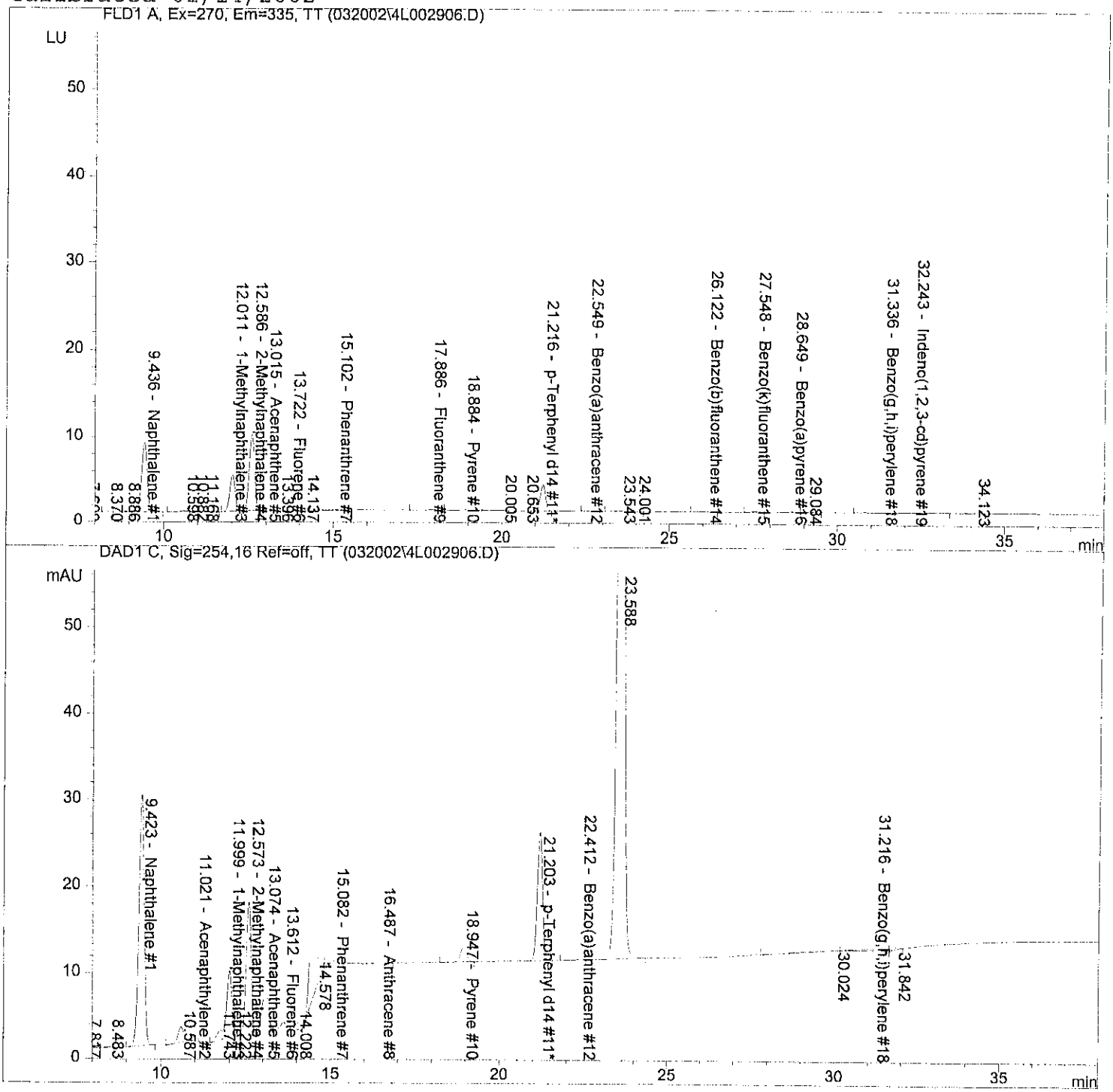
*** End of Report ***

Injection Date : 3/20/2002 10:23:49 PM
Sample Name : L0203327-02 831W
Acq. Operator : RDC

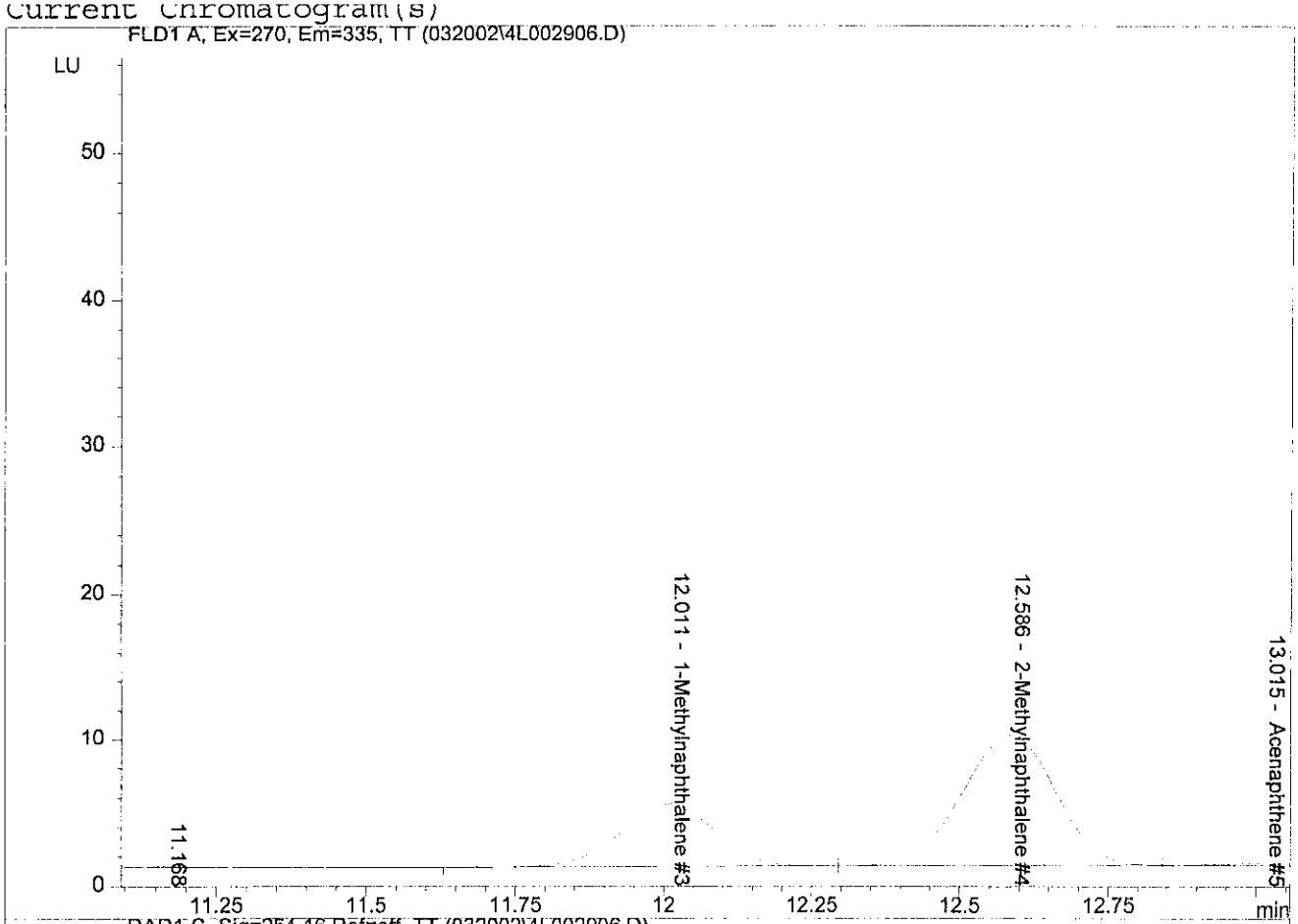
Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

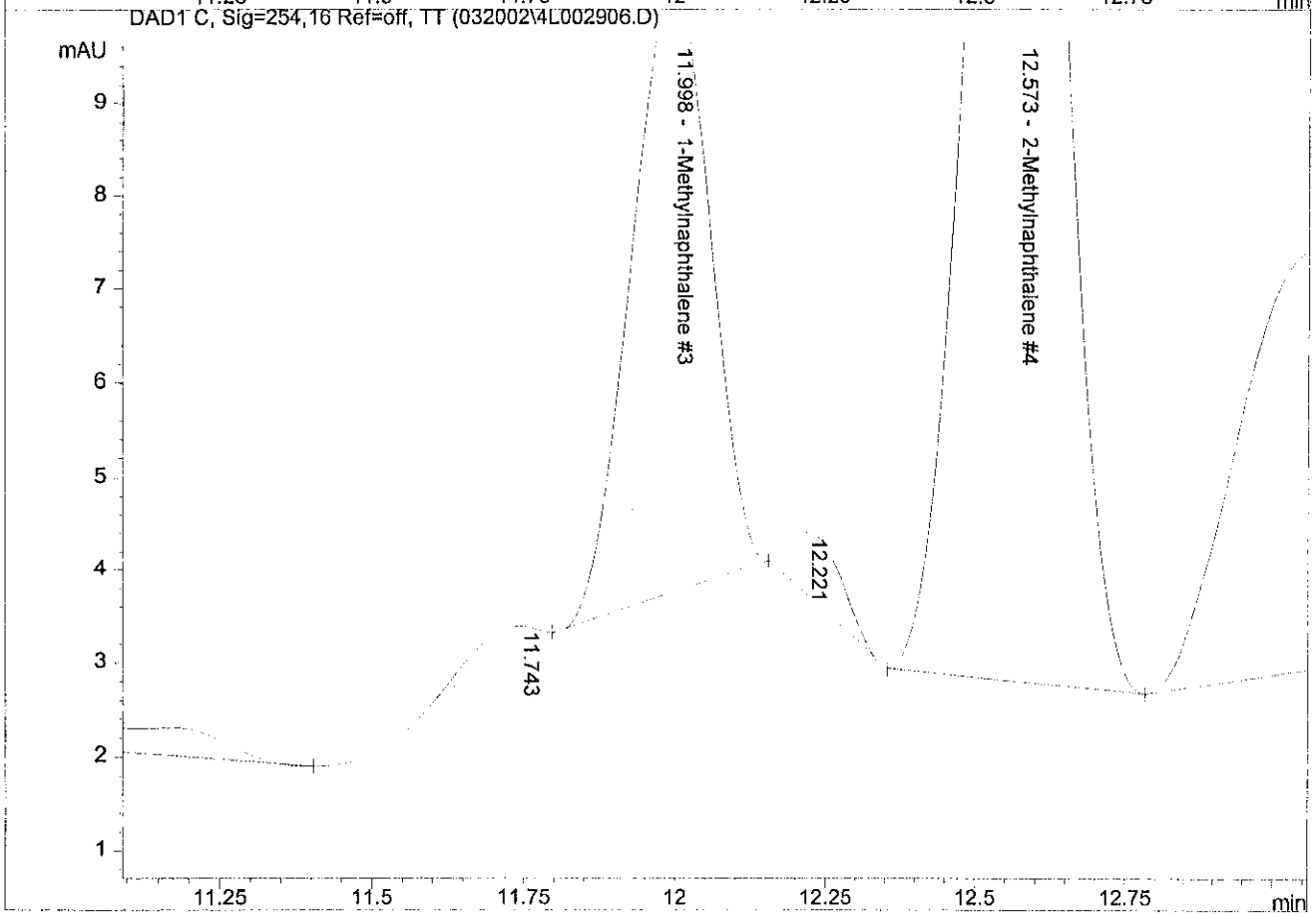
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002

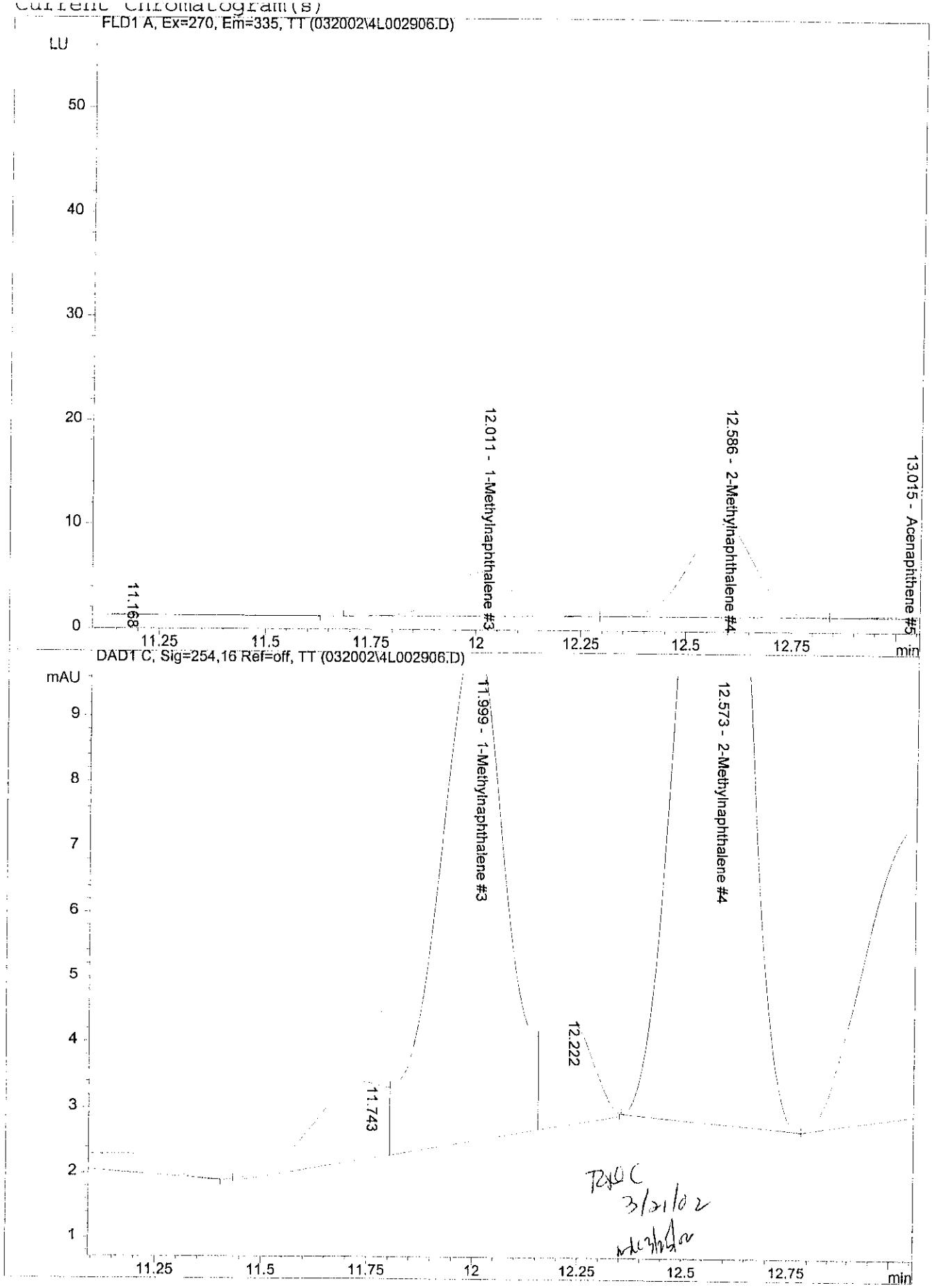


Current Chromatogram(s)





Current Chromatogram(s)



TJ&C
3/21/02

HPLC4 3/21/2002 8:35:58 AM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.436	BBA	93.31835	2.57003e-2	2.39831		Naphthalene #1
12.011	PB	47.86046	2.24893e-2	1.07635		1-Methylnaphthalene #3
12.586	BB	97.96038	1.72691e-2	1.69169		2-Methylnaphthalene #4
13.015	BB	1.86547	1.38228e-2	2.57860e-2		Acenaphthene #5
13.722	BB	5.56757	6.56879e-3	3.65722e-2		Fluorene #6
15.102	BB	5.40251	1.68488e-1	9.10256e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.886	PB	9.75326e-1	2.38671e-2	2.32782e-2		Fluoranthene #9
18.884	BB	5.68687e-1	4.06594e-2	2.31225e-2		Pyrene #10
21.216	BB	33.52443	2.86511e-1	9.60513	96 %	p-Terphenyl d14 #11*
22.549	BB	4.11164e-1	7.96557e-3	3.27515e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.122	BBA	2.87085e-1	1.65598e-2	4.75407e-3		Benzo(b)fluoranthene #14
27.548	PB	8.16771e-1	2.77566e-3	2.26708e-3		Benzo(k)fluoranthene #15
28.649	BB	4.75481e-1	4.67660e-3	2.22363e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.336	BB	1.54438	2.69466e-2	4.16157e-2		Benzo(g,h,i)perylene #18
32.243	BB	3.58497	1.37440e-2	4.92720e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 15.89390

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.423	BBA	316.83395	8.27651e-3	2.62228		Naphthalene #1
11.021	BB	5.30334	3.00095e-2	1.59151e-1		Acenaphthylene #2
11.999	VV	84.85442	1.29932e-2	1.10253		1-Methylnaphthalene #3
12.573	BB	156.07870	1.12713e-2	1.75920		2-Methylnaphthalene #4
13.074	BB	70.79778	2.03841e-2	1.44315		Acenaphthene #5
13.612	BB	13.97022	1.76946e-2	2.47197e-1		Fluorene #6
15.082	BB	3.55747	1.74291e-2	6.20035e-2		Phenanthrene #7
16.487	BB	4.83657	1.03455e-2	5.00366e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.947	PB	22.26749	1.46349e-2	3.25881e-1		Pyrene #10
21.203	BBA	150.91298	6.45989e-2	9.74882	91 %	p-Terphenyl d14 #11*
22.412	PB	1.20463	2.22878e-2	2.68486e-2		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

31.216	BB	10.49967	5.34666e-2	5.61382e-1	NC	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 18.10848

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

```
Injection Date  : 3/20/2002 11:20:25 PM          Seq. Line :  11
Sample Name     : L0203327-03 831W                   Vial :  11
Acq. Operator   : RDC                                Inj :   1
                                                 Inj Volume : 8 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8310.M
Last changed    : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed    : 3/18/2002 5:17:16 PM by RDC
                  (modified after loading)
Calibrated 01/14/2002
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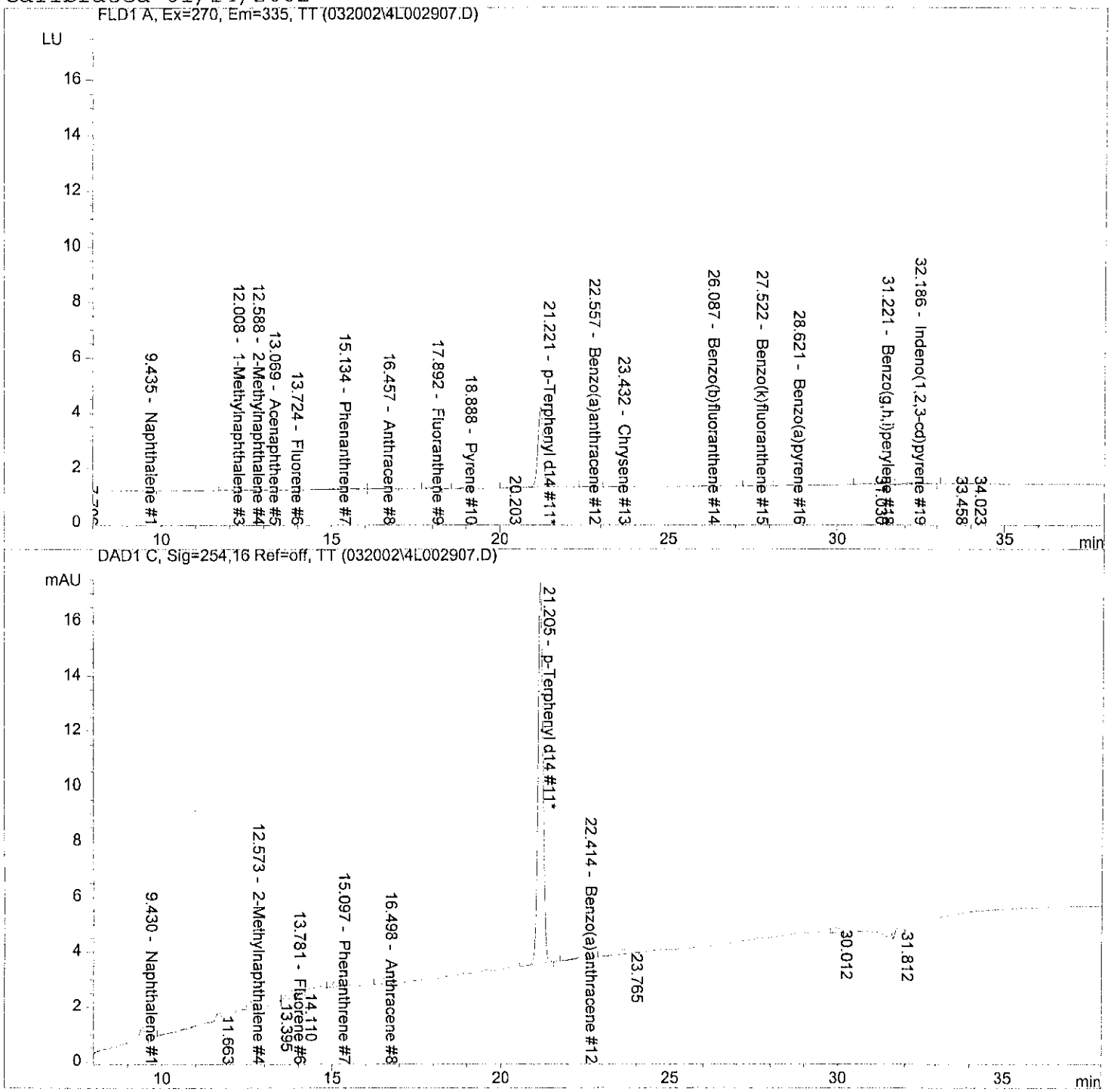

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	BBA	1.95688	2.57003e-2	5.02925e-2		Naphthalene #1
12.008	BB	8.42115e-1	2.24893e-2	1.89386e-2		1-Methylnaphthalene #3
12.588	BB	1.53607	1.72691e-2	2.65266e-2		2-Methylnaphthalene #4
13.069	BB	1.02899	1.38228e-2	1.42235e-2		Acenaphthene #5
13.724	BBA	2.81296	6.56879e-3	1.84777e-2		Fluorene #6
15.134	BB	1.78215	1.68488e-1	3.00270e-1		Phenanthrene #7
16.457	BB	2.16061e-1	3.03714e-1	6.56209e-2		Anthracene #8
17.892	BBA	5.11958e-1	2.38671e-2	1.22190e-2		Fluoranthene #9
18.888	PB	2.77842e-1	4.06594e-2	1.12969e-2		Pyrene #10
21.221	BB	31.61236	2.86511e-1	9.05730		p-Terphenyl d14 #11*
22.557	BB	3.27266e-1	7.96557e-3	2.60686e-3		Benzo(a)anthracene #12
23.432	BB	2.26033e-1	3.90144e-2	8.81856e-3		Chrysene #13
26.087	PB	3.71711e-1	1.65598e-2	6.15544e-3		Benzo(b)fluoranthene #14
27.522	PB	5.09560e-1	2.77566e-3	1.41437e-3		Benzo(k)fluoranthene #15
28.621	BB	3.47570e-1	4.67660e-3	1.62545e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.221	BB	2.43115e-1	2.69466e-2	6.55113e-3		Benzo(g,h,i)perylene #18
32.186	BB	2.12529	1.37440e-2	2.92101e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.63155

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.430	BB	5.27142	8.27651e-3	4.36290e-2		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.573	BB	3.75598	1.12713e-2	4.23346e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.781	BB	4.19495	1.76946e-2	7.42280e-2		Fluorene #6
15.097	BB	2.95035	1.74291e-2	5.14219e-2		Phenanthrene #7
16.498	BBA	3.18035	1.03455e-2	3.29023e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.205	BBA	140.88203	6.45989e-2	9.10083		p-Terphenyl d14 #11*
22.414	BB	1.42782	2.22878e-2	3.18229e-2		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.268	-	-	-		Benzo(g,h,i)perylene #18
32.209	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.37717

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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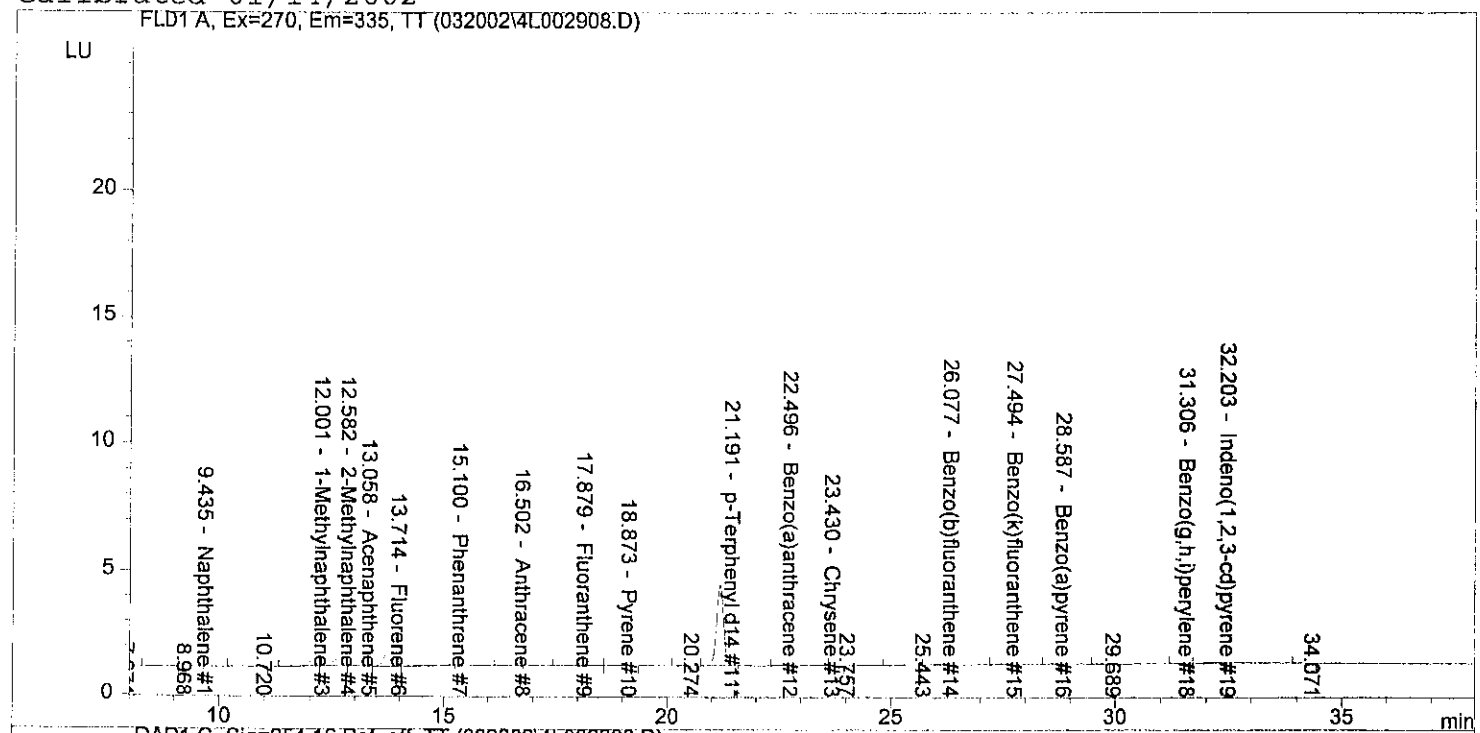
*** End of Report ***

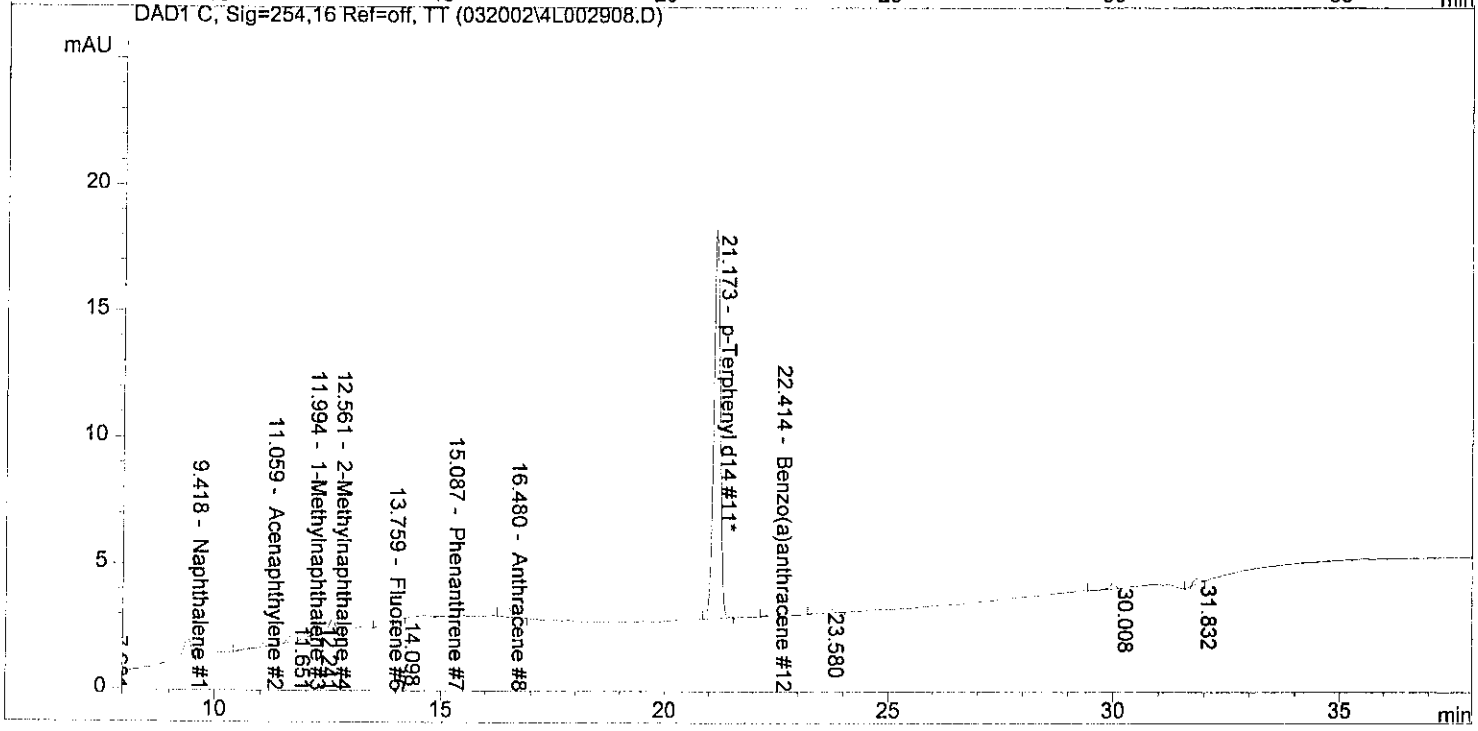
1,1 L0203327-04 REF

==========

Injection Date : 3/21/2002 12:17:02 AM Seq. Line : 12
Sample Name : WG114754-01 WREF Vial : 12
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)
Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	BB	2.52777	2.57003e-2	6.49643e-2		Naphthalene #1
12.001	BB	1.64939	2.24893e-2	3.70937e-2		1-Methylnaphthalene #3
12.582	BB	3.06234	1.72691e-2	5.28840e-2		2-Methylnaphthalene #4
13.058	BB	2.39730	1.38228e-2	3.31373e-2		Acenaphthene #5
13.714	BB	5.89018	6.56879e-3	3.86913e-2		Fluorene #6
15.100	BB	1.11072	1.68488e-1	1.87143e-1		Phenanthrene #7
16.502	PB	1.46943e-1	3.03714e-1	4.46287e-2		Anthracene #8
17.879	BB	9.11878e-1	2.38671e-2	2.17639e-2		Fluoranthene #9
18.873	BB	4.47318e-1	4.06594e-2	1.81877e-2		Pyrene #10
21.191	BBA	35.29827	2.86511e-1	10.11336		p-Terphenyl d14 #11*
22.496	BB	3.46432e-1	7.96557e-3	2.75953e-3		Benzo(a)anthracene #12
23.430	BB	5.39821e-1	3.90144e-2	2.10608e-2		Chrysene #13
26.077	BB	3.00037e-1	1.65598e-2	4.96855e-3		Benzo(b)fluoranthene #14
27.494	BB	6.72604e-1	2.77566e-3	1.86692e-3		Benzo(k)fluoranthene #15
28.587	PB	3.45211e-1	4.67660e-3	1.61441e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.306	BB	2.18750e-1	2.69466e-2	5.89457e-3		Benzo(g,h,i)perylene #18
32.203	BB	9.06280e-1	1.37440e-2	1.24560e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 10.66247

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.418	BB	9.16160	8.27651e-3	7.58260e-2		Naphthalene #1
11.059	PB	3.60206	3.00095e-2	1.08096e-1		Acenaphthylene #2
11.994	BB	1.74858	1.29932e-2	2.27198e-2		1-Methylnaphthalene #3
12.561	BB	6.09448	1.12713e-2	6.86924e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.759	BB	5.46988	1.76946e-2	9.67872e-2		Fluorene #6
15.087	BB	3.76720	1.74291e-2	6.56588e-2		Phenanthrene #7
16.480	BBA	5.45518	1.03455e-2	5.64365e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.173	BBA	156.22694	6.45989e-2	10.09209		p-Terphenyl d14 #11*
22.414	PB	1.78269	2.22878e-2	3.97323e-2		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.62604

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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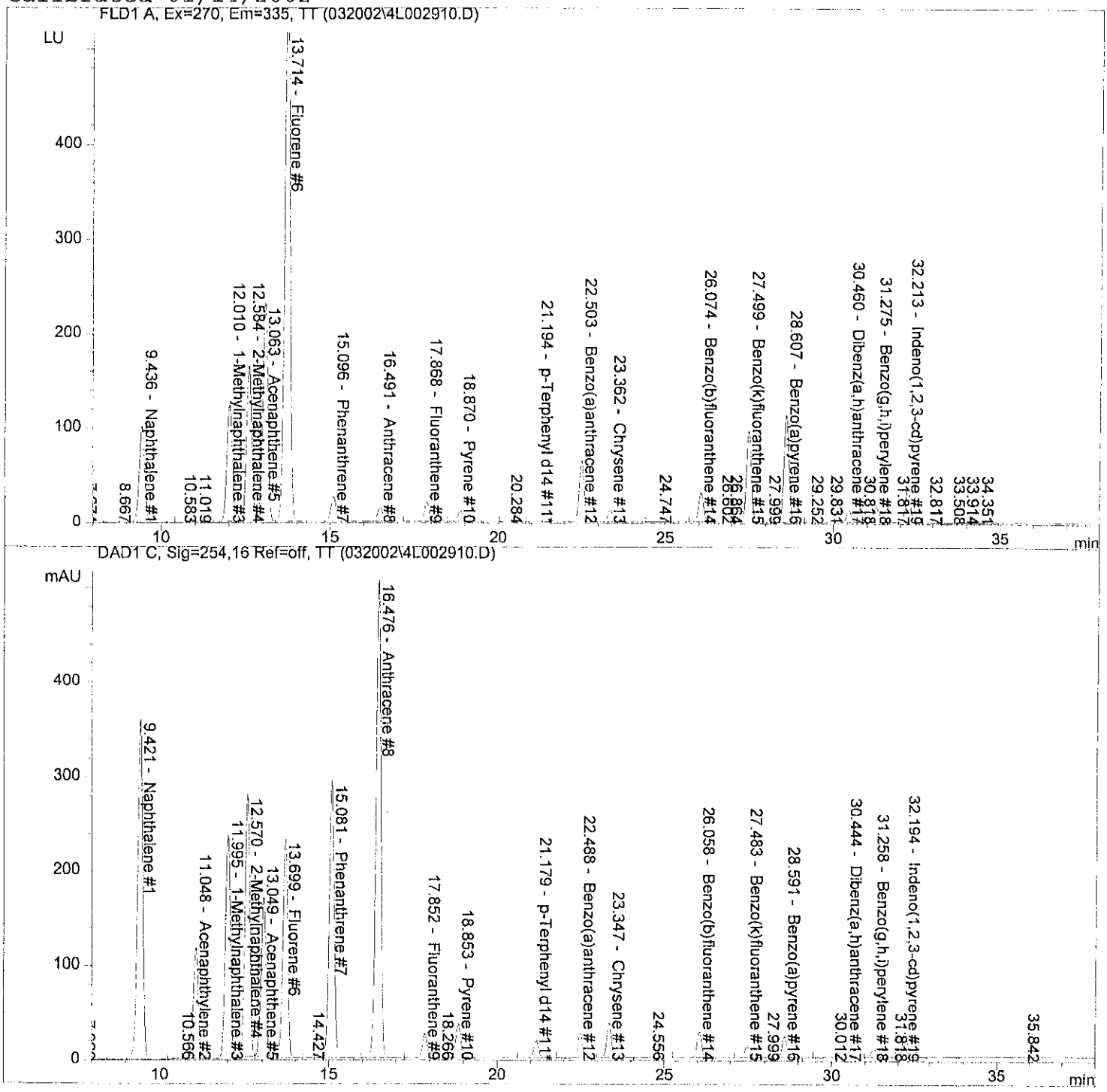
*** End of Report ***

Injection Date : 3/21/2002 2:10:17 AM
Sample Name : WG114754-04 WMS
Acq. Operator : RDC

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002



Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.436	BBA	1130.02380	2.57003e-2	29.04192		Naphthalene #1
12.010	BB	1359.51294	2.24893e-2	30.57452		1-Methylnaphthalene #3
12.584	BB	1736.58167	1.72691e-2	29.98926		2-Methylnaphthalene #4
13.063	BB	2497.97949	1.38228e-2	34.52902		Acenaphthene #5
13.714	BB	6373.32764	6.56879e-3	41.86504		Fluorene #6
15.096	BBA	292.17770	1.68488e-1	49.22833		Phenanthrene #7
16.491	PB	168.84445	3.03714e-1	51.28049		Anthracene #8
17.868	BB	226.67973	2.38671e-2	5.41018		Fluoranthene #9
18.870	BBA	131.50807	4.06594e-2	5.34704		Pyrene #10
21.194	BBA	41.86066	2.86511e-1	11.99356	120%	p-Terphenyl d14 #11*
22.503	BB	697.88000	7.96557e-3	5.55901		Benzo(a)anthracene #12
23.362	BB	143.69054	3.90144e-2	5.60601		Chrysene #13
26.074	BB	337.60831	1.65598e-2	5.59071		Benzo(b)fluoranthene #14
27.499	BB	1020.46063	2.77566e-3	2.83246		Benzo(k)fluoranthene #15
28.607	BB	1189.67334	4.67660e-3	5.56362		Benzo(a)pyrene #16
30.460	BB	136.73000	3.93196e-2	5.37617		Dibenz(a,h)anthracene #17
31.275	BB	196.60974	2.69466e-2	5.29797		Benzo(g,h,i)perylene #18
32.213	BB	399.33356	1.37440e-2	5.48846		Indeno(1,2,3-cd)pyrene #1

Totals : 330.57377

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.421	BB	3846.22119	8.27651e-3	31.83329		Naphthalene #1
11.048	BB	1187.12476	3.00095e-2	35.62502		Acenaphthylene #2
11.995	BB	2442.08984	1.29932e-2	31.73064		1-Methylnaphthalene #3
12.570	BB	2827.64868	1.12713e-2	31.87115		2-Methylnaphthalene #4
13.049	BB	1719.55579	2.03841e-2	35.05164		Acenaphthene #5
13.699	BB	2345.37305	1.76946e-2	41.50040		Fluorene #6
15.081	BBA	2957.62012	1.74291e-2	51.54863		Phenanthrene #7
16.476	PB	5159.89307	1.03455e-2	53.38162		Anthracene #8
17.852	BB	254.07939	2.18958e-2	5.56327		Fluoranthene #9
18.853	BBA	380.67462	1.46349e-2	5.57112		Pyrene #10
21.179	BBA	187.13327	6.45989e-2	12.08861	121%	p-Terphenyl d14 #11*
22.488	BBA	260.65598	2.22878e-2	5.80946		Benzo(a)anthracene #12
23.347	BBA	390.17761	1.52051e-2	5.93271		Chrysene #13
26.058	PBA	274.91592	2.08462e-2	5.73095		Benzo(b)fluoranthene #14
27.483	BB	126.45470	2.27217e-2	2.87326		Benzo(k)fluoranthene #15
28.591	BB	217.28149	2.64267e-2	5.74202		Benzo(a)pyrene #16
30.444	BB	58.61692	9.39100e-2	5.50471		Dibenz(a,h)anthracene #17

31.258	BB	105.90701	5.34666e-2	5.66249		Benzo(g,h,i)perylene #18
32.194	BB	272.30756	2.06198e-2	5.61493		Indeno(1,2,3-cd)pyrene #1

Totals : 378.63593

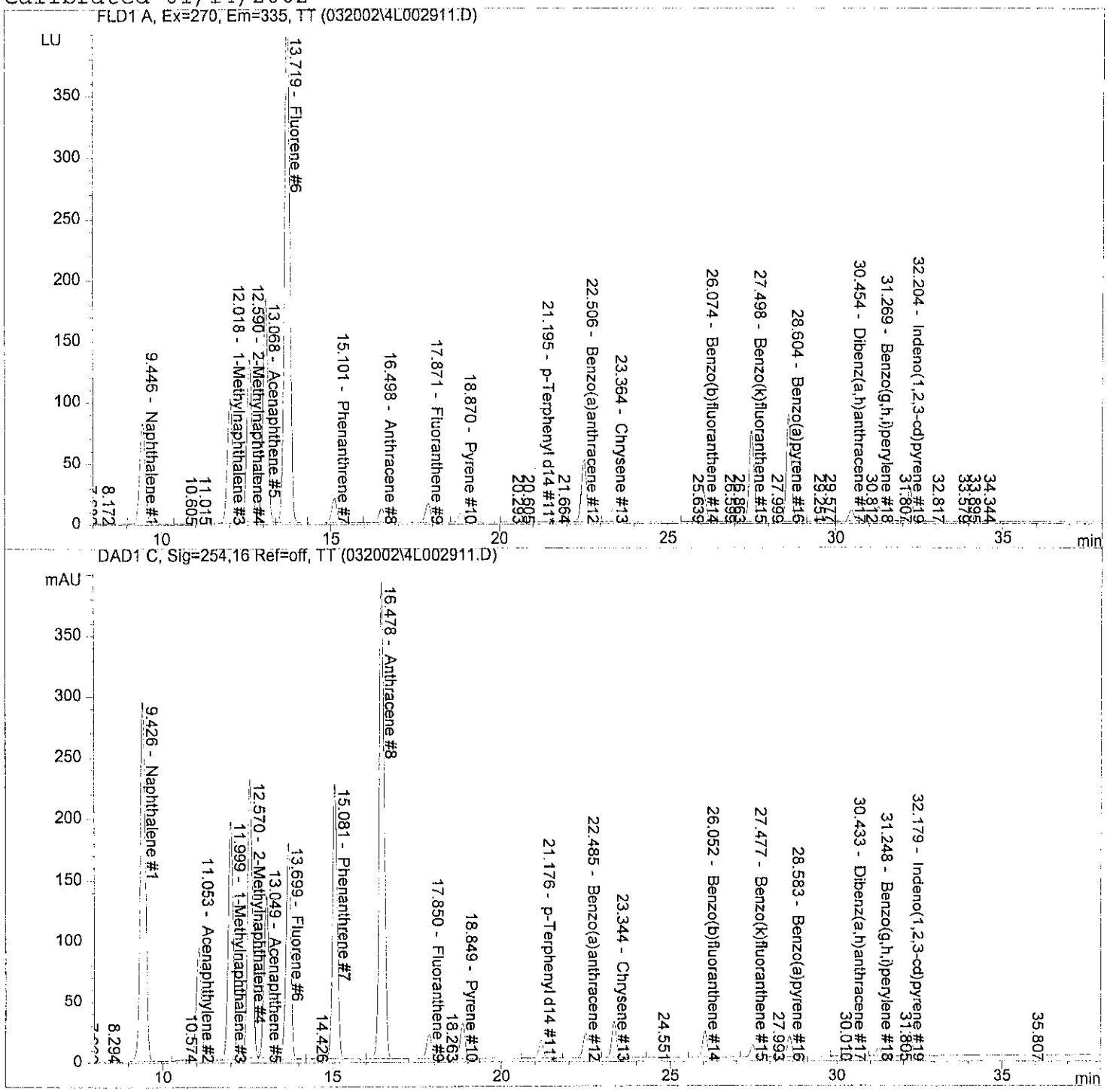
Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 3/21/2002 3:06:56 AM Seq. Line : 15
Sample Name : WG114754-05 WMSD Vial : 15
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002



Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.446	BBA	914.95398	2.57003e-2	23.51457		Naphthalene #1
12.018	BB	1100.10583	2.24893e-2	24.74063		1-Methylnaphthalene #3
12.590	BB	1408.15222	1.72691e-2	24.31757		2-Methylnaphthalene #4
13.068	BB	1963.58594	1.38228e-2	27.14222		Acenaphthene #5
13.719	BB	4812.05664	6.56879e-3	31.60938		Fluorene #6
15.101	BBA	219.91245	1.68488e-1	37.05252		Phenanthrene #7
16.498	BBA	128.24104	3.03714e-1	38.94865		Anthracene #8
17.871	PBA	178.44890	2.38671e-2	4.25905		Fluoranthene #9
18.870	BBA	104.02418	4.06594e-2	4.22956		Pyrene #10
21.195	BB	33.55877	2.86511e-1	9.61497		p-Terphenyl d14 #11*
22.506	BBA	551.10278	7.96557e-3	4.38985		Benzo(a)anthracene #12
23.364	BB	112.83257	3.90144e-2	4.40210		Chrysene #13
26.074	BB	261.90756	1.65598e-2	4.33713		Benzo(b)fluoranthene #14
27.498	BB	781.44580	2.77566e-3	2.16903		Benzo(k)fluoranthene #15
28.604	BB	911.55872	4.67660e-3	4.26299		Benzo(a)pyrene #16
30.454	BB	96.47415	3.93196e-2	3.79333		Dibenz(a,h)anthracene #17
31.269	BB	141.09523	2.69466e-2	3.80204		Benzo(g,h,i)perylene #18
32.204	BB	291.83914	1.37440e-2	4.01105		Indeno(1,2,3-cd)pyrene #1

Totals : 256.59664

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.426	BBA	3100.95239	8.27651e-3	25.66507		Naphthalene #1
11.053	BB	938.21747	3.00095e-2	28.15544		Acenaphthylene #2
11.999	BB	1984.37280	1.29932e-2	25.78342		1-Methylnaphthalene #3
12.570	BB	2298.55151	1.12713e-2	25.90756		2-Methylnaphthalene #4
13.049	BB	1352.19727	2.03841e-2	27.56336		Acenaphthene #5
13.699	BB	1766.94543	1.76946e-2	31.26536		Fluorene #6
15.081	BBA	2232.76416	1.74291e-2	38.91505		Phenanthrene #7
16.478	BBA	3918.90479	1.03455e-2	40.54299		Anthracene #8
17.850	PB	201.02133	2.18958e-2	4.40152		Fluoranthene #9
18.849	BBA	301.67667	1.46349e-2	4.41499		Pyrene #10
21.176	BBA	148.23645	6.45989e-2	9.57592		p-Terphenyl d14 #11*
22.485	BBA	206.41026	2.22878e-2	4.60044		Benzo(a)anthracene #12
23.344	BBA	304.74194	1.52051e-2	4.63364		Chrysene #13
26.052	BBA	213.17928	2.08462e-2	4.44398		Benzo(b)fluoranthene #14
27.477	BB	96.77457	2.27217e-2	2.19888		Benzo(k)fluoranthene #15
28.583	BB	166.30101	2.64267e-2	4.39478		Benzo(a)pyrene #16
30.433	BB	41.11147	9.39100e-2	3.86078		Dibenz(a,h)anthracene #17

31.248	BB	76.39548	5.34666e-2	4.08461		Benzo(g,h,i)perylene #18
32.179	BB	199.02579	2.06198e-2	4.10388		Indeno(1,2,3-cd)pyrene #1

Totals : 294.51166

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 3/21/2002 4:03:31 AM          Seq. Line :  16
Sample Name     : L0203327-07 831W                 Vial :  16
Acq. Operator   : RDC                              Inj :   1
                                                Inj Volume : 8 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8310.M
Last changed    : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed    : 3/18/2002 5:17:16 PM by RDC
                  (modified after loading)
Calibrated 01/14/2002
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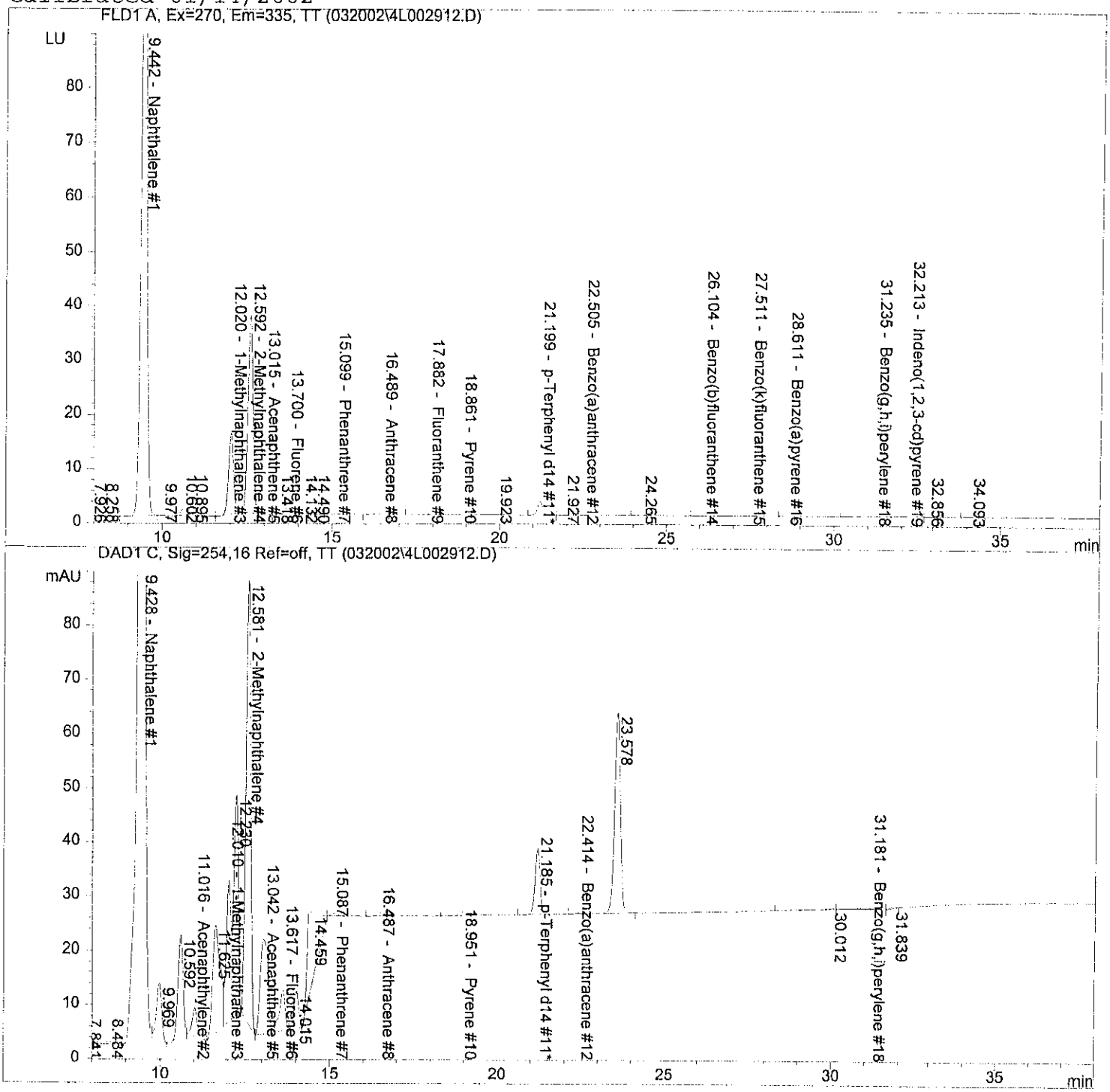
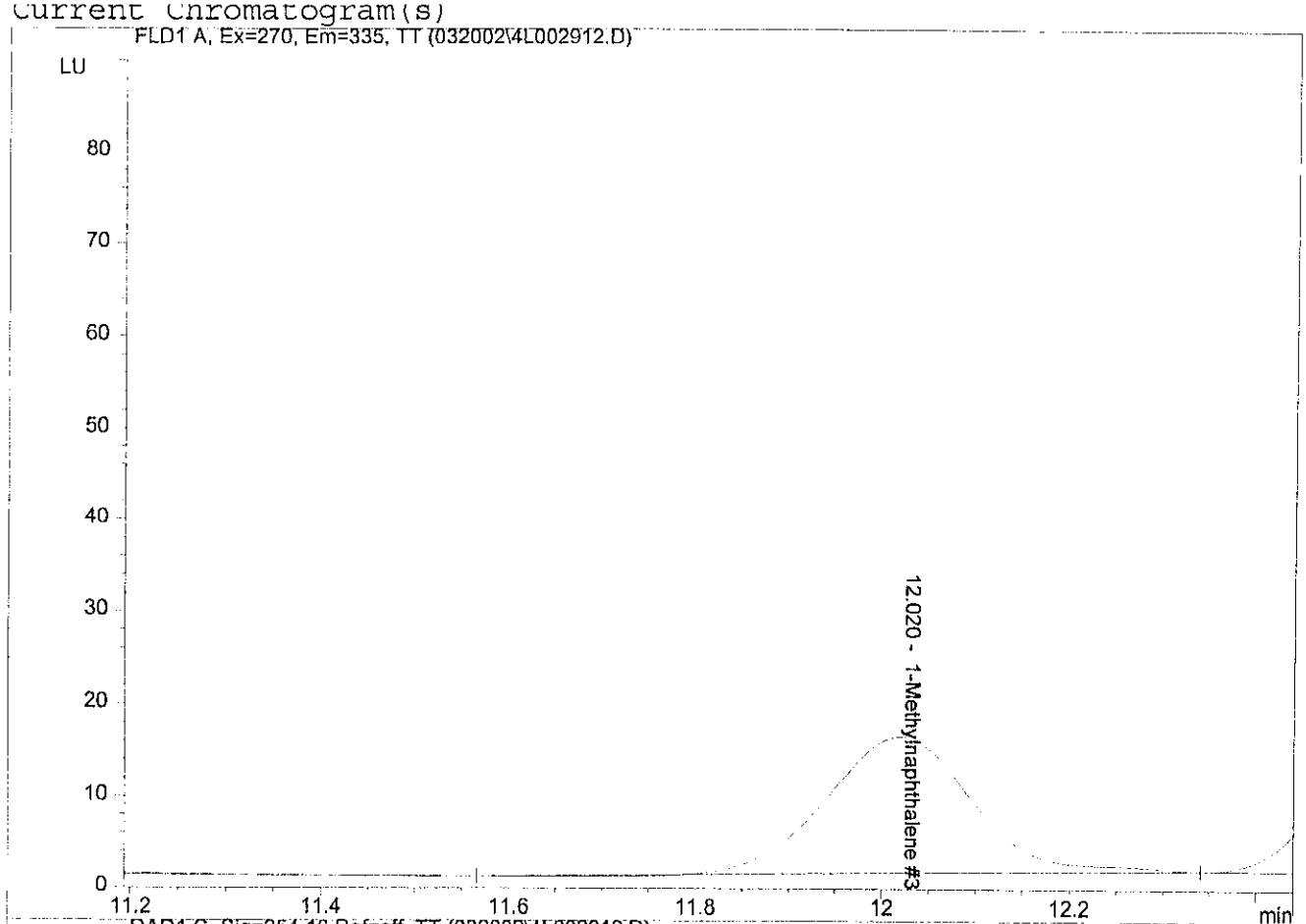
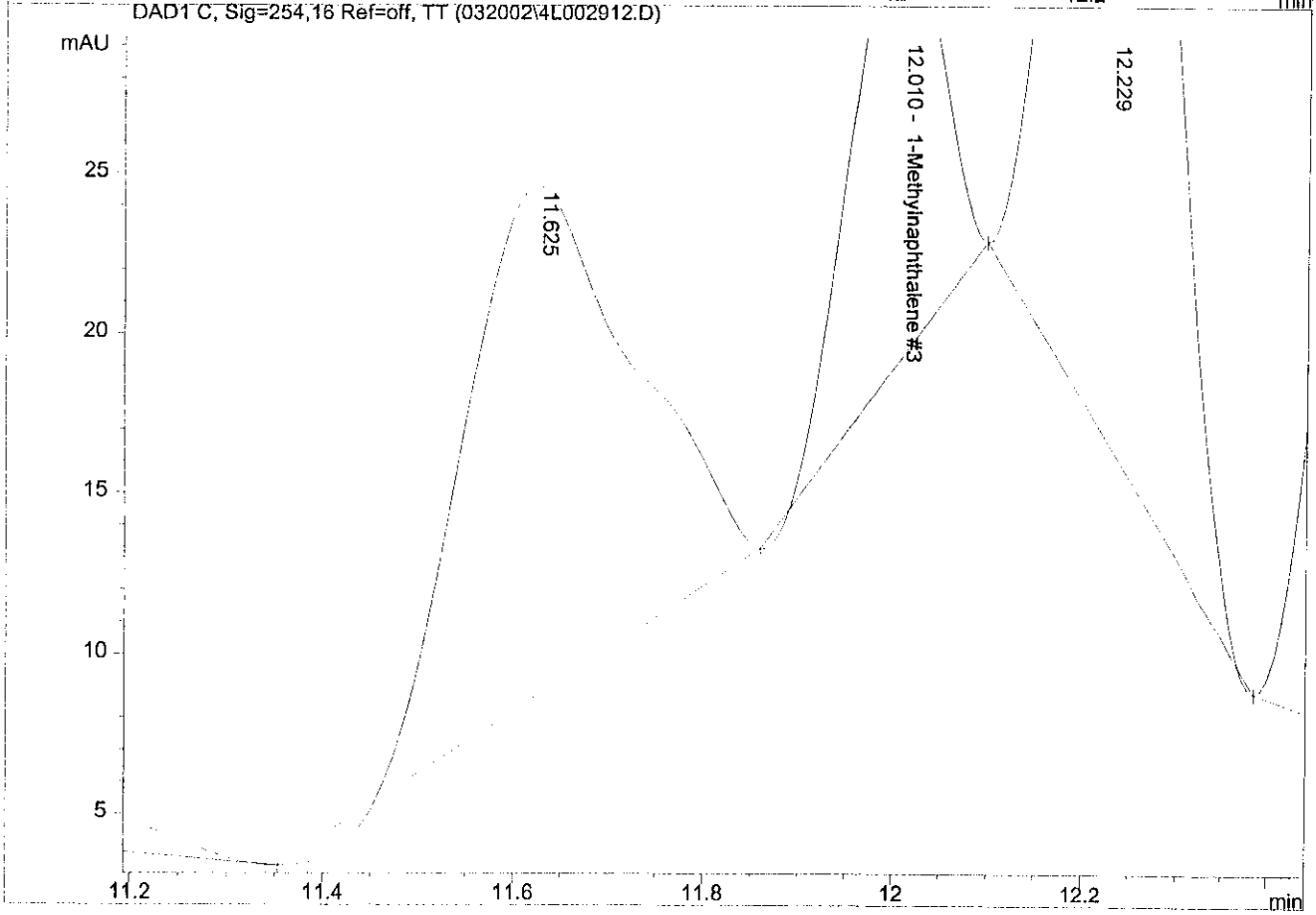
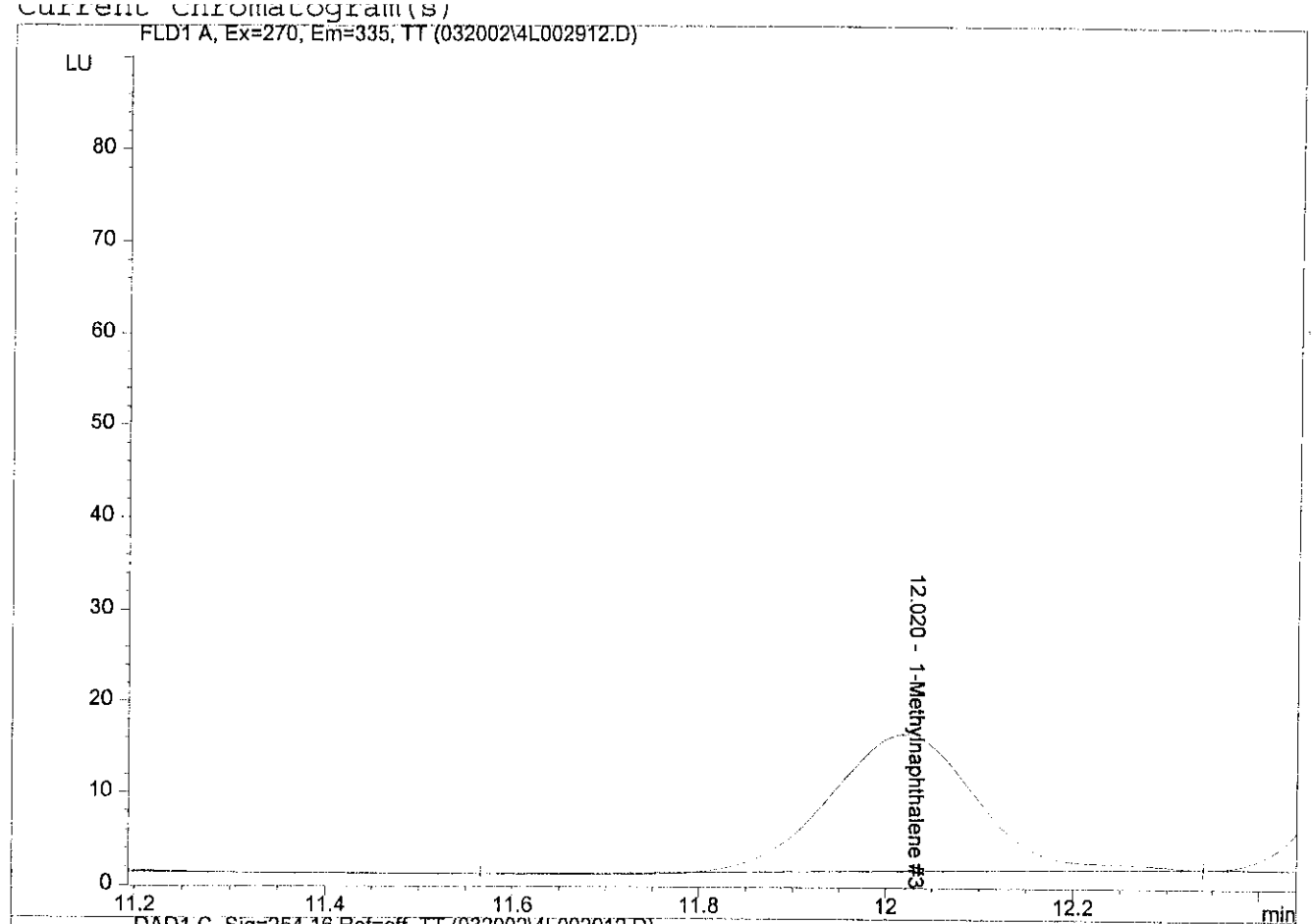


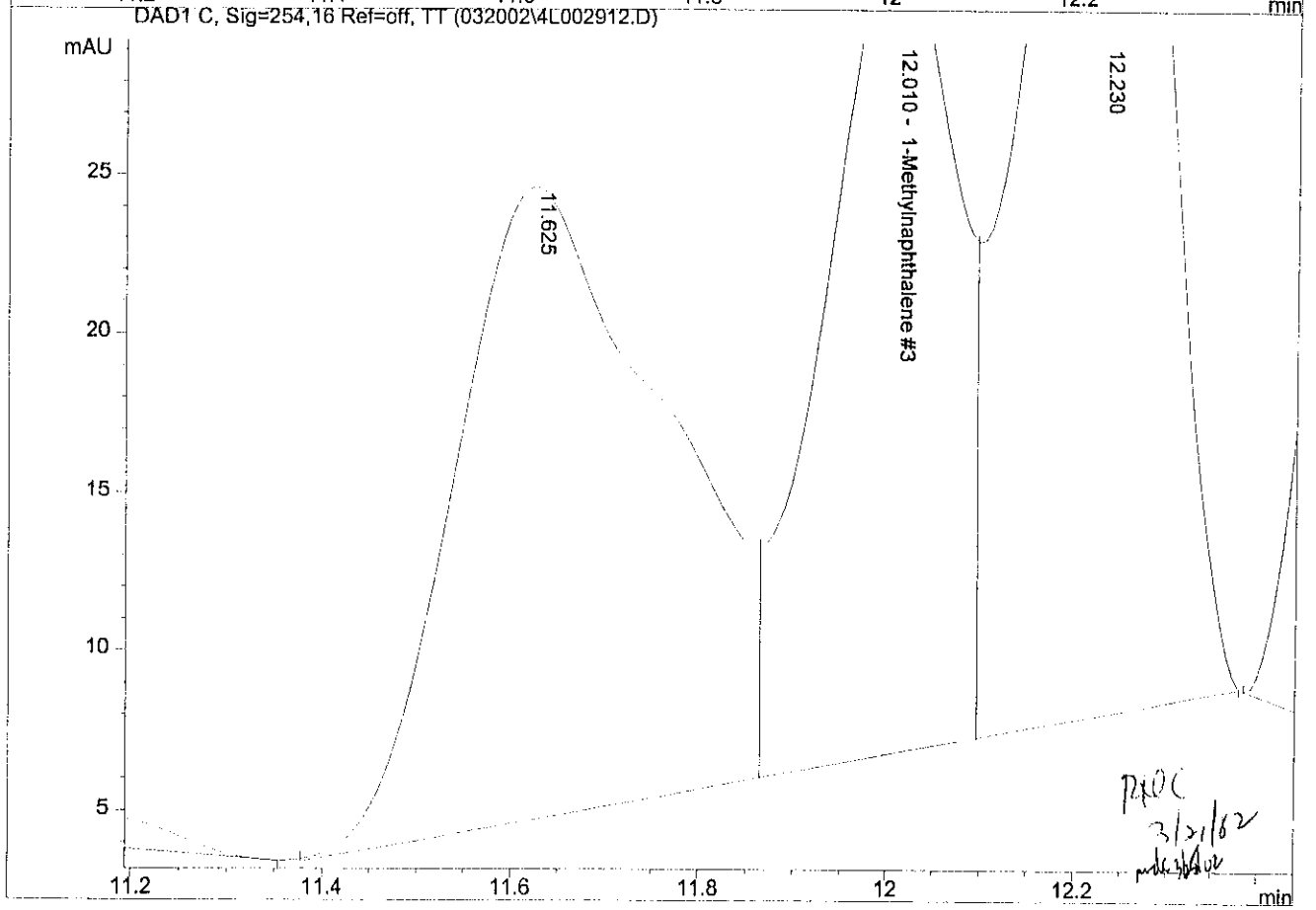
Current Chromatogram(s)





Current Chromatogram(s)





RDC
3/21/02

HPLC4 3/21/2002 8:41:55 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.442	BB	1378.86743	2.57003e-2	35.43727	C	Naphthalene #1
12.020	BB	160.38034	2.24893e-2	3.60684	C	1-Methylnaphthalene #3
12.592	BB	379.66165	1.72691e-2	6.55643	C	2-Methylnaphthalene #4
13.015	BB	7.53479	1.38228e-2	1.04152e-1		Acenaphthene #5
13.700	BB	17.88743	6.56879e-3	1.17499e-1		Fluorene #6
15.099	BBA	6.43310e-1	1.68488e-1	1.08390e-1		Phenanthrene #7
16.489	PB	2.41793e-1	3.03714e-1	7.34360e-2		Anthracene #8
17.882	BB	8.80588e-1	2.38671e-2	2.10171e-2		Fluoranthene #9
18.861	BB	3.98067e-1	4.06594e-2	1.61852e-2		Pyrene #10
21.199	BBA	27.57203	2.86511e-1	7.89970	79%	p-Terphenyl d14 #11*
22.505	BB	2.65218e-1	7.96557e-3	2.11261e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.104	BBA	2.30112e-1	1.65598e-2	3.81061e-3		Benzo(b)fluoranthene #14
27.511	PBA	4.67971e-1	2.77566e-3	1.29893e-3		Benzo(k)fluoranthene #15
28.611	BB	3.43993e-1	4.67660e-3	1.60872e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.235	BB	1.75187	2.69466e-2	4.72070e-2		Benzo(g,h,i)perylene #18
32.213	BB	1.71207	1.37440e-2	2.35308e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 54.02049

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.428	BB	4893.59326	8.27651e-3	40.50188		Naphthalene #1
11.016	BB	60.44678	3.00095e-2	1.81398		Acenaphthylene #2 Needs conf
12.010	VV	254.73346	1.29932e-2	3.30981		1-Methylnaphthalene #3
12.581	BB	805.93231	1.12713e-2	9.08387		2-Methylnaphthalene #4
13.042	BB	277.87952	2.03841e-2	5.66433	NC	Acenaphthene #5
13.617	BB	92.32068	1.76946e-2	1.63358		Fluorene #6
15.087	BB	4.39184	1.74291e-2	7.65457e-2	Conf	Phenanthrene #7
16.487	BB	7.37364	1.03455e-2	7.62839e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.951	BBA	7.86314	1.46349e-2	1.15076e-1	NC	Pyrene #10
21.185	BBA	121.98482	6.45989e-2	7.88009	77%	p-Terphenyl d14 #11*
22.414	PB	1.34692	2.22878e-2	3.00199e-2	NC	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.181	BB	9.76529	5.34666e-2	5.22117e-1	NC	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 70.70758

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Sample : L0203327-07 8310W for confirmation Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 15:18:56 2002 Quant Results File: PAHLOW.RES

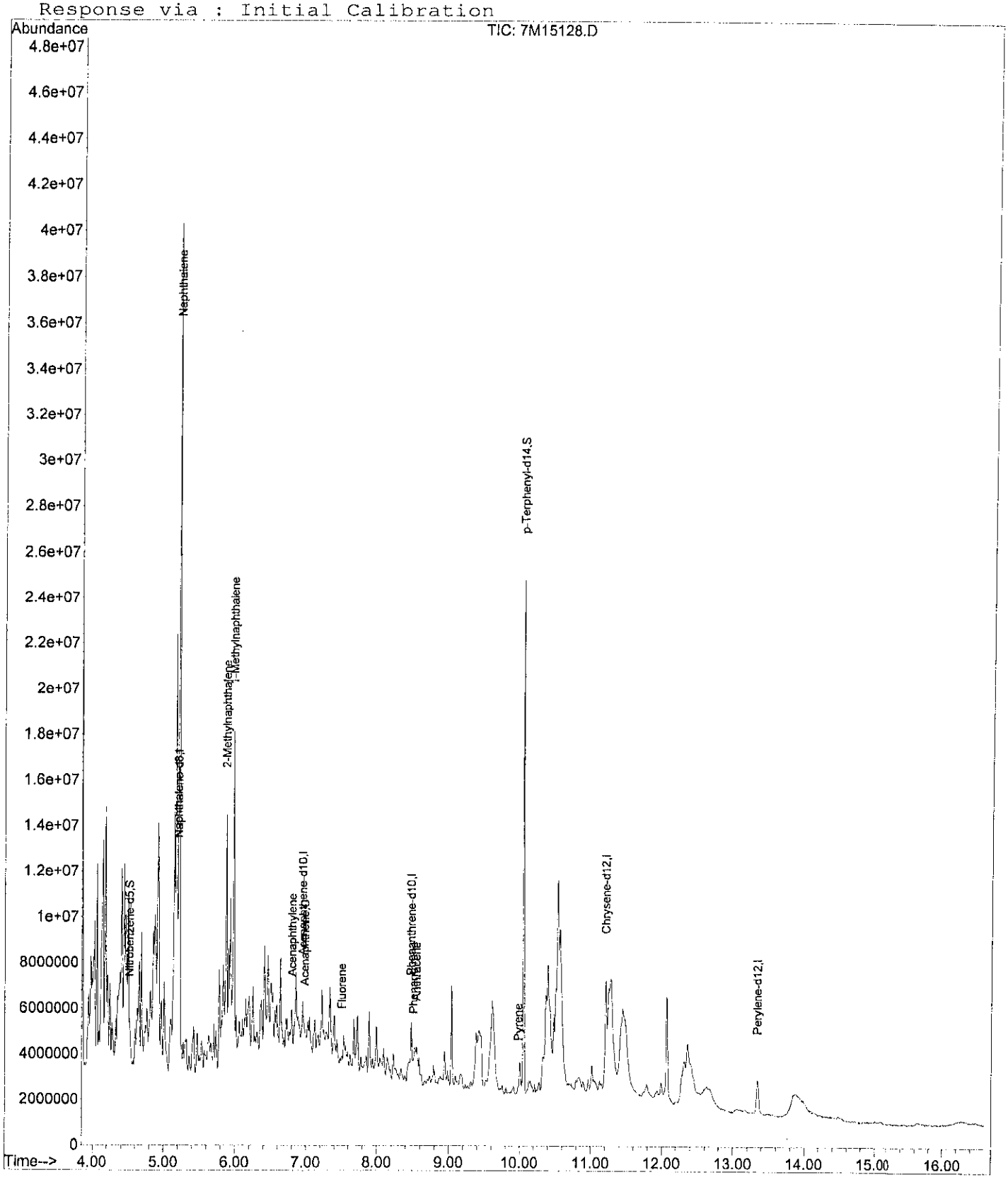
Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 08 10:14:57 2002
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.20	136	574673	1.00 ug/ml	0.00
6) Acenaphthene-d10	6.95	164	413079	1.00 ug/ml	0.00
11) Phenanthrene-d10	8.47	188	842547	1.00 ug/ml	0.00
15) Chrysene-d12	11.21	240	1365753	1.00 ug/ml	0.00
20) Perylene-d12	13.34	264	913367	1.00 ug/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	4.52	82	97699	0.4597 ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 18.40%#		
7) 2-Fluorobiphenyl	6.23	172	953	0.0016 ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 0.00%#		
17) p-Terphenyl-d14	10.05	244	6872600	5.0344 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 201.20%#		
Target Compounds					Qvalue
3) Naphthalene	5.21	128	12277580	19.0466 ug/ml#	75
4) 2-Methylnaphthalene	5.88	142	2816560	6.5056 ug/ml	99
5) 1-Methylnaphthalene	5.99	142	1614142	3.7466 ug/ml#	79
8) Acenaphthylene	6.81	152	38908	0.0534 ug/ml#	57
9) Acenaphthene	6.99	154	27397	0.0556 ug/ml#	76
10) Fluorene	7.50	166	43198	0.0721 ug/ml#	84
12) Phenanthrene	8.50	178	71335	0.0756 ug/ml#	94
13) Anthracene	8.55	178	54202	0.0578 ug/ml#	73
16) Pyrene	9.97	202	21160	0.0668 ug/ml#	76

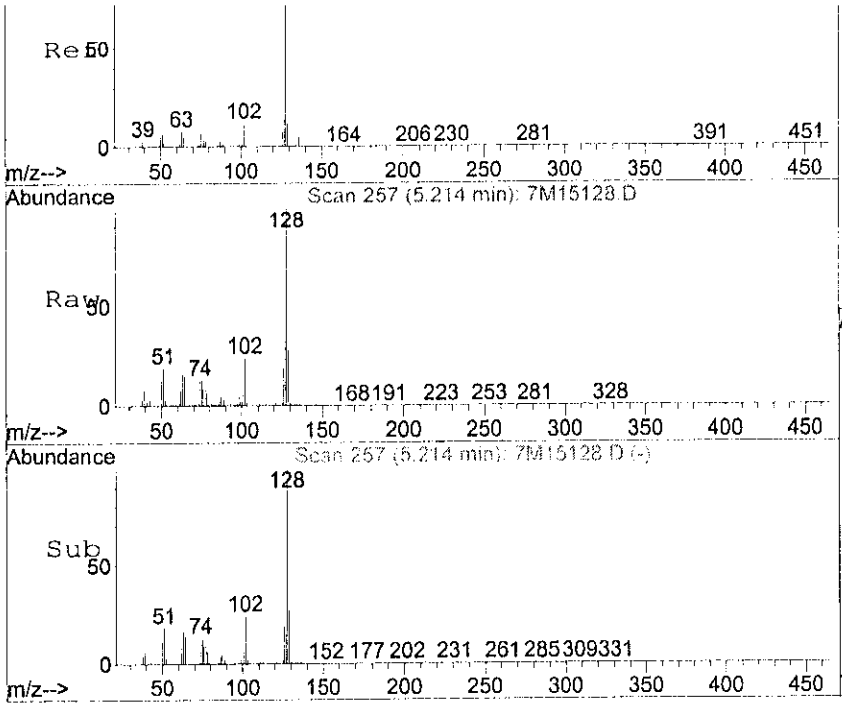
(#) = qualifier out of range (m) = manual integration
7M15128.D PAHLOW.M Wed Mar 27 15:19:26 2002 HPMS7 Page 1

Sample : L0203327-07 8310W for confirmation Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 15:18 2002 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 08 10:14:57 2002
Response via : Initial Calibration



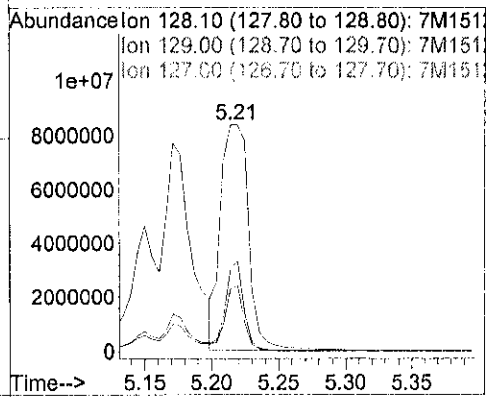
7M15128.D PAHLOW.M Wed Mar 27 15:19:27 2002 HPMS7 Page 2

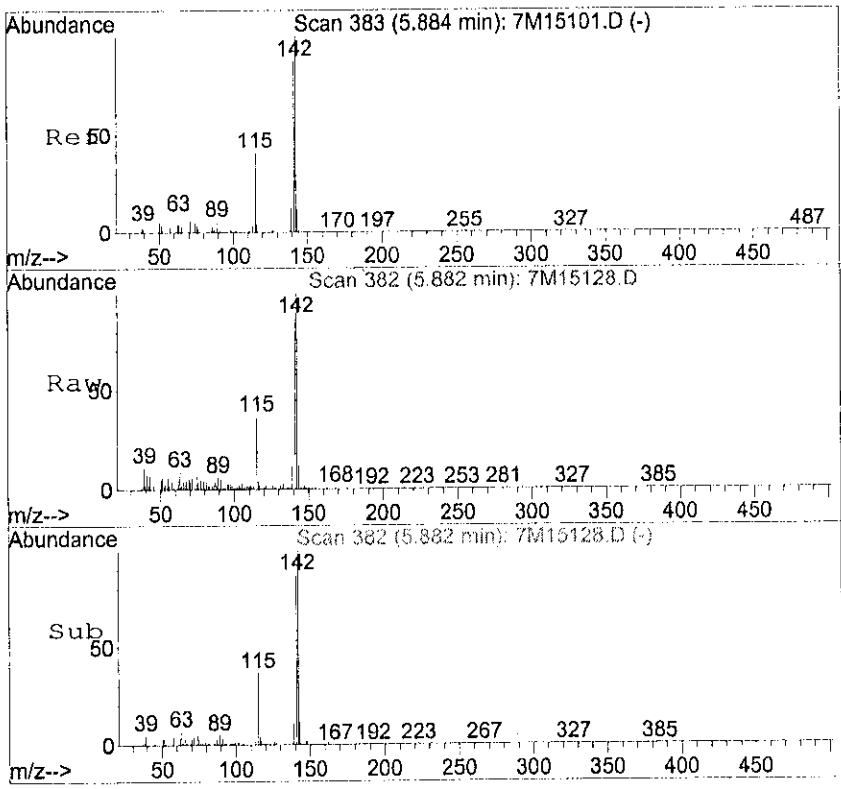


RT: 5.21 min Scan# 257
Delta R.T. -0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:128 Resp:12277580

Ion	Ratio	Lower	Upper
128	100		
129	19.5	9.0	13.4#
127	25.9	11.4	17.2#

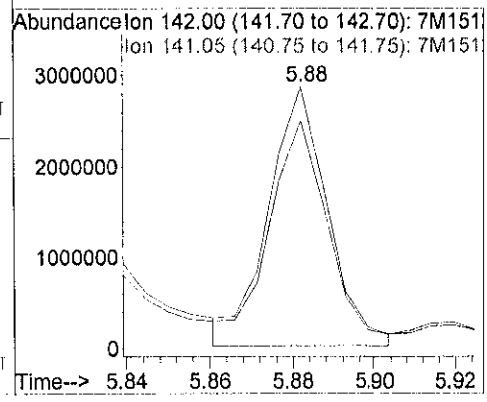


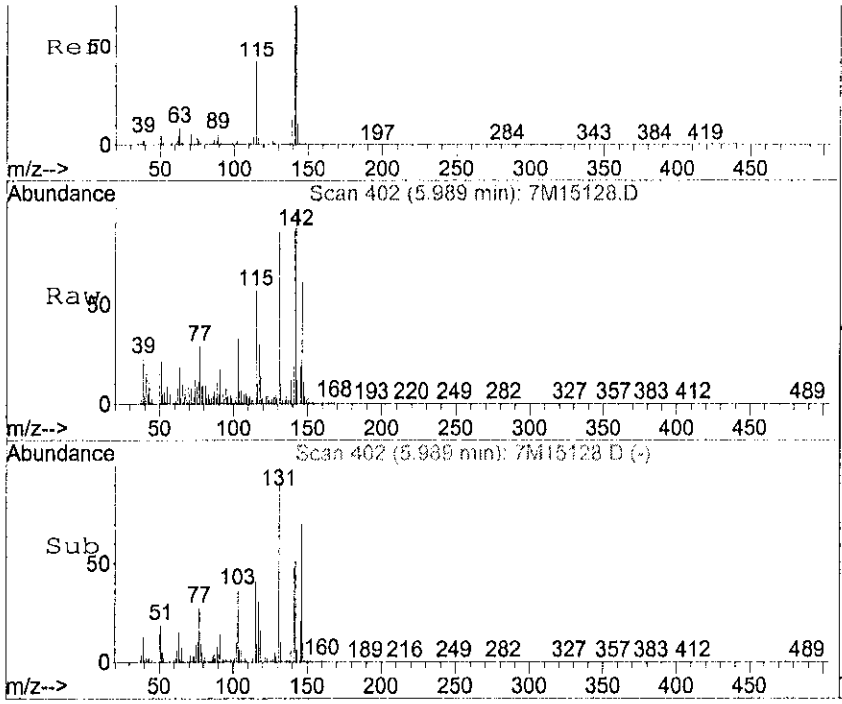


#4
2-Methylnaphthalene
Concen: 6.51 ug/ml
RT: 5.88 min Scan# 382
Delta R.T. -0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:142 Resp: 2816560

Ion	Ratio	Lower	Upper
142	100		
141	86.4	70.1	105.1

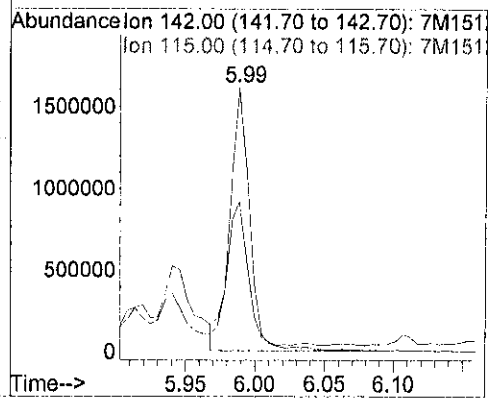


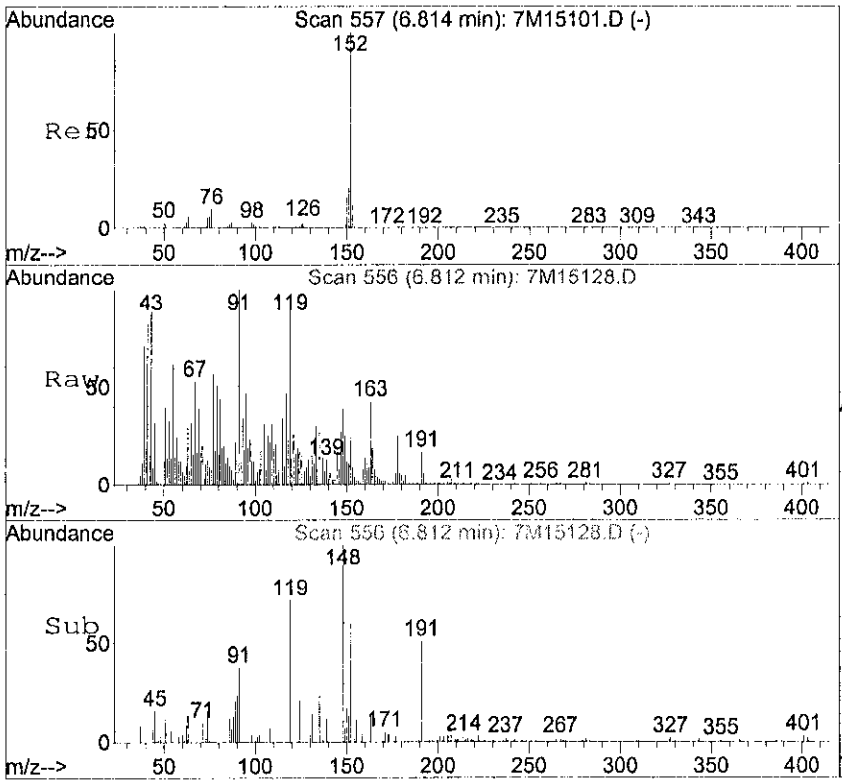


RT: 5.99 min Scan# 402
Delta R.T. -0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:142 Resp: 1614142

Ion	Ratio	Lower	Upper
142	100		
115	56.8	34.7	52.1#

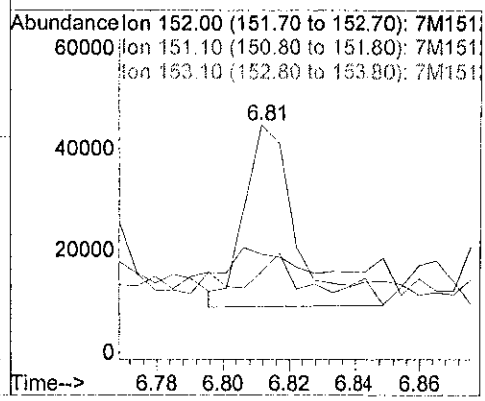


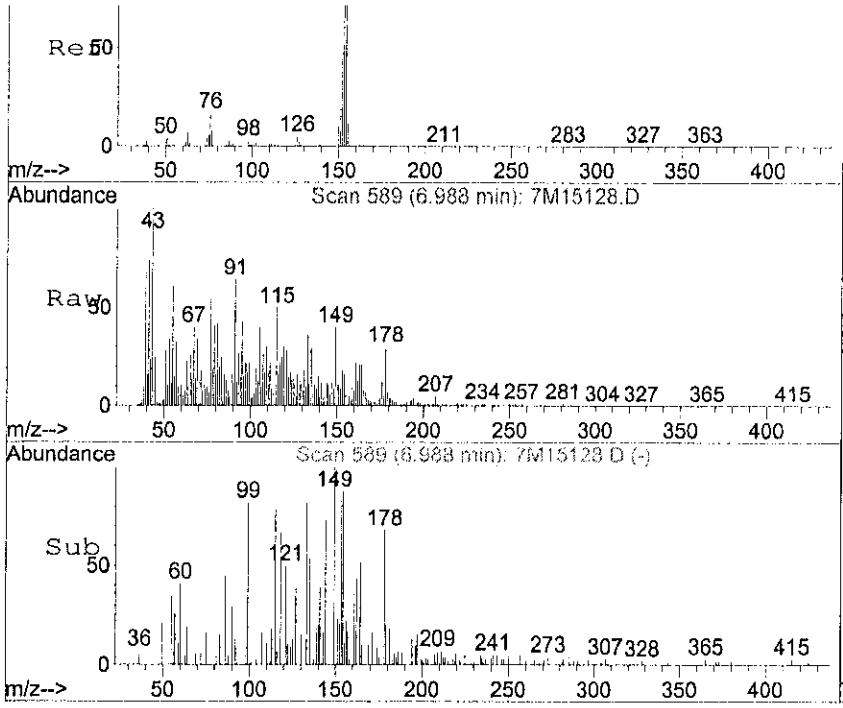


#8
Acenaphthylene
Concen: 0.05 ug/ml
RT: 6.81 min Scan# 556
Delta R.T. -0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:152 Resp: 38908

Ion	Ratio	Lower	Upper
152	100		
151	52.6	16.6	25.0#
153	11.9	10.2	15.2

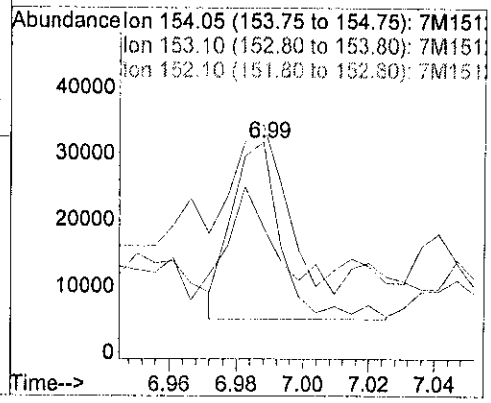


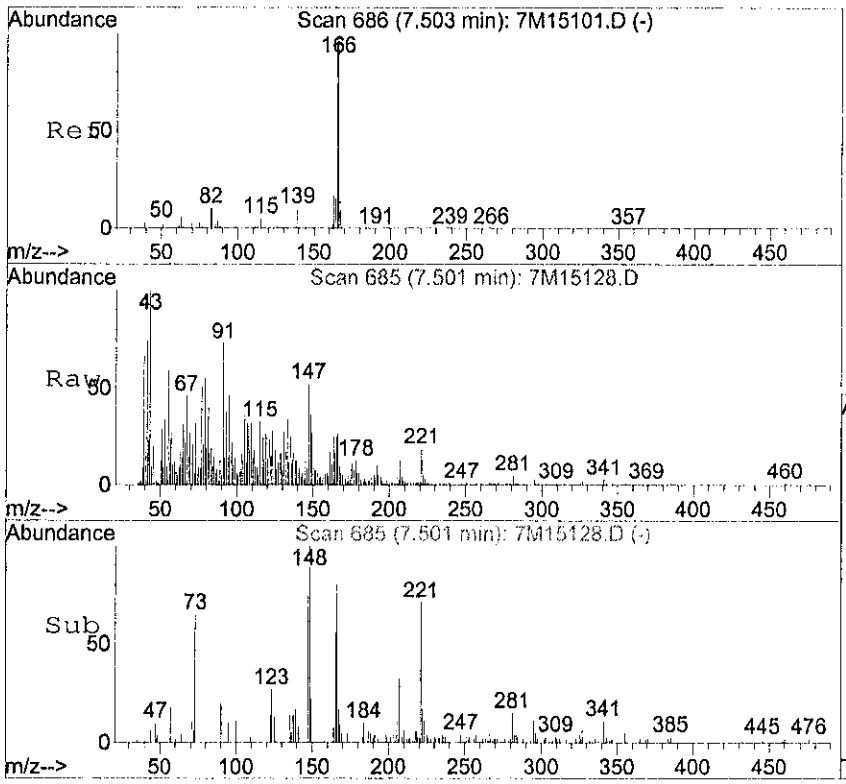


RT: 6.99 min Scan# 589
Delta R.T. 0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:154 Resp: 27397

Ion	Ratio	Lower	Upper
154	100		
153	136.2	87.0	130.6#
152	64.9	41.3	61.9#

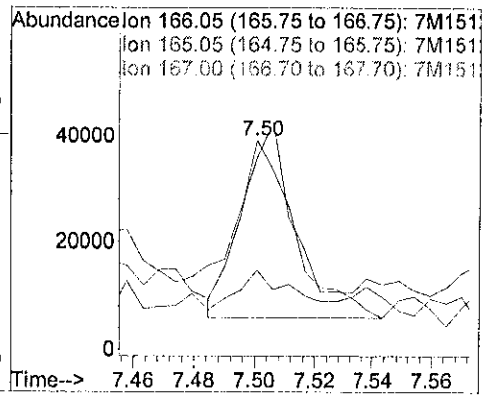


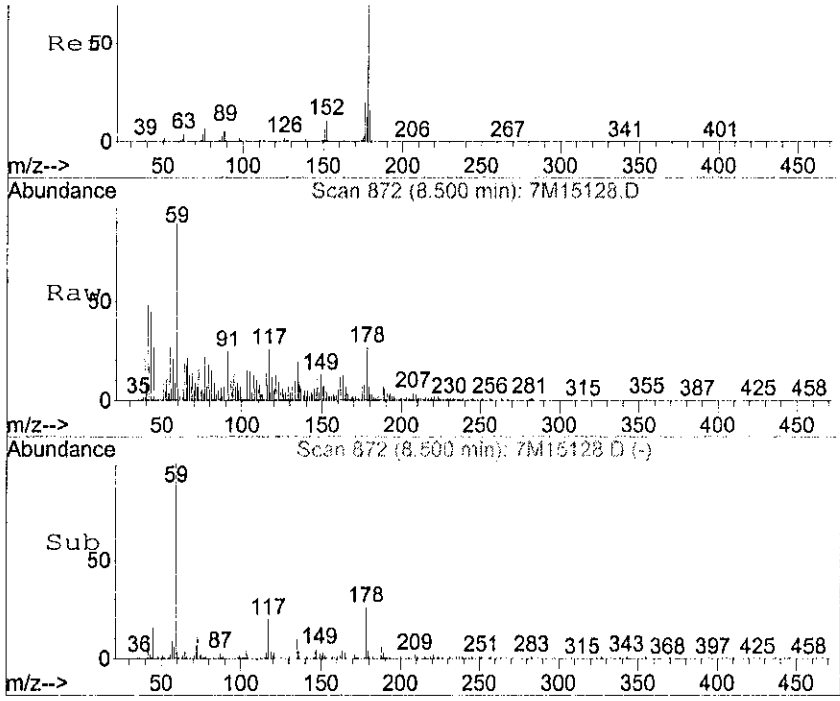


#10
Fluorene
Concen: 0.07 ug/ml
RT: 7.50 min Scan# 685
Delta R.T. -0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:166 Resp: 43198

Ion	Ratio	Lower	Upper
166	100		
165	81.3	75.8	113.6
167	28.1	11.1	16.7#

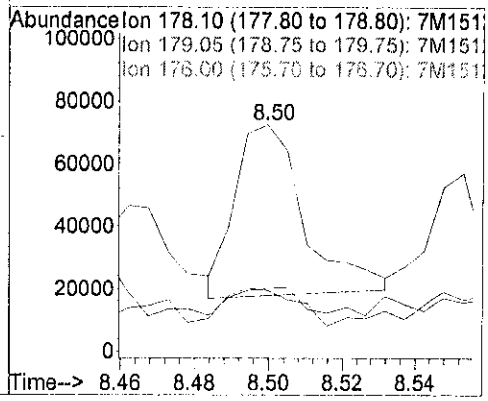


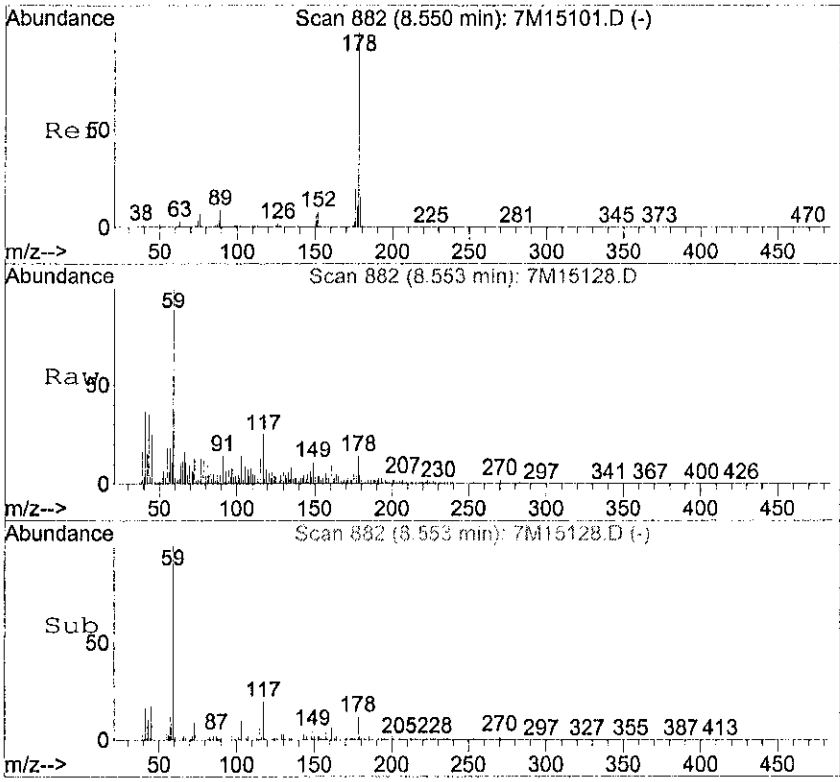


RT: 8.50 min Scan# 872
Delta R.T. 0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:178 Resp: 71335

Ion	Ratio	Lower	Upper
178	100		
179	21.2	13.1	19.7#
176	19.2	15.8	23.8

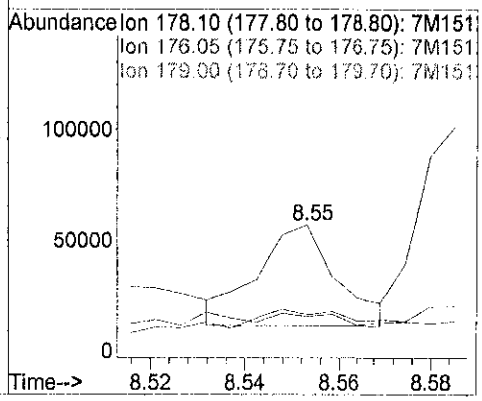


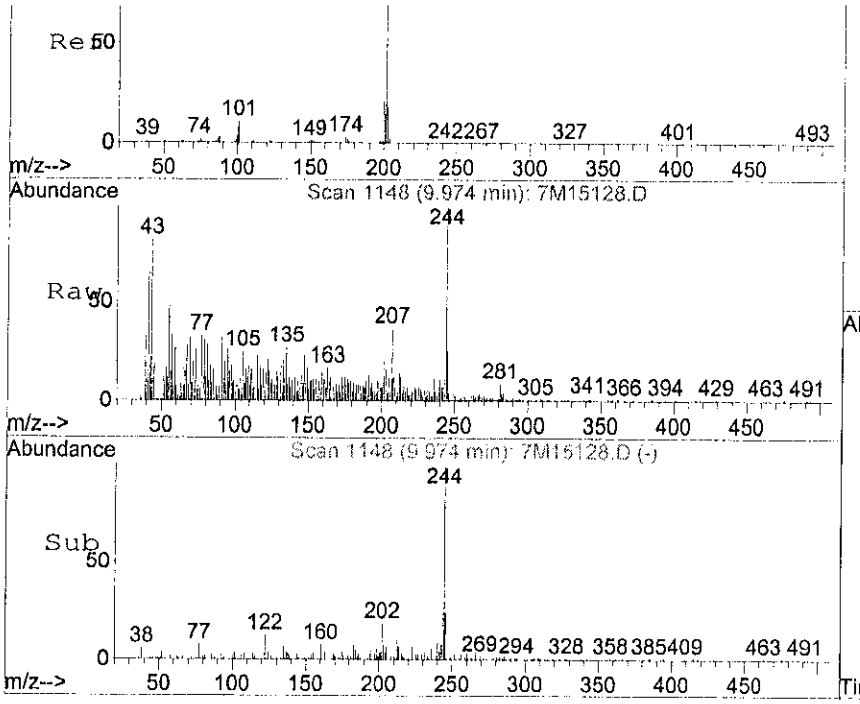


#13
Anthracene
Concen: 0.06 ug/ml
RT: 8.55 min Scan# 882
Delta R.T. 0.00 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:178 Resp: 54202

Ion	Ratio	Lower	Upper
178	100		
176	25.2	15.1	22.7#
179	33.3	12.4	18.6#

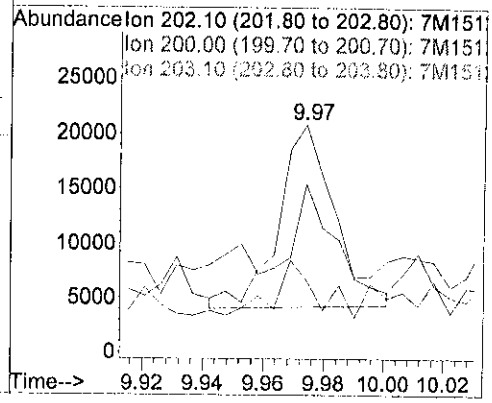




RT: 9.97 min Scan# 1148
Delta R.T. 0.01 min
Lab File: 7M15128.D
Acq: 27 Mar 2002 11:58

Tgt Ion:202 Resp: 21160

Ion	Ratio	Lower	Upper
202	100		
200	24.6	17.2	25.8
203	37.8	14.8	22.2#

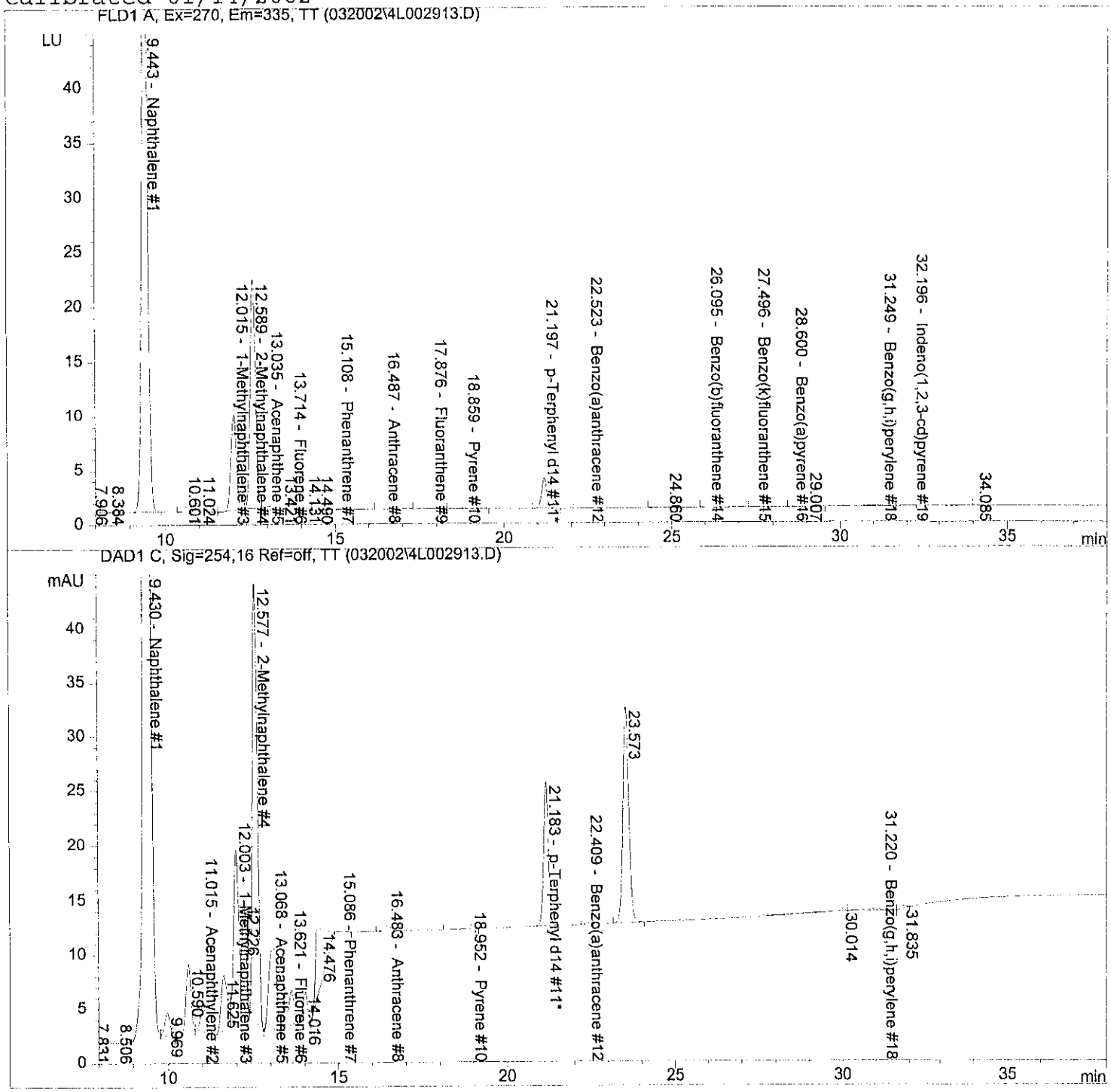


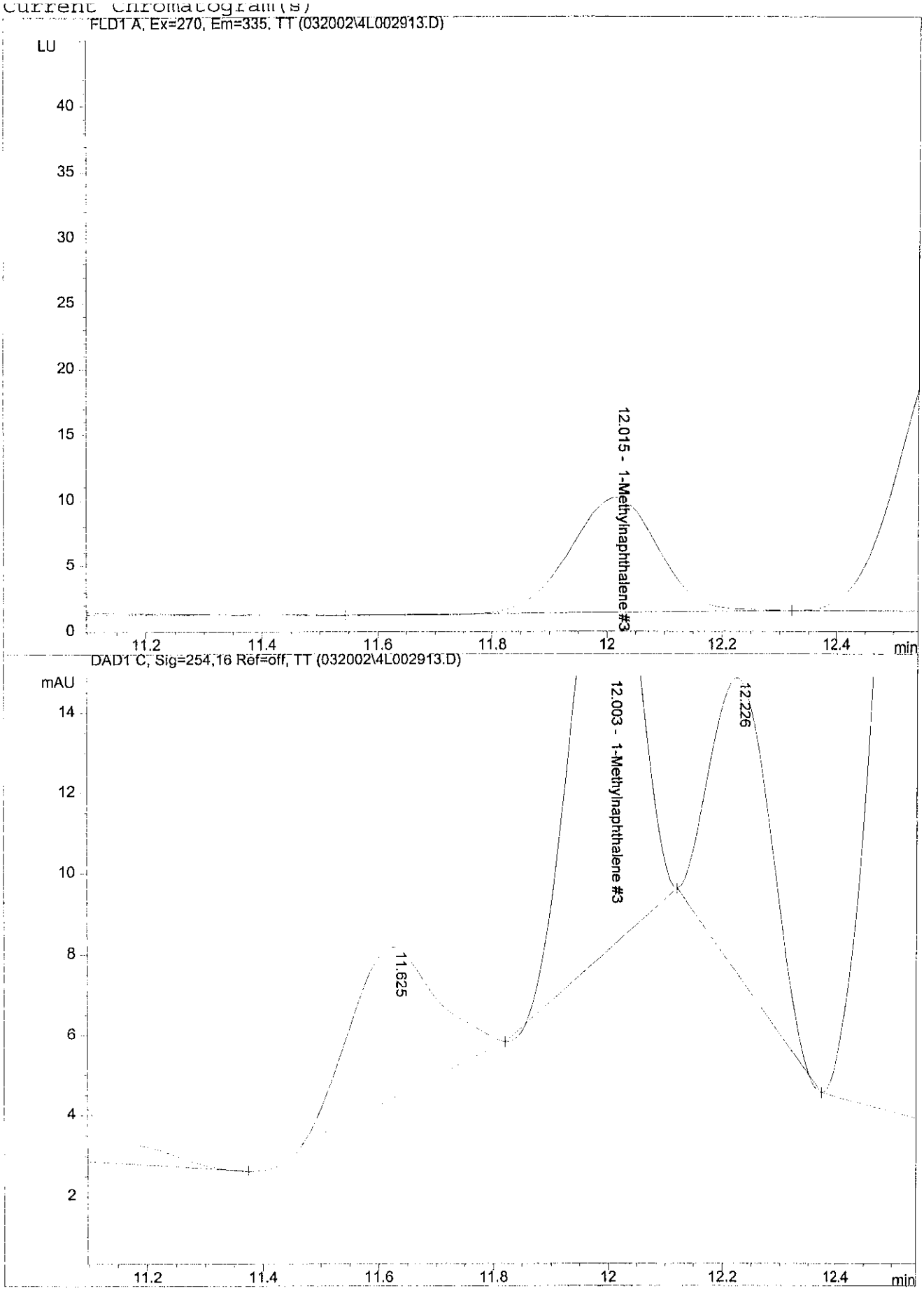
Injection Date : 3/21/2002 5:00:09 AM
Sample Name : L0203327-08 831W
Acq. Operator : RDC

Seq. Line : 17
Vial : 17
Inj : 1
Inj Volume : 8 µl

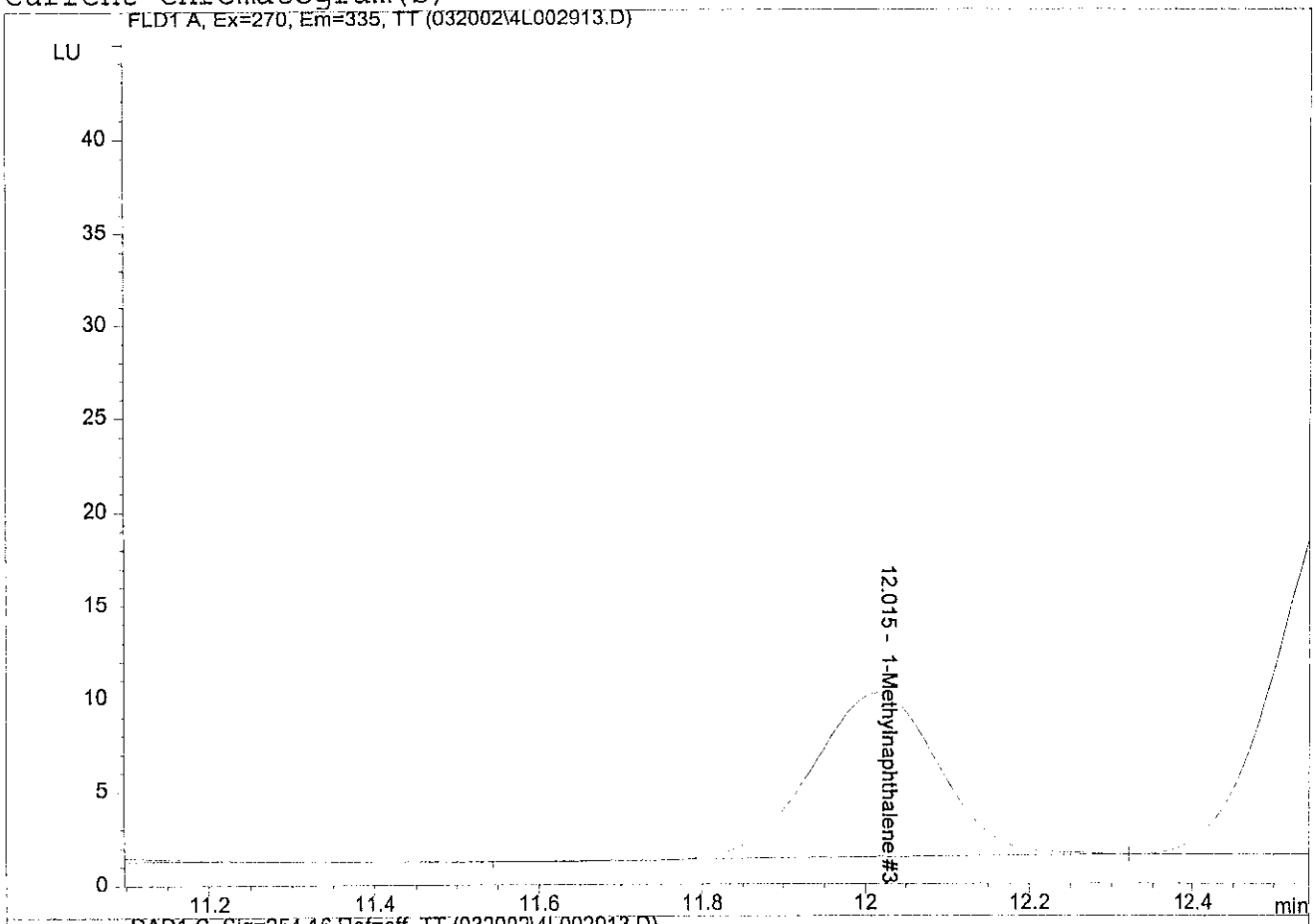
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

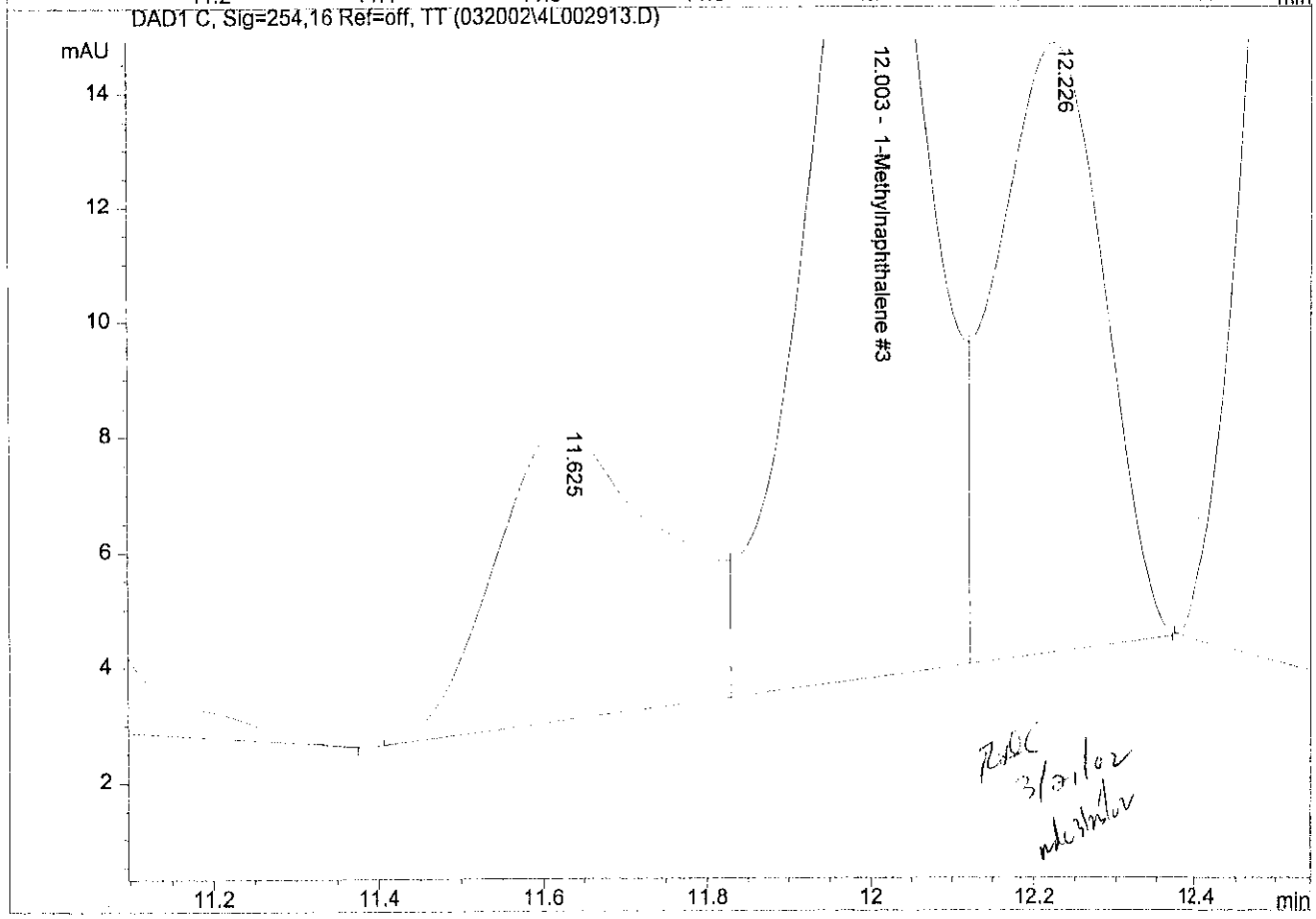
Calibrated 01/14/2002




Current Chromatogram(s)
FLD1 A, Ex=270, Em=335, TT (032002\4L002913.D)
LU
40
35
30
25
20
15
10
5
0
12.015 - 1-Methylnaphthalene #3
11.2
11.4
11.6
11.8
12
12.2
12.4
min
DAD1 C, Sig=254,16 Ref=off, TT (032002\4L002913.D)
mAU
14
12
10
8
6
4
2
12.003 - 1-Methylnaphthalene #3
12.226
11.625
11.2
11.4
11.6
11.8
12
12.2
12.4
min

Current Chromatogram(s)





Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.443	BB	682.84186	2.57003e-2	17.54922	C	Naphthalene #1
12.015	BB	93.30091	2.24893e-2	2.09827	VC	1-Methylnaphthalene #3
12.589	BB	221.01538	1.72691e-2	3.81674	C	2-Methylnaphthalene #4
13.035	BB	3.93692	1.38228e-2	5.44191e-2		Acenaphthene #5
13.714	BB	11.64965	6.56879e-3	7.65241e-2		Fluorene #6
15.108	BB	3.29195e-1	1.68488e-1	5.54653e-2		Phenanthrene #7
16.487	PB	2.51629e-1	3.03714e-1	7.64232e-2		Anthracene #8
17.876	BB	8.08659e-1	2.38671e-2	1.93003e-2		Fluoranthene #9
18.859	BB	5.63892e-1	4.06594e-2	2.29275e-2		Pyrene #10
21.197	BBA	29.59659	2.86511e-1	8.47976	94.3%	p-Terphenyl d14 #11*
22.523	BB	6.15666e-1	7.96557e-3	4.90413e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.095	BBA	1.91448e-1	1.65598e-2	3.17034e-3		Benzo(b)fluoranthene #14
27.496	BBA	5.23412e-1	2.77566e-3	1.45282e-3		Benzo(k)fluoranthene #15
28.600	PBA	2.70966e-1	4.67660e-3	1.26720e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.249	BB	1.89265	2.69466e-2	5.10004e-2		Benzo(g,h,i)perylene #18
32.196	BB	3.43338e-1	1.37440e-2	4.71886e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 32.31558

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.430	BB	2356.33691	8.27651e-3	19.50225	✓	Naphthalene #1
11.015	BB	30.05300	3.00095e-2	9.01876e-1	✓	Acenaphthylene #2
12.003	VV	161.17444	1.29932e-2	2.09418	✓	1-Methylnaphthalene #3
12.577	BB	395.38794	1.12713e-2	4.45652	✓	2-Methylnaphthalene #4
13.068	BB	122.01334	2.03841e-2	2.48714	NC	Acenaphthene #5
13.621	BB	38.58012	1.76946e-2	6.82659e-1	NC	Fluorene #6
15.086	BB	3.83662	1.74291e-2	6.68688e-2	NC	Phenanthrene #7
16.483	BB	6.58030	1.03455e-2	6.80764e-2	✓	Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.952	PB	4.94574	1.46349e-2	7.23802e-2	NC	Pyrene #10
21.183	BBA	129.90887	6.45989e-2	8.39197	83%	p-Terphenyl d14 #11*
22.409	PB	1.43490	2.22878e-2	3.19809e-2	NC	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.220	BB	9.71071	5.34666e-2	5.19199e-1		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 39.27509

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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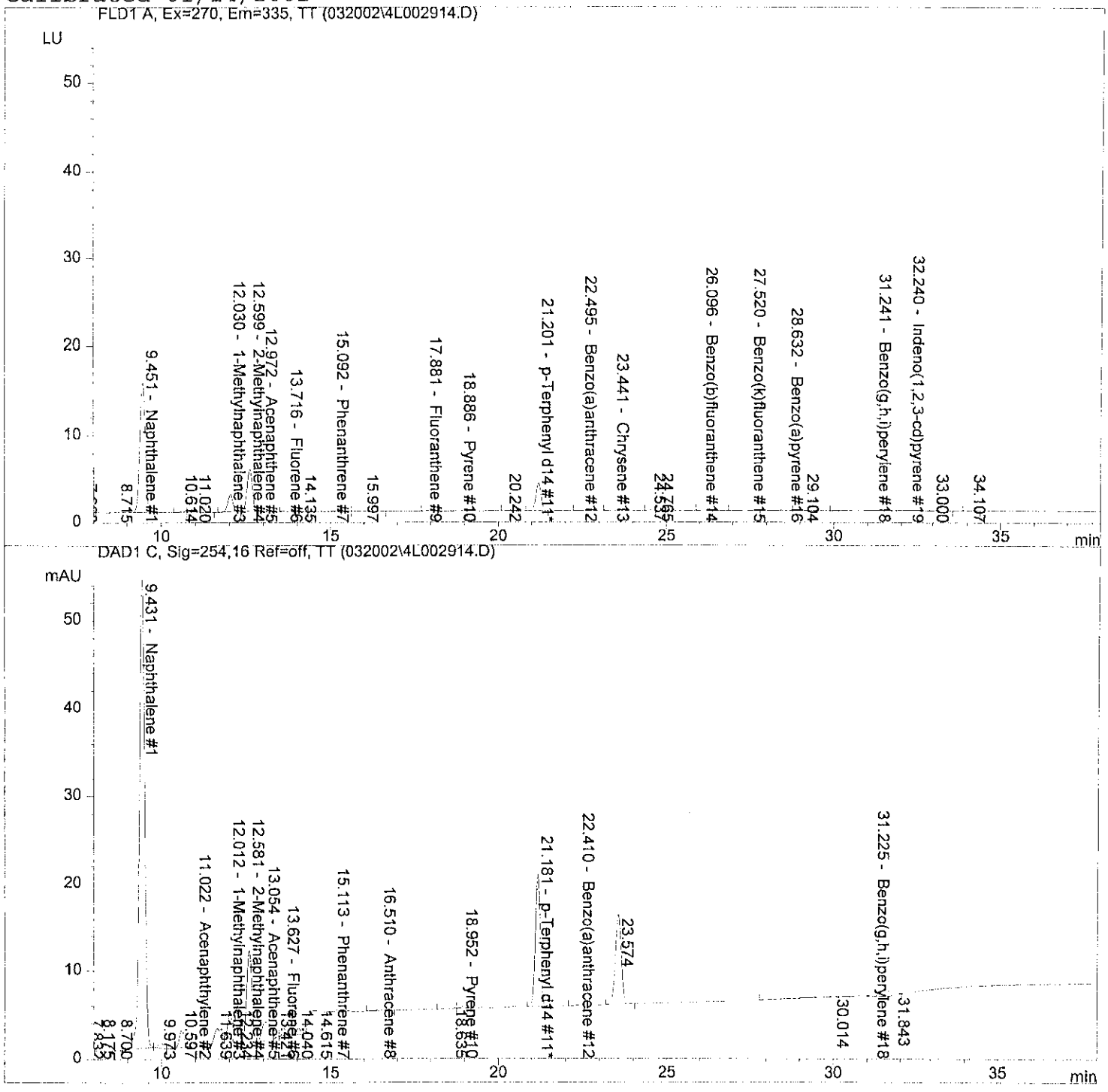
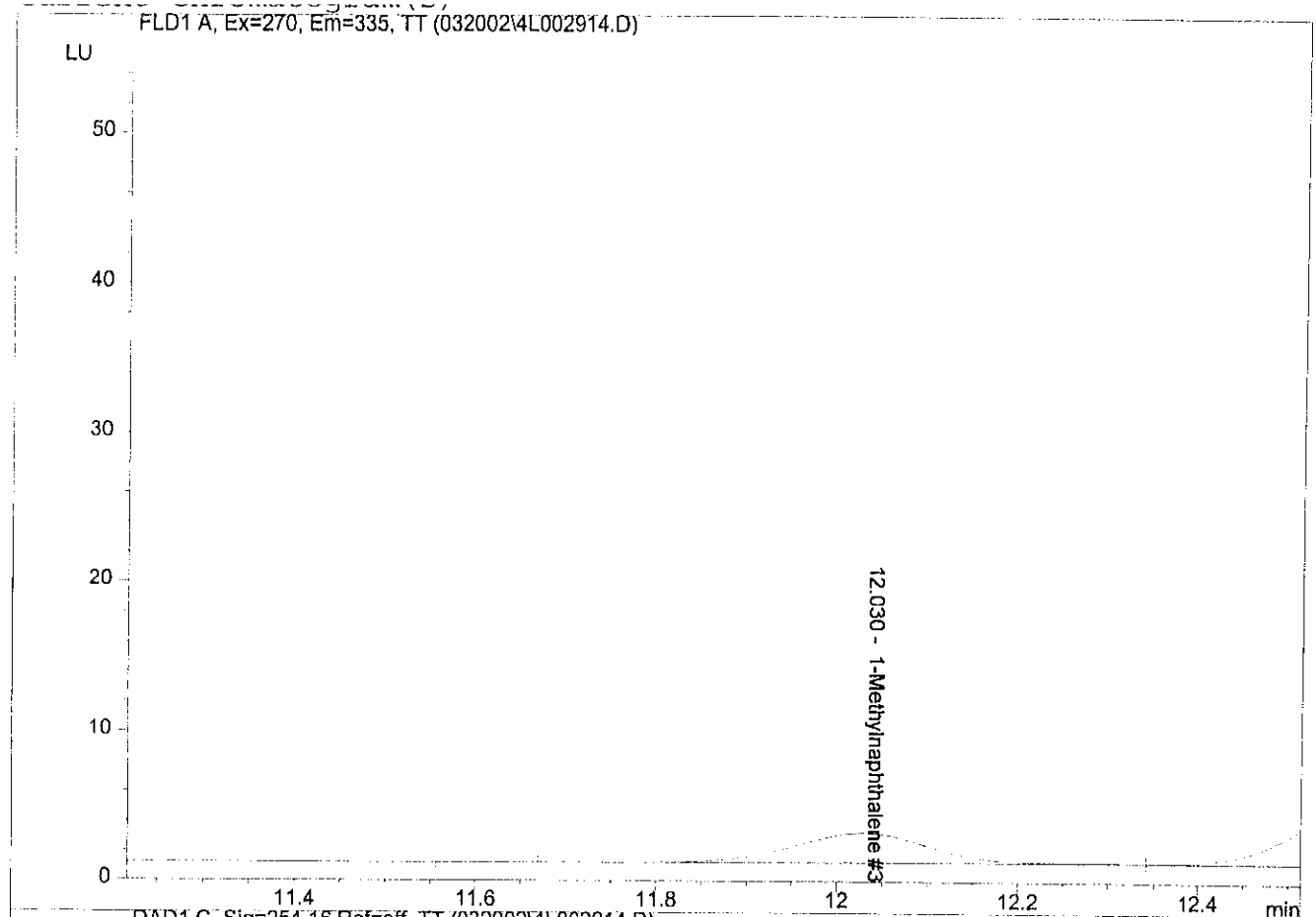
*** End of Report ***

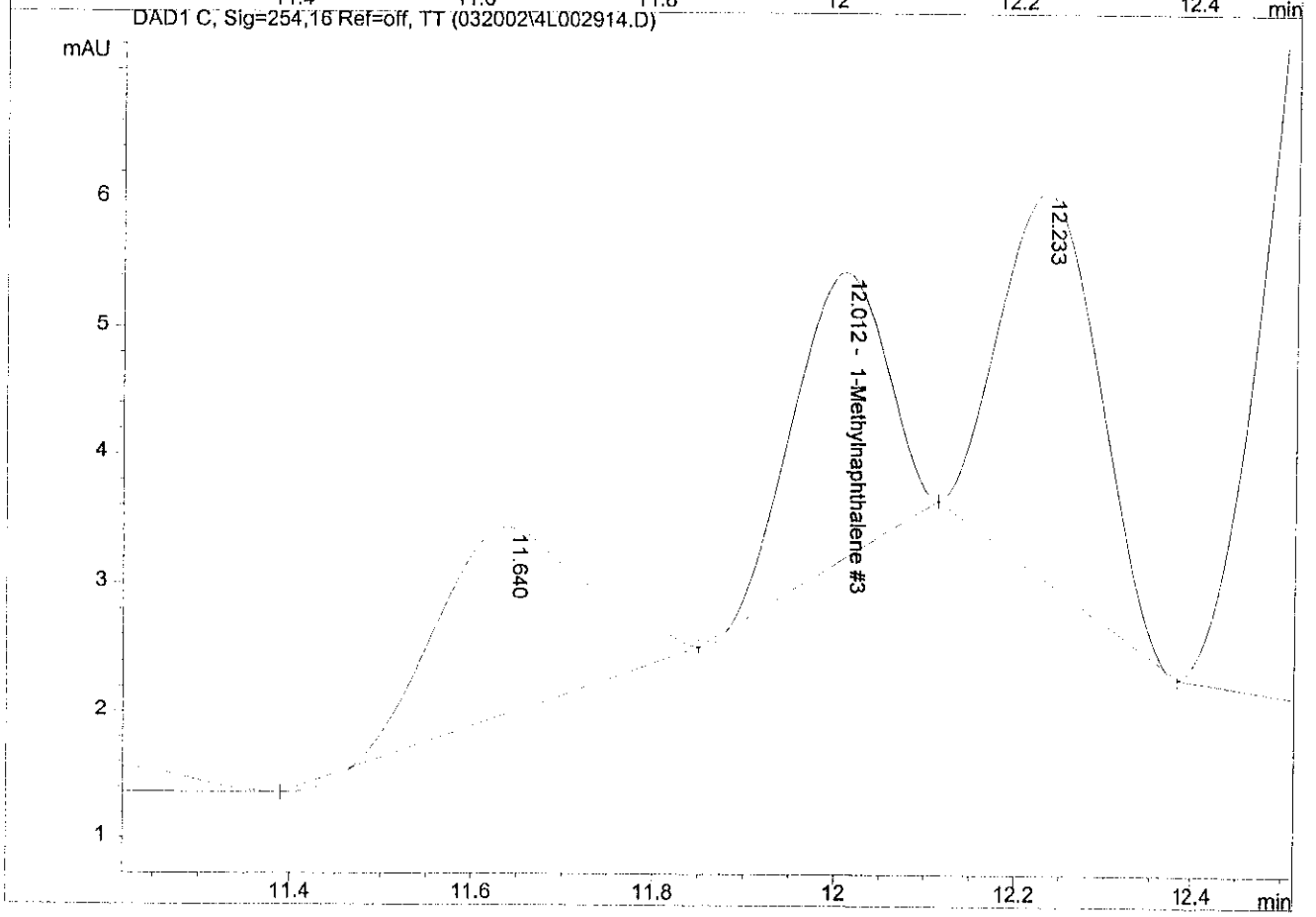
Injection Date : 3/21/2002 5:56:45 AM Seq. Line : 18
Sample Name : L0203327-09 831W Vial : 18
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002

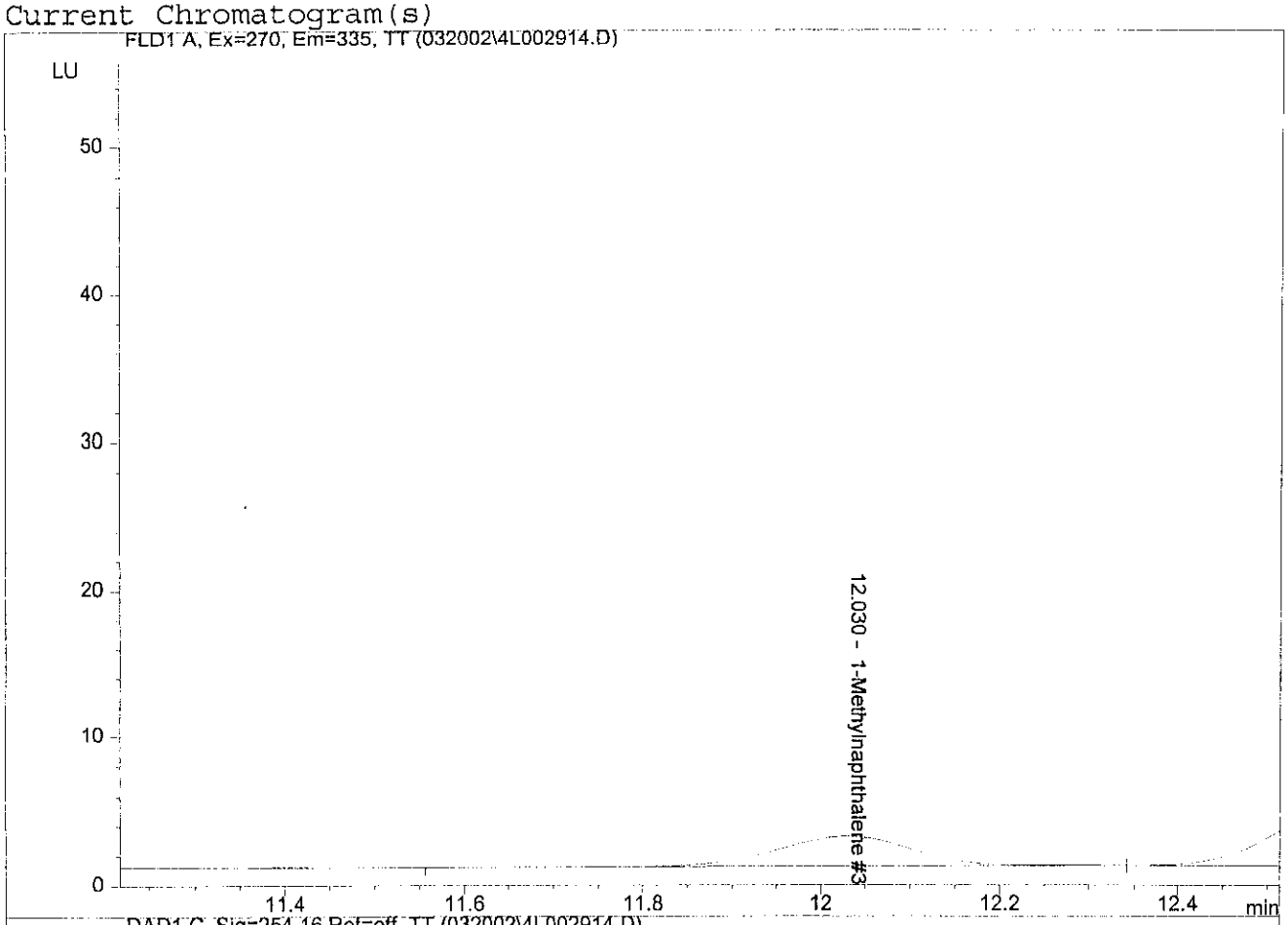


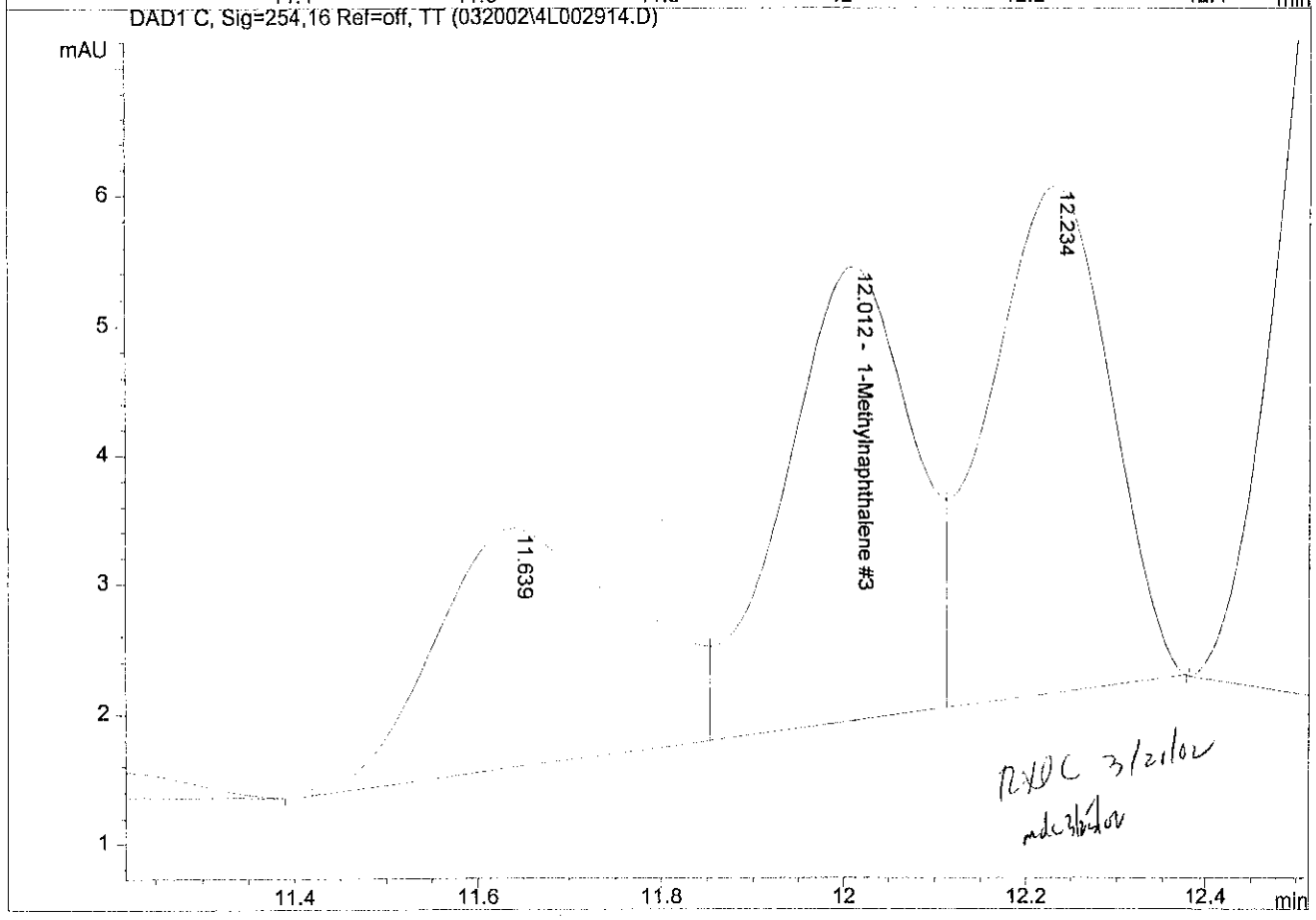




HPLC4 3/21/2002 8:43:38 AM RDC

Current Chromatogram(s)





Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.451	BBA	161.90666	2.57003e-2	4.16105	C	Naphthalene #1
12.030	BB	21.61352	2.24893e-2	4.86073e-1	F	1-Methylnaphthalene #3
12.599	BB	50.90748	1.72691e-2	8.79128e-1	F	2-Methylnaphthalene #4
12.972	BB	6.31637e-1	1.38228e-2	8.73098e-3		Acenaphthene #5
13.716	BB	2.52515	6.56879e-3	1.65872e-2		Fluorene #6
15.092	BB	2.18729	1.68488e-1	3.68532e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.881	BBA	4.49375e-1	2.38671e-2	1.07253e-2		Fluoranthene #9
18.886	BBA	3.62913e-1	4.06594e-2	1.47558e-2		Pyrene #10
21.201	BB	33.68233	2.86511e-1	9.65037	96.5%	p-Terphenyl d14 #11*
22.495	BB	3.67370e-1	7.96557e-3	2.92631e-3		Benzo(a)anthracene #12
23.441	BB	2.21115e-1	3.90144e-2	8.62667e-3		Chrysene #13
26.096	BBA	1.72878e-1	1.65598e-2	2.86282e-3		Benzo(b)fluoranthene #14
27.520	BB	5.89487e-1	2.77566e-3	1.63622e-3		Benzo(k)fluoranthene #15
28.632	PB	2.19740e-1	4.67660e-3	1.02764e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.241	PB	1.83095	2.69466e-2	4.93379e-2		Benzo(g,h,i)perylene #18
32.240	BB	1.34503	1.37440e-2	1.84862e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 15.68086

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BB	567.69208	8.27651e-3	4.69851	✓	Naphthalene #1
11.022	BB	8.58070	3.00095e-2	2.57502e-1	?	Acenaphthylene #2
12.012	VV	34.15097	1.29932e-2	4.43732e-1	F	1-Methylnaphthalene #3
12.581	BB	101.04497	1.12713e-2	1.13890	✓	2-Methylnaphthalene #4
13.054	BB	34.77045	2.03841e-2	7.08765e-1	NC	Acenaphthene #5
13.627	BB	5.63653	1.76946e-2	9.97360e-2	?	Fluorene #6
15.113	BB	3.00317	1.74291e-2	5.23425e-2		Phenanthrene #7
16.510	BBA	3.41731	1.03455e-2	3.53537e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.952	BB	2.19620	1.46349e-2	3.21411e-2	?	Pyrene #10
21.181	BBA	149.74062	6.45989e-2	9.67308	96.7%	p-Terphenyl d14 #11*
22.410	PB	1.41865	2.22878e-2	3.16187e-2	NC	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.225	BB	9.52495	5.34666e-2	5.09267e-1	V	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 17.68096

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.3 Standards Data

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

[min]	Sig		[ug/Kg]			
		2	5.00000	352.56210	1.41819e-2	
		3	10.00000	761.30933	1.31353e-2	
		4	20.00000	1527.97900	1.30892e-2	
		5	50.00000	3818.50562	1.30941e-2	
		6	100.00000	7715.90479	1.29602e-2	
11.847	1	1	1.00000	41.42604	2.41394e-2	1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2	
		3	10.00000	434.69620	2.30046e-2	
		4	20.00000	876.57288	2.28161e-2	
		5	50.00000	2196.17188	2.27669e-2	
		6	100.00000	4464.79199	2.23975e-2	
12.413	2	1	1.00000	84.19754	1.18768e-2	2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2	
		3	10.00000	894.14850	1.11838e-2	
		4	20.00000	1790.56641	1.11696e-2	
		5	50.00000	4453.67236	1.12267e-2	
		6	100.00000	8860.92187	1.12855e-2	
12.428	1	1	1.00000	53.86543	1.85648e-2	2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2	
		3	10.00000	570.62238	1.75247e-2	
		4	20.00000	1149.51221	1.73987e-2	
		5	50.00000	2872.90649	1.74040e-2	
		6	100.00000	5805.80029	1.72242e-2	
12.895	2	1	1.00000	45.25933	2.20949e-2	Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2	
		3	10.00000	483.23654	2.06938e-2	
		4	20.00000	968.73480	2.06455e-2	
		5	50.00000	2423.54761	2.06309e-2	
		6	100.00000	4924.77783	2.03055e-2	
12.909	1	1	1.00000	67.89028	1.47296e-2	Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2	
		3	10.00000	718.57635	1.39164e-2	
		4	20.00000	1447.01648	1.38215e-2	
		5	50.00000	3601.05908	1.38848e-2	
		6	100.00000	7244.47559	1.38036e-2	
13.554	2	1	1.00000	50.57839	1.97713e-2	Fluorene #6
		2	5.00000	254.83487	1.96205e-2	
		3	10.00000	552.99121	1.80835e-2	
		4	20.00000	1111.38098	1.79956e-2	
		5	50.00000	2784.74756	1.79549e-2	
		6	100.00000	5678.37842	1.76107e-2	
13.569	1	1	1.00000	146.82553	6.81080e-3	Fluorene #6
		2	5.00000	715.49780	6.98814e-3	
		3	10.00000	1545.26501	6.47138e-3	
		4	20.00000	3090.21484	6.47204e-3	
		5	50.00000	7650.25977	6.53573e-3	
		6	100.00000	1.51952e4	6.58103e-3	
14.954	2	1	1.00000	66.64948	1.50039e-2	Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2	
		3	10.00000	563.78040	1.77374e-2	
		4	20.00000	1130.27087	1.76949e-2	
		5	50.00000	2829.81055	1.76690e-2	
		6	100.00000	5762.64355	1.73531e-2	
14.969	1	1	1.00000	5.24433	1.90682e-1	Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1	
		3	10.00000	56.83334	1.75953e-1	

[min]	Sig		[ug/Kg]				
		4	20.00000	114.46365	1.74728e-1		
		5	50.00000	289.46243	1.72734e-1		
		6	100.00000	598.44012	1.67101e-1		
16.371	2	1	1.00000	94.15485	1.06208e-2	Anthracene #8	
		2	5.00000	458.90207	1.08956e-2		
		3	10.00000	992.23688	1.00782e-2		
		4	20.00000	1988.68909	1.00569e-2		
		5	50.00000	4949.62500	1.01018e-2		
		6	100.00000	9595.33398	1.04217e-2		
16.386	1	1	1.00000	3.17308	3.15151e-1	Anthracene #8	
		2	5.00000	15.12442	3.30591e-1		
		3	10.00000	32.77779	3.05085e-1		
		4	20.00000	66.19009	3.02160e-1		
		5	50.00000	163.06247	3.06631e-1		
		6	100.00000	330.05484	3.02980e-1		
17.757	2	1	1.00000e-1	4.13764	2.41683e-2	Fluoranthene #9	
		2	5.00000e-1	20.33956	2.45826e-2		
		3	1.00000	44.30089	2.25729e-2		
		4	2.00000	88.82484	2.25162e-2		
		5	5.00000	223.85286	2.23361e-2		
		6	10.00000	459.72919	2.17519e-2		
17.771	1	1	1.00000e-1	3.88309	2.57527e-2	Fluoranthene #9	
		2	5.00000e-1	18.24046	2.74116e-2		
		3	1.00000	40.55882	2.46556e-2		
		4	2.00000	81.38047	2.45759e-2		
		5	5.00000	205.21196	2.43651e-2		
		6	10.00000	421.88382	2.37032e-2		
18.769	2	1	1.00000e-1	6.03502	1.65699e-2	Pyrene #10	
		2	5.00000e-1	29.23632	1.71020e-2		
		3	1.00000	66.46920	1.50446e-2		
		4	2.00000	134.09285	1.49150e-2		
		5	5.00000	335.84097	1.48880e-2		
		6	10.00000	687.15900	1.45527e-2		
18.783	1	1	1.00000e-1	2.17142	4.60529e-2	Pyrene #10	
		2	5.00000e-1	10.94241	4.56938e-2		
		3	1.00000	23.90537	4.18316e-2		
		4	2.00000	48.63459	4.11230e-2		
		5	5.00000	123.47372	4.04944e-2		
21.133	2	1	1.00000	13.90859	7.18980e-2	p-Terphenyl d14 #11*	
		2	5.00000	69.63579	7.18022e-2		
		3	10.00000	149.64757	6.68237e-2		
		4	20.00000	301.36755	6.63641e-2		
		5	50.00000	768.36145	6.50735e-2		
		6	100.00000	1553.40210	6.43748e-2		
21.147	1	1	1.00000	3.53695	2.82730e-1	p-Terphenyl d14 #11*	
		2	5.00000	15.68857	3.18703e-1		
		3	10.00000	33.44160	2.99029e-1		
		4	20.00000	67.61504	2.95792e-1		
		5	50.00000	172.45569	2.89930e-1		
		6	100.00000	350.72665	2.85122e-1		
22.460	2	1	1.00000e-1	4.29036	2.33081e-2	Benzo(a)anthracene #12	
		2	5.00000e-1	20.37423	2.45408e-2		
		3	1.00000	43.45026	2.30148e-2		
		4	2.00000	87.40981	2.28807e-2		
		5	5.00000	219.83919	2.27439e-2		
		6	10.00000	451.63605	2.21417e-2		

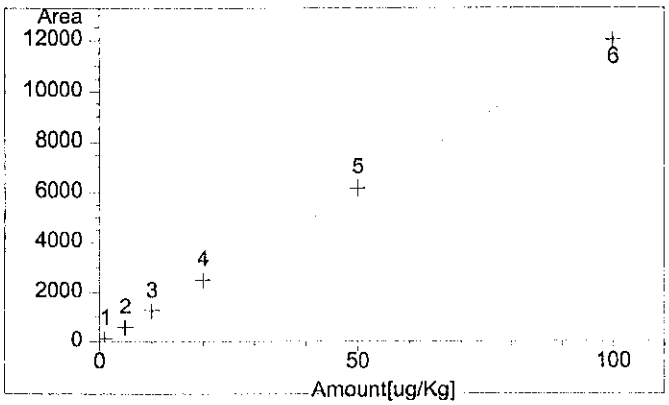
[min]	Sig		[ug/Kg]				
22.475	1	1	1.00000e-1	11.70344	8.54450e-3		Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3		
		3	1.00000	120.40920	8.30501e-3		
		4	2.00000	243.40866	8.21663e-3		
		5	5.00000	613.80975	8.14585e-3		
		6	10.00000	1264.77136	7.90657e-3		
23.344	2	1	1.00000e-1	5.99650	1.66764e-2		Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2		
		3	1.00000	63.55274	1.57350e-2		
		4	2.00000	127.90170	1.56370e-2		
		5	5.00000	322.44791	1.55064e-2		
		6	10.00000	661.99542	1.51058e-2		
23.359	1	1	1.00000e-1	2.53400	3.94634e-2		Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2		
		3	1.00000	24.62586	4.06077e-2		
		4	2.00000	49.65573	4.02773e-2		
		5	5.00000	125.29953	3.99044e-2		
		6	10.00000	258.24448	3.87230e-2		
26.084	2	1	1.00000e-1	4.71873	2.11921e-2		Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2		
		3	1.00000	46.72572	2.14015e-2		
		4	2.00000	93.43871	2.14044e-2		
		5	5.00000	235.80293	2.12041e-2		
		6	10.00000	482.47552	2.07264e-2		
26.097	1	1	1.00000e-1	5.50489	1.81657e-2		Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2		
		3	1.00000	58.49529	1.70954e-2		
		4	2.00000	117.46639	1.70261e-2		
		5	5.00000	295.74701	1.69063e-2		
		6	10.00000	607.99158	1.64476e-2		
27.543	2	1	5.00000e-2	1.94087	2.57616e-2		Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2		
		3	5.00000e-1	22.23862	2.24834e-2		
		4	1.00000	43.15946	2.31699e-2		
		5	2.50000	107.77484	2.31965e-2		
		6	5.00000	221.38257	2.25853e-2		
27.552	1	1	5.00000e-2	16.52934	3.02492e-3		Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3		
		3	5.00000e-1	175.63820	2.84676e-3		
		4	1.00000	353.46982	2.82910e-3		
		5	2.50000	887.50769	2.81688e-3		
		6	5.00000	1810.23218	2.76208e-3		
28.658	2	1	1.00000e-1	2.93301	3.40947e-2		Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2		
		3	1.00000	36.33923	2.75185e-2		
		4	2.00000	72.43052	2.76127e-2		
		5	5.00000	183.75787	2.72097e-2		
		6	10.00000	382.09714	2.61714e-2		
28.671	1	1	1.00000e-1	19.03635	5.25311e-3		Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3		
		3	1.00000	203.03578	4.92524e-3		
		4	2.00000	411.81049	4.85660e-3		
		5	5.00000	1042.10840	4.79797e-3		
		6	10.00000	2156.77197	4.63656e-3		
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1		Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1		

[min]	Sig		[ug/Kg]				
		3	1.00000	10.59134	9.44168e-2		
		4	2.00000	20.95795	9.54292e-2		
		5	5.00000	52.59206	9.50714e-2		
		6	10.00000	106.91074	9.35360e-2		
30.549	1	1	1.00000e-1	2.25618	4.43227e-2	Dibenz(a,h)anthracene	
		2	5.00000e-1	10.98461	4.55182e-2		
		3	1.00000	24.01385	4.16426e-2		
		4	2.00000	49.01668	4.08024e-2		
		5	5.00000	123.83313	4.03769e-2		
		6	10.00000	256.59177	3.89724e-2		
31.330	2	1	1.00000e-1	2.16289	4.62345e-2	Benzo(g,h,i)perylene #	
		2	5.00000e-1	8.91349	5.60948e-2		
		3	1.00000	18.37240	5.44295e-2		
		4	2.00000	36.23856	5.51898e-2		
		5	5.00000	91.19056	5.48302e-2		
		6	10.00000	188.48102	5.30557e-2		
31.354	1	1	1.00000e-1	3.69533	2.70612e-2	Benzo(g,h,i)perylene #	
		2	5.00000e-1	15.91699	3.14130e-2		
		3	1.00000	34.73734	2.87875e-2		
		4	2.00000	70.52281	2.83596e-2		
		5	5.00000	179.72395	2.78204e-2		
		6	10.00000	375.12704	2.66576e-2		
32.286	2	1	1.00000e-1	3.89559	2.56700e-2	Indeno(1,2,3-cd)pyrene	
		2	5.00000e-1	20.89905	2.39245e-2		
		3	1.00000	46.32841	2.15850e-2		
		4	2.00000	93.53850	2.13816e-2		
		5	5.00000	237.57994	2.10455e-2		
		6	10.00000	488.50769	2.04705e-2		
32.292	1	1	1.00000e-1	6.81821	1.46666e-2	Indeno(1,2,3-cd)pyrene	
		2	5.00000e-1	32.46655	1.54005e-2		
		3	1.00000	70.38887	1.42068e-2		
		4	2.00000	141.77130	1.41072e-2		
		5	5.00000	357.19571	1.39979e-2		
		6	10.00000	732.07330	1.36598e-2		

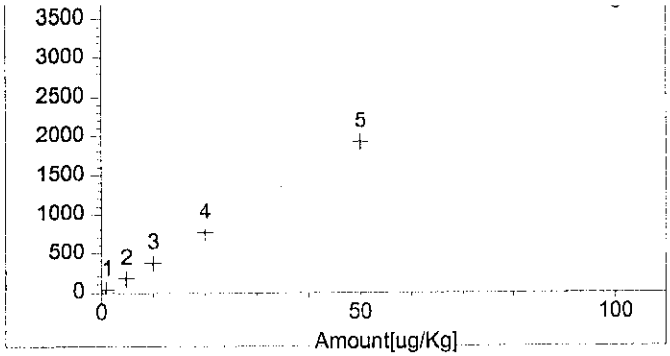
Peak Sum Table

No Entries in table

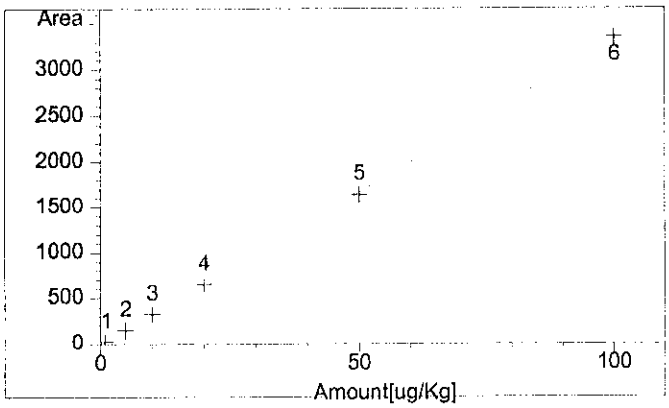
Calibration Curves



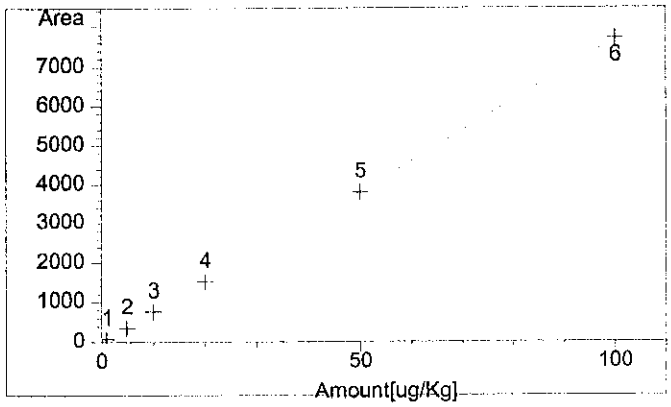
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount [ug/Kg]
y: Area



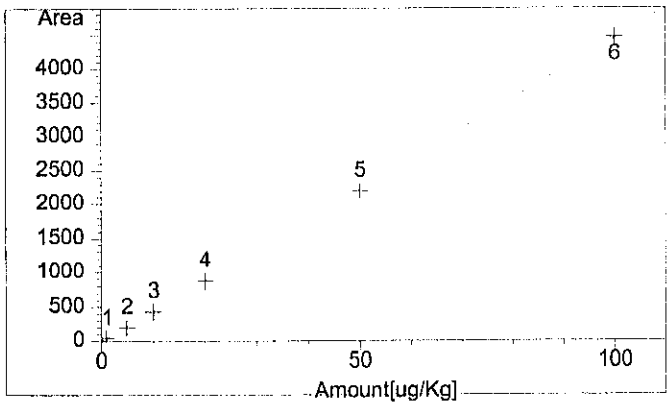
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount[ug/Kg]
y: Area



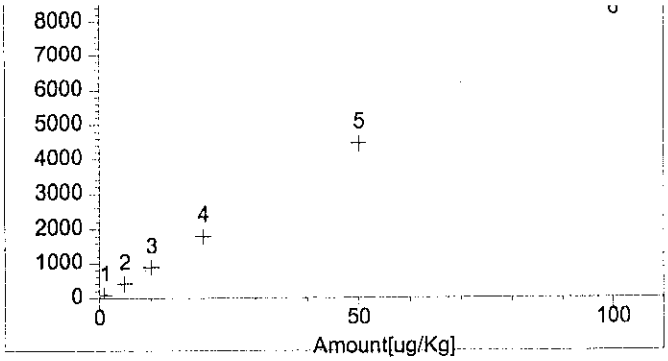
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount[ug/Kg]
y: Area



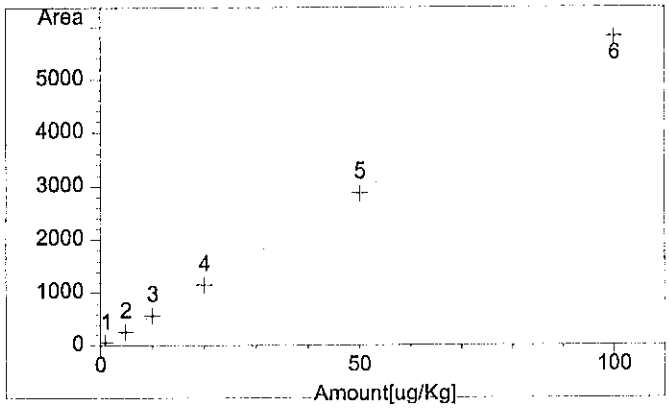
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount[ug/Kg]
y: Area



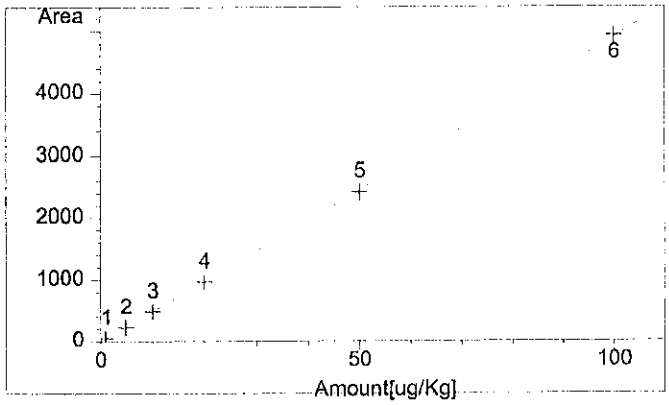
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount[ug/Kg]
y: Area



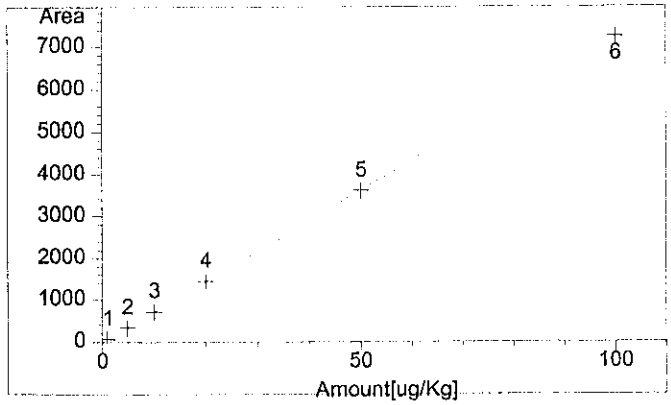
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount[ug/Kg]
y: Area



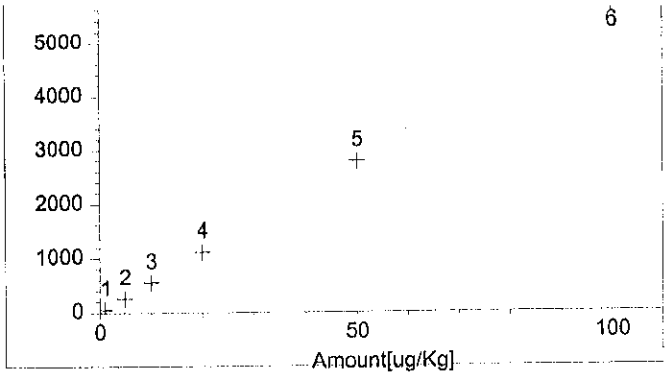
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount[ug/Kg]
y: Area



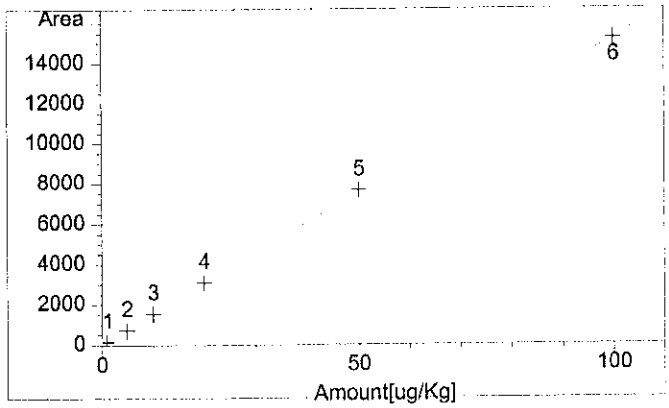
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount[ug/Kg]
y: Area



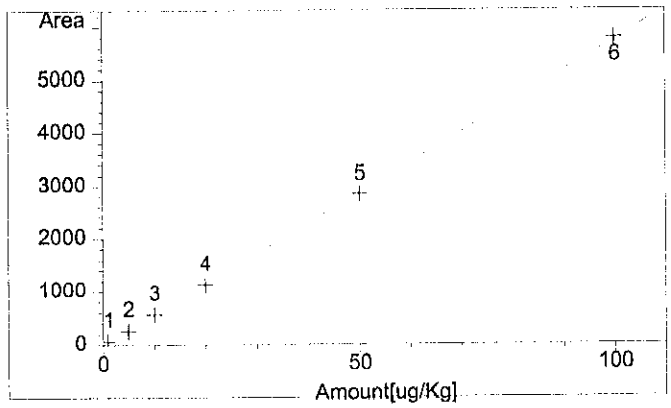
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount[ug/Kg]
y: Area



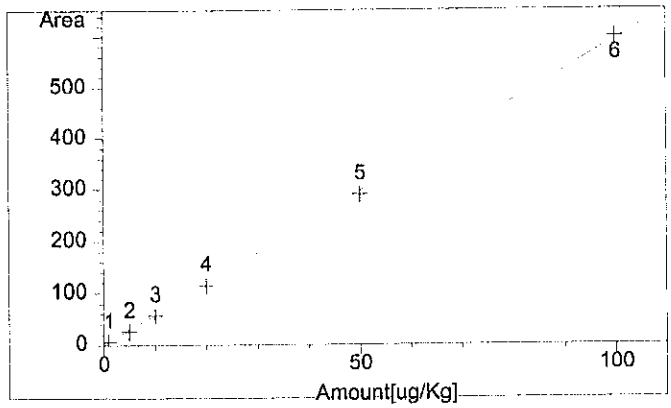
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount[ug/Kg]
y: Area



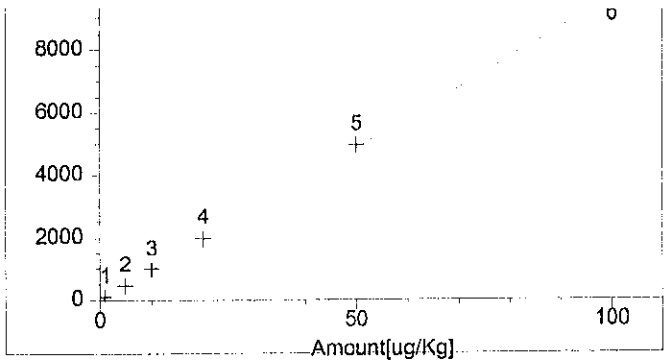
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount[ug/Kg]
y: Area



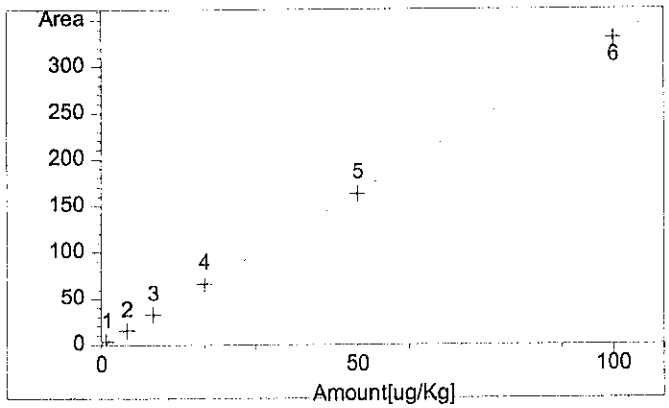
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount[ug/Kg]
y: Area



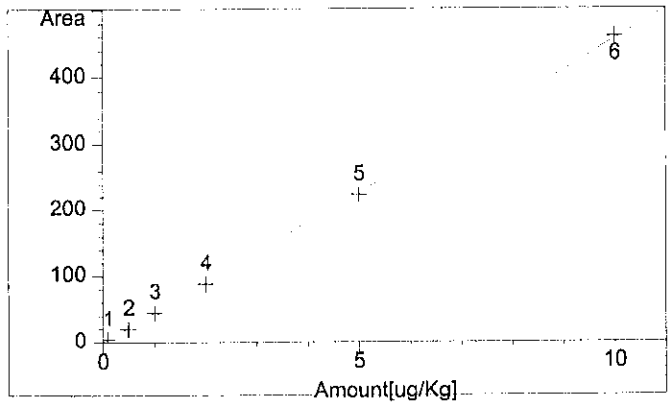
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount[ug/Kg]
y: Area



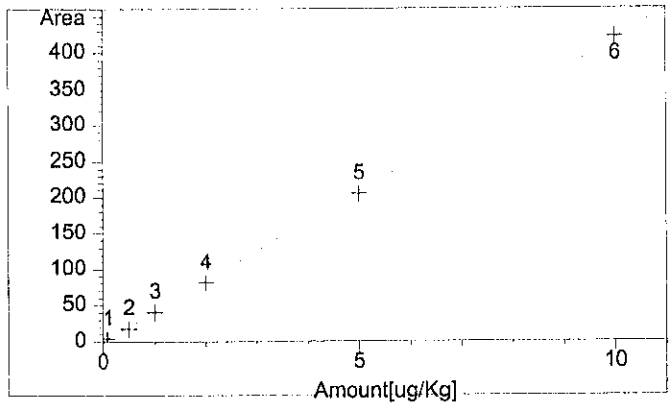
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



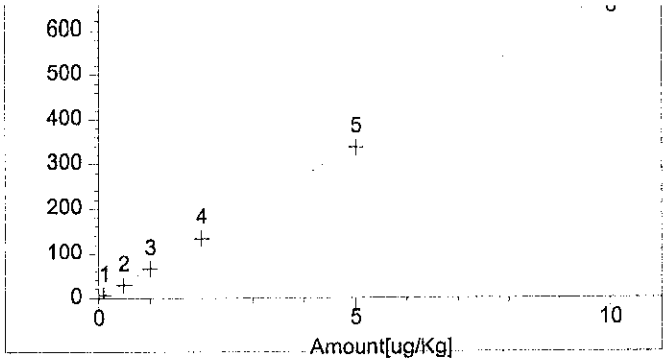
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



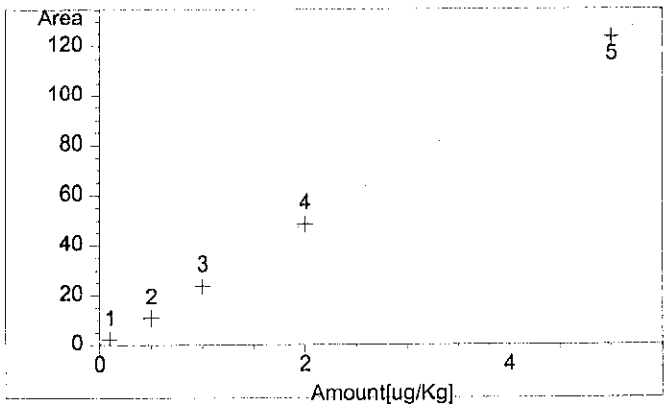
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



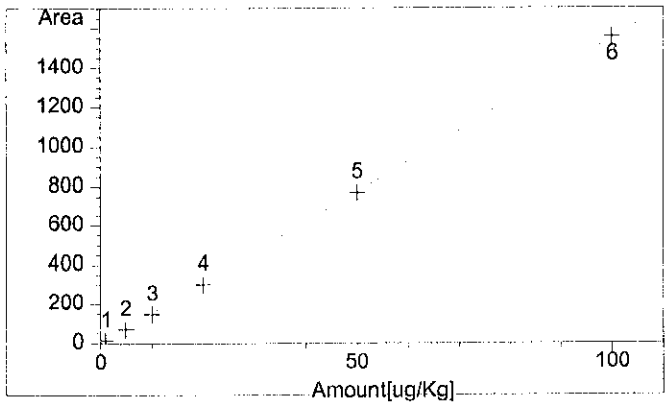
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



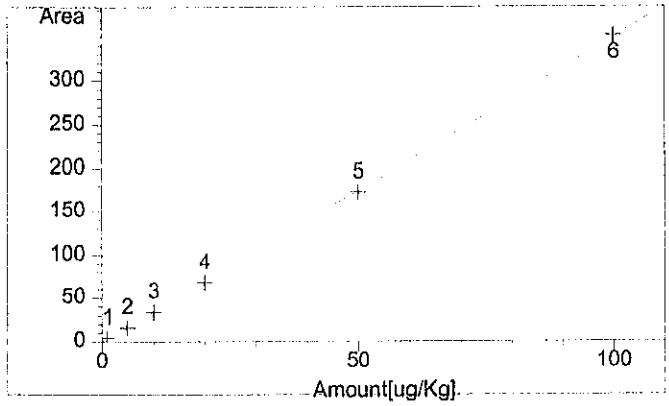
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount[ug/Kg]
y: Area



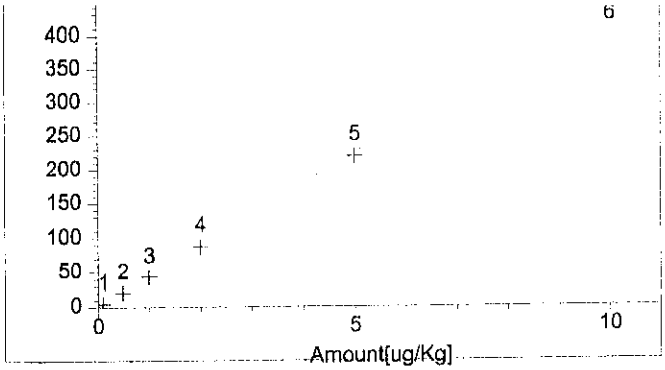
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount[ug/Kg]
y: Area



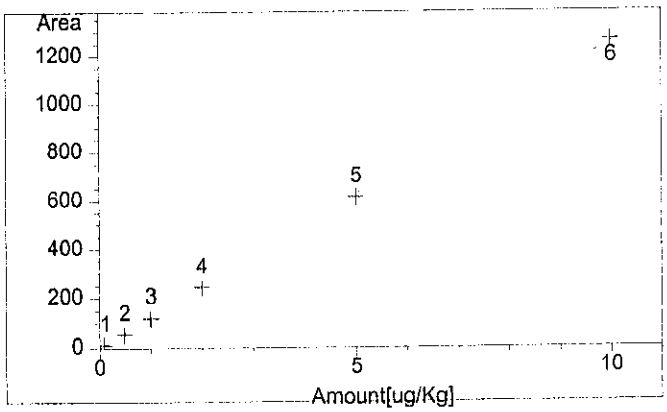
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount[ug/Kg]
y: Area



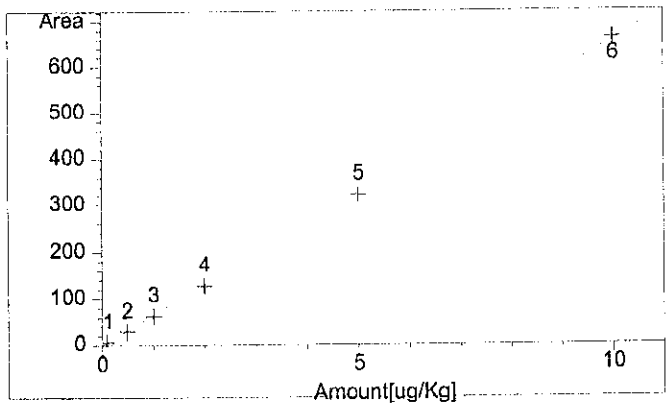
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount[ug/Kg]
y: Area



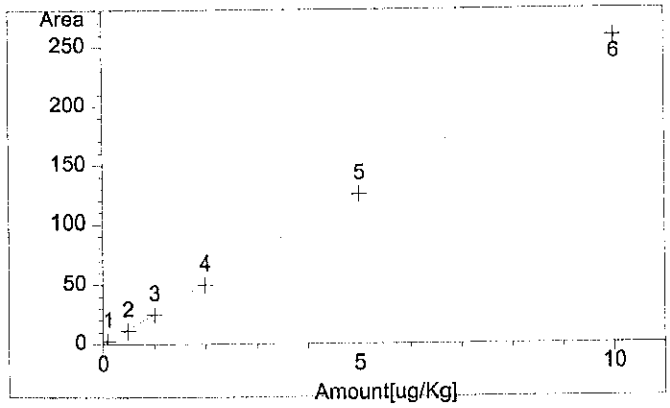
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



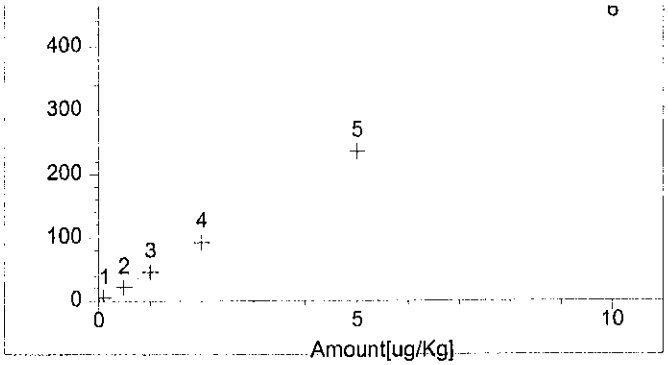
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



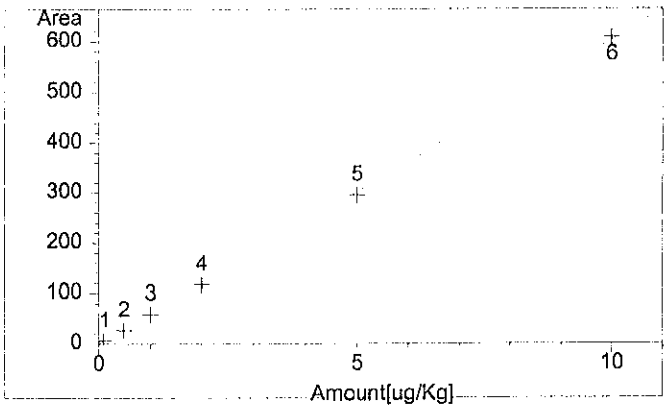
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



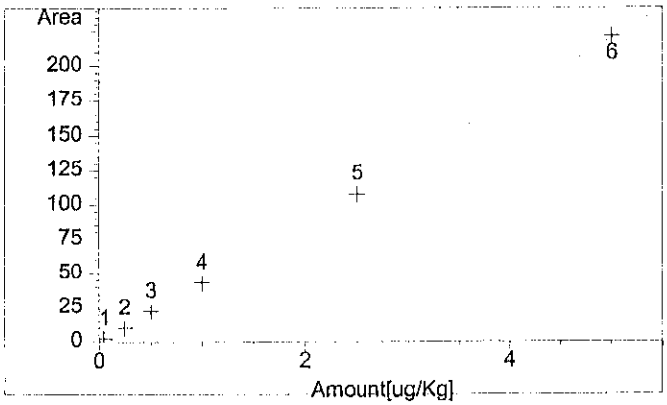
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



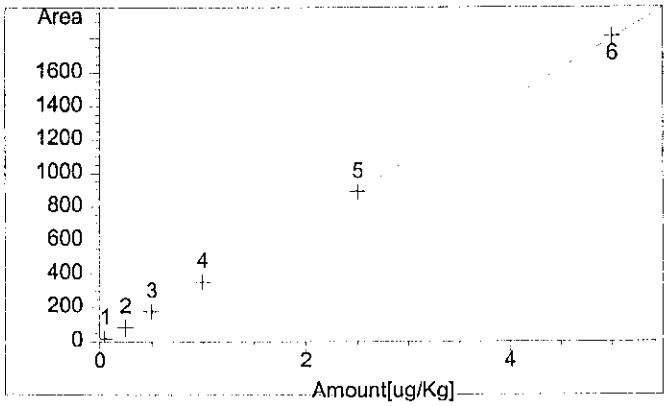
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



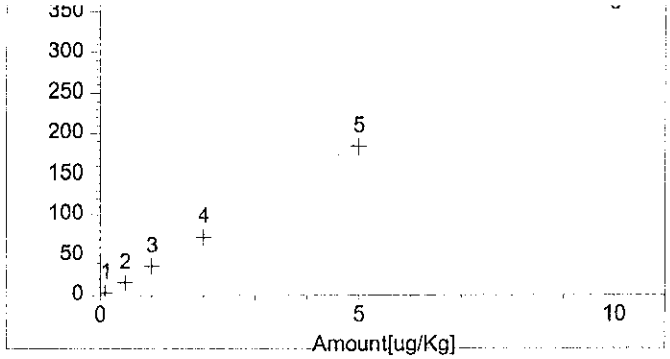
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



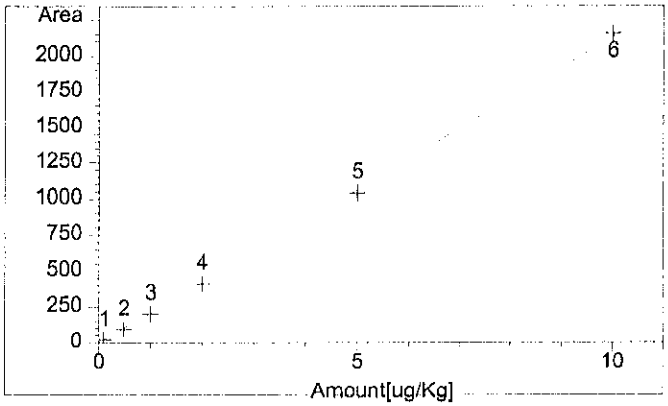
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



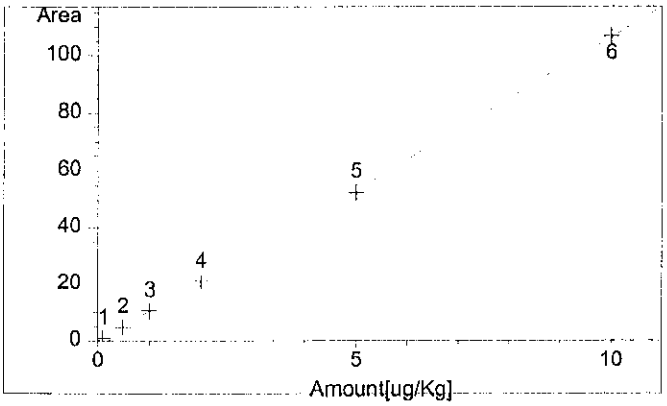
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



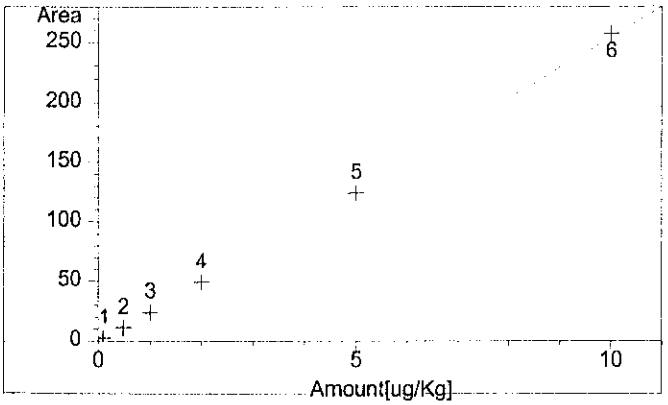
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount [ug/Kg]
y: Area



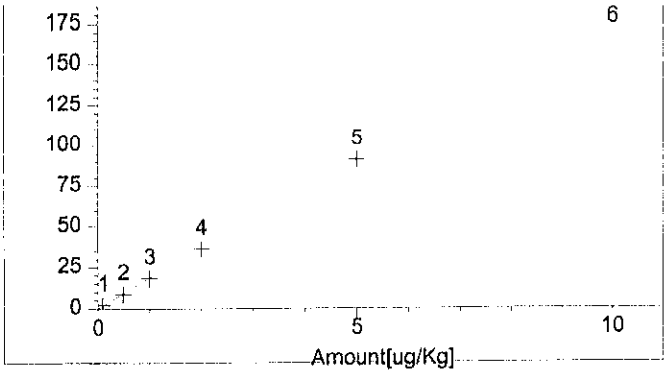
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount [ug/Kg]
y: Area



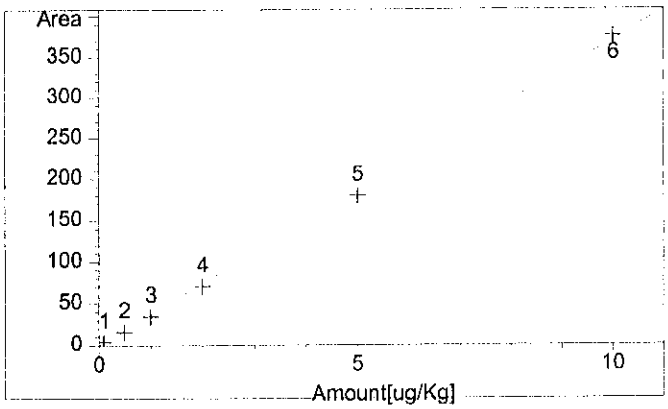
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount [ug/Kg]
y: Area



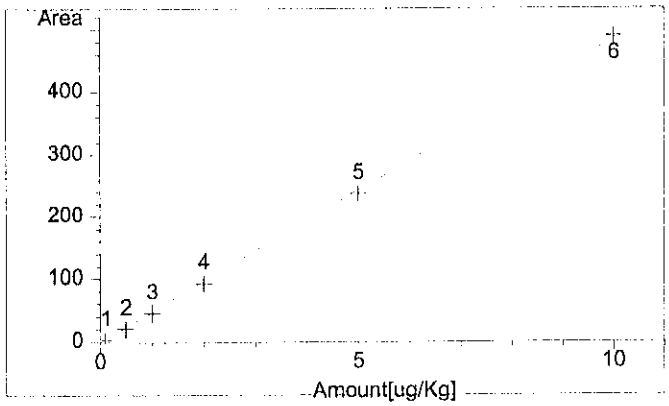
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount [ug/Kg]
y: Area



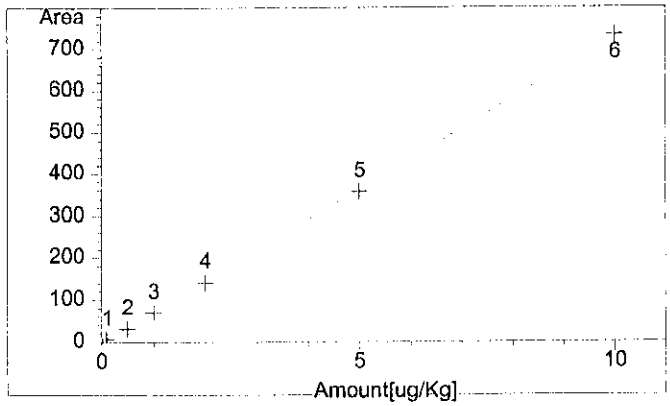
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount[ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount[ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount[ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount[ug/Kg]
y: Area

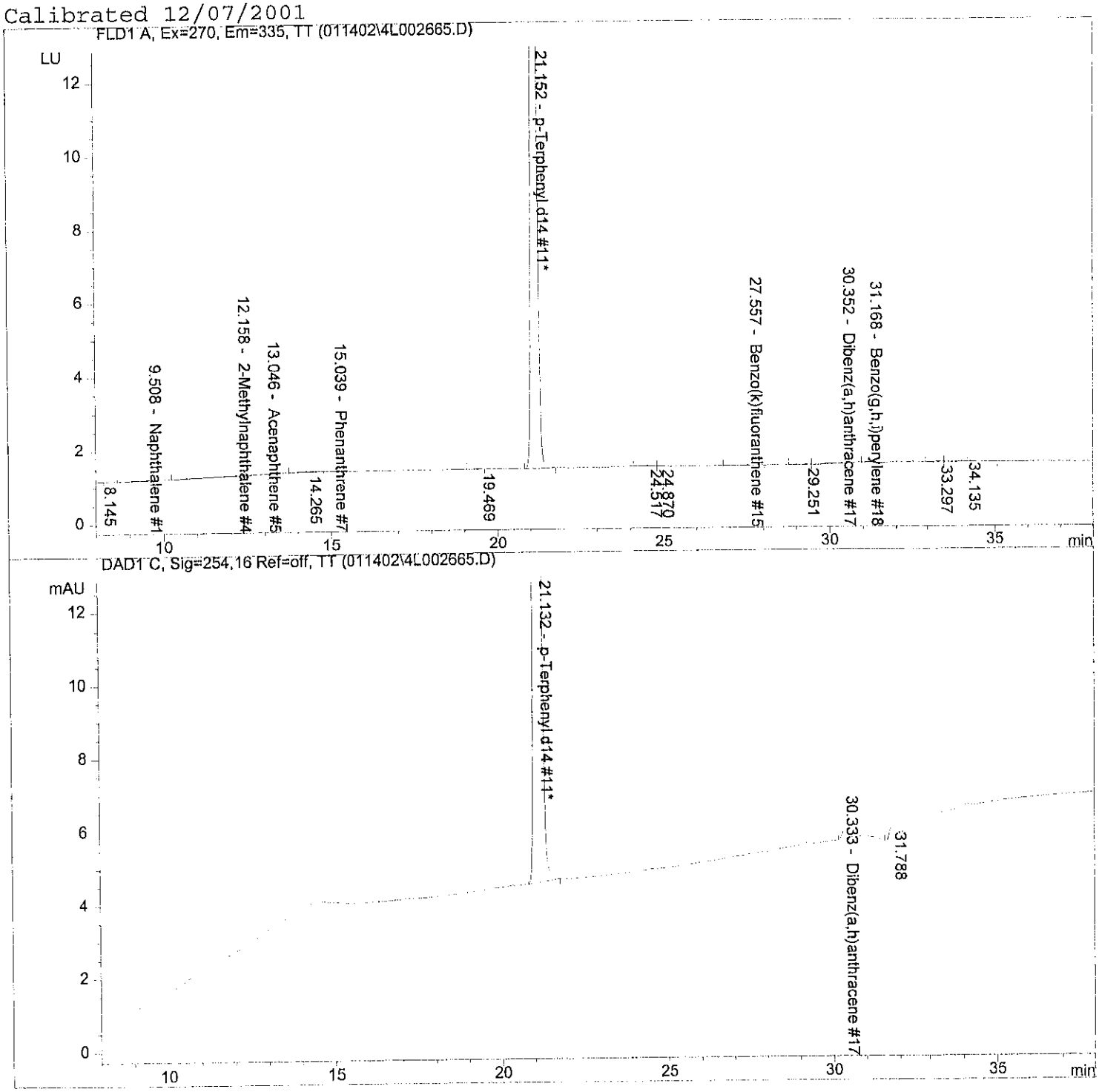
==========

Injection Date : 1/14/2002 4:49:46 PM
Sample Name : WG111292-01 STD6
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:55:14 AM by RDC
(modified after loading)

Calibrated 12/07/2001



Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:54:56 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.508	BB	4.34759e-1	1.16481e-1	5.06410e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.158	BB	1.07918	7.75522e-2	8.36927e-2		2-Methylnaphthalene #4
13.046	BB	1.89278e-1	6.17121e-2	1.16807e-2		Acenaphthene #5
13.592		-	-	-		Fluorene #6
15.039	BB	1.66581e-1	7.68372e-1	1.27997e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.152	BB	350.72665	2.88863e-1	101.31209		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.557	BB	2.49311e-1	1.22777e-2	3.06097e-3		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.352	BB	3.07933e-1	1.82908e-1	5.63234e-2		Dibenz(a,h)anthracene #17
31.168	BB	1.72865e-1	1.36072e-1	2.35222e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 101.66901

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.574		-	-	-		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.132	PBA	1553.40210	6.46122e-2	100.36876		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.333	PBA	1.41009	3.91388e-1	5.51892e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.92065

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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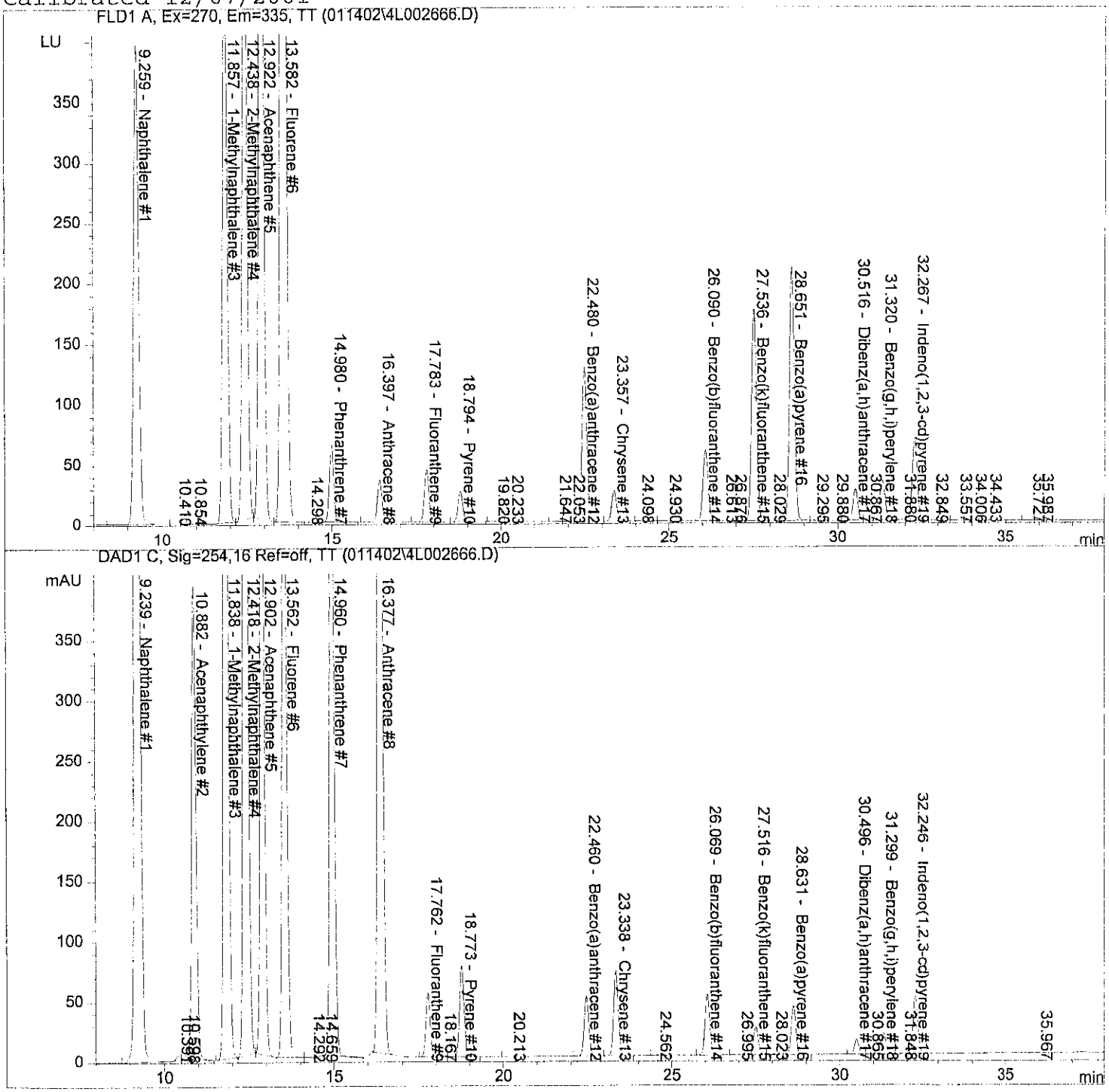
*** End of Report ***

Injection Date : 1/14/2002 5:46:24 PM
Sample Name : WG111292-02 STD6
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:15 AM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.259	BB	3909.56982	2.59098e-2	101.29633		Naphthalene #1
11.857	BB	4464.79199	2.26593e-2	101.16897		1-Methylnaphthalene #3
12.438	BB	5805.80029	1.74043e-2	101.04580		2-Methylnaphthalene #4
12.922	BB	7244.47559	1.39240e-2	100.87222		Acenaphthene #5
13.582	BB	1.51952e4	6.58360e-3	100.03904		Fluorene #6
14.980	BBA	598.44012	1.69653e-1	101.52739		Phenanthrene #7
16.397	PB	330.05484	3.06735e-1	101.23935		Anthracene #8
17.783	BB	421.88382	2.42042e-2	10.21136		Fluoranthene #9
18.794	BBA	256.38925	4.52106e-2	11.59150		Pyrene #10
21.152		-	-	-		p-Terphenyl d14 #11*
22.480	BB	1264.77136	8.05530e-3	10.18811		Benzo(a)anthracene #12
23.357	BB	258.24448	3.94803e-2	10.19558		Chrysene #13
26.090	BB	607.99158	1.66154e-2	10.10204		Benzo(b)fluoranthene #14
27.536	BB	1810.23218	2.78279e-3	5.03750		Benzo(k)fluoranthene #15
28.651	BB	2156.77197	4.79942e-3	10.35126		Benzo(a)pyrene #16
30.516	BB	256.59177	3.97741e-2	10.20569		Dibenz(a,h)anthracene #17
31.320	BB	375.12704	2.76747e-2	10.38153		Benzo(g,h,i)perylene #18
32.267	BB	732.07330	1.37649e-2	10.07693		Indeno(1,2,3-cd)pyrene #1

Totals : 805.53062

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.239	BB	1.20010e4	8.25558e-3	99.07545		Naphthalene #1
10.882	BBA	3349.02344	2.99703e-2	100.37122		Acenaphthylene #2
11.838	PB	7715.90479	1.29630e-2	100.02135		1-Methylnaphthalene #3
12.418	BB	8860.92187	1.12528e-2	99.71030		2-Methylnaphthalene #4
12.902	BB	4924.77783	2.03626e-2	100.28115		Acenaphthene #5
13.562	BB	5678.37842	1.76507e-2	100.22728		Fluorene #6
14.960	BBA	5762.64355	1.73998e-2	100.26891		Phenanthrene #7
16.377	BBA	9595.33398	1.04250e-2	100.03098		Anthracene #8
17.762	PB	459.72919	2.18384e-2	10.03975		Fluoranthene #9
18.773	BBA	687.15900	1.45933e-2	10.02794		Pyrene #10
21.132		-	-	-		p-Terphenyl d14 #11*
22.460	BBA	451.63605	2.22799e-2	10.06240		Benzo(a)anthracene #12
23.338	BBA	661.99542	1.51643e-2	10.03871		Chrysene #13
26.069	BBA	482.47552	2.08014e-2	10.03615		Benzo(b)fluoranthene #14
27.516	BB	221.38257	2.26525e-2	5.01487		Benzo(k)fluoranthene #15
28.631	BB	382.09714	2.68748e-2	10.26877		Benzo(a)pyrene #16
30.496	PB	106.91074	9.38593e-2	10.03457		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.299	BB	188.48102	5.43668e-2	10.24712		Benzo(g,h,i)perylene #18
32.246	BB	488.50769	2.05620e-2	10.04469		Indeno(1,2,3-cd)pyrene #1

Totals : 895.80161

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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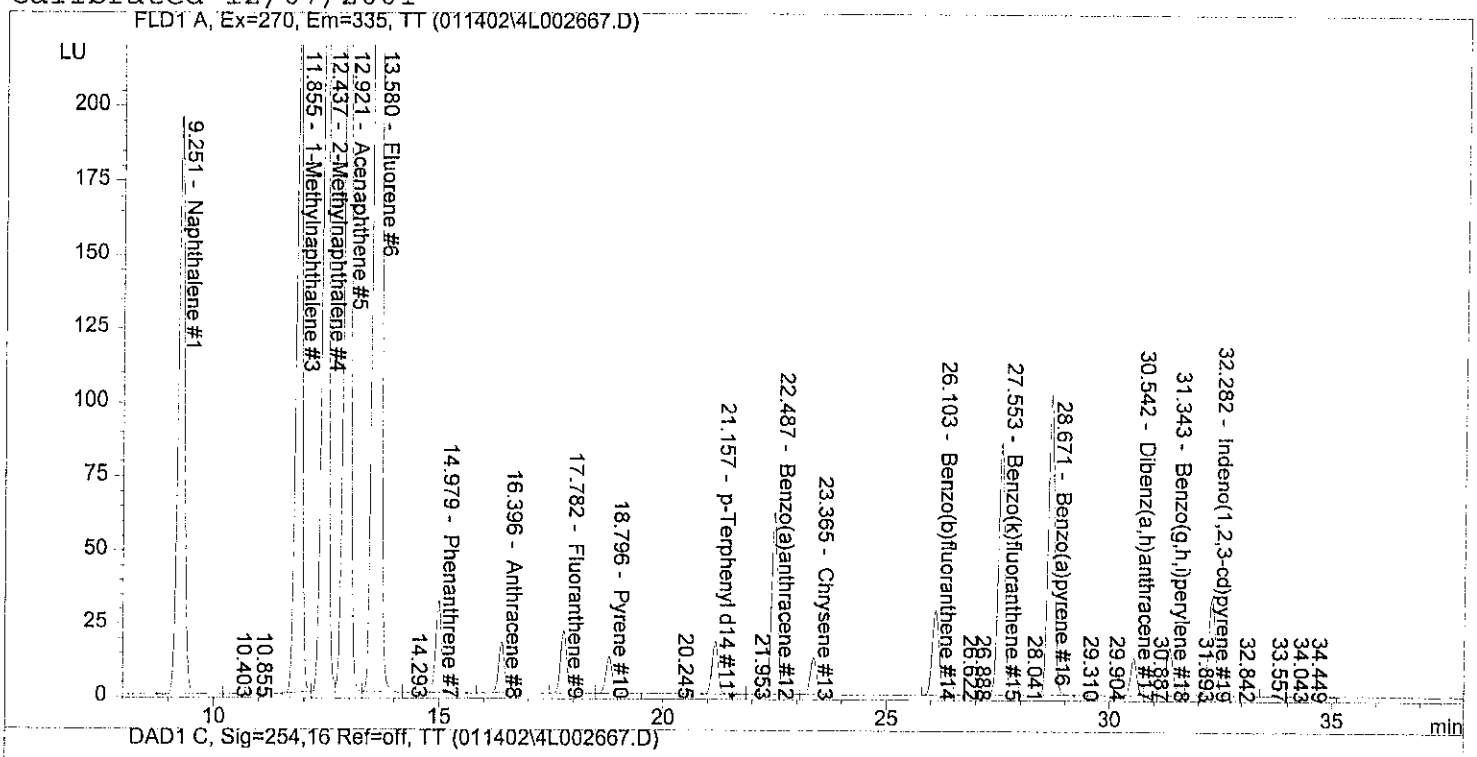
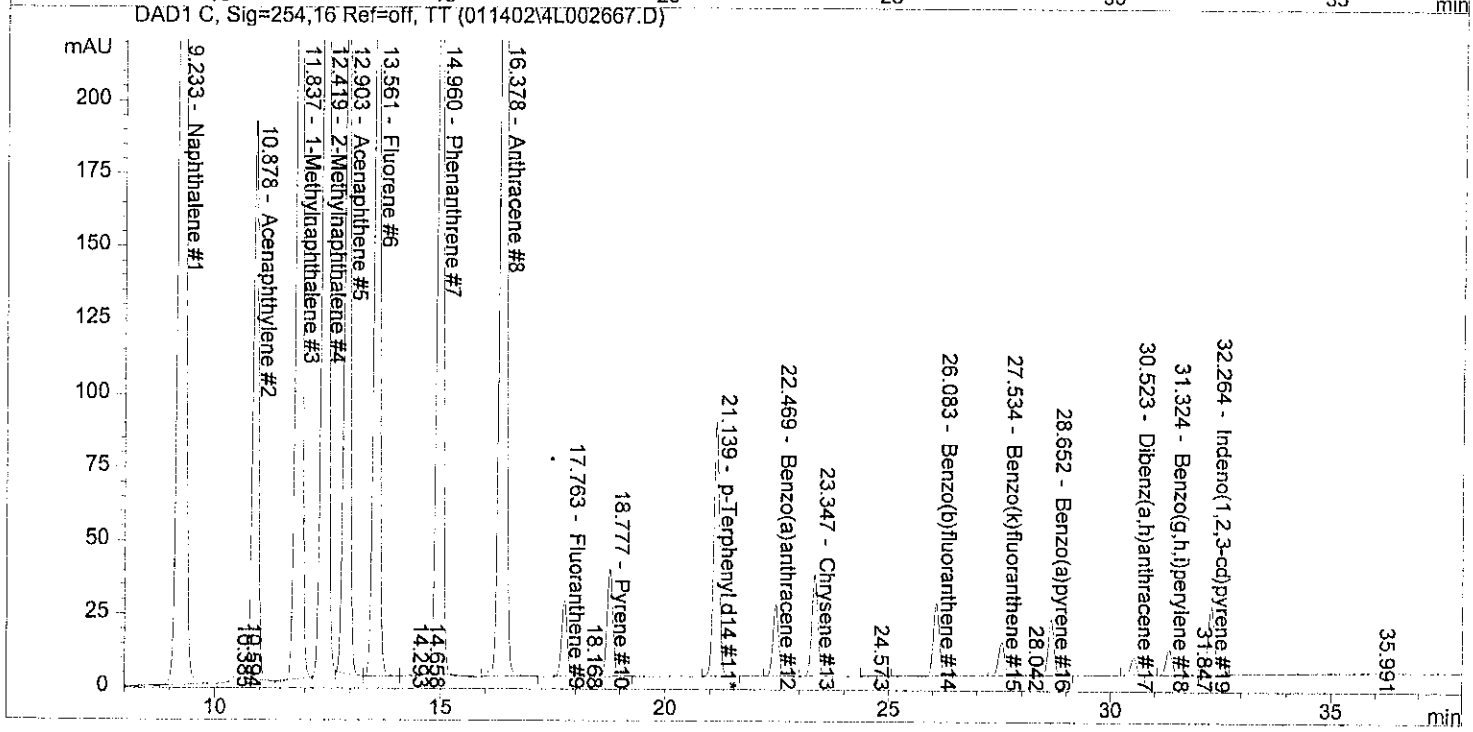
*** End of Report ***

Injection Date : 1/14/2002 6:43:01 PM Seq. Line : 7
Sample Name : WG111292-03 STD5 Vial : 7
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:54 AM by RDC
(modified after loading)

Calibrated 12/07/2001





Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	PB	1917.75940	2.57391e-2	49.36141		Naphthalene #1
11.855	BB	2196.17188	2.25224e-2	49.46298		1-Methylnaphthalene #3
12.437	BB	2872.90649	1.72938e-2	49.68347		2-Methylnaphthalene #4
12.921	BB	3601.05908	1.38425e-2	49.84749		Acenaphthene #5
13.580	BB	7650.25977	6.57169e-3	50.27517		Fluorene #6
14.979	BBA	289.46243	1.68729e-1	48.84075		Phenanthrene #7
16.396	PB	163.06247	3.04476e-1	49.64867		Anthracene #8
17.782	PB	205.21196	2.39096e-2	4.90655		Fluoranthene #9
18.796	BBA	123.47372	4.13417e-2	5.10461		Pyrene #10
21.157	BB	172.45569	2.86901e-1	49.47773		p-Terphenyl d14 #11*
22.487	BB	613.80975	7.98167e-3	4.89922		Benzo(a)anthracene #12
23.365	BBA	125.29953	3.90970e-2	4.89883		Chrysene #13
26.103	BB	295.74701	1.65676e-2	4.89983		Benzo(b)fluoranthene #14
27.553	BB	887.50769	2.77706e-3	2.46466		Benzo(k)fluoranthene #15
28.671	BB	1042.10840	4.69783e-3	4.89565		Benzo(a)pyrene #16
30.542	BB	123.83313	3.94476e-2	4.88492		Dibenz(a,h)anthracene #17
31.343	BB	179.72395	2.70688e-2	4.86491		Benzo(g,h,i)perylene #18
32.282	BB	357.19571	1.37309e-2	4.90463		Indeno(1,2,3-cd)pyrene #1

Totals : 443.32149

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	6168.26709	8.27438e-3	51.03859		Naphthalene #1
10.878	BB	1640.81848	3.00057e-2	49.23384		Acenaphthylene #2
11.837	BB	3818.50562	1.29899e-2	49.60194		1-Methylnaphthalene #3
12.419	BB	4453.67236	1.12699e-2	50.19243		2-Methylnaphthalene #4
12.903	BB	2423.54761	2.03840e-2	49.40167		Acenaphthene #5
13.561	BB	2784.74756	1.76899e-2	49.26182		Fluorene #6
14.960	BBA	2829.81055	1.74269e-2	49.31471		Phenanthrene #7
16.378	BBA	4949.62500	1.03683e-2	51.31903		Anthracene #8
17.763	PB	223.85286	2.18887e-2	4.89985		Fluoranthene #9
18.777	BBA	335.84097	1.46312e-2	4.91376		Pyrene #10
21.139	PBA	768.36145	6.46010e-2	49.63695		p-Terphenyl d14 #11*
22.469	BBA	219.83919	2.22917e-2	4.90059		Benzo(a)anthracene #12
23.347	BBA	322.44791	1.52017e-2	4.90177		Chrysene #13
26.083	PBA	235.80293	2.08378e-2	4.91361		Benzo(b)fluoranthene #14
27.534	BB	107.77484	2.27191e-2	2.44855		Benzo(k)fluoranthene #15
28.652	BBA	183.75787	2.65103e-2	4.87147		Benzo(a)pyrene #16
30.523	PB	52.59206	9.36520e-2	4.92535		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.324	BB	91.19056	5.36419e-2	4.89163		Benzo(g,h,i)perylene #18
32.264	BBA	237.57994	2.05885e-2	4.89142		Indeno(1,2,3-cd)pyrene #1

Totals : 495.55898

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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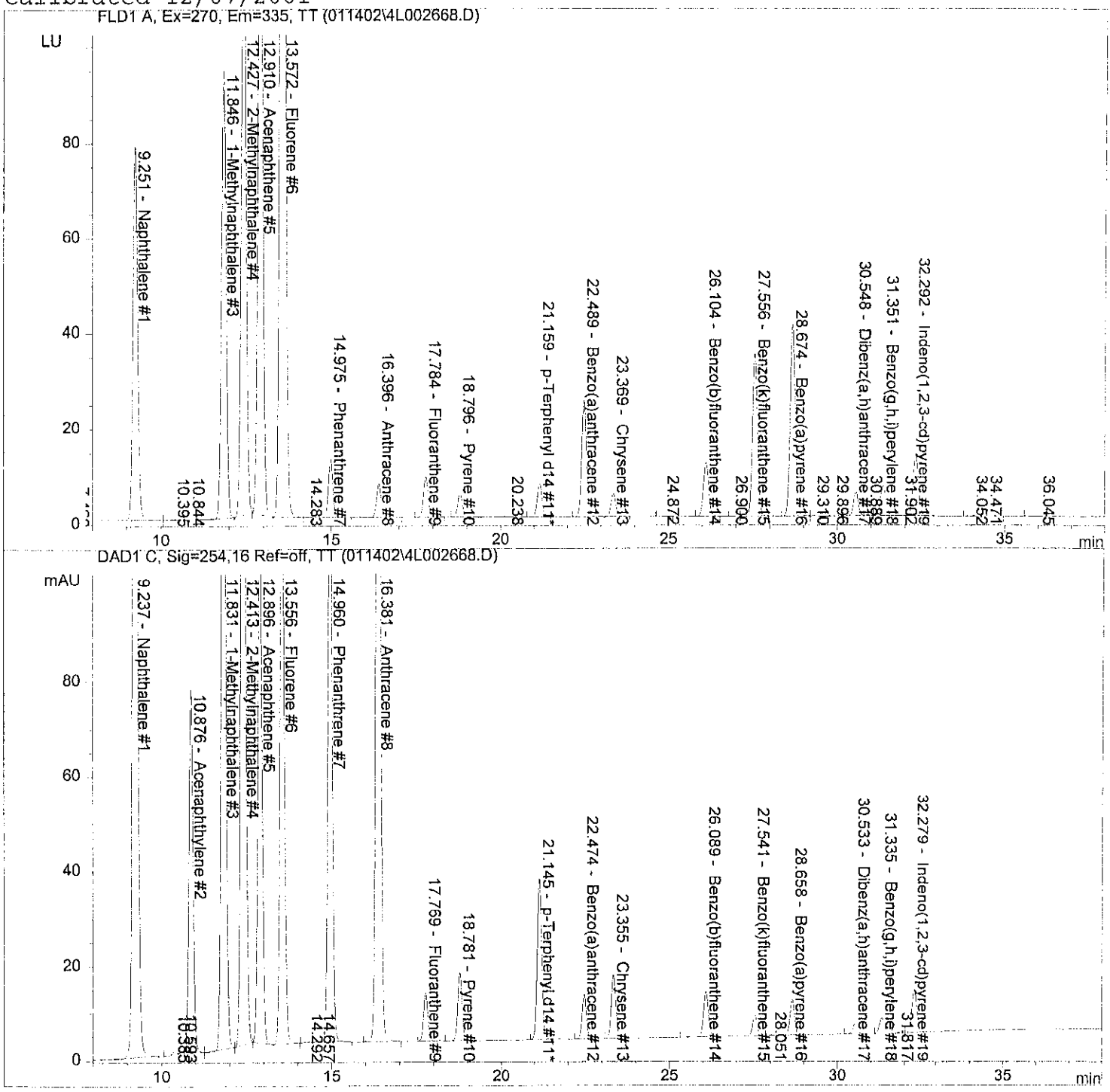
*** End of Report ***

Injection Date : 1/14/2002 7:39:37 PM
Sample Name : WG111292-04 STD4
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:57:31 AM by RDC
(modified after loading)

Calibrated 12/07/2001



Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:26 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	BB	764.84155	2.57113e-2	19.66506		Naphthalene #1
11.846	BB	876.57288	2.24980e-2	19.72111		1-Methylnaphthalene #3
12.427	BB	1149.51221	1.72762e-2	19.85915		2-Methylnaphthalene #4
12.910	BB	1447.01648	1.38282e-2	20.00960		Acenaphthene #5
13.572	BB	3090.21484	6.56989e-3	20.30237		Fluorene #6
14.975	BBA	114.46365	1.68568e-1	19.29489		Phenanthrene #7
16.396	PB	66.19009	3.03909e-1	20.11577		Anthracene #8
17.784	BBA	81.38047	2.38718e-2	1.94270		Fluoranthene #9
18.796	BBA	48.63459	4.08244e-2	1.98548		Pyrene #10
21.159	BB	67.61504	2.86614e-1	19.37940		p-Terphenyl d14 #11*
22.489	BBA	243.40866	7.97013e-3	1.94000		Benzo(a)anthracene #12
23.369	BB	49.65573	3.90341e-2	1.93827		Chrysene #13
26.104	BB	117.46639	1.65629e-2	1.94559		Benzo(b)fluoranthene #14
27.556	BB	353.46982	2.77623e-3	9.81314e-1		Benzo(k)fluoranthene #15
28.674	BB	411.81049	4.68187e-3	1.92804		Benzo(a)pyrene #16
30.548	BB	49.01668	3.93610e-2	1.92935		Dibenz(a,h)anthracene #17
31.351	BB	70.52281	2.69711e-2	1.90208		Benzo(g,h,i)perylene #18
32.292	BB	141.77130	1.37318e-2	1.94677		Indeno(1,2,3-cd)pyrene #1

Totals : 176.78695

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.237	BBA	2493.37891	8.27672e-3	20.63700		Naphthalene #1
10.876	BB	654.20630	3.00100e-2	19.63274		Acenaphthylene #2
11.831	BB	1527.97900	1.29933e-2	19.85351		1-Methylnaphthalene #3
12.413	BB	1790.56641	1.12718e-2	20.18291		2-Methylnaphthalene #4
12.896	BB	968.73480	2.03858e-2	19.74842		Acenaphthene #5
13.556	BBA	1111.38098	1.76946e-2	19.66540		Fluorene #6
14.960	BBA	1130.27087	1.74304e-2	19.70112		Phenanthrene #7
16.381	PBA	1988.68909	1.03512e-2	20.58537		Anthracene #8
17.769	PB	88.82484	2.18962e-2	1.94493		Fluoranthene #9
18.781	BBA	134.09285	1.46350e-2	1.96245		Pyrene #10
21.145	PBA	301.36755	6.46036e-2	19.46943		p-Terphenyl d14 #11*
22.474	BBA	87.40981	2.22922e-2	1.94856		Benzo(a)anthracene #12
23.355	BBA	127.90170	1.52055e-2	1.94481		Chrysene #13
26.089	BBA	93.43871	2.08450e-2	1.94773		Benzo(b)fluoranthene #14
27.541	BBA	43.15946	2.27263e-2	9.80857e-1		Benzo(k)fluoranthene #15
28.658	BBA	72.43052	2.64554e-2	1.91618		Benzo(a)pyrene #16
30.533	PBA	20.95795	9.37185e-2	1.96415		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.335	BB	36.23856	5.34889e-2	1.93836		Benzo(g,h,i)perylene #18
32.279	BBA	93.53850	2.06233e-2	1.92908		Indeno(1,2,3-cd)pyrene #1

Totals : 197.95301

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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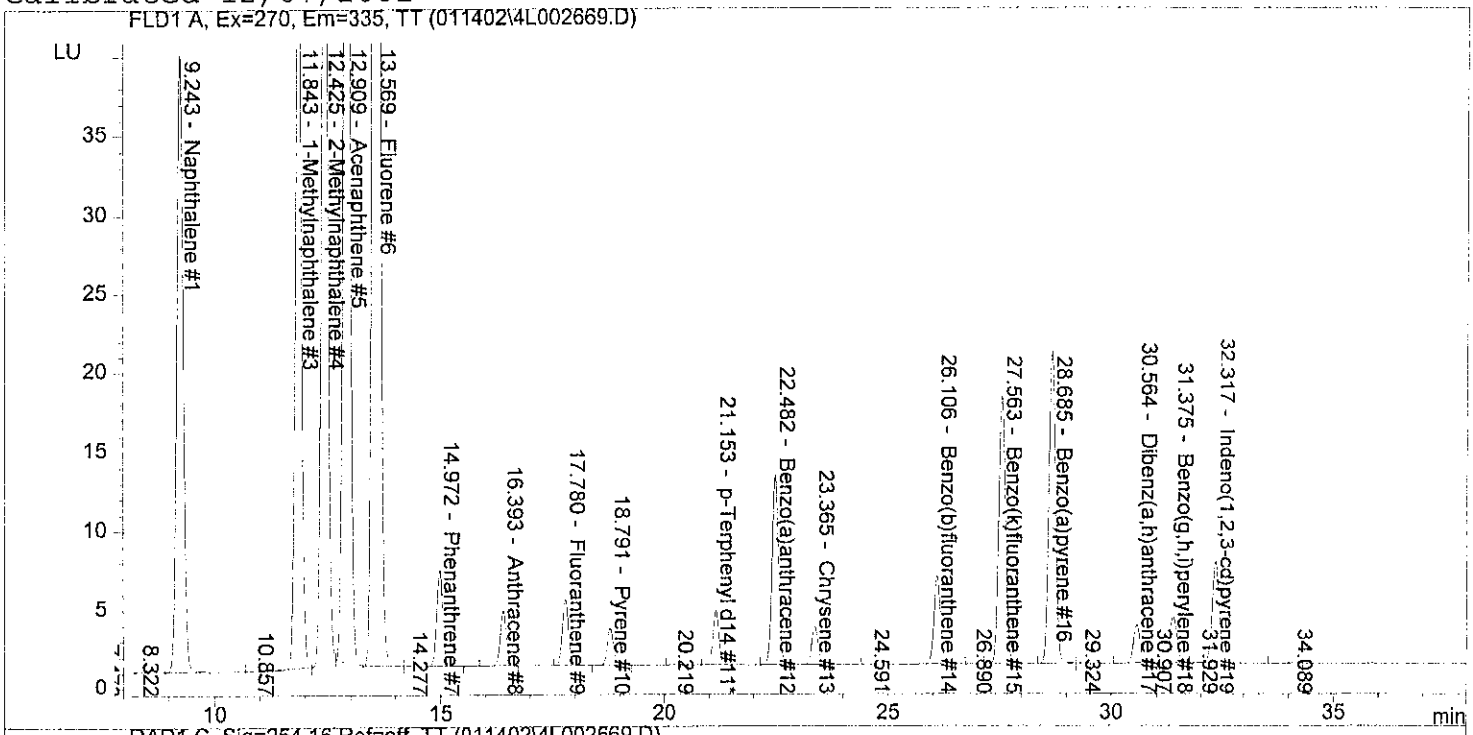
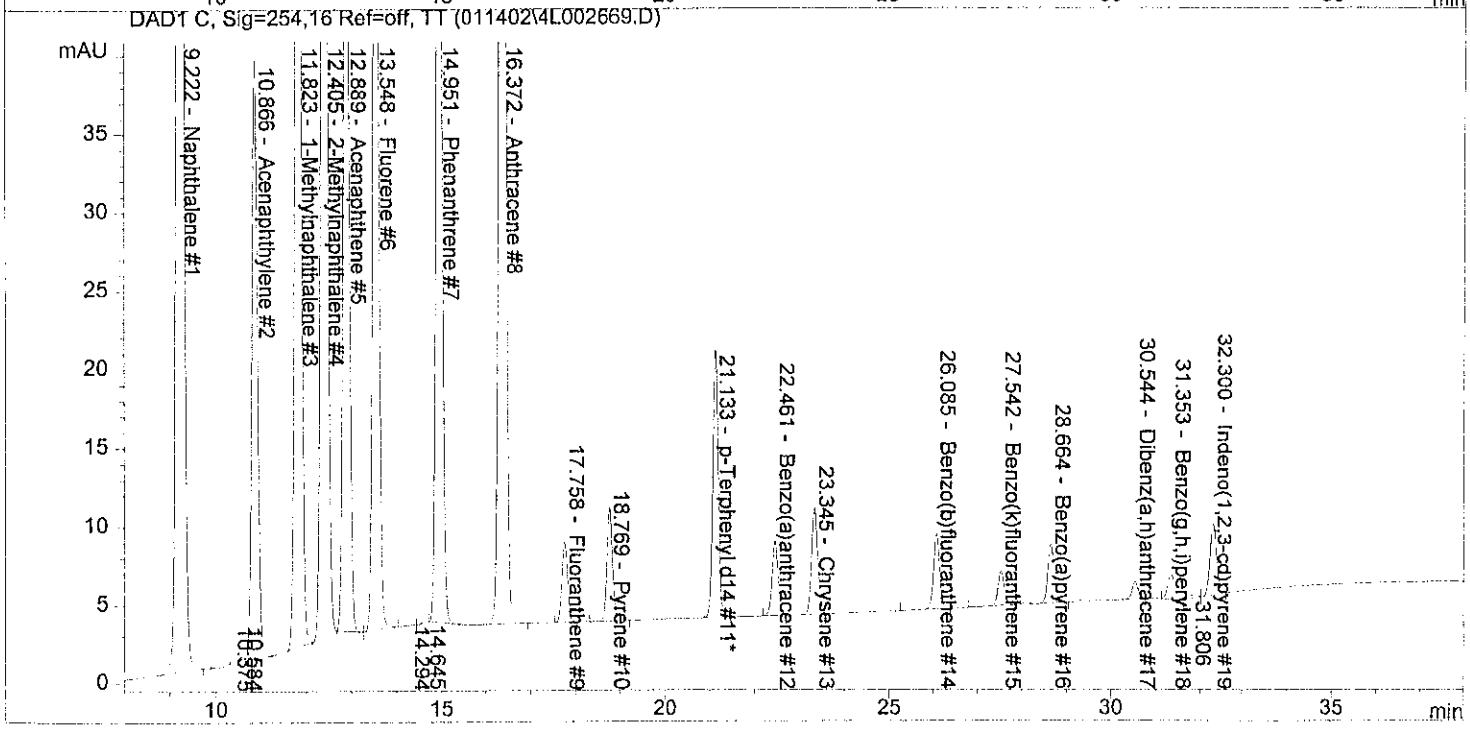
*** End of Report ***

Injection Date : 1/14/2002 8:36:14 PM Seq. Line : 9
Sample Name : WG111292-05 STD3 Vial : 9
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:04 AM by RDC
(modified after loading)

Calibrated 12/07/2001





Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:59 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.243	BBA	379.16129	2.57002e-2	9.74453		Naphthalene #1
11.843	BB	434.69620	2.24890e-2	9.77589		1-Methylnaphthalene #3
12.425	BB	570.62238	1.72690e-2	9.85408		2-Methylnaphthalene #4
12.909	BB	718.57635	1.38226e-2	9.93260		Acenaphthene #5
13.569	BB	1545.26501	6.56835e-3	10.14984		Fluorene #6
14.972	BBA	56.83334	1.68487e-1	9.57567		Phenanthrene #7
16.393	BB	32.77779	3.03723e-1	9.95538		Anthracene #8
17.780	BBA	40.55882	2.38651e-2	9.67941e-1		Fluoranthene #9
18.791	BBA	23.90537	4.06767e-2	9.72391e-1		Pyrene #10
21.153	BB	33.44160	2.86510e-1	9.58136		p-Terphenyl d14 #11*
22.482	BB	120.40920	7.96570e-3	9.59144e-1		Benzo(a)anthracene #12
23.365	BB	24.62586	3.90135e-2	9.60740e-1		Chrysene #13
26.106	BB	58.49529	1.65575e-2	9.68536e-1		Benzo(b)fluoranthene #14
27.563	BB	175.63820	2.77551e-3	4.87486e-1		Benzo(k)fluoranthene #15
28.685	BB	203.03578	4.67719e-3	9.49638e-1		Benzo(a)pyrene #16
30.564	BB	24.01385	3.93187e-2	9.44192e-1		Dibenz(a,h)anthracene #17
31.375	BB	34.73734	2.69479e-2	9.36098e-1		Benzo(g,h,i)perylene #18
32.317	BB	70.38887	1.37428e-2	9.67338e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				87.68286		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.222	PBA	1246.98584	8.27572e-3	10.31971		Naphthalene #1
10.866	BB	325.75351	3.00062e-2	9.77463		Acenaphthylene #2
11.823	BB	761.30933	1.29920e-2	9.89092		1-Methylnaphthalene #3
12.405	BB	894.14850	1.12702e-2	10.07728		2-Methylnaphthalene #4
12.889	BB	483.23654	2.03825e-2	9.84955		Acenaphthene #5
13.548	BBA	552.99121	1.76927e-2	9.78392		Fluorene #6
14.951	BBA	563.78040	1.74279e-2	9.82554		Phenanthrene #7
16.372	PBA	992.23688	1.03457e-2	10.26534		Anthracene #8
17.758	PB	44.30089	2.18935e-2	9.69901e-1		Fluoranthene #9
18.769	BBA	66.46920	1.46332e-2	9.72658e-1		Pyrene #10
21.133	BBA	149.64757	6.45954e-2	9.66654		p-Terphenyl d14 #11*
22.461	BBA	43.45026	2.22870e-2	9.68375e-1		Benzo(a)anthracene #12
23.345	BBA	63.55274	1.52040e-2	9.66253e-1		Chrysene #13
26.085	PBA	46.72572	2.08440e-2	9.73952e-1		Benzo(b)fluoranthene #14
27.542	BBA	22.23862	2.27170e-2	5.05194e-1		Benzo(k)fluoranthene #15
28.664	BBA	36.33923	2.64282e-2	9.60381e-1		Benzo(a)pyrene #16
30.544	PBA	10.59134	9.39051e-2	9.94581e-1		Dibenz(a,h)anthracene #17

[min]		[min]		[ug/kg]		
31.353	BB	18.37240	5.34686e-2	9.82347e-1		Benzo(g,h,i)perylene #18
32.300	BBA	46.32841	2.06171e-2	9.55155e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.70222

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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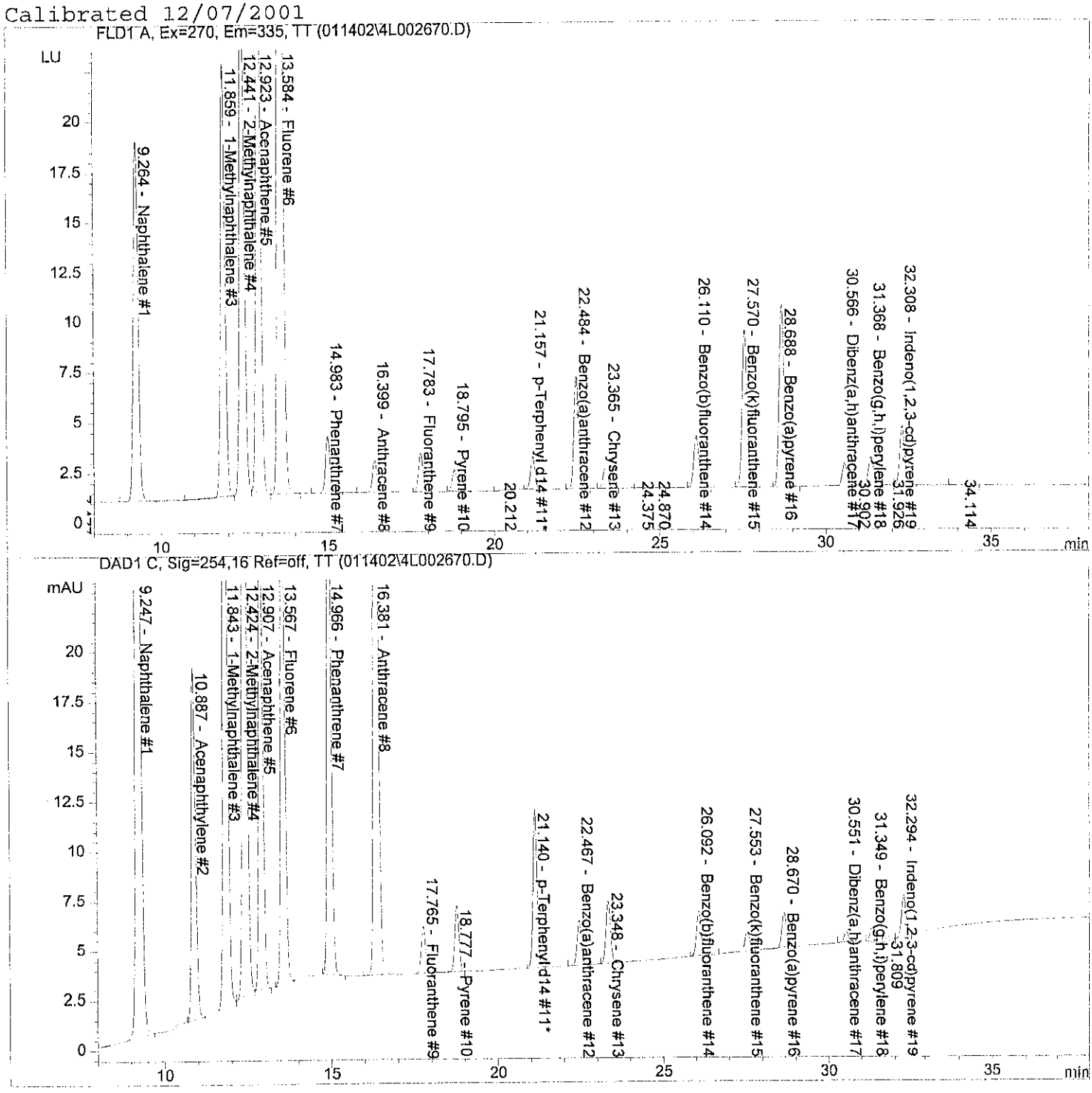
*** End of Report ***

Injection Date : 1/14/2002 9:32:51 PM
Sample Name : WG111292-06 STD2
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:46 AM by RDC
(modified after loading)

Calibrated 12/07/2001



Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:58:38 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.264	BBA	174.72874	2.57004e-2	4.49059		Naphthalene #1
11.859	BB	200.14003	2.24894e-2	4.50103		1-Methylnaphthalene #3
12.441	BB	263.61240	1.72692e-2	4.55237		2-Methylnaphthalene #4
12.923	BB	332.58978	1.38228e-2	4.59733		Acenaphthene #5
13.584	BB	715.49780	6.56880e-3	4.69996		Fluorene #6
14.983	BBA	26.26655	1.68488e-1	4.42559		Phenanthrene #7
16.399	PBA	15.12442	3.03717e-1	4.59355		Anthracene #8
17.783	PBA	18.24046	2.38673e-2	4.35351e-1		Fluoranthene #9
18.795	PBA	10.94241	4.06617e-2	4.44937e-1		Pyrene #10
21.157	BB	15.68857	2.86514e-1	4.49500		p-Terphenyl d14 #11*
22.484	BBA	55.43239	7.96561e-3	4.41553e-1		Benzo(a)anthracene #12
23.365	BBA	11.26101	3.90146e-2	4.39344e-1		Chrysene #13
26.110	BBA	26.85213	1.65597e-2	4.44664e-1		Benzo(b)fluoranthene #14
27.570	PBA	81.11520	2.77567e-3	2.25149e-1		Benzo(k)fluoranthene #15
28.688	PB	93.51391	4.67664e-3	4.37331e-1		Benzo(a)pyrene #16
30.566	BB	10.98461	3.93199e-2	4.31913e-1		Dibenz(a,h)anthracene #17
31.368	BB	15.91699	2.69467e-2	4.28911e-1		Benzo(g,h,i)perylene #18
32.308	BBA	32.46655	1.37441e-2	4.46224e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 40.53080

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	PBA	576.60266	8.27651e-3	4.77226		Naphthalene #1
10.887	BB	150.79996	3.00090e-2	4.52535		Acenaphthylene #2
11.843	BB	352.56210	1.29932e-2	4.58091		1-Methylnaphthalene #3
12.424	BB	414.06625	1.12713e-2	4.66705		2-Methylnaphthalene #4
12.907	BBA	223.83940	2.03841e-2	4.56277		Acenaphthene #5
13.567	PBA	254.83487	1.76945e-2	4.50919		Fluorene #6
14.966	BBA	261.27347	1.74294e-2	4.55384		Phenanthrene #7
16.381	PBA	458.90207	1.03455e-2	4.74759		Anthracene #8
17.765	BBA	20.33956	2.18957e-2	4.45349e-1		Fluoranthene #9
18.777	BBA	29.23632	1.46348e-2	4.27869e-1		Pyrene #10
21.140	BBA	69.63579	6.45989e-2	4.49840		p-Terphenyl d14 #11*
22.467	BBA	20.37423	2.22879e-2	4.54100e-1		Benzo(a)anthracene #12
23.348	BBA	29.37774	1.52052e-2	4.46693e-1		Chrysene #13
26.092	BBA	21.54782	2.08463e-2	4.49192e-1		Benzo(b)fluoranthene #14
27.553	PBA	9.94531	2.27216e-2	2.25973e-1		Benzo(k)fluoranthene #15
28.670	BBA	15.71871	2.64268e-2	4.15396e-1		Benzo(a)pyrene #16
30.551	PBA	4.83241	9.39112e-2	4.53817e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/kg]		
31.349	BB	8.91349	5.34670e-2	4.76577e-1		Benzo(g,h,i)perylene #18
32.294	BB	20.89905	2.06199e-2	4.30937e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 45.64325

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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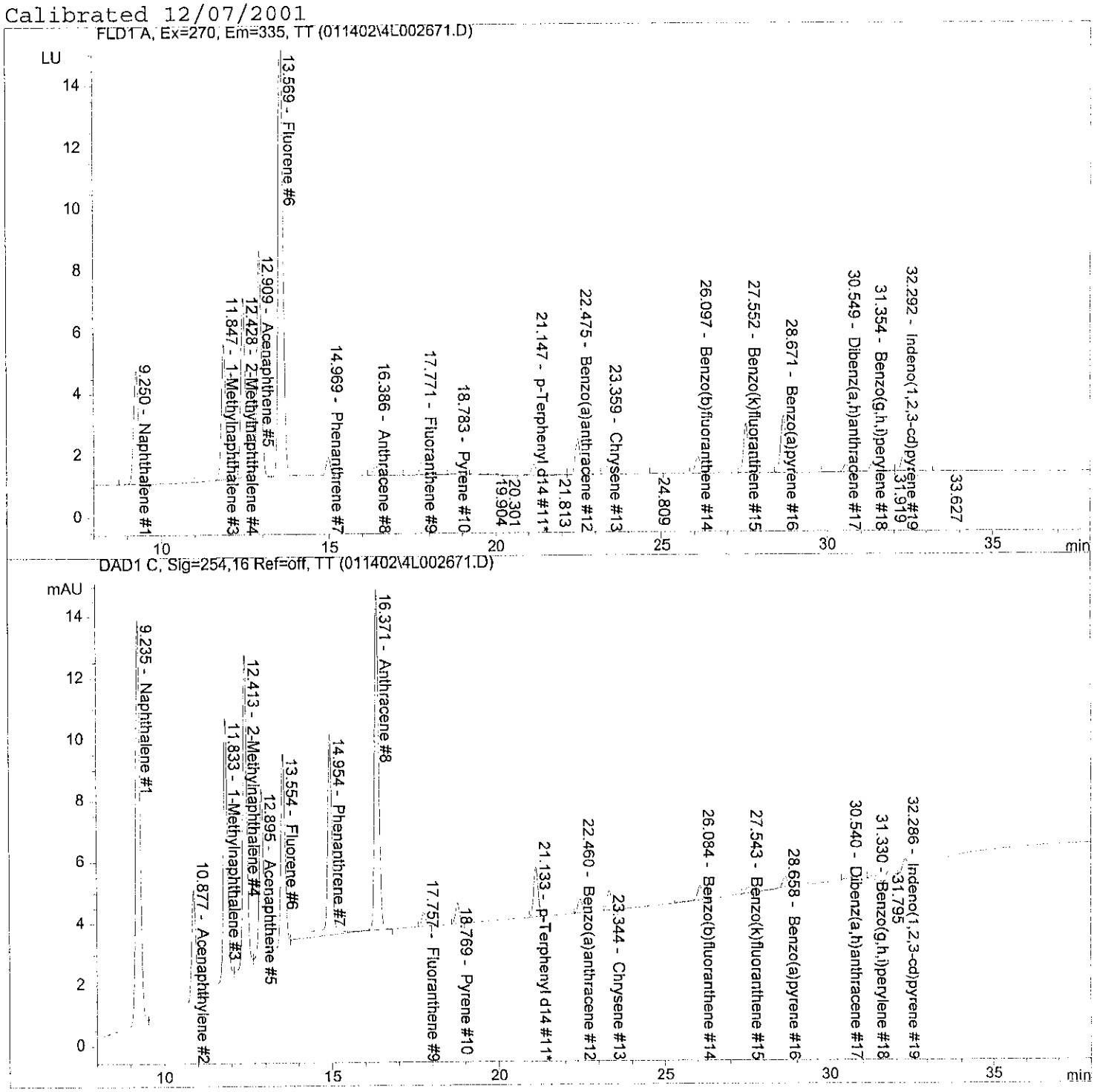
*** End of Report ***

Injection Date : 1/14/2002 10:29:31 PM
Sample Name : WG111292-07 STD1
Acq. Operator : RDC

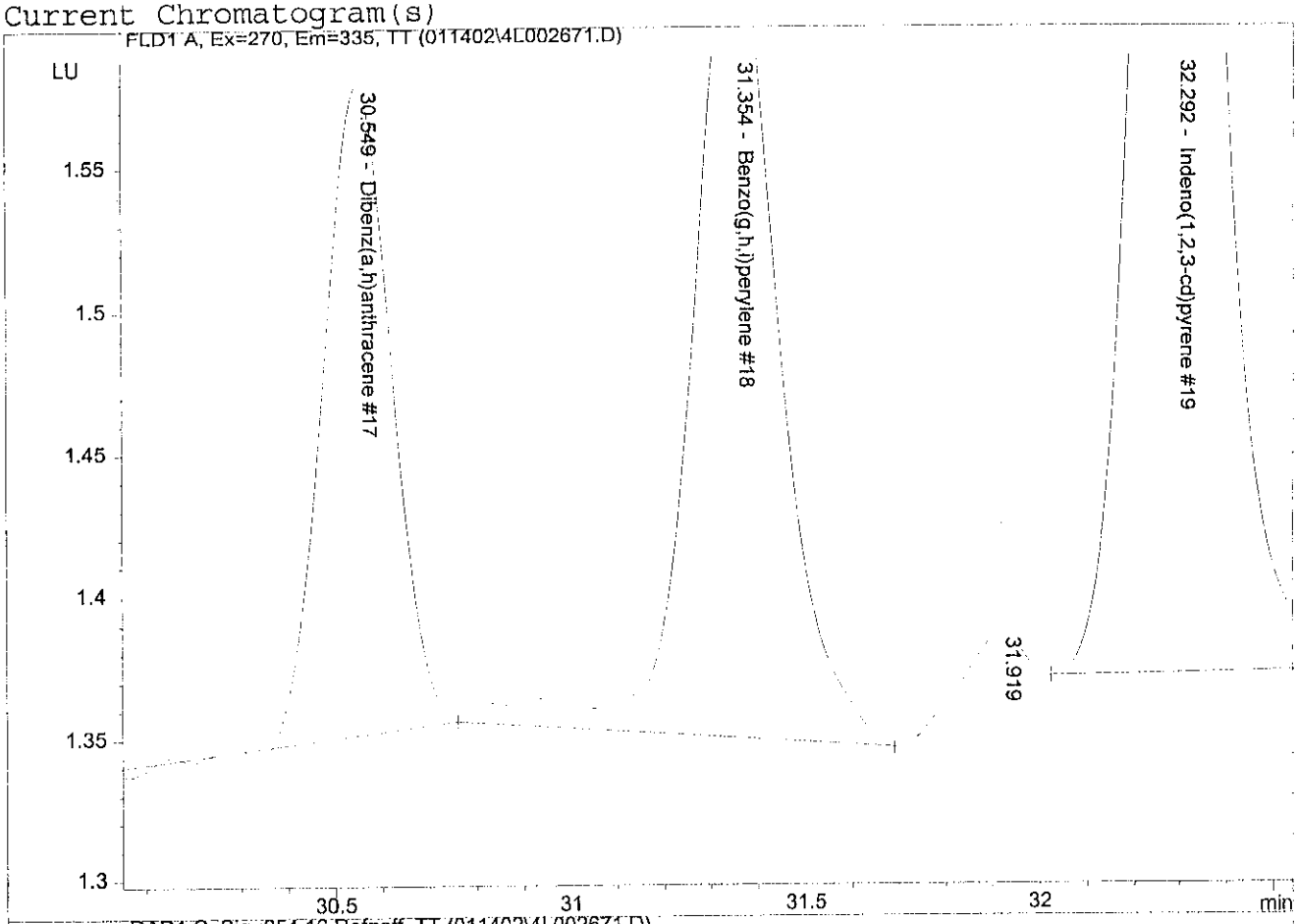
Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

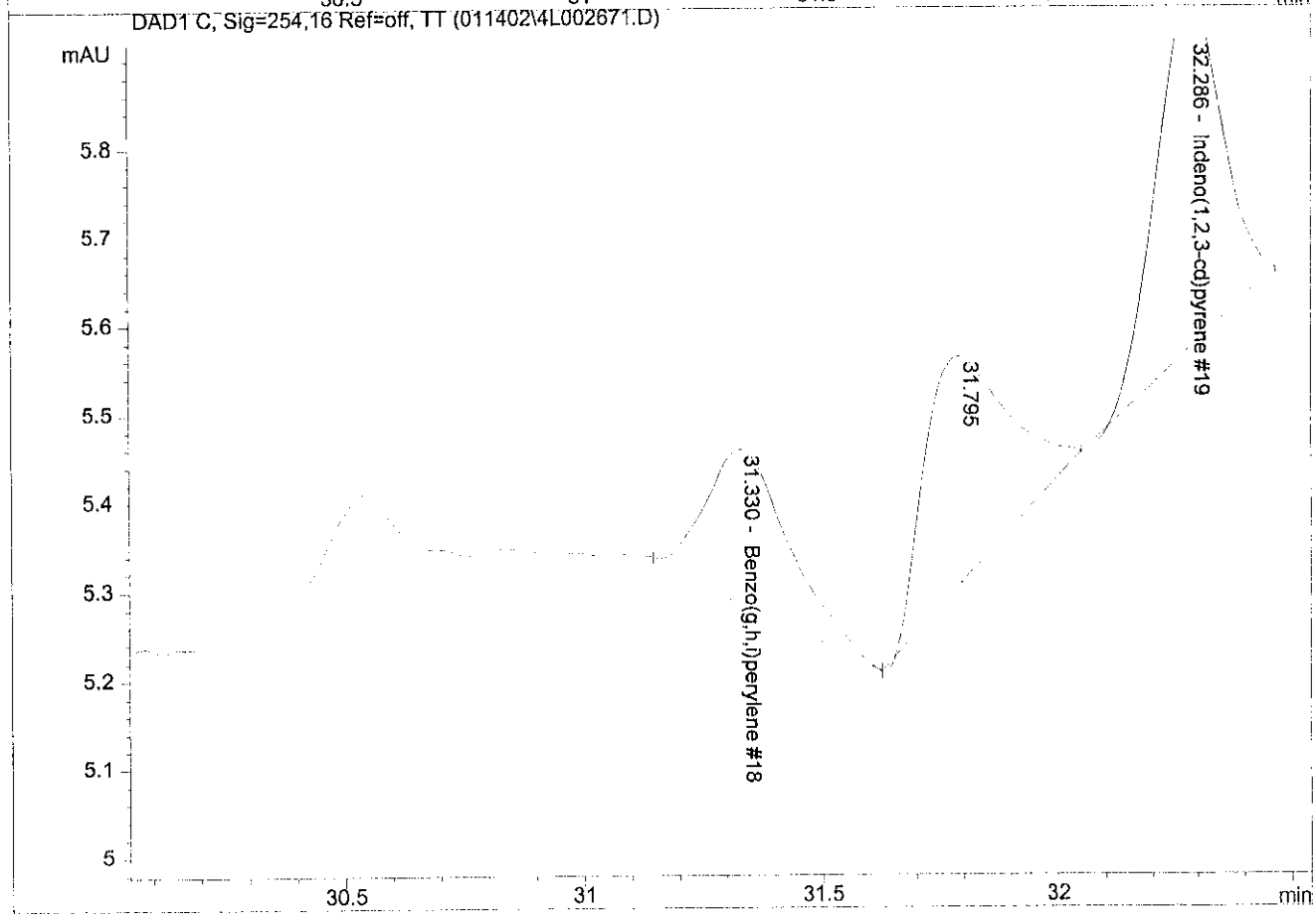
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:02:17 AM by RDC
(modified after loading)

Calibrated 12/07/2001

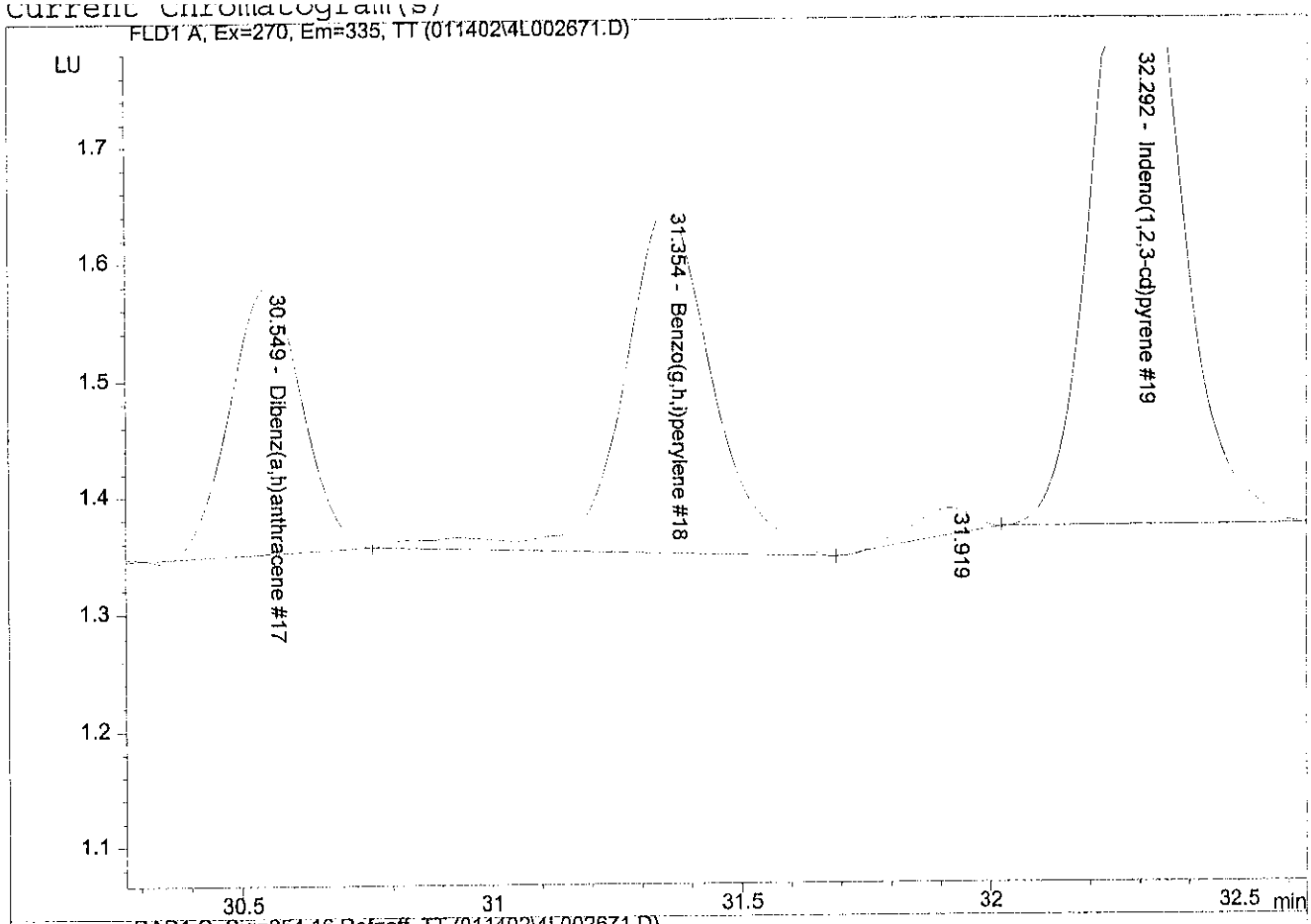


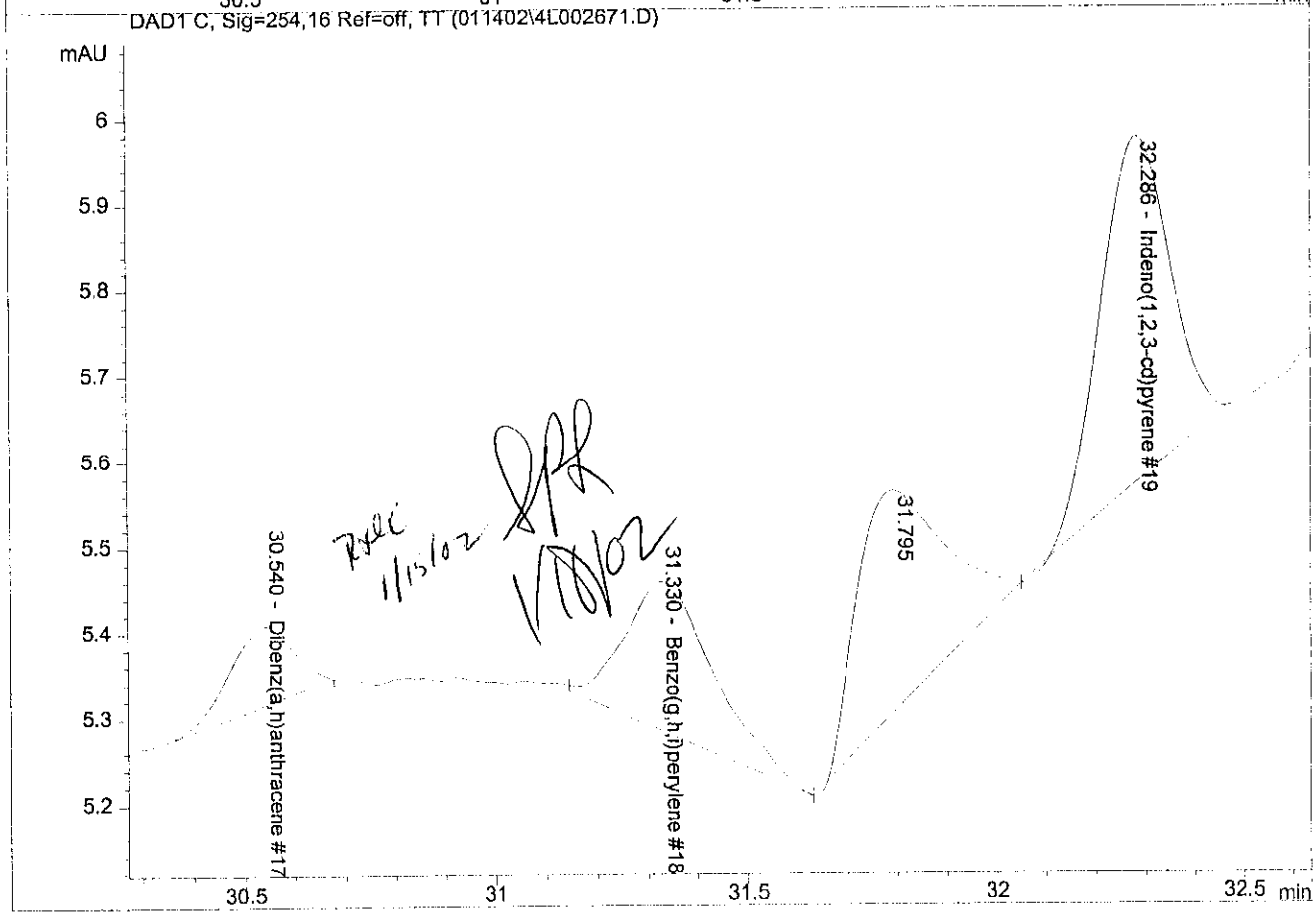
Current Chromatogram(s)





HPLC4 1/15/2002 8:59:48 AM RDC


Current Chromatogram(s)
FLD1 A, Ex=270, Em=335, TT (011402\4L002671.D)
LU
1.7
1.6
1.5
1.4
1.3
1.2
1.1
30.549 - Dibenz(a,h)anthracene #17
31.354 - Benzo(g,h,i)perylene #18
31.919
32.292 - Indeno(1,2,3-cd)pyrene #19
30.5
31
31.5
32
32.5 min


DAD1 C, Sig=254,16 Ref=off, TT (011402\4L002671.D)
mAU
6
5.9
5.8
5.7
5.6
5.5
5.4
5.3
5.2
30.540 - Dibenz(a,h)anthracene #17
31.330 - Benzo(g,h,i)perylene #18
31.795
32.286 - Indeno(1,2,3-cd)pyrene #19
RDC 1/15/02
30.5
31
31.5
32
32.5 min

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:02:14 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.250	PBA	35.78353	2.57003e-2	9.19647e-1		Naphthalene #1
11.847	BB	41.42604	2.24893e-2	9.31643e-1		1-Methylnaphthalene #3
12.428	BB	53.86543	1.72691e-2	9.30209e-1		2-Methylnaphthalene #4
12.909	BB	67.89028	1.38228e-2	9.38432e-1		Acenaphthene #5
13.569	BBA	146.82553	6.56879e-3	9.64466e-1		Fluorene #6
14.969	PBA	5.24433	1.68488e-1	8.83605e-1		Phenanthrene #7
16.386	BBA	3.17308	3.03714e-1	9.63711e-1		Anthracene #8
17.771	PBA	3.88309	2.38671e-2	9.26781e-2		Fluoranthene #9
18.783	PBA	2.17142	4.06594e-2	8.82885e-2		Pyrene #10
21.147	BB	3.53695	2.86511e-1	1.01338		p-Terphenyl d14 #11*
22.475	BBA	11.70344	7.96557e-3	9.32246e-2		Benzo(a)anthracene #12
23.359	PBA	2.53400	3.90144e-2	9.88624e-2		Chrysene #13
26.097	BBA	5.50489	1.65598e-2	9.11596e-2		Benzo(b)fluoranthene #14
27.552	BBA	16.52934	2.77566e-3	4.58799e-2		Benzo(k)fluoranthene #15
28.671	BBA	19.03635	4.67660e-3	8.90254e-2		Benzo(a)pyrene #16
30.549	PB	2.25618	3.93196e-2	8.87121e-2		Dibenz(a,h)anthracene #17
31.354	BB	3.69533	2.69466e-2	9.95766e-2		Benzo(g,h,i)perylene #18
32.292	BBA	6.81821	1.37440e-2	9.37098e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.42621

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.235	PB	114.71877	8.27651e-3	9.49471e-1		Naphthalene #1
10.877	BB	23.62006	3.00095e-2	7.08826e-1		Acenaphthylene #2
11.833	BB	70.63459	1.29932e-2	9.17772e-1		1-Methylnaphthalene #3
12.413	BB	84.19754	1.12713e-2	9.49012e-1		2-Methylnaphthalene #4
12.895	BB	45.25933	2.03841e-2	9.22572e-1		Acenaphthene #5
13.554	BB	50.57839	1.76946e-2	8.94964e-1		Fluorene #6
14.954	BB	66.64948	1.74291e-2	1.16164		Phenanthrene #7
16.371	BBA	94.15485	1.03455e-2	9.74078e-1		Anthracene #8
17.757	BBA	4.13764	2.18958e-2	9.05969e-2		Fluoranthene #9
18.769	BBA	6.03502	1.46349e-2	8.83217e-2		Pyrene #10
21.133	BBA	13.90859	6.45989e-2	8.98480e-1		p-Terphenyl d14 #11*
22.460	BBA	4.29036	2.22878e-2	9.56229e-2		Benzo(a)anthracene #12
23.344	BBA	5.99650	1.52051e-2	9.11777e-2		Chrysene #13
26.084	BBA	4.71873	2.08462e-2	9.83676e-2		Benzo(b)fluoranthene #14
27.543	PBA	1.94087	2.27217e-2	4.40999e-2		Benzo(k)fluoranthene #15
28.658	BBA	2.93301	2.64267e-2	7.75095e-2		Benzo(a)pyrene #16
30.540	MM	8.22757e-1	9.39100e-2	7.72651e-2		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.330	BB	2.16289	5.34666e-2	1.15642e-1		Benzo(g,h,i)perylene #18
32.286	BB	3.89559	2.06198e-2	8.03264e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.23574

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

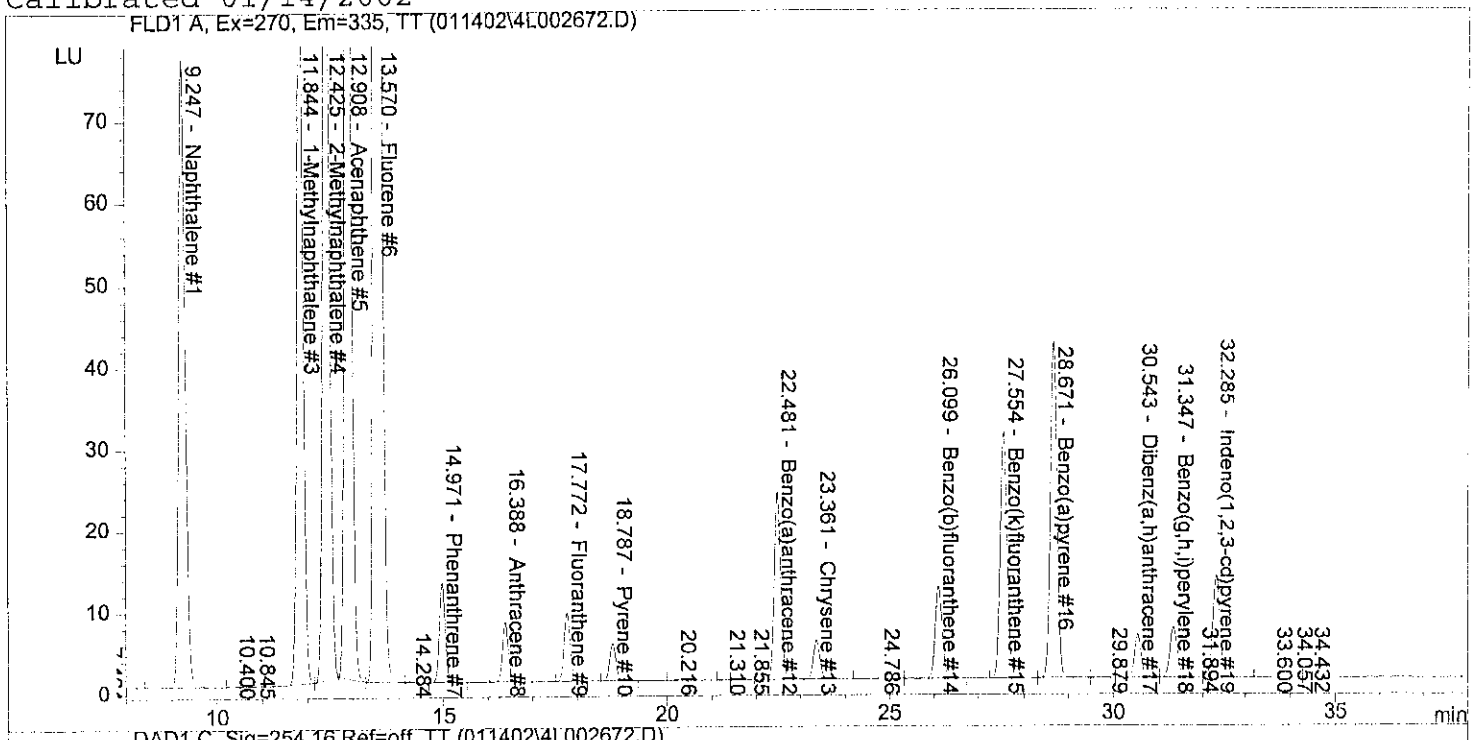
= Failed 15.0% Criteria

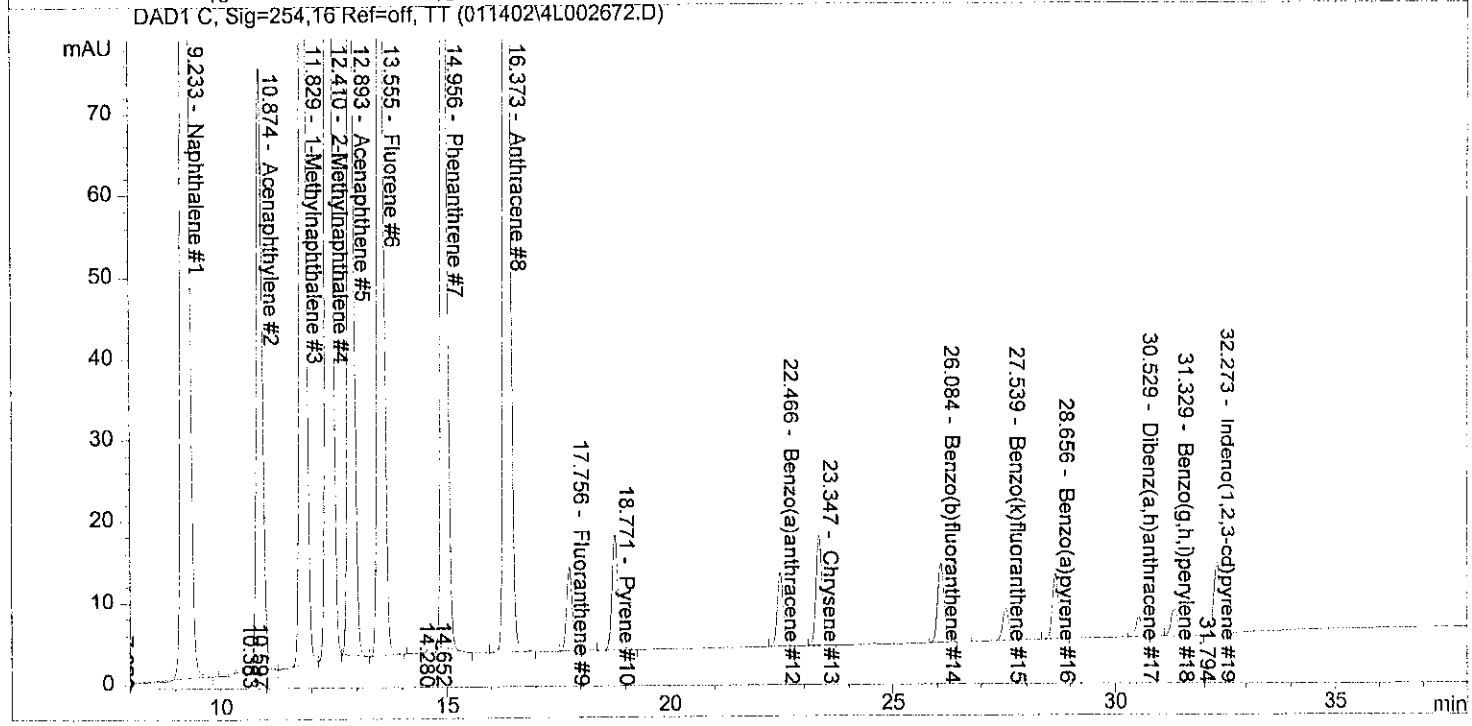
Injection Date : 1/14/2002 11:26:07 PM
Sample Name : WG111292-08 ALT
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:05:41 AM by RDC
(modified after loading)

Calibrated 01/14/2002





Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:05:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	BBA	748.52362	2.57003e-2	19.23726		Naphthalene #1
11.844	BB	877.28461	2.24893e-2	19.72953		1-Methylnaphthalene #3
12.425	BB	1090.29724	1.72691e-2	18.82849		2-Methylnaphthalene #4
12.908	BB	1448.90186	1.38228e-2	20.02785		Acenaphthene #5
13.570	BB	3083.72266	6.56879e-3	20.25632		Fluorene #6
14.971	BBA	111.55298	1.68488e-1	18.79530		Phenanthrene #7
16.388	PBA	66.76292	3.03714e-1	20.27686		Anthracene #8
17.772	PBA	79.23566	2.38671e-2	1.89112		Fluoranthene #9
18.787	BBA	45.12247	4.06594e-2	1.83465		Pyrene #10
21.147		-	-	-		p-Terphenyl d14 #11*
22.481	BB	226.27448	7.96557e-3	1.80241		Benzo(a)anthracene #12
23.361	BB	47.86744	3.90144e-2	1.86752		Chrysene #13
26.099	BBA	116.86459	1.65598e-2	1.93525		Benzo(b)fluoranthene #14
27.554	PB	314.46066	2.77566e-3	8.72837e-1		Benzo(k)fluoranthene #15
28.671	BB	423.19098	4.67660e-3	1.97909		Benzo(a)pyrene #16
30.543	BB	53.38907	3.93196e-2	2.09924		Dibenz(a,h)anthracene #17
31.347	BB	69.61732	2.69466e-2	1.87595		Benzo(g,h,i)perylene #18
32.285	BBA	136.55934	1.37440e-2	1.87688		Indeno(1,2,3-cd)pyrene #1
Totals :				155.18656		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	2468.22412	8.27651e-3	20.42828		Naphthalene #1
10.874	BB	630.04449	3.00095e-2	18.90732		Acenaphthylene #2
11.829	BB	1556.25403	1.29932e-2	20.22077		1-Methylnaphthalene #3
12.410	BB	1724.90198	1.12713e-2	19.44181		2-Methylnaphthalene #4
12.893	BB	983.60773	2.03841e-2	20.04998		Acenaphthene #5
13.555	BBA	1113.45837	1.76946e-2	19.70218		Fluorene #6
14.956	BBA	1113.83740	1.74291e-2	19.41317		Phenanthrene #7
16.373	PBA	2030.43079	1.03455e-2	21.00580		Anthracene #8
17.756	BB	88.16366	2.18958e-2	1.93041		Fluoranthene #9
18.771	BBA	129.84206	1.46349e-2	1.90022		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.466	BBA	82.83583	2.22878e-2	1.84623		Benzo(a)anthracene #12
23.347	BBA	125.89037	1.52051e-2	1.91418		Chrysene #13
26.084	BBA	93.34034	2.08462e-2	1.94579		Benzo(b)fluoranthene #14
27.539	BBA	38.95745	2.27217e-2	8.85179e-1		Benzo(k)fluoranthene #15
28.656	PBA	75.30036	2.64267e-2	1.98994		Benzo(a)pyrene #16
30.529	PBA	22.13976	9.39100e-2	2.07914		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.329	BB	36.24539	5.34666e-2	1.93792		Benzo(g,h,i)perylene #18
32.273	BB	90.78680	2.06198e-2	1.87201		Indeno(1,2,3-cd)pyrene #1

Totals : 177.47035

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Data File C:\HPCHEM\2\DATA\032002\4L002898.D Sample Name: WG114812-01 CCV
HPLC4 3/20/2002 4:46:16 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/20/2002 2:50:47 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	19.764	-1.2
1-Methylnaphthalene #3	12.004	20.0	19.722	-1.4
2-Methylnaphthalene #4	12.579	20.0	19.108	-4.5
Acenaphthene #5	13.057	20.0	19.424	-2.9
Fluorene #6	13.714	20.0	20.297	1.5
Phenanthrene #7	15.100	20.0	19.594	-2.0
Anthracene #8	16.501	20.0	20.148	0.7
Fluoranthene #9	17.877	2.0	1.930	-3.5
Pyrene #10	18.879	2.0	1.988	-0.6
p-Terphenyl d14 #11*	21.212	20.0	19.107	-4.5
Benzo(a)anthracene #12	22.530	2.0	1.947	-2.7
Chrysene #13	23.393	2.0	1.967	-1.6
Benzo(b)fluoranthene #14	26.110	2.0	1.956	-2.2
Benzo(k)fluoranthene #15	27.538	1.0	0.984	-1.6
Benzo(a)pyrene #16	28.640	2.0	1.993	-0.4
Dibenz(a,h)anthracene #1	30.493	2.0	1.929	-3.6
Benzo(g,h,i)perylene #18	31.311	2.0	1.931	-3.5
Indeno(1,2,3-cd)pyrene #	32.246	2.0	1.942	-2.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.415	20.0	20.685	3.4
Acenaphthylene #2	11.043	20.0	19.954	-0.2
1-Methylnaphthalene #3	11.988	20.0	19.935	-0.3
2-Methylnaphthalene #4	12.563	20.0	19.954	-0.2
Acenaphthene #5	13.041	20.0	19.254	-3.7
Fluorene #6	13.697	20.0	19.763	-1.2
Phenanthrene #7	15.084	20.0	20.092	0.5
Anthracene #8	16.485	20.0	20.818	4.1
Fluoranthene #9	17.860	2.0	1.953	-2.3
Pyrene #10	18.861	2.0	1.960	-2.0
p-Terphenyl d14 #11*	21.196	20.0	19.175	-4.1
Benzo(a)anthracene #12	22.514	2.0	1.961	-1.9
Chrysene #13	23.378	2.0	1.955	-2.2
Benzo(b)fluoranthene #14	26.093	2.0	1.959	-2.1
Benzo(k)fluoranthene #15	27.522	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.623	2.0	2.002	0.1
Dibenz(a,h)anthracene #1	30.477	2.0	1.937	-3.1
Benzo(g,h,i)perylene #18	31.293	2.0	2.121	6.1
Indeno(1,2,3-cd)pyrene #	32.228	2.0	1.936	-3.2

= Failed 15.0% Criteria

```
Injection Date   : 3/20/2002 2:50:47 PM          Seq. Line :   2
Sample Name      : WG114812-01 CCV                    Vial :   2
Acq. Operator    : RDC                                Inj :   1
                                                Inj Volume : 8 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8310.M
Last changed     : 2/11/2002 4:29:00 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed     : 3/18/2002 5:17:16 PM by RDC
                   (modified after loading)
Calibrated 01/14/2002
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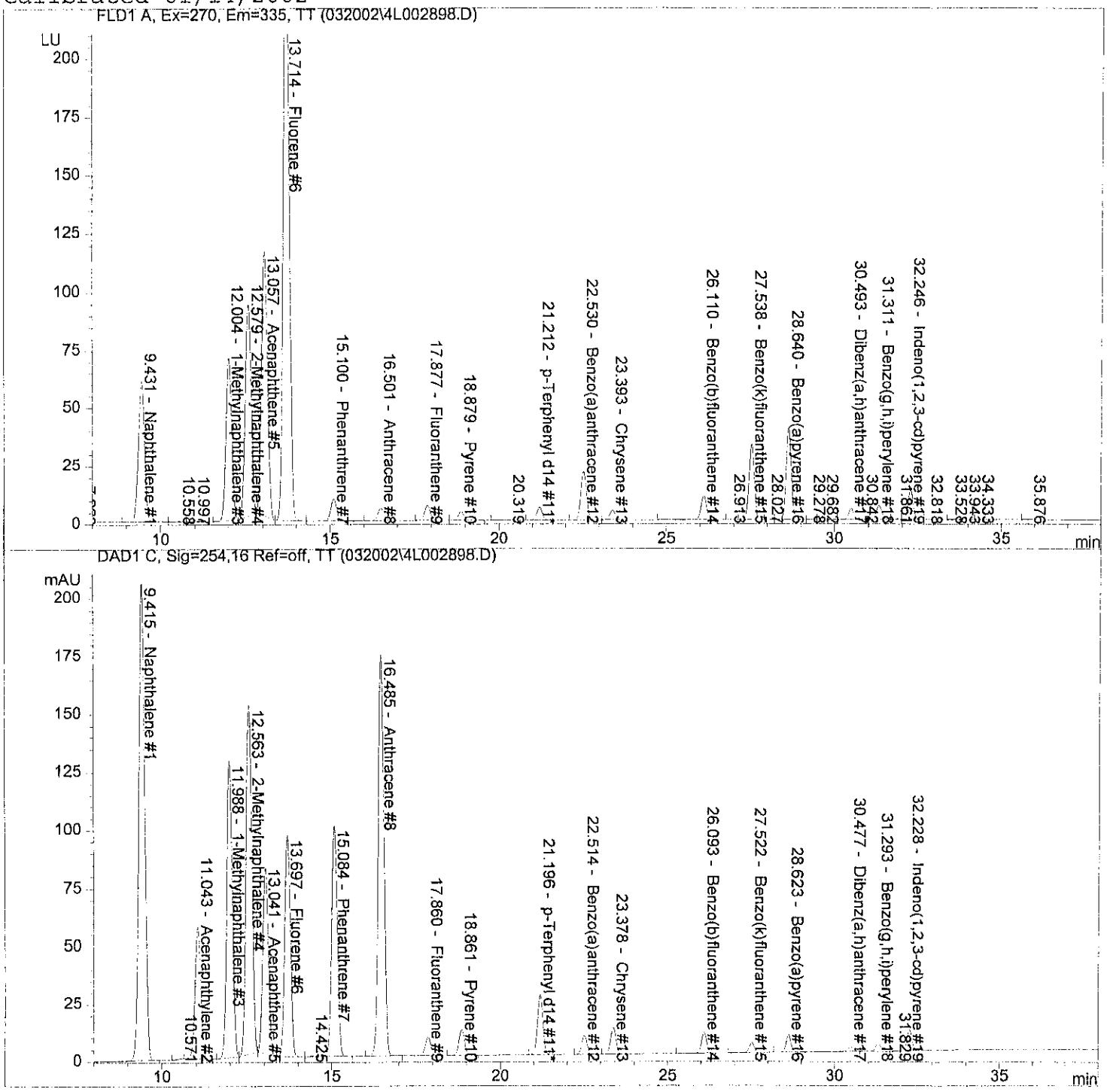

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BB	769.00659	2.57003e-2	19.76368		Naphthalene #1
12.004	BB	876.96686	2.24893e-2	19.72239		1-Methylnaphthalene #3
12.579	BB	1106.45996	1.72691e-2	19.10761		2-Methylnaphthalene #4
13.057	BB	1405.19214	1.38228e-2	19.42366		Acenaphthene #5
13.714	BB	3089.98560	6.56879e-3	20.29746		Fluorene #6
15.100	BBA	116.29288	1.68488e-1	19.59391		Phenanthrene #7
16.501	BBA	66.33975	3.03714e-1	20.14834		Anthracene #8
17.877	PB	80.86863	2.38671e-2	1.93010		Fluoranthene #9
18.879	BBA	48.89309	4.06594e-2	1.98796		Pyrene #10
21.212	BB	66.68943	2.86511e-1	19.10729		p-Terphenyl d14 #11*
22.530	BB	244.38745	7.96557e-3	1.94669		Benzo(a)anthracene #12
23.393	BB	50.41854	3.90144e-2	1.96705		Chrysene #13
26.110	BB	118.09793	1.65598e-2	1.95567		Benzo(b)fluoranthene #14
27.538	BB	354.63373	2.77566e-3	9.84344e-1		Benzo(k)fluoranthene #15
28.640	BB	426.06644	4.67660e-3	1.99254		Benzo(a)pyrene #16
30.493	BB	49.05696	3.93196e-2	1.92890		Dibenz(a,h)anthracene #17
31.311	BB	71.64774	2.69466e-2	1.93066		Benzo(g,h,i)perylene #18
32.246	BB	141.27924	1.37440e-2	1.94175		Indeno(1,2,3-cd)pyrene #1

Totals : 175.73000

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.415	BBA	2499.20508	8.27651e-3	20.68470		Naphthalene #1
11.043	BBA	664.90613	3.00095e-2	19.95350		Acenaphthylene #2
11.988	PB	1534.22412	1.29932e-2	19.93453		1-Methylnaphthalene #3
12.563	BB	1770.34314	1.12713e-2	19.95399		2-Methylnaphthalene #4
13.041	BB	944.56982	2.03841e-2	19.25423		Acenaphthene #5
13.697	BB	1116.90332	1.76946e-2	19.76314		Fluorene #6
15.084	BBA	1152.75684	1.74291e-2	20.09150		Phenanthrene #7
16.485	PBA	2012.26697	1.03455e-2	20.81789		Anthracene #8
17.860	PB	89.21658	2.18958e-2	1.95347		Fluoranthene #9
18.861	BBA	133.93385	1.46349e-2	1.96010		Pyrene #10
21.196	BBA	296.82434	6.45989e-2	19.17454		p-Terphenyl d14 #11*
22.514	BBA	87.98779	2.22878e-2	1.96106		Benzo(a)anthracene #12
23.378	BBA	128.57744	1.52051e-2	1.95504		Chrysene #13
26.093	BBA	93.95087	2.08462e-2	1.95852		Benzo(b)fluoranthene #14
27.522	PB	43.09077	2.27217e-2	9.79095e-1		Benzo(k)fluoranthene #15
28.623	BB	75.76366	2.64267e-2	2.00218		Benzo(a)pyrene #16
30.477	BB	20.63096	9.39100e-2	1.93745		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.293	BB	39.67716	5.34666e-2	2.12140		Benzo(g,h,i)perylene #18
32.228	BB	93.87482	2.06198e-2	1.93568		Indeno(1,2,3-cd)pyrene #1

Totals : 198.39201

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\032002\4L002909.D Sample Name: WG114812-02 CCV
HPLC4 3/21/2002 8:37:14 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/21/2002 1:13:38 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.439	20.0	19.140	-4.3
1-Methylnaphthalene #3	12.015	20.0	19.189	-4.1
2-Methylnaphthalene #4	12.588	20.0	18.997	-5.0
Acenaphthene #5	13.066	20.0	19.332	-3.3
Fluorene #6	13.717	20.0	20.094	0.5
Phenanthrene #7	15.099	20.0	18.915	-5.4
Anthracene #8	16.498	20.0	19.958	-0.2
Fluoranthene #9	17.876	2.0	1.908	-4.6
Pyrene #10	18.879	2.0	1.882	-5.9
p-Terphenyl d14 #11*	21.208	20.0	18.962	-5.2
Benzo(a)anthracene #12	22.523	2.0	1.901	-5.0
Chrysene #13	23.385	2.0	1.911	-4.5
Benzo(b)fluoranthene #14	26.105	2.0	1.915	-4.2
Benzo(k)fluoranthene #15	27.531	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.633	2.0	1.916	-4.2
Dibenz(a,h)anthracene #1	30.476	2.0	1.898	-5.1
Benzo(g,h,i)perylene #18	31.288	2.0	1.874	-6.3
Indeno(1,2,3-cd)pyrene #	32.220	2.0	1.918	-4.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.424	20.0	20.723	3.6
Acenaphthylene #2	11.050	20.0	20.007	0.0
1-Methylnaphthalene #3	11.999	20.0	19.981	-0.1
2-Methylnaphthalene #4	12.572	20.0	20.145	0.7
Acenaphthene #5	13.051	20.0	19.572	-2.1
Fluorene #6	13.701	20.0	19.764	-1.2
Phenanthrene #7	15.082	20.0	20.091	0.5
Anthracene #8	16.482	20.0	20.684	3.4
Fluoranthene #9	17.859	2.0	1.959	-2.1
Pyrene #10	18.861	2.0	1.964	-1.8
p-Terphenyl d14 #11*	21.192	20.0	19.162	-4.2
Benzo(a)anthracene #12	22.507	2.0	1.952	-2.4
Chrysene #13	23.369	2.0	1.957	-2.1
Benzo(b)fluoranthene #14	26.087	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.514	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.615	2.0	1.974	-1.3
Dibenz(a,h)anthracene #1	30.459	2.0	1.997	-0.2
Benzo(g,h,i)perylene #18	31.271	2.0	2.130	6.5
Indeno(1,2,3-cd)pyrene #	32.200	2.0	1.919	-4.0

= Failed 15.0% Criteria

```
Injection Date   : 3/21/2002 1:13:38 AM          Seq. Line :  13
Sample Name      : WG114812-02 CCV                    Vial :  13
Acq. Operator    : RDC                                 Inj :   1
                                                Inj Volume : 8 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8310.M
Last changed     : 2/11/2002 4:29:00 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed     : 3/18/2002 5:17:16 PM by RDC
                   (modified after loading)
Calibrated 01/14/2002
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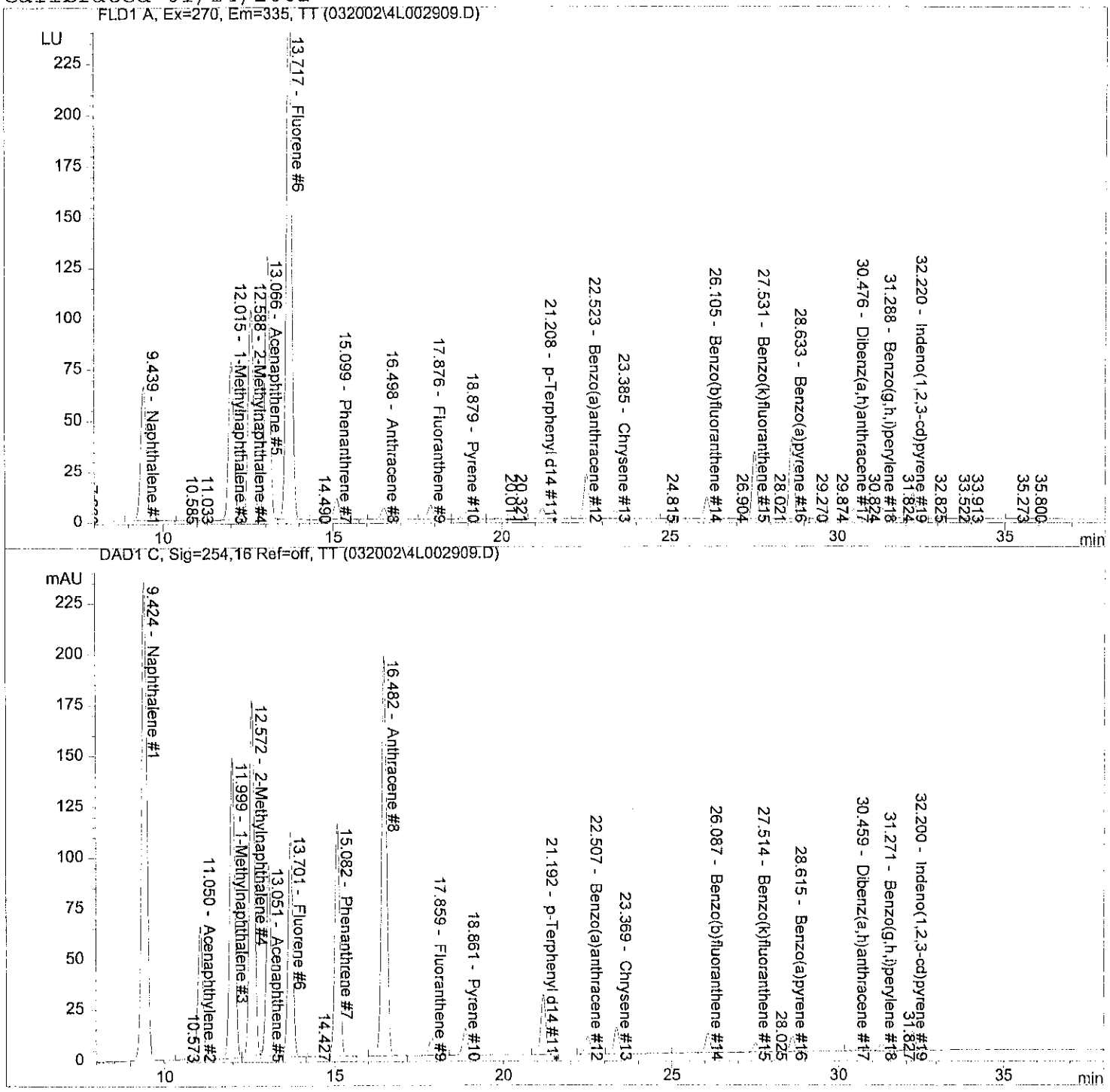

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.439	BBA	744.74255	2.57003e-2	19.14009		Naphthalene #1
12.015	BB	853.25751	2.24893e-2	19.18918		1-Methylnaphthalene #3
12.588	BB	1100.06165	1.72691e-2	18.99711		2-Methylnaphthalene #4
13.066	BB	1398.53796	1.38228e-2	19.33168		Acenaphthene #5
13.717	BB	3058.98901	6.56879e-3	20.09385		Fluorene #6
15.099	BBA	112.26233	1.68488e-1	18.91481		Phenanthrene #7
16.498	BBA	65.71456	3.03714e-1	19.95846		Anthracene #8
17.876	BB	79.94916	2.38671e-2	1.90815		Fluoranthene #9
18.879	BB	46.28024	4.06594e-2	1.88173		Pyrene #10
21.208	BB	66.18333	2.86511e-1	18.96228		p-Terphenyl d14 #11*
22.523	BB	238.60034	7.96557e-3	1.90059		Benzo(a)anthracene #12
23.385	BB	48.97416	3.90144e-2	1.91070		Chrysene #13
26.105	BB	115.65310	1.65598e-2	1.91519		Benzo(b)fluoranthene #14
27.531	BB	350.50510	2.77566e-3	9.72885e-1		Benzo(k)fluoranthene #15
28.633	BB	409.69882	4.67660e-3	1.91600		Benzo(a)pyrene #16
30.476	BB	48.25919	3.93196e-2	1.89753		Dibenz(a,h)anthracene #17
31.288	BB	69.54958	2.69466e-2	1.87413		Benzo(g,h,i)perylene #18
32.220	BB	139.55592	1.37440e-2	1.91806		Indeno(1,2,3-cd)pyrene #1

Totals : 172.68242

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.424	BBA	2503.79663	8.27651e-3	20.72270		Naphthalene #1
11.050	BBA	666.67963	3.00095e-2	20.00672		Acenaphthylene #2
11.999	PB	1537.82837	1.29932e-2	19.98136		1-Methylnaphthalene #3
12.572	BB	1787.33203	1.12713e-2	20.14548		2-Methylnaphthalene #4
13.051	BB	960.15289	2.03841e-2	19.57188		Acenaphthene #5
13.701	BBA	1116.96094	1.76946e-2	19.76416		Fluorene #6
15.082	BBA	1152.73523	1.74291e-2	20.09113		Phenanthrene #7
16.482	PBA	1999.29541	1.03455e-2	20.68369		Anthracene #8
17.859	PB	89.44991	2.18958e-2	1.95858		Fluoranthene #9
18.861	BBA	134.17244	1.46349e-2	1.96359		Pyrene #10
21.192	BBA	296.62781	6.45989e-2	19.16184		p-Terphenyl d14 #11*
22.507	PBA	87.56583	2.22878e-2	1.95165		Benzo(a)anthracene #12
23.369	BBA	128.73080	1.52051e-2	1.95737		Chrysene #13
26.087	BB	95.14881	2.08462e-2	1.98349		Benzo(b)fluoranthene #14
27.514	BB	43.53363	2.27217e-2	9.89158e-1		Benzo(k)fluoranthene #15
28.615	BB	74.71053	2.64267e-2	1.97435		Benzo(a)pyrene #16
30.459	PB	21.26099	9.39100e-2	1.99662		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.271	BB	39.84513	5.34666e-2	2.13039		Benzo(g,h,i)perylene #18
32.200	BB	93.07120	2.06198e-2	1.91911		Indeno(1,2,3-cd)pyrene #1

Totals : 198.95326

Results obtained with enhanced integrator!

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*** End of Report ***

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	BB	2.52777	2.57003e-2	6.49643e-2		Naphthalene #1
12.001	BB	1.64939	2.24893e-2	3.70937e-2		1-Methylnaphthalene #3
12.582	BB	3.06234	1.72691e-2	5.28840e-2		2-Methylnaphthalene #4
13.058	BB	2.39730	1.38228e-2	3.31373e-2		Acenaphthene #5
13.714	BB	5.89018	6.56879e-3	3.86913e-2		Fluorene #6
15.100	BB	1.11072	1.68488e-1	1.87143e-1		Phenanthrene #7
16.502	PB	1.46943e-1	3.03714e-1	4.46287e-2		Anthracene #8
17.879	BB	9.11878e-1	2.38671e-2	2.17639e-2		Fluoranthene #9
18.873	BB	4.47318e-1	4.06594e-2	1.81877e-2		Pyrene #10
21.191	BBA	35.29827	2.86511e-1	10.11336		p-Terphenyl d14 #11*
22.496	BB	3.46432e-1	7.96557e-3	2.75953e-3		Benzo(a)anthracene #12
23.430	BB	5.39821e-1	3.90144e-2	2.10608e-2		Chrysene #13
26.077	BB	3.00037e-1	1.65598e-2	4.96855e-3		Benzo(b)fluoranthene #14
27.494	BB	6.72604e-1	2.77566e-3	1.86692e-3		Benzo(k)fluoranthene #15
28.587	PB	3.45211e-1	4.67660e-3	1.61441e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.306	BB	2.18750e-1	2.69466e-2	5.89457e-3		Benzo(g,h,i)perylene #18
32.203	BB	9.06280e-1	1.37440e-2	1.24560e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				10.66247		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.418	BB	9.16160	8.27651e-3	7.58260e-2		Naphthalene #1
11.059	PB	3.60206	3.00095e-2	1.08096e-1		Acenaphthylene #2
11.994	BB	1.74858	1.29932e-2	2.27198e-2		1-Methylnaphthalene #3
12.561	BB	6.09448	1.12713e-2	6.86924e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.759	BB	5.46988	1.76946e-2	9.67872e-2		Fluorene #6
15.087	BB	3.76720	1.74291e-2	6.56588e-2		Phenanthrene #7
16.480	BBA	5.45518	1.03455e-2	5.64365e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.173	BBA	156.22694	6.45989e-2	10.09209		p-Terphenyl d14 #11*
22.414	PB	1.78269	2.22878e-2	3.97323e-2		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.62604

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Data File C:\HPCHEM\2\DATA\032002\4L002915.D Sample Name: WG114812-03 CCV
HPLC4 3/21/2002 8:44:33 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/21/2002 6:53:28 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.444	20.0	19.202	-4.0
1-Methylnaphthalene #3	12.022	20.0	19.284	-3.6
2-Methylnaphthalene #4	12.595	20.0	19.061	-4.7
Acenaphthene #5	13.074	20.0	19.406	-3.0
Fluorene #6	13.727	20.0	20.191	1.0
Phenanthrene #7	15.107	20.0	18.980	-5.1
Anthracene #8	16.502	20.0	19.921	-0.4
Fluoranthene #9	17.876	2.0	1.921	-4.0
Pyrene #10	18.874	2.0	1.898	-5.1
p-Terphenyl d14 #11*	21.191	20.0	19.214	-3.9
Benzo(a)anthracene #12	22.500	2.0	1.916	-4.2
Chrysene #13	23.357	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.069	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.490	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.595	2.0	1.935	-3.3
Dibenz(a,h)anthracene #1	30.442	2.0	1.919	-4.0
Benzo(g,h,i)perylene #18	31.259	2.0	1.894	-5.3
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.936	-3.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.790	3.9
Acenaphthylene #2	11.060	20.0	20.093	0.5
1-Methylnaphthalene #3	12.006	20.0	20.029	0.1
2-Methylnaphthalene #4	12.580	20.0	20.217	1.1
Acenaphthene #5	13.059	20.0	19.667	-1.7
Fluorene #6	13.711	20.0	19.827	-0.9
Phenanthrene #7	15.091	20.0	20.172	0.9
Anthracene #8	16.486	20.0	20.741	3.7
Fluoranthene #9	17.859	2.0	1.964	-1.8
Pyrene #10	18.858	2.0	1.966	-1.7
p-Terphenyl d14 #11*	21.176	20.0	19.251	-3.7
Benzo(a)anthracene #12	22.484	2.0	1.966	-1.7
Chrysene #13	23.341	2.0	1.965	-1.8
Benzo(b)fluoranthene #14	26.052	2.0	1.969	-1.6
Benzo(k)fluoranthene #15	27.474	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.578	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.426	2.0	1.973	-1.4
Benzo(g,h,i)perylene #18	31.242	2.0	2.068	3.4
Indeno(1,2,3-cd)pyrene #	32.175	2.0	1.935	-3.2

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\032002\4L002915.D Sample Name: WG114812-03 CCV
HPLC4 3/21/2002 8:44:33 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/21/2002 6:53:28 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.444	20.0	19.202	-4.0
1-Methylnaphthalene #3	12.022	20.0	19.284	-3.6
2-Methylnaphthalene #4	12.595	20.0	19.061	-4.7
Acenaphthene #5	13.074	20.0	19.406	-3.0
Fluorene #6	13.727	20.0	20.191	1.0
Phenanthrene #7	15.107	20.0	18.980	-5.1
Anthracene #8	16.502	20.0	19.921	-0.4
Fluoranthene #9	17.876	2.0	1.921	-4.0
Pyrene #10	18.874	2.0	1.898	-5.1
p-Terphenyl d14 #11*	21.191	20.0	19.214	-3.9
Benzo(a)anthracene #12	22.500	2.0	1.916	-4.2
Chrysene #13	23.357	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.069	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.490	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.595	2.0	1.935	-3.3
Dibenz(a,h)anthracene #1	30.442	2.0	1.919	-4.0
Benzo(g,h,i)perylene #18	31.259	2.0	1.894	-5.3
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.936	-3.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.790	3.9
Acenaphthylene #2	11.060	20.0	20.093	0.5
1-Methylnaphthalene #3	12.006	20.0	20.029	0.1
2-Methylnaphthalene #4	12.580	20.0	20.217	1.1
Acenaphthene #5	13.059	20.0	19.667	-1.7
Fluorene #6	13.711	20.0	19.827	-0.9
Phenanthrene #7	15.091	20.0	20.172	0.9
Anthracene #8	16.486	20.0	20.741	3.7
Fluoranthene #9	17.859	2.0	1.964	-1.8
Pyrene #10	18.858	2.0	1.966	-1.7
p-Terphenyl d14 #11*	21.176	20.0	19.251	-3.7
Benzo(a)anthracene #12	22.484	2.0	1.966	-1.7
Chrysene #13	23.341	2.0	1.965	-1.8
Benzo(b)fluoranthene #14	26.052	2.0	1.969	-1.6
Benzo(k)fluoranthene #15	27.474	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.578	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.426	2.0	1.973	-1.4
Benzo(g,h,i)perylene #18	31.242	2.0	2.068	3.4
Indeno(1,2,3-cd)pyrene #	32.175	2.0	1.935	-3.2

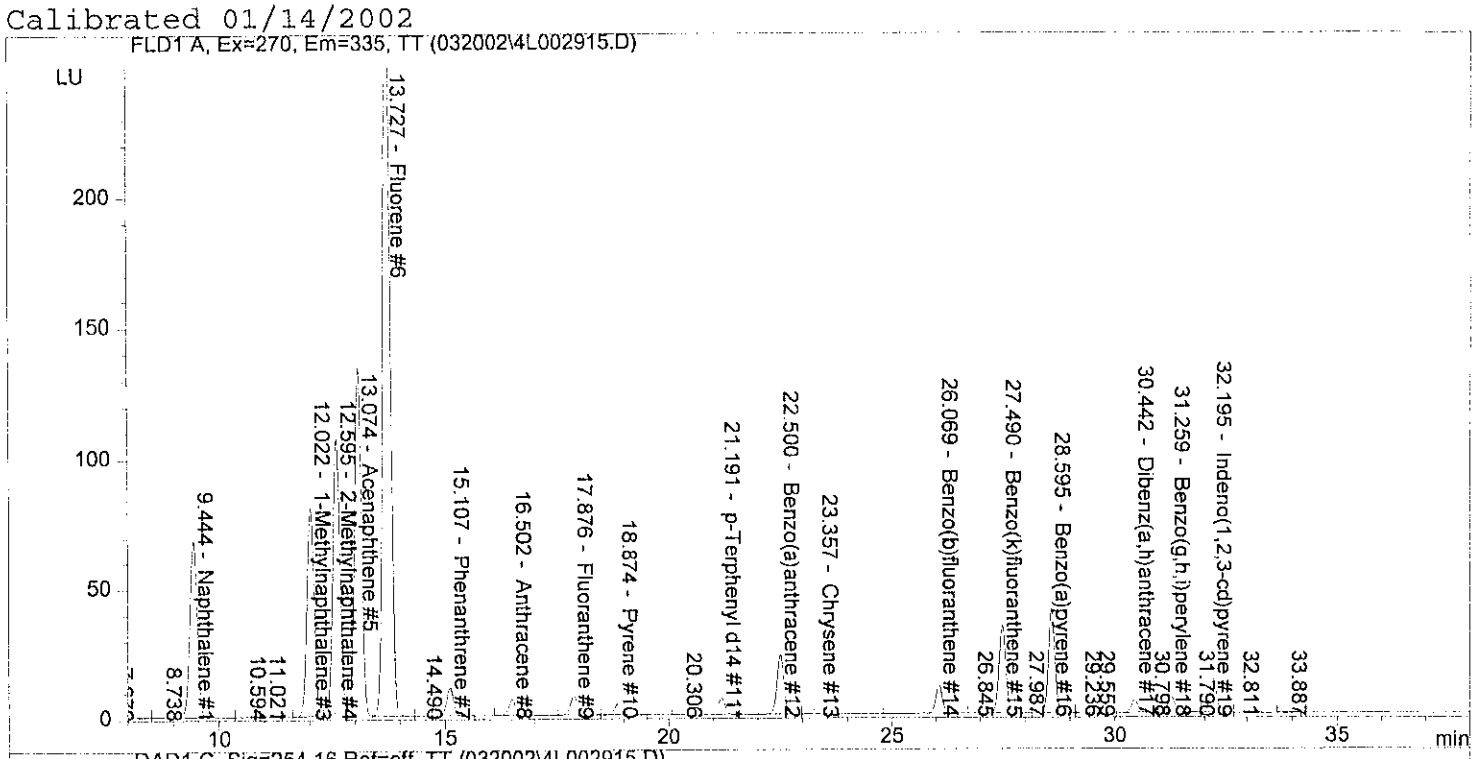
= Failed 15.0% Criteria

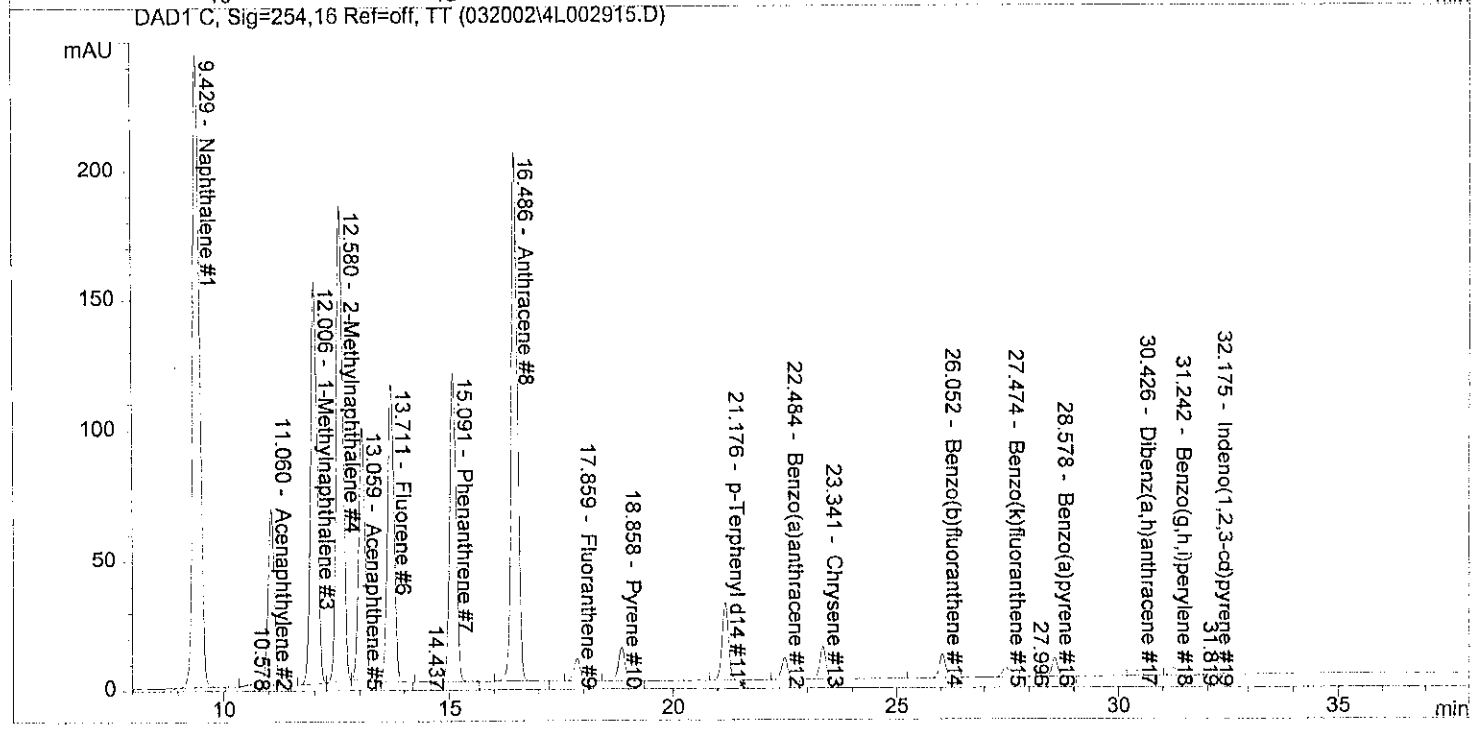
Injection Date : 3/21/2002 6:53:28 AM
Sample Name : WG114812-03 CCV
Acq. Operator : RDC

Seq. Line : 19
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	747.16278	2.57003e-2	19.20229		Naphthalene #1
12.022	BB	857.46637	2.24893e-2	19.28383		1-Methylnaphthalene #3
12.595	BB	1103.77307	1.72691e-2	19.06121		2-Methylnaphthalene #4
13.074	BB	1403.90527	1.38228e-2	19.40587		Acenaphthene #5
13.727	BB	3073.84229	6.56879e-3	20.19142		Fluorene #6
15.107	BBA	112.64700	1.68488e-1	18.97963		Phenanthrene #7
16.502	BBA	65.59051	3.03714e-1	19.92078		Anthracene #8
17.876	BB	80.48541	2.38671e-2	1.92095		Fluoranthene #9
18.874	BBA	46.69043	4.06594e-2	1.89840		Pyrene #10
21.191	BB	67.06191	2.86511e-1	19.21401		p-Terphenyl d14 #11*
22.500	BB	240.53757	7.96557e-3	1.91602		Benzo(a)anthracene #12
23.357	BB	49.40866	3.90144e-2	1.92765		Chrysene #13
26.069	BB	117.45109	1.65598e-2	1.94496		Benzo(b)fluoranthene #14
27.490	BB	352.34430	2.77566e-3	9.77990e-1		Benzo(k)fluoranthene #15
28.595	BB	413.69882	4.67660e-3	1.93470		Benzo(a)pyrene #16
30.442	BB	48.80956	3.93196e-2	1.91917		Dibenz(a,h)anthracene #17
31.259	BB	70.29235	2.69466e-2	1.89414		Benzo(g,h,i)perylene #18
32.195	BB	140.86295	1.37440e-2	1.93603		Indeno(1,2,3-cd)pyrene #1
Totals :				173.52906		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.429	BBA	2511.89209	8.27651e-3	20.78970		Naphthalene #1
11.060	BBA	669.56586	3.00095e-2	20.09334		Acenaphthylene #2
12.006	PB	1541.48511	1.29932e-2	20.02887		1-Methylnaphthalene #3
12.580	BB	1793.71069	1.12713e-2	20.21737		2-Methylnaphthalene #4
13.059	BB	964.84308	2.03841e-2	19.66748		Acenaphthene #5
13.711	BBA	1120.51575	1.76946e-2	19.82706		Fluorene #6
15.091	BBA	1157.38086	1.74291e-2	20.17210		Phenanthrene #7
16.486	BBA	2004.84766	1.03455e-2	20.74113		Anthracene #8
17.859	BB	89.69737	2.18958e-2	1.96399		Fluoranthene #9
18.858	BBA	134.31787	1.46349e-2	1.96572		Pyrene #10
21.176	BBA	298.00543	6.45989e-2	19.25083		p-Terphenyl d14 #11*
22.484	BBA	88.20395	2.22878e-2	1.96588		Benzo(a)anthracene #12
23.341	BBA	129.21646	1.52051e-2	1.96475		Chrysene #13
26.052	PBA	94.44662	2.08462e-2	1.96885		Benzo(b)fluoranthene #14
27.474	BB	43.36811	2.27217e-2	9.85397e-1		Benzo(k)fluoranthene #15
28.578	BBA	74.89756	2.64267e-2	1.97929		Benzo(a)pyrene #16
30.426	PBA	21.00849	9.39100e-2	1.97291		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.242	BB	38.67940	5.34666e-2	2.06806		Benzo(g,h,i)perylene #18
32.175	BBA	93.86073	2.06198e-2	1.93539		Indeno(1,2,3-cd)pyrene #1

Totals : 199.55813

Results obtained with enhanced integrator!

*** End of Report ***

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8310

Column: LC-PAH

	STD #1	STD #2	STD #3
Date Run	10/30/2001	10/31/2001	11/2/2001
File #	4L002247	4L002275	4L002311
Time	0:54	3:51	14:47

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Naphthalene (FLD)	9.337	9.362	9.352	0.038
1-Methylnaphthalene (FLD)	11.935	11.941	11.940	0.010
2-Methylnaphthalene (FLD)	12.517	12.523	12.521	0.009
Acenaphthene (FLD)	13.001	13.006	13.005	0.008
Fluorene (FLD)	13.664	13.667	13.669	0.008
Phenanthrene (FLD)	15.062	15.066	15.071	0.014
Anthracene (FLD)	16.475	16.483	16.493	0.027
Fluoranthene (FLD)	17.860	17.869	17.883	0.035
Pyrene (FLD)	18.868	18.881	18.897	0.044
p-Terphenyl-d14 (FLD)	21.217	21.244	21.262	0.068
Benzo(a)anthracene (FLD)	22.535	22.572	22.587	0.080
Chrysene (FLD)	23.401	23.449	23.467	0.102
Benzo(b)fluoranthene (FLD)	26.119	26.182	26.204	0.132
Benzo(k)fluoranthene (FLD)	27.554	27.629	27.650	0.151
Benzo(a)pyrene (FLD)	28.666	28.739	28.758	0.146
Dibenz(a,h)anthracene (FLD)	30.532	30.615	30.635	0.164
Benzo(g,h,i)perylene (FLD)	31.340	31.420	31.445	0.165
Indeno(1,2,3-cd)pyrene (FLD)	32.285	32.355	32.382	0.150
Naphthalene (VWD)	9.318	9.341	9.330	0.035
Acenaphthylene (VWD)	10.959	10.965	10.968	0.014
1-Methylnaphthalene (VWD)	11.916	11.920	11.922	0.009
2-Methylnaphthalene (VWD)	12.498	12.502	12.502	0.007
Acenaphthene (VWD)	12.982	12.986	12.986	0.007
Fluorene (VWD)	13.644	13.646	13.649	0.008
Phenanthrene (VWD)	15.042	15.045	15.052	0.015
Anthracene (VWD)	16.456	16.462	16.474	0.027
Fluoranthene (VWD)	17.840	17.848	17.863	0.035
Pyrene (VWD)	18.848	18.859	18.876	0.042
p-Terphenyl-d14 (VWD)	21.198	21.223	21.243	0.068
Benzo(a)anthracene (VWD)	22.516	22.551	22.568	0.080
Chrysene (VWD)	23.382	23.428	23.448	0.102
Benzo(b)fluoranthene (VWD)	26.099	26.160	26.184	0.131
Benzo(k)fluoranthene (VWD)	27.535	27.609	27.632	0.152
Benzo(a)pyrene (VWD)	28.646	28.717	28.738	0.145
Dibenz(a,h)anthracene (VWD)	30.513	30.595	30.617	0.164
Benzo(g,h,i)perylene (VWD)	31.320	31.398	31.426	0.165
Indeno(1,2,3-cd)pyrene (VWD)	32.266	32.338	32.367	0.156

2.2.7.4 Raw QC Data

3/22/02

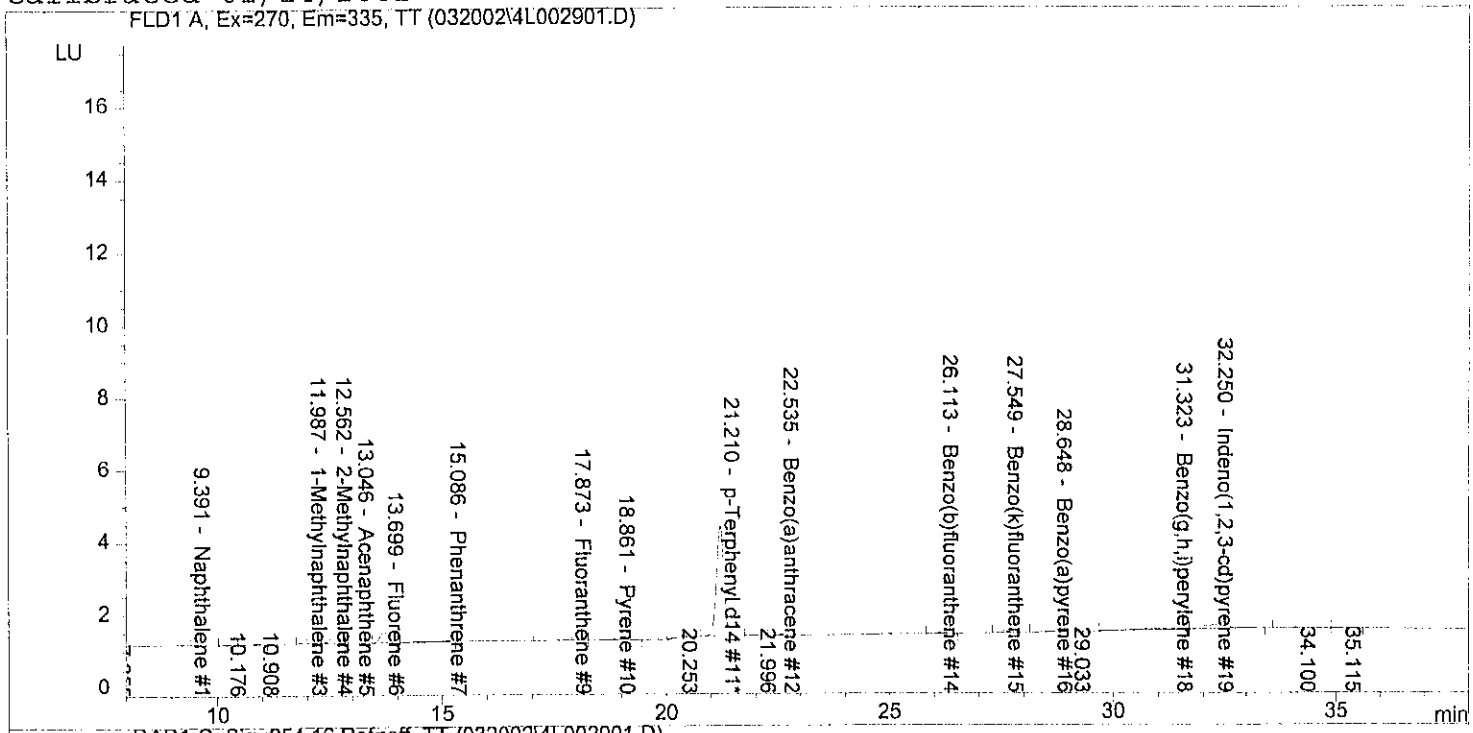
Injection Date : 3/20/2002 5:40:39 PM
Sample Name : WG114754-02 ~~WBKL1~~
Acq. Operator : RDC

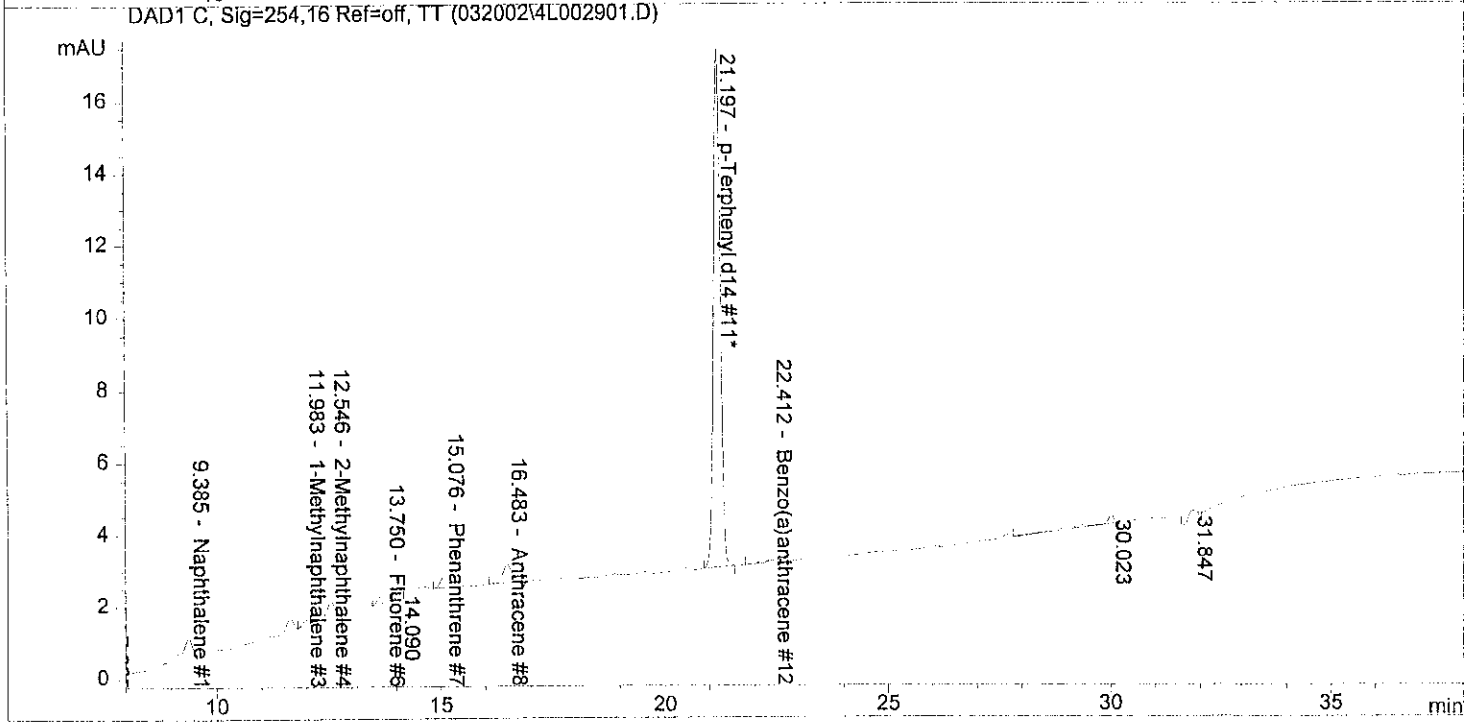
WBLK RDC 3/22/02

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.391	BB	1.84640	2.57003e-2	4.74530e-2		Naphthalene #1
11.987	BB	1.42068	2.24893e-2	3.19501e-2		1-Methylnaphthalene #3
12.562	BB	2.35966	1.72691e-2	4.07493e-2		2-Methylnaphthalene #4
13.046	BB	1.47351	1.38228e-2	2.03680e-2		Acenaphthene #5
13.699	BBA	3.76487	6.56879e-3	2.47306e-2		Fluorene #6
15.086	BBA	1.07798	1.68488e-1	1.81626e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.873	BB	8.33903e-1	2.38671e-2	1.99028e-2		Fluoranthene #9
18.861	BB	4.72918e-1	4.06594e-2	1.92286e-2		Pyrene #10
21.210	BBA	34.48734	2.86511e-1	9.88102		p-Terphenyl d14 #11*
22.535	BB	3.35721e-1	7.96557e-3	2.67421e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.113	BBA	3.66022e-1	1.65598e-2	6.06124e-3		Benzo(b)fluoranthene #14
27.549	BBA	6.86507e-1	2.77566e-3	1.90551e-3		Benzo(k)fluoranthene #15
28.648	PB	2.04128e-1	4.67660e-3	9.54625e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.323	PB	2.84558	2.69466e-2	7.66789e-2		Benzo(g,h,i)perylene #18
32.250	BB	4.67872	1.37440e-2	6.43045e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 10.41961

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.385	BB	6.37380	8.27651e-3	5.27528e-2		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.983	BB	1.04918	1.29932e-2	1.36322e-2		1-Methylnaphthalene #3
12.546	BB	7.22319	1.12713e-2	8.14144e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.750	BB	3.94231	1.76946e-2	6.97575e-2		Fluorene #6
15.076	BB	4.29316	1.74291e-2	7.48258e-2		Phenanthrene #7
16.483	BB	7.93336	1.03455e-2	8.20745e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.197	BBA	153.42522	6.45989e-2	9.91111		p-Terphenyl d14 #11*
22.412	PB	1.10508	2.22878e-2	2.46299e-2		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.268	-	-	-		Benzo(g,h,i)perylene #18
32.209	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.31019

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

RDC 3/21/02

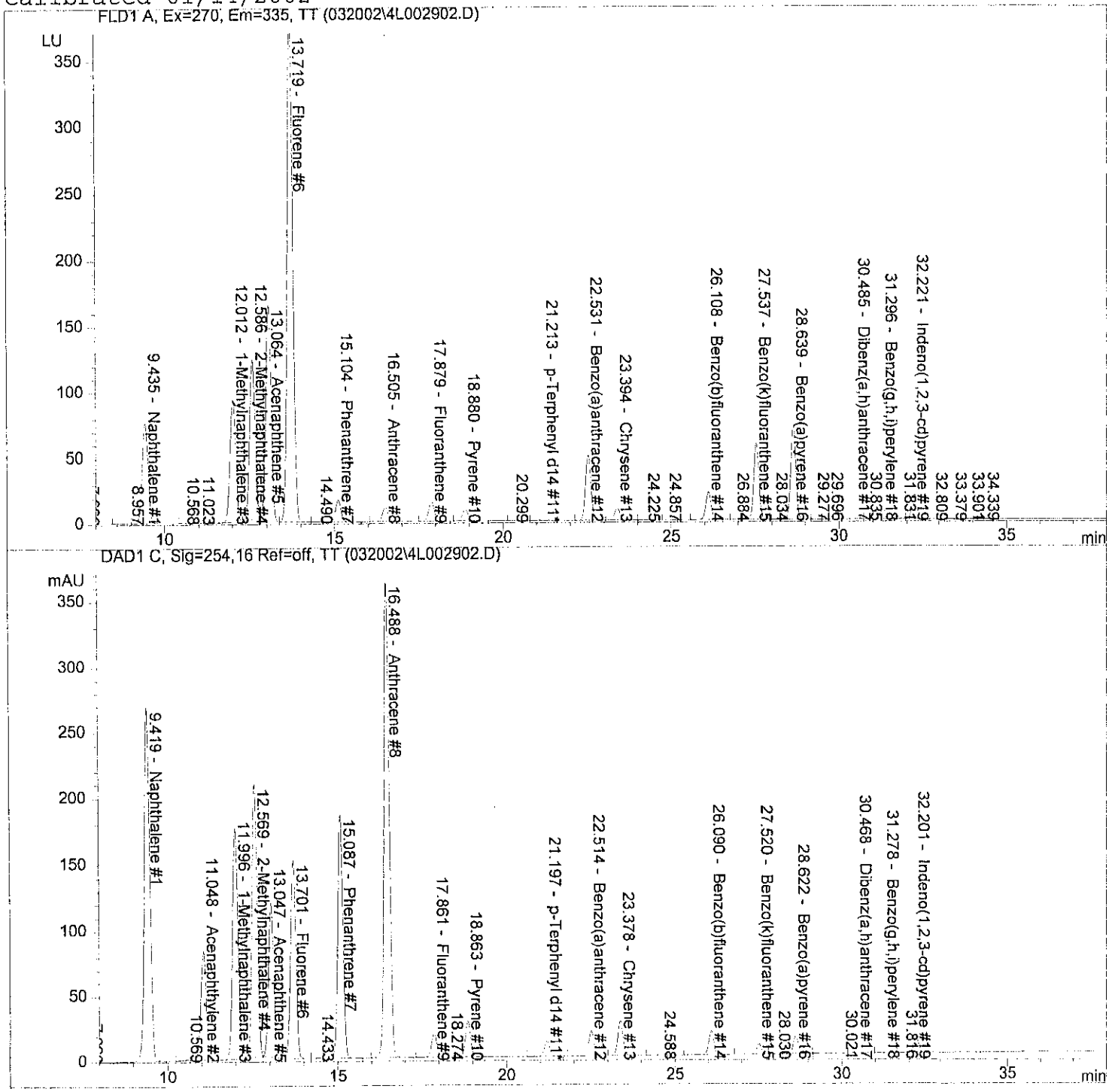
Injection Date : 3/20/2002 6:37:17 PM
Sample Name : WG114754-03 ~~WBKL~~ WLCS
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

RDC 3/21/02

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002



Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	BBA	905.19745	2.57003e-2	23.26382		Naphthalene #1
12.012	PB	1082.32275	2.24893e-2	24.34070		1-Methylnaphthalene #3
12.586	BB	1383.54382	1.72691e-2	23.89260		2-Methylnaphthalene #4
13.064	BB	1881.77722	1.38228e-2	26.01139		Acenaphthene #5
13.719	BB	4448.37598	6.56879e-3	29.22044		Fluorene #6
15.104	BBA	193.17192	1.68488e-1	32.54708		Phenanthrene #7
16.505	BBA	127.50488	3.03714e-1	38.72506		Anthracene #8
17.879	PBA	176.26366	2.38671e-2	4.20690		Fluoranthene #9
18.880	BBA	104.84708	4.06594e-2	4.26302		Pyrene #10
21.213	BB	28.96230	2.86511e-1	8.29803		p-Terphenyl d14 #11*
22.531	BB	555.57281	7.96557e-3	4.42546		Benzo(a)anthracene #12
23.394	BB	105.56956	3.90144e-2	4.11874		Chrysene #13
26.108	BB	236.71915	1.65598e-2	3.92001		Benzo(b)fluoranthene #14
27.537	BB	624.97852	2.77566e-3	1.73473		Benzo(k)fluoranthene #15
28.639	BB	778.75800	4.67660e-3	3.64194		Benzo(a)pyrene #16
30.485	BB	63.68378	3.93196e-2	2.50402		Dibenz(a,h)anthracene #17
31.296	BB	92.53856	2.69466e-2	2.49360		Benzo(g,h,i)perylene #18
32.221	BB	204.24646	1.37440e-2	2.80717		Indeno(1,2,3-cd)pyrene #1

Totals : 240.41472

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.419	BBA	3035.69092	8.27651e-3	25.12493		Naphthalene #1
11.048	BB	898.05634	3.00095e-2	26.95022		Acenaphthylene #2
11.996	BB	1935.56836	1.29932e-2	25.14929		1-Methylnaphthalene #3
12.569	BB	2245.74536	1.12713e-2	25.31237		2-Methylnaphthalene #4
13.047	BB	1288.43042	2.03841e-2	26.26353		Acenaphthene #5
13.701	BB	1624.18945	1.76946e-2	28.73935		Fluorene #6
15.087	BBA	1973.47498	1.74291e-2	34.39588		Phenanthrene #7
16.488	BBA	3885.11914	1.03455e-2	40.19346		Anthracene #8
17.861	BB	198.92139	2.18958e-2	4.35554		Fluoranthene #9
18.863	BBA	302.02359	1.46349e-2	4.42007		Pyrene #10
21.197	BBA	128.16081	6.45989e-2	8.27905		p-Terphenyl d14 #11*
22.514	BBA	206.85973	2.22878e-2	4.61046		Benzo(a)anthracene #12
23.378	PBA	276.90735	1.52051e-2	4.21042		Chrysene #13
26.090	BBA	192.44579	2.08462e-2	4.01176		Benzo(b)fluoranthene #14
27.520	PB	78.14378	2.27217e-2	1.77556		Benzo(k)fluoranthene #15
28.622	BB	142.31979	2.64267e-2	3.76104		Benzo(a)pyrene #16
30.468	BB	27.82415	9.39100e-2	2.61296		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.278	BB	51.07441	5.34666e-2	2.73078		Benzo(g,h,i)perylene #18
32.201	BB	138.60379	2.06198e-2	2.85799		Indeno(1,2,3-cd)pyrene #1

Totals : 275.75465

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	Seqtable	Calibration	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	cc 02:01	505619/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	505 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	505 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	Dil'n. of 505 56 19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01		WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	↓ 12:01	Dil'n. of 505 57-27/ 505 57-28	WG111292-08 AL

RRC
11/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials BDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☐ Waste container

Returned to Control?
Yes ✓ No ___

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature] 1/14/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114812-01 CCV	8310	1	Sample		
3	3	ESS0040-50 surr.	8310	1	Sample		
4	4	ESS0041-01 spk.	8310	1	Sample		
5	5	WG114754-02 ~~WBKL~~	8310	1	Sample		
6	6	WG114754-03 ~~WBKL~~	8310	1	Sample		
7	7	L0203326-01 831W	8310	1	Sample		
8	8	L0203326-02 831W	8310	1	Sample		
9	9	L0203327-01 831W	8310	1	Sample		
10	10	L0203327-02 831W	8310	1	Sample		
11	11	L0203327-03 831W	8310	1	Sample		
12	12	WG114754-01 WREF	8310	1	Sample		
13	13	WG114812-02 CCV	8310	1	Sample		
14	14	WG114754-04 WMS	8310	1	Sample		
15	15	WG114754-05 WMSD	8310	1	Sample		
16	16	L0203327-07 831W	8310	1	Sample		
17	17	L0203327-08 831W	8310	1	Sample		
18	18	L0203327-09 831W	8310	1	Sample		
19	13	WG114812-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\MAR20.S

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002897	01:01		accn blk
No	2	2	8310	4L002898	02:01	SOS 5620/5824	WG114812-01 CC
No	3	3	8310	4L002899	03:01		ESS0040-50 sur
No	4	4	8310	4L002900	04:01		ESS0041-01 spk
No	5	5	8310	4L002901	05:01		WG114754-02 WB
No	6	6	8310	4L002902	06:01		WG114754-03 WB
No	7	7	8310	4L002903	07:01		L0203326-01 83
No	8	8	8310	4L002904	08:01		L0203326-02 83
No	9	9	8310	4L002905	09:01		L0203327-01 83
No	10	10	8310	4L002906	10:01		L0203327-02 83
No	11	11	8310	4L002907	11:01		L0203327-03 83
No	12	12	8310	4L002908	12:01		WG114754-01 WR
No	13	13	8310	4L002909	13:01	SOS 5620/5824	WG114812-02 CC
No	14	14	8310	4L002910	14:01		WG114754-04 WM
No	15	15	8310	4L002911	15:01		WG114754-05 WM
No	16	16	8310	4L002912	16:01	LL (cont.)	L0203327-07 83
No	17	17	8310	4L002913	17:01		L0203327-08 83
No	18	18	8310	4L002914	18:01		L0203327-09 83
No	19	13	8310	4L002915	19:01		WG114812-03 CC

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar.26 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 032602
Analyst Initials LDC SOP # HPLC01 Rev. # 3 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

L0203327-07 requires conf of accuracy/Big Core

Reviewed By: _____

Parameter: 8310 H_2O SOP #: EXHILC01 Revision #: 6
Extraction Analyst(s): RCH TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 @ 1540 Date TV/KD: 3/20/02
Spike/Surrogate Analyst: RCH Witness: CES
Surrogate #: ESSW39-27 Earliest Hold Date: 3/25
Spike #: A = ESS0040-34 Spike #: B = —

Extraction Work Group WG 114754
Analytical Work Group WG 114811

Extract Relinquished By: DP
Extract Received By & Date: CK 3/20/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100uL		1mL	T				WG 114754-02
2	LCS			✓		1		500uL		C				WG 1 -03
3	03-326-01	8310		✓		940 mL				T			✓	A
4	-02			✓		965mL				T				
5	03-327-01			✓						C				
6	-02			✓						T				
7	-03			✓						T				
8	-04			✓						T				
9	-05 MS			✓				500uL		C				lab 114754-01
10	-06 MSD			✓		1		1		C				*1 -04
11	-07			✓		950 mL				T				*1 -05
12	-08			✓		965 mL				T				
13	-09			✓		980 mL				T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/20/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH_3CN Lot #: 41264
Reagent: FeNH4SO4 Lot #: EX2092
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EX2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Donna Pierson Date: 03/20/02

Extraction Notes For Volume # 182 Page # 29

General Comments: * MS, MD OF 03-327-04

Extraction Anomalies: * VERY THICK EMULSION DURING EXTRACTION.

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Run Date: 14-Jan-02

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

Re-calibration

Primary Reviewer: 1/18/02

Secondary Reviewer: 1/18/02

Supervisor Review: 1/18/02

√ = Checked & OK

NA = Not Applicable

Run Date: 20-Mar-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG114811 03-326	3/26/2002	
WG114811 03-327	3/26/2002	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0203327-07 needs confirmation of acenaphthylene.

Client requested MSD yielded percent recoveries for several analytes which were above advisory limits.

Primary Reviewer: RRC 3/22/02

Secondary Reviewer: mdl 3/23/02

Supervisor Review: mdl 3/23/02

√

NA

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0203327

METHOD

Analysis: SW-846 9056 / 300

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met. All method 300 acceptance criteria were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, 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.

Analyst: RDC REVIEWED: Stephanie D. Lepe DATE: 4/12/02

Rev. 7/14/00

ANIONS (9056)

Login Number L0203327

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- NA Extraction Bench Sheet

B. Sample Data

- Target analyte results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- — MS/MSD chromatogram and quantitation report with sample data
- — Duplicate chromatogram and quantitation report.
- ✓ Instrument Run Log
- NA Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calcutations

Checked By: RJC Date: 4/12/07

2.4.5.1 QC Summary

Login Number: L0203327
Blank File ID: 031902.13
Date Analyzed: 03/19/02
Time Analyzed: 13:24
Analyst: RDC

Work Group: WG114742
Blank Sample ID: WG114742-01
Instrument ID: IC2
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114742-02	031902.14	03/19/02 13:35	01
062-CEF9-2S-Q1-02-15	L0203327-01	031902.17	03/19/02 14:10	01
062-CEF9-3S-Q1-02-15	L0203327-02	031902.18	03/19/02 14:28	01
062-CEF9-5S-Q1-02-15	L0203327-03	031902.19	03/19/02 14:41	01
062-CEF9-7D-Q1-02-15	L0203327-04	031902.20	03/19/02 14:52	01
062-CEF9-9S-Q1-02-15	L0203327-07	031902.21	03/19/02 15:04	01
062-9DUP-Q1-02-15	L0203327-08	031902.22	03/19/02 15:15	01
062-9EQB-Q1-02-15	L0203327-09	031902.24	03/19/02 15:38	01
DUP	WG114742-04	031902.25	03/19/02 15:50	01
062-CEF9-7D-Q1-02-15	L0203327-05	031902.27	03/19/02 16:14	01
062-CEF9-7D-Q1-02-15	L0203327-06	031902.28	03/19/02 16:26	01

BLANK REPORT

Login Number: L0203327 Run Date: 03/19/2002 Sample ID: WG114742-01
Instrument ID: IC2 Run Time: 13:24 Method: 9056
File ID: 031902.13 Analyst: RDC Matrix: Water
Workgroup (AAB#): WG114742 Units: mg/L
Contract #: Cal ID: IC2-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/27/2002 15:16

LABORATORY CONTROL SAMPLE

Login Number: L0203327
Instrument ID: IC2
File ID: 031902.14
Workgroup (AAB#): WG114742
Contract #:

Run Date: 03/19/2002
Run Time: 13:35
Analyst: RDC

Sample ID: WG114742-02
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	4.17	103	90 - 110	
Nitrite	3.65	3.76	103	90 - 110	
Phosphate	9.78	9.94	102	90 - 110	

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 03/27/2002 15:16

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG114742	**Prep Work Group:**	NA	**Blank Filename:**	IC2_013	**Sample Number:**	L0203327-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_014	**Sample Filename:**	IC2_020
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0203326-02	**MS Filename:**	IC2_027
Analyst:	RDC	**Run Date:**	19-Mar-02	**Sample Filename:**	IC2_016	**MSD Filename:**	IC2_028
				Duplicate Filename:	IC2_025		

	CONCENTRATION, mg/L										% RECOVERY											
Analyte	**RDL**	**Blank**	**LCS Spike Amount**	**LCS**	**Sample**	**Dup**	**Sample**	**MS Spike Amount**	**MS**	**MSD**	**Blank**	**LCS**	**LCS LCL**	**LCS UCL**	**MS**	**MSD**	**MS LCL**	**MS UCL**	**DUP RPD**	**MSD RPD**	**RPD UCL**	**LCS**	**MS**	**MSD**
NITRITE-N	0.4	ND	3.66	3.76	ND	ND	ND	3.66	3.95	3.96	ND	103	90	110	108	108	80	120	NA	0	20			
NITRATE-N	0.6	ND	4.06	4.17	0.2	0.2	ND	4.06	4.36	4.40	ND	103	90	110	107	108	80	120	4.85	1	20			
PHOSPHATE-P	1	ND	9.78	9.94	ND	ND	ND	9.78	10.5	10.9	ND	102	90	110	108	111	80	120	NA	3	20			

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056 AAB#: WG114742

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-9DUP-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.64	19-MAR-02	2	1.64	
062-9EQB-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.16	19-MAR-02	2	1.16	
062-CEF9-2S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.17	19-MAR-02	2	1.17	
062-CEF9-3S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.16	19-MAR-02	2	1.16	
062-CEF9-5S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.08	19-MAR-02	2	1.08	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.14	19-MAR-02	2	1.14	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.19	19-MAR-02	2	1.19	
062-CEF9-7D-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.20	19-MAR-02	2	1.20	
062-CEF9-9S-Q1-02-15	18-MAR-02	19-MAR-02	19-MAR-02	2	1.12	19-MAR-02	2	1.12	

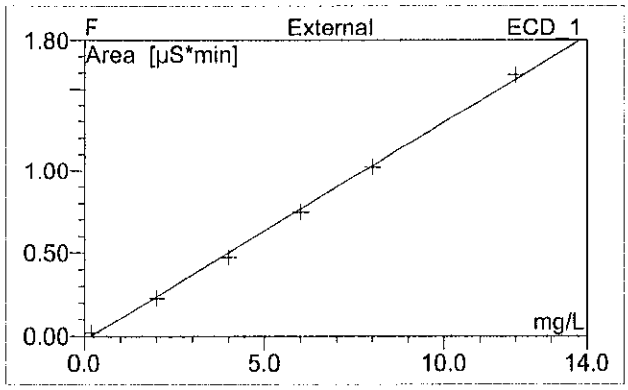
* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

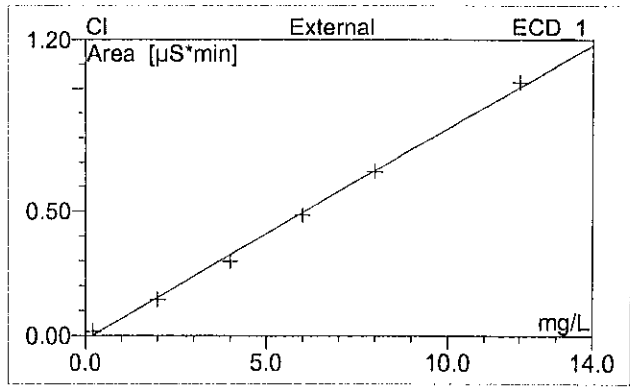
KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/27/2002 15:16

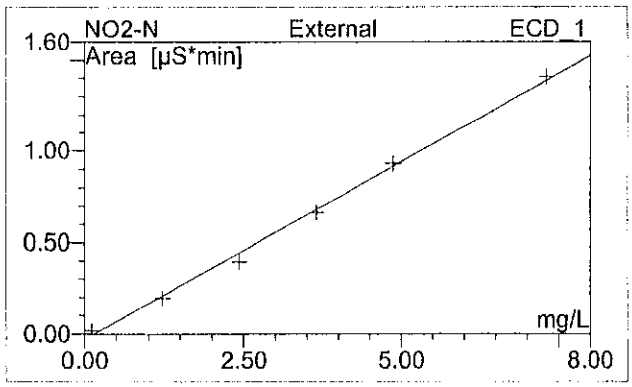
6 ANION STD #6

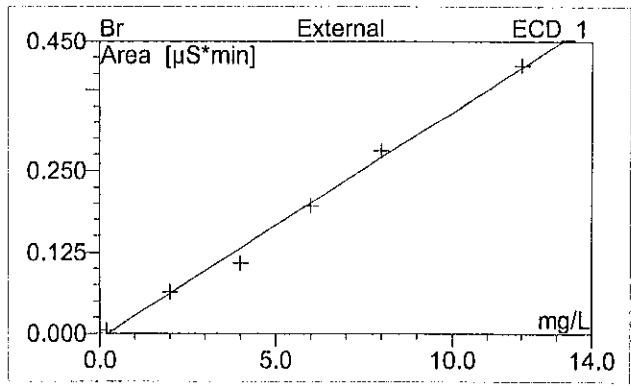
1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**









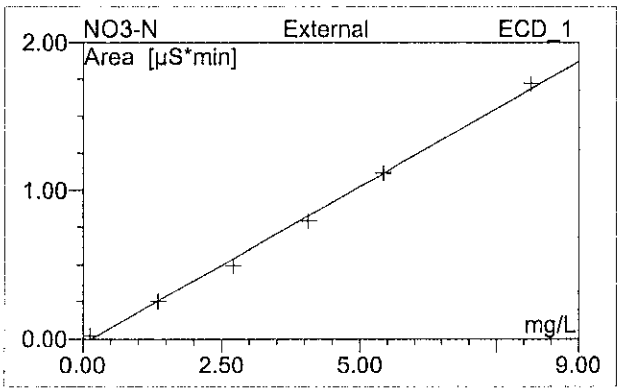
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

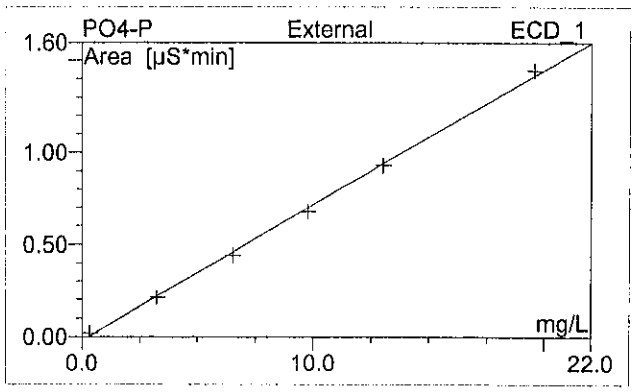
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

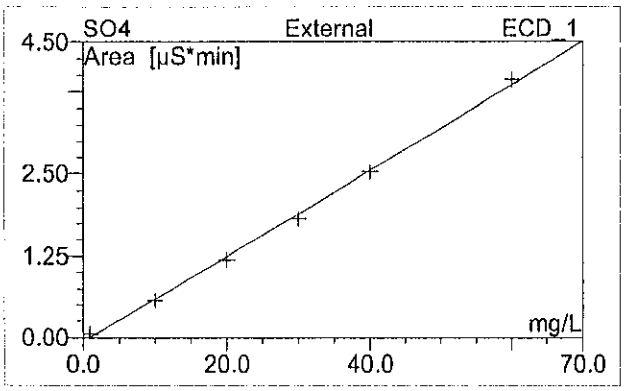
6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

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Version 6.30 SP1 Build 587

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*
Vial Number:	**8**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9159	-1.40	PASS
Cl	6	5.9267	-1.22	PASS
NO2-N	3.65	1.5489	-57.56	FAIL
Br	6	5.8498	-2.50	PASS
NO3-N	4.07	6.2520	53.61	FAIL
PO4-P	9.78	9.6802	-1.02	PASS
SO4	30	29.6053	-1.32	PASS

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*
Vial Number:	**10**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.2461	-95.90	FAIL
NO2-N	3.65	3.5391	-3.04	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	4.0656	-0.11	PASS
PO4-P	9.78	0.2847	-97.09	FAIL
n.a.	30	n.a.	#VALUE!	#VALUE!

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

12 WG114743-01 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-01 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 13:12**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9927	-0.12	PASS
Cl	6	5.9929	-0.12	PASS
NO2-N	3.65	3.6406	-0.26	PASS
Br	6	6.1326	2.21	PASS
NO3-N	4.07	4.0620	-0.20	PASS
PO4-P	9.78	9.8546	0.76	PASS
SO4	30	29.6360	-1.21	PASS

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

23 WG114743-02 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-02 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 15:27**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.1428	2.38	PASS
Cl	6	6.1034	1.72	PASS
NO2-N	3.65	3.6650	0.41	PASS
Br	6	6.3253	5.42	PASS
NO3-N	4.07	4.1954	3.08	PASS
PO4-P	9.78	10.1212	3.49	PASS
SO4	30	30.6150	2.05	PASS

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

29 WG114743-03 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-03 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 16:37**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2212	3.69	PASS
Cl	6	6.2515	4.19	PASS
NO2-N	3.65	3.8121	4.44	PASS
Br	6	6.3827	6.38	PASS
NO3-N	4.07	4.2346	4.04	PASS
PO4-P	9.78	10.2573	4.88	PASS
SO4	30	30.8755	2.92	PASS

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

Operator: Analyst — Printed: 3/27/2002 14:42:05

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 — Created: 3/19/2002 12:45:30 by gsg
#Samples: 30 — Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	3/7/2002 11:17:12
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	3/7/2002 11:28:43
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	3/7/2002 11:40:13
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished	3/7/2002 11:51:43
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	3/7/2002 12:03:12
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	3/7/2002 12:14:42
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	3/7/2002 12:38:53
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished	3/7/2002 12:50:23
9	ANION ALT STD: SOS58-15	Unknown	10	25.0	9056	9056	Finished	3/7/2002 13:01:53
10	DI WATER BLANK	Unknown	11	25.0	9056	9056	Finished	3/19/2002 12:49:36
11	ELUENT BLANK	Unknown	12	25.0	9056	9056	Finished	3/19/2002 13:01:06
12	WG114743-01 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 13:12:37
13	WG114742-01 BLANK 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:24:07
14	WG114742-02 LCS 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:35:36
15	L0203326-01 9056	Unknown	15	25.0	9056	9056	Finished	3/19/2002 13:47:07
16	WG114742-03 REF-DUP	Unknown	16	25.0	9056	9056	Finished	3/19/2002 13:58:38
17	L0203327-01 9056	Unknown	17	25.0	9056	9056	Finished	3/19/2002 14:10:07
18	L0203327-02 9056	Unknown	18	25.0	9056	9056	Finished	3/19/2002 14:28:04
19	L0203327-03 9056	Unknown	19	25.0	9056	9056	Finished	3/19/2002 14:41:24
20	WG114742-05 REF-MS	Unknown	20	25.0	9056	9056	Finished	3/19/2002 14:52:54
21	L0203327-07 9056	Unknown	21	25.0	9056	9056	Finished	3/19/2002 15:04:24
22	L0203327-08 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:15:54
23	WG114743-02 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 15:27:24
24	L0203327-09 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:38:55
25	WG114742-04 DUP	Unknown	15	25.0	9056	9056	Finished	3/19/2002 15:50:25
26	L0203327-09 9056 RR	Unknown	16	25.0	9056	9056	Finished	3/19/2002 16:03:18
27	WG114742-06 MS	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:14:48
28	WG114742-07 MSD	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:26:18
29	WG114743-03 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 16:37:48
30	END	Unknown	22	25.0	DX-320 OFF	9056	Finished	3/19/2002 16:49:18

RPC 3/27/02

Operator: Analyst — Printed: 3/27/2002 14:42:05

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 — Created: 3/19/2002 12:45:30 by gsg
#Samples: 30 — Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
2	ANION STD #2	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
3	ANION STD #3	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
4	ANION STD #4	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
5	ANION STD #5	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
6	ANION STD #6	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
7	ELUENT BLANK	1.0000		1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1.0000		1,1 RDC/JWR ANION ALT STD SV53-30 030702
9	ANION ALT STD: SOS58-15	1.0000		1,1 RDC/JWR ANION ALT STD SOS58-15 030702
10	DI WATER BLANK	1.0000		1,1 RDC
11	ELUENT BLANK	1.0000		1,1 RDC
12	WG114743-01 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
13	WG114742-01 BLANK 031902	1.0000		1,1 RDC
14	WG114742-02 LCS 031902	1.0000		1,1 RDC ANION STD SOS0058-24 031902
15	L0203326-01 9056	1.0000		1,1 RDC
16	WG114742-03 REF-DUP	1.0000		1,1 RDC L0203326-02
17	L0203327-01 9056	1.0000		1,1 RDC
18	L0203327-02 9056	1.0000		1,1 RDC
19	L0203327-03 9056	1.0000		1,1 RDC
20	WG114742-05 REF-MS	1.0000		1,1 RDC L0203327-04 REF
21	L0203327-07 9056	1.0000		1,1 RDC
22	L0203327-08 9056	1.0000		1,1 RDC
23	WG114743-02 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
24	L0203327-09 9056	1.0000		1,1 RDC
25	WG114742-04 DUP	1.0000		1,1 RDC L0203326-02 DUP
26	L0203327-09 9056 RR	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
27	WG114742-06 MS	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
28	WG114742-07 MSD	1.0000		1,1 RDC L0203327-06 MSD SOS0058-24
29	WG114743-03 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
30	END	1.0000		1,1 RDC

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KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2002 Instrument ID IC-2 Column ID AG4A-SC Data Subdirectory 031902
Analyst Initials RLC SOP # IC01 Rev. # 0 ✓ 9056 ~~AS4A-SC~~ SOP # IC02 Rev. # ___ ___ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1193 psi
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

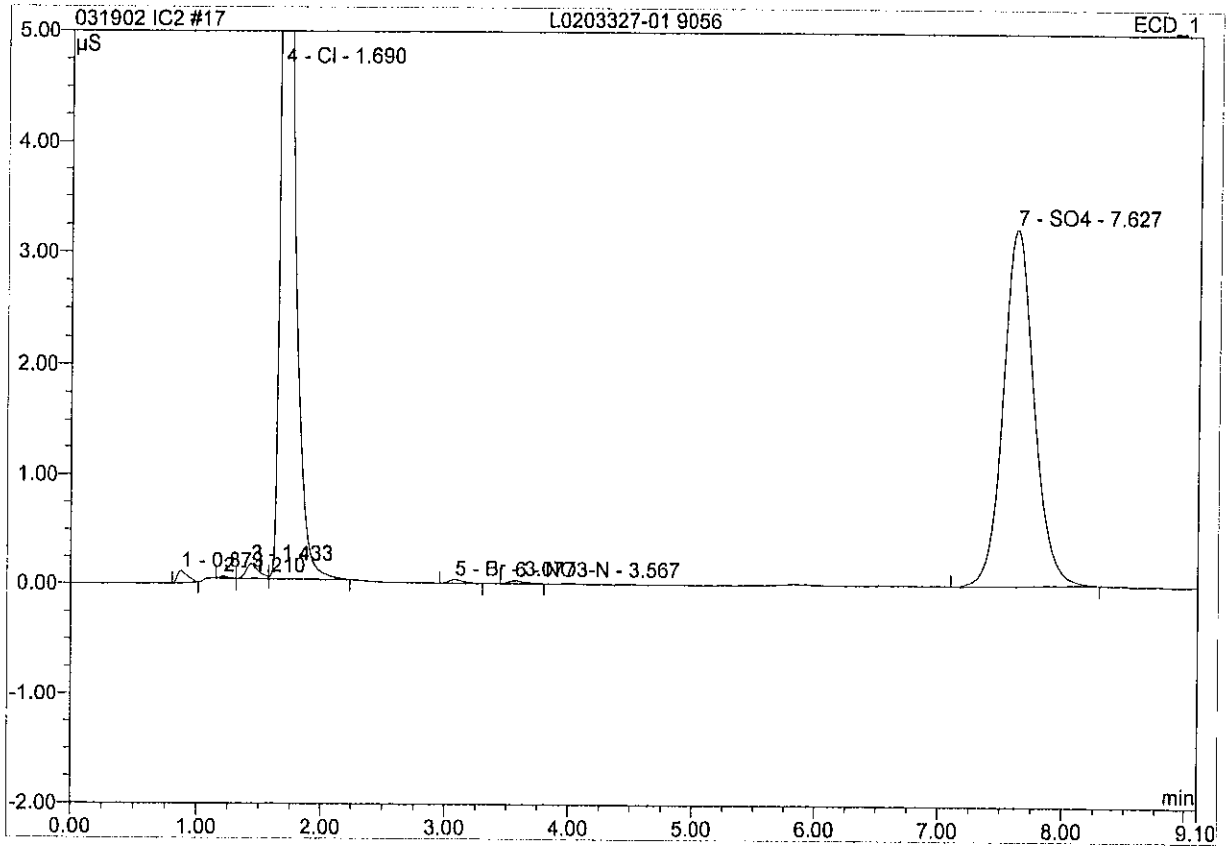
Reviewed By: 3/7/02

2.4.5.2 Sample Data

17 L0203327-01 9056

1,1 RDC

Sample Name:	**L0203327-01 9056**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 14:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

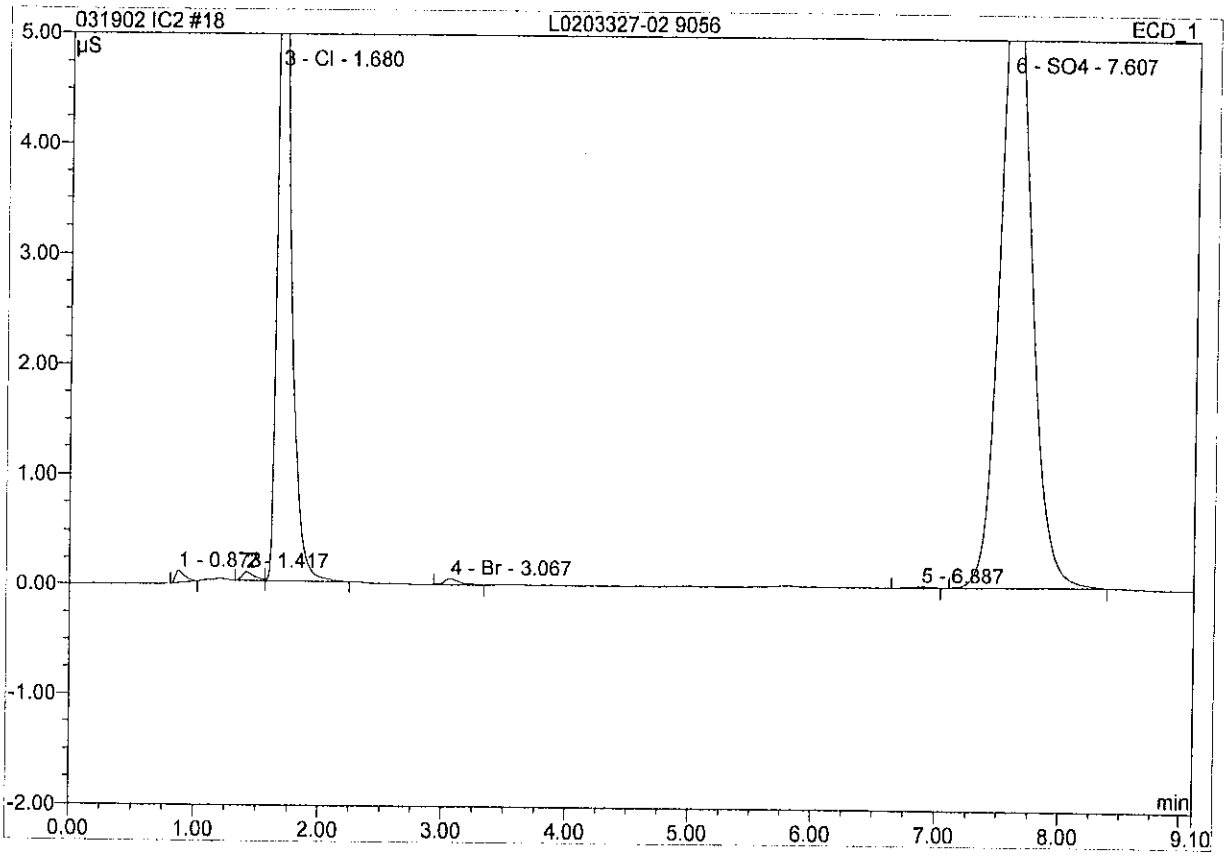


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.109	0.010	0.45	n.a.	BMB
2	1.21	n.a.	0.018	0.001	0.06	n.a.	BM
3	1.43	n.a.	0.135	0.015	0.69	n.a.	M
4	1.69	Cl	13.294	1.260	56.46	14.942	MB
5	3.08	Br	0.033	0.005	0.21	0.341	BMB
6	3.57	NO3-N	0.027	0.004	0.20	0.165	BMB
7	7.63	SO4	3.229	0.936	41.94	15.208	BMB
Total:			16.845	2.231	100.00	30.655	

18 L0203327-02 9056

1,1 RDC

Sample Name:	**L0203327-02 9056**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 14:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

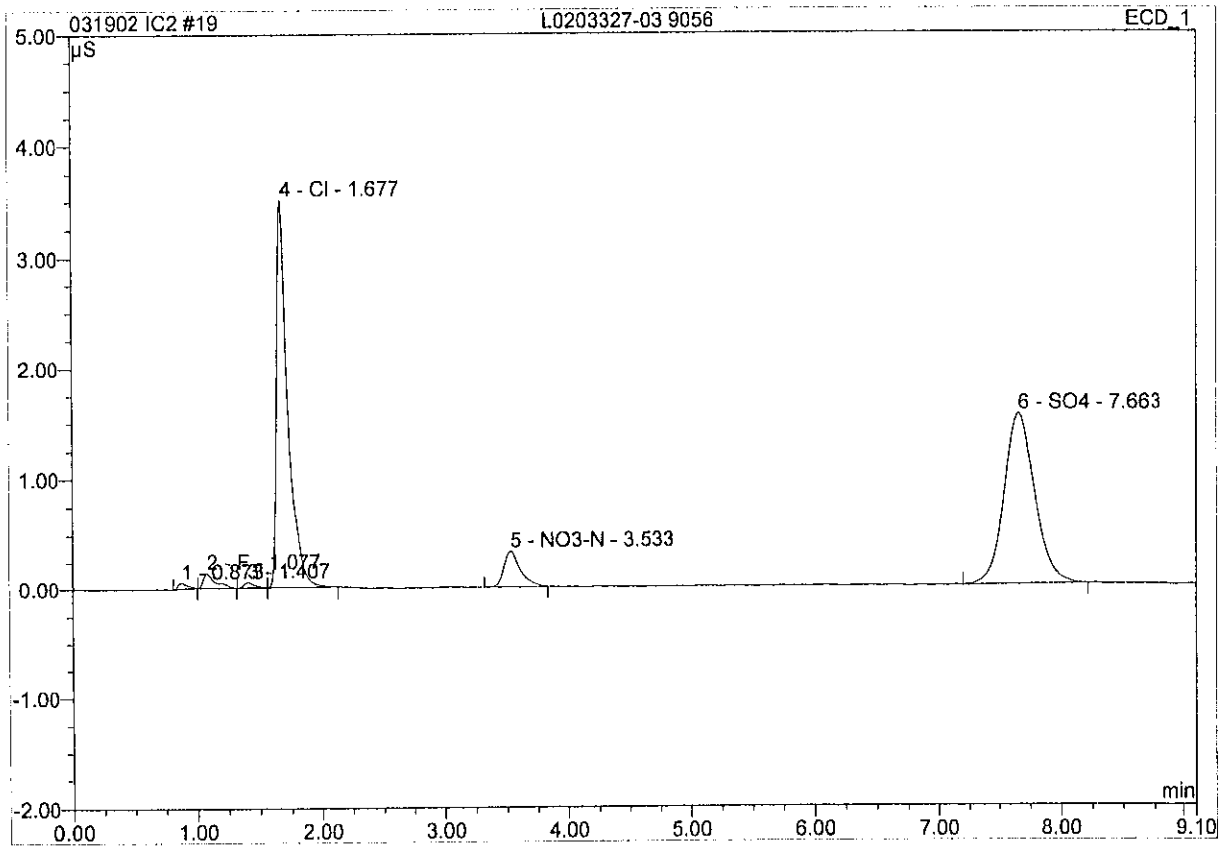


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.116	0.010	0.40	n.a.	BMB
2	1.42	n.a.	0.083	0.009	0.35	n.a.	BM
3	1.68	Cl	9.130	0.891	34.03	10.624	MB
4	3.07	Br	0.057	0.008	0.30	0.436	BMB
5	6.89	n.a.	0.014	0.003	0.11	n.a.	BMB
6	7.61	SO4	5.900	1.696	64.81	26.872	BMB
Total:			15.301	2.617	100.00	37.931	

19 L0203327-03 9056

1,1 RDC

Sample Name:	**L0203327-03 9056**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 14:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

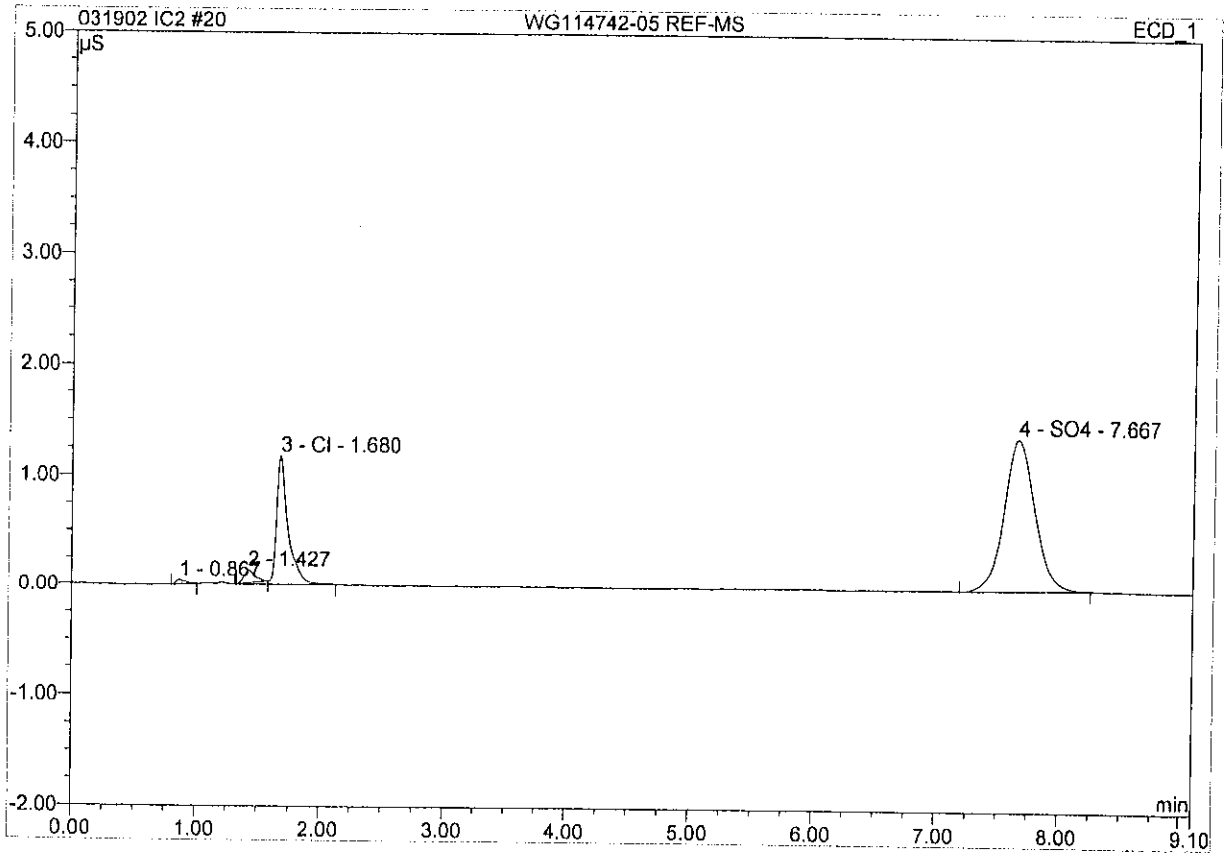


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.056	0.005	0.57	n.a.	BMB
2	1.08	F	0.140	0.016	1.85	0.312	BMB
3	1.41	n.a.	0.053	0.005	0.61	n.a.	BM
4	1.68	Cl	3.502	0.360	40.55	4.416	MB
5	3.53	NO3-N	0.333	0.053	5.93	0.394	BMB
6	7.66	SO4	1.539	0.448	50.48	7.734	BMB
Total:			5.623	0.888	100.00	12.856	

20 WG114742-05 REF-MS

1,1 RDC L0203327-04 REF

Sample Name:	**WG114742-05 REF-MS**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 14:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

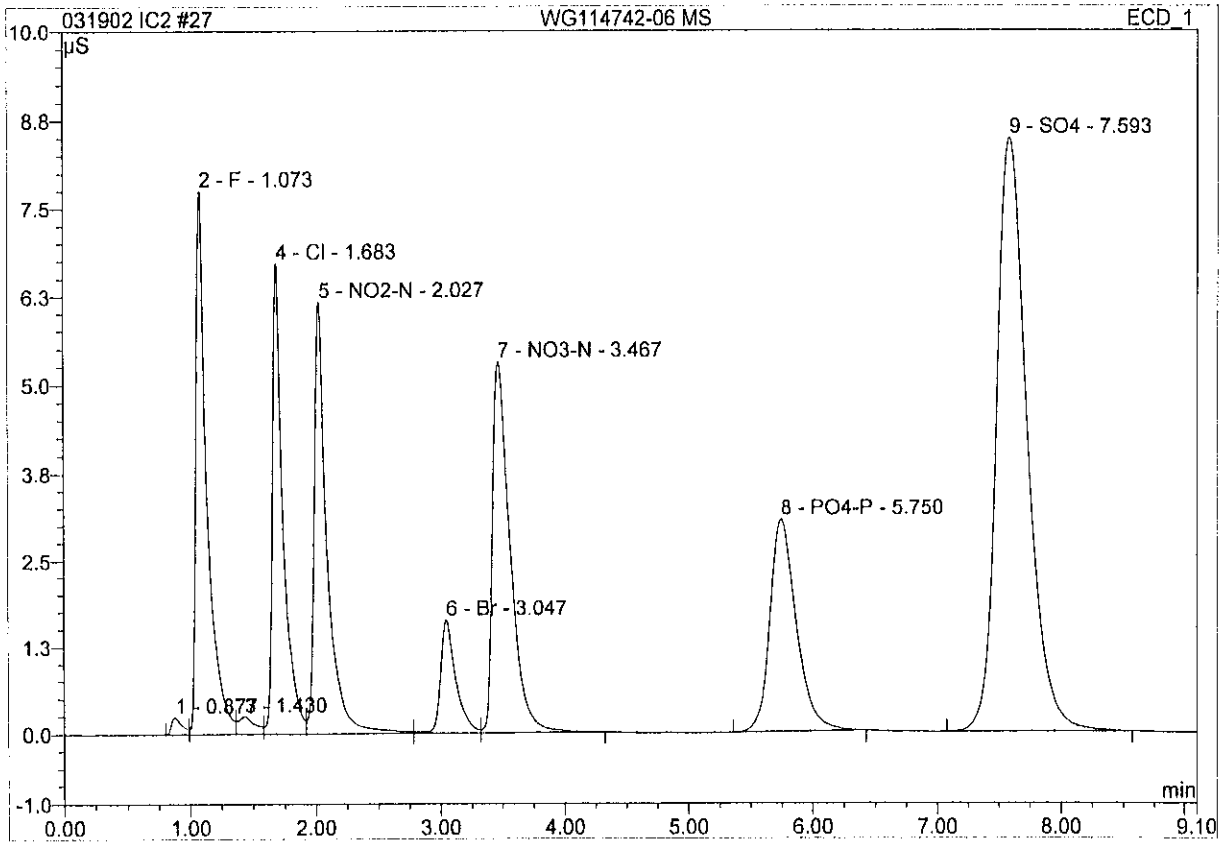


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.046	0.004	0.74	n.a.	BMB
2	1.43	n.a.	0.126	0.013	2.34	n.a.	Ru
3	1.68	Cl	1.179	0.133	23.77	1.757	BMB
4	7.67	SO4	1.397	0.409	73.15	7.124	BMB
Total:			2.749	0.558	100.00	8.881	

27 WG114742-06 MS

1,1 RDC L0203327-05 MS SOS0058-24

Sample Name:	**WG114742-06 MS**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 16:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

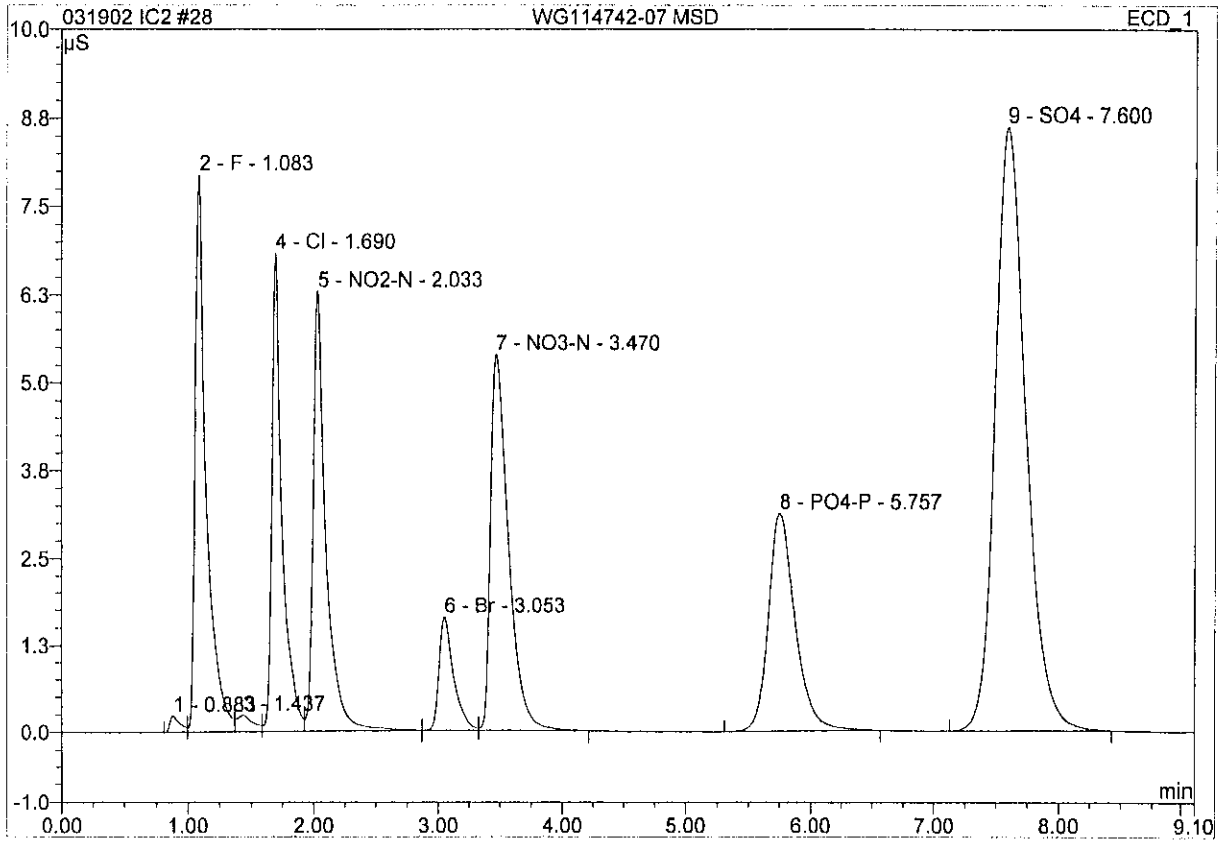


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.235	0.023	0.35	n.a.	BM
2	1.07	F	7.754	0.796	12.12	6.210	M
3	1.43	n.a.	0.245	0.038	0.57	n.a.	M
4	1.68	Cl	6.712	0.663	10.10	7.966	M
5	2.03	NO2-N	6.165	0.738	11.23	3.947	M
6	3.05	Br	1.622	0.226	3.45	6.727	M
7	3.47	NO3-N	5.300	0.889	13.54	4.356	MB
8	5.75	PO4-P	3.056	0.757	11.52	10.546	BMB
9	7.59	SO4	8.464	2.437	37.12	38.233	BMB
Total:			39.553	6.566	100.00	77.984	

28 WG114742-07 MSD

1,1 RDC L0203327-06 MSD SOS0058-24

Sample Name:	**WG114742-07 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 16:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

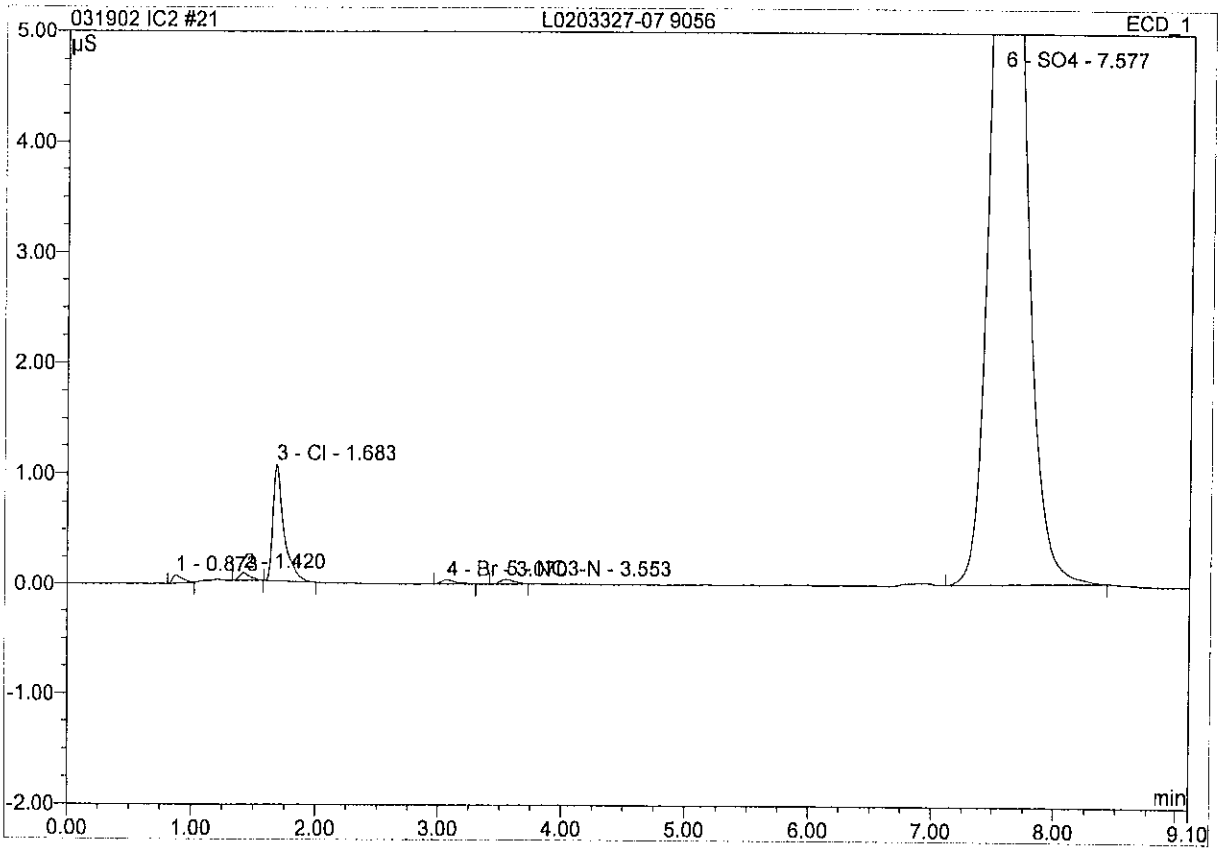


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.234	0.023	0.34	n.a.	BM
2	1.08	F	7.948	0.819	12.27	6.384	M
3	1.44	n.a.	0.237	0.035	0.53	n.a.	M
4	1.69	Cl	6.833	0.671	10.07	8.059	M
5	2.03	NO2-N	6.284	0.741	11.11	3.963	MB
6	3.05	Br	1.628	0.223	3.34	6.617	BM
7	3.47	NO3-N	5.374	0.898	13.46	4.398	MB
8	5.76	PO4-P	3.127	0.783	11.74	10.904	BMB
9	7.60	SO4	8.612	2.478	37.15	38.854	BMB
Total:			40.278	6.670	100.00	79.179	

21 L0203327-07 9056

1,1 RDC

Sample Name:	**L0203327-07 9056**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 15:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

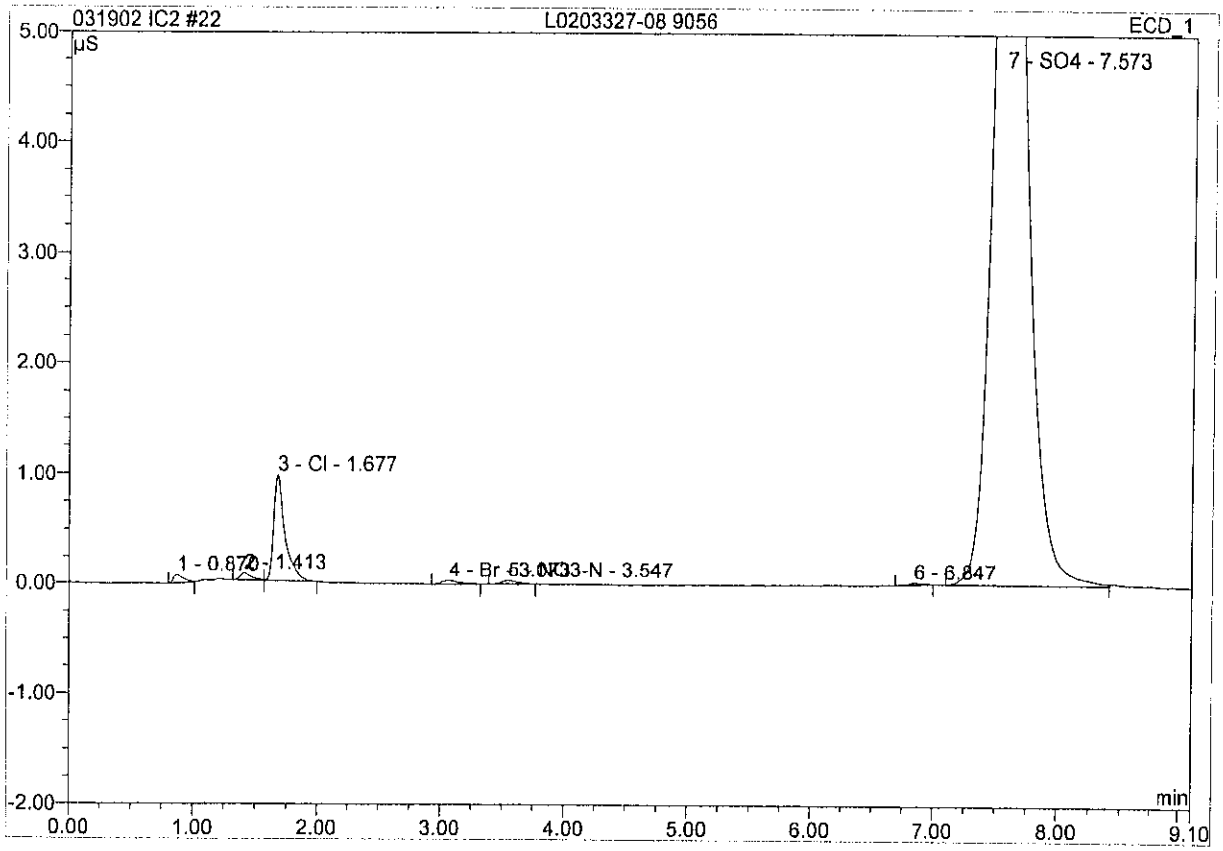


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.077	0.007	0.25	n.a.	BMB
2	1.42	n.a.	0.074	0.007	0.26	n.a.	BMB
3	1.68	Cl	1.055	0.111	3.91	1.499	BMB
4	3.07	Br	0.036	0.005	0.18	0.354	BMB
5	3.55	NO3-N	0.041	0.005	0.19	0.170	BMB
6	7.58	SO4	9.389	2.695	95.21	42.180	BMB
Total:			10.673	2.830	100.00	44.203	

22 L0203327-08 9056

1,1 RDC

Sample Name:	**L0203327-08 9056**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 15:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

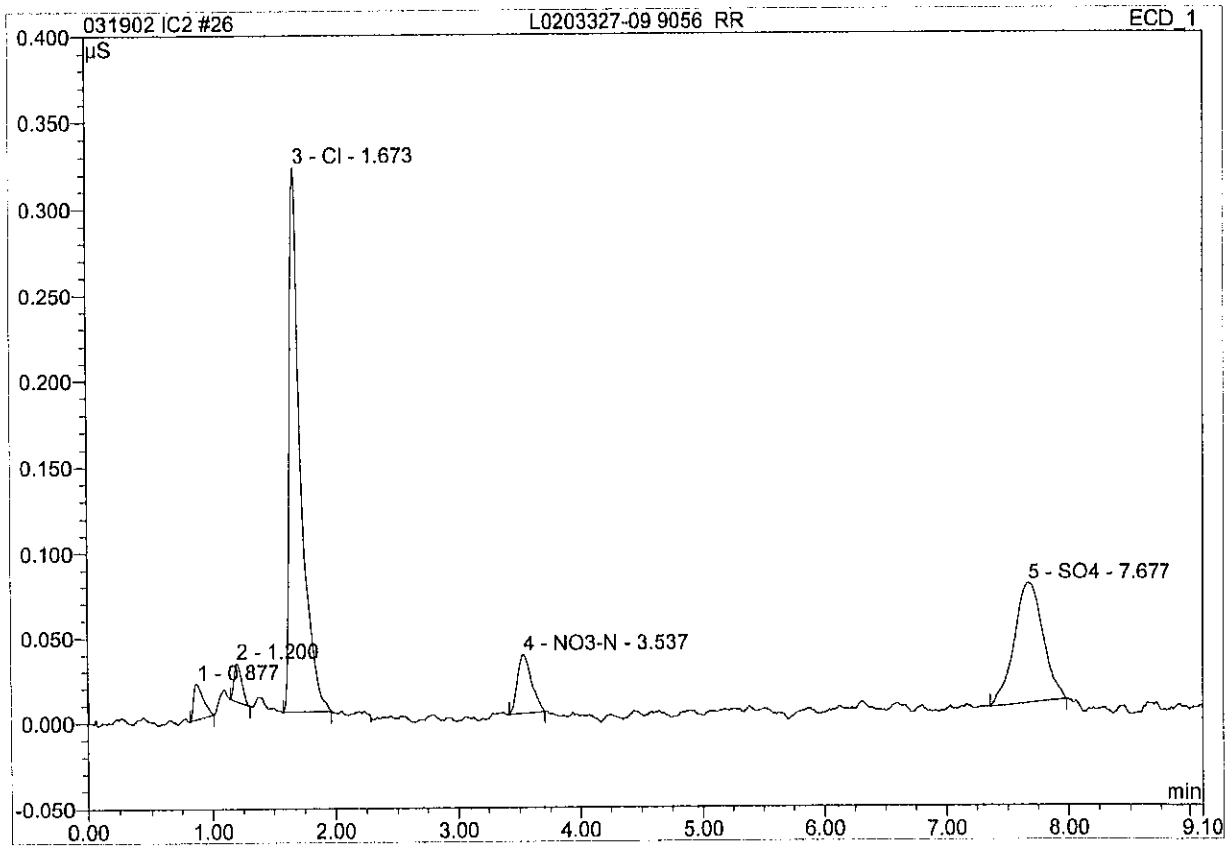


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.077	0.007	0.26	n.a.	BMB
2	1.41	n.a.	0.068	0.007	0.26	n.a.	BM
3	1.68	Cl	0.965	0.103	3.78	1.405	MB
4	3.07	Br	0.032	0.005	0.20	0.363	BMB
5	3.55	NO3-N	0.032	0.005	0.18	0.167	BMB
6	6.85	n.a.	0.016	0.002	0.08	n.a.	BMB
7	7.57	SO4	8.999	2.589	95.25	40.555	BM
Total:			10.190	2.718	100.00	42.490	

26 L0203327-09 9056 RR

1,1 RDC L0203327-05 MS SOS0058-24

Sample Name:	**L0203327-09 9056 RR**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 16:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.021	0.002	3.07	n.a.	BMB
2	1.20	n.a.	0.023	0.002	2.66	n.a.	BMB
3	1.67	Cl	0.318	0.035	55.70	0.610	BMB
4	3.54	NO3-N	0.035	0.005	7.45	0.166	BMB
5	7.68	SO4	0.070	0.019	31.11	1.158	BMB
Total:			0.466	0.062	100.00	1.934	

2.4.5.3 Standards Data

100ml Total	1/10 #3	.5 ML STD	1ML STD	CCV 1.5 ML STD	2ML STD	3ML STD	3ML ALT STD
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
CHLORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRITE-N	0.1218	1.2178	2.4356	3.6534	4.8714	7.3070	3.6534
BROMIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRATE-N	0.1355	1.3554	2.7108	4.0662	5.4216	8.1322	4.0662
PHOSPHATE-P	0.3261	3.2614	6.5228	9.7842	13.0456	19.5682	9.7842
SULFATE	1.0000	10.0000	20.0000	30.0000	40.0000	60.0000	30.0000

NO2 -N $\frac{14.0067}{46.0055}$ = % 30.446

NO3-N $\frac{14.0067}{62.0049}$ = % 22.590

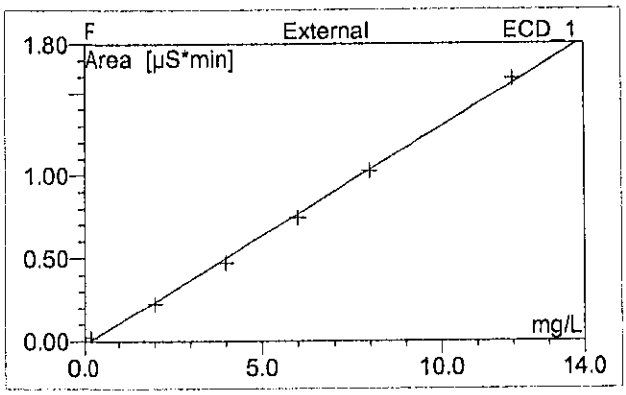
PO4-P $\frac{30.97376}{94.97136}$ = % 32.614

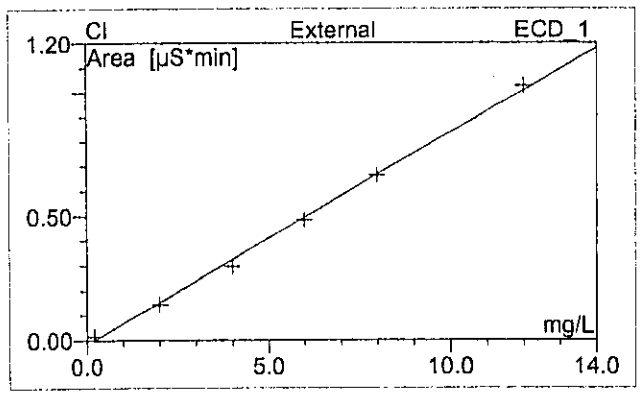
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
CHLORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRITE	0.400	4.000	8.000	12.000	16.000	24.000	12.000
BROMIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRATE	0.600	6.000	12.000	18.000	24.000	36.000	18.000
PHOSPHATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000
SULFATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000

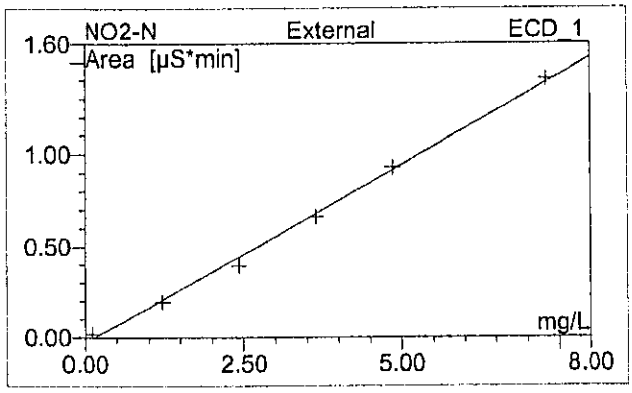
6 ANION STD #6

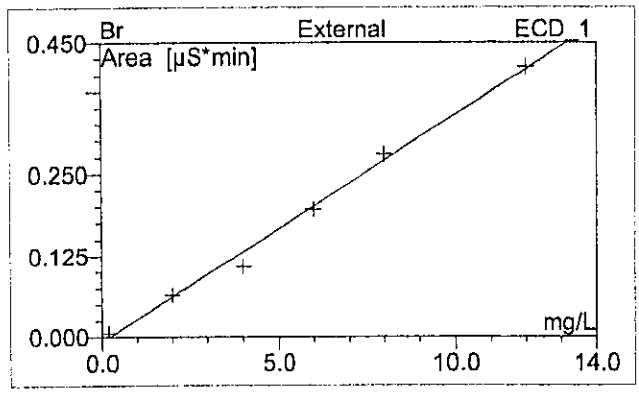
1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







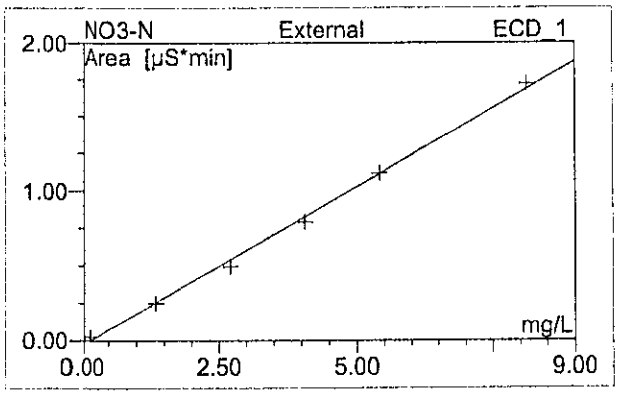


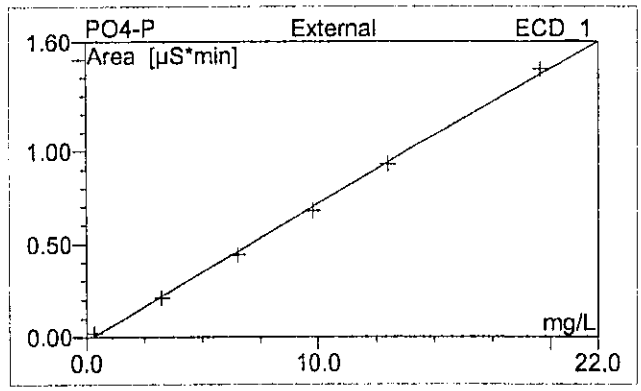
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

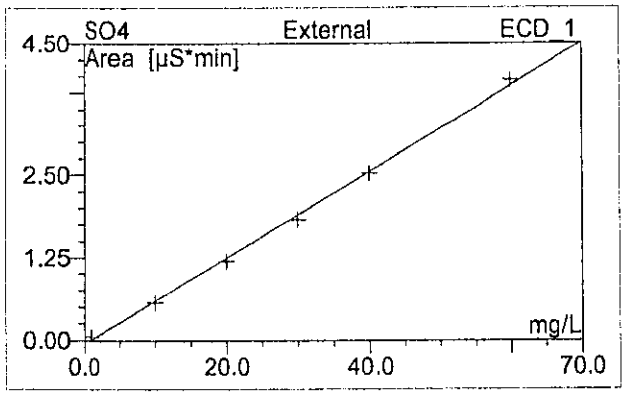
6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





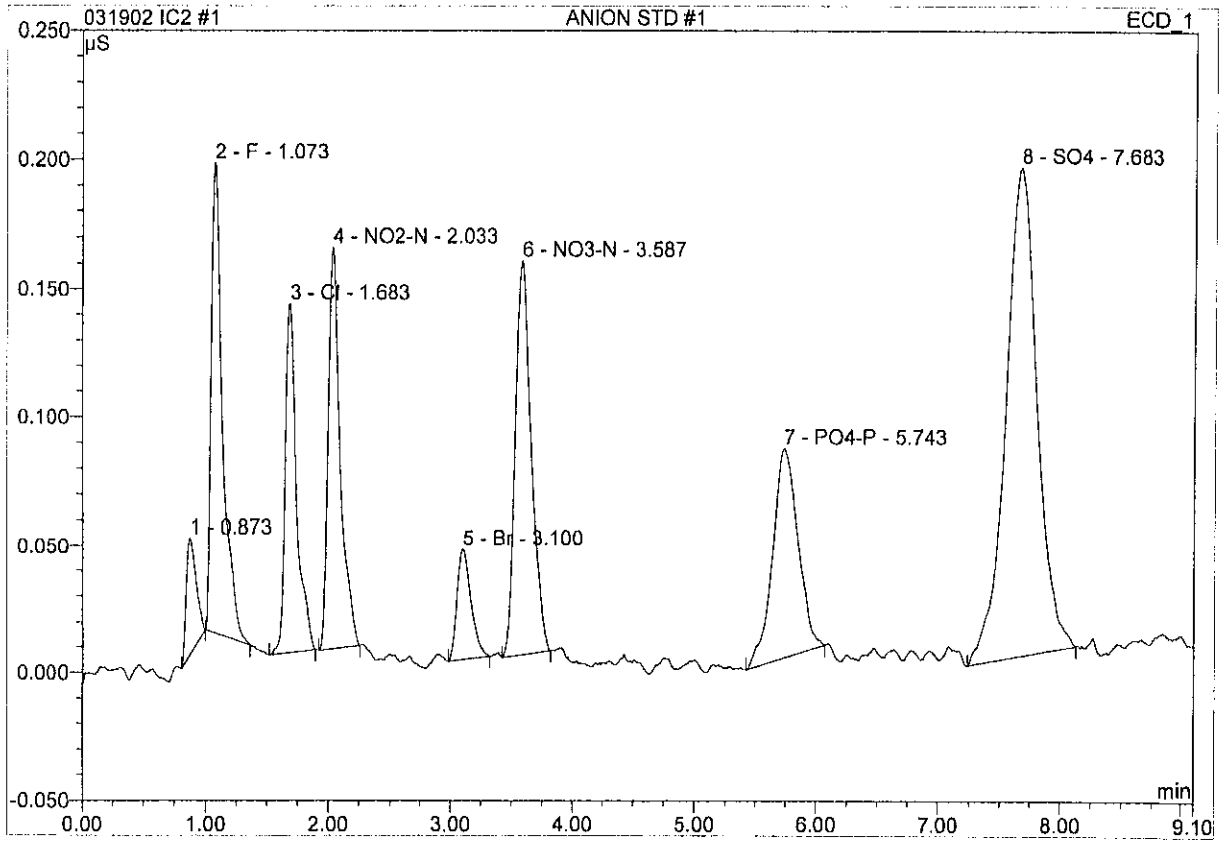


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

1 ANION STD #1

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

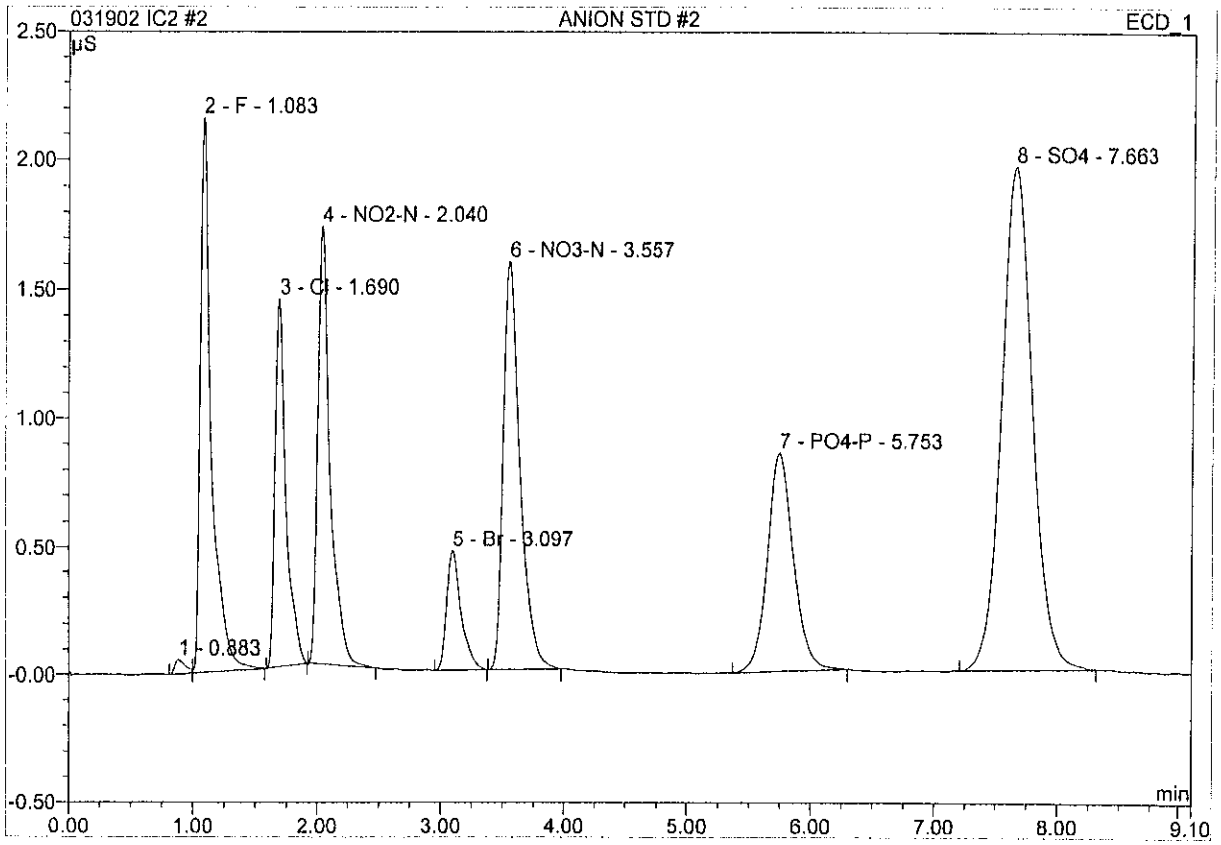


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.046	0.004	2.54	n.a.	BMB
2	1.07	F	0.183	0.019	11.95	0.335	BMB
3	1.68	Cl	0.136	0.015	9.07	0.376	BMB
4	2.03	NO2-N	0.157	0.018	11.15	0.233	BMB
5	3.10	Br	0.044	0.006	3.51	0.373	BMB
6	3.59	NO3-N	0.154	0.023	14.26	0.254	BMB
7	5.74	PO4-P	0.082	0.020	12.31	0.543	BMB
8	7.68	SO4	0.191	0.057	35.20	1.740	BMB
Total:			0.993	0.163	100.00	3.855	

2 ANION STD #2

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

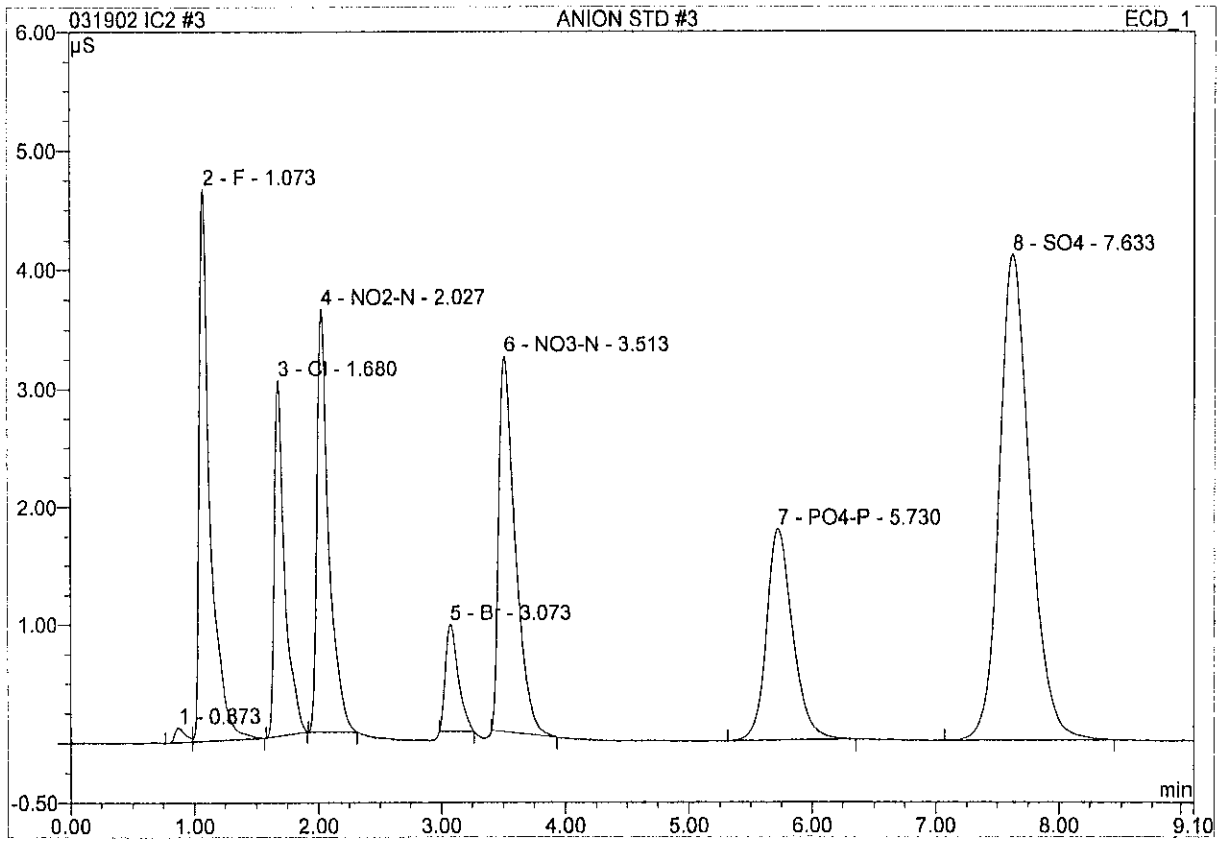


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.059	0.006	0.34	n.a.	BM
2	1.08	F	2.156	0.229	13.71	1.921	MB
3	1.69	Cl	1.434	0.146	8.73	1.909	BMB
4	2.04	NO2-N	1.702	0.196	11.74	1.152	BMB
5	3.10	Br	0.472	0.064	3.84	2.054	BMB
6	3.56	NO3-N	1.590	0.249	14.92	1.325	BMB
7	5.75	PO4-P	0.853	0.210	12.59	3.128	BMB
8	7.66	SO4	1.955	0.570	34.14	9.603	BMB
Total:			10.222	1.670	100.00	21.092	

3 ANION STD #3

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

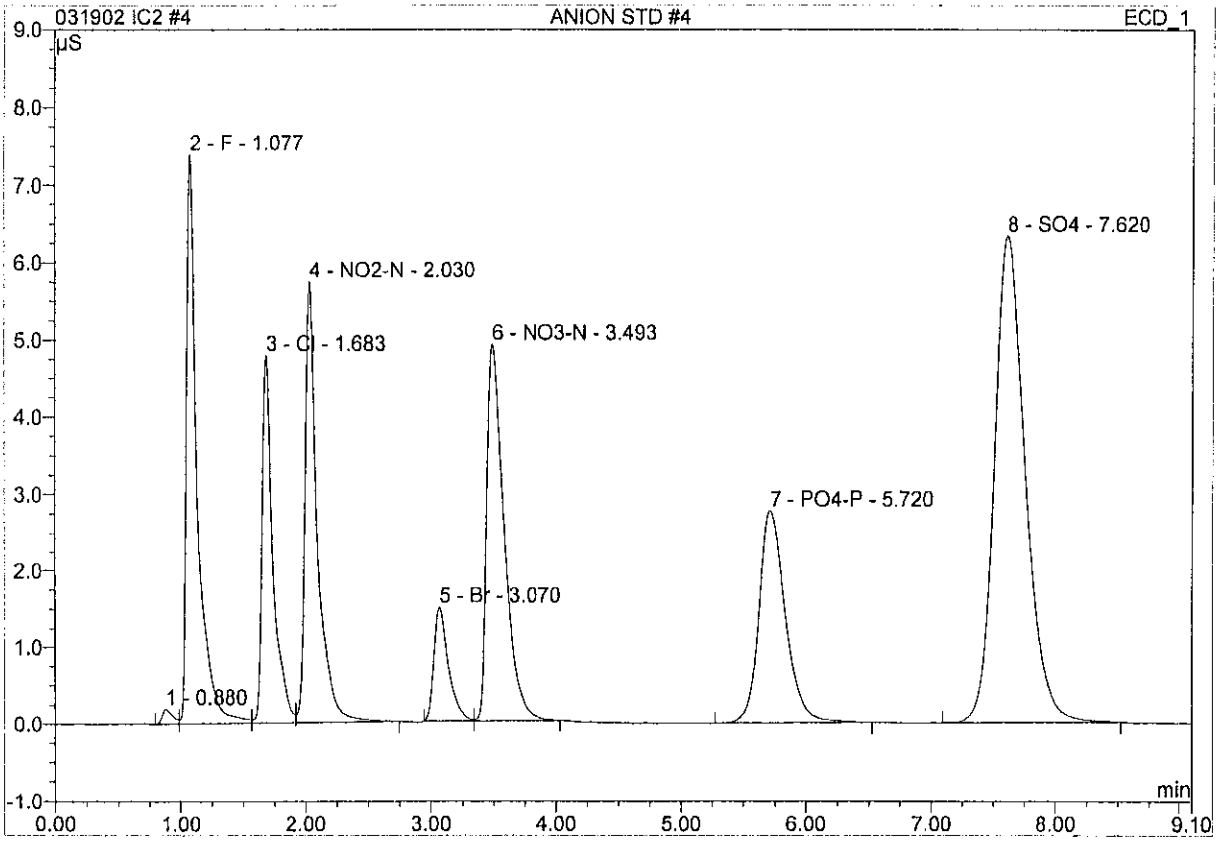


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.124	0.012	0.35	n.a.	BM
2	1.07	F	4.661	0.474	13.88	3.776	MB
3	1.68	Cl	3.016	0.297	8.70	3.682	BMB
4	2.03	NO2-N	3.579	0.395	11.58	2.181	BM
5	3.07	Br	0.903	0.108	3.17	3.328	BMB
6	3.51	NO3-N	3.185	0.494	14.45	2.484	BMB
7	5.73	PO4-P	1.791	0.442	12.93	6.269	BMB
8	7.63	SO4	4.106	1.194	34.95	19.168	BMB
Total:			21.366	3.416	100.00	40.887	

4 ANION STD #4

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

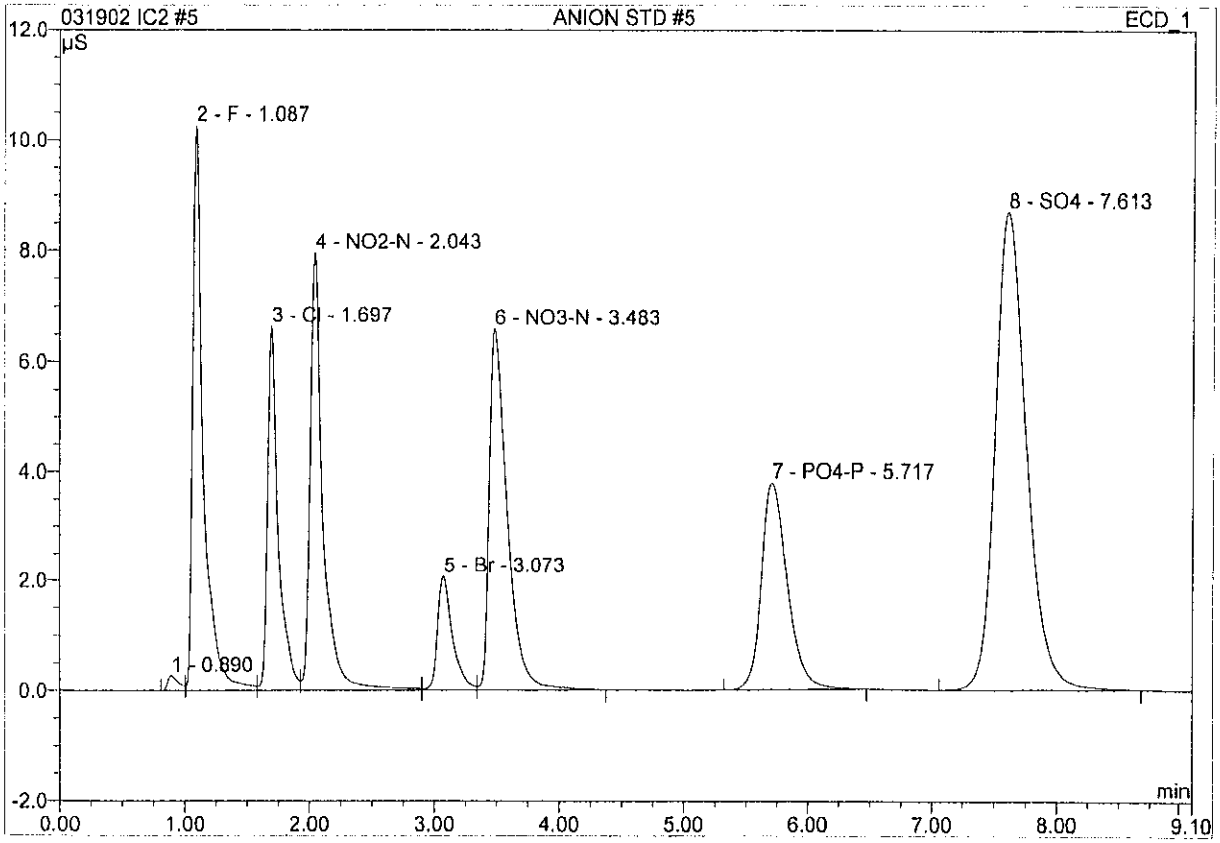


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.198	0.019	0.36	n.a.	BM
2	1.08	F	7.393	0.746	13.80	5.832	M
3	1.68	Cl	4.789	0.483	8.95	5.859	M
4	2.03	NO2-N	5.729	0.662	12.26	3.558	MB
5	3.07	Br	1.486	0.196	3.63	5.862	BM
6	3.49	NO3-N	4.902	0.791	14.64	3.892	MB
7	5.72	PO4-P	2.768	0.679	12.56	9.490	BMB
8	7.62	SO4	6.330	1.827	33.81	28.880	BMB
Total:			33.595	5.404	100.00	63.372	

5 ANION STD #5

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

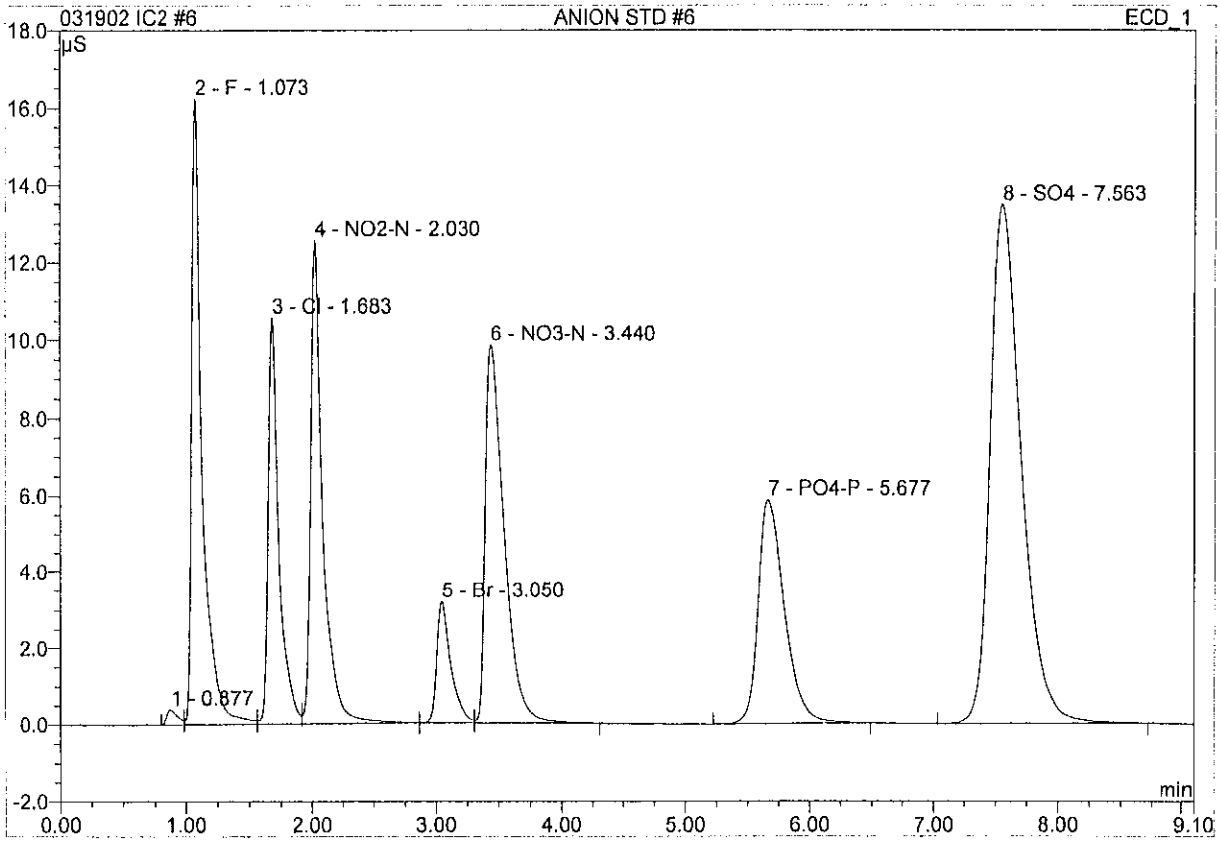


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.268	0.027	0.36	n.a.	BM
2	1.09	F	10.257	1.024	13.67	7.938	M
3	1.70	Cl	6.638	0.662	8.83	7.946	M
4	2.04	NO2-N	7.942	0.930	12.42	4.940	M
5	3.07	Br	2.062	0.280	3.74	8.279	M
6	3.48	NO3-N	6.579	1.116	14.90	5.432	MB
7	5.72	PO4-P	3.782	0.928	12.39	12.876	BMB
8	7.61	SO4	8.694	2.525	33.70	39.574	BMB
Total:			46.223	7.492	100.00	86.985	

6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

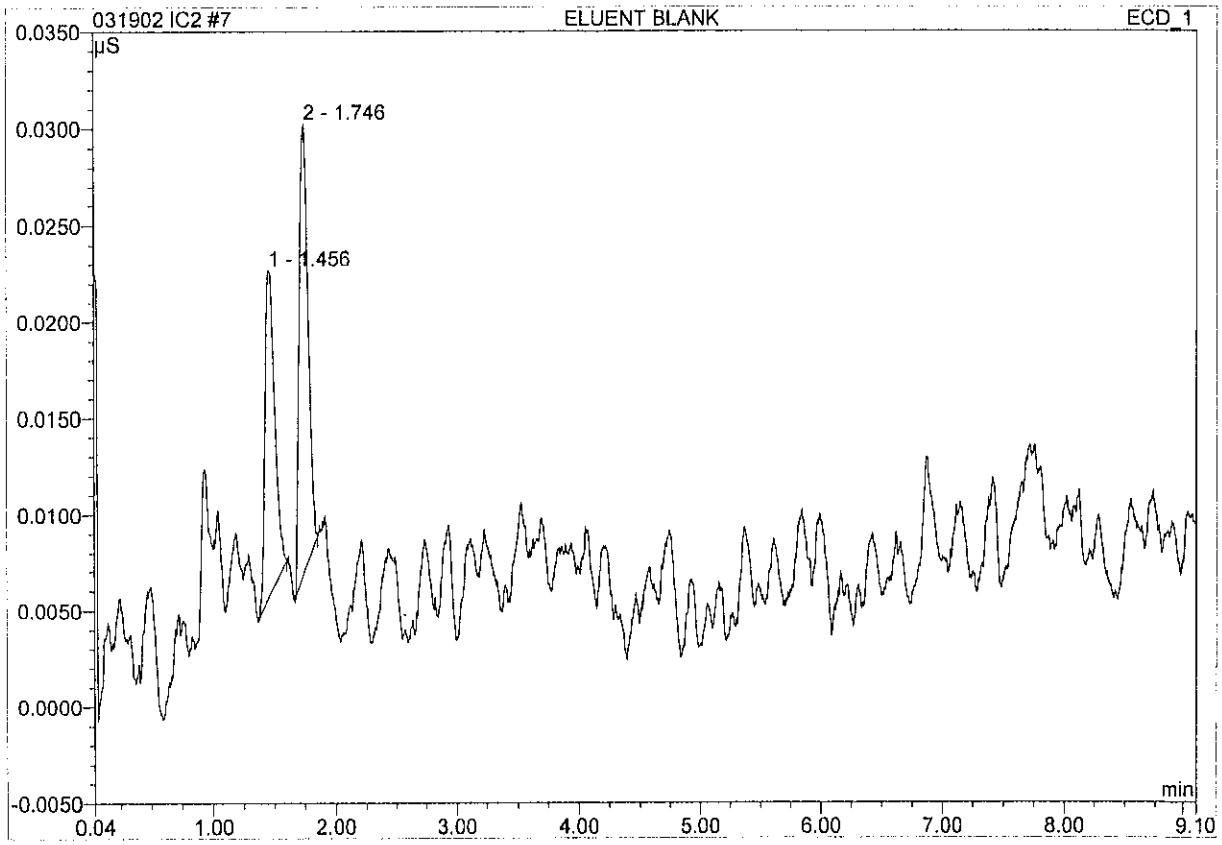


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.398	0.039	0.33	n.a.	BM
2	1.07	F	16.218	1.589	13.72	12.211	M
3	1.68	Cl	10.563	1.027	8.88	12.225	M
4	2.03	NO2-N	12.534	1.407	12.16	7.403	MB
5	3.05	Br	3.164	0.413	3.57	12.095	bM
6	3.44	NO3-N	9.833	1.719	14.85	8.291	MB
7	5.68	PO4-P	5.873	1.448	12.51	19.932	BMB
8	7.56	SO4	13.460	3.934	33.98	61.176	BMB
Total:			72.042	11.575	100.00	133.332	

7 ELUENT BLANK

1,1 RDC/JWR

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.06**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.46	n.a.	0.017	0.002	44.36	n.a.	BMB
2	1.75	n.a.	0.023	0.002	55.64	n.a.	BMB
Total:			0.040	0.004	100.00	0.000	

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

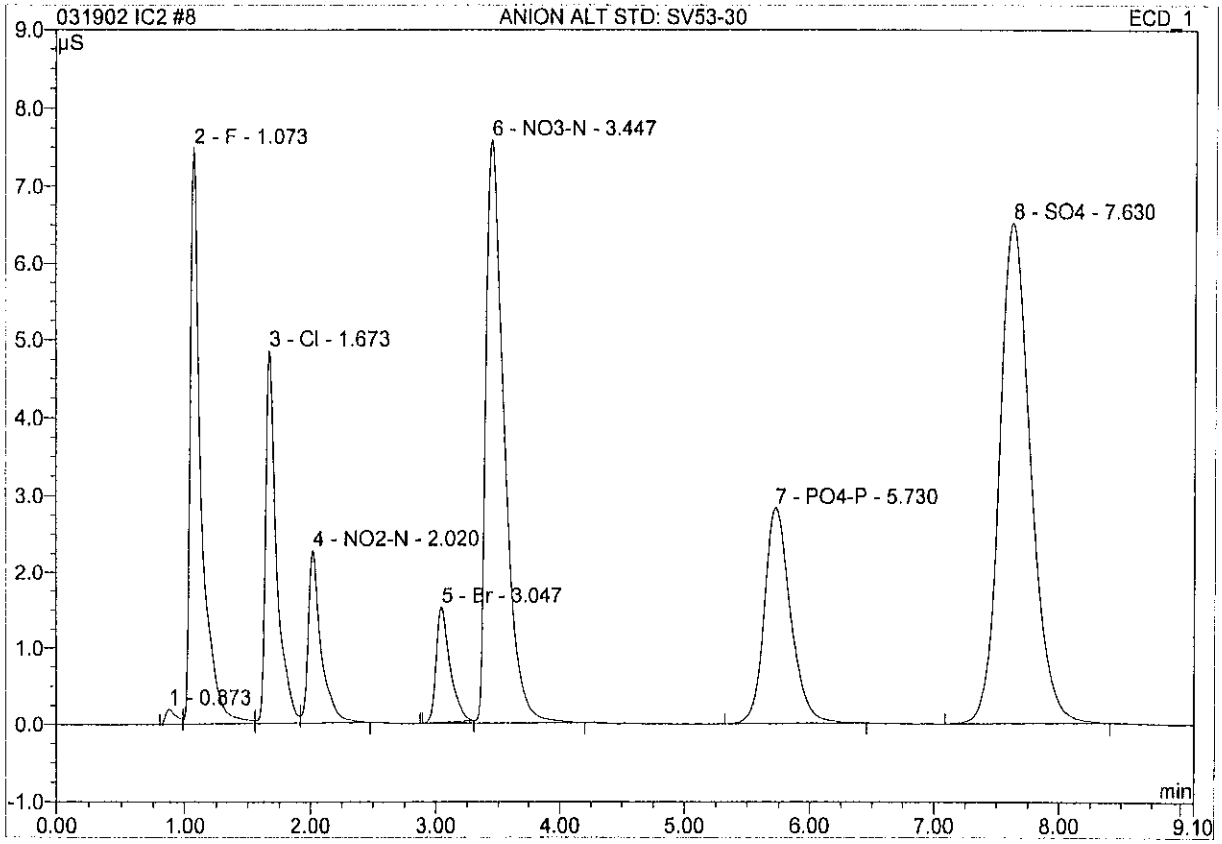
Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	
Vial Number:	**8**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9159	-1.40	PASS
Cl	6	5.9267	-1.22	PASS
NO2-N	3.65	1.5489	-57.56	FAIL
Br	6	5.8498	-2.50	PASS
NO3-N	4.07	6.2520	53.61	FAIL
PO4-P	9.78	9.6802	-1.02	PASS
SO4	30	29.6053	-1.32	PASS

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.203	0.021	0.37	n.a.	BM
2	1.07	F	7.485	0.757	13.53	5.916	M
3	1.67	Cl	4.847	0.489	8.75	5.927	M
4	2.02	NO2-N	2.276	0.273	4.88	1.549	MB
5	3.05	Br	1.510	0.196	3.50	5.850	Ru
6	3.45	NO3-N	7.574	1.289	23.05	6.252	BMB
7	5.73	PO4-P	2.827	0.693	12.39	9.680	BMB
8	7.63	SO4	6.507	1.875	33.52	29.605	BMB
Total:			33.231	5.592	100.00	64.779	

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*
Vial Number:	**10**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantit. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.2461	-95.90	FAIL
NO2-N	3.65	3.5391	-3.04	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	4.0656	-0.11	PASS
PO4-P	9.78	0.2847	-97.09	FAIL
n.a.	30	n.a.	#VALUE!	#VALUE!

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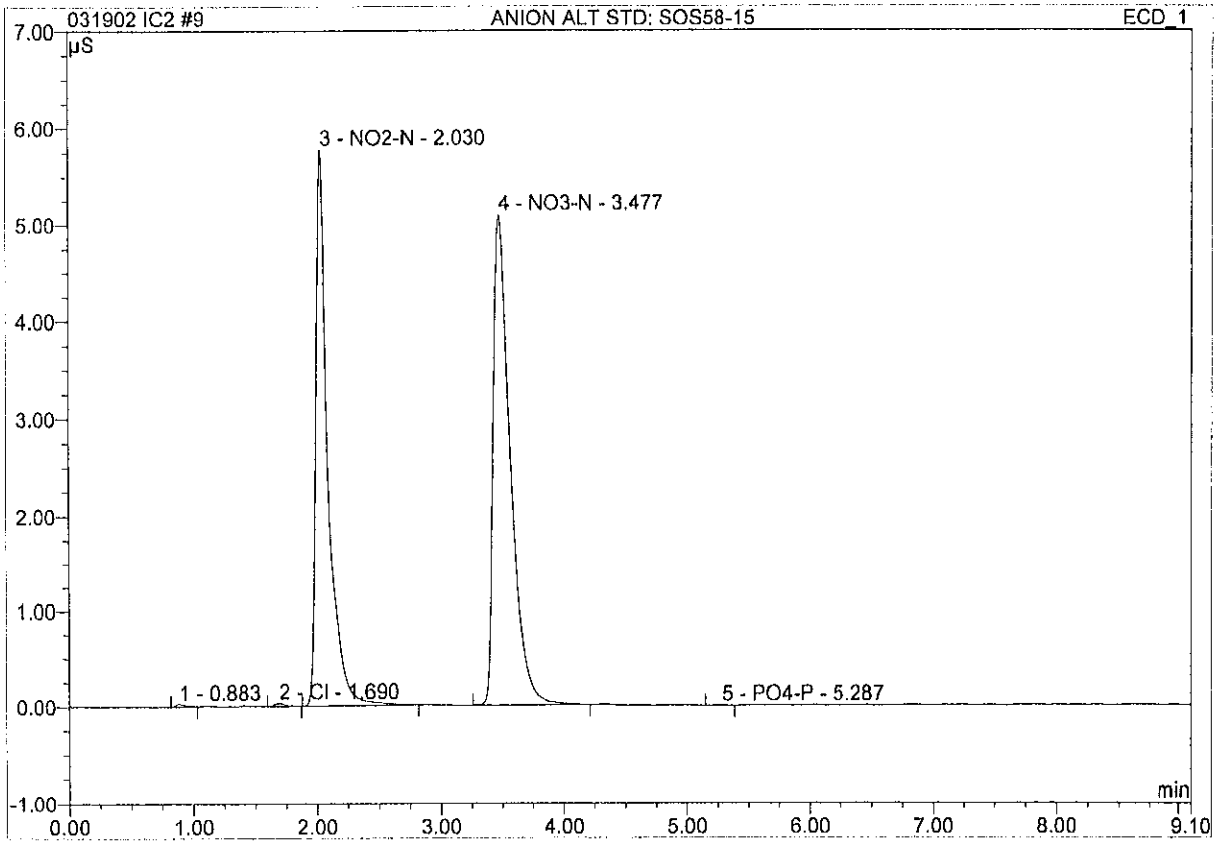
9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*	**25.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.026	0.003	0.17	n.a.	BMB
2	1.69	Cl	0.033	0.004	0.25	0.246	BMB
3	2.03	NO2-N	5.773	0.659	44.10	3.539	BMB
4	3.48	NO3-N	5.091	0.828	55.41	4.066	BMB
5	5.29	PO4-P	0.009	0.001	0.07	0.285	BMB
Total:			10.933	1.494	100.00	8.135	

12 WG114743-01 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-01 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 13:12**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9927	-0.12	PASS
Cl	6	5.9929	-0.12	PASS
NO2-N	3.65	3.6406	-0.26	PASS
Br	6	6.1326	2.21	PASS
NO3-N	4.07	4.0620	-0.20	PASS
PO4-P	9.78	9.8546	0.76	PASS
SO4	30	29.6360	-1.21	PASS

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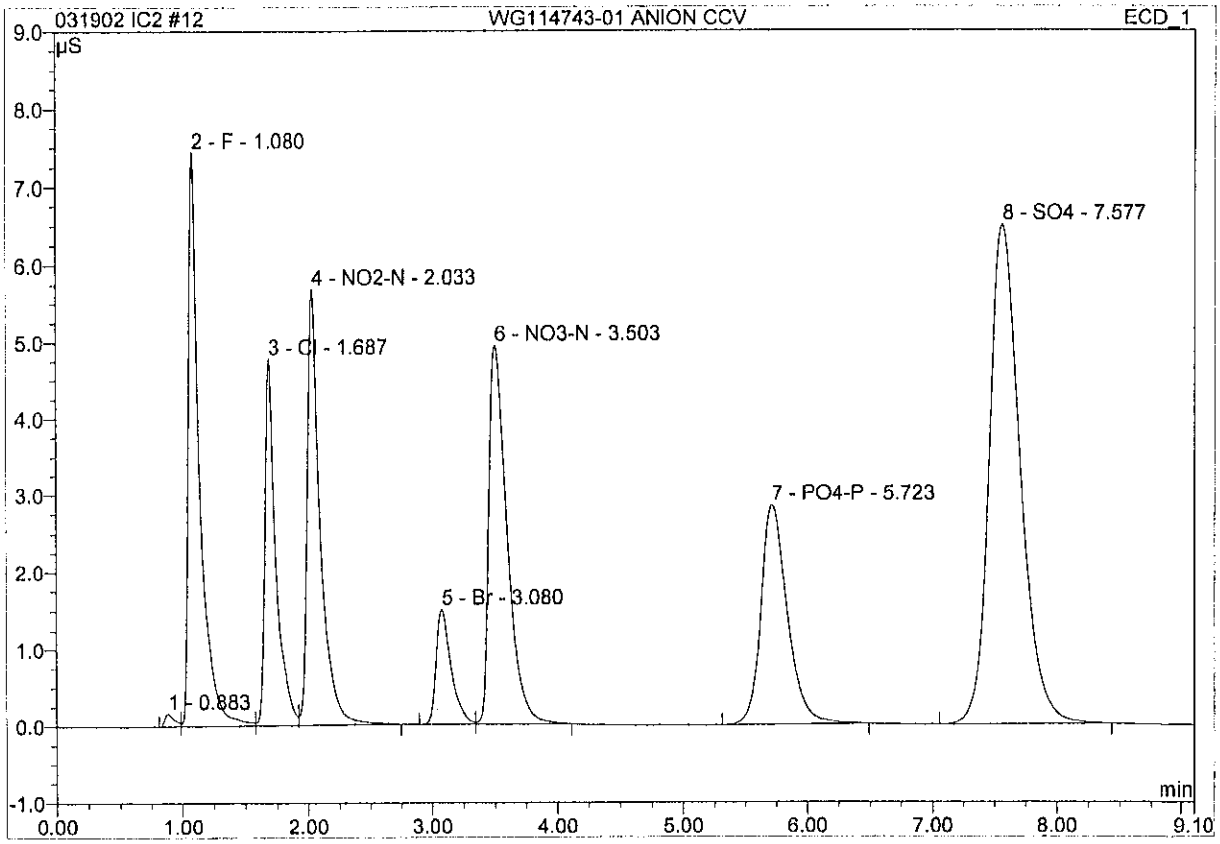
12 WG114743-01 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.171	0.016	0.29	n.a.	BM
2	1.08	F	7.438	0.767	13.77	5.993	M
3	1.69	Cl	4.778	0.495	8.88	5.993	M
4	2.03	NO2-N	5.679	0.678	12.18	3.641	MB
5	3.08	Br	1.489	0.206	3.69	6.133	BM
6	3.50	NO3-N	4.934	0.827	14.84	4.062	MB
7	5.72	PO4-P	2.843	0.706	12.67	9.855	BMB
8	7.58	SO4	6.484	1.877	33.69	29.636	BMB
Total:			33.815	5.571	100.00	65.311	

23 WG114743-02 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

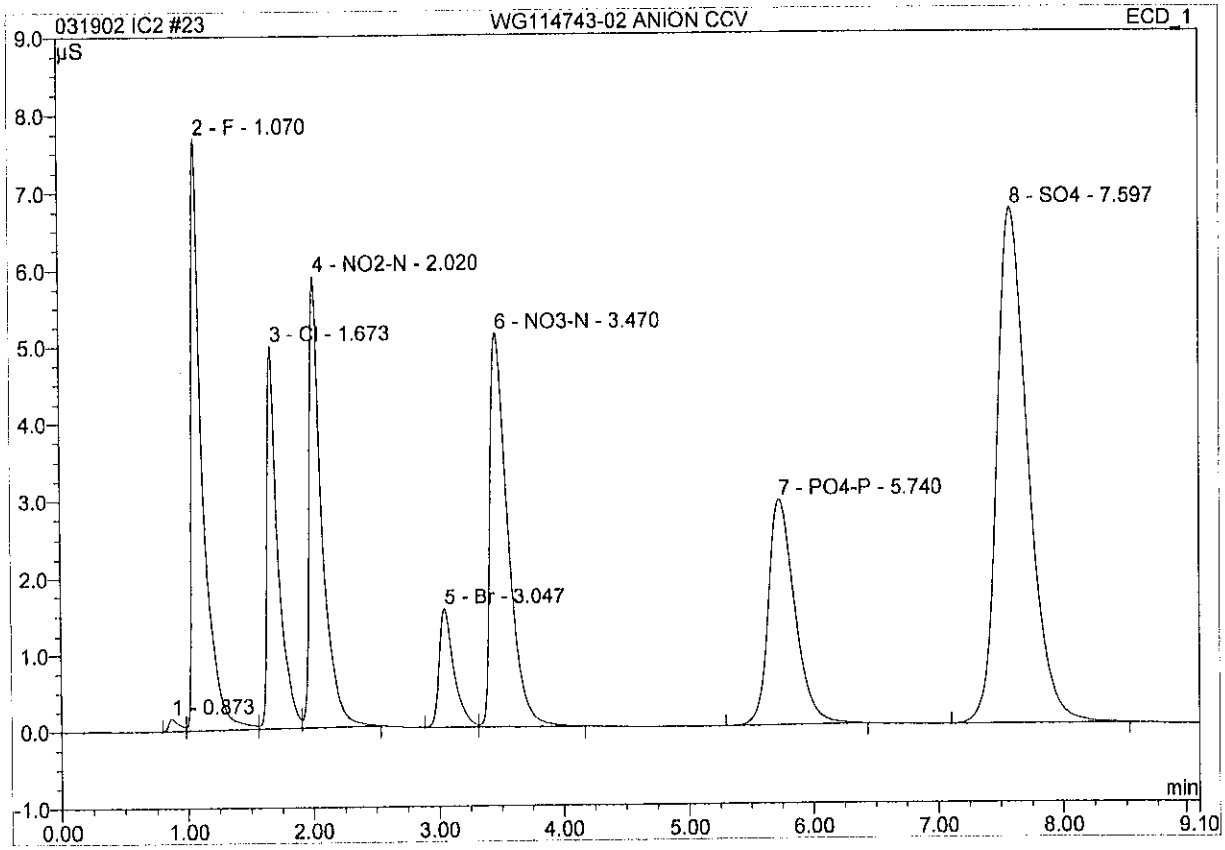
Sample Name:	**WG114743-02 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 15:27**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.1428	2.38	PASS
Cl	6	6.1034	1.72	PASS
NO2-N	3.65	3.6650	0.41	PASS
Br	6	6.3253	5.42	PASS
NO3-N	4.07	4.1954	3.08	PASS
PO4-P	9.78	10.1212	3.49	PASS
SO4	30	30.6150	2.05	PASS

23 WG114743-02 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-02 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 15:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.164	0.016	0.28	n.a.	BM
2	1.07	F	7.685	0.787	13.75	6.143	M
3	1.67	Cl	4.974	0.504	8.81	6.103	M
4	2.02	NO2-N	5.878	0.683	11.94	3.665	MB
5	3.05	Br	1.549	0.212	3.71	6.325	BM
6	3.47	NO3-N	5.121	0.855	14.94	4.195	MB
7	5.74	PO4-P	2.936	0.725	12.67	10.121	BMB
8	7.60	SO4	6.701	1.941	33.91	30.615	BMB
Total:			35.008	5.723	100.00	67.168	

29 WG114743-03 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-03 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 16:37**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2212	3.69	PASS
Cl	6	6.2515	4.19	PASS
NO2-N	3.65	3.8121	4.44	PASS
Br	6	6.3827	6.38	PASS
NO3-N	4.07	4.2346	4.04	PASS
PO4-P	9.78	10.2573	4.88	PASS
SO4	30	30.8755	2.92	PASS

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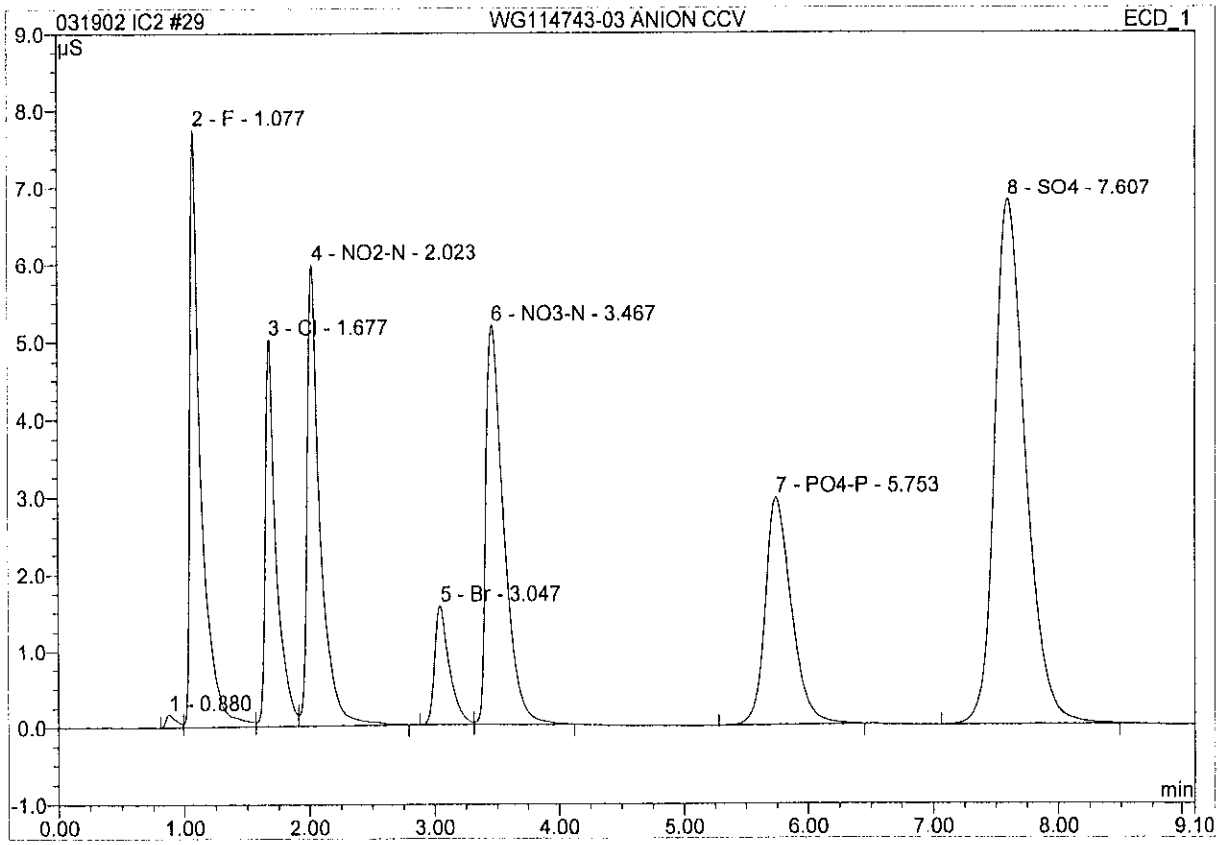
29 WG114743-03 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 16:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.168	0.016	0.28	n.a.	BM
2	1.08	F	7.741	0.797	13.72	6.221	M
3	1.68	Cl	5.017	0.517	8.89	6.251	M
4	2.02	NO2-N	5.979	0.712	12.24	3.812	MB
5	3.05	Br	1.564	0.214	3.69	6.383	BM
6	3.47	NO3-N	5.180	0.863	14.85	4.235	MB
7	5.75	PO4-P	2.970	0.735	12.65	10.257	BMB
8	7.61	SO4	6.804	1.958	33.68	30.875	BMB
Total:			35.423	5.812	100.00	68.035	

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: IC2

IC Column: AG4A-SC/AS4A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	10/30/2001	11/1/2001	11/2/2001
File #	IC2_019	IC2_022	IC2_012
Time	15:32	11:59	07:55

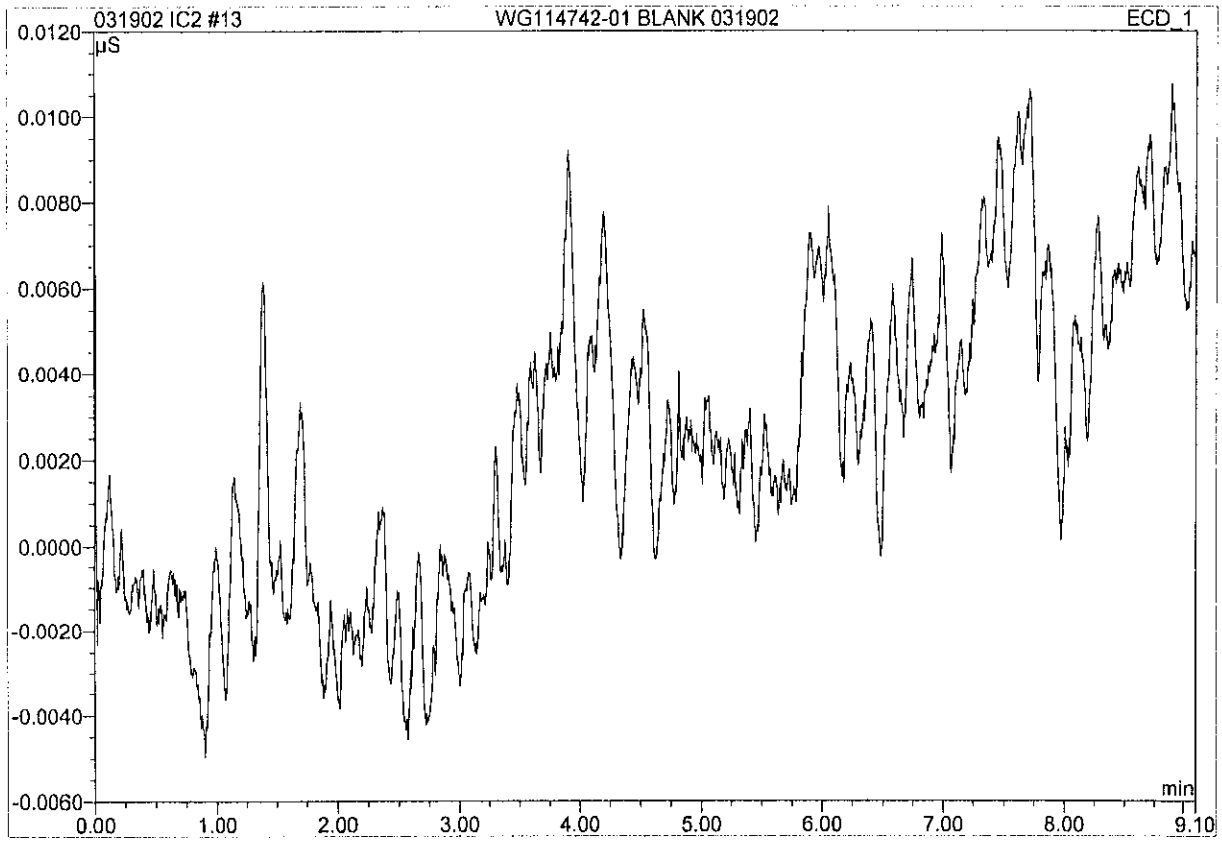
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	1.07	1.07	1.08	0.017
Cl	1.69	1.69	1.70	0.017
NO2-N	2.05	2.04	2.06	0.030
Br	3.12	3.11	3.16	0.079
NO3-N	3.55	3.53	3.58	0.075
PO4-P	5.85	5.83	5.76	0.142
SO4	7.59	7.58	7.51	0.131

2.4.5.4 Raw QC Data

13 WG114742-01 BLANK 031902

1,1 RDC

Sample Name:	**WG114742-01 BLANK 031902**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

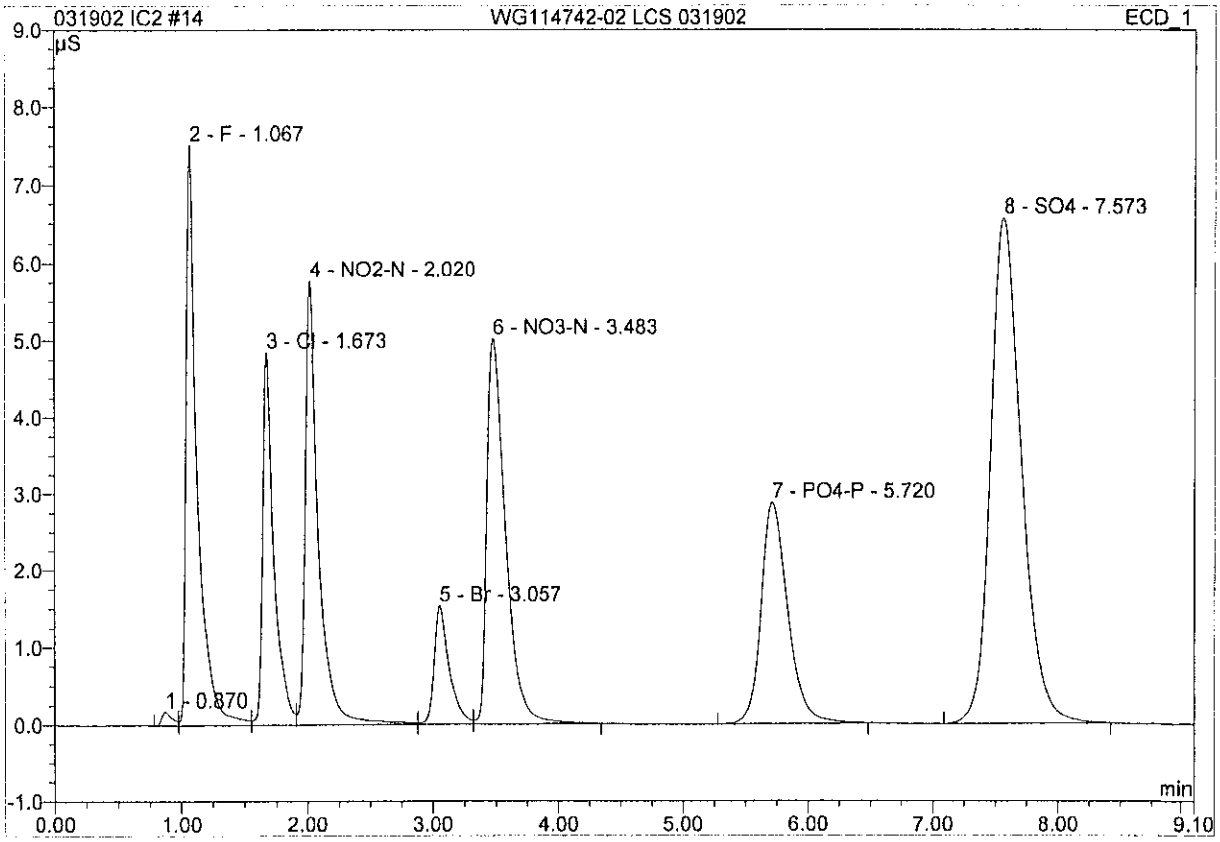


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG114742-02 LCS 031902

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114742-02 LCS 031902**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.174	0.017	0.30	n.a.	BM
2	1.07	F	7.511	0.775	13.69	6.056	M
3	1.67	Cl	4.843	0.504	8.89	6.098	M
4	2.02	NO2-N	5.769	0.702	12.39	3.761	M
5	3.06	Br	1.527	0.215	3.79	6.400	M
6	3.48	NO3-N	5.012	0.850	15.01	4.173	MB
7	5.72	PO4-P	2.869	0.712	12.56	9.936	BMB
8	7.57	SO4	6.552	1.891	33.37	29.850	BMB
Total:			34.257	5.665	100.00	66.274	

Sequence: 031902 IC2
Operator: Analyst
Printed: 3/27/2002 14:42:05

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/19/2002 12:45:30 by gsg
Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	3/7/2002 11:17:12
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	3/7/2002 11:28:43
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	3/7/2002 11:40:13
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished	3/7/2002 11:51:43
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	3/7/2002 12:03:12
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	3/7/2002 12:14:42
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	3/7/2002 12:38:53
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished	3/7/2002 12:50:23
9	ANION ALT STD: SOS58-15	Unknown	10	25.0	9056	9056	Finished	3/7/2002 13:01:53
10	DI WATER BLANK	Unknown	11	25.0	9056	9056	Finished	3/19/2002 12:49:36
11	ELUENT BLANK	Unknown	12	25.0	9056	9056	Finished	3/19/2002 13:01:06
12	WG114743-01 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 13:12:37
13	WG114742-01 BLANK 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:24:07
14	WG114742-02 LCS 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:35:36
15	L0203326-01 9056	Unknown	15	25.0	9056	9056	Finished	3/19/2002 13:47:07
16	WG114742-03 REF-DUP	Unknown	16	25.0	9056	9056	Finished	3/19/2002 13:58:38
17	L0203327-01 9056	Unknown	17	25.0	9056	9056	Finished	3/19/2002 14:10:07
18	L0203327-02 9056	Unknown	18	25.0	9056	9056	Finished	3/19/2002 14:28:04
19	L0203327-03 9056	Unknown	19	25.0	9056	9056	Finished	3/19/2002 14:41:24
20	WG114742-05 REF-MS	Unknown	20	25.0	9056	9056	Finished	3/19/2002 14:52:54
21	L0203327-07 9056	Unknown	21	25.0	9056	9056	Finished	3/19/2002 15:04:24
22	L0203327-08 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:15:54
23	WG114743-02 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 15:27:24
24	L0203327-09 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:38:55
25	WG114742-04 DUP	Unknown	15	25.0	9056	9056	Finished	3/19/2002 15:50:25
26	L0203327-09 9056 RR	Unknown	16	25.0	9056	9056	Finished	3/19/2002 16:03:18
27	WG114742-06 MS	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:14:48
28	WG114742-07 MSD	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:26:18
29	WG114743-03 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 16:37:48
30	END	Unknown	22	25.0	DX-320 OFF	9056	Finished	3/19/2002 16:49:18

RPC 3/27/02

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/19/2002 12:45:30 by gsg
Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
2	ANION STD #2	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
3	ANION STD #3	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
4	ANION STD #4	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
5	ANION STD #5	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
6	ANION STD #6	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
7	ELUENT BLANK	1.0000		1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1.0000		1,1 RDC/JWR ANION ALT STD SV53-30 030702
9	ANION ALT STD: SOS58-15	1.0000		1,1 RDC/JWR ANION ALT STD SOS58-15 030702
10	DI WATER BLANK	1.0000		1,1 RDC
11	ELUENT BLANK	1.0000		1,1 RDC
12	WG114743-01 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
13	WG114742-01 BLANK 031902	1.0000		1,1 RDC
14	WG114742-02 LCS 031902	1.0000		1,1 RDC ANION STD SOS0058-24 031902
15	L0203326-01 9056	1.0000		1,1 RDC
16	WG114742-03 REF-DUP	1.0000		1,1 RDC L0203326-02
17	L0203327-01 9056	1.0000		1,1 RDC
18	L0203327-02 9056	1.0000		1,1 RDC
19	L0203327-03 9056	1.0000		1,1 RDC
20	WG114742-05 REF-MS	1.0000		1,1 RDC L0203327-04 REF
21	L0203327-07 9056	1.0000		1,1 RDC
22	L0203327-08 9056	1.0000		1,1 RDC
23	WG114743-02 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
24	L0203327-09 9056	1.0000		1,1 RDC
25	WG114742-04 DUP	1.0000		1,1 RDC L0203326-02 DUP
26	L0203327-09 9056 RR	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
27	WG114742-06 MS	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
28	WG114742-07 MSD	1.0000		1,1 RDC L0203327-06 MSD SOS0058-24
29	WG114743-03 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
30	END	1.0000		1,1 RDC

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KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2002 Instrument ID IC-2 Column ID ~~AS4A-SC~~ AG4A-SC Data Subdirectory 031902
Analyst Initials RLC SOP # IC01 Rev. # 0 9056 SOP # IC02 Rev. # 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1193 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: 3/19/02

Run Date: 3/19/2002

Analyst: RDC

Instrument: IC2

Workorders:	Due Date:	Priority:
WG114742 03-326	3/26/2002	
WG114742 03-327	3/26/2002	

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	
Data Package:	Level 2	
	Level 3	
	Level 4	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Π = Checked & OK

NA = Not Applicable

Comments:

nitrate-N, nitrite-N, and PO4-P only.....

Level 4 pkg. needed

Primary Reviewer: RDC 3/27/02

Secondary Reviewer: 3/27/02

Supervisor Review: 3/27/02

Example 9056 Calculations

1.0 Software determines Linear Regression and area counts by the following calculation through operator entered concentrations:

Where: area=slope(concentration)+offset

area in uS/min. of the compound being measured in the standard
slope(concentration)+offset = Concentration of the compound being measured (mg/ml).

2.0 Calculating the concentration of an anion in water using (area-(offset)/slope:

amt=(area-(offest)/slope

Area of the compound being measured in uS/min.
Offset = axis of chromatogram corresponding to calibration table
Slope = the ascending calib.curve where amt/area=slope (linear regression).

Where: amt cl = area 0.382-(offset -0.0113)/slope 0.0622

0.382-(-0.0113)/0.0622= 6.323