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THIRD QUARTER 2001 OPERATION AND MAINTENANCE STATUS REPORT FOR NUTRIENT INJECTION SYSTEM AT BUILDING 9 FORMER TANKS 9L1 AND 9L2 NAS CECIL FIELD FL

11/1/2001

CH2MHILL CONSTRUCTORS INC

Third Quarter 2001
Operation and Maintenance
Status Report

Nutrient Injection System

Building 9, Former Tanks 9L1 and 9L2

July 1, 2001 – September 30, 2001

Naval Air Station Cecil Field
Jacksonville, Florida

Contract No. N62467-98-D-0995
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Acronym List

acfh	actual cubic feet per hour
acfm	actual cubic feet per minute
bls	below land surface
BTEX	benzene, toluene, ethylbenzene, and xylene
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
FL PRO	Florida Petroleum Residual Organic
GCTL	groundwater cleanup target levels
HLA	Harding Lawson Associates
LNAPL	light non-aqueous phase liquid
mg/L	milligrams per liter
mS/cm	milliseconds per centimeter
MTBE	methyl-tert butyl ether
MW	monitoring well
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
O&M	operation and maintenance
PAHs	polycyclic aromatic hydrocarbons
psig	pounds per square inch gauge
SAR	Site Assessment Report
scfm	standard cubic feet per minute
TEP	triethylphosphate
TRPH	total recoverable petroleum hydrocarbons
TtNUS	Tetra Tech NUS
UST	underground storage tank

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) has been contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (NAVFAC), to provide operation and maintenance (O&M) services at Building 9, Naval Air Station (NAS) Cecil Field, Jacksonville, Florida, under Response Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002. The purpose of this Third Quarter O&M Report is to provide a summary of activities performed at the site during the period of July 1, 2001 to September 30, 2001.

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 Chapter 62-777 Florida Administrative Code (FAC). Nutrient injection, specifically the PHOSter Nutrient Injection System, is the technology being utilized to achieve this objective.

1.2 Site History

Building 9 served as the NAS Cecil Field main Base fire 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 (Tetra Tech NUS [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 in size 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 area approximately 3,000 square feet in size, which coincides with the area of soil contamination.

The PHOSter 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. Toward the end of cleanup operations, when contaminant concentrations have been reduced to the point where insufficient food (contaminants) is available to sustain an effective microorganism population, propane is also 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). A map showing the locations of the injection wells is provided in Appendix A.

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

Nutrient Injection System		
	Period	To Date
Hours of Possible Operation	2208	6360
Hours of Actual Operation	2203	6142
Percent hours of Operation	99.8	96.6

2.2 Summary of Maintenance and System Downtime

During the period of July 1, 2001 to September 30, 2001, the nutrient injection system ran a total of 91.8 days out of a possible 92 days, resulting in 5 hours of downtime. The system down time is the result of manual shutdowns for routine equipment maintenance.

2.3 Pressure/Flow Rate Monitoring

2.3.1 Nutrient Injection System

During the third quarter, the injection pressure at the compressors averaged 21.7 psig, compared to the design injection pressure of 15 psig. The total gas injection flow rate averaged 6.0 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 0.50 actual cubic feet per hour (acfh) which is 0.14 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 TEP injection mass for the third quarter totaled 10.7 pounds, compared to the design injection mass of 9.5 pounds per 3 month quarter. The data for the injection wells and injection system are tabulated in Tables 2-1 and 2-2.

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
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
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
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

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 - 7	1	--
02/28/2001	17	6 - 7	0.8	1.78
03/30/2001	16	6 - 7	0.8	1.52
04/13/2001	19	6 - 7	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

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

2.4 Water Level Measurements

Depth to water measurements were recorded at selected monitoring wells on a monthly basis during the monitoring period. The top of casing elevation, depth to water measurements and calculated water level elevations are provided in Table 2-3. A map showing the groundwater flow direction as measured on August 13, 2001 is provided in Appendix A.

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

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

Well Identification	Well Total Depth (feet bls)	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
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
		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
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

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

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-9-5S		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
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
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
		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

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

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-9-9S		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

bls = below land surface

3.0 Summary of Sampling and Laboratory Analytical Results

3.1 Soil Monitoring

Soil screening and sampling was conducted on a quarterly basis during the third quarter. One soil boring, labeled as SB-2, was installed near the center of the contaminated area. 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 September 20, 2001. The water table was encountered at 4.5 ft bls. The OVA/FID readings are summarized below in Table 3-1.

TABLE 3-1
Summary of OVA/FID Readings*

Date	Soil Boring No.	Depth (feet bls)	OVA/FID Unfiltered	OVA/FID Filtered	OVA/FID Net
9/20/01	SB-2	2	12.70	0.6	12.1
9/20/01	SB-2	4	36.02	3.10	32.92

*All OVA readings expressed in parts per million (ppm)
bls = below land surface

The laboratory soil sample was analyzed for BTEX and methyl-tert butyl ether (MTBE) by U.S. Environmental Protection Agency (USEPA) Method 8021B, naphthalene and purgeable aromatic hydrocarbons (PAHs) by USEPA Method 8310, and TRPH by the Florida Petroleum Residual Organic (FL-PRO) Method. The results indicated that no constituents are above the Leachability or Direct Exposure Residential Soil Cleanup Target Levels (SCTLs) per Chapter 62-777 FAC. A site map showing the location of SB-2 is provided in Appendix A. Copies of the analytical laboratory report from the soil sampling event are provided in Appendix C, and analytical results are summarized in Table 3-2.

3.2 Groundwater Monitoring

Monitoring wells CEF-9-2S, CEF-9-3S, CEF-9-5S, CEF-9-7D, and CEF-9-9S were sampled monthly during the third quarter. The samples were analyzed for BTEX and MTBE by USEPA Method 8021B, naphthalene and PAHs by USEPA Method 8310, TRPH by FL-PRO Method, and nitrate, nitrite, phosphate by USEPA Method 300.0. Only CEF-9-9S exhibited concentrations above the Groundwater Cleanup Target Levels (GCTLs) per Chapter 62-777 FAC. A site map showing the locations of the monitoring wells is provided in Appendix A. Copies of the analytical laboratory reports from the groundwater sampling events are provided in Appendix D, and the analytical results are summarized in Table 3-3. Appendix E contains graphs plotting contaminant concentration versus time for monitoring well CEF-9-9S.

Additionally, 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 in Table 3-4. 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 milligram per liter (mg/L), which indicates aerobic conditions. The carbon dioxide and alkalinity values are decreasing, which may indicate decreased aerobic activity. Ferrous iron values remain constant. An increase in ferrous iron may indicate anaerobic activity and a depletion of oxygen, nitrite, and manganese. Hydrogen sulfide values have fluctuated during the last 4 months after remaining relatively constant during the previous two quarters. This may indicate a reduction in natural hydrogen sulfide production.

TABLE 3-2
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
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
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
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
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 milligrams per kilogram (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 3-3
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
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

TABLE 3-3
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
	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
	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
CEF-9-3S	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
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

TABLE 3-3
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
	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
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
CEF-9-7D	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

TABLE 3-3
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-9-9S	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
	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
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 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (^oC)	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
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
	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
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

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (^oC)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-9-5S	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
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
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
	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

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (^oC)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-9-9S	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

NR = No Reading Taken
mS/cm = milliseimens per centimeter
mg/L = milligrams per liter
^oC = degrees Celsius

4.0 Conclusions and Recommendations

The soil screening results performed inside the northern edge of the soil plume (soil boring SB-2) indicated that OVA/FID readings were less than 50 parts per million (ppm) before methane subtraction at all depths above the water table, which was encountered at 4.5 feet bls. Laboratory analysis of the soil indicated that all contaminant concentrations were below the SCTLs compared to the baseline soil sampling event conducted on January 4, 2001, which indicated that ethyl benzene and xylenes were present at concentrations that exceeded the SCTL. The groundwater sampling results indicated that only monitoring well CEF-9-9S exhibited contaminant concentrations greater than the GCTLs during the monitoring period. The contaminant concentrations in CEF-9-9S have decreased from the first quarter 2001 sampling events. Benzene, ethyl benzene, xylenes, and naphthalene concentrations in CEF-9-9S remain above the GCTLs. LNAPL was not noted in any monitoring well during the third quarter.

The injection flow rates were re-balanced during the second quarter 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. The previous configuration was to alternate injection on 12-hour cycles between the four injection wells. The result of the change is that the injection airflow rate remains constant to well CEF-9-I3 and CEF-9-I4; however, the concentrations of nitrous oxide and TEP have been increased and the injection is continuos. Field analytical parameters in monitoring well CEF-9-9S indicate that aerobic conditions exist but a decrease in aerobic activity may be occurring.

It is recommended to continue to operate the nutrient injection system and to re-balance the flow rates to divert 100 percent of the airflow into injection well CEF-9-I4 on a continuous basis. It is expected that this change will increase the radius of influence from CEF-9-I4 to reach the CEF-9-9S area. After flow rates have been adjusted, the field parameter readings will be evaluated and if warranted, the airflow may be re-balanced to divert all airflow to two injection wells on 12 hour alternating cycles. All five monitoring wells will continue to be sampled during the next quarter at a frequency of once per month. 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-4 during the next quarter to evaluate the performance of the remediation system with respect to the soil in this location.

5.0 References

CH2M HILL Constructors, Inc. 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.

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

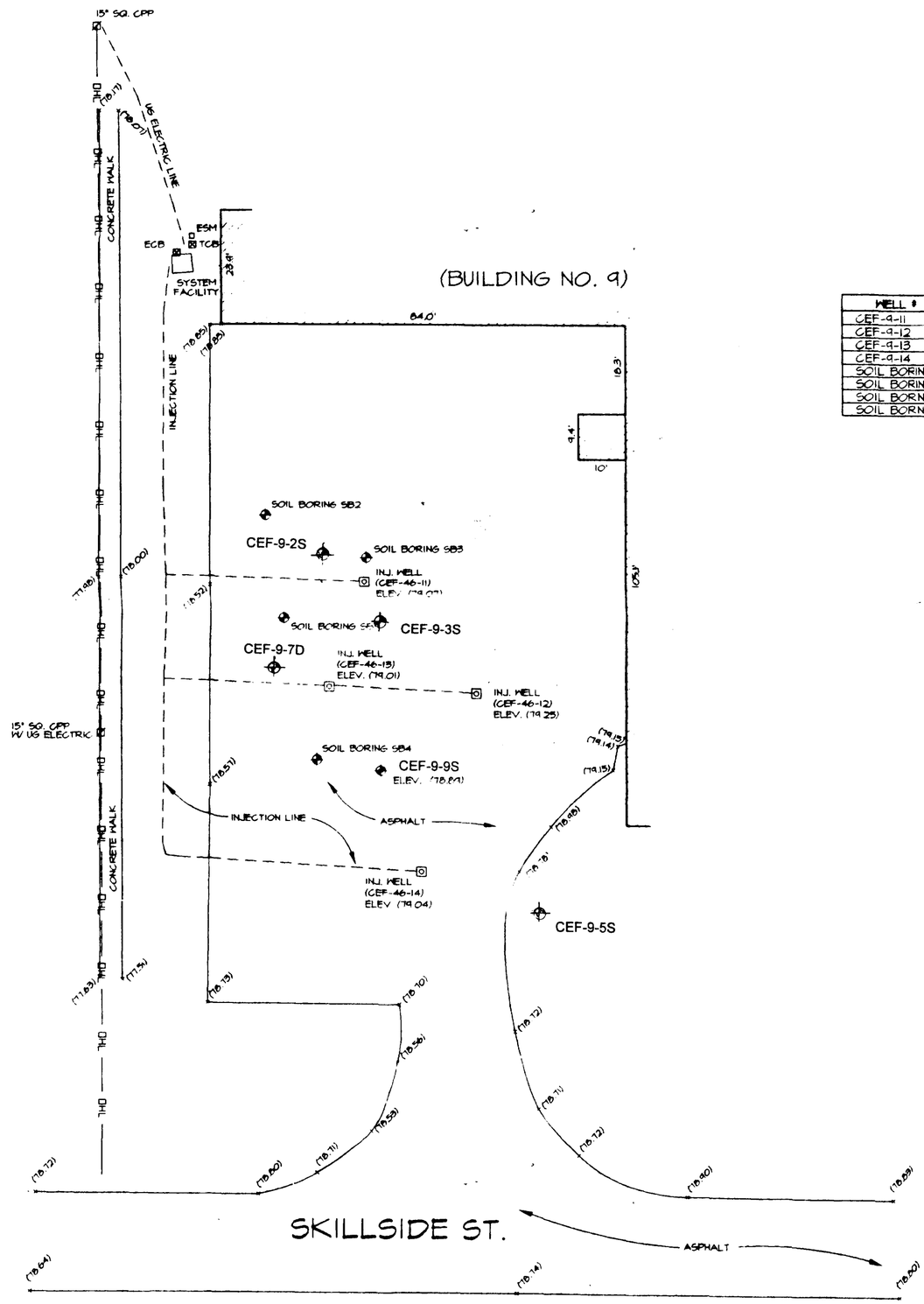
Tetra Tech NUS, Inc. June 2000. Remedial Action Plan Addendum; Building 9, Former Tanks 9L1 and 9L2; Naval Air Station Cecil Field, Jacksonville, Florida.

Appendix A

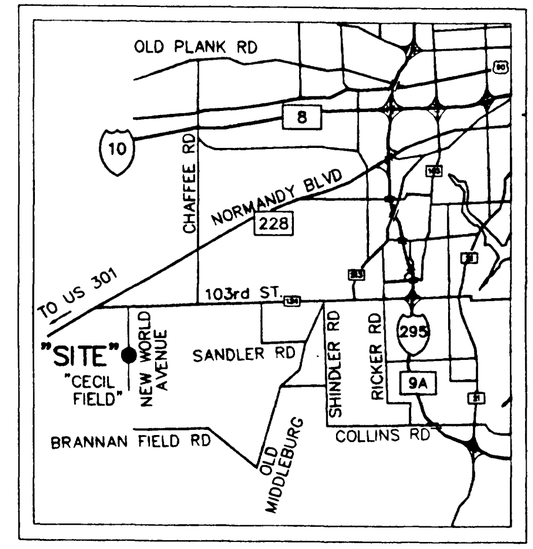
Maps

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	2142670.03	376263.68
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	2142684.15	376242.79
SOIL BORNG SB3	2142675.29	376264.13
SOIL BORNG SB4	2142632.16	376253.50



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
UG - 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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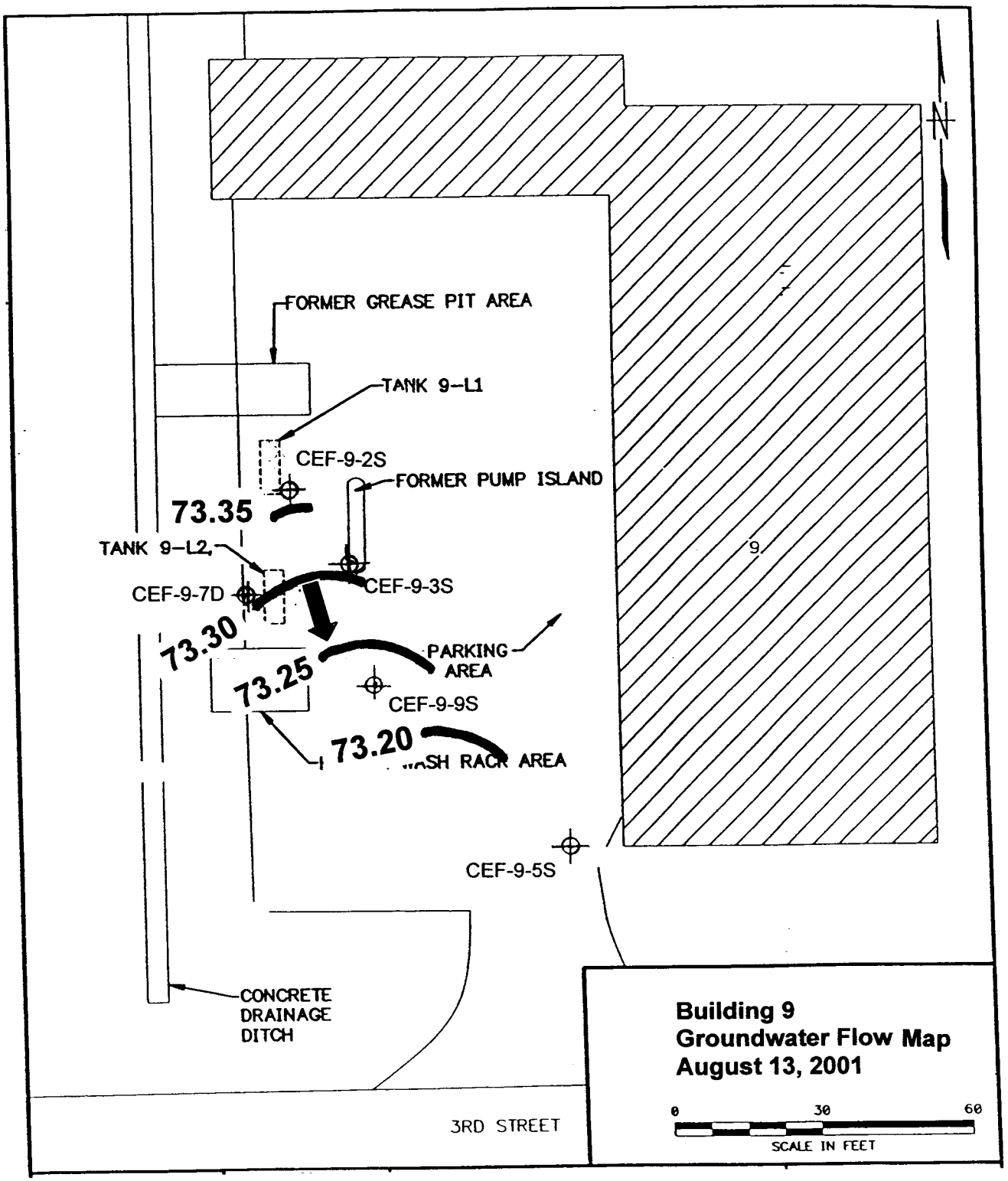
4242
ROBERT E. HOLLAND
FL REGISTRATION NO. 4242
CHARLES R. BASSETT, JR.
FL REGISTRATION NO. 4591

DATE: JANUARY 25, 2001
WORK ORDER NO.: 264.00
PROJECT NUMBER: 17100
SHEET 1 OF 1
DRAWING NO.: D-17100

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



= direction of groundwater flow

Appendix B

Laboratory Analytical Reports for Soil Samples
(CD only)

KEMRON REPORT L0109342

Prepared for CCI

Work ID : NAS CECIL FIELD

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0109342

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 final calibration verification analyzed 09/21/01 on HP-11 (file: 11G11636) yielded % drift results for MTBE and benzene below the lower control limit of -15%. Sample 01 was associated with this calibration verification and was reanalyzed 09/25/01 on HP-11. The final calibration verification (file: 11G11653) associated with the reanalysis of sample 01 yielded a % drift result for MTBE below the lower control limit of -15%. Both sets of results for sample 01, therefore, were reported.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: Not associated with this sample delivery group and/or insufficient sample volume for MS/MSD analyses.

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: [signature] DATE: 10/3/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0109342

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: There were no MS/MSD results associated with any water sample in working 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: HV REVIEWED: _____ DATE: 10/4/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0109342

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/MSD results were not associated with this sample delivery group.

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: Steve Pearl DATE: 10/3/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

WET CHEM ANALYSES DATA PACKAGE

Analytical Method : **D2216-90**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG105363**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-SB2-S-Q3-03	L0109342-01

Comments:

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: Dennis S Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

WET CHEM ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG105363

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: OVEN 26-SEP-01

Date Received: 21-SEP-01 Date Extracted: Date Analyzed: 26-SEP-01 13:10

Concentration Units: weight %

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.22	1.2	82.0	1	

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG105168**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF9-EB1-W-Q3-03	L0109342-02

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG105168

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-EB1-W-Q3-03 Lab Sample ID: L0109342-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 21-SEP-01 Date Extracted: 24-SEP-01 Date Analyzed: 24-SEP-01 21:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	0.380	1.05	ND
2-Methylnaphthalene	0.353	1.1	0.353	1.05	ND
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	0.377	1.05	ND
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG105168

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-EB1-W-Q3-03 Lab Sample ID: L0109342-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 21-SEP-01 Date Extracted: 24-SEP-01 Date Analyzed: 24-SEP-01 21:01

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	77.0	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG105348**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF9-SB2-S-Q3-03	L0109342-01

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG105348

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 21-SEP-01 Date Extracted: 26-SEP-01 Date Analyzed: 27-SEP-01 04:30

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.40	200	6.40	1	ND
2-Methylnaphthalene	5.57	200	5.57	1	ND
Acenaphthene	68.3	200	68.3	1	ND
Acenaphthylene	54.9	200	54.9	1	ND
Anthracene	50.0	200	50.0	1	ND
Benzo(a)anthracene	4.63	20	4.63	1	ND
Benzo(a)pyrene	3.54	20	3.54	1	ND
Benzo(b)fluoranthene	5.85	20	21.0	1	
Benzo(g,h,i)perylene	4.39	20	4.39	1	ND
Benzo(k)fluoranthene	2.44	20	2.44	1	ND
Chrysene	4.63	20	4.63	1	ND
Dibenzo(a,h)anthracene	5.49	20	5.49	1	ND
Fluoranthene	4.51	20	4.51	1	ND
Fluorene	69.5	200	69.5	1	ND
Indeno(1,2,3-cd)pyrene	3.90	20	3.90	1	ND
Naphthalene	76.8	200	76.8	1	ND
Phenanthrene	57.3	200	57.3	1	ND
Pyrene	4.51	20	4.51	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG105348

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 21-SEP-01 Date Extracted: 26-SEP-01 Date Analyzed: 27-SEP-01 04:30

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	90.1	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG105348

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 21-SEP-01 Date Extracted: 26-SEP-01 Date Analyzed: 27-SEP-01 04:30

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.40	200	6.40	1	ND
2-Methylnaphthalene	5.57	200	5.57	1	ND
Acenaphthene	68.3	200	68.3	1	ND
Acenaphthylene	54.9	200	54.9	1	ND
Anthracene	50.0	200	50.0	1	ND
Benzo(a)anthracene	4.63	20	4.63	1	ND
Benzo(a)pyrene	3.54	20	16.0	1	J
Benzo(b)fluoranthene	5.85	20	25.0	1	
Benzo(g,h,i)perylene	4.39	20	13.0	1	J
Benzo(k)fluoranthene	2.44	20	9.70	1	J
Chrysene	4.63	20	6.20	1	J
Dibenzo(a,h)anthracene	5.49	20	15.0	1	J
Fluoranthene	4.51	20	4.51	1	ND
Fluorene	69.5	200	69.5	1	ND
Indeno(1,2,3-cd)pyrene	3.90	20	3.90	1	ND
Naphthalene	76.8	200	76.8	1	ND
Phenanthrene	57.3	200	57.3	1	ND
Pyrene	4.51	20	4.51	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG105348

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 21-SEP-01 Date Extracted: 26-SEP-01 Date Analyzed: 27-SEP-01 04:30

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	84.9	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG105295**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF9-TB1-W-Q3-03	L0109342-03

Comments:

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Signature: Dennis S Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG105295

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-TB1-W-Q3-03 Lab Sample ID: L0109342-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 21-SEP-01 Date Extracted: Date Analyzed: 26-SEP-01 13:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

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.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8021**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG105224**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-SB2-S-Q3-03	L0109342-01

Comments:

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Signature: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG105224

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HP11 24-SEP-2001

Date Received: 21-SEP-01 Date Extracted: Date Analyzed: 25-SEP-01 11:15

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.462	1.3	0.462	1.07	ND
Ethylbenzene	0.504	1.3	0.504	1.07	ND
Methyl tert-butyl ether	1.08	1.3	1.08	1.07	ND
Toluene	1.05	1.3	1.05	1.07	ND
Xylenes, Total	1.79	3.9	1.79	1.07	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	98.1	34 – 175	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG105203**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF9-EB1-W-Q3-03	L0109342-02

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG105203

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-EB1-W-Q3-03 Lab Sample ID: L0109342-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 21-SEP-01 Date Extracted: Date Analyzed: 25-SEP-01 20:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	114	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8021**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG105094**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF9-SB2-S-Q3-03	L0109342-01

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG105094

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HP11 21-AUG-2001

Date Received: 21-SEP-01 Date Extracted: Date Analyzed: 21-SEP-01 19:23

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.489	1.3	0.489	1.1	ND
Ethylbenzene	0.533	1.3	0.533	1.1	ND
Methyl tert-butyl ether	1.14	1.3	1.14	1.1	ND
Toluene	1.11	1.3	1.11	1.1	ND
Xylenes, Total	1.84	4.0	4.90	1.1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	90.8	34 - 175	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8015**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG105346**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF9-SB2-S-Q3-03	L0109342-01

Comments:

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: Dennis S. Tepe
Name: **Dennis S. Tepe**

Date: **02-OCT-01**
Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3550B AAB # : WG105346

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-SB2-S-Q3-03 Lab Sample ID: L0109342-01 Matrix: Soil

% Solids: 82 Initial Calibration ID: HP2 28-SEP-2001

Date Received: 21-SEP-01 Date Extracted: 26-SEP-01 Date Analyzed: 28-SEP-01 15:24

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	6100	12000	21000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	96.1	47 - 142	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

1

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8015**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG105258**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-EB1-W-Q3-03	L0109342-02

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **02-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG105258

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-EB1-W-Q3-03 Lab Sample ID: L0109342-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 21-SEP-01 Date Extracted: 24-SEP-01 Date Analyzed: 25-SEP-01 12:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	280	1.05	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	148	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

2

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

08/28/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAB - CASSIE A. BAKER
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
EAW - ELIZABETH A. WEBER
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JAW - JOYCE A. WITHERS
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LBM - LAWRENCE B. MCSWEGAN
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MAJ - MARK A. JEMISON
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
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SAM - SAMUAL A. MILLS
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLC - SHAWN L. COLE
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMH - SARAH M. HAYES
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
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)

H:\DATA\COMMON\Qualifier List 12-15-00.doc

KEMRON Internal Laboratory Chain of Custody

Work Order: L0109342 **Client:** PCI **# of Samples:** 3 **Due Date:** 9/28 **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	qs 9/21/01@1430	login	org 4-lab	BLG				
02-03	8021	analysis	qs 9/21/01@1430	login	org 4/lab	BLG				
02A	8310	Ext	RE 9/24/01 @0935	walkin	SLB	LMT	9/25/01 JEA @0920	crusher	CB	disposal
02A	PAH-PRO	Ext	RE 9/24/01 @0935	walkin	SLB	LMT	9/25/01 JEA @0920	crusher	CB	disposal
01A	8310	Ext	9/26/01 CB @0659	WALKIN	EAB	DW	9/26/01 CB @0915	WALKIN	NB	HOLD
01A	PRO	↓	↓	↓	↓	DW	↓	↓	NB	↓
01A	PCTS	test	TMM 9/26/01 @0950	walkin	lab	LMT	TMM 9/26/01 @1000	walkin	NB	hold

report sent to client 10/4

ML

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite "00
Atlanta, GA 30346-12"8
Tel No ("")0) 604-9182 ; Fax No ("")0) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-171

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	149152	Angie Hurst Kemron Environmental Services	Jennifer Zimmerman 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	0002	2329	Jeff Wilmoth 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 Method Listed PAHs by 8310	TRPH by FL-PRO						SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF9-SB2-S-Q3-03	Soil Boring 2	S	09/20/01	10:10	III/C	14	3	1	1						Grab		
2	002-CEF9-EB1-W-Q3-03	Equipment Blank	W	09/20/01	10:40	III/C	14	2	2	2								
3	002-CEF9-TB1-W-Q3-03	Trip Blank	W	--	--	III/C	14	2										
4		Temperature Blank	W	--	--													
5																		
6																		
7																		
8																		
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)
Greg Ramey / Jamie Deas
J.A. Jones Environmental Services

COURIER AND SHIPPING NUMBER:
Federal Express Track # 790164036230, 790164036344.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: Randy Dumaop	9/20/01	17:00	Printed Name and Signature: Federal Express	9/20/01	17:00
Printed Name and Signature:			Printed Name and Signature: Brenda Gregory Brenda Gregory	9/21/01	1026

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

Form CC1001, Rev 02/00

CLIENT: CCI BRG ARS Other LMT	DATE: 9/21/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: Km154	COOLER ID: KL1006	COOLER ID:
INDEX #: 7901 6403 6344	INDEX #: 7901 6403 6230	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) 0 °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) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
	Sys not frozen	
	waters	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

CRF#4

Sample Receipt Form #2

Client: CCI Project:
Date Received: 9/21/01

_____Cooler temperature > than 6 degrees Celcius
Reason_____

✓ Samples received not on chain of custody
Recd extra Trip Blank out of Coolers 9/21/01 where the EB's were rec'd

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody
(1) DRO not identified for CEF9-EB1-W-03-03

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____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: Joe Canelos Company:
TSR: SCT Date:
Attach: Phone Logs, e-mails, faxes, etc.

Said to run per the COC.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 1

PROJECT: N.A.S. Cecil Field Bldg 9 LIMS# L0109342

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 9/21/01 C-of-C Number: 149152-171
by (print) Lucinda M. Tilton (sign) Lucinda M. Tilton

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: FedEx 7901 6403 6344 / 6230
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? one / front, seal date: 9/20/01 seal name: Kemon
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: LMT (date) 9/21/01

B. **LOG-IN PHASE:** Date samples were logged-in: 9/21/01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: bubble wrap / ice
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: L0109342

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 final calibration verification analyzed 09/21/01 on HP-11 (file: 11G11636) yielded % drift results for MTBE and benzene below the lower control limit of -15%. Sample 01 was associated with this calibration verification and was reanalyzed 09/25/01 on HP-11. The final calibration verification (file: 11G11653) associated with the reanalysis of sample 01 yielded a % drift result for MTBE below the lower control limit of -15%. Both sets of results for sample 01, therefore, were reported.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: Not associated with this sample delivery group and/or insufficient sample volume for MS/MSD analyses.

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: [signature] DATE: 10/3/01

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0109342

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)

✓ 5035 logs (if applicable) (chronological)

Checked By: [signature] **Date:** 10/3/01

2.1.3.1 QC Summary

VOA - GC

Date: 9/21/01 **Analyst:** GJS **Method:** 8021 8015 602

Instrument: HP11 **Work Group:** WG 205094

	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	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: GJS 9/26/01

Secondary Reviewers Initials & Date Checked: CBN 9/26/01

✓ • 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: CMS 9/26/01

Comments:

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 9/25/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 105224

	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	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: JLS 9/26/01

Secondary Reviewers Initials & Date Checked: CBN 9/26/01

✓ • 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] 9/26/01

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 9/25/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP 12 **Work Group:** WG 105202

	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	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: QJS 9/26/01

Secondary Reviewers Initials & Date Checked: CBN 9/27/01

✓ • 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: CMA 9/27/01

Comments:

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 9/26/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP12 **Work Group:** WG 105295

	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	✓
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: CSH 9/27/01

Secondary Reviewers Initials & Date Checked: CBN 9/27/01

✓ • 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] 9/28/01

Comments:

✓ = Checked & OK
NA = Not Applicable

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/21/2001	**Blank Filename:**	11G11627.D	**MS Filename:**	NA
Instrument:	HP11	**LCS Filename:**	11G11628.D	**MSD Filename:**	NA
Analyst:	JLS	**Sample Number:**	NA	**Dilution Factor:**	1
Work Group:	WG105094	**Sample Filename:**	NA		
Matrix:	Soil				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/kg	ug/kg	ug/kg	%	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	20.1	100.6	20.0	NA	NA	NA	NA	NA	69.0	121	NA	15					
benzene	0.50	ND	20.9	104.7	20.0	NA	NA	NA	NA	NA	74.0	121	NA	20					
toluene	0.50	ND	20.9	104.5	20.0	NA	NA	NA	NA	NA	74.0	120	NA	19					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	85.0	121	NA	24					
ethylbenzene	0.50	ND	21.9	109.7	20.0	NA	NA	NA	NA	NA	75.0	127	NA	19					
m+p-xylene	0.50	ND	42.6	106.6	40.0	NA	NA	NA	NA	NA	76.0	125	NA	19					
o-xylene	0.50	ND	21.0	104.8	20.0	NA	NA	NA	NA	NA	76.0	125	NA	19					
xylene (total)	0.50	ND	63.6	106.0	60.0	NA	NA	NA	NA	NA	76.0	125	NA	19					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	80.0	120	NA	15					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	80.0	120	NA	15					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	80.0	120	NA	16					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	30.8	102.6	30.6	102.0	30.0	NA	NA	NA	NA	NA	NA		47.0	121					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/25/2001	**Blank Filename:**	11G11648.D	**MS Filename:**	NA
Instrument:	HP11	**LCS Filename:**	11G11649.D	**MSD Filename:**	NA
Analyst:	CBN	**Sample Number:**	NA	**Dilution Factor:**	1
Work Group:	WG105224	**Sample Filename:**	NA		
Matrix:	Soil				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/kg	ug/kg	ug/kg	%	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	15.4	76.8	20.0	NA	NA	NA	NA	NA	69.0	121	NA	15					
benzene	0.50	ND	17.7	88.6	20.0	NA	NA	NA	NA	NA	74.0	121	NA	20					
toluene	0.50	ND	19.6	97.9	20.0	NA	NA	NA	NA	NA	74.0	120	NA	19					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	85.0	121	NA	24					
ethylbenzene	0.50	ND	18.9	94.5	20.0	NA	NA	NA	NA	NA	75.0	127	NA	19					
m+p-xylene	0.50	ND	34.6	86.4	40.0	NA	NA	NA	NA	NA	76.0	125	NA	19					
o-xylene	0.50	ND	18.4	92.1	20.0	NA	NA	NA	NA	NA	76.0	125	NA	19					
xylene (total)	0.50	ND	53.0	88.3	60.0	NA	NA	NA	NA	NA	76.0	125	NA	19					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	80.0	120	NA	15					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	80.0	120	NA	15					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	80.0	120	NA	16					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	27.7	92.5	29.1	96.9	30.0	NA	NA	NA	NA	NA	NA		47.0	121					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/25/2001	**Blank Filename:**	12G09570.D	**MS Filename:**	12G09573.D
Instrument:	HP12	**LCS Filename:**	12G09571.D	**MSD Filename:**	12G09574.D
Analyst:	CBN	**Sample Number:**	L0109356-01	**Dilution Factor:**	1
Work Group:	WG105203	**Sample Filename:**	12G09572.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	19.8	98.8	20.0	ND	18.9	22.0	94.5	109.8	56.0	149	15.0	20					
benzene	0.50	ND	20.7	103.7	20.0	ND	20.1	19.9	100.5	99.6	78.0	122	1.0	20					
toluene	0.50	ND	21.7	108.3	20.0	ND	21.2	21.1	106.1	105.6	78.0	123	0.4	20					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	22.3	111.5	20.0	ND	21.4	21.4	107.0	107.2	80.0	129	0.2	20					
m+p-xylene	0.50	ND	43.2	108.1	40.0	ND	41.4	41.5	103.6	103.6	80.0	124	0.1	20					
o-xylene	0.50	ND	21.5	107.6	20.0	ND	20.4	20.5	102.0	102.5	80.0	124	0.5	20					
xylene (total)	0.50	ND	64.8	107.9	60.0	ND	61.8	62.0	103.1	103.3	80.0	124	0.2	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	34.5	115.0	33.6	112.0	30.0	26.9	89.7	34.0	113.5	34.1	113.8		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/26/2001	**Blank Filename:**	12G09596.D	**MS Filename:**	12G09602.D
Instrument:	HP12	**LCS Filename:**	12G09597.D	**MSD Filename:**	12G09603.D
Analyst:	CBN	**Sample Number:**	L0109356-12	**Dilution Factor:**	5
Work Group:	WG105295	**Sample Filename:**	12G09601.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	19.6	97.9	20.0	155.5	266.0	271.0	110.5	115.5	56.0	149	1.9	20					
benzene	0.50	ND	21.2	105.8	20.0	1353.7	1472.4	1470.6	118.7	116.9	78.0	122	0.1	20					
toluene	0.50	ND	22.5	112.7	20.0	21954.8	22353	22247.9	398.2	293.1	78.0	123	0.5	20			H	H	
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	22.8	113.8	20.0	1078.3	1218.7	1214.8	140.3	136.4	80.0	129	0.3	20			H	H	
m+p-xylene	0.50	ND	43.7	109.4	40.0	892.0	1008.0	1004.8	58.0	56.4	80.0	124	0.3	20			L	L	
o-xylene	0.50	ND	21.8	108.8	20.0	2399.9	2580.7	2594.7	180.8	194.8	80.0	124	0.5	20			H	H	
xylene (total)	0.50	ND	65.5	109.2	60.0	3291.9	3588.7	3599.5	99.0	102.5	80.0	124	0.3	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	34.8	115.9	35.0	116.6	30.0	34.4	114.7	34.4	114.5	34.9	116.5		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

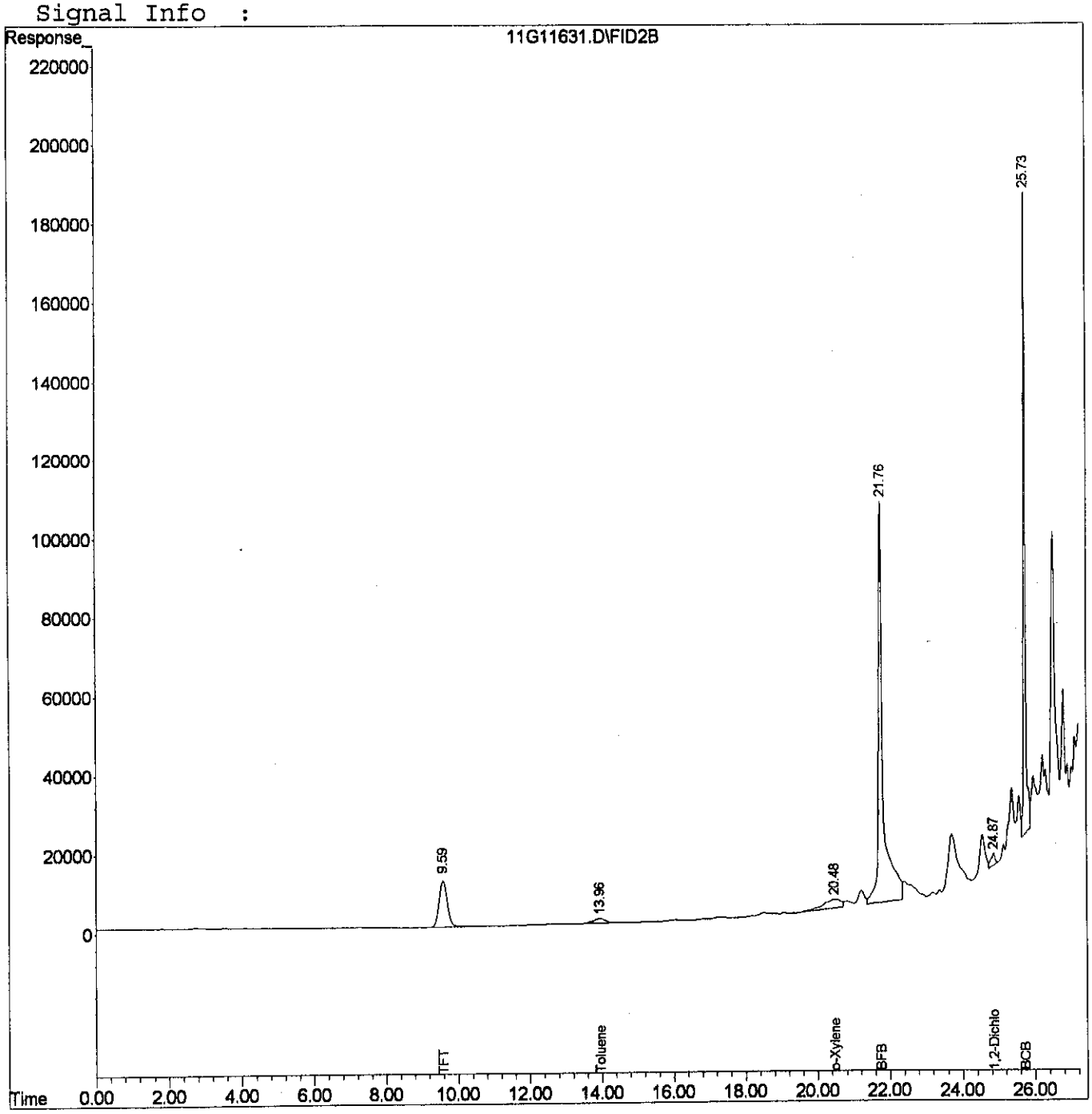
NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

2.1.3.2 Sample Data

Data File : C:\HPCHEM\1\DATA\092101\11G11631.D Vial: 6
Acq On : 21 Sep 2001 19:23 Operator: JLS
Sample : L0109342-01 A 4.53G Inst : HP11
Misc : 7,1 S-83-28 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 19:50 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092101\11G11631.D Vial: 6
Acq On : 21 Sep 2001 19:23 Operator: JLS
Sample : L0109342-01 A 4.53G Inst : HP11
Misc : 7,1 S-83-28 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 19:50 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
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	9.59	1847026	27.228 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	90.76%
9) S BFB	21.76	9401819	52.200 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	174.00%#
13) S BCB	25.74	5742030	33.322 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	111.07%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/KG
2) TM Benzene	7.24	24615	<MDL UG/KG
4) TM Toluene	13.96	266945	1.224 UG/KG
5) TM Chlorobenzene	18.52	101180	<MDL UG/KG
6) TM Ethylbenzene	18.81	42407	<MDL UG/KG
7) TM m-,p-Xylene	19.07	32702	<MDL UG/KG
8) TM o-Xylene	20.49	710409	3.654 UG/KG
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. UG/KG
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. UG/KG
12) TM 1,2-Dichlorobenzene	24.87	250084	1.491 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.
11G11631.D 8021S.M Fri Sep 21 19:50:30 2001 Page 1

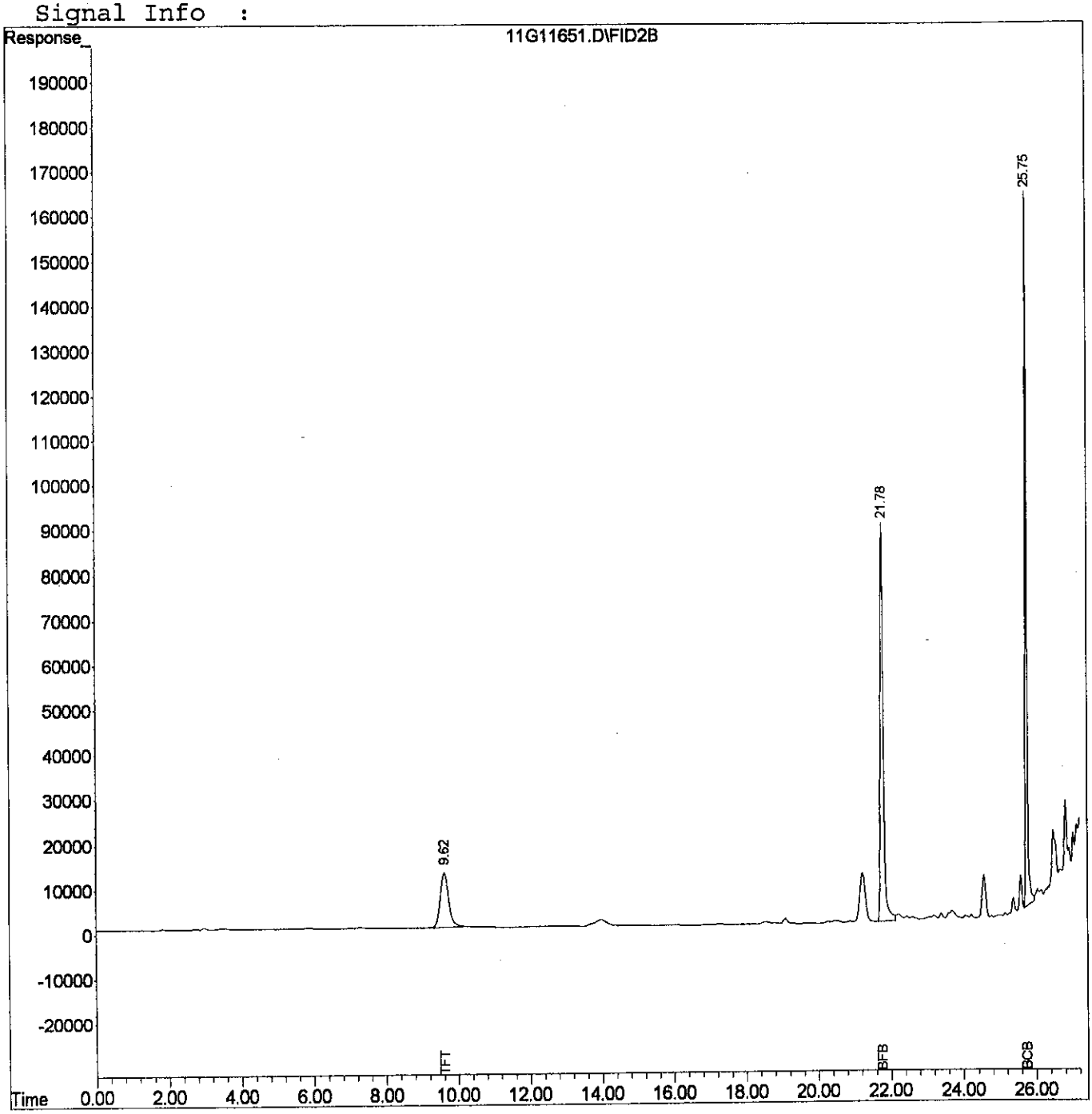
Data File : C:\HPCHEM\1\DATA\092501\11G11651.D
Acq On : 25 Sep 2001 11:15
Sample : L0109342-01 B 4.66G
Misc : 7,1 S-84-39
IntFile : autoint1.e
Quant Time: Sep 25 11:42 2001 Quant Results File: 8021PRES.RES

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

A1

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\11G11651.D
Acq On : 25 Sep 2001 11:15
Sample : L0109342-01 B 4.66G
Misc : 7,1 S-84-39
IntFile : autoint1.e
Quant Time: Sep 25 11:42 2001 Quant Results File: 8021PRES.RES

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

A1

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.62	2010631	29.420 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.07%
9) S BFB	21.78	5221179	26.328 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	87.76%
13) S BCB	25.75	5013343	24.375 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	81.25%
Target Compounds			
1) TM MTBE	0.00	0	N.D. 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	18.55	89700	<MDL UG/KG
6) TM Ethylbenzene	0.00	0	N.D. UG/KG
7) TM m-,p-Xylene	19.09	97176	<MDL UG/KG
8) TM o-Xylene	20.27	26225	<MDL UG/KG
10) TM 1,3-Dichlorobenzene	24.06	41836	<MDL UG/KG
11) TM 1,4-Dichlorobenzene	24.22	36876	<MDL UG/KG
12) TM 1,2-Dichlorobenzene	24.77	11327	<MDL UG/KG

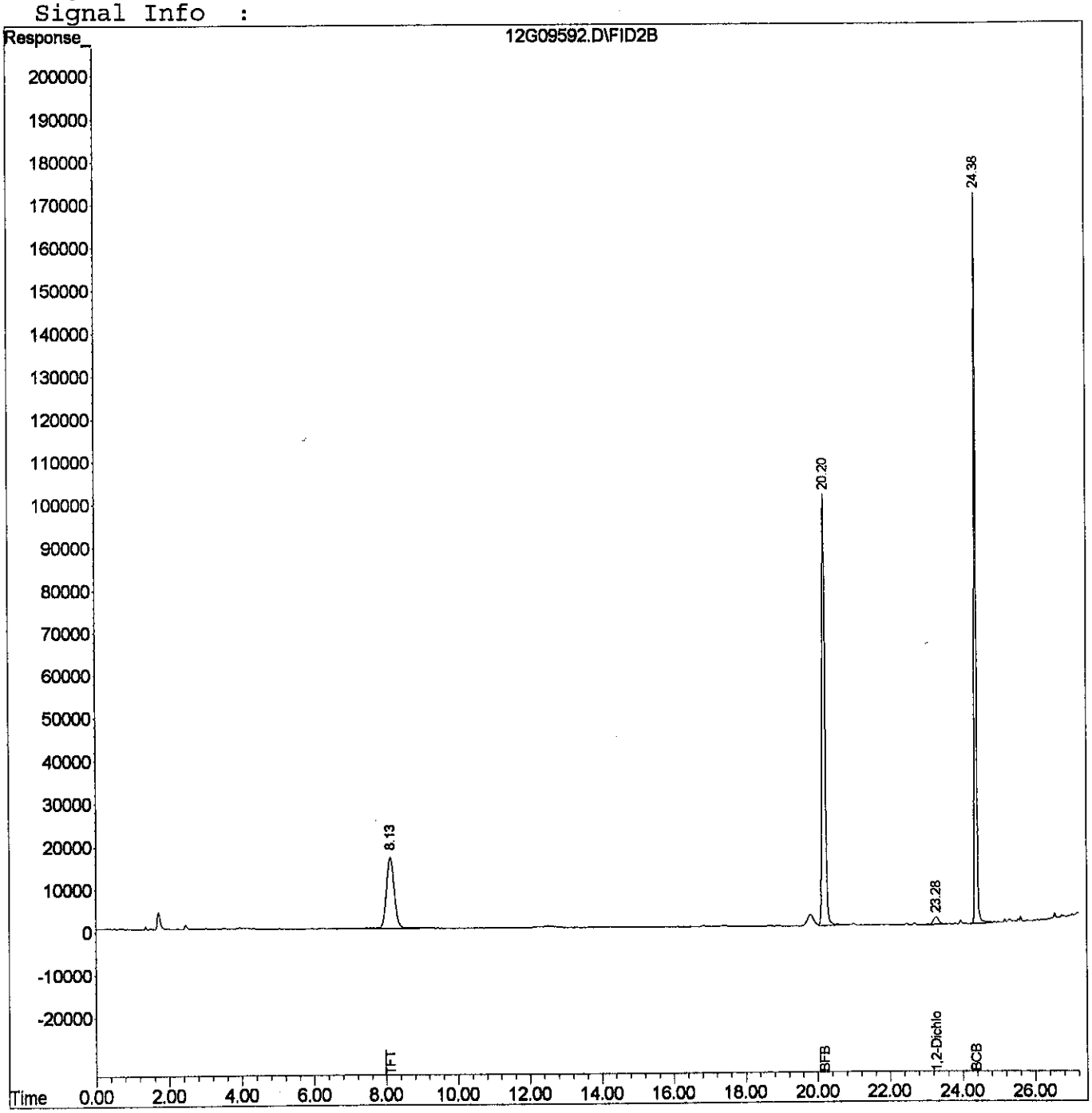
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\092501\12G09592.D
Acq On : 25 Sep 2001 20:02
Sample : L0109342-02 A 5ML pH<2
Misc : 1,1 S-84-38
IntFile : autoint1.e
Quant Time: Sep 25 20:30 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09592.D
Acq On : 25 Sep 2001 20:02
Sample : L0109342-02 A 5ML pH<2
Misc : 1,1 S-84-38
IntFile : autoint1.e
Quant Time: Sep 25 20:30 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

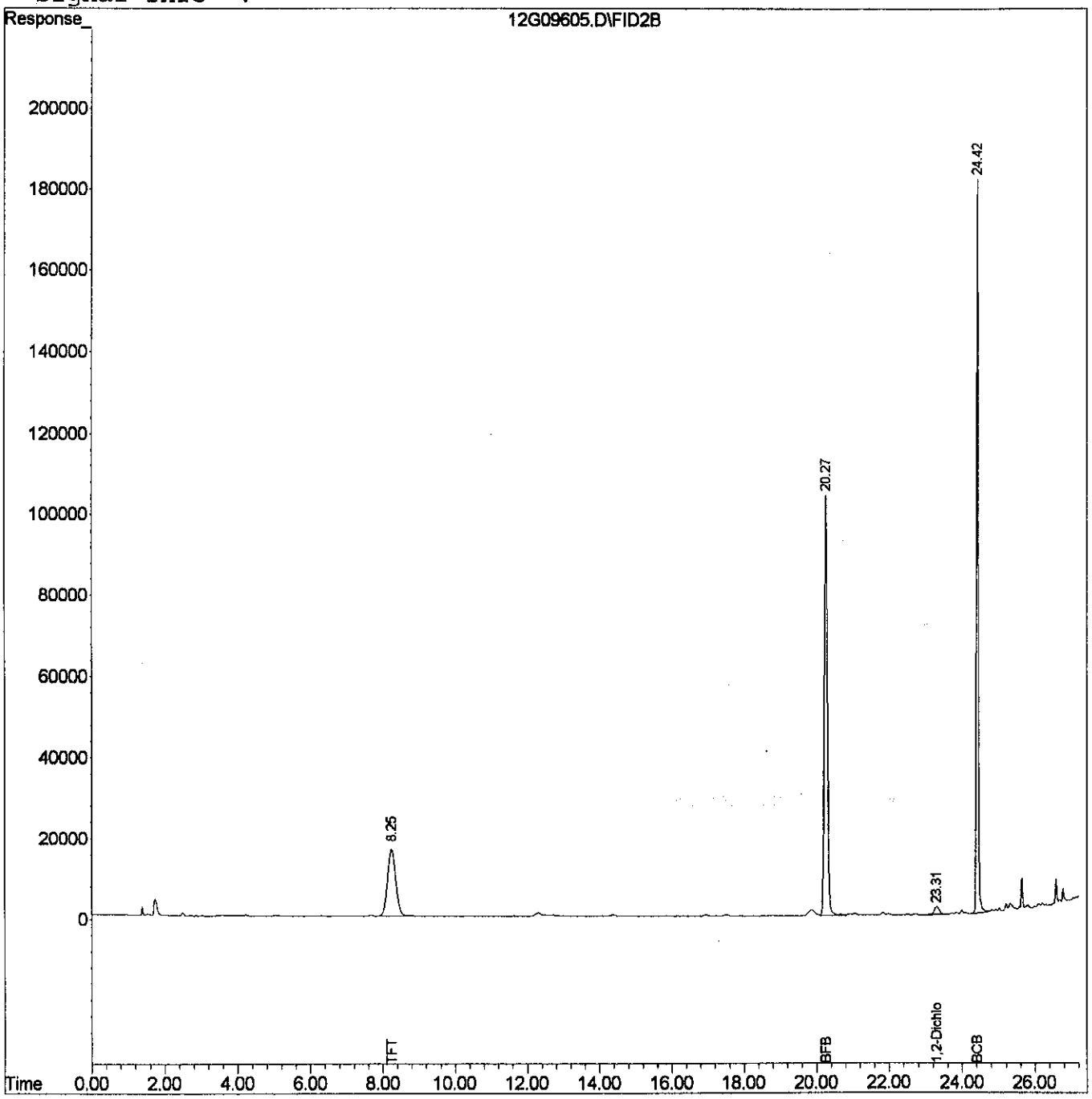
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.13	2524396	34.177 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	113.92%
9) S BFB	20.20	5935673	32.313 UG/L
Spiked Amount 30.000		Recovery =	107.71%
13) S BCB	24.38	5738550	29.979 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	99.93%
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	12.21	19920	<MDL UG/L
5) TM Chlorobenzene	16.84	30771	<MDL UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.42	27163	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.47	16675	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.69	16028	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.29	187205	~~1.161 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\092601\12G09605.D Vial: 25
Acq On : 26 Sep 2001 13:22 Operator: CBN
Sample : L0109342-03 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-84-38 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 13:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092601\12G09605.D Vial: 25
Acq On : 26 Sep 2001 13:22 Operator: CBN
Sample : L0109342-03 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-84-38 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 13:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.24	2606766	35.292 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 117.64%			
9) S BFB	20.27	6148771	33.473 UG/L
Spiked Amount 30.000 Recovery = 111.58%			
13) S BCB	24.42	6005978	31.376 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 104.59%			
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	12.31	73955	<MDL UG/L
5) TM Chlorobenzene	16.95	31183	<MDL UG/L
6) TM Ethylbenzene	16.95	31183	<MDL UG/L
7) TM m-,p-Xylene	17.51	34438	<MDL 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	22.73	18107	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.31	194475	1 ~~<.206 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09605.D 8021W.M Wed Sep 26 13:49:48 2001 Page 1

2.1.3.3 Standards Data

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Tue Aug 21 12:23:07 2001

Calibration Files

1	=11G10925.D	10	=11G10926.D	20	=11G10927.D
50	=11G10928.D	100	=11G10929.D	200	=11G10930.D

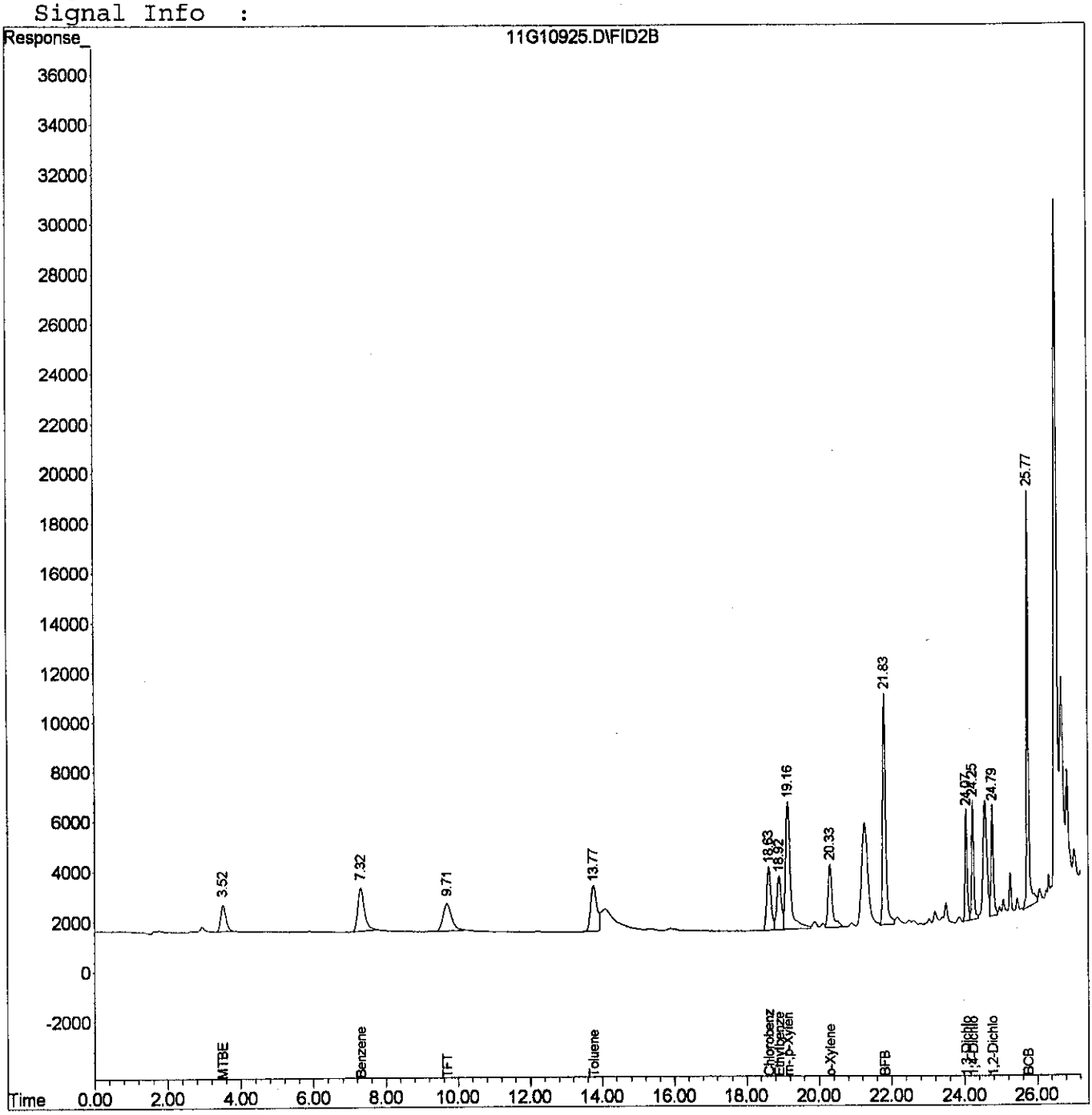
		Compound	1	10	20	50	100	200	Avg		%RSD
1)	TM	MTBE	1.034	1.033	0.978	0.927	0.973	0.909	0.976	E5	5.33
2)	TM	Benzene	2.203	2.324	2.281	2.210	2.252	2.136	2.234	E5	2.95
3)	S	TFT	6.056	7.096	6.869	6.935	6.947	6.799	6.784	E4	5.45
4)	TM	Toluene	2.150	2.439	2.246	2.118	2.127	2.002	2.180	E5	6.82
5)	TM	Chlorobenzene	2.009	2.100	2.139	2.128	2.193	2.099	2.111	E5	2.87
6)	TM	Ethylbenzene	1.812	1.869	1.887	1.856	1.889	1.796	1.851	E5	2.10
7)	TM	m-,p-Xylene	2.361	2.327	2.282	2.208	2.231	2.103	2.252	E5	4.12
8)	TM	o-Xylene	1.998	2.015	1.989	1.921	1.948	1.794	1.944	E5	4.18
9)	S	BFB	1.788	1.801	1.779	1.826	1.848	1.765	1.801	E5	1.72
10)	TM	1,3-Dichlorobenzene	1.819	1.752	1.839	1.874	1.961	1.786	1.838	E5	3.98
11)	TM	1,4-Dichlorobenzene	1.908	1.825	1.883	1.897	1.968	1.770	1.875	E5	3.68
12)	TM	1,2-Dichlorobenzene	1.928	1.662	1.663	1.647	1.664	1.502	1.678	E5	8.22
13)	S	BCB	1.906	1.604	1.631	1.732	1.790	1.676	1.723	E5	6.50

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\082101\11G10925.D Vial: 2
Acq On : 21 Aug 2001 9:09 Operator: CBN
Sample : 8021 STD1 1PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 9:36 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10925.D Vial: 2
Acq On : 21 Aug 2001 9:09 Operator: CBN
Sample : 8021 STD1 1PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 9:36 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

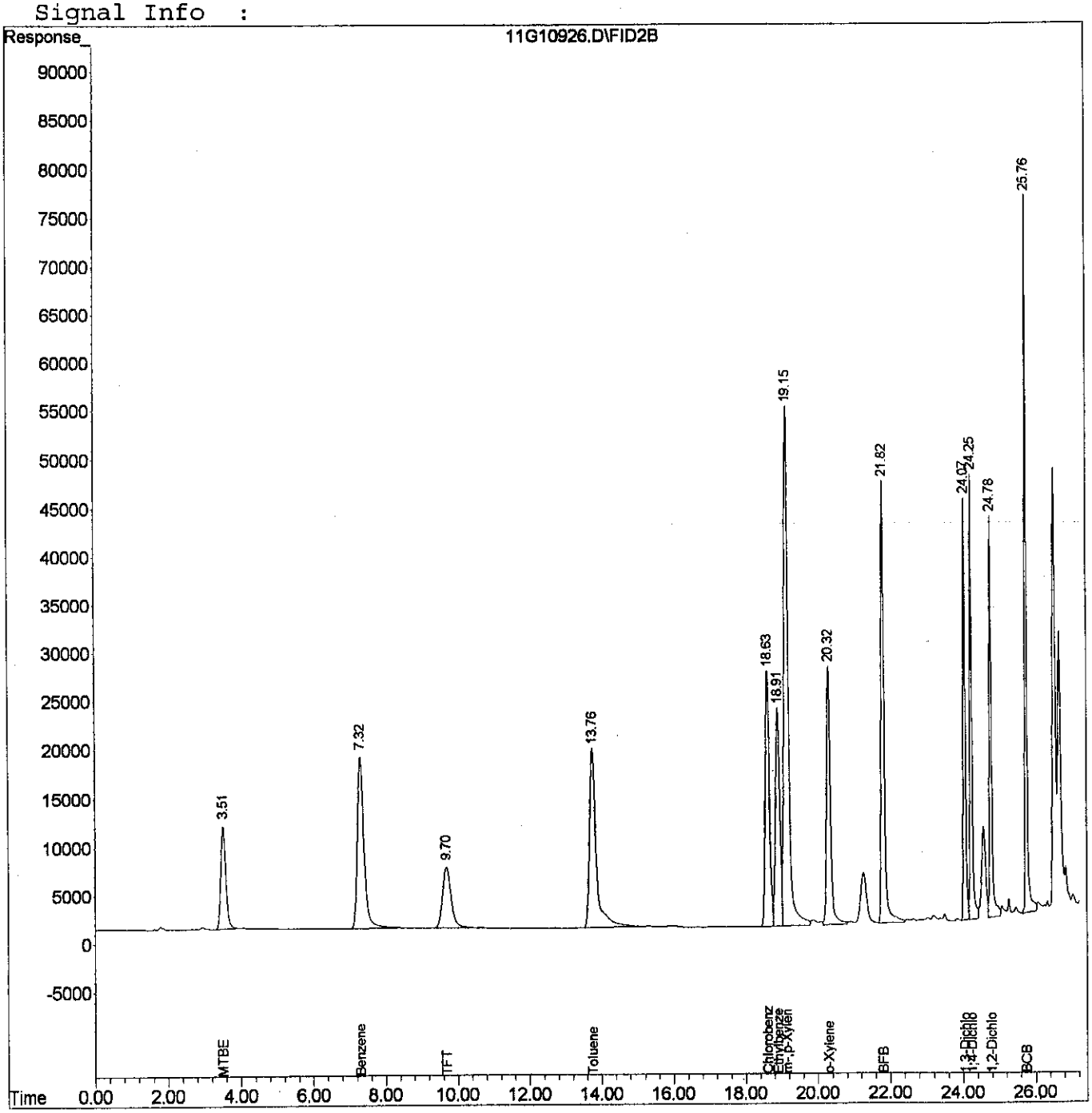
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	181674	2.786 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	9.29%#
9) S BFB	21.83	536301	2.927 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	9.76%#
13) S BCB	25.77	571746	3.261 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	10.87%#
Target Compounds			
1) TM MTBE	3.52	103444	1.892 UG/KG
2) TM Benzene	7.32	220298	1.085 UG/KG
4) TM Toluene	13.77	214990	1.073 UG/KG
5) TM Chlorobenzene	18.63	200947	1.025 UG/KG
6) TM Ethylbenzene	18.92	181187	1.053 UG/KG
7) TM m-,p-Xylene	19.16	472211	2.205 UG/KG
8) TM o-Xylene	20.33	199785	1.094 UG/KG
10) TM 1,3-Dichlorobenzene	24.07	181887	1.041 UG/KG
11) TM 1,4-Dichlorobenzene	24.26	190804	1.043 UG/KG
12) TM 1,2-Dichlorobenzene	24.79	192768	1.249 UG/KG

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

Data File : C:\HPCHEM\1\DATA\082101\11G10926.D Vial: 3
Acq On : 21 Aug 2001 9:41 Operator: CBN
Sample : 8021 STD2 10PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 10:08 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10926.D Vial: 3
Acq On : 21 Aug 2001 9:41 Operator: CBN
Sample : 8021 STD2 10PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 10:08 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

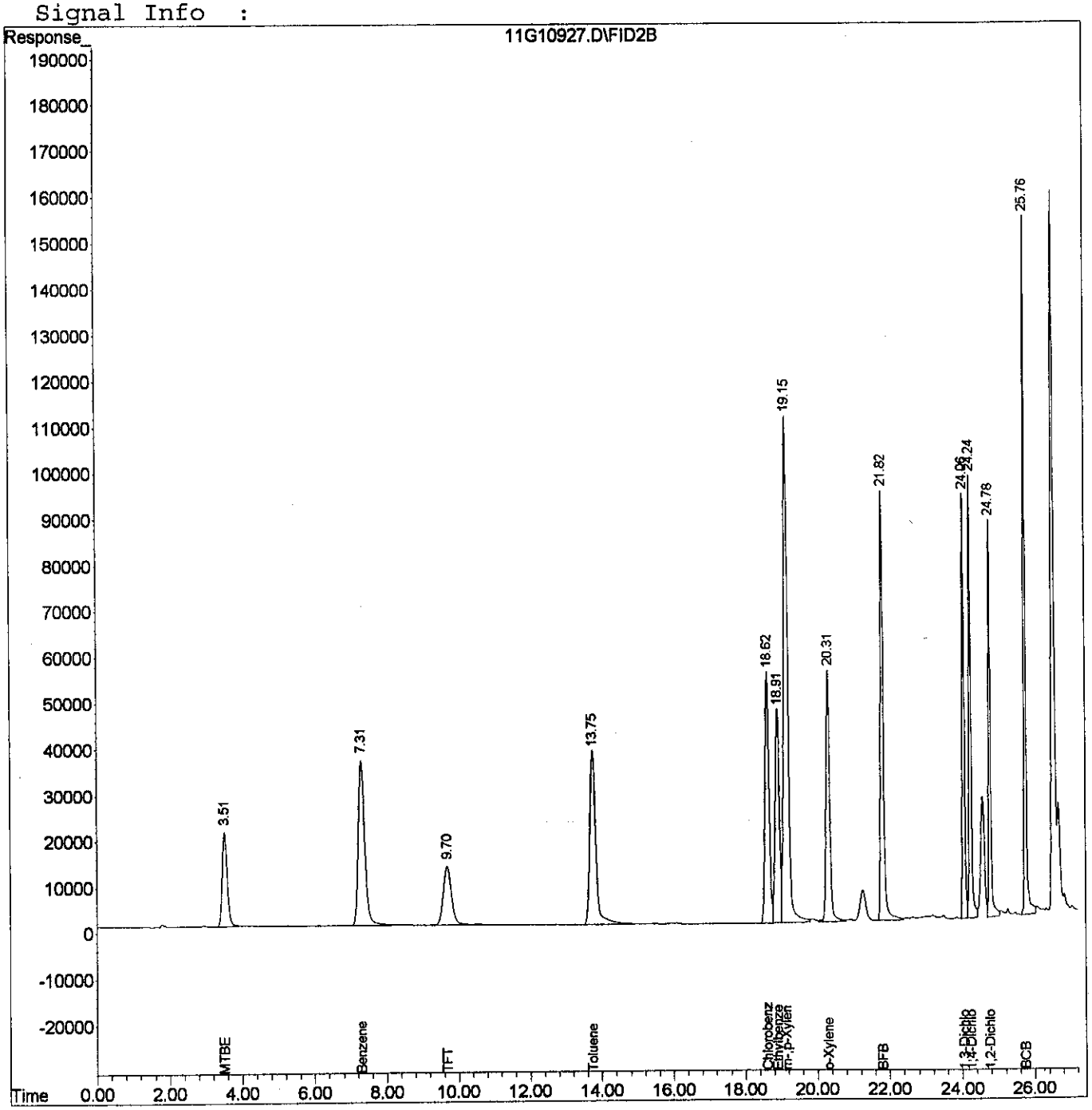
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	1064331	16.322 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	54.41%#
9) S BFB	21.82	2702101	14.750 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	49.17%#
13) S BCB	25.76	2406162	13.725 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	45.75%
Target Compounds			
1) TM MTBE	3.52	1032614	18.892 UG/KG
2) TM Benzene	7.32	2324438	11.448 UG/KG
4) TM Toluene	13.76	2439323	12.180 UG/KG
5) TM Chlorobenzene	18.63	2099545	10.709 UG/KG
6) TM Ethylbenzene	18.91	1868847	10.866 UG/KG
7) TM m-,p-Xylene	19.15	4653347	21.728 UG/KG
8) TM o-Xylene	20.32	2014611	11.028 UG/KG
10) TM 1,3-Dichlorobenzene	24.07	1752092	10.024 UG/KG
11) TM 1,4-Dichlorobenzene	24.25	1825156	9.976 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	1661696	10.769 UG/KG

Data File : C:\HPCHEM\1\DATA\082101\11G10927.D
Acq On : 21 Aug 2001 10:13
Sample : 8021 STD3 20PPB 5G
Misc : 7,1 S-(83-08,82-42)
IntFile : AUTOINT1.E
Quant Time: Aug 21 10:40 2001 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 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10927.D Vial: 4
Acq On : 21 Aug 2001 10:13 Operator: CBN
Sample : 8021 STD3 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 10:40 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

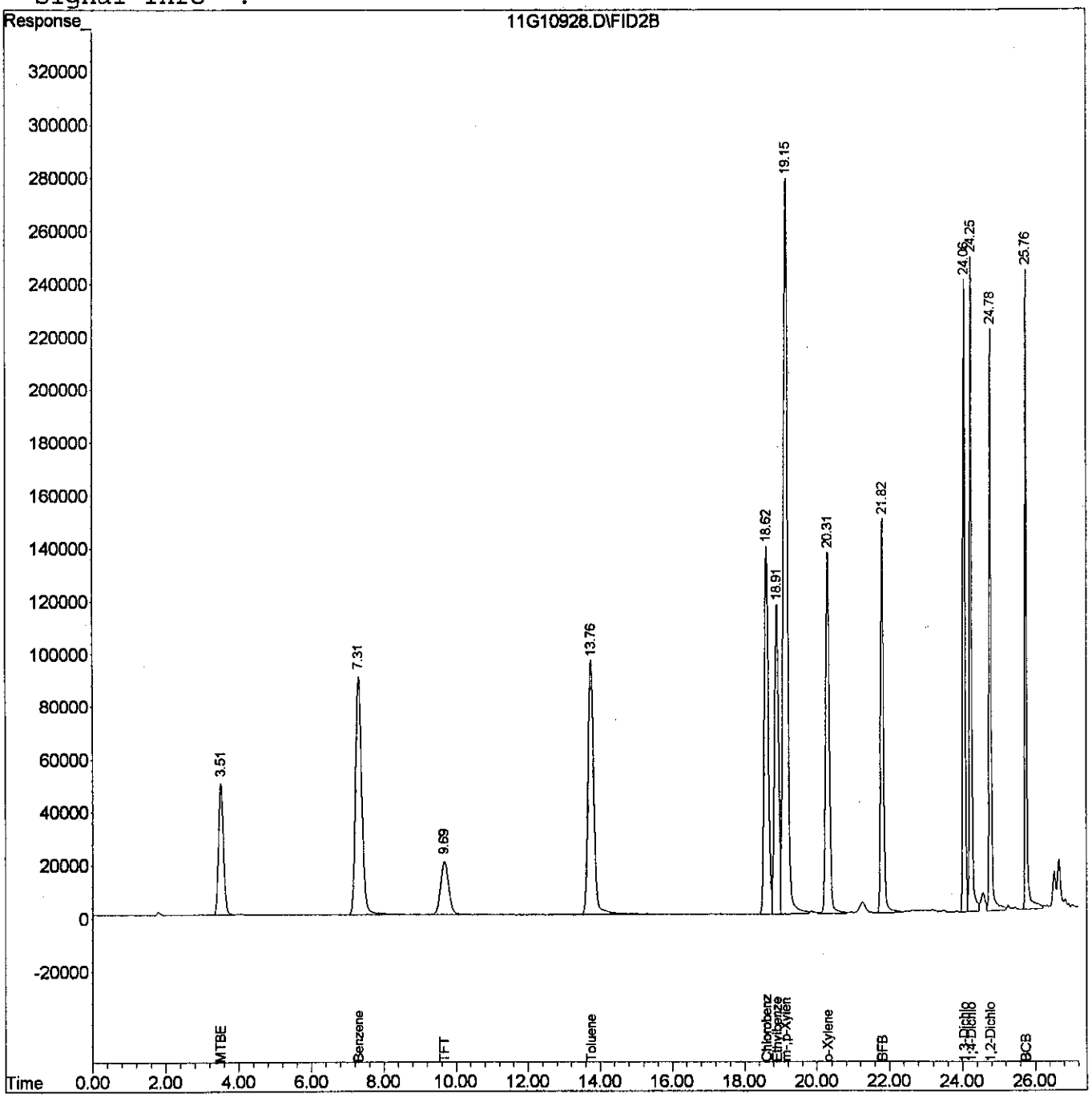
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	2060656	31.600 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 105.33%	
9) S BFB	21.82	5337615	29.136 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 97.12%	
13) S BCB	25.76	4894123	27.917 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery = 93.06%	
Target Compounds			
1) TM MTBE	3.51	1956354	35.791 UG/KG
2) TM Benzene	7.31	4561209	22.464 UG/KG
4) TM Toluene	13.76	4491116	22.424 UG/KG
5) TM Chlorobenzene	18.62	4277696	21.819 UG/KG
6) TM Ethylbenzene	18.91	3773738	21.941 UG/KG
7) TM m-,p-Xylene	19.15	9127808	42.621 UG/KG
8) TM o-Xylene	20.31	3977839	21.775 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	3678934	21.048 UG/KG
11) TM 1,4-Dichlorobenzene	24.25	3766834	20.589 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	3326286	21.557 UG/KG

Data File : C:\HPCHEM\1\DATA\082101\11G10928.D Vial: 5
Acq On : 21 Aug 2001 10:45 Operator: CBN
Sample : 8021 STD4 50PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 11:13 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10928.D Vial: 5
Acq On : 21 Aug 2001 10:45 Operator: CBN
Sample : 8021 STD4 50PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 11:13 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

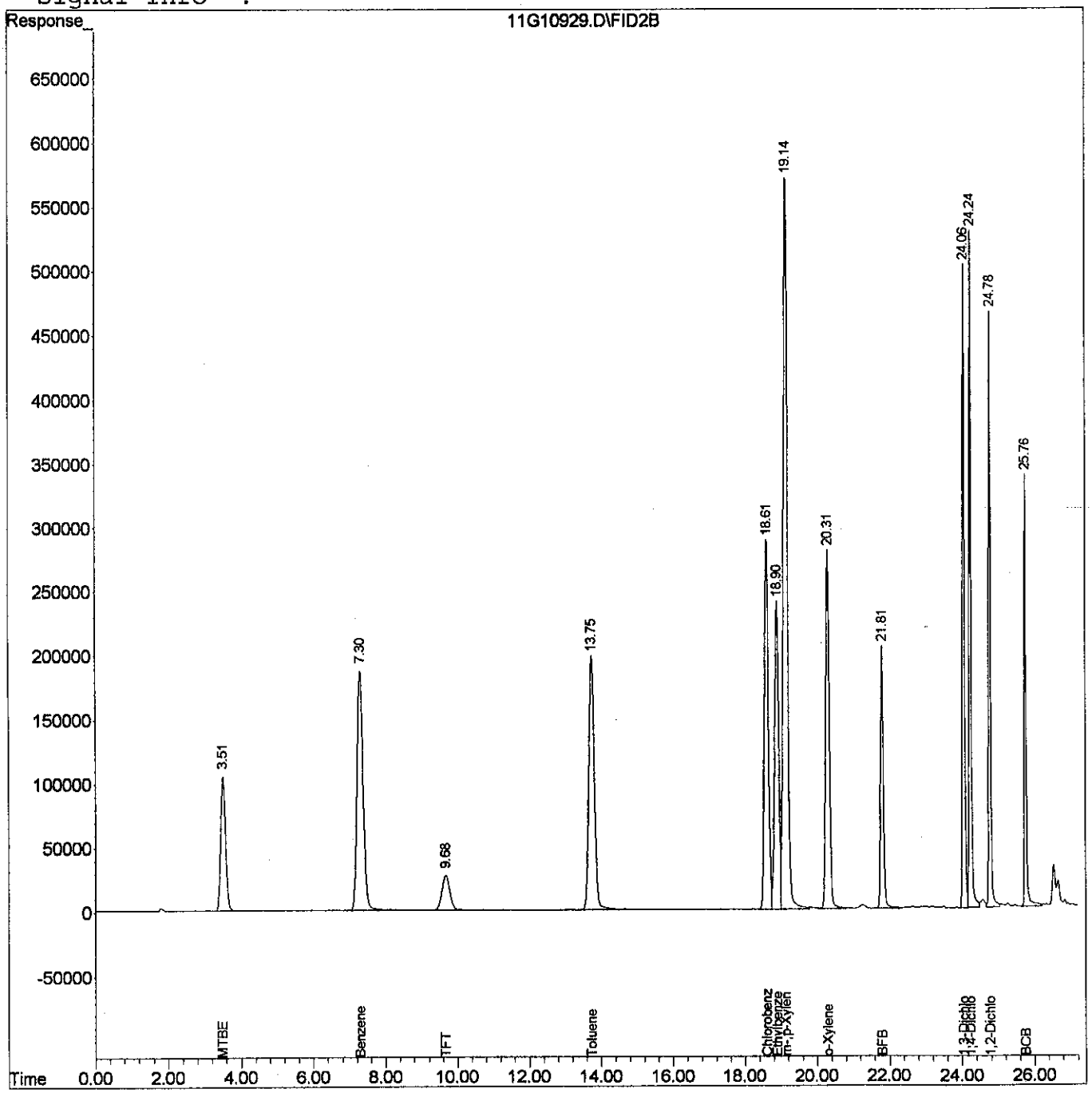
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	3120950	47.860 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	159.53%#
9) S BFB	21.82	8218066	44.859 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	149.53%#
13) S BCB	25.76	7793133	44.453 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	148.18%#
Target Compounds			
1) TM MTBE	3.51	4635698	84.810 UG/KG
2) TM Benzene	7.32	11048360	54.413 UG/KG
4) TM Toluene	13.76	10589456	52.874 UG/KG
5) TM Chlorobenzene	18.62	10638267	54.263 UG/KG
6) TM Ethylbenzene	18.91	9279884	53.954 UG/KG
7) TM m-,p-Xylene	19.15	22083014	103.114 UG/KG
8) TM o-Xylene	20.31	9603371	52.568 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	9369345	53.605 UG/KG
11) TM 1,4-Dichlorobenzene	24.25	9486837	51.853 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	8234864	53.368 UG/KG

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

Data File : C:\HPCHEM\1\DATA\082101\11G10929.D Vial: 6
Acq On : 21 Aug 2001 11:18 Operator: CBN
Sample : 8021 STD5 100PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 11:45 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10929.D Vial: 6
Acq On : 21 Aug 2001 11:18 Operator: CBN
Sample : 8021 STD5 100PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 11:45 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

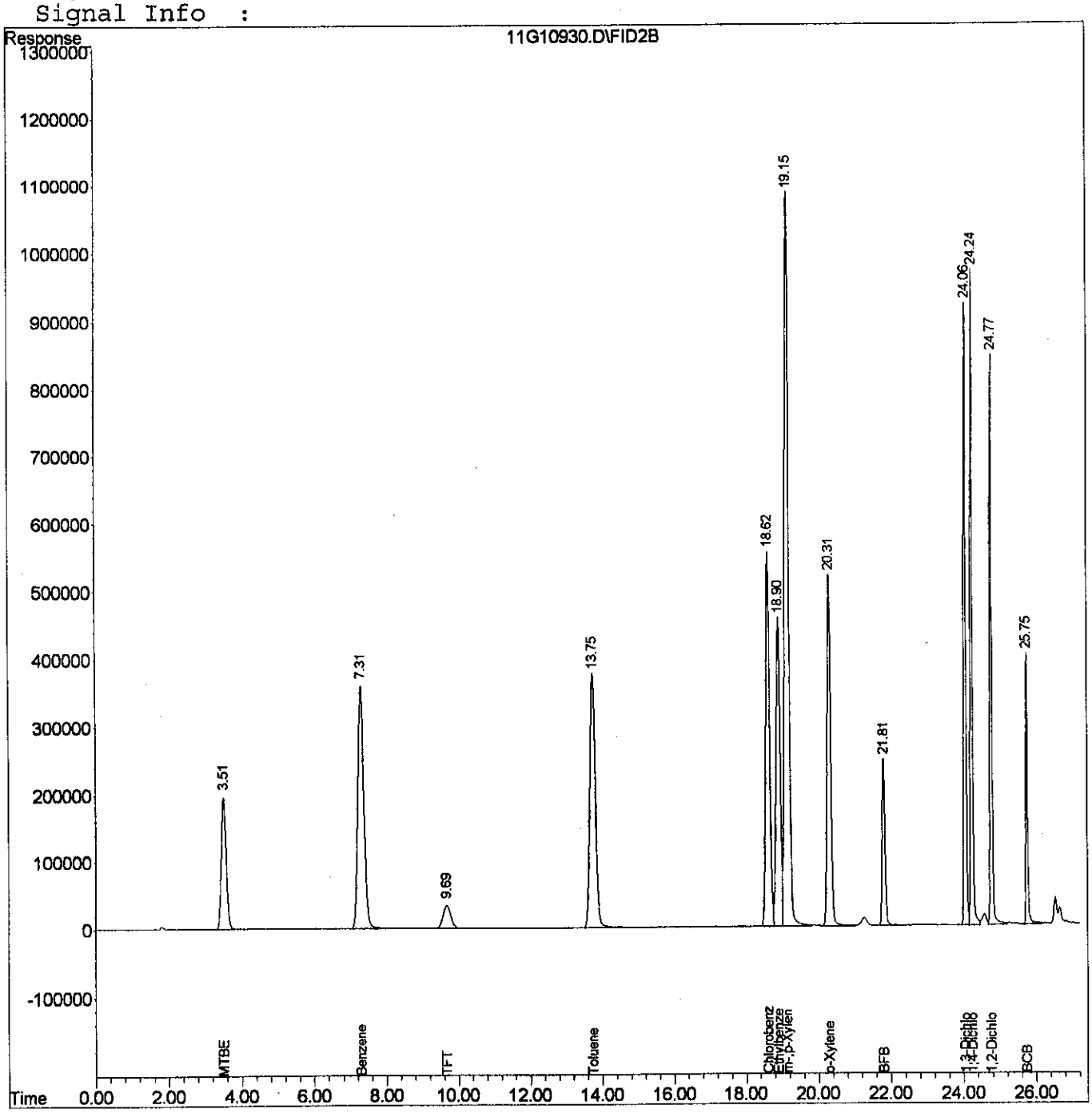
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	4168160	63.919 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 213.06%#	
9) S BFB	21.82	11085427	60.511 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 201.70%#	
13) S BCB	25.76	10741853	61.273 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery = 204.24%#	
Target Compounds			
1) TM MTBE	3.51	9734492	178.092 UG/KG
2) TM Benzene	7.31	22522644	110.924 UG/KG
4) TM Toluene	13.75	21268800	106.196 UG/KG
5) TM Chlorobenzene	18.62	21932379	111.872 UG/KG
6) TM Ethylbenzene	18.90	18887400	109.813 UG/KG
7) TM m-,p-Xylene	19.15	44619861	208.348 UG/KG
8) TM o-Xylene	20.31	19482718	106.647 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	19607468	112.181 UG/KG
11) TM 1,4-Dichlorobenzene	24.25	19679949	107.567 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	16643466	107.862 UG/KG

Data File : C:\HPCHEM\1\DATA\082101\11G10930.D
Acq On : 21 Aug 2001 11:50
Sample : 8021 STD6 200PPB 5G
Misc : 7,1 S-(83-08,82-42)
IntFile : AUTOINT1.E
Quant Time: Aug 21 12:17 2001 Quant Results File: 8021S.RES

Vial: 7
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10930.D Vial: 7
Acq On : 21 Aug 2001 11:50 Operator: CBN
Sample : 8021 STD6 200PPB 5G Inst : HP11
Misc : 7,1 S-(83-08,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 12:17 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/09/01
Last Update : Thu Aug 09 16:26:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

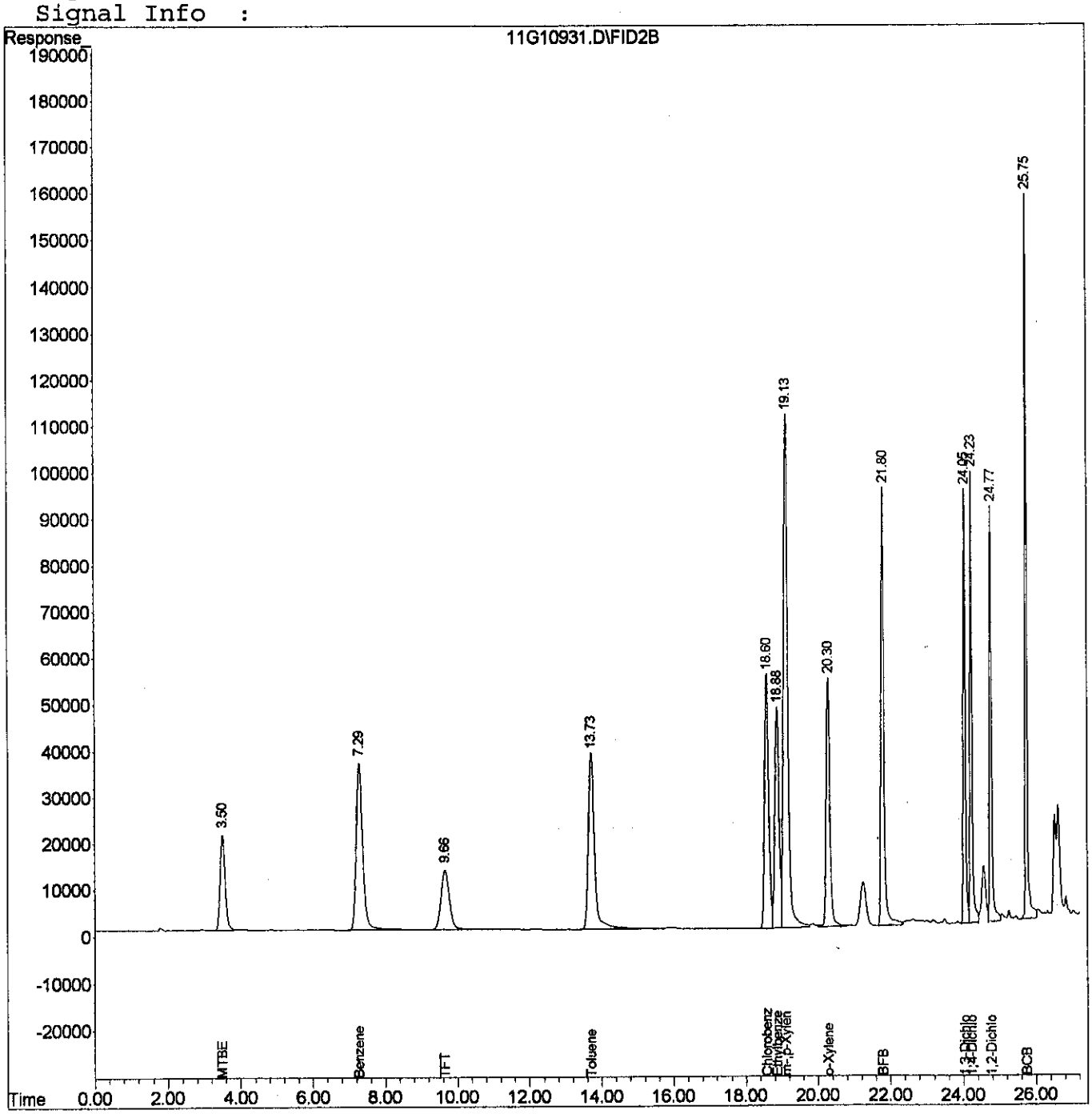
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	5099091	78.195 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	260.65%#
9) S BFB	21.81	13234539	72.242 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	240.81%#
13) S BCB	25.75	12568015	71.689 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	238.96%#
Target Compounds			
1) TM MTBE	3.51	18180969	332.619 UG/KG
2) TM Benzene	7.31	42726544	210.428 UG/KG
4) TM Toluene	13.75	40048817	199.966 UG/KG
5) TM Chlorobenzene	18.62	41983598	214.148 UG/KG
6) TM Ethylbenzene	18.90	35927115	208.883 UG/KG
7) TM m-,p-Xylene	19.15	84116196	392.772 UG/KG
8) TM o-Xylene	20.31	35877385	196.391 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	35718228	204.356 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	35402013	193.501 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	30038724	194.674 UG/KG

Data File : C:\HPCHEM\1\DATA\082101\11G10931.D Vial: 8
Acq On : 21 Aug 2001 12:32 Operator: CBN
Sample : ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-10,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 12:59 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Tue Aug 21 12:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\11G10931.D Vial: 8
Acq On : 21 Aug 2001 12:32 Operator: CBN
Sample : ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-10,82-42) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Aug 21 12:59 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Tue Aug 21 12:23:07 2001
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	9.66	2042407	30.108 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.36%
9) S BFB	21.80	5396818	29.964 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.88%
13) S BCB	25.75	5018304	29.122 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	97.07%
Target Compounds			
1) TM MTBE	3.50	1949833	19.982 UG/KG
2) TM Benzene	7.29	4532747	20.286 UG/KG
4) TM Toluene	13.73	4477618	20.536 UG/KG
5) TM Chlorobenzene	18.60	4275323	20.250 UG/KG
6) TM Ethylbenzene	18.89	3855717	20.825 UG/KG
7) TM m-,p-Xylene	19.13	9162961	40.688 UG/KG
8) TM o-Xylene	20.30	3888435	20.002 UG/KG
10) TM 1,3-Dichlorobenzene	24.05	3726098	20.267 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	3828883	20.417 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	3448328	20.555 UG/KG

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

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Mon Sep 10 11:51:06 2001

Calibration Files

1	=12G09380.D	10	=12G09381.D	20	=12G09382.D
50	=12G09383.D	100	=12G09384.D	200	=12G09385.D

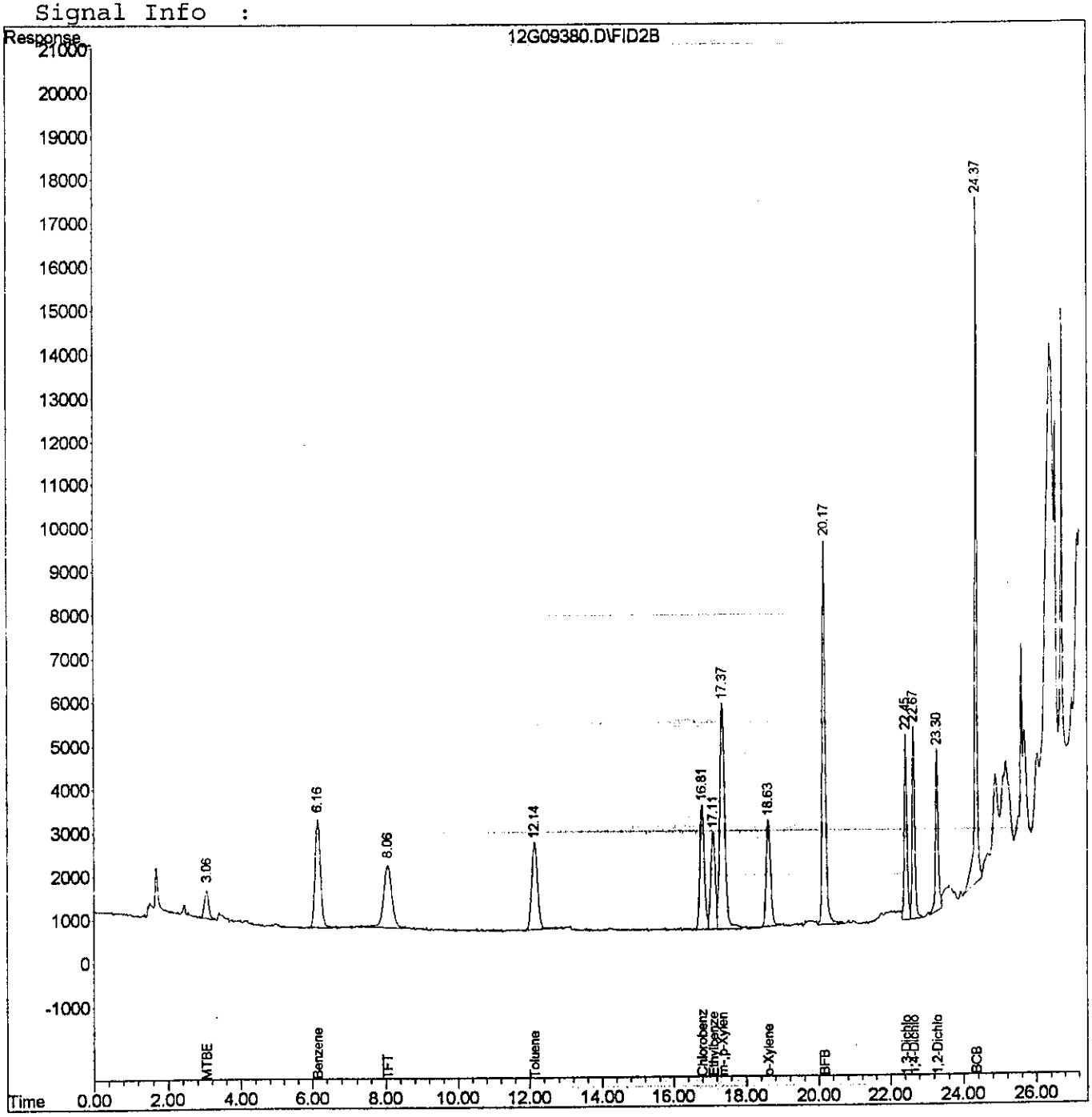
		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.548	4.759	4.596	4.593	4.451	4.514	4.743	E4	8.5
2)	TM	Benzene	2.598	2.331	2.257	2.297	2.277	2.261	2.337	E5	5.6
3)	S	TFT	7.744	7.018	7.342	7.420	7.466	7.327	7.386	E4	3.1
4)	TM	Toluene	2.255	2.125	2.070	2.078	2.069	2.061	2.110	E5	3.5
5)	TM	Chlorobenzene	2.448	2.234	2.138	2.186	2.150	2.159	2.219	E5	5.2
6)	TM	Ethylbenzene	2.015	1.858	1.785	1.818	1.782	1.779	1.840	E5	4.9
7)	TM	m-,p-Xylene	2.504	2.245	2.146	2.199	2.138	2.113	2.224	E5	6.5
8)	TM	o-Xylene	2.051	1.974	1.857	1.901	1.849	1.839	1.912	E5	4.4
9)	S	BFB	1.833	1.843	1.820	1.870	1.812	1.843	1.837	E5	1.1
10)	TM	1,3-Dichlorobenzene	2.257	2.042	1.932	2.010	1.947	1.851	2.006	E5	6.9
11)	TM	1,4-Dichlorobenzene	2.241	2.075	1.944	2.026	1.941	1.914	2.023	E5	6.0
12)	TM	1,2-Dichlorobenzene	1.909	1.666	1.519	1.636	1.500	1.443	1.612	E5	10.4
13)	S	BCB	2.074	1.782	1.795	1.909	1.929	1.996	1.914	E5	5.9

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\091001\12G09380.D
Acq On : 10 Sep 2001 8:10 Operator: CBN
Sample : 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 8:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G09380.D 8021W.M Mon Sep 10 08:37:21 2001 Page 2

Data File : C:\HPCHEM\2\DATA\091001\12G09380.D
Acq On : 10 Sep 2001 8:10
Sample : 8021 STD1 1PPB 5ML
Misc : 1,1 S-(84-17,83-28)
IntFile : autoint1.e
Quant Time: Sep 10 8:37 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP1
Multiplr: 1.0

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

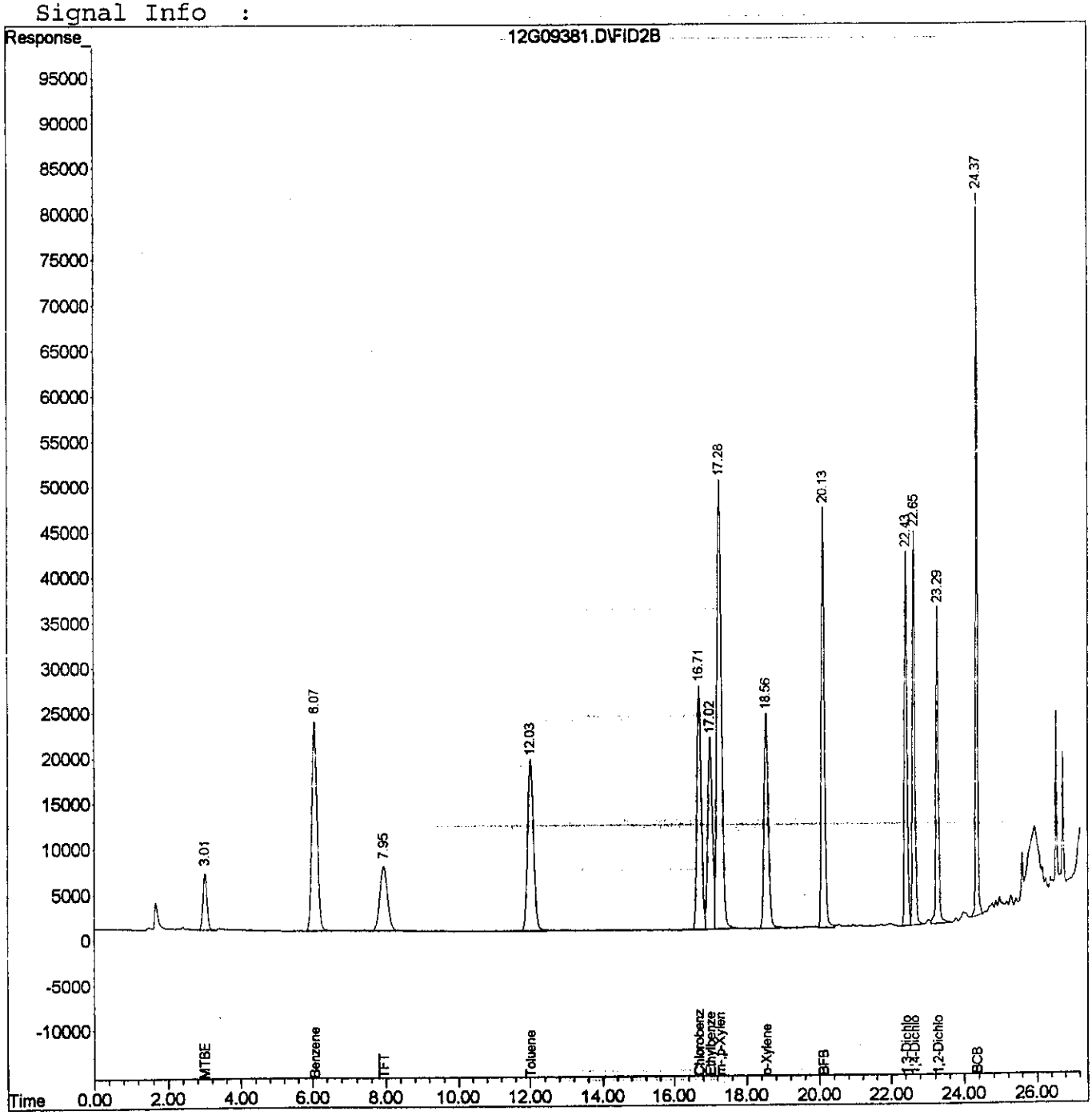
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.07	232326	3.380 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	11.27%#
9) S BFB	20.17	549947	3.275 UG/L
Spiked Amount 30.000		Recovery =	10.92%
13) S BCB	24.37	622093	3.909 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	13.03%#
Target Compounds			
1) TM MTBE	3.06	55477	1.265 UG/L
2) TM Benzene	6.16	259845	1.184 UG/L
4) TM Toluene	12.15	225549	1.113 UG/L
5) TM Chlorobenzene	16.81	244753	1.180 UG/L
6) TM Ethylbenzene	17.11	201522	1.158 UG/L
7) TM m-,p-Xylene	17.38	500786	2.384 UG/L
8) TM o-Xylene	18.63	205142	1.146 UG/L
10) TM 1,3-Dichlorobenzene	22.45	225654	1.213 UG/L
11) TM 1,4-Dichlorobenzene	22.67	224052	1.176 UG/L
12) TM 1,2-Dichlorobenzene	23.30	190894	1.259 UG/L

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

Data File : C:\HPCHEM\2\DATA\091001\12G09381.D
Acq On : 10 Sep 2001 8:42 Operator: CBN
Sample : 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 9:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G09381.D 8021W.M Mon Sep 10 09:09:30 2001 Page 2

Data File : C:\HPCHEM\2\DATA\091001\12G09381.D Vial: 22
Acq On : 10 Sep 2001 8:42 Operator: CBN
Sample : 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 9:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

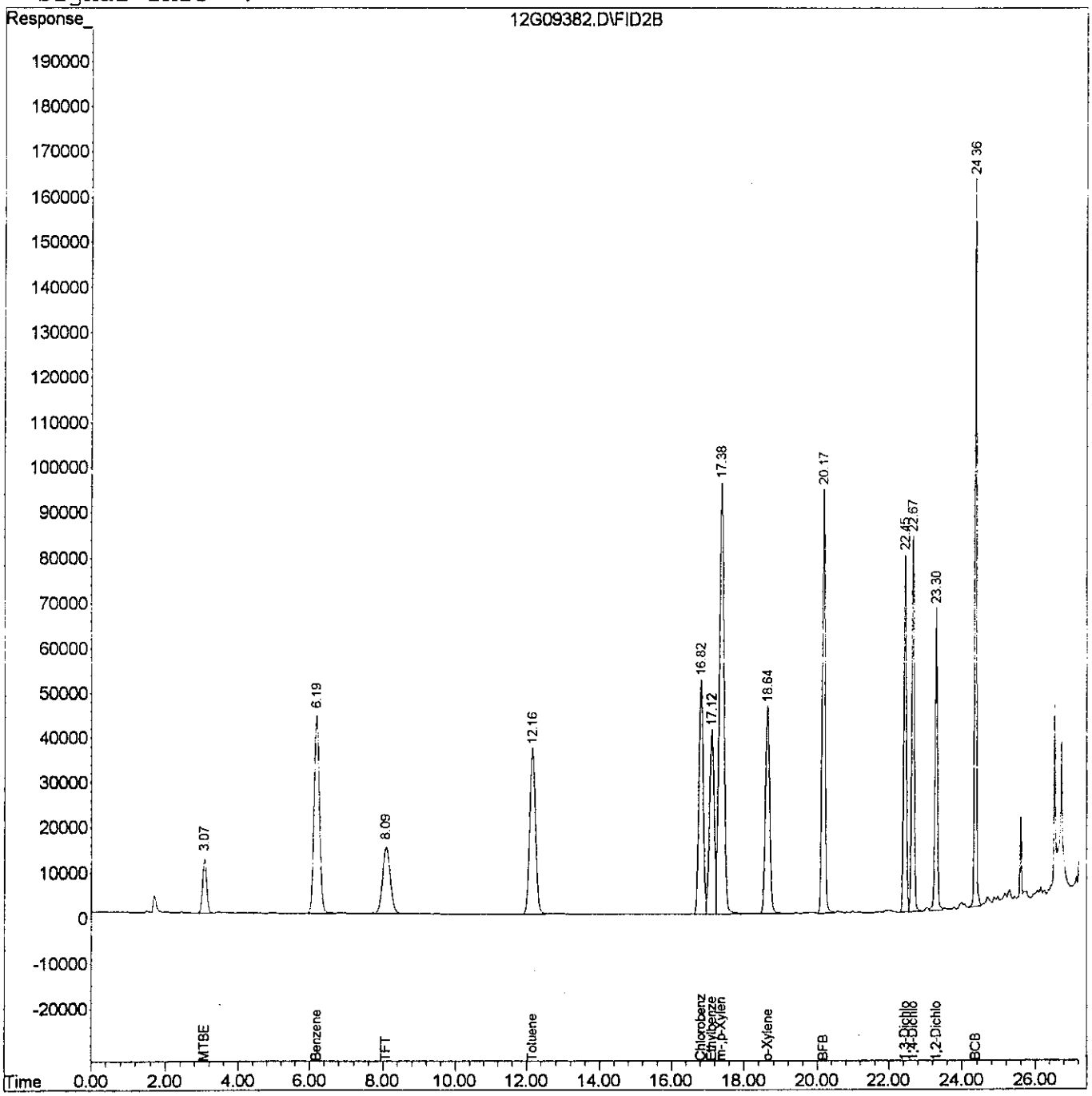
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	7.95	1052738	15.316 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 51.05%#			
9) S BFB	20.13	2765073	16.464 UG/L
Spiked Amount 30.000 Recovery = 54.88%			
13) S BCB	24.37	2673708	16.799 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 56.00%			
Target Compounds			
1) TM MTBE	3.01	475859	10.850 UG/L
2) TM Benzene	6.07	2331113	10.626 UG/L
4) TM Toluene	12.04	2125282	10.487 UG/L
5) TM Chlorobenzene	16.72	2233967	10.770 UG/L
6) TM Ethylbenzene	17.02	1858274	10.675 UG/L
7) TM m-,p-Xylene	17.28	4489108	21.375 UG/L
8) TM o-Xylene	18.56	1974087	11.024 UG/L
10) TM 1,3-Dichlorobenzene	22.44	2042244	10.982 UG/L
11) TM 1,4-Dichlorobenzene	22.65	2074629	10.888 UG/L
12) TM 1,2-Dichlorobenzene	23.29	1665724	10.982 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09381.D 8021W.M Mon Sep 10 09:09:30 2001 Page 1

Acq On : 10 Sep 2001 9:14 Operator: CBN
Sample : 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 11 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09382.D Vial: 25
Acq On : 10 Sep 2001 9:14 Operator: CBN
Sample : 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 11 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.10	2202574	29.820 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.40%			
9) S BFB	20.17	5459360	29.720 UG/L
Spiked Amount 30.000 Recovery = 99.07%			
13) S BCB	24.37	5383596	28.125 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.75%			
Target Compounds			
1) TM MTBE	3.07	919104	19.377 UG/L
2) TM Benzene	6.19	4513016	19.314 UG/L
4) TM Toluene	12.16	4139423	19.621 UG/L
5) TM Chlorobenzene	16.82	4276391	19.270 UG/L
6) TM Ethylbenzene	17.12	3570873	19.410 UG/L
7) TM m-,p-Xylene	17.38	8583205	38.593 UG/L
8) TM o-Xylene	18.64	3713093	19.421 UG/L
10) TM 1,3-Dichlorobenzene	22.45	3863692	19.258 UG/L
11) TM 1,4-Dichlorobenzene	22.67	3887494	19.213 UG/L
12) TM 1,2-Dichlorobenzene	23.30	3038272	18.847 UG/L

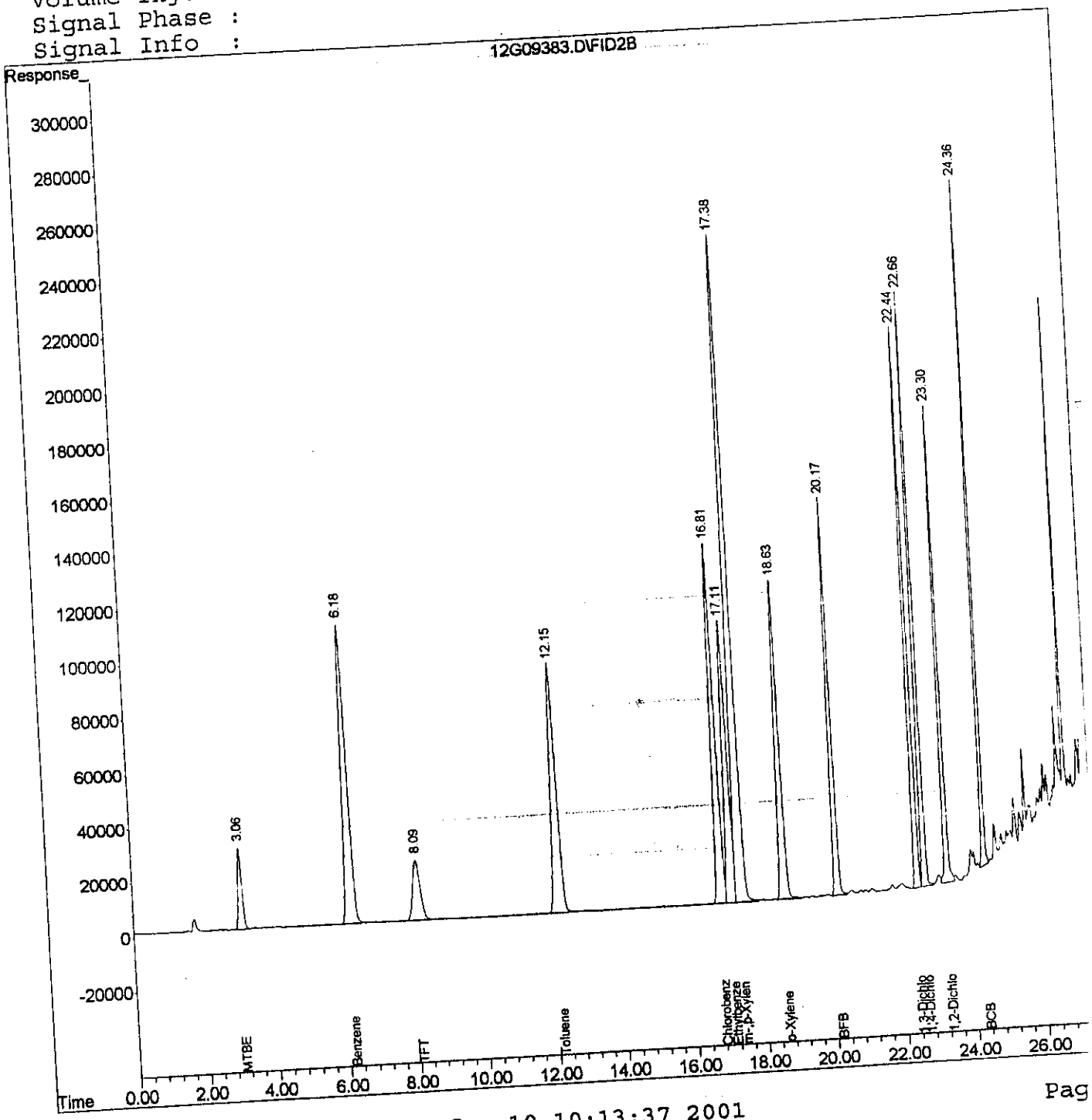
(f)=RT Delta > 1/2 Window (m)=manual int.
12G09382.D 8021W.M Tue Sep 11 10:31:15 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091001\12G09383.D
Acq On : 10 Sep 2001 9:46
Sample : 8021 STD4 50PPB 5ML
Misc : 1,1 S-(84-17,83-28)
IntFile : autoint1.e
Quant Time: Sep 10 10:13 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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12G09383.D 8021W.M Mon Sep 10 10:13:37 2001

Data File : C:\HPCHEM\2\DATA\091001\12G09383.D
Acq On : 10 Sep 2001 9:46
Sample : 8021 STD4 50PPB 5ML
Misc : 1,1 S-(84-17,83-28)
IntFile : autoint1.e
Quant Time: Sep 10 10:13 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
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	8.09	3339027	48.577 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	161.92%#
9) S BFB	20.17	8416546	50.116 UG/L
Spiked Amount 30.000		Recovery =	167.05%
13) S BCB	24.37	8591103	53.978 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	179.93%#
Target Compounds			
1) TM MTBE	3.07	2296550	52.365 UG/L
2) TM Benzene	6.18	11484017	52.349 UG/L
4) TM Toluene	12.16	10388761	51.263 UG/L
5) TM Chlorobenzene	16.81	10931995	52.706 UG/L
6) TM Ethylbenzene	17.11	9089430	52.215 UG/L
7) TM m-,p-Xylene	17.38	21987697	104.693 UG/L
8) TM o-Xylene	18.63	9504462	53.076 UG/L
10) TM 1,3-Dichlorobenzene	22.44	10047795	54.030 UG/L
11) TM 1,4-Dichlorobenzene	22.66	10132469	53.176 UG/L
12) TM 1,2-Dichlorobenzene	23.30	8177733	53.915 UG/L

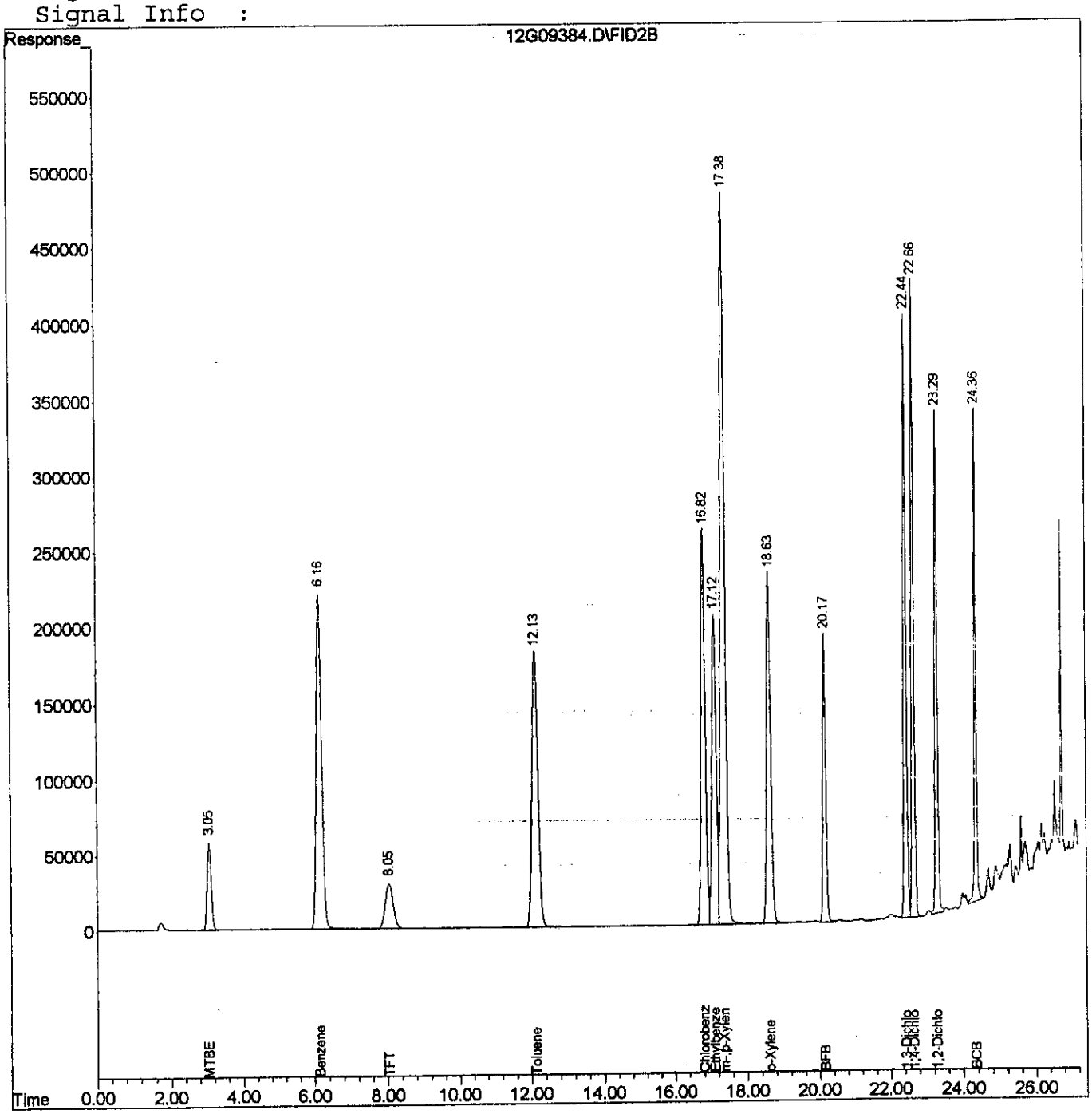
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\091001\12G09384.D
Acq On : 10 Sep 2001 10:18
Sample : 8021 STD5 100PPB 5ML
Misc : 1,1 S-(84-17,83-28)
IntFile : autoint1.e
Quant Time: Sep 10 10:45 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\[illegible]

Acq On : 10 Sep 2001 10:18 Operator: CBN
Sample : 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 10:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

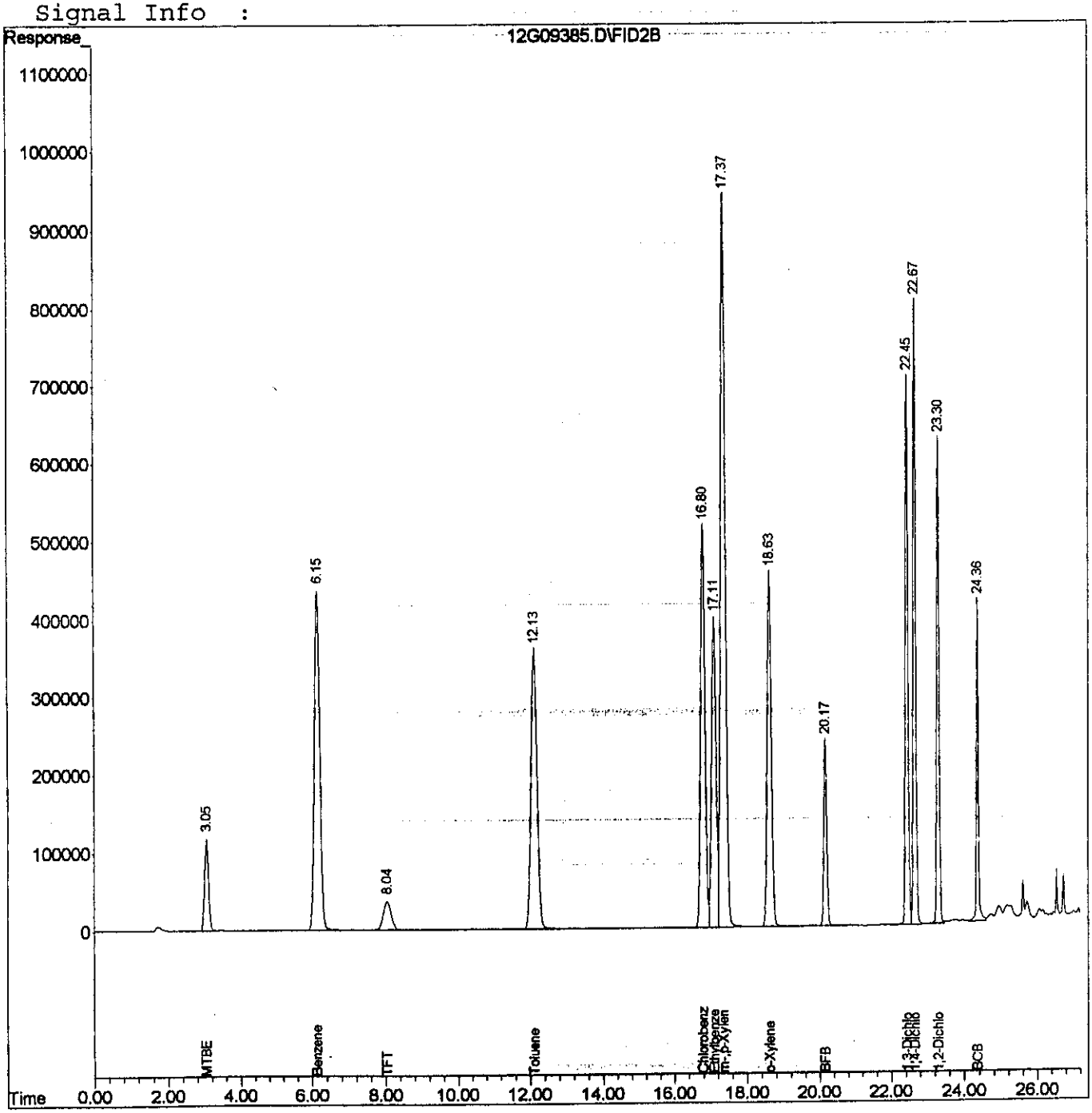
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	4479615	65.171 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	217.24%#
9) S BFB	20.17	10870522	64.728 UG/L
Spiked Amount 30.000		Recovery =	215.76%
13) S BCB	24.36	11573853	72.719 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	242.40%#
Target Compounds			
1) TM MTBE	3.05	4451177	101.494 UG/L
2) TM Benzene	6.16	22766069	103.777 UG/L
4) TM Toluene	12.13	20686709	102.077 UG/L
5) TM Chlorobenzene	16.82	21496423	103.639 UG/L
6) TM Ethylbenzene	17.12	17821264	102.375 UG/L
7) TM m-,p-Xylene	17.38	42764753	203.622 UG/L
8) TM o-Xylene	18.63	18494162	103.278 UG/L
10) TM 1,3-Dichlorobenzene	22.44	19468778	104.690 UG/L
11) TM 1,4-Dichlorobenzene	22.66	19412643	101.879 UG/L
12) TM 1,2-Dichlorobenzene	23.29	14999151	98.887 UG/L

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

Data File : C:\HPCHEM\2\DATA\091001\12G09385.D
Acq On : 10 Sep 2001 10:50 Operator: CBN
Sample : 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 11:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09385.D
Acq On : 10 Sep 2001 10:50
Sample : 8021 STD6 200PPB 5ML
Misc : 1,1 S-(84-17,83-28)
IntFile : autoint1.e
Quant Time: Sep 10 11:17 2001 Quant Results File: 8021W.RES

Operator: CB
Inst : HP
Multiplr: 1.

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrato
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
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	8.05	5494998	79.943 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	266.48%#
9) S BFB	20.17	13824235	82.316 UG/L
Spiked Amount 30.000		Recovery =	274.39%
13) S BCB	24.37	14973290	94.078 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	313.59%#
Target Compounds			
1) TM MTBE	3.05	9027601	205.844 UG/L
2) TM Benzene	6.15	45212013	206.094 UG/L
4) TM Toluene	12.13	41228177	203.437 UG/L
5) TM Chlorobenzene	16.80	43186957	208.214 UG/L
6) TM Ethylbenzene	17.11	35580833	204.396 UG/L
7) TM m-,p-Xylene	17.37	84517678	402.425 UG/L
8) TM o-Xylene	18.63	36783841	205.414 UG/L
10) TM 1,3-Dichlorobenzene	22.45	37013284	199.032 UG/L
11) TM 1,4-Dichlorobenzene	22.67	38275503	200.872 UG/L
12) TM 1,2-Dichlorobenzene	23.30	28862542	190.287 UG/L

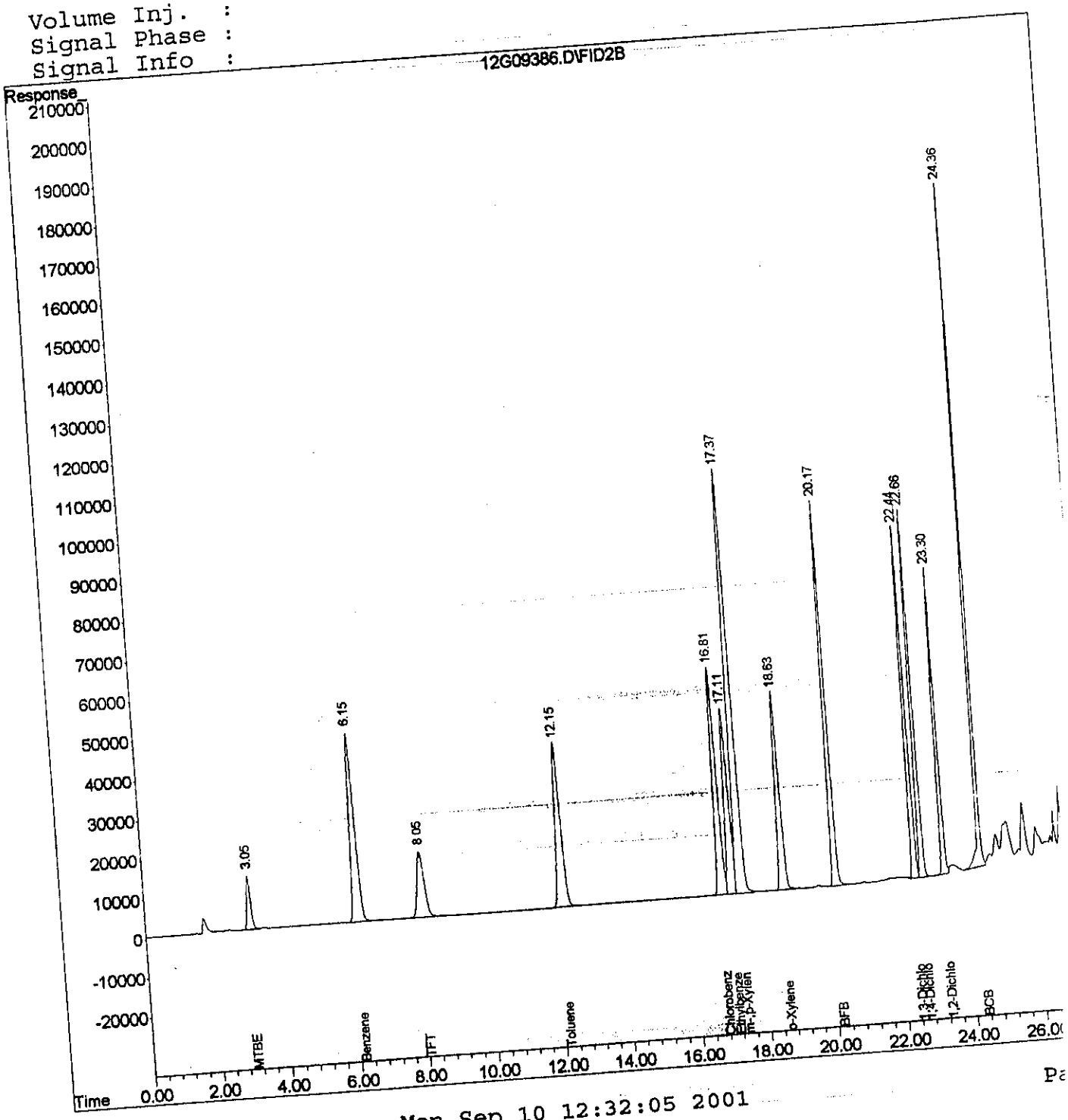
(f)=RT Delta > 1/2 Window (m)=manual int

Data File : C:\HPCHEM\2\DATA\091001\12G09386.D
Acq On : 10 Sep 2001 12:04
Sample : ALT SOURCE 10PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 10 12:32 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G09386.D 8021W.M Mon Sep 10 12:32:05 2001

Data File : C:\HPCHEM\2\DATA\091001\12G09386.D
Acq On : 10 Sep 2001 12:04
Sample : ALT SOURCE 10PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 10 12:32 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.05	2433098	32.941 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.80%
9) S BFB	20.17	5684219	30.944 UG/L
Spiked Amount 30.000		Recovery =	103.15%
13) S BCB	24.37	6325857	33.047 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	110.16%
Target Compounds			
1) TM MTBE	3.05	1053464	22.209 UG/L
2) TM Benzene	6.15	4842883	20.725 UG/L
4) TM Toluene	12.15	4594027	21.776 UG/L
5) TM Chlorobenzene	16.81	4724457	21.289 UG/L
6) TM Ethylbenzene	17.11	4075532	22.154 UG/L
7) TM m-,p-Xylene	17.37	9606961	43.196 UG/L
8) TM o-Xylene	18.63	4042053	21.141 UG/L
10) TM 1,3-Dichlorobenzene	22.45	4377498	21.819 UG/L
11) TM 1,4-Dichlorobenzene	22.66	4387694	21.685 UG/L
12) TM 1,2-Dichlorobenzene	23.30	3544505	21.987 UG/L

(m)=manual int.
Pa

(f)=RT Delta > 1/2 Window
12G09386.D 8021W.M Mon Sep 10 12:32:05 2001
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Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 15:01:03 2001

Calibration Files
1 =11G11638.D 10 =11G11640.D 20 =11G11641.D
50 =11G11642.D 100 =11G11643.D 200 =11G11644.D

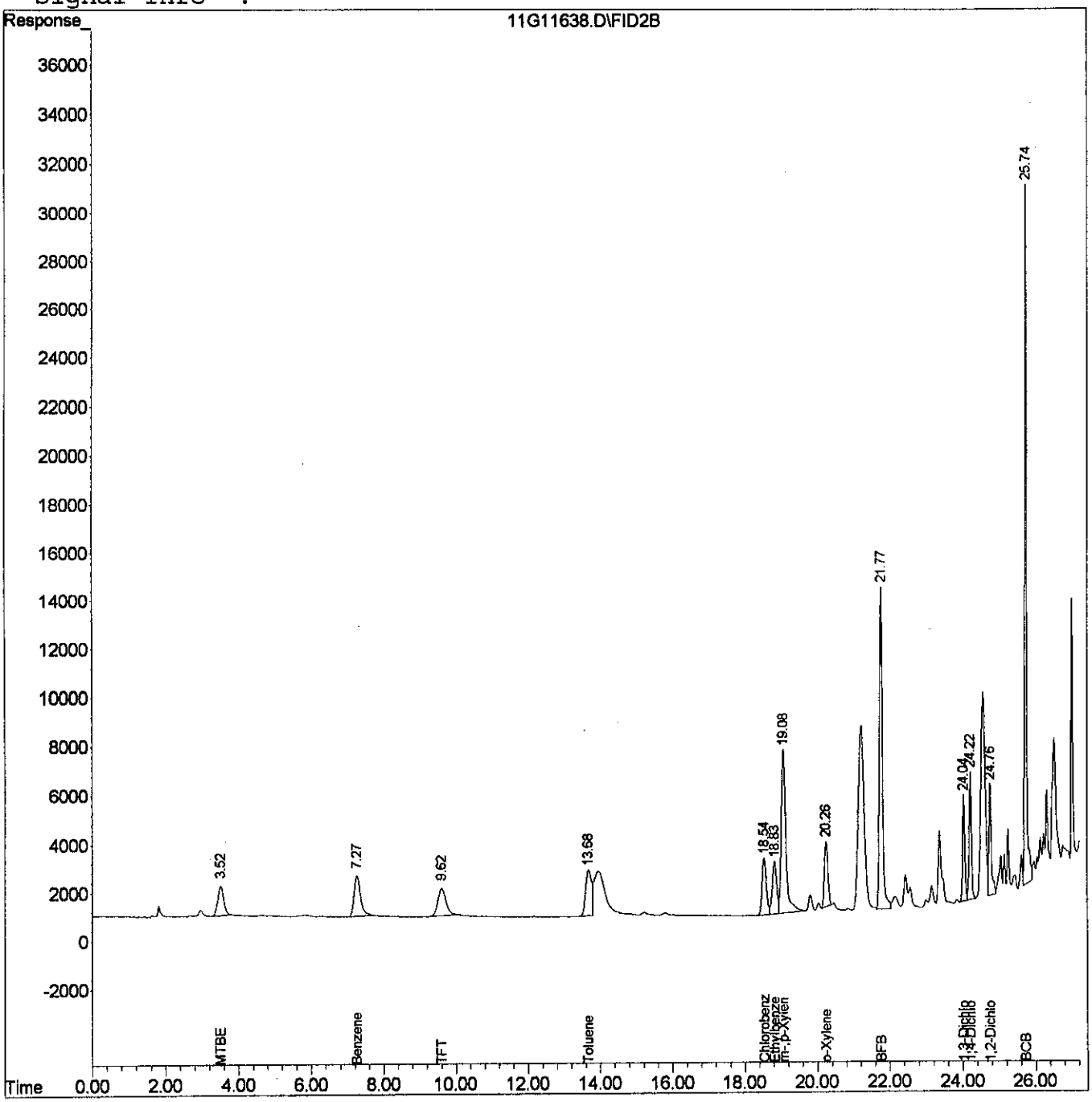
		Compound	1	10	20	50	100	200	Avg		%RSD
1)	TM	MTBE	1.432	0.984	0.914	0.967	0.980	0.972	1.041	E5	18.56
2)	TM	Benzene	2.147	2.201	2.160	2.220	2.237	2.241	2.201	E5	1.80
3)	S	TFT	5.999	6.875	6.791	7.237	7.269	7.259	6.905	E4	7.10
4)	TM	Toluene	2.140	2.418	2.168	2.136	2.112	2.102	2.179	E5	5.47
5)	TM	Chlorobenzene	1.957	2.054	2.032	2.133	2.154	2.186	2.086	E5	4.14
6)	TM	Ethylbenzene	1.857	1.856	1.808	1.847	1.852	1.868	1.848	E5	1.11
7)	TM	m-,p-Xylene	3.031	2.339	2.205	2.210	2.196	2.200	2.363	E5	14.02
8)	TM	o-Xylene	1.815	1.958	1.922	1.933	1.914	1.921	1.910	E5	2.58
9)	S	BFB	2.556	1.772	1.753	1.939	1.896	1.934	1.975	E5	14.98
10)	TM	1,3-Dichlorobenzene	1.791	1.776	1.748	1.927	1.929	1.979	1.858	E5	5.26
11)	TM	1,4-Dichlorobenzene	2.235	1.893	1.830	1.984	1.955	1.991	1.981	E5	6.97
12)	TM	1,2-Dichlorobenzene	2.169	1.647	1.581	1.664	1.639	1.650	1.725	E5	12.71
13)	S	BCB		1.651	1.620	1.886	1.850	1.925	1.787	E5	7.88

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\092401\11G11638.D Vial: 1
Acq On : 24 Sep 2001 11:08 Operator: CBN
Sample : WG105100-01 8021 STD 1 1PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11638.D Vial: 1
Acq On : 24 Sep 2001 11:08 Operator: CBN
Sample : WG105100-01 8021 STD 1 1PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.61	179978	2.6335 UG/KG
Spiked Amount 30.000 Range 70 - 130		Recovery =	8.78%#
9) S BFB	21.77	766845	9.6743 UG/KG
Spiked Amount 30.000 Range 70 - 130		Recovery =	32.25%#
13) S BCB	25.74	982873	4.7787 UG/KG
Spiked Amount 30.000 Range 37 - 137		Recovery =	15.93%#
Target Compounds			
1) TM MTBE	3.52	143231	1.3573 UG/KG
2) TM Benzene	7.27	214658	0.9789 UG/KG
4) TM Toluene	13.69	213957	0.9749 UG/KG
5) TM Chlorobenzene	18.55	195725	0.9473 UG/KG
6) TM Ethylbenzene	18.83	185672	1.0069 UG/KG
7) TM m-,p-Xylene	19.08	606143	2.5297 UG/KG
8) TM o-Xylene	20.26	181479	0.9510 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	179142	0.9767 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	223453	1.1289 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	216859	1.2464 UG/KG

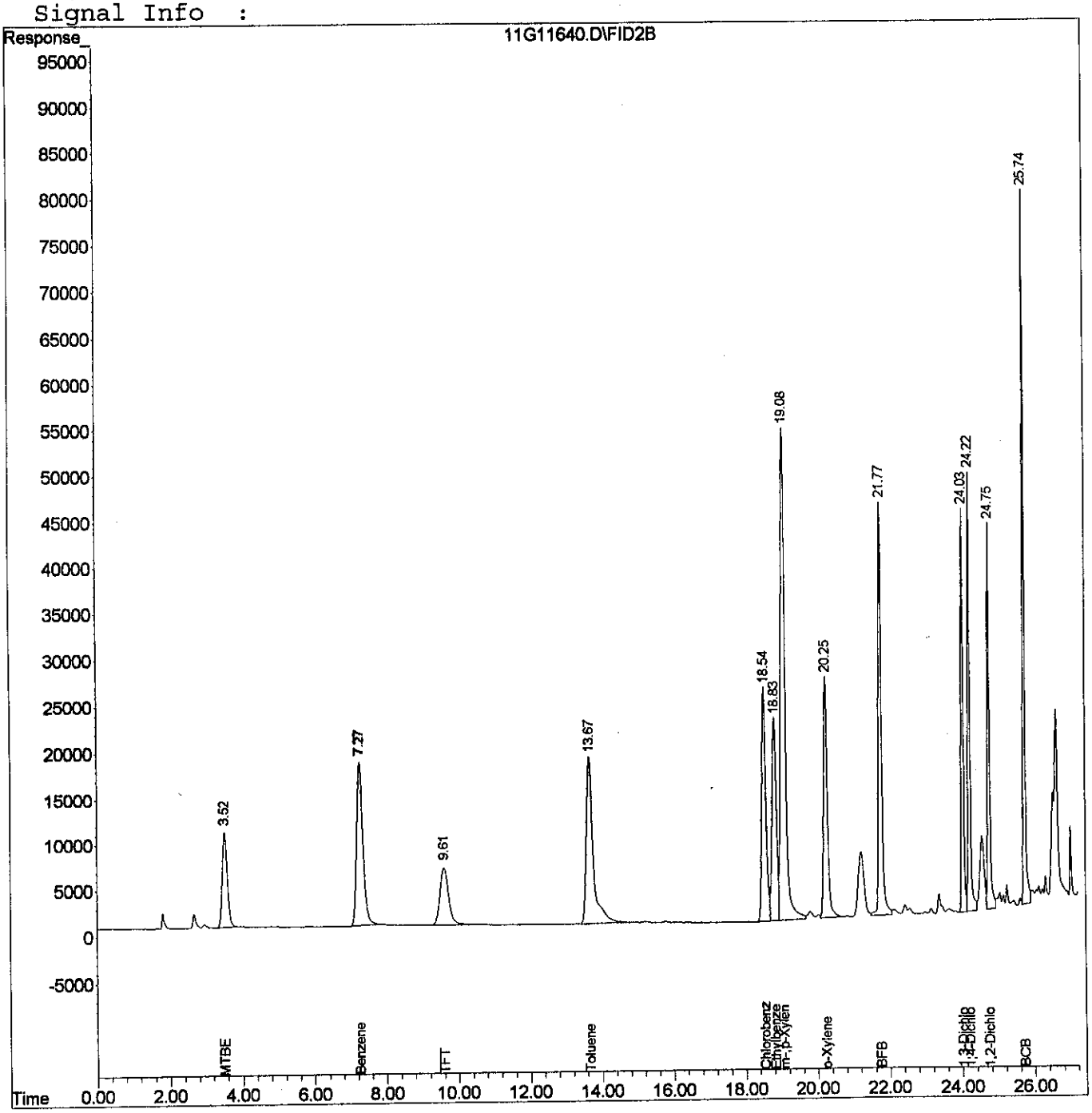
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\092401\11G11640.D
Acq On : 24 Sep 2001 12:13
Sample : WG105100-02 8021 STD 2 10PPB 5G
Misc : 7,1 S-(83-38,84-17)
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11640.D Vial: 3
Acq On : 24 Sep 2001 12:13 Operator: CBN
Sample : WG105100-02 8021 STD 2 10PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

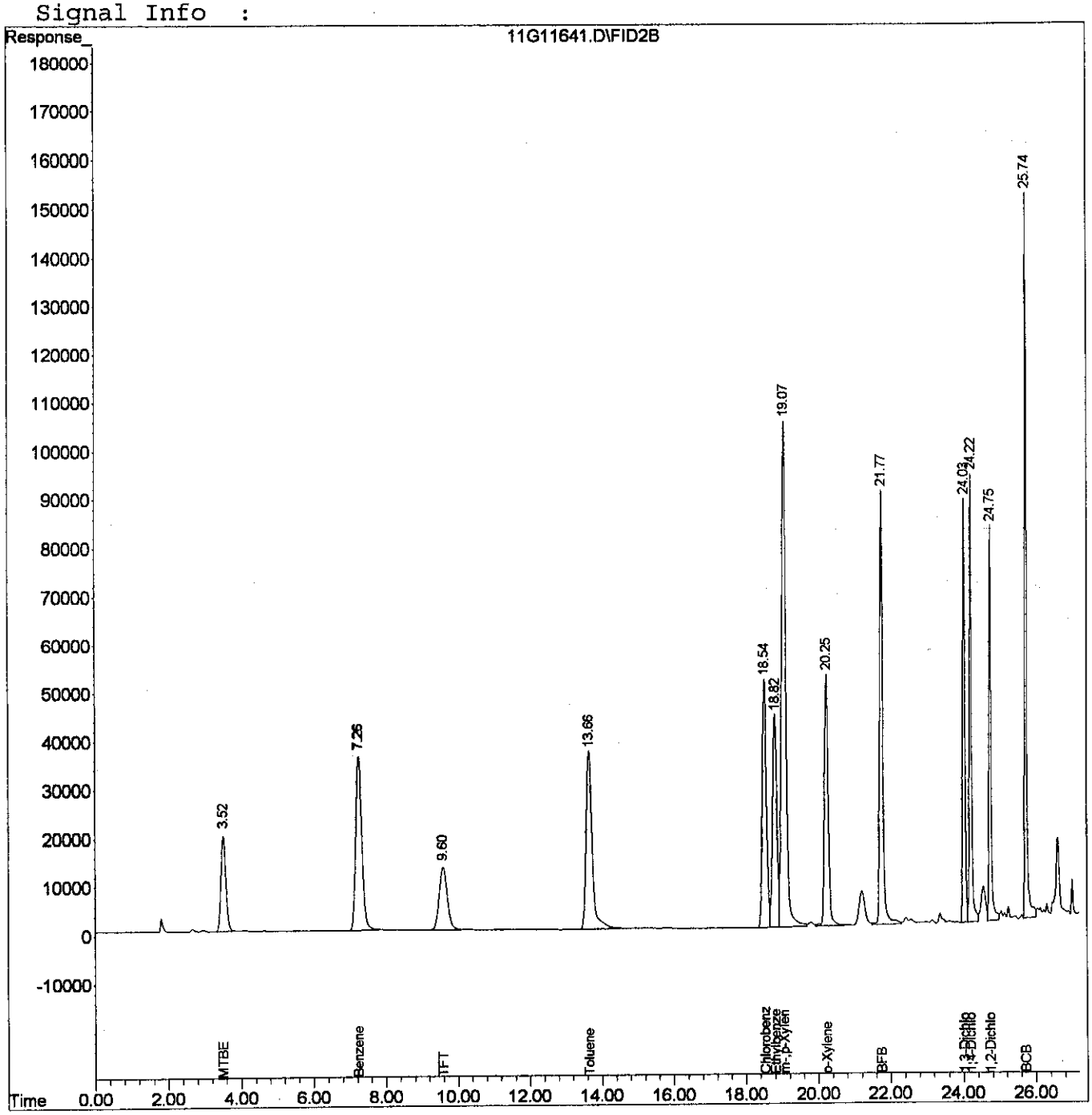
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.61	1031183	15.0887 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	50.30%#
9) S BFB	21.77	2657658	33.5281 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.76%
13) S BCB	25.74	2477123	12.0437 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	40.15%
Target Compounds			
1) TM MTBE	3.52	983722	9.3222 UG/KG
2) TM Benzene	7.27	2200891	10.0370 UG/KG
4) TM Toluene	13.67	2418016	11.0177 UG/KG
5) TM Chlorobenzene	18.54	2054251	9.9427 UG/KG
6) TM Ethylbenzene	18.83	1856025	10.0653 UG/KG
7) TM m-,p-Xylene	19.08	4678276	19.5248 UG/KG
8) TM o-Xylene	20.25	1957827	10.2597 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	1775842	9.6824 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	1893042	9.5635 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	1646622	9.4636 UG/KG

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

Data File : C:\HPCHEM\1\DATA\092401\11G11641.D Vial: 4
Acq On : 24 Sep 2001 12:45 Operator: CBN
Sample : WG105100-03 8021 STD 3 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11641.D Vial: 4
Acq On : 24 Sep 2001 12:45 Operator: CBN
Sample : WG105100-03 8021 STD 3 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.60	2037180	29.8089 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.36%
9) S BFB	21.77	5259413	66.3510 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	221.17%#
13) S BCB	25.74	4859210	23.6253 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	78.75%
Target Compounds			
1) TM MTBE	3.52	1827412	17.3174 UG/KG
2) TM Benzene	7.26	4319700	19.6997 UG/KG
4) TM Toluene	13.66	4335236	19.7536 UG/KG
5) TM Chlorobenzene	18.54	4064106	19.6705 UG/KG
6) TM Ethylbenzene	18.82	3616756	19.6138 UG/KG
7) TM m-,p-Xylene	19.08	8818234	36.8029 UG/KG
8) TM o-Xylene	20.25	3844223	20.1451 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	3496033	19.0615 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	3660933	18.4947 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	3162256	18.1744 UG/KG

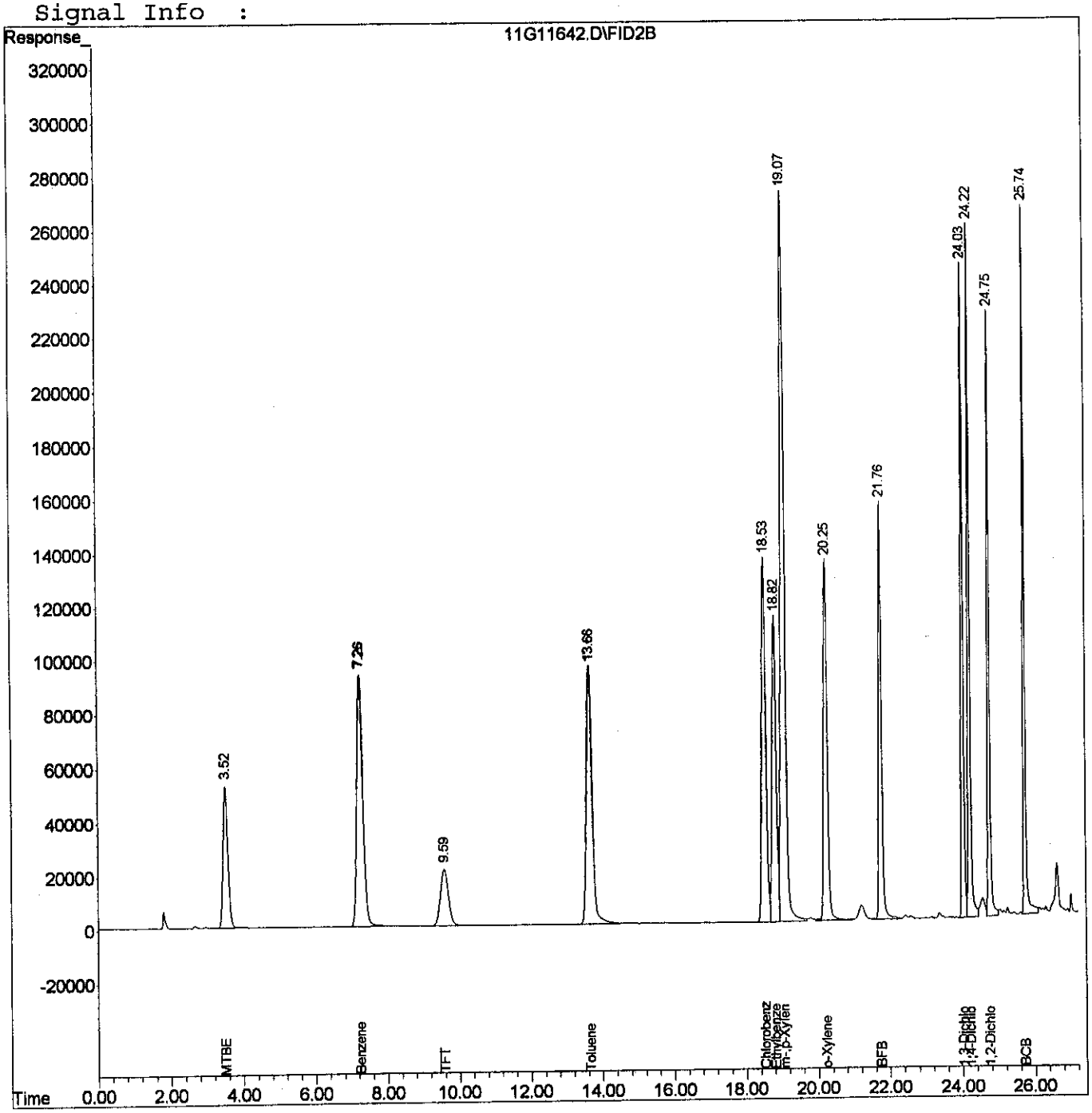
(f)=RT Delta > 1/2 Window (m)=manual int.
11G11641.D 8021PRES.M Mon Sep 24 14:23:29 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092401\11G11642.D
Acq On : 24 Sep 2001 13:17
Sample : WG105100-04 8021 STD 4 50PPB 5G
Misc : 7,1 S-(83-38,84-17)
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Vial: 5
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11642.D Vial: 5
Acq On : 24 Sep 2001 13:17 Operator: CBN
Sample : WG105100-04 8021 STD 4 50PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

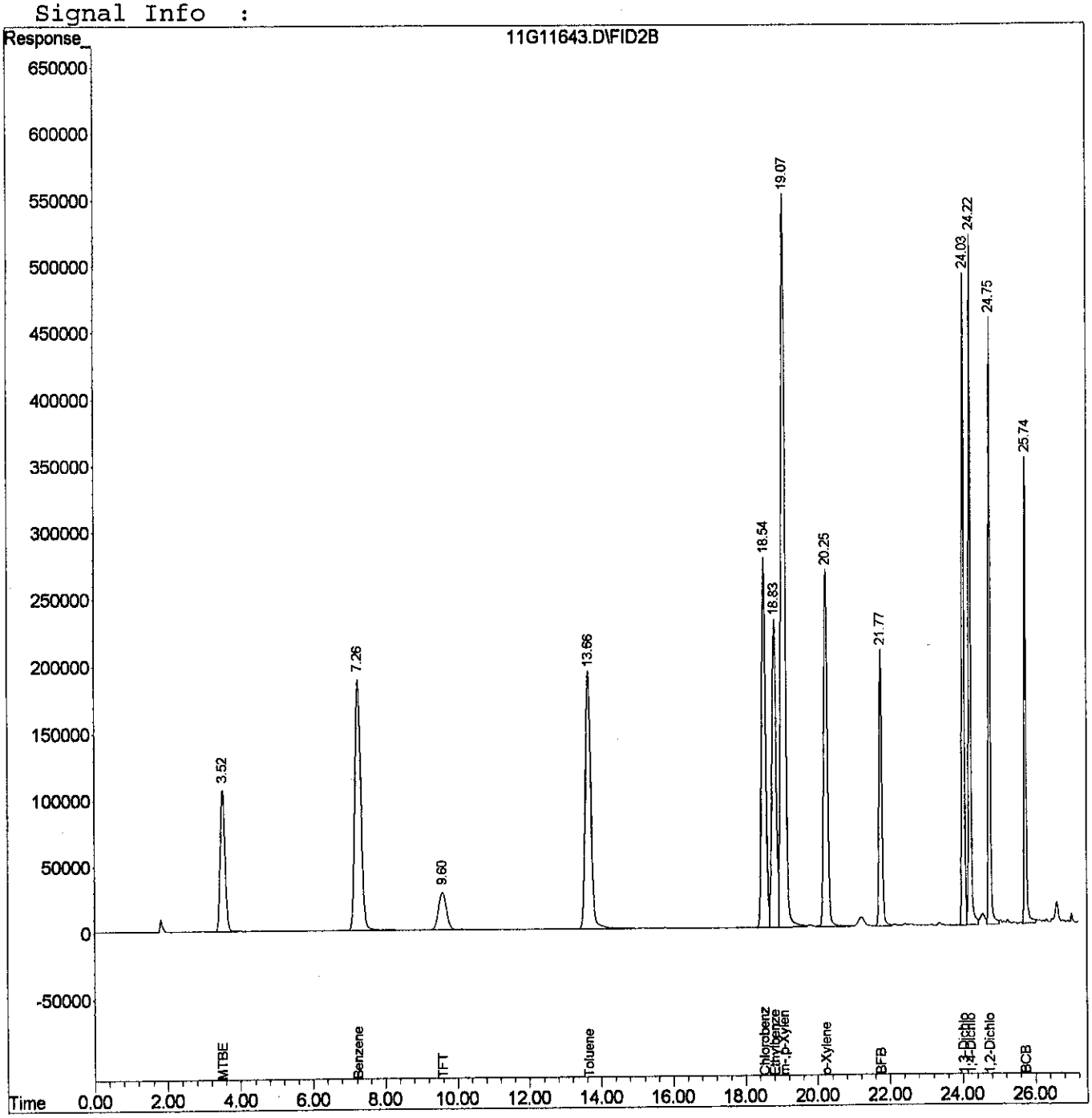
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.60	3256572	47.6516 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery	= 158.84%#
9) S BFB	21.76	8724003	110.0592 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery	= 366.86%#
13) S BCB	25.74	8488260	41.2695 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery	= 137.57%#
Target Compounds			
1) TM MTBE	3.52	4834210	45.8113 UG/KG
2) TM Benzene	7.26	11098283	50.6129 UG/KG
4) TM Toluene	13.66	10678372	48.6563 UG/KG
5) TM Chlorobenzene	18.53	10663887	51.6137 UG/KG
6) TM Ethylbenzene	18.82	9232848	50.0701 UG/KG
7) TM m-,p-Xylene	19.07	22099732	92.2333 UG/KG
8) TM o-Xylene	20.25	9664019	50.6430 UG/KG
10) TM 1,3-Dichlorobenzene	24.03	9632611	52.5200 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	9921284	50.1213 UG/KG
12) TM 1,2-Dichlorobenzene	24.75	8319961	47.8173 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.
11G11642.D 8021PRES.M Mon Sep 24 14:23:31 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092401\11G11643.D Vial: 6
Acq On : 24 Sep 2001 13:49 Operator: CBN
Sample : WG105100-05 8021 STD 5 100PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11643.D Vial: 6
Acq On : 24 Sep 2001 13:49 Operator: CBN
Sample : WG105100-05 8021 STD 5 100PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:23 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 01/08/01
Last Update : Mon Sep 24 14:23:11 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

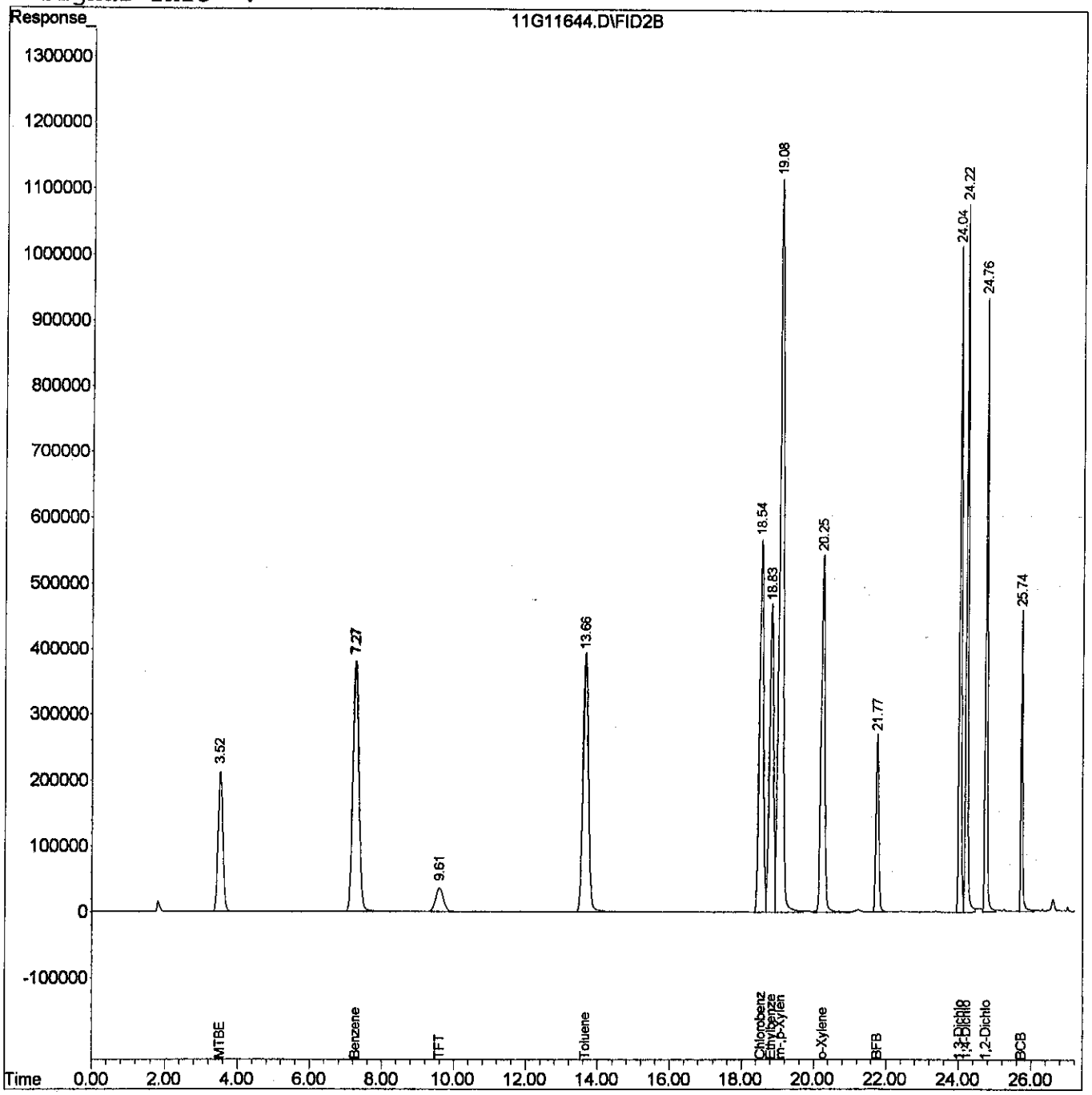
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.60	4361630	63.8213 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 212.74%#	
9) S BFB	21.77	11375866	143.5142 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 478.38%#	
13) S BCB	25.74	11101540	53.9752 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery = 179.92%#	
Target Compounds			
1) TM MTBE	3.52	9796351	92.8350 UG/KG
2) TM Benzene	7.26	22369163	102.0129 UG/KG
4) TM Toluene	13.66	21123994	96.2520 UG/KG
5) TM Chlorobenzene	18.54	21541560	104.2621 UG/KG
6) TM Ethylbenzene	18.83	18522341	100.4473 UG/KG
7) TM m-,p-Xylene	19.08	43919132	183.2966 UG/KG
8) TM o-Xylene	20.25	19137974	100.2899 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	19286252	105.1546 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	19549661	98.7629 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	16394100	94.2217 UG/KG

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

Data File : C:\HPCHEM\1\DATA\092401\11G11644.D Vial: 7
Acq On : 24 Sep 2001 14:22 Operator: CBN
Sample : WG105100-06 8021 STD 6 200PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:49 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11644.D Vial: 7
Acq On : 24 Sep 2001 14:22 Operator: CBN
Sample : WG105100-06 8021 STD 6 200PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-17) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 14:49 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.61	5444096	79.6605 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	265.53%#
9) S BFB	21.77	14502370	73.1283 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	243.76%#
13) S BCB	25.74	14440649	70.2098 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	234.03%#
Target Compounds			
1) TM MTBE	3.52	19431282	184.1402 UG/KG
2) TM Benzene	7.27	44811715	204.3604 UG/KG
4) TM Toluene	13.67	42049399	191.5991 UG/KG
5) TM Chlorobenzene	18.54	43713514	211.5754 UG/KG
6) TM Ethylbenzene	18.83	37355835	202.5820 UG/KG
7) TM m-,p-Xylene	19.08	88010740	367.3131 UG/KG
8) TM o-Xylene	20.25	38426092	201.3666 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	39587542	215.8436 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	39820809	201.1708 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	33006627	189.6988 UG/KG

Data File : C:\HPCHEM\1\DATA\092401\11G11646.D Vial: 1
Acq On : 24 Sep 2001 16:59 Operator: CBN
Sample : WG105100-07 8021 ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 15:03:14 2001
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	104.130	97.885	E3	6.0	107	0.00
2	TM	Benzene	220.075	236.290	E3	-7.4	109	0.02
3	S	TFT	69.049	68.589	E3	0.7	101	0.02
4	TM	Toluene	217.929	240.829	E3	-10.5	111	0.02
5	TM	Chlorobenzene	208.603	239.168	E3	-14.7	118	0.02
6	TM	Ethylbenzene	184.795	214.938	E3	-16.3#	119	0.02
7	TM	m-,p-Xylene	236.344	252.773	E3	-7.0	115	0.02
8	TM	o-Xylene	191.044	212.183	E3	-11.1	110	0.02
9	S	BFB	197.489	184.365	E3	6.6	105	0.01
10	TM	1,3-Dichlorobenzene	185.830	211.239	E3	-13.7	121	0.00
11	TM	1,4-Dichlorobenzene	198.138	219.403	E3	-10.7	120	0.00
12	TM	1,2-Dichlorobenzene	172.501	192.487	E3	-11.6	122	0.00
13	S	BCB	178.662	178.237	E3	0.2	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11646.D 8021PRES.M Tue Sep 25 08:48:43 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092401\11G11646.D Vial: 1
Acq On : 24 Sep 2001 16:59 Operator: CBN
Sample : WG105100-07 8021 ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 15:03:14 2001
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%

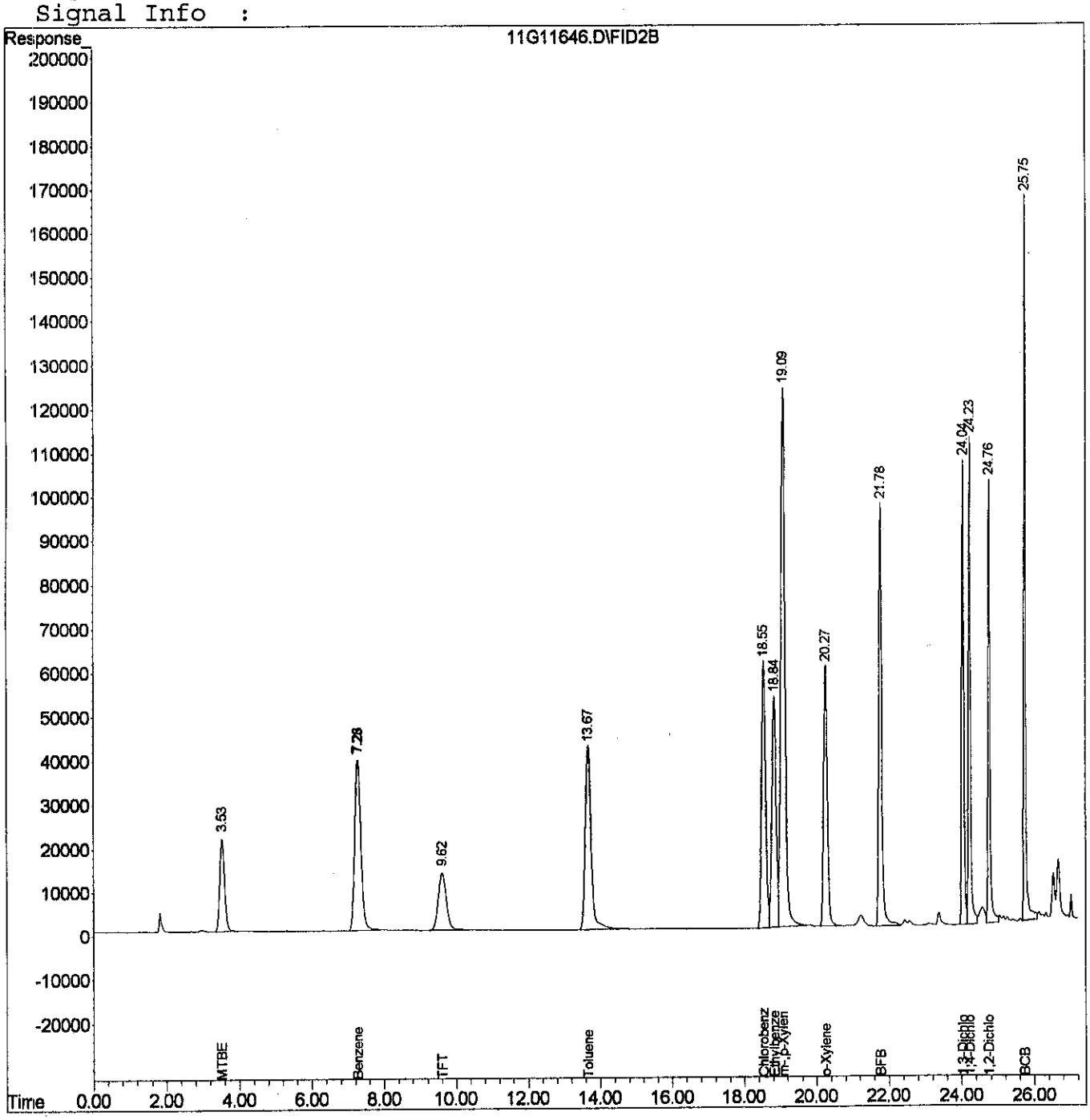
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.552	7.2	107	0.00
2	TM	Benzene	20.000	21.552	-7.8	109	0.02
3	S	TFT	30.000	30.109	-0.4	101	0.02
4	TM	Toluene	20.000	21.947	-9.7	111	0.02
5	TM	Chlorobenzene	20.000	23.152	-15.8#	118	0.02
6	TM	Ethylbenzene	20.000	23.312	-16.6#	119	0.02
7	TM	m-,p-Xylene	40.000	42.198	-5.5	115	0.02
8	TM	o-Xylene	20.000	22.238	-11.2	110	0.02
9	S	BFB	30.000	27.890	7.0	105	0.01
10	TM	1,3-Dichlorobenzene	20.000	23.035	-15.2#	121	0.00
11	TM	1,4-Dichlorobenzene	20.000	22.168	-10.8	120	0.00
12	TM	1,2-Dichlorobenzene	20.000	22.126	-10.6	122	0.00
13	S	BCB	30.000	25.997	13.3	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11646.D 8021PRES.M Tue Sep 25 08:48:39 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092401\11G11646.D Vial: 1
Acq On : 24 Sep 2001 16:59 Operator: CBN
Sample : WG105100-07 8021 ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 17:26 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092401\11G11646.D Vial: 1
Acq On : 24 Sep 2001 16:59 Operator: CBN
Sample : WG105100-07 8021 ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 24 17:26 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.62	2057669	30.1087 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.36%
9) S BFB	21.78	5530945	27.8898 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	92.97%
13) S BCB	25.75	5347125	25.9975 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	86.66%
Target Compounds			
1) TM MTBE	3.53	1957700	18.5521 UG/KG
2) TM Benzene	7.28	4725809	21.5517 UG/KG
4) TM Toluene	13.68	4816581	21.9469 UG/KG
5) TM Chlorobenzene	18.56	4783356	23.1517 UG/KG
6) TM Ethylbenzene	18.84	4298764	23.3123 UG/KG
7) TM m-,p-Xylene	19.09	10110914	42.1979 UG/KG
8) TM o-Xylene	20.27	4243657	22.2383 UG/KG
10) TM 1,3-Dichlorobenzene	24.05	4224789	23.0349 UG/KG
11) TM 1,4-Dichlorobenzene	24.23	4388058	22.1680 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	3849738	22.1256 UG/KG

Data File : C:\HPCHEM\1\DATA\092101\11G11626.D
Acq On : 21 Sep 2001 16:26
Sample : WG105090-01 8021 STD 20PPB 5G
Misc : 7,1 S-83-(38,28)
IntFile : AUTOINT1.E

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

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
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	97.581	100.250	E3	-2.7	102	0.00
2	TM	Benzene	223.438	238.848	E3	-6.9	105	-0.08
3	S	TFT	67.836	75.181	E3	-10.8	109	-0.13
4	TM	Toluene	218.033	244.725	E3	-12.2	109	-0.13
5	TM	Chlorobenzene	211.132	233.492	E3	-10.6	109	-0.11
6	TM	Ethylbenzene	185.144	210.963	E3	-13.9	112	-0.10
7	TM	m-,p-Xylene	225.198	250.389	E3	-11.2	110	-0.10
8	TM	o-Xylene	194.403	217.730	E3	-12.0	109	-0.08
9	S	BFB	180.111	208.530	E3	-15.8#	117	-0.06
10	TM	1,3-Dichlorobenzene	183.849	208.397	E3	-13.4	113	-0.04
11	TM	1,4-Dichlorobenzene	187.535	215.951	E3	-15.2#	115	-0.03
12	TM	1,2-Dichlorobenzene	167.763	182.331	E3	-8.7	110	-0.03
13	S	BCB	172.319	203.134	E3	-17.9#	125	-0.03

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

Data File : C:\HPCHEM\1\DATA\092101\11G11626.D Vial: 1
Acq On : 21 Sep 2001 16:26 Operator: JLS
Sample : WG105090-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-83-(38,28) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
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%

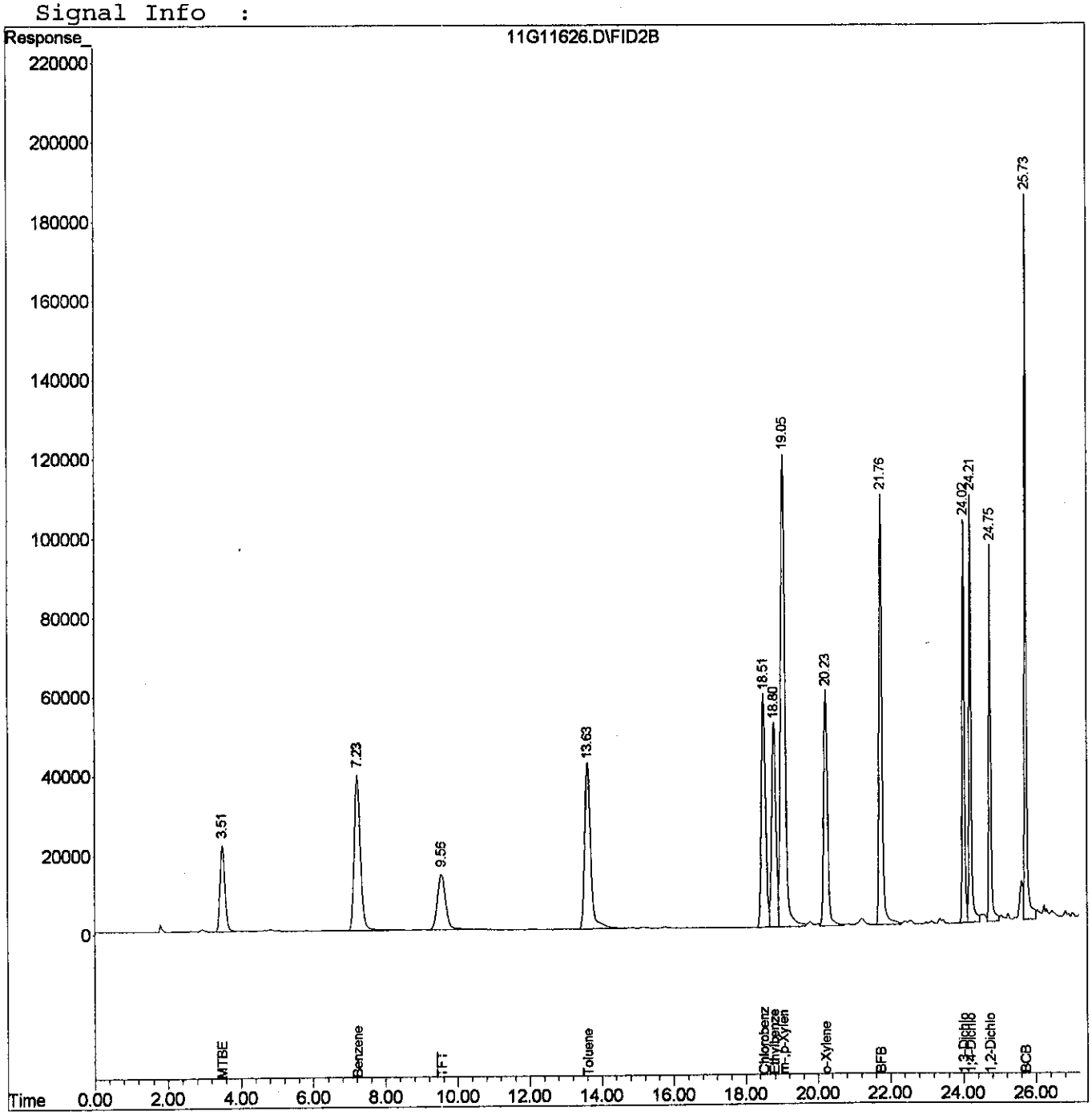
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.547	-2.7	102	0.00
2	TM	Benzene	20.000	21.379	-6.9	105	-0.08
3	S	TFT	30.000	33.248	-10.8	109	-0.13
4	TM	Toluene	20.000	22.448	-12.2	109	-0.13
5	TM	Chlorobenzene	20.000	22.118	-10.6	109	-0.11
6	TM	Ethylbenzene	20.000	22.789	-13.9	112	-0.10
7	TM	m-,p-Xylene	40.000	44.474	-11.2	110	-0.10
8	TM	o-Xylene	20.000	22.400	-12.0	109	-0.08
9	S	BFB	30.000	34.733	-15.8#	117	-0.06
10	TM	1,3-Dichlorobenzene	20.000	22.670	-13.4	113	-0.04
11	TM	1,4-Dichlorobenzene	20.000	23.030	-15.2#	115	-0.03
12	TM	1,2-Dichlorobenzene	20.000	21.737	-8.7	110	-0.03
13	S	BCB	30.000	35.365	-17.9#	125	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11626.D 8021S.M Fri Sep 21 17:03:25 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092101\11G11626.D Vial: 1
Acq On : 21 Sep 2001 16:26 Operator: JLS
Sample : WG105090-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-83-(38,28) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 16:54 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092101\11G11626.D
Acq On : 21 Sep 2001 16:26
Sample : WG105090-01 8021 STD 20PPB 5G
Misc : 7,1 S-83-(38,28)
IntFile : AUTOINT1.E
Quant Time: Sep 21 16:54 2001 Quant Results File: 8021S.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
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	9.56	2255422	33.248 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	110.83%
9) S BFB	21.76	6255895	34.733 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	115.78%
13) S BCB	25.73	6094015	35.365 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	117.88%
Target Compounds			
1) TM MTBE	3.51	2005006	20.547 UG/KG
2) TM Benzene	7.23	4776962	21.379 UG/KG
4) TM Toluene	13.63	4894497	22.448 UG/KG
5) TM Chlorobenzene	18.52	4669844	22.118 UG/KG
6) TM Ethylbenzene	18.80	4219252	22.789 UG/KG
7) TM m-,p-Xylene	19.05	10015554	44.474 UG/KG
8) TM o-Xylene	20.23	4354601	22.400 UG/KG
10) TM 1,3-Dichlorobenzene	24.03	4167936	22.670 UG/KG
11) TM 1,4-Dichlorobenzene	24.21	4319013	23.030 UG/KG
12) TM 1,2-Dichlorobenzene	24.75	3646613	21.737 UG/KG

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

Data File : C:\HPCHEM\1\DATA\092101\11G11636.D
Acq On : 21 Sep 2001 22:04
Sample : WG105090-02 8021 STD 20PPB5G
Misc : 7,1 S-83-(38,28)
IntFile : AUTOINT1.E

Vial: 11
Operator: JLS
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
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%

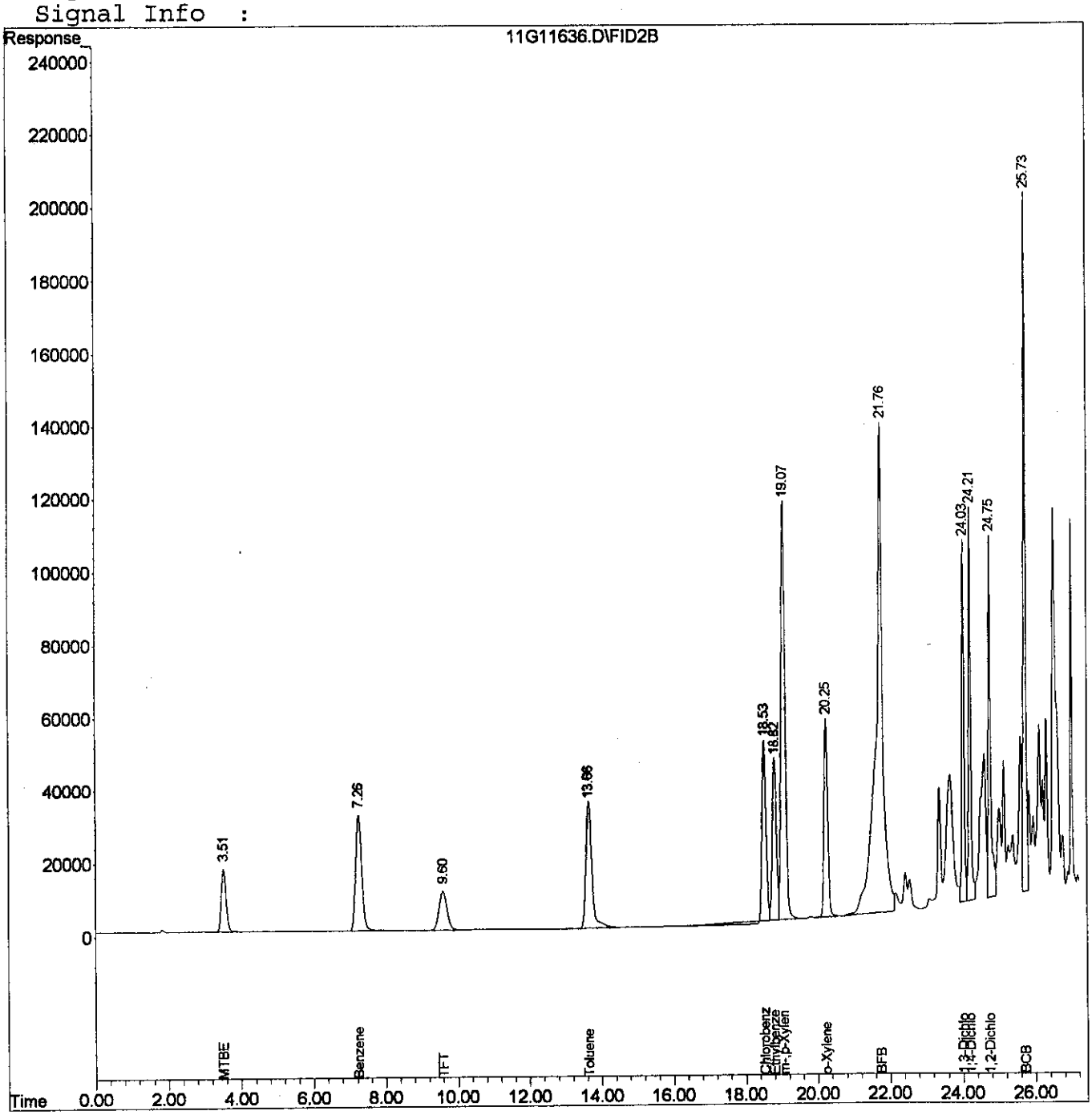
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	16.074	19.6#	80	0.00
2	TM	Benzene	20.000	16.842	15.8#	83	-0.06
3	S	TFT	30.000	24.251	19.2#	80	-0.10
4	TM	Toluene	20.000	18.377	8.1	89	-0.10
5	TM	Chlorobenzene	20.000	15.667	21.7#	77	-0.09
6	TM	Ethylbenzene	20.000	19.033	4.8	93	-0.09
7	TM	m-,p-Xylene	40.000	40.249	-0.6	99	-0.08
8	TM	o-Xylene	20.000	19.742	1.3	96	-0.07
9	S	BFB	30.000	98.633	-228.8#	333	-0.05
10	TM	1,3-Dichlorobenzene	20.000	22.558	-12.8	113	-0.03
11	TM	1,4-Dichlorobenzene	20.000	24.049	-20.2#	120	-0.03
12	TM	1,2-Dichlorobenzene	20.000	25.957	-29.8#	131	-0.03
13	S	BCB	30.000	46.110	-53.7#	162	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11636.D 8021S.M Mon Sep 24 09:23:58 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092101\11G11636.D Vial: 11
Acq On : 21 Sep 2001 22:04 Operator: JLS
Sample : WG105090-02 8021 STD 20PPB5G Inst : HP11
Misc : 7,1 S-83-(38,28) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 22:31 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092101\11G11636.D Vial: 11
Acq On : 21 Sep 2001 22:04 Operator: JLS
Sample : WG105090-02 8021 STD 20PPB5G Inst : HP11
Misc : 7,1 S-83-(38,28) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 22:31 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
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	9.59	1645088	24.251 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	80.84%
9) S BFB	21.76	17764965	98.633 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	328.78%#
13) S BCB	25.73	7945584	46.110 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	153.70%#
Target Compounds			
1) TM MTBE	3.52	1568529	16.074 UG/KG
2) TM Benzene	7.26	3763041	16.842 UG/KG
4) TM Toluene	13.66	4006748	18.377 UG/KG
5) TM Chlorobenzene	18.53	3307781	15.667 UG/KG
6) TM Ethylbenzene	18.82	3523796	19.033 UG/KG
7) TM m-,p-Xylene	19.07	9063926	40.249 UG/KG
8) TM o-Xylene	20.25	3837911	19.742 UG/KG
10) TM 1,3-Dichlorobenzene	24.03	4147257	22.558 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	4510086	24.049 UG/KG
12) TM 1,2-Dichlorobenzene	24.75	4354597	25.957 UG/KG

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

Data File : C:\HPCHEM\1\DATA\092501\11G11647.D
Acq On : 25 Sep 2001 8:30
Sample : WG105216-01 8021 STD 20PPB 5G
Misc : 7,1 S-(83-38,84-39)
IntFile : autoint1.e

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

Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
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	105.524	91.912	E3	12.9	101	0.00
2	TM	Benzene	219.278	221.354	E3	-0.9	102	0.00
3	S	TFT	68.341	68.789	E3	-0.7	101	0.00
4	TM	Toluene	219.466	247.354	E3	-12.7	114	0.00
5	TM	Chlorobenzene	206.610	219.169	E3	-6.1	108	0.01
6	TM	Ethylbenzene	184.399	199.778	E3	-8.3	110	0.01
7	TM	m-,p-Xylene	239.607	239.651	E3	-0.0	109	0.01
8	TM	o-Xylene	190.827	201.099	E3	-5.4	105	0.01
9	S	BFB	198.314	194.870	E3	1.7	111	0.01
10	TM	1,3-Dichlorobenzene	183.408	195.920	E3	-6.8	112	0.00
11	TM	1,4-Dichlorobenzene	197.945	203.921	E3	-3.0	111	0.00
12	TM	1,2-Dichlorobenzene	173.995	175.178	E3	-0.7	111	0.00
13	S	BCB	205.679	196.842	E3	4.3	122	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11647.D 8021PRES.M Wed Sep 26 08:52:36 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\11G11647.D Vial: 1
Acq On : 25 Sep 2001 8:30 Operator: CBN
Sample : WG105216-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
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%

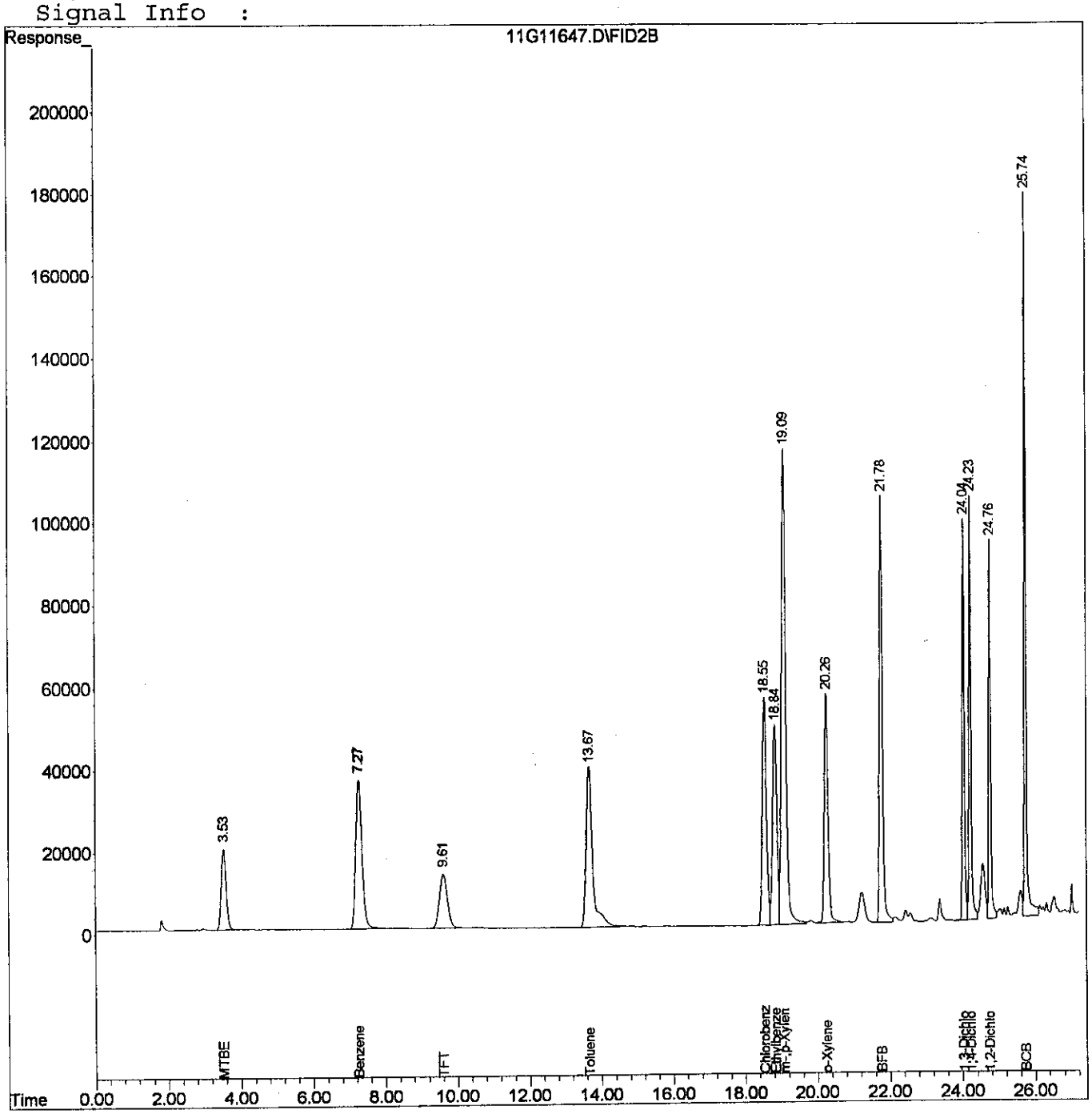
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.420	12.9	101	0.00
2	TM	Benzene	20.000	20.189	-0.9	102	0.00
3	S	TFT	30.000	30.196	-0.7	101	0.00
4	TM	Toluene	20.000	22.541	-12.7	114	0.00
5	TM	Chlorobenzene	20.000	21.216	-6.1	108	0.01
6	TM	Ethylbenzene	20.000	21.668	-8.3	110	0.01
7	TM	m-,p-Xylene	40.000	40.007	-0.0	109	0.01
8	TM	o-Xylene	20.000	21.077	-5.4	105	0.01
9	S	BFB	30.000	29.479	1.7	111	0.01
10	TM	1,3-Dichlorobenzene	20.000	21.364	-6.8	112	0.00
11	TM	1,4-Dichlorobenzene	20.000	20.604	-3.0	111	0.00
12	TM	1,2-Dichlorobenzene	20.000	20.136	-0.7	111	0.00
13	S	BCB	30.000	28.711	4.3	122	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11647.D 8021PRES.M Wed Sep 26 08:52:39 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\11G11647.D Vial: 1
Acq On : 25 Sep 2001 8:30 Operator: CBN
Sample : WG105216-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 8:58 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\11G11647.D Vial: 1
Acq On : 25 Sep 2001 8:30 Operator: CBN
Sample : WG105216-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 8:58 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.61	2063662	30.196 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.65%
9) S BFB	21.78	5846097	29.479 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.26%
13) S BCB	25.75	5905265	28.711 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	95.70%
Target Compounds			
1) TM MTBE	3.53	1838245	17.420 UG/KG
2) TM Benzene	7.27	4427090	20.189 UG/KG
4) TM Toluene	13.67	4947081	22.541 UG/KG
5) TM Chlorobenzene	18.55	4383371	21.216 UG/KG
6) TM Ethylbenzene	18.84	3995561	21.668 UG/KG
7) TM m-,p-Xylene	19.09	9586034	40.007 UG/KG
8) TM o-Xylene	20.26	4021972	21.077 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	3918394	21.364 UG/KG
11) TM 1,4-Dichlorobenzene	24.23	4078414	20.604 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	3503557	20.136 UG/KG

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

Data File : C:\HPCHEM\1\DATA\092501\11G11653.D Vial: 4
Acq On : 25 Sep 2001 13:19 Operator: CBN
Sample : WG105216-02 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
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	105.524	85.152	E3	19.3#	93	0.01
2	TM	Benzene	219.278	222.400	E3	-1.4	103	0.02
3	S	TFT	68.341	67.086	E3	1.8	99	0.02
4	TM	Toluene	219.466	227.358	E3	-3.6	105	0.02
5	TM	Chlorobenzene	206.610	219.048	E3	-6.0	108	0.01
6	TM	Ethylbenzene	184.399	200.720	E3	-8.9	111	0.01
7	TM	m-,p-Xylene	239.607	237.370	E3	0.9	108	0.01
8	TM	o-Xylene	190.827	199.173	E3	-4.4	104	0.00
9	S	BFB	198.314	172.710	E3	12.9	99	0.00
10	TM	1,3-Dichlorobenzene	183.408	191.917	E3	-4.6	110	0.00
11	TM	1,4-Dichlorobenzene	197.945	198.887	E3	-0.5	109	0.00
12	TM	1,2-Dichlorobenzene	173.995	173.328	E3	0.4	110	0.00
13	S	BCB	205.679	163.392	E3	20.6#	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11653.D 8021PRES.M Wed Sep 26 08:52:48 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\11G11653.D
Acq On : 25 Sep 2001 13:19
Sample : WG105216-02 8021 STD 20PPB 5G
Misc : 7,1 S-(83-38,84-39)
IntFile : autoint1.e

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

Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
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%

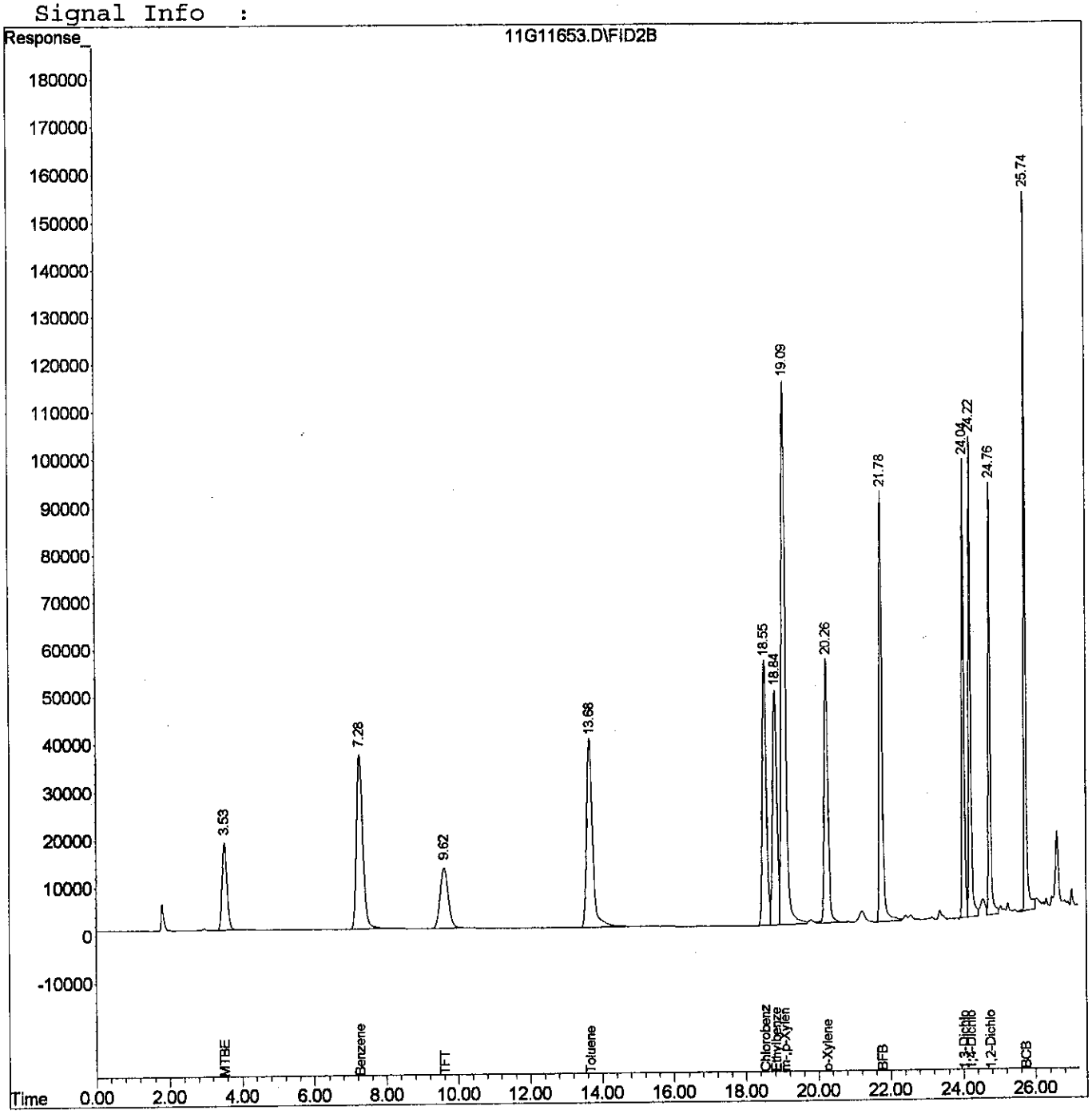
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	16.139	19.3#	93	0.01
2	TM	Benzene	20.000	20.285	-1.4	103	0.02
3	S	TFT	30.000	29.449	1.8	99	0.02
4	TM	Toluene	20.000	20.719	-3.6	105	0.02
5	TM	Chlorobenzene	20.000	21.204	-6.0	108	0.01
6	TM	Ethylbenzene	20.000	21.770	-8.8	111	0.01
7	TM	m-,p-Xylene	40.000	39.627	0.9	108	0.01
8	TM	o-Xylene	20.000	20.875	-4.4	104	0.00
9	S	BFB	30.000	26.127	12.9	99	0.00
10	TM	1,3-Dichlorobenzene	20.000	20.928	-4.6	110	0.00
11	TM	1,4-Dichlorobenzene	20.000	20.095	-0.5	109	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.923	0.4	110	0.00
13	S	BCB	30.000	23.832	20.6#	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G11653.D 8021PRES.M Wed Sep 26 08:52:46 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\11G11653.D Vial: 4
Acq On : 25 Sep 2001 13:19 Operator: CBN
Sample : WG105216-02 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(83-38,84-39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 13:46 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\11G11653.D
Acq On : 25 Sep 2001 13:19
Sample : WG105216-02 8021 STD 20PPB 5G
Misc : 7,1 S-(83-38,84-39)
IntFile : autoint1.e
Quant Time: Sep 25 13:46 2001 Quant Results File: 8021PRES.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.62	2012579	29.449 UG/KG
Spiked Amount 30.000 Range 70 - 130		Recovery =	98.16%
9) S BFB	21.78	5181289	26.127 UG/KG
Spiked Amount 30.000 Range 70 - 130		Recovery =	87.09%
13) S BCB	25.74	4901750	23.832 UG/KG
Spiked Amount 30.000 Range 37 - 137		Recovery =	79.44%
Target Compounds			
1) TM MTBE	3.53	1703035	16.139 UG/KG
2) TM Benzene	7.28	4447995	20.285 UG/KG
4) TM Toluene	13.68	4547150	20.719 UG/KG
5) TM Chlorobenzene	18.55	4380951	21.204 UG/KG
6) TM Ethylbenzene	18.84	4014400	21.770 UG/KG
7) TM m-,p-Xylene	19.09	9494787	39.627 UG/KG
8) TM o-Xylene	20.26	3983452	20.875 UG/KG
10) TM 1,3-Dichlorobenzene	24.04	3838347	20.928 UG/KG
11) TM 1,4-Dichlorobenzene	24.22	3977734	20.095 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	3466554	19.923 UG/KG

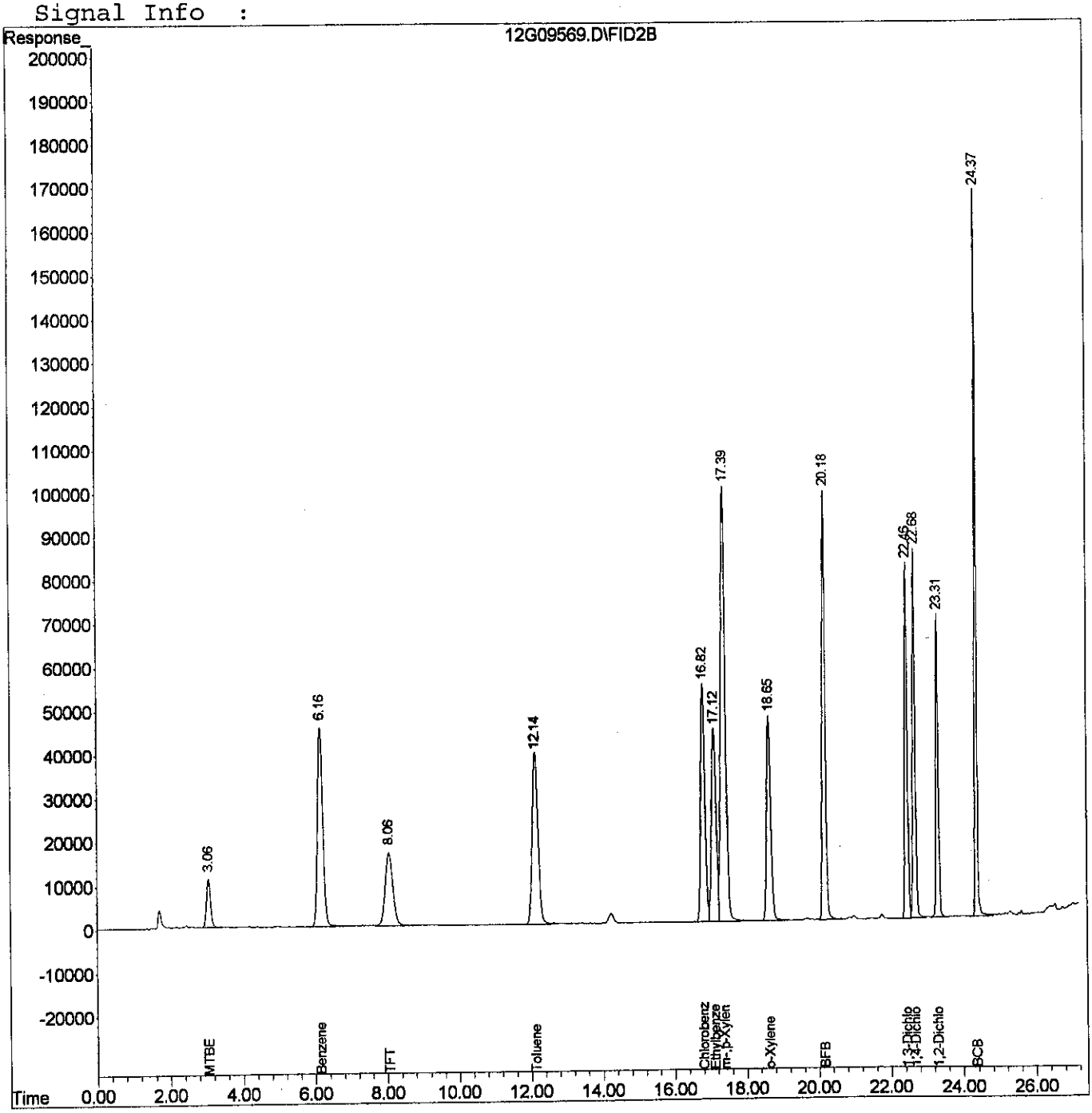
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\092501\12G09569.D
Acq On : 25 Sep 2001 7:24
Sample : WG105202-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(83-38,84-38)
IntFile : autoint1.e
Quant Time: Sep 25 7:51 2001 Quant Results File: 8021W.RES

Vial: 20
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09569.D Vial: 20
Acq On : 25 Sep 2001 7:24 Operator: CBN
Sample : WG105202-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 7:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.07	2526689	34.2083 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 114.03%			
9) S BFB	20.18	5773943	31.4324 UG/L
Spiked Amount 30.000 Recovery = 104.77%			
13) S BCB	24.37	5638793	29.4577 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.19%			
Target Compounds			
1) TM MTBE	3.06	906823	19.1179 UG/L
2) TM Benzene	6.17	4662284	19.9526 UG/L
4) TM Toluene	12.15	4438267	21.0372 UG/L
5) TM Chlorobenzene	16.82	4502350	20.2883 UG/L
6) TM Ethylbenzene	17.12	3936784	21.3995 UG/L
7) TM m-,p-Xylene	17.39	9229180	41.4974 UG/L
8) TM o-Xylene	18.65	3862603	20.2027 UG/L
10) TM 1,3-Dichlorobenzene	22.46	4039374	20.1336 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4063270	20.0814 UG/L
12) TM 1,2-Dichlorobenzene	23.31	3157308	19.5855 UG/L

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

Data File : C:\HPCHEM\2\DATA\092501\12G09580.D
Acq On : 25 Sep 2001 13:27
Sample : WG105202-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(83-38,84-38)
IntFile : autoint1.e

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	20.098	-0.5	104	0.01
2	TM	Benzene	20.000	20.797	-4.0	108	0.01
3	S	TFT	30.000	34.139	-13.8	114	0.02
4	TM	Toluene	20.000	22.021	-10.1	112	0.02
5	TM	Chlorobenzene	20.000	21.339	-6.7	111	0.01
6	TM	Ethylbenzene	20.000	22.111	-10.6	114	0.01
7	TM	m-,p-Xylene	40.000	43.036	-7.6	112	0.01
8	TM	o-Xylene	20.000	21.201	-6.0	109	0.01
9	S	BFB	30.000	32.635	-8.8	110	0.01
10	TM	1,3-Dichlorobenzene	20.000	21.536	-7.7	112	0.01
11	TM	1,4-Dichlorobenzene	20.000	21.438	-7.2	112	0.02
12	TM	1,2-Dichlorobenzene	20.000	22.850	-14.3	121	0.02
13	S	BCB	30.000	31.220	-4.1	111	0.02

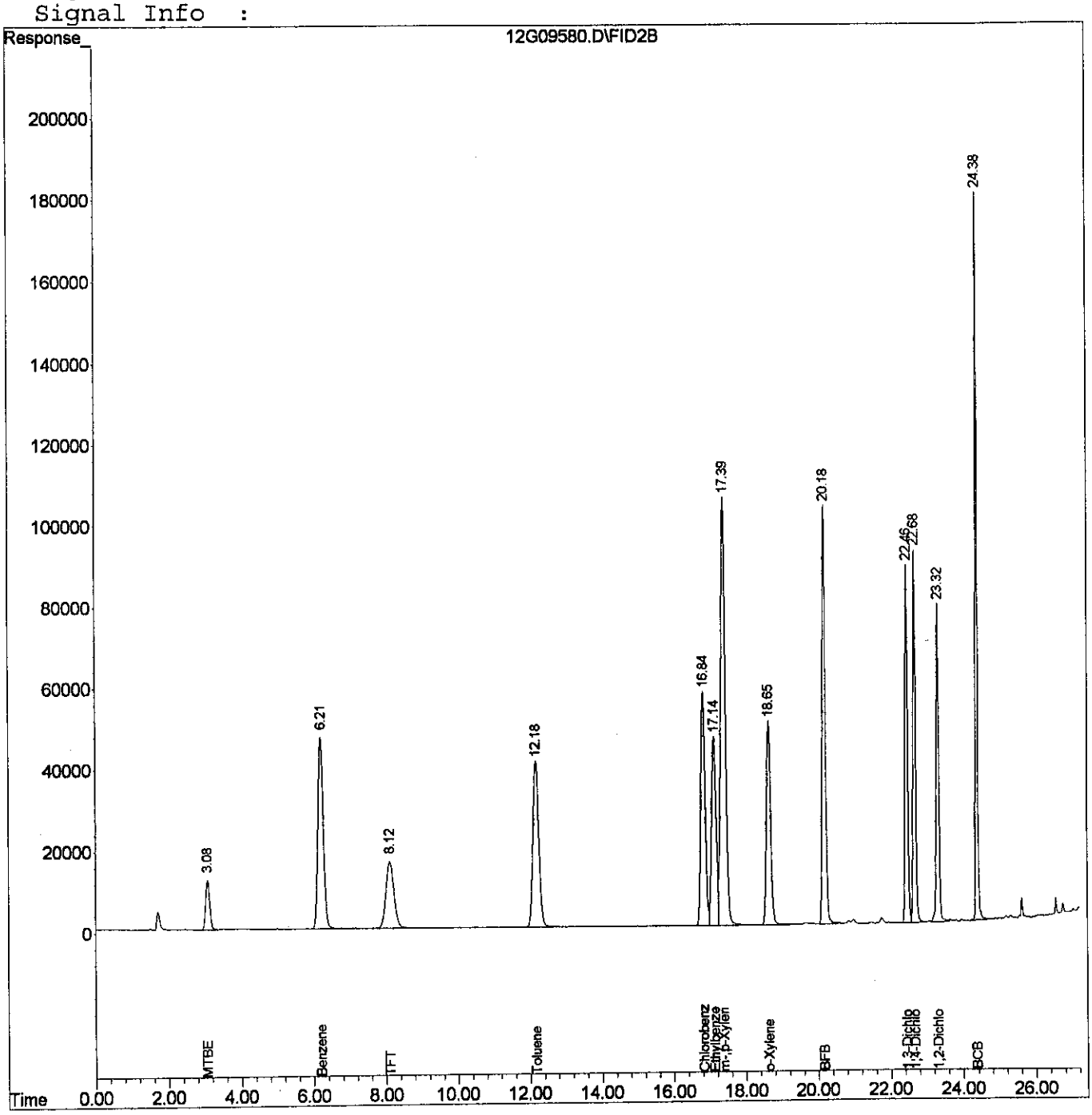
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09580.D 8021W.M Wed Sep 26 09:13:06 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092501\12G09580.D
Acq On : 25 Sep 2001 13:27
Sample : WG105202-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(83-38,84-38)
IntFile : autoint1.e
Quant Time: Sep 25 13:55 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09580.D Vial: 32
Acq On : 25 Sep 2001 13:27 Operator: CBN
Sample : WG105202-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 13:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.12	2521536	34.139 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 113.80%			
9) S BFB	20.19	5994799	32.635 UG/L
Spiked Amount 30.000 Recovery = 108.78%			
13) S BCB	24.38	5976189	31.220 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 104.07%			
Target Compounds			
1) TM MTBE	3.08	953318	20.098 UG/L
2) TM Benzene	6.21	4859544	20.797 UG/L
4) TM Toluene	12.18	4645743	22.021 UG/L
5) TM Chlorobenzene	16.83	4735579	21.339 UG/L
6) TM Ethylbenzene	17.14	4067658	22.111 UG/L
7) TM m-,p-Xylene	17.40	9571294	43.036 UG/L
8) TM o-Xylene	18.65	4053551	21.201 UG/L
10) TM 1,3-Dichlorobenzene	22.46	4320727	21.536 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4337730	21.438 UG/L
12) TM 1,2-Dichlorobenzene	23.32	3683598	22.850 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09580.D 8021W.M Tue Sep 25 13:55:12 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092501\12G09591.D
Acq On : 25 Sep 2001 19:30
Sample : WG105202-03 8021 STD 20PPB 5ML
Misc : 1,1 S-(83-38,84-38)
IntFile : autoint1.e

Vial: 2
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	45.872	E3	3.3	100	0.02
2	TM	Benzene	233.668	235.517	E3	-0.8	104	0.03
3	S	TFT	73.862	83.464	E3	-13.0	114	0.04
4	TM	Toluene	210.972	220.749	E3	-4.6	107	0.03
5	TM	Chlorobenzene	221.918	229.251	E3	-3.3	107	0.02
6	TM	Ethylbenzene	183.966	198.547	E3	-7.9	111	0.02
7	TM	m-,p-Xylene	222.404	232.631	E3	-4.6	108	0.02
8	TM	o-Xylene	191.193	195.899	E3	-2.5	106	0.03
9	S	BFB	183.694	196.254	E3	-6.8	108	0.03
10	TM	1,3-Dichlorobenzene	200.629	204.320	E3	-1.8	106	0.02
11	TM	1,4-Dichlorobenzene	202.340	205.847	E3	-1.7	106	0.02
12	TM	1,2-Dichlorobenzene	161.206	166.793	E3	-3.5	110	0.02
13	S	BCB	191.420	191.526	E3	-0.1	107	0.01

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

Data File : C:\HPCHEM\2\DATA\092501\12G09591.D Vial: 2
Acq On : 25 Sep 2001 19:30 Operator: CBN
Sample : WG105202-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

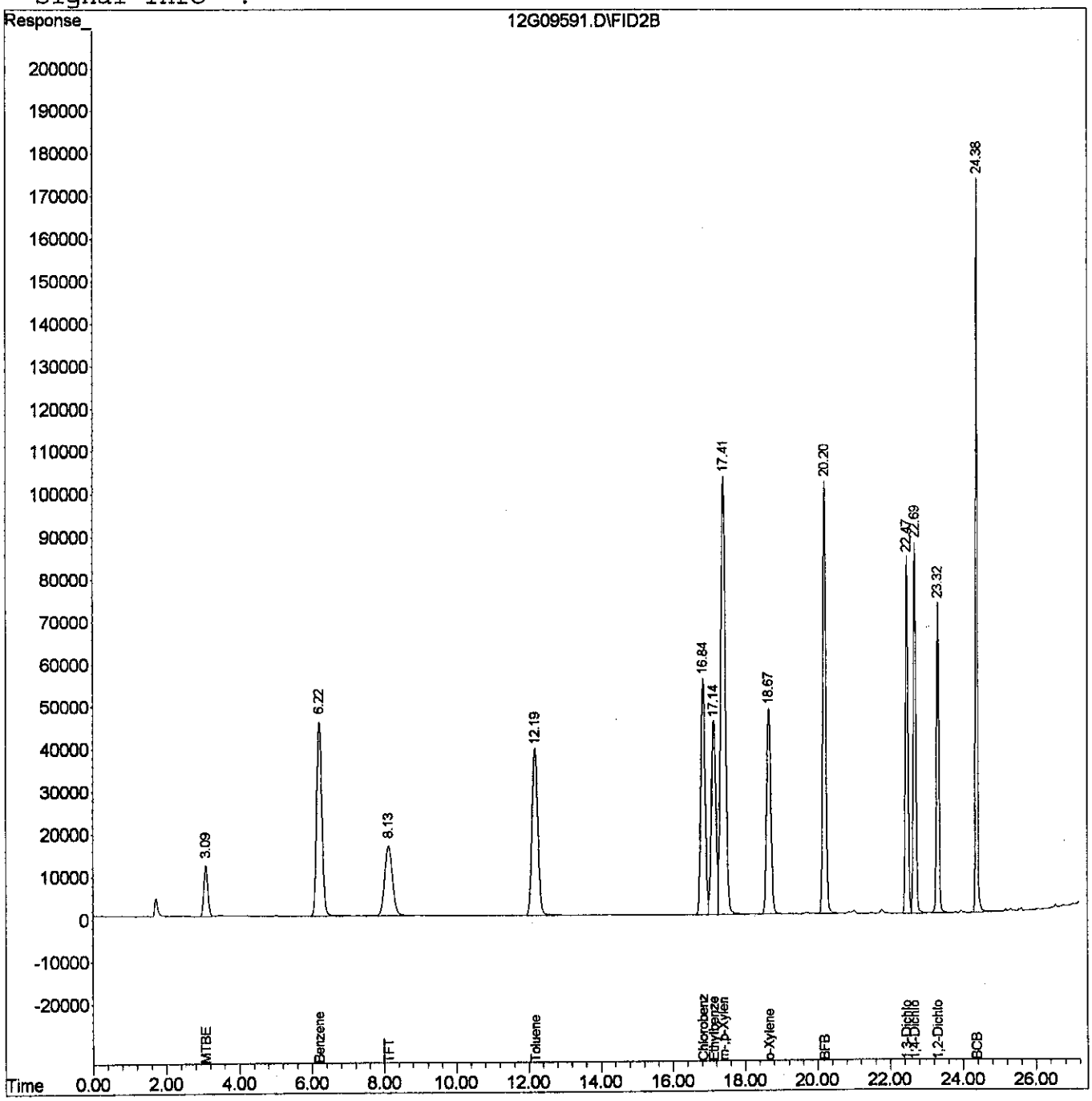
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.342	3.3	100	0.02
2	TM	Benzene	20.000	20.158	-0.8	104	0.03
3	S	TFT	30.000	33.900	-13.0	114	0.04
4	TM	Toluene	20.000	20.927	-4.6	107	0.03
5	TM	Chlorobenzene	20.000	20.661	-3.3	107	0.02
6	TM	Ethylbenzene	20.000	21.585	-7.9	111	0.02
7	TM	m-,p-Xylene	40.000	41.839	-4.6	108	0.02
8	TM	o-Xylene	20.000	20.492	-2.5	106	0.03
9	S	BFB	30.000	32.051	-6.8	108	0.03
10	TM	1,3-Dichlorobenzene	20.000	20.368	-1.8	106	0.02
11	TM	1,4-Dichlorobenzene	20.000	20.347	-1.7	106	0.02
12	TM	1,2-Dichlorobenzene	20.000	20.693	-3.5	110	0.02
13	S	BCB	30.000	30.017	-0.1	107	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09591.D 8021W.M Wed Sep 26 09:13:13 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092501\12G09591.D Vial: 2
Acq On : 25 Sep 2001 19:30 Operator: CBN
Sample : WG105202-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 19:57 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09591.D Vial: 2
Acq On : 25 Sep 2001 19:30 Operator: CBN
Sample : WG105202-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 19:57 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.13	2503930	33.900 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 113.00%			
9) S BFB	20.20	5887628	32.051 UG/L
Spiked Amount 30.000 Recovery = 106.84%			
13) S BCB	24.38	5745780	30.017 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 100.06%			
Target Compounds			
1) TM MTBE	3.09	917445	19.342 UG/L
2) TM Benzene	6.22	4710347	20.158 UG/L
4) TM Toluene	12.19	4414977	20.927 UG/L
5) TM Chlorobenzene	16.84	4585023	20.661 UG/L
6) TM Ethylbenzene	17.15	3970942	21.585 UG/L
7) TM m-,p-Xylene	17.41	9305239	41.839 UG/L
8) TM o-Xylene	18.67	3917974	20.492 UG/L
10) TM 1,3-Dichlorobenzene	22.47	4086400	20.368 UG/L
11) TM 1,4-Dichlorobenzene	22.69	4116947	20.347 UG/L
12) TM 1,2-Dichlorobenzene	23.32	3335869	20.693 UG/L

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

Data File : C:\HPCHEM\2\DATA\092501\12G09594.D Vial: 5
Acq On : 25 Sep 2001 21:07 Operator: CBN
Sample : WG105202-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	47.181	E3	0.5	103	0.02
2	TM	Benzene	233.668	232.860	E3	0.3	103	0.02
3	S	TFT	73.862	81.555	E3	-10.4	111	0.03
4	TM	Toluene	210.972	221.014	E3	-4.8	107	0.03
5	TM	Chlorobenzene	221.918	226.416	E3	-2.0	106	0.03
6	TM	Ethylbenzene	183.966	195.324	E3	-6.2	109	0.02
7	TM	m-,p-Xylene	222.404	228.881	E3	-2.9	107	0.02
8	TM	o-Xylene	191.193	193.534	E3	-1.2	104	0.02
9	S	BFB	183.694	193.050	E3	-5.1	106	0.02
10	TM	1,3-Dichlorobenzene	200.629	202.589	E3	-1.0	105	0.02
11	TM	1,4-Dichlorobenzene	202.340	203.585	E3	-0.6	105	0.02
12	TM	1,2-Dichlorobenzene	161.206	166.076	E3	-3.0	109	0.02
13	S	BCB	191.420	188.486	E3	1.5	105	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09594.D 8021W.M Wed Sep 26 09:13:21 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092501\12G09594.D Vial: 5
Acq On : 25 Sep 2001 21:07 Operator: CBN
Sample : WG105202-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

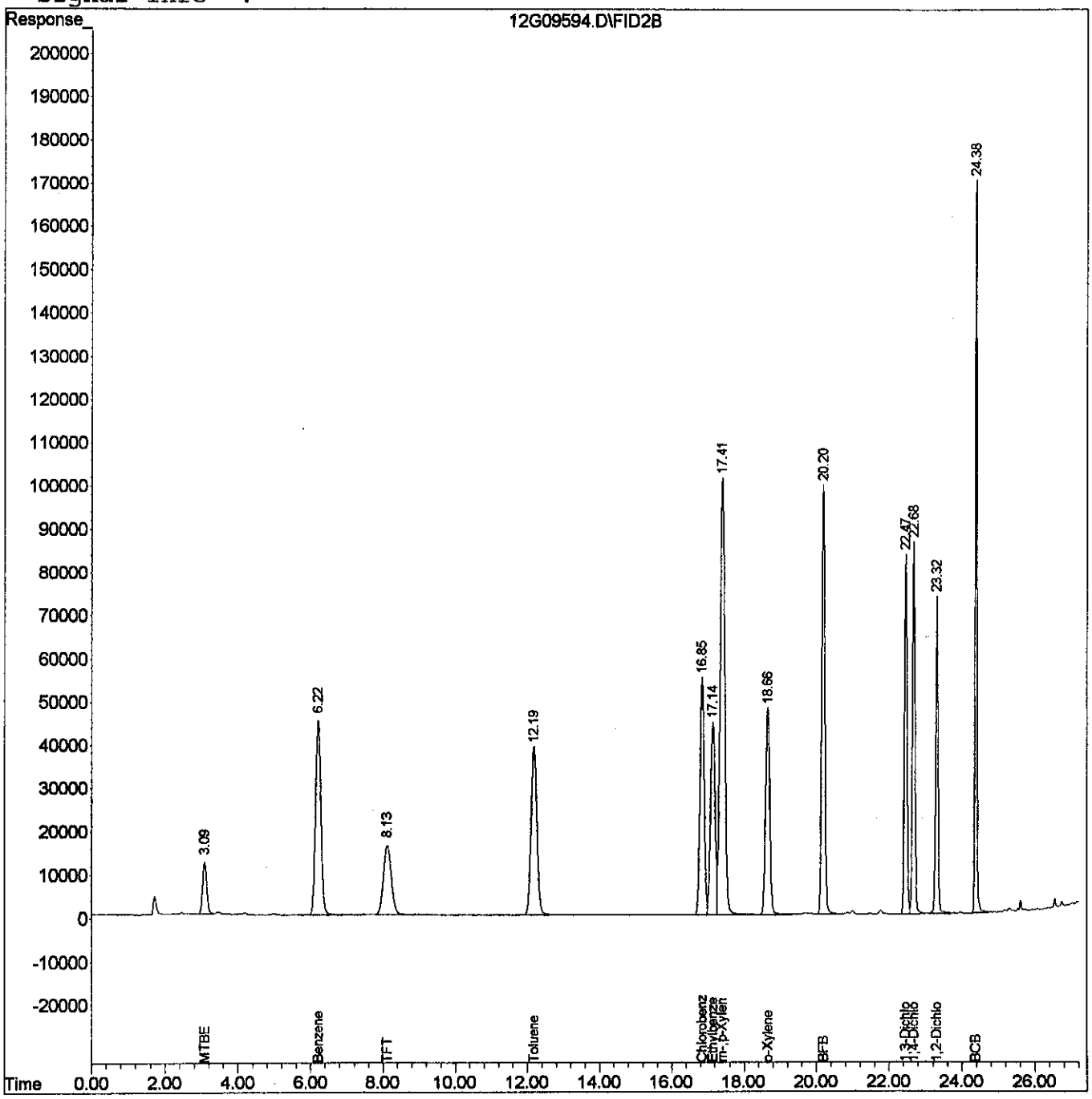
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.894	0.5	103	0.02
2	TM	Benzene	20.000	19.931	0.3	103	0.02
3	S	TFT	30.000	33.125	-10.4	111	0.03
4	TM	Toluene	20.000	20.952	-4.8	107	0.03
5	TM	Chlorobenzene	20.000	20.405	-2.0	106	0.03
6	TM	Ethylbenzene	20.000	21.235	-6.2	109	0.02
7	TM	m-,p-Xylene	40.000	41.165	-2.9	107	0.02
8	TM	o-Xylene	20.000	20.245	-1.2	104	0.02
9	S	BFB	30.000	31.528	-5.1	106	0.02
10	TM	1,3-Dichlorobenzene	20.000	20.195	-1.0	105	0.02
11	TM	1,4-Dichlorobenzene	20.000	20.123	-0.6	105	0.02
12	TM	1,2-Dichlorobenzene	20.000	20.604	-3.0	109	0.02
13	S	BCB	30.000	29.540	1.5	105	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09594.D 8021W.M Wed Sep 26 09:13:24 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092501\12G09594.D Vial: 5
Acq On : 25 Sep 2001 21:07 Operator: CBN
Sample : WG105202-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 21:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09594.D Vial: 5
Acq On : 25 Sep 2001 21:07 Operator: CBN
Sample : WG105202-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 21:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.13	2446659	33.125 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 110.42%			
9) S BFB	20.20	5791513	31.528 UG/L
Spiked Amount 30.000 Recovery = 105.09%			
13) S BCB	24.38	5654578	29.540 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.47%			
Target Compounds			
1) TM MTBE	3.09	943629	19.894 UG/L
2) TM Benzene	6.22	4657197	19.931 UG/L
4) TM Toluene	12.19	4420275	20.952 UG/L
5) TM Chlorobenzene	16.85	4528329	20.405 UG/L
6) TM Ethylbenzene	17.15	3906474	21.235 UG/L
7) TM m-,p-Xylene	17.41	9155227	41.165 UG/L
8) TM o-Xylene	18.66	3870683	20.245 UG/L
10) TM 1,3-Dichlorobenzene	22.47	4051789	20.195 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4071706	20.123 UG/L
12) TM 1,2-Dichlorobenzene	23.32	3321528	20.604 UG/L

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

Data File : C:\HPCHEM\2\DATA\092601\12G09595.D Vial: 1
Acq On : 26 Sep 2001 7:18 Operator: CBN
Sample : WG105294-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	46.504	E3	2.0	101	0.00
2	TM	Benzene	233.668	237.137	E3	-1.5	105	-0.01
3	S	TFT	73.862	82.634	E3	-11.9	113	0.00
4	TM	Toluene	210.972	232.198	E3	-10.1	112	0.00
5	TM	Chlorobenzene	221.918	239.140	E3	-7.8	112	0.08
6	TM	Ethylbenzene	183.966	208.548	E3	-13.4	117	0.08
7	TM	m-,p-Xylene	222.404	244.597	E3	-10.0	114	0.08
8	TM	o-Xylene	191.193	204.233	E3	-6.8	110	0.09
9	S	BFB	183.694	195.845	E3	-6.6	108	0.08
10	TM	1,3-Dichlorobenzene	200.629	211.668	E3	-5.5	110	0.08
11	TM	1,4-Dichlorobenzene	202.340	212.867	E3	-5.2	110	0.08
12	TM	1,2-Dichlorobenzene	161.206	165.642	E3	-2.8	109	0.07
13	S	BCB	191.420	189.365	E3	1.1	106	0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09595.D 8021W.M Wed Sep 26 14:47:09 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092601\12G09595.D Vial: 1
Acq On : 26 Sep 2001 7:18 Operator: CBN
Sample : WG105294-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

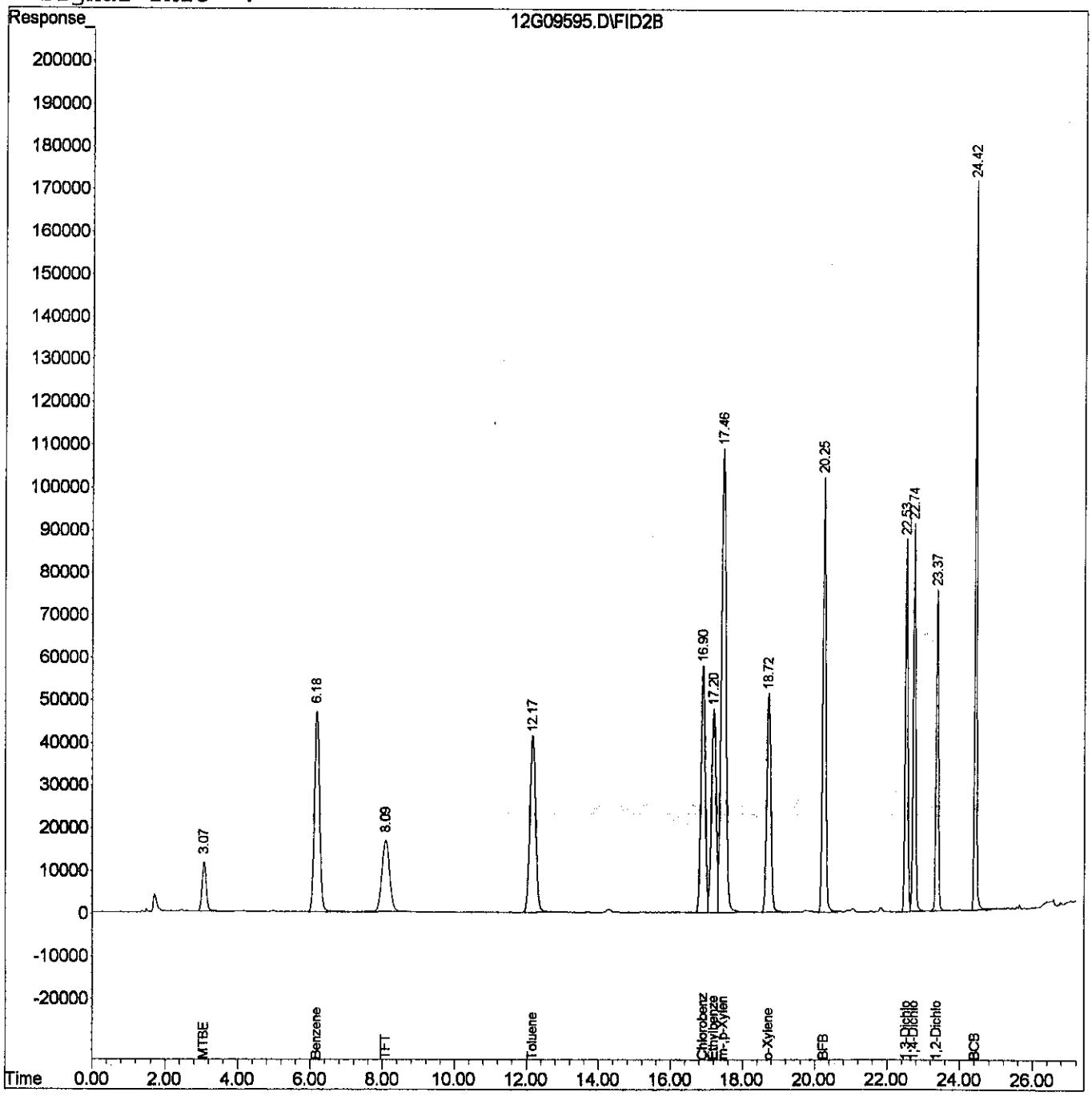
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.608	2.0	101	0.00
2	TM	Benzene	20.000	20.297	-1.5	105	-0.01
3	S	TFT	30.000	33.563	-11.9	113	0.00
4	TM	Toluene	20.000	22.012	-10.1	112	0.00
5	TM	Chlorobenzene	20.000	21.552	-7.8	112	0.08
6	TM	Ethylbenzene	20.000	22.672	-13.4	117	0.08
7	TM	m-,p-Xylene	40.000	43.991	-10.0	114	0.08
8	TM	o-Xylene	20.000	21.364	-6.8	110	0.09
9	S	BFB	30.000	31.984	-6.6	108	0.08
10	TM	1,3-Dichlorobenzene	20.000	21.100	-5.5	110	0.08
11	TM	1,4-Dichlorobenzene	20.000	21.040	-5.2	110	0.08
12	TM	1,2-Dichlorobenzene	20.000	20.550	-2.8	109	0.07
13	S	BCB	30.000	29.678	1.1	106	0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09595.D 8021W.M Wed Sep 26 14:47:12 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092601\12G09595.D Vial: 1
Acq On : 26 Sep 2001 7:18 Operator: CBN
Sample : WG105294-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 7:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092601\12G09595.D Vial: 1
Acq On : 26 Sep 2001 7:18 Operator: CBN
Sample : WG105294-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 7:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.09	2479009	33.563 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 111.88%			
9) S BFB	20.26	5875365	31.984 UG/L
Spiked Amount 30.000 Recovery = 106.61%			
13) S BCB	24.42	5680964	29.678 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.93%			
Target Compounds			
1) TM MTBE	3.07	930071	19.608 UG/L
2) TM Benzene	6.18	4742740	20.297 UG/L
4) TM Toluene	12.17	4643954	22.012 UG/L
5) TM Chlorobenzene	16.90	4782810	21.552 UG/L
6) TM Ethylbenzene	17.20	4170951	22.672 UG/L
7) TM m-,p-Xylene	17.47	9783870	43.991 UG/L
8) TM o-Xylene	18.72	4084667	21.364 UG/L
10) TM 1,3-Dichlorobenzene	22.53	4233352	21.100 UG/L
11) TM 1,4-Dichlorobenzene	22.75	4257334	21.040 UG/L
12) TM 1,2-Dichlorobenzene	23.37	3312847	20.550 UG/L

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

Data File : C:\HPCHEM\2\DATA\092601\12G09606.D Vial: 32
Acq On : 26 Sep 2001 13:54 Operator: CBN
Sample : WG105294-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	43.276	E3	8.8	94	0.06
2	TM	Benzene	233.668	238.266	E3	-2.0	106	0.11
3	S	TFT	73.862	86.662	E3	-17.3#	118	0.15
4	TM	Toluene	210.972	227.760	E3	-8.0	110	0.14
5	TM	Chlorobenzene	221.918	231.754	E3	-4.4	108	0.11
6	TM	Ethylbenzene	183.966	200.074	E3	-8.8	112	0.11
7	TM	m-,p-Xylene	222.404	234.881	E3	-5.6	109	0.11
8	TM	o-Xylene	191.193	198.502	E3	-3.8	107	0.10
9	S	BFB	183.694	202.251	E3	-10.1	111	0.08
10	TM	1,3-Dichlorobenzene	200.629	207.678	E3	-3.5	108	0.07
11	TM	1,4-Dichlorobenzene	202.340	208.428	E3	-3.0	107	0.07
12	TM	1,2-Dichlorobenzene	161.206	163.979	E3	-1.7	108	0.07
13	S	BCB	191.420	196.150	E3	-2.5	109	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09606.D 8021W.M Wed Sep 26 14:32:05 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092601\12G09606.D Vial: 32
Acq On : 26 Sep 2001 13:54 Operator: CBN
Sample : WG105294-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

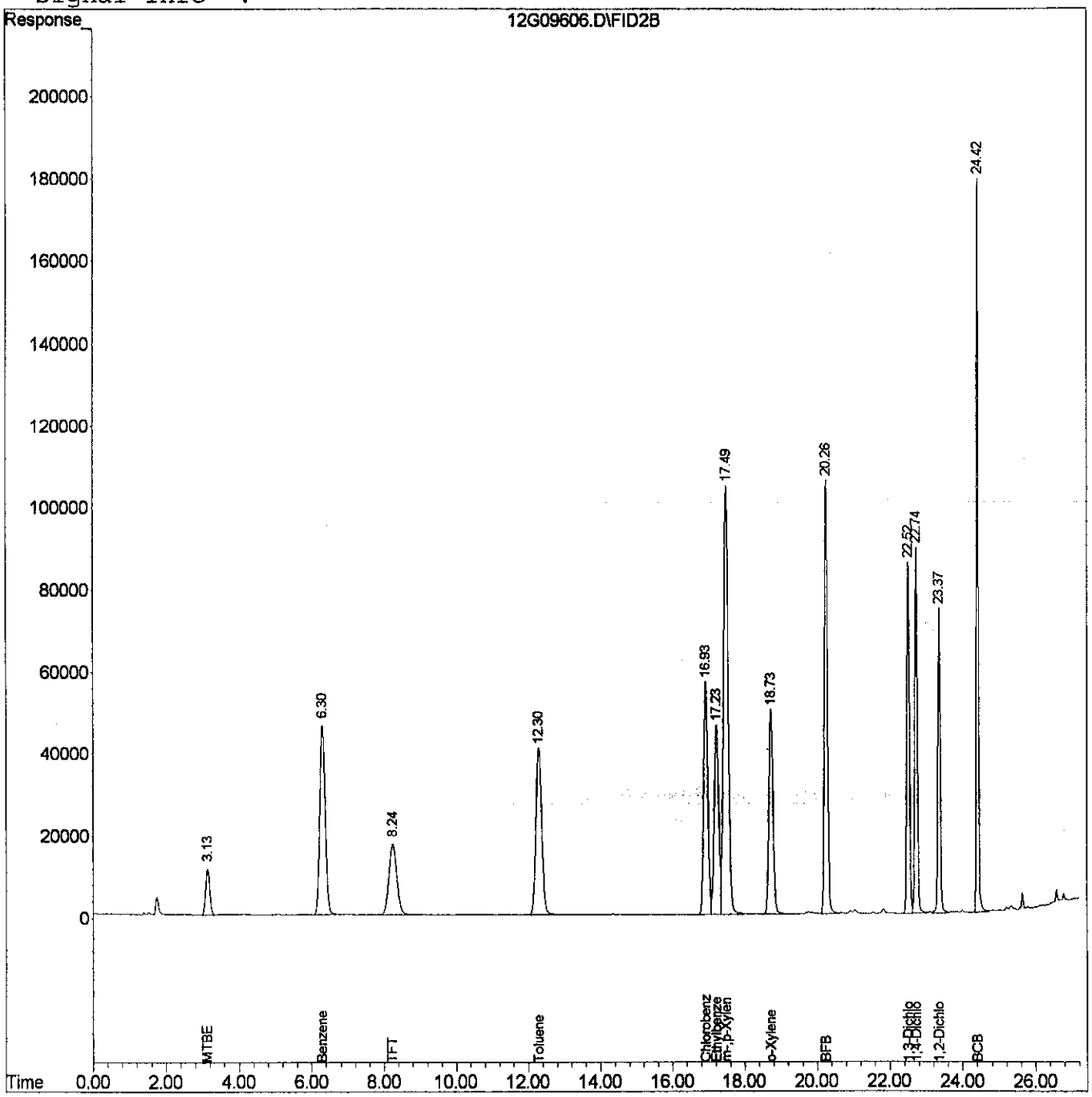
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.247	8.8	94	0.06
2	TM	Benzene	20.000	20.394	-2.0	106	0.11
3	S	TFT	30.000	35.199	-17.3#	118	0.15
4	TM	Toluene	20.000	21.592	-8.0	110	0.14
5	TM	Chlorobenzene	20.000	20.886	-4.4	108	0.11
6	TM	Ethylbenzene	20.000	21.751	-8.8	112	0.11
7	TM	m-,p-Xylene	40.000	42.244	-5.6	109	0.11
8	TM	o-Xylene	20.000	20.765	-3.8	107	0.10
9	S	BFB	30.000	33.031	-10.1	111	0.08
10	TM	1,3-Dichlorobenzene	20.000	20.703	-3.5	108	0.07
11	TM	1,4-Dichlorobenzene	20.000	20.602	-3.0	107	0.07
12	TM	1,2-Dichlorobenzene	20.000	20.344	-1.7	108	0.07
13	S	BCB	30.000	30.741	-2.5	109	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09606.D 8021W.M Wed Sep 26 14:32:03 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092601\12G09606.D Vial: 32
Acq On : 26 Sep 2001 13:54 Operator: CBN
Sample : WG105294-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 14:29 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092601\12G09606.D Vial: 32
Acq On : 26 Sep 2001 13:54 Operator: CBN
Sample : WG105294-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 14:29 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.25	2599868	35.199 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 117.33%			
9) S BFB	20.26	6067543	33.031 UG/L
Spiked Amount 30.000 Recovery = 110.10%			
13) S BCB	24.42	5884504	30.741 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 102.47%			
Target Compounds			
1) TM MTBE	3.13	865521	18.247 UG/L
2) TM Benzene	6.31	4765329	20.394 UG/L
4) TM Toluene	12.30	4555207	21.592 UG/L
5) TM Chlorobenzene	16.93	4635080	20.886 UG/L
6) TM Ethylbenzene	17.23	4001480	21.751 UG/L
7) TM m-,p-Xylene	17.49	9395239	42.244 UG/L
8) TM o-Xylene	18.74	3970036	20.765 UG/L
10) TM 1,3-Dichlorobenzene	22.52	4153552	20.703 UG/L
11) TM 1,4-Dichlorobenzene	22.74	4168560	20.602 UG/L
12) TM 1,2-Dichlorobenzene	23.37	3279576	20.344 UG/L

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 21-Sep-01
Filename: 11G11626
Sub Directory: 092101
Instrument: HP11
Matrix: SOIL

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.508	3.492	3.524
benzene	7.234	7.213	7.255
1,1,1-trifluorotoluene (SS)	9.563	9.541	9.585
toluene	13.630	13.603	13.657
chlorobenzene	18.516	18.479	18.553
ethylbenzene	18.803	18.765	18.841
m+p-xylene	19.054	19.014	19.094
o-xylene	20.028	19.988	20.068
bromofluorobenzene (SS)	21.756	21.716	21.796
1,3-dichlorobenzene	24.027	24.009	24.045
1,4-dichlorobenzene	24.211	24.205	24.229
1,2-dichlorobenzene	24.749	24.734	24.764

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G07664 **DATE #1:** 2/16/2001
CONT STD #2: 11G07679 **DATE #2:** 2/17/2001
CONT STD #3: 11G07731 **DATE #3:** 2/19/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.701	3.691	3.699	3.697	0.005	0.016
benzene	5.995	5.983	5.995	5.991	0.007	0.021
1,1,1-trifluorotoluene (SS)	6.910	6.897	6.909	6.905	0.007	0.022
toluene	9.669	9.655	9.672	9.665	0.009	0.027
chlorobenzene	14.515	14.498	14.522	14.512	0.012	0.037
ethylbenzene	14.787	14.770	14.795	14.784	0.013	0.038
m+p-xylene	15.122	15.105	15.131	15.119	0.013	0.040
o-xylene	17.017	17.000	17.026	17.014	0.013	0.040
bromofluorbenzene (SS)	19.998	19.981	20.007	19.995	0.013	0.040
1,3-dichlorobenzene	24.063	24.052	24.062	24.059	0.006	0.018
1,4-dichlorobenzene	24.379	24.368	24.378	24.375	0.006	0.018
1,2-dichlorobenzene	25.320	25.310	25.317	25.316	0.005	0.015

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 25-Sep-01
Filename: 11G11647
Sub Directory: 092501
Instrument: HP11
Matrix: SOIL

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.526	3.510	3.542
benzene	7.271	7.250	7.292
1,1,1-trifluorotoluene (SS)	9.612	9.590	9.634
toluene	13.672	13.645	13.699
chlorobenzene	18.551	18.514	18.588
ethylbenzene	18.838	18.800	18.876
m+p-xylene	19.088	19.048	19.128
o-xylene	20.264	20.224	20.304
bromofluorobenzene (SS)	21.780	21.740	21.820
1,3-dichlorobenzene	24.043	24.025	24.061
1,4-dichlorobenzene	24.227	24.221	24.245
1,2-dichlorobenzene	24.763	24.748	24.778

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G07664 **DATE #1:** 2/16/2001
CONT STD #2: 11G07679 **DATE #2:** 2/17/2001
CONT STD #3: 11G07731 **DATE #3:** 2/19/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.701	3.691	3.699	3.697	0.005	0.016
benzene	5.995	5.983	5.995	5.991	0.007	0.021
1,1,1-trifluorotoluene (SS)	6.910	6.897	6.909	6.905	0.007	0.022
toluene	9.669	9.655	9.672	9.665	0.009	0.027
chlorobenzene	14.515	14.498	14.522	14.512	0.012	0.037
ethylbenzene	14.787	14.770	14.795	14.784	0.013	0.038
m+p-xylene	15.122	15.105	15.131	15.119	0.013	0.040
o-xylene	17.017	17.000	17.026	17.014	0.013	0.040
bromofluorbenzene (SS)	19.998	19.981	20.007	19.995	0.013	0.040
1,3-dichlorobenzene	24.063	24.052	24.062	24.059	0.006	0.018
1,4-dichlorobenzene	24.379	24.368	24.378	24.375	0.006	0.018
1,2-dichlorobenzene	25.320	25.310	25.317	25.316	0.005	0.015

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 25-Sep-01
Filename: 12G09569
Sub Directory: 092501
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.063	3.058	3.068
benzene	6.166	6.145	6.187
1,1,1-trifluorotoluene (SS)	8.065	8.035	8.095
toluene	12.146	12.117	12.175
chlorobenzene	16.819	16.802	16.836
ethylbenzene	17.125	17.106	17.144
m+p-xylene	17.393	17.361	17.425
o-xylene	18.649	18.628	18.670
bromofluorobenzene (SS)	20.184	20.170	20.198
1,3-dichlorobenzene	22.469	22.449	22.489
1,4-dichlorobenzene	22.677	22.657	22.697
1,2-dichlorobenzene	23.310	23.292	23.328

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 26-Sep-01
Filename: 12G09595
Sub Directory: 092601
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.069	3.064	3.074
benzene	6.182	6.161	6.203
1,1,1-trifluorotoluene (SS)	8.090	8.060	8.120
toluene	12.171	12.142	12.200
chlorobenzene	16.899	16.882	16.916
ethylbenzene	17.203	17.184	17.222
m+p-xylene	17.466	17.434	17.498
o-xylene	18.725	18.704	18.746
bromofluorobenzene (SS)	20.256	20.242	20.270
1,3-dichlorobenzene	22.528	22.508	22.548
1,4-dichlorobenzene	22.745	22.725	22.765
1,2-dichlorobenzene	23.373	23.355	23.391

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

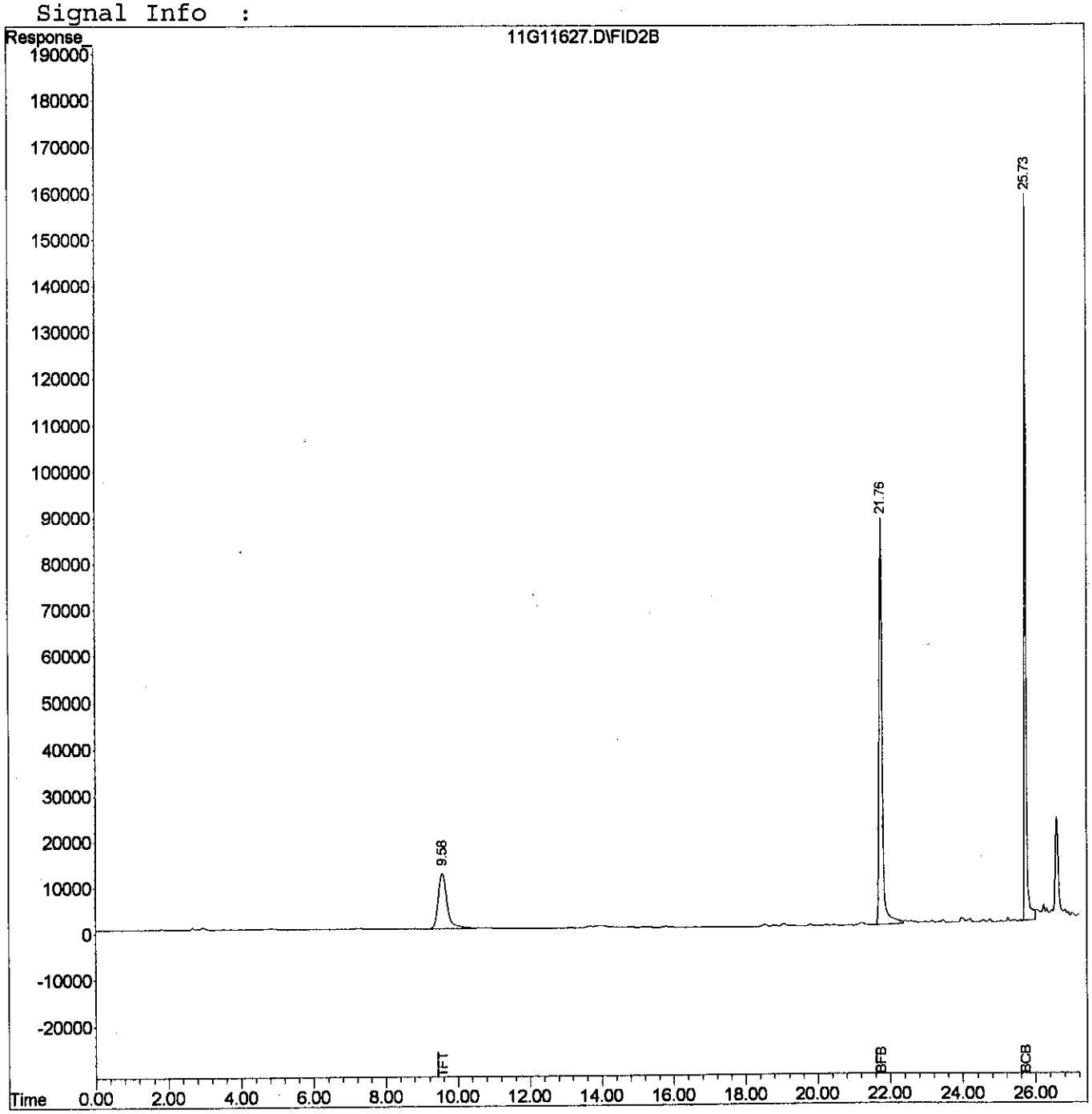
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\092101\11G11627.D Vial: 2
Acq On : 21 Sep 2001 17:14 Operator: JLS
Sample : WG105094-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-83-28 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 17:42 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092101\11G11627.D Vial: 2
Acq On : 21 Sep 2001 17:14 Operator: JLS
Sample : WG105094-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-83-28 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 17:42 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

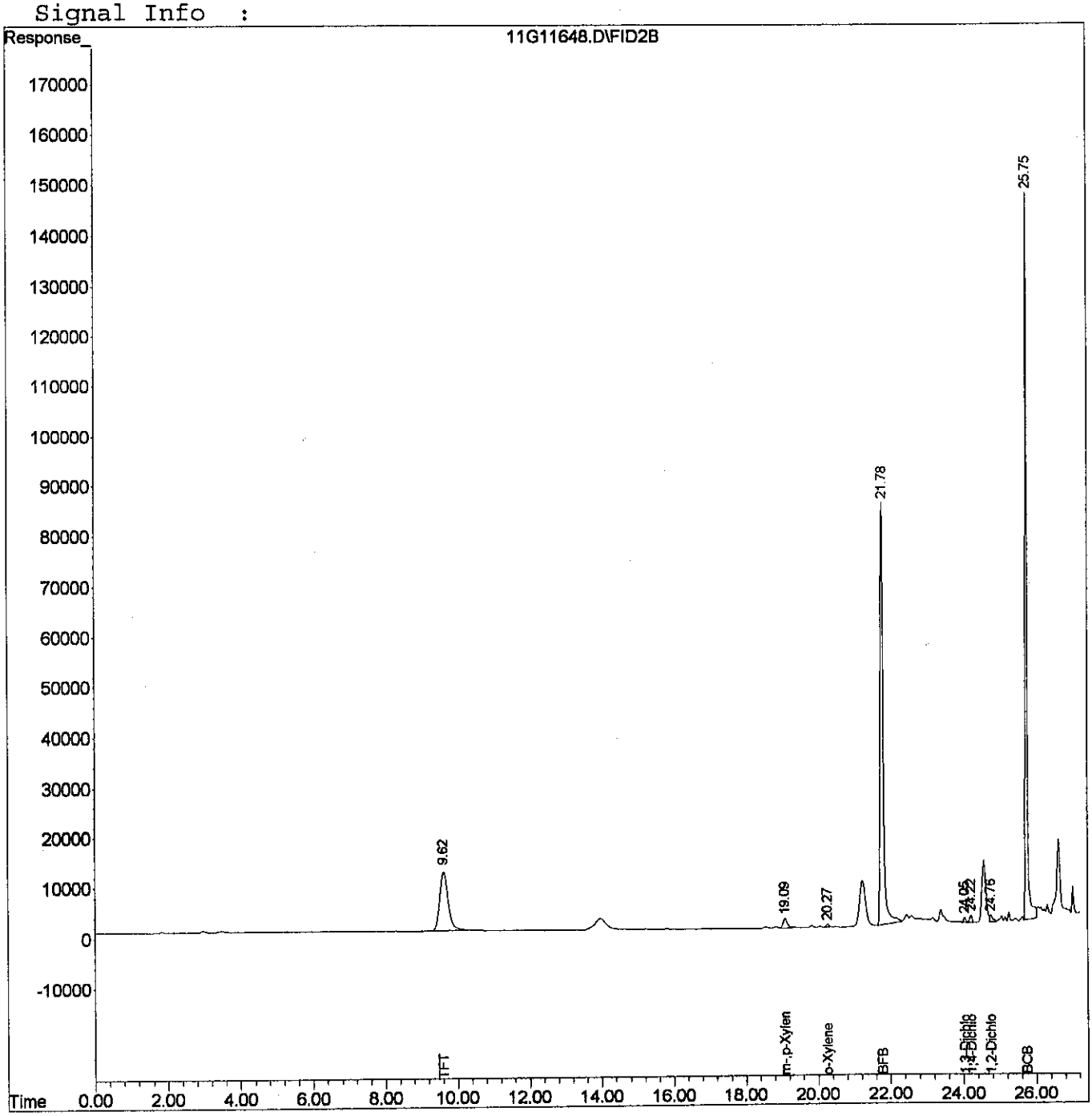
Compound			R.T.	Response	Conc	Units
System Monitoring Compounds						
3) S TFT			9.58	2088228	30.784	UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery	= 102.61%	
9) S BFB			21.76	5247993	29.137	UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery	= 97.12%	
13) S BCB			25.73	5065545	29.396	UG/KG
Spiked Amount	30.000	Range	37 - 137	Recovery	= 97.99%	
Target Compounds						
1) TM MTBE			0.00	0	N.D.	UG/KG
2) TM Benzene			0.00	0	N.D.	UG/KG
4) TM Toluene			13.66	36023	<MDL	UG/KG
5) TM Chlorobenzene			18.53	33980	<MDL	UG/KG
6) TM Ethylbenzene			18.81	14416	<MDL	UG/KG
7) TM m-,p-Xylene			19.07	36975	<MDL	UG/KG
8) TM o-Xylene			20.24	13955	<MDL	UG/KG
10) TM 1,3-Dichlorobenzene			23.97	73894	<MDL	UG/KG
11) TM 1,4-Dichlorobenzene			24.21	54156	<MDL	UG/KG
12) TM 1,2-Dichlorobenzene			24.75	36490	<MDL	UG/KG

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

Data File : C:\HPCHEM\1\DATA\092501\11G11648.D Vial: 2
Acq On : 25 Sep 2001 9:20 Operator: CBN
Sample : WG105224-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-84-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 9:47 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\11G11648.D Vial: 2
Acq On : 25 Sep 2001 9:20 Operator: CBN
Sample : WG105224-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-84-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 9:47 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :

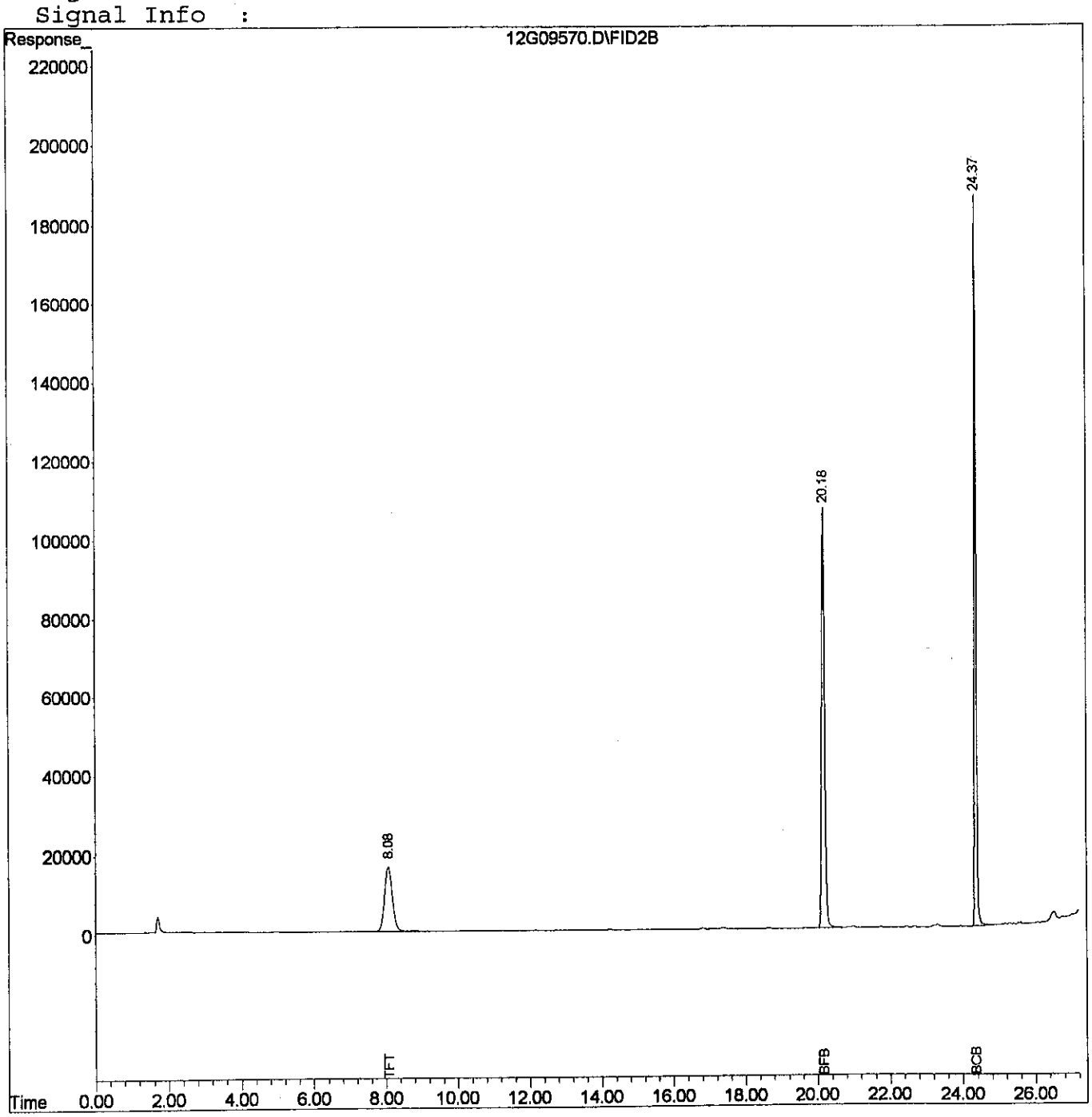
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.62	1915379	28.027 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	93.42%
9) S BFB	21.78	4896080	24.689 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	82.30%
13) S BCB	25.75	4737207	23.032 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	76.77%
Target Compounds			
1) TM MTBE	0.00	0	N.D. 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	0.00	0	N.D. UG/KG
6) TM Ethylbenzene	0.00	0	N.D. UG/KG
7) TM m-,p-Xylene	19.09	165337	~~0.690 UG/KG~~
8) TM o-Xylene	20.27	34487	~~0.181 UG/KG~~
10) TM 1,3-Dichlorobenzene	24.05	34402	~~0.188 UG/KG~~
11) TM 1,4-Dichlorobenzene	24.22	59712	~~0.302 UG/KG~~
12) TM 1,2-Dichlorobenzene	24.76	78798	~~0.453 UG/KG~~

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

Data File : C:\HPCHEM\2\DATA\092501\12G09570.D Vial: 21
Acq On : 25 Sep 2001 7:56 Operator: CBN
Sample : WG105203-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-84-38 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 8:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09570.D Vial: 21
Acq On : 25 Sep 2001 7:56 Operator: CBN
Sample : WG105203-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-84-38 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 8:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

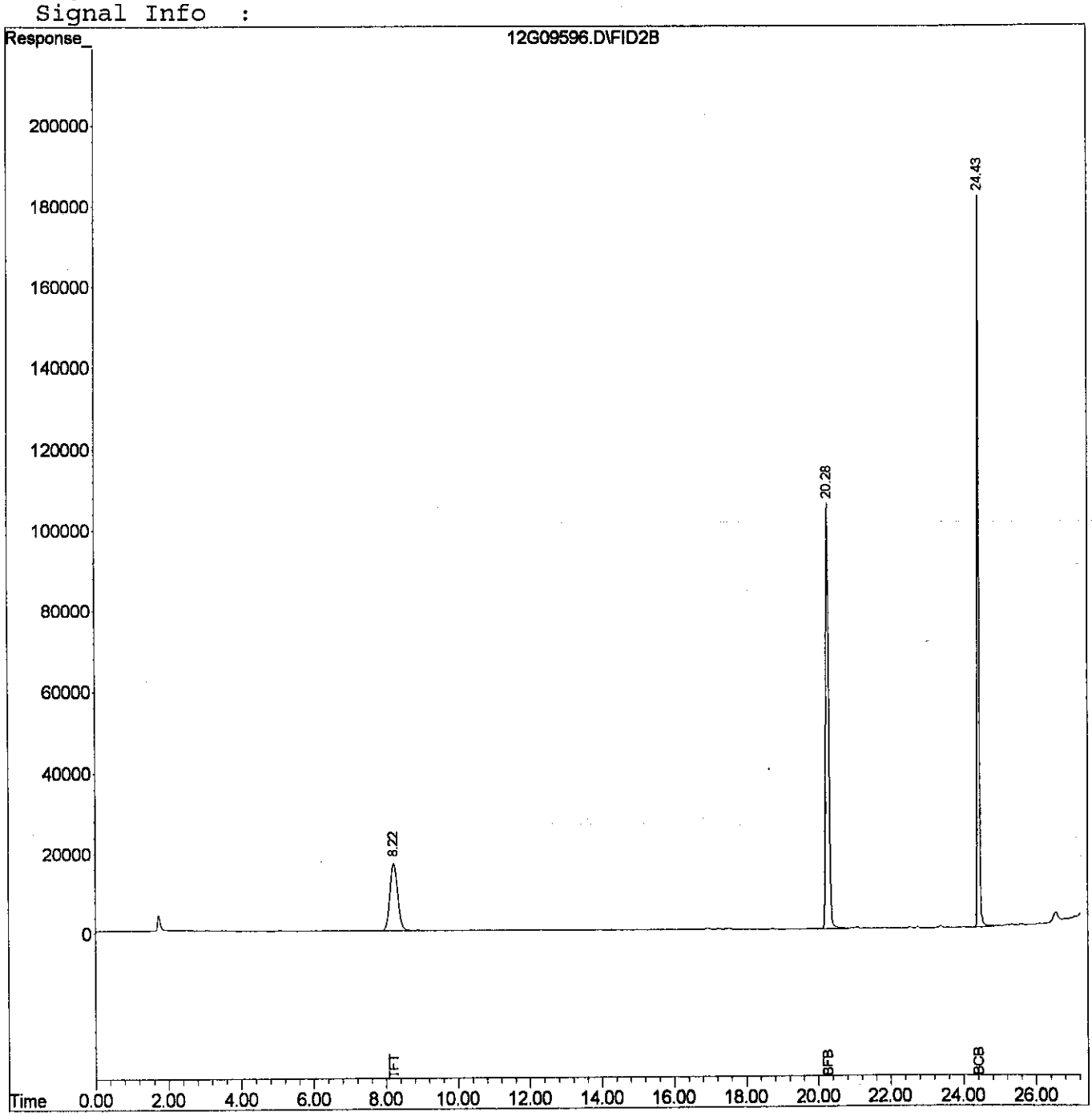
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.08	2548210	34.4997 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 115.00%			
9) S BFB	20.18	6299509	34.2934 UG/L
Spiked Amount 30.000 Recovery = 114.31%			
13) S BCB	24.37	6206063	32.4212 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.07%			
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	16.82	22069	<MDL UG/L
6) TM Ethylbenzene	17.12	21852	<MDL UG/L
7) TM m-,p-Xylene	17.38	40372	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.46	23583	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.68	19377	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.31	65101	<MDL UG/L

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

Data File : C:\HPCHEM\2\DATA\092601\12G09596.D Vial: 2
Acq On : 26 Sep 2001 7:51 Operator: CBN
Sample : WG105295-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-84-38 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 8:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092601\12G09596.D Vial: 2
Acq On : 26 Sep 2001 7:51 Operator: CBN
Sample : WG105295-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-84-38 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 8:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

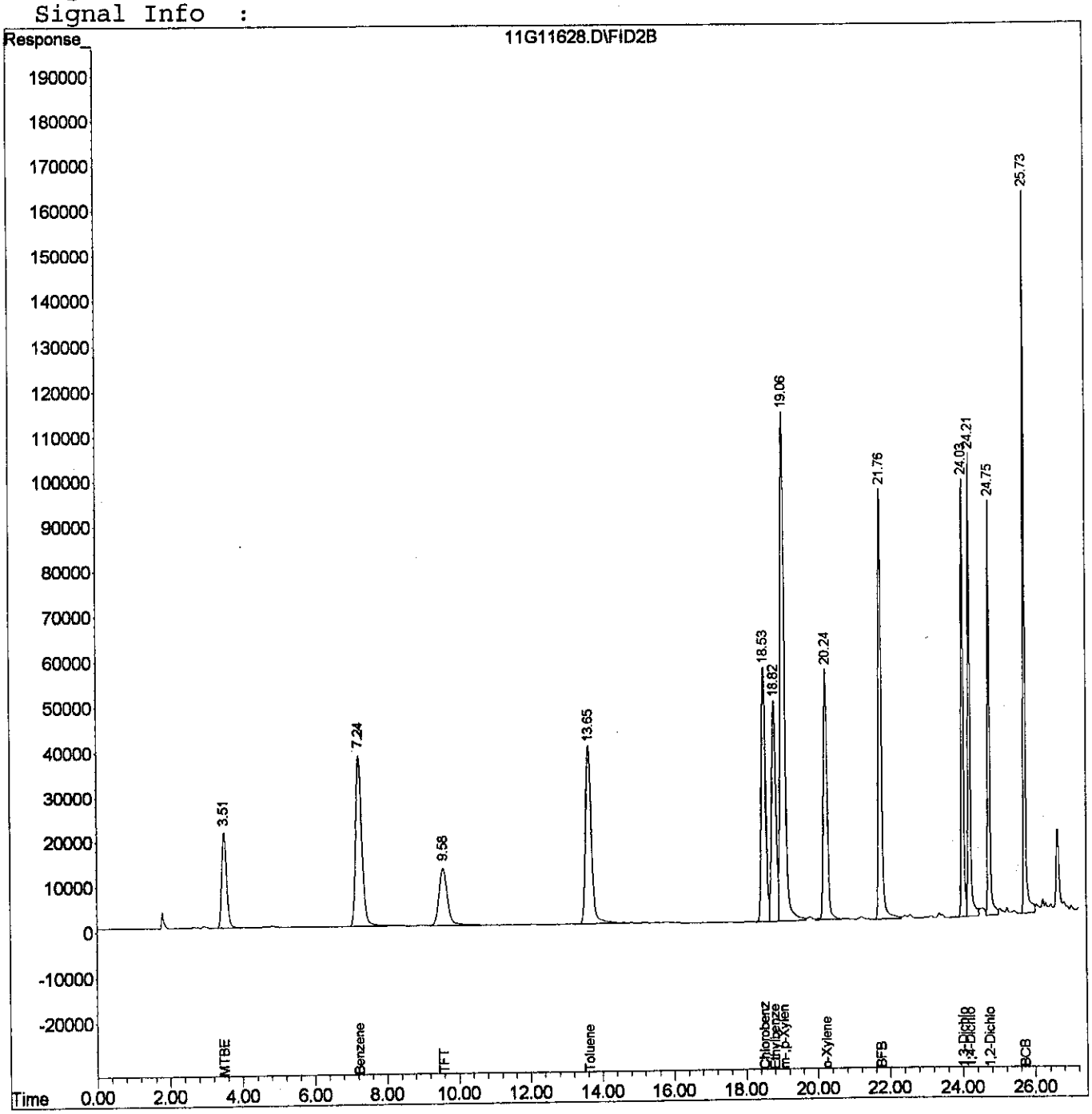
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.23	2567890	34.766 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 115.89%			
9) S BFB	20.28	6142654	33.440 UG/L
Spiked Amount 30.000 Recovery = 111.47%			
13) S BCB	24.43	5975749	31.218 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 104.06%			
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	16.95	24470	<MDL UG/L
6) TM Ethylbenzene	16.95	24470	<MDL UG/L
7) TM m-,p-Xylene	17.50	30178	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.54	27121	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.76	24918	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.38	47762	<MDL UG/L

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

Data File : C:\HPCHEM\1\DATA\092101\11G11628.D Vial: 3
Acq On : 21 Sep 2001 17:46 Operator: JLS
Sample : WG105094-02 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-83-(38,28) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 18:14 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092101\11G11628.D Vial: 3
Acq On : 21 Sep 2001 17:46 Operator: JLS
Sample : WG105094-02 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-83-(38,28) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 21 18:14 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 08/21/01
Last Update : Thu Sep 13 14:48:48 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

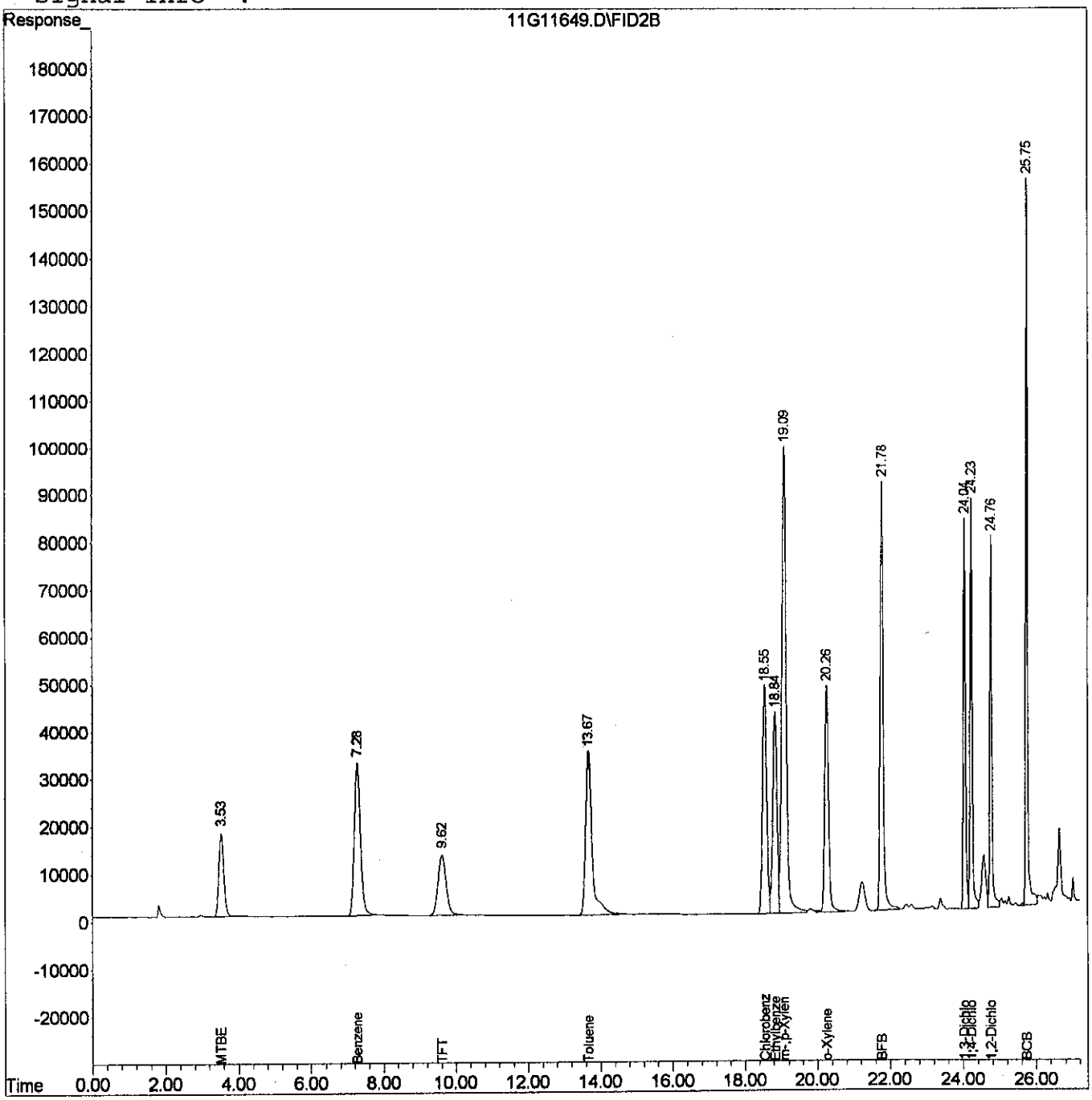
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.58	2075673	30.599 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	102.00%
9) S BFB	21.76	5538404	30.750 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	102.50%
13) S BCB	25.73	5166903	29.984 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.95%
Target Compounds			
1) TM MTBE	3.51	1963808	20.125 UG/KG
2) TM Benzene	7.24	4680557	20.948 UG/KG
4) TM Toluene	13.65	4556684	20.899 UG/KG
5) TM Chlorobenzene	18.53	4531392	21.462 UG/KG
6) TM Ethylbenzene	18.82	4060551	21.932 UG/KG
7) TM m-,p-Xylene	19.07	9600919	42.633 UG/KG
8) TM o-Xylene	20.24	4074361	20.958 UG/KG
10) TM 1,3-Dichlorobenzene	24.03	3972523	21.607 UG/KG
11) TM 1,4-Dichlorobenzene	24.21	4111366	21.923 UG/KG
12) TM 1,2-Dichlorobenzene	24.75	3538991	21.095 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.
11G11628.D 8021S.M Fri Sep 21 18:14:10 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\11G11649.D Vial: 3
Acq On : 25 Sep 2001 9:53 Operator: CBN
Sample : WG105224-01 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-84-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 10:20 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021PRES.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\11G11649.D Vial: 3
Acq On : 25 Sep 2001 9:53 Operator: CBN
Sample : WG105224-01 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-84-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 10:20 2001 Quant Results File: 8021PRES.RES

Quant Method : C:\HPCHEM\1\METHODS\8021PRES.M (Chemstation Integrator)
Title : Method 8021B- 5035 Soil 09/24/01
Last Update : Mon Sep 24 14:24:30 2001
Response via : Initial Calibration
DataAcq Meth : 8021PRES.M

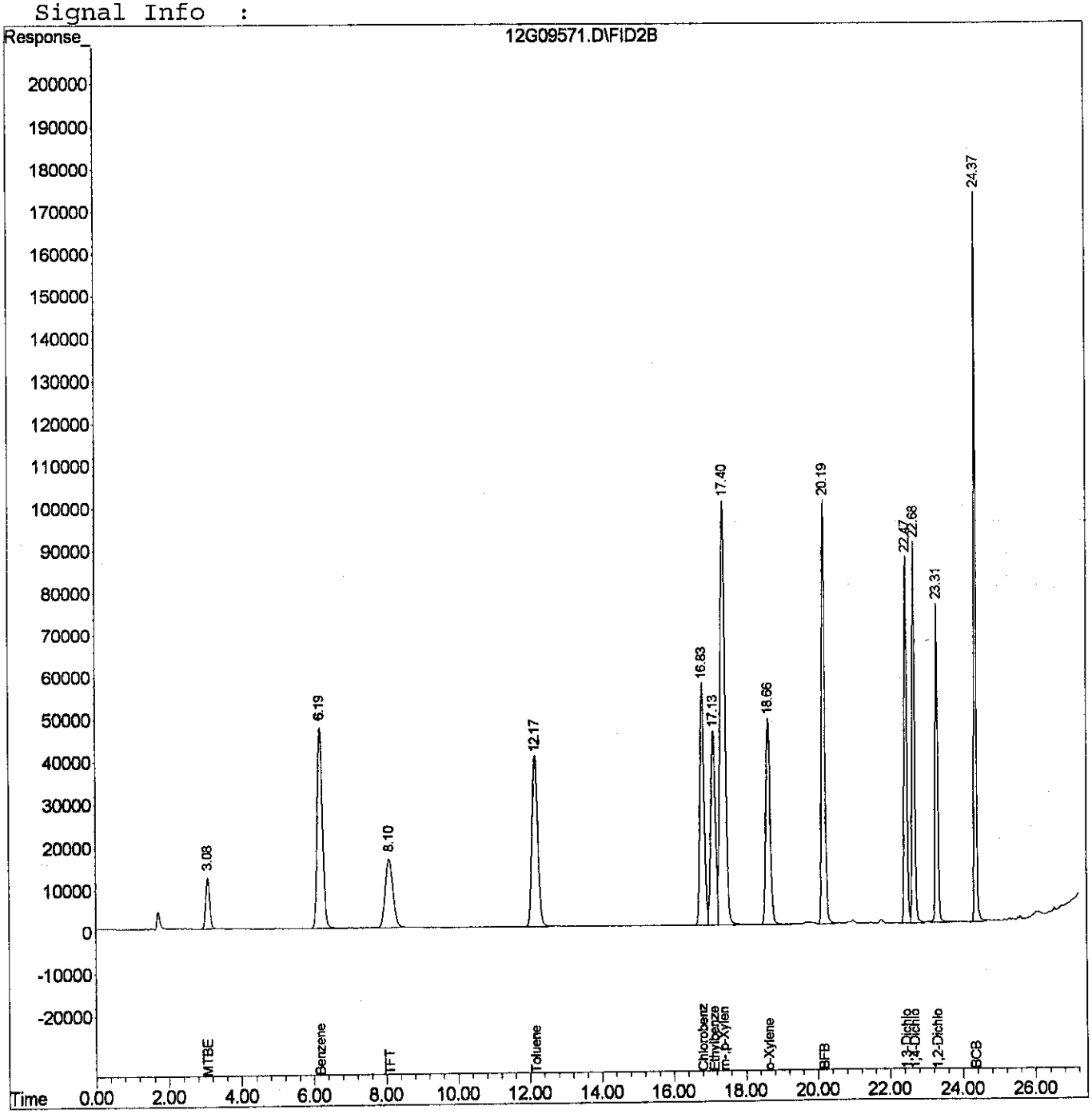
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.62	1987518	29.082 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	96.94%
9) S BFB	21.78	5182042	26.130 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	87.10%
13) S BCB	25.75	4994465	24.283 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	80.94%
Target Compounds			
1) TM MTBE	3.53	1620548	15.357 UG/KG
2) TM Benzene	7.28	3884915	17.717 UG/KG
4) TM Toluene	13.68	4296960	19.579 UG/KG
5) TM Chlorobenzene	18.55	3804023	18.412 UG/KG
6) TM Ethylbenzene	18.84	3483426	18.891 UG/KG
7) TM m-,p-Xylene	19.09	8280298	34.558 UG/KG
8) TM o-Xylene	20.27	3513444	18.412 UG/KG
10) TM 1,3-Dichlorobenzene	24.05	3301637	18.002 UG/KG
11) TM 1,4-Dichlorobenzene	24.23	3409243	17.223 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	3043297	17.491 UG/KG

Data File : C:\HPCHEM\2\DATA\092501\12G09571.D Vial: 22
Acq On : 25 Sep 2001 8:28 Operator: CBN
Sample : WG105203-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 8:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092501\12G09571.D Vial: 22
Acq On : 25 Sep 2001 8:28 Operator: CBN
Sample : WG105203-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 25 8:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

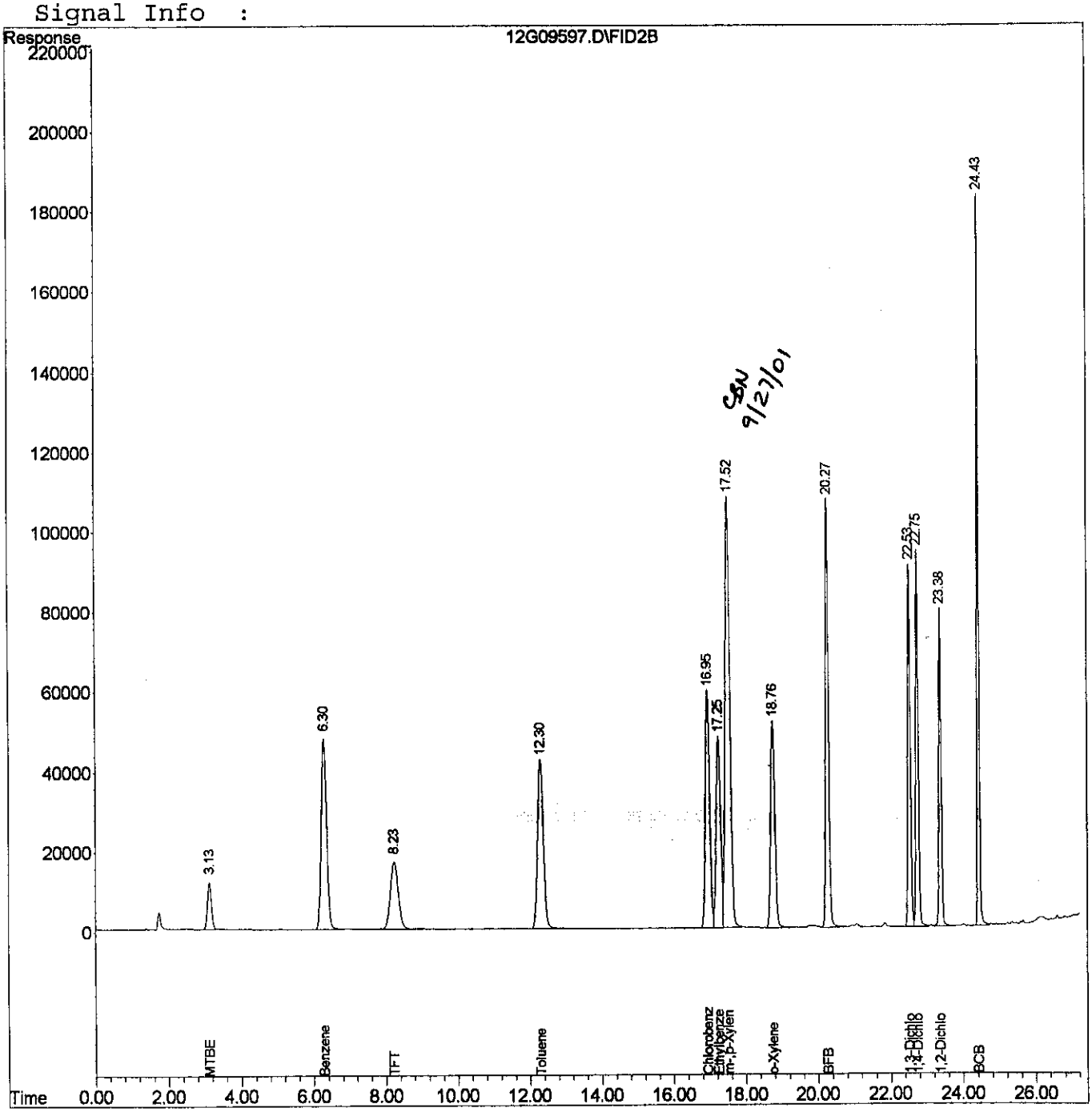
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.10	2482344	33.608 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 112.03%			
9) S BFB	20.19	5933966	32.303 UG/L
Spiked Amount 30.000 Recovery = 107.68%			
13) S BCB	24.38	5800332	30.302 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 101.01%			
Target Compounds			
1) TM MTBE	3.08	937455	19.764 UG/L
2) TM Benzene	6.19	4845349	20.736 UG/L
4) TM Toluene	12.17	4568538	21.655 UG/L
5) TM Chlorobenzene	16.83	4753456	21.420 UG/L
6) TM Ethylbenzene	17.14	4101639	22.296 UG/L
7) TM m-,p-Xylene	17.41	9616155	43.237 UG/L
8) TM o-Xylene	18.66	4113867	21.517 UG/L
10) TM 1,3-Dichlorobenzene	22.47	4295347	21.409 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4330789	21.403 UG/L
12) TM 1,2-Dichlorobenzene	23.32	3461177	21.470 UG/L

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

Data File : C:\HPCHEM\2\DATA\092601\12G09597.D Vial: 3
Acq On : 26 Sep 2001 8:23 Operator: CBN
Sample : WG105295-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 27 13:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092601\12G09597.D Vial: 3
Acq On : 26 Sep 2001 8:23 Operator: CBN
Sample : WG105295-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 27 13:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

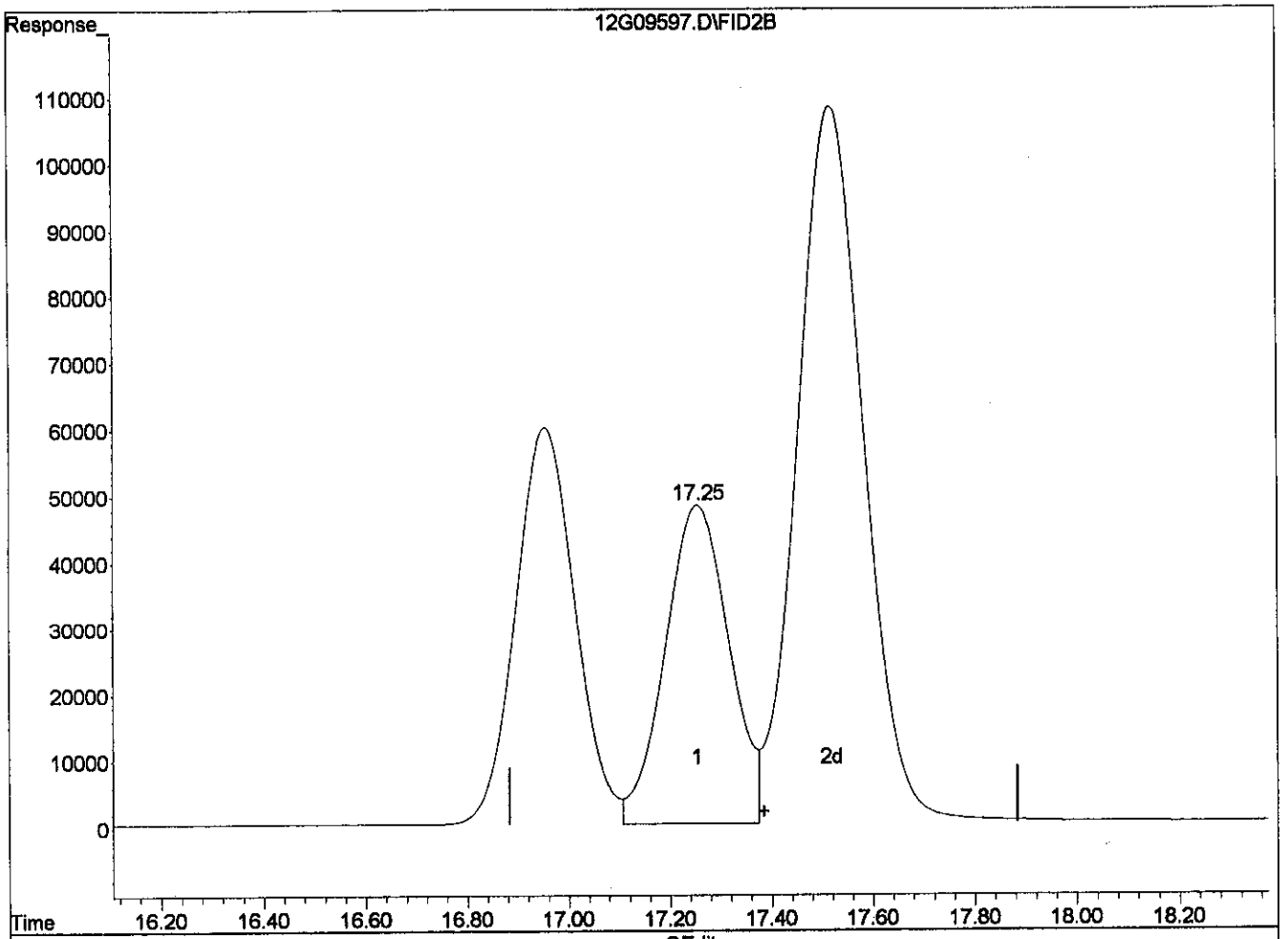
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.24	2584555	34.992 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 116.64%	
9) S BFB	20.27	6166642	33.570 UG/L
Spiked Amount 30.000		Recovery = 111.90%	
13) S BCB	24.43	6026333	31.482 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 104.94%	
Target Compounds			
1) TM MTBE	3.13	928598	19.577 UG/L
2) TM Benzene	6.30	4943284	21.155 UG/L
4) TM Toluene	12.31	4754032	22.534 UG/L
5) TM Chlorobenzene	16.96	4849114	21.851 UG/L
6) TM Ethylbenzene	17.25	4188712	22.769 UG/L
7) TM m-,p-Xylene	17.52	9729514	43.747 UG/L m
8) TM o-Xylene	18.76	4160200	21.759 UG/L
10) TM 1,3-Dichlorobenzene	22.54	4408450	21.973 UG/L
11) TM 1,4-Dichlorobenzene	22.75	4437451	21.931 UG/L
12) TM 1,2-Dichlorobenzene	23.38	3530623	21.901 UG/L

CBN 9/27/01

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09597.D 8021W.M Thu Sep 27 13:02:07 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092601\12G09597.D Vial: 3
Acq On : 26 Sep 2001 8:23 Operator: CBN
Sample : WG105295-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 8:50 2001 Quant Results File: 8021W.RES

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration



(7) m-,p-Xylene (TM)

17.25min 18.834UG/L

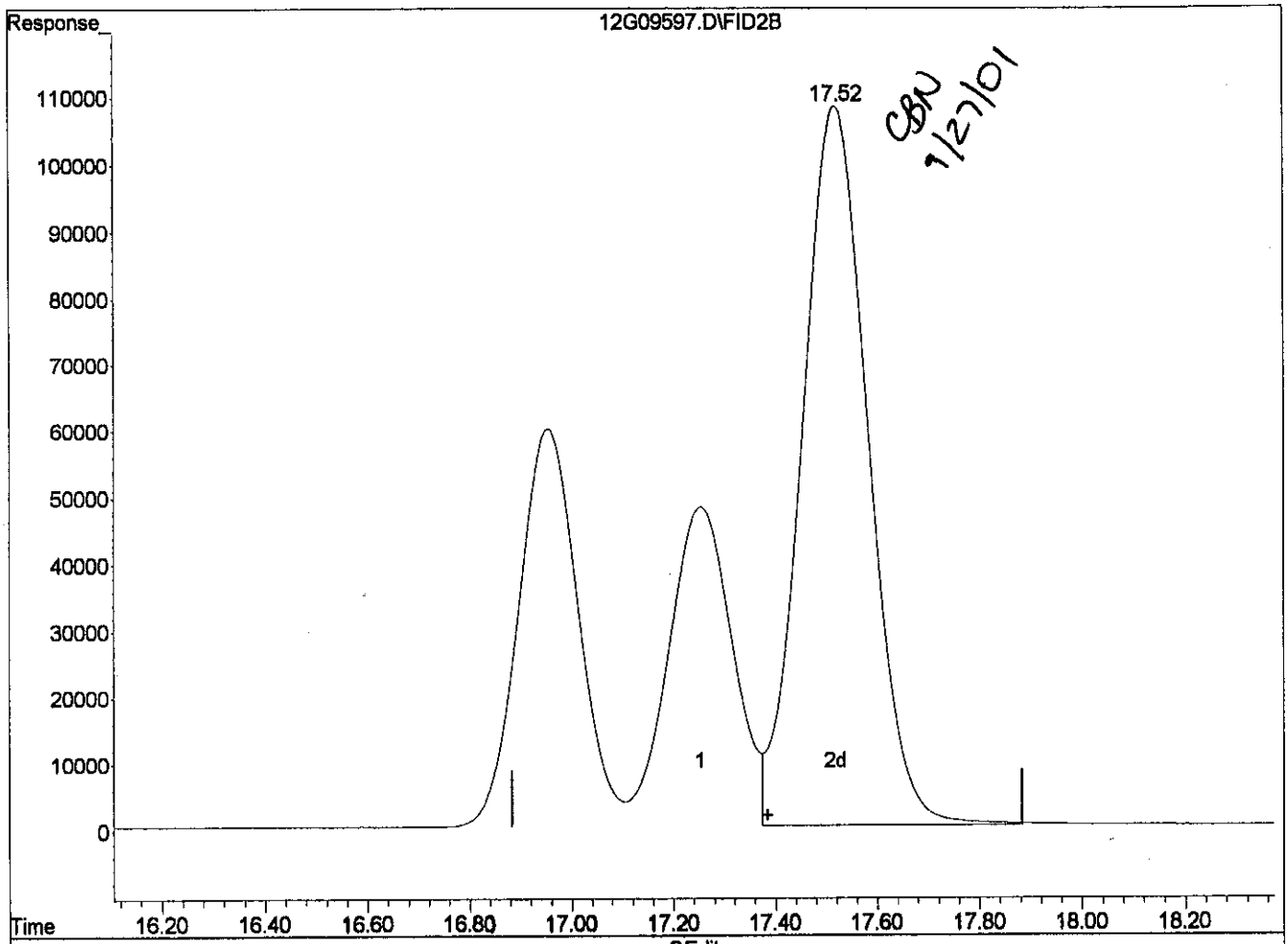
response 4188712

(+) = Expected Retention Time

12G09597.D 8021W.M Thu Sep 27 13:01:47 2001

Data File : C:\HPCHEM\2\DATA\092601\12G09597.D Vial: 3
Acq On : 26 Sep 2001 8:23 Operator: CBN
Sample : WG105295-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(83-38,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 26 8:50 2001 Quant Results File: 8021W.RES

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration



(7) m-,p-Xylene (TM)

17.52min 43.747UG/L m

response 9729514

9/26/01

(+) = Expected Retention Time

12G09597.D 8021W.M Thu Sep 27 13:02:01 2001

Injection Log

Directory: C:\HPCHEM\1\DATA\082101

WG103258

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g10924.d	1.	8021 STD1 1PPB 5G DNR	7,1 S-(83-08,82-42)	21 Aug 2001 08:37
2	2	11g10925.d	1.	8021 STD1 1PPB 5G ✓	7,1 S-(83-08,82-42)	21 Aug 2001 09:09
3	3	11g10926.d	1.	8021 STD2 10PPB 5G ✓	7,1 S-(83-08,82-42)	21 Aug 2001 09:41
4	4	11g10927.d	1.	8021 STD3 20PPB 5G ✓	7,1 S-(83-08,82-42)	21 Aug 2001 10:13
5	5	11g10928.d	1.	8021 STD4 50PPB 5G ✓	7,1 S-(83-08,82-42)	21 Aug 2001 10:45
6	6	11g10929.d	1.	8021 STD5 100PPB 5G ✓	7,1 S-(83-08,82-42)	21 Aug 2001 11:18
7	7	11g10930.d	1.	8021 STD6 200PPB 5G ✓	7,1 S-(83-08,82-42)	21 Aug 2001 11:50
8	8	11g10931.d	1.	ALT SOURCE 20PPB 5G ✓	7,1 S-(83-10,82-42)	21 Aug 2001 12:32
9	1	11g10932.d	1.	SOIL BLANK 5G ✓	7,1 S-83-21	21 Aug 2001 13:19
10	2	11g10933.d	1.	SOIL LCS 20PPB 5G ✓	7,1 S-83-(10,21)	21 Aug 2001 13:51
11	3	11g10934.d	1.	L0108395-01 00 5G ✓	7,1 S-83-21	21 Aug 2001 14:34
12	4	11g10935.d	1.	L0108395-02 00 5G ✓	7,1 S-83-21	21 Aug 2001 15:06
13	5	11g10936.d	1.	L0108395-05 00 5G ✓	7,1 S-83-21	21 Aug 2001 15:39
14	6	11g10937.d	1.	L0108395-06 MS 00 5G ✓	7,1 S-83-(10,21)	21 Aug 2001 16:11
15	7	11g10938.d	1.	L0108395-07 MSD 00 5G ✓	7,1 S-83-(10,21)	21 Aug 2001 16:43
16	8	11g10939.d	1.	L0108395-08 00 5G ✓	7,1 S-83-21	21 Aug 2001 17:16
17	9	11g10940.d	1.	L0108395-09 00 5G ✓	7,1 S-83-21	21 Aug 2001 17:48
18	10	11g10941.d	1.	L0108395-10 00 5G ✓	7,1 S-83-21	21 Aug 2001 18:20
19	11	11g10942.d	1.	8021 STD 20PPB 5G ✓	7,1 S-83-(10,21)	21 Aug 2001 18:53
20	12	11g10943.d	1.	L0108395-11 00 5G ✓	7,1 S-83-21	21 Aug 2001 19:25
21	13	11g10944.d	1.	L0108395-12 00 5G ✓	7,1 S-83-21	21 Aug 2001 19:57
22	14	11g10945.d	1.	L0108395-13 00 5G ✓	7,1 S-83-21	21 Aug 2001 20:29
23	15	11g10946.d	1.	L0108407-01 00 5G ✓	7,1 S-83-21	21 Aug 2001 21:02
24	16	11g10947.d	1.	L0108407-02 00 5G ✓	7,1 S-83-21	21 Aug 2001 21:34
25	17	11g10948.d	1.	L0108407-03 00 5G ✓	7,1 S-83-21	21 Aug 2001 22:06
26	18	11g10949.d	1.	L0108395-03 "A" 00 5ML pH<2 ✓	1,1 S-83-21	21 Aug 2001 22:39
27	19	11g10950.d	1.	L0108395-04 00 "A" 5ML pH<2 ✓	1,1 S-83-21	21 Aug 2001 23:11
28	20	11g10951.d	1.	L0108407-28 00 5ML pH<2 ✓	1,1 S-83-21	21 Aug 2001 23:44
29	21	11g10952.d	1.	L0108407-29 00 "A" 5ML pH<2 ✓	1,1 S-83-21	22 Aug 2001 00:16
30	22	11g10953.d	1.	8021 STD 20PPB 5G ✓	7,1 S-83-(10,21)	22 Aug 2001 00:48
31	23	11g10954.d	1.	L0108407-37 00 5ML pH<2 ✓	1,1 S-83-21	22 Aug 2001 01:21
32	24	11g10955.d	1.	L0108407-38 00 "A" 5ML pH<2 ✓	1,1 S-83-21	22 Aug 2001 01:53
33	25	11g10956.d	1.	8021 STD 20PPB 5G ✓	7,1 S-83-(10,21)	22 Aug 2001 02:25

WG09410 ANALYST C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09379.d	1.	8021 STD1 1PPB 5ML	1,1 S-(84-17,83-28)	10 Sep 2001 0
2	21	12g09380.d	1.	8021 STD1 1PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 0
3	22	12g09381.d	1.	8021 STD2 10PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 0
4	23	12g09382.d	1.	8021 STD3 20PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 0
5	24	12g09383.d	1.	8021 STD4 50PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 0
6	25	12g09384.d	1.	8021 STD5 100PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 1
7	28	12g09385.d	1.	8021 STD6 200PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 1
8	29	12g09386.d	1.	ALT SOURCE 10PPB 5ML ✓	1,1 S-83-(38,28)	10 Sep 2001 1
9	30	12g09387.d	100.	EXT BLANK 9/10/01 100X ✓	7,100 S-83-28	10 Sep 2001 1
10	31	12g09388.d	100.	EXT LCS 9/10/01 100X ✓	7,100 S-83-(38,28)	10 Sep 2001 1
11	20	12g09389.d	10000.	L0108670-06 5G/10ML 10000X ✓	7,10000 S-83-28	10 Sep 2001 1
12	21	12g09390.d	100.	L0108670-09 5G/10ML 100X HIGH SSS	7,100 S-83-28	10 Sep 2001 1
13	22	12g09391.d	100.	L0108670-09 DUP 5G/10ML 100X ⊥	7,100 S-83-28	10 Sep 2001 1
14	23	12g09392.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	10 Sep 2001 1

WG105094

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g11626.d	1.	WG105090-01 8021 STD 20PPB 5G ✓	7,1 S-83-(38,28)	21 Sep 2001 16:2
2	2	11g11627.d	1.	WG105094-01 SOIL BLANK 5G ✓	7,1 S-83-28	21 Sep 2001 17:1
3	3	11g11628.d	1.	WG105094-02 SOIL LCS 20PPB 5G ✓	7,1 S-83-(38,28)	21 Sep 2001 17:4
4	4	11g11629.d	1.	L0109338-10 A 6.35G DNR	7,1 S-83-28	21 Sep 2001 18:1
5	5	11g11630.d	1.	L0109338-11 A 6.56G	7,1 S-83-28	21 Sep 2001 18:5
6	6	11g11631.d	1.	L0109342-01 A 4.53G ~~DNR~~	7,1 S-83-28	21 Sep 2001 19:2
7	7	11g11632.d	1.	L0109340-02 A 4.90G DNR	7,1 S-83-28	21 Sep 2001 19:5
8	8	11g11633.d	1.	L0109340-03 A 4.98G	7,1 S-83-28	21 Sep 2001 20:2
9	9	11g11634.d	1.	L0109340-01 A 4.50G	7,1 S-83-28	21 Sep 2001 20:5
10	10	11g11635.d	1.	BATCH BLANK 9/21/01 A 5G	7,1 S-83-28	21 Sep 2001 21:3
11	11	11g11636.d	1.	WG105090-02 8021 STD 20PPB5G	7,1 S-83-(38,28)	21 Sep 2001 22:0

RR ALL

CCV LOW

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g11637.d	1.	WG105100-01 8021 STD 20PPB 5G	7,1 S-(83-38,84-39)	24 Sep 2001 09:03
2	1	11g11638.d	1.	WG105100-01 8021 STD 1 1PP...✓	7,1 S-(83-38,84-17)	24 Sep 2001 11:08
3	2	11g11639.d	1.	WG105100-01 8021 STD 1 1PP...DNR	7,1 S-(83-38,84-17)	24 Sep 2001 11:41
4	3	11g11640.d	1.	WG105100-02 8021 STD 2 10P...✓	7,1 S-(83-38,84-17)	24 Sep 2001 12:13
5	4	11g11641.d	1.	WG105100-03 8021 STD 3 20P...✓	7,1 S-(83-38,84-17)	24 Sep 2001 12:45
6	5	11g11642.d	1.	WG105100-04 8021 STD 4 50P...✓	7,1 S-(83-38,84-17)	24 Sep 2001 13:17
7	6	11g11643.d	1.	WG105100-05 8021 STD 5 100...✓	7,1 S-(83-38,84-17)	24 Sep 2001 13:49
8	7	11g11644.d	1.	WG105100-06 8021 STD 6 200...✓	7,1 S-(83-38,84-17)	24 Sep 2001 14:22
9	8	11g11645.d	1.	WG105100-07 8021 ALT SOURCE.DNR	7,1 S-(83-38,84-38)	24 Sep 2001 15:43
10	1	11g11646.d	1.	WG105100-07 8021 ALT SOURCE...✓	7,1 S-(83-38,84-38)	24 Sep 2001 16:59

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g11647.d	1.	WG105216-01 8021 STD 20PPB 5G ✓	7,1 S-(83-38,84-39)	25 Sep 2001 08:3
2	2	11g11648.d	1.	WG105224-01 SOIL BLANK 5G ✓	7,1 S-84-39	25 Sep 2001 09:2
3	3	11g11649.d	1.	WG105224-01 SOIL LCS 20PPB 5G ✓	7,1 S-84-39	25 Sep 2001 09:5
4	1	11g11650.d	1.	L0109338-11 B 5.51G ✓	7,1 S-84-39	25 Sep 2001 10:4
5	2	11g11651.d	1.	L0109342-01 B 4.66G ✓	7,1 S-84-39	25 Sep 2001 11:1
6	3	11g11652.d	1.	L0109360-01 A 5.67G ✓ RRCU	7,1 S-84-39	25 Sep 2001 11:4
7	4	11g11653.d	1.	WG105216-02 8021 STD 20PPB 5G ccl 7,1 S-(83-38,84-39)		25 Sep 2001 13:1
8	1	11g11654.d	1.	WG105266-01 8021 STD 20PPB 5G ✓	7,1 S-(83-38,84-39)	25 Sep 2001 14:1
9	1	11g11655.d	1.	WG105271-01 SOIL BLANK 5G ✓	7,1 S-84-39	25 Sep 2001 14:5
10	2	11g11656.d	1.	WG105271-02 SOIL LCS 5G ✓	7,1 S-(83-38,84-39)	25 Sep 2001 15:2
11	1	11g11657.d	1.	L0109364-33 00 5G ✓	7,1 S-84-39	25 Sep 2001 16:2
12	2	11g11658.d	1.	L0109364-39 00 5G ✓	7,1 S-84-39	25 Sep 2001 16:5
13	3	11g11659.d	1.	L0109364-40 00 5G ✓	7,1 S-84-39	25 Sep 2001 17:2
14	4	11g11660.d	1.	L0109364-41 00 5G ✓	7,1 S-84-39	25 Sep 2001 17:5
15	5	11g11661.d	1.	L0109364-42 00 5G ✓	7,1 S-84-39	25 Sep 2001 18:3
16	6	11g11662.d	1.	L0109364-43 00 5G ✓	7,1 S-84-39	25 Sep 2001 19:0
17	7	11g11663.d	1.	L0109368-01 00 5G ✓	7,1 S-84-39	25 Sep 2001 19:3
18	8	11g11664.d	1.	L0109368-02 00 5G ✓	7,1 S-84-39	25 Sep 2001 20:0
19	9	11g11665.d	1.	WG105266-02 8021 STD 20PPB 5G ✓	7,1 S-(83-38,84-39)	25 Sep 2001 20:4
20	10	11g11666.d	1.	L0109368-03 00 5G ✓	7,1 S-84-39	25 Sep 2001 21:1
21	11	11g11667.d	1.	L0109368-04 00 5G ✓	7,1 S-84-39	25 Sep 2001 21:4
22	12	11g11668.d	1.	L0109368-05 00 5G ✓	7,1 S-84-39	25 Sep 2001 22:1
23	13	11g11669.d	1.	WG105271-03 L0109368-20 00 5G ✓	7,1 S-84-39	25 Sep 2001 22:5
24	14	11g11670.d	1.	WG105271-04 L0109368-21 MS ... ✓	7,1 S-(83-38,84-39)	25 Sep 2001 23:2
25	15	11g11671.d	1.	WG105271-05 L0109368-22 MSD.. ✓	7,1 S-(83-38,84-39)	25 Sep 2001 23:5
26	16	11g11672.d	1.	L0109352-01 5G ✓	7,1 S-84-39	26 Sep 2001 00:2
27	17	11g11673.d	1.	L0109352-02 5G ✓	7,1 S-84-39	26 Sep 2001 01:0
28	18	11g11674.d	1.	L0109352-03 5G ✓	7,1 S-84-39	26 Sep 2001 01:3
29	19	11g11675.d	1.	L0109352-04 5G ✓	7,1 S-84-39	26 Sep 2001 02:0
30	20	11g11676.d	1.	WG105266-03 8021 STD 20PPB 5G ✓	7,1 S-(83-38,84-39)	26 Sep 2001 02:3

Directory: C:\HPCHEM\2\DATA\092501

WG105203

ANALYST: CE

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09569.d	1.	WG105202-01 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	25 Sep 2001 07:2
2	21	12g09570.d	1.	WG105203-01 WATER BLANK 5ML ✓	1,1 S-84-38	25 Sep 2001 07:5
3	22	12g09571.d	1.	WG105203-02 WATER LCS 20PPB... ✓	1,1 S-(83-38,84-38)	25 Sep 2001 08:2
4	20	12g09572.d	1.	WG105203-03 L0109356-01 B 5ML ✓	1,1 S-84-38	25 Sep 2001 09:0
5	21	12g09573.d	1.	WG105203-04 L0109356-01 MS ... ✓	1,1 S-84-38	25 Sep 2001 09:4
6	22	12g09574.d	1.	WG105203-05 L0109356-01 MSD... ✓	1,1 S-84-38	25 Sep 2001 10:1
7	23	12g09575.d	1.	L0109356-03 B 250uL 20X pH<2 ✓	1,1 S-84-38	25 Sep 2001 10:4
8	24	12g09576.d	1.	L0109356-04 B 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 11:1
9	25	12g09577.d	1.	L0109356-05 B 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 11:5
10	30	12g09578.d	1.	L0109356-11 B 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 12:2
11	31	12g09579.d	1.	L0109356-12 B 5ML pH<2 RE @ 5x (TOL, SES)	1,1 S-84-38	25 Sep 2001 12:5
12	32	12g09580.d	1.	WG105202-02 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	25 Sep 2001 13:2
13	20	12g09581.d	1.	L0109389-01 A 5ML pH<2 ✓ HIGH SES	1,1 S-84-38	25 Sep 2001 14:0
14	21	12g09582.d	20.	L0109356-13 A 250uL pH<2 20X ✓ RE c/o (MOS)	1,20 S-84-38	25 Sep 2001 14:3
15	22	12g09583.d	20.	L0109356-14 A 250uL pH<2 20X ✓	1,20 S-84-38	25 Sep 2001 15:1
16	23	12g09584.d	20.	L0109356-15 A 250uL pH<2 20X ✓	1,20 S-84-38	25 Sep 2001 15:4
17	24	12g09585.d	1.	L0109356-16 A 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 16:1
18	25	12g09586.d	1.	L0109356-17 A 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 16:4
19	30	12g09587.d	50.	L0109356-18 A 100uL pH<2 50X ✓	1,50 S-84-38	25 Sep 2001 17:2
20	31	12g09588.d	1.	L0109356-19 A 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 17:5
21	32	12g09589.d	1.	L0109340-04 A 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 18:2
22	1	12g09590.d	1.	L0109340-05 A 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 18:5
23	2	12g09591.d	1.	WG105202-03 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	25 Sep 2001 19:3
24	3	12g09592.d	1.	L0109342-02 A 5ML pH<2 ✓	1,1 S-84-38	25 Sep 2001 20:0
25	4	12g09593.d	50.	L0109389-01 A 100uL 50X pH<2 CONF SMI	1,50 S-84-38	25 Sep 2001 20:3
26	5	12g09594.d	1.	WG105202-04 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	25 Sep 2001 21:0

REANALYSIS RR#

L0109356-12
-13

Directory: C:\HPCHEM\2\DATA\092601

WG105295

ANALYST: C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g09595.d	1.	WG105294-01 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	26 Sep 2001 07:1
2	2	12g09596.d	1.	WG105295-01 WATER BLANK 5ML ✓	1,1 S-84-38	26 Sep 2001 07:5
3	3	12g09597.d	1.	WG105295-02 WATER LCS 20PPB... ✓	1,1 S-(83-38,84-38)	26 Sep 2001 08:2
4	20	12g09598.d	1.	ANTI-FOAM BLANK 5ML ✓	1,1 S-84-38	26 Sep 2001 09:2
5	21	12g09599.d	1.	L0109373-01 00 A 5ML pH<2 RR CC HIGH SES	1,1 S-84-38	26 Sep 2001 10:0
6	22	12g09600.d	1.	L0109373-02 00 A 5ML pH=5 ⊥	1,1 S-84-38	26 Sep 2001 10:3
7	21	12g09601.d	5.	WG105295-03 L0109356-12 A 1... RR @ 100X	1,5 S-84-38	26 Sep 2001 11:1
8	22	12g09602.d	5.	QC ONLY WG105295-04 L0109356-12 MS ... QC ONLY	1,5 S-(83-38,84-38)	26 Sep 2001 11:4
9	23	12g09603.d	5.	WG105295-05 L0109356-12 MSD... ⊥	1,5 S-(83-38,84-38)	26 Sep 2001 12:1
10	24	12g09604.d	20.	L0109356-13 A 250uL pH<2 20X RR c/o	1,5 S-(83-38,84-38)	26 Sep 2001 12:5
11	25	12g09605.d	1.	L0109342-03 A 5ML pH<2 ✓	1,1 S-84-38	26 Sep 2001 13:2
12	32	12g09606.d	1.	WG105294-02 8021 STD 20PPB 5ML ✓ (RRS)	1,1 S-(83-38,84-38)	26 Sep 2001 13:5
13	21	12g09607.d	100.	L0109356-12 "A" 50uL pH<2 100X RR @ 1000X	1,1 S-(83-38,84-38)	26 Sep 2001 14:4
14	22	12g09608.d	20.	L0109356-13 "A" 250uL pH<2 20X ✓	1,20 S-84-38	26 Sep 2001 15:1
15	23	12g09609.d	1.	L0109392-01 "A" 5ML pH<2 ✓	1,1 S-84-38	26 Sep 2001 15:4
16	24	12g09610.d	50.	L0109392-02 "A" 100uL pH<2 50X ✓	1,50 S-84-38	26 Sep 2001 16:2
17	25	12g09611.d	20.	L0109392-03 "A" 250uL pH<2 20X RR @ 5x	1,20 S-84-38	26 Sep 2001 16:5
18	30	12g09612.d	1.	L0109392-04 "A" 5ML pH<2 ✓	1,1 S-84-38	26 Sep 2001 17:2
19	31	12g09613.d	1.	L0109392-05 "A" 5ML pH<2 RR @ 5x (MTBE)	1,1 S-84-38	26 Sep 2001 17:5
20	32	12g09614.d	1.	L0109392-06 "A" 5ML pH<2 RR c/o	1,1 S-84-38	26 Sep 2001 18:2
21	1	12g09615.d	1.	L0109392-07 "A" 5ML pH<2 ✓	1,1 S-84-38	26 Sep 2001 19:0
22	2	12g09616.d	20.	L0109392-08 "A" 250uL pH<2 20X RR START	1,20 S-84-38	26 Sep 2001 19:3
23	3	12g09617.d	1.	WG105294-03 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	26 Sep 2001 20:0
24	4	12g09618.d	20.	L0109392-09 "A" 250uL pH<2 20X ✓	1,20 S-84-38	26 Sep 2001 20:3
25	5	12g09619.d	1.	L0109392-10 "A" 5ML pH<2 RR @ 5x (MTBE)	1,1 S-84-38	26 Sep 2001 21:1
26	8	12g09620.d	1.	WG105294-04 8021 STD 20PPB 5ML ✓	1,1 S-(83-38,84-38)	26 Sep 2001 21:4

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
UPS	L0109338-10	A	9/20/01	1215	9/21/01	1555	6.35	5ml	—	gS	No Na_2SO_4
	10	B				1558	6.56		—		
	10	C				1600	5.40	—	10ml		
	11	A		1115		1601	5.35	5ml	—		No Na_2SO_4
	11	B				1602	5.51		—		
	11	C				1603	5.26	—	10ml		
CCI	L0109340-01	A		1305		1645	4.50	5ml	—		No Na_2SO_4
	01	B				1646	4.58		—		
	01	C				1647	4.00	—	10ml		
	02	A		1315		1648	4.90	5ml	—		No Na_2SO_4
	02	B				1650	4.98		—		
	02	C				1651	4.88	—	10ml		
	03	A		1330		1700	4.98	5ml	—		No Na_2SO_4
	03	B				1702	4.26		—		
	03	C				1703	4.97	—	10ml		
	L0109342-01	A		1010		1705	4.53	5ml	—		No Na_2SO_4
	01	B				1706	4.66		—		
	01	C				1707	4.95	—	10ml		
Batch Blank	Blank	A	NA	NA		1708	5.00	5ml	—		No Na_2SO_4
		B				1709			—		
		C				1710		—	10ml		

Supervisor Review: MA

Comments:

* = improperly sealed cap

EF = sample effervesced

• = improperly sealed plunger

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0109342

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: There were no MS/MSD results associated with any water sample in working 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: HV

REVIEWED: _____ DATE: 10/4/01

Rev. 7/14/00

Analyst: HV
Method: 8015 - PRO - Water (09242-03 -03 -08) RE
Instrument: HP2
Work Group: MG 105248

need level 4

09340
09342

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	not
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	NA
Check Standards	✓
Project / Client Specific Requirements	NA
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	not
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
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 HV 9/25/01

Secondary Reviewer Initials & Date Checked ECZ 9/25/01

✓ • 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 ECZ 9/25/01

Comments:

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Analyst: HV
Method: 8081m PRD 3001
Instrument: HP9
Work Group: KG105340

09340 (01-03)
09342 (01)
09345m (01)

level 4

	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 HV 10/1/01

Secondary Reviewer Initials & Date Checked 10/1/01

- 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 10/1/01

Comments: Several sample fractions 340-01, -02 and 345m-01 required dilution analyses and surrogate recoveries for these samples were reported (flag as DL

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0109342

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HY Date: 10/3/01

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2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG105258
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG105122

EXT DATE : 09-24-01
EXT BENCH SHEET : V172-P151
BLK FILENAME : 2G15394
LCS FILENAME : 2G15396
LCS DUP FILENAME : 2G15397
INSTRUMENT : HP 2

RUN DATE : 09-25-01
SMPL ID : NA
SMPL FLNM : NA
MS FLNM : NA
MSD FLNM : NA

Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	3042	2772	NA	3400	NA	NA	NA	89.5	81.5	55	118	NA	NA	NA	41	101	9	NA	20
SURROGATE:																						
o-TERPHENYL		17.8	20	30.1	25.9	NA	20	NA	NA	89.2	150	129	49	174	NA	NA	NA	49	174	16	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG105346
METHOD : 8015-PRO
MATRIX : soil
CONCENTRATION UNITS : ug / kg
PREP WORK GRP : WG105209

EXT DATE : 9/28/01
EXT BENCH SHEET : V172 P183
BLK FILENAME : 2G15587
LCS FILENAME : 2G15588
INSTRUMENT : HP2

RUN DATE : 9/28/01
SMPL ID : L0109342-01
SMPL FLNM : 2G15589
MS FLNM : 2G15590
MSD FLNM : 2G15591

ANALYTE	CONCENTRATION , ug / kg									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
TRPH-PRO (C8 - C40)	10000	7399	136000	104207	NA	17020	136000	98631	98801	U	76.6	NA	63	153	17020	60.0	60.1	63	153	NA	0	25
SURROGATE																						
o-TERPHENYL		849	800	785	NA	769	800	753	693	106	98.1	NA	62	109	96.1	94.2	86.6	62	109	NA	8	25

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Acq On : 28 Sep 2001 15:24 Operator: RDC
Sample : WG105299-01 L0109342-01 REF PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
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	396226	768.927 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 96.12%			
Target Compounds			
1) H Petroleum Range	3.60	6610640	17019.526 ppb

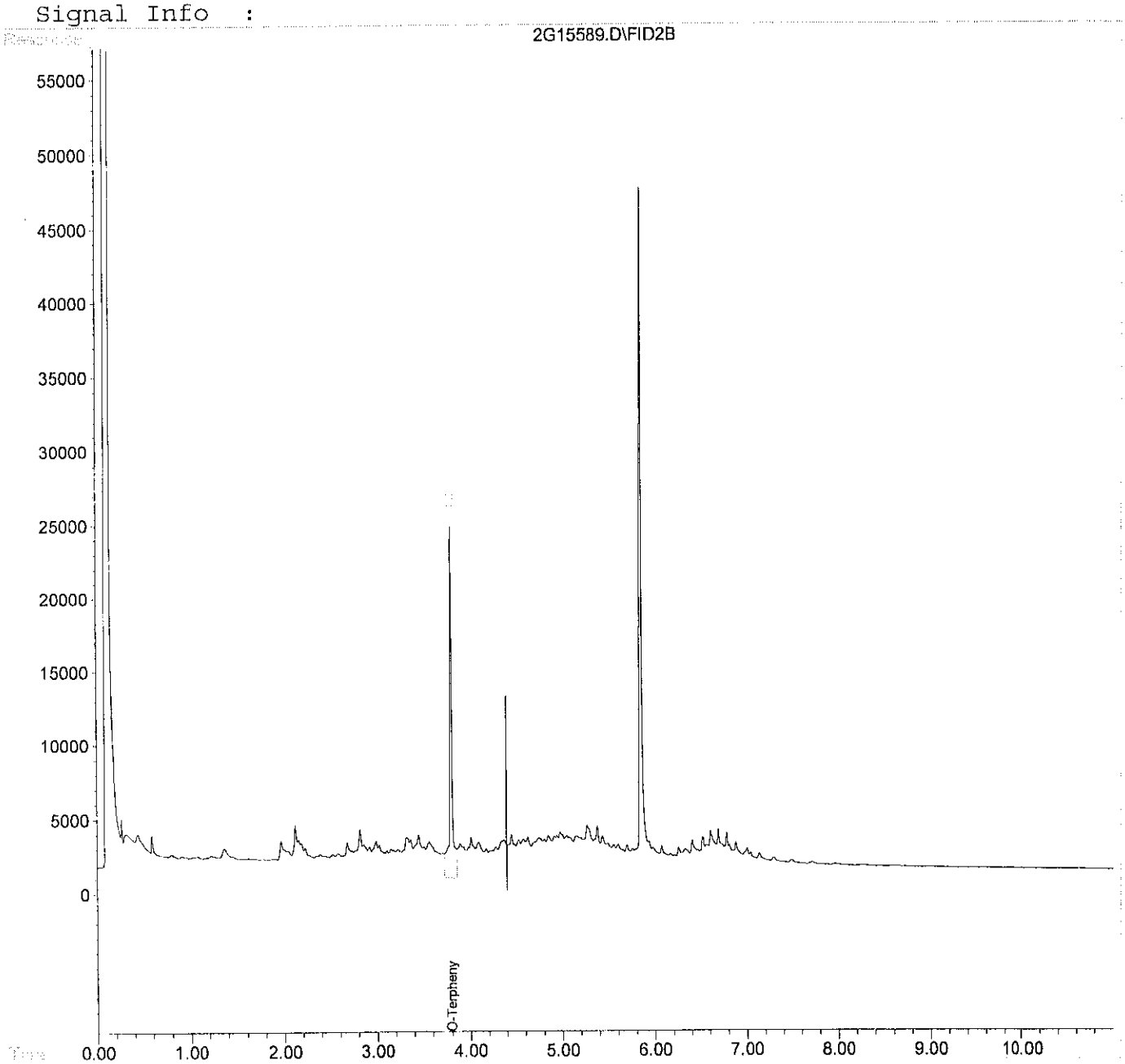
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15589.D FLASHPRO.M Fri Sep 28 15:38:44 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092801\2G15589.D

Acq On : 28 Sep 2001 15:24 Operator: RDC
Sample : WG105299-01 L0109342-01 REF PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 12:25 Operator: HV
Sample : L0109342-02 PRO water Inst : hp2
Misc : water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Sep 25 12:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
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	3.78	509059	29.552 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 147.76%			
Target Compounds			
1) H Petroleum Range	3.60	3092909	275.091 ppb

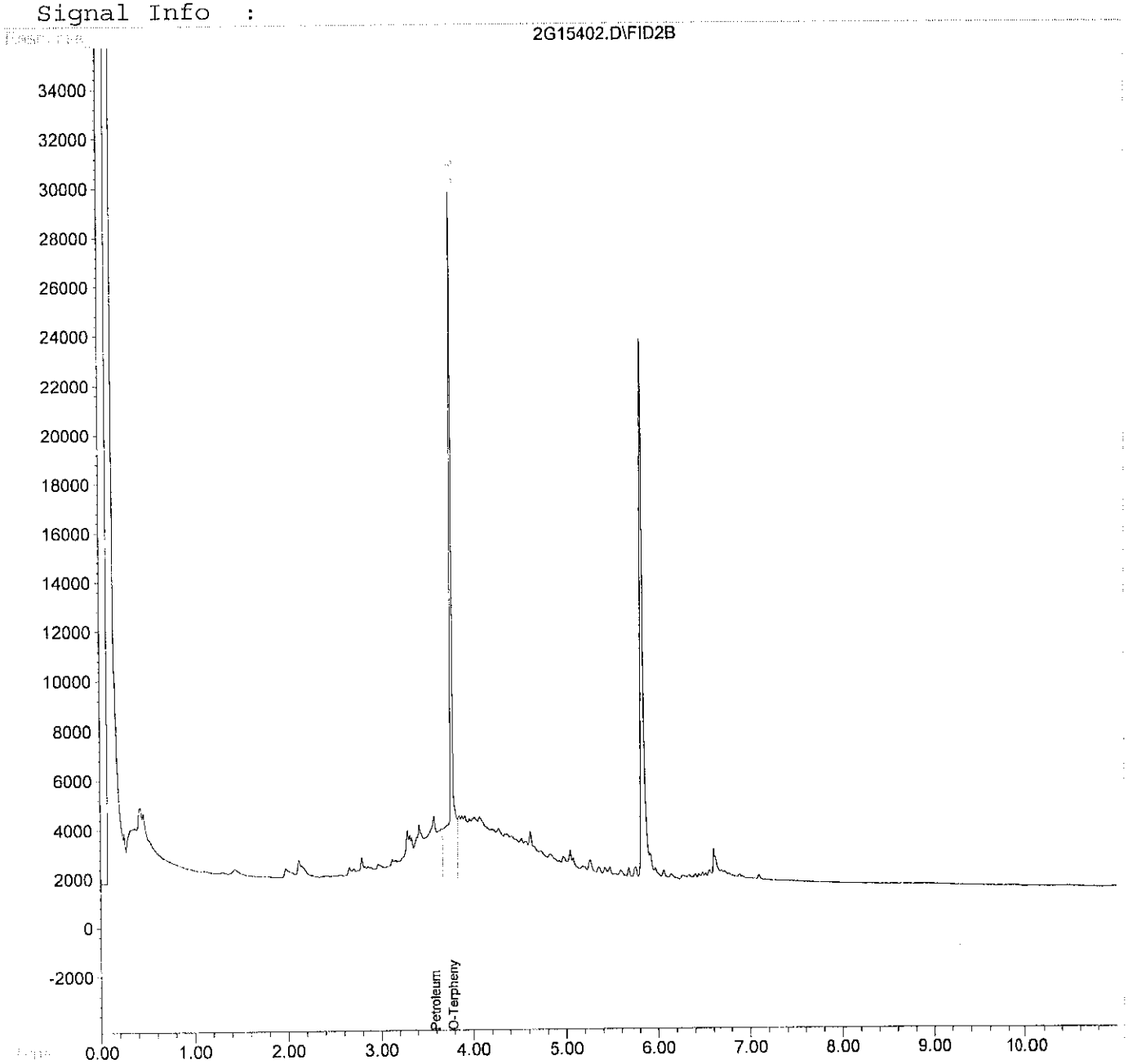
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15402.D FLASHPRO.M Tue Sep 25 12:48:40 2001 Page 1

Acq On : 25 Sep 2001 12:25
Sample : L0109342-02 PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Sep 25 12:48 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.05

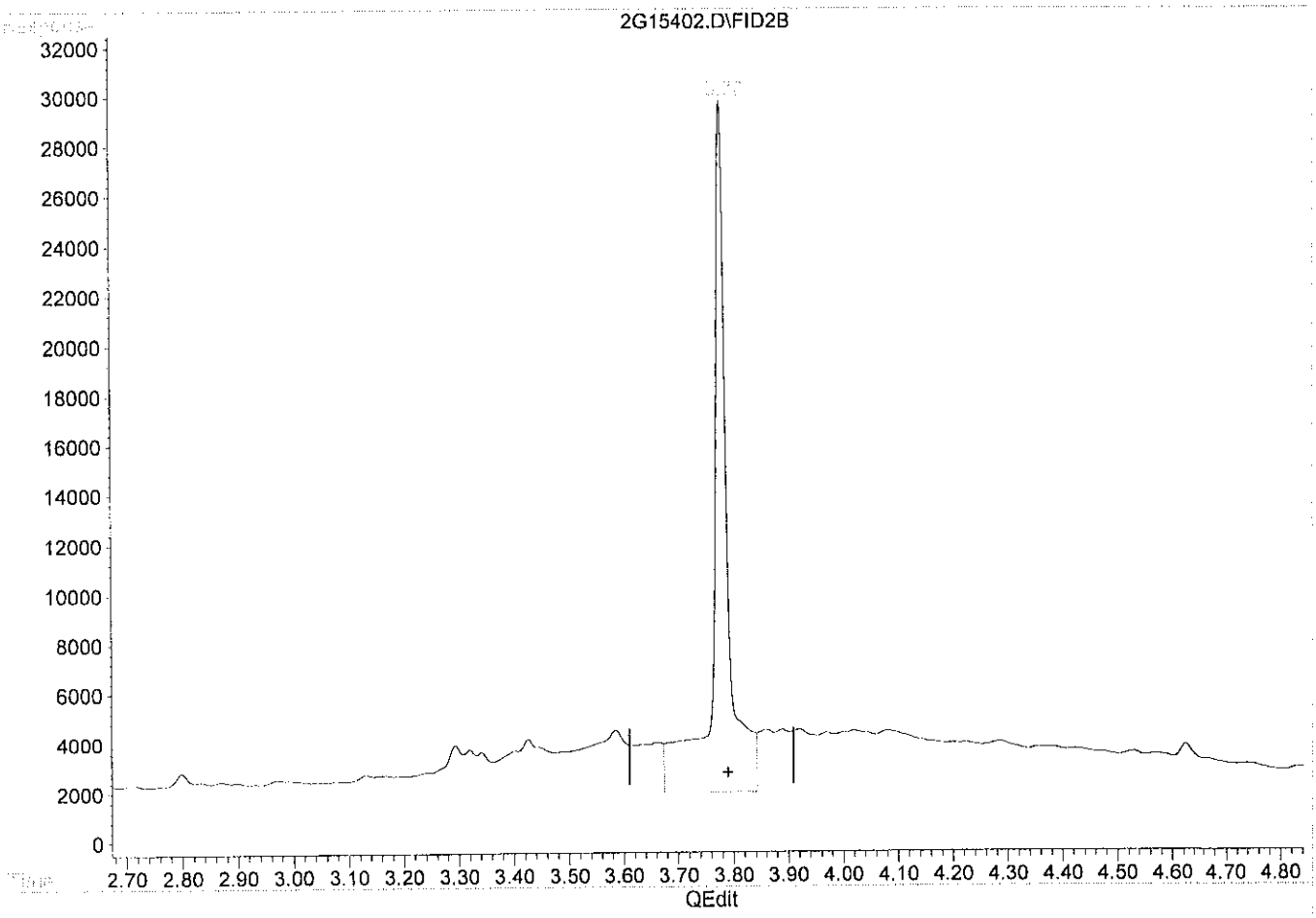
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 12:25 Operator: HV
Sample : L0109342-02 PRO water Inst : hp2
Misc : water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Sep 25 12:48 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (S)

3.78min 29.552ppb

response 509059

(+) = Expected Retention Time
2G15402.D FLASHPRO.M Tue Sep 25 12:48:53 2001

2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001

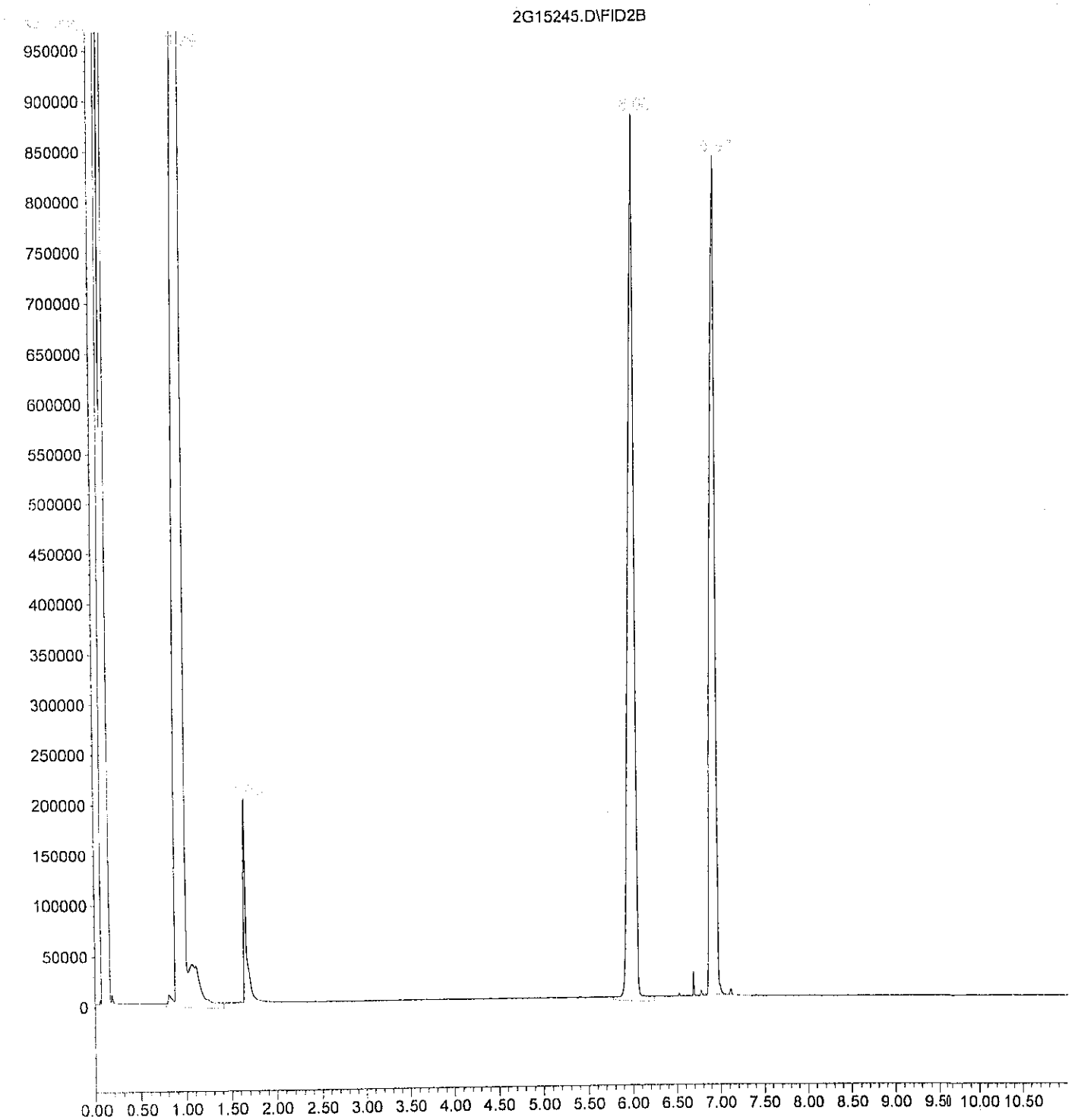
Calibration Files

5	=2G15251.D	50	=2G15250.D	100	=2G15249.D
200	=2G15246.D	400	=2G15248.D	600	=2G15247.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.084	1.390	1.181	1.179	1.082	1.166	1.181	E4	9.52
2)	S	O-Terphenyl	1.845	1.976	1.699	1.691	1.563	1.563	1.723	E4	9.42

(#) = Out of Range

File : C:\HPCHEM\1\DATA\091901A\2G15245.D
Operator : HV
Acquired : 19 Sep 2001 15:02 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : NS 13-45
Vial Number: 2



Acq On : 19 Sep 2001 15:19
Sample : PRO CONT CHK
Misc : NS 13-45
IntFile : PETRO.E
Quant Time: Sep 19 15:37 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.84	3381007	122.594 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 612.97%#	
Target Compounds			
1) H Petroleum Range	3.60	40081729	1991.849 ppb

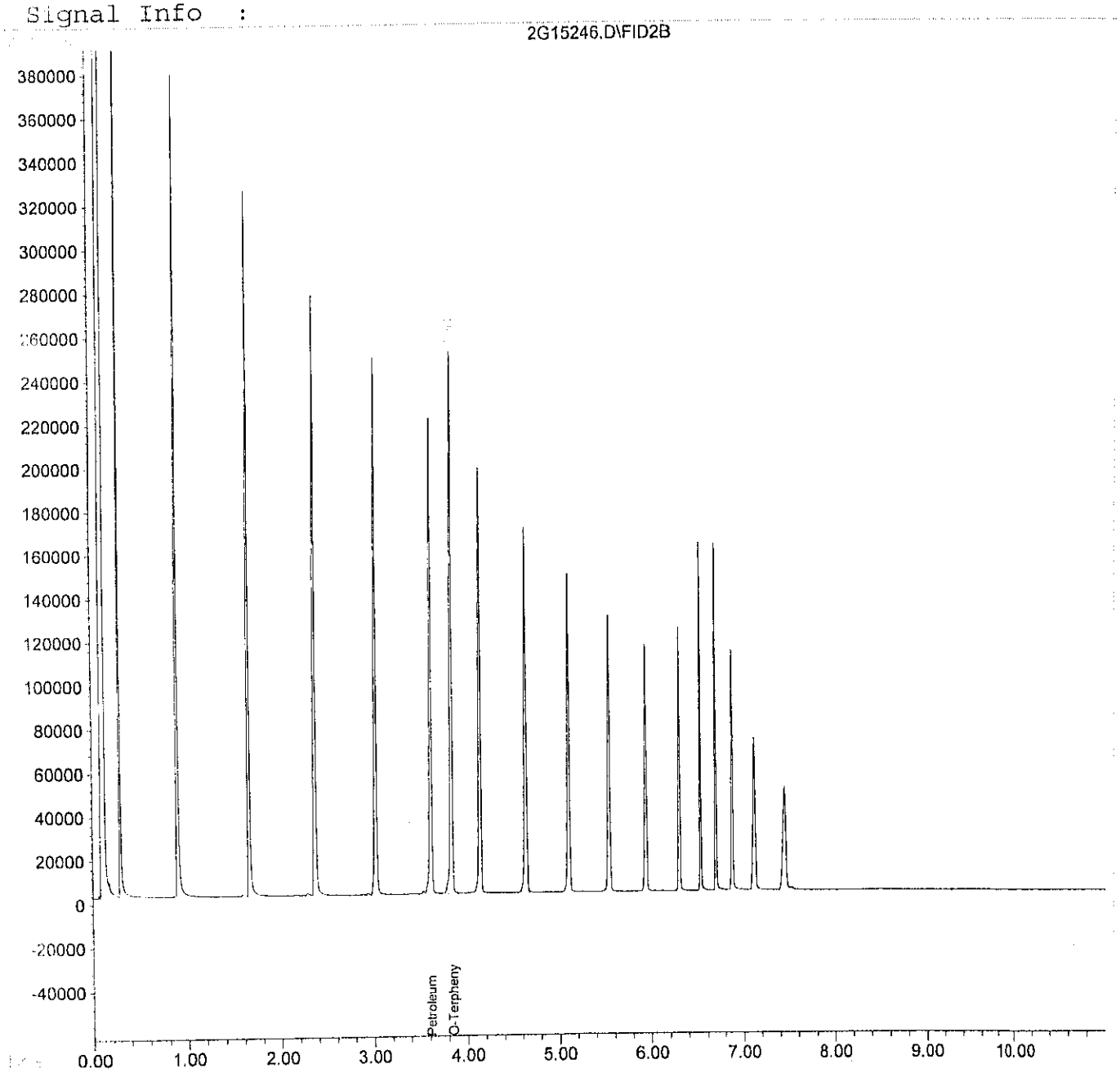
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Sep 2001 15:19
Sample : PRO CONT CHK
Misc : NS 13-45
IntFile : PETRO.E
Quant Time: Sep 19 15:37 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : [illegible]

Acq On : 19 Sep 2001 15:39
Sample : PRO STD 600ppm
Misc : sos 55-03
IntFile : PETRO.E
Quant Time: Sep 19 17:06 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.86	9376125	544.309 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2721.55%#
Target Compounds			
1) H Petroleum Range	3.60	118965705	10077.235 ppb

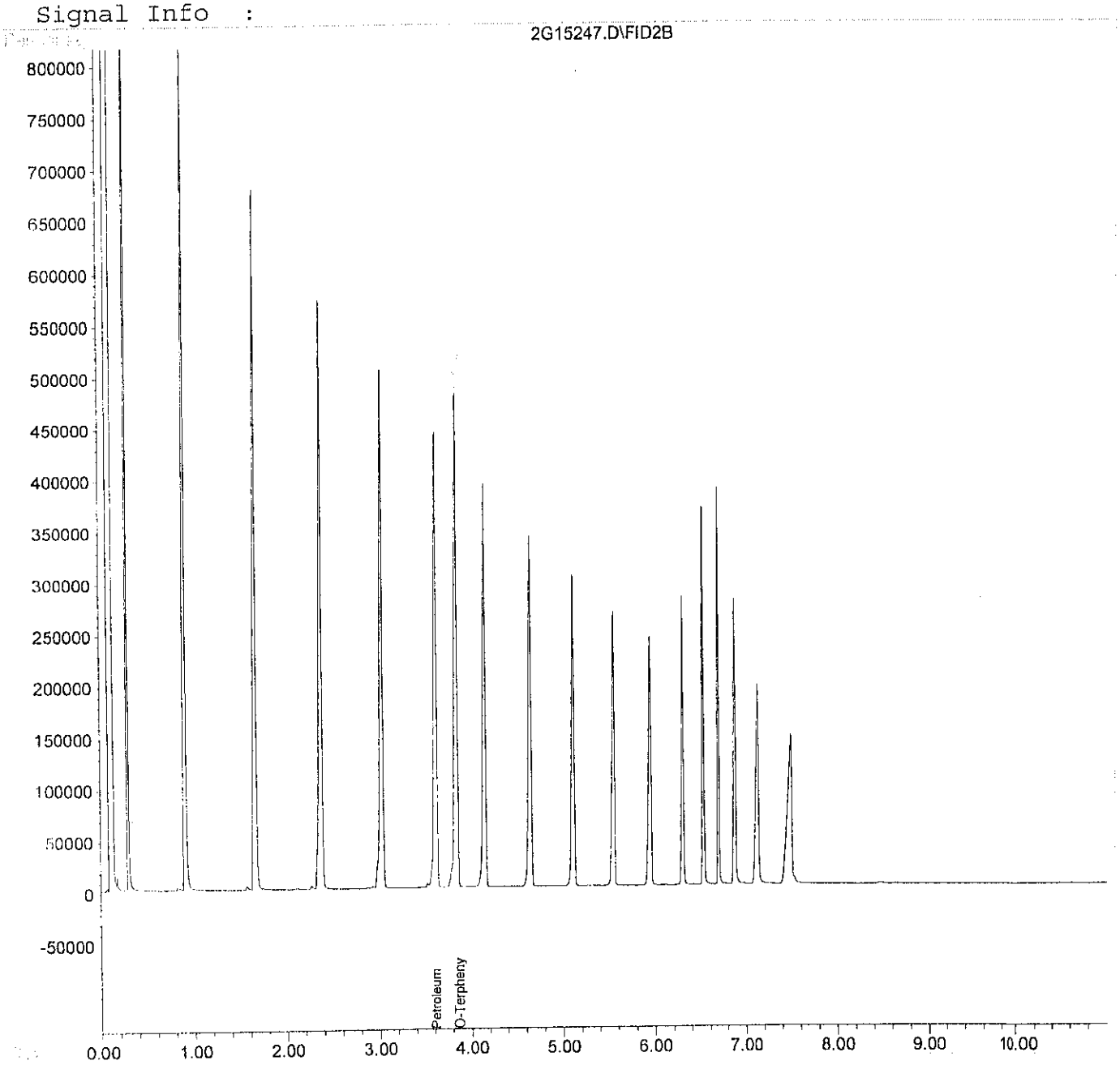
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Sep 2001 15:39
Sample : PRO STD 600ppm
Misc : sos 55-03
IntFile : PETRO.E
Quant Time: Sep 19 17:06 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\

Acq On : 19 Sep 2001 15:54
Sample : PRO STD 400ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.85	6250635	226.645 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1133.23%#
Target Compounds			
1) H Petroleum Range	3.60	73603463	3657.701 ppb

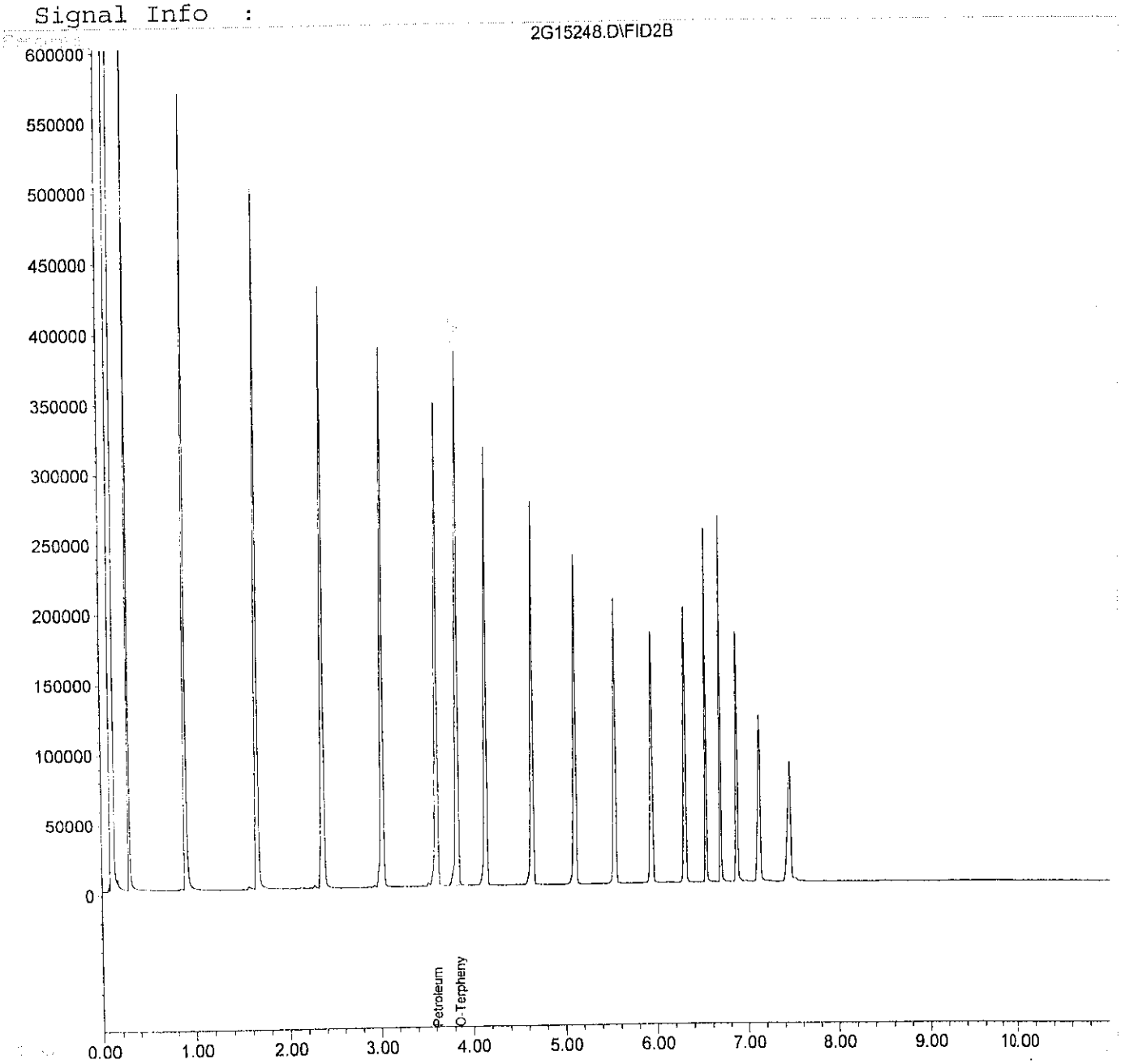
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Sep 2001 15:54
Sample : PRO STD 400ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 19 Sep 2001 16:10
Sample : PRO STD 100ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
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	1699292	61.615 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	308.08%#
Target Compounds			
1) H Petroleum Range	3.60	20076678	997.704 ppb

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

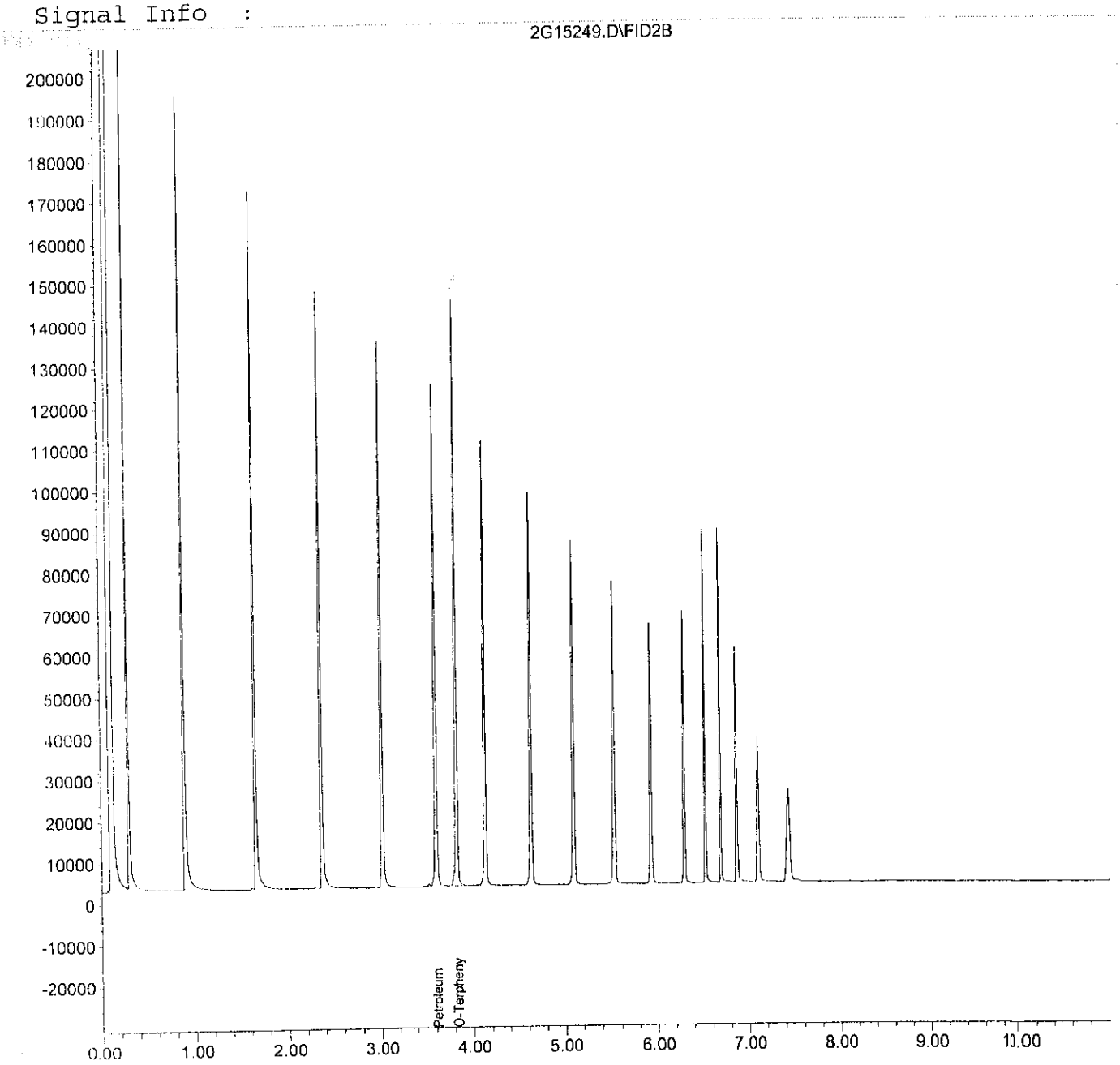
Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Sep 2001 16:10
Sample : PRO STD 100ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 19 Sep 2001 16:25
Sample : PRO STD 50ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	987802	35.817 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	179.09%#
Target Compounds			
1) H Petroleum Range	3.60	11818185	587.301 ppb

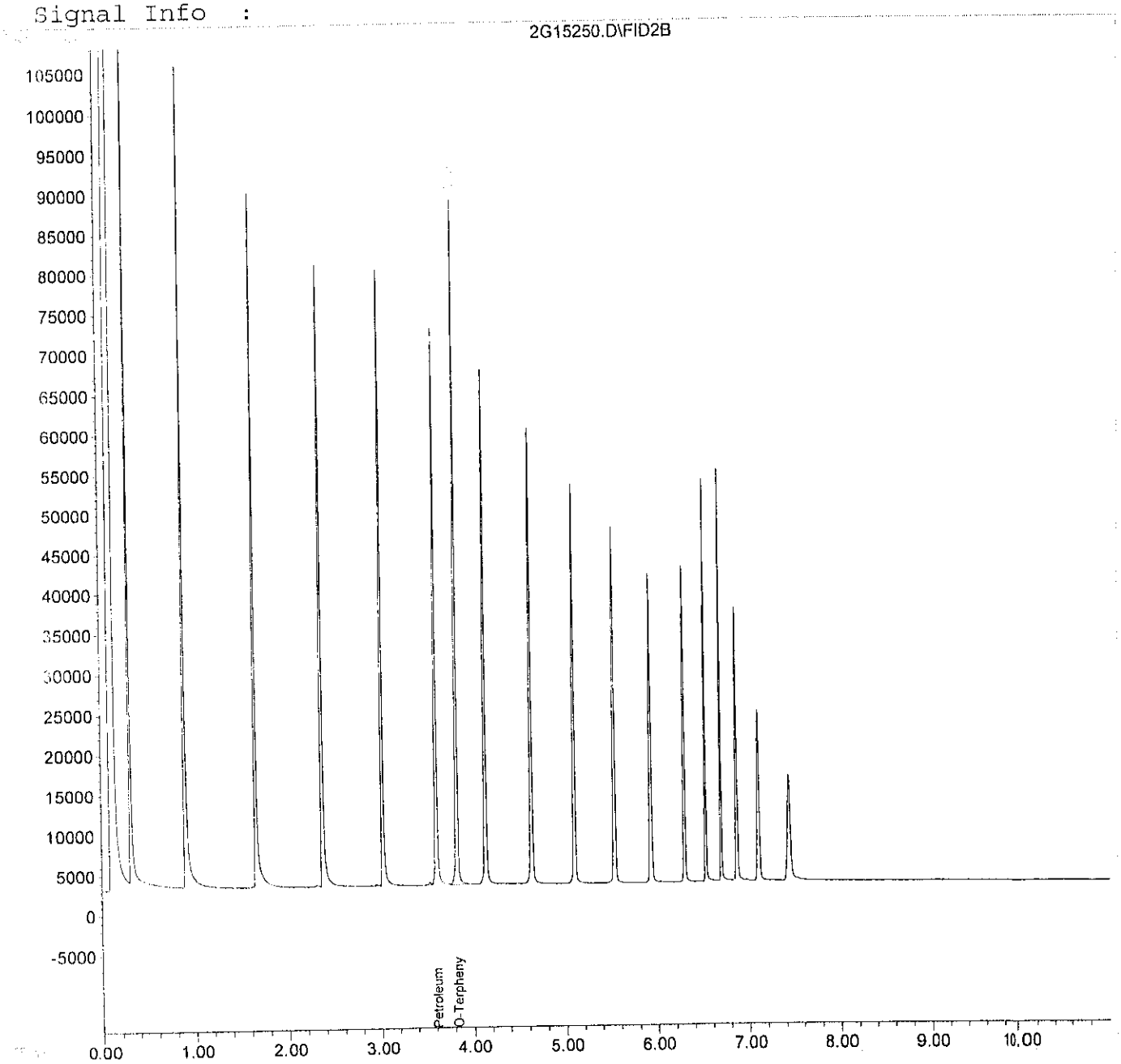
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Sep 2001 16:25
Sample : PRO STD 50ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : [illegible]

Acq On : 19 Sep 2001 16:41
Sample : PRO STD 5ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.84	92235	3.344 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	16.72%#
Target Compounds			
1) H Petroleum Range	3.60	921630	<MDL ppb

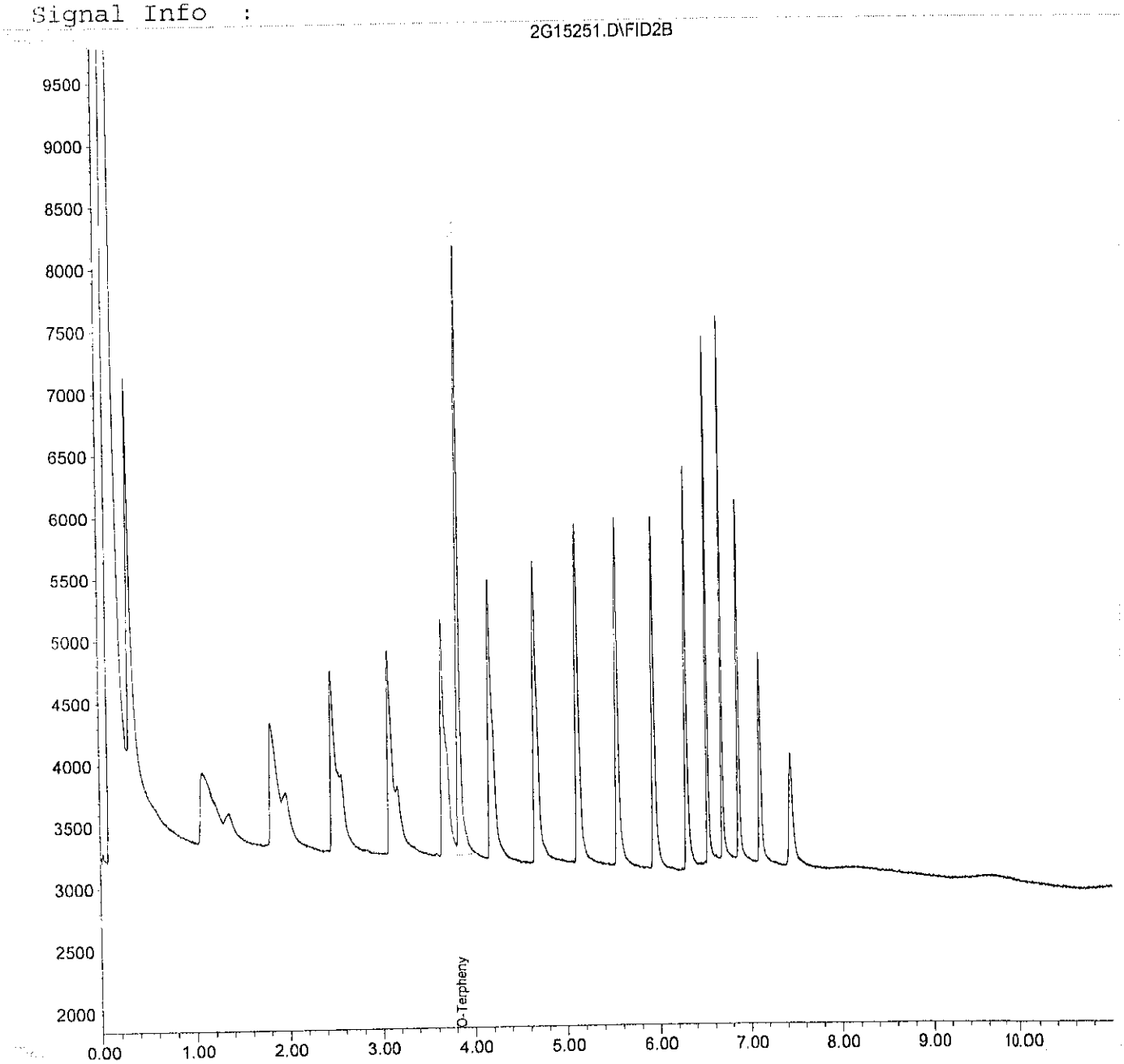
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Sep 2001 16:41
Sample : PRO STD 5ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001

Calibration Files

5	=2G15251.D	50	=2G15250.D	100	=2G15249.D
200	=2G15246.D	400	=2G15248.D	600	=2G15247.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.084	1.390	1.181	1.179	1.082	1.166	1.181	E4	9.52
2)	S	O-Terphenyl	1.845	1.976	1.699	1.691	1.563	1.563	1.723	E4	9.42

(#) = Out of Range

Acq On : 19 Sep 2001 17:12
Sample : ALT PRO @200ppm
Misc : SOS 53-49 Exp 11/04/01
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3813.498	-12.2	112	0.00
2	S	O-Terphenyl	200.000	0.009	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15252.D FLASHPRO.M Thu Sep 20 08:24:06 2001 Page 1

205

Acq On : 19 Sep 2001 17:12
Sample : ALT PRO @200ppm
Misc : SOS 53-49 Exp 11/04/01
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15252.D FLASHPRO.M Thu Sep 20 08:24:07 2001 Page

Acq On : 19 Sep 2001 17:12 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SOS 53-49 Exp 11/04/01 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 20 8:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

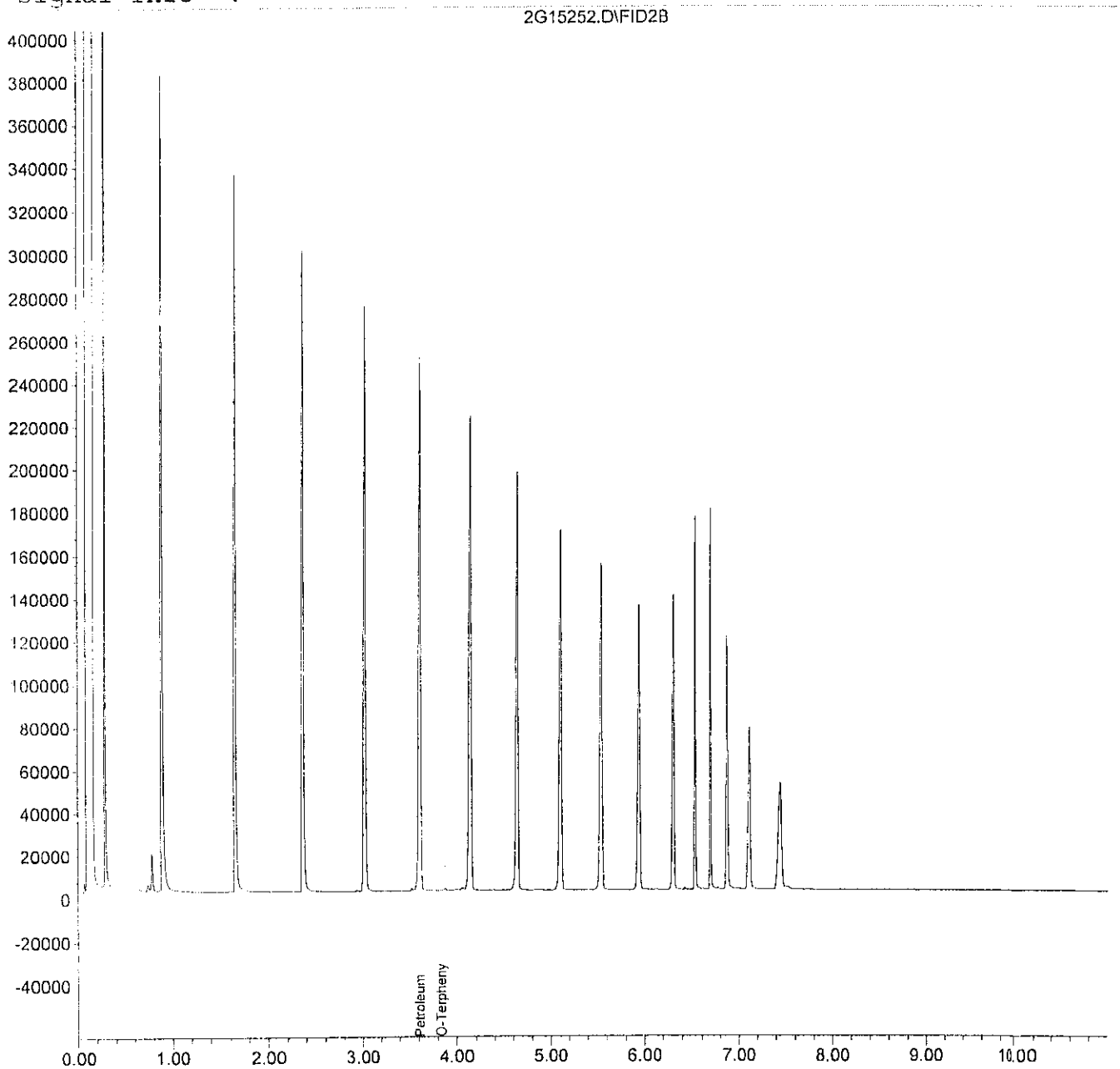
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.84	162	0.009 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 0.05%#			
Target Compounds			
1) H Petroleum Range	3.60	45019835	3813.498 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15252.D FLASHPRO.M Thu Sep 20 08:24:16 2001 Page

Acq On : 19 Sep 2001 17:12 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SOS 53-49 Exp 11/04/01 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 20 8:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\2G15393.D Vial: 3
Acq On : 25 Sep 2001 9:42 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E

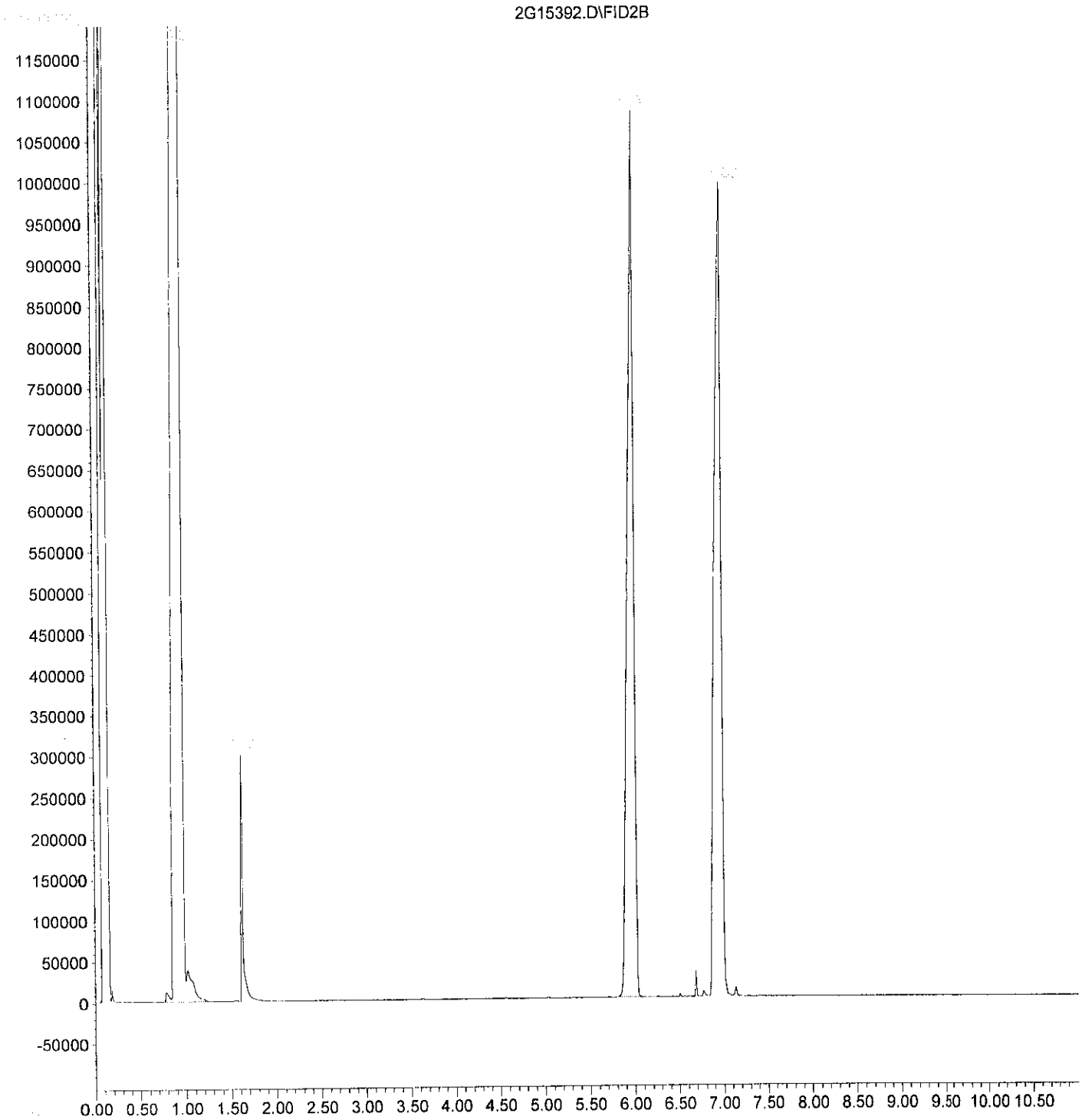
Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration

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	3621.307	-6.5	107	0.00
2	S	O-Terphenyl	200.000	196.593	1.7	100	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15393.D FLASHPRO.M Tue Sep 25 11:44:07 2001 Page 1

File : C:\HPCHEM\1\DATA\092501\2G15392.D
Operator : HV
Acquired : 25 Sep 2001 9:26 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info :
Vial Number: 2



Data File : C:\HPCHEM\1\DATA\092501\2G15393.D
Acq On : 25 Sep 2001 9:42
Sample : PRO CONT CHK
Misc :
IntFile : PETRO.E
Quant Time: Sep 25 9:53 2001 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 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3386456	196.593 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	982.96%#
Target Compounds			
1) H Petroleum Range	3.60	42750949	3621.307 ppb

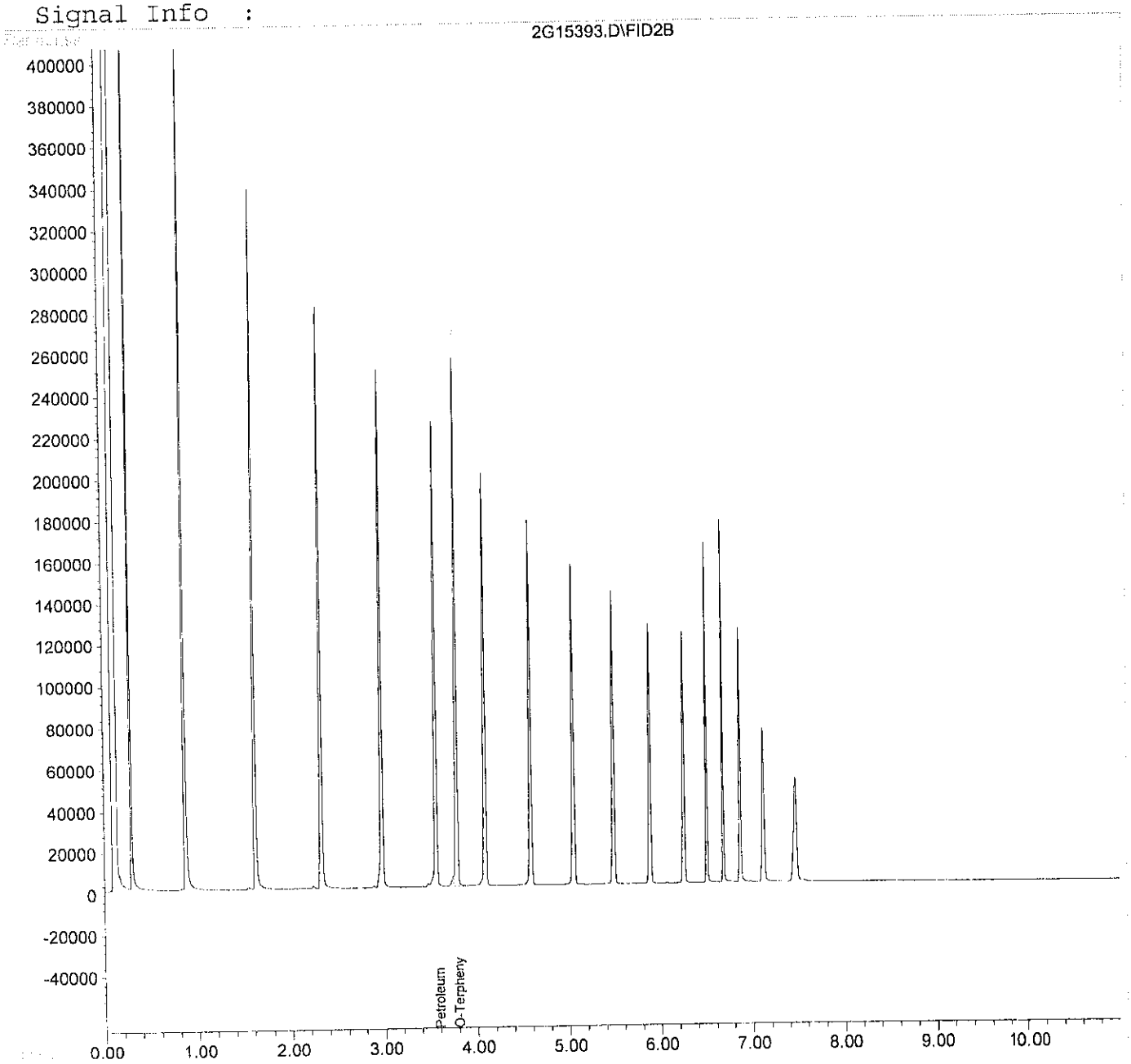
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\092501\2G15393.D
Acq On : 25 Sep 2001 9:42
Sample : PRO CONT CHK
Misc :
IntFile : PETRO.E
Quant Time: Sep 25 9:53 2001 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 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 12:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3292.835	3.2	97	0.00
2	S	O-Terphenyl	200.000	188.247	5.9	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15403.D FLASHPRO.M Tue Sep 25 12:54:37 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\2G15403.D Vial: 45
Acq On : 25 Sep 2001 12:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 12:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

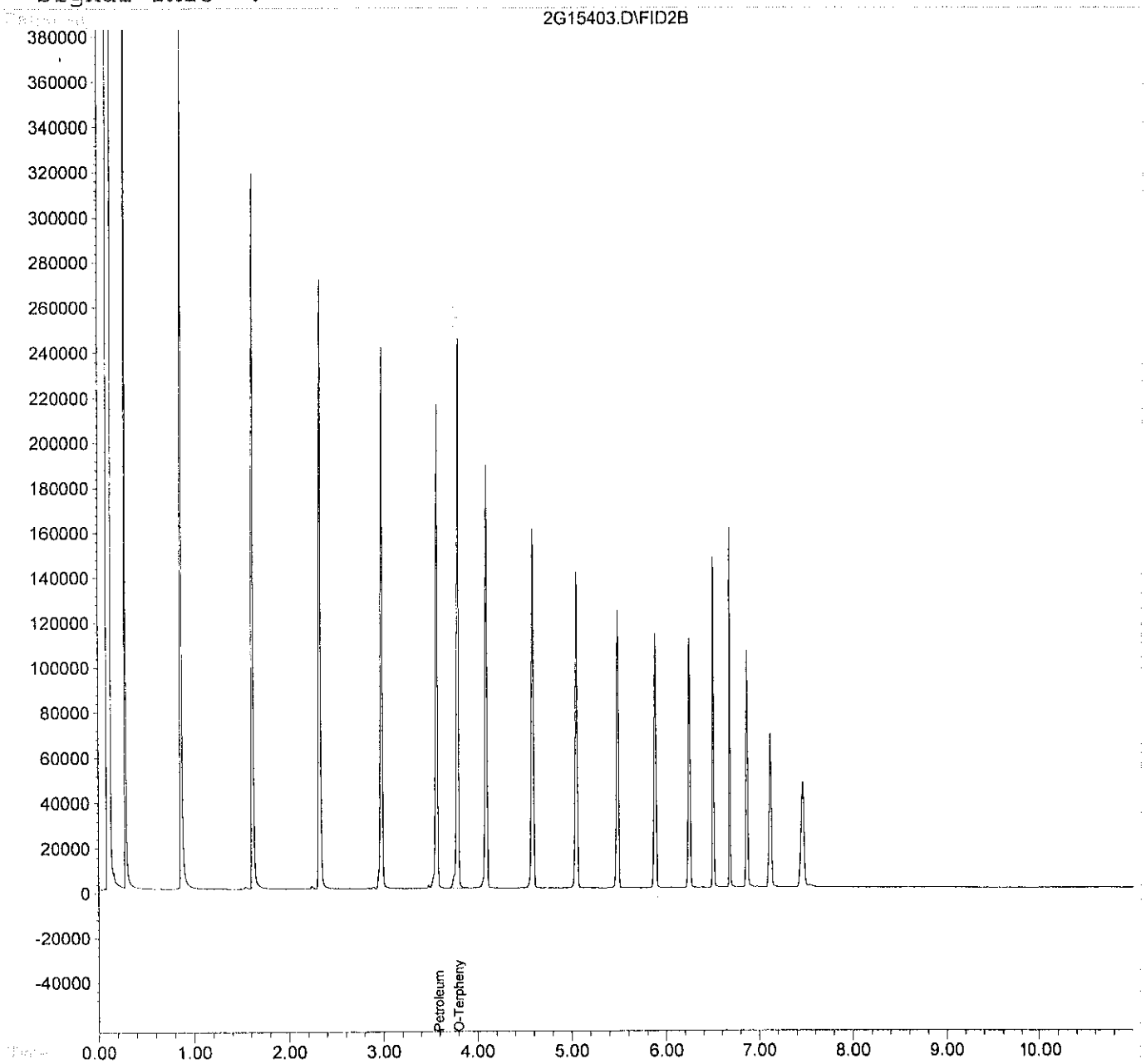
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.80	3242690	188.247 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 941.24%#			
Target Compounds			
1) H Petroleum Range	3.60	38873209	3292.835 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15403.D FLASHPRO.M Tue Sep 25 12:54:42 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\2G15403.D Vial: 15
Acq On : 25 Sep 2001 12:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 12:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001

Calibration Files

5	=2G15585.D	50	=2G15584.D	100	=2G15583.D
200	=2G15580.D	400	=2G15582.D	600	=2G15581.D

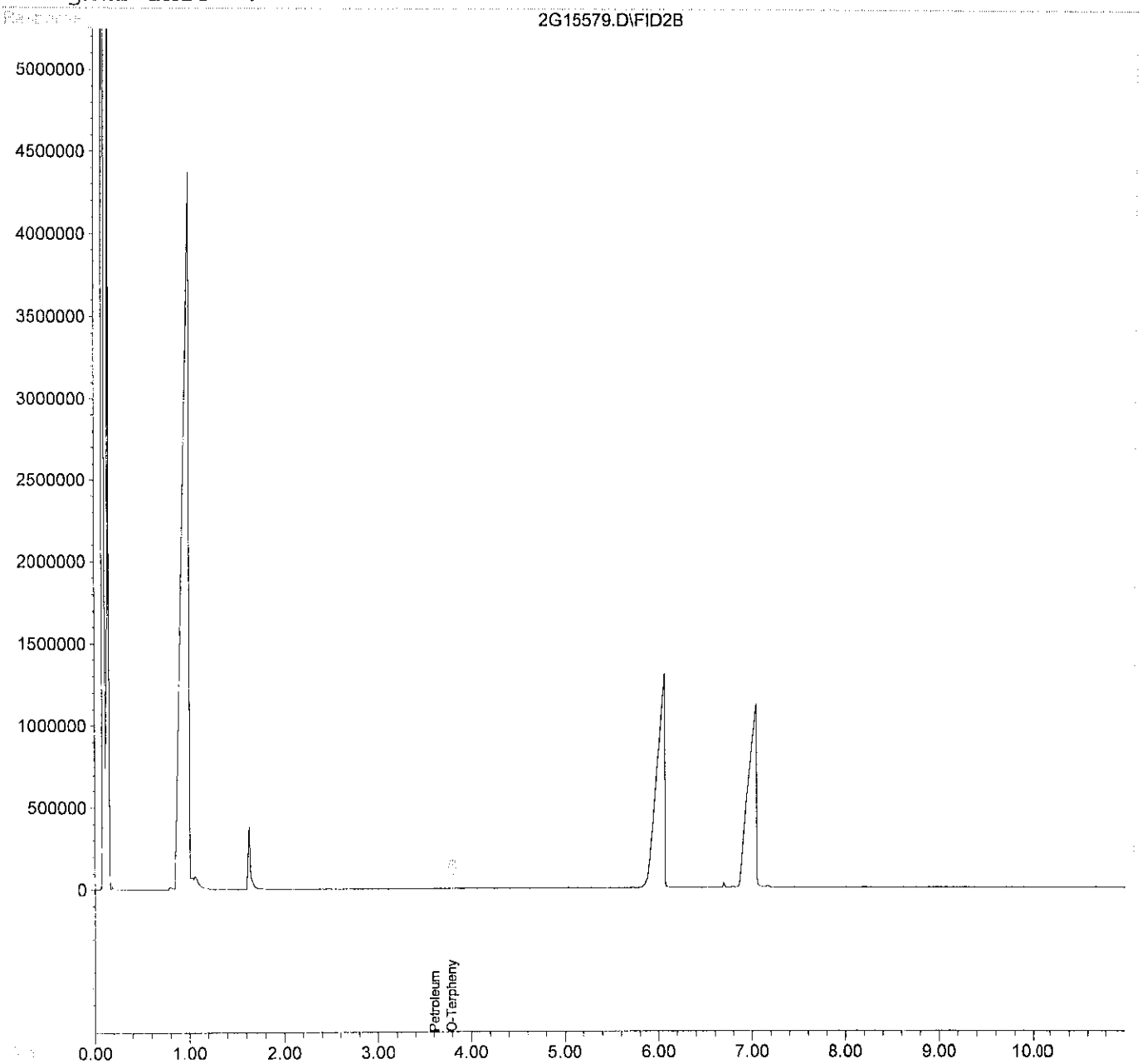
		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.672	1.781	1.501	1.474	1.515	1.378	1.554	E4	9.41
2)	S	O-Terphenyl	2.288	2.317	1.986	1.884	2.080	1.812	2.061	E4	10.08

(#) = Out of Range

Acq On : 28 Sep 2001 11:58 Operator: RDC
Sample : WINDOW DEFINITION STD. Inst : hp2
Misc : NS13-45 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 13:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 12:13 Operator: RDC
Sample : PRO CCV Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 13:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

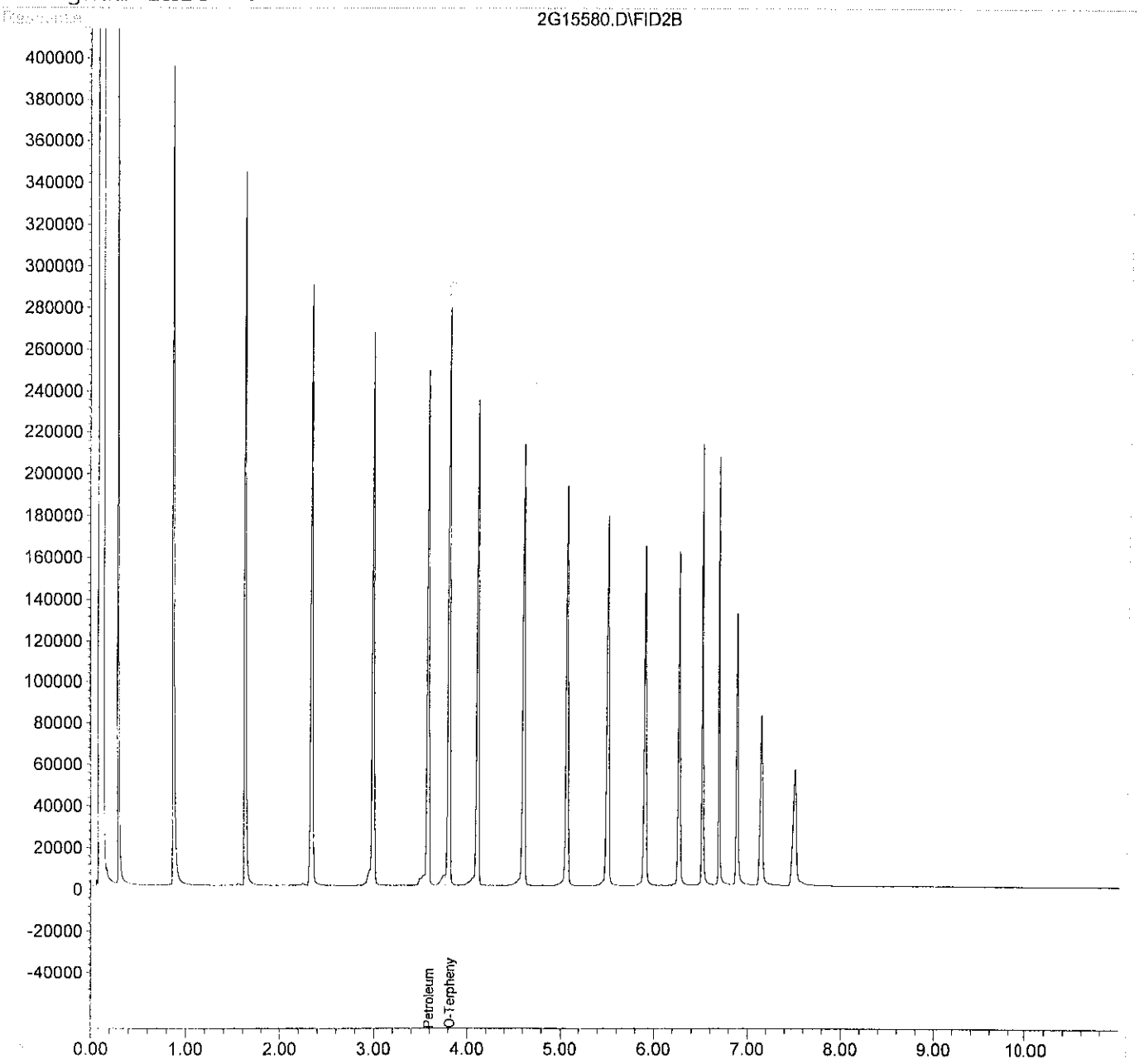
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.81	3767841	218.733 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1093.67%#			
Target Compounds			
1) H Petroleum Range	3.60	50129265	4246.303 ppb

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

Data File : C:\HPCHEM\1\DATA\092801\2G15580.D Vial: 3
Acq On : 28 Sep 2001 12:13 Operator: RDC
Sample : PRO CCV Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 13:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092801\2G15581.D Vial: 4
Acq On : 28 Sep 2001 13:20 Operator: RDC
Sample : PRO STD 600 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

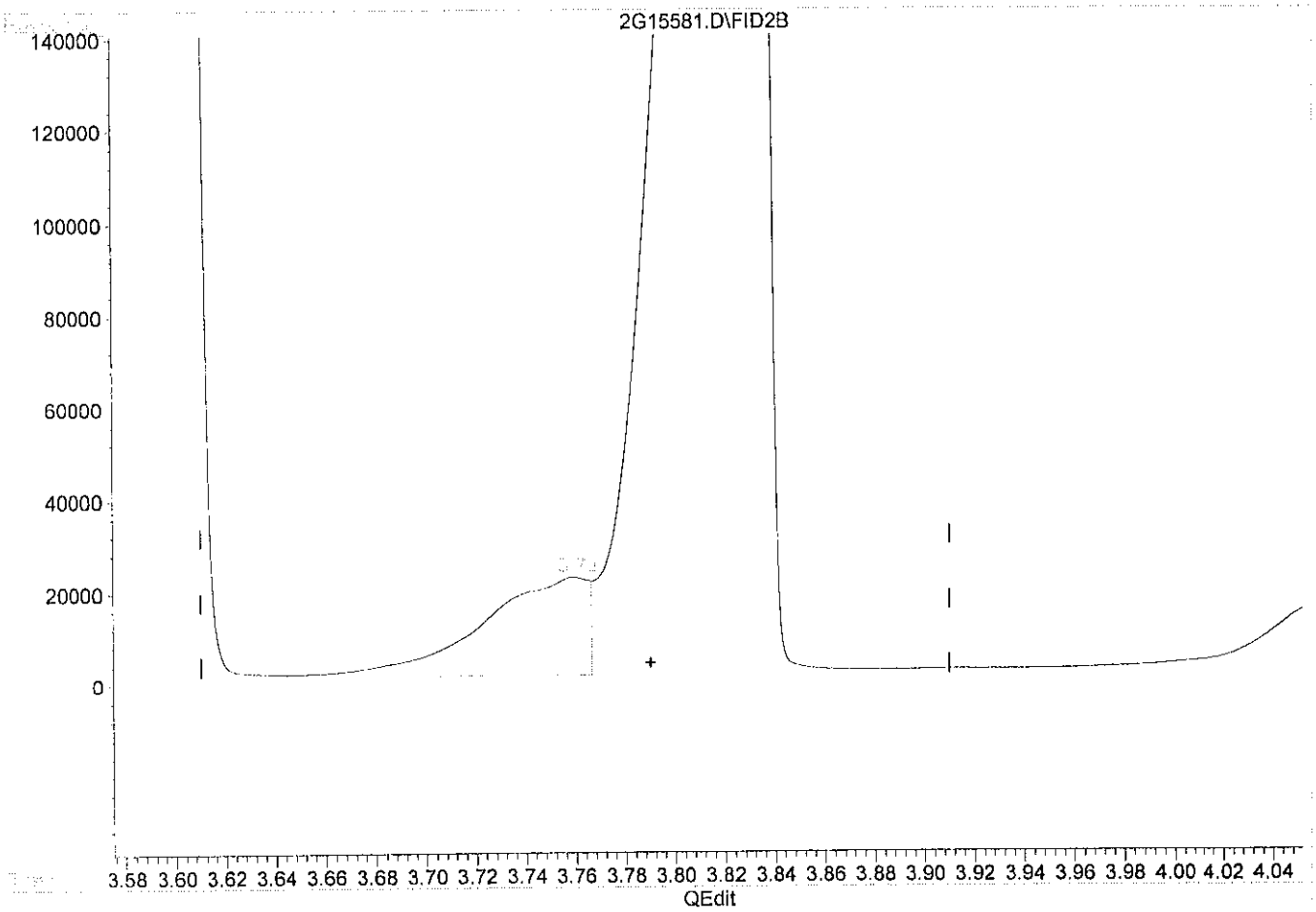
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.83	10874640	631.301 ppb m
Spiked Amount 20.000 Range 49 - 174 Recovery = 3156.51%#			
Target Compounds			
1) H Petroleum Range	3.60	140606644	11910.376 ppb

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

Acq On : 28 Sep 2001 13:20 Operator: RDC
Sample : PRO STD 600 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:14 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Fri Sep 28 14:40:05 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (S)

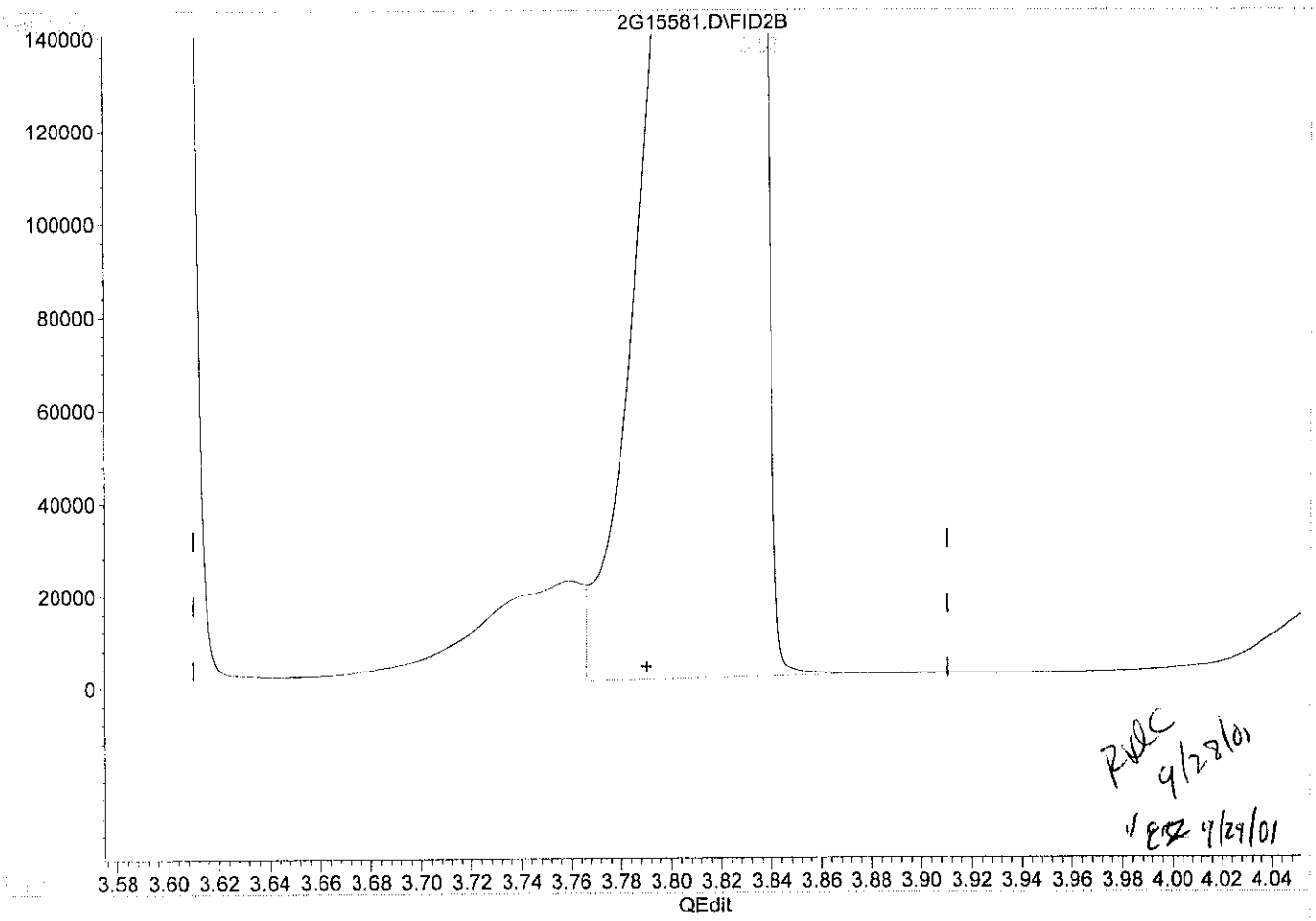
3.76min 36.036ppb

response 620747

(+) = Expected Retention Time
2G15581.D FLASHPRO.M Fri Sep 28 14:40:39 2001

Acq On : 28 Sep 2001 13:20 Operator: RDC
Sample : PRO STD 600 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:14 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Fri Sep 28 14:40:05 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (S)

3.83min 631.301ppb m

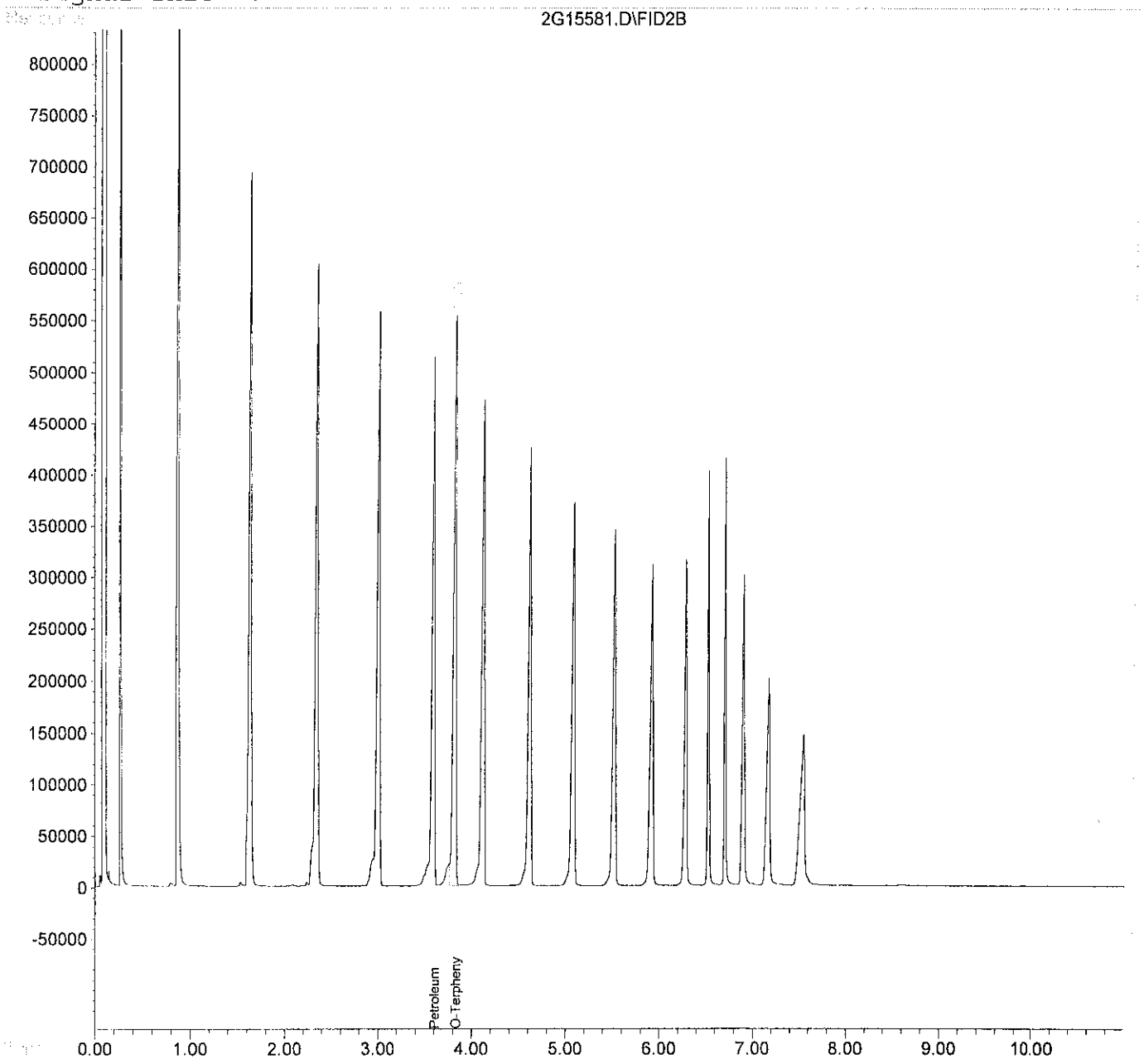
response 10874640

(+) = Expected Retention Time
2G15581.D FLASHPRO.M Fri Sep 28 14:40:48 2001

Data File : C:\HPCHEM\1\DATA\092801\2G15581.D Vial: 4
Acq On : 28 Sep 2001 13:20 Operator: RDC
Sample : PRO STD 600 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 13:36 Operator: RDC
Sample : PRO STD 400 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:37 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

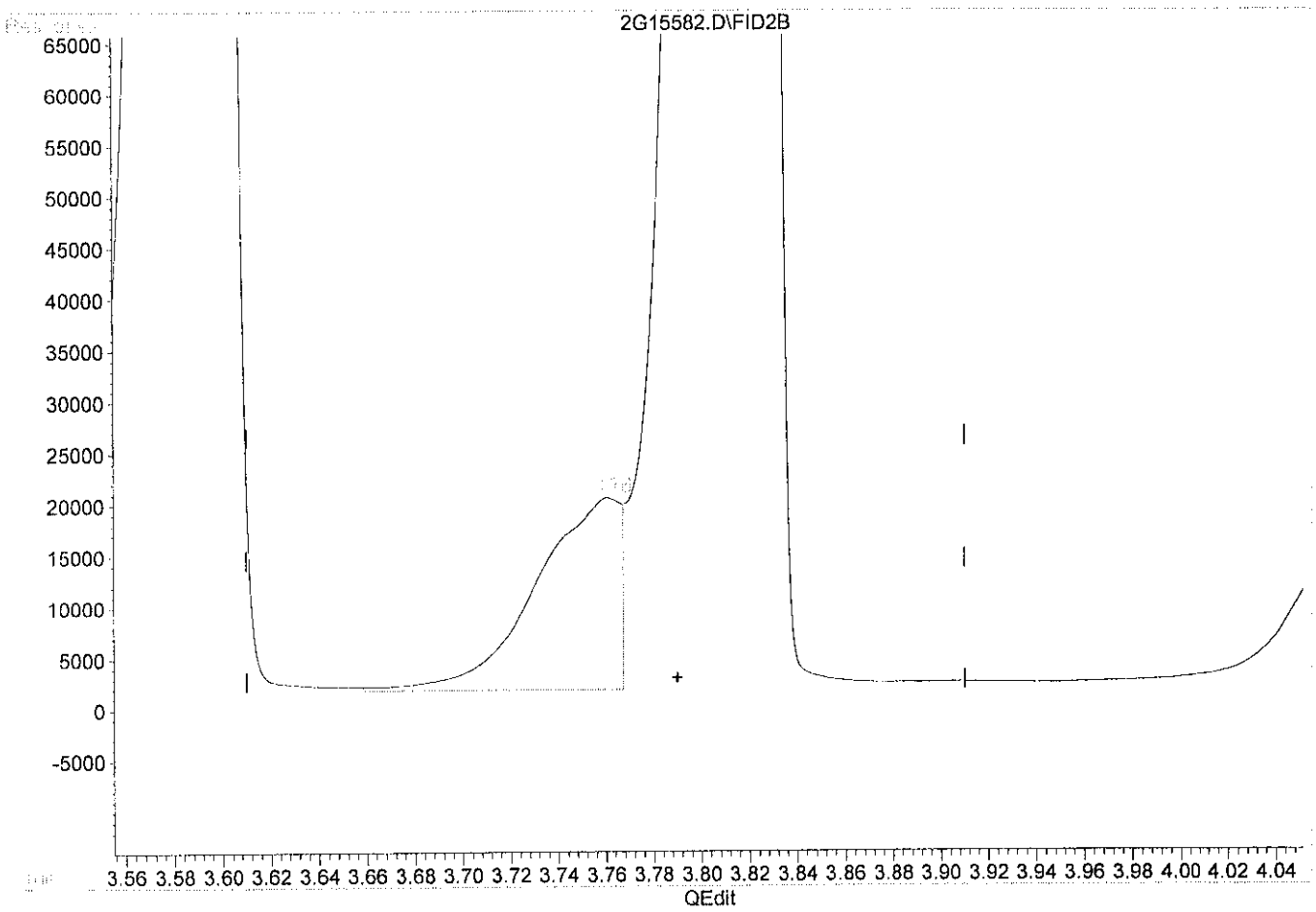
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.83	8319902	482.992 ppb m
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2414.96%#
Target Compounds			
1) H Petroleum Range	3.60	103043158	8728.483 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15582.D FLASHPRO.M Fri Sep 28 14:37:12 2001 Page 1

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

Acq On : 28 Sep 2001 13:36 Operator: RDC
Sample : PRO STD 400 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:14 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Fri Sep 28 14:35:29 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (S)

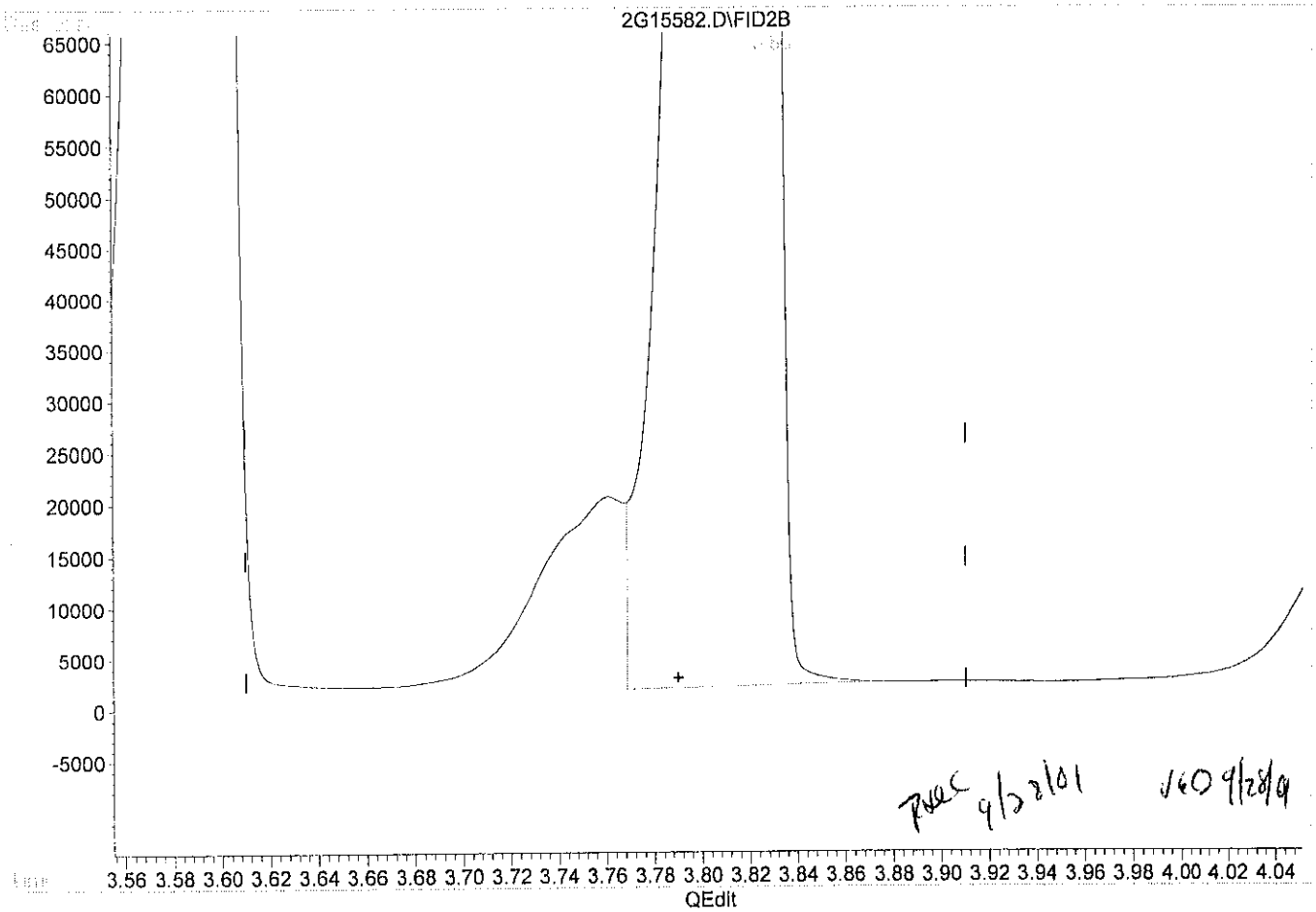
3.76min 26.404ppb

response 454824

(+) = Expected Retention Time
2G15582.D FLASHPRO.M Fri Sep 28 14:36:58 2001

Acq On : 28 Sep 2001 13:36 Operator: RDC
Sample : PRO STD 400 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:14 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Fri Sep 28 14:35:29 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (S)

3.83min 482.992ppb m

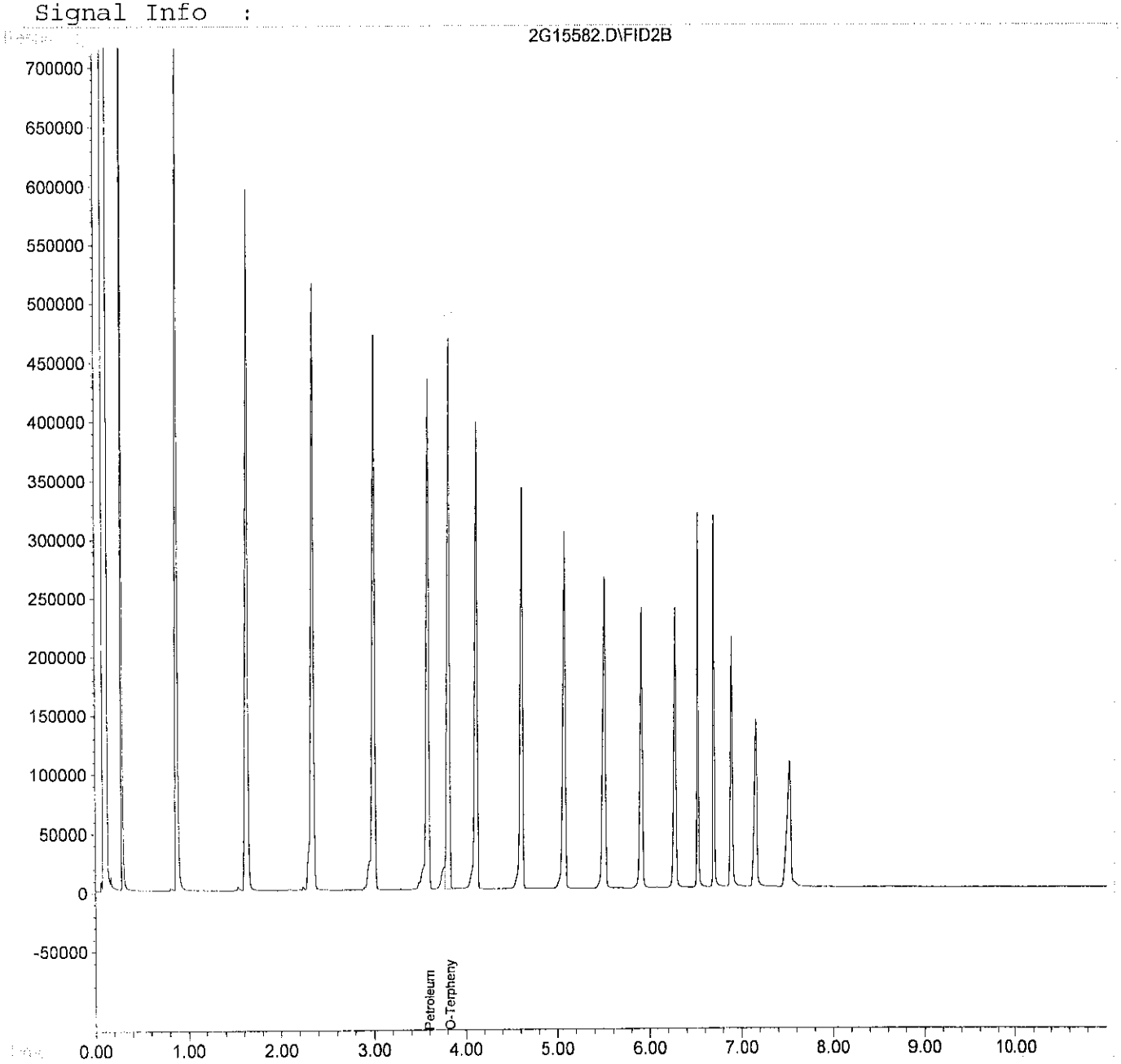
response 8319902

(+) = Expected Retention Time
2G15582.D FLASHPRO.M Fri Sep 28 14:37:06 2001

Acq On : 28 Sep 2001 13:36 Operator: RDC
Sample : PRO STD 400 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:37 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 13:52 Operator: RDC
Sample : PRO STD 100 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

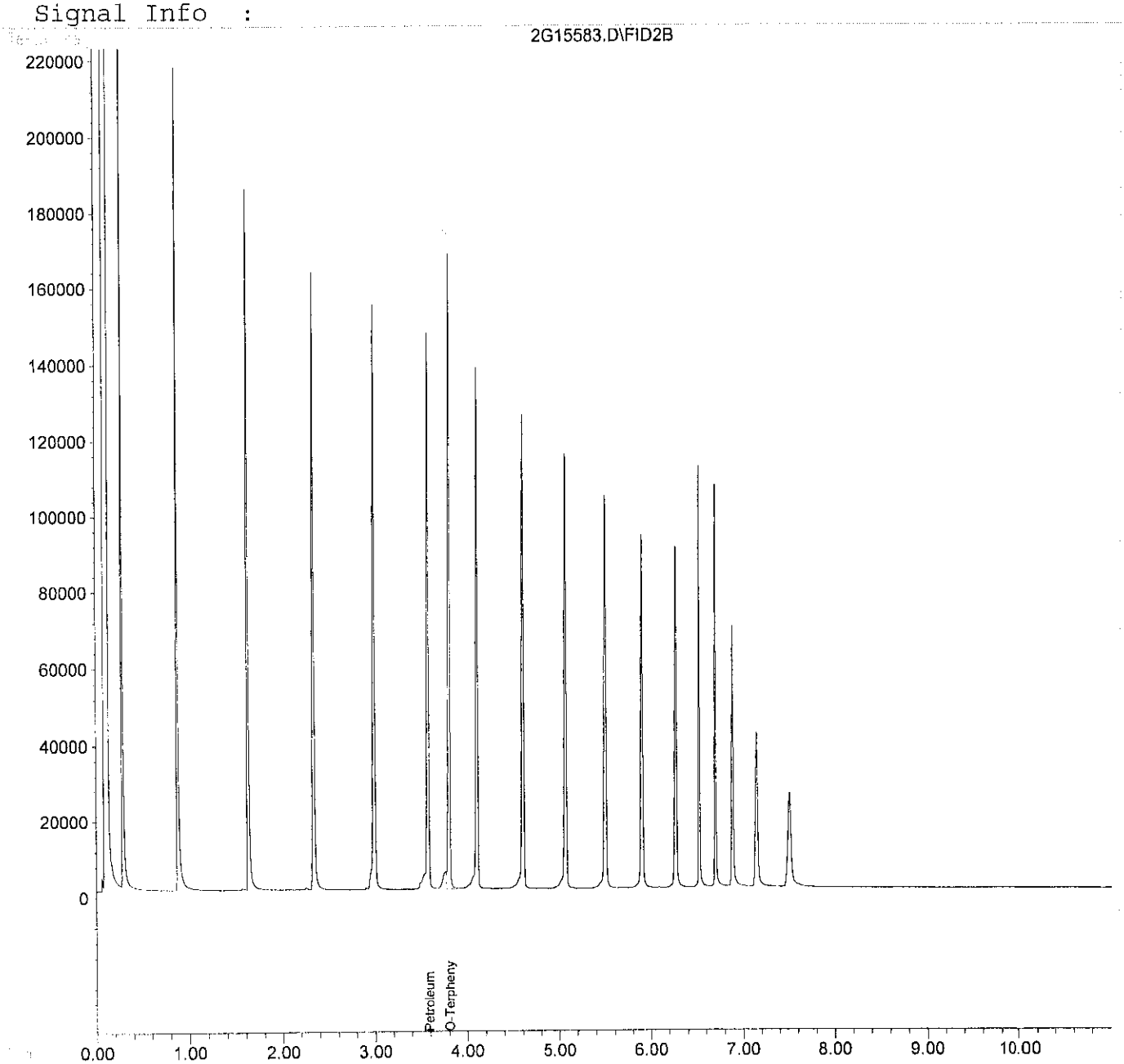
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.81	1986282	115.309 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 576.55%#			
Target Compounds			
1) H Petroleum Range	3.60	25514134	2161.227 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15583.D FLASHPRO.M Fri Sep 28 14:14:38 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092801\2G15583.D Vial: 6
Acq On : 28 Sep 2001 13:52 Operator: RDC
Sample : PRO STD 100 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092801\2G15584.D Vial: 7
Acq On : 28 Sep 2001 14:06 Operator: RDC
Sample : PRO STD 50 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:19 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

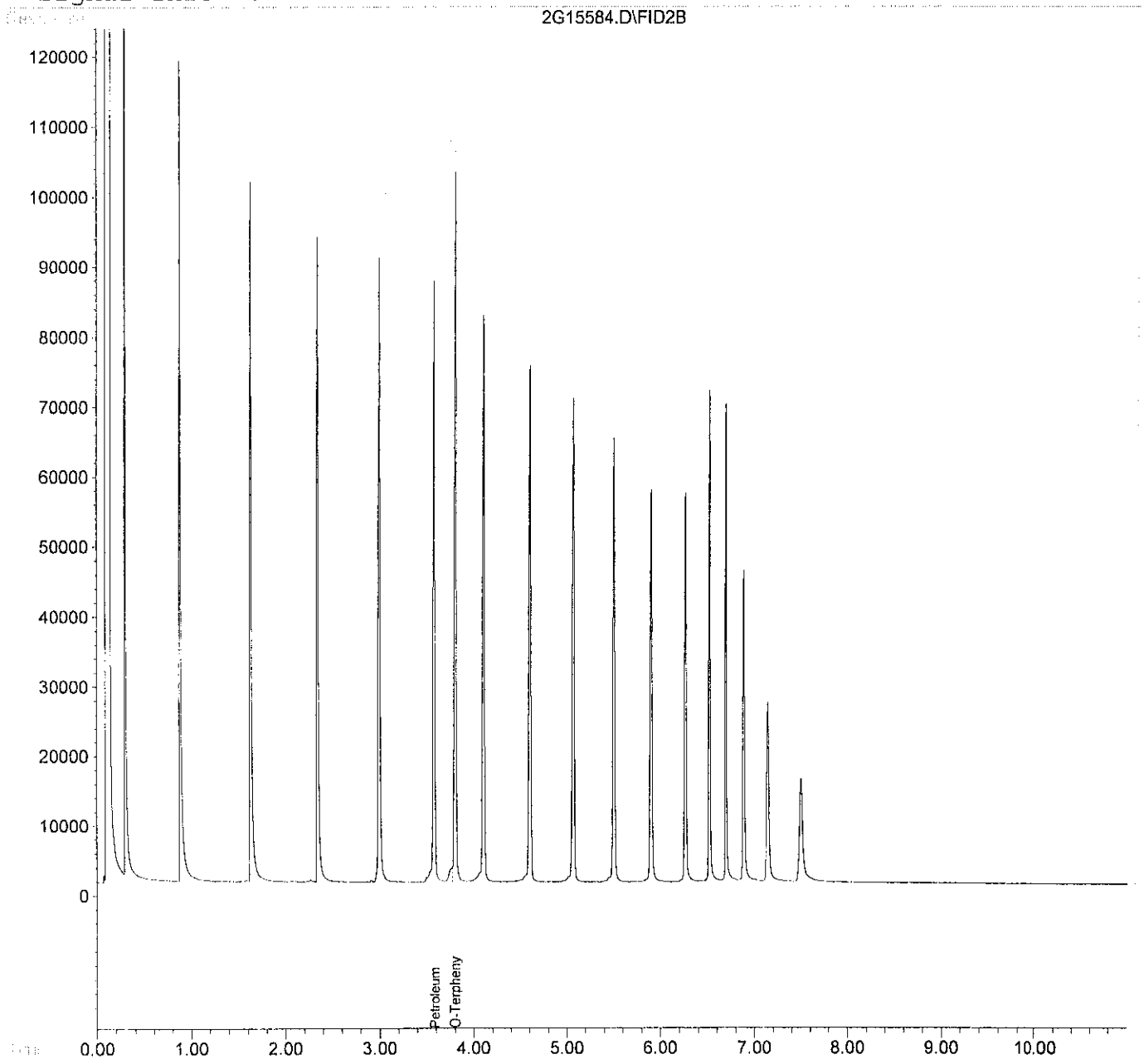
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.80	1158386	67.247 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 336.24%#	
Target Compounds			
1) H Petroleum Range	3.60	15141740	1282.612 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15584.D FLASHPRO.M Fri Sep 28 14:19:37 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092801\2G15584.D Vial: 7
Acq On : 28 Sep 2001 14:06 Operator: RDC
Sample : PRO STD 50 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:19 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 28 Sep 2001 14:22 Operator: RDC
Sample : PRO STD 5 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

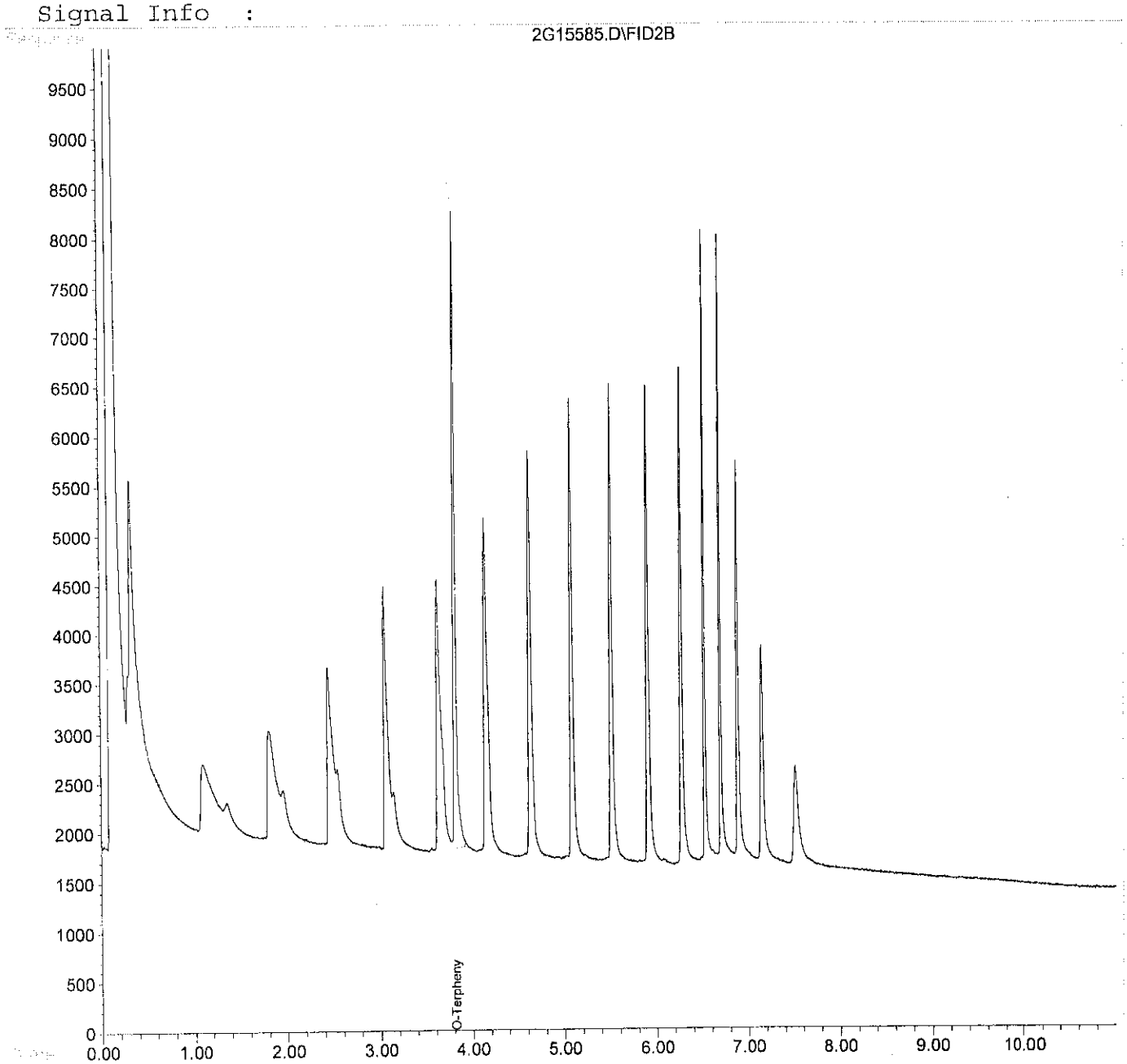
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.82	114388	6.641 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		33.21%#
Target Compounds			
1) H Petroleum Range	3.60	1420793	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15585.D FLASHPRO.M Fri Sep 28 14:34:51 2001 Page 1

Acq On : 28 Sep 2001 14:22 Operator: RDC
Sample : PRO STD 5 ppm Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 14:37 Operator: RDC
Sample : ALT PRO @ 200 ppm Inst : hp2
Misc : SOS53-49 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
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	2911.102	14.4	90	0.00
2	S	O-Terphenyl	200.000	0.774	99.6#	0	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15586.D FLASHPRO.M Fri Sep 28 14:49:51 2001 Page 1

Acq On : 28 Sep 2001 14:37 Operator: RDC
Sample : ALT PRO @ 200 ppm Inst : hp2
Misc : SOS53-49 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

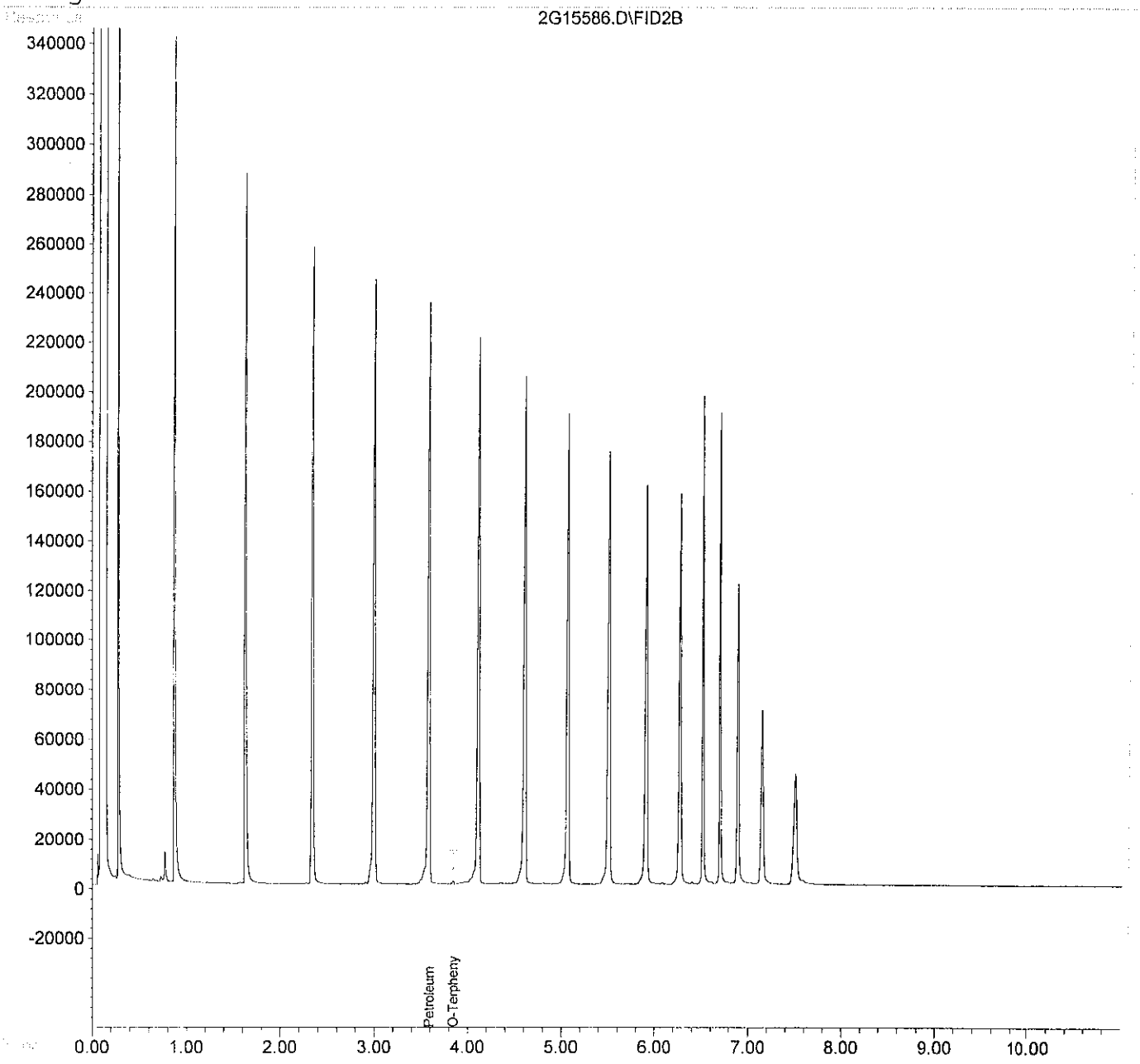
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.84	15954	0.774 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 3.87%#			
Target Compounds			
1) H Petroleum Range	3.60	45228630	2911.102 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15586.D FLASHPRO.M Fri Sep 28 14:49:44 2001 Page 1

Acq On : 28 Sep 2001 14:37 Operator: RDC
Sample : ALT PRO @ 200 ppm Inst : hp2
Misc : SOS53-49 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 28 14:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 17:28 Operator: RDC
Sample : PRO CCV Inst : hp2
Misc : SOS55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
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	3233.845	4.9	100	0.00
2	S	O-Terphenyl	200.000	185.855	7.1	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15597.D FLASHPRO.M Mon Oct 01 08:13:37 2001 Page 1

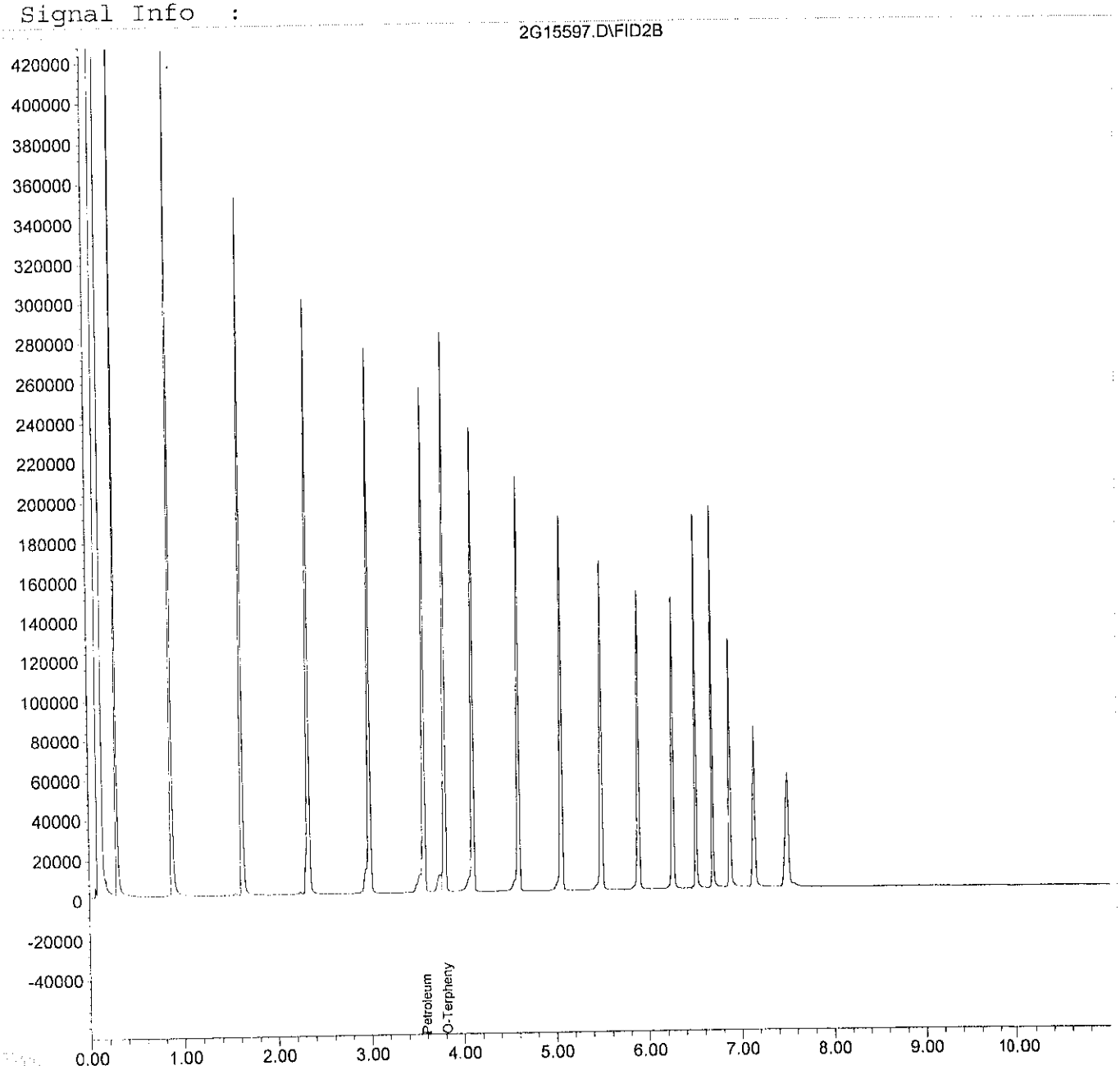
```
Acq On     : 28 Sep 2001  17:28                          Operator: RDC
Sample     : PRO CCV                                     Inst     : hp2
Misc       : SOS55-03                                    Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct  1  8:12 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 09/28/01
Last Update  : Fri Sep 28 14:40:54 2001
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        3830825  185.855 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   =  929.28%#

  Target Compounds
 1) H   Petroleum Range                3.60       50242960 3233.845 ppb


---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                  (m)=manual int.
2G15597.D  FLASHPRO.M      Mon Oct 01 08:13:15 2001                  Page 1
```

Acq On : 28 Sep 2001 17:28
Sample : PRO CCV
Misc : SOS55-03
IntFile : PETRO.E
Quant Time: Oct 1 8:12 2001 Quant Results File: FLASHPRO.RES

Operator: RDC
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\092501\2G15394.D Vial: 4
Acq On : 25 Sep 2001 9:57 Operator: HV
Sample : PRO water BLK V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:45 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
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	307462	17.849 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	89.24%
Target Compounds			
1) H Petroleum Range	3.60	1423135	<MDL ppb

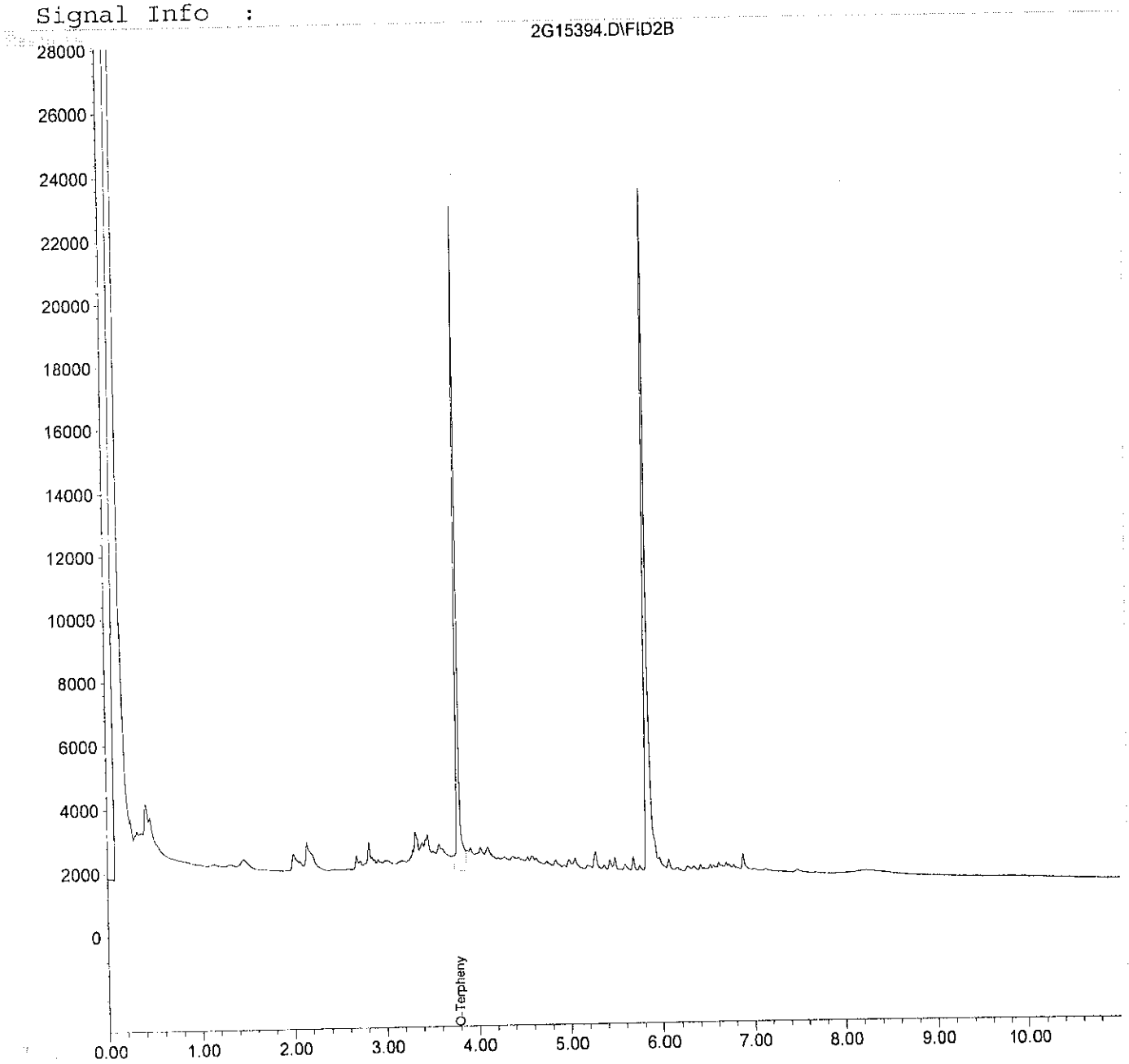
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15394.D FLASHPRO.M Tue Sep 25 11:45:29 2001 Page 1

Data File : C:\HPCHEM\1\DATA\092501\2G15394.D
Acq On : 25 Sep 2001 9:57
Sample : PRO water BLK V172-P151
Misc : water
IntFile : PETRO.E
Quant Time: Sep 25 11:45 2001 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 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : [illegible]

Acq On : 25 Sep 2001 10:28 Operator: HV
Sample : PRO water LCS V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

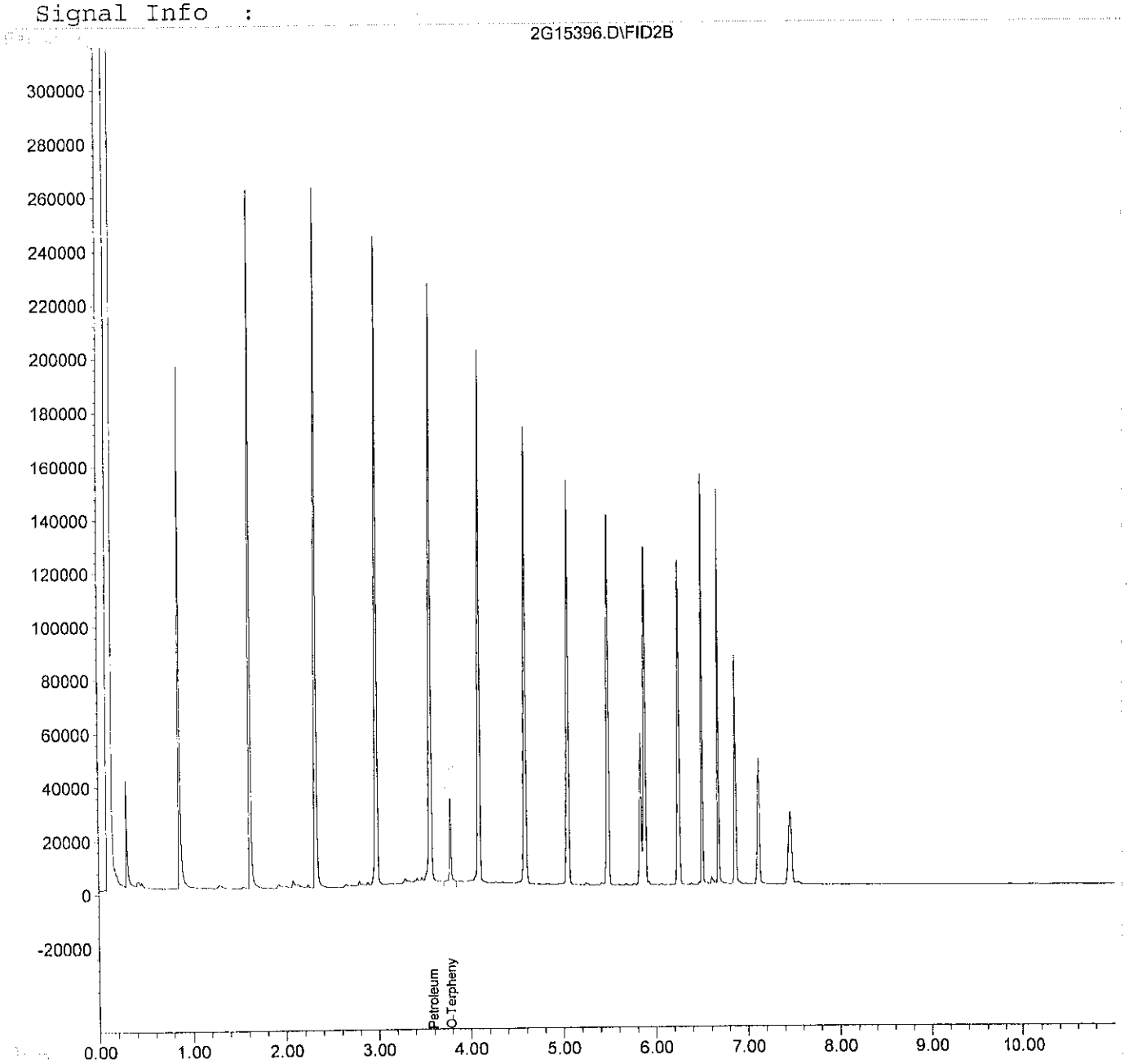
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.79	518059	30.075 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 150.38%	
Target Compounds			
1) H Petroleum Range	3.60	35911022	3041.917 ppb

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

Data File : C:\HPCHEM\1\DATA\092501\2G15396.D
Acq On : 25 Sep 2001 10:28 Operator: HV
Sample : PRO water LCS V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\2G15397.D
Acq On : 25 Sep 2001 10:43
Sample : PRO water LCS DUP V172-P151
Misc : water
IntFile : PETRO.E
Quant Time: Sep 25 11:47 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
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	3.78	445593	25.868 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	129.34%
Target Compounds			
1) H Petroleum Range	3.60	32722307	2771.811 ppb

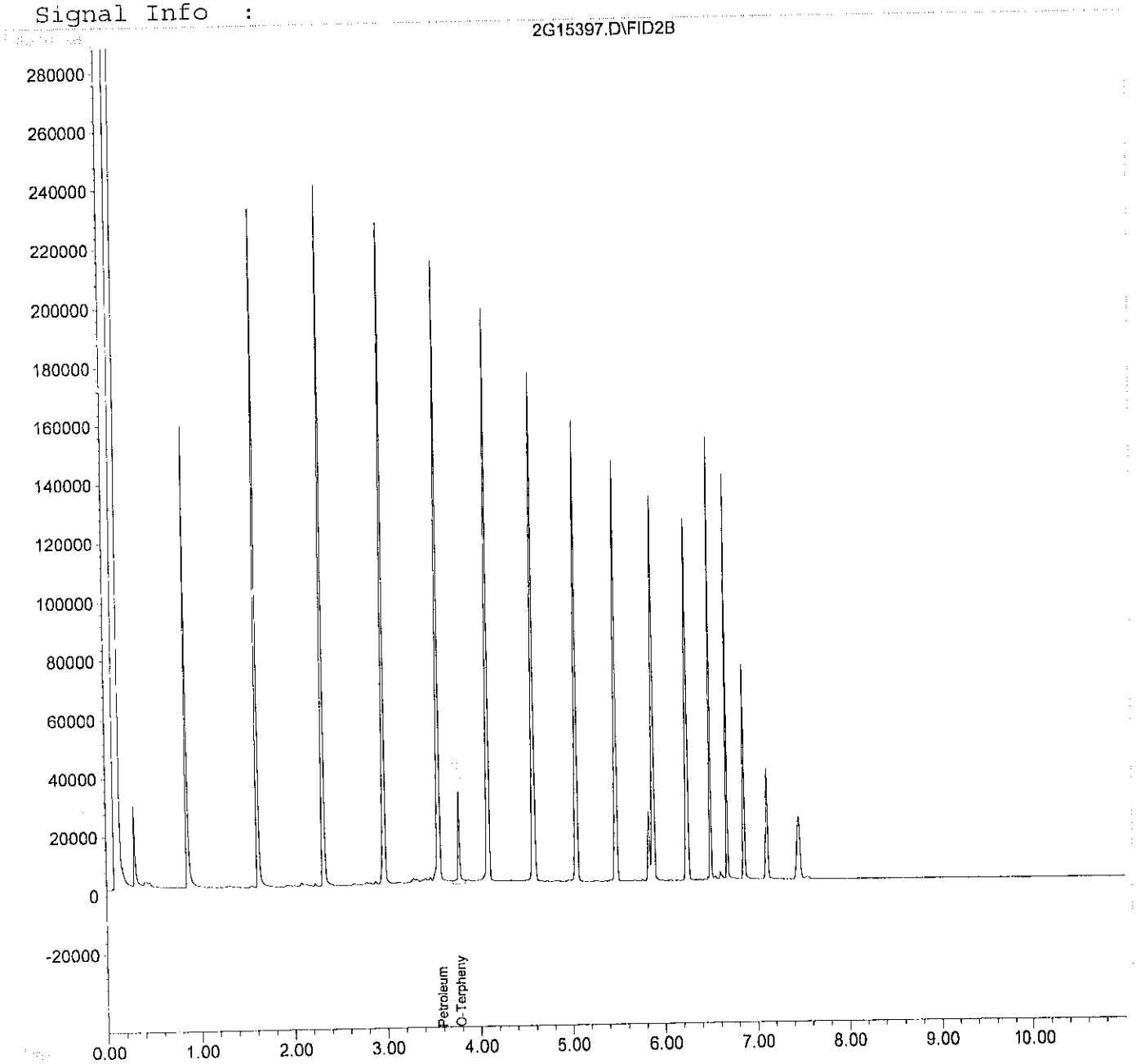
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\092501\2G15397.D
Acq On : 25 Sep 2001 10:43
Sample : PRO water LCS DUP V172-P151
Misc : water
IntFile : PETRO.E
Quant Time: Sep 25 11:47 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 14:53 Operator: RDC
Sample : WG105299-02 V172P183 BLANK PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

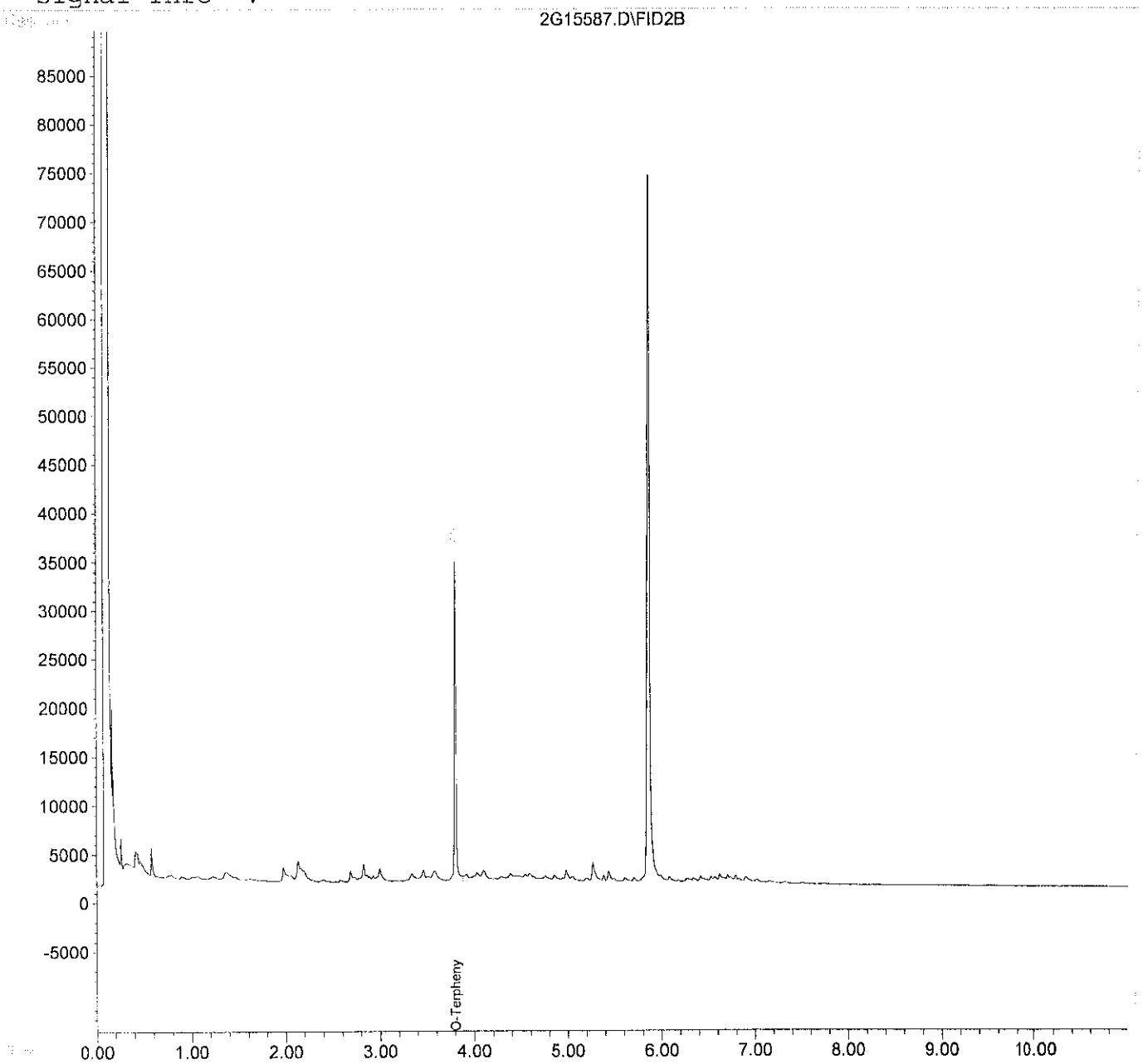
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.80	437449	848.924 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 106.12%			
Target Compounds			
1) H Petroleum Range	3.60	2873963	7399.207 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15587.D FLASHPRO.M Fri Sep 28 15:08:25 2001 Page 1

Acq On : 28 Sep 2001 14:53 Operator: RDC
Sample : WG105299-02 V172P183 BLANK PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 15:08
Sample : WG105299-03 V172P183 LCS
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Sep 28 15:37 2001 Quant Results File: FLASHPRO.RES

Operator: RDC
Inst : hp2
Multiplr: 40.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

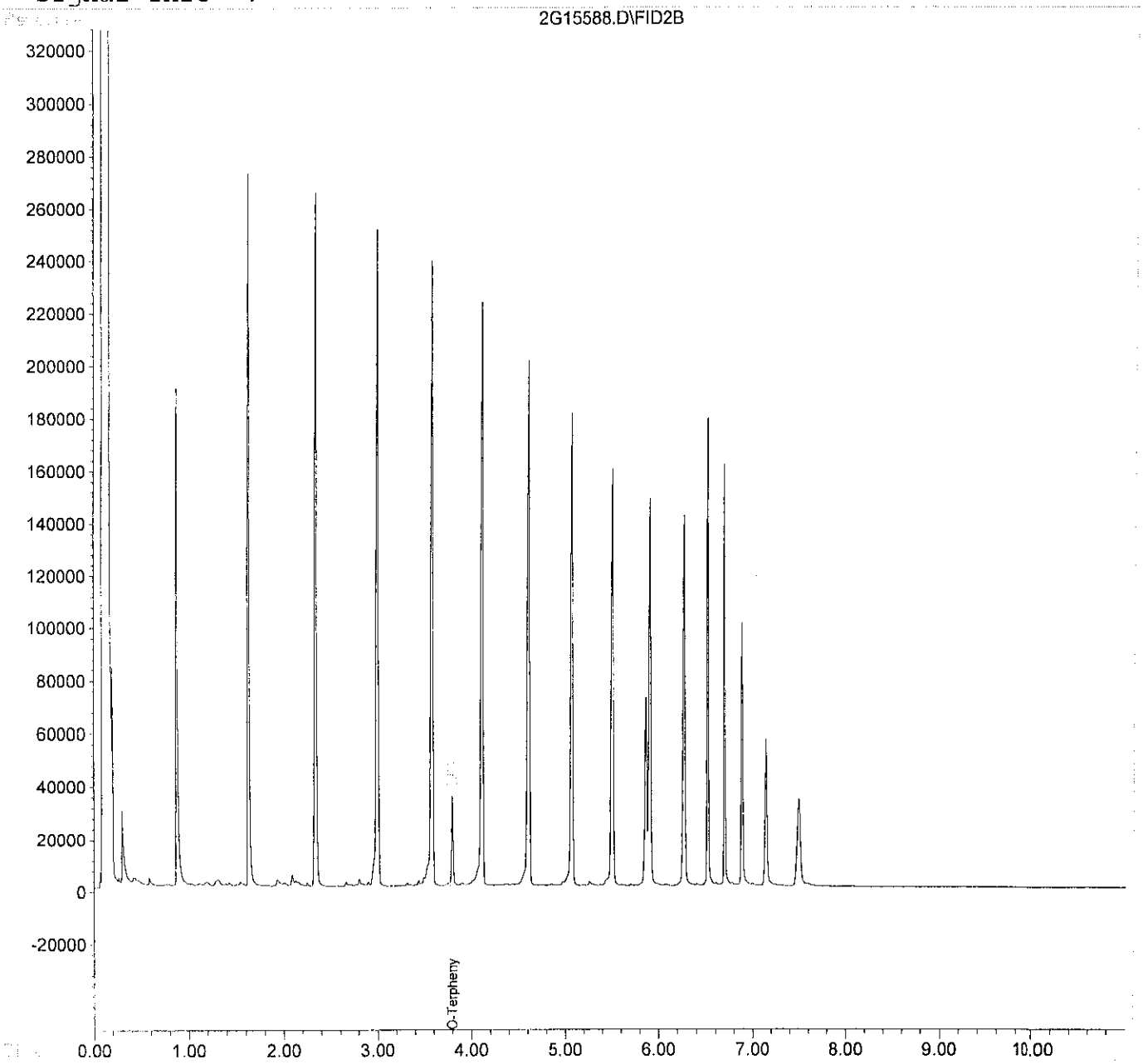
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.80	404462	784.909 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 98.11%			
Target Compounds			
1) H Petroleum Range	3.60	40475944	104207.967 ppb

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

Acq On : 28 Sep 2001 15:08 Operator: RDC
Sample : WG105299-03 V172P183 LCS Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:37 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 15:39 Operator: RDC
Sample : WG105299-04 L0109342-01 MS PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

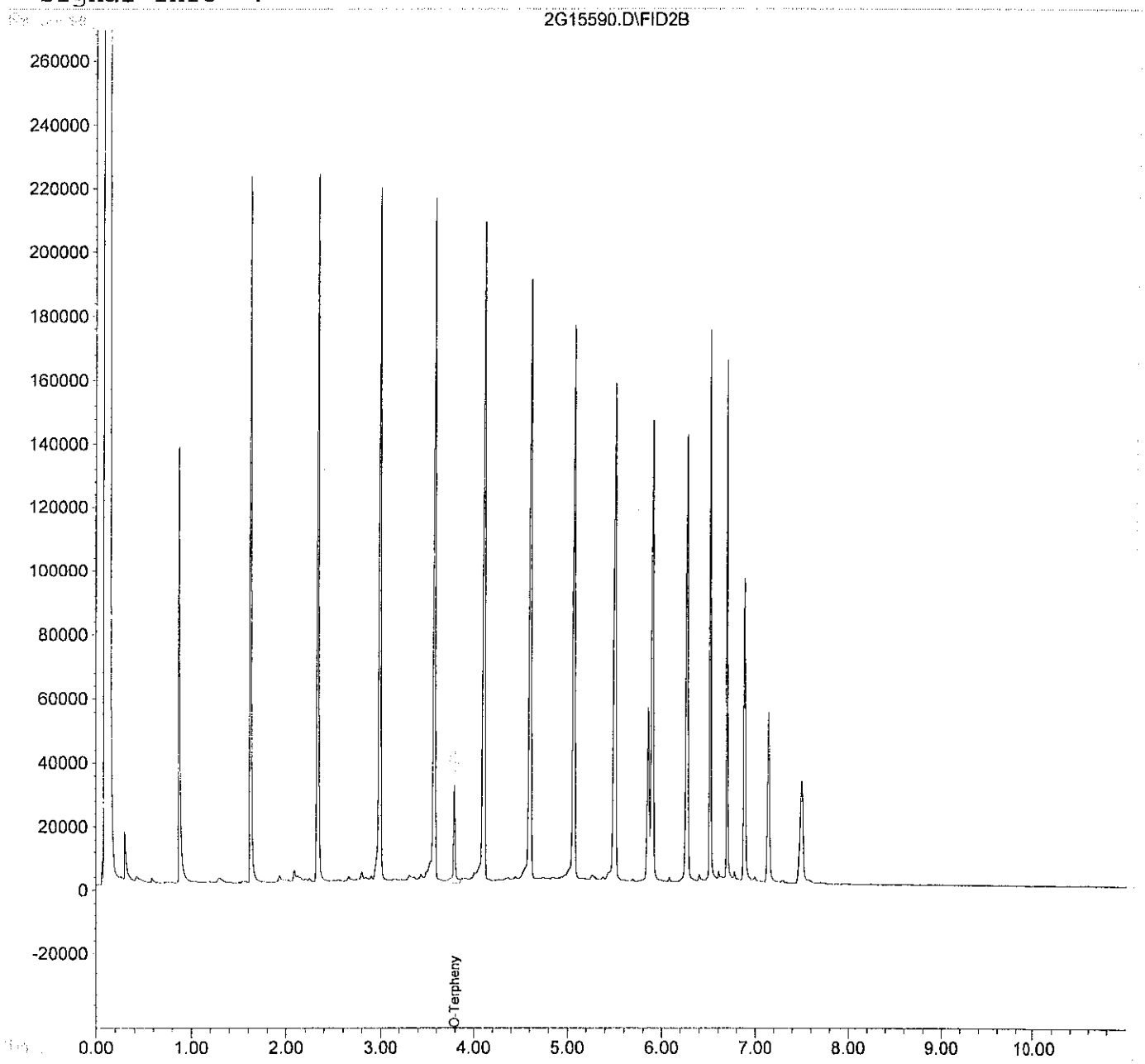
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.79	388160	753.272 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 94.16%			
Target Compounds			
1) H Petroleum Range	3.60	38309675	98630.767 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15590.D FLASHPRO.M Fri Sep 28 15:53:23 2001 Page 1

Acq On : 28 Sep 2001 15:39 Operator: RDC
Sample : WG105299-04 L0109342-01 MS PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 15:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Sep 2001 15:55 Operator: RDC
Sample : WG105299-05 L0109342-01 MSD PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 16:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

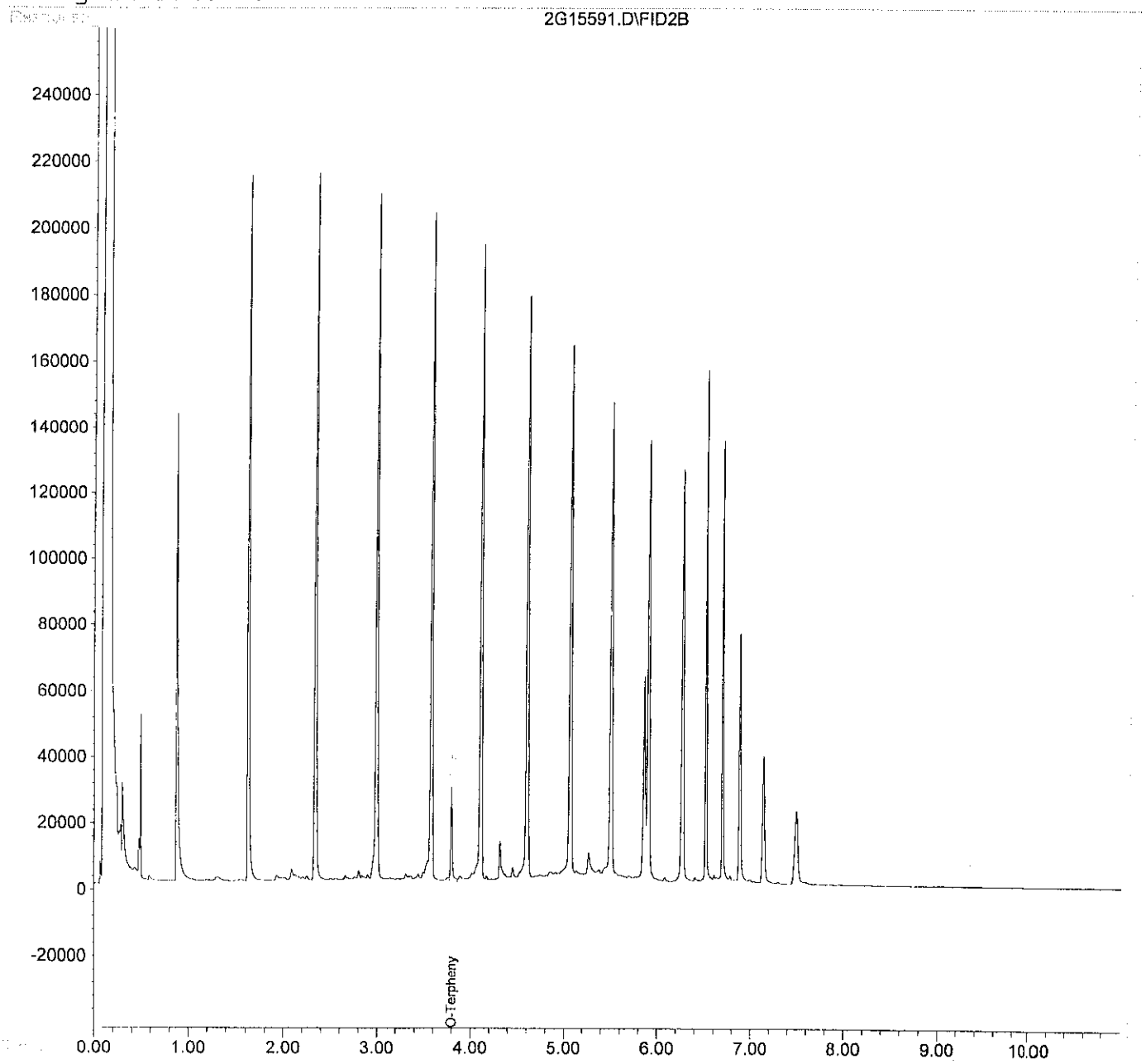
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.79	356855	692.521 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 86.57%			
Target Compounds			
1) H Petroleum Range	3.60	38375984	98801.484 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15591.D FLASHPRO.M Fri Sep 28 16:07:11 2001 Page 1

Acq On : 28 Sep 2001 15:55 Operator: RDC
Sample : WG105299-05 L0109342-01 MSD PRO SOIL Inst : hp2
Misc : 7,1 SOIL Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Sep 28 16:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/28/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g15244.d	1.	MECL2	water	19 Sep 101 12::4
	2	2g15245.d	1.	WIN DEF STD	NS 13-45	19 Sep 101 [illegible]
	3	2g15246.d	1.	PRO CONT CHK	NS 13-45	19 Sep 101 [illegible]
	4	2g15247.d	1.	PRO STD 600ppm	sos 55-03	19 Sep 101 12::3
	5	2g15248.d	1.	PRO STD 400ppm	SOS 55-03	19 Sep 101 12::5
	6	2g15249.d	1.	PRO STD 100ppm	SOS 55-03	19 Sep 101 12::1
	7	2g15250.d	1.	PRO STD 50ppm	SOS 55-03	19 Sep 101 12::2
	8	2g15251.d	1.	PRO STD 5ppm	SOS 55-03	19 Sep 101 12::4
	9	2g15252.d	1.	ALT PRO @200ppm	SOS 53-49 Exp 11/04/01	19 Sep 101 12::1
10	10	2g15253.d	1.	PRO water BLK V172-P75	water	19 Sep 101 [illegible]
11	11	2g15254.d	1.	PRO water LCS V172-P75	water	19 Sep 101 [illegible]
12	12	2g15255.d	1.04	L0109252-01 PRO water	water	19 Sep 101 [illegible]
13	13	2g15256.d	1.04	L0109252-02 PRO water	water	19 Sep 101 12::1
14	14	2g15257.d	1.	L0109252-03 PRO water	water	19 Sep 101 12::3
15	15	2g15258.d	1.04	L0109252-04 PRO water	water	19 Sep 101 12::4
16	16	2g15259.d	1.04	L0109252-05 MS PRO water	water	19 Sep 101 12::0
17	17	2g15260.d	1.04	L0109252-06 MSD PRO water	water	19 Sep 101 12::1
18	11	2g15261.d	1.	PRO water LCS RR	water	19 Sep 101 12::3
19	18	2g15262.d	1.	MECL2	water	19 Sep 101 12::4
20	19	2g15263.d	1.	PRO CONT CHK	SOS 55-03	19 Sep 101 12::0
21	20	2g15264.d	1.04	L0109252-07 PRO water	water	19 Sep 101 12::1
22	21	2g15265.d	1.05	L0109252-08 PRO water	water	19 Sep 101 12::3
23	22	2g15266.d	1.05	L0109252-09 PRO water	water	19 Sep 101 12::4
24	23	2g15267.d	1.04	L0109254-01 PRO water	water	19 Sep 101 12::0
25	24	2g15268.d	1.05	L0109254-02 PRO water	water	19 Sep 101 [illegible]
26	25	2g15269.d	1.04	L0109254-03 PRO water	water	19 Sep 101 [illegible]
27	26	2g15270.d	1.	L0109254-04 PRO water	water	19 Sep 101 12::5
28	18	2g15271.d	1.	mecl2	water	19 Sep 101 13::0
29	19	2g15272.d	1.	PRO CONT CHK	SOS 55-03	19 Sep 101 13::2

HV 9/20/01
[illegible] 9/20/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 9-19-01 Instrument ID HP8 Column ID RTX-5 Data Subdirectory 091901A
Analyst Initials HV

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

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
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

Reviewed By: [illegible] 9/20/01

.ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g15390.d	1.	PENTANE		25 Sep 101 12::5
!	2	2g15391.d	1.	WIN DEF STD NS 13-45		25 Sep 101 12::1
;	2	2g15392.d	1.	WIN DEF STD		25 Sep 101 12::2
!	3	2g15393.d	1.	PRO CONT CHK SOS 55-03		25 Sep 101 12::4
;	4	2g15394.d	1.	PRO water BLK V172-P151	water	25 Sep 101 12::5
;	5	2g15395.d	10.4	L0109269-01 10X PRO water	water	25 Sep 101 13::1
'	6	2g15396.d	1.	PRO water LCS V172-P151	water	25 Sep 101 13::2
)	7	2g15397.d	1.	PRO water LCS DUP V172-P151	water	25 Sep 101 13::4
)	8	2g15398.d	1.1	L0109252-02 RE PRO water	water	25 Sep 101 13::5
0	9	2g15399.d	1.03	L0109352-03 RE PRO water	water	25 Sep 101 13::1
.1	10	2g15400.d	1.1	L0109352-08 RE PRO water	water	25 Sep 101 13::2
12	11	2g15401.d	1.06	L0109340-04 PRO water	water	25 Sep 101 13::4
13	12	2g15402.d	1.05	L0109342-02 PRO water	water	25 Sep 101 13::2
14	13	2g15403.d	1.	PRO CONT CHK SOS 55-03	water	25 Sep 101 13::4
15	1	2g15404.d	1.	pentane	water	25 Sep 101 13::5
16	2	2g15405.d	1.05	TPH CONT CHK NS 14-01	water	25 Sep 101 12::1
17	3	2g15406.d	1.05	TPH ALIPHATIC @20ppm	SOS 55-23	25 Sep 101 12::2
18	4	2g15407.d	0.855	L0109313-01 TPH Aliphatic	water	25 Sep 101 12::4
19	5	2g15408.d	0.855	L0109313-01 TPH Aromatic	water	25 Sep 101 12::0
20	6	2g15409.d	0.855	pentane	water	25 Sep 101 12::1
21	7	2g15410.d	1.	TPH CONT CHK NS 14-01	water	25 Sep 101 12::3

HV 9/25/01

RDC 9/25/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 9-25-01 Instrument ID HP2 Column ID RTX 5 Data Subdirectory 092501
Analyst Initials HV

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

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time ___ Instrument ID ___ Column ID ✓ 5PHT1006 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

Reviewed By: RDC 9/25/02

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g15578.d	1.	MECL2 BLANK		28 Sep 101 12::5
2	2	2g15579.d	1.	WINDOW DEFINITION STD.	NS13-45	28 Sep 101 13::5
3	3	2g15580.d	1.	PRO CCV	SOS55-03	28 Sep 101 13::1
4	4	2g15581.d	1.	PRO STD 600 ppm	SOS55-03	28 Sep 101 12::2
5	5	2g15582.d	1.	PRO STD 400 ppm	SOS55-03	28 Sep 101 12::3
6	6	2g15583.d	1.	PRO STD 100 ppm	SOS55-03	28 Sep 101 12::5
7	7	2g15584.d	1.	PRO STD 50 ppm	SOS55-03	28 Sep 101 12::0
8	8	2g15585.d	1.	PRO STD 5 ppm	SOS55-03	28 Sep 101 12::2
9	9	2g15586.d	1.	ALT PRO @ 200 ppm	SOS53-49	28 Sep 101 12::3
10	10	2g15587.d	40.	WG105299-02 V172P183 BLANK PRO SOIL	7,1 SOIL	28 Sep 101 12::5
11	11	2g15588.d	40.	WG105299-03 V172P183 LCS	7,1 SOIL	28 Sep 101 12::0
12	12	2g15589.d	40.	WG105299-01 L0109342-01 REF PRO SOIL	7,1 SOIL	28 Sep 101 12::2
13	13	2g15590.d	40.	WG105299-04 L0109342-01 MS PRO SOIL	7,1 SOIL	28 Sep 101 12::3
14	14	2g15591.d	40.	WG105299-05 L0109342-01 MSD PRO SOIL	7,1 SOIL	28 Sep 101 12::5
15	15	2g15592.d	40.	L0109340-01 PRO SOIL	7,1 SOIL	28 Sep 101 12::1
16	16	2g15593.d	40.	L0109340-02 PRO SOIL	7,1 SOIL	28 Sep 101 12::2
17	17	2g15594.d	40.	L0109340-03 PRO SOIL	7,1 SOIL	28 Sep 101 12::4
18	18	2g15595.d	40.	L0109355-01 PRO SOIL	7,1 SOIL	28 Sep 101 12::5
19	19	2g15596.d	1.	MECL2	1,1	28 Sep 101 12::1
20	20	2g15597.d	1.	PRO CCV	SOS55-03	28 Sep 101 12::2
21	21	2g15598.d	1.	RR WG105327-01 V172P189 BLANK PRO WATER	1,1	28 Sep 101 12::4
22	22	2g15599.d	1.	WG105327-02 V172P189 LCS PRO WATER	1,1	28 Sep 101 12::5
23	23	2g15600.d	1.	WG105327-02 V172P189 LCS2 PRO WATER	1,1	28 Sep 101 12::1
24	24	2g15601.d	1.18	L0109372-07 PRO WATER	1,1	28 Sep 101 12::2
25	25	2g15602.d	1.17	L0109372-09 PRO WATER	1,1	28 Sep 101 12::4
26	26	2g15603.d	1.16	L0109372-10 PRO WATER	1,1	28 Sep 101 12::0
27	27	2g15604.d	1.14	L0109372-11 PRO WATER	1,1	28 Sep 101 12::1
28	28	2g15605.d	1.17	L0109372-12 PRO WATER	1,1	28 Sep 101 12::3
29	29	2g15606.d	1.18	L0109372-14 PRO WATER	1,1	28 Sep 101 12::4
30	30	2g15607.d	1.	MECL2	1,1	28 Sep 101 12::0
31	31	2g15608.d	1.	CC PRO CCV	SOS55-03	28 Sep 101 12::1
32	32	2g15609.d	1.	RR L0109372-16 PRO WATER	1,1	28 Sep 101 12::3
33	33	2g15610.d	1.	L0109372-18 PRO WATER	1,1	28 Sep 101 12::4
34	34	2g15611.d	1.	ESS39-02 PRO SPK	1,1	28 Sep 101 12::0
35	35	2g15612.d	1.	ESS38-48 PRO SURR	1,1	28 Sep 101 12::1
36	36	2g15613.d	400.	L0109340-01 PRO SOIL 10X	7,10 SOIL	28 Sep 101 12::3
37	37	2g15614.d	400.	L0109340-02 PRO SOIL 10X	7,10 SOIL	28 Sep 101 12::4
38	38	2g15615.d	400.	L0109355-01 PRO SOIL 10X	7,10 SOIL	28 Sep 101 13::0
39	30	2g15616.d	1.	MECL2	1,1	28 Sep 101 13::1
40	31	2g15617.d	1.	PRO CCV	SOS55-03	28 Sep 101 13::3

HV 10/1/01

RRC 10/1/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 9-28-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 092801
Analyst Initials HW

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
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

29 15608 - failed low in surrogate
29 15598 — 29 15608 - RR.

Reviewed By: RQC 10/1/01

Parameter: FLA-PRO-1.0 SOP #: EXPRO Revision #: 1
Extraction Analyst(s): DP TV/KD Analyst(s): JAW/SAM
Date/Time Extracted: 9-24-01 @ 1205 Date TV/KD: 9-24-01
Spike/Surrogate Analyst: DP Witness: SAM
Surrogate #: ES50038-13 Earliest Hold Date: 9/27/01
Spike #: A = ES50038-38 Spike #: B = ——

Extraction Work Group WG 105122
Analytical Work Group WG [illegible]

Extract Relinquished By: DP
Extract Received By & Date: CLK 9/25/01

	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 105122-01
2	LCS		✓			↓	↓	1mL	↓	C				WG ↓ -02
3	LCS DUP		✓			↓	↓	↓	↓	C				↓ ↓ -03
4	09-340-04	FLA-PRO	✓			940mL	↓		↓	T				
5	09-342-02	↓	✓			950mL	↓		↓	T				
6	09-252-02	↓	✓			910mL	↓		↓	C				*
7	↓ -03	↓	✓			970mL	↓		↓	T				↓
8	↓ -08	↓	✓			910mL	↓		↓	T				↓
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

SAM 9/24/01

Methylene Chloride Lot #: 41109
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: 1:1 HCl Lot #: ER1915
Florisil Lot #: ——
Silica Gel Lot #: V13558
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER1913

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: _____ Date: _____

Extraction Notes For Volume # 172 Page # 151

General Comments: * Re-ext w/in hold

Extraction Anomalies: Nothing to report.

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: PRO-S SOP #: EXPRO Revision #: 2
Extraction Analyst(s): CAF, SMH TV/KD Analyst(s): JW
Date/Time Extracted: 9-26-01 @ 1010 Date TV/KD: 9-26-01
Spike/Surrogate Analyst: CAF Witness: JW
Surrogate #: ES50038-13 Earliest Hold Date: 10/4/01
Spike #: A = ES50038-38 Spike #: B = ——

Extraction Work Group WG 105299
Analytical Work Group WG 105346
Extract Relinquished By: JW
Extract Received By & Date: [illegible] 9/26/01

	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				JW 9-26-01	325.04g	1mL		1mL	T				WG 105299-02
2	LCS							1mL		C				WG ⊥ -03
PFF 3	09-340-01	FLA-PRO								C				
4	⊥ -02									C				
9/28 5	⊥ -03									O				SLUDGE
PFF 6	09-342-01									C				WG 105299-01
9/28 7	⊥ -01MS							1mL		C				⊥ -04
8	⊥ -01MSD							⊥		C				⊥ -05
9/28 PF 9	09-355-01									C				
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

JW 9-26-01

Methylene Chloride Lot #: 41109
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: —— Lot #: ——
Florisil Lot #: ——
Silica Gel Lot #: V13558
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER1913

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: 09/26/01

Extraction Notes For Volume # 172 Page # 180

General Comments: Nothing to report.

Extraction Anomalies: Nothing to report.

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: Nothing to report.

Supervisor Review: _____ Date: _____

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)

KEMRON Login No.: L0109342

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/MSD results were not associated with this sample delivery group.

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: Steve Pearl DATE: 10/7/01

Rev. 7/14/00

Semi-Volatile 8310 Checklist

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
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	
	Corrective Action	
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 curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK
NA = Not Applicable

Run Date: 24-Sep-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG105168 09-254 reex	9/25/2001	PFF
WG105168 09-269 reex	9/26/2001	PFF
WG105168 09-340	9/28/2001	PFF
WG105168 09-342	9/28/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic 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	NA
	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:
All re-extracts are in hold with all acceptance criteria met for surrogate recovery.

Primary Reviewer: RDC 9/28/01

Secondary Reviewer: DR 10/1/01

Supervisor Review: DR 10/1/01

√ = Checked & OK

NA = Not Applicable

Run Date: 26-Sep-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG105348 09-340	9/28/2001	PFF
WG105348 09-342	9/28/2001	PFF

		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:

L0109340-01 & -02 require re-analysis @ 10X and confirmation of acenaphthylene.

Non-client requested MS/MSD was >UCL for several analytes.

Note for me.....These samples were used for data base upload trials. Uploaded data efforts have been deleted and manual entry result sheets are submitted.

Primary Reviewer: RDC 10/2/01

Secondary Reviewer: 10/2/01

Supervisor Review: 10/2/01

√ = Checked & OK

NA = Not Applicable

PAH HPLC DATA (8310)

Login Number: L0109 342

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: TDC Date: 10/3/01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Soils

ANAL WORK GRP : WG105348
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG105298
EXT DATE : 9/26/2001
EXT BENCH SHEET : V172P181

RUN DATE : 9/26/01
BLK FLNM : 4L002153
LCS FLNM : 4L002154

SAMP ID : L0109340 -01
SMPL FLNM : 4L002155
MS FLNM : 4L002156
MSD FLNM : 4L002157

ANALYTE	CONCENTRATION, µg/Kg								% RECOVERY														
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	165	ND	1667	849	6727	1667	8358	9414	ND	50.9	22	85	NA	97.9	161	22	85	12	50			H	H
ACENAPTHYLENE	165	ND	1667	866	ND	1667	1538	1745	ND	51.9	26	94	NA	92.3	105	26	94	13	50				H
1-METHYLNAPHTHALENE	165	ND	1667	849	4329	1667	5711	6167	ND	50.9	26	94	NA	82.9	110	26	94	7.7	50				H
2-METHYLNAPHTHALENE	165	ND	1667	862	9391	1667	10743	10952	ND	51.7	26	94	NA	81.1	93.7	26	94	1.9	50				
ACENAPHTHENE	165	ND	1667	869	ND	1667	4172	4815	ND	53.3	24	100	NA	250	289	24	100	14	50			H	H
FLUORENE	165	ND	1667	992	ND	1667	2364	2630	ND	59.5	28	98	NA	142	158	28	98	11	50			H	H
PHENANTHRENE	165	ND	1667	1092	230	1667	1608	1658	ND	65.5	38	102	NA	82.7	85.7	38	102	3	50				
ANTHRACENE	165	ND	1667	1152	ND	1667	1635	1668	ND	69.1	40	92	NA	98.1	100	40	92	2	50			H	H
FLUORANTHENE	16.5	ND	167	131	90.6	167	558	579	ND	78.2	54	105	NA	279	293	54	105	4	50			H	H
PYRENE	16.5	ND	167	132	15.4	167	104	106	ND	79.2	50	108	NA	53.0	54.2	50	108	2	50				
BENZO[a]ANTHRANCENE	16.5	ND	167	139	ND	167	127	128	ND	83.2	60	107	NA	76.0	76.6	60	107	1	50				
CHRYSENE	16.5	ND	167	143	370	167	503	529	ND	85.3	60	104	NA	79.8	95.3	60	104	5	50				
BENZO[b]FLUORANTHENE	16.5	ND	167	142	27.9	167	165	167	ND	84.7	61	108	NA	82.2	83.4	61	108	1	50				
BENZO[k]FLUORANTHENE	16.5	ND	83.5	71.3	21.4	83.5	95.9	95.9	ND	85.3	59	112	NA	89.3	89.3	59	112	0	50				
BENZO[a]PYRENE	16.5	ND	167	112	15.2	167	150	151	ND	67.0	51	101	NA	80.5	81.5	51	101	1	50				
DIBENZO[a,h]ANTHRANCENE	16.5	ND	167	153	21.3	167	160	161	ND	91.3	58	113	NA	83.0	83.4	58	113	0	50				
BENZO[g,h,i]PERYLENE	16.5	ND	167	139	19.9	167	161	158	ND	83.0	53	118	NA	84.6	82.8	53	118	2	50				
INDENO[1,2,3-cd]PYRENE	16.5	ND	167	144	8.89	167	181	182	ND	86.3	58	105	NA	103	103.7	58	105	0	50				
SURROGATE p-TERPHENYL-d14		265	333	279	318	333	350	348	79.6	83.8	50	150	95.6	105	104	50	150						

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
RDL = REPORTING DETECTION LIMIT

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP :	WG105168	PREP WORK GRP :	WG105120	RUN DATE :	9/24/01	SAMP ID : NA
METHOD :	8310	EXT DATE :	24-Sep-01	BLK FLNM :	4L002138	SMPL FLNM : NA
INSTRUMENT :	HPLC4	EXT BENCH SHEET :	V172P137	LCS FLNM :	4L002139	MS FLNM : NA
ANALYST :	RDC			LCS2 FLNM :	4L002140	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	CS	CS2	MS	MSD
NAPHTHALENE	1	ND	50	26.0	28.3	NA	50.0	NA	NA	ND	52.0	56.6	25	68	NA	NA	NA	25	68	8.53	50					
ACENAPTHYLENE	1	ND	50	27.5	31.9	NA	50.0	NA	NA	ND	55.0	63.8	25	77	NA	NA	NA	25	77	14.8	50					
1-METHYLNAPHTHALENE	1	ND	50	25.9	29.3	NA	50.0	NA	NA	ND	51.8	58.6	26	71	NA	NA	NA	26	71	12.3	50					
2-METHYLNAPHTHALENE	1	ND	50	26.5	29.1	NA	50.0	NA	NA	ND	53.0	58.2	26	72	NA	NA	NA	26	72	9.35	50					
ACENAPHTHENE	1	ND	50	27.6	32.0	NA	50.0	NA	NA	ND	55.2	64.0	25	78	NA	NA	NA	77	25	14.7	50					
FLUORENE	1	ND	50	32.1	34.4	NA	50.0	NA	NA	ND	64.2	68.8	29	84	NA	NA	NA	29	84	6.92	50					
PHENANTHRENE	1	ND	50	38.7	40.8	NA	50.0	NA	NA	ND	77.4	81.6	39	95	NA	NA	NA	39	95	5.28	50					
ANTHRACENE	1	ND	50	43.4	42.5	NA	50.0	NA	NA	ND	86.8	85.0	47	101	NA	NA	NA	47	101	2.10	50					
FLUORANTHENE	0.2	ND	5	4.51	4.70	NA	5.00	NA	NA	ND	90.2	94.0	56	104	NA	NA	NA	56	104	4.13	50					
PYRENE	0.2	ND	5	4.47	4.66	NA	5.00	NA	NA	ND	89.4	93.2	56	104	NA	NA	NA	56	104	4.16	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.53	4.82	NA	5.00	NA	NA	ND	90.6	96.4	50	115	NA	NA	NA	50	115	6.20	50					
CHRYSENE	0.2	ND	5	4.39	4.80	NA	5.00	NA	NA	ND	87.8	96.0	39	120	NA	NA	NA	39	120	8.92	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	4.03	4.54	NA	5.00	NA	NA	ND	80.6	90.8	41	110	NA	NA	NA	41	110	11.9	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.77	2.13	NA	2.50	NA	NA	ND	70.8	85.2	25	107	NA	NA	NA	25	107	18.5	50					
BENZO[a]PYRENE	0.2	ND	5	3.61	4.18	NA	5.00	NA	NA	ND	72.2	83.6	29	113	NA	NA	NA	29	113	14.6	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	2.21	3.45	NA	5.00	NA	NA	ND	44.2	69.0	10	92	NA	NA	NA	10	92	43.8	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	2.17	3.47	NA	5.00	NA	NA	ND	43.4	69.4	11	84	NA	NA	NA	11	84	46.1	50					
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	2.75	3.74	NA	5.00	NA	NA	ND	55.0	74.8	16	98	NA	NA	NA	16	98	30.5	50					
SURROGATE																										
p-TERPHENYL-d14		8.96	10	7.50	8.93	NA	10.0	NA	NA	89.6	75.0	89.3	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

2.2.7.2 Sample Data

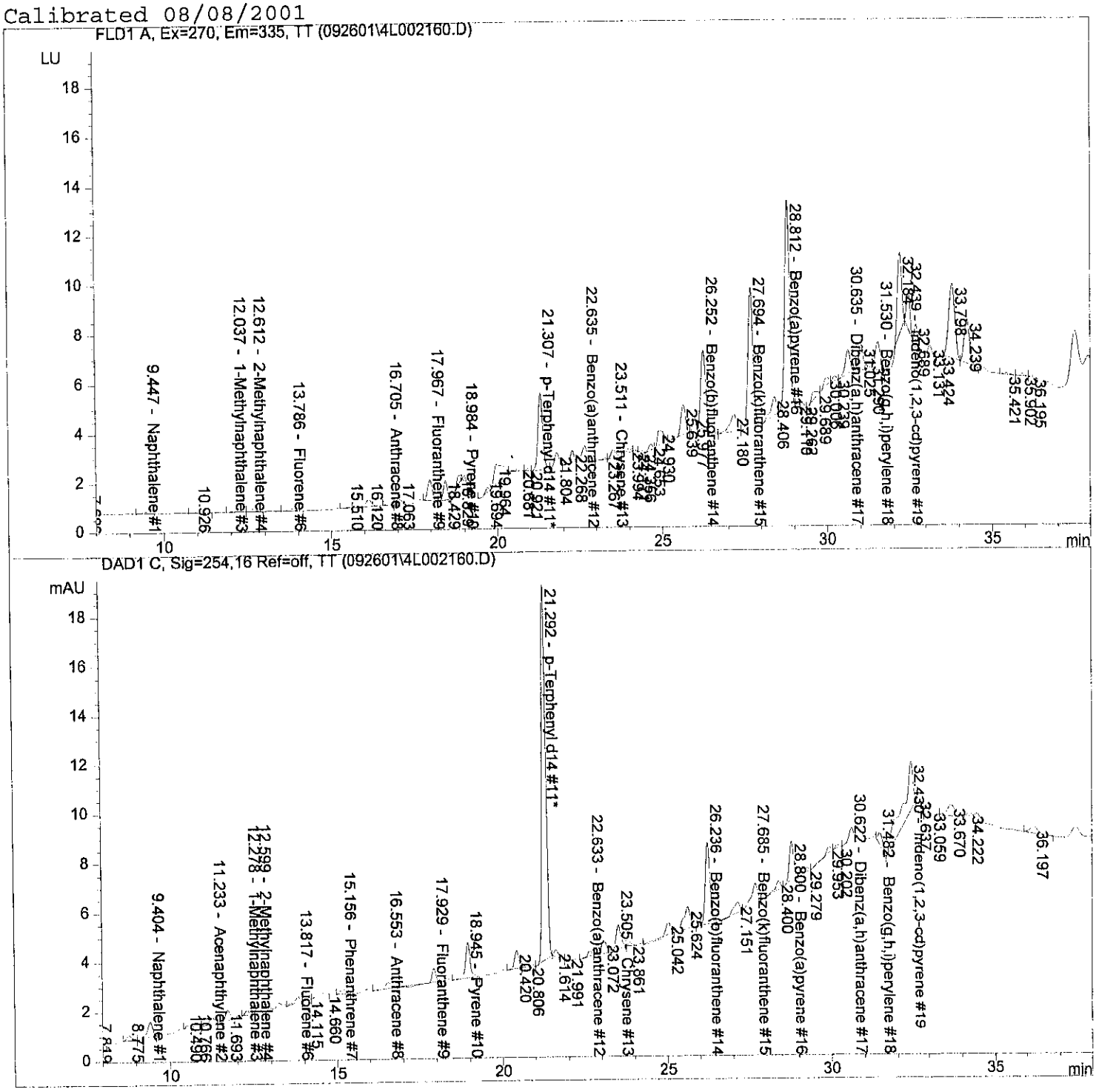
==========

Injection Date : 9/27/2001 4:30:47 AM
Sample Name : L0109342-01 831S
Acq. Operator : RDC

Seq. Line : 13
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.447	BB	7.50573e-1	2.52962e-2	1.89867e-2		Naphthalene #1
12.037	BBA	4.42145e-1	2.21330e-2	9.78598e-3		1-Methylnaphthalene #3
12.612	BBA	1.09555	1.70635e-2	1.86939e-2		2-Methylnaphthalene #4
13.122		-	-	-		Acenaphthene #5
13.786	BB	1.04955	6.62187e-3	6.94996e-3		Fluorene #6
15.176		-	-	-		Phenanthrene #7
16.705	BB	8.38779e-1	3.10196e-1	2.60186e-1		Anthracene #8
17.967	BB	8.30724	2.32678e-2	1.93292e-1		Fluoranthene #9
18.984	BB	1.11847	3.86587e-2	4.32388e-2		Pyrene #10 90.1%
21.307	BB	30.29947	2.97423e-1	9.01175		p-Terphenyl d14 #11*
22.635	BB	7.43642	7.91256e-3	5.88411e-2		Benzo(a)anthracene #12
23.511	BB	3.76777	3.90495e-2	1.47130e-1		Chrysene #13
26.252	BB	32.30518	1.63222e-2	5.27291e-1	C	Benzo(b)fluoranthene #14
27.694	BB	60.51492	2.76572e-3	1.67367e-1	C	Benzo(k)fluoranthene #15
28.812	BB	85.21524	4.57119e-3	3.89535e-1	✓	Benzo(a)pyrene #16
30.635	BB	9.67231	3.93496e-2	3.80601e-1	✓	Dibenz(a,h)anthracene #17
31.530	BB	11.81475	2.65165e-2	3.13286e-1	✓	Benzo(g,h,i)perylene #18
32.439	BB	10.91568	1.38204e-2	1.50859e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 11.69780

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 X33
9.404	BB	6.87067	8.25405e-3	5.67109e-2	<MDL	Naphthalene #1
11.233	BB	3.35695	2.96975e-2	9.96931e-2		Acenaphthylene #2
12.278	BB	1.71263	1.29459e-2	2.21714e-2		1-Methylnaphthalene #3
12.599	BB	2.90658	1.12393e-2	3.26678e-2		2-Methylnaphthalene #4
13.107		-	-	-		Acenaphthene #5
13.817	BB	2.78351	1.75240e-2	4.87782e-2		Fluorene #6
15.156	BB	2.37566	1.72982e-2	4.10947e-2		Phenanthrene #7
16.553	BB	3.89525	1.04262e-2	4.06126e-2	✓ 94%	Anthracene #8
17.929	BB	3.80182	2.17006e-2	8.25018e-2		Fluoranthene #9 <MDL
18.945	BB	14.92072	1.43052e-2	2.13445e-1		Pyrene #10 NC
21.292	BB	129.28618	6.56733e-2	8.49064		p-Terphenyl d14 #11*
22.633	BB	1.99244	2.22694e-2	4.43705e-2	<MDL	Benzo(a)anthracene #12
23.505	BB	10.15761	1.51453e-2	1.53840e-1	~~<RL~~	Chrysene #13 F
26.236	BB	30.59781	2.07330e-2	6.34384e-1	✓	Benzo(b)fluoranthene #14
27.685	BB	10.62186	2.25837e-2	2.39881e-1	✓	Benzo(k)fluoranthene #15
28.800	BB	13.75731	2.61680e-2	3.60002e-1	C	Benzo(a)pyrene #16
30.622	BB	3.95662	9.41116e-2	3.72364e-1	C	Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.482	BB	4.74233	5.60829e-2	2.65964e-1	C	Benzo(g,h,i)perylene #18
32.430	BB	43.20576	2.05608e-2	8.88344e-1	NC	Indeno(1,2,3-cd)pyrene #1

Totals : 12.08747

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 ***

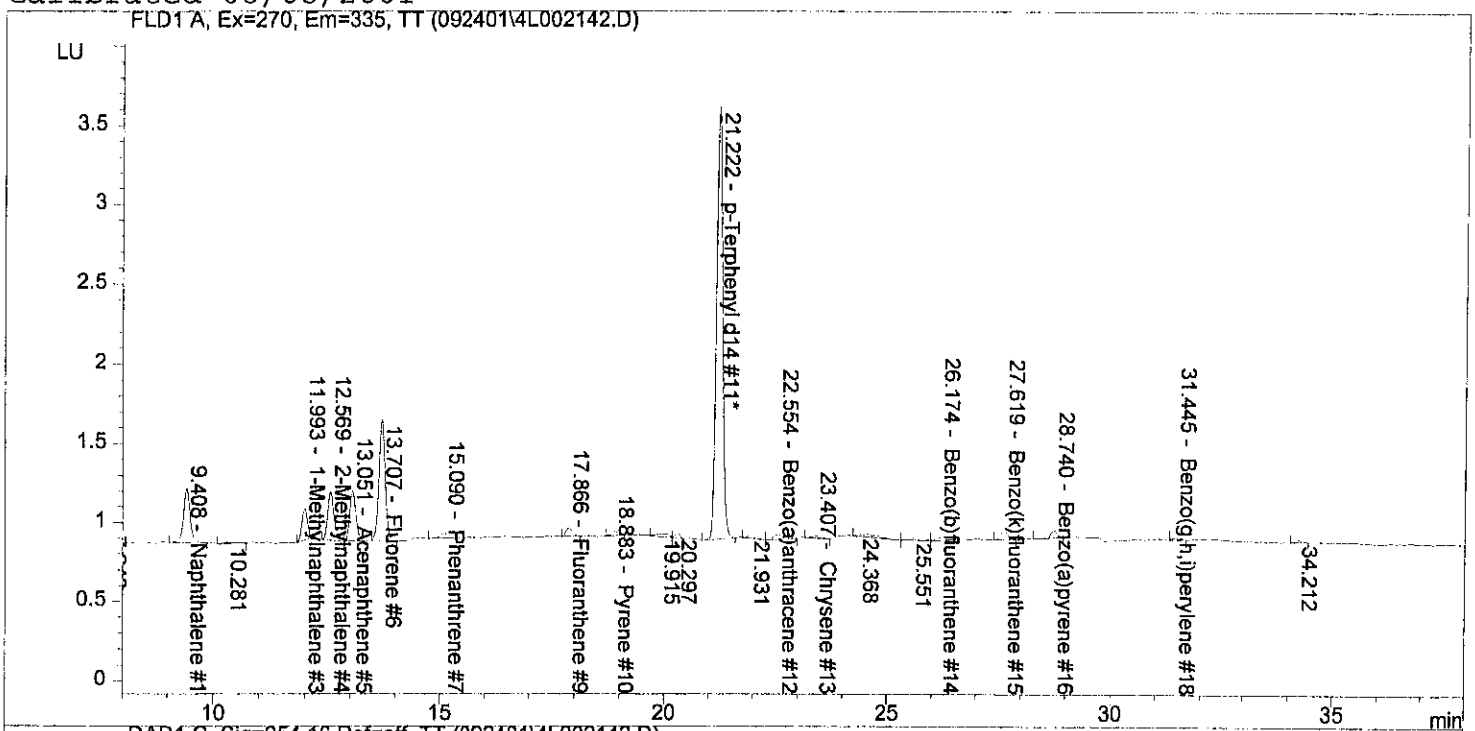
==========

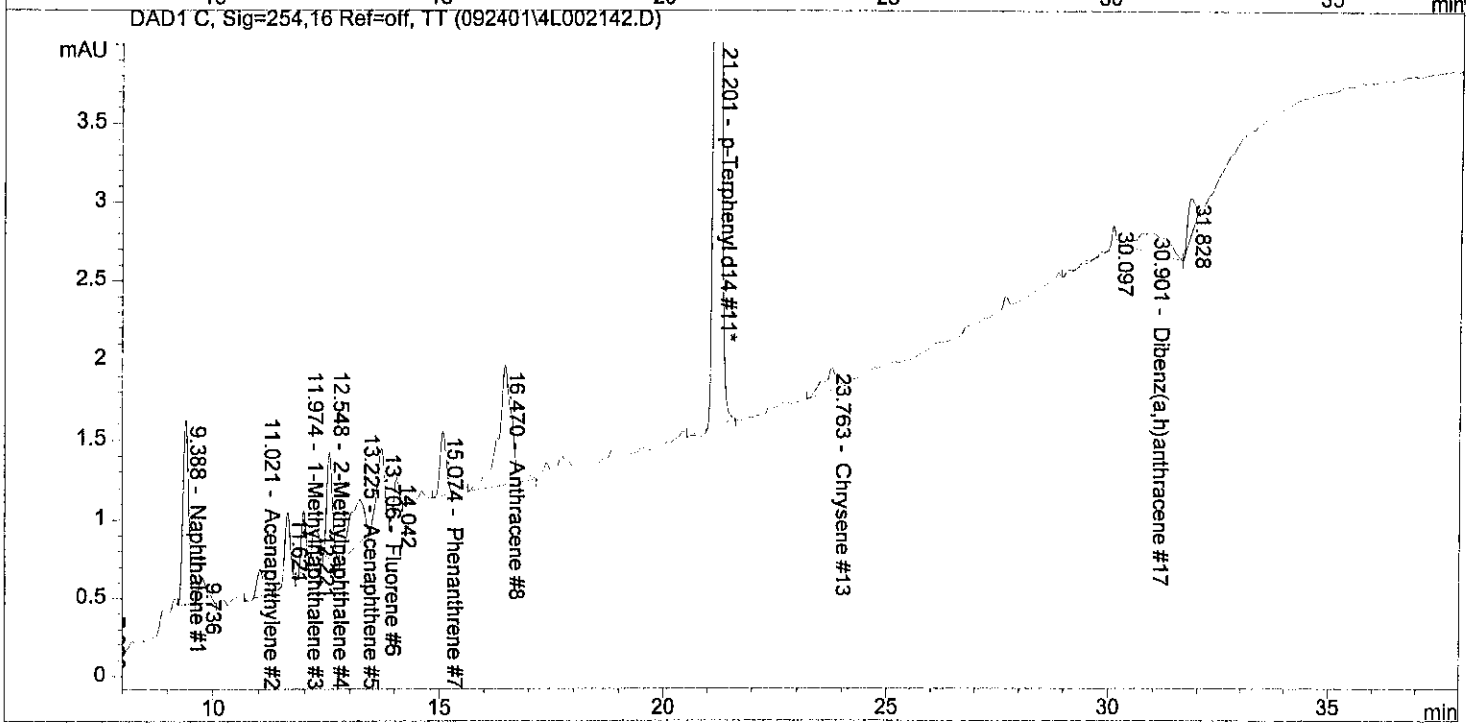
Injection Date : 9/24/2001 9:01:16 PM
Sample Name : L0109342-02 831W
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 AM
Multiplier : 1.0500
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
9.408	BB	3.64160	2.52962e-2	9.67245e-2		Naphthalene #1
11.993	PB	1.70430	2.21330e-2	3.96073e-2		1-Methylnaphthalene #3
12.569	BB	3.08521	1.70635e-2	5.52766e-2		2-Methylnaphthalene #4
13.051	BBA	3.11029	1.38416e-2	4.52039e-2		Acenaphthene #5
13.707	BBA	7.45549	6.62187e-3	5.18377e-2		Fluorene #6
15.090	BBA	3.93657e-1	1.63652e-1	6.76440e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.866	BBA	5.05189e-1	2.32678e-2	1.23424e-2		Fluoranthene #9
18.883	BBA	2.58309e-1	3.86587e-2	1.04852e-2		Pyrene #10
21.222	BBA	25.82828	2.97423e-1	8.06601		p-Terphenyl d14 #11*
22.554	BB	5.79757e-1	7.91256e-3	4.81673e-3		Benzo(a)anthracene #12
23.407	BB	2.06400e-1	3.90495e-2	8.46282e-3		Chrysene #13
26.174	BBA	2.51861e-1	1.63222e-2	4.31646e-3		Benzo(b)fluoranthene #14
27.619	PBA	5.58369e-1	2.76572e-3	1.62150e-3		Benzo(k)fluoranthene #15
28.740	BBA	4.46014e-1	4.57119e-3	2.14076e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.445	BBA	1.57857e-1	2.65165e-2	4.39509e-3		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.47089

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
9.388	BB	10.12758	8.25405e-3	8.77732e-2	<mDL	Naphthalene #1
11.021	BB	2.05102	2.96975e-2	6.39559e-2		Acenaphthylene #2
11.974	BB	2.71802	1.29459e-2	3.69464e-2		1-Methylnaphthalene #3
12.548	BB	5.97077	1.12393e-2	7.04625e-2		2-Methylnaphthalene #4
13.225	BB	6.45455	2.03163e-2	1.37690e-1		Acenaphthene #5
13.706	BB	5.91776	1.75240e-2	1.08888e-1		Fluorene #6
15.074	BB	3.91935	1.72982e-2	7.11877e-2		Phenanthrene #7
16.470	BB	16.31267	1.04262e-2	1.78583e-1		Anthracene #8
17.957		-	-	-		Fluoranthene #9 77.0%
18.968		-	-	-		Pyrene #10
21.201	BBA	117.30073	6.56733e-2	8.08870		p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.763	PB	2.96849	1.51453e-2	4.72066e-2	<mDL	Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.723		-	-	-		Benzo(k)fluoranthene #15
28.842		-	-	-		Benzo(a)pyrene #16
30.901	BB	6.54443	9.41116e-2	6.46702e-1	NC	Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.526		-	-	-		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.53809

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

Method C:\HPCHEM\2\METHODS\8310DATA.M

==========

Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 8/9/2001 2:38:03 PM

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/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

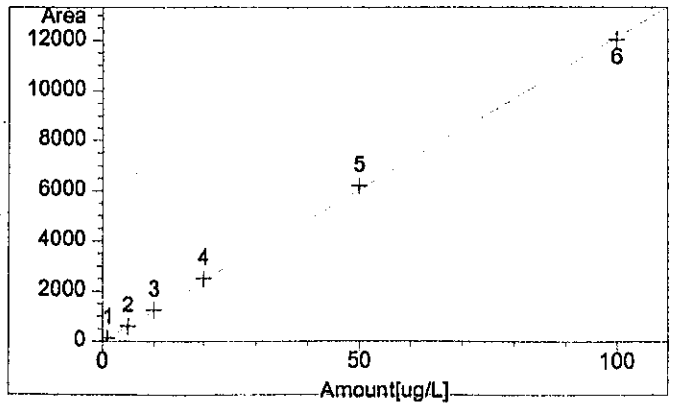
Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

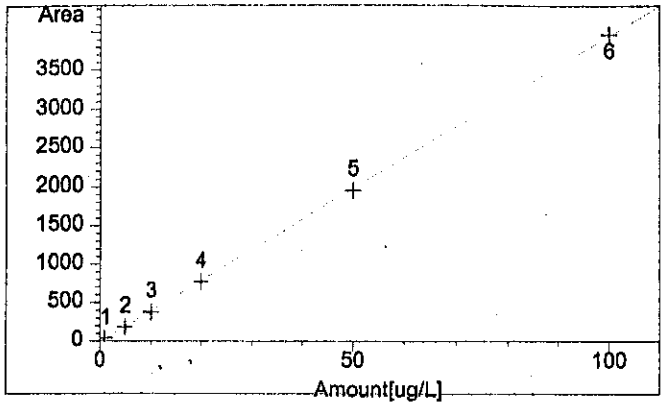
Peak Sum Table

No Entries in table

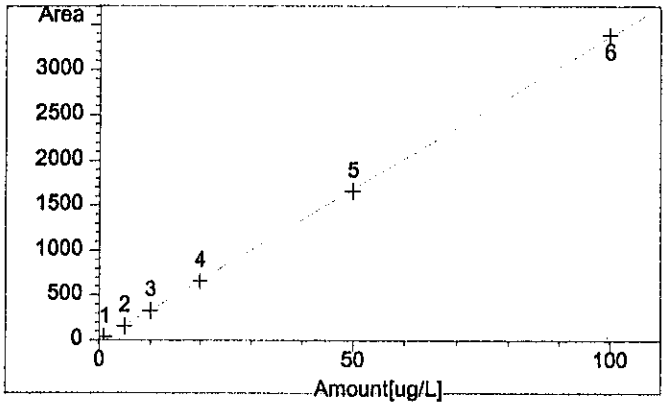
Calibration Curves



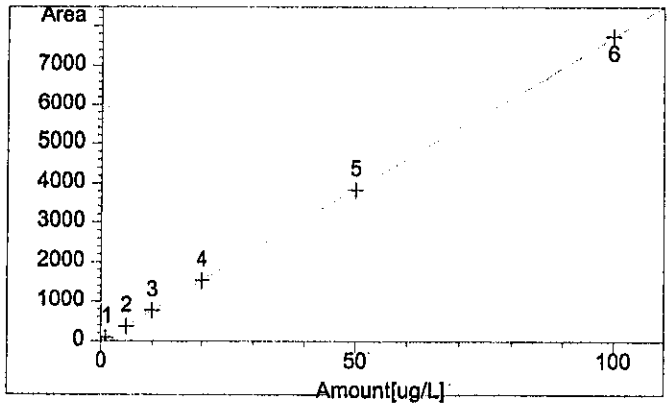
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount[ug/L]
y: Area



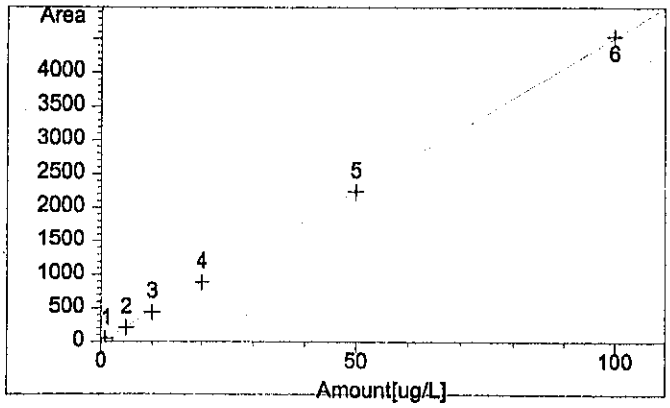
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount[ug/L]
y: Area



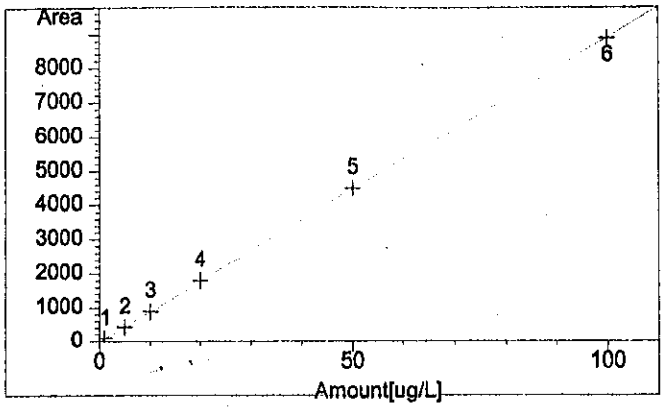
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount[ug/L]
y: Area



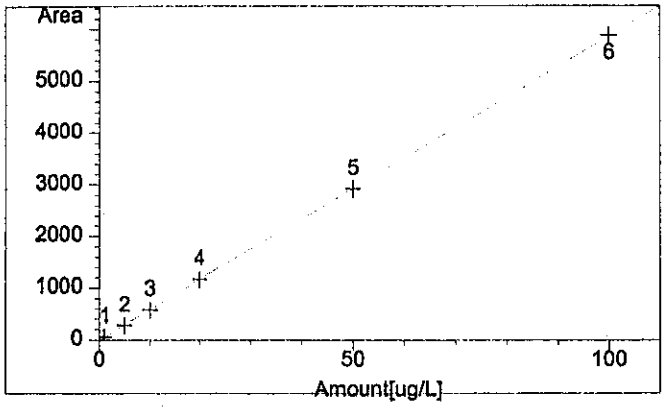
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount[ug/L]
y: Area



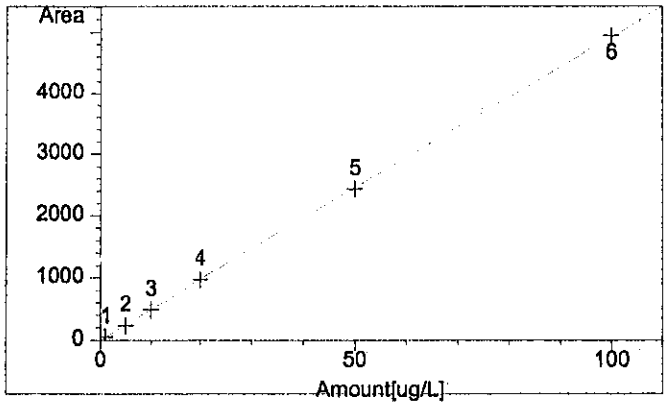
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount[ug/L]
y: Area



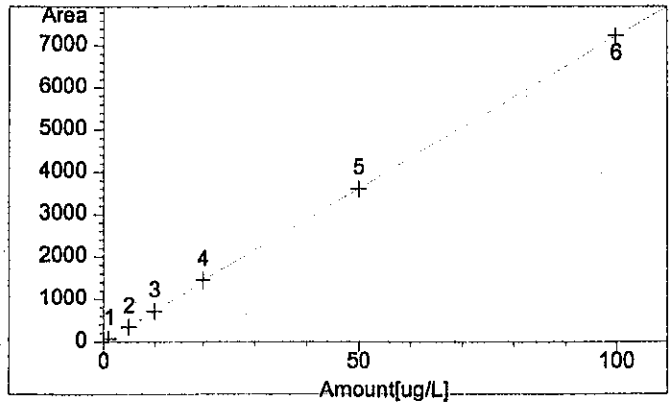
2-Methylnaphthalene #4 at exp. RT: 12.601
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount[ug/L]
y: Area



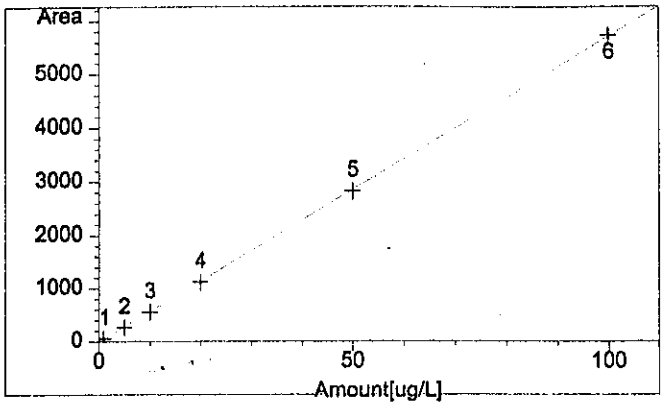
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount[ug/L]
y: Area



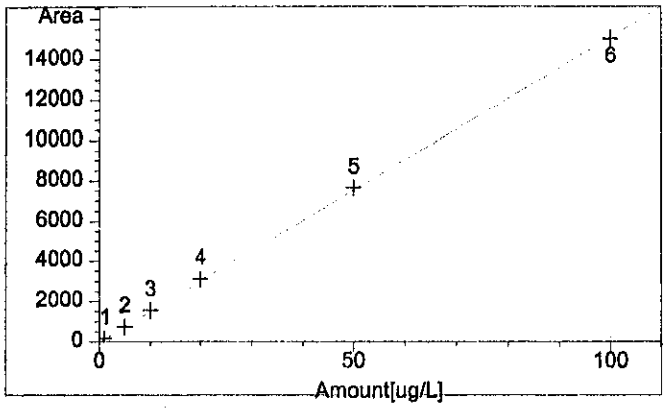
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount[ug/L]
y: Area



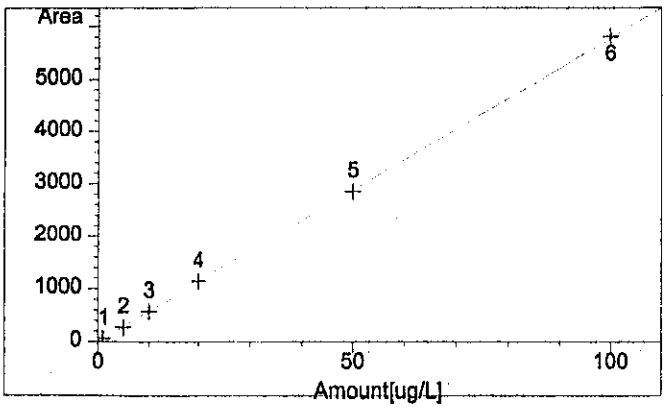
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount[ug/L]
y: Area



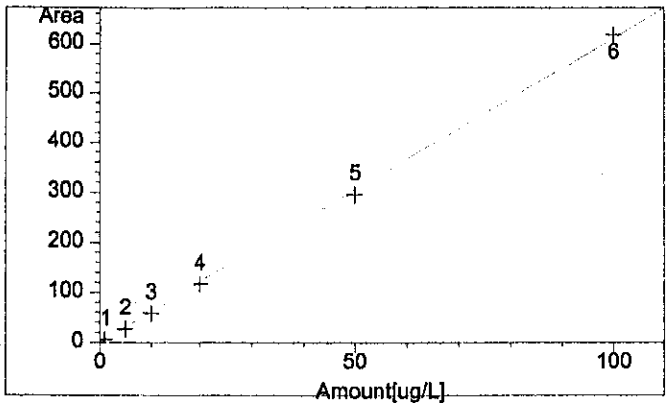
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount[ug/L]
y: Area



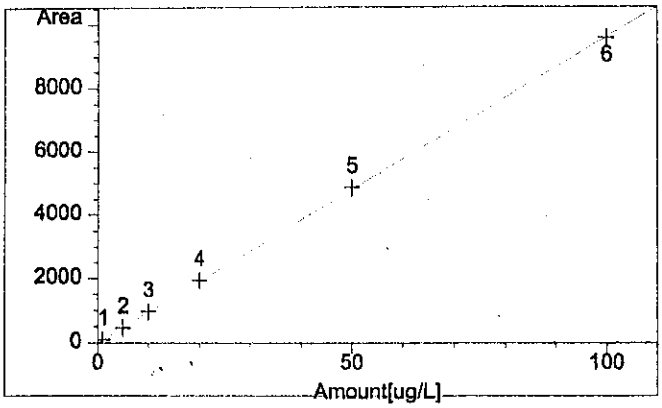
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount[ug/L]
y: Area



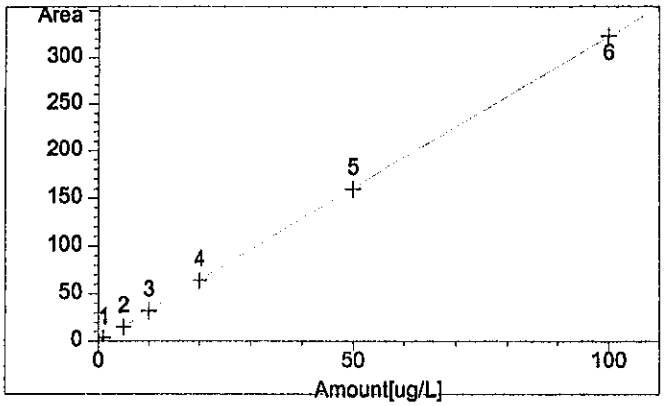
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount[ug/L]
y: Area



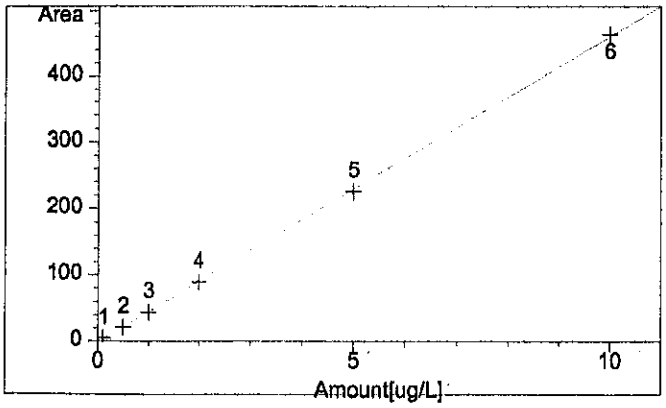
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount[ug/L]
y: Area



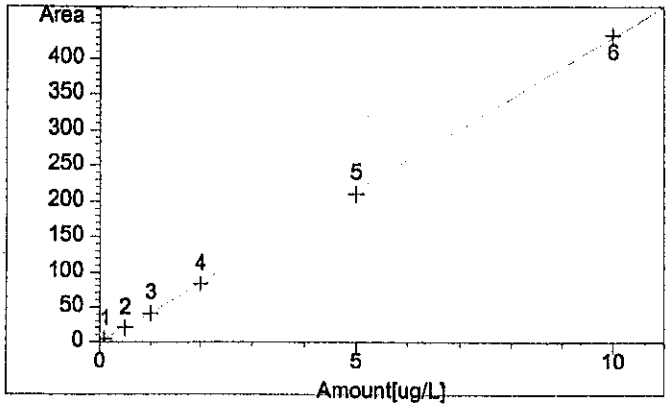
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount[ug/L]
y: Area



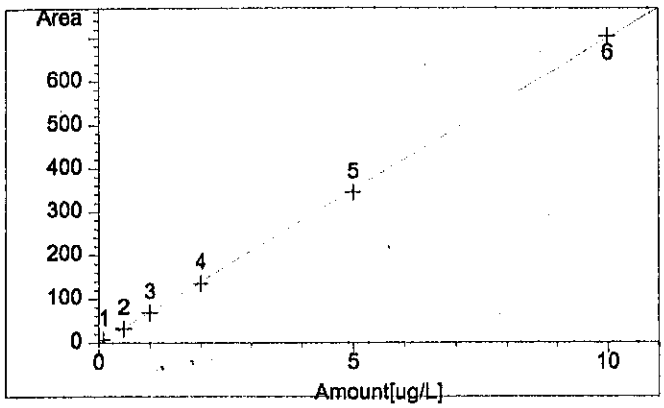
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount[ug/L]
y: Area



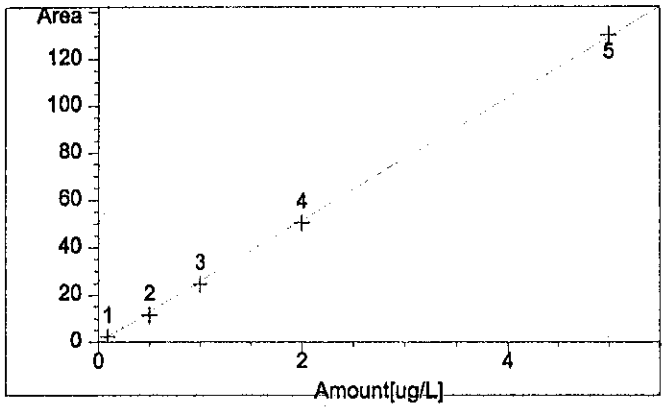
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount[ug/L]
y: Area



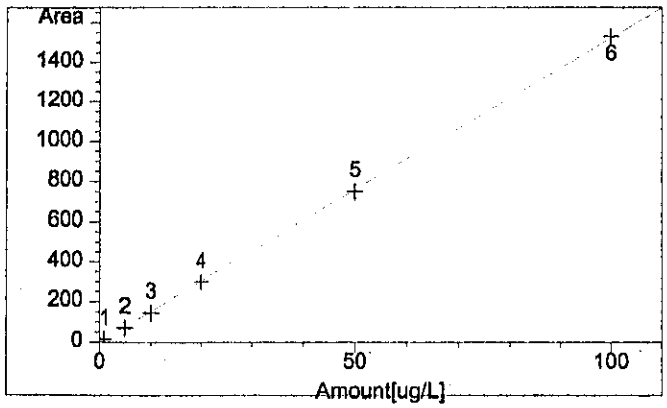
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount[ug/L]
y: Area



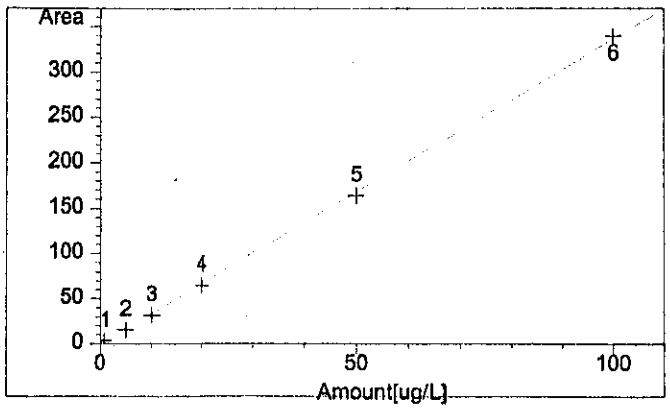
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount[ug/L]
y: Area



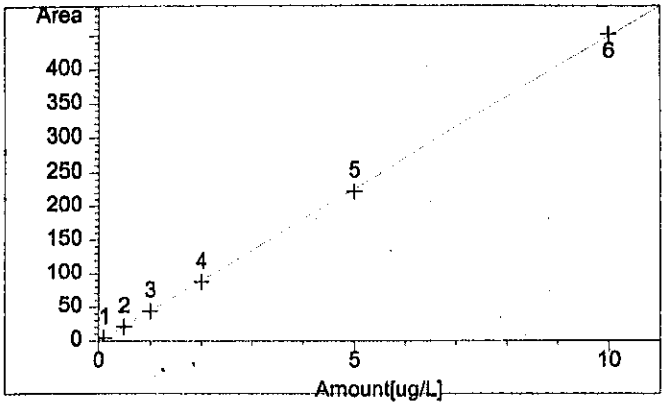
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount[ug/L]
y: Area



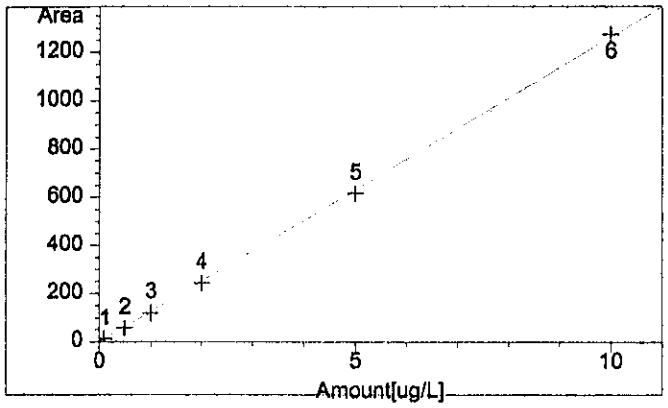
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount[ug/L]
y: Area



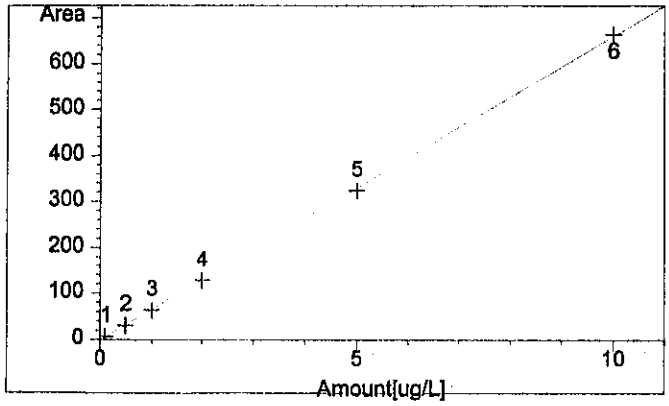
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount[ug/L]
y: Area



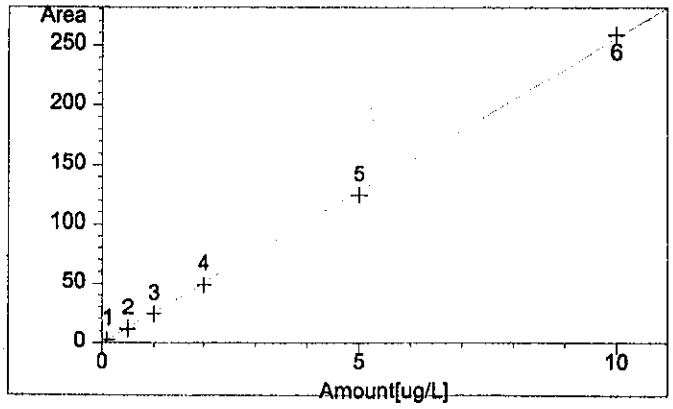
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount[ug/L]
y: Area



Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount[ug/L]
y: Area

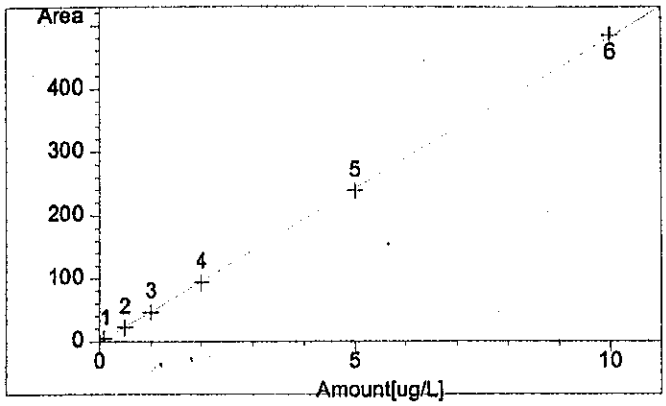


Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount[ug/L]
y: Area

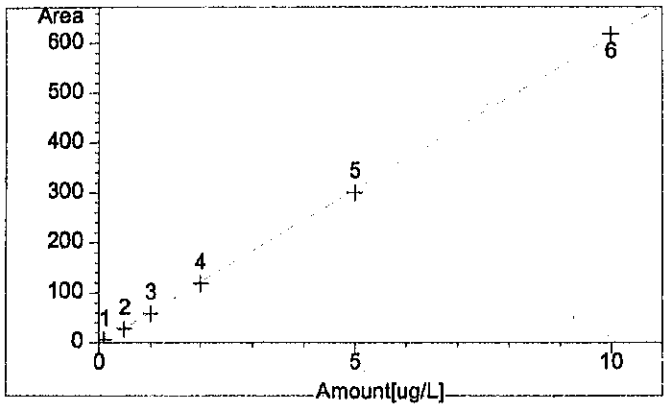


Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount[ug/L]
y: Area

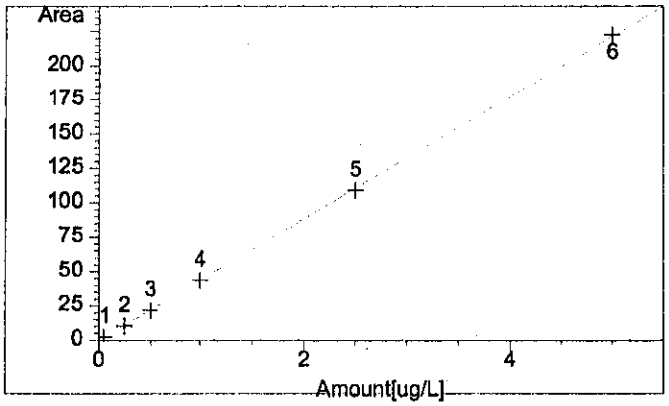
Method C:\HPCHEM\2\METHODS\8310DATA.M



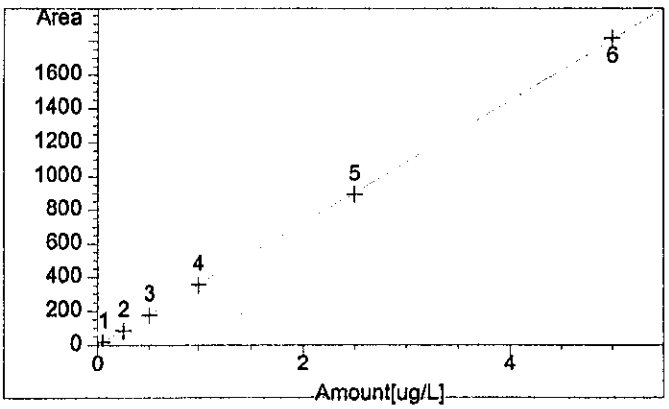
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount[ug/L]
y: Area



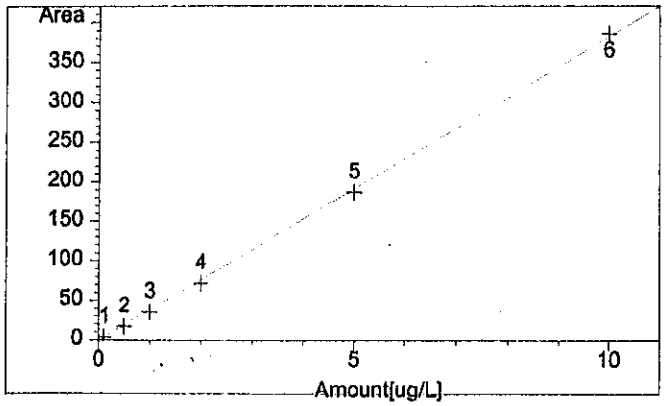
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount[ug/L]
y: Area



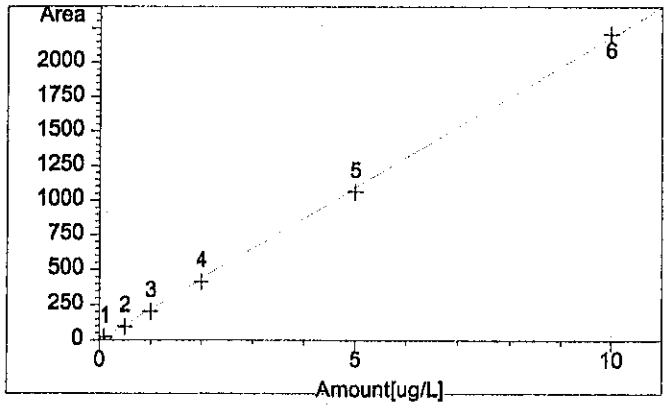
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount[ug/L]
y: Area



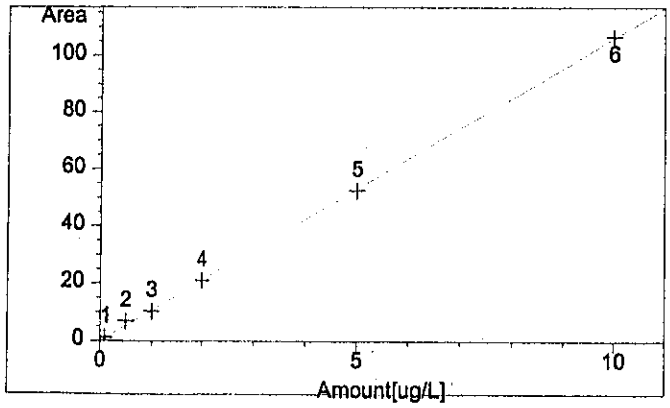
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount[ug/L]
y: Area



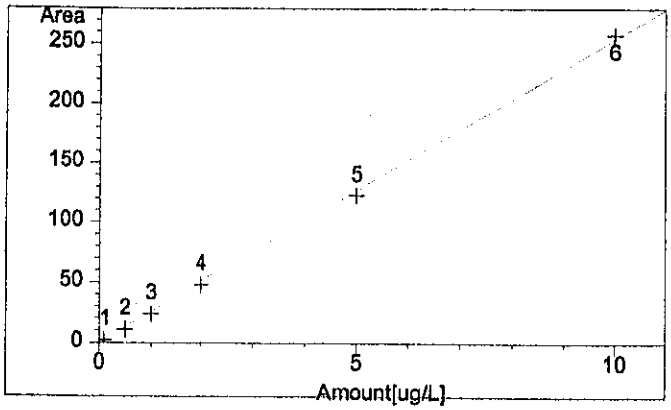
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount[ug/L]
y: Area



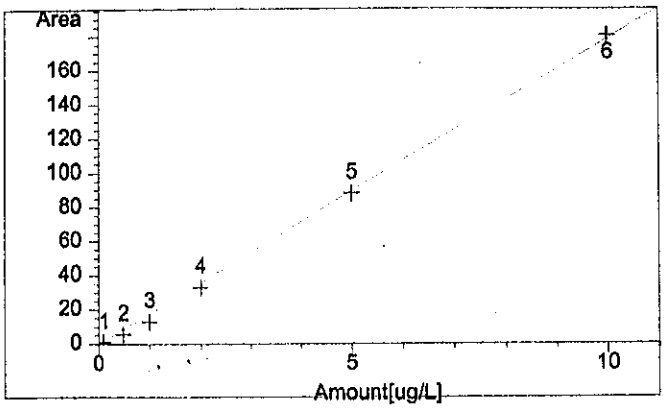
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount[ug/L]
y: Area



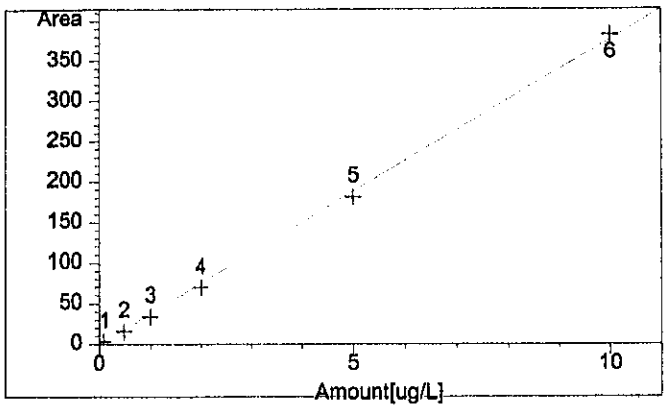
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount[ug/L]
y: Area



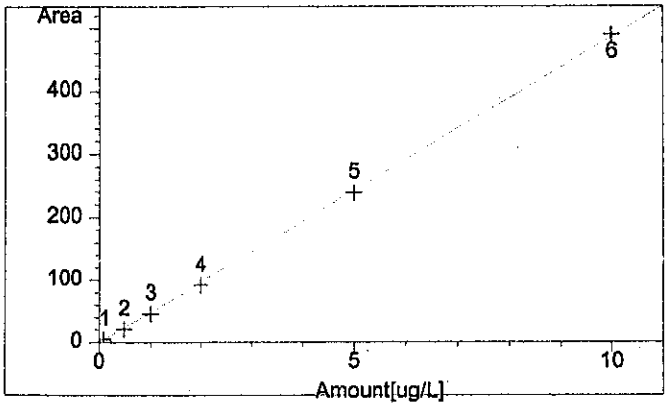
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount[ug/L]
y: Area



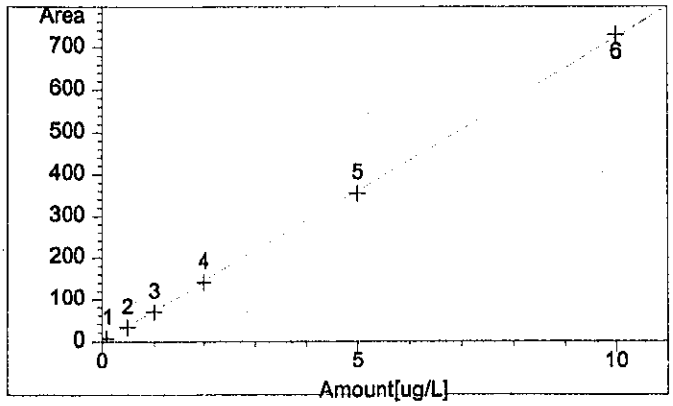
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount[ug/L]
y: Area

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Data File C:\HPCHEM\2\DATA\080801\4L001812.D Sample Name: 8310surr6/54-35

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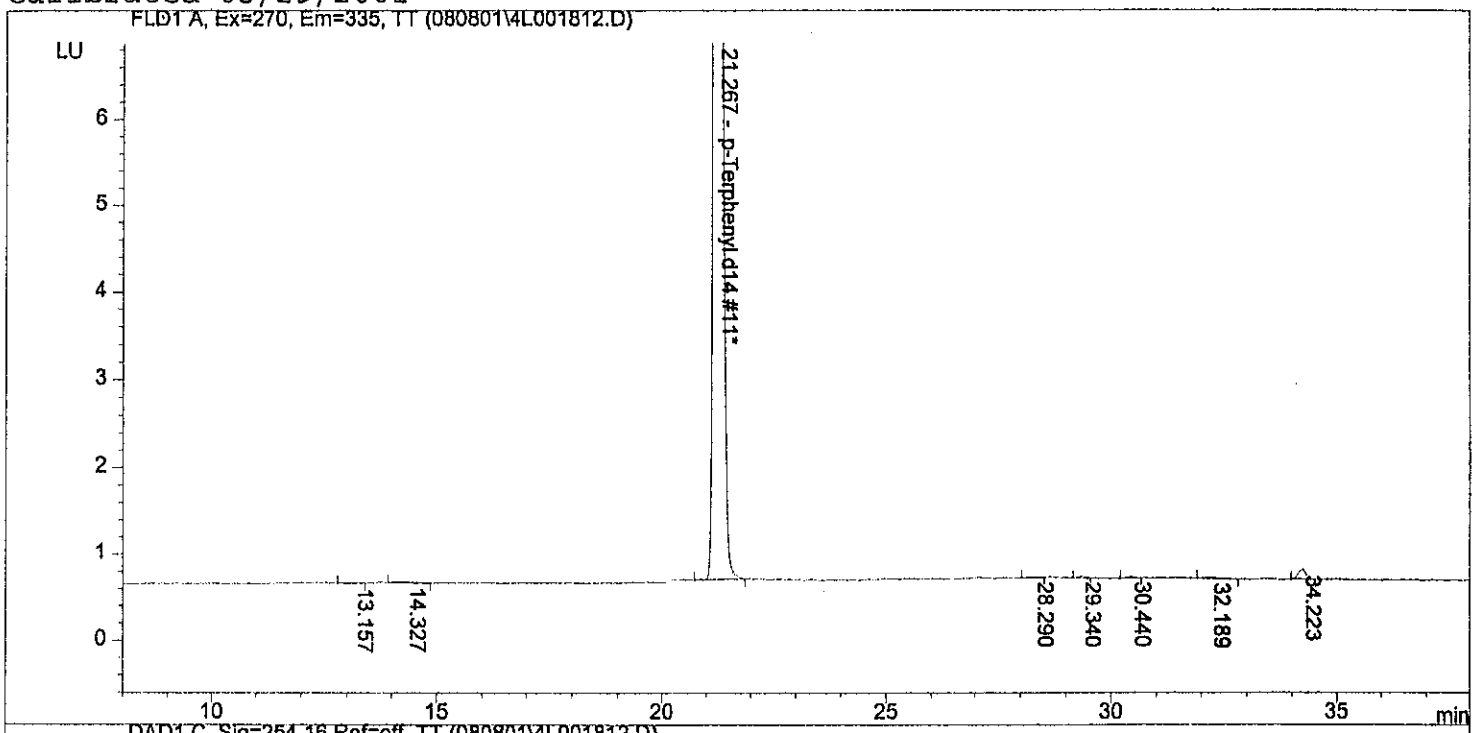
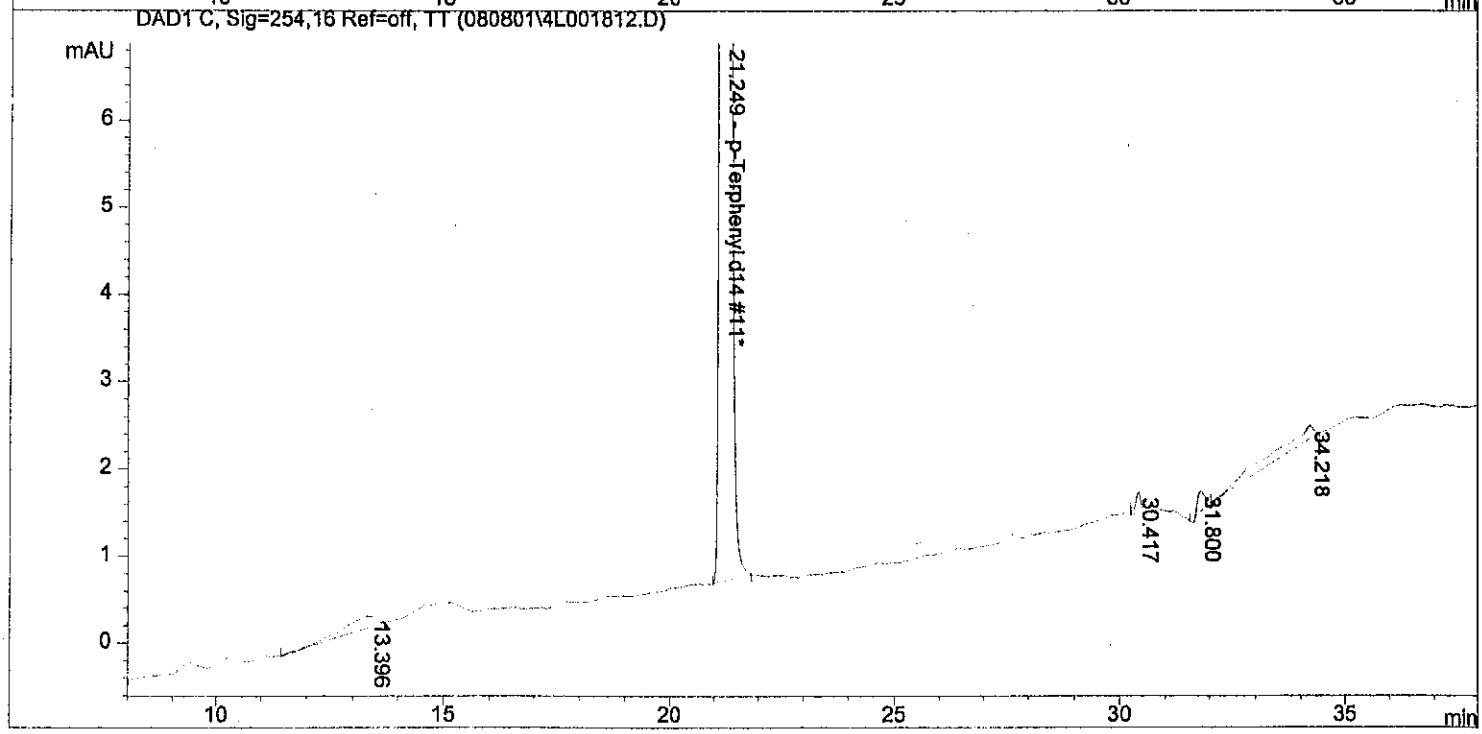
Injection Date	: 8/8/2001 9:48:17 PM	Seq. Line :	8
Sample Name	: 8310surr6/54-35	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:12:11 PM by RDC
(modified after loading)
Calibrated 03/29/2001





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HPLC4 8/9/2001 12:12:11 PM RDC Page 1 of 2

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:12:08 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
9.343		-	-	-		Naphthalene #1
11.976		-	-	-		1-Methylnaphthalene #3
12.520		-	-	-		2-Methylnaphthalene #4
13.006		-	-	-		Acenaphthene #5
13.674		-	-	-		Fluorene #6
15.213		-	-	-		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.978		-	-	-		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.267	PBA	339.18564	2.88970e-1	98.01453		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.760		-	-	-		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				98.01453		

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
9.326		-	-	-		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.957		-	-	-		1-Methylnaphthalene #3
12.534		-	-	-		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.657		-	-	-		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.249	PBA	1529.22424	6.36953e-2	97.40433		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

ata File C:\HPCHEM\2\DATA\080801\4L001812.D Sample Name: 8310Surr6/54-55

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				97.40433		

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\080801\4L001813.D Sample Name: 8310 std 6/53-25

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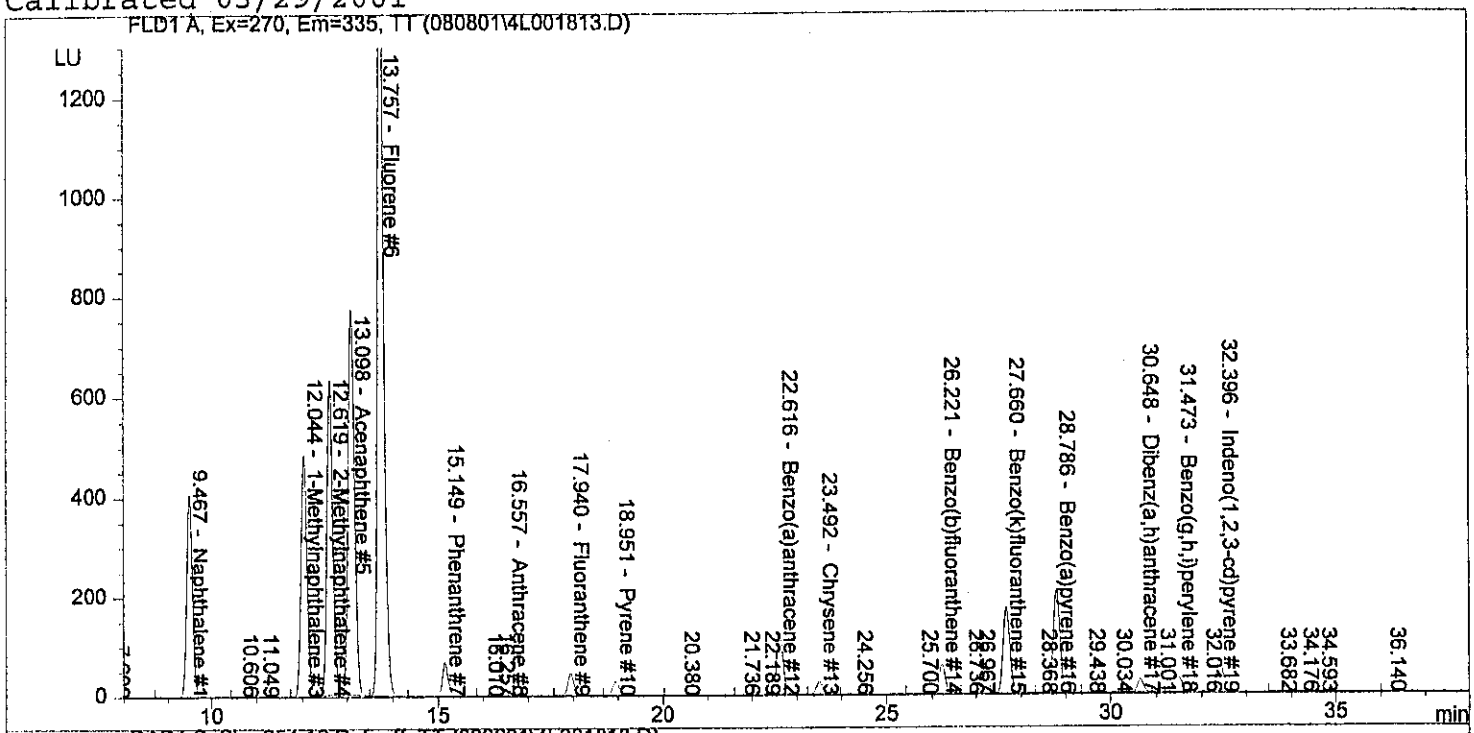
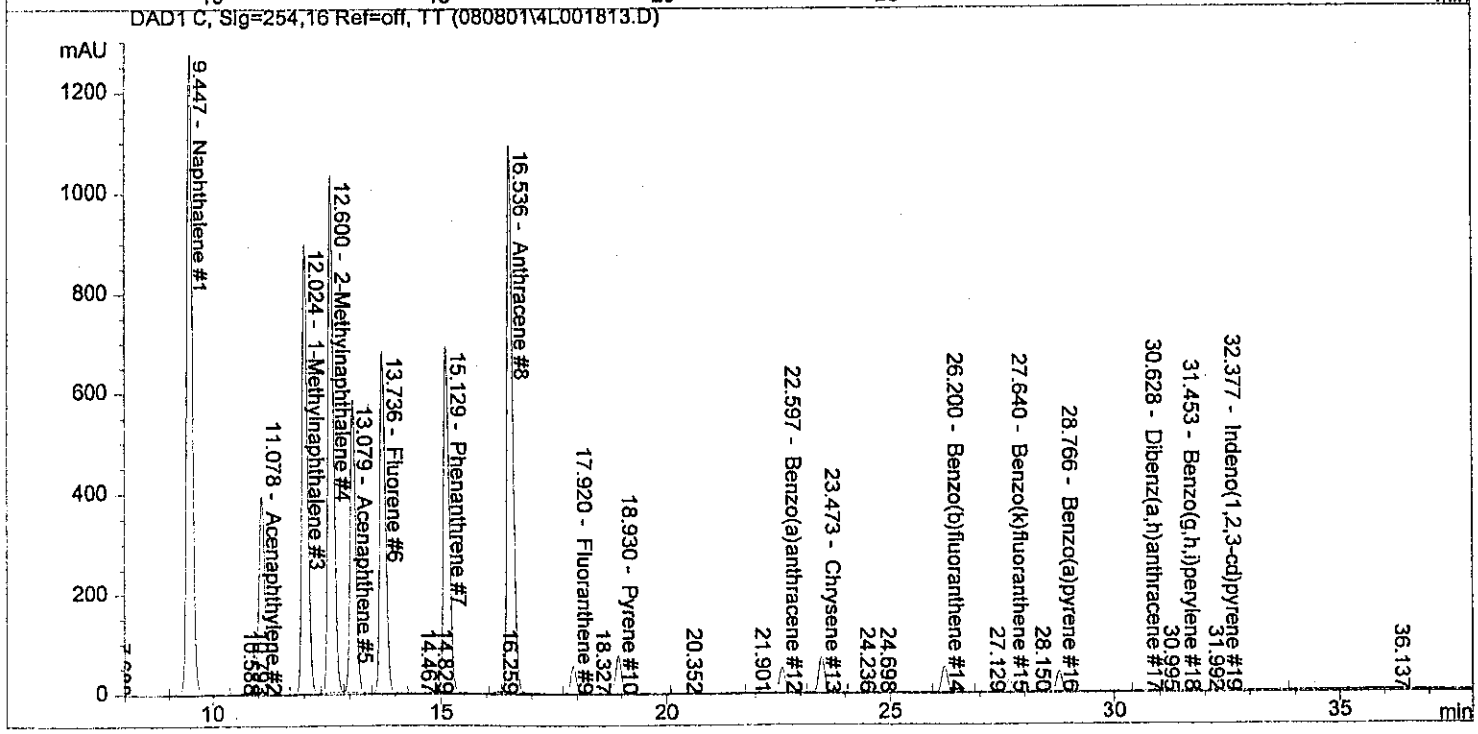
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

Seq. Line : 9
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:22:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:22:51 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
9.467	BB	3973.55249	2.55317e-2	101.45138		Naphthalene #1
12.044	PB	4535.38281	2.23759e-2	101.48305		1-Methylnaphthalene #3
12.619	BB	5875.01660	1.72227e-2	101.18389		2-Methylnaphthalene #4
13.098	BB	7228.99854	1.39785e-2	101.05076		Acenaphthene #5
13.757	BB	1.50256e4	6.61784e-3	99.43674		Fluorene #6
15.149	BBA	617.71191	1.63970e-1	101.28640		Phenanthrene #7
16.557	BB	323.14050	3.11421e-1	100.63288		Anthracene #8
17.940	PB	432.79266	2.34467e-2	10.14758		Fluoranthene #9
18.951	BB	273.80585	3.77948e-2	10.34844		Pyrene #10
21.267		-	-	-		p-Terphenyl d14 #11*
22.616	BB	1274.56396	7.97394e-3	10.16330		Benzo(a)anthracene #12
23.492	BB	258.58917	3.94274e-2	10.19549		Chrysene #13
26.221	BB	617.15186	1.63647e-2	10.09953		Benzo(b)fluoranthene #14
27.660	BB	1815.06726	2.77359e-3	5.03425		Benzo(k)fluoranthene #15
28.786	BB	2209.61670	4.57456e-3	10.10801		Benzo(a)pyrene #16
30.648	BB	257.09790	3.95004e-2	10.15546		Dibenz(a,h)anthracene #17
31.473	BB	382.48065	2.68798e-2	10.28100		Benzo(g,h,i)perylene #18
32.396	BB	728.48004	1.37724e-2	10.03289		Indeno(1,2,3-cd)pyrene #1

Totals : 803.09104

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
9.447	BB	1.20244e4	8.25610e-3	99.27448		Naphthalene #1
11.078	BB	3384.39795	2.97245e-2	100.59951		Acenaphthylene #2
12.024	BB	7740.20703	1.29528e-2	100.25726		1-Methylnaphthalene #3
12.600	BB	8884.32324	1.12464e-2	99.91623		2-Methylnaphthalene #4
13.079	BB	4940.15088	2.03275e-2	100.42072		Acenaphthene #5
13.736	BB	5731.11230	1.75642e-2	100.66232		Fluorene #6
15.129	BBA	5806.07617	1.73002e-2	100.44635		Phenanthrene #7
16.536	BBA	9552.15625	1.04130e-2	99.46643		Anthracene #8
17.920	PB	463.67642	2.17440e-2	10.08217		Fluoranthene #9
18.930	BB	703.95166	1.43310e-2	10.08832		Pyrene #10
21.249		-	-	-		p-Terphenyl d14 #11*
22.597	BBA	451.58978	2.23017e-2	10.07124		Benzo(a)anthracene #12
23.473	BBA	664.28351	1.51547e-2	10.06704		Chrysene #13
26.200	BBA	485.19955	2.07746e-2	10.07983		Benzo(b)fluoranthene #14
27.640	BB	222.55347	2.26386e-2	5.03829		Benzo(k)fluoranthene #15
28.766	BB	385.80145	2.60127e-2	10.03572		Benzo(a)pyrene #16
30.628	PB	106.53020	9.38245e-2	9.99514		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.453	BB	180.23679	5.63755e-2	10.16093		Benzo(g,h,i)perylene #18
32.377	BBA	489.90164	2.05716e-2	10.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 896.74006

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\080801\4L001814.D Sample Name: 8310 std 5/53-25

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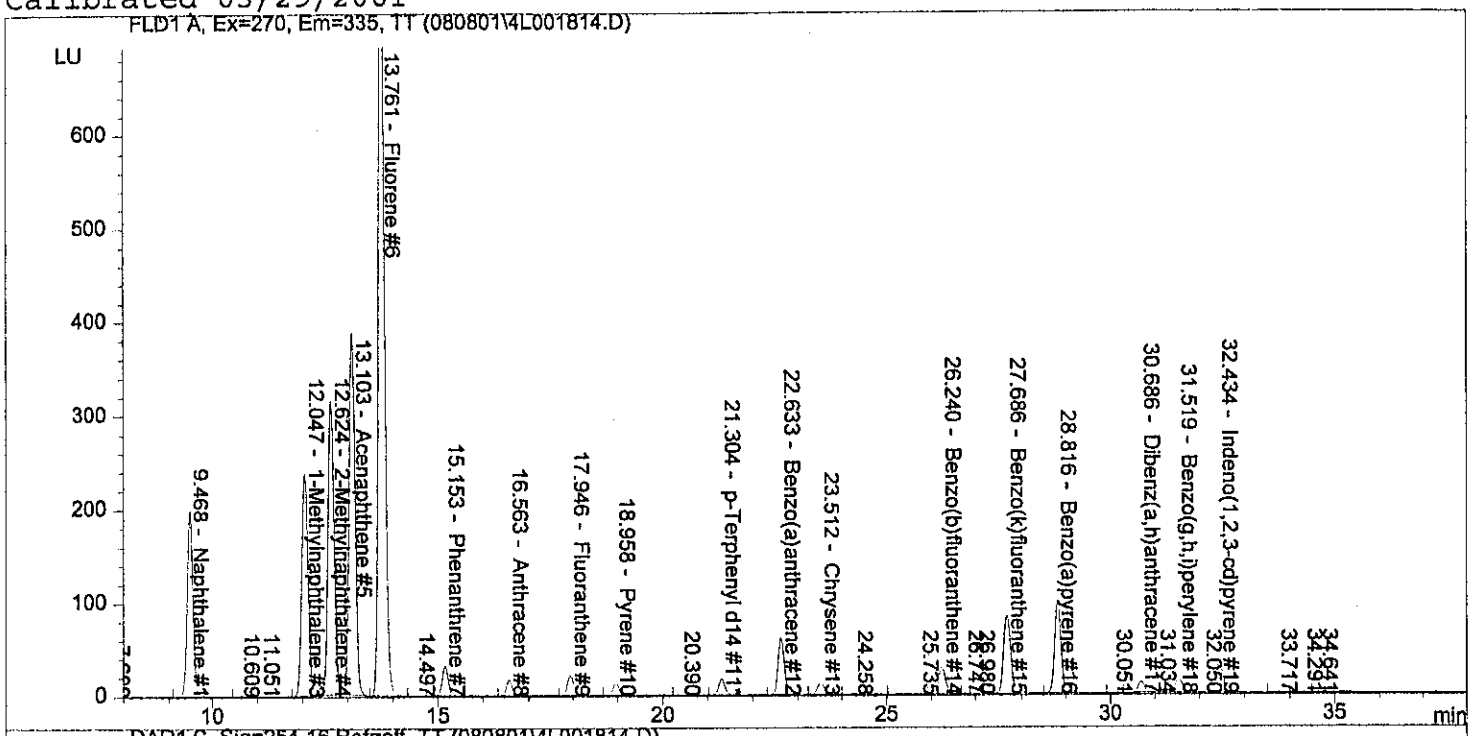
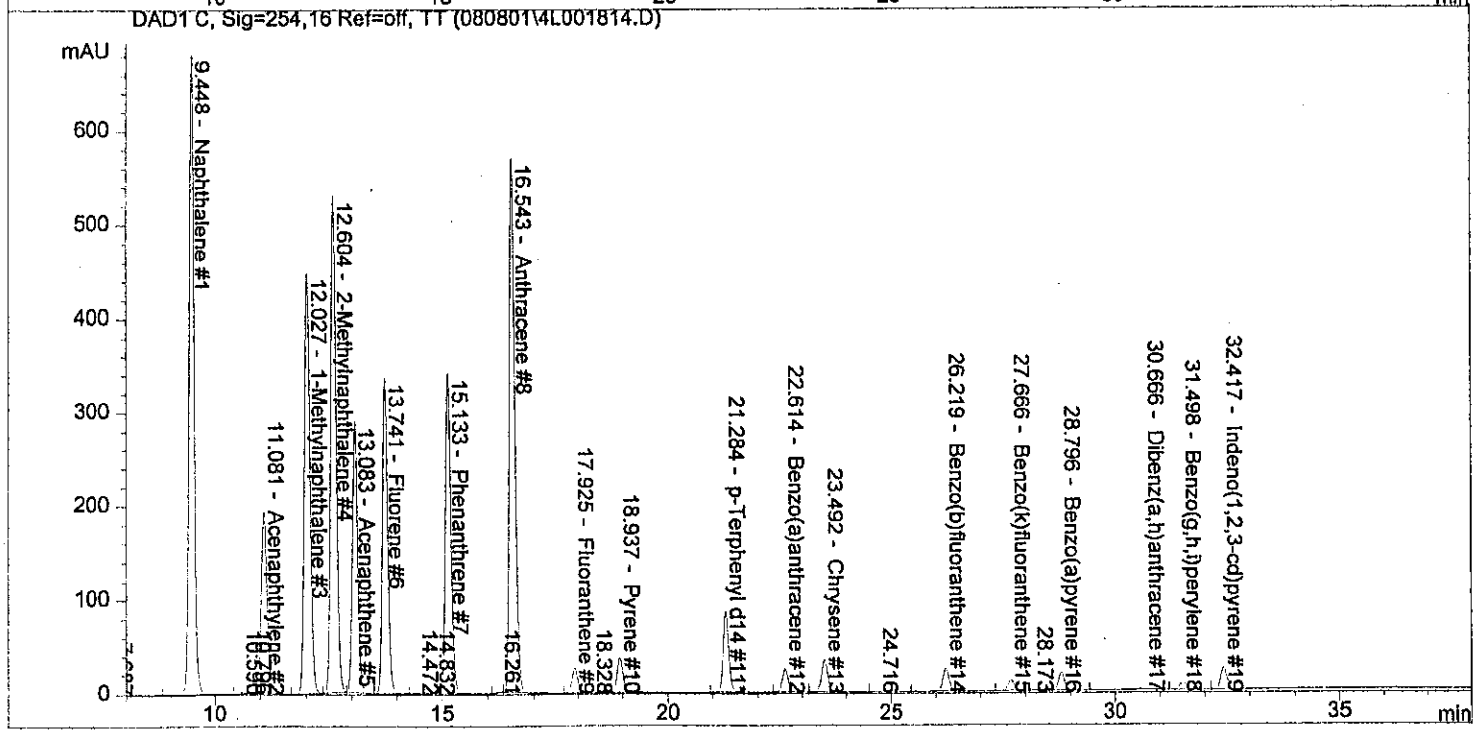
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

Seq. Line : 10
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:23:34 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:23:32 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
9.468	PB	1948.04333	2.53373e-2	49.35817		Naphthalene #1
12.047	PB	2235.18970	2.21763e-2	49.56814		1-Methylnaphthalene #3
12.624	BB	2909.70630	1.70922e-2	49.73328		2-Methylnaphthalene #4
13.103	BB	3605.74121	1.38670e-2	50.00065		Acenaphthene #5
13.761	BB	7656.80322	6.53228e-3	50.01636		Fluorene #6
15.153	BBA	295.27972	1.63827e-1	48.37483		Phenanthrene #7
16.563	BB	159.95667	3.10549e-1	49.67436		Anthracene #8
17.946	BB	210.50659	2.32969e-2	4.90415		Fluoranthene #9
18.958	BBA	130.27173	3.71107e-2	4.83447		Pyrene #10
21.304	PB	163.61835	2.96033e-1	48.43651		p-Terphenyl d14 #11*
22.633	BB	616.44403	7.92426e-3	4.88486		Benzo(a)anthracene #12
23.512	BB	124.43752	3.91177e-2	4.86771		Chrysene #13
26.240	BB	299.93723	1.63317e-2	4.89849		Benzo(b)fluoranthene #14
27.686	BB	893.52496	2.76733e-3	2.47268		Benzo(k)fluoranthene #15
28.816	BB	1063.36975	4.57033e-3	4.85995		Benzo(a)pyrene #16
30.686	BB	122.84724	3.93851e-2	4.83834		Dibenz(a,h)anthracene #17
31.519	BB	181.30618	2.65675e-2	4.81686		Benzo(g,h,i)perylene #18
32.434	BB	354.48691	1.38152e-2	4.89732		Indeno(1,2,3-cd)pyrene #1
Totals :				441.43712		

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
9.448	PBA	6202.44971	8.25915e-3	51.22699		Naphthalene #1
11.081	BB	1657.23242	2.97185e-2	49.25050		Acenaphthylene #2
12.027	BB	3838.97803	1.29547e-2	49.73284		1-Methylnaphthalene #3
12.604	BB	4469.53662	1.12471e-2	50.26953		2-Methylnaphthalene #4
13.083	BB	2433.60547	2.03296e-2	49.47421		Acenaphthene #5
13.741	BB	2816.46851	1.75408e-2	49.40304		Fluorene #6
15.133	BBA	2852.19556	1.73083e-2	49.36677		Phenanthrene #7
16.543	BBA	4858.51855	1.04295e-2	50.67187		Anthracene #8
17.925	PB	226.24062	2.17178e-2	4.91345		Fluoranthene #9
18.937	BBA	342.22821	1.43193e-2	4.90046		Pyrene #10
21.284	PBA	752.44629	6.53529e-2	49.17455		p-Terphenyl d14 #11*
22.614	PBA	220.89987	2.22893e-2	4.92370		Benzo(a)anthracene #12
23.492	BBA	324.43796	1.51547e-2	4.91677		Chrysene #13
26.219	BBA	236.98158	2.07517e-2	4.91778		Benzo(b)fluoranthene #14
27.666	BB	108.82767	2.26066e-2	2.46022		Benzo(k)fluoranthene #15
28.796	BBA	186.41614	2.61378e-2	4.87251		Benzo(a)pyrene #16
30.666	BB	52.55205	9.41932e-2	4.95004		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001814.D Sample Name: 8310 Std 5/53-25

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.498	BB	87.58637	5.62695e-2	4.92844		Benzo(g,h,i)perylene #18
32.417	BBA	239.26749	2.05571e-2	4.91865		Indeno(1,2,3-cd)pyrene #1

Totals : 495.27231

Results obtained with enhanced integrator!

*** End of Report ***

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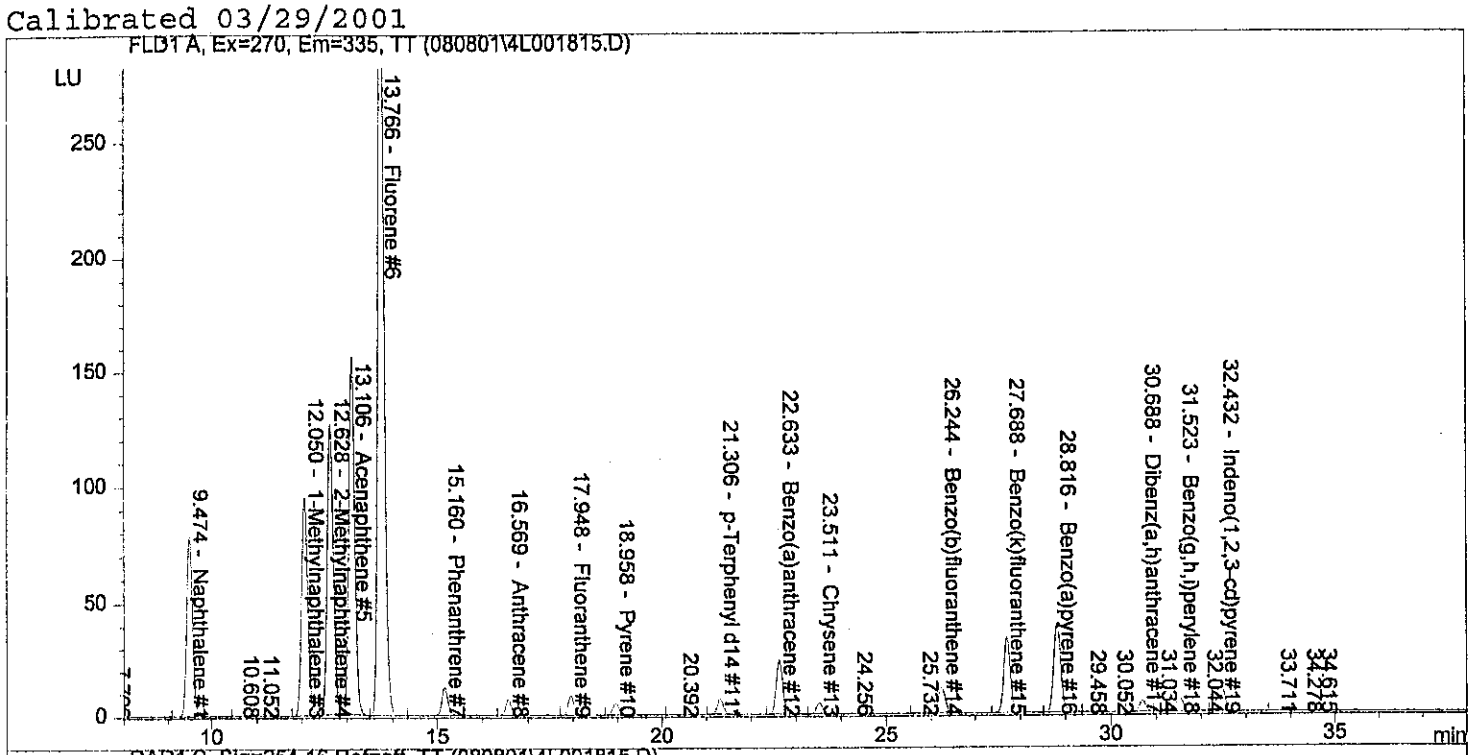
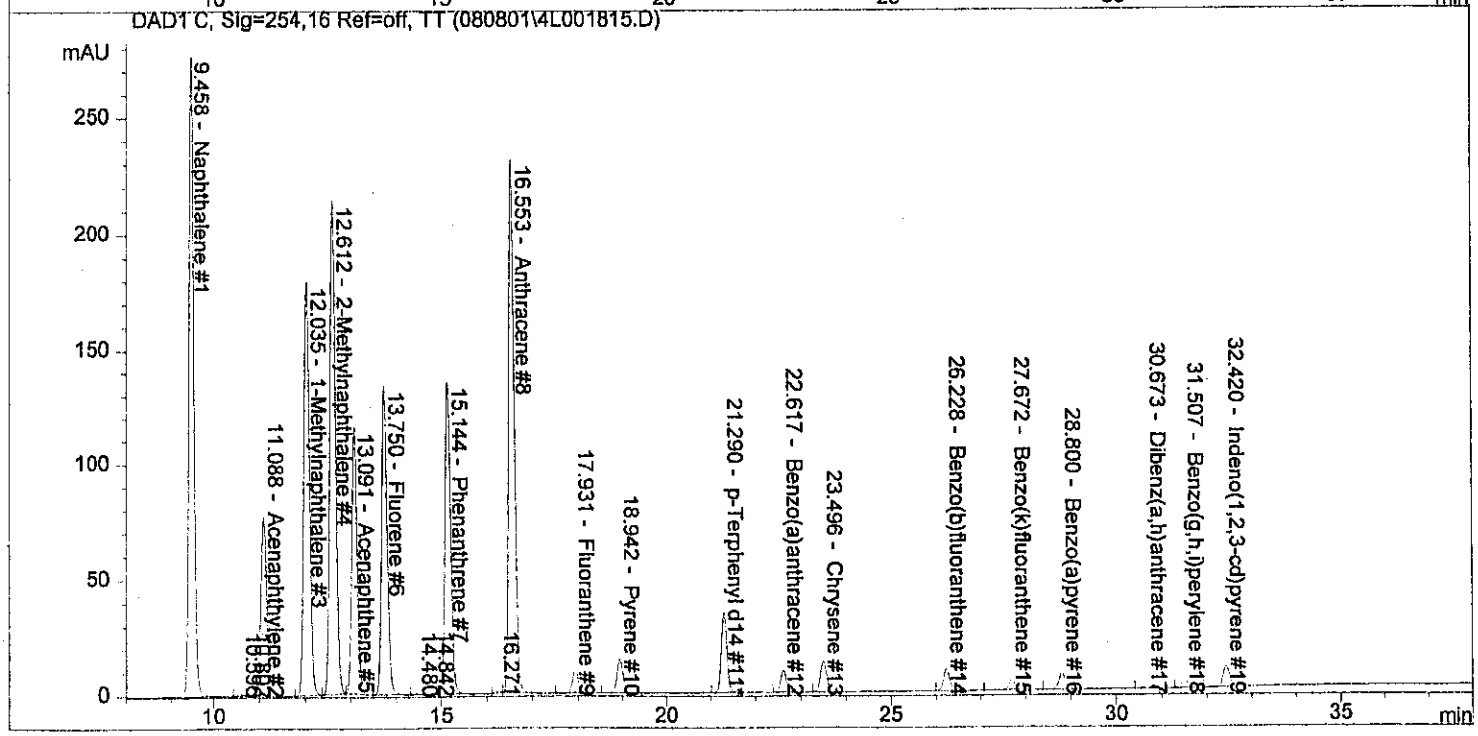
Injection Date : 8/9/2001 12:38:12 AM
Sample Name : 8310 std 4/53-25
Acq. Operator : RDC

Seq. Line : 11
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:24:08 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:24:05 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
9.474	PBA	771.00281	2.53062e-2	19.51118		Naphthalene #1
12.050	PB	887.93890	2.21431e-2	19.66168		1-Methylnaphthalene #3
12.628	BB	1160.72327	1.70700e-2	19.81357		2-Methylnaphthalene #4
13.106	BB	1445.95483	1.38473e-2	20.02258		Acenaphthene #5
13.766	BB	3112.09448	6.51797e-3	20.28453		Fluorene #6
15.160	BBA	116.85247	1.63688e-1	19.12731		Phenanthrene #7
16.569	BBA	63.99872	3.10306e-1	19.85918		Anthracene #8
17.948	BBA	83.17304	2.32743e-2	1.93580		Fluoranthene #9
18.958	BBA	50.45357	3.70193e-2	1.86776		Pyrene #10
21.306	BBA	64.98736	2.97101e-1	19.30782		p-Terphenyl d14 #11*
22.633	BB	242.58244	7.91528e-3	1.92011		Benzo(a)anthracene #12
23.511	BB	48.77195	3.90649e-2	1.90527		Chrysene #13
26.244	BBA	118.32101	1.63243e-2	1.93151		Benzo(b)fluoranthene #14
27.688	BB	355.36359	2.76617e-3	9.82998e-1		Benzo(k)fluoranthene #15
28.816	BB	414.51672	4.57086e-3	1.89470		Benzo(a)pyrene #16
30.688	BB	47.95410	3.93563e-2	1.88730		Dibenz(a,h)anthracene #17
31.523	BB	69.49560	2.65273e-2	1.84353		Benzo(g,h,i)perylene #18
32.432	BBA	140.75026	1.38193e-2	1.94508		Indeno(1,2,3-cd)pyrene #1

Totals : 175.70189

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
9.458	PBA	2499.14551	8.25594e-3	20.63280		Naphthalene #1
11.088	BBA	660.92621	2.97039e-2	19.63209		Acenaphthylene #2
12.035	PB	1534.10083	1.29485e-2	19.86429		1-Methylnaphthalene #3
12.612	BB	1794.47327	1.12416e-2	20.17276		2-Methylnaphthalene #4
13.091	BB	971.18744	2.03201e-2	19.73465		Acenaphthene #5
13.750	BBA	1121.39856	1.75287e-2	19.65661		Fluorene #6
15.144	BBA	1137.18030	1.73013e-2	19.67475		Phenanthrene #7
16.553	BBA	1952.77490	1.04274e-2	20.36233		Anthracene #8
17.931	PB	89.62297	2.17050e-2	1.94527		Fluoranthene #9
18.942	BBA	135.53003	1.43101e-2	1.93944		Pyrene #10
21.290	BBA	299.12198	6.56026e-2	19.62319		p-Terphenyl d14 #11*
22.617	PBA	87.18385	2.22768e-2	1.94218		Benzo(a)anthracene #12
23.496	PBA	128.16238	1.51490e-2	1.94153		Chrysene #13
26.228	PBA	93.81008	2.07392e-2	1.94555		Benzo(b)fluoranthene #14
27.672	BB	43.54576	2.25926e-2	9.83811e-1		Benzo(k)fluoranthene #15
28.800	BBA	71.60413	2.61650e-2	1.87352		Benzo(a)pyrene #16
30.673	BBA	21.07817	9.41491e-2	1.98449		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001815.D Sample Name: 8310 Std 4/53-25

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.507	PB	33.12908	5.60918e-2	1.85827		Benzo(g,h,i)perylene #18
32.420	BB	91.52023	2.05641e-2	1.88203		Indeno(1,2,3-cd)pyrene #1

Totals : 197.64957

Results obtained with enhanced integrator!

*** End of Report ***

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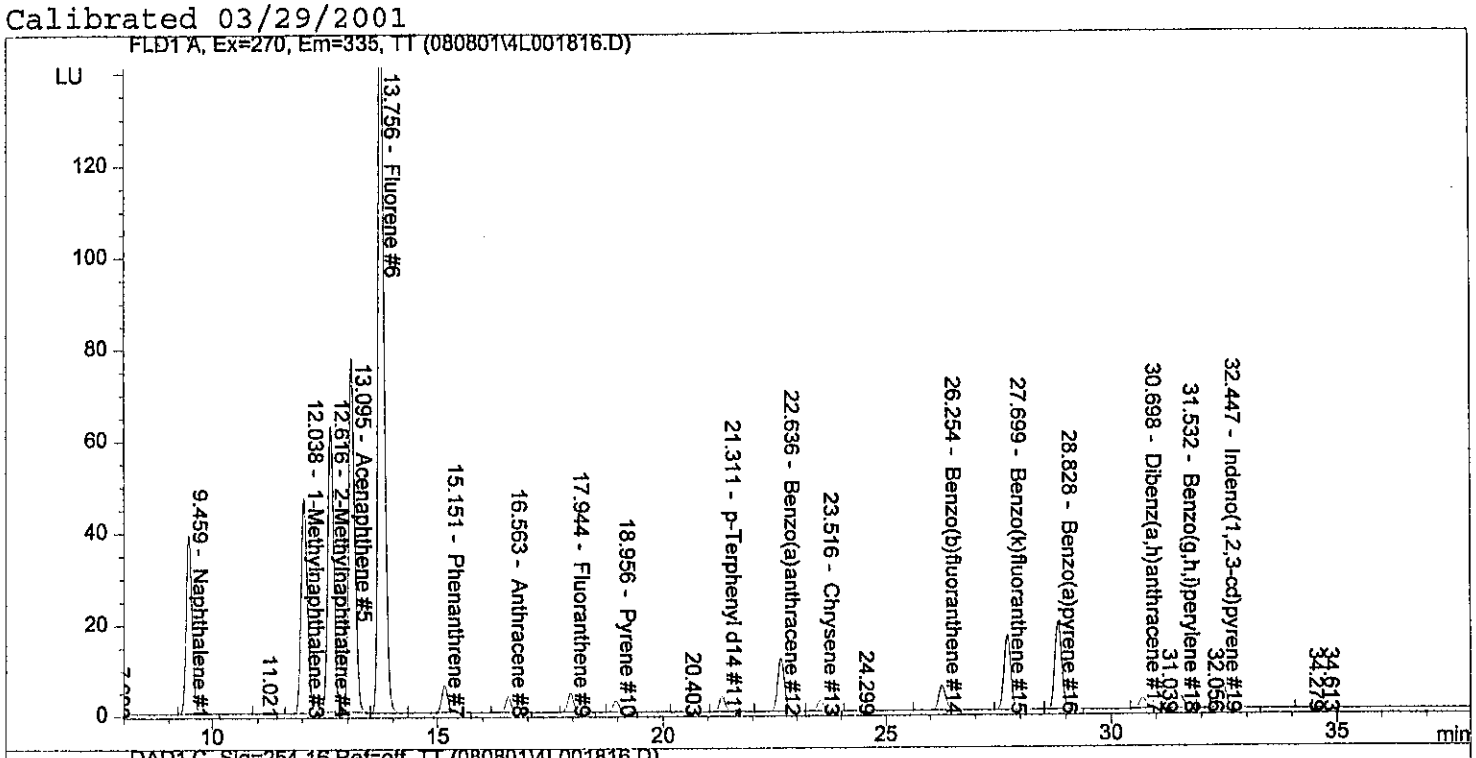
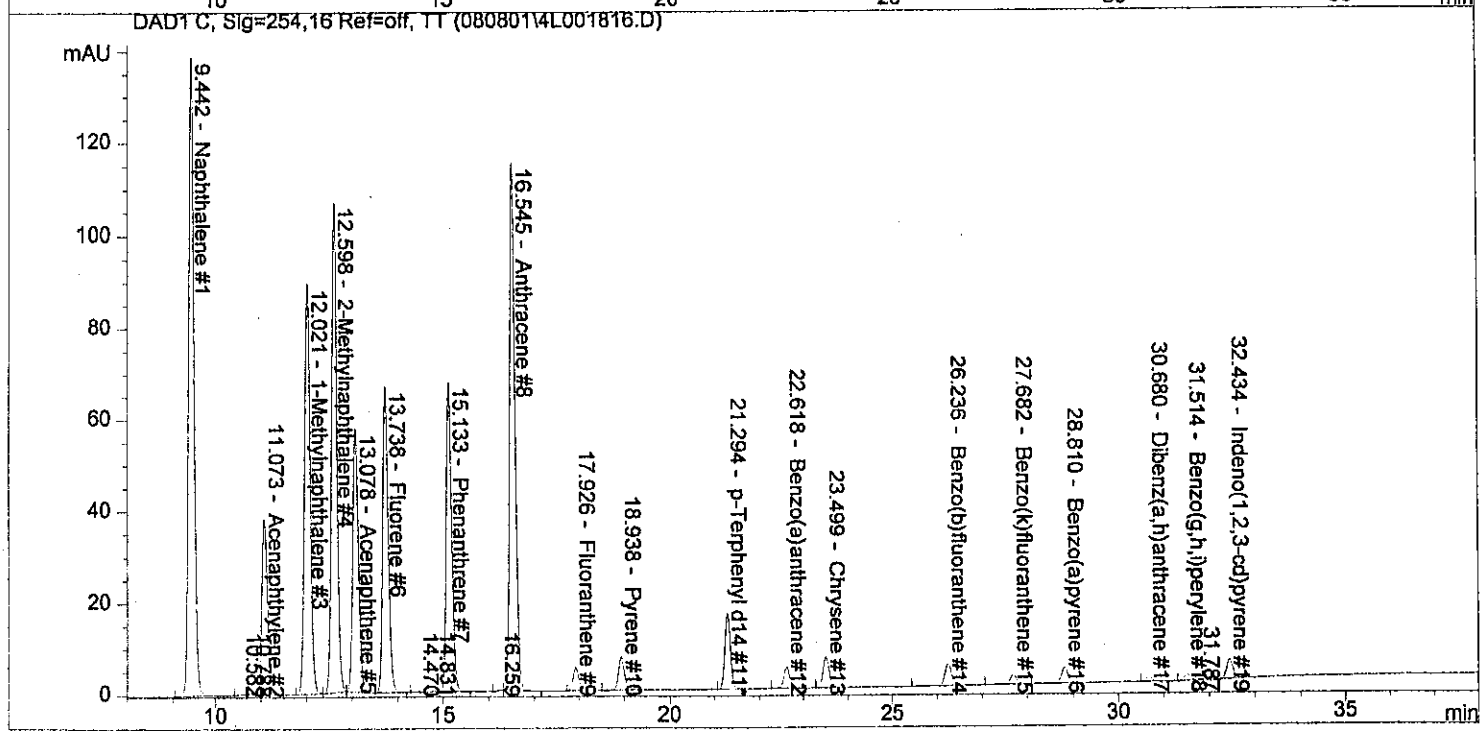
Injection Date : 8/9/2001 1:34:48 AM
Sample Name : 8310 std 3/53-25
Acq. Operator : RDC

Seq. Line : 12
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:53:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:53:51 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
9.459	BBA	381.56079	2.52975e-2	9.65254		Naphthalene #1
12.038	PB	438.85303	2.21343e-2	9.71369		1-Methylnaphthalene #3
12.616	BB	575.43298	1.70643e-2	9.81937		2-Methylnaphthalene #4
13.095	BB	718.90424	1.38423e-2	9.95132		Acenaphthene #5
13.756	BB	1559.63367	6.51366e-3	10.15893		Fluorene #6
15.151	BBA	58.15233	1.63652e-1	9.51677		Phenanthrene #7
16.563	BBA	32.12813	3.10210e-1	9.96646		Anthracene #8
17.944	BBA	41.21679	2.32680e-2	9.59030e-1		Fluoranthene #9
18.956	BBA	24.49013	3.70002e-2	9.06140e-1		Pyrene #10
21.311	BBA	31.73221	2.97355e-1	9.43572		p-Terphenyl d14 #11*
22.636	PB	119.82957	7.91289e-3	9.48198e-1		Benzo(a)anthracene #12
23.516	BBA	24.17820	3.90514e-2	9.44192e-1		Chrysene #13
26.254	PBA	58.33105	1.63221e-2	9.52086e-1		Benzo(b)fluoranthene #14
27.699	BB	176.43927	2.76576e-3	4.87989e-1		Benzo(k)fluoranthene #15
28.828	BB	203.54648	4.57102e-3	9.30415e-1		Benzo(a)pyrene #16
30.698	PB	23.53592	3.93487e-2	9.26108e-1		Dibenz(a,h)anthracene #17
31.532	BB	33.85759	2.65177e-2	8.97824e-1		Benzo(g,h,i)perylene #18
32.447	BBA	69.61817	1.38197e-2	9.62101e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 87.12889

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
9.442	PBA	1248.26221	8.25422e-3	10.30343		Naphthalene #1
11.073	BBA	328.40460	2.96983e-2	9.75306		Acenaphthylene #2
12.021	PB	763.85205	1.29461e-2	9.88889		1-Methylnaphthalene #3
12.598	BB	894.31500	1.12395e-2	10.05166		2-Methylnaphthalene #4
13.078	BB	483.56268	2.03168e-2	9.82443		Acenaphthene #5
13.738	BBA	557.46277	1.75246e-2	9.76933		Fluorene #6
15.133	BBA	565.66064	1.72985e-2	9.78506		Phenanthrene #7
16.545	BBA	973.54010	1.04262e-2	10.15030		Anthracene #8
17.926	PB	44.25564	2.17013e-2	9.60407e-1		Fluoranthene #9
18.938	BBA	67.74028	1.43056e-2	9.69062e-1		Pyrene #10
21.294	BBA	145.31215	6.56589e-2	9.54104		p-Terphenyl d14 #11*
22.618	BBA	43.83417	2.22701e-2	9.76191e-1		Benzo(a)anthracene #12
23.499	BBA	63.60076	1.51457e-2	9.63280e-1		Chrysene #13
26.236	PBA	46.71288	2.07333e-2	9.68511e-1		Benzo(b)fluoranthene #14
27.682	BBA	21.84682	2.25837e-2	4.93381e-1		Benzo(k)fluoranthene #15
28.810	BBA	35.68842	2.61682e-2	9.33903e-1		Benzo(a)pyrene #16
30.680	BBA	10.35146	9.41628e-2	9.74722e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.514	PB	13.18469	5.60856e-2	7.39471e-1		Benzo(g,h,i)perylene #19
32.434	BB	45.97294	2.05614e-2	9.45269e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 97.99139

Results obtained with enhanced integrator!

*** End of Report ***

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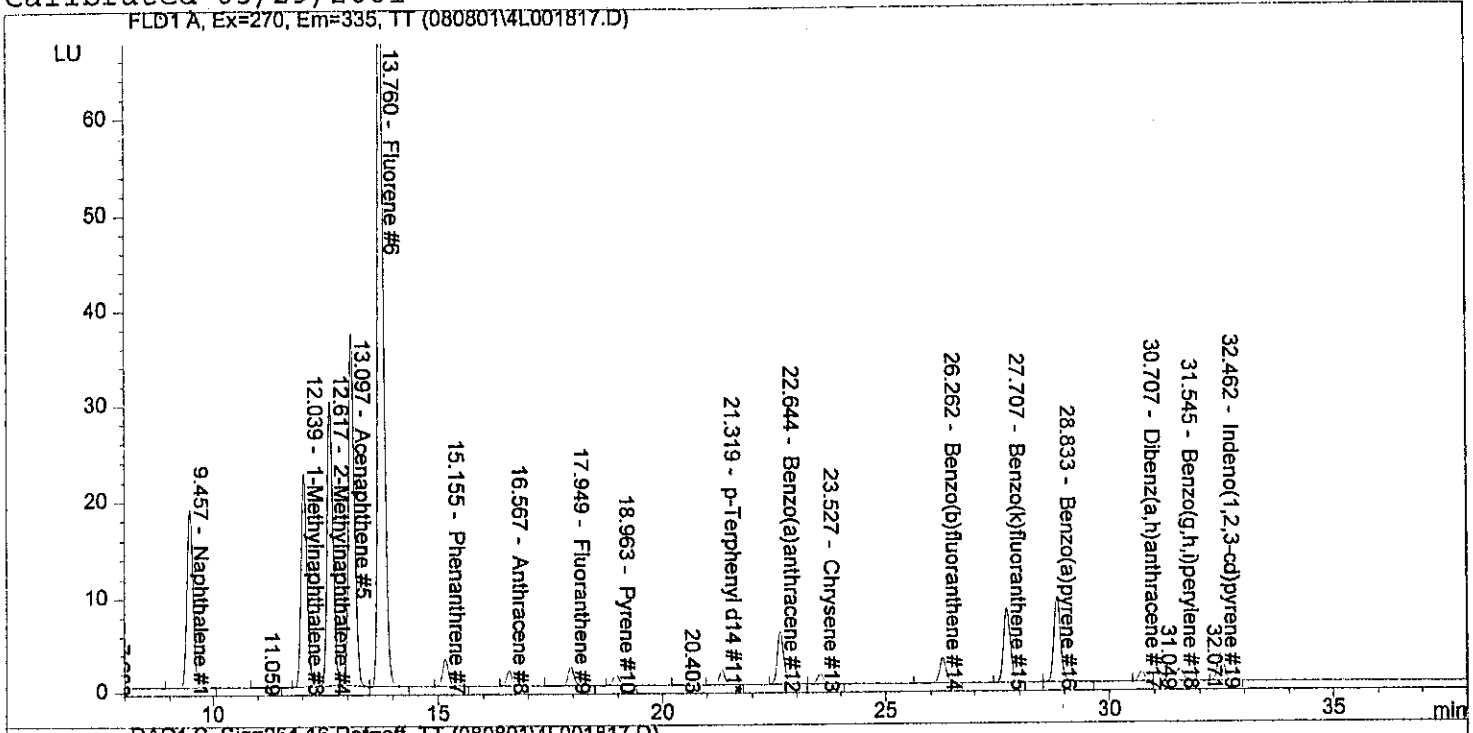
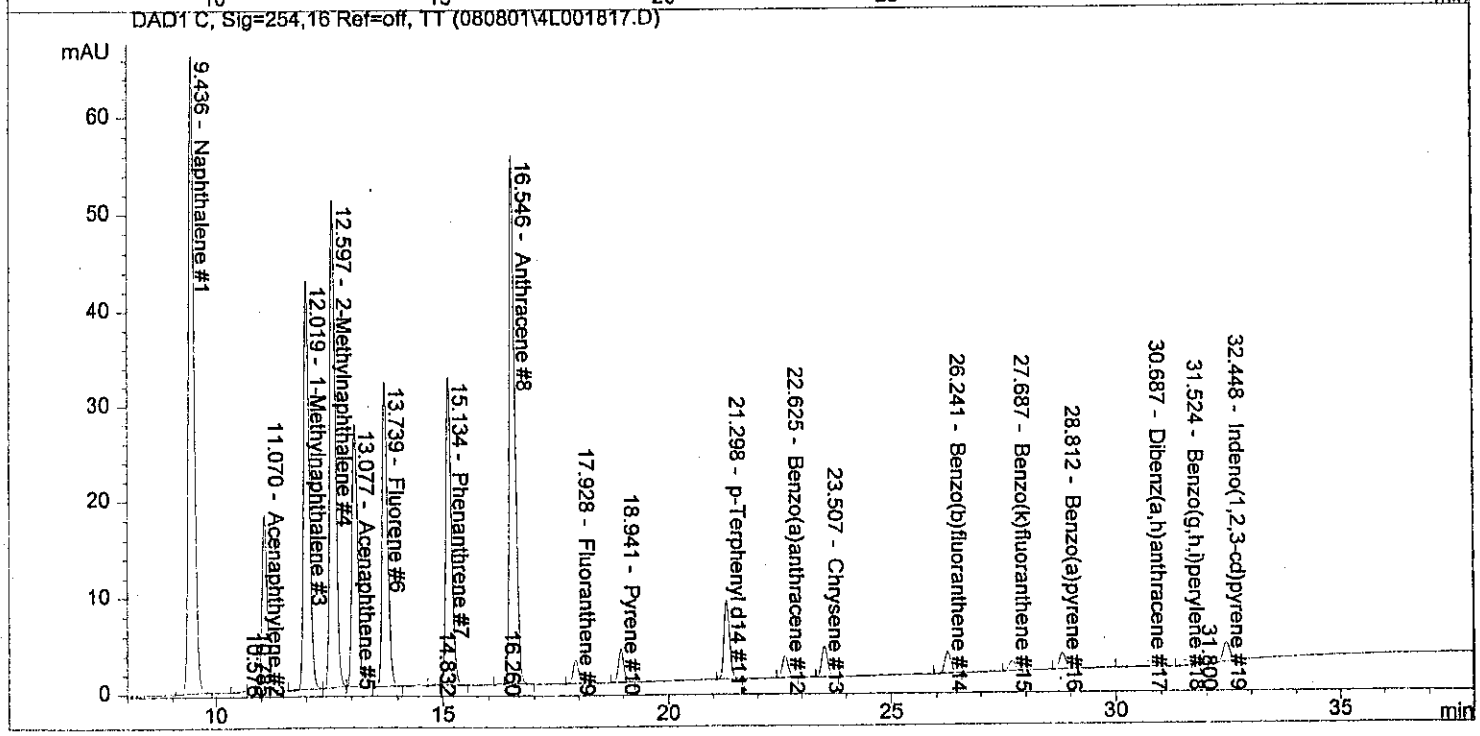
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

Seq. Line : 13
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:55:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:55:07 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
9.457	PBA	181.76619	2.52963e-2	4.59801		Naphthalene #1
12.039	PB	209.24336	2.21330e-2	4.63119		1-Methylnaphthalene #3
12.617	BB	274.39529	1.70636e-2	4.68216		2-Methylnaphthalene #4
13.097	BB	342.62488	1.38416e-2	4.74248		Acenaphthene #5
13.760	BBA	746.17523	6.51370e-3	4.86036		Fluorene #6
15.155	PBA	27.27178	1.63653e-1	4.46310		Phenanthrene #7
16.567	BBA	15.29622	3.10197e-1	4.74485		Anthracene #8
17.949	BBA	19.73562	2.32679e-2	4.59206e-1		Fluoranthene #9
18.963	BBA	11.52839	3.69974e-2	4.26520e-1		Pyrene #10
21.319	BBA	15.32359	2.97421e-1	4.55755		p-Terphenyl d14 #11*
22.644	BB	56.84493	7.91259e-3	4.49791e-1		Benzo(a)anthracene #12
23.527	BBA	11.43981	3.90499e-2	4.46723e-1		Chrysene #13
26.262	PBA	27.63313	1.63222e-2	4.51033e-1		Benzo(b)fluoranthene #14
27.707	PB	83.81139	2.76572e-3	2.31799e-1		Benzo(k)fluoranthene #15
28.833	BBA	96.67756	4.57119e-3	4.41931e-1		Benzo(a)pyrene #16
30.707	PB	10.91603	3.93495e-2	4.29540e-1		Dibenz(a,h)anthracene #17
31.545	BB	15.83937	2.65166e-2	4.20006e-1		Benzo(g,h,i)perylene #18
32.462	BBA	32.35181	1.38204e-2	4.47116e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.48338

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
9.436	PBA	597.19745	8.25408e-3	4.92931		Naphthalene #1
11.070	BBA	157.20731	2.96976e-2	4.66868		Acenaphthylene #2
12.019	BB	365.03561	1.29459e-2	4.72572		1-Methylnaphthalene #3
12.597	BB	428.27109	1.12393e-2	4.81347		2-Methylnaphthalene #4
13.077	BBA	231.24211	2.03164e-2	4.69801		Acenaphthene #5
13.739	BBA	266.30728	1.75241e-2	4.66679		Fluorene #6
15.134	BBA	270.24643	1.72983e-2	4.67479		Phenanthrene #7
16.546	BBA	465.29129	1.04262e-2	4.85122		Anthracene #8
17.928	PBA	21.37060	2.17007e-2	4.63757e-1		Fluoranthene #9
18.941	BBA	31.33940	1.43053e-2	4.48319e-1		Pyrene #10
21.298	PBA	70.24126	6.56728e-2	4.61294		p-Terphenyl d14 #11*
22.625	BBA	20.54964	2.22694e-2	4.57628e-1		Benzo(a)anthracene #12
23.507	BBA	30.26713	1.51453e-2	4.58406e-1		Chrysene #13
26.241	PBA	22.12707	2.07330e-2	4.58761e-1		Benzo(b)fluoranthene #14
27.687	PBA	10.19696	2.25839e-2	2.30287e-1		Benzo(k)fluoranthene #15
28.812	BBA	16.98781	2.61681e-2	4.44538e-1		Benzo(a)pyrene #16
30.687	BBA	6.85372	9.41128e-2	6.45023e-1		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001817.D Sample Name: 8310 Std 2/55-25

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.524	PB	5.61006	5.60813e-2	3.14619e-1		Benzo(g,h,i)perylene #18
32.448	BB	21.11818	2.05610e-2	4.34211e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.99648

Results obtained with enhanced integrator!

*** End of Report ***

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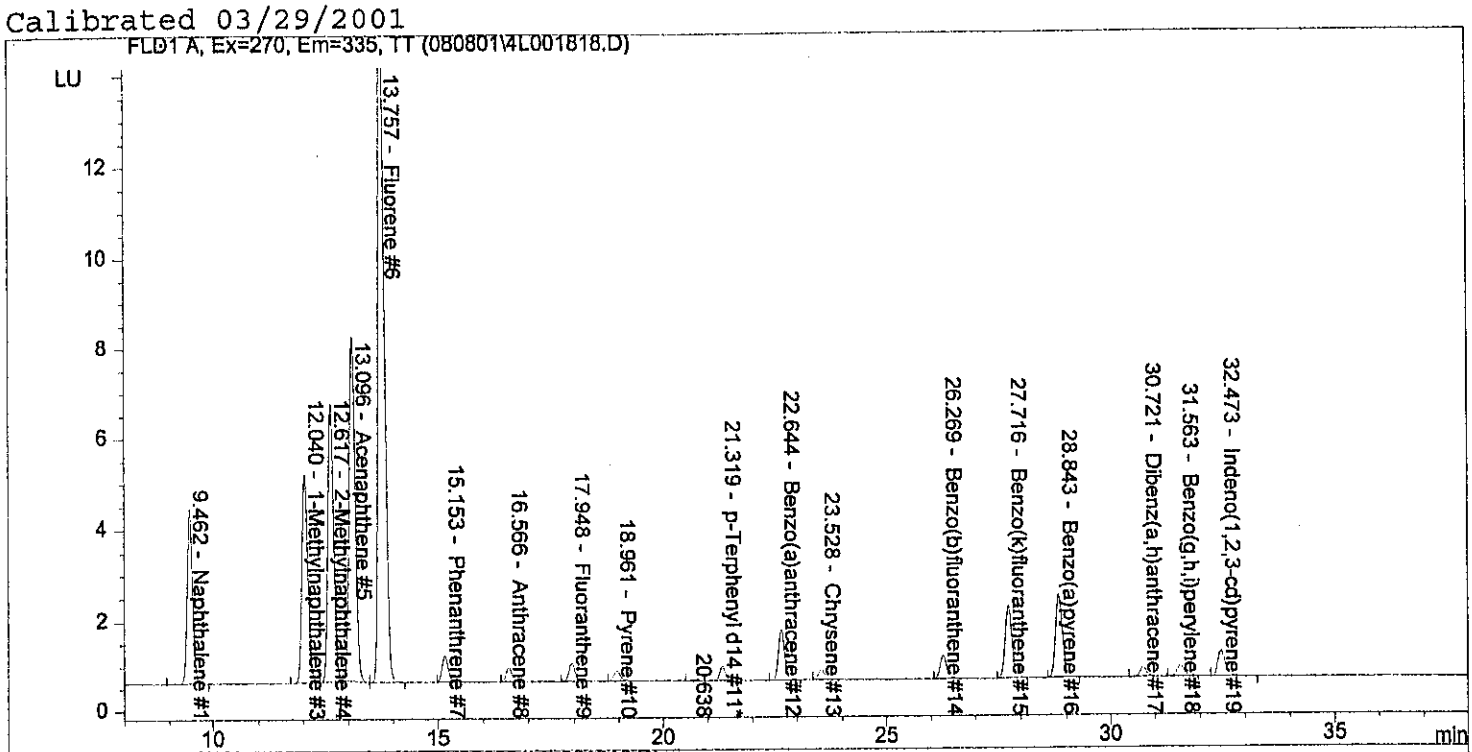
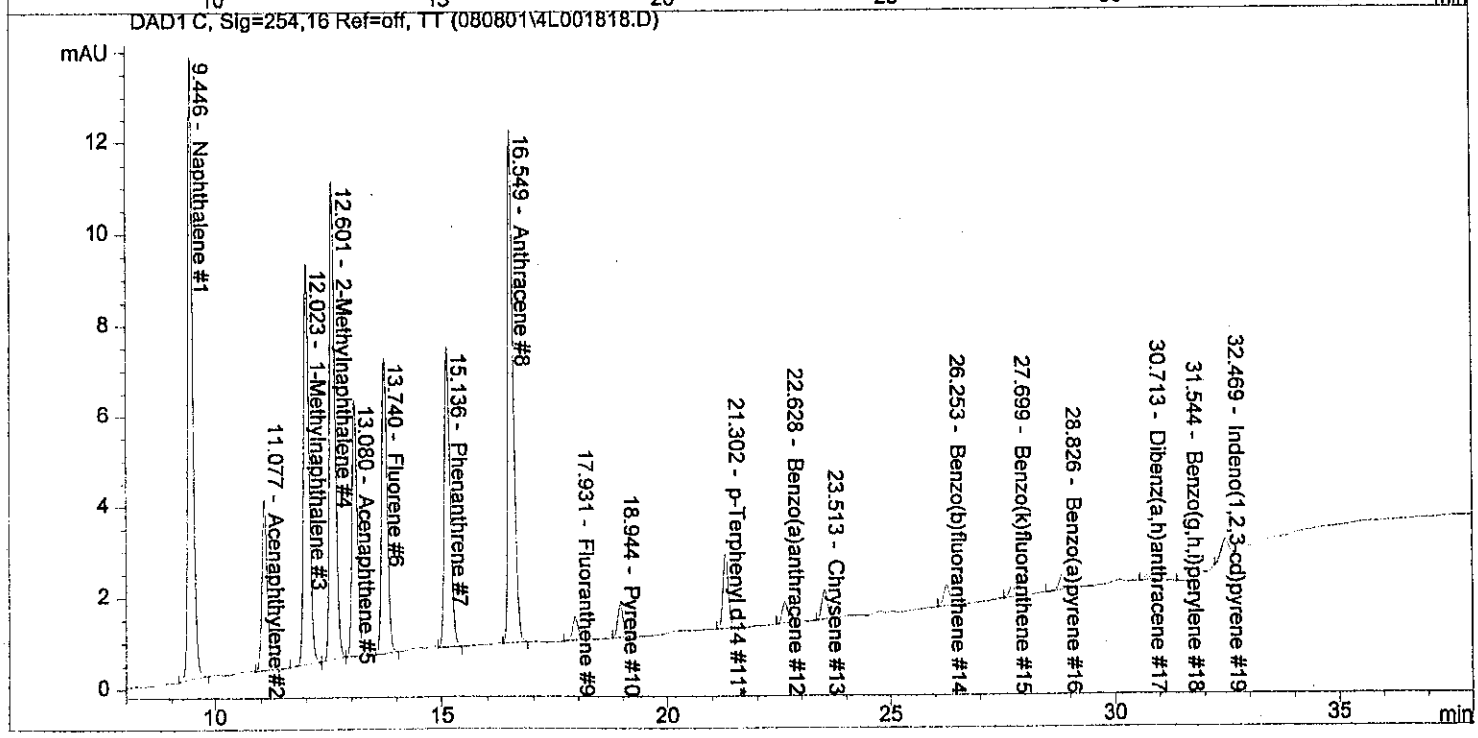
Injection Date : 8/9/2001 3:28:00 AM
Sample Name : 8310 std 1/53-25
Acq. Operator : RDC

Seq. Line : 14
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

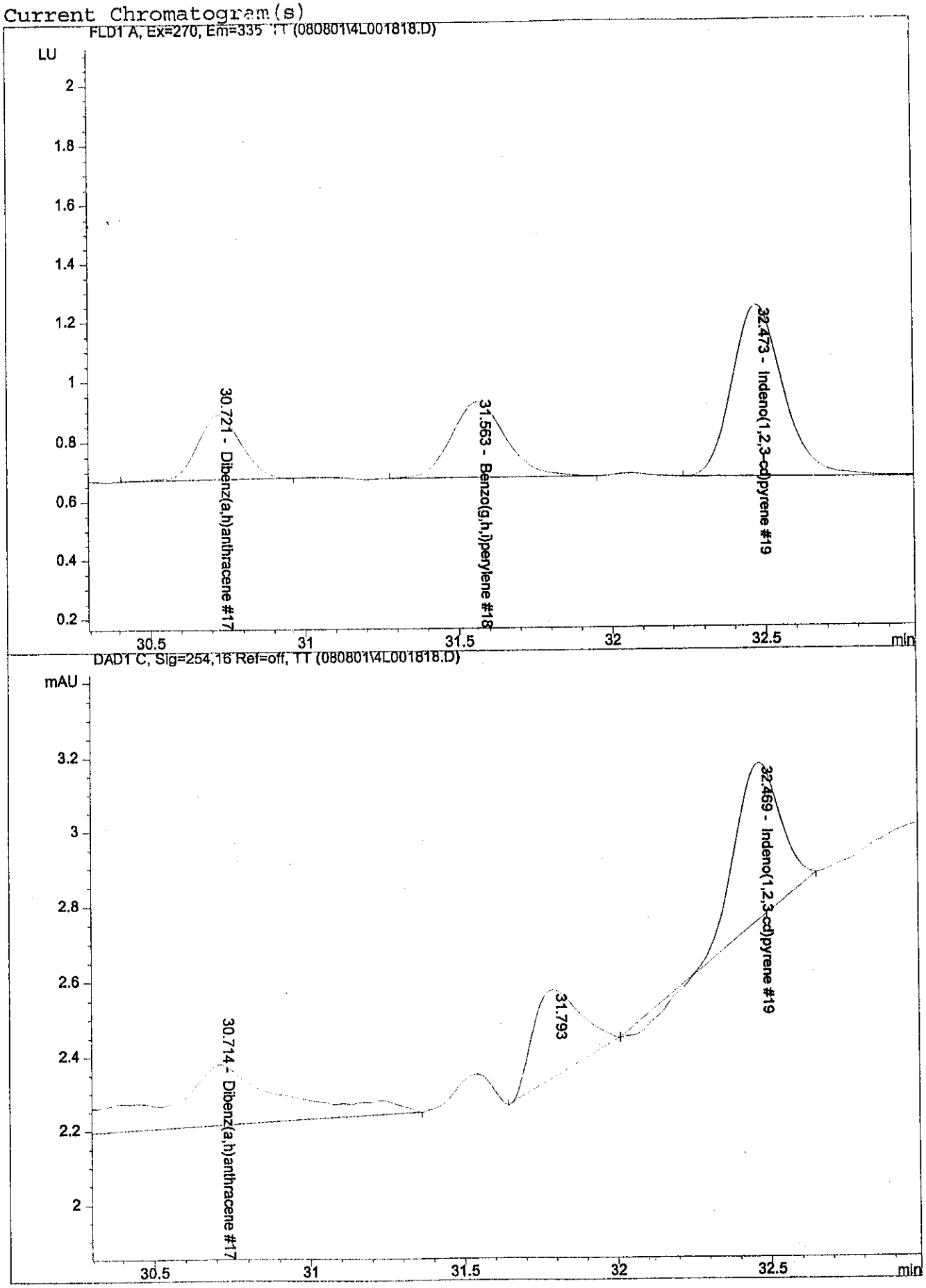
Calibrated 03/29/2001





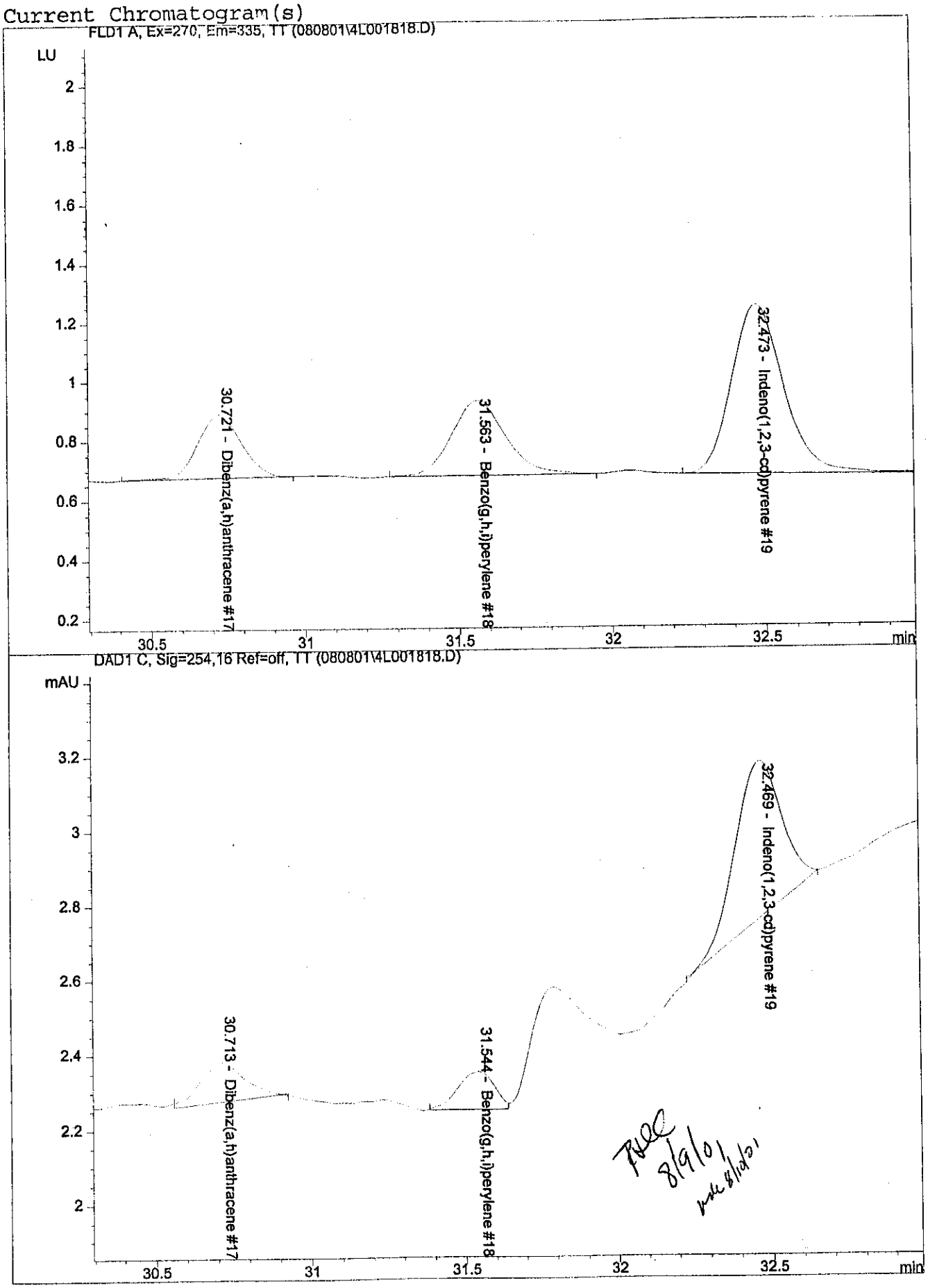
Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



317

Data File C:\HPCHEM\2\DATA\080801\4L001818.D Sample Name: 8310 Std 1/53-25

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:57:05 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
9.462	PBA	37.17168	2.52962e-2	9.40302e-1		Naphthalene #1
12.040	PB	42.88826	2.21330e-2	9.49244e-1		1-Methylnaphthalene #3
12.617	BB	56.35436	1.70635e-2	9.61602e-1		2-Methylnaphthalene #4
13.096	BB	70.47864	1.38416e-2	9.75535e-1		Acenaphthene #5
13.757	BBA	154.16187	6.51364e-3	1.00416		Fluorene #6
15.153	BBA	5.49988	1.63652e-1	9.00067e-1		Phenanthrene #7
16.566	BBA	3.13834	3.10196e-1	9.73501e-1		Anthracene #8
17.948	BBA	3.92854	2.32678e-2	9.14086e-2		Fluoranthene #9
18.961	PBA	2.27570	3.69972e-2	8.41944e-2		Pyrene #10
21.319	BBA	3.07342	2.97423e-1	9.14105e-1		p-Terphenyl d14 #11*
22.644	BB	11.54687	7.91256e-3	9.13654e-2		Benzo(a)anthracene #12
23.528	BB	2.41118	3.90495e-2	9.41556e-2		Chrysene #13
26.269	BBA	5.57386	1.63222e-2	9.09776e-2		Benzo(b)fluoranthene #14
27.716	PBA	16.87873	2.76572e-3	4.66818e-2		Benzo(k)fluoranthene #15
28.843	PBA	19.26282	4.57119e-3	8.80540e-2		Benzo(a)pyrene #16
30.721	PBA	2.12374	3.93496e-2	8.35682e-2		Dibenz(a,h)anthracene #17
31.563	PB	3.08265	2.65165e-2	8.17409e-2		Benzo(g,h,i)perylene #18
32.473	BBA	6.64809	1.38204e-2	9.18793e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.46254

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
9.446	PBA	122.72835	8.25405e-3	1.01301		Naphthalene #1
11.077	BBA	32.52021	2.96975e-2	9.65769e-1		Acenaphthylene #2
12.023	BB	75.33028	1.29459e-2	9.75215e-1		1-Methylnaphthalene #3
12.601	BB	88.22273	1.12393e-2	9.91560e-1		2-Methylnaphthalene #4
13.080	BBA	47.72895	2.03163e-2	9.69678e-1		Acenaphthene #5
13.740	BBA	54.47855	1.75240e-2	9.54682e-1		Fluorene #6
15.136	BBA	55.64261	1.72982e-2	9.62519e-1		Phenanthrene #7
16.549	BBA	95.56687	1.04262e-2	9.96398e-1		Anthracene #8
17.931	PBA	4.46854	2.17006e-2	9.69699e-2		Fluoranthene #9
18.944	BBA	6.23924	1.43052e-2	8.92539e-2		Pyrene #10
21.302	PBA	14.08348	6.56733e-2	9.24908e-1		p-Terphenyl d14 #11*
22.628	BBA	4.00703	2.22694e-2	8.92344e-2		Benzo(a)anthracene #12
23.513	PBA	6.06011	1.51453e-2	9.17822e-2		Chrysene #13
26.253	BBA	4.43454	2.07330e-2	9.19412e-2		Benzo(b)fluoranthene #14
27.699	BBA	2.30033	2.25837e-2	5.19499e-2		Benzo(k)fluoranthene #15
28.826	BBA	3.45270	2.61680e-2	9.03503e-2		Benzo(a)pyrene #16
30.713	MM	1.04021	9.41116e-2	9.78958e-2		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001818.D Sample Name: 8310 std 1/53-25

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.544	MV	8.44691e-1	5.60829e-2	4.73728e-2		Benzo(g,h,i)perylene #18
32.469	FM	4.35778	2.05608e-2	8.95994e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.59008

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

ata File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
PLC4 8/9/2001 2:40:05 PM RDC

njection Date : 8/9/2001 4:24:36 AM
:ample Name : 8310alt5327/5529
.cq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1

:ignal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.470	20.0	19.085	-4.6
1-Methylnaphthalene #3	12.051	20.0	19.612	-1.9
2-Methylnaphthalene #4	12.628	20.0	19.236	-3.8
Acenaphthene #5	13.106	20.0	20.107	0.5
Fluorene #6	13.767	20.0	20.476	2.4
Phenanthrene #7	15.162	20.0	18.244	-8.8
Anthracene #8	16.577	20.0	20.286	1.4
Fluoranthene #9	17.959	2.0	1.875	-6.2
Pyrene #10	18.972	2.0	1.773	-11.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.654	2.0	1.764	-11.8
Chrysene #13	23.539	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.279	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.731	1.0	0.859	-14.1
Benzo(a)pyrene #16	28.859	2.0	1.936	-3.2
Dibenz(a,h)anthracene #1	30.737	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.575	2.0	1.778	-11.1
Indeno(1,2,3-cd)pyrene #	32.488	2.0	1.863	-6.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.449	20.0	20.445	2.2
Acenaphthylene #2	11.083	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.030	20.0	20.220	1.1
2-Methylnaphthalene #4	12.606	20.0	19.941	-0.3
Acenaphthene #5	13.085	20.0	20.110	0.5
Fluorene #6	13.745	20.0	19.598	-2.0
Phenanthrene #7	15.141	20.0	19.075	-4.6
Anthracene #8	16.555	20.0	20.838	4.2
Fluoranthene #9	17.937	2.0	1.904	-4.8
Pyrene #10	18.950	2.0	1.866	-6.7
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.633	2.0	1.817	-9.1
Chrysene #13	23.517	2.0	1.889	-5.5
Benzo(b)fluoranthene #14	26.257	2.0	1.916	-4.2
Benzo(k)fluoranthene #15	27.709	1.0	0.861	-13.9
Benzo(a)pyrene #16	28.837	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.716	2.0	2.113	5.6
Benzo(g,h,i)perylene #18	31.551	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.471	2.0	1.847	-7.7

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

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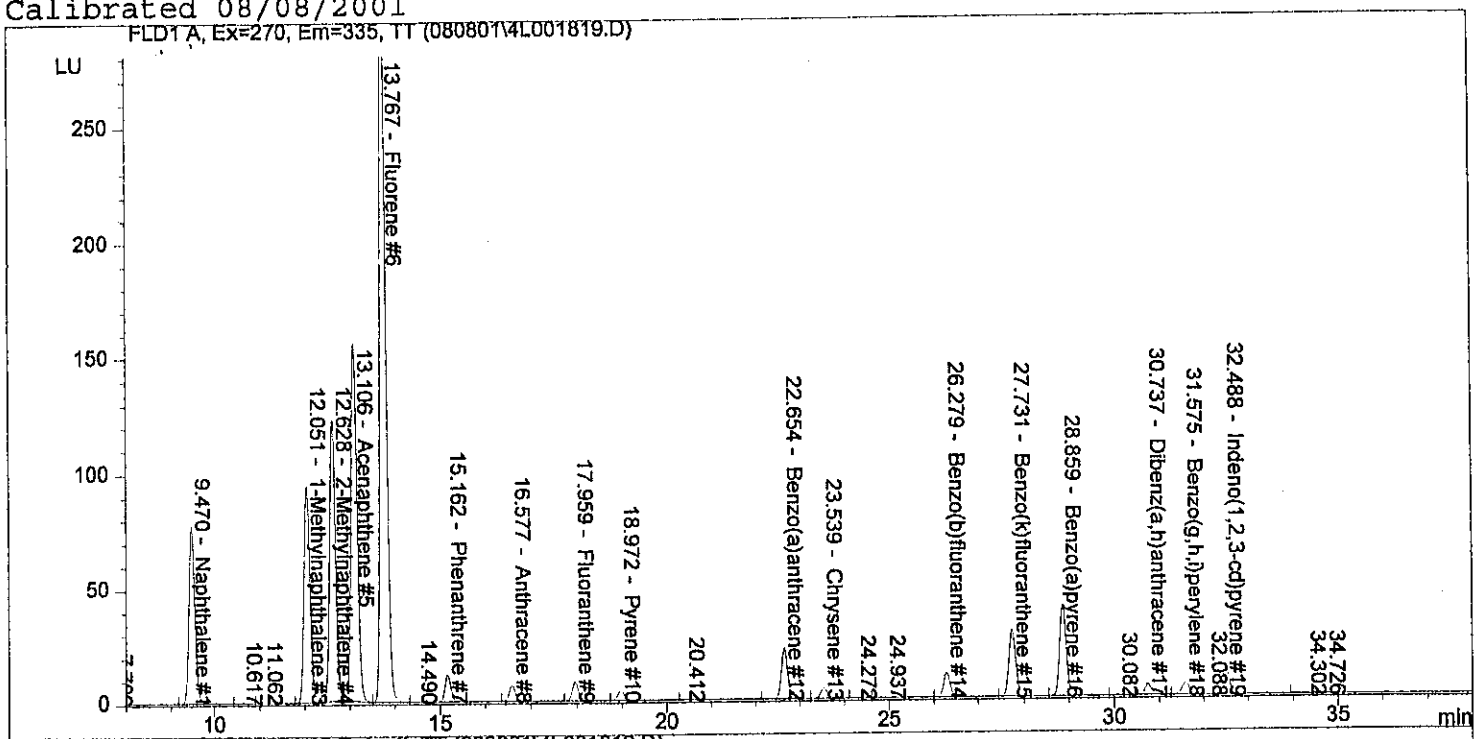
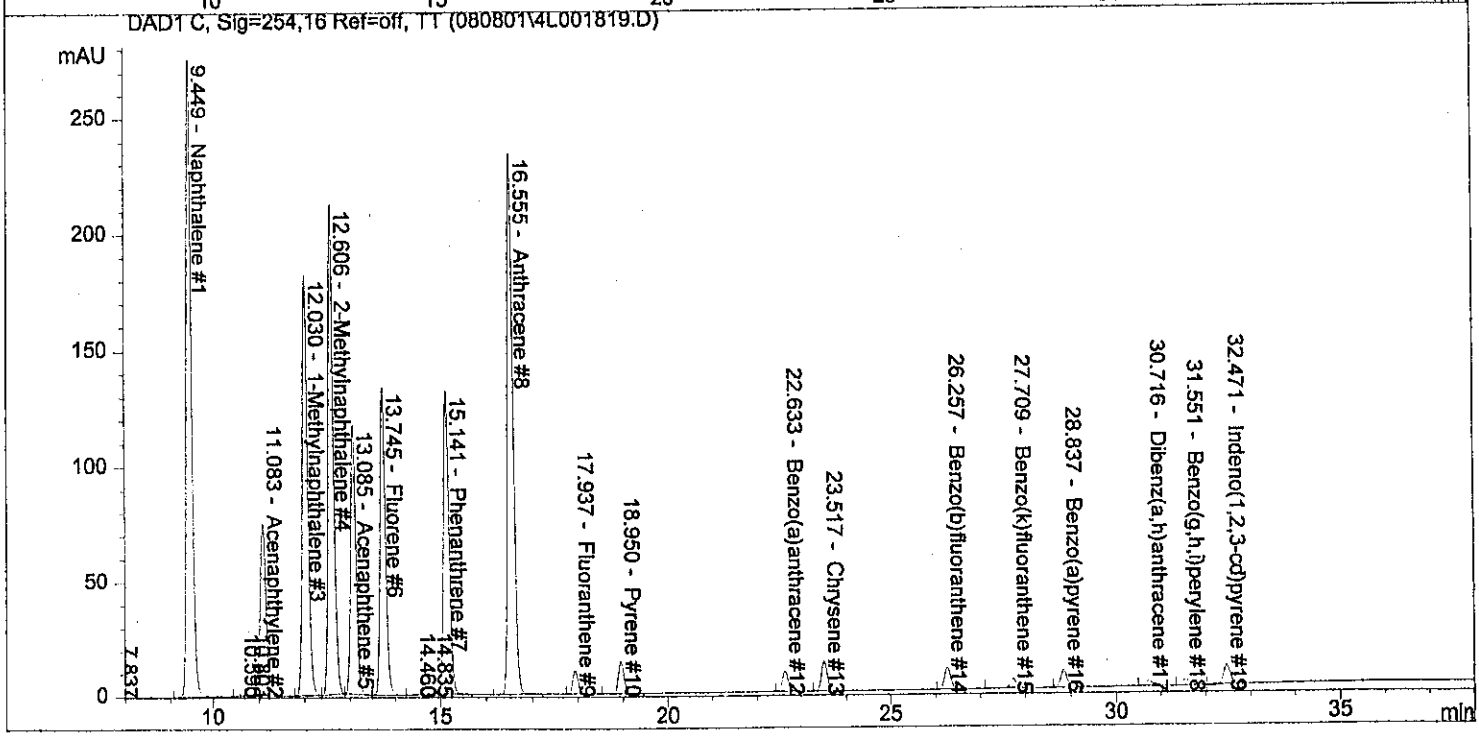
Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

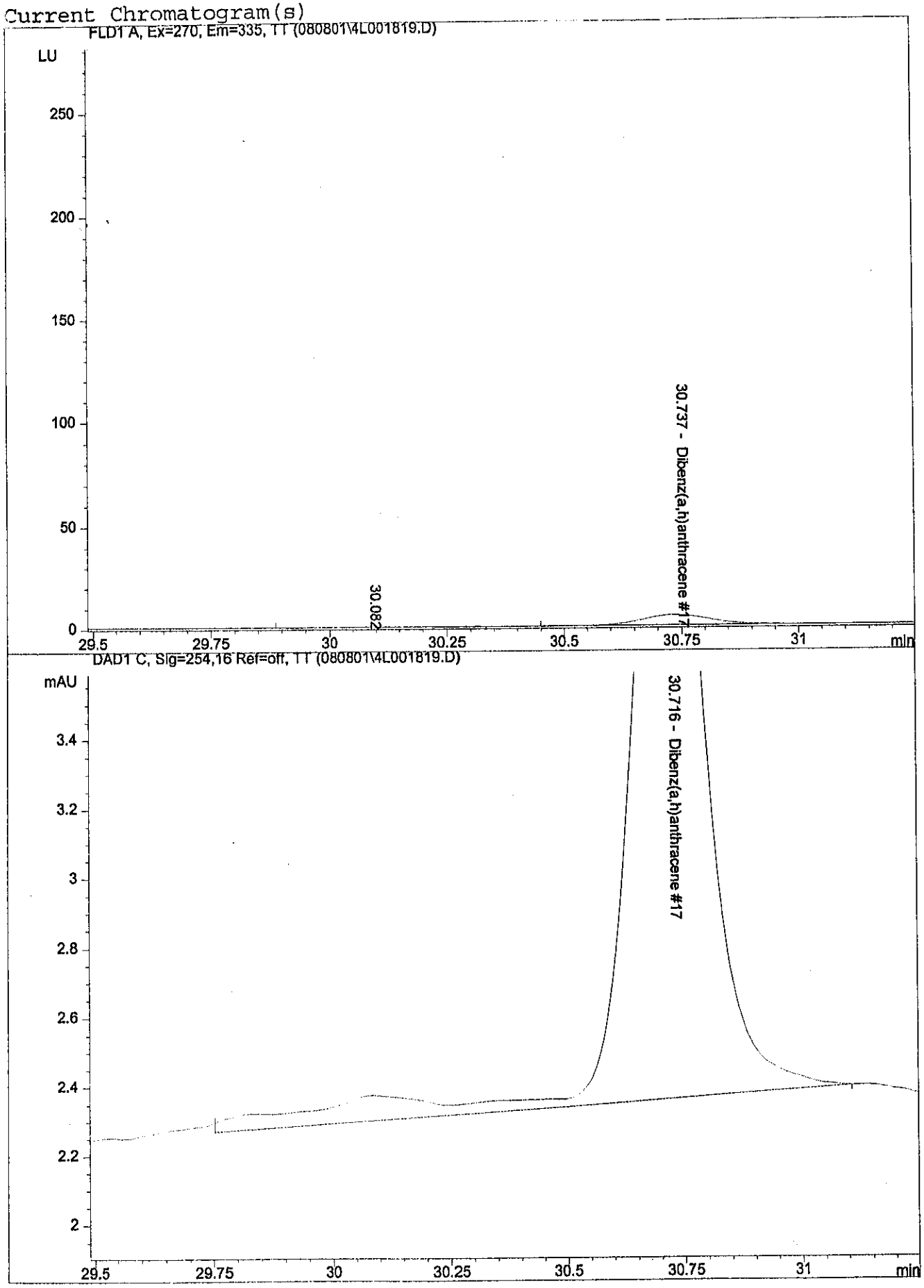
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 2:38:26 PM by RDC
Calibrated 08/08/2001





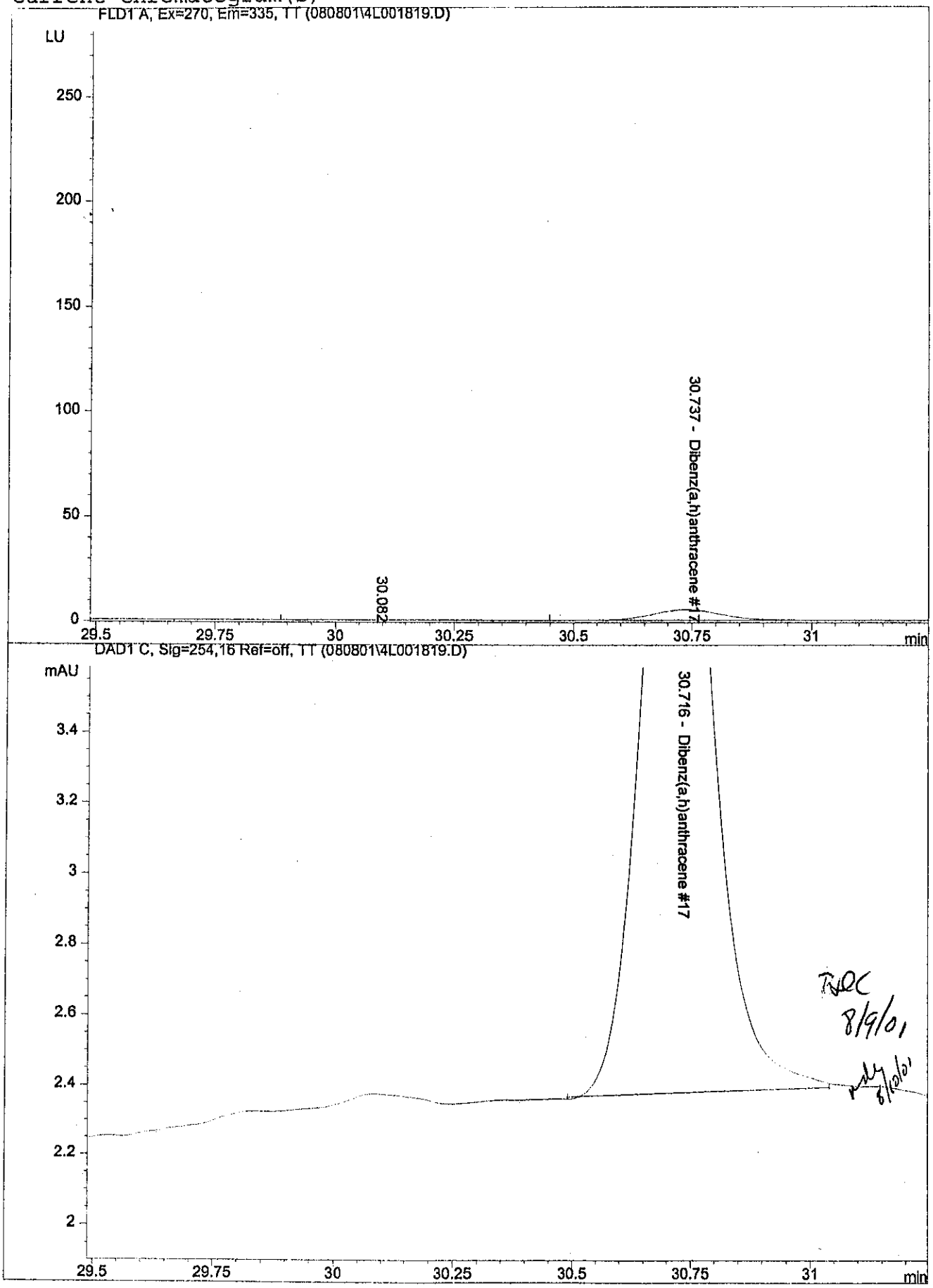
Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



TJQC 8/9/01

8/10/01

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/9/2001 2:38:03 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
9.470	BBA	754.46277	2.52962e-2	19.08504		Naphthalene #1
12.051	PB	886.09137	2.21330e-2	19.61182		1-Methylnaphthalene #3
12.628	BB	1127.34106	1.70635e-2	19.23638		2-Methylnaphthalene #4
13.106	BB	1452.62085	1.38416e-2	20.10654		Acenaphthene #5
13.767	BB	3092.24097	6.62187e-3	20.47641		Fluorene #6
15.162	BBA	111.47997	1.63652e-1	18.24395		Phenanthrene #7
16.577	BBA	65.39610	3.10196e-1	20.28563		Anthracene #8
17.959	BBA	80.59158	2.32678e-2	1.87519		Fluoranthene #9
18.972	BBA	45.85996	3.86587e-2	1.77289		Pyrene #10
21.319		-	-	-		p-Terphenyl d14 #11*
22.654	BB	222.98581	7.91256e-3	1.76439		Benzo(a)anthracene #12
23.539	BBA	46.41417	3.90495e-2	1.81245		Chrysene #13
26.279	BBA	116.38370	1.63222e-2	1.89964		Benzo(b)fluoranthene #14
27.731	PB	310.48468	2.76572e-3	8.58712e-1		Benzo(k)fluoranthene #15
28.859	BBA	423.47870	4.57119e-3	1.93580		Benzo(a)pyrene #16
30.737	BB	51.95090	3.93496e-2	2.04424		Dibenz(a,h)anthracene #17
31.575	BB	67.06937	2.65165e-2	1.77844		Benzo(g,h,i)perylene #18
32.488	BBA	134.78470	1.38204e-2	1.86278		Indeno(1,2,3-cd)pyrene #1
Totals :				154.65030		

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
9.449	PBA	2477.01978	8.25405e-3	20.44544		Naphthalene #1
11.083	BB	647.54114	2.96975e-2	19.23036		Acenaphthylene #2
12.030	BB	1561.87817	1.29459e-2	20.21985		1-Methylnaphthalene #3
12.606	BB	1774.18762	1.12393e-2	19.94059		2-Methylnaphthalene #4
13.085	BB	989.82544	2.03163e-2	20.10963		Acenaphthene #5
13.745	BB	1118.36353	1.75240e-2	19.59821		Fluorene #6
15.141	BBA	1102.72717	1.72982e-2	19.07524		Phenanthrene #7
16.555	BBA	1998.58276	1.04262e-2	20.83759		Anthracene #8
17.937	PB	87.72285	2.17006e-2	1.90364		Fluoranthene #9
18.950	BBA	130.42879	1.43052e-2	1.86582		Pyrene #10
21.302		-	-	-		p-Terphenyl d14 #11*
22.633	BBA	81.60189	2.22694e-2	1.81723		Benzo(a)anthracene #12
23.517	PBA	124.75014	1.51453e-2	1.88938		Chrysene #13
26.257	BBA	92.43634	2.07330e-2	1.91648		Benzo(b)fluoranthene #14
27.709	BBA	38.12810	2.25837e-2	8.61073e-1		Benzo(k)fluoranthene #15
28.837	BBA	74.32523	2.61680e-2	1.94494		Benzo(a)pyrene #16
30.716	MM	22.44932	9.41116e-2	2.11274		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.551	PB	33.44667	5.60829e-2	1.87579		Benzo(g,h,i)perylene #18
32.471	BB	89.81290	2.05608e-2	1.84662		Indeno(1,2,3-cd)pyrene #1

Totals : 177.49063

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\092401\4L002137.D Sample Name: 8310 CCV
HPLC4 9/25/2001 7:53:37 AM RDC

1,1,SV54-35/53-25

==========

Injection Date : 9/24/2001 4:18:09 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.355	20.0	20.466	2.3
1-Methylnaphthalene #3	11.923	20.0	20.489	2.4
2-Methylnaphthalene #4	12.501	20.0	20.669	3.3
Acenaphthene #5	12.984	20.0	20.990	5.0
Fluorene #6	13.644	20.0	21.804	9.0
Phenanthrene #7	15.038	20.0	20.078	0.4
Anthracene #8	16.448	20.0	20.970	4.8
Fluoranthene #9	17.830	2.0	2.038	1.9
Pyrene #10	18.843	2.0	1.992	-0.4
p-Terphenyl d14 #11*	21.195	20.0	21.121	5.6
Benzo(a)anthracene #12	22.524	2.0	2.019	1.0
Chrysene #13	23.398	2.0	2.029	1.4
Benzo(b)fluoranthene #14	26.131	2.0	2.040	2.0
Benzo(k)fluoranthene #15	27.578	1.0	1.047	4.7
Benzo(a)pyrene #16	28.704	2.0	1.984	-0.8
Dibenz(a,h)anthracene #1	30.574	2.0	2.031	1.5
Benzo(g,h,i)perylene #18	31.388	2.0	1.912	-4.4
Indeno(1,2,3-cd)pyrene #	32.318	2.0	2.051	2.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	22.116	10.6
Acenaphthylene #2	10.950	20.0	20.861	4.3
1-Methylnaphthalene #3	11.905	20.0	21.102	5.5
2-Methylnaphthalene #4	12.482	20.0	21.402	7.0
Acenaphthene #5	12.966	20.0	20.952	4.8
Fluorene #6	13.625	20.0	20.965	4.8
Phenanthrene #7	15.020	20.0	20.999	5.0
Anthracene #8	16.429	20.0	21.158	5.8
Fluoranthene #9	17.811	2.0	2.073	3.7
Pyrene #10	18.824	2.0	2.037	1.8
p-Terphenyl d14 #11*	21.177	20.0	21.062	5.3
Benzo(a)anthracene #12	22.506	2.0	2.063	3.2
Chrysene #13	23.380	2.0	2.073	3.7
Benzo(b)fluoranthene #14	26.112	2.0	2.077	3.8
Benzo(k)fluoranthene #15	27.559	1.0	1.038	3.8
Benzo(a)pyrene #16	28.685	2.0	1.999	0.0
Dibenz(a,h)anthracene #1	30.556	2.0	2.076	3.8
Benzo(g,h,i)perylene #18	31.369	2.0	2.113	5.6
Indeno(1,2,3-cd)pyrene #	32.299	2.0	2.055	2.7

= Failed 15.0% Criteria

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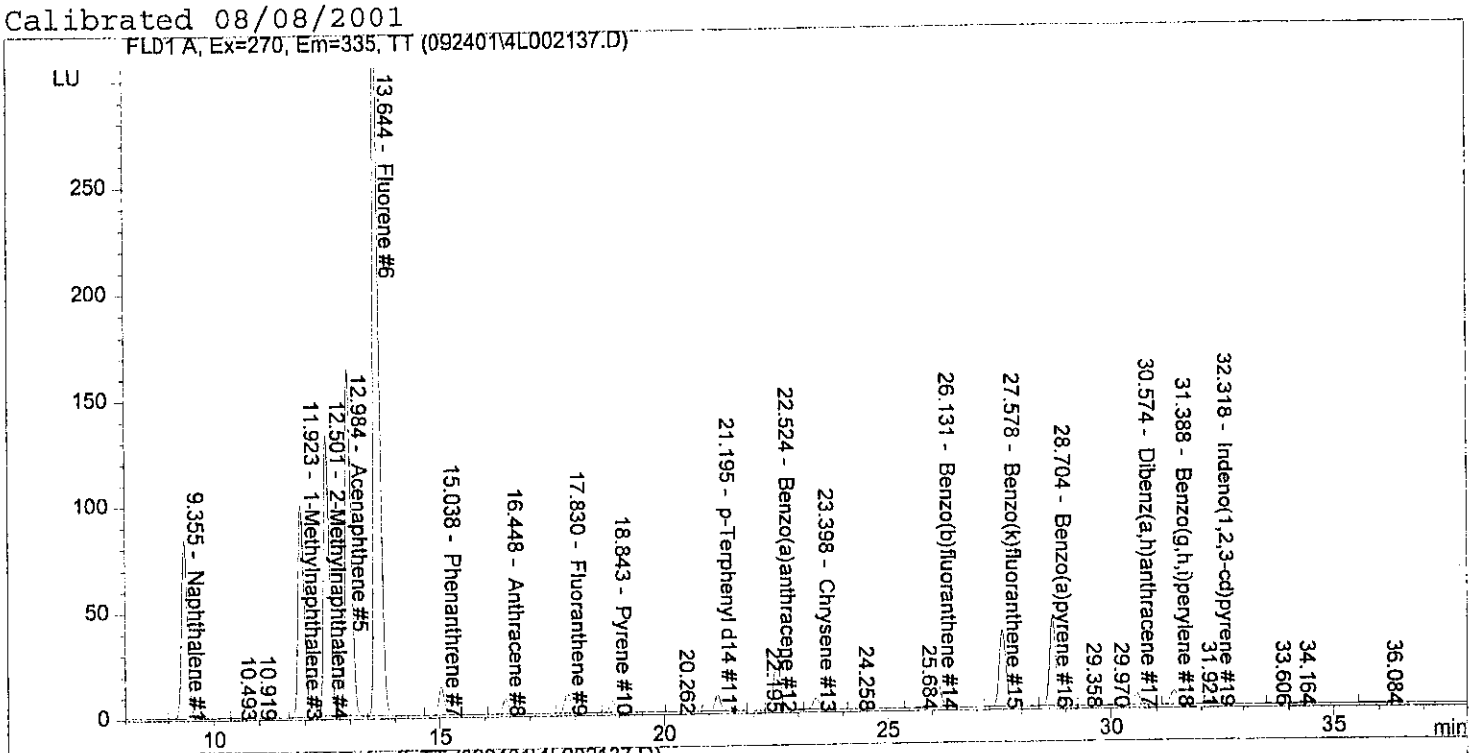
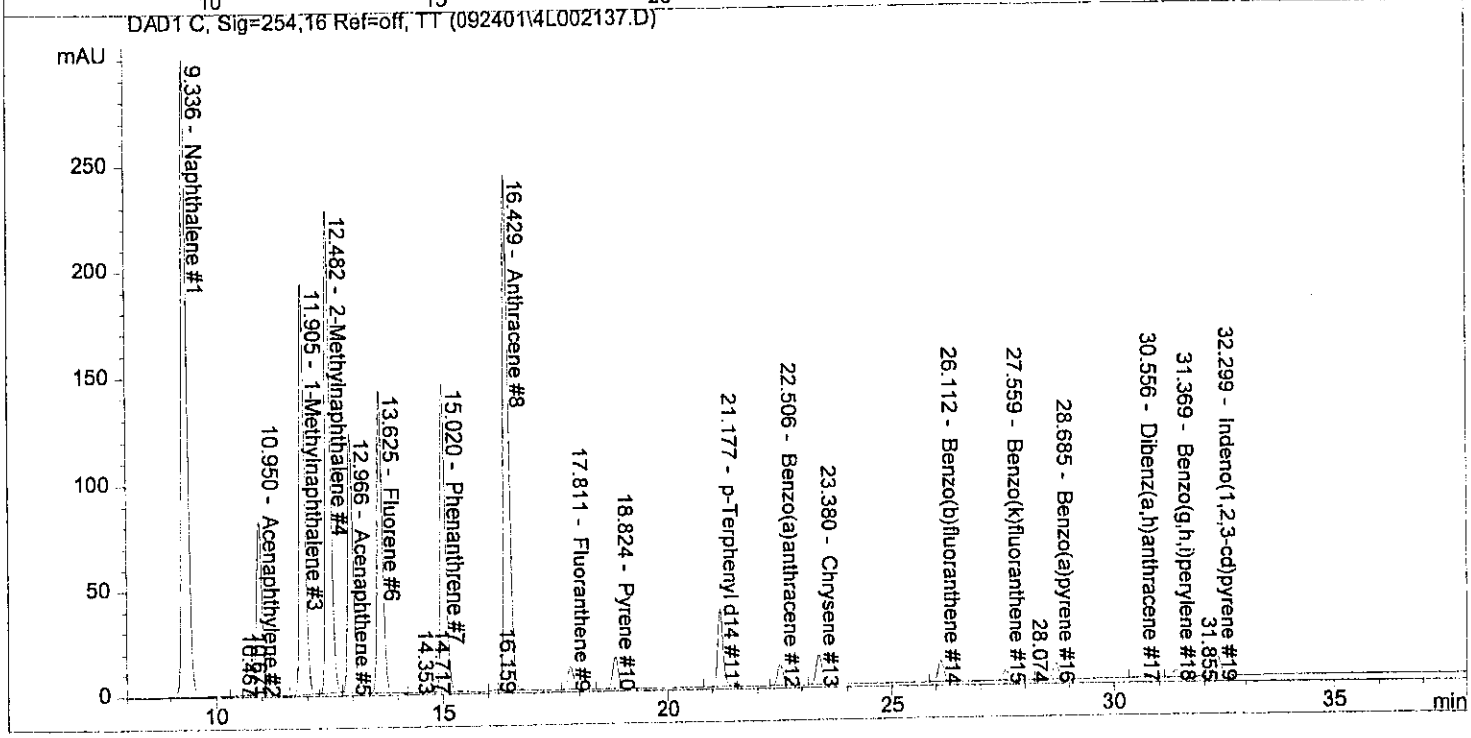
Injection Date : 9/24/2001 4:18:09 PM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.355	PB	809.04791	2.52962e-2	20.46583		Naphthalene #1
11.923	PB	925.73279	2.21330e-2	20.48920		1-Methylnaphthalene #3
12.501	BB	1211.27026	1.70635e-2	20.66850		2-Methylnaphthalene #4
12.984	BB	1516.47522	1.38416e-2	20.99039		Acenaphthene #5
13.644	BB	3292.75488	6.62187e-3	21.80418		Fluorene #6
15.038	BBA	122.68938	1.63652e-1	20.07839		Phenanthrene #7
16.448	BBA	67.60113	3.10196e-1	20.96962		Anthracene #8
17.830	PBA	87.57053	2.32678e-2	2.03758		Fluoranthene #9
18.843	BBA	51.52534	3.86587e-2	1.99190		Pyrene #10
21.195	BB	71.01323	2.97423e-1	21.12095		p-Terphenyl d14 #11*
22.524	BB	255.22255	7.91256e-3	2.01946		Benzo(a)anthracene #12
23.398	BBA	51.95272	3.90495e-2	2.02873		Chrysene #13
26.131	BBA	125.00509	1.63222e-2	2.04036		Benzo(b)fluoranthene #14
27.578	BB	378.71017	2.76572e-3	1.04740		Benzo(k)fluoranthene #15
28.704	BB	434.12793	4.57119e-3	1.98448		Benzo(a)pyrene #16
30.574	BB	51.60760	3.93496e-2	2.03074		Dibenz(a,h)anthracene #17
31.388	BB	72.11392	2.65165e-2	1.91221		Benzo(g,h,i)perylene #18
32.318	BB	148.40724	1.38204e-2	2.05105		Indeno(1,2,3-cd)pyrene #1
Totals :				185.73098		

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
9.336	PB	2679.37085	8.25405e-3	22.11566		Naphthalene #1
10.950	BBA	702.44598	2.96975e-2	20.86090		Acenaphthylene #2
11.905	PB	1630.03552	1.29459e-2	21.10221		1-Methylnaphthalene #3
12.482	BB	1904.22339	1.12393e-2	21.40209		2-Methylnaphthalene #4
12.966	BB	1031.30383	2.03163e-2	20.95232		Acenaphthene #5
13.625	BB	1196.37170	1.75240e-2	20.96522		Fluorene #6
15.020	BBA	1213.92993	1.72982e-2	20.99885		Phenanthrene #7
16.429	BBA	2029.32629	1.04262e-2	21.15813		Anthracene #8
17.811	PB	95.53029	2.17006e-2	2.07306		Fluoranthene #9
18.824	BBA	142.39278	1.43052e-2	2.03696		Pyrene #10
21.177	PBA	320.70905	6.56733e-2	21.06201		p-Terphenyl d14 #11*
22.506	PBA	92.65104	2.22694e-2	2.06329		Benzo(a)anthracene #12
23.380	BBA	136.87616	1.51453e-2	2.07303		Chrysene #13
26.112	PB	100.17819	2.07330e-2	2.07699		Benzo(b)fluoranthene #14
27.559	BB	45.97613	2.25837e-2	1.03831		Benzo(k)fluoranthene #15
28.685	BBA	76.40272	2.61680e-2	1.99931		Benzo(a)pyrene #16
30.556	BB	22.05736	9.41116e-2	2.07585		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.369	BB	37.67181	5.60829e-2	2.11275		Benzo(g,h,i)perylene #18
32.299	BBA	99.93147	2.05608e-2	2.05467		Indeno(1,2,3-cd)pyrene #1

Totals : 210.22162

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\092401\4L002147.D Sample Name: 8310 CCV
HPLC4 9/25/2001 8:00:35 AM RDC

1,1,SV54-35/53-25

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Injection Date : 9/25/2001 1:44:30 AM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.378	20.0	19.967	-0.2
1-Methylnaphthalene #3	11.965	20.0	20.115	0.6
2-Methylnaphthalene #4	12.542	20.0	20.328	1.6
Acenaphthene #5	13.023	20.0	20.752	3.8
Fluorene #6	13.677	20.0	21.730	8.7
Phenanthrene #7	15.065	20.0	19.793	-1.0
Anthracene #8	16.470	20.0	20.703	3.5
Fluoranthene #9	17.848	2.0	2.031	1.6
Pyrene #10	18.858	2.0	1.893	-5.4
p-Terphenyl d14 #11*	21.210	20.0	20.961	4.8
Benzo(a)anthracene #12	22.537	2.0	1.987	-0.6
Chrysene #13	23.413	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.152	2.0	2.026	1.3
Benzo(k)fluoranthene #15	27.597	1.0	1.043	4.3
Benzo(a)pyrene #16	28.717	2.0	1.878	-6.1
Dibenz(a,h)anthracene #1	30.574	2.0	1.976	-1.2
Benzo(g,h,i)perylene #18	31.389	2.0	1.860	-7.0
Indeno(1,2,3-cd)pyrene #	32.313	2.0	2.043	2.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	22.107	10.5
Acenaphthylene #2	10.993	20.0	20.990	5.0
1-Methylnaphthalene #3	11.947	20.0	21.242	6.2
2-Methylnaphthalene #4	12.524	20.0	21.541	7.7
Acenaphthene #5	13.005	20.0	21.079	5.4
Fluorene #6	13.659	20.0	21.103	5.5
Phenanthrene #7	15.047	20.0	21.141	5.7
Anthracene #8	16.451	20.0	21.272	6.4
Fluoranthene #9	17.829	2.0	2.087	4.3
Pyrene #10	18.839	2.0	2.076	3.8
p-Terphenyl d14 #11*	21.192	20.0	21.215	6.1
Benzo(a)anthracene #12	22.519	2.0	2.095	4.8
Chrysene #13	23.396	2.0	2.086	4.3
Benzo(b)fluoranthene #14	26.134	2.0	2.109	5.4
Benzo(k)fluoranthene #15	27.579	1.0	1.064	6.4
Benzo(a)pyrene #16	28.698	2.0	1.964	-1.8
Dibenz(a,h)anthracene #1	30.556	2.0	2.114	5.7
Benzo(g,h,i)perylene #18	31.369	2.0	2.086	4.3
Indeno(1,2,3-cd)pyrene #	32.294	2.0	2.057	2.9

= Failed 15.0% Criteria

1,1,SV54-35/53-25

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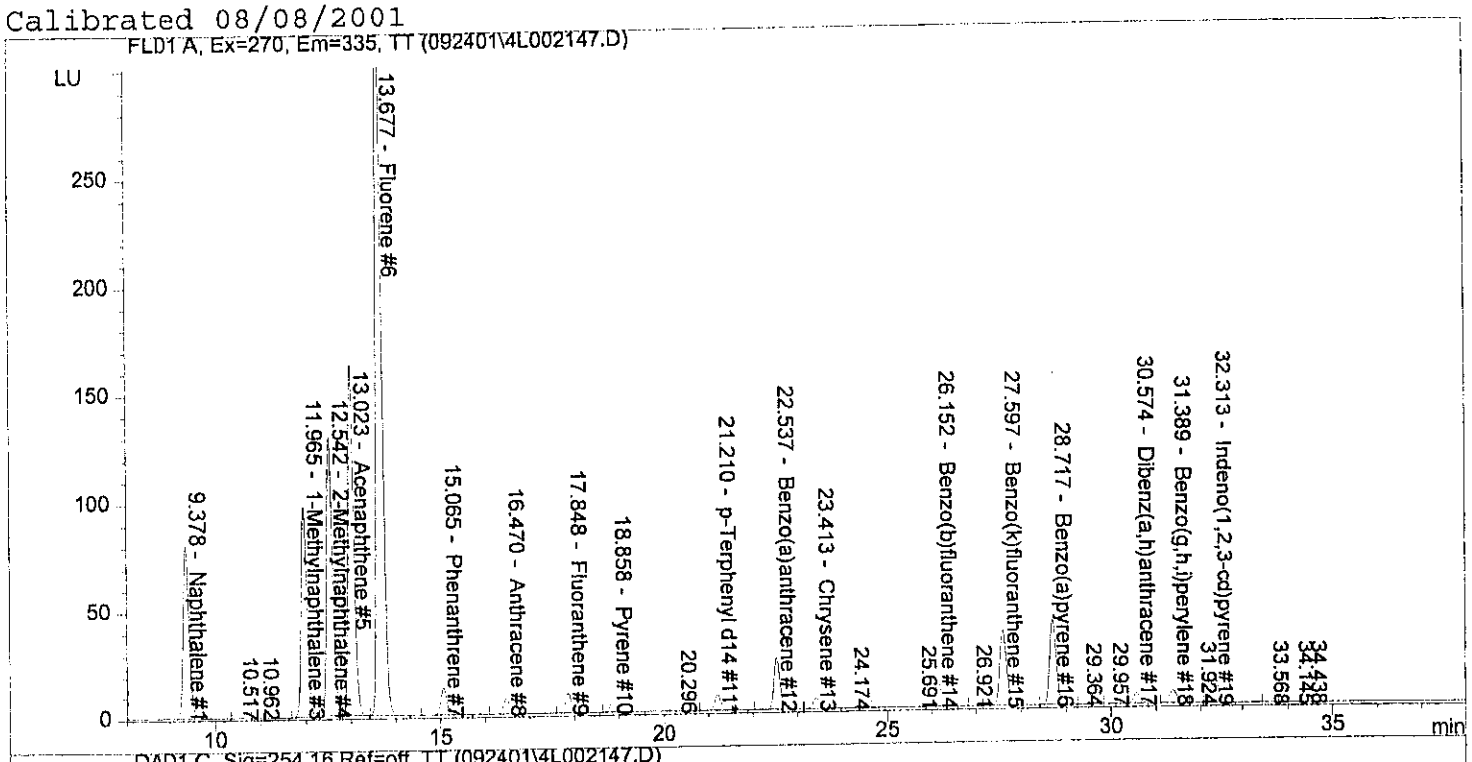
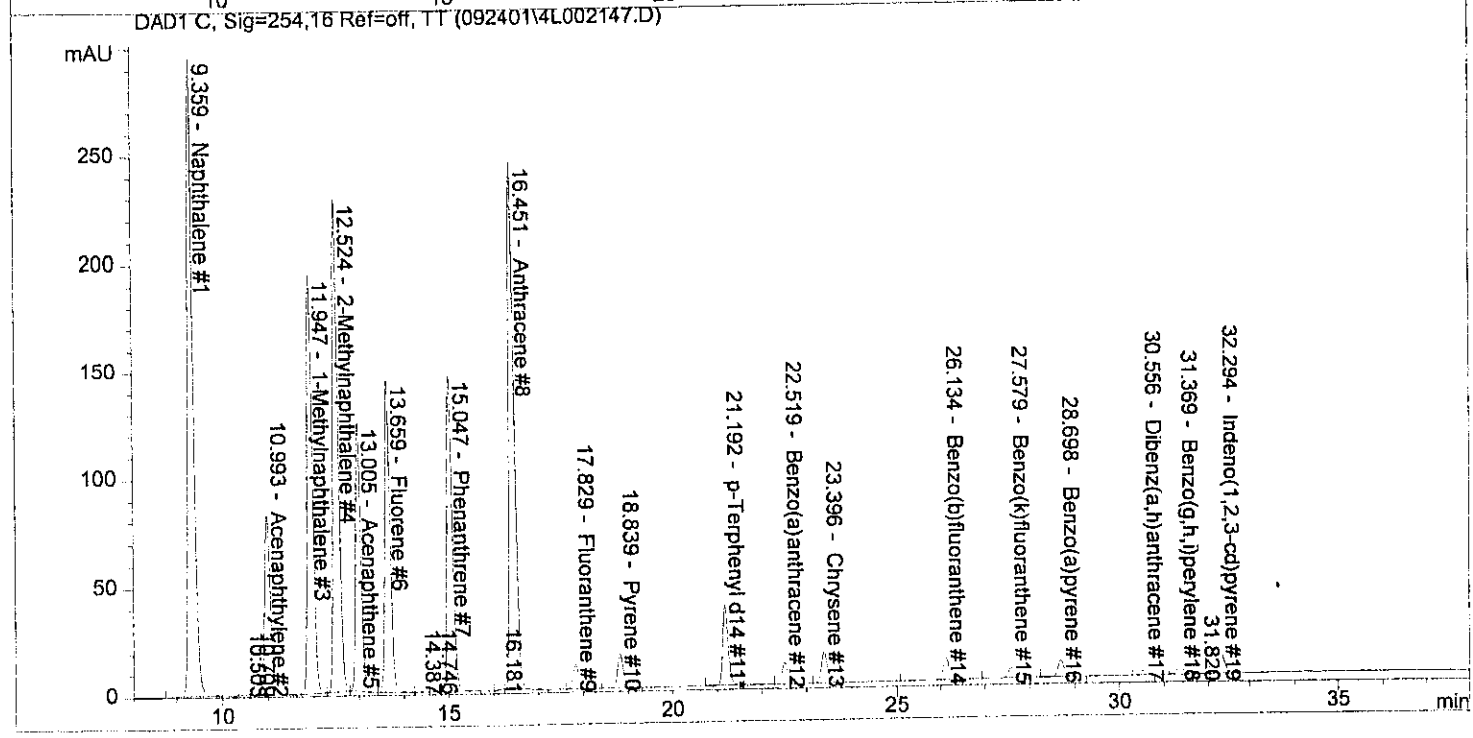
Injection Date : 9/25/2001 1:44:30 AM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

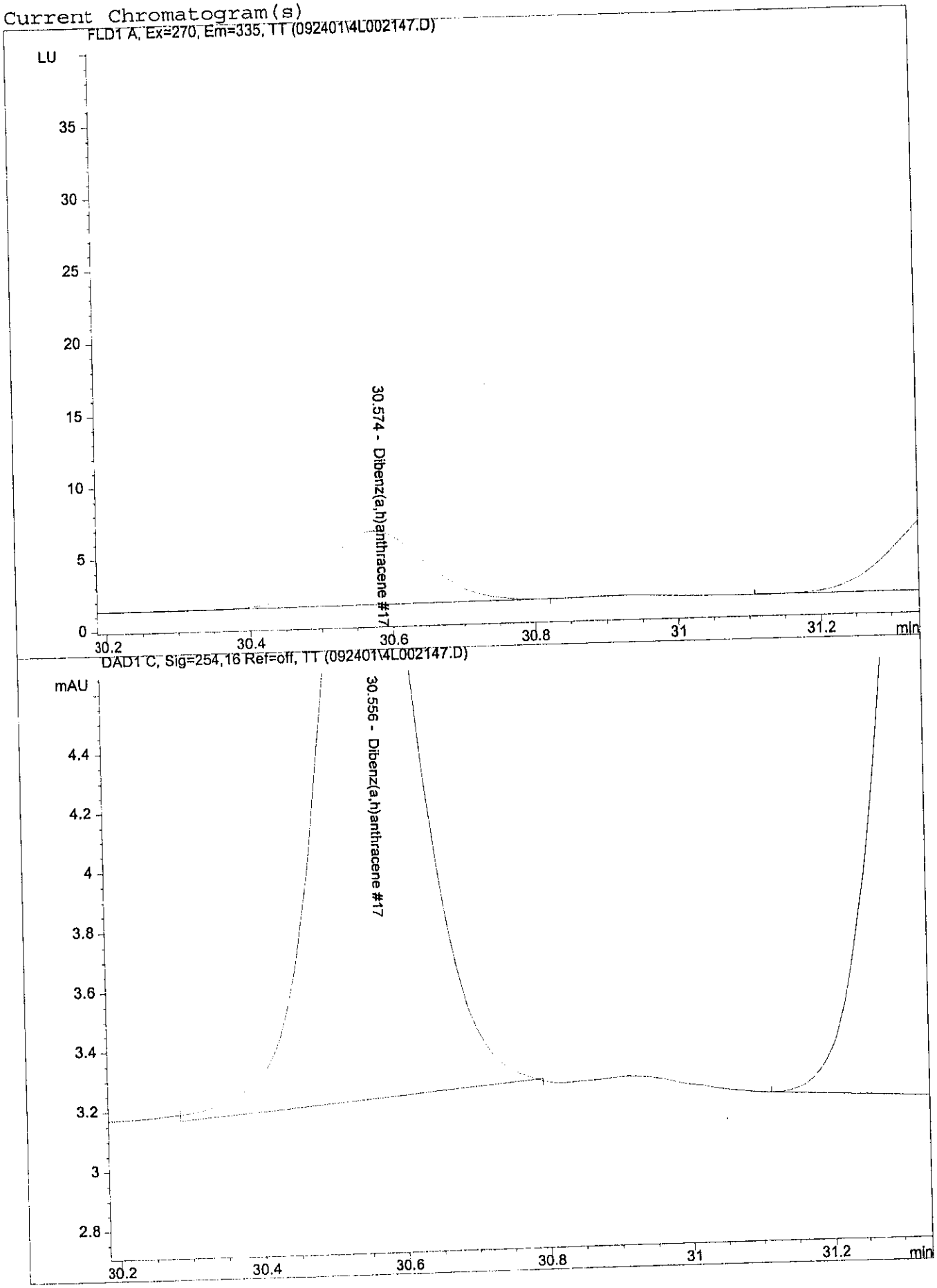
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001

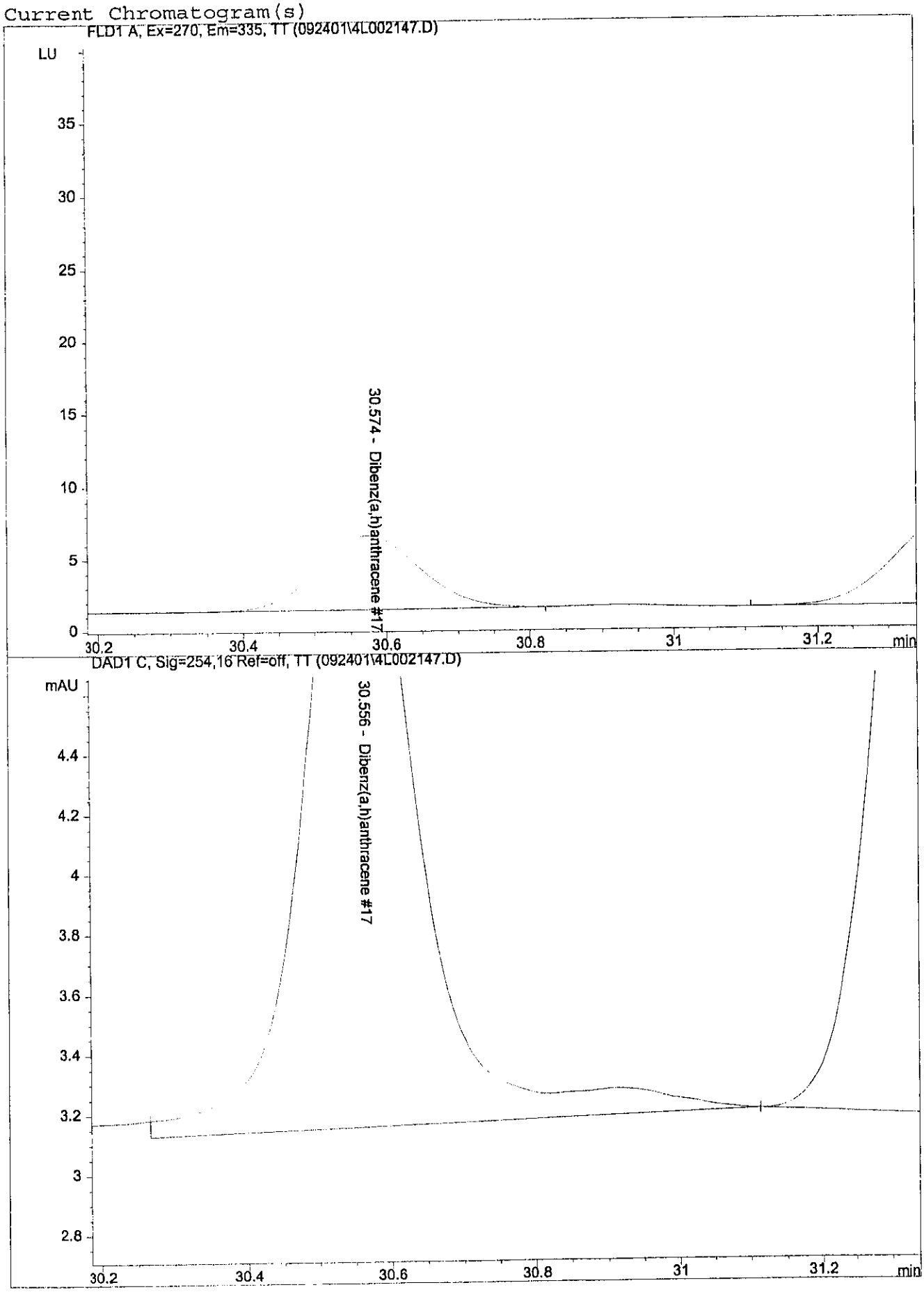




Current Chromatogram(s)



Current Chromatogram(s)



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.378	PBA	789.33582	2.52962e-2	19.96719		Naphthalene #1
11.965	PB	908.82037	2.21330e-2	20.11488		1-Methylnaphthalene #3
12.542	BB	1191.31445	1.70635e-2	20.32799		2-Methylnaphthalene #4
13.023	BB	1499.26147	1.38416e-2	20.75212		Acenaphthene #5
13.677	BB	3281.61768	6.62187e-3	21.73043		Fluorene #6
15.065	BBA	120.94375	1.63652e-1	19.79272		Phenanthrene #7
16.470	PBA	66.74264	3.10196e-1	20.70332		Anthracene #8
17.848	PBA	87.30066	2.32678e-2	2.03130		Fluoranthene #9
18.858	BBA	48.96558	3.86587e-2	1.89295		Pyrene #10
21.210	BBA	70.47571	2.97423e-1	20.96108		p-Terphenyl d14 #11*
22.537	PB	251.14474	7.91256e-3	1.98720		Benzo(a)anthracene #12
23.413	BB	50.86468	3.90495e-2	1.98624		Chrysene #13
26.152	BB	124.13825	1.63222e-2	2.02621		Benzo(b)fluoranthene #14
27.597	BB	377.13242	2.76572e-3	1.04304		Benzo(k)fluoranthene #15
28.717	BB	410.92264	4.57119e-3	1.87841		Benzo(a)pyrene #16
30.574	BB	50.21124	3.93496e-2	1.97579		Dibenz(a,h)anthracene #17
31.389	BB	70.15005	2.65165e-2	1.86013		Benzo(g,h,i)perylene #18
32.313	BB	147.83661	1.38204e-2	2.04316		Indeno(1,2,3-cd)pyrene #1
Totals :				183.07416		

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
9.359	PBA	2678.36719	8.25405e-3	22.10738		Naphthalene #1
10.993	BBA	706.80231	2.96975e-2	20.99027		Acenaphthylene #2
11.947	PB	1640.86243	1.29459e-2	21.24237		1-Methylnaphthalene #3
12.524	BB	1916.58289	1.12393e-2	21.54101		2-Methylnaphthalene #4
13.005	BB	1037.52417	2.03163e-2	21.07870		Acenaphthene #5
13.659	BB	1204.20544	1.75240e-2	21.10250		Fluorene #6
15.047	BBA	1222.17212	1.72982e-2	21.14143		Phenanthrene #7
16.451	BBA	2040.22925	1.04262e-2	21.27181		Anthracene #8
17.829	PB	96.16348	2.17006e-2	2.08680		Fluoranthene #9
18.839	BBA	145.10202	1.43052e-2	2.07572		Pyrene #10
21.192	PBA	323.04602	6.56733e-2	21.21548		p-Terphenyl d14 #11*
22.519	PBA	94.08913	2.22694e-2	2.09531		Benzo(a)anthracene #12
23.396	BBA	137.76135	1.51453e-2	2.08644		Chrysene #13
26.134	BBA	101.71817	2.07330e-2	2.10892		Benzo(b)fluoranthene #14
27.579	BB	47.13136	2.25837e-2	1.06440		Benzo(k)fluoranthene #15
28.698	BB	75.06868	2.61680e-2	1.96440		Benzo(a)pyrene #16
30.556	MM	22.45937	9.41116e-2	2.11369		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]		[ug/L]		
31.369	BB	37.19952	5.60829e-2	2.08626		Benzo(g,h,i)perylene #18
32.294	BB	100.06071	2.05608e-2	2.05733		Indeno(1,2,3-cd)pyrene #1

Totals : 211.43021

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\092601\4L002152.D Sample Name: 8310 CCV
HPLC4 9/28/2001 9:05:54 AM RDC

1,1,SV54-35/53-25

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Injection Date : 9/26/2001 8:57:33 PM Seq. Line : 5

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.515	20.0	18.791	-6.0
1-Methylnaphthalene #3	12.090	20.0	18.780	-6.1
2-Methylnaphthalene #4	12.669	20.0	19.139	-4.3
Acenaphthene #5	13.148	20.0	19.538	-2.3
Fluorene #6	13.807	20.0	20.763	3.8
Phenanthrene #7	15.197	20.0	18.392	-8.0
Anthracene #8	16.609	20.0	20.054	0.3
Fluoranthene #9	17.987	2.0	1.937	-3.1
Pyrene #10	19.000	2.0	1.747	-12.6
p-Terphenyl d14 #11*	21.356	20.0	19.560	-2.2
Benzo(a)anthracene #12	22.692	2.0	1.883	-5.9
Chrysene #13	23.575	2.0	1.892	-5.4
Benzo(b)fluoranthene #14	26.313	2.0	1.932	-3.4
Benzo(k)fluoranthene #15	27.762	1.0	0.994	-0.6
Benzo(a)pyrene #16	28.880	2.0	1.878	-6.1
Dibenz(a,h)anthracene #1	30.749	2.0	1.867	-6.6
Benzo(g,h,i)perylene #18	31.591	2.0	1.772	-11.4
Indeno(1,2,3-cd)pyrene #	32.506	2.0	1.991	-0.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.500	20.0	20.854	4.3
Acenaphthylene #2	11.124	20.0	19.804	-1.0
1-Methylnaphthalene #3	12.075	20.0	20.064	0.3
2-Methylnaphthalene #4	12.654	20.0	20.305	1.5
Acenaphthene #5	13.133	20.0	19.866	-0.7
Fluorene #6	13.792	20.0	19.864	-0.7
Phenanthrene #7	15.181	20.0	19.929	-0.4
Anthracene #8	16.593	20.0	20.390	2.0
Fluoranthene #9	17.971	2.0	1.966	-1.7
Pyrene #10	18.983	2.0	1.940	-3.0
p-Terphenyl d14 #11*	21.341	20.0	19.604	-2.0
Benzo(a)anthracene #12	22.677	2.0	1.968	-1.6
Chrysene #13	23.560	2.0	1.964	-1.8
Benzo(b)fluoranthene #14	26.297	2.0	1.975	-1.2
Benzo(k)fluoranthene #15	27.748	1.0	1.002	0.2
Benzo(a)pyrene #16	28.865	2.0	1.960	-2.0
Dibenz(a,h)anthracene #1	30.735	2.0	2.023	1.2
Benzo(g,h,i)perylene #18	31.574	2.0	2.027	1.3
Indeno(1,2,3-cd)pyrene #	32.495	2.0	2.036	1.8

= Failed 15.0% Criteria

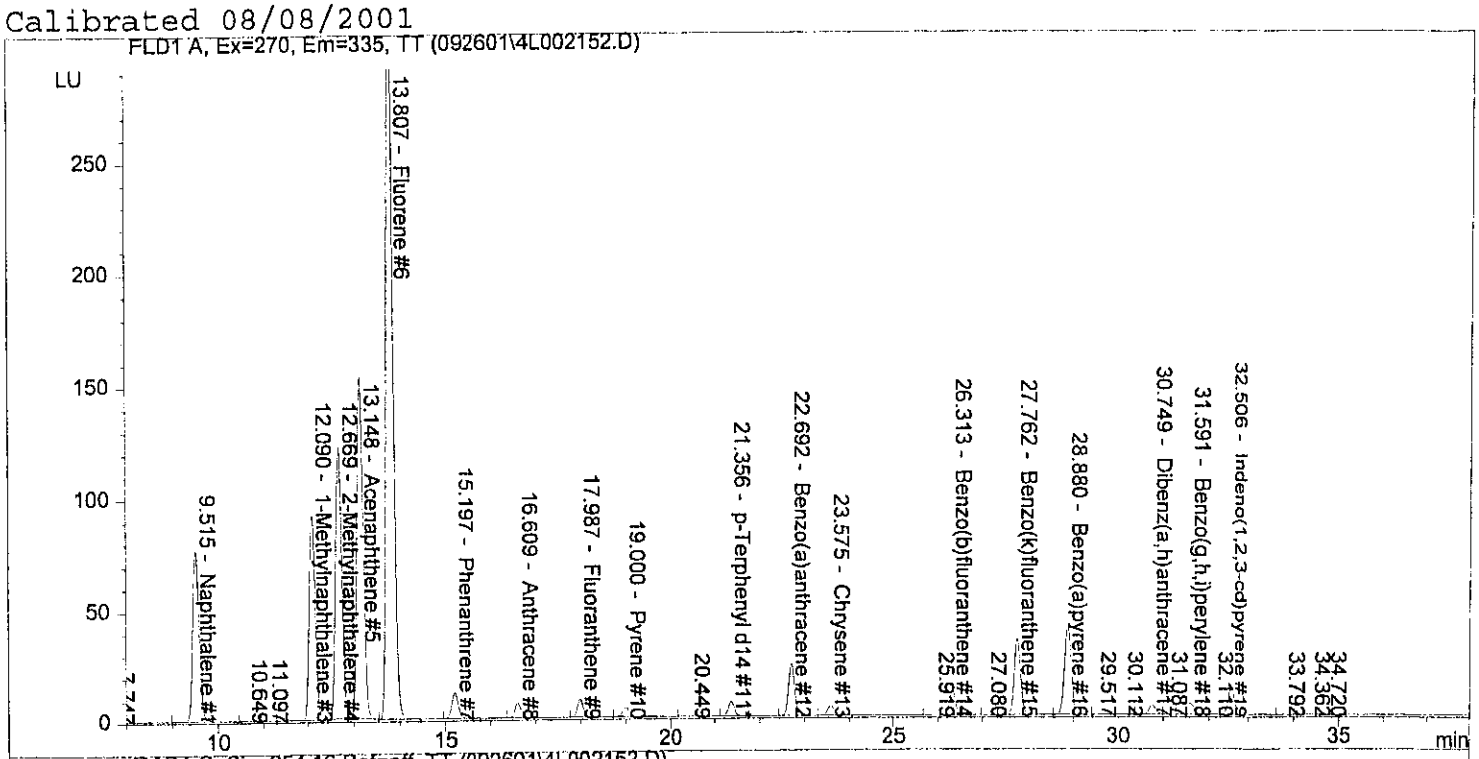
==========

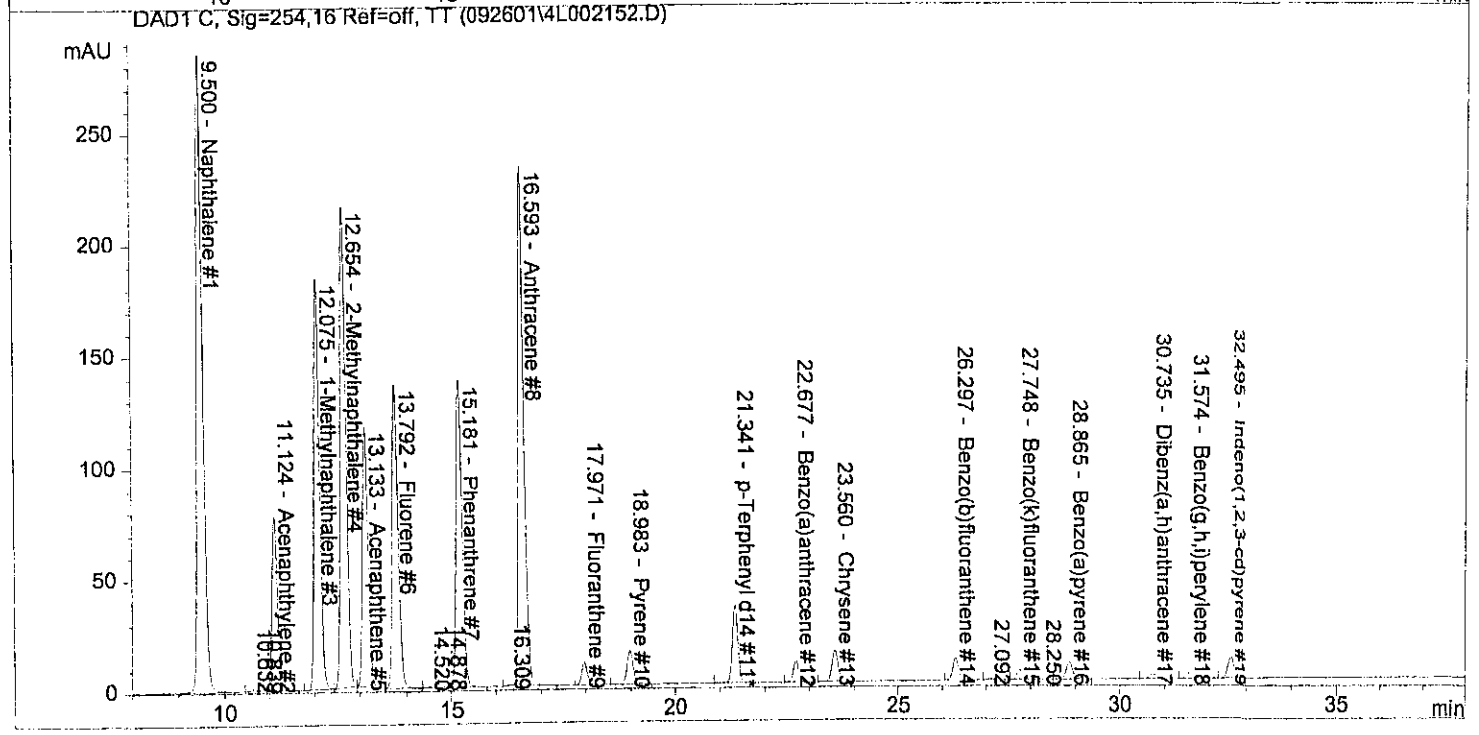
Injection Date : 9/26/2001 8:57:33 PM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 5
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001





Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.515	BBA	742.85065	2.52962e-2	18.79130		Naphthalene #1
12.090	BB	848.49768	2.21330e-2	18.77976		1-Methylnaphthalene #3
12.669	BB	1121.60730	1.70635e-2	19.13854		2-Methylnaphthalene #4
13.148	BB	1411.57251	1.38416e-2	19.53837		Acenaphthene #5
13.807	BBA	3135.55933	6.62187e-3	20.76326		Fluorene #6
15.197	BBA	112.38263	1.63652e-1	18.39167		Phenanthrene #7
16.609	BBA	64.64780	3.10196e-1	20.05351		Anthracene #8
17.987	BB	83.25922	2.32678e-2	1.93726		Fluoranthene #9
19.000	BBA	45.20173	3.86587e-2	1.74744		Pyrene #10
21.356	PBA	65.76653	2.97423e-1	19.56046		p-Terphenyl d14 #11*
22.692	PB	237.93936	7.91256e-3	1.88271		Benzo(a)anthracene #12
23.575	BB	48.45228	3.90495e-2	1.89204		Chrysene #13
26.313	BB	118.37700	1.63222e-2	1.93217		Benzo(b)fluoranthene #14
27.762	BB	359.24228	2.76572e-3	9.93562e-1		Benzo(k)fluoranthene #15
28.880	BB	410.74628	4.57119e-3	1.87760		Benzo(a)pyrene #16
30.749	BB	47.45410	3.93496e-2	1.86730		Dibenz(a,h)anthracene #17
31.591	BB	66.81064	2.65165e-2	1.77158		Benzo(g,h,i)perylene #18
32.506	BBA	144.08492	1.38204e-2	1.99131		Indeno(1,2,3-cd)pyrene #1
Totals :				172.90984		

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
9.500	BBA	2526.52515	8.25405e-3	20.85406		Naphthalene #1
11.124	BBA	666.85565	2.96975e-2	19.80396		Acenaphthylene #2
12.075	PB	1549.84131	1.29459e-2	20.06402		1-Methylnaphthalene #3
12.654	BB	1806.63318	1.12393e-2	20.30525		2-Methylnaphthalene #4
13.133	BB	977.82587	2.03163e-2	19.86585		Acenaphthene #5
13.792	BBA	1133.53113	1.75240e-2	19.86400		Fluorene #6
15.181	BBA	1152.10974	1.72982e-2	19.92947		Phenanthrene #7
16.593	BBA	1955.66406	1.04262e-2	20.39011		Anthracene #8
17.971	PB	90.60439	2.17006e-2	1.96617		Fluoranthene #9
18.983	BBA	135.64653	1.43052e-2	1.94046		Pyrene #10
21.341	PBA	298.51550	6.56733e-2	19.60448		p-Terphenyl d14 #11*
22.677	PBA	88.36803	2.22694e-2	1.96791		Benzo(a)anthracene #12
23.560	BBA	129.65244	1.51453e-2	1.96362		Chrysene #13
26.297	BBA	95.27702	2.07330e-2	1.97538		Benzo(b)fluoranthene #14
27.748	BB	44.38286	2.25837e-2	1.00233		Benzo(k)fluoranthene #15
28.865	BBA	74.91211	2.61680e-2	1.96030		Benzo(a)pyrene #16
30.735	BBA	21.49681	9.41116e-2	2.02310		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.574	PB	36.13659	5.60829e-2	2.02665		Benzo(g,h,i)perylene #18
32.495	BBA	99.02394	2.05608e-2	2.03601		Indeno(1,2,3-cd)pyrene #1

Totals : 199.54313

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========
*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\092601\4L002161.D Sample Name: 8310 CCV
HPLC4 9/28/2001 9:07:18 AM RDC

1,1,SV54-35/53-25

==========

Injection Date : 9/27/2001 5:27:19 AM Seq. Line : 14

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.433	20.0	19.133	-4.3
1-Methylnaphthalene #3	12.020	20.0	19.116	-4.4
2-Methylnaphthalene #4	12.602	20.0	19.386	-3.1
Acenaphthene #5	13.084	20.0	19.780	-1.1
Fluorene #6	13.747	20.0	20.778	3.9
Phenanthrene #7	15.141	20.0	18.770	-6.2
Anthracene #8	16.553	20.0	20.215	1.1
Fluoranthene #9	17.937	2.0	1.944	-2.8
Pyrene #10	18.951	2.0	1.784	-10.8
p-Terphenyl d14 #11*	21.316	20.0	19.867	-0.7
Benzo(a)anthracene #12	22.646	2.0	1.900	-5.0
Chrysene #13	23.526	2.0	1.919	-4.1
Benzo(b)fluoranthene #14	26.266	2.0	1.945	-2.7
Benzo(k)fluoranthene #15	27.713	1.0	0.998	-0.2
Benzo(a)pyrene #16	28.828	2.0	1.772	-11.4
Dibenz(a,h)anthracene #1	30.696	2.0	1.826	-8.7
Benzo(g,h,i)perylene #18	31.527	2.0	1.709	-14.6
Indeno(1,2,3-cd)pyrene #	32.456	2.0	2.006	0.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	21.093	5.5
Acenaphthylene #2	11.049	20.0	19.972	-0.1
1-Methylnaphthalene #3	12.000	20.0	20.222	1.1
2-Methylnaphthalene #4	12.582	20.0	20.460	2.3
Acenaphthene #5	13.064	20.0	20.010	0.0
Fluorene #6	13.727	20.0	20.039	0.2
Phenanthrene #7	15.122	20.0	20.105	0.5
Anthracene #8	16.533	20.0	20.624	3.1
Fluoranthene #9	17.916	2.0	1.984	-0.8
Pyrene #10	18.930	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.297	20.0	20.215	1.1
Benzo(a)anthracene #12	22.627	2.0	2.006	0.3
Chrysene #13	23.507	2.0	2.025	1.2
Benzo(b)fluoranthene #14	26.246	2.0	1.976	-1.2
Benzo(k)fluoranthene #15	27.694	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.809	2.0	1.828	-8.6
Dibenz(a,h)anthracene #1	30.677	2.0	2.133	6.6
Benzo(g,h,i)perylene #18	31.506	2.0	1.714	-14.3
Indeno(1,2,3-cd)pyrene #	32.439	2.0	2.101	5.0

= Failed 15.0% Criteria

340

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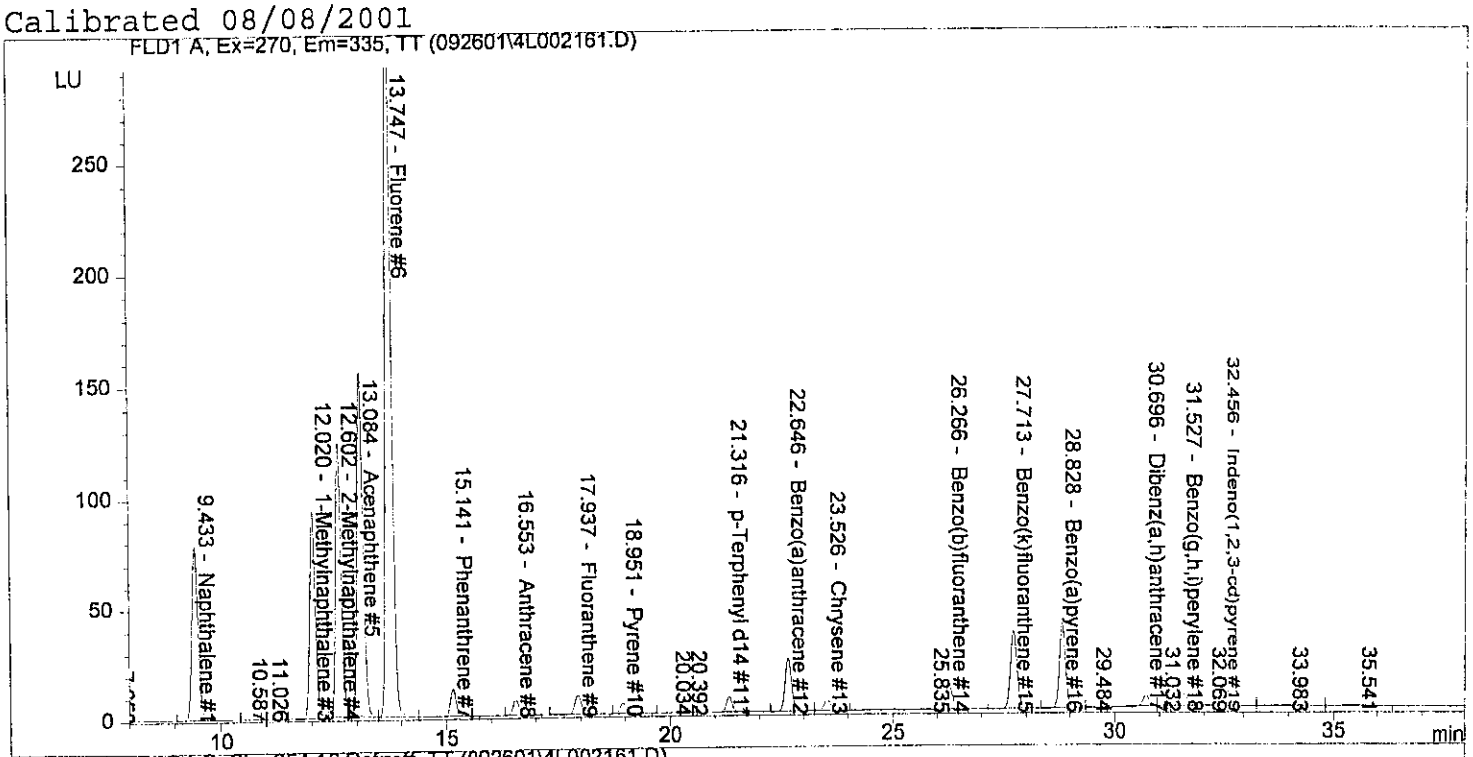
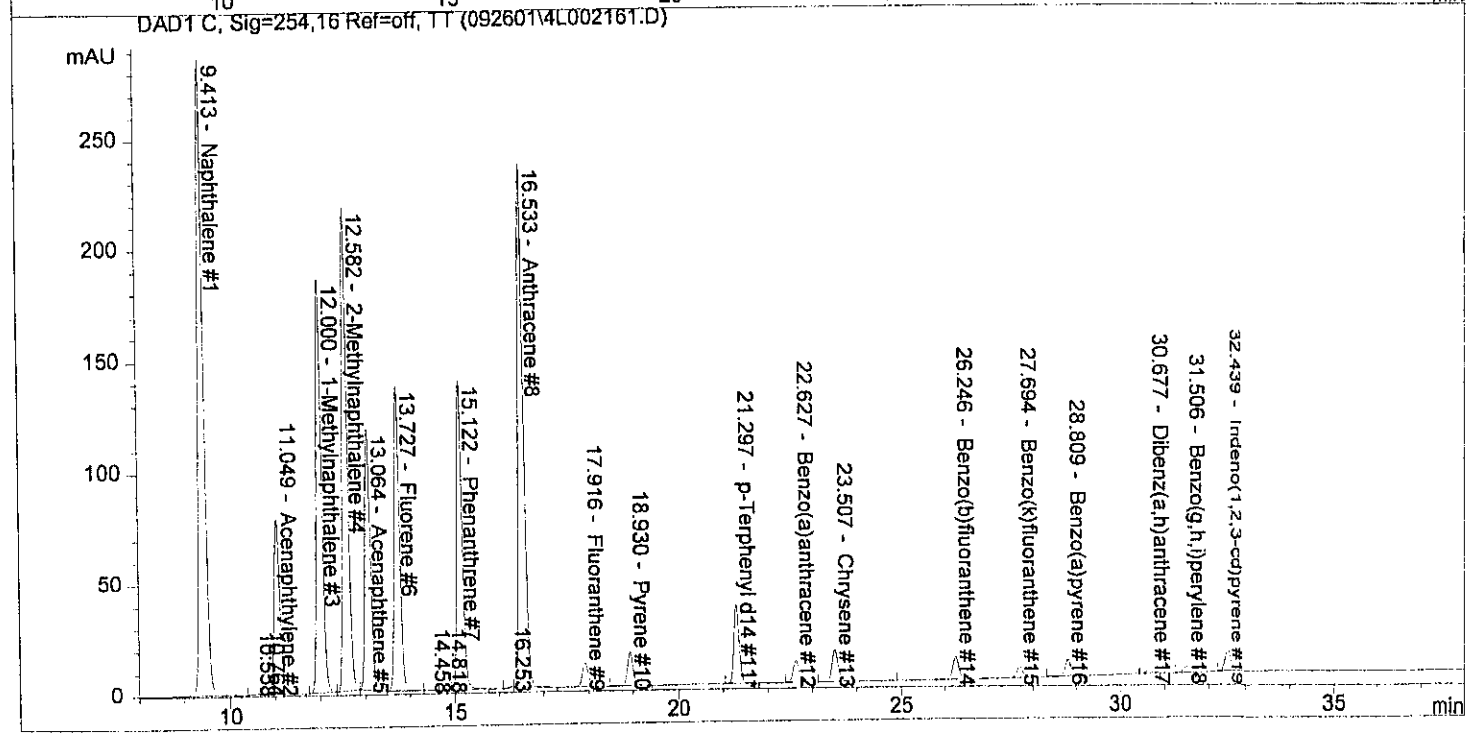
Injection Date : 9/27/2001 5:27:19 AM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 14
Vial : 13
Inj : 1
Inj Volume : 8 µl

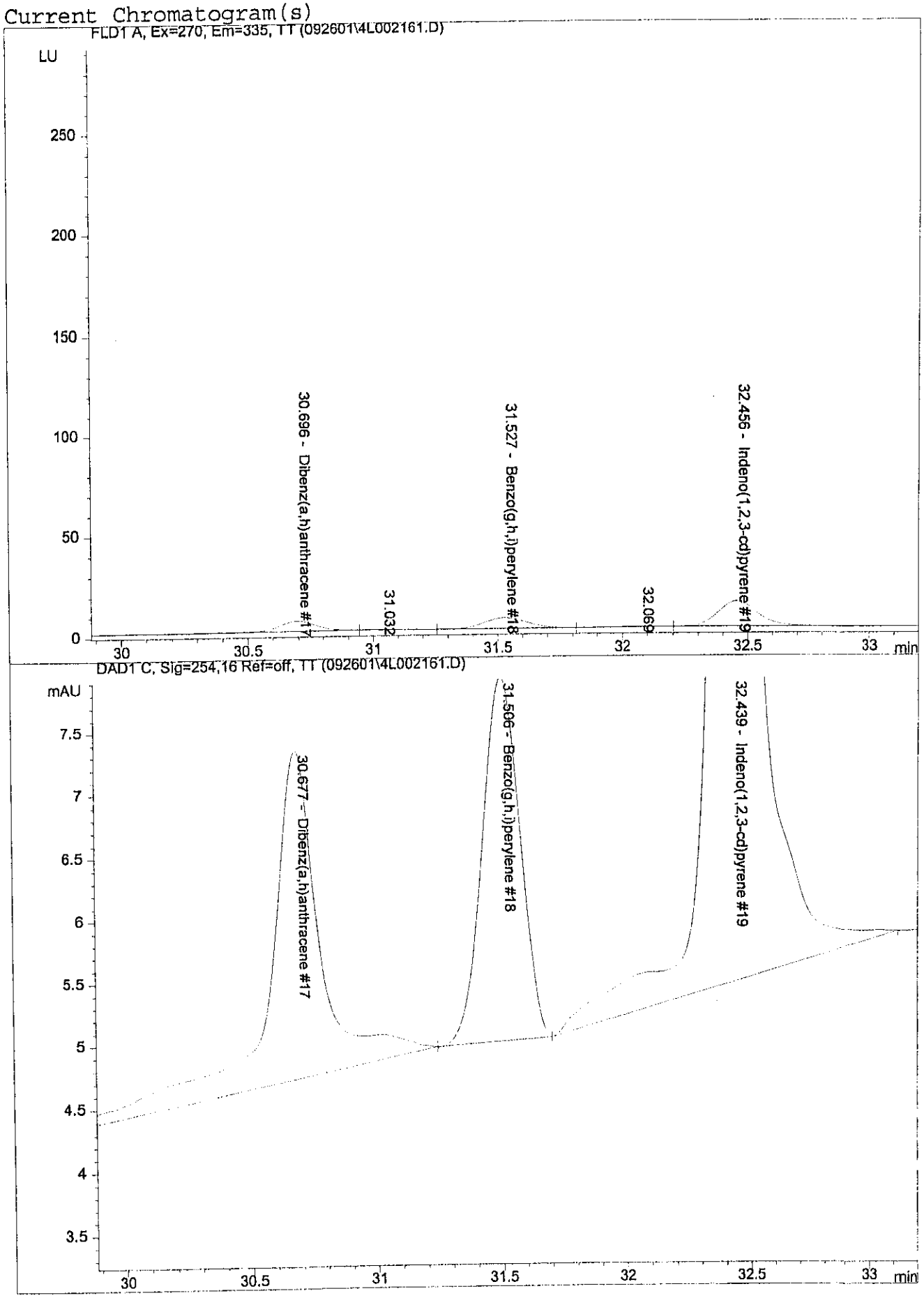
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001

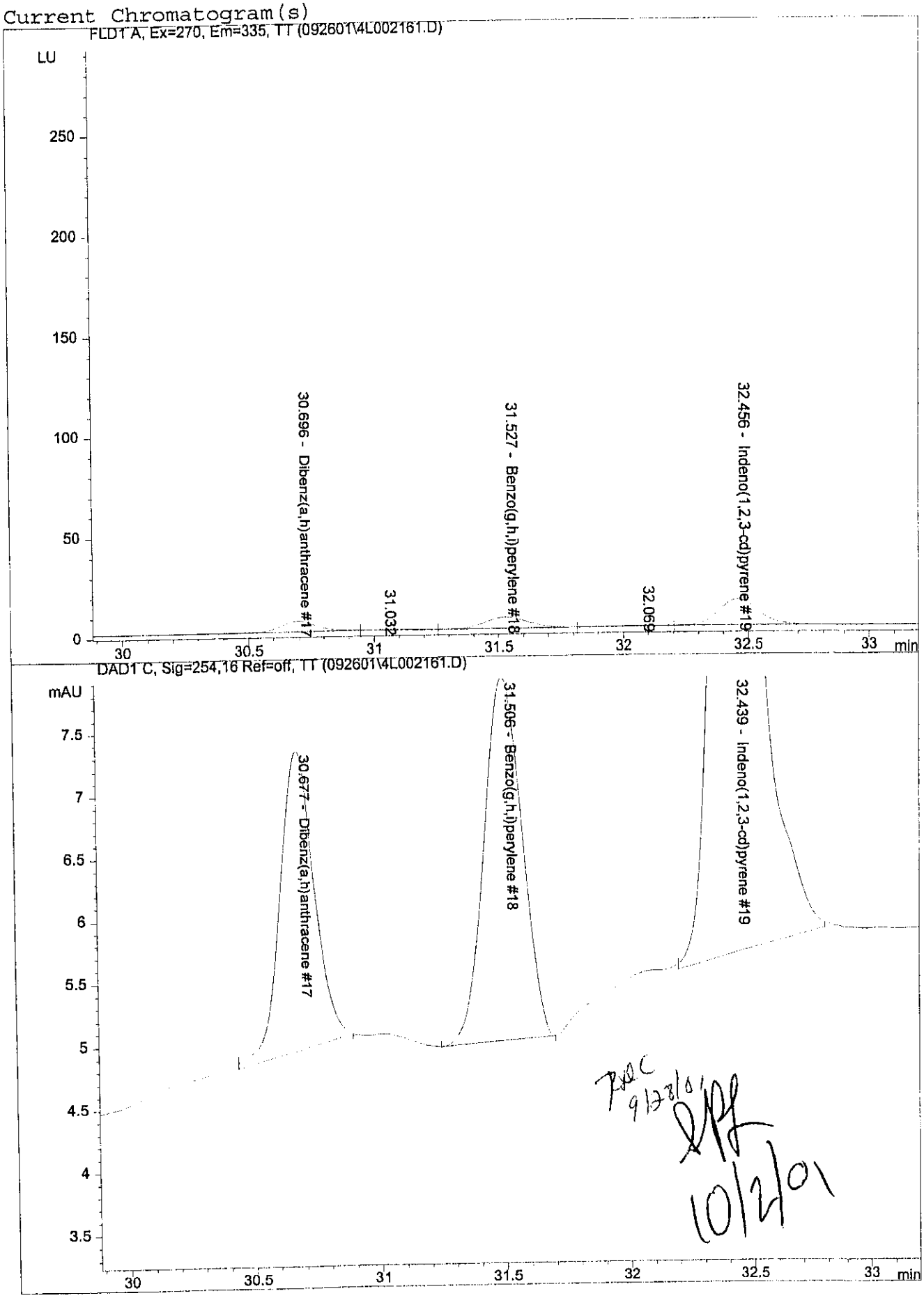




Current Chromatogram(s)



Current Chromatogram(s)



RDC 9/28/01

10/2/01

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.433	BB	756.36005	2.52962e-2	19.13303		Naphthalene #1
12.020	BB	863.67316	2.21330e-2	19.11564		1-Methylnaphthalene #3
12.602	BB	1136.10168	1.70635e-2	19.38586		2-Methylnaphthalene #4
13.084	BB	1429.00635	1.38416e-2	19.77968		Acenaphthene #5
13.747	BB	3137.73364	6.62187e-3	20.77765		Fluorene #6
15.141	BBA	114.69228	1.63652e-1	18.76965		Phenanthrene #7
16.553	BBA	65.16872	3.10196e-1	20.21510		Anthracene #8
17.937	PBA	83.52728	2.32678e-2	1.94350		Fluoranthene #9
18.951	BBA	46.14319	3.86587e-2	1.78384		Pyrene #10
21.316	BBA	66.79844	2.97423e-1	19.86738		p-Terphenyl d14 #11*
22.646	BB	240.11293	7.91256e-3	1.89991		Benzo(a)anthracene #12
23.526	BBA	49.13020	3.90495e-2	1.91851		Chrysene #13
26.266	BB	119.18915	1.63222e-2	1.94543		Benzo(b)fluoranthene #14
27.713	BB	360.80334	2.76572e-3	9.97880e-1		Benzo(k)fluoranthene #15
28.828	BB	387.54529	4.57119e-3	1.77154		Benzo(a)pyrene #16
30.696	BB	46.39943	3.93496e-2	1.82580		Dibenz(a,h)anthracene #17
31.527	BB	64.44933	2.65165e-2	1.70897		Benzo(g,h,i)perylene #18
32.456	BB	145.16479	1.38204e-2	2.00624		Indeno(1,2,3-cd)pyrene #1
Totals :				174.84560		

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	2555.47632	8.25405e-3	21.09303		Naphthalene #1
11.049	BBA	672.52832	2.96975e-2	19.97242		Acenaphthylene #2
12.000	PB	1562.02588	1.29459e-2	20.22176		1-Methylnaphthalene #3
12.582	BB	1820.39124	1.12393e-2	20.45988		2-Methylnaphthalene #4
13.064	BB	984.91919	2.03163e-2	20.00996		Acenaphthene #5
13.727	BB	1143.51538	1.75240e-2	20.03897		Fluorene #6
15.122	BBA	1162.22974	1.72982e-2	20.10453		Phenanthrene #7
16.533	BBA	1978.08386	1.04262e-2	20.62387		Anthracene #8
17.916	PB	91.44611	2.17006e-2	1.98443		Fluoranthene #9
18.930	BBA	137.83617	1.43052e-2	1.97178		Pyrene #10
21.297	PBA	307.80908	6.56733e-2	20.21482		p-Terphenyl d14 #11*
22.627	PBA	90.07133	2.22694e-2	2.00584		Benzo(a)anthracene #12
23.507	BBA	133.68822	1.51453e-2	2.02475		Chrysene #13
26.246	BB	95.32391	2.07330e-2	1.97635		Benzo(b)fluoranthene #14
27.694	BB	44.04277	2.25837e-2	9.94648e-1		Benzo(k)fluoranthene #15
28.809	BB	69.85305	2.61680e-2	1.82792		Benzo(a)pyrene #16
30.677	MM	22.65932	9.41116e-2	2.13251		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	[ug/L]		
31.506	BB	30.56687	5.60829e-2	1.71428		Benzo(g,h,i)perylene #18
32.439	MM	102.17805	2.05608e-2	2.10086		Indeno(1,2,3-cd)pyrene #1
Totals :				201.47260		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.4 Raw QC Data

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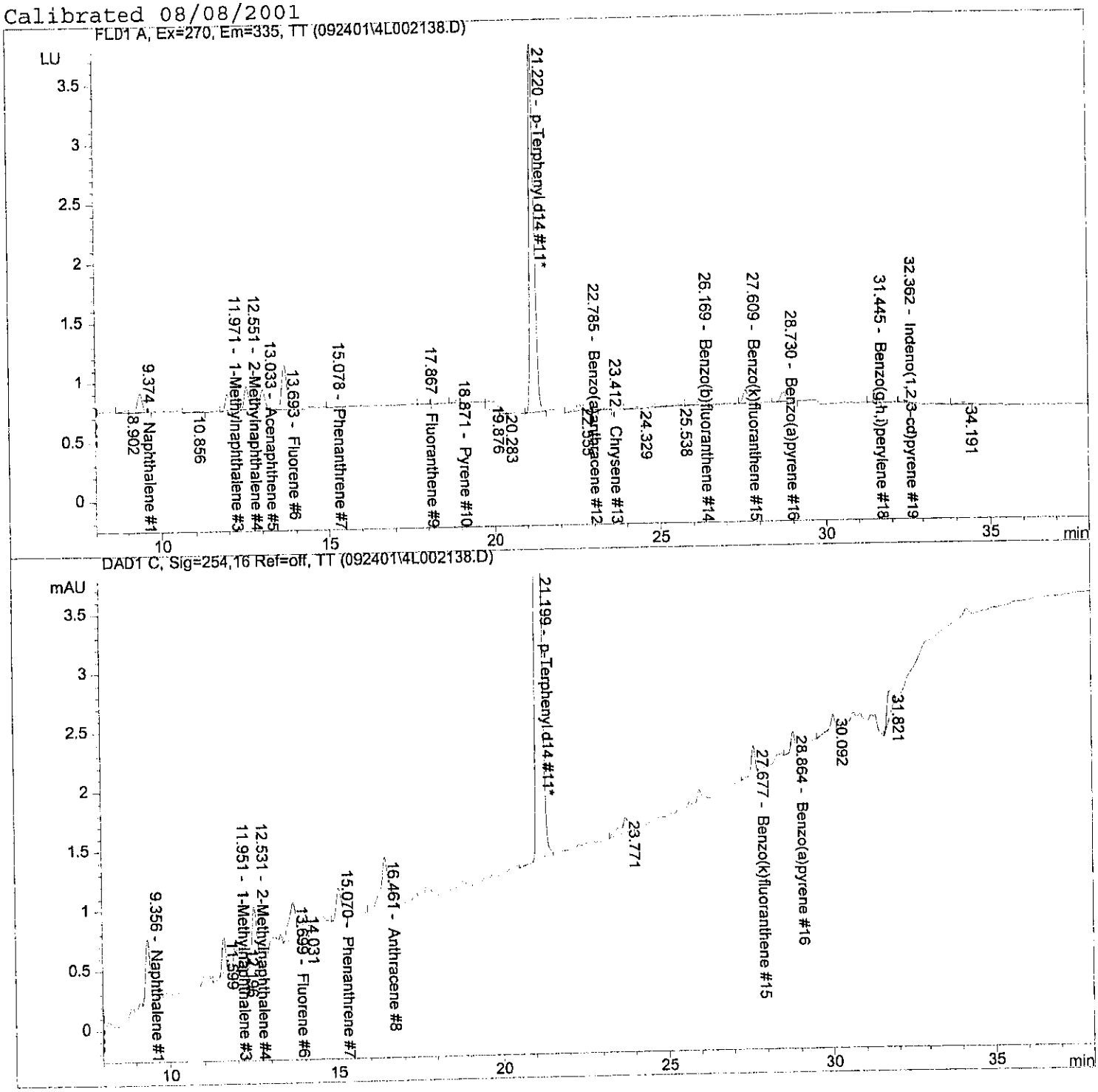
Injection Date : 9/24/2001 5:14:46 PM
Sample Name : WG105120-01 WBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.374	BBA	1.63539	2.52962e-2	4.13692e-2		Naphthalene #1
11.971	BB	1.05702	2.21330e-2	2.33950e-2		1-Methylnaphthalene #3
12.551	BB	1.87123	1.70635e-2	3.19297e-2		2-Methylnaphthalene #4
13.033	BB	1.55736	1.38416e-2	2.15563e-2		Acenaphthene #5
13.693	BB	3.93581	6.62187e-3	2.60624e-2		Fluorene #6
15.078	BBA	2.81262e-1	1.63652e-1	4.60291e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.867	BBA	5.00231e-1	2.32678e-2	1.16393e-2		Fluoranthene #9
18.871	BBA	2.20786e-1	3.86587e-2	8.53529e-3		Pyrene #10
21.220	BB	30.16462	2.97423e-1	8.97165		p-Terphenyl d14 #11*
22.785	BB	1.87417e-1	7.91256e-3	1.48295e-3		Benzo(a)anthracene #12
23.412	BB	2.24286e-1	3.90495e-2	8.75825e-3		Chrysene #13
26.169	BBA	3.57447e-1	1.63222e-2	5.83432e-3		Benzo(b)fluoranthene #14
27.609	BBA	1.11261	2.76572e-3	3.07717e-3		Benzo(k)fluoranthene #15
28.730	BBA	8.96739e-1	4.57119e-3	4.09916e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.445	BBA	2.34174e-1	2.65165e-2	6.20949e-3		Benzo(g,h,i)perylene #18
32.362	BB	2.90021e-1	1.38204e-2	4.00821e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				9.21563		

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
9.356	BB	4.62894	8.25405e-3	3.82075e-2		Naphthalene #1
11.096		-	-	-		Acenaphthylene #2
11.951	BB	1.31685	1.29459e-2	1.70477e-2		1-Methylnaphthalene #3
12.531	BBA	4.47941	1.12393e-2	5.03453e-2		2-Methylnaphthalene #4
13.107		-	-	-		Acenaphthene #5
13.699	BB	4.23287	1.75240e-2	7.41768e-2		Fluorene #6
15.070	BB	2.88219	1.72982e-2	4.98569e-2		Phenanthrene #7
16.461	BBA	7.49020	1.04262e-2	7.80943e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.968		-	-	-		Pyrene #10
21.199	BBA	136.47154	6.56733e-2	8.96253		p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.537		-	-	-		Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.677	PB	1.85577	2.25837e-2	4.19102e-2		Benzo(k)fluoranthene #15
28.864	BB	1.13020	2.61680e-2	2.95750e-2		Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]	Amount	[ug/L]		
31.526		-	-	-		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.34174

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 ***

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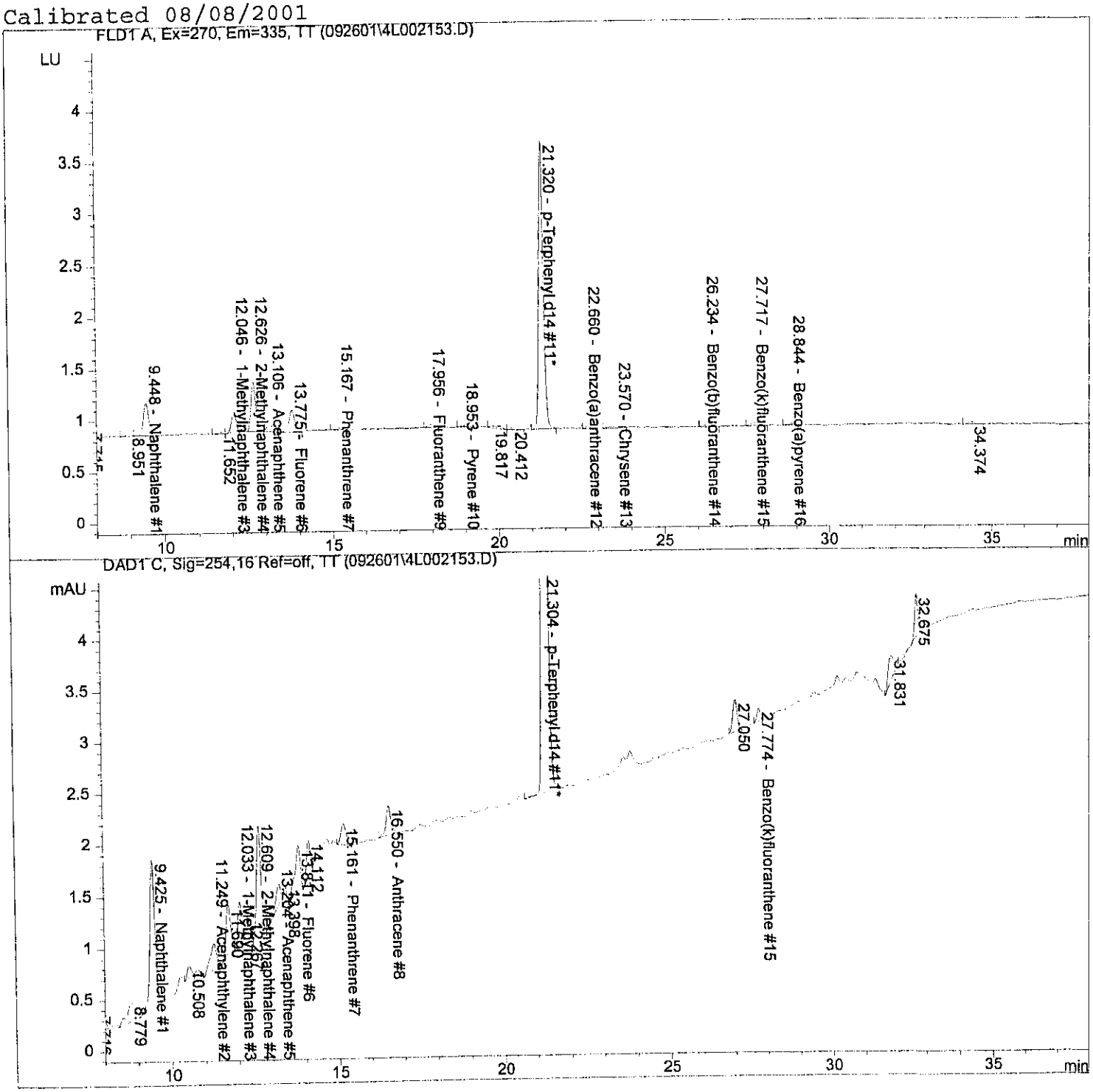
Injection Date : 9/26/2001 9:54:12 PM
Sample Name : WG105298-02 SBLK
Acq. Operator : RDC

Seq. Line : 6
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001



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Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.448	BBA	3.27460	2.52962e-2	8.28349e-2		Naphthalene #1
12.046	BB	1.72475	2.21330e-2	3.81738e-2		1-Methylnaphthalene #3
12.626	BB	4.67909	1.70635e-2	7.98416e-2		2-Methylnaphthalene #4
13.106	BB	7.84382e-1	1.38416e-2	1.08571e-2		Acenaphthene #5
13.775	BB	2.47529	6.62187e-3	1.63910e-2		Fluorene #6
15.167	BBA	1.78656e-1	1.63652e-1	2.92374e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.956	BBA	3.17695e-1	2.32678e-2	7.39209e-3		Fluoranthene #9
18.953	BBA	1.51483e-1	3.86587e-2	5.85613e-3		Pyrene #10
21.320	BBA	26.65542	2.97423e-1	7.92793		p-Terphenyl d14 #11*
22.660	BB	1.85509e-1	7.91256e-3	1.46785e-3		Benzo(a)anthracene #12
23.570	BB	4.71539e-1	3.90495e-2	1.84134e-2		Chrysene #13
26.234	BB	2.31705e-1	1.63222e-2	3.78194e-3		Benzo(b)fluoranthene #14
27.717	BBA	4.41291e-1	2.76572e-3	1.22049e-3		Benzo(k)fluoranthene #15
28.844	BBA	1.79278e-1	4.57119e-3	8.19514e-4		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.542		-	-	-		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.22422

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
9.425	BB	14.72322	8.25405e-3	1.21526e-1	2MDL	Naphthalene #1
11.249	BB	3.53627	2.96975e-2	1.05018e-1		Acenaphthylene #2
12.033	BB	2.73439	1.29459e-2	3.53990e-2		1-Methylnaphthalene #3
12.609	BB	9.56139	1.12393e-2	1.07463e-1		2-Methylnaphthalene #4
13.204	BB	2.40375	2.03163e-2	4.88355e-2		Acenaphthene #5
13.811	BB	5.16308	1.75240e-2	9.04779e-2		Fluorene #6
15.161	BB	2.27853	1.72982e-2	3.94146e-2		Phenanthrene #7
16.550	BBA	3.09803	1.04262e-2	3.23006e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.968		-	-	-		Pyrene #10
21.304	BBA	121.25237	6.56733e-2	7.96304		p-Terphenyl d14 #11*
22.659		-	-	- 79.6%		Benzo(a)anthracene #12
23.537		-	-	-		Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.774	PBA	9.11229e-1	2.25837e-2	2.05789e-2	2MDL	Benzo(k)fluoranthene #15
28.842		-	-	-		Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU s]				
31.526	-	-	-		Benzo(g,h,i)perylene #18
32.416	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.56405

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 ***

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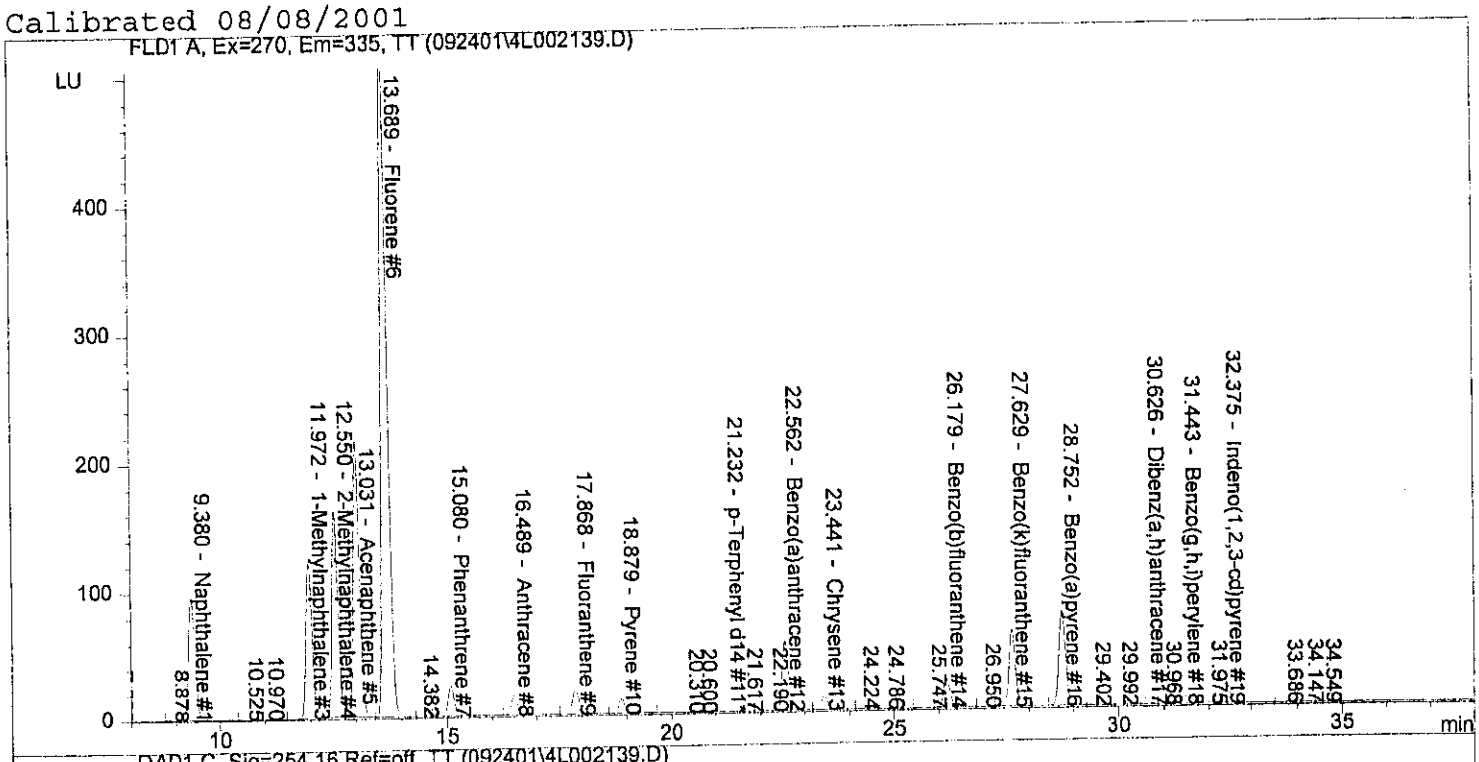
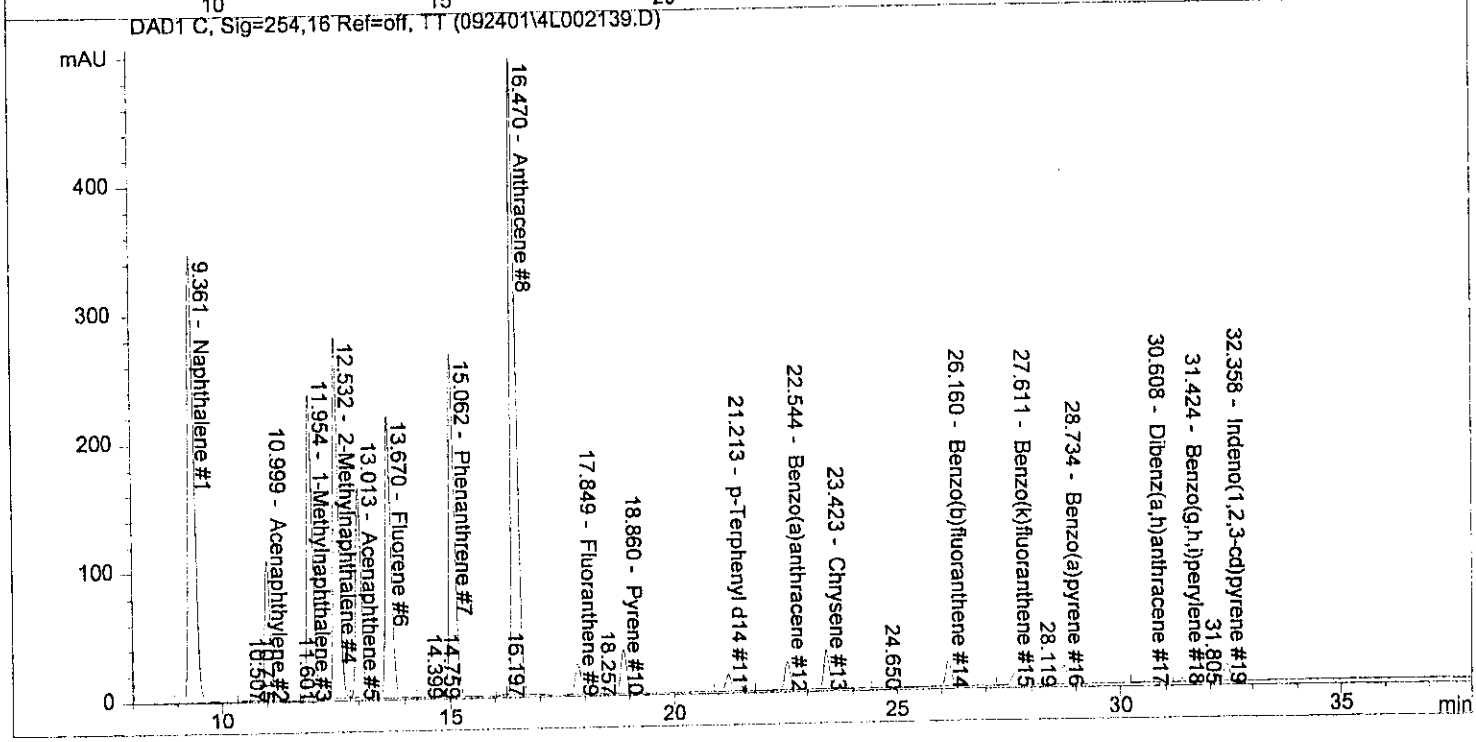
Injection Date : 9/24/2001 6:11:23 PM
Sample Name : WG105120-02 WLCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.380	BB	942.20416	2.52962e-2	23.83418		Naphthalene #1
11.972	PB	1121.09558	2.21330e-2	24.81316		1-Methylnaphthalene #3
12.550	BB	1483.95825	1.70635e-2	25.32151		2-Methylnaphthalene #4
13.031	BB	1977.63281	1.38416e-2	27.37353		Acenaphthene #5
13.689	BB	4976.23779	6.62187e-3	32.95198		Fluorene #6
15.080	BB	223.88341	1.63652e-1	36.63902		Phenanthrene #7
16.489	BBA	137.25110	3.10196e-1	42.57479		Anthracene #8
17.868	PB	187.30473	2.32678e-2	4.35818		Fluoranthene #9
18.879	BBA	109.06676	3.86587e-2	4.21638		Pyrene #10
21.232	BB	24.85549	2.97423e-1	7.39259		p-Terphenyl d14 #11*
22.562	BB	549.33142	7.91256e-3	4.34662		Benzo(a)anthracene #12
23.441	BB	107.34617	3.90495e-2	4.19182		Chrysene #13
26.179	BB	243.02834	1.63222e-2	3.96675		Benzo(b)fluoranthene #14
27.629	BB	632.56195	2.76572e-3	1.74949		Benzo(k)fluoranthene #15
28.752	BB	764.62872	4.57119e-3	3.49526		Benzo(a)pyrene #16
30.626	BB	54.21464	3.93496e-2	2.13332		Dibenz(a,h)anthracene #17
31.443	BB	76.70730	2.65165e-2	2.03401		Benzo(g,h,i)perylene #18
32.375	BBA	197.08369	1.38204e-2	2.72378		Indeno(1,2,3-cd)pyrene #1

Totals : 254.11636

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
9.361	BB	3148.28735	8.25405e-3	25.98612		Naphthalene #1
10.999	BB	927.39453	2.96975e-2	27.54131		Acenaphthylene #2
11.954	BB	1999.17847	1.29459e-2	25.88108		1-Methylnaphthalene #3
12.532	BB	2354.14600	1.12393e-2	26.45890		2-Methylnaphthalene #4
13.013	BB	1360.95776	2.03163e-2	27.64969		Acenaphthene #5
13.670	BB	1832.76721	1.75240e-2	32.11742		Fluorene #6
15.062	BBA	2235.29614	1.72982e-2	38.66669		Phenanthrene #7
16.470	BBA	4164.73340	1.04262e-2	43.42228		Anthracene #8
17.849	PB	207.70602	2.17006e-2	4.50734		Fluoranthene #9
18.860	BBA	312.62283	1.43052e-2	4.47215		Pyrene #10
21.213	BBA	114.22048	6.56733e-2	7.50123 75.0%		p-Terphenyl d14 #11*
22.544	PBA	203.58162	2.22694e-2	4.53365		Benzo(a)anthracene #12
23.423	BBA	289.53592	1.51453e-2	4.38511		Chrysene #13
26.160	BBA	194.38655	2.07330e-2	4.03021		Benzo(b)fluoranthene #14
27.611	BB	78.42474	2.25837e-2	1.77112		Benzo(k)fluoranthene #15
28.734	BBA	137.86050	2.61680e-2	3.60754		Benzo(a)pyrene #16
30.608	BB	23.47605	9.41116e-2	2.20937		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amount/Area	[ug/L]		
31.424	BB	38.77551	5.60829e-2	2.17464		Benzo(g,h,i)perylene #18
32.358	BBA	133.93779	2.05608e-2	2.75387		Indeno(1,2,3-cd)pyrene #1

Totals : 289.66971

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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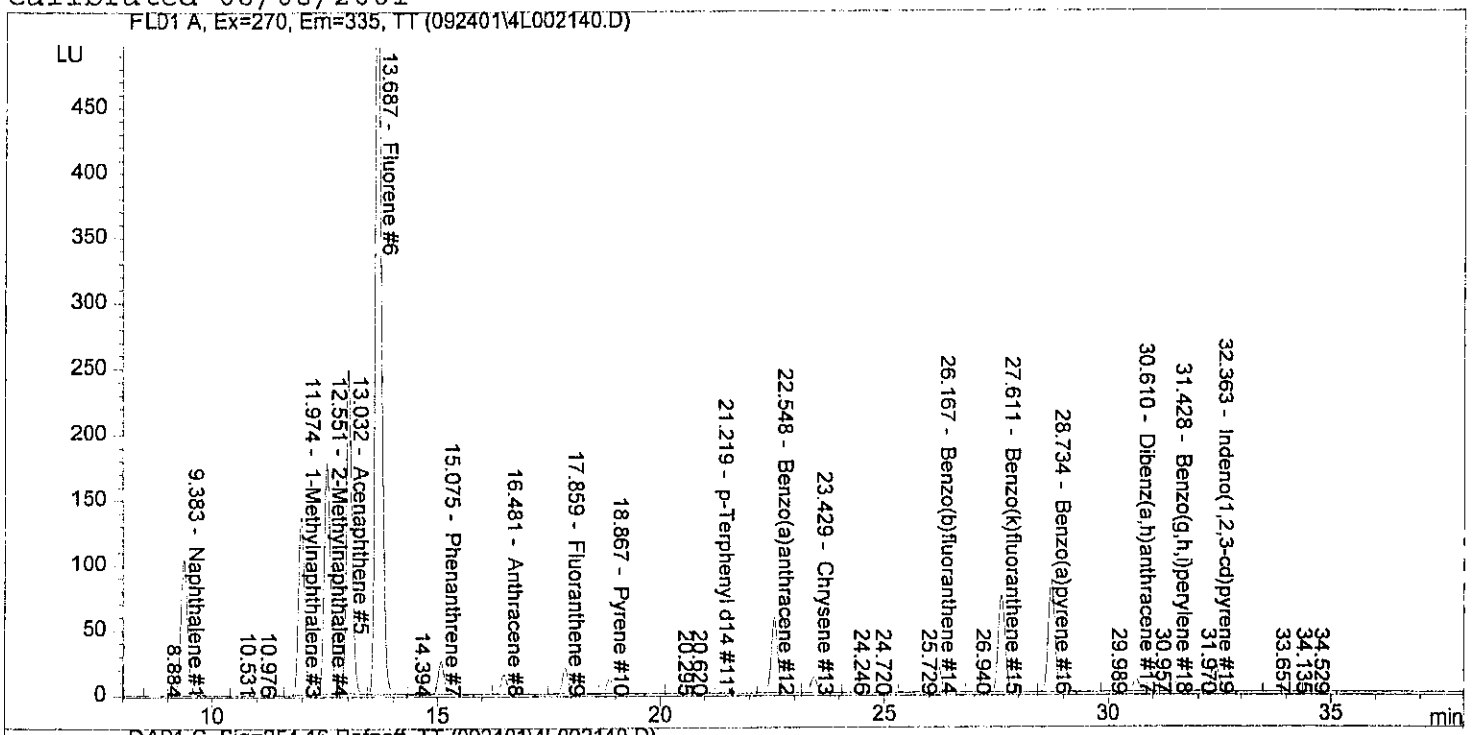
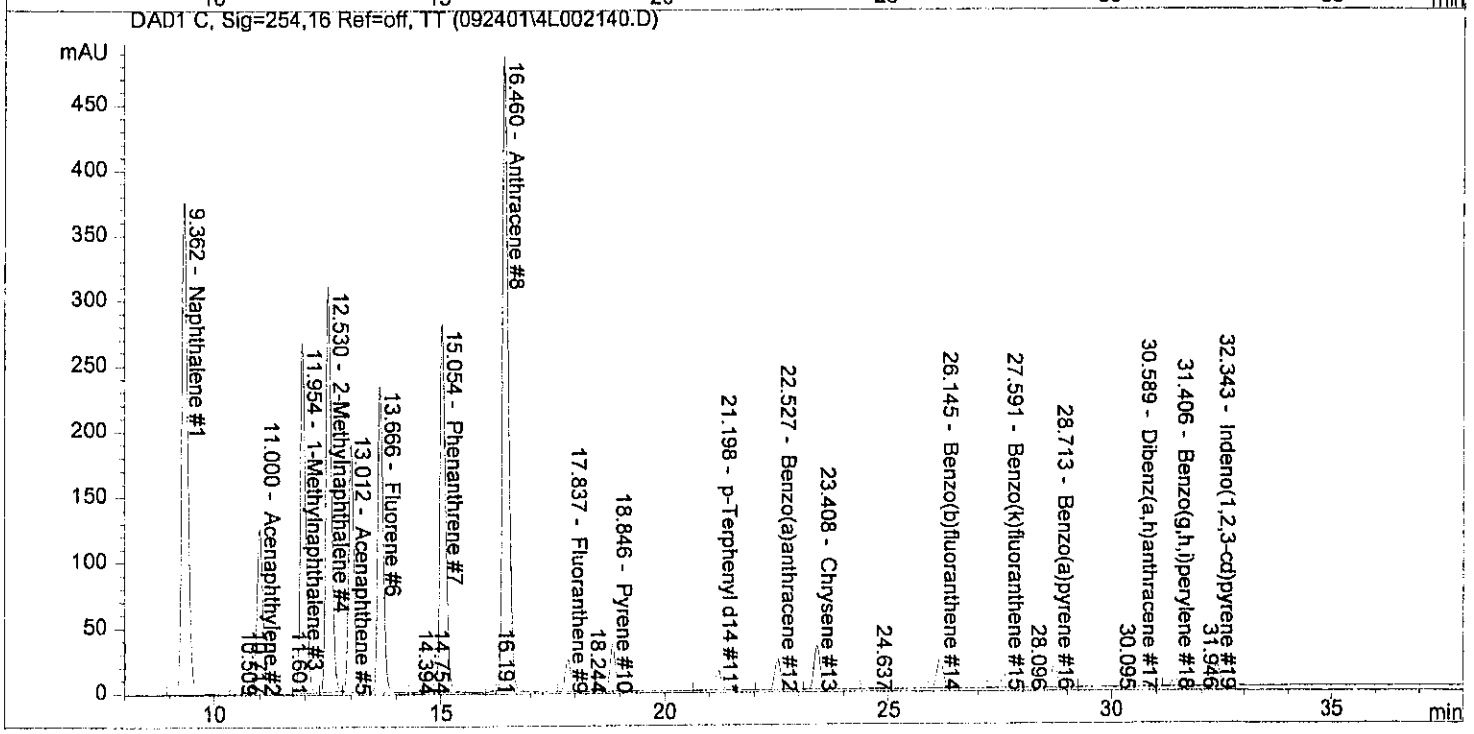
Injection Date : 9/24/2001 7:08:01 PM
Sample Name : WG105120-03 LCS2
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.383	BB	1021.59344	2.52962e-2	25.84243		Naphthalene #1
11.974	PB	1261.88647	2.21330e-2	27.92928		1-Methylnaphthalene #3
12.551	BB	1623.02856	1.70635e-2	27.69454		2-Methylnaphthalene #4
13.032	BB	2278.47144	1.38416e-2	31.53761		Acenaphthene #5
13.687	BB	5326.08936	6.62187e-3	35.26865		Fluorene #6
15.075	BBA	235.13844	1.63652e-1	38.48093		Phenanthrene #7
16.481	BBA	134.47281	3.10196e-1	41.71297		Anthracene #8
17.859	PBA	194.37790	2.32678e-2	4.52276		Fluoranthene #9
18.867	BBA	111.88273	3.86587e-2	4.32524		Pyrene #10
21.219	BB	29.69589	2.97423e-1	8.83223		p-Terphenyl d14 #11*
22.548	BB	581.31750	7.91256e-3	4.59971		Benzo(a)anthracene #12
23.429	BB	117.51591	3.90495e-2	4.58894		Chrysene #13
26.167	BB	270.71246	1.63222e-2	4.41862		Benzo(b)fluoranthene #14
27.611	BB	766.87610	2.76572e-3	2.12096		Benzo(k)fluoranthene #15
28.734	BB	876.48969	4.57119e-3	4.00660		Benzo(a)pyrene #16
30.610	BB	84.73640	3.93496e-2	3.33434		Dibenz(a,h)anthracene #17
31.428	BB	118.77940	2.65165e-2	3.14961		Benzo(g,h,i)perylene #18
32.363	BB	265.63907	1.38204e-2	3.67124		Indeno(1,2,3-cd)pyrene #1
Totals :				276.03666		

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
9.362	BB	3430.13208	8.25405e-3	28.31248		Naphthalene #1
11.000	BB	1074.47144	2.96975e-2	31.90913		Acenaphthylene #2
11.954	BB	2259.77197	1.29459e-2	29.25468		1-Methylnaphthalene #3
12.530	BB	2589.27710	1.12393e-2	29.10160		2-Methylnaphthalene #4
13.012	BB	1574.21472	2.03163e-2	31.98229		Acenaphthene #5
13.666	BB	1964.78674	1.75240e-2	34.43093		Fluorene #6
15.054	BBA	2358.65942	1.72982e-2	40.80066		Phenanthrene #7
16.460	BBA	4079.43311	1.04262e-2	42.53292		Anthracene #8
17.837	PB	216.60347	2.17006e-2	4.70042		Fluoranthene #9
18.846	BBA	325.49661	1.43052e-2	4.65631		Pyrene #10
21.198	BBA	135.96611	6.56733e-2	8.92934	89.3%	p-Terphenyl d14 #11*
22.527	BBA	216.25140	2.22694e-2	4.81580		Benzo(a)anthracene #12
23.408	BBA	316.90585	1.51453e-2	4.79963		Chrysene #13
26.145	PBA	218.97989	2.07330e-2	4.54011		Benzo(b)fluoranthene #14
27.591	BB	94.40506	2.25837e-2	2.13201		Benzo(k)fluoranthene #15
28.713	BB	159.59975	2.61680e-2	4.17641		Benzo(a)pyrene #16
30.589	BB	36.61346	9.41116e-2	3.44575		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]		[ug/L]		
31.406	BB	61.85058	5.60829e-2	3.46876		Benzo(g,h,i)perylene #18
32.343	BBA	181.92557	2.05608e-2	3.74053		Indeno(1,2,3-cd)pyrene #1

Totals : 317.72977

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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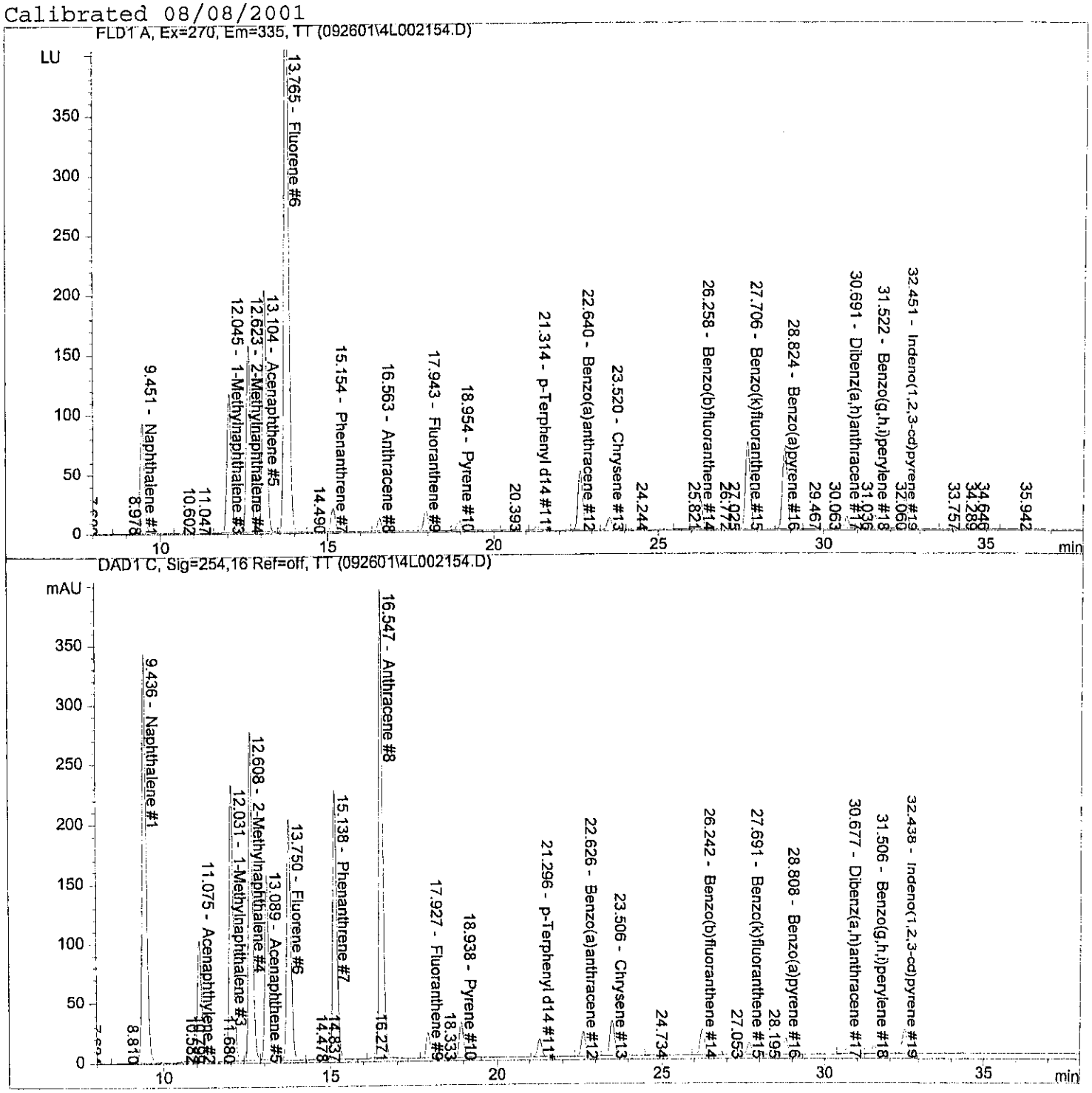
Injection Date	: 9/26/2001 10:50:50 PM	Seq. Line	: 7
Sample Name	: WG105298-03 SLCS	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001



Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.451	BB	903.58081	2.52962e-2	22.85716		Naphthalene #1
12.045	BB	1085.03015	2.21330e-2	24.01492		1-Methylnaphthalene #3
12.623	BB	1433.66528	1.70635e-2	24.46334		2-Methylnaphthalene #4
13.104	BB	1876.38611	1.38416e-2	25.97212		Acenaphthene #5
13.765	BB	4614.46289	6.62187e-3	30.55636		Fluorene #6
15.154	BBA	186.21732	1.63652e-1	30.47488		Phenanthrene #7
16.563	BBA	108.67590	3.10196e-1	33.71087		Anthracene #8
17.943	BBA	162.04468	2.32678e-2	3.77043		Fluoranthene #9
18.954	BBA	90.97245	3.86587e-2	3.51688		Pyrene #10
21.314	PB	30.26328	2.97423e-1	9.00099		p-Terphenyl d14 #11*
22.640	BB	497.21155	7.91256e-3	3.93422		Benzo(a)anthracene #12
23.520	BB	102.92526	3.90495e-2	4.01918		Chrysene #13
26.258	BB	252.78848	1.63222e-2	4.12606		Benzo(b)fluoranthene #14
27.706	BB	757.97009	2.76572e-3	2.09633		Benzo(k)fluoranthene #15
28.824	BB	692.25909	4.57119e-3	3.16445		Benzo(a)pyrene #16
30.691	BB	101.76931	3.93496e-2	4.00458		Dibenz(a,h)anthracene #17
31.522	BB	141.73595	2.65165e-2	3.75834		Benzo(g,h,i)perylene #18
32.451	BB	303.68149	1.38204e-2	4.19700		Indeno(1,2,3-cd)pyrene #1
Totals :				237.63810		

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 X33
9.436	BBA	3091.07568	8.25405e-3	25.51389		Naphthalene #1
11.075	BB	877.06708	2.96975e-2	26.04671		Acenaphthylene #2
12.031	BB	1966.32568	1.29459e-2	25.45577		1-Methylnaphthalene #3
12.608	BB	2307.30688	1.12393e-2	25.93246		2-Methylnaphthalene #4
13.089	BB	1315.53540	2.03163e-2	26.72687		Acenaphthene #5
13.750	BB	1701.91296	1.75240e-2	29.82433		Fluorene #6
15.138	BBA	1893.70715	1.72982e-2	32.75781		Phenanthrene #7
16.547	BBA	3316.48047	1.04262e-2	34.57824		Anthracene #8
17.927	BB	180.80078	2.17006e-2	3.92348		Fluoranthene #9
18.938	BBA	277.17136	1.43052e-2	3.96500		Pyrene #10
21.296	BBA	127.58224	6.56733e-2	8.37874 33%		p-Terphenyl d14 #11*
22.626	BBA	187.41934	2.22694e-2	4.17372		Benzo(a)anthracene #12
23.506	BBA	282.89899	1.51453e-2	4.28459		Chrysene #13
26.242	PBA	205.03149	2.07330e-2	4.25091		Benzo(b)fluoranthene #14
27.691	BB	94.55415	2.25837e-2	2.13538		Benzo(k)fluoranthene #15
28.808	BB	128.32651	2.61680e-2	3.35805		Benzo(a)pyrene #16
30.677	BB	48.68131	9.41116e-2	4.58148		Dibenz(a,h)anthracene #17

31.506	BB	74.24448	5.60829e-2	4.16385		Benzo(g,h,i)perylene #18
32.438	BBA	210.49254	2.05608e-2	4.32789		Indeno(1,2,3-cd)pyrene #1

Totals : 274.37918

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001805	ACCN Blank	NA			✓
06	8310 CCV		SV53-25	/54-35	RR
07	V169P95 BLK				RR
08	LCS				RR
09	8310 CCV		SV53-25	/54-35	CC
10	no-make				CC
11	ESS 38-23	e/2b	spike		✓
12	8310 SUR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	5/50		SV54-35	/53-25	✓
15	4/20				✓
16	3/10				✓
17	2/5				✓
18	1/1				✓
19	8310 ALT @ LVL 4		SV53-27	/SOS55-29	✓
			RDC 8/10/01		

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis. Reanalysis complete
IS or SS = Interference with internal and/or surrogate standards
SMI = Sample matrix interference
RR = Rerun
MT = Missed Tune, beyond method tuning requirements
CC = Continuing calibration failed
RR# = Rerun at a specified dilution
RE = Re-extraction analysis required
CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

alysis Date/Time Aug. 7, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801

aily Check
- ✓ Mobile phase reservoir
- ✓ System pressure 113 bar
- ✓ Waste container

eturned to Control?
es ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001806 – no result file contents / null

8310 CCV – failing low for p-terphenyl-d14

Reviewed By: rde 8/13/01

HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Sept. 30, 2009 Instrument ID HPLC4 Column ID LC. PAH Data Subdirectory 092601
Analyst Initials CLC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L007148	AcCN Blank	NA			✓
49	8310 CCV		SV54-35/53-25		CC
50					CC
51					CC
52					✓
53	WG-105398-02 SOIL BLK V172P181				✓
54	-03 SOIL LCS				✓
55	-01 REF L0109340-01				RR10
56	-04 MS				✓
57	-05 MSD				✓
58	L0109340-02 8310 SOIL				RR10
59	-03				✓
60	L0109342-01				✓
61	8310 CCV	✓	SV54-35/53-25		✓

RJC 10/1/01

Reviewed By: RJC 10/1/01

Status:
✓ = Compliant Analysis. Reanalysis complete IS or SS = Interference with internal and/or surrogate standards SMI = Sample matrix interference
RR = Rerun MT = Missed Tune, beyond method tuning requirements CC = Continuing calibration failed
RR# = Rerun at a specified dilution RE = Re-extraction analysis required CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Sept. 26, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 092601

Daily Check
- ☐ Mobile phase reservoir bar
- ☐ System pressure 138 ~~psi~~ psi
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: low recovery for some analytes - CCV (092401 samples were significant for SMI)

Action Taken: ① tried to clean column up gradient ② changed guard cartridge before run 4L002152

Comments

Reviewed By: 10/1/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Sept. 24, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 092401
Analyst Initials RPC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L002136	AcCN Blank	NA			✓
37	8310 CCV		SV 54-35/53-25		✓
38	WF105120-01 BLK V172PB7 8310W				✓
39	-02 LCS				✓
40	-03 LCS2				✓
41	L0109340-04 8310W				✓
42	L0109342-02				✓
43	L0109254-04 Re-ext 8310W				✓
44	L0109269-01				✓
45	-12				✓
46	-01	5X			✓
47	8310 CCV	NA	SV 54-35/53-25		✓

RPC 9/24/01

Reviewed By: DPF 9/28/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Sept. 21, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 092401

Daily Check

- [x] Mobile phase reservoir
- [x] System pressure 128 bar
- [x] Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: SPF 9/28/01

Parameter: 8310/420 SOP #: EXHIBIT 1 Revision #: 5
Extraction Analyst(s): RSK TV/KD Analyst(s): DP
Date/Time Extracted: 9/24/01 @1000 Date TV/KD: 9/24/01
Spike/Surrogate Analyst: LLL Witness: DP
Surrogate #: 050038-39 Earliest Hold Date: 9/27
Spike #: A = 050038-23 Spike #: B = –

Extraction Work Group WG 105120
Analytical Work Group WG 106168

Extract Relinquished By: DP
Extract Received By & Date: HV 9/24/01

	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	1001L		1ml	T				WG 105120-01
2	LCS			✓				500uL		C				WG -02
3	LCS DUP			✓						C				-03
4	99-340-04	8310		✓						T				
5	99-342-02			✓		950ml				T				
6	99-254-01			✓		1L				T			✓	
7	99-267-01			✓		960ml				C			✓	
8	99-269-12			✓						C			✓	
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 09/24/01

Methylene Chloride Lot #: 41109
Hexane Lot #: –
Ether Lot #: –
Methanol Lot #: –
Solvent: CH3CN Lot #: 118801
Reagent: Acid-Solution Lot #: ER 1925
Reagent: – Lot #: –
Reagent: – Lot #: –
Acid: – Lot #: –
Florisil Lot #: –
Silica Gel Lot #: –
IR Analyst / Date / Time: –
Dried Na_2SO_4 Lot #: ER1913

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: 09/24/01

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Extraction Notes For Volume # 172 Page # 137

General Comments: * → Re-ext w/in Hold

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

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Parameter: 8310-S SOP #: EXHPLC2 Revision #: 5
Extraction Analyst(s): CAF SMH TV/KD Analyst(s): JMD
Date/Time Extracted: 9-26-01 @ 09:00 Date TV/KD: 9-26-01
Spike/Surrogate Analyst: CAF/SMH Witness: SMH CAF
Surrogate #: ESS0038839 Earliest Hold Date: 10/4/01
Spike #: A = ESS0038823 Spike #: B =

Extraction Work Group WG 105298
Analytical Work Group WG 105348

Extract Relinquished By: JMD
Extract Received By & Date: HV 9/26/01

	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					30.09 g	100 ul		1 mL	T				WG 105298-02
2	LCS					.08		500 ul		C				WG -03
3	09-340-01	8310				.09				C				-01
4	-01MS					.08		500 ul		C				-04
5	-01MSD					.03				C				-05
6	-02					.04				O				
7	-03					.03				O				
8	09-342-01					.00				C				
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

JMD 9-26-01

Methylene Chloride Lot #: 41109
Hexane Lot #:
Ether Lot #:
Methanol Lot #:
Solvent: Acetonitrile Lot #: V18801
Reagent: Lot #:
Reagent: Lot #:
Reagent: Lot #:
Acid: Lot #:
Florisil Lot #:
Silica Gel Lot #: V SMH 09-26-01
IR Analyst / Date / Time:
Dried Na_2SO_4 Lot #: ER1913

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: Donna Pierson Date: 09/26/01

Extraction Notes For Volume # 112 Page # 101

General Comments: Nothing to report.

Extraction Anomalies: Nothing to report.

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

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
	RF	**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

PERCENT SOLIDS DATA

Login Number: L0109342

✓ **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: John Richards Date: 09/28/01

PERCENT SOLIDS

Workgroup: 105362 Approval:
ADT (on): Tmm 9/26/01 @ 1110 ADT (off): Tmm 9/27/01 @ 930 Tmm 9/26/01 @ 1115

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
09-268-17-18-19	1.29	27.36	27.16	27.18	
09-312-01	1.28	22.47	20.25		
02	1.32	29.11	27.30		
03	1.24	29.67	27.32		
04	1.27	24.99	22.50		
05	1.26	30.63	28.08		
06	1.24	30.51	27.68		
07	1.32	31.68	27.70		
08	1.31	24.81	23.10		
09	1.36	26.10	23.95		
10	1.27	33.70	28.12		
09-338-01	1.32	31.31	29.42		
02	1.32	31.43	29.13		
03	1.25	28.18	26.63		
04	1.27	34.45	31.42		
05	1.36	33.90	31.72		
06	1.32	29.56	26.18		
07	1.25	31.80	29.63		
08	1.32	30.44	28.83		
09	1.27	39.44	34.91		
Duplicate 09-338-7 Tmm	1.32	32.11	29.88		

Workgroup: 105363 Approval: JVR/09/27/01
ADT (on): Tmm 9/26/01 @ 1310 ADT (off): Tmm 9/27/01 @ 945

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
09-338-10	1.26	26.95	23.57		
11	1.28	34.15	30.63		
09-340-01	1.32	26.08	21.92		
02	1.43	37.53	31.64		
03	1.42	28.10	22.94		
09-342-01	1.42	31.52	26.19		
09-374-01	1.34	21.41	18.27		
02	1.27	29.21	23.84		
09-402-01	1.28	24.12	13.06		
02	1.27	22.90	19.34		
03	1.27	28.58	23.51		
09-401-01	1.26	34.72	27.31		
02	1.32	20.48	16.73		
09-353-01	1.36	20.21	5.22		
09-364-01	1.41	26.64	21.88		
02	1.34	25.47	~~24.25~~ Tmm	21.42	
03	1.42	31.39	~~20.75~~ Tmm	26.85	
04	1.30	29.34	24.63		
05	1.30	24.25	20.92		
06	1.39	29.87	25.50		
Duplicate 09-364-04	1.30	27.08	22.32		

KEMRON Environmental Services WG 105363

TEST CODE: PCT_S NAME: PERCENT SOLIDS

METHOD: ASTM

UNITS: % ADT: TMM/09/26/01/131

SamN	WT1	WT2	WT3	Level	Results	Units
09-338-10	1.26	26.95	23.57	86.843	87	%
11	1.28	34.15	30.63	89.291	89	%
09-340-01	1.32	26.08	21.92	83.199	83	%
02	1.43	37.53	31.64	83.684	84	%
03	1.42	28.1	22.94	80.66	81	%
09-342-01	1.42	31.52	26.19	82.292	82	%
09-374-01	1.34	21.41	18.27	84.355	84	%
02	1.27	29.21	23.84	80.78	81	%
09-402-01	1.28	24.12	13	51.313	51	%
02	1.27	22.9	19.34	83.541	84	%
03	1.27	28.58	23.51	81.435	81	%
09-401-01	1.26	34.72	27.31	77.854	78	%
02	1.32	20.48	16.73	80.428	80	%
09-353-01	1.36	20.21	5.22	20.477	20	%
09-364-01	1.41	26.64	21.88	81.134	81	%
02	1.34	25.47	21.42	83.216	83	%
03	1.42	31.39	26.85	84.852	85	%
04	1.3	29.34	24.63	83.203	83	%
05	1.3	24.25	20.92	85.49	85	%
06	1.39	29.87	25.5	84.656	85	%
dup-364-04	1.3	27.08	22.38	81.769	82	%

JWR

Appendix C

Laboratory Analytical Reports for Groundwater Samples (CD only)

KEMRON Report L0107411

Prepared for CCI

Work ID: NAS Cecil Field Bldg 8

Summary Report 1
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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0107411

CHAIN OF CUSTODY:

The chain of custody number was 149152-163.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperature was 1°C.

SAMPLE MANAGEMENT:

All samples were received intact. Samples were not frozen.

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: Angie Hurst DATE: 7/25/01

3

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0107411

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 : 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 04 (002-CEF9-7D-01-04-16).

SAMPLES

Surrogates: Outliers in fractions 02, 07 and 08 were confirmed by reanalyses. All other 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: [signature] DATE: 8/1/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0107411

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: All acceptance criteria were met.

SAMPLES

Samples: Only the results from the re-extracts of fractions 01, 03, 08 and 09 were reported. All acceptance criteria were met.
Surrogates: Sample fractions -01, -03, -08 and -09 were sent back for re-extraction due to a low surrogate recovery. Sample fractions -01 and -03 from the re-extractions yielded % recovery below the advisory limit for o-terphenyl, which confirms the original analysis. All other 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: HV REVIEWED: Stephanie L Lepe DATE: 8/6/01

Rev. 7/14/00

5

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0107411

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: The blank associated with the initial extraction batch of this sample delivery group yielded a percent recovery for the surrogate which was below the advisory limit. All other acceptance criteria were met.

Laboratory Control Samples: The LCS yielded percent recoveries for 6 analytes which were below advisory limits. All sample fractions were re-extracted within holding time. The LCS associated with the re-extraction of these samples yielded a percent recovery for 8 analytes and the surrogate which were below advisory limits. Both sets of results were reported.

Matrix Spikes: The MS/MSD associated with the initial and re-extraction batches yielded percent recoveries for several analytes which were outside of advisory limits.

SAMPLES

Surrogates: Sample fraction 01and 09 yielded a percent recovery for the surrogate which was below the advisory limit. Re-extraction of the 01 fraction confirmed these results. For the re-extraction of fraction 09 all acceptance criteria were met. Sample fractions 03, 06MS, and 08 re-extractions yielded a percent recovery for the surrogate which was below advisory limits.

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 Lepe DATE: 8/6/01

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REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0107411

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times 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 : Several continuing calibration standards failed high for PO4-P. PO4-P was not found at or above the reporting limit in the associated sample fractions. 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 yielded a percent recovery for PO4-P which was above the advisory limit.

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 Lepe DATE: 8/16/01

Rev. 7/14/00

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021
AAB # : WG101691
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q1-01-04-1	L0107411-01
002-CEF9-3S-Q1-01-04-1	L0107411-02
002-CEF9-5S-Q1-01-04-1	L0107411-03
002-CEF9-7D-Q1-01-04-1	L0107411-04
002-CEF9-7D-Q1-01-04-1	L0107411-05
002-CEF9-7D-Q1-01-04-1	L0107411-06
002-CEF9-9S-Q1-01-04-1	L0107411-07
002-9DUP-Q1-01-04-16	L0107411-08
002-9EQB-Q1-01-04-16	L0107411-09
002-9TB-Q1-01-04-16	L0107411-10

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 01-AUG-01
Title: Laboratory Manager

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 12:34

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	8.80	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	6.70	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	128	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 13:06

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	12.0	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	4.40	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	156	70 - 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 18:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	11.0	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	4.40	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	151	70 - 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-01-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 13:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 14:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 14:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	21.0	1	
Ethylbenzene	0.078	1.0	21.0	1	
Methyl tert-butyl ether	0.242	1.0	20.0	1	
Toluene	0.283	1.0	20.0	1	
Xylenes, Total	0.221	1.0	61.0	1	

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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 15:16

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	21.0	1	
Ethylbenzene	0.078	1.0	21.0	1	
Methyl tert-butyl ether	0.242	1.0	20.0	1	
Toluene	0.283	1.0	20.0	1	
Xylenes, Total	0.221	1.0	62.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 15:49

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	16.0	1	
Ethylbenzene	0.078	1.0	150	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	10.0	1	
Xylenes, Total	0.221	1.0	120	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	304	70 - 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 16:21

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	14.0	1	
Ethylbenzene	0.078	1.0	130	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	17.0	1	
Xylenes, Total	0.221	1.0	190	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	253	70 - 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-01-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 16:53

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101691

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9TB-Q1-01-04-16 Lab Sample ID: L0107411-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 17:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021
AAB # : WG101754
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-9S-Q1-01-04-1	L0107411-07
002-9DUP-Q1-01-04-16	L0107411-08

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 01-AUG-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101754

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-01-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 26-JUL-01 09:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	17.0	1	
Ethylbenzene	0.078	1.0	150	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	11.0	1	
Xylenes, Total	0.221	1.0	130	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	324	70 — 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG101754
Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth
Field Sample ID: 002-9DUP-01-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water
% Solids: 0 Initial Calibration ID: HP12 20-JUL-2001
Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 26-JUL-01 09:42
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	13.0	1	
Ethylbenzene	0.078	1.0	130	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	16.0	1	
Xylenes, Total	0.221	1.0	180	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	247	70 - 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8015
AAB # : WG101855
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q1-01-04-1	L0107411-01
002-CEF9-5S-Q1-01-04-1	L0107411-03
002-9DUP-Q1-01-04-16	L0107411-08
002-9EQB-Q1-01-04-16	L0107411-09

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 06-AUG-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101855

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 27-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 30-JUL-01 Date Analyzed: 31-JUL-01 15:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	1400	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	41.9	49 - 174	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101855

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-Q1-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 27-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 30-JUL-01 Date Analyzed: 31-JUL-01 15:45

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	44.7	49 - 174	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101855

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 27-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 30-JUL-01 Date Analyzed: 31-JUL-01 15:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1300	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	60.6	49 - 174	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101855

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-01-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 27-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 30-JUL-01 Date Analyzed: 31-JUL-01 16:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	90.7	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8015
AAB # : WG101687
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-3S-Q1-01-04-1	L0107411-02
002-CEF9-7D-Q1-01-04-1	L0107411-04
002-CEF9-7D-Q1-01-04-1	L0107411-05
002-CEF9-7D-Q1-01-04-1	L0107411-06
002-CEF9-9S-Q1-01-04-1	L0107411-07

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 06-AUG-01
Title: Laboratory Manager

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101687

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 06-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:07

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	540	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	55.8	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101687

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 06-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:35

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	64.0	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101687

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 06-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	255	510	2400	1.02	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	66.9	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101687

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 06-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 15:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	255	510	2300	1.02	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	61.1	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG101687

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 06-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 27-JUL-01 11:21

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	255	510	1200	1.02	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	121	49 — 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8310
Lab Name : Kemron Environmental Services
Base/Command : blgs 9 and 46

AAB # : WG101675
Contract # : Jeff Wilmoth
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q1-01-04-1	L0107411-01
002-CEF9-3S-Q1-01-04-1	L0107411-02
002-CEF9-5S-Q1-01-04-1	L0107411-03
002-CEF9-7D-Q1-01-04-1	L0107411-04
002-CEF9-7D-Q1-01-04-1	L0107411-05
002-CEF9-7D-Q1-01-04-1	L0107411-06
002-CEF9-9S-Q1-01-04-1	L0107411-07
002-9DUP-Q1-01-04-16	L0107411-08
002-9EQB-Q1-01-04-16	L0107411-09

Comments:

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Signature: Dennis S. Tepe

Name: Dennis S. Tepe

Date: 06-AUG-01

Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 13:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.770	1.04	J
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	2.20	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 13:25

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	25.5	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 13:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	2.20	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-01-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 13:25

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	22.2	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	1.20	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-01-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:22

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	40.4	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	1.20	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 14:22

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	39.7	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-01-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 15:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-01-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 15:19

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	62.0	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 16:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 16:15

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	57.5	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 17:12

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	25.0	1.04	
2-Methylnaphthalene	0.349	1.0	28.0	1.04	
Acenaphthene	0.432	1.0	28.0	1.04	
Acenaphthylene	0.365	1.0	28.0	1.04	
Anthracene	0.296	1.0	39.0	1.04	
Benzo(a)anthracene	0.0312	0.21	3.60	1.04	
Benzo(a)pyrene	0.0551	0.21	2.60	1.04	
Benzo(b)fluoranthene	0.0354	0.21	2.90	1.04	
Benzo(g,h,i)perylene	0.052	0.21	1.60	1.04	
Benzo(k)fluoranthene	0.0749	0.21	1.30	1.04	
Chrysene	0.025	0.21	3.50	1.04	
Dibenzo(a,h)anthracene	0.0801	0.21	1.80	1.04	
Fluoranthene	0.052	0.21	3.90	1.04	
Fluorene	0.581	1.0	31.0	1.04	
Indeno(1,2,3-cd)pyrene	0.0832	0.21	2.00	1.04	
Naphthalene	0.373	1.0	25.0	1.04	
Phenanthrene	0.298	1.0	37.0	1.04	
Pyrene	0.0707	0.21	3.90	1.04	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 17:12

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	55.7	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-01-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 18:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	24.0	1	
2-Methylnaphthalene	0.336	1.0	25.0	1	
Acenaphthene	0.415	1.0	25.0	1	
Acenaphthylene	0.351	1.0	25.0	1	
Anthracene	0.285	1.0	31.0	1	
Benzo(a)anthracene	0.030	0.20	2.60	1	
Benzo(a)pyrene	0.053	0.20	1.80	1	
Benzo(b)fluoranthene	0.034	0.20	2.00	1	
Benzo(g,h,i)perylene	0.050	0.20	1.20	1	
Benzo(k)fluoranthene	0.072	0.20	0.930	1	
Chrysene	0.024	0.20	2.50	1	
Dibenzo(a,h)anthracene	0.077	0.20	1.20	1	
Fluoranthene	0.050	0.20	3.10	1	
Fluorene	0.559	1.0	27.0	1	
Indeno(1,2,3-cd)pyrene	0.080	0.20	1.40	1	
Naphthalene	0.359	1.0	24.0	1	
Phenanthrene	0.287	1.0	30.0	1	
Pyrene	0.068	0.20	3.10	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 18:09

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	46.2	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	3.30	1	P
2-Methylnaphthalene	0.336	1.0	7.00	1	
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	25.0	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:02

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	44.2	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	1.80	1	P
2-Methylnaphthalene	0.336	1.0	5.60	1	
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	25.0	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:02

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.5	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	3.80	1	P
2-Methylnaphthalene	0.336	1.0	8.10	1	
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	29.0	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-01-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:59

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	44.0	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675
Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth
Field Sample ID: 002-9DUP-01-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001
Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:59
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	2.10	1	P
2-Methylnaphthalene	0.336	1.0	6.60	1	
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	29.0	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 20:59

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.7	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-Q1-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 21:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101675

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-Q1-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 25-JUL-01 Date Analyzed: 26-JUL-01 21:55

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	28.2	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8310
AAB # : WG101971
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q1-01-04-1	L0107411-01
002-CEF9-3S-Q1-01-04-1	L0107411-02
002-CEF9-5S-Q1-01-04-1	L0107411-03
002-CEF9-7D-Q1-01-04-1	L0107411-04
002-CEF9-7D-Q1-01-04-1	L0107411-05
002-CEF9-7D-Q1-01-04-1	L0107411-06
002-CEF9-9S-Q1-01-04-1	L0107411-07
002-9DUP-Q1-01-04-16	L0107411-08
002-9EQB-Q1-01-04-16	L0107411-09

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 06-AUG-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 18:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.720	1	J
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	2.30	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 18:54

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	24.8	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 18:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	2.30	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 18:54

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	24.9	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 19:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	1.10	1.04	
2-Methylnaphthalene	0.349	1.0	1.80	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	4.20	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 19:50

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	54.9	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 19:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.700	1.04	J
2-Methylnaphthalene	0.349	1.0	1.60	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	4.00	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 19:50

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	55.1	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-Q1-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 20:47

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-01-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 20:47

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	35.5	40 — 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-01-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 21:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-01-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 21:44

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	42.4	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-01-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 22:40

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	21.0	1.04	
2-Methylnaphthalene	0.349	1.0	22.0	1.04	
Acenaphthene	0.432	1.0	22.0	1.04	
Acenaphthylene	0.365	1.0	22.0	1.04	
Anthracene	0.296	1.0	29.0	1.04	
Benzo(a)anthracene	0.0312	0.21	3.00	1.04	
Benzo(a)pyrene	0.0551	0.21	2.00	1.04	
Benzo(b)fluoranthene	0.0354	0.21	2.20	1.04	
Benzo(g,h,i)perylene	0.052	0.21	1.20	1.04	
Benzo(k)fluoranthene	0.0749	0.21	0.900	1.04	
Chrysene	0.025	0.21	2.60	1.04	
Dibenzo(a,h)anthracene	0.0801	0.21	1.50	1.04	
Fluoranthene	0.052	0.21	3.50	1.04	
Fluorene	0.581	1.0	24.0	1.04	
Indeno(1,2,3-cd)pyrene	0.0832	0.21	1.40	1.04	
Naphthalene	0.373	1.0	21.0	1.04	
Phenanthrene	0.298	1.0	28.0	1.04	
Pyrene	0.0707	0.21	3.50	1.04	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 22:40

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.1	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 23:37

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.373	1.0	18.0	1.03	
2-Methylnaphthalene	0.346	1.0	18.0	1.03	
Acenaphthene	0.427	1.0	18.0	1.03	
Acenaphthylene	0.362	1.0	18.0	1.03	
Anthracene	0.294	1.0	27.0	1.03	
Benzo(a)anthracene	0.0309	0.21	2.30	1.03	
Benzo(a)pyrene	0.0546	0.21	1.30	1.03	
Benzo(b)fluoranthene	0.035	0.21	1.50	1.03	
Benzo(g,h,i)perylene	0.0515	0.21	0.810	1.03	
Benzo(k)fluoranthene	0.0742	0.21	0.650	1.03	
Chrysene	0.0247	0.21	1.90	1.03	
Dibenzo(a,h)anthracene	0.0793	0.21	1.10	1.03	
Fluoranthene	0.0515	0.21	2.90	1.03	
Fluorene	0.576	1.0	20.0	1.03	
Indeno(1,2,3-cd)pyrene	0.0824	0.21	0.950	1.03	
Naphthalene	0.370	1.0	17.0	1.03	
Phenanthrene	0.296	1.0	25.0	1.03	
Pyrene	0.070	0.21	2.90	1.03	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 27-JUL-01 23:37

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	34.4	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-01-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 01:30

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	5.70	1.04	P
2-Methylnaphthalene	0.349	1.0	12.0	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	42.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 01:30

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	50.4	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 01:30

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	3.10	1.04	P
2-Methylnaphthalene	0.349	1.0	9.50	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	42.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 01:30

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	50.4	40 - 132	ND

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 02:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	3.60	1.04	P
2-Methylnaphthalene	0.349	1.0	7.30	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	26.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 02:27

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	34.9	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 02:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	2.10	1.04	P
2-Methylnaphthalene	0.349	1.0	6.10	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	26.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-01-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 02:27

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	35.2	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-01-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 29-MAR-2001

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 03:24

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG101971

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-Q1-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 25-JUL-01 Date Extracted: 27-JUL-01 Date Analyzed: 28-JUL-01 03:24

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	48.6	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 9056
AAB # : WG101670
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q1-01-04-1	L0107411-01
002-CEF9-3S-Q1-01-04-1	L0107411-02
002-CEF9-5S-Q1-01-04-1	L0107411-03
002-CEF9-7D-Q1-01-04-1	L0107411-04
002-CEF9-7D-Q1-01-04-1	L0107411-05
002-CEF9-7D-Q1-01-04-1	L0107411-06
002-CEF9-9S-Q1-01-04-1	L0107411-07
002-9DUP-Q1-01-04-16	L0107411-08
002-9EQB-Q1-01-04-16	L0107411-09

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 06-AUG-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-2S-Q1-01-04-16 Lab Sample ID: L0107411-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 21:48

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.300	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-3S-Q1-01-04-16 Lab Sample ID: L0107411-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 22:00

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.240	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-5S-01-01-04-16 Lab Sample ID: L0107411-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 22:11

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.200	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16 Lab Sample ID: L0107411-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 25-JUL-01 22:23

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.210	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-Q1-01-04-16/M Lab Sample ID: L0107411-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 26-JUL-01 02:15

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	4.20	1.01	
Nitrite	0.0616	0.40	3.60	1.01	
Phosphate	0.165	1.0	16.0	1.01	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-7D-01-01-04-16/M Lab Sample ID: L0107411-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 26-JUL-01 02:27

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	4.10	1.01	
Nitrite	0.0616	0.40	3.60	1.01	
Phosphate	0.165	1.0	17.0	1.01	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF9-9S-Q1-01-04-16 Lab Sample ID: L0107411-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 26-JUL-01 10:13

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.190	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q1-01-04-16 Lab Sample ID: L0107411-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: 23-JUL-01 Date Analyzed: 26-JUL-01 10:24

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.200	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG101670

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-Q1-01-04-16 Lab Sample ID: L0107411-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 25-JUL-2001

Date Received: 25-JUL-01 Date Extracted: Date Analyzed: 26-JUL-01 02:38

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.260	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

07/23/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAB - CASSIE A. BAKER
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
DCU - DAVID C. UNDERWOOD
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
DST - DENNIS S. TEPE
EAW - ELIZABETH A. WEBER
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HD - HEATH DENNIS
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JAW - JOYCE A. WITHERS
JKM - JUNE K. MORRIS
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LBM - LAWRENCE B. MCSWEGAN
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MAJ - MARK A. JEMISON
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
PML - PAULA M. LEIDY
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SAM - SAMUAL A. MILLS
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLC - SHAWN L. COLE
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TM - TODD MCGINNIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER

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)

H:\DATA\COMMON\Qualifier List 12-15-00.doc

KEMRON Internal Laboratory Chain of Custody

Work Order: L01 67411 **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	BTME	ANAL	LBN 7/25/01 @ 1210	LOGIN	ORG-3	[illegible]				
1-9A	9056	ANAL.	RDL 7/25/01 @ 12:12	LOGIN	SV	[illegible]	RDL 7/26/01 @ 1345	Arch 2	[illegible]	archive
1-9 A	FLA PRO	EXT.	DDP 07/25/01 @ 1215	LOGIN	ELAB	[illegible]	JEA 7/26/01 0750	crusher	TM	disposal
1-9 A	8310	EXT.	DDP 07/25/01 @ 1215	LOGIN	ELAB	[illegible]	JEA 7/26/01 0750	crusher	TM	disposal
1-9B	8310	Re-ext	MM 7/27/01 @ 0730	[illegible]	ELAB	[illegible]	JEA 7/30/01 0810	crusher	DDP	disposal
1,3,8,9B	FLA-PRO	Re-ext	MM 7/31/01 @ 0920	[illegible]	ELAB	[illegible]	JEA 7/31/01 0720	crusher	DDP	disposal

Report Sent To Client 8-7-01

KP

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: **149152-163**

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	149152	Angie Hurst Kemron Environmental Services	Jennifer Zimmerman 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 / Monthly GW Sampling Event	0002	2329	Jeff Wilmoth 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 Method 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	002-CEF9-2S-Q1-01-04-16	CEF-9-2S	W	07/24/01	8:20	III/C	14	2	2	2	1					Grab	Turbid	
2	002-CEF9-3S-Q1-01-04-16	CEF-9-3S	W	07/24/01	8:45	III/C	14	2	2	2	1					Grab	Turbid	
3	002-CEF9-5S-Q1-01-04-16	CEF-9-5S	W	07/24/01	14:20	III/C	14	2	2	2	1					Grab	Turbid	
4	002-CEF9-7D-Q1-01-04-16	CEF-9-7D	W	07/24/01	9:20	III/C	14	4	6	6	2					Grab	(MS/MSD)	
5	002-CEF9-9S-Q1-01-04-16	CEF-9-9S	W	07/24/01	13:45	III/C	14	2	2	2	1					Grab	Turbid	
6	002-9DUP-Q1-01-04-16	Duplicate	W	07/24/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q1-01-04-16	Equipment Blank	W	07/24/01	9:35	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q1-01-04-16	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 / Willie Bonner / Roger Deisler J.A. Jones Environmental Services	Federal Express Track No.791618783730, 792677404130, 790111567549, 791618784210, 791618784357.	Coolers temps 1, 2, 3, 11, Cooler Sealed Intact

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	7/24/01	18:00	Federal Express	7/24/01	18:00
Printed Name and Signature:			Printed Name and Signature: Angelina R Scott / Angelina R Scott	7/25/01	0954

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

Form CCI001, Rev 02/00

KEMRON Environmental Services | **SAMPLES RECEIPT FORM #1** | Marietta Laboratory

CLIENT:	DATE:	SHIPPED BY:
CCI BRG ( ) ARS (✓) Other _____	7-25-01	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-987	COOLER ID: KL-894	COOLER ID: KL-974
INDEX #: 7916 1878 3730	INDEX #: 7926 7740 4130	INDEX #: 7916 1878 2210
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP: (C) (D) 1 °C	TEMP: (C) (D) 2 °C	TEMP: (C) (D) 3 °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
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
Sx's were not frozen. 25 + 35	Voa's, dup	55/95

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

CLIENT:	DATE:	SHIPPED BY:
CCI BRG (ARS) Other _____	7-25-01	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-879	COOLER ID: KL-816	COOLER ID:
INDEX #: 7916 1878 4357	INDEX #: 7901 1156 7549	INDEX #:
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP: (C) (D) 1 °C	TEMP: (C) (D) 1 °C	TEMP: (C) (D) °C
TEMP IN RANGE (4°C ± 2°) (✓) YES (✓) NO OVT 7/25/01	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) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
Six were not frozen. MS/MSD/8	Six were not frozen MS/MSD/7D	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

CRF #1

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 5

PROJECT: NAS Cecil Field. LIMS# _____

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 7-25-01 C-of-C Number: 145-152-163
by (print) Angelina R. Scott (sign) Angelina R. Scott

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: Fedex - See CRF 3
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? 1/front, seal date: 7-24-01 seal name: Kenron
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 See Cooler Rect Form #3 °C ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: ars (date) 7/25/01

B. **LOG-IN PHASE:** Date samples were logged-in: 7-25-01
by (print) Angelina R Scott (sign) Angelina R. Scott

11. Describe type of packing in cooler: foamers, plastic dividers/cardboard
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) _____

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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: L0107411

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 : 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 04 (002-CEF9-7D-01-04-16).

SAMPLES

Surrogates: Outliers in fractions 02, 07 and 08 were confirmed by reanalyses. All other 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: [signature] DATE: 8/1/01

Rev. 6/00

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BETX-GC DATA (8021)

Login Number: L0107411

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

NA 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)

✓ 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)

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Checked By: Janice L. Schimmel **Date:** 7/27/01

2.1.3.1 QC Summary

VOA - GC

Date: 7/25/01 **Analyst:** CRN **Method:** (8021) 8015 602

Instrument: HP12 **Work Group:** WG101691

	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	✓
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: CSH 7/27/01

Secondary Reviewers Initials & Date Checked: GS 7/27/01

_____ • 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

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VOA - GC

Date: 7/26/01 **Analyst:** CBN **Method:** 8021 8015 602

Instrument: HP12 **Work Group:** WG 101754

	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	✓
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: CSH 7/30/01

Secondary Reviewers Initials & Date Checked: CBN 7/30/01

✓ • 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] 7/30/01

Comments:

✓ = Checked & OK
NA = Not Applicable

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Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	7/25/2001	**Blank Filename:**	12G08597.D	**MS Filename:**	12G08607.D
Instrument:	HP12	**LCS Filename:**	12G08598.D	**MSD Filename:**	12G08608.D
Analyst:	CBN	**Sample Number:**	L0107411-04	**Dilution Factor:**	1
Work Group:	WG101691	**Sample Filename:**	12G08606.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	19.1	95.5	20.0	ND	20.3	20.4	101.5	102.2	56.0	149	0.7	20					
benzene	0.50	ND	20.5	102.3	20.0	ND	20.7	20.7	103.3	103.6	78.0	122	0.2	20					
toluene	0.50	ND	20.2	101.1	20.0	ND	20.4	20.5	102.0	102.5	78.0	123	0.4	20					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	20.9	104.3	20.0	ND	20.9	21.0	104.7	105.1	80.0	129	0.4	20					
m+p-xylene	0.50	ND	40.8	102.0	40.0	ND	40.8	41.2	102.0	102.9	80.0	124	0.9	20					
o-xylene	0.50	ND	20.4	101.9	20.0	ND	20.5	20.6	102.3	103.2	80.0	124	0.8	20					
xylene (total)	0.50	ND	61.2	102.0	60.0	ND	61.3	61.8	102.1	103.0	80.0	124	0.9	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	30.8	102.5	30.9	103.0	30.0	30.5	101.7	30.7	102.3	31.3	104.2		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

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Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	7/26/2001	**Blank Filename:**	12G08617.D	**MS Filename:**	12G08625.D
Instrument:	HP12	**LCS Filename:**	12G08618.D	**MSD Filename:**	12G08626.D
Analyst:	CBN	**Sample Number:**	L0107411-07	**Dilution Factor:**	1
Work Group:	WG101754	**Sample Filename:**	12G08621.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	18.7	93.5	20.0	3.3	22.5	22.3	95.9	94.8	56.0	149	1.0	20					
benzene	0.50	ND	20.5	102.5	20.0	17.4	35.5	34.8	90.3	87.0	78.0	122	1.8	20					
toluene	0.50	ND	20.2	100.9	20.0	10.9	35.3	34.7	122.1	119.2	78.0	123	1.7	20					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	20.9	104.4	20.0	155.0	161.5	159.9	32.5	24.4	80.0	129	1.0	20			L	L	
m+p-xylene	0.50	ND	40.7	101.7	40.0	92.7	123.0	122.1	75.8	73.5	80.0	124	0.8	20			L	L	
o-xylene	0.50	ND	20.3	101.6	20.0	40.6	57.6	57.1	85.2	82.6	80.0	124	0.9	20					
xylene (total)	0.50	ND	61.0	101.7	60.0	133.3	180.6	179.1	78.9	76.5	80.0	124	0.8	20			L	L	
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	30.7	102.4	31.7	105.7	30.0	97.1	323.8	86.3	287.7	85.0	283.4		70.0	130			H	H	H

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

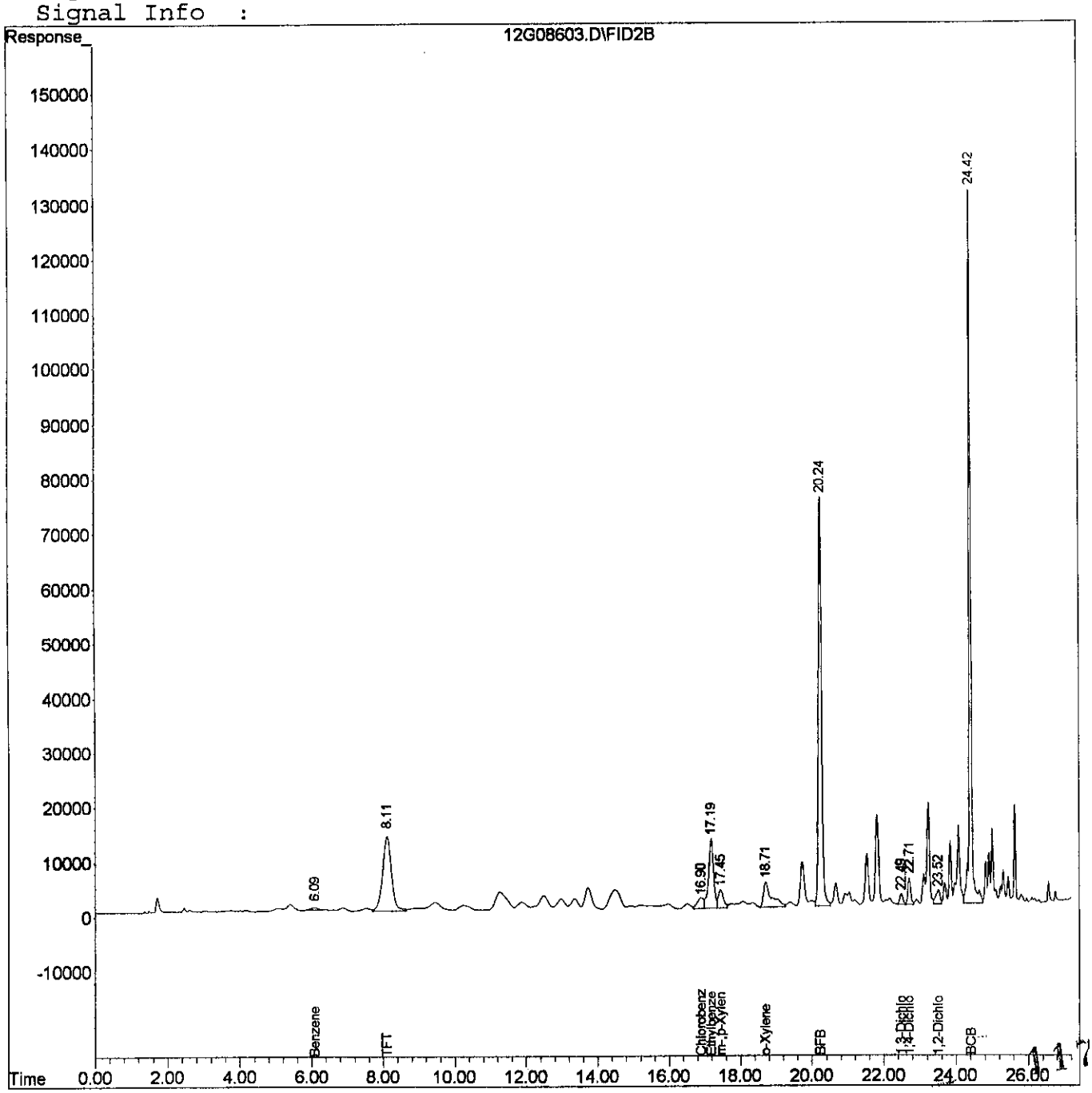
NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\072501\12G08603.D Vial: 9
Acq On : 25 Jul 2001 12:34 Operator: CBN
Sample : L0107411-01 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 13:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08603.D Vial: 9
Acq On : 25 Jul 2001 12:34 Operator: CBN
Sample : L0107411-01 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 13:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.11	2358875	38.364 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	127.88%
9) S BFB	20.24	4601308	31.509 UG/L
Spiked Amount 30.000		Recovery =	105.03%
13) S BCB	24.42	5084966	36.753 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	122.51%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.09	64409	~~0.339 UG/L~~
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	16.90	229791	~~1.297 UG/L~~
6) TM Ethylbenzene	17.19✓	1309843	8.762 UG/L
7) TM m-,p-Xylene	17.45✓	339106	1.876 UG/L
8) TM o-Xylene	18.72✓	734133	4.833 UG/L
10) TM 1,3-Dichlorobenzene	22.49	129253	~~0.837 UG/L~~
11) TM 1,4-Dichlorobenzene	22.71	286770	~~1.807 UG/L~~
12) TM 1,2-Dichlorobenzene	23.52	215920	~~1.646 UG/L~~

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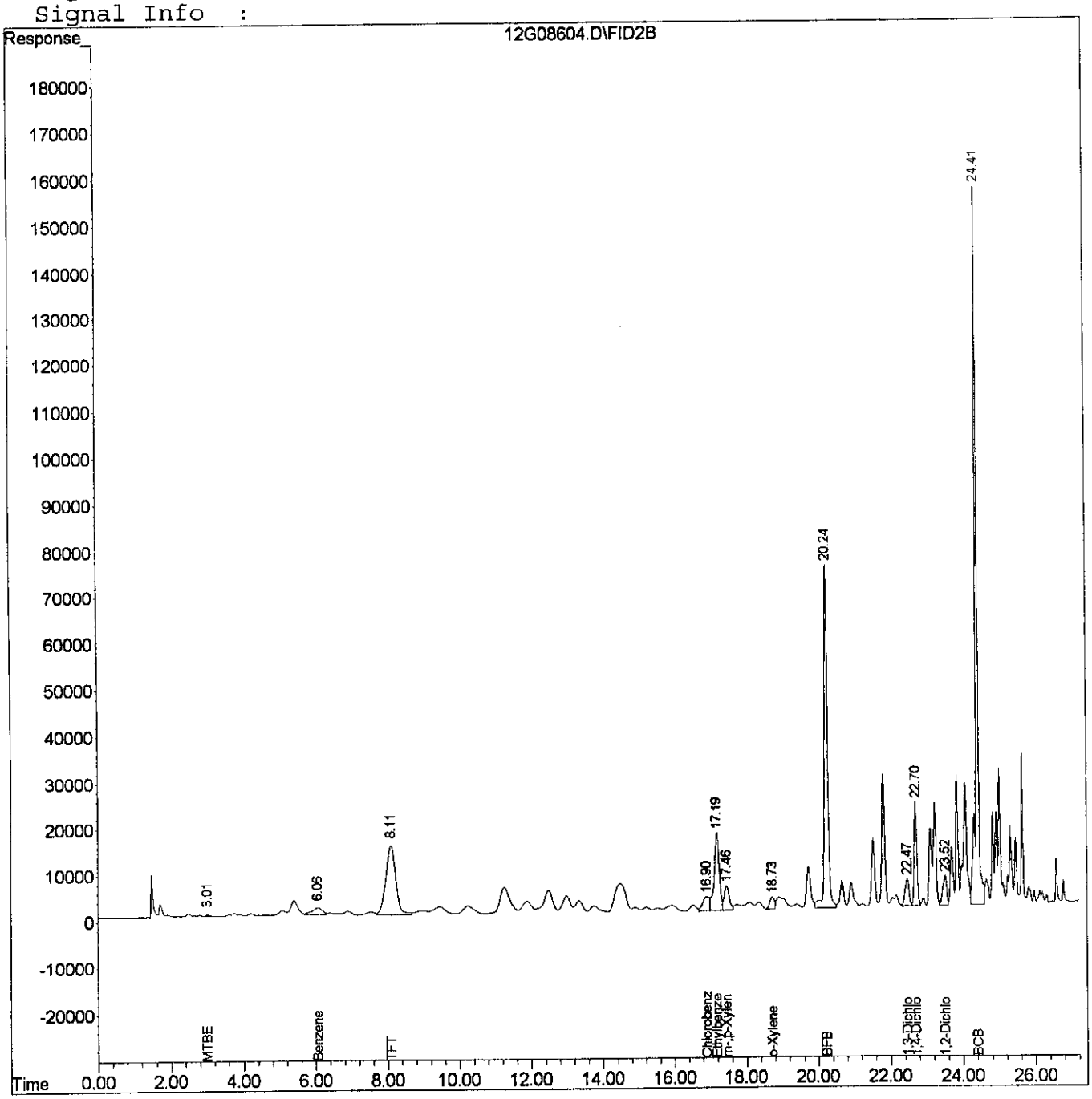
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08603.D 8021W.M Wed Jul 25 13:01:48 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08604.D
Acq On : 25 Jul 2001 13:06
Sample : L0107411-02 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 13:34 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08604.D
Acq On : 25 Jul 2001 13:06
Sample : L0107411-02 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 13:34 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

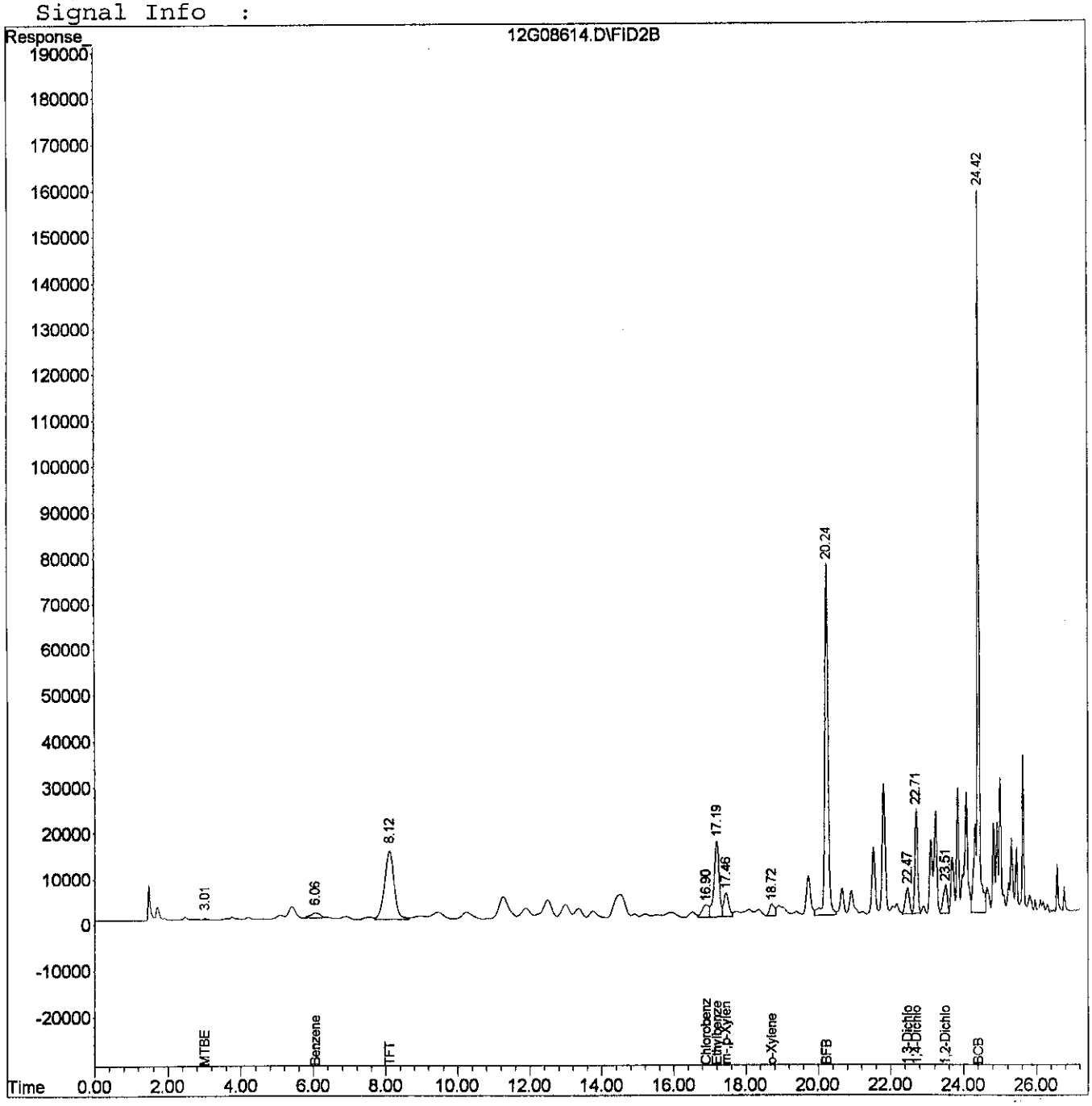
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.11 ✓	2879859	46.837 UG/L *
Spiked Amount 30.000	Range 70 - 130	Recovery =	156.12%#
9) S BFB	20.24	4706091	32.226 UG/L
Spiked Amount 30.000		Recovery =	107.42%
13) S BCB	24.42	6542725	47.290 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	157.63%#
Target Compounds			
1) TM MTBE	3.01	28409	~~0.778 UG/L~~
2) TM Benzene	6.06	286806	~~1.510 UG/L~~
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	16.91	388922	~~2.196 UG/L~~
6) TM Ethylbenzene	17.19✓	1720143	11.506 UG/L
7) TM m-,p-Xylene	17.46✓	514166	2.844 UG/L
8) TM o-Xylene	18.73✓	234624	1.545 UG/L
10) TM 1,3-Dichlorobenzene	22.47	451450	~~2.924 UG/L~~
11) TM 1,4-Dichlorobenzene	22.71	1210722	~~7.629 UG/L~~
12) TM 1,2-Dichlorobenzene	23.51	474110	~~3.614 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\072501\12G08614.D Vial: 9
Acq On : 25 Jul 2001 18:31 Operator: CBN
Sample : L0107411-02 5ML Inst : HP12
Misc : 1,1,RE S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 18:58 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08614.D Vial: 9
Acq On : 25 Jul 2001 18:31 Operator: CBN
Sample : L0107411-02 5ML Inst : HP12
Misc : 1,1,RE S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 18:58 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

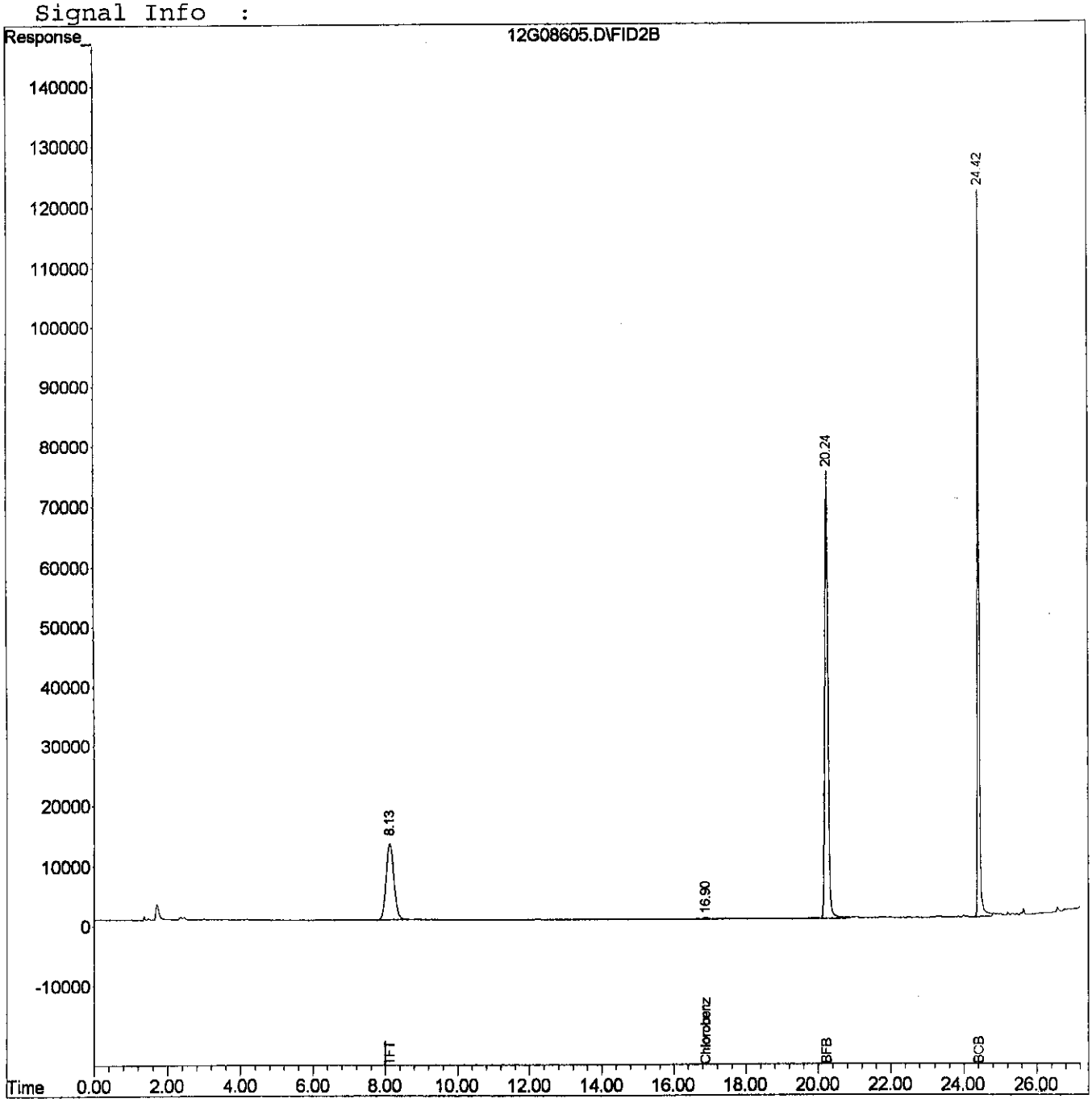
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.12	2787686	45.338 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery =	151.13%#
9) S BFB	20.24	4790843	32.807 UG/L
Spiked Amount 30.000		Recovery =	109.36%
13) S BCB	24.42	6628992	47.913 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	159.71%#
Target Compounds			
1) TM MTBE	3.02	25665	~~0.703 UG/L~~
2) TM Benzene	6.07	191438	~~1.008 UG/L~~
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	16.90	328688	~~1.856 UG/L~~
6) TM Ethylbenzene	17.19 ✓	1647173	11.018 UG/L
7) TM m-,p-Xylene	17.46 ✓	505808	~~2.798 UG/L~~
8) TM o-Xylene	18.72 ✓	235615	1.551 UG/L
10) TM 1,3-Dichlorobenzene	22.47	435147	~~2.819 UG/L~~
11) TM 1,4-Dichlorobenzene	22.71	1219233	~~7.682 UG/L~~
12) TM 1,2-Dichlorobenzene	23.51	464234	~~3.539 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08614.D 8021W.M Wed Jul 25 18:58:30 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08605.D Vial: 11
Acq On : 25 Jul 2001 13:39 Operator: CBN
Sample : L0107411-03 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 14:06 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08605.D
Acq On : 25 Jul 2001 13:39
Sample : L0107411-03 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 14:06 2001 Quant Results File: 8021W.RES

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.14	1915131	31.147 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.82%
9) S BFB	20.24	4448389	30.462 UG/L
Spiked Amount 30.000		Recovery =	101.54%
13) S BCB	24.42	4184108	30.242 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	100.81%
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	16.90	24378	~~0.138 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

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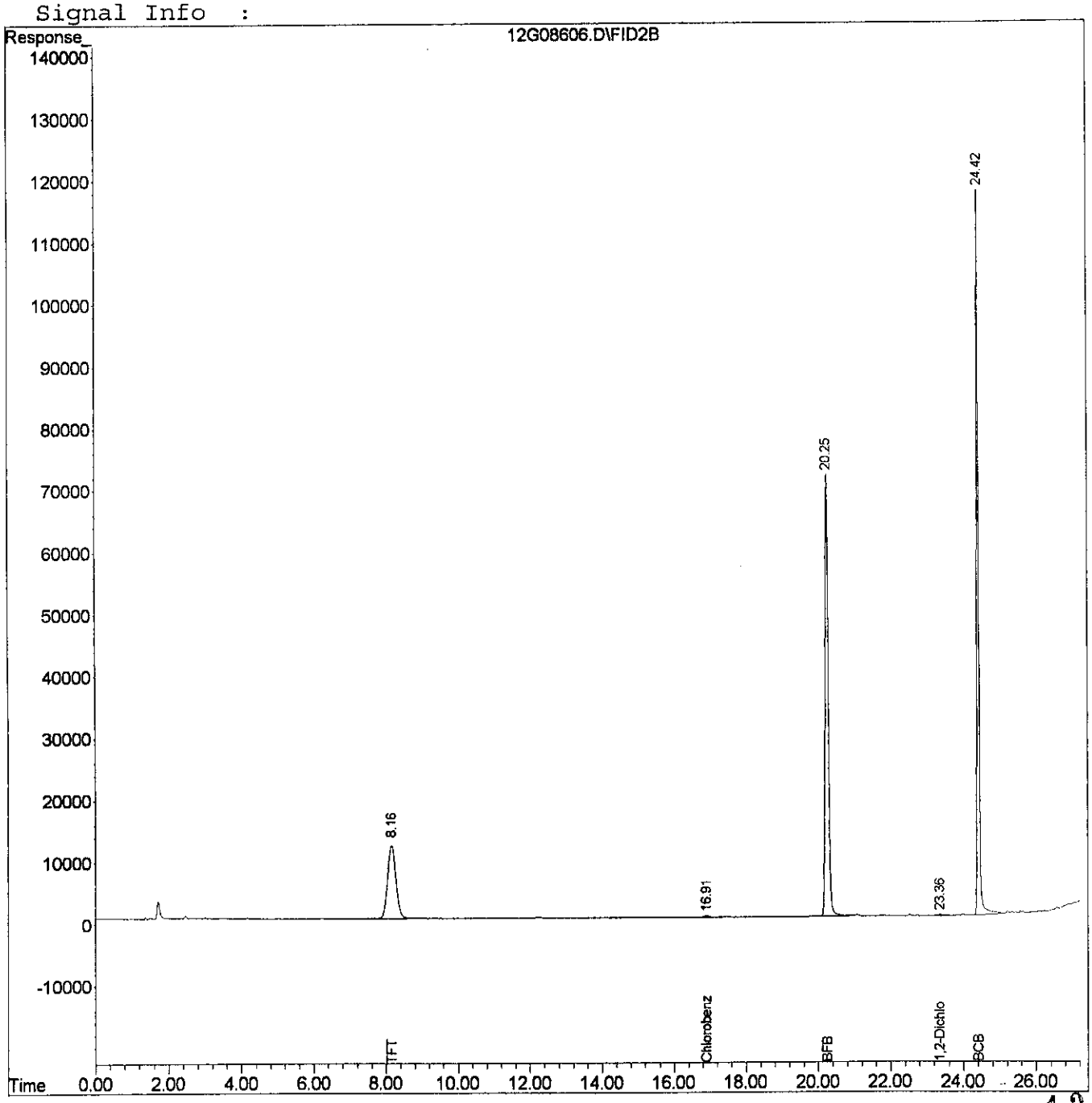
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\072501\12G08606.D
Acq On : 25 Jul 2001 14:11
Sample : L0107411-04 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 14:38 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



125

Data File : C:\HPCHEM\2\DATA\072501\12G08606.D Vial: 12
Acq On : 25 Jul 2001 14:11 Operator: CBN
Sample : L0107411-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 14:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

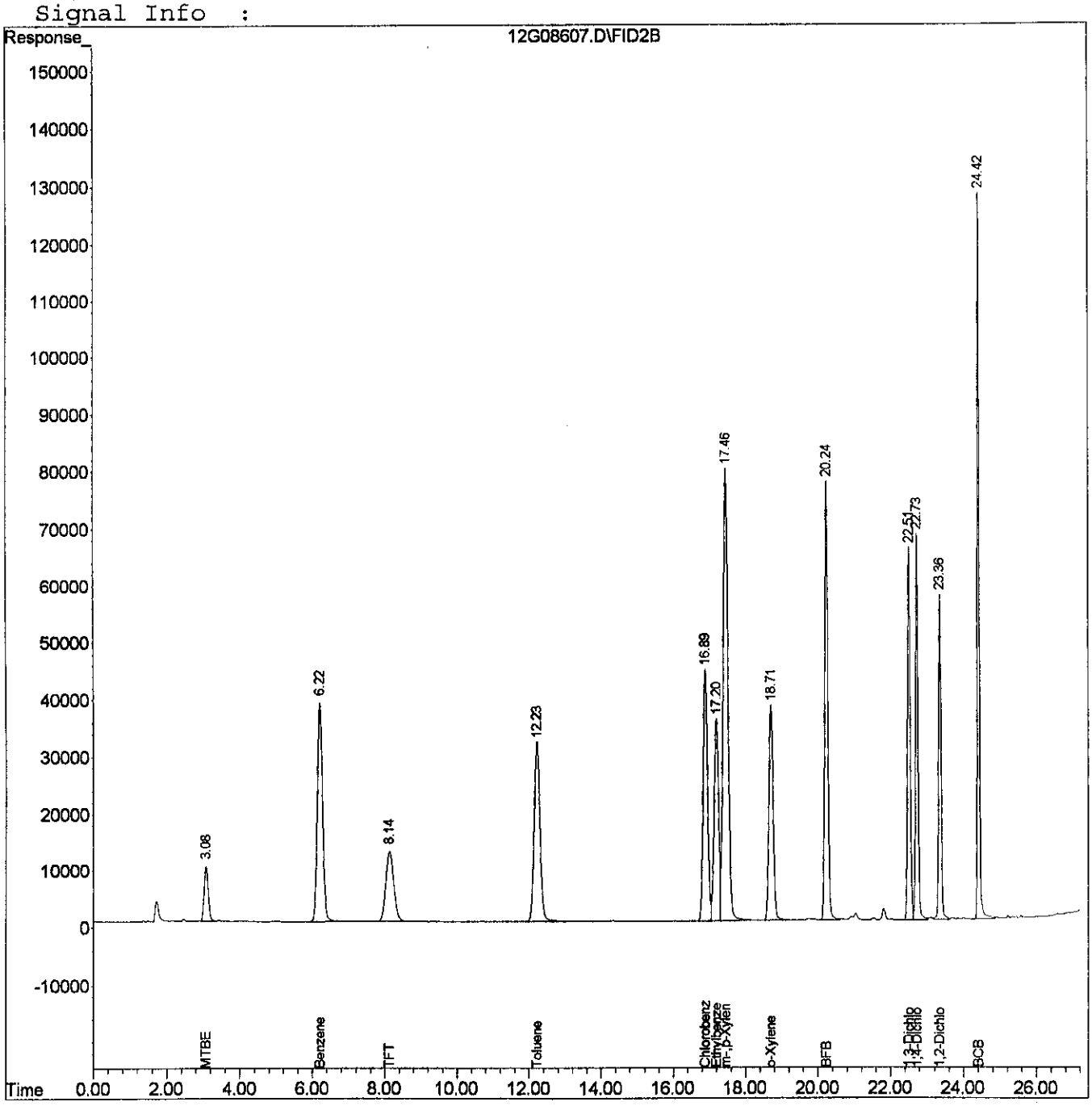
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	1875531	30.503 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	101.68%
9) S BFB	20.25	4310039	29.514 UG/L
Spiked Amount 30.000		Recovery =	98.38%
13) S BCB	24.42	4102155	29.650 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	98.83%
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	16.91	22531	~~0.127 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	23.37	25101	~~0.191 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08606.D 8021W.M Wed Jul 25 14:38:58 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08607.D Vial: 27
Acq On : 25 Jul 2001 14:44 Operator: CBN
Sample : L0107411-05 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 15:11 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08607.D
Acq On : 25 Jul 2001 14:44
Sample : L0107411-05 MS "A" 5ML pH<2
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 25 15:11 2001 Quant Results File: 8021W.RES

Vial: 27
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.14	1886257	30.678 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	102.26%
9) S BFB	20.24	4500669	30.820 UG/L
Spiked Amount 30.000		Recovery =	102.73%
13) S BCB	24.42	4352124	31.456 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	104.85%
Target Compounds			
1) TM MTBE	3.08	740592	20.289 UG/L
2) TM Benzene	6.22	3923083	20.657 UG/L
4) TM Toluene	12.23	3594503	20.396 UG/L
5) TM Chlorobenzene	16.89	3651931	~~20.619 UG/L~~
6) TM Ethylbenzene	17.20	3130180	20.938 UG/L
7) TM m-,p-Xylene	17.46	7373895	40.791 UG/L
8) TM o-Xylene	18.71	3107020	20.456 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3233252	~~20.943 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	3293365	~~20.751 UG/L~~
12) TM 1,2-Dichlorobenzene	23.36	2600306	~~19.824 UG/L~~

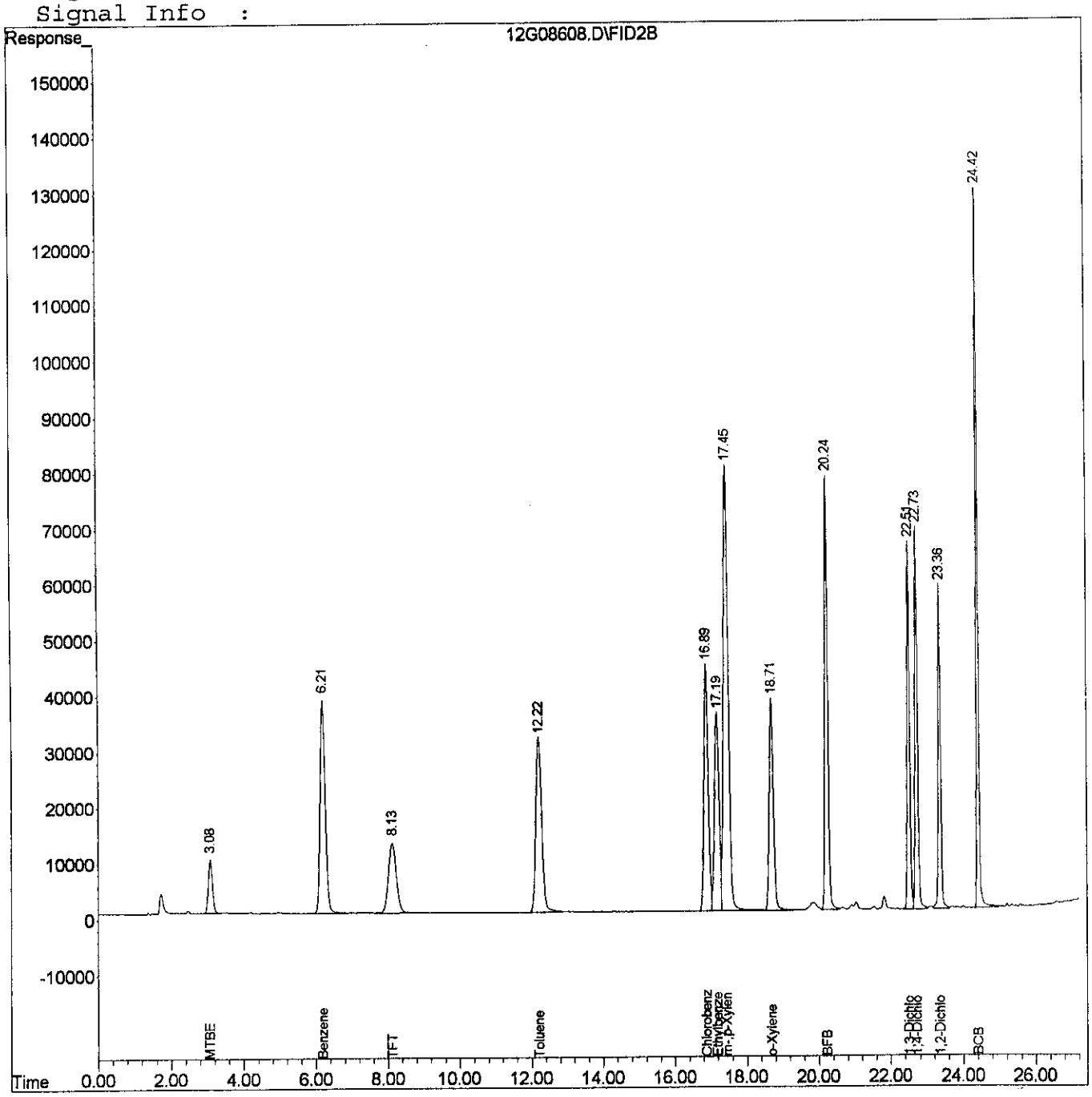
(f)=RT Delta > 1/2 Window (m)=manual int. 128
12G08607.D 8021W.M Wed Jul 25 15:11:26 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08608.D
Acq On : 25 Jul 2001 15:16
Sample : L0107411-06 MSD "A" 5ML pH<2
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 25 15:43 2001 Quant Results File: 8021W.RES

Vial: 28
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G08608.D 8021W.M Wed Jul 25 15:43:53 2001 Page 2

Data File : C:\HPCHEM\2\DATA\072501\12G08608.D
Acq On : 25 Jul 2001 15:16
Sample : L0107411-06 MSD "A" 5ML pH<2
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 25 15:43 2001 Quant Results File: 8021W.RES

Vial: 28
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

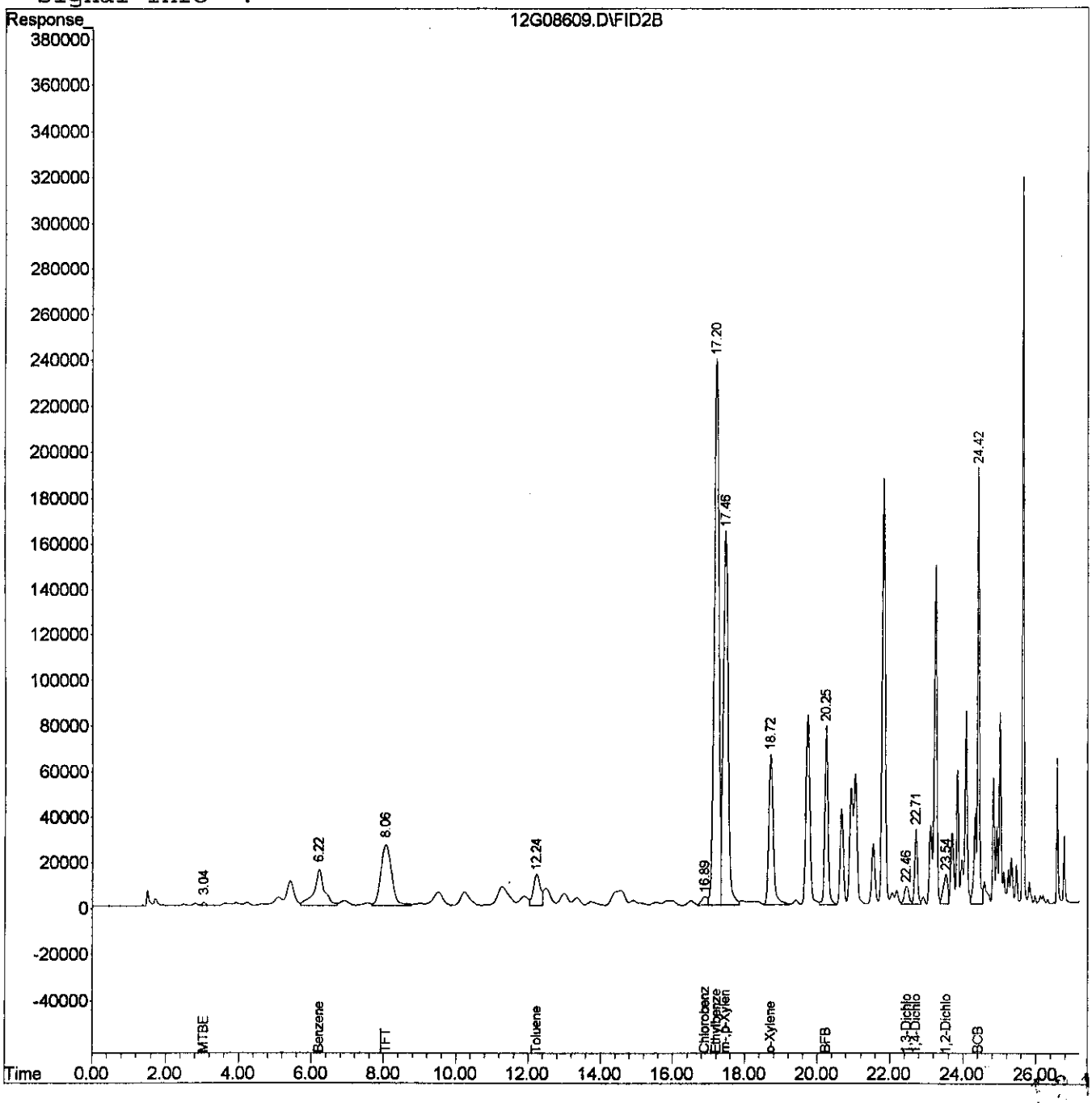
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.13	1922693	31.270 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	104.23%
9) S BFB	20.24	4570050	31.295 UG/L
Spiked Amount 30.000		Recovery =	104.32%
13) S BCB	24.42	4397385	31.784 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	105.95%
Target Compounds			
1) TM MTBE	3.08	745710	20.429 UG/L
2) TM Benzene	6.21	3933491	20.712 UG/L
4) TM Toluene	12.22	3611406	20.492 UG/L
5) TM Chlorobenzene	16.89	3646393	~~20.587 UG/L~~
6) TM Ethylbenzene	17.19	3142207	21.019 UG/L
7) TM m-,p-Xylene	17.45	7439143	41.152 UG/L
8) TM o-Xylene	18.71	3133043	20.628 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3240440	~~20.990 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	3310979	~~20.862 UG/L~~
12) TM 1,2-Dichlorobenzene	23.36	2653191	~~20.227 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\072501\12G08609.D Vial: 29
Acq On : 25 Jul 2001 15:49 Operator: CBN
Sample : L0107411-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 16:16 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08609.D Vial: 29
Acq On : 25 Jul 2001 15:49 Operator: CBN
Sample : L0107411-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 16:16 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.06	5598535	91.053 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery =	303.51%#
9) S BFB	20.25	4803494	32.893 UG/L
Spiked Amount 30.000		Recovery =	109.64%
13) S BCB	24.42	8351677	60.365 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	201.22%#
Target Compounds			
1) TM MTBE	3.04	112401	~~3.079 UG/L~~
2) TM Benzene	6.22✓	3121147	16.435 UG/L
4) TM Toluene	12.24✓	1799080	10.208 UG/L
5) TM Chlorobenzene	16.90	425417	~~2.402 UG/L~~
6) TM Ethylbenzene	17.20✓	21708889	145.213 UG/L
7) TM m-,p-Xylene	17.46✓	15460182	85.522 UG/L
8) TM o-Xylene	18.72✓	5829430	38.381 UG/L
10) TM 1,3-Dichlorobenzene	22.45	663253	~~4.296 UG/L~~
11) TM 1,4-Dichlorobenzene	22.71	1800513	1~~1.345 UG~~/L
12) TM 1,2-Dichlorobenzene	23.53	1041048	~~7.937 UG/L~~

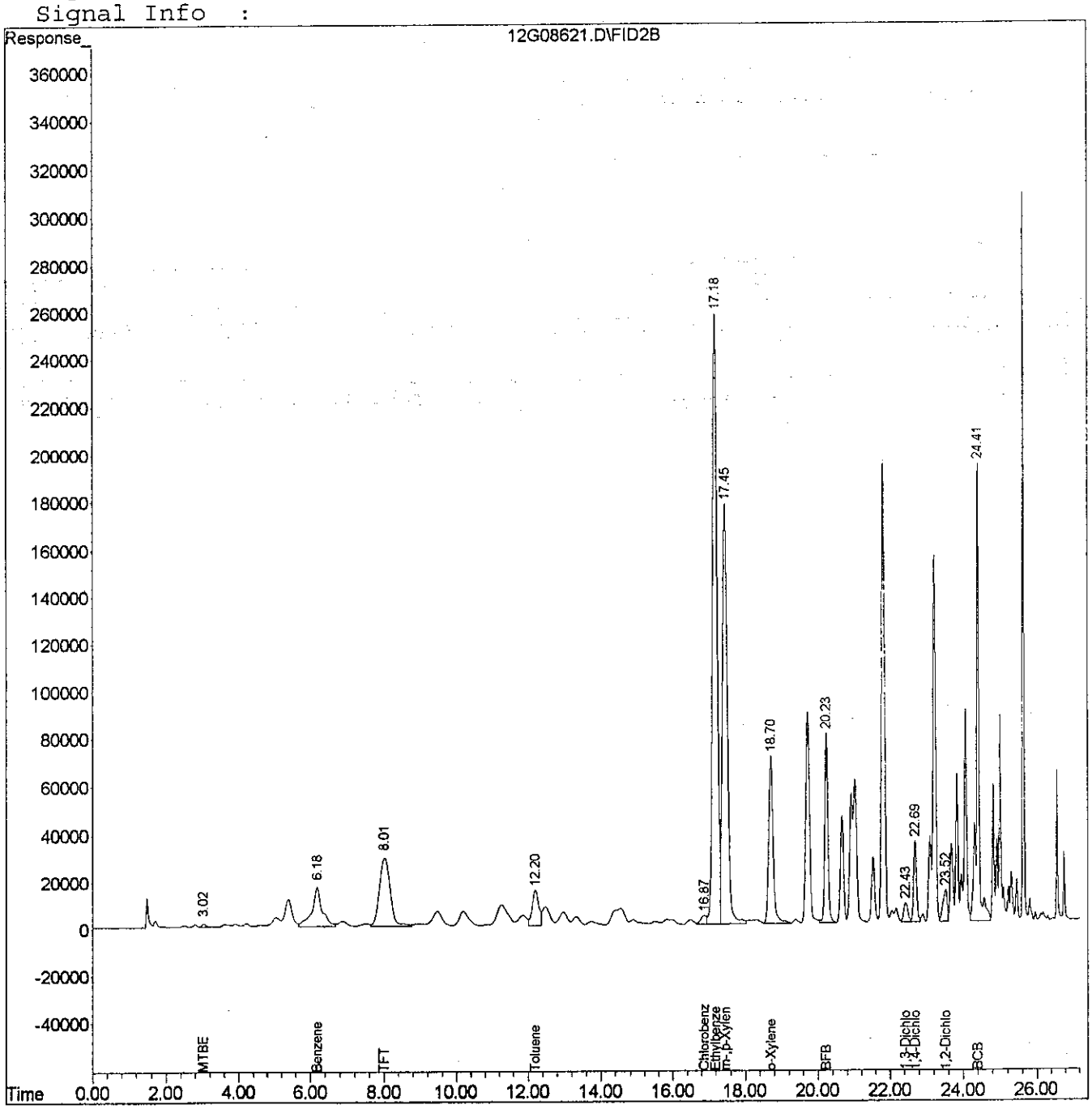
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08609.D 8021W.M Wed Jul 25 16:16:22 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08621.D
Acq On : 26 Jul 2001 9:09
Sample : L0107411-07 "B" 5ML pH<2
Misc : 1,1,RE S-81-35
IntFile : autoint1.e
Quant Time: Jul 26 9:37 2001 Quant Results File: 8021W.RES

Vial: 29
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072601\12G08621.D Vial: 29
Acq On : 26 Jul 2001 9:09 Operator: CBN
Sample : L0107411-07 "B" 5ML pH<2 Inst : HP12
Misc : 1,1,RE S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 9:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

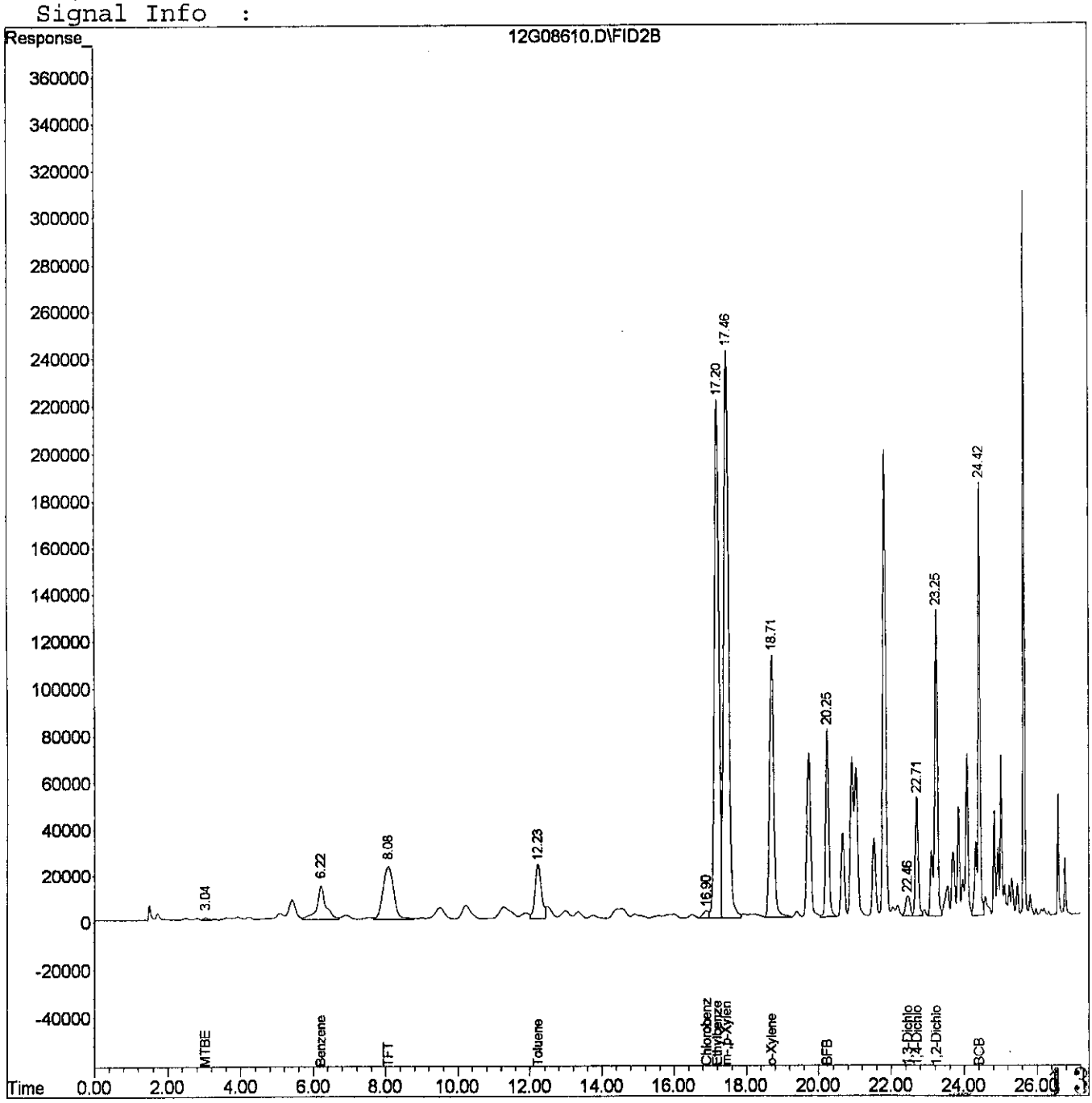
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.02 *	5972983	97.143 UG/L *
Spiked Amount 30.000	Range 70 - 130	Recovery	= 323.81%#
9) S BFB	20.23	4814203	32.967 UG/L
Spiked Amount 30.000		Recovery	= 109.89%
13) S BCB	24.41	9312565	67.310 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery	= 224.37%#
Target Compounds			
1) TM MTBE	3.02 ✓	121863	3.338 UG/L
2) TM Benzene	6.18 ✓	3312265	17.441 UG/L
4) TM Toluene	12.20 ✓	1918933	10.888 UG/L
5) TM Chlorobenzene	16.87	406081	~~2.293 UG/L~~
6) TM Ethylbenzene	17.18 ✓	23169710	154.984 UG/L
7) TM m-,p-Xylene	17.45 ✓	16758360	92.703 UG/L
8) TM o-Xylene	18.70 ✓	6158696	40.548 UG/L
10) TM 1,3-Dichlorobenzene	22.44	676386	~~4.381 UG/L~~
11) TM 1,4-Dichlorobenzene	22.70	1901260	~~11.980 UG/L~~
12) TM 1,2-Dichlorobenzene	23.52	1084158	~~8.265 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08621.D 8021W.M Thu Jul 26 09:37:21 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08610.D Vial: 30
Acq On : 25 Jul 2001 16:21 Operator: CBN
Sample : L0107411-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 16:48 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08610.D Vial: 30
Acq On : 25 Jul 2001 16:21 Operator: CBN
Sample : L0107411-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 16:48 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.08	4674604	76.026 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery =	253.42%#
9) S BFB	20.25	4885761	33.457 UG/L
Spiked Amount 30.000		Recovery =	111.52%
13) S BCB	24.42	7791111	56.313 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	187.71%#
Target Compounds			
1) TM MTBE	3.04	70172	~~1.922 UG/L~~
2) TM Benzene	6.22	2565046	13.507 UG/L
4) TM Toluene	12.23	2911769	16.522 UG/L
5) TM Chlorobenzene	16.90	324559	~~1.832 UG/L~~
6) TM Ethylbenzene	17.20	19704385	131.804 UG/L
7) TM m-,p-Xylene	17.46	22404226	123.935 UG/L
8) TM o-Xylene	18.71	9470791	62.355 UG/L
10) TM 1,3-Dichlorobenzene	22.46	761962	~~4.936 UG/L~~
11) TM 1,4-Dichlorobenzene	22.71	2824155	~~17.795 UG/L~~
12) TM 1,2-Dichlorobenzene	23.25	7950178	~~60.609 UG/L~~

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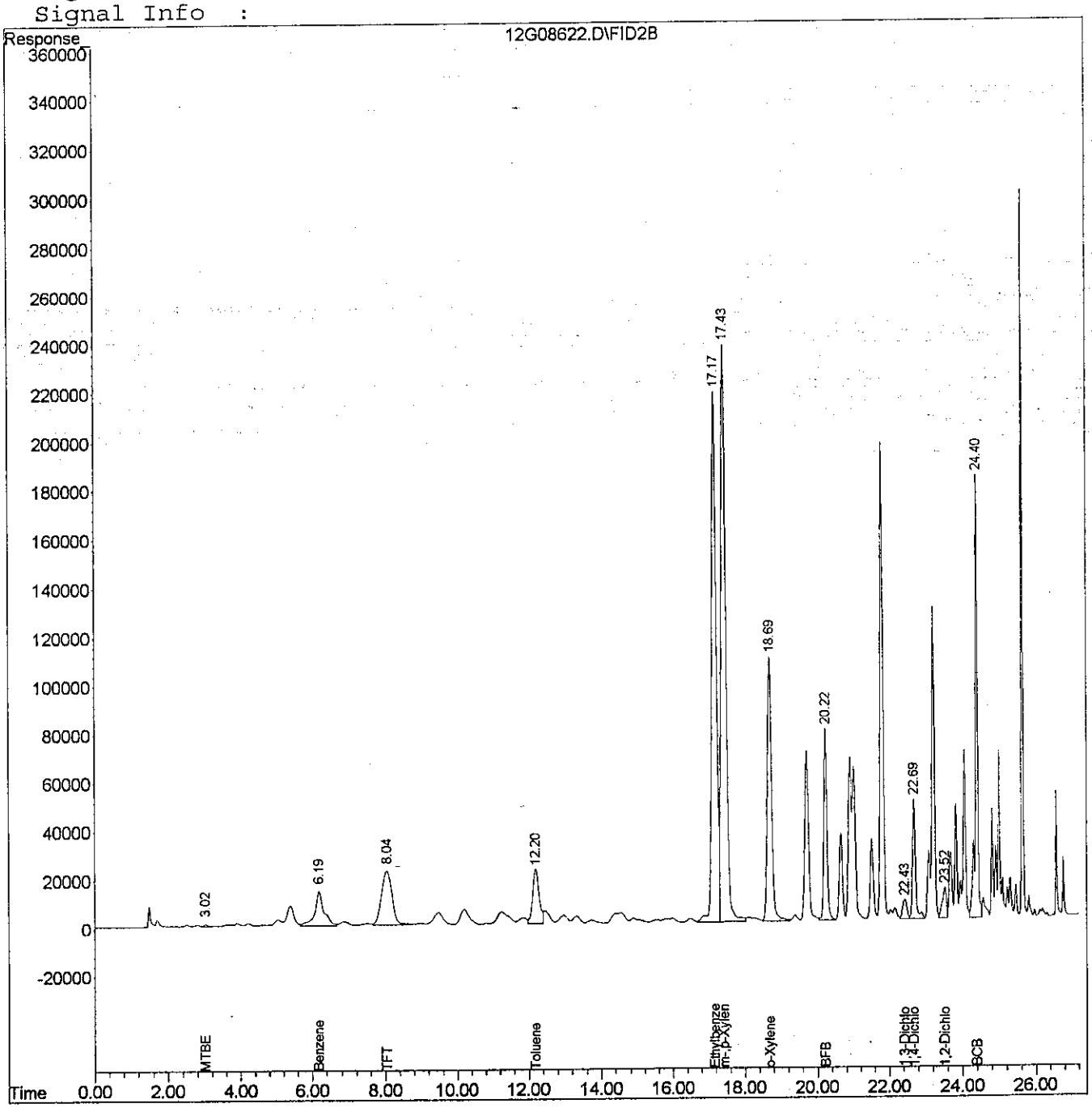
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08610.D 8021W.M Wed Jul 25 16:48:51 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08622.D
Acq On : 26 Jul 2001 9:42
Sample : L0107411-08 "B" 5ML pH<2
Misc : 1,1,RE S-81-35
IntFile : autoint1.e
Quant Time: Jul 26 10:09 2001 Quant Results File: 8021W.RES

Vial: 30
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072601\12G08622.D
Acq On : 26 Jul 2001 9:42
Sample : L0107411-08 "B" 5ML pH<2
Misc : 1,1,RE S-81-35
IntFile : autoint1.e
Quant Time: Jul 26 10:09 2001 Quant Results File: 8021W.RES

Vial: 30
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.04	4546742	73.947 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery	= 246.49%#
9) S BFB	20.22	4788976	32.794 UG/L
Spiked Amount 30.000		Recovery	= 109.31%
13) S BCB	24.40	7743626	55.970 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery	= 186.57%#
Target Compounds			
1) TM MTBE	3.02	69904	~~1.915 UG/L~~
2) TM Benzene	6.19	2471188	13.012 UG/L
4) TM Toluene	12.20	2799795	15.887 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	17.17	19647772	131.426 UG/L
7) TM m-,p-Xylene	17.43	21885653	121.067 UG/L
8) TM o-Xylene	18.69	9187381	60.489 UG/L
10) TM 1,3-Dichlorobenzene	22.43	678983	~~4.398 UG/L~~
11) TM 1,4-Dichlorobenzene	22.69	2823236	~~17.789 UG/L~~
12) TM 1,2-Dichlorobenzene	23.52	987498	~~7.528 UG/L~~

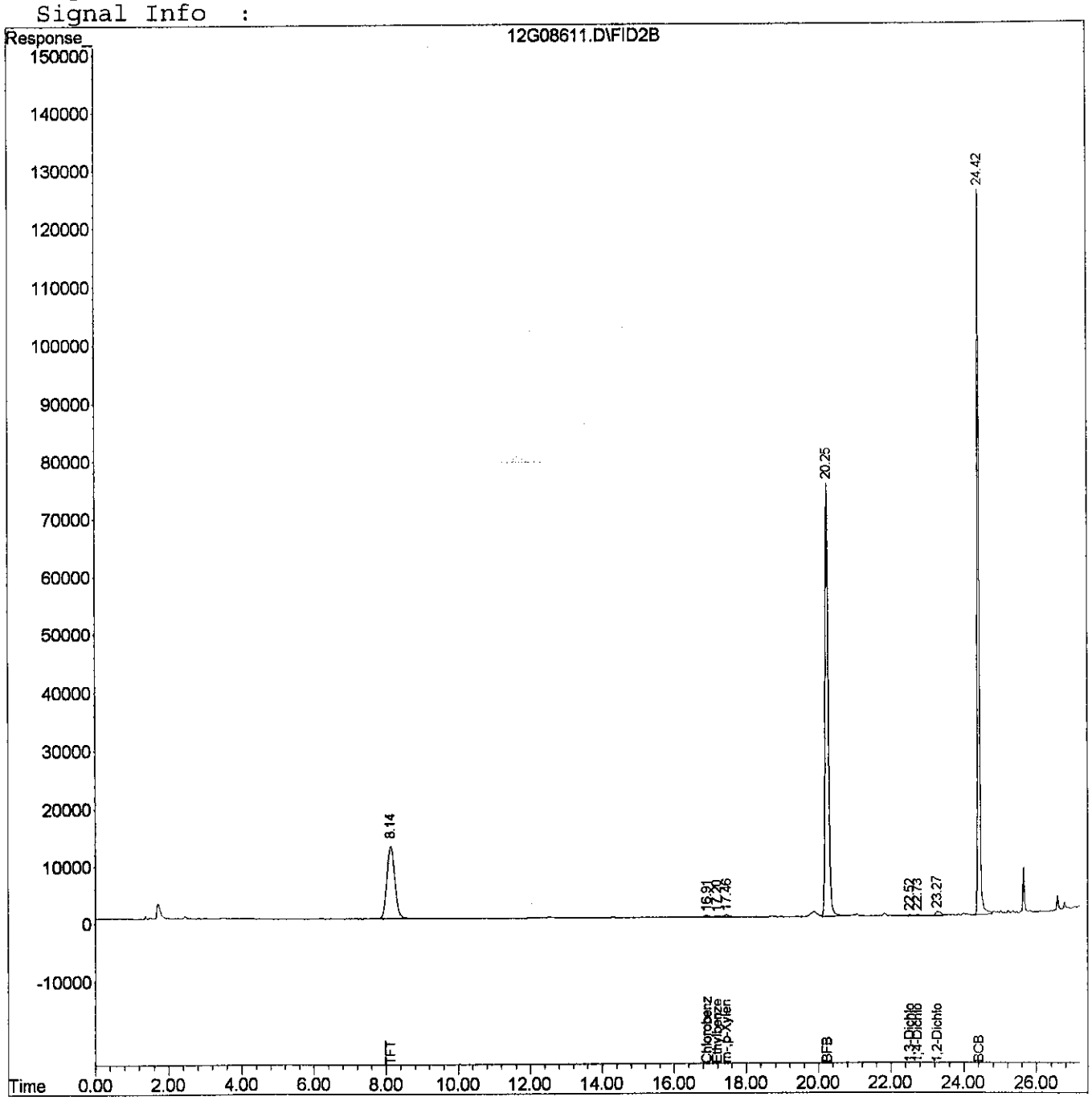
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08622.D 8021W.M Thu Jul 26 10:09:43 2001 Page 138

Data File : C:\HPCHEM\2\DATA\072501\12G08611.D
Acq On : 25 Jul 2001 16:53
Sample : L0107411-09 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 17:21 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G08611.D 8021W.M Wed Jul 25 17:21:16 2001 Page 2

Data File : C:\HPCHEM\2\DATA\072501\12G08611.D Vial: 31
Acq On : 25 Jul 2001 16:53 Operator: CBN
Sample : L0107411-09 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 17:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.14	1897136	30.854 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.85%			
9) S BFB	20.25	4480890	30.684 UG/L
Spiked Amount 30.000 Recovery = 102.28%			
13) S BCB	24.43	4293149	31.030 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 103.43%			
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	16.90	23629	0.~~133 UG~~/L
6) TM Ethylbenzene	17.20	17786	0.~~119 UG~~/L
7) TM m-,p-Xylene	17.46	35625	0.~~197 UG/L~~
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.52	12162	~~0.079 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	14806	0.~~093 UG/~~L
12) TM 1,2-Dichlorobenzene	23.28	80940	0.~~617 UG~~/L

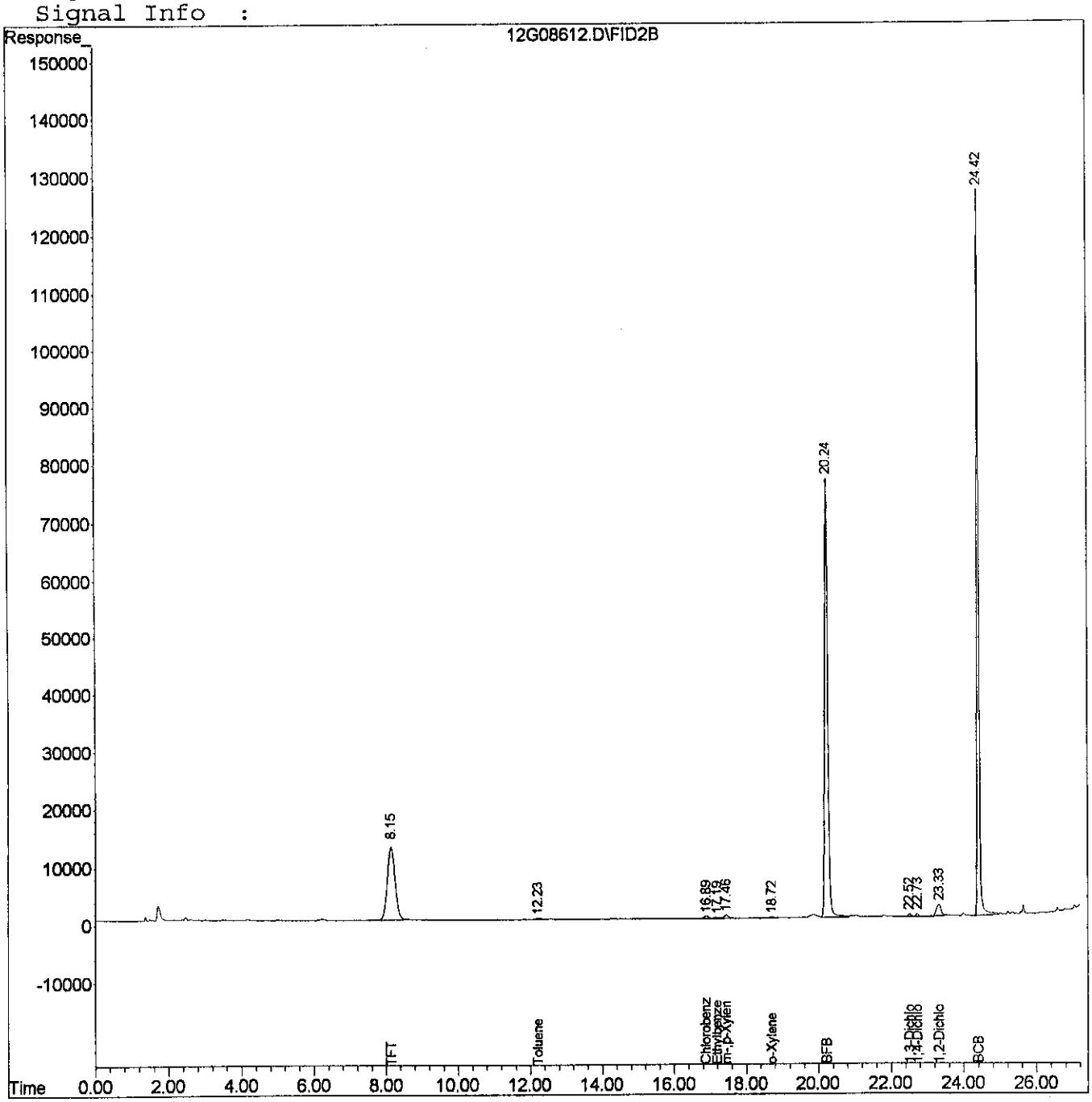
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\072501\12G08612.D
Acq On : 25 Jul 2001 17:26
Sample : L0107411-10 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 17:53 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08612.D
Acq On : 25 Jul 2001 17:26
Sample : L0107411-10 "A" 5ML pH<2
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 25 17:53 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.15	1914636	31.139 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery	= 103.80%
9) S BFB	20.24	4560004	31.226 UG/L
Spiked Amount 30.000		Recovery	= 104.09%
13) S BCB	24.42	4378072	31.644 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery	= 105.48%
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	12.22	24780	0 ~~.141 UG/L~~
5) TM Chlorobenzene	16.89	38555	0 ~~.218 UG/L~~
6) TM Ethylbenzene	17.20	18716	0 ~~.125 UG/L~~
7) TM m-,p-Xylene	17.46	54816	~~0.303 UG/L~~
8) TM o-Xylene	18.72	16102	0 ~~.106 UG/L~~
10) TM 1,3-Dichlorobenzene	22.51	26735	0 ~~.173 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	28214	~~0.178 UG/L~~
12) TM 1,2-Dichlorobenzene	23.33	190560	~~1.453 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08612.D 8021W.M Wed Jul 25 17:53:38 2001 Page 1

2.1.3.3 Standards Data

Response Factor Report HP12

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-21-01
Last Update : Fri Jul 20 12:40:36 2001

Calibration Files
1 =12G08536.D 10 =12G08537.D 20 =12G08538.D
50 =12G08539.D 100 =12G08540.D 200 =12G08541.D

		Compound	1	10	20	50	100	200	Avg		%RSD
1)	TM	MTBE	4.313	3.258	3.590	3.622	3.524	3.594	3.650	E4	9.62
2)	TM	Benzene	1.886	1.942	1.925	1.907	1.870	1.865	1.899	E5	1.62
3)	S	TFT	5.560	6.342	6.293	6.280	6.225	6.192	6.149	E4	4.77
4)	TM	Toluene	1.852	1.814	1.777	1.749	1.699	1.684	1.762	E5	3.69
5)	TM	Chlorobenzene	1.773	1.804	1.791	1.776	1.746	1.737	1.771	E5	1.45
6)	TM	Ethylbenzene	1.505	1.542	1.516	1.495	1.466	1.447	1.495	E5	2.29
7)	TM	m-,p-Xylene	1.869	1.867	1.827	1.799	1.760	1.725	1.808	E5	3.21
8)	TM	o-Xylene	1.467	1.544	1.560	1.536	1.511	1.495	1.519	E5	2.27
9)	S	BFB	1.458	1.407	1.478	1.467	1.469	1.483	1.460	E5	1.89
10)	TM	1,3-Dichlorobenzene	1.483	1.553	1.585	1.576	1.557	1.510	1.544	E5	2.56
11)	TM	1,4-Dichlorobenzene	1.562	1.601	1.627	1.603	1.572	1.556	1.587	E5	1.75
12)	TM	1,2-Dichlorobenzene	1.710	1.260	1.271	1.232	1.204	1.194	1.312	E5	15.04
13)	S	BCB	1.334	1.308	1.401	1.388	1.421	1.448	1.384	E5	3.84

Average %RSD = 4.15%

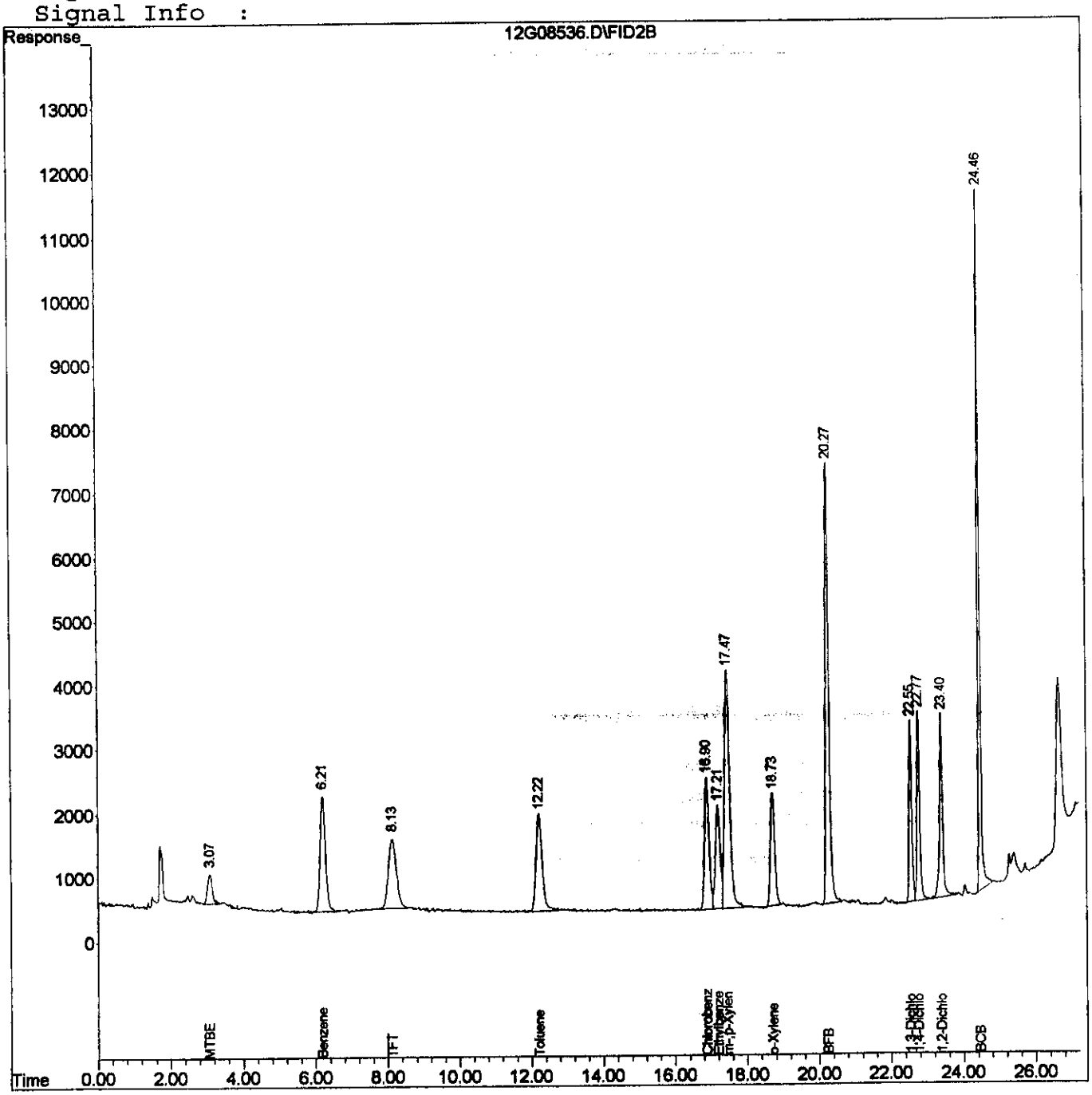
(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\072001\12G08536.D
Acq On : 20 Jul 2001 9:24
Sample : 8021 STD1 1PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 12:39 2001 **Quant Results File: 8021W.RES**

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Fri Jul 20 12:38:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072001\12G08536.D
Acq On : 20 Jul 2001 9:24
Sample : 8021 STD1 1PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 12:39 2001 **Quant Results File: 8021W.RES**

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Fri Jul 20 12:38:09 2001
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	8.13	166791	2.972 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	9.91%#
9) S BFB	20.27	437413	3.274 UG/L
Spiked Amount 30.000		Recovery =	10.91%
13) S BCB	24.46	400258	3.095 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	10.32%#
Target Compounds			
1) TM MTBE	3.07	43134	1.287 UG/L
2) TM Benzene	6.21	188575	1.097 UG/L
4) TM Toluene	12.22	185166	1.167 UG/L
5) TM Chlorobenzene	16.90	177300	1.104 UG/L
6) TM Ethylbenzene	17.21	150482	1.113 UG/L
7) TM m-,p-Xylene	17.47	373886	2.280 UG/L
8) TM o-Xylene	18.73	146676	1.051 UG/L
10) TM 1,3-Dichlorobenzene	22.55	148310	1.033 UG/L
11) TM 1,4-Dichlorobenzene	22.77	156239	1.051 UG/L
12) TM 1,2-Dichlorobenzene	23.40	170962	1.456 UG/L

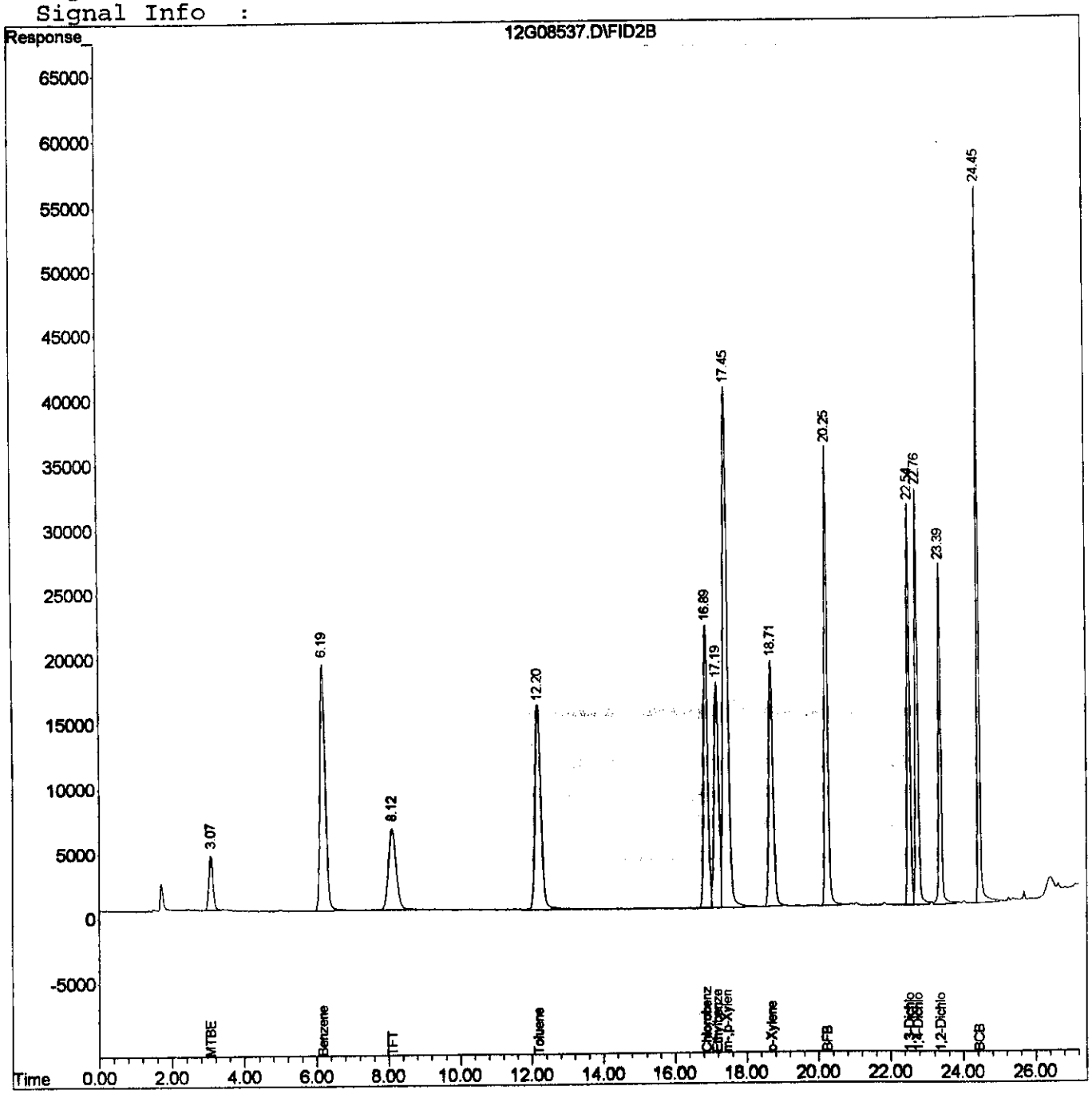
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\072001\12G08537.D
Acq On : 20 Jul 2001 9:56
Sample : 8021 STD2 10PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 10:24 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072001\12G08537.D
Acq On : 20 Jul 2001 9:56
Sample : 8021 STD2 10PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 10:24 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
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	8.12	951243	16.951 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	56.50%#
9) S BFB	20.25	2110486	15.796 UG/L
Spiked Amount 30.000		Recovery =	52.65%
13) S BCB	24.45	1961915	15.172 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	50.57%
Target Compounds			
1) TM MTBE	3.07	325825	9.720 UG/L
2) TM Benzene	6.20	1942172	11.294 UG/L
4) TM Toluene	12.20	1813904	11.435 UG/L
5) TM Chlorobenzene	16.89	1804277	11.233 UG/L
6) TM Ethylbenzene	17.19	1541637	11.399 UG/L
7) TM m-,p-Xylene	17.45	3733105	22.766 UG/L
8) TM o-Xylene	18.71	1543953	11.060 UG/L
10) TM 1,3-Dichlorobenzene	22.54	1552620	10.817 UG/L
11) TM 1,4-Dichlorobenzene	22.76	1601218	10.772 UG/L
12) TM 1,2-Dichlorobenzene	23.39	1259788	10.016 UG/L

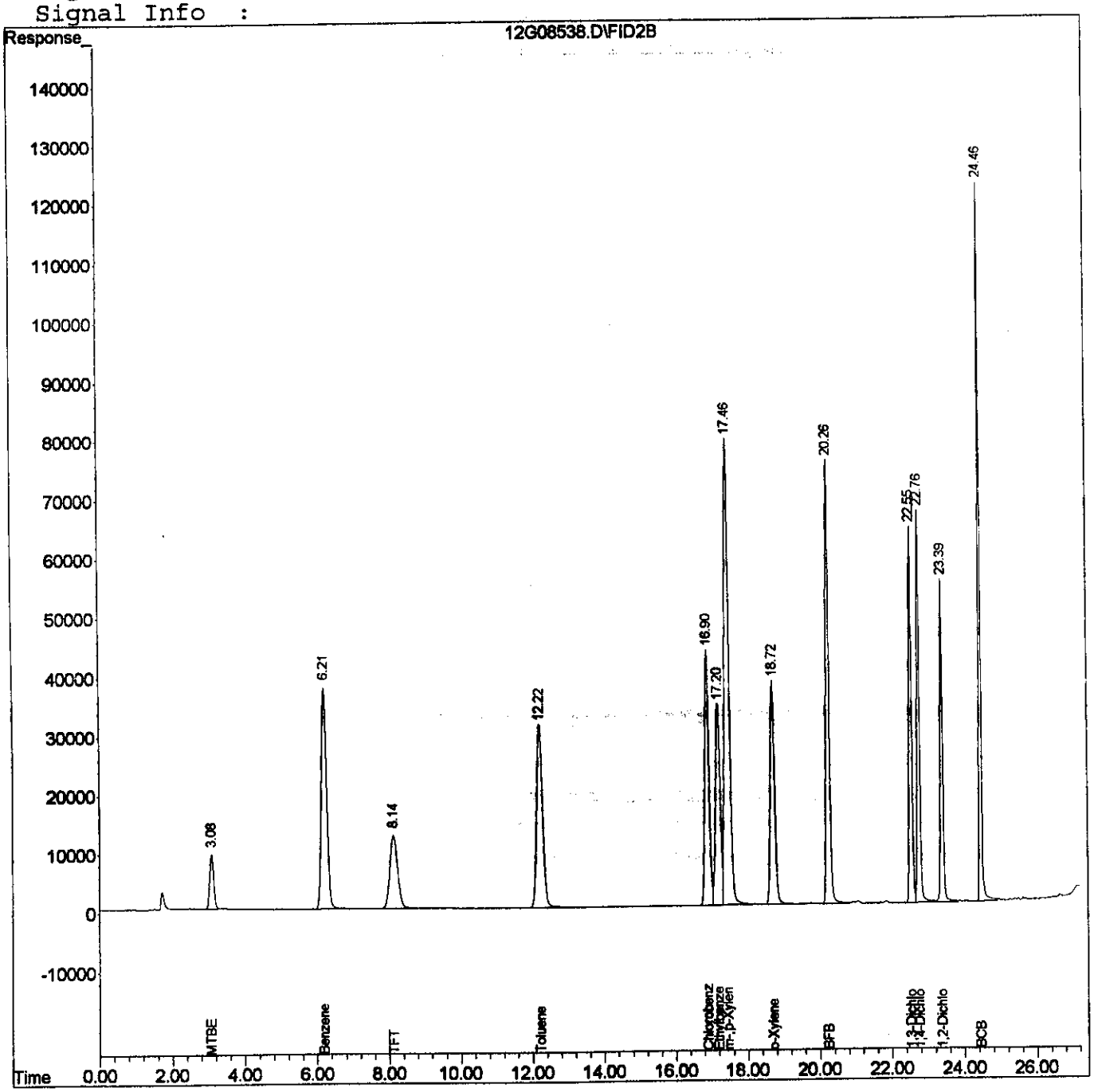
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08537.D 8021W.M Fri Jul 20 10:24:17 2001

Data File : C:\HPCHEM\2\DATA\072001\12G08538.D
Acq On : 20 Jul 2001 10:29
Sample : 8021 STD3 20PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 10:56 2001 **Quant Results File: 8021W.RES**

Vial: 29
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072001\12G08538.D
Acq On : 20 Jul 2001 10:29
Sample : 8021 STD3 20PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 10:56 2001 Quant Results File: 8021W.RES

Vial: 29
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
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	8.14	1887992	33.643 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 112.14%	
9) S BFB	20.26	4434559	33.190 UG/L
Spiked Amount 30.000		Recovery = 110.63%	
13) S BCB	24.46	4204247	32.513 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 108.38%	
Target Compounds			
1) TM MTBE	3.08	717939	21.417 UG/L
2) TM Benzene	6.22	3849221	22.384 UG/L
4) TM Toluene	12.22	3553408	22.402 UG/L
5) TM Chlorobenzene	16.90	3581868	22.301 UG/L
6) TM Ethylbenzene	17.20	3031096	22.412 UG/L
7) TM m-,p-Xylene	17.46	7307204	44.562 UG/L
8) TM o-Xylene	18.72	3119961	22.350 UG/L
10) TM 1,3-Dichlorobenzene	22.55	3169781	22.083 UG/L
11) TM 1,4-Dichlorobenzene	22.76	3254770	21.896 UG/L
12) TM 1,2-Dichlorobenzene	23.40	2541249	21.966 UG/L

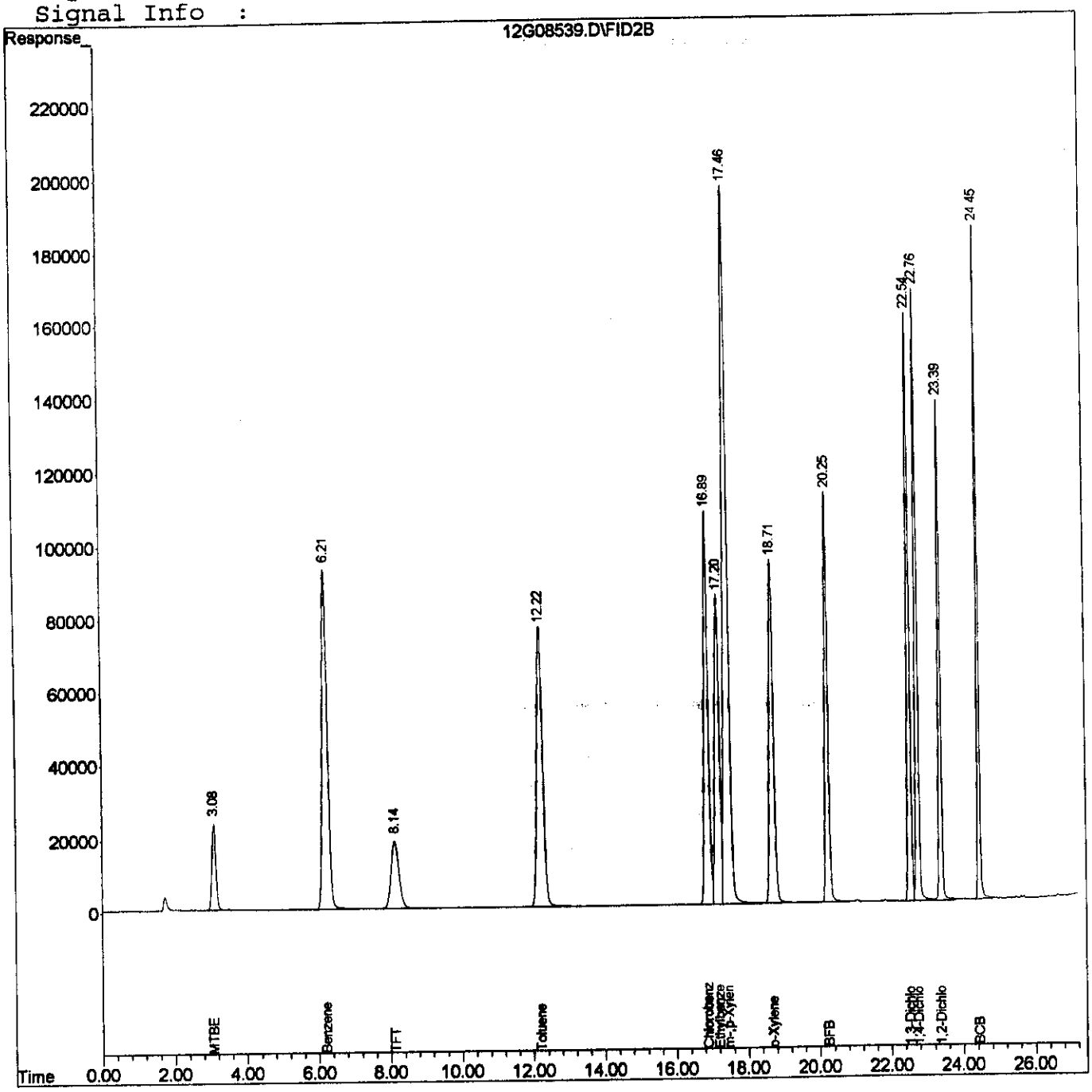
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08538.D 8021W.M Fri Jul 20 10:56:32 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072001\12G08539.D
Acq On : 20 Jul 2001 11:01
Sample : 8021 STD4 50PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 11:28 2001 Quant Results File: 8021W.RES

Vial: 30
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G08539.D 8021W.M Fri Jul 20 11:28:47 2001 Page 521

Data File : C:\HPCHEM\2\DATA\072001\12G08539.D
Acq On : 20 Jul 2001 11:01
Sample : 8021 STD4 50PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 11:28 2001 Quant Results File: 8021W.RES

Vial: 30
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
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	8.14	2825868	50.355 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	167.85%#
9) S BFB	20.25	6600716	49.402 UG/L
Spiked Amount 30.000		Recovery =	164.67%
13) S BCB	24.45	6247670	48.316 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	161.05%#
Target Compounds			
1) TM MTBE	3.09	1810767	54.017 UG/L
2) TM Benzene	6.22	9535120	55.450 UG/L
4) TM Toluene	12.22	8743912	55.125 UG/L
5) TM Chlorobenzene	16.90	8877919	55.274 UG/L
6) TM Ethylbenzene	17.20	7476124	55.279 UG/L
7) TM m-,p-Xylene	17.46	17987348	109.693 UG/L
8) TM o-Xylene	18.72	7681624	55.029 UG/L
10) TM 1,3-Dichlorobenzene	22.54	7878254	54.885 UG/L
11) TM 1,4-Dichlorobenzene	22.76	8014909	53.918 UG/L
12) TM 1,2-Dichlorobenzene	23.39	6161808	55.728 UG/L

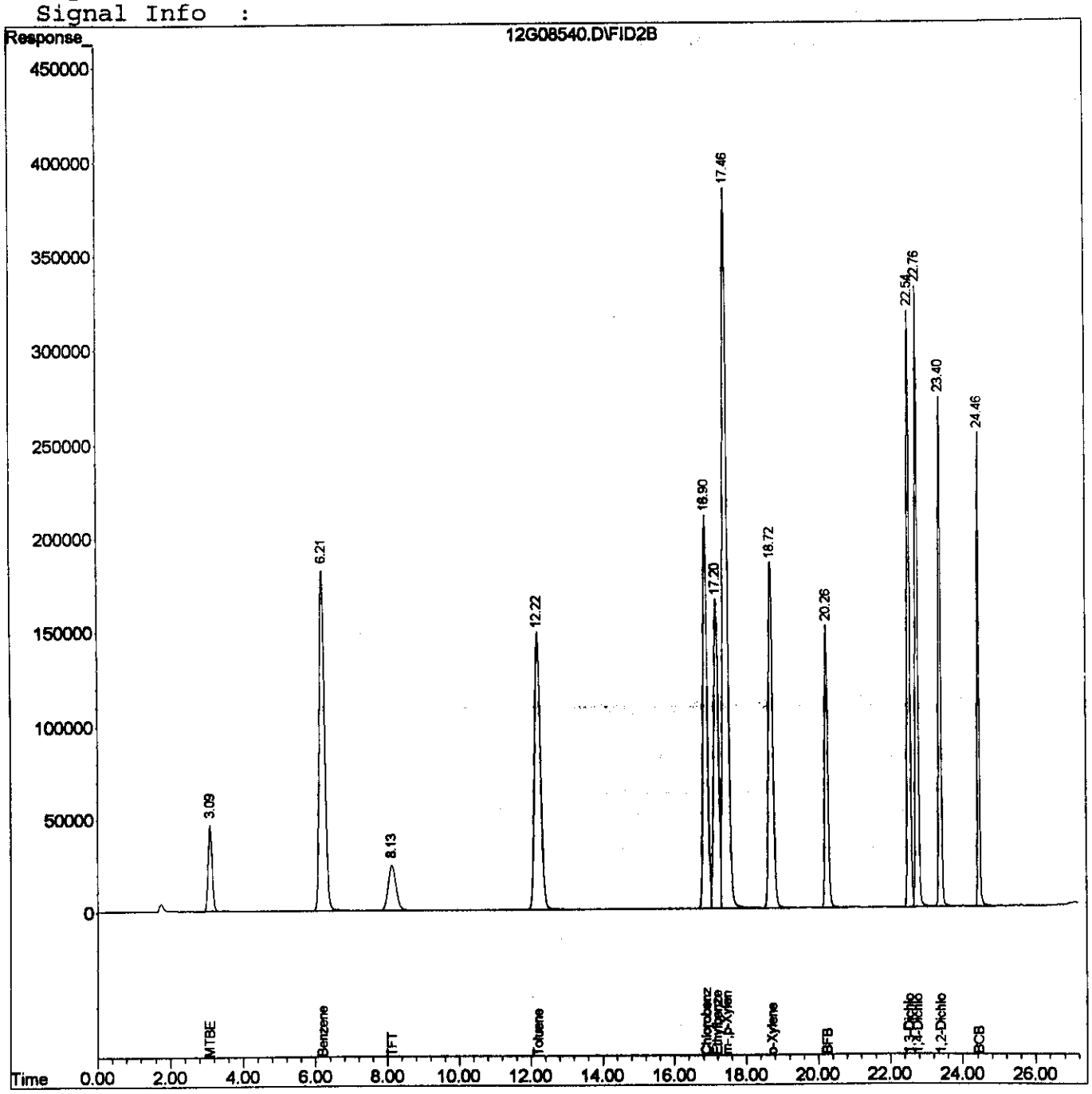
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08539.D 8021W.M Fri Jul 20 11:28:47 2001 Page 152

Data File : C:\HPCHEM\2\DATA\072001\12G08540.D
Acq On : 20 Jul 2001 11:33
Sample : 8021 STD5 100PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 12:01 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072001\12G08540.D
Acq On : 20 Jul 2001 11:33
Sample : 8021 STD5 100PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 12:01 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
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	8.14	3735117	66.557 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	221.86%#
9) S BFB	20.26	8811241	65.947 UG/L
Spiked Amount 30.000		Recovery =	219.82%
13) S BCB	24.46	8526119	65.936 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	219.79%#
Target Compounds			
1) TM MTBE	3.09	3524325	105.135 UG/L
2) TM Benzene	6.21	18701214	108.753 UG/L
4) TM Toluene	12.22	16993915	107.135 UG/L
5) TM Chlorobenzene	16.90	17459645	108.703 UG/L
6) TM Ethylbenzene	17.20	14656141	108.369 UG/L
7) TM m-,p-Xylene	17.47	35204447	214.688 UG/L
8) TM o-Xylene	18.72	15108292	108.231 UG/L
10) TM 1,3-Dichlorobenzene	22.55	15569201	108.465 UG/L
11) TM 1,4-Dichlorobenzene	22.76	15723112	105.773 UG/L
12) TM 1,2-Dichlorobenzene	23.40	12041181	110.555 UG/L

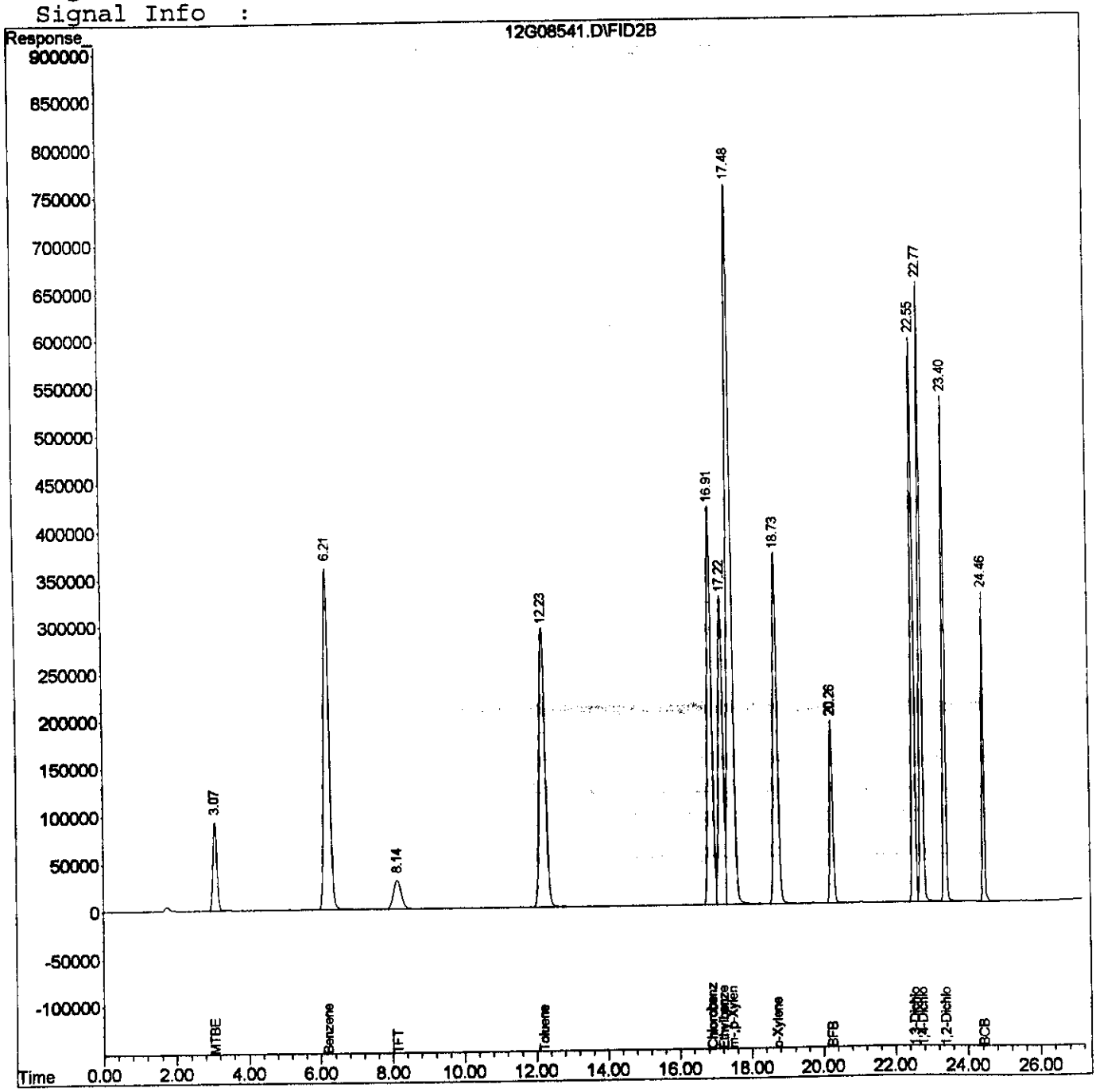
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08540.D 8021W.M Fri Jul 20 12:01:10 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072001\12G08541.D
Acq On : 20 Jul 2001 12:06
Sample : 8021 STD6 200PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 12:33 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G08541.D 8021W.M Fri Jul 20 12:33:36 2001

Data File : C:\HPCHEM\2\DATA\072001\12G08541.D
Acq On : 20 Jul 2001 12:06
Sample : 8021 STD6 200PPB 5ML
Misc : 1,1 S-81-(38,35)
IntFile : autoint1.e
Quant Time: Jul 20 12:33 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 06/19/01
Last Update : Tue Jun 19 13:10:58 2001
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	8.14	4644345	82.759 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	275.86%#
9) S BFB	20.27	11125140	83.265 UG/L
Spiked Amount 30.000		Recovery =	277.55%
13) S BCB	24.46	10862118	84.002 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	280.01%#
Target Compounds			
1) TM MTBE	3.08	7188733	214.448 UG/L
2) TM Benzene	6.21	37299830	216.910 UG/L
4) TM Toluene	12.23	33673111	212.287 UG/L
5) TM Chlorobenzene	16.91	34745510	216.324 UG/L
6) TM Ethylbenzene	17.22	28939623	213.983 UG/L
7) TM m-,p-Xylene	17.48	68987366	420.708 UG/L
8) TM o-Xylene	18.73	29905140	214.231 UG/L
10) TM 1,3-Dichlorobenzene	22.55	30193902	210.349 UG/L
11) TM 1,4-Dichlorobenzene	22.77	31123187	209.372 UG/L
12) TM 1,2-Dichlorobenzene	23.40	23875313	220.911 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08541.D 8021W.M Fri Jul 20 12:33:36 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072001\12G08542.D
Acq On : 20 Jul 2001 12:54
Sample : ALT SOURCE 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-21-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	39.344	E3	-7.8	110	0.00
2	TM	Benzene	189.911	196.564	E3	-3.5	102	-0.02
3	S	TFT	61.487	62.621	E3	-1.8	100	-0.02
4	TM	Toluene	176.235	180.934	E3	-2.7	102	0.00
5	TM	Chlorobenzene	177.117	186.833	E3	-5.5	104	0.00
6	TM	Ethylbenzene	149.497	160.531	E3	-7.4	106	0.00
7	TM	m-,p-Xylene	180.774	189.646	E3	-4.9	104	0.00
8	TM	o-Xylene	151.885	158.626	E3	-4.4	102	0.01
9	S	BFB	146.032	147.048	E3	-0.7	99	0.01
10	TM	1,3-Dichlorobenzene	154.381	166.558	E3	-7.9	105	0.01
11	TM	1,4-Dichlorobenzene	158.707	170.946	E3	-7.7	105	0.00
12	TM	1,2-Dichlorobenzene	131.171	135.142	E3	-3.0	106	0.00
13	S	BCB	138.354	141.759	E3	-2.5	101	0.00

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

Data File : C:\HPCHEM\2\DATA\072001\12G08542.D
Acq On : 20 Jul 2001 12:54
Sample : ALT SOURCE 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-21-01
Last Update : Fri Jul 20 12:40:36 2001
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	21.557	-7.8	110	0.00
2	TM	Benzene	20.000	20.701	-3.5	102	-0.02
3	S	TFT	30.000	30.554	-1.8	100	-0.02
4	TM	Toluene	20.000	20.533	-2.7	102	0.00
5	TM	Chlorobenzene	20.000	21.097	-5.5	104	0.00
6	TM	Ethylbenzene	20.000	21.476	-7.4	106	0.00
7	TM	m-,p-Xylene	40.000	41.963	-4.9	104	0.00
8	TM	o-Xylene	20.000	20.888	-4.4	102	0.01
9	S	BFB	30.000	30.209	-0.7	99	0.01
10	TM	1,3-Dichlorobenzene	20.000	21.578	-7.9	105	0.01
11	TM	1,4-Dichlorobenzene	20.000	21.542	-7.7	105	0.00
12	TM	1,2-Dichlorobenzene	20.000	20.605	-3.0	106	0.00
13	S	BCB	30.000	30.738	-2.5	101	0.00

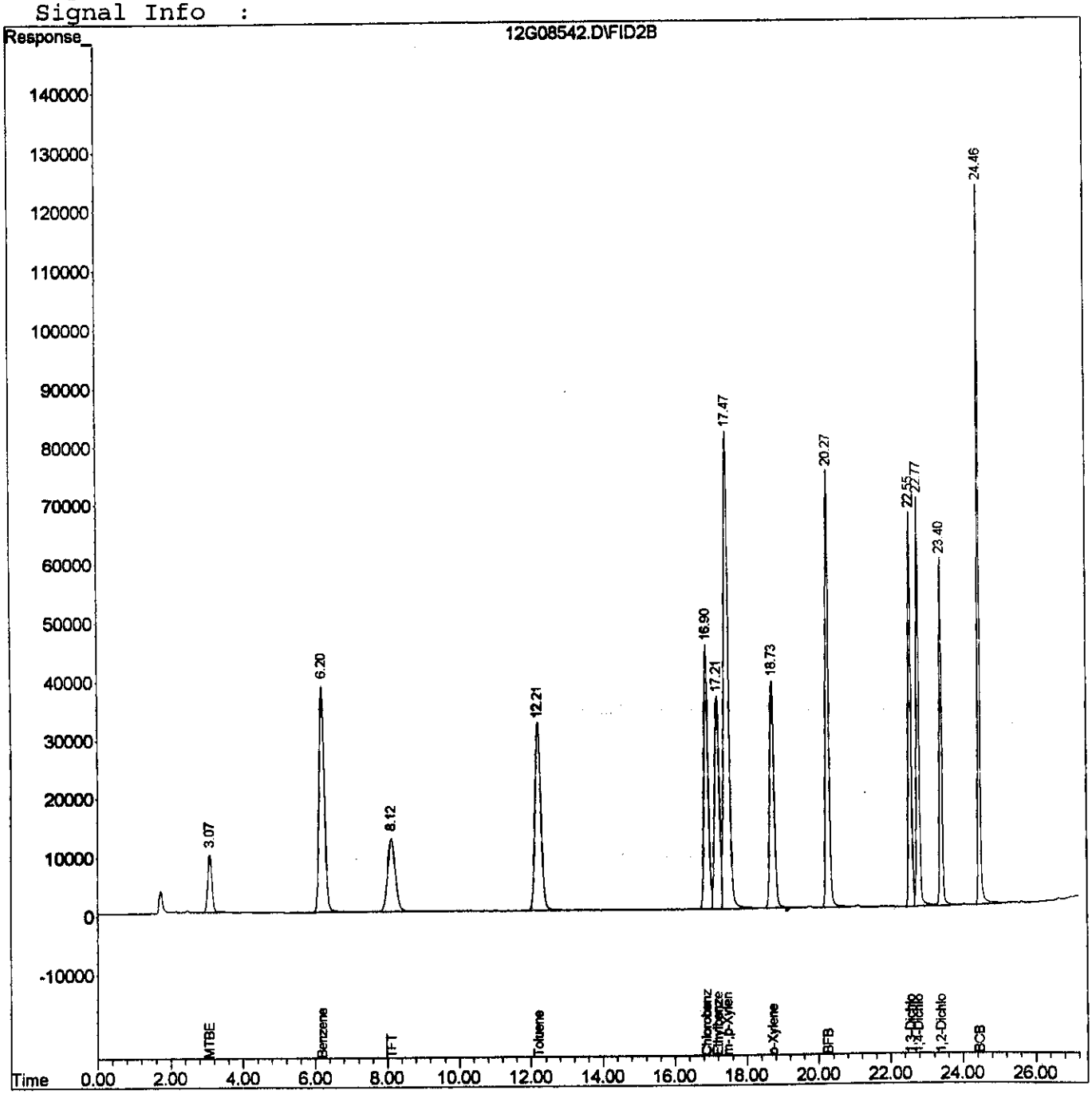
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\072001\12G08542.D
Acq On : 20 Jul 2001 12:54
Sample : ALT SOURCE 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 20 13:21 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-21-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantification Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072001\12G08542.D
Acq On : 20 Jul 2001 12:54
Sample : ALT SOURCE 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 20 13:21 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-21-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.12	1878640	30.554 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 101.85%	
9) S BFB	20.27	4411453	30.209 UG/L
Spiked Amount 30.000		Recovery = 100.70%	
13) S BCB	24.46	4252760	30.738 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 102.46%	
Target Compounds			
1) TM MTBE	3.08	786881	21.557 UG/L
2) TM Benzene	6.20	3931286	20.701 UG/L
4) TM Toluene	12.21	3618678	20.533 UG/L
5) TM Chlorobenzene	16.90	3736656	21.097 UG/L
6) TM Ethylbenzene	17.21	3210626	21.476 UG/L
7) TM m-,p-Xylene	17.47	7585828	41.963 UG/L
8) TM o-Xylene	18.73	3172515	20.888 UG/L
10) TM 1,3-Dichlorobenzene	22.56	3331167	21.578 UG/L
11) TM 1,4-Dichlorobenzene	22.77	3418928	21.542 UG/L
12) TM 1,2-Dichlorobenzene	23.40	2702831	20.605 UG/L

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

Data File : C:\HPCHEM\2\DATA\072501\12G08596.D
Acq On : 25 Jul 2001 7:27
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	34.355 E3	5.9	96	0.00
2	TM	Benzene	189.911	193.824 E3	-2.1	101	-0.04
3	S	TFT	61.487	65.155 E3	-6.0	104	-0.05
4	TM	Toluene	176.235	180.346 E3	-2.3	102	-0.04
5	TM	Chlorobenzene	177.117	181.552 E3	-2.5	101	-0.04
6	TM	Ethylbenzene	149.497	156.975 E3	-5.0	104	-0.04
7	TM	m-,p-Xylene	180.774	186.053 E3	-2.9	102	-0.04
8	TM	o-Xylene	151.885	156.411 E3	-3.0	100	-0.04
9	S	BFB	146.032	149.517 E3	-2.4	101	-0.04
10	TM	1,3-Dichlorobenzene	154.381	160.495 E3	-4.0	101	-0.04
11	TM	1,4-Dichlorobenzene	158.707	162.600 E3	-2.5	100	-0.04
12	TM	1,2-Dichlorobenzene	131.171	127.191 E3	3.0	100	-0.04
13	S	BCB	138.354	143.326 E3	-3.6	102	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08596.D 8021W.M Wed Jul 25 12:37:41 2001

Data File : C:\HPCHEM\2\DATA\072501\12G08596.D
Acq On : 25 Jul 2001 7:27
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	18.823	5.9	96	0.00
2	TM	Benzene	20.000	20.412	-2.1	101	-0.04
3	S	TFT	30.000	31.790	-6.0	104	-0.05
4	TM	Toluene	20.000	20.467	-2.3	102	-0.04
5	TM	Chlorobenzene	20.000	20.501	-2.5	101	-0.04
6	TM	Ethylbenzene	20.000	21.000	-5.0	104	-0.04
7	TM	m-,p-Xylene	40.000	41.168	-2.9	102	-0.04
8	TM	o-Xylene	20.000	20.596	-3.0	100	-0.04
9	S	BFB	30.000	30.716	-2.4	101	-0.04
10	TM	1,3-Dichlorobenzene	20.000	20.792	-4.0	101	-0.04
11	TM	1,4-Dichlorobenzene	20.000	20.491	-2.5	100	-0.04
12	TM	1,2-Dichlorobenzene	20.000	19.393	3.0	100	-0.04
13	S	BCB	30.000	31.078	-3.6	102	-0.03

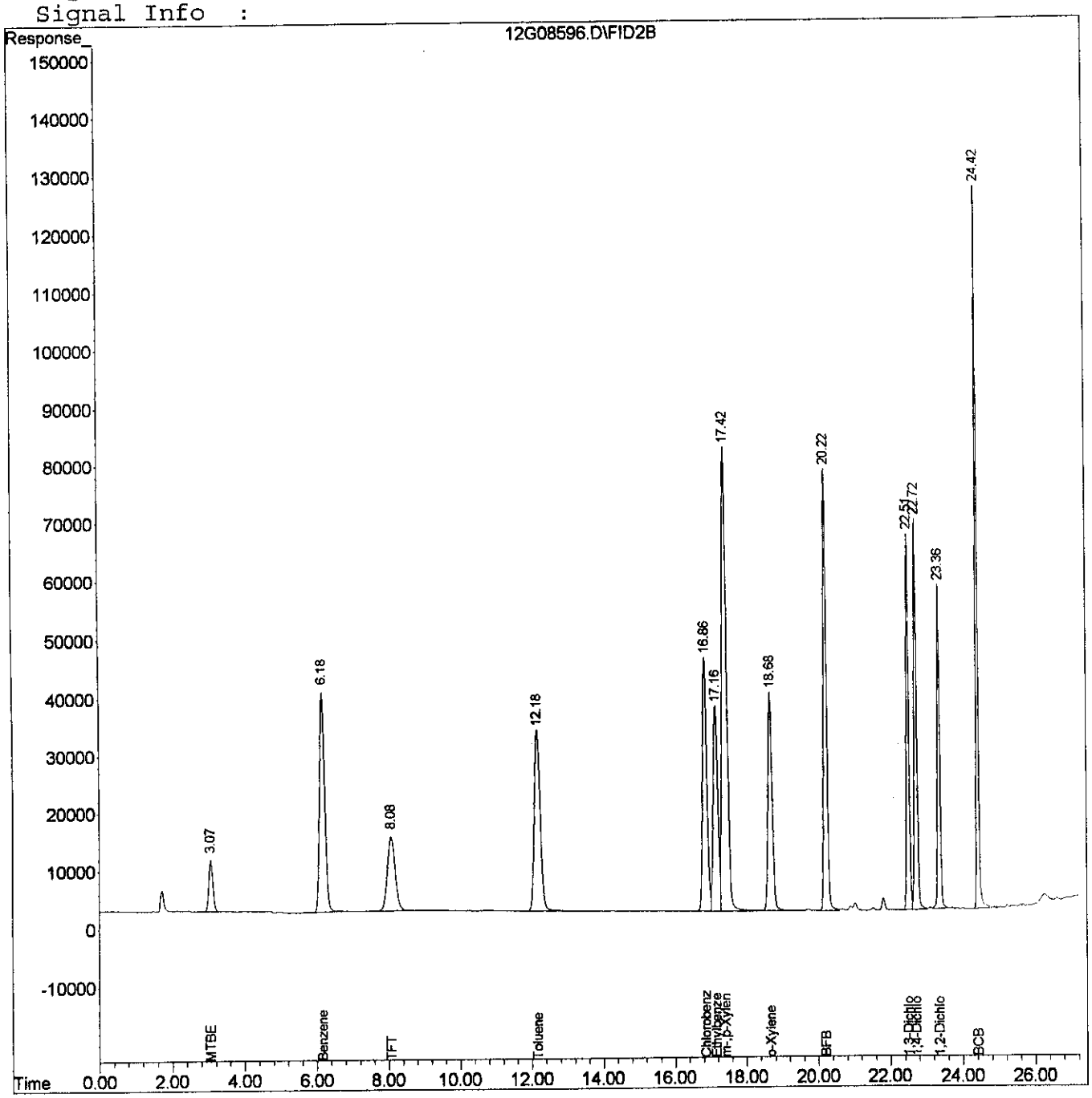
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08596.D 8021W.M Wed Jul 25 12:37:39 2001

Data File : C:\HPCHEM\2\DATA\072501\12G08596.D
Acq On : 25 Jul 2001 7:27
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 25 7:54 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08596.D
Acq On : 25 Jul 2001 7:27
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 25 7:54 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.09	1954635	31.790 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 105.97%	
9) S BFB	20.22	4485500	30.716 UG/L
Spiked Amount 30.000		Recovery = 102.39%	
13) S BCB	24.43	4299783	31.078 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 103.59%	
Target Compounds			
1) TM MTBE	3.07	687098	18.823 UG/L
2) TM Benzene	6.18	3876476	20.412 UG/L
4) TM Toluene	12.18	3606922	20.467 UG/L
5) TM Chlorobenzene	16.86	3631050	20.501 UG/L
6) TM Ethylbenzene	17.16	3139506	21.000 UG/L
7) TM m-,p-Xylene	17.42	7442125	41.168 UG/L
8) TM o-Xylene	18.68	3128229	20.596 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3209899	20.792 UG/L
11) TM 1,4-Dichlorobenzene	22.72	3252009	20.491 UG/L
12) TM 1,2-Dichlorobenzene	23.36	2543819	19.393 UG/L

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

Data File : C:\HPCHEM\2\DATA\072501\12G08602.D
Acq On : 25 Jul 2001 11:32
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 8
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	33.700 E3	7.7	94	0.00
2	TM	Benzene	189.911	186.565 E3	1.8	97	0.00
3	S	TFT	61.487	63.512 E3	-3.3	101	-0.01
4	TM	Toluene	176.235	171.173 E3	2.9	96	0.00
5	TM	Chlorobenzene	177.117	171.427 E3	3.2	96	0.00
6	TM	Ethylbenzene	149.497	150.131 E3	-0.4	99	0.00
7	TM	m-,p-Xylene	180.774	177.653 E3	1.7	97	0.00
8	TM	o-Xylene	151.885	147.800 E3	2.7	95	0.00
9	S	BFB	146.032	142.993 E3	2.1	97	-0.01
10	TM	1,3-Dichlorobenzene	154.381	150.387 E3	2.6	95	-0.03
11	TM	1,4-Dichlorobenzene	158.707	153.277 E3	3.4	94	-0.03
12	TM	1,2-Dichlorobenzene	131.171	118.697 E3	9.5	93	-0.03
13	S	BCB	138.354	136.149 E3	1.6	97	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08602.D 8021W.M Wed Jul 25 12:39:51 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08602.D
Acq On : 25 Jul 2001 11:32
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 8
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	18.464	7.7	94	0.00
2	TM	Benzene	20.000	19.648	1.8	97	0.00
3	S	TFT	30.000	30.988	-3.3	101	-0.01
4	TM	Toluene	20.000	19.426	2.9	96	0.00
5	TM	Chlorobenzene	20.000	19.357	3.2	96	0.00
6	TM	Ethylbenzene	20.000	20.085	-0.4	99	0.00
7	TM	m-,p-Xylene	40.000	39.310	1.7	97	0.00
8	TM	o-Xylene	20.000	19.462	2.7	95	0.00
9	S	BFB	30.000	29.376	2.1	97	-0.01
10	TM	1,3-Dichlorobenzene	20.000	19.483	2.6	95	-0.03
11	TM	1,4-Dichlorobenzene	20.000	19.316	3.4	94	-0.03
12	TM	1,2-Dichlorobenzene	20.000	18.098	9.5	93	-0.03
13	S	BCB	30.000	29.522	1.6	97	-0.04

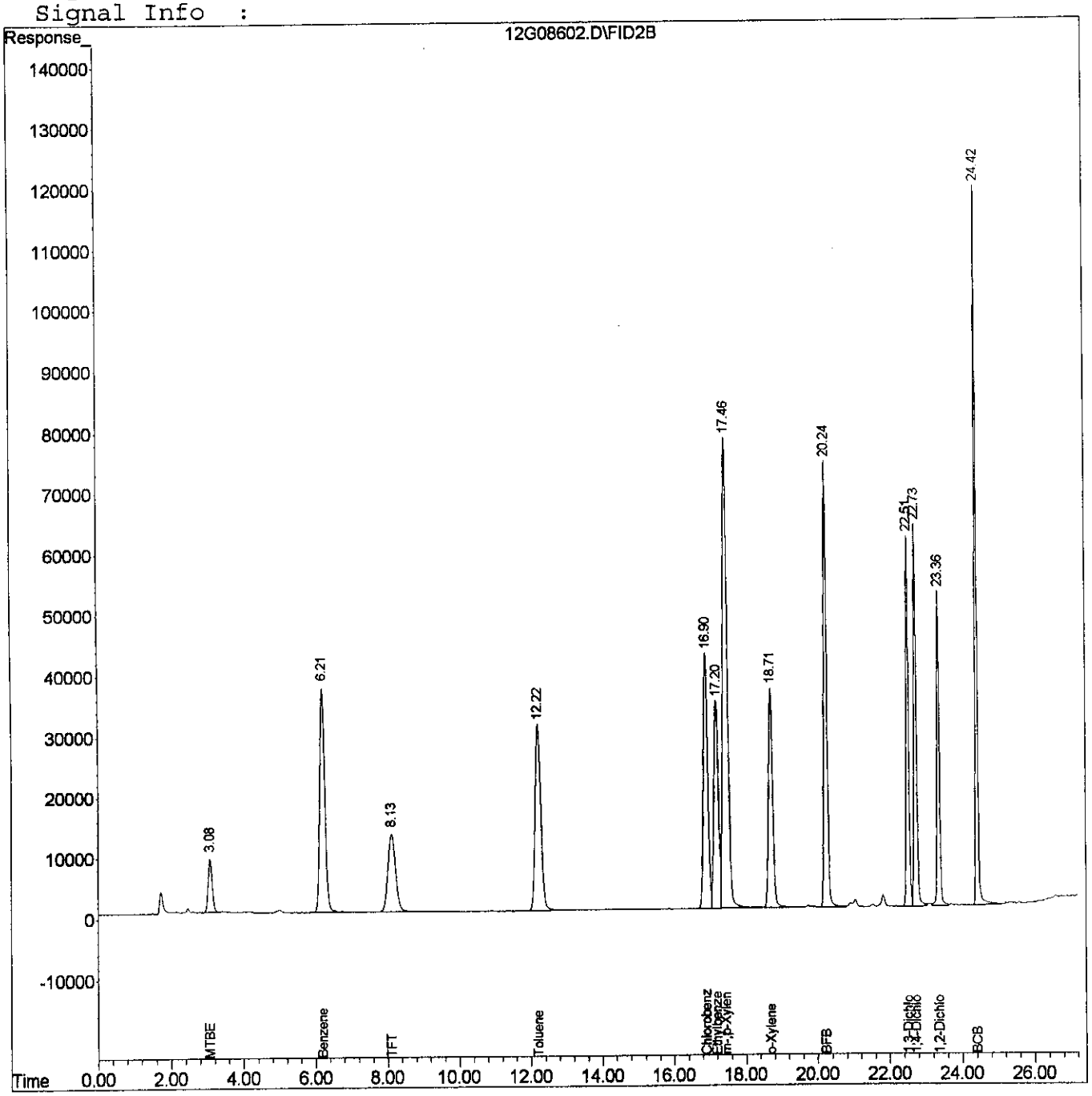
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08602.D 8021W.M Wed Jul 25 12:39:53 2001

Data File : C:\HPCHEM\2\DATA\072501\12G08602.D
Acq On : 25 Jul 2001 11:32
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e
Quant Time: Jul 25 11:59 2001 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08602.D Vial: 8
Acq On : 25 Jul 2001 11:32 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 11:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.13	1905360	30.988 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 103.29%			
9) S BFB	20.25	4289775	29.376 UG/L
Spiked Amount 30.000 Recovery = 97.92%			
13) S BCB	24.42	4084472	29.522 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.41%			
Target Compounds			
1) TM MTBE	3.08	673996	18.464 UG/L
2) TM Benzene	6.21	3731297	19.648 UG/L
4) TM Toluene	12.22	3423464	19.426 UG/L
5) TM Chlorobenzene	16.90	3428540	19.357 UG/L
6) TM Ethylbenzene	17.20	3002627	20.085 UG/L
7) TM m-,p-Xylene	17.46	7106140	39.310 UG/L
8) TM o-Xylene	18.71	2955998	19.462 UG/L
10) TM 1,3-Dichlorobenzene	22.52	3007738	19.483 UG/L
11) TM 1,4-Dichlorobenzene	22.73	3065531	19.316 UG/L
12) TM 1,2-Dichlorobenzene	23.36	2373945	18.098 UG/L

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

Data File : C:\HPCHEM\2\DATA\072501\12G08613.D Vial: 1
Acq On : 25 Jul 2001 17:58 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	34.341 E3	5.9	96	0.00
2	TM	Benzene	189.911	188.507 E3	0.7	98	0.00
3	S	TFT	61.487	63.285 E3	-2.9	101	0.00
4	TM	Toluene	176.235	171.952 E3	2.4	97	0.00
5	TM	Chlorobenzene	177.117	173.461 E3	2.1	97	0.00
6	TM	Ethylbenzene	149.497	150.713 E3	-0.8	99	0.00
7	TM	m-,p-Xylene	180.774	177.524 E3	1.8	97	0.00
8	TM	o-Xylene	151.885	148.529 E3	2.2	95	0.00
9	S	BFB	146.032	144.035 E3	1.4	97	-0.02
10	TM	1,3-Dichlorobenzene	154.381	152.027 E3	1.5	96	-0.03
11	TM	1,4-Dichlorobenzene	158.707	154.750 E3	2.5	95	-0.03
12	TM	1,2-Dichlorobenzene	131.171	120.708 E3	8.0	95	-0.04
13	S	BCB	138.354	137.156 E3	0.9	98	-0.04

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08613.D 8021W.M Thu Jul 26 06:57:43 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08613.D Vial: 1
Acq On : 25 Jul 2001 17:58 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	18.816	5.9	96	0.00
2	TM	Benzene	20.000	19.852	0.7	98	0.00
3	S	TFT	30.000	30.878	-2.9	101	0.00
4	TM	Toluene	20.000	19.514	2.4	97	0.00
5	TM	Chlorobenzene	20.000	19.587	2.1	97	0.00
6	TM	Ethylbenzene	20.000	20.163	-0.8	99	0.00
7	TM	m-,p-Xylene	40.000	39.281	1.8	97	0.00
8	TM	o-Xylene	20.000	19.558	2.2	95	0.00
9	S	BFB	30.000	29.590	1.4	97	-0.02
10	TM	1,3-Dichlorobenzene	20.000	19.695	1.5	96	-0.03
11	TM	1,4-Dichlorobenzene	20.000	19.501	2.5	95	-0.03
12	TM	1,2-Dichlorobenzene	20.000	18.405	8.0	95	-0.04
13	S	BCB	30.000	29.740	0.9	98	-0.04

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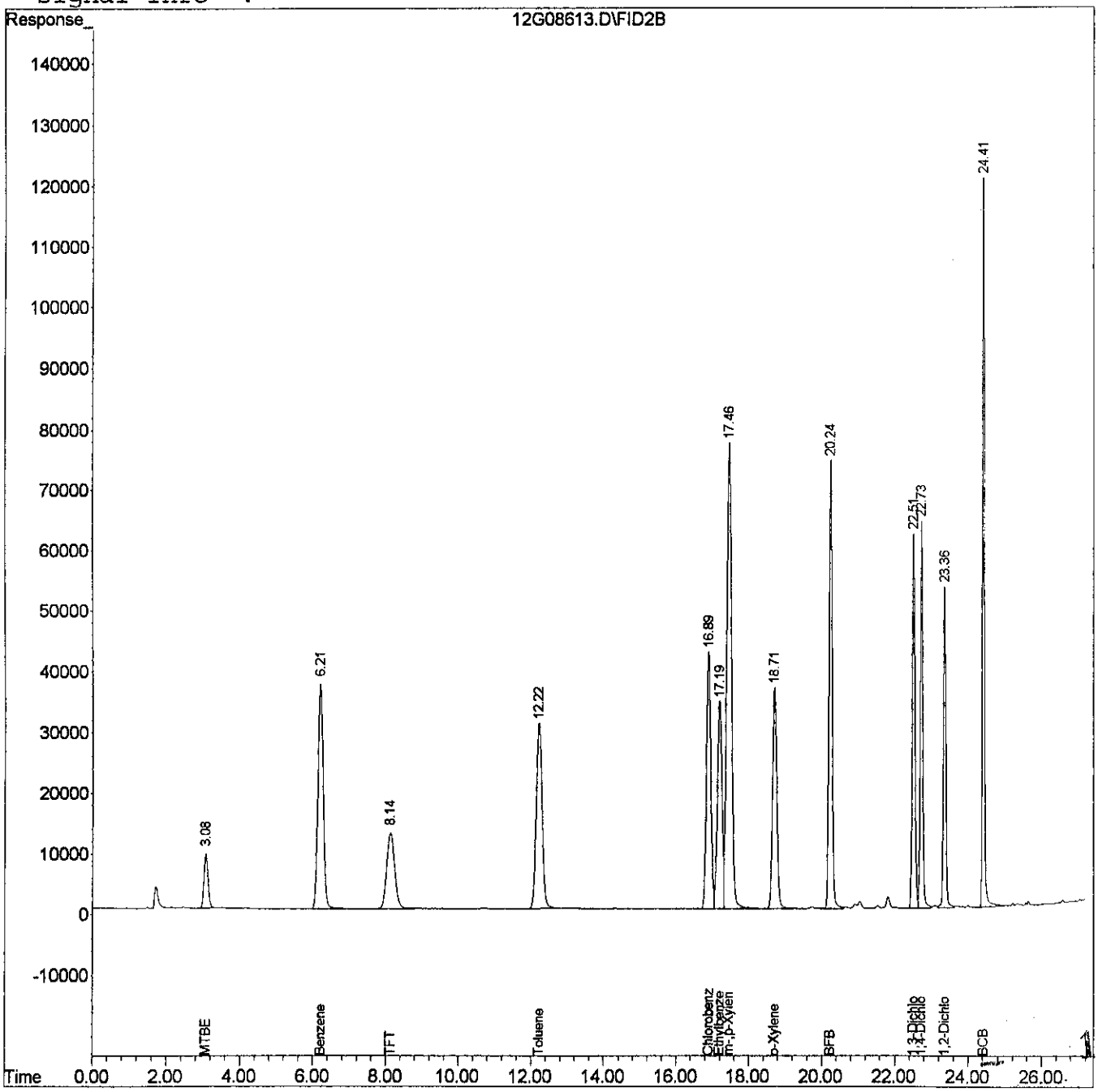
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08613.D 8021W.M Thu Jul 26 06:57:42 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08613.D Vial: 1
Acq On : 25 Jul 2001 17:58 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 18:26 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08613.D Vial: 1
Acq On : 25 Jul 2001 17:58 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 18:26 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.14	1898560	30.878 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.93%			
9) S BFB	20.24	4321042	29.590 UG/L
Spiked Amount 30.000 Recovery = 98.63%			
13) S BCB	24.42	4114679	29.740 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 99.13%			
Target Compounds			
1) TM MTBE	3.08	686817	18.816 UG/L
2) TM Benzene	6.21	3770142	19.852 UG/L
4) TM Toluene	12.23	3439043	19.514 UG/L
5) TM Chlorobenzene	16.89	3469212	19.587 UG/L
6) TM Ethylbenzene	17.20	3014258	20.163 UG/L
7) TM m-,p-Xylene	17.46	7100948	39.281 UG/L
8) TM o-Xylene	18.71	2970581	19.558 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3040532	19.695 UG/L
11) TM 1,4-Dichlorobenzene	22.73	3094996	19.501 UG/L
12) TM 1,2-Dichlorobenzene	23.36	2414168	18.405 UG/L

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(f)=RT Delta > 1/2 Window (m)=manual int.
12G08613.D 8021W.M Wed Jul 25 18:26:06 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072501\12G08615.D Vial: 10
Acq On : 25 Jul 2001 19:03 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	33.581	E3	8.0	94	0.00
2	TM	Benzene	189.911	179.216	E3	5.6	93	0.00
3	S	TFT	61.487	59.609	E3	3.1	95	0.00
4	TM	Toluene	176.235	163.751	E3	7.1	92	0.00
5	TM	Chlorobenzene	177.117	167.726	E3	5.3	94	0.00
6	TM	Ethylbenzene	149.497	143.999	E3	3.7	95	0.00
7	TM	m-,p-Xylene	180.774	169.410	E3	6.3	93	0.00
8	TM	o-Xylene	151.885	143.449	E3	5.6	92	-0.01
9	S	BFB	146.032	143.177	E3	2.0	97	-0.02
10	TM	1,3-Dichlorobenzene	154.381	148.546	E3	3.8	94	-0.03
11	TM	1,4-Dichlorobenzene	158.707	151.469	E3	4.6	93	-0.03
12	TM	1,2-Dichlorobenzene	131.171	119.524	E3	8.9	94	-0.04
13	S	BCB	138.354	138.226	E3	0.1	99	-0.04

Data File : C:\HPCHEM\2\DATA\072501\12G08615.D Vial: 10
Acq On : 25 Jul 2001 19:03 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration

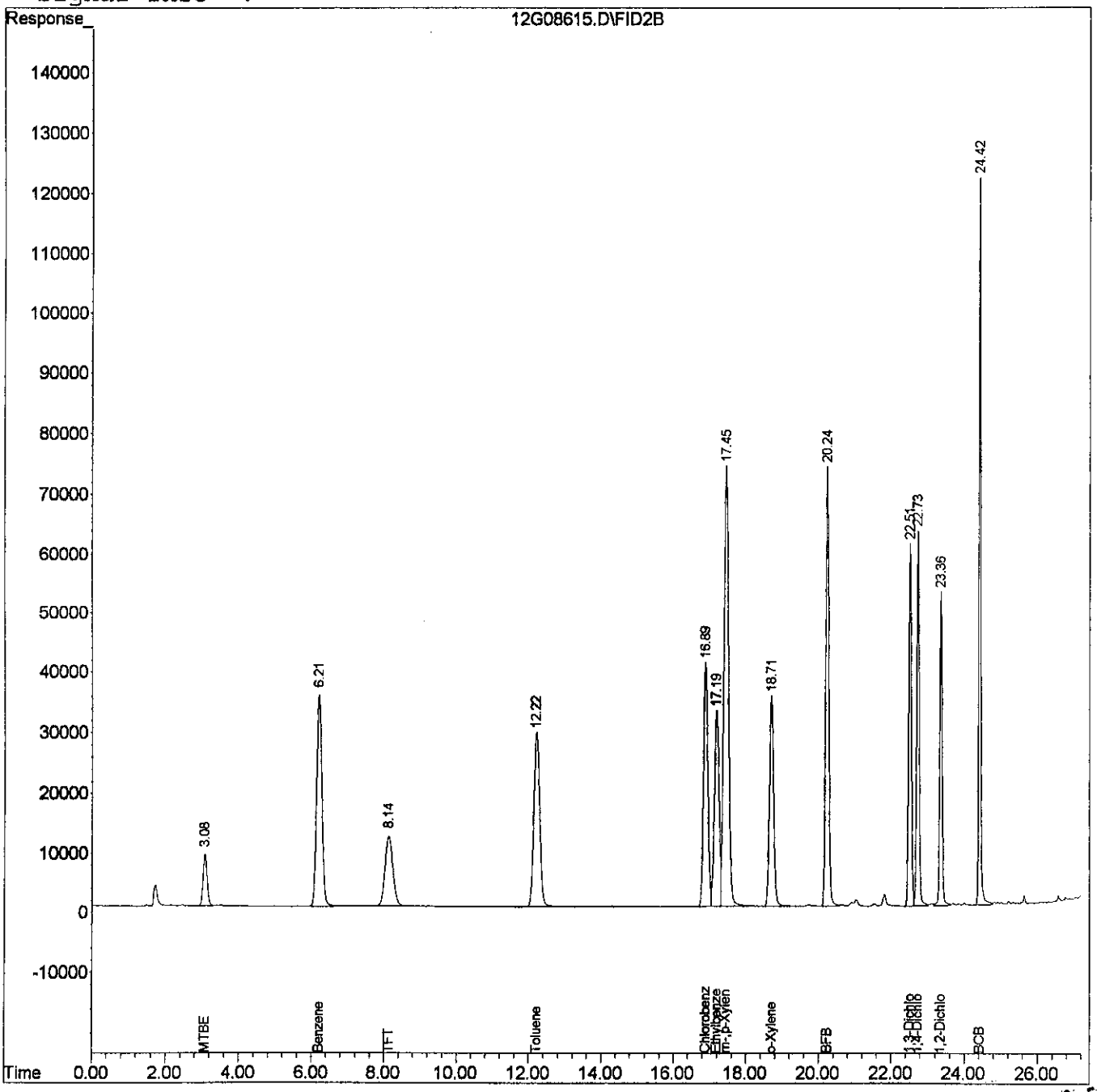
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.399	8.0	94	0.00
2	TM	Benzene	20.000	18.874	5.6	93	0.00
3	S	TFT	30.000	29.084	3.1	95	0.00
4	TM	Toluene	20.000	18.583	7.1	92	0.00
5	TM	Chlorobenzene	20.000	18.940	5.3	94	0.00
6	TM	Ethylbenzene	20.000	19.264	3.7	95	0.00
7	TM	m-,p-Xylene	40.000	37.485	6.3	93	0.00
8	TM	o-Xylene	20.000	18.889	5.6	92	-0.01
9	S	BFB	30.000	29.413	2.0	97	-0.02
10	TM	1,3-Dichlorobenzene	20.000	19.244	3.8	94	-0.03
11	TM	1,4-Dichlorobenzene	20.000	19.088	4.6	93	-0.03
12	TM	1,2-Dichlorobenzene	20.000	18.224	8.9	94	-0.04
13	S	BCB	30.000	29.972	0.1	99	-0.04

Data File : C:\HPCHEM\2\DATA\072501\12G08615.D Vial: 10
Acq On : 25 Jul 2001 19:03 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 19:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08615.D Vial: 10
Acq On : 25 Jul 2001 19:03 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 19:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.14	1788263	29.084 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 96.95%			
9) S BFB	20.24	4295298	29.413 UG/L
Spiked Amount 30.000 Recovery = 98.04%			
13) S BCB	24.42	4146779	29.972 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 99.91%			
Target Compounds			
1) TM MTBE	3.08	671626	18.399 UG/L
2) TM Benzene	6.21	3584313	18.874 UG/L
4) TM Toluene	12.22	3275026	18.583 UG/L
5) TM Chlorobenzene	16.89	3354523	18.940 UG/L
6) TM Ethylbenzene	17.19	2879987	19.264 UG/L
7) TM m-,p-Xylene	17.45	6776394	37.485 UG/L
8) TM o-Xylene	18.71	2868984	18.889 UG/L
10) TM 1,3-Dichlorobenzene	22.51	2970912	19.244 UG/L
11) TM 1,4-Dichlorobenzene	22.73	3029384	19.088 UG/L
12) TM 1,2-Dichlorobenzene	23.36	2390477	18.224 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08615.D 8021W.M Wed Jul 25 19:30:58 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08616.D
Acq On : 26 Jul 2001 6:19
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	35.613	E3	2.4	99	-0.01
2	TM	Benzene	189.911	189.534	E3	0.2	98	-0.05
3	S	TFT	61.487	63.494	E3	-3.3	101	-0.06
4	TM	Toluene	176.235	174.592	E3	0.9	98	-0.05
5	TM	Chlorobenzene	177.117	177.013	E3	0.1	99	-0.04
6	TM	Ethylbenzene	149.497	153.632	E3	-2.8	101	-0.04
7	TM	m-,p-Xylene	180.774	181.837	E3	-0.6	100	-0.04
8	TM	o-Xylene	151.885	152.928	E3	-0.7	98	-0.04
9	S	BFB	146.032	145.967	E3	0.0	99	-0.04
10	TM	1,3-Dichlorobenzene	154.381	155.782	E3	-0.9	98	-0.05
11	TM	1,4-Dichlorobenzene	158.707	158.976	E3	-0.2	98	-0.05
12	TM	1,2-Dichlorobenzene	131.171	123.859	E3	5.6	97	-0.05
13	S	BCB	138.354	139.221	E3	-0.6	99	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08616.D 8021W.M Thu Jul 26 09:05:08 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08616.D Vial: 10
Acq On : 26 Jul 2001 6:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration

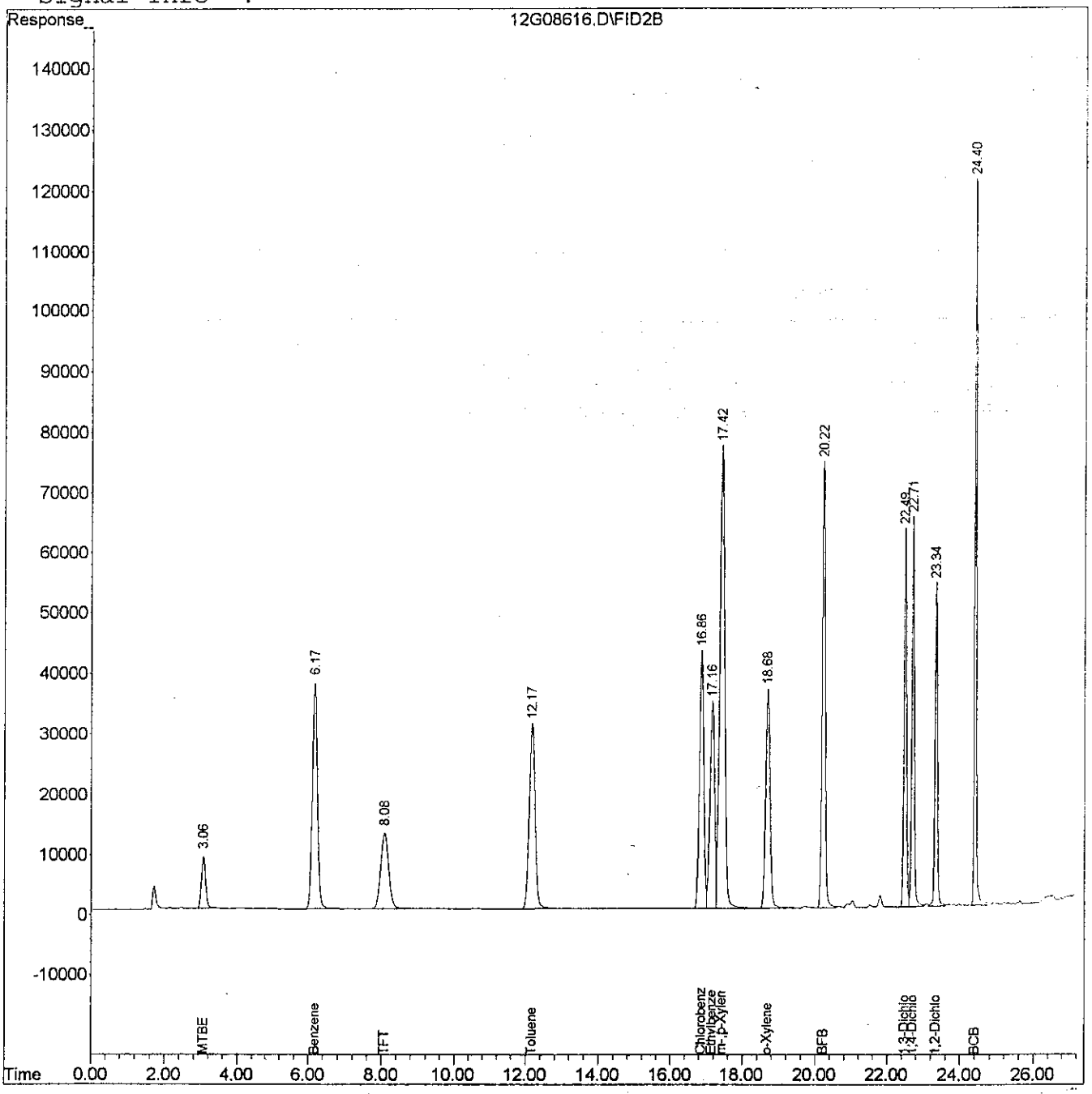
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.513	2.4	99	-0.01
2	TM	Benzene	20.000	19.960	0.2	98	-0.05
3	S	TFT	30.000	30.979	-3.3	101	-0.06
4	TM	Toluene	20.000	19.814	0.9	98	-0.05
5	TM	Chlorobenzene	20.000	19.988	0.1	99	-0.04
6	TM	Ethylbenzene	20.000	20.553	-2.8	101	-0.04
7	TM	m-,p-Xylene	40.000	40.235	-0.6	100	-0.04
8	TM	o-Xylene	20.000	20.137	-0.7	98	-0.04
9	S	BFB	30.000	29.987	0.0	99	-0.04
10	TM	1,3-Dichlorobenzene	20.000	20.181	-0.9	98	-0.05
11	TM	1,4-Dichlorobenzene	20.000	20.034	-0.2	98	-0.05
12	TM	1,2-Dichlorobenzene	20.000	18.885	5.6	97	-0.05
13	S	BCB	30.000	30.188	-0.6	99	-0.05

Data File : C:\HPCHEM\2\DATA\072601\12G08616.D Vial: 10
Acq On : 26 Jul 2001 6:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 6:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072601\12G08616.D Vial: 10
Acq On : 26 Jul 2001 6:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 6:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.08	1904819	30.979 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.26%
9) S BFB	20.22	4379001	29.987 UG/L
Spiked Amount 30.000		Recovery =	99.96%
13) S BCB	24.40	4176641	30.188 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	100.63%
Target Compounds			
1) TM MTBE	3.06	712263	19.513 UG/L
2) TM Benzene	6.17	3790689	19.960 UG/L
4) TM Toluene	12.17	3491835	19.814 UG/L
5) TM Chlorobenzene	16.86	3540262	19.988 UG/L
6) TM Ethylbenzene	17.16	3072646	20.553 UG/L
7) TM m-,p-Xylene	17.43	7273461	40.235 UG/L
8) TM o-Xylene	18.68	3058552	20.137 UG/L
10) TM 1,3-Dichlorobenzene	22.49	3115635	20.181 UG/L
11) TM 1,4-Dichlorobenzene	22.71	3179528	20.034 UG/L
12) TM 1,2-Dichlorobenzene	23.34	2477186	18.885 UG/L

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(f)=RT Delta > 1/2 Window (m)=manual int.
12G08616.D 8021W.M Thu Jul 26 06:46:46 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08627.D
Acq On : 26 Jul 2001 12:25
Sample : 8021 STD 20PPB 5ML
Misc : 1,1 S-(82-06,81-35)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	36.503	35.109	E3	3.8	98	0.00
2	TM	Benzene	189.911	191.363	E3	-0.8	99	-0.02
3	S	TFT	61.487	64.568	E3	-5.0	103	0.00
4	TM	Toluene	176.235	175.787	E3	0.3	99	-0.01
5	TM	Chlorobenzene	177.117	177.431	E3	-0.2	99	-0.02
6	TM	Ethylbenzene	149.497	154.622	E3	-3.4	102	-0.01
7	TM	m-,p-Xylene	180.774	181.213	E3	-0.2	99	0.00
8	TM	o-Xylene	151.885	152.710	E3	-0.5	98	-0.01
9	S	BFB	146.032	149.870	E3	-2.6	101	-0.02
10	TM	1,3-Dichlorobenzene	154.381	158.427	E3	-2.6	100	-0.04
11	TM	1,4-Dichlorobenzene	158.707	161.214	E3	-1.6	99	-0.04
12	TM	1,2-Dichlorobenzene	131.171	127.909	E3	2.5	101	-0.04
13	S	BCB	138.354	143.978	E3	-4.1	103	-0.04

Data File : C:\HPCHEM\2\DATA\072601\12G08627.D Vial: 11
Acq On : 26 Jul 2001 12:25 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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%

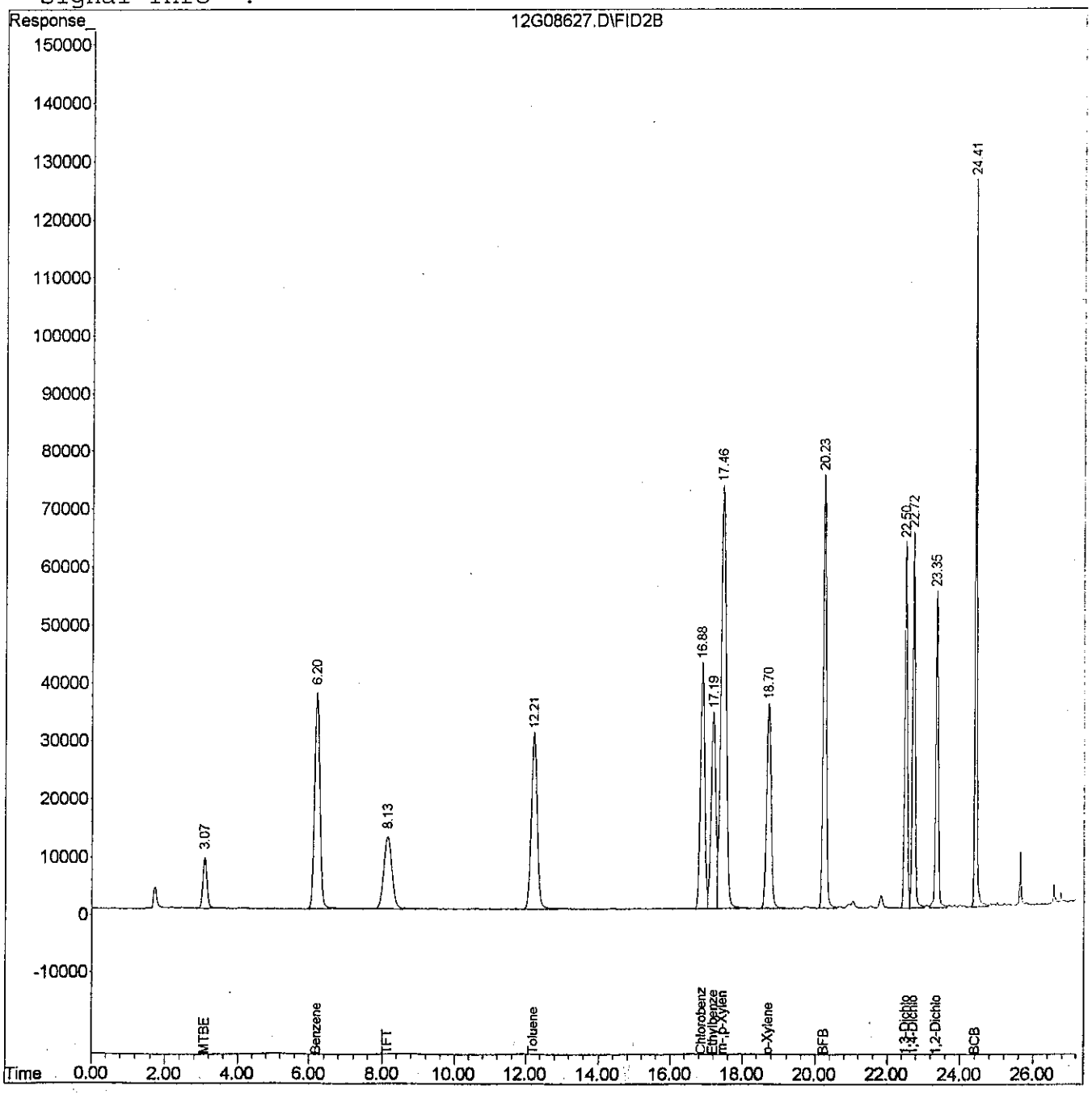
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.237	3.8	98	0.00
2	TM	Benzene	20.000	20.153	-0.8	99	-0.02
3	S	TFT	30.000	31.503	-5.0	103	0.00
4	TM	Toluene	20.000	19.949	0.3	99	-0.01
5	TM	Chlorobenzene	20.000	20.035	-0.2	99	-0.02
6	TM	Ethylbenzene	20.000	20.686	-3.4	102	-0.01
7	TM	m-,p-Xylene	40.000	40.097	-0.2	99	0.00
8	TM	o-Xylene	20.000	20.109	-0.5	98	-0.01
9	S	BFB	30.000	30.788	-2.6	101	-0.02
10	TM	1,3-Dichlorobenzene	20.000	20.524	-2.6	100	-0.04
11	TM	1,4-Dichlorobenzene	20.000	20.316	-1.6	99	-0.04
12	TM	1,2-Dichlorobenzene	20.000	19.503	2.5	101	-0.04
13	S	BCB	30.000	31.219	-4.1	103	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0 182
12G08627.D 8021W.M Thu Jul 26 12:58:42 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08627.D Vial: 11
Acq On : 26 Jul 2001 12:25 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 12:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



183

12G08627.D 8021W.M Thu Jul 26 12:53:04 2001 Page 2

Data File : C:\HPCHEM\2\DATA\072601\12G08627.D Vial: 11
Acq On : 26 Jul 2001 12:25 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 12:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.13	1937039	31.503 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 105.01%	
9) S BFB	20.24	4496106	30.788 UG/L
Spiked Amount 30.000		Recovery = 102.63%	
13) S BCB	24.41	4319328	31.219 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 104.06%	
Target Compounds			
1) TM MTBE	3.08	702184	19.237 UG/L
2) TM Benzene	6.20	3827258	20.153 UG/L
4) TM Toluene	12.21	3515735	19.949 UG/L
5) TM Chlorobenzene	16.88	3548625	20.035 UG/L
6) TM Ethylbenzene	17.19	3092435	20.686 UG/L
7) TM m-,p-Xylene	17.46	7248508	40.097 UG/L
8) TM o-Xylene	18.71	3054195	20.109 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3168531	20.524 UG/L
11) TM 1,4-Dichlorobenzene	22.72	3224287	20.316 UG/L
12) TM 1,2-Dichlorobenzene	23.35	2558177	19.503 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08627.D 8021W.M Thu Jul 26 12:53:04 2001 Page 1

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 25-Jul-01
Filename: 12G08596
Sub Directory: 072501
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.070	3.065	3.075
benzene	6.178	6.157	6.199
1,1,1-trifluorotoluene (SS)	8.088	8.058	8.118
toluene	12.180	12.151	12.209
chlorobenzene	16.858	16.841	16.875
ethylbenzene	17.161	17.142	17.180
m+p-xylene	17.422	17.390	17.454
o-xylene	18.680	18.659	18.701
bromofluorobenzene (SS)	20.222	20.208	20.236
1,3-dichlorobenzene	22.506	22.486	22.526
1,4-dichlorobenzene	22.725	22.705	22.745
1,2-dichlorobenzene	23.359	23.341	23.377

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 26-Jul-01
Filename: 12G08616
Sub Directory: 072601
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.065	3.060	3.070
benzene	6.168	6.147	6.189
1,1,1-trifluorotoluene (SS)	8.078	8.048	8.108
toluene	12.171	12.142	12.200
chlorobenzene	16.855	16.838	16.872
ethylbenzene	17.161	17.142	17.180
m+p-xylene	17.426	17.394	17.458
o-xylene	18.682	18.661	18.703
bromofluorobenzene (SS)	20.218	20.204	20.232
1,3-dichlorobenzene	22.492	22.472	22.512
1,4-dichlorobenzene	22.709	22.689	22.729
1,2-dichlorobenzene	23.342	23.324	23.360

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

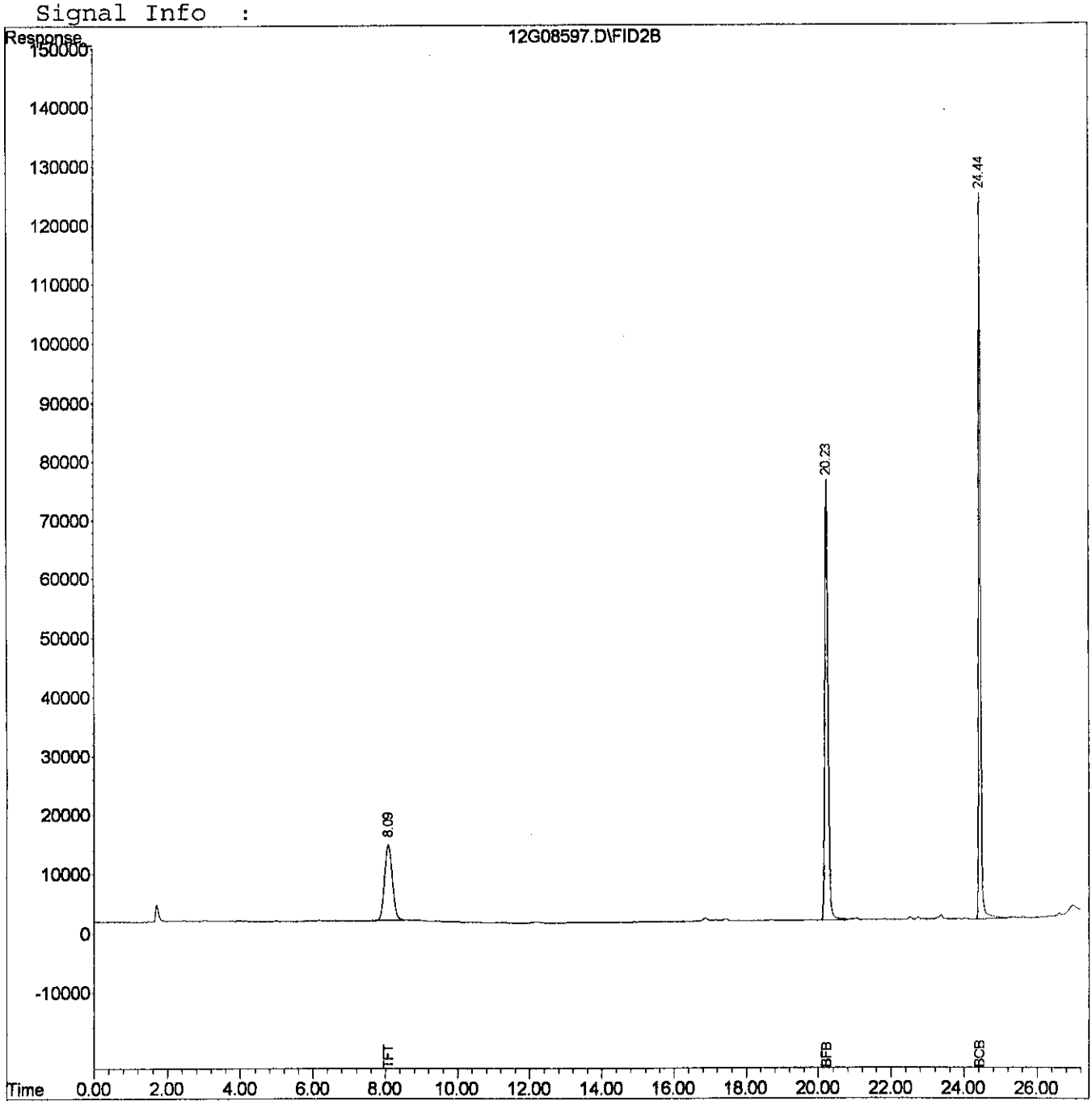
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\072501\12G08597.D Vial: 11
Acq On : 25 Jul 2001 8:23 Operator: CBN
Sample : WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 8:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08597.D Vial: 11
Acq On : 25 Jul 2001 8:23 Operator: CBN
Sample : WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-81-35 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 8:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.09	1890897	30.753 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 102.51%	
9) S BFB	20.23	4512039	30.898 UG/L
Spiked Amount 30.000		Recovery = 102.99%	
13) S BCB	24.44	4350634	31.446 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 104.82%	
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	0.00	0	N.D. UG/L
5) TM Chlorobenzene	16.86	44991	<MDL UG/L
6) TM Ethylbenzene	17.43	29895	<MDL UG/L
7) TM m-,p-Xylene	17.43	29895	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.52	18671	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.74	16556	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.37	52124	<MDL UG/L

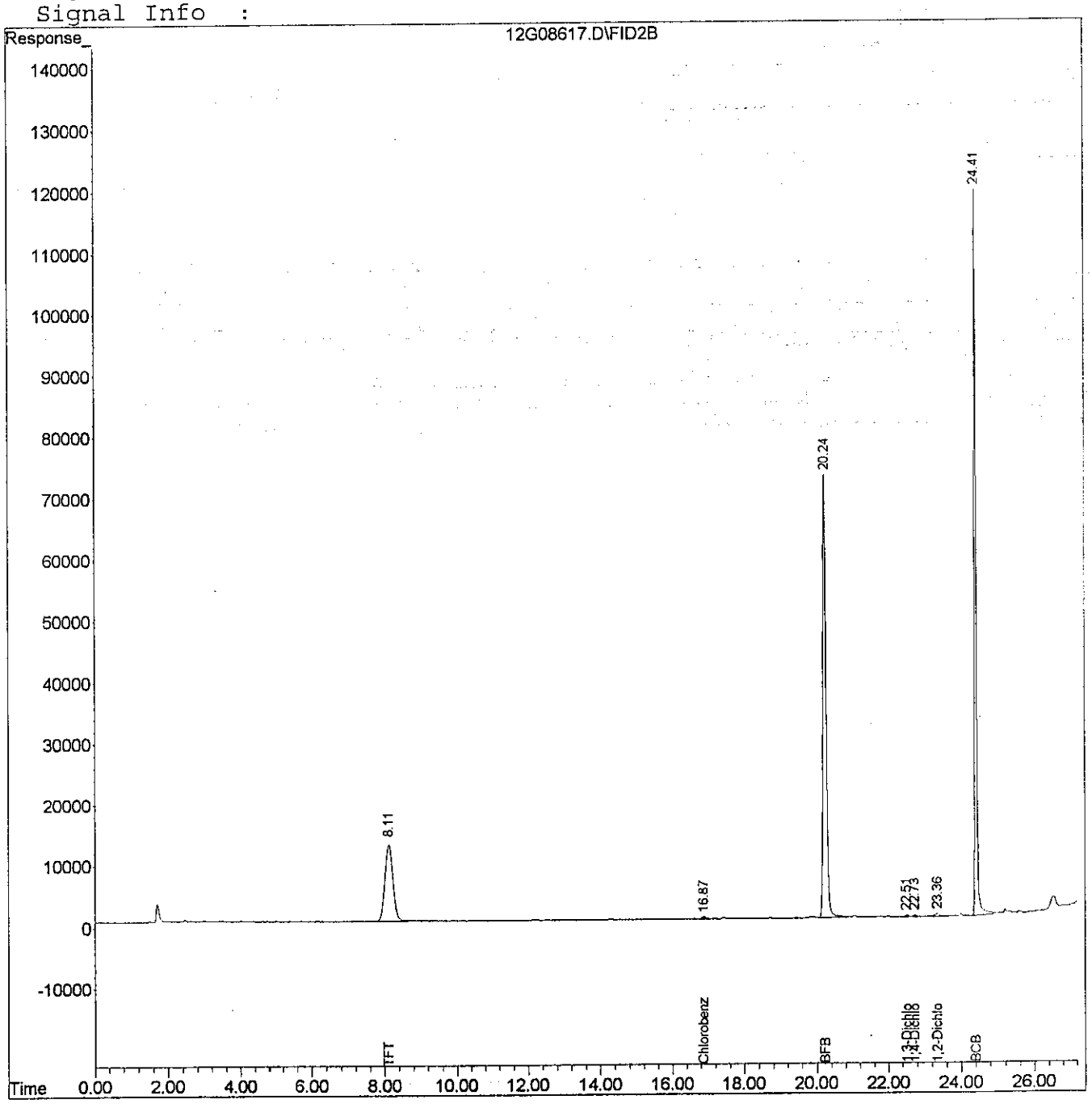
(f)=RT Delta > 1/2 Window (m)=manual int. 189
12G08597.D 8021W.M Wed Jul 25 08:50:50 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08617.D
Acq On : 26 Jul 2001 6:52
Sample : WATER BLANK 5ML
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 26 7:19 2001 Quant Results File: 8021W.RES

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072601\12G08617.D
Acq On : 26 Jul 2001 6:52
Sample : WATER BLANK 5ML
Misc : 1,1 S-81-35
IntFile : autoint1.e
Quant Time: Jul 26 7:19 2001 Quant Results File: 8021W.RES

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

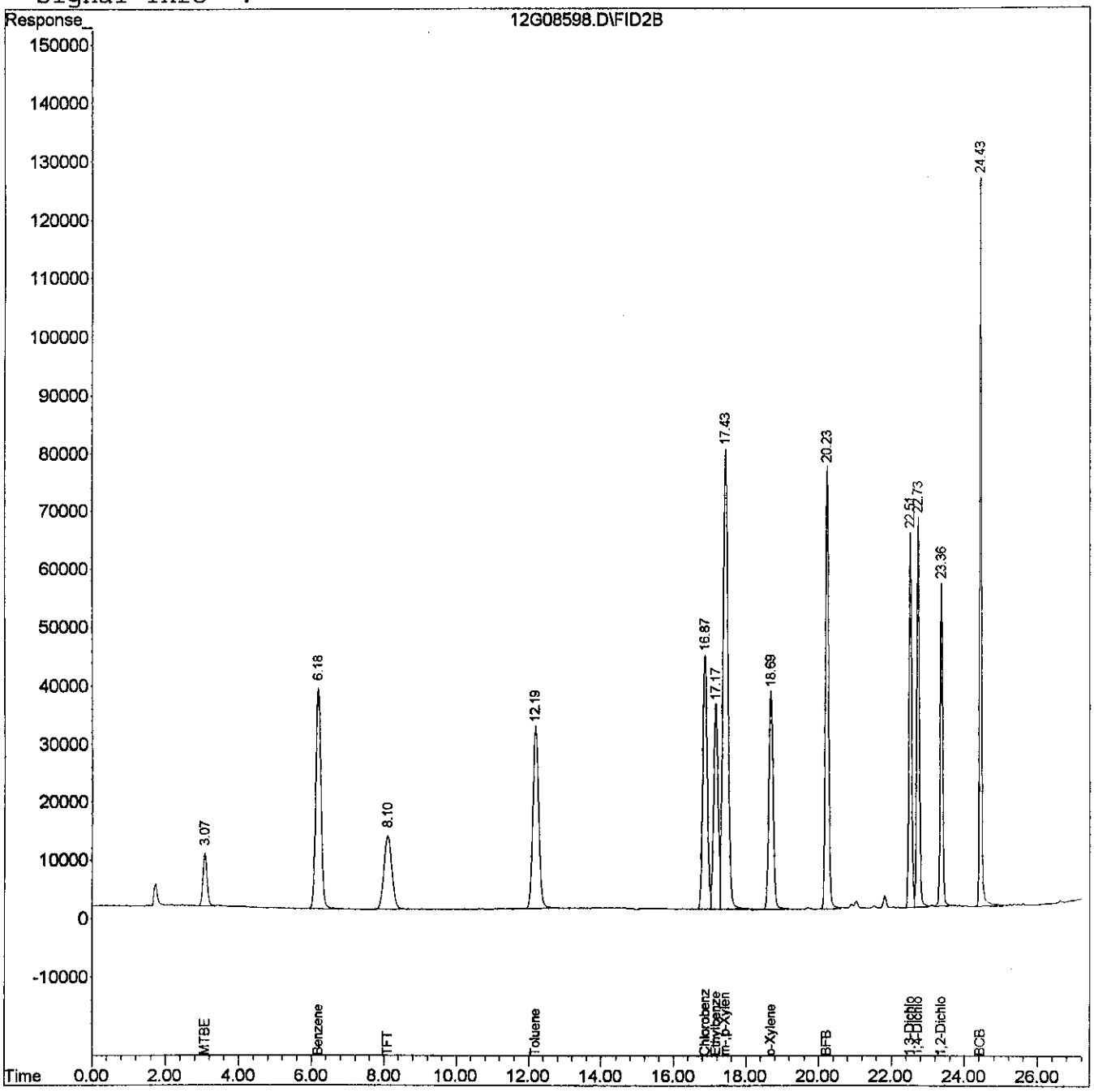
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.11	1888376	30.712 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	102.37%
9) S BFB	20.24	4372109	29.939 UG/L
Spiked Amount 30.000		Recovery =	99.80%
13) S BCB	24.41	4128062	29.837 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	99.46%
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	16.87	24979	~~0.141 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	22.51	14578	~~0.094 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	14783	~~0.093 UG/L~~
12) TM 1,2-Dichlorobenzene	23.36	43792	~~0.334 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08617.D 8021W.M Thu Jul 26 07:19:49 2001

Data File : C:\HPCHEM\2\DATA\072501\12G08598.D Vial: 12
Acq On : 25 Jul 2001 8:55 Operator: CBN
Sample : WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 9:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072501\12G08598.D Vial: 12
Acq On : 25 Jul 2001 8:55 Operator: CBN
Sample : WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 25 9:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

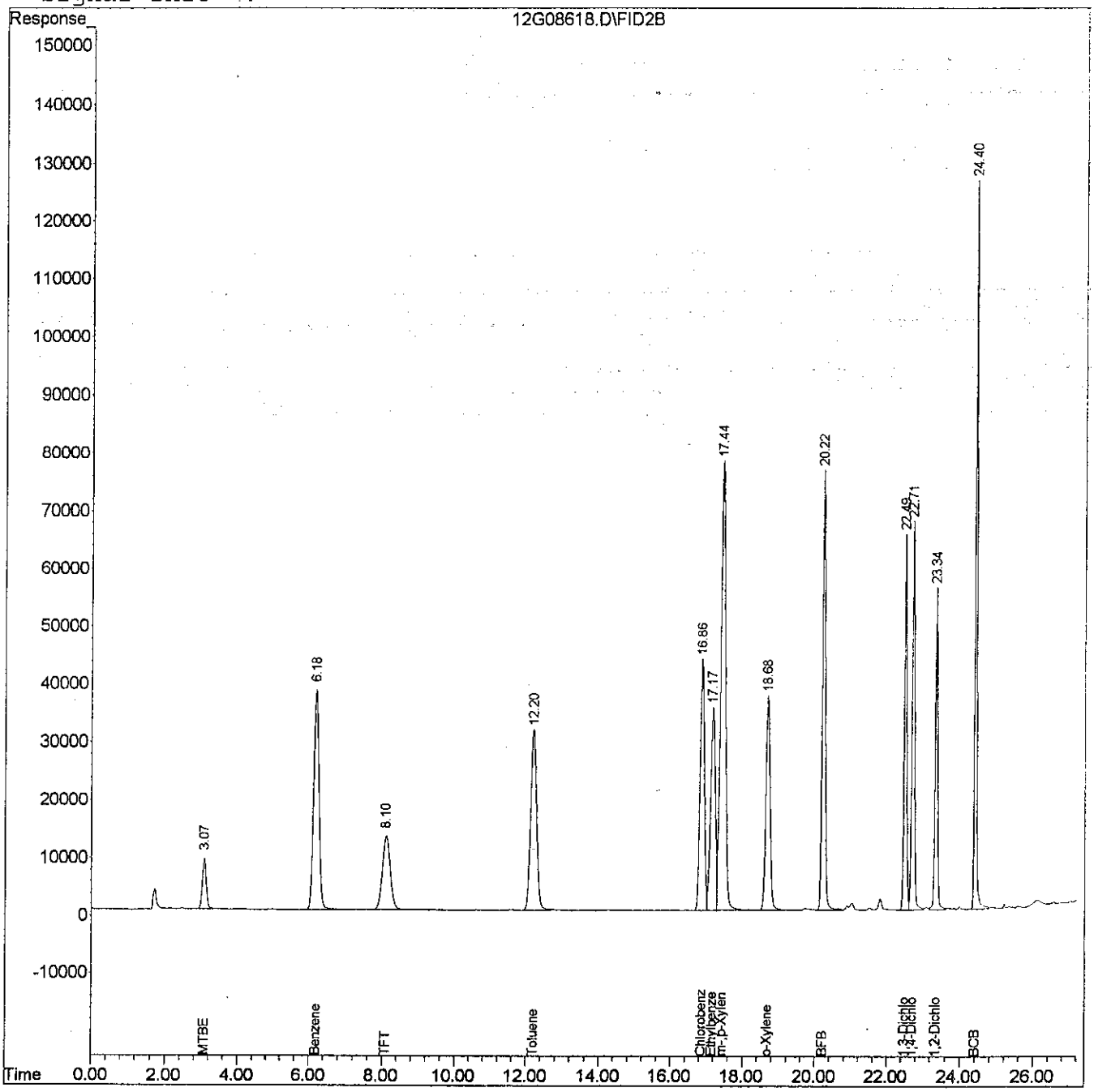
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.10	1899548	30.894 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery	= 102.98%
9) S BFB	20.23	4491882	30.760 UG/L
Spiked Amount 30.000		Recovery	= 102.53%
13) S BCB	24.43	4332973	31.318 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 104.39%
Target Compounds			
1) TM MTBE	3.07	696966	19.094 UG/L
2) TM Benzene	6.19	3886057	20.462 UG/L
4) TM Toluene	12.19	3564082	20.223 UG/L
5) TM Chlorobenzene	16.87	3608060	~~20.371 UG/L~~
6) TM Ethylbenzene	17.17	3118303	20.859 UG/L
7) TM m-,p-Xylene	17.43	7373857	40.791 UG/L
8) TM o-Xylene	18.69	3095163	20.378 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3192841	~~20.682 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	3237079	~~20.397 UG/L~~
12) TM 1,2-Dichlorobenzene	23.37	2512088	~~19.151 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08598.D 8021W.M Wed Jul 25 09:23:10 2001 Page 1

Data File : C:\HPCHEM\2\DATA\072601\12G08618.D Vial: 12
Acq On : 26 Jul 2001 7:24 Operator: CBN
Sample : WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 7:52 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\072601\12G08618.D Vial: 12
Acq On : 26 Jul 2001 7:24 Operator: CBN
Sample : WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(82-06,81-35) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 26 7:52 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.11	1948842	31.695 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	105.65%
9) S BFB	20.22	4523935	30.979 UG/L
Spiked Amount 30.000		Recovery =	103.26%
13) S BCB	24.40	4313833	31.180 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	103.93%
Target Compounds			
1) TM MTBE	3.07	682613	18.700 UG/L
2) TM Benzene	6.19	3891127	20.489 UG/L
4) TM Toluene	12.20	3556212	20.179 UG/L
5) TM Chlorobenzene	16.86	3610387	~~20.384 UG/L~~
6) TM Ethylbenzene	17.17	3122200	20.885 UG/L
7) TM m-,p-Xylene	17.43	7353160	40.676 UG/L
8) TM o-Xylene	18.69	3085707	20.316 UG/L
10) TM 1,3-Dichlorobenzene	22.49	3215882	~~20.831 UG/L~~
11) TM 1,4-Dichlorobenzene	22.71	3271643	~~20.614 UG/L~~
12) TM 1,2-Dichlorobenzene	23.34	2546095	~~19.410 UG/L~~

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

Injection Log

Directory: C:\HPCHEM\2\DATA\072001

ANALYST: CBK

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	10	12g08535.d	1.	8021 STD1 1PPB 5ML DNR	1,1 S-81-(38,35)	20 Jul 2001 08:52
2	11	12g08536.d	1.	8021 STD1 1PPB 5ML ✓	1,1 S-81-(38,35)	20 Jul 2001 09:24
3	12	12g08537.d	1.	8021 STD2 10PPB 5ML ✓	1,1 S-81-(38,35)	20 Jul 2001 09:56
4	29	12g08538.d	1.	8021 STD3 20PPB 5ML ✓	1,1 S-81-(38,35)	20 Jul 2001 10:29
5	30	12g08539.d	1.	8021 STD4 50PPB 5ML ✓	1,1 S-81-(38,35)	20 Jul 2001 11:01
6	31	12g08540.d	1.	8021 STD5 100PPB 5ML ✓	1,1 S-81-(38,35)	20 Jul 2001 11:33
7	32	12g08541.d	1.	8021 STD6 200PPB 5ML ✓	1,1 S-81-(38,35)	20 Jul 2001 12:06
8	10	12g08542.d	1.	ALT SOURCE 5ML ✓	1,1 S-(82-06,81-35)	20 Jul 2001 12:54
9	10	12g08543.d	1.	WATER BLANK 5ML ✓	1,1 S-81-35	20 Jul 2001 13:42
10	11	12g08544.d	1.	WATER LCS 20PPB 5ML ✓	1,1 S-(82-06,81-35)	20 Jul 2001 14:14
11	18	12g08545.d	1.	L0107357-01 "A" 5ML pH<2 ✓	1,1 S-81-35	20 Jul 2001 15:04
12	19	12g08546.d	100.	L0107357-04 "A" 50uL pH<2 100X ✓	1,100 S-81-35	20 Jul 2001 15:37
13	23	12g08547.d	1.	L0107357-07 "A" 5ML pH<2 ✓	1,1 S-81-35	20 Jul 2001 16:10
14	24	12g08548.d	20.	L0107357-10 "A" 250uL pH<2 20X ul STET	1,20 S-81-35	20 Jul 2001 16:43
15	28	12g08549.d	1.	L0107357-13 "A" 5ML pH<2 ✓	1,1 S-81-35	20 Jul 2001 17:16
16	29	12g08550.d	1.	L0107357-16 "A" 5ML pH<2 ✓	1,1 S-81-35	20 Jul 2001 17:49
17	30	12g08551.d	1.	L0107357-13 MS "A" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	20 Jul 2001 18:22
18	31	12g08552.d	1.	L0107357-13 MSD "A" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	20 Jul 2001 18:55
19	32	12g08553.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	20 Jul 2001 19:27

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Injection Log

Directory: C:\HPCHEM\2\DATA\072501

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	10	12g08594.d	5.	8021 STD 20PPB 5ML LOST MALFUNCT.	1,1 S-(82-06,81-35)	25 Jul 2001 06:22
2	11	12g08595.d	5.	WATER BLANK 5ML ✓	1,1 S-(82-06,81-35)	25 Jul 2001 06:55
3	12	12g08596.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	25 Jul 2001 07:27
4	11	12g08597.d	1.	WATER BLANK 5ML ✓	1,1 S-81-35	25 Jul 2001 08:23
5	12	12g08598.d	1.	WATER LCS 20PPB 5ML ✓	1,1 S-(82-06,81-35)	25 Jul 2001 08:55
6	27	12g08599.d	1.	L0107322-01 "A" 5ML pH<2 ✓	1,1 S-81-35	25 Jul 2001 09:34
7	28	12g08600.d	1.	L0107322-01 MS "A" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	25 Jul 2001 10:07
8	29	12g08601.d	1.	L0107322-01 MSD "A" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	25 Jul 2001 10:39
9	8	12g08602.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	25 Jul 2001 11:32
10	9	12g08603.d	1.	L0107411-01 "A" 5ML pH<2 ✓	1,1 S-81-35	25 Jul 2001 12:34
11	10	12g08604.d	1.	L0107411-02 "A" 5ML pH<2 HIGH SSS	1,1 S-81-35	25 Jul 2001 13:06
12	11	12g08605.d	1.	L0107411-03 "A" 5ML pH<2 ✓	1,1 S-81-35	25 Jul 2001 13:39
13	12	12g08606.d	1.	L0107411-04 "A" 5ML pH<2 ✓	1,1 S-81-35	25 Jul 2001 14:11
14	27	12g08607.d	1.	L0107411-05 MS "A" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	25 Jul 2001 14:44
15	28	12g08608.d	1.	L0107411-06 MSD "A" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	25 Jul 2001 15:16
16	29	12g08609.d	1.	L0107411-07 "A" 5ML pH<2 HIGH SSS	1,1 S-(82-06,81-35)	25 Jul 2001 15:49
17	30	12g08610.d	1.	L0107411-08 "A" 5ML pH<2	1,1 S-81-35	25 Jul 2001 16:21
18	31	12g08611.d	1.	L0107411-09 "A" 5ML pH<2 ✓	1,1 S-81-35	25 Jul 2001 16:53
19	32	12g08612.d	1.	L0107411-10 "A" 5ML pH<2 ✓	1,1 S-81-35	25 Jul 2001 17:26
20	1	12g08613.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	25 Jul 2001 17:58
21	9	12g08614.d	1.	L0107411-02 5ML CONF HIGH SSS	1,1,RE S-(82-06,8...	25 Jul 2001 18:31
22	10	12g08615.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	25 Jul 2001 19:03

REANALYSIS

L0107411-07
-08

RR #

12608621
22

197

Directory: C:\HPCHEM\2\DATA\072601

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	10	12g08616.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	26 Jul 2001 06:19
2	11	12g08617.d	1.	WATER BLANK 5ML ✓	1,1 S-81-35	26 Jul 2001 06:52
3	12	12g08618.d	1.	WATER LCS 20PPB 5ML ✓	1,1 S-(82-06,81-35)	26 Jul 2001 07:24
4	27	12g08619.d	200.	L0107418-05 "B" 25uL pH<2 200X ✓	1,200 S-81-35	26 Jul 2001 08:05
5	28	12g08620.d	1.	L0107418-06 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 08:37
6	29	12g08621.d	1.	L0107411-07 "B" 5ML pH<2 ✓ confirmation	1,1,RE S-81-35	26 Jul 2001 09:09
7	30	12g08622.d	1.	L0107411-08 "B" 5ML pH<2 ✓ ⊥	1,1,RE S-81-35	26 Jul 2001 09:42
8	31	12g08623.d	1.	L0107415-01 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 10:15
9	32	12g08624.d	1.	L0107415-02 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 10:47
10	9	12g08625.d	1.	L0107411-07 MS "B" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	26 Jul 2001 11:20
11	10	12g08626.d	1.	L0107411-07 MSD "B" 5ML pH<2 ✓	1,1 S-(82-06,81-35)	26 Jul 2001 11:53
12	11	12g08627.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-(82-06,81-35)	26 Jul 2001 12:25
13	27	12g08628.d	1.	L0107415-16 5ML pH<2 ✓	1,1 S-(82-06,81-35)	26 Jul 2001 13:13
14	28	12g08629.d	100.	L0107415-13 "A"100X 5ML pH<2 RE 200X ✓	1,100 S-81-35	26 Jul 2001 13:47
15	29	12g08630.d	100.	L0107415-14 "A" 100X 5ML pH<2 ✓	1,100 S-81-35	26 Jul 2001 14:20
16	30	12g08631.d	50.	L0107415-15 "A" 50X 5ML pH<2 ✓	1,50 S-81-35	26 Jul 2001 14:52
17	31	12g08632.d	1.	L0107415-03 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 15:24
18	32	12g08633.d	1.	L0107415-04 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 15:57
19	8	12g08634.d	1.	L0107415-05 "B" 5ML pH<2 OVR SS	1,1 S-81-35	26 Jul 2001 16:29
20	9	12g08635.d	1.	L0107415-06 "B" 5ML pH<2 ⊥ ⊥	1,1 S-81-35	26 Jul 2001 17:02
21	10	12g08636.d	1.	L0107415-07 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 17:34
22	11	12g08637.d	1.	L0107415-08 "B" 5ML pH<2 ✓	1,1 S-81-35	26 Jul 2001 18:07
23	12	12g08638.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-81-35	26 Jul 2001 18:39
24	27	12g08639.d	20.	L0107415-09 "B" 20X 250 uL ... ✓	1,20 S-81-35	26 Jul 2001 19:12
25	28	12g08640.d	100.	L0107415-10 "B" 100X 250 uL... OVR RESS	1,100 S-81-35	26 Jul 2001 19:44
26	29	12g08641.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-81-35	26 Jul 2001 20:17

Reanalysis	file #
L0107415-13	12608652
05	
06	
10	12608649

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0107411

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: All acceptance criteria were met.

SAMPLES

Samples: Only the results from the re-extracts of fractions 01, 03, 08 and 09 were reported. All acceptance criteria were met.
Surrogates: Sample fractions -01, -03, -08 and -09 were sent back for re-extraction due to a low surrogate recovery. Sample fractions -01 and -03 from the re-extractions yielded % recovery below the advisory limit for o-terphenyl, which confirms the original analysis. All other 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: HV REVIEWED: Stephanie Lepe DATE: 8/6/01

Rev. 7/14/00

DRO-GC DATA (8015)

Login Number: L0107411

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 8/3/01

202

Date: [illegible]
Analyst: CAB
Method: 8015 FLA PRO water — L0107411 Level 4
Instrument: HP 2 — L0107428 Level 4
Work Group: WG101687

	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 CAB 7/27/01

Secondary Reviewer Initials & Date Checked [illegible] 7/27/01

- 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] 7/27/01

Comments: Samples L0107411-01, -03, -08, -09 were sent for re-ext due to low surr. recovery.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

203

Date: [illegible]
Analyst: HV
Method: 8015 FLA PRO water
Instrument: HP 2
Work Group: WG101855

L0107411 - Level 4

	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	NA
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 CAB 7/31/01

Secondary Reviewer Initials & Date Checked [illegible] 8/1/01

- 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] 8/1/01

Comments: There were no MS/MSD associated with this WG. Samples -01 and -03 failed low in surr recovery.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG101687
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG101646

EXT DATE : 7/25/01
EXT BENCH SHEET : V168-P89
BLK FILENAME : 2G13883
LCS FILENAME : 2G13884
INSTRUMENT : HP 2

RUN DATE : 7/26/01
SMPL ID : L0107411-04
SMPL FLNM : 2G13888
MS FLNM : 2G13889
MSD FLNM : 2G13890

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPL	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	373	3400	2261	NA	ND	3400	2381	2249	NA	66.5	NA	55	118	ND	70.0	66.1	41	101	NA	6	20
SURROGATE																						
o-TERPHENYL		18.2	20	13.5	NA	12.8	20	13.4	12.2	91.2	67.3	NA	49	174	64.0	66.9	61.1	49	174	NA	9	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP :	WG101855	EXT DATE :	7/30/01	RUN DATE :	7/31/01
METHOD :	8015-PRO	EXT BENCH SHEET :	V168-P135	SMPL ID :	NA
MATRIX :	WATER	BLK FILENAME :	2G14017	SMPL FLNM :	NA
CONCENTRATION UNITS :	ug / l	LCS FILENAME :	2G14018	MS FLNM :	NA
PREP WORK GRP :	WG101831	INSTRUMENT :	HP 2	MSD FLNM :	NA

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPL	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	3000	NA	NA	3400	NA	NA	NA	88.2	NA	55	118	NA	NA	NA	41	101	NA	NA	20
SURROGATE																						
o-TERPHENYL		11.6	20	20.8	NA	NA	20	NA	NA	58.0	104	NA	49	174	NA	NA	NA	49	174	NA	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Data File : C:\HPCHEM\1\DATA\072601\2G13885.D
Acq On : 26 Jul 2001 13:52 Operator: HV
Sample : L0107411-01 PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Jul 27 11:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:22:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

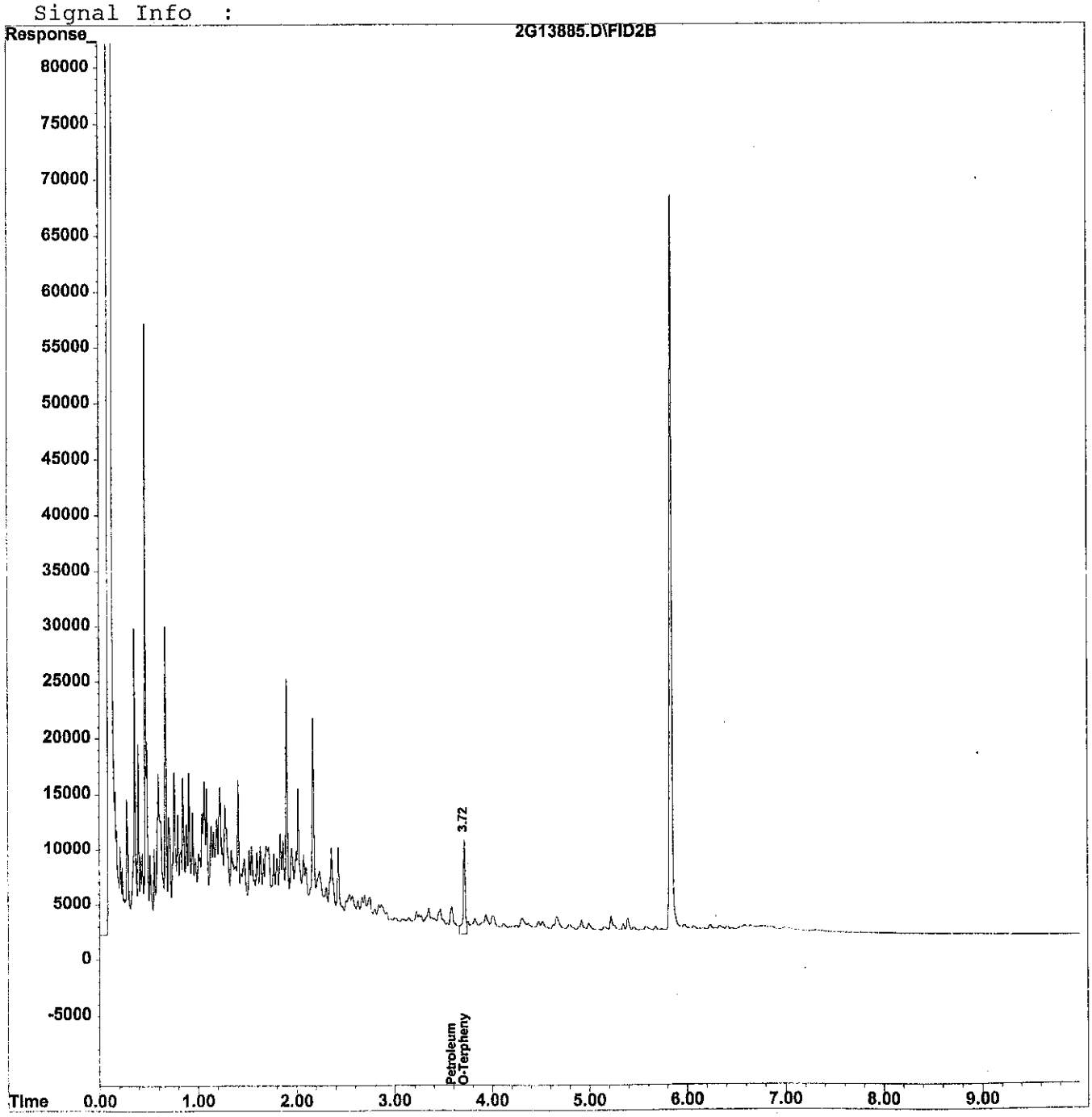
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.72	121107	5.073 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	25.37%#
Target Compounds			
1) H Petroleum Range	3.60	13402265	803.374 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13885.D FLASHPRO.M Fri Jul 27 11:23:07 2001 Page 1

Acq On : 26 Jul 2001 13:52 Operator: HV
Sample : L0107411-01 PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Jul 27 11:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:22:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 15:31 Operator: HV
Sample : L0107411-01 PRO water RE Inst : hp2
Misc : water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Aug 1 7:45 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
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	3.62	154831	8.374 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	41.87%#
Target Compounds			
1) H Petroleum Range	3.60	19789143	1392.894 ppb

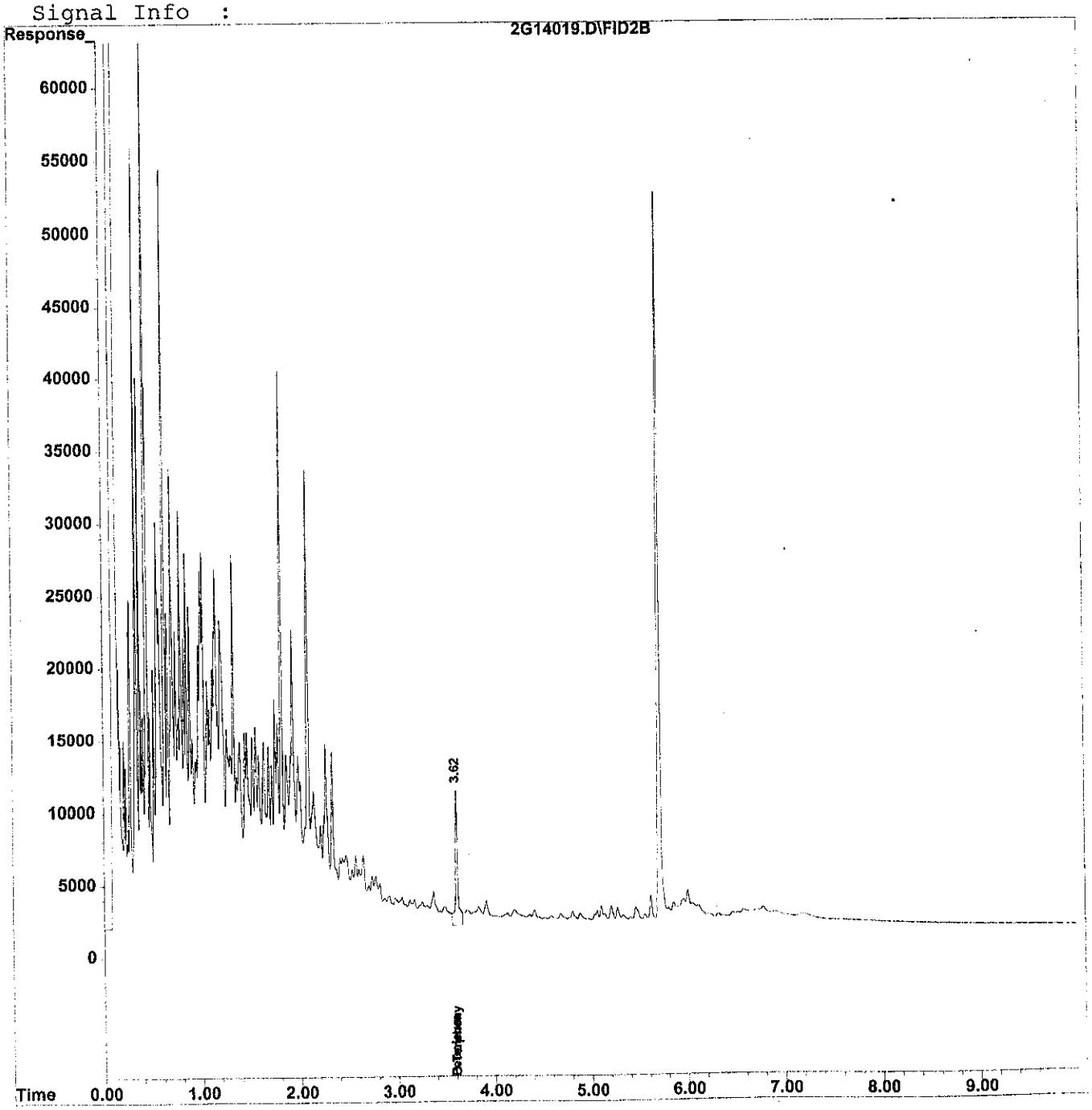
(f)=RT Delta > 1/2 Window (m)=manual int.
2G14019.D FLASHPRO.M Wed Aug 01 07:45:58 2001

Acq On : 31 Jul 2001 15:31
Sample : L0107411-01 PRO water RE
Misc : water
IntFile : PETRO.E
Quant Time: Aug 1 7:45 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.05

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13886.D Vial: 7
Acq On : 26 Jul 2001 14:07 Operator: HV
Sample : L0107411-02 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

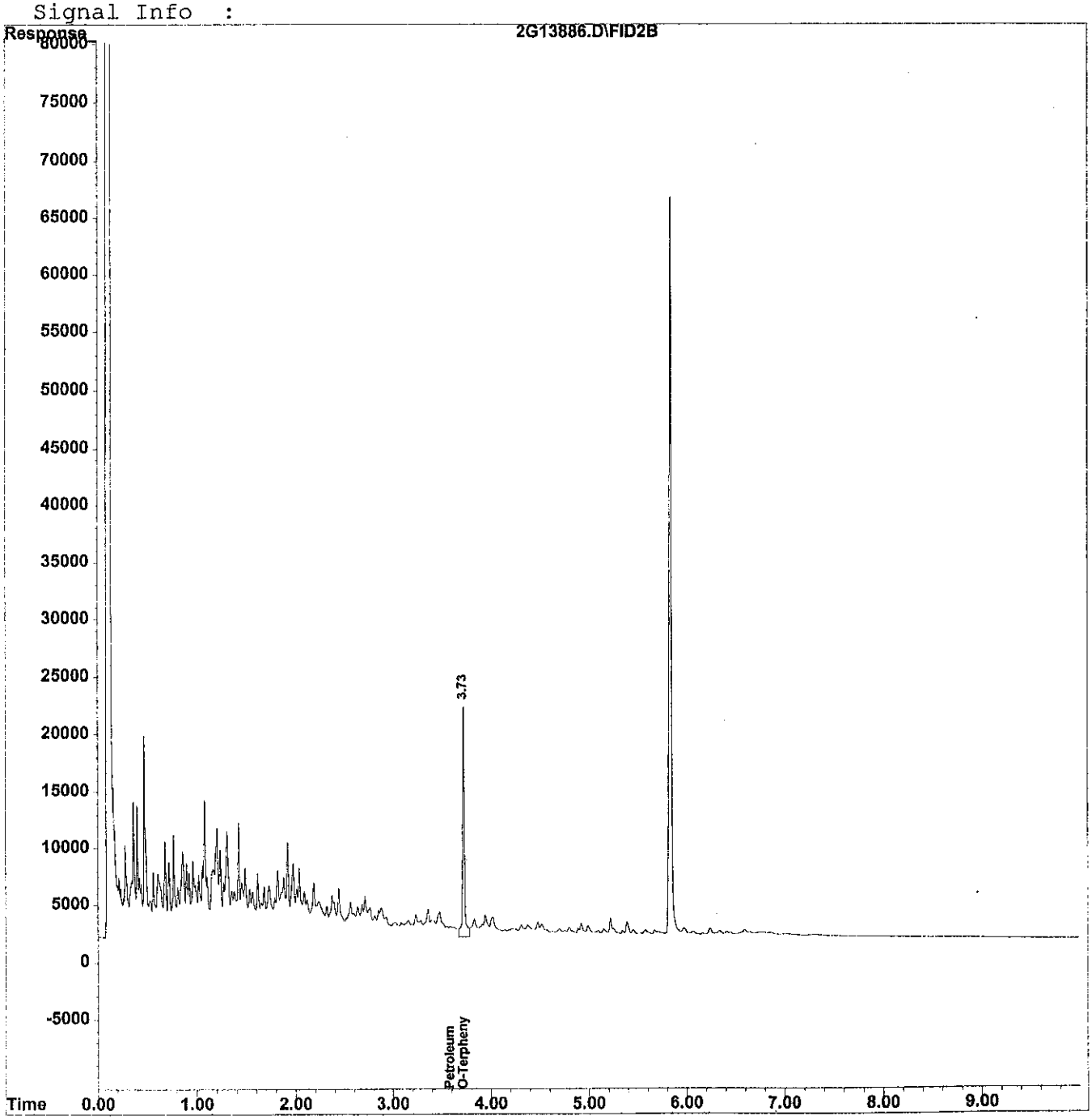
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.73	266523	11.165 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	55.82%
Target Compounds			
1) H Petroleum Range	3.60	8857870	536.124 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13886.D FLASHPRO.M Fri Jul 27 11:01:39 2001 Page 1

Data File : C:\HPCHEM\1\DATA\072601A\2G13886.D Vial: 7
Acq On : 26 Jul 2001 14:07 Operator: HV
Sample : L0107411-02 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Jul 2001 14:21 Operator: HV
Sample : L0107411-03 PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

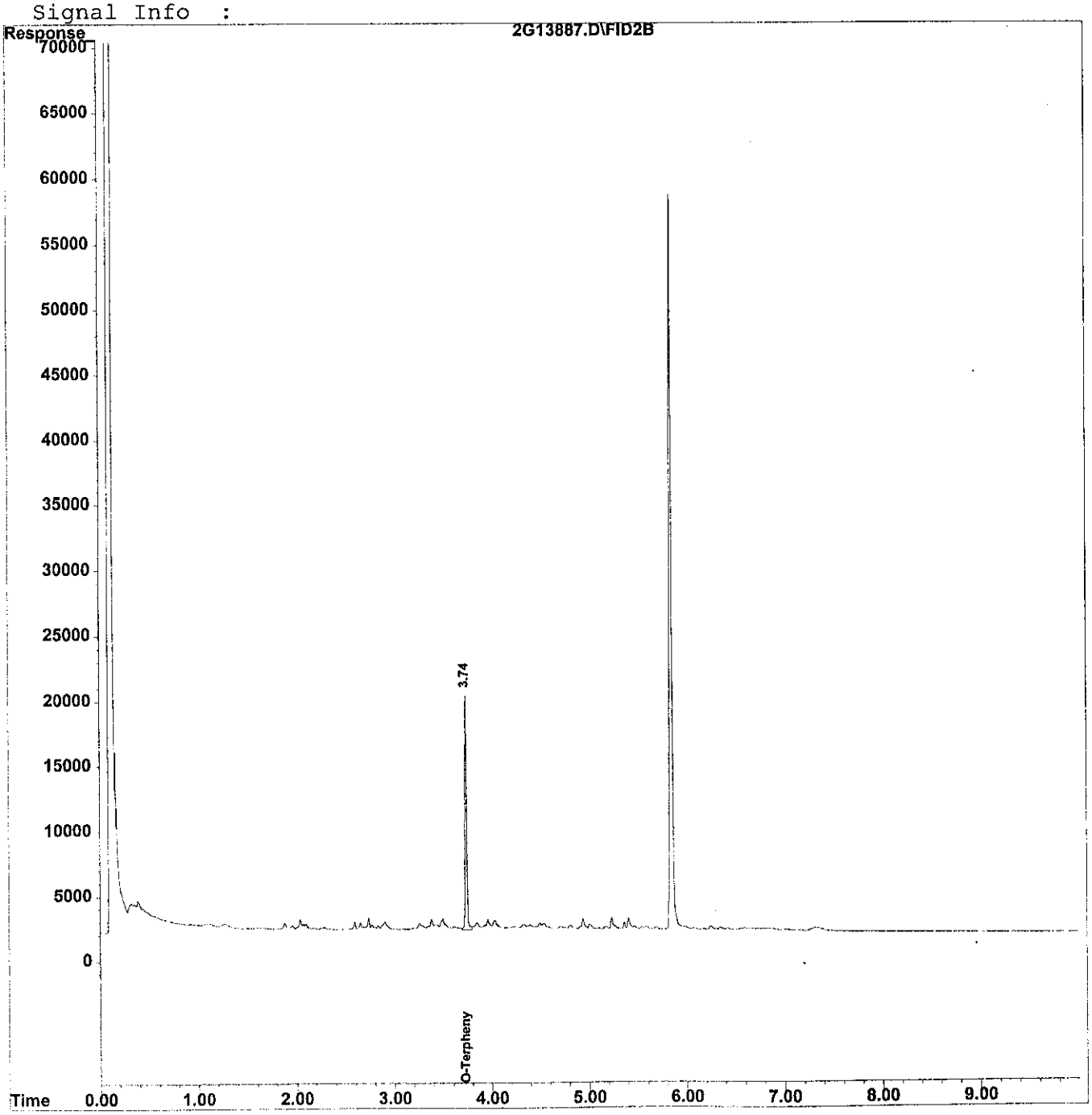
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	207336	8.686 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 43.43%#			
Target Compounds			
1) H Petroleum Range	3.60	1681801	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13887.D FLASHPRO.M Fri Jul 27 11:01:49 2001 Page 1

Acq On : 26 Jul 2001 14:21 Operator: HV
Sample : L0107411-03 PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 15:45 Operator: HV
Sample : L0107411-03 PRO water RE Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 1 7:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

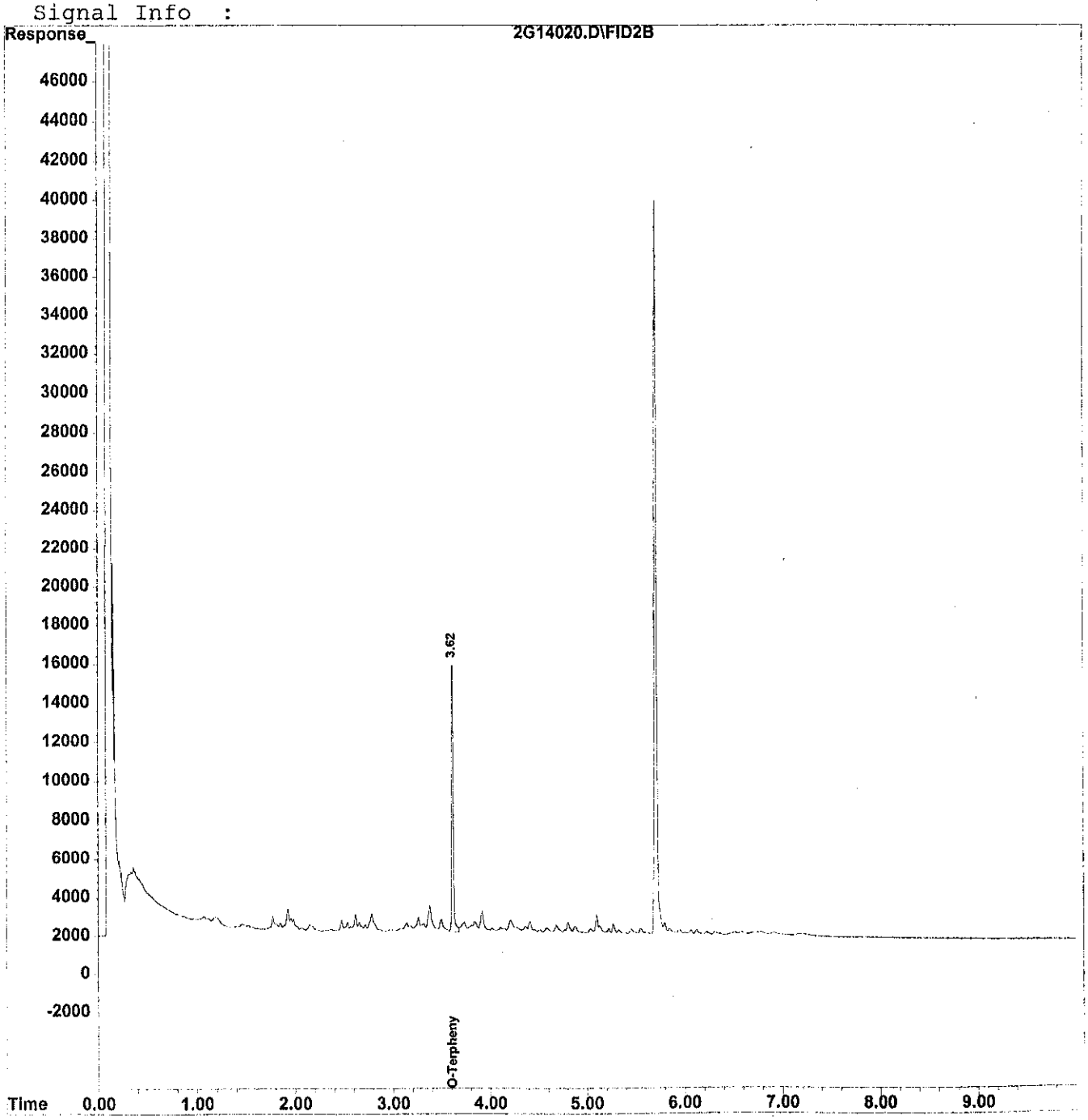
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.62	166757	8.933 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 44.67%#			
Target Compounds			
1) H Petroleum Range	3.60	1267503	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14020.D FLASHPRO.M Wed Aug 01 07:46:10 2001 Page 1

Acq On : 31 Jul 2001 15:45 Operator: HV
Sample : L0107411-03 PRO water RE Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 1 7:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13888.D Vial: 9
Acq On : 26 Jul 2001 14:35 Operator: HV
Sample : L0107411-04 PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

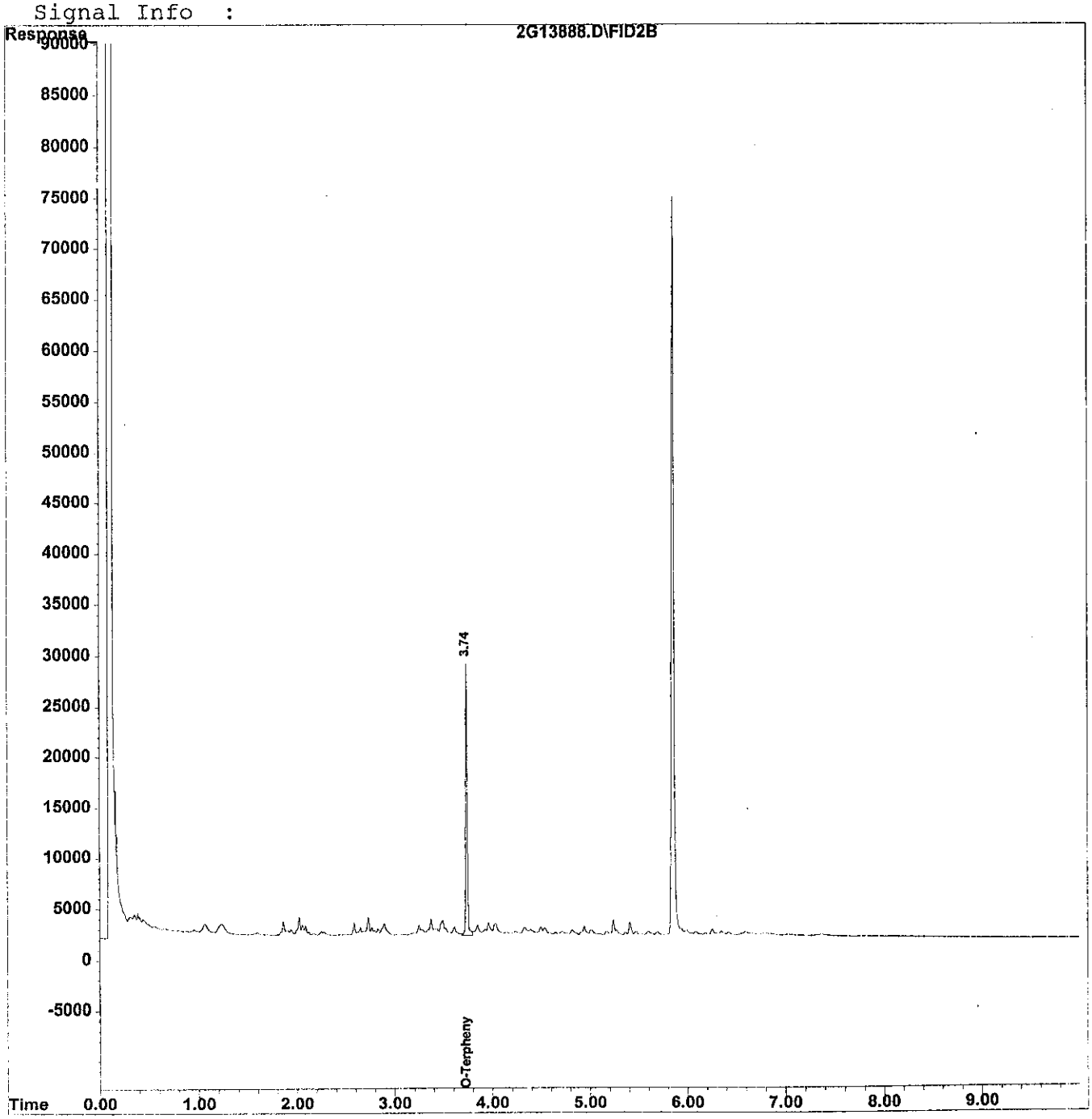
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	305538	12.799 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 64.00%			
Target Compounds			
1) H Petroleum Range	3.60	2680119	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\072601A\2G13888.D Vial: 9
Acq On : 26 Jul 2001 14:35 Operator: HV
Sample : L0107411-04 PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13889.D Vial: 10
Acq On : 26 Jul 2001 14:50 Operator: HV
Sample : L0107411-05 MS PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 11:02 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

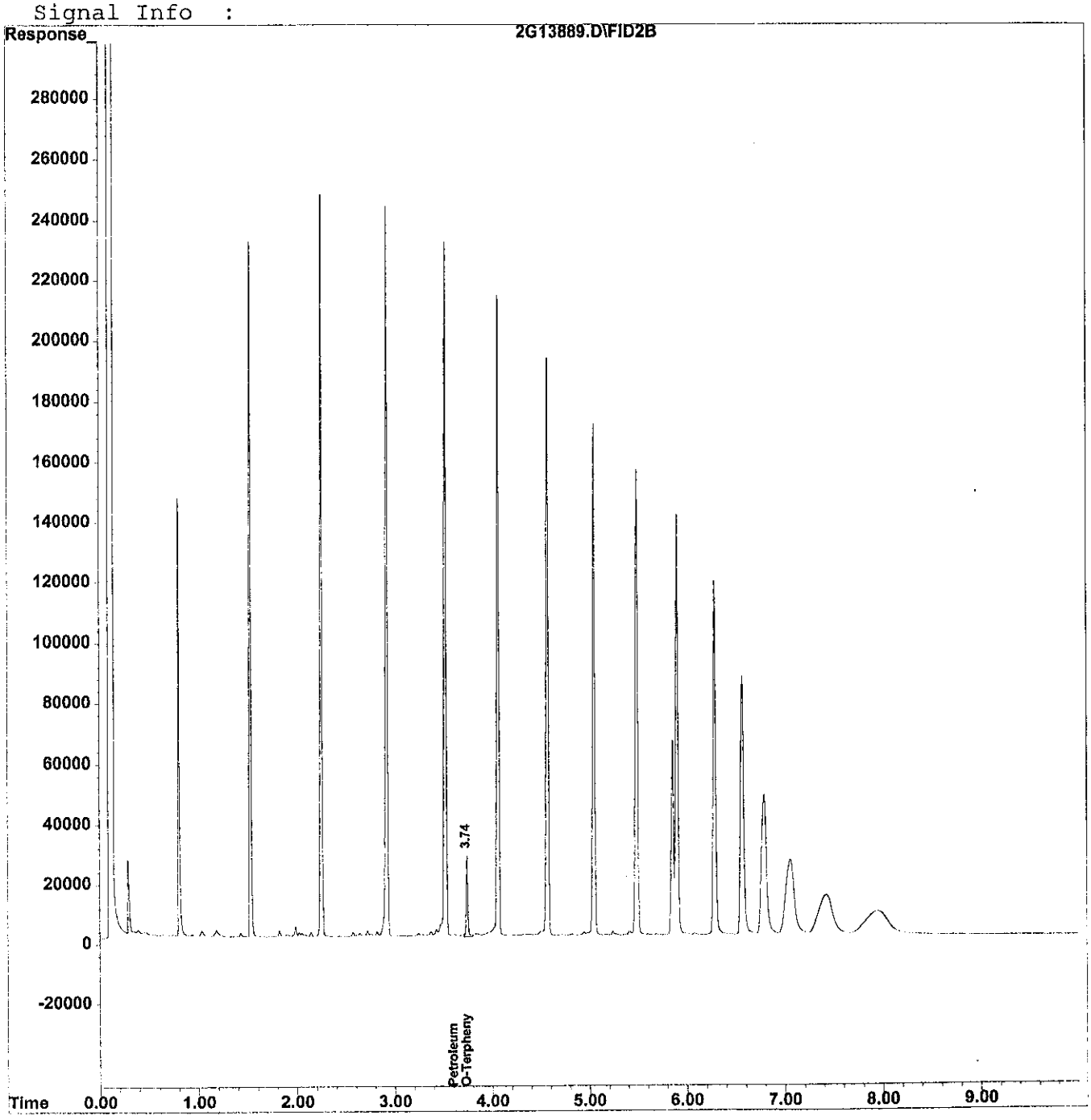
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	319328	13.377 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	66.89%
Target Compounds			
1) H Petroleum Range	3.60	40117565	2381.426 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13889.D FLASHPRO.M Fri Jul 27 11:02:07 2001 Page 1

Data File : C:\HPCHEM\1\DATA\072601A\2G13889.D Vial: 10
Acq On : 26 Jul 2001 14:50 Operator: HV
Sample : L0107411-05 MS PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 11:02 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13890.D Vial: 11
Acq On : 26 Jul 2001 15:04 Operator: HV
Sample : L0107411-06 MSD PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 11:02 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

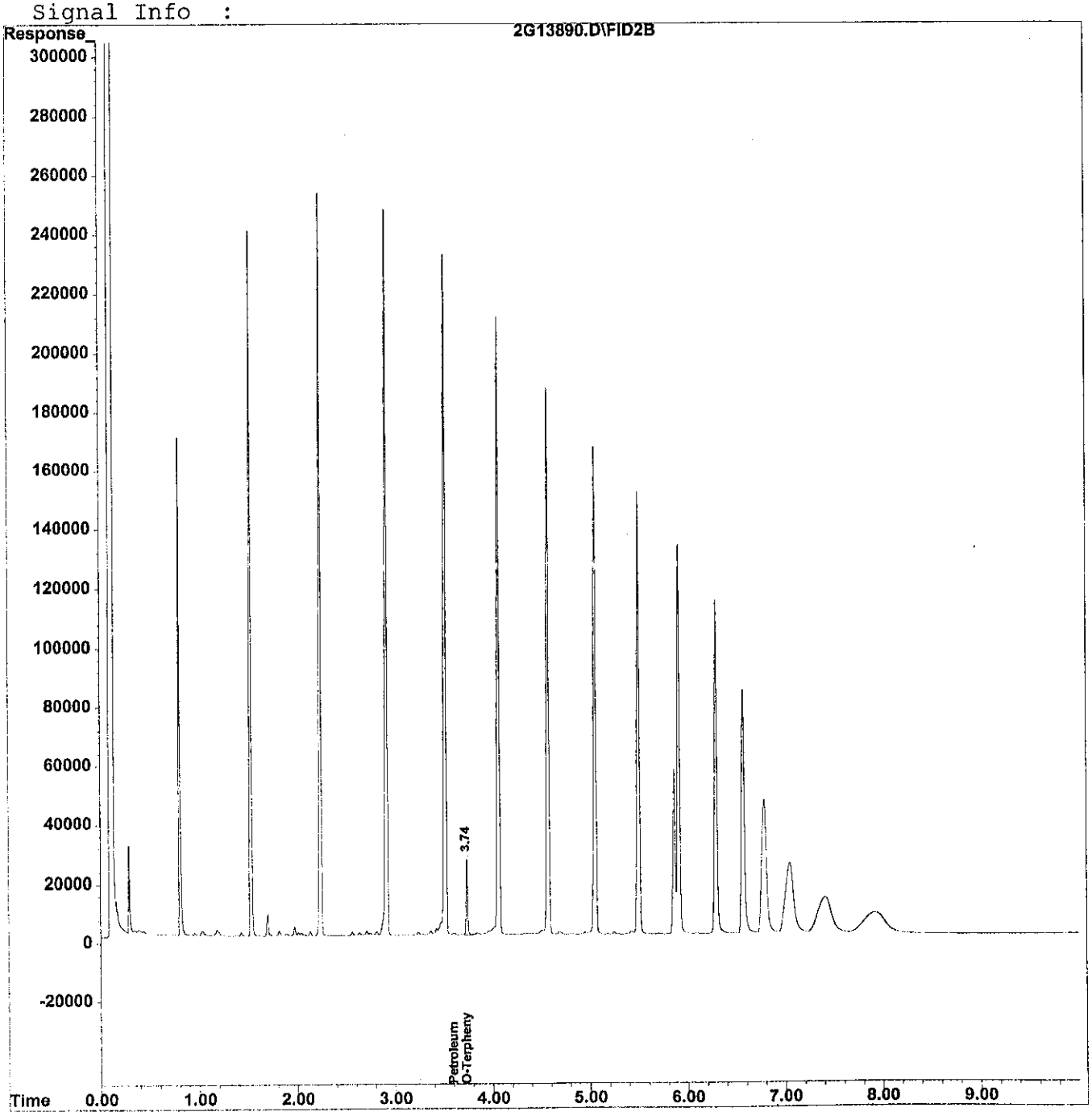
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	291567	12.214 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 61.07%			
Target Compounds			
1) H Petroleum Range	3.60	37884740	2248.883 ppb

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

Data File : C:\HPCHEM\1\DATA\072601A\2G13890.D Vial: 11
Acq On : 26 Jul 2001 15:04 Operator: HV
Sample : L0107411-06 MSD PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 11:02 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072701A\2G13931.D Vial: 5
Acq On : 27 Jul 2001 11:21 Operator: HV
Sample : L0107411-07 PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

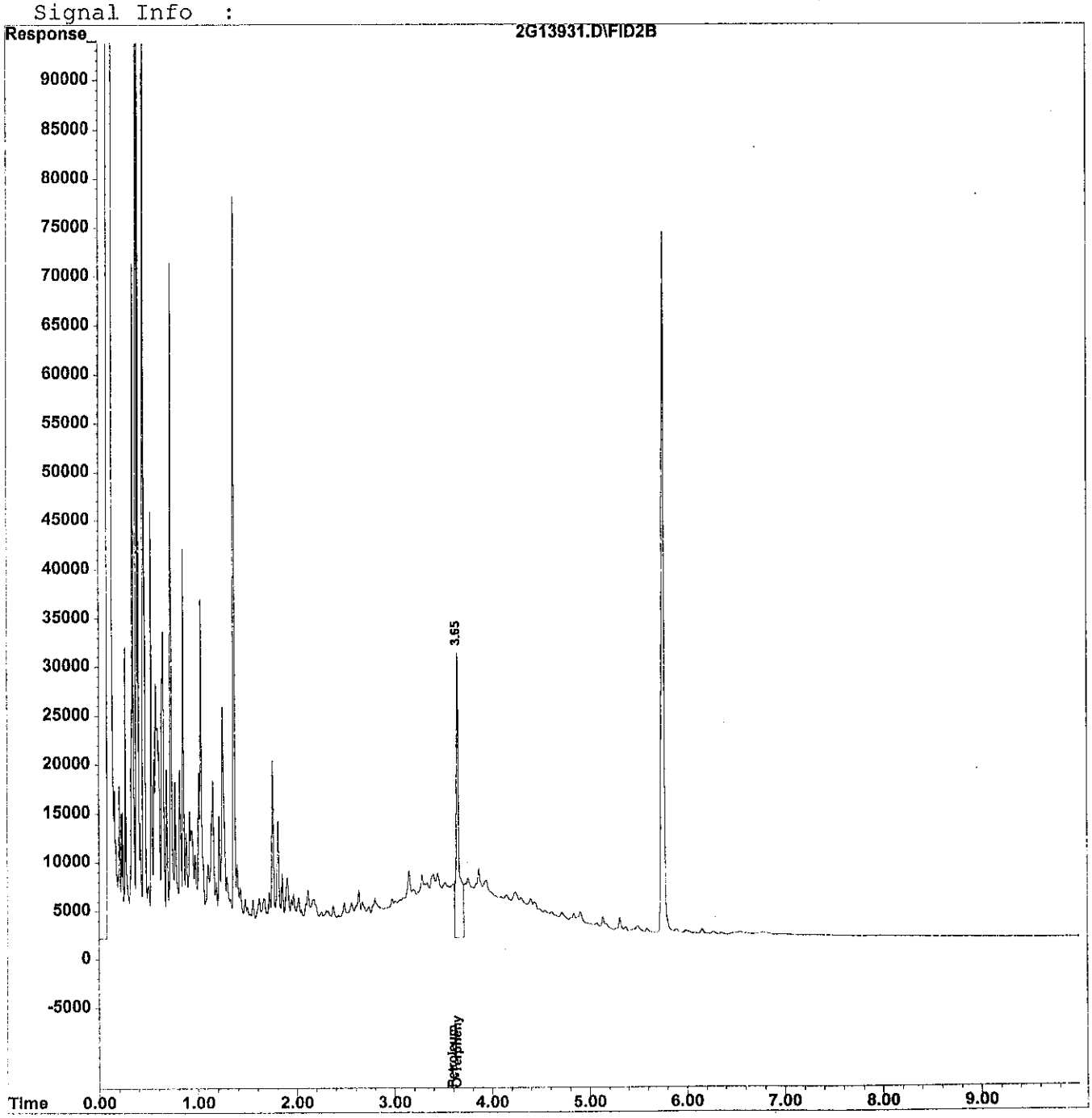
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.65	579465	24.275 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 121.38%	
Target Compounds			
1) H Petroleum Range	3.60	20964665	1244.487 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13931.D FLASHPRO.M Fri Jul 27 12:22:40 2001 Page 1

Data File : C:\HPCHEM\1\DATA\072701A\2G13931.D Vial: 5
Acq On : 27 Jul 2001 11:21 Operator: HV
Sample : L0107411-07 PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Jul 2001 11:35 Operator: HV
Sample : L0107411-08 PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

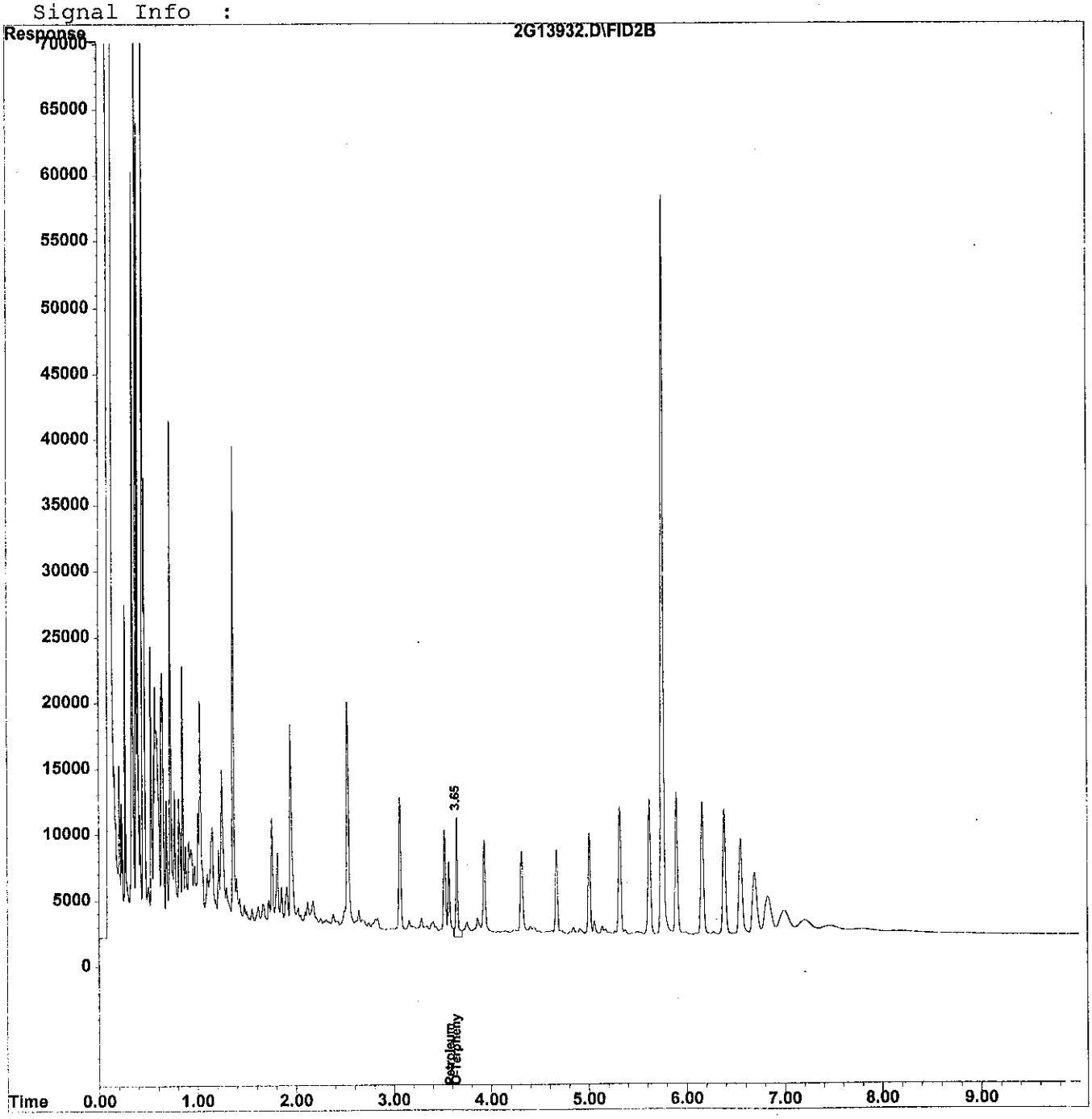
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.65	122821	5.145 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	25.73%#
Target Compounds			
1) H Petroleum Range	3.60	13501984	801.494 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13932.D FLASHPRO.M Fri Jul 27 12:22:49 2001 Page 1

Acq On : 27 Jul 2001 11:35 Operator: HV
Sample : L0107411-08 PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 15:59 Operator: HV
Sample : L0107411-08 PRO water RE Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 1 7:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

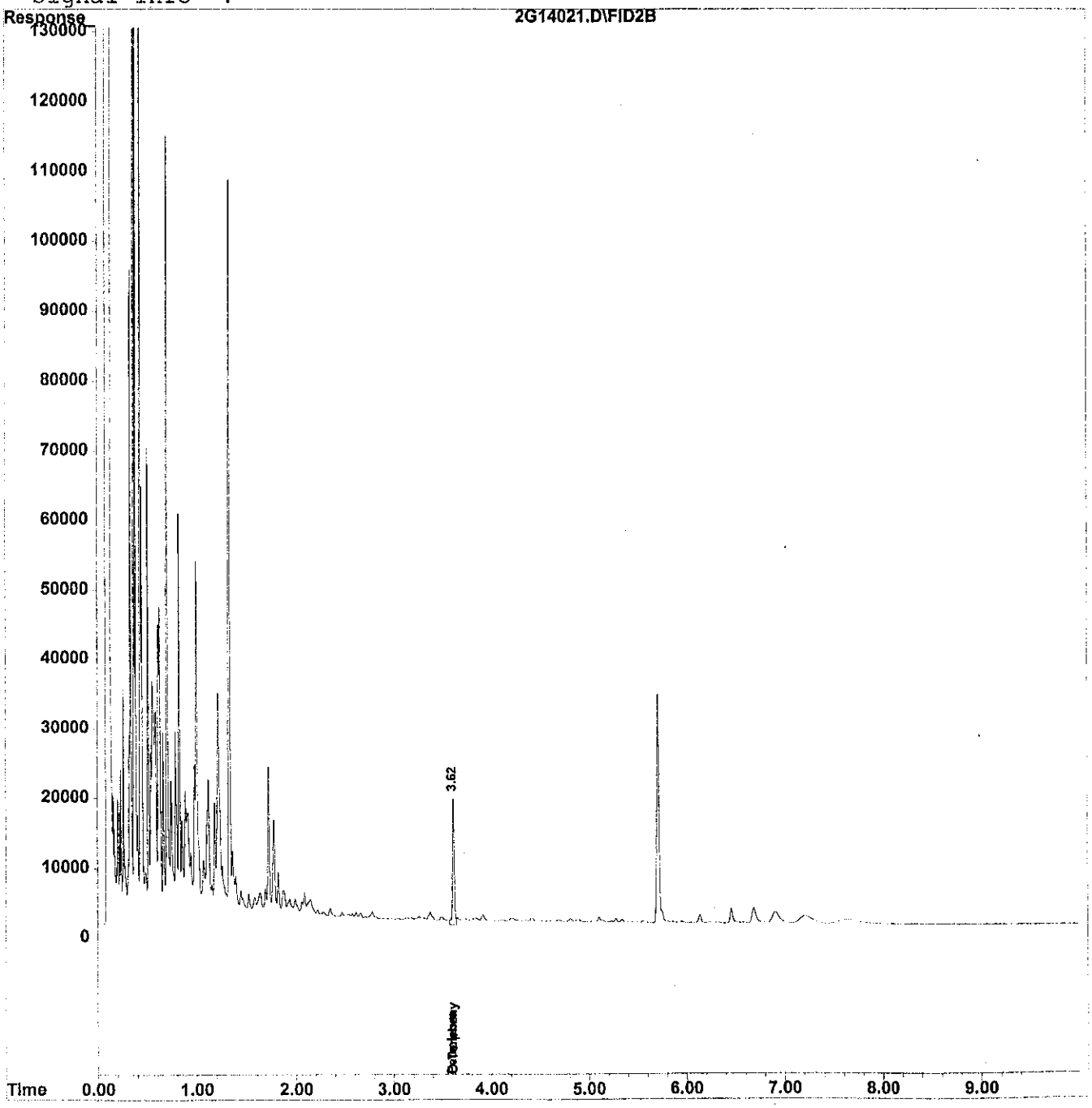
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.62	226365	12.126 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 60.63%			
Target Compounds			
1) H Petroleum Range	3.60	18260684	1273.070 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14021.D FLASHPRO.M Wed Aug 01 07:46:19 2001 Page 1

Acq On : 31 Jul 2001 15:59 Operator: HV
Sample : L0107411-08 PRO water RE Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 1 7:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Jul 2001 11:50
Sample : L0107411-09 PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.02

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

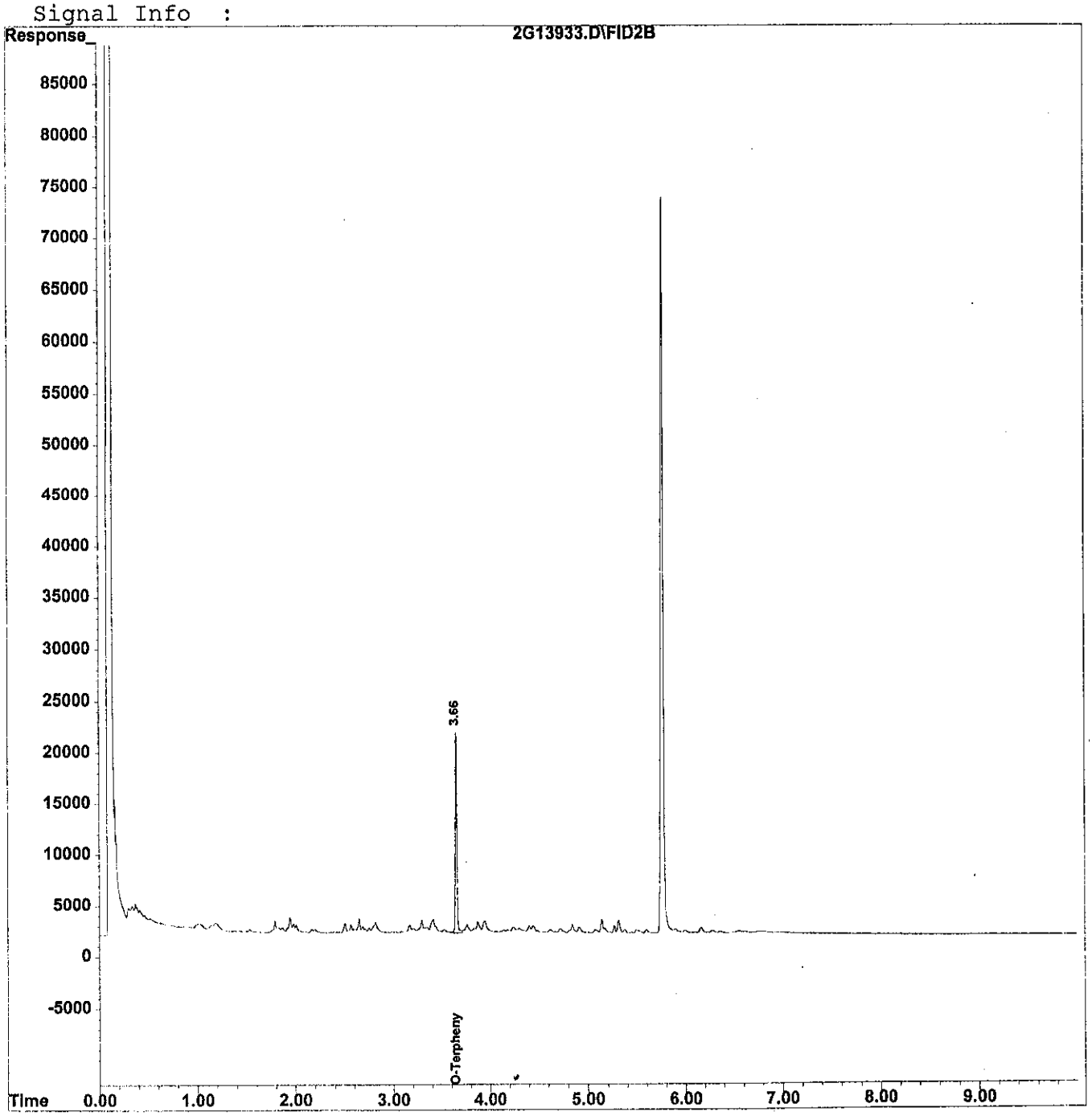
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.66	226266	9.479 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	47.40%#
Target Compounds			
1) H Petroleum Range	3.60	2721159	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13933.D FLASHPRO.M Fri Jul 27 12:22:59 2001

Acq On : 27 Jul 2001 11:50 Operator: HV
Sample : L0107411-09 PRO water Inst : hp2
Misc : water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 16:13 Operator: HV
Sample : L0107411-09 PRO water RE Inst : hp2
Misc : water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Aug 1 7:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

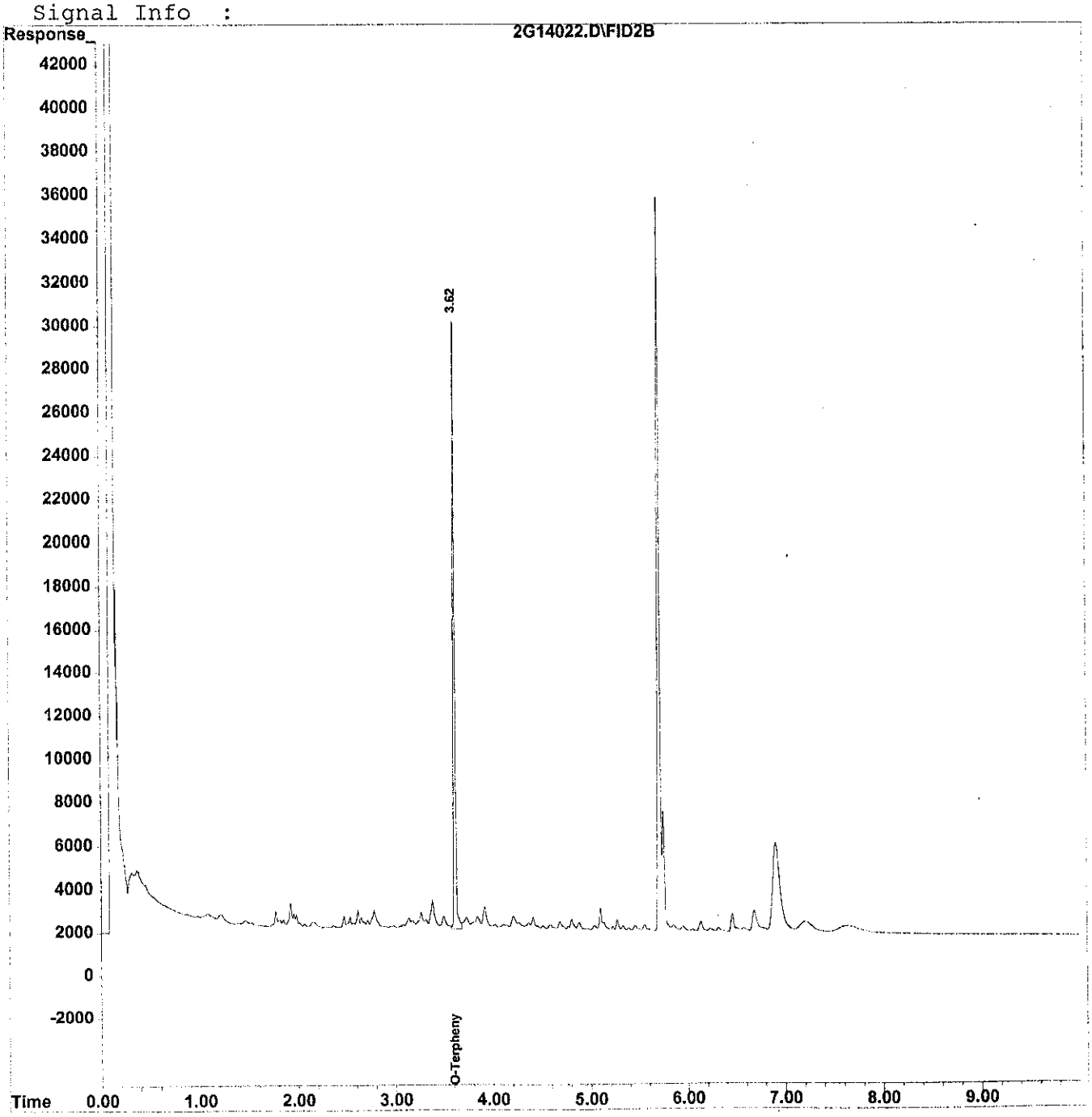
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.62	332150	18.135 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 90.68%			
Target Compounds			
1) H Petroleum Range	3.60	1661166	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\0701\2G14022.D Vial: 5
Acq On : 31 Jul 2001 16:13 Operator: HV
Sample : L0107411-09 PRO water RE Inst : hp2
Misc : water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Aug 1 7:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
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 07/06/01
Last Update : Wed Jun 20 09:44:54 2001

Calibration Files

5	=2G13571.D	50	=2G13570.D	100	=2G13569.D
200	=2G13568.D	400	=2G13567.D	600	=2G13566.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.028	1.755	1.736	1.648	1.622	1.520	1.718	E4	10.12
2)	S	O-Terphenyl	2.760	2.505	2.465	2.341	2.236	2.015	2.387	E4	10.65

(#) = Out of Range

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

Acq On : 6 Jul 2001 10:10 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	12088904	506.422	ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2532.11%#	
Target Compounds				
1) H Petroleum Range	3.60	155049931	9023.478	ppb

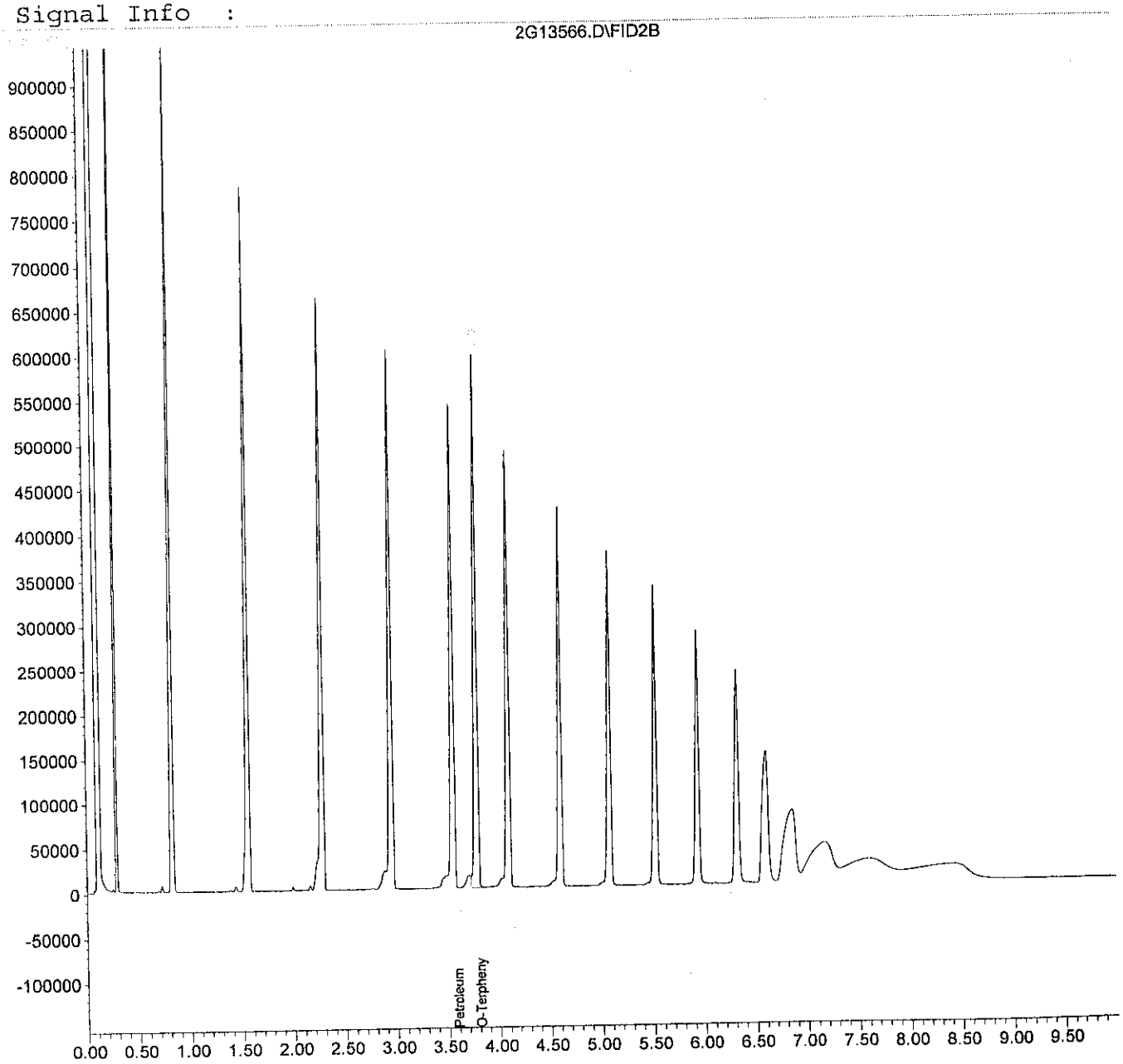
(f)=RT Delta > 1/2 Window (m)=manual int.
2G13566.D FLASHPRO.M Fri Jul 13 11:07:44 2001 Page 1

Data File : C:\HPCHEM\1\DATA\070601\2G13566.D
Acq On : 6 Jul 2001 10:10
Sample : PRO STD 600ppm
Misc : SV 53-34
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\070601\2G13567.D Vial: 5
Acq On : 6 Jul 2001 10:25 Operator: HV
Sample : PRO STD 400ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

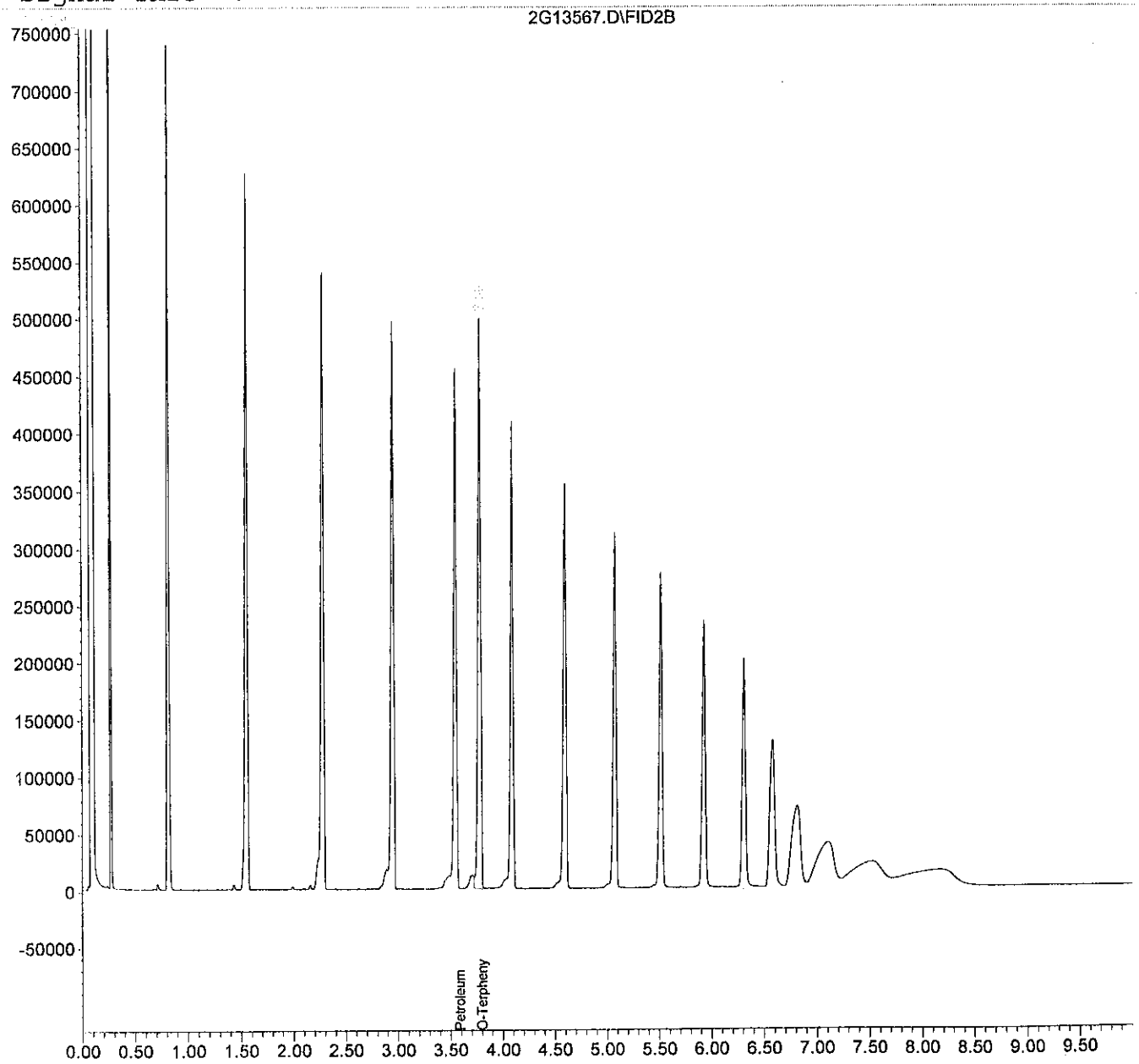
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	3.80	8942854	374.629	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1873.15%#				
Target Compounds				
1) H Petroleum Range	3.60	110295764	6418.909	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13567.D FLASHPRO.M Fri Jul 13 11:07:48 2001 Page 1

Data File : C:\HPCHEM\1\DATA\070601\2G13567.D Vial: 5
Acq On : 6 Jul 2001 10:25 Operator: HV
Sample : PRO STD 400ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\070601\2G13568.D
Acq On : 6 Jul 2001 10:39
Sample : PRO STD 200ppm
Misc : SV 53-34
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	3.78	4681847	196.129	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 980.65%#			
Target Compounds				
1) H Petroleum Range	3.60	56043711	3261.589	ppb

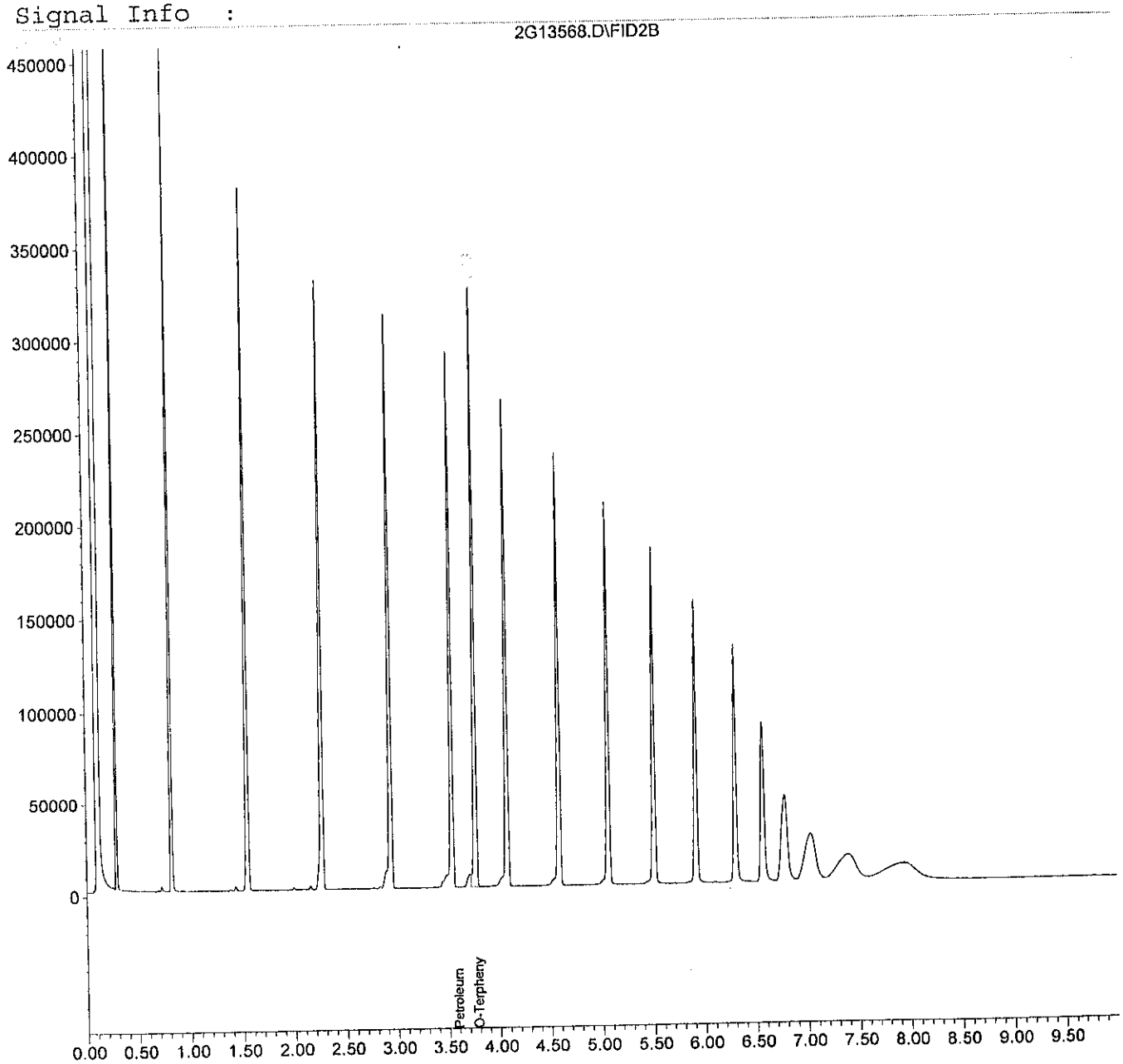
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\070601\2G13568.D
Acq On : 6 Jul 2001 10:39
Sample : PRO STD 200ppm
Misc : SV 53-34
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\070601\2G13569.D Vial: 7
Acq On : 6 Jul 2001 10:53 Operator: HV
Sample : PRO STD 100ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

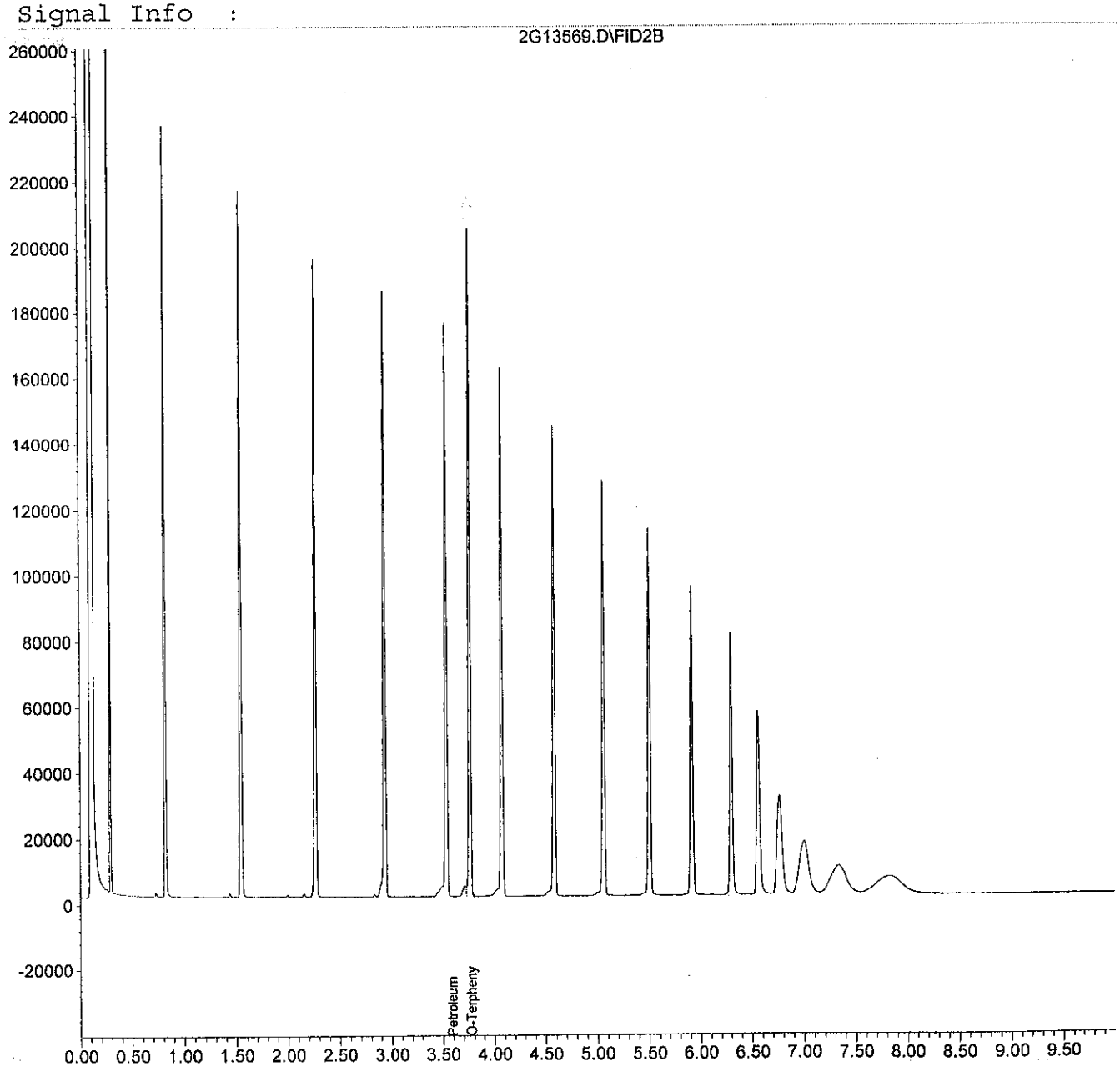
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	3.77	2465481	103.283	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 516.42%#				
Target Compounds				
1) H Petroleum Range	3.60	29517010	1717.808	ppb

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

Data File : C:\HPCHEM\1\DATA\070601\2G13569.D Vial: 7
Acq On : 6 Jul 2001 10:53 Operator: HV
Sample : PRO STD 100ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\070601\2G13570.D Vial: 8
Acq On : 6 Jul 2001 11:08 Operator: HV
Sample : PRO STD 50ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

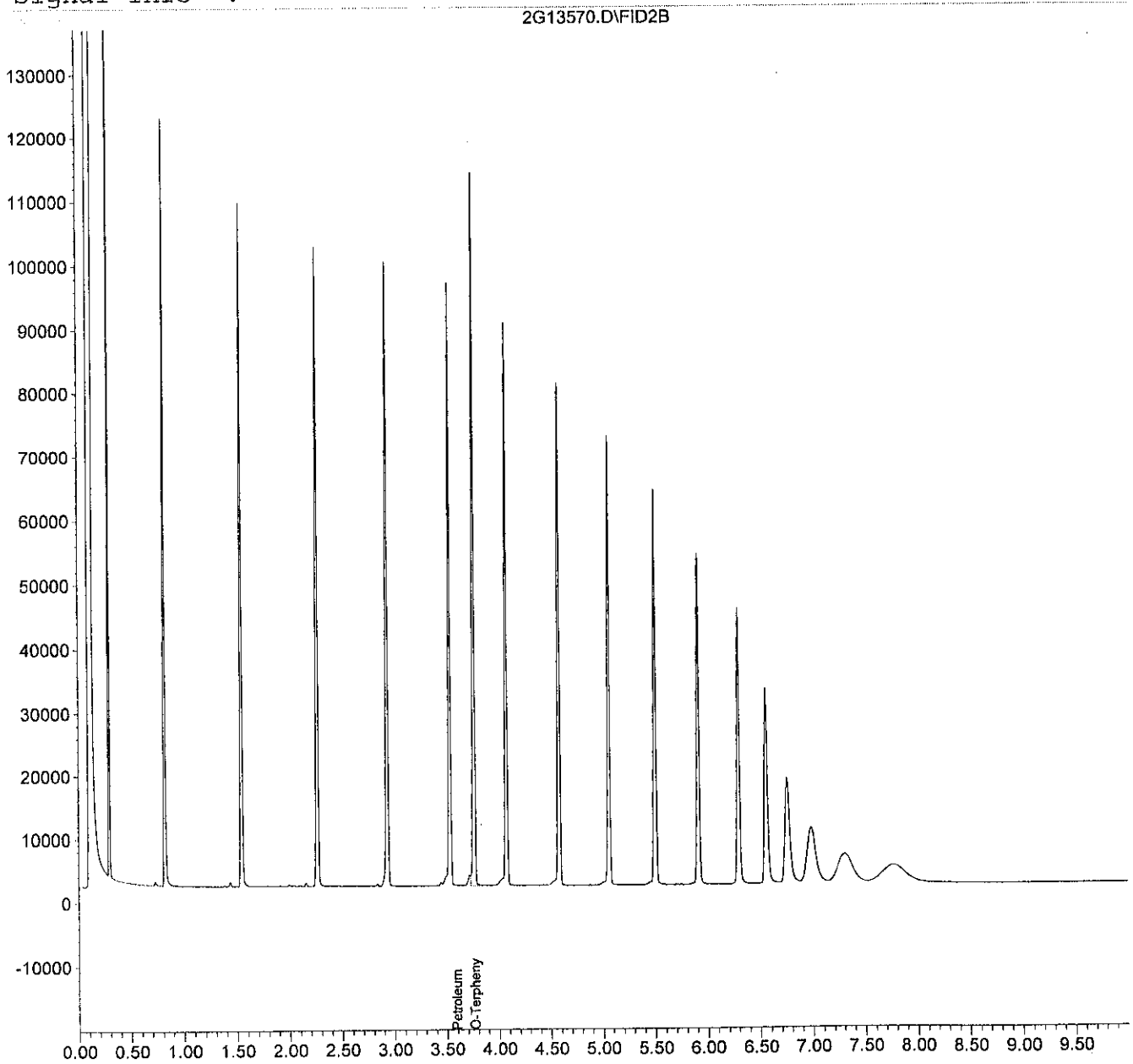
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	3.77	1252692	52.477	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 262.39%#				
Target Compounds				
1) H Petroleum Range	3.60	14913739	867.938	ppb

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

Data File : C:\HPCHEM\1\DATA\070601\2G13570.D Vial: 8
Acq On : 6 Jul 2001 11:08 Operator: HV
Sample : PRO STD 50ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\070601\2G13571.D
Acq On : 6 Jul 2001 11:22
Sample : PRO STD 5ppm
Misc : SV 53-34
IntFile : PETRO.E
Quant Time: Jul 13 11:08 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

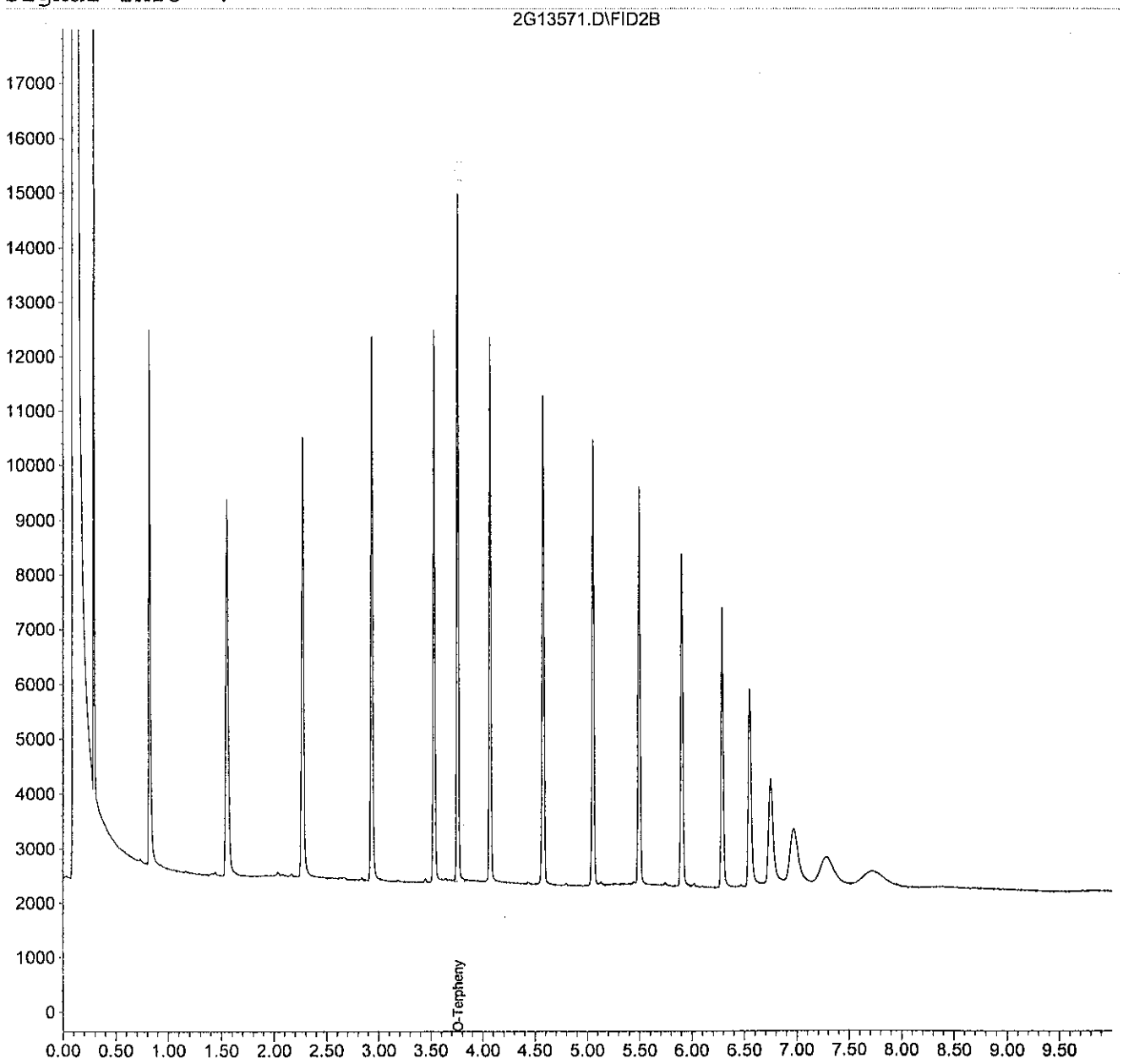
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.76	138020	5.782 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	28.91%#
Target Compounds			
1) H Petroleum Range	3.60	1724205	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\070601\2G13571.D Vial: 9
Acq On : 6 Jul 2001 11:22 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 13 11:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\070601\2G13572.D
Acq On : 6 Jul 2001 11:44
Sample : ALT PRO @200ppm
Misc : SV 53-49
IntFile : PETRO.E

Vial: 10
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	3392.235	0.2	104	0.00
2	S	O-Terphenyl	200.000	1.138	99.4#	1	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G13572.D FLASHPRO.M Fri Jul 13 11:08:29 2001 Page 1

Data File : C:\HPCHEM\1\DATA\070601\2G13572.D
Acq On : 6 Jul 2001 11:44
Sample : ALT PRO @200ppm
Misc : SV 53-49
IntFile : PETRO.E

Vial: 10
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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)

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

Data File : C:\HPCHEM\1\DATA\070601\2G13572.D
Acq On : 6 Jul 2001 11:44
Sample : ALT PRO @200ppm
Misc : SV 53-49
IntFile : PETRO.E
Quant Time: Jul 13 11:08 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jun 29 14:05:15 2001
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	27162	1.138	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	5.69%#		
Target Compounds				
1) H Petroleum Range	3.60	58288594	3392.235	ppb

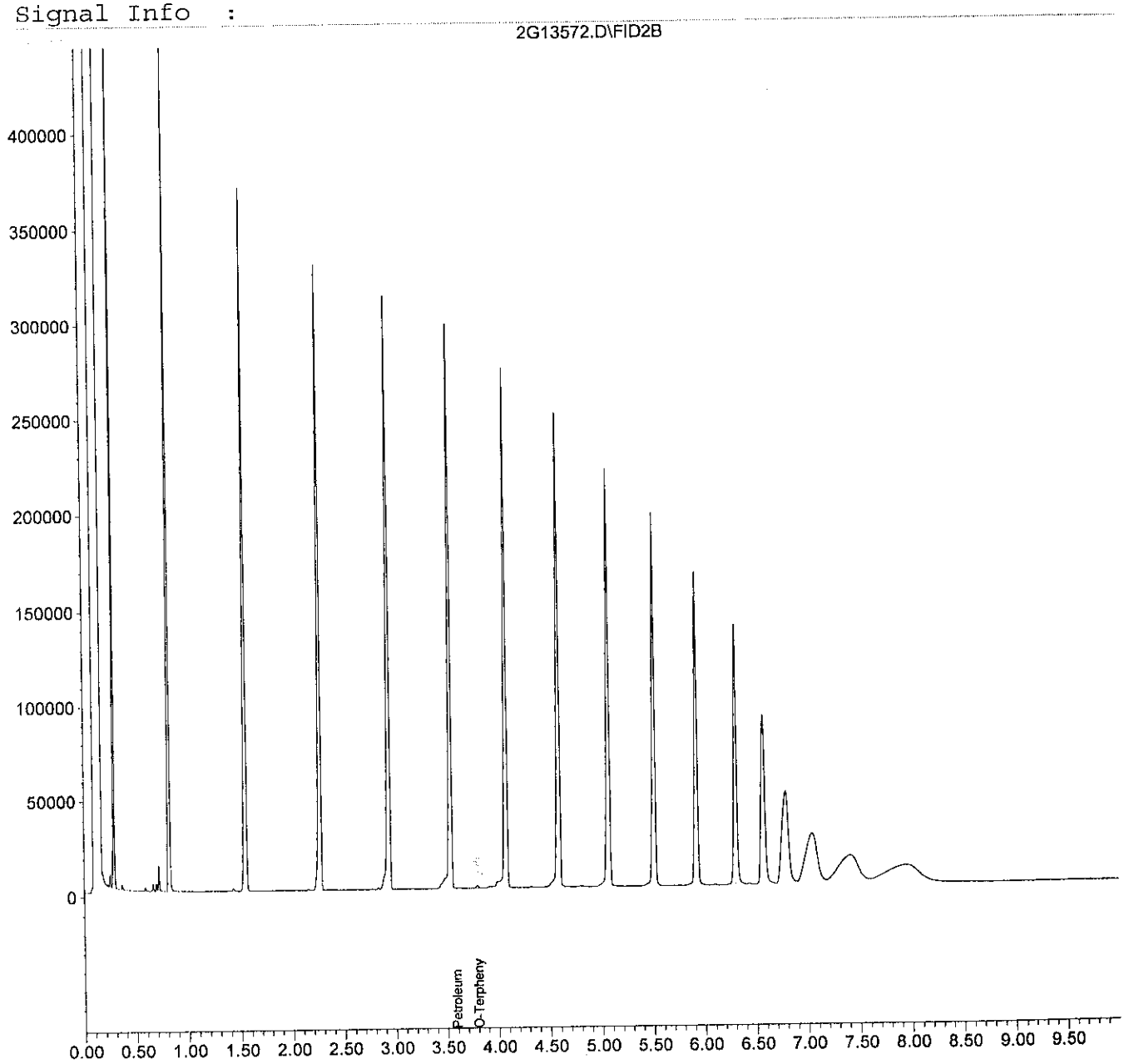
(f)=RT Delta > 1/2 Window (m)=manual int.
2G13572.D FLASHPRO.M Fri Jul 13 11:08:35 2001 Page 1

Data File : C:\HPCHEM\1\DATA\070601\2G13572.D
Acq On : 6 Jul 2001 11:44
Sample : ALT PRO @200ppm
Misc : SV 53-49
IntFile : PETRO.E
Quant Time: Jul 13 11:08 2001 Quant Results File: FLASHPRO.RES

Vial: 10
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jun 29 14:05:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13882.D Vial: 3
Acq On : 26 Jul 2001 11:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	3517.286	-3.4	108	0.00
2	S	O-Terphenyl	200.000	190.634	4.7	97	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G13882.D FLASHPRO.M Fri Jul 27 10:56:22 2001 Page 1

Data File : C:\HPCHEM\1\DATA\072601A\2G13882.D Vial: 3
Acq On : 26 Jul 2001 11:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 10:56 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jun 29 14:05:15 2001
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	4550657	190.634 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 953.17%#	
Target Compounds			
1) H Petroleum Range	3.60	60437336	3517.286 ppb

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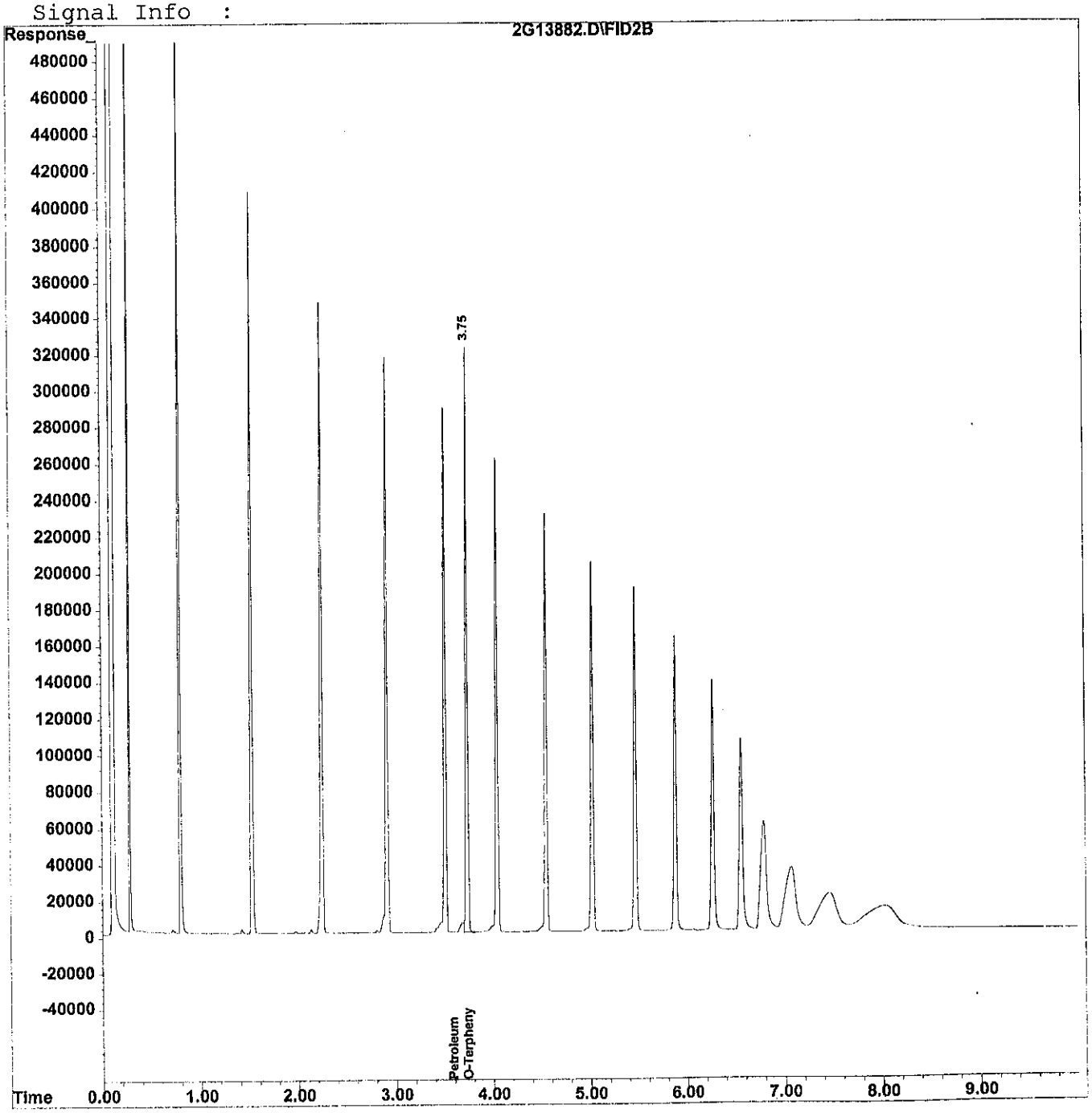
(f)=RT Delta > 1/2 Window (m)=manual int.
2G13882.D FLASHPRO.M Fri Jul 27 10:56:32 2001 Page 1

Data File : C:\HPCHEM\1\DATA\072601A\2G13882.D Vial: 3
Acq On : 26 Jul 2001 11:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 10:56 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jun 29 14:05:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13893.D Vial: 14
Acq On : 26 Jul 2001 15:47 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	3558.641	-4.7	109	0.00
2	S	O-Terphenyl	200.000	205.087	-2.5	105	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G13893.D FLASHPRO.M Fri Jul 27 11:03:35 2001

Data File : C:\HPCHEM\1\DATA\072601A\2G13893.D Vial: 14
Acq On : 26 Jul 2001 15:47 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G13893.D FLASHPRO.M Fri Jul 27 11:03:35 2001 Page 2

Data File : C:\HPCHEM\1\DATA\072601A\2G13893.D Vial: 14
Acq On : 26 Jul 2001 15:47 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 11:03 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:00:09 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

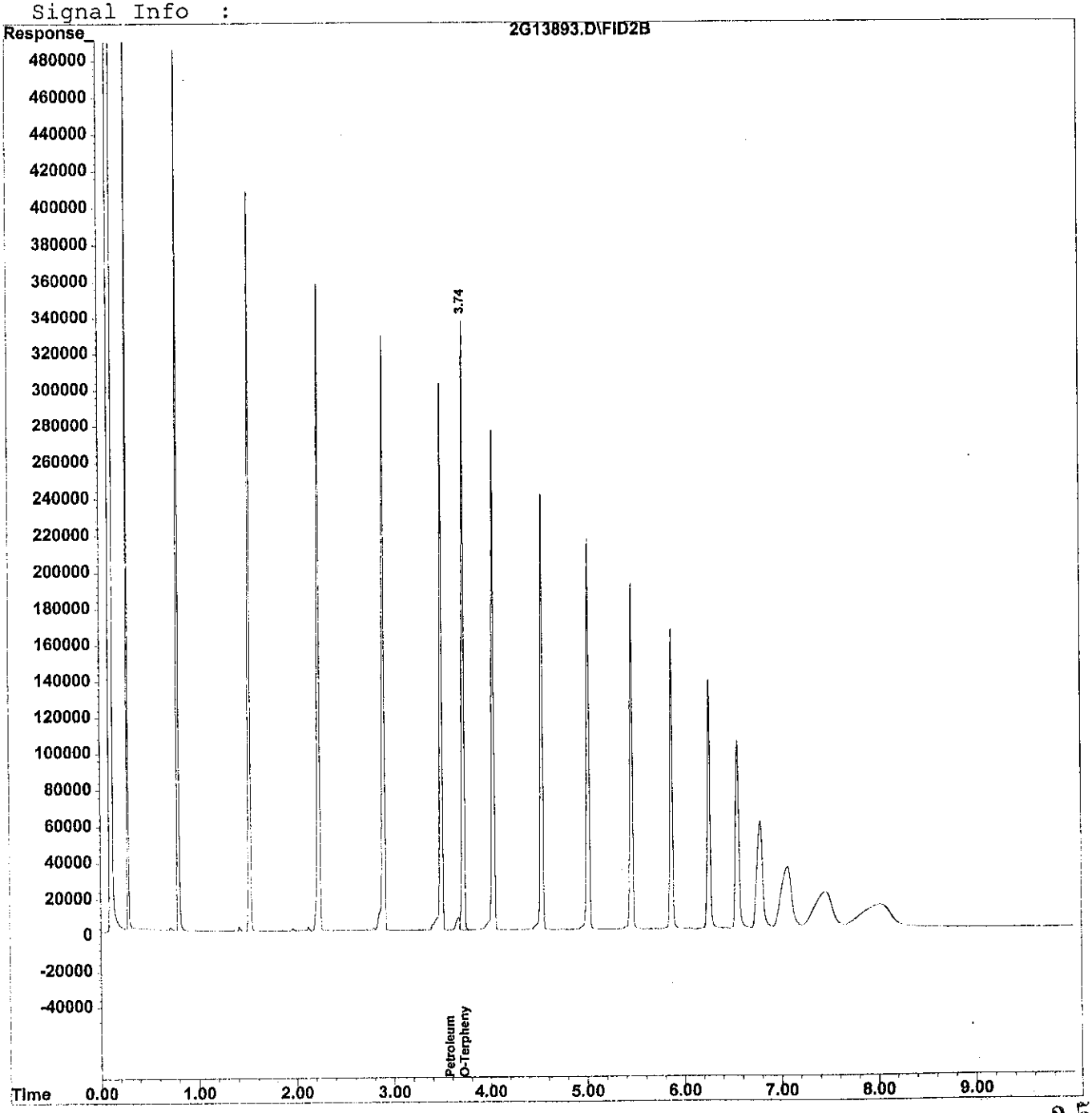
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	4895676	205.087 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1025.44%#
Target Compounds			
1) H Petroleum Range	3.60	61147936	3558.641 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13893.D FLASHPRO.M Fri Jul 27 11:03:44 2001 Page 1

Data File : C:\HPCHEM\1\DATA\072601A\2G13893.D Vial: 14
Acq On : 26 Jul 2001 15:47 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 11:03 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:00:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072701A\2G13930.D Vial: 4
Acq On : 27 Jul 2001 11:06 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	3149.600	7.4	97	0.00
2	S	O-Terphenyl	200.000	170.389	14.8	87	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G13930.D FLASHPRO.M Fri Jul 27 12:22:12 2001

Data File : C:\HPCHEM\1\DATA\072701A\2G13930.D Vial: 4
Acq On : 27 Jul 2001 11:06 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:50:30 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

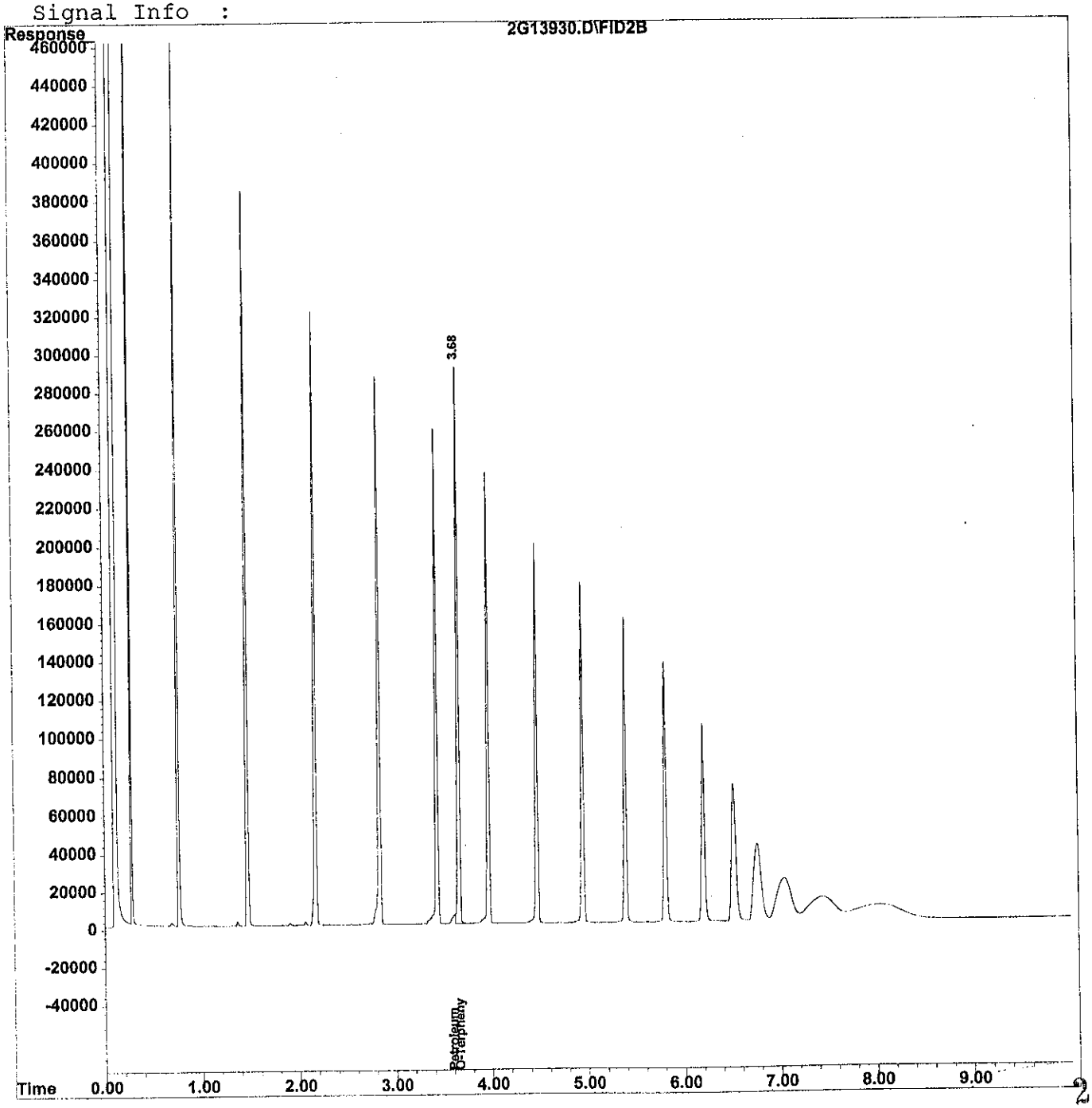
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.68	4067393	170.389 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 851.95%#			
Target Compounds			
1) H Petroleum Range	3.60	54119410	3149.600 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13930.D FLASHPRO.M Fri Jul 27 12:22:21 2001

Data File : C:\HPCHEM\1\DATA\072701A\2G13930.D Vial: 4
Acq On : 27 Jul 2001 11:06 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 53-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 12:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:50:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\072701A\2G13934.D Vial: 6
Acq On : 27 Jul 2001 12:04 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
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	3346.390	1.6	103	0.00
2	S	O-Terphenyl	200.000	182.799	8.6	93	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G13934.D FLASHPRO.M Fri Jul 27 12:23:20 2001 Page 13

Data File : C:\HPCHEM\1\DATA\072701A\2G13934.D Vial: 8
Acq On : 27 Jul 2001 12:04 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 12:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Fri Jul 27 11:50:30 2001
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	4363630	182.799 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	914.00%#
Target Compounds			
1) H Petroleum Range	3.60	57500836	3346.390 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13934.D FLASHPRO.M Fri Jul 27 12:23:28 2001

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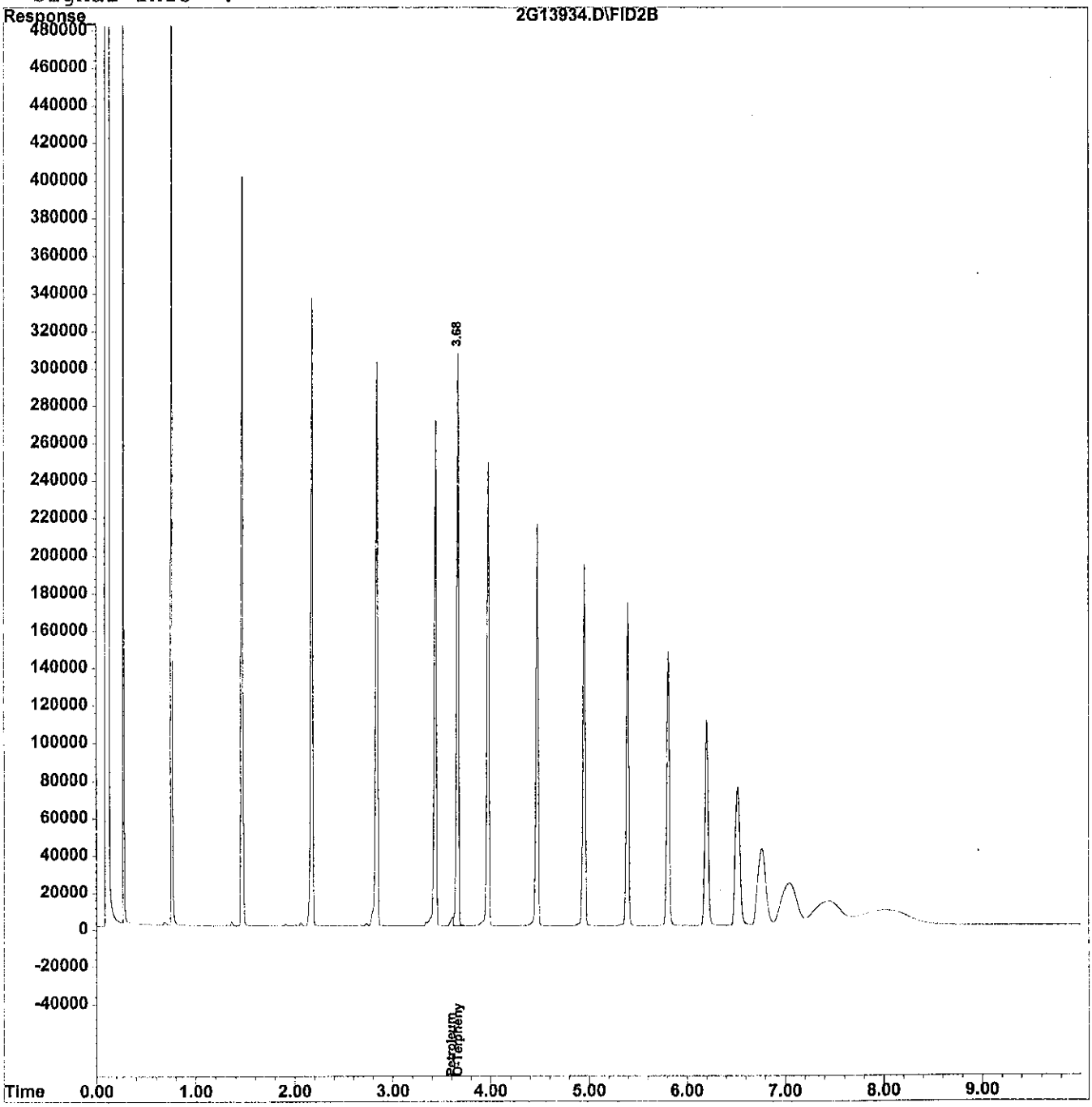
Page 1

```
Data File : C:\HPCHEM\1\DATA\072701A\2G13934.D          Vial: 8
Acq On    : 27 Jul 2001  12:04                       Operator: HV
Sample    : PRO CONT CHK                             Inst    : hp2
Misc      :                                          Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jul 27 12:23 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 07/06/01
Last Update  : Fri Jul 27 11:50:30 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```



Data File : C:\HPCHEM\1\DATA\073101A\2G14016.D Vial: 5
Acq On : 31 Jul 2001 14:49 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
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	3233.825	4.9	102	0.00
2	S	O-Terphenyl	200.000	193.014	3.5	106	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14016.D FLASHPRO.M Wed Aug 01 07:32:11 2001 Page 1

Data File : C:\HPCHEM\1\DATA\073101A\2G14016.D Vial: 5
Acq On : 31 Jul 2001 14:49 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

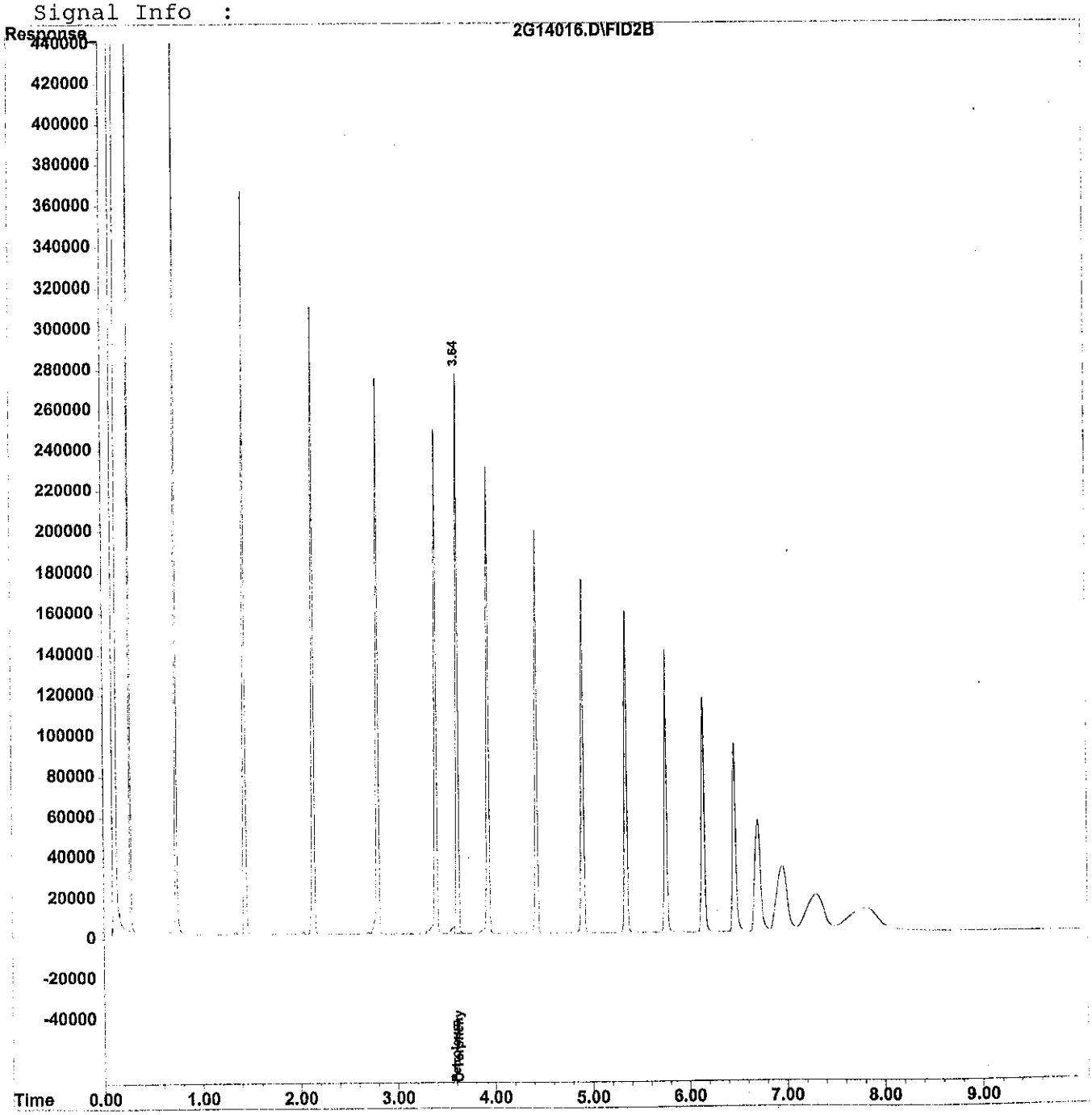
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.64	3747147	193.014 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 965.07%#			
Target Compounds			
1) H Petroleum Range	3.60	48240828	3233.825 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14016.D FLASHPRO.M Wed Aug 01 07:32:21 2001

Acq On : 31 Jul 2001 14:49 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 16:42
Sample : PRO CONT CHK
Misc : SV 55-03
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Wed Jun 20 09:44:54 2001
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	3312.940	2.6	104	0.00
2	S	O-Terphenyl	200.000	195.387	2.3	107	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14024.D FLASHPRO.M Wed Aug 01 07:34:40 2001

Acq On : 31 Jul 2001 16:42
Sample : PRO CONT CHK
Misc : SV 55-03
IntFile : PETRO.E
Quant Time: Aug 1 7:34 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

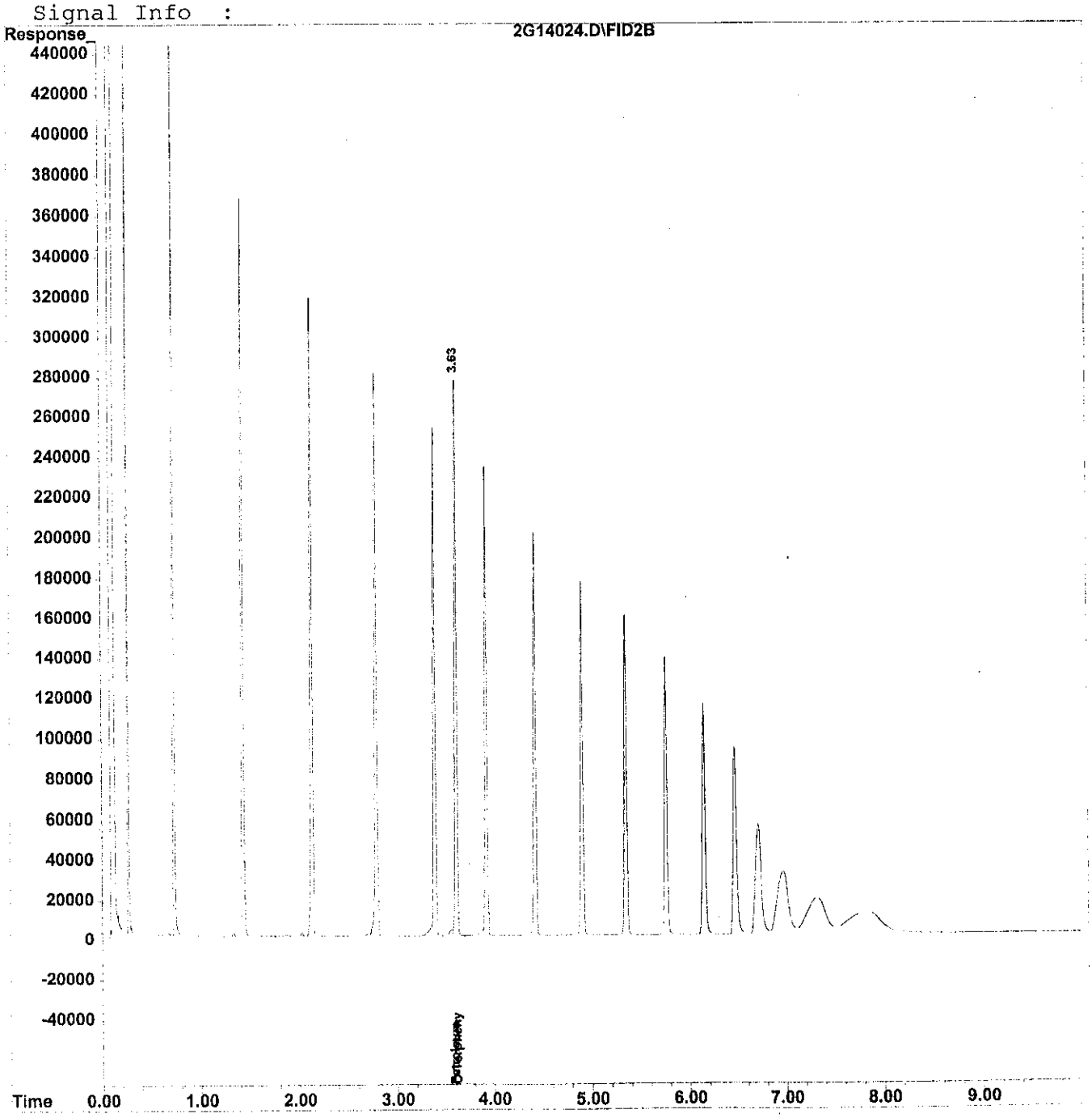
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.63	3793216	195.387 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	976.93%#
Target Compounds			
1) H Petroleum Range	3.60	49421027	3312.940 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14024.D FLASHPRO.M Wed Aug 01 07:34:49 2001

Acq On : 31 Jul 2001 16:42 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\072601A\2G13883.D Vial: 4
Acq On : 26 Jul 2001 12:12 Operator: HV
Sample : PRO water BLK V168-P89 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

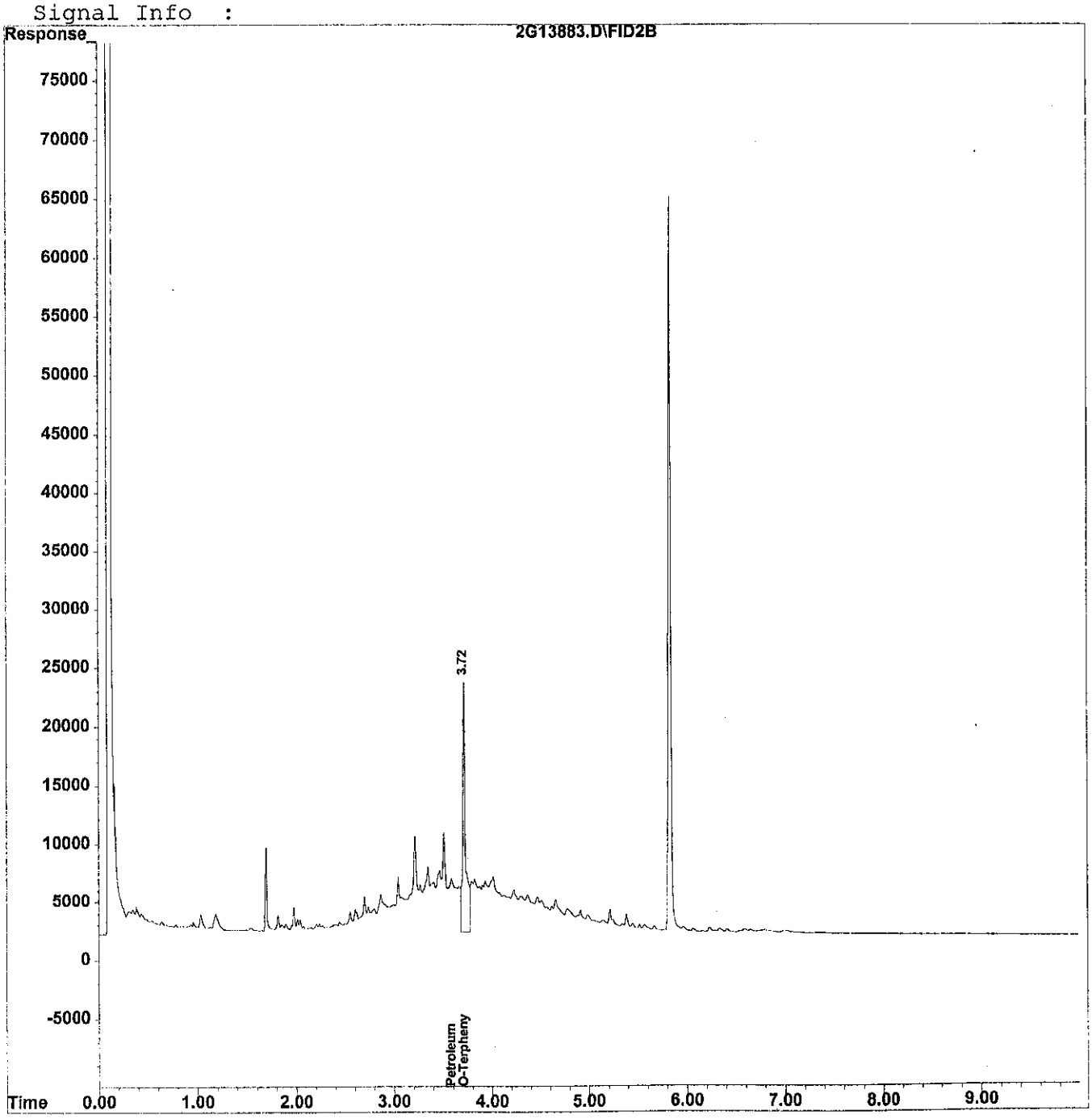
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.72	435471	18.243 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	91.21%
Target Compounds			
1) H Petroleum Range	3.60	6416625	373.430 ppb

Delta > 1/2 Window (m)=manual int.
3.D FLASHPRO.M Fri Jul 27 11:01:10 2001

Data File : C:\HPCHEM\1\DATA\072601A\2G13883.D Vial: 4
Acq On : 26 Jul 2001 12:12 Operator: HV
Sample : PRO water BLK V168-P89 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 15:03 Operator: HV
Sample : PRO water BLK V168-P135 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

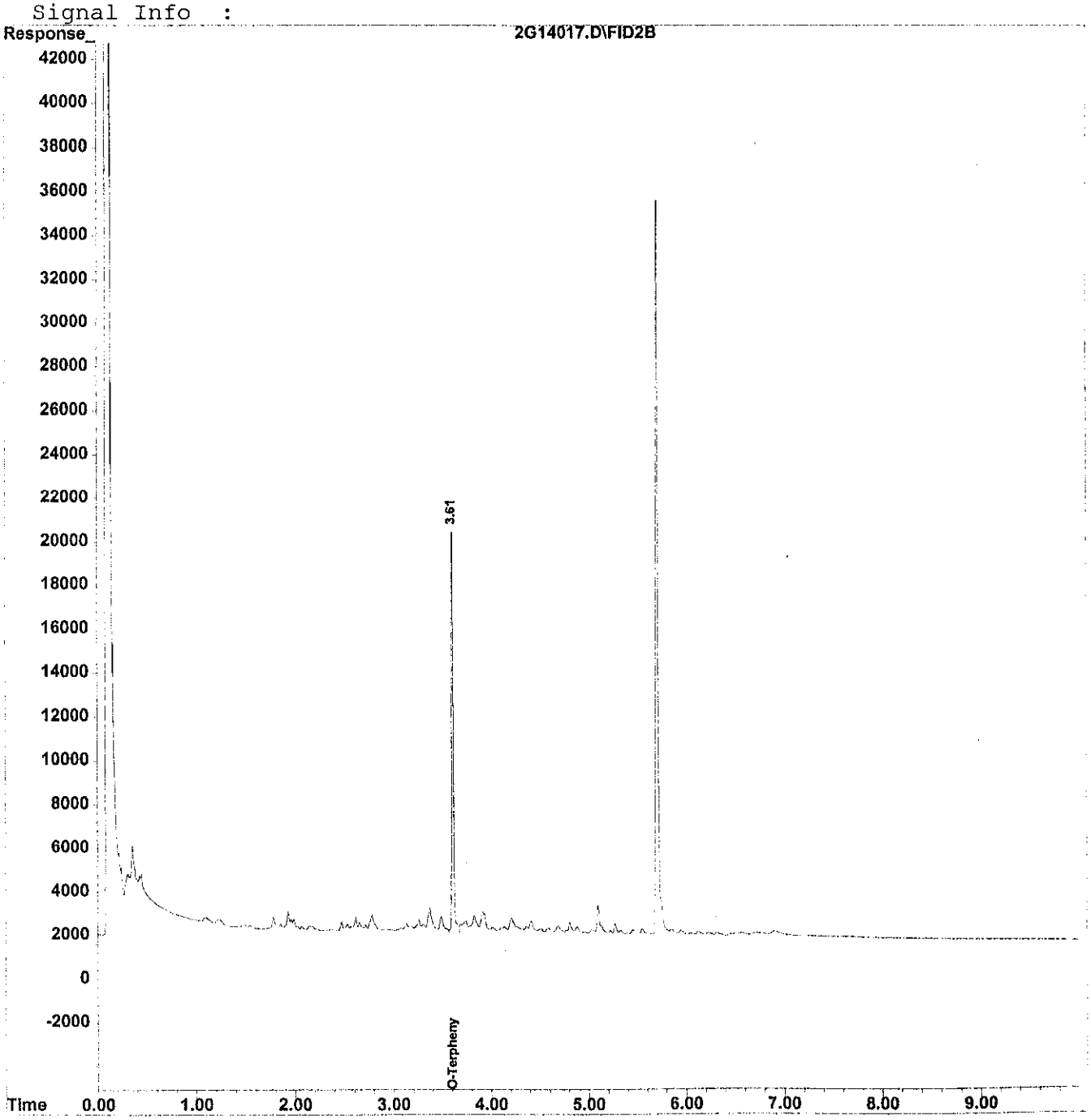
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.61	225043	11.592 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 57.96%			
Target Compounds			
1) H Petroleum Range	3.60	1418825	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14017.D FLASHPRO.M Wed Aug 01 07:32:47 2001 Page 1

Acq On : 31 Jul 2001 15:03 Operator: HV
Sample : PRO water BLK V168-P135 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\072601A\2G13884.D Vial: 5
Acq On : 26 Jul 2001 13:38 Operator: HV
Sample : PRO water LCS V168-P89 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

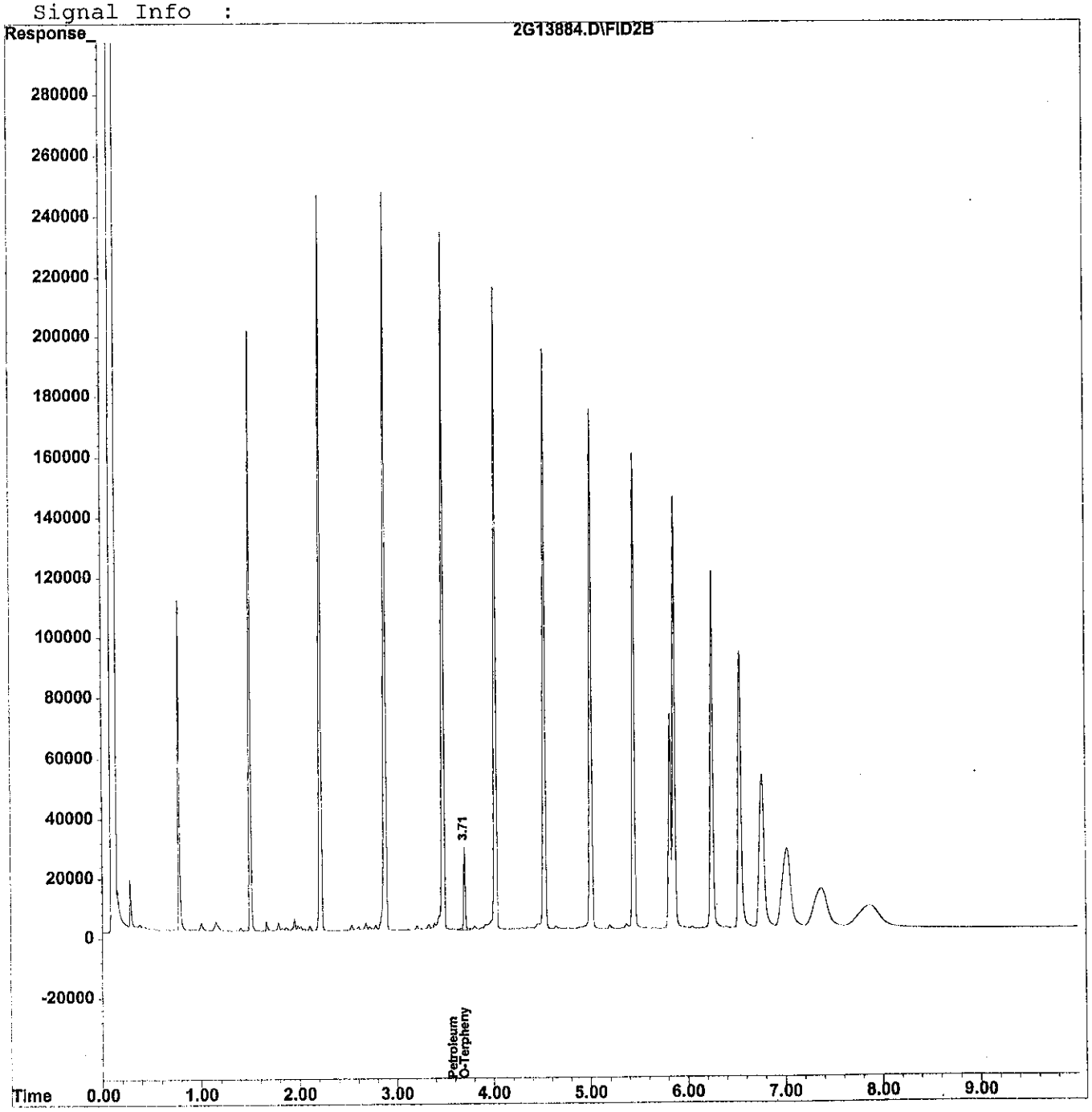
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.71	321400	13.464 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	67.32%
Target Compounds			
1) H Petroleum Range	3.60	38849493	2260.933 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G13884.D FLASHPRO.M Fri Jul 27 11:01:18 2001

Data File : C:\HPCHEM\1\DATA\072601A\2G13884.D Vial: 5
Acq On : 26 Jul 2001 13:38 Operator: HV
Sample : PRO water LCS V168-P89 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jul 27 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/06/01
Last Update : Wed Jun 20 09:44:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Jul 2001 15:17 Operator: HV
Sample : PRO water LCS V168-P135 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

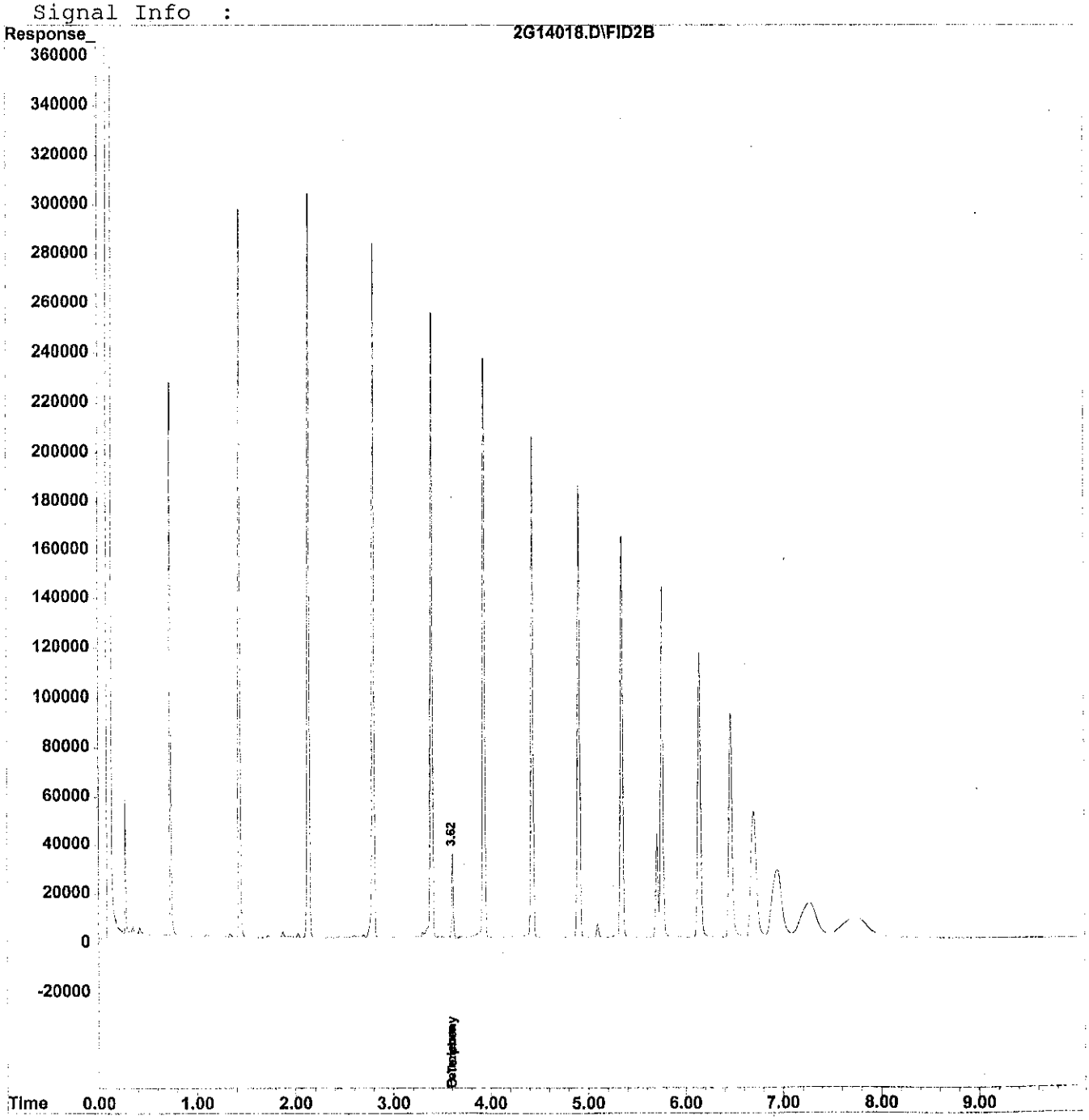
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.62	403452	20.782 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 103.91%	
Target Compounds			
1) H Petroleum Range	3.60	44755138	3000.162 ppb

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

Acq On : 31 Jul 2001 15:17 Operator: HV
Sample : PRO water LCS V168-P135 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 1 7:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 07/27/01
Last Update : Tue Jul 31 15:59:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/26/01 A Instrument ID HP 2 Column ID RTX-5 Data Subdirectory 0726601 A

Analyst Initials CAB

SOP # GCS09 Rev. # 1 ____ 8081A
SOP # GCS04 Rev. # 2 ____ 8151
SOP # GCS03 Rev. # 0 ✓ PRO
SOP # GCS02 Rev. # 2 ____ 8015B Mod (Alcohol)
SOP # GCS10 Rev. # 3 ____ 8082
SOP # GCS01 Rev. # 1 ____ 8100
SOP # GCS02 Rev. # 2 ____ 8015B Mod (DRO)
SOP # GCS07 Rev. # 4 ____ 8011

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
2g13880	mecl2	NA			
81	WIN DEF STD		N3 13-45		✓
82	PRO CONT CHK		SV 53-34		✓
83	PRO water BLK V1L8-P89				
84	LCS				
85	L01074 11-01 PRO water				
86	-02				
87	-03				
88	-04				
89	-05 MS PRO water				
90	-06 MSD PRO water				
91	L01074 28-01 PRO water				
92	mecl2				
93	PRO CONT CHK		SV 53-34		✓

CAB 7/27/01

Reviewed By: EZ 7/27/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/27/01A Instrument ID HP 2 Column ID RTX-5 Data Subdirectory 072701A
Analyst Initials CAB

SOP # GCS09 Rev. # 1 ____ 8081A
SOP # GCS04 Rev. # 2 ____ 8151
SOP # GCS03 Rev. # 0 ✓ PRO
SOP # GCS02 Rev. # 2 ____ 8015B Mod (Alcohol)
SOP # GCS10 Rev. # 3 ____ 8082
SOP # GCS01 Rev. # 1 ____ 8100
SOP # GCS02 Rev. # 2 ____ 8015B Mod (DRO)
SOP # GCS07 Rev. # 4 ____ 8011

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
2913927	meCl2				
28	WIN DEF STD		NG 13-45		✓
29	PRO CONT CHK		SV53-34		CC
30	↓		↓		✓
31	L0107411-07 PRO water				✓
32	-08				RE
33	-09				RE
34	PRO CONT CHK		SV53-34		✓
35	PRO STD 1000ppm		SOS 55-03		RR
36	400				
37	200				
38	100				
39	50				
40	5				
41	5				
42	meCl2				
43	PRO STD 1000ppm				
44	400				

Reviewed By: _____

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/27/01A Instrument ID HP 2 Column ID RTX-5 Data Subdirectory 072701A
Analyst Initials CAB

SOP # GCS09 Rev. # 1 ____ 8081A
SOP # GCS04 Rev. # 2 ____ 8151
SOP # GCS03 Rev. # 0 ✓ PRO
SOP # GCS02 Rev. # 2 ____ 8015B Mod (Alcohol)

SOP # GCS10 Rev. # 3 ____ 8082
SOP # GCS01 Rev. # 1 ____ 8100
SOP # GCS02 Rev. # 2 ____ 8015B Mod (DRO)
SOP # GCS07 Rev. # 4 ____ 8011

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
2g13927	meCl2				
28	WIN DEF STD		NS 13-45		✓
29	PRO CONT CHK		SV 53-34		CC
30	↓		↓		✓
31	L0107411-07 PRO water				✓
32	-08				RE
33	-09				RE
34	PRO CONT CHK		SV 53-34		✓
35	PRO STD 1000ppm		SOS 55-03		RR
36	400				✓
37	200				✓
38	100				RR
39	50				✓
40	5				RR
41	5				
42	meCl2				
43	PRO STD 1000ppm		SOS 55-03		✓
44	400				
45	5				
46	100				
47	ALT PRO @ 200ppm		SV 55-17		✓
48	PRO soil BLK V1168-P85				RR
49	EXT LAB PRO Surr				
50	PRO soil LCS V1168-P85				
51	~~L0107417-01 PRO soil~~ EXT LAB PRO SURR				
52	CAB 7/30/01 ~~-01 MS PRO soil~~ L0107417-01 PRO soil				
53	~~-01 MSD~~ -01 MS				
54	~~-01 MS RR~~ -01 MSD				
55	L0107417-01 MS RR PRO soil				
56	meCl2				
57	PRO CONT CHK				CC
	CAB 7/30/01				

Reviewed By: RJC 7/30/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/27/01A Instrument ID ~~RTX-5~~ HP 2 CAB 7-27-01 Column ID ~~07~~ RTX-5 CAB 07/27/01 Data Subdirectory 0727 01A

Daily Check
- [x] Gases >500 psi
- [x] Change liner
- [ ] Change septum

Preventative Maintenance
- [ ] Change o-ring
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RRC 7/30/01 284

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/31/01A Instrument ID HP 2 Column ID RTX-5 Data Subdirectory 073101A

Analyst Initials HV

SOP # GCS09 Rev. # 1 ____ 8081A
SOP # GCS04 Rev. # 2 ____ 8151
SOP # GCS03 Rev. # 0 ✓ PRO
SOP # GCS02 Rev. # 2 ____ 8015B Mod (Alcohol)

SOP # GCS10 Rev. # 3 ____ 8082
SOP # GCS01 Rev. # 1 ____ 8100
SOP # GCS02 Rev. # 2 ____ 8015B Mod (DRO)
SOP # GCS07 Rev. # 4 ____ 8011

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
2g14014	meCl2	NA			
15	WIN DEF STD		NS 13-45		✓
16	PRO CONT CHK		SV 50-03		✓
17	PRO water BLK V1L08-P135				
18	LCS				
19	L0107411-01 PRO water RE				R
20	-03				✓
21	-08				
22	-09				
23	meCl2		SV 55-03		✓
24	PRO CONT CHK				
25	PRO water BLK V1L08-P107				
26	LCS				
27	L0107437-01 PRO water				R
28	-02				✓
29	-03				
30	-04				
31	-05				R
32	-06 MS PRO water				✓
33	-07 MSD				
34	meCl2				
35	PRO CONT CHK		SV 55-03		
36	L0107437-08 PRO water				
37	-09				
38	-10				
39	-11				
40	-12				
41	-13				
42	-14				
43	-17				
44	L0107444-02 PRO water				
45	meCl2				
46	PRO CONT CHK		SV 55-03		
47	L0107411-03 PRO water RR				

Reviewed By: RRC 8/1/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/31/01 A Instrument ID HP 2 Column ID RTX-5 Data Subdirectory 073101A

Daily Check
- [x] Gases >500 psi
- [ ] Change liner
- [ ] Change septum

Preventative Maintenance
- [ ] Change o-ring
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RDC 8/1/01

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC Laboratory Maintenance / Runlog

Analysis Date/Time 7/31/01A Instrument ID HP 2 Column ID RTX-5 Data Subdirectory 073101A

Analyst Initials HV

SOP # GCS09 Rev. # 1 ____ 8081A
SOP # GCS04 Rev. # 2 ____ 8151
SOP # GCS03 Rev. # 0 ✓ PRO
SOP # GCS02 Rev. # 2 ____ 8015B Mod (Alcohol)

SOP # GCS10 Rev. # 3 ____ 8082
SOP # GCS01 Rev. # 1 ____ 8100
SOP # GCS02 Rev. # 2 ____ 8015B Mod (DRO)
SOP # GCS07 Rev. # 4 ____ 8011

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
2g14048	PRO CONT CHK	NA	SV 55-03		✓

CAB 8/1/01

Reviewed By: RRC 8/1/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

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**

Volume 168
Page 89

Parameter: FLA PRO 1470 SOP #: ExPRO Revision #: 2
Extraction Analyst(s): DCU TV/KD Analyst(s): DCU JAW
Date/Time Extracted: 7/25/01 15:30 Date TV/KD: 7/25/01
Spike/Surrogate Analyst: DCU Witness: [illegible]
Surrogate #: ES60037-29 Earliest Hold Date: 7/30
Spike #: A = ES60037-45 Spike #: B = —

Extraction Work Group WG 101646
Analytical Work Group WG 101647
Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 7/26/01

	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 101646-02
2	LCS		✓			⊥		1ml		T				WG 101646-03
3	07-411-01	FLA.PRO	✓			970 ml				C				
4	02		✓			965 ml				T				
5	03		✓			970 ml				T				
6	04		✓			975 ml				T				WG 101646-01
7	05MS		✓			980 ml		1ml		T				WG 101646-04
8	06MSD		✓					⊥		T				WG 101646-05
9	07		✓							T				
10	08		✓							T				
11	09		✓							T				
12	07-428-01	⊥	✓			900 ml	⊥		⊥	C				
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

8/1

7/27

JAW 7-25-01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER1768
Florisil Lot #: —
Silica Gel Lot #: V13558
IR Analyst / Date / Time:
Dried Na_2SO_4 Lot #: ER1770

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: [illegible] Date: 07/26/01

Extraction Notes For Volume # 168 Page # 89

General Comments: ~~A~~ MS of 07-411-04
~~A~~ MSD of 1

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: Nothing to report.

Supervisor Review: _____ Date: _____

290

Parameter: FLA PRO H_2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 07/30/01 @ 0940 Date TV/KD: 07/30/01
Spike/Surrogate Analyst: DP Witness: JEA
Surrogate #: ESS0038-13 Earliest Hold Date: 07/31/01
Spike #: A = ESS0037-45 Spike #: B = ——

Extraction Work Group WG 101831
Analytical Work Group WG 101855

Extract Relinquished By: DP
Extract Received By & Date: CAB 7/30/01

	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 101831-01
2	LCS		✓			⊥		1mL		T				WG ⊥ -02
3	07-411-01	FLA-PRO	✓			950mL				C				*
4	-03		✓			960mL				T				*
5	-08		✓			⊥				T				*
6	-09		✓			940mL				T				*
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 07/30/01

Methylene Chloride Lot #: 41109
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: 1:1 HCL Lot #: ER1768
Florisil Lot #: ——
Silica Gel Lot #: V13558
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER1553

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: 7-30-01

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Extraction Notes For Volume # 168 Page # 135

General Comments: * Re-extract, within hold

Extraction Anomalies: Nothing to report.

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: Nothing to report.

Supervisor Review: _____ Date: _____

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2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0107411

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: The blank associated with the initial extraction batch of this sample delivery group yielded a percent recovery for the surrogate which was below the advisory limit. All other acceptance criteria were met.

Laboratory Control Samples: The LCS yielded percent recoveries for 6 analytes which were below advisory limits. All sample fractions were re-extracted within holding time. The LCS associated with the re-extraction of these samples yielded a percent recovery for 8 analytes and the surrogate which were below advisory limits. Both sets of results were reported.

Matrix Spikes: The MS/MSD associated with the initial and re-extraction batches yielded percent recoveries for several analytes which were outside of advisory limits.

SAMPLES

Surrogates: Sample fraction 01and 09 yielded a percent recovery for the surrogate which was below the advisory limit. Re-extraction of the 01 fraction confirmed these results. For the re-extraction of fraction 09 all acceptance criteria were met. Sample fractions 03, 06MS, and 08 re-extractions yielded a percent recovery for the surrogate which was below advisory limits.

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 L Lepe DATE: 8/16/01

Semi-Volatile 8310 Checklist

Run Date: 26-Jul-01

Analyst: HV/RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG101675 07-411	8/1/2001	PFF
WG101743 07-437	8/2/2001	PFF
WG101971 07-411 RE	8/1/2001	PFF

		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	√
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:

*07-411 all samples sent for re-ext. due to low surr. recovery for blank and low recovery for 6 analytes/LCS.....

*07-411-01 and 09 also had low surr. recovery

*07-411-07 & 08 require conf. of acenaphthylene

*07-411-05MS & 06 MSD recovered low for 6 analytes

*07-437 all samples sent for re-ext. due to low recovery for 6 analytes/LCS....

*07-437 several samples had low surr. rx.

*07-437-01 rerquires conf. of acenaphthylene

*07-437 ref/ms/msd all low surr. rx /MS&MSD also low recovery of several analytes.

*07-411 REEXTRACTS - LCS recovered low for surr. and 8 analytes

*07-411 RE - several samples recovered low for surr.

Primary Reviewer: RDC 7/31/01

Secondary Reviewer: 8/1/01

Supervisor Review: 8/1/01

√ = Checked & OK

NA = Not Applicable

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PAH HPLC DATA (8310)

Login Number: L0107411

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: TDL Date: 8/3/01

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP :	WG101675	**PREP WORK GRP :**	WG101645	**RUN DATE :**	7/26/01	**SAMP ID :**	L0107411- 04
METHOD :	8310	**EXT DATE :**	25-Jul-01	**BLK FLNM :**	4L001665	**SMPL FLNM :**	4L001670
INSTRUMENT :	HPLC4	**EXT BENCH SHEET :**	V168P81	**LCS FLNM :**	4L001666	**MS FLNM :**	4L001671
ANALYST :	HV					**MSD FLNM :**	4L001672

ANALYTE	CONCENTRATION, µg/L								% RECOVERY															
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	1	ND	50	12.6	ND	50.0	24.5	23.6	ND	25.2	19	80	NA	47.1	47.2	19	80	4	50				
ACENAPTHYLENE	1	ND	50	13.8	ND	50.0	27.7	24.6	ND	27.6	19	92	NA	53.3	49.2	19	92	12	50				
1-METHYLNAPHTHALENE	1	ND	50	12.2	ND	50.0	25.1	23.2	ND	24.4	19	80	NA	48.3	46.4	19	80	8	50				
2-METHYLNAPHTHALENE	1	ND	50	12.5	ND	50.0	25.2	23.5	ND	25.0	19	80	NA	48.5	47.0	19	80	7	50				
ACENAPHTHENE	1	ND	50	13.7	ND	50.0	27.9	24.8	ND	27.4	17	99	NA	53.7	49.6	17	99	12	50				
FLUORENE	1	ND	50	16.4	ND	50.0	31.2	26.8	ND	32.8	20	97	NA	60.0	53.6	20	97	15	50				
PHENANTHRENE	1	ND	50	21.7	ND	50.0	37.1	29.8	ND	43.4	30	110	NA	71.3	59.6	30	110	22	50				
ANTHRACENE	1	ND	50	24.1	ND	50.0	38.5	31.4	ND	48.2	38	101	NA	74.0	62.8	38	101	20	50				
FLUORANTHENE	0.2	ND	5	2.76	ND	5.00	3.94	3.07	ND	55.2	60	116	NA	75.8	61.4	60	116	25	50		L		
PYRENE	0.2	ND	5	2.77	ND	5.00	3.92	3.08	ND	55.4	60	116	NA	75.4	61.6	60	116	24	50		L		
BENZO[a]ANTHRACENE	0.2	ND	5	3.05	ND	5.00	3.57	2.64	ND	61.0	73	118	NA	68.7	52.8	73	118	30	50		L	L	L
CHRYSENE	0.2	ND	5	3.00	ND	5.00	3.48	2.51	ND	60.0	67	116	NA	66.9	50.2	67	116	32	50		L	L	L
BENZO[b]FLUORANTHENE	0.2	ND	5	3.00	ND	5.00	2.92	2.03	ND	59.9	60	121	NA	56.2	40.6	60	121	36	50		L	L	L
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.43	ND	2.50	1.34	0.93	ND	57.2	52	127	NA	51.5	37.0	52	127	37	50			L	L
BENZO[a]PYRENE	0.2	ND	5	2.57	ND	5.00	2.62	1.79	ND	51.4	52	123	NA	50.4	35.8	52	123	38	50		L	L	L
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	1.85	ND	5.00	1.81	1.20	ND	37.0	10	109	NA	34.8	24.0	10	109	41	50				
BENZO[g,h,i]PERYLENE	0.2	ND	5	1.92	ND	5.00	1.55	1.16	ND	38.4	15	116	NA	29.8	23.2	15	116	29	50				
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	2.52	ND	5.00	1.96	1.36	ND	50.4	35	108	NA	37.7	27.2	35	108	36	50				L
SURROGATE																							
p-TERPHENYL-d14		3.65	10	4.63	5.98	10.0	5.79		36.5	46.3	40	132	57.4	55.7	NA	40	132			L			

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, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG101971
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : HV

PREP WORK GRP : WG101745
EXT DATE : 27-Jul-01
EXT BENCH SHEET : V168P117

RUN DATE : 7/27/01
BLK FLNM : 4L001696
LCS FLNM : 4L001697

SAMP ID : L0107411 -04 (RE-EXT.)
SMPL FLNM : 4L001701
MS FLNM : 4L001702
MSD FLNM : 4L001703

ANALYTE	CONCENTRATION, µg/L								% RECOVERY														
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	1	ND	50	17.9	ND	50.0	20.9	17.4	ND	35.8	19	80	NA	40.2	33.8	19	80	18	50				
ACENAPTHYLENE	1	ND	50	18.5	NC	50.0	22.1	18.1	ND	37.0	19	92	NA	42.5	35.1	19	92	20	50				
1-METHYLNAPHTHALENE	1	ND	50	17.8	ND	50.0	21.0	17.2	ND	35.6	19	80	NA	40.3	33.4	19	80	20	50				
2-METHYLNAPHTHALENE	1	ND	50	18.1	ND	50.0	21.3	17.5	ND	36.2	19	80	NA	41.0	34.0	19	80	20	50				
ACENAPHTHENE	1	ND	50	18.6	ND	50.0	22.2	18.1	ND	37.2	17	99	NA	42.7	35.1	17	99	20	50				
FLUORENE	1	ND	50	19.5	ND	50.0	24.1	20.0	ND	39.0	20	97	NA	46.3	38.7	20	97	19	50				
PHENANTHRENE	1	ND	50	22.9	ND	50.0	28.1	25.4	ND	45.8	30	110	NA	54.0	49.3	30	110	10	50				
ANTHRACENE	1	ND	50	25.0	ND	50.0	29.3	26.6	ND	50.0	38	101	NA	56.3	51.7	38	101	10	50				
FLUORANTHENE	0.2	ND	5	2.89	ND	5.00	3.48	2.94	ND	57.8	60	116	NA	66.9	57.1	60	116	17	50		L		L
PYRENE	0.2	ND	5	2.93	ND	5.00	3.49	2.92	ND	58.6	60	116	NA	67.1	56.6	60	116	18	50		L		L
BENZO[a]ANTHRACENE	0.2	ND	5	2.82	ND	5.00	3.02	2.30	ND	56.4	73	118	NA	58.1	44.6	73	118	27	50		L	L	L
CHRYSENE	0.2	ND	5	2.11	ND	5.00	2.62	1.93	ND	42.2	67	116	NA	50.4	37.5	67	116	30	50		L	L	L
BENZO[b]FLUORANTHENE	0.2	ND	5	2.14	ND	5.00	2.18	1.53	ND	42.8	60	121	NA	41.9	29.8	60	121	35	50		L	L	L
BENZO[k]FLUORANTHENE	0.2	ND	2.5	0.79	ND	2.50	0.904	0.650	ND	31.6	52	127	NA	34.8	25.3	52	127	33	50		L	L	L
BENZO[a]PYRENE	0.2	ND	5	1.89	ND	5.00	1.96	1.34	ND	37.8	52	123	NA	37.7	26.1	52	123	37	50		L	L	L
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	0.98	ND	5.00	1.46	1.05	ND	19.7	10	109	NA	28.0	20.4	10	109	32	50				
BENZO[g,h,i]PERYLENE	0.2	ND	5	0.89	ND	5.00	1.24	0.812	ND	17.8	15	116	NA	23.8	15.8	15	116	42	50				
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	1.26	ND	5.00	1.39	0.947	ND	25.2	35	108	NA	26.8	18.4	35	108	38	50		L	L	L
SURROGATE																							
p-TERPHENYL-d14		5.84	10	3.40	4.41	10.0	4.48	3.54	58.4	34.0	40	132	42.5	43.1	34.4	40	132				L		

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

2.2.7.1 QC Summary

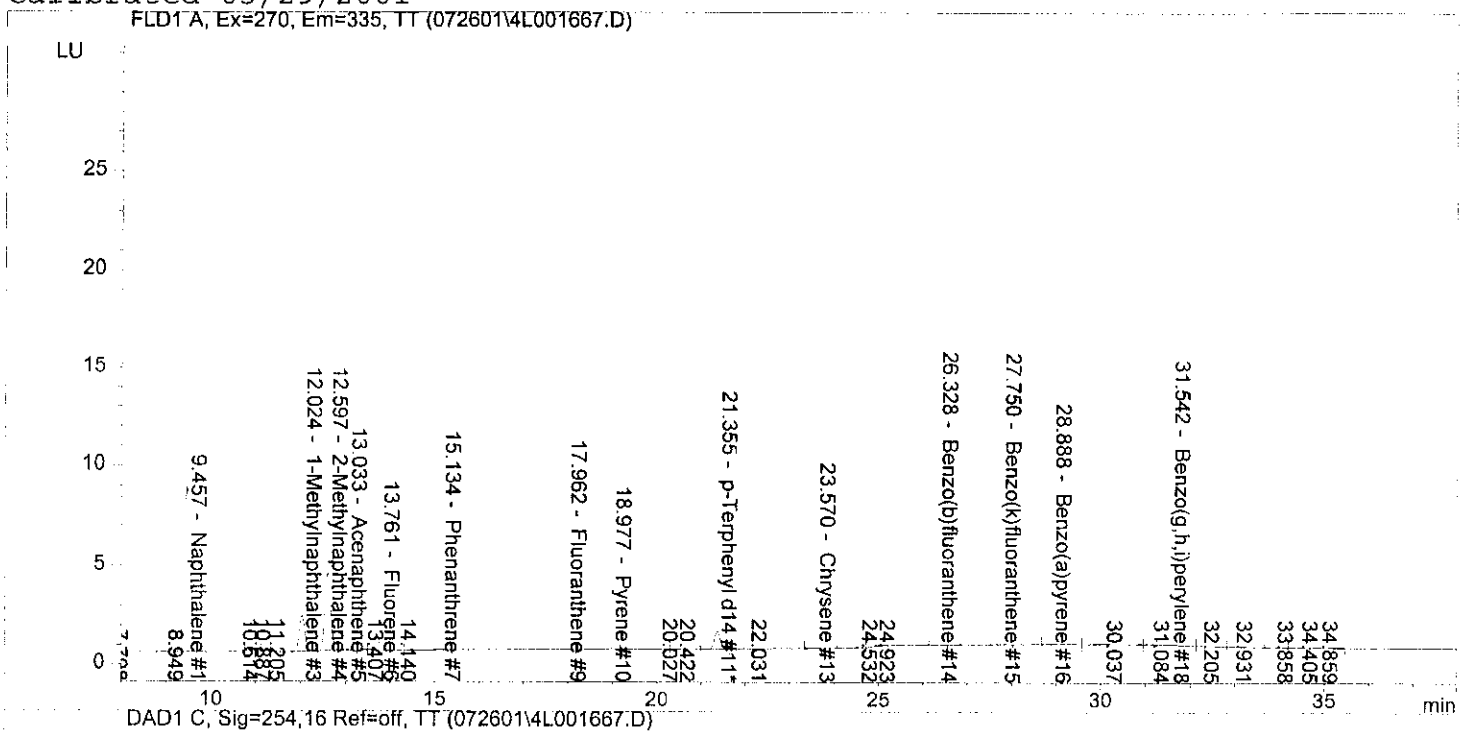
2.2.7.2 Sample Data

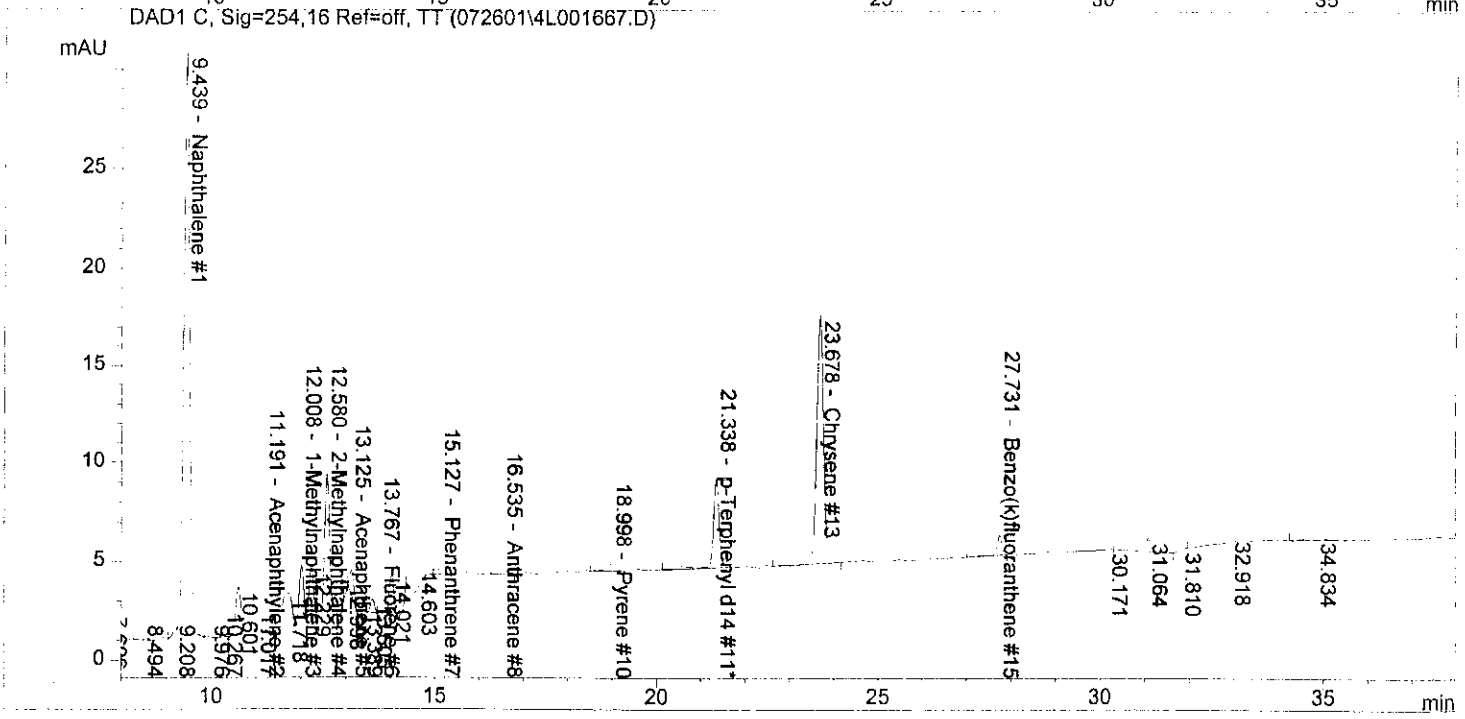
==========

Injection Date	: 7/26/2001 1:25:54 PM	Seq. Line :	5
Sample Name	: L0107411-01 8310	Vial :	5
Acq. Operator	: HV	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 12:09:49 PM by HV
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 PM
Multiplier : 1.0400
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
9.457	BBA	79.14095	2.67269e-2	2.19980	C	Naphthalene #1
12.024	BB	17.13993	2.35177e-2	4.19216e-1		1-Methylnaphthalene #3
12.597	BB	35.39436	1.80248e-2	6.63496e-1		2-Methylnaphthalene #4
13.033	BB	9.14531e-1	1.46127e-2	1.38983e-2		Acenaphthene #5
13.761	BB	5.08816	6.61784e-3	3.50195e-2		Fluorene #6
15.134	BB	1.68204	1.69032e-1	2.95691e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.962	BB	6.38329e-1	2.43125e-2	1.61402e-2		Fluoranthene #9
18.977	BB	3.46480e-1	4.17786e-2	1.50545e-2		Pyrene #10
21.355	BB	8.31610	2.67546e-1	2.31393		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.570	BB	1.60569e-1	4.11122e-2	6.86541e-3		Chrysene #13
26.328	BBA	1.83559e-1	1.66088e-2	3.17064e-3		Benzo(b)fluoranthene #14
27.750	BBA	1.17955	2.81137e-3	3.44881e-3		Benzo(k)fluoranthene #15
28.888	BB	6.72277e-1	4.69740e-3	3.28427e-3		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.542	BB	7.90730e-1	2.88728e-2	2.37438e-2		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.01276

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
9.439	BB	257.37607	8.25940e-3	2.21080		Naphthalene #1
11.191	BB	5.88137e-1	2.98051e-2	1.82307e-2	<mdl	Acenaphthylene #2
12.008	BB	18.39059	1.29668e-2	2.48006e-1		1-Methylnaphthalene #3
12.580	BB	65.50893	1.12696e-2	7.67792e-1	F	2-Methylnaphthalene #4
13.125	BB	8.06449	2.03536e-2	1.70707e-1	<mdl	Acenaphthene #5
13.767	BB	1.26243	1.76796e-2	2.32120e-2		Fluorene #6
15.127	BB	3.61108	1.72992e-2	6.49675e-2		Phenanthrene #7
16.535	BBA	2.67058	1.03904e-2	2.88583e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.998	BB	4.50795	1.44305e-2	6.76541e-2	NC	Pyrene #10
21.338	BBA	43.79578	5.82010e-2	2.65091		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.678	BBA	135.86864	1.51428e-2	NC 2.13973		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.731	PBA	7.83295	2.27668e-2	1.85465e-1	NC	Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.57634

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

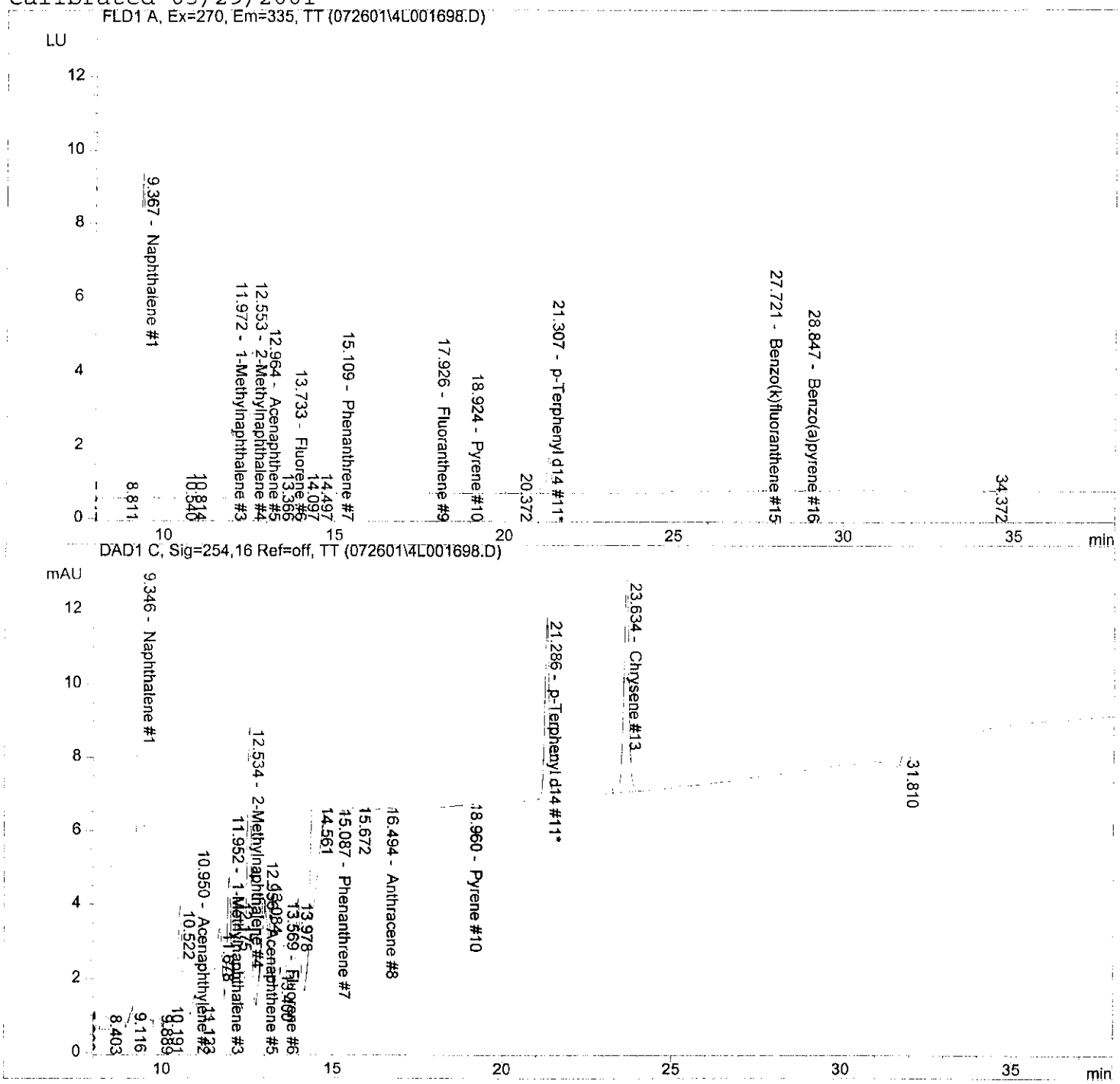
*** End of Report ***

==========

Injection Date : 7/27/2001 6:54:21 PM
Sample Name : L0107411-01 RE
Acq. Operator : HV

Seq. Line : 36
Vial : 37
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 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
9.367	BBA	85.32522	2.67269e-2	2.28048		Naphthalene #1
11.972	BB	18.38855	2.35177e-2	4.32457e-1		1-Methylnaphthalene #3
12.553	BB	35.23531	1.80248e-2	6.35110e-1		2-Methylnaphthalene #4
12.964	BB	1.18857	1.46127e-2	1.73683e-2		Acenaphthene #5
13.733	BB	3.27641	6.61784e-3	2.16828e-2		Fluorene #6
15.109	BBA	1.74021e-1	1.69032e-1	2.94152e-2		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.926	BBA	1.81759e-1	2.43125e-2	4.41903e-3		Fluoranthene #9
18.924	BBA	1.66161e-1	4.17786e-2	6.94197e-3		Pyrene #10
21.307	BB	9.31094	2.67546e-1	2.49110		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.721	BBA	2.70489e-1	2.81137e-3	7.60444e-4		Benzo(k)fluoranthene #15
28.847	BBA	2.95521e-1	4.69740e-3	1.38818e-3		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.92113

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
9.346	BB	283.66284	8.25940e-3	2.34289		Naphthalene #1
10.950	BB	2.44148	2.98051e-2	7.27686e-2		Acenaphthylene #2
11.952	BB	19.93310	1.29668e-2	2.58469e-1		1-Methylnaphthalene #3
12.534	BB	63.76658	1.12696e-2	7.18626e-1		2-Methylnaphthalene #4
12.956	BB	2.57082	2.03536e-2	5.23254e-2		Acenaphthene #5
13.569	BB	5.65082	1.76796e-2	9.99045e-2		Fluorene #6
15.087	BB	1.69477	1.72992e-2	2.93182e-2		Phenanthrene #7
16.494	BBA	1.55417	1.03904e-2	1.61485e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.960	BB	2.09880	1.44305e-2	3.02868e-2		Pyrene #10
21.286	PBA	42.61303	5.82010e-2	2.48012		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.634	BBA	61.55999	1.51428e-2	9.32192e-1		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.03304

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 ***

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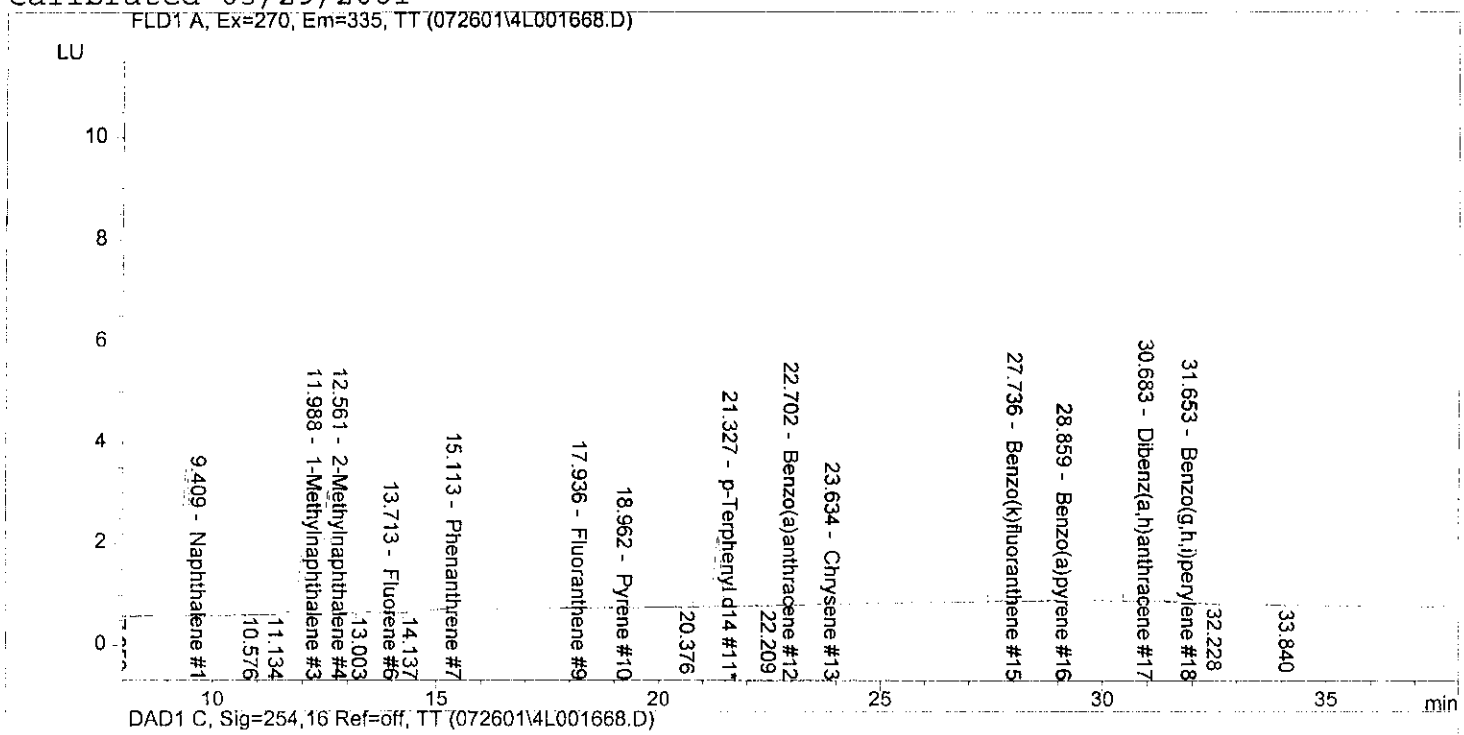
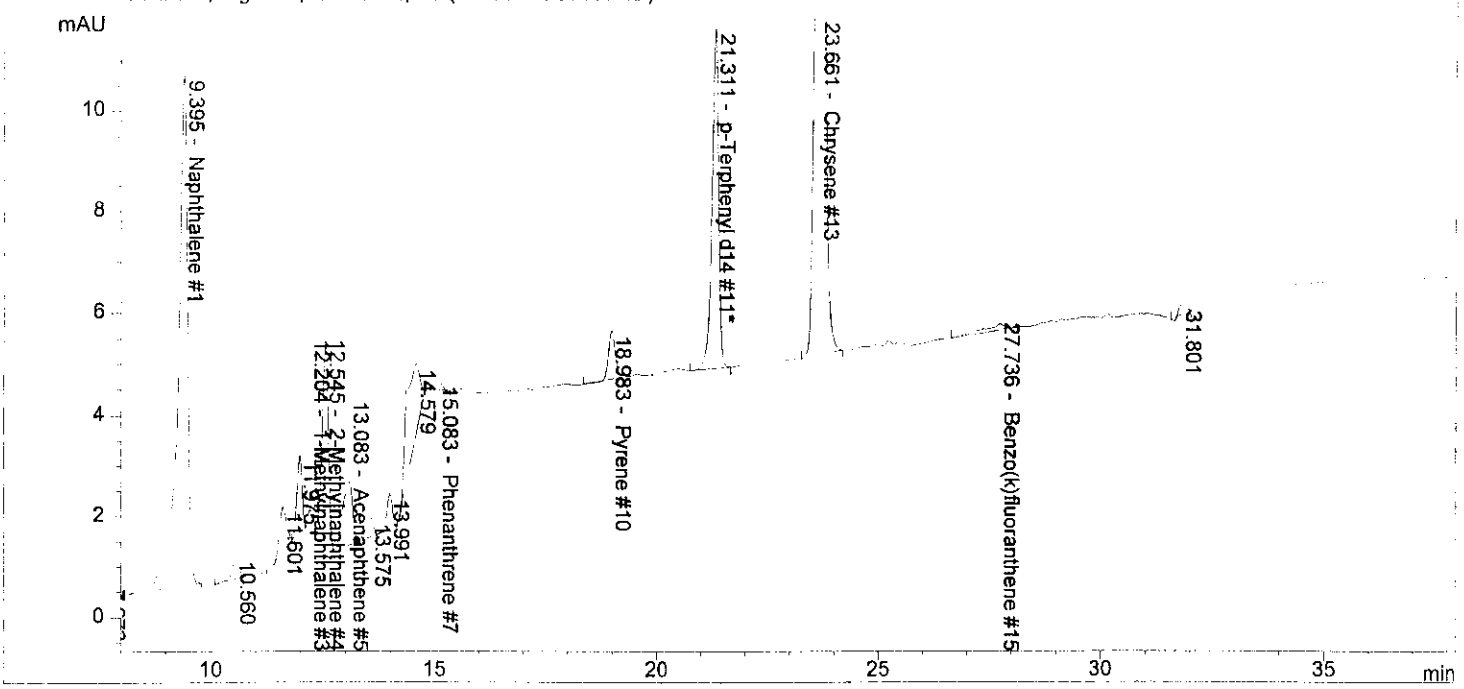
Injection Date : 7/26/2001 2:22:30 PM Seq. Line : 6
Sample Name : L0107411-02 8310 Vial : 6
Acq. Operator : HV Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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
9.409	BBA	44.31922	2.67269e-2	1.18452	C	Naphthalene #1
11.988	BB	11.28884	2.35177e-2	2.65488e-1		1-Methylnaphthalene #3
12.561	BB	26.99762	1.80248e-2	4.86628e-1	F	2-Methylnaphthalene #4
13.176		-	-	-		Acenaphthene #5
13.713	BB	2.29582	6.61784e-3	1.51934e-2		Fluorene #6
15.113	BBA	1.78359	1.69032e-1	3.01485e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.936	BBA	3.82514e-1	2.43125e-2	9.29989e-3		Fluoranthene #9
18.962	BBA	1.56471e-1	4.17786e-2	6.53713e-3		Pyrene #10
21.327	BB	14.83892	2.67546e-1	3.97009		p-Terphenyl d14 #11*
22.702	BB	2.28086e-1	8.25659e-3	1.88321e-3		Benzo(a)anthracene #12
23.634	BB	2.48828e-1	4.11122e-2	1.02299e-2		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.736	PBA	3.96385e-1	2.81137e-3	1.11439e-3		Benzo(k)fluoranthene #15
28.859	BBA	4.45807e-1	4.69740e-3	2.09414e-3		Benzo(a)pyrene #16
30.683	BBA	1.66176e-1	4.05016e-2	6.73041e-3		Dibenz(a,h)anthracene #17
31.653	BB	6.53724e-1	2.88728e-2	1.88748e-2		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.28016

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
9.395	BB	147.70439	8.25940e-3	1.21995	✓	Naphthalene #1
11.160		-	-	-		Acenaphthylene #2
12.204	BB	2.57714	1.29668e-2	3.34174e-2	<MDL	1-Methylnaphthalene #3
12.545	BB	37.34838	1.12696e-2	4.20903e-1		2-Methylnaphthalene #4
13.083	BB	19.15578	2.03536e-2	3.89889e-1	<MDL	Acenaphthene #5
13.817		-	-	-		Fluorene #6
15.083	BB	2.15307	1.72992e-2	3.72464e-2	<MDL	Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.983	PBA	10.15686	1.44305e-2	1.46569e-1	NC	Pyrene #10
21.311	BBA	69.41010	5.82010e-2	4.03973	104%	p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.661	PBA	468.52426	1.51428e-2	7.09478	NC	Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.736	BB	4.65341	2.27668e-2	1.05943e-1	NC	Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 13.48843

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 ***

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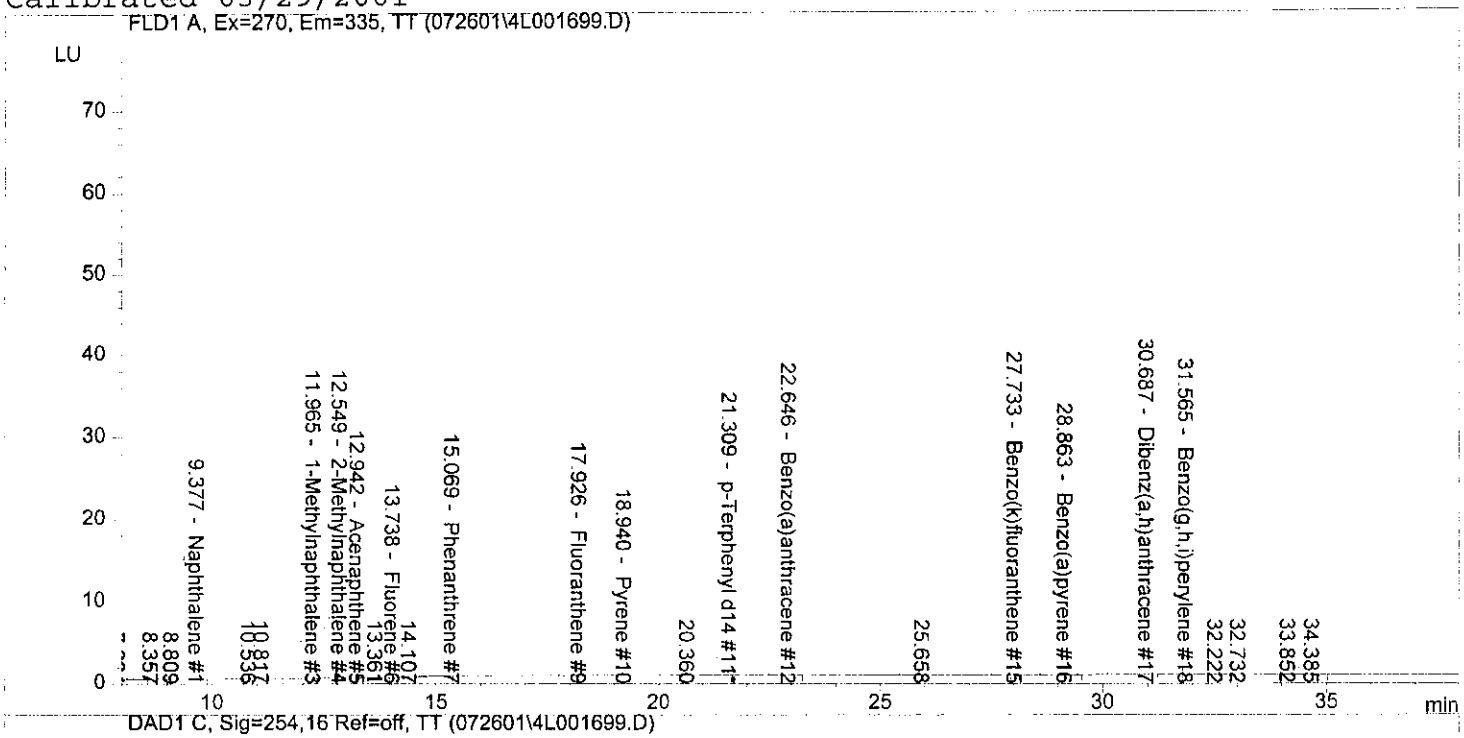
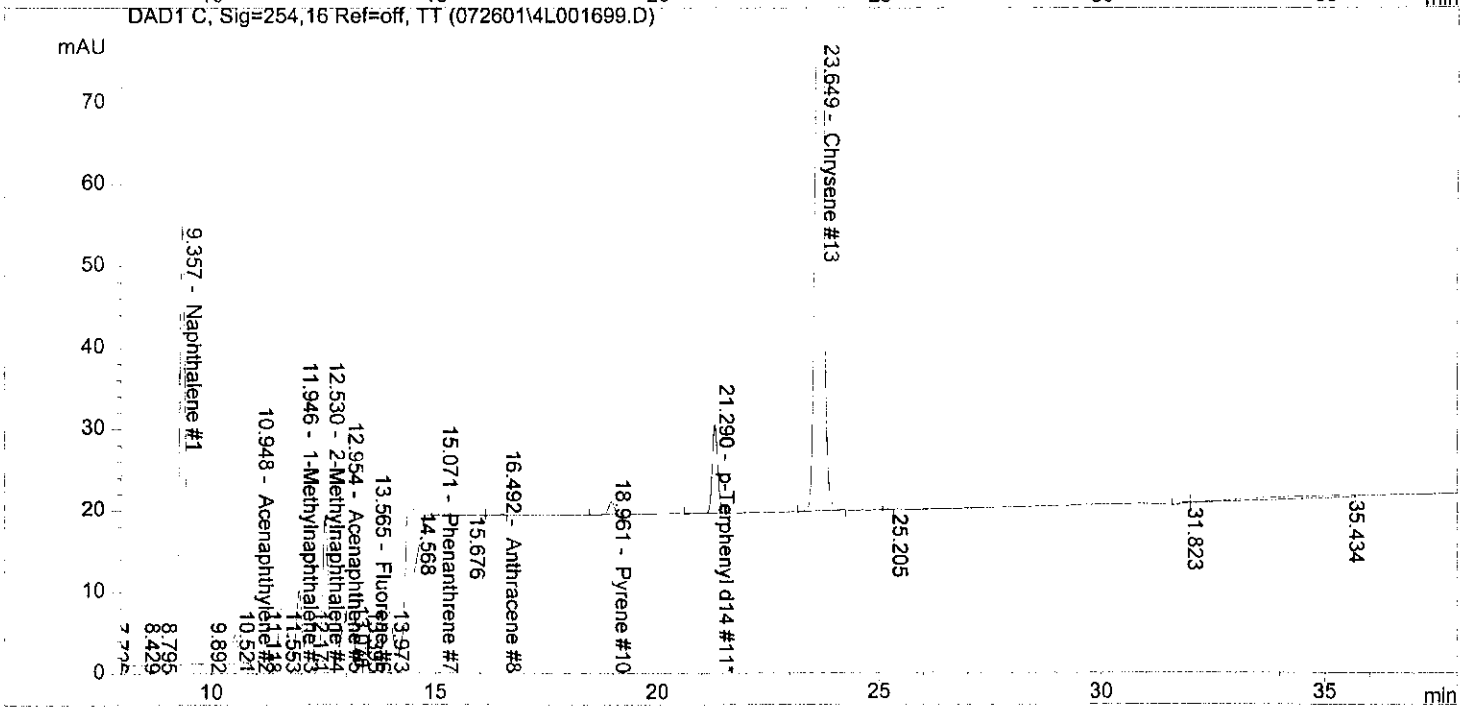
Injection Date : 7/27/2001 7:50:59 PM
Sample Name : L0107411-02 RE
Acq. Operator : HV

Seq. Line : 37
Vial : 38
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.377	BBA	143.99670	2.67269e-2	4.00253		Naphthalene #1
11.965	BB	44.63146	2.35177e-2	1.09162		1-Methylnaphthalene #3
12.549	BB	87.23235	1.80248e-2	1.63524		2-Methylnaphthalene #4
12.942	BB	1.77415	1.46127e-2	2.69620e-2		Acenaphthene #5
13.738	BB	5.90142	6.61784e-3	4.06168e-2		Fluorene #6
15.069	BB	7.96808	1.69032e-1	1.40074		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.926	PBA	2.84851e-1	2.43125e-2	7.20246e-3		Fluoranthene #9
18.940	PBA	3.72109e-1	4.17786e-2	1.61680e-2		Pyrene #10
21.309	BB	20.58645	2.67546e-1	5.72813		p-Terphenyl d14 #11*
22.646	BB	4.09199e-1	8.25659e-3	3.51373e-3		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.733	PBA	4.03530e-1	2.81137e-3	1.17985e-3		Benzo(k)fluoranthene #15
28.863	BB	7.67341e-1	4.69740e-3	3.74869e-3		Benzo(a)pyrene #16
30.687	BB	3.47351e-1	4.05016e-2	1.46310e-2		Dibenz(a,h)anthracene #17
31.565	BB	2.23827e-1	2.88728e-2	6.72101e-3		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 13.97900

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
9.357	BB	489.75723	8.25940e-3	4.20691		Naphthalene #1
10.948	BB	3.38081	2.98051e-2	1.04796e-1		Acenaphthylene #2
11.946	BB	51.68904	1.29668e-2	6.97053e-1		1-Methylnaphthalene #3
12.530	BB	148.90204	1.12696e-2	1.74519		2-Methylnaphthalene #4
12.954	BB	1.31896	2.03536e-2	2.79193e-2		Acenaphthene #5
13.565	BB	20.66871	1.76796e-2	3.80032e-1		Fluorene #6
15.071	BB	2.44610	1.72992e-2	4.40081e-2		Phenanthrene #7
16.492	BB	2.08255	1.03904e-2	2.25040e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.961	BB	15.30738	1.44305e-2	2.29729e-1		Pyrene #10
21.290	BB	94.35535	5.82010e-2	5.71123		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.649	BBA	1441.02380	1.51428e-2	22.69402		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 35.86340

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 ***

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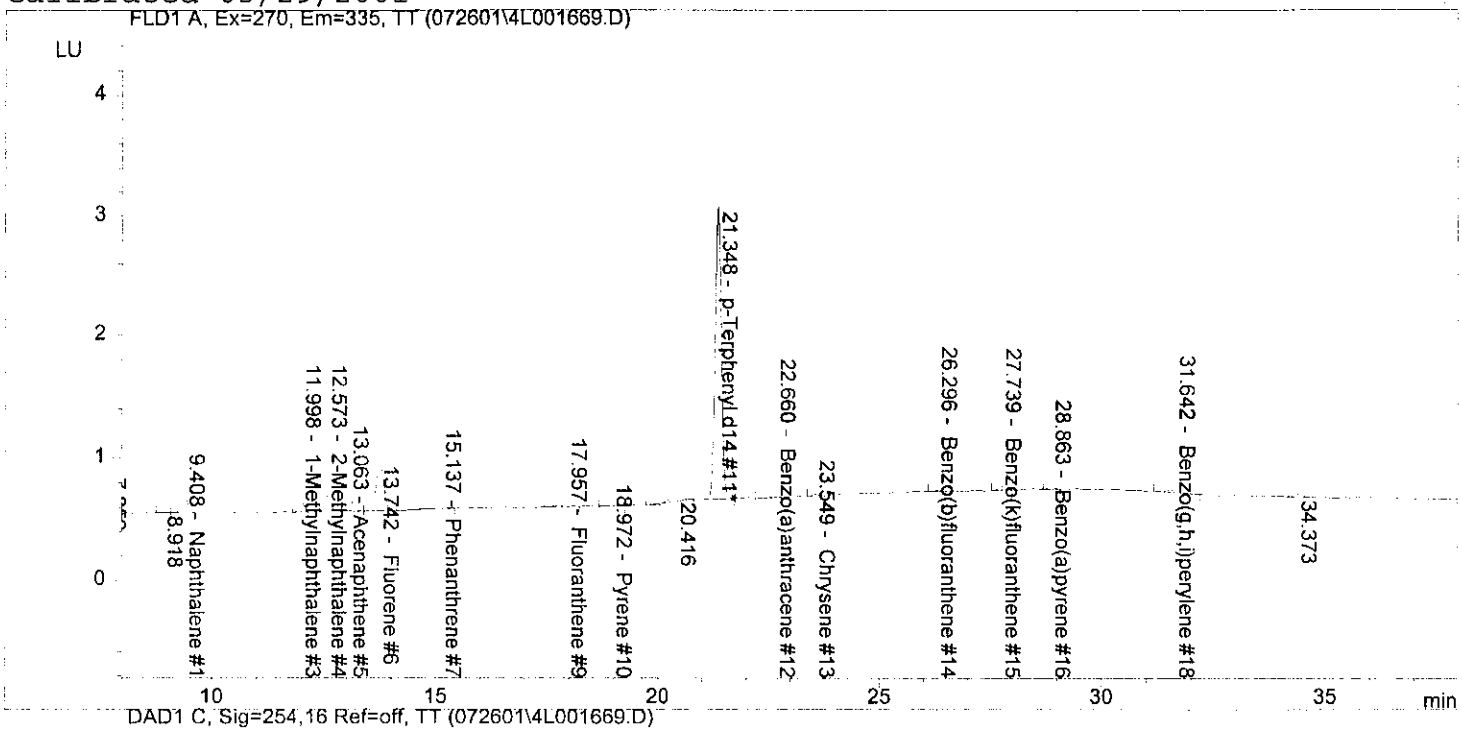
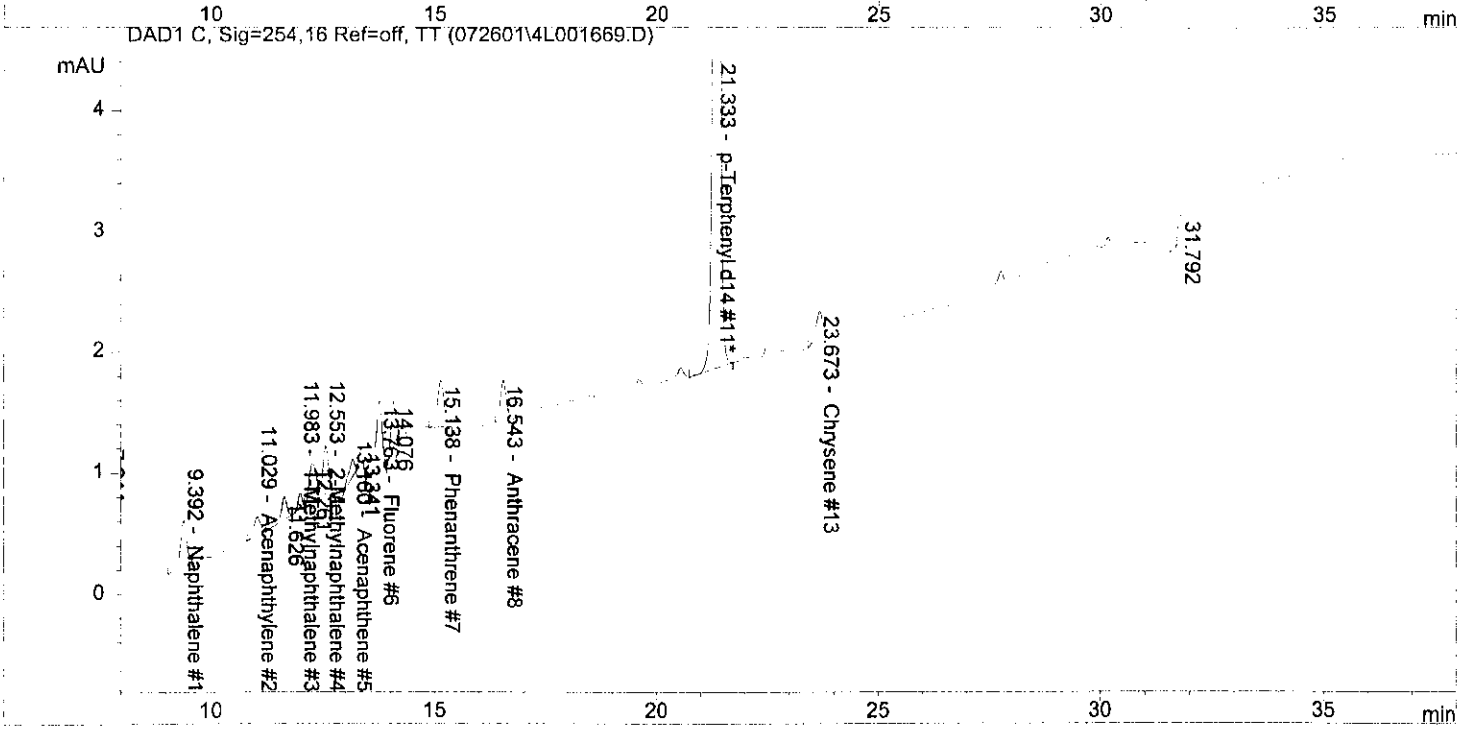
Injection Date	: 7/26/2001 3:19:07 PM	Seq. Line :	7
Sample Name	: L0107411-03 8310	Vial :	7
Acq. Operator	: HV	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 PM
Multiplier : 1.0400
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
9.408	BB	1.09505	2.67269e-2	3.04381e-2		Naphthalene #1
11.998	PB	6.88098e-1	2.35177e-2	1.68298e-2		1-Methylnaphthalene #3
12.573	BB	1.42124	1.80248e-2	2.66423e-2		2-Methylnaphthalene #4
13.063	BB	1.18375	1.46127e-2	1.79896e-2		Acenaphthene #5
13.742	BBA	4.72706	6.61784e-3	3.25343e-2		Fluorene #6
15.137	BB	6.59575e-1	1.69032e-1	1.15949e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.957	BBA	5.20793e-1	2.43125e-2	1.31683e-2		Fluoranthene #9
18.972	PBA	2.73088e-1	4.17786e-2	1.18656e-2		Pyrene #10
21.348	BBA	22.85671	2.67546e-1	6.35982		p-Terphenyl d14 #11*
22.660	BB	2.06512e-1	8.25659e-3	1.77329e-3		Benzo(a)anthracene #12
23.549	BB	1.62595e-1	4.11122e-2	6.95201e-3		Chrysene #13
26.296	BBA	1.65722e-1	1.66088e-2	2.86255e-3		Benzo(b)fluoranthene #14
27.739	PBA	2.77153e-1	2.81137e-3	8.10347e-4		Benzo(k)fluoranthene #15
28.863	BBA	1.84810e-1	4.69740e-3	9.02852e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.642	BBA	5.86217e-1	2.88728e-2	1.76027e-2		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.65614

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	BB	3.41777	8.25940e-3	2.93579e-2		Naphthalene #1
11.029	BB	1.62821	2.98051e-2	5.04700e-2		Acenaphthylene #2
11.983	BB	8.06094e-1	1.29668e-2	1.08706e-2		1-Methylnaphthalene #3
12.553	BB	3.51680	1.12696e-2	4.12184e-2		2-Methylnaphthalene #4
13.160	BB	1.31366	2.03536e-2	2.78072e-2		Acenaphthene #5
13.763	BB	5.70530	1.76796e-2	1.04902e-1		Fluorene #6
15.138	BB	4.07950	1.72992e-2	7.33949e-2		Phenanthrene #7
16.543	BBA	3.08681	1.03904e-2	3.33561e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.333	BBA	106.51338	5.82010e-2	6.44715		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.673	PB	2.03805	1.51428e-2	3.20963e-2		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.85062

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 ***

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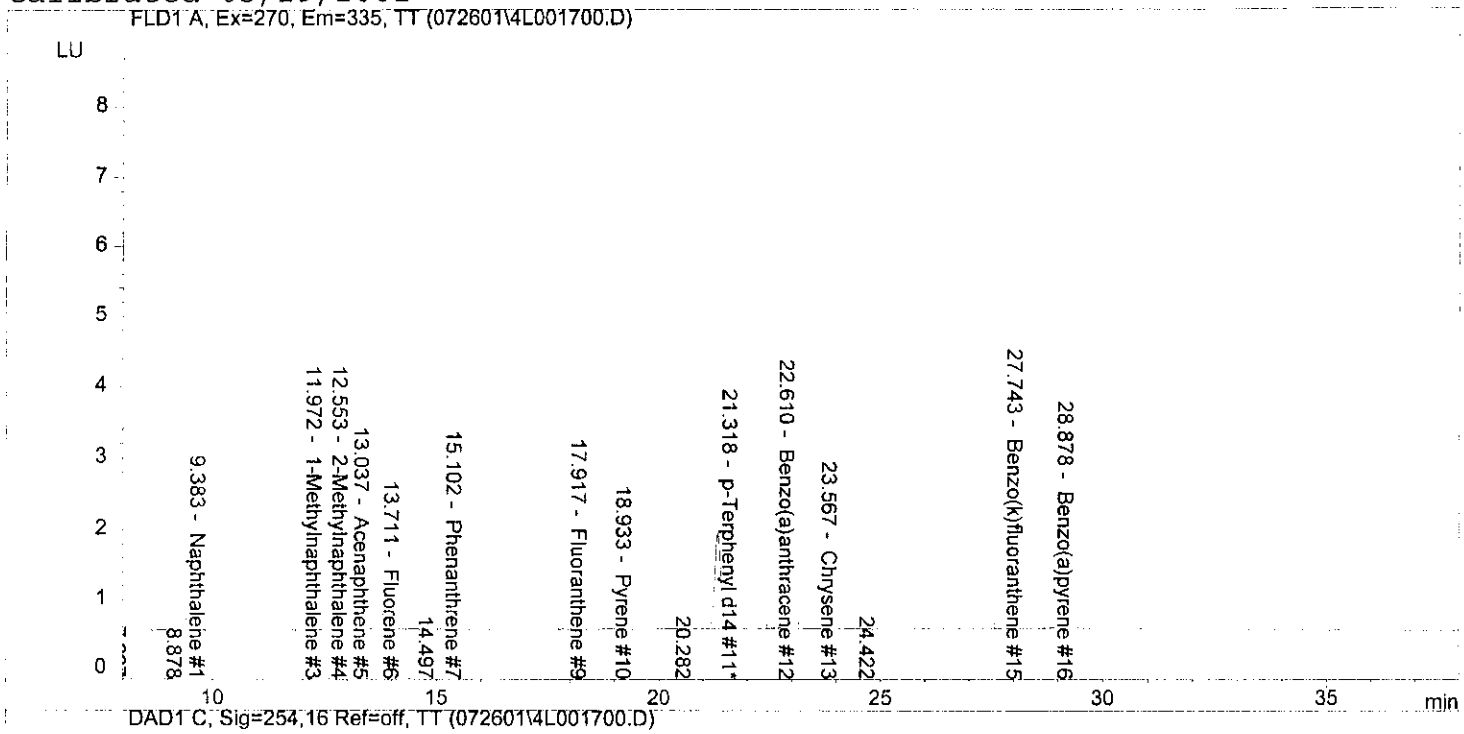
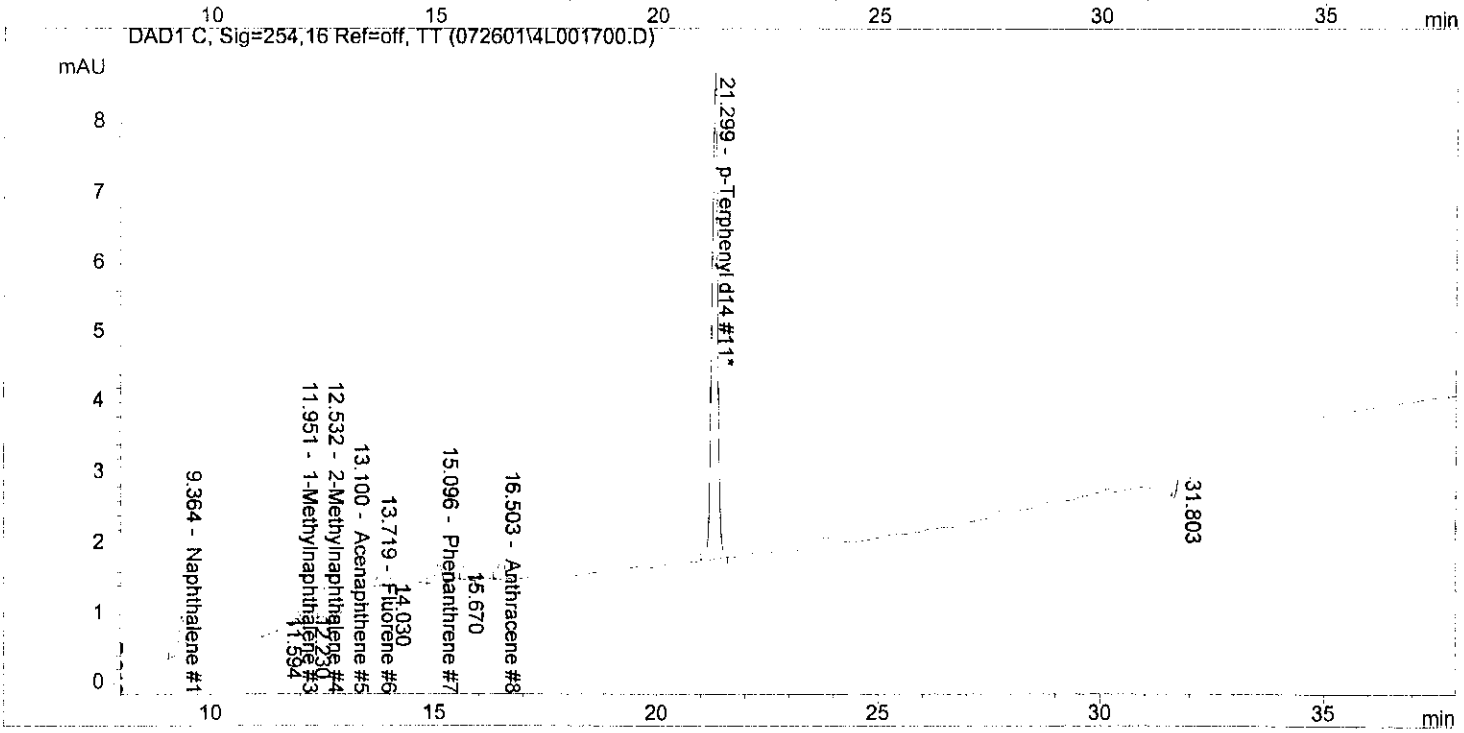
Injection Date : 7/27/2001 8:47:35 PM
Sample Name : L0107411-03 RE
Acq. Operator : HV

Seq. Line : 38
Vial : 39
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.383	BBA	1.68595	2.67269e-2	4.68626e-2		Naphthalene #1
11.972	PB	9.85851e-1	2.35177e-2	2.41124e-2		1-Methylnaphthalene #3
12.553	BB	1.71685	1.80248e-2	3.21838e-2		2-Methylnaphthalene #4
13.037	BBA	1.42708	1.46127e-2	2.16876e-2		Acenaphthene #5
13.711	BB	3.96375	6.61784e-3	2.72808e-2		Fluorene #6
15.102	BBA	2.38058e-1	1.69032e-1	4.18491e-2		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.917	PBA	2.86584e-1	2.43125e-2	7.24629e-3		Fluoranthene #9
18.933	BBA	1.52913e-1	4.17786e-2	6.64403e-3		Pyrene #10
21.318	BBA	13.24619	2.67546e-1	3.68572		p-Terphenyl d14 #11*
22.610	BB	1.84007e-1	8.25659e-3	1.58004e-3		Benzo(a)anthracene #12
23.567	BB	2.33790e-1	4.11122e-2	9.99609e-3		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.743	BBA	2.38680e-1	2.81137e-3	6.97860e-4		Benzo(k)fluoranthene #15
28.878	BBA	1.64007e-1	4.69740e-3	8.01222e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.90666

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
9.364	BB	4.69961	8.25940e-3	4.03686e-2	MDL	Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.951	BB	1.23312	1.29668e-2	1.66293e-2		1-Methylnaphthalene #3
12.532	BB	3.73478	1.12696e-2	4.37732e-2		2-Methylnaphthalene #4
13.100	BB	1.50294	2.03536e-2	3.18138e-2		Acenaphthene #5
13.719	BB	3.26766	1.76796e-2	6.00819e-2		Fluorene #6
15.096	BB	3.08383	1.72992e-2	5.54817e-2		Phenanthrene #7
16.503	PB	3.21751	1.03904e-2	3.47684e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.299	BBA	60.99594	5.82010e-2	3.69202		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

35.5%*

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.97494

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 ***

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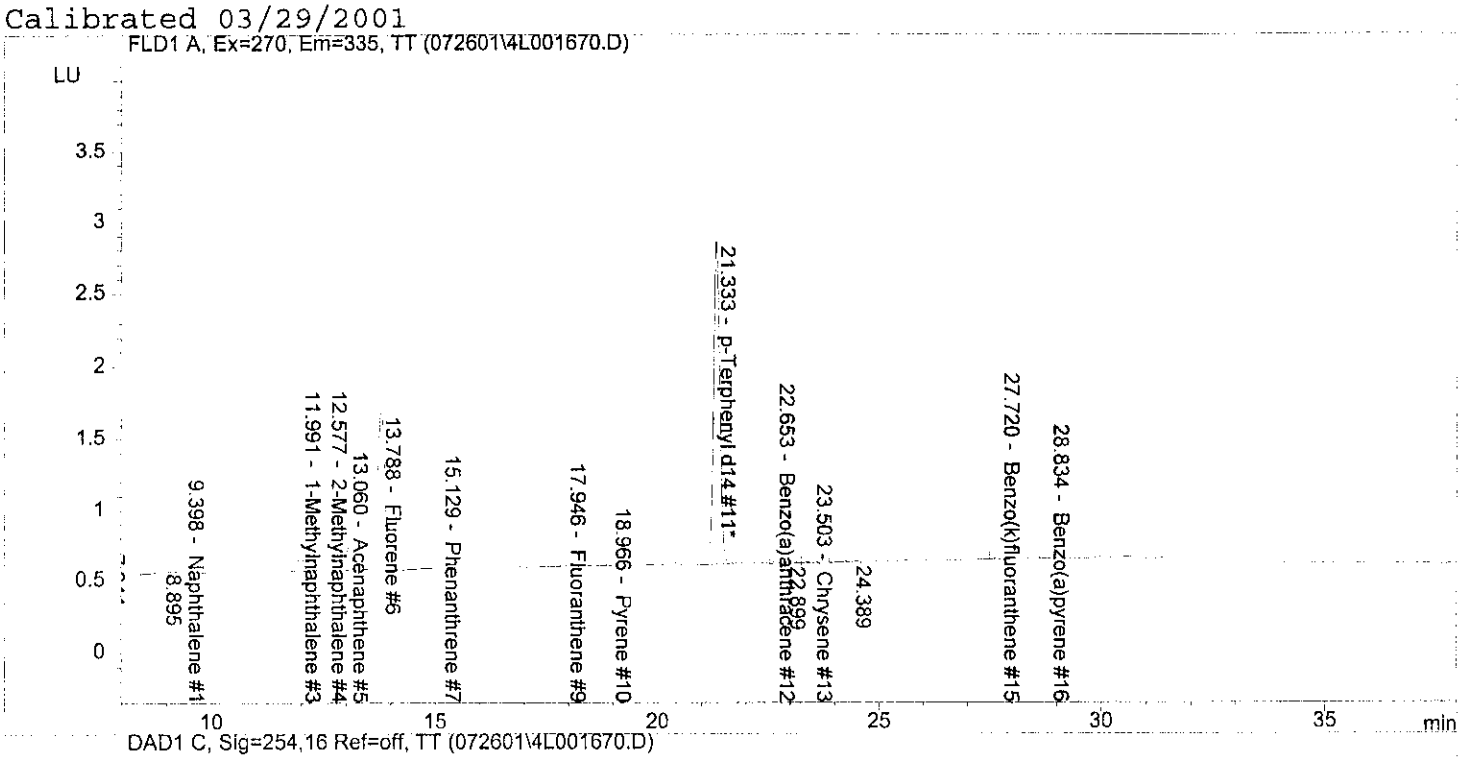
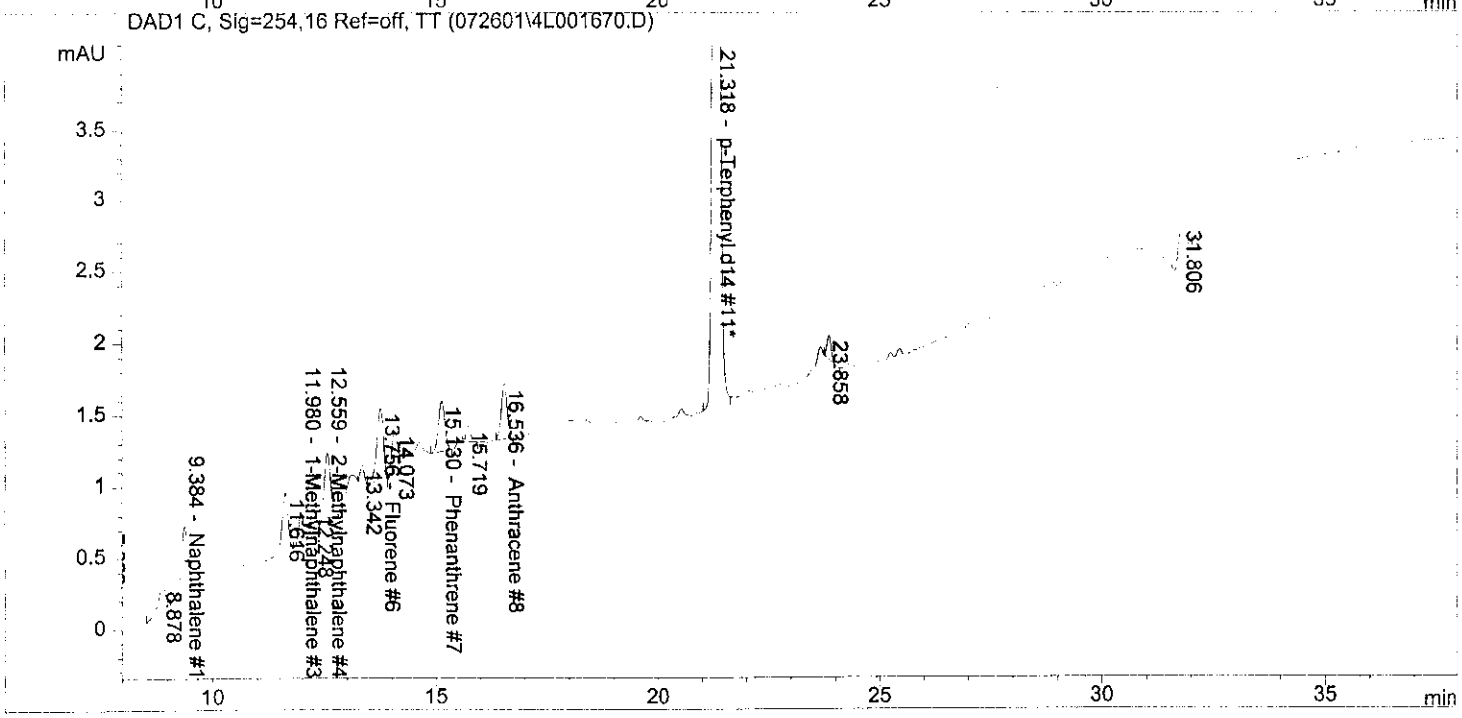
Injection Date : 7/26/2001 4:15:42 PM Seq. Line : 8
Sample Name : L0107411-04 8310 Vial : 8
Acq. Operator : HV Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 PM
Multiplier : 1.0400
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
9.398	BB	1.47693	2.67269e-2	4.10527e-2		Naphthalene #1
11.991	BBA	1.14495	2.35177e-2	2.80038e-2		1-Methylnaphthalene #3
12.577	BB	1.84627	1.80248e-2	3.46099e-2		2-Methylnaphthalene #4
13.060	BB	1.52599	1.46127e-2	2.31908e-2		Acenaphthene #5
13.788	BB	12.97875	6.61784e-3	8.93270e-2		Fluorene #6
15.129	BBA	6.31900e-1	1.69032e-1	1.11084e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.946	PBA	4.88342e-1	2.43125e-2	1.23477e-2		Fluoranthene #9
18.966	PBA	2.51343e-1	4.17786e-2	1.09208e-2		Pyrene #10
21.333	BB	21.64226	2.67546e-1	6.02190		p-Terphenyl d14 #11*
22.653	BB	1.49243e-1	8.25659e-3	1.28152e-3		Benzo(a)anthracene #12
23.503	BB	1.82432e-1	4.11122e-2	7.80019e-3		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.720	BBA	2.53303e-1	2.81137e-3	7.40614e-4		Benzo(k)fluoranthene #15
28.834	PBA	2.01261e-1	4.69740e-3	9.83219e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.38325

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	BB	4.46046	8.25940e-3	3.83144e-2	cmpl	Naphthalene #1
11.160		-	-	-		Acenaphthylene #2
11.980	BB	1.33703	1.29668e-2	1.80305e-2		1-Methylnaphthalene #3
12.559	BB	4.62224	1.12696e-2	5.41747e-2		2-Methylnaphthalene #4
13.161		-	-	-		Acenaphthene #5
13.756	BB	5.19552	1.76796e-2	9.55290e-2		Fluorene #6
15.130	BB	3.59757	1.72992e-2	6.47245e-2		Phenanthrene #7
16.536	BB	3.49793	1.03904e-2	3.77987e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.318	BBA	98.82689	5.82010e-2	5.98189		p-Terphenyl d14 #11*
22.608		-	-	-	57.5%	Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.29046

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 ***

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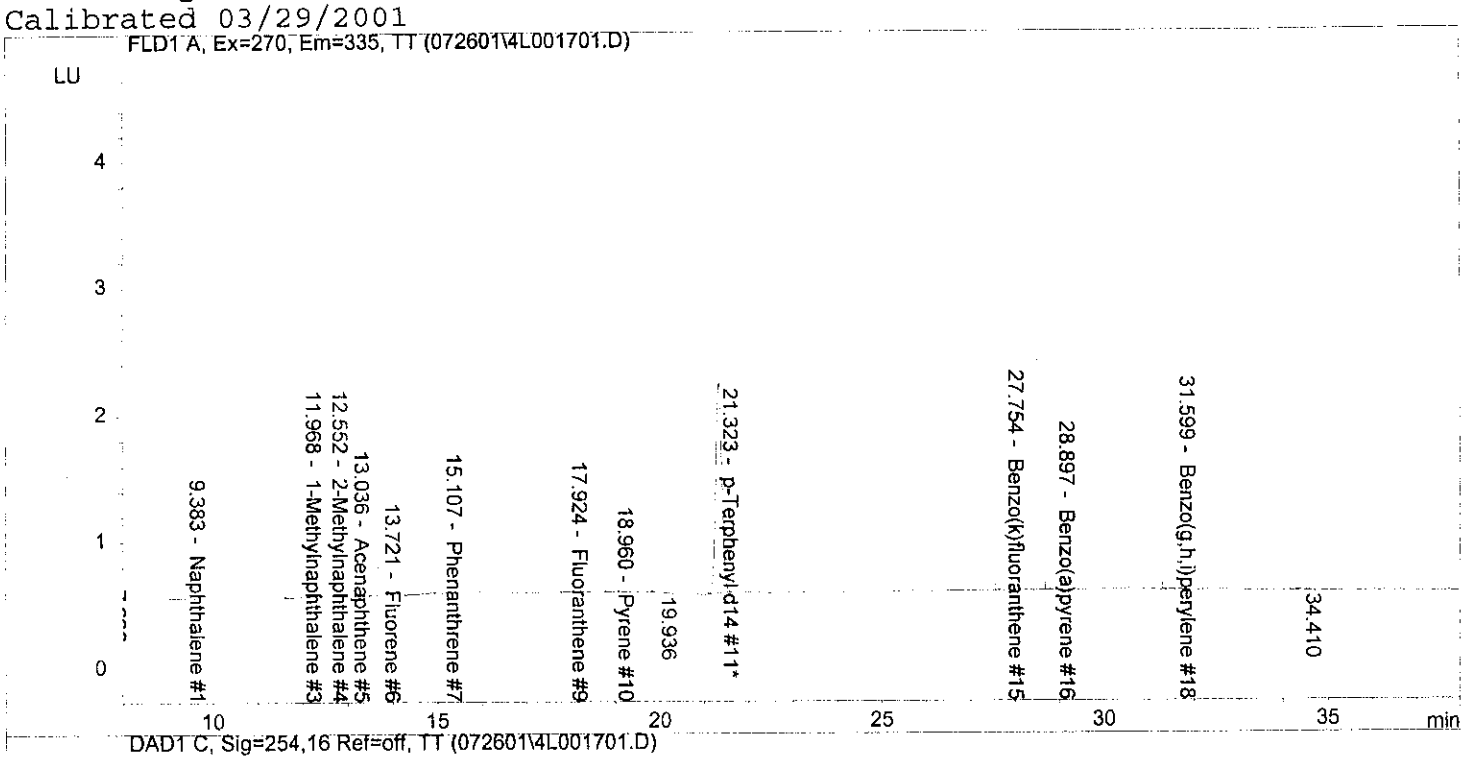
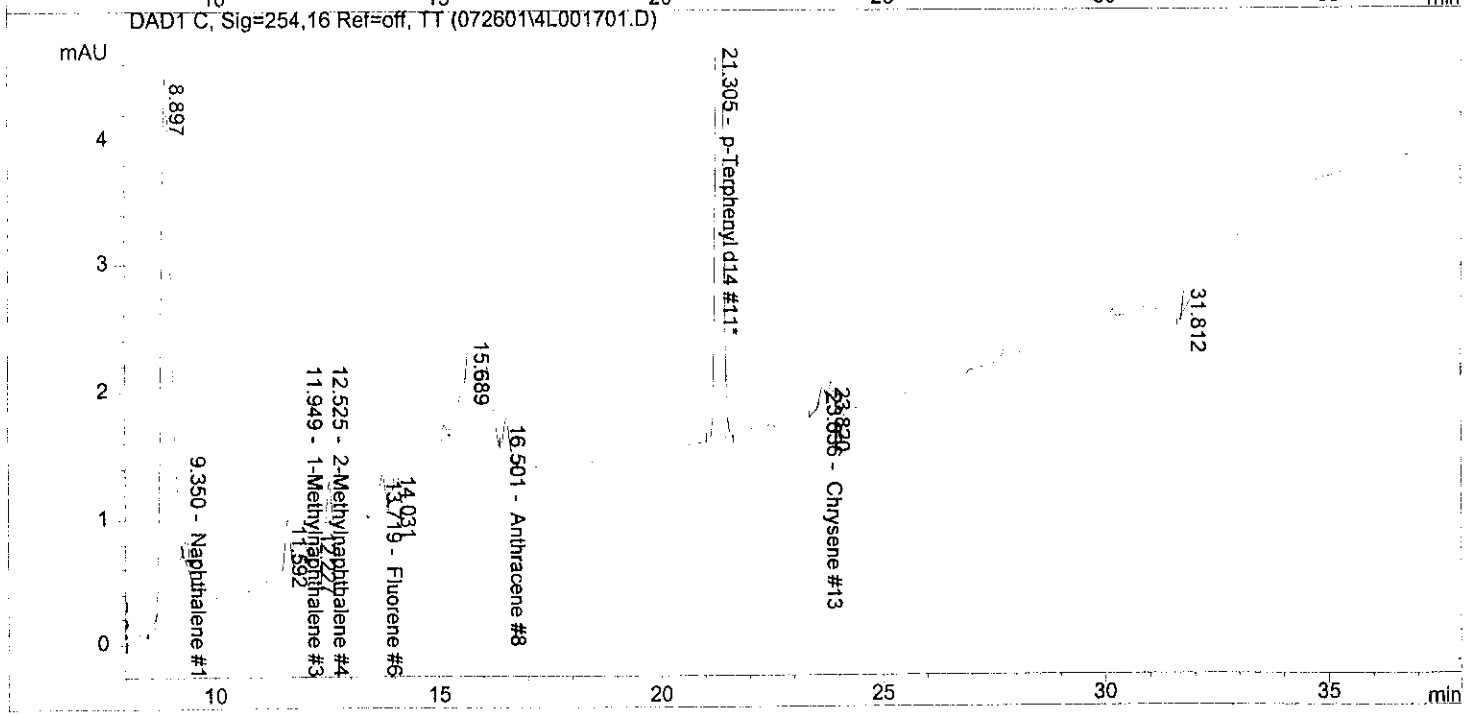
Injection Date : 7/27/2001 9:44:10 PM
Sample Name : L0107411-04 RE
Acq. Operator : HV

Seq. Line : 39
Vial : 40
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.383	BB	9.75779e-1	2.67269e-2	2.71228e-2		Naphthalene #1
11.968	BB	6.41109e-1	2.35177e-2	1.56805e-2		1-Methylnaphthalene #3
12.552	BBA	1.03596	1.80248e-2	1.94200e-2		2-Methylnaphthalene #4
13.036	PB	9.08028e-1	1.46127e-2	1.37995e-2		Acenaphthene #5
13.721	BB	3.10928	6.61784e-3	2.13998e-2		Fluorene #6
15.107	BBA	6.10742e-1	1.69032e-1	1.07365e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.924	BBA	2.37426e-1	2.43125e-2	6.00332e-3		Fluoranthene #9
18.960	BBA	1.52204e-1	4.17786e-2	6.61323e-3		Pyrene #10
21.323	PBA	15.69124	2.67546e-1	4.36605		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.754	PBA	2.37342e-1	2.81137e-3	6.93946e-4		Benzo(k)fluoranthene #15
28.897	PBA	2.37288e-1	4.69740e-3	1.15922e-3		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.599	PBA	1.50152e-1	2.88728e-2	4.50871e-3		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.58981

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
9.350	BBA	1.13988	8.25940e-3	9.79131e-3		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.949	BB	1.27543	1.29668e-2	1.71998e-2		1-Methylnaphthalene #3
12.525	BB	4.30881	1.12696e-2	5.05011e-2		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.719	BB	2.59942	1.76796e-2	4.77951e-2		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.501	BB	2.06784	1.03904e-2	2.23451e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.305	BBA	72.82688	5.82010e-2	4.40814 42.4%		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.636	PB	8.21515e-1	1.51428e-2	1.29377e-2		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.56871

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 ***

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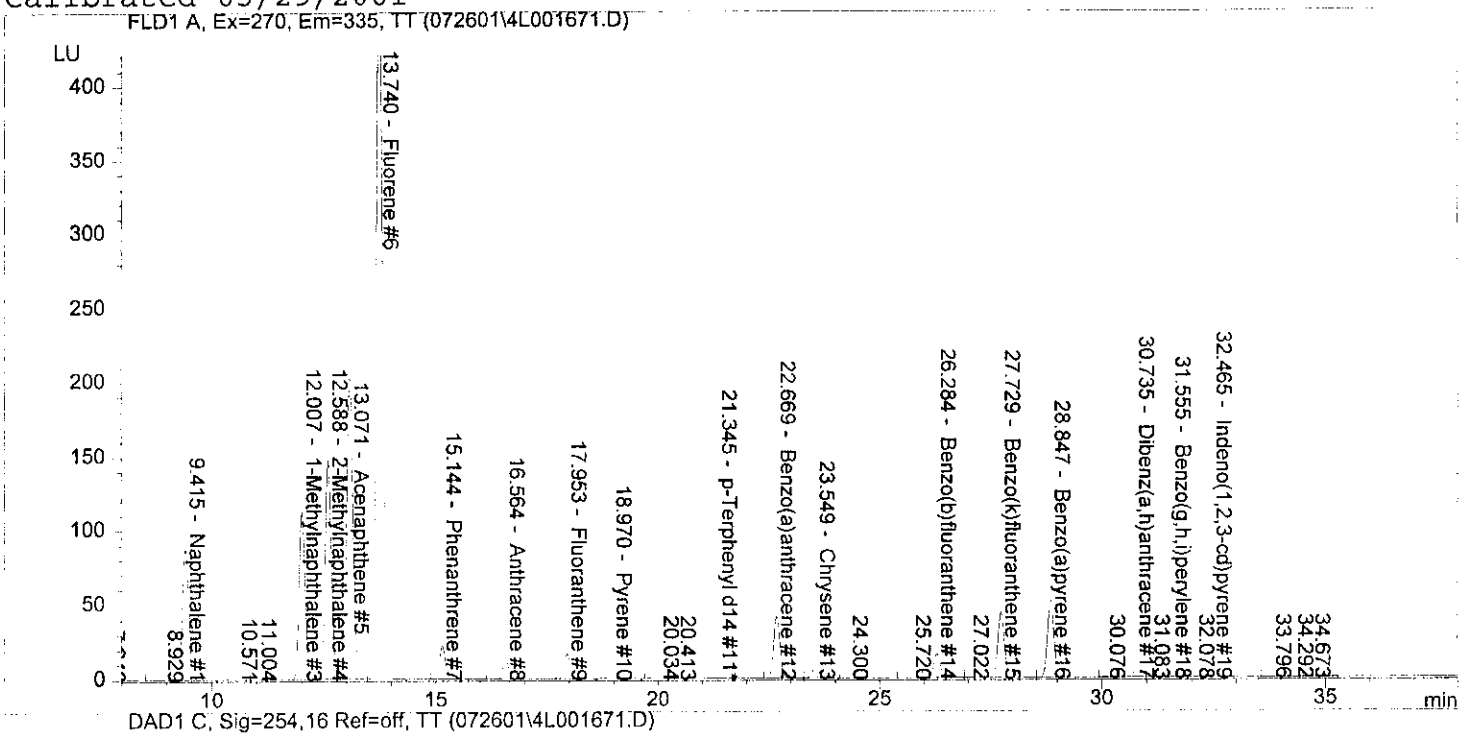
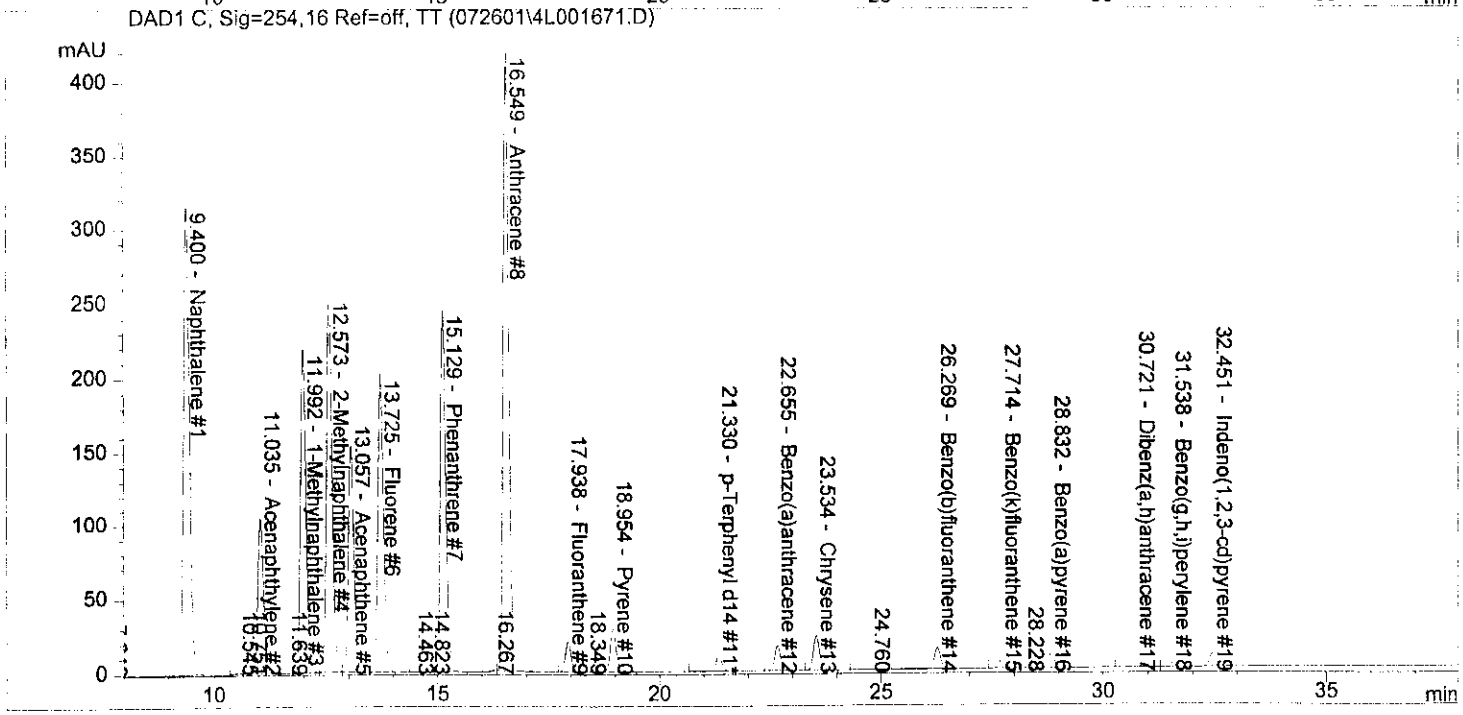
Injection Date : 7/26/2001 5:12:22 PM
Sample Name : L0107411-05 MS
Acq. Operator : HV

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





325

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 PM
Multiplier : 1.0400
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
9.415	BBA	857.96271	2.67269e-2	23.84793		Naphthalene #1
12.007	PB	1047.28845	2.35177e-2	25.61506		1-Methylnaphthalene #3
12.588	BB	1360.55383	1.80248e-2	25.50470		2-Methylnaphthalene #4
13.071	BB	1907.05103	1.46127e-2	28.98180		Acenaphthene #5
13.740	BB	4669.96729	6.61784e-3	32.14130		Fluorene #6
15.144	BBA	206.88895	1.69032e-1	36.36977		Phenanthrene #7
16.564	PB	116.71980	3.15277e-1	38.27107		Anthracene #8
17.953	BBA	158.97359	2.43125e-2	4.01965		Fluoranthene #9
18.970	BBA	90.56327	4.17786e-2	3.93495		Pyrene #10
21.345	BB	20.61284	2.67546e-1	5.73547		p-Terphenyl d14 #11*
22.669	PB	413.76523	8.25659e-3	3.55294		Benzo(a)anthracene #12
23.549	BBA	80.21229	4.11122e-2	3.42961		Chrysene #13
26.284	BB	168.16548	1.66088e-2	2.90474		Benzo(b)fluoranthene #14
27.729	BB	457.97412	2.81137e-3	1.33904		Benzo(k)fluoranthene #15
28.847	BB	532.71613	4.69740e-3	2.60248		Benzo(a)pyrene #16
30.735	BB	35.43428	4.05016e-2	1.49255		Dibenz(a,h)anthracene #17
31.555	BB	52.06995	2.88728e-2	1.56354		Benzo(g,h,i)perylene #18
32.465	BBA	131.95319	1.36562e-2	1.87406		Indeno(1,2,3-cd)pyrene #1

Totals : 243.18066

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	2850.72021	8.25940e-3	24.48706		Naphthalene #1
11.035	BB	893.03119	2.98051e-2	27.68157		Acenaphthylene #2
11.992	BB	1860.22437	1.29668e-2	25.08605		1-Methylnaphthalene #3
12.573	BB	2152.03906	1.12696e-2	25.22280		2-Methylnaphthalene #4
13.057	BB	1316.23914	2.03536e-2	27.86177		Acenaphthene #5
13.725	BB	1698.82422	1.76796e-2	31.23599		Fluorene #6
15.129	BB	2062.49805	1.72992e-2	37.10674		Phenanthrene #7
16.549	BBA	3560.52466	1.03904e-2	38.47504		Anthracene #8
17.938	BB	173.07962	2.18760e-2	3.93774		Fluoranthene #9
18.954	BBA	261.13333	1.44305e-2	3.91902		Pyrene #10
21.330	BBA	95.68037	5.82010e-2	5.79144		p-Terphenyl d14 #11*
22.655	PBA	153.67741	2.23125e-2	3.56609		Benzo(a)anthracene #12
23.534	BBA	220.74890	1.51428e-2	3.47647		Chrysene #13
26.269	BBA	134.59827	2.08700e-2	2.92143		Benzo(b)fluoranthene #14
27.714	BB	56.52815	2.27668e-2	1.33844		Benzo(k)fluoranthene #15
28.832	BBA	97.96796	2.56639e-2	2.61481		Benzo(a)pyrene #16
30.721	BB	18.43102	9.44927e-2	1.81126		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.538	BB	26.47514	5.64104e-2	1.55321		Benzo(g,h,i)perylene #18
32.451	BBA	91.08651	2.06418e-2	1.95540		Indeno(1,2,3-cd)pyrene #1
Totals :				270.04234		

Results obtained with enhanced integrator!

*** End of Report ***

327

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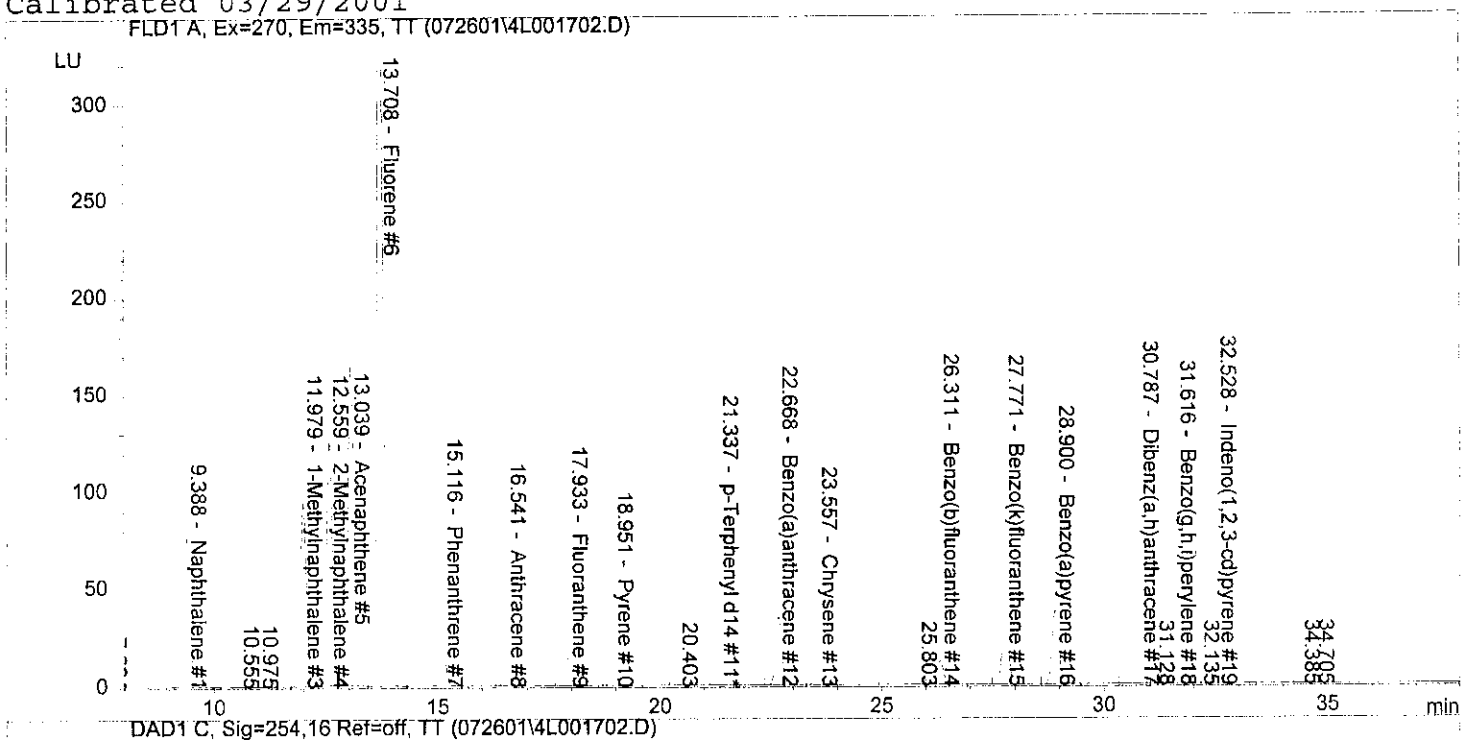
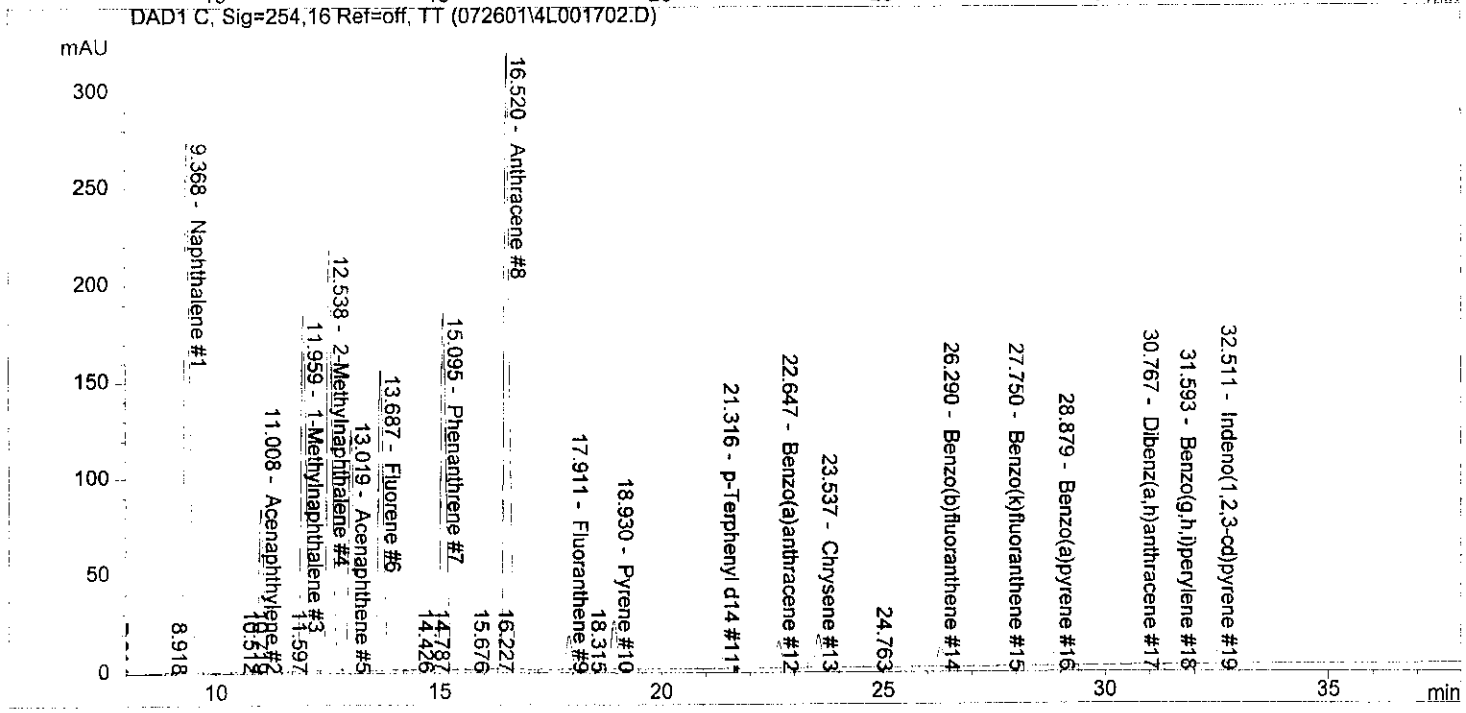
Injection Date : 7/27/2001 10:40:54 PM
Sample Name : L0107411-05 MS
Acq. Operator : HV

Seq. Line : 40
Vial : 41
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.388	BB	733.11993	2.67269e-2	20.37780		Naphthalene #1
11.979	PB	873.72290	2.35177e-2	21.36991		1-Methylnaphthalene #3
12.559	BB	1148.36438	1.80248e-2	21.52704		2-Methylnaphthalene #4
13.039	BB	1519.69897	1.46127e-2	23.09514		Acenaphthene #5
13.708	BB	3591.06982	6.61784e-3	24.71573		Fluorene #6
15.116	BBA	158.83534	1.69032e-1	27.92225		Phenanthrene #7
16.541	BBA	88.15910	3.15277e-1	28.90635		Anthracene #8
17.933	BBA	141.26595	2.43125e-2	3.57191		Fluoranthene #9
18.951	BBA	80.37540	4.17786e-2	3.49229		Pyrene #10
21.337	PB	15.96685	2.67546e-1	4.44274		p-Terphenyl d14 #11*
22.668	PB	350.11133	8.25659e-3	3.00635		Benzo(a)anthracene #12
23.557	BB	58.78891	4.11122e-2	2.51362		Chrysene #13
26.311	BB	125.59882	1.66088e-2	2.16948		Benzo(b)fluoranthene #14
27.771	BB	313.93164	2.81137e-3	9.17882e-1		Benzo(k)fluoranthene #15
28.900	BB	398.17682	4.69740e-3	1.94521		Benzo(a)pyrene #16
30.787	BB	28.66793	4.05016e-2	1.20754		Dibenz(a,h)anthracene #17
31.616	BB	41.08543	2.88728e-2	1.23370		Benzo(g,h,i)perylene #18
32.528	BBA	97.52579	1.36562e-2	1.38511		Indeno(1,2,3-cd)pyrene #1

Totals : 193.80006

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
9.368	BBA	2438.01270	8.25940e-3	20.94199		Naphthalene #1
11.008	BB	714.06982	2.98051e-2	22.13425		Acenaphthylene #2
11.959	BB	1553.53967	1.29668e-2	20.95026		1-Methylnaphthalene #3
12.538	BB	1817.51965	1.12696e-2	21.30210		2-Methylnaphthalene #4
13.019	BB	1047.45276	2.03536e-2	22.17218		Acenaphthene #5
13.687	BB	1308.05164	1.76796e-2	24.05092		Fluorene #6
15.095	BB	1562.34985	1.72992e-2	28.10849		Phenanthrene #7
16.520	BBA	2708.13159	1.03904e-2	29.26408		Anthracene #8
17.911	BB	152.76997	2.18760e-2	3.47567		Fluoranthene #9
18.930	BBA	232.78189	1.44305e-2	3.49353		Pyrene #10
21.316	PBA	74.04251	5.82010e-2	4.48172		p-Terphenyl d14 #11*
22.647	BBA	130.26010	2.23125e-2	3.02269		Benzo(a)anthracene #12
23.537	BBA	166.42877	1.51428e-2	2.62101		Chrysene #13
26.290	BBA	100.40907	2.08700e-2	2.17936		Benzo(b)fluoranthene #14
27.750	BB	38.17284	2.27668e-2	9.03837e-1		Benzo(k)fluoranthene #15
28.879	BB	73.43946	2.56639e-2	1.96013		Benzo(a)pyrene #16
30.767	BB	14.81964	9.44927e-2	1.45636		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.593	BB	21.12676	5.64104e-2	1.23944		Benzo(g,h,i)perylene #18
32.511	BB	64.88638	2.06418e-2	1.39295		Indeno(1,2,3-cd)pyrene #1

Totals : 215.15096

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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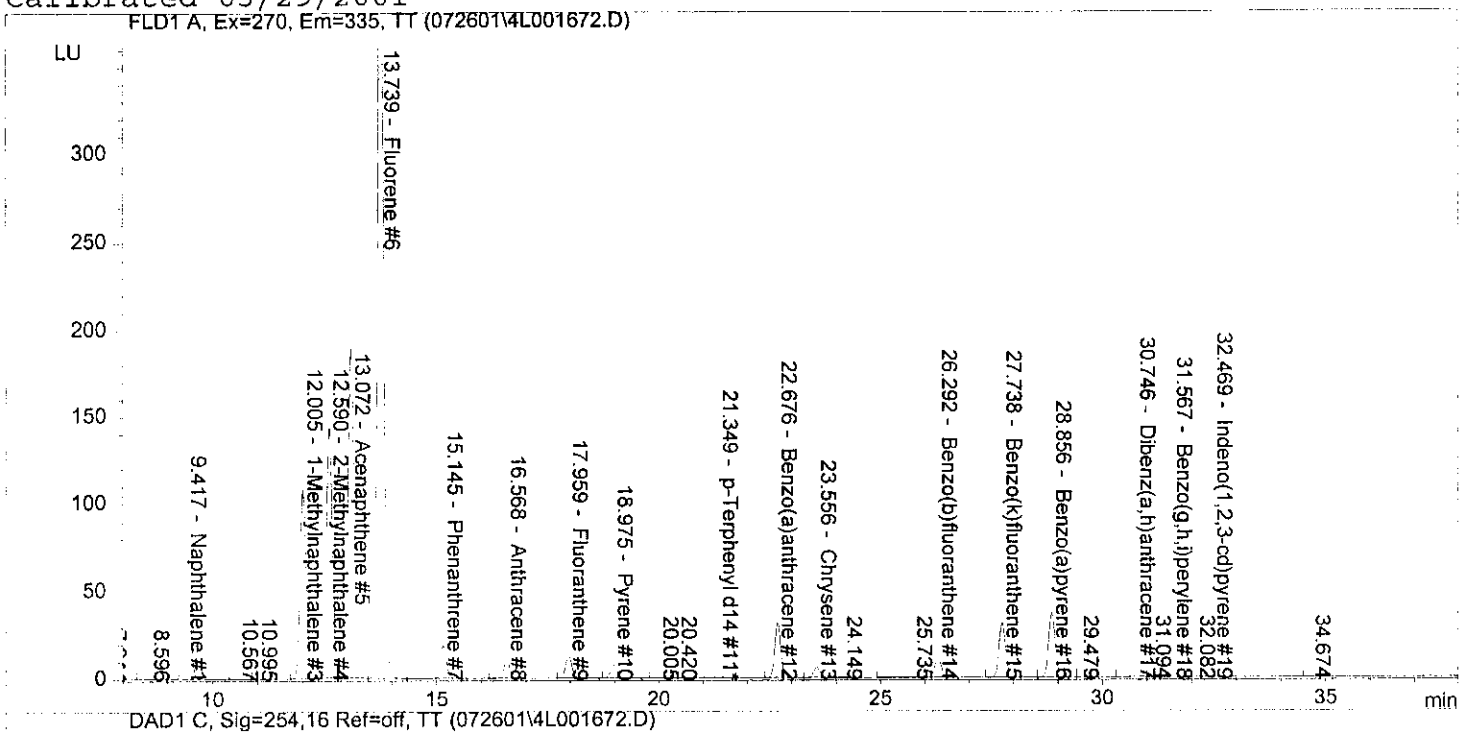
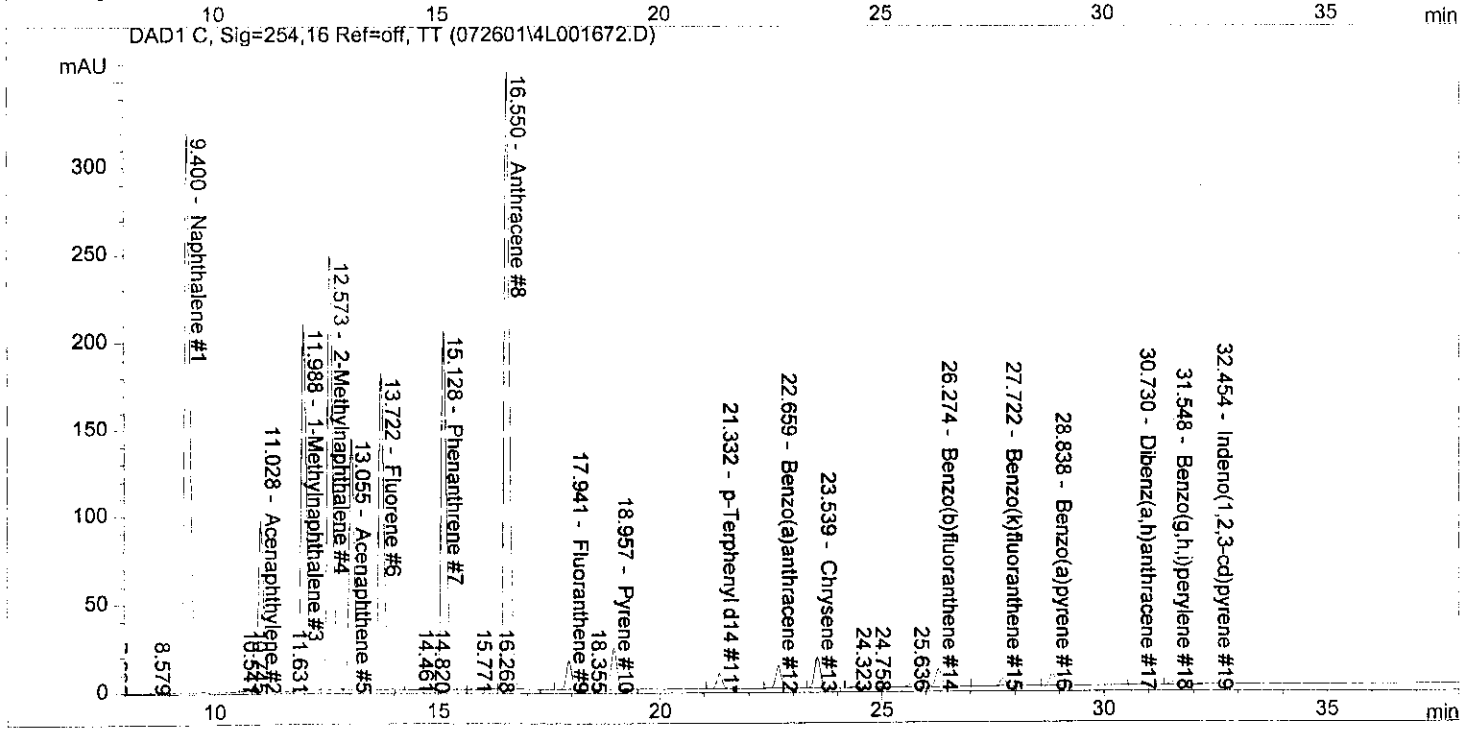
Injection Date	: 7/26/2001 6:09:02 PM	Seq. Line	: 10
Sample Name	: L0107411-06 MSD	Vial	: 10
Acq. Operator	: HV	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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
9.417	BBA	862.56476	2.67269e-2	23.05370		Naphthalene #1
12.005	PB	1010.05798	2.35177e-2	23.75429		1-Methylnaphthalene #3
12.590	BB	1320.89709	1.80248e-2	23.80895		2-Methylnaphthalene #4
13.072	BB	1765.07532	1.46127e-2	25.79247		Acenaphthene #5
13.739	BB	4185.84619	6.61784e-3	27.70126		Fluorene #6
15.145	BBA	173.95848	1.69032e-1	29.40462		Phenanthrene #7
16.568	BB	98.78970	3.15277e-1	31.14616		Anthracene #8
17.959	BBA	129.86400	2.43125e-2	3.15732		Fluoranthene #9
18.975	BBA	73.62617	4.17786e-2	3.07600		Pyrene #10
21.349	BBA	16.41839	2.67546e-1	4.39267		p-Terphenyl d14 #11*
22.676	PB	316.85138	8.25659e-3	2.61611		Benzo(a)anthracene #12
23.556	BB	60.15443	4.11122e-2	2.47308		Chrysene #13
26.292	BBA	121.67562	1.66088e-2	2.02088		Benzo(b)fluoranthene #14
27.738	BB	328.45123	2.81137e-3	9.23399e-1		Benzo(k)fluoranthene #15
28.856	BB	381.58115	4.69740e-3	1.79244		Benzo(a)pyrene #16
30.746	BB	28.08075	4.05016e-2	1.13732		Dibenz(a,h)anthracene #17
31.567	BB	40.29894	2.88728e-2	1.16354		Benzo(g,h,i)perylene #18
32.469	BBA	97.17590	1.36562e-2	1.32706		Indeno(1,2,3-cd)pyrene #1

Totals : 208.74125

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	2861.70459	8.25940e-3	23.63597		Naphthalene #1
11.028	BB	825.33112	2.98051e-2	24.59909		Acenaphthylene #2
11.988	BB	1788.52356	1.29668e-2	23.19147		1-Methylnaphthalene #3
12.573	BB	2085.05029	1.12696e-2	23.49776		2-Methylnaphthalene #4
13.055	BB	1219.87402	2.03536e-2	24.82879		Acenaphthene #5
13.722	BB	1517.56726	1.76796e-2	26.83004		Fluorene #6
15.128	BB	1723.29932	1.72992e-2	29.81169		Phenanthrene #7
16.550	BBA	3020.34595	1.03904e-2	31.38257		Anthracene #8
17.941	BB	140.44902	2.18760e-2	3.07246		Fluoranthene #9
18.957	BBA	213.14996	1.44305e-2	3.07586		Pyrene #10
21.332	BBA	79.30536	5.82010e-2	4.61565		p-Terphenyl d14 #11*
22.659	BBA	118.29874	2.23125e-2	2.63954		Benzo(a)anthracene #12
23.539	BBA	165.87062	1.51428e-2	2.51175		Chrysene #13
26.274	BBA	97.26558	2.08700e-2	2.02993		Benzo(b)fluoranthene #14
27.722	PBA	40.65563	2.27668e-2	9.25599e-1		Benzo(k)fluoranthene #15
28.838	BBA	69.72818	2.56639e-2	1.78950		Benzo(a)pyrene #16
30.730	BBA	12.74273	9.44927e-2	1.20410		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.548	PB	20.64751	5.64104e-2	1.16473		Benzo(g,h,i)perylene #18
32.454	BB	66.06919	2.06418e-2	1.36379		Indeno(1,2,3-cd)pyrene #1

Totals : 232.17030

Results obtained with enhanced integrator!

*** End of Report ***

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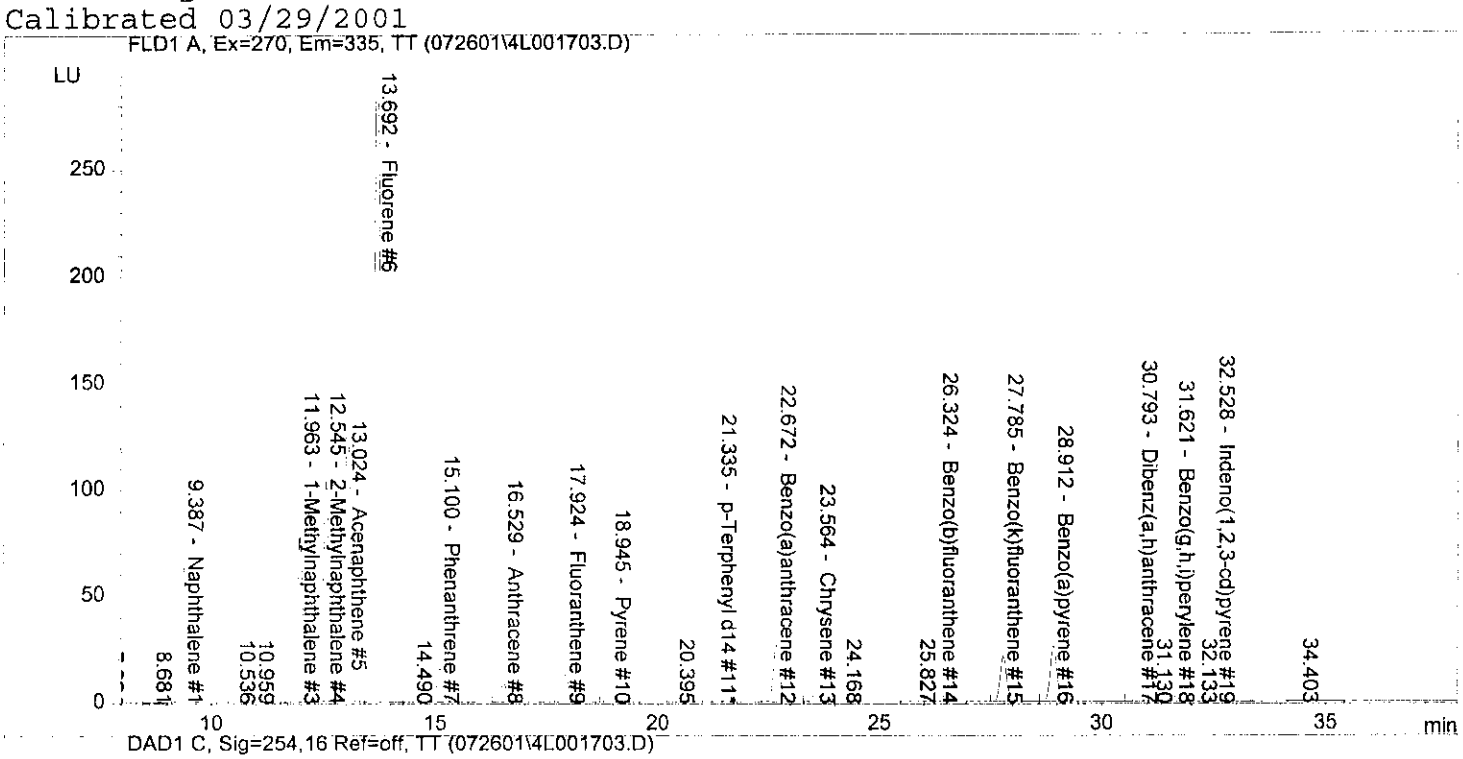
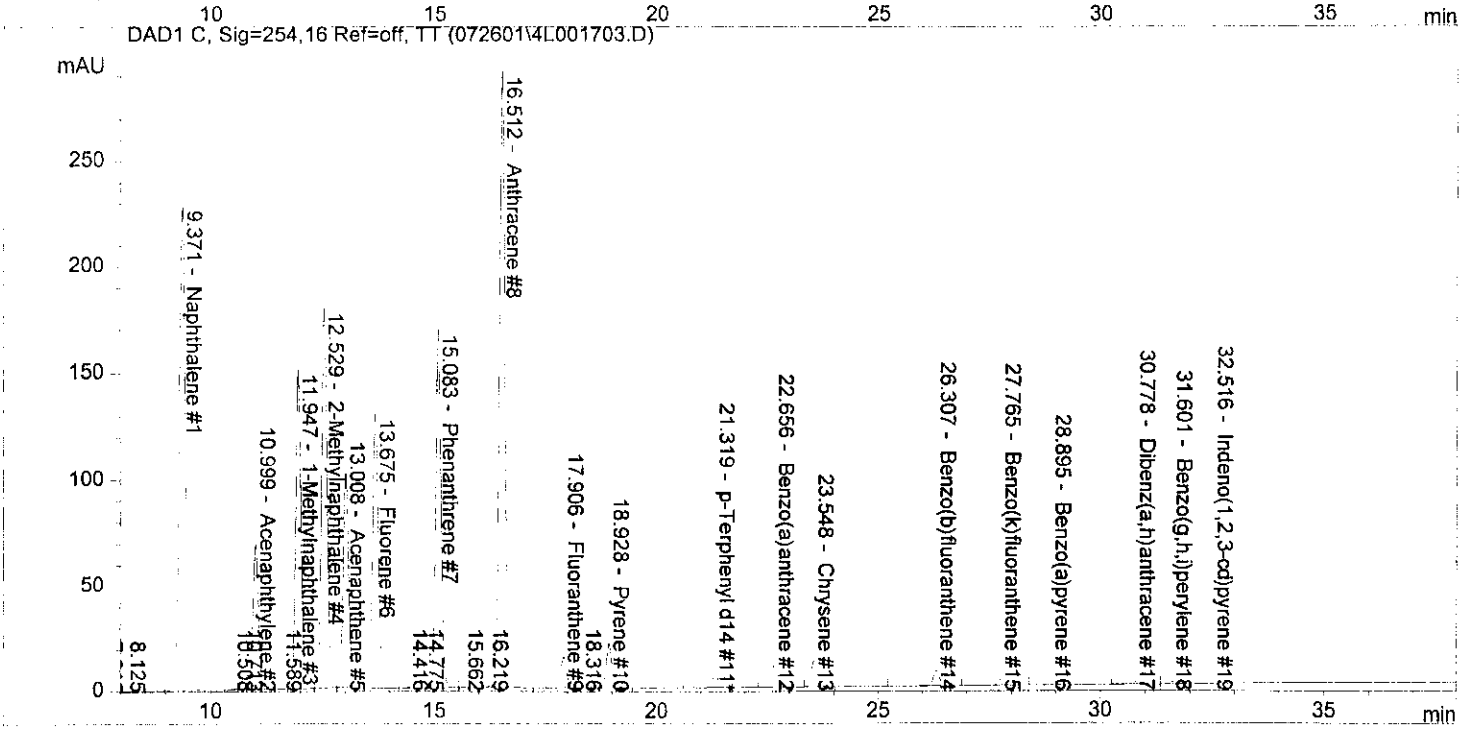
Injection Date : 7/27/2001 11:37:35 PM Seq. Line : 41
Sample Name : L0107411-06 MSD Vial : 42
Acq. Operator : HV Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0300
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
9.387	BBA	613.13257	2.67269e-2	16.87876		Naphthalene #1
11.963	BB	723.14380	2.35177e-2	17.51691		1-Methylnaphthalene #3
12.545	BB	950.97321	1.80248e-2	17.65536		2-Methylnaphthalene #4
13.024	BB	1252.88550	1.46127e-2	18.85725		Acenaphthene #5
13.692	BB	3017.20166	6.61784e-3	20.56638		Fluorene #6
15.100	BBA	141.58823	1.69032e-1	24.65098		Phenanthrene #7
16.529	BBA	80.73534	3.15277e-1	26.21765		Anthracene #8
17.924	BBA	120.26063	2.43125e-2	3.01156		Fluoranthene #9
18.945	BBA	67.68834	4.17786e-2	2.91276		Pyrene #10
21.335	BBA	13.02084	2.67546e-1	3.58818		p-Terphenyl d14 #11*
22.672	BB	266.92715	8.25659e-3	2.27002		Benzo(a)anthracene #12
23.564	BB	44.11802	4.11122e-2	1.86820		Chrysene #13
26.324	BB	89.26208	1.66088e-2	1.52701		Benzo(b)fluoranthene #14
27.785	BB	221.09813	2.81137e-3	6.40237e-1		Benzo(k)fluoranthene #15
28.912	BB	275.53589	4.69740e-3	1.33313		Benzo(a)pyrene #16
30.793	PB	19.99175	4.05016e-2	8.33989e-1		Dibenz(a,h)anthracene #17
31.621	BB	27.41465	2.88728e-2	8.15284e-1		Benzo(g,h,i)perylene #18
32.528	BBA	66.48822	1.36562e-2	9.35219e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 162.07888

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
9.371	BBA	2044.67664	8.25940e-3	17.39444		Naphthalene #1
10.999	BB	590.75476	2.98051e-2	18.13574		Acenaphthylene #2
11.947	BB	1285.63159	1.29668e-2	17.17068		1-Methylnaphthalene #3
12.529	BB	1507.70703	1.12696e-2	17.50105		2-Methylnaphthalene #4
13.008	BB	862.64874	2.03536e-2	18.08472		Acenaphthene #5
13.675	BB	1095.71826	1.76796e-2	19.95306		Fluorene #6
15.083	BB	1423.16675	1.72992e-2	25.35823		Phenanthrene #7
16.512	BBA	2482.69800	1.03904e-2	26.57008		Anthracene #8
17.906	BB	130.69832	2.18760e-2	2.94493		Fluoranthene #9
18.928	BB	196.22678	1.44305e-2	2.91660		Pyrene #10
21.319	BBA	59.02411	5.82010e-2	3.53832		p-Terphenyl d14 #11*
22.656	BBA	99.87011	2.23125e-2	2.29521		Benzo(a)anthracene #12
23.548	BBA	123.67521	1.51428e-2	1.92898		Chrysene #13
26.307	BBA	71.38625	2.08700e-2	1.53453		Benzo(b)fluoranthene #14
27.765	BBA	27.72987	2.27668e-2	6.50260e-1		Benzo(k)fluoranthene #15
28.895	BBA	50.85011	2.56639e-2	1.34416		Benzo(a)pyrene #16
30.778	BB	10.78740	9.44927e-2	1.04991		Dibenz(a,h)anthracene #17

34.46

335

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.601	BB	13.97725	5.64104e-2	8.12116e-1		Benzo(g,h,i)perylene #18
32.516	BB	44.54668	2.06418e-2	9.47110e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 180.13012

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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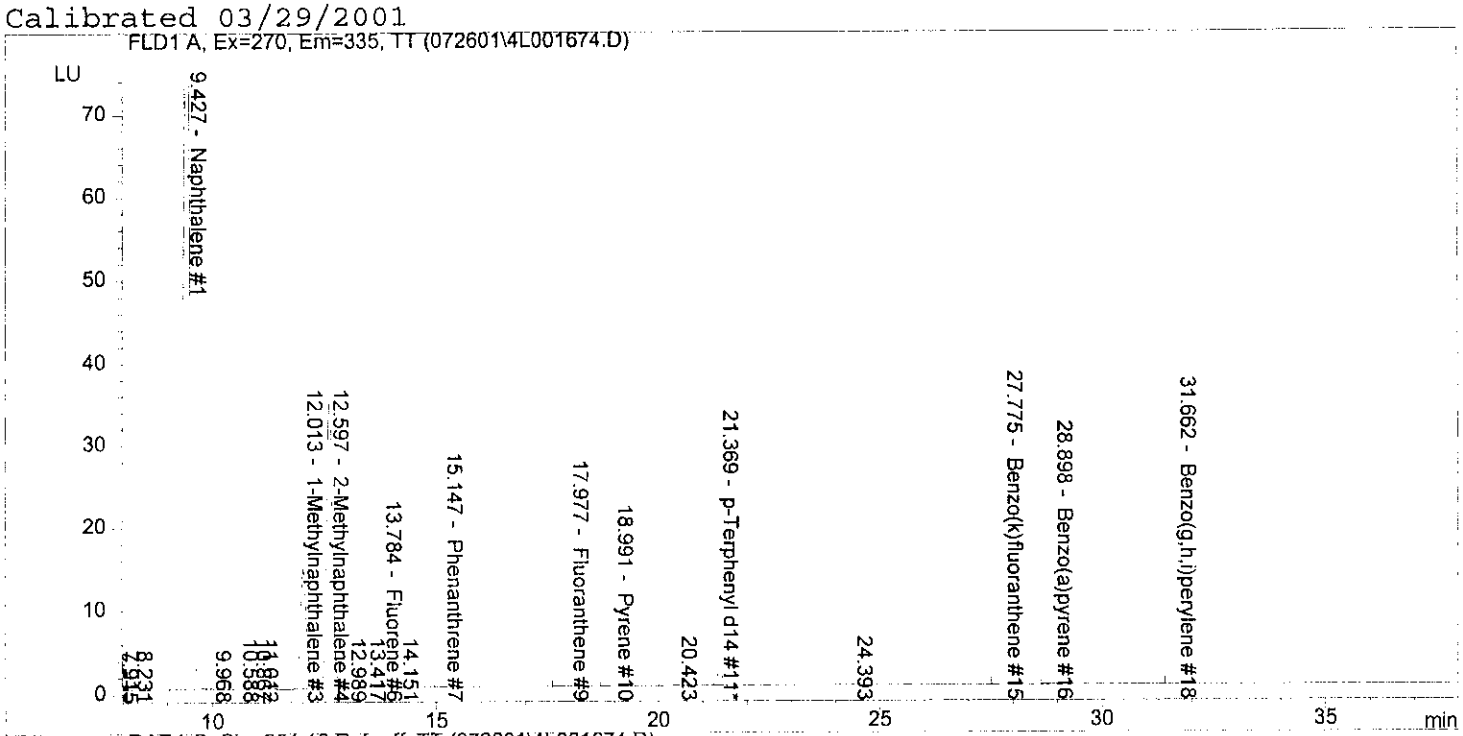
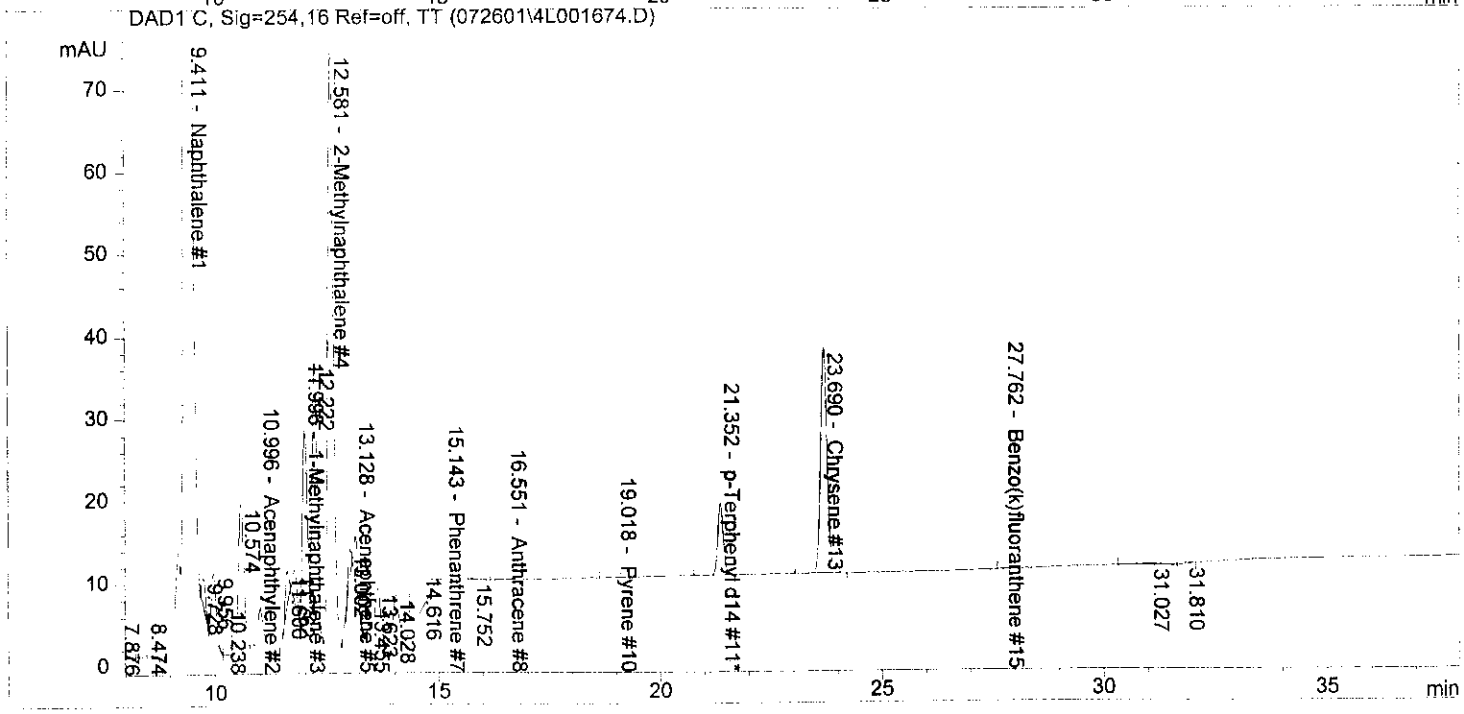
Injection Date : 7/26/2001 8:02:21 PM
Sample Name : L0107411-07 8310
Acq. Operator : HV

Seq. Line : 12
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/27/2001 8:58:22 AM by HV
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/27/2001 8:58:22 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/L]	Grp	Name
9.427	BB	935.89838	2.67269e-2	25.01368	✓	Naphthalene #1
12.013	BB	140.15404	2.35177e-2	3.29611	✓	1-Methylnaphthalene #3
12.597	BB	312.24323	1.80248e-2	5.62813	C	2-Methylnaphthalene #4
13.176		-	-	-		Acenaphthene #5
13.784	BB	11.96455	6.61784e-3	7.91795e-2		Fluorene #6
15.147	BBA	9.13629e-1	1.69032e-1	1.54433e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.977	BBA	4.83093e-1	2.43125e-2	1.17452e-2		Fluoranthene #9
18.991	BBA	2.22774e-1	4.17786e-2	9.30717e-3		Pyrene #10
21.369	BB	16.25194	2.67546e-1	4.34814		p-Terphenyl d14 #11*
22.623		-	-	-	43.5	Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.775	PBA	3.10302e-1	2.81137e-3	8.72374e-4		Benzo(k)fluoranthene #15
28.898	PBA	1.62725e-1	4.69740e-3	7.64385e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.662	BBA	2.32874e-1	2.88728e-2	6.72373e-3		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 38.54908

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
9.411	BB	3012.05518	8.25940e-3	24.87778	C	Naphthalene #1
10.996	BB	48.25660	2.98051e-2	1.43829	✓	Acenaphthylene #2 needs cor
11.996	BB	139.06339	1.29668e-2 (1)	1.80321	C	1-Methylnaphthalene #3
12.581	BB	617.35474	1.12696e-2	6.95736	✓	2-Methylnaphthalene #4
13.128	BB	30.29675	2.03536e-2	6.16647e-1		Acenaphthene #5
13.817		-	-	-		Fluorene #6
15.143	BB	3.46022	1.72992e-2	5.98590e-2	LMOL	Phenanthrene #7
16.551	BB	3.30207	1.03904e-2	3.43098e-2	✓	Anthracene #8
17.962		-	-	-		Fluoranthene #9
19.018	BBA	10.75945	1.44305e-2	1.55264e-1	NC	Pyrene #10
21.352	BBA	75.90554	5.82010e-2	4.41778		p-Terphenyl d14 #11*
22.608		-	-	-	44.2	Benzo(a)anthracene #12
23.690	BBA	282.39023	1.51428e-2	4.27619	NC	Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.762	PBA	7.62759e-1	2.27668e-2	1.73656e-2	LMOL	Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 44.65405

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 ***

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\080101\7M13548.D Vial: 9
Acq On : 1 Aug 2001 12:21 Operator: mdc
Sample : L0107411-07 8310 confirmation Inst : HPMS7
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 01 12:58:56 2001 Quant Results File: PAHLOW2.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW2.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Wed Aug 01 11:49:37 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.49	136	241269	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.28	164	167715	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.81	188	347801	1.00	ug/ml	0.00
15) Chrysene-d12	12.62	240	469965	1.00	ug/ml	0.00
20) Perylene-d12	15.07	264	27198	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.79	82	10832	0.15	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 6.00%#			
7) 2-Fluorobiphenyl	7.53	172	1178	0.01	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 0.40%#			
17) p-Terphenyl-d14	11.39	244	1517358	4.01	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 160.40%#			
Target Compounds						Qvalue
3) Naphthalene	6.51	128	5024214	22.93	ug/ml	98
4) 2-Methylnaphthalene	7.20	142	1116817	7.86	ug/ml	99
5) 1-Methylnaphthalene	7.30	142	485626	3.56	ug/ml#	78

(#) = qualifier out of range (m) = manual integration

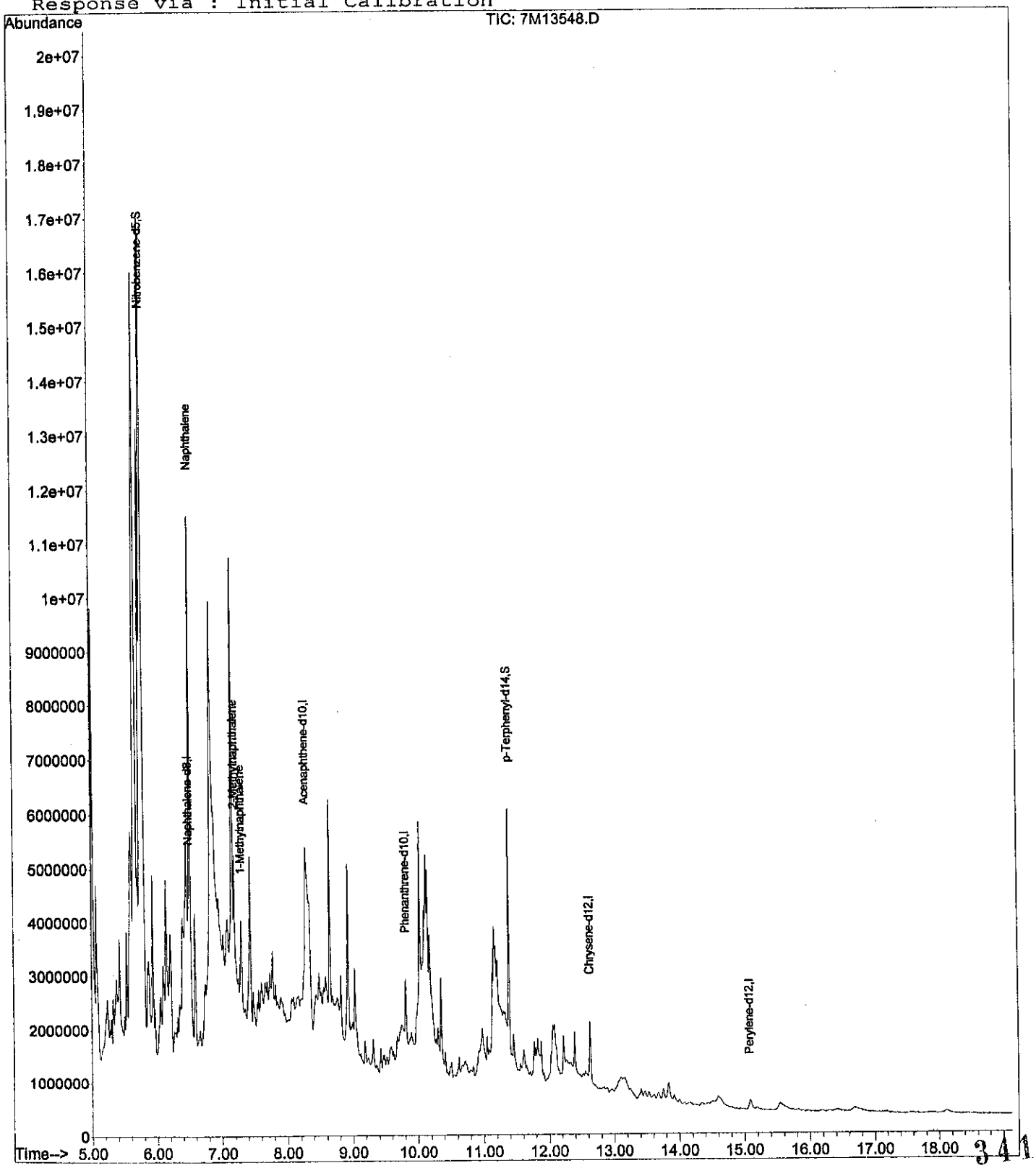
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\080101\7M13548.D
Acq On : 1 Aug 2001 12:21
Sample : L0107411-07 8310 confirmation
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 1 12:58 2001

Vial: 9
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW2.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW2.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Wed Aug 01 11:49:37 2001
Response via : Initial Calibration



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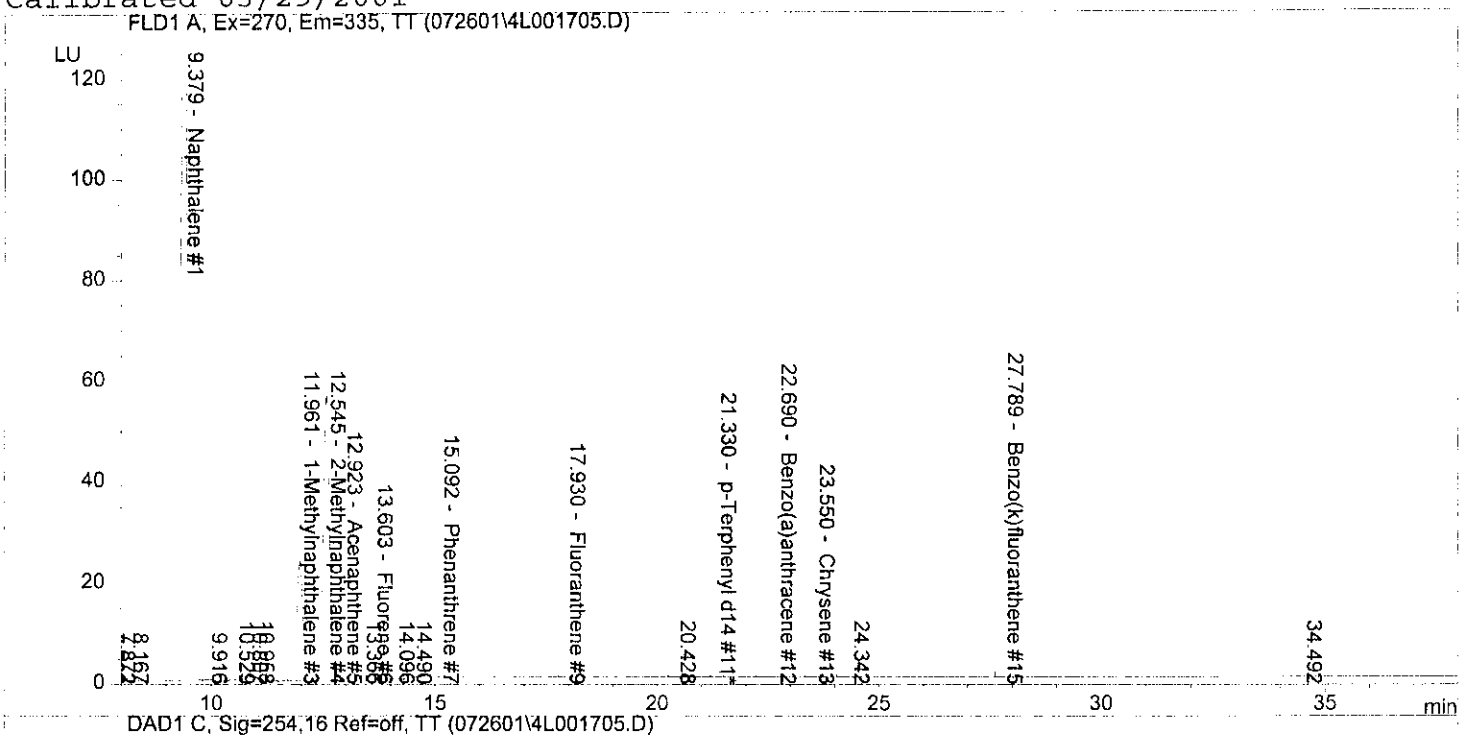
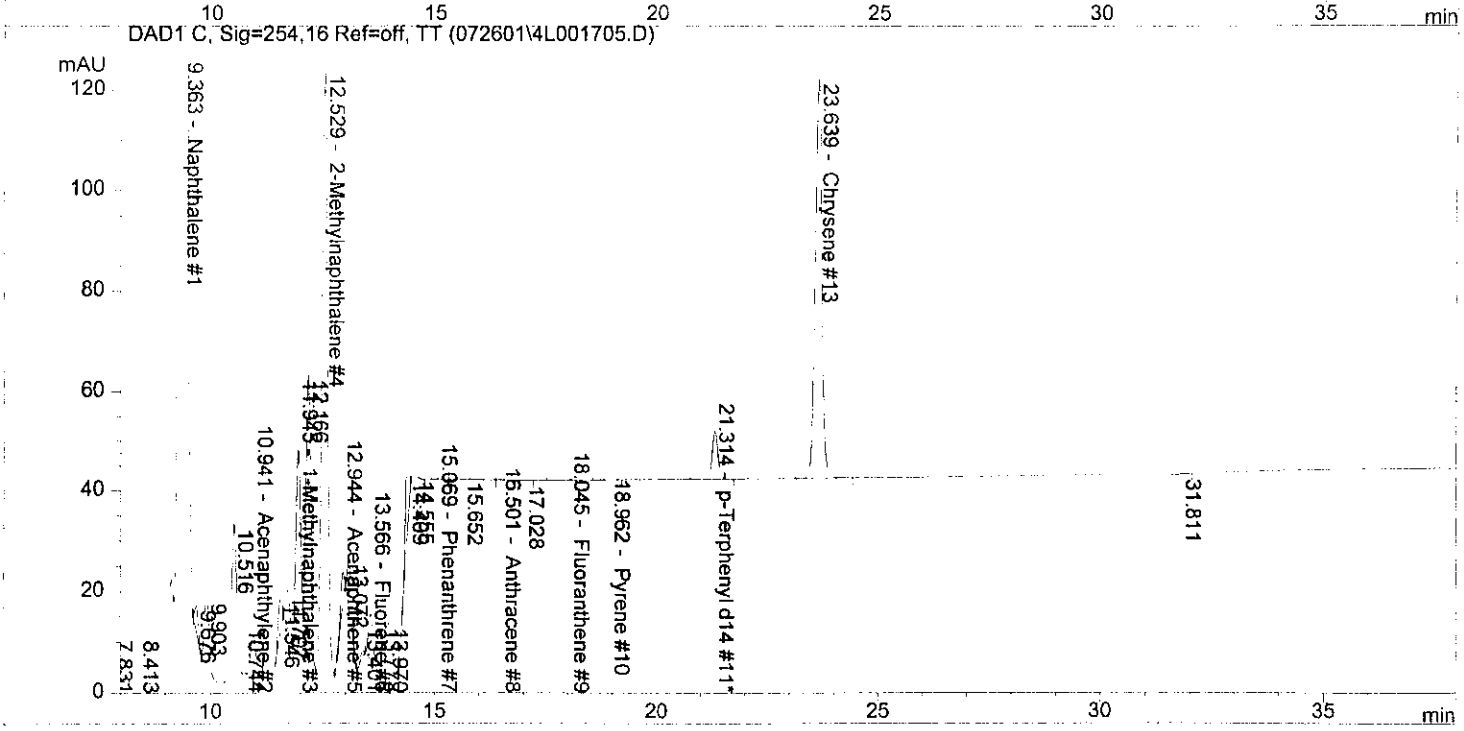
Injection Date : 7/28/2001 1:30:53 AM
Sample Name : L0107411-07 RE
Acq. Operator : HV

Seq. Line : 43
Vial : 44
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.379	BB	1511.68750	2.67269e-2	42.01886		Naphthalene #1
11.961	BB	233.21069	2.35177e-2	5.70397		1-Methylnaphthalene #3
12.545	BB	509.11938	1.80248e-2	9.54386		2-Methylnaphthalene #4
12.923	BB	3.96975	1.46127e-2	6.03290e-2		Acenaphthene #5
13.603	BB	20.23901	6.61784e-3	1.39296e-1		Fluorene #6
15.092	BB	2.32260e-1	1.69032e-1	4.08299e-2		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.930	BBA	2.14615e-1	2.43125e-2	5.42655e-3		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.330	BB	18.84286	2.67546e-1	5.24298		p-Terphenyl d14 #11*
22.690	BB	2.42242e-1	8.25659e-3	2.08010e-3		Benzo(a)anthracene #12
23.550	BB	2.19949e-1	4.11122e-2	9.40430e-3		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.789	BBA	1.81455e-1	2.81137e-3	5.30542e-4		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 62.76757

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
9.363	BB	4875.81055	8.25940e-3	41.88213		Naphthalene #1
10.941	BB	79.39502	2.98051e-2	2.46103		Acenaphthylene #2
11.945	BB	226.06123	1.29668e-2	3.04855		1-Methylnaphthalene #3
12.529	BB	1025.61133	1.12696e-2	12.02060		2-Methylnaphthalene #4
12.944	BB	26.21345	2.03536e-2	5.54879e-1		Acenaphthene #5
13.566	BB	63.88739	1.76796e-2	1.17469		Fluorene #6
15.069	BB	2.77690	1.72992e-2	4.99596e-2		Phenanthrene #7
16.501	BB	1.33993	1.03904e-2	1.44793e-2		Anthracene #8
18.045	BB	1.70853	2.18760e-2	3.88708e-2		Fluoranthene #9
18.962	BB	12.61768	1.44305e-2	1.89363e-1		Pyrene #10
21.314	BB	86.52938	5.82010e-2	5.23754		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.639	PBA	817.77020	1.51428e-2	12.87869		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 79.55077

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 ***

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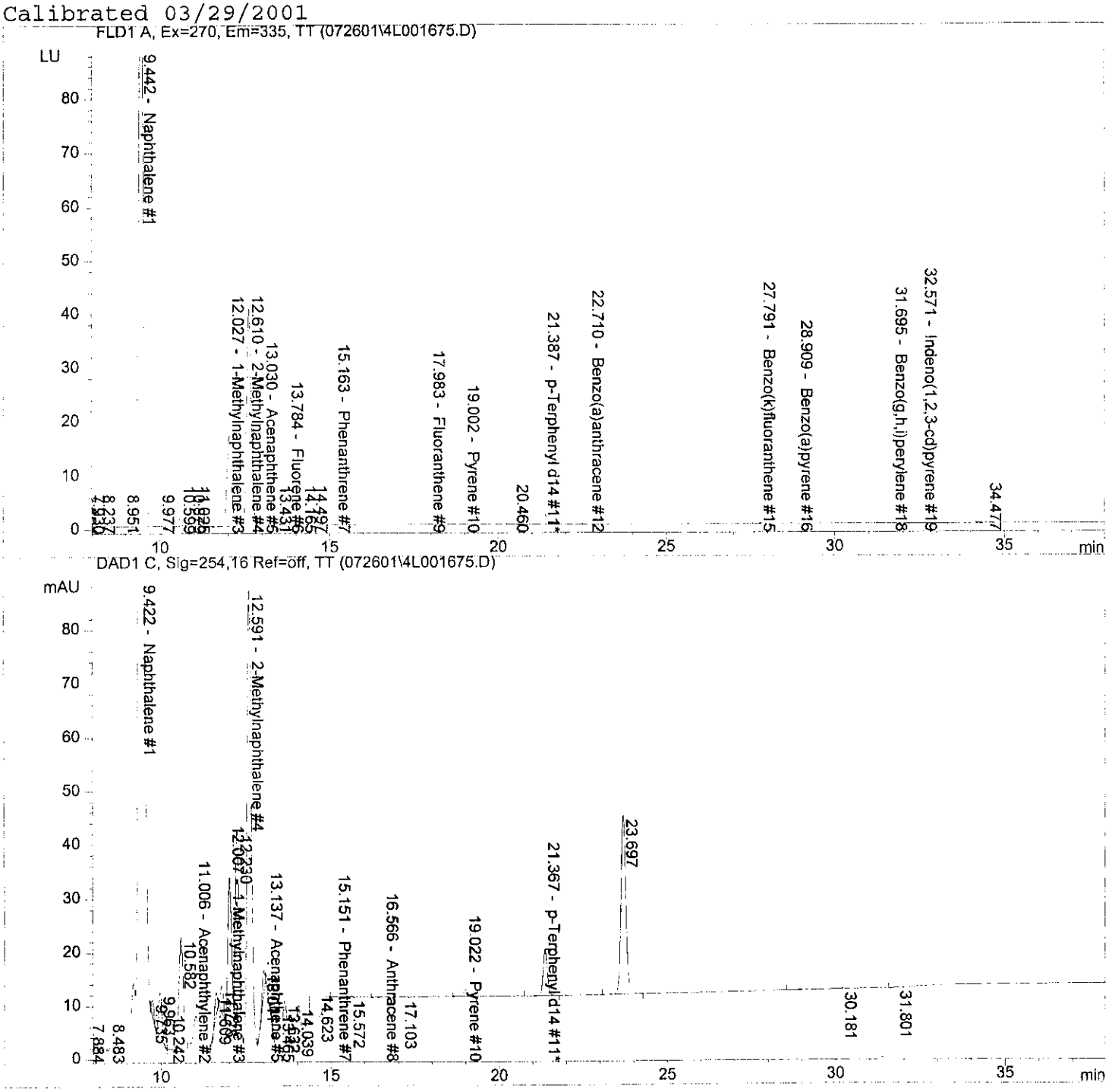
Injection Date : 7/26/2001 8:59:00 PM
Sample Name : L0107411-08 8310
Acq. Operator : HV

Seq. Line : 13
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/27/2001 8:58:22 AM by HV
(modified after loading)

Calibrated 03/29/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/27/2001 8:58:22 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/L]	Grp	Name
9.442	BB	1079.71814	2.67269e-2	28.85754		Naphthalene #1
12.027	BB	162.86244	2.35177e-2	3.83016		1-Methylnaphthalene #3
12.610	BB	364.93839	1.80248e-2	6.57795		2-Methylnaphthalene #4
13.030	BB	4.26264	1.46127e-2	6.22886e-2		Acenaphthene #5
13.784	BB	17.95823	6.61784e-3	1.18845e-1		Fluorene #6
15.163	BBA	4.94548e-1	1.69032e-1	8.35946e-2		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.983	BBA	5.84473e-1	2.43125e-2	1.42100e-2		Fluoranthene #9
19.002	PBA	2.60573e-1	4.17786e-2	1.08863e-2		Pyrene #10
21.387	BB	16.31873	2.67546e-1	4.36601		p-Terphenyl d14 #11*
22.710	PBA	3.62809e-1	8.25659e-3	2.99557e-3		Benzo(a)anthracene #12
23.561		-	-	-	43.7%	Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.791	PBA	6.30610e-1	2.81137e-3	1.77288e-3		Benzo(k)fluoranthene #15
28.909	BBA	1.84453e-1	4.69740e-3	8.66450e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.695	PB	5.39933e-1	2.88728e-2	1.55894e-2		Benzo(g,h,i)perylene #18
32.571	BB	3.39877e-1	1.36562e-2	4.64144e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 43.94735

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
9.422	BB	3492.09277	8.25940e-3	28.84260	C	Naphthalene #1
11.006	BB	55.71947	2.98051e-2	1.66073		Acenaphthylene #2 Needs conf.
12.007	BB	160.41310	1.29668e-2	2.08005	C	1-Methylnaphthalene #3
12.591	BB	720.99792	1.12696e-2	8.12538		2-Methylnaphthalene #4
13.137	BB	33.14644	2.03536e-2	6.74648e-1	NC	Acenaphthene #5
13.817		-	-	-		Fluorene #6
15.151	BB	5.21311	1.72992e-2	9.01826e-2	cma	Phenanthrene #7
16.566	BB	5.09059	1.03904e-2	5.28933e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
19.022	BB	13.68185	1.44305e-2	1.97436e-1	NC	Pyrene #10
21.367	BB	75.59734	5.82010e-2	4.39984		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-	44.0%	Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 46.12376

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 ***

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\080101\7M13549.D Vial: 10
Acq On : 1 Aug 2001 12:48 Operator: mdc
Sample : L0107411-08 8310 confirmation Inst : HPMS7
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 01 15:56:35 2001 Quant Results File: PAHLOW2.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW2.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Wed Aug 01 11:49:37 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.49	136	214387	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.28	164	145692	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.81	188	340627	1.00	ug/ml	0.00
15) Chrysene-d12	12.62	240	473063	1.00	ug/ml	0.00
20) Perylene-d12	15.07	264	25403	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.80	82	16654	0.26	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery	=	10.40%#	
7) 2-Fluorobiphenyl	7.53	172	2164	0.01	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery	=	0.40%#	
17) p-Terphenyl-d14	11.39	244	1537765	4.04	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	=	161.60%#	
Target Compounds						Qvalue
3) Naphthalene	6.52	128	5293573	27.19	ug/ml	98
4) 2-Methylnaphthalene	7.20	142	985922	7.81	ug/ml#	79
5) 1-Methylnaphthalene	7.30	142	496820	4.09	ug/ml#	78
10) Fluorene	8.84	166	9054	0.05	ug/ml#	96
12) Phenanthrene	9.84	178	21369	0.06	ug/ml#	80
21) Benzo[b]fluoranthene	14.28	252	8940	0.25	ug/ml#	89
22) Benzo[k]fluoranthene	14.28	252	8940	0.26	ug/ml#	85

(#) = qualifier out of range (m) = manual integration

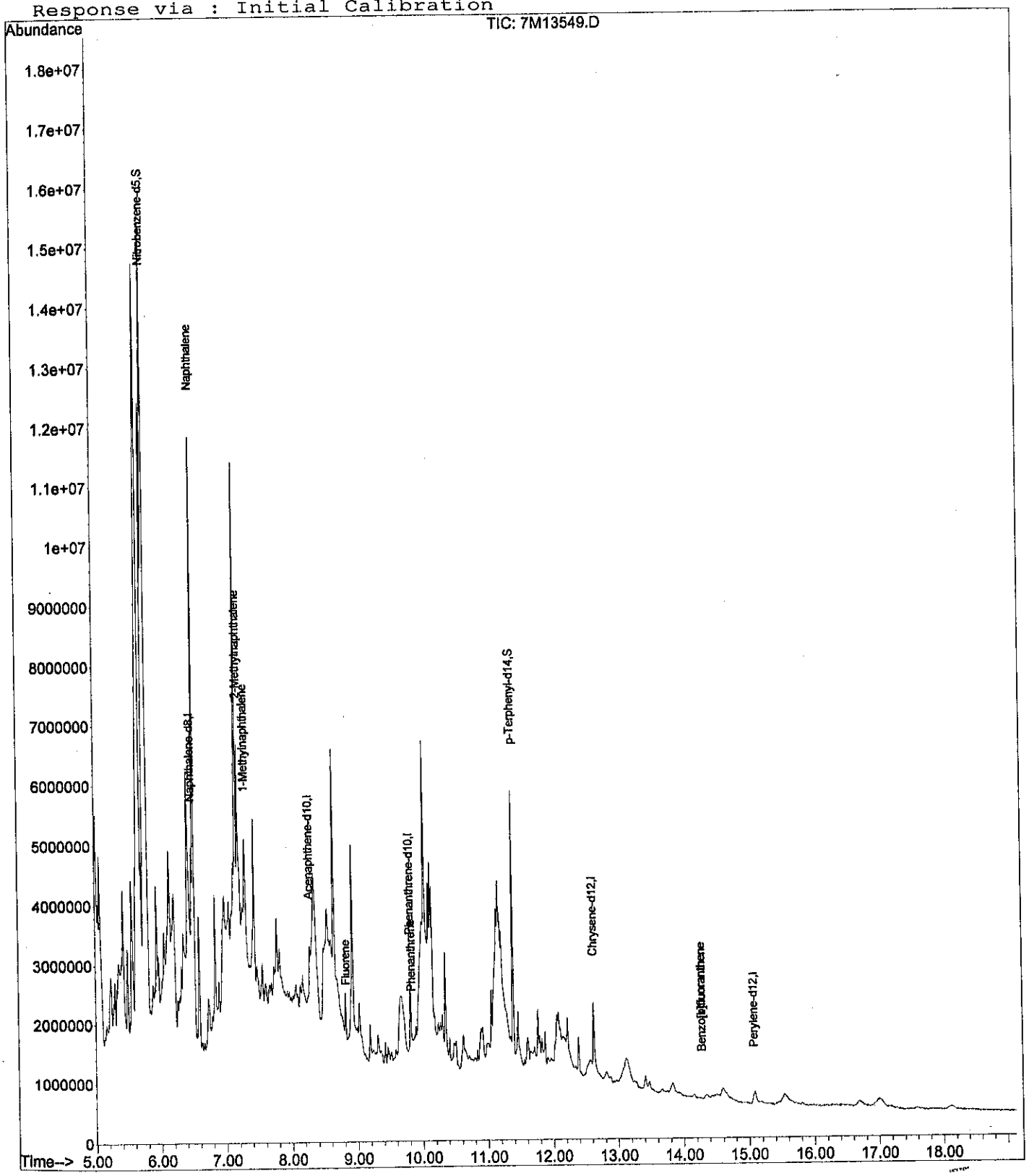
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\080101\7M13549.D
Acq On : 1 Aug 2001 12:48
Sample : L0107411-08 8310 confirmation
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 1 15:56 2001

Vial: 10
Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW2.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW2.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Wed Aug 01 11:49:37 2001
Response via : Initial Calibration



349

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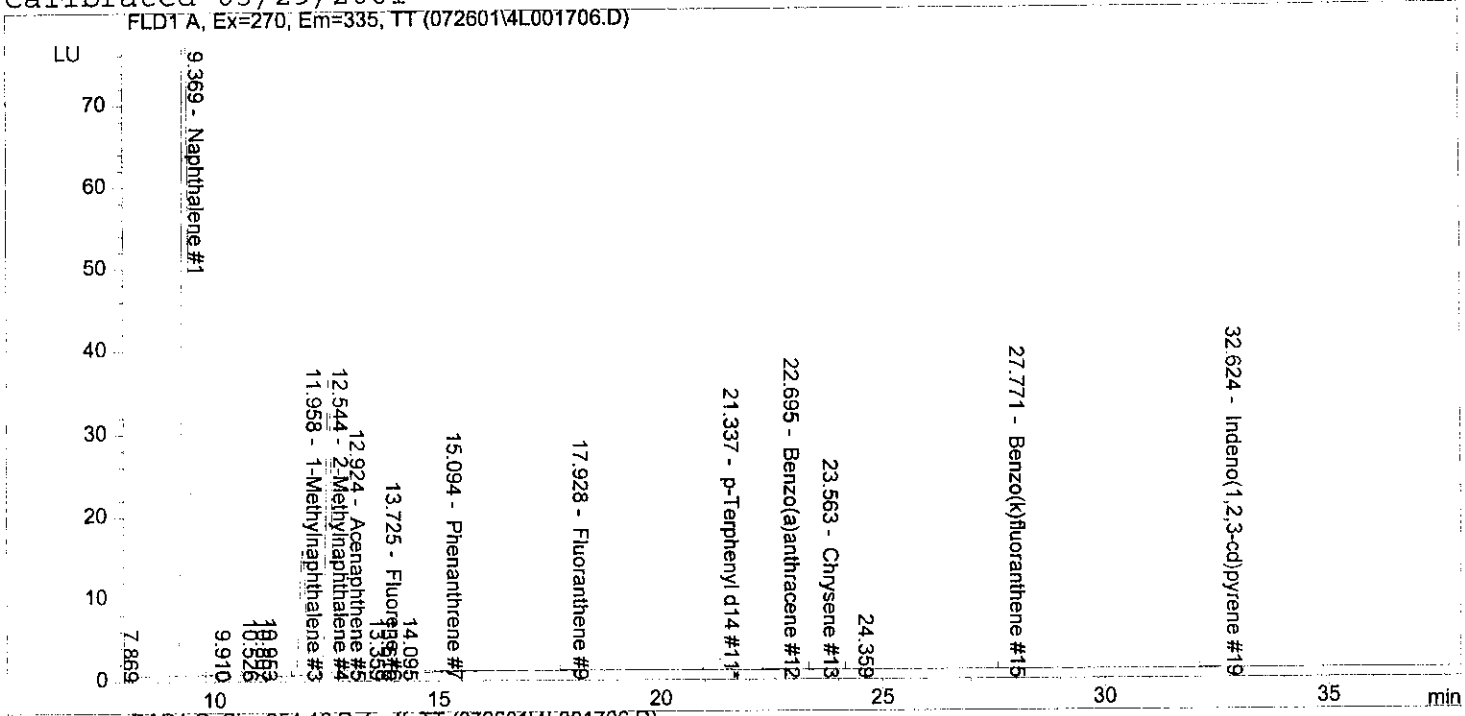
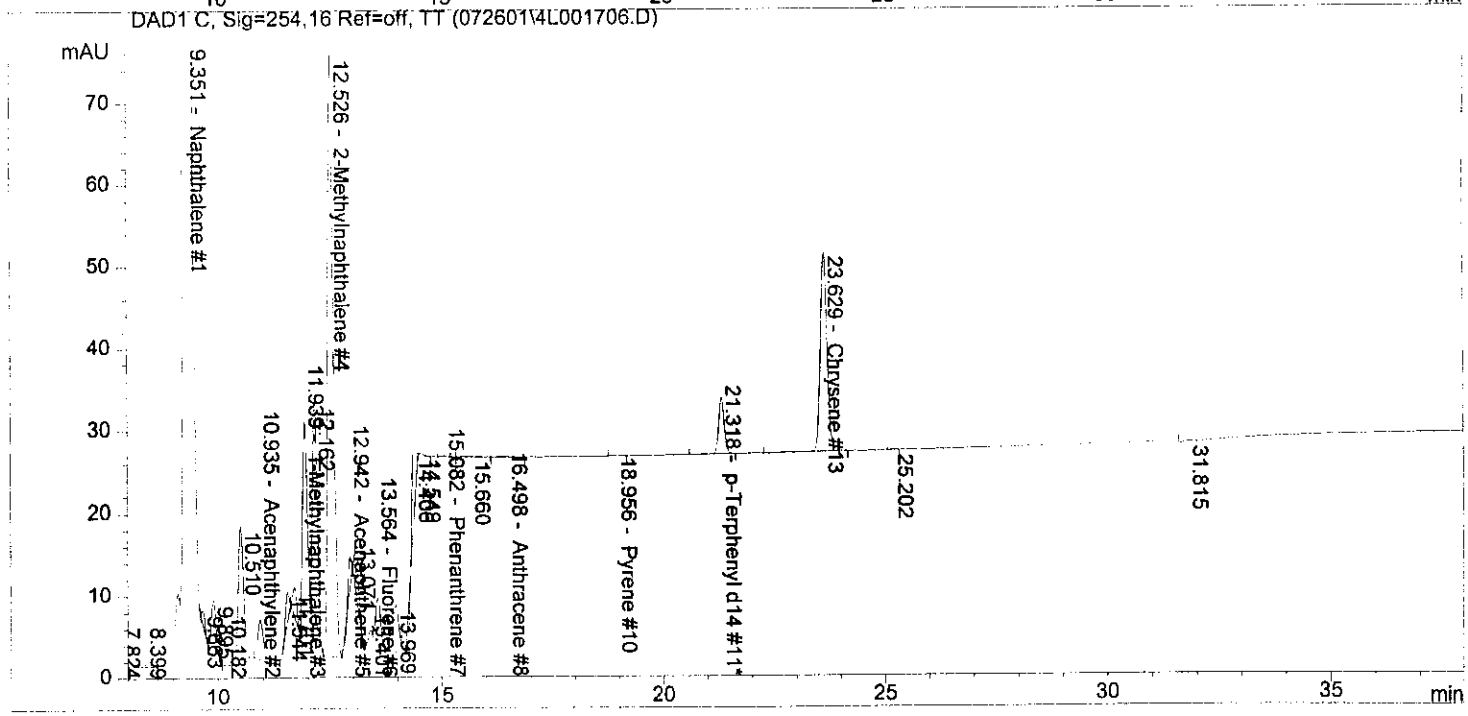
Injection Date : 7/28/2001 2:27:31 AM
Sample Name : L0107411-08 RE
Acq. Operator : HV

Seq. Line : 44
Vial : 45
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.369	BB	922.19812	2.67269e-2	25.63342	C	Naphthalene #1
11.958	BB	148.41565	2.35177e-2	3.63002	✓	1-Methylnaphthalene #3 P
12.544	BB	324.56674	1.80248e-2	6.08427	C	2-Methylnaphthalene #4
12.924	BB	2.25797	1.46127e-2	3.43148e-2		Acenaphthene #5
13.725	BB	1.59466	6.61784e-3	1.09753e-2		Fluorene #6
15.094	BBA	16.60302	1.69032e-1	2.91871		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.928	PBA	2.10675e-1	2.43125e-2	5.32692e-3	35.2%	Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.337	BBA	13.17506	2.67546e-1	3.66593	*	p-Terphenyl d14 #11*
22.695	BB	1.61154e-1	8.25659e-3	1.38381e-3		Benzo(a)anthracene #12
23.563	BB	1.96719e-1	4.11122e-2	8.41103e-3		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.771	BBA	1.61094e-1	2.81137e-3	4.71012e-4		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.624	PBA	2.29791e-1	1.36562e-2	3.26360e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 41.99648

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
9.351	BB	3005.19507	8.25940e-3	25.81396	✓	Naphthalene #1
10.935	BB	49.13425	2.98051e-2	1.52303	✓	Acenaphthylene #2 P Need Conf
11.939	BB	152.20941	1.29668e-2	2.05262	C	1-Methylnaphthalene #3 P
12.526	BB	625.95056	1.12696e-2	7.33640	✓	2-Methylnaphthalene #4
12.942	BB	14.80378	2.03536e-2	3.13362e-1	NC	Acenaphthene #5
13.564	BB	35.24542	1.76796e-2	6.48051e-1	NC	Fluorene #6
15.082	BB	2.57116	1.72992e-2	4.62582e-2	↓ma	Phenanthrene #7
16.498	BB	2.75616	1.03904e-2	2.97831e-2	↓	Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.956	PB	4.98880	1.44305e-2	7.48705e-2	NC 34.9%	Pyrene #10 *
21.318	BBA	59.88689	5.82010e-2	3.62489		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.629	BBA	256.14627	1.51428e-2	4.03393	✓	Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				45.49716		

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 ***

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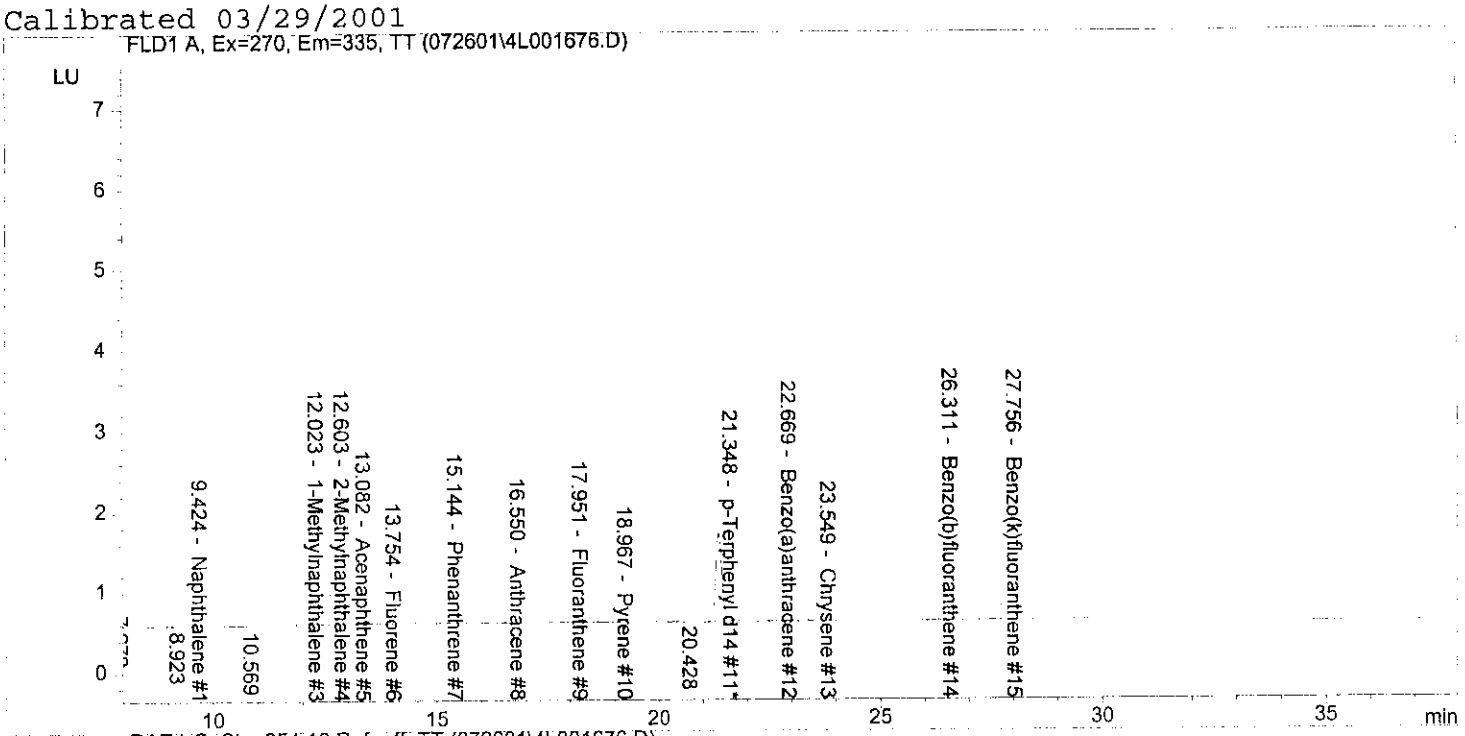
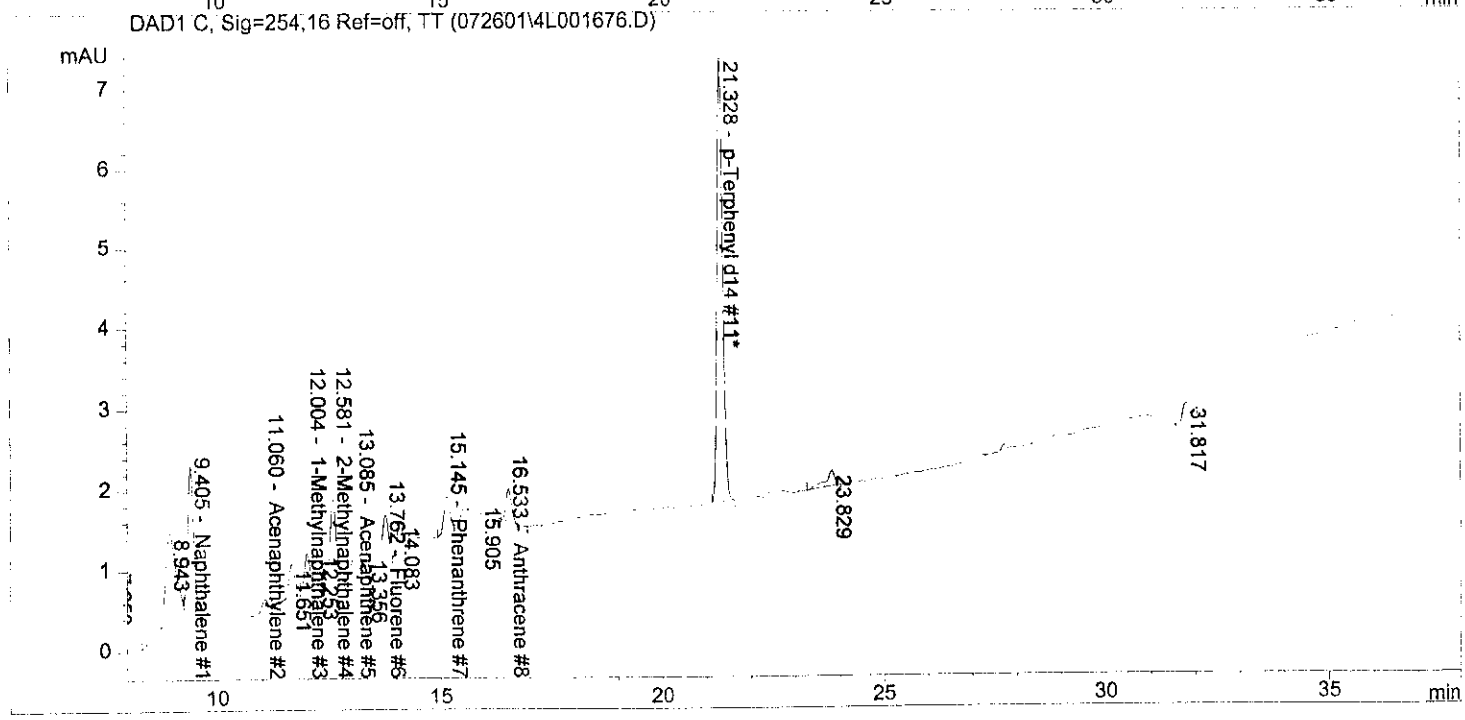
Injection Date : 7/26/2001 9:55:45 PM
Sample Name : L0107411-09 8310
Acq. Operator : HV

Seq. Line : 14
Vial : 15
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/27/2001 8:58:22 AM by HV
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 8:58:22 AM
Multiplier : 1.0400
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
9.424	BBA	5.10409	2.67269e-2	1.41873e-1		Naphthalene #1
12.023	PB	1.98118	2.35177e-2	4.84567e-2		1-Methylnaphthalene #3
12.603	BB	3.61350	1.80248e-2	6.77380e-2		2-Methylnaphthalene #4
13.082	BB	2.60128	1.46127e-2	3.95321e-2		Acenaphthene #5
13.754	BB	7.07663	6.61784e-3	4.87053e-2		Fluorene #6
15.144	BBA	2.85626e-1	1.69032e-1	5.02112e-2		Phenanthrene #7
16.550	BBA	1.50128e-1	3.15277e-1	4.92251e-2		Anthracene #8
17.951	BBA	4.89147e-1	2.43125e-2	1.23681e-2		Fluoranthene #9
18.967	PBA	2.89754e-1	4.17786e-2	1.25897e-2		Pyrene #10
21.348	PB	10.40269	2.67546e-1	2.89452		p-Terphenyl d14 #11*
22.669	BB	4.07362e-1	8.25659e-3	3.49795e-3		Benzo(a)anthracene #12
23.549	BB	1.68436e-1	4.11122e-2	7.20177e-3		Chrysene #13
26.311	PBA	1.56513e-1	1.66088e-2	2.70347e-3		Benzo(b)fluoranthene #14
27.756	BBA	5.92266e-1	2.81137e-3	1.73168e-3		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.38036

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
9.405	BB	15.48136	8.25940e-3	1.32981e-1		Naphthalene #1
11.060	BB	1.04337	2.98051e-2	3.23417e-2		Acenaphthylene #2
12.004	BB	2.70202	1.29668e-2	3.64381e-2		1-Methylnaphthalene #3
12.581	BB	8.89709	1.12696e-2	1.04278e-1		2-Methylnaphthalene #4
13.085	BB	3.26691	2.03536e-2	6.91531e-2		Acenaphthene #5
13.762	BB	5.91554	1.76796e-2	1.08768e-1		Fluorene #6
15.145	PB	3.64644	1.72992e-2	6.56036e-2		Phenanthrene #7
16.533	BBA	3.38548	1.03904e-2	3.65835e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.328	BBA	48.36730	5.82010e-2	2.92762		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

mpl

28.2% *

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.51377

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 ***

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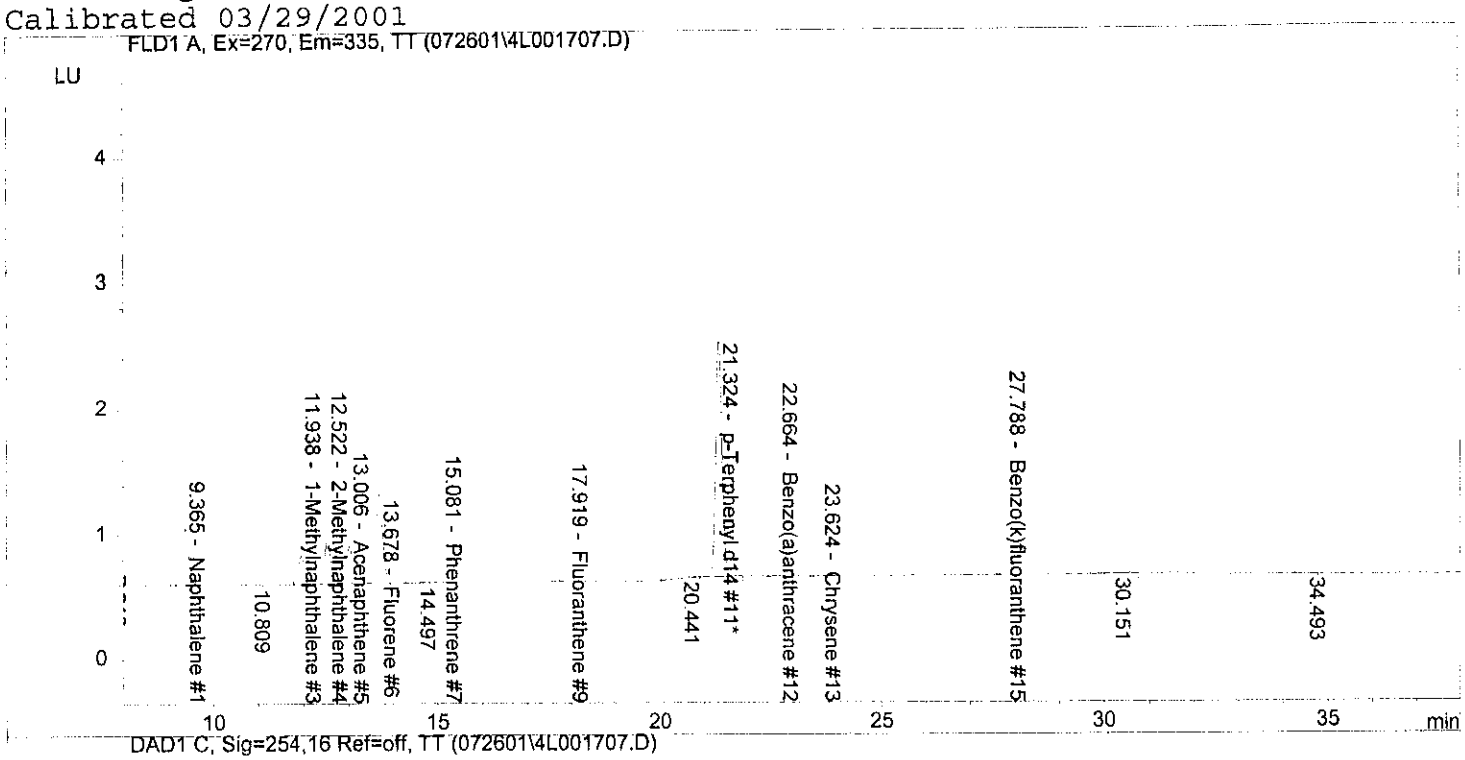
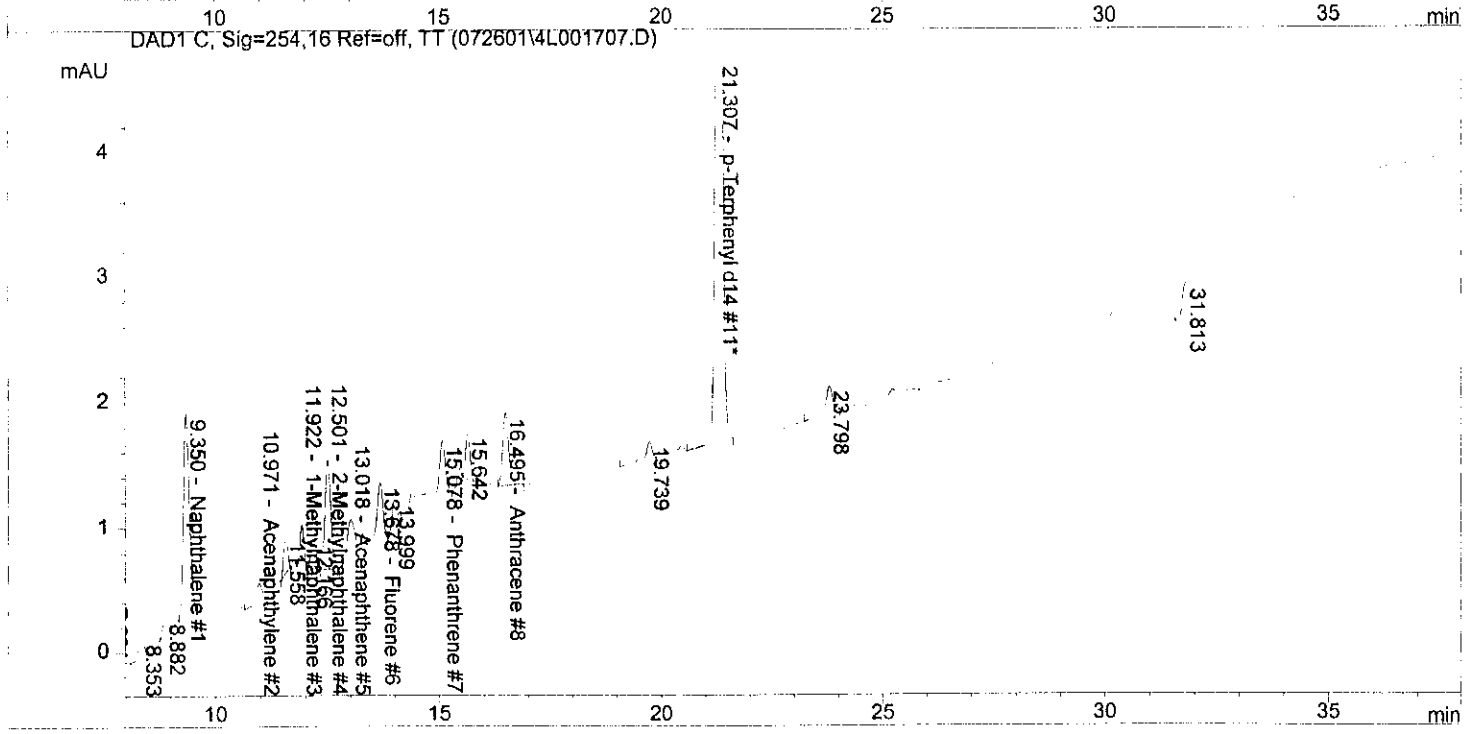
Injection Date : 7/28/2001 3:24:12 AM
Sample Name : L0107411-09 RE
Acq. Operator : HV

Seq. Line : 45
Vial : 46
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 PM
Multiplier : 1.0400
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
9.365	BBA	4.31164	2.67269e-2	1.19846e-1		Naphthalene #1
11.938	PB	1.98650	2.35177e-2	4.85866e-2		1-Methylnaphthalene #3
12.522	BB	3.34970	1.80248e-2	6.27928e-2		2-Methylnaphthalene #4
13.006	BBA	2.80602	1.46127e-2	4.26436e-2		Acenaphthene #5
13.678	BB	7.25691	6.61784e-3	4.99461e-2		Fluorene #6
15.081	BBA	3.02224e-1	1.69032e-1	5.31291e-2		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.919	BBA	3.48345e-1	2.43125e-2	8.80790e-3		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.324	BBA	18.28291	2.67546e-1	5.08717		p-Terphenyl d14 #11*
22.664	PB	1.47468e-1	8.25659e-3	1.26629e-3		Benzo(a)anthracene #12
23.624	BBA	2.26906e-1	4.11122e-2	9.70174e-3		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.788	BBA	1.99571e-1	2.81137e-3	5.83511e-4		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.48448

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
9.350	BB	14.75287	8.25940e-3	1.26724e-1		Naphthalene #1
10.971	BB	1.51620	2.98051e-2	4.69980e-2		Acenaphthylene #2
11.922	BB	2.27378	1.29668e-2	3.06631e-2		1-Methylnaphthalene #3
12.501	BB	7.73614	1.12696e-2	9.06709e-2		2-Methylnaphthalene #4
13.018	BB	2.83615	2.03536e-2	6.00348e-2		Acenaphthene #5
13.678	BB	4.30834	1.76796e-2	7.92168e-2		Fluorene #6
15.078	BB	7.51000	1.72992e-2	1.35114e-1		Phenanthrene #7
16.495	PBA	5.44545	1.03904e-2	5.88436e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.307	BBA	83.43044	5.82010e-2	5.04996		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

mov

48.6%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.67823

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 : 3/30/2001 9:15:54 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/L]	Area	Amt/Area	Ref	Grp	Name
9.369	2	1	1.00000	117.56092	8.50623e-3			Naphthalene #1
		2	5.00000	591.76941	8.44924e-3			
		3	10.00000	1215.30261	8.22840e-3			
		4	20.00000	2468.47827	8.10216e-3			
		5	50.00000	6214.10986	8.04620e-3			
		6	100.00000	1.20181e4	8.32080e-3			
9.390	1	1	1.00000	35.00066	2.85709e-2			Naphthalene #1
		2	5.00000	176.80394	2.82799e-2			
		3	10.00000	363.82813	2.74855e-2			
		4	20.00000	739.44373	2.70474e-2			
		5	50.00000	1869.77466	2.67412e-2			
		6	100.00000	3745.38867	2.66995e-2			
11.017	2	1	1.00000	30.81112	3.24558e-2			Acenaphthylene #2
		2	5.00000	155.20726	3.22150e-2			
		3	10.00000	320.12952	3.12374e-2			
		4	20.00000	650.14838	3.07622e-2			
		5	50.00000	1655.47168	3.02029e-2			
		6	100.00000	3372.54370	2.96512e-2			
11.969	2	1	1.00000	71.67282	1.39523e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	362.30396	1.38006e-2			
		3	10.00000	745.12714	1.34205e-2			
		4	20.00000	1509.95740	1.32454e-2			
		5	50.00000	3841.95752	1.30142e-2			
		6	100.00000	7729.32031	1.29377e-2			
11.989	1	1	1.00000	40.39879	2.47532e-2			1-Methylnaphthalene #3
		2	5.00000	202.70357	2.46666e-2			
		3	10.00000	415.52219	2.40661e-2			
		4	20.00000	843.90442	2.36994e-2			
		5	50.00000	2130.39893	2.34698e-2			
		6	100.00000	4252.72461	2.35143e-2			
12.552	2	1	1.00000	84.40402	1.18478e-2			2-Methylnaphthalene #4
		2	5.00000	424.21133	1.17866e-2			
		3	10.00000	872.72668	1.14583e-2			
		4	20.00000	1765.93494	1.13254e-2			
		5	50.00000	4471.16797	1.11828e-2			
		6	100.00000	8860.39453	1.12862e-2			
12.573	1	1	1.00000	53.36072	1.87404e-2			2-Methylnaphthalene #4
		2	5.00000	267.61313	1.86837e-2			
		3	10.00000	549.91858	1.81845e-2			
		4	20.00000	1111.22339	1.79982e-2			
		5	50.00000	2794.17773	1.78944e-2			
		6	100.00000	5538.45801	1.80556e-2			
13.034	2	1	1.00000	45.54893	2.19544e-2			Acenaphthene #5
		2	5.00000	229.06499	2.18279e-2			
		3	10.00000	472.94031	2.11443e-2			
		4	20.00000	956.26086	2.09148e-2			
		5	50.00000	2434.94873	2.05343e-2			
		6	100.00000	4931.93066	2.02760e-2			
13.054	1	1	1.00000	66.50271	1.50370e-2			Acenaphthene #5
		2	5.00000	332.73242	1.50271e-2			
		3	10.00000	685.23157	1.45936e-2			
		4	20.00000	1379.30518	1.45001e-2			
		5	50.00000	3455.78711	1.44685e-2			
		6	100.00000	6824.59961	1.46529e-2			
13.699	2	1	1.00000	52.00109	1.92304e-2			Fluorene #6
		2	5.00000	261.46329	1.91231e-2			
		3	10.00000	540.38599	1.85053e-2			
		4	20.00000	1095.73792	1.82525e-2			
		5	50.00000	2796.67236	1.78784e-2			
		6	100.00000	5682.68115	1.75973e-2			
13.720	1	1	1.00000	149.80600	6.67530e-3			Fluorene #6
		2	5.00000	746.74274	6.69575e-3			
		3	10.00000	1528.97070	6.54035e-3			
		4	20.00000	3061.23633	6.53331e-3			
		5	50.00000	7537.01807	6.63392e-3			
15.104	2	1	1.00000	54.85510	1.82298e-2			Phenanthrene #7
		2	5.00000	268.48630	1.86229e-2			
		3	10.00000	553.12744	1.80790e-2			
		4	20.00000	1121.95825	1.78260e-2			
		5	50.00000	2859.26782	1.74870e-2			
		6	100.00000	5806.51855	1.72220e-2			
15.126	1	1	1.00000	5.33564	1.87419e-1			Phenanthrene #7
		2	5.00000	27.29549	1.83180e-1			
		3	10.00000	56.43250	1.77203e-1			
		4	20.00000	113.46626	1.76264e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		5	50.00000	293.89139	1.70131e-1			
		6	100.00000	593.92126	1.68372e-1			
16.530	2	1	1.00000	93.31602	1.07163e-2			Anthracene #8
		2	5.00000	466.06348	1.07282e-2			
		3	10.00000	959.02155	1.04273e-2			
		4	20.00000	1940.16003	1.03084e-2			
		5	50.00000	4898.11572	1.02080e-2			
		6	100.00000	9579.35742	1.04391e-2			
16.552	1	1	1.00000	2.99793	3.33563e-1			Anthracene #8
		2	5.00000	14.96326	3.34152e-1			
		3	10.00000	30.82590	3.24403e-1			
		4	20.00000	62.35658	3.20736e-1			
		5	50.00000	157.60617	3.17246e-1			
		6	100.00000	318.02490	3.14441e-1			
17.913	2	1	1.00000e-1	4.23748	2.35989e-2			Fluoranthene #9
		2	5.00000e-1	21.00143	2.38079e-2			
		3	1.00000	43.23069	2.31317e-2			
		4	2.00000	87.85875	2.27638e-2			
		5	5.00000	224.79738	2.22423e-2			
		6	10.00000	460.06198	2.17362e-2			
17.935	1	1	1.00000e-1	3.82580	2.61383e-2			Fluoranthene #9
		2	5.00000e-1	19.70599	2.53730e-2			
		3	1.00000	39.67828	2.52027e-2			
		4	2.00000	80.46645	2.48551e-2			
		5	5.00000	203.35922	2.45870e-2			
		6	10.00000	413.00867	2.42126e-2			
18.928	2	1	1.00000e-1	5.99320	1.66856e-2			Pyrene #10
		2	5.00000e-1	30.99384	1.61322e-2			
		3	1.00000	64.86784	1.54160e-2			
		4	2.00000	132.60229	1.50827e-2			
		5	5.00000	340.74240	1.46738e-2			
		6	10.00000	697.68286	1.43332e-2			
18.949	1	1	1.00000e-1	2.09403	4.77547e-2			Pyrene #10
		2	5.00000e-1	10.99437	4.54778e-2			
		3	1.00000	22.67298	4.41054e-2			
		4	2.00000	46.12331	4.33620e-2			
		5	5.00000	117.56385	4.25301e-2			
		6	10.00000	240.94221	4.15037e-2			
21.287	2	1	1.00000	15.54652	6.43231e-2			p-Terphenyl d14 #11*
		2	5.00000	78.62110	6.35962e-2			
		3	10.00000	162.32486	6.16049e-2			
		4	20.00000	337.06073	5.93365e-2			
		5	50.00000	856.18970	5.83983e-2			
		6	100.00000	1722.28149	5.80625e-2			
21.307	1	1	1.00000	3.39181	2.94828e-1			p-Terphenyl d14 #11*
		2	5.00000	17.26456	2.89611e-1			
		3	10.00000	35.47113	2.81919e-1			
		4	20.00000	72.89375	2.74372e-1			
		5	50.00000	185.12903	2.70082e-1			
		6	100.00000	375.28262	2.66466e-1			
22.605	2	1	1.00000e-1	4.06842	2.45795e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.18948	2.47654e-2			
		3	1.00000	42.07911	2.37648e-2			
		4	2.00000	85.54315	2.33800e-2			
		5	5.00000	220.24692	2.27018e-2			
		6	10.00000	451.30731	2.21579e-2			

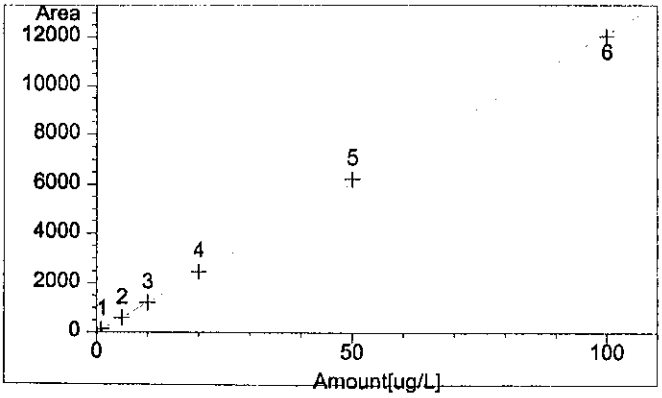
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.626	1	1	1.00000e-1	10.90292	9.17185e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.61599	8.99022e-3			
		3	1.00000	114.84595	8.70732e-3			
		4	2.00000	233.26509	8.57394e-3			
		5	5.00000	595.95990	8.38983e-3			
		6	10.00000	1218.64221	8.20585e-3			
23.479	2	1	1.00000e-1	5.84781	1.71004e-2			Chrysene #13
		2	5.00000e-1	29.80933	1.67733e-2			
		3	1.00000	61.73906	1.61972e-2			
		4	2.00000	126.54305	1.58049e-2			
		5	5.00000	324.43738	1.54113e-2			
		6	10.00000	664.95905	1.50385e-2			
23.502	1	1	1.00000e-1	2.12171	4.71319e-2			Chrysene #13
		2	5.00000e-1	11.18528	4.47016e-2			
		3	1.00000	23.02669	4.34279e-2			
		4	2.00000	46.51981	4.29924e-2			
		5	5.00000	119.20701	4.19438e-2			
		6	10.00000	245.04990	4.08080e-2			
26.198	2	1	1.00000e-1	4.33936	2.30449e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.96169	2.27669e-2			
		3	1.00000	44.92431	2.22597e-2			
		4	2.00000	91.90939	2.17606e-2			
		5	5.00000	235.59966	2.12224e-2			
		6	10.00000	482.33411	2.07325e-2			
26.219	1	1	1.00000e-1	5.48238	1.82402e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.71577	1.80403e-2			
		3	1.00000	57.25365	1.74661e-2			
		4	2.00000	116.51666	1.71649e-2			
		5	5.00000	296.71768	1.68510e-2			
		6	10.00000	605.45599	1.65165e-2			
27.646	2	1	5.00000e-2	2.02863	2.46472e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.25969	2.43672e-2			
		3	5.00000e-1	20.70720	2.41462e-2			
		4	1.00000	42.65477	2.34440e-2			
		5	2.50000	108.01276	2.31454e-2			
		6	5.00000	220.93304	2.26313e-2			
27.665	1	1	5.00000e-2	16.48924	3.03228e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.07898	3.00918e-3			
		3	5.00000e-1	172.93550	2.89125e-3			
		4	1.00000	350.43488	2.85360e-3			
		5	2.50000	882.90680	2.83156e-3			
		6	5.00000	1783.50952	2.80346e-3			
28.771	2	1	1.00000e-1	3.36439	2.97231e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.92259	2.95463e-2			
		3	1.00000	36.29754	2.75501e-2			
		4	2.00000	74.19669	2.69554e-2			
		5	5.00000	191.21147	2.61491e-2			
		6	10.00000	392.60632	2.54708e-2			
28.791	1	1	1.00000e-1	19.29724	5.18209e-3			Benzo(a)pyrene #16
		2	5.00000e-1	98.80479	5.06048e-3			
		3	1.00000	204.56563	4.88841e-3			
		4	2.00000	416.15182	4.80594e-3			
		5	5.00000	1058.10645	4.72542e-3			
		6	10.00000	2135.15088	4.68351e-3			
30.646	2	1	1.00000e-1	8.75311e-1	1.14245e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	5.38333	9.28794e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.55198	9.47690e-2			
		4	2.00000	20.75464	9.63640e-2			
		5	5.00000	53.63882	9.32161e-2			
		6	10.00000	105.54841	9.47433e-2			
30.660	1	1	1.00000e-1	2.20240	4.54050e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.04228	4.52805e-2			
		3	1.00000	22.89734	4.36732e-2			
		4	2.00000	46.74619	4.27842e-2			
		5	5.00000	120.91595	4.13510e-2			
		6	10.00000	248.94579	4.01694e-2			
31.460	2	1	1.00000e-1	1.52874	6.54133e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.25499	9.51477e-2			
		3	1.00000	12.92638	7.73612e-2			
		4	2.00000	29.46203	6.78840e-2			
		5	5.00000	86.71626	5.76593e-2			
		6	10.00000	180.09363	5.55267e-2			
31.487	1	1	1.00000e-1	2.93655	3.40535e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.43706	3.23896e-2			
		3	1.00000	32.07434	3.11776e-2			
		4	2.00000	65.77667	3.04059e-2			
		5	5.00000	169.91467	2.94265e-2			
		6	10.00000	349.03009	2.86508e-2			
32.389	2	1	1.00000e-1	3.71300	2.69324e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.85676	2.39730e-2			
		3	1.00000	45.14644	2.21501e-2			
		4	2.00000	92.59545	2.15993e-2			
		5	5.00000	238.37648	2.09752e-2			
		6	10.00000	487.74692	2.05024e-2			
32.402	1	1	1.00000e-1	6.55293	1.52604e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	33.35746	1.49891e-2			
		3	1.00000	69.84892	1.43166e-2			
		4	2.00000	142.15633	1.40690e-2			
		5	5.00000	360.35535	1.38752e-2			
		6	10.00000	736.52185	1.35773e-2			

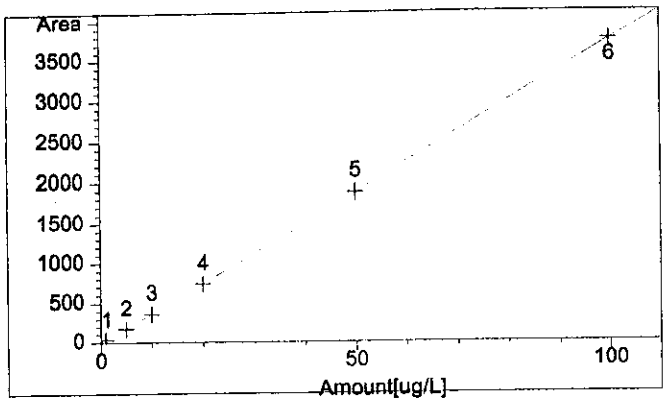
Peak Sum Table

No Entries in table

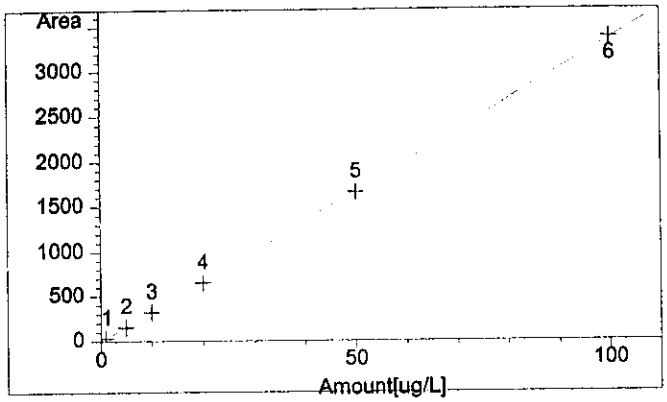
Calibration Curves



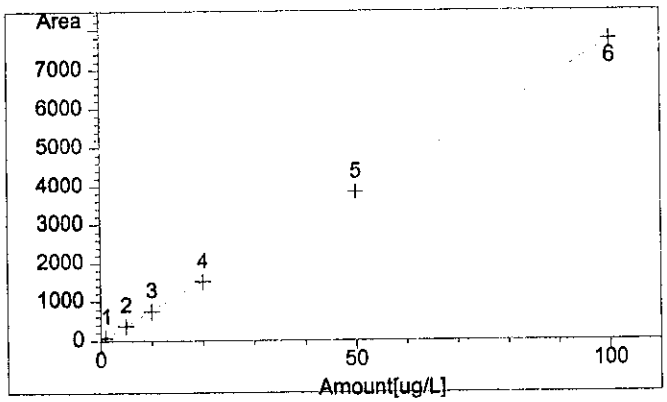
Naphthalene #1 at exp. RT: 9.369
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 85.01519
Formula: y = mx
m: 121.07413
x: Amount [ug/L]
y: Area



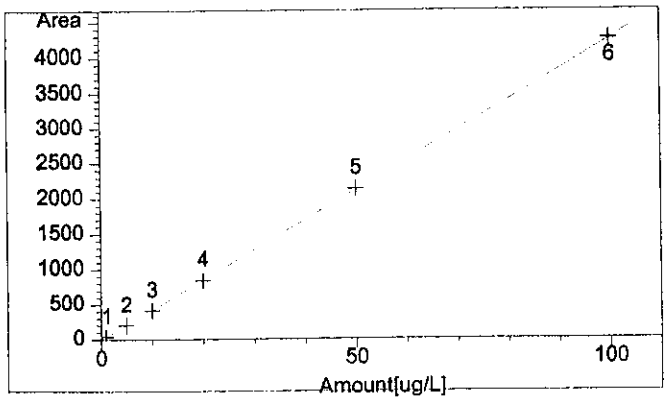
Naphthalene #1 at exp. RT: 9.390
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 7.90403
Formula: y = mx
m: 37.41546
x: Amount [ug/L]
y: Area



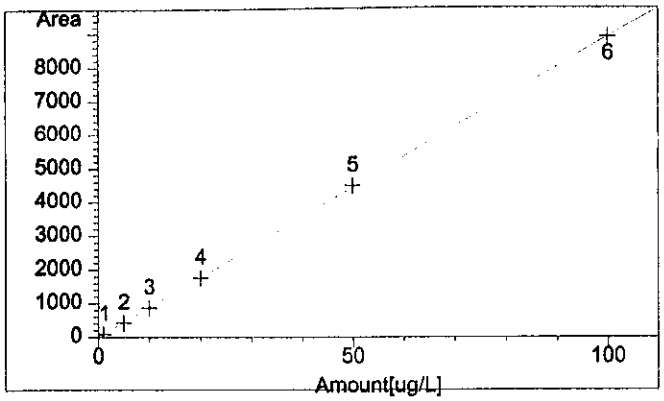
Acenaphthylene #2 at exp. RT: 11.017
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 18.04921
Formula: y = mx
m: 33.55129
x: Amount [ug/L]
y: Area



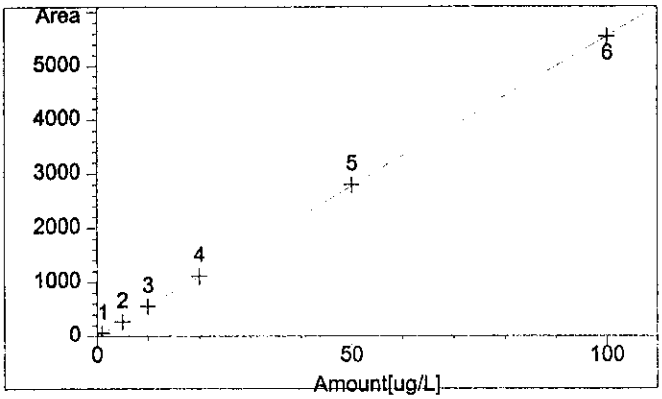
1-Methylnaphthalene #3 at exp. RT: 11.969
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 23.67226
Formula: y = mx
m: 77.11988
x: Amount [ug/L]
y: Area



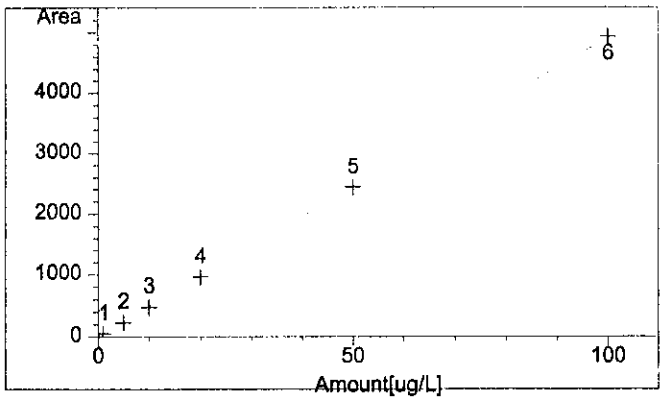
1-Methylnaphthalene #3 at exp. RT: 11.989
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 7.18543
Formula: y = mx
m: 42.52108
x: Amount [ug/L]
y: Area



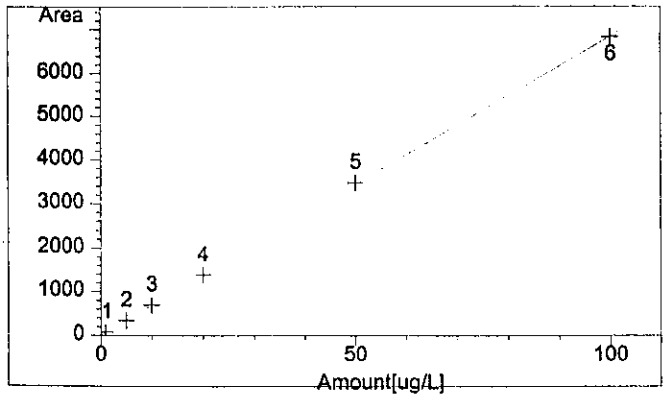
2-Methylnaphthalene #4 at exp. RT: 12.552
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 20.22175
Formula: y = mx
m: 88.73401
x: Amount [ug/L]
y: Area



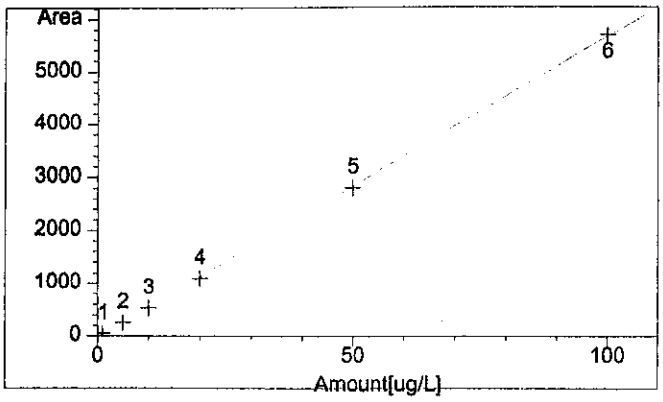
2-Methylnaphthalene #4 at exp. RT: 12.573
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 11.17959
Formula: y = mx
m: 55.47902
x: Amount [ug/L]
y: Area



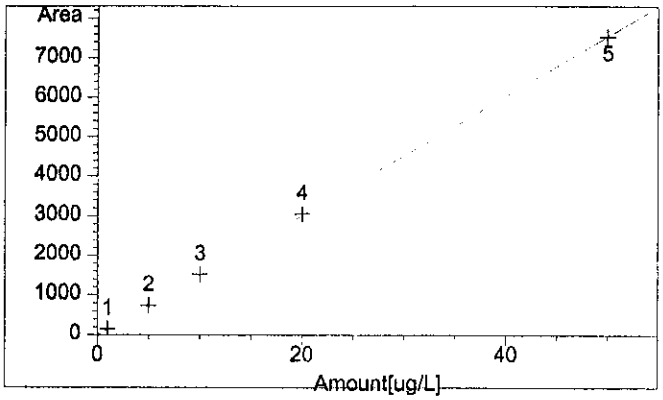
Acenaphthene #5 at exp. RT: 13.034
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 20.69549
Formula: y = mx
m: 49.13143
x: Amount [ug/L]
y: Area



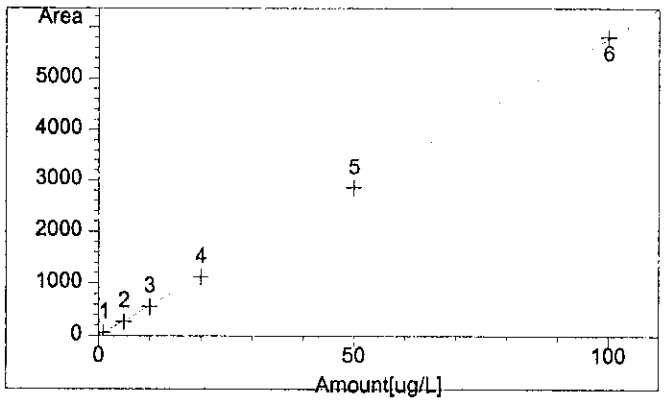
Acenaphthene #5 at exp. RT: 13.054
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 18.55733
Formula: y = mx
m: 68.43374
x: Amount [ug/L]
y: Area



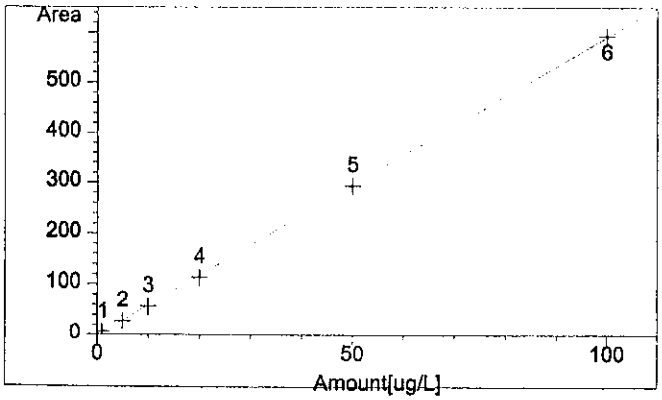
Fluorene #6 at exp. RT: 13.699
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 28.50468
Formula: y = mx
m: 56.56223
x: Amount [ug/L]
y: Area



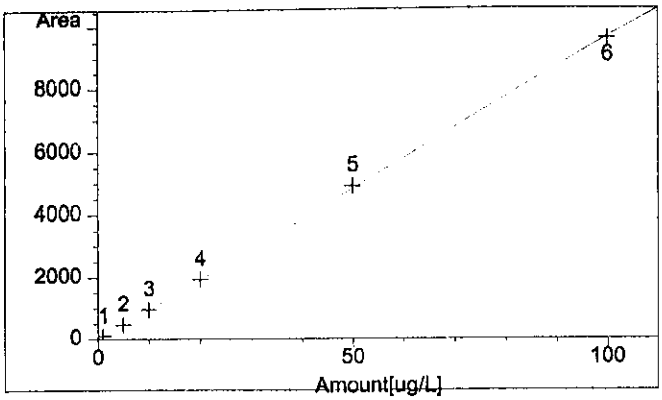
Fluorene #6 at exp. RT: 13.720
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 23.79083
Formula: y = mx
m: 151.10669
x: Amount [ug/L]
y: Area



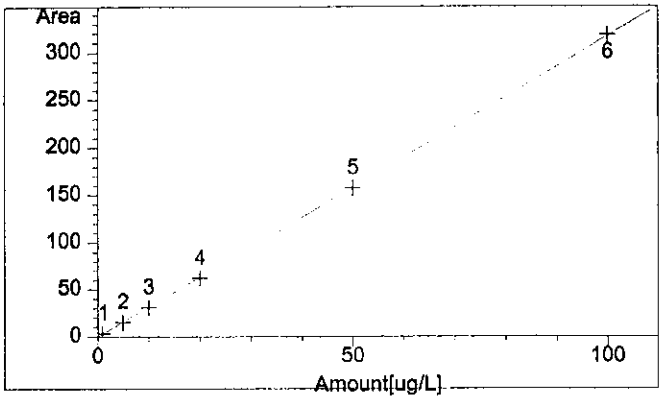
Phenanthrene #7 at exp. RT: 15.104
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.76392
Formula: y = mx
m: 57.80615
x: Amount [ug/L]
y: Area



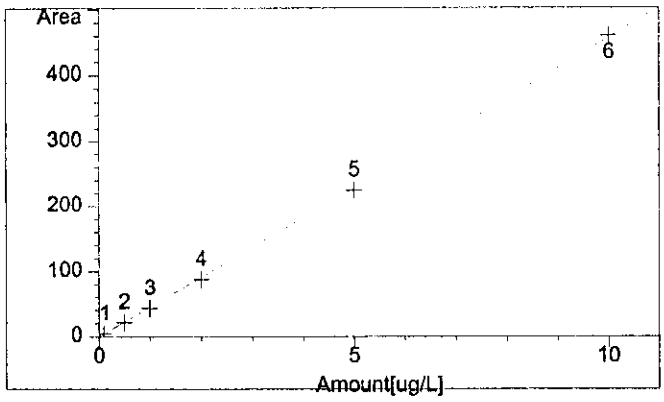
Phenanthrene #7 at exp. RT: 15.126
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 3.01944
Formula: y = mx
m: 5.91603
x: Amount [ug/L]
y: Area



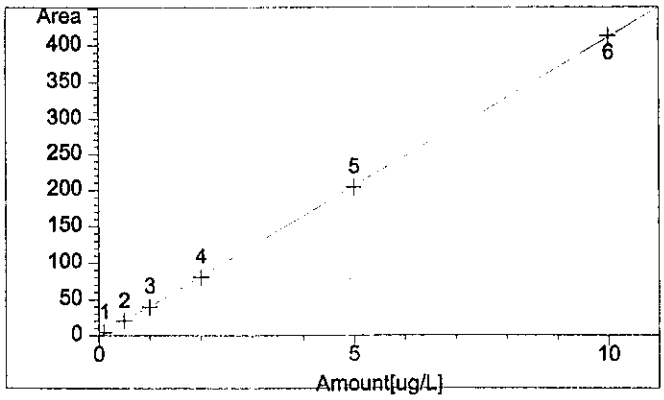
Anthracene #8 at exp. RT: 16.530
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 44.48322
Formula: y = mx
m: 96.24279
x: Amount [ug/L]
y: Area



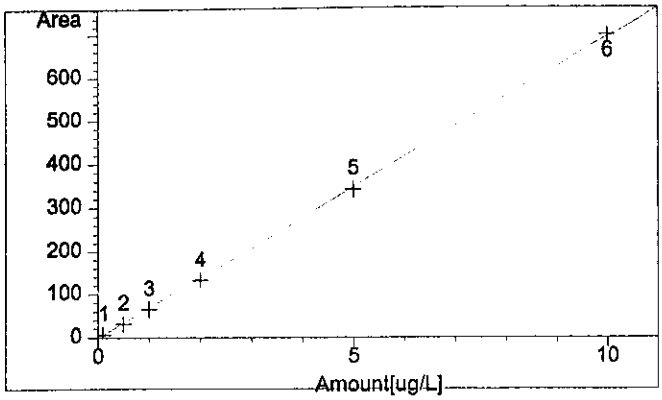
Anthracene #8 at exp. RT: 16.552
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.94608
Formula: y = mx
m: 3.17181
x: Amount [ug/L]
y: Area



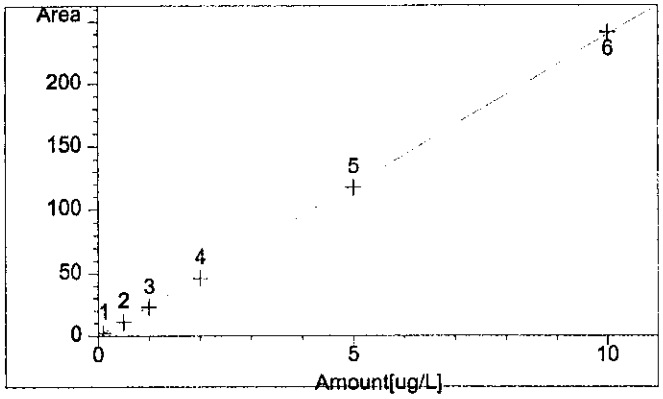
Fluoranthene #9 at exp. RT: 17.913
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 3.00770
Formula: y = mx
m: 45.71226
x: Amount [ug/L]
y: Area



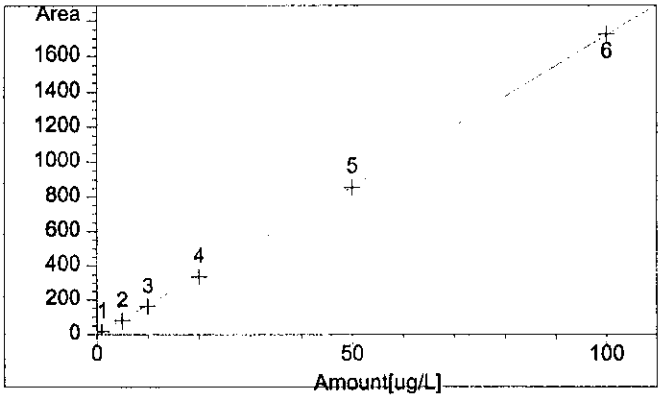
Fluoranthene #9 at exp. RT: 17.935
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.69185
Formula: y = mx
m: 41.13104
x: Amount [ug/L]
y: Area



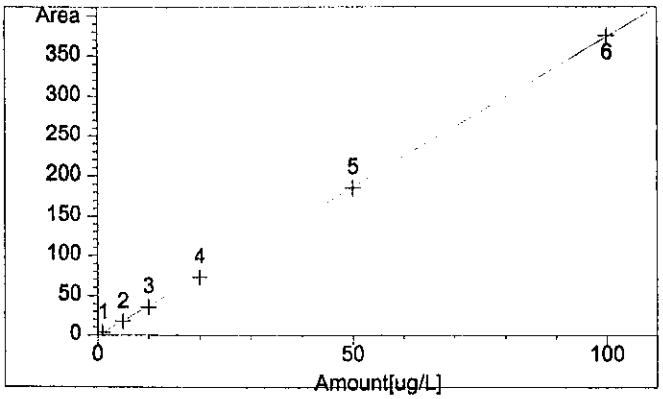
Pyrene #10 at exp. RT: 18.928
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 4.99880
Formula: y = mx
m: 69.29763
x: Amount [ug/L]
y: Area



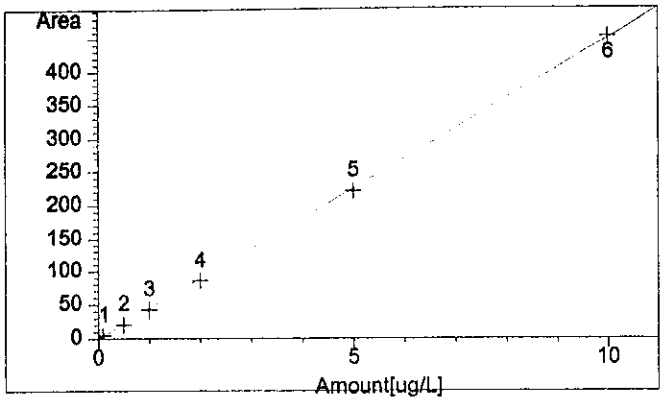
Pyrene #10 at exp. RT: 18.949
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 1.59200
Formula: y = mx
m: 23.93573
x: Amount [ug/L]
y: Area



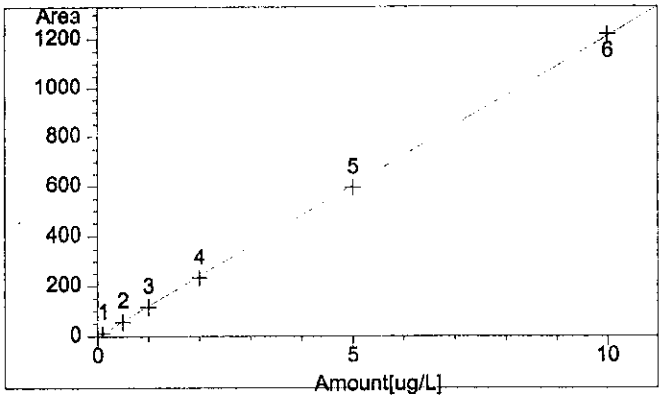
p-Terphenyl d14 #11* at exp. RT: 21.287
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.54791
Formula: y = mx
m: 17.18185
x: Amount [ug/L]
y: Area



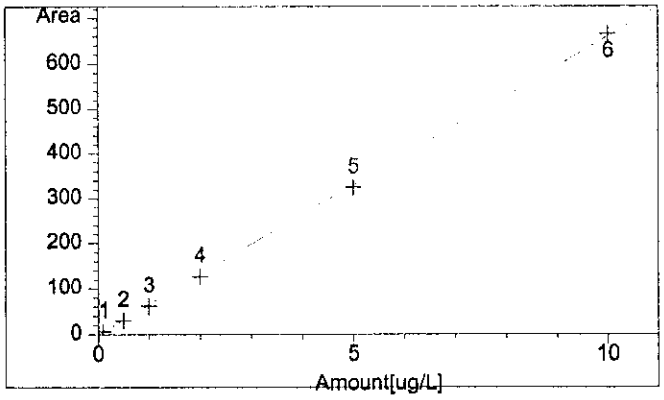
p-Terphenyl d14 #11* at exp. RT: 21.307
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 1.70948
Formula: y = mx
m: 3.73768
x: Amount [ug/L]
y: Area



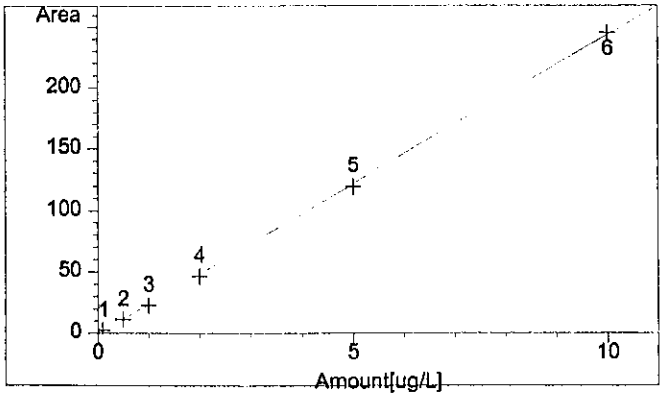
Benzo(a)anthracene #12 at exp. RT: 22.605
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 3.28327
Formula: y = mx
m: 44.81786
x: Amount [ug/L]
y: Area



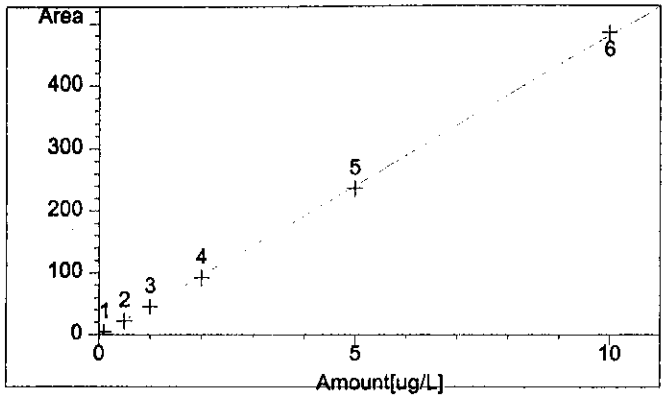
Benzo(a)anthracene #12 at exp. RT: 22.626
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 7.66985
Formula: y = mx
m: 121.11543
x: Amount [ug/L]
y: Area



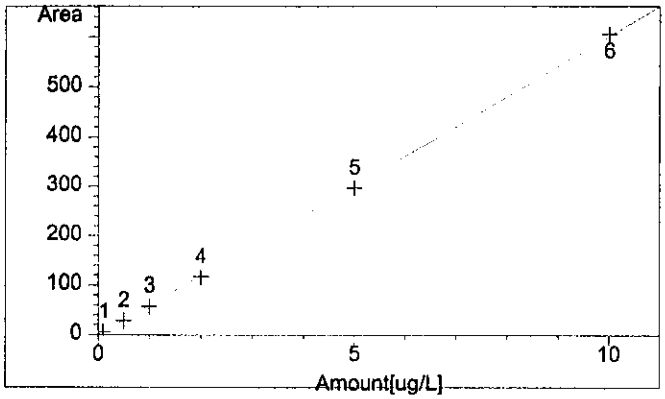
Chrysene #13 at exp. RT: 23.479
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 4.77553
Formula: y = mx
m: 66.03786
x: Amount [ug/L]
y: Area



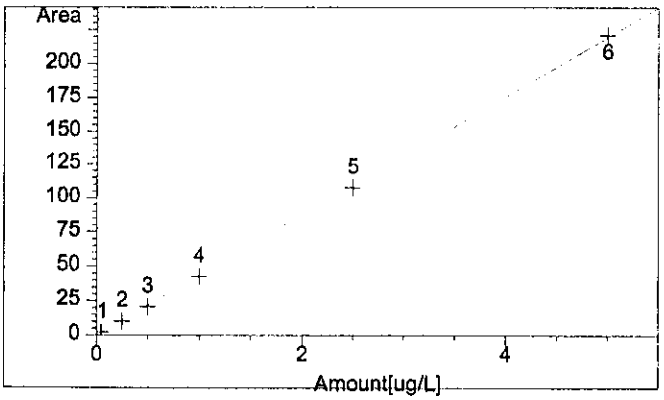
Chrysene #13 at exp. RT: 23.502
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99989
Residual Std. Dev.: 1.80892
Formula: y = mx
m: 24.32370
x: Amount [ug/L]
y: Area



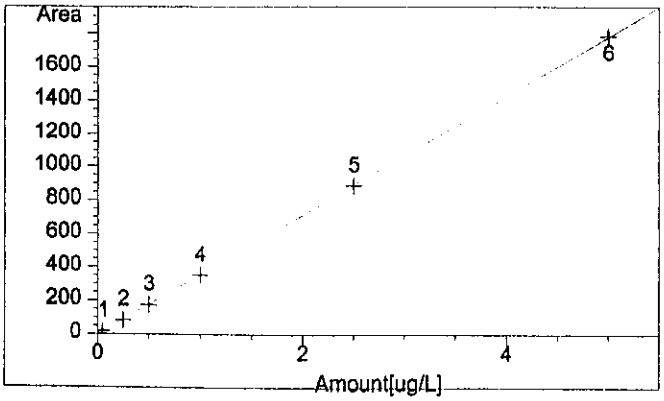
Benzo(b)fluoranthene #14 at exp. RT: 26.1
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 3.29985
Formula: y = mx
m: 47.91569
x: Amount [ug/L]
y: Area



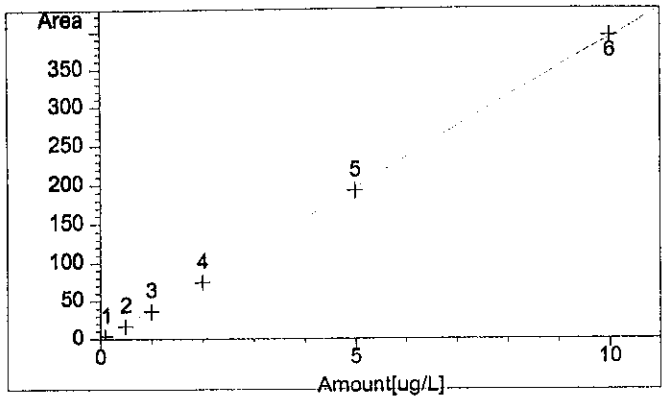
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 3.46428
Formula: y = mx
m: 60.20913
x: Amount [ug/L]
y: Area



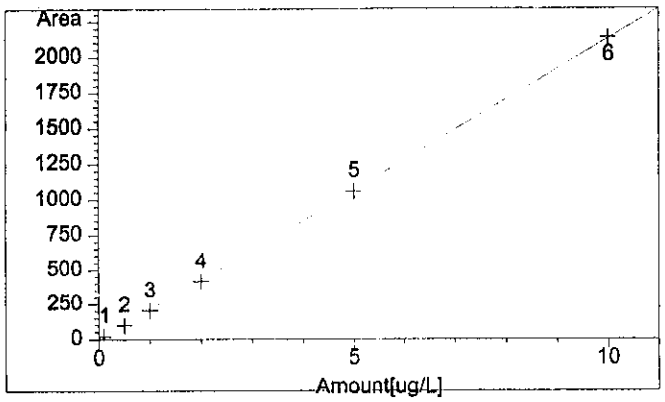
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.31818
Formula: y = mx
m: 43.92359
x: Amount [ug/L]
y: Area



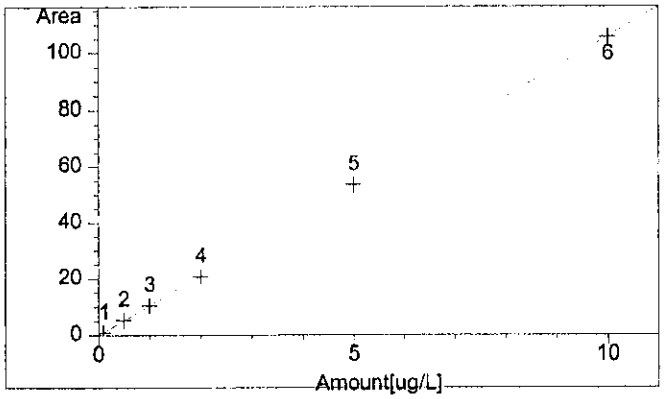
Benzo(k)fluoranthene #15 at exp. RT: 27.6
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 5.53281
Formula: y = mx
m: 355.69819
x: Amount [ug/L]
y: Area



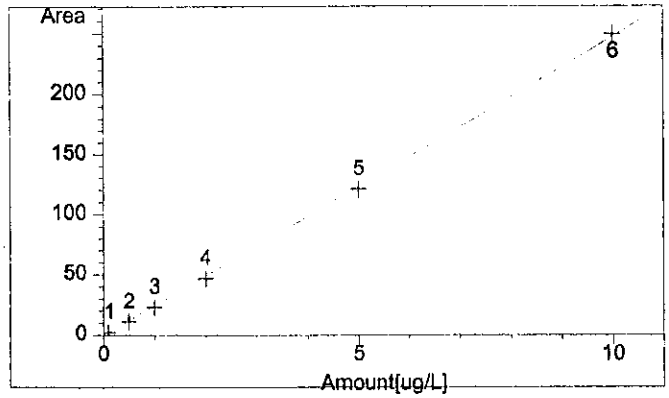
Benzo(a)pyrene #16 at exp. RT: 28.771
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.15235
Formula: y = mx
m: 38.96522
x: Amount [ug/L]
y: Area



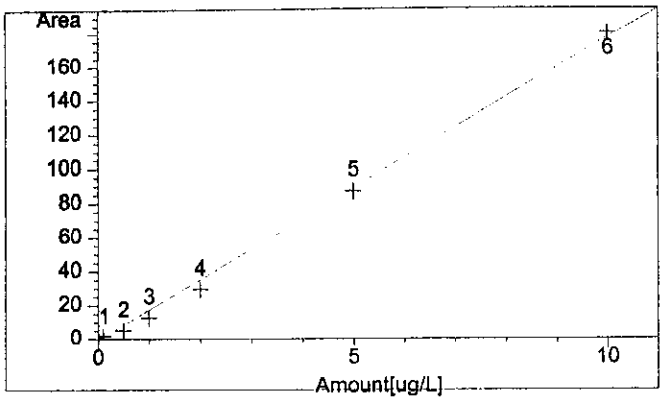
Benzo(a)pyrene #16 at exp. RT: 28.791
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.79289
Formula: y = mx
m: 212.88379
x: Amount [ug/L]
y: Area



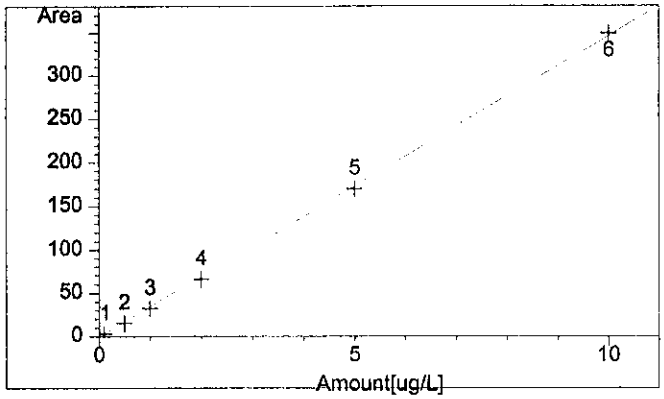
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.40381
Formula: y = mx
m: 10.58282
x: Amount [ug/L]
y: Area



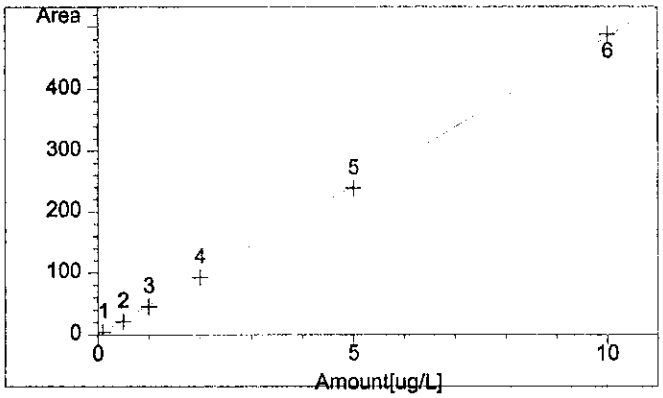
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.12251
Formula: y = mx
m: 24.69038
x: Amount [ug/L]
y: Area



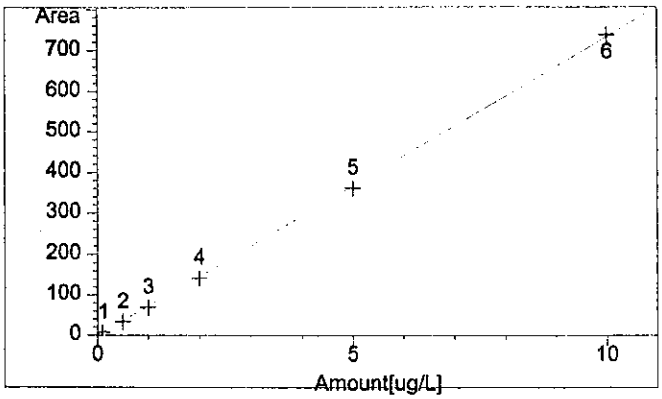
Benzo(g,h,i)perylene #18 at exp. RT: 31.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99898
Residual Std. Dev.: 4.09109
Formula: y = mx
m: 17.72723
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.4
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 2.84206
Formula: y = mx
m: 34.63469
x: Amount[ug/L]
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.: 3.67731
Formula: y = mx
m: 48.44533
x: Amount[ug/L]
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.: 4.30252
Formula: y = mx
m: 73.22655
x: Amount[ug/L]
y: Area

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WATER,1

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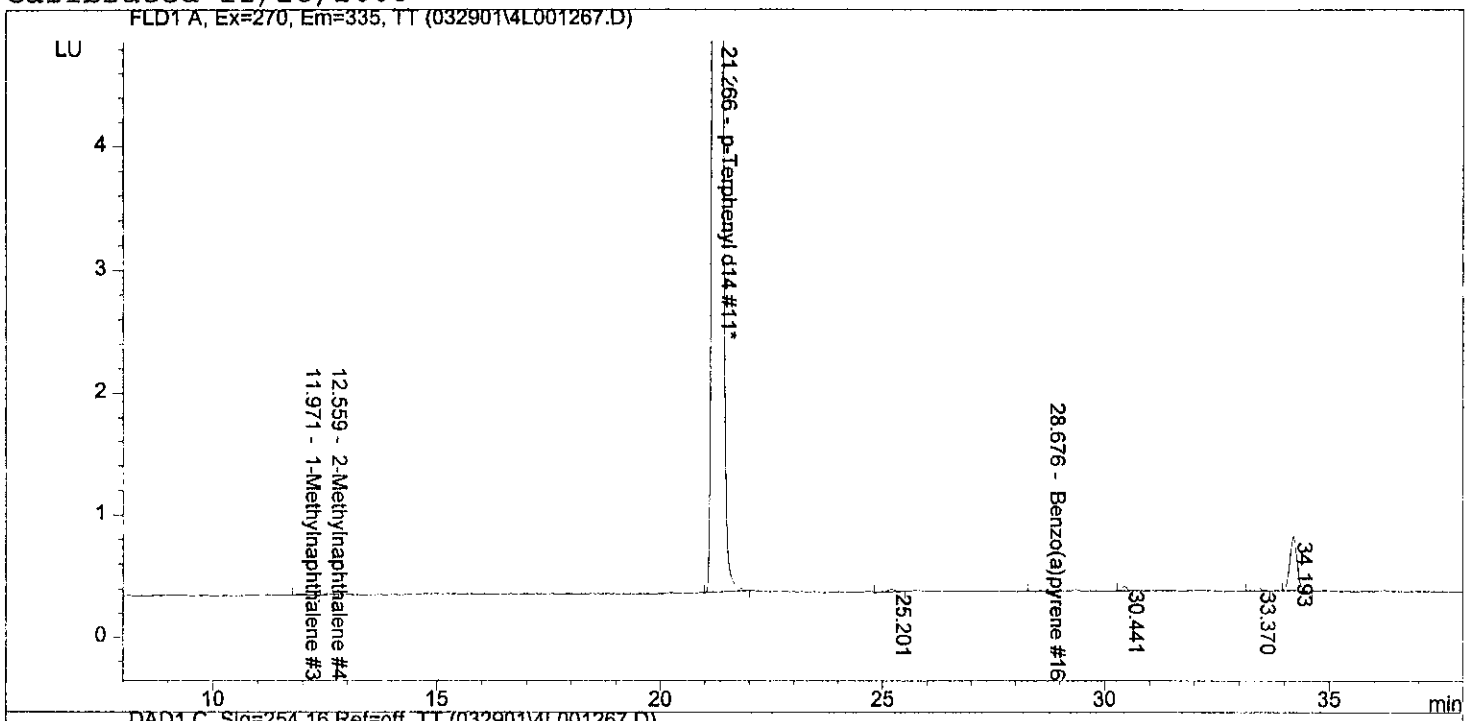
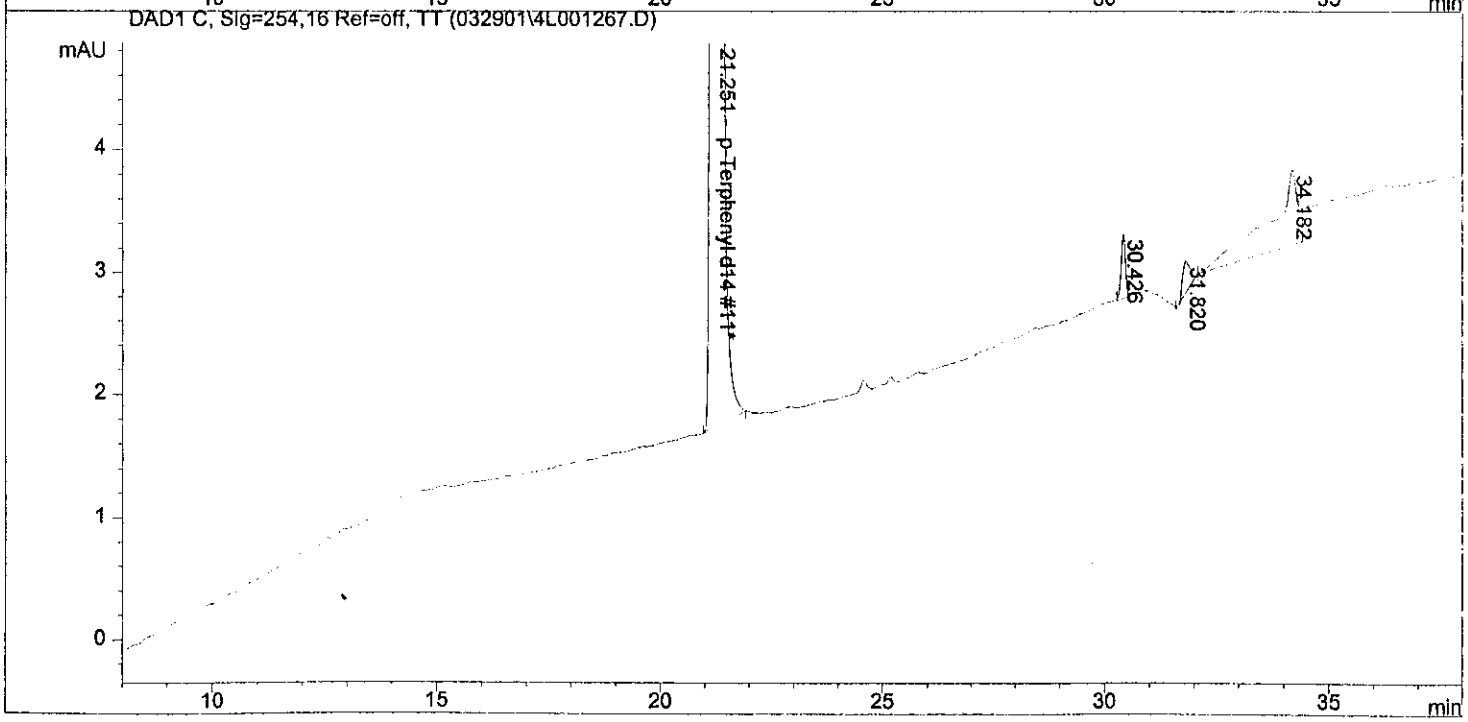
Injection Date : 3/29/2001 4:04:04 PM
Sample Name : 8310 SURR 6/100
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:07:17 AM by RDC
(modified after loading)

Calibrated 11/28/2000





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:07:13 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/L]	Grp	Name
9.458		-	-	-		Naphthalene #1
11.971	BBA	1.78983e-1	9.90495e-2	1.77282e-2		1-Methylnaphthalene #3
12.559	PBA	1.46468e-1	7.81119e-2	1.14409e-2		2-Methylnaphthalene #4
13.086		-	-	-		Acenaphthene #5
13.757		-	-	-		Fluorene #6
15.148		-	-	-		Phenanthrene #7
16.562		-	-	-		Anthracene #8
17.938		-	-	-		Fluoranthene #9
18.946		-	-	-		Pyrene #10
21.266	BBA	375.28262	2.69501e-1	101.13905		p-Terphenyl d14 #11*
22.617		-	-	-		Benzo(a)anthracene #12
23.492		-	-	-		Chrysene #13
26.213		-	-	-		Benzo(b)fluoranthene #14
27.652		-	-	-		Benzo(k)fluoranthene #15
28.676	BBA	2.73172e-1	2.12535e-2	5.80584e-3		Benzo(a)pyrene #16
30.626		-	-	-		Dibenz(a,h)anthracene #17
31.452		-	-	-		Benzo(g,h,i)perylene #18
32.371		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				101.17402		

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
9.437		-	-	-		Naphthalene #1
11.073		-	-	-		Acenaphthylene #2
12.022		-	-	-		1-Methylnaphthalene #3
12.600		-	-	-		2-Methylnaphthalene #4
13.077		-	-	-		Acenaphthene #5
13.738		-	-	-		Fluorene #6
15.127		-	-	-		Phenanthrene #7
16.541		-	-	-		Anthracene #8
17.916		-	-	-		Fluoranthene #9
18.925		-	-	-		Pyrene #10
21.251	PBA	1722.28149	5.85074e-2	100.76624		p-Terphenyl d14 #11*
22.596		-	-	-		Benzo(a)anthracene #12
23.472		-	-	-		Chrysene #13
26.192		-	-	-		Benzo(b)fluoranthene #14
27.630		-	-	-		Benzo(k)fluoranthene #15
28.751		-	-	-		Benzo(a)pyrene #16
30.610		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.424		-	-	-		Benzo(g,h,i)perylene #18
32.351		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.76624

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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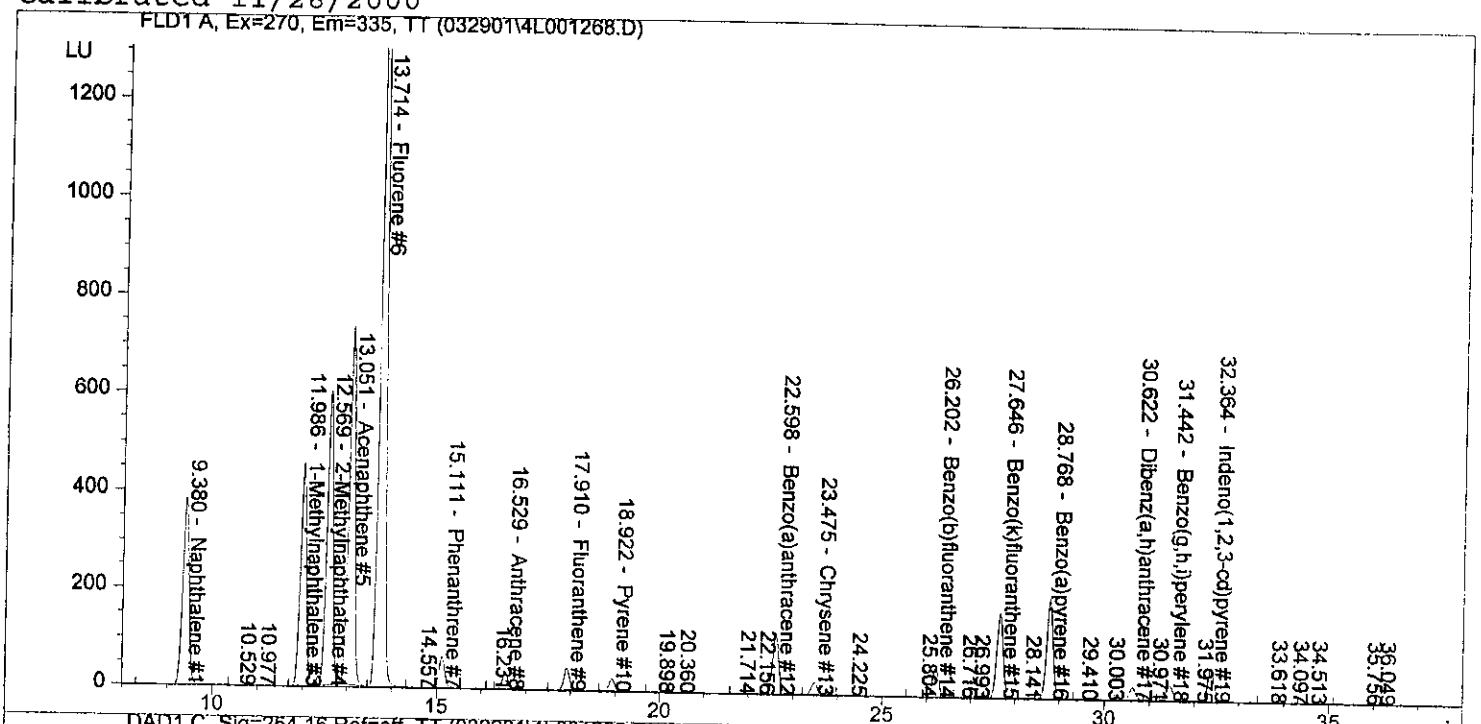
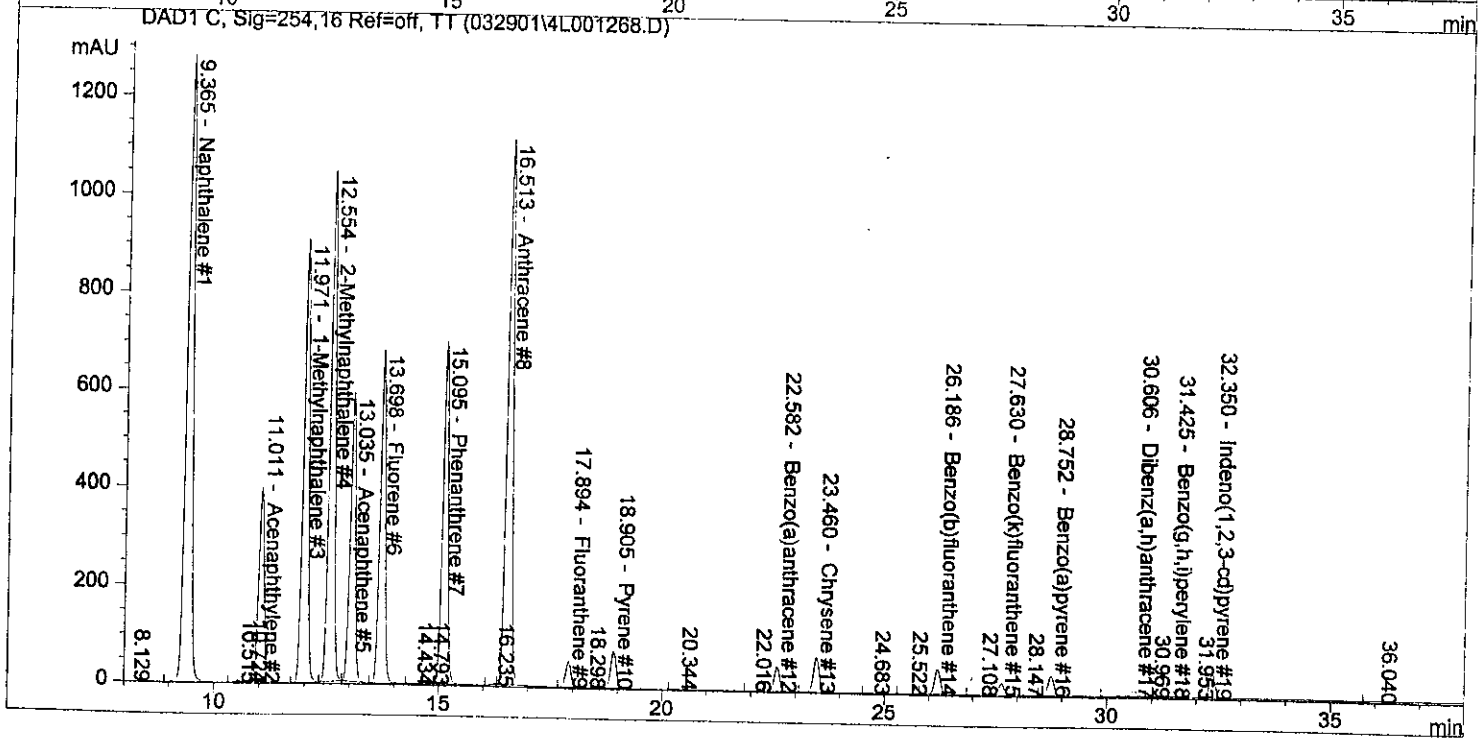
Injection Date : 3/29/2001 5:00:44 PM
Sample Name : 8310 STD 6/100
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:08:47 AM by RDC
(modified after loading)

Calibrated 11/28/2000





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:08:44 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/L]	Grp	Name
9.380	BB	3745.38867	2.66358e-2	99.76129		Naphthalene #1
11.986	PB	4252.72461	2.33959e-2	99.49627		1-Methylnaphthalene #3
12.569	BB	5538.45801	1.80768e-2	100.11762		2-Methylnaphthalene #4
13.051	BB	6824.59961	1.46324e-2	99.86019		Acenaphthene #5
13.714	BB	1.43504e4	6.82893e-3	97.99807		Fluorene #6
15.111	BBA	593.92126	1.68319e-1	99.96800		Phenanthrene #7
16.529	BB	318.02490	3.13171e-1	99.59603		Anthracene #8
17.910	BB	413.00867	2.39893e-2	9.90778		Fluoranthene #9
18.922	BBA	240.94221	4.13018e-2	9.95134		Pyrene #10
21.266		-	-	-		p-Terphenyl d14 #11*
22.598	BB	1218.64221	8.29919e-3	10.11374		Benzo(a)anthracene #12
23.475	BB	245.04990	4.09569e-2	10.03648		Chrysene #13
26.202	BB	605.45599	1.63083e-2	9.87397		Benzo(b)fluoranthene #14
27.646	BB	1783.50952	2.84272e-3	5.07002		Benzo(k)fluoranthene #15
28.768	BB	2135.15088	4.74058e-3	10.12185		Benzo(a)pyrene #16
30.622	BB	248.94579	4.00436e-2	9.96869		Dibenz(a,h)anthracene #17
31.442	BB	349.03009	2.93129e-2	10.23109		Benzo(g,h,i)perylene #18
32.364	BB	736.52185	1.37183e-2	10.10384		Indeno(1,2,3-cd)pyrene #1
Totals :				792.17629		

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
9.365	BB	1.20181e4	8.31058e-3	99.87711		Naphthalene #1
11.011	BBA	3372.54370	2.98029e-2	100.51169		Acenaphthylene #2
11.971	PB	7729.32031	1.29739e-2	100.27965		1-Methylnaphthalene #3
12.554	BB	8860.39453	1.13660e-2	100.70710		2-Methylnaphthalene #4
13.035	BB	4931.93066	2.04088e-2	100.65472		Acenaphthene #5
13.698	BB	5682.68115	1.77098e-2	100.63921		Fluorene #6
15.095	BBA	5806.51855	1.73560e-2	100.77811		Phenanthrene #7
16.513	BBA	9579.35742	1.04107e-2	99.72816		Anthracene #8
17.894	PB	460.06198	2.18801e-2	10.06621		Fluoranthene #9
18.905	BBA	697.68286	1.44946e-2	10.11266		Pyrene #10
21.251		-	-	-		p-Terphenyl d14 #11*
22.582	BBA	451.30731	2.25094e-2	10.15864		Benzo(a)anthracene #12
23.460	BBA	664.95905	1.51354e-2	10.06442		Chrysene #13
26.186	BBA	482.33411	2.06540e-2	9.96212		Benzo(b)fluoranthene #14
27.630	BB	220.93304	2.30903e-2	5.10141		Benzo(k)fluoranthene #15
28.752	BB	392.60632	2.60652e-2	10.23335		Benzo(a)pyrene #16
30.606	BB	105.54841	9.27103e-2	9.78543		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.425	BB	180.09363	5.58457e-2	10.05745		Benzo(g,h,i)perylene #18
32.350	BBA	487.74692	2.05398e-2	10.01821		Indeno(1,2,3-cd)pyrene #1

Totals : 898.73566

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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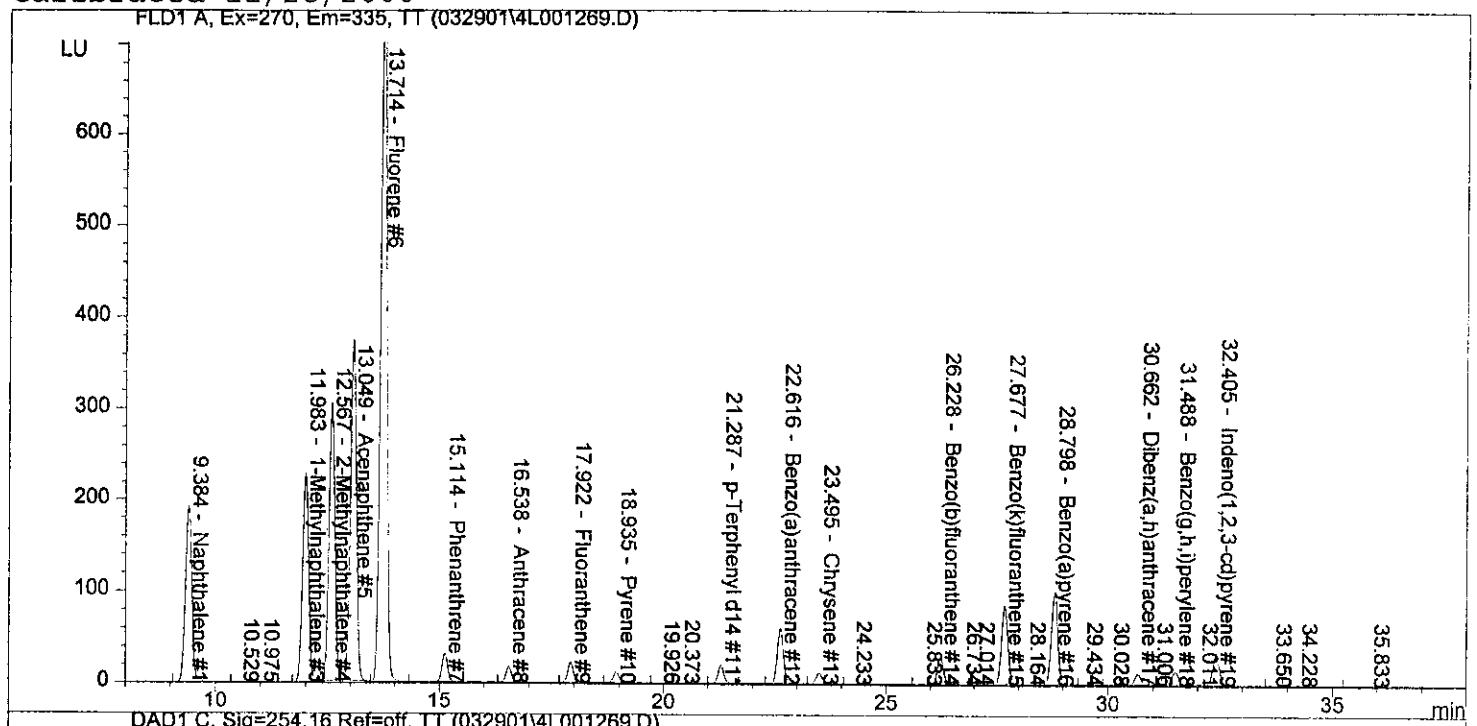
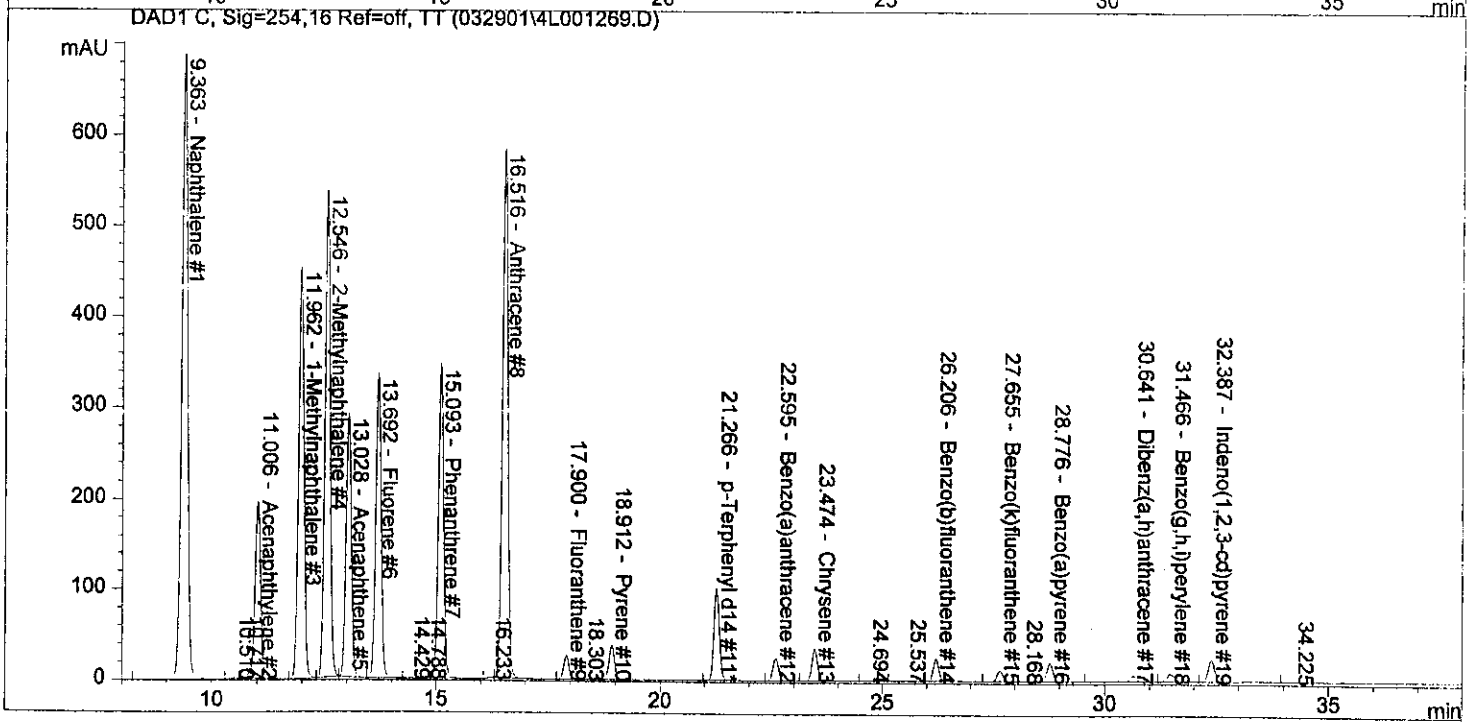
Injection Date : 3/29/2001 5:57:23 PM
Sample Name : 8310 STD 5/50
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:09:45 AM by RDC
(modified after loading)

Calibrated 11/28/2000





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:09:40 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/L]	Grp	Name
9.384	BB	1869.77466	2.66564e-2	49.84137		Naphthalene #1
11.983	PB	2130.39893	2.34446e-2	49.94634		1-Methylnaphthalene #3
12.567	BB	2794.17773	1.79965e-2	50.28533		2-Methylnaphthalene #4
13.049	BB	3455.78711	1.45847e-2	50.40170		Acenaphthene #5
13.714	BB	7537.01807	6.59144e-3	49.67982		Fluorene #6
15.114	BBA	293.89139	1.68628e-1	49.55822		Phenanthrene #7
16.538	BB	157.60617	3.14577e-1	49.57924		Anthracene #8
17.922	PB	203.35922	2.42470e-2	4.93084		Fluoranthene #9
18.935	BBA	117.56385	4.15854e-2	4.88894		Pyrene #10
21.287	BBA	185.12903	2.67699e-1	49.55894		p-Terphenyl d14 #11*
22.616	BB	595.95990	8.25185e-3	4.91777		Benzo(a)anthracene #12
23.495	BBA	119.20701	4.10200e-2	4.88987		Chrysene #13
26.228	BB	296.71768	1.65404e-2	4.90783		Benzo(b)fluoranthene #14
27.677	BB	882.90680	2.81416e-3	2.48464		Benzo(k)fluoranthene #15
28.798	BB	1058.10645	4.69473e-3	4.96753		Benzo(a)pyrene #16
30.662	BB	120.91595	4.03620e-2	4.88041		Dibenz(a,h)anthracene #17
31.488	BB	169.91467	2.88945e-2	4.90959		Benzo(g,h,i)perylene #18
32.405	BB	360.35535	1.36618e-2	4.92309		Indeno(1,2,3-cd)pyrene #1
Totals :				445.55149		

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
9.363	BB	6214.10986	8.26116e-3	51.33575		Naphthalene #1
11.006	BBA	1655.47168	2.97860e-2	49.30993		Acenaphthylene #2
11.962	PB	3841.95752	1.29579e-2	49.78373		1-Methylnaphthalene #3
12.546	BB	4471.16797	1.12776e-2	50.42391		2-Methylnaphthalene #4
13.028	BB	2434.94873	2.03479e-2	49.54616		Acenaphthene #5
13.692	BB	2796.67236	1.76729e-2	49.42517		Fluorene #6
15.093	BBA	2859.26782	1.72973e-2	49.45759		Phenanthrene #7
16.516	BBA	4898.11572	1.03825e-2	50.85445		Anthracene #8
17.900	PB	224.79738	2.18624e-2	4.91461		Fluoranthene #9
18.912	BBA	340.74240	1.44312e-2	4.91731		Pyrene #10
21.266	BBA	856.18970	5.82302e-2	49.85613		p-Terphenyl d14 #11*
22.595	BBA	220.24692	2.23297e-2	4.91805		Benzo(a)anthracene #12
23.474	BBA	324.43738	1.51307e-2	4.90898		Chrysene #13
26.206	BBA	235.59966	2.08220e-2	4.90566		Benzo(b)fluoranthene #14
27.655	BB	108.01276	2.28194e-2	2.46479		Benzo(k)fluoranthene #15
28.776	BBA	191.21147	2.56987e-2	4.91388		Benzo(a)pyrene #16
30.641	BB	53.63882	9.39070e-2	5.03706		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.466	BB	86.71626	5.58645e-2	4.84436		Benzo(g,h,i)perylene #18
32.387	BBA	238.37648	2.06089e-2	4.91267		Indeno(1,2,3-cd)pyrene #1

Totals : 496.73018

Results obtained with enhanced integrator!

*** End of Report ***

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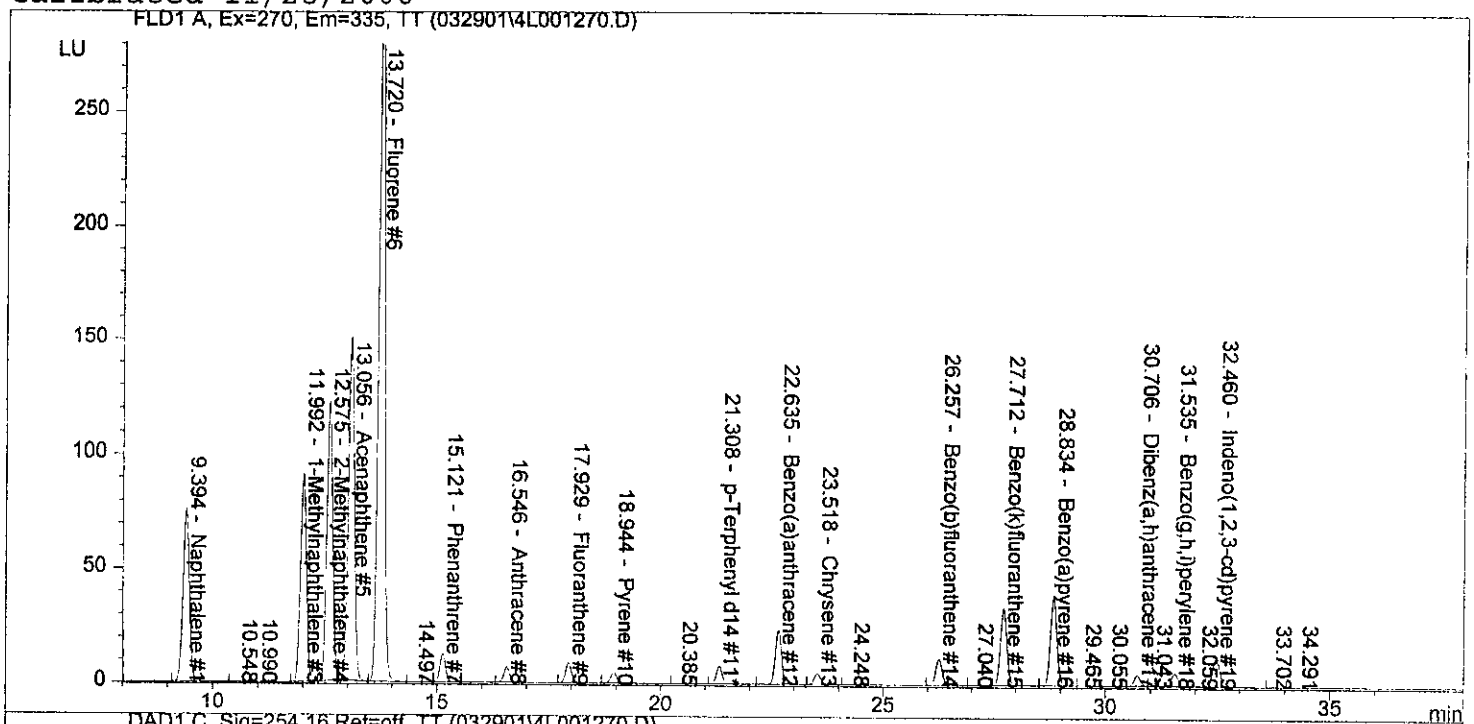
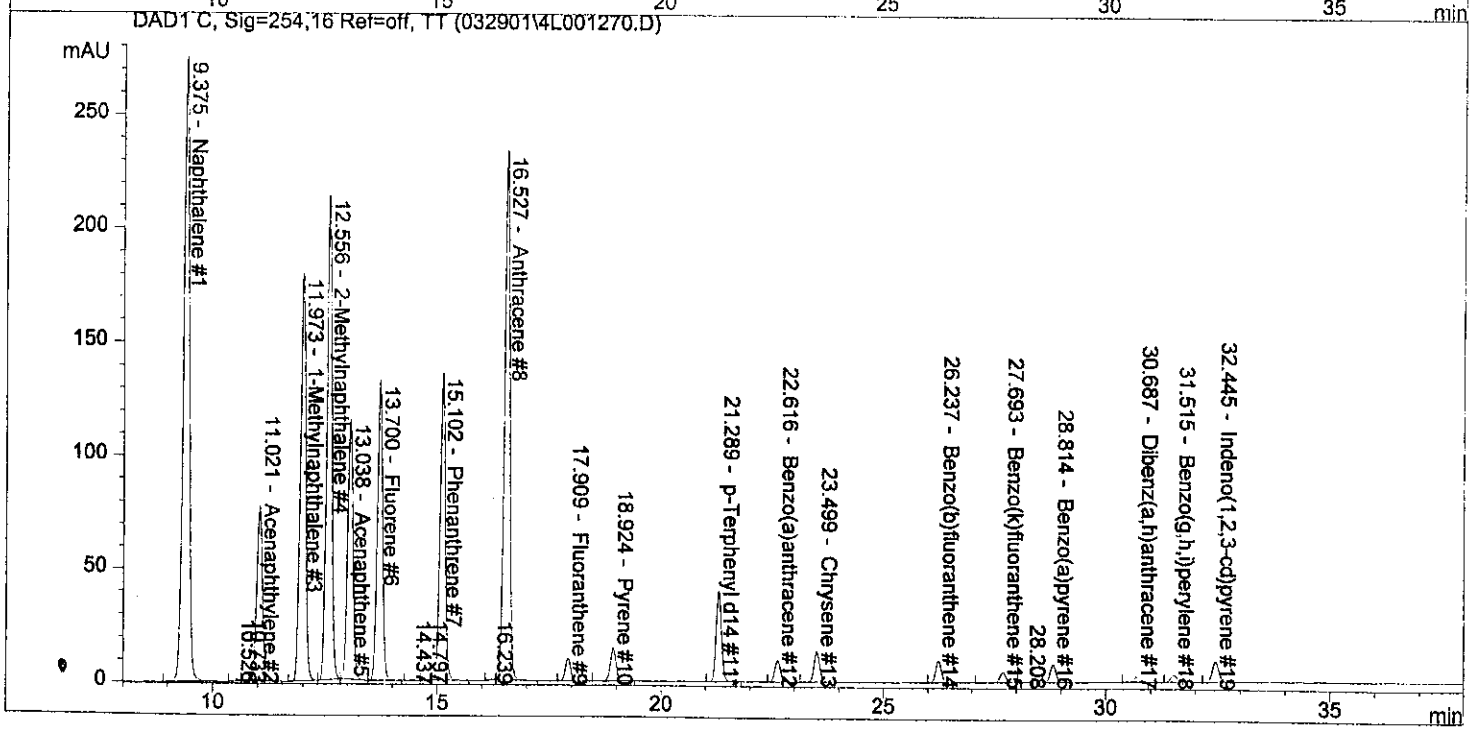
Injection Date : 3/29/2001 6:54:05 PM
Sample Name : 8310 STD 4/20
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:10:16 AM by RDC
(modified after loading)

Calibrated 11/28/2000





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:10:13 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/L]	Grp	Name
9.394	PBA	739.44373	2.67190e-2	19.75718		Naphthalene #1
11.992	PB	843.90442	2.35078e-2	19.83830		1-Methylnaphthalene #3
12.575	BB	1111.22339	1.80233e-2	20.02795		2-Methylnaphthalene #4
13.056	BB	1379.30518	1.46097e-2	20.15126		Acenaphthene #5
13.720	BB	3061.23633	6.61281e-3	20.24338		Fluorene #6
15.121	BBA	113.46626	1.69007e-1	19.17662		Phenanthrene #7
16.546	BBA	62.35658	3.15221e-1	19.65612		Anthracene #8
17.929	PB	80.46645	2.43035e-2	1.95562		Fluoranthene #9
18.944	BBA	46.12331	4.17689e-2	1.92652		Pyrene #10
21.308	BBA	72.89375	2.67642e-1	19.50946		p-Terphenyl d14 #11*
22.635	BBA	233.26509	8.25833e-3	1.92638		Benzo(a)anthracene #12
23.518	BBA	46.51981	4.11079e-2	1.91233		Chrysene #13
26.257	BB	116.51666	1.65965e-2	1.93376		Benzo(b)fluoranthene #14
27.712	BB	350.43488	2.81221e-3	9.85498e-1		Benzo(k)fluoranthene #15
28.834	BB	416.15182	4.69965e-3	1.95577		Benzo(a)pyrene #16
30.706	BB	46.74619	4.04781e-2	1.89220		Dibenz(a,h)anthracene #17
31.535	BB	65.77667	2.88962e-2	1.90070		Benzo(g,h,i)perylene #18
32.460	BBA	142.15633	1.36589e-2	1.94171		Indeno(1,2,3-cd)pyrene #1

Totals : 176.69076

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
9.375	PBA	2468.47827	8.26012e-3	20.38992		Naphthalene #1
11.021	BBA	650.14838	2.98018e-2	19.37558		Acenaphthylene #2
11.973	PB	1509.95740	1.29655e-2	19.57738		1-Methylnaphthalene #3
12.556	BB	1765.93494	1.12721e-2	19.90588		2-Methylnaphthalene #4
13.038	BB	956.26086	2.03539e-2	19.46368		Acenaphthene #5
13.700	BBA	1095.73792	1.76788e-2	19.37138		Fluorene #6
15.102	BBA	1121.95825	1.72996e-2	19.40939		Phenanthrene #7
16.527	BBA	1940.16003	1.03911e-2	20.16039		Anthracene #8
17.909	PB	87.85875	2.18740e-2	1.92182		Fluoranthene #9
18.924	BBA	132.60229	1.44324e-2	1.91377		Pyrene #10
21.289	PBA	337.06073	5.82141e-2	19.62170		p-Terphenyl d14 #11*
22.616	BBA	85.54315	2.23179e-2	1.90915		Benzo(a)anthracene #12
23.499	PBA	126.54305	1.51401e-2	1.91587		Chrysene #13
26.237	BBA	91.90939	2.08594e-2	1.91718		Benzo(b)fluoranthene #14
27.693	BBA	42.65477	2.27779e-2	9.71588e-1		Benzo(k)fluoranthene #15
28.814	BBA	74.19669	2.56784e-2	1.90525		Benzo(a)pyrene #16
30.687	BBA	20.75464	9.43305e-2	1.95780		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.515	PB	29.46203	5.62347e-2	1.65679		Benzo(g,h,i)perylene #18
32.445	BBA	92.59545	2.06340e-2	1.91062		Indeno(1,2,3-cd)pyrene #1

Totals : 195.25513

Results obtained with enhanced integrator!

*** End of Report ***

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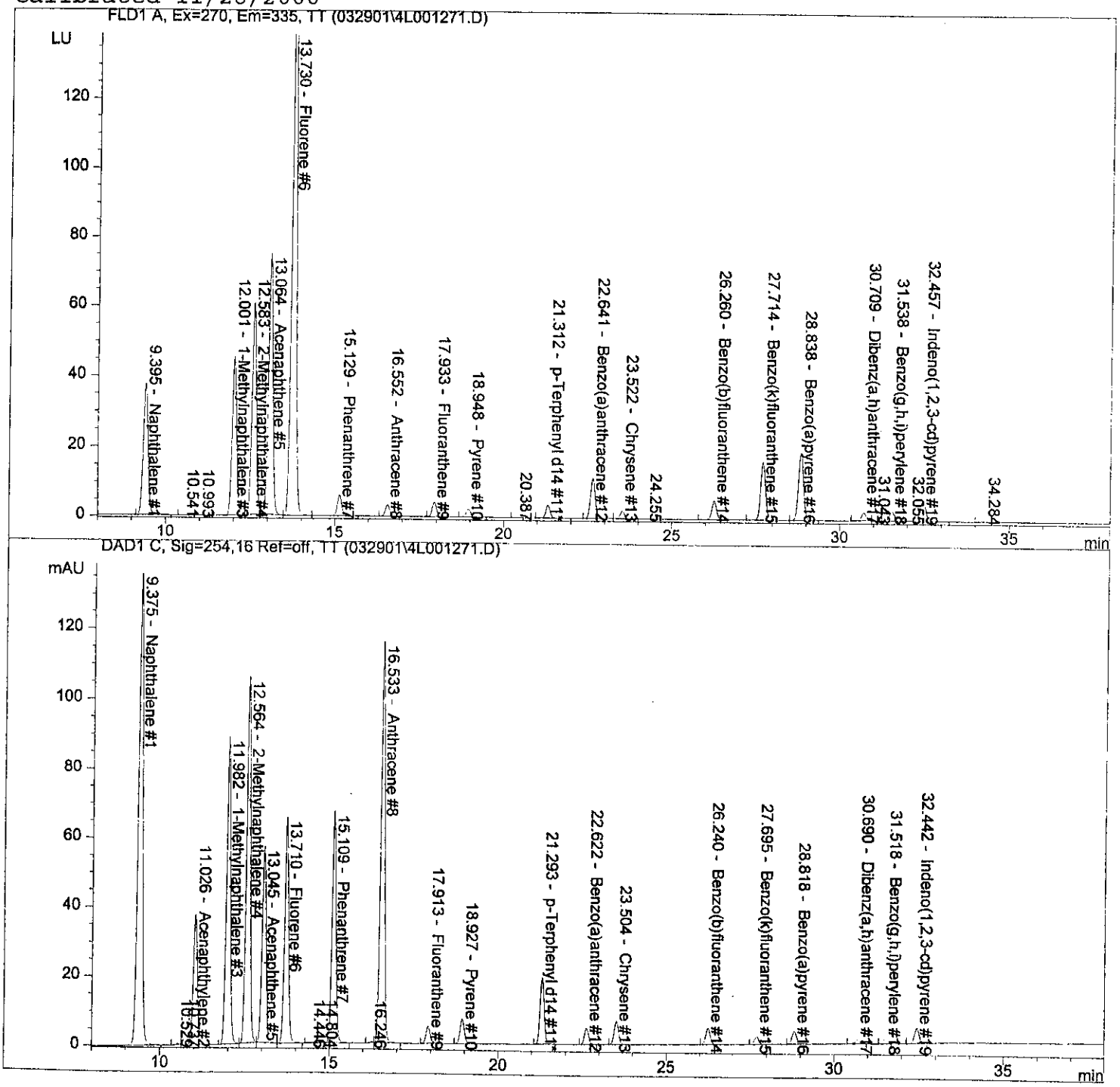
Injection Date : 3/29/2001 7:50:42 PM
Sample Name : 8310 STD 3/10
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:11:03 AM by RDC
(modified after loading)

Calibrated 11/28/2000



External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:11:01 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/L]	Grp	Name
9.395	BBA	363.82813	2.67268e-2	9.72397		Naphthalene #1
12.001	PB	415.52219	2.35171e-2	9.77190		1-Methylnaphthalene #3
12.583	BB	549.91858	1.80255e-2	9.91254		2-Methylnaphthalene #4
13.064	BB	685.23157	1.46127e-2	10.01307		Acenaphthene #5
13.730	BB	1528.97070	6.61755e-3	10.11804		Fluorene #6
15.129	BBA	56.43250	1.69034e-1	9.53902		Phenanthrene #7
16.552	BBA	30.82590	3.15279e-1	9.71875		Anthracene #8
17.933	PB	39.67828	2.43125e-2	9.64680e-1		Fluoranthene #9
18.948	BBA	22.67298	4.17789e-2	9.47251e-1		Pyrene #10
21.312	PBA	35.47113	2.67568e-1	9.49095		p-Terphenyl d14 #11*
22.641	BB	114.84595	8.25726e-3	9.48313e-1		Benzo(a)anthracene #12
23.522	BB	23.02669	4.11131e-2	9.46699e-1		Chrysene #13
26.260	BBA	57.25365	1.66070e-2	9.50810e-1		Benzo(b)fluoranthene #14
27.714	BB	172.93550	2.81160e-3	4.86225e-1		Benzo(k)fluoranthene #15
28.838	BB	204.56563	4.69800e-3	9.61050e-1		Benzo(a)pyrene #16
30.709	BB	22.89734	4.04974e-2	9.27282e-1		Dibenz(a,h)anthracene #17
31.538	BB	32.07434	2.88781e-2	9.26247e-1		Benzo(g,h,i)perylene #18
32.457	BBA	69.84892	1.36571e-2	9.53931e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 87.30073

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
9.375	BBA	1215.30261	8.25985e-3	10.03822		Naphthalene #1
11.026	BBA	320.12952	2.98053e-2	9.54156		Acenaphthylene #2
11.982	PB	745.12714	1.29670e-2	9.66204		1-Methylnaphthalene #3
12.564	BB	872.72668	1.12705e-2	9.83606		2-Methylnaphthalene #4
13.045	BB	472.94031	2.03542e-2	9.62632		Acenaphthene #5
13.710	BBA	540.38599	1.76799e-2	9.55399		Fluorene #6
15.109	BBA	553.12744	1.72999e-2	9.56903		Phenanthrene #7
16.533	BBA	959.02155	1.03910e-2	9.96518		Anthracene #8
17.913	PBA	43.23069	2.18764e-2	9.45732e-1		Fluoranthene #9
18.927	BBA	64.86784	1.44315e-2	9.36138e-1		Pyrene #10
21.293	BBA	162.32486	5.82032e-2	9.44783		p-Terphenyl d14 #11*
22.622	BBA	42.07911	2.23141e-2	9.38956e-1		Benzo(a)anthracene #12
23.504	PBA	61.73906	1.51426e-2	9.34890e-1		Chrysene #13
26.240	BBA	44.92431	2.08689e-2	9.37519e-1		Benzo(b)fluoranthene #14
27.695	BBA	20.70720	2.27707e-2	4.71518e-1		Benzo(k)fluoranthene #15
28.818	BBA	36.29754	2.56659e-2	9.31608e-1		Benzo(a)pyrene #16
30.690	BBA	10.55198	9.44833e-2	9.96985e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.518	PB	12.92638	5.64039e-2	7.29097e-1		Benzo(g,h,i)perylene #18
32.442	BB	45.14644	2.06389e-2	9.31771e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 95.99445

Results obtained with enhanced integrator!

*** End of Report ***

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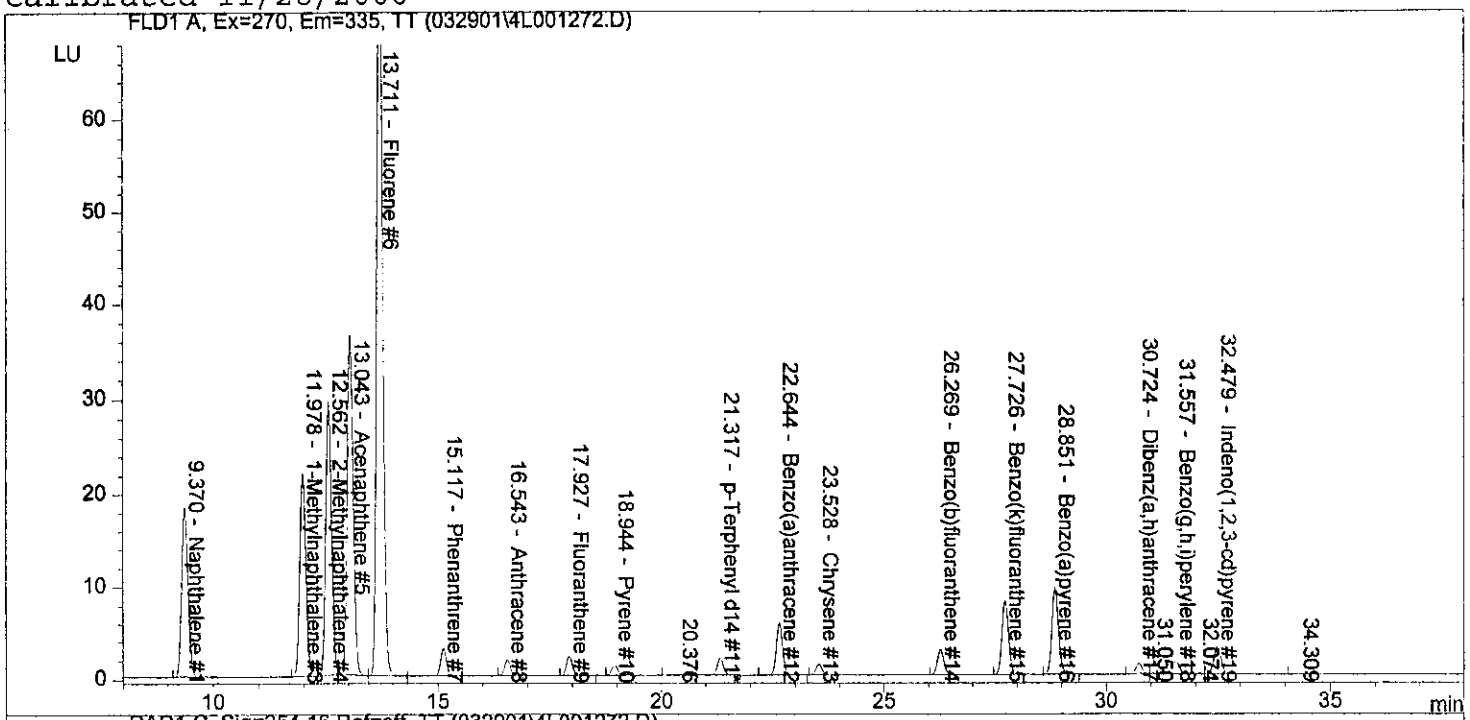
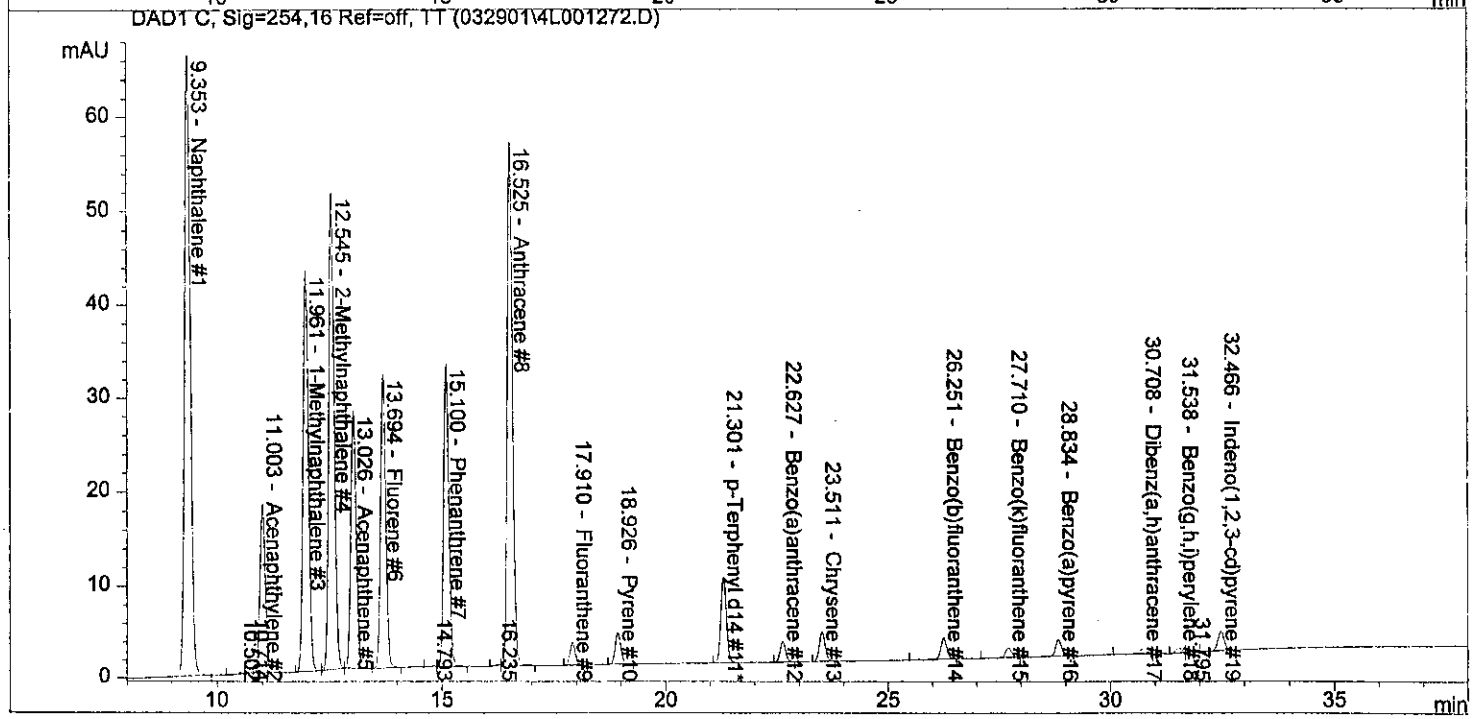
Injection Date : 3/29/2001 8:47:20 PM
Sample Name : 8310 STD 2/5
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:11:38 AM by RDC
(modified after loading)

Calibrated 11/28/2000





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:11:35 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/L]	Grp	Name
9.370	BBA	176.80394	2.67269e-2	4.72542		Naphthalene #1
11.978	PB	202.70357	2.35177e-2	4.76712		1-Methylnaphthalene #3
12.562	BB	267.61313	1.80248e-2	4.82368		2-Methylnaphthalene #4
13.043	BB	332.73242	1.46127e-2	4.86211		Acenaphthene #5
13.711	BB	746.74274	6.61779e-3	4.94179		Fluorene #6
15.117	BBA	27.29549	1.69032e-1	4.61381		Phenanthrene #7
16.543	BBA	14.96326	3.15277e-1	4.71758		Anthracene #8
17.927	BBA	19.70599	2.43125e-2	4.79101e-1		Fluoranthene #9
18.944	BBA	10.99437	4.17785e-2	4.59328e-1		Pyrene #10
21.317	BBA	17.26456	2.67547e-1	4.61908		p-Terphenyl d14 #11*
22.644	PBA	55.61599	8.25660e-3	4.59199e-1		Benzo(a)anthracene #12
23.528	BB	11.18528	4.11121e-2	4.59850e-1		Chrysene #13
26.269	BBA	27.71577	1.66087e-2	4.60323e-1		Benzo(b)fluoranthene #14
27.726	BBA	83.07898	2.81138e-3	2.33567e-1		Benzo(k)fluoranthene #15
28.851	PB	98.80479	4.69742e-3	4.64127e-1		Benzo(a)pyrene #16
30.724	PB	11.04228	4.05015e-2	4.47228e-1		Dibenz(a,h)anthracene #17
31.557	BB	15.43706	2.88729e-2	4.45713e-1		Benzo(g,h,i)perylene #18
32.479	BBA	33.35746	1.36563e-2	4.55538e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				42.43456		

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
9.353	PBA	591.76941	8.25936e-3	4.88764		Naphthalene #1
11.003	BBA	155.20726	2.98051e-2	4.62596		Acenaphthylene #2
11.961	PB	362.30396	1.29668e-2	4.69793		1-Methylnaphthalene #3
12.545	BB	424.21133	1.12697e-2	4.78072		2-Methylnaphthalene #4
13.026	BBA	229.06499	2.03536e-2	4.66229		Acenaphthene #5
13.694	BBA	261.46329	1.76796e-2	4.62258		Fluorene #6
15.100	BBA	268.48630	1.72992e-2	4.64461		Phenanthrene #7
16.525	BBA	466.06348	1.03904e-2	4.84259		Anthracene #8
17.910	PBA	21.00143	2.18760e-2	4.59427e-1		Fluoranthene #9
18.926	PBA	30.99384	1.44305e-2	4.47257e-1		Pyrene #10
21.301	PBA	78.62110	5.82011e-2	4.57584		p-Terphenyl d14 #11*
22.627	PBA	20.18948	2.23126e-2	4.50479e-1		Benzo(a)anthracene #12
23.511	PBA	29.80933	1.51428e-2	4.51397e-1		Chrysene #13
26.251	BBA	21.96169	2.08698e-2	4.58337e-1		Benzo(b)fluoranthene #14
27.710	BBA	10.25969	2.27669e-2	2.33582e-1		Benzo(k)fluoranthene #15
28.834	BBA	16.92259	2.56639e-2	4.34300e-1		Benzo(a)pyrene #16
30.708	BBA	5.38333	9.44891e-2	5.08666e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.538	PB	5.25499	5.64100e-2	2.96434e-1		Benzo(g,h,i)perylene #18
32.466	BB	20.85676	2.06417e-2	4.30518e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.51054

Results obtained with enhanced integrator!

*** End of Report ***

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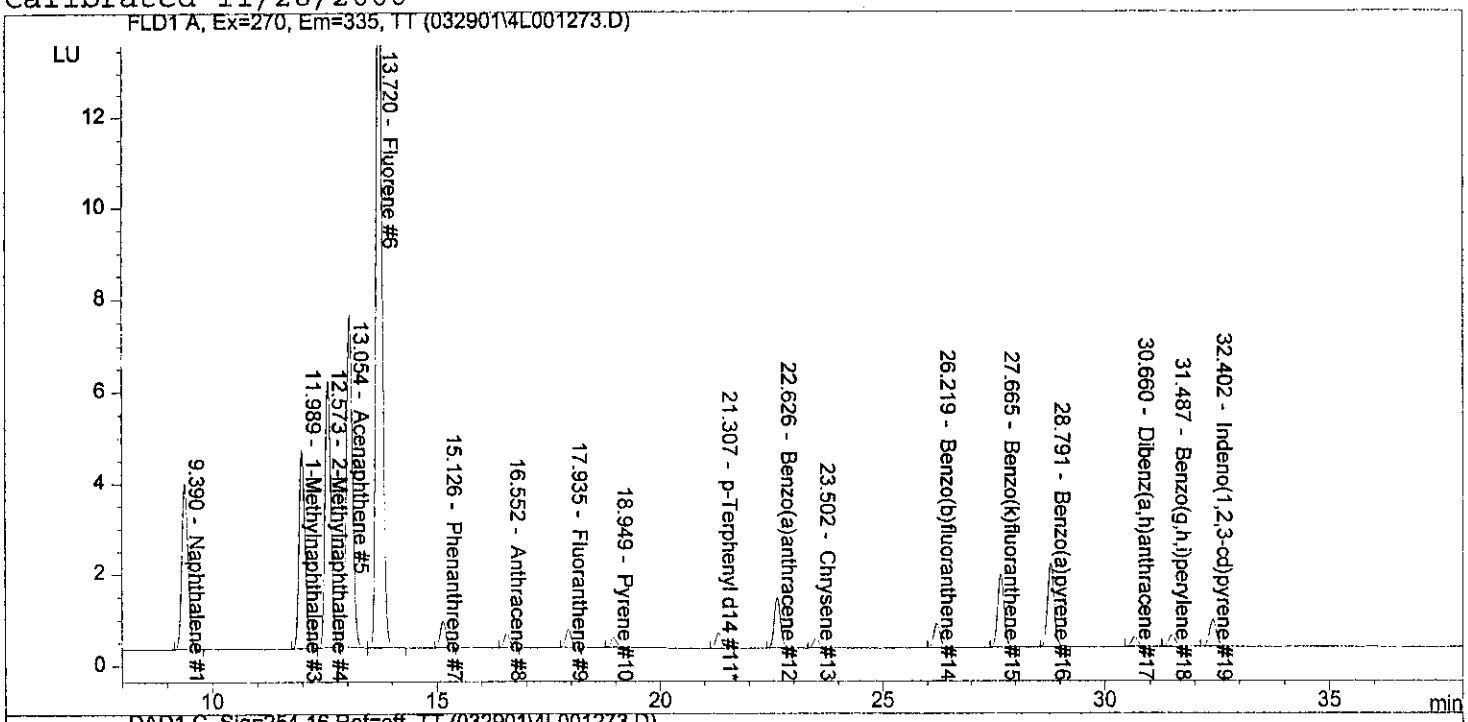
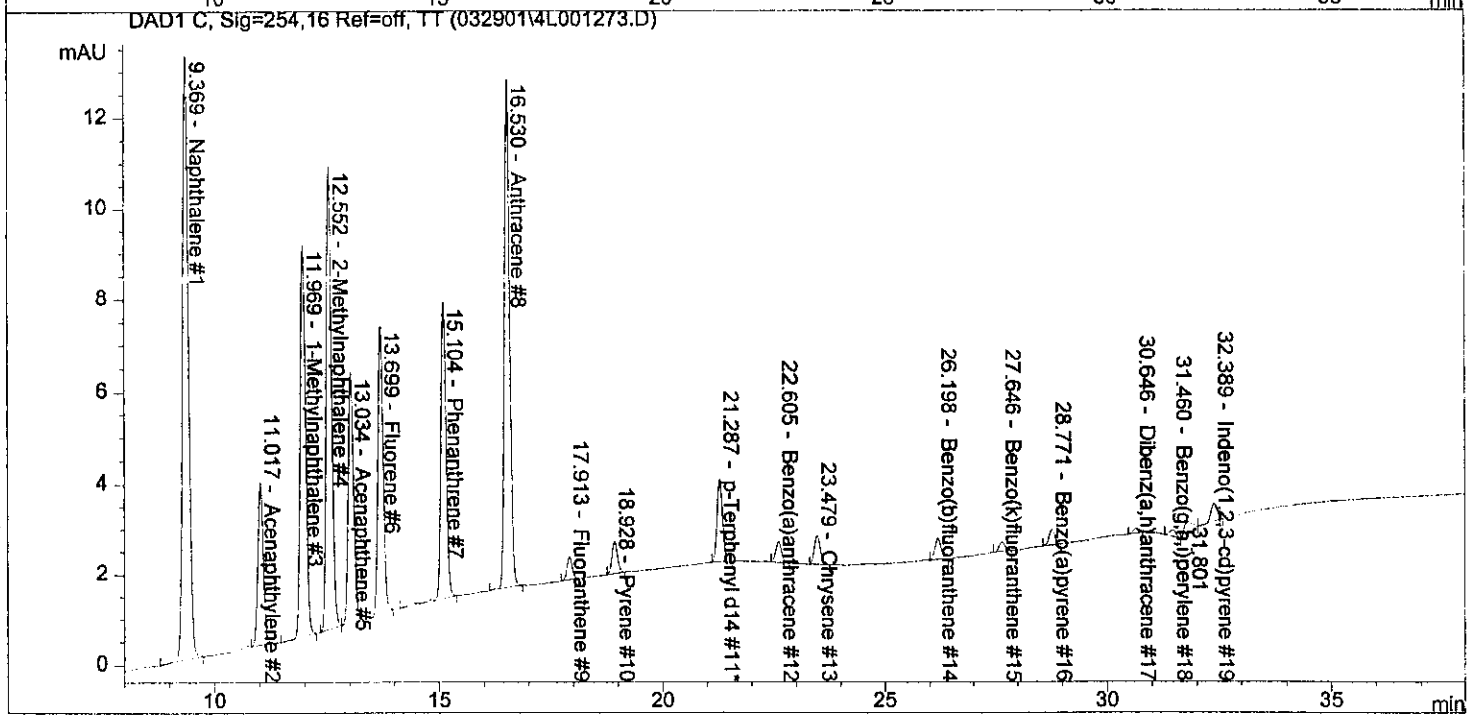
Injection Date	: 3/29/2001 9:43:56 PM	Seq. Line	: 8
Sample Name	: 8310 STD1/1	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:13:53 AM by RDC
(modified after loading)

Calibrated 11/28/2000





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, March 30, 2001 9:13:51 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/L]	Grp	Name
9.390	PBA	35.00066	2.67269e-2	9.35460e-1		Naphthalene #1
11.989	BB	40.39879	2.35177e-2	9.50088e-1		1-Methylnaphthalene #3
12.573	BB	53.36072	1.80248e-2	9.61818e-1		2-Methylnaphthalene #4
13.054	BB	66.50271	1.46127e-2	9.71782e-1		Acenaphthene #5
13.720	BBA	149.80600	6.61784e-3	9.91392e-1		Fluorene #6
15.126	BBA	5.33564	1.69032e-1	9.01895e-1		Phenanthrene #7
16.552	BBA	2.99793	3.15277e-1	9.45180e-1		Anthracene #8
17.935	BBA	3.82580	2.43125e-2	9.30149e-2		Fluoranthene #9
18.949	BBA	2.09403	4.17786e-2	8.74857e-2		Pyrene #10
21.307	BBA	3.39181	2.67546e-1	9.07465e-1		p-Terphenyl d14 #11*
22.626	BBA	10.90292	8.25659e-3	9.00209e-2		Benzo(a)anthracene #12
23.502	BBA	2.12171	4.11122e-2	8.72279e-2		Chrysene #13
26.219	BBA	5.48238	1.66088e-2	9.10557e-2		Benzo(b)fluoranthene #14
27.665	BBA	16.48924	2.81137e-3	4.63574e-2		Benzo(k)fluoranthene #15
28.791	BBA	19.29724	4.69740e-3	9.06468e-2		Benzo(a)pyrene #16
30.660	PBA	2.20240	4.05016e-2	8.92008e-2		Dibenz(a,h)anthracene #17
31.487	PBA	2.93655	2.88728e-2	8.47865e-2		Benzo(g,h,i)perylene #18
32.402	BBA	6.55293	1.36562e-2	8.94884e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.41437

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
9.369	PBA	117.56092	8.25940e-3	9.70983e-1		Naphthalene #1
11.017	BBA	30.81112	2.98051e-2	9.18329e-1		Acenaphthylene #2
11.969	PBA	71.67282	1.29668e-2	9.29369e-1		1-Methylnaphthalene #3
12.552	PB	84.40402	1.12696e-2	9.51203e-1		2-Methylnaphthalene #4
13.034	BBA	45.54893	2.03536e-2	9.27083e-1		Acenaphthene #5
13.699	PBA	52.00109	1.76796e-2	9.19361e-1		Fluorene #6
15.104	PBA	54.85510	1.72992e-2	9.48949e-1		Phenanthrene #7
16.530	PBA	93.31602	1.03904e-2	9.69590e-1		Anthracene #8
17.913	PBA	4.23748	2.18760e-2	9.26989e-2		Fluoranthene #9
18.928	BBA	5.99320	1.44305e-2	8.64849e-2		Pyrene #10
21.287	BBA	15.54652	5.82010e-2	9.04823e-1		p-Terphenyl d14 #11*
22.605	BBA	4.06842	2.23125e-2	9.07768e-2		Benzo(a)anthracene #12
23.479	PBA	5.84781	1.51428e-2	8.85523e-2		Chrysene #13
26.198	BBA	4.33936	2.08700e-2	9.05624e-2		Benzo(b)fluoranthene #14
27.646	BBA	2.02863	2.27668e-2	4.61853e-2		Benzo(k)fluoranthene #15
28.771	BBA	3.36439	2.56639e-2	8.63435e-2		Benzo(a)pyrene #16
30.646	MM	8.75311e-1	9.44927e-2	8.27106e-2		Dibenz(a,h)anthracene #17

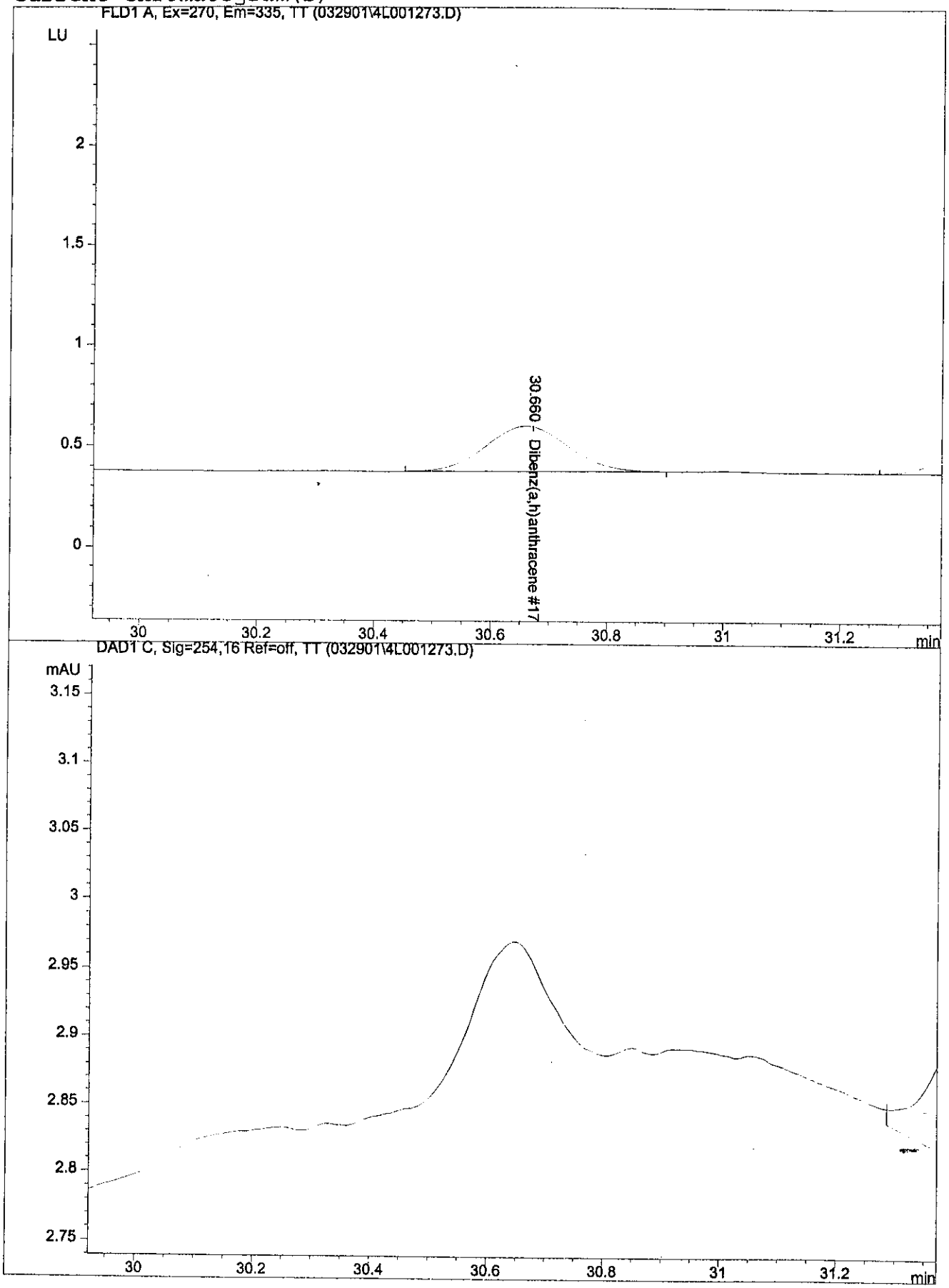
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.460	BB	1.52874	5.64104e-2	8.62369e-2		Benzo(g,h,i)perylene #18
32.389	BB	3.71300	2.06418e-2	7.66432e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.26688

Results obtained with enhanced integrator!

*** End of Report ***

Current Chromatogram(s)



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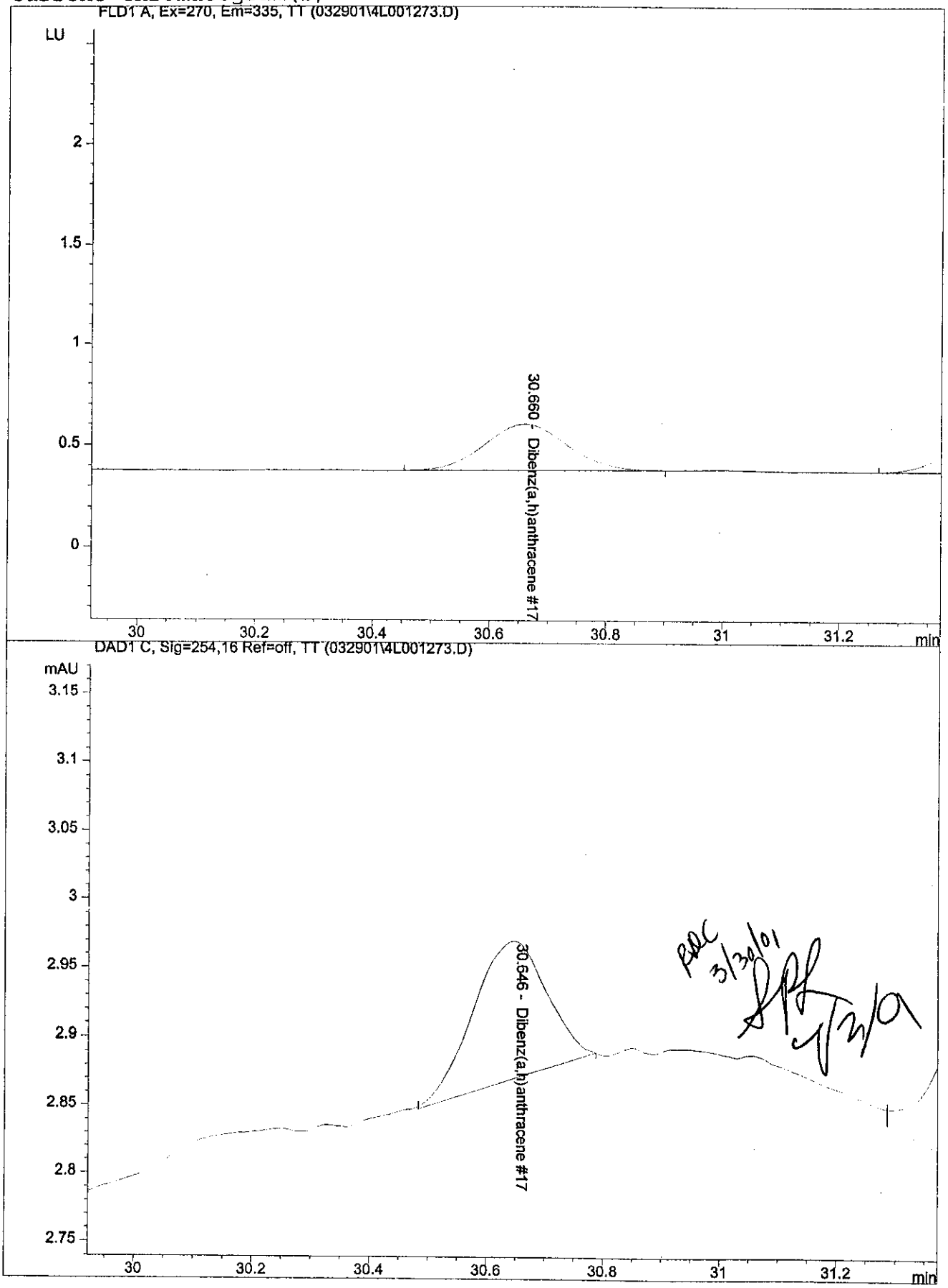
HPLC4 3/30/2001 9:12:17 AM RDC

Current Chromatogram(s)



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Check Standard Report

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Data File C:\HPCHEM\2\DATA\032901\4L001274.D Sample Name: 8310 ALT. ICV
HPLC4 3/30/2001 9:17:42 AM RDC

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Injection Date : 3/29/2001 10:40:35 PM Seq. Line : 9
Sample Name : 8310 ALT. ICV Vial : 9
Acq. Operator : RDC Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.385	20.0	19.417	-2.9
1-Methylnaphthalene #3	11.982	20.0	19.003	-5.0
2-Methylnaphthalene #4	12.566	20.0	18.634	-6.8
Acenaphthene #5	13.048	20.0	20.409	2.0
Fluorene #6	13.714	20.0	20.139	0.7
Phenanthrene #7	15.118	20.0	18.513	-7.4
Anthracene #8	16.544	20.0	20.049	0.2
Fluoranthene #9	17.927	2.0	1.942	-2.9
Pyrene #10	18.943	2.0	1.804	-9.8
p-Terphenyl d14 #11*	21.405	20.0	0.080	-99.6 # NA/ RWC 3/30/01
Benzo(a)anthracene #12	22.641	2.0	1.789	-10.6
Chrysene #13	23.524	2.0	1.849	-7.6
Benzo(b)fluoranthene #14	26.265	2.0	1.912	-4.4
Benzo(k)fluoranthene #15	27.720	1.0	0.867	-13.3
Benzo(a)pyrene #16	28.844	2.0	2.027	1.4
Dibenz(a,h)anthracene #1	30.716	2.0	2.078	3.9
Benzo(g,h,i)perylene #18	31.551	2.0	1.873	-6.4
Indeno(1,2,3-cd)pyrene #	32.469	2.0	1.871	-6.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.366	20.0	20.134	0.7
Acenaphthylene #2	11.009	20.0	18.938	-5.3
1-Methylnaphthalene #3	11.964	20.0	18.956	-5.2
2-Methylnaphthalene #4	12.548	20.0	18.719	-6.4
Acenaphthene #5	13.029	20.0	19.849	-0.8
Fluorene #6	13.695	20.0	19.327	-3.4
Phenanthrene #7	15.100	20.0	18.822	-5.9
Anthracene #8	16.525	20.0	20.553	2.8
Fluoranthene #9	17.908	2.0	1.887	-5.7
Pyrene #10	18.924	2.0	1.832	-8.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.623	2.0	1.785	-10.7
Chrysene #13	23.506	2.0	1.859	-7.1
Benzo(b)fluoranthene #14	26.246	2.0	1.897	-5.2
Benzo(k)fluoranthene #15	27.702	1.0	0.872	-12.8
Benzo(a)pyrene #16	28.825	2.0	1.967	-1.6
Dibenz(a,h)anthracene #1	30.697	2.0	2.161	8.1
Benzo(g,h,i)perylene #18	31.530	2.0	1.830	-8.5
Indeno(1,2,3-cd)pyrene #	32.454	2.0	1.837	-8.1

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= Failed 15.0% Criteria

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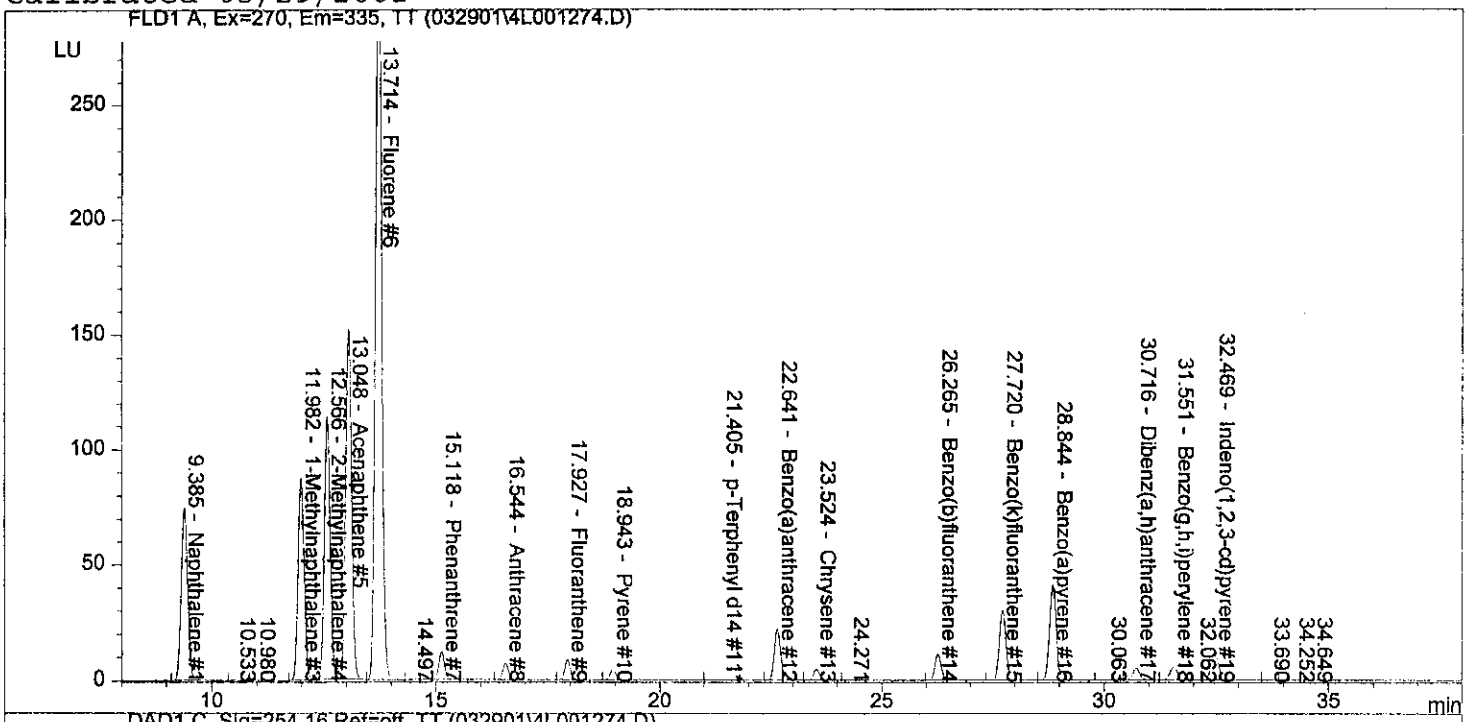
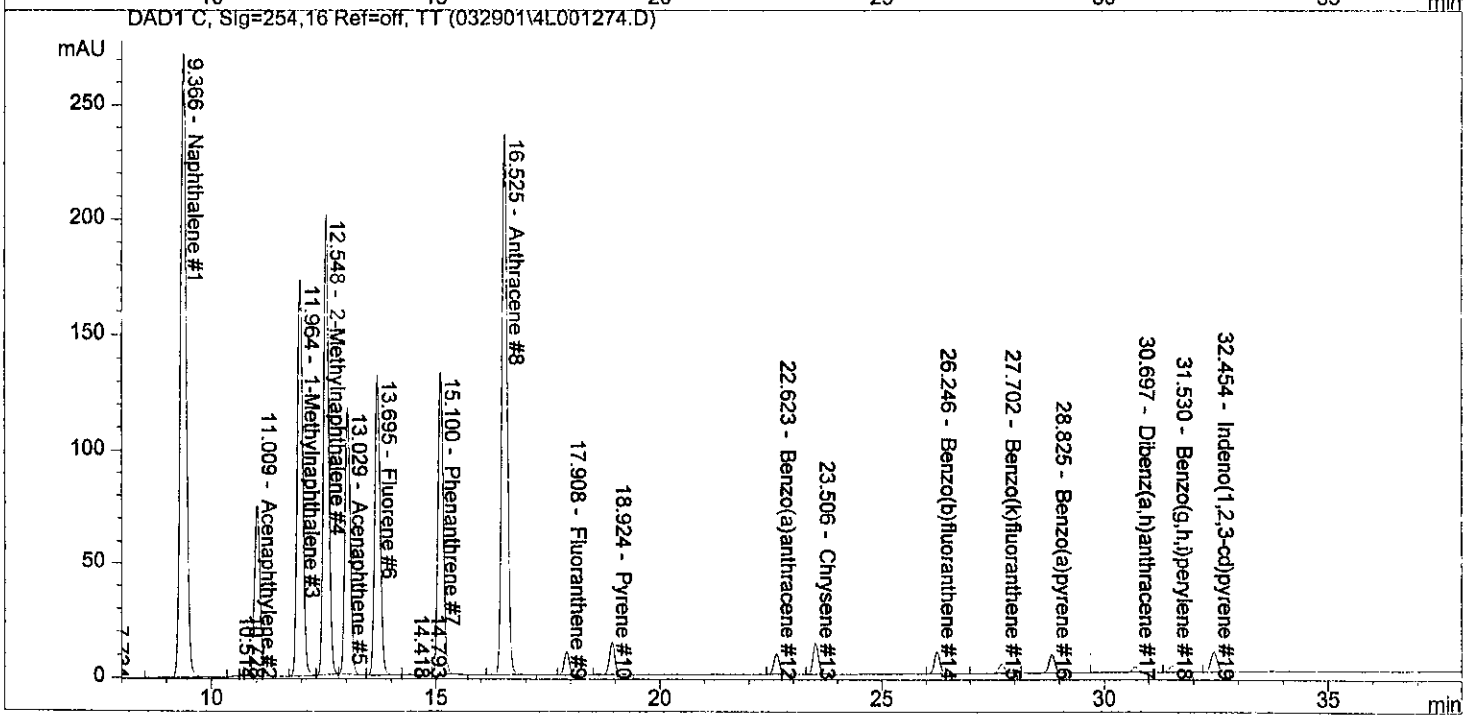
Injection Date : 3/29/2001 10:40:35 PM Seq. Line : 9
Sample Name : 8310 ALT. ICV Vial : 9
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/30/2001 9:16:33 AM by RDC
Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/30/2001 9:15:54 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/L]	Grp	Name
9.385	PBA	726.49060	2.67269e-2	19.41686		Naphthalene #1
11.982	PB	808.03723	2.35177e-2	19.00321		1-Methylnaphthalene #3
12.566	BB	1033.76831	1.80248e-2	18.63350		2-Methylnaphthalene #4
13.048	BB	1396.63745	1.46127e-2	20.40861		Acenaphthene #5
13.714	BB	3043.21191	6.61784e-3	20.13949		Fluorene #6
15.118	BBA	109.52225	1.69032e-1	18.51281		Phenanthrene #7
16.544	BBA	63.59317	3.15277e-1	20.04948		Anthracene #8
17.927	BBA	79.86035	2.43125e-2	1.94161		Fluoranthene #9
18.943	BBA	43.18945	4.17786e-2	1.80439		Pyrene #10
21.405	PBA	2.97507e-1	2.67546e-1	7.95967e-2		p-Terphenyl d14 #11*
22.641	BB	216.65497	8.25659e-3	1.78883		Benzo(a)anthracene #12
23.524	BBA	44.96701	4.11122e-2	1.84869		Chrysene #13
26.265	BBA	115.10066	1.66088e-2	1.91168		Benzo(b)fluoranthene #14
27.720	BB	308.25256	2.81137e-3	8.66613e-1		Benzo(k)fluoranthene #15
28.844	BBA	431.55469	4.69740e-3	2.02718		Benzo(a)pyrene #16
30.716	BB	51.30022	4.05016e-2	2.07774		Dibenz(a,h)anthracene #17
31.551	BB	64.86444	2.88728e-2	1.87282		Benzo(g,h,i)perylene #18
32.469	BB	136.97812	1.36562e-2	1.87061		Indeno(1,2,3-cd)pyrene #1
Totals :				154.25372		

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
9.366	PBA	2437.74463	8.25940e-3	20.13431		Naphthalene #1
11.009	BB	635.38776	2.98051e-2	18.93781		Acenaphthylene #2
11.964	BB	1461.86353	1.29668e-2	18.95573		1-Methylnaphthalene #3
12.548	BB	1661.05115	1.12696e-2	18.71944		2-Methylnaphthalene #4
13.029	BB	975.18750	2.03536e-2	19.84855		Acenaphthene #5
13.695	BB	1093.15015	1.76796e-2	19.32650		Fluorene #6
15.100	BBA	1088.01880	1.72992e-2	18.82185		Phenanthrene #7
16.525	PBA	1978.11877	1.03904e-2	20.55342		Anthracene #8
17.908	PB	86.25272	2.18760e-2	1.88686		Fluoranthene #9
18.924	BBA	126.94397	1.44305e-2	1.83187		Pyrene #10
21.287		-	-	-		p-Terphenyl d14 #11*
22.623	PBA	80.00755	2.23125e-2	1.78517		Benzo(a)anthracene #12
23.506	BBA	122.73787	1.51428e-2	1.85860		Chrysene #13
26.246	BBA	90.88138	2.08700e-2	1.89669		Benzo(b)fluoranthene #14
27.702	PBA	38.32176	2.27668e-2	8.72464e-1		Benzo(k)fluoranthene #15
28.825	BBA	76.65919	2.56639e-2	1.96737		Benzo(a)pyrene #16
30.697	BBA	22.87234	9.44927e-2	2.16127		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.530	PBA	32.43742	5.64104e-2	1.82981		Benzo(g,h,i)perylene #18
32.454	PBA	89.00289	2.06418e-2	1.83718		Indeno(1,2,3-cd)pyrene #1

Totals : 173.22490

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

400

Check Standard Report

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Data File C:\HPCHEM\2\DATA\072601\4L001664.D Sample Name: 8310 CONT CHK
HPLC4 7/26/2001 12:10:44 PM HV

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Injection Date : 7/26/2001 10:35:58 AM Seq. Line : 2
Sample Name : 8310 CONT CHK Vial : 2
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.420	20.0	21.314	6.6
1-Methylnaphthalene #3	12.004	20.0	21.465	7.3
2-Methylnaphthalene #4	12.584	20.0	21.561	7.8
Acenaphthene #5	13.065	20.0	21.598	8.0
Fluorene #6	13.732	20.0	21.004	5.0
Phenanthrene #7	15.135	20.0	20.522	2.6
Anthracene #8	16.559	20.0	20.613	3.1
Fluoranthene #9	17.950	2.0	2.092	4.6
Pyrene #10	18.966	2.0	2.197	9.8
p-Terphenyl d14 #11*	21.336	20.0	17.660	-11.7
Benzo(a)anthracene #12	22.675	2.0	2.053	2.6
Chrysene #13	23.561	2.0	2.064	3.2
Benzo(b)fluoranthene #14	26.309	2.0	2.010	0.5
Benzo(k)fluoranthene #15	27.760	1.0	1.015	1.5
Benzo(a)pyrene #16	28.879	2.0	2.000	0.0
Dibenz(a,h)anthracene #1	30.774	2.0	1.991	-0.5
Benzo(g,h,i)perylene #18	31.597	2.0	2.027	1.3
Indeno(1,2,3-cd)pyrene #	32.504	2.0	1.971	-1.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.405	20.0	21.015	5.1
Acenaphthylene #2	11.037	20.0	19.939	-0.3
1-Methylnaphthalene #3	11.989	20.0	20.173	0.9
2-Methylnaphthalene #4	12.568	20.0	20.525	2.6
Acenaphthene #5	13.049	20.0	20.056	0.3
Fluorene #6	13.716	20.0	20.052	0.3
Phenanthrene #7	15.119	20.0	19.923	-0.4
Anthracene #8	16.543	20.0	20.628	3.1
Fluoranthene #9	17.933	2.0	1.994	-0.3
Pyrene #10	18.949	2.0	2.001	0.0
p-Terphenyl d14 #11*	21.321	20.0	17.625	-11.9
Benzo(a)anthracene #12	22.659	2.0	1.970	-1.5
Chrysene #13	23.546	2.0	1.975	-1.3
Benzo(b)fluoranthene #14	26.293	2.0	1.990	-0.5
Benzo(k)fluoranthene #15	27.744	1.0	1.019	1.9
Benzo(a)pyrene #16	28.863	2.0	1.938	-3.1
Dibenz(a,h)anthracene #1	30.759	2.0	2.005	0.2
Benzo(g,h,i)perylene #18	31.579	2.0	1.988	-0.6
Indeno(1,2,3-cd)pyrene #	32.492	2.0	1.990	-0.5

= Failed 15.0% Criteria

401

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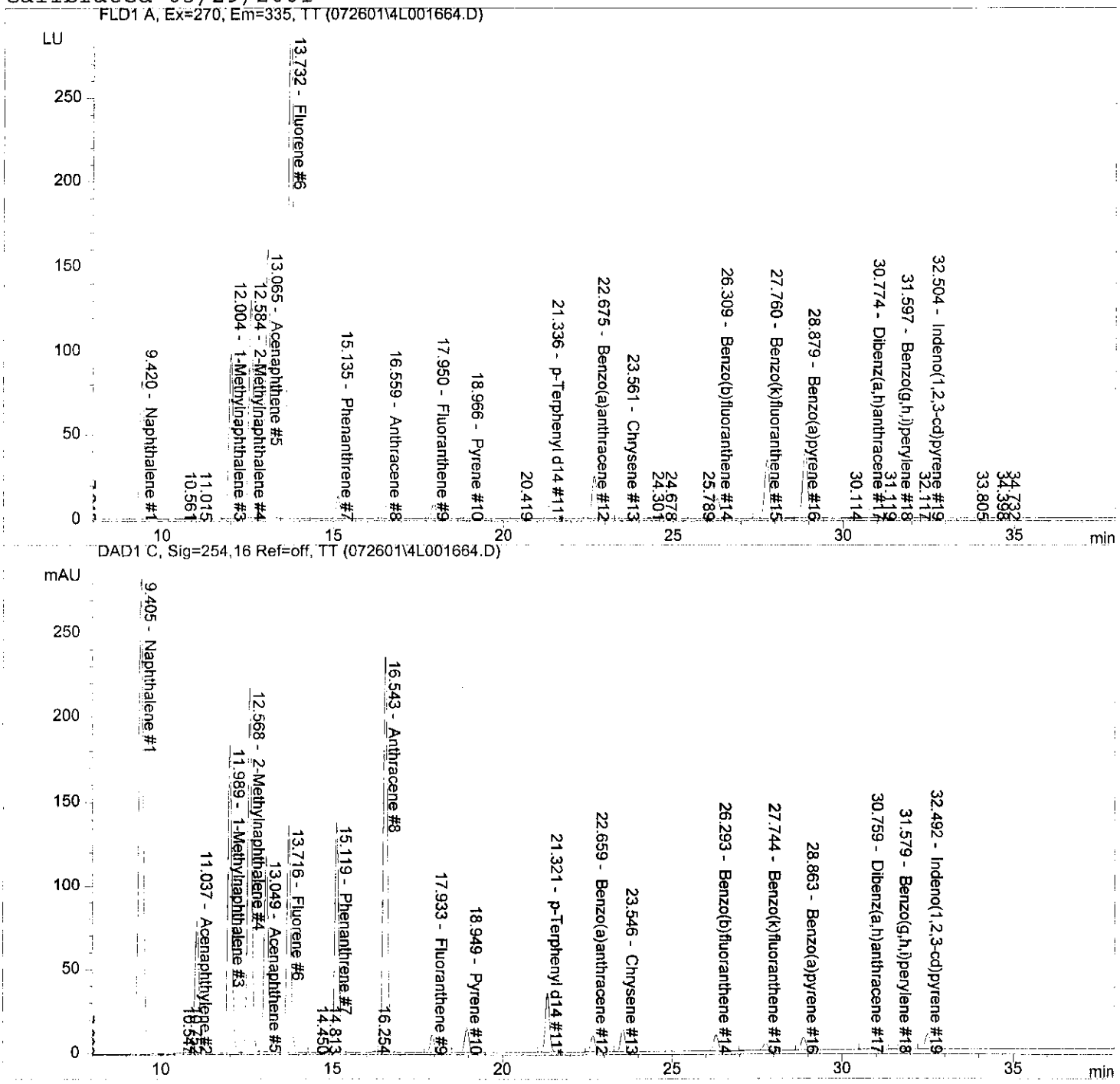
Injection Date	: 7/26/2001 10:35:58 AM	Seq. Line	: 2
Sample Name	: 8310 CONT CHK	Vial	: 2
Acq. Operator	: HV	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 12:09:49 PM by HV
(modified after loading)

Calibrated 03/29/2001



402

External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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	BB	797.46344	2.67269e-2	21.31374		Naphthalene #1
12.004	PB	912.72949	2.35177e-2	21.46534		1-Methylnaphthalene #3
12.584	BB	1196.18872	1.80248e-2	21.56110		2-Methylnaphthalene #4
13.065	BB	1478.01440	1.46127e-2	21.59774		Acenaphthene #5
13.732	BB	3173.80371	6.61784e-3	21.00373		Fluorene #6
15.135	BBA	121.40887	1.69032e-1	20.52203		Phenanthrene #7
16.559	BBA	65.37905	3.15277e-1	20.61253		Anthracene #8
17.950	BBA	86.03503	2.43125e-2	2.09173		Fluoranthene #9
18.966	BBA	52.57509	4.17786e-2	2.19651		Pyrene #10
21.336	BB	66.00628	2.67546e-1	17.65969		p-Terphenyl d14 #11*
22.675	BB	248.61797	8.25659e-3	2.05274		Benzo(a)anthracene #12
23.561	BB	50.21498	4.11122e-2	2.06445		Chrysene #13
26.309	BB	121.01277	1.66088e-2	2.00987		Benzo(b)fluoranthene #14
27.760	BB	361.18085	2.81137e-3	1.01541		Benzo(k)fluoranthene #15
28.879	BB	425.82797	4.69740e-3	2.00028		Benzo(a)pyrene #16
30.774	PB	49.15276	4.05016e-2	1.99077		Dibenz(a,h)anthracene #17
31.597	BB	70.18807	2.88728e-2	2.02653		Benzo(g,h,i)perylene #18
32.504	BBA	144.33148	1.36562e-2	1.97103		Indeno(1,2,3-cd)pyrene #1
Totals :				185.15522		

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
9.405	BBA	2544.40869	8.25940e-3	21.01530		Naphthalene #1
11.037	BBA	668.99249	2.98051e-2	19.93940		Acenaphthylene #2
11.989	PB	1555.74048	1.29668e-2	20.17302		1-Methylnaphthalene #3
12.568	BB	1821.29175	1.12696e-2	20.52529		2-Methylnaphthalene #4
13.049	BB	985.38245	2.03536e-2	20.05605		Acenaphthene #5
13.716	BBA	1134.19861	1.76796e-2	20.05222		Fluorene #6
15.119	BBA	1151.65198	1.72992e-2	19.92265		Phenanthrene #7
16.543	BBA	1985.29358	1.03904e-2	20.62797		Anthracene #8
17.933	BB	91.14313	2.18760e-2	1.99384		Fluoranthene #9
18.949	BBA	138.65382	1.44305e-2	2.00085		Pyrene #10
21.321	PBA	302.83185	5.82010e-2	17.62510		p-Terphenyl d14 #11*
22.659	BBA	88.28001	2.23125e-2	1.96975		Benzo(a)anthracene #12
23.546	BBA	130.39377	1.51428e-2	1.97453		Chrysene #13
26.293	BBA	95.36020	2.08700e-2	1.99017		Benzo(b)fluoranthene #14
27.744	PBA	44.74048	2.27668e-2	1.01860		Benzo(k)fluoranthene #15
28.863	BBA	75.52123	2.56639e-2	1.93817		Benzo(a)pyrene #16
30.759	BBA	21.21718	9.44927e-2	2.00487		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579	PB	35.24740	5.64104e-2	1.98832		Benzo(g,h,i)perylene #18
32.492	BB	96.38657	2.06418e-2	1.98959		Indeno(1,2,3-cd)pyrene #1

Totals : 198.80570

Results obtained with enhanced integrator!

*** End of Report ***

404

Check Standard Report

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Data File C:\HPCHEM\2\DATA\072601\4L001673.D Sample Name: 8310 CONT CHK
HPLC4 7/26/2001 8:24:31 PM HV

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Injection Date : 7/26/2001 7:05:42 PM Seq. Line : 11
Sample Name : 8310 CONT CHK Vial : 12
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.419	20.0	20.460	2.3
1-Methylnaphthalene #3	12.015	20.0	20.694	3.5
2-Methylnaphthalene #4	12.599	20.0	20.825	4.1
Acenaphthene #5	13.082	20.0	21.019	5.1
Fluorene #6	13.749	20.0	20.786	3.9
Phenanthrene #7	15.155	20.0	19.677	-1.6
Anthracene #8	16.579	20.0	20.237	1.2
Fluoranthene #9	17.970	2.0	2.054	2.7
Pyrene #10	18.986	2.0	1.997	-0.2
p-Terphenyl d14 #11*	21.362	20.0	17.503	-12.5
Benzo(a)anthracene #12	22.690	2.0	1.984	-0.8
Chrysene #13	23.572	2.0	1.990	-0.5
Benzo(b)fluoranthene #14	26.311	2.0	1.972	-1.4
Benzo(k)fluoranthene #15	27.756	1.0	1.003	0.3
Benzo(a)pyrene #16	28.873	2.0	1.868	-6.6
Dibenz(a,h)anthracene #1	30.764	2.0	1.927	-3.6
Benzo(g,h,i)perylene #18	31.587	2.0	1.902	-4.9
Indeno(1,2,3-cd)pyrene #	32.490	2.0	1.933	-3.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.403	20.0	21.013	5.1
Acenaphthylene #2	11.045	20.0	19.945	-0.3
1-Methylnaphthalene #3	11.999	20.0	20.213	1.1
2-Methylnaphthalene #4	12.584	20.0	20.547	2.7
Acenaphthene #5	13.066	20.0	20.068	0.3
Fluorene #6	13.733	20.0	20.097	0.5
Phenanthrene #7	15.139	20.0	19.937	-0.3
Anthracene #8	16.563	20.0	20.431	2.2
Fluoranthene #9	17.954	2.0	1.991	-0.4
Pyrene #10	18.969	2.0	2.000	0.0
p-Terphenyl d14 #11*	21.347	20.0	17.631	-11.8
Benzo(a)anthracene #12	22.674	2.0	1.974	-1.3
Chrysene #13	23.557	2.0	1.973	-1.4
Benzo(b)fluoranthene #14	26.295	2.0	1.997	-0.2
Benzo(k)fluoranthene #15	27.740	1.0	0.990	-1.0
Benzo(a)pyrene #16	28.857	2.0	1.854	-7.3
Dibenz(a,h)anthracene #1	30.749	2.0	2.027	1.3
Benzo(g,h,i)perylene #18	31.570	2.0	1.949	-2.6
Indeno(1,2,3-cd)pyrene #	32.477	2.0	1.964	-1.8

= Failed 15.0% Criteria

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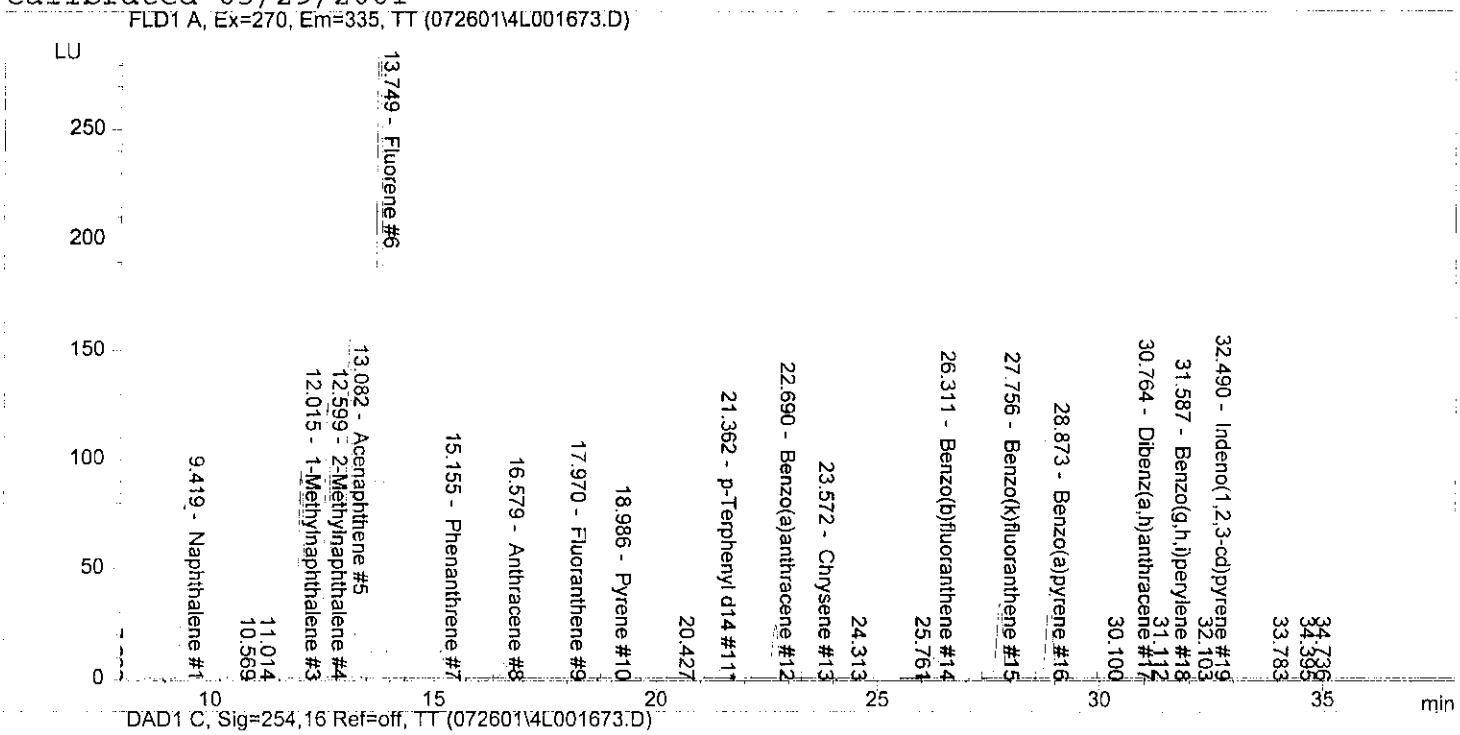
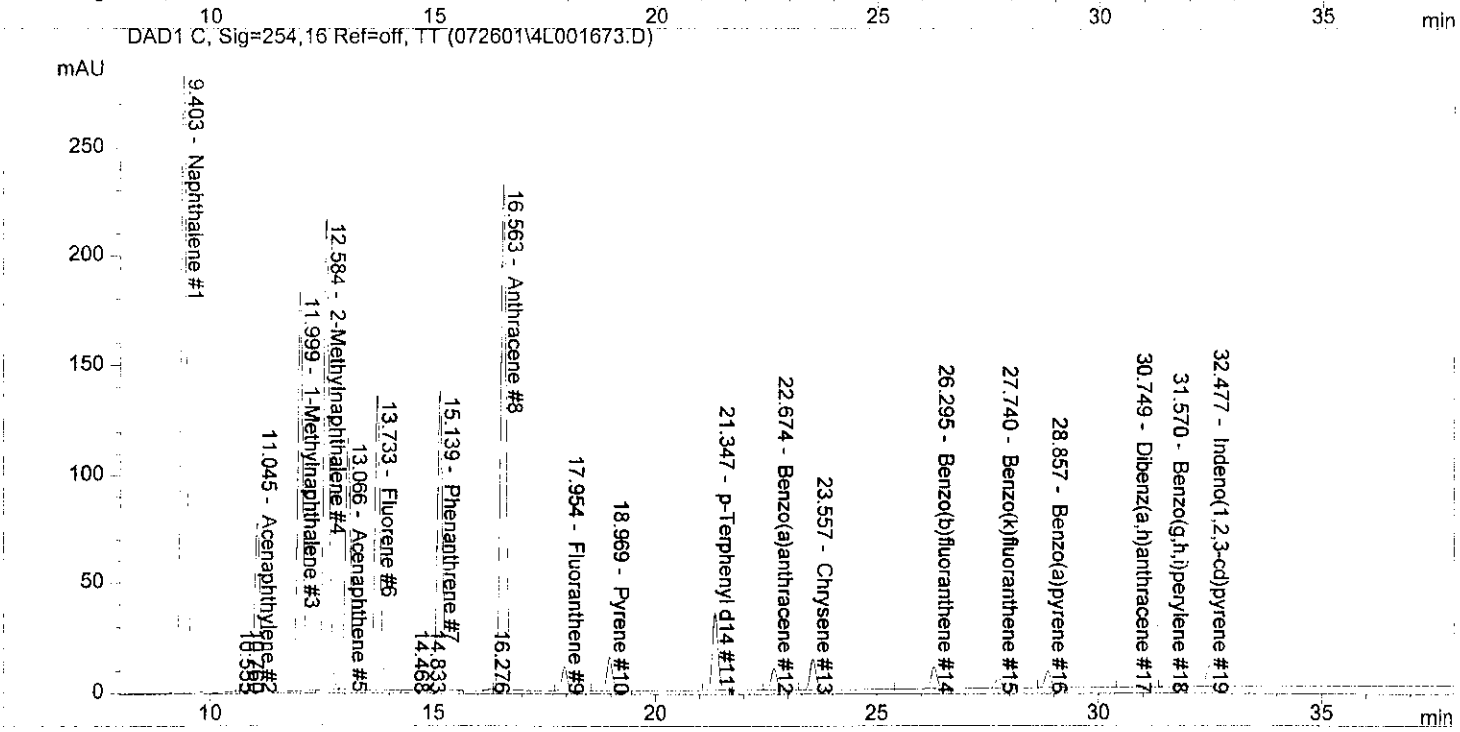
Injection Date : 7/26/2001 7:05:42 PM
Sample Name : 8310 CONT CHK
Acq. Operator : HV

Seq. Line : 11
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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
9.419	PBA	765.53577	2.67269e-2	20.46041		Naphthalene #1
12.015	PB	879.94354	2.35177e-2	20.69429		1-Methylnaphthalene #3
12.599	BB	1155.37244	1.80248e-2	20.82539		2-Methylnaphthalene #4
13.082	BB	1438.38940	1.46127e-2	21.01872		Acenaphthene #5
13.749	BB	3140.91504	6.61784e-3	20.78607		Fluorene #6
15.155	BBA	116.41147	1.69032e-1	19.67731		Phenanthrene #7
16.579	BBA	64.18909	3.15277e-1	20.23737		Anthracene #8
17.970	PBA	84.47453	2.43125e-2	2.05379		Fluoranthene #9
18.986	BBA	47.79123	4.17786e-2	1.99665		Pyrene #10
21.362	BBA	65.42196	2.67546e-1	17.50336		p-Terphenyl d14 #11*
22.690	PB	240.28444	8.25659e-3	1.98393		Benzo(a)anthracene #12
23.572	BBA	48.39407	4.11122e-2	1.98958		Chrysene #13
26.311	BB	118.72867	1.66088e-2	1.97194		Benzo(b)fluoranthene #14
27.756	BB	356.79376	2.81137e-3	1.00308		Benzo(k)fluoranthene #15
28.873	BB	397.75583	4.69740e-3	1.86842		Benzo(a)pyrene #16
30.764	BB	47.58790	4.05016e-2	1.92739		Dibenz(a,h)anthracene #17
31.587	BB	65.85795	2.88728e-2	1.90150		Benzo(g,h,i)perylene #18
32.490	BBA	141.53937	1.36562e-2	1.93290		Indeno(1,2,3-cd)pyrene #1
Totals :				179.83209		

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
9.403	PBA	2544.18091	8.25940e-3	21.01341		Naphthalene #1
11.045	BBA	669.19037	2.98051e-2	19.94530		Acenaphthylene #2
11.999	PB	1558.79956	1.29668e-2	20.21268		1-Methylnaphthalene #3
12.584	BB	1823.24365	1.12696e-2	20.54729		2-Methylnaphthalene #4
13.066	BB	985.94550	2.03536e-2	20.06751		Acenaphthene #5
13.733	BBA	1136.71606	1.76796e-2	20.09673		Fluorene #6
15.139	BBA	1152.50305	1.72992e-2	19.93738		Phenanthrene #7
16.563	BBA	1966.31799	1.03904e-2	20.43081		Anthracene #8
17.954	PB	91.02208	2.18760e-2	1.99120		Fluoranthene #9
18.969	BBA	138.59067	1.44305e-2	1.99993		Pyrene #10
21.347	BBA	302.93921	5.82010e-2	17.63135		p-Terphenyl d14 #11*
22.674	PBA	88.47771	2.23125e-2	1.97416		Benzo(a)anthracene #12
23.557	BBA	130.27693	1.51428e-2	1.97276		Chrysene #13
26.295	BBA	95.68727	2.08700e-2	1.99699		Benzo(b)fluoranthene #14
27.740	BBA	43.48734	2.27668e-2	9.90068e-1		Benzo(k)fluoranthene #15
28.857	BBA	72.24174	2.56639e-2	1.85401		Benzo(a)pyrene #16
30.749	PBA	21.44785	9.44927e-2	2.02667		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.570	PB	34.54530	5.64104e-2	1.94871		Benzo(g,h,i)perylene #18
32.477	BBA	95.16673	2.06418e-2	1.96441		Indeno(1,2,3-cd)pyrene #1

Totals : 198.60138

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\072601\4L001684.D Sample Name: 8310 CCV
HPLC4 7/27/2001 8:19:09 AM HV

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Injection Date : 7/27/2001 5:28:50 AM Seq. Line : 22
Sample Name : 8310 CCV Vial : 23
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.407	20.0	20.858	4.3
1-Methylnaphthalene #3	11.981	20.0	21.082	5.4
2-Methylnaphthalene #4	12.561	20.0	21.227	6.1
Acenaphthene #5	13.037	20.0	21.450	7.2
Fluorene #6	13.702	20.0	21.234	6.2
Phenanthrene #7	15.113	20.0	19.857	-0.7
Anthracene #8	16.543	20.0	20.874	4.4
Fluoranthene #9	17.934	2.0	2.106	5.3
Pyrene #10	18.952	2.0	2.009	0.5
p-Terphenyl d14 #11*	21.335	20.0	17.896	-10.5
Benzo(a)anthracene #12	22.667	2.0	2.016	0.8
Chrysene #13	23.557	2.0	2.008	0.4
Benzo(b)fluoranthene #14	26.303	2.0	2.013	0.6
Benzo(k)fluoranthene #15	27.758	1.0	1.024	2.4
Benzo(a)pyrene #16	28.877	2.0	1.972	-1.4
Dibenz(a,h)anthracene #1	30.778	2.0	1.929	-3.5
Benzo(g,h,i)perylene #18	31.599	2.0	1.925	-3.7
Indeno(1,2,3-cd)pyrene #	32.519	2.0	1.992	-0.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.391	20.0	21.468	7.3
Acenaphthylene #2	11.020	20.0	20.435	2.2
1-Methylnaphthalene #3	11.965	20.0	20.636	3.2
2-Methylnaphthalene #4	12.545	20.0	20.961	4.8
Acenaphthene #5	13.021	20.0	20.512	2.6
Fluorene #6	13.685	20.0	20.497	2.5
Phenanthrene #7	15.097	20.0	20.370	1.9
Anthracene #8	16.527	20.0	21.009	5.0
Fluoranthene #9	17.918	2.0	2.028	1.4
Pyrene #10	18.935	2.0	2.021	1.0
p-Terphenyl d14 #11*	21.319	20.0	17.974	-10.1
Benzo(a)anthracene #12	22.651	2.0	2.023	1.2
Chrysene #13	23.541	2.0	2.018	0.9
Benzo(b)fluoranthene #14	26.287	2.0	2.030	1.5
Benzo(k)fluoranthene #15	27.742	1.0	1.009	0.9
Benzo(a)pyrene #16	28.861	2.0	1.993	-0.3
Dibenz(a,h)anthracene #1	30.762	2.0	2.028	1.4
Benzo(g,h,i)perylene #18	31.582	2.0	2.015	0.8
Indeno(1,2,3-cd)pyrene #	32.507	2.0	1.969	-1.6

= Failed 15.0% Criteria

409

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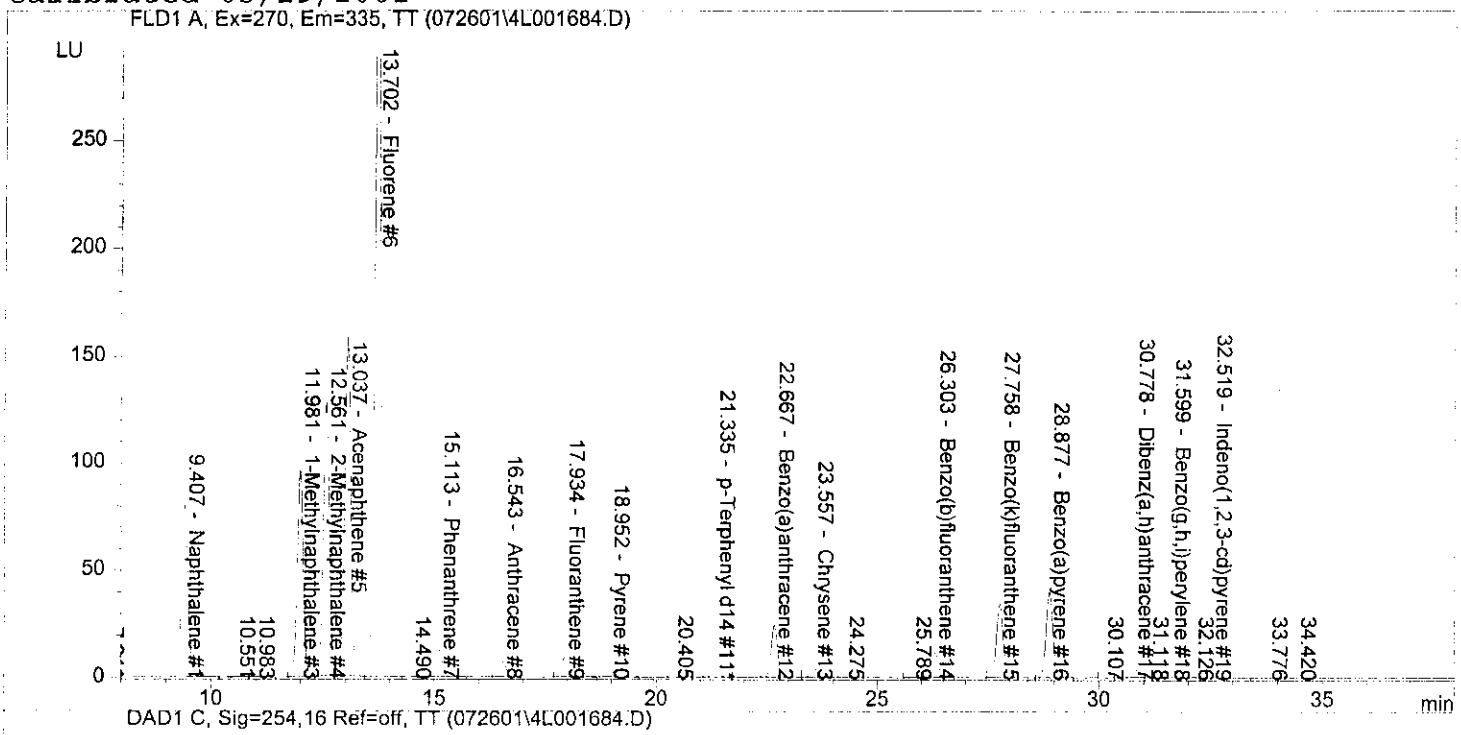
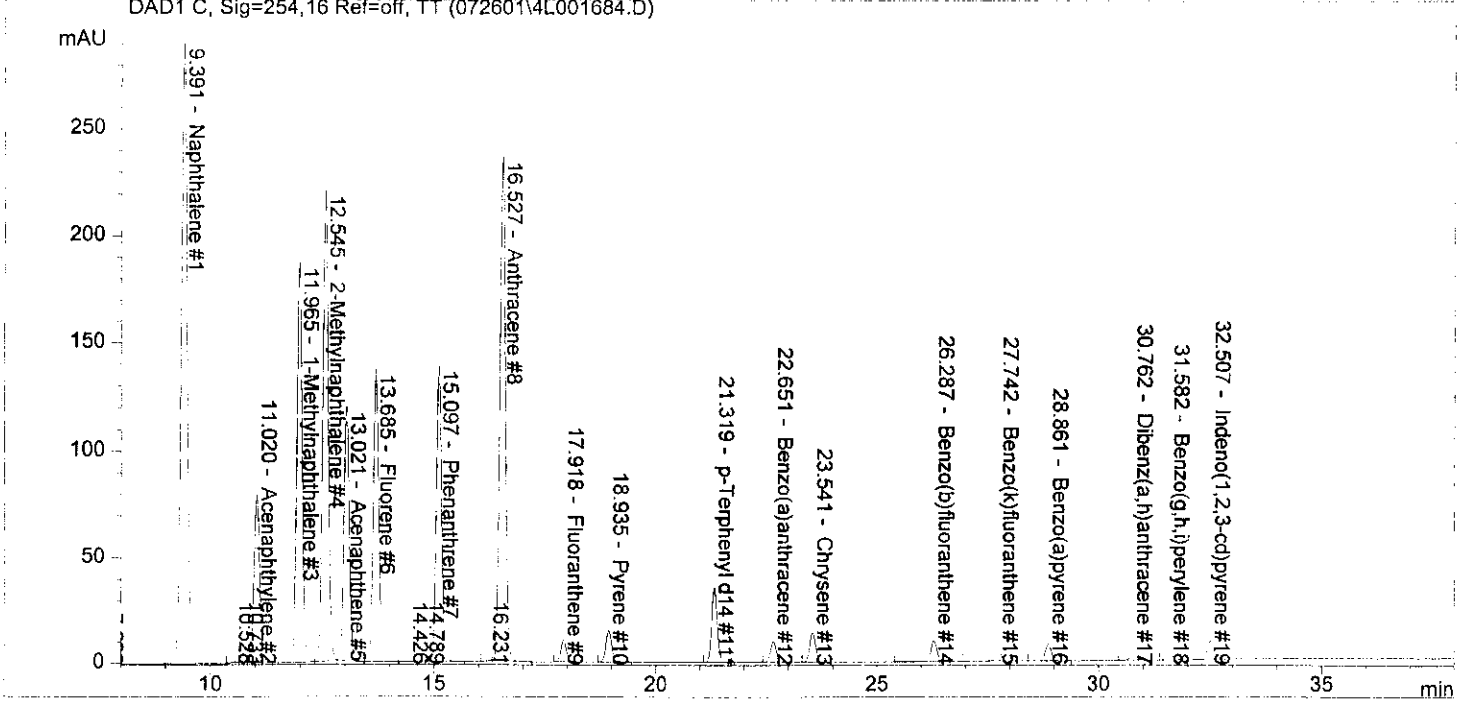
Injection Date : 7/27/2001 5:28:50 AM Seq. Line : 22
Sample Name : 8310 CCV Vial : 23
Acq. Operator : HV Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 4:14:00 PM by HV
(modified after loading)

Calibrated 03/29/2001





410

External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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
9.407	BBA	780.42804	2.67269e-2	20.85844		Naphthalene #1
11.981	PB	896.41913	2.35177e-2	21.08176		1-Methylnaphthalene #3
12.561	BB	1177.63770	1.80248e-2	21.22672		2-Methylnaphthalene #4
13.037	BB	1467.87354	1.46127e-2	21.44956		Acenaphthene #5
13.702	BB	3208.66577	6.61784e-3	21.23444		Fluorene #6
15.113	BBA	117.47443	1.69032e-1	19.85698		Phenanthrene #7
16.543	BBA	66.20974	3.15277e-1	20.87443		Anthracene #8
17.934	BBA	86.62930	2.43125e-2	2.10618		Fluoranthene #9
18.952	BBA	48.09817	4.17786e-2	2.00947		Pyrene #10
21.335	BB	66.88883	2.67546e-1	17.89582		p-Terphenyl d14 #11*
22.667	BB	244.21883	8.25659e-3	2.01641		Benzo(a)anthracene #12
23.557	BBA	48.84391	4.11122e-2	2.00808		Chrysene #13
26.303	BBA	121.17972	1.66088e-2	2.01265		Benzo(b)fluoranthene #14
27.758	BB	364.24893	2.81137e-3	1.02404		Benzo(k)fluoranthene #15
28.877	BB	419.89954	4.69740e-3	1.97244		Benzo(a)pyrene #16
30.778	BB	47.63262	4.05016e-2	1.92920		Dibenz(a,h)anthracene #17
31.599	BB	66.67522	2.88728e-2	1.92510		Benzo(g,h,i)perylene #18
32.519	BBA	145.83691	1.36562e-2	1.99159		Indeno(1,2,3-cd)pyrene #1

Totals : 183.47329

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	BBA	2599.25464	8.25940e-3	21.46829		Naphthalene #1
11.020	BBA	685.63159	2.98051e-2	20.43533		Acenaphthylene #2
11.965	PB	1591.42188	1.29668e-2	20.63569		1-Methylnaphthalene #3
12.545	BB	1859.99573	1.12696e-2	20.96147		2-Methylnaphthalene #4
13.021	BB	1007.77264	2.03536e-2	20.51177		Acenaphthene #5
13.685	BB	1159.34119	1.76796e-2	20.49674		Fluorene #6
15.097	BBA	1177.53308	1.72992e-2	20.37038		Phenanthrene #7
16.527	BBA	2022.00061	1.03904e-2	21.00937		Anthracene #8
17.918	PB	92.71928	2.18760e-2	2.02832		Fluoranthene #9
18.935	BBA	140.02058	1.44305e-2	2.02057		Pyrene #10
21.319	BBA	308.82422	5.82010e-2	17.97387		p-Terphenyl d14 #11*
22.651	BBA	90.66941	2.23125e-2	2.02306		Benzo(a)anthracene #12
23.541	BBA	133.25143	1.51428e-2	2.01780		Chrysene #13
26.287	BBA	97.24809	2.08700e-2	2.02957		Benzo(b)fluoranthene #14
27.742	PB	44.30856	2.27668e-2	1.00876		Benzo(k)fluoranthene #15
28.861	BBA	77.66602	2.56639e-2	1.99321		Benzo(a)pyrene #16
30.762	PBA	21.46556	9.44927e-2	2.02834		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.582	PB	35.72699	5.64104e-2	2.01537		Benzo(g,h,i)perylene #18
32.507	BBA	95.38047	2.06418e-2	1.96883		Indeno(1,2,3-cd)pyrene #1

Totals : 202.99675

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\072601\4L001695.D Sample Name: 8310 CCV
HPLC4 7/27/2001 5:08:53 PM HV

==========

Injection Date : 7/27/2001 3:51:47 PM Seq. Line : 33
Sample Name : 8310 CCV Vial : 34
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.343	20.0	20.414	2.1
1-Methylnaphthalene #3	11.935	20.0	20.610	3.0
2-Methylnaphthalene #4	12.520	20.0	20.752	3.8
Acenaphthene #5	13.006	20.0	21.036	5.2
Fluorene #6	13.674	20.0	20.924	4.6
Phenanthrene #7	15.086	20.0	20.000	0.0
Anthracene #8	16.511	20.0	20.561	2.8
Fluoranthene #9	17.907	2.0	2.060	3.0
Pyrene #10	18.926	2.0	1.971	-1.5
p-Terphenyl d14 #11*	21.309	20.0	17.708	-11.5
Benzo(a)anthracene #12	22.639	2.0	1.985	-0.8
Chrysene #13	23.519	2.0	1.985	-0.8
Benzo(b)fluoranthene #14	26.260	2.0	1.975	-1.3
Benzo(k)fluoranthene #15	27.704	1.0	1.008	0.8
Benzo(a)pyrene #16	28.831	2.0	1.970	-1.5
Dibenz(a,h)anthracene #1	30.712	2.0	1.926	-3.7
Benzo(g,h,i)perylene #18	31.510	2.0	1.898	-5.1
Indeno(1,2,3-cd)pyrene #	32.388	2.0	1.954	-2.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.326	20.0	21.313	6.6
Acenaphthylene #2	10.960	20.0	20.201	1.0
1-Methylnaphthalene #3	11.919	20.0	20.439	2.2
2-Methylnaphthalene #4	12.504	20.0	20.776	3.9
Acenaphthene #5	12.989	20.0	20.314	1.6
Fluorene #6	13.657	20.0	20.367	1.8
Phenanthrene #7	15.069	20.0	20.193	1.0
Anthracene #8	16.494	20.0	20.857	4.3
Fluoranthene #9	17.890	2.0	2.013	0.6
Pyrene #10	18.908	2.0	2.010	0.5
p-Terphenyl d14 #11*	21.292	20.0	17.808	-11.0
Benzo(a)anthracene #12	22.622	2.0	2.007	0.4
Chrysene #13	23.502	2.0	1.984	-0.8
Benzo(b)fluoranthene #14	26.243	2.0	2.043	2.1
Benzo(k)fluoranthene #15	27.687	1.0	1.019	1.9
Benzo(a)pyrene #16	28.814	2.0	1.986	-0.7
Dibenz(a,h)anthracene #1	30.696	2.0	2.019	0.9
Benzo(g,h,i)perylene #18	31.492	2.0	1.841	-7.9
Indeno(1,2,3-cd)pyrene #	32.372	2.0	1.951	-2.5

= Failed 15.0% Criteria

413

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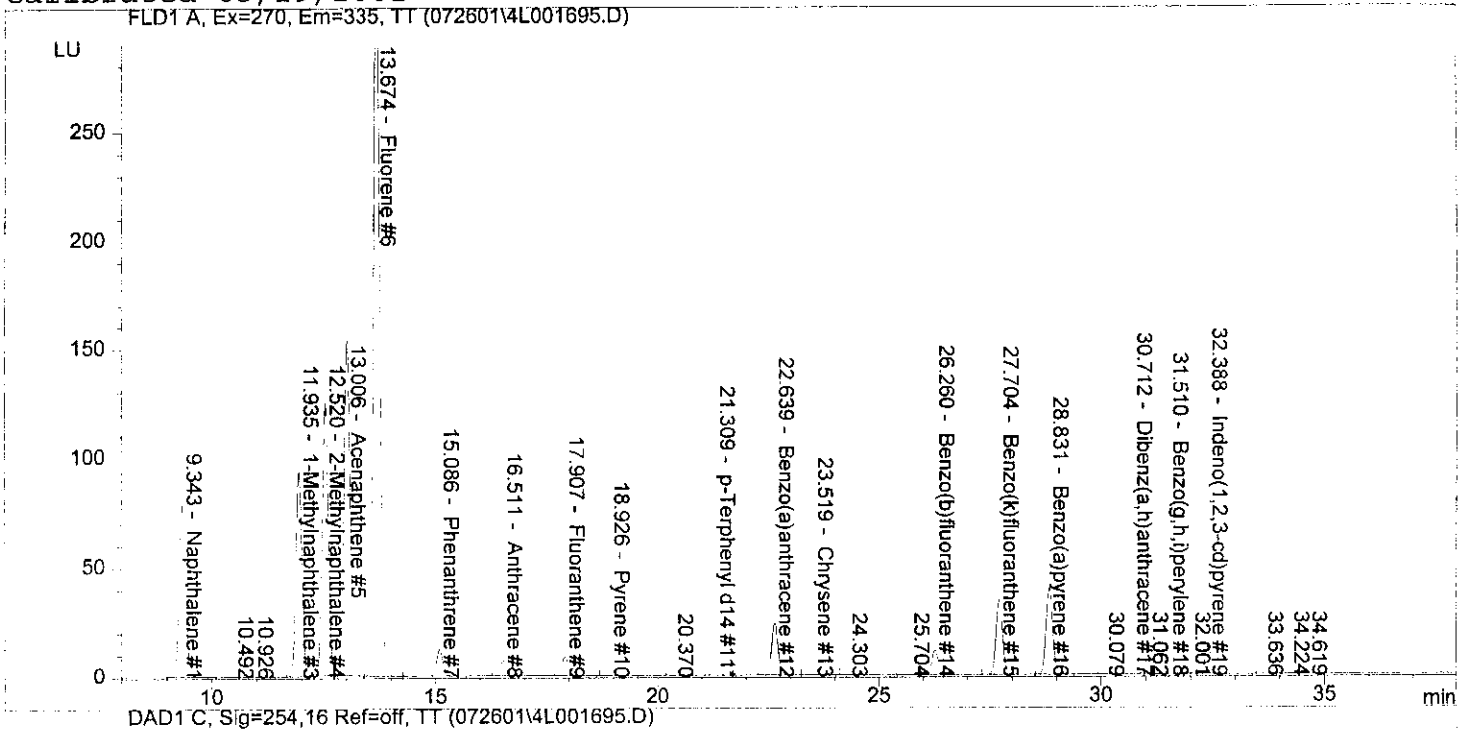
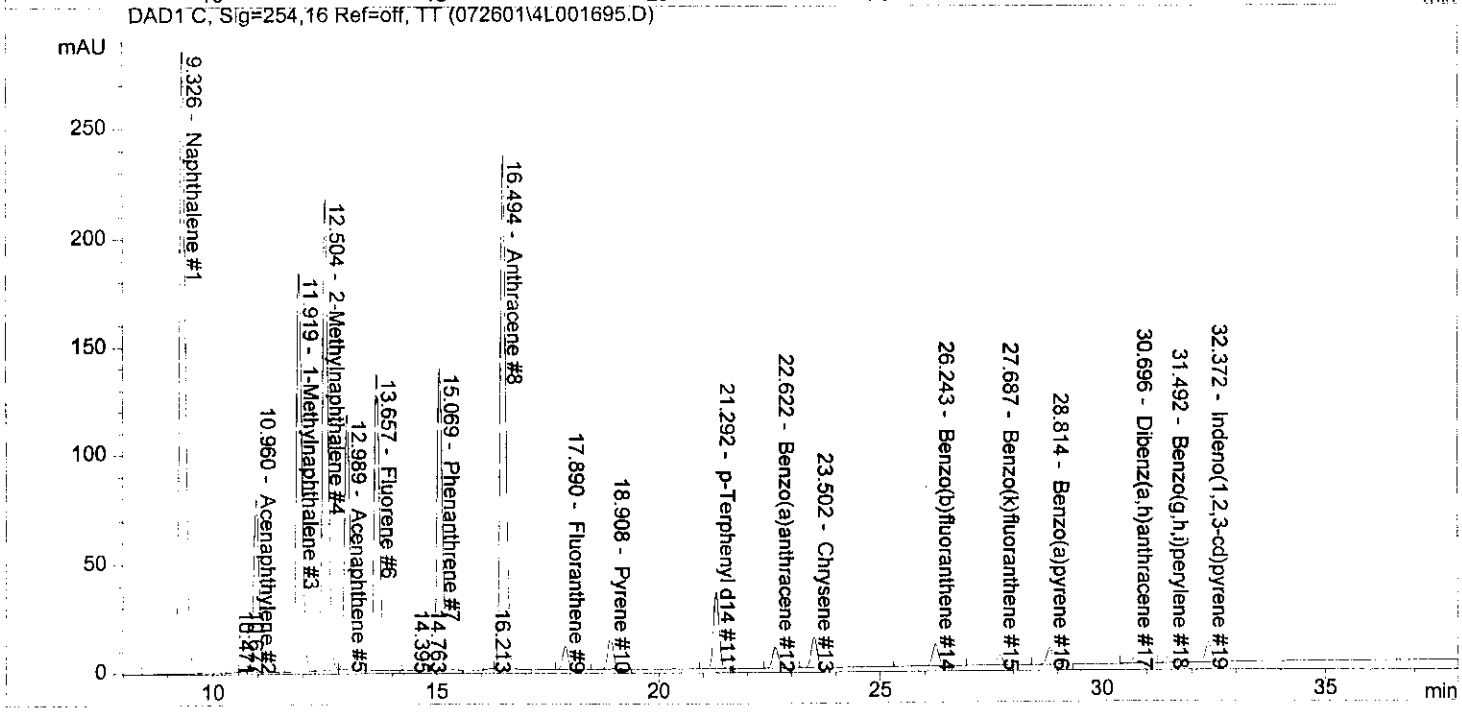
Injection Date : 7/27/2001 3:51:47 PM
Sample Name : 8310 CCV
Acq. Operator : HV

Seq. Line : 33
Vial : 34
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/27/2001 5:08:39 PM by HV
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 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
9.343	PBA	763.81604	2.67269e-2	20.41445		Naphthalene #1
11.935	PB	876.35437	2.35177e-2	20.60988		1-Methylnaphthalene #3
12.520	BB	1151.27649	1.80248e-2	20.75156		2-Methylnaphthalene #4
13.006	BB	1439.57996	1.46127e-2	21.03611		Acenaphthene #5
13.674	BB	3161.81177	6.61784e-3	20.92437		Fluorene #6
15.086	BBA	118.32048	1.69032e-1	19.99999		Phenanthrene #7
16.511	BBA	65.21551	3.15277e-1	20.56097		Anthracene #8
17.907	BBA	84.74957	2.43125e-2	2.06048		Fluoranthene #9
18.926	BBA	47.17680	4.17786e-2	1.97098		Pyrene #10
21.309	PBA	66.18810	2.67546e-1	17.70834		p-Terphenyl d14 #11*
22.639	BB	240.36804	8.25659e-3	1.98462		Benzo(a)anthracene #12
23.519	BBA	48.27126	4.11122e-2	1.98454		Chrysene #13
26.260	BB	118.90140	1.66088e-2	1.97481		Benzo(b)fluoranthene #14
27.704	BB	358.52814	2.81137e-3	1.00796		Benzo(k)fluoranthene #15
28.831	BB	419.43149	4.69740e-3	1.97024		Benzo(a)pyrene #16
30.712	BB	47.55166	4.05016e-2	1.92592		Dibenz(a,h)anthracene #17
31.510	BB	65.73357	2.88728e-2	1.89791		Benzo(g,h,i)perylene #18
32.388	BBA	143.09431	1.36562e-2	1.95413		Indeno(1,2,3-cd)pyrene #1

Totals : 180.73725

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
9.326	PBA	2580.42798	8.25940e-3	21.31279		Naphthalene #1
10.960	BBA	677.75580	2.98051e-2	20.20059		Acenaphthylene #2
11.919	PB	1576.25073	1.29668e-2	20.43897		1-Methylnaphthalene #3
12.504	BB	1843.54993	1.12696e-2	20.77614		2-Methylnaphthalene #4
12.989	BB	998.03619	2.03536e-2	20.31360		Acenaphthene #5
13.657	BBA	1151.99390	1.76796e-2	20.36684		Fluorene #6
15.069	BBA	1167.27979	1.72992e-2	20.19300		Phenanthrene #7
16.494	BBA	2007.34009	1.03904e-2	20.85704		Anthracene #8
17.890	PB	91.99670	2.18760e-2	2.01252		Fluoranthene #9
18.908	BBA	139.31909	1.44305e-2	2.01045		Pyrene #10
21.292	PBA	305.97354	5.82010e-2	17.80795		p-Terphenyl d14 #11*
22.622	PBA	89.95132	2.23125e-2	2.00704		Benzo(a)anthracene #12
23.502	BBA	131.04150	1.51428e-2	1.98434		Chrysene #13
26.243	BBA	97.88385	2.08700e-2	2.04284		Benzo(b)fluoranthene #14
27.687	PB	44.77480	2.27668e-2	1.01938		Benzo(k)fluoranthene #15
28.814	BBA	77.37869	2.56639e-2	1.98584		Benzo(a)pyrene #16
30.696	PB	21.36329	9.44927e-2	2.01868		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.492	BB	32.64344	5.64104e-2	1.84143		Benzo(g,h,i)perylene #18
32.372	BB	94.51079	2.06418e-2	1.95088		Indeno(1,2,3-cd)pyrene #1

Totals : 201.14030

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\072601\4L001704.D Sample Name: 8310 CONT CHK
HPLC4 7/30/2001 11:38:08 AM HV

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Injection Date : 7/28/2001 12:34:10 AM Seq. Line : 42
Sample Name : 8310 CONT CHK Vial : 43
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.388	20.0	20.927	4.6
1-Methylnaphthalene #3	11.981	20.0	21.191	6.0
2-Methylnaphthalene #4	12.564	20.0	21.367	6.8
Acenaphthene #5	13.045	20.0	21.589	7.9
Fluorene #6	13.711	20.0	21.329	6.6
Phenanthrene #7	15.116	20.0	20.452	2.3
Anthracene #8	16.540	20.0	20.993	5.0
Fluoranthene #9	17.930	2.0	2.116	5.8
Pyrene #10	18.948	2.0	2.022	1.1
p-Terphenyl d14 #11*	21.331	20.0	18.003	-10.0
Benzo(a)anthracene #12	22.666	2.0	2.025	1.2
Chrysene #13	23.559	2.0	2.015	0.7
Benzo(b)fluoranthene #14	26.318	2.0	2.022	1.1
Benzo(k)fluoranthene #15	27.784	1.0	1.030	3.0
Benzo(a)pyrene #16	28.912	2.0	1.987	-0.6
Dibenz(a,h)anthracene #1	30.808	2.0	1.948	-2.6
Benzo(g,h,i)perylene #18	31.638	2.0	1.924	-3.8
Indeno(1,2,3-cd)pyrene #	32.552	2.0	1.995	-0.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.367	20.0	21.556	7.8
Acenaphthylene #2	11.008	20.0	20.556	2.8
1-Methylnaphthalene #3	11.960	20.0	20.789	3.9
2-Methylnaphthalene #4	12.543	20.0	21.127	5.6
Acenaphthene #5	13.024	20.0	20.666	3.3
Fluorene #6	13.689	20.0	20.659	3.3
Phenanthrene #7	15.094	20.0	20.537	2.7
Anthracene #8	16.519	20.0	21.095	5.5
Fluoranthene #9	17.908	2.0	2.046	2.3
Pyrene #10	18.926	2.0	2.036	1.8
p-Terphenyl d14 #11*	21.310	20.0	18.116	-9.4
Benzo(a)anthracene #12	22.645	2.0	2.030	1.5
Chrysene #13	23.539	2.0	2.031	1.6
Benzo(b)fluoranthene #14	26.297	2.0	2.043	2.2
Benzo(k)fluoranthene #15	27.762	1.0	1.012	1.2
Benzo(a)pyrene #16	28.891	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.787	2.0	2.024	1.2
Benzo(g,h,i)perylene #18	31.615	2.0	2.027	1.3
Indeno(1,2,3-cd)pyrene #	32.535	2.0	1.998	-0.1

= Failed 15.0% Criteria

417

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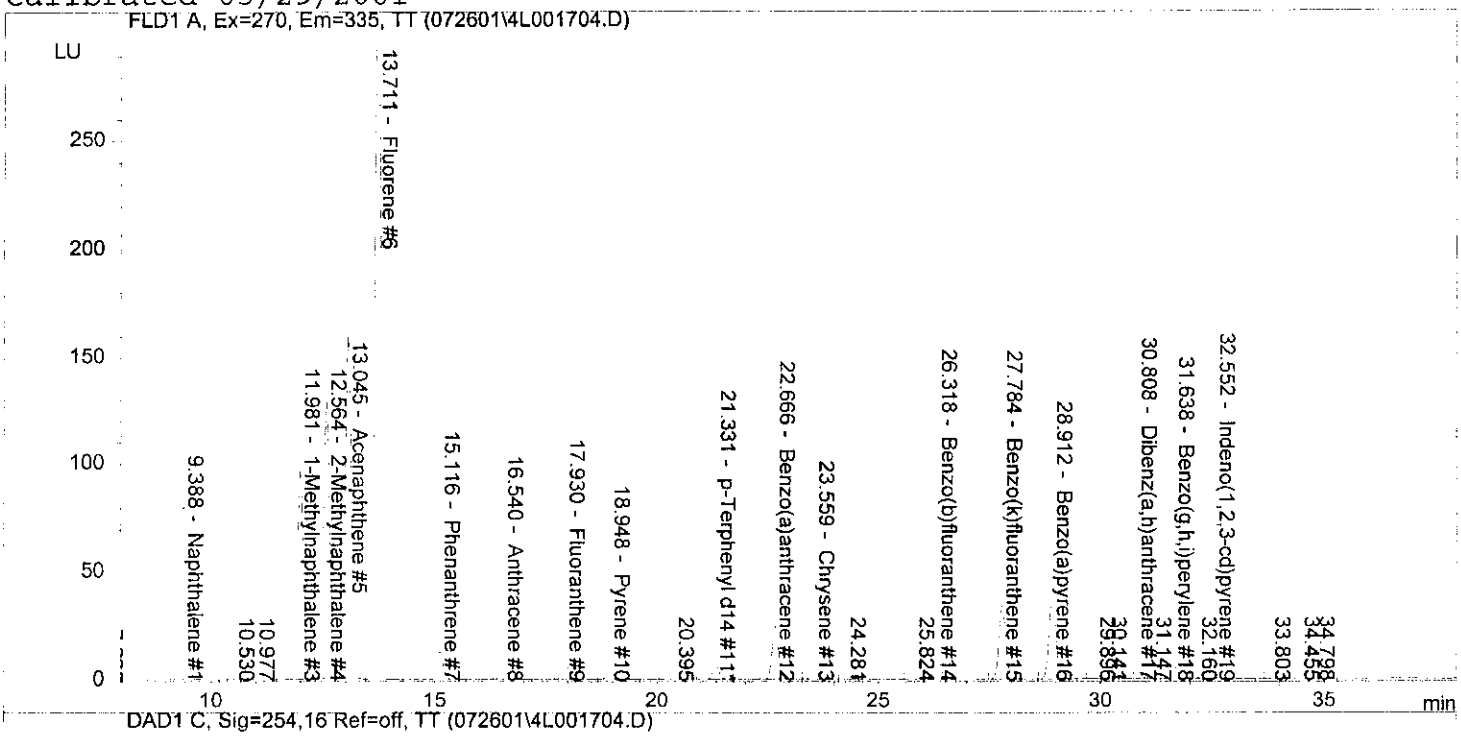
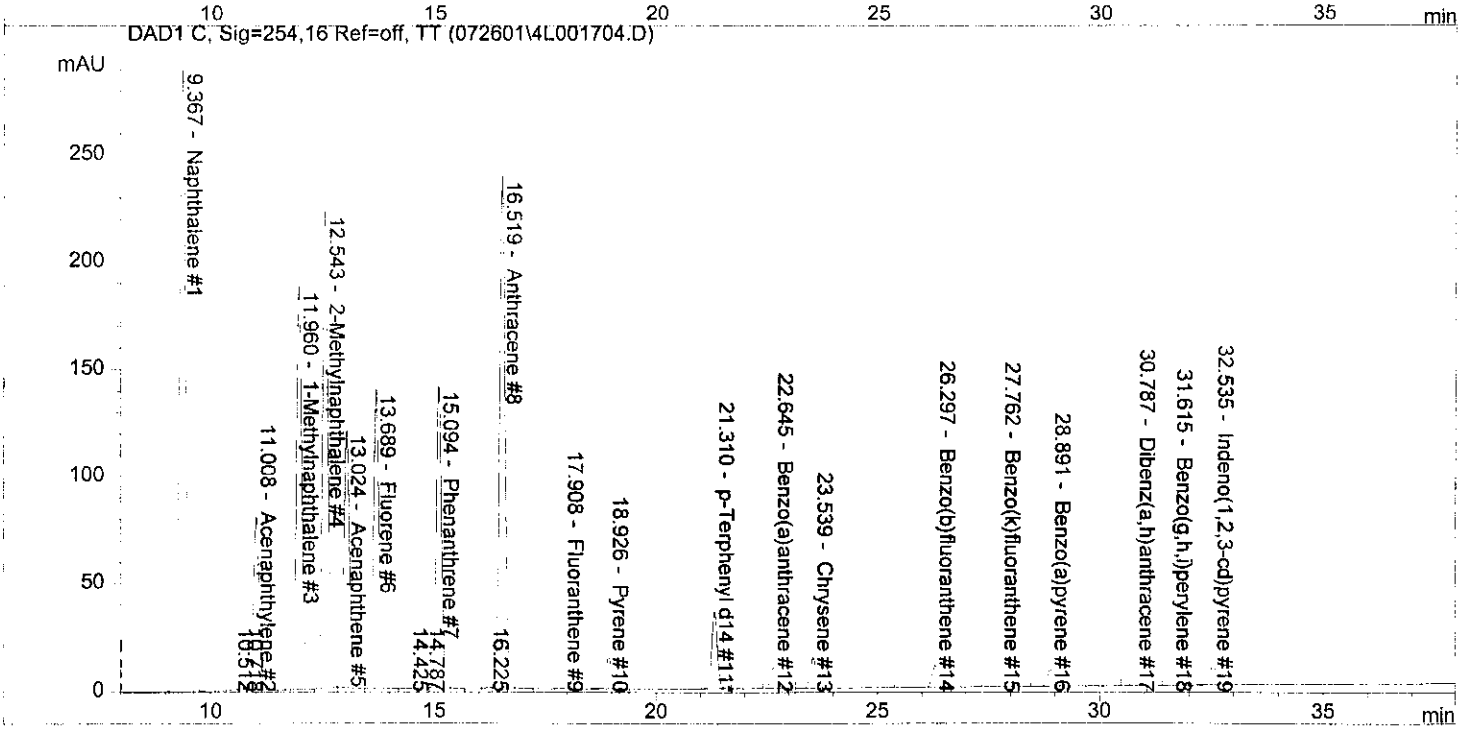
Injection Date : 7/28/2001 12:34:10 AM Seq. Line : 42
Sample Name : 8310 CONT CHK Vial : 43
Acq. Operator : HV Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 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
9.388	PBA	782.97797	2.67269e-2	20.92659		Naphthalene #1
11.981	BB	901.06012	2.35177e-2	21.19090		1-Methylnaphthalene #3
12.564	BB	1185.43823	1.80248e-2	21.36732		2-Methylnaphthalene #4
13.045	BB	1477.40405	1.46127e-2	21.58883		Acenaphthene #5
13.711	BB	3223.02197	6.61784e-3	21.32945		Fluorene #6
15.116	BBA	120.99575	1.69032e-1	20.45220		Phenanthrene #7
16.540	BBA	66.58572	3.15277e-1	20.99297		Anthracene #8
17.930	BB	87.01949	2.43125e-2	2.11566		Fluoranthene #9
18.948	BBA	48.39399	4.17786e-2	2.02183		Pyrene #10
21.331	BBA	67.28905	2.67546e-1	18.00290		p-Terphenyl d14 #11*
22.666	BB	245.22316	8.25659e-3	2.02471		Benzo(a)anthracene #12
23.559	BB	49.00494	4.11122e-2	2.01470		Chrysene #13
26.318	BB	121.73554	1.66088e-2	2.02188		Benzo(b)fluoranthene #14
27.784	BB	366.26123	2.81137e-3	1.02970		Benzo(k)fluoranthene #15
28.912	BB	423.05563	4.69740e-3	1.98726		Benzo(a)pyrene #16
30.808	BB	48.08898	4.05016e-2	1.94768		Dibenz(a,h)anthracene #17
31.638	BB	66.62629	2.88728e-2	1.92369		Benzo(g,h,i)perylene #18
32.552	BBA	146.06363	1.36562e-2	1.99468		Indeno(1,2,3-cd)pyrene #1

Totals : 184.93294

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
9.367	BBA	2609.81787	8.25940e-3	21.55554		Naphthalene #1
11.008	BBA	689.68127	2.98051e-2	20.55603		Acenaphthylene #2
11.960	PB	1603.26025	1.29668e-2	20.78920		1-Methylnaphthalene #3
12.543	BB	1874.65479	1.12696e-2	21.12668		2-Methylnaphthalene #4
13.024	BB	1015.37256	2.03536e-2	20.66646		Acenaphthene #5
13.689	BBA	1168.50342	1.76796e-2	20.65872		Fluorene #6
15.094	BBA	1187.17261	1.72992e-2	20.53713		Phenanthrene #7
16.519	BBA	2030.24573	1.03904e-2	21.09504		Anthracene #8
17.908	PB	93.53982	2.18760e-2	2.04627		Fluoranthene #9
18.926	BBA	141.09065	1.44305e-2	2.03601		Pyrene #10
21.310	PBA	311.27225	5.82010e-2	18.11634		p-Terphenyl d14 #11*
22.645	BBA	90.98862	2.23125e-2	2.03019		Benzo(a)anthracene #12
23.539	BBA	134.13242	1.51428e-2	2.03114		Chrysene #13
26.297	BBA	97.89254	2.08700e-2	2.04302		Benzo(b)fluoranthene #14
27.762	BB	44.47137	2.27668e-2	1.01247		Benzo(k)fluoranthene #15
28.891	BBA	77.12421	2.56639e-2	1.97931		Benzo(a)pyrene #16
30.787	BBA	21.42149	9.44927e-2	2.02418		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.615	PB	35.93034	5.64104e-2	2.02685		Benzo(g,h,i)perylene #18
32.535	BB	96.78496	2.06418e-2	1.99782		Indeno(1,2,3-cd)pyrene #1

Totals : 204.32838

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\072601\4L001708.D Sample Name: 8310 CONT CHK
HPLC4 7/30/2001 11:40:09 AM HV

==========

Injection Date : 7/28/2001 4:20:52 AM Seq. Line : 46
Sample Name : 8310 CONT CHK Vial : 43
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.365	20.0	20.882	4.4
1-Methylnaphthalene #3	11.947	20.0	21.167	5.8
2-Methylnaphthalene #4	12.531	20.0	21.340	6.7
Acenaphthene #5	13.013	20.0	21.568	7.8
Fluorene #6	13.682	20.0	21.373	6.9
Phenanthrene #7	15.092	20.0	19.921	-0.4
Anthracene #8	16.523	20.0	20.928	4.6
Fluoranthene #9	17.918	2.0	2.119	6.0
Pyrene #10	18.938	2.0	2.000	0.0
p-Terphenyl d14 #11*	21.329	20.0	18.064	-9.7
Benzo(a)anthracene #12	22.665	2.0	2.023	1.2
Chrysene #13	23.563	2.0	2.006	0.3
Benzo(b)fluoranthene #14	26.333	2.0	2.019	0.9
Benzo(k)fluoranthene #15	27.802	1.0	1.029	2.9
Benzo(a)pyrene #16	28.932	2.0	1.965	-1.7
Dibenz(a,h)anthracene #1	30.836	2.0	1.917	-4.1
Benzo(g,h,i)perylene #18	31.668	2.0	1.892	-5.4
Indeno(1,2,3-cd)pyrene #	32.583	2.0	1.992	-0.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.349	20.0	21.577	7.9
Acenaphthylene #2	10.976	20.0	20.572	2.9
1-Methylnaphthalene #3	11.931	20.0	20.795	4.0
2-Methylnaphthalene #4	12.515	20.0	21.142	5.7
Acenaphthene #5	12.997	20.0	20.685	3.4
Fluorene #6	13.665	20.0	20.673	3.4
Phenanthrene #7	15.075	20.0	20.567	2.8
Anthracene #8	16.506	20.0	21.132	5.7
Fluoranthene #9	17.901	2.0	2.049	2.5
Pyrene #10	18.921	2.0	2.037	1.9
p-Terphenyl d14 #11*	21.313	20.0	18.142	-9.3
Benzo(a)anthracene #12	22.649	2.0	2.037	1.8
Chrysene #13	23.547	2.0	2.035	1.7
Benzo(b)fluoranthene #14	26.316	2.0	2.039	1.9
Benzo(k)fluoranthene #15	27.785	1.0	1.020	2.0
Benzo(a)pyrene #16	28.915	2.0	1.977	-1.1
Dibenz(a,h)anthracene #1	30.820	2.0	2.055	2.7
Benzo(g,h,i)perylene #18	31.653	2.0	2.068	3.4
Indeno(1,2,3-cd)pyrene #	32.570	2.0	2.001	0.1

= Failed 15.0% Criteria

421

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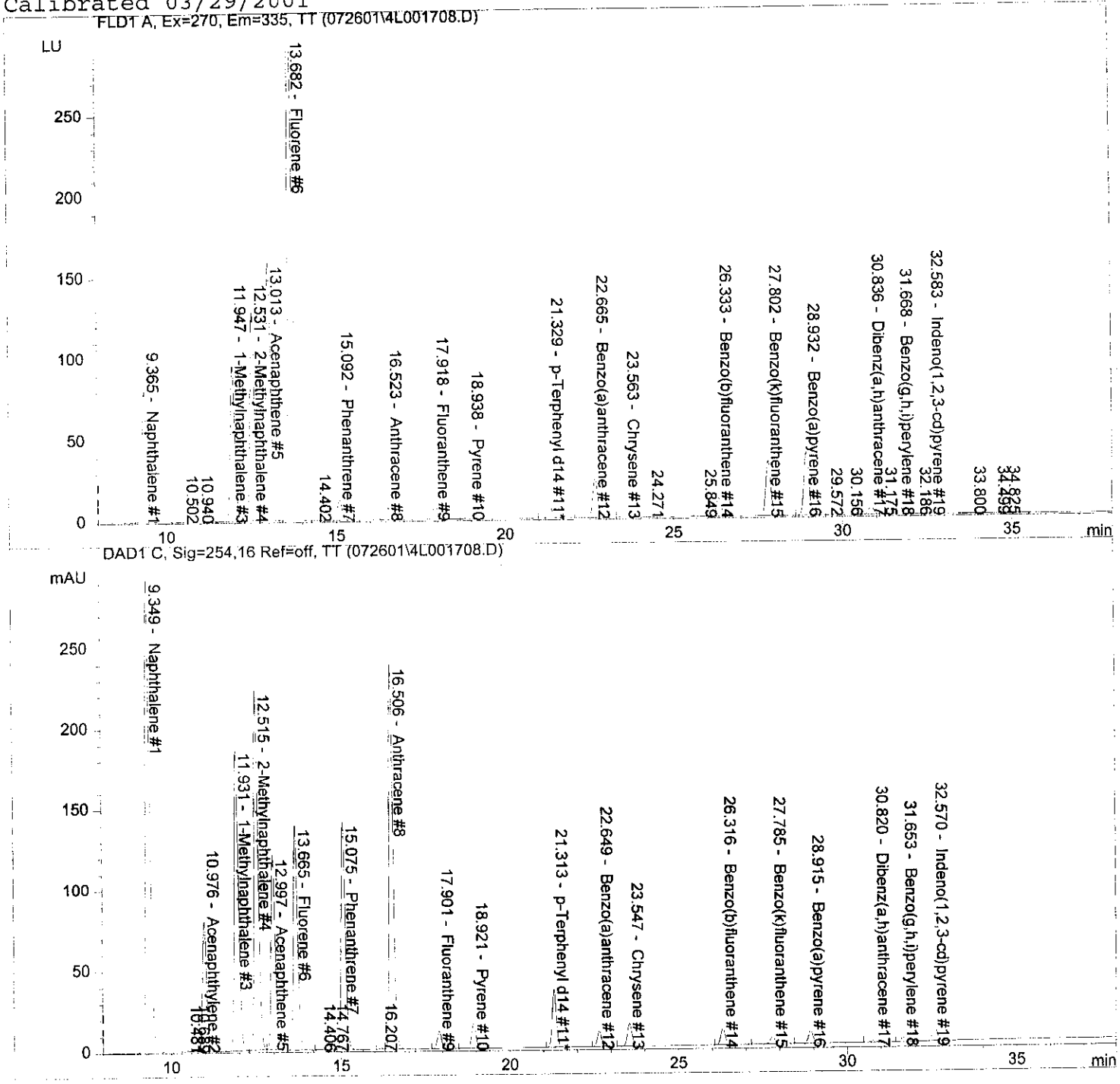
Injection Date : 7/28/2001 4:20:52 AM
Sample Name : 8310 CONT CHK
Acq. Operator : HV

Seq. Line : 46
Vial : 43
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 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
9.365	BBA	781.29504	2.67269e-2	20.88161		Naphthalene #1
11.947	BB	900.02960	2.35177e-2	21.16667		1-Methylnaphthalene #3
12.531	BB	1183.92969	1.80248e-2	21.34013		2-Methylnaphthalene #4
13.013	BB	1475.98181	1.46127e-2	21.56804		Acenaphthene #5
13.682	BB	3229.60986	6.61784e-3	21.37304		Fluorene #6
15.092	BBA	117.85496	1.69032e-1	19.92130		Phenanthrene #7
16.523	BBA	66.38117	3.15277e-1	20.92848		Anthracene #8
17.918	BB	87.16557	2.43125e-2	2.11922		Fluoranthene #9
18.938	BBA	47.87244	4.17786e-2	2.00004		Pyrene #10
21.329	BB	67.51705	2.67546e-1	18.06389		p-Terphenyl d14 #11*
22.665	BB	245.02884	8.25659e-3	2.02310		Benzo(a)anthracene #12
23.563	BBA	48.80015	4.11122e-2	2.00628		Chrysene #13
26.333	BBA	121.55168	1.66088e-2	2.01882		Benzo(b)fluoranthene #14
27.802	PB	365.98538	2.81137e-3	1.02892		Benzo(k)fluoranthene #15
28.932	BB	418.32181	4.69740e-3	1.96502		Benzo(a)pyrene #16
30.836	BB	47.33158	4.05016e-2	1.91701		Dibenz(a,h)anthracene #17
31.668	BB	65.53030	2.88728e-2	1.89204		Benzo(g,h,i)perylene #18
32.583	BB	145.90170	1.36562e-2	1.99247		Indeno(1,2,3-cd)pyrene #1

Totals : 184.20610

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
9.349	BBA	2612.36011	8.25940e-3	21.57653		Naphthalene #1
10.976	BBA	690.20715	2.98051e-2	20.57170		Acenaphthylene #2
11.931	PB	1603.70313	1.29668e-2	20.79494		1-Methylnaphthalene #3
12.515	BB	1875.98779	1.12696e-2	21.14170		2-Methylnaphthalene #4
12.997	BB	1016.28070	2.03536e-2	20.68494		Acenaphthene #5
13.665	BBA	1169.28296	1.76796e-2	20.67250		Fluorene #6
15.075	BBA	1188.87952	1.72992e-2	20.56666		Phenanthrene #7
16.506	BBA	2033.75525	1.03904e-2	21.13151		Anthracene #8
17.901	PB	93.67921	2.18760e-2	2.04932		Fluoranthene #9
18.921	BBA	141.19044	1.44305e-2	2.03745		Pyrene #10
21.313	BBA	311.71783	5.82010e-2	18.14228		p-Terphenyl d14 #11*
22.649	BBA	91.27538	2.23125e-2	2.03658		Benzo(a)anthracene #12
23.547	BBA	134.38670	1.51428e-2	2.03499		Chrysene #13
26.316	BBA	97.67824	2.08700e-2	2.03854		Benzo(b)fluoranthene #14
27.785	BB	44.79260	2.27668e-2	1.01978		Benzo(k)fluoranthene #15
28.915	BBA	77.04635	2.56639e-2	1.97731		Benzo(a)pyrene #16
30.820	PBA	21.74242	9.44927e-2	2.05450		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.653	PB	36.65219	5.64104e-2	2.06757		Benzo(g,h,i)perylene #18
32.570	BBA	96.96138	2.06418e-2	2.00146		Indeno(1,2,3-cd)pyrene #1

Totals : 204.60028

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.4 Raw QC Data

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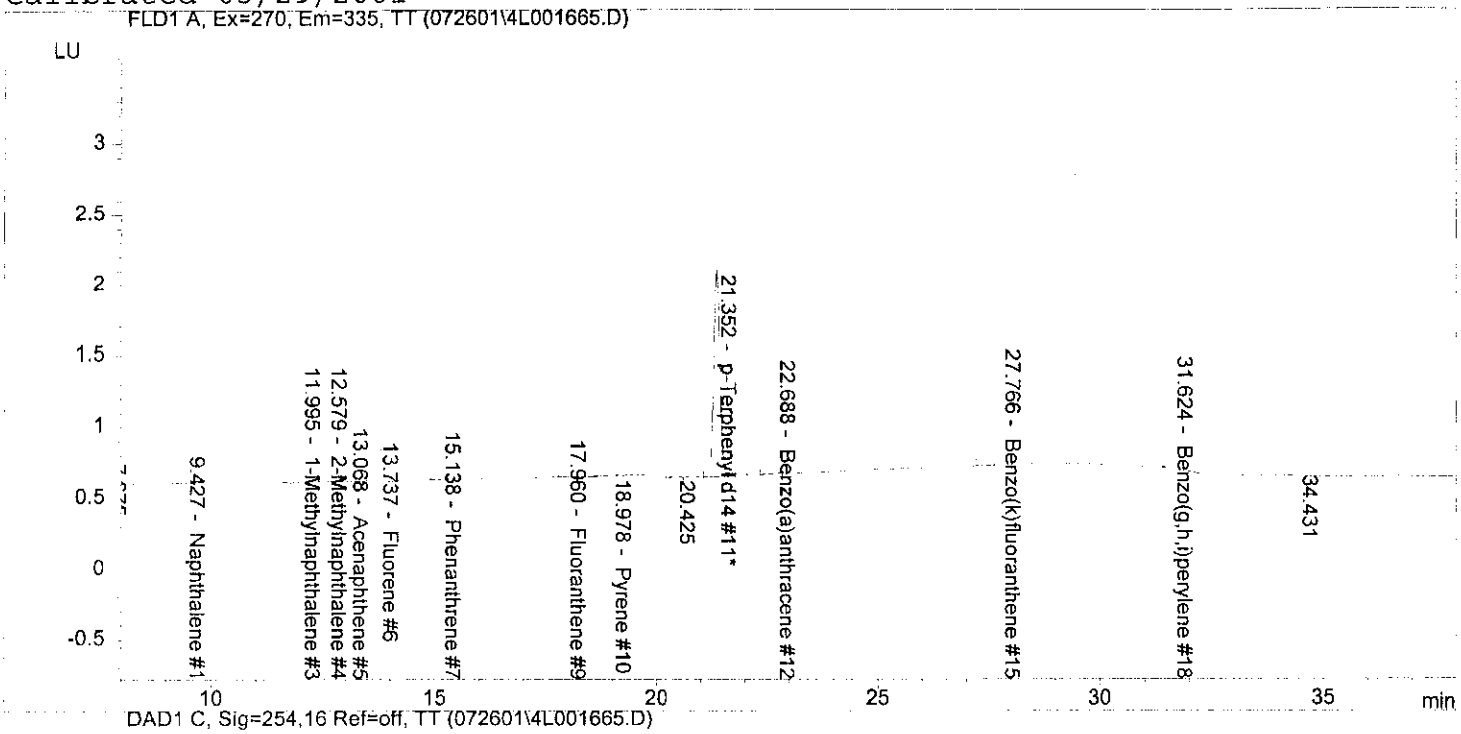
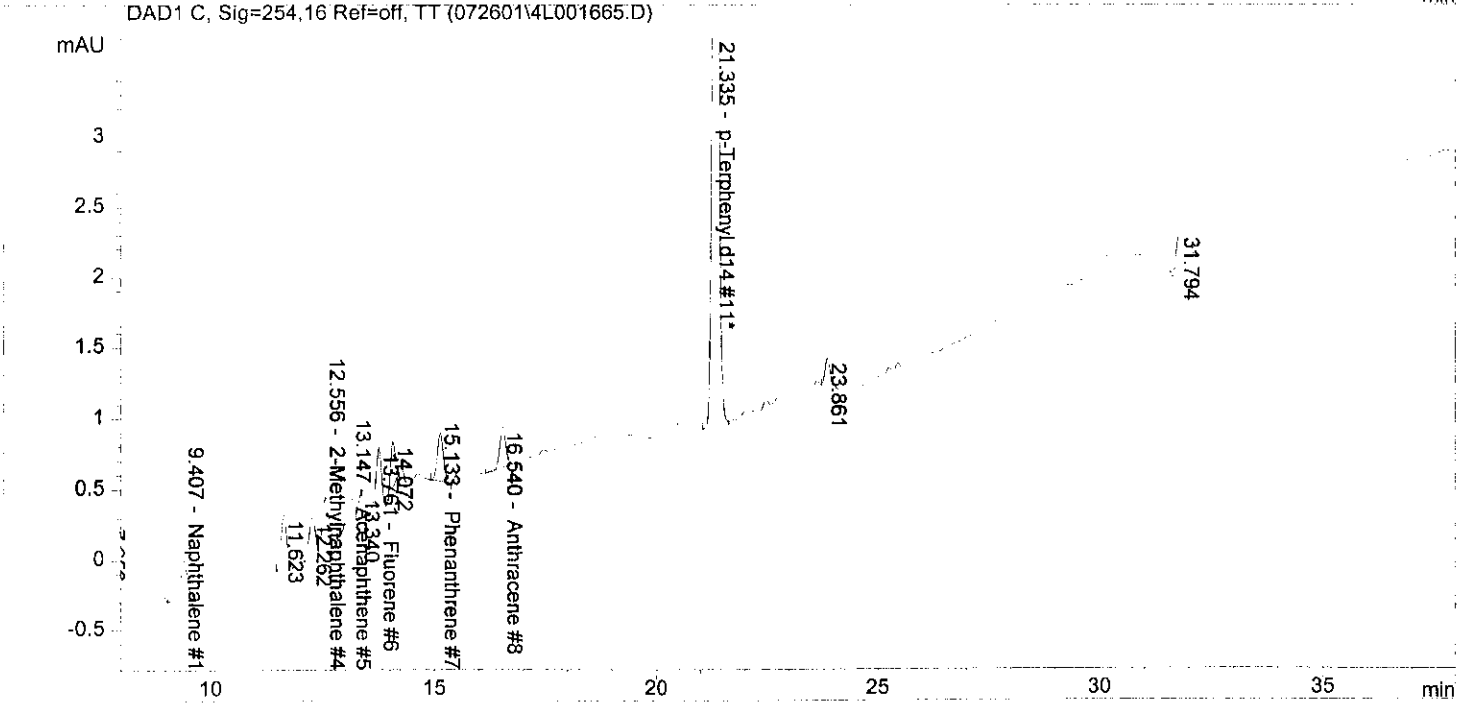
Injection Date : 7/26/2001 11:32:37 AM
Sample Name : 831 W BLK168-81
Acq. Operator : HV

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 12:09:49 PM by HV
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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
9.427	BB	7.85512e-1	2.67269e-2	2.09943e-2		Naphthalene #1
11.995	BB	5.76752e-1	2.35177e-2	1.35639e-2		1-Methylnaphthalene #3
12.579	BB	1.03833	1.80248e-2	1.87157e-2		2-Methylnaphthalene #4
13.068	BB	1.01504	1.46127e-2	1.48324e-2		Acenaphthene #5
13.737	BBA	3.28510	6.61784e-3	2.17402e-2		Fluorene #6
15.138	BBA	3.40926e-1	1.69032e-1	5.76275e-2		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.960	BBA	3.52003e-1	2.43125e-2	8.55810e-3		Fluoranthene #9
18.978	BBA	1.88040e-1	4.17786e-2	7.85606e-3		Pyrene #10
21.352	BBA	13.92197	2.67546e-1	3.72476		p-Terphenyl d14 #11*
22.688	BB	1.54346e-1	8.25659e-3	1.27437e-3		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.766	BBA	5.40969e-1	2.81137e-3	1.52086e-3		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.624	BBA	5.68930e-1	2.88728e-2	1.64266e-2		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.90787

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
9.407	BB	2.62167	8.25940e-3	2.16534e-2	ND	Naphthalene #1
11.160		-	-	-		Acenaphthylene #2
12.109		-	-	-		1-Methylnaphthalene #3
12.556	BB	3.30110	1.12696e-2	3.72021e-2		2-Methylnaphthalene #4
13.147	BB	1.48284	2.03536e-2	3.01812e-2		Acenaphthene #5
13.761	BB	3.86365	1.76796e-2	6.83079e-2		Fluorene #6
15.133	BB	3.38183	1.72992e-2	5.85030e-2		Phenanthrene #7
16.540	PB	2.53917	1.03904e-2	2.63830e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.335	PBA	62.76654	5.82010e-2	3.65307		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-3.65*		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.89530

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 ***

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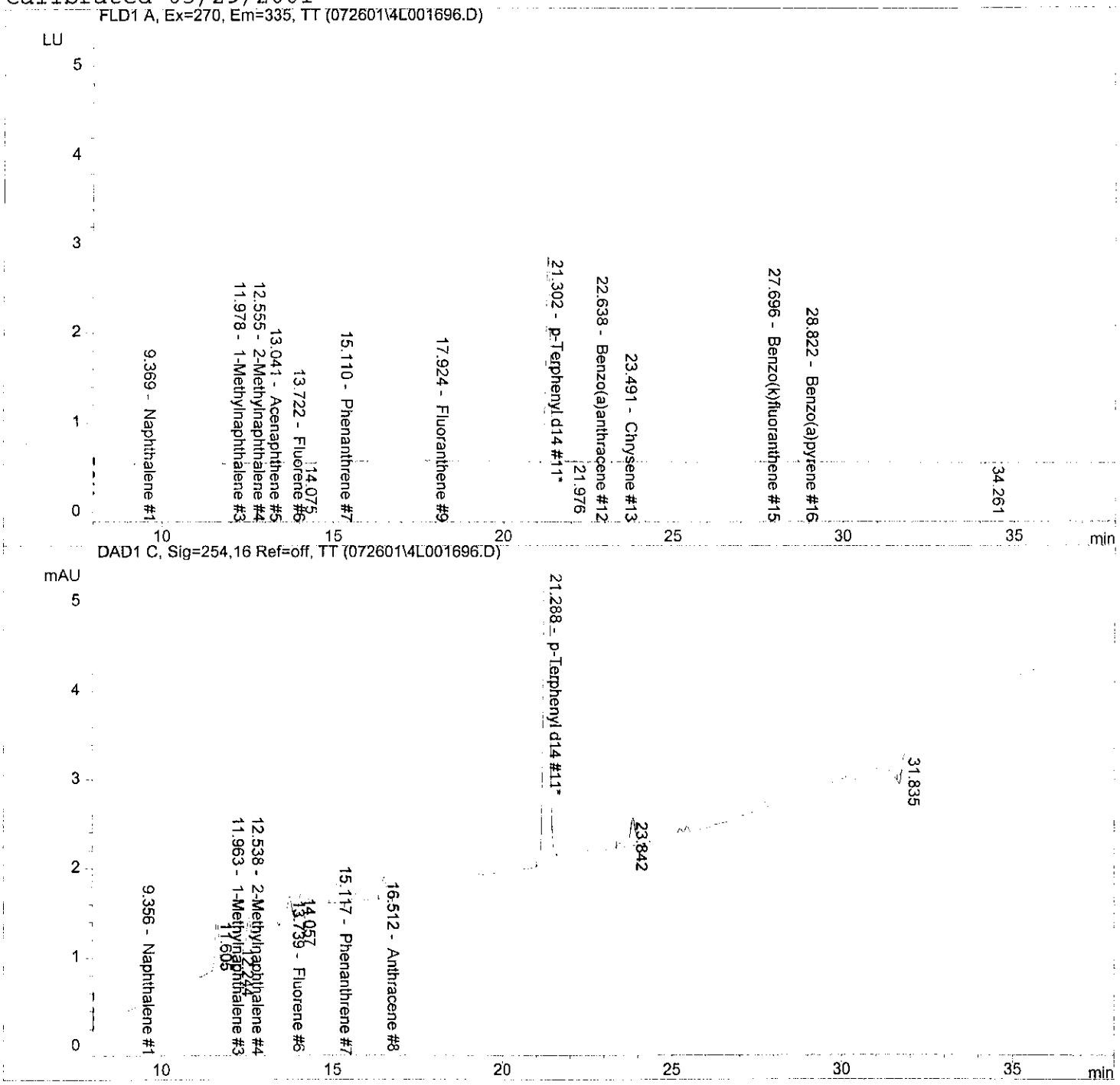
Injection Date : 7/27/2001 5:01:06 PM
Sample Name : 831 W BLK168-117
Acq. Operator : HV

Seq. Line : 34
Vial : 35
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 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
9.369	BBA	9.54952e-1	2.67269e-2	2.55229e-2		Naphthalene #1
11.978	BB	6.49100e-1	2.35177e-2	1.52654e-2		1-Methylnaphthalene #3
12.555	BB	1.24859	1.80248e-2	2.25057e-2		2-Methylnaphthalene #4
13.041	BB	1.02967	1.46127e-2	1.50462e-2		Acenaphthene #5
13.722	BB	2.91576	6.61784e-3	1.92960e-2		Fluorene #6
15.110	BB	1.15907	1.69032e-1	1.95920e-1		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.924	BBA	2.41043e-1	2.43125e-2	5.86036e-3		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.302	BB	21.64651	2.67546e-1	5.79143		p-Terphenyl d14 #11*
22.638	BB	1.75275e-1	8.25659e-3	1.44718e-3		Benzo(a)anthracene #12
23.491	BB	2.15451e-1	4.11122e-2	8.85767e-3		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.696	BBA	2.51505e-1	2.81137e-3	7.07074e-4		Benzo(k)fluoranthene #15
28.822	BBA	1.90678e-1	4.69740e-3	8.95690e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.10276

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
9.356	BB	3.13132	8.25940e-3	2.58628e-2		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.963	BB	1.01055	1.29668e-2	1.31036e-2		1-Methylnaphthalene #3
12.538	BB	3.13614	1.12696e-2	3.53432e-2		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.739	BB	2.77118	1.76796e-2	4.89934e-2		Fluorene #6
15.117	BB	2.15205	1.72992e-2	3.72287e-2		Phenanthrene #7
16.512	PBA	2.06072	1.03904e-2	2.14117e-2		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.288	PBA	100.31204	5.82010e-2	5.83826		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.02020

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 ***

431

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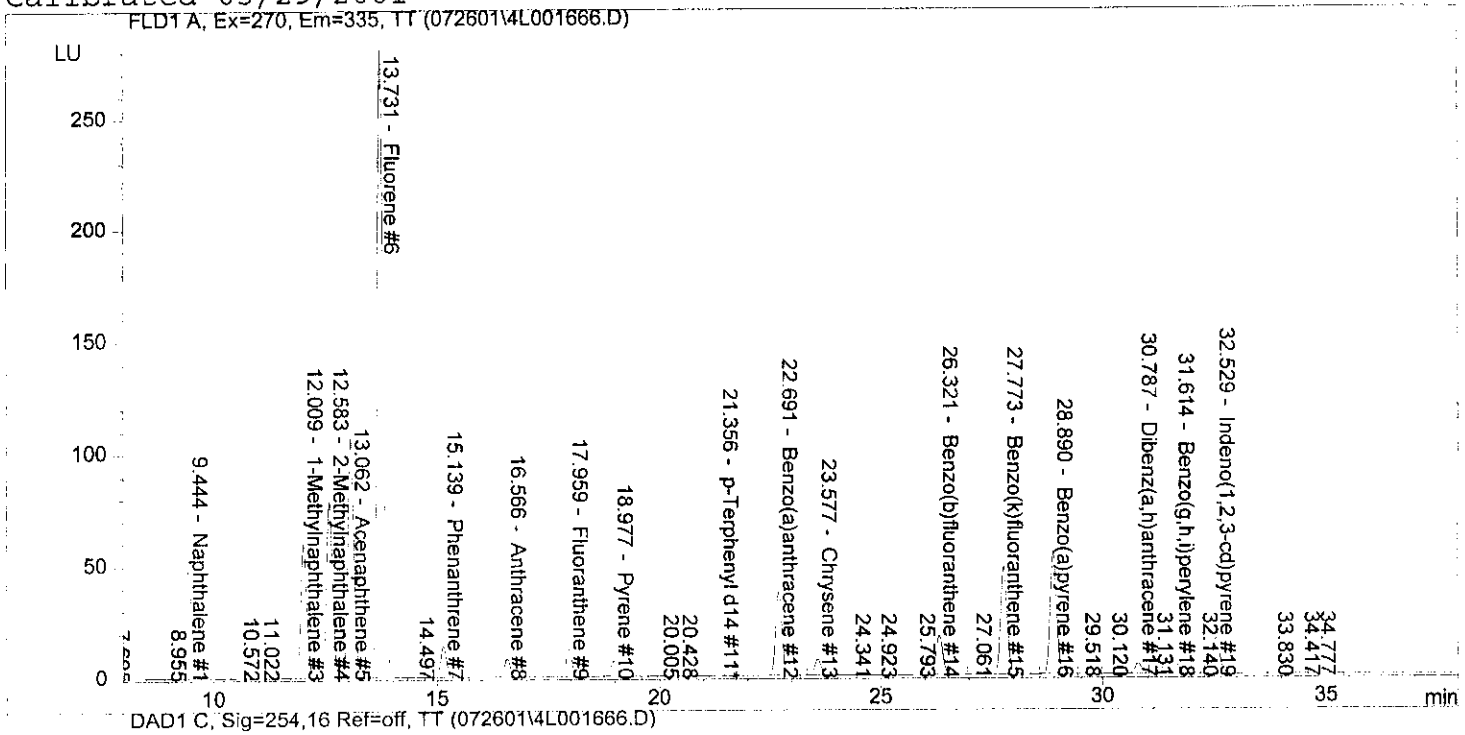
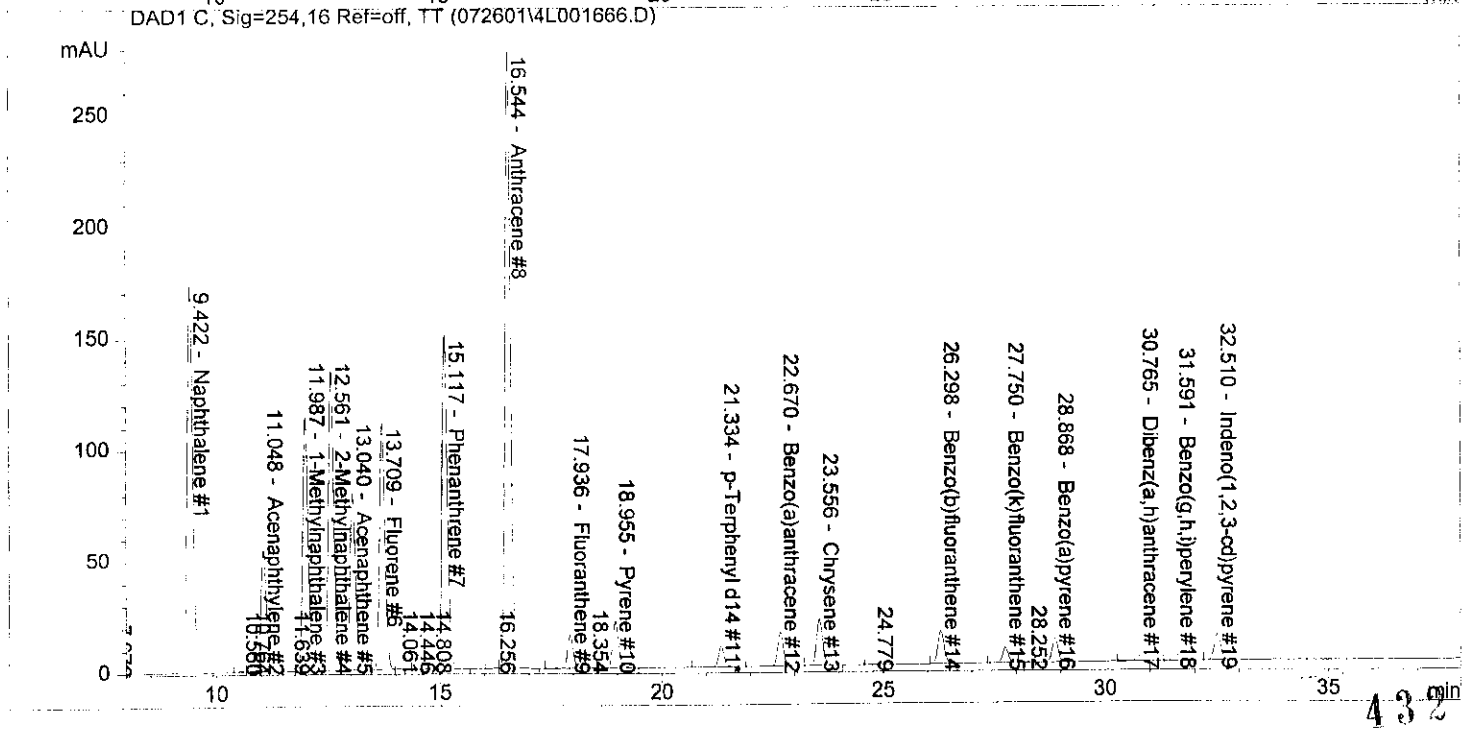
Injection Date : 7/26/2001 12:29:19 PM
Sample Name : 831 W LCS168-81
Acq. Operator : HV

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/26/2001 12:09:49 PM by HV
(modified after loading)

Calibrated 03/29/2001





432

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/26/2001 12:09:49 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	BBA	466.00455	2.67269e-2	12.45487		Naphthalene #1
12.009	BB	541.40338	2.35177e-2	12.73259		1-Methylnaphthalene #3
12.583	BB	713.05157	1.80248e-2	12.85263		2-Methylnaphthalene #4
13.062	BB	989.03619	1.46127e-2	14.45246		Acenaphthene #5
13.731	BB	2597.83228	6.61784e-3	17.19204		Fluorene #6
15.139	BBA	127.62371	1.69032e-1	21.57254		Phenanthrene #7
16.566	BB	76.13725	3.15277e-1	24.00435		Anthracene #8
17.959	BBA	117.82274	2.43125e-2	2.86457		Fluoranthene #9
18.977	BBA	69.21909	4.17786e-2	2.89187		Pyrene #10
21.356	BB	16.71894	2.67546e-1	4.47308		p-Terphenyl d14 #11*
22.691	BBA	370.92841	8.25659e-3	3.06260		Benzo(a)anthracene #12
23.577	BB	73.67966	4.11122e-2	3.02913		Chrysene #13
26.321	BB	181.59317	1.66088e-2	3.01604		Benzo(b)fluoranthene #14
27.773	BB	504.47824	2.81137e-3	1.41828		Benzo(k)fluoranthene #15
28.890	BB	560.06250	4.69740e-3	2.63084		Benzo(a)pyrene #16
30.787	BB	45.84101	4.05016e-2	1.85663		Dibenz(a,h)anthracene #17
31.614	BB	64.56795	2.88728e-2	1.86426		Benzo(g,h,i)perylene #18
32.529	BB	179.83507	1.36562e-2	2.45587		Indeno(1,2,3-cd)pyrene #1

Totals : 144.82465

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
9.422	BBA	1526.97949	8.25940e-3	12.61194		Naphthalene #1
11.048	BB	461.50137	2.98051e-2	13.75510		Acenaphthylene #2
11.987	BB	944.18823	1.29668e-2	12.24312		1-Methylnaphthalene #3
12.561	BB	1106.63538	1.12696e-2	12.47138		2-Methylnaphthalene #4
13.040	BB	674.39545	2.03536e-2	13.72636		Acenaphthene #5
13.709	BB	927.96045	1.76796e-2	16.40601		Fluorene #6
15.117	BBA	1255.79102	1.72992e-2	21.72417		Phenanthrene #7
16.544	BBA	2322.26660	1.03904e-2	24.12925		Anthracene #8
17.936	BB	126.37460	2.18760e-2	2.76457		Fluoranthene #9
18.955	BB	192.29297	1.44305e-2	2.77489		Pyrene #10
21.334	BBA	79.36212	5.82010e-2	4.61895		p-Terphenyl d14 #11*
22.670	BBA	136.57135	2.23125e-2	3.04725		Benzo(a)anthracene #12
23.556	BBA	198.04440	1.51428e-2	2.99895		Chrysene #13
26.298	PBA	143.57024	2.08700e-2	2.99631		Benzo(b)fluoranthene #14
27.750	BB	62.75535	2.27668e-2	1.42874		Benzo(k)fluoranthene #15
28.868	BBA	100.30505	2.56639e-2	2.57422		Benzo(a)pyrene #16
30.765	BB	19.55327	9.44927e-2	1.84764		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.591	BB	33.97473	5.64104e-2	1.91653		Benzo(g,h,i)perylene #18
32.510	BB	122.02979	2.06418e-2	2.51892		Indeno(1,2,3-cd)pyrene #1

Totals : 156.55430

Results obtained with enhanced integrator!

*** End of Report ***

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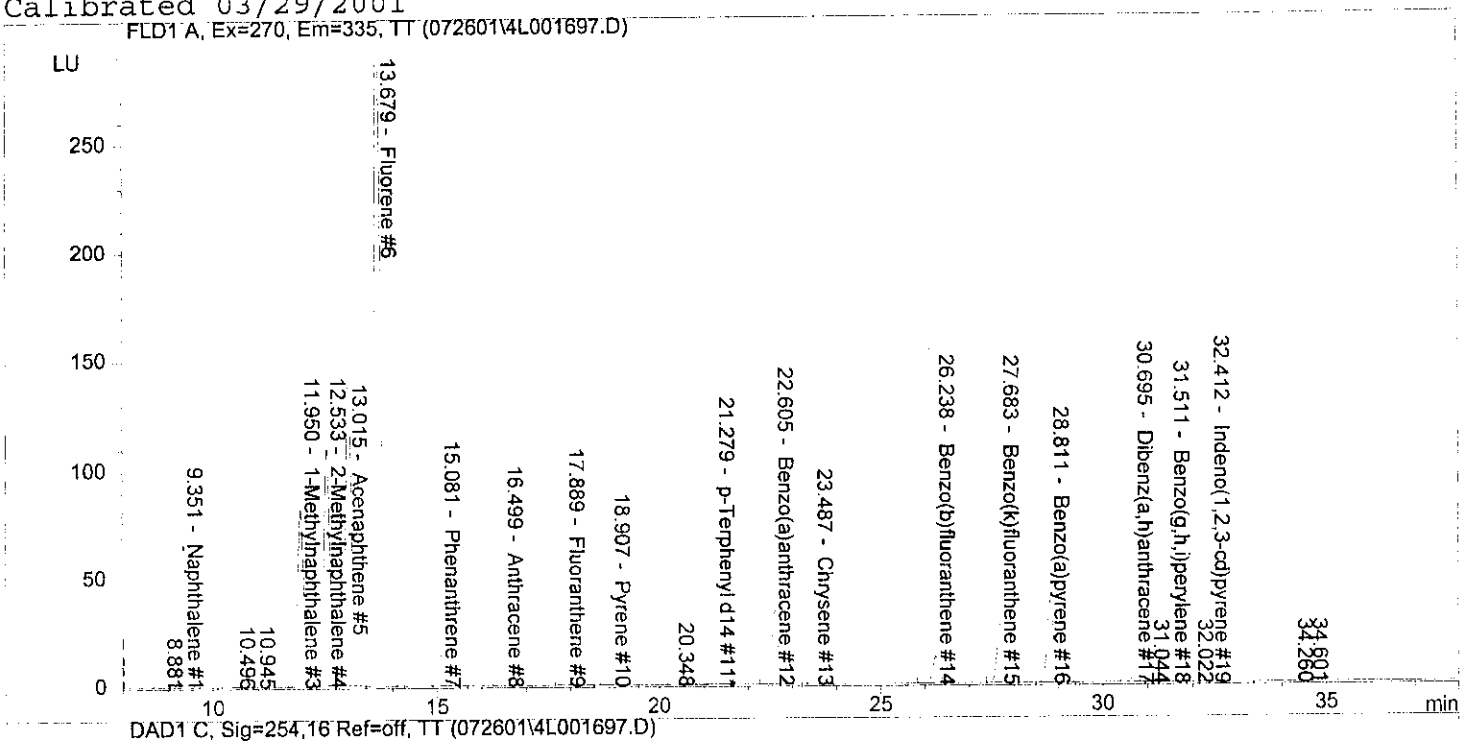
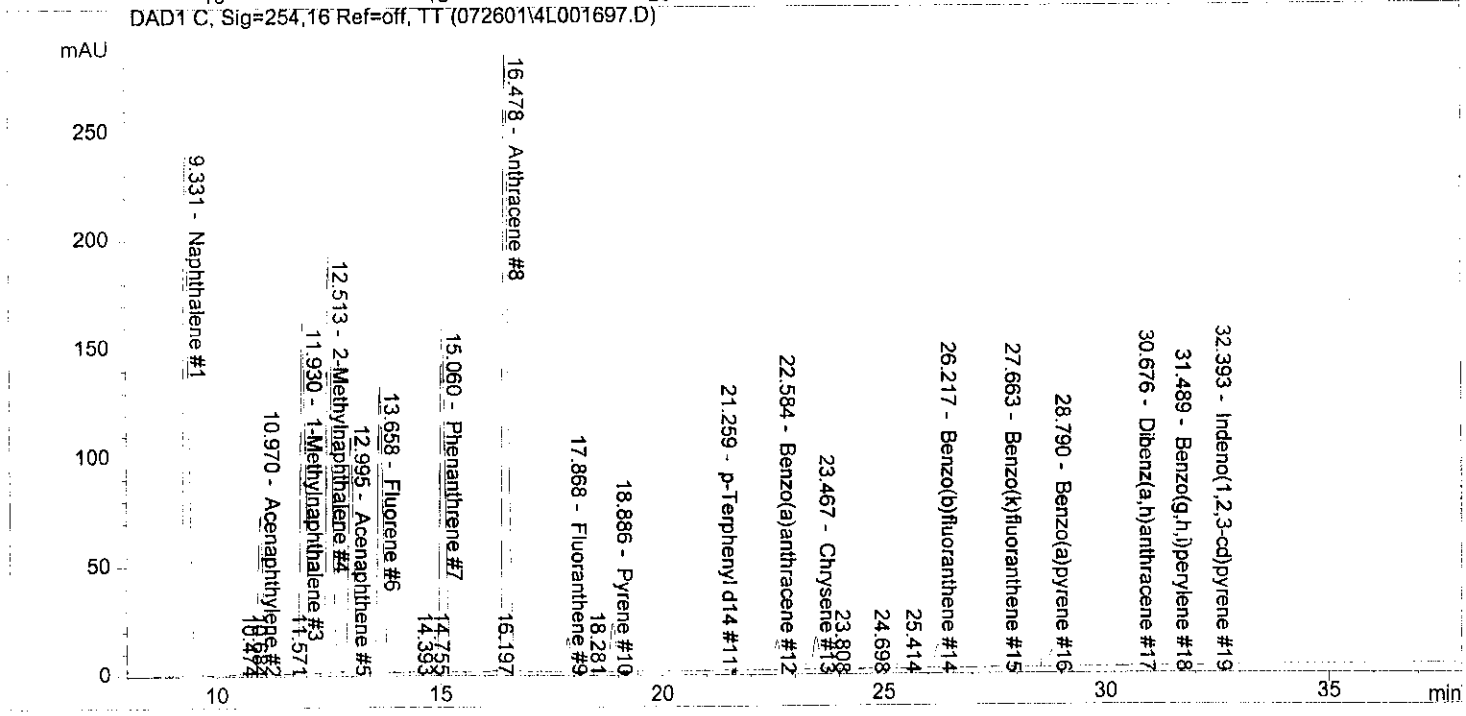
Injection Date : 7/27/2001 5:57:42 PM
Sample Name : 831 WLCS168-117
Acq. Operator : HV

Seq. Line : 35
Vial : 36
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 7/30/2001 9:29:02 AM by HV
Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/27/2001 5:08:39 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
9.351	BBA	645.36401	2.67269e-2	17.24859		Naphthalene #1
11.950	PB	765.39221	2.35177e-2	18.00030		1-Methylnaphthalene #3
12.533	BB	1004.18567	1.80248e-2	18.10028		2-Methylnaphthalene #4
13.015	BB	1314.25146	1.46127e-2	19.20473		Acenaphthene #5
13.679	BB	3023.70703	6.61784e-3	20.01041		Fluorene #6
15.081	BBA	134.00319	1.69032e-1	22.65088		Phenanthrene #7
16.499	BBA	78.46568	3.15277e-1	24.73845		Anthracene #8
17.889	BBA	120.48173	2.43125e-2	2.92922		Fluoranthene #9
18.907	BBA	69.45099	4.17786e-2	2.90156		Pyrene #10
21.279	BB	12.85543	2.67546e-1	3.43942		p-Terphenyl d14 #11*
22.605	BB	337.90179	8.25659e-3	2.78992		Benzo(a)anthracene #12
23.487	BBA	51.78462	4.11122e-2	2.12898		Chrysene #13
26.238	BBA	127.34818	1.66088e-2	2.11510		Benzo(b)fluoranthene #14
27.683	PB	281.52075	2.81137e-3	7.91460e-1		Benzo(k)fluoranthene #15
28.811	BB	400.73932	4.69740e-3	1.88243		Benzo(a)pyrene #16
30.695	PB	24.17845	4.05016e-2	9.79266e-1		Dibenz(a,h)anthracene #17
31.511	BB	34.04897	2.88728e-2	9.83089e-1		Benzo(g,h,i)perylene #18
32.412	BBA	91.95168	1.36562e-2	1.25571		Indeno(1,2,3-cd)pyrene #1

Totals : 162.14978

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
9.331	BBA	2167.87085	8.25940e-3	17.90532		Naphthalene #1
10.970	BB	622.21179	2.98051e-2	18.54509		Acenaphthylene #2
11.930	BB	1370.98816	1.29668e-2	17.77736		1-Methylnaphthalene #3
12.513	BB	1603.68860	1.12696e-2	18.07299		2-Methylnaphthalene #4
12.995	BB	911.91345	2.03536e-2	18.56069		Acenaphthene #5
13.658	BB	1104.13501	1.76796e-2	19.52071		Fluorene #6
15.060	BB	1324.54968	1.72992e-2	22.91364		Phenanthrene #7
16.478	BBA	2408.98779	1.03904e-2	25.03032		Anthracene #8
17.868	BB	132.21048	2.18760e-2	2.89223		Fluoranthene #9
18.886	BBA	203.01674	1.44305e-2	2.92963		Pyrene #10
21.259	BBA	58.33576	5.82010e-2	3.39520	340	p-Terphenyl d14 #11*
22.584	BBA	126.42443	2.23125e-2	2.82085		Benzo(a)anthracene #12
23.467	PB	139.12296	1.51428e-2	2.10672		Chrysene #13
26.217	BBA	102.63888	2.08700e-2	2.14207		Benzo(b)fluoranthene #14
27.663	PBA	34.68913	2.27668e-2	7.89761e-1		Benzo(k)fluoranthene #15
28.790	BBA	73.57881	2.56639e-2	1.88832		Benzo(a)pyrene #16
30.676	BBA	10.40468	9.44927e-2	9.83166e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.489	PB	15.73800	5.64104e-2	8.87787e-1		Benzo(g,h,i)perylene #18
32.393	BBA	61.02877	2.06418e-2	1.25975		Indeno(1,2,3-cd)pyrene #1
Totals :				180.42161		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

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KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time March 29, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 032901
Analyst Initials RAC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001266	AcCN blank	NA	RAC 3/30/01		✓
67	8310 SURR 6/100		~~52-27~~ ~~SV53-27~~		✓
68	8310 STD 6/100		SV53-25	SV52-27	✓
69	5/50				✓
70	4/20				✓
71	3/10				✓
72	2/5				✓
73	1/1				✓
74	8310 ALT ICV		SV53-27	SV50-47	✓
75	V159P125 Blank				✓
76	LCS				✓
77	L0103450-01 no-ext.				✓
78	L0103478-01				✓
79	-02				✓
80	-10				✓
81	L0103291-01 MSD RR				✓
82	L0103478-13 8310W				✓
83	-14				✓
84	-15				✓
85	8310 CCV		SV53-25	52-27	✓
86	L0103478-16 8310W				✓
87	-18				✓
88	-01 5X	5			✓
89	-05 2X	2			✓
90	8310 CCV	NA	SV53-25	52-27	✓
91	ESS36-39 SURR @5X	5			✓
92	8310 CCV	NA	SV53-25	52-27	✓

RAC 3/30/01

Reviewed By: CLK 3/30/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

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KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time March 29, 2001 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 032901

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 112 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: benzo(a)pyrene recovering high, artifact interfering with benzo(g,h,i)-perylene by VWD

Action Taken: increased eluent prgm. severity to adj. benzo(ghi) perylene R.T. & recalibrated method

Comments

Reviewed By: CLF 3/30/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Tuly 26 01 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 072601
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001663	ACCN BLK	NA			
64	8310 CONT. CHK	1	53-25/54-35		✓
65	8310 water BLK V168-P81				RE
66	LCS				RE
67	L0107411-01 8310 water				RE
68	-02				
69	-03				
70	-04				
71	-05 MS				
72	-06 MSD				✓
73	8310 CONT. CHK		53-25/54-35		✓
74	L0107411-07 8310 water				RE
75	-08				
76	-09				↓
77	V168 P169 water BLK				RE
78	LCS				RE
79	L0107437-01 831 water				RE
80	-02				
81	-03				
82	-04				
83	-05				✓
84	8310 CONT. CHK		53-25/54-35		✓
85	L0107437-06 MS 8310 water				RE
86	-07 MSD				
87	-08				
88	-09				
89	-10				
90	-11				
91	-12				
92	-13				
93	-14				
94	-17				✓
95	8310 CCV		53-25/54-35		✓
96	8310 water BLK V168-P11	↓			✓

Reviewed By: RDC 7/31/01

Status:
✓ = Compliant Analysis, Reanalysis complete
IS or SS = Interference with internal and/or surrogate standards
SMI = Sample matrix interference
RR = Rerun
MT = Missed Tune, beyond method tuning requirements
CC = Continuing calibration failed
RR# = Rerun at a specified dilution
RE = Re-extraction analysis required
CF = Confirmation required
* = See comments on opposite page

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KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time 7/26/01 **Instrument ID** HPLC 4 **Column ID** LC-PAH **Data Subdirectory** 0726001

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 112 Bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

V168P81 BLANK – SURR Recovery LLCL
L0107411-01
↓ -09
L0107437-09
↓ -14
V168P117 LCS
WF101745-05 MSD
L0107411-01RE
-03RE
-06RE (MSD
↓ -08RE

Reviewed By: DKC 7/31/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time 7/26/01 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 072601
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L0016097	8310 water LCS V168·P11	NA			✓
98	L0107411-01 RE				✓
99	-02				✓
4L001700	-03				✓
01	-04				✓
02	-05				✓
03	-06				✓
04	8310 CONT CHK		SV53-25	54-35	✓
05	L0107411-07 RE				✓
06	-08				✓
07	-09				✓
08	8310 CONT CHK	✓	SV53-25	54-35	✓

RDC 7/31/01

QAB 7/30/01

Reviewed By: RDC 7/31/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

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KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time 7/26/01 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 07260 1

Daily Check
- ☐ Mobile phase reservoir
- ☐ System pressure _____
- ☐ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

_____

_____

Action Taken: _____

_____

Comments

Reviewed By: RDC 7/31/01

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Sample Extract Log Sheet

Volume 168
Page 81

Parameter: 8310-H2O SOP #: EXHPLC1 Revision #: 5
Extraction Analyst(s): TM TV/KD Analyst(s): TM
Date/Time Extracted: 7/25/01 13:20 Date TV/KD: 7/25/01
Spike/Surrogate Analyst: TM Witness: [illegible]
Surrogate #: ES500036-39 Earliest Hold Date: 7/31/01
Spike #: A = ES500 3737 Spike #: B = —

Extraction Work Group WG 101645
Analytical Work Group WG 101675

Extract Relinquished By: TM
Extract Received By & Date: PWC 7/25/01

	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 101645-02
2	LCS			√		⊥	⊥	500ul	⊥	C				WG ⊥ -03
3	07-411-01	8310		√		965ml	⊥		⊥	C				
4	-02	⊥		√		1L	⊥		⊥	C				
5	-03	⊥		√		965ml	⊥		⊥	TM 7/25 TC				
6	-04	⊥		√		960ml	⊥		⊥	TM 7/25 TC				WG 101645-01
7	-05MS	⊥		√		⊥	⊥	500ul	⊥	C			★	WG ⊥ -04
8	-06MD	⊥		√		1L	⊥	⊥	⊥	C			★	WG ⊥ -05
9	-07	⊥		√		⊥	⊥	⊥	⊥	C				
10	-08	⊥		√		⊥	⊥	⊥	⊥	C				
11	-09	⊥		√		960ml	⊥		⊥	T				
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

7/25/01 TM

Methylene Chloride Lot #: H1109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: T46826
Reagent: fortified Lot #: ER 1831
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1770

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: 07/25/01

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Extraction Notes For Volume # 168 Page # 81

General Comments: # MS, MSD of 07-411-04

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

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Volume 168
Page 117

Parameter: 8310-H2O SOP #: EXHPLC1 Revision #: 5
Extraction Analyst(s): SAM, REK TV/KD Analyst(s): SAM
Date/Time Extracted: 7/27/01@09:00 Date TV/KD: 7/27/01
Spike/Surrogate Analyst: SAM Witness: TM
Surrogate #: ESS0037-41 Earliest Hold Date: 7/31/01
Spike #: A = ESS0037-37 Spike #: B = —

Extraction Work Group WG 101745
Analytical Work Group WG 101971

Extract Relinquished By: SAM
Extract Received By & Date: TMC 7/27/01

	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	100ml		1mL	T				WG 101745
2	LCS			✓				500ul						WG
3	07-411-01	8310		✓										*
4	-02			✓		965mL								
5	-03			✓										
6	-04			✓										WG 101745
7	MS -05			✓				500ul						
8	MSD -06			✓		970mL								
9	-07			✓		965mL								
10	-08			✓										
11	-09			✓										
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

SAM 7/27/01

Methylene Chloride Lot #: 91109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: acetonitrile Lot #: T46826
Reagent: florisilled Lot #: ER1831
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1738

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: 7/27/01

Extraction Notes For Volume # 168 Page # 117

General Comments: * re-ext w/in hold

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

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
	RF	**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

		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
	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.: L0107411

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times 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 : Several continuing calibration standards failed high for PO4-P. PO4-P was not found at or above the reporting limit in the associated sample fractions. 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 yielded a percent recovery for PO4-P which was above the advisory limit.

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 Gage DATE: 8/6/01

Rev. 7/14/00

Semi-Volatile 8310 Checklist

Workorders:	Due Date:	Priority:
WG101670 07-411	8/1/2001	PFF

Run Date: 25-Jul-01

Analyst: RDC

Instrument: IC1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	NA
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	NA
	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:

sample fractions 07, 08 , and 07 duplicate were run on 7/26/01

MS/MSD recovered high for PO4-P

Primary Reviewer: RDC 8/4/01

Secondary Reviewer: 8/4/01

Supervisor Review: 8/4/01

√ = Checked & OK

NA = Not Applicable

452

Workorders:	Due Date:	Priority:
WG101725 07-437	8/2/2001	PFF

Run Date: 7/26/2001 & 7/27/01

Analyst: RDC

Instrument: IC1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	NA
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	NA
	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:

sample fractions 01,02,03,04,& 05 were run in hold time for NO2-N and NO3-N..... due to calibration failures the PO4-P was run out of hold time..... Sample tags "A1" were used to differentiate the results which were run out of hold.... this information will be included in the case narrative

Primary Reviewer: RDC 8/2/01

Secondary Reviewer: 8/2/01

Supervisor Review: 8/2/01

√ = Checked & OK

NA = Not Applicable

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Anions (9056)

Login Number: L0107411

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

___✓___ Chromatograms and external standard reports for standards

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

_____ Retention time window summary (if applicable)

D. Raw QC Data

___✓___ Method Blank, chromatogram and external standard report for each matrix type

___✓___ Laboratory Control Sample, chromatogram and external standard report for each matrix type

___✓___ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

___✓___ Instrument runlogs

___NR___ Extraction bench sheets

Checked By: RRC Date: 8/3/01

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2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG101670	**Prep Work Group:**	NA	**Blank Filename:**	IC1_031	**Sample Number:**	L0107411
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC1_032	**Sample Filename:**	IC1_036
Instrument:	IC1	**Ext Bench Sheet:**	NA	**Sample Number:**	L0107411-07	**MS Filename:**	IC1_055
Analyst:	RDC	**Run Date:**	25-Jul-01	**Sample Filename:**	IC1_004	**MSD Filename:**	IC1_056
				Duplicate Filename:	IC1_006		

	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	3.33	ND	ND	ND	3.66	3.64	3.63	ND	91.1	90	110	99.4	99.1	80	120	NA	0	20			
NITRATE-N	0.6	ND	4.06	3.78	0.186	0.185	0.206	4.06	4.15	4.05	ND	93.1	90	110	97.2	94.6	80	120	0.27	3	20			
PHOSPHATE-P	1	ND	9.78	9.57	ND	ND	ND	9.78	16.4	16.5	ND	97.9	90	110	167	169	80	120	NA	1	20		H	H

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

2.4.5.2 Sample Data

Sample Analysis Report

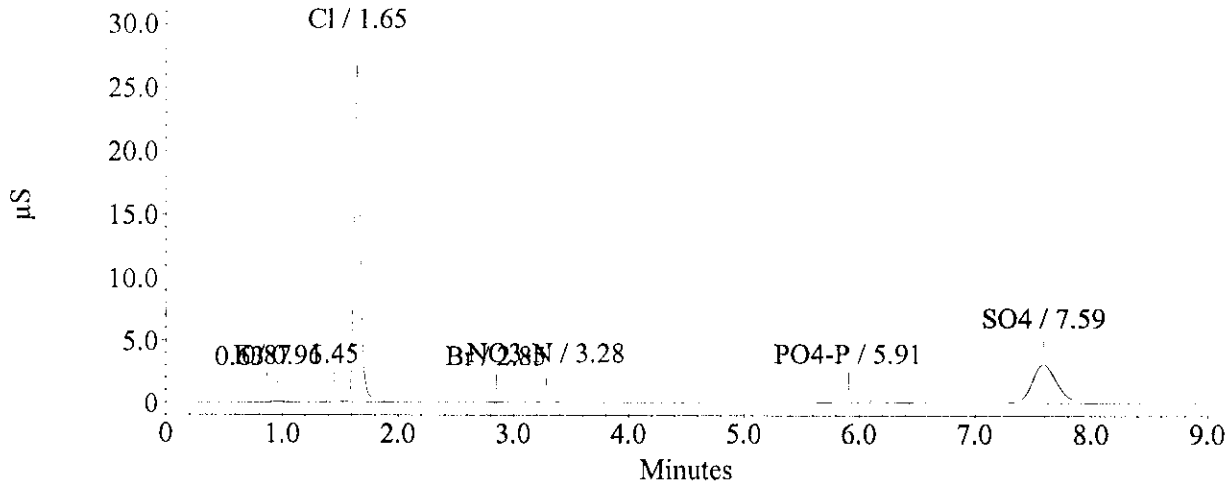
Sample Name : L0107411-01
Data File Name : C:\PEAKNET\DATA\072501\IC1_033.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 21:48
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.63	0.0000	269
2		0.87	0.0000	3040
3	F	0.96	0.3461	6926
4		1.45	0.0000	13968
5	Cl	1.65	16.5999	972086
6	Br	2.85	0.2818	2200
7	NO3-N	3.28	0.3003 J	19034
8	PO4-P	5.91	0.9165 RT does not indicate PO4-P	72658
9	SO4	7.59	12.0633	454744

L0107411-01



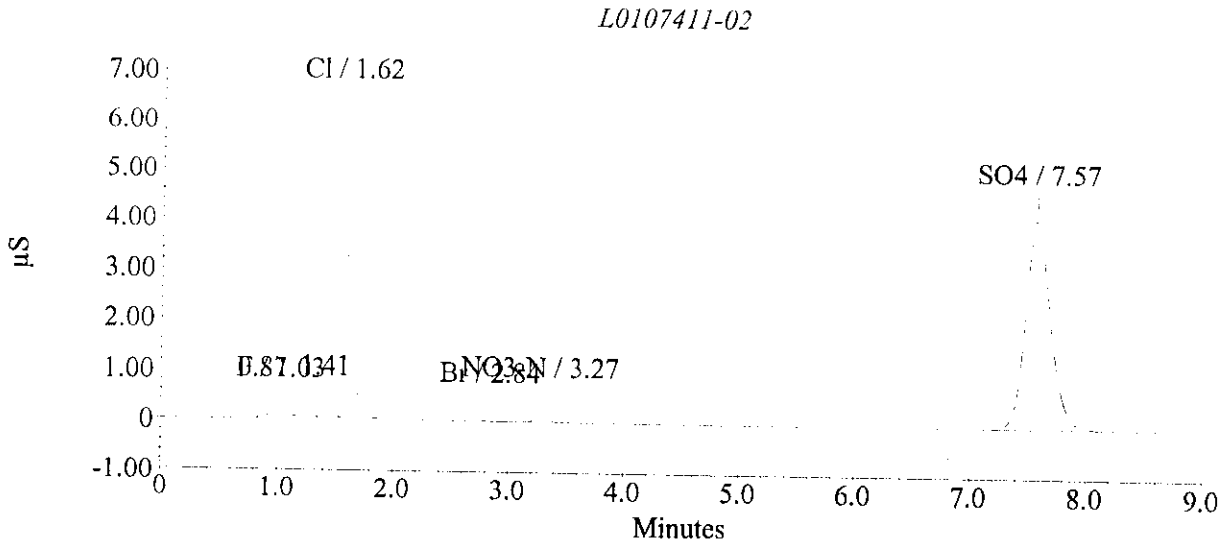
Sample Analysis Report

Sample Name : L0107411-02
Data File Name : C:\PEAKNET\DATA\072501\IC1_034.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 22:00
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	3349
2	F	1.03	0.3349	6078
3		1.41	0.0000	6812
4	Cl	1.62	4.0571	229366
5	Br	2.84	0.2834	2237
6	NO3-N	3.27	0.2392 J	10421
7	SO4	7.57	15.8278	612308



Sample Analysis Report

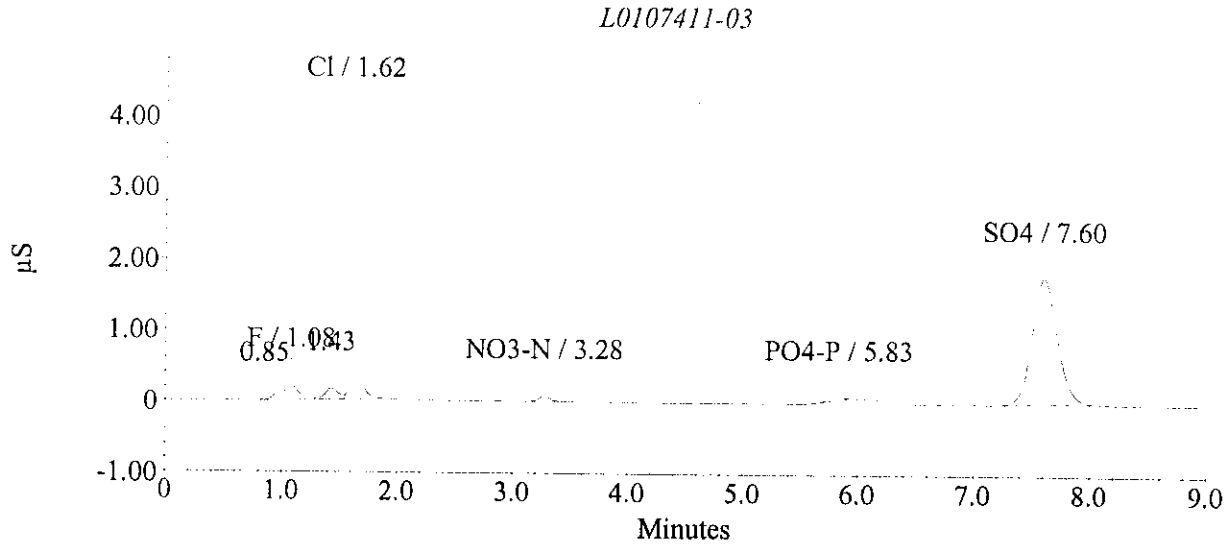
✓

Sample Name : L0107411-03
Data File Name : C:\PEAKNET\DATA\072501\IC1_035.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 22:11
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.85	0.0000	558
2	F	1.08	0.5680	23724
3		1.43	0.0000	11616
4	Cl	1.62	2.7987	154851
5	NO3-N	3.28	0.1968 J	4442
6	PO4-P	5.83	-0.1782 CMPL	2782
7	SO4	7.60	7.4734	262626



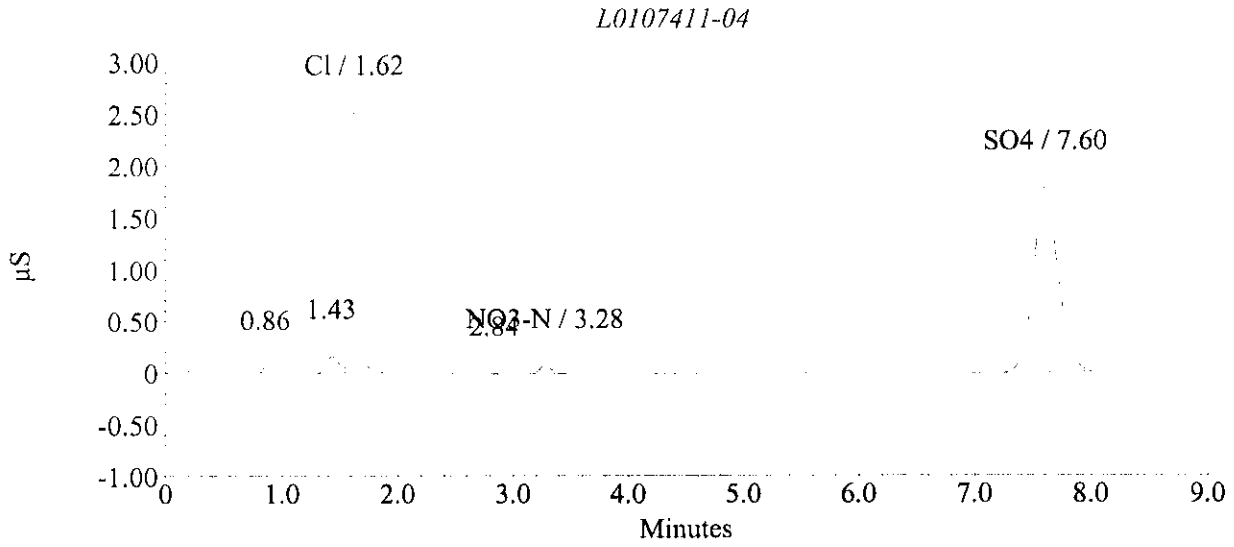
Sample Analysis Report

Sample Name : L0107411-04
Data File Name : C:\PEAKNET\DATA\072501\IC1_036.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 22:23
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.86	0.0000	1237
2		1.43	0.0000	12156
3	Cl	1.62	1.8718	99962
4		2.84	0.0000	202
5	NO3-N	3.28	0.2060 J	5740
6	SO4	7.60	7.4792	262870



Sample Analysis Report

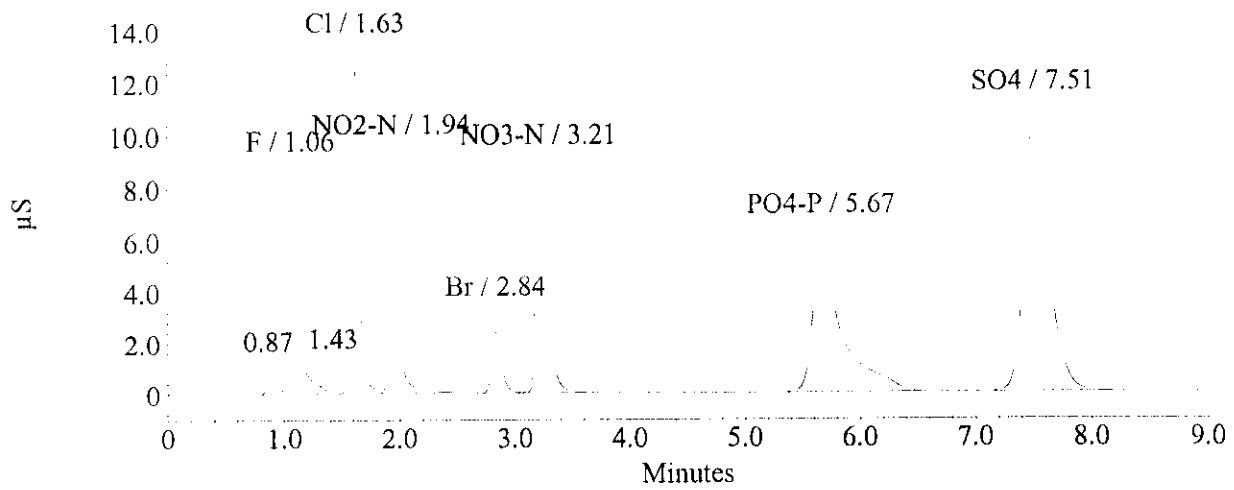
Sample Name : L0107411-05 MS
Data File Name : C:\PEAKNET\DATA\072501\IC1_055.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 2:15
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	16412
2	F	1.06	5.9336	430333
3		1.43	0.0000	26106
4	Cl	1.63	8.1827	473277
5	NO2-N	1.94	3.6368	429334
6	Br	2.84	6.0389	133147
7	NO3-N	3.21	4.1514	560796
8	PO4-P	5.67	16.3777	987096
9	SO4	7.51	36.9091	1500443

L0107411-05 MS



Sample Analysis Report

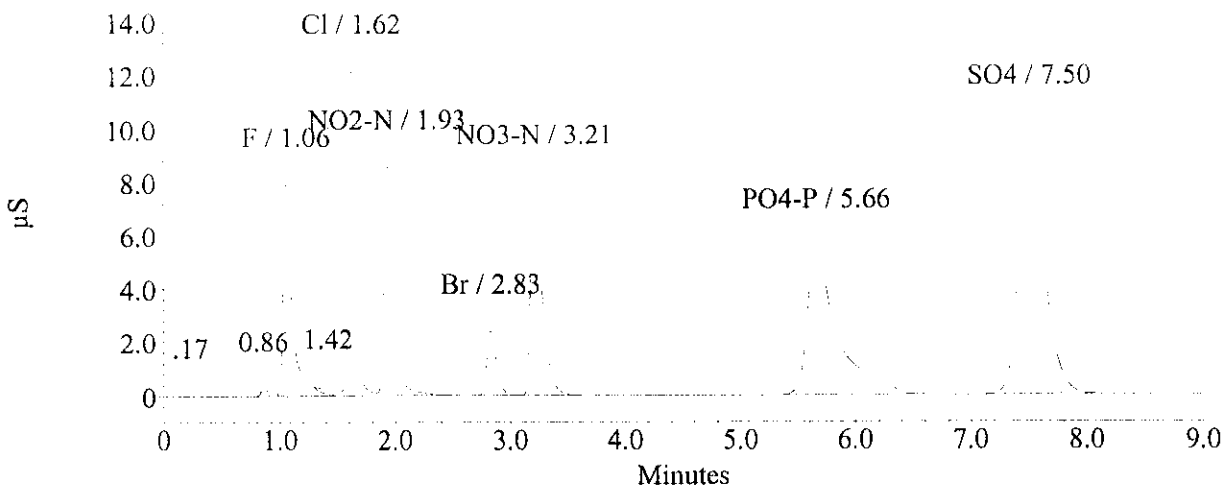
Sample Name : L0107411-06 MSD
Data File Name : C:\PEAKNET\DATA\072501\IC1_056.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 2:27
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.17	0.0000	112
2		0.86	0.0000	15232
3	F	1.06	5.8844	426619
4		1.42	0.0000	25921
5	Cl	1.62	7.9688	460608
6	NO2-N	1.93	3.6288	428343
7	Br	2.83	5.9734	131662
8	NO3-N	3.21	4.0458	545930
9	PO4-P	5.66	16.5424	996967
10	SO4	7.50	36.7565	1494023

L0107411-06 MSD



Sample Analysis Report

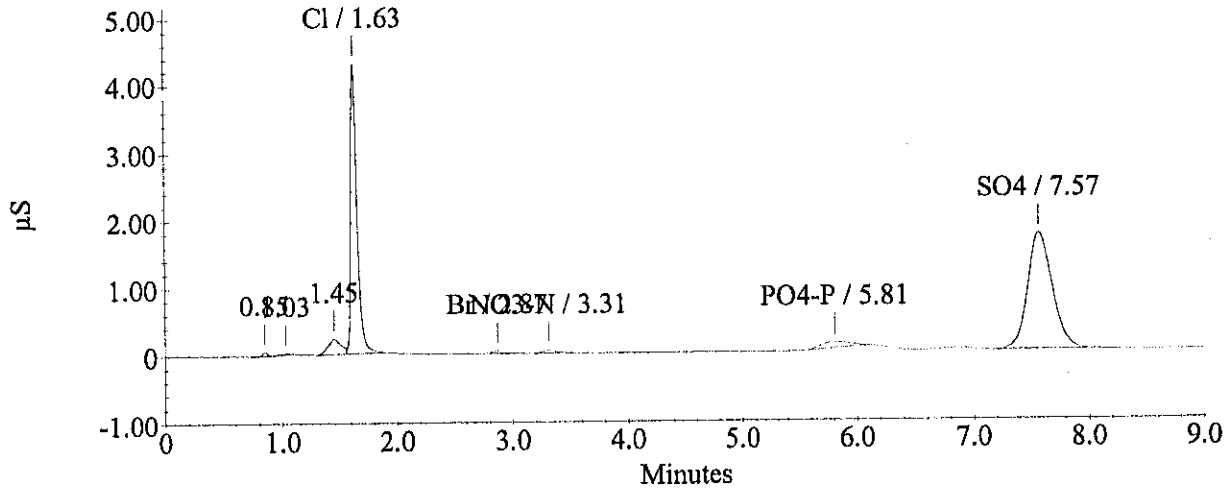
Sample Name : L0107411-07
Data File Name : C:\PEAKNET\DATA\072601\IC1_004.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 10:13
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.85	0.0000	1636
2		1.03	0.0000	805
3		1.45	0.0000	17097
4	Cl	1.63	2.9589	163854
5	Br	2.87	0.2554	1942
6	NO3-N	3.31	0.1857 J	2376
7	PO4-P	5.81	0.1547 J cmDL	14971
8	SO4	7.57	7.3253	256260

L0107411-07



Sample Analysis Report

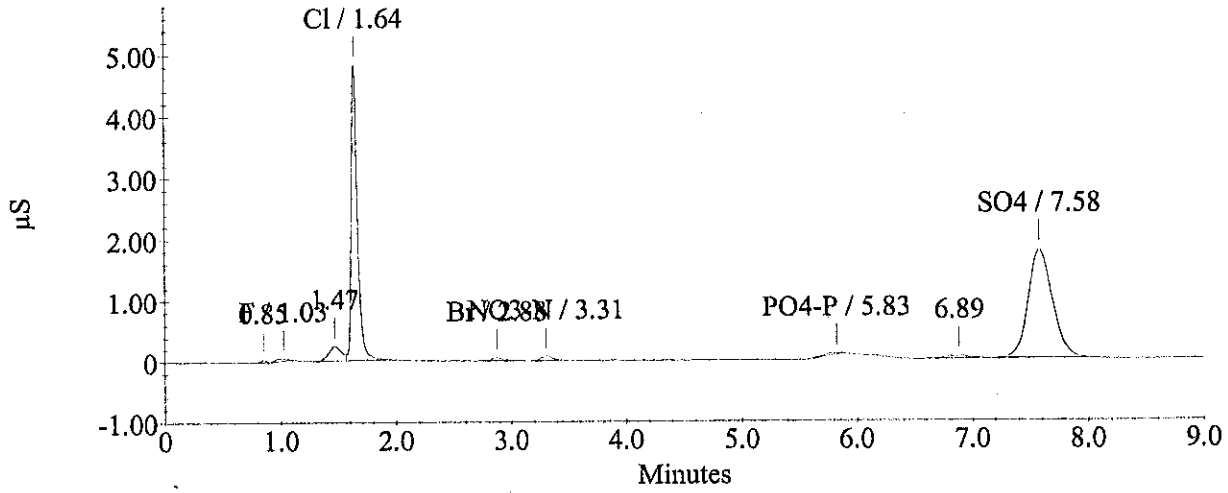
Sample Name : L0107411-08
Data File Name : C:\PEAKNET\DATA\072601\IC1_005.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 10:24
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.85	0.0000	1289
2	F	1.03	0.2718	2735
3		1.47	0.0000	19020
4	Cl	1.64	3.2850	183170
5	Br	2.88	0.2908	2745
6	NO3-N	3.31	0.2017 J	4633
7	PO4-P	5.83	-0.0472 <MDL	2874
8		6.89	0.0000	6032
9	SO4	7.58	7.4732	262479

L0107411-08



Sample Analysis Report

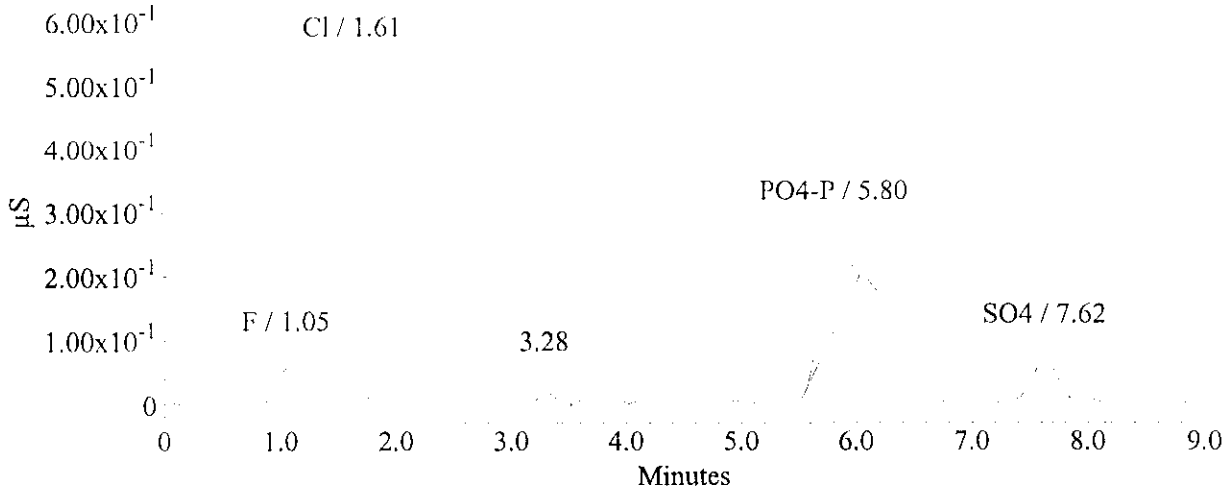
Sample Name : L0107411-09 RR
Data File Name : C:\PEAKNET\DATA\072501\IC1_057.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 2:38
System Operator : RDC

Peak Information : All Peaks

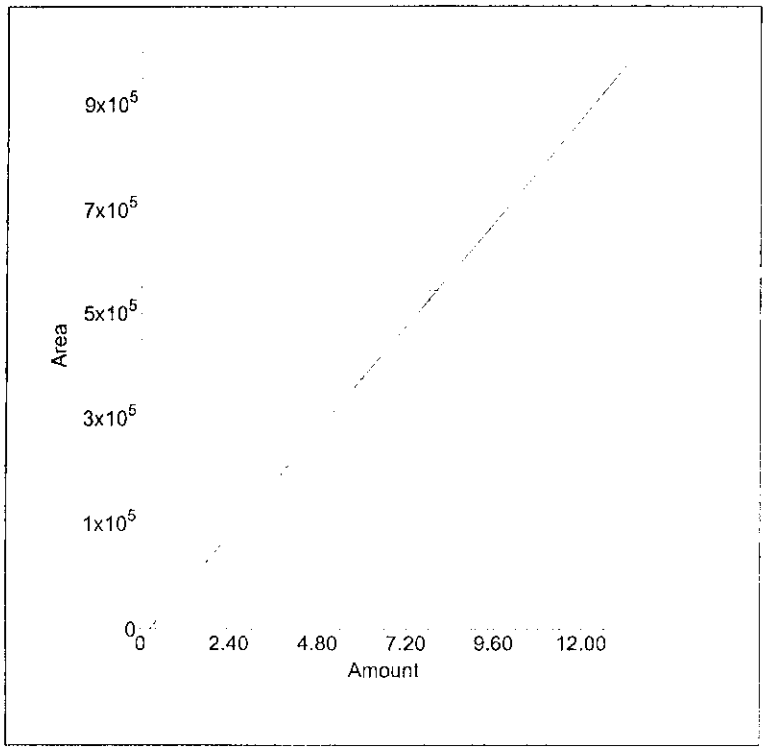
Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1	F	1.05	0.2918	4242
2	Cl	1.61	0.5664	22135
3		3.28	0.0000	583
4	PO4-P	5.80	0.2613 J	21359
5	SO4	7.62	1.4287	8274

L0107411-09 RR

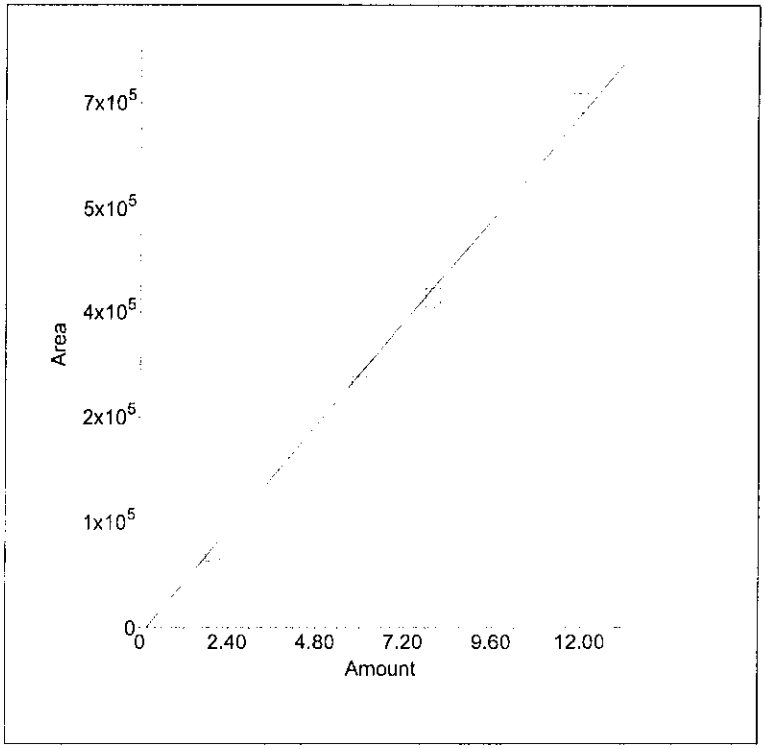


2.4.5.3 Standards Data

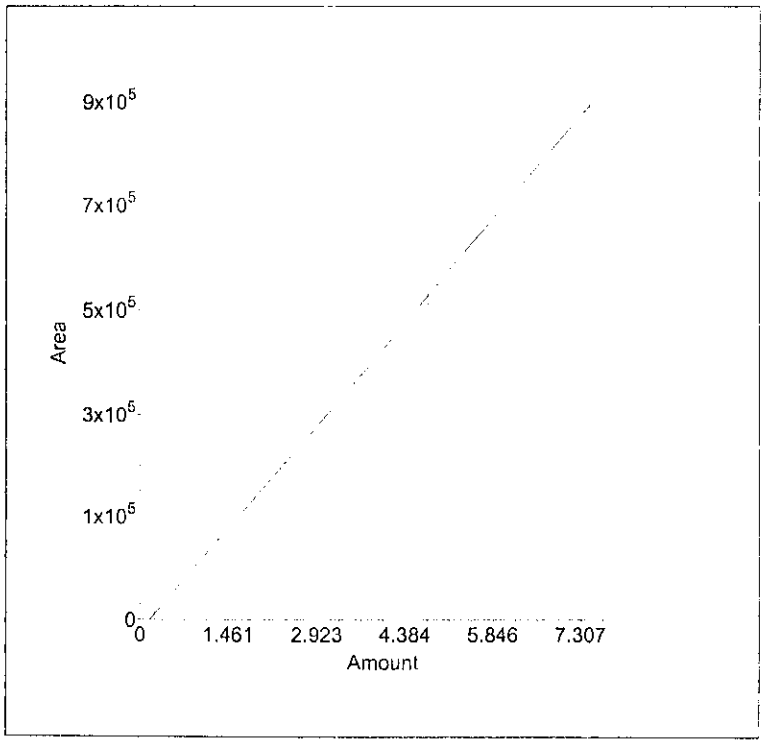
1. Component:F
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996714
Amt=1.308e-005*Resp+0.2521



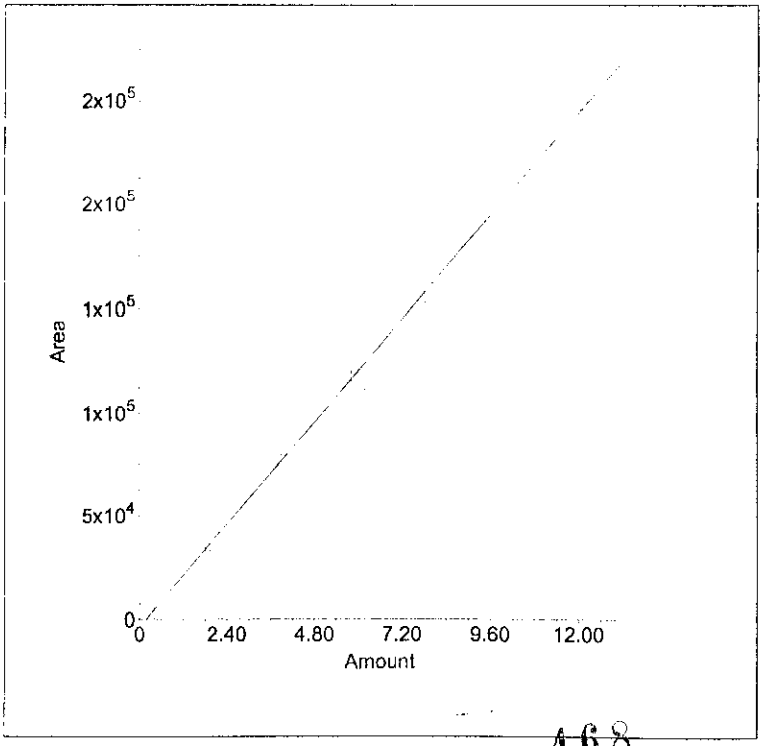
2. Component:Cl
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997346
Amt=1.672e-005*Resp+0.1819



3. Component:NO2-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996620
Amt=8.026e-006*Resp+0.1629



4. Component:Br
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997940
Amt=4.345e-005*Resp+0.1834



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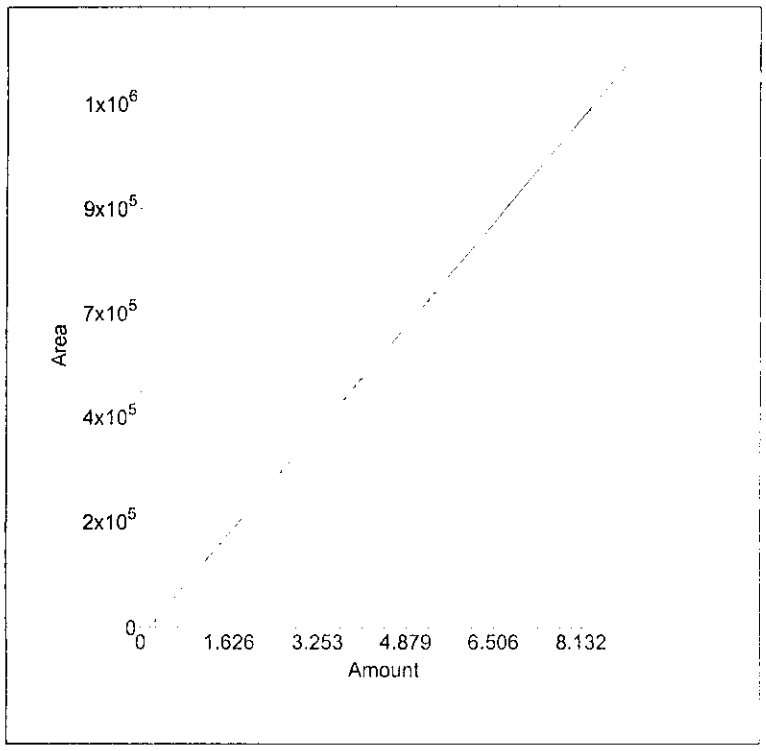
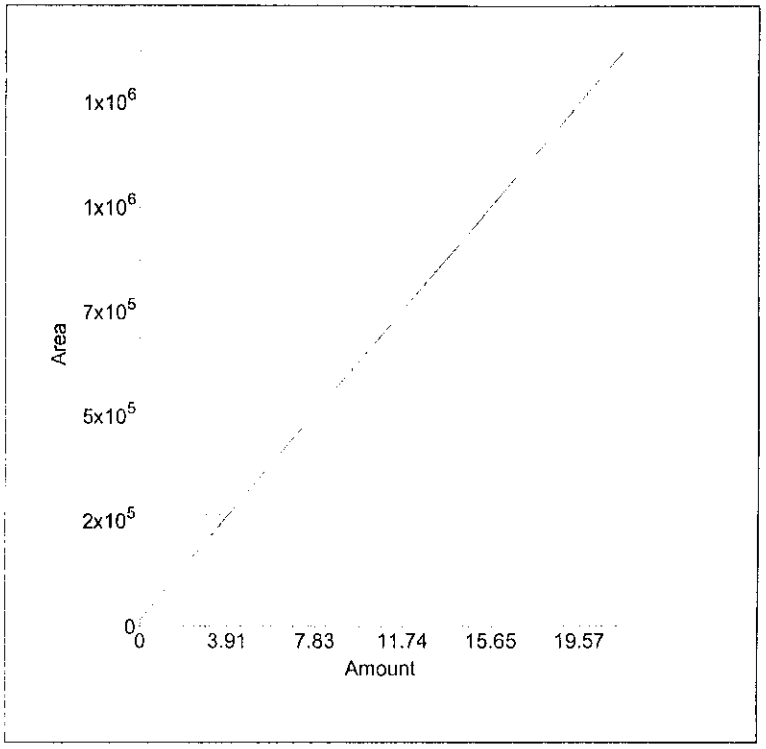
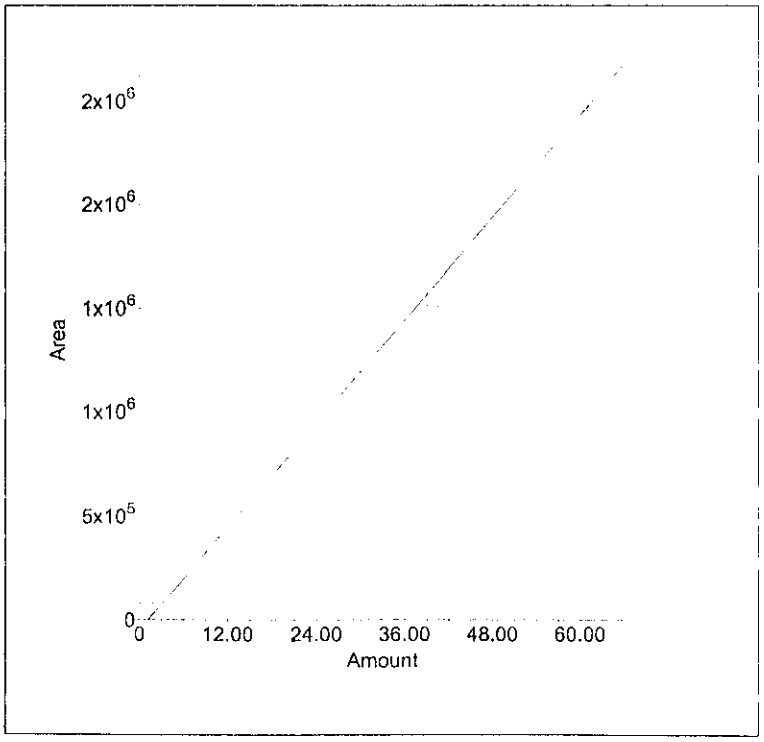
5. Component:NO3-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996568
Amt=7.023e-006*Resp+0.1636



6. Component:PO4-P
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999165
Amt=1.551e-005*Resp+-0.2196



7. Component:SO4
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996884
Amt=2.365e-005*Resp+1.187



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Sample Analysis Report

Sample Name : ANION STD. LEVEL 6
Data File Name : C:\PEAKNET\DATA\072501\IC1_005.DXD

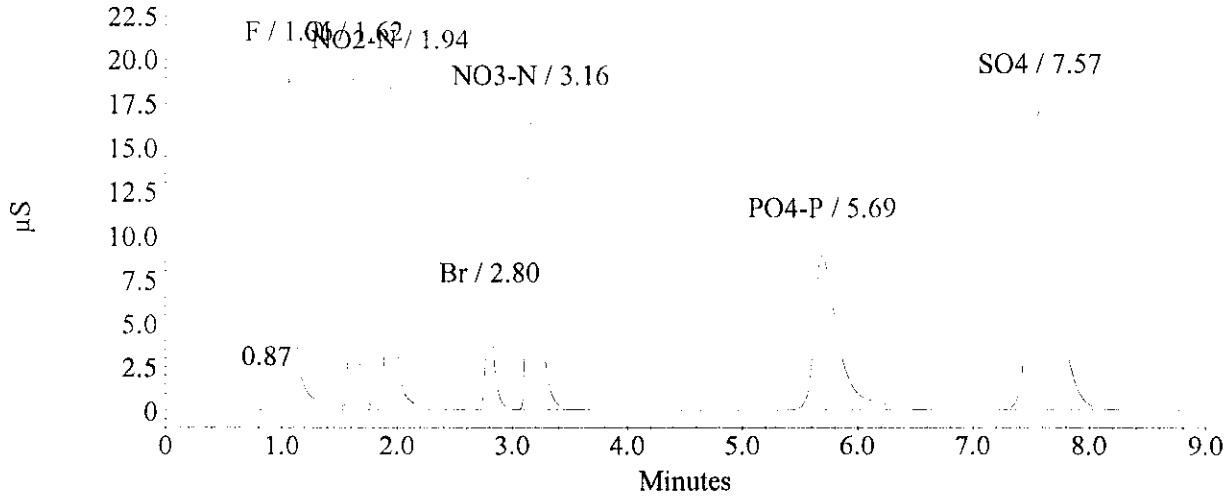
Not used

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 12:33
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	25490
2	F	1.06	12.3007	942092
3	Cl	1.62	12.1498	740934
4	NO2-N	1.94	7.4807	926332
5	Br	2.80	12.2278	282579
6	NO3-N	3.16	8.3378	1191644
7	PO4-P	5.69	19.6953	1300049
8	SO4	7.57	61.5885	2610424

ANION STD. LEVEL 6



Sample Analysis Report

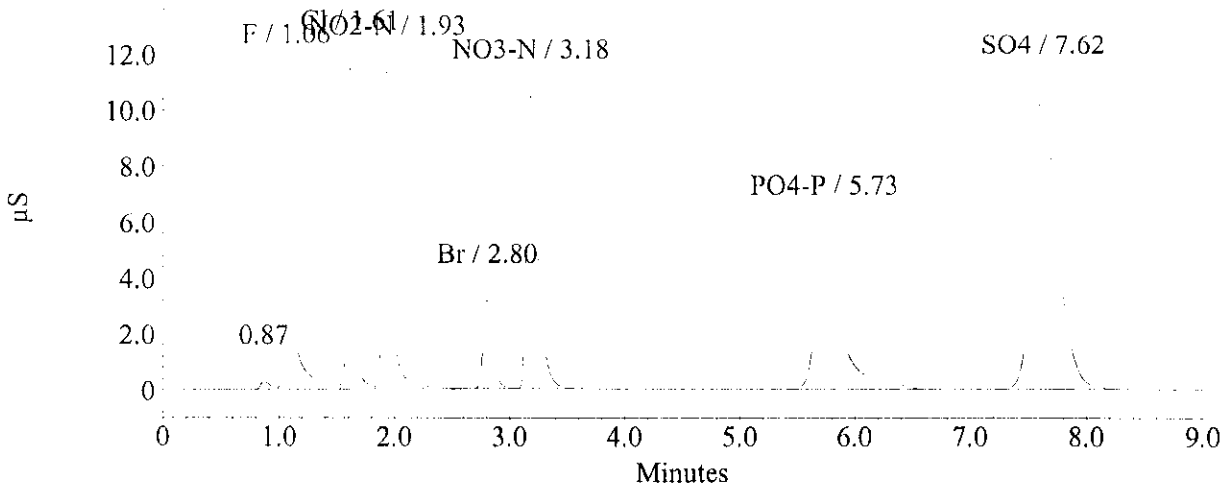
Sample Name : ANION STD. LEVEL 5
Data File Name : C:\PEAKNET\DATA\072501\IC1_006.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/25/2001 12:44
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	16432
2	F	1.06	7.6629	576367
3	Cl	1.61	7.6369	454665
4	NO2-N	1.93	4.7174	573833
5	Br	2.80	7.6946	175403
6	NO3-N	3.18	5.1610	723864
7	PO4-P	5.73	12.7658	842435
8	SO4	7.62	38.1554	1589562

ANION STD. LEVEL 5



Sample Analysis Report

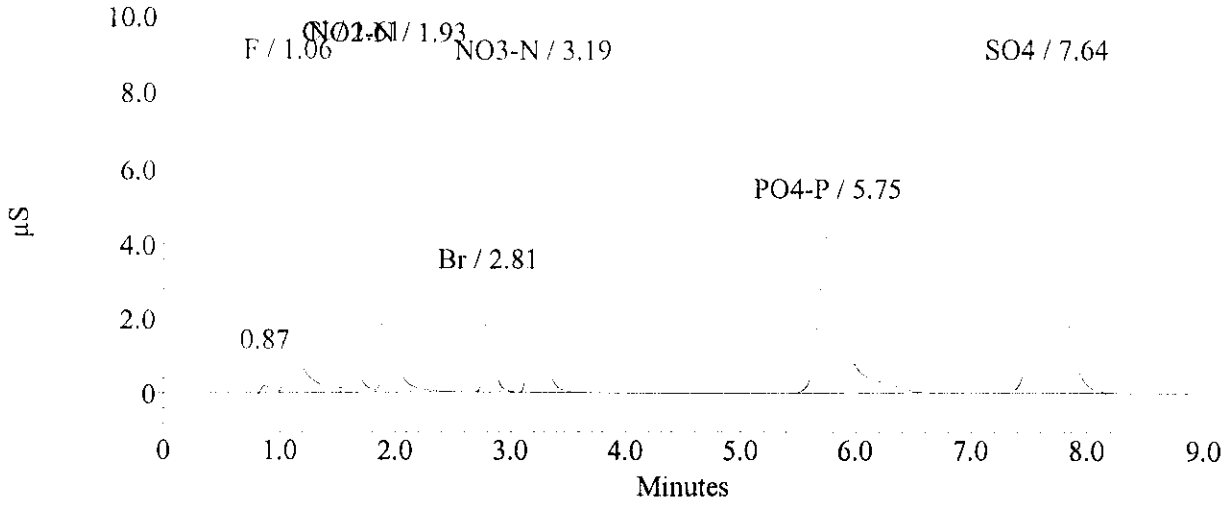
Sample Name : ANION STD. LEVEL 4
Data File Name : C:\PEAKNET\DATA\072501\IC1_007.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/25/2001 12:56
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	11815
2	F	1.06	5.6840	421342
3	Cl	1.61	5.6543	331939
4	NO2-N	1.93	3.4704	416841
5	Br	2.81	5.7367	129425
6	NO3-N	3.19	3.8381	530622
7	PO4-P	5.75	9.7044	642141
8	SO4	7.64	28.4659	1170718

ANION STD. LEVEL 4



Sample Analysis Report

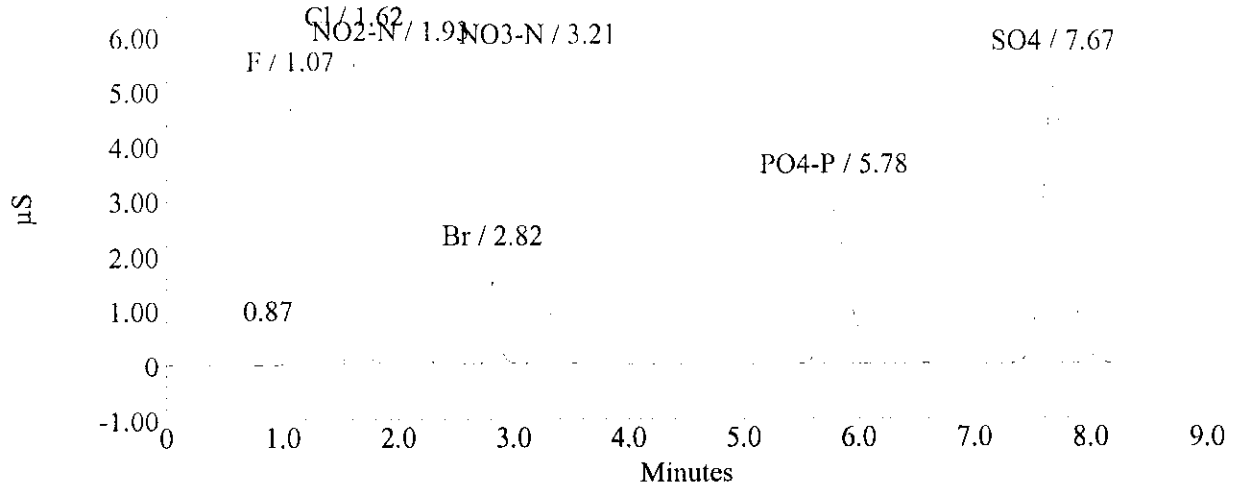
Sample Name : ANION STD. LEVEL 3
Data File Name : C:\PEAKNET\DATA\072501\IC1_008.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/25/2001 13:07
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	7684
2	F	1.07	3.7222	267284
3	Cl	1.62	3.8390	220721
4	NO2-N	1.93	2.2463	261404
5	Br	2.82	3.7813	83460
6	NO3-N	3.21	2.5491	342927
7	PO4-P	5.78	6.6891	445027
8	SO4	7.67	18.7181	748529

ANION STD. LEVEL 3



Sample Analysis Report

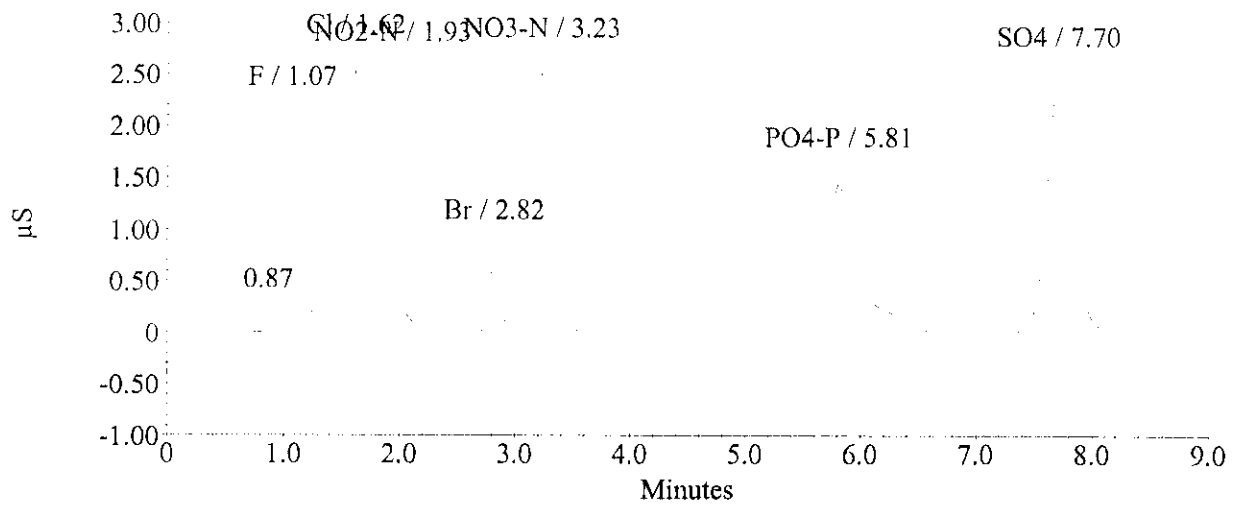
Sample Name : ANION STD. LEVEL 2
Data File Name : C:\PEAKNET\DATA\072501\IC1_009.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/25/2001 13:19
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	3981
2	F	1.07	1.9331	127237
3	Cl	1.62	1.9431	104091
4	NO2-N	1.93	1.1612	123710
5	Br	2.82	1.9882	41505
6	NO3-N	3.23	1.3168	163235
7	PO4-P	5.81	3.6565	247924
8	SO4	7.70	9.7084	358507

ANION STD. LEVEL 2



Sample Analysis Report

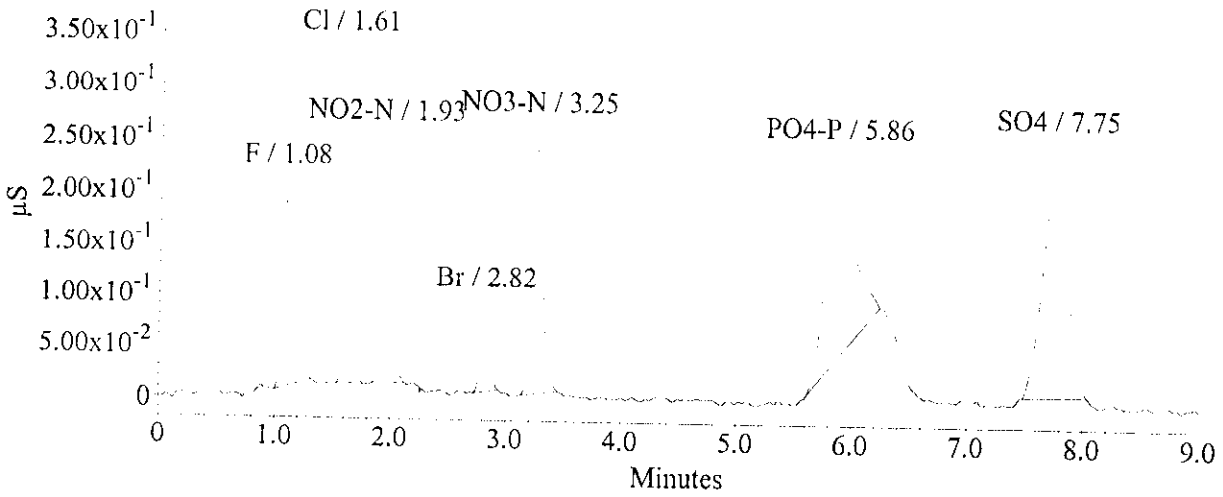
Sample Name : ANION STD. LEVEL 1
Data File Name : C:\PEAKNET\DATA\072501\IC1_010.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/25/2001 13:30
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1	F	1.08	0.4470	12012
2	Cl	1.61	0.4424	13222
3	NO2-N	1.93	0.2709	11538
4	Br	2.82	0.3675	3584
5	NO3-N	3.25	0.2982	15565
6	PO4-P	5.86	0.2841	29203
7	SO4	7.75	2.1559	32609

ANION STD. LEVEL 1



Sample Analysis Report

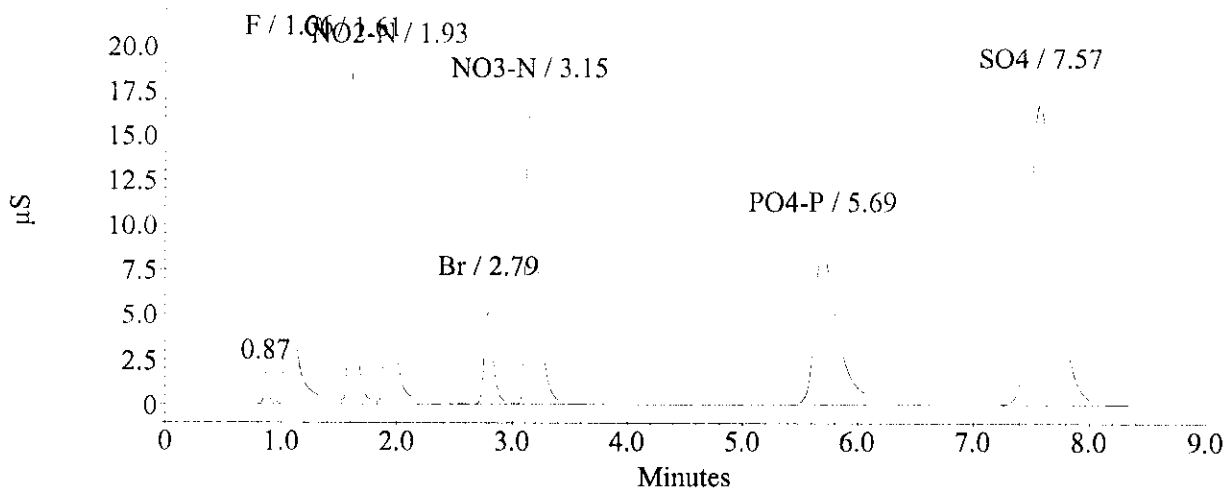
Sample Name : ANION STD. LEVEL 6/REMAKE
Data File Name : C:\PEAKNET\DATA\072501\IC1_011.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/25/2001 13:43
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	25748
2	F	1.06	12.3209	922741
3	Cl	1.61	12.3044	725016
4	NO2-N	1.93	7.4942	913402
5	Br	2.79	12.2709	278217
6	NO3-N	3.15	8.3654	1167861
7	PO4-P	5.69	19.5952	1277391
8	SO4	7.57	61.6259	2555033

ANION STD. LEVEL 6/REMAKE



Sample Analysis Report

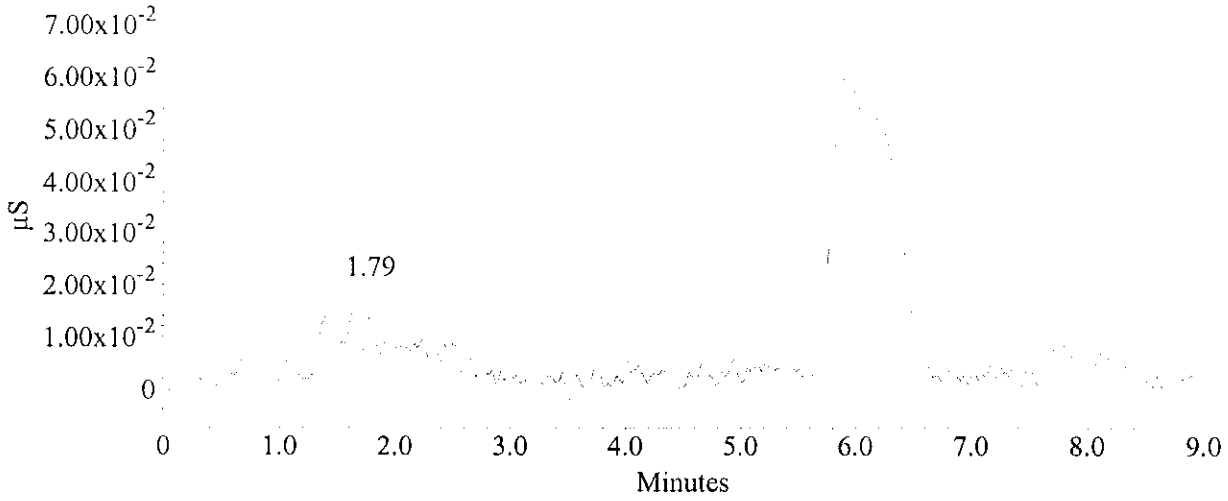
Sample Name : ANION BLANK (ELUENT ONLY)
Data File Name : C:\PEAKNET\DATA\072501\IC1_013.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 14:10
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		1.79	0.0000	243

ANION BLANK (ELUENT ONLY)



ICAL REPORT

INSTRUMENT : IC1
FILE NAME: IC1_014
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		NA		#VALUE!	#VALUE!
Cl	6.00		NA		#VALUE!	#VALUE!
NO2-N	3.66		3.42		-6.53	PASS
Br	6.00		NA		#VALUE!	#VALUE!
NO3-N	4.06		3.92		-3.48	PASS
PO4-P	9.70		NA		#VALUE!	#VALUE!
SO4	30.00		NA		#VALUE!	#VALUE!

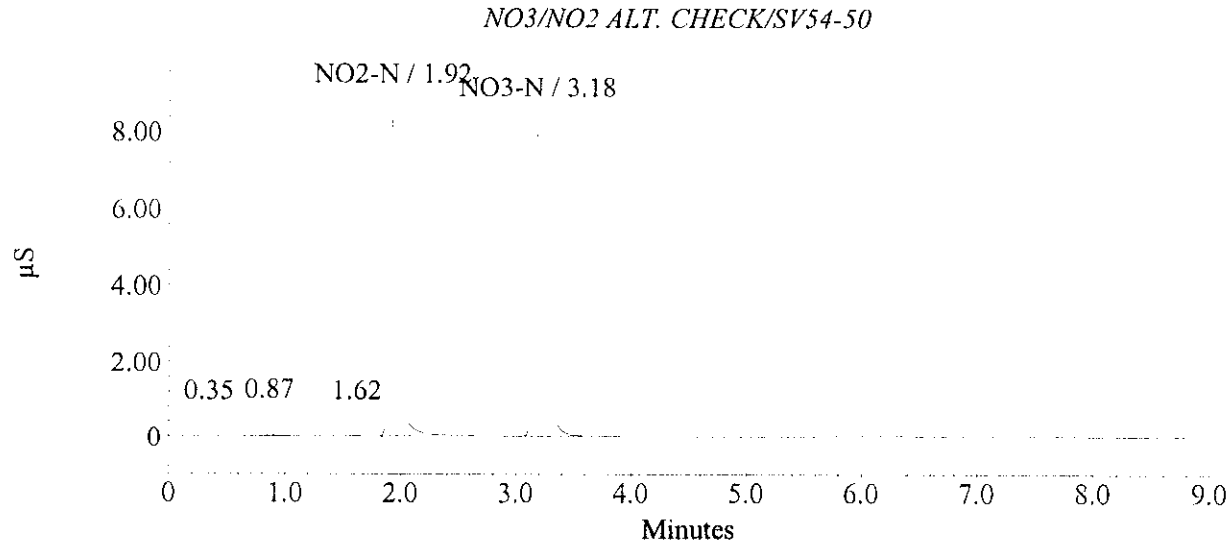
Sample Analysis Report

Sample Name : NO3/NO2 ALT. CHECK/SV54-50
Data File Name : C:\PEAKNET\DATA\072501\IC1_014.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 14:25
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.35	0.0000	97
2		0.87	0.0000	2164
3		1.62	0.0000	243
4	NO2-N	1.92	3.4210	405922
5	NO3-N	3.18	3.9187	534683



ICAL REPORT

INSTRUMENT : IC1
FILE NAME: IC1_015
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.71		-4.87	PASS
Cl	6.00		5.70		-5.05	PASS
NO2-N	3.66		NA		#VALUE!	#VALUE!
Br	6.00		5.73		-4.45	PASS
NO3-N	4.06		NA		#VALUE!	#VALUE!
PO4-P	9.70		9.72		0.24	PASS
SO4	30.00		28.75		-4.15	PASS

Sample Analysis Report

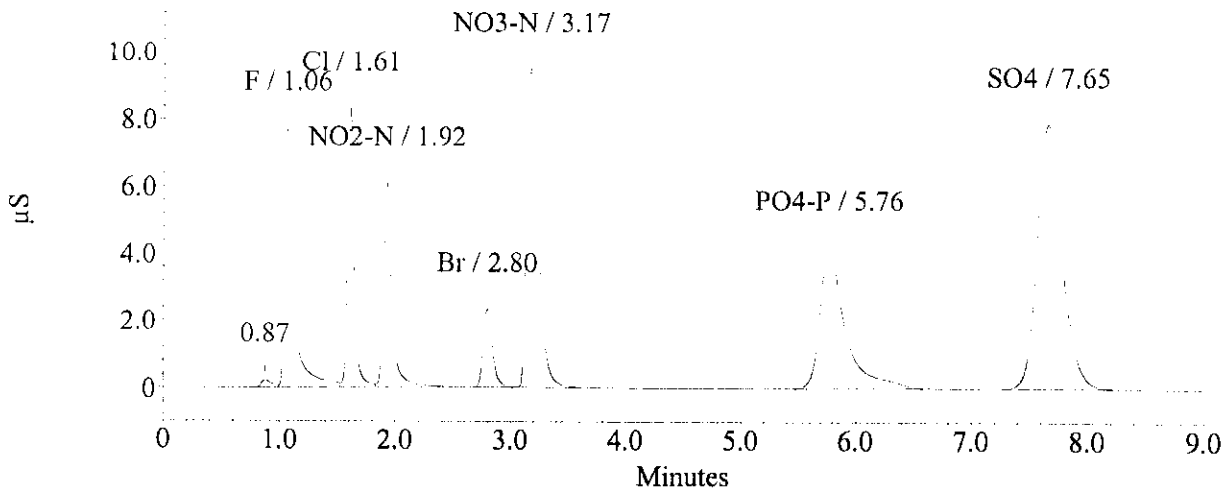
Sample Name : 9056 ALT/SV52-43
Data File Name : C:\PEAKNET\DATA\072501\IC1_015.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 14:36
System Operator : RDC

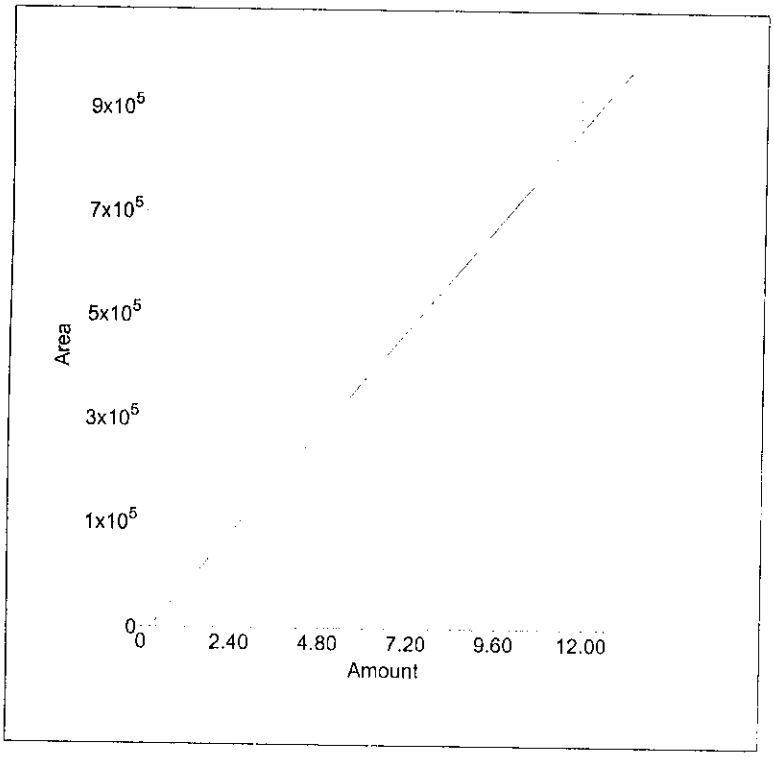
Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	13389
2	F	1.06	5.7081	417150
3	Cl	1.61	5.6973	329860
4	NO2-N	1.92	2.6473	309532
5	Br	2.80	5.7329	127731
6	NO3-N	3.17	4.6985	645728
7	PO4-P	5.76	9.7230	640964
8	SO4	7.65	28.7540	1165386

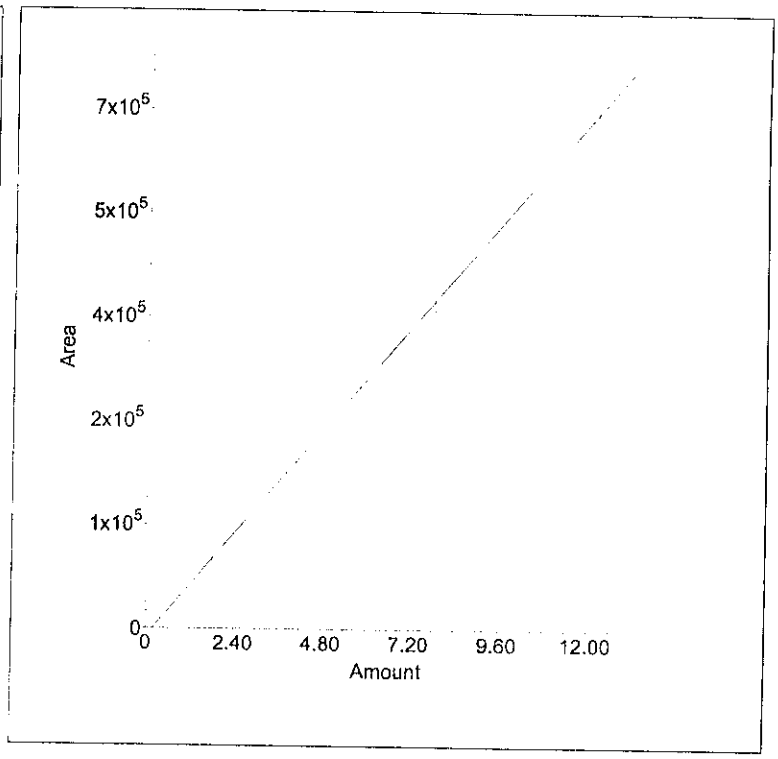
9056 ALT/SV52-43



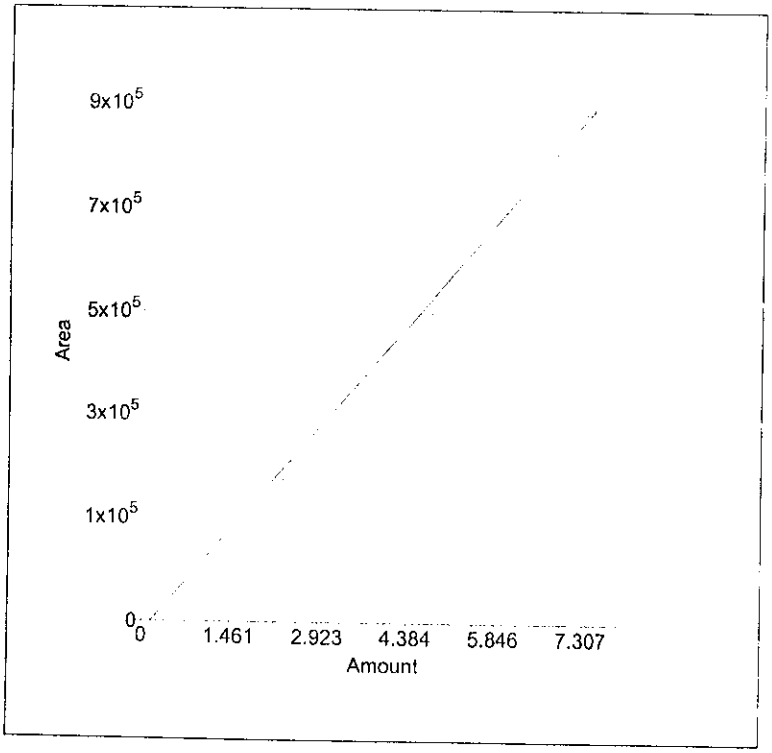
1. Component:F
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997182
Amt=1.311e-005*Resp+0.2333



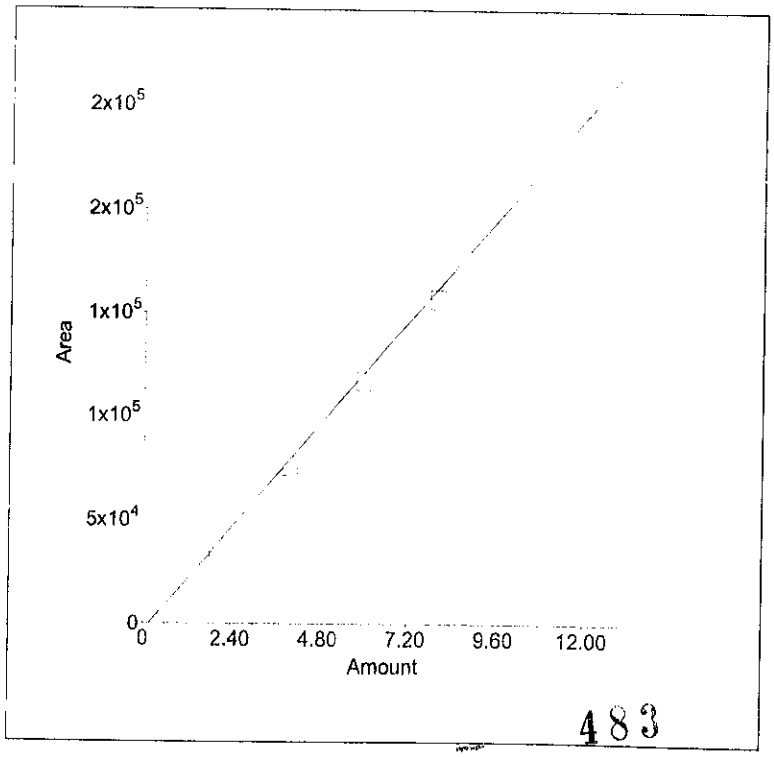
2. Component:Cl
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997648
Amt=1.672e-005*Resp+0.1908



3. Component:NO2-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996454
Amt=8.028e-006*Resp+0.1541

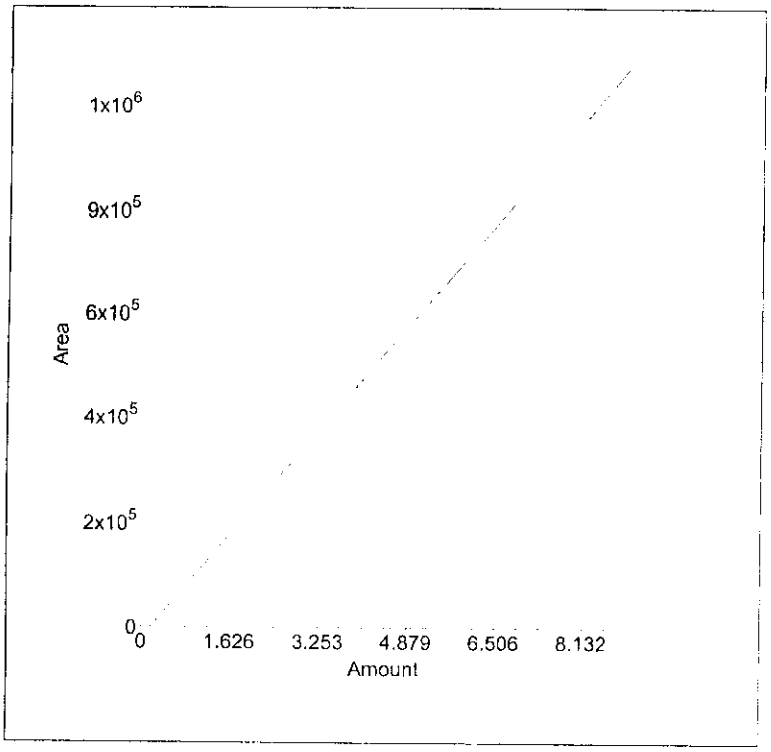


4. Component:Br
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998007
Amt=4.364e-005*Resp+0.1681

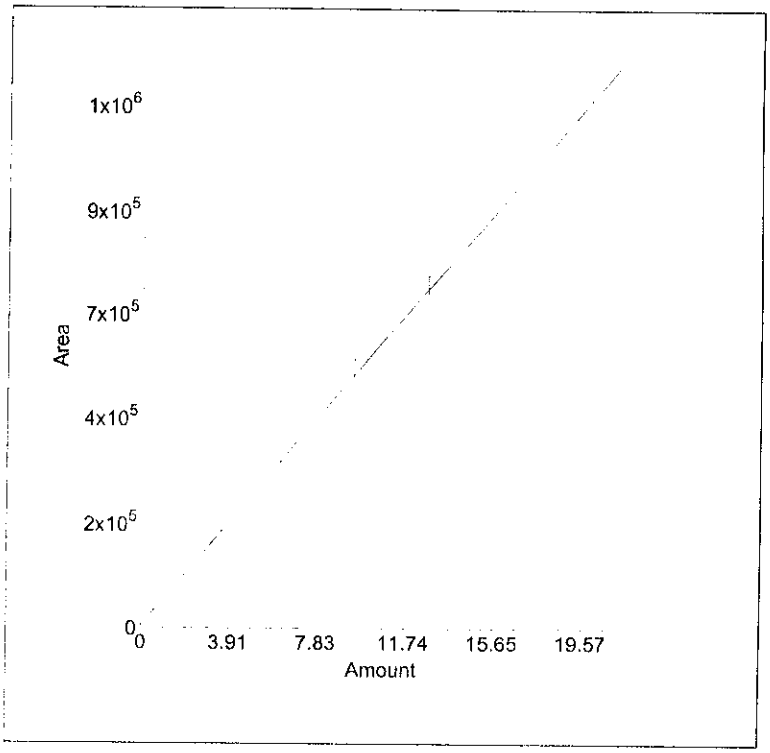


483

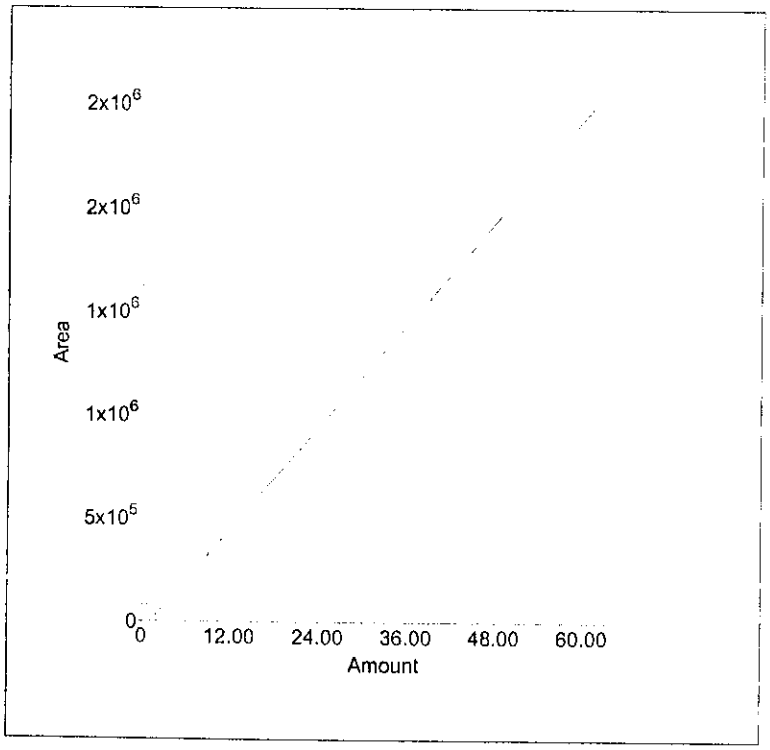
5. Component:NO3-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996708
Amt=7.031e-006*Resp+0.1672



6. Component:PO4-P
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999601
Amt=1.652e-005*Resp+-0.09424



7. Component:SO4
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996704
Amt=2.354e-005*Resp+1.22



Sample Analysis Report

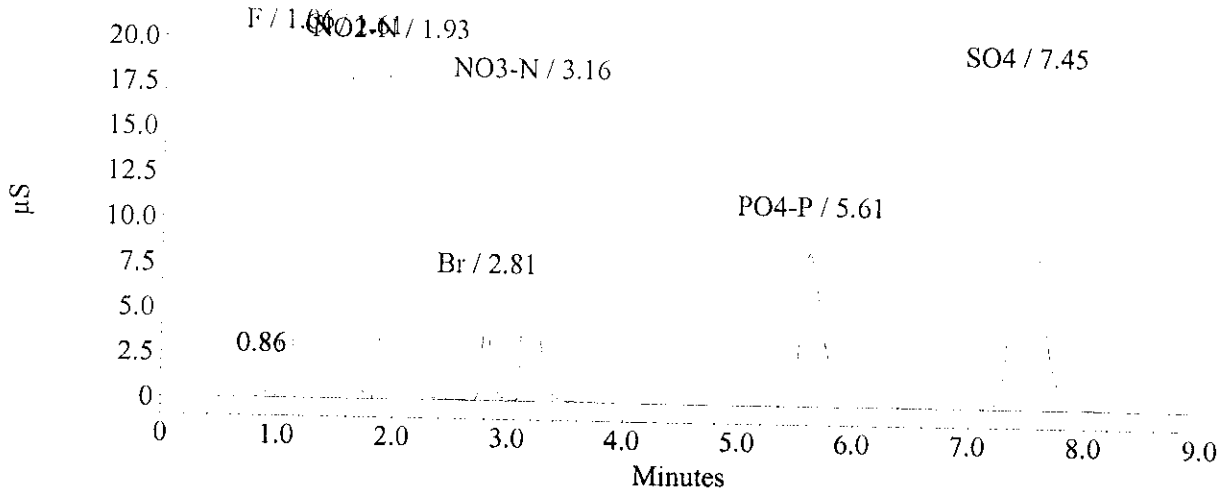
Sample Name : ANION STD. LEVEL 6
Data File Name : C:\PEAKNET\DATA\072501\IC1_046.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 0:32
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.86	0.0000	25662
2	F	1.06	12.3146	921241
3	Cl	1.61	12.2961	723488
4	NO2-N	1.93	7.5045	917405
5	Br	2.81	12.2594	277416
6	NO3-N	3.16	8.3576	1164356
7	PO4-P	5.61	19.0492	1194009
8	SO4	7.45	61.7158	2567045

ANION STD. LEVEL 6



Sample Analysis Report

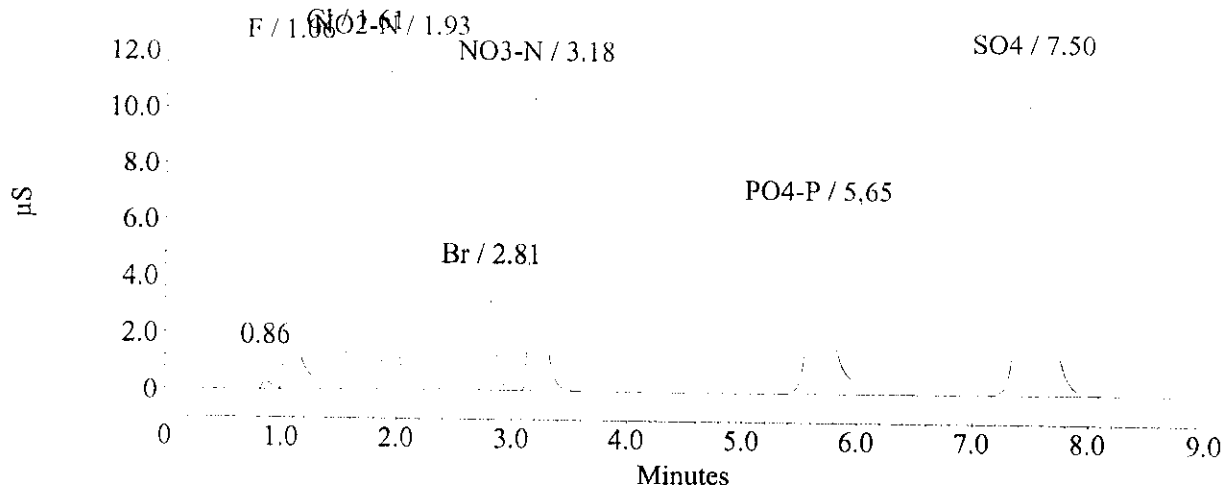
Sample Name : ANION STD. LEVEL 5
Data File Name : C:\PEAKNET\DATA\072501\IC1_047.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 0:43
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.86	0.0000	16393
2	F	1.06	7.7796	574585
3	Cl	1.61	7.8125	456144
4	NO2-N	1.93	4.7019	564986
5	Br	2.81	7.7698	174016
6	NO3-N	3.18	5.2717	726696
7	PO4-P	5.65	12.6240	787092
8	SO4	7.50	38.8340	1597696

ANION STD. LEVEL 5



Sample Analysis Report

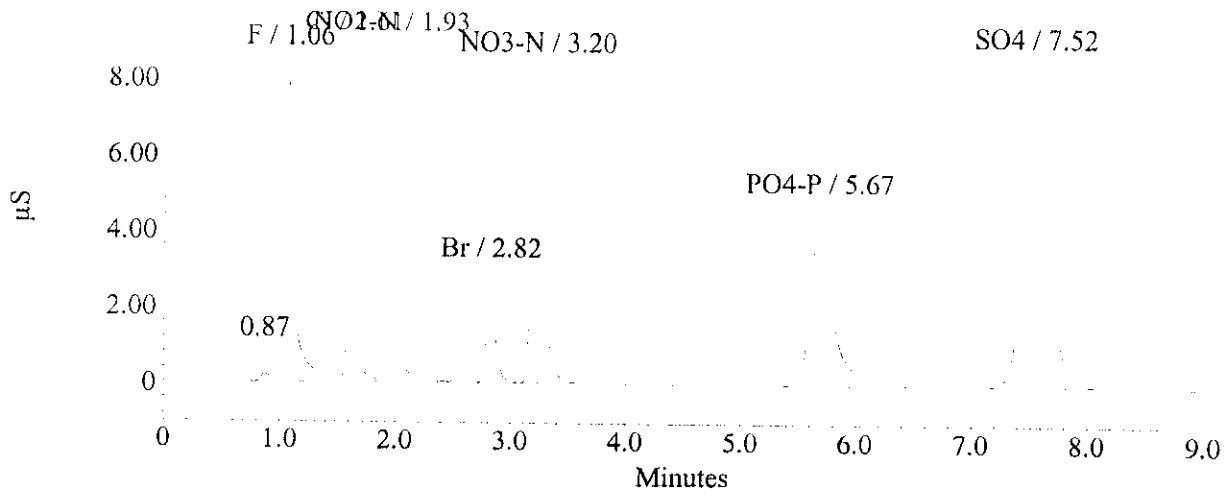
Sample Name : ANION STD. LEVEL 4
Data File Name : C:\PEAKNET\DATA\072501\IC1_048.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 0:55
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	12596
2	F	1.06	5.7901	423788
3	Cl	1.61	5.7434	332743
4	NO2-N	1.93	3.5367	420968
5	Br	2.82	5.8146	129647
6	NO3-N	3.20	3.8788	528715
7	PO4-P	5.67	9.0952	593088
8	SO4	7.52	28.8793	1170674

ANION STD. LEVEL 4



487

Sample Analysis Report

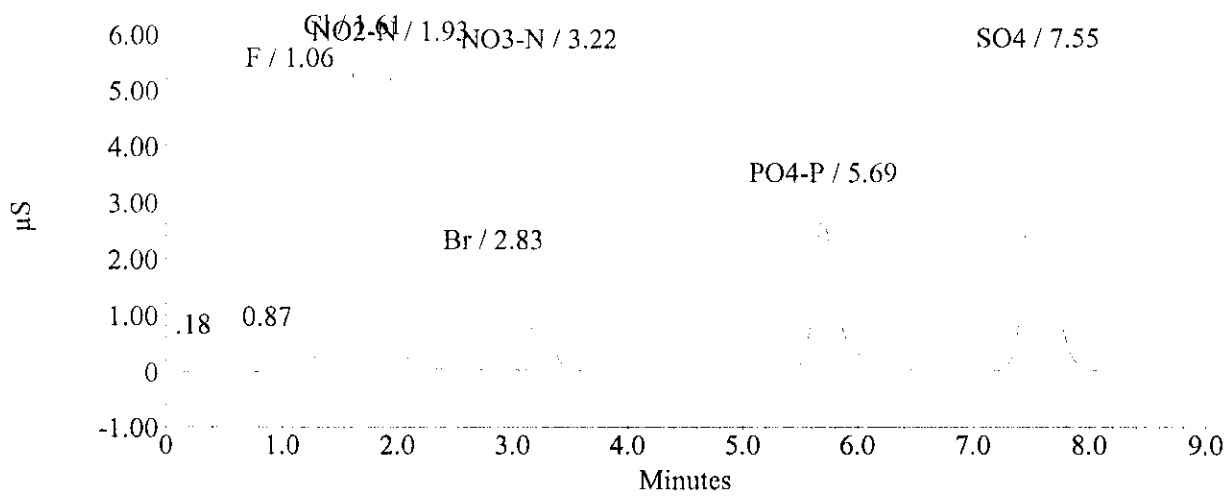
Sample Name : ANION STD. LEVEL 3
Data File Name : C:\PEAKNET\DATA\072501\IC1_049.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 1:06
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.18	0.0000	305
2		0.87	0.0000	8745
3	F	1.06	3.7951	271917
4	Cl	1.61	3.8399	218567
5	NO2-N	1.93	2.2959	267182
6	Br	2.83	3.8512	84625
7	NO3-N	3.22	2.5581	340291
8	PO4-P	5.69	6.2247	402496
9	SO4	7.55	18.8996	748832

ANION STD. LEVEL 3



488

Sample Analysis Report

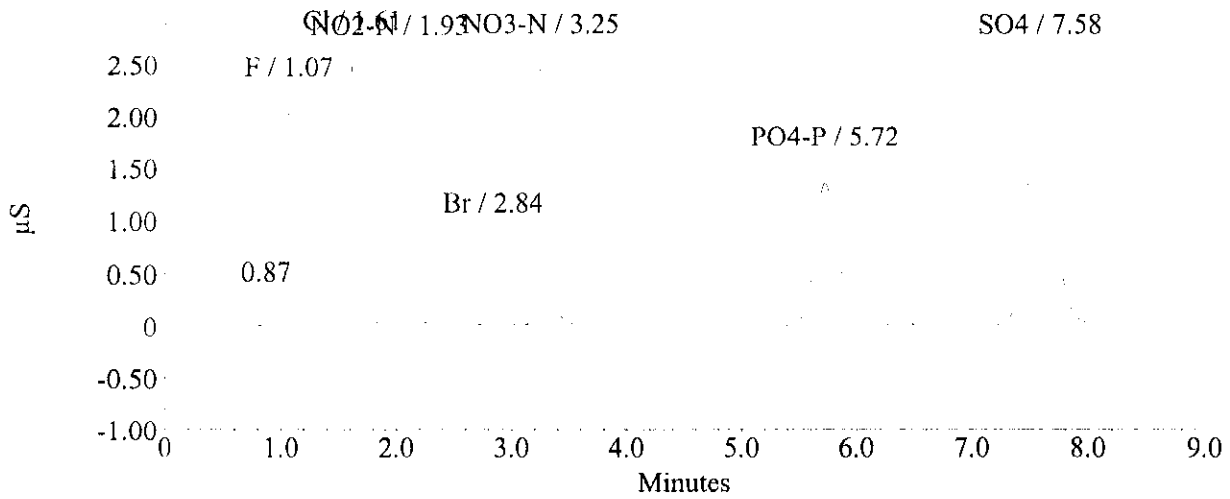
Sample Name : ANION STD. LEVEL 2
Data File Name : C:\PEAKNET\DATA\072501\IC1_050.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 1:18
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	3787
2	F	1.07	1.9235	129286
3	Cl	1.61	1.9300	104350
4	NO2-N	1.93	1.1593	126116
5	Br	2.84	1.9653	41162
6	NO3-N	3.25	1.3073	161900
7	PO4-P	5.72	3.4719	220090
8	SO4	7.58	9.6570	358007

ANION STD. LEVEL 2



489

: PeakNet 5.1

Current Date : 7/26/200
Current Time : 08:44:55

Sample Analysis Report

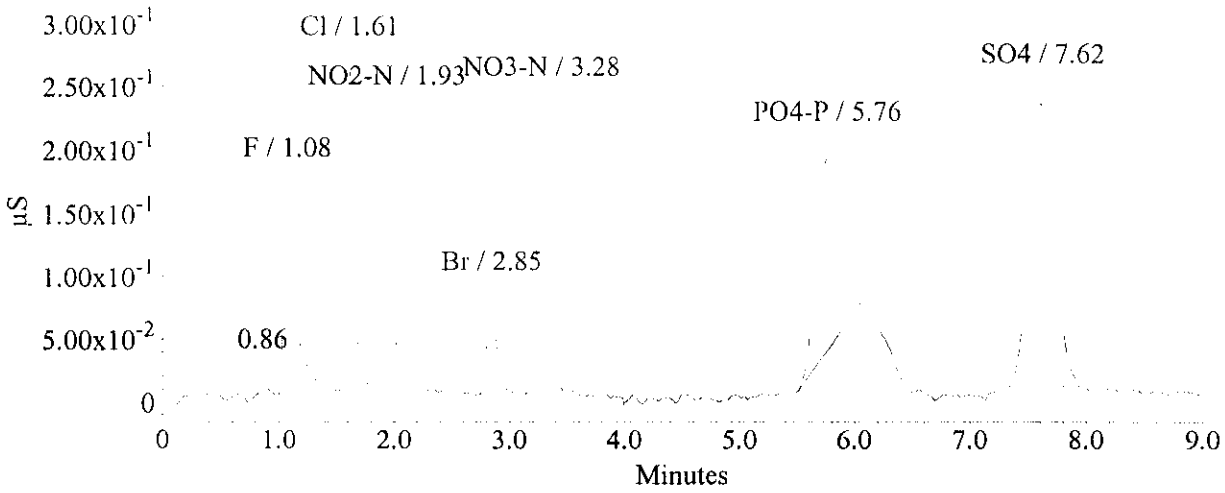
Sample Name : ANION STD. LEVEL 1
Data File Name : C:\PEAKNET\DATA\072501\IC1_051.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 1:29
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.86	0.0000	202
2	F	1.08	0.3769	10795
3	Cl	1.61	0.3829	11218
4	NO2-N	1.93	0.2373	11281
5	Br	2.85	0.3445	3969
6	NO3-N	3.28	0.2776	15081
7	PO4-P	5.76	0.4321	21039
8	SO4	7.62	1.9802	33808

ANION STD. LEVEL 1



490

: PeakNet 5.1

Current Date : 7/26/200
Current Time : 08:45:51

Sample Analysis Report

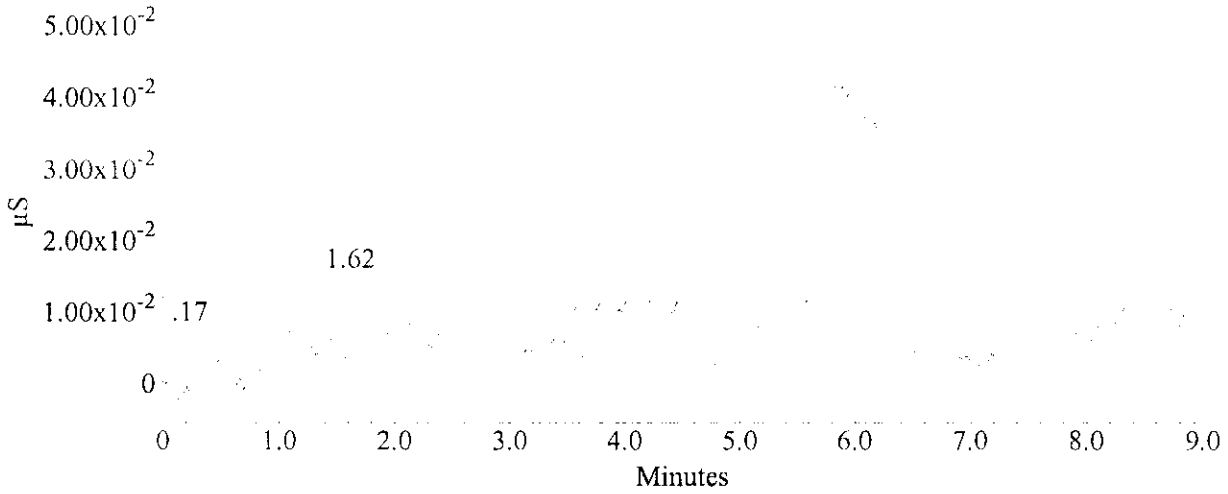
Sample Name : ANION BLANK (ELUENT ONLY)
Data File Name : C:\PEAKNET\DATA\072501\IC1_052.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 1:41
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.17	0.0000	125
2		1.62	0.0000	227

ANION BLANK (ELUENT ONLY)



491

: PeakNet 5.1

Current Date : 7/26/200
Current Time : 08:46:33

ICAL REPORT

INSTRUMENT : IC1
FILE NAME: IC1_053
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00				-100.00	FAIL #
Cl	6.00				-100.00	FAIL #
NO2-N	3.66		3.44		-6.08	PASS
Br	6.00				-100.00	FAIL #
NO3-N	4.06		3.93		-3.09	PASS
PO4-P	9.70				-100.00	FAIL #
SO4	30.00				-100.00	FAIL #

492

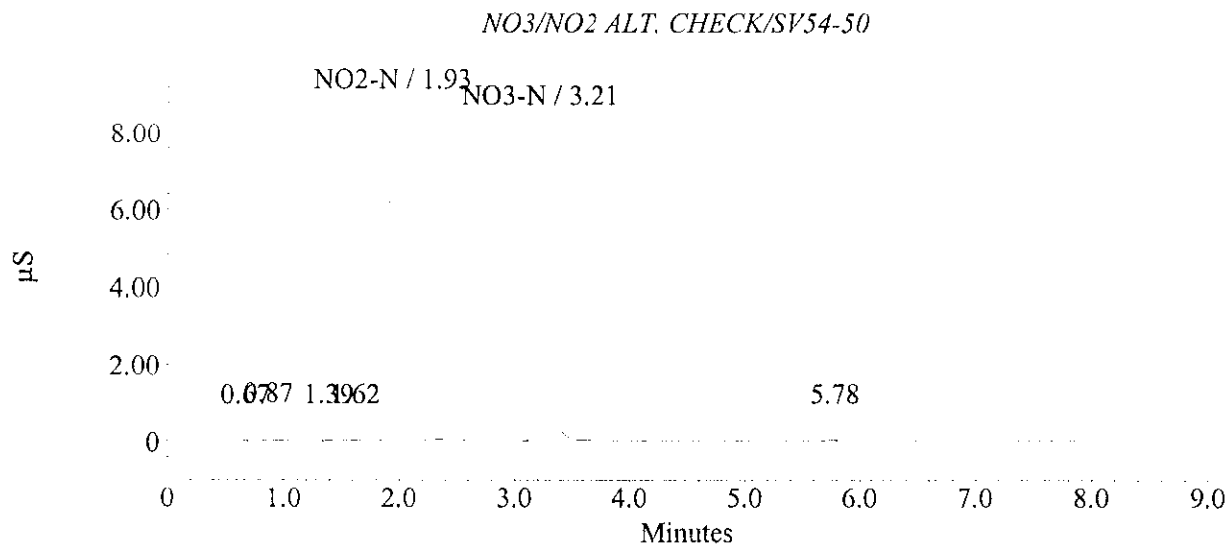
Sample Analysis Report

Sample Name : NO3/NO2 ALT. CHECK/SV54-50
Data File Name : C:\PEAKNET\DATA\072501\IC1_053.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 1:52
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.67	0.0000	155
2		0.87	0.0000	2392
3		1.39	0.0000	413
4		1.62	0.0000	628
5	NO2-N	1.93	3.4376	409000
6	NO3-N	3.21	3.9347	535823
7		5.78	0.0000	501



ICAL REPORT

INSTRUMENT : IC1
FILE NAME: IC1_054
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.67		-5.43	PASS
Cl	6.00		5.71		-4.76	PASS
NO2-N	3.66				-100.00	FAIL #
Br	6.00		5.74		-4.26	PASS
NO3-N	4.06				-100.00	FAIL #
PO4-P	9.70		9.75		0.56	PASS
SO4	30.00		28.80		-3.99	PASS

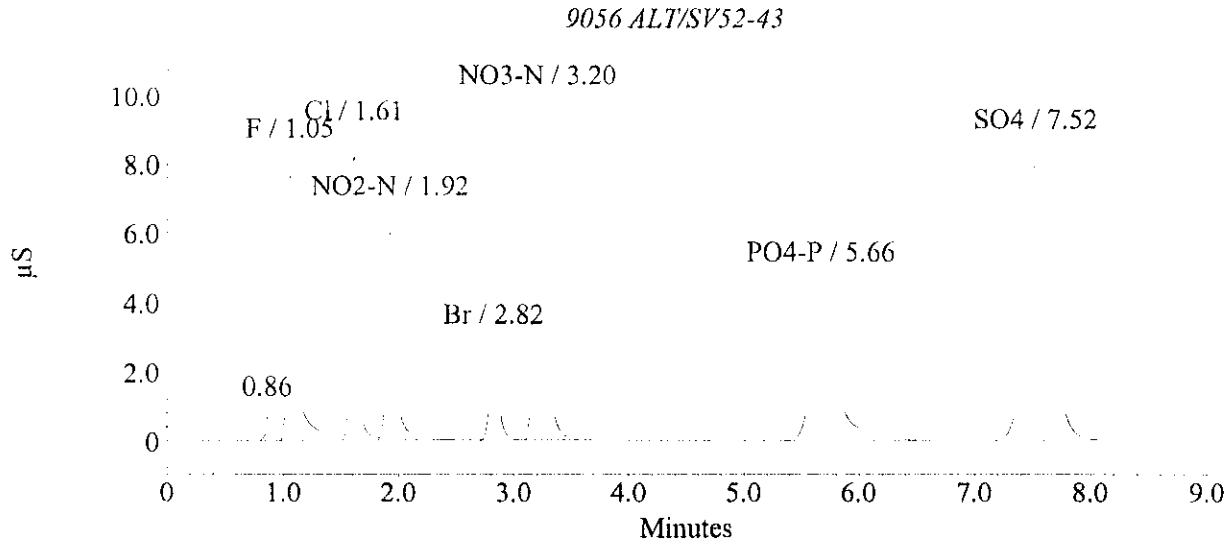
Sample Analysis Report

Sample Name : 9056 ALT/SV52-43
Data File Name : C:\PEAKNET\DATA\072501\IC1_054.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 2:04
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.86	0.0000	12491
2	F	1.05	5.6743	415031
3	Cl	1.61	5.7144	330460
4	NO2-N	1.92	2.6492	310795
5	Br	2.82	5.7442	127766
6	NO3-N	3.20	4.6915	643458
7	PO4-P	5.66	9.7540	596033
8	SO4	7.52	28.8032	1171653



CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_030
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.70		-5.03	**FAIL #**
Cl	6.00		5.74		-4.37	**PASS**
NO2-N	3.65		3.49		-4.48	**PASS**
Br	6.00		5.84		-2.65	**PASS**
NO3-N	4.07		3.90		-3.98	**PASS**
PO4-P	9.78		10.62		8.55	**FAIL #**
SO4	30.00		29.0		-3.41	**PASS**

Sample Analysis Report

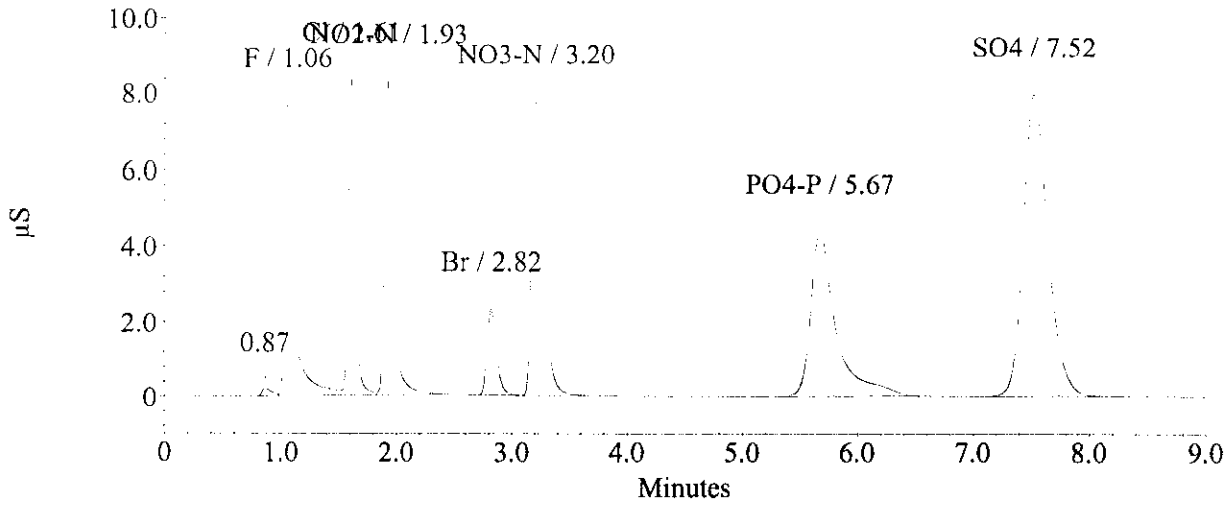
Sample Name : ANION CCV
Data File Name : C:\PEAKNET\DATA\072501\IC1_030.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 21:14
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	11718
2	F	1.06	5.6983	416396
3	Cl	1.61	5.7379	332292
4	NO2-N	1.93	3.4897	414483
5	Br	2.82	5.8409	130219
6	NO3-N	3.20	3.9043	532641
7	PO4-P	5.67	10.6211	673512
8	SO4	7.52	28.9785	1174875

ANION CCV



CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_037
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.72		-4.60	**PASS**
Cl	6.00		5.71		-4.85	**PASS**
NO2-N	3.65		3.51		-3.95	**PASS**
Br	6.00		5.83		-2.76	**PASS**
NO3-N	4.07		3.89		-4.24	**PASS**
PO4-P	9.78		9.67		-1.17	**PASS**
SO4	30.00		28.9		-3.78	**PASS**

Sample Analysis Report

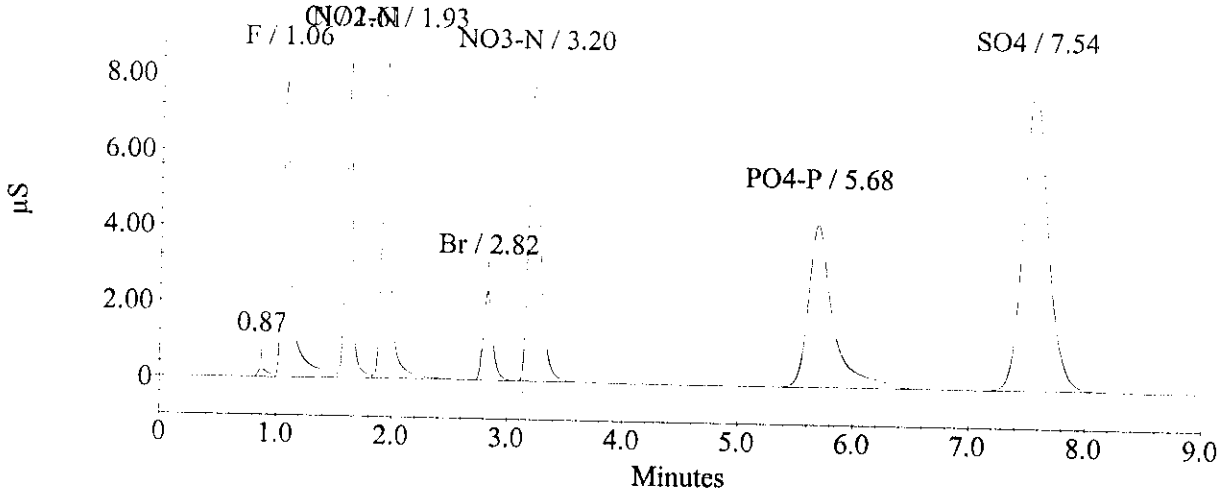
Sample Name : ANION CCV
Data File Name : C:\PEAKNET\DATA\072501\IC1_037.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 22:34
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	11842
2	F	1.06	5.7242	418376
3	Cl	1.61	5.7091	330570
4	NO2-N	1.93	3.5090	416888
5	Br	2.82	5.8347	130075
6	NO3-N	3.20	3.8938	531147
7	PO4-P	5.68	9.6702	637557
8	SO4	7.54	28.8647	1170066

ANION CCV



CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_058
DATE RUN: 25-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.76		-4.04	**PASS**
Cl	6.00		5.72		-4.72	**PASS**
NO2-N	3.65		3.51		-3.89	**PASS**
Br	6.00		5.85		-2.48	**PASS**
NO3-N	4.07		3.90		-4.06	**PASS**
PO4-P	9.78		10.89		11.34	**FAIL #**
SO4	30.00		28.8		-3.93	**PASS**

Sample Analysis Report

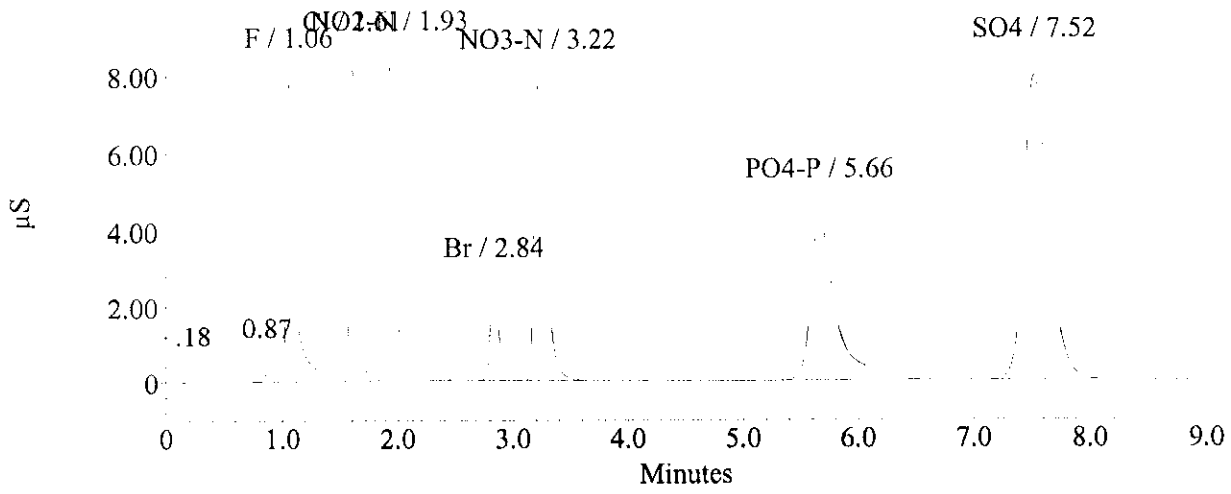
Sample Name : ANION CCV
Data File Name : C:\PEAKNET\DATA\072501\IC1_058.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 7/26/2001 2:50
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.18	0.0000	174
2		0.87	0.0000	12566
3	F	1.06	5.7576	421388
4	Cl	1.61	5.7173	330632
5	NO2-N	1.93	3.5112	418166
6	Br	2.84	5.8513	130219
7	NO3-N	3.22	3.9011	531038
8	PO4-P	5.66	10.8938	665014
9	SO4	7.52	28.8196	1172350

ANION CCV



501

: PeakNet 5.1

Current Date : 7/26/200
Current Time : 08:58:28

INSTRUMENT : IC1
FILE NAME: IC1_003
DATE RUN: 26-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.70		-5.06	**FAIL #**
Cl	6.00		5.74		-4.39	**PASS**
NO2-N	3.65		3.50		-4.29	**PASS**
Br	6.00		5.87		-2.20	**PASS**
NO3-N	4.07		3.91		-3.74	**PASS**
PO4-P	9.78		9.32		-4.72	**PASS**
SO4	30.00		28.9		-3.59	**PASS**

Sample Analysis Report

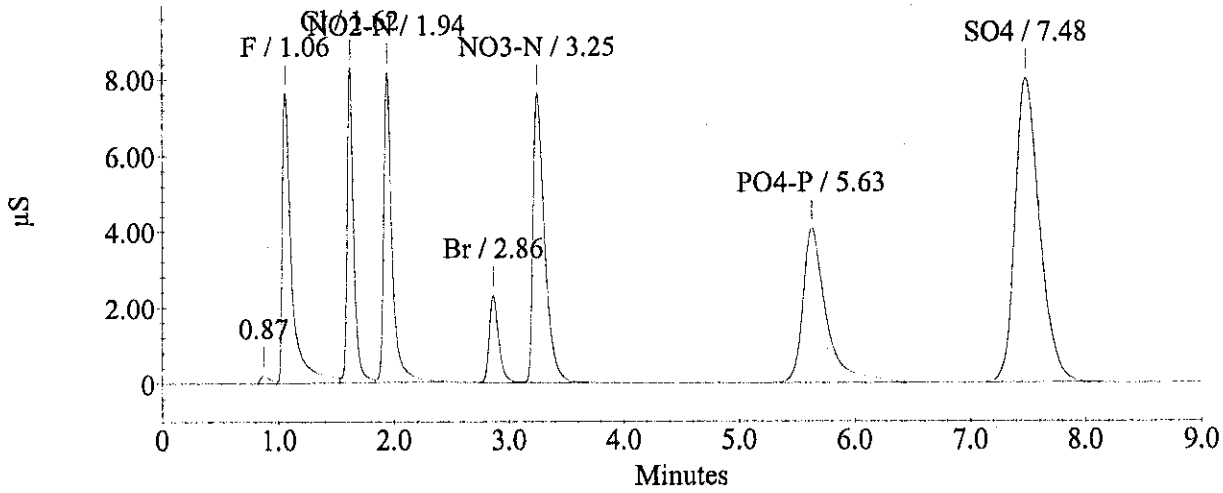
Sample Name : ANION CCV
Data File Name : C:\PEAKNET\DATA\072601\IC1_003.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 9:31
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	11494
2	F	1.06	5.6967	416740
3	Cl	1.62	5.7367	331791
4	NO2-N	1.94	3.4965	416334
5	Br	2.86	5.8682	130606
6	NO3-N	3.25	3.9142	532904
7	PO4-P	5.63	9.3220	569885
8	SO4	7.48	28.9233	1176754

ANION CCV



INSTRUMENT : IC1
FILE NAME: IC1_007
DATE RUN: 26-Jul-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.77		-3.89	**PASS**
Cl	6.00		5.74		-4.30	**PASS**
NO2-N	3.65		3.53		-3.50	**PASS**
Br	6.00		5.84		-2.69	**PASS**
NO3-N	4.07		3.90		-3.99	**PASS**
PO4-P	9.78		9.34		-4.50	**PASS**
SO4	30.00		28.8		-3.91	**PASS**

Sample Analysis Report

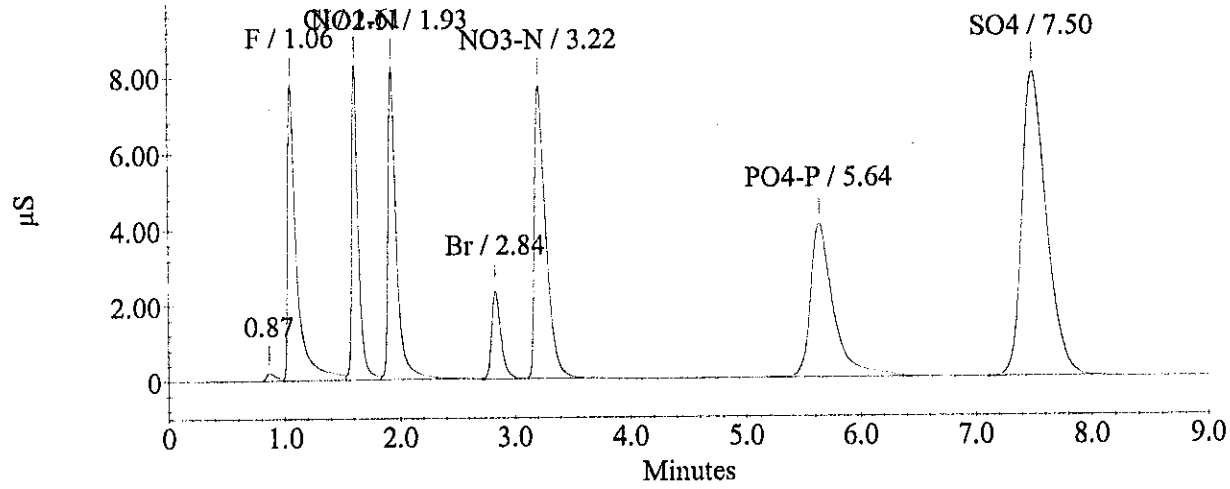
Sample Name : ANION CCV
Data File Name : C:\PEAKNET\DATA\072601\IC1_007.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 10:54
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	11660
2	F	1.06	5.7669	422098
3	Cl	1.61	5.7421	332117
4	NO2-N	1.93	3.5256	419962
5	Br	2.84	5.8384	129923
6	NO3-N	3.22	3.9040	531453
7	PO4-P	5.64	9.3444	571240
8	SO4	7.50	28.8281	1172709

ANION CCV



2.4.5.4 Raw QC Data

Sample Analysis Report

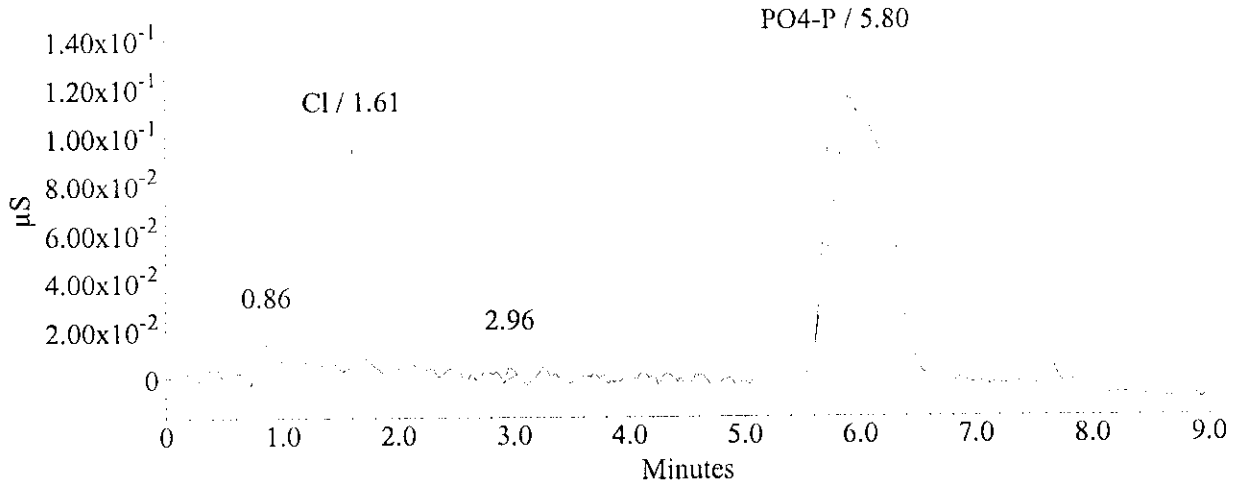
Sample Name : ANION BLANK 7/25/01
Data File Name : C:\PEAKNET\DATA\072501\IC1_031.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 21:25
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.86	0.0000	437
2	Cl	1.61	0.2477 NR	3939
3		2.96	0.0000	195
4	PO4-P	5.80	-0.1418 LMDL	5016

ANION BLANK 7/25/01



Sample Analysis Report

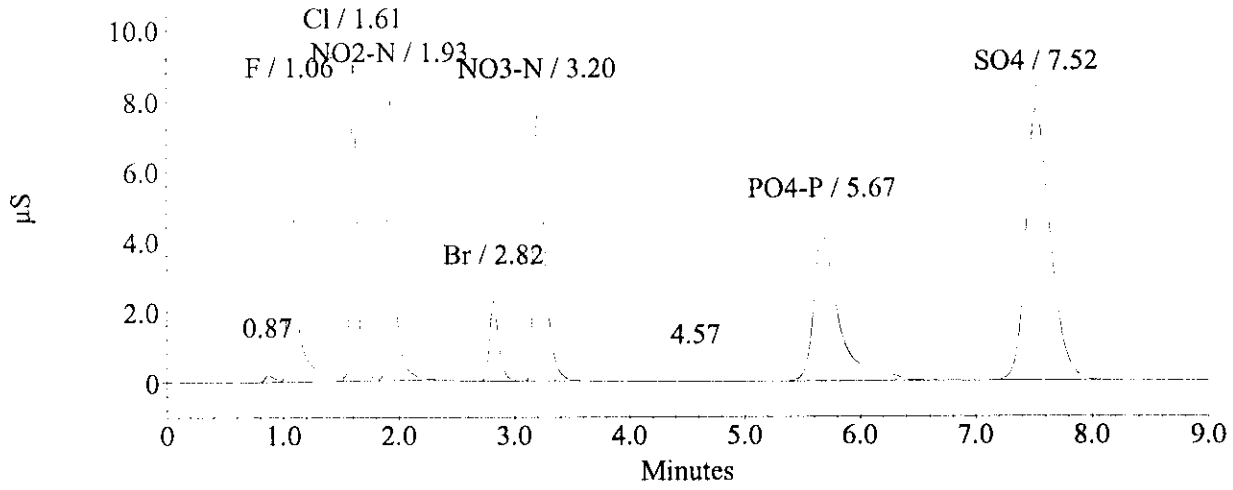
Sample Name : ANION LCS 7/25/01
Data File Name : C:\PEAKNET\DATA\072501\IC1_032.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/25/2001 21:37
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.87	0.0000	11509
2	F	1.06	5.6650	413851
3	Cl	1.61	6.0995	353917
4	NO2-N	1.93	3.3344	395135
5	Br	2.82	5.6357	125496
6	NO3-N	3.20	3.7804	514997
7		4.57	0.0000	330
8	PO4-P	5.67	9.5710	631168
9	SO4	7.52	28.0798	1136885

ANION LCS 7/25/01



Sample Analysis Report

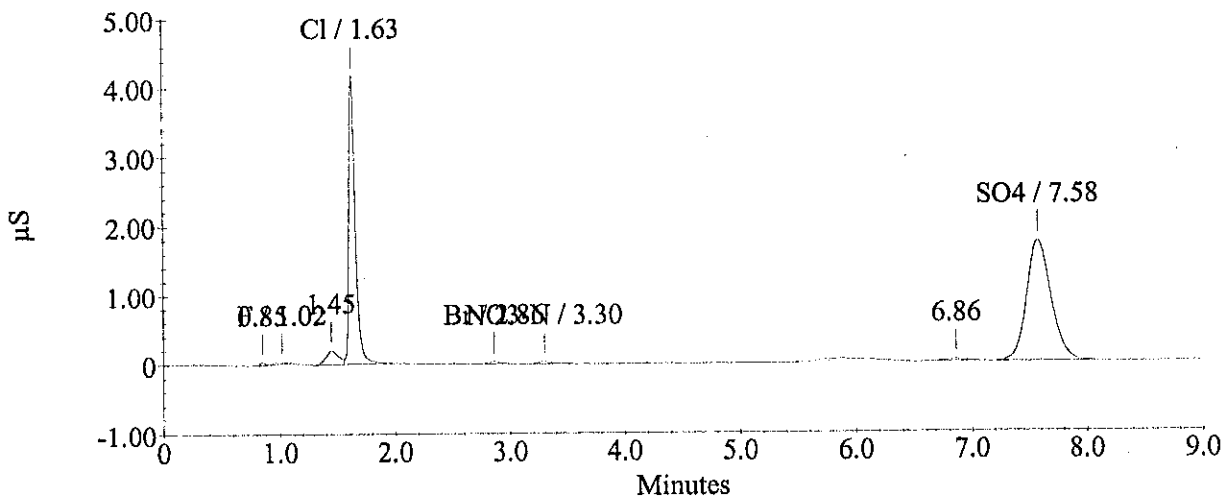
Sample Name : L0107411-07 DUPLICATE
Data File Name : C:\PEAKNET\DATA\072601\IC1_006.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 7/26/2001 10:36
System Operator : RDC

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.85	0.0000	1052
2	F	1.02	0.2553	1487
3		1.45	0.0000	15734
4	Cl	1.63	2.9115	161046
5	Br	2.86	0.2503	1826
6	NO3-N	3.30	0.1852 J	2308
7		6.86	0.0000	3816
8	SO4	7.58	7.4061	259657

L0107411-07 DUPLICATE



KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 7/25/01 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 072501
Analyst Initials RDC SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
IC1-001	DI H_2O BLANK	NA			✓
002	ELUENT BLANK				✓
003	ANION CCV		SOS 55-06		CC
004	HPLC WATER AS SAMPLE				✓
005	ANION STD LEVEL 6		SOS 55-06		RR
006	5				✓
007	4				✓
008	3				✓
009	2				✓
010	1				✓
011	6/REMAKE				✓
012	ANION BLANK (ELUENT ONLY)				RC
013					✓
014	NO3/NO2 ALT CHECK/SV 54-50		SV 54-50		✓
015	9056 ALT/SV 52-43		SV 52-43		✓
016	ANION BLANK 7/25/01				RR
017	ANION LCS 7/25/01				
018	L0107411-01				
019	-02				
020	-03				
021	-04				
022	-07				
023	-08				
024	-09				
025	-07 DUPLICATE				✓
026	ANION CCV		SOS 55-06		CC
027	L0107411-05 MS				RR
028	-06 MSD				RR
029	ANION CCV		SOS 55-06		CC
030					✓
031	ANION BLANK 7/25/01				✓
032	LCS				✓
033	L0107411-01				✓
034	-02				✓
035	-03	✓			✓

Reviewed By: [signature] 8/1/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

510

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 7/25/01 Instrument ID IC1 Column ID AG4A-SC (AG4A-SC) Data Subdirectory 072501

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1165 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

IC1-003 CCV - all low but PO_4 ↑
-026 CCV F, PO_4 low
-029 CCV PO_4 ↑
-030 CCV PO_4 ↑, F ↓

Reviewed By: DPR 8/1/01

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 7/20/01 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 072501
Analyst Initials RWC SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
IC1 - 036	L0107411-04				✓
037	ANION CCV		SOS 55-06		✓
038	L0107411-07				RR
039	-08				RR
040	-09				RR
041	-07 DUPLICATE				RR
042	ANION CCV		SOS 55-06		CC
043					CC
044					CC
045	ELUENT BLANK				✓
046	ANION STD. LEVEL 6		SOS 55-06		✓
047	5				✓
048	4				✓
049	3				✓
050	2				✓
051	1				✓
052	ANION BLANK (ELUENT ONLY)				✓
053	NO3/NO2 ALT. CHECK/SV54-50		SV54-50		✓
054	9056 ALT/SV52-43		SV52-43		✓
055	L0107411-05 MS				✓
056	-06 MSD				✓
057	-09 RR				✓
058	ANION CCV		SOS 55-06		✓
059	L0107411-07				RE
060	-08				RR
061	-07 DUPLICATE				RR
062	ANION CCV		SOS 55-06		CC
063	END				

CMB 7/20/01

Reviewed By: 8/1/01

Status:
✓ = Compliant Analysis, Reanalysis complete
IS or SS = Interference with internal and/or surrogate standards
SMI = Sample matrix interference
RR = Rerun
MT = Missed Tune, beyond method tuning requirements
CC = Continuing calibration failed
RR# = Rerun at a specified dilution
RE = Re-extraction analysis required
CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 7/25/01 **Instrument ID** IC1 **Column ID** AG4A-SC / AS4A-SC **Data Subdirectory** 072501

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1165 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

IC1_042 ccv PO_4 ↓
_043 all low except NO_3-N & SO_4 & Br
_044 same as 044
_058 PO_4 ↑
_062 F, Cl, PO_4 ↓

Reviewed By: [signature] 8/1/01

KEMRON ENVIRONMENTAL SERVICES

IC Laboratory Maintenance / Runlog

Analysis Date/Time 7/26/01 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 07262601

Analyst Initials _____ SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
IC1-001	DI H2O BLANK				✓
002	ELUENT BLANK				✓
003	ANION CCV		SOS 55-06		✓
004	L01074411-07				✓
005	-08				✓
006	-07 DUPLICATE				✓
007	ANION CCV		SOS 55-06		✓
008	DI H2O BLANK				✓
009	ELUENT BLANK				✓
010	ANION CCV		SOS 55-06		✓
011	ANION BLANK 7/26/01				RE
012	LCS 7/26/01				
013	L01074437-01				
014	-02				
015	-03				
016	-04				
017	-05				
018	ANION CCV				CC
019					CC
020					CC
021	ANION STD. LEVEL 6		SOS 55-06		✓
022	5				✓
023	4				✓
024	3				✓
025	2				✓
026	1				✓
027	ELUENT BLANK				✓
028	NO2/NO3 ALT. CCV/SOS 54-50		SOS 54-50		✓
029	ANION ALT CCV/~~SOS 54~~ SV 52-43 CAB 7/31/01		SV 52-43		✓
030	ANION BLANK 7/26/01				✓
031	ANION LCS 7/26/01				✓
032	L01074437-08				✓
033	-09				✓
034	-10				✓
035	-11				✓

Reviewed By: [illegible] 8/2/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 7/20/01 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 072001

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1105 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: rehydrated suppressor membrane w/ 0.2N H_2SO_4 after run 007

Action Taken:

Comments

IC1-018 ccV low for PO_4
019 ↓ ↓
020 ↓

Reviewed By: [illegible] 8/2/01

KEMRON REPORT L0108280

Prepared for CCI

Work ID : NAS CECIL FIELD

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0108280

CHAIN OF CUSTODY:

The chain of custody number was 149152-165.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperature was 2, 2, 1, 1,2, °C.

SAMPLE MANAGEMENT:

All samples were received intact except for 002-CEF9-2S-Q3-01-08. One of the samples for Fla-PRO was received broken.

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: Angie Hurst DATE: 8-14-01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0108280

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: 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 L0108280-04 (002-CEF-7D-Q3-01-08).

SAMPLES

Surrogates: Outliers in fractions 07 and 08 were confirmed by reanalyses. All other 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: [signature] DATE: 8/20/01

Rev. 6/00

4

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0108280

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 MSD yielded percent recoveries for seven analytes which were below advisory limits.

SAMPLES

Surrogates: Sample fractions 03, 07, 08, and 09 yielded a percent recovery for the surrogate which was below the advisory limit. These fractions were re-extracted within holding time. The re-extraction of sample fraction 03 resulted in similar surrogate recovery thus confirming the initial extraction results. Sample fractions 07, 08, and 09 re-extraction met all acceptance criteria for the surrogate recovery. For all other fractions 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: 8/21/01

Rev. 7/14/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0108280

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

There were two samples appeared to be switched during the extraction process thus, whole batch was sent for re-extraction and the re-extraction was done in hold.

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: All acceptance criteria were met.

SAMPLES

Samples: Sample 280-01 fraction could not be re-extracted because of insufficient sample volume.For this sample, results were reported from the original analysis and for the rest of the samples only re-extracts were reported.
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: HV

REVIEWED: X _____ DATE: 1/24/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0108280

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times 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: Samples -05 & -06 were requested externally for the MS/MSD of sample fraction -04. 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: GSG REVIEWED: Stan Fowler DATE: 9/6/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021
Lab Name : Kemron Environmental Services
Base/Command : blgs 9 and 46

AAB # : WG102815
Contract # : Tatiana Romanova
Prime Contractor : L0108280

Field sample ID	Lab Sample ID
002-CEF-2S-Q3-01-08	L0108280-01
002-CEF-3S-Q3-01-08	L0108280-02
002-CEF-5S-Q3-01-08	L0108280-03
002-CEF-7D-Q3-01-08	L0108280-04
002-CEF-7D-Q3-01-08/MS	L0108280-05
002-CEF-7D-Q3-01-08/MSD	L0108280-06
002-CEF-9S-Q3-01-08	L0108280-07
002-9DUP-Q3-01-08	L0108280-08
002-9EQB-Q3-01-08	L0108280-09
002-9TB-Q3-01-08	L0108280-10

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 10-SEP-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 14:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	7.60	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.242	1.0	3.50	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	117	70 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 14:34

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	11.0	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.242	1.0	3.20	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	122	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 15:06

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.242	1.0	0.242	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	106	70 -- 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08 Lab Sample ID: L0108280-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 15:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.242	1.0	0.242	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	107	70 – 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MS Lab Sample ID: L0108280-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 16:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	20.0	1	
Ethylbenzene	0.078	1.0	21.0	1	
Methyl tert-butyl ether	0.242	1.0	19.0	1	
Toluene	0.283	1.0	20.0	1	
Xylenes, Total	0.242	1.0	61.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	108	70 — 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MSD Lab Sample ID: L0108280-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 16:43

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	20.0	1	
Ethylbenzene	0.078	1.0	21.0	1	
Methyl tert-butyl ether	0.242	1.0	19.0	1	
Toluene	0.283	1.0	20.0	1	
Xylenes, Total	0.242	1.0	61.0	1	

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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 17:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	16.0	1	
Ethylbenzene	0.078	1.0	140	1	
Methyl tert-butyl ether	0.242	1.0	3.50	1	
Toluene	0.283	1.0	9.10	1	
Xylenes, Total	0.242	1.0	130	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	319	70 - 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 20:28

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	15.0	1	
Ethylbenzene	0.078	1.0	130	1	
Methyl tert-butyl ether	0.242	1.0	3.20	1	
Toluene	0.283	1.0	8.70	1	
Xylenes, Total	0.221	1.0	120	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	318	70 -- 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 17:47

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	16.0	1	
Ethylbenzene	0.078	1.0	140	1	
Methyl tert-butyl ether	0.242	1.0	3.50	1	
Toluene	0.283	1.0	9.30	1	
Xylenes, Total	0.242	1.0	130	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	330	70 - 130	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 21:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	16.0	1	
Ethylbenzene	0.078	1.0	130	1	
Methyl tert-butyl ether	0.242	1.0	3.40	1	
Toluene	0.283	1.0	9.10	1	
Xylenes, Total	0.221	1.0	130	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	324	70 - 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9EQB-Q3-01-08 Lab Sample ID: L0108280-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 18:51

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.242	1.0	0.242	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	106	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG102815

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9TB-Q3-01-08 Lab Sample ID: L0108280-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 13-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 19:24

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.242	1.0	0.242	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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8310
Lab Name : Kemron Environmental Services
Base/Command : blgs 9 and 46

AAB # : WG102830
Contract # : Tatiana Romanova
Prime Contractor : L0108280

Field sample ID	Lab Sample ID
002-CEF-2S-Q3-01-08	L0108280-01
002-CEF-3S-Q3-01-08	L0108280-02
002-CEF-5S-Q3-01-08	L0108280-03
002-CEF-7D-Q3-01-08	L0108280-04
002-CEF-7D-Q3-01-08/MS	L0108280-05
002-CEF-7D-Q3-01-08/MSD	L0108280-06

Comments:

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: Dennis S Tepe
Name: Dennis S. Tepe

Date: 10-SEP-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 12:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.780	1.04	J
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	2.30	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 12:38

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	62.2	40 -- 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 12:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	1.10	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	2.50	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 12:38

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	62.5	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 13:34

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.990	1.04	J
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	2.40	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 13:34

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	44.8	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 13:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.660	1.04	J
2-Methylnaphthalene	0.349	1.0	1.10	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	2.70	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 13:38

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	45.0	40 – 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 14:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 14:31

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	36.5	40 – 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08 Lab Sample ID: L0108280-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 15:28

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08 Lab Sample ID: L0108280-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 15:28

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	74.8	40 – 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MS Lab Sample ID: L0108280-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 16:24

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	25.0	1.04	
2-Methylnaphthalene	0.349	1.0	27.0	1.04	
Acenaphthene	0.432	1.0	27.0	1.04	
Acenaphthylene	0.365	1.0	27.0	1.04	
Anthracene	0.296	1.0	36.0	1.04	
Benzo(a)anthracene	0.0312	0.21	4.20	1.04	
Benzo(a)pyrene	0.0551	0.21	2.90	1.04	
Benzo(b)fluoranthene	0.0354	0.21	3.20	1.04	
Benzo(g,h,i)perylene	0.052	0.21	1.60	1.04	
Benzo(k)fluoranthene	0.0749	0.21	1.40	1.04	
Chrysene	0.025	0.21	4.00	1.04	
Dibenzo(a,h)anthracene	0.0801	0.21	1.70	1.04	
Fluoranthene	0.052	0.21	4.40	1.04	
Fluorene	0.581	1.0	29.0	1.04	
Indeno(1,2,3-cd)pyrene	0.0832	0.21	2.10	1.04	
Naphthalene	0.373	1.0	24.0	1.04	
Phenanthrene	0.298	1.0	33.0	1.04	
Pyrene	0.0707	0.21	4.50	1.04	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MS Lab Sample ID: L0108280-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 16:24

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.0	40 – 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MSD Lab Sample ID: L0108280-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 17:21

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	19.0	1.04	
2-Methylnaphthalene	0.349	1.0	19.0	1.04	
Acenaphthene	0.432	1.0	19.0	1.04	
Acenaphthylene	0.365	1.0	19.0	1.04	
Anthracene	0.296	1.0	28.0	1.04	
Benzo(a)anthracene	0.0312	0.21	3.20	1.04	
Benzo(a)pyrene	0.0551	0.21	1.80	1.04	
Benzo(b)fluoranthene	0.0354	0.21	2.30	1.04	
Benzo(g,h,i)perylene	0.052	0.21	0.670	1.04	
Benzo(k)fluoranthene	0.0749	0.21	0.910	1.04	
Chrysene	0.025	0.21	2.80	1.04	
Dibenzo(a,h)anthracene	0.0801	0.21	0.790	1.04	
Fluoranthene	0.052	0.21	3.40	1.04	
Fluorene	0.581	1.0	21.0	1.04	
Indeno(1,2,3-cd)pyrene	0.0832	0.21	1.20	1.04	
Naphthalene	0.373	1.0	18.0	1.04	
Phenanthrene	0.298	1.0	23.0	1.04	
Pyrene	0.0707	0.21	3.50	1.04	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG102830

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MSD Lab Sample ID: L0108280-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 15-AUG-01 17:21

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.6	40 -- 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8310
AAB # : WG103154
Lab Name : Kemron Environmental Services
Contract # : Tatiana Romanova
Base/Command : blgs 9 and 46
Prime Contractor : L0108280

Field sample ID	Lab Sample ID
002-CEF-5S-Q3-01-08	L0108280-03
002-CEF-9S-Q3-01-08	L0108280-07
002-9DUP-Q3-01-08	L0108280-08
002-9EQB-Q3-01-08	L0108280-09

Comments:

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: Dennis S Tepe
Name: Dennis S. Tepe
Date: 10-SEP-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 19:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 19:39

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	29.7	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154
Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova
Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001
Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 20:35
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	2.60	1.04	
2-Methylnaphthalene	0.349	1.0	5.60	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	24.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 20:35

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	55.6	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 20:35

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	3.20	1.04	
2-Methylnaphthalene	0.349	1.0	7.20	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	26.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 20:35

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	60.8	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 21:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	3.00	1.04	
2-Methylnaphthalene	0.349	1.0	6.40	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	27.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 21:32

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	76.3	40 -- 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 21:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	3.70	1.04	
2-Methylnaphthalene	0.349	1.0	8.40	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	29.0	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 21:32

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	77.0	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9EQB-Q3-01-08 Lab Sample ID: L0108280-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 22:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	0.380	1.05	ND
2-Methylnaphthalene	0.353	1.1	0.353	1.05	ND
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	0.377	1.05	ND
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG103154

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9EQB-Q3-01-08 Lab Sample ID: L0108280-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 20-AUG-01 22:29

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	81.9	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8015

AAB # : WG102831

Lab Name : Kemron Environmental Services

Contract # : Jeff Wilmoth

Base/Command : blgs 9 and 46

Prime Contractor : cci

Field sample ID	Lab Sample ID
002-CEF-2S-Q3-01-08	L0108280-01

Comments:

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: Dennis S Tepe

Name: Dennis S. Tepe

Date: 27-AUG-01

Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG102831

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 17-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 14-AUG-01 Date Analyzed: 17-AUG-01 19:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1200	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	42.0	49 - 174	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8015
AAB # : WG103205
Lab Name : Kemron Environmental Services
Contract # : Jeff Wilmoth
Base/Command : blgs 9 and 46
Prime Contractor : cci

Field sample ID	Lab Sample ID
002-CEF-3S-Q3-01-08	L0108280-02
002-CEF-5S-Q3-01-08	L0108280-03
002-CEF-7D-Q3-01-08	L0108280-04
002-CEF-7D-Q3-01-08/MS	L0108280-05
002-CEF-7D-Q3-01-08/MSD	L0108280-06
002-CEF-9S-Q3-01-08	L0108280-07
002-9DUP-Q3-01-08	L0108280-08
002-9EQB-Q3-01-08	L0108280-09

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 27-AUG-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 11:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	760	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	70.8	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 12:03

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	55.6	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-7D-Q3-01-08 Lab Sample ID: L0108280-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 12:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	67.3	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-7D-03-01-08/MS Lab Sample ID: L0108280-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 12:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	2400	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	85.2	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-7D-Q3-01-08/MSD Lab Sample ID: L0108280-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 12:46

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	2400	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	79.0	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 13:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1500	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	83.3	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 13:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1300	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	78.9	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG103205

Lab Name : Kemron Environmental Services Contract#: Jeff Wilmoth

Field Sample ID: 002-9EQB-Q3-01-08 Lab Sample ID: L0108280-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-AUG-2001

Date Received: 14-AUG-01 Date Extracted: 20-AUG-01 Date Analyzed: 21-AUG-01 13:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	66.6	49 - 174	

Internal Std	Qualifier

Comments:

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

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Subject: **Hello**
Date: Mon, 27 Aug 2001 10:57:59 -0400
From: "Marty Gray" <mgray@sec-tn.com>
To: "Stephanie Tepe" <stepe@kemron-lab.com>

I trust your trip home was good. I enjoyed our conversations. I look forward to talking with you again soon.

Martin E. Gray, RRPT
Field Services Program Manager
Phone: 865/690-0501
Fax: 865/539-9868
Email: mgray@sec-tn.com

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 9056
AAB # : WG102767
Lab Name : Kemron Environmental Services
Contract # : Tatiana Romanova
Base/Command : blgs 9 and 46
Prime Contractor : L0108280

Field sample ID	Lab Sample ID
002-CEF-2S-Q3-01-08	L0108280-01
002-CEF-3S-Q3-01-08	L0108280-02
002-CEF-5S-Q3-01-08	L0108280-03
002-CEF-7D-Q3-01-08	L0108280-04
002-CEF-7D-Q3-01-08/MS	L0108280-05
002-CEF-7D-Q3-01-08/MSD	L0108280-06
002-CEF-9S-Q3-01-08	L0108280-07
002-9DUP-Q3-01-08	L0108280-08
002-9EQB-Q3-01-08	L0108280-09

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 10-SEP-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-2S-Q3-01-08 Lab Sample ID: L0108280-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 12:16

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.180	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-3S-Q3-01-08 Lab Sample ID: L0108280-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 12:28

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.200	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-5S-Q3-01-08 Lab Sample ID: L0108280-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 12:39

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.160	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08 Lab Sample ID: L0108280-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 12:51

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.0677	1.01	ND
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MS Lab Sample ID: L0108280-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 13:14

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	4.00	1.01	
Nitrite	0.0616	0.40	3.60	1.01	
Phosphate	0.165	1.0	10.0	1.01	

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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-7D-Q3-01-08/MSD Lab Sample ID: L0108280-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 13:25

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	4.00	1.01	
Nitrite	0.0616	0.40	3.60	1.01	
Phosphate	0.165	1.0	10.0	1.01	

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-CEF-9S-Q3-01-08 Lab Sample ID: L0108280-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 13:37

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.200	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.480	1.01	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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9DUP-Q3-01-08 Lab Sample ID: L0108280-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 13:48

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.570	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG102767

Lab Name : Kemron Environmental Services Contract#: Tatiana Romanova

Field Sample ID: 002-9EQB-Q3-01-08 Lab Sample ID: L0108280-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 14-AUG-2001

Date Received: 14-AUG-01 Date Extracted: Date Analyzed: 14-AUG-01 14:34

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0677	0.61	0.150	1.01	J
Nitrite	0.0616	0.40	0.0616	1.01	ND
Phosphate	0.165	1.0	0.165	1.01	ND

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

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

08/17/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAB - CASSIE A. BAKER
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
DCU - DAVID C. UNDERWOOD
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
DST - DENNIS S. TEPE
EAW - ELIZABETH A. WEBER
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JAW - JOYCE A. WITHERS
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LBM - LAWRENCE B. MCSWEGAN
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MAJ - MARK A. JEMISON
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
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SAM - SAMUAL A. MILLS
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLC - SHAWN L. COLE
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER

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)

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
149152-165

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	149152	Angie Hurst Kemron Environmental Services	Jennifer Zimmerman 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 / Monthly GW Sampling Event	0002	2329	Jeff Wilmoth 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 Medlud 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	002-CEF9-2S-Q3-01-08	CEF-9-2S	W	08/13/01	9:35	III/C	14	2	2	2	1	1 Liter recd broken ok 8/14/01				Grab	Turbid	
2	002-CEF9-3S-Q3-01-08	CEF-9-3S	W	08/13/01	10:05	III/C	14	2	2	2	1					Grab	Turbid	
3	002-CEF9-5S-Q3-01-08	CEF-9-5S	W	08/13/01	11:50	III/C	14	2	2	2	1					Grab	Turbid	
4	002-CEF9-7D-Q3-01-08	CEF-9-7D	W	08/13/01	10:45	III/C	14	4	6	6	2					Grab	(MS/MSD)	
5	002-CEF9-9S-Q3-01-08	CEF-9-9S	W	08/13/01	11:00	III/C	14	2	2	2	1					Grab	Turbid	
6	002-9DUP-Q3-01-08	Duplicate	W	08/13/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q3-01-08	Equipment Blank	W	08/13/01	11:40	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q3-01-08	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:
Scott Sloan / Roger Deisler J.A. Jones Environmental Services	Federal Express Track No.790950151714, 792433930560, 790130002110, 792433930798, 791635409790.

Cooler Seal Cooler temps 2.2, 1.2, 1

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	8/13/01	18:00	Federal Express	8/13/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
–			Angelina R Scott	8-14-01	0956

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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

COC NUMBER
149152-165

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	149152	Angie Hurst Kemron Environmental Services	Jennifer Zimmerman 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 / Monthly GW Sampling Event	0002	2329	Jeff Wilmoth 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	002-CEF9-2S-Q3-01-08	CEF-9-2S	W	08/13/01	9:35	III/C	14	2	2	2	1					Grab	Turbid	
2	002-CEF9-3S-Q3-01-08	CEF-9-3S	W	08/13/01	10:05	III/C	14	2	2	2	1					Grab	Turbid	
3	002-CEF9-5S-Q3-01-08	CEF-9-5S	W	08/13/01	11:50	III/C	14	2	2	2	1					Grab	Turbid	
4	002-CEF9-7D-Q3-01-08	CEF-9-7D	W	08/13/01	10:45	III/C	14	4	6	6	2					Grab	(MS/MSD)	
5	002-CEF9-9S-Q3-01-08	CEF-9-9S	W	08/13/01	11:00 10	III/C	14	2	2	2	1					Grab	Turbid	
6	002-9DUP-Q3-01-08	Duplicate	W	08/13/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q3-01-08	Equipment Blank	W	08/13/01	11:40	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q3-01-08	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:
Scott Sloan / Roger Deisler J.A. Jones Environmental Services	Federal Express Track No.790950151714, 792433930560, 790130002110, 792433930798, 791635409790.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	8/13/01	18:00	Federal Express	8/13/01	18:00
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 CC1001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0110880 **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
1-9A	905C	Prod	08/14/01 @ 11:20	Login	SV	GrS	08/15/01 @ 14:30	Archives 2	BG	archive
1-9A	FLA-PRO	Ext	DKH 8/14/01 @ 1230	walkin	SLB	GrS	8/15/01 JEA 0816	crusher	DP	disposal
1-9A	8310	Ext	DKH 8/14/01 @ 1230	walkin	SLB	GrS	8/15/01 JEA 0810	crusher	DP	disposal
1-10	BTME	ANAL	CBN 8/14/01 @ 1235	V-1	ORG-4	GrS	JS 8/15/01 @ 0915	archive 2	BG	archive
209B	FLA-PRO	Re-ext	DKH 8/20/01 @ 1400	walkin	ELAB	BrG	8/21/01 JEA 0910	crusher	JW	disposal
03709B	8310	Re-ext	DKH 8/20/01 @ 1400	walkin	ELAB	BrG	8/21/01 JEA 0910	crusher	JW	disposal

CLIENT: CCI BRG (ARS) Other _____	DATE: 8-14-01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-1056	COOLER ID: Coleman 48	COOLER ID:
INDEX #: 7924 33930798	INDEX #: 7909 5050714	INDEX # :
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (C) (D) 1 °C	TEMP : (C) (D) 2 °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) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
Samples not frozen 7D MS/MSD	~~7D MS/MSD~~ AS 8-14-01 GS+7D	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

CLIENT:	DATE:	SHIPPED BY:
CCI BRG (ARS) Other _____	8-14-01	( ) FED-EX ( ) AIRBORNE 9:56. ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-708	COOLER ID: KL-990	COOLER ID: KL-1041
INDEX #: 7916 3540 9790	INDEX #: 7924 3393 0560	INDEX #: 7961 3000 2110
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 2 °C	TEMP : (C) (D) 2 °C	TEMP : (C) (D) 1 °C
TEMP IN RANGE (✓) YES ( ) NO (4°C ± 2°)	TEMP IN RANGE (✓) YES ( ) NO (4°C ± 2°)	TEMP IN RANGE ( ) YES ( ) NO (4°C ± 2°)
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) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
egb/5s.	5S/2S	VOA's/Dup
		5x's were not frozen

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

CRF#4

Sample Receipt Form #2

Client: CCI Project: _____

Date Received: 8-14-01

_____ 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

002-CEF9-9S-Q3-01-08 time on jar 11:10 on c/c 11:00 Go w/ COC

✓ Sample containers received broken, leaking or not sealed (List sample ID)

002-CEF9-2S-Q3-01-08 FLA-Pro one jar rec'd broken OK

_____ 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: Jeff Wilmoth Company: CCI

TSR: adh Date: 8-14-01

Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 5

PROJECT: NAS Cecil Field Bldg 9 LIMS# L0108280.

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 8-14-01 C-of-C Number: 149152-165
by (print) Angelina R. Scott (sign) Angelina R. Scott

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: FedEx - See CRF #3
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? 1 - front, seal date: 8-13-01 seal name: Kemron
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 See CRF #3 °C ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: 8-14-01 (date) ars

B. **LOG-IN PHASE:** Date samples were logged-in: 8-14-01
by (print) Angelina R. Scott (sign) Angelina R. Scott

11. Describe type of packing in cooler: foamer, dividers & cardboard
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: L0108280

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: 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 L0108280-04 (002-CEF-7D-Q3-01-08).

SAMPLES

Surrogates: Outliers in fractions 07 and 08 were confirmed by reanalyses. All other 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: [signature] DATE: 8/20/01

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0108280

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:** 6/20/01

2.1.3.1 QC Summary

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	8/14/2001	**Blank Filename:**	12G08891.D	**MS Filename:**	12G08897.D
Instrument:	HP12	**LCS Filename:**	12G08892.D	**MSD Filename:**	12G08898.D
Analyst:	CBN	**Sample Number:**	L0108280-04	**Dilution Factor:**	1
Work Group:	WG102815	**Sample Filename:**	12G08896.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	18.3	91.6	20.0	ND	19.0	19.4	95.2	97.2	56.0	149	2.0	20					
benzene	0.50	ND	19.1	95.4	20.0	ND	19.5	19.7	97.6	98.3	78.0	122	0.7	20					
toluene	0.50	ND	19.6	98.2	20.0	ND	20.1	20.2	100.6	101.0	78.0	123	0.4	20					
chlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	20.1	100.5	20.0	ND	20.6	20.6	102.9	103.1	80.0	129	0.1	20					
m+p-xylene	0.50	ND	39.1	97.7	40.0	ND	40.1	40.2	100.2	100.5	80.0	124	0.2	20					
o-xylene	0.50	ND	20.0	100.0	20.0	ND	20.5	20.6	102.3	102.8	80.0	124	0.5	20					
xylene (total)	0.50	ND	59.1	98.5	60.0	ND	60.6	60.7	100.9	101.2	80.0	124	0.3	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	30.7	102.3	31.1	103.8	30.0	32.1	107.1	32.5	108.3	32.6	108.6		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

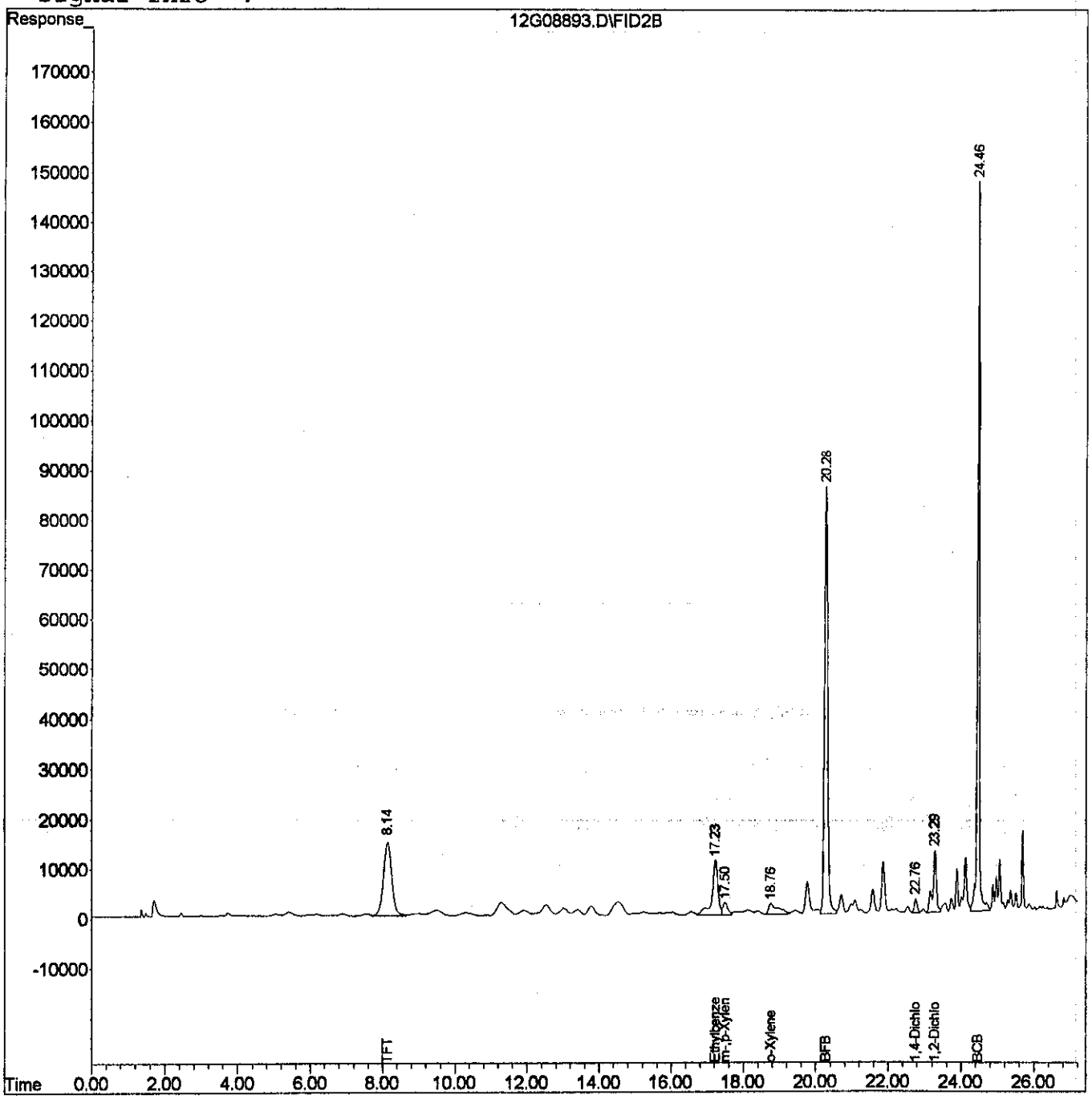
8021W

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\081401\12G08893.D Vial: 19
Acq On : 14 Aug 2001 14:02 Operator: CBN
Sample : L0108280-01 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 14:29 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08893.D Vial: 19
Acq On : 14 Aug 2001 14:02 Operator: CBN
Sample : L0108280-01 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 14:29 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

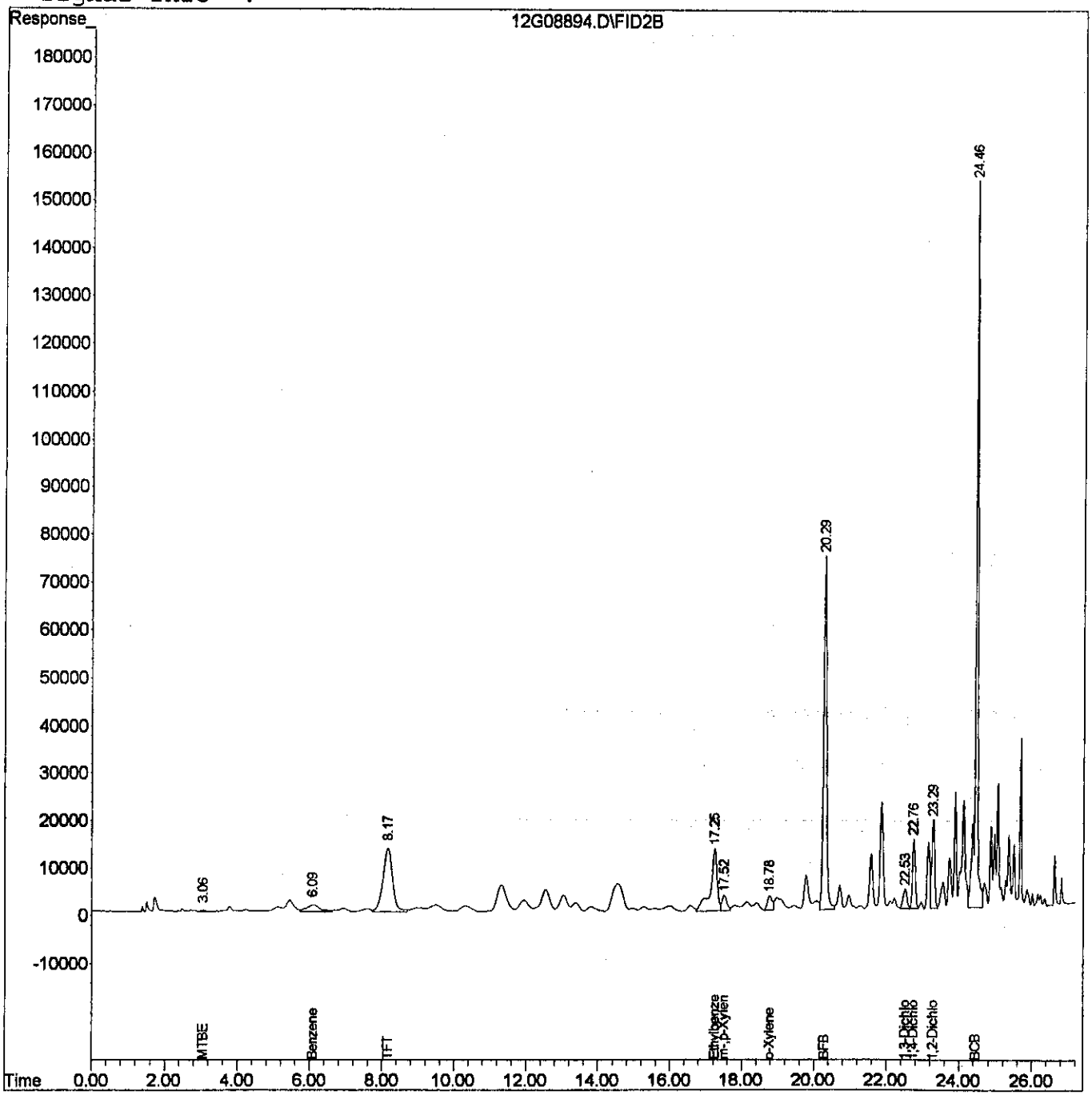
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.14 *	2393883	35.121 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	117.07%
9) S BFB	20.29	5152017	31.351 UG/L
Spiked Amount 30.000		Recovery =	104.50%
13) S BCB	24.46	5403823	34.762 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	115.87%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.18	65216	<MDL 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	17.24	1244096	7.618 UG/L
7) TM m-,p-Xylene	17.50	226412	1.143 UG/L
8) TM o-Xylene	18.77	402404	2.386 UG/L
10) TM 1,3-Dichlorobenzene	22.54	84236	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.76	156822	~~0.890 UG/L~~
12) TM 1,2-Dichlorobenzene	23.29	881111	~~6.375 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\081401\12G08894.D Vial: 20
Acq On : 14 Aug 2001 14:34 Operator: CBN
Sample : L0108280-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 15:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08894.D Vial: 20
Acq On : 14 Aug 2001 14:34 Operator: CBN
Sample : L0108280-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 15:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

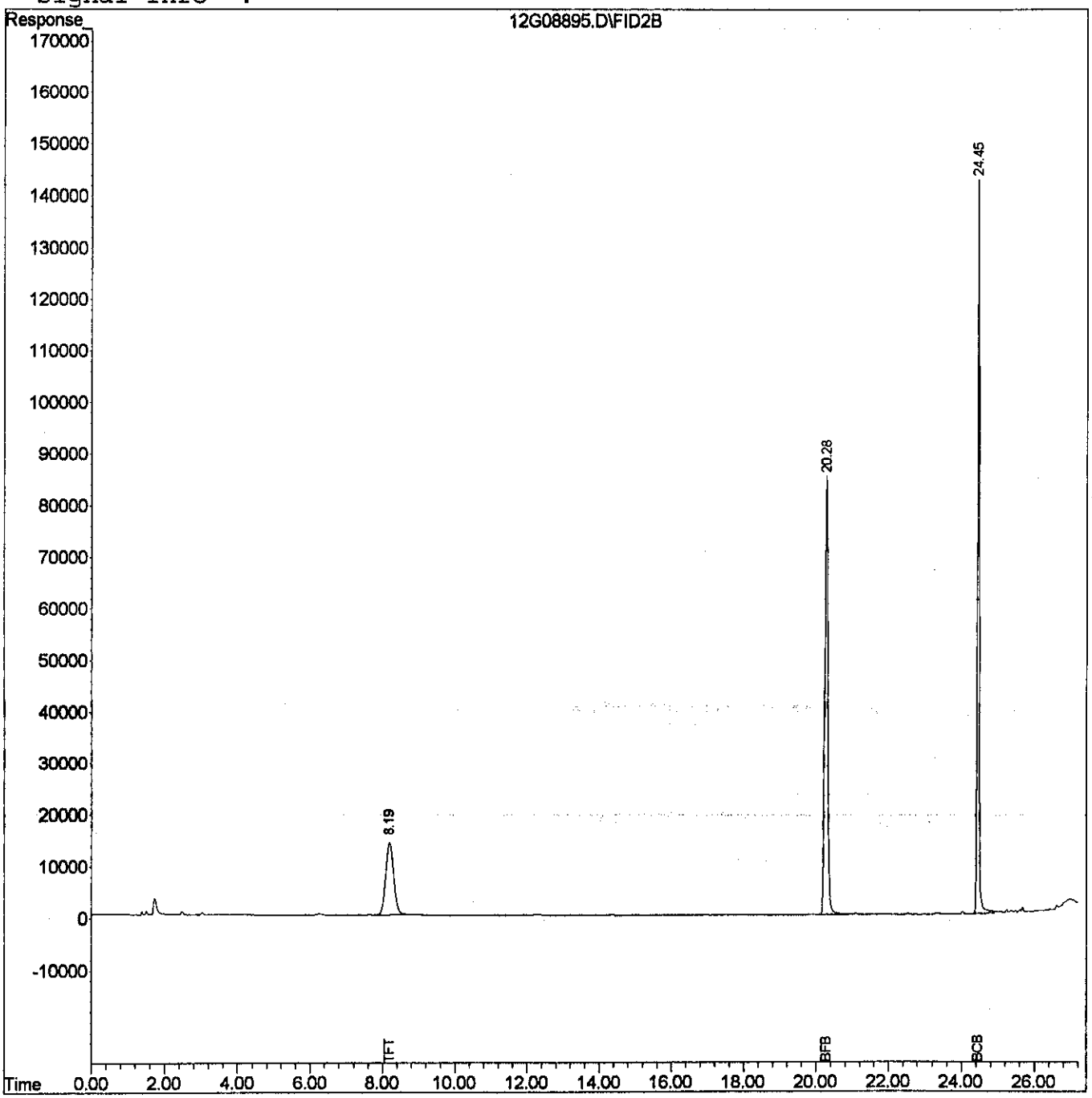
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.17	2496804	36.631 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	122.10%
9) S BFB	20.30	4551319	27.696 UG/L
Spiked Amount 30.000		Recovery =	92.32%
13) S BCB	24.46	6316771	40.635 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	135.45%
Target Compounds			
1) TM MTBE	3.06	23615	0.578 UG/L
2) TM Benzene	6.09	369858	1.776 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	17.25	1739611	10.652 UG/L
7) TM m-,p-Xylene	17.52	316064	1.595 UG/L
8) TM o-Xylene	18.78	274490	1.627 UG/L
10) TM 1,3-Dichlorobenzene	22.52	317960	~~1.857 UG/L~~
11) TM 1,4-Dichlorobenzene	22.76	787939	~~4.472 UG/L~~
12) TM 1,2-Dichlorobenzene	23.29	1011774	~~7.321 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\081401\12G08895.D Vial: 21
Acq On : 14 Aug 2001 15:06 Operator: CBN
Sample : L0108280-03 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 15:34 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08895.D Vial: 21
Acq On : 14 Aug 2001 15:06 Operator: CBN
Sample : L0108280-03 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 15:34 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

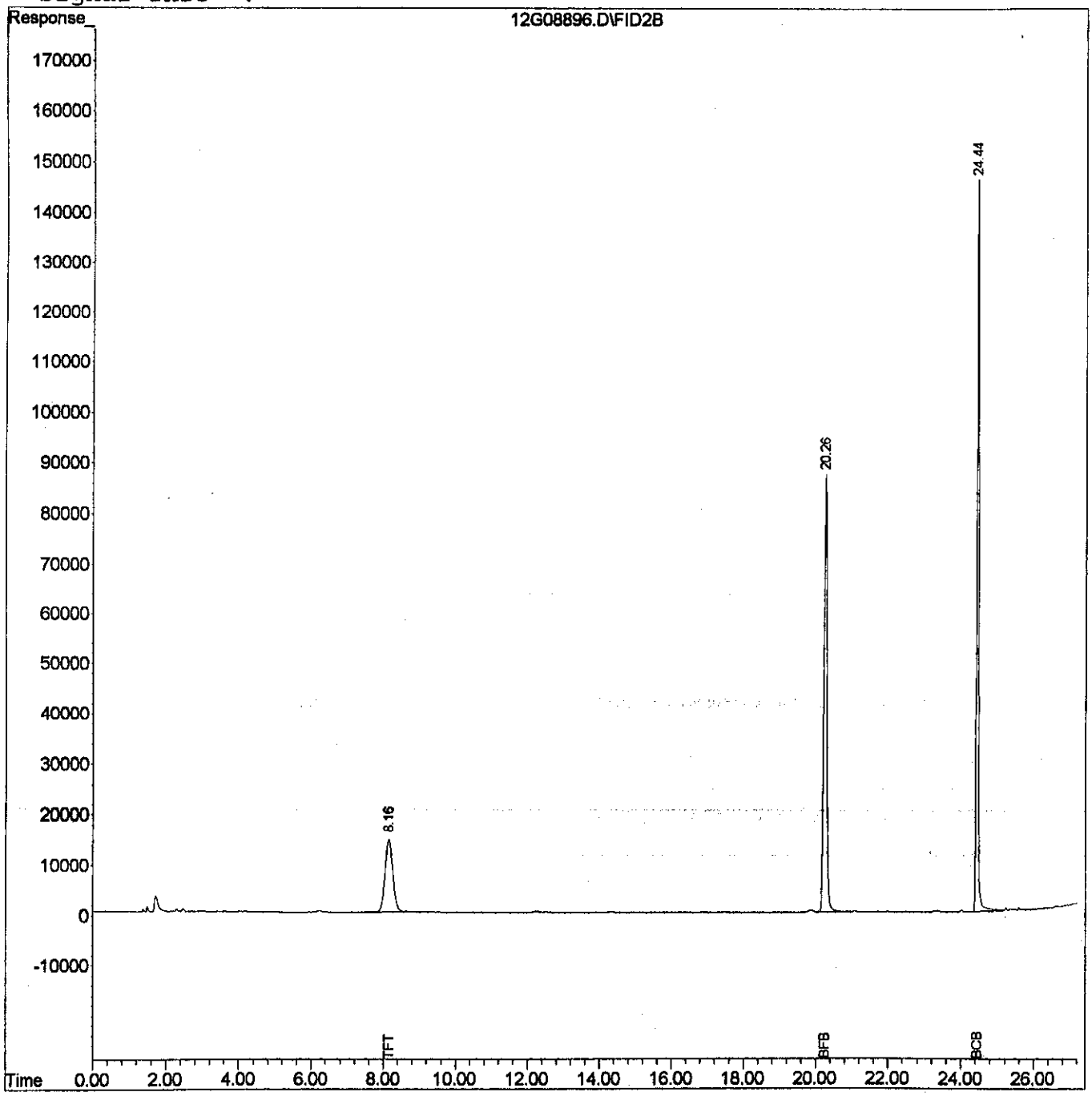
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) S TFT	8.20	2159135	31.677	UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 105.59%		
9) S BFB	20.28	5074959	30.882	UG/L
Spiked Amount 30.000		Recovery = 102.94%		
13) S BCB	24.45	4908168	31.574	UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 105.25%		
Target Compounds				
1) TM MTBE	3.03	18072	<MDL	UG/L
2) TM Benzene	6.24	30296	<MDL	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	22.54	14858	<MDL	UG/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D.	UG/L
12) TM 1,2-Dichlorobenzene	23.38	19007	<MDL	UG/L

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

Data File : C:\HPCHEM\2\DATA\081401\12G08896.D Vial: 22
Acq On : 14 Aug 2001 15:38 Operator: CBN
Sample : L0108280-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 16:06 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08896.D Vial: 22
Acq On : 14 Aug 2001 15:38 Operator: CBN
Sample : L0108280-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 16:06 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

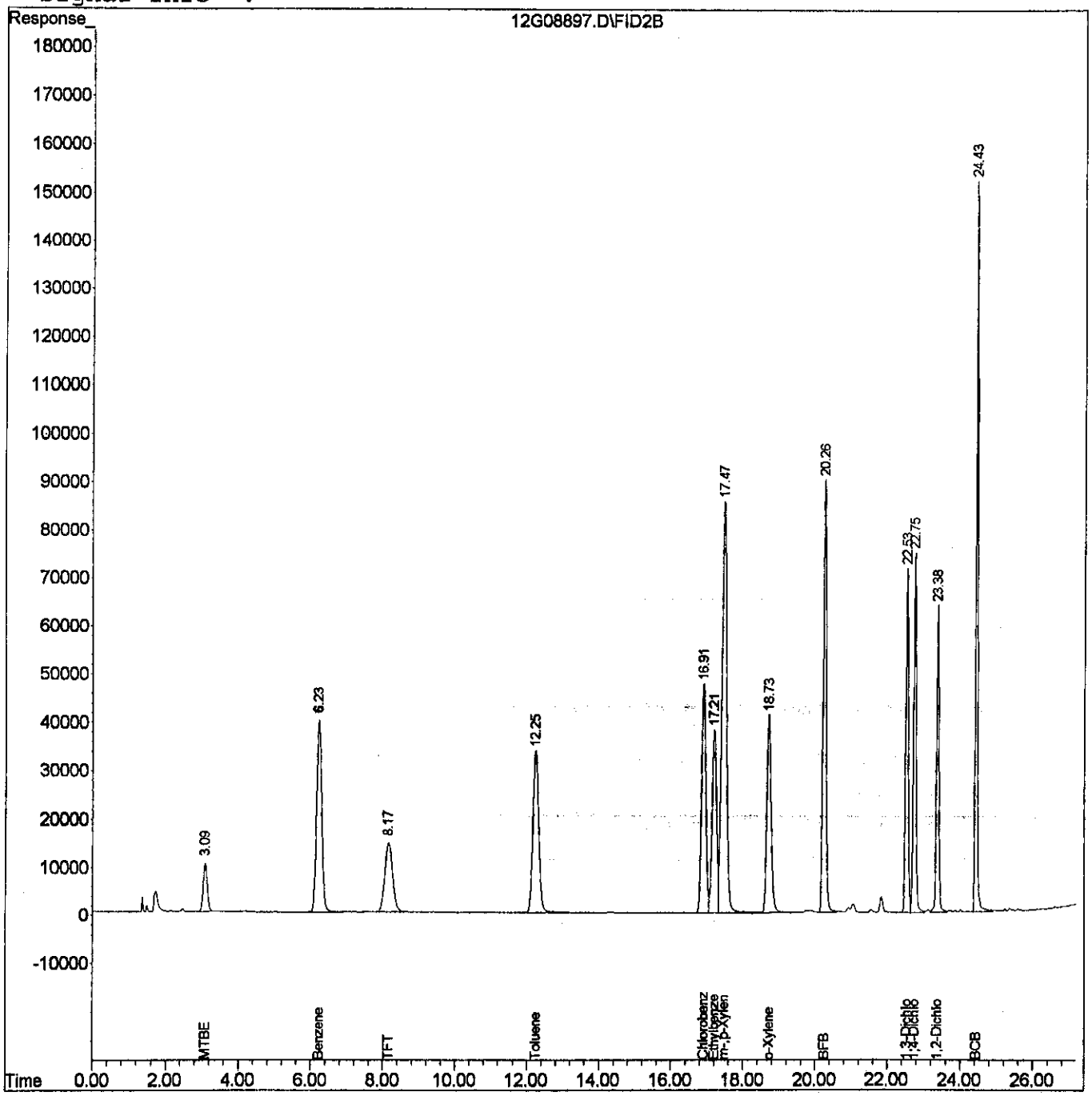
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2189612	32.124 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	107.08%
9) S BFB	20.26	5176182	31.498 UG/L
Spiked Amount 30.000		Recovery =	104.99%
13) S BCB	24.44	5044772	32.453 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	108.18%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.25	32023	<MDL UG/L
4) TM Toluene	12.24	21147	<MDL 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	23.36	24331	<MDL UG/L

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

Data File : C:\HPCHEM\2\DATA\081401\12G08897.D Vial: 23
Acq On : 14 Aug 2001 16:11 Operator: CBN
Sample : L0108280-05 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 16:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G08897.D 8021W.M Tue Aug 14 16:38:20 2001 Page 2

Data File : C:\HPCHEM\2\DATA\081401\12G08897.D Vial: 23
Acq On : 14 Aug 2001 16:11 Operator: CBN
Sample : L0108280-05 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 16:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

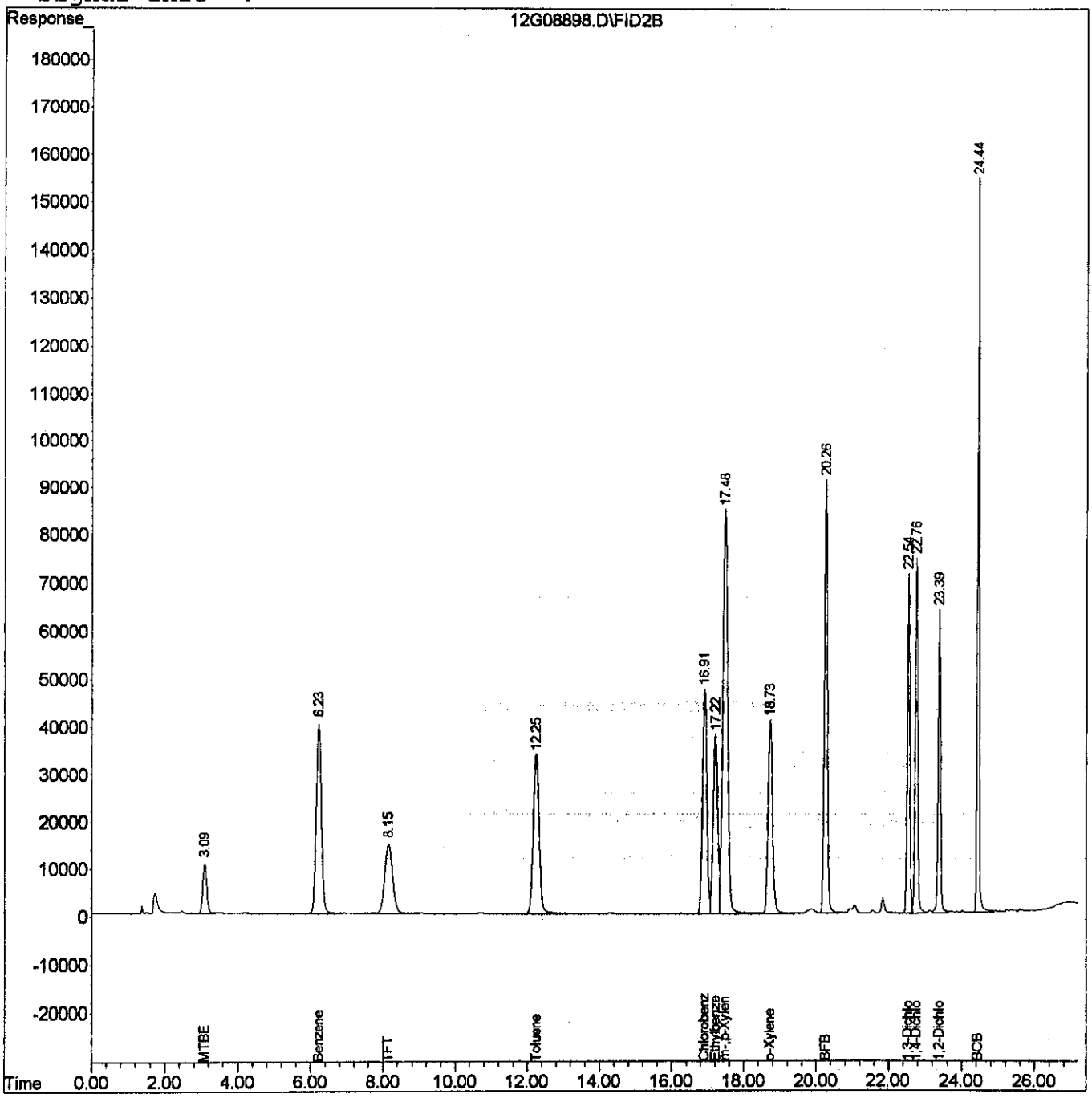
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.17	2215314	32.501 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	108.34%
9) S BFB	20.26	5260199	32.010 UG/L
Spiked Amount 30.000		Recovery =	106.70%
13) S BCB	24.44	5177037	33.303 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	111.01%
Target Compounds			
1) TM MTBE	3.09	778005	19.038 UG/L
2) TM Benzene	6.24	4065751	19.525 UG/L
4) TM Toluene	12.25	3826520	20.124 UG/L
5) TM Chlorobenzene	16.91	3913545	~~20.162 UG/L~~
6) TM Ethylbenzene	17.22	3361551	20.583 UG/L
7) TM m-,p-Xylene	17.48	7943290	40.095 UG/L
8) TM o-Xylene	18.73	3451524	20.464 UG/L
10) TM 1,3-Dichlorobenzene	22.53	3527103	~~20.601 UG/L~~
11) TM 1,4-Dichlorobenzene	22.75	3612555	~~20.501 UG/L~~
12) TM 1,2-Dichlorobenzene	23.38	2893960	~~20.940 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\081401\12G08898.D Vial: 24
Acq On : 14 Aug 2001 16:43 Operator: CBN
Sample : L0108280-06 MSD "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 17:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 14 Aug 2001 16:43 Operator: CBN
Sample : L0108280-06 MSD "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 17:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

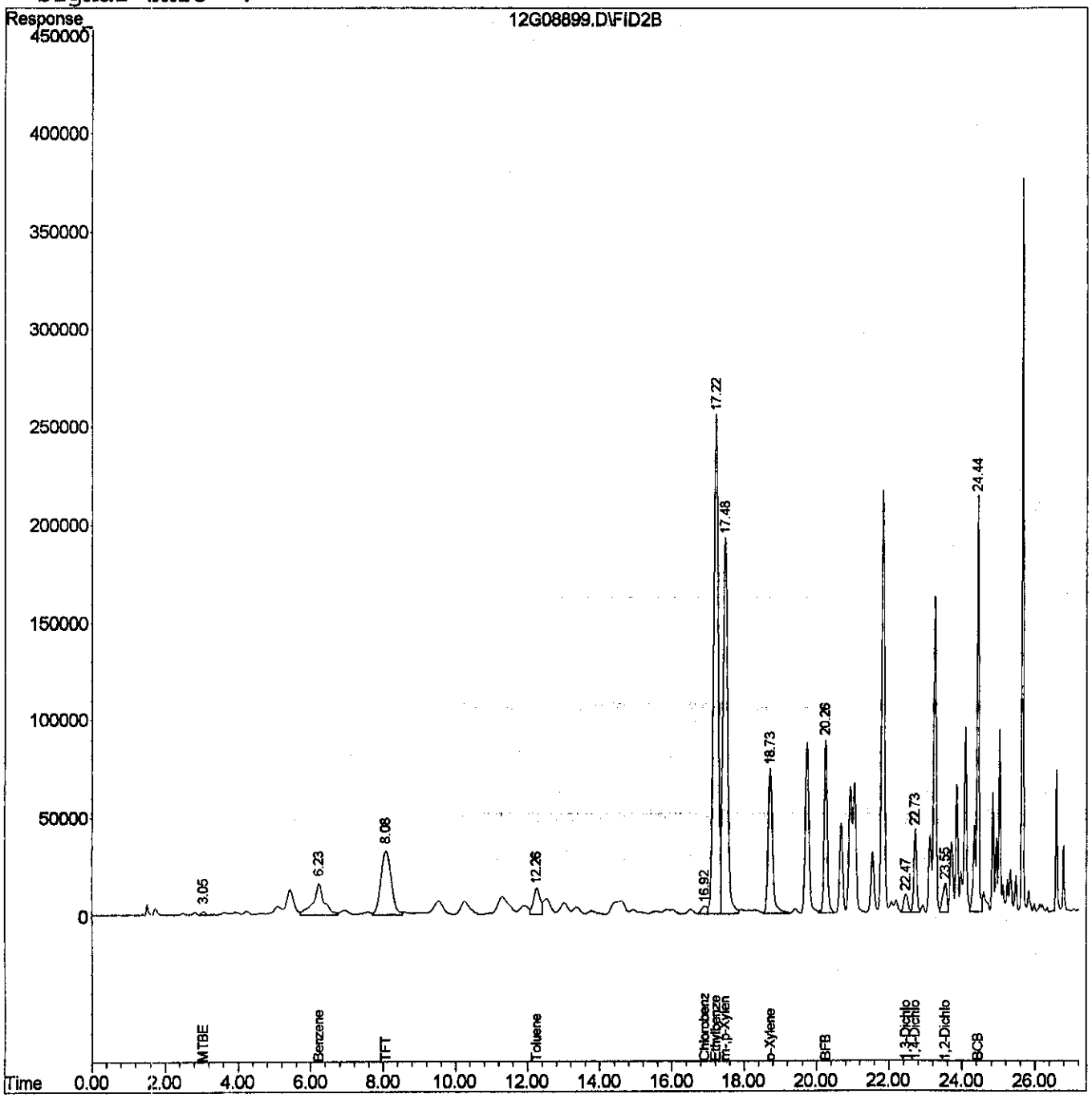
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2221621	32.594 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	108.65%
9) S BFB	20.26	5347581	32.541 UG/L
Spiked Amount 30.000		Recovery =	108.47%
13) S BCB	24.44	5243453	33.731 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	112.44%
Target Compounds			
1) TM MTBE	3.09	794146	19.433 UG/L
2) TM Benzene	6.23	4094293	19.662 UG/L
4) TM Toluene	12.25	3840691	20.199 UG/L
5) TM Chlorobenzene	16.92	3927631	~~20.235 UG/L~~
6) TM Ethylbenzene	17.22	3366226	20.612 UG/L
7) TM m-,p-Xylene	17.48	7959846	40.178 UG/L
8) TM o-Xylene	18.73	3467735	20.560 UG/L
10) TM 1,3-Dichlorobenzene	22.54	3533527	~~20.638 UG/L~~
11) TM 1,4-Dichlorobenzene	22.76	3621824	~~20.554 UG/L~~
12) TM 1,2-Dichlorobenzene	23.39	2916041	~~21.099 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08898.D 8021W.M Tue Aug 14 17:10:27 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08899.D Vial: 25
Acq On : 14 Aug 2001 17:15 Operator: CBN
Sample : L0108280-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 17:42 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 14 Aug 2001 17:15 Operator: CBN
Sample : L0108280-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 17:42 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

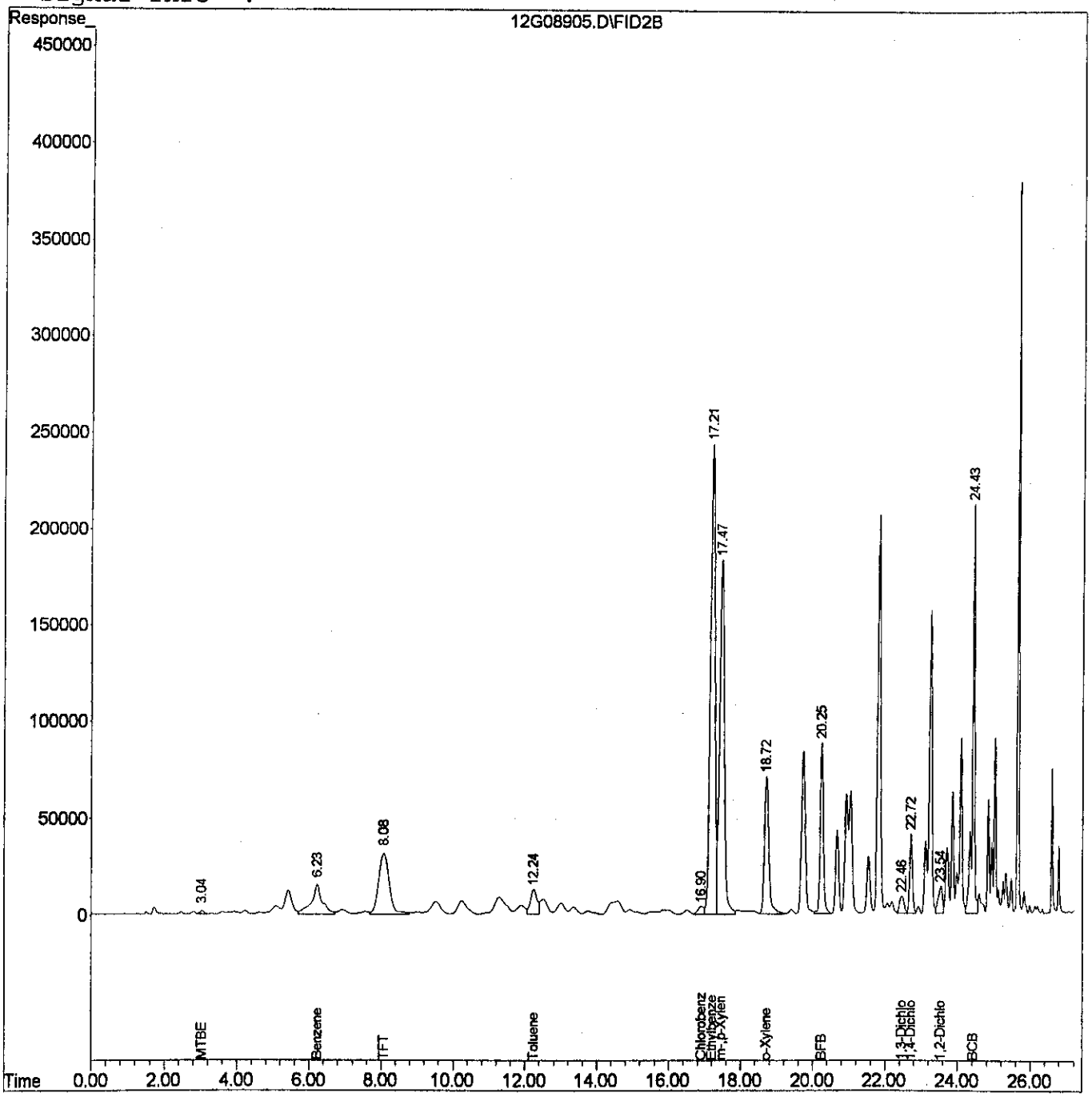
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.08 *	6521741	95.682 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery	= 318.94%#
9) S BFB	20.26	5358229	32.606 UG/L
Spiked Amount 30.000		Recovery	= 108.69%
13) S BCB	24.44	9347026	60.129 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 200.43%#
Target Compounds			
1) TM MTBE	3.05	143769	3.518 UG/L
2) TM Benzene	6.23	3345747	16.067 UG/L
4) TM Toluene	12.26	1735757	9.129 UG/L
5) TM Chlorobenzene	16.92	405518	~~2.089 UG/L~~
6) TM Ethylbenzene	17.22	22659295	138.745 UG/L
7) TM m-,p-Xylene	17.48	17719700	89.442 UG/L
8) TM o-Xylene	18.73	6348593	37.641 UG/L
10) TM 1,3-Dichlorobenzene	22.47	789200	~~4.609 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	2281819	~~12.949 UG/L~~
12) TM 1,2-Dichlorobenzene	23.55	1170973	~~8.473 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08899.D 8021W.M Tue Aug 14 17:42:36 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08905.D Vial: 31
Acq On : 14 Aug 2001 20:28 Operator: CBN
Sample : L0108280-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1,RE S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 20:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08905.D
Acq On : 14 Aug 2001 20:28
Sample : L0108280-07 "A" 5ML pH<2
Misc : 1,1,RE S-82-42
IntFile : autoint1.e
Quant Time: Aug 14 20:55 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

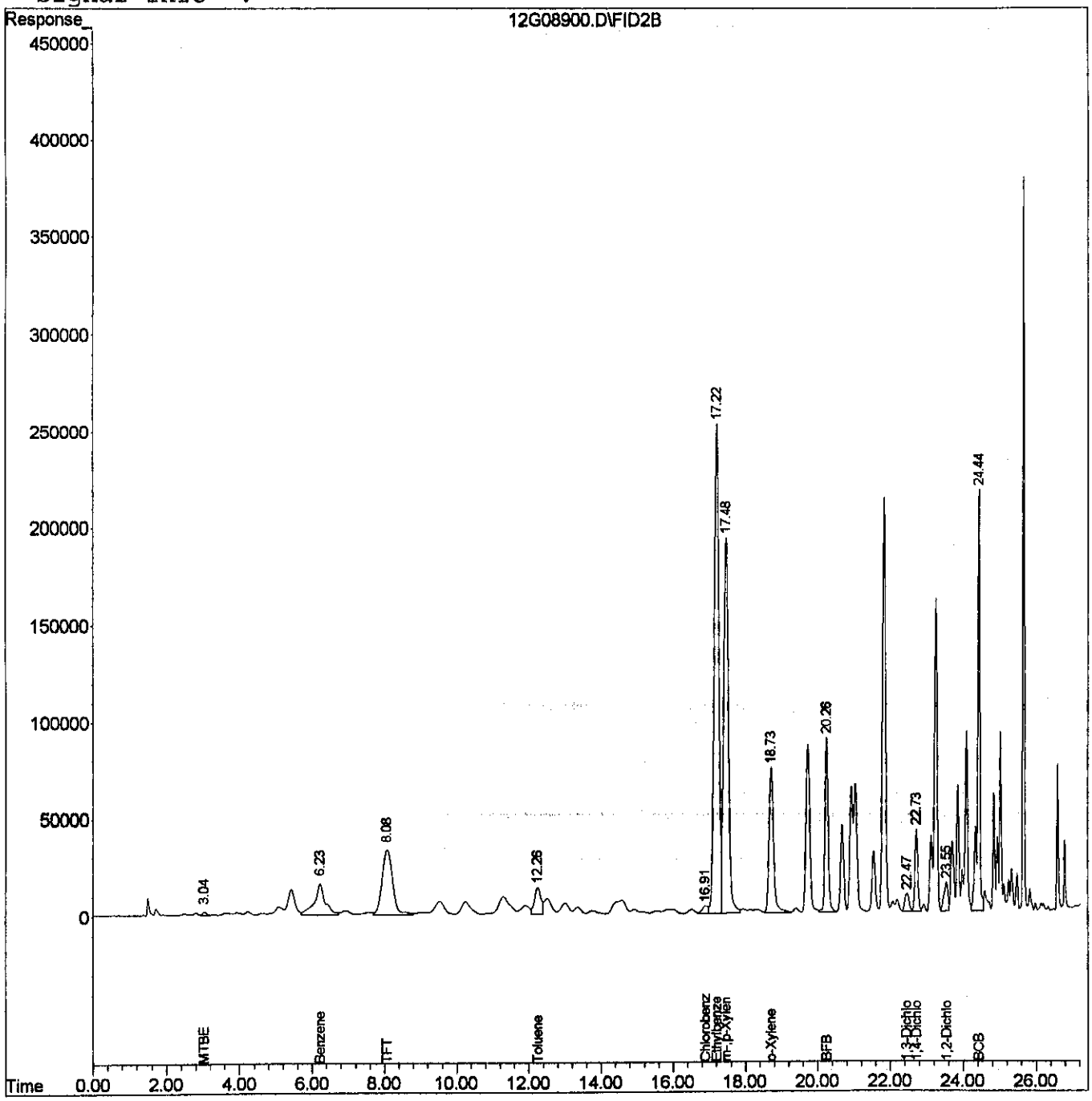
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.08 *	6496586	95.313 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery =	317.71%#
9) S BFB	20.25	5376758	32.719 UG/L
Spiked Amount 30.000		Recovery =	109.06%
13) S BCB	24.43	9232662	59.393 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	197.98%#
Target Compounds			
1) TM MTBE	3.04	129838	3.177 UG/L
2) TM Benzene	6.23	3194043	15.339 UG/L
4) TM Toluene	12.25	1660320	8.732 UG/L
5) TM Chlorobenzene	16.91	417427	~~2.151 UG/L~~
6) TM Ethylbenzene	17.21	21748073	133.166 UG/L
7) TM m-,p-Xylene	17.47	16992563	85.772 UG/L
8) TM o-Xylene	18.72	6176286	36.619 UG/L
10) TM 1,3-Dichlorobenzene	22.46	798618	~~4.664 UG/L~~
11) TM 1,4-Dichlorobenzene	22.72	2247680	~~12.756 UG/L~~
12) TM 1,2-Dichlorobenzene	23.54	1126634	~~8.152 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\081401\12G08900.D Vial: 26
Acq On : 14 Aug 2001 17:47 Operator: CBN
Sample : L0108280-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 18:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08900.D Vial: 20
Acq On : 14 Aug 2001 17:47 Operator: CBN
Sample : L0108280-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 18:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

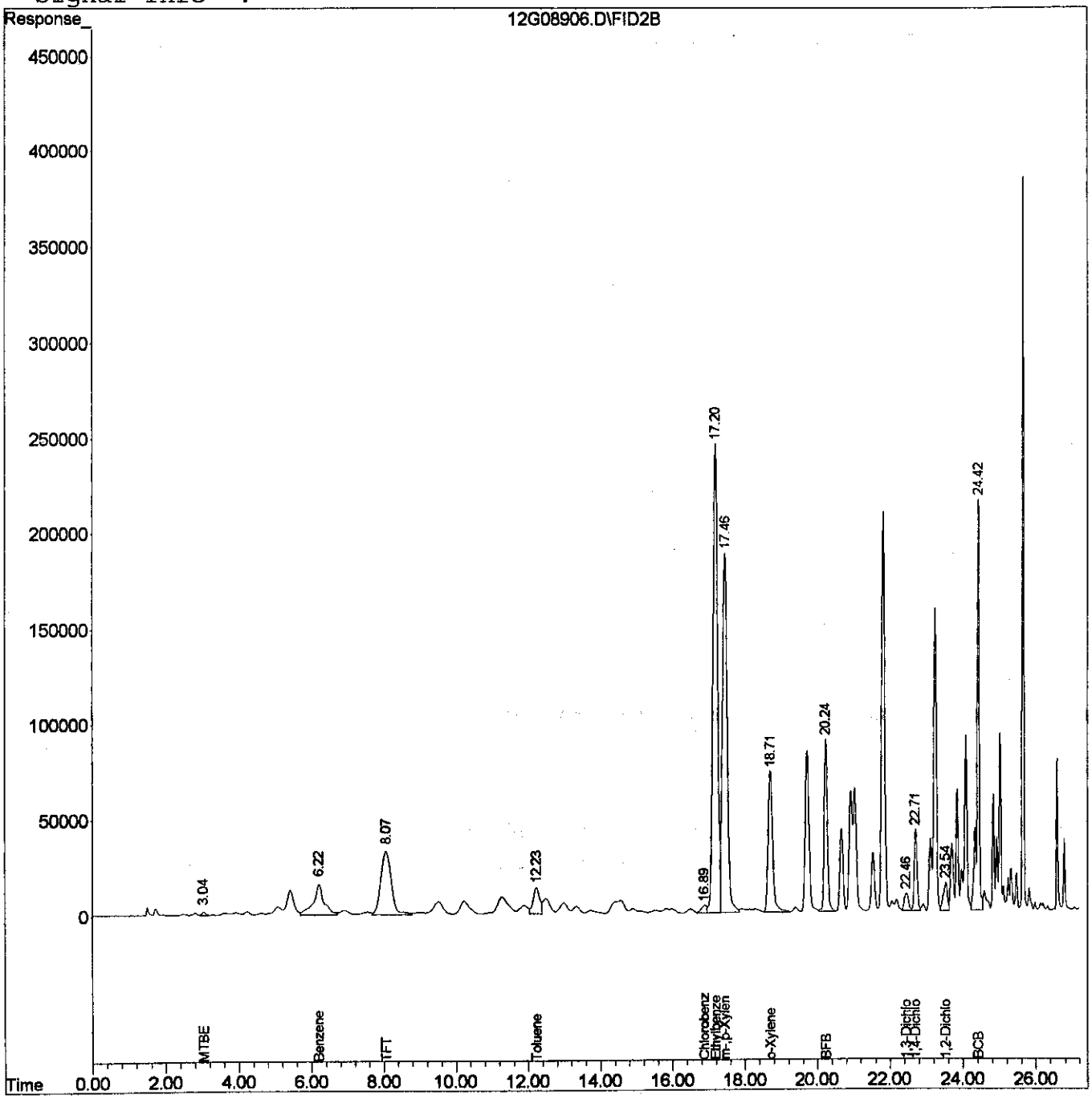
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.09 *	6747012	98.987 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery =	329.96%#
9) S BFB	20.26	5472494	33.302 UG/L
Spiked Amount 30.000		Recovery =	111.01%
13) S BCB	24.44	9438199	60.715 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	202.38%#
Target Compounds			
1) TM MTBE	3.05	140938	3.449 UG/L
2) TM Benzene	6.23	3353008	16.102 UG/L
4) TM Toluene	12.26	1761730	9.265 UG/L
5) TM Chlorobenzene	16.91	422228	~~2.175 UG/L~~
6) TM Ethylbenzene	17.22	22573936	138.222 UG/L
7) TM m-,p-Xylene	17.48	17921450	90.460 UG/L
8) TM o-Xylene	18.73	6466364	38.339 UG/L
10) TM 1,3-Dichlorobenzene	22.47	778006	~~4.544 UG/L~~
11) TM 1,4-Dichlorobenzene	22.73	2295375	~~13.026 UG/L~~
12) TM 1,2-Dichlorobenzene	23.55	1149694	~~8.319 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08900.D 8021W.M Tue Aug 14 18:14:47 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08906.D Vial: 31
Acq On : 14 Aug 2001 21:00 Operator: CBN
Sample : L0108280-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1,RE S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 21:28 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08906.D Vial: 52
Acq On : 14 Aug 2001 21:00 Operator: CBN
Sample : L0108280-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1,RE S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 21:28 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

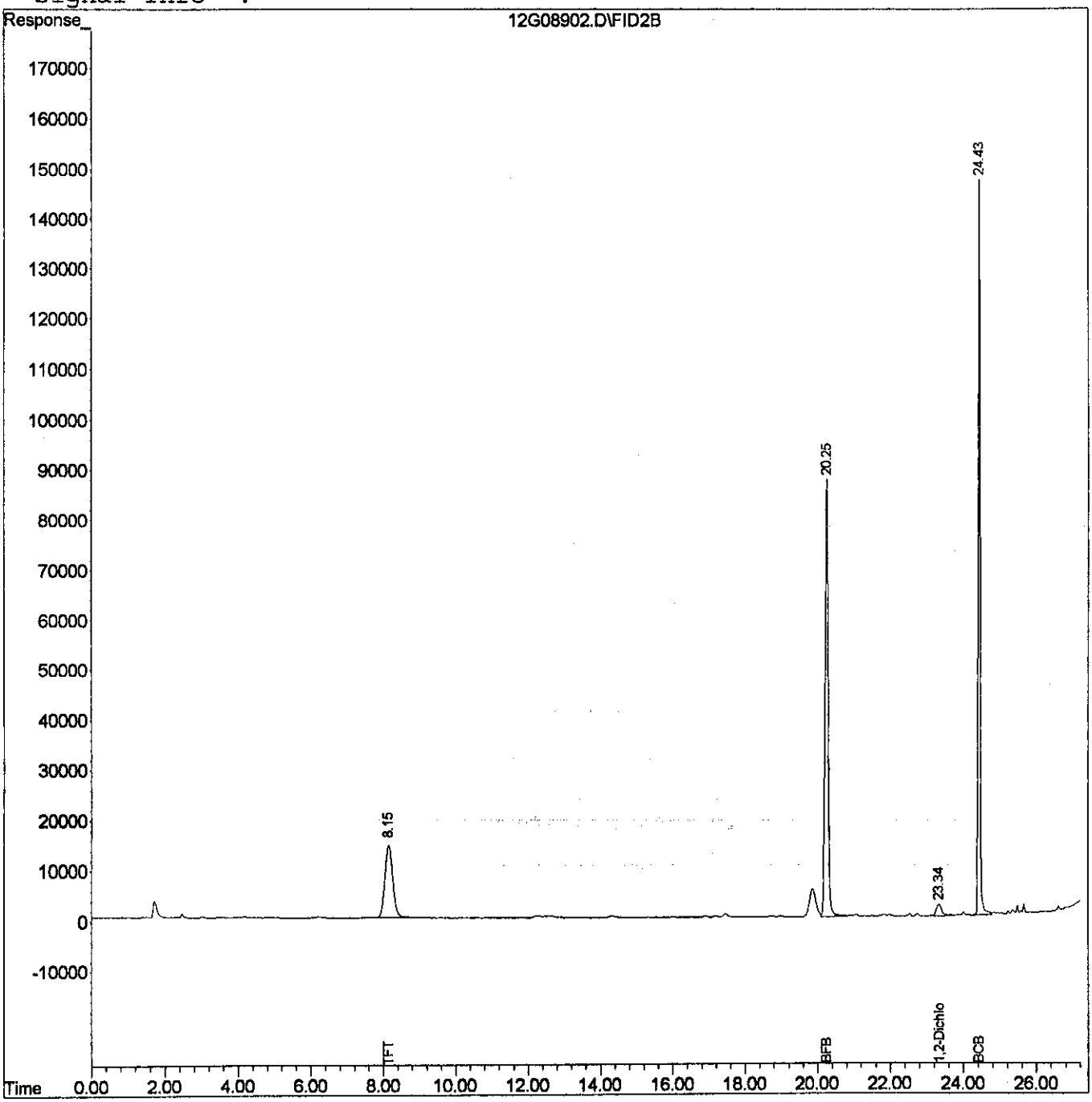
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.07 *	6618391	97.100 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery	= 323.67%#
9) S BFB	20.24	5452016	33.177 UG/L
Spiked Amount 30.000		Recovery	= 110.59%
13) S BCB	24.43	9394965	60.437 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 201.46%#
Target Compounds			
1) TM MTBE	3.04	136812	3.348 UG/L
2) TM Benzene	6.22	3278027	15.742 UG/L
4) TM Toluene	12.23	1725815	9.076 UG/L
5) TM Chlorobenzene	16.89	423671	~~2.183 UG/L~~
6) TM Ethylbenzene	17.20	21920528	134.222 UG/L
7) TM m-,p-Xylene	17.46	17422540	87.942 UG/L
8) TM o-Xylene	18.71	6358090	37.697 UG/L
10) TM 1,3-Dichlorobenzene	22.46	790581	~~4.618 UG/L~~
11) TM 1,4-Dichlorobenzene	22.72	2291962	~~13.007 UG/L~~
12) TM 1,2-Dichlorobenzene	23.53	1149456	~~8.317 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08906.D 8021W.M Tue Aug 14 21:28:04 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08902.D Vial: 28
Acq On : 14 Aug 2001 18:51 Operator: CBN
Sample : L0108280-09 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 19:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08902.D Vial: 28
Acq On : 14 Aug 2001 18:51 Operator: CBN
Sample : L0108280-09 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 19:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

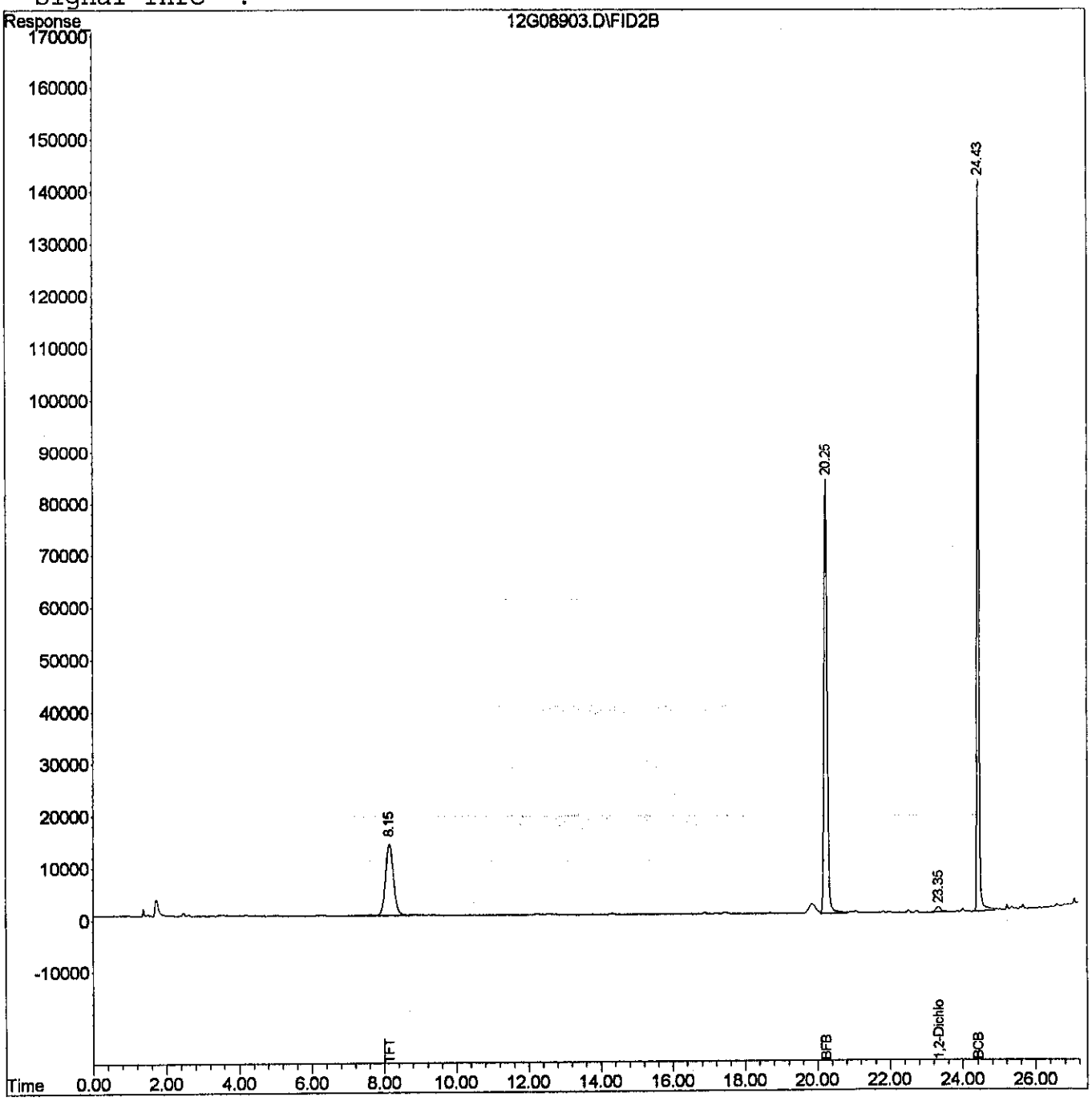
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2176047	31.925 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.42%			
9) S BFB	20.25	5181146	31.529 UG/L
Spiked Amount 30.000 Recovery = 105.10%			
13) S BCB	24.43	4998478	32.155 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 107.18%			
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	12.26	49011	<MDL UG/L
5) TM Chlorobenzene	16.90	31170	<MDL UG/L
6) TM Ethylbenzene	17.21	24080	<MDL UG/L
7) TM m-,p-Xylene	17.47	60008	<MDL UG/L
8) TM o-Xylene	18.72	16541	<MDL UG/L
10) TM 1,3-Dichlorobenzene	22.53	29506	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.74	26301	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.34	253486	~~1.834 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\081401\12G08903.D Vial: 29
Acq On : 14 Aug 2001 19:24 Operator: CBN
Sample : L0108280-10 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 19:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\[illegible]

Acq On : 14 Aug 2001 19:24 Operator: CBN
Sample : L0108280-10 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 19:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	8.16	2114068	31.016 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	103.39%
9) S BFB	20.25	5014792	30.516 UG/L
Spiked Amount 30.000		Recovery =	101.72%
13) S BCB	24.43	4860087	31.264 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	104.21%
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	16.90	18207	<MDL UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.48	32805	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.52	19810	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.74	18449	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.35	91010	~~0.659 UG/L~~

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

2.1.3.3 Standards Data

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001

Calibration Files
1 =12G08883.D 10 =12G08884.D 20 =12G08885.D
50 =12G08886.D 100 =12G08887.D 200 =12G08888.D

		Compound	1	10	20	50	100	200	Avg		%RSD
1)	TM	MTBE	4.480	4.099	4.154	3.981	3.892	3.914	4.087	E4	5.34
2)	TM	Benzene	2.057	2.179	2.131	2.060	2.051	2.017	2.082	E5	2.89
3)	S	TFT	6.013	7.074	7.077	6.950	6.917	6.864	6.816	E4	5.90
4)	TM	Toluene	1.890	1.982	1.957	1.877	1.860	1.843	1.901	E5	2.92
5)	TM	Chlorobenzene	1.893	2.028	2.001	1.921	1.908	1.895	1.941	E5	3.02
6)	TM	Ethylbenzene	1.600	1.717	1.683	1.614	1.599	1.585	1.633	E5	3.29
7)	TM	m-,p-Xylene	2.019	2.080	2.026	1.943	1.926	1.893	1.981	E5	3.59
8)	TM	o-Xylene	1.659	1.769	1.733	1.674	1.652	1.633	1.687	E5	3.13
9)	S	BFB	1.561	1.678	1.690	1.651	1.642	1.637	1.643	E5	2.76
10)	TM	1,3-Dichlorobenzene	1.647	1.785	1.781	1.715	1.703	1.641	1.712	E5	3.65
11)	TM	1,4-Dichlorobenzene	1.733	1.847	1.829	1.743	1.722	1.698	1.762	E5	3.47
12)	TM	1,2-Dichlorobenzene	1.492	1.427	1.414	1.342	1.318	1.298	1.382	E5	5.42
13)	S	BCB	1.387	1.580	1.622	1.581	1.564	1.592	1.555	E5	5.41

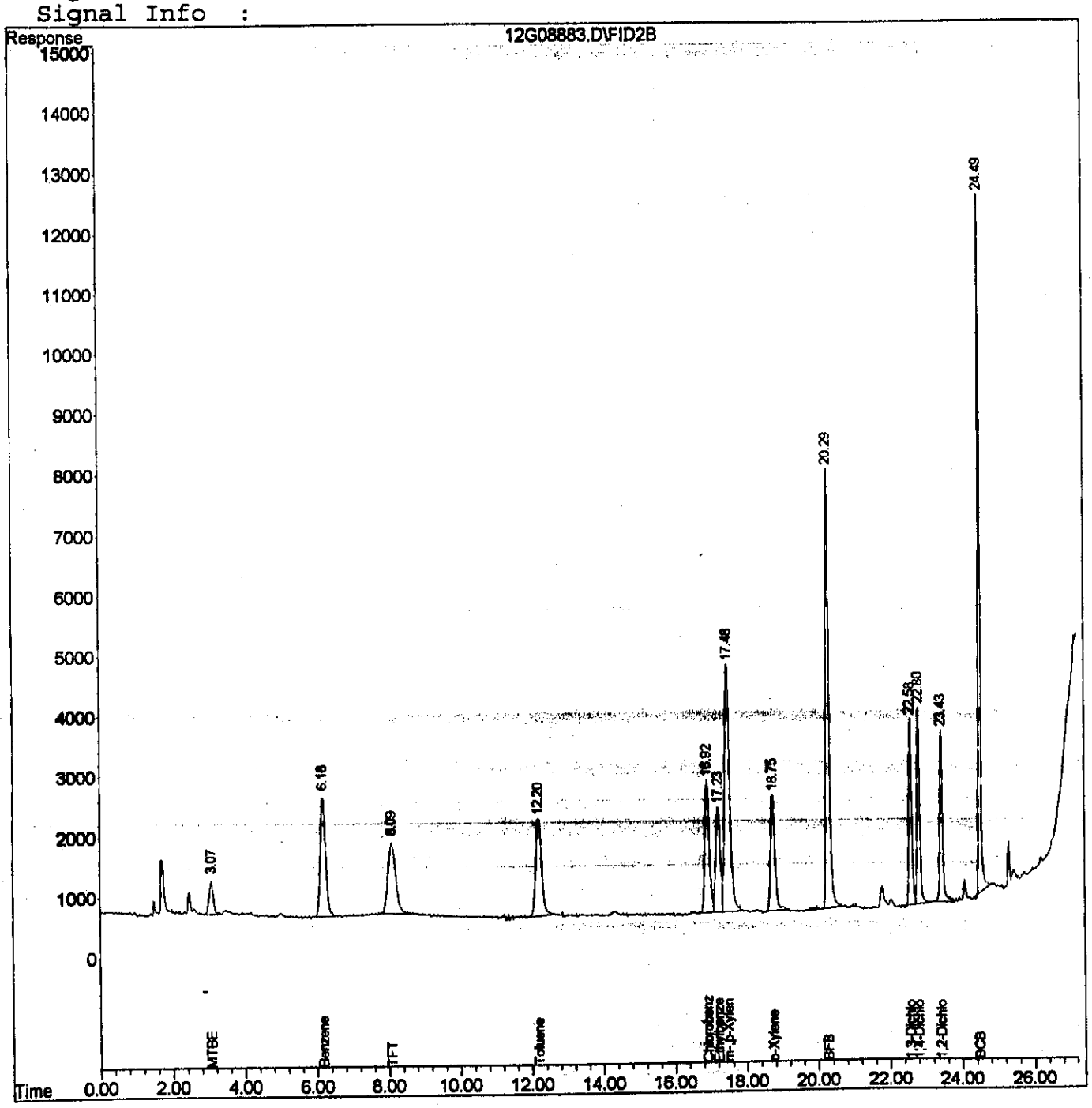
(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 13 Aug 2001 14:18
Sample : 8021 STD 1 1PPB 5ML
Misc : 1,1 S-83-08,82-42
IntFile : autoint1.e
Quant Time: Aug 13 14:45 2001 Quant Results File: 8021W.RES

Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081301\12G08883.D Vial: 26
Acq On : 13 Aug 2001 14:18 Operator: CBN
Sample : 8021 STD 1 1PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 14:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

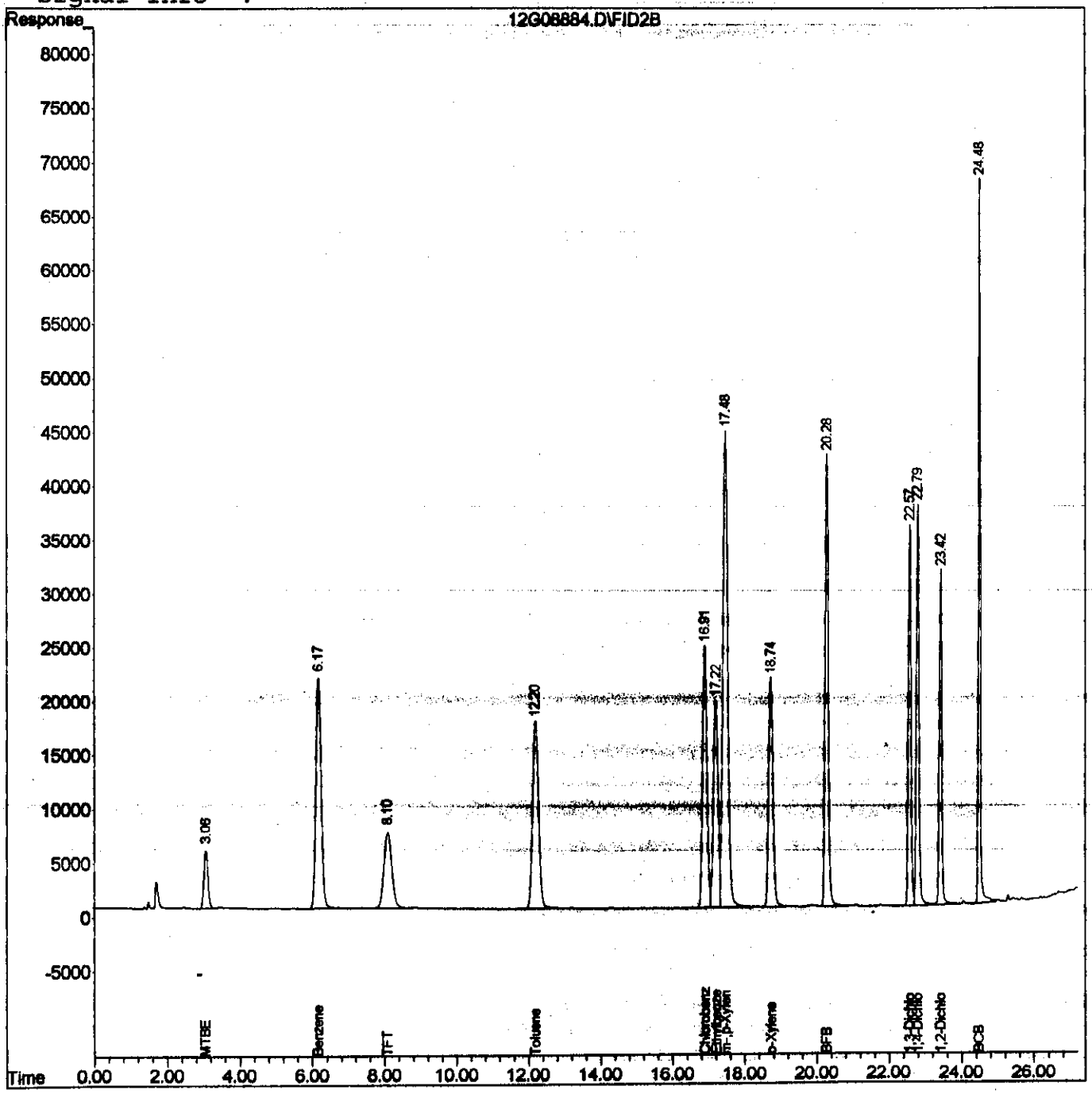
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.09	180404	2.934 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 9.78%#			
9) S BFB	20.29	468353	3.207 UG/L
Spiked Amount 30.000 Recovery = 10.69%			
13) S BCB	24.49	416220	3.008 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 10.03%#			
Target Compounds			
1) TM MTBE	3.07	44798	1.227 UG/L
2) TM Benzene	6.18	205656	1.083 UG/L
4) TM Toluene	12.21	188985	1.072 UG/L
5) TM Chlorobenzene	16.92	189259	1.069 UG/L
6) TM Ethylbenzene	17.23	160043	1.071 UG/L
7) TM m-,p-Xylene	17.49	403838	2.234 UG/L
8) TM o-Xylene	18.75	165862	1.092 UG/L
10) TM 1,3-Dichlorobenzene	22.58	164704	1.067 UG/L
11) TM 1,4-Dichlorobenzene	22.80	173261	1.092 UG/L
12) TM 1,2-Dichlorobenzene	23.43	149245	1.138 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08883.D 8021W.M Mon Aug 13 14:45:19 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081301\12G08884.D Vial: 27
Acq On : 13 Aug 2001 14:50 Operator: CBN
Sample : 8021 STD 2 10PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 15:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G08884.D 8021W.M Mon Aug 13 15:18:02 2001 Page 2

Data File : C:\HPCHEM\2\DATA\081301\12G08884.D Vial: 27
Acq On : 13 Aug 2001 14:50 Operator: CBN
Sample : 8021 STD 2 10PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 15:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

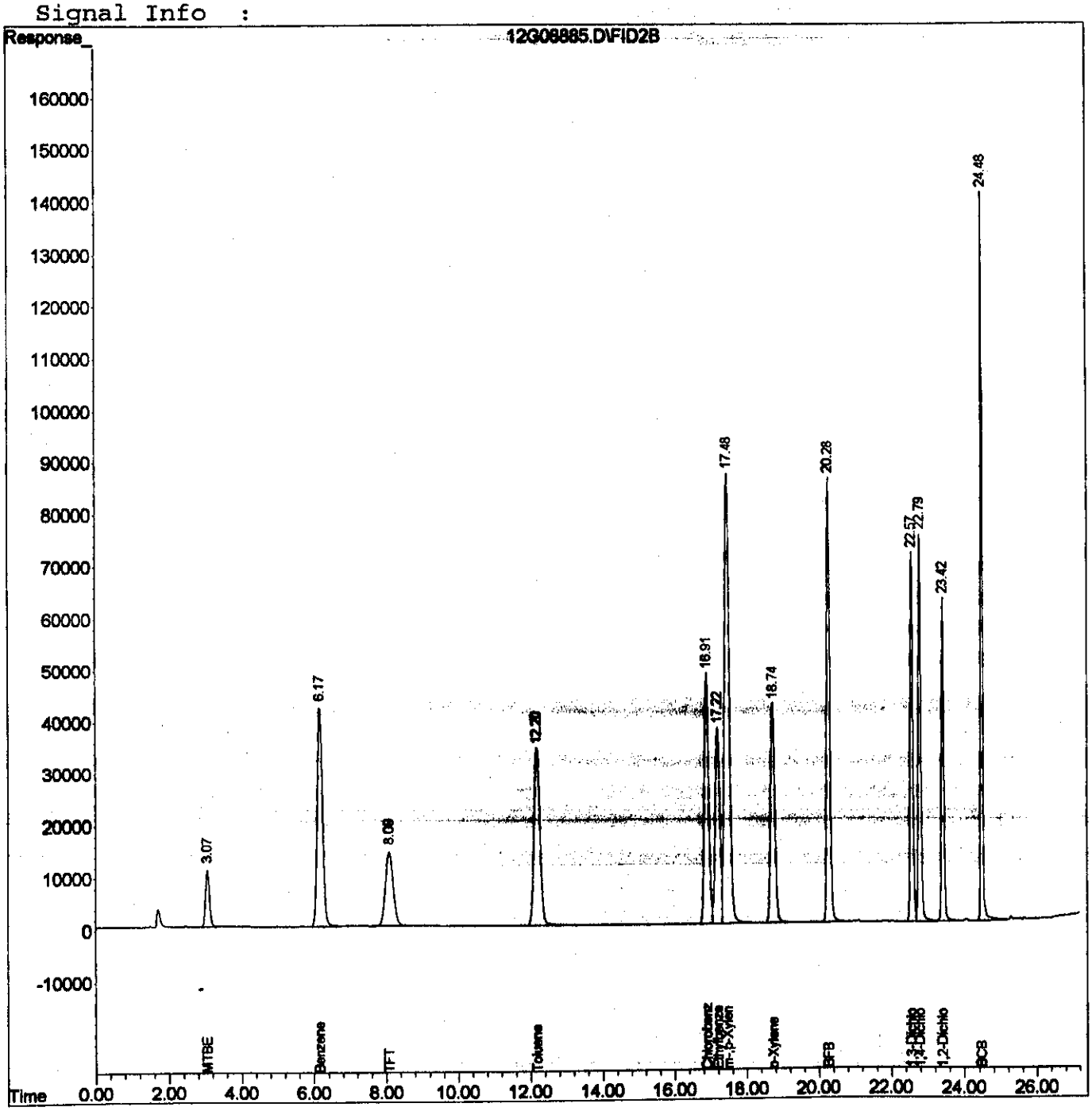
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.09	1061065	17.257 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 57.52%#			
9) S BFB	20.28	2517740	17.241 UG/L
Spiked Amount 30.000 Recovery = 57.47%			
13) S BCB	24.48	2369901	17.129 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 57.10%			
Target Compounds			
1) TM MTBE	3.06	409871	11.229 UG/L
2) TM Benzene	6.18	2178778	11.473 UG/L
4) TM Toluene	12.20	1981814	11.245 UG/L
5) TM Chlorobenzene	16.91	2028404	11.452 UG/L
6) TM Ethylbenzene	17.21	1717450	11.488 UG/L
7) TM m-,p-Xylene	17.48	4159107	23.007 UG/L
8) TM o-Xylene	18.74	1769295	11.649 UG/L
10) TM 1,3-Dichlorobenzene	22.58	1785424	11.565 UG/L
11) TM 1,4-Dichlorobenzene	22.79	1847377	11.640 UG/L
12) TM 1,2-Dichlorobenzene	23.43	1427436	10.882 UG/L

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

Data File : C:\HPCHEM\2\DATA\081301\12G08885.D Vial: 28
Acq On : 13 Aug 2001 15:23 Operator: CBN
Sample : 8021 STD 3 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 15:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081301\12G08885.D Vial: 28
Acq On : 13 Aug 2001 15:23 Operator: CBN
Sample : 8021 STD 3 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 15:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.09	2123128	34.530 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	115.10%
9) S BFB	20.28	5070493	34.722 UG/L
Spiked Amount 30.000		Recovery =	115.74%
13) S BCB	24.48	4865985	35.171 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	117.24%
Target Compounds			
1) TM MTBE	3.07	830794	22.760 UG/L
2) TM Benzene	6.18	4261748	22.441 UG/L
4) TM Toluene	12.20	3914331	22.211 UG/L
5) TM Chlorobenzene	16.91	4001520	22.592 UG/L
6) TM Ethylbenzene	17.22	3365531	22.512 UG/L
7) TM m-,p-Xylene	17.48	8102117	44.819 UG/L
8) TM o-Xylene	18.74	3465673	22.818 UG/L
10) TM 1,3-Dichlorobenzene	22.57	3562584	23.077 UG/L
11) TM 1,4-Dichlorobenzene	22.79	3658426	23.051 UG/L
12) TM 1,2-Dichlorobenzene	23.42	2828172	21.561 UG/L

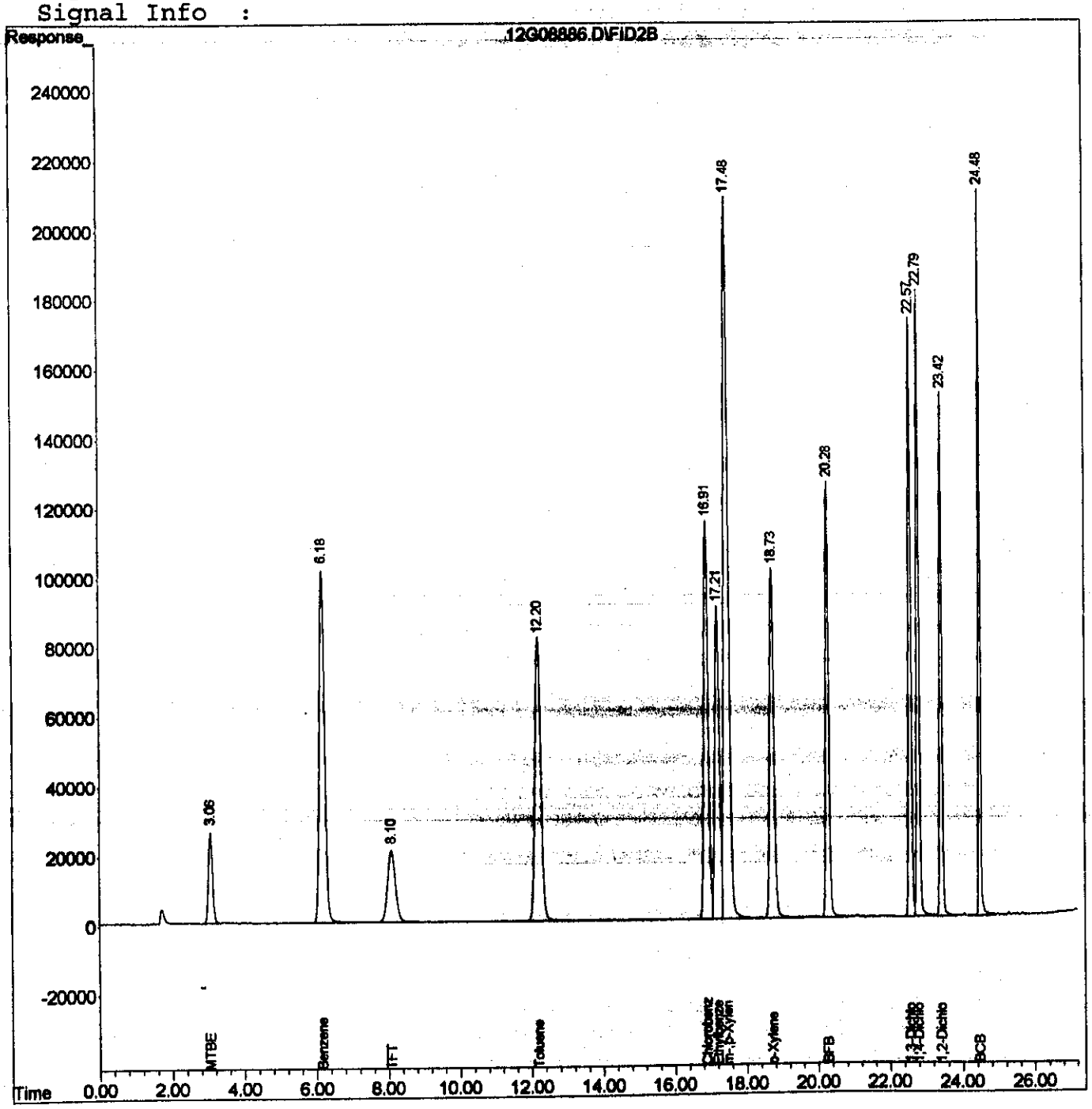
(f)=RT Delta > 1/2 Window (m)=manual int.
12G08885.D 8021W.M Mon Aug 13 15:50:42 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081301\12G08886.D
Acq On : 13 Aug 2001 15:56
Sample : 8021 STD 4 50PPB 5ML
Misc : 1,1 S-83-08,82-42
IntFile : autoint1.e
Quant Time: Aug 13 16:23 2001 Quant Results File: 8021W.RES

Vial: 29
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081301\12G08886.D Vial: 29
Acq On : 13 Aug 2001 15:56 Operator: CBN
Sample : 8021 STD 4 50PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 16:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.09	3127514	50.865 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 169.55%#			
9) S BFB	20.28	7429618	50.877 UG/L
Spiked Amount 30.000 Recovery = 169.59%			
13) S BCB	24.48	7115442	51.429 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 171.43%#			
Target Compounds			
1) TM MTBE	3.07	1990647	54.534 UG/L
2) TM Benzene	6.18	10298537	54.228 UG/L
4) TM Toluene	12.20	9384918	53.252 UG/L
5) TM Chlorobenzene	16.91	9606730	54.239 UG/L
6) TM Ethylbenzene	17.21	8069703	53.979 UG/L
7) TM m-,p-Xylene	17.48	19434609	107.508 UG/L
8) TM o-Xylene	18.74	8368216	55.096 UG/L
10) TM 1,3-Dichlorobenzene	22.58	8574715	55.542 UG/L
11) TM 1,4-Dichlorobenzene	22.80	8714329	54.908 UG/L
12) TM 1,2-Dichlorobenzene	23.43	6709846	51.153 UG/L

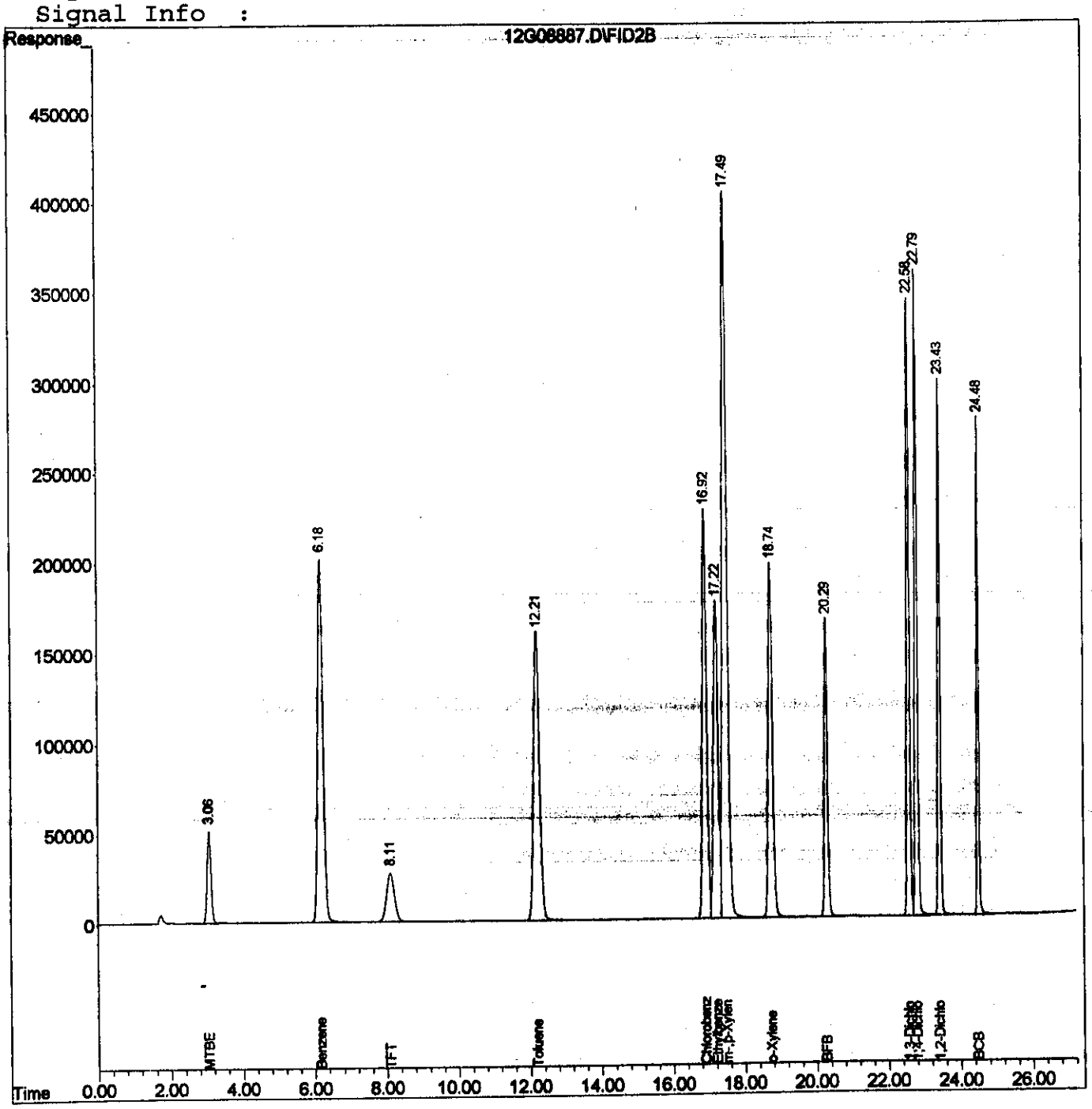
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\081301\12G08887.D
Acq On : 13 Aug 2001 16:28
Sample : 8021 STD 5 100PPB 5ML
Misc : 1,1 S-83-08,82-42
IntFile : autoint1.e
Quant Time: Aug 13 16:56 2001 Quant Results File: 8021W.RES

Vial: 30
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081301\12G08887.D Vial: 30
Acq On : 13 Aug 2001 16:28 Operator: CBN
Sample : 8021 STD 5 100PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 16:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

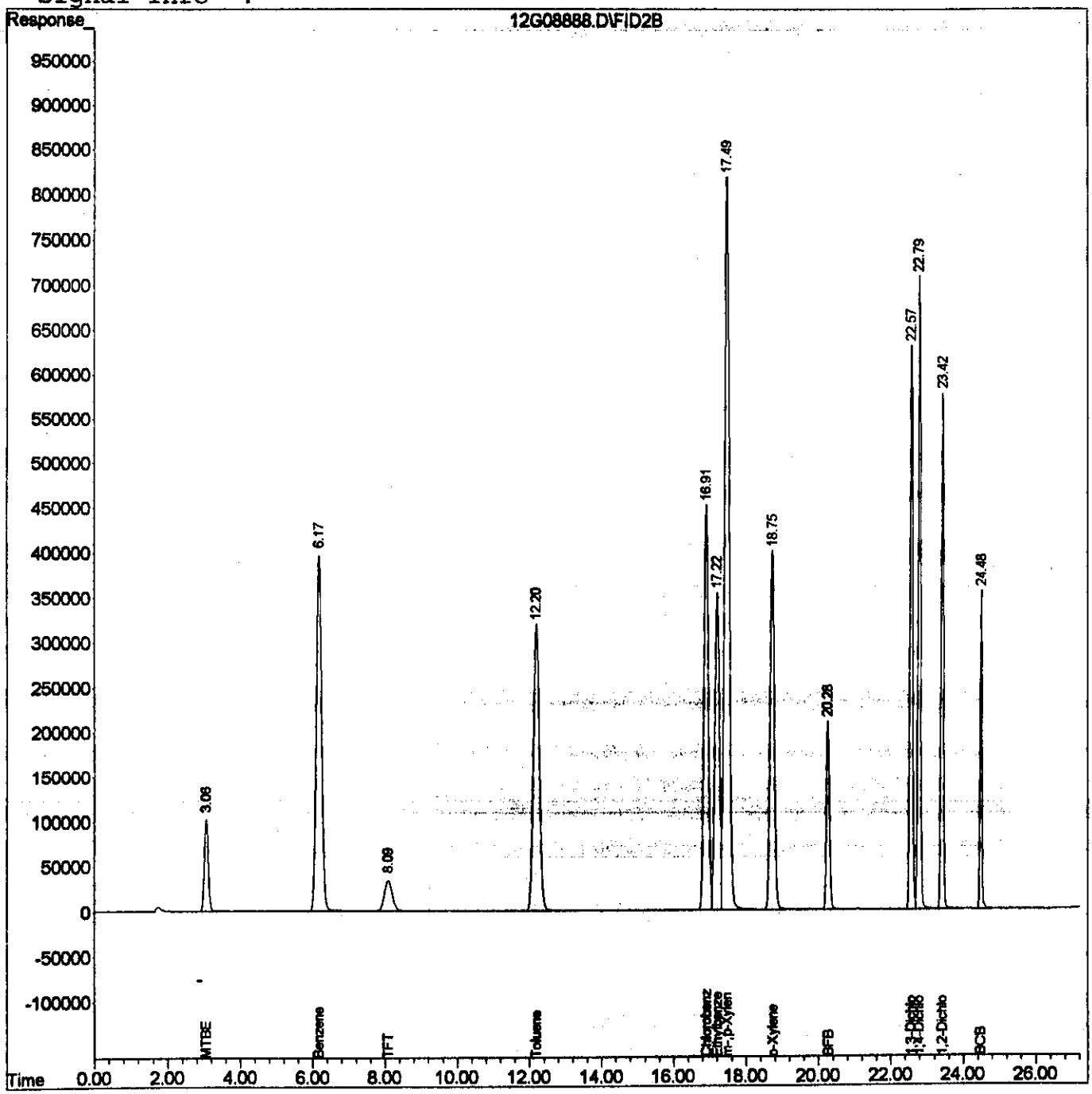
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.11	4150472	67.502 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 225.01%#			
9) S BFB	20.29	9851934	67.464 UG/L
Spiked Amount 30.000 Recovery = 224.88%			
13) S BCB	24.48	9384580	67.830 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 226.10%#			
Target Compounds			
1) TM MTBE	3.06	3892286	106.630 UG/L
2) TM Benzene	6.18	20509222	107.994 UG/L
4) TM Toluene	12.21	18595497	105.515 UG/L
5) TM Chlorobenzene	16.92	19084370	107.750 UG/L
6) TM Ethylbenzene	17.22	15989655	106.956 UG/L
7) TM m-,p-Xylene	17.49	38520597	213.087 UG/L
8) TM o-Xylene	18.75	16524066	108.793 UG/L
10) TM 1,3-Dichlorobenzene	22.58	17026819	110.291 UG/L
11) TM 1,4-Dichlorobenzene	22.80	17223160	108.521 UG/L
12) TM 1,2-Dichlorobenzene	23.43	13184971	100.517 UG/L

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

Data File : C:\HPCHEM\2\DATA\081301\12G08888.D Vial: 31
Acq On : 13 Aug 2001 17:01 Operator: CBN
Sample : 8021 STD 6 200PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 17:28 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081301\12G08888.D Vial: 31
Acq On : 13 Aug 2001 17:01 Operator: CBN
Sample : 8021 STD 6 200PPB 5ML Inst : HP12
Misc : 1,1 S-83-08,82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 13 17:28 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 07-20-01
Last Update : Fri Jul 20 12:40:36 2001
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	8.09	5148365	83.731 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	279.10%#
9) S BFB	20.29	12277758	84.076 UG/L
Spiked Amount 30.000		Recovery =	280.25%
13) S BCB	24.48	11943077	86.323 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	287.74%#
Target Compounds			
1) TM MTBE	3.06	7827023	214.423 UG/L
2) TM Benzene	6.17	40346052	212.447 UG/L
4) TM Toluene	12.21	36865959	209.186 UG/L
5) TM Chlorobenzene	16.92	37893224	213.944 UG/L
6) TM Ethylbenzene	17.22	31708064	212.098 UG/L
7) TM m-,p-Xylene	17.49	75722951	418.882 UG/L
8) TM o-Xylene	18.74	32659387	215.027 UG/L
10) TM 1,3-Dichlorobenzene	22.57	32828351	212.645 UG/L
11) TM 1,4-Dichlorobenzene	22.79	33963583	214.001 UG/L
12) TM 1,2-Dichlorobenzene	23.42	25956791	197.885 UG/L

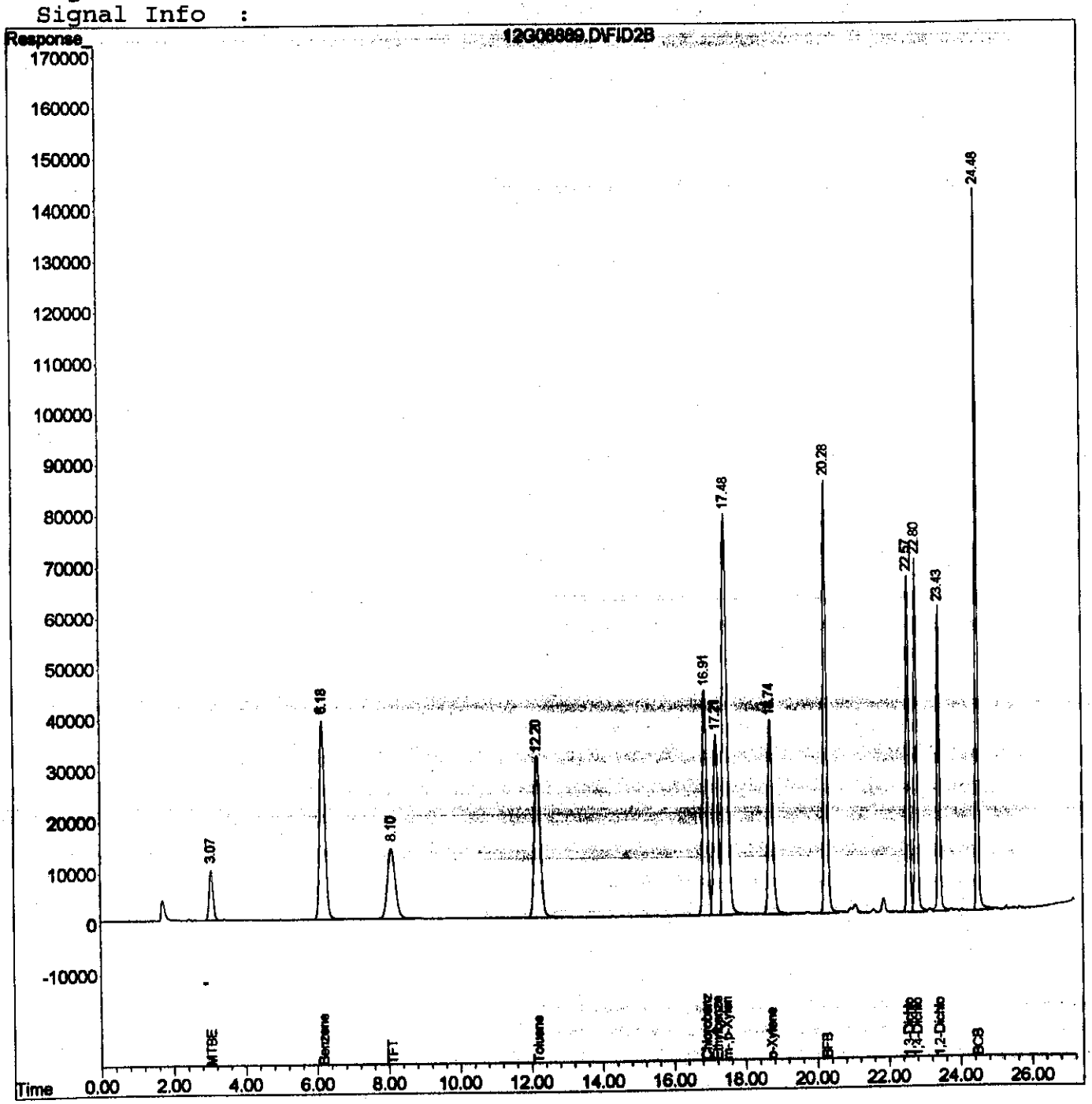
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\081301\12G08889.D
Acq On : 13 Aug 2001 17:34
Sample : ALT SOURCE 20PPB 5ML
Misc : 1,1 S-82-(06,42)
IntFile : autoint1.e
Quant Time: Aug 14 8:16 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Aug 2001 17:34 Operator: CBN
Sample : ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 8:16 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	8.10	2099602	30.804 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.68%			
9) S BFB	20.28	5048428	30.721 UG/L
Spiked Amount 30.000 Recovery = 102.40%			
13) S BCB	24.48	4885734	31.429 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 104.76%			
Target Compounds			
1) TM MTBE	3.07	751047	18.378 UG/L
2) TM Benzene	6.18	3942295	18.932 UG/L
4) TM Toluene	12.20	3617213	19.024 UG/L
5) TM Chlorobenzene	16.91	3682649	18.973 UG/L
6) TM Ethylbenzene	17.21	3158228	19.338 UG/L
7) TM m-,p-Xylene	17.48	7433573	37.522 UG/L
8) TM o-Xylene	18.74	3264803	19.357 UG/L
10) TM 1,3-Dichlorobenzene	22.58	3328744	19.442 UG/L
11) TM 1,4-Dichlorobenzene	22.80	3427346	19.450 UG/L
12) TM 1,2-Dichlorobenzene	23.43	2733948	19.782 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08889.D 8021W.M Tue Aug 14 08:16:51 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08890.D Vial: 1
Acq On : 14 Aug 2001 12:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	40.866	40.011	E3	2.1	96	-0.04
2	TM	Benzene	208.236	195.557	E3	6.1	92	-0.06
3	S	TFT	68.161	69.982	E3	-2.7	99	-0.07
4	TM	Toluene	190.144	184.140	E3	3.2	94	-0.07
5	TM	Chlorobenzene	194.103	186.683	E3	3.8	93	-0.08
6	TM	Ethylbenzene	163.316	161.281	E3	1.2	96	-0.07
7	TM	m-,p-Xylene	198.114	191.316	E3	3.4	94	-0.07
8	TM	o-Xylene	168.663	165.732	E3	1.7	96	-0.06
9	S	BFB	164.331	164.835	E3	-0.3	98	-0.06
10	TM	1,3-Dichlorobenzene	171.213	166.131	E3	3.0	93	-0.07
11	TM	1,4-Dichlorobenzene	176.209	170.975	E3	3.0	93	-0.07
12	TM	1,2-Dichlorobenzene	138.205	133.898	E3	3.1	95	-0.07
13	S	BCB	155.451	156.660	E3	-0.8	97	-0.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08890.D 8021W.M Tue Aug 14 12:47:30 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08890.D Vial: 1
Acq On : 14 Aug 2001 12:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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%

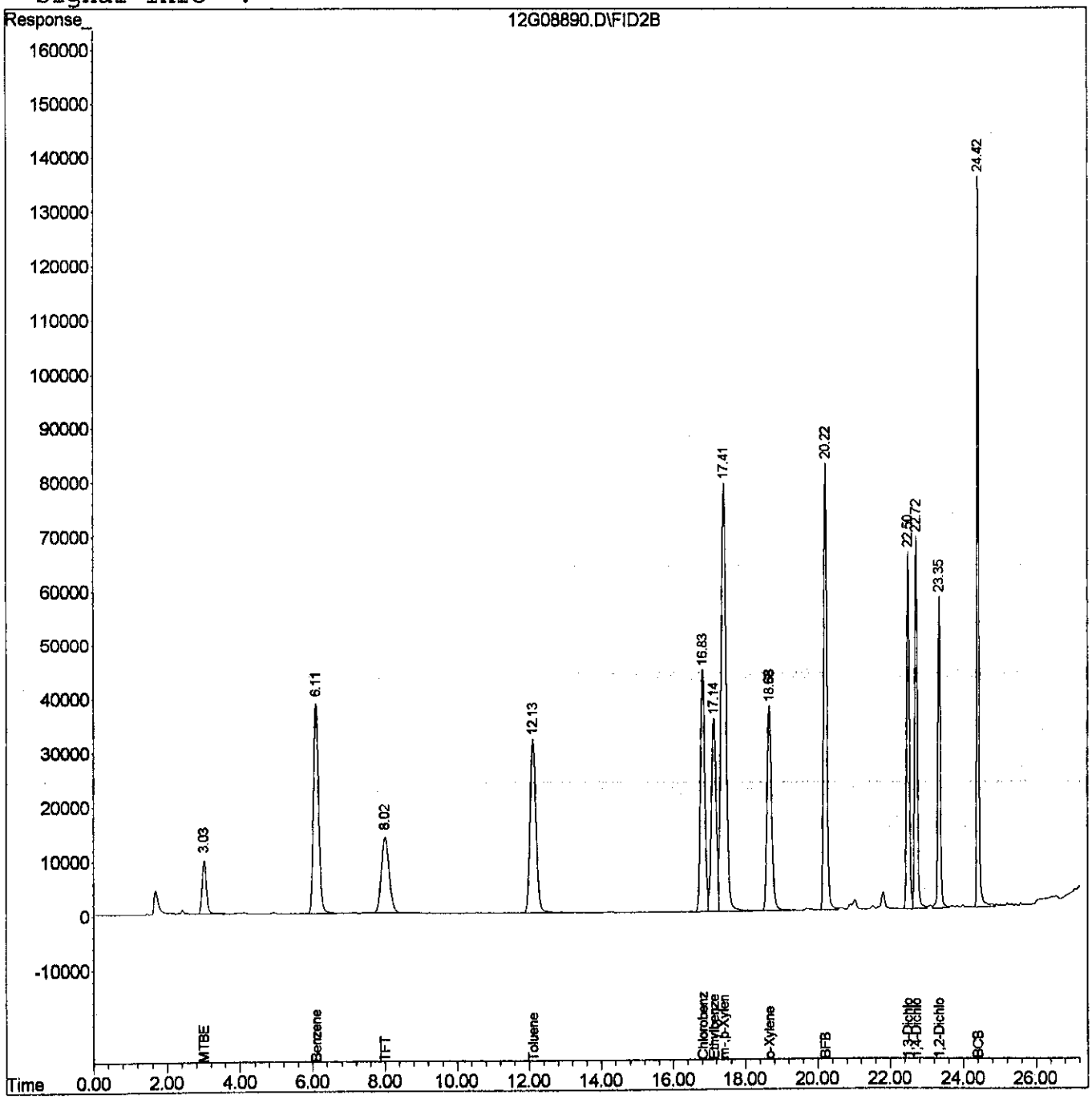
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.582	2.1	96	-0.04
2	TM	Benzene	20.000	18.782	6.1	92	-0.06
3	S	TFT	30.000	30.802	-2.7	99	-0.07
4	TM	Toluene	20.000	19.368	3.2	94	-0.07
5	TM	Chlorobenzene	20.000	19.235	3.8	93	-0.08
6	TM	Ethylbenzene	20.000	19.751	1.2	96	-0.07
7	TM	m-,p-Xylene	40.000	38.627	3.4	94	-0.07
8	TM	o-Xylene	20.000	19.653	1.7	96	-0.06
9	S	BFB	30.000	30.092	-0.3	98	-0.06
10	TM	1,3-Dichlorobenzene	20.000	19.406	3.0	93	-0.07
11	TM	1,4-Dichlorobenzene	20.000	19.406	3.0	93	-0.07
12	TM	1,2-Dichlorobenzene	20.000	19.377	3.1	95	-0.07
13	S	BCB	30.000	30.233	-0.8	97	-0.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08890.D 8021W.M Tue Aug 14 12:47:32 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08890.D Vial: 1
Acq On : 14 Aug 2001 12:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 12:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08890.D Vial: 1
Acq On : 14 Aug 2001 12:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 12:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	8.02	2099450	30.802 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.67%			
9) S BFB	20.22	4945037	30.092 UG/L
Spiked Amount 30.000 Recovery = 100.31%			
13) S BCB	24.42	4699788	30.233 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 100.78%			
Target Compounds			
1) TM MTBE	3.03	800226	19.582 UG/L
2) TM Benzene	6.12	3911138	18.782 UG/L
4) TM Toluene	12.13	3682791	19.368 UG/L
5) TM Chlorobenzene	16.83	3733655	19.235 UG/L
6) TM Ethylbenzene	17.14	3225614	19.751 UG/L
7) TM m-,p-Xylene	17.41	7652638	38.627 UG/L
8) TM o-Xylene	18.68	3314649	19.653 UG/L
10) TM 1,3-Dichlorobenzene	22.51	3322621	19.406 UG/L
11) TM 1,4-Dichlorobenzene	22.72	3419500	19.406 UG/L
12) TM 1,2-Dichlorobenzene	23.36	2677966	19.377 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08890.D 8021W.M Tue Aug 14 12:46:49 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08901.D Vial: 27
Acq On : 14 Aug 2001 18:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	40.866	36.683	E3	10.2	88	0.03
2	TM	Benzene	208.236	196.717	E3	5.5	92	0.06
3	S	TFT	68.161	72.388	E3	-6.2	102	0.08
4	TM	Toluene	190.144	183.000	E3	3.8	94	0.05
5	TM	Chlorobenzene	194.103	188.624	E3	2.8	94	0.00
6	TM	Ethylbenzene	163.316	162.887	E3	0.3	97	0.00
7	TM	m-,p-Xylene	198.114	191.931	E3	3.1	95	0.00
8	TM	o-Xylene	168.663	166.188	E3	1.5	96	-0.02
9	S	BFB	164.331	172.641	E3	-5.1	102	-0.03
10	TM	1,3-Dichlorobenzene	171.213	169.603	E3	0.9	95	-0.04
11	TM	1,4-Dichlorobenzene	176.209	173.507	E3	1.5	95	-0.05
12	TM	1,2-Dichlorobenzene	138.205	138.400	E3	-0.1	98	-0.05
13	S	BCB	155.451	168.739	E3	-8.5	104	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08901.D 8021W.M Wed Aug 15 06:12:17 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08901.D Vial: 27
Acq On : 14 Aug 2001 18:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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%

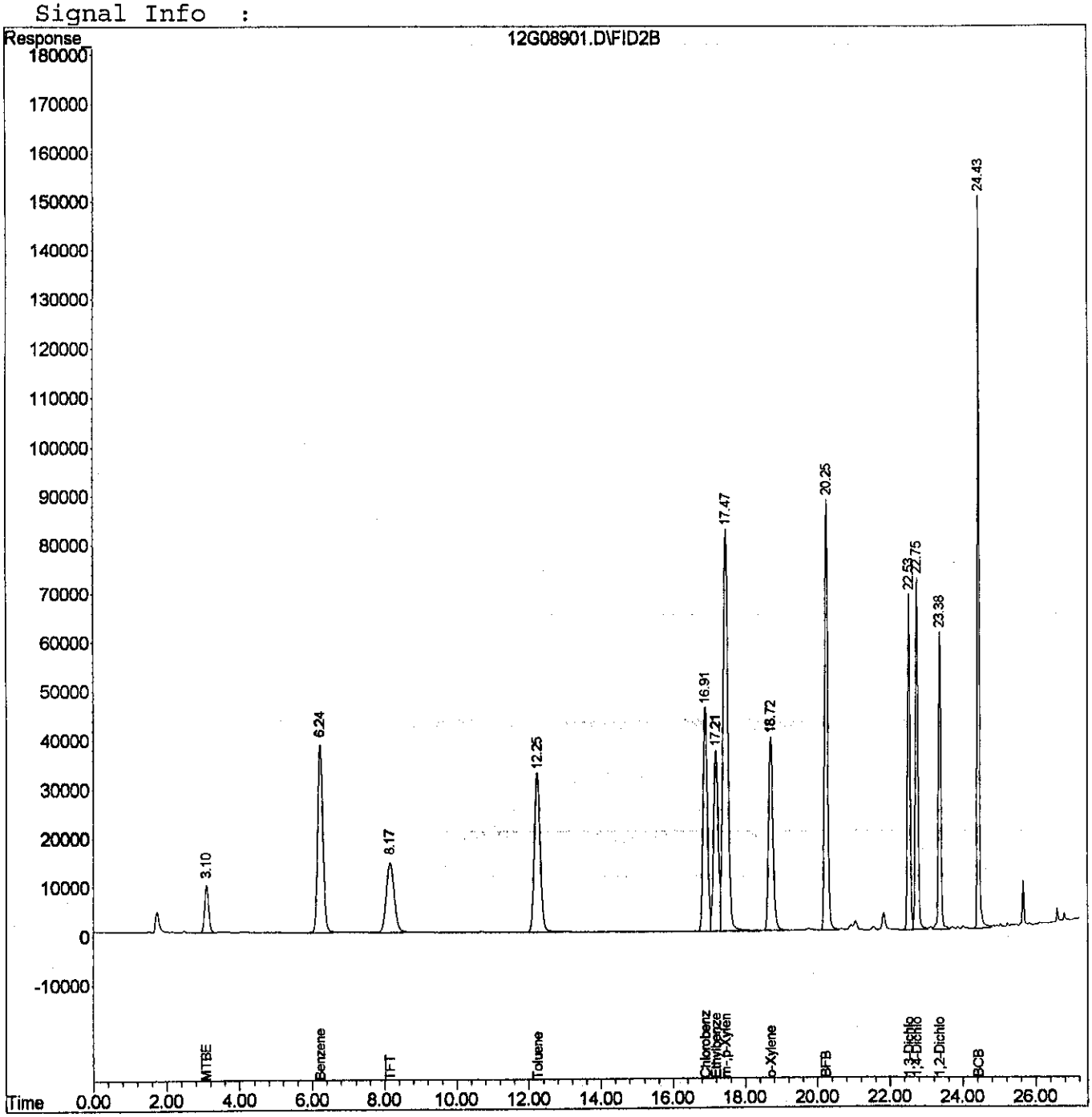
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.953	10.2	88	0.03
2	TM	Benzene	20.000	18.894	5.5	92	0.06
3	S	TFT	30.000	31.861	-6.2	102	0.08
4	TM	Toluene	20.000	19.249	3.8	94	0.05
5	TM	Chlorobenzene	20.000	19.435	2.8	94	0.00
6	TM	Ethylbenzene	20.000	19.947	0.3	97	0.00
7	TM	m-,p-Xylene	40.000	38.752	3.1	95	0.00
8	TM	o-Xylene	20.000	19.707	1.5	96	-0.02
9	S	BFB	30.000	31.517	-5.1	102	-0.03
10	TM	1,3-Dichlorobenzene	20.000	19.812	0.9	95	-0.04
11	TM	1,4-Dichlorobenzene	20.000	19.693	1.5	95	-0.05
12	TM	1,2-Dichlorobenzene	20.000	20.028	-0.1	98	-0.05
13	S	BCB	30.000	32.564	-8.5	104	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08901.D 8021W.M Wed Aug 15 06:12:16 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08901.D Vial: 27
Acq On : 14 Aug 2001 18:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 18:47 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 14 Aug 2001 18:19 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 18:47 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	8.17	2171650	31.861 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.20%			
9) S BFB	20.25	5179221	31.517 UG/L
Spiked Amount 30.000 Recovery = 105.06%			
13) S BCB	24.43	5062176	32.564 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.55%			
Target Compounds			
1) TM MTBE	3.10	733661	17.953 UG/L
2) TM Benzene	6.24	3934336	18.894 UG/L
4) TM Toluene	12.25	3659995	19.249 UG/L
5) TM Chlorobenzene	16.91	3772473	19.435 UG/L
6) TM Ethylbenzene	17.21	3257732	19.947 UG/L
7) TM m-,p-Xylene	17.47	7677240	38.752 UG/L
8) TM o-Xylene	18.72	3323766	19.707 UG/L
10) TM 1,3-Dichlorobenzene	22.53	3392064	19.812 UG/L
11) TM 1,4-Dichlorobenzene	22.75	3470134	19.693 UG/L
12) TM 1,2-Dichlorobenzene	23.38	2768001	20.028 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08901.D 8021W.M Tue Aug 14 18:47:01 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08907.D Vial: 1
Acq On : 14 Aug 2001 21:33 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	40.866	35.590 E3	12.9	86	0.02
2	TM	Benzene	208.236	198.683 E3	4.6	93	0.04
3	S	TFT	68.161	70.407 E3	-3.3	99	0.06
4	TM	Toluene	190.144	183.976 E3	3.2	94	0.02
5	TM	Chlorobenzene	194.103	188.454 E3	2.9	94	-0.02
6	TM	Ethylbenzene	163.316	164.162 E3	-0.5	98	-0.01
7	TM	m-,p-Xylene	198.114	191.745 E3	3.2	95	0.00
8	TM	o-Xylene	168.663	166.353 E3	1.4	96	-0.02
9	S	BFB	164.331	165.461 E3	-0.7	98	-0.04
10	TM	1,3-Dichlorobenzene	171.213	169.746 E3	0.9	95	-0.05
11	TM	1,4-Dichlorobenzene	176.209	173.884 E3	1.3	95	-0.06
12	TM	1,2-Dichlorobenzene	138.205	140.085 E3	-1.4	99	-0.06
13	S	BCB	155.451	159.900 E3	-2.9	99	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08907.D 8021W.M Wed Aug 15 06:12:25 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08907.D Vial: 1
Acq On : 14 Aug 2001 21:33 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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%

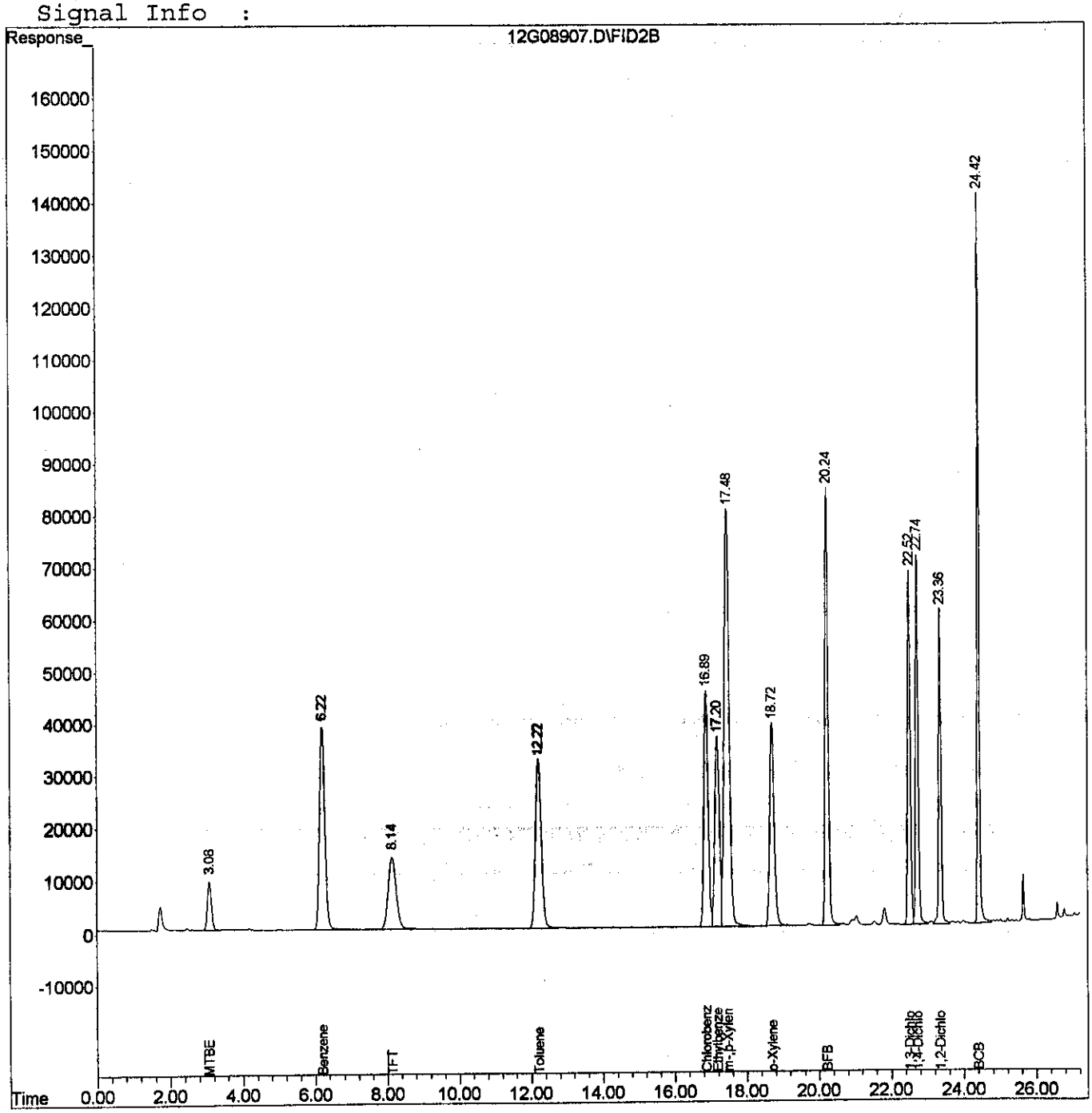
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.418	12.9	86	0.02
2	TM	Benzene	20.000	19.082	4.6	93	0.04
3	S	TFT	30.000	30.989	-3.3	99	0.06
4	TM	Toluene	20.000	19.351	3.2	94	0.02
5	TM	Chlorobenzene	20.000	19.418	2.9	94	-0.02
6	TM	Ethylbenzene	20.000	20.104	-0.5	98	-0.01
7	TM	m-,p-Xylene	40.000	38.714	3.2	95	0.00
8	TM	o-Xylene	20.000	19.726	1.4	96	-0.02
9	S	BFB	30.000	30.206	-0.7	98	-0.04
10	TM	1,3-Dichlorobenzene	20.000	19.829	0.9	95	-0.05
11	TM	1,4-Dichlorobenzene	20.000	19.736	1.3	95	-0.06
12	TM	1,2-Dichlorobenzene	20.000	20.272	-1.4	99	-0.06
13	S	BCB	30.000	30.859	-2.9	99	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G08907.D 8021W.M Wed Aug 15 06:12:26 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08907.D Vial: 1
Acq On : 14 Aug 2001 21:33 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 22:00 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08907.D Vial: 1
Acq On : 14 Aug 2001 21:33 Operator: CBN
Sample : 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 22:00 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	8.15	2112205	30.989 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 103.30%			
9) S BFB	20.25	4963821	30.206 UG/L
Spiked Amount 30.000 Recovery = 100.69%			
13) S BCB	24.42	4796993	30.859 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 102.86%			
Target Compounds			
1) TM MTBE	3.09	711800	17.418 UG/L
2) TM Benzene	6.22	3973658	19.082 UG/L
4) TM Toluene	12.23	3679516	19.351 UG/L
5) TM Chlorobenzene	16.89	3769088	19.418 UG/L
6) TM Ethylbenzene	17.20	3283237	20.104 UG/L
7) TM m-,p-Xylene	17.48	7669786	38.714 UG/L
8) TM o-Xylene	18.72	3327052	19.726 UG/L
10) TM 1,3-Dichlorobenzene	22.52	3394928	19.829 UG/L
11) TM 1,4-Dichlorobenzene	22.74	3477687	19.736 UG/L
12) TM 1,2-Dichlorobenzene	23.37	2801703	20.272 UG/L

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 14-Aug-01
Filename: 12G08890
Sub Directory: 081401
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.027	3.022	3.032
benzene	6.115	6.094	6.136
1,1,1-trifluorotoluene (SS)	8.023	7.993	8.053
toluene	12.128	12.099	12.157
chlorobenzene	16.830	16.813	16.847
ethylbenzene	17.144	17.125	17.163
m+p-xylene	17.415	17.383	17.447
o-xylene	18.676	18.655	18.697
bromofluorobenzene (SS)	20.224	20.210	20.238
1,3-dichlorobenzene	22.506	22.486	22.526
1,4-dichlorobenzene	22.724	22.704	22.744
1,2-dichlorobenzene	23.355	23.337	23.373

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

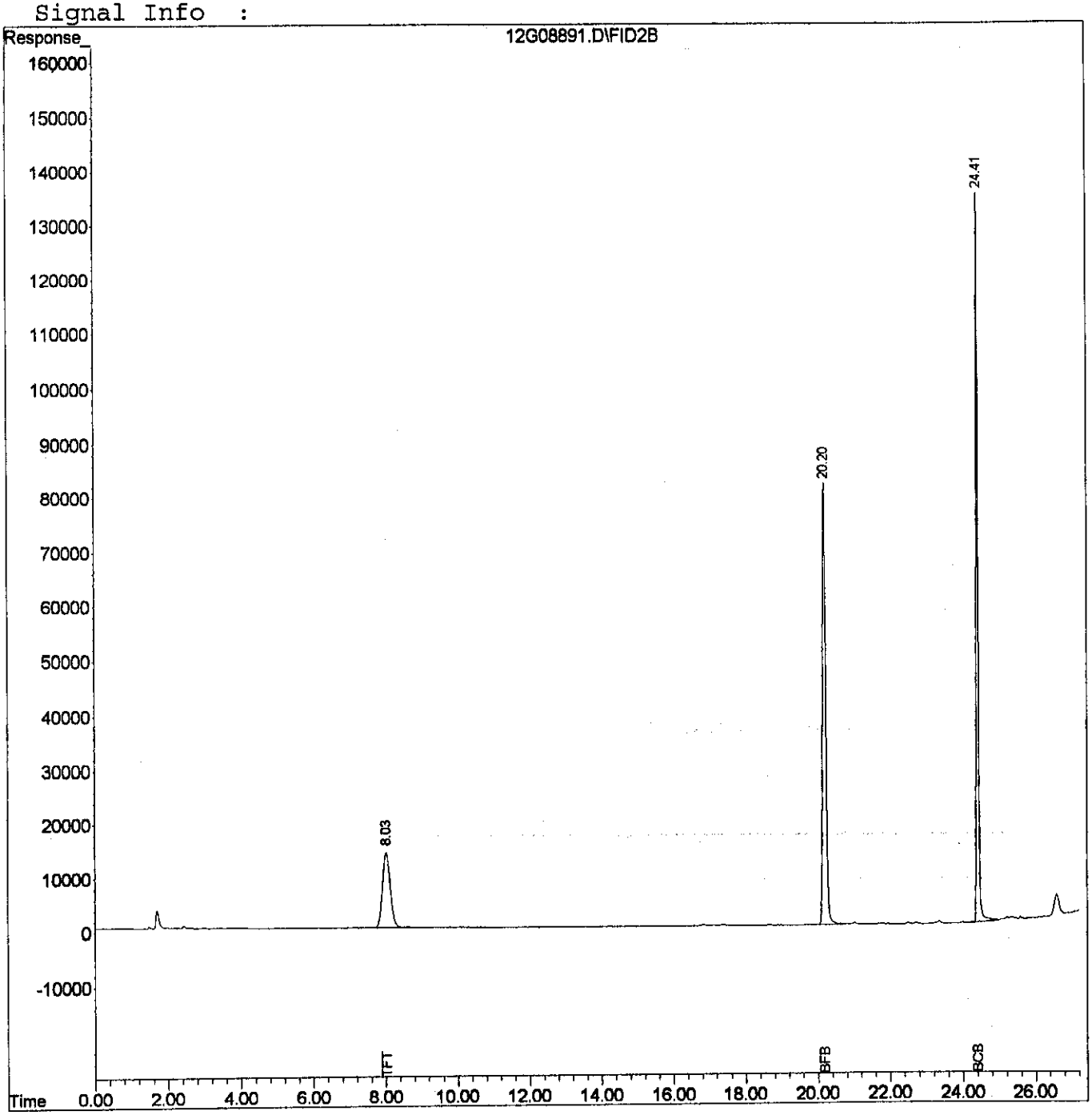
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\081401\12G08891.D Vial: 2
Acq On : 14 Aug 2001 12:51 Operator: CBN
Sample : WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 13:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 14 Aug 2001 12:51 Operator: CBN
Sample : WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-82-42 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 13:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

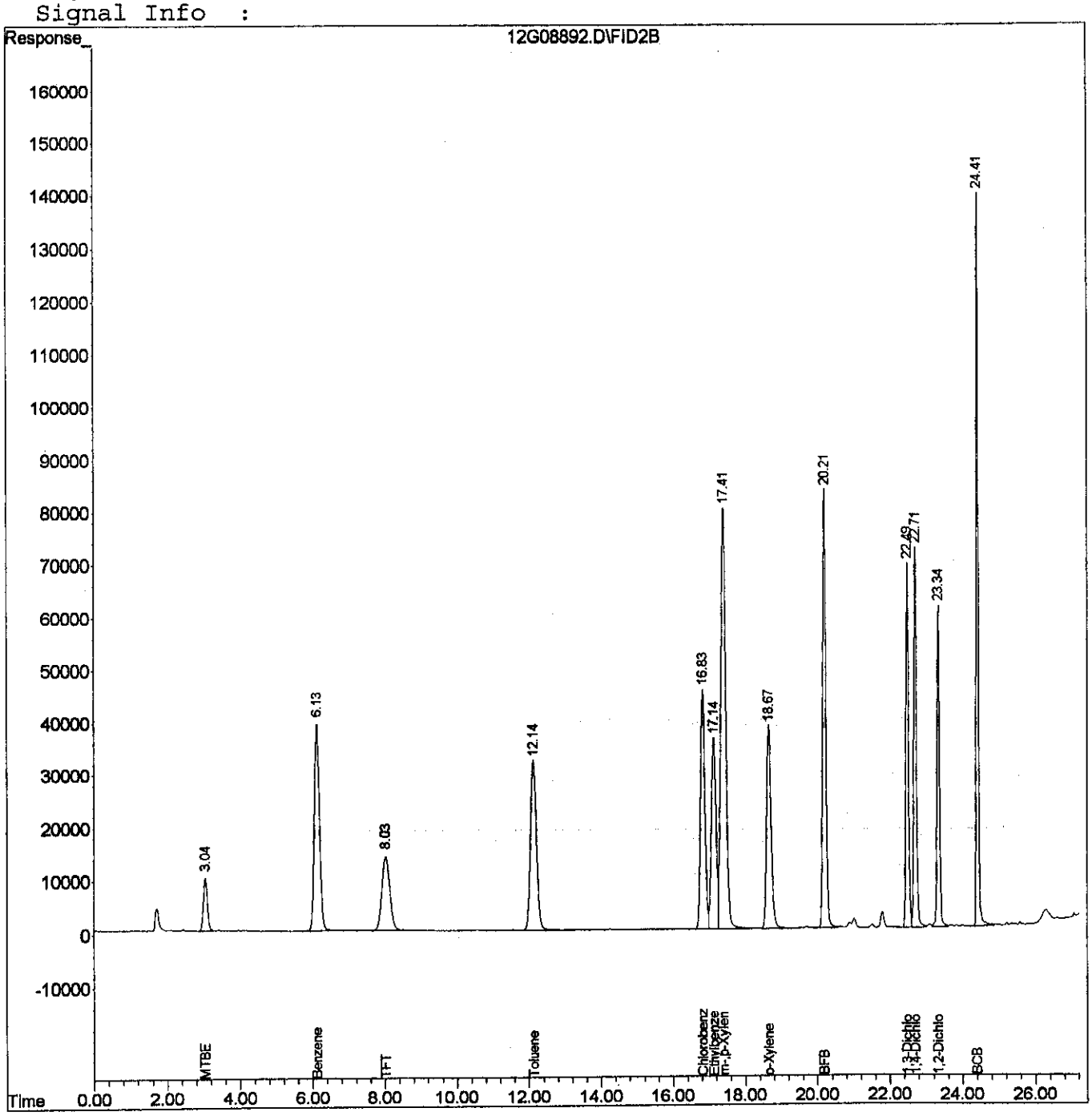
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) S TFT	8.03	2092850	30.705	UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 102.35%		
9) S BFB	20.21	4932005	30.013	UG/L
Spiked Amount 30.000		Recovery = 100.04%		
13) S BCB	24.42	4703774	30.259	UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 100.86%		
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	16.84	17909	<MDL	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	22.50	17093	<MDL	UG/L
11) TM 1,4-Dichlorobenzene	22.72	16161	<MDL	UG/L
12) TM 1,2-Dichlorobenzene	23.35	32967	<MDL	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G08891.D 8021W.M Tue Aug 14 13:19:00 2001 Page 1

Data File : C:\HPCHEM\2\DATA\081401\12G08892.D Vial: 3
Acq On : 14 Aug 2001 13:23 Operator: CBN
Sample : WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 13:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\081401\12G08892.D Vial: 5
Acq On : 14 Aug 2001 13:23 Operator: CBN
Sample : WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-82-(06,42) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Aug 14 13:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/13/01
Last Update : Tue Aug 14 08:13:46 2001
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	8.04	2122476	31.139 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 103.80%	
9) S BFB	20.21	4995859	30.401 UG/L
Spiked Amount 30.000		Recovery = 101.34%	
13) S BCB	24.41	4815605	30.978 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 103.26%	
Target Compounds			
1) TM MTBE	3.05	748364	18.313 UG/L
2) TM Benzene	6.13	3970842	19.069 UG/L
4) TM Toluene	12.14	3734831	19.642 UG/L
5) TM Chlorobenzene	16.84	3813777	19.648 UG/L
6) TM Ethylbenzene	17.15	3281184	20.091 UG/L
7) TM m-,p-Xylene	17.41	7742534	39.081 UG/L
8) TM o-Xylene	18.67	3372381	19.995 UG/L
10) TM 1,3-Dichlorobenzene	22.49	3468948	20.261 UG/L
11) TM 1,4-Dichlorobenzene	22.71	3568982	20.254 UG/L
12) TM 1,2-Dichlorobenzene	23.35	2844028	20.578 UG/L

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

ANALYST: CBJ

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	27	12g08872.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-82-(06,42)	13 Aug 2001 06:1
2	28	12g08873.d	1.	WATER BLANK 5ML ✓	1,1 S-82-42	13 Aug 2001 06:5
3	29	12g08874.d	1.	WATER LCS 20PPB 5ML ✓	1,1 S-82-(06,42)	13 Aug 2001 07:2
4	23	12g08875.d	1.	L0108219-04 "A" 5ML pH<2 ✓	1,1 S-82-42	13 Aug 2001 08:0
5	24	12g08876.d	10.	L0108219-05 "A" 500uL pH<2 ✓	1,1 S-82-42	13 Aug 2001 08:3
6	25	12g08877.d	10.	L0108219-06 "A" 500uL pH<2 HIGH SS	1,10 S-82-42	13 Aug 2001 09:0
7	26	12g08878.d	10.	L0108219-08 "A" 500uL pH<2 ✓	1,10 S-82-42	13 Aug 2001 09:4
8	27	12g08879.d	1.	L0108219-04 MS "A" 5ML pH<2 ✓	1,1 S-82-42	13 Aug 2001 10:1
9	28	12g08880.d	1.	L0108219-04 MSD "A" 5ML pH<2 ✓	1,1 S-82-42	13 Aug 2001 10:4
10	29	12g08881.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-82-(06,42)	13 Aug 2001 12:4
11	25	12g08882.d	1.	8021 STD 1 1PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 13:4
12	26	12g08883.d	1.	8021 STD 1 1PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 14:1
13	27	12g08884.d	1.	8021 STD 2 10PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 14:5
14	28	12g08885.d	1.	8021 STD 3 20PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 15:2
15	29	12g08886.d	1.	8021 STD 4 50PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 15:5
16	30	12g08887.d	1.	8021 STD 5 100PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 16:2
17	31	12g08888.d	1.	8021 STD 6 200PPB 5ML	1,1 S-83-08,82-42	13 Aug 2001 17:0
18	32	12g08889.d	1.	ALT SOURCE 20PPB 5ML	1,1 S-82-(06,42)	13 Aug 2001 17:3

Directory: C:\HPCHEM\2\DATA\081401

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g08890.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-82-(06,42)	14 Aug 2001 12:19
2	2	12g08891.d	1.	WATER BLANK 5ML ✓	1,1 S-82-42	14 Aug 2001 12:51
3	3	12g08892.d	1.	WATER LCS 20PPB 5ML ✓	1,1 S-82-(06,42)	14 Aug 2001 13:23
4	19	12g08893.d	1.	L0108280-01 "A" 5ML pH<2 ✓	1,1 S-82-42	14 Aug 2001 14:02
5	20	12g08894.d	1.	L0108280-02 "A" 5ML pH<2 ✓	1,1 S-82-42	14 Aug 2001 14:34
6	21	12g08895.d	1.	L0108280-03 "A" 5ML pH<2 ✓	1,1 S-82-42	14 Aug 2001 15:06
7	22	12g08896.d	1.	L0108280-04 "A" 5ML pH<2 ✓	1,1 S-82-42	14 Aug 2001 15:38
8	23	12g08897.d	1.	L0108280-05 MS "A" 5ML pH<2 ✓	1,1 S-82-(06,42)	14 Aug 2001 16:11
9	24	12g08898.d	1.	L0108280-06 MSD "A" 5ML pH<2 ✓	1,1 S-82-(06,42)	14 Aug 2001 16:43
10	25	12g08899.d	1.	L0108280-07 "A" 5ML pH<2 HIGH SSS	1,1 S-82-42	14 Aug 2001 17:15
11	26	12g08900.d	1.	L0108280-08 "A" 5ML pH<2 HIGH SSS	1,1 S-82-42	14 Aug 2001 17:47
12	27	12g08901.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-82-(06,42)	14 Aug 2001 18:19
13	28	12g08902.d	1.	L0108280-09 "A" 5ML pH<2 ✓	1,1 S-82-42	14 Aug 2001 18:51
14	29	12g08903.d	1.	L0108280-10 "A" 5ML pH<2 ✓	1,1 S-82-42	14 Aug 2001 19:24
15	30	12g08904.d	1.	L0108280-02 "A" 5ML pH<2 DNR	1,1,RE S-82-42	14 Aug 2001 19:56
16	31	12g08905.d	1.	L0108280-07 "A" 5ML pH<2 CONF SMI	1,1,RE S-82-42	14 Aug 2001 20:28
17	32	12g08906.d	1.	L0108280-08 "A" 5ML pH<2 CONF SMI	1,1,RE S-82-42	14 Aug 2001 21:00
18	1	12g08907.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-82-(06,42)	14 Aug 2001 21:33

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0108280

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

There were two samples appeared to be switched during the extraction process thus, whole batch was sent for re-extraction and the re-extraction was done in hold.

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: All acceptance criteria were met.

SAMPLES

Samples: Sample 280-01 fraction could not be re-extracted because of insufficient sample volume.For this sample, results were reported from the original analysis and for the rest of the samples only re-extracts were reported.
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: HV

REVIEWED: DATE: 8/24/01

Rev. 7/14/00

Analyst: HV
Method: 8011 - 7LA-PRD water 08280 01 - 0
08280 (02-09) RE
Instrument:
Work Group:

	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 HV 8/21/01

Secondary Reviewer Initials & Date Checked DPR 8/21/01

- 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 DPR 8/21/01

Comments: Samples were seemed switched during the extraction and fraction 280-01 could not be RE'd due to insufficiency and it was reported from original extraction - and for rest of the samples, only RE's were reported.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0108280

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. **Standards Data**

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

✓ Chromatograms and external standard reports for standards

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

NA Retention time window summary (if applicable)

D. **Raw QC Data**

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 8/23/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP :	WG102831	EXT DATE :	08-14-01	RUN DATE :	08-17-01
METHOD :	8015-PRO	EXT BENCH SHEET :	V169-P189	SMPL ID :	L0108280-04
MATRIX :	WATER	BLK FILENAME :	2G14572	SMPL FLNM :	2G14577
CONCENTRATION UNITS :	ug / l	LCS FILENAME :	2G14573	MS FLNM :	2G14578
PREP WORK GRP :	WG102766	INSTRUMENT :	HP 2	MSD FLNM :	2G14583

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2614	NA	ND	3400	2723	3137	NA	76.9	NA	55	118	ND	80.1	92.3	41	101	NA	14	20
SURROGATE:																						
o-TERPHENYL		16.3	20	22.3	NA	15.3	20	20.1	21.0	91.4	111	NA	49	174	76.7	101	105	49	174	NA	5	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP :	WG103205	EXT DATE :	08-20-01	RUN DATE :	08-21-01
METHOD :	8015-PRO	EXT BENCH SHEET :	V170-P77	SMPL ID :	L0108280-04
MATRIX :	WATER	BLK FILENAME :	2G14637	SMPL FLNM :	2G14641
CONCENTRATION UNITS :	ug / l	LCS FILENAME :	2G14638	MS FLNM :	2G14642
PREP WORK GRP :	WG103103	INSTRUMENT :	HP 2	MSD FLNM :	2G14643

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2463	NA	ND	3400	2423	2439	NA	72.4	NA	55	118	ND	71.3	71.7	41	101	NA	1	20
SURROGATE:																						
o-TERPHENYL		16.8	20	19.7	NA	13.5	20	17.0	15.8	84.1	98.7	NA	49	174	67.3	85.2	79.0	49	174	NA	8	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Data File : C:\HPCHEM\1\DATA\081701A\2G14574.D Vial: 11
Acq On : 17 Aug 2001 19:00 Operator: HV
Sample : L0108280-01 DRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 20 11:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 11:29:11 2001
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	264029	8.395 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	41.97%#	
Target Compounds			
1) H Petroleum Range	3.58	24636716	1162.236 ppb

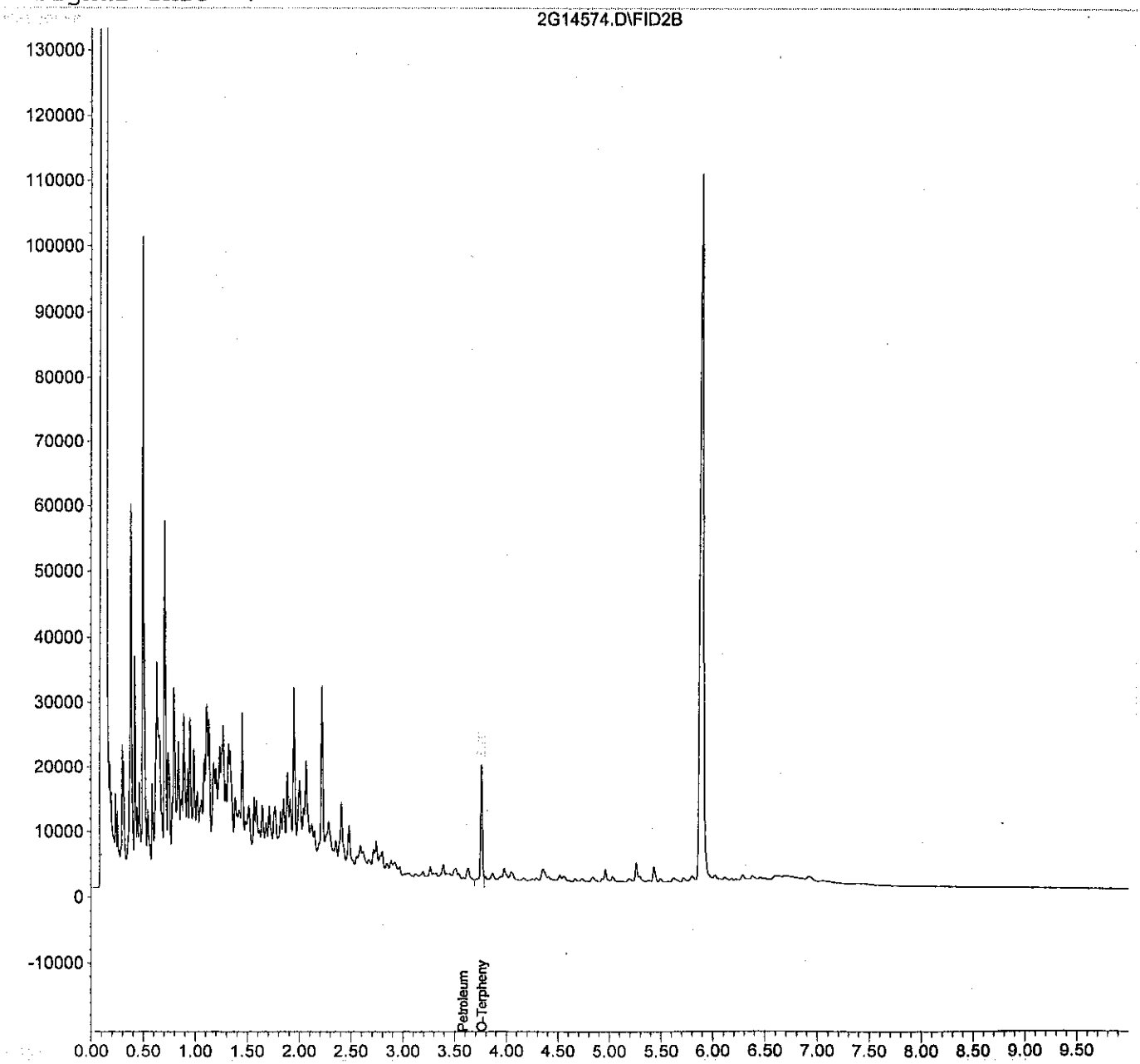
RE

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14574.D Vial: 11
Acq On : 17 Aug 2001 19:00 Operator: HV
Sample : L0108280-01 DRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 20 11:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 11:29:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14639.D Vial: 13
Acq On : 21 Aug 2001 11:48 Operator: HV
Sample : L0108280-02 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

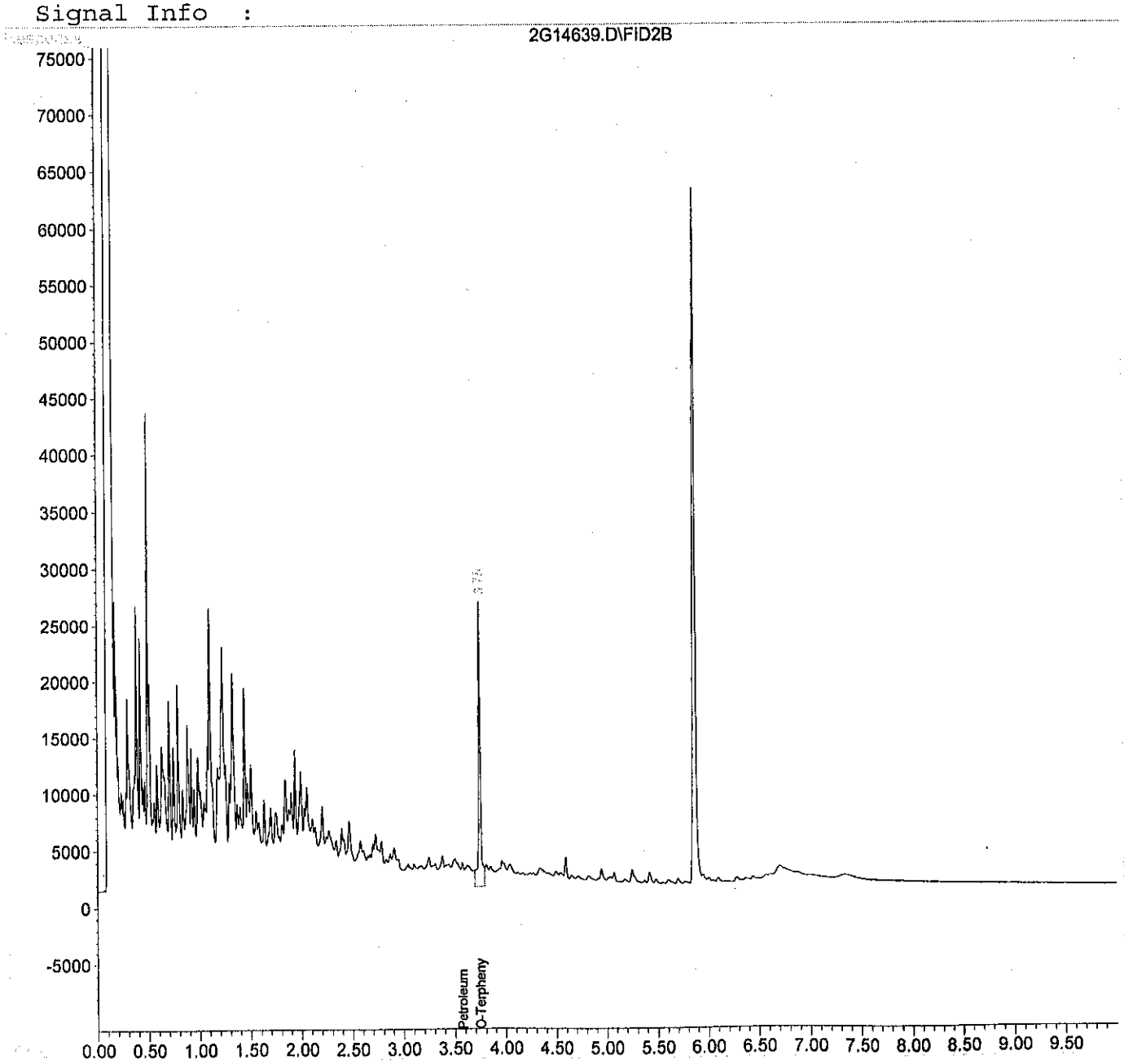
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	351502	14.158 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 70.79%			
Target Compounds			
1) H Petroleum Range	3.58	14411925	763.330 ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14639.D Vial: 15
Acq On : 21 Aug 2001 11:48 Operator: HV
Sample : L0108280-02 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14640.D Vial: 14
Acq On : 21 Aug 2001 12:03 Operator: HV
Sample : L0108280-03 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

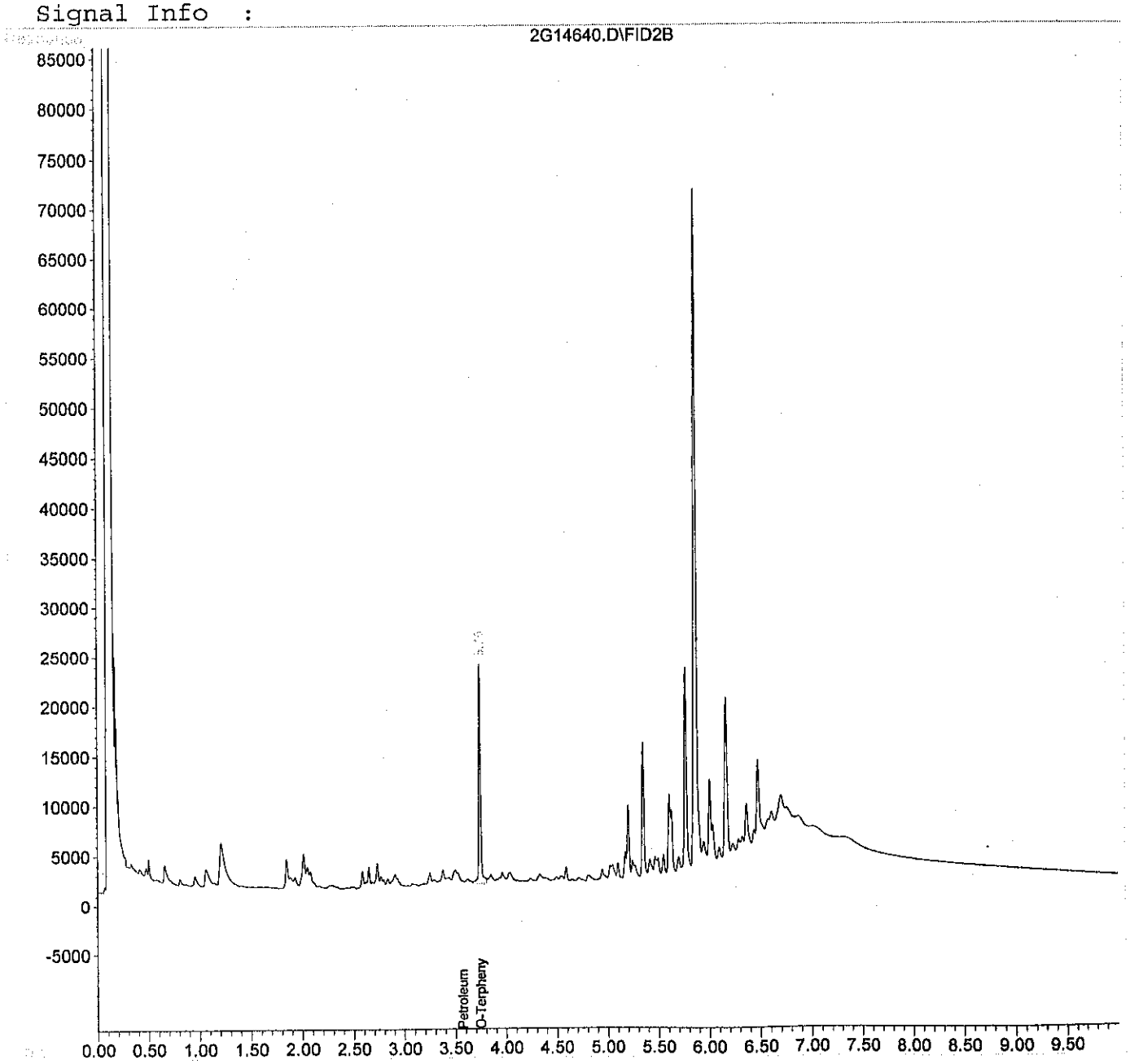
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	275868	11.111 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	55.56%
Target Compounds			
1) H Petroleum Range	3.58	8778907	464.976 ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14640.D Vial: 14
Acq On : 21 Aug 2001 12:03 Operator: HV
Sample : L0108280-03 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14641.D Vial: 15
Acq On : 21 Aug 2001 12:17 Operator: HV
Sample : L0108280-04 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

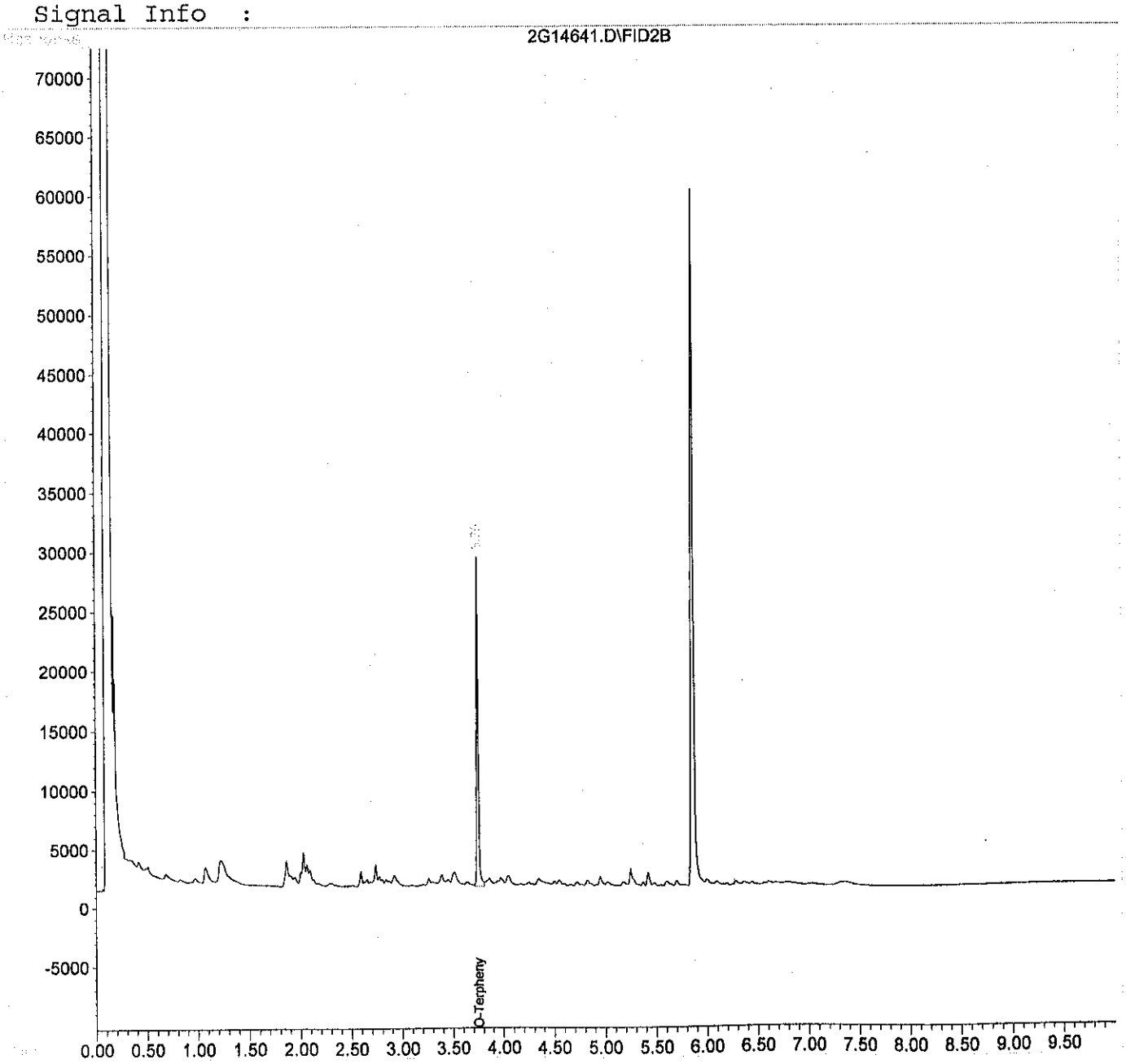
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	334212	13.461 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	67.31%
Target Compounds			
1) H Petroleum Range	3.58	2276827	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14641.D Vial: 15
Acq On : 21 Aug 2001 12:17 Operator: HV
Sample : L0108280-04 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14642.D Vial: 16
Acq On : 21 Aug 2001 12:31 Operator: HV
Sample : L0108280-05 MS RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 13:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
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	423133	17.043 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	85.22%
Target Compounds			
1) H Petroleum Range	3.58	45741917	2422.727 ppb

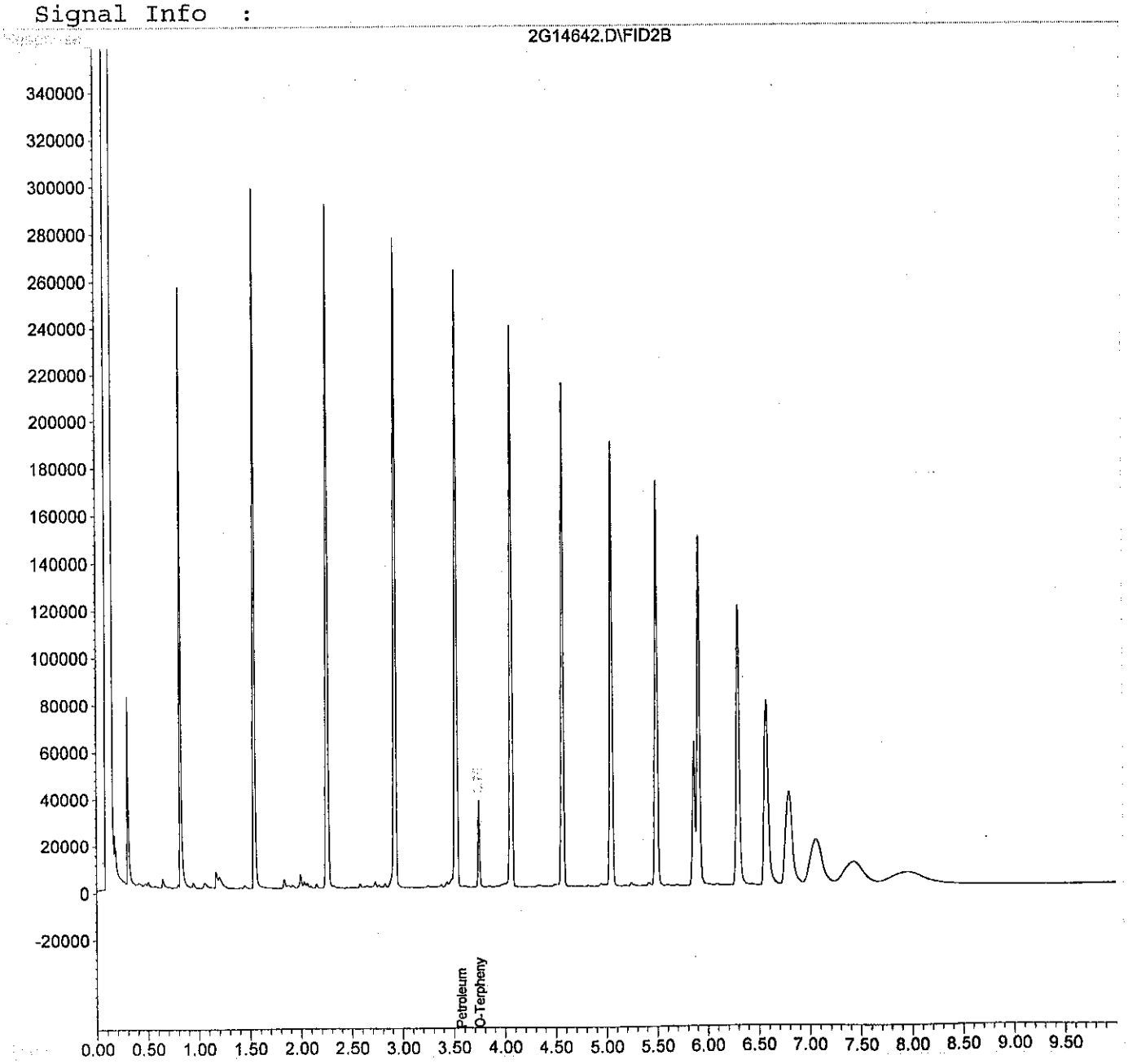
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\082101\2G14642.D
Acq On : 21 Aug 2001 12:31
Sample : L0108280-05 MS RE PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Aug 21 13:16 2001 Quant Results File: FLASHPRO.RES

Vial: 16
Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14643.D
Acq On : 21 Aug 2001 12:46
Sample : L0108280-06 MSD RE PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Aug 21 13:16 2001 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
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	392052	15.791 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 78.96%		
Target Compounds			
1) H Petroleum Range	3.58	46052209	2439.162 ppb

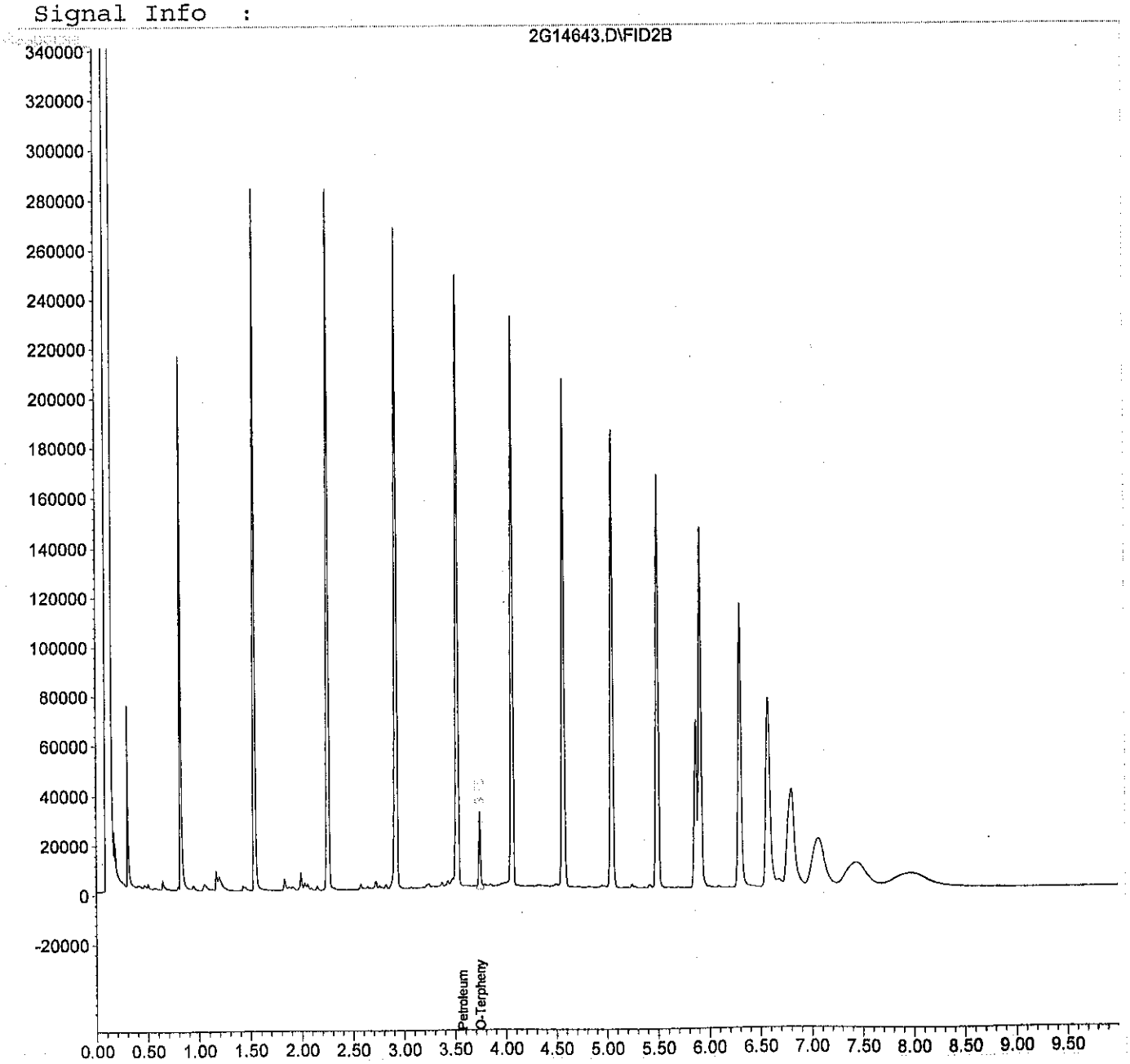
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\082101\2G14643.D
Acq On : 21 Aug 2001 12:46
Sample : L0108280-06 MSD RE PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Aug 21 13:16 2001 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14645.D Vial: 19
Acq On : 21 Aug 2001 13:15 Operator: HV
Sample : L0108280-07 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 14:26 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

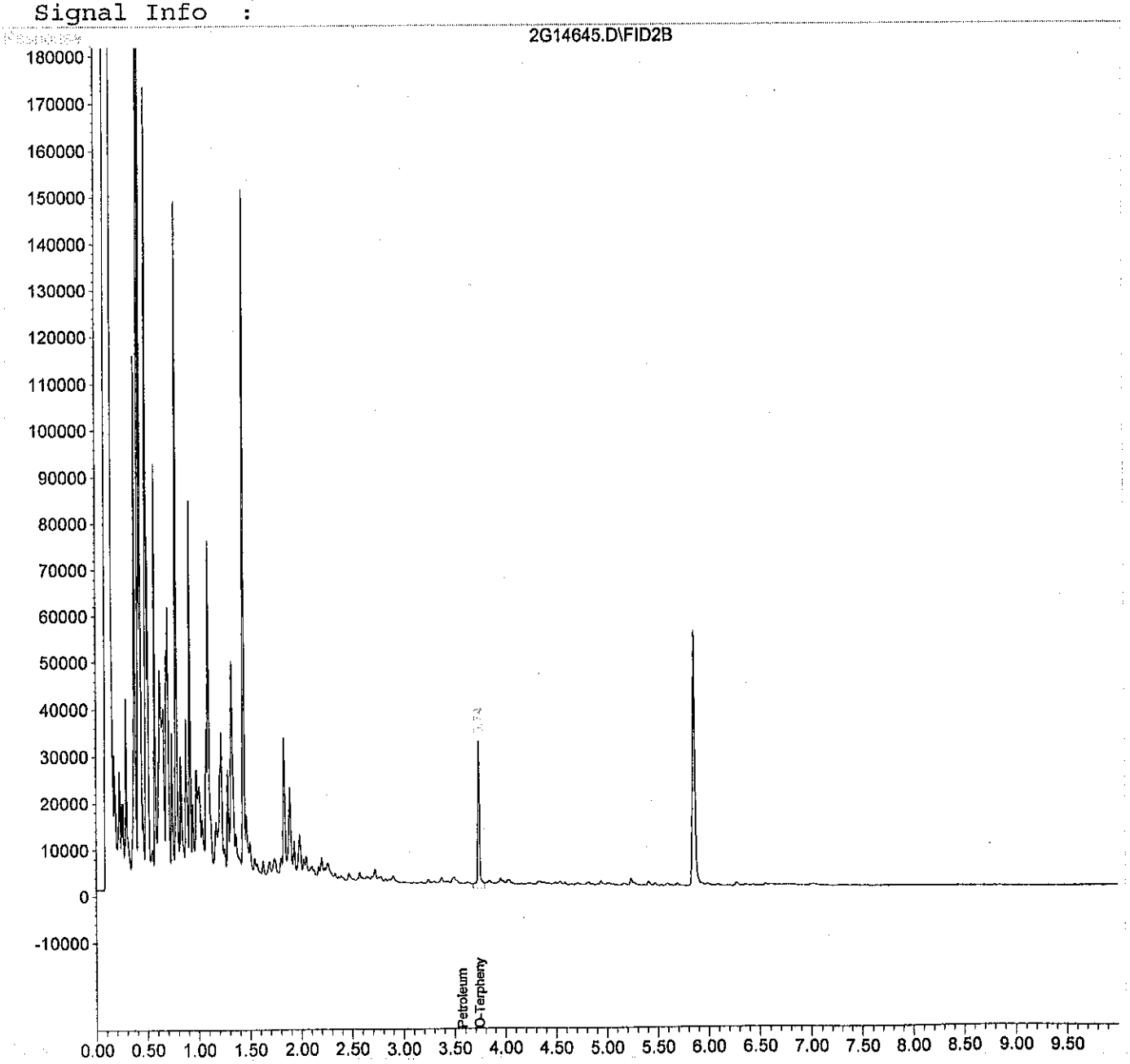
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	413784	16.666 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	83.33%
Target Compounds			
1) H Petroleum Range	3.58	27439893	1453.358 ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14645.D Vial: 19
Acq On : 21 Aug 2001 13:15 Operator: HV
Sample : L0108280-07 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 14:26 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14646.D Vial: 20
Acq On : 21 Aug 2001 13:29 Operator: HV
Sample : L0108280-08 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 14:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

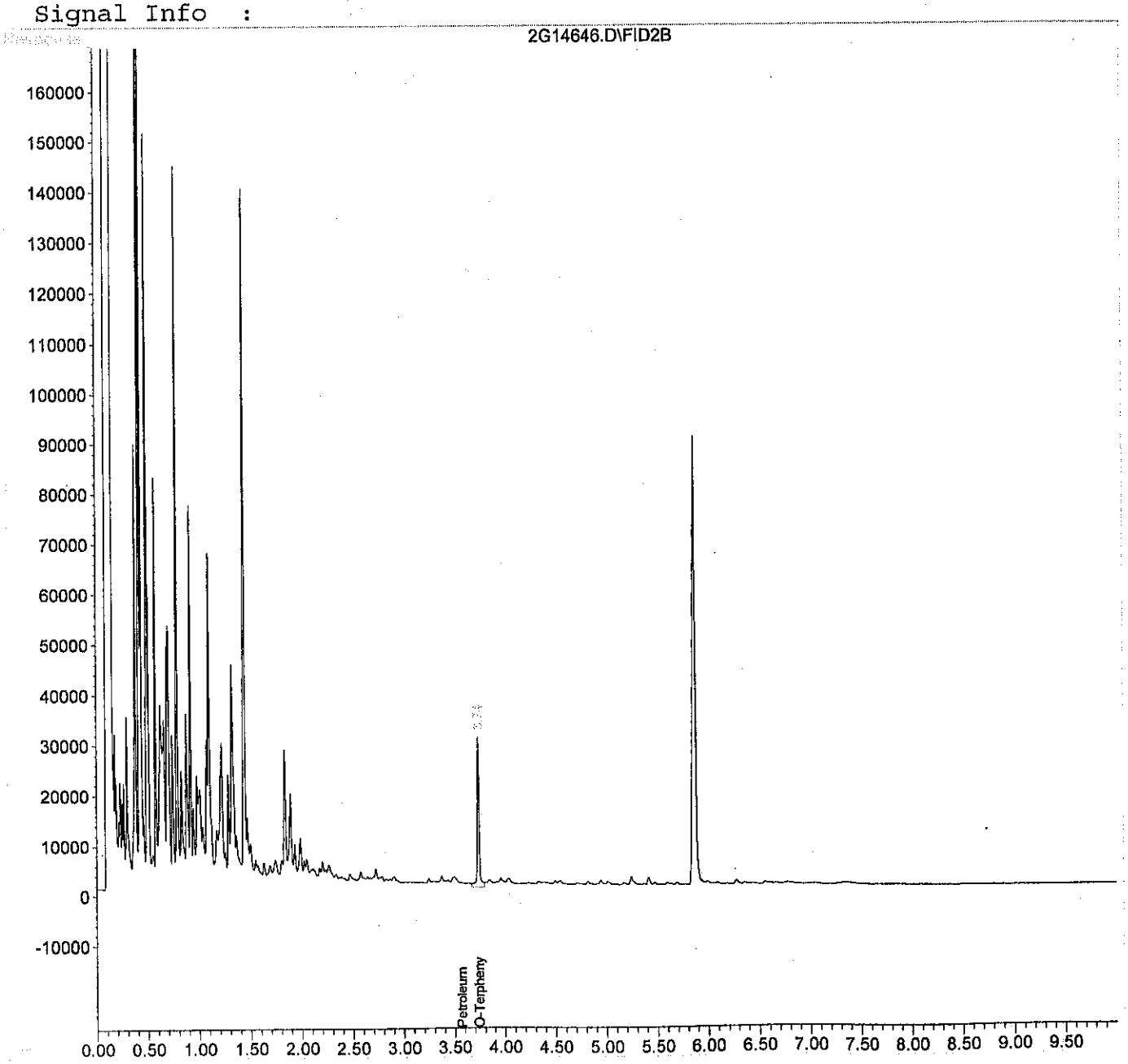
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	391637	15.774 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 78.87%		
Target Compounds			
1) H Petroleum Range	3.58	24897815	1318.716 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14646.D FLASHPRO.M Tue Aug 21 14:27:24 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14646.D Vial: 20
Acq On : 21 Aug 2001 13:29 Operator: HV
Sample : L0108280-08 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 14:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14647.D Vial: 21
Acq On : 21 Aug 2001 13:44 Operator: HV
Sample : L0108280-09 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 14:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

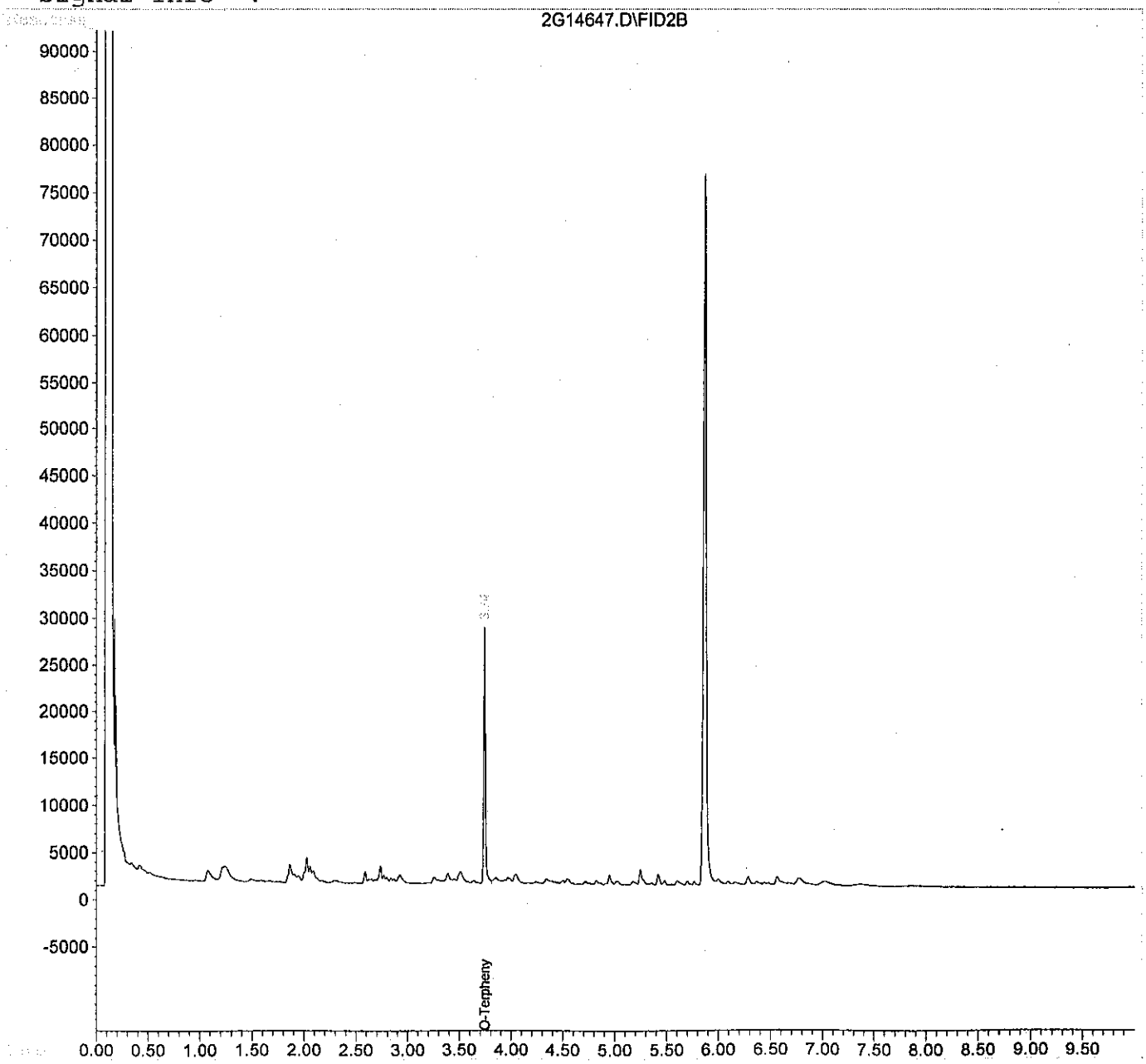
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.74	330650	13.318 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	66.59%
Target Compounds			
1) H Petroleum Range	3.58	2692405	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14647.D Vial: 21
Acq On : 21 Aug 2001 13:44 Operator: HV
Sample : L0108280-09 RE PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Aug 21 14:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
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 08/17/01
Last Update : Mon Aug 20 10:33:31 2001

Calibration Files

5	=2G14570.D	50	=2G14569.D	100	=2G14568.D
200	=2G14567.D	400	=2G14566.D	600	=2G14565.D

		Compound	5	50	100	200	400	600	Avg	%RSD
1)	H	Petroleum Range	2.942	2.476	1.914	1.996	1.881	2.018	2.205 E4	19.09
2)	S	O-Terphenyl	3.861	3.457	2.898	2.993	2.827	2.834	3.145 E4	13.43

(#) = Out of Range

Acq On : 17 Aug 2001 16:50 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

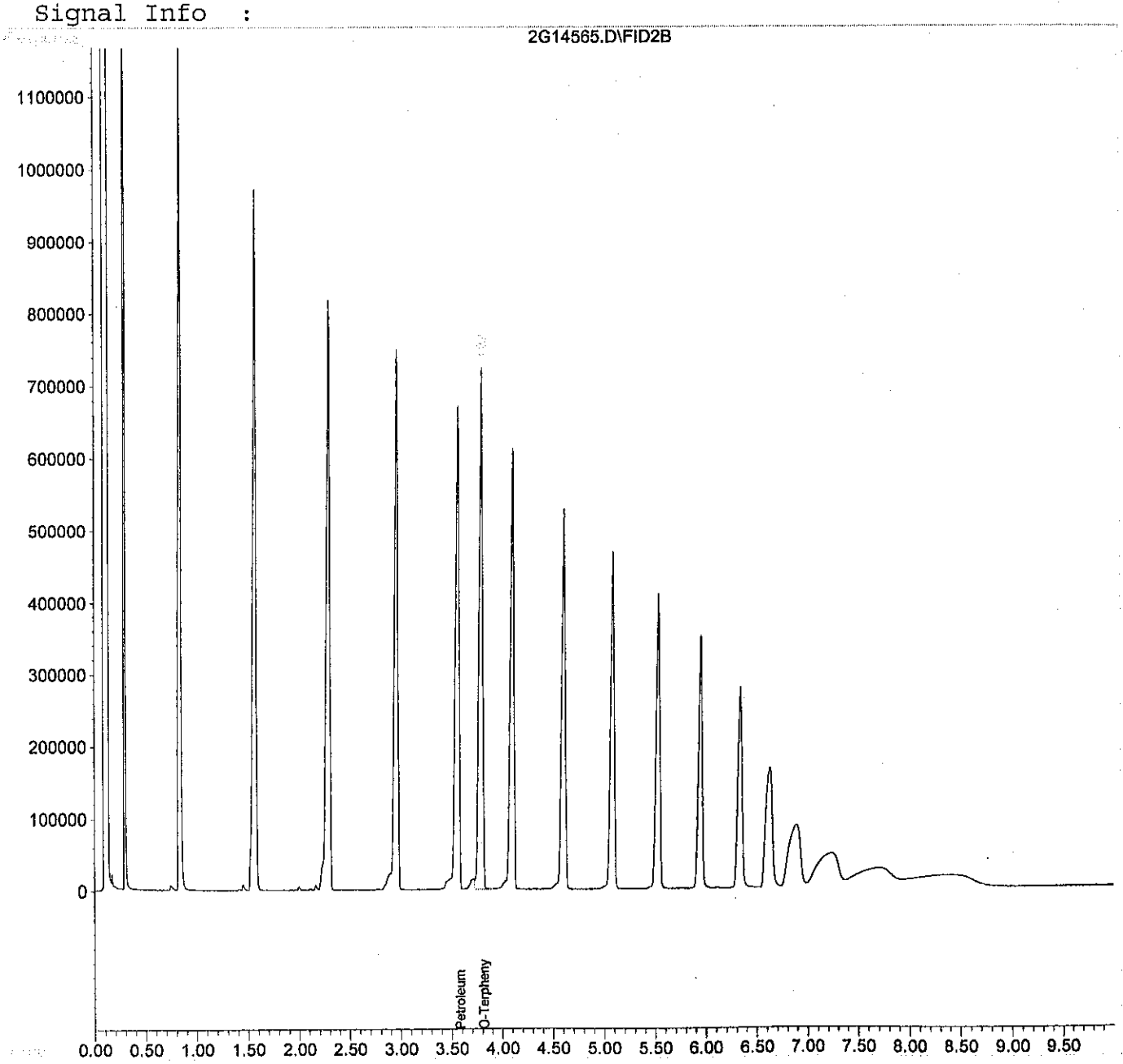
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.82	17005786	671.960 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 3359.80%#
Target Compounds			
1) H Petroleum Range	3.58	205867735	10304.288 ppb

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

Acq On : 17 Aug 2001 16:50 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 17 Aug 2001 17:05 Operator: HV
Sample : PRO STD 400ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

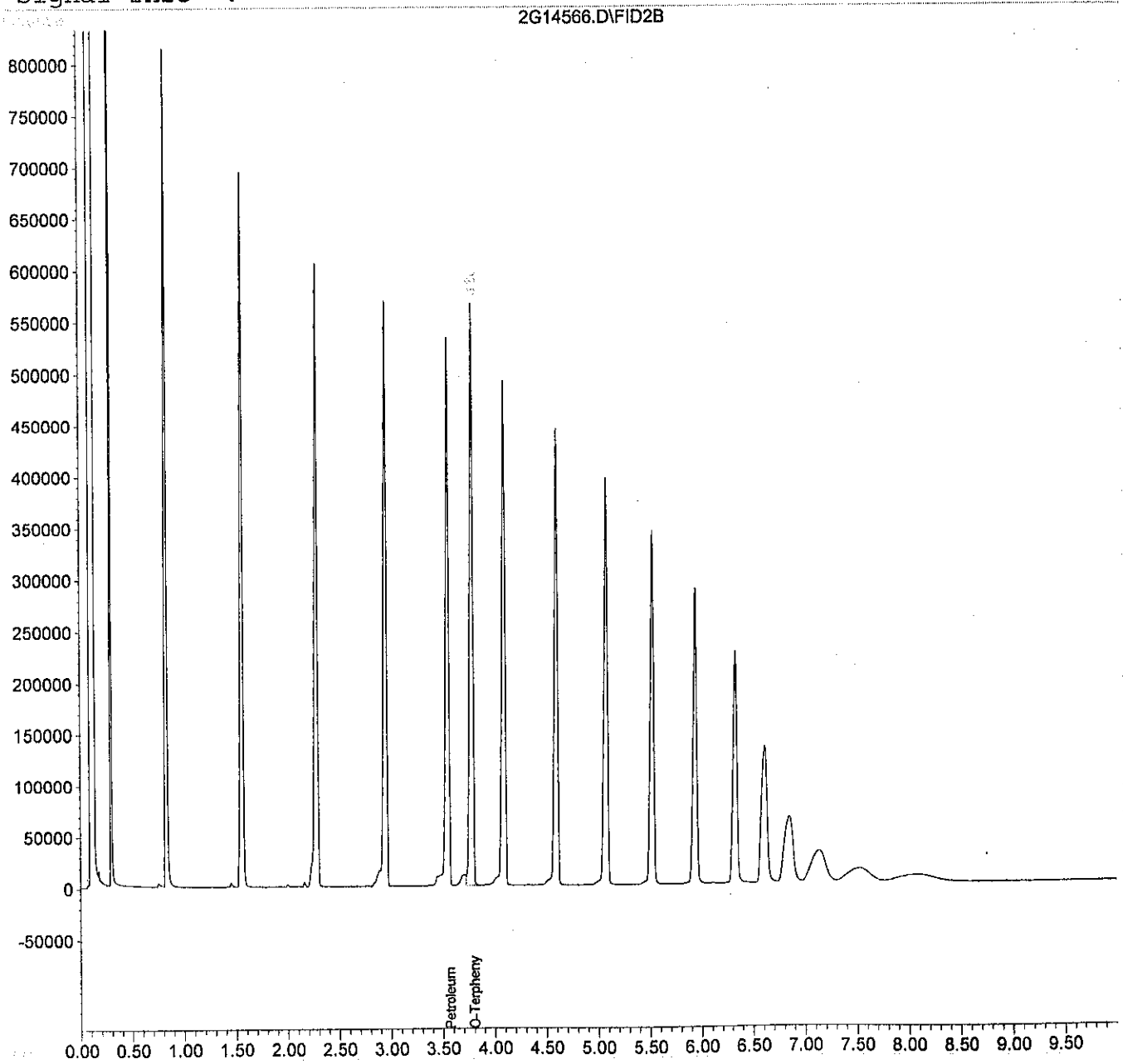
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.80	11308744	446.849 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2234.25%#
Target Compounds			
1) H Petroleum Range	3.58	127884516	6400.997 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14566.D FLASHPRO.M Mon Aug 20 10:47:49 2001 Page 1

Acq On : 17 Aug 2001 17:05 Operator: HV
Sample : PRO STD 400ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 17 Aug 2001 17:19
Sample : PRO STD 200ppm
Misc : SV 14-11
IntFile : PETRO.E
Quant Time: Aug 20 9:34 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
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	3.78	5985321	236.502 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1182.51%#
Target Compounds			
1) H Petroleum Range	3.58	67852699	3396.228 ppb

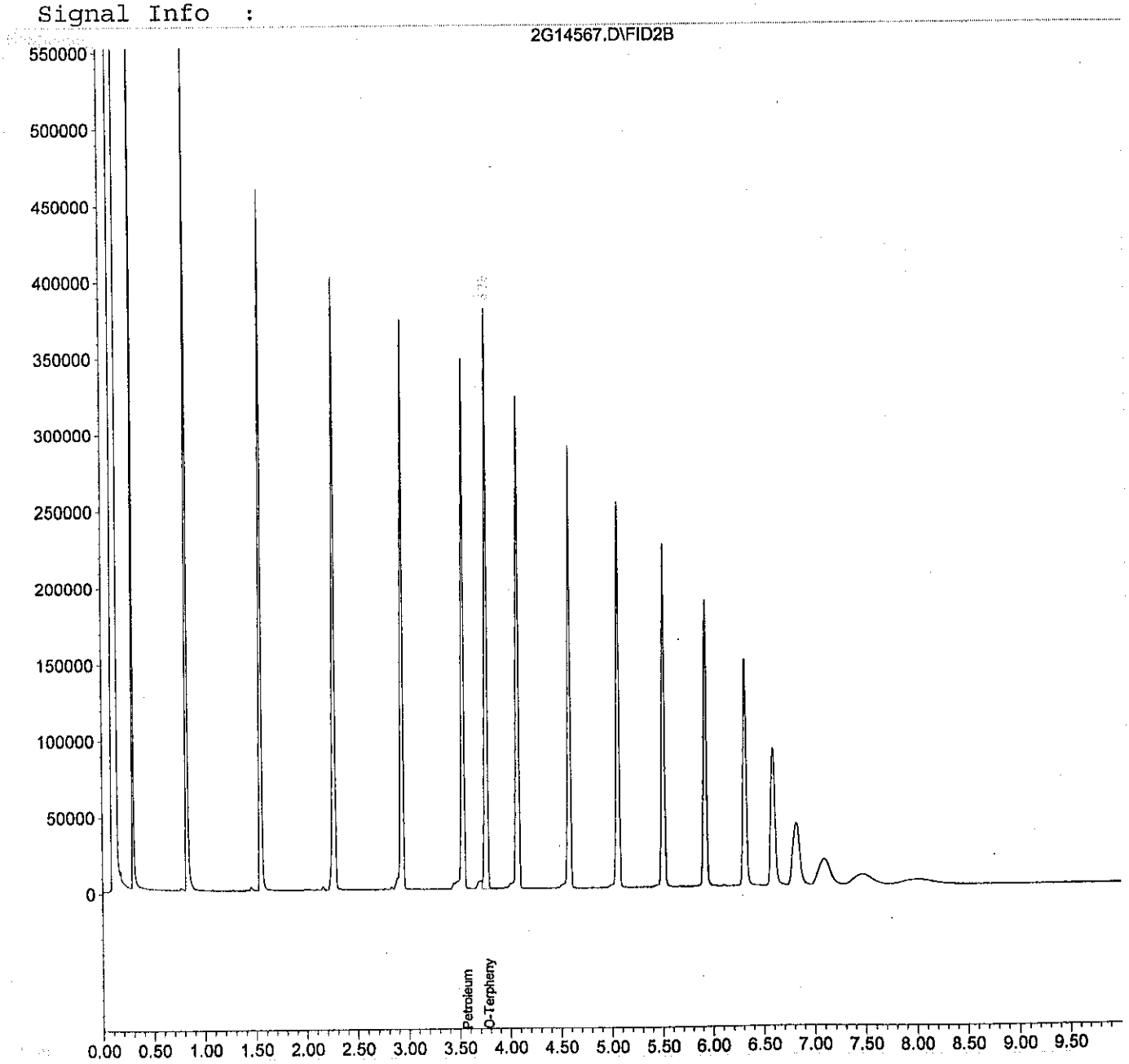
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 17 Aug 2001 17:19 Operator: HV
Sample : PRO STD 200ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 17 Aug 2001 17:34 Operator: HV
Sample : PRO STD 100ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

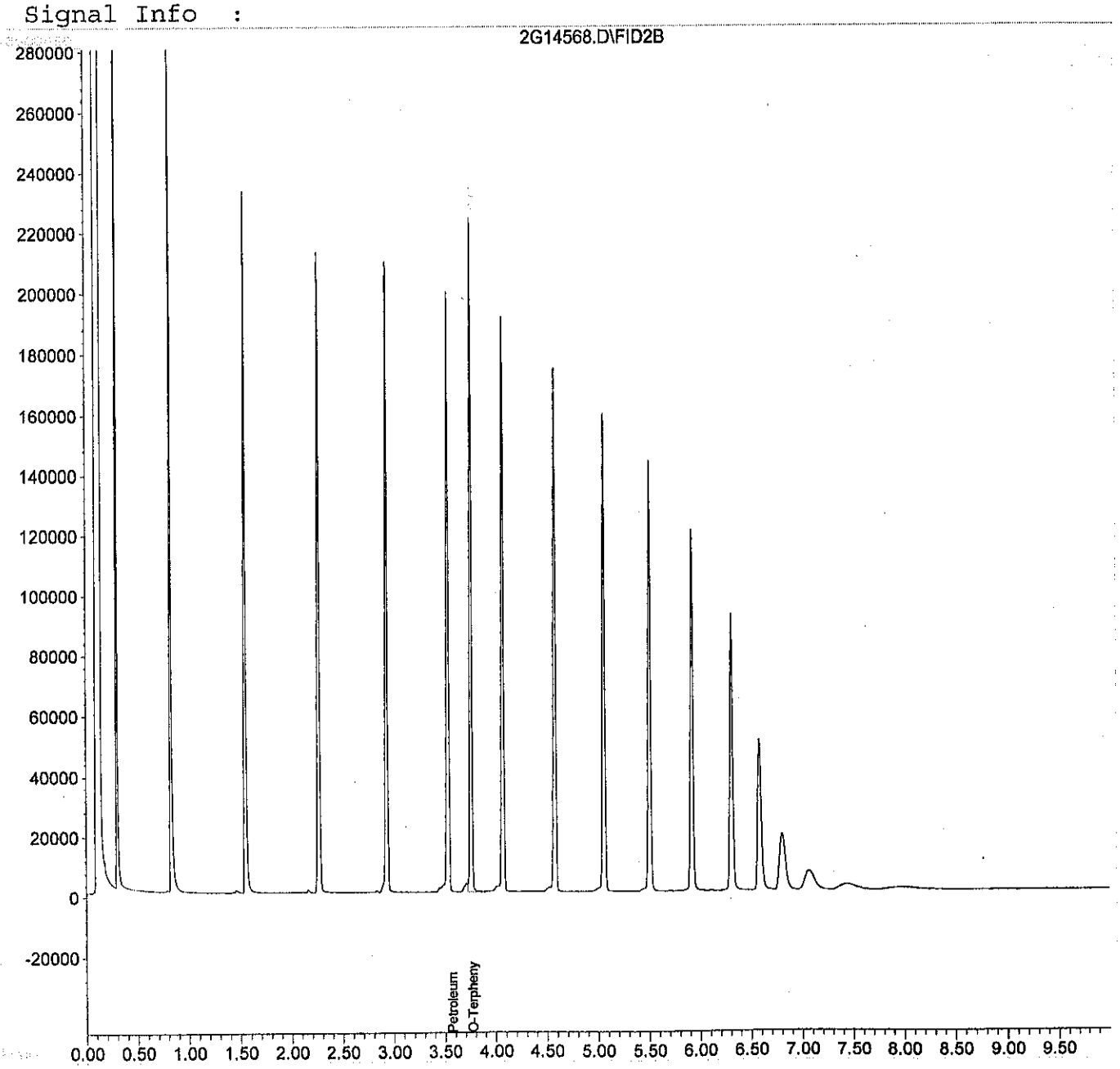
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.77	2897909	114.507 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	572.54%#
Target Compounds			
1) H Petroleum Range	3.58	32540821	1628.764 ppb

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

Acq On : 17 Aug 2001 17:34 Operator: HV
Sample : PRO STD 100ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:33:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\081701A\2G14569.D Vial: 9
Acq On : 17 Aug 2001 17:48 Operator: HV
Sample : PRO STD 50ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:35 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:35:18 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

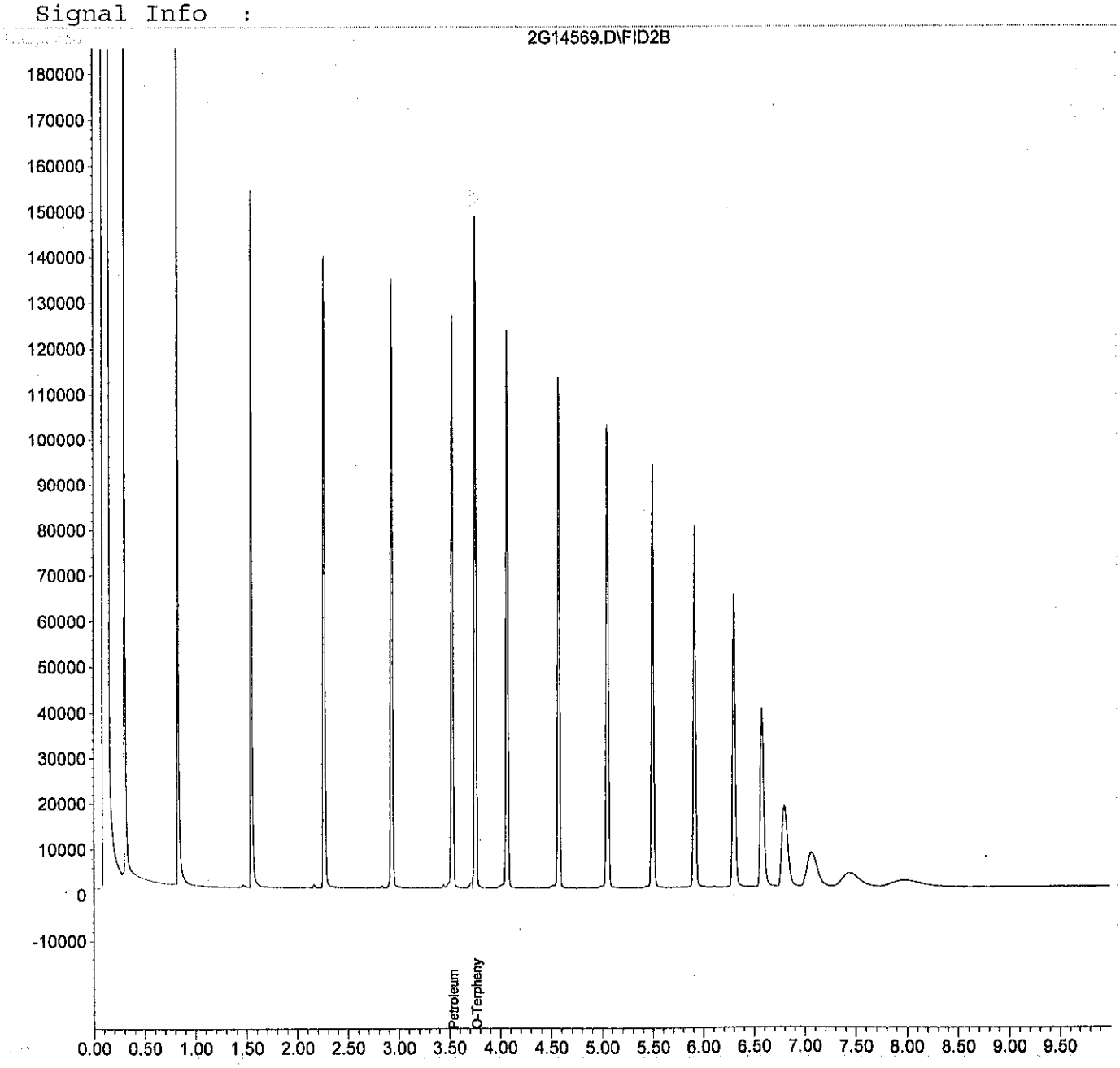
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.77	1728603	68.303 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 341.52%#			
Target Compounds			
1) H Petroleum Range	3.54	21047915	1053.510 ppb

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

Acq On : 17 Aug 2001 17:48 Operator: HV
Sample : PRO STD 50ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 9:35 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 09:35:18 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\081701A\2G14570.D Vial: 7
Acq On : 17 Aug 2001 18:03 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:41 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

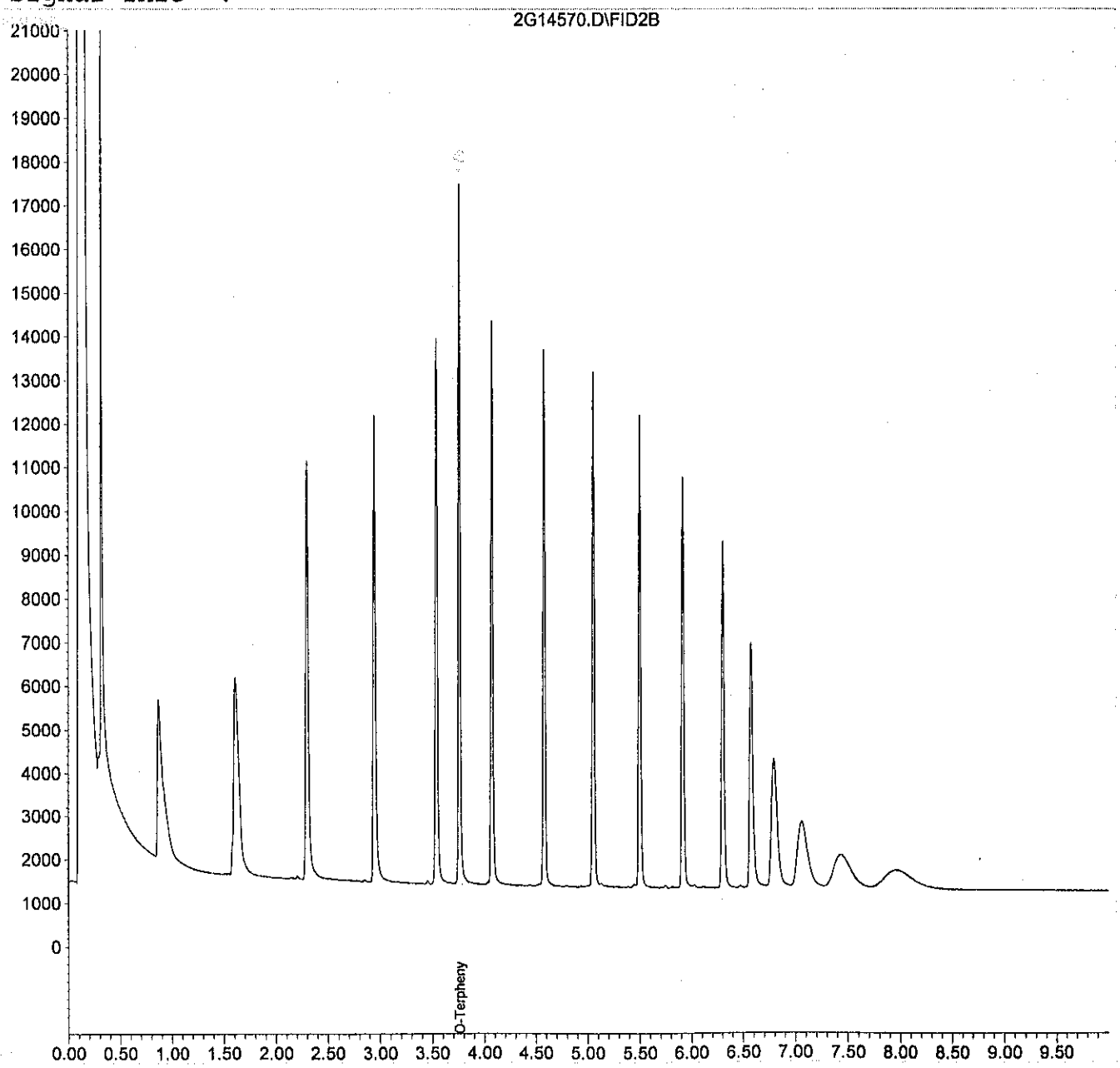
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.76	193072	6.139 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 30.70%#			
Target Compounds			
1) H Petroleum Range	3.58	2500986	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14570.D FLASHPRO.M Mon Aug 20 10:56:28 2001 Page 1

Data File : C:\HPCHEM\1\DATA\081701A\2G14570.D Vial: 7
Acq On : 17 Aug 2001 18:03 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:41 2001 Quant Results File: FLASHPRO.RES

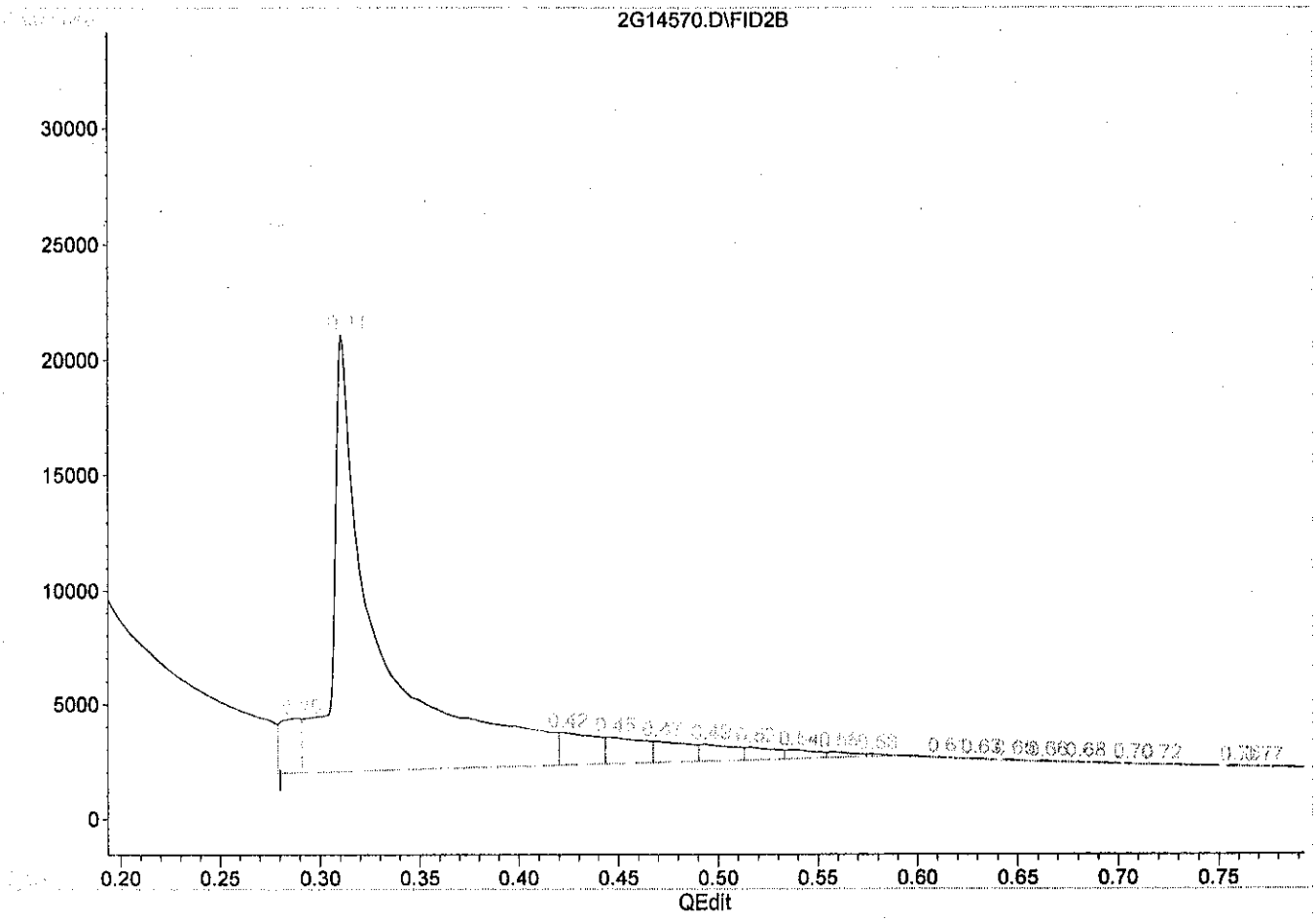
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\081701A\2G14570.D Vial: 7
Acq On : 17 Aug 2001 18:03 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:33 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:35:54 2001
Response via : Multiple Level Calibration



(1) Petroleum Range (H)

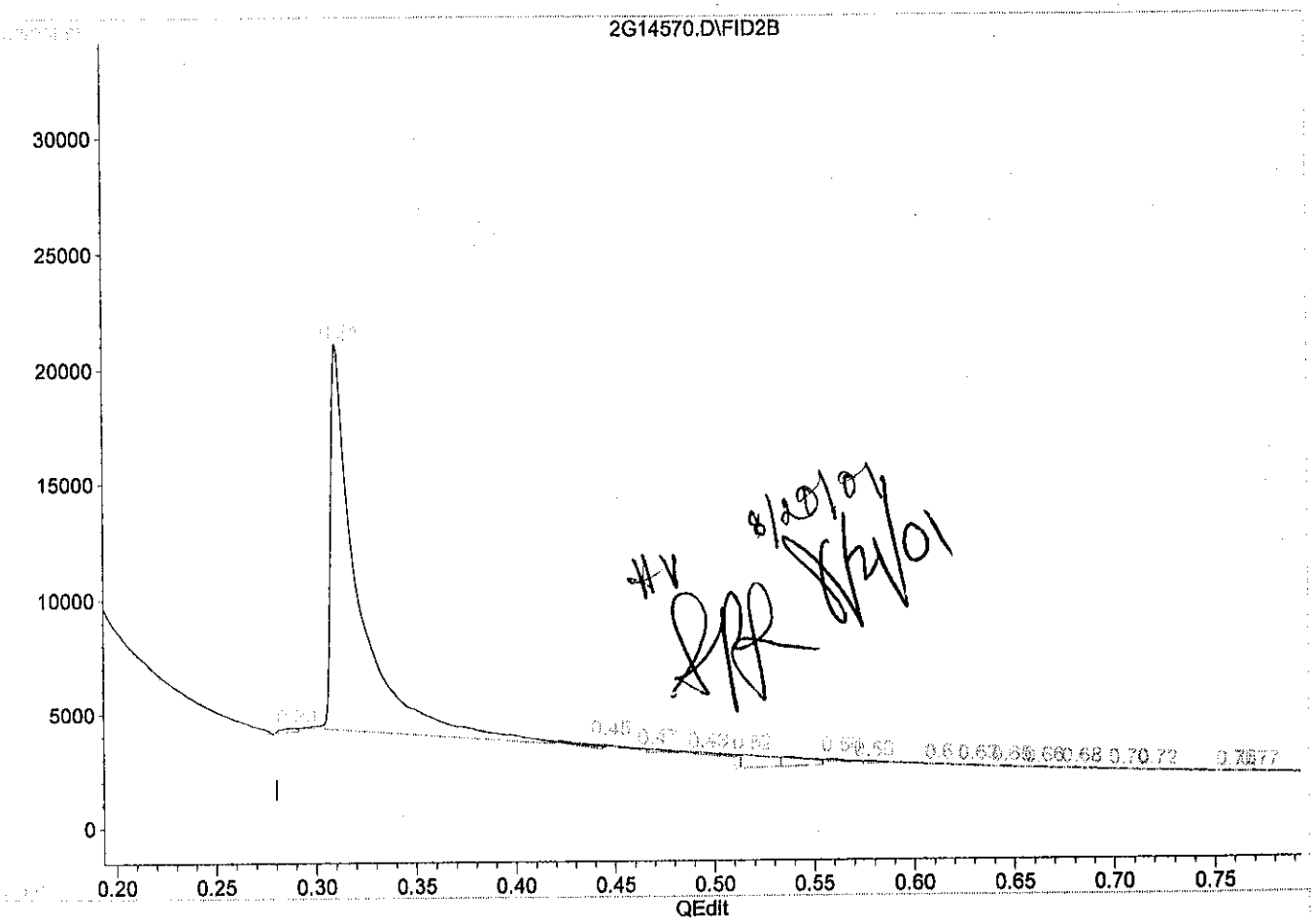
3.58min 120.812ppb m

response 2713585

(+) = Expected Retention Time
2G14570.D FLASHPRO.M Mon Aug 20 10:36:31 2001

Data File : C:\HPCHEM\1\DATA\081701A\2G14570.D Vial: 7
Acq On : 17 Aug 2001 18:03 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 14-11 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:33 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:35:54 2001
Response via : Multiple Level Calibration



(1) Petroleum Range (H)

3.58min 111.347ppb m

response 2500986

(+) = Expected Retention Time
2G14570.D FLASHPRO.M Mon Aug 20 10:41:07 2001

Data File : C:\HPCHEM\1\DATA\081701A\2G14571.D
Acq On : 17 Aug 2001 18:17
Sample : ALT PRO @200ppm
Misc :
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:33:31 2001
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	3461.741	-1.8	112	0.00
2	S	O-Terphenyl	200.000	1.022	99.5#	1	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14571.D FLASHPRO.M Mon Aug 20 10:56:37 2001 Page 1

Data File : C:\HPCHEM\1\DATA\081701A\2G14571.D Vial: 5
Acq On : 17 Aug 2001 18:17 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:33:31 2001
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)

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14571.D Vial: 6
Acq On : 17 Aug 2001 18:17 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
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	32132	1.022 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 5.11%#			
Target Compounds			
1) H Petroleum Range	3.58	76316154	3461.741 ppb

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

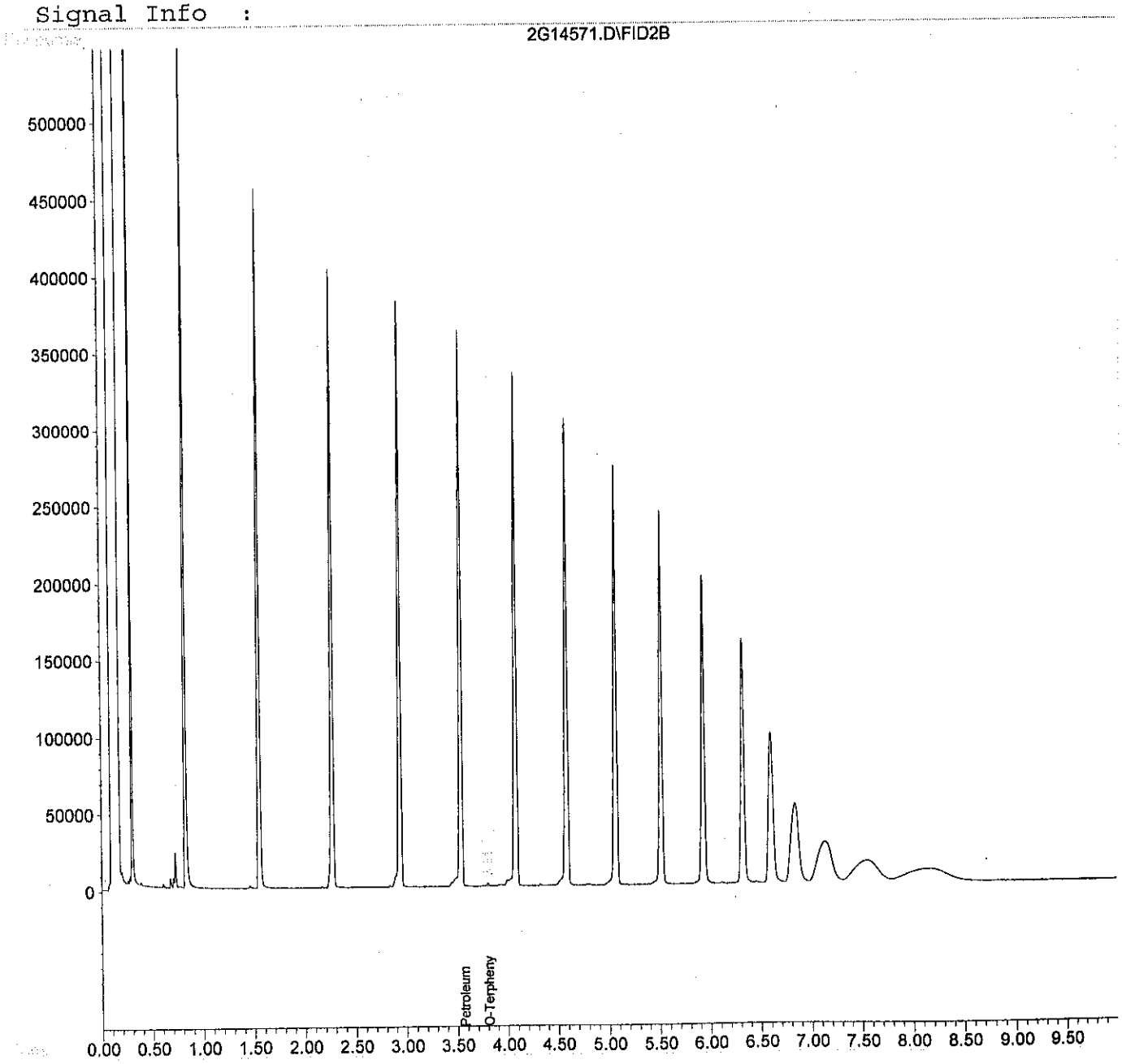
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 17 Aug 2001 18:17
Sample : ALT PRO @200ppm
Misc :
IntFile : PETRO.E
Quant Time: Aug 20 10:46 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\081701A\2G14581.D Vial: 4
Acq On : 17 Aug 2001 20:40 Operator: HV
Sample : DRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:42:04 2001
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	3050.867	10.3	99	0.00
2	S	O-Terphenyl	200.000	184.177	7.9	97	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14581.D FLASHPRO.M Mon Aug 20 11:37:34 2001 Page 1

Data File : C:\HPCHEM\1\DATA\081701A\2G14581.D Vial: 4
Acq On : 17 Aug 2001 20:40 Operator: HV
Sample : DRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:42:04 2001
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)

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14581.D Vial: 4
Acq On : 17 Aug 2001 20:40 Operator: HV
Sample : DRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

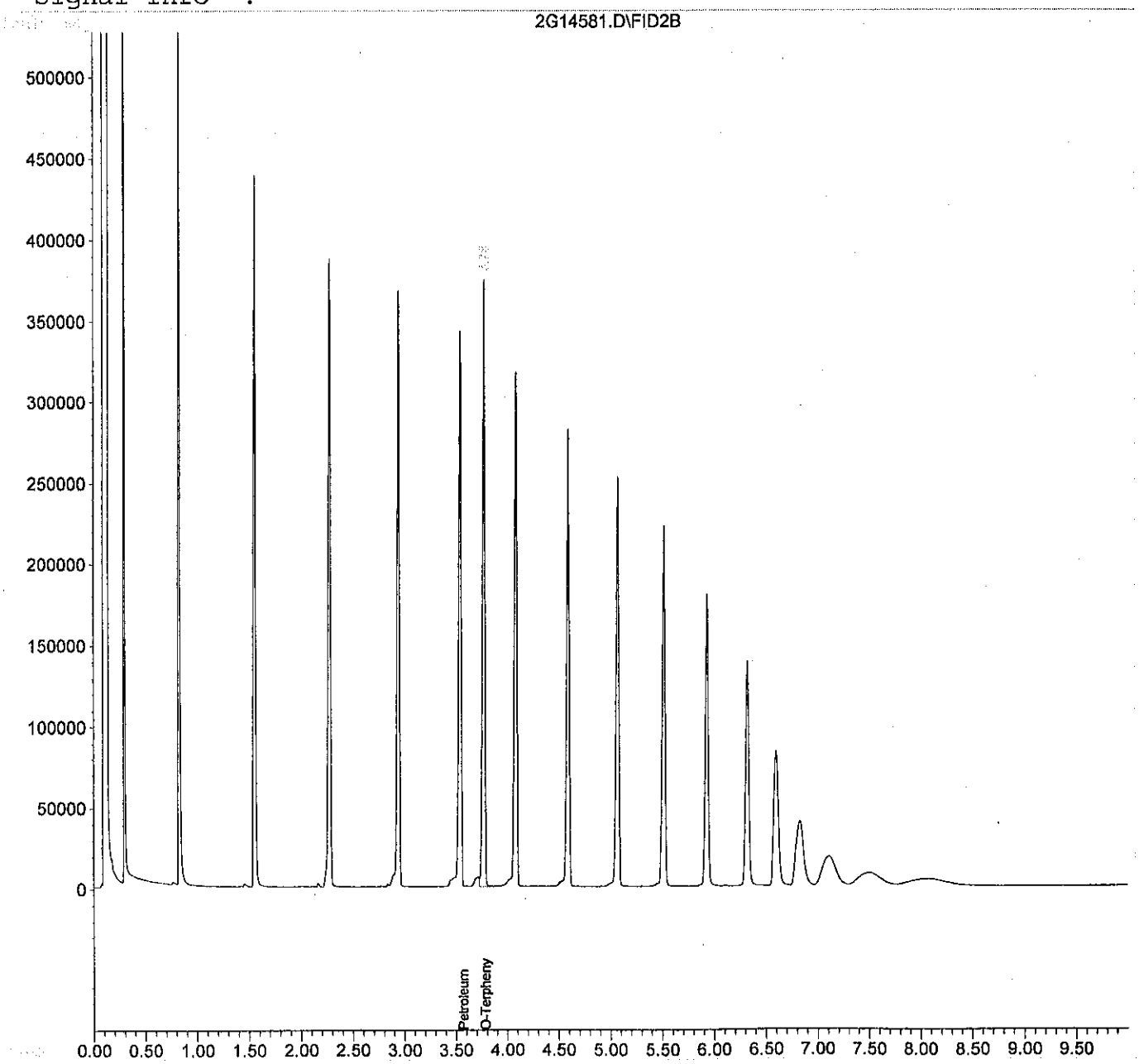
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.78	5792574	184.177 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 920.89%#			
Target Compounds			
1) H Petroleum Range	3.58	67258207	3050.867 ppb

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14581.D Vial: 4
Acq On : 17 Aug 2001 20:40 Operator: HV
Sample : DRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\081701A\2G14586.D
Acq On : 17 Aug 2001 21:51
Sample : PRO CONT CHK
Misc : water
IntFile : PETRO.E

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

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 11:29:11 2001
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	3079.037	9.4	100	0.00
2	S	O-Terphenyl	200.000	185.500	7.2	97	0.02

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14586.D Vial: 4
Acq On : 17 Aug 2001 21:51 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 11:29:11 2001
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)

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14586.D Vial: 4
Acq On : 17 Aug 2001 21:51 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
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	3.78	5834195	185.500 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	927.50%#
Target Compounds			
1) H Petroleum Range	3.58	67879234	3079.037 ppb

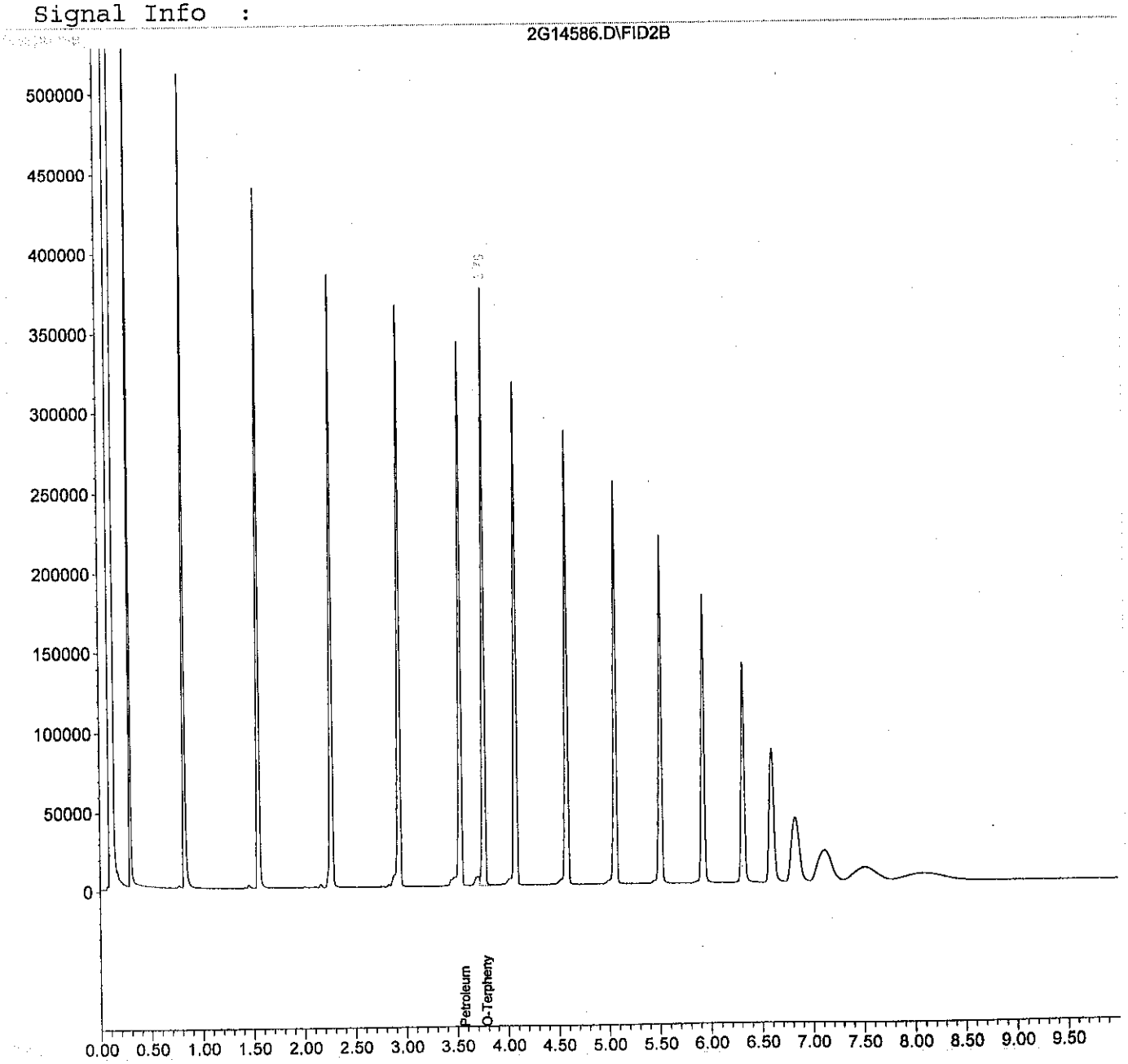
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\081701A\2G14586.D
Acq On : 17 Aug 2001 21:51
Sample : PRO CONT CHK
Misc : water
IntFile : PETRO.E
Quant Time: Aug 20 10:46 2001 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 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001

Calibration Files

5	=2G14635.D	50	=2G14634.D	100	=2G14633.D
200	=2G14630.D	400	=2G14632.D	600	=2G14631.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.274	2.150	1.974	1.823	1.870	1.689	1.964	E4	11.05
2)	S	O-Terphenyl	2.875	2.760	2.532	2.355	2.291	2.084	2.483	E4	12.02

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\082101\2G14631.D

Acq On : 21 Aug 2001 9:52 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 11:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
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	12503510	503.618 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2518.09%#
Target Compounds			
1) H Petroleum Range	3.58	172302364	8775.019 ppb

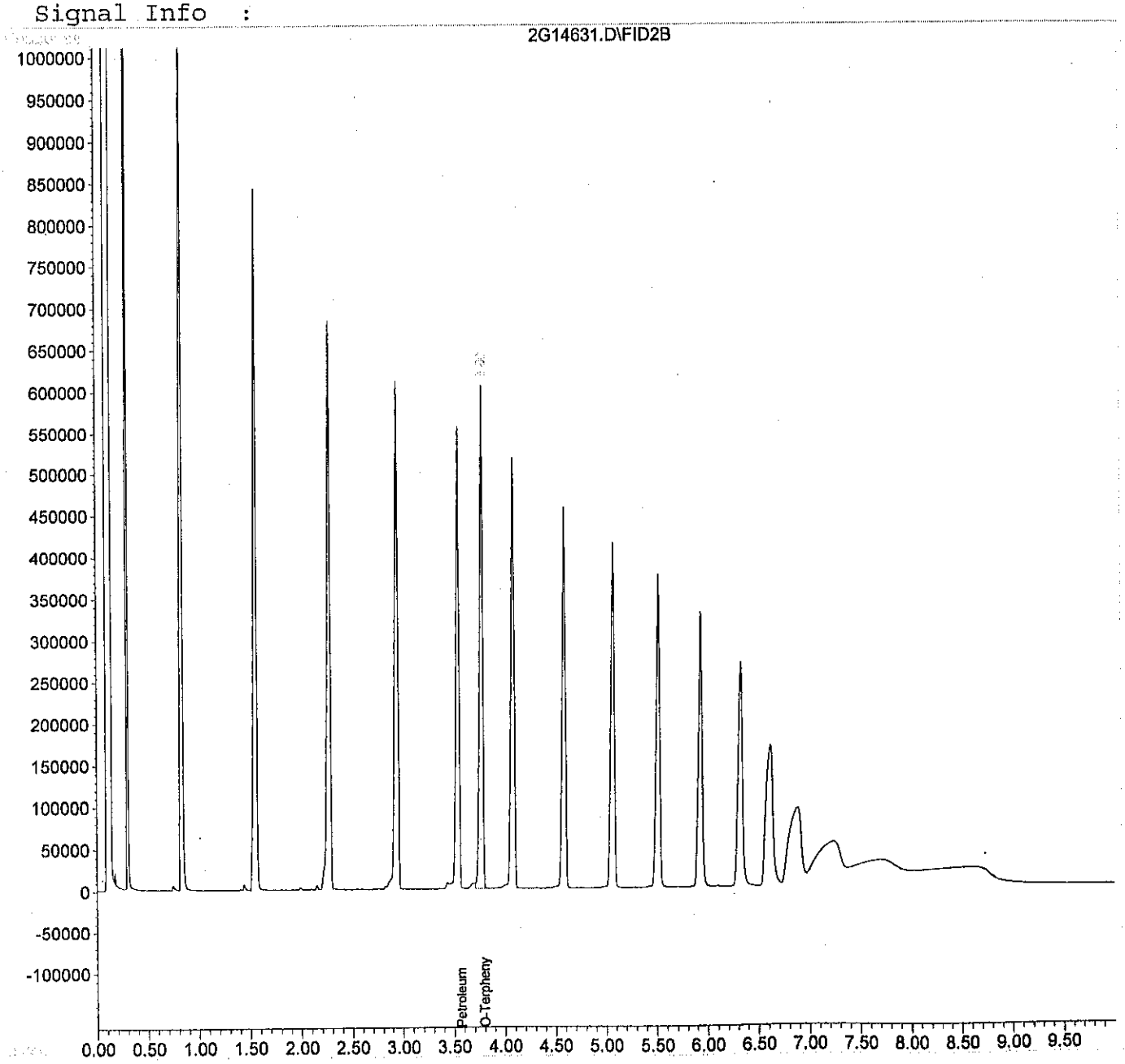
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 21 Aug 2001 9:52 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 11:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14630.D Vial: 1
Acq On : 21 Aug 2001 9:38 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 9:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
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	3.77	4710634	149.776 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 748.88%#			
Target Compounds			
1) H Petroleum Range	3.58	61998787	2812.297 ppb

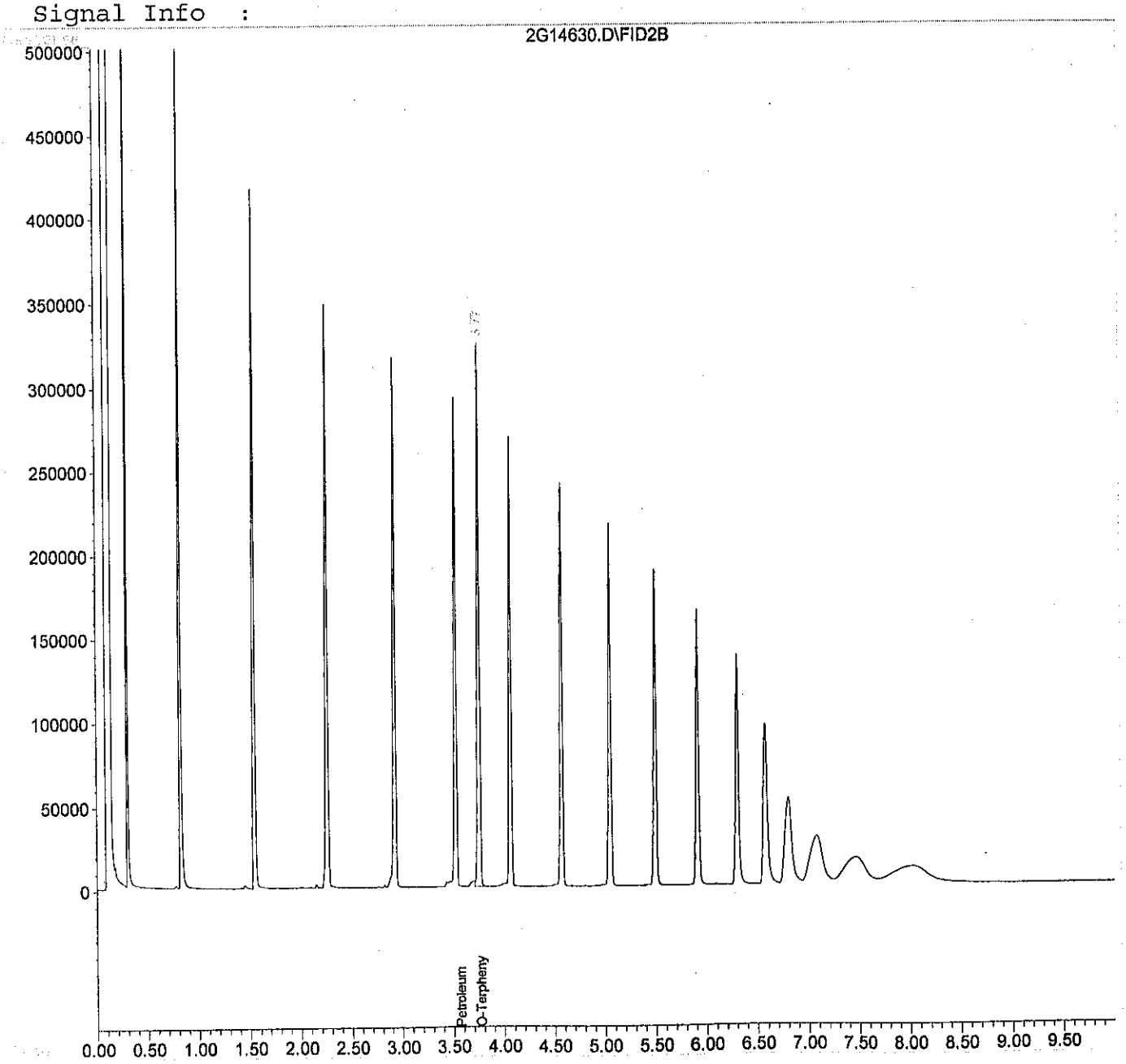
(f)=RT Delta > 1/2 Window (m)=manual int.
2G14630.D FLASHPRO.M Tue Aug 21 11:10:48 2001 Page 1

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

Acq On : 21 Aug 2001 9:38 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 9:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Aug 2001 10:06 Operator: HV
Sample : PRO STD 400ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 10:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
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	3.78	9162544	291.326 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1456.63%#
Target Compounds			
1) H Petroleum Range	3.58	127126073	5766.505 ppb

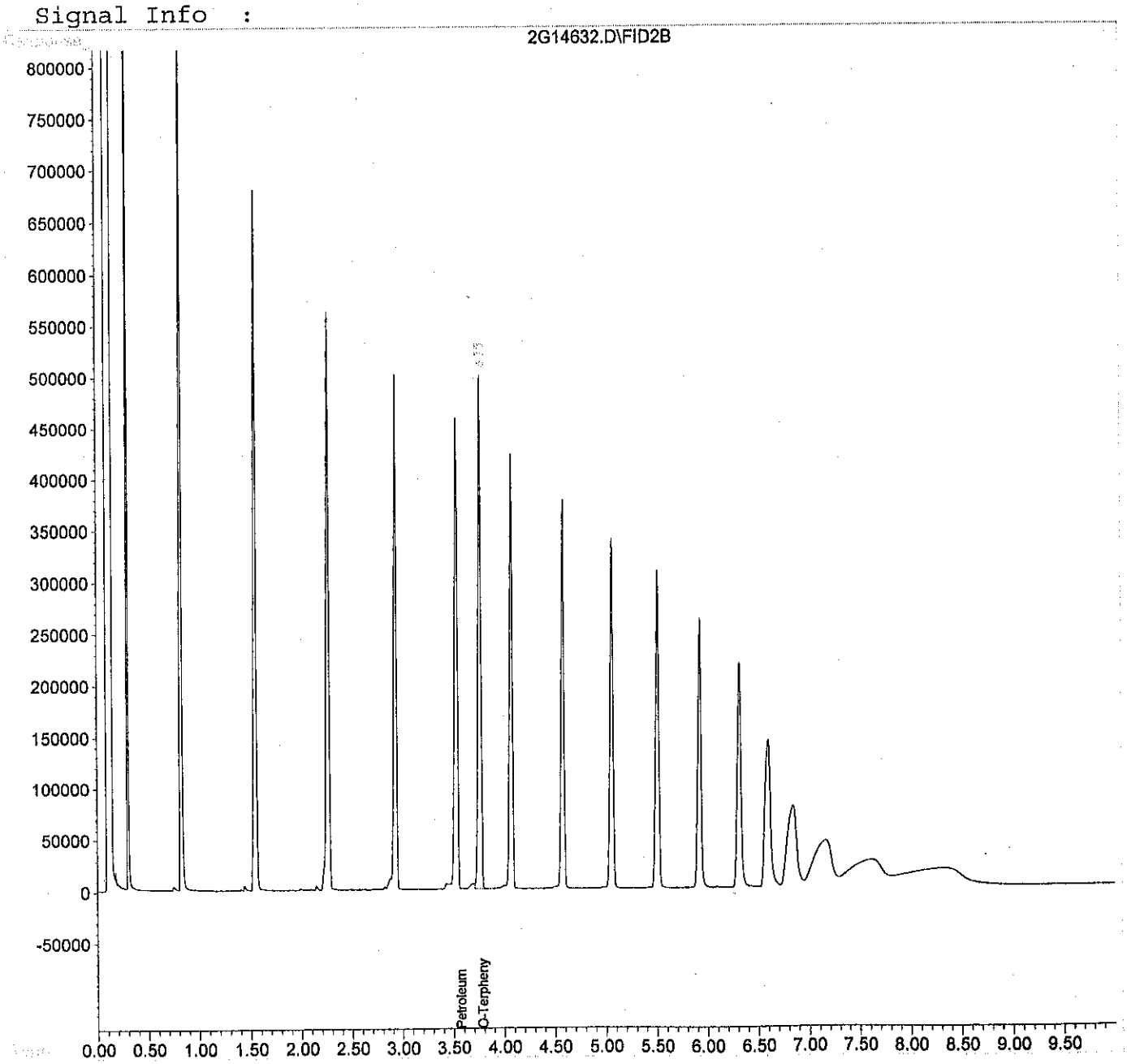
(f)=RT Delta > 1/2 Window (m)=manual int.
2G14632.D FLASHPRO.M Tue Aug 21 11:10:58 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14632.D
Acq On : 21 Aug 2001 10:06
Sample : PRO STD 400ppm
Misc : SV 55-03
IntFile : PETRO.E
Quant Time: Aug 21 10:48 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 21 Aug 2001 10:20 Operator: HV
Sample : PRO STD 100ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 10:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

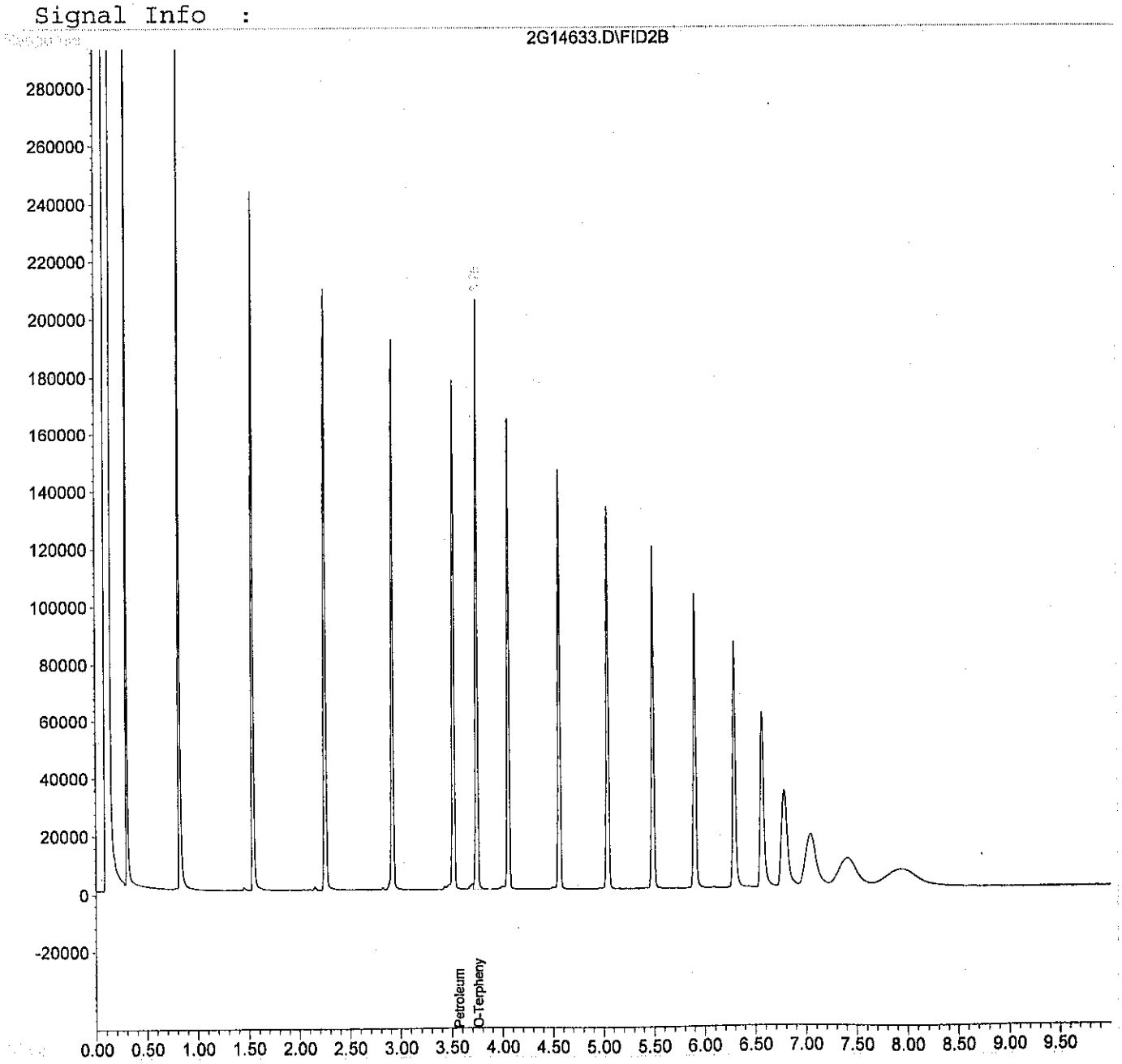
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.76	2531571	80.492 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	402.46%#
Target Compounds			
1) H Petroleum Range	3.58	33566400	1522.589 ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14633.D Vial: 7
Acq On : 21 Aug 2001 10:20 Operator: HV
Sample : PRO STD 100ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 10:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14634.D Vial: 5
Acq On : 21 Aug 2001 10:34 Operator: HV
Sample : PRO STD 50ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 10:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

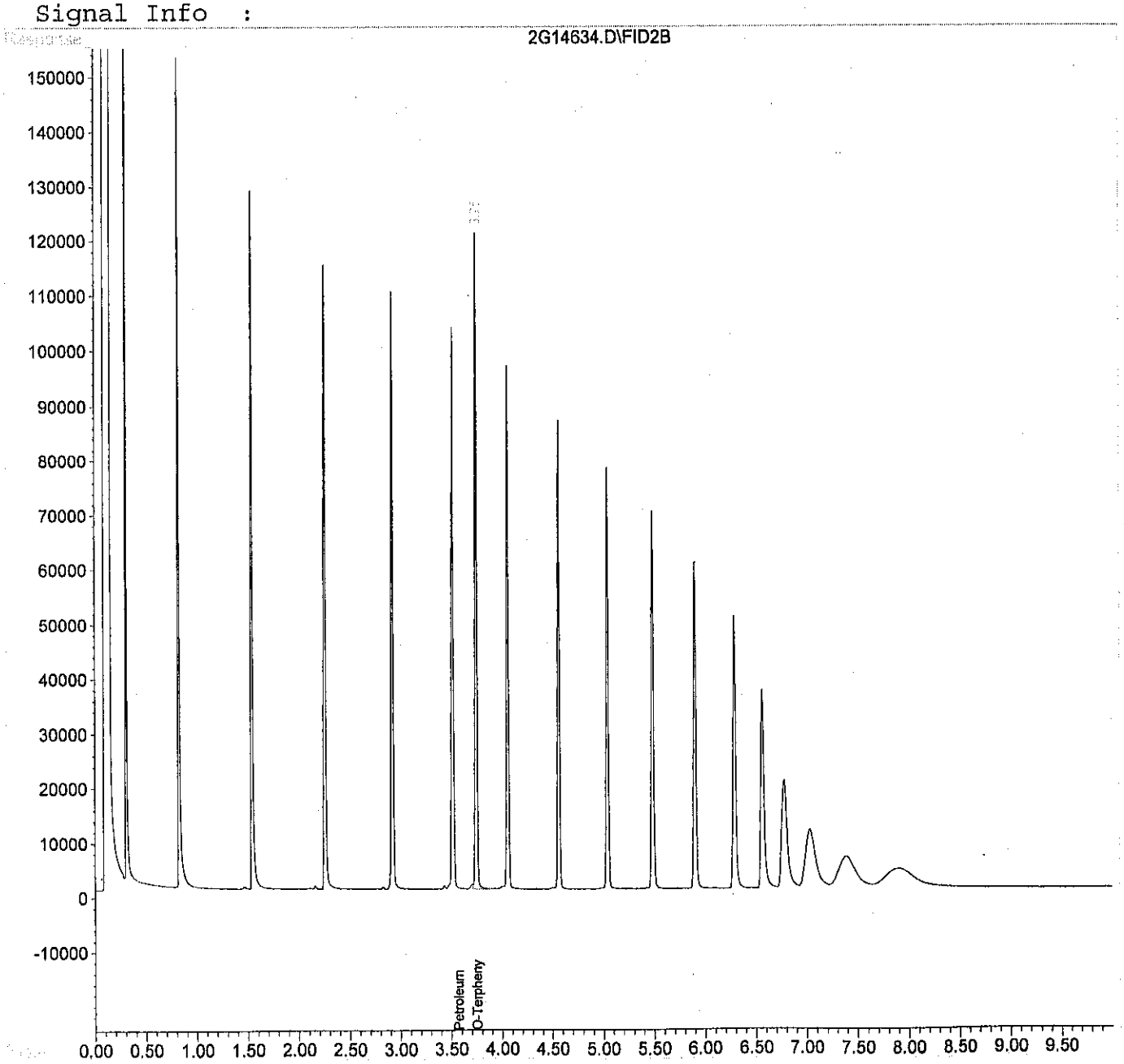
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	1380171	43.883 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	219.42%#
Target Compounds			
1) H Petroleum Range	3.58	18275974	829.008 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14634.D FLASHPRO.M Tue Aug 21 11:11:18 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14634.D Vial: 6
Acq On : 21 Aug 2001 10:34 Operator: HV
Sample : PRO STD 50ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 10:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14635.D Vial: 5
Acq On : 21 Aug 2001 10:49 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 11:02 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

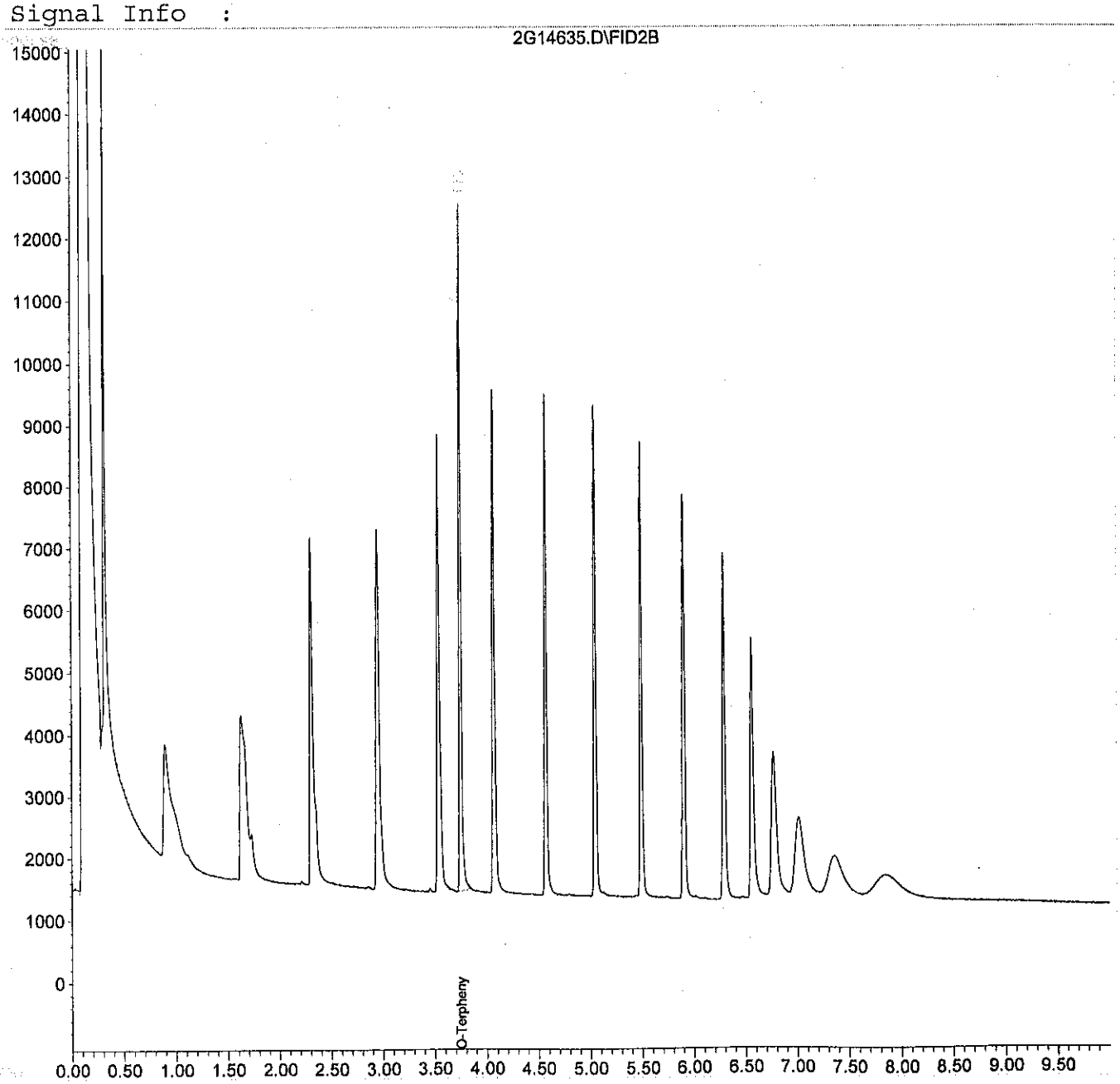
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	143731	4.570 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	22.85%#
Target Compounds			
1) H Petroleum Range	3.58	1933317	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14635.D Vial: 5
Acq On : 21 Aug 2001 10:49 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SV 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 11:02 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/15/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14636.D Vial: 10
Acq On : 21 Aug 2001 11:05 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SV 55-03 , Exp 11-04-01 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001
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	3304.180	2.8	105	0.00
2	S	O-Terphenyl	200.000	0.934	99.5#	0	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14636.D FLASHPRO.M Tue Aug 21 13:10:54 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14636.D Vial: 10
Acq On : 21 Aug 2001 11:05 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SV 55-03 , Exp 11-04-01 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001
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)

Data File : C:\HPCHEM\1\DATA\082101\2G14636.D Vial: 10
Acq On : 21 Aug 2001 11:05 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SV 55-03 , Exp 11-04-01 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 11:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

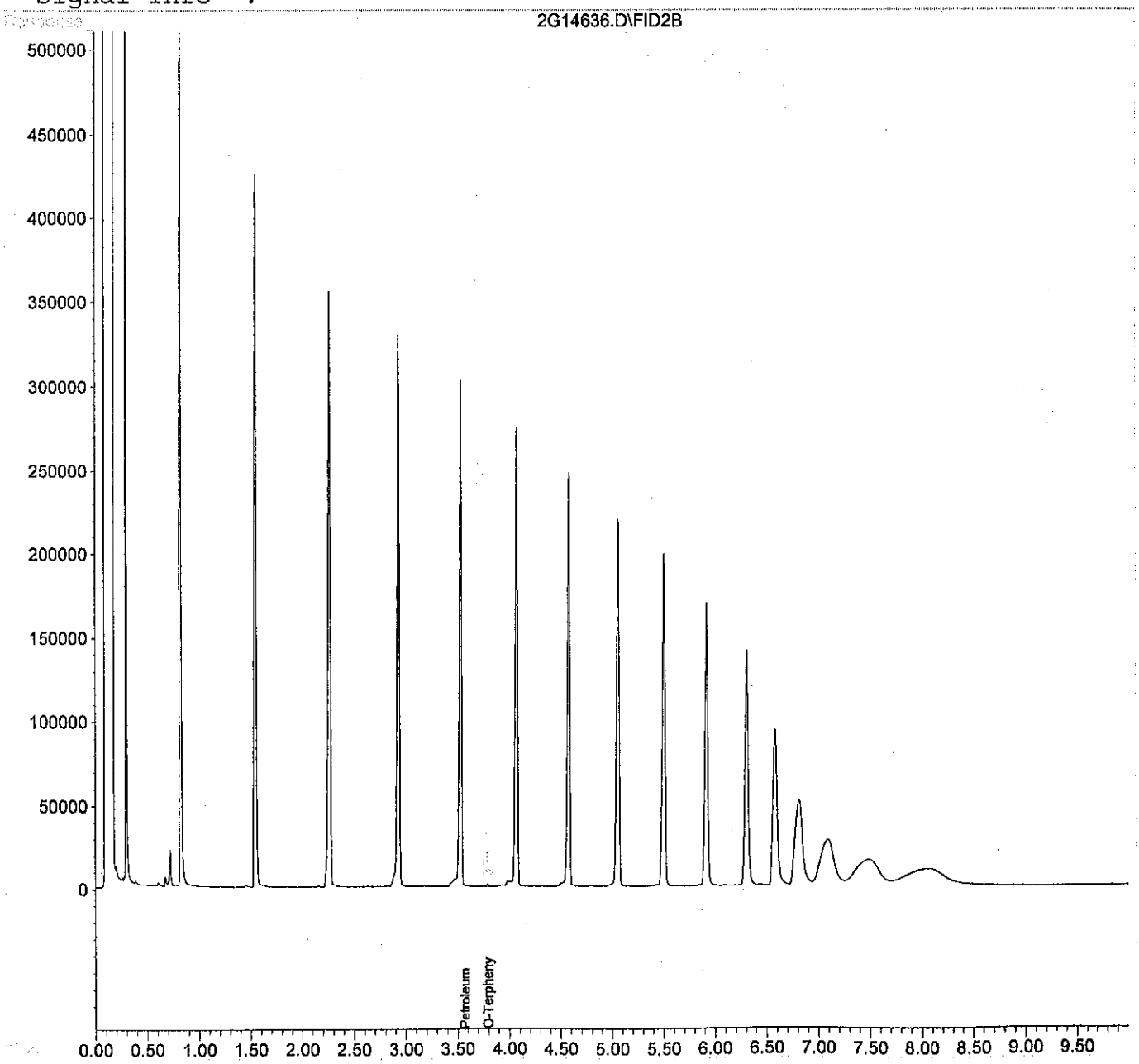
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.79	23191	0.934 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 4.67%#			
Target Compounds			
1) H Petroleum Range	3.58	64879397	3304.180 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14636.D FLASHPRO.M Tue Aug 21 13:11:01 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14636.D Vial: 10
Acq On : 21 Aug 2001 11:05 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SV 55-03 , Exp 11-04-01 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 11:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14644.D Vial: 18
Acq On : 21 Aug 2001 13:00 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001
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	3467.863	-2.0	110	0.00
2	S	O-Terphenyl	200.000	206.072	-3.0	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14644.D FLASHPRO.M Tue Aug 21 13:13:53 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14644.D Vial: 18
Acq On : 21 Aug 2001 13:00 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001
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)

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

Data File : C:\HPCHEM\1\DATA\082101\2G14644.D Vial: 18
Acq On : 21 Aug 2001 13:00 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

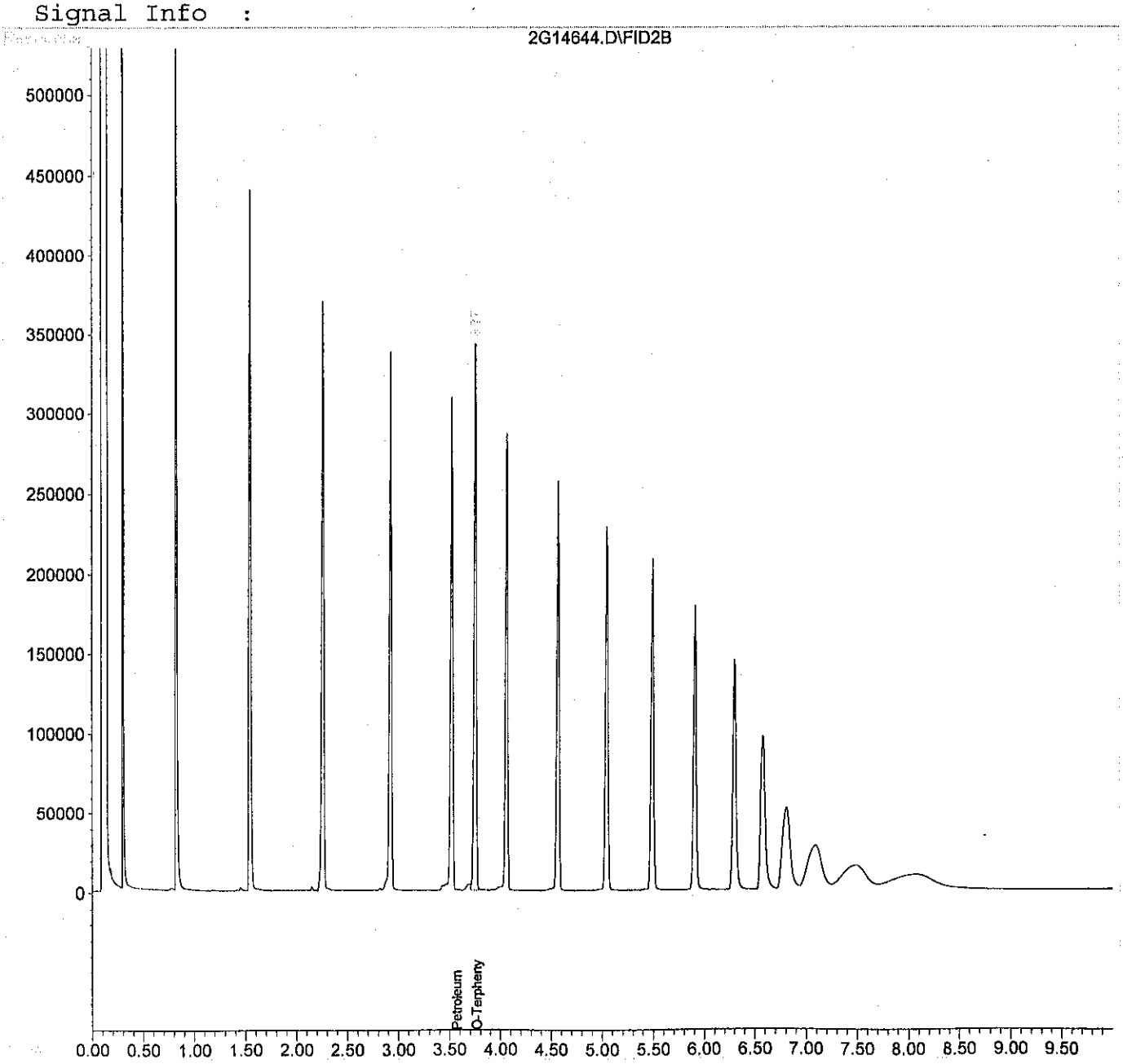
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.77	5116234	206.072 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1030.36%#
Target Compounds			
1) H Petroleum Range	3.58	68093417	3467.863 ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14644.D Vial: 18
Acq On : 21 Aug 2001 13:00 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14648.D Vial: 22
Acq On : 21 Aug 2001 13:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001
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	3325.218	2.2	105	0.00
2	S	O-Terphenyl	200.000	195.505	2.2	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G14648.D FLASHPRO.M Tue Aug 21 14:26:43 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14648.D Vial: 22
Acq On : 21 Aug 2001 13:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:42:04 2001
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)

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

Data File : C:\HPCHEM\1\DATA\082101\2G14648.D
Acq On : 21 Aug 2001 13:58
Sample : PRO CONT CHK
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Aug 21 14:25 2001 Quant Results File: FLASHPRO.RES

Vial: 22
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

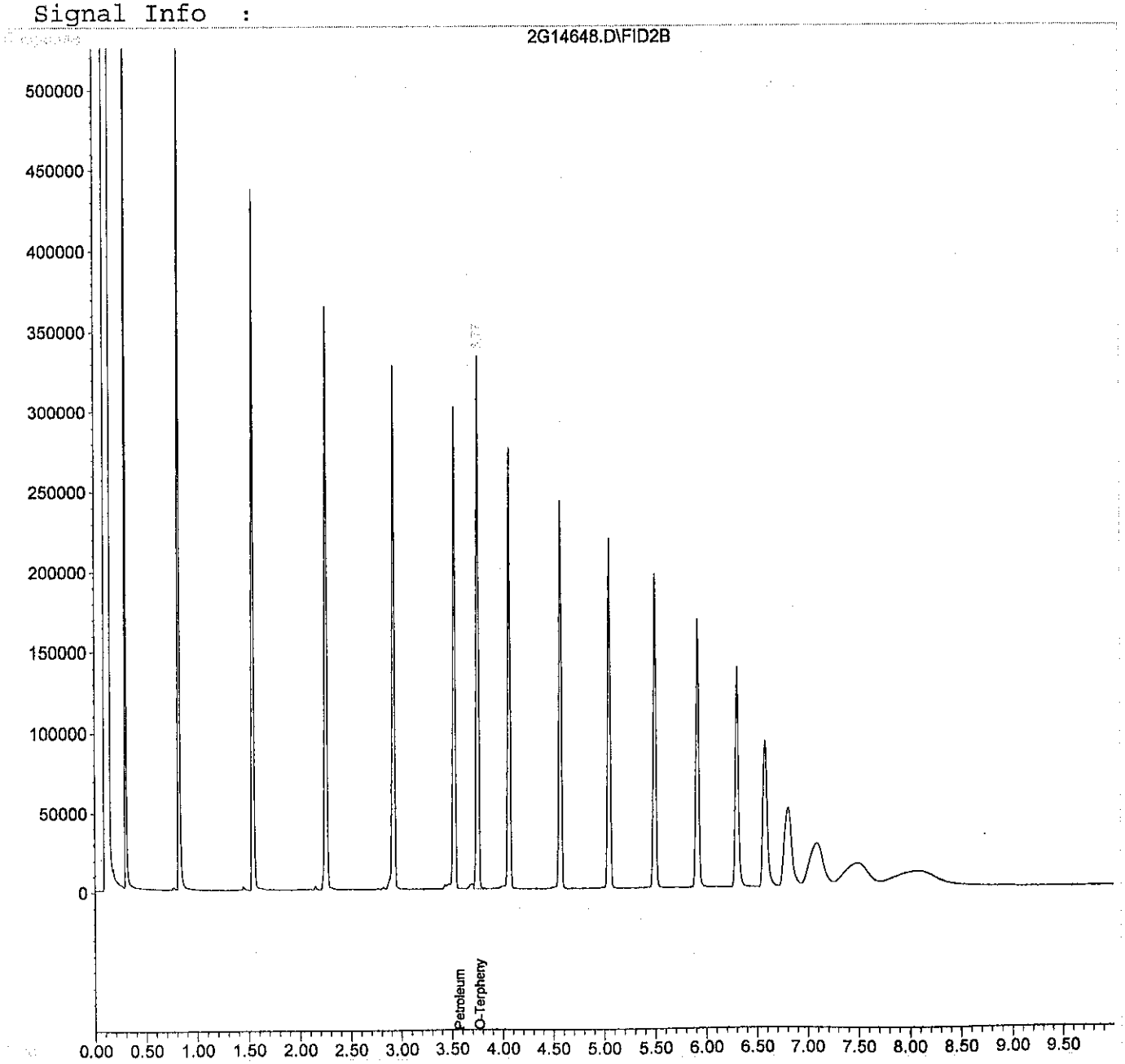
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.77	4853875	195.505 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 977.53%#	
Target Compounds			
1) H Petroleum Range	3.58	65292493	3325.218 ppb

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

Data File : C:\HPCHEM\1\DATA\082101\2G14648.D Vial: 22
Acq On : 21 Aug 2001 13:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 14:25 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\081701A\2G14572.D
Acq On : 17 Aug 2001 18:31
Sample : PRO water BLK V169P189
Misc : water
IntFile : PETRO.E
Quant Time: Aug 20 10:59 2001 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 08/17/01
Last Update : Mon Aug 20 10:42:04 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

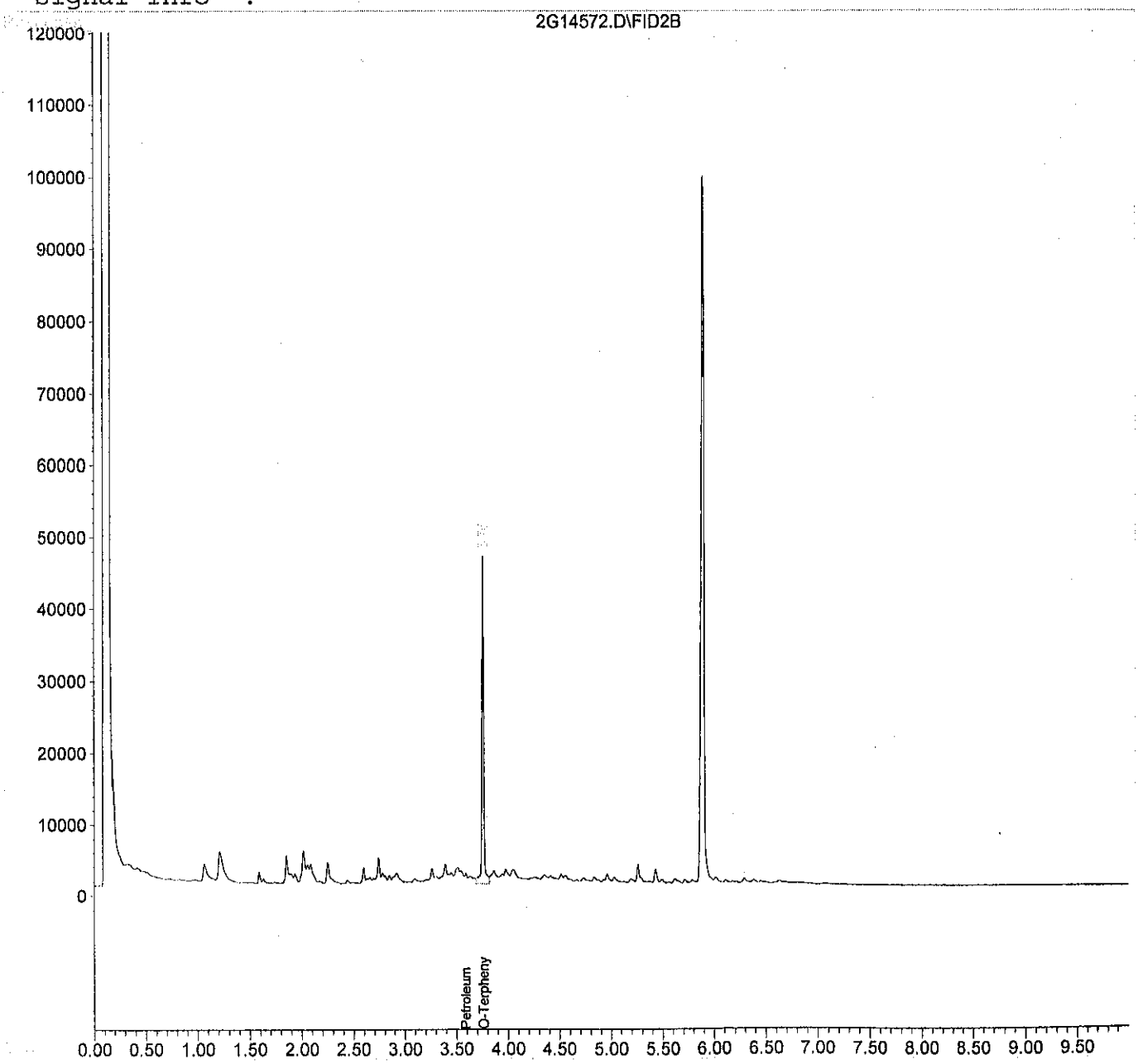
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.76	574906	18.279 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 91.40%			
Target Compounds			
1) H Petroleum Range	3.58	4317588	195.848 ppb

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14572.D Vial: 9
Acq On : 17 Aug 2001 18:31 Operator: HV
Sample : PRO water BLK V169P189 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:59 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:42:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Aug 2001 11:19 Operator: HV
Sample : PRO water BLK V170-P77 RE Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 13:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

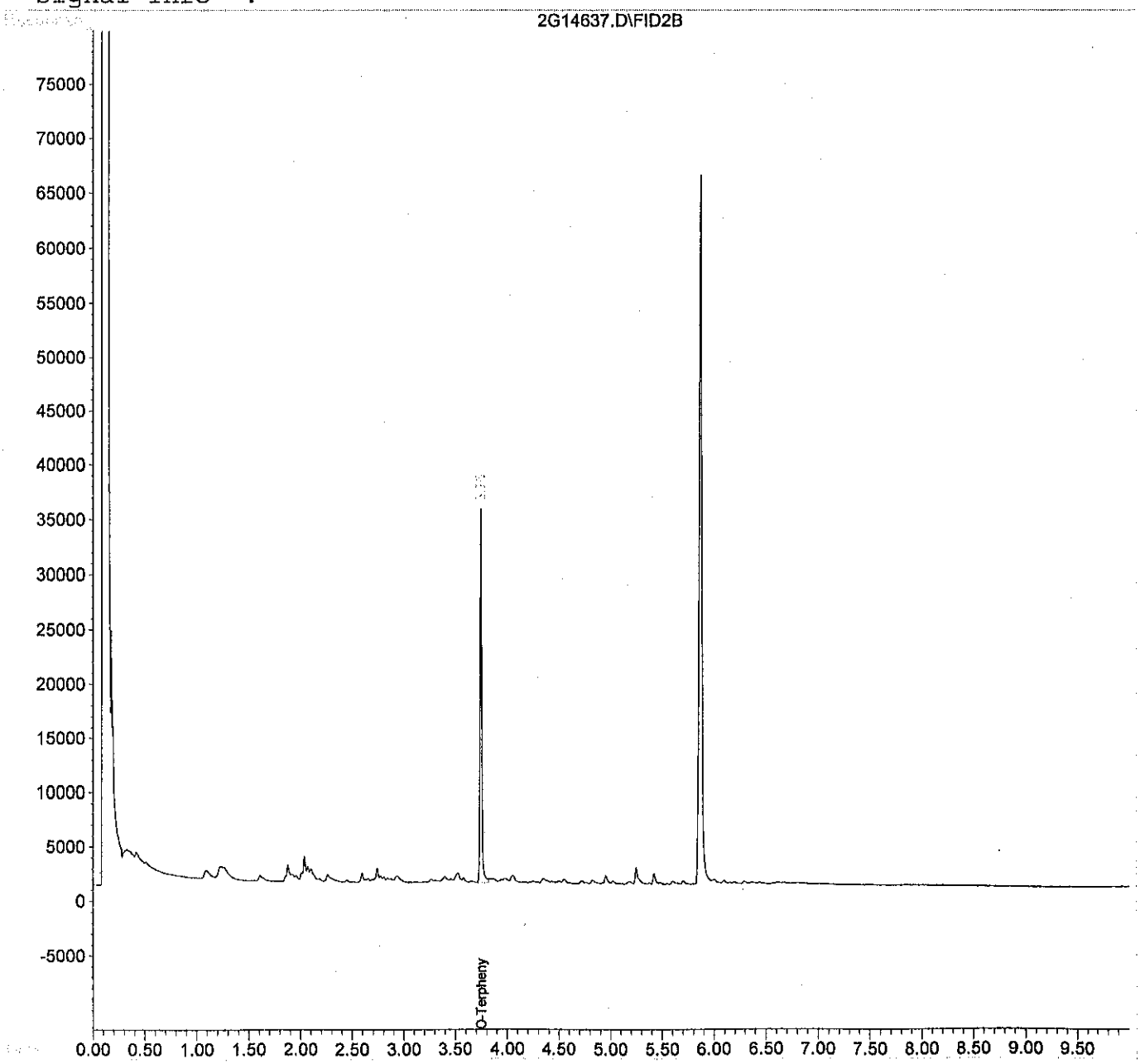
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	417538	16.818 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	84.09%
Target Compounds			
1) H Petroleum Range	3.58	2313769	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14637.D FLASHPRO.M Tue Aug 21 13:14:41 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14637.D Vial: 11
Acq On : 21 Aug 2001 11:19 Operator: HV
Sample : PRO water BLK V170-P77 RE Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 13:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\082101\2G14638.D Vial: 22
Acq On : 21 Aug 2001 11:34 Operator: HV
Sample : PRO water LCS V170-P77 RE Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 13:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

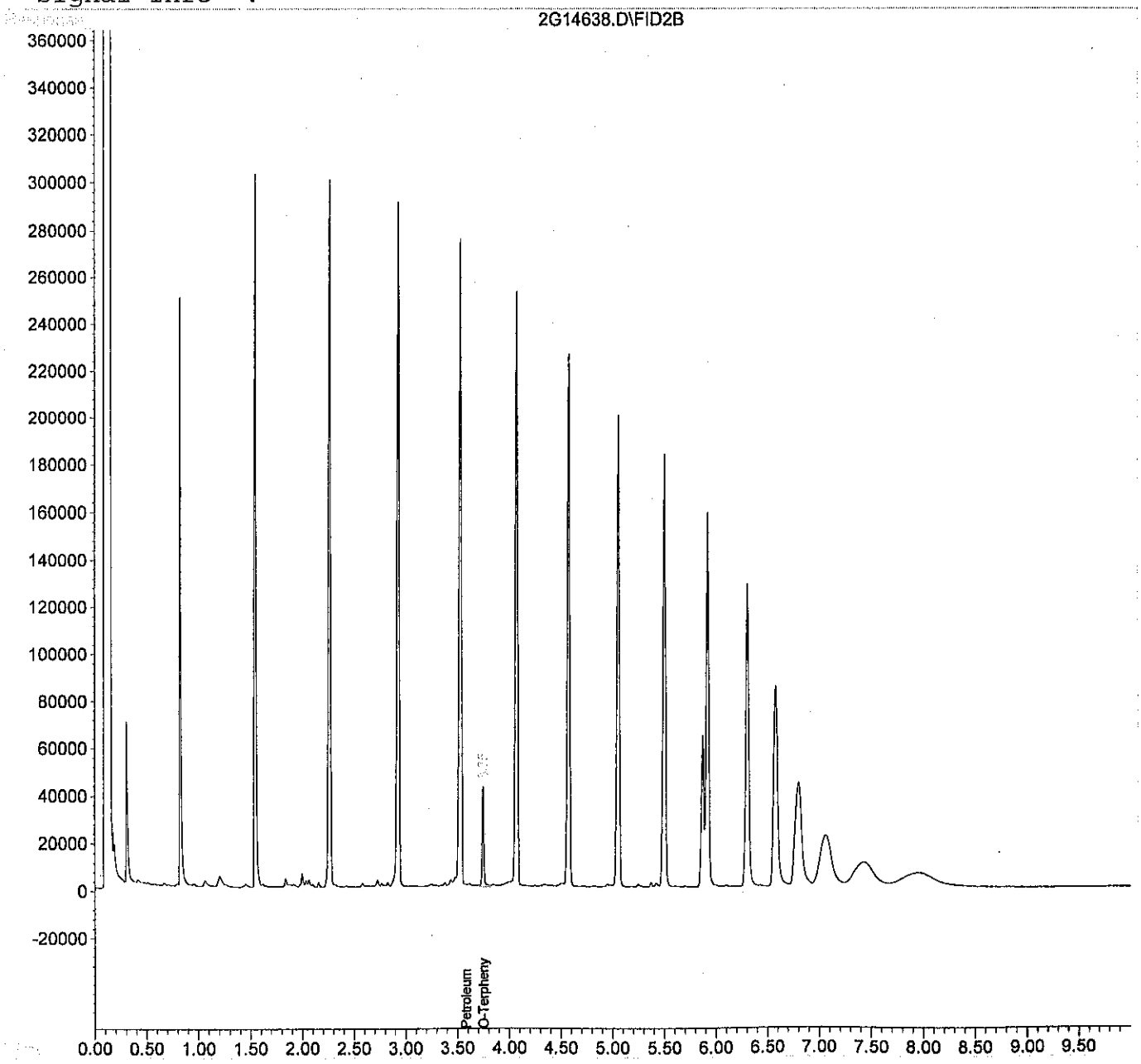
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.75	490141	19.742 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 98.71%			
Target Compounds			
1) H Petroleum Range	3.58	48362494	2463.006 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G14638.D FLASHPRO.M Tue Aug 21 13:14:58 2001 Page 1

Data File : C:\HPCHEM\1\DATA\082101\2G14638.D Vial: 12
Acq On : 21 Aug 2001 11:34 Operator: HV
Sample : PRO water LCS V170-P77 RE Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 21 13:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/21/01
Last Update : Mon Aug 20 10:33:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\081701A\2G14573.D Vial: 10
Acq On : 17 Aug 2001 18:46 Operator: HV
Sample : PRO water LCS V169P189 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:59 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:42:04 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

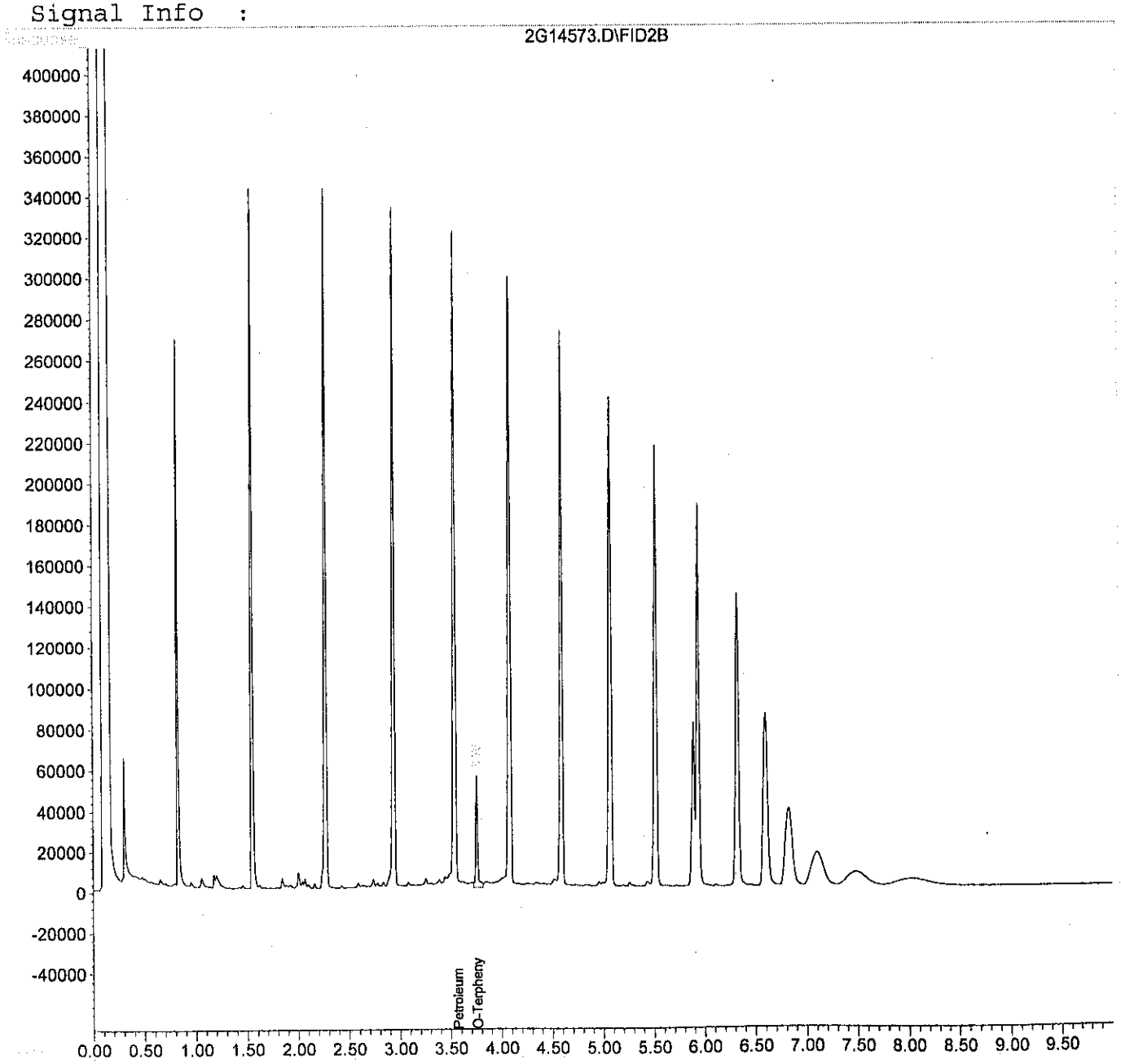
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.76	701132	22.293 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 111.47%			
Target Compounds			
1) H Petroleum Range	3.58	57630222	2614.137 ppb

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

Data File : C:\HPCHEM\1\DATA\081701A\2G14573.D Vial: 10
Acq On : 17 Aug 2001 18:46 Operator: HV
Sample : PRO water LCS V169P189 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Aug 20 10:59 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 08/17/01
Last Update : Mon Aug 20 10:42:04 2001
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	2g14564.d	1.		mecl2		17 Aug 101 12::3
2	2	2g14565.d	1.		PRO STD 600ppm	SV 14-11	17 Aug 101 12::5
3	3	2g14566.d	1.		PRO STD 400ppm	SV 14-11	17 Aug 101 12::0
4	4	2g14567.d	1.		PRO STD 200ppm	SV 14-11	17 Aug 101 12::1
5	5	2g14568.d	1.		PRO STD 100ppm	SV 14-11	17 Aug 101 12::3
6	6	2g14569.d	1.		PRO STD 50ppm	SV 14-11	17 Aug 101 12::4
7	7	2g14570.d	1.		PRO STD 5ppm	SV 14-11	17 Aug 101 12::0
8	8	2g14571.d	1.		ALT PRO @200ppm		17 Aug 101 12::1
9	9	2g14572.d	1.		PRO water BLK V169P189	water	17 Aug 101 12::3
10	10	2g14573.d	1.		PRO water LCS V169P189	water	17 Aug 101 12::4
11	11	2g14574.d	1.04		L0108280-01 DRO water	water	17 Aug 101 12::0
12	12	2g14575.d	1.04		L0108280-02 DRO water	water	17 Aug 101 12::1
13	13	2g14576.d	1.04		L0108280-03 DRO water	water	17 Aug 101 12::2
14	14	2g14577.d	1.03		L0108280-04 DRO water	water	17 Aug 101 12::4
15	15	2g14578.d	1.04		L0108280-05 MS DRO water	water	17 Aug 101 12::5
16	16	2g14579.d	1.04	RR	L0108280-08 DRO water	water	17 Aug 101 12::1
17	1	2g14580.d	1.		mecl2		17 Aug 101 12::2
18	4	2g14581.d	1.		PRO CONT CHK	SV 14-11	17 Aug 101 12::4
19	17	2g14582.d	1.05	RR	L0108280-07 DRO water	water	17 Aug 101 12::5
20	18	2g14583.d	1.04		L0108280-06 MSD DRO water	water	17 Aug 101 12::0
21	19	2g14584.d	1.03	RR	L0108280-09 DRO water	water	17 Aug 101 12::2
22	20	2g14585.d	1.		MECL2	water	17 Aug 101 12::3
23	4	2g14586.d	1.		PRO CONT CHK	water SV 14-11	17 Aug 101 12::5

HV 8/20/01

TRQC 8/20/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 8/17/01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 081701A
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
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

Reviewed By: TAC 8/20/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g14627.d	1.	MECL2	water	21 Aug 101 12::3
2	2	2g14628.d	1.	WIN DEF STD	NS 13-45	21 Aug 101 12::5
3	3	2g14629.d	1.	ee PRO CONT CHK	SV 55-03	21 Aug 101 12::0
4	4	2g14630.d	1.	PRO CONT CHK	SV 55-03	21 Aug 101 12::3
5	5	2g14631.d	1.	PRO STD 600ppm	SV 55-03	21 Aug 101 12::5
6	6	2g14632.d	1.	PRO STD 400ppm	SV 55-03	21 Aug 101 13::0
7	7	2g14633.d	1.	PRO STD 100ppm	SV 55-03	21 Aug 101 13::2
8	8	2g14634.d	1.	PRO STD 50ppm	SV 55-03	21 Aug 101 13::3
9	9	2g14635.d	1.	PRO STD 5ppm	SV 55-03	21 Aug 101 13::4
10	10	2g14636.d	1.	ALT PRO @200ppm	SV 55-03 , Exp 11-04-01	21 Aug 101 13::0
11	11	2g14637.d	1.	PRO water BLK V170-P77 RE	water	21 Aug 101 13::1
12	12	2g14638.d	1.	PRO water LCS V170-P77 RE	water	21 Aug 101 13::3
13	13	2g14639.d	1.04	L0108280-02 RE PRO water	water	21 Aug 101 13::4
14	14	2g14640.d	1.04	L0108280-03 RE PRO water	water	21 Aug 101 13::0
15	15	2g14641.d	1.04	L0108280-04 RE PRO water	water	21 Aug 101 13::1
16	16	2g14642.d	1.04	L0108280-05 MS RE PRO water	water	21 Aug 101 13::3
17	17	2g14643.d	1.04	L0108280-06 MSD RE PRO water	water	21 Aug 101 13::4
18	18	2g14644.d	1.	PRO CONT CHK	SOS 55-03	21 Aug 101 12::0
19	19	2g14645.d	1.04	L0108280-07 RE PRO water	water	21 Aug 101 12::1
20	20	2g14646.d	1.04	L0108280-08 RE PRO water	water	21 Aug 101 12::2
21	21	2g14647.d	1.04	L0108280-09 RE PRO water	water	21 Aug 101 12::4
22	22	2g14648.d	1.	PRO CONT CHK	SOS 55-03	21 Aug 101 12::5

AV 8/21/01

RSC 8/21/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 8-21-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 08-21-01
Analyst Initials HV

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

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
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

Reviewed By: RWC 8/21/01

Parameter: FLA-PRO H_2O SOP #: ExPRO Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): JAQ DP
Date/Time Extracted: 08/14/01 @ 1335 Date TV/KD: 8/14/01
Spike/Surrogate Analyst: DP Witness: JEA
Surrogate #: ESS0038-13 Earliest Hold Date: 08/20/01
Spike #: A = ESS0038-14 Spike #: B = —

Extraction Work Group WG 102766
Analytical Work Group WG 102831

Extract Relinquished By: DP
Extract Received By & Date: [illegible] 8/15/01

	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 102766-02
2	LCS	8121	✓			↓	↓	1mL	↓	↓				WG ↓ -03
3	08-280-01	FLA-PRO	✓			960mL	↓	↓	↓	C			-	
4	-02	↓	✓			↓	↓	↓	↓	↓				
5	-03	↓	✓			↓	↓	↓	↓	T				
6	-04	↓	✓			8/14/01 JAQ 970mL	↓	↓	↓	T				WG 102766-01
7	-05MS	↓	✓			960mL	↓	1mL	↓	↓				↓ -04
8	-06MSD	↓	✓			↓	↓	↓	↓	↓				↓ -05
9	-07	↓	✓			950mL	↓	↓	↓	↓				
10	-08	↓	✓			960mL	↓	↓	↓	↓				
11	-09	↓	✓			970mL	↓	↓	↓	↓				
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

8/14/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: N13558
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR 1889

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: 8/15/01

Extraction Notes For Volume # 169 Page # 189

General Comments: MS of 08-280-04
MSD of

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: nothing to report

Supervisor Review: _____ Date: _____

KEMRON Environmental Services
Analytical Corrective Action Report

F 10-1

Date: Aug 20 01 **Department:** SV **Employee:** HV

Prep WG# 102766 **Preparation Date:** 8-14-01 **Parameter:** PRO · water

I. Description of Non-Conformance:

Samples - 280-01 and 280-03 had recovered low in surrogate -
Some samples were spiked, Re-extract entire Bench Sheet
Re-extracts needed

II. Action Taken:

08-280-01 QNS' client only sent (1) Bottle
-02 & 09 Re-ext w/in Hold & 08/20/01
New WG # 103103

III. Return to Control?:	Not Applicable ____	Yes ____	No ____

IV. Further Action Required?: (required if no checked in III.)

Approvals:

Department Supervisor: _____ Date: _____
QA/QC Supervisor: _____ Date: _____
Director/Manager: _____ Date: _____

Form NC02

819

Parameter: PRO-H_2O SOP #: EXPRO Revision #: 1
Extraction Analyst(s): SAM TV/KD Analyst(s): SAM
Date/Time Extracted: 8/20/01 @ 15:45 Date TV/KD: 8/20/01
Spike/Surrogate Analyst: SAM Witness: JEA
Surrogate #: ES50038-13 Earliest Hold Date: 8/20/01
Spike #: A = ES50038-27 Spike #: B = —

Extraction Work Group WG 103103
Analytical Work Group WG 103205

Extract Relinquished By: AL
Extract Received By & Date: [illegible] 8/20/01

	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 103103-02
2	LCS		✓			↓		1mL		↓				WG ↓ -03
3	08-280-02	FLA-PRO	✓			965mL				C				*
4	-03		✓							↓				
5	-04		✓							T				WG 103103-01
6	MS -05		✓					1mL		↓				-04
7	MSD -06		✓					↓						↓ -05
8	-07		✓											
9	-08		✓											
10	↓ -09	↓	✓			↓	↓		↓	↓				↓
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

SAM 8/20/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER1768
Florisil Lot #: —
Silica Gel Lot #: 113558
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1890

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: 8/21/01

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Extraction Notes For Volume # 170 Page # 77

General Comments: * Re-ext w/in hold
MS of 08-280-04
MSD of 1

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

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.: L0108280

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 MSD yielded percent recoveries for seven analytes which were below advisory limits.

SAMPLES

Surrogates: Sample fractions 03, 07, 08, and 09 yielded a percent recovery for the surrogate which was below the advisory limit. These fractions were re-extracted within holding time. The re-extraction of sample fraction 03 resulted in similar surrogate recovery thus confirming the initial extraction results. Sample fractions 07, 08, and 09 re-extraction met all acceptance criteria for the surrogate recovery. For all other fractions 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: Steve Learn DATE: 8/2/01

Rev. 7/14/00

Semi-Volatile 8310 Checklist

Workorders: Due Date: Priority:

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
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	
	Corrective Action	
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 curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK
NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 8/15/01 , 8/16/01, & 8/17/01

Analyst: HV

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG102830 08-280	8/21/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic 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	√
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:

Sample fractions 03, 07, 08, & 09 sent for re-extraction due to low surr. recovery.

Sample fractions 07 & 08 for conf. of acenaphthylene...

MSD low for several analytes.

Primary Reviewer: RHC 8/20/01

Secondary Reviewer: 8/21/01

Supervisor Review: 8/21/01

√ = Checked & OK

NA = Not Applicable

Workorders:	Due Date:	Priority:
WG103154 08-280 RE	8/21/2001	PFF

Run Date: 20-Aug-01

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic 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	NA
	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:
Fraction 03 low surrogate recovery confirms the initial extraction results.
Fractions 07, 08, & 09 re-ext. had acceptable surrogate recovery.
All re-extractions were within holding.

Primary Reviewer: RDC 8/21/01

Secondary Reviewer: 8/21/01

Supervisor Review: 8/21/01

√ = Checked & OK
NA = Not Applicable

PAH HPLC DATA (8310)

Login Number: L0108280

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: RWC Date: 8/2/01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP :	WG102830	PREP WORK GRP :	WG102768	RUN DATE :	8/15/01	SAMP ID :	L0108260 -04
METHOD :	8310	EXT DATE :	14-Aug-01	BLK FLNM :	4L001844	SMPL FLNM :	4L001849
INSTRUMENT :	HPLC4	EXT BENCH SHEET :	V169P195	LCS FLNM :	4L001845	MS FLNM :	4L001850
ANALYST :	HV					MSD FLNM :	4L001851

ANALYTE	CONCENTRATION, µg/L								% RECOVERY													
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	1	ND	52	18.6	ND	52	23.9	18.3	ND	35.8	19	80	NA	46.0	35.2	19	80	27	50				
ACENAPTHYLENE	1	ND	52	19.3	ND	52	26.5	18.9	ND	37.1	19	92	NA	51.0	36.3	19	92	33	50				
1-METHYLNAPHTHALENE	1	ND	52	18.7	ND	52	25.0	18.4	ND	35.9	19	80	NA	48.1	35.4	19	80	30	50				
2-METHYLNAPHTHALENE	1	ND	52	18.8	ND	52	25.0	18.7	ND	36.2	19	80	NA	48.1	36.0	19	80	29	50				
ACENAPHTHENE	1	ND	52	19.7	ND	52	26.9	19.3	ND	37.9	17	99	NA	51.7	37.1	17	99	33	50				
FLUORENE	1	ND	52	21.0	ND	52	28.6	20.7	ND	40.5	20	97	NA	55.0	39.8	20	97	32	50				
PHENANTHRENE	1	ND	52	25.4	ND	52	33.1	23.4	ND	48.8	30	110	NA	63.7	45.0	30	110	34	50				
ANTHRACENE	1	ND	52	31.5	ND	52	35.6	28.4	ND	60.7	38	101	NA	68.5	54.6	38	101	23	50				
FLUORANTHENE	0.2	ND	5.2	4.00	ND	5.2	4.43	3.41	ND	77.0	60	116	NA	85.2	65.6	60	116	26	50				
PYRENE	0.2	ND	5.2	4.09	ND	5.2	4.47	3.48	ND	78.7	60	116	NA	86.0	66.9	60	116	25	50				
BENZO[a]ANTHRACENE	0.2	ND	5.2	4.37	ND	5.2	4.23	3.21	ND	84.0	73	118	NA	81.3	61.7	73	118	27	50				L
CHRYSENE	0.2	ND	5.2	4.20	ND	5.2	4.04	2.78	ND	80.8	67	116	NA	77.7	53.5	67	116	37	50				L
BENZO[b]FLUORANTHENE	0.2	ND	5.2	3.74	ND	5.2	3.20	2.30	ND	71.9	60	121	NA	61.5	44.2	60	121	33	50				L
BENZO[k]FLUORANTHENE	0.2	ND	2.6	1.69	ND	2.6	1.43	0.913	ND	65.0	52	127	NA	55.0	35.1	52	127	44	50				L
BENZO[a]PYRENE	0.2	ND	5.2	3.41	ND	5.2	2.86	1.83	ND	65.6	52	123	NA	55.0	35.3	52	123	44	50				L
DIBENZO[a,h]ANTHRACENE	0.2	ND	5.2	2.23	ND	5.2	1.74	0.789	ND	42.9	10	109	NA	33.5	15.2	10	109	75	50				
BENZO[g,h,i]PERYLENE	0.2	ND	5.2	2.39	ND	5.2	1.60	0.671	ND	46.0	15	116	NA	30.8	12.9	15	116	82	50				L
INDENO[1,2,3-cd]PYRENE	0.2	ND	5.2	2.67	ND	5.2	2.13	1.16	ND	51.4	35	108	NA	41.0	22.3	35	108	59	50				L
SURROGATE																							
p-TERPHENYL-d14		6.88	10.4	7.53	7.76	10.4	6.86	4.54	85.4	72.4	40	132	74.8	66.0	43.6	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, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP :	WG103154	PREP WORK GRP :	WG103104	RUN DATE :	8/20/01	SAMP ID :	NA
METHOD :	8310	EXT DATE :	20-Aug-01	BLK FLNM :	4L001889	SMPL FLNM :	NA
INSTRUMENT :	HPLC4	EXT BENCH SHEET :	V170P79	LCS FLNM :	4L001890	MS FLNM :	NA
ANALYST :	RDC					MSD FLNM :	NA

ANALYTE	CONCENTRATION, µg/L								% RECOVERY														
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	1	ND	50	22.8	NA	50.0	NA	NA	ND	45.6	19	80	NA	NA	NA	19	80	NA	50				
ACENAPTHYLENE	1	ND	50	24.7	NA	50.0	NA	NA	ND	49.4	19	92	NA	NA	NA	19	92	NA	50				
1-METHYLNAPHTHALENE	1	ND	50	23.1	NA	50.0	NA	NA	ND	46.2	19	80	NA	NA	NA	19	80	NA	50				
2-METHYLNAPHTHALENE	1	ND	50	23.7	NA	50.0	NA	NA	ND	47.4	19	80	NA	NA	NA	19	80	NA	50				
ACENAPHTHENE	1	ND	50	26.4	NA	50.0	NA	NA	ND	52.8	17	99	NA	NA	NA	17	99	NA	50				
FLUORENE	1	ND	50	28.8	NA	50.0	NA	NA	ND	57.6	20	97	NA	NA	NA	20	97	NA	50				
PHENANTHRENE	1	ND	50	37.1	NA	50.0	NA	NA	ND	74.2	30	110	NA	NA	NA	30	110	NA	50				
ANTHRACENE	1	ND	50	41.6	NA	50.0	NA	NA	ND	83.2	38	101	NA	NA	NA	38	101	NA	50				
FLUORANTHENE	0.2	ND	5	4.68	NA	5.00	NA	NA	ND	93.6	60	116	NA	NA	NA	60	116	NA	50				
PYRENE	0.2	ND	5	4.69	NA	5.00	NA	NA	ND	93.8	60	116	NA	NA	NA	60	116	NA	50				
BENZO[a]ANTHRACENE	0.2	ND	5	4.94	NA	5.00	NA	NA	ND	98.8	73	118	NA	NA	NA	73	118	NA	50				
CHRYSENE	0.2	ND	5	4.77	NA	5.00	NA	NA	ND	95.4	67	116	NA	NA	NA	67	116	NA	50				
BENZO[b]FLUORANTHENE	0.2	ND	5	4.38	NA	5.00	NA	NA	ND	87.6	60	121	NA	NA	NA	60	121	NA	50				
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.96	NA	2.50	NA	NA	ND	78.4	52	127	NA	NA	NA	52	127	NA	50				
BENZO[a]PYRENE	0.2	ND	5	3.65	NA	5.00	NA	NA	ND	73.0	52	123	NA	NA	NA	52	123	NA	50				
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	2.72	NA	5.00	NA	NA	ND	54.4	10	109	NA	NA	NA	10	109	NA	50				
BENZO[g,h,i]PERYLENE	0.2	ND	5	2.65	NA	5.00	NA	NA	ND	53.0	15	116	NA	NA	NA	15	116	NA	50				
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	3.15	NA	5.00	NA	NA	ND	63.0	35	108	NA	NA	NA	35	108	NA	50				
SURROGATE																							
p-TERPHENYL-d14		8.37	10	8.71	NA	10.0	NA	NA	83.7	87.1	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

2.2.7.2 Sample Data

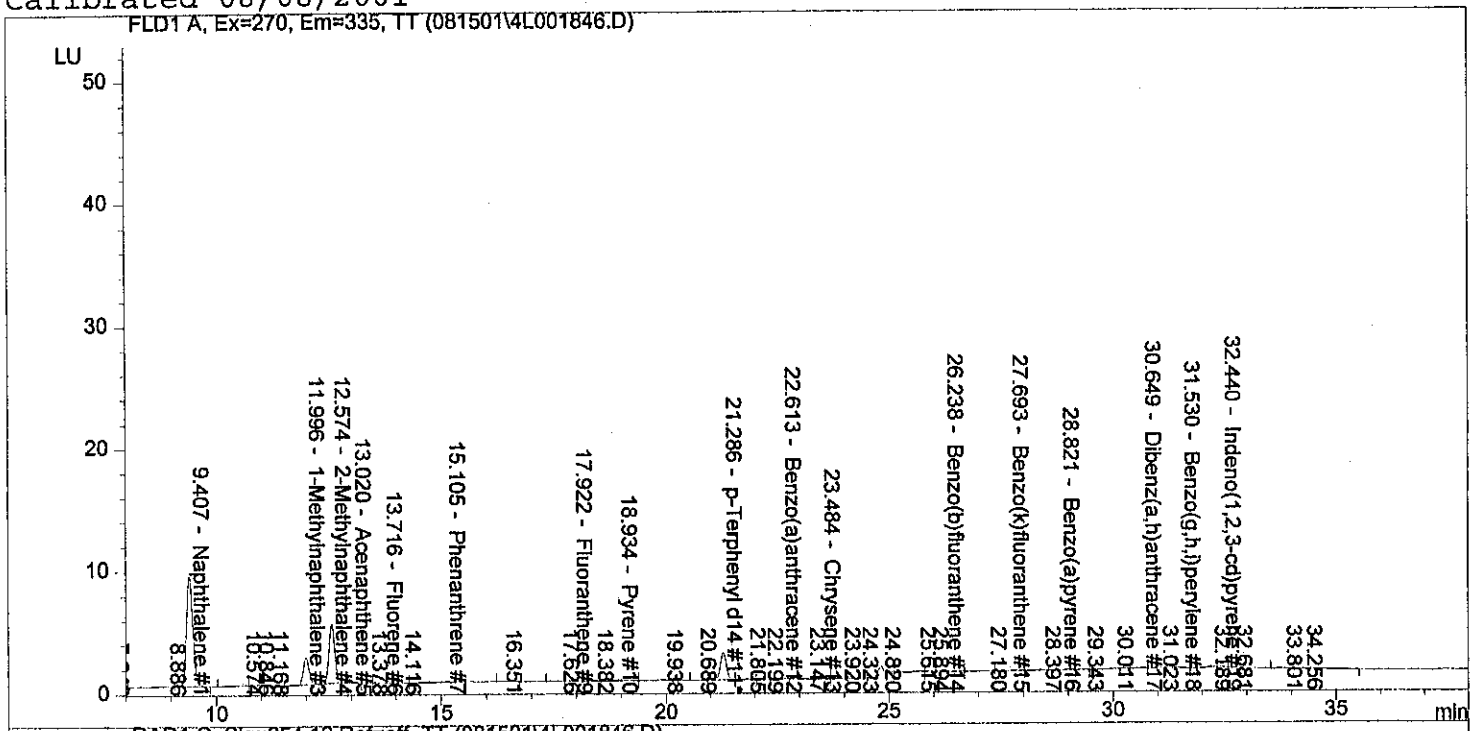
==========

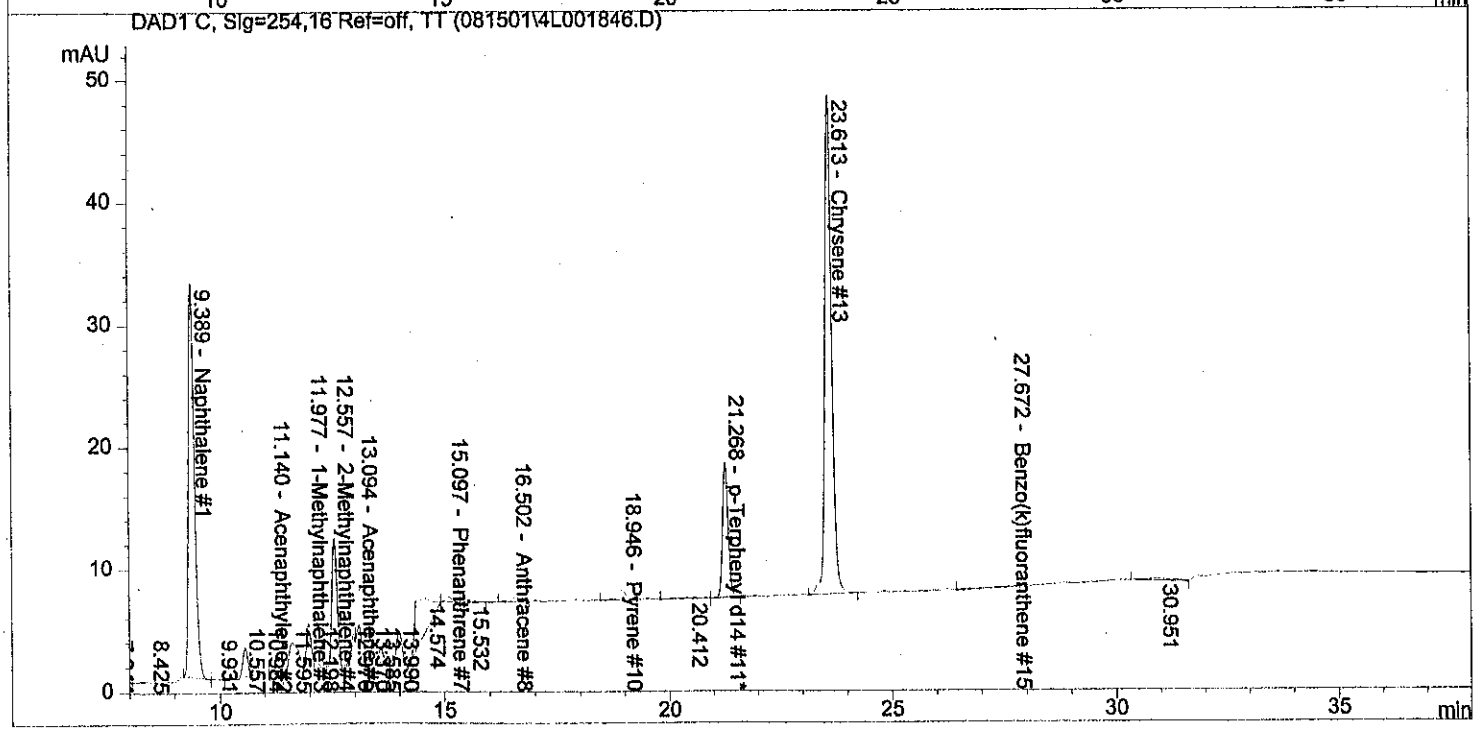
Injection Date : 8/15/2001 12:38:04 PM
Sample Name : L0108280-01 W
Acq. Operator : HV

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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
9.407	BB	88.75435	2.52962e-2	2.33495	C	Naphthalene #1
11.996	BB	21.19951	2.21330e-2	4.87976e-1		1-Methylnaphthalene #3
12.574	BB	43.76587	1.70635e-2	7.76671e-1	C	2-Methylnaphthalene #4
13.020	BB	1.80887	1.38416e-2	2.60391e-2		Acenaphthene #5
13.716	BB	5.08171	6.62187e-3	3.49964e-2		Fluorene #6
15.105	BB	3.42686	1.63652e-1	5.83246e-1		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.922	BB	7.65208e-1	2.32678e-2	1.85169e-2		Fluoranthene #9
18.934	BB	1.37970	3.86587e-2	5.54709e-2	<MDL	Pyrene #10
21.286	BB	20.90539	2.97423e-1	6.46645		p-Terphenyl d14 #11*
22.613	BB	5.77413e-1	7.91256e-3	4.75157e-3	62.2%	Benzo(a)anthracene #12
23.484	BB	4.41274e-1	3.90495e-2	1.79208e-2		Chrysene #13
26.238	BB	1.33221	1.63222e-2	2.26143e-2		Benzo(b)fluoranthene #14
27.693	BB	2.86451	2.76572e-3	8.23931e-3		Benzo(k)fluoranthene #15
28.821	BB	3.48347	4.57119e-3	1.65606e-2		Benzo(a)pyrene #16
30.649	BB	3.78825e-1	3.93496e-2	1.55029e-2		Dibenz(a,h)anthracene #17
31.530	BB	4.39903e-1	2.65165e-2	1.21313e-2		Benzo(g,h,i)perylene #18
32.440	BB	3.47681e-1	1.38204e-2	4.99729e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 10.88704

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
9.389	BB	294.37662	8.25405e-3	2.52699	✓	Naphthalene #1
11.140	BB	1.63750e-1	2.96975e-2	5.05747e-3	<MDL	Acenaphthylene #2
11.977	BB	22.08530	1.29459e-2	2.97350e-1	<MDL	1-Methylnaphthalene #3
12.557	BB	92.76844	1.12393e-2	1.08436	✓	2-Methylnaphthalene #4
13.094	BB	8.93460	2.03163e-2	1.88779e-1	<MDL	Acenaphthene #5
13.740		-	-	-		Fluorene #6
15.097	BB	3.84573	1.72982e-2	6.91853e-2	<MDL	Phenanthrene #7
16.502	BBA	4.44450	1.04262e-2	4.81928e-2	<MDL	Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.946	BB	8.33303	1.43052e-2	1.23974e-1	NC	Pyrene #10
21.268	BBA	95.10229	6.56733e-2	6.49550	62.5%	p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.613	BBA	428.03723	1.51453e-2	6.74206	NC	Chrysene #13
26.188		-	-	-		Benzo(b)fluoranthene #14
27.672	BB	2.27510	2.25837e-2	5.34352e-2	NC	Benzo(k)fluoranthene #15
28.746		-	-	-		Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 17.63489

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 ***

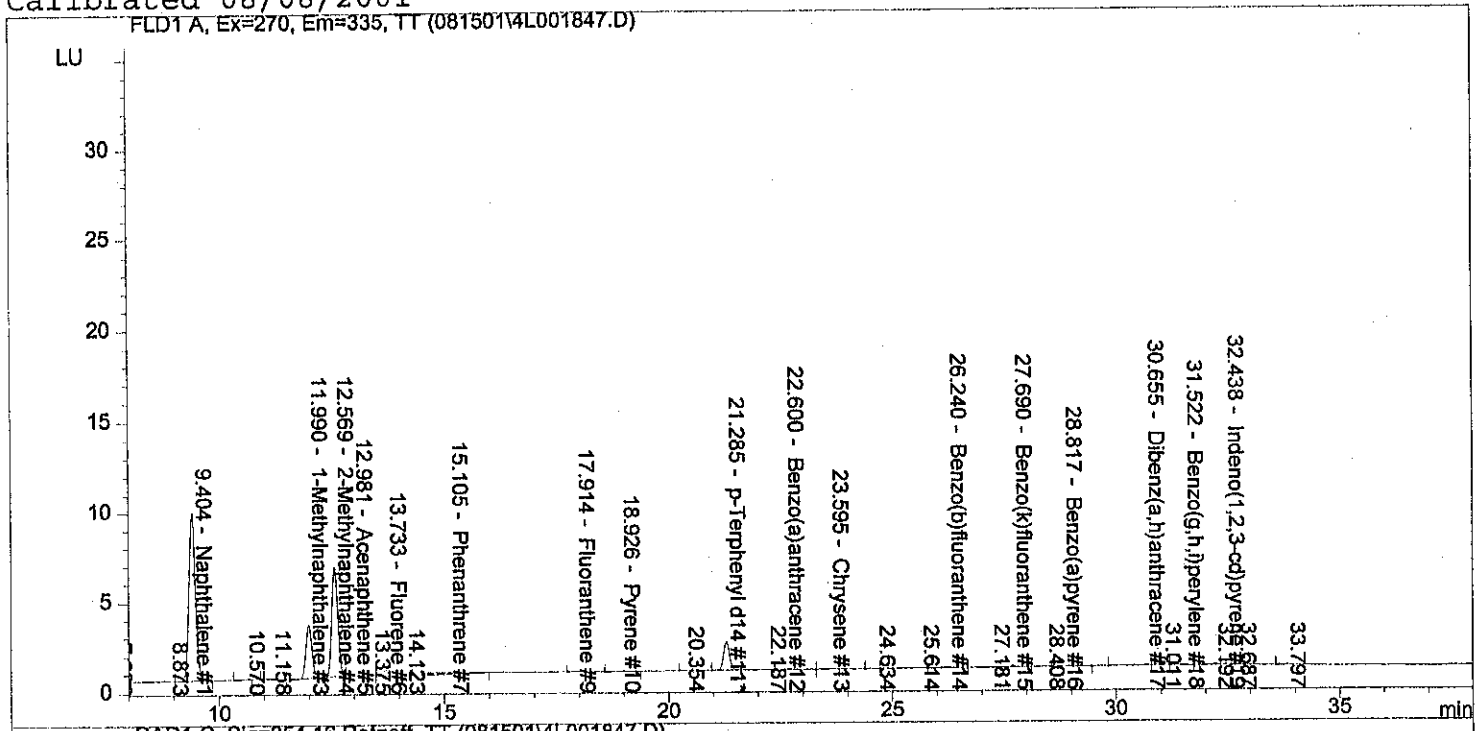
==========

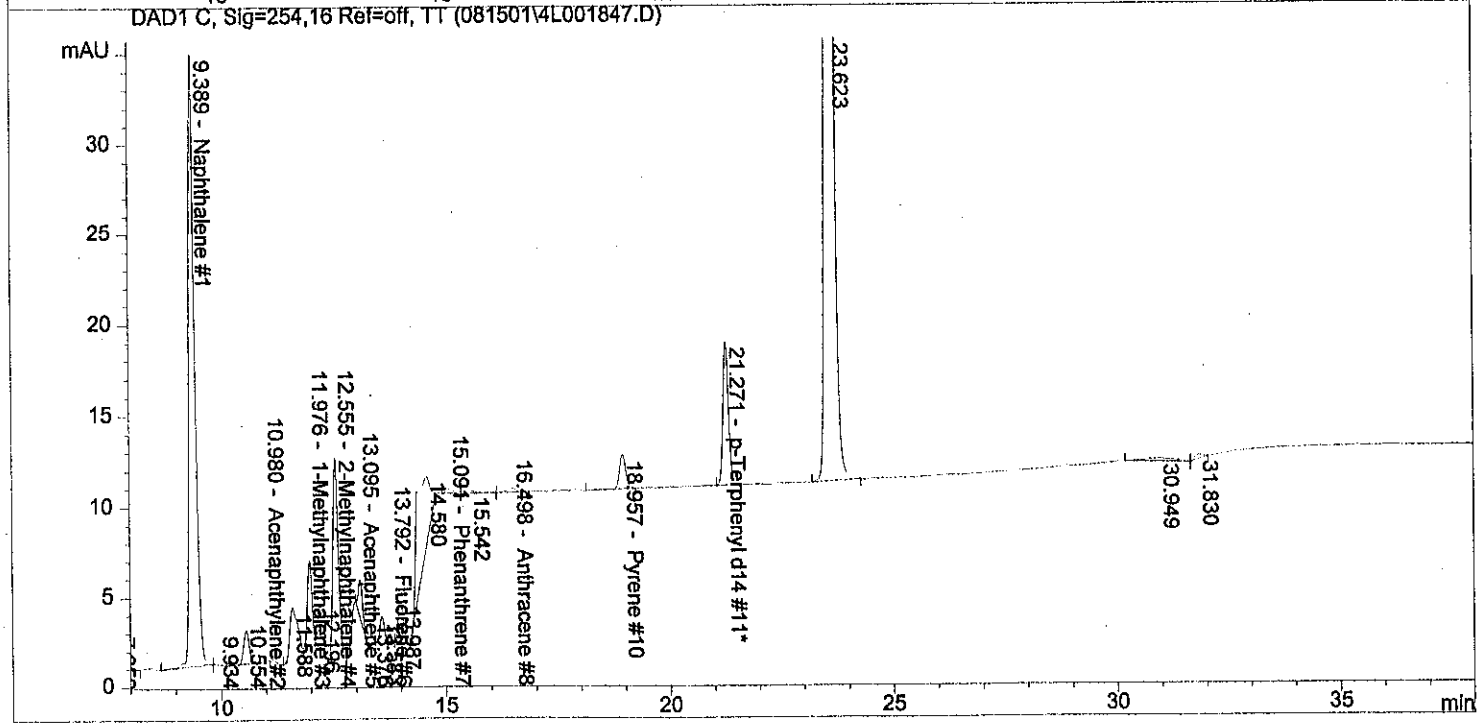
Injection Date : 8/15/2001 1:34:41 PM
Sample Name : L0108280-02 W
Acq. Operator : HV

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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
9.404	BB	92.85283	2.52962e-2	2.44278	C	Naphthalene #1
11.990	BB	28.48638	2.21330e-2	6.55707e-1	J	1-Methylnaphthalene #3
12.569	BB	55.79171	1.70635e-2	9.90082e-1	C	2-Methylnaphthalene #4
12.981	BB	1.15788	1.38416e-2	1.66680e-2		Acenaphthene #5
13.733	BB	4.28375	6.62187e-3	2.95011e-2		Fluorene #6
15.105	BB	6.85706	1.63652e-1	1.16706		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.914	BB	6.07307e-1	2.32678e-2	1.46960e-2		Fluoranthene #9
18.926	BB	6.10833e-1	3.86587e-2	2.45586e-2	44.8%	Pyrene #10
21.285	BB	15.05250	2.97423e-1	4.65603		p-Terphenyl d14 #11*
22.600	BB	7.18129e-1	7.91256e-3	5.90953e-3		Benzo(a)anthracene #12
23.595	BB	3.33880e-1	3.90495e-2	1.35594e-2		Chrysene #13
26.240	BB	3.67116e-1	1.63222e-2	6.23181e-3		Benzo(b)fluoranthene #14
27.690	BB	1.15809	2.76572e-3	3.33106e-3		Benzo(k)fluoranthene #15
28.817	BB	1.00003	4.57119e-3	4.75419e-3		Benzo(a)pyrene #16
30.655	BB	3.40967e-1	3.93496e-2	1.39536e-2		Dibenz(a,h)anthracene #17
31.522	BB	4.01637e-1	2.65165e-2	1.10760e-2		Benzo(g,h,i)perylene #18
32.438	BB	1.63793e-1	1.38204e-2	2.35423e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 10.05825

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
9.389	BB	319.21445	8.25405e-3	2.74020		Naphthalene #1
10.980	BB	1.83807	2.96975e-2	5.67694e-2	<MDL	Acenaphthylene #2
11.976	BB	33.60256	1.29459e-2	4.52415e-1	C	1-Methylnaphthalene #3
12.555	BB	93.48575	1.12393e-2	1.09274		2-Methylnaphthalene #4
13.095	BB	12.81377	2.03163e-2	2.70742e-1	<MDL	Acenaphthene #5
13.792	BB	6.20369e-1	1.75240e-2	1.13062e-2		Fluorene #6
15.091	BB	2.68865	1.72982e-2	4.83692e-2		Phenanthrene #7
16.498	BB	3.21853	1.04262e-2	3.48993e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.957	BB	18.94991	1.43052e-2	2.81926e-1	NC	Pyrene #10
21.271	BBA	68.57419	6.56733e-2	4.68363		p-Terphenyl d14 #11*
22.593		-	-	-	45.0%	Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.188		-	-	-		Benzo(b)fluoranthene #14
27.622		-	-	-		Benzo(k)fluoranthene #15
28.746		-	-	-		Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.67300

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 ***

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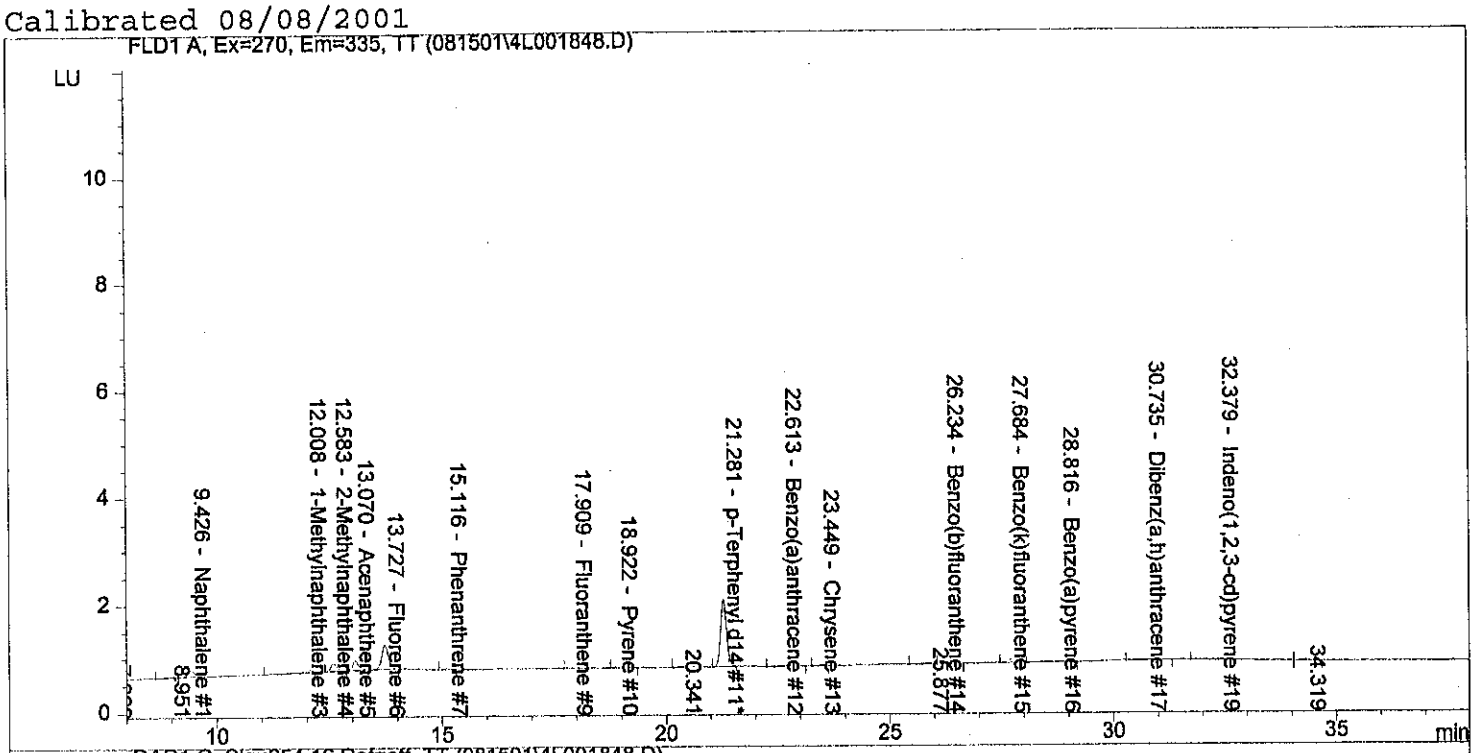
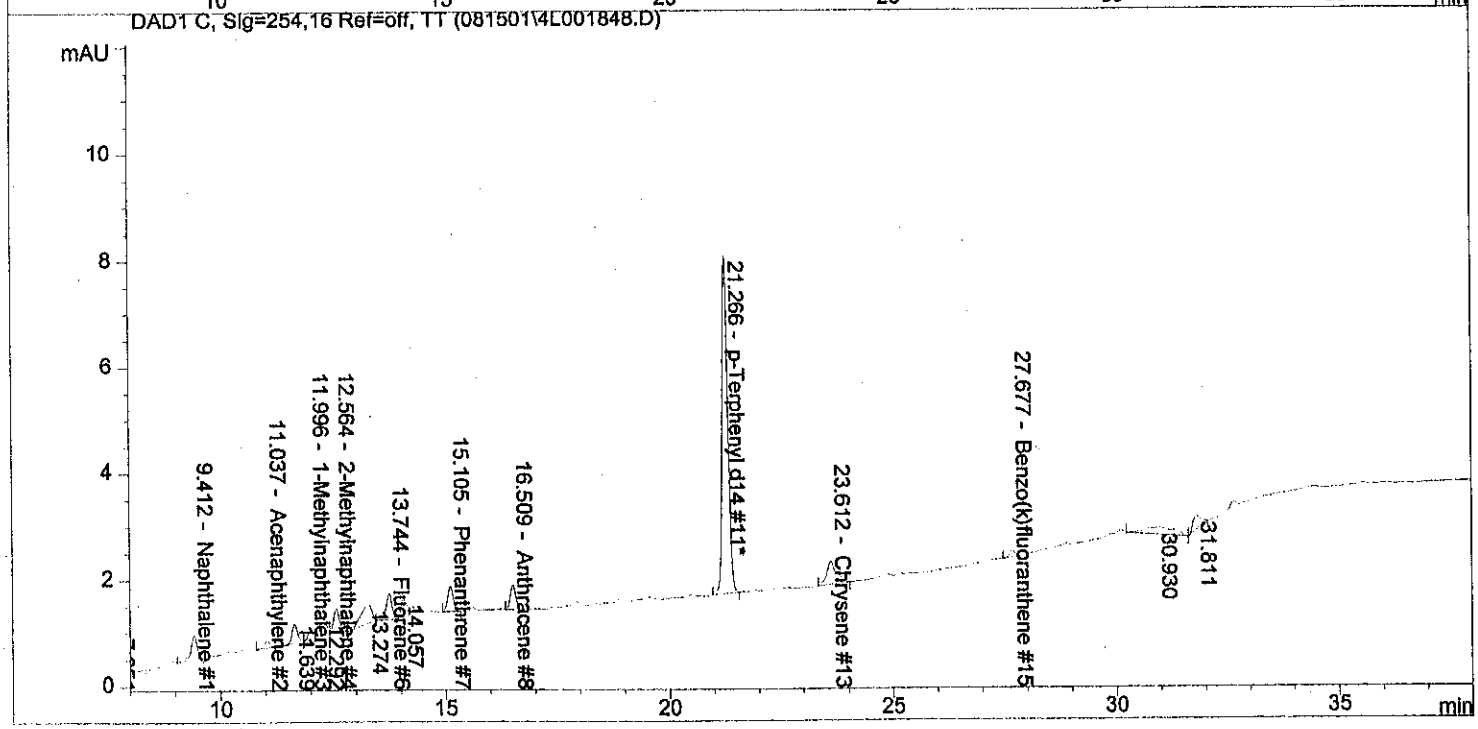
Injection Date : 8/15/2001 2:31:23 PM
Sample Name : L0108280-03 W
Acq. Operator : HV

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
Dilution : 1.0000

RR

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.426	BB	1.28762	2.52962e-2	3.38747e-2		Naphthalene #1
12.008	BB	8.17807e-1	2.21330e-2	1.88245e-2		1-Methylnaphthalene #3
12.583	BB	1.42176	1.70635e-2	2.52306e-2		2-Methylnaphthalene #4
13.070	BB	1.67743	1.38416e-2	2.41470e-2		Acenaphthene #5
13.727	BB	4.69615	6.62187e-3	3.23412e-2		Fluorene #6
15.116	BBA	3.43794e-1	1.63652e-1	5.85132e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.909	BBA	6.25741e-1	2.32678e-2	1.51420e-2		Fluoranthene #9
18.922	BBA	3.34857e-1	3.86587e-2	1.34629e-2		Pyrene #10
21.281	BBA	11.91992	2.97423e-1	3.68706		p-Terphenyl d14 #11*
22.613	PBA	4.44632e-1	7.91256e-3	3.65891e-3		Benzo(a)anthracene #12
23.449	PB	1.66795e-1	3.90495e-2	6.77380e-3		Chrysene #13
26.234	BBA	1.80488e-1	1.63222e-2	3.06380e-3		Benzo(b)fluoranthene #14
27.684	BBA	5.85490e-1	2.76572e-3	1.68407e-3		Benzo(k)fluoranthene #15
28.816	BB	3.41801e-1	4.57119e-3	1.62494e-3		Benzo(a)pyrene #16
30.735	BB	3.11218e-1	3.93496e-2	1.27361e-2		Dibenz(a,h)anthracene #17
31.453		-	-	-		Benzo(g,h,i)perylene #18
32.379	BB	8.10588e-1	1.38204e-2	1.16508e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 3.94979

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
9.412	BB	4.43220	8.25405e-3	3.80469e-2	conc	Naphthalene #1
11.037	BB	1.32697	2.96975e-2	4.09842e-2		Acenaphthylene #2
11.996	BB	9.15040e-1	1.29459e-2	1.23198e-2		1-Methylnaphthalene #3
12.564	BB	3.73308	1.12393e-2	4.36354e-2		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.744	BB	4.95797	1.75240e-2	9.03588e-2		Fluorene #6
15.105	BBA	4.30734	1.72982e-2	7.74898e-2		Phenanthrene #7
16.509	BBA	4.13313	1.04262e-2	4.48165e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.944		-	-	-	*365	Pyrene #10
21.266	PBA	55.62239	6.56733e-2	3.79902		p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.612	BBA	6.32607	1.51453e-2	9.96426e-2	NC	Chrysene #13
26.188		-	-	-		Benzo(b)fluoranthene #14
27.677	BBA	8.65416e-1	2.25837e-2	2.03261e-2	NC	Benzo(k)fluoranthene #15
28.746		-	-	-		Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.26664

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 ***

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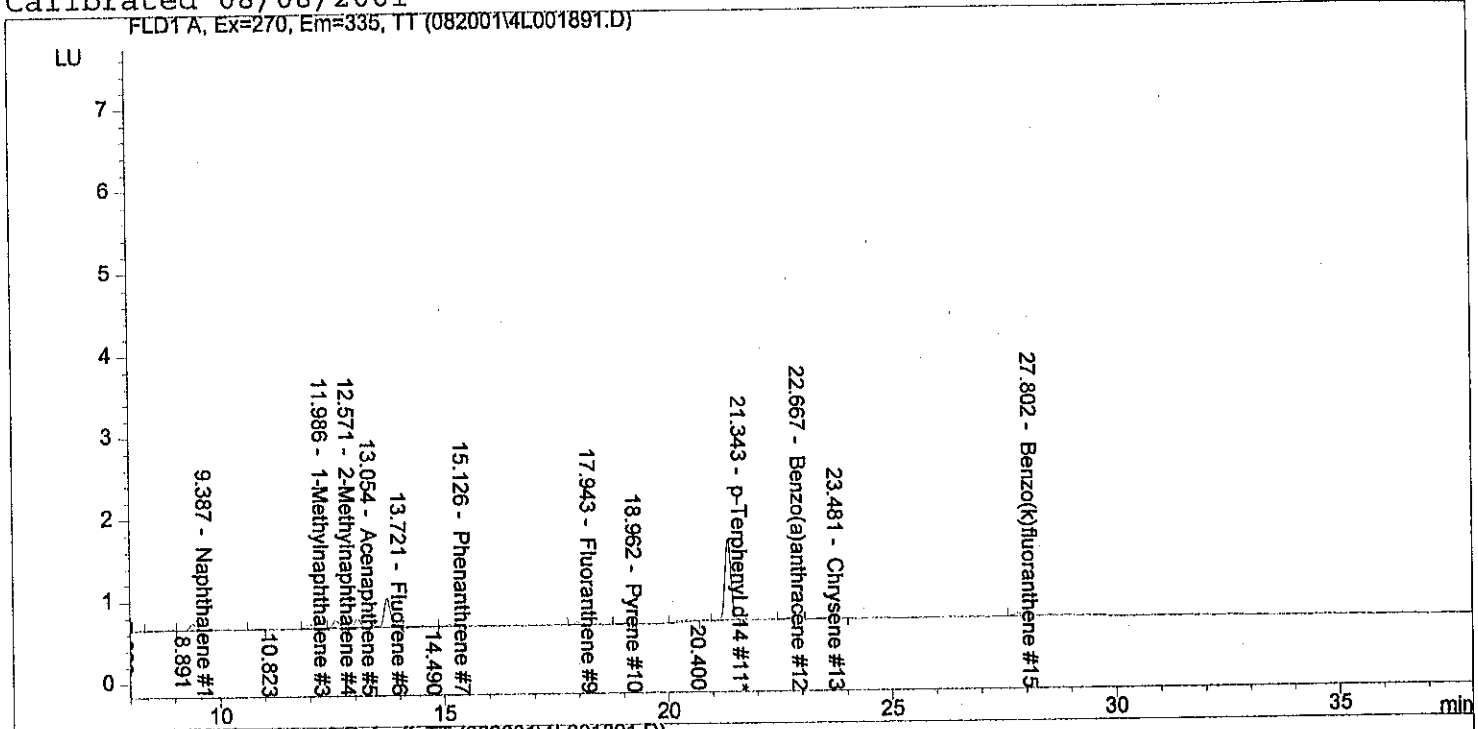
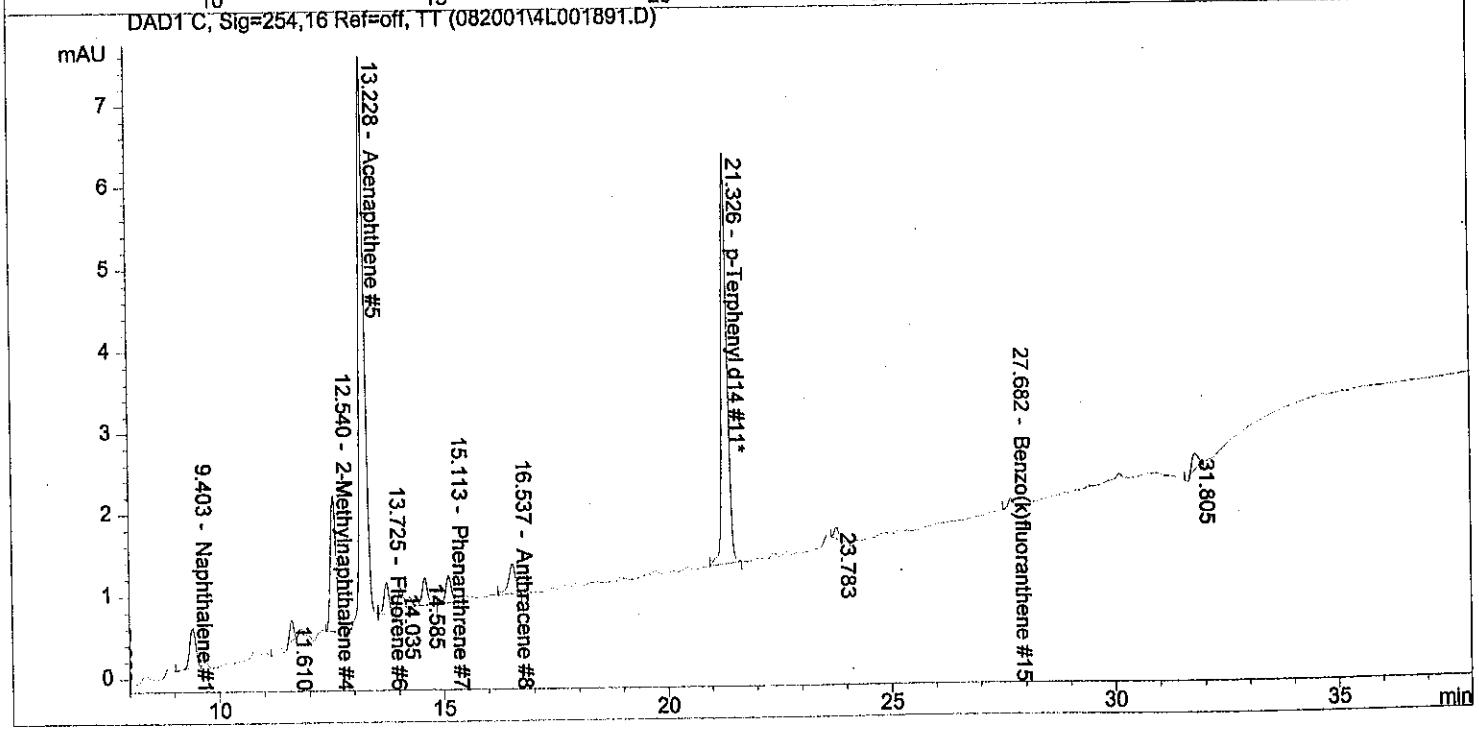
Injection Date : 8/20/2001 7:39:24 PM
Sample Name : L0108280-03 reex
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	8/17/2001 2:29:47 PM
Multiplier	:	1.0400
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
9.387	BB	6.98629e-1	2.52962e-2	1.83796e-2		Naphthalene #1
11.986	PB	6.08418e-1	2.21330e-2	1.40047e-2		1-Methylnaphthalene #3
12.571	BB	1.04110	1.70635e-2	1.84754e-2		2-Methylnaphthalene #4
13.054	BBA	1.10577	1.38416e-2	1.59179e-2		Acenaphthene #5
13.721	BB	3.54138	6.62187e-3	2.43885e-2		Fluorene #6
15.126	BBA	2.46703e-1	1.63652e-1	4.19884e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.943	PBA	3.83595e-1	2.32678e-2	9.28244e-3		Fluoranthene #9
18.962	BBA	1.60106e-1	3.86587e-2	6.43709e-3		Pyrene #10
21.343	BB	9.53602	2.97423e-1	2.94968		p-Terphenyl d14 #11*
22.667	BB	1.59394e-1	7.91256e-3	1.31167e-3		Benzo(a)anthracene #12
23.481	BBA	3.64783e-1	3.90495e-2	1.48144e-2		Chrysene #13
26.327		-	-	-		Benzo(b)fluoranthene #14
27.802	PBA	4.03649e-1	2.76572e-3	1.16103e-3		Benzo(k)fluoranthene #15
28.906		-	-	-		Benzo(a)pyrene #16
30.830		-	-	-		Dibenz(a,h)anthracene #17
31.608		-	-	-		Benzo(g,h,i)perylene #18
32.503		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				3.11584		

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
9.403	BB	4.62970	8.25405e-3	3.97423e-2	cmol	Naphthalene #1
11.077		-	-	-		Acenaphthylene #2
12.023		-	-	-		1-Methylnaphthalene #3
12.540	BB	14.21459	1.12393e-2	1.66152e-1		2-Methylnaphthalene #4
13.228	BB	61.60634	2.03163e-2	1.30168	NC	Acenaphthene #5
13.725	BB	3.08389	1.75240e-2	5.62038e-2	cmol	Fluorene #6
15.113	BB	2.89023	1.72982e-2	5.19958e-2		Phenanthrene #7
16.537	BBA	4.01478	1.04262e-2	4.35332e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.944		-	-	-		Pyrene #10
21.326	BBA	45.25495	6.56733e-2	3.09092	29.7%	p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.468		-	-	-	*	Chrysene #13
26.289		-	-	-		Benzo(b)fluoranthene #14
27.682	BBA	8.85942e-1	2.25837e-2	2.08081e-2	cmol	Benzo(k)fluoranthene #15
28.888		-	-	-		Benzo(a)pyrene #16
30.812		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.589		-	-	-		Benzo(g,h,i)perylene #18
32.488		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.77104

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 ***

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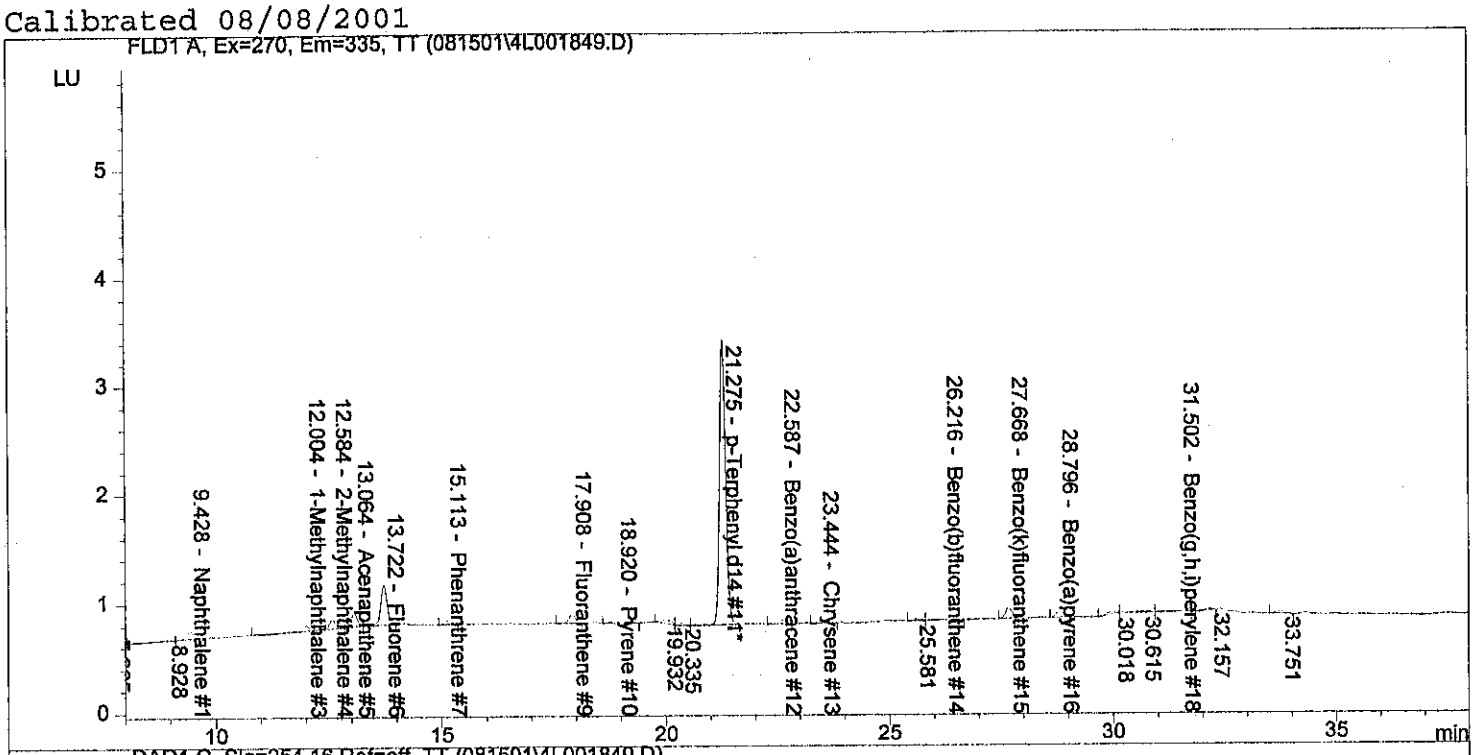
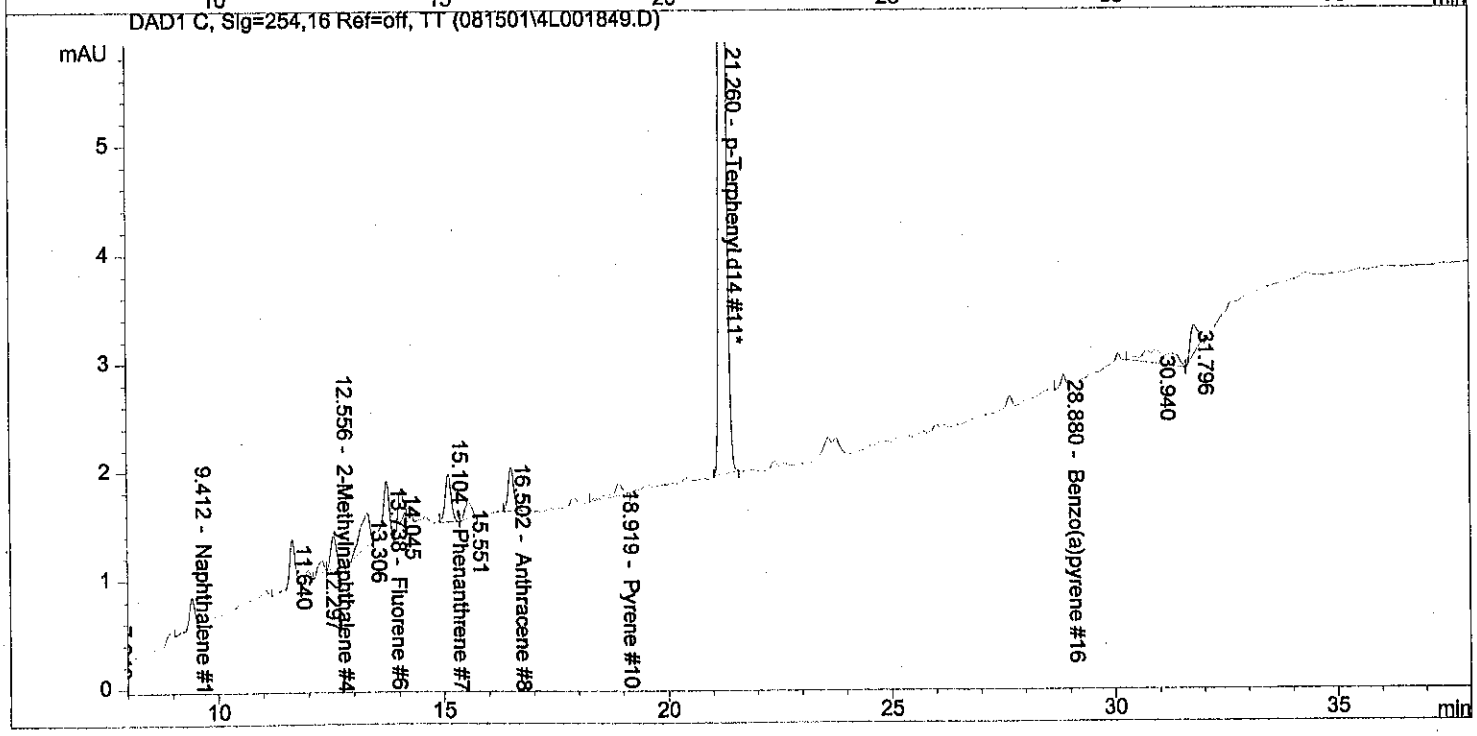
Injection Date : 8/15/2001 3:28:03 PM
Sample Name : L0108280-04 W
Acq. Operator : HV

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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
9.428	BB	8.00102e-1	2.52962e-2	2.10491e-2		Naphthalene #1
12.004	BB	3.10900e-1	2.21330e-2	7.15637e-3		1-Methylnaphthalene #3
12.584	BB	9.64324e-1	1.70635e-2	1.71129e-2		2-Methylnaphthalene #4
13.064	BB	1.12560	1.38416e-2	1.62032e-2		Acenaphthene #5
13.722	BB	3.77039	6.62187e-3	2.59657e-2		Fluorene #6
15.113	PBA	3.36486e-1	1.63652e-1	5.72694e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.908	BBA	8.20873e-1	2.32678e-2	1.98639e-2		Fluoranthene #9
18.920	BBA	5.63098e-1	3.86587e-2	2.26394e-2		Pyrene #10
21.275	BB	25.21539	2.97423e-1	7.79962		p-Terphenyl d14 #11*
22.587	BB	4.71172e-1	7.91256e-3	3.87730e-3		Benzo(a)anthracene #12
23.444	PB	2.07341e-1	3.90495e-2	8.42043e-3		Chrysene #13
26.216	BBA	3.62329e-1	1.63222e-2	6.15056e-3		Benzo(b)fluoranthene #14
27.668	BBA	1.03172	2.76572e-3	2.96759e-3		Benzo(k)fluoranthene #15
28.796	PBA	5.77622e-1	4.57119e-3	2.74604e-3		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.502	BB	3.34533e-1	2.65165e-2	9.22546e-3		Benzo(g,h,i)perylene #18
32.527		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.02026

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
9.412	BB	2.40779	8.25405e-3	2.06689e-2	cmpd	Naphthalene #1
11.077		-	-	-		Acenaphthylene #2
12.023		-	-	-		1-Methylnaphthalene #3
12.556	BB	2.73443	1.12393e-2	3.19624e-2		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.738	BB	4.99827	1.75240e-2	9.10932e-2		Fluorene #6
15.104	BBA	4.09948	1.72982e-2	7.37503e-2		Phenanthrene #7
16.502	BBA	3.59245	1.04262e-2	3.89537e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.919	BB	1.94379	1.43052e-2	2.89186e-2	cmpd	Pyrene #10
21.260	PBA	113.54866	6.56733e-2	7.75539		p-Terphenyl d14 #11*
22.593		-	-	- 74.6%		Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.188		-	-	-		Benzo(b)fluoranthene #14
27.622		-	-	-		Benzo(k)fluoranthene #15
28.880	BBA	7.88970e-1	2.61680e-2	2.14716e-2	NC	Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.06221

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 ***

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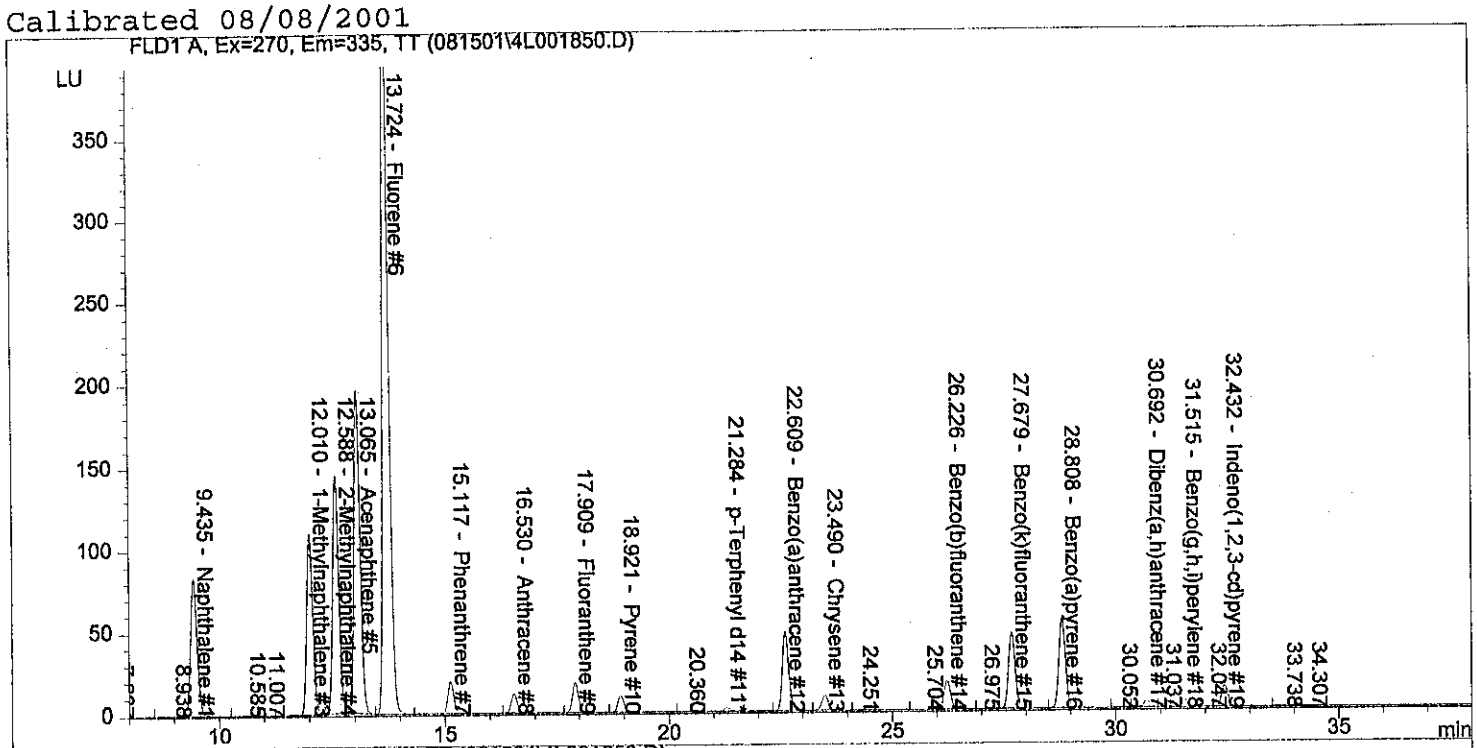
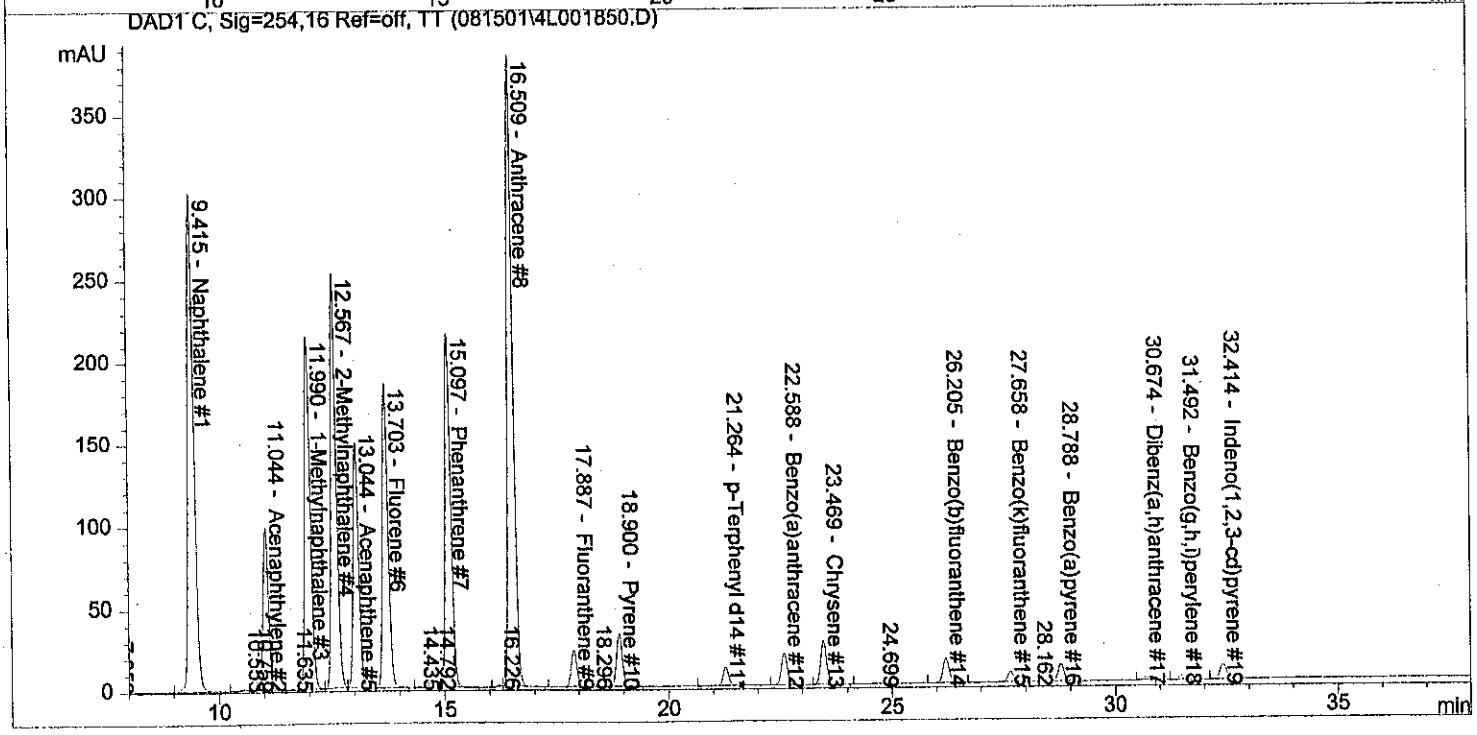
Injection Date : 8/15/2001 4:24:43 PM
Sample Name : L0108280-05 MS
Acq. Operator : HV

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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	827.85608	2.52962e-2	21.77927		Naphthalene #1
12.010	BB	1032.76001	2.21330e-2	23.77235		1-Methylnaphthalene #3
12.588	BB	1340.27209	1.70635e-2	23.78451		2-Methylnaphthalene #4
13.065	BB	1831.08850	1.38416e-2	26.35893		Acenaphthene #5
13.724	BB	4272.18848	6.62187e-3	29.42146		Fluorene #6
15.117	BBA	184.86861	1.63652e-1	31.46433		Phenanthrene #7
16.530	BBA	107.82087	3.10196e-1	34.78346		Anthracene #8
17.909	BBA	179.45074	2.32678e-2	4.34245		Fluoranthene #9
18.921	BBA	101.28254	3.86587e-2	4.07207		Pyrene #10
21.284	BBA	21.66653	2.97423e-1	6.70188		p-Terphenyl d14 #11*
22.609	PB	485.87418	7.91256e-3	3.99829		Benzo(a)anthracene #12
23.490	BB	92.58155	3.90495e-2	3.75988		Chrysene #13
26.226	BB	183.98561	1.63222e-2	3.12317		Benzo(b)fluoranthene #14
27.679	BB	493.93405	2.76572e-3	1.42072		Benzo(k)fluoranthene #15
28.808	BB	568.79468	4.57119e-3	2.70407		Benzo(a)pyrene #16
30.692	BB	39.90956	3.93496e-2	1.63324		Dibenz(a,h)anthracene #17
31.515	BB	59.89661	2.65165e-2	1.65178		Benzo(g,h,i)perylene #18
32.432	BBA	143.26776	1.38204e-2	2.05922		Indeno(1,2,3-cd)pyrene #1

Totals : 226.83109

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	2784.74780	8.25405e-3	23.90486		Naphthalene #1
11.044	BB	859.10553	2.96975e-2	26.53383		Acenaphthylene #2
11.990	BB	1856.04175	1.29459e-2	24.98917		1-Methylnaphthalene #3
12.567	BB	2140.78955	1.12393e-2	25.02336		2-Methylnaphthalene #4
13.044	BB	1272.67615	2.03163e-2	26.89037		Acenaphthene #5
13.703	BB	1567.95496	1.75240e-2	28.57592		Fluorene #6
15.097	BBA	1839.98474	1.72982e-2	33.10164		Phenanthrene #7
16.509	BBA	3283.24121	1.04262e-2	35.60095		Anthracene #8
17.887	BB	196.39119	2.17006e-2	4.43228		Fluoranthene #9
18.900	BBA	300.66348	1.43052e-2	4.47311		Pyrene #10
21.264	BBA	100.50234	6.56733e-2	6.86433	66.0%	p-Terphenyl d14 #11*
22.588	PBA	182.62743	2.22694e-2	4.22969		Benzo(a)anthracene #12
23.469	BBA	256.37109	1.51453e-2	4.03813		Chrysene #13
26.205	BBA	148.59549	2.07330e-2	3.20406		Benzo(b)fluoranthene #14
27.658	BB	60.99252	2.25837e-2	1.43253		Benzo(k)fluoranthene #15
28.788	BBA	105.04266	2.61680e-2	2.85871		Benzo(a)pyrene #16
30.674	BBA	17.77643	9.41116e-2	1.73989		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.492	PB	27.44403	5.60829e-2	1.60071		Benzo(g,h,i)perylene #18
32.414	BB	99.76749	2.05608e-2	2.13335		Indeno(1,2,3-cd)pyrene #1

Totals : 261.62689

Results obtained with enhanced integrator!

*** End of Report ***

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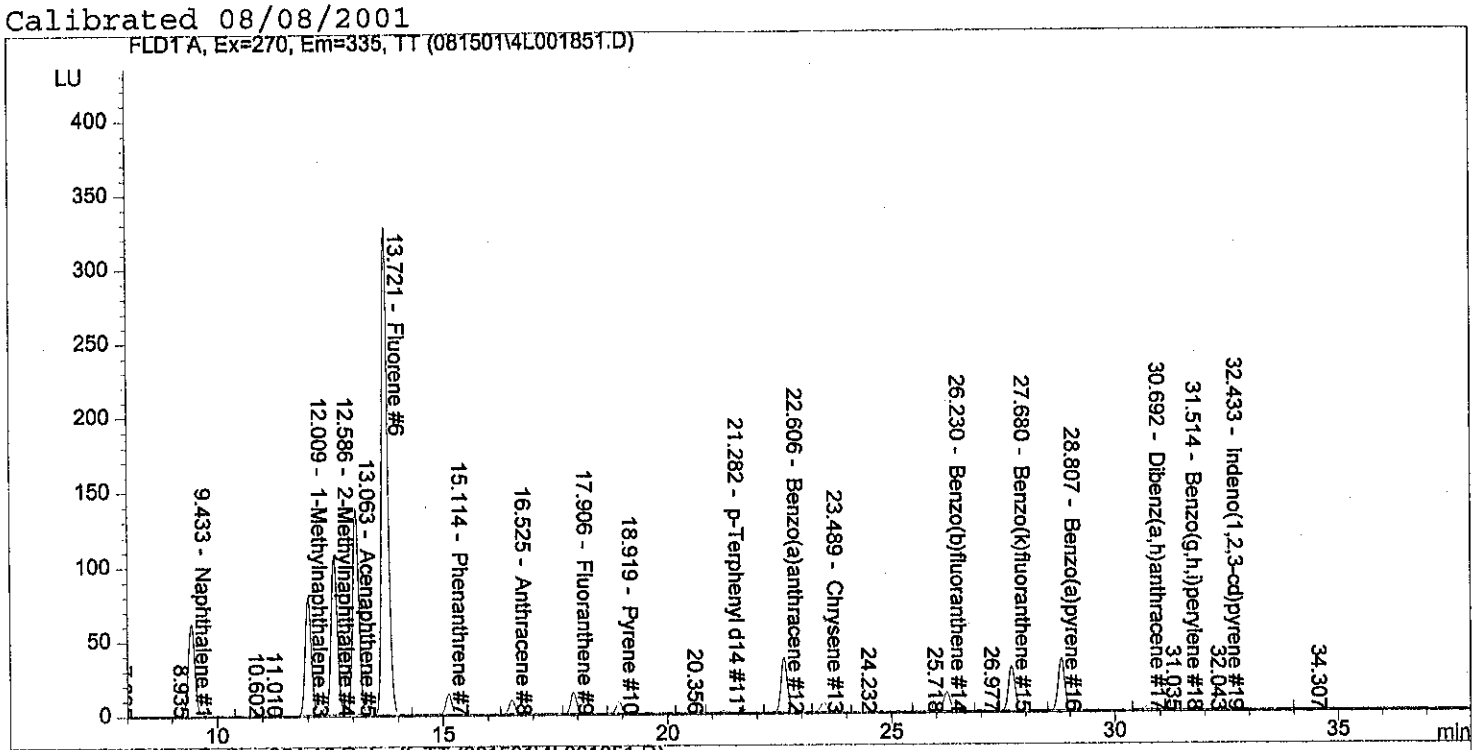
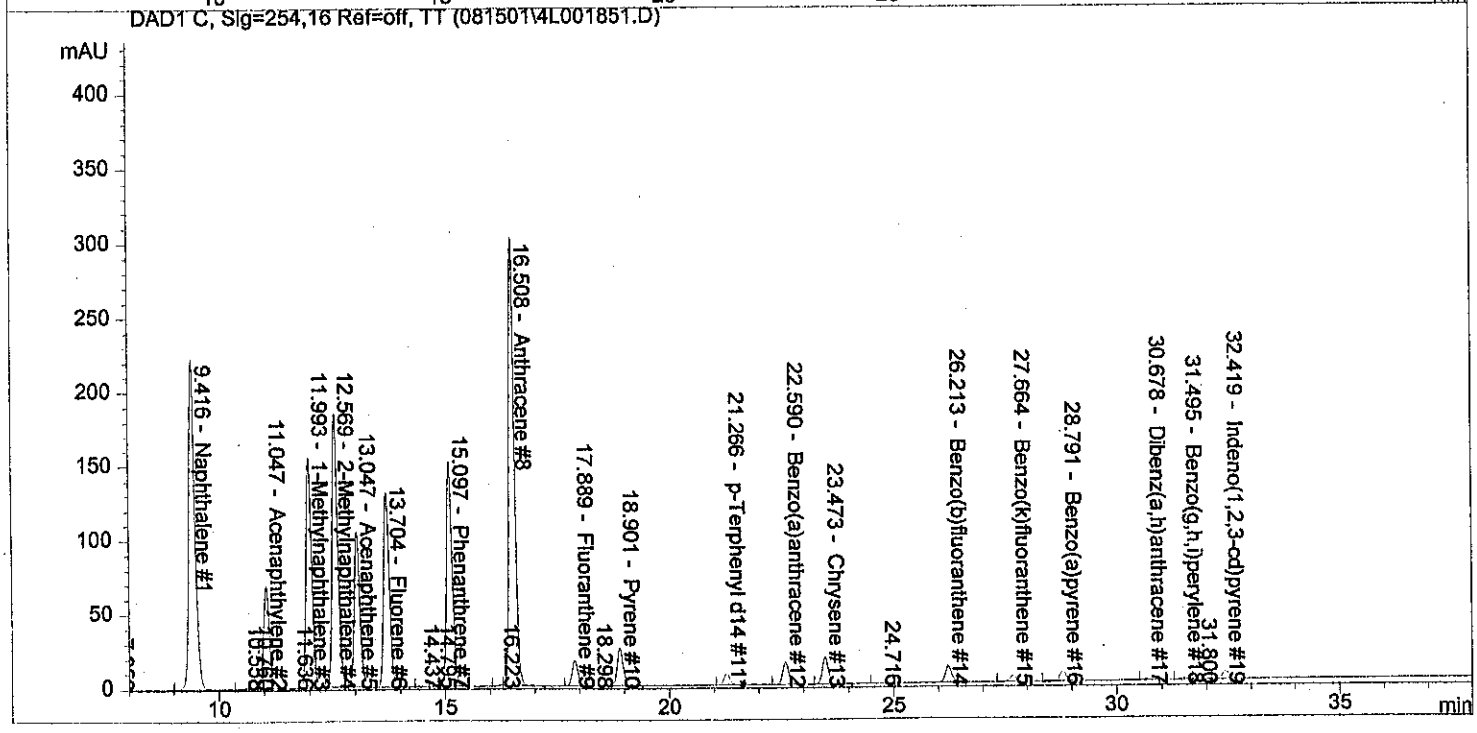
Injection Date : 8/15/2001 5:21:22 PM
Sample Name : L0108280-06 MSD
Acq. Operator : HV

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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
9.433	BBA	632.67749	2.52962e-2	16.64451		Naphthalene #1
12.009	BB	764.11560	2.21330e-2	17.58862		1-Methylnaphthalene #3
12.586	BB	1000.87927	1.70635e-2	17.76164		2-Methylnaphthalene #4
13.063	BB	1319.16589	1.38416e-2	18.98969		Acenaphthene #5
13.721	BB	3114.28247	6.62187e-3	21.44726		Fluorene #6
15.114	BBA	130.37727	1.63652e-1	22.18999		Phenanthrene #7
16.525	BBA	85.75472	3.10196e-1	27.66483		Anthracene #8
17.906	BBA	137.67192	2.32678e-2	3.33146		Fluoranthene #9
18.919	BBA	79.00269	3.86587e-2	3.17631		Pyrene #10
21.282	BB	14.57355	2.97423e-1	4.50788		p-Terphenyl d14 #11*
22.606	PB	370.06973	7.91256e-3	3.04533		Benzo(a)anthracene #12
23.489	BBA	62.96762	3.90495e-2	2.55721		Chrysene #13
26.230	BB	132.28676	1.63222e-2	2.24558		Benzo(b)fluoranthene #14
27.680	BB	314.97061	2.76572e-3	9.05964e-1		Benzo(k)fluoranthene #15
28.807	BBA	369.90970	4.57119e-3	1.75856		Benzo(a)pyrene #16
30.692	PB	17.68821	3.93496e-2	7.23864e-1		Dibenz(a,h)anthracene #17
31.514	BB	26.64974	2.65165e-2	7.34924e-1		Benzo(g,h,i)perylene #18
32.433	BBA	77.59772	1.38204e-2	1.11533		Indeno(1,2,3-cd)pyrene #1

Totals : 166.38896

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
9.416	BBA	2129.78174	8.25405e-3	18.28250		Naphthalene #1
11.047	BB	613.45551	2.96975e-2	18.94683		Acenaphthylene #2
11.993	BB	1369.53699	1.29459e-2	18.43902		1-Methylnaphthalene #3
12.569	BB	1598.31140	1.12393e-2	18.68242		2-Methylnaphthalene #4
13.047	BB	914.97797	2.03163e-2	19.33257		Acenaphthene #5
13.704	BB	1135.25049	1.75240e-2	20.68990		Fluorene #6
15.097	BBA	1300.59277	1.72982e-2	23.39789		Phenanthrene #7
16.508	BBA	2615.77197	1.04262e-2	28.36342		Anthracene #8
17.889	PB	151.15276	2.17006e-2	3.41131		Fluoranthene #9
18.901	BBA	233.96320	1.43052e-2	3.48078		Pyrene #10
21.266	BBA	66.39819	6.56733e-2	4.53501 43.6%		p-Terphenyl d14 #11*
22.590	BBA	138.39110	2.22694e-2	3.20517		Benzo(a)anthracene #12
23.473	BBA	176.40797	1.51453e-2	2.77862		Chrysene #13
26.213	BBA	106.72884	2.07330e-2	2.30132		Benzo(b)fluoranthene #14
27.664	BB	38.85563	2.25837e-2	9.12604e-1		Benzo(k)fluoranthene #15
28.791	BBA	67.38797	2.61680e-2	1.83395		Benzo(a)pyrene #16
30.678	BBA	8.06427	9.41116e-2	7.89299e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.495	PB	11.50906	5.60829e-2	6.71280e-1		Benzo(g,h,i)perylene #18
32.419	BBA	54.32037	2.05608e-2	1.16154		Indeno(1,2,3-cd)pyrene #1
Totals :				191.21542		

Results obtained with enhanced integrator!

*** End of Report ***

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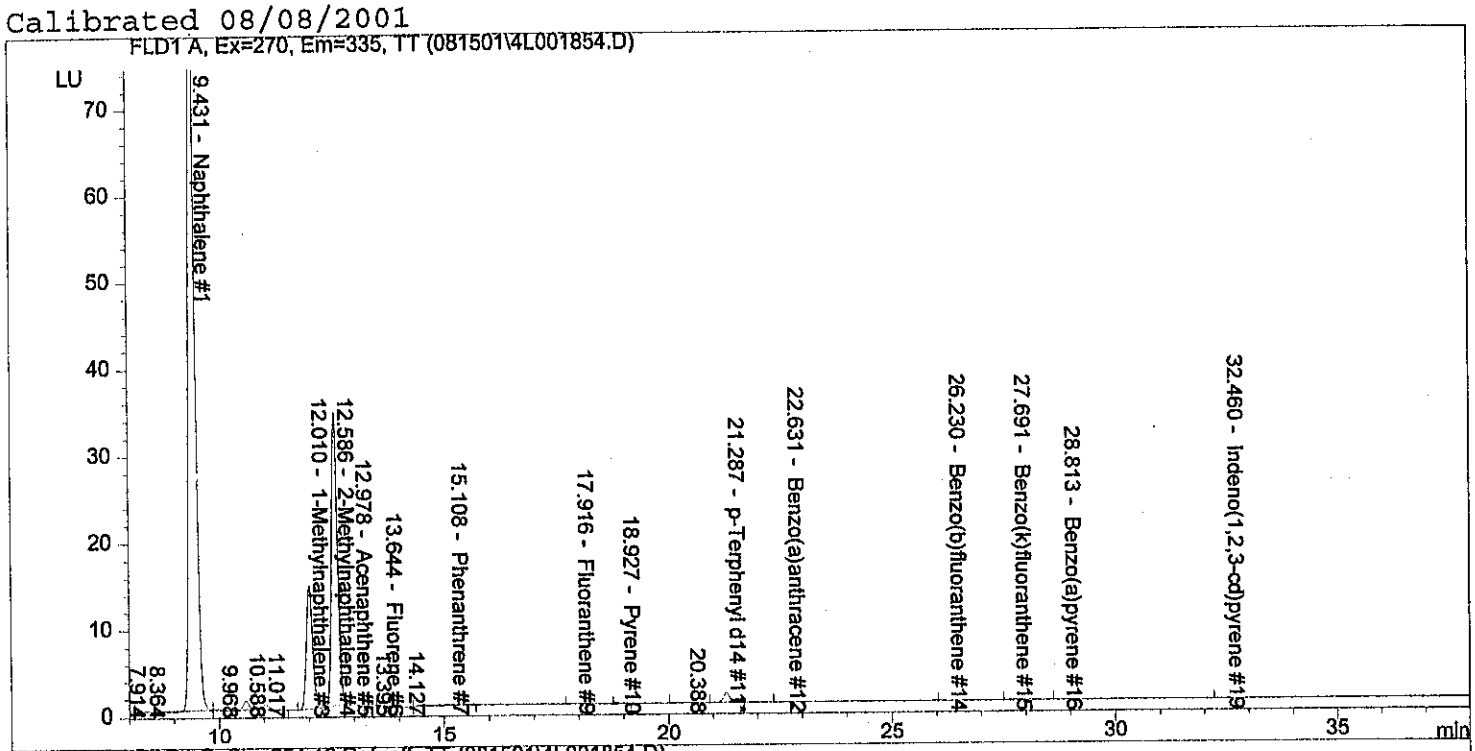
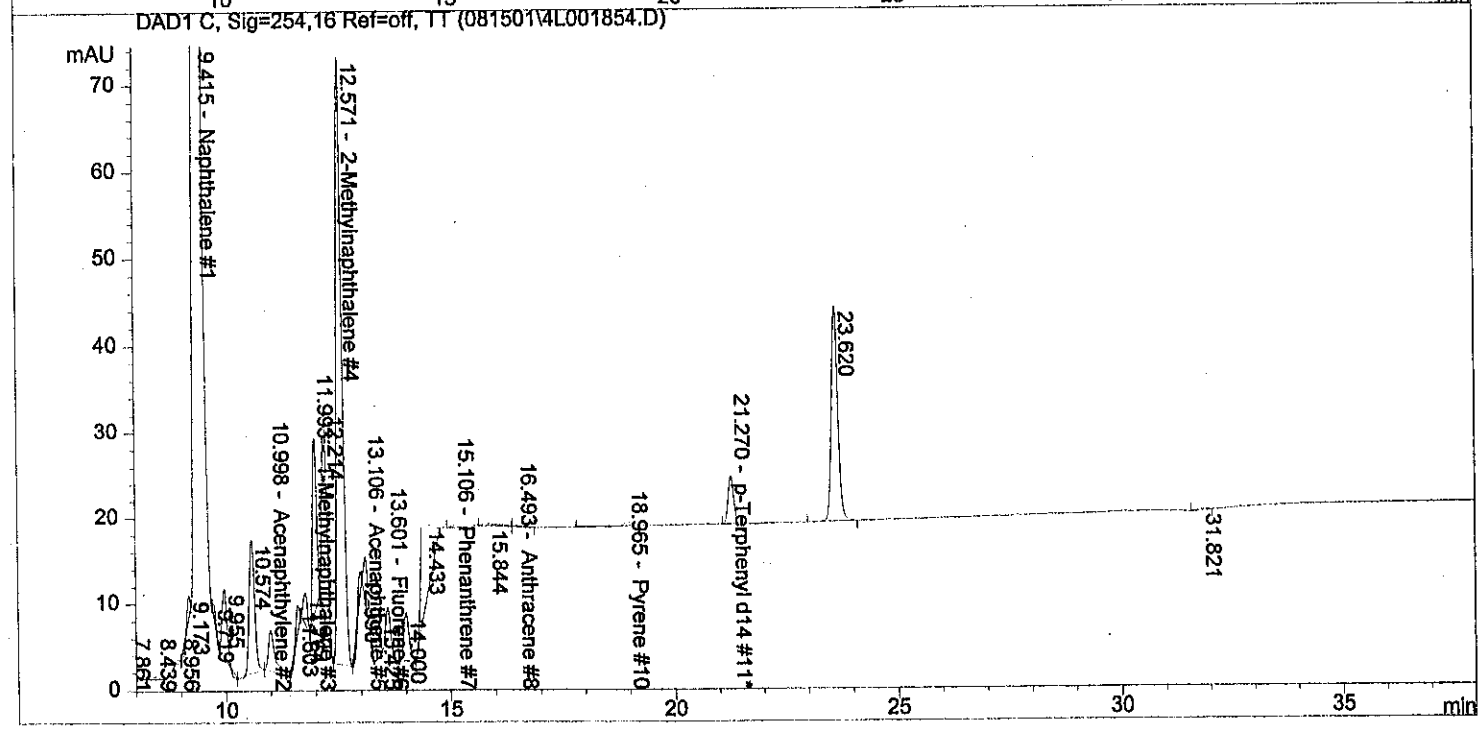
Injection Date : 8/15/2001 8:11:13 PM
Sample Name : L0108280-07 W
Acq. Operator : HV

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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	887.21313	2.52962e-2	23.34084	C	Naphthalene #1
12.010	BB	140.97104	2.21330e-2	3.24491	✓	1-Methylnaphthalene #3
12.586	BB	313.02005	1.70635e-2	5.55486	C	2-Methylnaphthalene #4
12.978	BB	1.87267	1.38416e-2	2.69575e-2		Acenaphthene #5
13.644	BB	10.15140	6.62187e-3	6.99101e-2		Fluorene #6
15.108	BB	7.09259	1.63652e-1	1.20715		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.916	PBA	4.08961e-1	2.32678e-2	9.89627e-3		Fluoranthene #9
18.927	BBA	1.55211e-1	3.86587e-2	6.24026e-3		Pyrene #10
21.287	BBA	10.64317	2.97423e-1	3.29214	31.7%	p-Terphenyl d14 #11*
22.631	PB	1.72560e-1	7.91256e-3	1.42000e-3		Benzo(a)anthracene #12
23.487		-	-	-		Chrysene #13
26.230	PBA	1.45076e-1	1.63222e-2	2.46267e-3		Benzo(b)fluoranthene #14
27.691	BBA	4.97994e-1	2.76572e-3	1.43240e-3		Benzo(k)fluoranthene #15
28.813	PBA	1.87832e-1	4.57119e-3	8.92963e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.453		-	-	-		Benzo(g,h,i)perylene #18
32.460	BBA	1.67283e-1	1.38204e-2	2.40439e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				36.76152		

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	BB	2923.30225	8.25405e-3	25.09425	✓	Naphthalene #1
10.998	BB	48.54033	2.96975e-2	1.49919		Acenaphthylene #2 needs conf
11.993	BB	135.67661	1.29459e-2	1.82671	C	1-Methylnaphthalene #3
12.571	BB	609.78839	1.12393e-2	7.12772	✓	2-Methylnaphthalene #4
13.106	BB	27.42261	2.03163e-2	5.79412e-1	NC	Acenaphthene #5
13.601	BB	39.14750	1.75240e-2	7.13462e-1	NC	Fluorene #6
15.106	BB	2.81904	1.72982e-2	5.07150e-2	cmpd	Phenanthrene #7 RR
16.493	BB	6.39745e-1	1.04262e-2	6.93691e-3	✓	Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.965	PBA	5.21400	1.43052e-2	7.75710e-2	NC	Pyrene #10
21.270	BBA	48.75906	6.56733e-2	3.33025		p-Terphenyl d14 #11*
22.593		-	-	-	32.0%	Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.188		-	-	-	*	Benzo(b)fluoranthene #14
27.622		-	-	-		Benzo(k)fluoranthene #15
28.746		-	-	-		Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Sep	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 40.30622

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 ***

Acq On : 20 Aug 2001 22:02
Sample : L0108280-07 water 8310 confirmation
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: Aug 21 09:33:46 2001

Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Tue Aug 21 08:15:27 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

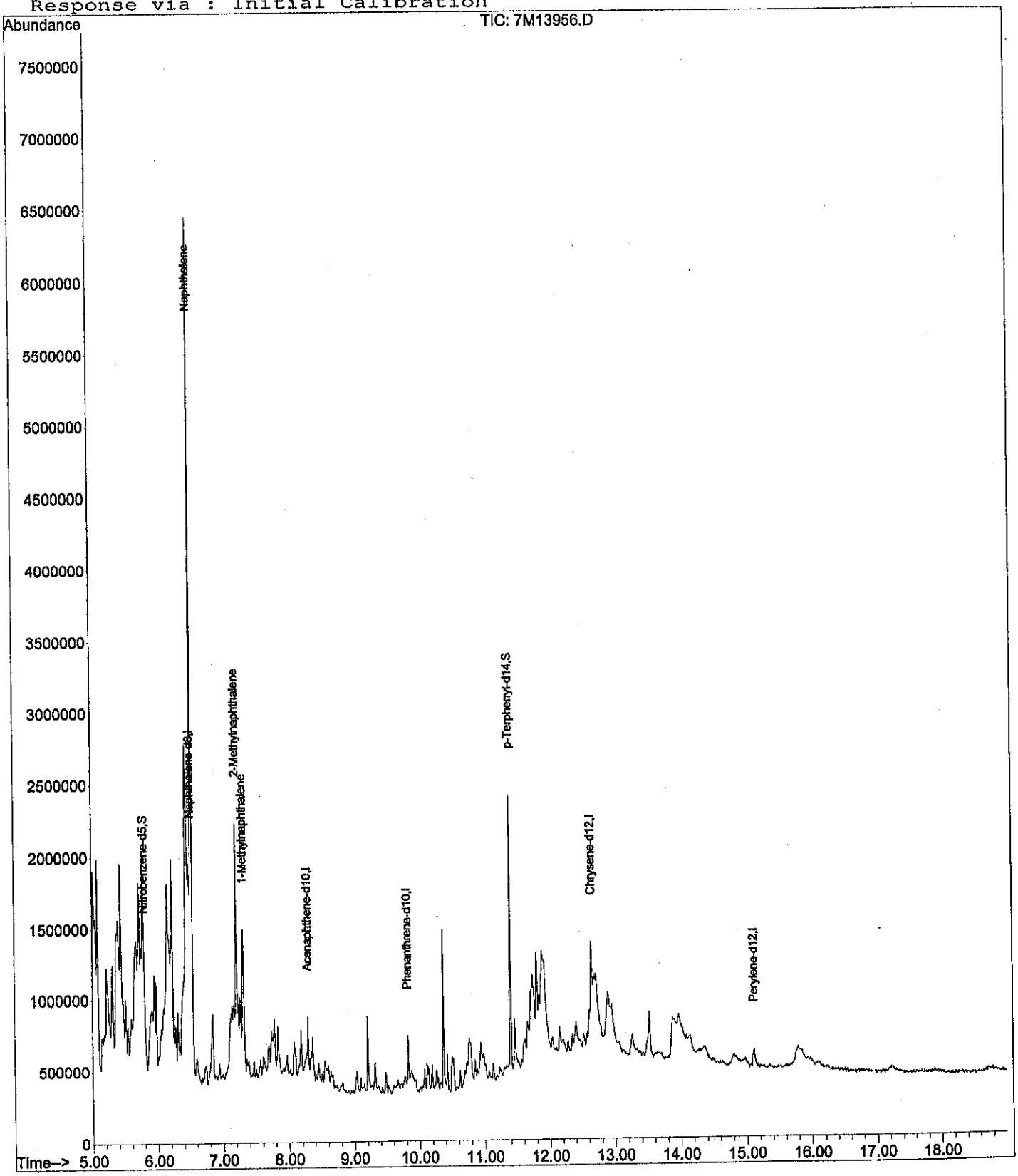
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.51	136	118980	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.29	164	72609	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.83	188	159428	1.00	ug/ml	0.00
15) Chrysene-d12	12.65	240	208499	1.00	ug/ml	0.00
20) Perylene-d12	15.11	264	79816	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.80	82	3930	0.11	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery	=	4.40%#	
7) 2-Fluorobiphenyl	0.00	172	0	0.00	ug/ml	
Spiked Amount 2.500	Range 43 - 116		Recovery	=	0.00%#	
17) p-Terphenyl-d14	11.40	244	610318	3.64	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	=	145.60%#	

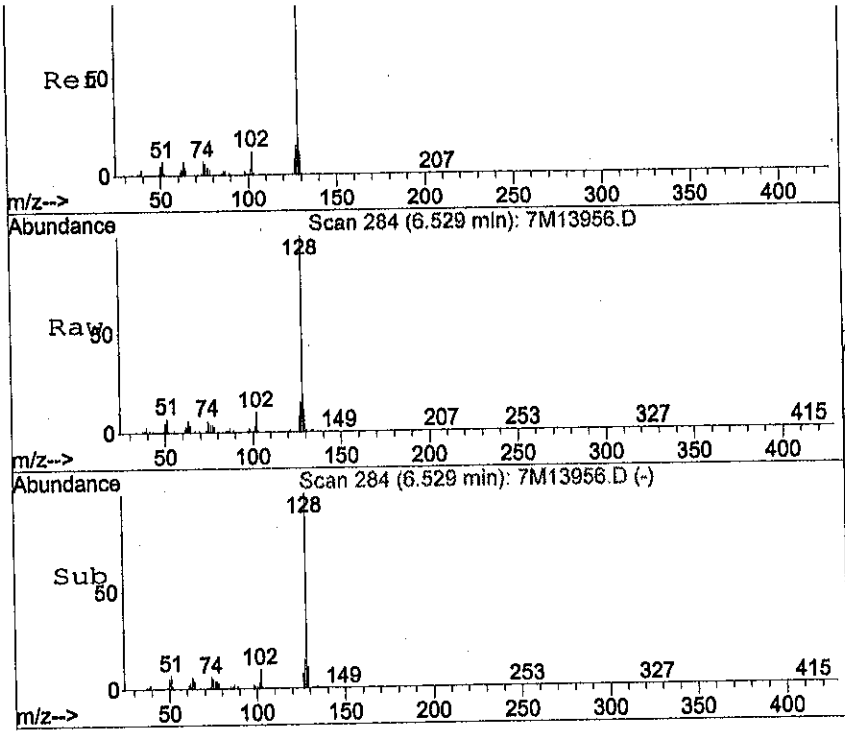
Target Compounds						Qvalue
3) Naphthalene	6.53	128	3008980	27.85	ug/ml	98
4) 2-Methylnaphthalene	7.21	142	688638	9.82	ug/ml	96
5) 1-Methylnaphthalene	7.32	142	273478	4.06	ug/ml#	63

(#) = qualifier out of range (m) = manual integration
7M13956.D PAHLOW.M Tue Aug 21 09:33:57 2001 HPMS7 Page 1

Acq On : 20 Aug 2001 22:02 Operator: mdc
Sample : L0108280-07 water 8310 confirmation Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 21 9:33 2001 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Tue Aug 21 08:15:27 2001
Response via : Initial Calibration

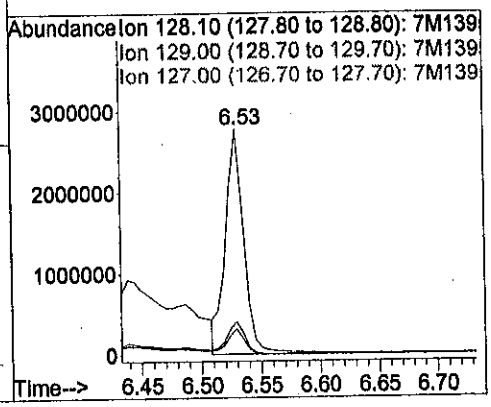


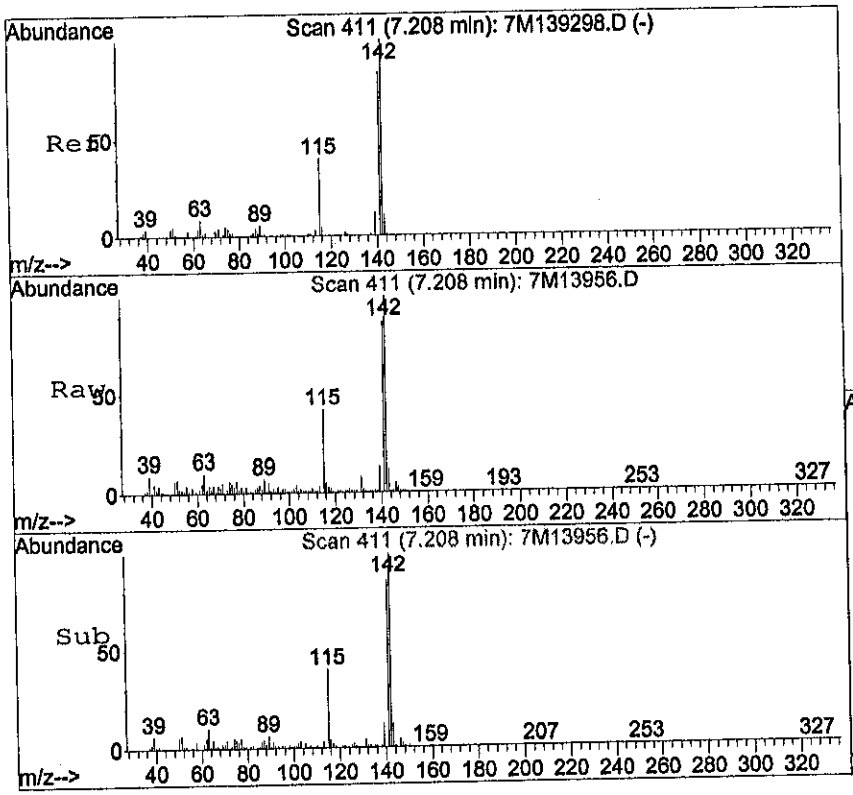


Concen: 27.85 ug/ml
RT: 6.53 min Scan# 284
Delta R.T. -0.00 min
Lab File: 7M13956.D
Acq: 20 Aug 2001 22:02

Tgt Ion:128 Resp: 3008980

Ion	Ratio	Lower	Upper
128	100		
129	11.6	8.9	13.3
127	15.0	11.3	16.9

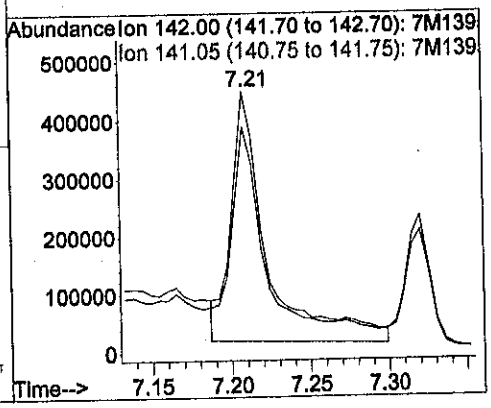


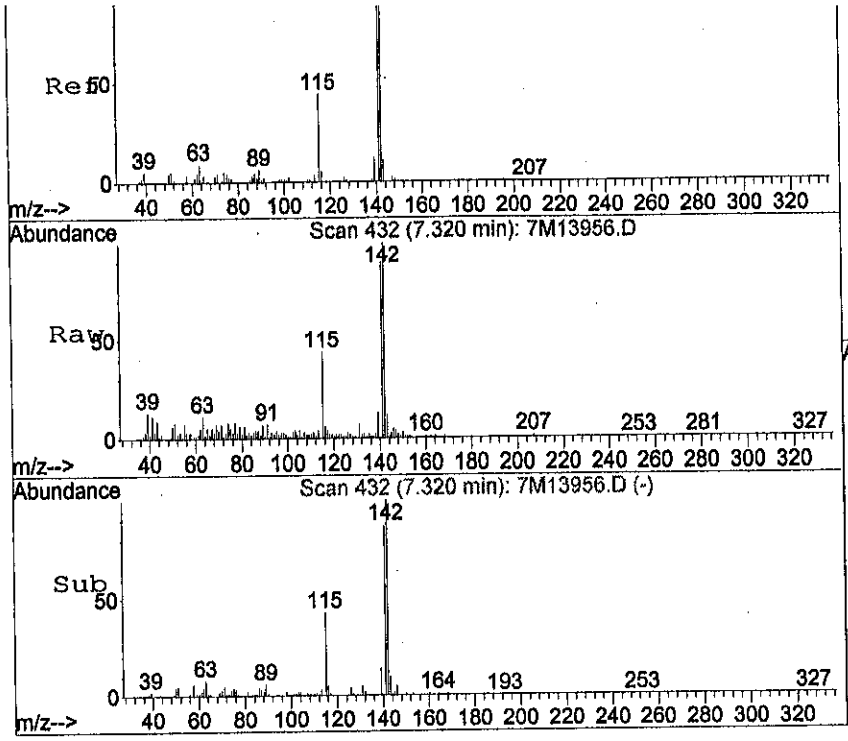


#4
2-Methylnaphthalene
Concen: 9.82 ug/ml
RT: 7.21 min Scan# 411
Delta R.T. -0.01 min
Lab File: 7M13956.D
Acq: 20 Aug 2001 22:02

Tgt Ion:142 Resp: 688638

Ion	Ratio	Lower	Upper
142	100		
141	89.2	68.6	102.8

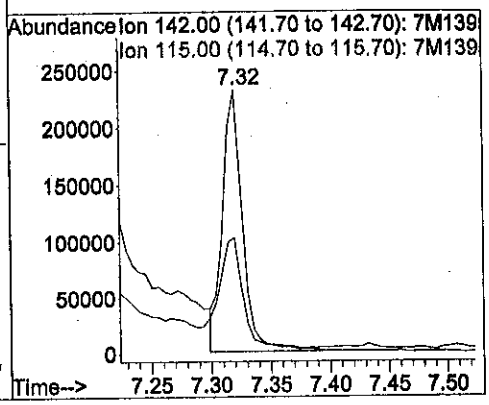




Concen: 4.06 ug/ml
RT: 7.32 min Scan# 432
Delta R.T. -0.00 min
Lab File: 7M13956.D
Acq: 20 Aug 2001 22:02

Tgt Ion:142 Resp: 273478

Ion	Ratio	Lower	Upper
142	100		
115	53.0	26.0	39.0#

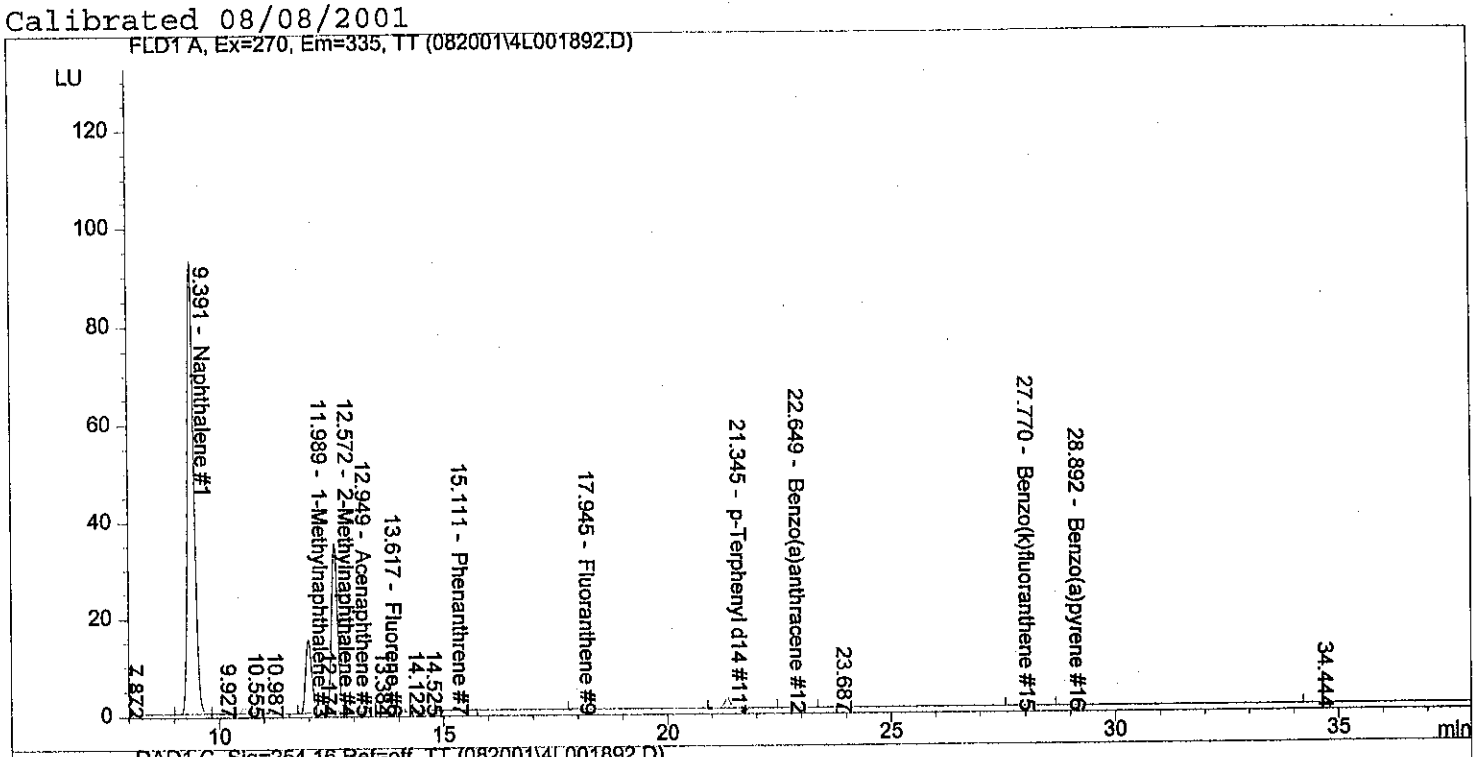


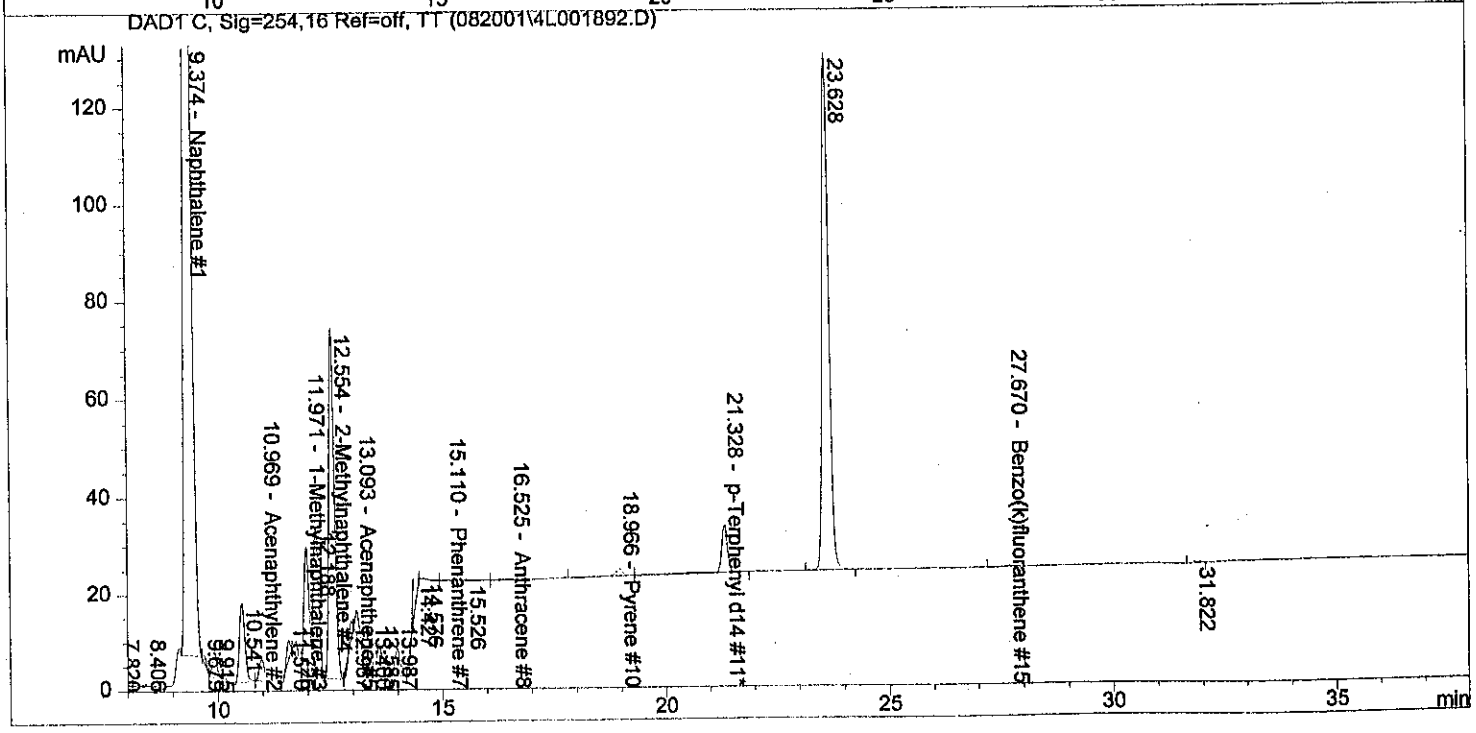
Injection Date : 8/20/2001 8:35:59 PM
Sample Name : L0108280-07 reex
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

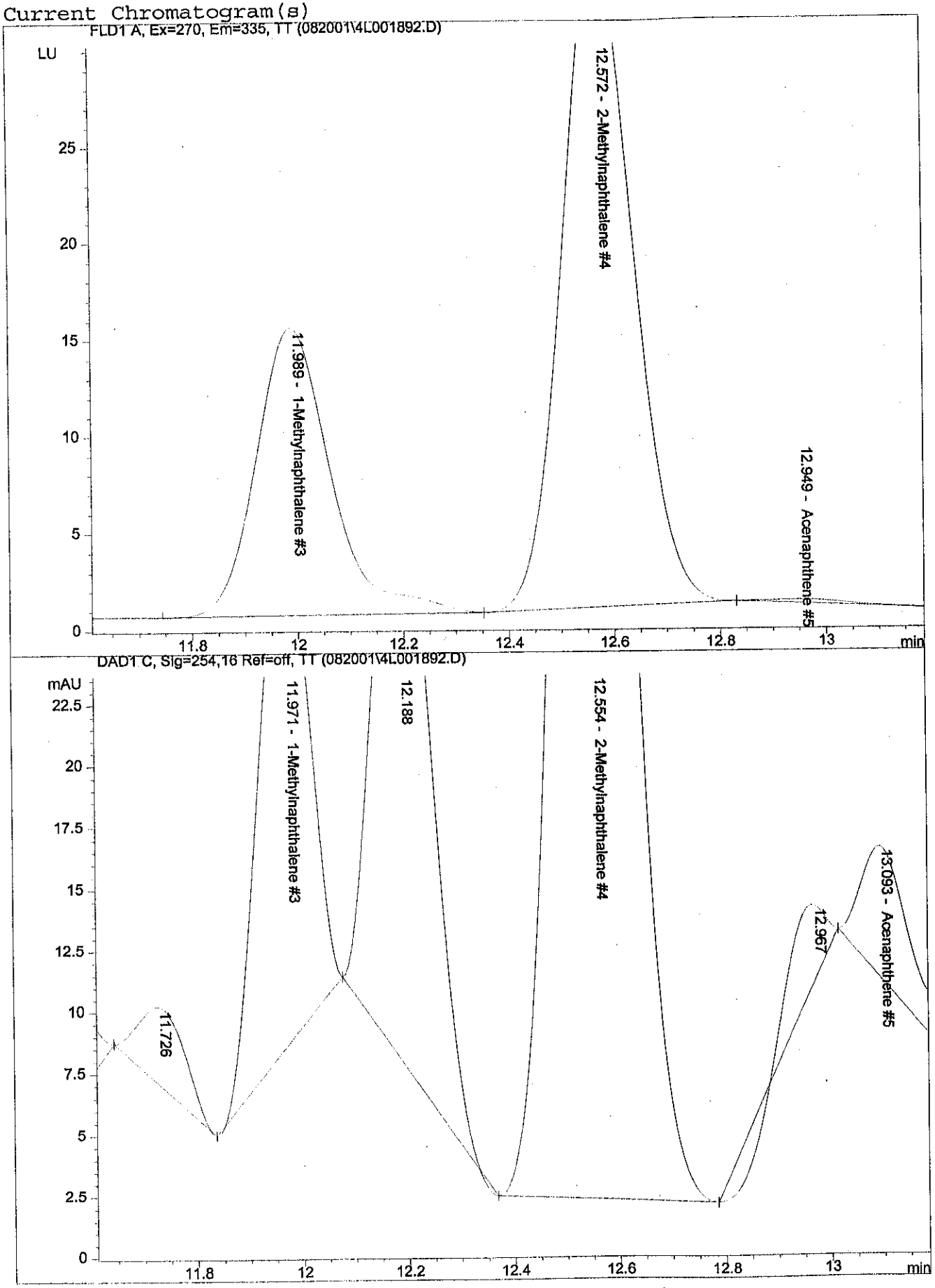
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001





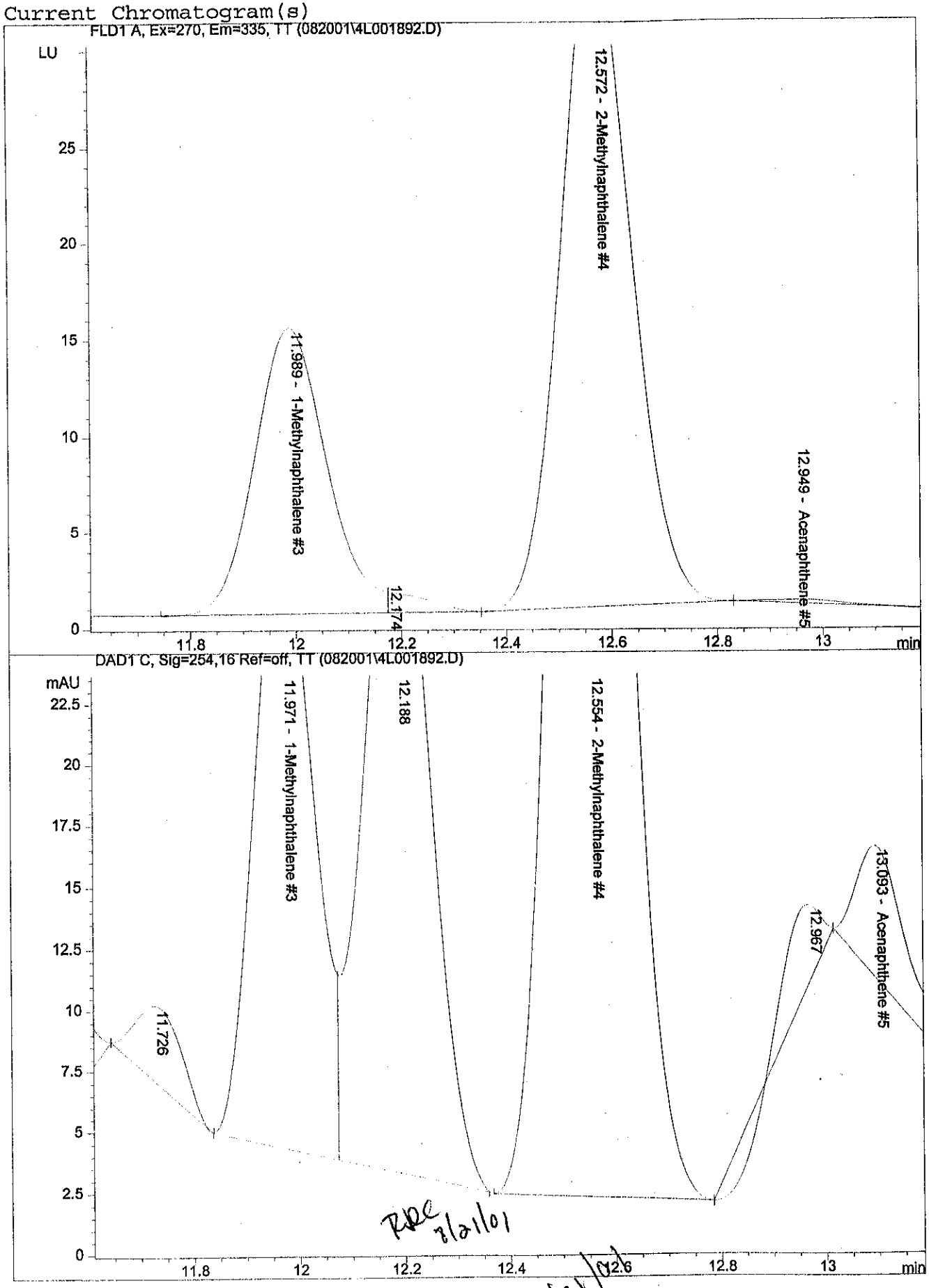
Current Chromatogram(s)



HPLC4 8/21/2001 8:44:14 AM RDC

Page 1 of 1

Current Chromatogram(s)



RDC 8/21/01

HPLC4 8/21/2001 8:44:26 AM RDC

#1 8/21/01

Page 1 of 1

External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 PM
Multiplier : 1.0400
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	918.62598	2.52962e-2	24.16725	C	Naphthalene #1
11.989	MF	140.79579	2.21330e-2	3.24088	✓	1-Methylnaphthalene #3
12.572	BB	316.91470	1.70635e-2	5.62398	C	2-Methylnaphthalene #4
12.949	BB	1.91122	1.38416e-2	2.75125e-2		Acenaphthene #5
13.617	BB	9.55453	6.62187e-3	6.57996e-2		Fluorene #6
15.111	BBA	1.75501e-1	1.63652e-1	2.98700e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.945	PBA	3.08172e-1	2.32678e-2	7.45732e-3		Fluoranthene #9
18.961		-	-	-		Pyrene #10
21.345	BB	18.69247	2.97423e-1	5.78195	35.6%	p-Terphenyl d14 #11*
22.649	BBA	2.91040e-1	7.91256e-3	2.39498e-3		Benzo(a)anthracene #12
23.487		-	-	-		Chrysene #13
26.327		-	-	-		Benzo(b)fluoranthene #14
27.770	BBA	5.15247e-1	2.76572e-3	1.48203e-3		Benzo(k)fluoranthene #15
28.892	PBA	1.63729e-1	4.57119e-3	7.78376e-4		Benzo(a)pyrene #16
30.830		-	-	-		Dibenz(a,h)anthracene #17
31.608		-	-	-		Benzo(g,h,i)perylene #18
32.503		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 38.94935

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
9.374	BB	2975.33911	8.25405e-3	25.54094	✓	Naphthalene #1
10.969	BB	46.55912	2.96975e-2	1.43800	✓	Acenaphthylene #2 Needs conf
11.971	MV	195.89076	1.29459e-2	2.63741	C	1-Methylnaphthalene #3
12.554	BB	619.62891	1.12393e-2	7.24275	✓	2-Methylnaphthalene #4
13.093	BB	39.23407	2.03163e-2	8.28977e-1	NC	Acenaphthene #5
13.740		-	-	-		Fluorene #6
15.110	BB	2.47139	1.72982e-2	4.44608e-2	cmbl	Phenanthrene #7
16.525	BB	2.83742	1.04262e-2	3.07668e-2	✓	Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.966	BB	14.72210	1.43052e-2	2.19027e-1	NC	Pyrene #10
21.328	BB	92.54489	6.56733e-2	6.32083		p-Terphenyl d14 #11*
22.593		-	-	-	60.8%	Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.289		-	-	-		Benzo(b)fluoranthene #14
27.670	BBA	2.83007	2.25837e-2	6.64700e-2	NC	Benzo(k)fluoranthene #15
28.888		-	-	-		Benzo(a)pyrene #16
30.812		-	-	-		Dibenz(a,h)anthracene #17

Rettime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	
31.589		-	-	-		Benzo(g,h,i)perylene #18
32.488		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 44.36963

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 ***

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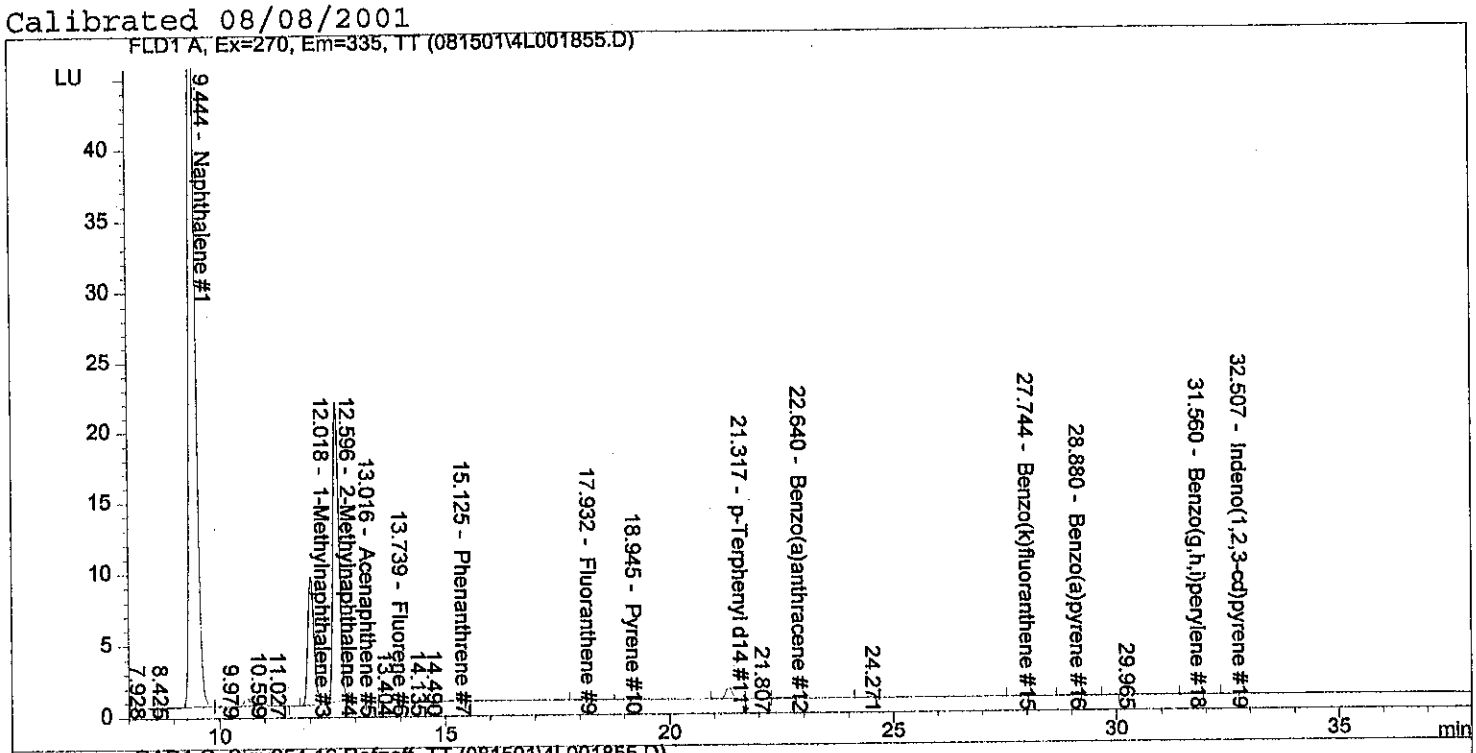
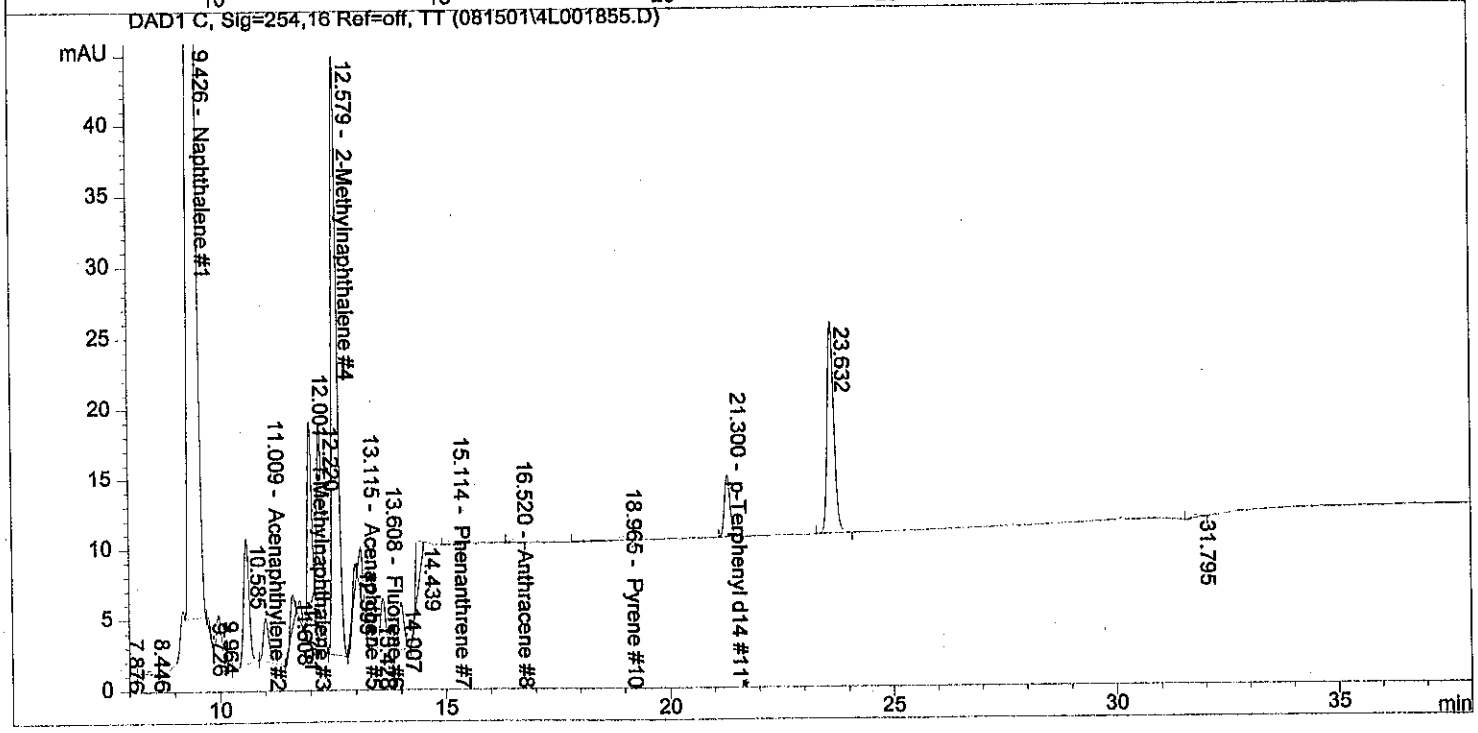
Injection Date : 8/15/2001 9:07:54 PM
Sample Name : L0108280-08 W
Acq. Operator : HV

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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	563.50739	2.52962e-2	14.82478	C	Naphthalene #1
12.018	BB	87.52335	2.21330e-2	2.01464	✓	1-Methylnaphthalene #3 (P)
12.596	BB	193.98827	1.70635e-2	3.44252	C	2-Methylnaphthalene #4
13.016	BB	1.62513	1.38416e-2	2.33941e-2		Acenaphthene #5
13.739	BB	8.18077	6.62187e-3	5.63389e-2		Fluorene #6
15.125	BBA	2.68302e-1	1.63652e-1	4.56646e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.932	PBA	3.38320e-1	2.32678e-2	8.18685e-3		Fluoranthene #9
18.945	BBA	1.67039e-1	3.86587e-2	6.71582e-3		Pyrene #10
21.317	BB	8.57054	2.97423e-1	2.65104	25.5%	p-Terphenyl d14 #11*
22.640	BB	2.86036e-1	7.91256e-3	2.35381e-3		Benzo(a)anthracene #12
23.487		-	-	-		Chrysene #13
26.209		-	-	-		Benzo(b)fluoranthene #14
27.744	PBA	5.77017e-1	2.76572e-3	1.65970e-3		Benzo(k)fluoranthene #15
28.880	PBA	1.74979e-1	4.57119e-3	8.31856e-4		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.560	BBA	1.58814e-1	2.65165e-2	4.37963e-3		Benzo(g,h,i)perylene #18
32.507	BB	1.51245e-1	1.38204e-2	2.17388e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 23.08467

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	BB	1835.31836	8.25405e-3	15.75476	✓	Naphthalene #1
11.009	BB	30.53959	2.96975e-2	9.43228e-1	✓	Acenaphthylene #2 ✓ ck cont.
12.001	BB	89.70652	1.29459e-2	1.20778	C ✓	1-Methylnaphthalene #3
12.579	BB	364.06058	1.12393e-2	4.25545	✓	2-Methylnaphthalene #4
13.115	BB	17.67919	2.03163e-2	3.73544e-1	NC	Acenaphthene #5
13.608	BB	24.40199	1.75240e-2	4.44725e-1	NC	Fluorene #6
15.114	BB	2.84200	1.72982e-2	5.11282e-2	cmpl	Phenanthrene #7
16.520	BBA	2.18969	1.04262e-2	2.37433e-2	✓	Anthracene #8 RR
17.931		-	-	-		Fluoranthene #9
18.965	PB	3.95733	1.43052e-2	5.88750e-2	NC	Pyrene #10
21.300	BBA	38.83102	6.56733e-2	2.65217		p-Terphenyl d14 #11*
22.593		-	-	-	25.5%	Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.188		-	-	-	*	Benzo(b)fluoranthene #14
27.622		-	-	-		Benzo(k)fluoranthene #15
28.746		-	-	-		Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				25.76540		

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 ***

Data File : C:\MSDCHEM\1\DATA\7M13957.D
Acq On : 20 Aug 2001 22:28 Operator: mdc
Sample : L0108280-08 water 8310 confirmation Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 21 09:34:07 2001 Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Tue Aug 21 08:15:27 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

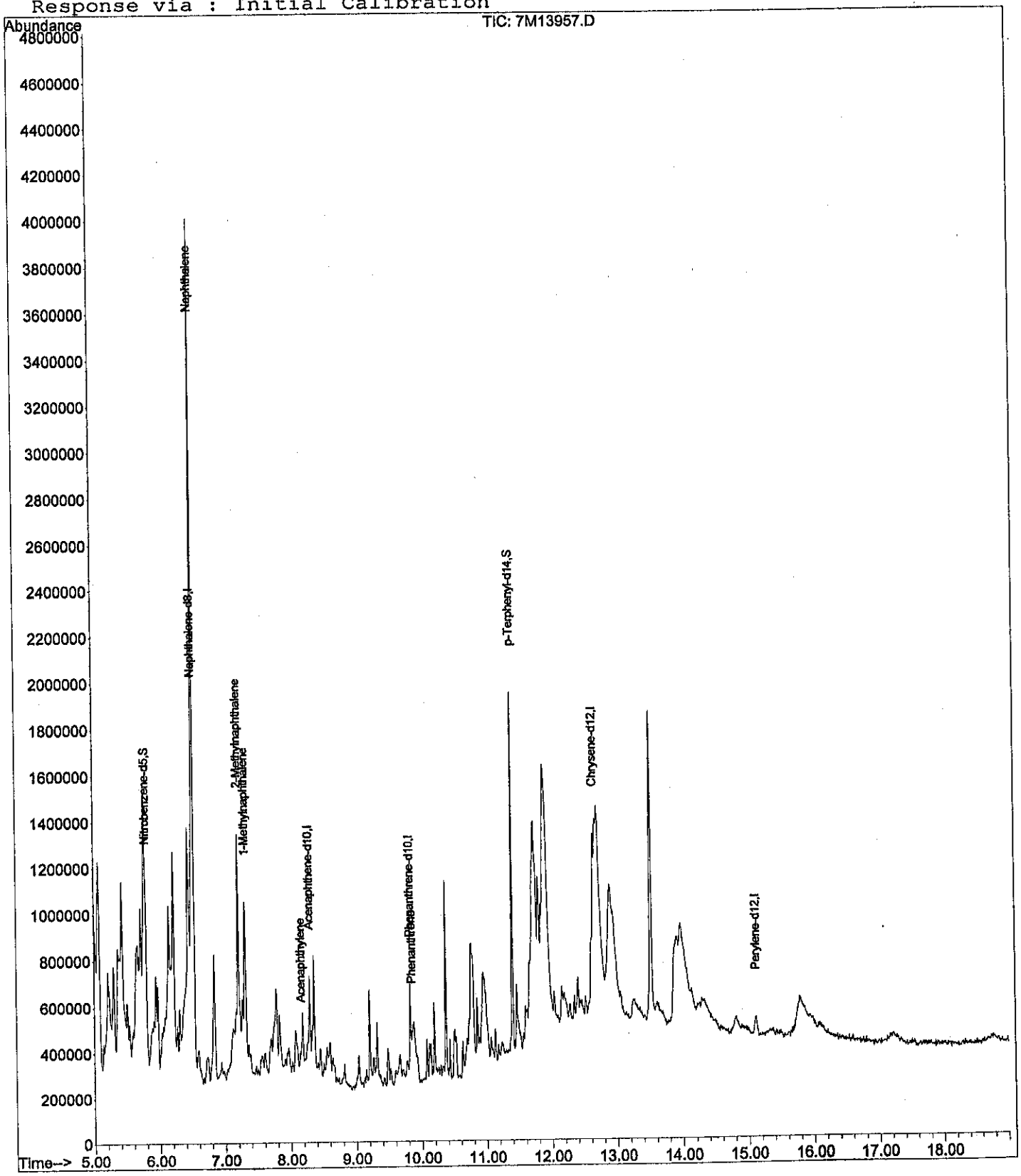
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.51	136	150492	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.29	164	80421	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.83	188	179666	1.00	ug/ml	0.00
15) Chrysene-d12	12.65	240	178416	1.00	ug/ml	0.00
20) Perylene-d12	15.11	264	52838	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.80	82	2592	0.06	ug/ml	0.00
Spiked Amount 2.500	Range	35 - 114	Recovery	=	2.40%#	
7) 2-Fluorobiphenyl	0.00	172	0	0.00	ug/ml	
Spiked Amount 2.500	Range	43 - 116	Recovery	=	0.00%#	
17) p-Terphenyl-d14	11.41	244	521961	3.63	ug/ml	0.00
Spiked Amount 2.500	Range	33 - 141	Recovery	=	145.20%#	

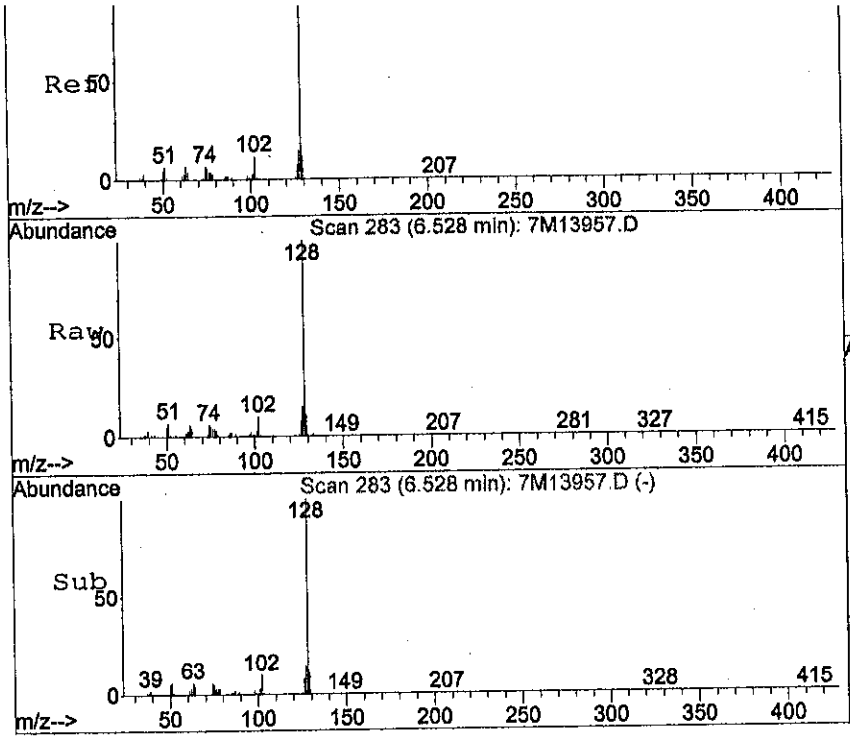
Target Compounds						Qvalue
3) Naphthalene	6.53	128	2808606	20.55	ug/ml	99
4) 2-Methylnaphthalene	7.21	142	477694	5.39	ug/ml	99
5) 1-Methylnaphthalene	7.32	142	209383	2.46	ug/ml#	64
8) Acenaphthylene	8.16	152	6238	0.05	ug/ml#	54
12) Phenanthrene	9.85	178	10243	0.05	ug/ml#	80

(#) = qualifier out of range (m) = manual integration
7M13957.D PAHLOW.M Tue Aug 21 09:34:09 2001 HPMS7 Page 1

Acq On : 20 Aug 2001 22:28 Operator: mdc
Sample : L0108280-08 water 8310 confirmation Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 21 9:34 2001 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 08/01/01
Last Update : Tue Aug 21 08:15:27 2001
Response via : Initial Calibration

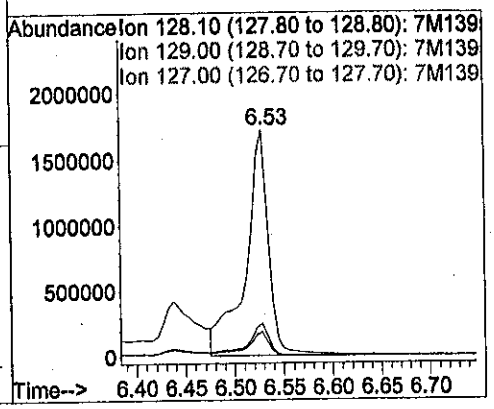


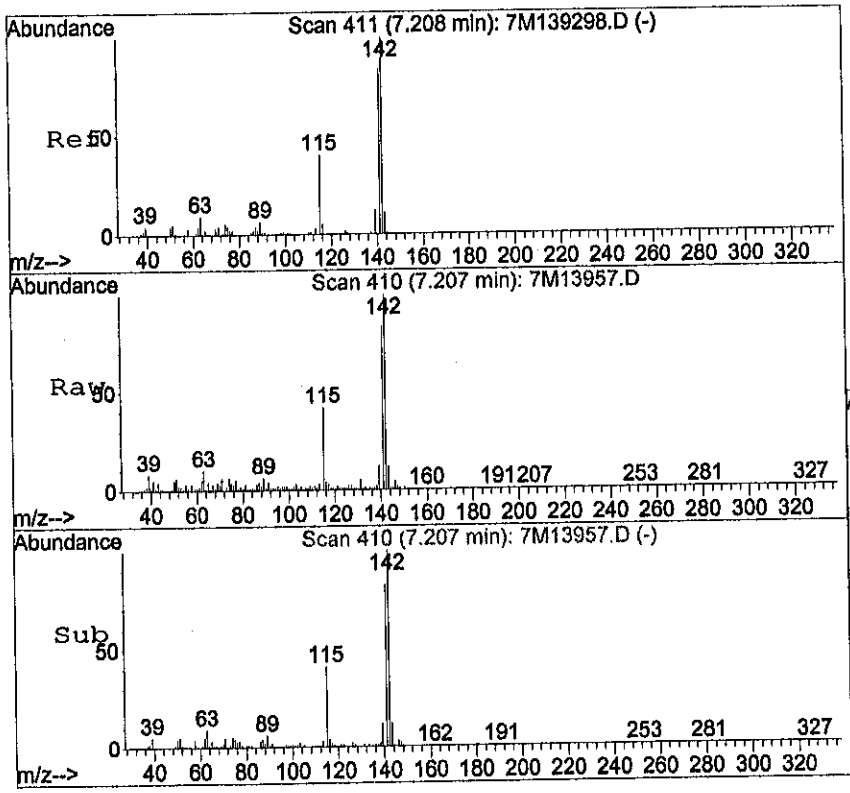


Concen: 20.55 ug/ml
RT: 6.53 min Scan# 283
Delta R.T. -0.00 min
Lab File: 7M13957.D
Acq: 20 Aug 2001 22:28

Tgt Ion:128 Resp: 2808606

Ion	Ratio	Lower	Upper
128	100		
129	11.4	8.9	13.3
127	14.9	11.3	16.9

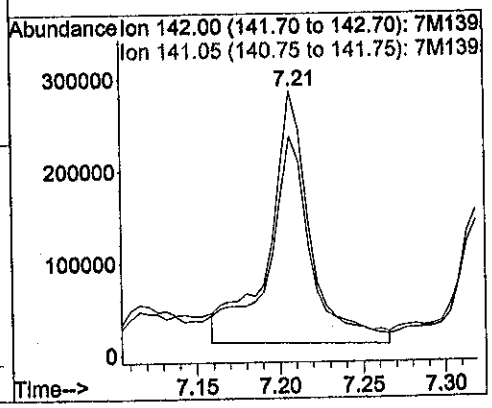


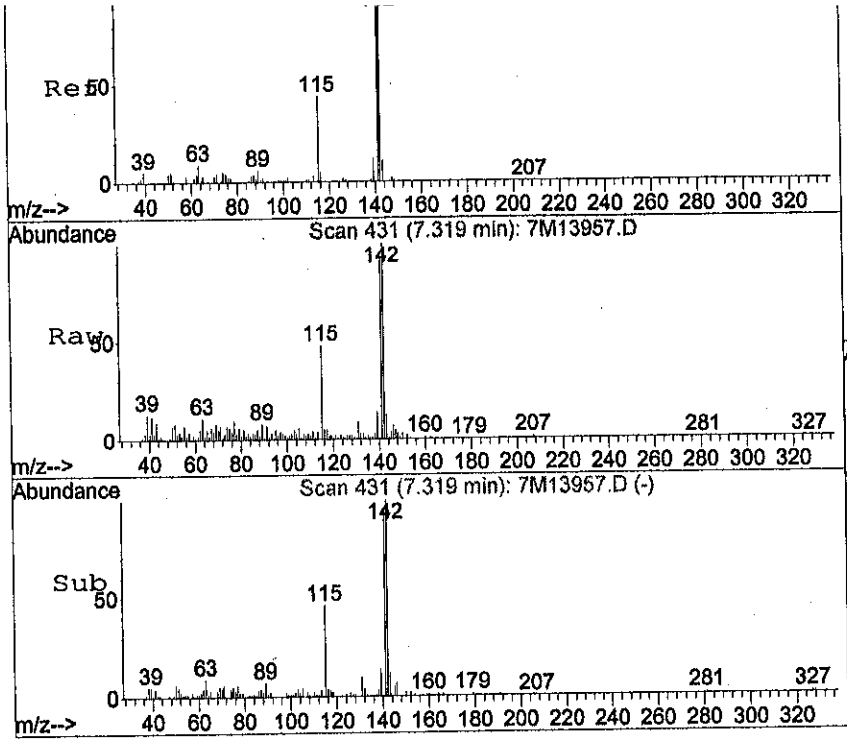


#4
2-Methylnaphthalene
Concen: 5.39 ug/ml
RT: 7.21 min Scan# 410
Delta R.T. -0.01 min
Lab File: 7M13957.D
Acq: 20 Aug 2001 22:28

Tgt Ion:142 Resp: 477694

Ion	Ratio	Lower	Upper
142	100		
141	86.6	68.6	102.8

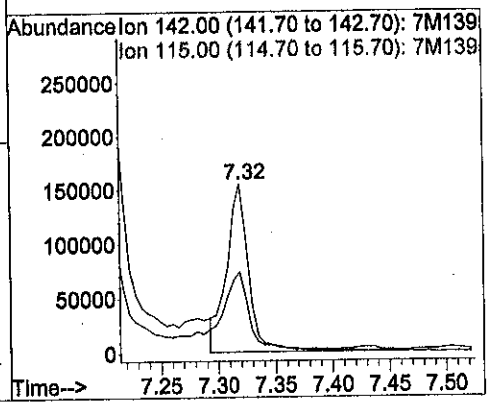


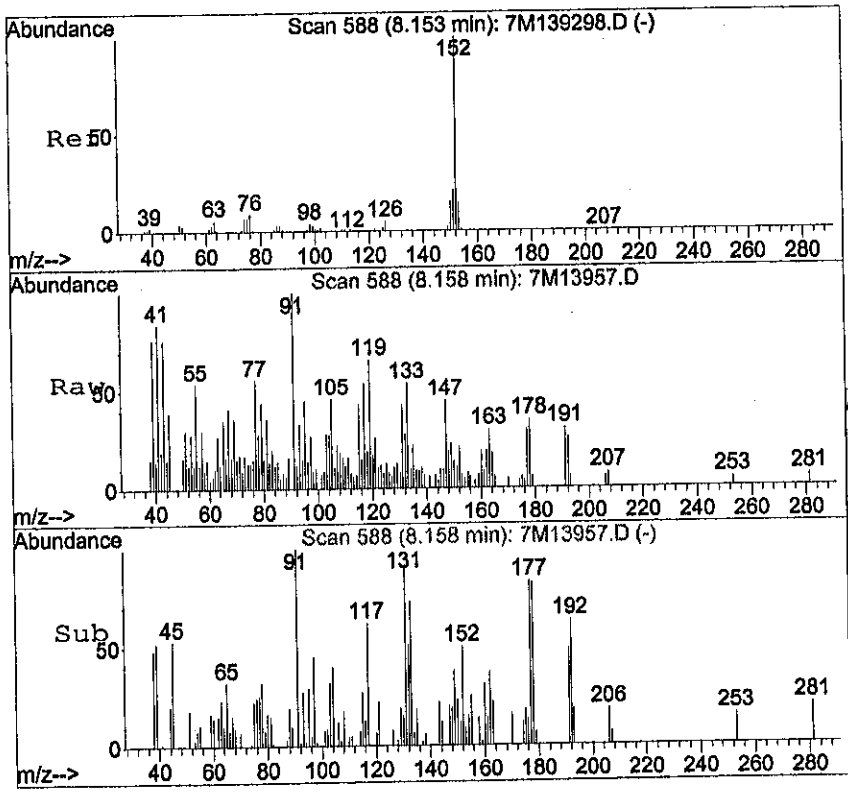


Concen: 2.46 ug/ml
RT: 7.32 min Scan# 431
Delta R.T. -0.00 min
Lab File: 7M13957.D
Acq: 20 Aug 2001 22:28

Tgt Ion:142 Resp: 209383

Ion	Ratio	Lower	Upper
142	100		
115	52.7	26.0	39.0#

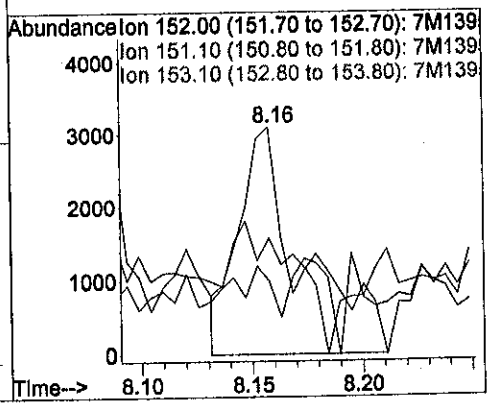


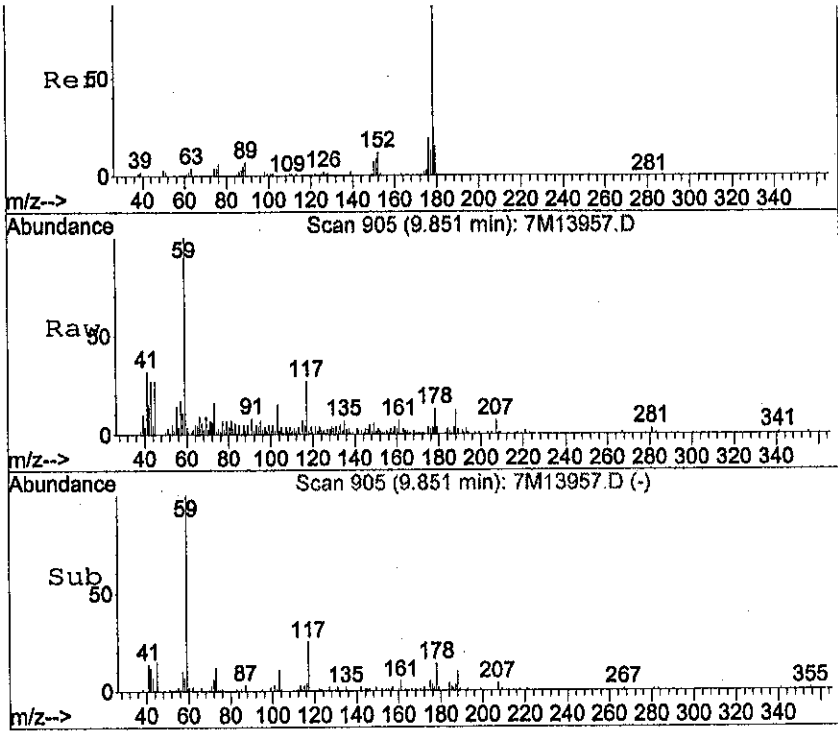


#8
Acenaphthylene
Concen: 0.05 ug/ml
RT: 8.16 min Scan# 588
Delta R.T. -0.00 min
Lab File: 7M13957.D
Acq: 20 Aug 2001 22:28

Tgt Ion:152 Resp: 6238

Ion	Ratio	Lower	Upper
152	100		
151	55.5	17.0	25.6#
153	12.2	10.4	15.6

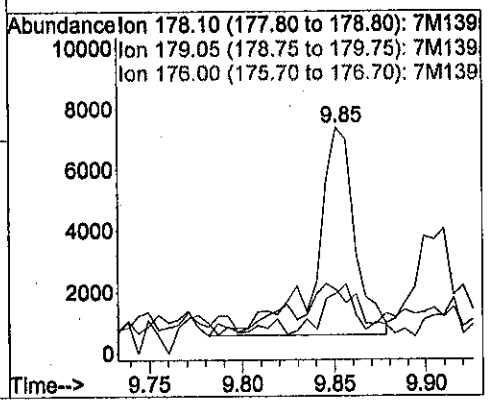




Concen: 0.05 ug/ml
RT: 9.85 min Scan# 905
Delta R.T. -0.00 min
Lab File: 7M13957.D
Acq: 20 Aug 2001 22:28

Tgt Ion:178 Resp: 10243

Ion	Ratio	Lower	Upper
178	100		
179	21.3	12.4	18.6#
176	29.2	14.6	22.0#



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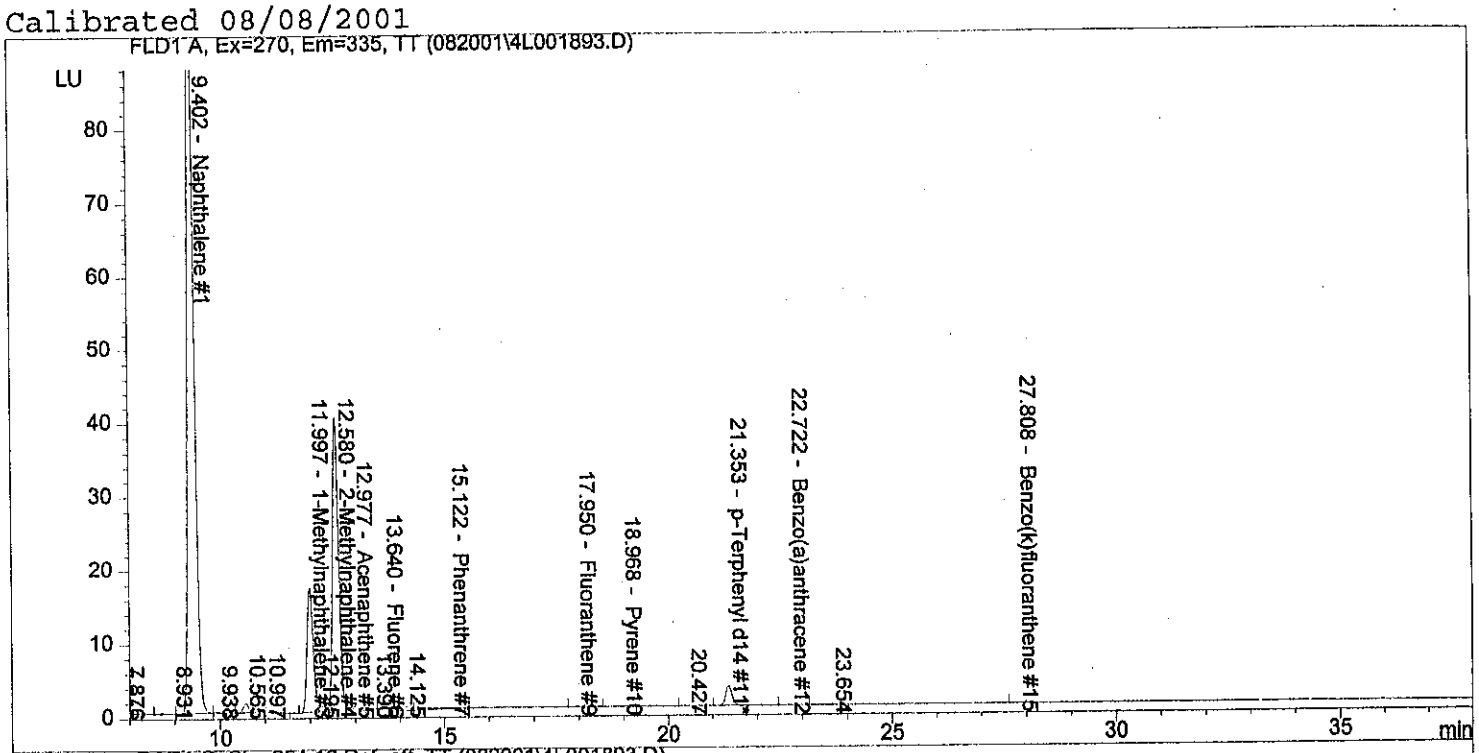
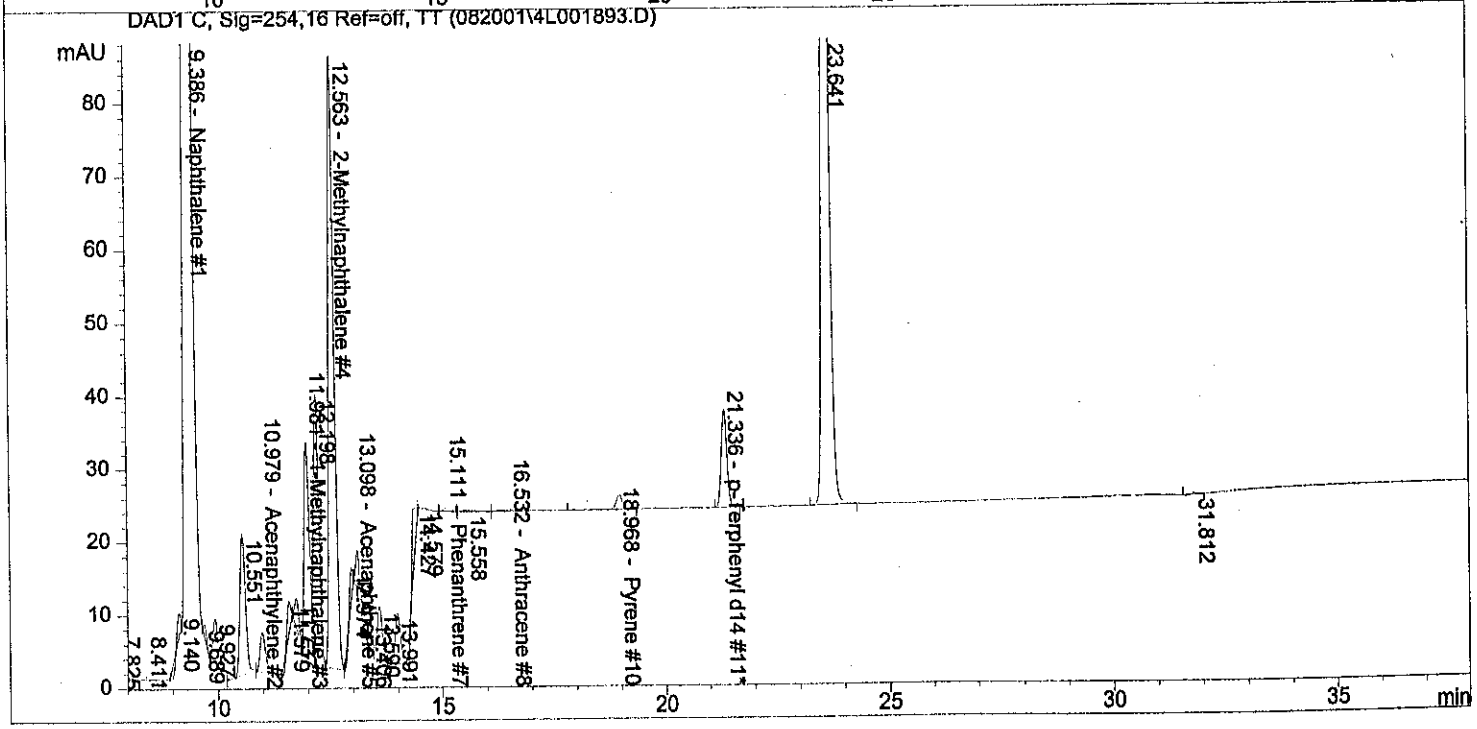
Injection Date : 8/20/2001 9:32:37 PM
Sample Name : L0108280-08 reex
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

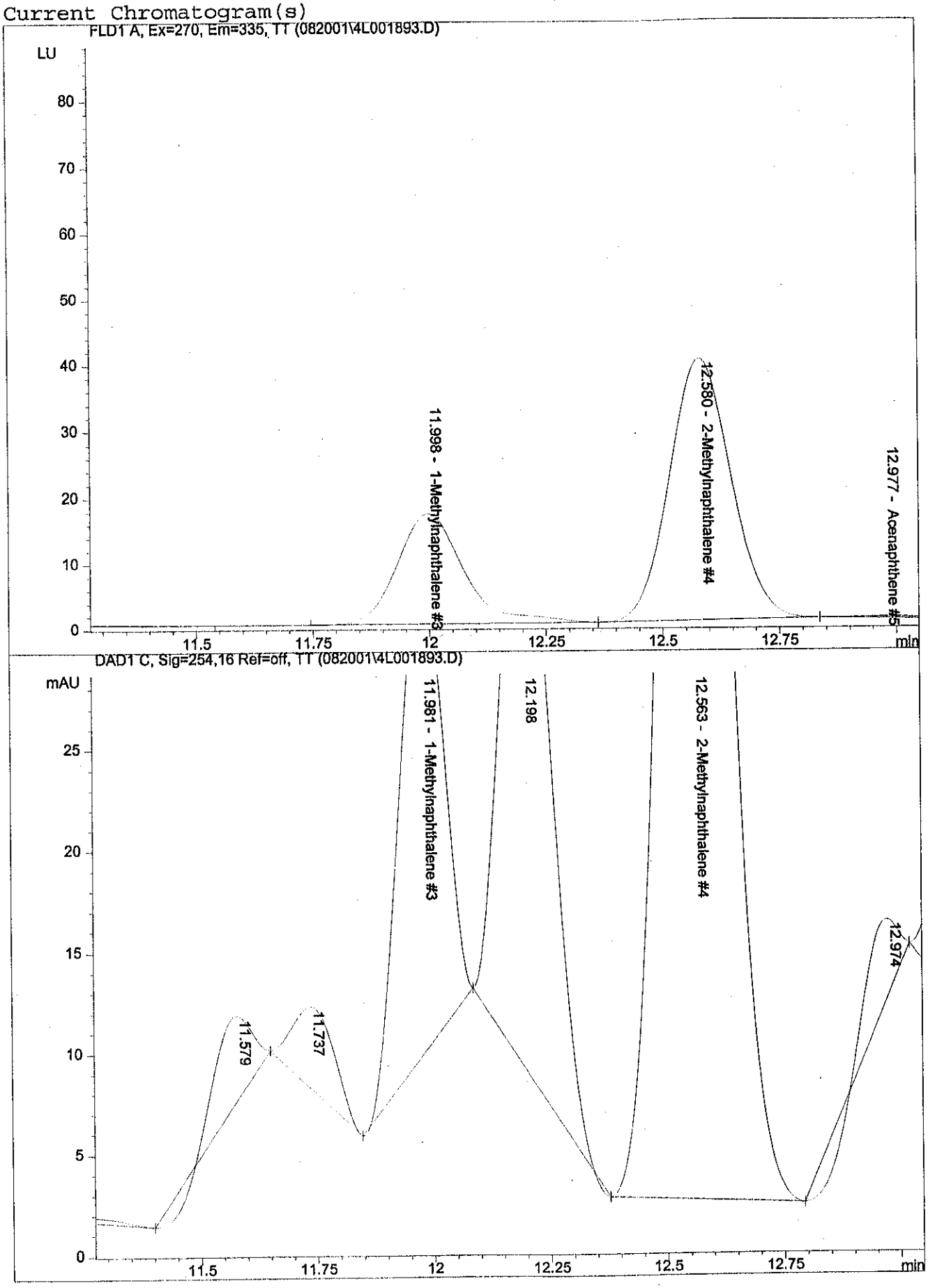
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001



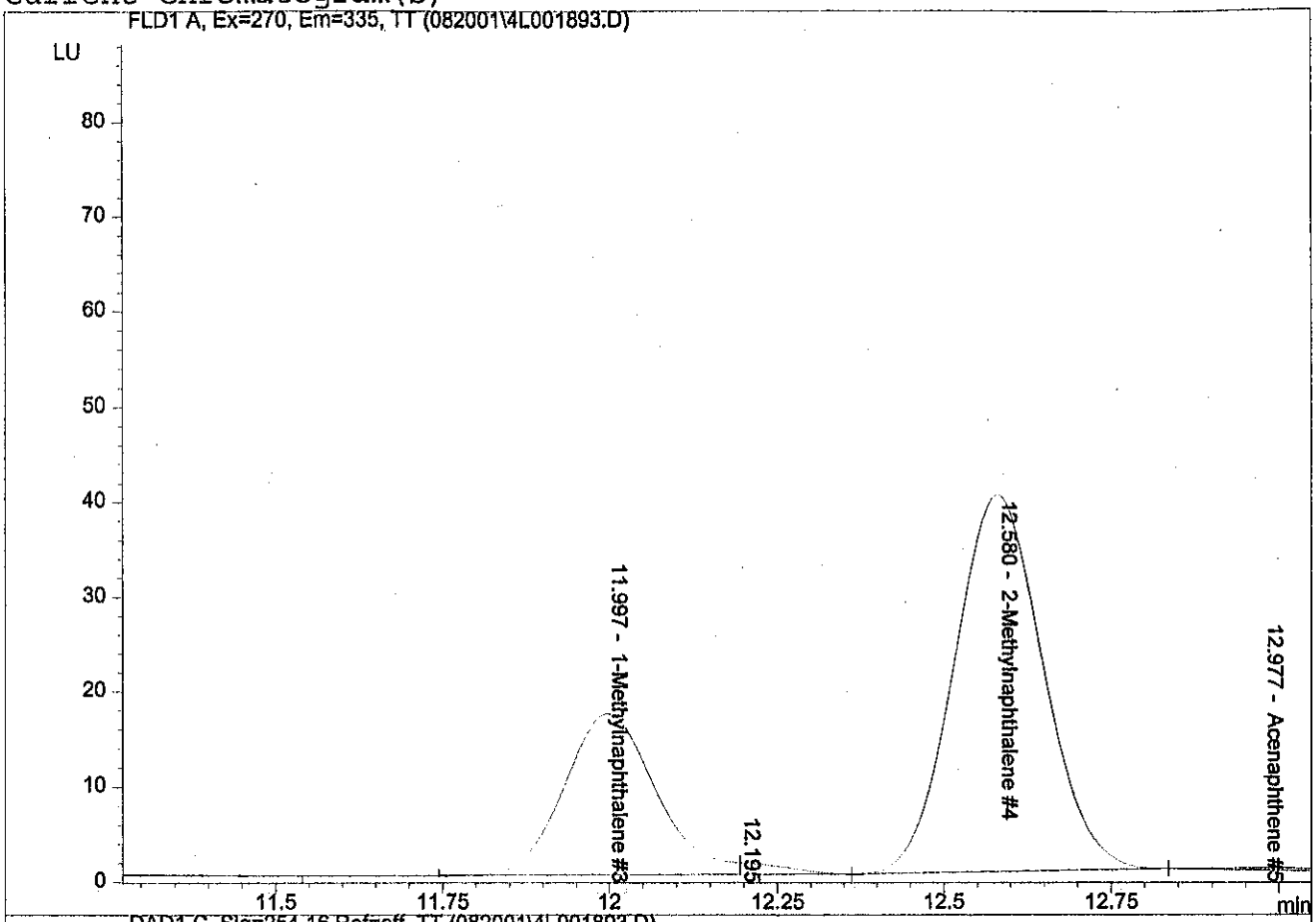


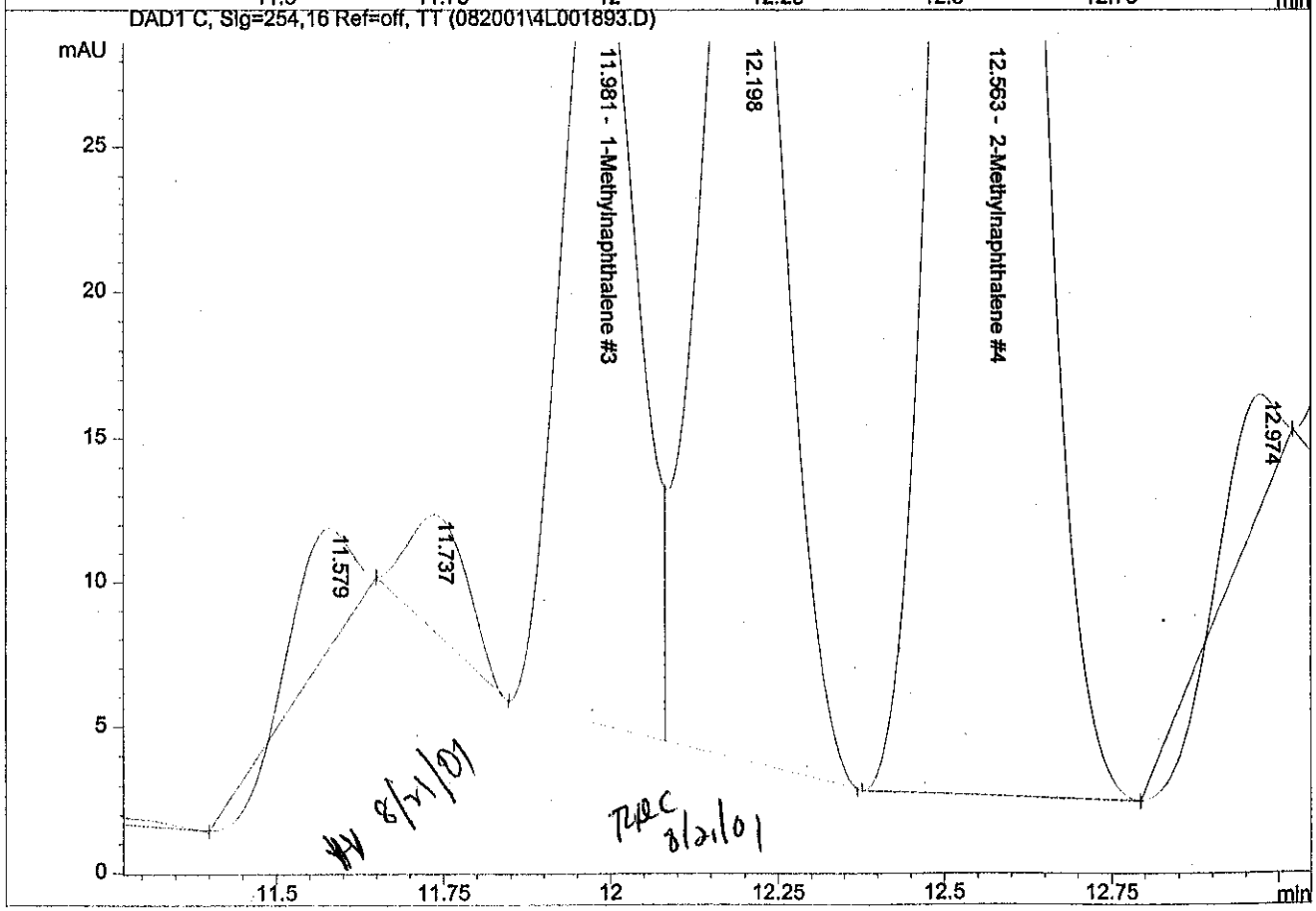
Current Chromatogram(s)



HPLC4 8/21/2001 8:45:08 AM RDC

Current Chromatogram(s)





8/21/01

RDC 8/21/01

HPLC4 8/21/2001 8:45:21 AM RDC

Page 1 of 1

External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 PM
Multiplier : 1.0400
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
9.402	BB	1042.83472	2.52962e-2	27.43494	C	Naphthalene #1
11.997	MF	161.15163	2.21330e-2	3.70943	✓	1-Methylnaphthalene #3
12.580	BB	362.51923	1.70635e-2	6.43328	C	2-Methylnaphthalene #4
12.977	BB	3.13847	1.38416e-2	4.51789e-2		Acenaphthene #5
13.640	BB	13.71566	6.62187e-3	9.44562e-2		Fluorene #6
15.122	BB	8.45213	1.63652e-1	1.43854		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.950	BBA	4.04731e-1	2.32678e-2	9.79392e-3		Fluoranthene #9
18.968	BBA	2.00556e-1	3.86587e-2	8.06334e-3		Pyrene #10
21.353	BBA	25.64037	2.97423e-1	7.93107		p-Terphenyl d14 #11*
22.722	PB	1.49820e-1	7.91256e-3	1.23288e-3		Benzo(a)anthracene #12
23.487		-	-	-	76.3%	Chrysene #13
26.327		-	-	-		Benzo(b)fluoranthene #14
27.808	BBA	4.52204e-1	2.76572e-3	1.30070e-3		Benzo(k)fluoranthene #15
28.906		-	-	-		Benzo(a)pyrene #16
30.830		-	-	-		Dibenz(a,h)anthracene #17
31.608		-	-	-		Benzo(g,h,i)perylene #18
32.503		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 47.10729

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
9.386	BB	3383.36011	8.25405e-3	29.04348	✓	Naphthalene #1
10.979	BB	52.11483	2.96975e-2	1.60959	✓	Acenaphthylene #2 Needs conf.
11.981	MV	221.04085	1.29459e-2	2.97603	C	1-Methylnaphthalene #3
12.563	BB	719.23016	1.12393e-2	8.40697	✓	2-Methylnaphthalene #4
13.098	BB	42.12485	2.03163e-2	8.90056e-1	NC	Acenaphthene #5
13.740		-	-	-		Fluorene #6
15.111	BB	3.92314	1.72982e-2	7.05779e-2	CNDC	Phenanthrene #7
16.532	BB	4.59722	1.04262e-2	4.98487e-2	↓	Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.968	BB	21.20749	1.43052e-2	3.15513e-1	NC	Pyrene #10
21.336	BBA	117.29179	6.56733e-2	8.01105		p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.468		-	-	-	77.0%	Chrysene #13
26.289		-	-	-		Benzo(b)fluoranthene #14
27.765		-	-	-		Benzo(k)fluoranthene #15
28.888		-	-	-		Benzo(a)pyrene #16
30.812		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.589		-	-	-		Benzo(g,h,i)perylene #18
32.488		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 51.37311

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 ***

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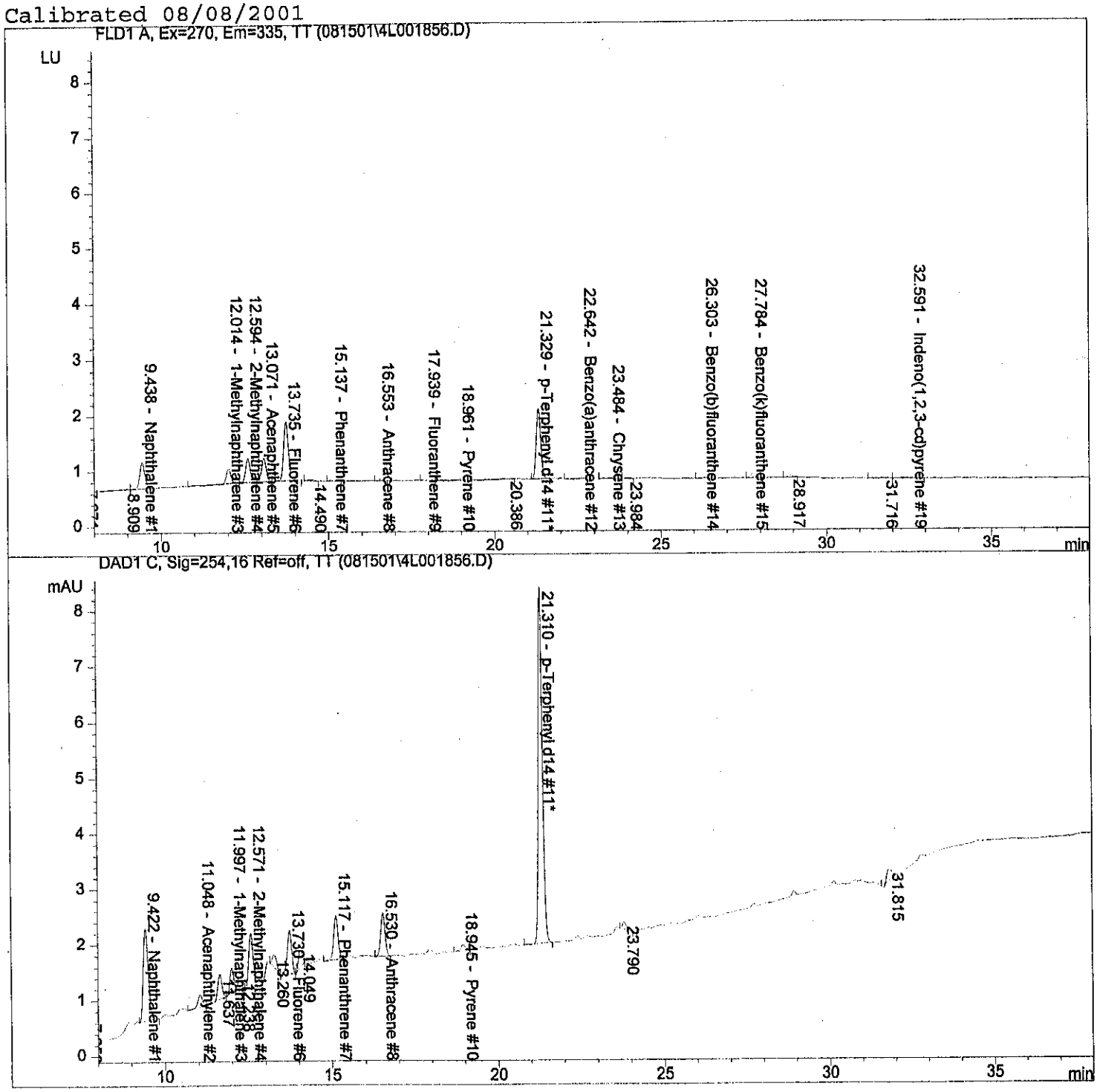
Injection Date : 8/15/2001 10:04:30 PM
Sample Name : L0108280-09 W
Acq. Operator : HV

Seq. Line : 15
Vial : 15
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 AM
Multiplier : 1.0400
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
9.438	BBA	5.13772	2.52962e-2	1.35163e-1		Naphthalene #1
12.014	BB	2.50845	2.21330e-2	5.77402e-2		1-Methylnaphthalene #3
12.594	BB	4.28289	1.70635e-2	7.60042e-2		2-Methylnaphthalene #4
13.071	BB	4.15333	1.38416e-2	5.97881e-2		Acenaphthene #5
13.735	BBA	10.67777	6.62187e-3	7.35350e-2		Fluorene #6
15.137	BBA	5.16234e-1	1.63652e-1	8.78622e-2		Phenanthrene #7
16.553	BBA	1.93863e-1	3.10196e-1	6.25412e-2		Anthracene #8
17.939	BB	8.40345e-1	2.32678e-2	2.03351e-2		Fluoranthene #9
18.961	BB	6.29464e-1	3.86587e-2	2.53076e-2		Pyrene #10
21.329	BB	12.34895	2.97423e-1	3.81977		p-Terphenyl d14 #11*
22.642	BB	2.54247e-1	7.91256e-3	2.09222e-3		Benzo(a)anthracene #12
23.484	BB	2.74065e-1	3.90495e-2	1.11302e-2		Chrysene #13
26.303	PBA	2.12819e-1	1.63222e-2	3.61261e-3		Benzo(b)fluoranthene #14
27.784	PBA	8.31213e-1	2.76572e-3	2.39086e-3		Benzo(k)fluoranthene #15
28.766		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.453		-	-	-		Benzo(g,h,i)perylene #18
32.591	BB	3.90336e-1	1.38204e-2	5.61038e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 4.44289

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
9.422	BBA	17.60463	8.25405e-3	1.51122e-1		Naphthalene #1
11.048	BB	2.09371	2.96975e-2	6.46650e-2		Acenaphthylene #2
11.997	BB	3.23337	1.29459e-2	4.35330e-2		1-Methylnaphthalene #3
12.571	BB	8.89696	1.12393e-2	1.03995e-1		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.730	BB	7.11345	1.75240e-2	1.29642e-1		Fluorene #6
15.117	BB	7.16076	1.72982e-2	1.28823e-1		Phenanthrene #7
16.530	BBA	7.11469	1.04262e-2	7.71462e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.945	BB	1.10589	1.43052e-2	1.64529e-2		Pyrene #10
21.310	BBA	56.58335	6.56733e-2	3.86465		p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.188		-	-	-		Benzo(b)fluoranthene #14
27.622		-	-	-		Benzo(k)fluoranthene #15
28.746		-	-	-		Benzo(a)pyrene #16
30.757		-	-	-		Dibenz(a,h)anthracene #17

2mol

37.2% *

RR

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.432		-	-	-		Benzo(g,h,i)perylene #18
32.514		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.58003

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 ***

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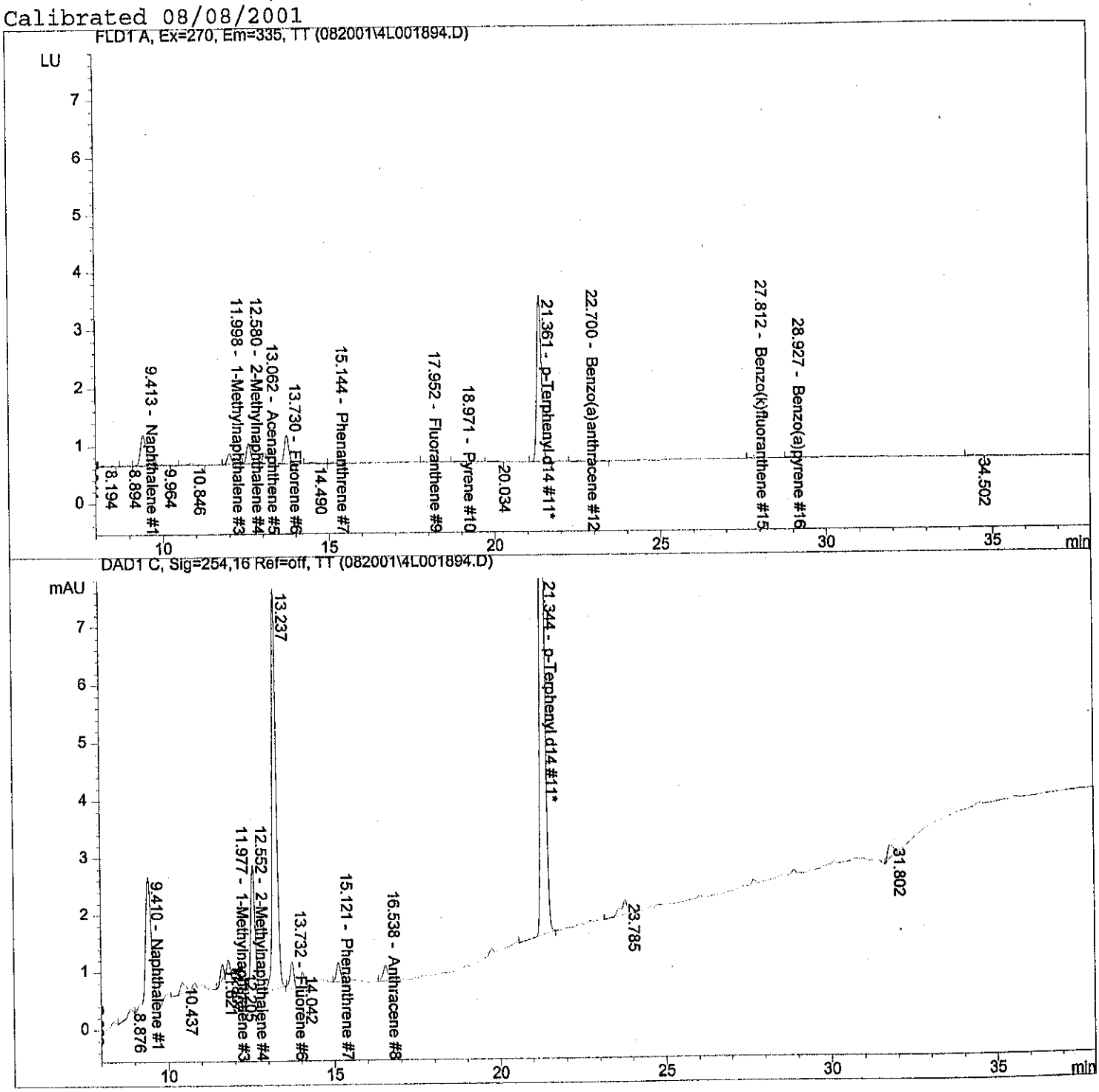
Injection Date : 8/20/2001 10:29:16 PM
Sample Name : L0108280-09 reex
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 PM
Multiplier : 1.0500
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	6.01093	2.52962e-2	1.59656e-1		Naphthalene #1
11.998	PB	1.64119	2.21330e-2	3.81407e-2		1-Methylnaphthalene #3
12.580	BB	3.45272	1.70635e-2	6.18612e-2		2-Methylnaphthalene #4
13.062	BB	1.84224	1.38416e-2	2.67744e-2		Acenaphthene #5
13.730	BBA	4.88315	6.62187e-3	3.39524e-2		Fluorene #6
15.144	BBA	2.45159e-1	1.63652e-1	4.21268e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.952	BBA	3.27156e-1	2.32678e-2	7.99282e-3		Fluoranthene #9
18.971	PBA	1.87438e-1	3.86587e-2	7.60839e-3		Pyrene #10
21.361	PBA	27.35190	2.97423e-1	8.54183		p-Terphenyl d14 #11*
22.700	BB	7.16654e-1	7.91256e-3	5.95409e-3		Benzo(a)anthracene #12
23.487		-	-	-		Chrysene #13
26.327		-	-	-		Benzo(b)fluoranthene #14
27.812	BBA	4.60608e-1	2.76572e-3	1.33761e-3		Benzo(k)fluoranthene #15
28.927	PBA	1.58781e-1	4.57119e-3	7.62109e-4		Benzo(a)pyrene #16
30.830		-	-	-		Dibenz(a,h)anthracene #17
31.608		-	-	-		Benzo(g,h,i)perylene #18
32.503		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.92800

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
9.410	BB	27.86313	8.25405e-3	2.41483e-1		Naphthalene #1
11.077		-	-	-		Acenaphthylene #2
11.977	BB	9.51364e-1	1.29459e-2	1.29320e-2		1-Methylnaphthalene #3
12.552	BB	18.40932	1.12393e-2	2.17253e-1		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.732	BB	3.87283	1.75240e-2	7.12608e-2		Fluorene #6
15.121	BBA	2.94161	1.72982e-2	5.34289e-2		Phenanthrene #7
16.538	BBA	2.99712	1.04262e-2	3.28109e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.944		-	-	-		Pyrene #10
21.344	BBA	124.66511	6.56733e-2	8.59652		p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.289		-	-	-		Benzo(b)fluoranthene #14
27.765		-	-	-		Benzo(k)fluoranthene #15
28.888		-	-	-		Benzo(a)pyrene #16
30.812		-	-	-		Dibenz(a,h)anthracene #17

mpg

81.9%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.589		-	-	-		Benzo(g,h,i)perylene #18
32.488		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.22569

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 : 8/9/2001 2:38:03 PM

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/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

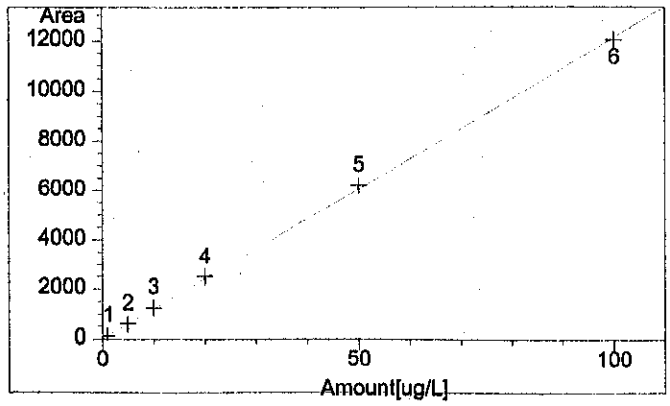
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

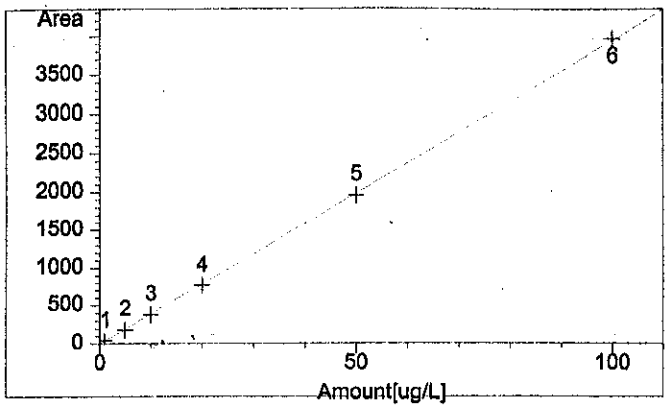
Peak Sum Table

No Entries in table

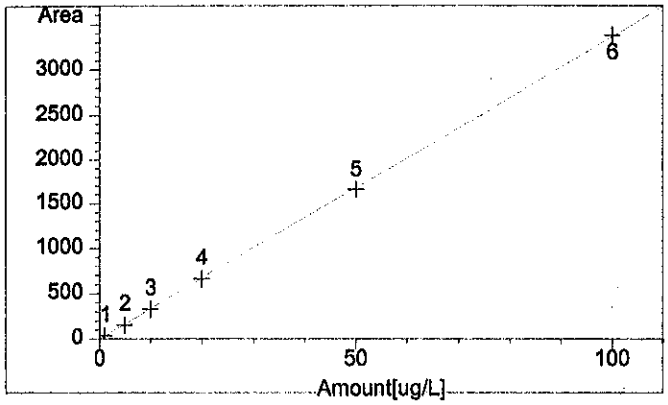
Calibration Curves



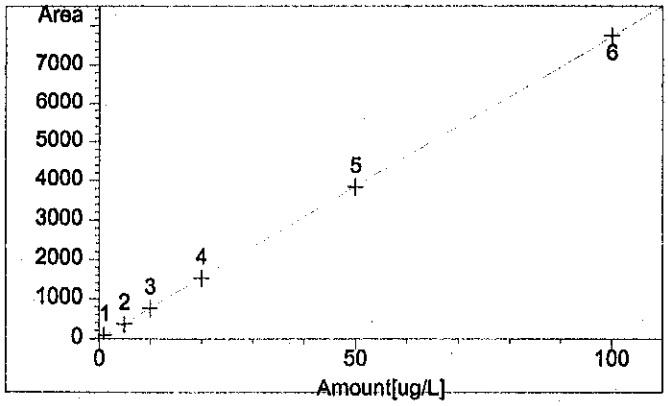
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount[ug/L]
y: Area



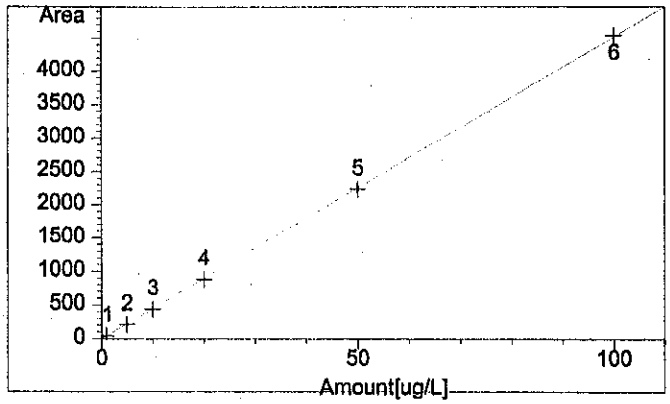
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



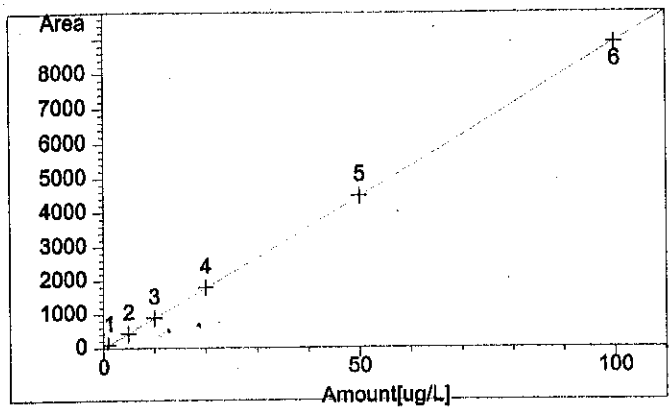
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



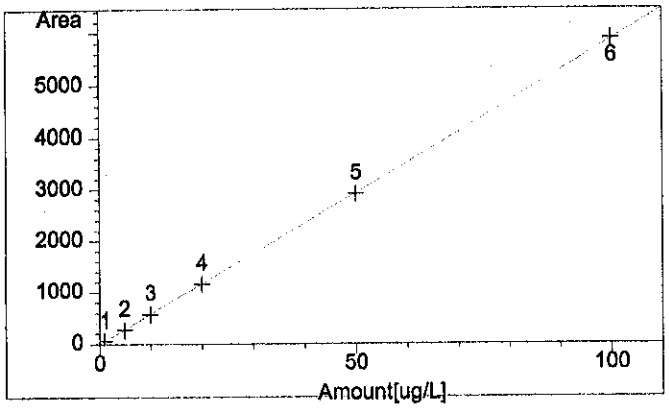
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



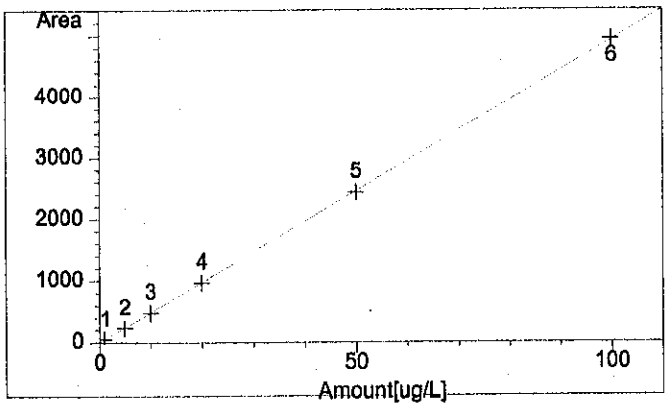
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



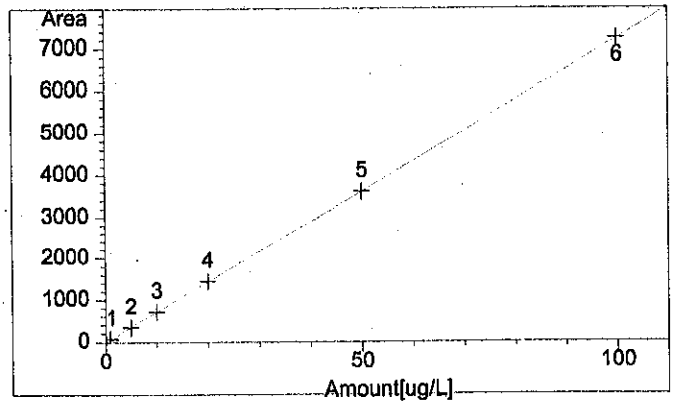
2-Methylnaphthalene #4 at exp. RT: 12.601
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



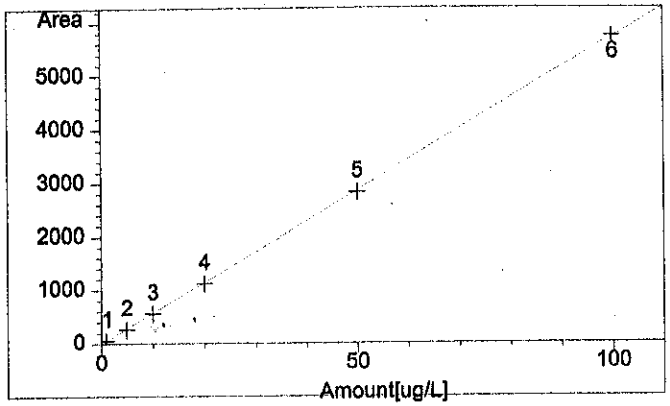
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



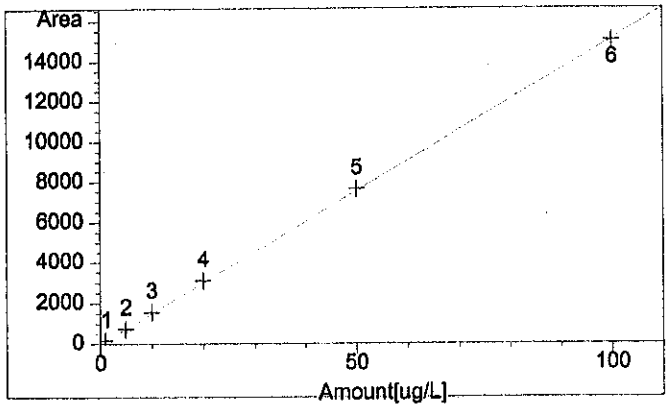
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



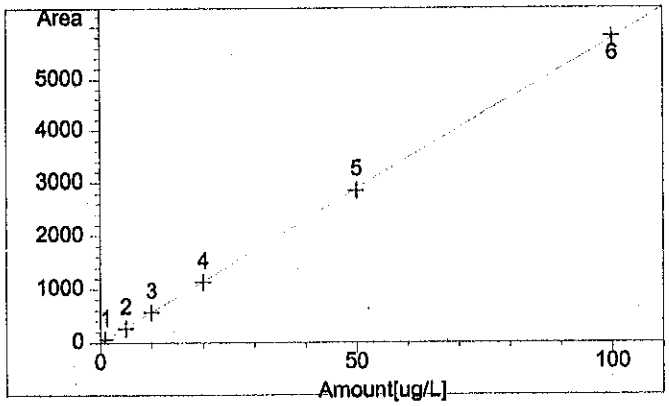
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



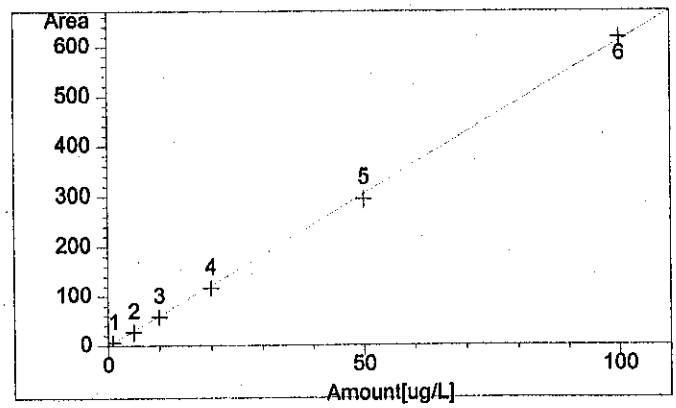
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount [ug/L]
y: Area



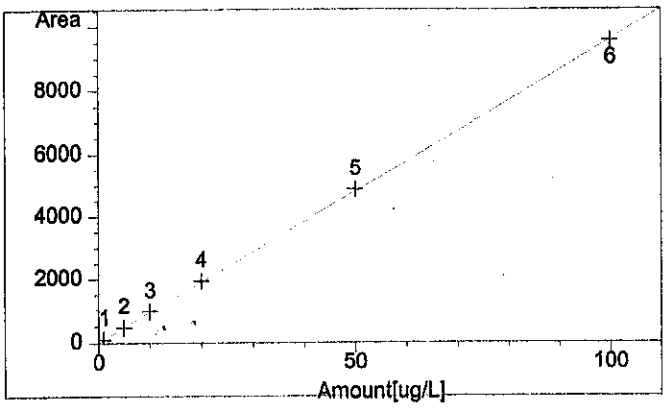
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount [ug/L]
y: Area



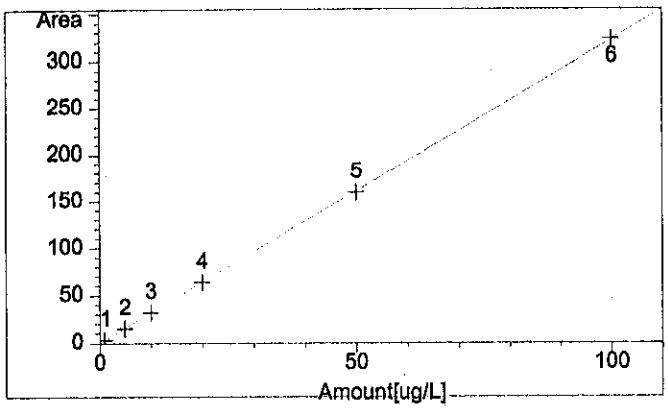
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount [ug/L]
y: Area



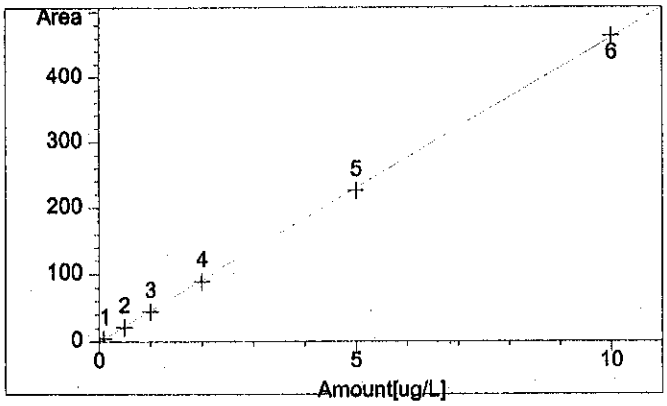
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount [ug/L]
y: Area



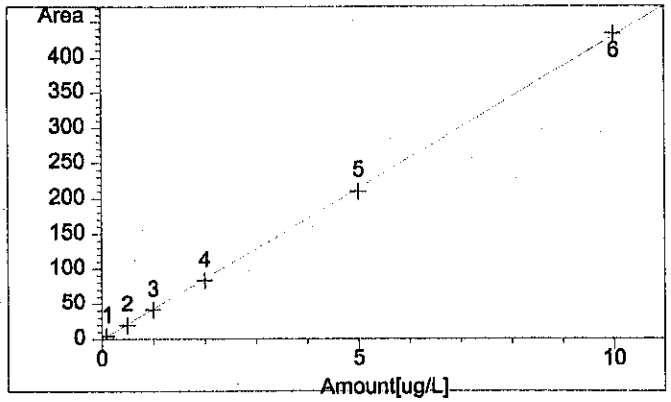
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount[ug/L]
y: Area



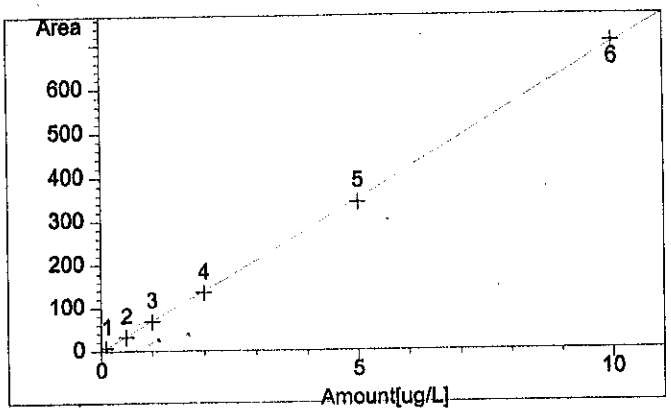
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount[ug/L]
y: Area



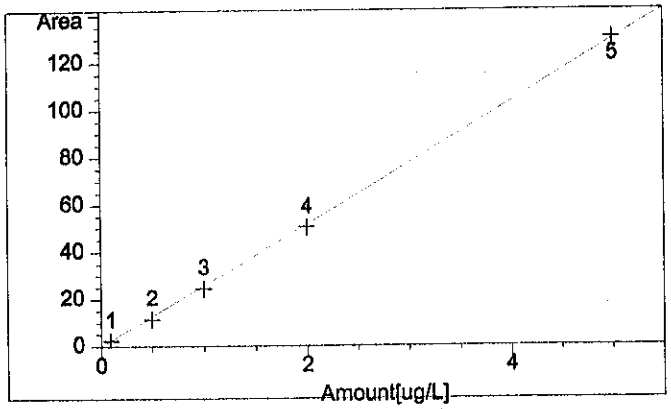
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount[ug/L]
y: Area



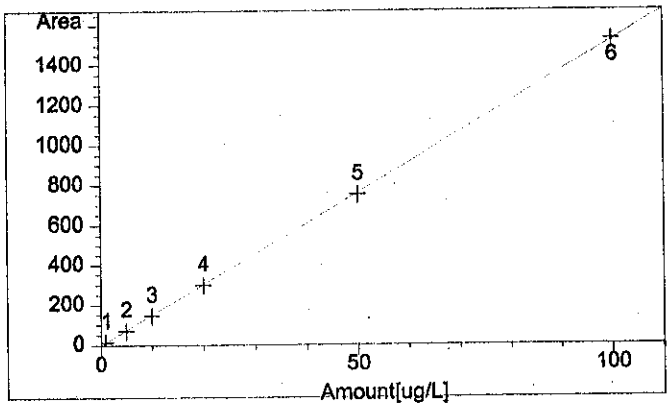
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount[ug/L]
y: Area



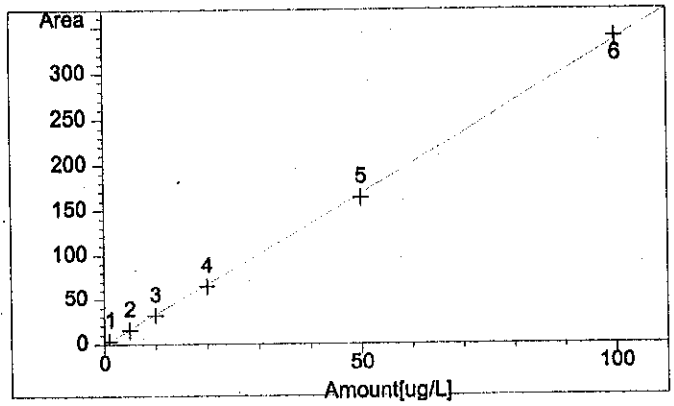
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



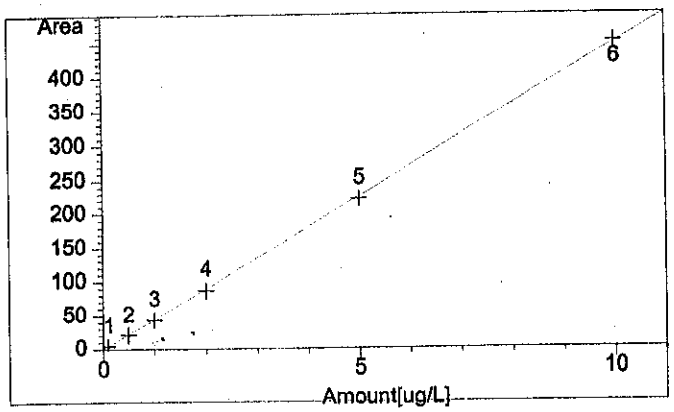
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount [ug/L]
y: Area



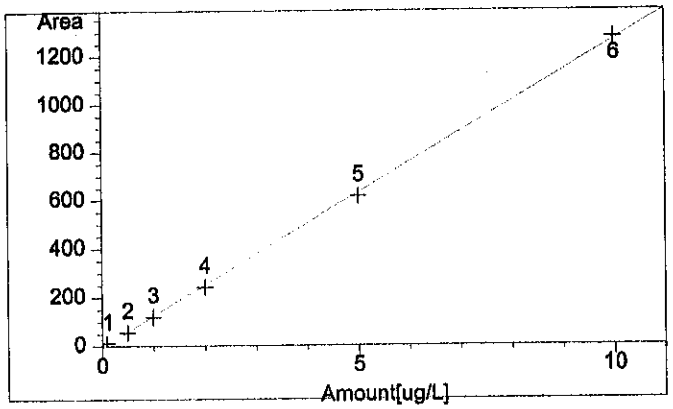
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount [ug/L]
y: Area



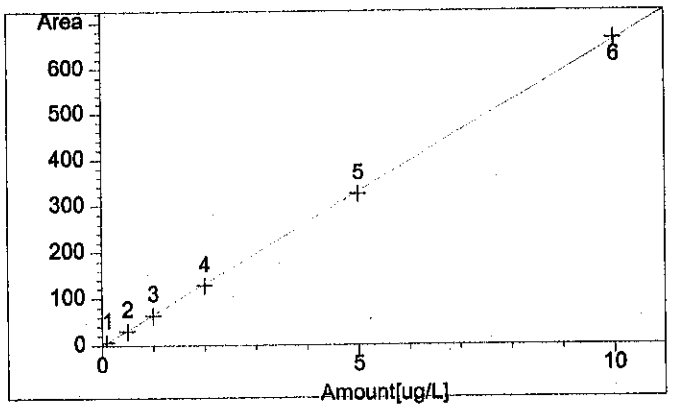
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount [ug/L]
y: Area



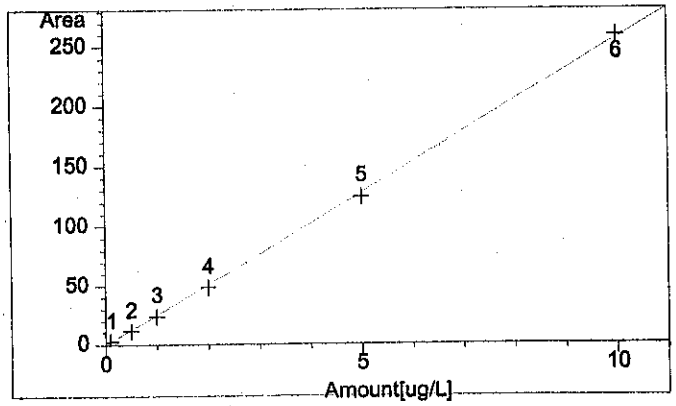
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount [ug/L]
y: Area



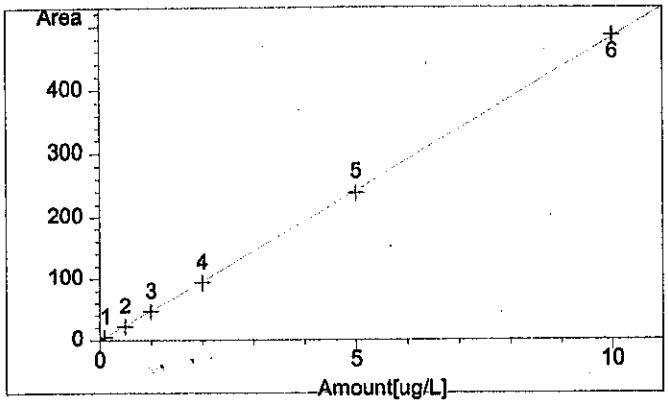
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount [ug/L]
y: Area



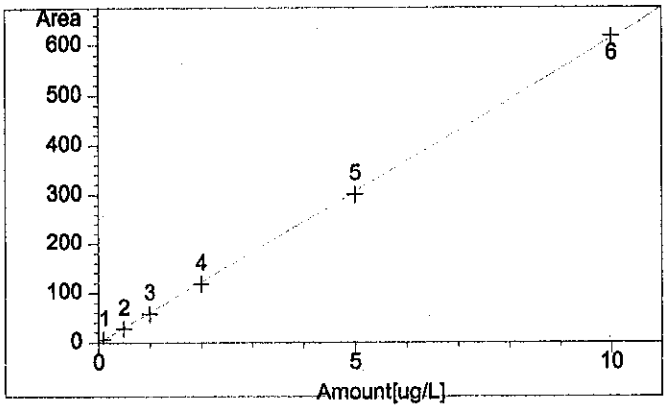
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount [ug/L]
y: Area



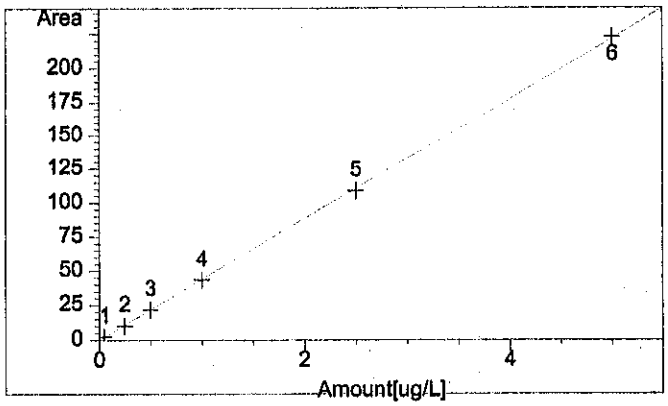
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount [ug/L]
y: Area



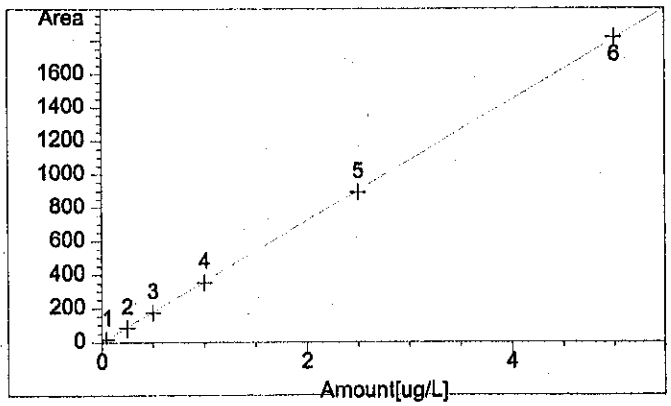
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount [ug/L]
y: Area



Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount [ug/L]
y: Area

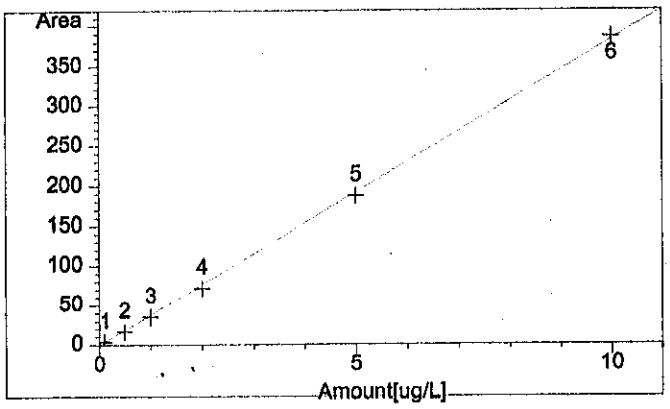


Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount [ug/L]
y: Area

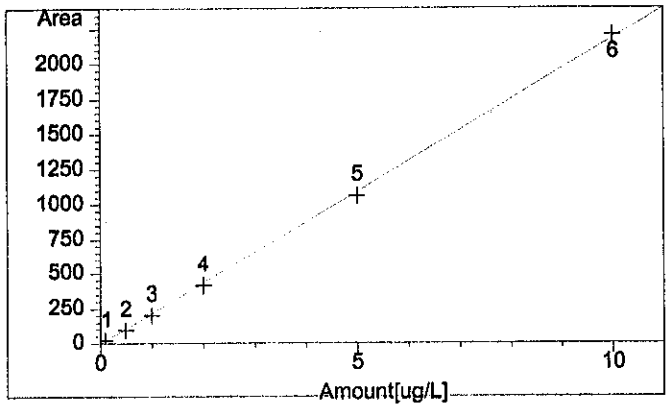


Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount [ug/L]
y: Area

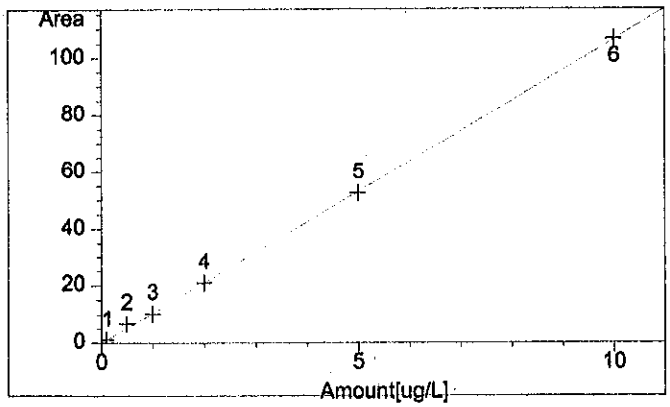
324



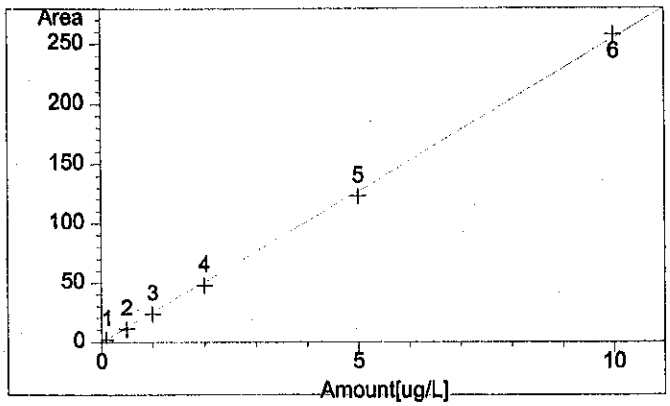
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount[ug/L]
y: Area



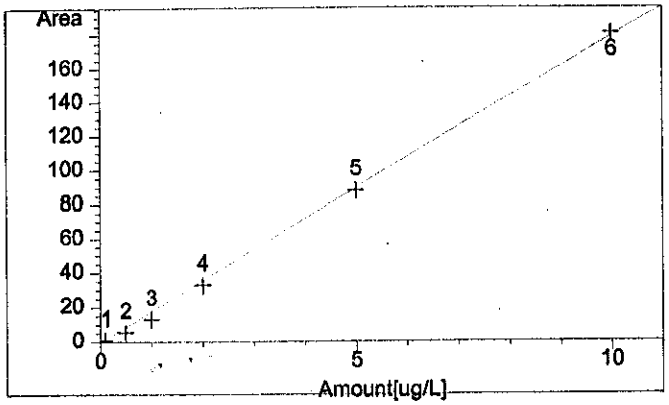
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount[ug/L]
y: Area



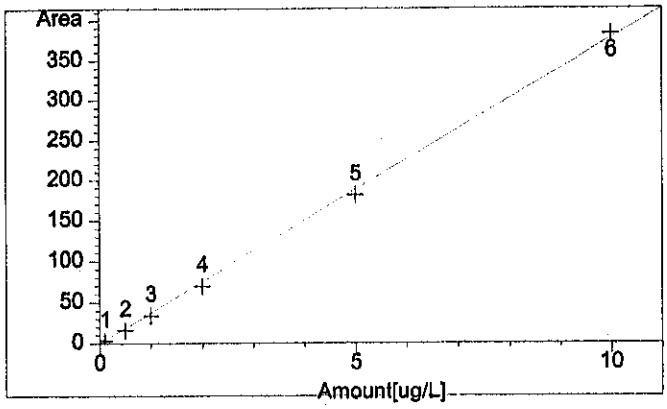
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount[ug/L]
y: Area



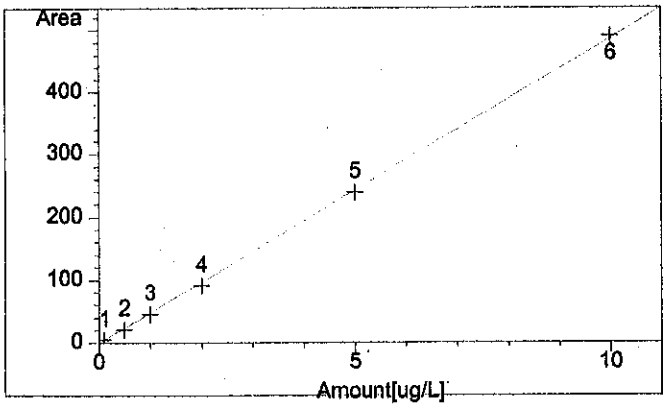
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount[ug/L]
y: Area



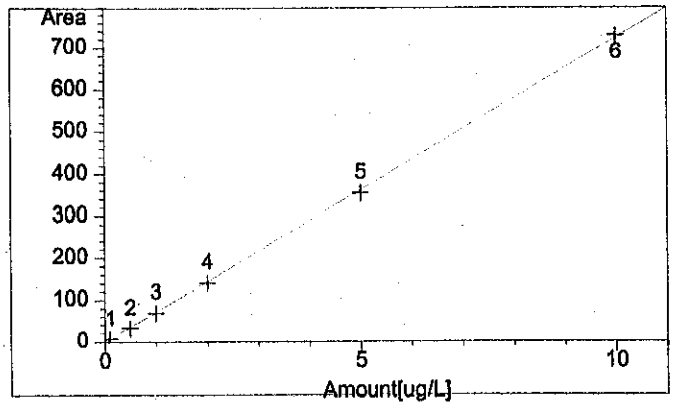
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount [ug/L]
y: Area

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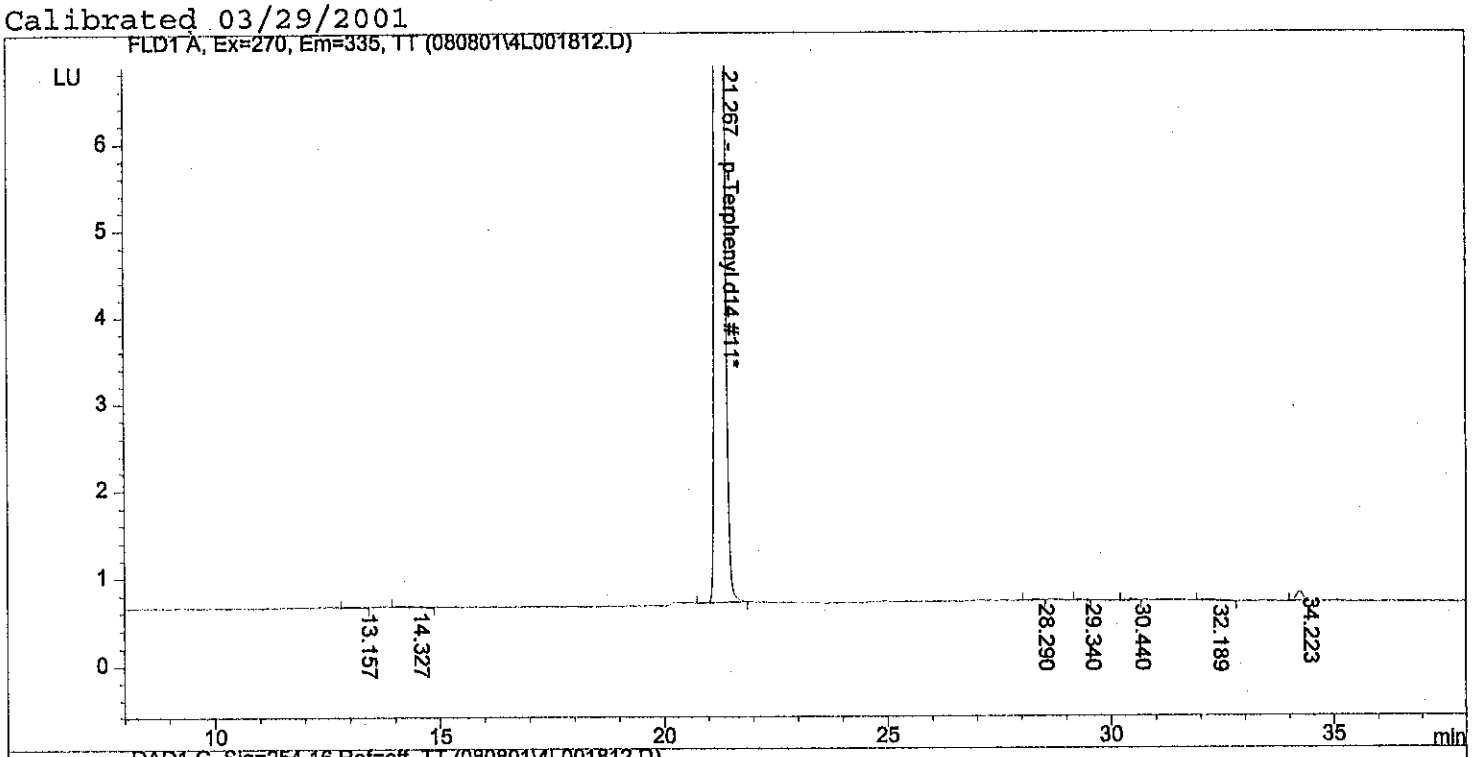
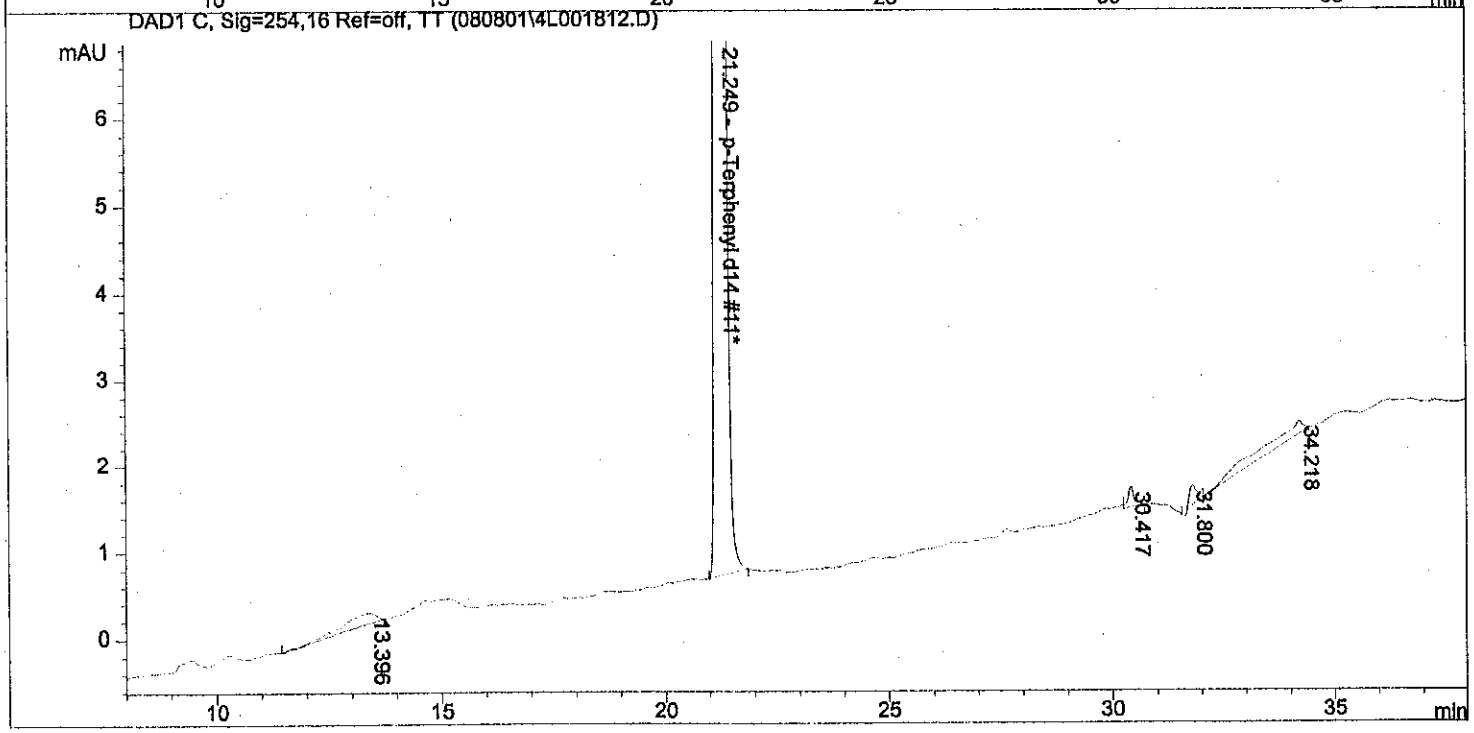
Injection Date : 8/8/2001 9:48:17 PM
Sample Name : 8310surr6/54-35
Acq. Operator : RDC

Seq. Line : 8
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:12:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:12:08 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
9.343		-	-	-		Naphthalene #1
11.976		-	-	-		1-Methylnaphthalene #3
12.520		-	-	-		2-Methylnaphthalene #4
13.006		-	-	-		Acenaphthene #5
13.674		-	-	-		Fluorene #6
15.213		-	-	-		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.978		-	-	-		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.267	PBA	339.18564	2.88970e-1	98.01453		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.760		-	-	-		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				98.01453		

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
9.326		-	-	-		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.957		-	-	-		1-Methylnaphthalene #3
12.534		-	-	-		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.657		-	-	-		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.249	PBA	1529.22424	6.36953e-2	97.40433		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				97.40433		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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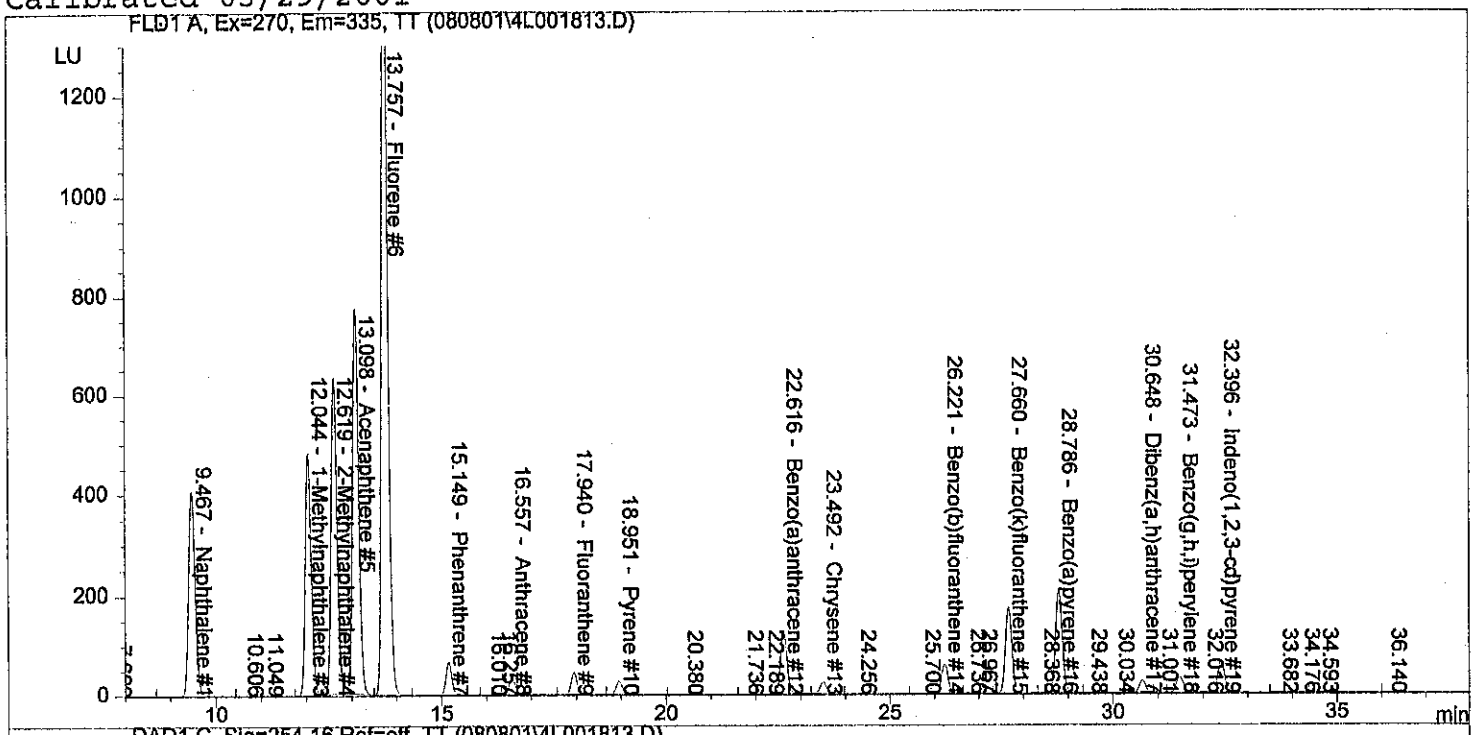
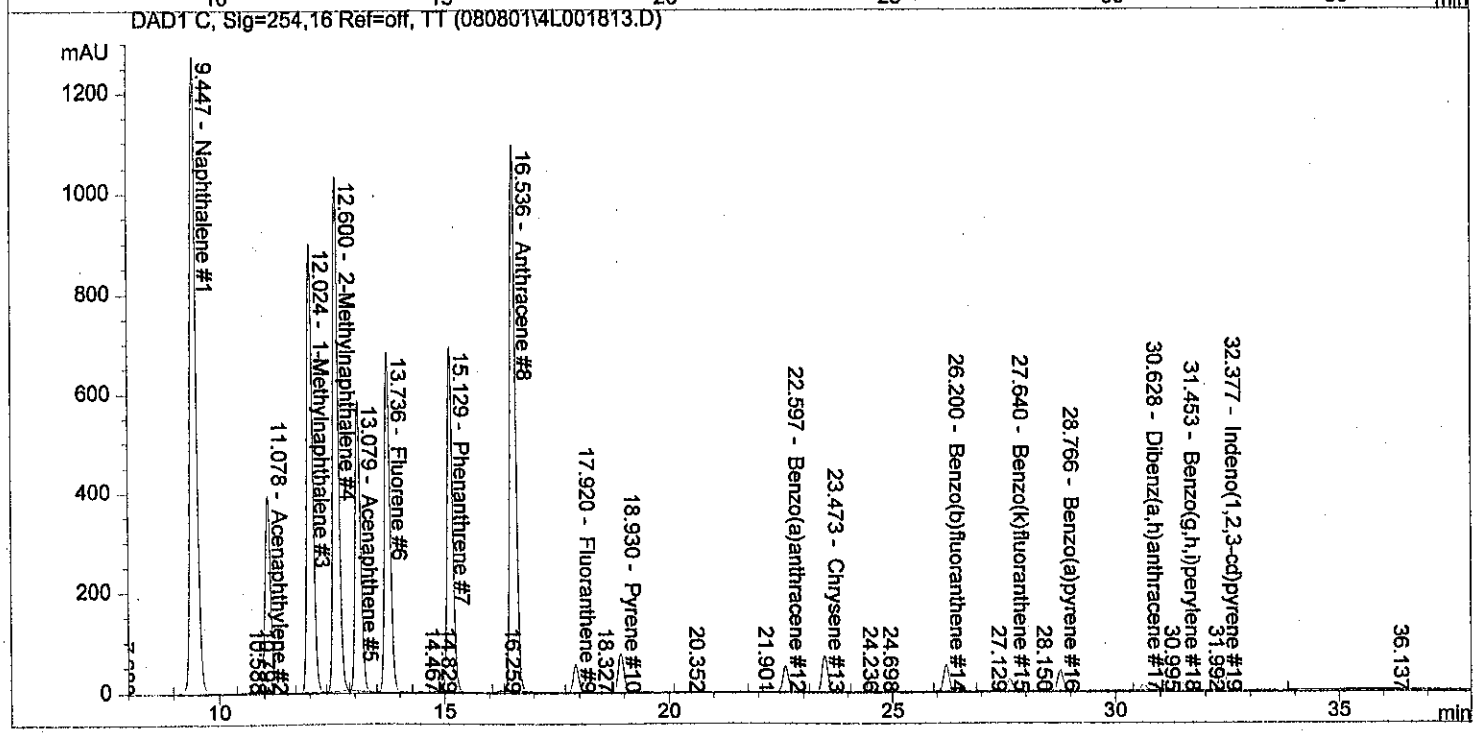
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

Seq. Line : 9
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:22:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:22:51 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
9.467	BB	3973.55249	2.55317e-2	101.45138		Naphthalene #1
12.044	PB	4535.38281	2.23759e-2	101.48305		1-Methylnaphthalene #3
12.619	BB	5875.01660	1.72227e-2	101.18389		2-Methylnaphthalene #4
13.098	BB	7228.99854	1.39785e-2	101.05076		Acenaphthene #5
13.757	BB	1.50256e4	6.61784e-3	99.43674		Fluorene #6
15.149	BBA	617.71191	1.63970e-1	101.28640		Phenanthrene #7
16.557	BB	323.14050	3.11421e-1	100.63288		Anthracene #8
17.940	PB	432.79266	2.34467e-2	10.14758		Fluoranthene #9
18.951	BB	273.80585	3.77948e-2	10.34844		Pyrene #10
21.267		-	-	-		p-Terphenyl d14 #11*
22.616	BB	1274.56396	7.97394e-3	10.16330		Benzo(a)anthracene #12
23.492	BB	258.58917	3.94274e-2	10.19549		Chrysene #13
26.221	BB	617.15186	1.63647e-2	10.09953		Benzo(b)fluoranthene #14
27.660	BB	1815.06726	2.77359e-3	5.03425		Benzo(k)fluoranthene #15
28.786	BB	2209.61670	4.57456e-3	10.10801		Benzo(a)pyrene #16
30.648	BB	257.09790	3.95004e-2	10.15546		Dibenz(a,h)anthracene #17
31.473	BB	382.48065	2.68798e-2	10.28100		Benzo(g,h,i)perylene #18
32.396	BB	728.48004	1.37724e-2	10.03289		Indeno(1,2,3-cd)pyrene #1

Totals : 803.09104

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
9.447	BB	1.20244e4	8.25610e-3	99.27448		Naphthalene #1
11.078	BB	3384.39795	2.97245e-2	100.59951		Acenaphthylene #2
12.024	BB	7740.20703	1.29528e-2	100.25726		1-Methylnaphthalene #3
12.600	BB	8884.32324	1.12464e-2	99.91623		2-Methylnaphthalene #4
13.079	BB	4940.15088	2.03275e-2	100.42072		Acenaphthene #5
13.736	BB	5731.11230	1.75642e-2	100.66232		Fluorene #6
15.129	BBA	5806.07617	1.73002e-2	100.44635		Phenanthrene #7
16.536	BBA	9552.15625	1.04130e-2	99.46643		Anthracene #8
17.920	PB	463.67642	2.17440e-2	10.08217		Fluoranthene #9
18.930	BB	703.95166	1.43310e-2	10.08832		Pyrene #10
21.249		-	-	-		p-Terphenyl d14 #11*
22.597	BBA	451.58978	2.23017e-2	10.07124		Benzo(a)anthracene #12
23.473	BBA	664.28351	1.51547e-2	10.06704		Chrysene #13
26.200	BBA	485.19955	2.07746e-2	10.07983		Benzo(b)fluoranthene #14
27.640	BB	222.55347	2.26386e-2	5.03829		Benzo(k)fluoranthene #15
28.766	BB	385.80145	2.60127e-2	10.03572		Benzo(a)pyrene #16
30.628	PB	106.53020	9.38245e-2	9.99514		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.453	BB	180.23679	5.63755e-2	10.16093		Benzo(g,h,i)perylene #18
32.377	BBA	489.90164	2.05716e-2	10.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 896.74006

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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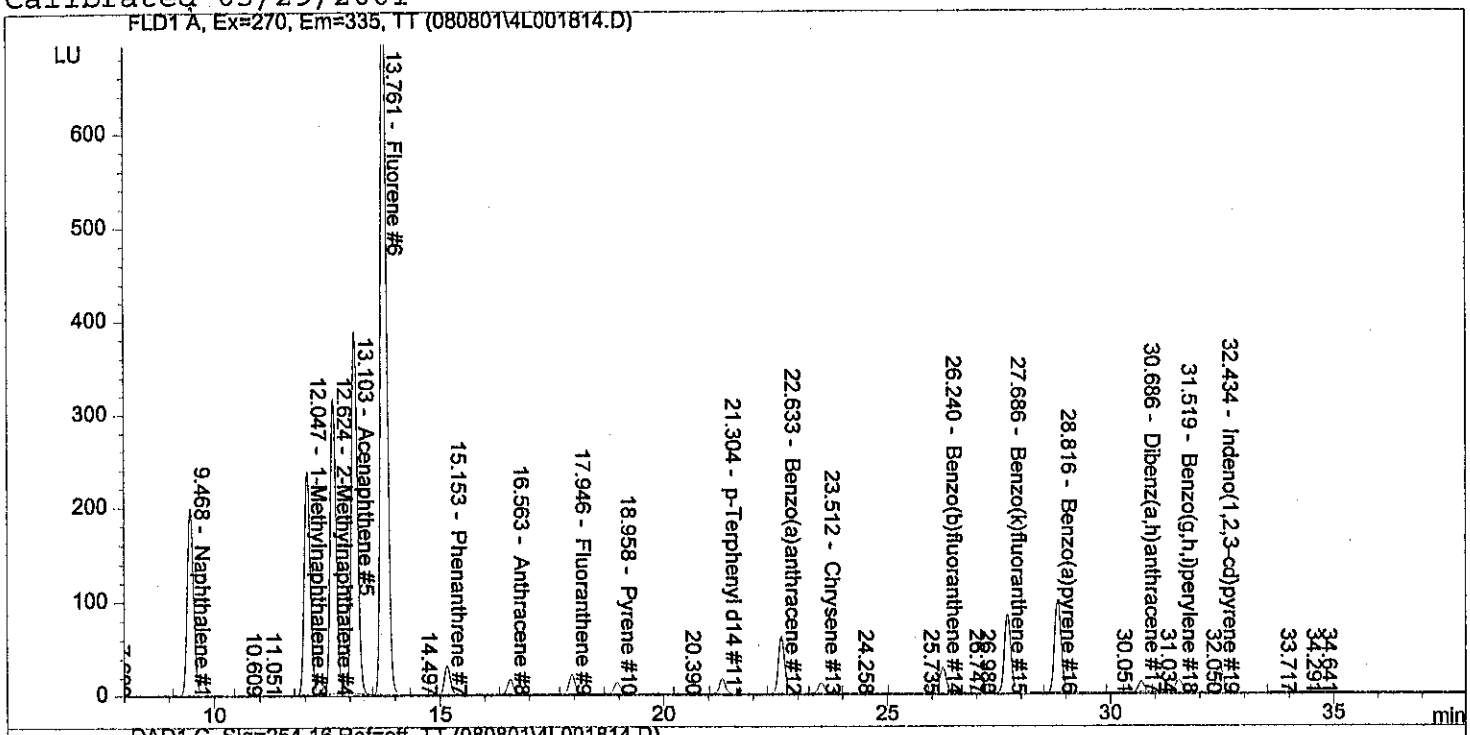
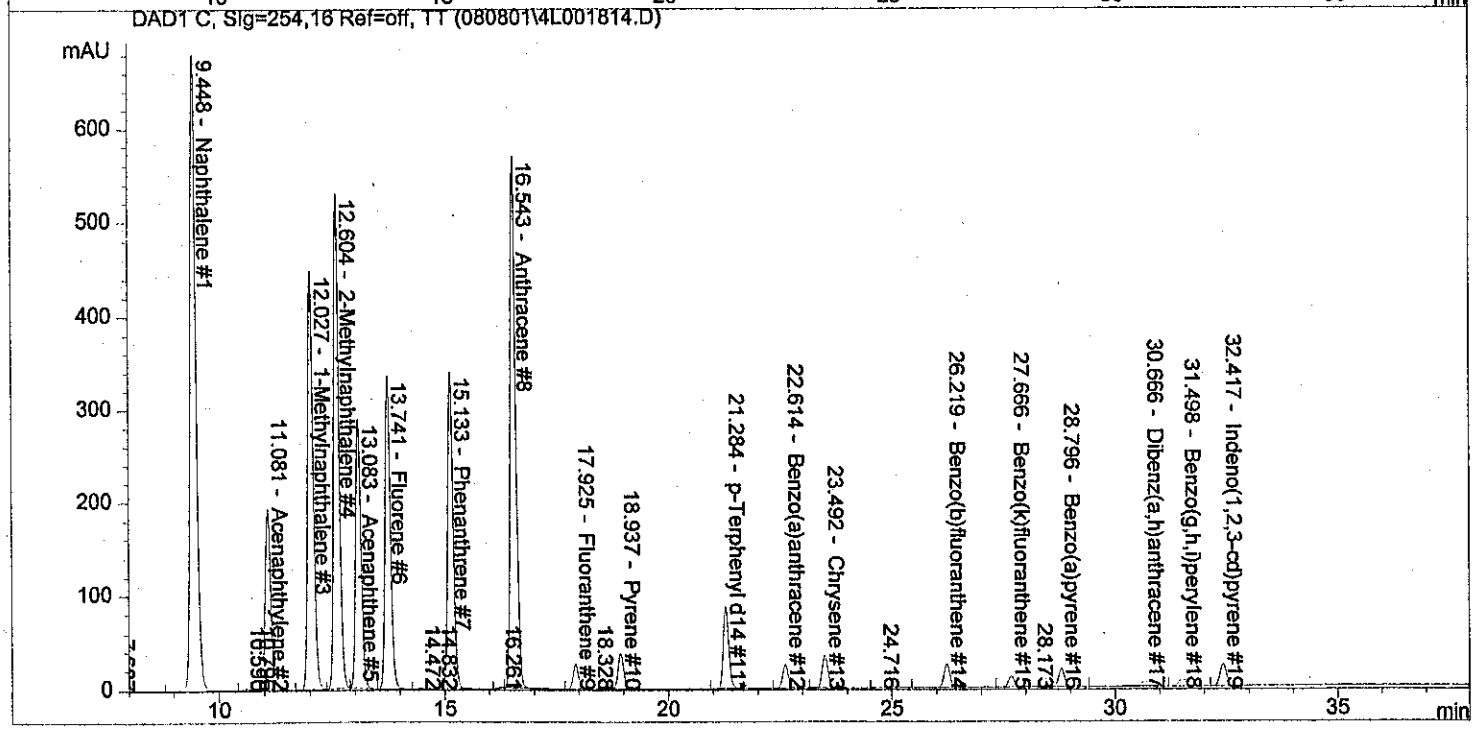
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

Seq. Line : 10
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:23:34 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:23:32 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
9.468	PB	1948.04333	2.53373e-2	49.35817		Naphthalene #1
12.047	PB	2235.18970	2.21763e-2	49.56814		1-Methylnaphthalene #3
12.624	BB	2909.70630	1.70922e-2	49.73328		2-Methylnaphthalene #4
13.103	BB	3605.74121	1.38670e-2	50.00065		Acenaphthene #5
13.761	BB	7656.80322	6.53228e-3	50.01636		Fluorene #6
15.153	BBA	295.27972	1.63827e-1	48.37483		Phenanthrene #7
16.563	BB	159.95667	3.10549e-1	49.67436		Anthracene #8
17.946	BB	210.50659	2.32969e-2	4.90415		Fluoranthene #9
18.958	BBA	130.27173	3.71107e-2	4.83447		Pyrene #10
21.304	PB	163.61835	2.96033e-1	48.43651		p-Terphenyl d14 #11*
22.633	BB	616.44403	7.92426e-3	4.88486		Benzo(a)anthracene #12
23.512	BB	124.43752	3.91177e-2	4.86771		Chrysene #13
26.240	BB	299.93723	1.63317e-2	4.89849		Benzo(b)fluoranthene #14
27.686	BB	893.52496	2.76733e-3	2.47268		Benzo(k)fluoranthene #15
28.816	BB	1063.36975	4.57033e-3	4.85995		Benzo(a)pyrene #16
30.686	BB	122.84724	3.93851e-2	4.83834		Dibenz(a,h)anthracene #17
31.519	BB	181.30618	2.65675e-2	4.81686		Benzo(g,h,i)perylene #18
32.434	BB	354.48691	1.38152e-2	4.89732		Indeno(1,2,3-cd)pyrene #1

Totals : 441.43712

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
9.448	PBA	6202.44971	8.25915e-3	51.22699		Naphthalene #1
11.081	BB	1657.23242	2.97185e-2	49.25050		Acenaphthylene #2
12.027	BB	3838.97803	1.29547e-2	49.73284		1-Methylnaphthalene #3
12.604	BB	4469.53662	1.12471e-2	50.26953		2-Methylnaphthalene #4
13.083	BB	2433.60547	2.03296e-2	49.47421		Acenaphthene #5
13.741	BB	2816.46851	1.75408e-2	49.40304		Fluorene #6
15.133	BBA	2852.19556	1.73083e-2	49.36677		Phenanthrene #7
16.543	BBA	4858.51855	1.04295e-2	50.67187		Anthracene #8
17.925	PB	226.24062	2.17178e-2	4.91345		Fluoranthene #9
18.937	BBA	342.22821	1.43193e-2	4.90046		Pyrene #10
21.284	PBA	752.44629	6.53529e-2	49.17455		p-Terphenyl d14 #11*
22.614	PBA	220.89987	2.22893e-2	4.92370		Benzo(a)anthracene #12
23.492	BBA	324.43796	1.51547e-2	4.91677		Chrysene #13
26.219	BBA	236.98158	2.07517e-2	4.91778		Benzo(b)fluoranthene #14
27.666	BB	108.82767	2.26066e-2	2.46022		Benzo(k)fluoranthene #15
28.796	BBA	186.41614	2.61378e-2	4.87251		Benzo(a)pyrene #16
30.666	BB	52.55205	9.41932e-2	4.95004		Dibenz(a,h)anthracene #17

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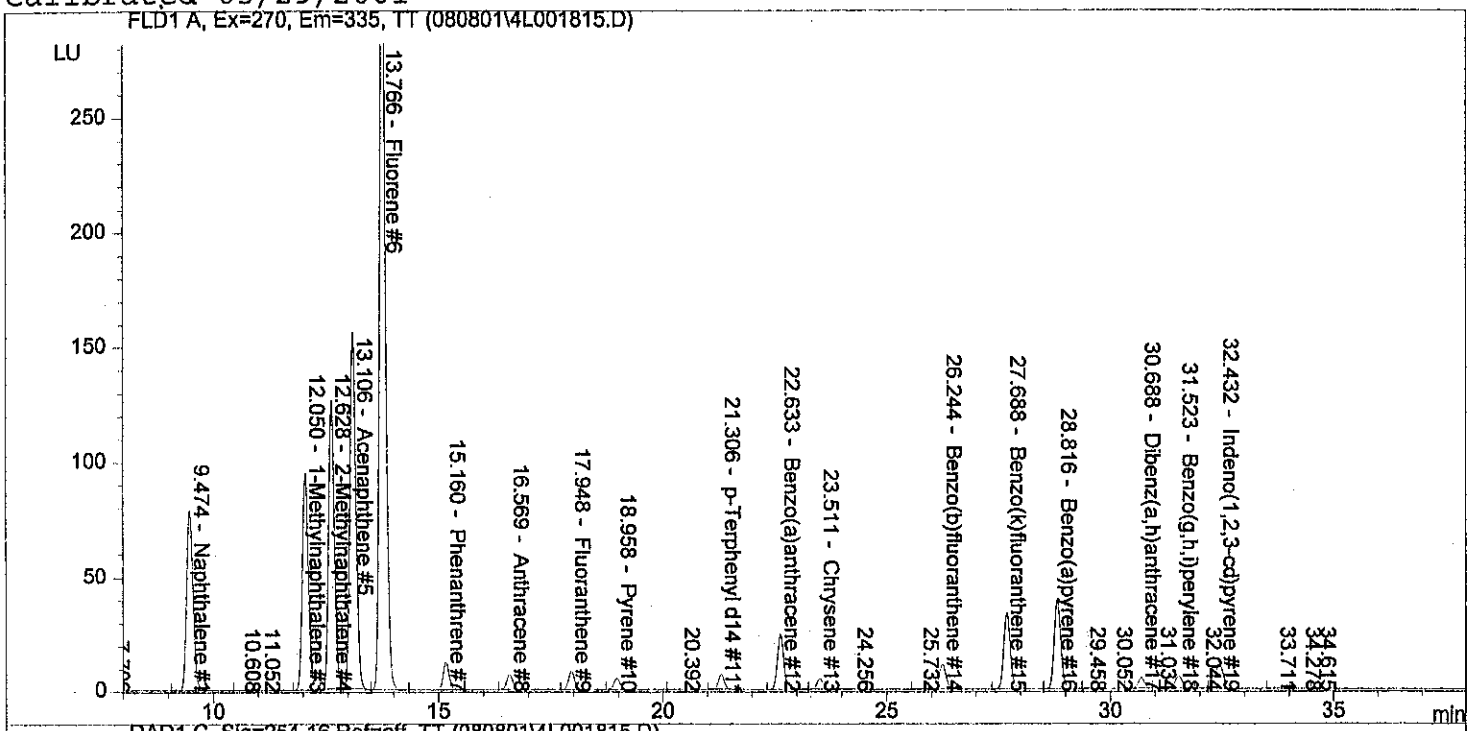
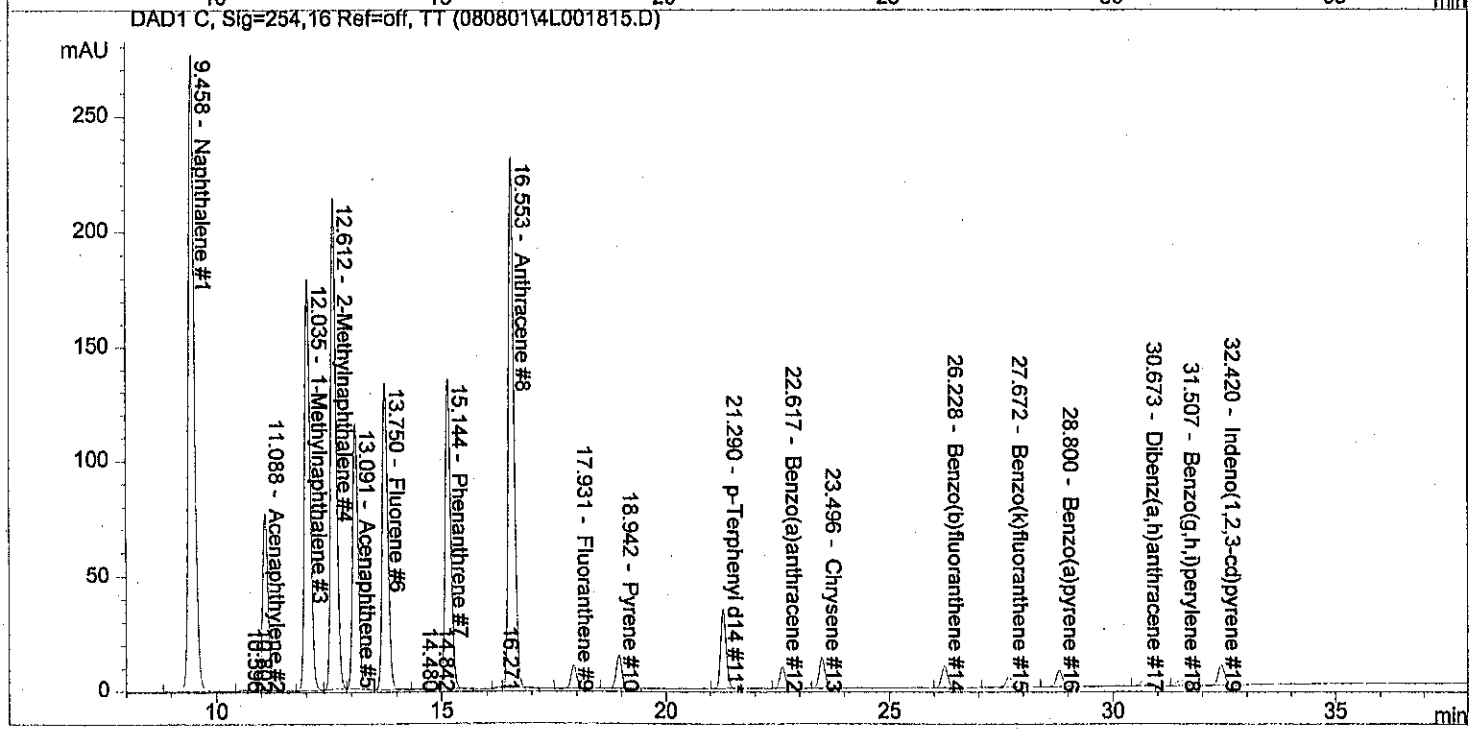
Injection Date : 8/9/2001 12:38:12 AM
Sample Name : 8310 std 4/53-25
Acq. Operator : RDC

Seq. Line : 11
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:24:08 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:24:05 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
9.474	PBA	771.00281	2.53062e-2	19.51118		Naphthalene #1
12.050	PB	887.93890	2.21431e-2	19.66168		1-Methylnaphthalene #3
12.628	BB	1160.72327	1.70700e-2	19.81357		2-Methylnaphthalene #4
13.106	BB	1445.95483	1.38473e-2	20.02258		Acenaphthene #5
13.766	BB	3112.09448	6.51797e-3	20.28453		Fluorene #6
15.160	BBA	116.85247	1.63688e-1	19.12731		Phenanthrene #7
16.569	BBA	63.99872	3.10306e-1	19.85918		Anthracene #8
17.948	BBA	83.17304	2.32743e-2	1.93580		Fluoranthene #9
18.958	BBA	50.45357	3.70193e-2	1.86776		Pyrene #10
21.306	BBA	64.98736	2.97101e-1	19.30782		p-Terphenyl d14 #11*
22.633	BB	242.58244	7.91528e-3	1.92011		Benzo(a)anthracene #12
23.511	BB	48.77195	3.90649e-2	1.90527		Chrysene #13
26.244	BBA	118.32101	1.63243e-2	1.93151		Benzo(b)fluoranthene #14
27.688	BB	355.36359	2.76617e-3	9.82998e-1		Benzo(k)fluoranthene #15
28.816	BB	414.51672	4.57086e-3	1.89470		Benzo(a)pyrene #16
30.688	BB	47.95410	3.93563e-2	1.88730		Dibenz(a,h)anthracene #17
31.523	BB	69.49560	2.65273e-2	1.84353		Benzo(g,h,i)perylene #18
32.432	BBA	140.75026	1.38193e-2	1.94508		Indeno(1,2,3-cd)pyrene #1

Totals : 175.70189

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
9.458	PBA	2499.14551	8.25594e-3	20.63280		Naphthalene #1
11.088	BBA	660.92621	2.97039e-2	19.63209		Acenaphthylene #2
12.035	PB	1534.10083	1.29485e-2	19.86429		1-Methylnaphthalene #3
12.612	BB	1794.47327	1.12416e-2	20.17276		2-Methylnaphthalene #4
13.091	BB	971.18744	2.03201e-2	19.73465		Acenaphthene #5
13.750	BBA	1121.39856	1.75287e-2	19.65661		Fluorene #6
15.144	BBA	1137.18030	1.73013e-2	19.67475		Phenanthrene #7
16.553	BBA	1952.77490	1.04274e-2	20.36233		Anthracene #8
17.931	PB	89.62297	2.17050e-2	1.94527		Fluoranthene #9
18.942	BBA	135.53003	1.43101e-2	1.93944		Pyrene #10
21.290	BBA	299.12198	6.56026e-2	19.62319		p-Terphenyl d14 #11*
22.617	PBA	87.18385	2.22768e-2	1.94218		Benzo(a)anthracene #12
23.496	PBA	128.16238	1.51490e-2	1.94153		Chrysene #13
26.228	PBA	93.81008	2.07392e-2	1.94555		Benzo(b)fluoranthene #14
27.672	BB	43.54576	2.25926e-2	9.83811e-1		Benzo(k)fluoranthene #15
28.800	BBA	71.60413	2.61650e-2	1.87352		Benzo(a)pyrene #16
30.673	BBA	21.07817	9.41491e-2	1.98449		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.507	PB	33.12908	5.60918e-2	1.85827		Benzo(g,h,i)perylene #18
32.420	BB	91.52023	2.05641e-2	1.88203		Indeno(1,2,3-cd)pyrene #1

Totals : 197.64957

Results obtained with enhanced integrator!

*** End of Report ***

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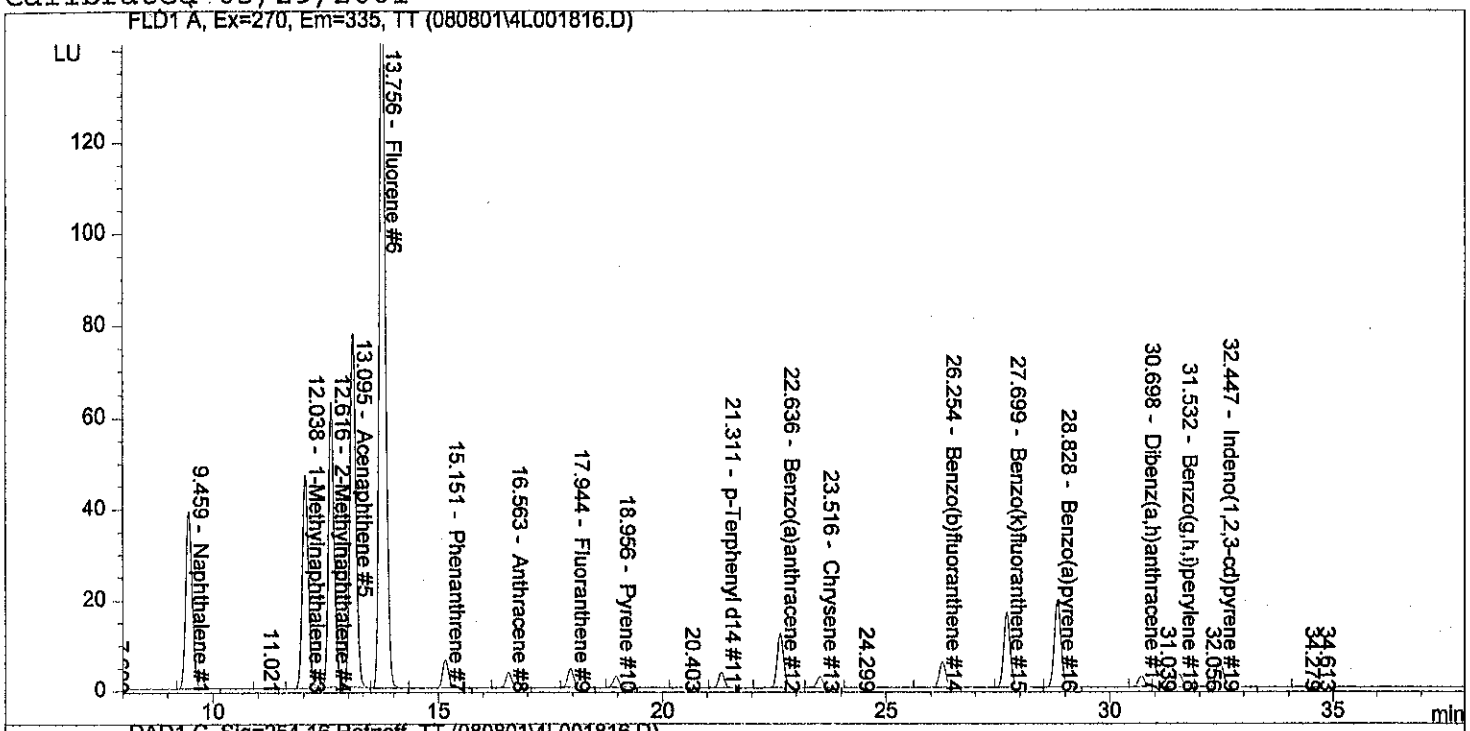
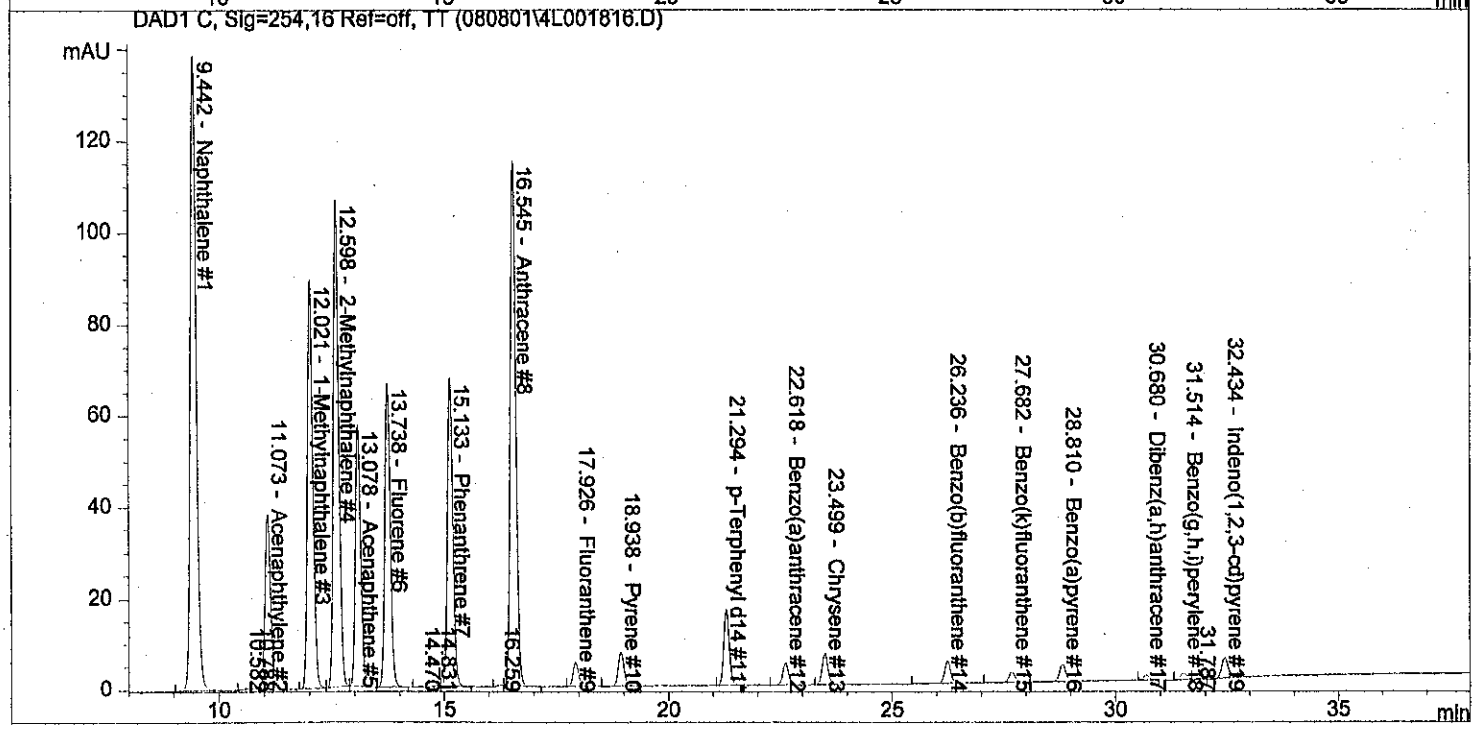
Injection Date	: 8/9/2001 1:34:48 AM	Seq. Line :	12
Sample Name	: 8310 std 3/53-25	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:53:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:53:51 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
9.459	BBA	381.56079	2.52975e-2	9.65254		Naphthalene #1
12.038	PB	438.85303	2.21343e-2	9.71369		1-Methylnaphthalene #3
12.616	BB	575.43298	1.70643e-2	9.81937		2-Methylnaphthalene #4
13.095	BB	718.90424	1.38423e-2	9.95132		Acenaphthene #5
13.756	BB	1559.63367	6.51366e-3	10.15893		Fluorene #6
15.151	BBA	58.15233	1.63652e-1	9.51677		Phenanthrene #7
16.563	BBA	32.12813	3.10210e-1	9.96646		Anthracene #8
17.944	BBA	41.21679	2.32680e-2	9.59030e-1		Fluoranthene #9
18.956	BBA	24.49013	3.70002e-2	9.06140e-1		Pyrene #10
21.311	BBA	31.73221	2.97355e-1	9.43572		p-Terphenyl d14 #11*
22.636	PB	119.82957	7.91289e-3	9.48198e-1		Benzo(a)anthracene #12
23.516	BBA	24.17820	3.90514e-2	9.44192e-1		Chrysene #13
26.254	PBA	58.33105	1.63221e-2	9.52086e-1		Benzo(b)fluoranthene #14
27.699	BB	176.43927	2.76576e-3	4.87989e-1		Benzo(k)fluoranthene #15
28.828	BB	203.54648	4.57102e-3	9.30415e-1		Benzo(a)pyrene #16
30.698	PB	23.53592	3.93487e-2	9.26108e-1		Dibenz(a,h)anthracene #17
31.532	BB	33.85759	2.65177e-2	8.97824e-1		Benzo(g,h,i)perylene #18
32.447	BBA	69.61817	1.38197e-2	9.62101e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 87.12889

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
9.442	PBA	1248.26221	8.25422e-3	10.30343		Naphthalene #1
11.073	BBA	328.40460	2.96983e-2	9.75306		Acenaphthylene #2
12.021	PB	763.85205	1.29461e-2	9.88889		1-Methylnaphthalene #3
12.598	BB	894.31500	1.12395e-2	10.05166		2-Methylnaphthalene #4
13.078	BB	483.56268	2.03168e-2	9.82443		Acenaphthene #5
13.738	BBA	557.46277	1.75246e-2	9.76933		Fluorene #6
15.133	BBA	565.66064	1.72985e-2	9.78506		Phenanthrene #7
16.545	BBA	973.54010	1.04262e-2	10.15030		Anthracene #8
17.926	PB	44.25564	2.17013e-2	9.60407e-1		Fluoranthene #9
18.938	BBA	67.74028	1.43056e-2	9.69062e-1		Pyrene #10
21.294	BBA	145.31215	6.56589e-2	9.54104		p-Terphenyl d14 #11*
22.618	BBA	43.83417	2.22701e-2	9.76191e-1		Benzo(a)anthracene #12
23.499	BBA	63.60076	1.51457e-2	9.63280e-1		Chrysene #13
26.236	PBA	46.71288	2.07333e-2	9.68511e-1		Benzo(b)fluoranthene #14
27.682	BBA	21.84682	2.25837e-2	4.93381e-1		Benzo(k)fluoranthene #15
28.810	BBA	35.68842	2.61682e-2	9.33903e-1		Benzo(a)pyrene #16
30.680	BBA	10.35146	9.41628e-2	9.74722e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.514	PB	13.18469	5.60856e-2	7.39471e-1		Benzo(g,h,i)perylene #18
32.434	BB	45.97294	2.05614e-2	9.45269e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 97.99139

Results obtained with enhanced integrator!

*** End of Report ***

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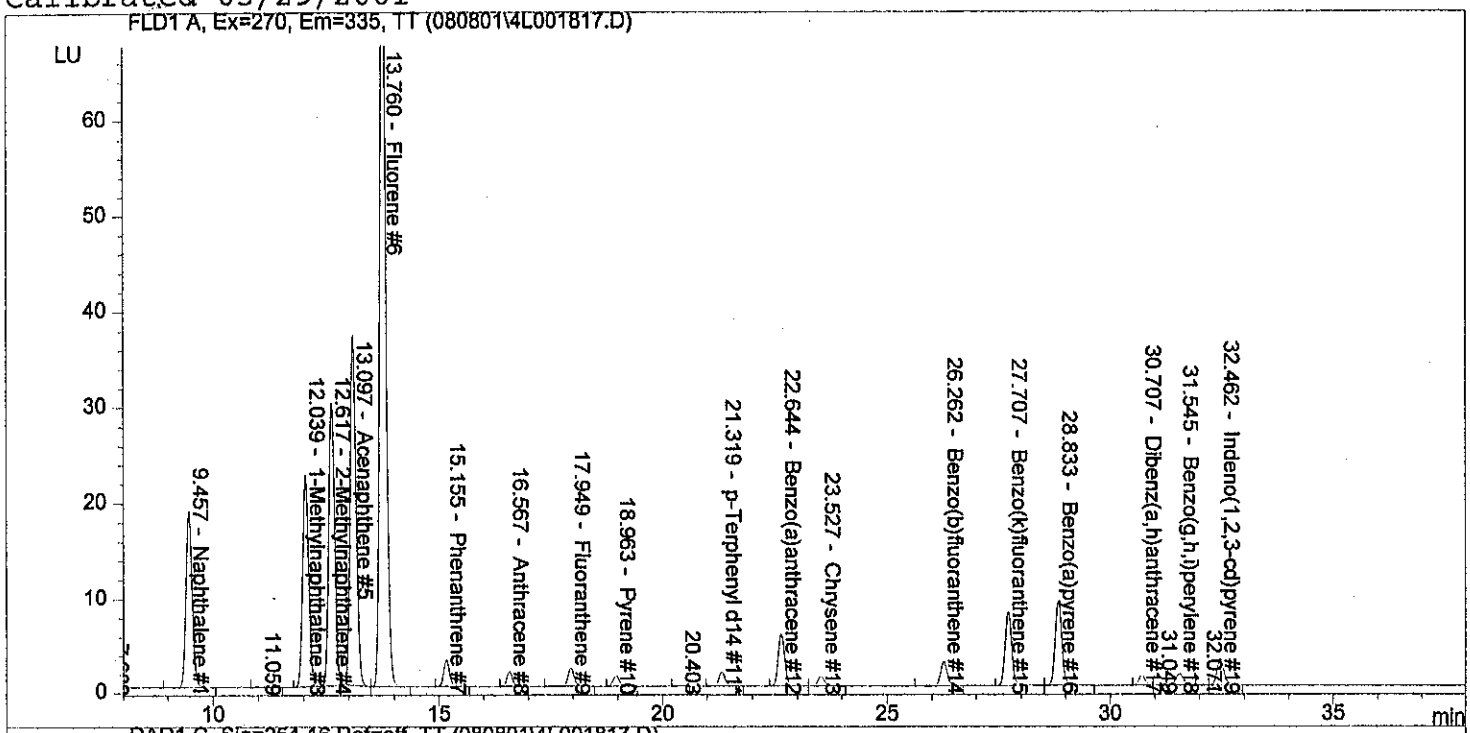
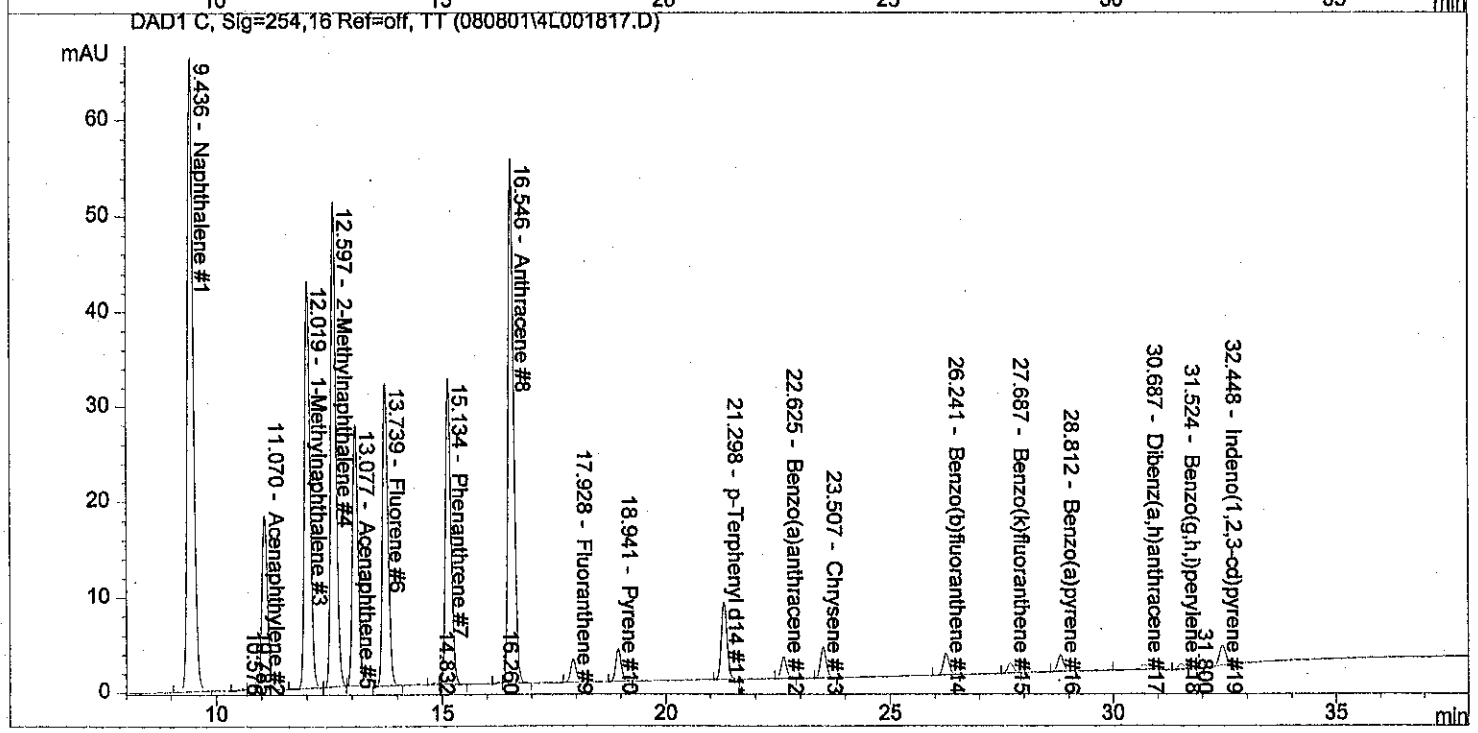
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

Seq. Line : 13
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:55:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:55:07 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
9.457	PBA	181.76619	2.52963e-2	4.59801		Naphthalene #1
12.039	PB	209.24336	2.21330e-2	4.63119		1-Methylnaphthalene #3
12.617	BB	274.39529	1.70636e-2	4.68216		2-Methylnaphthalene #4
13.097	BB	342.62488	1.38416e-2	4.74248		Acenaphthene #5
13.760	BBA	746.17523	6.51370e-3	4.86036		Fluorene #6
15.155	PBA	27.27178	1.63653e-1	4.46310		Phenanthrene #7
16.567	BBA	15.29622	3.10197e-1	4.74485		Anthracene #8
17.949	BBA	19.73562	2.32679e-2	4.59206e-1		Fluoranthene #9
18.963	BBA	11.52839	3.69974e-2	4.26520e-1		Pyrene #10
21.319	BBA	15.32359	2.97421e-1	4.55755		p-Terphenyl d14 #11*
22.644	BB	56.84493	7.91259e-3	4.49791e-1		Benzo(a)anthracene #12
23.527	BBA	11.43981	3.90499e-2	4.46723e-1		Chrysene #13
26.262	PBA	27.63313	1.63222e-2	4.51033e-1		Benzo(b)fluoranthene #14
27.707	PB	83.81139	2.76572e-3	2.31799e-1		Benzo(k)fluoranthene #15
28.833	BBA	96.67756	4.57119e-3	4.41931e-1		Benzo(a)pyrene #16
30.707	PB	10.91603	3.93495e-2	4.29540e-1		Dibenz(a,h)anthracene #17
31.545	BB	15.83937	2.65166e-2	4.20006e-1		Benzo(g,h,i)perylene #18
32.462	BBA	32.35181	1.38204e-2	4.47116e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.48338

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
9.436	PBA	597.19745	8.25408e-3	4.92931		Naphthalene #1
11.070	BBA	157.20731	2.96976e-2	4.66868		Acenaphthylene #2
12.019	BB	365.03561	1.29459e-2	4.72572		1-Methylnaphthalene #3
12.597	BB	428.27109	1.12393e-2	4.81347		2-Methylnaphthalene #4
13.077	BBA	231.24211	2.03164e-2	4.69801		Acenaphthene #5
13.739	BBA	266.30728	1.75241e-2	4.66679		Fluorene #6
15.134	BBA	270.24643	1.72983e-2	4.67479		Phenanthrene #7
16.546	BBA	465.29129	1.04262e-2	4.85122		Anthracene #8
17.928	PBA	21.37060	2.17007e-2	4.63757e-1		Fluoranthene #9
18.941	BBA	31.33940	1.43053e-2	4.48319e-1		Pyrene #10
21.298	PBA	70.24126	6.56728e-2	4.61294		p-Terphenyl d14 #11*
22.625	BBA	20.54964	2.22694e-2	4.57628e-1		Benzo(a)anthracene #12
23.507	BBA	30.26713	1.51453e-2	4.58406e-1		Chrysene #13
26.241	PBA	22.12707	2.07330e-2	4.58761e-1		Benzo(b)fluoranthene #14
27.687	PBA	10.19696	2.25839e-2	2.30287e-1		Benzo(k)fluoranthene #15
28.812	BBA	16.98781	2.61681e-2	4.44538e-1		Benzo(a)pyrene #16
30.687	BBA	6.85372	9.41128e-2	6.45023e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.524	PB	5.61006	5.60813e-2	3.14619e-1		Benzo(g,h,i)perylene #18
32.448	BB	21.11818	2.05610e-2	4.34211e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.99648

Results obtained with enhanced integrator!

*** End of Report ***

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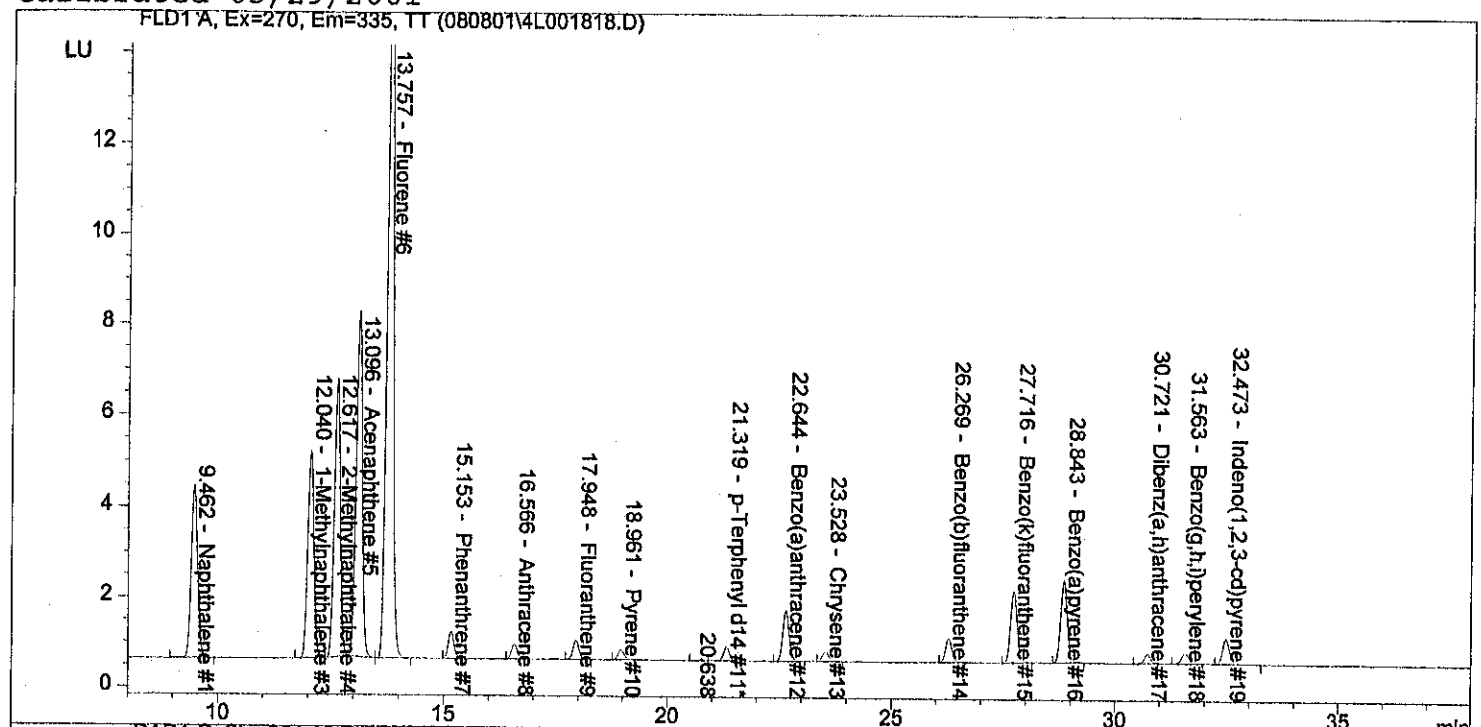
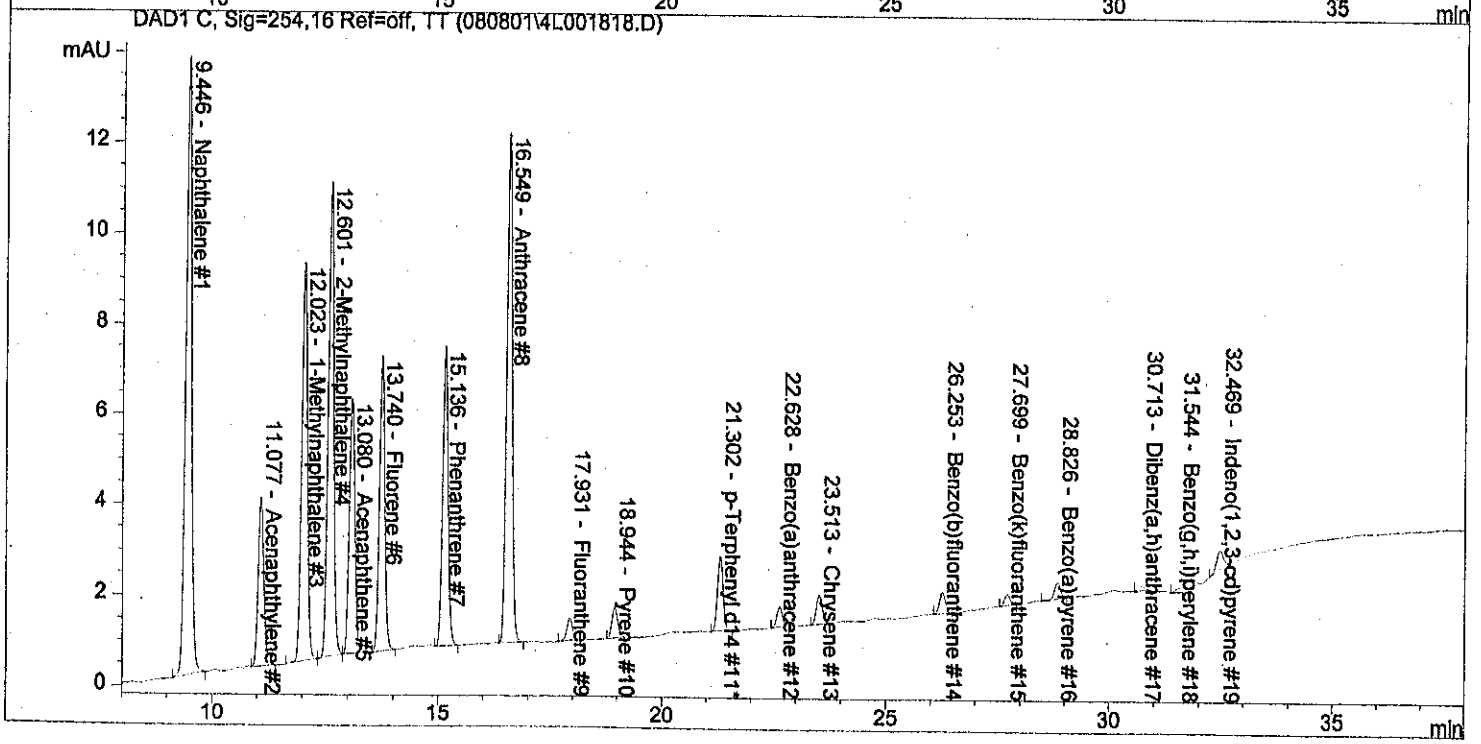
Injection Date : 8/9/2001 3:28:00 AM
Sample Name : 8310 std 1/53-25
Acq. Operator : RDC

Seq. Line : 14
Vial : 11
Inj : 1
Inj Volume : 8 µl

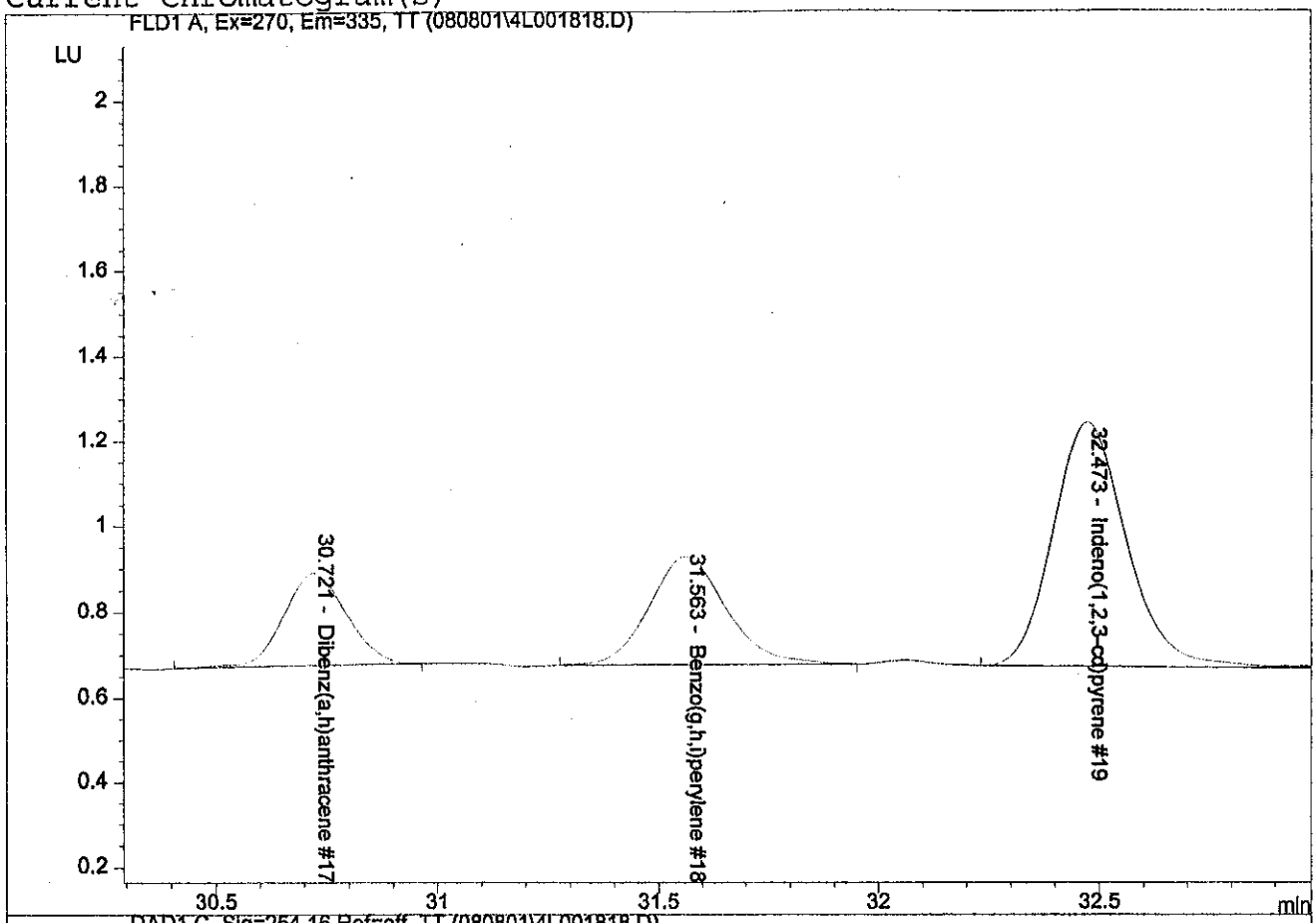
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

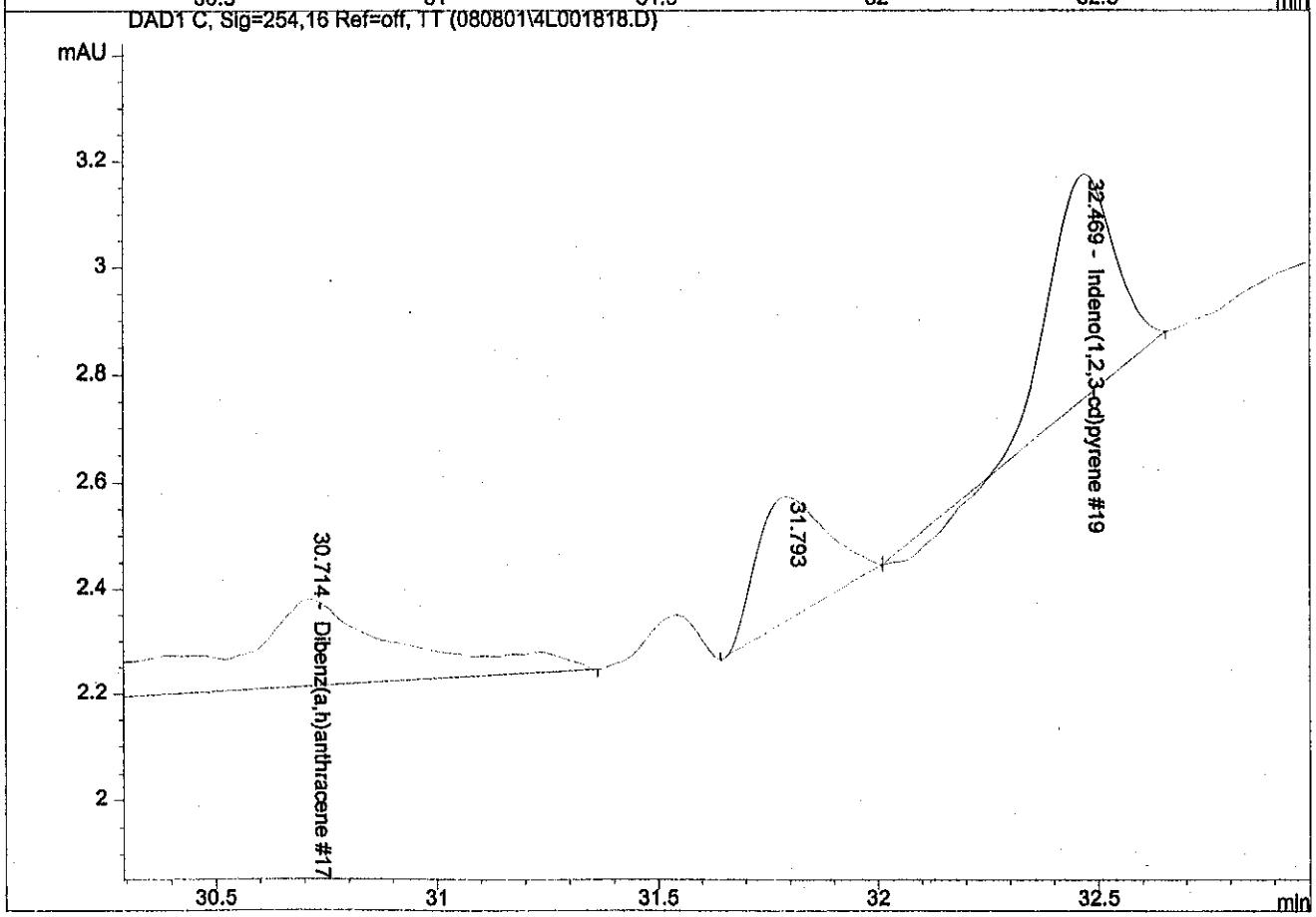
Calibrated 03/29/2001



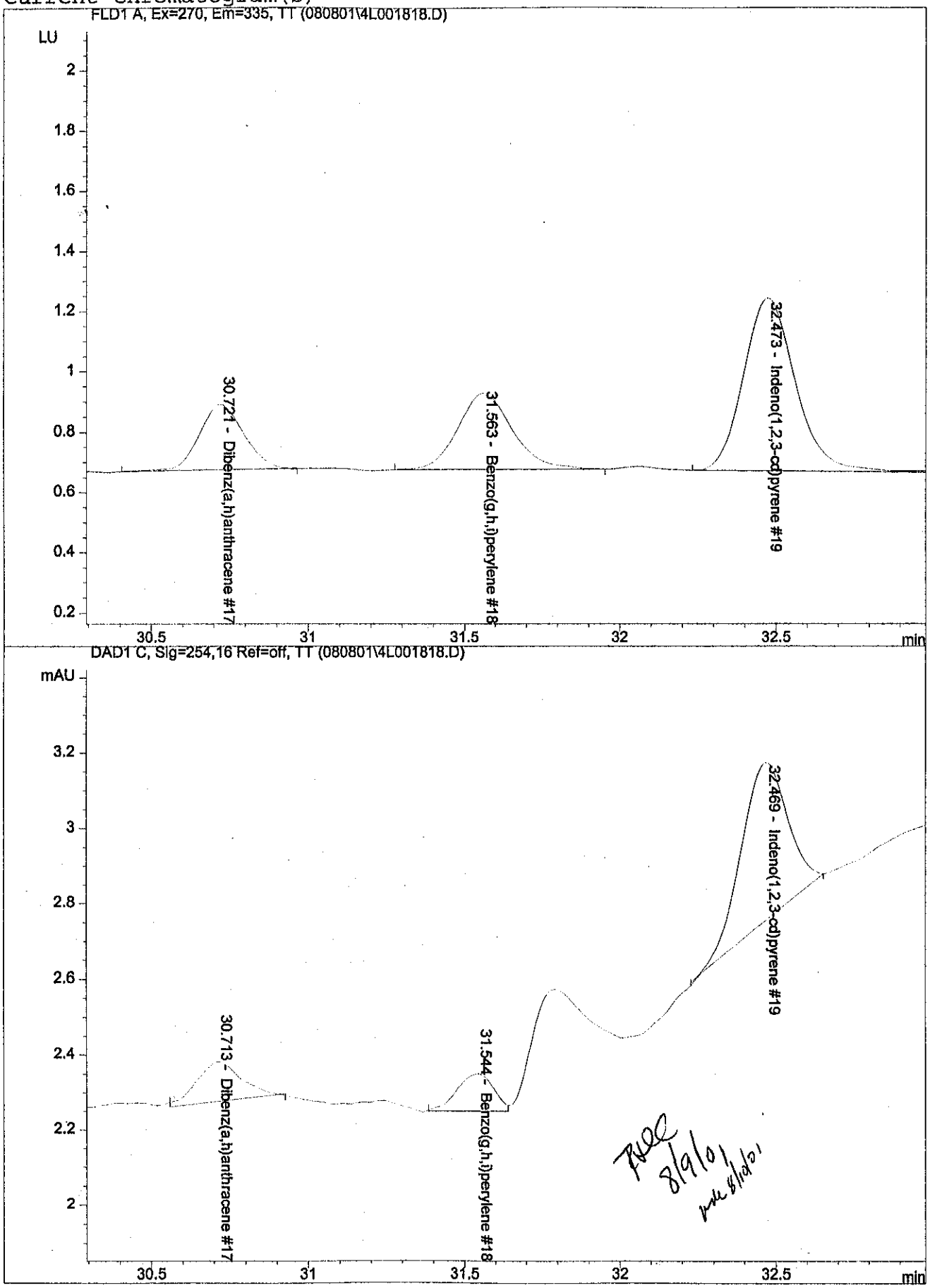


Current Chromatogram(s)





Current Chromatogram(s)



RDC 8/9/01
mk 8/10/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:57:05 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
9.462	PBA	37.17168	2.52962e-2	9.40302e-1		Naphthalene #1
12.040	PB	42.88826	2.21330e-2	9.49244e-1		1-Methylnaphthalene #3
12.617	BB	56.35436	1.70635e-2	9.61602e-1		2-Methylnaphthalene #4
13.096	BB	70.47864	1.38416e-2	9.75535e-1		Acenaphthene #5
13.757	BBA	154.16187	6.51364e-3	1.00416		Fluorene #6
15.153	BBA	5.49988	1.63652e-1	9.00067e-1		Phenanthrene #7
16.566	BBA	3.13834	3.10196e-1	9.73501e-1		Anthracene #8
17.948	BBA	3.92854	2.32678e-2	9.14086e-2		Fluoranthene #9
18.961	PBA	2.27570	3.69972e-2	8.41944e-2		Pyrene #10
21.319	BBA	3.07342	2.97423e-1	9.14105e-1		p-Terphenyl d14 #11*
22.644	BB	11.54687	7.91256e-3	9.13654e-2		Benzo(a)anthracene #12
23.528	BB	2.41118	3.90495e-2	9.41556e-2		Chrysene #13
26.269	BBA	5.57386	1.63222e-2	9.09776e-2		Benzo(b)fluoranthene #14
27.716	PBA	16.87873	2.76572e-3	4.66818e-2		Benzo(k)fluoranthene #15
28.843	PBA	19.26282	4.57119e-3	8.80540e-2		Benzo(a)pyrene #16
30.721	PBA	2.12374	3.93496e-2	8.35682e-2		Dibenz(a,h)anthracene #17
31.563	PB	3.08265	2.65165e-2	8.17409e-2		Benzo(g,h,i)perylene #18
32.473	BBA	6.64809	1.38204e-2	9.18793e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.46254

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
9.446	PBA	122.72835	8.25405e-3	1.01301		Naphthalene #1
11.077	BBA	32.52021	2.96975e-2	9.65769e-1		Acenaphthylene #2
12.023	BB	75.33028	1.29459e-2	9.75215e-1		1-Methylnaphthalene #3
12.601	BB	88.22273	1.12393e-2	9.91560e-1		2-Methylnaphthalene #4
13.080	BBA	47.72895	2.03163e-2	9.69678e-1		Acenaphthene #5
13.740	BBA	54.47855	1.75240e-2	9.54682e-1		Fluorene #6
15.136	BBA	55.64261	1.72982e-2	9.62519e-1		Phenanthrene #7
16.549	BBA	95.56687	1.04262e-2	9.96398e-1		Anthracene #8
17.931	PBA	4.46854	2.17006e-2	9.69699e-2		Fluoranthene #9
18.944	BBA	6.23924	1.43052e-2	8.92539e-2		Pyrene #10
21.302	PBA	14.08348	6.56733e-2	9.24908e-1		p-Terphenyl d14 #11*
22.628	BBA	4.00703	2.22694e-2	8.92344e-2		Benzo(a)anthracene #12
23.513	PBA	6.06011	1.51453e-2	9.17822e-2		Chrysene #13
26.253	BBA	4.43454	2.07330e-2	9.19412e-2		Benzo(b)fluoranthene #14
27.699	BBA	2.30033	2.25837e-2	5.19499e-2		Benzo(k)fluoranthene #15
28.826	BBA	3.45270	2.61680e-2	9.03503e-2		Benzo(a)pyrene #16
30.713	MM	1.04021	9.41116e-2	9.78958e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.544	MV	8.44691e-1	5.60829e-2	4.73728e-2		Benzo(g,h,i)perylene #18
32.469	FM	4.35778	2.05608e-2	8.95994e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.59008

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
HPLC4 8/9/2001 2:40:05 PM RDC

==========

Injection Date : 8/9/2001 4:24:36 AM Seq. Line : 15
Sample Name : 8310alt5327/5529 Vial : 12
Acq. Operator : RDC Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.470	20.0	19.085	-4.6
1-Methylnaphthalene #3	12.051	20.0	19.612	-1.9
2-Methylnaphthalene #4	12.628	20.0	19.236	-3.8
Acenaphthene #5	13.106	20.0	20.107	0.5
Fluorene #6	13.767	20.0	20.476	2.4
Phenanthrene #7	15.162	20.0	18.244	-8.8
Anthracene #8	16.577	20.0	20.286	1.4
Fluoranthene #9	17.959	2.0	1.875	-6.2
Pyrene #10	18.972	2.0	1.773	-11.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.654	2.0	1.764	-11.8
Chrysene #13	23.539	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.279	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.731	1.0	0.859	-14.1
Benzo(a)pyrene #16	28.859	2.0	1.936	-3.2
Dibenz(a,h)anthracene #1	30.737	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.575	2.0	1.778	-11.1
Indeno(1,2,3-cd)pyrene #	32.488	2.0	1.863	-6.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.449	20.0	20.445	2.2
Acenaphthylene #2	11.083	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.030	20.0	20.220	1.1
2-Methylnaphthalene #4	12.606	20.0	19.941	-0.3
Acenaphthene #5	13.085	20.0	20.110	0.5
Fluorene #6	13.745	20.0	19.598	-2.0
Phenanthrene #7	15.141	20.0	19.075	-4.6
Anthracene #8	16.555	20.0	20.838	4.2
Fluoranthene #9	17.937	2.0	1.904	-4.8
Pyrene #10	18.950	2.0	1.866	-6.7
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.633	2.0	1.817	-9.1
Chrysene #13	23.517	2.0	1.889	-5.5
Benzo(b)fluoranthene #14	26.257	2.0	1.916	-4.2
Benzo(k)fluoranthene #15	27.709	1.0	0.861	-13.9
Benzo(a)pyrene #16	28.837	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.716	2.0	2.113	5.6
Benzo(g,h,i)perylene #18	31.551	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.471	2.0	1.847	-7.7

= Failed 15.0% Criteria

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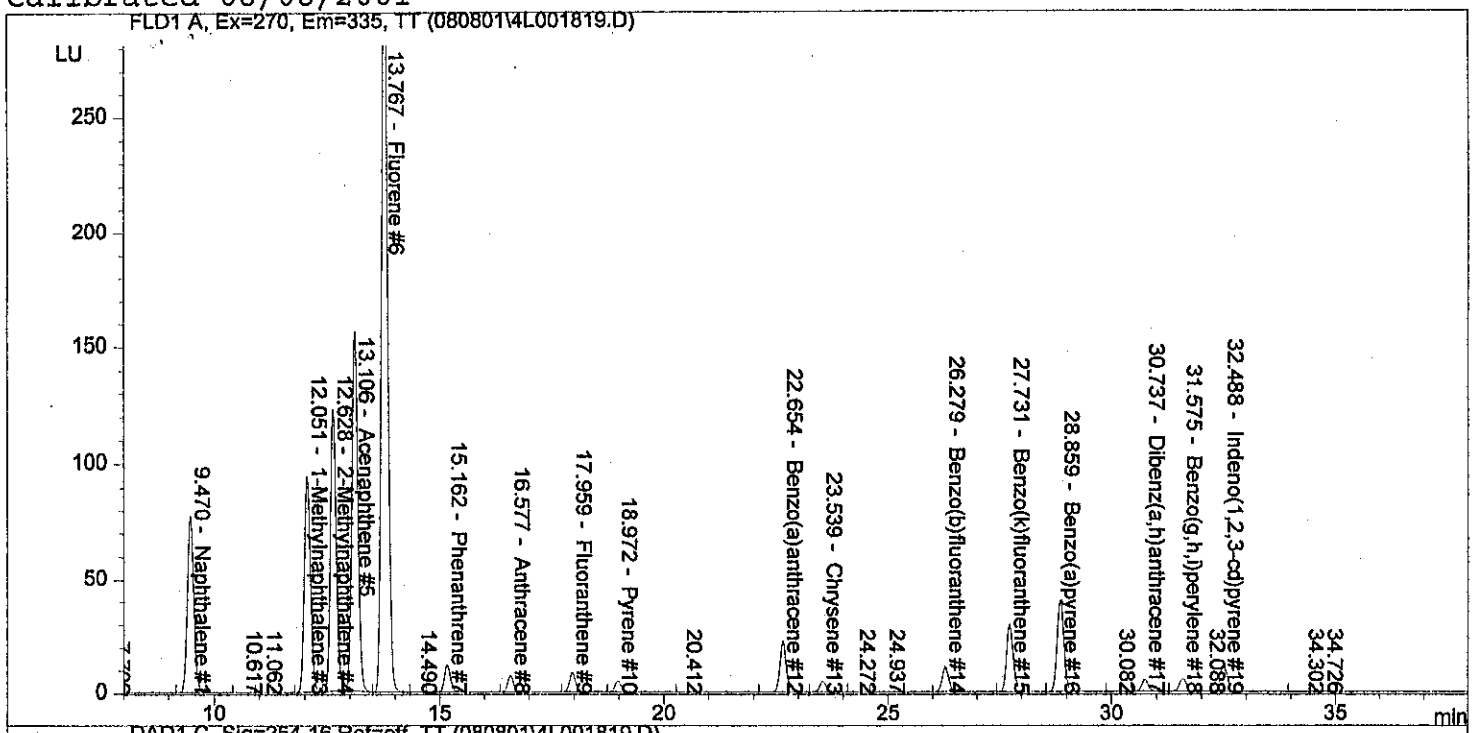
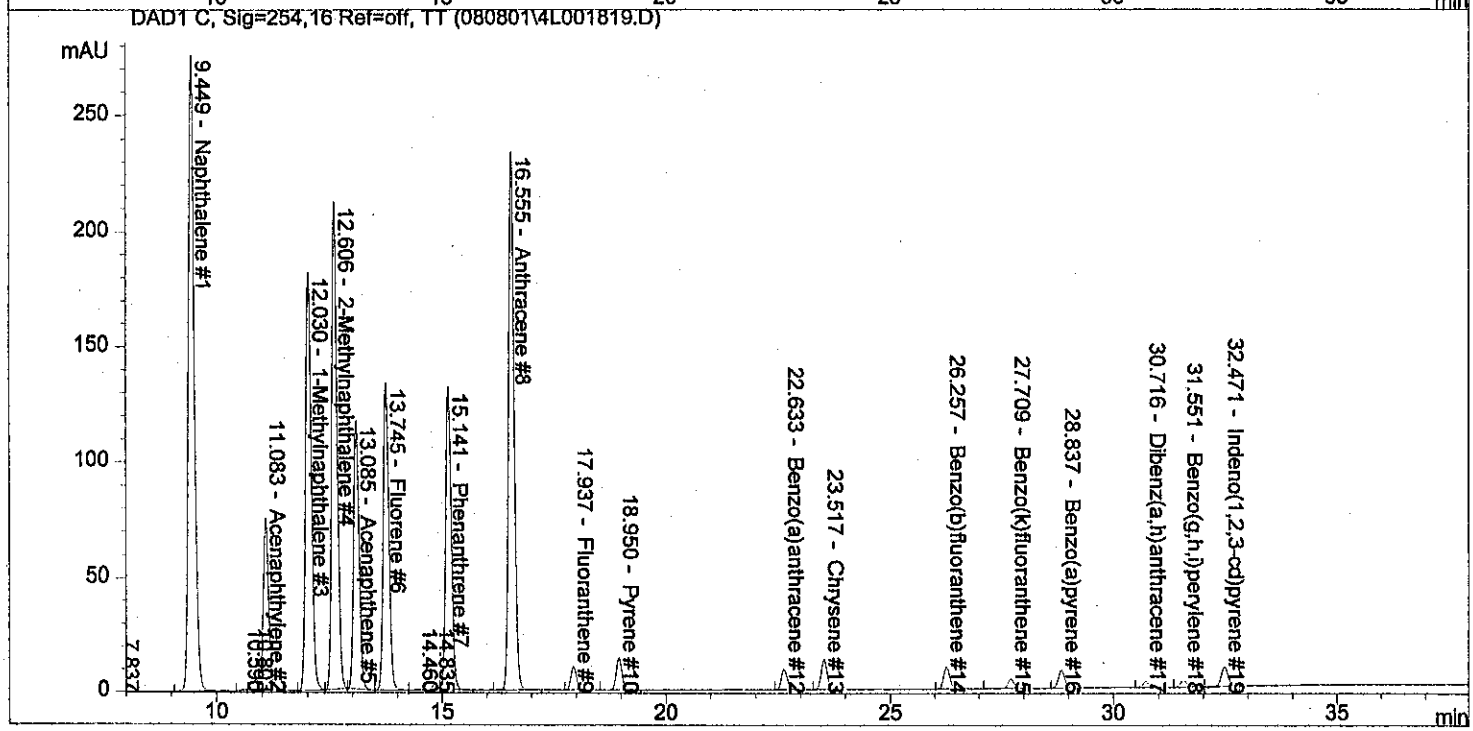
Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

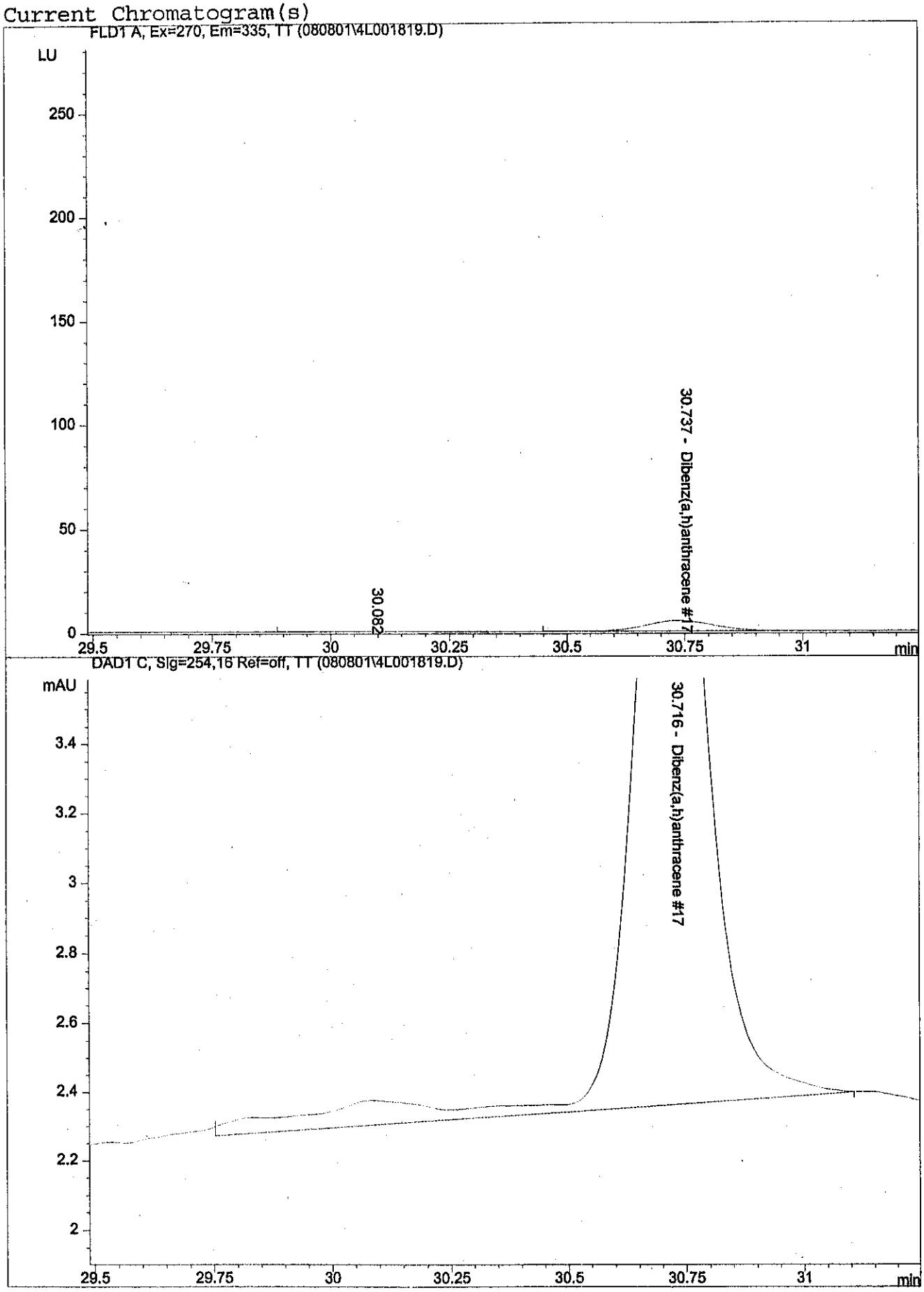
Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 2:38:26 PM by RDC
Calibrated 08/08/2001

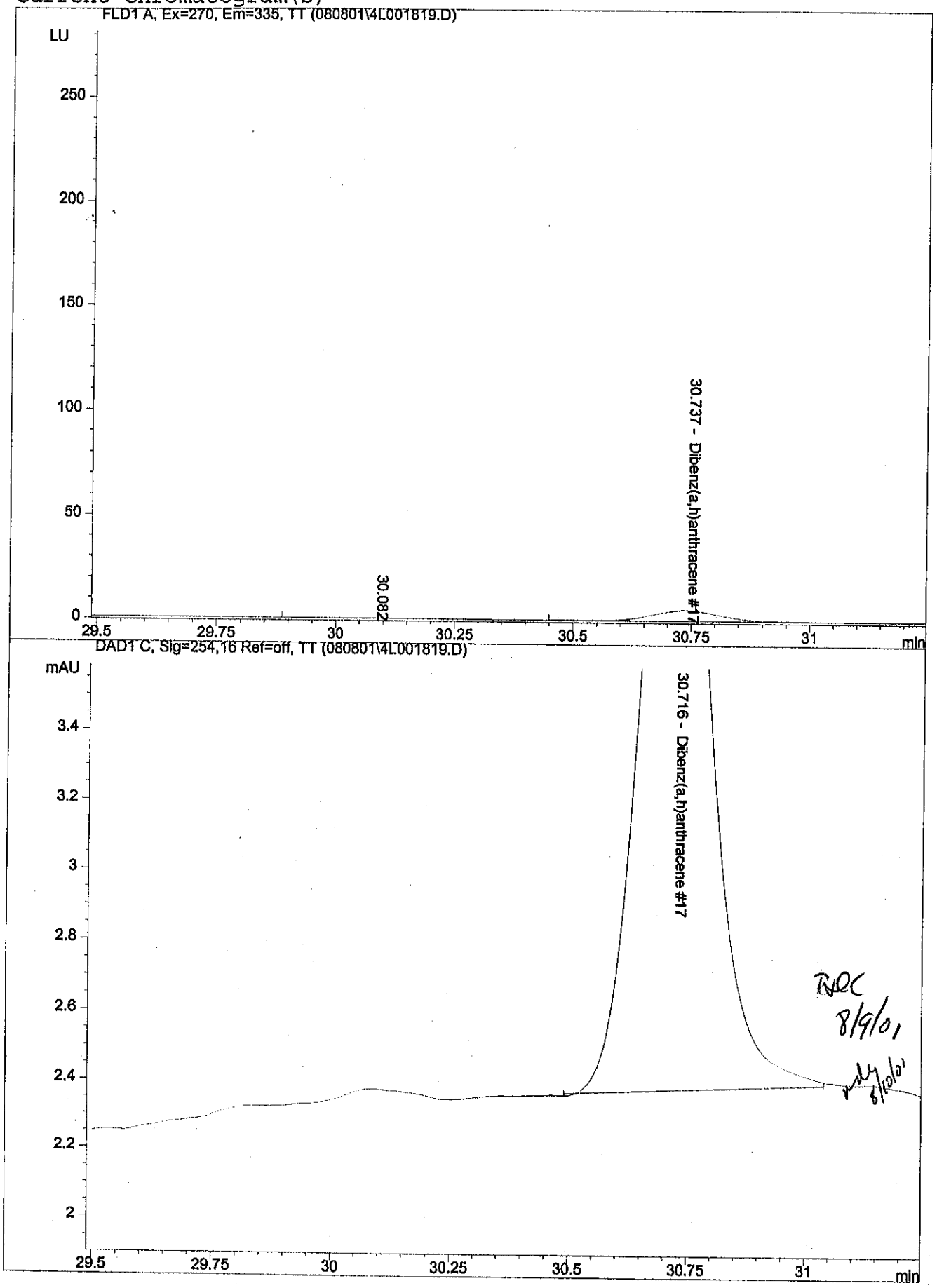




Current Chromatogram(s)



Current Chromatogram(s)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/9/2001 2:38:03 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
9.470	BBA	754.46277	2.52962e-2	19.08504		Naphthalene #1
12.051	PB	886.09137	2.21330e-2	19.61182		1-Methylnaphthalene #3
12.628	BB	1127.34106	1.70635e-2	19.23638		2-Methylnaphthalene #4
13.106	BB	1452.62085	1.38416e-2	20.10654		Acenaphthene #5
13.767	BB	3092.24097	6.62187e-3	20.47641		Fluorene #6
15.162	BBA	111.47997	1.63652e-1	18.24395		Phenanthrene #7
16.577	BBA	65.39610	3.10196e-1	20.28563		Anthracene #8
17.959	BBA	80.59158	2.32678e-2	1.87519		Fluoranthene #9
18.972	BBA	45.85996	3.86587e-2	1.77289		Pyrene #10
21.319		-	-	-		p-Terphenyl d14 #11*
22.654	BB	222.98581	7.91256e-3	1.76439		Benzo(a)anthracene #12
23.539	BBA	46.41417	3.90495e-2	1.81245		Chrysene #13
26.279	BBA	116.38370	1.63222e-2	1.89964		Benzo(b)fluoranthene #14
27.731	PB	310.48468	2.76572e-3	8.58712e-1		Benzo(k)fluoranthene #15
28.859	BBA	423.47870	4.57119e-3	1.93580		Benzo(a)pyrene #16
30.737	BB	51.95090	3.93496e-2	2.04424		Dibenz(a,h)anthracene #17
31.575	BB	67.06937	2.65165e-2	1.77844		Benzo(g,h,i)perylene #18
32.488	BBA	134.78470	1.38204e-2	1.86278		Indeno(1,2,3-cd)pyrene #1

Totals : 154.65030

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
9.449	PBA	2477.01978	8.25405e-3	20.44544		Naphthalene #1
11.083	BB	647.54114	2.96975e-2	19.23036		Acenaphthylene #2
12.030	BB	1561.87817	1.29459e-2	20.21985		1-Methylnaphthalene #3
12.606	BB	1774.18762	1.12393e-2	19.94059		2-Methylnaphthalene #4
13.085	BB	989.82544	2.03163e-2	20.10963		Acenaphthene #5
13.745	BB	1118.36353	1.75240e-2	19.59821		Fluorene #6
15.141	BBA	1102.72717	1.72982e-2	19.07524		Phenanthrene #7
16.555	BBA	1998.58276	1.04262e-2	20.83759		Anthracene #8
17.937	PB	87.72285	2.17006e-2	1.90364		Fluoranthene #9
18.950	BBA	130.42879	1.43052e-2	1.86582		Pyrene #10
21.302		-	-	-		p-Terphenyl d14 #11*
22.633	BBA	81.60189	2.22694e-2	1.81723		Benzo(a)anthracene #12
23.517	PBA	124.75014	1.51453e-2	1.88938		Chrysene #13
26.257	BBA	92.43634	2.07330e-2	1.91648		Benzo(b)fluoranthene #14
27.709	BBA	38.12810	2.25837e-2	8.61073e-1		Benzo(k)fluoranthene #15
28.837	BBA	74.32523	2.61680e-2	1.94494		Benzo(a)pyrene #16
30.716	MM	22.44932	9.41116e-2	2.11274		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.551	PB	33.44667	5.60829e-2	1.87579		Benzo(g,h,i)perylene #18
32.471	BB	89.81290	2.05608e-2	1.84662		Indeno(1,2,3-cd)pyrene #1

Totals : 177.49063

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\081501\4L001843.D Sample Name: 8310 CCV
HPLC4 8/15/2001 11:35:24 AM RDC

==========

Injection Date : 8/15/2001 9:48:07 AM Seq. Line : 2
Sample Name : 8310 CCV Vial : 2
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.427	20.0	19.847	-0.8
1-Methylnaphthalene #3	12.006	20.0	19.902	-0.5
2-Methylnaphthalene #4	12.584	20.0	20.154	0.8
Acenaphthene #5	13.061	20.0	20.328	1.6
Fluorene #6	13.724	20.0	21.055	5.3
Phenanthrene #7	15.120	20.0	19.587	-2.1
Anthracene #8	16.540	20.0	20.614	3.1
Fluoranthene #9	17.922	2.0	1.990	-0.5
Pyrene #10	18.939	2.0	1.926	-3.7
p-Terphenyl d14 #11*	21.304	20.0	19.942	-0.3
Benzo(a)anthracene #12	22.643	2.0	1.934	-3.3
Chrysene #13	23.537	2.0	1.911	-4.4
Benzo(b)fluoranthene #14	26.288	2.0	1.970	-1.5
Benzo(k)fluoranthene #15	27.754	1.0	0.998	-0.2
Benzo(a)pyrene #16	28.878	2.0	1.876	-6.2
Dibenz(a,h)anthracene #1	30.774	2.0	1.862	-6.9
Benzo(g,h,i)perylene #18	31.597	2.0	1.791	-10.5
Indeno(1,2,3-cd)pyrene #	32.527	2.0	1.985	-0.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.410	20.0	20.932	4.7
Acenaphthylene #2	11.046	20.0	19.905	-0.5
1-Methylnaphthalene #3	11.989	20.0	20.196	1.0
2-Methylnaphthalene #4	12.568	20.0	20.467	2.3
Acenaphthene #5	13.044	20.0	20.013	0.1
Fluorene #6	13.707	20.0	19.917	-0.4
Phenanthrene #7	15.103	20.0	19.961	-0.2
Anthracene #8	16.523	20.0	20.785	3.9
Fluoranthene #9	17.905	2.0	1.980	-1.0
Pyrene #10	18.921	2.0	1.962	-1.9
p-Terphenyl d14 #11*	21.288	20.0	20.097	0.5
Benzo(a)anthracene #12	22.626	2.0	1.973	-1.4
Chrysene #13	23.521	2.0	1.969	-1.6
Benzo(b)fluoranthene #14	26.271	2.0	1.969	-1.5
Benzo(k)fluoranthene #15	27.737	1.0	0.976	-2.4
Benzo(a)pyrene #16	28.861	2.0	1.905	-4.8
Dibenz(a,h)anthracene #1	30.757	2.0	1.978	-1.1
Benzo(g,h,i)perylene #18	31.579	2.0	1.976	-1.2
Indeno(1,2,3-cd)pyrene #	32.514	2.0	1.963	-1.9

= Failed 15.0% Criteria

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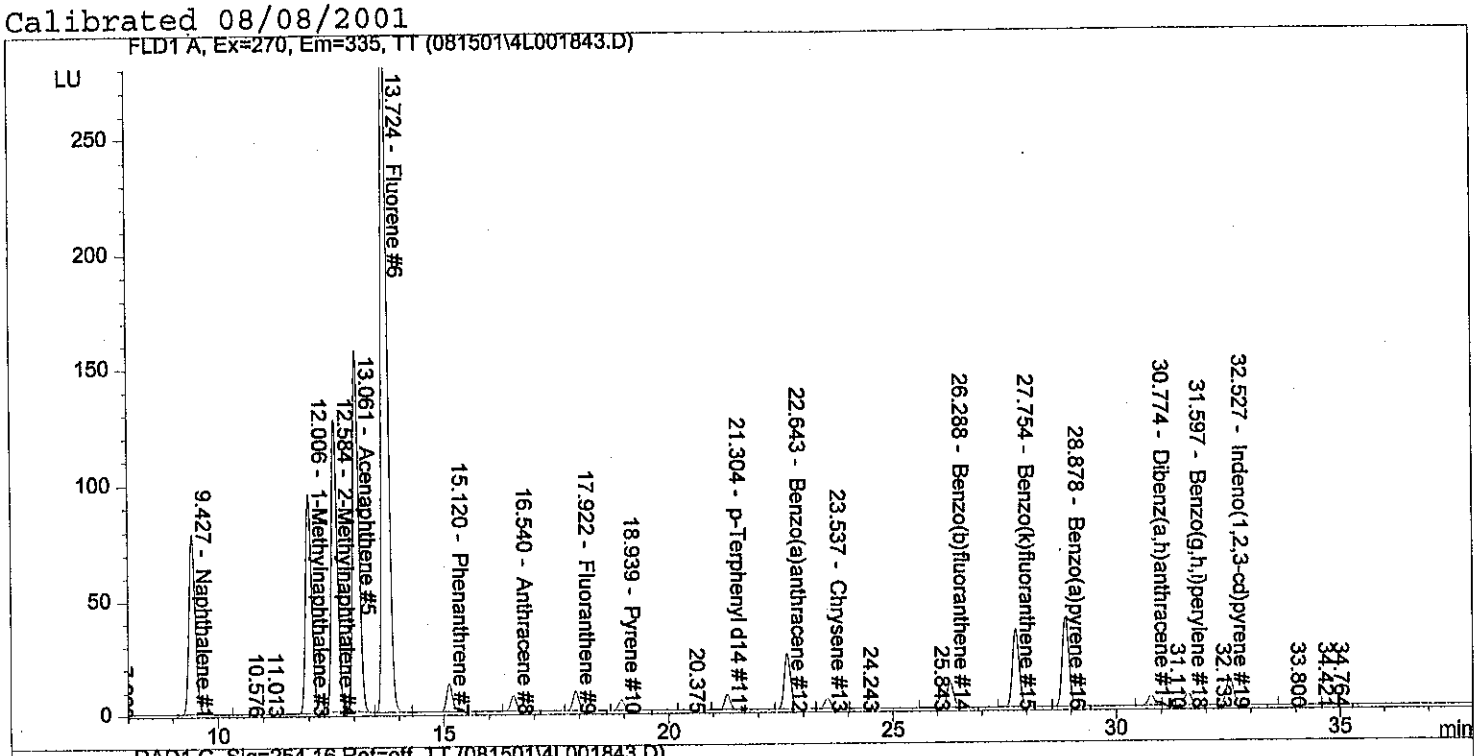
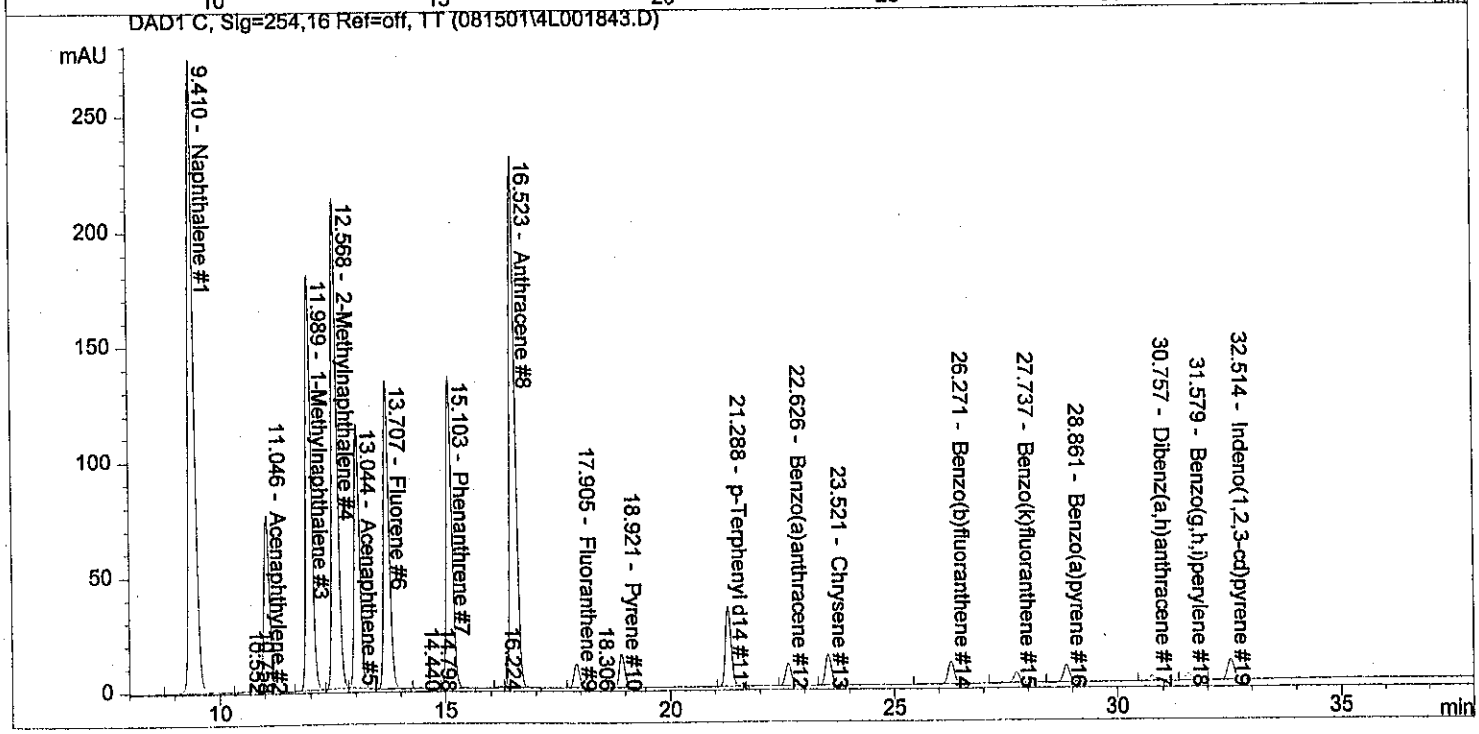
Injection Date : 8/15/2001 9:48:07 AM
Sample Name : 8310 CCV
Acq. Operator : HV

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 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/L]	Grp	Name
9.427	BBA	784.60345	2.52962e-2	19.84748		Naphthalene #1
12.006	BB	899.19067	2.21330e-2	19.90175		1-Methylnaphthalene #3
12.584	BB	1181.13159	1.70635e-2	20.15423		2-Methylnaphthalene #4
13.061	BB	1468.60388	1.38416e-2	20.32777		Acenaphthene #5
13.724	BB	3179.57617	6.62187e-3	21.05473		Fluorene #6
15.120	BBA	119.68770	1.63652e-1	19.58716		Phenanthrene #7
16.540	BBA	66.45516	3.10196e-1	20.61415		Anthracene #8
17.922	BBA	85.51392	2.32678e-2	1.98972		Fluoranthene #9
18.939	BBA	49.80768	3.86587e-2	1.92550		Pyrene #10
21.304	PBA	67.04859	2.97423e-1	19.94178		p-Terphenyl d14 #11*
22.643	PB	244.47522	7.91256e-3	1.93443		Benzo(a)anthracene #12
23.537	BB	48.94944	3.90495e-2	1.91145		Chrysene #13
26.288	BB	120.68861	1.63222e-2	1.96990		Benzo(b)fluoranthene #14
27.754	BB	361.01788	2.76572e-3	9.98473e-1		Benzo(k)fluoranthene #15
28.878	BB	410.31174	4.57119e-3	1.87561		Benzo(a)pyrene #16
30.774	PB	47.32055	3.93496e-2	1.86204		Dibenz(a,h)anthracene #17
31.597	BB	67.53139	2.65165e-2	1.79070		Benzo(g,h,i)perylene #18
32.527	BBA	143.65648	1.38204e-2	1.98539		Indeno(1,2,3-cd)pyrene #1

Totals : 179.67227

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
9.410	PBA	2535.97046	8.25405e-3	20.93203		Naphthalene #1
11.046	BBA	670.24957	2.96975e-2	19.90475		Acenaphthylene #2
11.989	PB	1560.05786	1.29459e-2	20.19629		1-Methylnaphthalene #3
12.568	BB	1821.05884	1.12393e-2	20.46738		2-Methylnaphthalene #4
13.044	BB	985.07654	2.03163e-2	20.01315		Acenaphthene #5
13.707	BBA	1136.52808	1.75240e-2	19.91652		Fluorene #6
15.103	BBA	1153.95496	1.72982e-2	19.96139		Phenanthrene #7
16.523	BBA	1993.55664	1.04262e-2	20.78519		Anthracene #8
17.905	BB	91.22044	2.17006e-2	1.97954		Fluoranthene #9
18.921	BBA	137.13109	1.43052e-2	1.96169		Pyrene #10
21.288	BBA	306.01849	6.56733e-2	20.09723		p-Terphenyl d14 #11*
22.626	BBA	88.58023	2.22694e-2	1.97263		Benzo(a)anthracene #12
23.521	BBA	129.98466	1.51453e-2	1.96866		Chrysene #13
26.271	BBA	94.97554	2.07330e-2	1.96913		Benzo(b)fluoranthene #14
27.737	PB	43.23779	2.25837e-2	9.76469e-1		Benzo(k)fluoranthene #15
28.861	BBA	72.79673	2.61680e-2	1.90495		Benzo(a)pyrene #16
30.757	PBA	21.01346	9.41116e-2	1.97761		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579	PB	35.23869	5.60829e-2	1.97629		Benzo(g,h,i)perylene #18
32.514	BBA	95.44949	2.05608e-2	1.96252		Indeno(1,2,3-cd)pyrene #1

Totals : 200.92341

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\081501\4L001853.D Sample Name: 8310 CCV
HPLC4 8/16/2001 11:45:40 AM RDC

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Injection Date : 8/15/2001 7:14:34 PM Seq. Line : 12
Sample Name : 8310 CCV Vial : 12
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.439	20.0	19.124	-4.4
1-Methylnaphthalene #3	12.016	20.0	19.239	-3.8
2-Methylnaphthalene #4	12.594	20.0	19.475	-2.6
Acenaphthene #5	13.072	20.0	19.792	-1.0
Fluorene #6	13.730	20.0	20.696	3.5
Phenanthrene #7	15.121	20.0	18.980	-5.1
Anthracene #8	16.533	20.0	19.836	-0.8
Fluoranthene #9	17.913	2.0	1.935	-3.3
Pyrene #10	18.926	2.0	1.807	-9.6
p-Terphenyl d14 #11*	21.285	20.0	19.752	-1.2
Benzo(a)anthracene #12	22.610	2.0	1.883	-5.8
Chrysene #13	23.491	2.0	1.862	-6.9
Benzo(b)fluoranthene #14	26.232	2.0	1.922	-3.9
Benzo(k)fluoranthene #15	27.681	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.808	2.0	1.786	-10.7
Dibenz(a,h)anthracene #1	30.685	2.0	1.861	-7.0
Benzo(g,h,i)perylene #18	31.507	2.0	1.733	-13.4
Indeno(1,2,3-cd)pyrene #	32.423	2.0	1.952	-2.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.419	20.0	20.975	4.9
Acenaphthylene #2	11.050	20.0	19.896	-0.5
1-Methylnaphthalene #3	11.997	20.0	20.185	0.9
2-Methylnaphthalene #4	12.575	20.0	20.477	2.4
Acenaphthene #5	13.052	20.0	20.011	0.1
Fluorene #6	13.710	20.0	19.964	-0.2
Phenanthrene #7	15.101	20.0	19.959	-0.2
Anthracene #8	16.513	20.0	20.431	2.2
Fluoranthene #9	17.893	2.0	1.976	-1.2
Pyrene #10	18.906	2.0	1.975	-1.2
p-Terphenyl d14 #11*	21.266	20.0	20.119	0.6
Benzo(a)anthracene #12	22.591	2.0	1.976	-1.2
Chrysene #13	23.472	2.0	1.980	-1.0
Benzo(b)fluoranthene #14	26.212	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.661	1.0	0.996	-0.4
Benzo(a)pyrene #16	28.788	2.0	1.864	-6.8
Dibenz(a,h)anthracene #1	30.666	2.0	2.200	10.0
Benzo(g,h,i)perylene #18	31.487	2.0	1.769	-11.6
Indeno(1,2,3-cd)pyrene #	32.407	2.0	1.962	-1.9

= Failed 15.0% Criteria

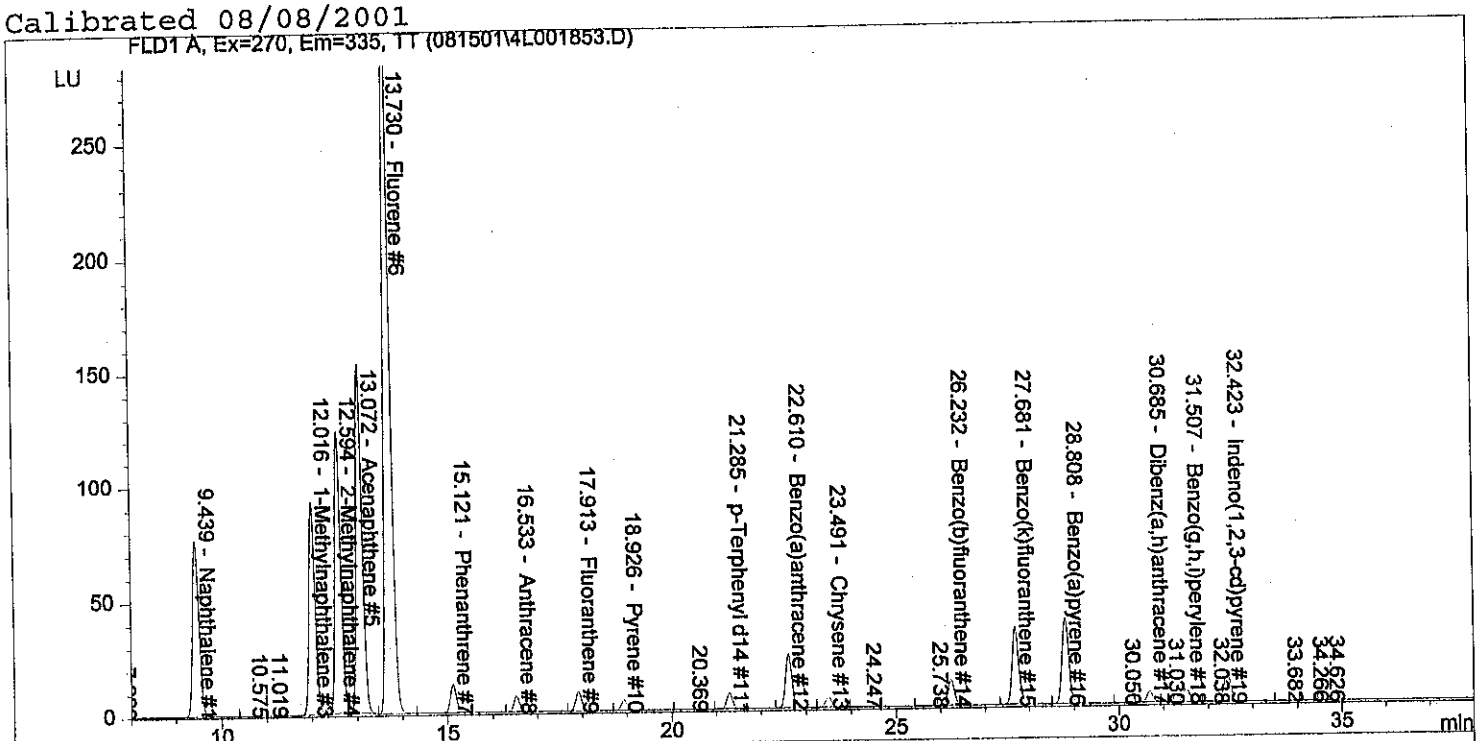
==========

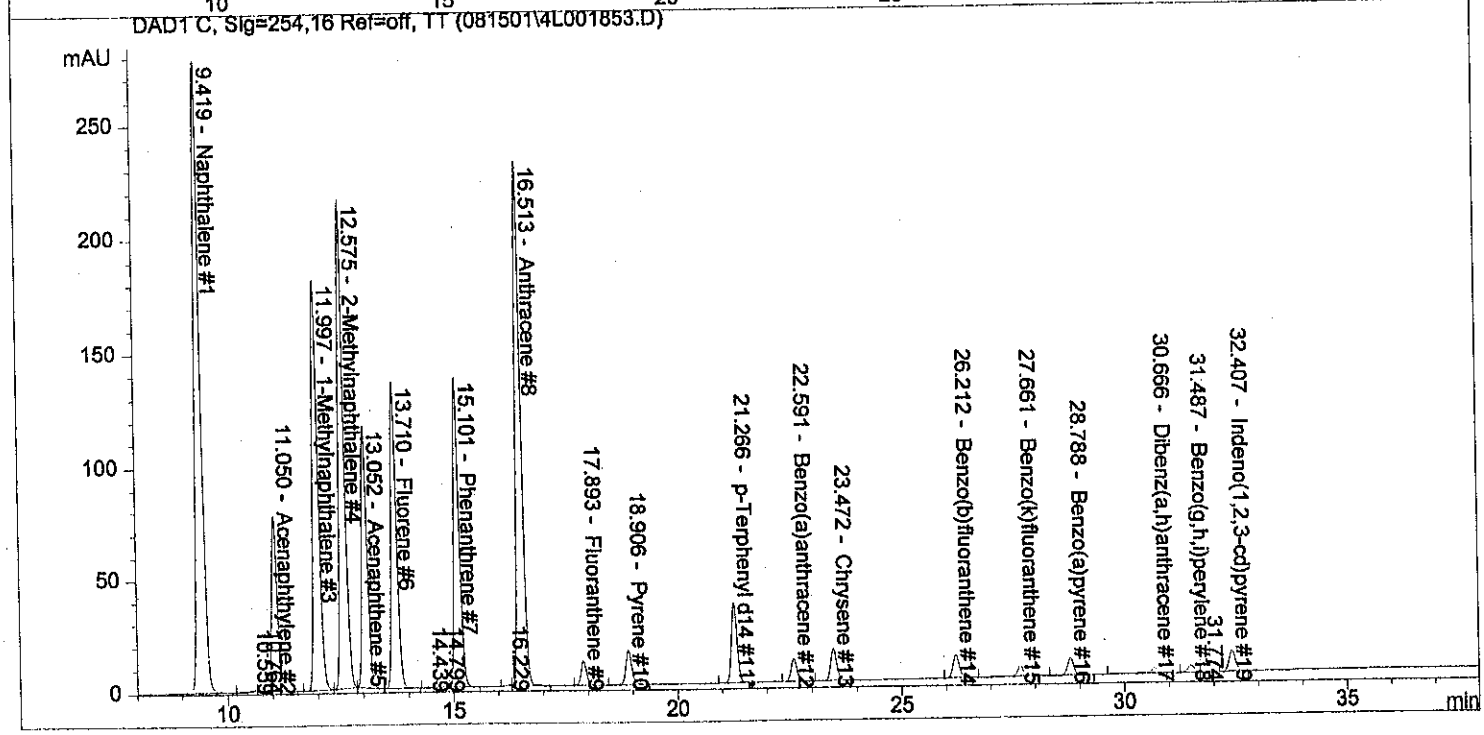
Injection Date : 8/15/2001 7:14:34 PM
Sample Name : 8310 CCV
Acq. Operator : HV

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

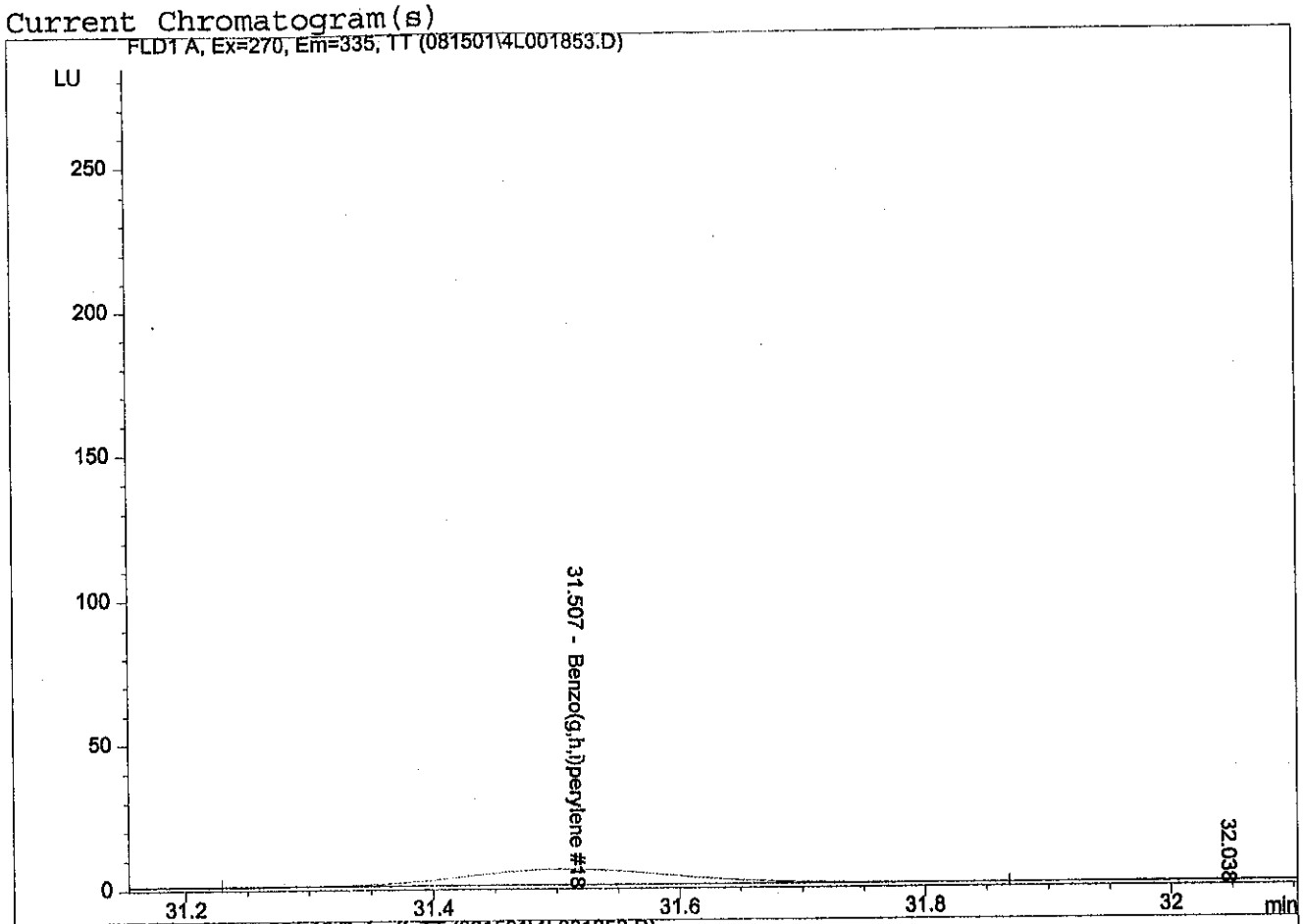
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

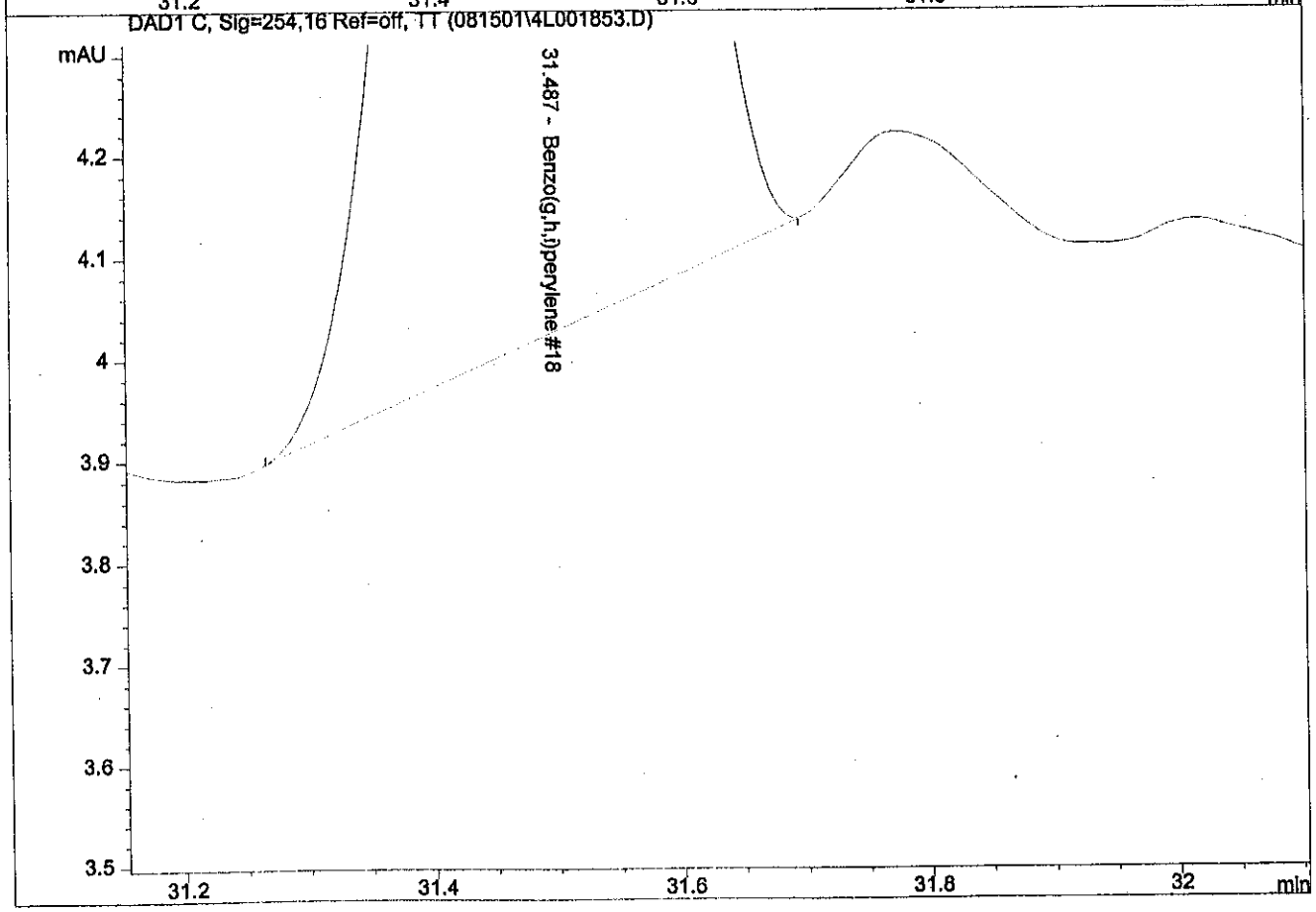
Calibrated 08/08/2001



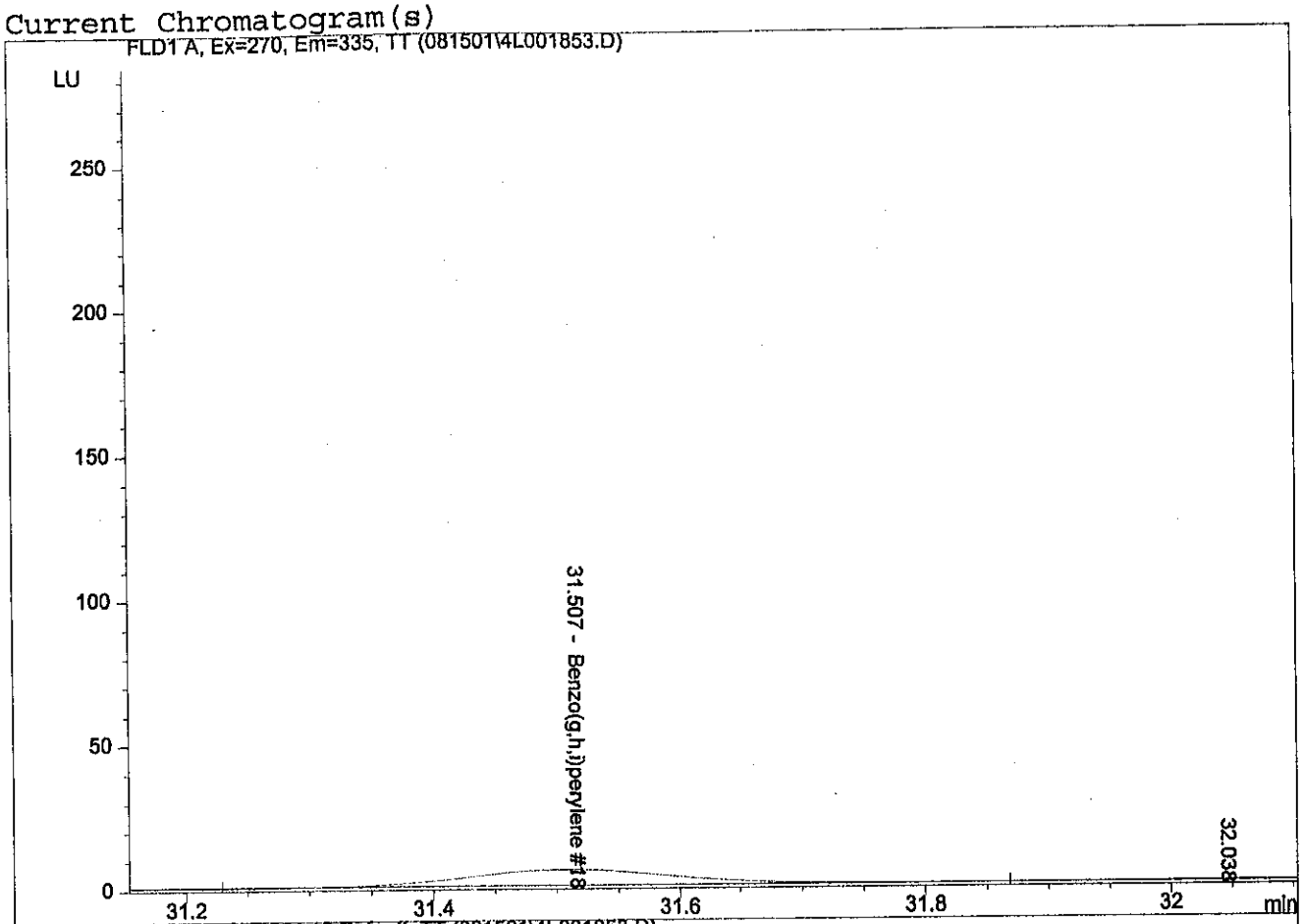


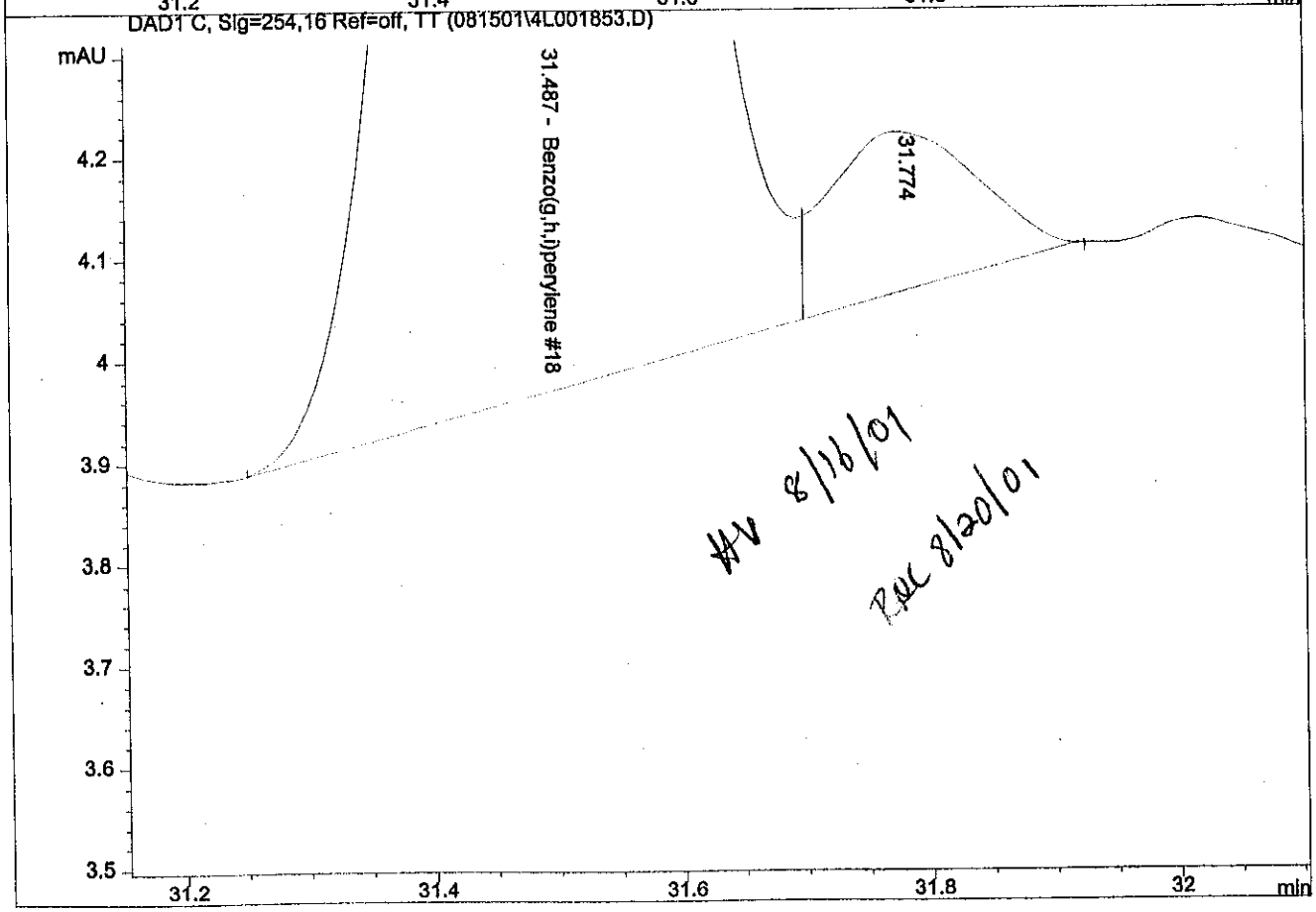
Current Chromatogram(s)





Current Chromatogram(s)





HV 8/16/01

RDC 8/20/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 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/L]	Grp	Name
9.439	BBA	756.00311	2.52962e-2	19.12400		Naphthalene #1
12.016	BB	869.23486	2.21330e-2	19.23874		1-Methylnaphthalene #3
12.594	BB	1141.34937	1.70635e-2	19.47541		2-Methylnaphthalene #4
13.072	BB	1429.92188	1.38416e-2	19.79235		Acenaphthene #5
13.730	BB	3125.37866	6.62187e-3	20.69584		Fluorene #6
15.121	BBA	115.98032	1.63652e-1	18.98044		Phenanthrene #7
16.533	BB	63.94643	3.10196e-1	19.83595		Anthracene #8
17.913	BBA	83.15446	2.32678e-2	1.93483		Fluoranthene #9
18.926	BBA	46.74915	3.86587e-2	1.80726		Pyrene #10
21.285	BBA	66.41031	2.97423e-1	19.75194		p-Terphenyl d14 #11*
22.610	BB	237.98929	7.91256e-3	1.88310		Benzo(a)anthracene #12
23.491	BB	47.68453	3.90495e-2	1.86206		Chrysene #13
26.232	BB	117.74806	1.63222e-2	1.92191		Benzo(b)fluoranthene #14
27.681	BB	356.12201	2.76572e-3	9.84932e-1		Benzo(k)fluoranthene #15
28.808	BB	390.80075	4.57119e-3	1.78642		Benzo(a)pyrene #16
30.685	PB	47.28953	3.93496e-2	1.86082		Dibenz(a,h)anthracene #17
31.507	BB	65.34521	2.65165e-2	1.73273		Benzo(g,h,i)perylene #18
32.423	BBA	141.23448	1.38204e-2	1.95192		Indeno(1,2,3-cd)pyrene #1

Totals : 174.62065

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	2541.20483	8.25405e-3	20.97523		Naphthalene #1
11.050	BBA	669.94171	2.96975e-2	19.89560		Acenaphthylene #2
11.997	PB	1559.16968	1.29459e-2	20.18479		1-Methylnaphthalene #3
12.575	BB	1821.95081	1.12393e-2	20.47741		2-Methylnaphthalene #4
13.052	BB	984.98962	2.03163e-2	20.01139		Acenaphthene #5
13.710	BBA	1139.23792	1.75240e-2	19.96401		Fluorene #6
15.101	BBA	1153.83289	1.72982e-2	19.95928		Phenanthrene #7
16.513	BBA	1959.54346	1.04262e-2	20.43056		Anthracene #8
17.893	PB	91.07045	2.17006e-2	1.97628		Fluoranthene #9
18.906	BBA	138.07500	1.43052e-2	1.97520		Pyrene #10
21.266	PBA	306.34766	6.56733e-2	20.11885		p-Terphenyl d14 #11*
22.591	PBA	88.74092	2.22694e-2	1.97621		Benzo(a)anthracene #12
23.472	BBA	130.72798	1.51453e-2	1.97991		Chrysene #13
26.212	BBA	95.66450	2.07330e-2	1.98341		Benzo(b)fluoranthene #14
27.661	BB	44.11591	2.25837e-2	9.96300e-1		Benzo(k)fluoranthene #15
28.788	BBA	71.21712	2.61680e-2	1.86361		Benzo(a)pyrene #16
30.666	BBA	23.37262	9.41116e-2	2.19964		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.487	MV	31.54102	5.60829e-2	1.76891		Benzo(g,h,i)perylene #18
32.407	BB	95.44349	2.05608e-2	1.96239		Indeno(1,2,3-cd)pyrene #1

Totals : 200.69898

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\081501\4L001859.D Sample Name: 8310 CCV
HPLC4 8/16/2001 10:58:12 AM RDC

==========

Injection Date : 8/16/2001 12:54:23 AM Seq. Line : 18
Sample Name : 8310 CCV Vial : 12
Acq. Operator : HV Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.417	20.0	19.347	-3.3
1-Methylnaphthalene #3	11.996	20.0	19.488	-2.6
2-Methylnaphthalene #4	12.574	20.0	19.689	-1.6
Acenaphthene #5	13.051	20.0	19.962	-0.2
Fluorene #6	13.714	20.0	20.876	4.4
Phenanthrene #7	15.110	20.0	18.796	-6.0
Anthracene #8	16.530	20.0	19.971	-0.1
Fluoranthene #9	17.915	2.0	1.960	-2.0
Pyrene #10	18.929	2.0	1.810	-9.5
p-Terphenyl d14 #11*	21.302	20.0	19.843	-0.8
Benzo(a)anthracene #12	22.635	2.0	1.895	-5.3
Chrysene #13	23.527	2.0	1.874	-6.3
Benzo(b)fluoranthene #14	26.276	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.739	1.0	0.990	-1.0
Benzo(a)pyrene #16	28.869	2.0	1.796	-10.2
Dibenz(a,h)anthracene #1	30.763	2.0	1.851	-7.4
Benzo(g,h,i)perylene #18	31.589	2.0	1.726	-13.7
Indeno(1,2,3-cd)pyrene #	32.513	2.0	1.969	-1.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.402	20.0	21.073	5.4
Acenaphthylene #2	11.037	20.0	19.982	-0.1
1-Methylnaphthalene #3	11.982	20.0	20.275	1.4
2-Methylnaphthalene #4	12.560	20.0	20.560	2.8
Acenaphthene #5	13.036	20.0	20.079	0.4
Fluorene #6	13.698	20.0	20.005	0.0
Phenanthrene #7	15.095	20.0	20.033	0.2
Anthracene #8	16.514	20.0	20.468	2.3
Fluoranthene #9	17.899	2.0	1.985	-0.7
Pyrene #10	18.913	2.0	1.978	-1.1
p-Terphenyl d14 #11*	21.287	20.0	20.211	1.1
Benzo(a)anthracene #12	22.620	2.0	1.980	-1.0
Chrysene #13	23.513	2.0	1.978	-1.1
Benzo(b)fluoranthene #14	26.261	2.0	1.979	-1.0
Benzo(k)fluoranthene #15	27.724	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.854	2.0	1.877	-6.1
Dibenz(a,h)anthracene #1	30.748	2.0	2.105	5.2
Benzo(g,h,i)perylene #18	31.573	2.0	1.979	-1.1
Indeno(1,2,3-cd)pyrene #	32.502	2.0	1.947	-2.6

= Failed 15.0% Criteria

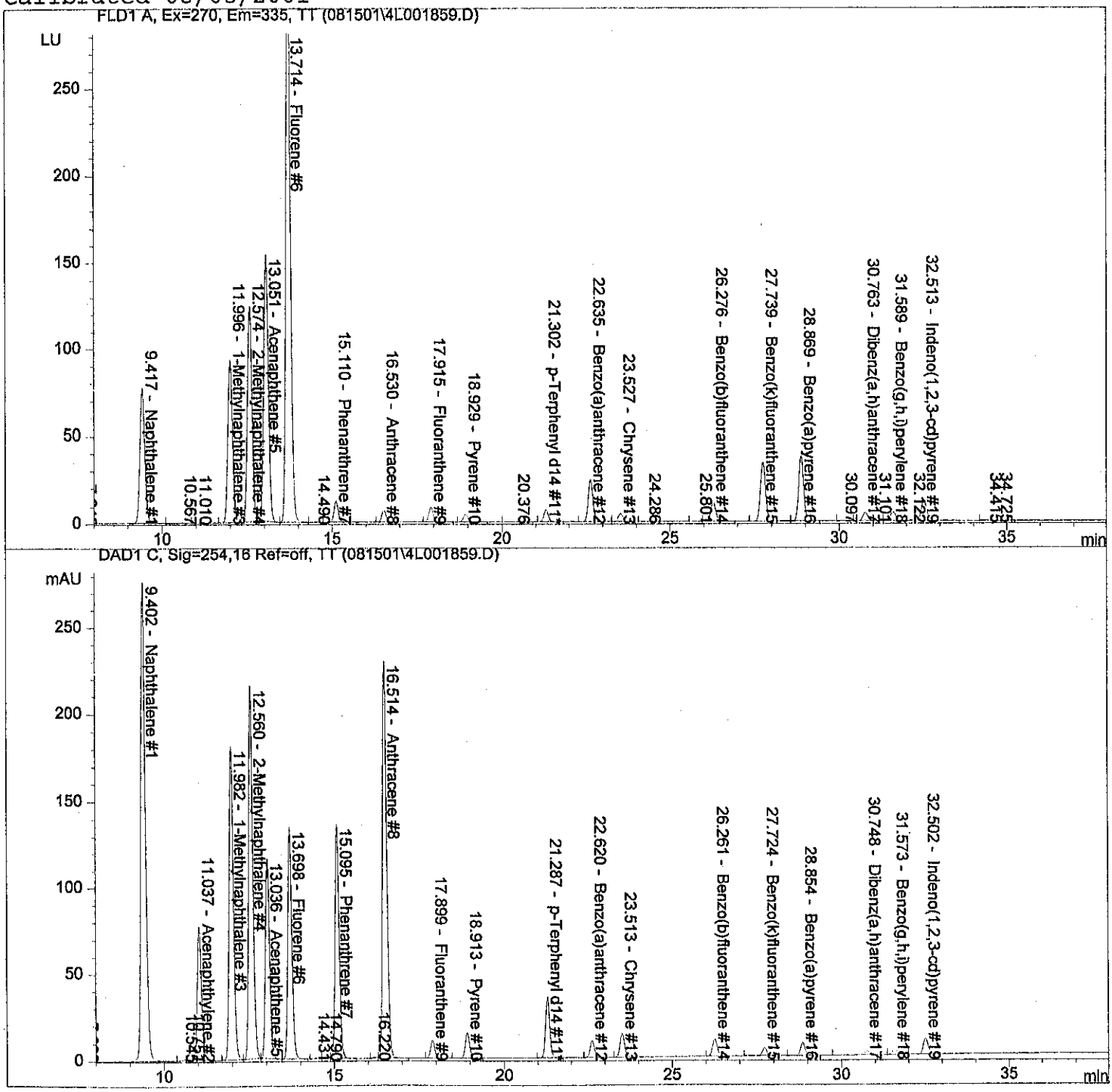
==========

Injection Date : 8/16/2001 12:54:23 AM
Sample Name : 8310 CCV
Acq. Operator : HV

Seq. Line : 18
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/15/2001 11:34:55 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/15/2001 11:34:54 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/L]	Grp	Name
9.417	BB	764.83044	2.52962e-2	19.34730		Naphthalene #1
11.996	BB	880.51691	2.21330e-2	19.48844		1-Methylnaphthalene #3
12.574	BB	1153.83777	1.70635e-2	19.68850		2-Methylnaphthalene #4
13.051	BB	1442.15247	1.38416e-2	19.96164		Acenaphthene #5
13.714	BB	3152.52246	6.62187e-3	20.87558		Fluorene #6
15.110	BBA	114.85275	1.63652e-1	18.79591		Phenanthrene #7
16.530	BBA	64.38309	3.10196e-1	19.97140		Anthracene #8
17.915	BBA	84.24089	2.32678e-2	1.96010		Fluoranthene #9
18.929	BBA	46.83095	3.86587e-2	1.81042		Pyrene #10
21.302	BBA	66.71516	2.97423e-1	19.84261		p-Terphenyl d14 #11*
22.635	BB	239.47249	7.91256e-3	1.89484		Benzo(a)anthracene #12
23.527	BBA	47.99669	3.90495e-2	1.87425		Chrysene #13
26.276	BB	119.23680	1.63222e-2	1.94620		Benzo(b)fluoranthene #14
27.739	BB	358.02411	2.76572e-3	9.90193e-1		Benzo(k)fluoranthene #15
28.869	BB	392.86710	4.57119e-3	1.79587		Benzo(a)pyrene #16
30.763	PB	47.04584	3.93496e-2	1.85123		Dibenz(a,h)anthracene #17
31.589	BB	65.08868	2.65165e-2	1.72592		Benzo(g,h,i)perylene #18
32.513	BBA	142.50591	1.38204e-2	1.96949		Indeno(1,2,3-cd)pyrene #1

Totals : 175.78992

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
9.402	BBA	2553.03540	8.25405e-3	21.07288		Naphthalene #1
11.037	BBA	672.85437	2.96975e-2	19.98210		Acenaphthylene #2
11.982	PB	1566.15686	1.29459e-2	20.27524		1-Methylnaphthalene #3
12.560	BB	1829.28796	1.12393e-2	20.55987		2-Methylnaphthalene #4
13.036	BB	988.30334	2.03163e-2	20.07871		Acenaphthene #5
13.698	BBA	1141.59851	1.75240e-2	20.00538		Fluorene #6
15.095	BBA	1158.08862	1.72982e-2	20.03290		Phenanthrene #7
16.514	BBA	1963.13428	1.04262e-2	20.46800		Anthracene #8
17.899	PB	91.47216	2.17006e-2	1.98500		Fluoranthene #9
18.913	BBA	138.25555	1.43052e-2	1.97778		Pyrene #10
21.287	BBA	307.74667	6.56733e-2	20.21073		p-Terphenyl d14 #11*
22.620	PBA	88.92666	2.22694e-2	1.98035		Benzo(a)anthracene #12
23.513	BBA	130.60431	1.51453e-2	1.97804		Chrysene #13
26.261	BBA	95.45634	2.07330e-2	1.97909		Benzo(b)fluoranthene #14
27.724	BB	44.05879	2.25837e-2	9.95010e-1		Benzo(k)fluoranthene #15
28.854	BBA	71.74564	2.61680e-2	1.87744		Benzo(a)pyrene #16
30.748	BBA	22.36590	9.41116e-2	2.10489		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.573	PB	35.28620	5.60829e-2	1.97895		Benzo(g,h,i)perylene #18
32.502	BBA	94.70705	2.05608e-2	1.94725		Indeno(1,2,3-cd)pyrene #1

Totals : 201.48962

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\082001\4L001888.D Sample Name: 8310 CCV
HPLC4 8/21/2001 8:40:50 AM RDC

==========

Injection Date : 8/20/2001 4:49:24 PM Seq. Line : 2
Sample Name : 8310 CCV Vial : 2
Acq. Operator : RDC Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.445	20.0	19.842	-0.8
1-Methylnaphthalene #3	12.024	20.0	19.857	-0.7
2-Methylnaphthalene #4	12.602	20.0	19.991	0.0
Acenaphthene #5	13.079	20.0	20.056	0.3
Fluorene #6	13.744	20.0	20.593	3.0
Phenanthrene #7	15.142	20.0	19.247	-3.8
Anthracene #8	16.561	20.0	19.167	-4.2
Fluoranthene #9	17.945	2.0	1.946	-2.7
Pyrene #10	18.962	2.0	1.861	-7.0
p-Terphenyl d14 #11*	21.320	20.0	19.357	-3.2
Benzo(a)anthracene #12	22.658	2.0	1.900	-5.0
Chrysene #13	23.549	2.0	1.882	-5.9
Benzo(b)fluoranthene #14	26.299	2.0	1.927	-3.7
Benzo(k)fluoranthene #15	27.761	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.881	2.0	1.679	-16.1 #
Dibenz(a,h)anthracene #1	30.779	2.0	1.842	-7.9
Benzo(g,h,i)perylene #18	31.598	2.0	1.626	-18.7 #
Indeno(1,2,3-cd)pyrene #	32.529	2.0	1.924	-3.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.424	20.0	20.593	3.0
Acenaphthylene #2	11.059	20.0	19.535	-2.3
1-Methylnaphthalene #3	12.003	20.0	19.836	-0.8
2-Methylnaphthalene #4	12.581	20.0	20.132	0.7
Acenaphthene #5	13.058	20.0	19.622	-1.9
Fluorene #6	13.723	20.0	19.573	-2.1
Phenanthrene #7	15.120	20.0	19.592	-2.0
Anthracene #8	16.540	20.0	19.427	-2.9
Fluoranthene #9	17.923	2.0	1.947	-2.7
Pyrene #10	18.940	2.0	1.930	-3.5
p-Terphenyl d14 #11*	21.299	20.0	19.654	-1.7
Benzo(a)anthracene #12	22.637	2.0	1.925	-3.8
Chrysene #13	23.529	2.0	1.941	-2.9
Benzo(b)fluoranthene #14	26.277	2.0	1.938	-3.1
Benzo(k)fluoranthene #15	27.739	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.860	2.0	1.709	-14.6
Dibenz(a,h)anthracene #1	30.759	2.0	2.016	0.8
Benzo(g,h,i)perylene #18	31.576	2.0	1.800	-10.0
Indeno(1,2,3-cd)pyrene #	32.511	2.0	1.869	-6.5

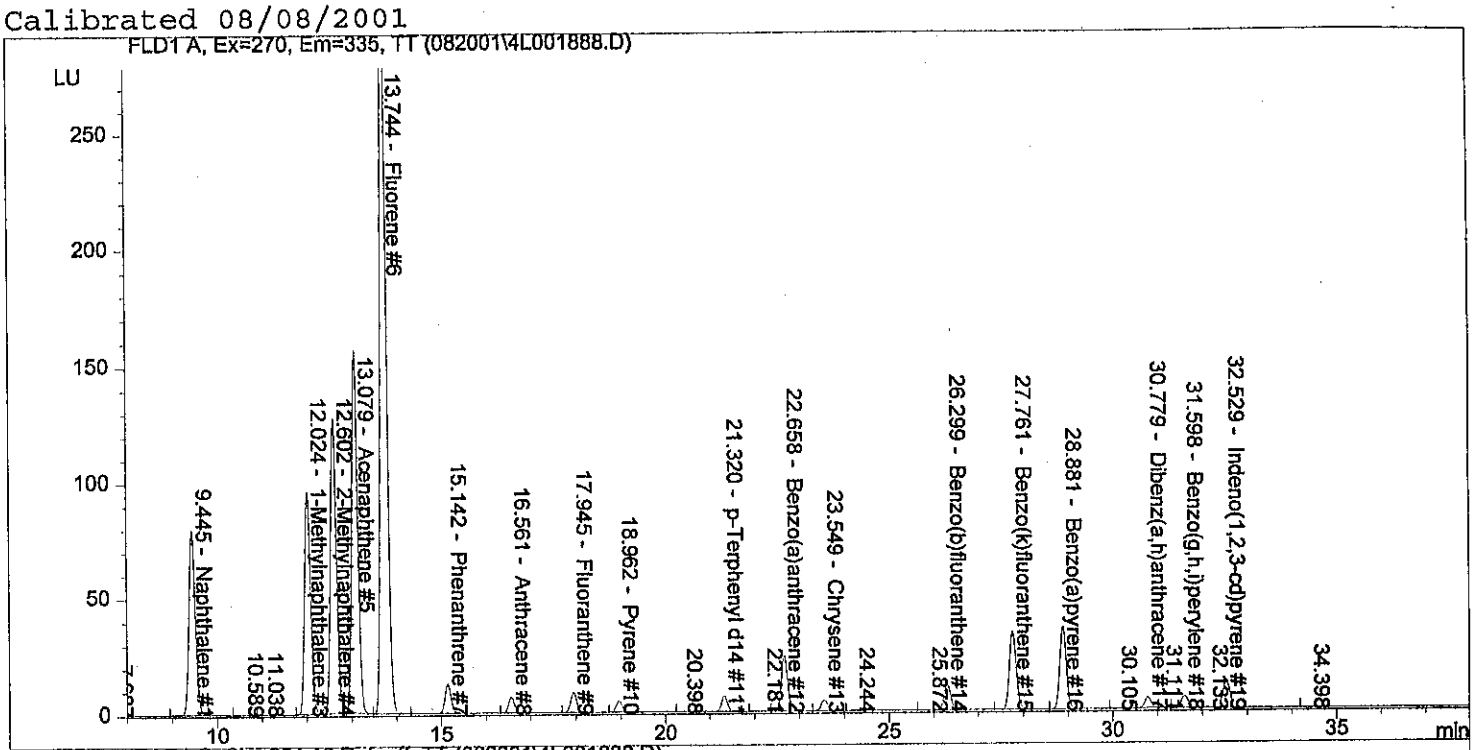
= Failed 15.0% Criteria

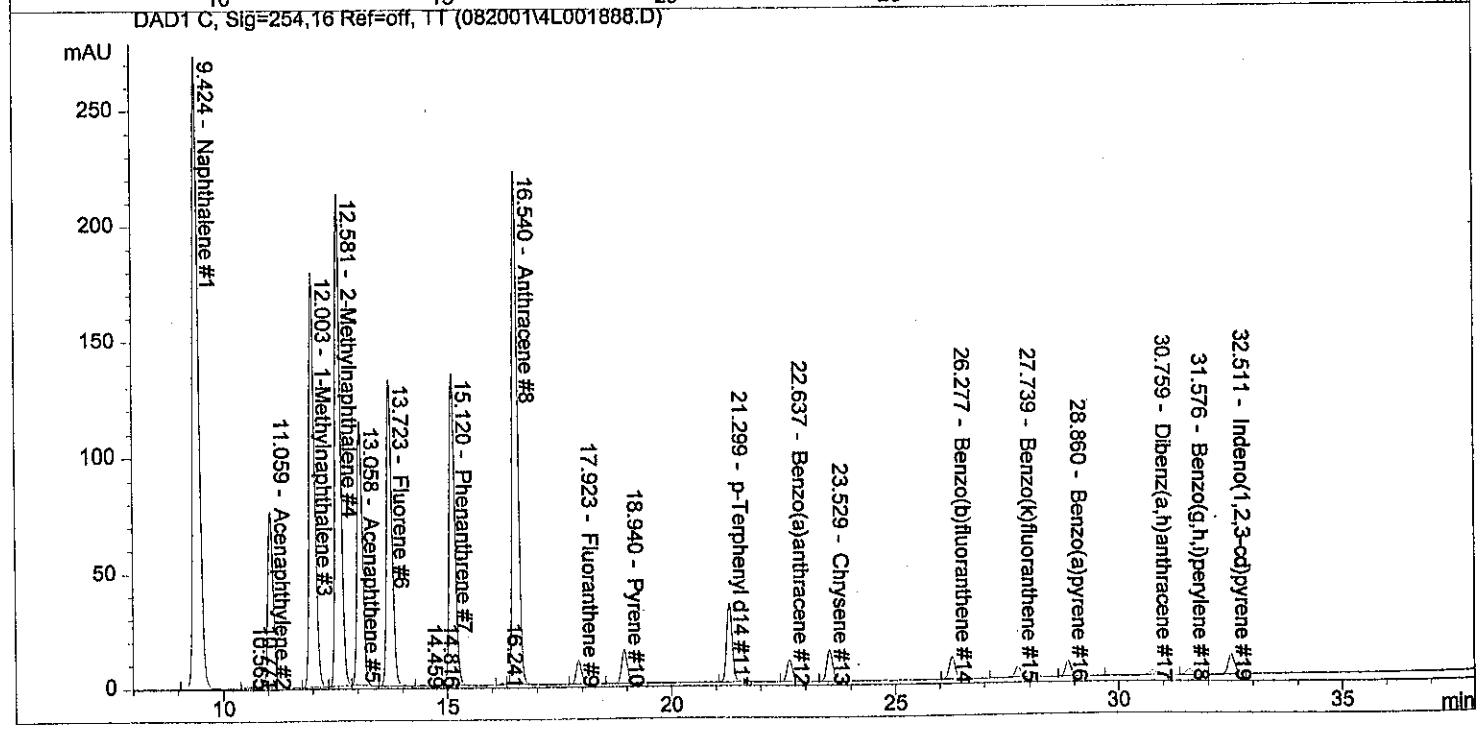
Injection Date : 8/20/2001 4:49:24 PM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 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	BBA	784.39886	2.52962e-2	19.84231		Naphthalene #1
12.024	PB	897.15283	2.21330e-2	19.85664		1-Methylnaphthalene #3
12.602	BB	1171.57251	1.70635e-2	19.99112		2-Methylnaphthalene #4
13.079	BB	1449.00122	1.38416e-2	20.05644		Acenaphthene #5
13.744	BB	3109.80176	6.62187e-3	20.59269		Fluorene #6
15.142	BBA	117.61191	1.63652e-1	19.24745		Phenanthrene #7
16.561	BB	61.79120	3.10196e-1	19.16740		Anthracene #8
17.945	BBA	83.61562	2.32678e-2	1.94556		Fluoranthene #9
18.962	BBA	48.12726	3.86587e-2	1.86054		Pyrene #10
21.320	BBA	65.08099	2.97423e-1	19.35657		p-Terphenyl d14 #11*
22.658	BB	240.17577	7.91256e-3	1.90041		Benzo(a)anthracene #12
23.549	BBA	48.19660	3.90495e-2	1.88206		Chrysene #13
26.299	BBA	118.02994	1.63222e-2	1.92651		Benzo(b)fluoranthene #14
27.761	BB	355.29593	2.76572e-3	9.82648e-1		Benzo(k)fluoranthene #15
28.881	BB	367.26312	4.57119e-3	1.67883		Benzo(a)pyrene #16
30.779	PB	46.82028	3.93496e-2	1.84236		Dibenz(a,h)anthracene #17
31.598	BB	61.33363	2.65165e-2	1.62635		Benzo(g,h,i)perylene #18
32.529	BBA	139.18735	1.38204e-2	1.92363		Indeno(1,2,3-cd)pyrene #1

Totals : 175.67950

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	2494.84595	8.25405e-3	20.59258		Naphthalene #1
11.059	BBA	657.81201	2.96975e-2	19.53538		Acenaphthylene #2
12.003	PB	1532.24060	1.29459e-2	19.83617		1-Methylnaphthalene #3
12.581	BB	1791.23145	1.12393e-2	20.13215		2-Methylnaphthalene #4
13.058	BB	965.80707	2.03163e-2	19.62167		Acenaphthene #5
13.723	BBA	1116.92419	1.75240e-2	19.57298		Fluorene #6
15.120	BBA	1132.61169	1.72982e-2	19.59219		Phenanthrene #7
16.540	BBA	1863.24414	1.04262e-2	19.42653		Anthracene #8
17.923	BB	89.70836	2.17006e-2	1.94672		Fluoranthene #9
18.940	BBA	134.94518	1.43052e-2	1.93042		Pyrene #10
21.299	BBA	299.26935	6.56733e-2	19.65399		p-Terphenyl d14 #11*
22.637	BBA	86.42362	2.22694e-2	1.92460		Benzo(a)anthracene #12
23.529	PBA	128.16649	1.51453e-2	1.94112		Chrysene #13
26.277	PBA	93.46828	2.07330e-2	1.93788		Benzo(b)fluoranthene #14
27.739	PBA	43.34411	2.25837e-2	9.78870e-1		Benzo(k)fluoranthene #15
28.860	BBA	65.29001	2.61680e-2	1.70851		Benzo(a)pyrene #16
30.759	PBA	21.42038	9.41116e-2	2.01591		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.576	PB	32.09733	5.60829e-2	1.80011		Benzo(g,h,i)perylene #18
32.511	BBA	90.90868	2.05608e-2	1.86915		Indeno(1,2,3-cd)pyrene #1

Totals : 196.01694

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\082001\4L001895.D Sample Name: 8310 CCV
HPLC4 8/21/2001 8:41:12 AM RDC

==========

Injection Date : 8/20/2001 11:25:58 PM Seq. Line : 9
Sample Name : 8310 CCV Vial : 9
Acq. Operator : RDC Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.402	20.0	19.133	-4.3
1-Methylnaphthalene #3	11.999	20.0	19.307	-3.5
2-Methylnaphthalene #4	12.581	20.0	19.534	-2.3
Acenaphthene #5	13.059	20.0	19.752	-1.2
Fluorene #6	13.728	20.0	20.722	3.6
Phenanthrene #7	15.132	20.0	18.989	-5.1
Anthracene #8	16.559	20.0	19.352	-3.2
Fluoranthene #9	17.949	2.0	1.947	-2.6
Pyrene #10	18.967	2.0	1.748	-12.6
p-Terphenyl d14 #11*	21.347	20.0	19.351	-3.2
Benzo(a)anthracene #12	22.682	2.0	1.863	-6.9
Chrysene #13	23.578	2.0	1.847	-7.7
Benzo(b)fluoranthene #14	26.330	2.0	1.930	-3.5
Benzo(k)fluoranthene #15	27.797	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.914	2.0	1.641	-18.0 #
Dibenz(a,h)anthracene #1	30.819	2.0	1.800	-10.0
Benzo(g,h,i)perylene #18	31.650	2.0	1.561	-22.0 #
Indeno(1,2,3-cd)pyrene #	32.583	2.0	1.935	-3.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.381	20.0	20.831	4.2
Acenaphthylene #2	11.030	20.0	19.805	-1.0
1-Methylnaphthalene #3	11.978	20.0	20.084	0.4
2-Methylnaphthalene #4	12.560	20.0	20.369	1.8
Acenaphthene #5	13.038	20.0	19.878	-0.6
Fluorene #6	13.706	20.0	19.820	-0.9
Phenanthrene #7	15.111	20.0	19.884	-0.6
Anthracene #8	16.538	20.0	19.755	-1.2
Fluoranthene #9	17.927	2.0	1.965	-1.8
Pyrene #10	18.945	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.326	20.0	19.799	-1.0
Benzo(a)anthracene #12	22.661	2.0	1.954	-2.3
Chrysene #13	23.558	2.0	1.965	-1.8
Benzo(b)fluoranthene #14	26.308	2.0	1.957	-2.2
Benzo(k)fluoranthene #15	27.775	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.893	2.0	1.728	-13.6
Dibenz(a,h)anthracene #1	30.798	2.0	2.002	0.1
Benzo(g,h,i)perylene #18	31.628	2.0	1.871	-6.4
Indeno(1,2,3-cd)pyrene #	32.564	2.0	1.939	-3.0

= Failed 15.0% Criteria

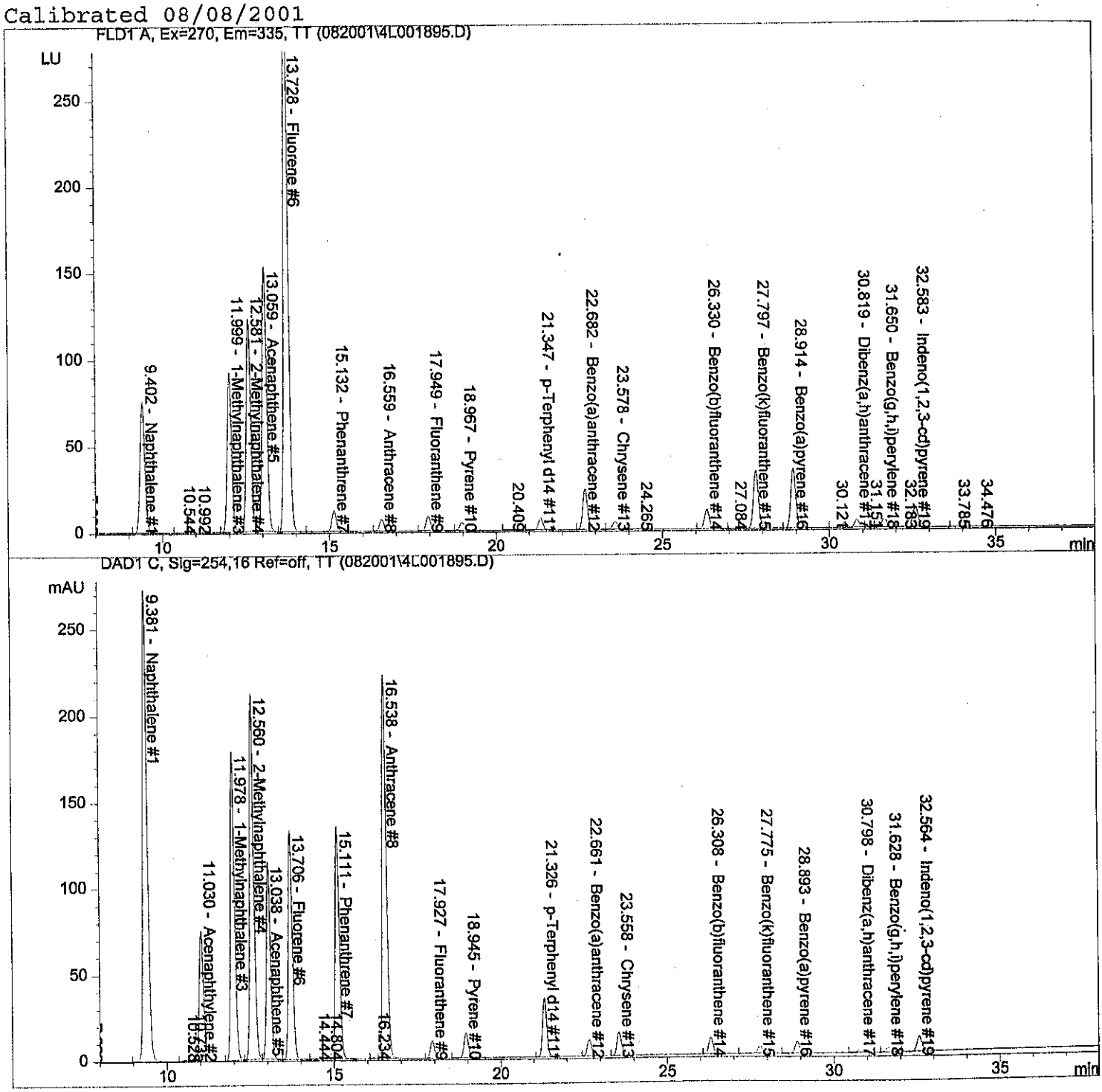
==========

Injection Date : 8/20/2001 11:25:58 PM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 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
9.402	BB	756.36511	2.52962e-2	19.13316		Naphthalene #1
11.999	PB	872.32288	2.21330e-2	19.30708		1-Methylnaphthalene #3
12.581	BB	1144.76538	1.70635e-2	19.53370		2-Methylnaphthalene #4
13.059	BB	1427.02100	1.38416e-2	19.75220		Acenaphthene #5
13.728	BB	3129.34717	6.62187e-3	20.72212		Fluorene #6
15.132	BBA	116.03145	1.63652e-1	18.98881		Phenanthrene #7
16.559	BBA	62.38554	3.10196e-1	19.35177		Anthracene #8
17.949	PBA	83.69582	2.32678e-2	1.94742		Fluoranthene #9
18.967	BBA	45.22603	3.86587e-2	1.74838		Pyrene #10
21.347	PBA	65.06321	2.97423e-1	19.35128		p-Terphenyl d14 #11*
22.682	PB	235.43440	7.91256e-3	1.86289		Benzo(a)anthracene #12
23.578	BB	47.29238	3.90495e-2	1.84675		Chrysene #13
26.330	BB	118.24923	1.63222e-2	1.93009		Benzo(b)fluoranthene #14
27.797	BB	355.19330	2.76572e-3	9.82364e-1		Benzo(k)fluoranthene #15
28.914	BB	358.91165	4.57119e-3	1.64065		Benzo(a)pyrene #16
30.819	BB	45.75011	3.93496e-2	1.80025		Dibenz(a,h)anthracene #17
31.650	BB	58.86000	2.65165e-2	1.56076		Benzo(g,h,i)perylene #18
32.583	BBA	140.04343	1.38204e-2	1.93546		Indeno(1,2,3-cd)pyrene #1

Totals : 173.39512

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
9.381	BBA	2523.70972	8.25405e-3	20.83083		Naphthalene #1
11.030	BBA	666.89545	2.96975e-2	19.80514		Acenaphthylene #2
11.978	PB	1551.39661	1.29459e-2	20.08416		1-Methylnaphthalene #3
12.560	BB	1812.33167	1.12393e-2	20.36930		2-Methylnaphthalene #4
13.038	BB	978.41479	2.03163e-2	19.87781		Acenaphthene #5
13.706	BBA	1131.00989	1.75240e-2	19.81982		Fluorene #6
15.111	BBA	1149.46191	1.72982e-2	19.88367		Phenanthrene #7
16.538	BBA	1894.73743	1.04262e-2	19.75488		Anthracene #8
17.927	PB	90.53072	2.17006e-2	1.96457		Fluoranthene #9
18.945	BBA	137.83360	1.43052e-2	1.97174		Pyrene #10
21.326	BBA	301.48337	6.56733e-2	19.79939		p-Terphenyl d14 #11*
22.661	BBA	87.72337	2.22694e-2	1.95355		Benzo(a)anthracene #12
23.558	PBA	129.72888	1.51453e-2	1.96478		Chrysene #13
26.308	PBA	94.36784	2.07330e-2	1.95653		Benzo(b)fluoranthene #14
27.775	BB	43.49672	2.25837e-2	9.82316e-1		Benzo(k)fluoranthene #15
28.893	BBA	66.02145	2.61680e-2	1.72765		Benzo(a)pyrene #16
30.798	BBA	21.26891	9.41116e-2	2.00165		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.628	PB	33.36394	5.60829e-2	1.87115		Benzo(g,h,i)perylene #18
32.564	BB	94.31639	2.05608e-2	1.93922		Indeno(1,2,3-cd)pyrene #1

Totals : 198.55815

Results obtained with enhanced integrator!

*** End of Report ***

2.2.7.4 Raw QC Data

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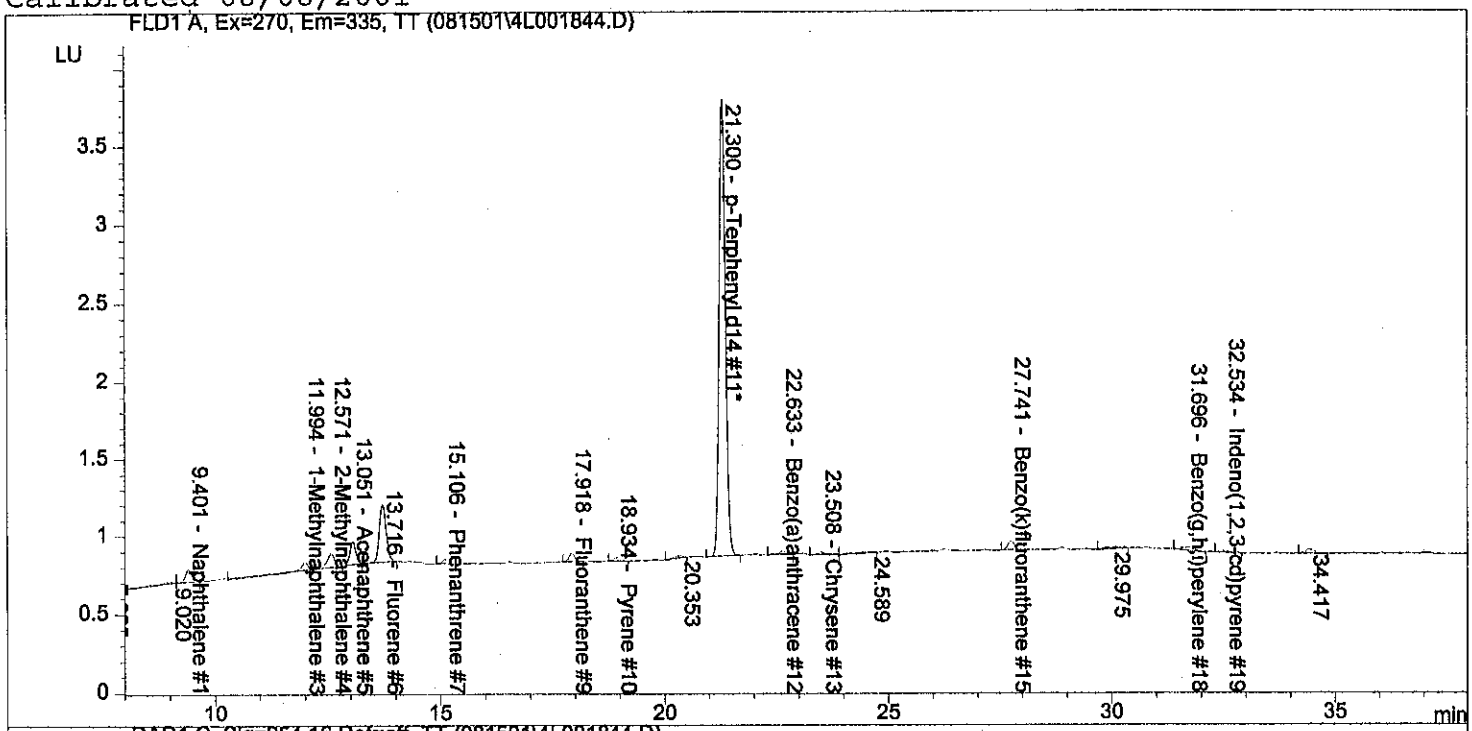
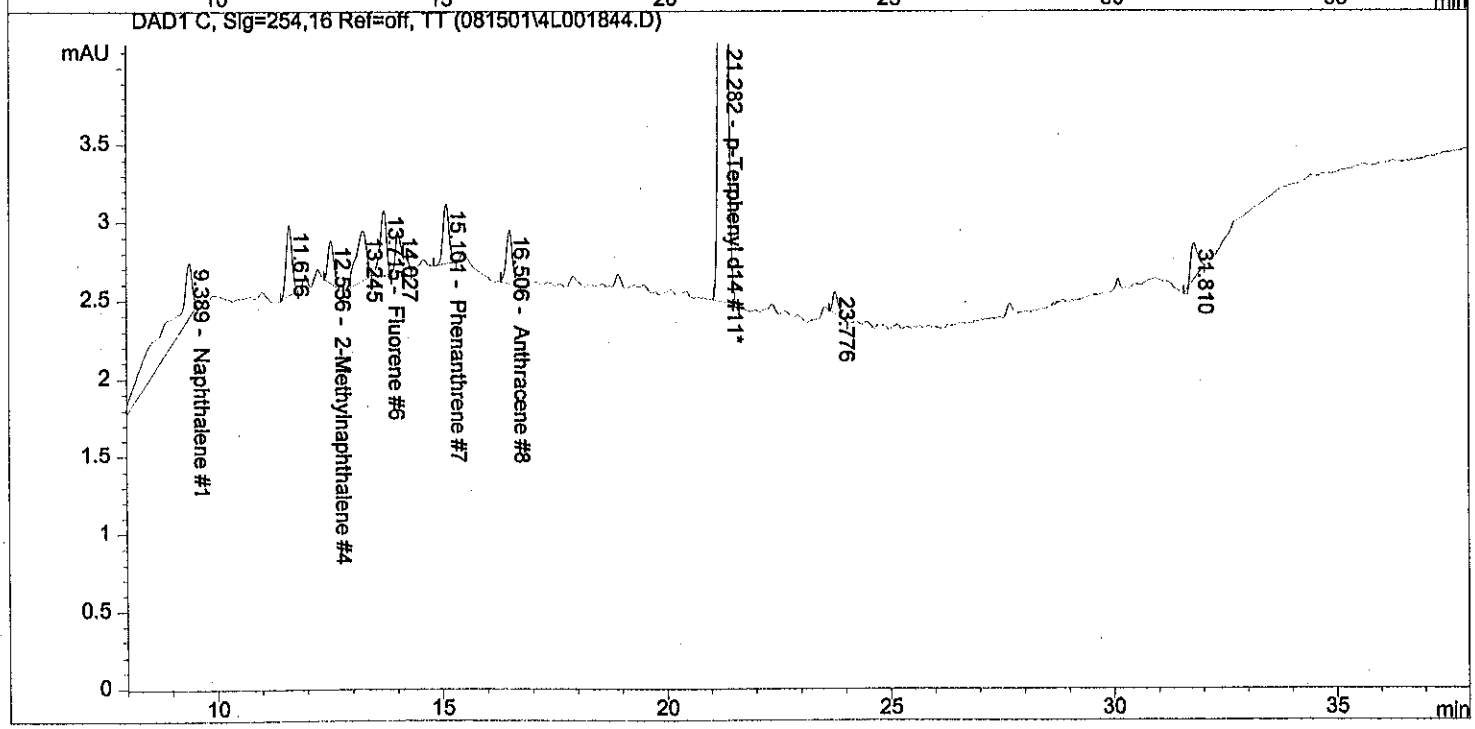
Injection Date : 8/15/2001 10:44:46 AM
Sample Name : V169P195 BLANK
Acq. Operator : HV

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:03:18 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 PM
Multiplier : 1.0400
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
9.401	BB	8.66881e-1	2.52962e-2	2.28060e-2		Naphthalene #1
11.994	BB	4.57159e-1	2.21330e-2	1.05230e-2		1-Methylnaphthalene #3
12.571	BB	1.17458	1.70635e-2	2.08442e-2		2-Methylnaphthalene #4
13.051	BB	1.39939	1.38416e-2	2.01446e-2		Acenaphthene #5
13.716	BB	3.98798	6.62187e-3	2.74642e-2		Fluorene #6
15.106	PBA	2.65949e-1	1.63652e-1	4.52641e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.918	BBA	5.27747e-1	2.32678e-2	1.27707e-2		Fluoranthene #9
18.934	BBA	2.70282e-1	3.86587e-2	1.08667e-2		Pyrene #10
21.300	BBA	28.65608	2.97423e-1	8.86389		p-Terphenyl d14 #11*
22.633	PB	2.88748e-1	7.91256e-3	2.37612e-3		Benzo(a)anthracene #12
23.508	BB	2.04768e-1	3.90495e-2	8.31593e-3		Chrysene #13
26.327		-	-	-		Benzo(b)fluoranthene #14
27.741	PBA	5.56110e-1	2.76572e-3	1.59956e-3		Benzo(k)fluoranthene #15
28.906		-	-	-		Benzo(a)pyrene #16
30.830		-	-	-		Dibenz(a,h)anthracene #17
31.696	BBA	4.10409e-1	2.65165e-2	1.13179e-2		Benzo(g,h,i)perylene #18
32.534	BBA	1.49480e-1	1.38204e-2	2.14851e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 9.06033

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
9.389	BB	16.11343	8.25405e-3	1.38321e-1		Naphthalene #1
11.077		-	-	-		Acenaphthylene #2
12.023		-	-	-		1-Methylnaphthalene #3
12.536	BB	2.60448	1.12393e-2	3.04434e-2		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.715	BB	4.31561	1.75240e-2	7.86518e-2		Fluorene #6
15.101	BB	3.57008	1.72982e-2	6.42264e-2		Phenanthrene #7
16.506	BBA	3.34995	1.04262e-2	3.63243e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.944		-	-	-		Pyrene #10
21.282	BBA	130.00307	6.56733e-2	8.87923		p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.468		-	-	-		Chrysene #13
26.289		-	-	-		Benzo(b)fluoranthene #14
27.765		-	-	-		Benzo(k)fluoranthene #15
28.888		-	-	-		Benzo(a)pyrene #16
30.812		-	-	-		Dibenz(a,h)anthracene #17

Cmol

85.4%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.589		-	-	-		Benzo(g,h,i)perylene #18
32.488		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.22720

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

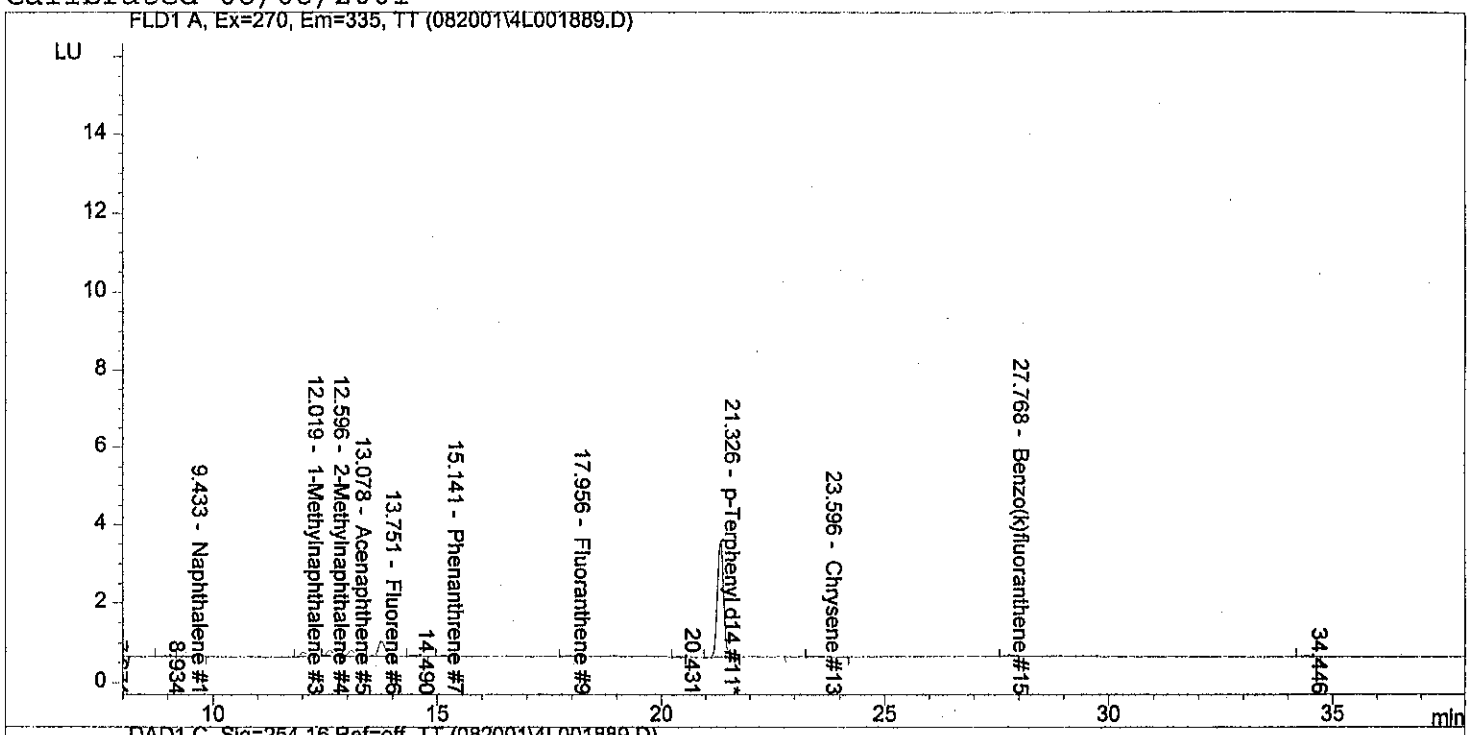
==========

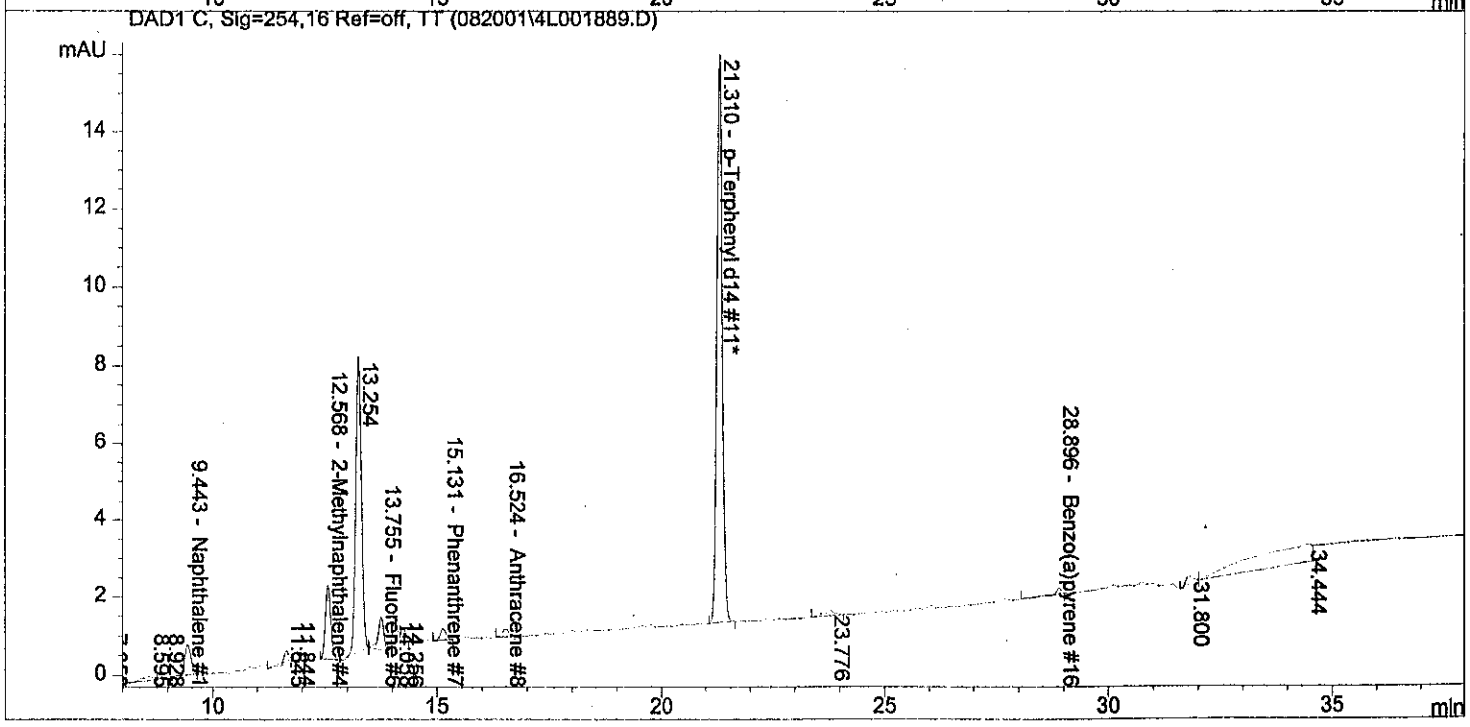
*** End of Report ***

Injection Date : 8/20/2001 5:46:03 PM
Sample Name : V170P79 BLANK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)
Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 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
9.433	BBA	1.35015	2.52962e-2	3.41538e-2		Naphthalene #1
12.019	PB	1.06220	2.21330e-2	2.35096e-2		1-Methylnaphthalene #3
12.596	BB	1.56870	1.70635e-2	2.67675e-2		2-Methylnaphthalene #4
13.078	BB	1.48395	1.38416e-2	2.05402e-2		Acenaphthene #5
13.751	BB	4.35196	6.62187e-3	2.88181e-2		Fluorene #6
15.141	BBA	1.64553e-1	1.63652e-1	2.69294e-2		Phenanthrene #7
16.566		-	-	-		Anthracene #8
17.956	PBA	3.25043e-1	2.32678e-2	7.56306e-3		Fluoranthene #9
18.961		-	-	-		Pyrene #10
21.326	BBA	28.07117	2.97423e-1	8.34900		p-Terphenyl d14 #11*
22.612		-	-	-		Benzo(a)anthracene #12
23.596	BB	3.75582e-1	3.90495e-2	1.46663e-2		Chrysene #13
26.327		-	-	-		Benzo(b)fluoranthene #14
27.768	PBA	3.83590e-1	2.76572e-3	1.06090e-3		Benzo(k)fluoranthene #15
28.906		-	-	-		Benzo(a)pyrene #16
30.830		-	-	-		Dibenz(a,h)anthracene #17
31.608		-	-	-		Benzo(g,h,i)perylene #18
32.503		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.53301

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
9.443	BB	7.31460	8.25405e-3	6.03751e-2	cmol	Naphthalene #1
11.077		-	-	-		Acenaphthylene #2
12.023		-	-	-		1-Methylnaphthalene #3
12.568	BB	16.00045	1.12393e-2	1.79833e-1		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.755	BB	7.21995	1.75240e-2	1.26522e-1		Fluorene #6
15.131	BB	2.57804	1.72982e-2	4.45956e-2		Phenanthrene #7
16.524	BBA	1.99901	1.04262e-2	2.08421e-2		Anthracene #8
17.931		-	-	-		Fluoranthene #9
18.944		-	-	-		Pyrene #10
21.310	BBA	127.44484	6.56733e-2	8.36972	%	p-Terphenyl d14 #11*
22.593		-	-	-		Benzo(a)anthracene #12
23.468		-	-	- 83.7		Chrysene #13
26.289		-	-	-		Benzo(b)fluoranthene #14
27.765		-	-	-		Benzo(k)fluoranthene #15
28.896	BBA	1.62486	2.61680e-2	4.25193e-2	cmol	Benzo(a)pyrene #16
30.812		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.589		-	-	-		Benzo(g,h,i)perylene #18
32.488		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.84441

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 ***

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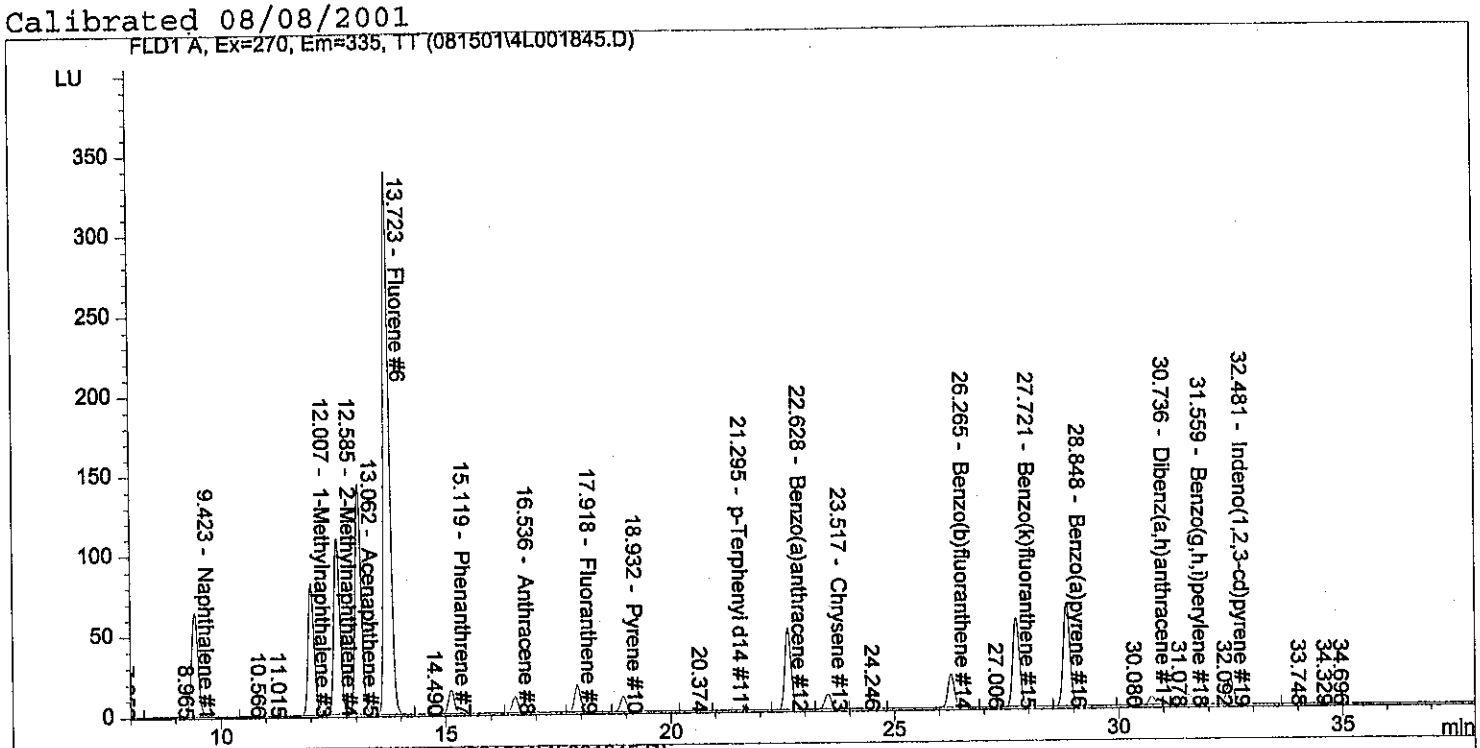
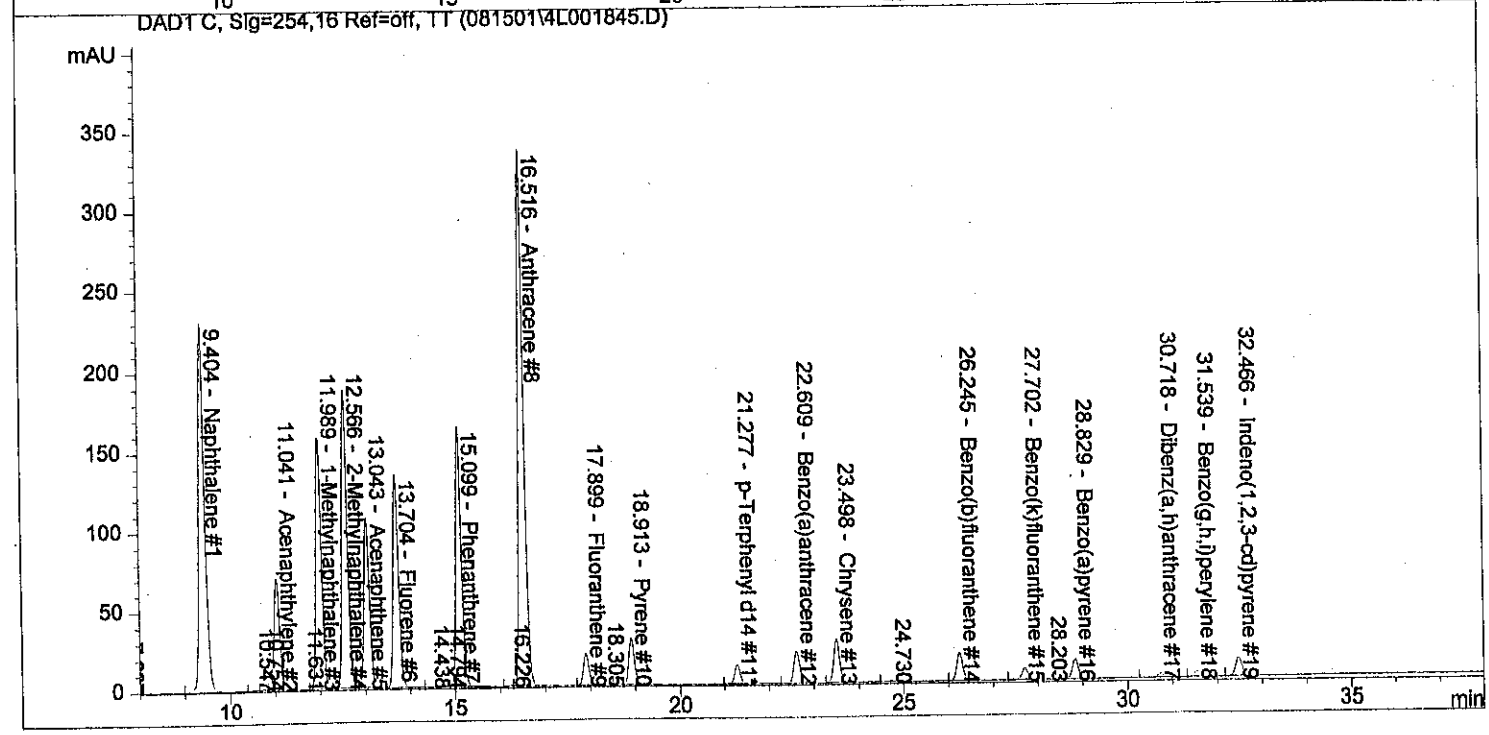
Injection Date : 8/15/2001 11:41:27 AM
Sample Name : V169P195 LCS
Acq. Operator : HV

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:03:18 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 PM
Multiplier : 1.0400
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
9.423	BBA	651.44629	2.52962e-2	17.13828		Naphthalene #1
12.007	BB	781.28827	2.21330e-2	17.98391		1-Methylnaphthalene #3
12.585	BB	1021.25458	1.70635e-2	18.12322		2-Methylnaphthalene #4
13.062	BB	1355.37195	1.38416e-2	19.51089		Acenaphthene #5
13.723	BB	3191.27246	6.62187e-3	21.97747		Fluorene #6
15.119	BBA	140.58365	1.63652e-1	23.92710		Phenanthrene #7
16.536	BBA	95.69225	3.10196e-1	30.87072		Anthracene #8
17.918	BBA	162.38208	2.32678e-2	3.92941		Fluoranthene #9
18.932	BBA	94.10389	3.86587e-2	3.78345		Pyrene #10
21.295	BBA	23.96702	2.97423e-1	7.41347		p-Terphenyl d14 #11*
22.628	BB	508.93445	7.91256e-3	4.18805		Benzo(a)anthracene #12
23.517	BB	97.42410	3.90495e-2	3.95654		Chrysene #13
26.265	BB	217.06552	1.63222e-2	3.68470		Benzo(b)fluoranthene #14
27.721	BB	588.40057	2.76572e-3	1.69244		Benzo(k)fluoranthene #15
28.848	BB	682.31097	4.57119e-3	3.24373		Benzo(a)pyrene #16
30.736	BB	52.63594	3.93496e-2	2.15405		Dibenz(a,h)anthracene #17
31.559	BB	76.12144	2.65165e-2	2.09921		Benzo(g,h,i)perylene #18
32.481	BBA	184.78568	1.38204e-2	2.65597		Indeno(1,2,3-cd)pyrene #1

Totals : 188.33261

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
9.404	BBA	2170.75732	8.25405e-3	18.63424		Naphthalene #1
11.041	BB	625.32324	2.96975e-2	19.31337		Acenaphthylene #2
11.989	BB	1386.57703	1.29459e-2	18.66844		1-Methylnaphthalene #3
12.566	BB	1612.16150	1.12393e-2	18.84431		2-Methylnaphthalene #4
13.043	BB	932.76648	2.03163e-2	19.70842		Acenaphthene #5
13.704	BB	1154.76294	1.75240e-2	21.04551		Fluorene #6
15.099	BBA	1410.25684	1.72982e-2	25.37076		Phenanthrene #7
16.516	BBA	2908.49902	1.04262e-2	31.53753		Anthracene #8
17.899	BB	177.37764	2.17006e-2	4.00317		Fluoranthene #9
18.913	BBA	275.23889	1.43052e-2	4.09485		Pyrene #10
21.277	BBA	110.23212	6.56733e-2	7.52887	72.3%	p-Terphenyl d14 #11*
22.609	PBA	188.76152	2.22694e-2	4.37176		Benzo(a)anthracene #12
23.498	BBA	266.95038	1.51453e-2	4.20476		Chrysene #13
26.245	PBA	173.33498	2.07330e-2	3.73750		Benzo(b)fluoranthene #14
27.702	BB	71.93463	2.25837e-2	1.68953		Benzo(k)fluoranthene #15
28.829	BBA	125.33714	2.61680e-2	3.41102		Benzo(a)pyrene #16
30.718	BBA	22.77250	9.41116e-2	2.22888		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.539	PB	40.98877	5.60829e-2	2.39072		Benzo(g,h,i)perylene #18
32.466	BBA	124.96499	2.05608e-2	2.67215		Indeno(1,2,3-cd)pyrene #1

Totals : 213.45581

Results obtained with enhanced integrator!

*** End of Report ***

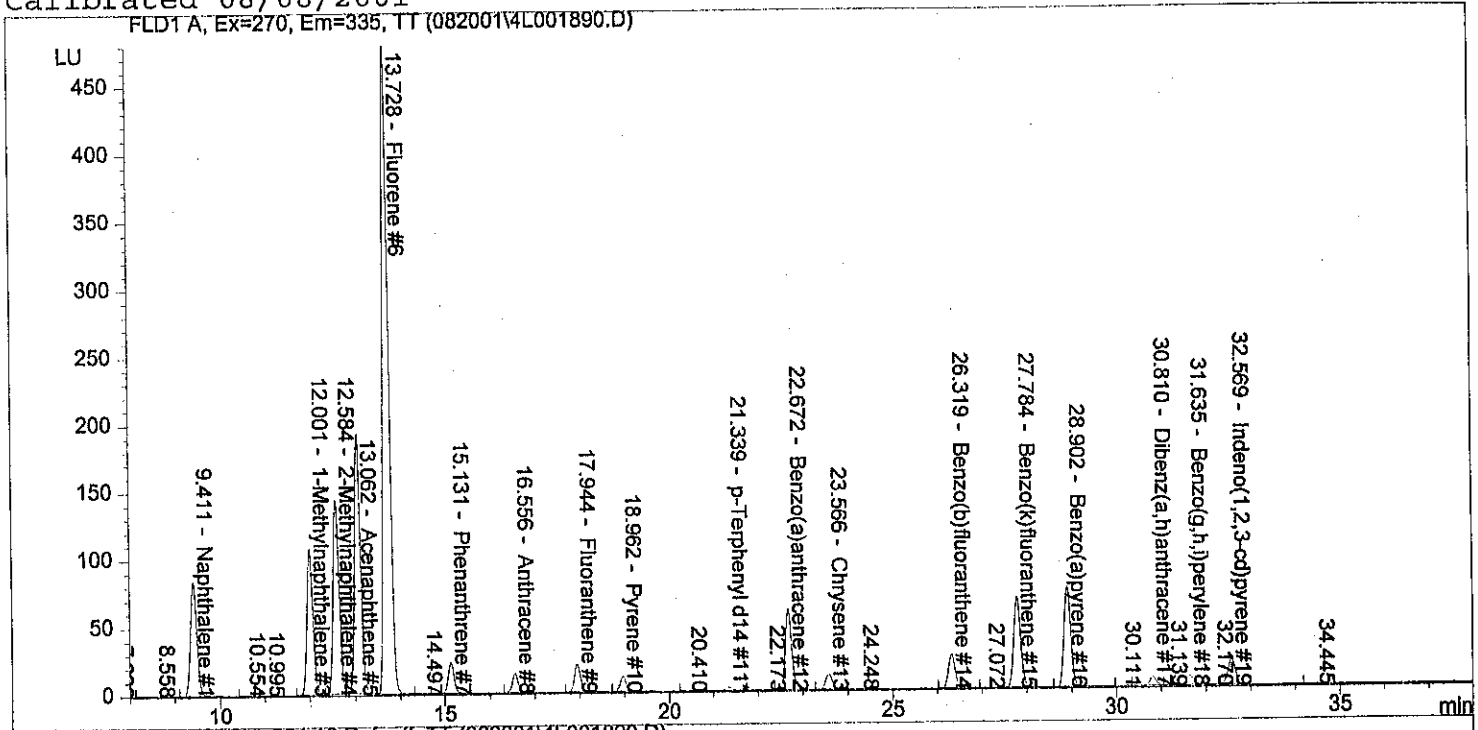
==========

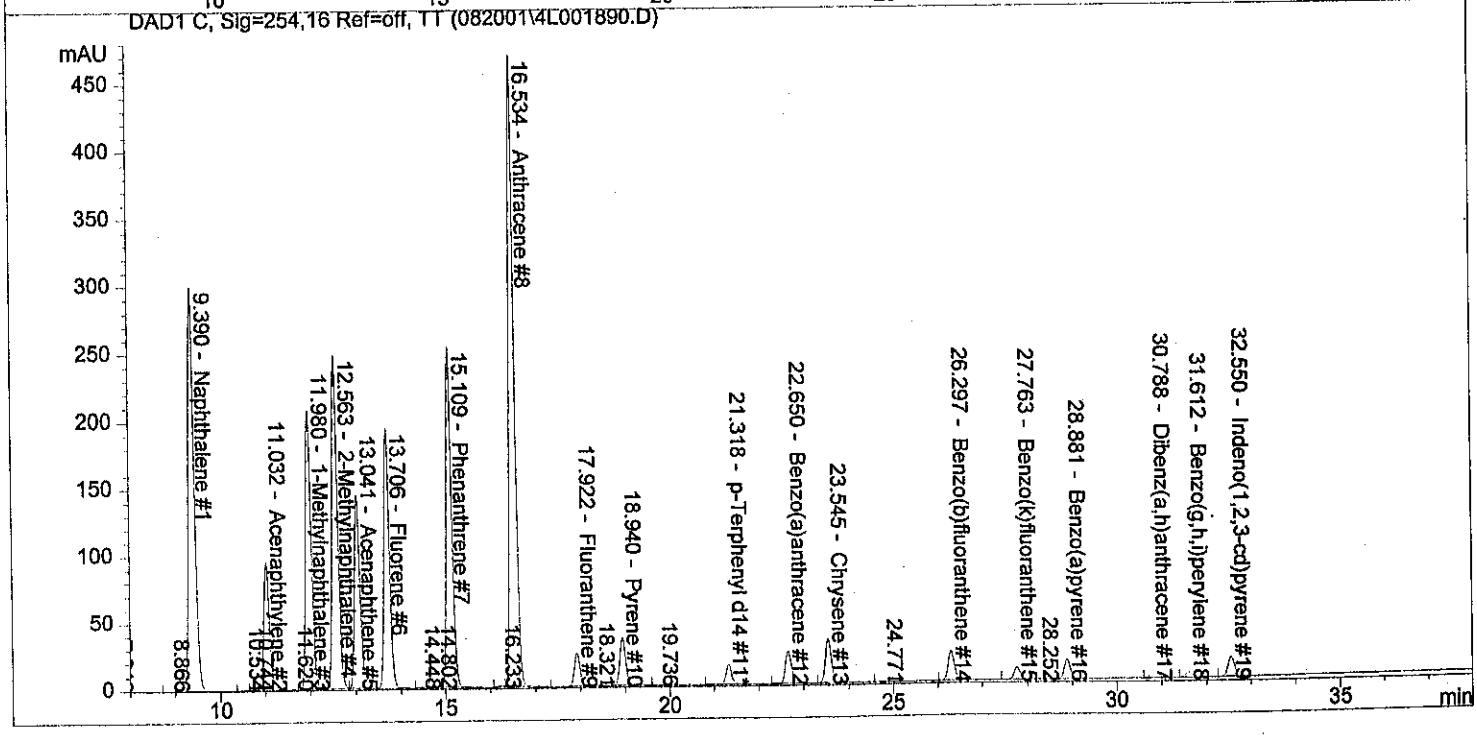
Injection Date : 8/20/2001 6:42:45 PM
Sample Name : V170P79 LCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/20/2001 11:58:08 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/17/2001 2:29:47 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	BBA	833.36945	2.52962e-2	21.08108		Naphthalene #1
12.001	BB	1015.55969	2.21330e-2	22.47734		1-Methylnaphthalene #3
12.584	BB	1336.08533	1.70635e-2	22.79828		2-Methylnaphthalene #4
13.062	BB	1797.16736	1.38416e-2	24.87561		Acenaphthene #5
13.728	BB	4513.51416	6.62187e-3	29.88789		Fluorene #6
15.131	BBA	214.33835	1.63652e-1	35.07695		Phenanthrene #7
16.556	BB	131.41595	3.10196e-1	40.76475		Anthracene #8
17.944	BBA	198.01414	2.32678e-2	4.60736		Fluoranthene #9
18.962	BBA	112.76248	3.86587e-2	4.35925		Pyrene #10
21.339	PBA	27.85106	2.97423e-1	8.28354		p-Terphenyl d14 #11*
22.672	BB	595.99377	7.91256e-3	4.71584		Benzo(a)anthracene #12
23.566	BB	114.68776	3.90495e-2	4.47850		Chrysene #13
26.319	BB	265.61703	1.63222e-2	4.33545		Benzo(b)fluoranthene #14
27.784	BB	706.16302	2.76572e-3	1.95305		Benzo(k)fluoranthene #15
28.902	BB	768.35211	4.57119e-3	3.51228		Benzo(a)pyrene #16
30.810	BB	64.21027	3.93496e-2	2.52665		Dibenz(a,h)anthracene #17
31.635	BB	87.68085	2.65165e-2	2.32499		Benzo(g,h,i)perylene #18
32.569	BBA	223.99200	1.38204e-2	3.09566		Indeno(1,2,3-cd)pyrene #1
Totals :				241.15446		

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
9.390	BBA	2761.26245	8.25405e-3	22.79160		Naphthalene #1
11.032	BB	832.45819	2.96975e-2	24.72194		Acenaphthylene #2
11.980	BB	1788.07373	1.29459e-2	23.14815		1-Methylnaphthalene #3
12.563	BB	2109.42139	1.12393e-2	23.70837		2-Methylnaphthalene #4
13.041	BB	1297.76550	2.03163e-2	26.36585		Acenaphthene #5
13.706	BB	1641.87207	1.75240e-2	28.77217		Fluorene #6
15.109	BBA	2146.38354	1.72982e-2	37.12866		Phenanthrene #7
16.534	BBA	3991.76099	1.04262e-2	41.61884		Anthracene #8
17.922	BB	215.70546	2.17006e-2	4.68094		Fluoranthene #9
18.940	BBA	328.17480	1.43052e-2	4.69462		Pyrene #10
21.318	BBA	132.69199	6.56733e-2	8.71431		p-Terphenyl d14 #11*
22.650	PBA	221.71948	2.22694e-2	4.93757		Benzo(a)anthracene #12
23.545	BBA	314.76871	1.51453e-2	4.76727		Chrysene #13
26.297	PBA	211.41849	2.07330e-2	4.38334		Benzo(b)fluoranthene #14
27.763	BB	86.64001	2.25837e-2	1.95665		Benzo(k)fluoranthene #15
28.881	BBA	139.52995	2.61680e-2	3.65122		Benzo(a)pyrene #16
30.788	BBA	28.88190	9.41116e-2	2.71812		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	
31.612	PB	47.30247	5.60829e-2	2.65286		Benzo(g,h,i)perylene #18
32.550	BBA	153.16586	2.05608e-2	3.14921		Indeno(1,2,3-cd)pyrene #1

Totals : 274.56168

Results obtained with enhanced integrator!

*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001805	ACN Blank	NA			✓
06	8310 CCV		SV53-25	/54-35	RR
07	V169 pg5 BLK				RR
08	↓ LCS				RR
09	8310 CCV		SV53-25	/54-35	CC
10	↓ re-make		↓		CC
11	ESC 38-23 e/26 spike				✓
12	8310 SUR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	5/50		SV54-35	/53-25	✓
15	4/20				✓
16	3/10				✓
17	2/5				✓
18	1/1				✓
19	8310 ALT @ LVL 4		SV53-27	/SOS55-29	✓
			RDC 8/10/01		

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis, Reanalysis complete IS or SS = Interference with internal and/or surrogate standards SMI = Sample matrix interference
RR = Rerun MT = Missed Tune, beyond method tuning requirements CC = Continuing calibration failed
RR# = Rerun at a specified dilution RE = Re-extraction analysis required CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

nalysis Date/Time Aug. 2, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080301

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 113 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001806 – No result file contents / null

8310 CCV – failing low for p-terphenyl-d14

Reviewed By: [illegible] 8/1/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug. 5th 01 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080501
Analyst Initials HV SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ___ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
41001842	ACCN BLK				✓
43	8310 CCV		SV 54-35 / 53-25		✓
44	V 169-P195 8310 W BLK				✓
45	LCS				✓
46	LD108280-01 8310 water				✓
47	-02				RR
48	-03				✓
49	-04				✓
50	-05 MS				✓
51	-05 MSD				
52	ACCN BLK				✓
53	8310 CCV		SV 54-35 / 53-25		RE
54	LD108280-07 8310 water				↓
55	-08				
56	-09				✓
57	-03 RR				
58	ACCN BLK				✓
59	8310 CCV		SV 54-35 / 53-25		

HV 8/10/01

Reviewed By: [illegible] 8/17/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 15 01 **Instrument ID** HPLC 4 **Column ID** LC-PAH **Data Subdirectory** 081501

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 180 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0168280-03, 07, 08, 09 sent for REEXT. due to low surrogate recovery PAC 8/20/01

Reviewed By: [illegible] 8/17/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

082001

Analysis Date/Time Aug. 20, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory ~~0820-01~~ RDC 8/21/01
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001887	AcCN Blank	NA			
88	8310 CCV		SV54-35/53-25		✓
89	V170P79 Blank 8310 W				✓
90	LCS				✓
91	L0108280-03 RE				✓
92	-07				✓
93	-08				✓
94	-09				✓
95	8310 CCV		SV54-35/53-25		✓
					✓

RDC 8/21/01

RDC 8/21/01

Reviewed By: RDC 8/21/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug. 20, 2001 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 082001

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

-03 surr. yet low
07, 08, 09 surr. acceptable

Reviewed By: pdl 8/21/01

Sample Extract Log Sheet

Volume 169
Page 195

Parameter: 8310-H2O SOP #: EXHPLC1 Revision #: 5
Extraction Analyst(s): JW TV/KD Analyst(s): JQ
Date/Time Extracted: 8-14-01/15:17 Date TV/KD: 8/14/01
Spike/Surrogate Analyst: JW Witness: JEA
Surrogate #: ES50037-41 Earliest Hold Date: 8/20/01
Spike #: A = ES50037-37 Spike #: B = ——

Extraction Work Group WG 102768
Analytical Work Group WG 102830

Extract Relinquished By: DDP
Extract Received By & Date: [illegible] 8/15/01

	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			✓		960mL	100ul		1mL	T				WG 102768-02
2	LCS	8/21		✓		965mL		500ul		C				WG ⊥ -03
3	08-280-01	8310		✓						⊥			-	
4	-02			✓										
5	-03			✓						T				
6	-04			✓						C				WG 102768-01
7	-05ms			✓				500ul					-	* ⊥ -04
8	-06msD			✓				⊥						* ⊥ -05
9	-07			✓										
10	-08			✓						T				
11	-09	⊥		✓		960mL	⊥		⊥	C				
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

8/14/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: Acetonitrile Lot #: T46826
Reagent: fortified Lot #: ER1865
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: —— Lot #: ——
Florisil Lot #: ——
Silica Gel Lot #: ——
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER1890

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: 08/15/01

Extraction Notes For Volume # 169 Page # 195

General Comments: * MS, MSD of 08-280-04

Extraction Anomalies: Nothing to report.

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-H2O SOP #: EXHPLC1 Revision #: 5
Extraction Analyst(s): JW TV/KD Analyst(s): JW, SAM
Date/Time Extracted: 8-20-01 @ 1445 Date TV/KD: 8/20/01
Spike/Surrogate Analyst: JW JW 8-20-01 Witness: SAM
Surrogate #: ESS0037-41 Earliest Hold Date: 8/20/01
Spike #: A = ESS0037-37 Spike #: B = ——

Extraction Work Group WG 103104
Analytical Work Group WG 103154
Extract Relinquished By: JW
Extract Received By & Date: RDC 8/20/01

	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	100ul		1mL	T				WG 103104-01
2	LCS			✓		↓	↓	500ul	↓	C				WG ↓ -02
3	08-280-03	8310		✓		965mL	↓		↓	T				RE-EXT in HOLD
4	↓ -07	↓		✓		↓	↓		↓	C				↓
5	↓ -08	↓		✓		↓	↓		↓	↓				↓
6	↓ -09	↓		✓		950mL	↓		↓	T				↓
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

JW 8-20-01

Methylene Chloride Lot #: 41109
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: Acetonitrile Lot #: T46826
Reagent: Fortified Sol. Lot #: ER1865
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: —— Lot #: ——
Florisil Lot #: ——
Silica Gel Lot #: ——
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER1888

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: 8/20/01

Extraction Notes For Volume # 170 Page # 79

General Comments: Nothing to report.

Extraction Anomalies: Nothing to report.

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

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
	RF	**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

2.4.1 Miscellaneous General Chemistry

2.4.5 Anions (9056)

COMMON ANIONS

KEMRON Report No.: L0108280

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times 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: Samples -05 & -06 were requested externally for the MS/MSD of sample fraction -04. 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: GSG REVIEWED: Steve Barr DATE: 9/6/01

Rev. 7/14/00

280

Figure 1

IC

Date: 08/14/01
Analyst: GSG
Method: 9056
Instrument: IC1
Work Group: WG 102762

	Analyst
System Performance Check	✓
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
GSG 08/20/01

Secondary Reviewer Initials & Date Checked
DRR 9/9/01

✓ • 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 DRR 9/9/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

Anions (9056)

Login Number: 60108280

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSA Date: 09/05/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG102767	**Prep Work Group:**	NA	**Blank Filename:**	IC1_013	**Sample Number:**	L0108280-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC1_014	**Sample Filename:**	IC1_018
Instrument:	IC1	**Ext Bench Sheet:**	NA	**Sample Number:**	L0108280-09	**MS Filename:**	IC1_020
Analyst:	GSG	**Run Date:**	14-Aug-01	**Sample Filename:**	IC1_027	**MSD Filename:**	IC1_021
				Duplicate Filename:	IC1_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	3.61	ND	ND	ND	3.66	3.60	3.58	ND	98.6	90	110	98	98	80	120	NA	1	20			
NITRATE-N	0.6	ND	4.06	4.01	0.1	0.1	ND	4.06	3.96	3.97	ND	98.7	90	110	97.4	97.8	80	120	0.62	0	20			
PHOSPHATE-P	1	ND	9.78	9.86	ND	ND	ND	9.78	10.01	10.00	ND	100.8	90	110	102	102	80	120	NA	0	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

2.4.5.2 Sample Data

Sample Analysis Report

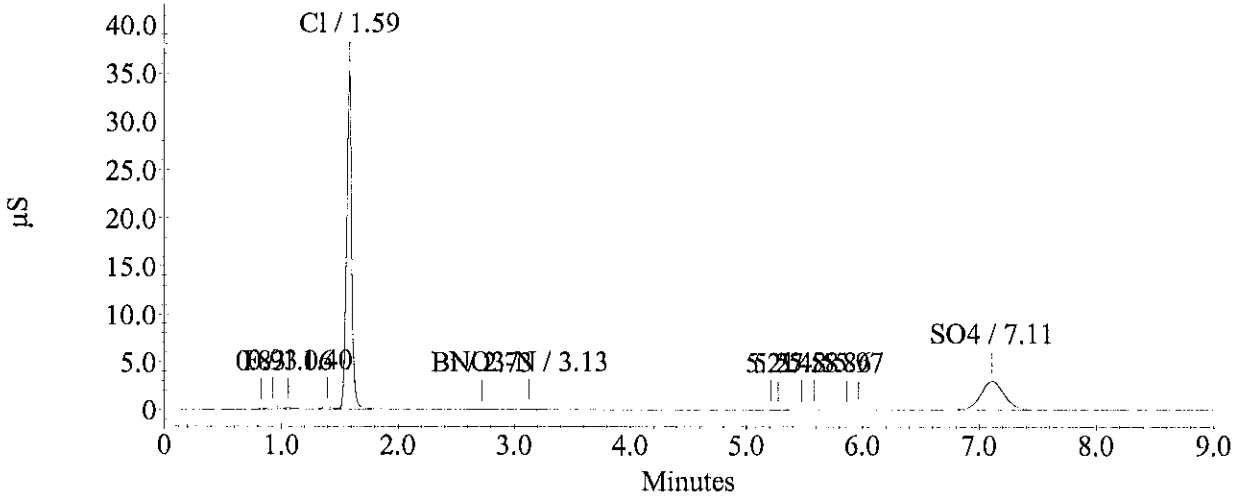
Sample Name : L0108280-01
Data File Name : C:\PEAKNET\DATA\081401\IC1_015.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 12:16
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.83	0.0000	3828
2		0.93	0.0000	17025
3	F	1.06	0.2148	4150
4		1.40	0.0000	13629
5	Cl	1.59	21.2089	1054625
6	Br	2.73	0.1673	1639
7	NO3-N	3.13	0.1768 F	5488
8		5.21	0.0000	153
9		5.27	0.0000	45
10		5.48	0.0000	749
11		5.58	0.0000	656
12		5.86	0.0000	108
13		5.97	0.0000	84
14	SO4	7.11	12.3724	417613

L0108280-01



Sample Analysis Report

Sample Name : L0108280-02
Data File Name : C:\PEAKNET\DATA\081401\IC1_016.DXD

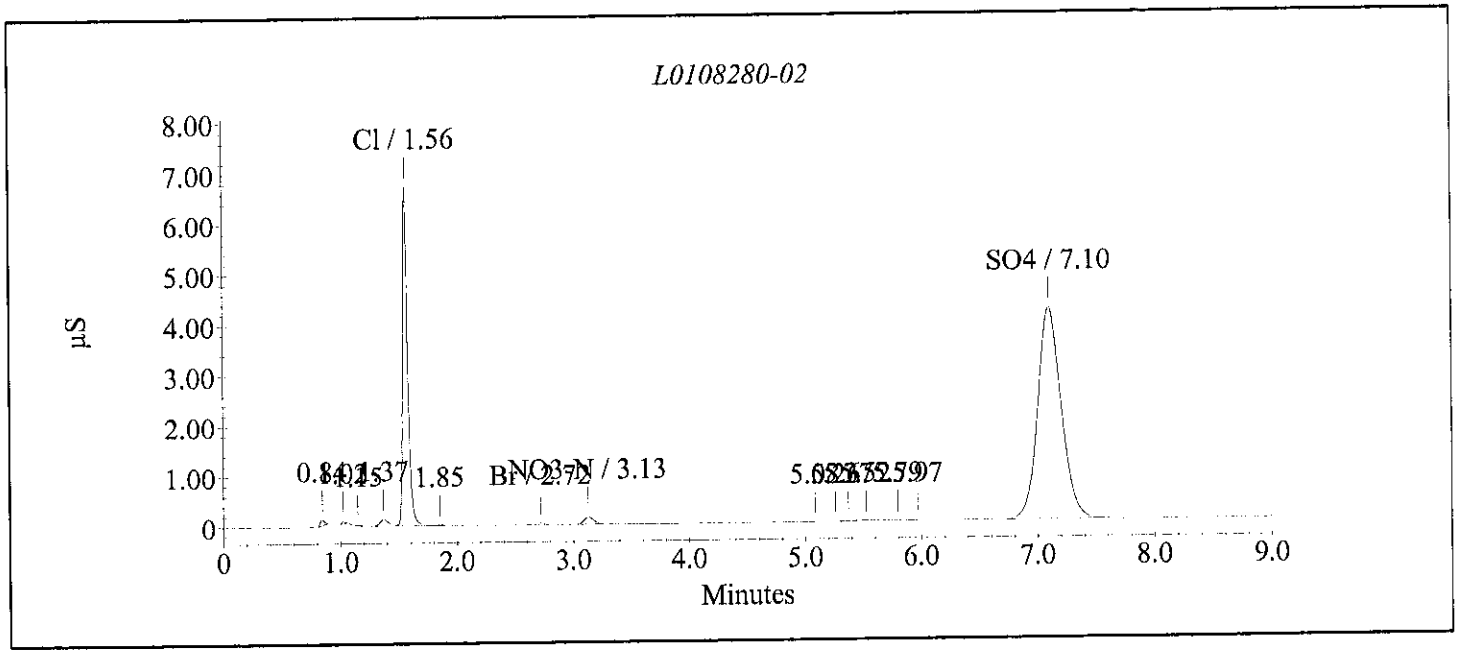
Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 12:28
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	2636
2		1.02	0.0000	676
3		1.15	0.0000	345
4		1.37	0.0000	6503
5	Cl	1.56	4.1972	200070
6		1.85	0.0000	315
7	Br	2.72	0.1527	1350
8	NO3-N	3.13	0.1967 F	7942
9		5.08	0.0000	63
10		5.26	0.0000	80
11		5.37	0.0000	192
12		5.52	0.0000	317
13		5.79	0.0000	35
14		5.97	0.0000	59
15	SO4	7.10	16.8510	581202

Sample Analysis Report

Sample Name : L0108280-02
Data File Name : C:\PEAKNET\DATA\081401\IC1_016.DXD



Sample Analysis Report

Sample Name : L0108280-03
Data File Name : C:\PEAKNET\DATA\081401\IC1_017.DXD

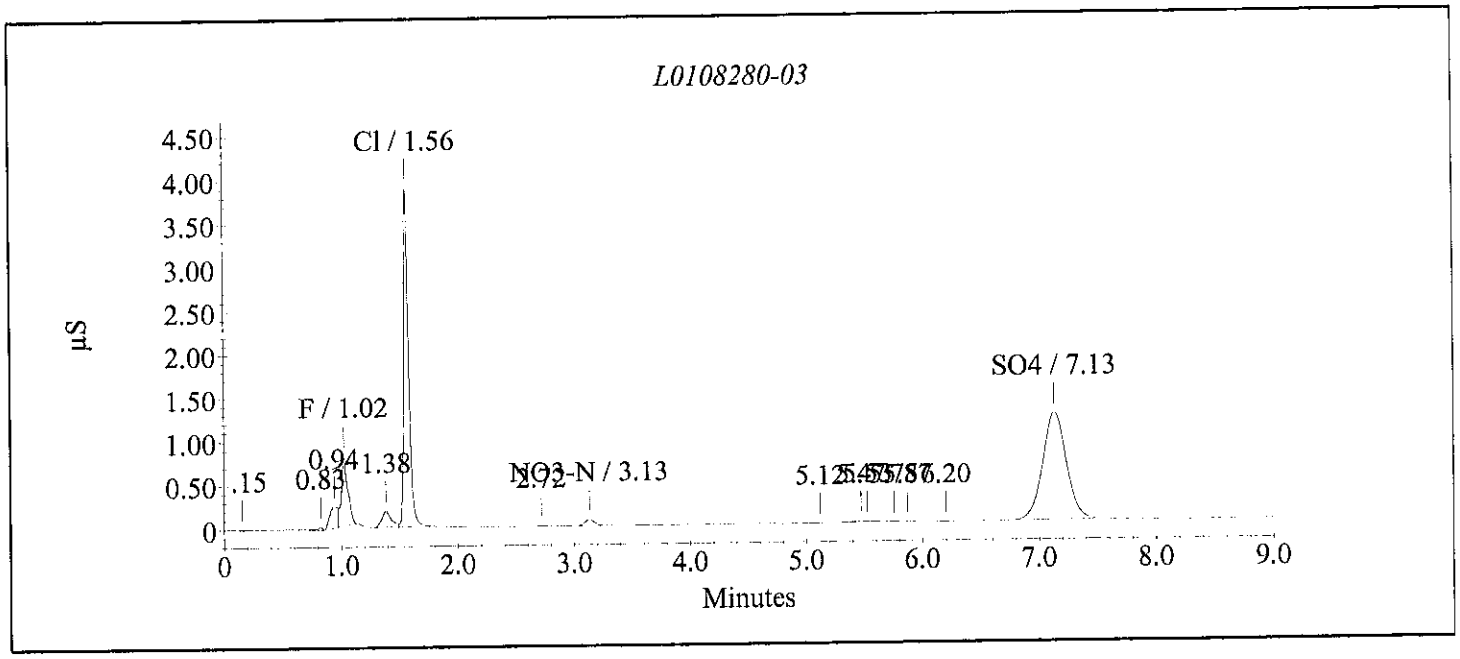
Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 12:39
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.15	0.0000	135
2		0.83	0.0000	927
3		0.94	0.0000	11418
4	F	1.02	0.5532	30796
5		1.38	0.0000	9944
6	Cl	1.56	2.5102	115325
7		2.72	0.0000	281
8	NO3-N	3.13	0.1643 F	3958
9		5.12	0.0000	91
10		5.47	0.0000	682
11		5.53	0.0000	556
12		5.75	0.0000	188
13		5.87	0.0000	86
14		6.20	0.0000	118
15	SO4	7.13	5.6639	172574

Sample Analysis Report

Sample Name : L0108280-03
Data File Name : C:\PEAKNET\DATA\081401\IC1_017.DXD



Sample Analysis Report

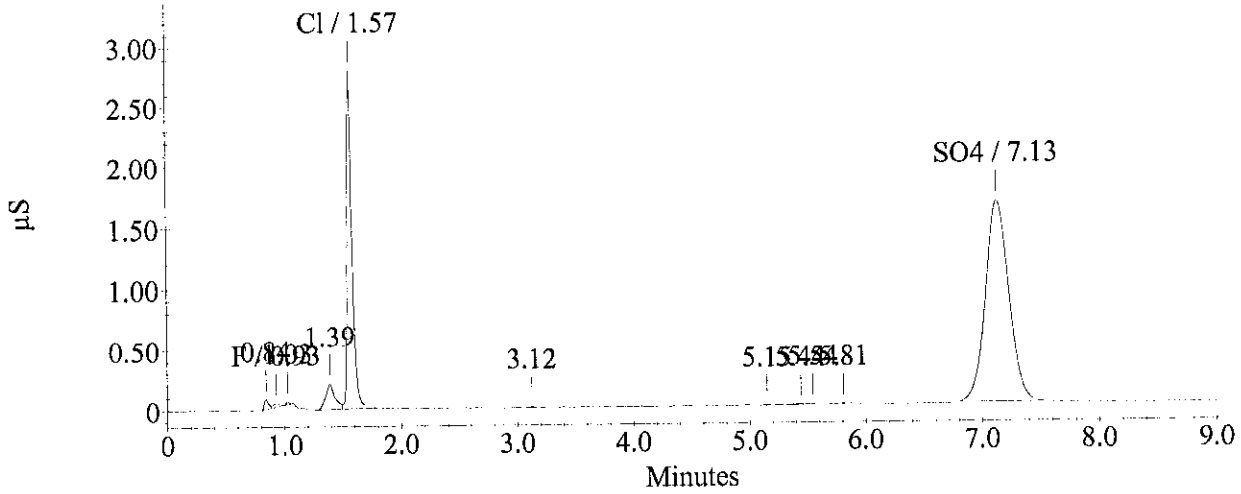
Sample Name : L0108280-04
Data File Name : C:\PEAKNET\DATA\081401\IC1_018.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 12:51
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	2039
2	F	0.93	0.1772	1193
3		1.03	0.0000	363
4		1.39	0.0000	11291
5	Cl	1.57	1.8892	84131
6		3.12	0.0000	213
7		5.15	0.0000	87
8		5.44	0.0000	240
9		5.54	0.0000	37
10		5.81	0.0000	110
11	SO4	7.13	7.2444	230304

L0108280-04



Sample Analysis Report

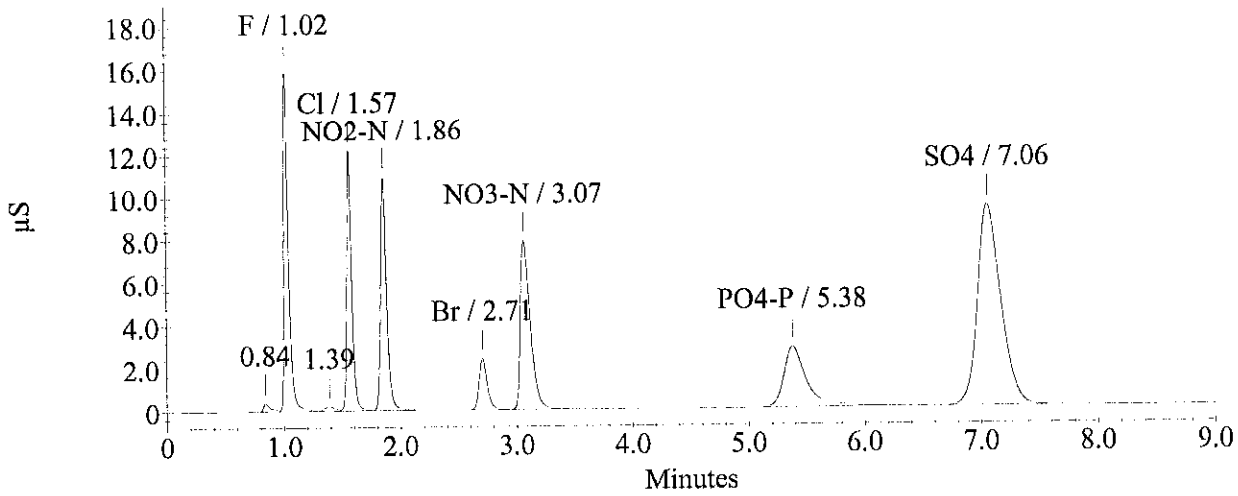
Sample Name : L0108280-05 MS
Data File Name : C:\PEAKNET\DATA\081401\IC1_020.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 13:14
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	16106
2	F	1.02	5.9372	454712
3		1.39	0.0000	12472
4	Cl	1.57	7.4261	362266
5	NO2-N	1.86	3.6046	388520
6	Br	2.71	5.9466	115620
7	NO3-N	3.07	3.9557	469802
8	PO4-P	5.38	10.0052	381428
9	SO4	7.06	36.3946	1295063

L0108280-05 MS



Sample Analysis Report

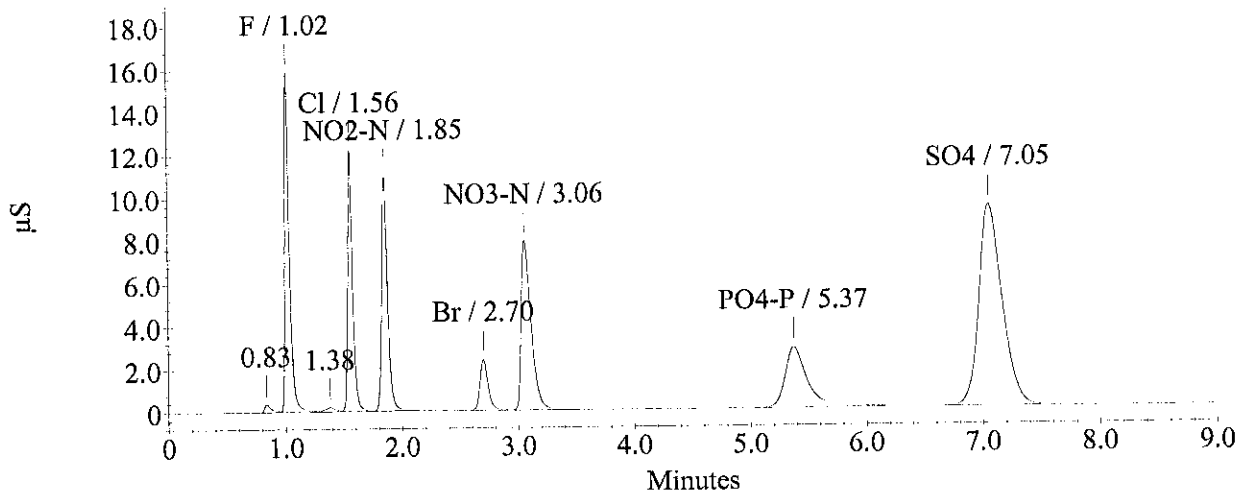
Sample Name : L0108280-06 MSD
Data File Name : C:\PEAKNET\DATA\081401\IC1_021.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 13:25
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.83	0.0000	15714
2	F	1.02	5.9326	454344
3		1.38	0.0000	12063
4	Cl	1.56	7.4137	361646
5	NO2-N	1.85	3.5839	386227
6	Br	2.70	5.9828	116333
7	NO3-N	3.06	3.9703	471604
8	PO4-P	5.37	10.0016	381288
9	SO4	7.05	36.3219	1292407

L0108280-06 MSD



Sample Analysis Report

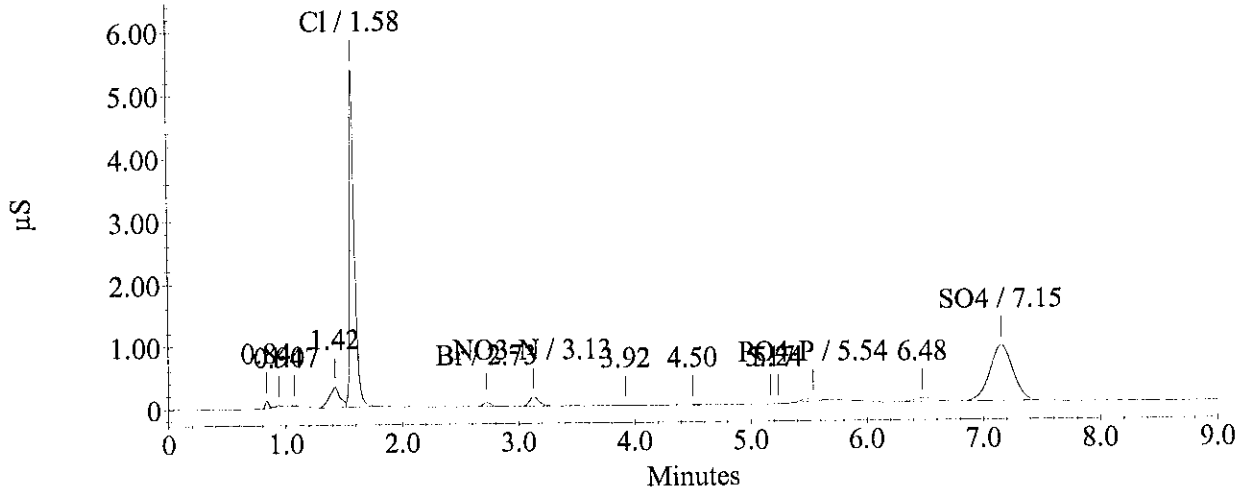
Sample Name : L0108280-07
Data File Name : C:\PEAKNET\DATA\081401\IC1_022.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 13:37
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	2416
2		0.94	0.0000	555
3		1.07	0.0000	561
4		1.42	0.0000	20137
5	Cl	1.58	3.3101	155507
6	Br	2.73	0.2385	3042
7	NO3-N	3.13	0.1996 F	8293
8		3.92	0.0000	288
9		4.50	0.0000	227
10		5.17	0.0000	172
11		5.24	0.0000	47
12	PO4-P	5.54	0.4788 F	4778
13		6.48	0.0000	6267
14	SO4	7.15	4.2493	120903

L0108280-07



: PeakNet 5.1

Current Date : 8/14/200
Current Time : 13:51:45

Sample Analysis Report

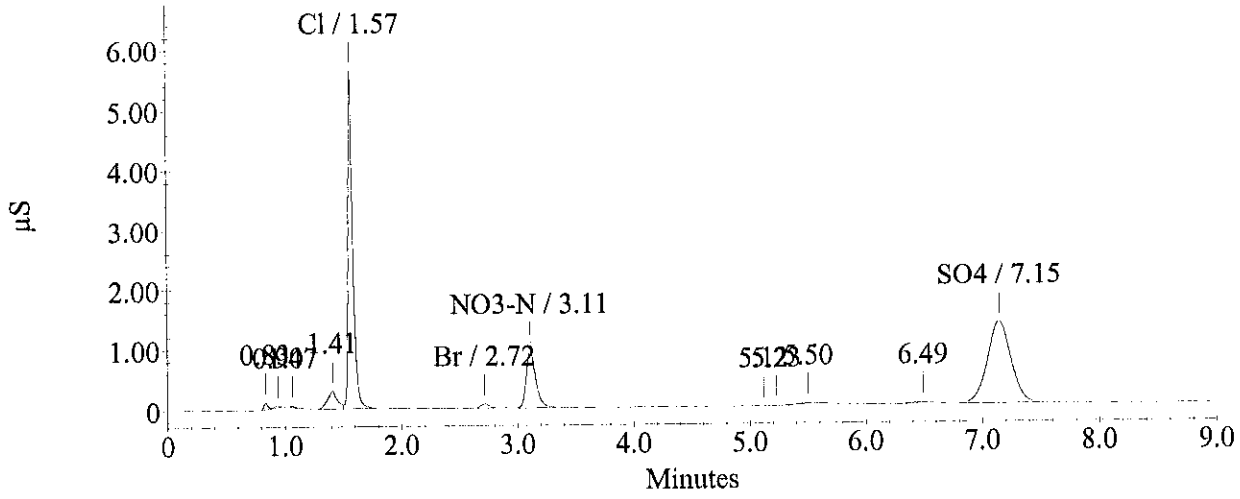
Sample Name : L0108280-08
Data File Name : C:\PEAKNET\DATA\081401\IC1_023.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 13:48
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.83	0.0000	2404
2		0.94	0.0000	899
3		1.07	0.0000	430
4		1.41	0.0000	16897
5	Cl	1.57	3.4435	162207
6	Br	2.72	0.2456	3182
7	NO3-N	3.11	0.5691 F	53687
8		5.12	0.0000	47
9		5.23	0.0000	81
10		5.50	0.0000	248
11		6.49	0.0000	887
12	SO4	7.15	6.0570	186931

L0108280-08



Sample Analysis Report

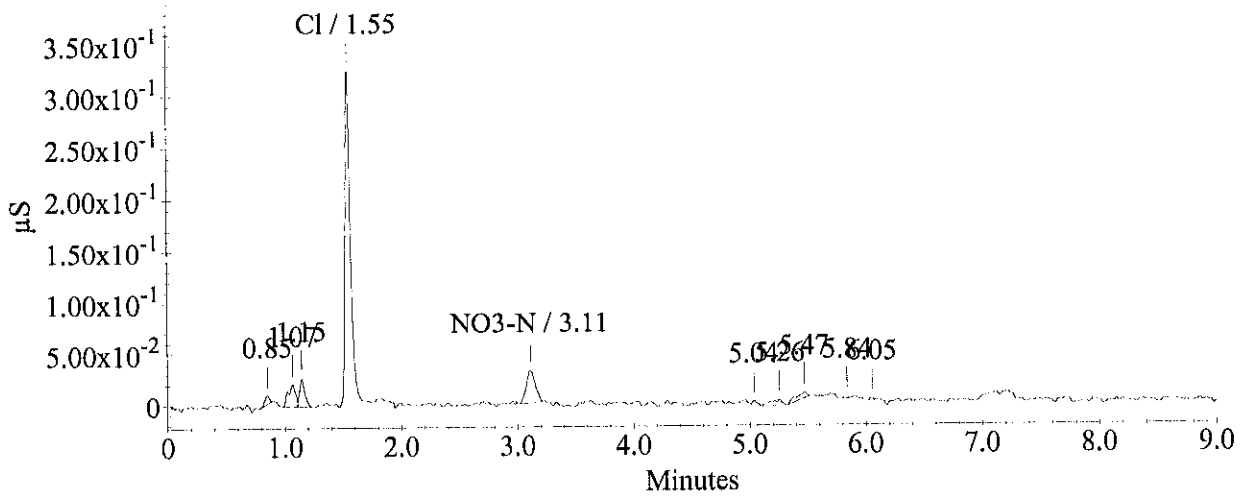
Sample Name : L0108280-09 RR
Data File Name : C:\PEAKNET\DATA\081401\IC1_027.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 14:34
System Operator : GSG

Peak Information : All Peaks

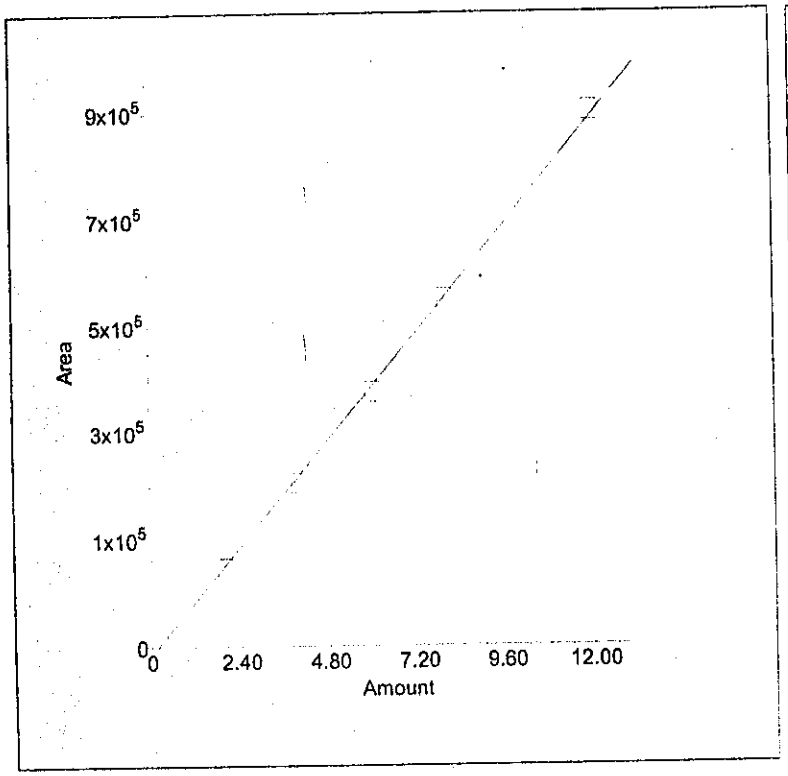
Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.85	0.0000	224
2		1.07	0.0000	967
3		1.15	0.0000	829
4	Cl	1.55	0.4231 F	10479
5	NO3-N	3.11	0.1462 F	1735
6		5.04	0.0000	109
7		5.26	0.0000	387
8		5.47	0.0000	400
9		5.84	0.0000	48
10		6.05	0.0000	44

L0108280-09 RR

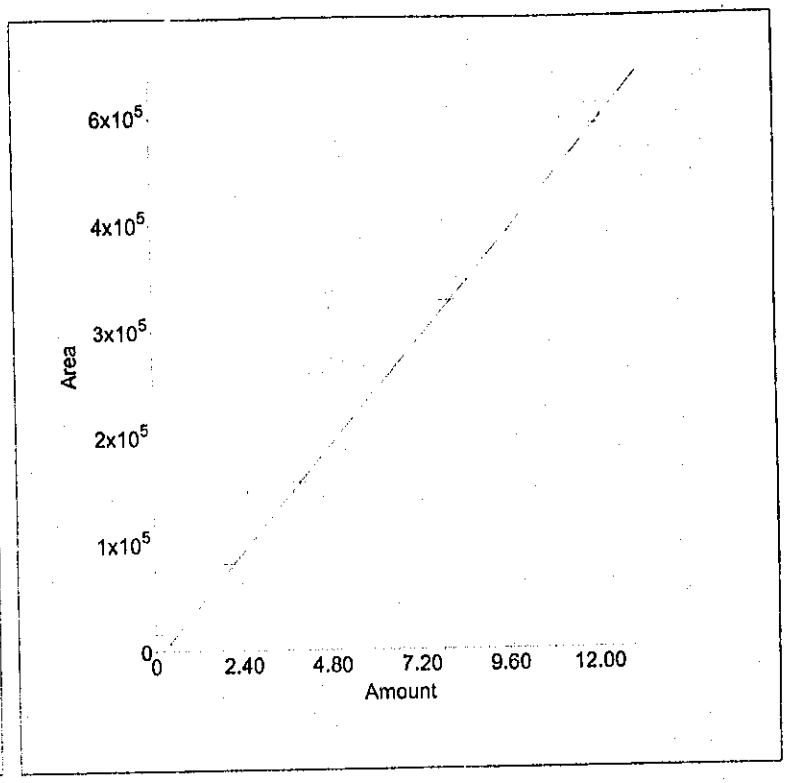


2.4.5.3 Standards Data

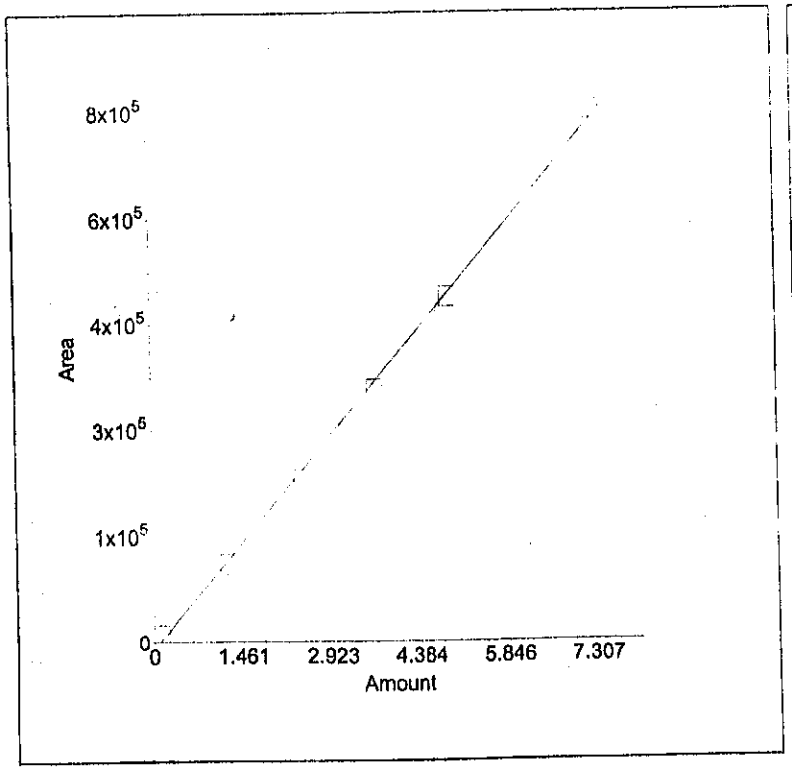
1. Component:F
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998997
Amt=1.257e-005*Resp+0.1605



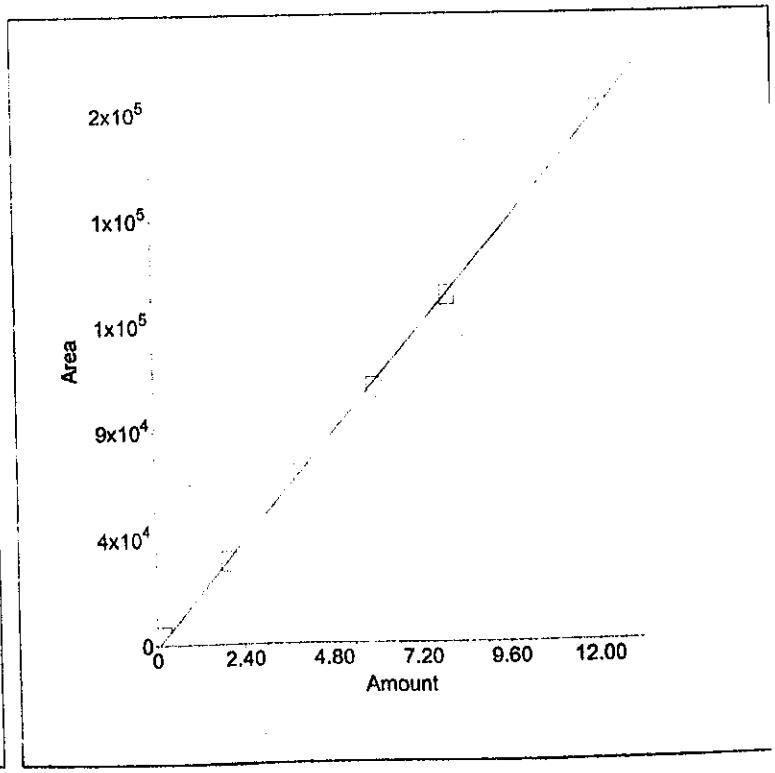
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997701
Amt=1.971e-005*Resp+0.2123



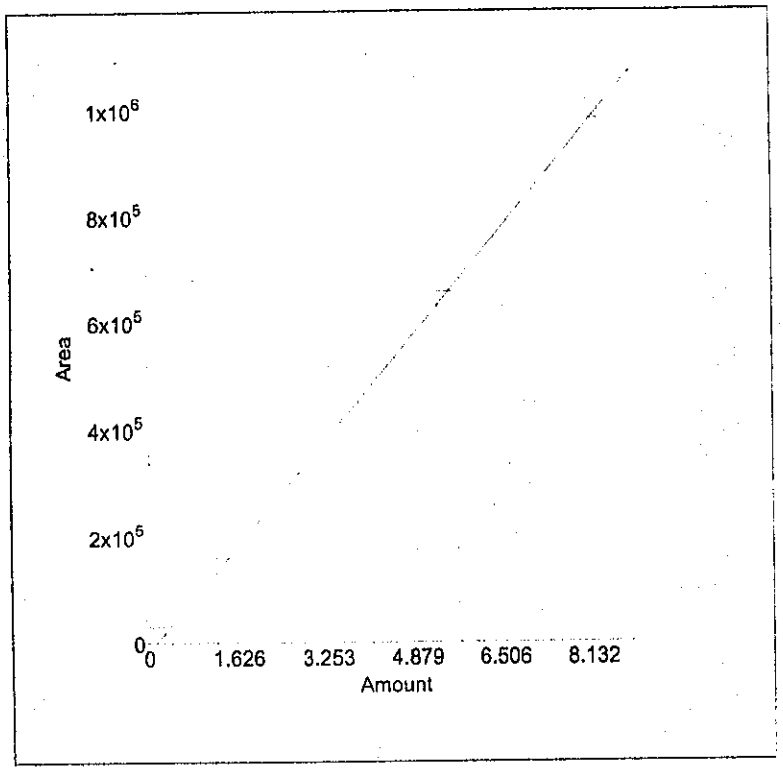
3. Component:NO2-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998916
Amt=8.939e-006*Resp+0.09573



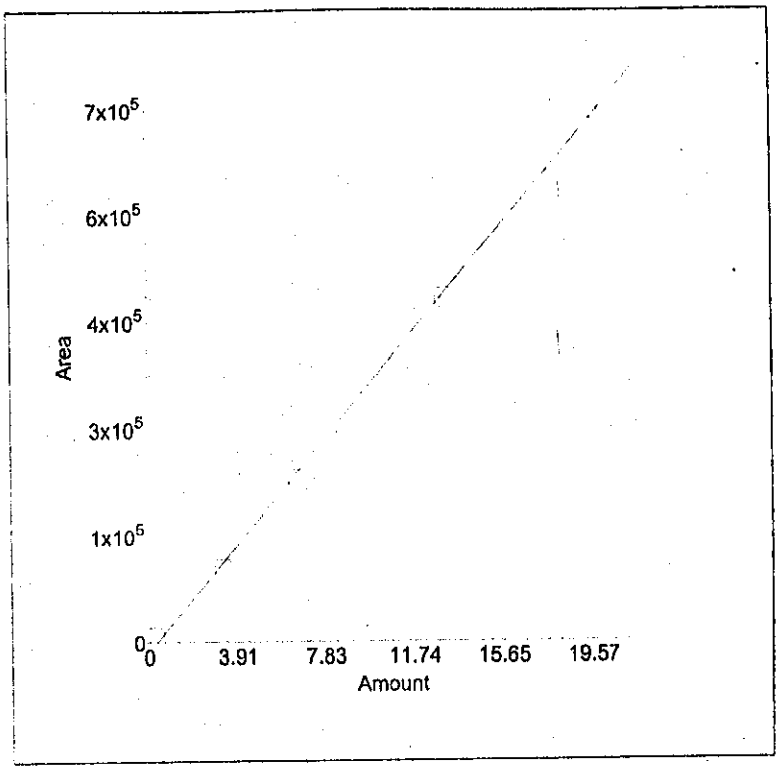
4. Component:Br
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999578
Amt=5.02e-005*Resp+0.08338



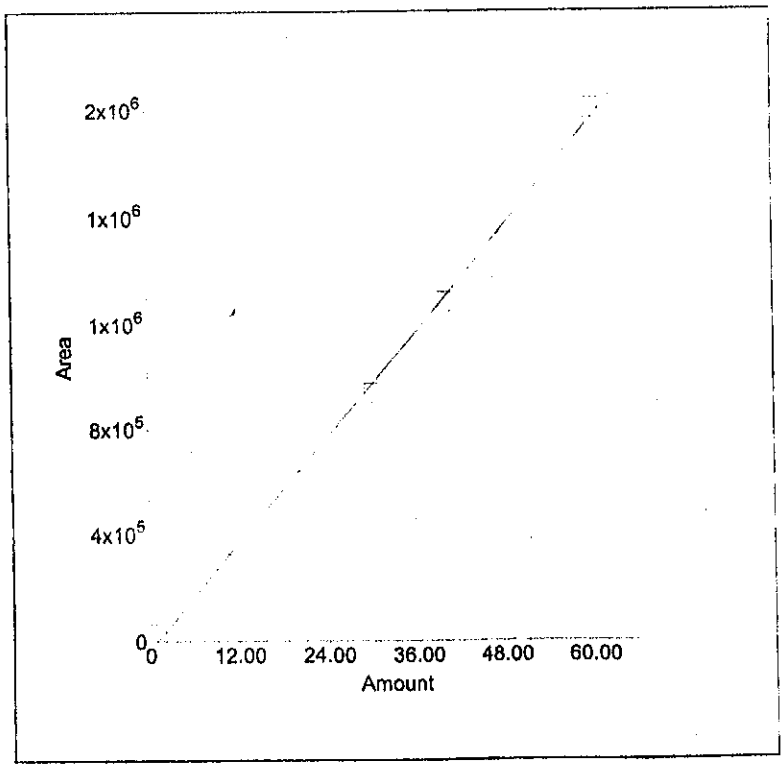
5. Component:NO3-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998220
Amt=8.058e-006*Resp+0.1308



6. Component:PO4-P
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998233
Amt=2.504e-005*Resp+0.3545



7. Component:SO4
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998254
Amt=2.711e-005*Resp+0.93



Sample Analysis Report

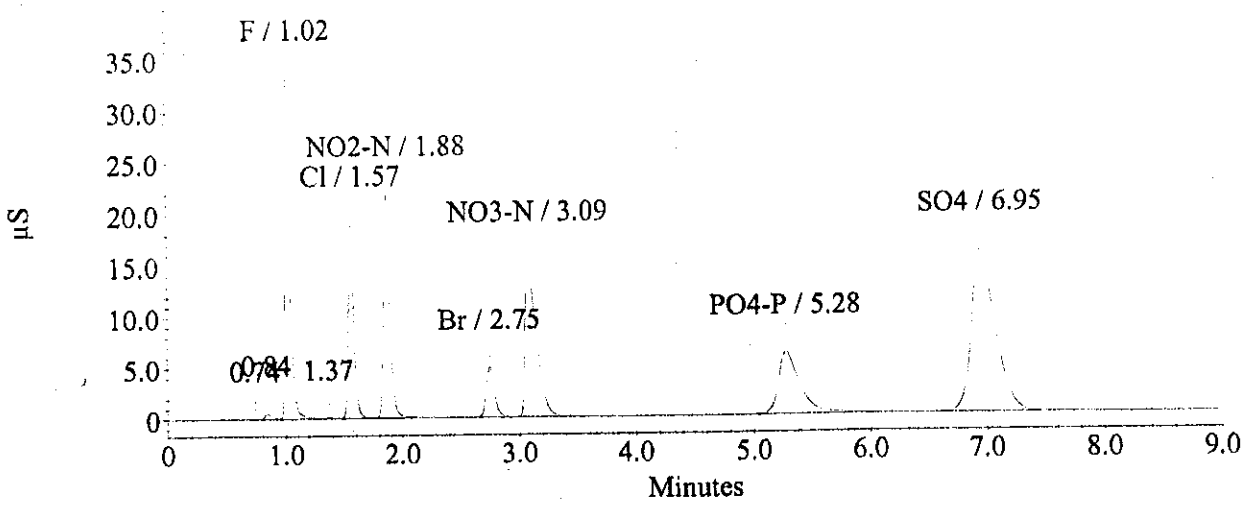
Sample Name : ANION LEVEL #6
Data File Name : C:\PEAKNET\DATA\081401\IC1_003.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 9:42
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.74	0.0000	132
2		0.84	0.0000	22774
3	F	1.02	12.2761	953411
4		1.37	0.0000	4057
5	Cl	1.57	12.3672	611283
6	NO2-N	1.88	7.4728	817967
7	Br	2.75	12.2409	239746
8	NO3-N	3.09	8.3670	1012417
9	PO4-P	5.28	19.9144	781044
10	SO4	6.95	63.4638	2221347

ANION LEVEL #6



Sample Analysis Report

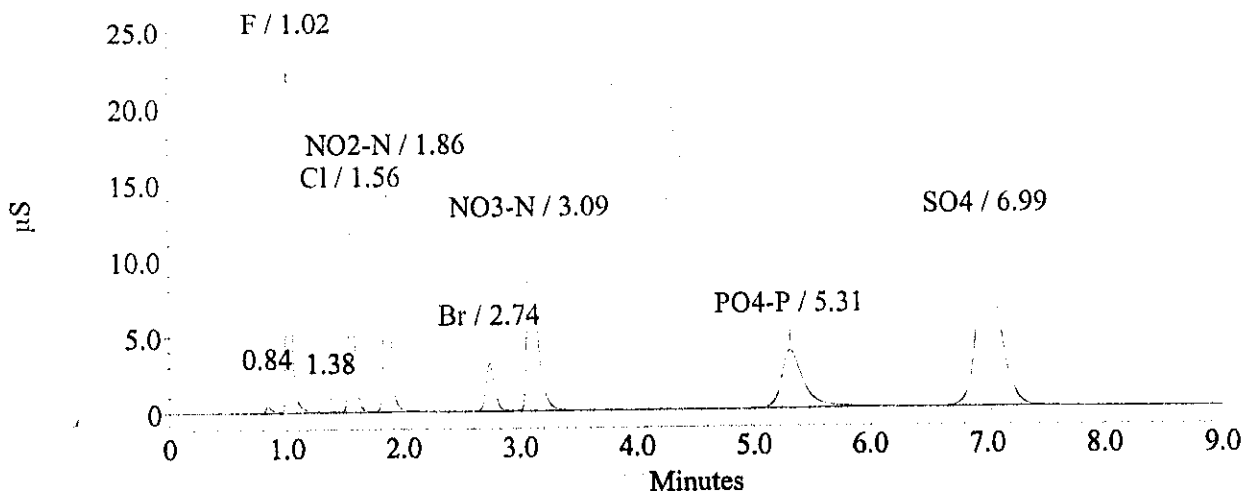
Sample Name : ANION LEVEL #5
Data File Name : C:\PEAKNET\DATA\081401\IC1_004.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 9:54
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	15183
2	F	1.02	8.0090	620383
3		1.38	0.0000	2685
4	Cl	1.56	7.9072	388685
5	NO2-N	1.86	4.8632	530673
6	Br	2.74	7.9878	156604
7	NO3-N	3.09	5.3698	646692
8	PO4-P	5.31	12.9176	502129
9	SO4	6.99	40.2414	1420811

ANION LEVEL #5



Sample Analysis Report

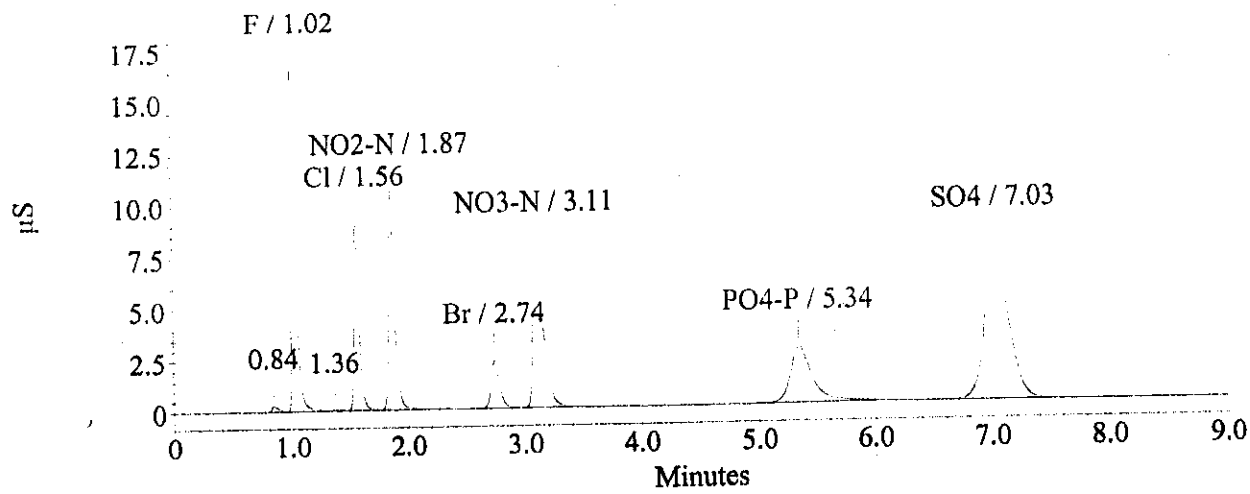
Sample Name : ANION LEVEL #4
Data File Name : C:\PEAKNET\DATA\081401\IC1_005.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 10:05
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	10767
2	F	1.02	5.8966	454210
3		1.36	0.0000	1096
4	Cl	1.56	5.7852	281805
5	NO2-N	1.87	3.5741	387694
6	Br	2.74	5.8964	115303
7	NO3-N	3.11	3.9454	471680
8	PO4-P	5.34	9.3771	360302
9	SO4	7.03	29.3839	1036288

ANION LEVEL #4



Sample Analysis Report

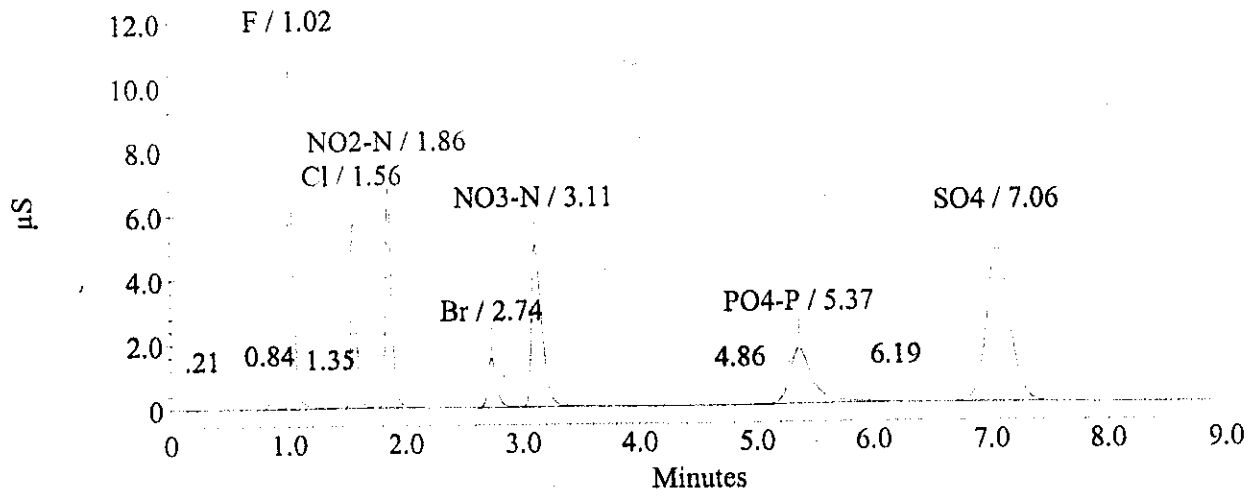
Sample Name : ANION LEVEL #3
Data File Name : C:\PEAKNET\DATA\081401\IC1_006.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 10:17
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.21	0.0000	303
2		0.84	0.0000	6964
3	F	1.02	3.8410	291694
4		1.35	0.0000	739
5	Cl	1.56	3.7850	180875
6	NO2-N	1.86	2.3389	250305
7	Br	2.74	3.9524	76878
8	NO3-N	3.11	2.5953	305118
9		4.86	0.0000	119
10	PO4-P	5.37	6.3294	239066
11		6.19	0.0000	21
12	SO4	7.06	19.1804	667507

ANION LEVEL #3



Sample Analysis Report

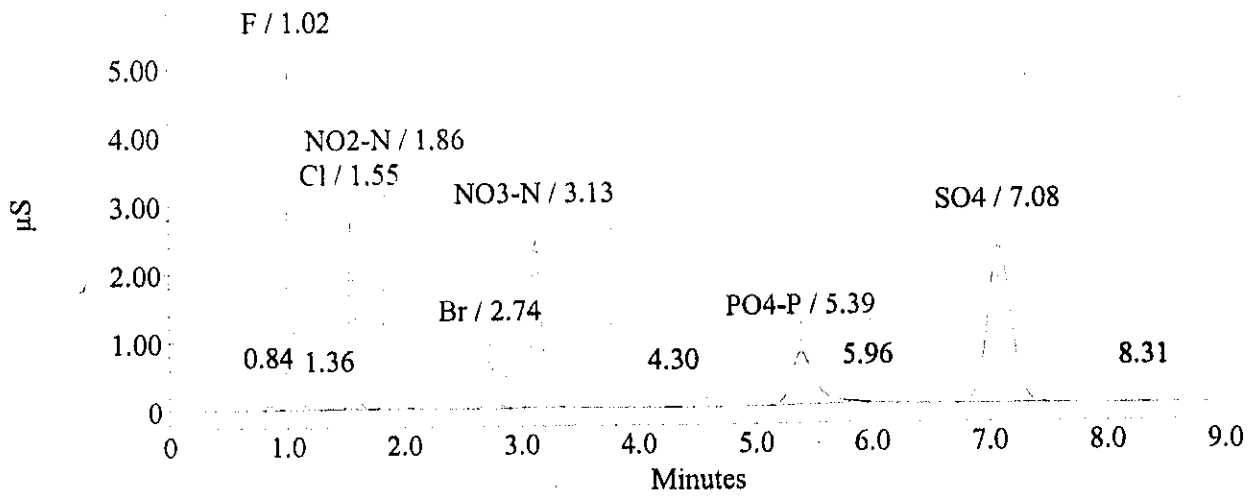
Sample Name : ANION LEVEL #2
Data File Name : C:\PEAKNET\DATA\081401\IC1_007.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 10:28
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	3018
2	F	1.02	1.9130	139319
3		1.36	0.0000	869
4	Cl	1.55	1.9380	87547
5	NO2-N	1.86	1.1745	120591
6	Br	2.74	1.9733	37617
7	NO3-N	3.13	1.3000	145003
8		4.30	0.0000	368
9	PO4-P	5.39	3.0448	107857
10		5.96	0.0000	172
11	SO4	7.08	9.6995	323071
12		8.31	0.0000	144

ANION LEVEL #2



Sample Analysis Report

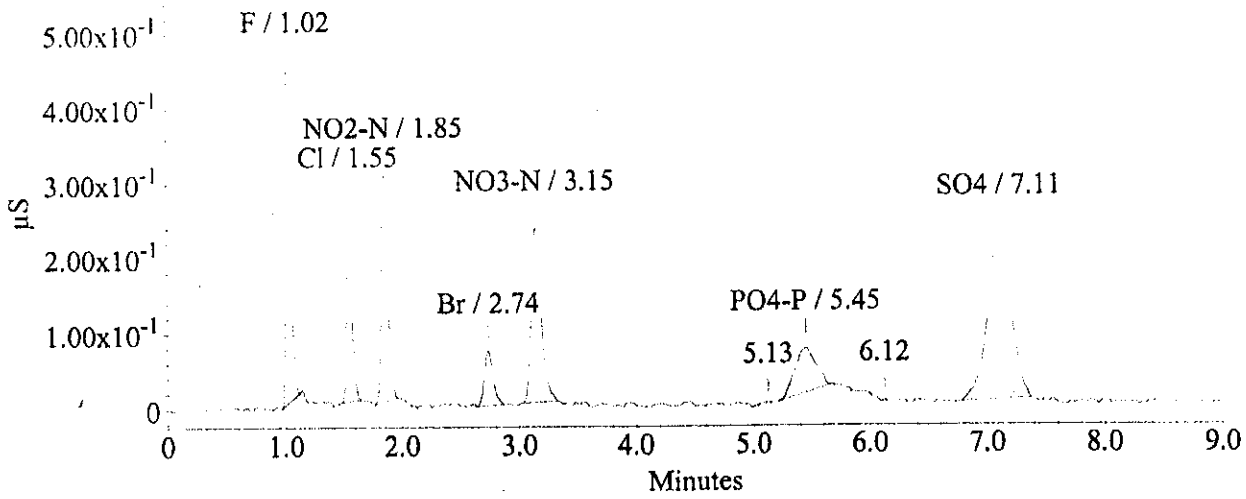
Sample Name : ANION LEVEL #1
Data File Name : C:\PEAKNET\DATA\081401\IC1_008.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 10:40
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1	F	1.02	0.3151	12299
2	Cl	1.55	0.3719	8095
3	NO2-N	1.85	0.1951	11114
4	Br	2.74	0.2657	3632
5	NO3-N	3.15	0.2395	13484
6		5.13	0.0000	157
7	PO4-P	5.45	0.5384	7343
8		6.12	0.0000	28
9	SO4	7.11	1.7543	30408

ANION LEVEL #1



Sample Analysis Report

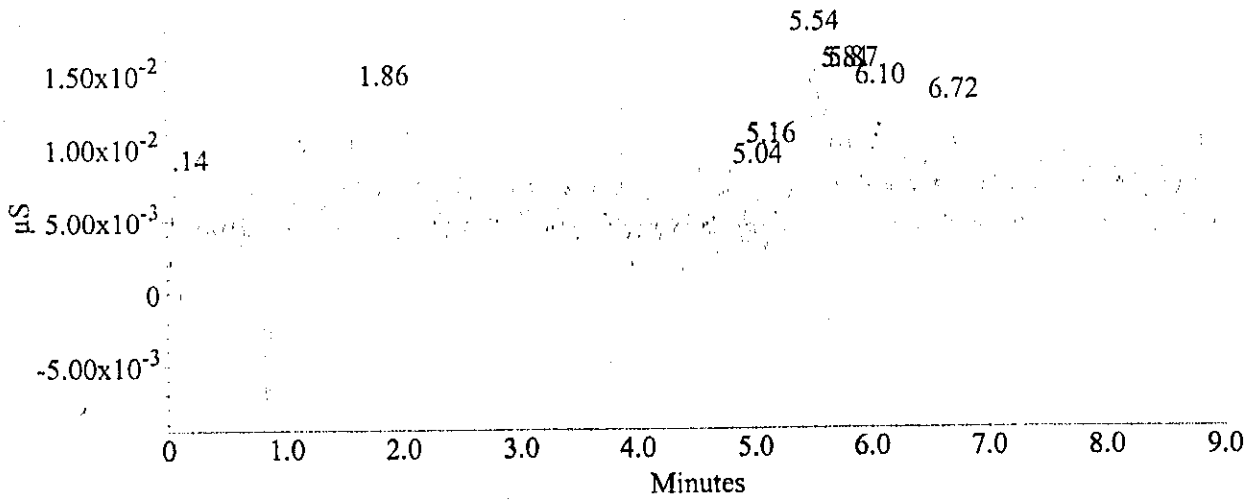
Sample Name : ELUENT BLANK
Data File Name : C:\PEAKNET\DATA\081401\IC1_009.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 10:51
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.14	0.0000	161
2		1.86	0.0000	108
3		5.04	0.0000	86
4		5.16	0.0000	80
5		5.54	0.0000	347
6		5.81	0.0000	210
7		5.87	0.0000	155
8		6.10	0.0000	234
9		6.72	0.0000	234

ELUENT BLANK



INSTRUMENT : IC1
FILE NAME: . IC1_010
DATE RUN: 14-Aug-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.95		-0.83	PASS
Cl	6.00		5.83		-2.78	PASS
NO2-N	3.66		NA		#VALUE!	#VALUE!
Br	6.00		5.94		-1.02	PASS
NO3-N	4.06		NA		#VALUE!	#VALUE!
PO4-P	9.70		9.62		-0.79	PASS
SO4	30.00		29.61		-1.31	PASS

Sample Analysis Report

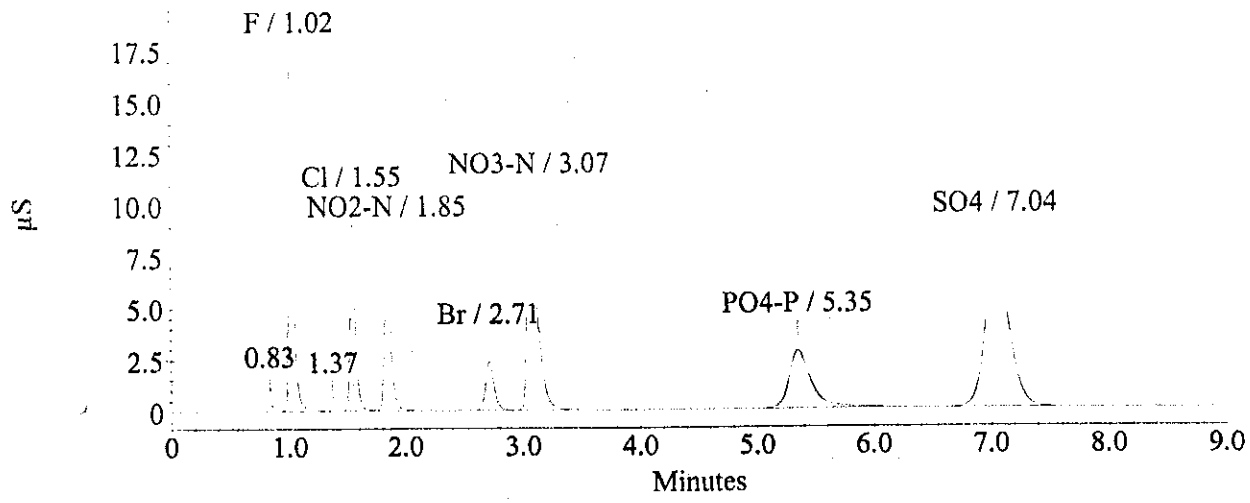
Sample Name : ANION ALT CCV SV53-30
Data File Name : C:\PEAKNET\DATA\081401\IC1_010.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 11:03
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.83	0.0000	12466
2	F	1.02	5.9505	460442
3		1.37	0.0000	460
4	Cl	1.55	5.8334	285189
5	NO2-N	1.85	2.6035	280531
6	Br	2.71	5.9389	116638
7	NO3-N	3.07	4.9555	598744
8	PO4-P	5.35	9.6236	370145
9	SO4	7.04	29.6071	1057954

ANION ALT CCV SV53-30



INSTRUMENT : IC1
FILE NAME: IC1_011
DATE RUN: 14-Aug-01
ANALYST: RDC

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		NA		#VALUE!	#VALUE!
Cl	6.00		NA		#VALUE!	#VALUE!
NO2-N	3.66		3.57		-2.50	PASS
Br	6.00		NA		#VALUE!	#VALUE!
NO3-N	4.06		3.94		-2.97	PASS
PO4-P	9.70		NA		#VALUE!	#VALUE!
SO4	30.00		NA		#VALUE!	#VALUE!

Sample Analysis Report

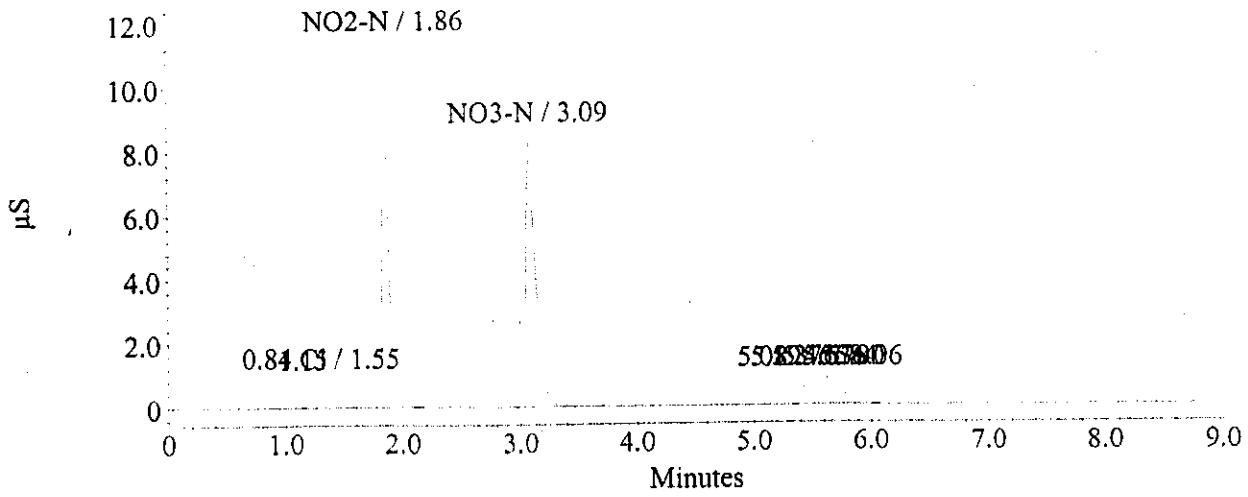
Sample Name : ANION ALT NO2&3 SOS55-32
Data File Name : C:\PEAKNET\DATA\081401\IC1_011.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 8/14/2001 11:14
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	2441
2		1.15	0.0000	192
3	Cl	1.55	0.2340	1099
4	NO2-N	1.86	3.5684	388460
5	NO3-N	3.09	3.9393	472625
6		5.08	0.0000	54
7		5.19	0.0000	187
8		5.37	0.0000	143
9		5.46	0.0000	148
10		5.63	0.0000	129
11		5.78	0.0000	33
12		5.84	0.0000	40
13		5.90	0.0000	44
14		6.06	0.0000	114

ANION ALT NO2&3 SOS55-32



INSTRUMENT : IC1
FILE NAME: IC1_012
DATE RUN: 14-Aug-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.93		-1.20	**PASS**
Cl	6.00		5.83		-2.84	**PASS**
NO2-N	3.65		3.60		-1.59	**PASS**
Br	6.00		5.95		-0.87	**PASS**
NO3-N	4.07		3.98		-2.00	**PASS**
PO4-P	9.78		9.66		-1.27	**PASS**
SO4	30.00		29.3		-2.39	**PASS**

Sample Analysis Report

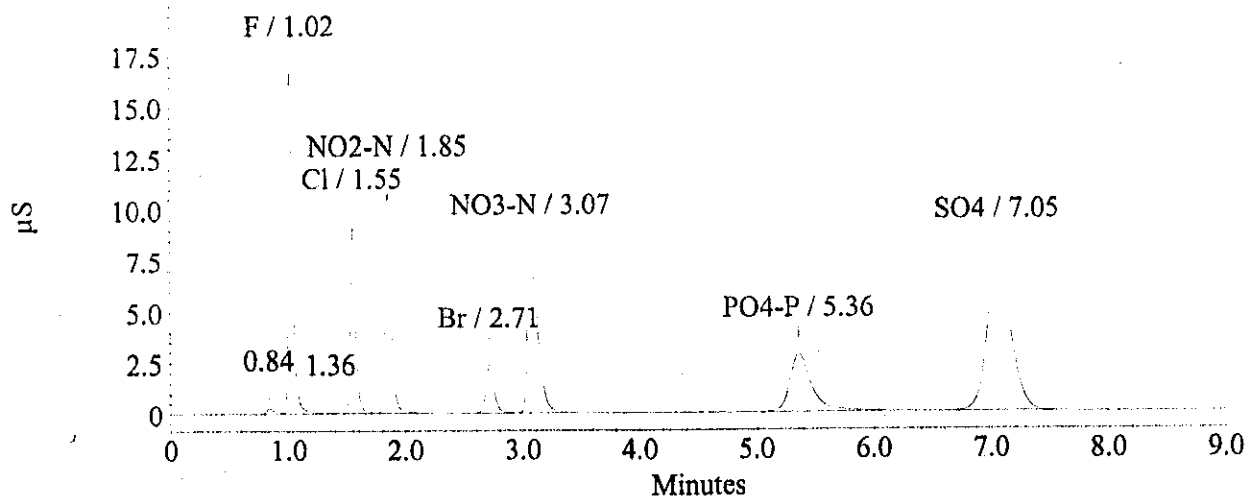
Sample Name : ANION CCV SOS55-25
Data File Name : C:\PEAKNET\DATA\081401\IC1_012.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 11:26
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	10920
2	F	1.02	5.9280	458652
3		1.36	0.0000	1168
4	Cl	1.55	5.8297	285003
5	NO2-N	1.85	3.5954	391485
6	Br	2.71	5.9479	116817
7	NO3-N	3.07	3.9847	478264
8	PO4-P	5.36	9.6600	371598
9	SO4	7.05	29.2827	1045985

ANION CCV SOS55-25



CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_019
DATE RUN: 14-Aug-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.99		-0.21	**PASS**
Cl	6.00		5.84		-2.62	**PASS**
NO2-N	3.65		3.61		-1.13	**PASS**
Br	6.00		6.02		0.30	**PASS**
NO3-N	4.07		4.01		-1.32	**PASS**
PO4-P	9.78		9.61		-1.75	**PASS**
SO4	30.00		29.4		-1.89	**PASS**

Sample Analysis Report

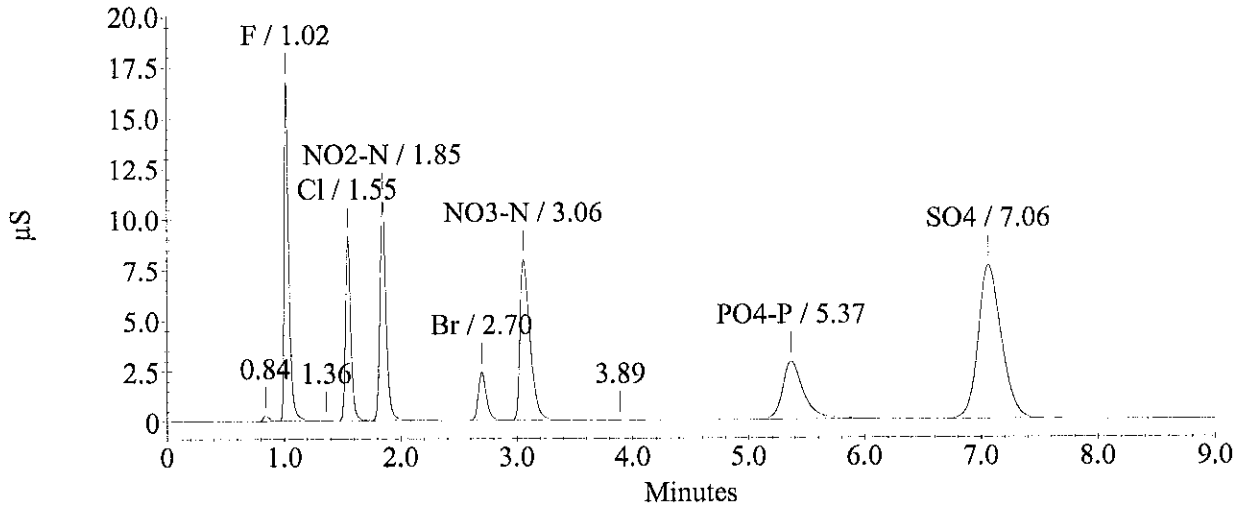
Sample Name : ANION CCV SOS55-25
Data File Name : C:\PEAKNET\DATA\081401\IC1_019.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 13:02
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	11051
2	F	1.02	5.9876	463393
3		1.36	0.0000	751
4	Cl	1.55	5.8431	285685
5	NO2-N	1.85	3.6120	393340
6	Br	2.70	6.0182	118219
7	NO3-N	3.06	4.0124	481700
8		3.89	0.0000	438
9	PO4-P	5.37	9.6129	369719
10	SO4	7.06	29.4342	1051574

ANION CCV SOS55-25



CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_026
DATE RUN: 14-Aug-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		6.01		0.16	**PASS**
Cl	6.00		5.89		-1.85	**PASS**
NO2-N	3.65		3.64		-0.36	**PASS**
Br	6.00		6.01		0.16	**PASS**
NO3-N	4.07		4.02		-1.13	**PASS**
PO4-P	9.78		9.75		-0.37	**PASS**
SO4	30.00		29.6		-1.37	**PASS**

Sample Analysis Report

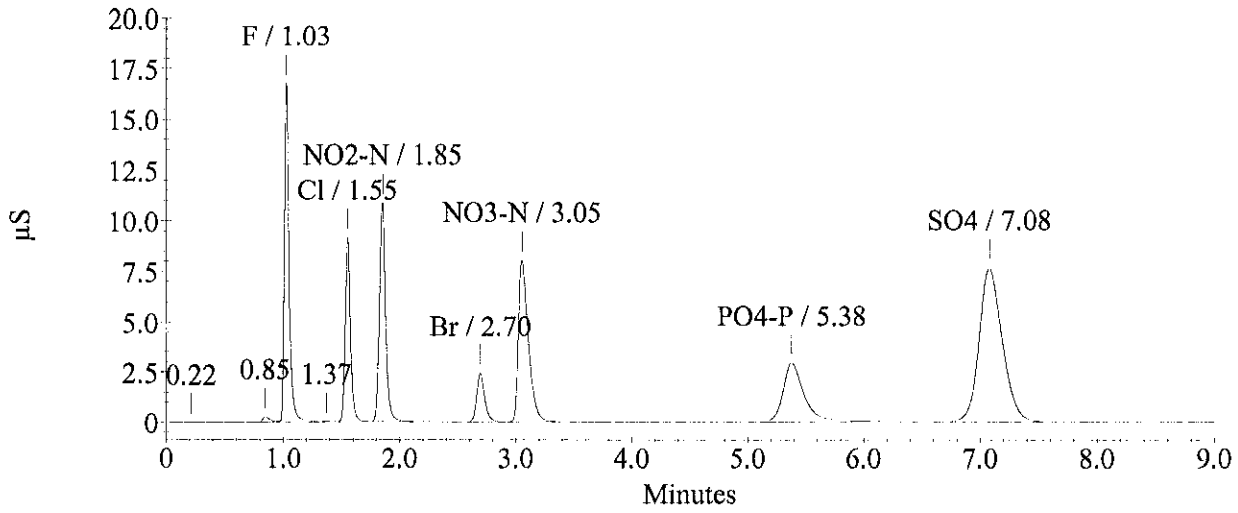
Sample Name : ANION CCV SOS55-25
Data File Name : C:\PEAKNET\DATA\081401\IC1_026.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 14:23
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.22	0.0000	252
2		0.85	0.0000	11141
3	F	1.03	6.0096	465143
4		1.37	0.0000	604
5	Cl	1.55	5.8888	288000
6	NO2-N	1.85	3.6402	396493
7	Br	2.70	6.0097	118050
8	NO3-N	3.05	4.0201	482658
9	PO4-P	5.38	9.7484	375129
10	SO4	7.08	29.5897	1057310

ANION CCV SOS55-25



CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_028
DATE RUN: 14-Aug-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		6.02		0.35	**PASS**
Cl	6.00		5.91		-1.52	**PASS**
NO2-N	3.65		3.64		-0.32	**PASS**
Br	6.00		6.00		-0.01	**PASS**
NO3-N	4.07		4.02		-1.23	**PASS**
PO4-P	9.78		9.77		-0.12	**PASS**
SO4	30.00		29.6		-1.33	**PASS**

Sample Analysis Report

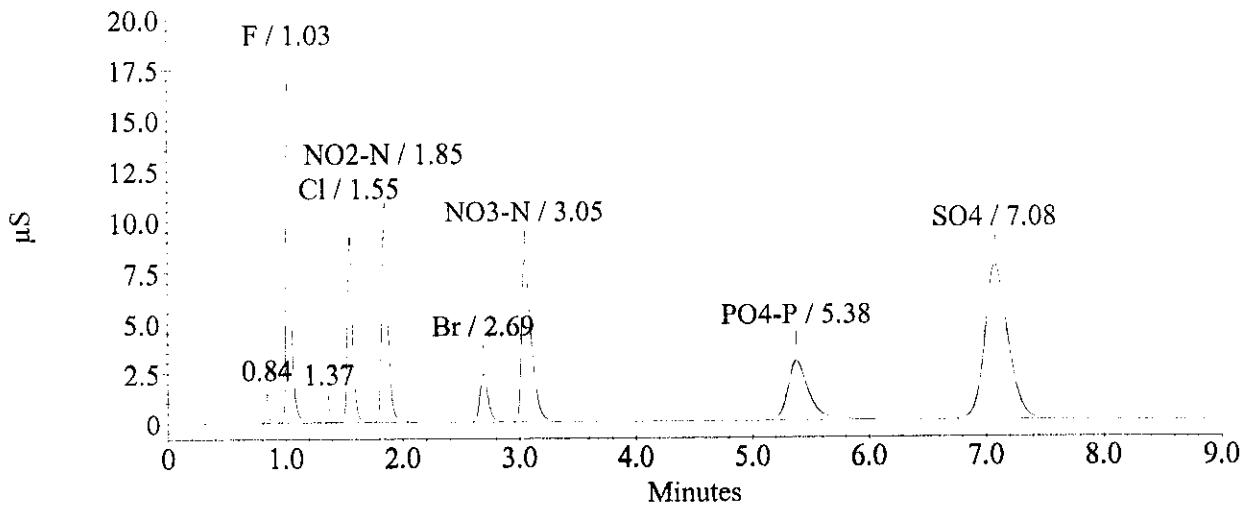
Sample Name : ANION CCV SOS55-25
Data File Name : C:\PEAKNET\DATA\081401\IC1_028.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 14:46
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	11082
2	F	1.03	6.0212	466063
3		1.37	0.0000	1414
4	Cl	1.55	5.9086	289004
5	NO2-N	1.85	3.6418	396673
6	Br	2.69	5.9996	117848
7	NO3-N	3.05	4.0163	482186
8	PO4-P	5.38	9.7727	376101
9	SO4	7.08	29.6019	1057763

ANION CCV SOS55-25



2.4.5.4 Raw QC Data

Sample Analysis Report

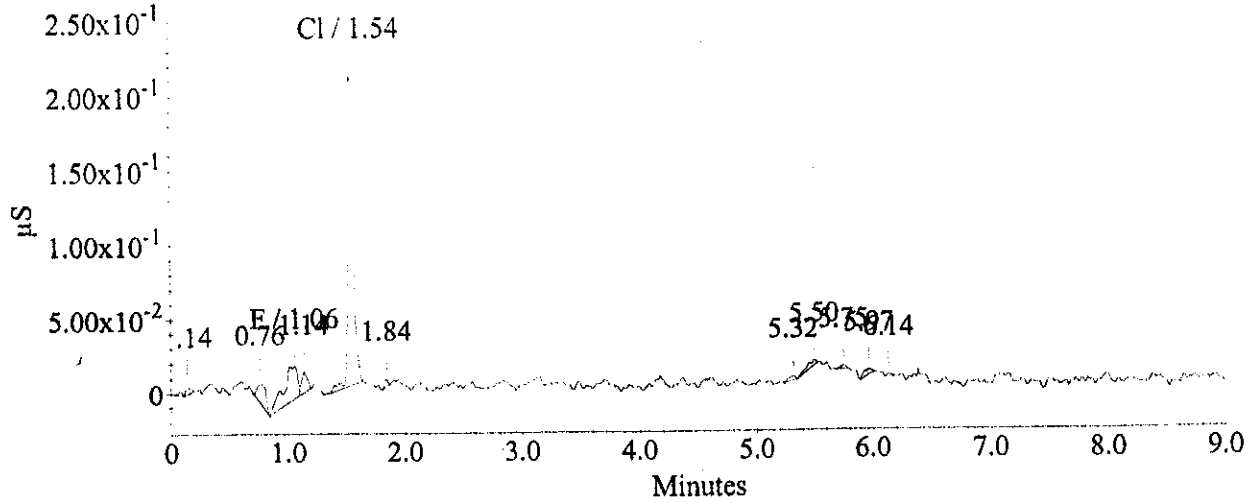
Sample Name : ANION BLANK 08/14/01
Data File Name : C:\PEAKNET\DATA\081401\IC1_013.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 11:37
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.14	0.0000	159
2		0.76	0.0000	757
3	F	1.06	0.1858	2014
4		1.14	0.0000	451
5	Cl	1.54	0.3461	6786
6		1.84	0.0000	92
7		5.32	0.0000	107
8		5.50	0.0000	220
9		5.75	0.0000	76
10		5.97	0.0000	174
11		6.14	0.0000	43

ANION BLANK 08/14/01



Sample Analysis Report

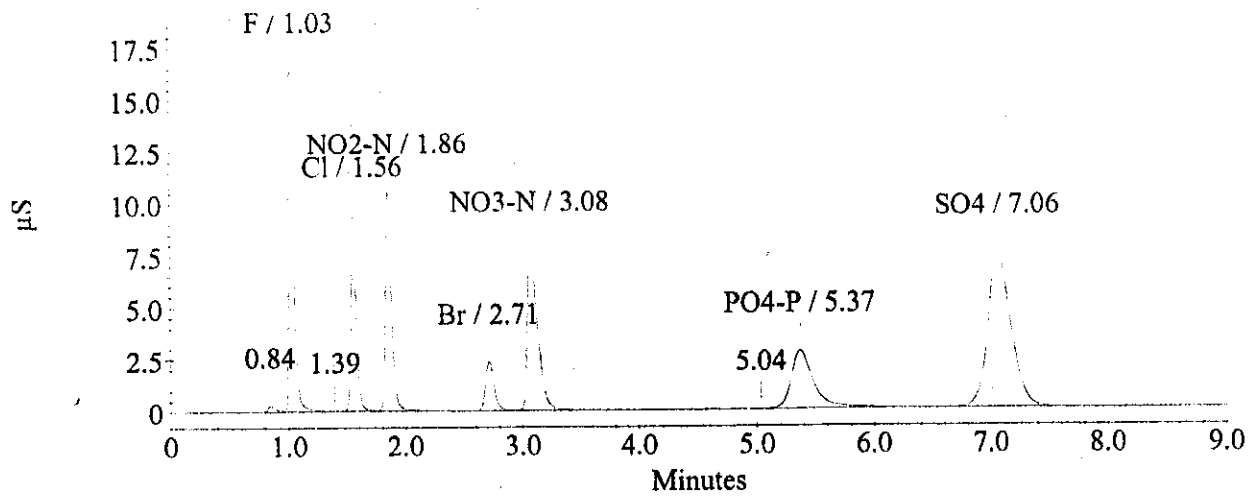
Sample Name : ANION LCS 08/14/01
Data File Name : C:\PEAKNET\DATA\081401\IC1_014.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 11:49
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.84	0.0000	11265
2	F	1.03	5.8711	454129
3		1.39	0.0000	601
4	Cl	1.56	6.0386	295604
5	NO2-N	1.86	3.5369	384940
6	Br	2.71	5.8831	115527
7	NO3-N	3.08	3.9162	469767
8		5.04	0.0000	78
9	PO4-P	5.37	9.5012	365257
10	SO4	7.06	28.8055	1028383

ANION LCS 08/14/01



Sample Analysis Report

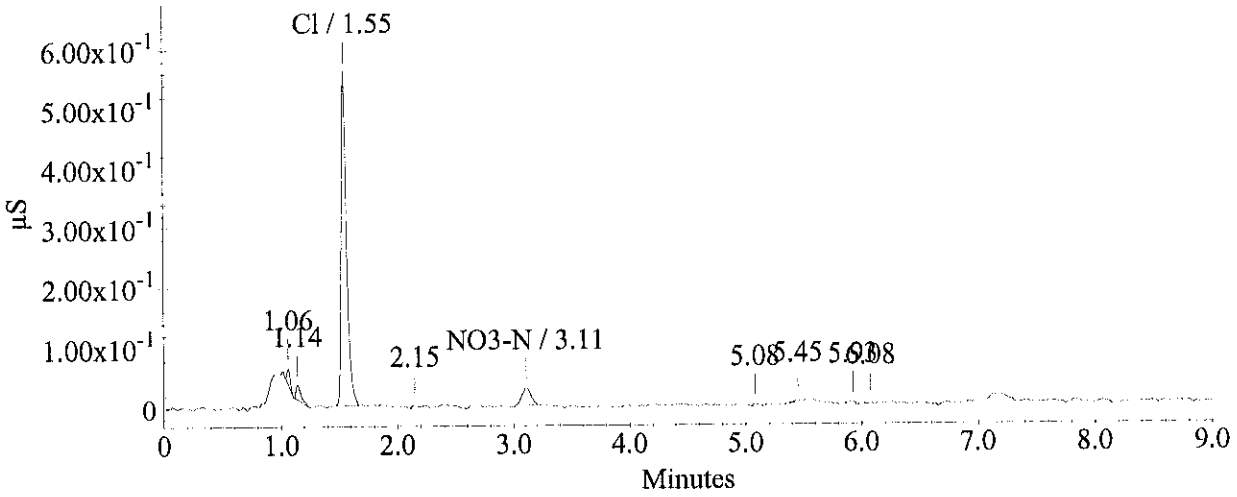
Sample Name : L0108280-09 DUP
Data File Name : C:\PEAKNET\DATA\081401\IC1_025.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 8/14/2001 14:11
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		1.06	0.0000	506
2		1.14	0.0000	738
3	Cl	1.55	0.5761	18166
4		2.15	0.0000	137
5	NO3-N	3.11	0.1453 F	1616
6		5.08	0.0000	155
7		5.45	0.0000	96
8		5.93	0.0000	189
9		6.08	0.0000	140

L0108280-09 DUP



KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 08/14/01 Instrument ID IC1 Column ID AS4A-SC / AS4A-SC Data Subdirectory ~~08/14/~~ 08/14/01
Analyst Initials GSG SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
IC1 - 001	DI H2O BK 08/14/01				✓
002	Eluent Blank 08/14/01				✓
003	Anion Level #6		SOS 55-25		✓
004	#5				✓
005	#4				✓
006	#3				✓
007	#2				✓
008	#1				✓
009	Eluent Blank				✓
010	Anion MT CCV SV53-30		SV53-30		✓
011	" " Na2+3 CCV SoS55-32		SoS55-32		✓
012	" CCV SoS55-25		SoS55-25		✓
013	Anion Blank 08/14/01				✓
014	" ICS "				✓
015	10108280-01				✓
016	-02				✓
017	-03				✓
018	-04				✓
019	Anion CCV SoS55-25		SoS55-25		✓
020	10108280-05 MS				✓
021	-06 MSD				✓
022	-07				✓
023	-08				✓
024	-09				RR ✓
025	-09 Dup				✓
026	Anion CCV SoS55-25		SoS55-25		✓
027	10101280-09 RR				✓
028	Anion CCV SoS55-25		SoS55-25		✓
029	10108282-02				✓
030	-02 Dup				✓
031	-04				✓
032	-06 MS				✓
033	-08 MSD				✓
034	-10				✓
035	Anion CCV SoS55-25 ~~08/14/01~~		SoS55-25		✓

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis, Reanalysis complete IS or SS = Interference with internal and/or surrogate standards SMI = Sample matrix interference
RR = Rerun MT = Missed Tune, beyond method tuning requirements CC = Continuing calibration failed
RR# = Rerun at a specified dilution RE = Re-extraction analysis required CF = Confirmation required
* = See comments on opposite page

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KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 08/14/01 **Instrument ID** IC1 **Column ID** AS4A-SC / AG4A-SC **Data Subdirectory** 081401

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1141 PSI
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: Changed column back to AG4A-SC & AS4A-SC.

Comments

* Sample did not receive client concentration prior to analysis. Not used for reporting sample.

Reviewed By: mdc 8/15/01

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 08/14/01 Instrument ID ICI Column ID ~~AS4A-SC~~ AS4A-SC Data Subdirectory 081401
Analyst Initials GSB SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
ICI - 0036	10108282-12				✓
037	-14				✓
038	-16				✓
039	-18				✓
040	-31				✓
041	Anion CCV SoS 55-25		SoS 55-25		~~✓~~
042	10108282-02 @ 50 X	50			RR*
043	Anion CCV SoS 55-25 RR				✓
044	10108282-02 @ 50X RR	50			✓
045	-04 @ 20 X	20			✓
046	-04 @ 100X	100			✓
047	-04 @ 100X SR.	100			✓
048	Anion CCV SoS 55-25		SoS 55-25		✓
049	10108282-10 @ 200X	200			✓
050	-12 @ 100X	100			✓
051	-14 @ 100X	100			✓
052	-12 @ 200X	200			✓
053	-16 @ 100X	100			✓
054	Anion CCV SoS 55-25		SoS 55-25		✓
055	10108282-16 @ 200X	200			✓
056	-18 @ 200X	200			✓
057	-31 @ 10 X	10			✓
058	-31 @ 50 X	50			✓
059	Anion CCV SoS 55-25		SoS 55-25		✓
060	10108213-01				✓
061	-03 MS				✓
062	-05 MSD				✓
063	-07				✓
064	-07 DUP				✓
065	-09				✓
066	-11				✓
067	Anion CCV ~~SoS~~ SoS 55-25		SoS 55-25		✓
	~~8/15/01~~				

Reviewed By: mdc 8/15/01

Status:
✓ = Compliant Analysis, Reanalysis complete
IS or SS = Interference with internal and/or surrogate standards
SMI = Sample matrix interference
RR = Rerun
MT = Missed Tune, beyond method tuning requirements
CC = Continuing calibration failed
RR# = Rerun at a specified dilution
RE = Re-extraction analysis required
CF = Confirmation required
* = See comments on opposite page

0

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 08/14/01 **Instrument ID** IC1 **Column ID** AG4A-SC AS4A-SC **Data Subdirectory** 081401

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1141 PSI
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

XX no vial in Sample line-up
RR* run out of order. Sample was re-analyzed.

Reviewed By: mdc 8/15/01

KEMRON REPORT L0109252

Prepared for CCI

Work ID : NAS CECIL FIELD

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0109252

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: 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 analyses of fraction 04.

SAMPLES

Surrogates: Samples 02, 07, and 08 yielded % recoveries for TFT above the upper control limit. Outliers were confirmed by reanalyses.
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: CSH

REVIEWED: [signature] DATE: 9/24/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0109252

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: There were no MS/MSD results associated with any sample in re-extracted group .

SAMPLES

Samples: Several water samples were re-extracted for a low surrogate recovery and for these samples only the re-extract results were reported .
Surrogates: The %recoveries for surrogate from re-extracted analyses were acceptable .

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: HV REVIEWED: [signature] DATE: 10/3/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0109252

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: All acceptance criteria were met.

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: 10/3/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0109252

METHOD

Analysis: SW-846 9056

HOLDING TIMES
Sample Analysis: Sample L0109252-09 was re-analyzed out of hold, due to original data being lost during systems installation.

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. Associated supportive data files were lost due to systems installation.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fractions -05 and -06 were chosen externally for the MS/MSD of sample fraction -04. 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: GSG

REVIEWED: _____ DATE: 10/4/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021
Lab Name : Kemron Environmental Services
Base/Command : blgs 9 and 46

AAB # : WG105046
Contract # : N62467-98-D-0995
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-9S-Q3-01-09	L0109252-07

Comments:

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: Dennis S. Tepe

Name: Dennis S. Tepe

Date: 01-OCT-01

Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG105046

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 21-SEP-01 22:40

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	17.0	1	
Ethylbenzene	0.078	1.0	160	1	
Methyl tert-butyl ether	0.242	1.0	2.50	1	
Toluene	0.283	1.0	35.0	1	
Xylenes, Total	0.221	1.0	300	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	364	70 - 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8015

Lab Name : Kemron Environmental Services

Base/Command : blgs 9 and 46

AAB # : WG105258

Contract # : N62467-98-D-0995

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-3S-Q3-01-09	L0109252-02
002-CEF9-5S-Q3-01-09	L0109252-03
002-9DUP-Q3-01-09	L0109252-08

Comments:

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: Dennis S. Tepe

Name: Dennis S. Tepe

Date: 01-OCT-01

Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG105258
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water
% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001
Date Received: 18-SEP-01 Date Extracted: 24-SEP-01 Date Analyzed: 25-SEP-01 10:58
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	1200	1.1	

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.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG105258
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-5S-Q3-01-09 Lab Sample ID: L0109252-03 Matrix: Water
% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001
Date Received: 18-SEP-01 Date Extracted: 24-SEP-01 Date Analyzed: 25-SEP-01 11:14
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	95.1	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG105258

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 18-SEP-01 Date Extracted: 24-SEP-01 Date Analyzed: 25-SEP-01 11:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	2700	1.1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	94.1	49 - 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021

Lab Name : Kemron Environmental Services

Base/Command : blgs 9 and 46

AAB # : WG104847

Contract # : N62467-98-D-0995

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-3S-Q3-01-09	L0109252-02
002-9DUP-Q3-01-09	L0109252-08
002-9TB-Q3-01-09	L0109252-10

Comments:

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: Dennis S. Tepe

Name: Dennis S. Tepe

Date: 01-OCT-01

Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104847

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 19-SEP-01 13:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	9.60	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	1.10	1	
Xylenes, Total	0.221	1.0	21.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	148	70 - 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104847
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water
% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001
Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 19-SEP-01 16:12
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	15.0	1	
Ethylbenzene	0.078	1.0	160	1	
Methyl tert-butyl ether	0.242	1.0	2.40	1	
Toluene	0.283	1.0	33.0	1	
Xylenes, Total	0.221	1.0	310	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	286	70 - 130	*

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104847

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9TB-Q3-01-09 Lab Sample ID: L0109252-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 19-SEP-01 16:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8015**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG104872**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-2S-Q3-01-09	L0109252-01
002-CEF9-7D-Q3-01-09	L0109252-04
002-CEF9-7D-Q3-01-09/MS	L0109252-05
002-CEF9-7D-Q3-01-09/MSD	L0109252-06
002-CEF9-9S-Q3-01-09	L0109252-07
002-9EQB-Q3-01-09	L0109252-09

Comments:

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: Dennis S Tepe

Name: **Dennis S. Tepe**

Date: **01-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG104872

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-2S-Q3-01-09 Lab Sample ID: L0109252-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 18:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	580	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	51.7	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

1

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG104872

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9EQB-Q3-01-09 Lab Sample ID: L0109252-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 20:49

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1.05	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	59.7	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG104872

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09 Lab Sample ID: L0109252-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 18:46

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	68.0	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG104872

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MS Lab Sample ID: L0109252-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 19:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	2600	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	86.2	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG104872
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-7D-Q3-01-09/MSD Lab Sample ID: L0109252-06 Matrix: Water
% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001
Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 19:16
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	2700	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	100	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG104872

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-SEP-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 20:18

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1500	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	52.9	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 9056
Lab Name : Kemron Environmental Services
Base/Command : blgs 9 and 46

AAB # : WG104807
Contract # : N62467-98-D-0995
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q3-01-09	L0109252-01
002-CEF9-3S-Q3-01-09	L0109252-02
002-CEF9-5S-Q3-01-09	L0109252-03
002-CEF9-7D-Q3-01-09	L0109252-04
002-CEF9-7D-Q3-01-09/MS	L0109252-05
002-CEF9-7D-Q3-01-09/MSD	L0109252-06
002-CEF9-9S-Q3-01-09	L0109252-07
002-9DUP-Q3-01-09	L0109252-08

Comments:

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: Dennis S. Tepe
Name: Dennis S. Tepe
Date: 01-OCT-01
Title: Laboratory Manager

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-2S-Q3-01-09 Lab Sample ID: L0109252-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 16:04

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 16:27

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-5S-Q3-01-09 Lab Sample ID: L0109252-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 16:39

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.320	1	J
Nitrite	0.061	0.40	0.061	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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09 Lab Sample ID: L0109252-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 16:51

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MS Lab Sample ID: L0109252-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 17:14

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.30	1	
Nitrite	0.061	0.40	4.10	1	
Phosphate	0.163	1.0	10.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MSD Lab Sample ID: L0109252-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 17:25

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.30	1	
Nitrite	0.061	0.40	4.00	1	
Phosphate	0.163	1.0	10.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 17:37

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\NONE AAB # : WG104807

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 17:49

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	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.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8310**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG104897**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-2S-Q3-01-09	L0109252-01
002-CEF9-3S-Q3-01-09	L0109252-02
002-CEF9-5S-Q3-01-09	L0109252-03
002-CEF9-7D-Q3-01-09	L0109252-04
002-CEF9-7D-Q3-01-09/MS	L0109252-05
002-CEF9-7D-Q3-01-09/MSD	L0109252-06
002-CEF9-9S-Q3-01-09	L0109252-07
002-9DUP-Q3-01-09	L0109252-08
002-9EQB-Q3-01-09	L0109252-09

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **01-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-2S-Q3-01-09 Lab Sample ID: L0109252-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 19:20

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	1.00	1.04	J
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-2S-Q3-01-09 Lab Sample ID: L0109252-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 19:20

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	70.1	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001
Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 20:17
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.880	1.04	J,P
2-Methylnaphthalene	0.349	1.0	2.10	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	5.90	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 20:17

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	64.9	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 20:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	1.30	1.04	P
2-Methylnaphthalene	0.349	1.0	2.60	1.04	
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	6.00	1.04	
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 20:17

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.8	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-5S-Q3-01-09 Lab Sample ID: L0109252-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 21:14

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-5S-Q3-01-09 Lab Sample ID: L0109252-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 21:14

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	50.6	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09 Lab Sample ID: L0109252-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 22:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	0.376	1.04	ND
2-Methylnaphthalene	0.349	1.0	0.349	1.04	ND
Acenaphthene	0.432	1.0	0.432	1.04	ND
Acenaphthylene	0.365	1.0	0.365	1.04	ND
Anthracene	0.296	1.0	0.296	1.04	ND
Benzo(a)anthracene	0.0312	0.21	0.0312	1.04	ND
Benzo(a)pyrene	0.0551	0.21	0.0551	1.04	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1.04	ND
Benzo(g,h,i)perylene	0.052	0.21	0.052	1.04	ND
Benzo(k)fluoranthene	0.0749	0.21	0.0749	1.04	ND
Chrysene	0.025	0.21	0.025	1.04	ND
Dibenzo(a,h)anthracene	0.0801	0.21	0.0801	1.04	ND
Fluoranthene	0.052	0.21	0.052	1.04	ND
Fluorene	0.581	1.0	0.581	1.04	ND
Indeno(1,2,3-cd)pyrene	0.0832	0.21	0.0832	1.04	ND
Naphthalene	0.373	1.0	0.373	1.04	ND
Phenanthrene	0.298	1.0	0.298	1.04	ND
Pyrene	0.0707	0.21	0.0707	1.04	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09 Lab Sample ID: L0109252-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 22:10

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	47.8	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-03-01-09/MS Lab Sample ID: L0109252-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 23:07

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	24.0	1.05	
2-Methylnaphthalene	0.353	1.1	26.0	1.05	
Acenaphthene	0.436	1.1	26.0	1.05	
Acenaphthylene	0.369	1.1	26.0	1.05	
Anthracene	0.299	1.1	39.0	1.05	
Benzo(a)anthracene	0.0315	0.21	3.80	1.05	
Benzo(a)pyrene	0.0557	0.21	2.40	1.05	
Benzo(b)fluoranthene	0.0357	0.21	2.80	1.05	
Benzo(g,h,i)perylene	0.0525	0.21	1.30	1.05	
Benzo(k)fluoranthene	0.0756	0.21	1.20	1.05	
Chrysene	0.0252	0.21	3.50	1.05	
Dibenzo(a,h)anthracene	0.0809	0.21	1.20	1.05	
Fluoranthene	0.0525	0.21	4.40	1.05	
Fluorene	0.587	1.1	29.0	1.05	
Indeno(1,2,3-cd)pyrene	0.084	0.21	1.60	1.05	
Naphthalene	0.377	1.1	24.0	1.05	
Phenanthrene	0.301	1.1	37.0	1.05	
Pyrene	0.0714	0.21	4.30	1.05	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MS Lab Sample ID: L0109252-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 19-SEP-01 23:07

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	57.5	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MSD Lab Sample ID: L0109252-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 00:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.376	1.0	21.0	1.04	
2-Methylnaphthalene	0.349	1.0	22.0	1.04	
Acenaphthene	0.432	1.0	22.0	1.04	
Acenaphthylene	0.365	1.0	22.0	1.04	
Anthracene	0.296	1.0	44.0	1.04	
Benzo(a)anthracene	0.0312	0.21	4.80	1.04	
Benzo(a)pyrene	0.0551	0.21	3.50	1.04	
Benzo(b)fluoranthene	0.0354	0.21	4.10	1.04	
Benzo(g,h,i)perylene	0.052	0.21	2.00	1.04	
Benzo(k)fluoranthene	0.0749	0.21	1.80	1.04	
Chrysene	0.025	0.21	4.70	1.04	
Dibenzo(a,h)anthracene	0.0801	0.21	1.70	1.04	
Fluoranthene	0.052	0.21	4.70	1.04	
Fluorene	0.581	1.0	28.0	1.04	
Indeno(1,2,3-cd)pyrene	0.0832	0.21	2.50	1.04	
Naphthalene	0.373	1.0	21.0	1.04	
Phenanthrene	0.298	1.0	36.0	1.04	
Pyrene	0.0707	0.21	4.70	1.04	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MSD Lab Sample ID: L0109252-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 00:04

Concentration Units: % Recovery

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.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	2.50	1.05	
2-Methylnaphthalene	0.353	1.1	4.70	1.05	
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	23.0	1.05	
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:00

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	53.1	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001
Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:00
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	2.70	1.05	
2-Methylnaphthalene	0.353	1.1	6.40	1.05	
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	23.0	1.05	
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:00

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	54.3	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:57

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	2.20	1.05	
2-Methylnaphthalene	0.353	1.1	4.10	1.05	
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	20.0	1.05	
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:57

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.8	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:57

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	2.40	1.05	
2-Methylnaphthalene	0.353	1.1	5.50	1.05	
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	21.0	1.05	
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 01:57

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	44.5	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-9EQB-Q3-01-09 Lab Sample ID: L0109252-09 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001
Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 03:50
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.380	1.1	0.380	1.05	ND
2-Methylnaphthalene	0.353	1.1	0.353	1.05	ND
Acenaphthene	0.436	1.1	0.436	1.05	ND
Acenaphthylene	0.369	1.1	0.369	1.05	ND
Anthracene	0.299	1.1	0.299	1.05	ND
Benzo(a)anthracene	0.0315	0.21	0.0315	1.05	ND
Benzo(a)pyrene	0.0557	0.21	0.0557	1.05	ND
Benzo(b)fluoranthene	0.0357	0.21	0.0357	1.05	ND
Benzo(g,h,i)perylene	0.0525	0.21	0.0525	1.05	ND
Benzo(k)fluoranthene	0.0756	0.21	0.0756	1.05	ND
Chrysene	0.0252	0.21	0.0252	1.05	ND
Dibenzo(a,h)anthracene	0.0809	0.21	0.0809	1.05	ND
Fluoranthene	0.0525	0.21	0.0525	1.05	ND
Fluorene	0.587	1.1	0.587	1.05	ND
Indeno(1,2,3-cd)pyrene	0.084	0.21	0.084	1.05	ND
Naphthalene	0.377	1.1	0.377	1.05	ND
Phenanthrene	0.301	1.1	0.301	1.05	ND
Pyrene	0.0714	0.21	0.0714	1.05	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG104897

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9EQB-Q3-01-09 Lab Sample ID: L0109252-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 18-SEP-01 Date Extracted: 18-SEP-01 Date Analyzed: 20-SEP-01 03:50

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	49.1	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8021**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG104830**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-2S-Q3-01-09	L0109252-01
002-CEF9-3S-Q3-01-09	L0109252-02
002-CEF9-5S-Q3-01-09	L0109252-03
002-CEF9-7D-Q3-01-09	L0109252-04
002-CEF9-7D-Q3-01-09/MS	L0109252-05
002-CEF9-7D-Q3-01-09/MSD	L0109252-06
002-CEF9-9S-Q3-01-09	L0109252-07
002-9DUP-Q3-01-09	L0109252-08
002-9EQB-Q3-01-09	L0109252-09

Comments:

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: Dennis S. Tepe

Name: **Dennis S. Tepe**

Date: **01-OCT-01**

Title: **Laboratory Manager**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-2S-Q3-01-09 Lab Sample ID: L0109252-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 17:20

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	2.10	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	101	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-3S-Q3-01-09 Lab Sample ID: L0109252-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 18:23

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	11.0	1	
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	20.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	168	70 - 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-5S-Q3-01-09 Lab Sample ID: L0109252-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 18:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	108	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-7D-Q3-01-09 Lab Sample ID: L0109252-04 Matrix: Water
% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001
Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 19:27
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.1	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MS Lab Sample ID: L0109252-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 19:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	18.0	1	
Ethylbenzene	0.078	1.0	19.0	1	
Methyl tert-butyl ether	0.242	1.0	17.0	1	
Toluene	0.283	1.0	19.0	1	
Xylenes, Total	0.221	1.0	56.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-7D-Q3-01-09/MSD Lab Sample ID: L0109252-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 20:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	20.0	1	
Ethylbenzene	0.078	1.0	21.0	1	
Methyl tert-butyl ether	0.242	1.0	19.0	1	
Toluene	0.283	1.0	21.0	1	
Xylenes, Total	0.221	1.0	60.0	1	

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.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF9-9S-Q3-01-09 Lab Sample ID: L0109252-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 21:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	18.0	1	
Ethylbenzene	0.078	1.0	150	1	
Methyl tert-butyl ether	0.242	1.0	2.90	1	
Toluene	0.283	1.0	30.0	1	
Xylenes, Total	0.221	1.0	290	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	387	70 - 130	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-9EQB-Q3-01-09 Lab Sample ID: L0109252-09 Matrix: Water
% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001
Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 22:40
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	0.078	1	ND
Ethylbenzene	0.078	1.0	0.078	1	ND
Methyl tert-butyl ether	0.242	1.0	0.242	1	ND
Toluene	0.283	1.0	0.283	1	ND
Xylenes, Total	0.221	1.0	0.221	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	97.1	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG104830

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-9DUP-Q3-01-09 Lab Sample ID: L0109252-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 10-SEP-2001

Date Received: 18-SEP-01 Date Extracted: Date Analyzed: 18-SEP-01 21:36

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.078	1.0	17.0	1	
Ethylbenzene	0.078	1.0	150	1	
Methyl tert-butyl ether	0.242	1.0	2.90	1	
Toluene	0.283	1.0	35.0	1	
Xylenes, Total	0.221	1.0	300	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	363	70 - 130	*

Internal Std	Qualifier

Comments:

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

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

08/28/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAB - CASSIE A. BAKER
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
EAW - ELIZABETH A. WEBER
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JAW - JOYCE A. WITHERS
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LBM - LAWRENCE B. MCSWEGAN
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MAJ - MARK A. JEMISON
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
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SAM - SAMUAL A. MILLS
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLC - SHAWN L. COLE
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMH - SARAH M. HAYES
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
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)

KEMRON Internal Laboratory Chain of Custody

Work Order: L01092 52 **Client:** CCI **# of Samples:** 10 **Due Date:** 9/25/01 **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	8021	ANAL	CSH 9/18/01 @1353	V-1	ORG 4	LMT				
1-9A	FLA-PRO	EXT	JAA 9/18/01 18:30	walkin	E lab	[illegible]	0900 JEL 9/20/01	crusher	[illegible]	disposal
1-9A	8310	EXT	JAA 9/18/01 18:30	walkin	E lab	[illegible]	0900 JEL 9/20/01	crusher	[illegible]	disposal
33,8 B	FLA-PRO	EXT	[illegible] 9/24/01 [illegible]	walkin	FLAB	[illegible]	9/25/01 JEL 0920	crusher	[illegible]	disposal
1-9A	9056	ANAL	[illegible] 9/[illegible]/01 2 14:00	login	SV	[illegible]	[illegible] 10/1/01 15:22	archive-11	[illegible]	archive

report sent to client 10/4

MR

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
149152-168

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	149152	Angie Hurst Kemron Environmental Services	Jennifer Zimmerman 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 / Monthly GW Sampling Event	0002	2329	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 Method 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	002-CEF9-2S-Q3-01-09	CEF-9-2S	W	09/17/01	0910	III/C	14	2	2	2	1					Grab	Turbid	
2	002-CEF9-3S-Q3-01-09	CEF-9-3S	W	09/17/01	1030	III/C	14	2	2	2	1					Grab		
3	002-CEF9-5S-Q3-01-09	CEF-9-5S	W	09/17/01	1205	III/C	14	2	2	2	1					Grab	Turbid	
4	002-CEF9-7D-Q3-01-09	CEF-9-7D	W	09/17/01	1115	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	002-CEF9-9S-Q3-01-09	CEF-9-9S	W	09/17/01	1145	III/C	14	2	2	2	1					Grab	Turbid	
6	002-9DUP-Q3-01-09	Duplicate	W	09/17/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q3-01-09	Equipment Blank	W	09/17/01	1125	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q3-01-09	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:
Scott Sloan / Roger Deisler / Randy Dumaop / Greg Ramey J.A. Jones Environmental Services	Federal Express Track No.790159822763, 791658424910, 792446123599, 790958063951, 790159822888.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	9/17/01	18:00	Federal Express	9/17/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
Lucinda M. Tilton	Lucinda M. Tilton 9/18/01	1020			

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

Form CCI001, Rev 02/00

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers ~~7~~ 5
LMT 9/18/01

PROJECT: CCI - N.AS. Cecil Field Bldg. 9 LIMS# 9-252

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 9/18/01 C-of-C Number: 149152-1168
by (print) Lucinda M. Tilton (sign) Lucinda M. Tilton

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: see cooler receipt form #3
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? 1 on front, seal date: 9/17/01 seal name: Kemron
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 0-2 °C ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: LMT (date) 9/18/01

B. **LOG-IN PHASE:** Date samples were logged-in: 9/18/01
by (print) Lucinda M. Tilton (sign) Lucinda M. Tilton

11. Describe type of packing in cooler: wet ice and dividers
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.)? one set missing time 002-9DUP-B3-01009 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) _____

CLIENT:	DATE:	SHIPPED BY:
CCI BRG ARS Other LMT	9/18/01	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL734	COOLER ID: KL468	COOLER ID: KL672
INDEX #: 79095806395 1	INDEX #: 79165842 4910	INDEX #: 79015982 2763
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) 0 °C	TEMP: (C) (D) 0 °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
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
COC: 149152-168		
SXS not frozen		
		VOA's in this cooler.

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

CLIENT: CCI BRG ARS Other LMT	DATE: 9/18/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-212	COOLER ID: KL-498	COOLER ID:
INDEX # : 7901 5982 2888	INDEX # : 7924 4612 3599	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) 1 °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) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
COC: 149152-168		
[redacted] VOs not frozen		

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 02/21/01

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: L0109252

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: 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 analyses of fraction 04.

SAMPLES

Surrogates: Samples 02, 07, and 08 yielded % recoveries for TFT above the upper control limit. Outliers were confirmed by reanalyses.
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: CSH REVIEWED: [signature] DATE: 9/24/01

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0109251

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

NA 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)

✓ 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: Janice L. Sabiniano **Date:** 9/28/01

2.1.3.1 QC Summary

VOA - GC

Date: 9/18/01 **Analyst:** CSH **Method:** (8021) 8015 602

Instrument: HP12 **Work Group:** WG 104779
1 830

	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	✓
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 9/19/01

Secondary Reviewers Initials & Date Checked: JLS 9/19/01

_____ • 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: 9/19/01 Analyst: CBN Method: (8021) 8015 602

Instrument: HP12 Work Group: WG 104847

	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	✓
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: CSH 9/20/01

Secondary Reviewers Initials & Date Checked: QJS 9/20/01

_____ • 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: 9/21/01 **Analyst:** JLS **Method:** (8021) 8015 602

Instrument: HP12 **Work Group:** WG 105046/105048

	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	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: QS 9/25/01

Secondary Reviewers Initials & Date Checked: CBN 9/25/01

_____ • 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

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/18/2001	**Blank Filename:**	12G09452.D	**MS Filename:**	12G09459.D
Instrument:	HP12	**LCS Filename:**	12G09453.D	**MSD Filename:**	12G09460.D
Analyst:	CSH	**Sample Number:**	L0109252-04	**Dilution Factor:**	1
Work Group:	WG104830	**Sample Filename:**	12G09458.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	17.9	89.7	20.0	ND	17.5	19.1	87.5	95.3	56.0	149	8.6	20					
benzene	0.50	ND	19.5	97.6	20.0	ND	18.4	19.7	91.8	98.4	78.0	122	6.9	20					
toluene	0.50	ND	20.5	102.5	20.0	ND	19.4	21.1	97.1	105.7	78.0	123	8.4	20					
chlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	21.0	104.8	20.0	ND	19.4	20.8	97.0	103.9	80.0	129	6.8	20					
m+p-xylene	0.50	ND	40.9	102.3	40.0	ND	37.4	40.4	93.6	101.0	80.0	124	7.6	20					
o-xylene	0.50	ND	19.9	99.7	20.0	ND	18.4	19.9	92.1	99.5	80.0	124	7.7	20					
xylene (total)	0.50	ND	60.8	101.4	60.0	ND	55.9	60.3	93.1	100.5	80.0	124	7.6	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	ND	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	31.8	106.1	32.6	108.6	30.0	29.7	99.1	31.1	103.5	32.8	109.2		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/19/2001	**Blank Filename:**	12G09468.D	**MS Filename:**	12G09471.D
Instrument:	HP12	**LCS Filename:**	12G09469.D	**MSD Filename:**	12G09472.D
Analyst:	CBN	**Sample Number:**	L0109254-01	**Dilution Factor:**	1
Work Group:	WG104847	**Sample Filename:**	12G09470.D		
Matrix:	Water				

	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
Analyte List	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	18.8	94.1	20.0	7.9	28.1	26.7	101.0	94.2	56.0	149	4.9	20					
benzene	0.50	ND	19.8	98.8	20.0	ND	18.9	18.9	94.6	94.7	78.0	122	0.1	20					
toluene	0.50	ND	20.7	103.7	20.0	ND	19.7	19.7	98.6	98.6	78.0	123	0.1	20					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	21.1	105.4	20.0	ND	20.0	20.3	100.2	101.4	80.0	129	1.2	20					
m+p-xylene	0.50	ND	40.9	102.3	40.0	ND	39.1	39.2	97.8	98.1	80.0	124	0.3	20					
o-xylene	0.50	ND	20.0	99.9	20.0	ND	19.1	19.2	95.4	96.2	80.0	124	0.8	20					
xylene (total)	0.50	ND	60.9	101.5	60.0	ND	58.2	58.5	97.0	97.5	80.0	124	0.5	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	32.4	108.1	32.0	106.8	30.0	24.4	81.3	32.2	107.3	32.1	107.1		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

Kemron Environmental Services
Volatile Quality Control Summary
Method 8021B

Run Date:	9/21/2001	**Blank Filename:**	12G09519.D	**MS Filename:**	12G09530.D
Instrument:	HP12	**LCS Filename:**	12G09520.D	**MSD Filename:**	12G09531.D
Analyst:	JLS	**Sample Number:**	L0109304-02	**Dilution Factor:**	1
Work Group:	WG105046	**Sample Filename:**	12G09528.D		
Matrix:	Water				

Analyte List	MDL	Blank	LCS	LCS	Spike Amount	Sample Result	MS	MSD	MS Recovery	MSD Recovery	LCL	UCL	RPD	UCL	Outliers Blank	LCS	MS	MSD	RPD
	ug/L	ug/L	ug/L	%	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%					
methyl-tert-butyl ether	0.50	ND	20.2	101.2	20.0	ND	20.9	19.7	104.7	98.7	56.0	149	5.9	20					
benzene	0.50	ND	21.1	105.5	20.0	ND	18.3	20.7	91.5	103.4	78.0	122	12.2	20					
toluene	0.50	ND	21.9	109.6	20.0	ND	19.4	21.8	97.2	108.9	78.0	123	11.4	20					
chlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	70.0	128	NA	20					
ethylbenzene	0.50	ND	22.2	111.0	20.0	ND	19.3	22.0	96.4	110.0	80.0	129	13.1	20					
m+p-xylene	0.50	ND	43.1	107.8	40.0	ND	37.4	42.7	93.6	106.9	80.0	124	13.2	20					
o-xylene	0.50	ND	21.1	105.5	20.0	ND	18.6	21.1	93.0	105.6	80.0	124	12.6	20					
xylene (total)	0.50	ND	64.2	107.0	60.0	ND	56.0	63.9	93.4	106.4	80.0	124	13.0	20					
1,3-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	81.0	110	NA	20					
1,4-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	78.0	107	NA	20					
1,2-dichlorobenzene	0.50	NA	NA	NA	20.0	NA	NA	NA	NA	NA	84.0	112	NA	20					
Surrogate Recovery	Blank	% Rec	LCS	% Rec		Sample	% Rec	MS	% Rec	MSD	% Rec		Surrogate Limits		Blank	LCS	Sample	MS	MSD
a,a,a-Trifluorotoluene	32.8	109.2	34.0	113.3	30.0	34.4	114.5	27.4	91.3	33.3	111.0		70.0	130					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
DUP = Duplicate Sample
MS/MSD = Matrix Spike / Matrix Spike Duplicate

UCL = Upper Control Limit
LCL = Lower Control Limit
RPD = Relative Percent Difference
DF = Dilution Factor
ND = Not Detected

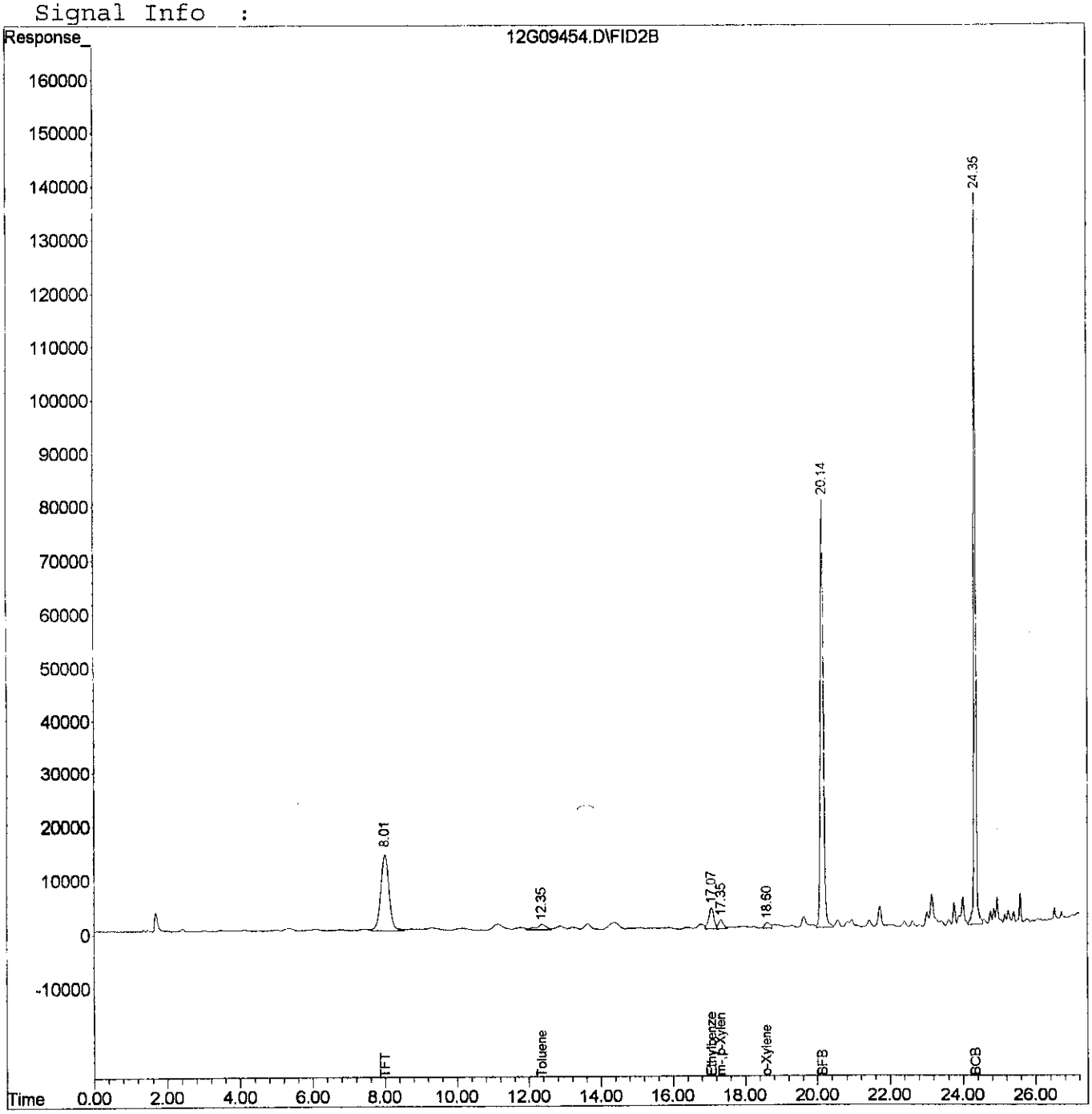
NA = Not Applicable
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\091801\12G09454.D Vial: 20
Acq On : 18 Sep 2001 17:20 Operator: CSH
Sample : L0109252-01 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 17:47 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09454.D Vial: 20
Acq On : 18 Sep 2001 17:20 Operator: CSH
Sample : L0109252-01 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 17:47 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

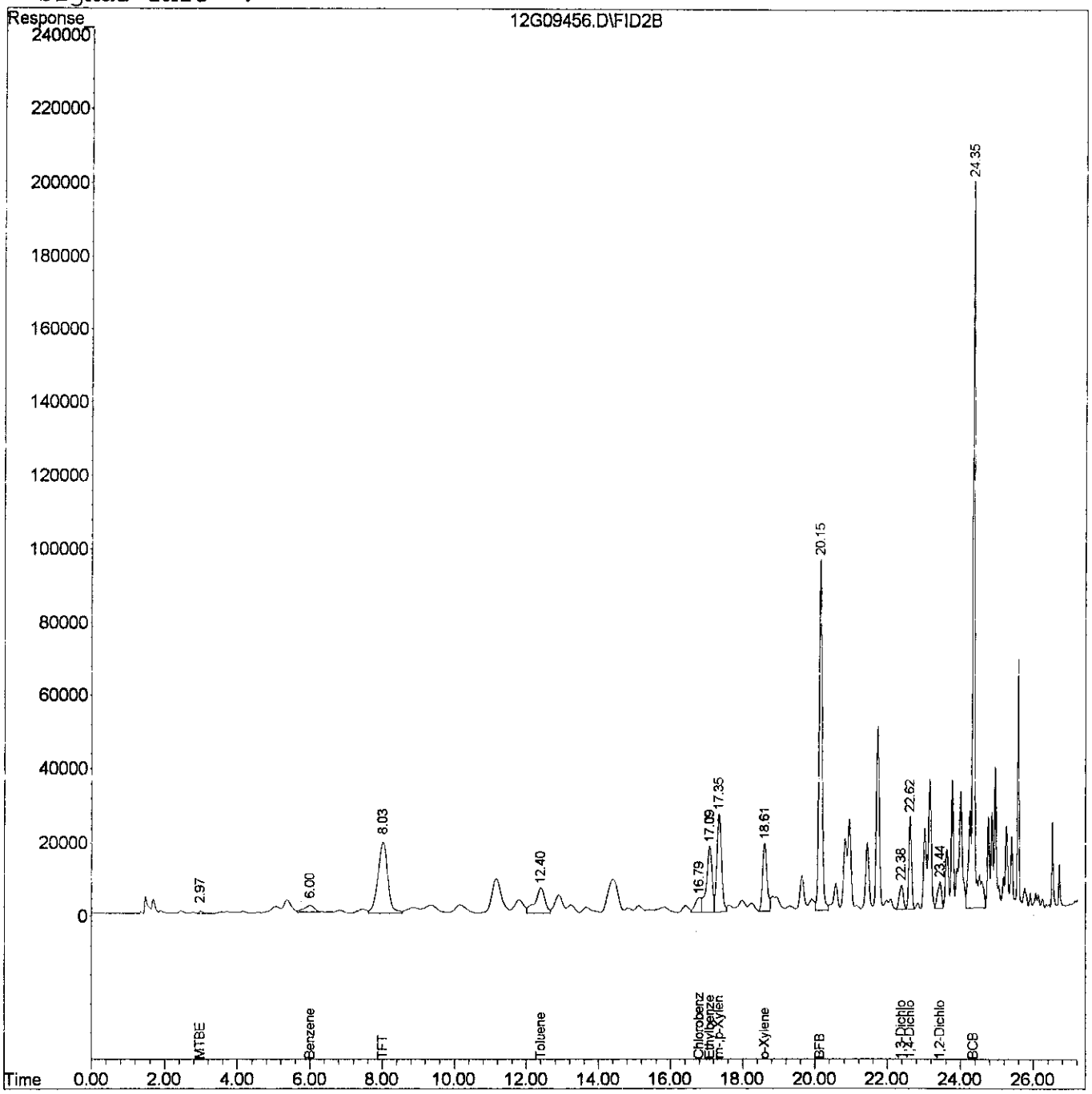
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.01	2241303	30.345 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	101.15%
9) S BFB	20.14	4778690	26.014 UG/L
Spiked Amount 30.000		Recovery =	86.71%
13) S BCB	24.35	4763186	24.883 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	82.94%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.12	62694	<MDL UG/L
4) TM Toluene	12.36	197560	~~0.936 UG/L~~
5) TM Chlorobenzene	16.77	109713	<MDL UG/L
6) TM Ethylbenzene	17.08 ✓	394463	2.144 UG/L
7) TM m-,p-Xylene	17.34	158093	~~0.711 UG/L~~
8) TM o-Xylene	18.61	111622	~~0.584 UG/L~~
10) TM 1,3-Dichlorobenzene	22.41	66544	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.63	60492	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.43	66569	<MDL UG/L

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

Data File : C:\HPCHEM\2\DATA\091801\12G09456.D Vial: 22
Acq On : 18 Sep 2001 18:23 Operator: CSH
Sample : L0109252-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 18:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09456.D Vial: 22
Acq On : 18 Sep 2001 18:23 Operator: CSH
Sample : L0109252-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 18:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

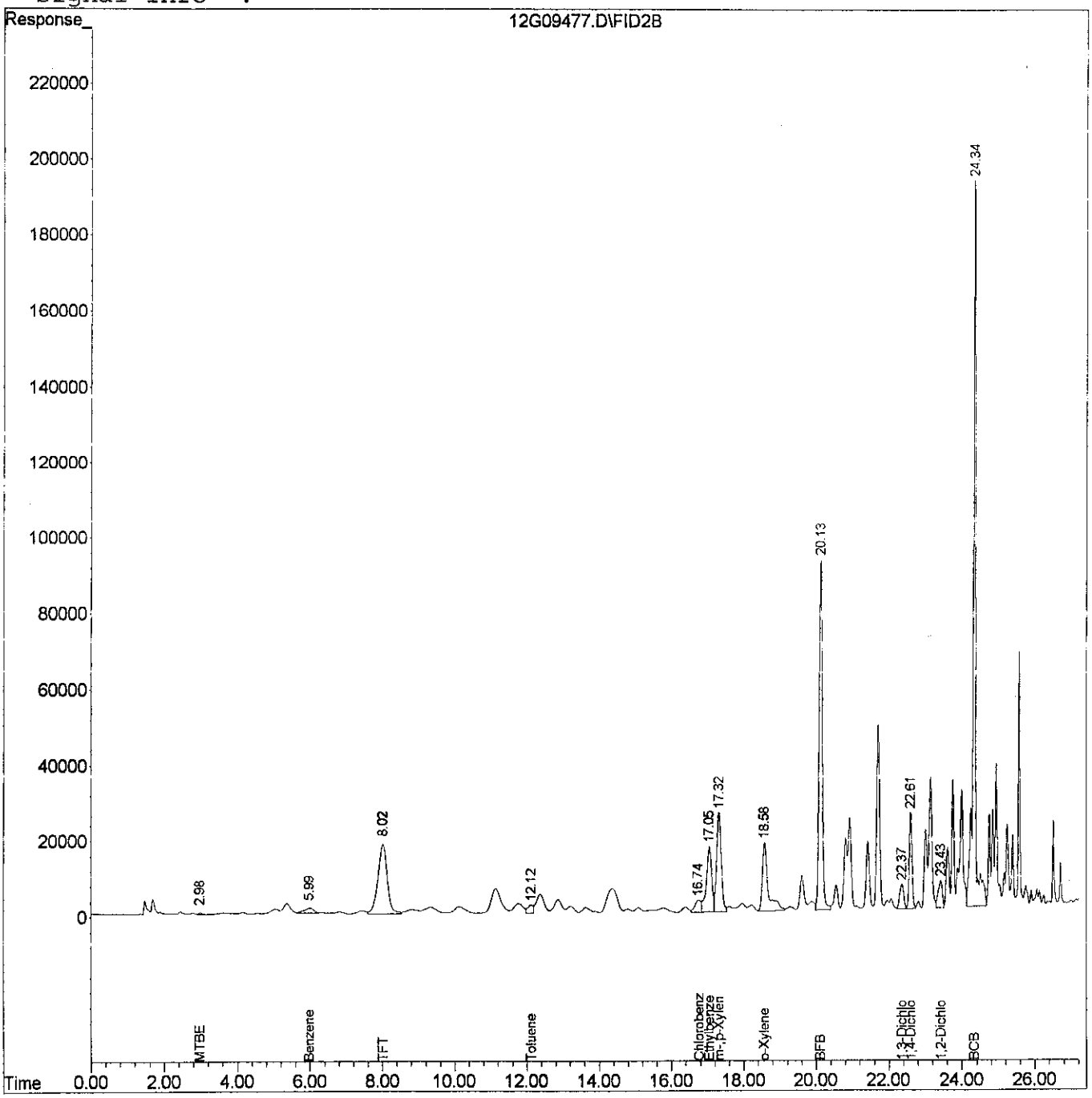
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.03	3719899	50.363 UG/L *
Spiked Amount 30.000 Range 70 - 130 Recovery = 167.88%#			
9) S BFB	20.15	5814848	31.655 UG/L
Spiked Amount 30.000 Recovery = 105.52%			
13) S BCB	24.35	9029917	47.173 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 157.24%#			
Target Compounds			
1) TM MTBE	2.98	57018	~~1.202 UG/L~~
2) TM Benzene	6.00	353931	~~1.515 UG/L~~
4) TM Toluene	12.40	1348093	~~6.390 UG/L~~
5) TM Chlorobenzene	16.80	464119	~~2.091 UG/L~~
6) TM Ethylbenzene	17.09	2006149	10.905 UG/L
7) TM m-,p-Xylene	17.35	2449852	11.015 UG/L
8) TM o-Xylene	18.61	1635656	8.555 UG/L
10) TM 1,3-Dichlorobenzene	22.38	523451	~~2.609 UG/L~~
11) TM 1,4-Dichlorobenzene	22.62	1343023	~~6.637 UG/L~~
12) TM 1,2-Dichlorobenzene	23.44	565297	~~3.507 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\091901\12G09477.D Vial: 28
Acq On : 19 Sep 2001 13:02 Operator: CBN
Sample : L0109252-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 13:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09477.D Vial: 28
Acq On : 19 Sep 2001 13:02 Operator: CBN
Sample : L0109252-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 13:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

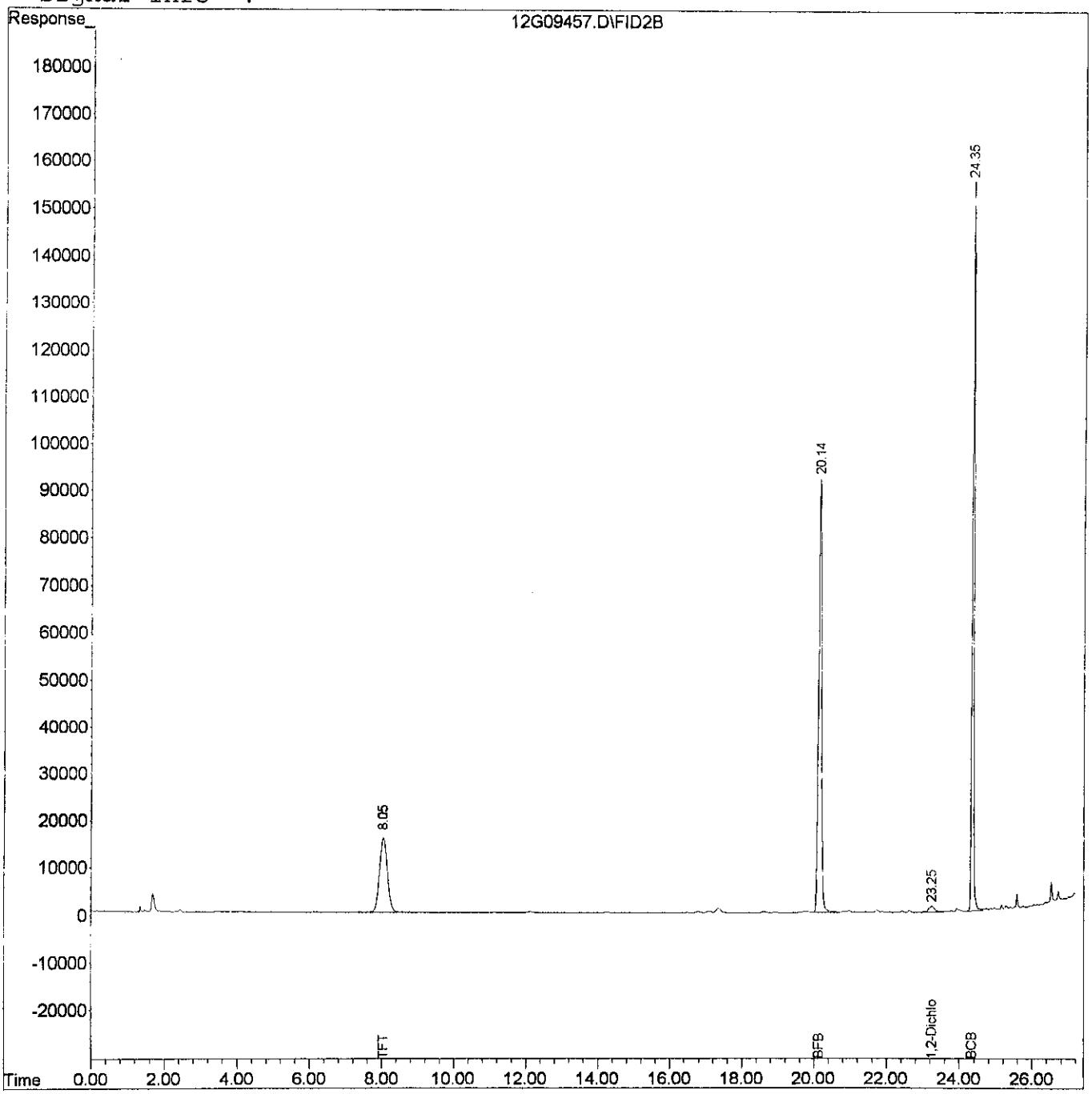
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.02 *	3283757	44.458 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	148.19%#
9) S BFB	20.13	5623427	30.613 UG/L
Spiked Amount 30.000		Recovery =	102.04%
13) S BCB	24.34	8784969	45.894 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	152.98%#
Target Compounds			
1) TM MTBE	2.98	34501	~~0.727 UG/L~~
2) TM Benzene	5.99	243556	~~1.042 UG/L~~
4) TM Toluene	12.12	224026	1.062 UG/L
5) TM Chlorobenzene	16.76	368465	~~1.660 UG/L~~
6) TM Ethylbenzene	17.06	1768137	9.611 UG/L
7) TM m-,p-Xylene	17.32	2399483	10.789 UG/L
8) TM o-Xylene	18.58	2007667	10.501 UG/L
10) TM 1,3-Dichlorobenzene	22.37	519553	2.590 UG/L
11) TM 1,4-Dichlorobenzene	22.61	1361653	6.730 UG/L
12) TM 1,2-Dichlorobenzene	23.42	561492	3.483 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09477.D 8021W.M Wed Sep 19 13:30:17 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09457.D Vial: 23
Acq On : 18 Sep 2001 18:55 Operator: CSH
Sample : L0109252-03 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 19:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09457.D Vial: 23
Acq On : 18 Sep 2001 18:55 Operator: CSH
Sample : L0109252-03 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 19:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

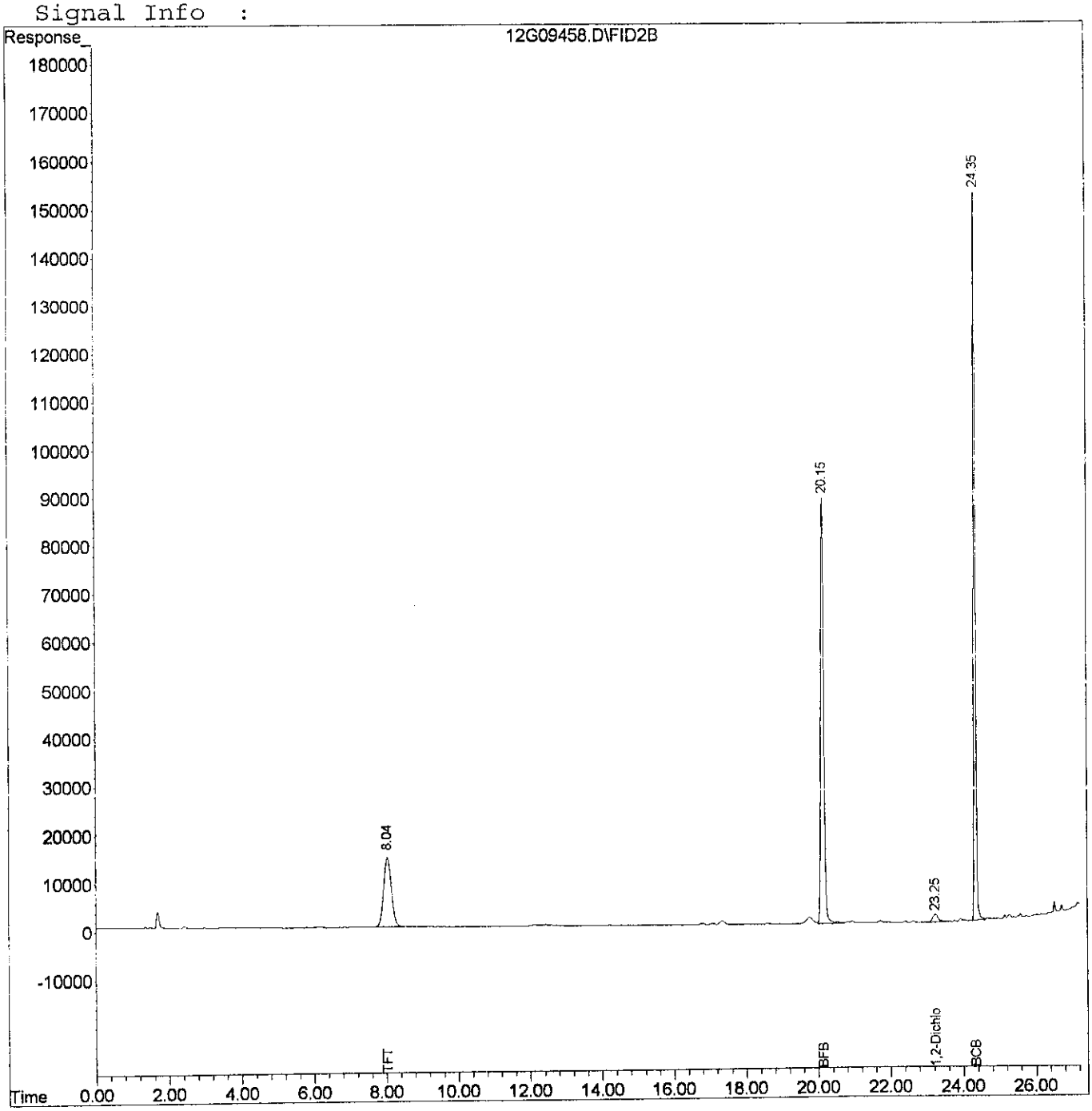
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	2384285	32.280 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	107.60%
9) S BFB	20.15	5457152	29.708 UG/L
Spiked Amount 30.000		Recovery =	99.03%
13) S BCB	24.35	5211984	27.228 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	90.76%
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	12.12	21646	<MDL UG/L
5) TM Chlorobenzene	16.79	26816	<MDL UG/L
6) TM Ethylbenzene	17.09	29407	<MDL UG/L
7) TM m-,p-Xylene	17.35	90294	<MDL UG/L
8) TM o-Xylene	18.62	17617	<MDL UG/L
10) TM 1,3-Dichlorobenzene	22.42	14152	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.64	19200	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.25	155222	~~0.963 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\091801\12G09458.D Vial: 24
Acq On : 18 Sep 2001 19:27 Operator: CSH
Sample : WG104830-03 L0109252-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 19:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09458.D Vial: 24
Acq On : 18 Sep 2001 19:27 Operator: CSH
Sample : WG104830-03 L0109252-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 19:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

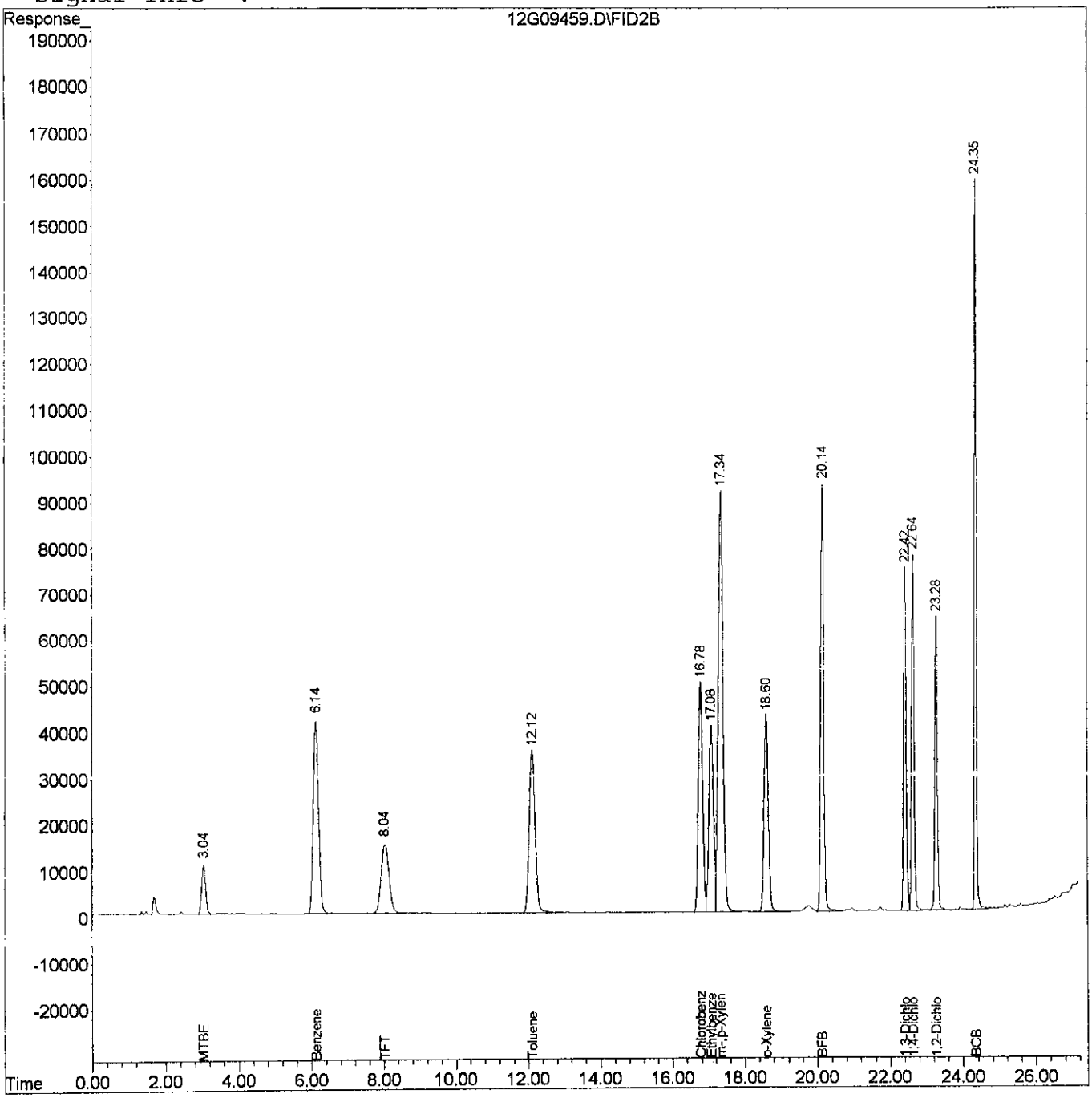
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	2196812	29.742 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.14%
9) S BFB	20.15	5258148	28.624 UG/L
Spiked Amount 30.000		Recovery =	95.41%
13) S BCB	24.35	5091824	26.600 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	88.67%
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	12.14	46672	<MDL UG/L
5) TM Chlorobenzene	16.79	24727	<MDL UG/L
6) TM Ethylbenzene	17.08	20697	<MDL UG/L
7) TM m-,p-Xylene	17.35	71818	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.43	19117	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.64	16132	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.25	193976	~~1.203 UG/~~L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09458.D 8021W.M Tue Sep 18 19:55:10 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09459.D Vial: 27
Acq On : 18 Sep 2001 19:59 Operator: CSH
Sample : WG104830-04 L0109252-05 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 20:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09459.D Vial: 27
Acq On : 18 Sep 2001 19:59 Operator: CSH
Sample : WG104830-04 L0109252-05 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 20:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

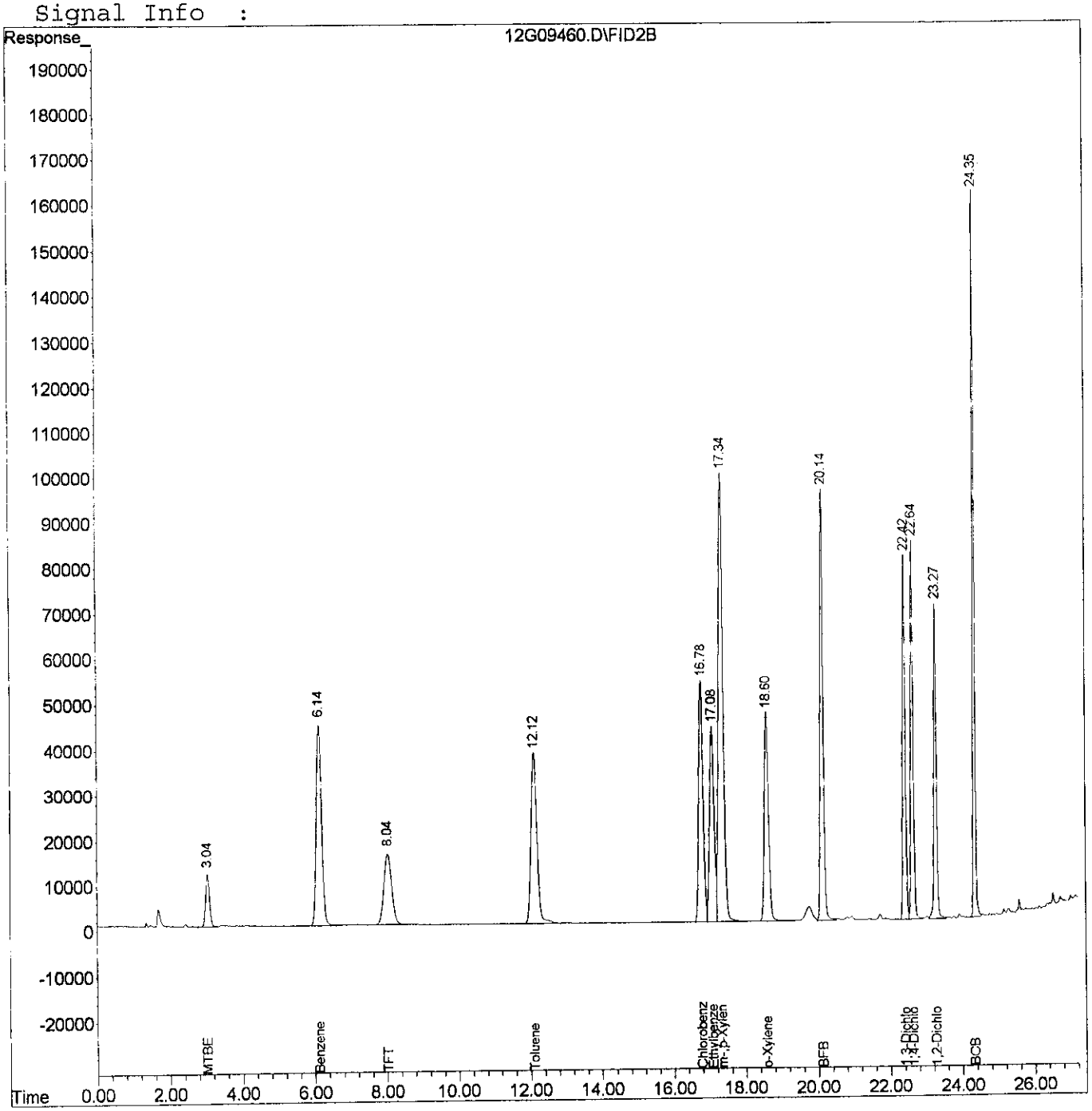
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	2294403	31.063 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 103.54%			
9) S BFB	20.15	5504979	29.968 UG/L
Spiked Amount 30.000 Recovery = 99.89%			
13) S BCB	24.35	5333217	27.861 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 92.87%			
Target Compounds			
1) TM MTBE	3.04	829637	17.491 UG/L
2) TM Benzene	6.14	4290190	18.360 UG/L
4) TM Toluene	12.12	4096858	19.419 UG/L
5) TM Chlorobenzene	16.78	4126622	18.595 UG/L
6) TM Ethylbenzene	17.09	3568077	19.395 UG/L
7) TM m-,p-Xylene	17.35	8326472	37.439 UG/L
8) TM o-Xylene	18.60	3522612	18.424 UG/L
10) TM 1,3-Dichlorobenzene	22.42	3674056	18.313 UG/L
11) TM 1,4-Dichlorobenzene	22.64	3694418	18.258 UG/L
12) TM 1,2-Dichlorobenzene	23.28	2992112	18.561 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09459.D 8021W.M Tue Sep 18 20:27:17 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09460.D Vial: 28
Acq On : 18 Sep 2001 20:31 Operator: CSH
Sample : WG104830-05 L0109252-06 MSD "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 20:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09460.D Vial: 28
Acq On : 18 Sep 2001 20:31 Operator: CSH
Sample : WG104830-05 L0109252-06 MSD "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 20:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

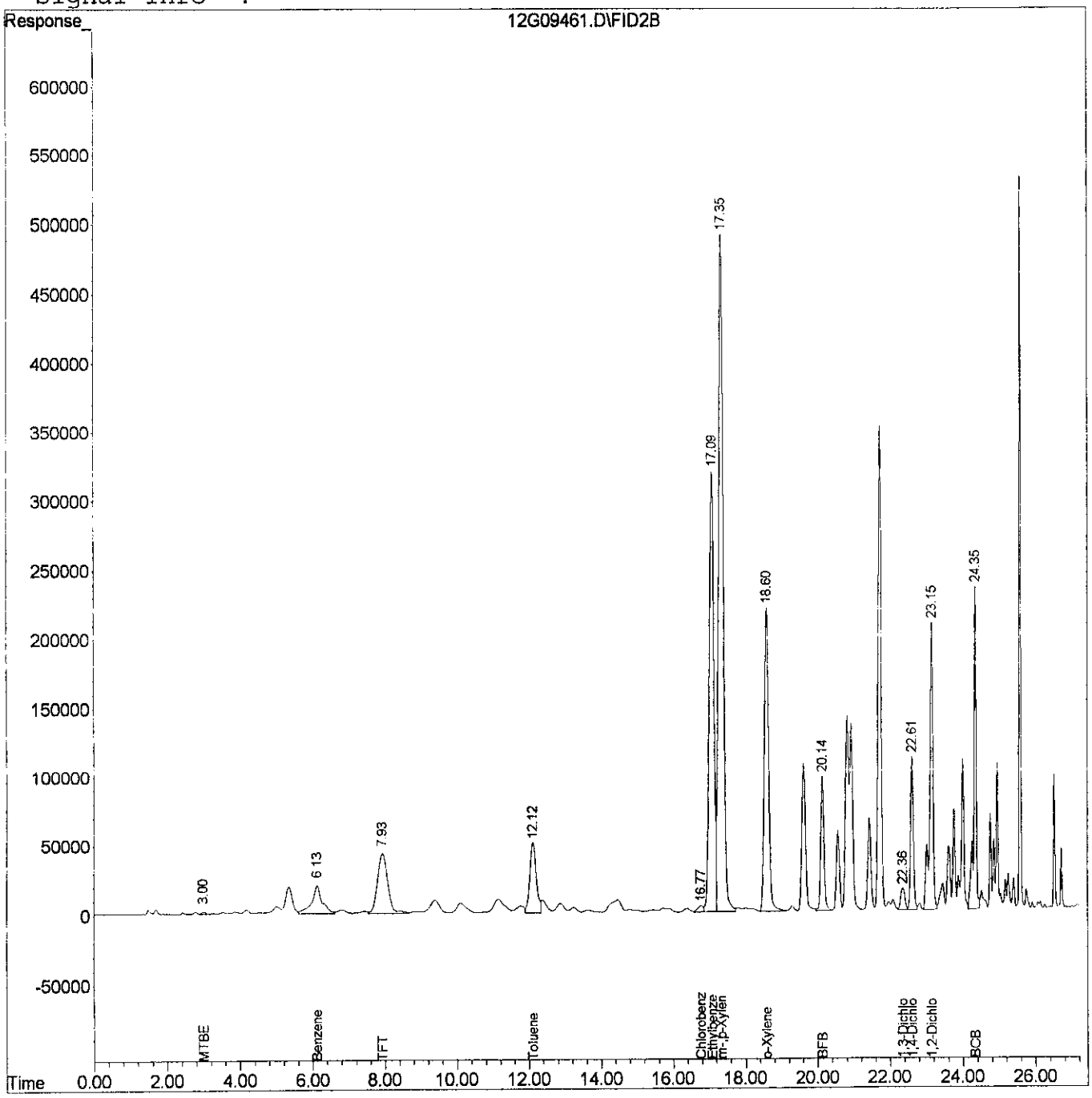
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.04	2419181	32.753 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 109.18%			
9) S BFB	20.14	5610682	30.544 UG/L
Spiked Amount 30.000 Recovery = 101.81%			
13) S BCB	24.35	5372691	28.068 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.56%			
Target Compounds			
1) TM MTBE	3.04	903984	19.058 UG/L
2) TM Benzene	6.14	4597467	19.675 UG/L
4) TM Toluene	12.12	4456810	21.125 UG/L
5) TM Chlorobenzene	16.78	4424090	19.936 UG/L
6) TM Ethylbenzene	17.08	3820469	20.767 UG/L
7) TM m-,p-Xylene	17.34	8980089	40.377 UG/L
8) TM o-Xylene	18.60	3803425	19.893 UG/L
10) TM 1,3-Dichlorobenzene	22.42	3966053	19.768 UG/L
11) TM 1,4-Dichlorobenzene	22.64	3984565	19.692 UG/L
12) TM 1,2-Dichlorobenzene	23.28	3359666	20.841 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09460.D 8021W.M Tue Sep 18 20:59:13 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09461.D Vial: 29
Acq On : 18 Sep 2001 21:04 Operator: CSH
Sample : L0109252-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 21:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09461.D Vial: 29
Acq On : 18 Sep 2001 21:04 Operator: CSH
Sample : L0109252-07 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 21:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

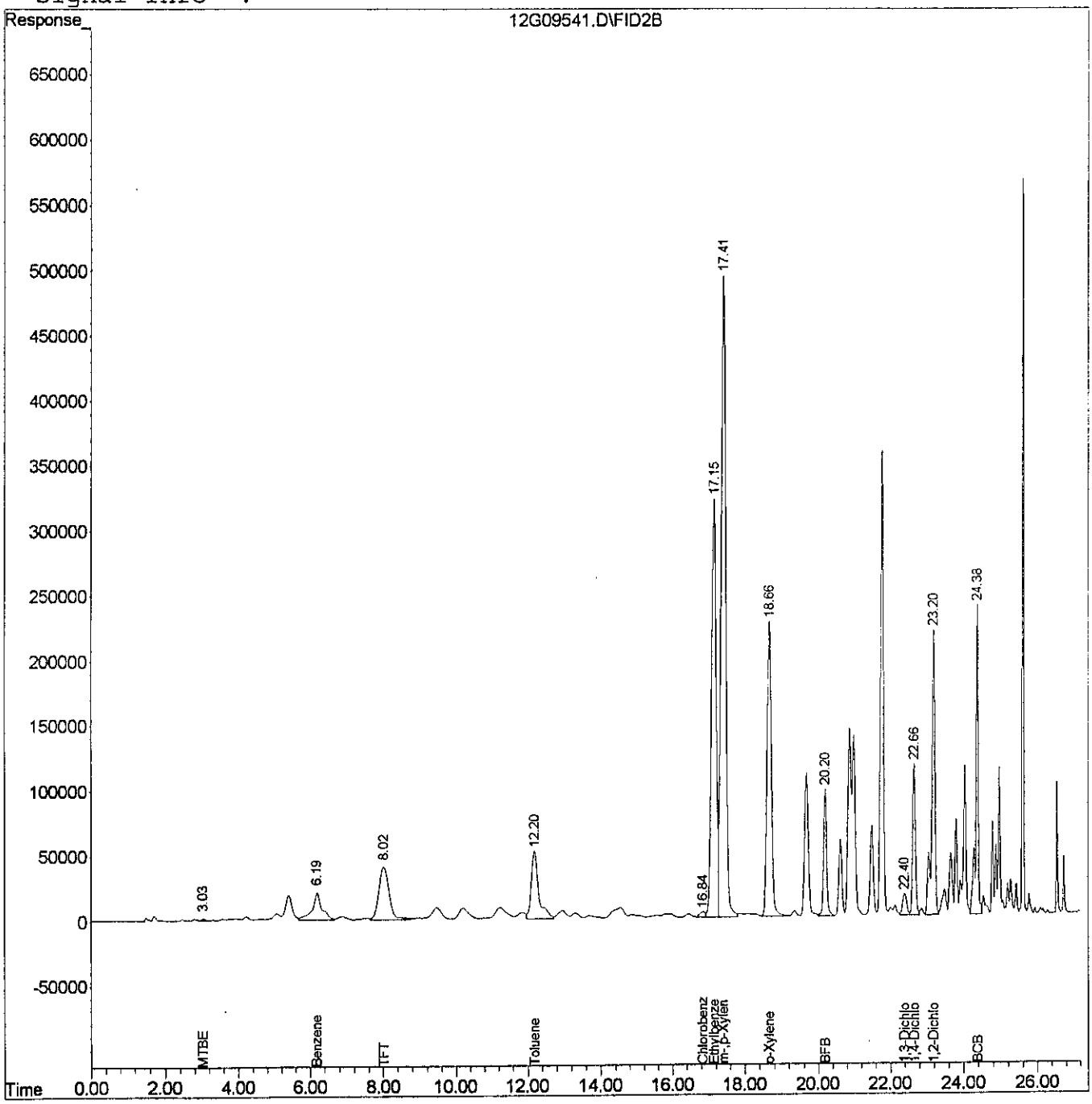
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	7.94	8570803	116.038 UG/L *
Spiked Amount 30.000 Range 70 - 130		Recovery =	386.79%#
9) S BFB	20.14	5950570	32.394 UG/L
Spiked Amount 30.000		Recovery =	107.98%
13) S BCB	24.35	10490147	54.802 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	182.67%#
Target Compounds			
1) TM MTBE	3.00✓	139572	2.942 UG/L
2) TM Benzene	6.13✓	4108420	17.582 UG/L
4) TM Toluene	12.12✓	6389986	30.288 UG/L
5) TM Chlorobenzene	16.78	462277	~~2.083 UG/L~~
6) TM Ethylbenzene	17.09✓	28169927	153.125 UG/L
7) TM m-,p-Xylene	17.35✓	44252669	198.974 UG/L
8) TM o-Xylene	18.60✓	18283454	95.628 UG/L
10) TM 1,3-Dichlorobenzene	22.36	1294960	~~6.455 UG/L~~
11) TM 1,4-Dichlorobenzene	22.62	5982761	~~29.568 UG/L~~
12) TM 1,2-Dichlorobenzene	23.16	13122164	~~81.400 UG/L~~

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

Acq On : 21 Sep 2001 22:40 Operator: JLS
Sample : L0109252-07 B 5ML Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 23:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092101\12G09541.D Vial: 2
Acq On : 21 Sep 2001 22:40 Operator: JLS
Sample : L0109252-07 B 5ML Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 23:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

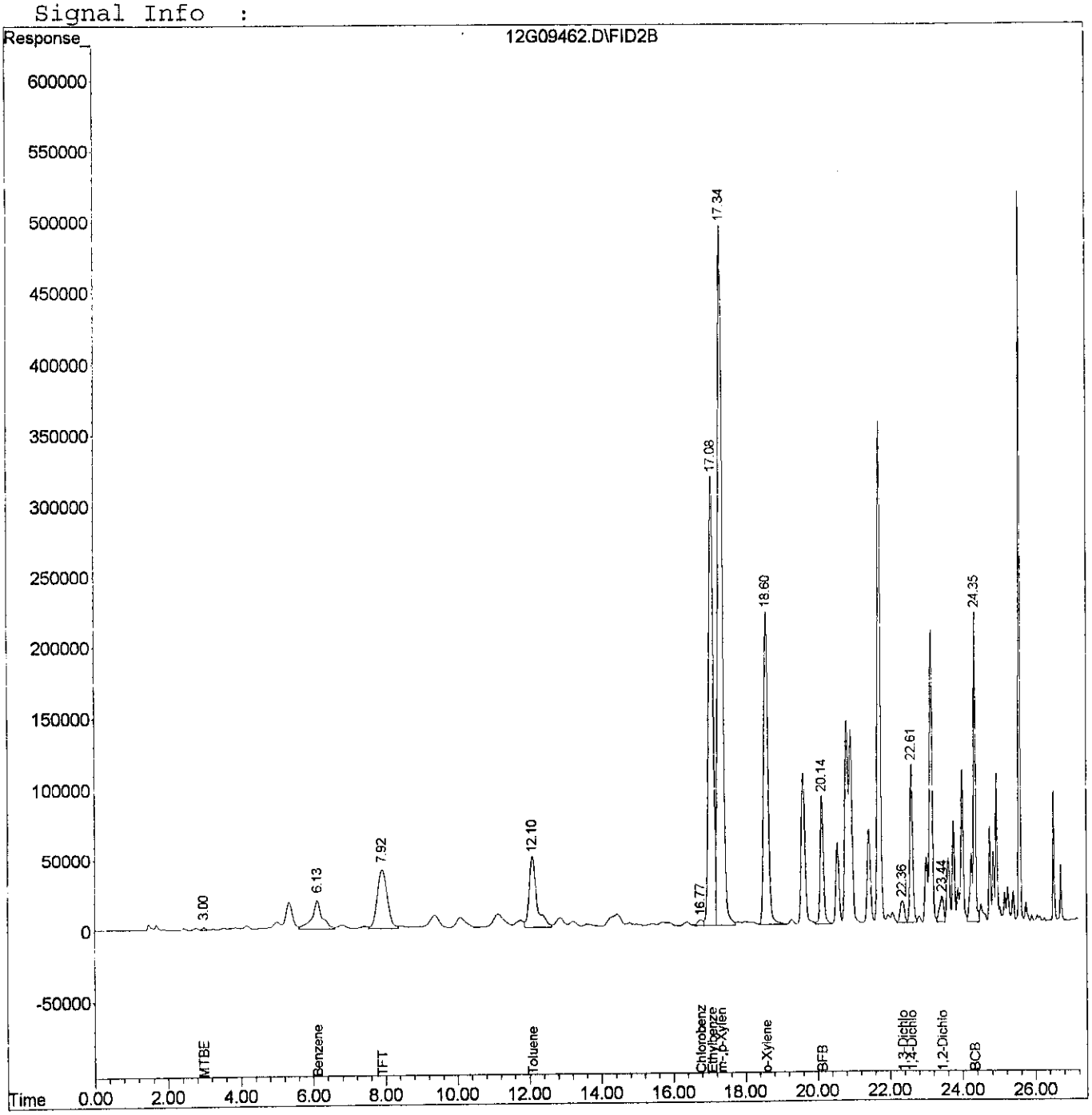
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.02	8065351	109.195 UG/L *
Spiked Amount 30.000	Range 70 - 130	Recovery = 363.98%#	
9) S BFB	20.20	5983852	32.575 UG/L
Spiked Amount 30.000		Recovery = 108.58%	
13) S BCB	24.38	10680826	55.798 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 185.99%#	
Target Compounds			
1) TM MTBE	3.03	120059	2.531 UG/L
2) TM Benzene	6.20	3940576	16.864 UG/L
4) TM Toluene	12.20	7413360	35.139 UG/L
5) TM Chlorobenzene	16.85	430832	1.941 UG/L
6) TM Ethylbenzene	17.15	28680080	155.899 UG/L
7) TM m-,p-Xylene	17.41	44954018	202.128 UG/L
8) TM o-Xylene	18.66	18911514	98.913 UG/L
10) TM 1,3-Dichlorobenzene	22.40	1336473	6.661 UG/L
11) TM 1,4-Dichlorobenzene	22.66	6238338	30.831 UG/L
12) TM 1,2-Dichlorobenzene	23.20	13376939	82.980 UG/L

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

Data File : C:\HPCHEM\2\DATA\091801\12G09462.D Vial: 30
Acq On : 18 Sep 2001 21:36 Operator: CSH
Sample : L0109252-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 22:03 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09462.D Vial: 30
Acq On : 18 Sep 2001 21:36 Operator: CSH
Sample : L0109252-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 22:03 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

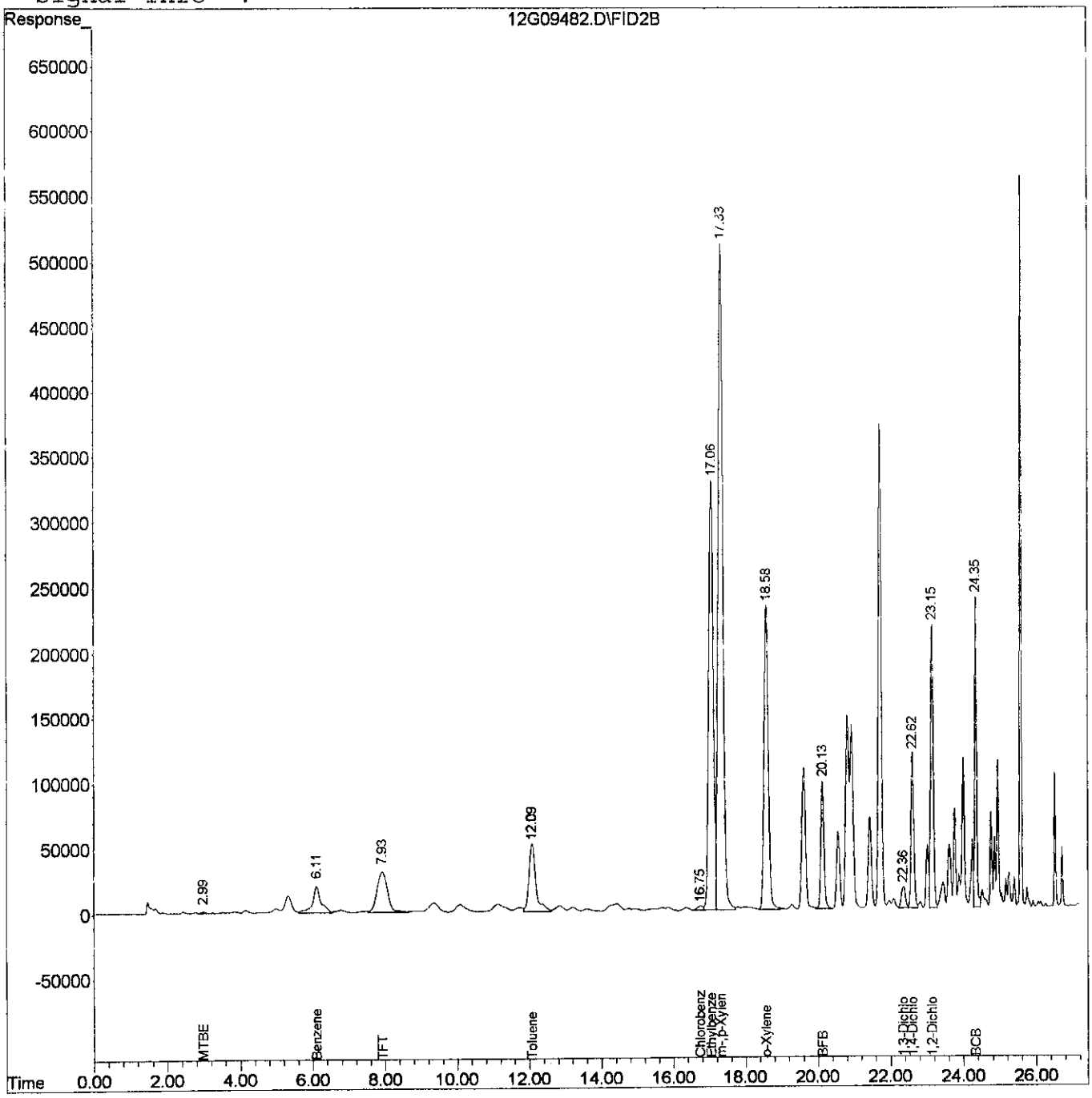
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	7.93	8042435	108.885 UG/L *
Spiked Amount 30.000 Range 70 - 130 Recovery = 362.95%#			
9) S BFB	20.14	5559408	30.264 UG/L
Spiked Amount 30.000 Recovery = 100.88%			
13) S BCB	24.35	10031616	52.406 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 174.69%#			
Target Compounds			
1) TM MTBE	3.00✓	135346	2.853 UG/L
2) TM Benzene	6.13✓	3999641	17.117 UG/L
4) TM Toluene	12.10✓	7318653	34.690 UG/L
5) TM Chlorobenzene	16.77	453065	~~2.042 UG/L~~
6) TM Ethylbenzene	17.08✓	28204943	153.316 UG/L
7) TM m-,p-Xylene	17.35✓	44751883	201.219 UG/L
8) TM o-Xylene	18.60✓	18402804	96.253 UG/L
10) TM 1,3-Dichlorobenzene	22.36	1288647	~~6.423 UG/L~~
11) TM 1,4-Dichlorobenzene	22.62	6037906	~~29.840 UG/L~~
12) TM 1,2-Dichlorobenzene	23.44	1448075	~~8.983 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09462.D 8021W.M Tue Sep 18 22:03:34 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09482.D Vial: 22
Acq On : 19 Sep 2001 16:12 Operator: CBN
Sample : L0109252-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1,RE S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 16:39 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09482.D Vial: 22
Acq On : 19 Sep 2001 16:12 Operator: CBN
Sample : L0109252-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1,RE S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 16:39 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

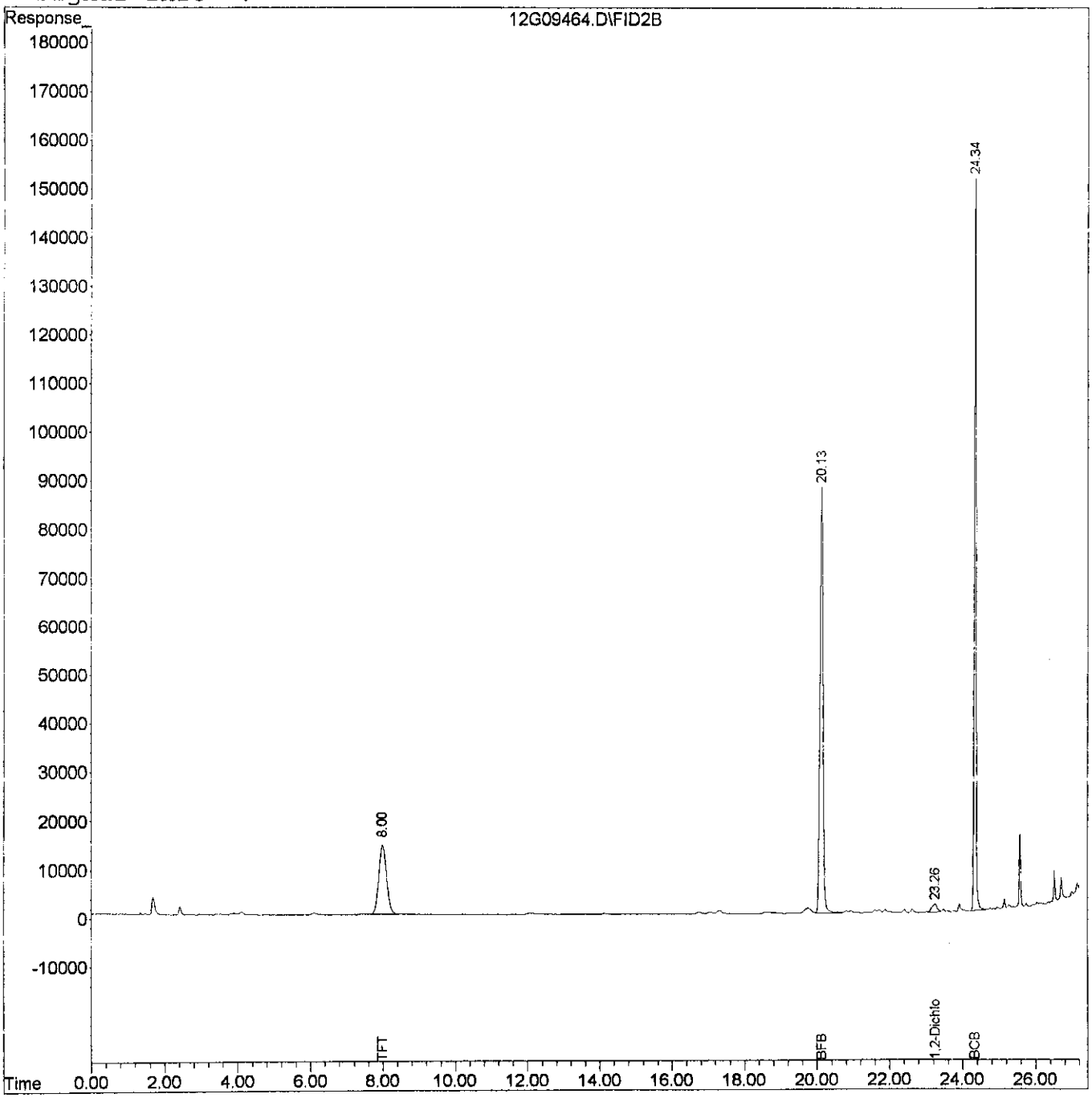
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	7.93	6329809	85.698 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	285.66%# *
9) S BFB	20.13	6001380	32.670 UG/L
Spiked Amount 30.000		Recovery =	108.90%
13) S BCB	24.35	8528413	44.553 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	148.51%#
Target Compounds			
1) TM MTBE	2.99	113035	2.383 UG/L
2) TM Benzene	6.12	3448257	14.757 UG/L
4) TM Toluene	12.09	7005459	33.206 UG/L
5) TM Chlorobenzene	16.75	362076	1.632 UG/L
6) TM Ethylbenzene	17.06	29371011	159.654 UG/L
7) TM m-,p-Xylene	17.33	46665911	209.825 UG/L
8) TM o-Xylene	18.59	19448455	101.722 UG/L
10) TM 1,3-Dichlorobenzene	22.36	1325557	6.607 UG/L
11) TM 1,4-Dichlorobenzene	22.62	6447232	31.863 UG/L
12) TM 1,2-Dichlorobenzene	23.15	11338285	70.334 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09482.D 8021W.M Wed Sep 19 16:39:35 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09464.D Vial: 32
Acq On : 18 Sep 2001 22:40 Operator: CSH
Sample : L0109252-09 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 23:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09464.D Vial: 32
Acq On : 18 Sep 2001 22:40 Operator: CSH
Sample : L0109252-09 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 23:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

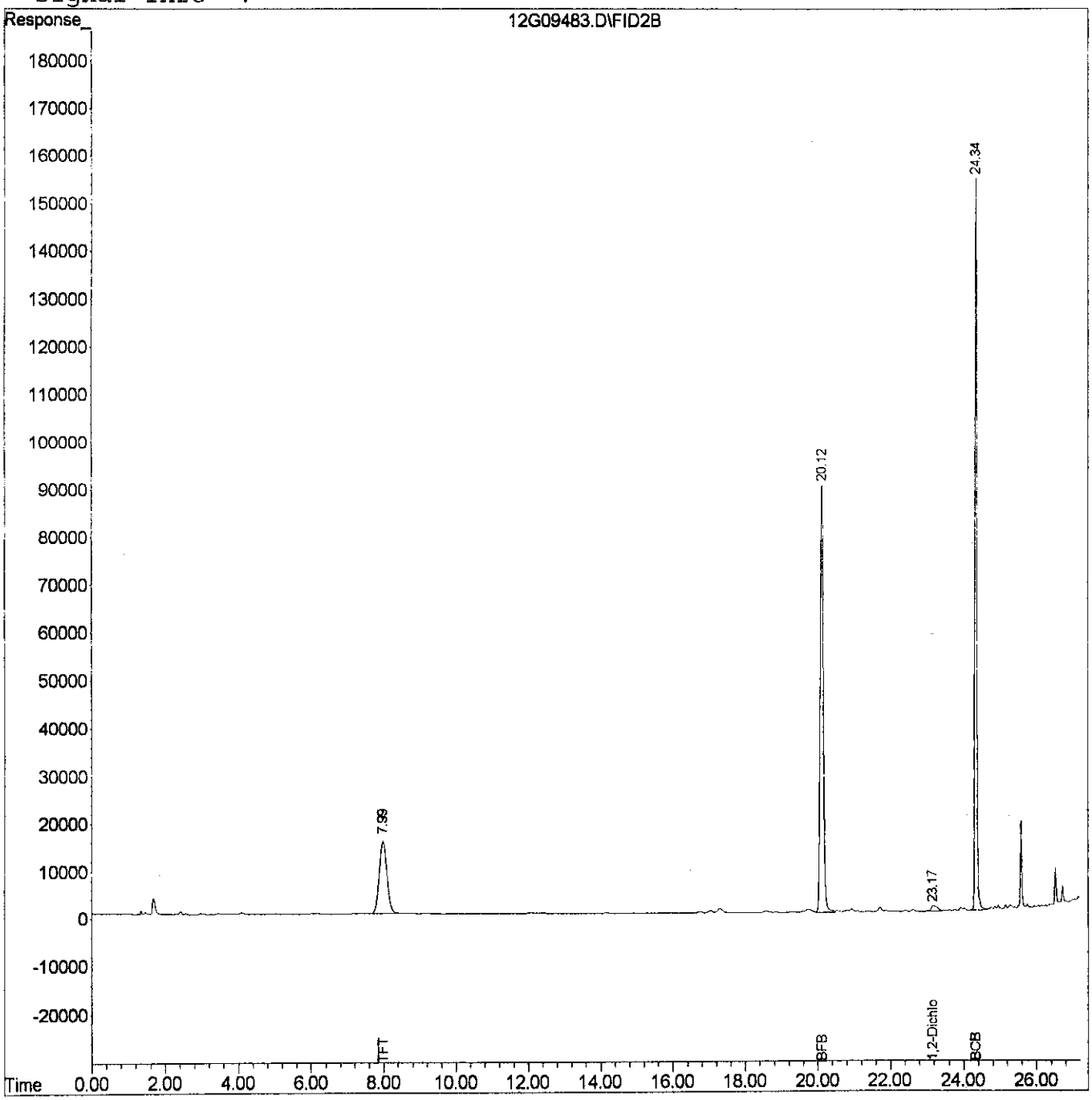
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.00	2151727	29.132 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	97.11%
9) S BFB	20.13	5232763	28.486 UG/L
Spiked Amount 30.000		Recovery =	94.95%
13) S BCB	24.34	5069633	26.484 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	88.28%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.12	36514	<MDL UG/L
4) TM Toluene	12.09	21589	<MDL UG/L
5) TM Chlorobenzene	16.76	31454	<MDL UG/L
6) TM Ethylbenzene	17.06	33516	<MDL UG/L
7) TM m-,p-Xylene	17.32	63115	<MDL UG/L
8) TM o-Xylene	18.59	23430	<MDL UG/L
10) TM 1,3-Dichlorobenzene	22.41	37643	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.63	36347	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.26	181155	~~1.124 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\091901\12G09483.D Vial: 23
Acq On : 19 Sep 2001 16:44 Operator: CBN
Sample : L0109252-10 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 17:11 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09483.D Vial: 23
Acq On : 19 Sep 2001 16:44 Operator: CBN
Sample : L0109252-10 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 17:11 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	7.99	2309462	31.267 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	104.22%
9) S BFB	20.12	5345203	29.098 UG/L
Spiked Amount 30.000		Recovery =	96.99%
13) S BCB	24.34	5165958	26.988 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	89.96%
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	12.08	20968	<MDL UG/L
5) TM Chlorobenzene	16.73	21499	<MDL UG/L
6) TM Ethylbenzene	17.04	35806	<MDL UG/L
7) TM m-,p-Xylene	17.31	84837	<MDL UG/L
8) TM o-Xylene	18.57	31791	<MDL UG/L
10) TM 1,3-Dichlorobenzene	22.41	14989	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.62	24335	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.17	141838	~~0.880 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09483.D 8021W.M Wed Sep 19 17:11:40 2001 Page 1

2.1.3.3 Standards Data

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Mon Sep 10 11:51:06 2001

Calibration Files
1 =12G09380.D 10 =12G09381.D 20 =12G09382.D
50 =12G09383.D 100 =12G09384.D 200 =12G09385.D

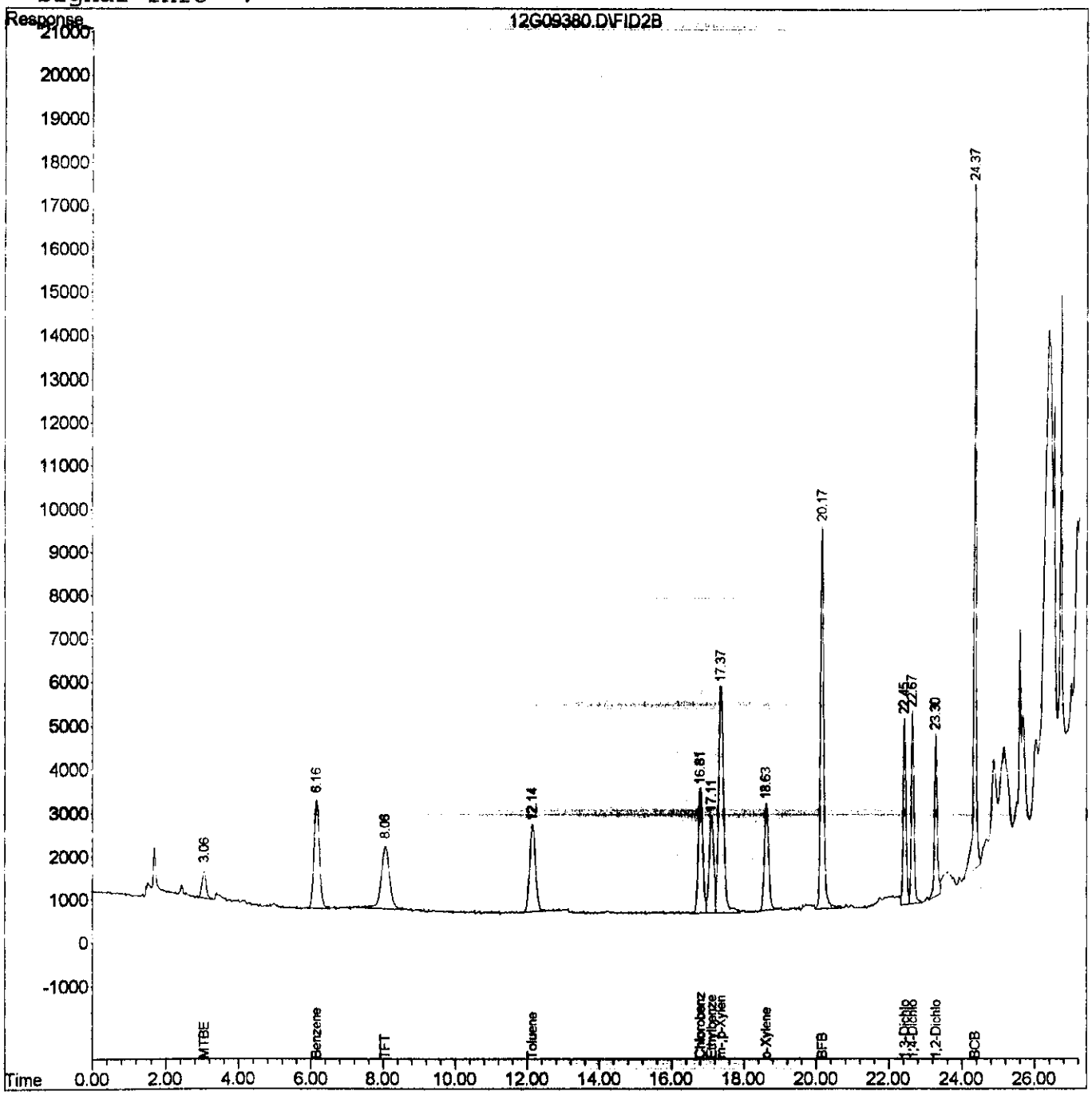
		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.548	4.759	4.596	4.593	4.451	4.514	4.743	E4	8.5
2)	TM	Benzene	2.598	2.331	2.257	2.297	2.277	2.261	2.337	E5	5.6
3)	S	TFT	7.744	7.018	7.342	7.420	7.466	7.327	7.386	E4	3.1
4)	TM	Toluene	2.255	2.125	2.070	2.078	2.069	2.061	2.110	E5	3.5
5)	TM	Chlorobenzene	2.448	2.234	2.138	2.186	2.150	2.159	2.219	E5	5.2
6)	TM	Ethylbenzene	2.015	1.858	1.785	1.818	1.782	1.779	1.840	E5	4.9
7)	TM	m-,p-Xylene	2.504	2.245	2.146	2.199	2.138	2.113	2.224	E5	6.5
8)	TM	o-Xylene	2.051	1.974	1.857	1.901	1.849	1.839	1.912	E5	4.4
9)	S	BFB	1.833	1.843	1.820	1.870	1.812	1.843	1.837	E5	1.1
10)	TM	1,3-Dichlorobenzene	2.257	2.042	1.932	2.010	1.947	1.851	2.006	E5	6.9
11)	TM	1,4-Dichlorobenzene	2.241	2.075	1.944	2.026	1.941	1.914	2.023	E5	6.0
12)	TM	1,2-Dichlorobenzene	1.909	1.666	1.519	1.636	1.500	1.443	1.612	E5	10.4
13)	S	BCB	2.074	1.782	1.795	1.909	1.929	1.996	1.914	E5	5.9

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\091001\12G09380.D Vial: 21
Acq On : 10 Sep 2001 8:10 Operator: CBN
Sample : 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 8:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09380.D Vial: 21
Acq On : 10 Sep 2001 8:10 Operator: CBN
Sample : 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 8:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

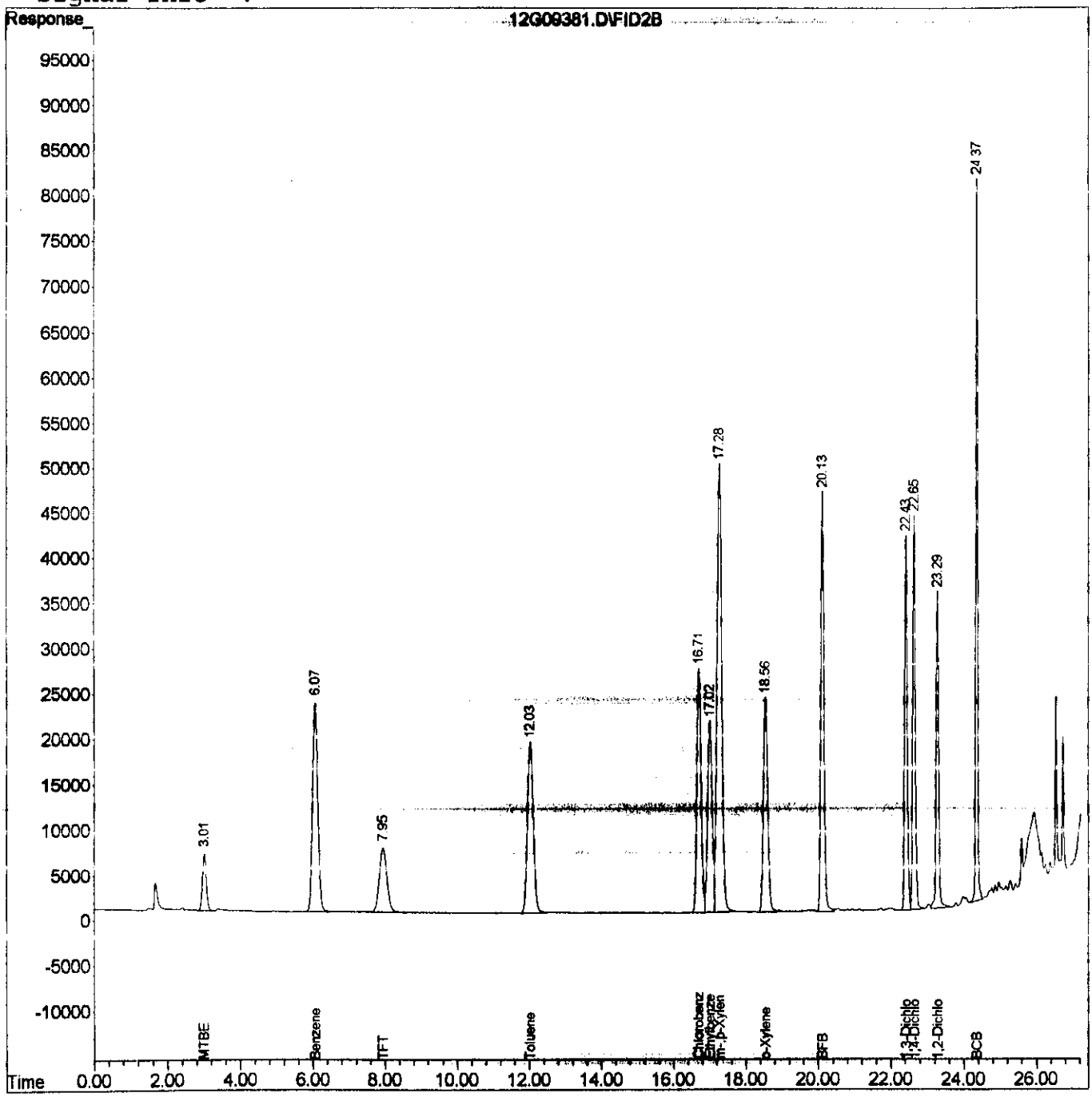
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.07	232326	3.380 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 11.27%#			
9) S BFB	20.17	549947	3.275 UG/L
Spiked Amount 30.000 Recovery = 10.92%			
13) S BCB	24.37	622093	3.909 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 13.03%#			
Target Compounds			
1) TM MTBE	3.06	55477	1.265 UG/L
2) TM Benzene	6.16	259845	1.184 UG/L
4) TM Toluene	12.15	225549	1.113 UG/L
5) TM Chlorobenzene	16.81	244753	1.180 UG/L
6) TM Ethylbenzene	17.11	201522	1.158 UG/L
7) TM m-,p-Xylene	17.38	500786	2.384 UG/L
8) TM o-Xylene	18.63	205142	1.146 UG/L
10) TM 1,3-Dichlorobenzene	22.45	225654	1.213 UG/L
11) TM 1,4-Dichlorobenzene	22.67	224052	1.176 UG/L
12) TM 1,2-Dichlorobenzene	23.30	190894	1.259 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09380.D 8021W.M Mon Sep 10 08:37:20 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091001\12G09381.D Vial: 22
Acq On : 10 Sep 2001 8:42 Operator: CBN
Sample : 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 9:09 2001 **Quant Results File: 8021W.RES**

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09381.D Vial: 22
Acq On : 10 Sep 2001 8:42 Operator: CBN
Sample : 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 9:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

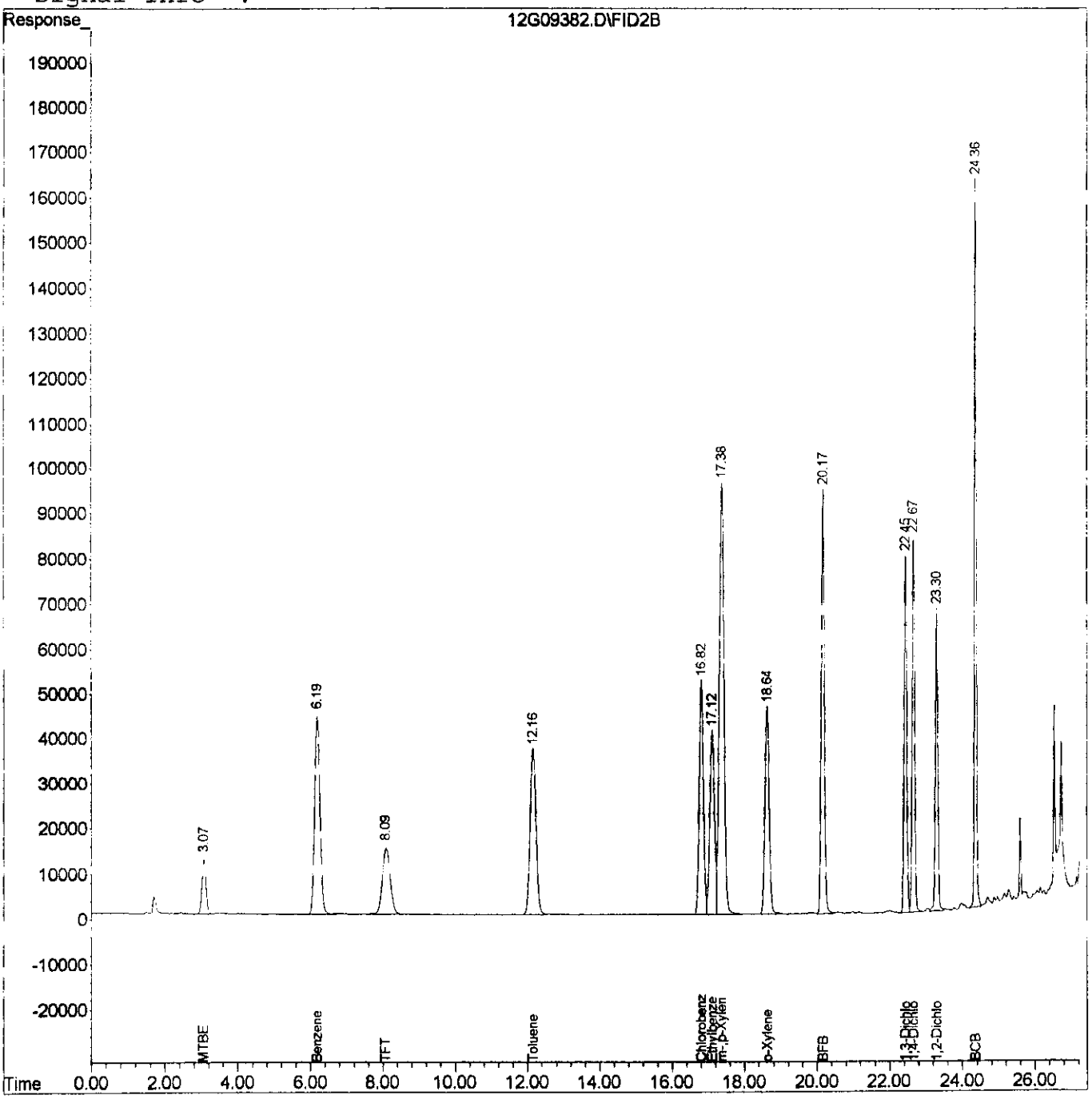
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	7.95	1052738	15.316 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 51.05%#			
9) S BFB	20.13	2765073	16.464 UG/L
Spiked Amount 30.000 Recovery = 54.88%			
13) S BCB	24.37	2673708	16.799 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 56.00%			
Target Compounds			
1) TM MTBE	3.01	475859	10.850 UG/L
2) TM Benzene	6.07	2331113	10.626 UG/L
4) TM Toluene	12.04	2125282	10.487 UG/L
5) TM Chlorobenzene	16.72	2233967	10.770 UG/L
6) TM Ethylbenzene	17.02	1858274	10.675 UG/L
7) TM m-,p-Xylene	17.28	4489108	21.375 UG/L
8) TM o-Xylene	18.56	1974087	11.024 UG/L
10) TM 1,3-Dichlorobenzene	22.44	2042244	10.982 UG/L
11) TM 1,4-Dichlorobenzene	22.65	2074629	10.888 UG/L
12) TM 1,2-Dichlorobenzene	23.29	1665724	10.982 UG/L

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

Data File : C:\HPCHEM\2\DATA\091001\12G09382.D Vial: 23
Acq On : 10 Sep 2001 9:14 Operator: CBN
Sample : 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 11 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09382.D Vial: 23
Acq On : 10 Sep 2001 9:14 Operator: CBN
Sample : 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 11 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

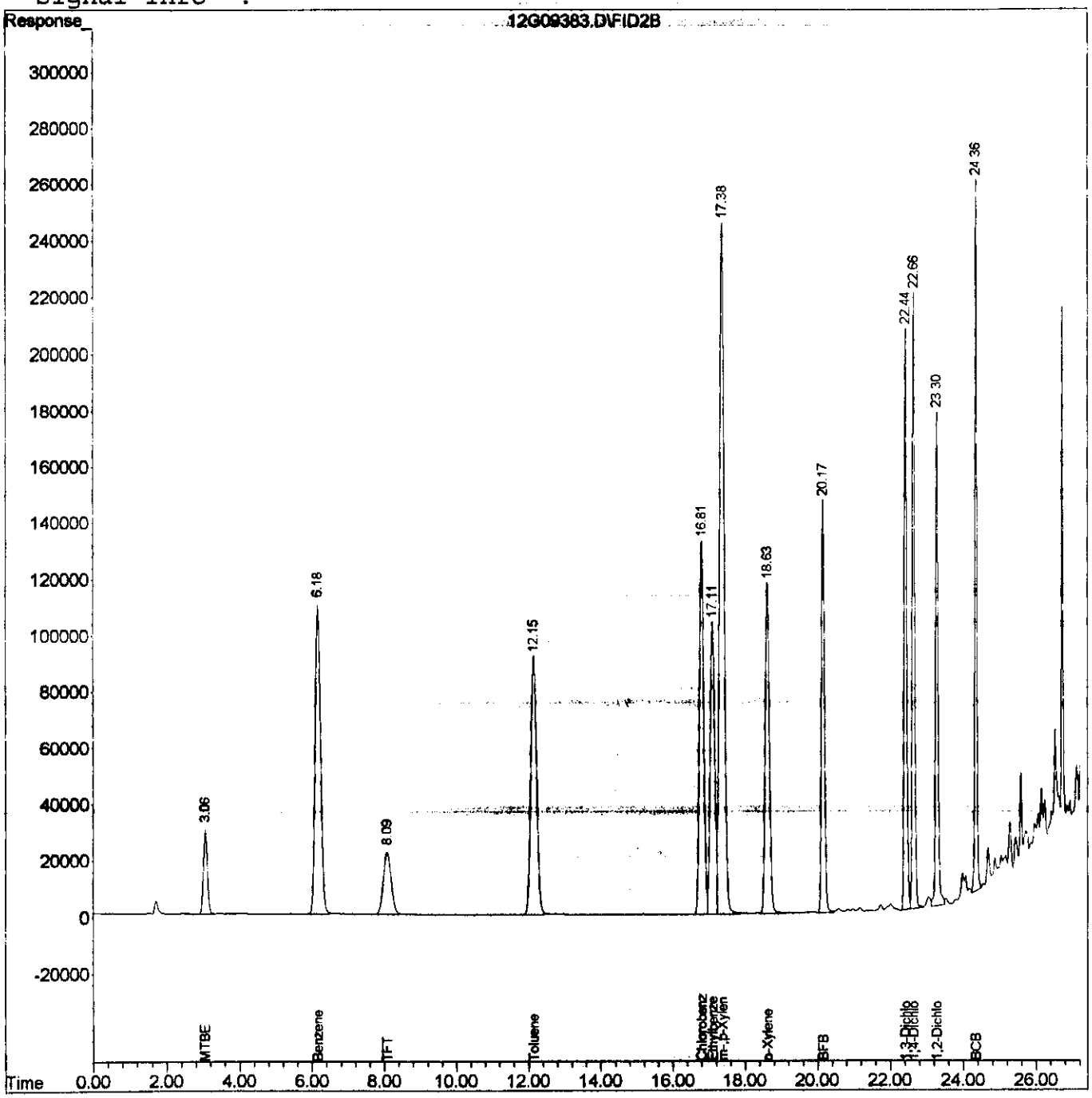
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.10	2202574	29.820 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.40%			
9) S BFB	20.17	5459360	29.720 UG/L
Spiked Amount 30.000 Recovery = 99.07%			
13) S BCB	24.37	5383596	28.125 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.75%			
Target Compounds			
1) TM MTBE	3.07	919104	19.377 UG/L
2) TM Benzene	6.19	4513016	19.314 UG/L
4) TM Toluene	12.16	4139423	19.621 UG/L
5) TM Chlorobenzene	16.82	4276391	19.270 UG/L
6) TM Ethylbenzene	17.12	3570873	19.410 UG/L
7) TM m-,p-Xylene	17.38	8583205	38.593 UG/L
8) TM o-Xylene	18.64	3713093	19.421 UG/L
10) TM 1,3-Dichlorobenzene	22.45	3863692	19.258 UG/L
11) TM 1,4-Dichlorobenzene	22.67	3887494	19.213 UG/L
12) TM 1,2-Dichlorobenzene	23.30	3038272	18.847 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09382.D 8021W.M Tue Sep 11 10:31:15 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091001\12G09383.D Vial: 24
Acq On : 10 Sep 2001 9:46 Operator: CBN
Sample : 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 10:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09383.D Vial: 24
Acq On : 10 Sep 2001 9:46 Operator: CBN
Sample : 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 10:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

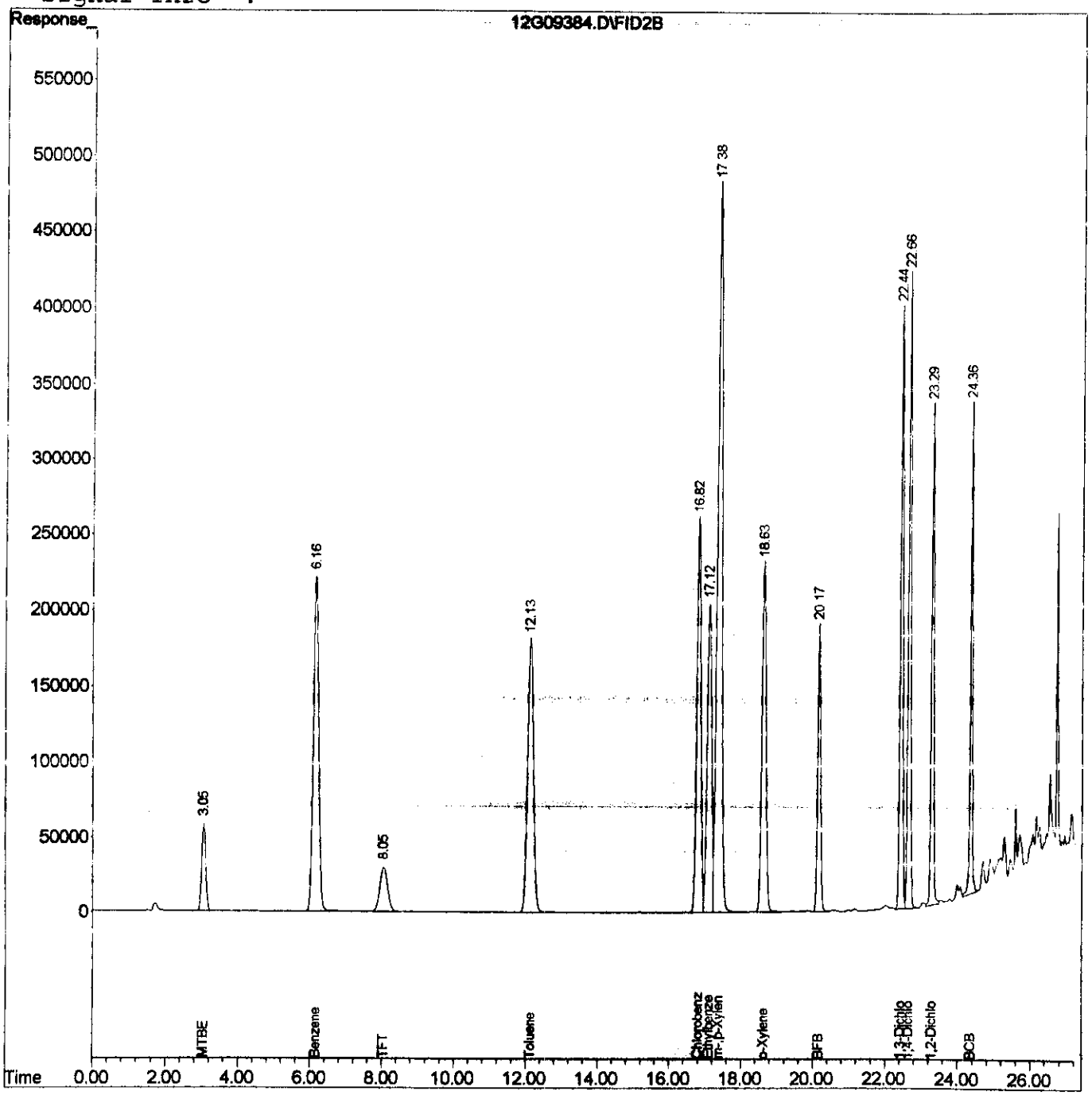
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.09	3339027	48.577 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 161.92%#			
9) S BFB	20.17	8416546	50.116 UG/L
Spiked Amount 30.000 Recovery = 167.05%			
13) S BCB	24.37	8591103	53.978 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 179.93%#			
Target Compounds			
1) TM MTBE	3.07	2296550	52.365 UG/L
2) TM Benzene	6.18	11484017	52.349 UG/L
4) TM Toluene	12.16	10388761	51.263 UG/L
5) TM Chlorobenzene	16.81	10931995	52.706 UG/L
6) TM Ethylbenzene	17.11	9089430	52.215 UG/L
7) TM m-,p-Xylene	17.38	21987697	104.693 UG/L
8) TM o-Xylene	18.63	9504462	53.076 UG/L
10) TM 1,3-Dichlorobenzene	22.44	10047795	54.030 UG/L
11) TM 1,4-Dichlorobenzene	22.66	10132469	53.176 UG/L
12) TM 1,2-Dichlorobenzene	23.30	8177733	53.915 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09383.D 8021W.M Mon Sep 10 10:13:37 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091001\12G09384.D Vial: 25
Acq On : 10 Sep 2001 10:18 Operator: CBN
Sample : 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 10:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09384.D Vial: 25
Acq On : 10 Sep 2001 10:18 Operator: CBN
Sample : 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 10:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

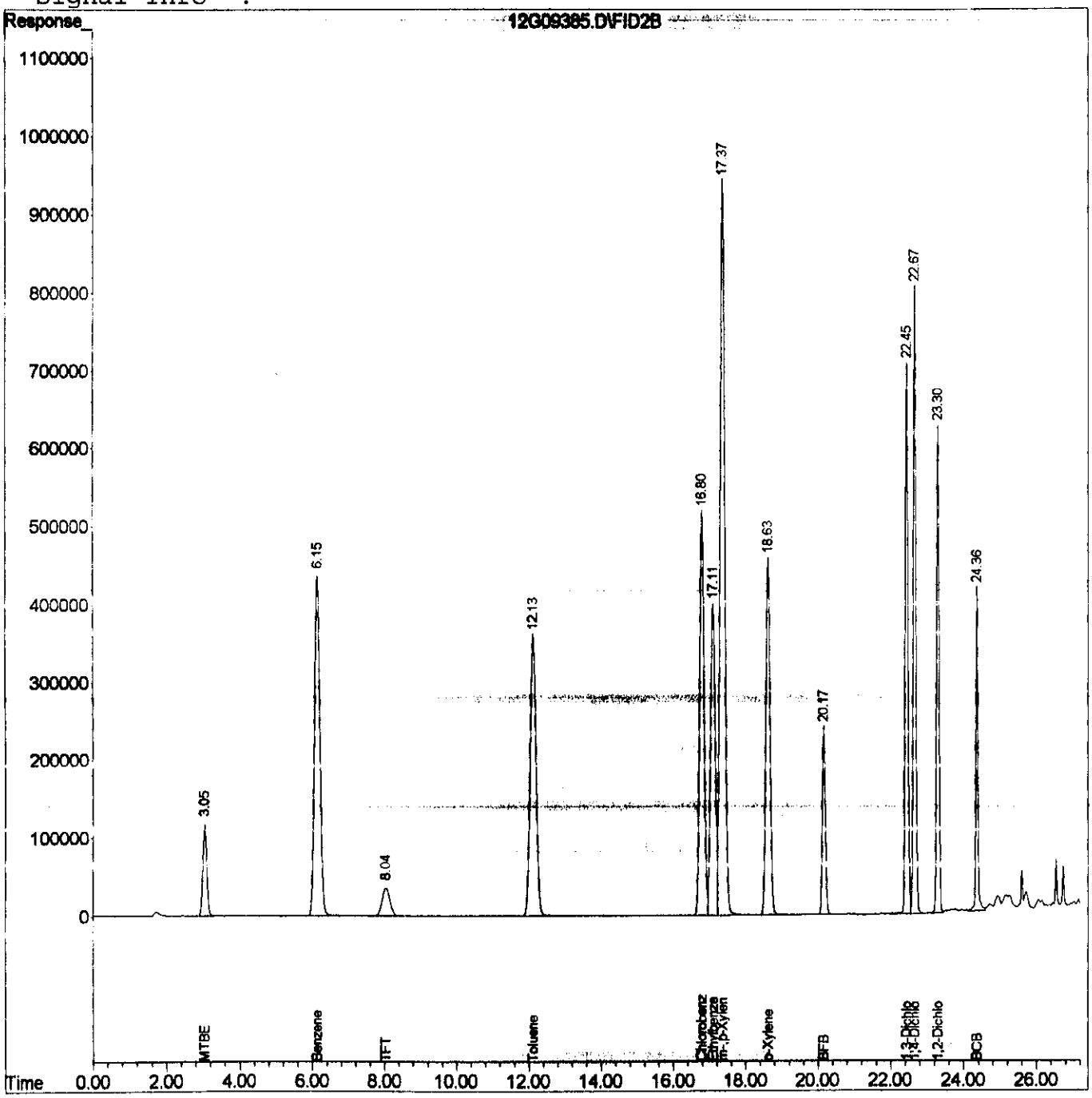
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	4479615	65.171 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 217.24%#			
9) S BFB	20.17	10870522	64.728 UG/L
Spiked Amount 30.000 Recovery = 215.76%			
13) S BCB	24.36	11573853	72.719 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 242.40%#			
Target Compounds			
1) TM MTBE	3.05	4451177	101.494 UG/L
2) TM Benzene	6.16	22766069	103.777 UG/L
4) TM Toluene	12.13	20686709	102.077 UG/L
5) TM Chlorobenzene	16.82	21496423	103.639 UG/L
6) TM Ethylbenzene	17.12	17821264	102.375 UG/L
7) TM m-,p-Xylene	17.38	42764753	203.622 UG/L
8) TM o-Xylene	18.63	18494162	103.278 UG/L
10) TM 1,3-Dichlorobenzene	22.44	19468778	104.690 UG/L
11) TM 1,4-Dichlorobenzene	22.66	19412643	101.879 UG/L
12) TM 1,2-Dichlorobenzene	23.29	14999151	98.887 UG/L

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

Data File : C:\HPCHEM\2\DATA\091001\12G09385.D Vial: 28
Acq On : 10 Sep 2001 10:50 Operator: CBN
Sample : 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 11:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09385.D Vial: 28
Acq On : 10 Sep 2001 10:50 Operator: CBN
Sample : 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-(84-17,83-28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 11:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 08/28/01
Last Update : Tue Aug 28 12:02:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

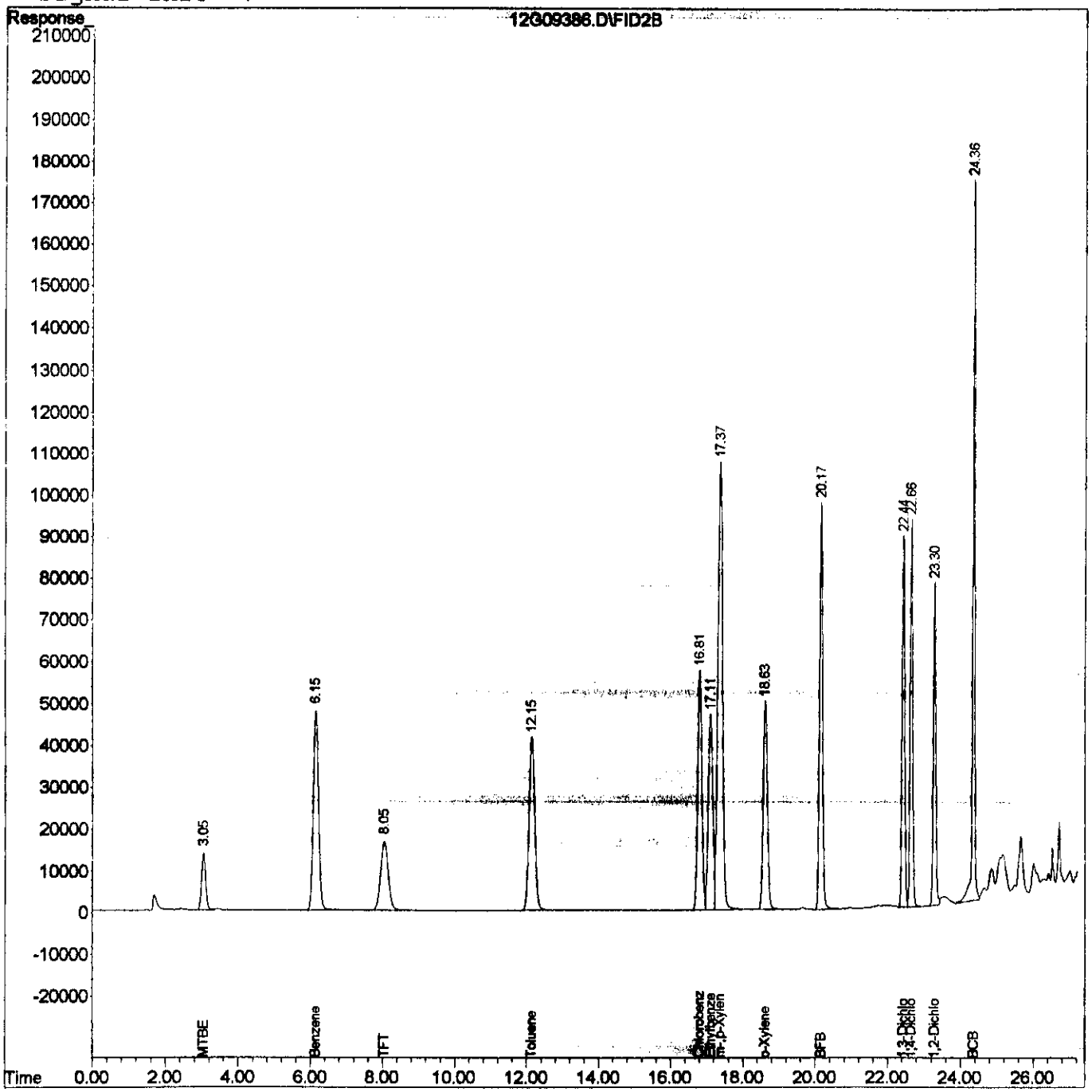
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	5494998	79.943 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	266.48%#
9) S BFB	20.17	13824235	82.316 UG/L
Spiked Amount 30.000		Recovery =	274.39%
13) S BCB	24.37	14973290	94.078 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	313.59%#
Target Compounds			
1) TM MTBE	3.05	9027601	205.844 UG/L
2) TM Benzene	6.15	45212013	206.094 UG/L
4) TM Toluene	12.13	41228177	203.437 UG/L
5) TM Chlorobenzene	16.80	43186957	208.214 UG/L
6) TM Ethylbenzene	17.11	35580833	204.396 UG/L
7) TM m-,p-Xylene	17.37	84517678	402.425 UG/L
8) TM o-Xylene	18.63	36783841	205.414 UG/L
10) TM 1,3-Dichlorobenzene	22.45	37013284	199.032 UG/L
11) TM 1,4-Dichlorobenzene	22.67	38275503	200.872 UG/L
12) TM 1,2-Dichlorobenzene	23.30	28862542	190.287 UG/L

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

Data File : C:\HPCHEM\2\DATA\091001\12G09386.D Vial: 29
Acq On : 10 Sep 2001 12:04 Operator: CBN
Sample : ALT SOURCE 10PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 12:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091001\12G09386.D Vial: 29
Acq On : 10 Sep 2001 12:04 Operator: CBN
Sample : ALT SOURCE 10PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 10 12:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.05	2433098	32.941 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 109.80%			
9) S BFB	20.17	5684219	30.944 UG/L
Spiked Amount 30.000 Recovery = 103.15%			
13) S BCB	24.37	6325857	33.047 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 110.16%			
Target Compounds			
1) TM MTBE	3.05	1053464	22.209 UG/L
2) TM Benzene	6.15	4842883	20.725 UG/L
4) TM Toluene	12.15	4594027	21.776 UG/L
5) TM Chlorobenzene	16.81	4724457	21.289 UG/L
6) TM Ethylbenzene	17.11	4075532	22.154 UG/L
7) TM m-,p-Xylene	17.37	9606961	43.196 UG/L
8) TM o-Xylene	18.63	4042053	21.141 UG/L
10) TM 1,3-Dichlorobenzene	22.45	4377498	21.819 UG/L
11) TM 1,4-Dichlorobenzene	22.66	4387694	21.685 UG/L
12) TM 1,2-Dichlorobenzene	23.30	3544505	21.987 UG/L

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

Data File : C:\HPCHEM\2\DATA\091801\12G09451.D Vial: 1
Acq On : 18 Sep 2001 15:34 Operator: CSH
Sample : WG104775-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	44.907	E3	5.3	98	-0.03
2	TM	Benzene	233.668	223.787	E3	4.2	99	-0.08
3	S	TFT	73.862	79.318	E3	-7.4	108	-0.09
4	TM	Toluene	210.972	211.461	E3	-0.2	102	-0.08
5	TM	Chlorobenzene	221.918	216.427	E3	2.5	101	-0.05
6	TM	Ethylbenzene	183.966	188.337	E3	-2.4	105	-0.05
7	TM	m-,p-Xylene	222.404	220.662	E3	0.8	103	-0.04
8	TM	o-Xylene	191.193	184.707	E3	3.4	99	-0.04
9	S	BFB	183.694	180.111	E3	2.0	99	-0.03
10	TM	1,3-Dichlorobenzene	200.629	188.074	E3	6.3	97	-0.02
11	TM	1,4-Dichlorobenzene	202.340	189.561	E3	6.3	98	-0.02
12	TM	1,2-Dichlorobenzene	161.206	147.799	E3	8.3	97	-0.01
13	S	BCB	191.420	170.470	E3	10.9	95	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09451.D 8021W.M Tue Sep 18 16:07:45 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09451.D Vial: 1
Acq On : 18 Sep 2001 15:34 Operator: CSH
Sample : WG104775-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

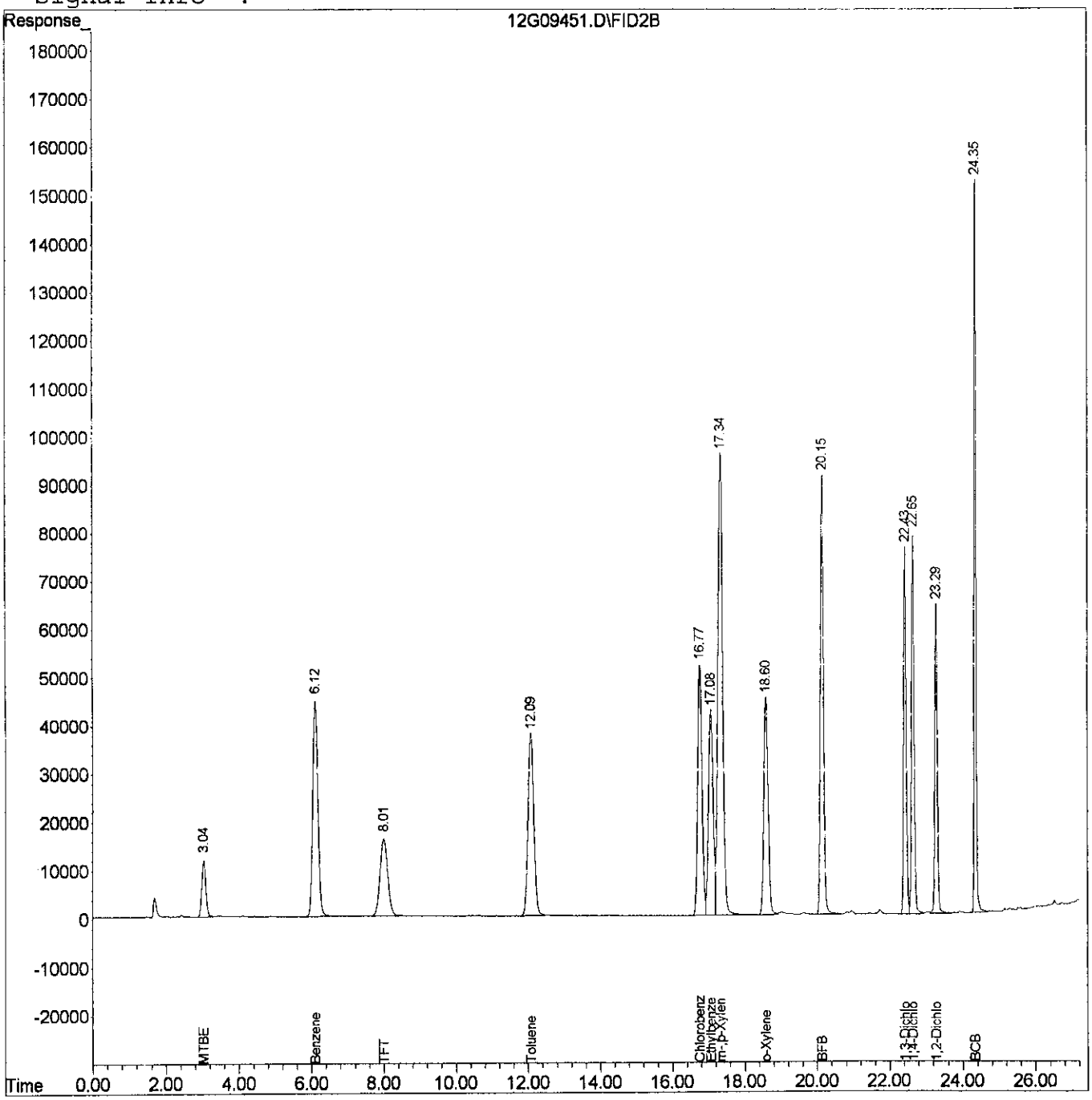
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.935	5.3	98	-0.03
2	TM	Benzene	20.000	19.154	4.2	99	-0.08
3	S	TFT	30.000	32.216	-7.4	108	-0.09
4	TM	Toluene	20.000	20.046	-0.2	102	-0.08
5	TM	Chlorobenzene	20.000	19.505	2.5	101	-0.05
6	TM	Ethylbenzene	20.000	20.475	-2.4	105	-0.05
7	TM	m-,p-Xylene	40.000	39.687	0.8	103	-0.04
8	TM	o-Xylene	20.000	19.322	3.4	99	-0.04
9	S	BFB	30.000	29.415	2.0	99	-0.03
10	TM	1,3-Dichlorobenzene	20.000	18.748	6.3	97	-0.02
11	TM	1,4-Dichlorobenzene	20.000	18.737	6.3	98	-0.02
12	TM	1,2-Dichlorobenzene	20.000	18.337	8.3	97	-0.01
13	S	BCB	30.000	26.717	10.9	95	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09451.D 8021W.M Tue Sep 18 16:07:44 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09451.D Vial: 1
Acq On : 18 Sep 2001 15:34 Operator: CSH
Sample : WG104775-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 16:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09451.D Vial: 1
Acq On : 18 Sep 2001 15:34 Operator: CSH
Sample : WG104775-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 16:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.01	2379554	32.216 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 107.39%			
9) S BFB	20.15	5403339	29.415 UG/L
Spiked Amount 30.000 Recovery = 98.05%			
13) S BCB	24.35	5114096	26.717 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 89.06%			
Target Compounds			
1) TM MTBE	3.04	898145	18.935 UG/L
2) TM Benzene	6.12	4475739	19.154 UG/L
4) TM Toluene	12.09	4229212	20.046 UG/L
5) TM Chlorobenzene	16.77	4328545	19.505 UG/L
6) TM Ethylbenzene	17.08	3766740	20.475 UG/L
7) TM m-,p-Xylene	17.34	8826465	39.687 UG/L
8) TM o-Xylene	18.60	3694130	19.322 UG/L
10) TM 1,3-Dichlorobenzene	22.43	3761476	18.748 UG/L
11) TM 1,4-Dichlorobenzene	22.65	3791223	18.737 UG/L
12) TM 1,2-Dichlorobenzene	23.29	2955984	18.337 UG/L

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

Data File : C:\HPCHEM\2\DATA\091801\12G09463.D Vial: 31
Acq On : 18 Sep 2001 22:08 Operator: CSH
Sample : WG104775-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	44.552	E3	6.1	97	-0.03
2	TM	Benzene	233.668	225.367	E3	3.6	100	-0.07
3	S	TFT	73.862	78.290	E3	-6.0	107	-0.08
4	TM	Toluene	210.972	210.990	E3	-0.0	102	-0.07
5	TM	Chlorobenzene	221.918	217.414	E3	2.0	102	-0.06
6	TM	Ethylbenzene	183.966	189.128	E3	-2.8	106	-0.05
7	TM	m-,p-Xylene	222.404	221.069	E3	0.6	103	-0.04
8	TM	o-Xylene	191.193	187.262	E3	2.1	101	-0.04
9	S	BFB	183.694	182.132	E3	0.9	100	-0.04
10	TM	1,3-Dichlorobenzene	200.629	193.798	E3	3.4	100	-0.03
11	TM	1,4-Dichlorobenzene	202.340	195.272	E3	3.5	100	-0.03
12	TM	1,2-Dichlorobenzene	161.206	163.199	E3	-1.2	107	-0.03
13	S	BCB	191.420	176.065	E3	8.0	98	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09463.D 8021W.M Wed Sep 19 07:39:14 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09463.D Vial: 31
Acq On : 18 Sep 2001 22:08 Operator: CSH
Sample : WG104775-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

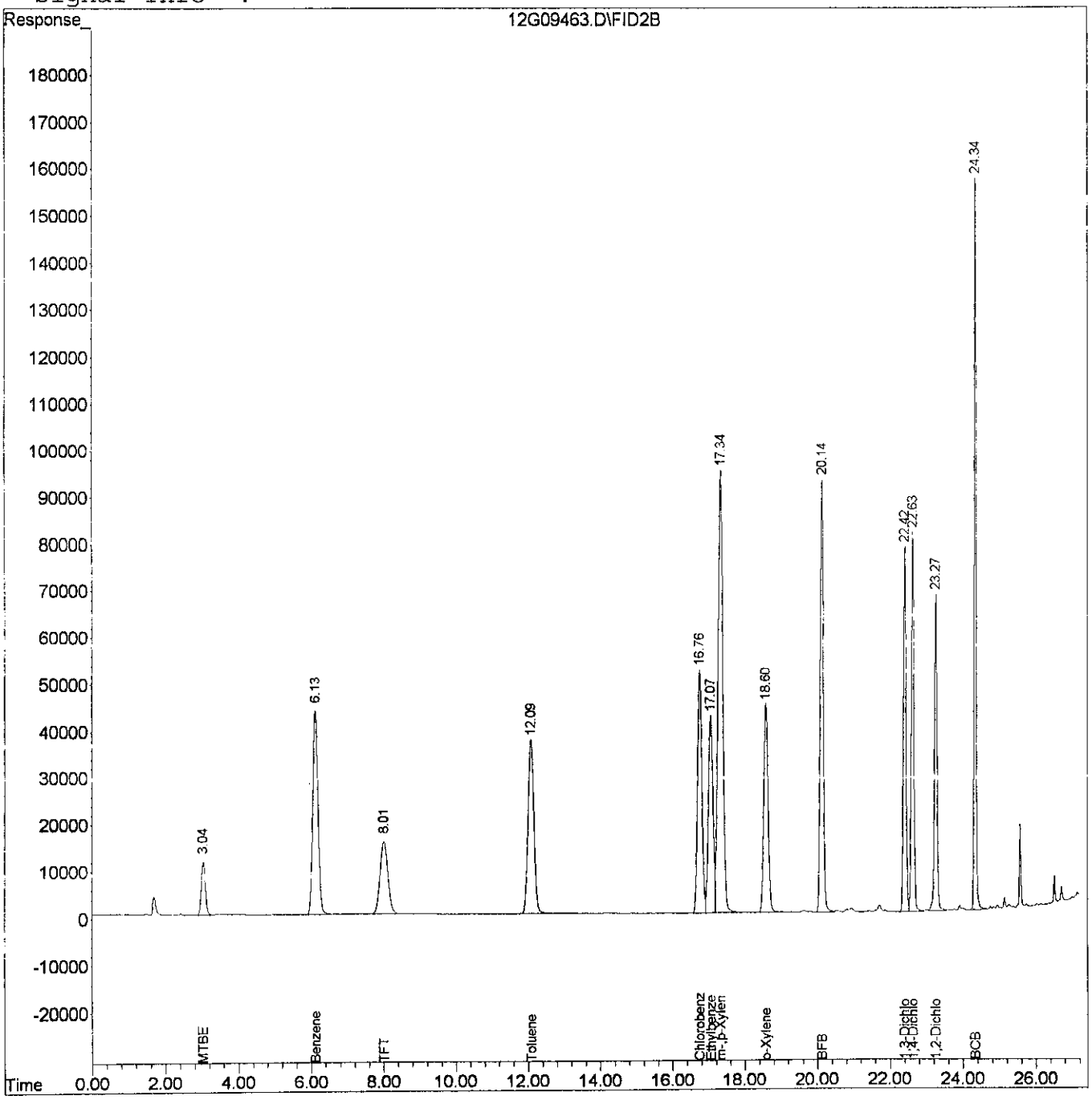
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.785	6.1	97	-0.03
2	TM	Benzene	20.000	19.290	3.6	100	-0.07
3	S	TFT	30.000	31.799	-6.0	107	-0.08
4	TM	Toluene	20.000	20.002	-0.0	102	-0.07
5	TM	Chlorobenzene	20.000	19.594	2.0	102	-0.06
6	TM	Ethylbenzene	20.000	20.561	-2.8	106	-0.05
7	TM	m-,p-Xylene	40.000	39.760	0.6	103	-0.04
8	TM	o-Xylene	20.000	19.589	2.1	101	-0.04
9	S	BFB	30.000	29.745	0.8	100	-0.04
10	TM	1,3-Dichlorobenzene	20.000	19.319	3.4	100	-0.03
11	TM	1,4-Dichlorobenzene	20.000	19.301	3.5	100	-0.03
12	TM	1,2-Dichlorobenzene	20.000	20.247	-1.2	107	-0.03
13	S	BCB	30.000	27.593	8.0	98	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09463.D 8021W.M Wed Sep 19 07:39:16 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09463.D Vial: 31
Acq On : 18 Sep 2001 22:08 Operator: CSH
Sample : WG104775-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 22:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09463.D Vial: 31
Acq On : 18 Sep 2001 22:08 Operator: CSH
Sample : WG104775-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 22:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.02	2348700	31.799 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.00%			
9) S BFB	20.14	5463948	29.745 UG/L
Spiked Amount 30.000 Recovery = 99.15%			
13) S BCB	24.34	5281943	27.593 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 91.98%			
Target Compounds			
1) TM MTBE	3.04	891046	18.785 UG/L
2) TM Benzene	6.13	4507347	19.290 UG/L
4) TM Toluene	12.09	4219808	20.002 UG/L
5) TM Chlorobenzene	16.76	4348284	19.594 UG/L
6) TM Ethylbenzene	17.07	3782563	20.561 UG/L
7) TM m-,p-Xylene	17.34	8842740	39.760 UG/L
8) TM o-Xylene	18.60	3745230	19.589 UG/L
10) TM 1,3-Dichlorobenzene	22.42	3875952	19.319 UG/L
11) TM 1,4-Dichlorobenzene	22.64	3905432	19.301 UG/L
12) TM 1,2-Dichlorobenzene	23.27	3263978	20.247 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09463.D 8021W.M Tue Sep 18 22:35:35 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09466.D Vial: 1
Acq On : 18 Sep 2001 23:44 Operator: CSH
Sample : WG104775-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	42.935	E3	9.5	93	-0.03
2	TM	Benzene	233.668	218.920	E3	6.3	97	-0.08
3	S	TFT	73.862	72.726	E3	1.5	99	-0.10
4	TM	Toluene	210.972	211.101	E3	-0.1	102	-0.09
5	TM	Chlorobenzene	221.918	212.121	E3	4.4	99	-0.08
6	TM	Ethylbenzene	183.966	183.298	E3	0.4	103	-0.08
7	TM	m-,p-Xylene	222.404	215.445	E3	3.1	100	-0.07
8	TM	o-Xylene	191.193	182.819	E3	4.4	98	-0.07
9	S	BFB	183.694	174.454	E3	5.0	96	-0.05
10	TM	1,3-Dichlorobenzene	200.629	188.297	E3	6.1	97	-0.04
11	TM	1,4-Dichlorobenzene	202.340	188.759	E3	6.7	97	-0.04
12	TM	1,2-Dichlorobenzene	161.206	152.566	E3	5.4	100	-0.04
13	S	BCB	191.420	167.296	E3	12.6	93	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09466.D 8021W.M Wed Sep 19 07:39:25 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09466.D
Acq On : 18 Sep 2001 23:44
Sample : WG104775-04 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e

Vial: 1
Operator: CSH
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

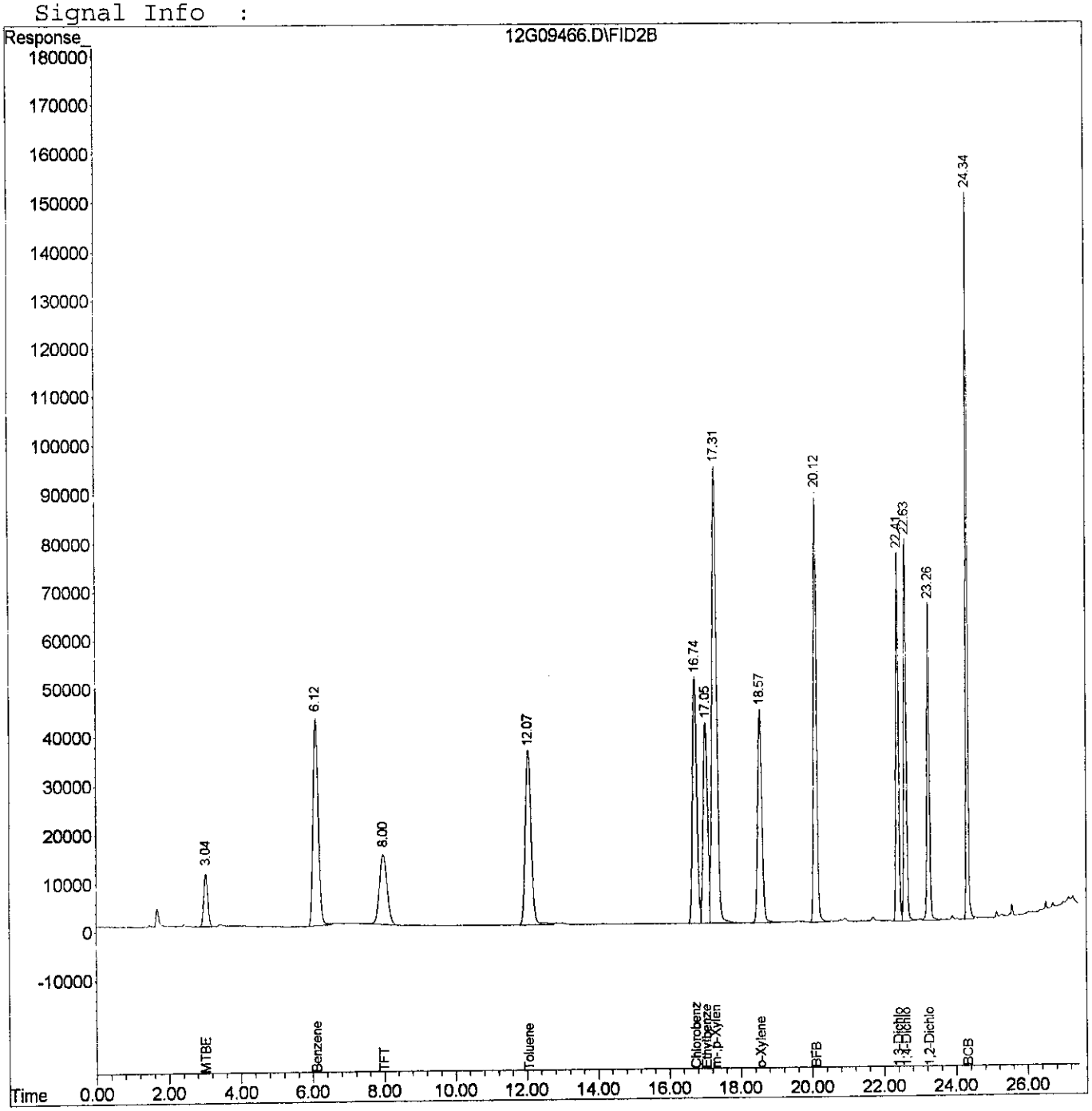
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.103	9.5	93	-0.03
2	TM	Benzene	20.000	18.738	6.3	97	-0.08
3	S	TFT	30.000	29.539	1.5	99	-0.10
4	TM	Toluene	20.000	20.012	-0.1	102	-0.09
5	TM	Chlorobenzene	20.000	19.117	4.4	99	-0.08
6	TM	Ethylbenzene	20.000	19.927	0.4	103	-0.08
7	TM	m-,p-Xylene	40.000	38.748	3.1	100	-0.07
8	TM	o-Xylene	20.000	19.124	4.4	98	-0.07
9	S	BFB	30.000	28.491	5.0	96	-0.05
10	TM	1,3-Dichlorobenzene	20.000	18.771	6.1	97	-0.04
11	TM	1,4-Dichlorobenzene	20.000	18.658	6.7	97	-0.04
12	TM	1,2-Dichlorobenzene	20.000	18.928	5.4	100	-0.04
13	S	BCB	30.000	26.219	12.6	93	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09466.D 8021W.M Wed Sep 19 07:39:23 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09466.D Vial: 1
Acq On : 18 Sep 2001 23:44 Operator: CSH
Sample : WG104775-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 0:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\[illegible]

Acq On : 18 Sep 2001 23:44 Operator: CSH
Sample : WG104775-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 0:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.00	2181770	29.539 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	98.46%
9) S BFB	20.12	5233629	28.491 UG/L
Spiked Amount 30.000		Recovery =	94.97%
13) S BCB	24.34	5018883	26.219 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	87.40%
Target Compounds			
1) TM MTBE	3.04	858706	18.103 UG/L
2) TM Benzene	6.12	4378402	18.738 UG/L
4) TM Toluene	12.07	4222019	20.012 UG/L
5) TM Chlorobenzene	16.74	4242419	19.117 UG/L
6) TM Ethylbenzene	17.05	3665955	19.927 UG/L
7) TM m-,p-Xylene	17.31	8617795	38.748 UG/L
8) TM o-Xylene	18.57	3656386	19.124 UG/L
10) TM 1,3-Dichlorobenzene	22.41	3765946	18.771 UG/L
11) TM 1,4-Dichlorobenzene	22.63	3775171	18.658 UG/L
12) TM 1,2-Dichlorobenzene	23.27	3051328	18.928 UG/L

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

Data File : C:\HPCHEM\2\DATA\091901\12G09467.D
Acq On : 19 Sep 2001 7:34
Sample : WG104846-01 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	45.369	E3	4.4	99	-0.05
2	TM	Benzene	233.668	230.112	E3	1.5	102	-0.11
3	S	TFT	73.862	78.949	E3	-6.9	108	-0.13
4	TM	Toluene	210.972	217.847	E3	-3.3	105	-0.12
5	TM	Chlorobenzene	221.918	223.528	E3	-0.7	105	-0.10
6	TM	Ethylbenzene	183.966	194.847	E3	-5.9	109	-0.09
7	TM	m-,p-Xylene	222.404	229.068	E3	-3.0	107	-0.09
8	TM	o-Xylene	191.193	191.696	E3	-0.3	103	-0.08
9	S	BFB	183.694	182.150	E3	0.8	100	-0.06
10	TM	1,3-Dichlorobenzene	200.629	200.956	E3	-0.2	104	-0.05
11	TM	1,4-Dichlorobenzene	202.340	202.833	E3	-0.2	104	-0.05
12	TM	1,2-Dichlorobenzene	161.206	159.286	E3	1.2	105	-0.04
13	S	BCB	191.420	178.987	E3	6.5	100	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09467.D 8021W.M Wed Sep 19 10:03:39 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09467.D
Acq On : 19 Sep 2001 7:34
Sample : WG104846-01 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

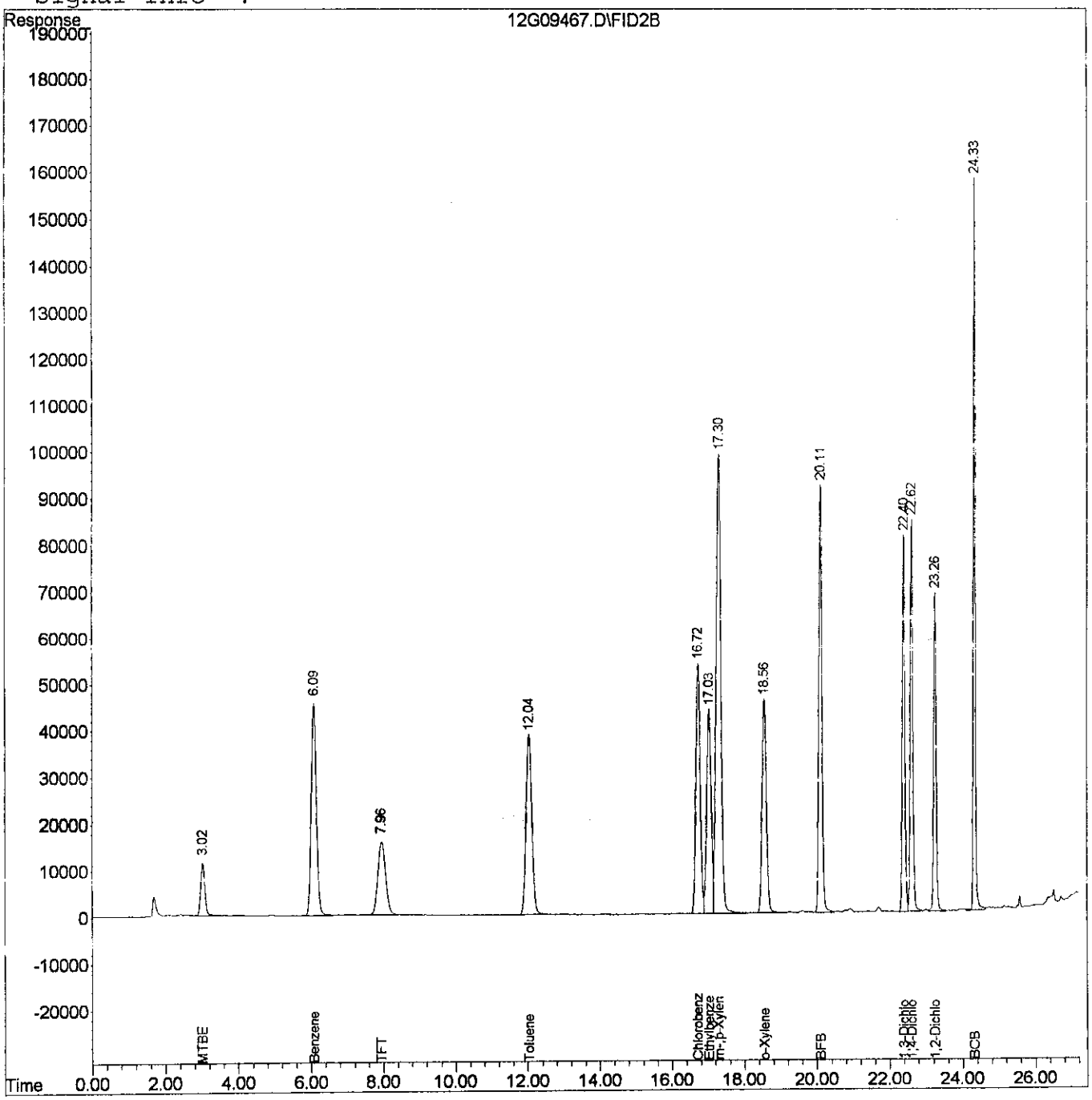
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.130	4.4	99	-0.05
2	TM	Benzene	20.000	19.696	1.5	102	-0.11
3	S	TFT	30.000	32.066	-6.9	108	-0.13
4	TM	Toluene	20.000	20.652	-3.3	105	-0.12
5	TM	Chlorobenzene	20.000	20.145	-0.7	105	-0.10
6	TM	Ethylbenzene	20.000	21.183	-5.9	109	-0.09
7	TM	m-,p-Xylene	40.000	41.199	-3.0	107	-0.09
8	TM	o-Xylene	20.000	20.053	-0.3	103	-0.08
9	S	BFB	30.000	29.748	0.8	100	-0.06
10	TM	1,3-Dichlorobenzene	20.000	20.033	-0.2	104	-0.05
11	TM	1,4-Dichlorobenzene	20.000	20.049	-0.2	104	-0.05
12	TM	1,2-Dichlorobenzene	20.000	19.762	1.2	105	-0.04
13	S	BCB	30.000	28.051	6.5	100	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09467.D 8021W.M Wed Sep 19 10:03:41 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09467.D Vial: 1
Acq On : 19 Sep 2001 7:34 Operator: CBN
Sample : WG104846-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 8:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09467.D Vial: 1
Acq On : 19 Sep 2001 7:34 Operator: CBN
Sample : WG104846-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 8:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	7.96	2368455	32.066 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	106.89%
9) S BFB	20.11	5464489	29.748 UG/L
Spiked Amount 30.000		Recovery =	99.16%
13) S BCB	24.34	5369598	28.051 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	93.50%
Target Compounds			
1) TM MTBE	3.02	907379	19.130 UG/L
2) TM Benzene	6.09	4602234	19.696 UG/L
4) TM Toluene	12.04	4356943	20.652 UG/L
5) TM Chlorobenzene	16.73	4470566	20.145 UG/L
6) TM Ethylbenzene	17.03	3896934	21.183 UG/L
7) TM m-,p-Xylene	17.30	9162734	41.199 UG/L
8) TM o-Xylene	18.56	3833917	20.053 UG/L
10) TM 1,3-Dichlorobenzene	22.40	4019120	20.033 UG/L
11) TM 1,4-Dichlorobenzene	22.62	4056662	20.049 UG/L
12) TM 1,2-Dichlorobenzene	23.26	3185722	19.762 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09467.D 8021W.M Wed Sep 19 08:02:15 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09478.D Vial: 1
Acq On : 19 Sep 2001 13:34 Operator: CBN
Sample : WG104846-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	43.308	E3	8.7	94	-0.03
2	TM	Benzene	233.668	228.296	E3	2.3	101	-0.07
3	S	TFT	73.862	81.398	E3	-10.2	111	-0.07
4	TM	Toluene	210.972	214.117	E3	-1.5	103	-0.06
5	TM	Chlorobenzene	221.918	216.908	E3	2.3	101	-0.06
6	TM	Ethylbenzene	183.966	188.282	E3	-2.3	105	-0.05
7	TM	m-,p-Xylene	222.404	221.835	E3	0.3	103	-0.05
8	TM	o-Xylene	191.193	186.123	E3	2.7	100	-0.05
9	S	BFB	183.694	182.943	E3	0.4	101	-0.04
10	TM	1,3-Dichlorobenzene	200.629	192.229	E3	4.2	100	-0.04
11	TM	1,4-Dichlorobenzene	202.340	193.311	E3	4.5	99	-0.04
12	TM	1,2-Dichlorobenzene	161.206	151.534	E3	6.0	100	-0.03
13	S	BCB	191.420	173.751	E3	9.2	97	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09478.D 8021W.M Wed Sep 19 14:03:48 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09478.D Vial: 1
Acq On : 19 Sep 2001 13:34 Operator: CBN
Sample : WG104846-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

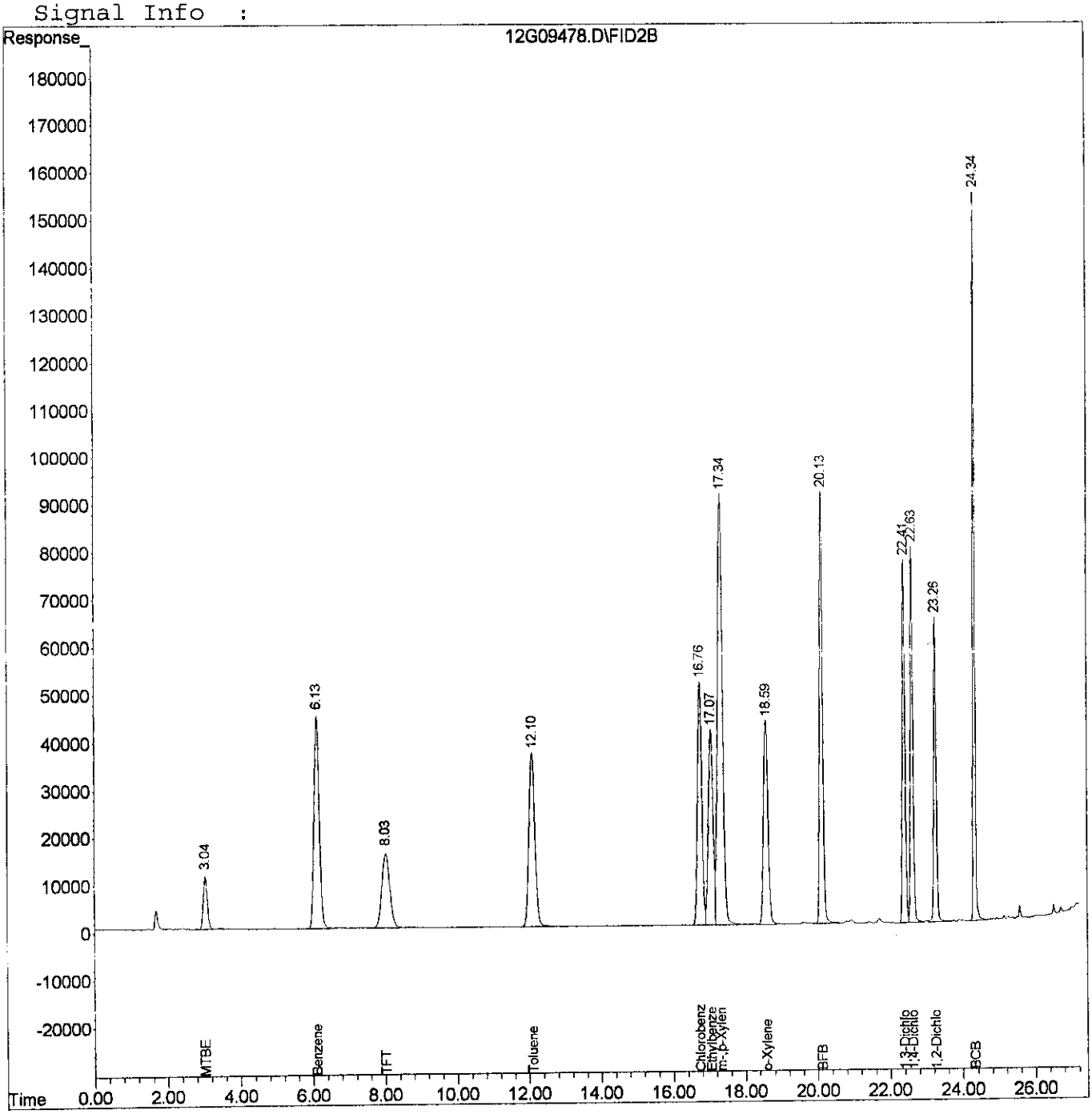
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.261	8.7	94	-0.03
2	TM	Benzene	20.000	19.540	2.3	101	-0.07
3	S	TFT	30.000	33.061	-10.2	111	-0.07
4	TM	Toluene	20.000	20.298	-1.5	103	-0.06
5	TM	Chlorobenzene	20.000	19.549	2.3	101	-0.06
6	TM	Ethylbenzene	20.000	20.469	-2.3	105	-0.05
7	TM	m-,p-Xylene	40.000	39.898	0.3	103	-0.05
8	TM	o-Xylene	20.000	19.470	2.7	100	-0.05
9	S	BFB	30.000	29.877	0.4	101	-0.04
10	TM	1,3-Dichlorobenzene	20.000	19.163	4.2	100	-0.04
11	TM	1,4-Dichlorobenzene	20.000	19.107	4.5	99	-0.04
12	TM	1,2-Dichlorobenzene	20.000	18.800	6.0	100	-0.03
13	S	BCB	30.000	27.231	9.2	97	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09478.D 8021W.M Wed Sep 19 14:03:49 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09478.D Vial: 1
Acq On : 19 Sep 2001 13:34 Operator: CBN
Sample : WG104846-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 14:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09478.D
Acq On : 19 Sep 2001 13:34
Sample : WG104846-02 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 19 14:02 2001 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.03	2441928	33.061 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 110.20%			
9) S BFB	20.13	5488304	29.877 UG/L
Spiked Amount 30.000 Recovery = 99.59%			
13) S BCB	24.34	5212536	27.231 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 90.77%			
Target Compounds			
1) TM MTBE	3.04	866164	18.261 UG/L
2) TM Benzene	6.13	4565923	19.540 UG/L
4) TM Toluene	12.10	4282344	20.298 UG/L
5) TM Chlorobenzene	16.76	4338166	19.549 UG/L
6) TM Ethylbenzene	17.07	3765633	20.469 UG/L
7) TM m-,p-Xylene	17.34	8873384	39.898 UG/L
8) TM o-Xylene	18.59	3722460	19.470 UG/L
10) TM 1,3-Dichlorobenzene	22.41	3844581	19.163 UG/L
11) TM 1,4-Dichlorobenzene	22.63	3866215	19.107 UG/L
12) TM 1,2-Dichlorobenzene	23.27	3030681	18.800 UG/L

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

Data File : C:\HPCHEM\2\DATA\091901\12G09490.D
Acq On : 19 Sep 2001 20:28
Sample : WG104846-03 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	42.540	E3	10.3	93	-0.03
2	TM	Benzene	233.668	227.265	E3	2.7	101	-0.07
3	S	TFT	73.862	79.101	E3	-7.1	108	-0.09
4	TM	Toluene	210.972	218.929	E3	-3.8	106	-0.08
5	TM	Chlorobenzene	221.918	220.353	E3	0.7	103	-0.07
6	TM	Ethylbenzene	183.966	192.034	E3	-4.4	108	-0.07
7	TM	m-,p-Xylene	222.404	226.274	E3	-1.7	105	-0.07
8	TM	o-Xylene	191.193	191.361	E3	-0.1	103	-0.06
9	S	BFB	183.694	183.534	E3	0.1	101	-0.05
10	TM	1,3-Dichlorobenzene	200.629	195.162	E3	2.7	101	-0.04
11	TM	1,4-Dichlorobenzene	202.340	196.531	E3	2.9	101	-0.04
12	TM	1,2-Dichlorobenzene	161.206	162.948	E3	-1.1	107	-0.04
13	S	BCB	191.420	174.110	E3	9.0	97	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09490.D 8021W.M Thu Sep 20 07:14:08 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09490.D
Acq On : 19 Sep 2001 20:28
Sample : WG104846-03 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	17.937	10.3	93	-0.03
2	TM	Benzene	20.000	19.452	2.7	101	-0.07
3	S	TFT	30.000	32.128	-7.1	108	-0.09
4	TM	Toluene	20.000	20.754	-3.8	106	-0.08
5	TM	Chlorobenzene	20.000	19.859	0.7	103	-0.07
6	TM	Ethylbenzene	20.000	20.877	-4.4	108	-0.07
7	TM	m-,p-Xylene	40.000	40.696	-1.7	105	-0.07
8	TM	o-Xylene	20.000	20.018	-0.1	103	-0.06
9	S	BFB	30.000	29.974	0.1	101	-0.05
10	TM	1,3-Dichlorobenzene	20.000	19.455	2.7	101	-0.04
11	TM	1,4-Dichlorobenzene	20.000	19.426	2.9	101	-0.04
12	TM	1,2-Dichlorobenzene	20.000	20.216	-1.1	107	-0.04
13	S	BCB	30.000	27.287	9.0	97	-0.03

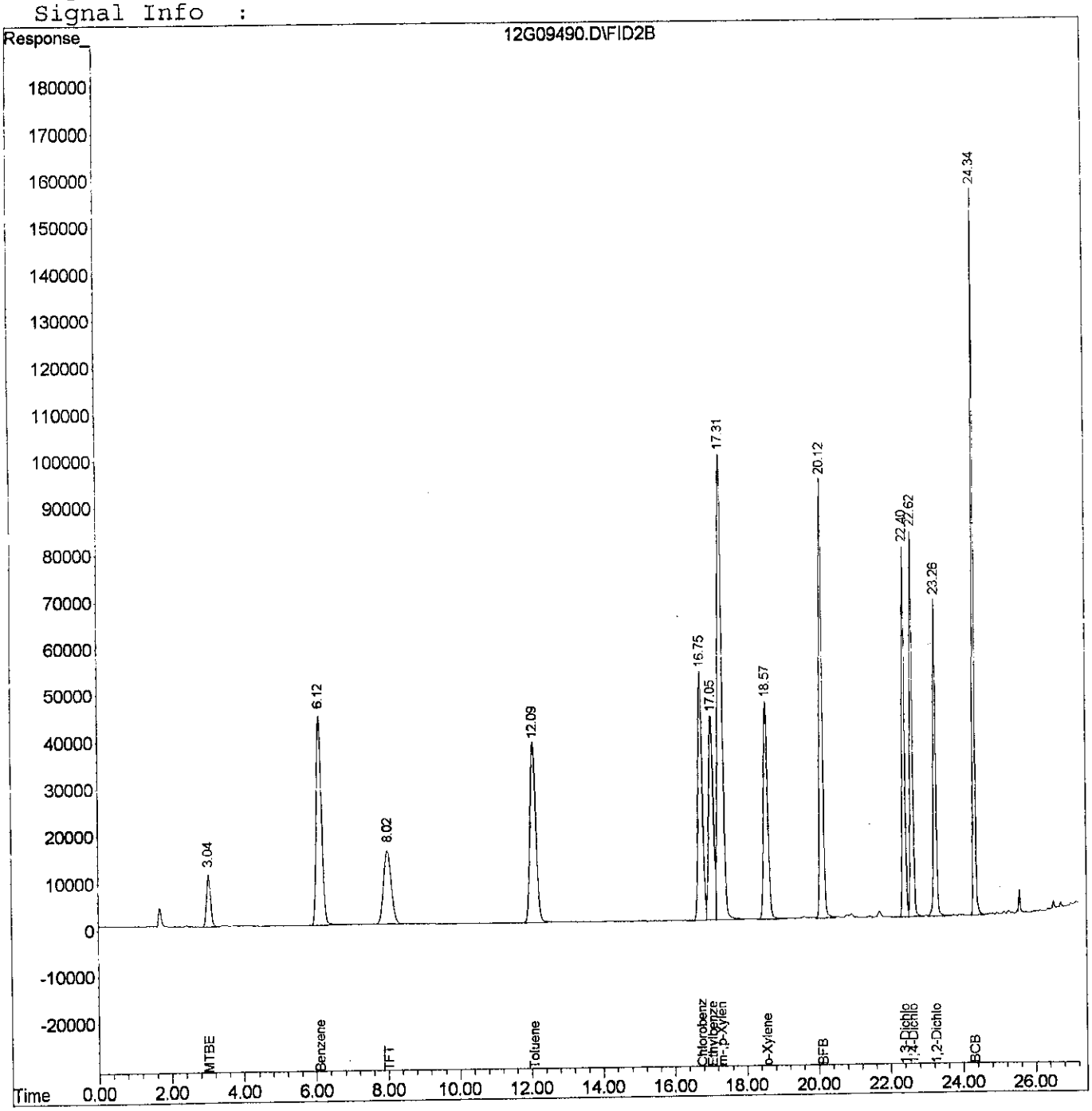
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09490.D 8021W.M Thu Sep 20 07:14:07 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09490.D
Acq On : 19 Sep 2001 20:28
Sample : WG104846-03 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 19 20:56 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G09490.D 8021W.M Wed Sep 19 20:56:15 2001

Data File : C:\HPCHEM\2\DATA\091901\12G09490.D
Acq On : 19 Sep 2001 20:28
Sample : WG104846-03 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 19 20:56 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.01	2373045	32.128 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	107.09%
9) S BFB	20.12	5506024	29.974 UG/L
Spiked Amount 30.000		Recovery =	99.91%
13) S BCB	24.34	5223300	27.287 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	90.96%
Target Compounds			
1) TM MTBE	3.04	850791	17.937 UG/L
2) TM Benzene	6.12	4545303	19.452 UG/L
4) TM Toluene	12.08	4378579	20.754 UG/L
5) TM Chlorobenzene	16.75	4407064	19.859 UG/L
6) TM Ethylbenzene	17.06	3840675	20.877 UG/L
7) TM m-,p-Xylene	17.32	9050950	40.696 UG/L
8) TM o-Xylene	18.58	3827221	20.018 UG/L
10) TM 1,3-Dichlorobenzene	22.41	3903247	19.455 UG/L
11) TM 1,4-Dichlorobenzene	22.62	3930629	19.426 UG/L
12) TM 1,2-Dichlorobenzene	23.26	3258951	20.216 UG/L

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

Data File : C:\HPCHEM\2\DATA\092101\12G09518.D Vial: 1
Acq On : 21 Sep 2001 10:04 Operator: JLS
Sample : WG105047-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	51.904	E3	-9.4	113	-0.01
2	TM	Benzene	233.668	237.560	E3	-1.7	105	-0.04
3	S	TFT	73.862	82.074	E3	-11.1	112	-0.03
4	TM	Toluene	210.972	227.387	E3	-7.8	110	-0.01
5	TM	Chlorobenzene	221.918	231.752	E3	-4.4	108	0.00
6	TM	Ethylbenzene	183.966	201.003	E3	-9.3	113	0.00
7	TM	m-,p-Xylene	222.404	236.515	E3	-6.3	110	0.00
8	TM	o-Xylene	191.193	198.862	E3	-4.0	107	0.01
9	S	BFB	183.694	192.880	E3	-5.0	106	0.00
10	TM	1,3-Dichlorobenzene	200.629	211.515	E3	-5.4	109	0.01
11	TM	1,4-Dichlorobenzene	202.340	214.780	E3	-6.1	110	0.01
12	TM	1,2-Dichlorobenzene	161.206	170.381	E3	-5.7	112	0.01
13	S	BCB	191.420	190.020	E3	0.7	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09518.D 8021W.M Fri Sep 21 10:51:15 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09518.D Vial: 1
Acq On : 21 Sep 2001 10:04 Operator: JLS
Sample : WG105047-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

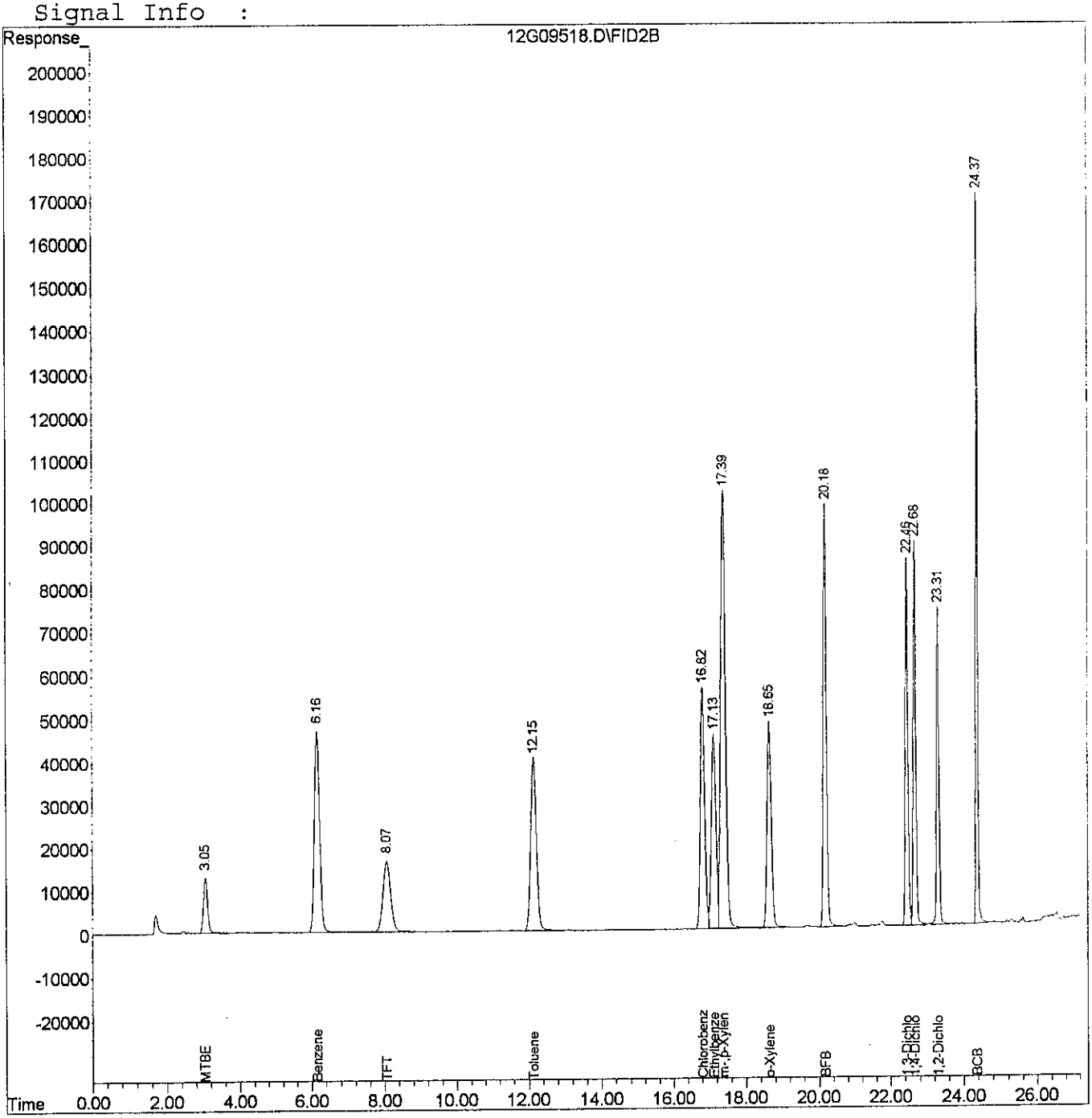
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.885	-9.4	113	-0.01
2	TM	Benzene	20.000	20.333	-1.7	105	-0.04
3	S	TFT	30.000	33.336	-11.1	112	-0.03
4	TM	Toluene	20.000	21.556	-7.8	110	-0.01
5	TM	Chlorobenzene	20.000	20.886	-4.4	108	0.00
6	TM	Ethylbenzene	20.000	21.852	-9.3	113	0.00
7	TM	m-,p-Xylene	40.000	42.538	-6.3	110	0.00
8	TM	o-Xylene	20.000	20.802	-4.0	107	0.01
9	S	BFB	30.000	31.500	-5.0	106	0.00
10	TM	1,3-Dichlorobenzene	20.000	21.085	-5.4	109	0.01
11	TM	1,4-Dichlorobenzene	20.000	21.230	-6.2	110	0.01
12	TM	1,2-Dichlorobenzene	20.000	21.138	-5.7	112	0.01
13	S	BCB	30.000	29.781	0.7	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09518.D 8021W.M Fri Sep 21 10:51:18 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09518.D
Acq On : 21 Sep 2001 10:04 Operator: JLS
Sample : WG105047-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G09518.D 8021W.M Fri Sep 21 10:31:35 2001 Page 2

Data File : C:\HPCHEM\2\DATA\092101\12G09518.D Vial: 1
Acq On : 21 Sep 2001 10:04 Operator: JLS
Sample : WG105047-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.07	2462222	33.336 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 111.12%			
9) S BFB	20.18	5786413	31.500 UG/L
Spiked Amount 30.000 Recovery = 105.00%			
13) S BCB	24.37	5700600	29.781 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 99.27%			
Target Compounds			
1) TM MTBE	3.06	1038075	21.885 UG/L
2) TM Benzene	6.16	4751198	20.333 UG/L
4) TM Toluene	12.15	4547746	21.556 UG/L
5) TM Chlorobenzene	16.82	4635039	20.886 UG/L
6) TM Ethylbenzene	17.13	4020058	21.852 UG/L
7) TM m-,p-Xylene	17.39	9460592	42.538 UG/L
8) TM o-Xylene	18.65	3977235	20.802 UG/L
10) TM 1,3-Dichlorobenzene	22.46	4230304	21.085 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4295604	21.230 UG/L
12) TM 1,2-Dichlorobenzene	23.31	3407620	21.138 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09518.D 8021W.M Fri Sep 21 10:31:35 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09529.D

Acq On : 21 Sep 2001 16:02 Operator: JLS
Sample : WG105047-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	48.749	E3	-2.8	106	0.00
2	TM	Benzene	233.668	253.499	E3	-8.5	112	0.00
3	S	TFT	73.862	84.672	E3	-14.6	115	0.02
4	TM	Toluene	210.972	241.693	E3	-14.6	117	0.02
5	TM	Chlorobenzene	221.918	245.707	E3	-10.7	115	0.03
6	TM	Ethylbenzene	183.966	211.236	E3	-14.8	118	0.03
7	TM	m-,p-Xylene	222.404	248.687	E3	-11.8	116	0.03
8	TM	o-Xylene	191.193	209.779	E3	-9.7	113	0.03
9	S	BFB	183.694	200.170	E3	-9.0	110	0.02
10	TM	1,3-Dichlorobenzene	200.629	222.956	E3	-11.1	115	0.03
11	TM	1,4-Dichlorobenzene	202.340	224.472	E3	-10.9	115	0.03
12	TM	1,2-Dichlorobenzene	161.206	178.889	E3	-11.0	118	0.03
13	S	BCB	191.420	193.096	E3	-0.9	108	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09529.D 8021W.M Fri Sep 21 16:42:16 2001 Page 1

Acq On : 21 Sep 2001 16:02 Operator: JLS
Sample : WG105047-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

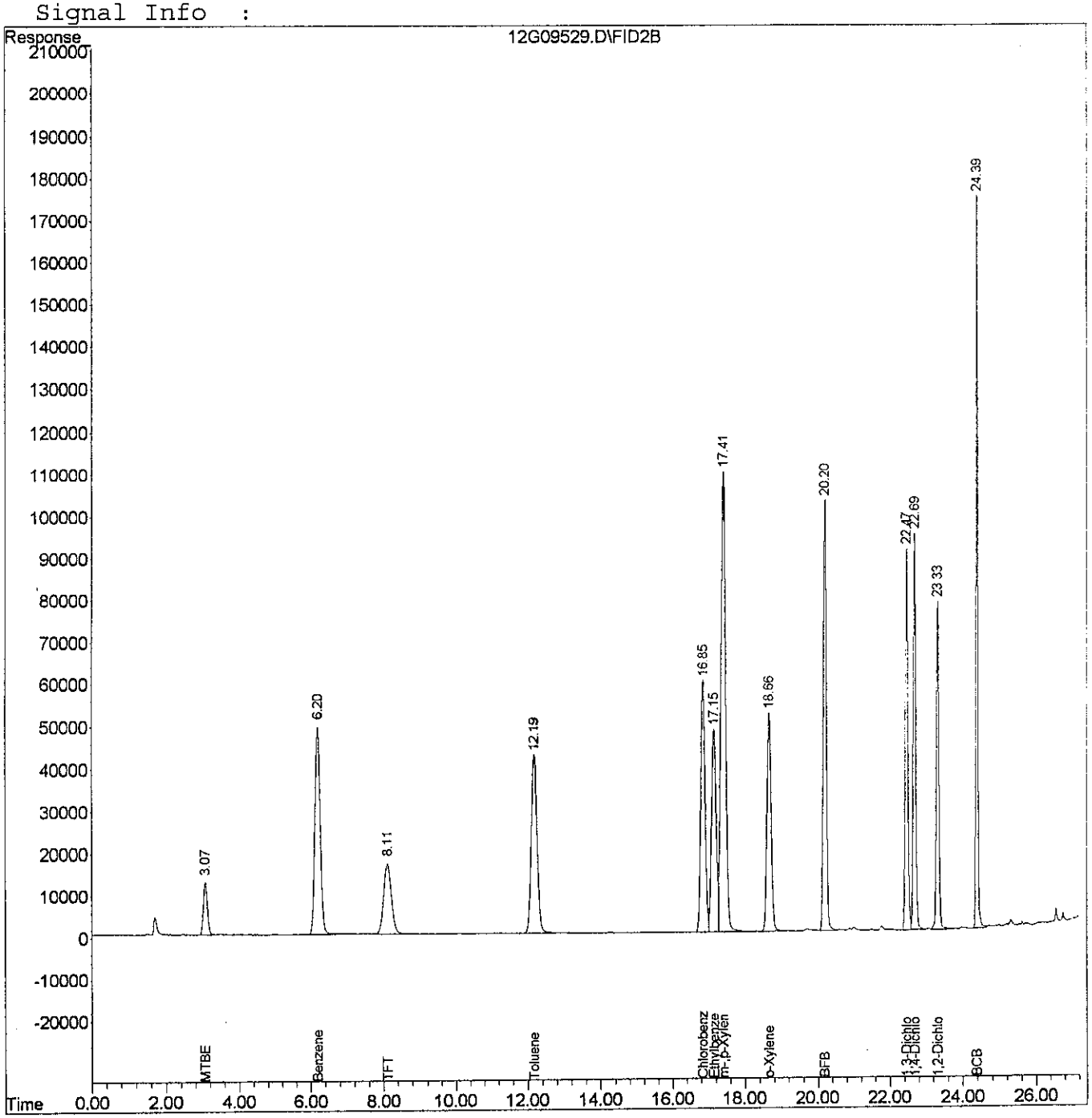
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.555	-2.8	106	0.00
2	TM	Benzene	20.000	21.697	-8.5	112	0.00
3	S	TFT	30.000	34.391	-14.6	115	0.02
4	TM	Toluene	20.000	22.912	-14.6	117	0.02
5	TM	Chlorobenzene	20.000	22.144	-10.7	115	0.03
6	TM	Ethylbenzene	20.000	22.965	-14.8	118	0.03
7	TM	m-,p-Xylene	40.000	44.727	-11.8	116	0.03
8	TM	o-Xylene	20.000	21.944	-9.7	113	0.03
9	S	BFB	30.000	32.691	-9.0	110	0.02
10	TM	1,3-Dichlorobenzene	20.000	22.226	-11.1	115	0.03
11	TM	1,4-Dichlorobenzene	20.000	22.188	-10.9	115	0.03
12	TM	1,2-Dichlorobenzene	20.000	22.194	-11.0	118	0.03
13	S	BCB	30.000	30.263	-0.9	108	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09529.D 8021W.M Fri Sep 21 16:42:08 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09529.D Vial: 25
Acq On : 21 Sep 2001 16:02 Operator: JLS
Sample : WG105047-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 16:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Acq On      : 21 Sep 2001  16:02                          Operator: JLS
Sample      : WG105047-02 8021 STD 20PPB 5ML              Inst    : HP12
Misc        : 1,1 S-83-(38,28)                            Multiplr: 1.00
IntFile     : autoint1.e
Quant Time: Sep 21 16:30 2001  Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title        : Method 8021B Water  09/10/01
Last Update  : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj.  :
Signal Phase :
Signal Info  :
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Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.11	2540165	34.391 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 114.64%	
9) S BFB	20.20	6005114	32.691 UG/L
Spiked Amount 30.000		Recovery = 108.97%	
13) S BCB	24.39	5792878	30.263 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 100.88%	
Target Compounds			
1) TM MTBE	3.07	974987	20.555 UG/L
2) TM Benzene	6.20	5069973	21.697 UG/L
4) TM Toluene	12.19	4833855	22.912 UG/L
5) TM Chlorobenzene	16.85	4914137	22.144 UG/L
6) TM Ethylbenzene	17.15	4224717	22.965 UG/L
7) TM m-,p-Xylene	17.41	9947473	44.727 UG/L
8) TM o-Xylene	18.66	4195585	21.944 UG/L
10) TM 1,3-Dichlorobenzene	22.47	4459113	22.226 UG/L
11) TM 1,4-Dichlorobenzene	22.69	4489439	22.188 UG/L
12) TM 1,2-Dichlorobenzene	23.33	3577782	22.194 UG/L

Acq On : 21 Sep 2001 22:08 Operator: JLS
Sample : WG105047-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	45.329 E3	4.4	99	0.00
2	TM	Benzene	233.668	231.410 E3	1.0	103	0.00
3	S	TFT	73.862	76.274 E3	-3.3	104	0.01
4	TM	Toluene	210.972	219.542 E3	-4.1	106	0.02
5	TM	Chlorobenzene	221.918	225.432 E3	-1.6	105	0.02
6	TM	Ethylbenzene	183.966	193.886 E3	-5.4	109	0.02
7	TM	m-,p-Xylene	222.404	226.972 E3	-2.1	106	0.02
8	TM	o-Xylene	191.193	193.077 E3	-1.0	104	0.02
9	S	BFB	183.694	182.265 E3	0.8	100	0.02
10	TM	1,3-Dichlorobenzene	200.629	200.460 E3	0.1	104	0.02
11	TM	1,4-Dichlorobenzene	202.340	201.355 E3	0.5	104	0.02
12	TM	1,2-Dichlorobenzene	161.206	159.408 E3	1.1	105	0.02
13	S	BCB	191.420	177.504 E3	7.3	99	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09540.D 8021W.M Mon Sep 24 09:23:29 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09540.D
Acq On : 21 Sep 2001 22:08
Sample : WG105047-03 8021 STD 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e

Operator: JLS
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

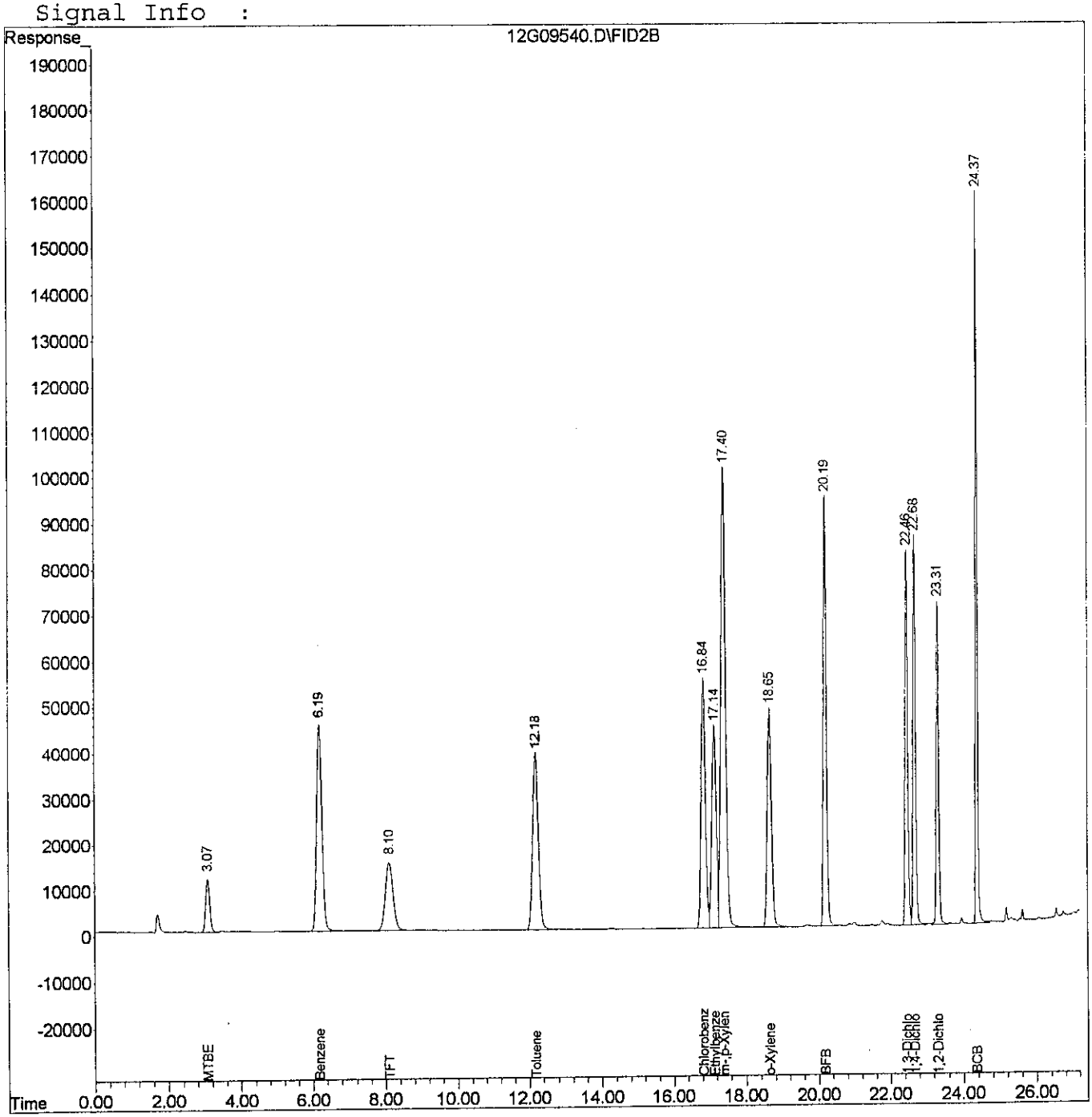
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.113	4.4	99	0.00
2	TM	Benzene	20.000	19.807	1.0	103	0.00
3	S	TFT	30.000	30.980	-3.3	104	0.01
4	TM	Toluene	20.000	20.812	-4.1	106	0.02
5	TM	Chlorobenzene	20.000	20.317	-1.6	105	0.02
6	TM	Ethylbenzene	20.000	21.078	-5.4	109	0.02
7	TM	m-,p-Xylene	40.000	40.822	-2.1	106	0.02
8	TM	o-Xylene	20.000	20.197	-1.0	104	0.02
9	S	BFB	30.000	29.767	0.8	100	0.02
10	TM	1,3-Dichlorobenzene	20.000	19.983	0.1	104	0.02
11	TM	1,4-Dichlorobenzene	20.000	19.903	0.5	104	0.02
12	TM	1,2-Dichlorobenzene	20.000	19.777	1.1	105	0.02
13	S	BCB	30.000	27.819	7.3	99	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09540.D 8021W.M Mon Sep 24 09:23:30 2001 Page 1

Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 21 Sep 2001 22:08 Operator: JLS
Sample : WG105047-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 22;35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Sep 2001 22:08 Operator: JLS
Sample : WG105047-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 22:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.11	2288217	30.980 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	103.27%
9) S BFB	20.19	5467938	29.767 UG/L
Spiked Amount 30.000		Recovery =	99.22%
13) S BCB	24.38	5325121	27.819 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	92.73%
Target Compounds			
1) TM MTBE	3.08	906578	19.113 UG/L
2) TM Benzene	6.19	4628210	19.807 UG/L
4) TM Toluene	12.19	4390833	20.812 UG/L
5) TM Chlorobenzene	16.84	4508637	20.317 UG/L
6) TM Ethylbenzene	17.14	3877726	21.078 UG/L
7) TM m-,p-Xylene	17.40	9078877	40.822 UG/L
8) TM o-Xylene	18.66	3861537	20.197 UG/L
10) TM 1,3-Dichlorobenzene	22.47	4009194	19.983 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4027109	19.903 UG/L
12) TM 1,2-Dichlorobenzene	23.32	3188151	19.777 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09540.D 8021W.M Fri Sep 21 22:35:54 2001 Page 1

Acq On : 21 Sep 2001 23:45 Operator: JLS
Sample : WG105047-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	47.433	44.722	E3	5.7	97	0.00
2	TM	Benzene	233.668	240.297	E3	-2.8	106	0.00
3	S	TFT	73.862	83.158	E3	-12.6	113	0.00
4	TM	Toluene	210.972	228.110	E3	-8.1	110	0.02
5	TM	Chlorobenzene	221.918	230.546	E3	-3.9	108	0.01
6	TM	Ethylbenzene	183.966	200.349	E3	-8.9	112	0.01
7	TM	m-,p-Xylene	222.404	233.785	E3	-5.1	109	0.02
8	TM	o-Xylene	191.193	198.012	E3	-3.6	107	0.01
9	S	BFB	183.694	189.933	E3	-3.4	104	0.01
10	TM	1,3-Dichlorobenzene	200.629	204.986	E3	-2.2	106	0.01
11	TM	1,4-Dichlorobenzene	202.340	204.796	E3	-1.2	105	0.01
12	TM	1,2-Dichlorobenzene	161.206	212.215	E3	-31.6#	140	0.00
13	S	BCB	191.420	183.498	E3	4.1	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09543.D 8021W.M Mon Sep 24 09:23:38 2001 Page 1

Acq On : 21 Sep 2001 23:45 Operator: JLS
Sample : WG105047-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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%

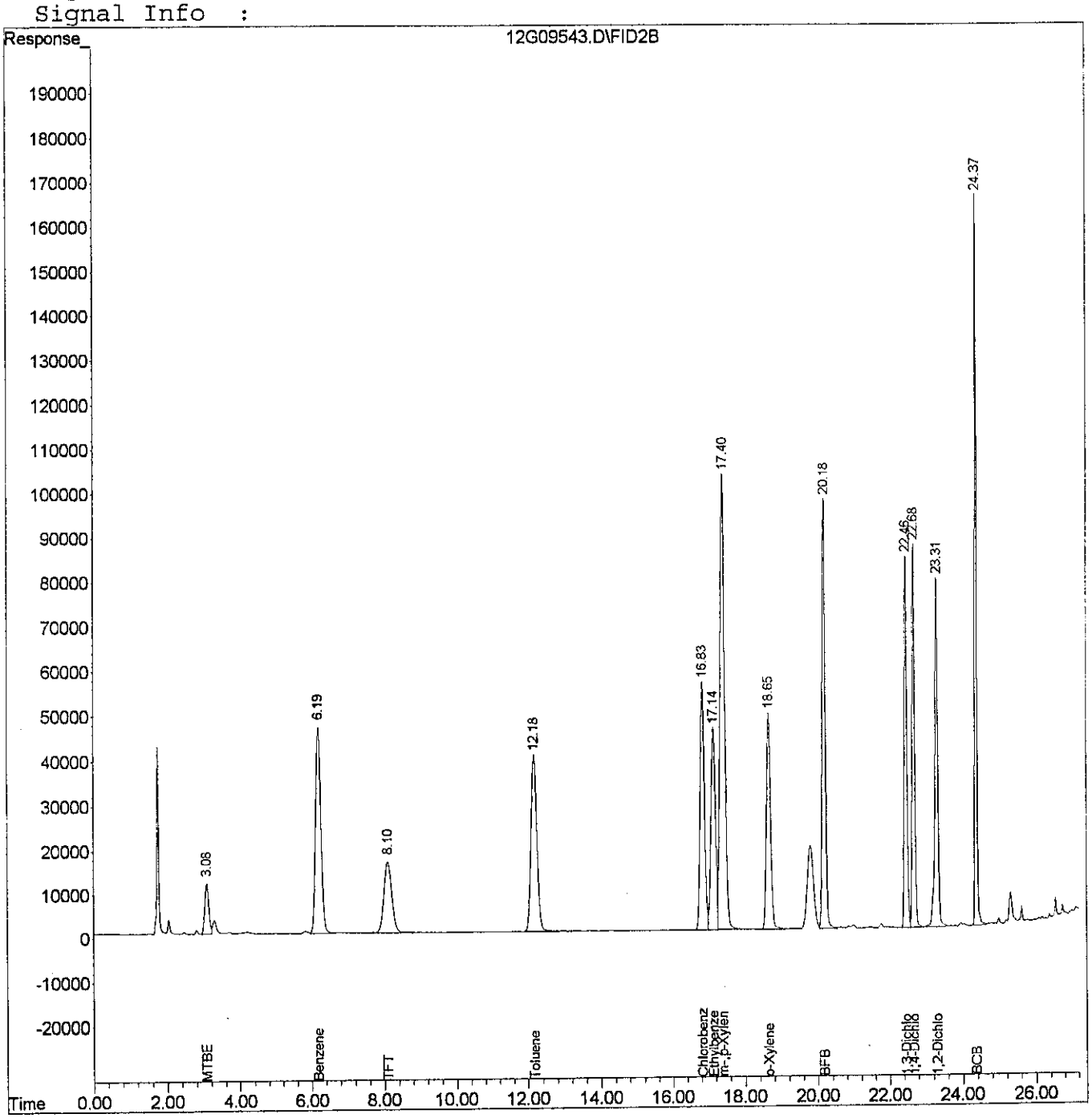
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.857	5.7	97	0.00
2	TM	Benzene	20.000	20.567	-2.8	106	0.00
3	S	TFT	30.000	33.776	-12.6	113	0.00
4	TM	Toluene	20.000	21.625	-8.1	110	0.02
5	TM	Chlorobenzene	20.000	20.778	-3.9	108	0.01
6	TM	Ethylbenzene	20.000	21.781	-8.9	112	0.01
7	TM	m-,p-Xylene	40.000	42.047	-5.1	109	0.02
8	TM	o-Xylene	20.000	20.713	-3.6	107	0.01
9	S	BFB	30.000	31.019	-3.4	104	0.01
10	TM	1,3-Dichlorobenzene	20.000	20.434	-2.2	106	0.01
11	TM	1,4-Dichlorobenzene	20.000	20.243	-1.2	105	0.01
12	TM	1,2-Dichlorobenzene	20.000	26.328	-31.6#	140	0.00
13	S	BCB	30.000	28.759	4.1	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09543.D 8021W.M Mon Sep 24 09:23:37 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09543.D Vial: 4
Acq On : 21 Sep 2001 23:45 Operator: JLS
Sample : WG105047-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 22 0:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



12G09543.D 8021W.M Sat Sep 22 00:12:29 2001 Page 2

Data File : C:\HPCHEM\2\DATA\[illegible]

Acq On : 21 Sep 2001 23:45 Operator: JLS
Sample : WG105047-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 22 0:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.10	2494730	33.776 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 112.59%	
9) S BFB	20.19	5697980	31.019 UG/L
Spiked Amount 30.000		Recovery = 103.40%	
13) S BCB	24.38	5504951	28.759 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 95.86%	
Target Compounds			
1) TM MTBE	3.08	894444	18.857 UG/L
2) TM Benzene	6.20	4805931	20.567 UG/L
4) TM Toluene	12.18	4562194	21.625 UG/L
5) TM Chlorobenzene	16.84	4610914	20.778 UG/L
6) TM Ethylbenzene	17.14	4006972	21.781 UG/L
7) TM m-,p-Xylene	17.40	9351380	42.047 UG/L
8) TM o-Xylene	18.65	3960245	20.713 UG/L
10) TM 1,3-Dichlorobenzene	22.46	4099721	20.434 UG/L
11) TM 1,4-Dichlorobenzene	22.68	4095927	20.243 UG/L
12) TM 1,2-Dichlorobenzene	23.31	4244304	26.328 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09543.D 8021W.M Sat Sep 22 00:12:29 2001 Page 1

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 18-Sep-01
Filename: 12G09451
Sub Directory: 091801
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.037	3.032	3.042
benzene	6.117	6.096	6.138
1,1,1-trifluorotoluene (SS)	8.005	7.975	8.035
toluene	12.087	12.058	12.116
chlorobenzene	16.770	16.753	16.787
ethylbenzene	17.077	17.058	17.096
m+p-xylene	17.341	17.309	17.373
o-xylene	18.601	18.580	18.622
bromofluorobenzene (SS)	20.149	20.135	20.163
1,3-dichlorobenzene	22.433	22.413	22.453
1,4-dichlorobenzene	22.651	22.631	22.671
1,2-dichlorobenzene	23.287	23.269	23.305

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 19-Sep-01
Filename: 12G09467
Sub Directory: 091901
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.024	3.019	3.029
benzene	6.087	6.066	6.108
1,1,1-trifluorotoluene (SS)	7.961	7.931	7.991
toluene	12.044	12.015	12.073
chlorobenzene	16.727	16.710	16.744
ethylbenzene	17.032	17.013	17.051
m+p-xylene	17.298	17.266	17.330
o-xylene	18.561	18.540	18.582
bromofluorobenzene (SS)	20.113	20.099	20.127
1,3-dichlorobenzene	22.402	22.382	22.422
1,4-dichlorobenzene	22.621	22.601	22.641
1,2-dichlorobenzene	23.259	23.241	23.277

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 21-Sep-01
Filename: 12G09518
Sub Directory: 092101
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.056	3.051	3.061
benzene	6.159	6.138	6.180
1,1,1-trifluorotoluene (SS)	8.068	8.038	8.098
toluene	12.148	12.119	12.177
chlorobenzene	16.820	16.803	16.837
ethylbenzene	17.127	17.108	17.146
m+p-xylene	17.394	17.362	17.426
o-xylene	18.647	18.626	18.668
bromofluorobenzene (SS)	20.183	20.169	20.197
1,3-dichlorobenzene	22.460	22.440	22.480
1,4-dichlorobenzene	22.677	22.657	22.697
1,2-dichlorobenzene	23.311	23.293	23.329

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

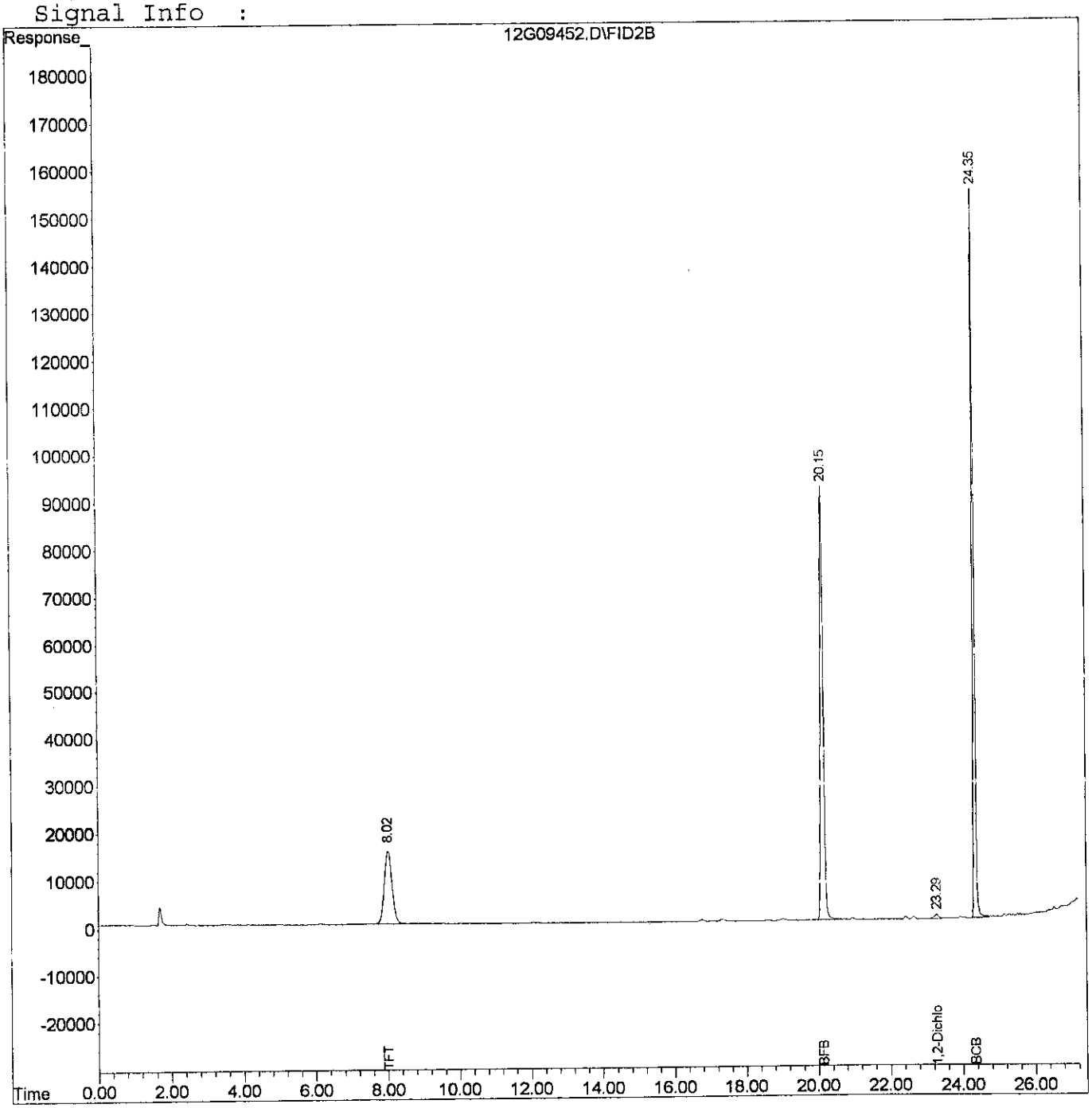
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\091801\12G09452.D Vial: 2
Acq On : 18 Sep 2001 16:06 Operator: CSH
Sample : WG104830-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 16:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09452.D
Acq On : 18 Sep 2001 16:06
Sample : WG104830-01 WATER BLANK 5ML
Misc : 1,1 S-83-28
IntFile : autoint1.e
Quant Time: Sep 18 16:33 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: CSH
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.03	2350615	31.824 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	106.08%
9) S BFB	20.15	5423401	29.524 UG/L
Spiked Amount 30.000		Recovery =	98.41%
13) S BCB	24.35	5174343	27.031 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	90.10%
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	16.78	35231	<MDL UG/L
6) TM Ethylbenzene	17.08	15527	<MDL UG/L
7) TM m-,p-Xylene	17.34	32905	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.44	31804	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.65	31364	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.29	82763	0.513 UG/L

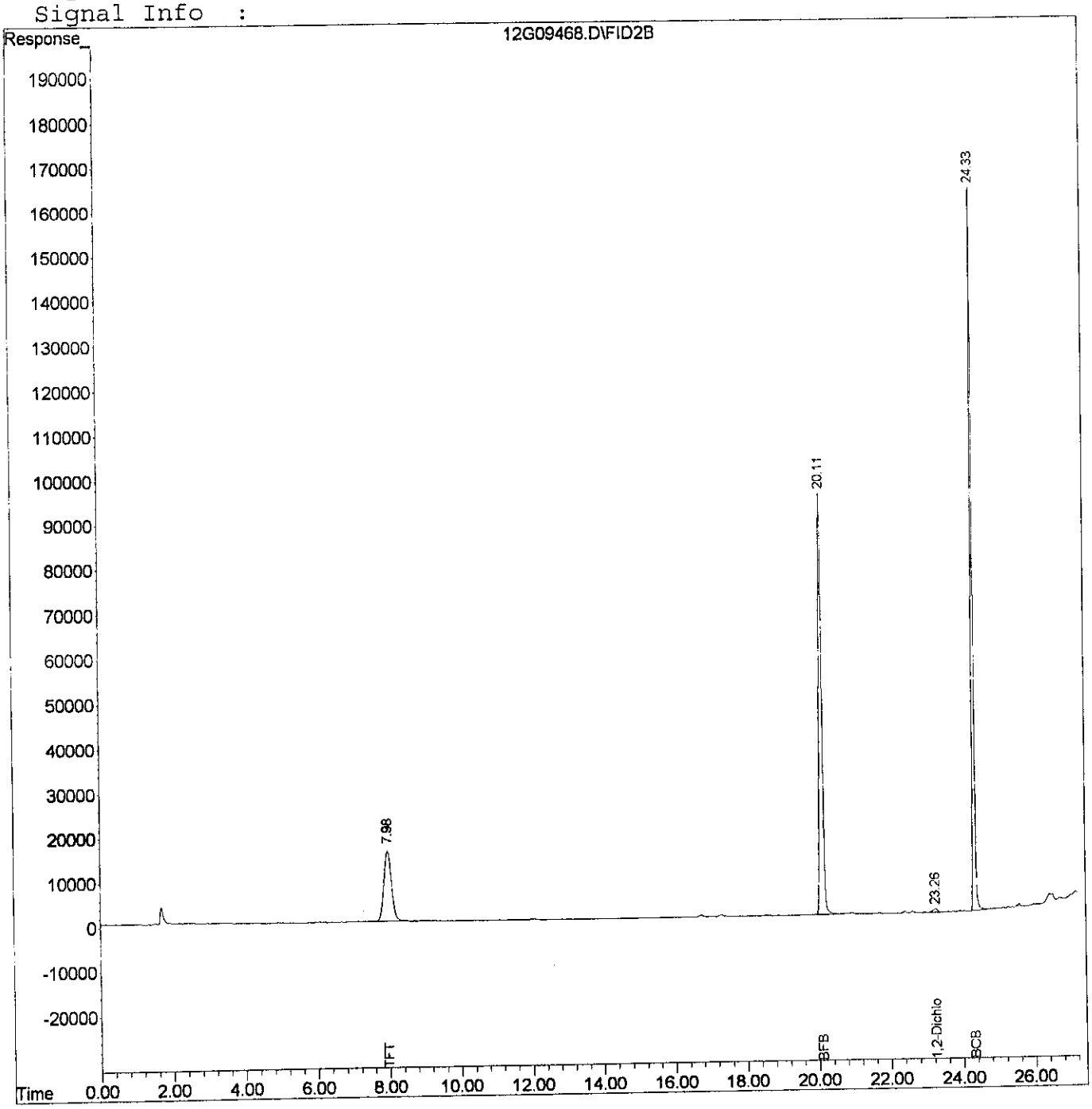
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\091901\12G09468.D
Acq On : 19 Sep 2001 8:06
Sample : WG104847-01 WATER BLANK 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 19 8:34 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09468.D Vial: 2
Acq On : 19 Sep 2001 8:06 Operator: CBN
Sample : WG104847-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 8:34 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	7.98	2394259	32.415 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 108.05%			
9) S BFB	20.11	5627281	30.634 UG/L
Spiked Amount 30.000 Recovery = 102.11%			
13) S BCB	24.33	5493184	28.697 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 95.66%			
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	12.06	29360	<MDL UG/L
5) TM Chlorobenzene	16.74	37132	<MDL UG/L
6) TM Ethylbenzene	17.30	30497	<MDL UG/L
7) TM m-,p-Xylene	17.30	30497	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.40	20621	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.62	22379	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.26	86031	0.534 UG/L

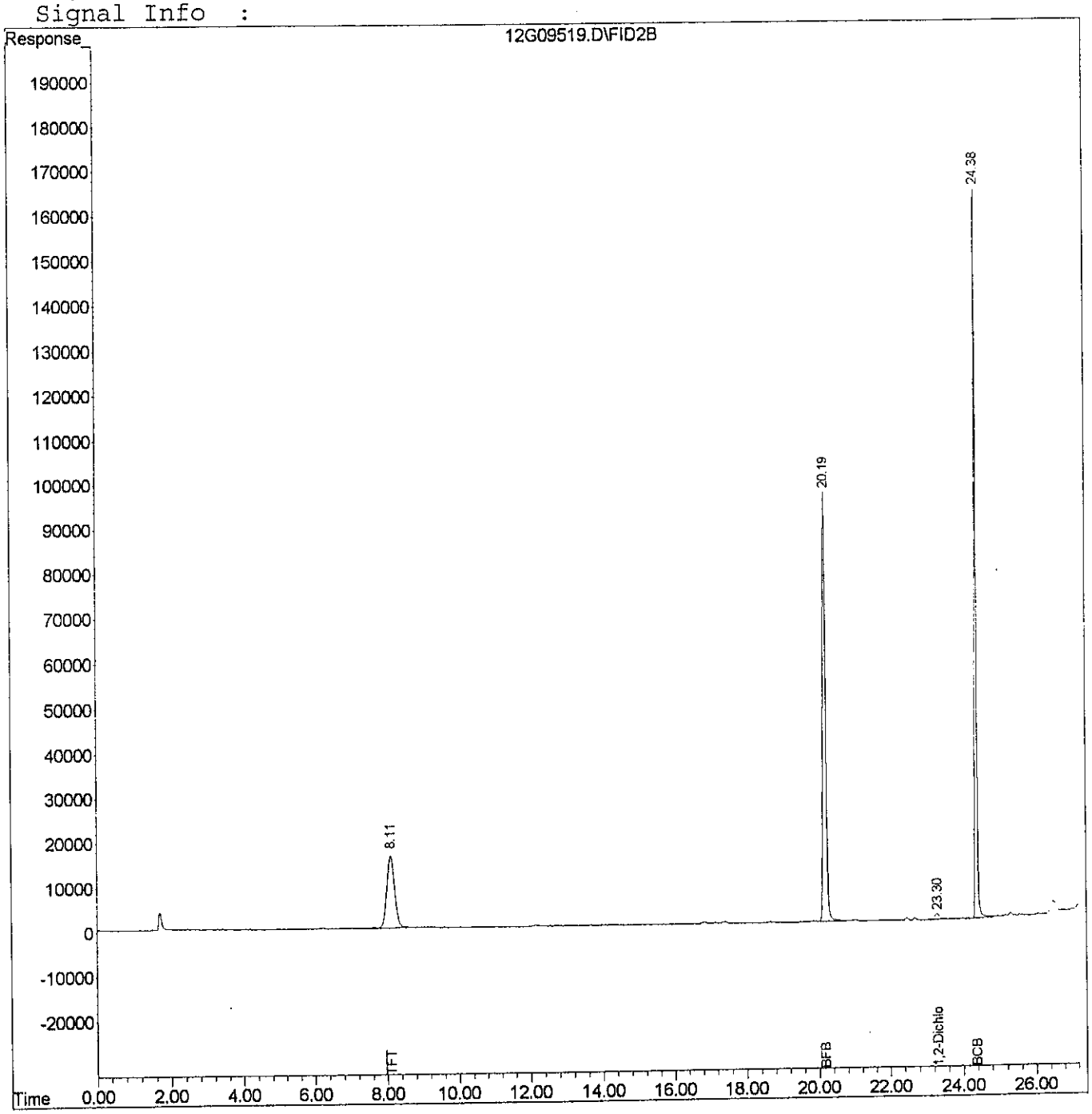
(f)=RT Delta > 1/2 Window (m)=manual int.
12G09468.D 8021W.M Wed Sep 19 08:34:20 2001 Page 1

Data File : C:\HPCHEM\2\DATA\092101\12G09519.D
Acq On : 21 Sep 2001 10:36
Sample : WG105046-01 WATER BLANK 5ML
Misc : 1,1 S-83-28
IntFile : autoint1.e
Quant Time: Sep 21 11:03 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092101\12G09519.D Vial: 2
Acq On : 21 Sep 2001 10:36 Operator: JLS
Sample : WG105046-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-83-28 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 11:03 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.11	2420302	32.768 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.23%
9) S BFB	20.19	5696528	31.011 UG/L
Spiked Amount 30.000		Recovery =	103.37%
13) S BCB	24.38	5484894	28.654 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	95.51%
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	16.83	33768	<MDL UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.39	31198	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.47	25120	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.69	26412	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.30	118592	~~0.736 UG/L~~

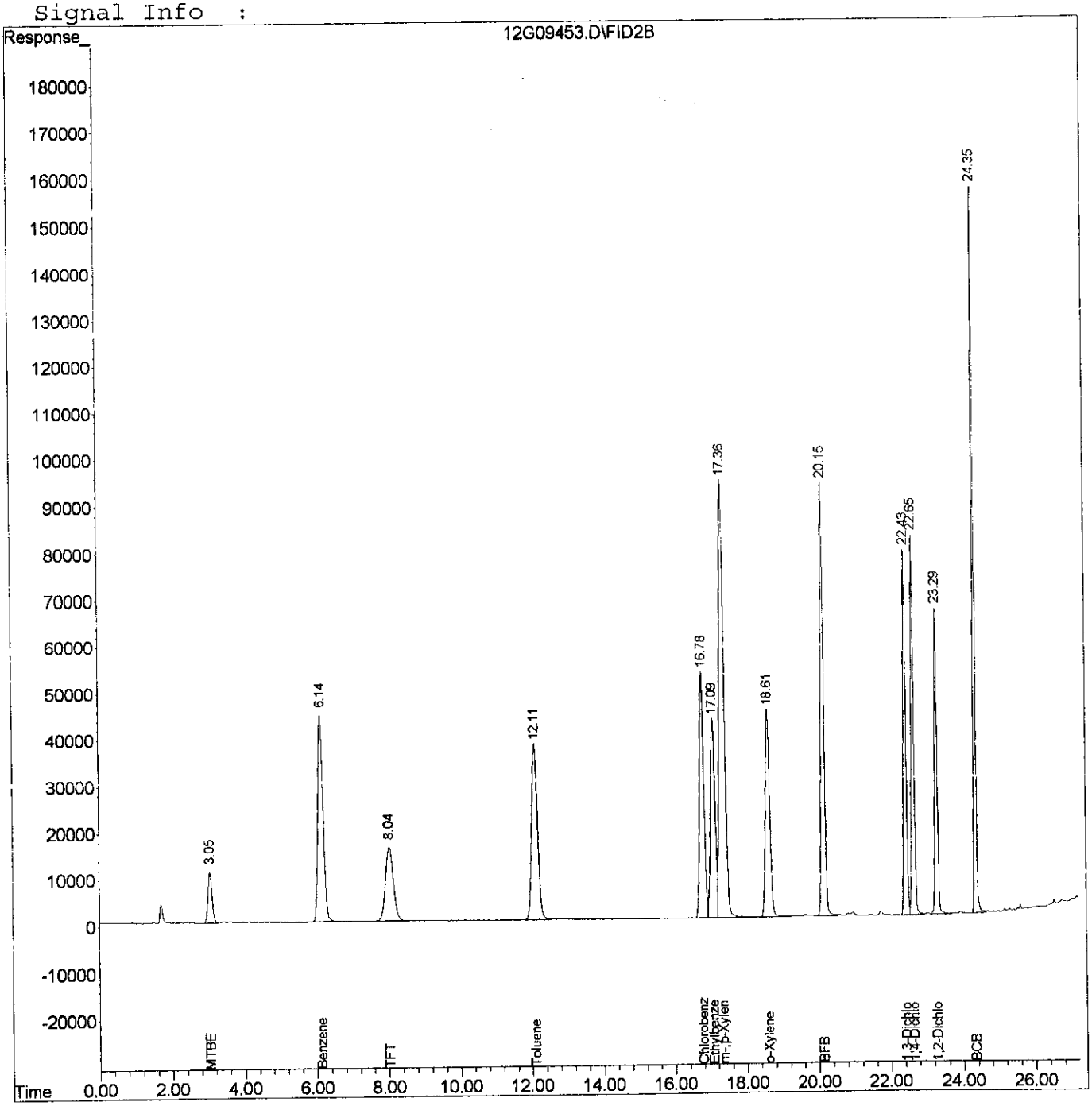
(f)=RT Delta > 1/2 Window (m)=manual int.
12G09519.D 8021W.M Fri Sep 21 11:03:32 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091801\12G09453.D
Acq On : 18 Sep 2001 16:38
Sample : WG104830-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 18 17:05 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CSH
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091801\12G09453.D Vial: 3
Acq On : 18 Sep 2001 16:38 Operator: CSH
Sample : WG104830-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 18 17:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

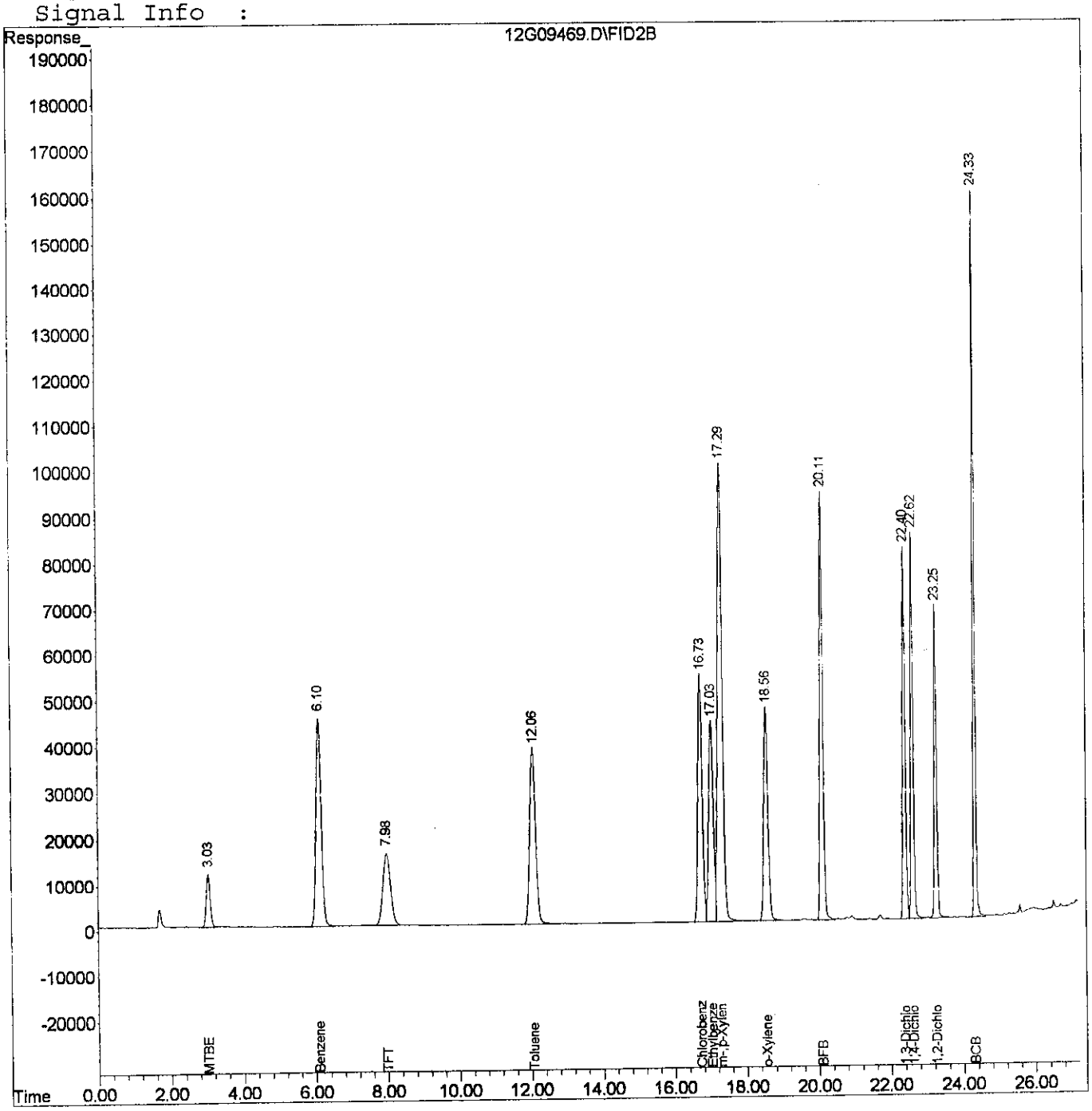
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.04	2406832	32.586 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 108.62%			
9) S BFB	20.15	5573212	30.340 UG/L
Spiked Amount 30.000 Recovery = 101.13%			
13) S BCB	24.35	5248547	27.419 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 91.40%			
Target Compounds			
1) TM MTBE	3.05	850494	17.930 UG/L
2) TM Benzene	6.14	4558479	19.508 UG/L
4) TM Toluene	12.11	4325097	20.501 UG/L
5) TM Chlorobenzene	16.78	4459996	20.097 UG/L
6) TM Ethylbenzene	17.09	3855838	20.959 UG/L
7) TM m-,p-Xylene	17.36	9097095	40.903 UG/L
8) TM o-Xylene	18.61	3809701	19.926 UG/L
10) TM 1,3-Dichlorobenzene	22.43	3918882	19.533 UG/L
11) TM 1,4-Dichlorobenzene	22.65	3946294	19.503 UG/L
12) TM 1,2-Dichlorobenzene	23.29	3052385	18.935 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09453.D 8021W.M Tue Sep 18 17:05:18 2001 Page 1

Data File : C:\HPCHEM\2\DATA\091901\12G09469.D Vial: 5
Acq On : 19 Sep 2001 8:39 Operator: CBN
Sample : WG104847-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 19 9:06 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\091901\12G09469.D
Acq On : 19 Sep 2001 8:39
Sample : WG104847-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-83-(38,28)
IntFile : autoint1.e
Quant Time: Sep 19 9:06 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP12
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

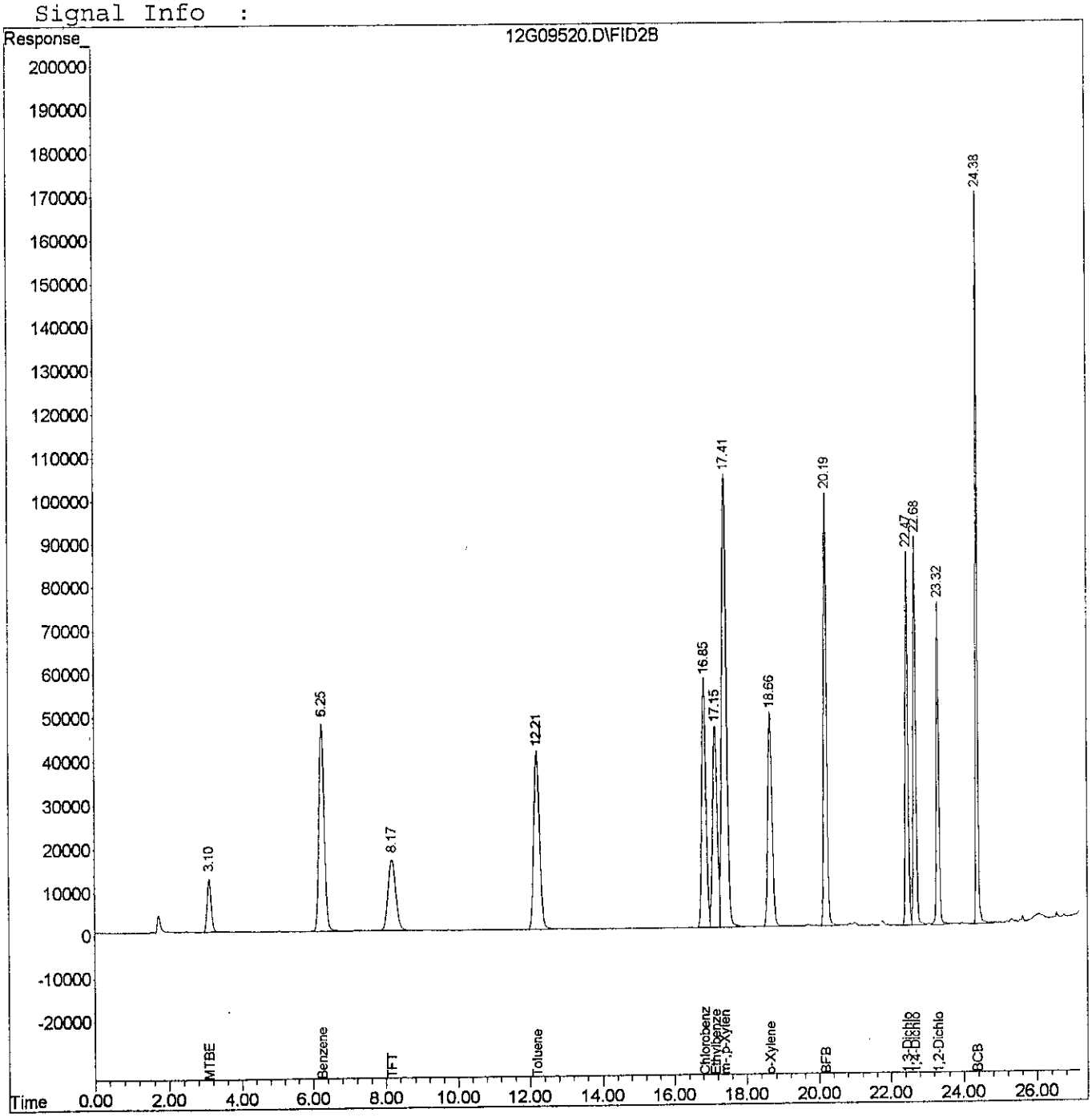
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	7.98	2366770	32.043 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.81%			
9) S BFB	20.11	5528480	30.096 UG/L
Spiked Amount 30.000 Recovery = 100.32%			
13) S BCB	24.33	5378318	28.097 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.66%			
Target Compounds			
1) TM MTBE	3.03	892303	18.812 UG/L
2) TM Benzene	6.10	4618092	19.763 UG/L
4) TM Toluene	12.06	4376470	20.744 UG/L
5) TM Chlorobenzene	16.73	4483065	20.201 UG/L
6) TM Ethylbenzene	17.04	3877356	21.076 UG/L
7) TM m-,p-Xylene	17.30	9101392	40.923 UG/L
8) TM o-Xylene	18.56	3817600	19.967 UG/L
10) TM 1,3-Dichlorobenzene	22.40	4023496	20.054 UG/L
11) TM 1,4-Dichlorobenzene	22.62	4048275	20.007 UG/L
12) TM 1,2-Dichlorobenzene	23.26	3187305	19.772 UG/L

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

Data File : C:\HPCHEM\2\DATA\092101\12G09520.D Vial: 5
Acq On : 21 Sep 2001 11:08 Operator: JLS
Sample : WG105046-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 11:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\092101\12G09520.D Vial: 5
Acq On : 21 Sep 2001 11:08 Operator: JLS
Sample : WG105046-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-83-(38,28) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 21 11:35 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
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	8.18	2511571	34.004 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	113.35%
9) S BFB	20.19	5826210	31.717 UG/L
Spiked Amount 30.000		Recovery =	105.72%
13) S BCB	24.38	5688731	29.719 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	99.06%
Target Compounds			
1) TM MTBE	3.11	959711	20.233 UG/L
2) TM Benzene	6.25	4930347	21.100 UG/L
4) TM Toluene	12.21	4623525	21.915 UG/L
5) TM Chlorobenzene	16.85	4710755	21.227 UG/L
6) TM Ethylbenzene	17.15	4084603	22.203 UG/L
7) TM m-,p-Xylene	17.42	9585154	43.098 UG/L
8) TM o-Xylene	18.66	4031758	21.087 UG/L
10) TM 1,3-Dichlorobenzene	22.47	4251484	21.191 UG/L
11) TM 1,4-Dichlorobenzene	22.69	4289238	21.198 UG/L
12) TM 1,2-Dichlorobenzene	23.32	3406055	21.129 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09520.D 8021W.M Fri Sep 21 11:35:31 2001 Page 1

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09379.d	1.	8021 STD1 1PPB 5ML	1,1 S-(84-17,83-28)	10 Sep 2001 07
2	21	12g09380.d	1.	8021 STD1 1PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 08
3	22	12g09381.d	1.	8021 STD2 10PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 08
4	23	12g09382.d	1.	8021 STD3 20PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 09
5	24	12g09383.d	1.	8021 STD4 50PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 09
6	25	12g09384.d	1.	8021 STD5 100PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 10
7	28	12g09385.d	1.	8021 STD6 200PPB 5ML ✓	1,1 S-(84-17,83-28)	10 Sep 2001 10
8	29	12g09386.d	1.	ALT SOURCE 10PPB 5ML ✓	1,1 S-83-(38,28)	10 Sep 2001 12
9	30	12g09387.d	100.	EXT BLANK 9/10/01 100X ✓	7,100 S-83-28	10 Sep 2001 14
10	31	12g09388.d	100.	EXT LCS 9/10/01 100X ✓	7,100 S-83-(38,28)	10 Sep 2001 14
11	20	12g09389.d	10000.	L0108670-06 5G/10ML 10000X ✓	7,10000 S-83-28	10 Sep 2001 15
12	21	12g09390.d	100.	L0108670-09 5G/10ML 100X HIGH SSS	7,100 S-83-28	10 Sep 2001 15
13	22	12g09391.d	100.	L0108670-09 DUP 5G/10ML 100X ⊥	7,100 S-83-28	10 Sep 2001 16
14	23	12g09392.d	1.	8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	10 Sep 2001 16

Directory: [illegible]

WG104779
⊥ 830

ANALYST: CS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g09440.d	1.	WG104775-01 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	18 Sep 2001 07:5
2	2	12g09441.d	1.	WG104779-01 WATER BLANK 5ML ✓	1,1 S-83-28	18 Sep 2001 08:2
3	3	12g09442.d	1.	WG104779-02 WATER LCS 20PPB... ✓	1,1 S-83-(38,28)	18 Sep 2001 09:0
4	21	12g09443.d	5.	WG104779-03 L0109222-08 B 1... ✓	1,5 S-83-28	18 Sep 2001 09:4
5	22	12g09444.d	5.	WG104779-04 L0109222-08 MS ... ✓	1,5 S-83-(38,28)	18 Sep 2001 10:1
6	23	12g09445.d	5.	WG104779-05 L0109222-08 MSD... ✓	1,5 S-83-(38,28)	18 Sep 2001 10:4
7	24	12g09446.d	10.	L0109222-10 B 500uL 10X ✓	1,10 S-83-28	18 Sep 2001 11:1
8	21	12g09447.d	1.	L0109248-01 "A" 5ML pH<2 ✓ HIGH SSS	1,1 S-83-28	18 Sep 2001 11:4
9	21	12g09448.d	1.	RINSE ✓	1,1 S-83-28	18 Sep 2001 13:1
10	21	12g09449.d	10.	L0109248-01 "A" 500uL 10X pH<2 CONF SMS	1,10,RE S-83-28	18 Sep 2001 14:0
11	21	12g09450.d	1.	RINSE ✓	1,1 S-83-28	18 Sep 2001 14:5
12	1	12g09451.d	1.	WG104775-02 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	18 Sep 2001 15:3
13	2	12g09452.d	1.	WG104830-01 WATER BLANK 5ML ✓	1,1 S-83-28	18 Sep 2001 16:0
14	3	12g09453.d	1.	WG104830-02 WATER LCS 20PPB... ✓	1,1 S-83-(38,28)	18 Sep 2001 16:3
15	20	12g09454.d	1.	L0109252-01 "A" 5ML pH<2 ✓	1,1 S-83-(38,28)	18 Sep 2001 17:2
16	21	12g09455.d	1.	RINSE 5ML ✓	1,1 S-83-28	18 Sep 2001 17:5
17	22	12g09456.d	1.	L0109252-02 "A" 5ML pH<2 HIGH SSS	1,1 S-83-28	18 Sep 2001 18:2
18	23	12g09457.d	1.	L0109252-03 "A" 5ML pH<2 ✓	1,1 S-83-28	18 Sep 2001 18:5
19	24	12g09458.d	1.	WG104830-03 L0109252-04 "A"... ✓	1,1 S-83-28	18 Sep 2001 19:2
20	27	12g09459.d	1.	WG104830-04 L0109252-05 MS ... ✓	1,1 S-83-(38,28)	18 Sep 2001 19:5
21	28	12g09460.d	1.	WG104830-05 L0109252-06 MSD... ✓	1,1 S-83-(38,28)	18 Sep 2001 20:3
22	29	12g09461.d	1.	L0109252-07 "A" 5ML pH<2 HIGH SSS	1,1 S-83-28	18 Sep 2001 21:0
23	30	12g09462.d	1.	L0109252-08 "A" 5ML pH<2 ⊥	1,1 S-83-28	18 Sep 2001 21:3
24	31	12g09463.d	1.	WG104775-03 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	18 Sep 2001 22:0
25	32	12g09464.d	1.	L0109252-09 "A" 5ML pH<2 ✓	1,1 S-83-28	18 Sep 2001 22:4
26	17	12g09465.d	1.	L0109252-10 "A" 5ML pH<2 BAD PURGE	1,1 S-83-28	18 Sep 2001 23:1
27	1	12g09466.d	1.	WG104775-04 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	18 Sep 2001 23:4

REANALYSIS RR#

L0109252-02
⊥ -07
-08

WG104847

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g09467.d	1.	WG104846-01 8021 STD 20PPB 5ML	1,1 S-83-(38,28)	19 Sep 2001 07:3
2	2	12g09468.d	1.	WG104847-01 WATER BLANK 5ML	1,1 S-83-(38,28)	19 Sep 2001 08:0
3	3	12g09469.d	1.	WG104847-02 WATER LCS 20PPB	1,1 S-83-(38,28)	19 Sep 2001 08:3
4	20	12g09470.d	1.	WG104847-03 L0109254-01 "A"...	1,1 S-83-28	19 Sep 2001 09:1
5	21	12g09471.d	1.	WG104847-04 L0109254-01 MS ..	1,1 S-83-(38,28)	19 Sep 2001 09:51
6	22	12g09472.d	1.	WG104847-05 L0109254-01 MSD..	1,1 S-83-(38,28)	19 Sep 2001 10:2
7	23	12g09473.d	1.	L0109254-02 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 10:5
8	24	12g09474.d	1.	L0109254-03 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 11:2
9	25	12g09475.d	1.	L0109254-04 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 11:5
10	27	12g09476.d	1.	L0109254-05 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 12:3
11	28	12g09477.d	1.	L0109252-02 "A" 5ML pH<2 CONF SSS	1,1 RE S-83-28	19 Sep 2001 13:0
12	1	12g09478.d	1.	WG104846-02 8021 STD 20PPB 5ML	1,1 S-83-(38,28)	19 Sep 2001 13:3
13	20	12g09479.d	1.	L0109270-01 "A" 5ML pH<2 RR HIGH SSS	1,1 S-83-28	19 Sep 2001 14:1
14	20	12g09480.d	1.	RINSE 5ML	1,1 S-83-28	19 Sep 2001 15:0
15	21	12g09481.d	1.	L0109252-07 "A" 5ML pH<2 CONF SSS	1,1,RE S-83-28	19 Sep 2001 15:4
16	22	12g09482.d	1.	L0109252-08 "A" 5ML pH<2	1,1,RE S-83-28	19 Sep 2001 16:1
17	23	12g09483.d	1.	L0109252-10 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 16:4
18	24	12g09484.d	20.	L0109269-01 "A" 250uL pH<2 20X RR@50X	1,201 S-83-28	19 Sep 2001 17:1
19	25	12g09485.d	1.	L0109269-02 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 17:4
20	27	12g09486.d	1.	L0109269-03 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 18:2
21	28	12g09487.d	1.	L0109269-04 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 18:5
22	29	12g09488.d	1.	L0109269-05 "A" 5ML pH<2 RR@100X	1,1 S-83-28	19 Sep 2001 19:2
23	30	12g09489.d	1.	L0109269-09 "A" 5ML pH<2 RR c/o 2nd	1,1 S-83-28	19 Sep 2001 19:5
24	31	12g09490.d	1.	WG104846-03 8021 STD 20PPB 5ML	1,1 S-83-(38,28)	19 Sep 2001 20:2
25	32	12g09491.d	1.	L0109269-10 "A" 5ML pH<2	1,1 S-83-28	19 Sep 2001 21:0
26	20	12g09492.d	50.	L0109270-01 "A" 100uL pH<2 50X CONF SSS	1,50,RE S-83-28	19 Sep 2001 21:3
27	1	12g09493.d	1.	WG104846-04 8021 STD 20PPB 5ML	1,1 S-83-(38,28)	19 Sep 2001 22:0

WG105048

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g09518.d	1.	WG105047-01 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	21 Sep 2001 10:0
2	2	12g09519.d	1.	WG105046-01 WATER BLANK 5ML ✓	1,1 S-83-28	21 Sep 2001 10:3
3	3	12g09520.d	1.	WG105046-02 WATER LCS 20PPB... ✓	1,1 S-83-(38,28)	21 Sep 2001 11:0
4	11	12g09521.d	1.	ANTI-FOAM BLANK 5ML ✓	1,1 S-83-28	21 Sep 2001 11:4
5	4	12g09522.d	1.	L0109318-01 A 5ML pH=4 ✓	1,1 S-83-28	21 Sep 2001 12:1
6	5	12g09523.d	1.	L0109318-02 A 5ML pH<2 ✓	1,1 S-83-28	21 Sep 2001 12:5
7	8	12g09524.d	1.	L0109318-03 A 5ML pH<2 HIGH SSS ✓	1,1 S-83-28	21 Sep 2001 13:2
8	10	12g09525.d	1.	L0109318-04 A 5ML pH<2 ✓	1,1 S-83-28	21 Sep 2001 13:5
9	16	12g09526.d	1.	L0109318-03 A 5ML pH<2 CONF SMI	1,1 S-83-28	21 Sep 2001 14:2
10	17	12g09527.d	1.	L0109304-01 A 5ML pH<2 BAD PURGE	1,1 S-83-28	21 Sep 2001 14:5
11	18	12g09528.d	1.	L0109304-02 A 5ML pH<2 ✓	1,1 S-83-28	21 Sep 2001 15:3
12	25	12g09529.d	1.	WG105047-02 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	21 Sep 2001 16:0
13	20	12g09530.d	1.	L0109304-02 MS A 5ML pH<2 ✓	1,1 S-83-(38,28)	21 Sep 2001 16:4
14	21	12g09531.d	1.	L0109304-02 MS A 5ML pH<2 ✓	1,1 S-83-(38,28)	21 Sep 2001 17:1
15	22	12g09532.d	1.	L0109304-03 A 5ML pH<2 RE @ 5x	1,1 S-83-28	21 Sep 2001 17:5
16	23	12g09533.d	1.	L0109304-04 A 5ML pH<2 ✓	1,1 S-83-28	21 Sep 2001 18:2
17	24	12g09534.d	1.	L0109304-05 A 5ML pH<2 RE @ 5x	1,1 S-83-28	21 Sep 2001 18:5
18	27	12g09535.d	1.	L0109304-06 A 5ML pH<2 RE @ 100x	1,1 S-83-28	21 Sep 2001 19:2
19	28	12g09536.d	1.	L0109304-07 A 5ML pH<2 ⊥	1,1 S-83-28	21 Sep 2001 19:5
20	30	12g09537.d	1.	L0109304-08 A 5ML pH<2 RE c/o	1,1 S-83-28	21 Sep 2001 20:3
21	31	12g09538.d	1.	L0109304-09 A 5ML pH<2 ✓	1,1 S-83-28	21 Sep 2001 21:0
22	32	12g09539.d	1.	L0109304-01 A 5ML pH<2 ✓	1,1 S-83-28	21 Sep 2001 21:9
23	1	12g09540.d	1.	WG105047-03 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	21 Sep 2001 22:0
24	2	12g09541.d	1.	L0109252-07 B 5ML CONF SMI	1,1 S-83-28	21 Sep 2001 22:4
25	3	12g09542.d	1.	L0109269-02 B 5ML CONF TOLUENE	1,1 S-83-28	21 Sep 2001 23:1
26	4	12g09543.d	1.	WG105047-04 8021 STD 20PPB 5ML ✓	1,1 S-83-(38,28)	21 Sep 2001 23:4

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0109252

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: There were no MS/MSD results associated with any sample in re-extracted group .

SAMPLES

Samples: Several water samples were re-extracted for a low surrogate recovery and for these samples only the re-extract results were reported .
Surrogates: The %recoveries for surrogate from re-extracted analyses were acceptable .

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: HV REVIEWED:_____ DATE: _____

Rev. 7/14/00

Analyst: HV
Method: 8015 - PRO - water
Instrument: HP2
Work Group: WG 104872

09-2m2 (01-09) - level 4
-02, -03 -08 - not reported

2m4 (01-04)

	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 HV 9/20/01

Secondary Reviewer Initials & Date Checked [illegible] 9/24/01

- 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] 9/24/01

Comments: Samples -02, -03 & -08 were sent for reext. for low surrogate. and

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Analyst: HV
Method: 8016 - PRO - water (09252-03, -03, -08) RE
Instrument: HP9
Work Group: IXLG 105268

need level 4

09340
09342

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	NA
Check Standards	✓
Project / Client Specific Requirements	NA
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	✓
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 HV 9/25/01

Secondary Reviewer Initials & Date Checked ECZ 9/25/01

✓ • 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 ECZ 9/25/01

Comments:

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0109252

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 10/1/01

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2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG104872
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG104844

EXT DATE : 09-18-01
EXT BENCH SHEET : V172-P75
BLK FILENAME : 2G15253
LCS FILENAME : 2G15254
INSTRUMENT : HP 2

RUN DATE : 09-19-01
SMPL ID : L0109252-04
SMPL FLNM : 2G15258
MS FLNM : 2G15259
MSD FLNM : 2G15260

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2404	NA	ND	3536	2562	2719	NA	70.7	NA	55	118	ND	72.5	76.9	41	101	NA	6	20
SURROGATE																						
o-TERPHENYL		13.6	20	18.6	NA	13.6	20	17.2	20.1	67.8	93.2	NA	49	174	68.0	86.2	101	49	174	NA	15	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG105258 | EXT DATE : 09-24-01 | RUN DATE : 09-25-01 | Analyst: HV
METHOD : 8015-PRO | EXT BENCH SHEET : V172-P151 | SMPL ID : NA
MATRIX : WATER | BLK FILENAME : 2G15394 | SMPL FLNM : NA
CONCENTRATION UNITS : ug / l | LCS FILENAME : 2G15396 | MS FLNM : NA
PREP WORK GRP : WG105122 | LCS DUP FILENAME : 2G15397 | MSD FLNM : NA
INSTRUMENT : HP 2

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	3042	2772	NA	3400	NA	NA	NA	89.5	81.5	55	118	NA	NA	NA	41	101	9	NA	20
SURROGATE																						
o-TERPHENYL		17.8	20	30.1	25.9	NA	20	NA	NA	89.2	150	129	49	174	NA	NA	NA	49	174	15	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

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

Acq On : 19 Sep 2001 18:00 Operator: HV
Sample : L0109252-01 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	177937	10.330 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 51.65%			
Target Compounds			
1) H Petroleum Range	3.60	6552640	577.257 ppb

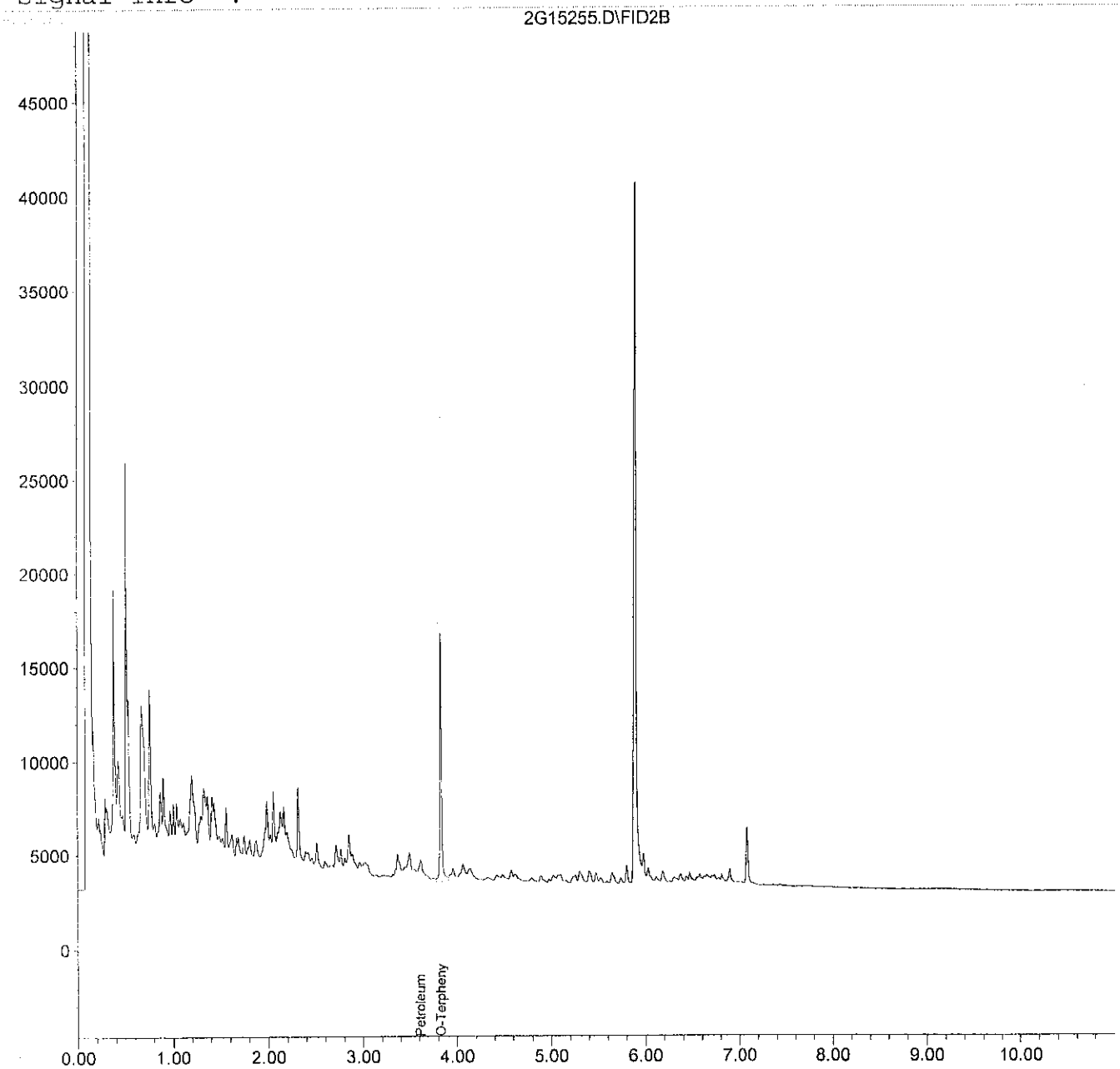
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 19 Sep 2001 18:00 Operator: HV
Sample : L0109252-01 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 10:58 Operator: HV
Sample : L0109252-02 PRO water Inst : hp2
Misc : water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Sep 25 11:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

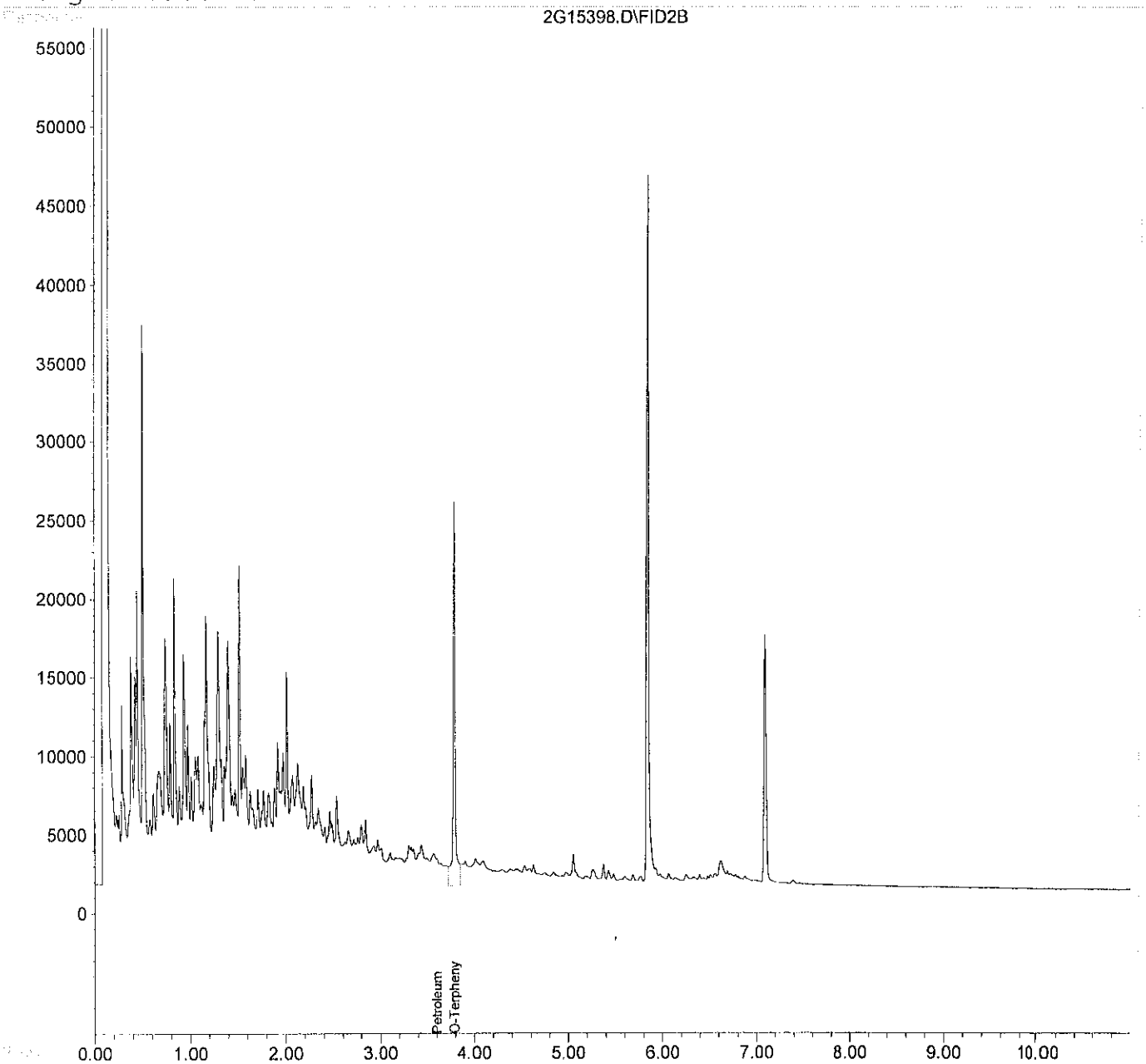
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.79	373974	21.710 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 108.55%			
Target Compounds			
1) H Petroleum Range	3.60	13007333	1211.994 ppb

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

Acq On : 25 Sep 2001 10:58 Operator: HV
Sample : L0109252-02 PRO water Inst : hp2
Misc : water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Sep 25 11:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 11:14 Operator: HV
Sample : L0109352-03 RE PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Sep 25 11:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

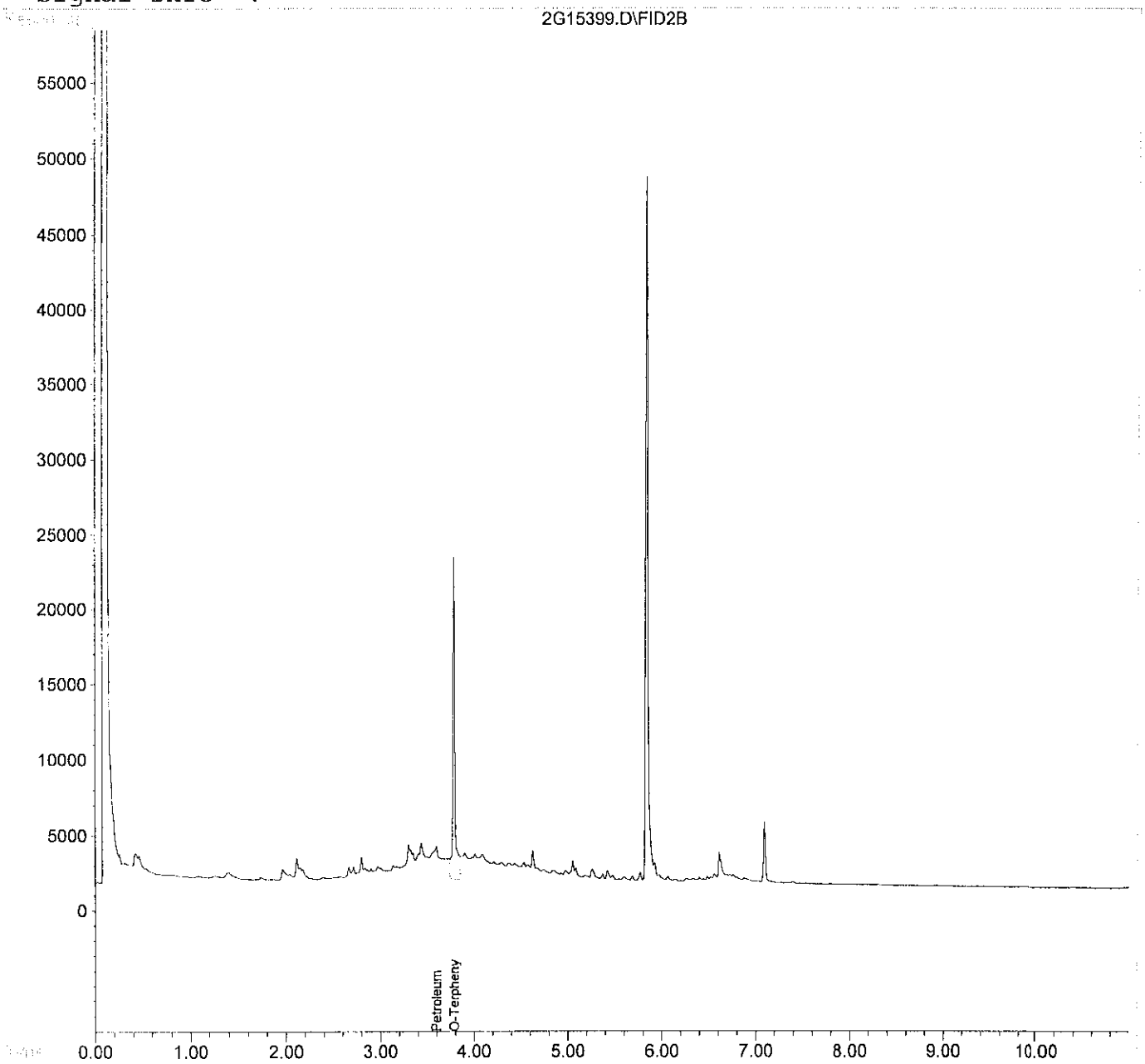
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.79	327621	19.019 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 95.10%			
Target Compounds			
1) H Petroleum Range	3.60	2786865	243.149 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15399.D FLASHPRO.M Tue Sep 25 11:49:53 2001 Page 1

Acq On : 25 Sep 2001 11:14 Operator: HV
Sample : L0109352-03 RE PRO water Inst : hp2
Misc : water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Sep 25 11:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 19 Sep 2001 18:46 Operator: HV
Sample : L0109252-04 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

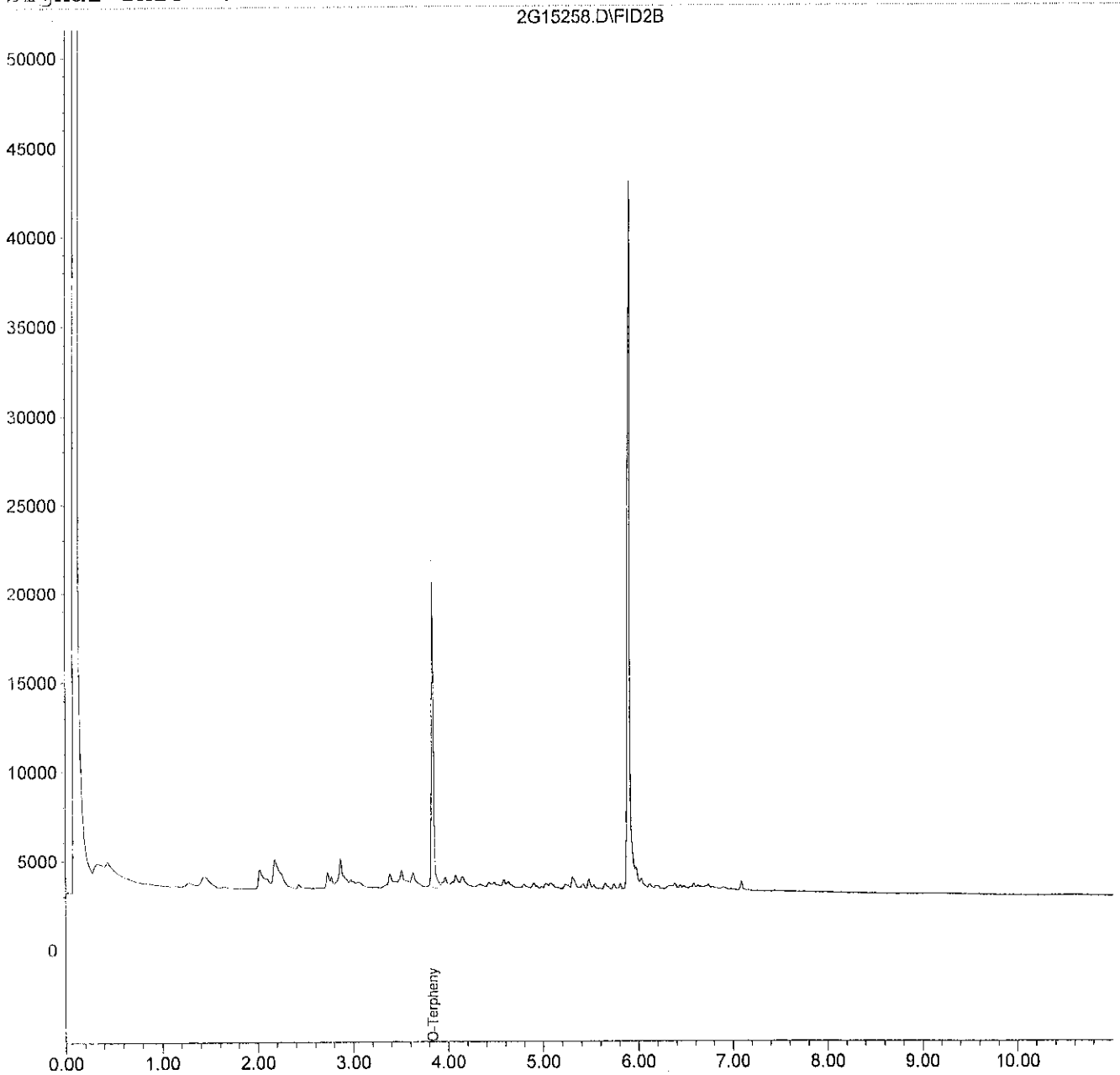
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.83	234212	13.597 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 67.99%			
Target Compounds			
1) H Petroleum Range	3.60	1468113	<MDL ppb

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

Acq On : 19 Sep 2001 18:46 Operator: HV
Sample : L0109252-04 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\091901A\2G15259.D
Acq On : 19 Sep 2001 19:01 Operator: HV
Sample : L0109252-05 MS PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	296982	17.241 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 86.21%			
Target Compounds			
1) H Petroleum Range	3.60	29084974	2562.251 ppb

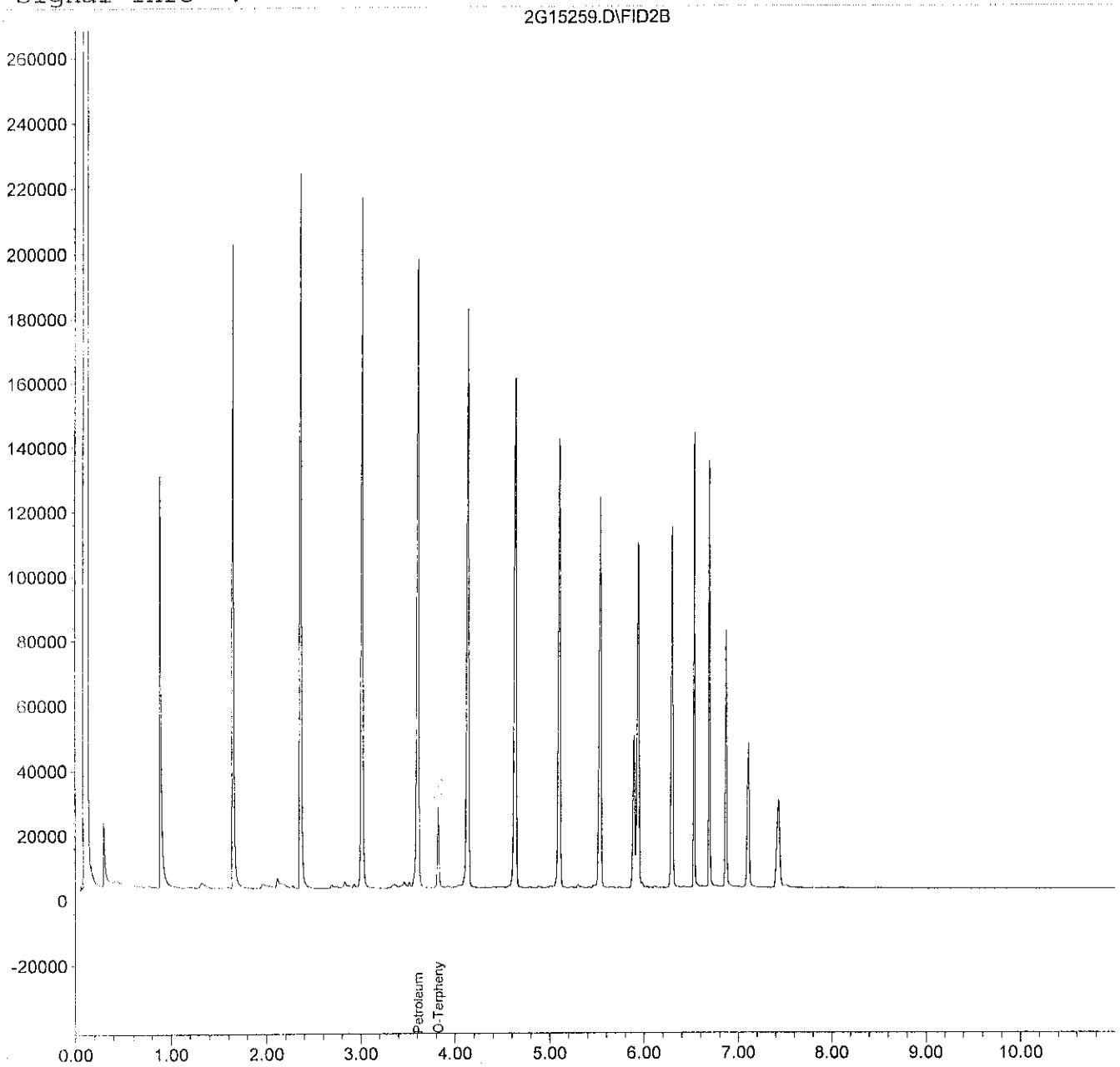
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15259.D FLASHPRO.M Thu Sep 20 08:27:46 2001 Page

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

Acq On : 19 Sep 2001 19:01 Operator: HV
Sample : L0109252-05 MS PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 19 Sep 2001 19:16
Sample : L0109252-06 MSD PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	346354	20.107 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	100.54%
Target Compounds			
1) H Petroleum Range	3.60	30862026	2718.801 ppb

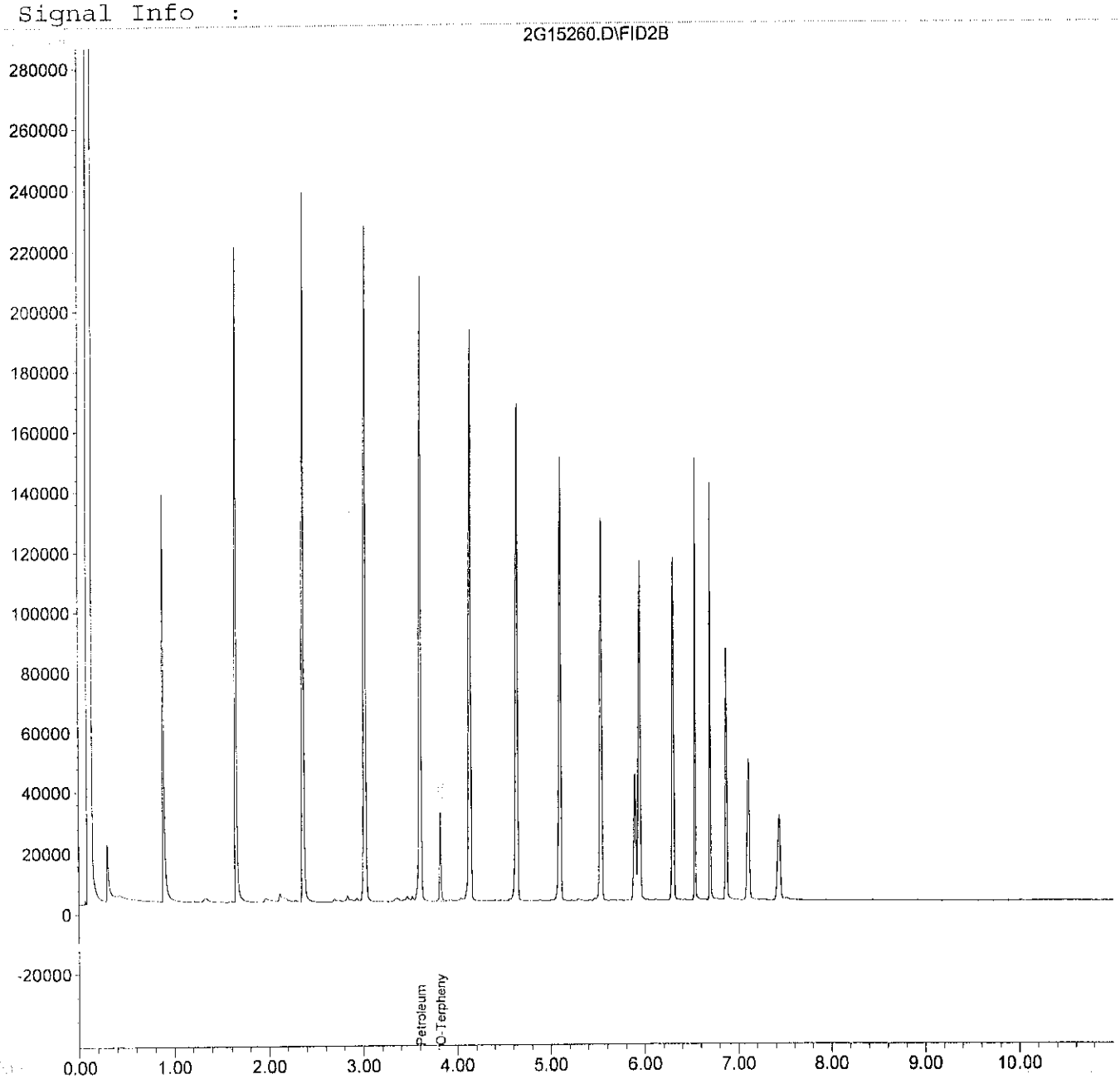
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 19 Sep 2001 19:16 Operator: HV
Sample : L0109252-06 MSD PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Sep 2001 20:18 Operator: HV
Sample : L0109252-07 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

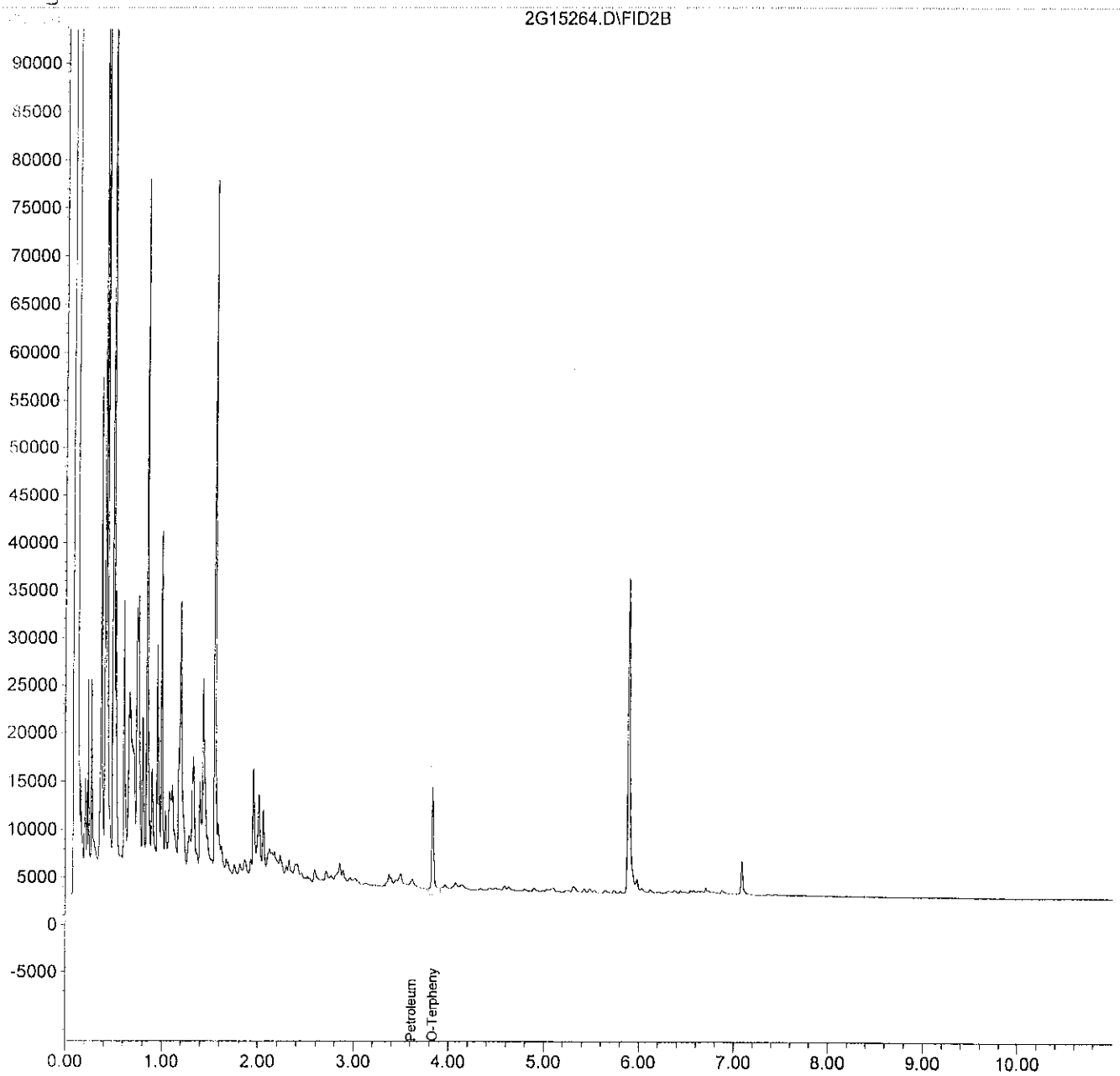
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.83	182288	10.582 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	52.91%
Target Compounds			
1) H Petroleum Range	3.60	16470256	1450.953 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15264.D FLASHPRO.M Thu Sep 20 08:27:55 2001 Page 1

Acq On : 19 Sep 2001 20:18 Operator: HV
Sample : L0109252-07 PRO water Inst : hp2
Misc : water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Sep 20 8:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 11:29 Operator: HV
Sample : L0109352-08 RE PRO water Inst : hp2
Misc : water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Sep 25 11:50 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

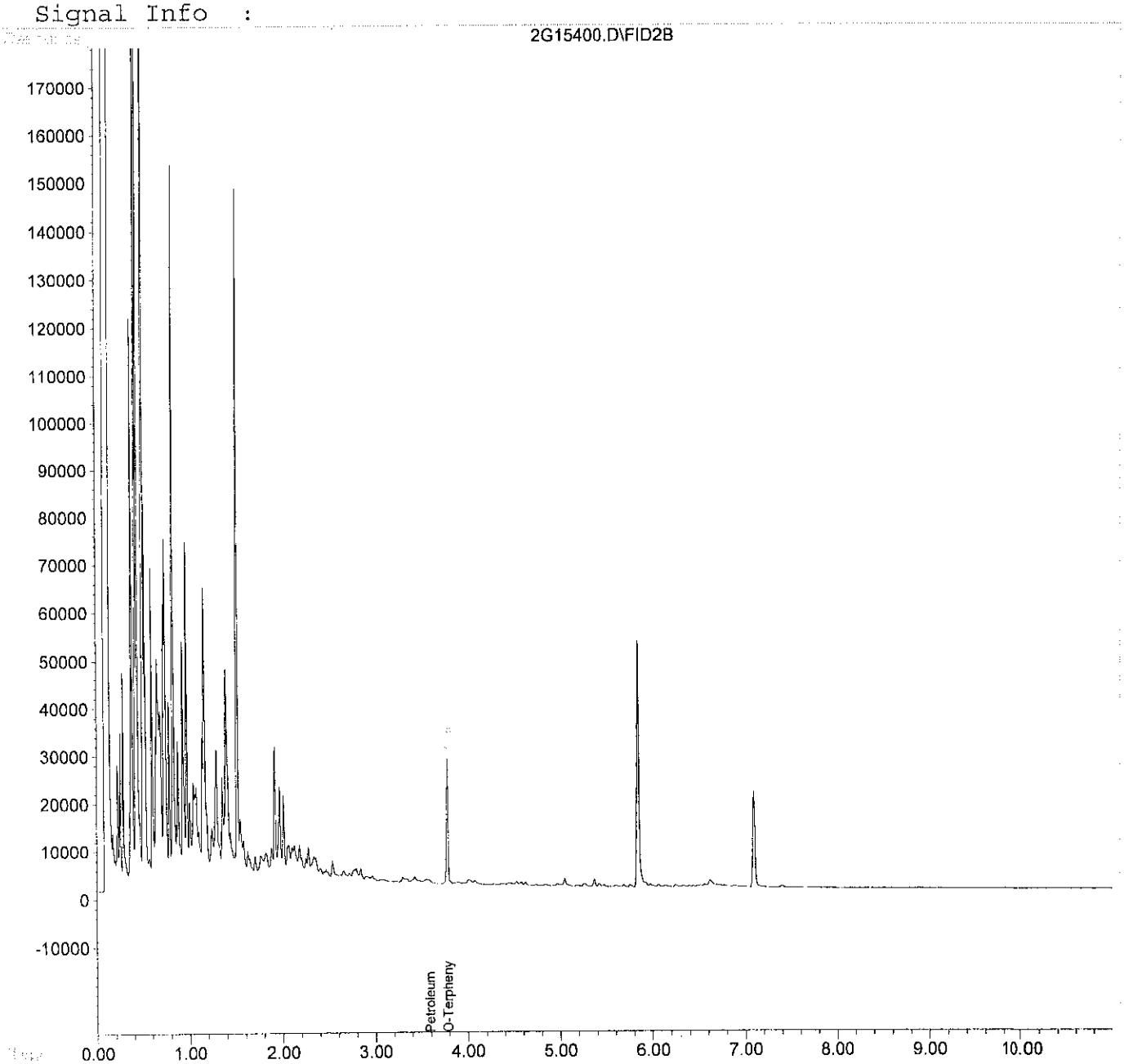
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.78	324011	18.810 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 94.05%			
Target Compounds			
1) H Petroleum Range	3.60	29383815	2737.918 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15400.D FLASHPRO.M Tue Sep 25 11:50:30 2001 Page 1

Acq On : 25 Sep 2001 11:29 Operator: HV
Sample : L0109352-08 RE PRO water Inst : hp2
Misc : water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Sep 25 11:50 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Sep 2001 20:49
Sample : L0109252-09 PRO water
Misc : water
IntFile : PETRO.E
Quant Time: Sep 20 8:28 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.05

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

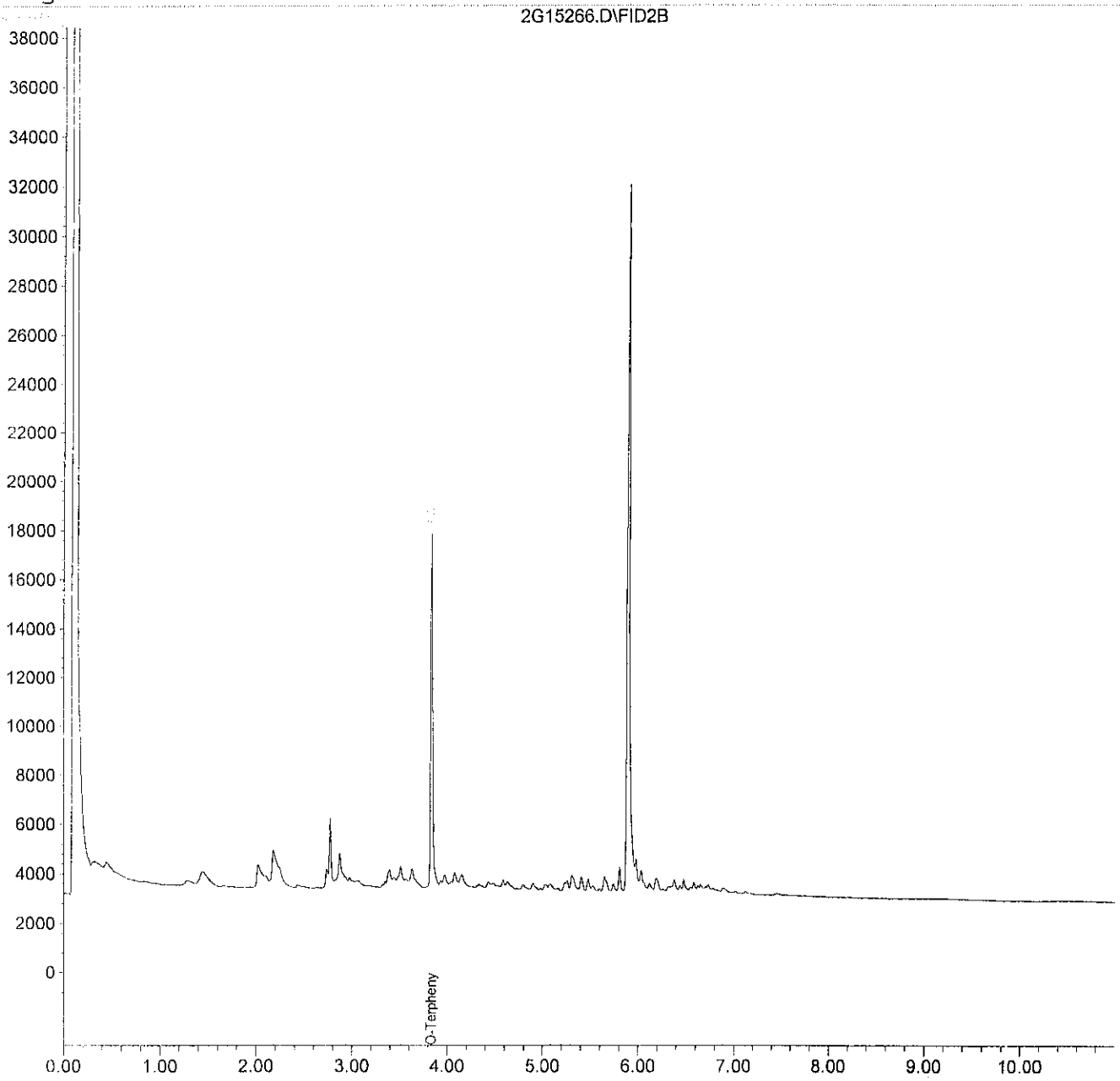
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.83	205671	11.940 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	59.70%
Target Compounds			
1) H Petroleum Range	3.60	1378629	<MDL ppb

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

Acq On : 19 Sep 2001 20:49 Operator: HV
Sample : L0109252-09 PRO water Inst : hp2
Misc : water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Sep 20 8:28 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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 09/19/01
Last Update : Wed Sep 19 15:36:45 2001

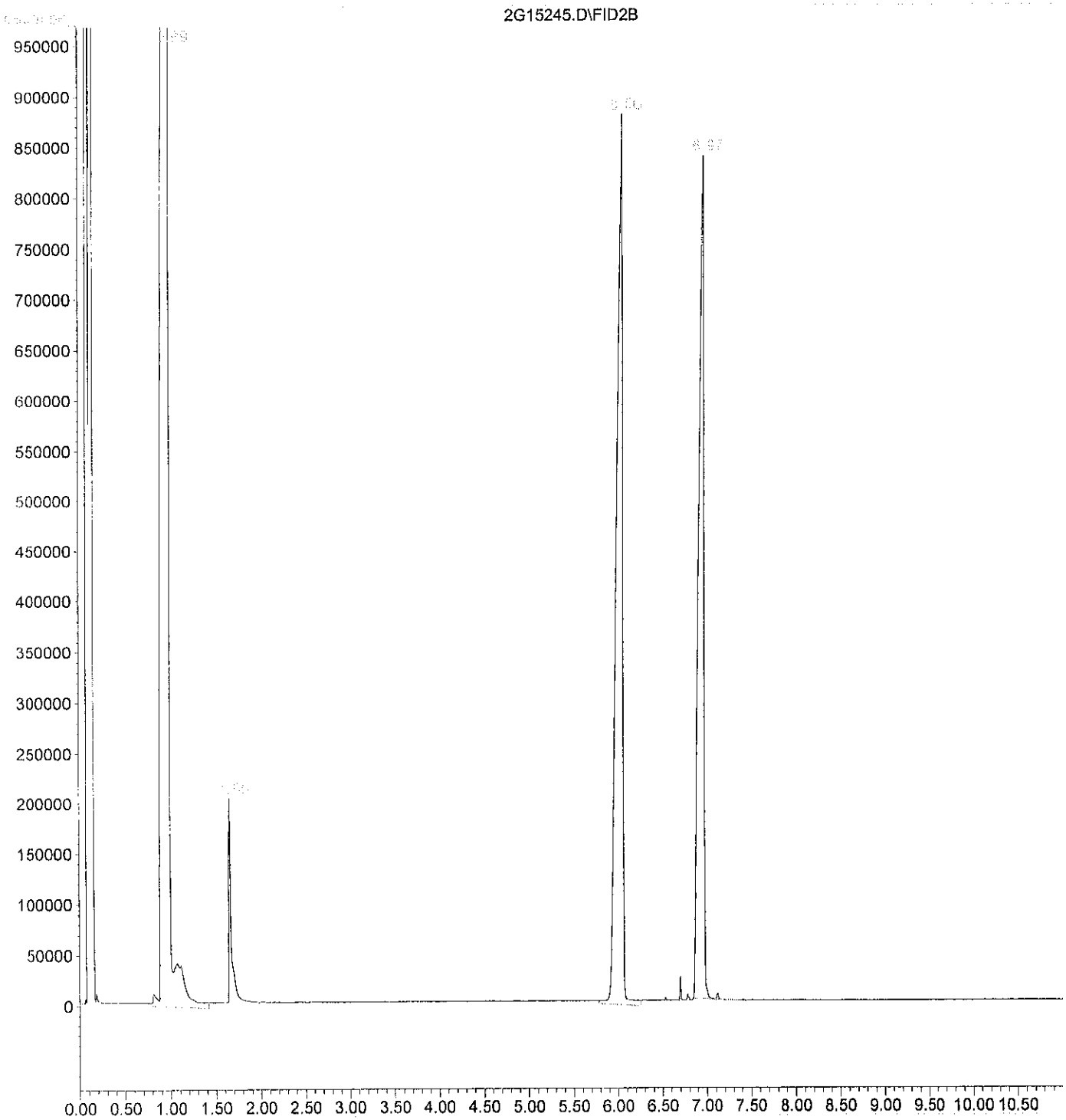
Calibration Files

5	=2G15251.D	50	=2G15250.D	100	=2G15249.D
200	=2G15246.D	400	=2G15248.D	600	=2G15247.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.084	1.390	1.181	1.179	1.082	1.166	1.181	E4	9.52
2)	S	O-Terphenyl	1.845	1.976	1.699	1.691	1.563	1.563	1.723	E4	9.42

(#) = Out of Range

File : C:\HPCHEM\1\DATA\091901A\2G15245.D
Operator : HV
Acquired : 19 Sep 2001 15:02 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : NS 13-45
Vial Number: 2



Data File : C:\HPCHEM\1\DATA\091901A\2G15246.D Vial: 5
Acq On : 19 Sep 2001 15:19 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : NS 13-45 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 19 15:37 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.84	3381007	122.594 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 612.97%#	
Target Compounds			
1) H Petroleum Range	3.60	40081729	1991.849 ppb

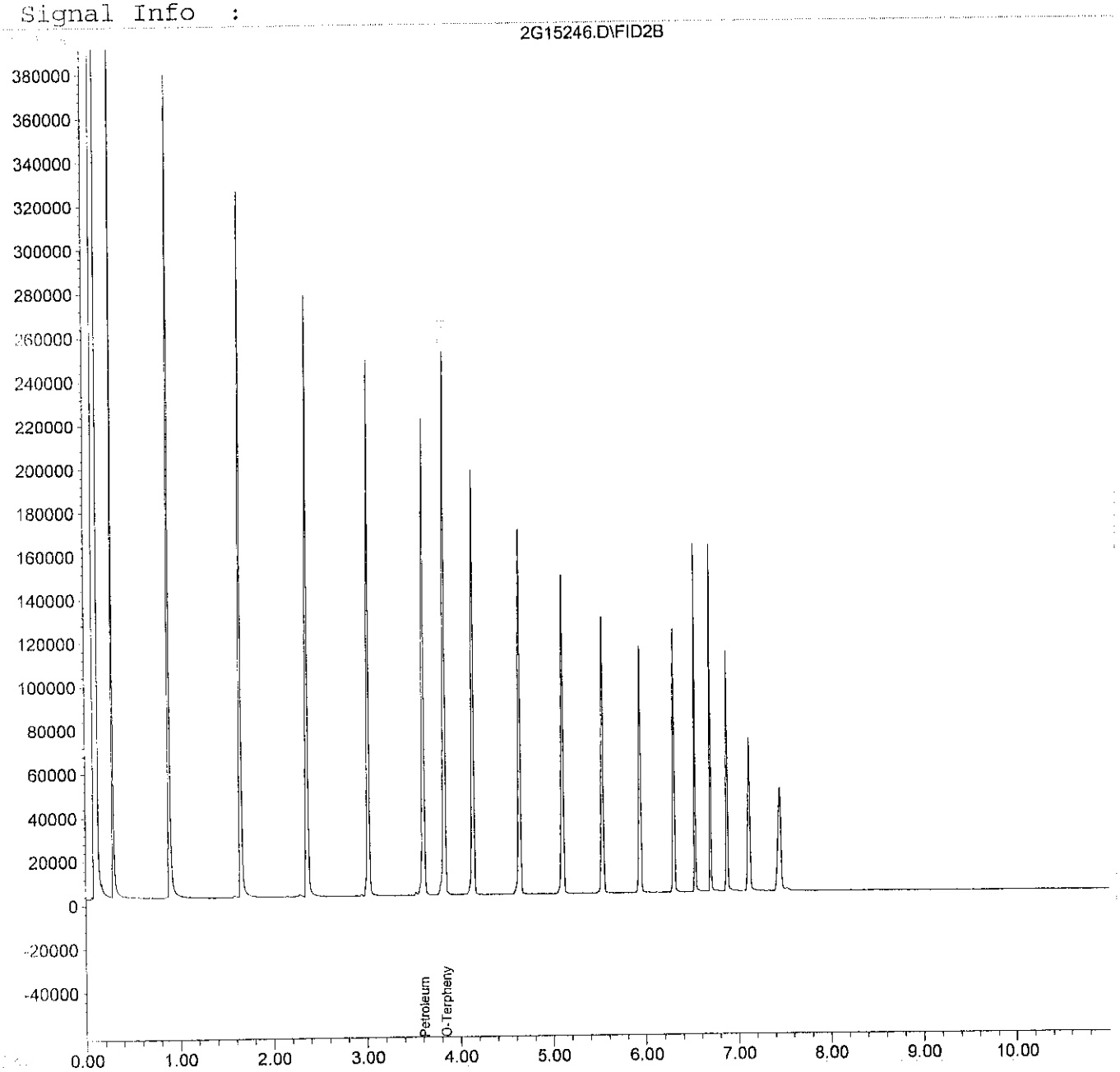
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15246.D FLASHPRO.M Wed Sep 19 17:07:00 2001 Page 1

Data File : C:\HPCHEM\1\DATA\091901A\2G15246.D
Acq On : 19 Sep 2001 15:19
Sample : PRO CONT CHK
Misc : NS 13-45
IntFile : PETRO.E
Quant Time: Sep 19 15:37 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\091901A\2G15247.D Vial: 1
Acq On : 19 Sep 2001 15:39 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : sos 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 19 17:06 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

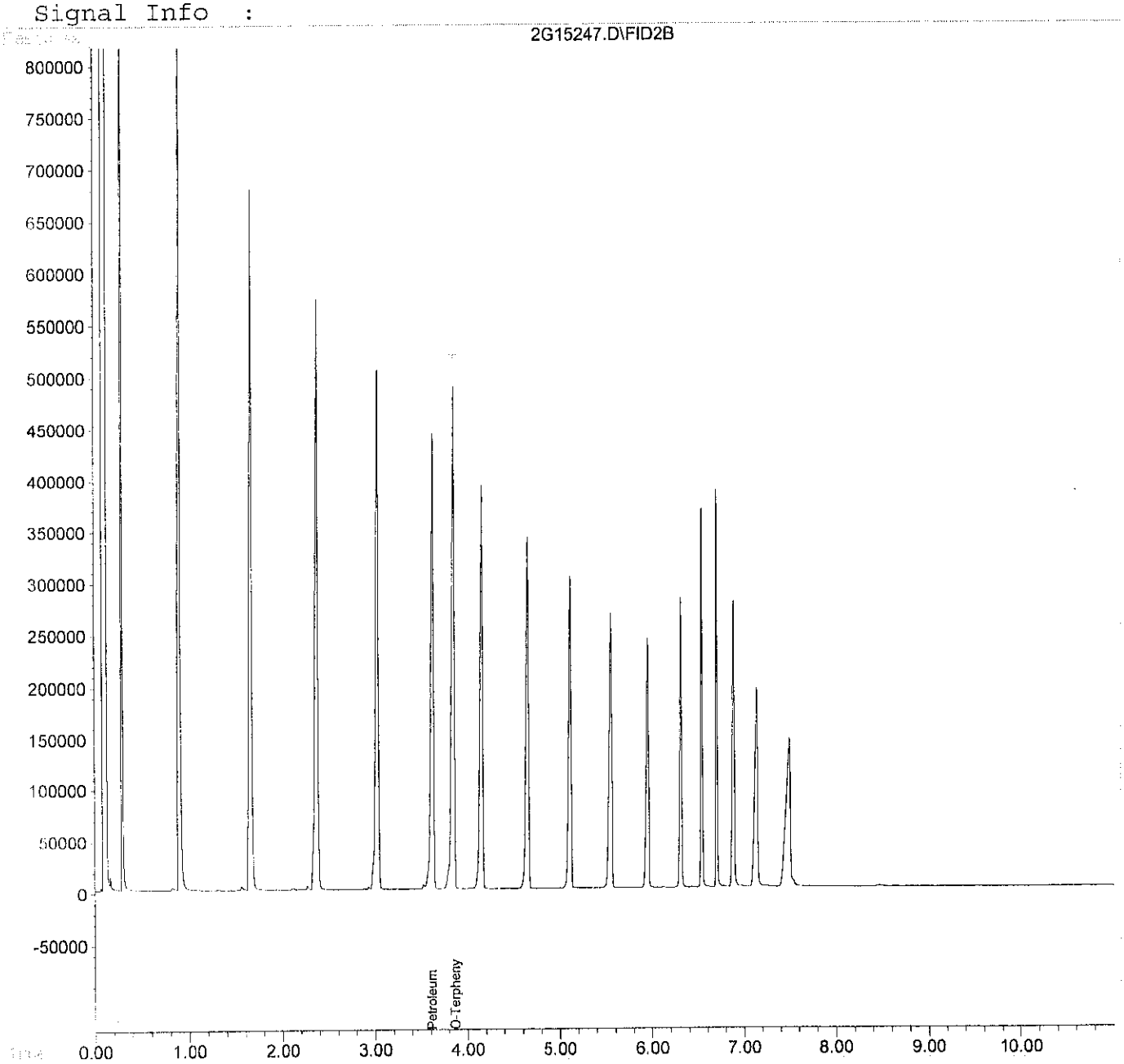
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.86	9376125	544.309 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2721.55%#
Target Compounds			
1) H Petroleum Range	3.60	118965705	10077.235 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15247.D FLASHPRO.M Wed Sep 19 17:07:07 2001 Page 1

Data File : C:\HPCHEM\1\DATA\091901A\2G15247.D Vial: 4
Acq On : 19 Sep 2001 15:39 Operator: HV
Sample : PRO STD 600ppm Inst : hp2
Misc : sos 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 19 17:06 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 19 Sep 2001 15:54 Operator: HV
Sample : PRO STD 400ppm Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.85	6250635	226.645 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1133.23%#
Target Compounds			
1) H Petroleum Range	3.60	73603463	3657.701 ppb

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

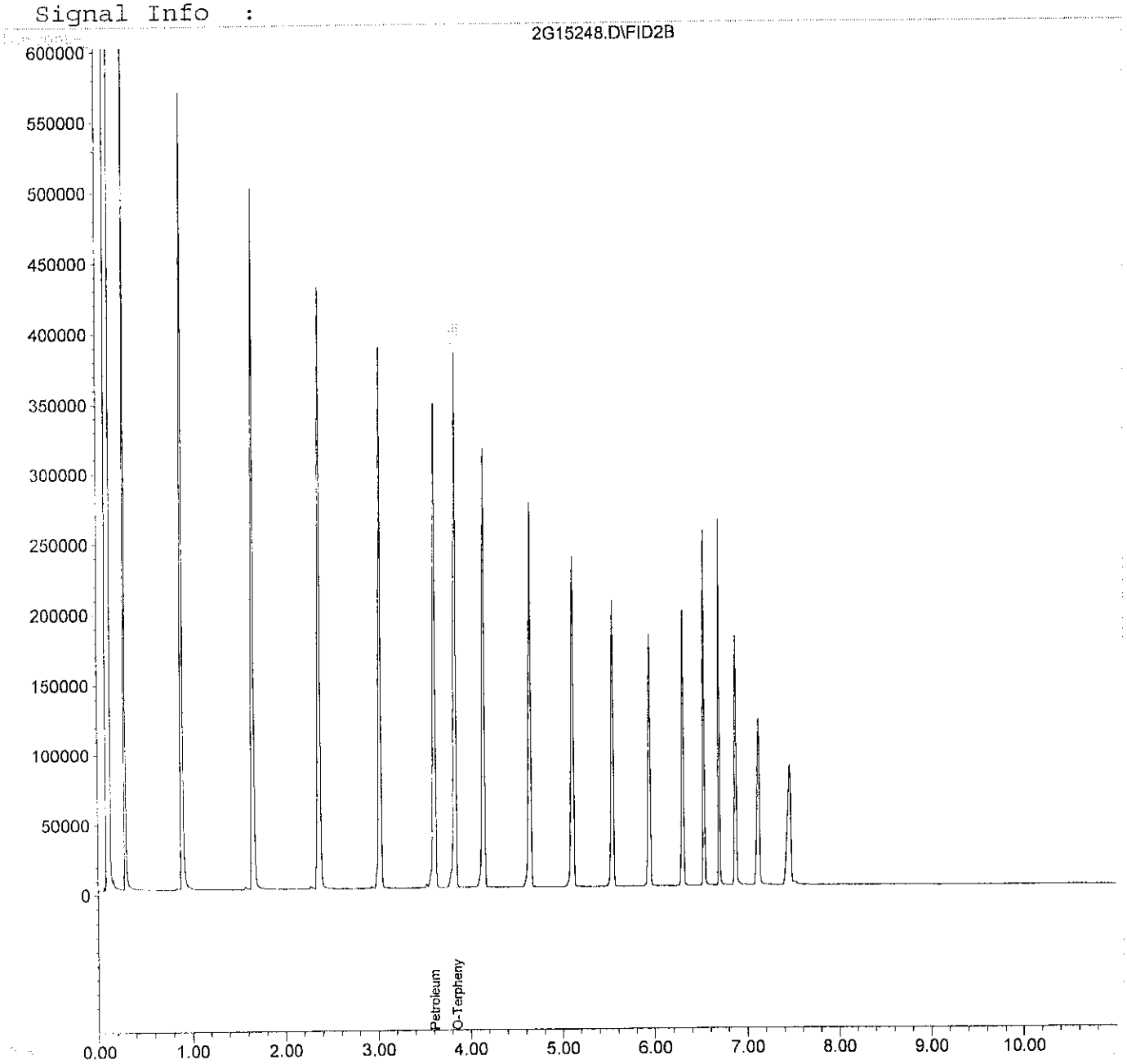
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 19 Sep 2001 15:54
Sample : PRO STD 400ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\

Acq On : 19 Sep 2001 16:10
Sample : PRO STD 100ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
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	1699292	61.615 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	308.08%#
Target Compounds			
1) H Petroleum Range	3.60	20076678	997.704 ppb

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

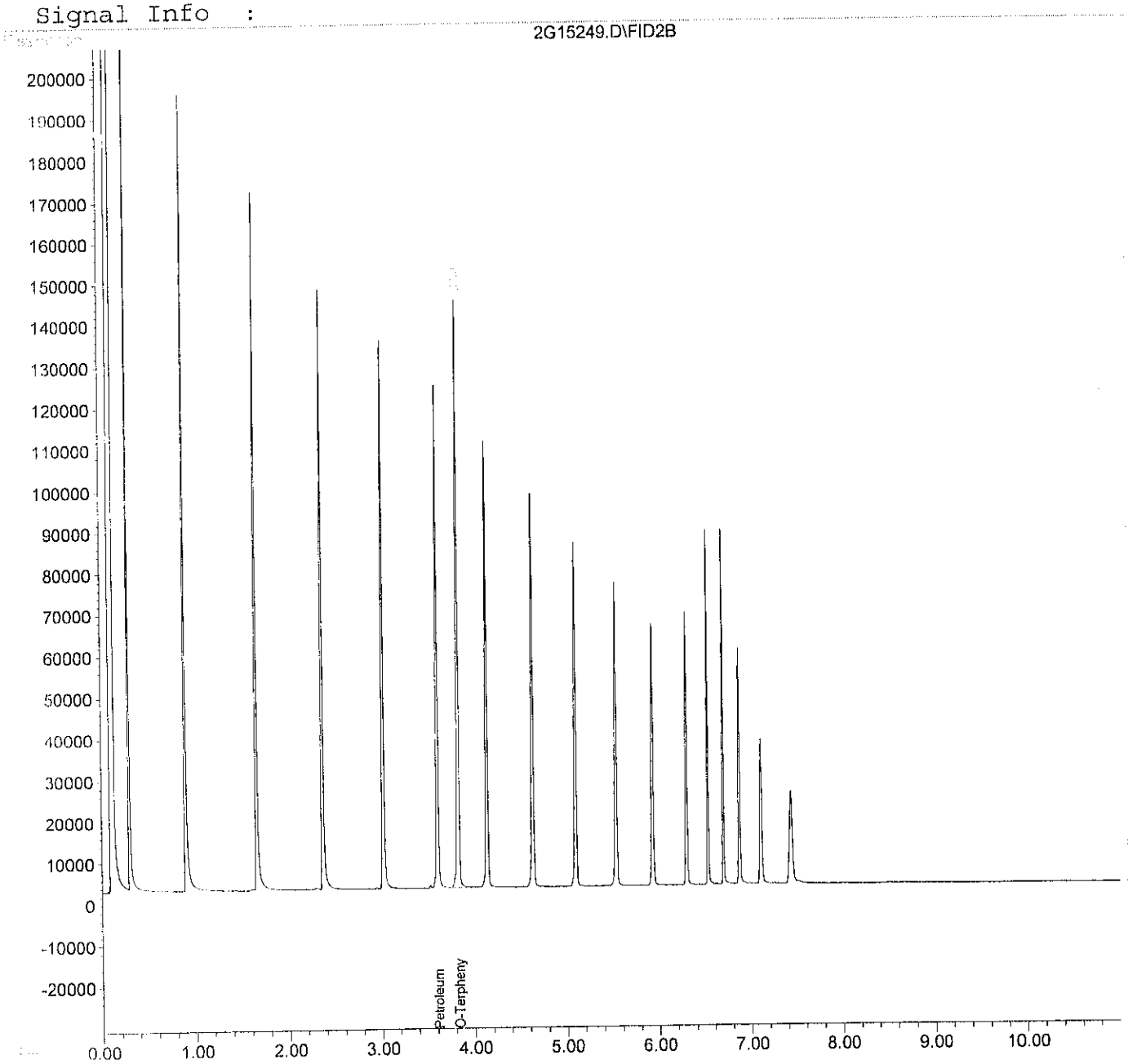
Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Sep 2001 16:10
Sample : PRO STD 100ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/05/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 19 Sep 2001 16:25
Sample : PRO STD 50ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	987802	35.817 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	179.09%#
Target Compounds			
1) H Petroleum Range	3.60	11818185	587.301 ppb

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

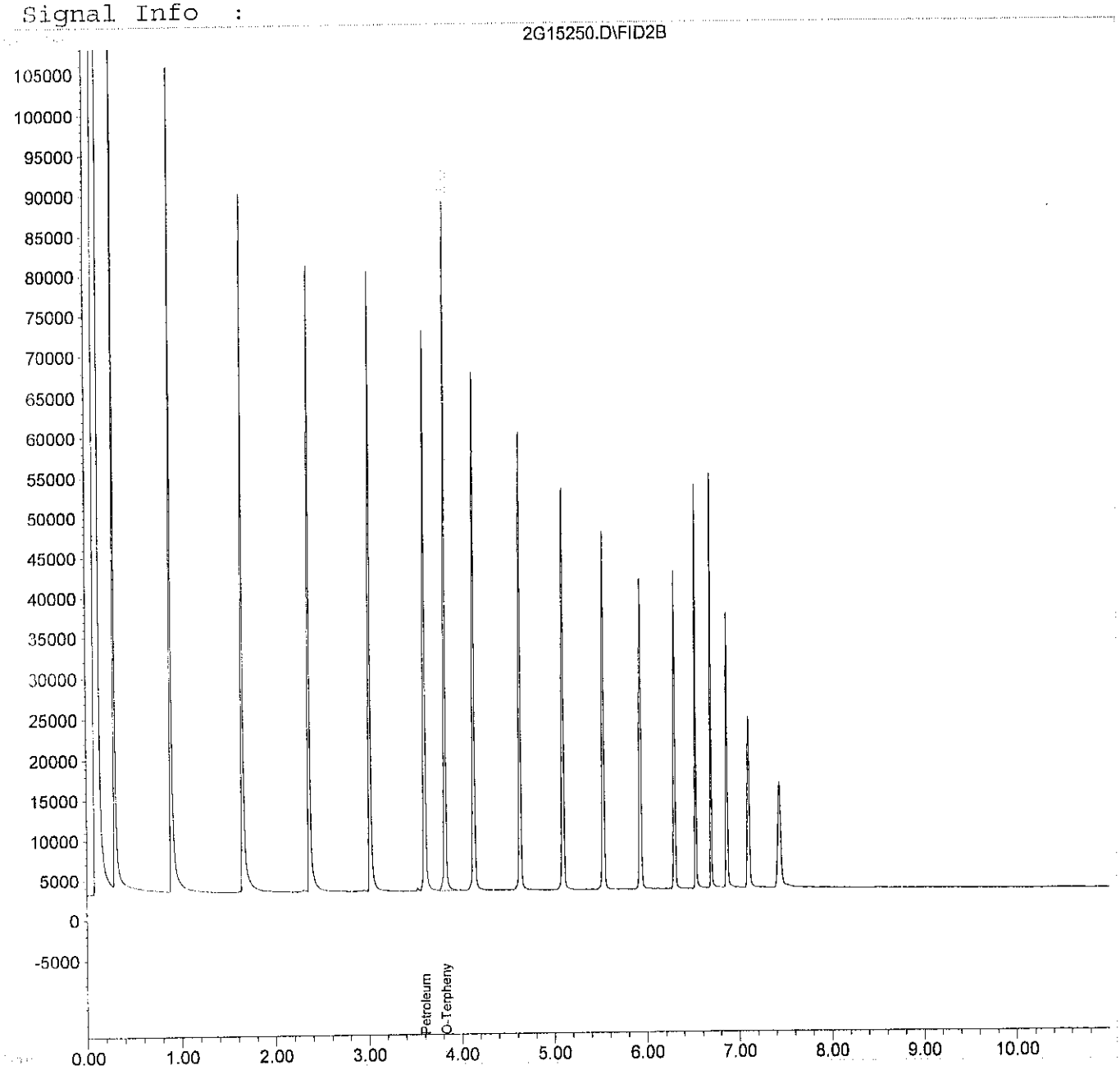
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 19 Sep 2001 16:25
Sample : PRO STD 50ppm
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\091901A\2G15251.D Vial: 8
Acq On : 19 Sep 2001 16:41 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

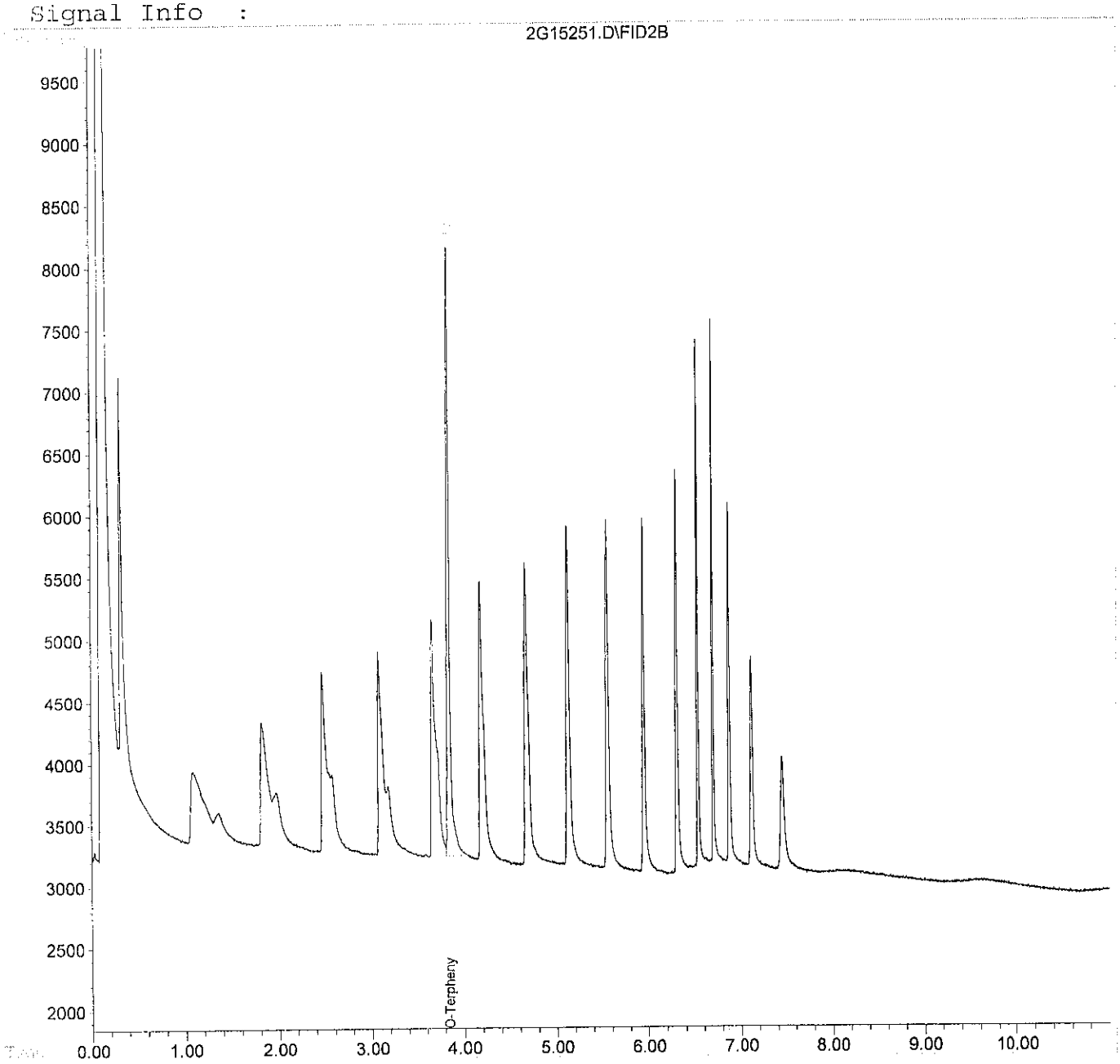
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.84	92235	3.344 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	16.72%#
Target Compounds			
1) H Petroleum Range	3.60	921630	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15251.D FLASHPRO.M Wed Sep 19 17:07:38 2001 Page 1

Data File : C:\HPCHEM\1\DATA\091901A\2G15251.D
Acq On : 19 Sep 2001 16:41 Operator: HV
Sample : PRO STD 5ppm Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 19 16:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\091901A\2G15252.D
Acq On : 19 Sep 2001 17:12
Sample : ALT PRO @200ppm
Misc : SOS 53-49 Exp 11/04/01
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3813.498	-12.2	112	0.00
2	S	O-Terphenyl	200.000	0.009	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15252.D FLASHPRO.M Thu Sep 20 08:24:06 2001 Page 1

Data File : C:\HPCHEM\1\DATA\091901A\2G15252.D Vial: 9
Acq On : 19 Sep 2001 17:12 Operator: HV
Sample : ALT PRO @200ppm Inst : hp2
Misc : SOS 53-49 Exp 11/04/01 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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)

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

Data File : C:\HPCHEM\1\DATA\091901A\2G15252.D
Acq On : 19 Sep 2001 17:12
Sample : ALT PRO @200ppm
Misc : SOS 53-49 Exp 11/04/01
IntFile : PETRO.E
Quant Time: Sep 20 8:24 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.84	162	0.009 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	0.05%#
Target Compounds			
1) H Petroleum Range	3.60	45019835	3813.498 ppb

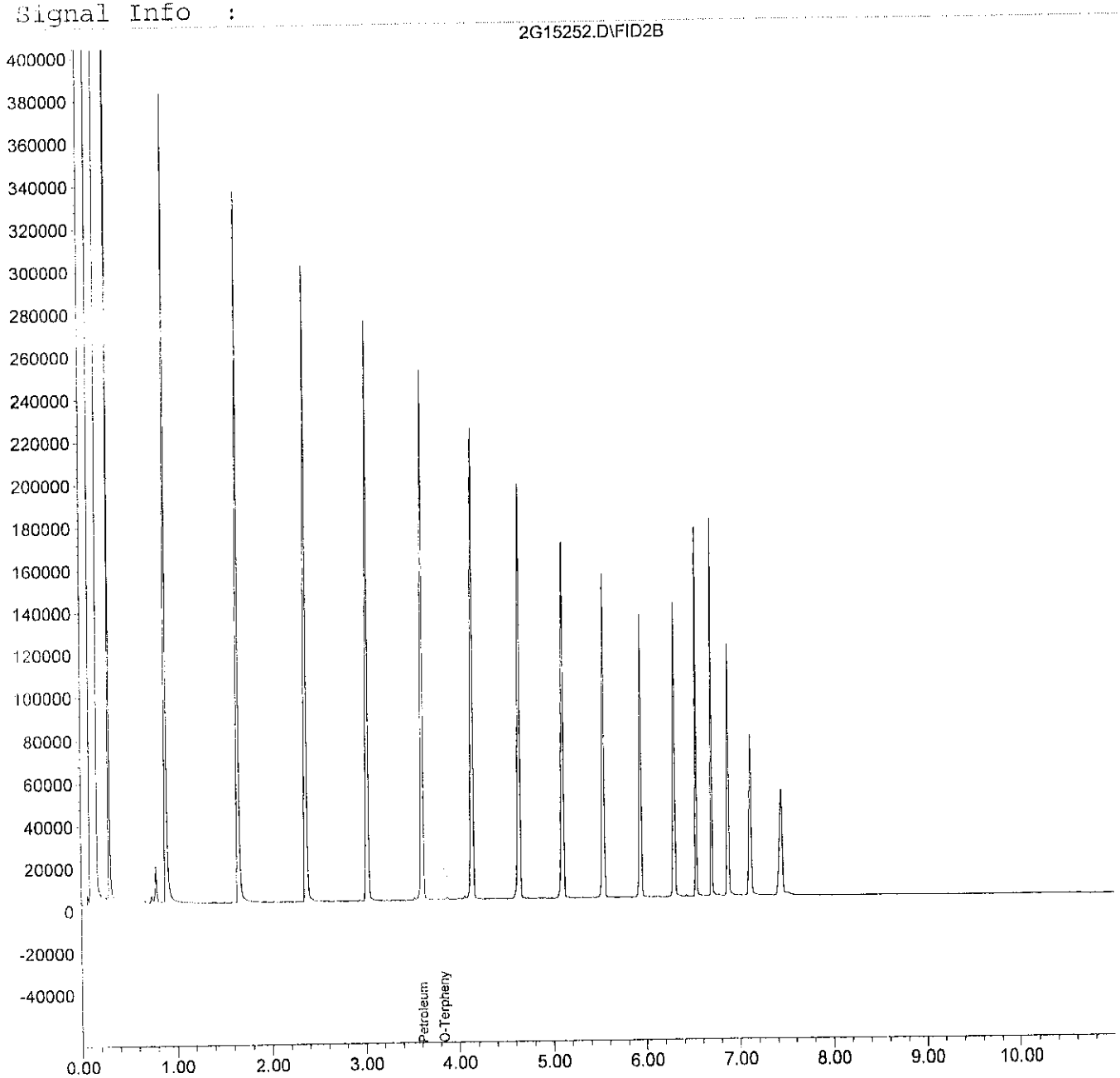
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15252.D FLASHPRO.M Thu Sep 20 08:24:16 2001 Page 230

Data File : C:\HPCHEM\1\DATA\091901A\2G15252.D
Acq On : 19 Sep 2001 17:12
Sample : ALT PRO @200ppm
Misc : SOS 53-49 Exp 11/04/01
IntFile : PETRO.E
Quant Time: Sep 20 8:24 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\091901A\2G15263.D
Acq On : 19 Sep 2001 20:03
Sample : PRO CONT CHK
Misc : SOS 55-03
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3414.945	-0.4	101	0.00
2	S	O-Terphenyl	200.000	201.971	-1.0	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15263.D FLASHPRO.M Thu Sep 20 08:24:39 2001 Page 1

Acq On : 19 Sep 2001 20:03 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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)

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

Acq On : 19 Sep 2001 20:03 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 20 8:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.84	3479098	201.971 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1009.86%#			
Target Compounds			
1) H Petroleum Range	3.60	40314762	3414.945 ppb

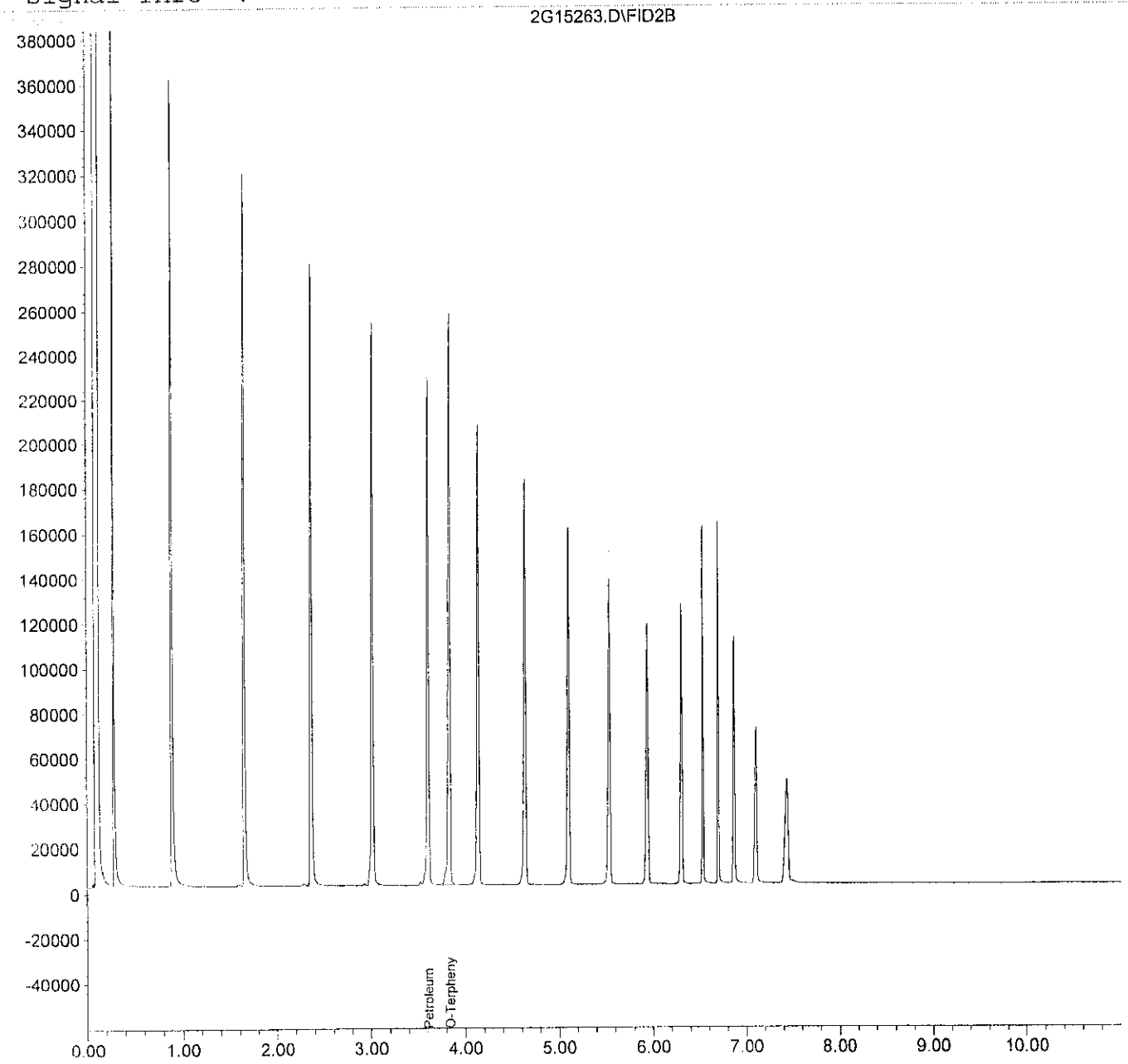
(f)=RT Delta > 1/2 Window (m)=manual int.
2G15263.D FLASHPRO.M Thu Sep 20 08:24:43 2001 Page 1

Data File : C:\HPCHEM\1\DATA\091901A\2G15263.D

Acq On : 19 Sep 2001 20:03 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : SOS 55-03 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 20 8:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G15263.D FLASHPRO.M Thu Sep 20 08:24:44 2001 Page

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

Acq On : 19 Sep 2001 22:22
Sample : PRO CONT CHK
Misc : SOS 55-03
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3803.672	-11.9	112	0.00
2	S	O-Terphenyl	200.000	222.664	-11.3	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15272.D FLASHPRO.M Thu Sep 20 08:25:18 2001 Page 1

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

Acq On : 19 Sep 2001 22:22
Sample : PRO CONT CHK
Misc : SOS 55-03
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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)

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

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

Acq On : 19 Sep 2001 22:22
Sample : PRO CONT CHK
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 20 8:25 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3.84	3835556	222.664 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1113.32%#
Target Compounds			
1) H Petroleum Range	3.60	44903840	3803.672 ppb

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

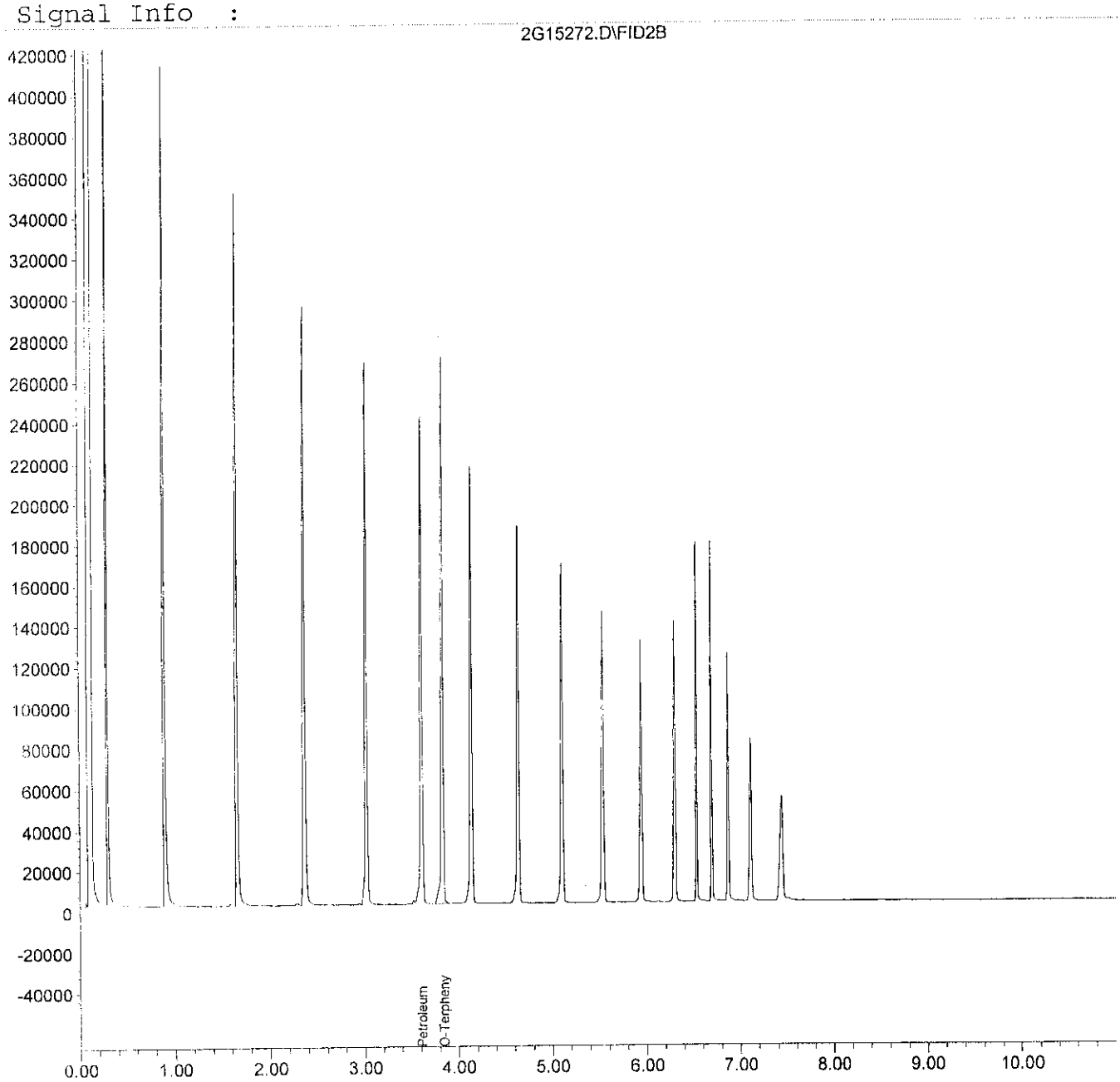
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 19 Sep 2001 22:22
Sample : PRO CONT CHK
Misc : SOS 55-03
IntFile : PETRO.E
Quant Time: Sep 20 8:25 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\2G15393.D Vial: 3
Acq On : 25 Sep 2001 9:42 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : Multiplr: 1.00
IntFile : PETRO.E

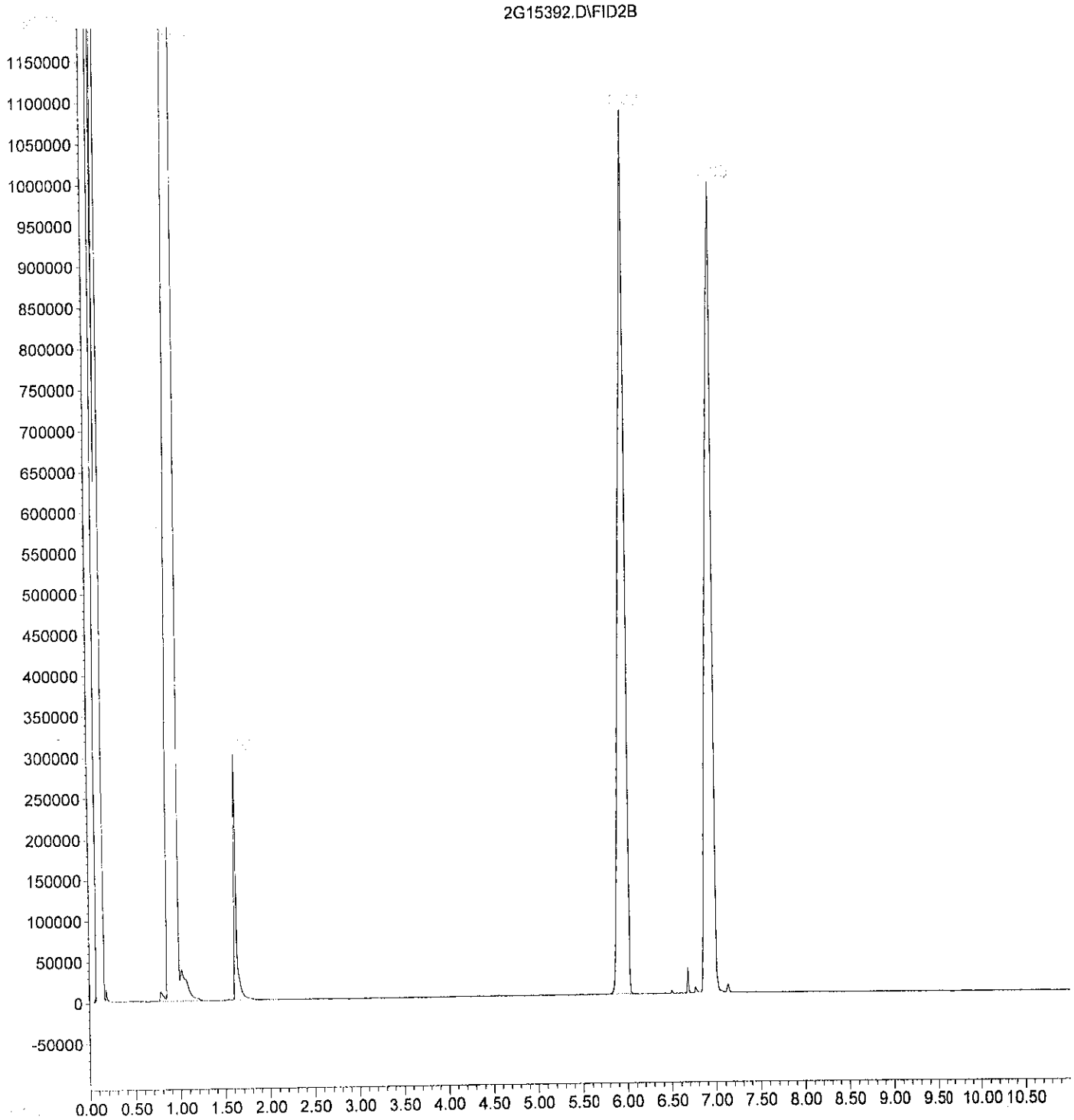
Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration

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	3621.307	-6.5	107	0.00
2	S	O-Terphenyl	200.000	196.593	1.7	100	-0.04

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

File : C:\HPCHEM\1\DATA\092501\2G15392.D
Operator : HV
Acquired : 25 Sep 2001 9:26 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info :
Vial Number: 2



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

Acq On : 25 Sep 2001 9:42
Sample : PRO CONT CHK
Misc :
IntFile : PETRO.E
Quant Time: Sep 25 9:53 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3386456	196.593 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	982.96%#
Target Compounds			
1) H Petroleum Range	3.60	42750949	3621.307 ppb

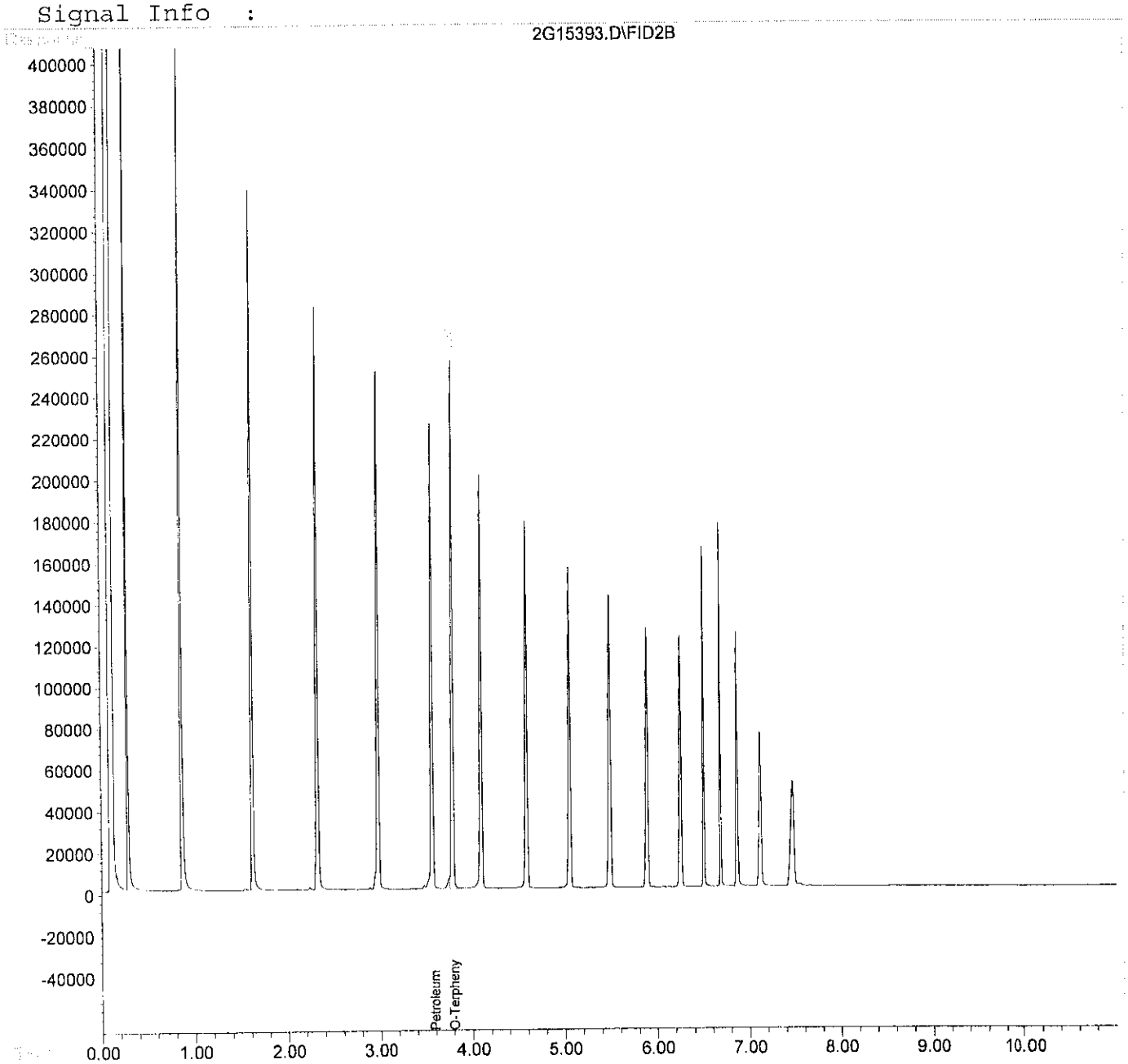
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 25 Sep 2001 9:42
Sample : PRO CONT CHK
Misc :
IntFile : PETRO.E
Quant Time: Sep 25 9:53 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Sep 2001 12:40
Sample : PRO CONT CHK
Misc : water
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	3292.835	3.2	97	0.00
2	S	O-Terphenyl	200.000	188.247	5.9	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G15403.D FLASHPRO.M Tue Sep 25 12:54:37 2001 Page 1

Acq On : 25 Sep 2001 12:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 12:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

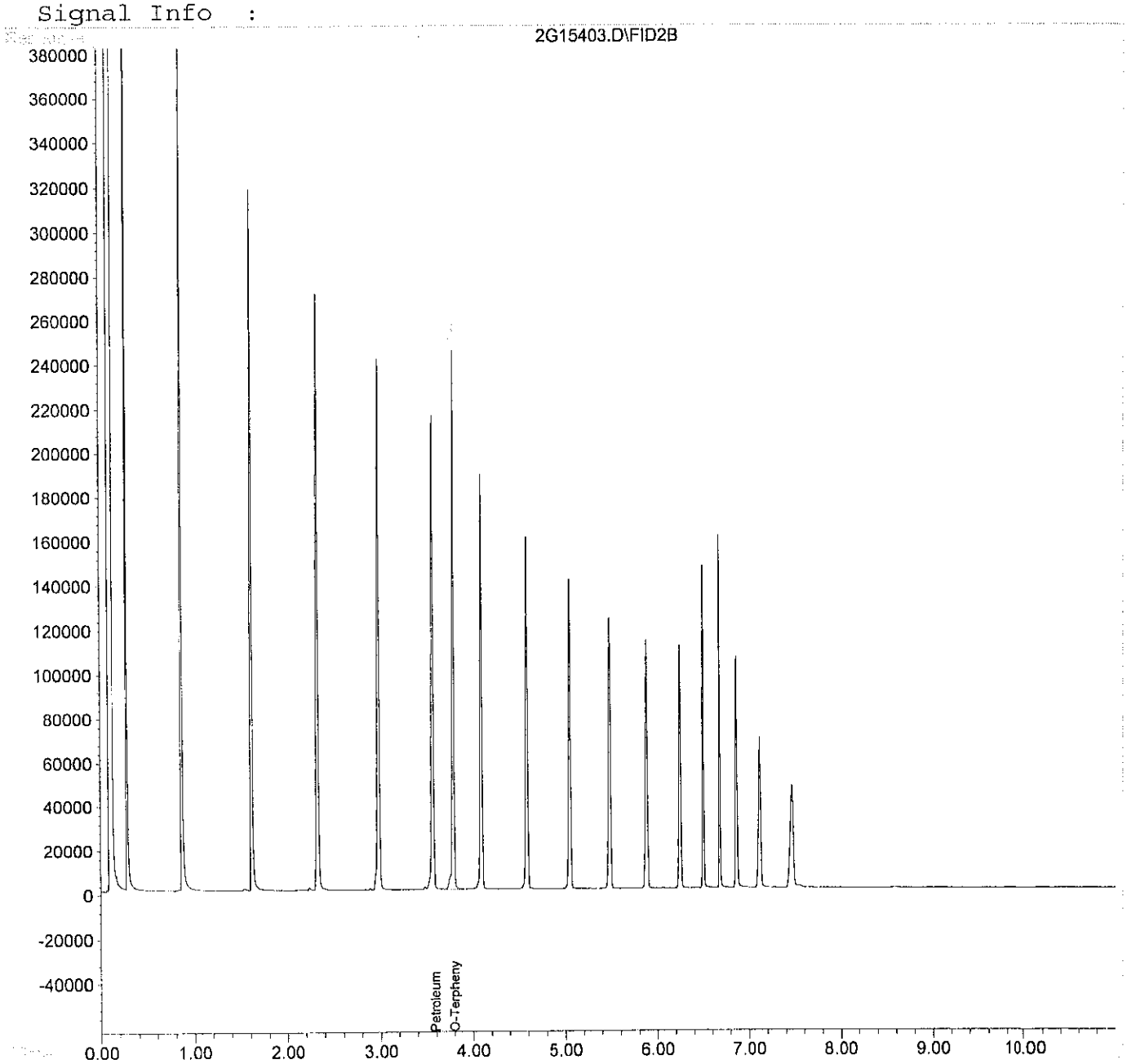
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	3.80	3242690	188.247 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 941.24%#			
Target Compounds			
1) H Petroleum Range	3.60	38873209	3292.835 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G15403.D FLASHPRO.M Tue Sep 25 12:54:42 2001 Page 1

Acq On : 25 Sep 2001 12:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 12:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 12:28:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\091901A\2G15253.D
Acq On : 19 Sep 2001 17:29
Sample : PRO water BLK V172-P75
Misc : water
IntFile : PETRO.E
Quant Time: Sep 20 8:26 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	233566	13.559 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	67.79%
Target Compounds			
1) H Petroleum Range	3.60	1490651	<MDL ppb

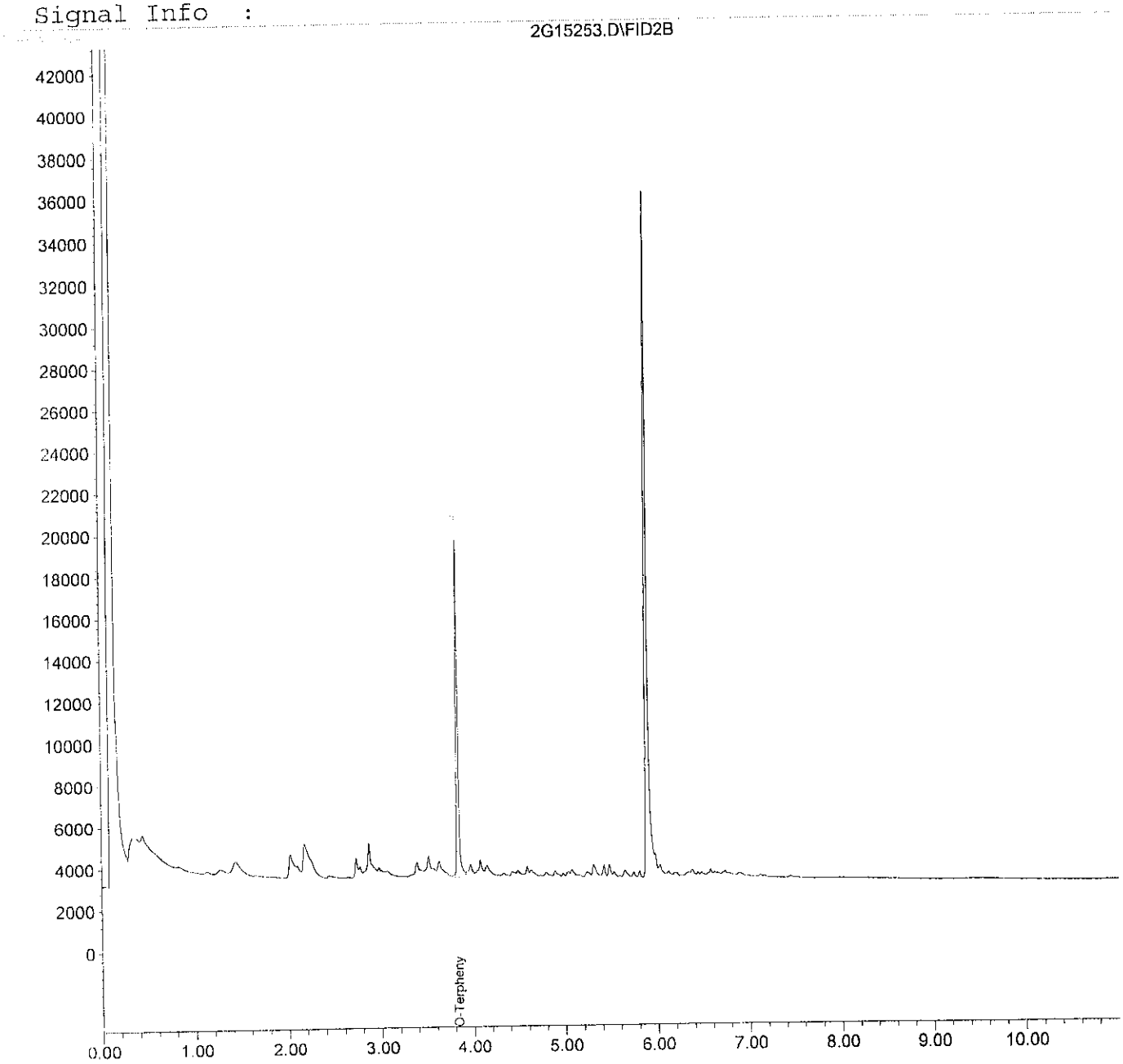
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 19 Sep 2001 17:29
Sample : PRO water BLK V172-P75
Misc : water
IntFile : PETRO.E
Quant Time: Sep 20 8:26 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 19 Sep 2001 17:44
Sample : PRO water LCS V172-P75
Misc : water
IntFile : PETRO.E
Quant Time: Sep 20 8:26 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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	321087	18.640 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	93.20%
Target Compounds			
1) H Petroleum Range	3.60	28381626	2404.124 ppb

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

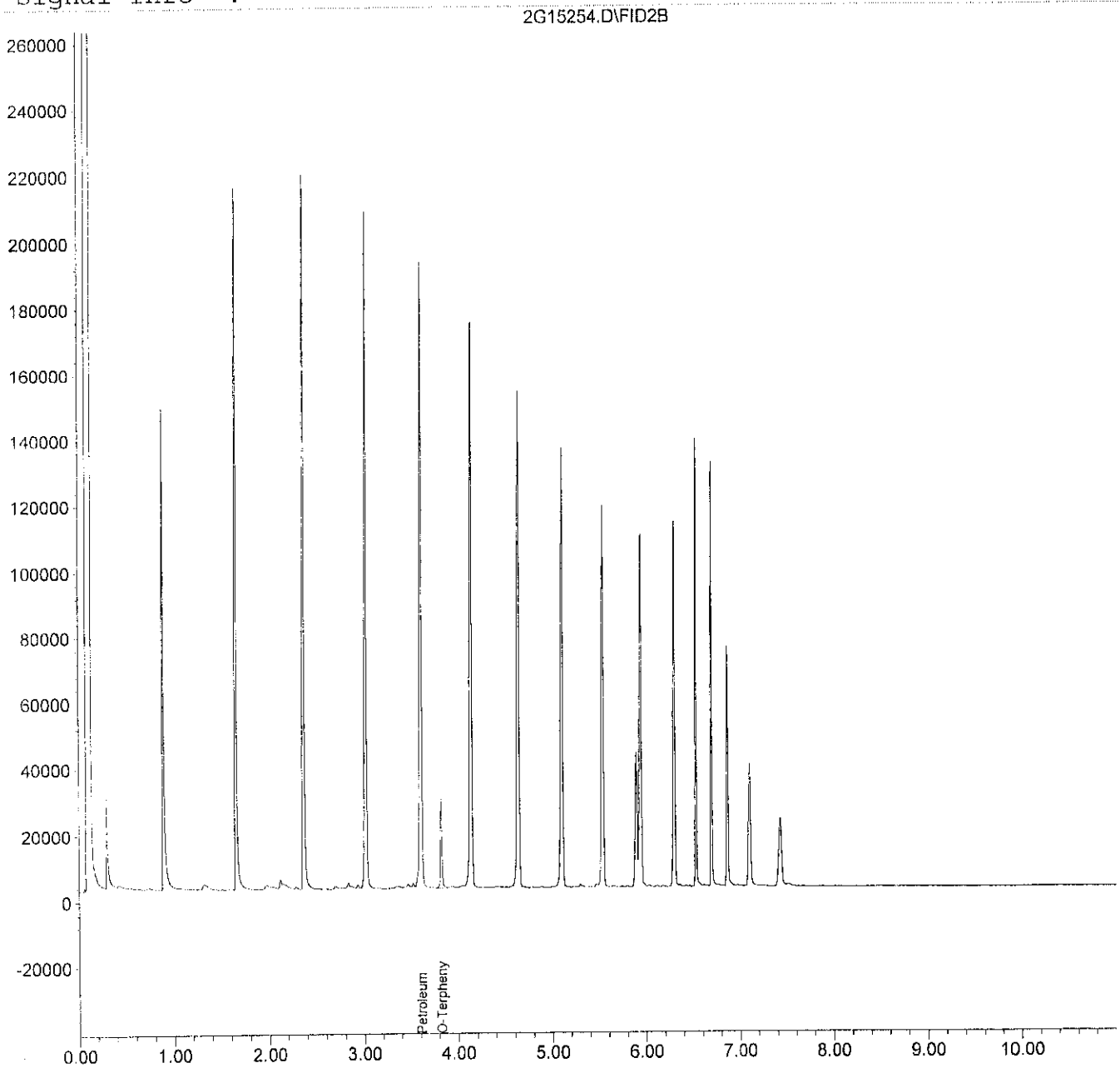
Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Sep 2001 17:44
Sample : PRO water LCS V172-P75
Misc : water
IntFile : PETRO.E
Quant Time: Sep 20 8:26 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Wed Sep 19 15:36:45 2001
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 Sep 2001 9:57 Operator: HV
Sample : PRO water BLK V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:45 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
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	307462	17.849 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	89.24%	
Target Compounds			
1) H Petroleum Range	3.60	1423135	<MDL ppb

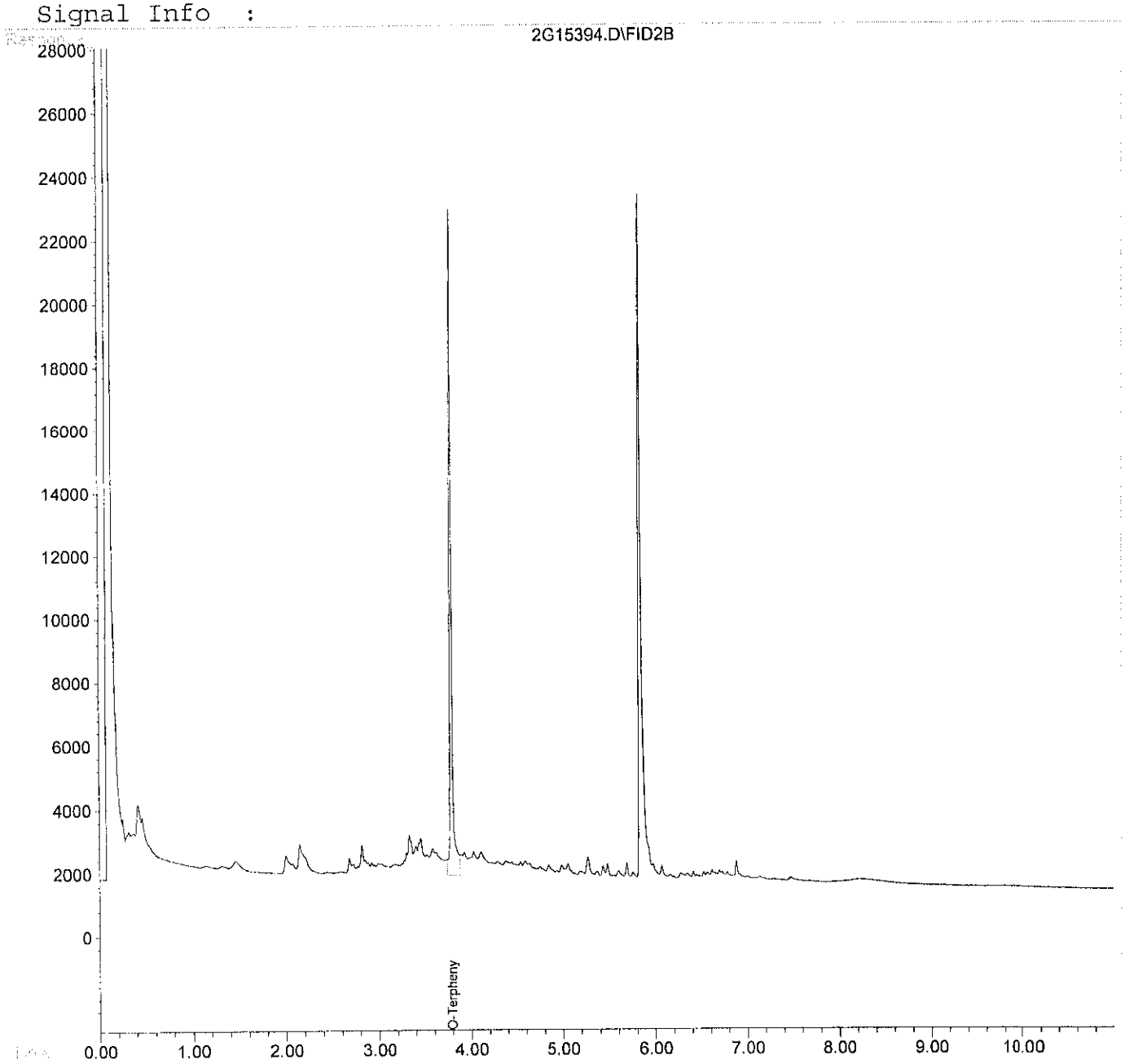
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\092501\2G15394.D
Acq On : 25 Sep 2001 9:57
Sample : PRO water BLK V172-P151
Misc : water
IntFile : PETRO.E
Quant Time: Sep 25 11:45 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\2G15396.D Vial: 6
Acq On : 25 Sep 2001 10:28 Operator: HV
Sample : PRO water LCS V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
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	518059	30.075 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery = 150.38%	
Target Compounds			
1) H Petroleum Range	3.60	35911022	3041.917 ppb

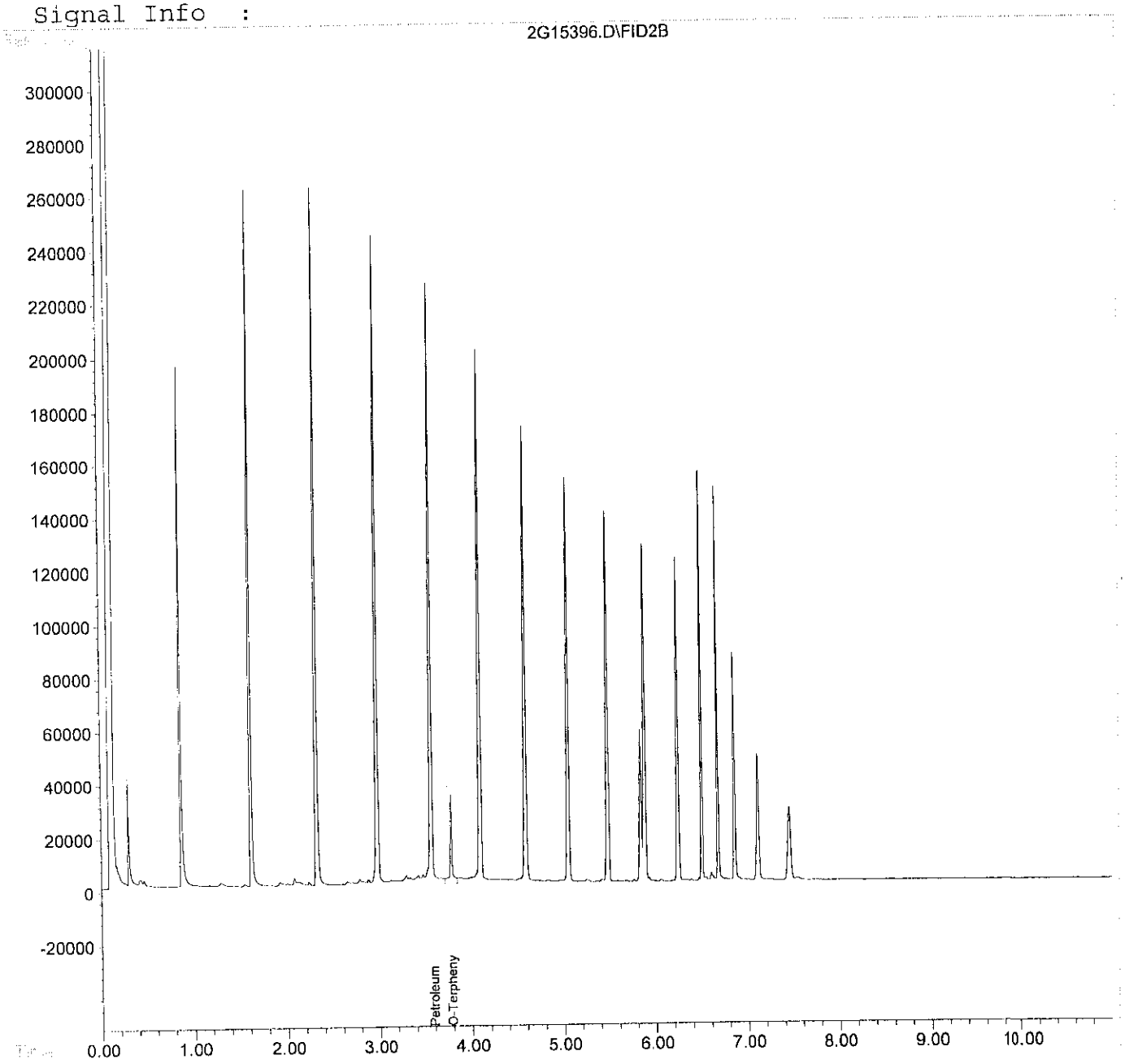
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\092501\2G15396.D
Acq On : 25 Sep 2001 10:28
Sample : PRO water LCS V172-P151
Misc : water
IntFile : PETRO.E
Quant Time: Sep 25 11:46 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\092501\2G15397.D

Acq On : 25 Sep 2001 10:43 Operator: HV
Sample : PRO water LCS DUP V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:47 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
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	3.78	445593	25.868 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	129.34%
Target Compounds			
1) H Petroleum Range	3.60	32722307	2771.811 ppb

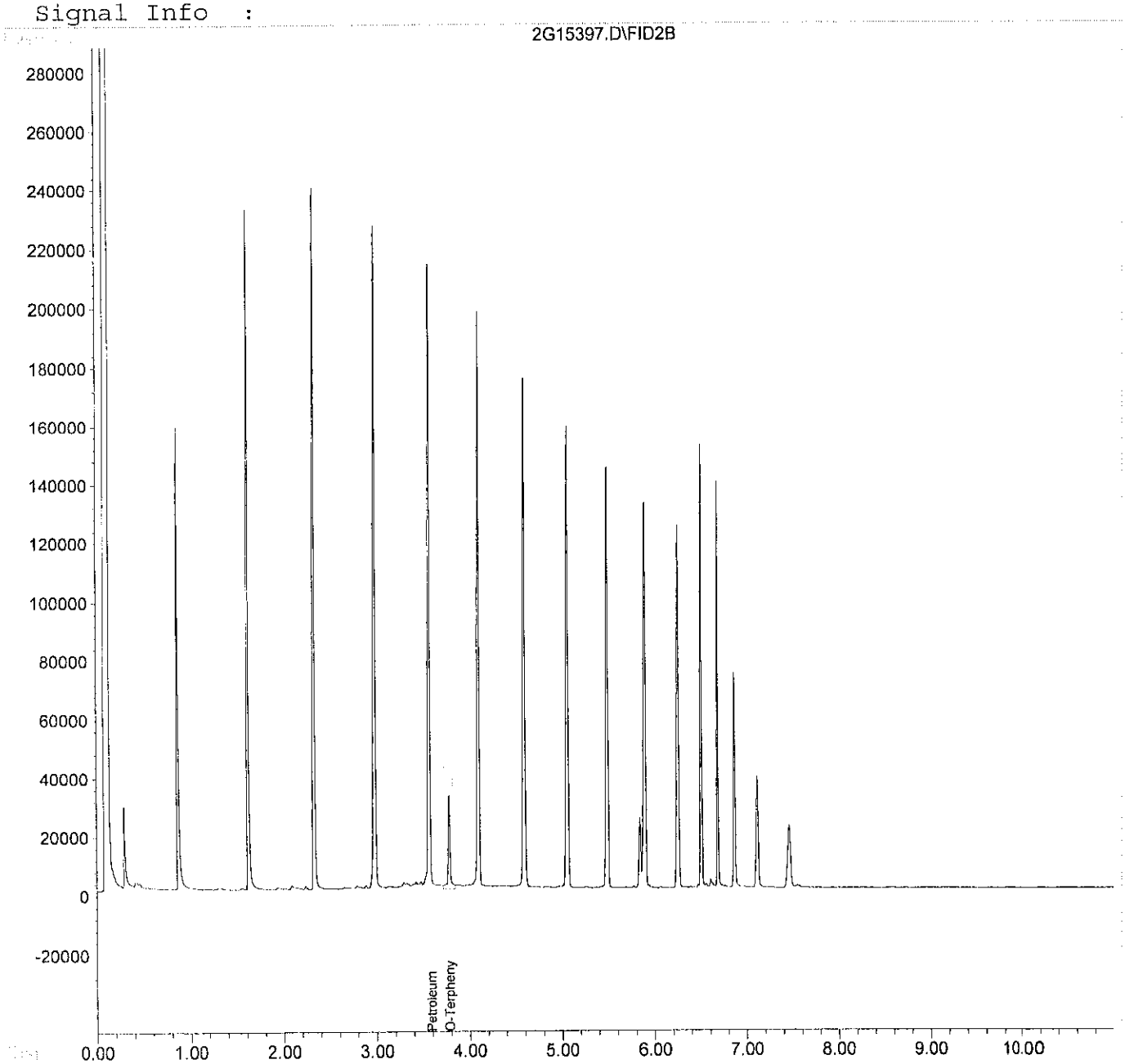
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 25 Sep 2001 10:43 Operator: HV
Sample : PRO water LCS DUP V172-P151 Inst : hp2
Misc : water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Sep 25 11:47 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 09/19/01
Last Update : Tue Sep 25 11:45:12 2001
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	2g15244.d	1.	MECL2	water	19 Sep 101 12::4
2	2	2g15245.d	1.	WIN DEF STD	NS 13-45	19 Sep 101 [illegible]
3	3	2g15246.d	1.	PRO CONT CHK	NS 13-45	19 Sep 101 [illegible]
4	4	2g15247.d	1.	PRO STD 600ppm	sos 55-03	19 Sep 101 12::3
5	5	2g15248.d	1.	PRO STD 400ppm	SOS 55-03	19 Sep 101 12::5
6	6	2g15249.d	1.	PRO STD 100ppm	SOS 55-03	19 Sep 101 12::1
7	7	2g15250.d	1.	PRO STD 50ppm	SOS 55-03	19 Sep 101 12::2
8	8	2g15251.d	1.	PRO STD 5ppm	SOS 55-03	19 Sep 101 12::4
9	9	2g15252.d	1.	ALT PRO @200ppm	SOS 53-49 Exp 11/04/01	19 Sep 101 12::1
10	10	2g15253.d	1.	PRO water BLK V172-P75	water	19 Sep 101 [illegible]
11	11	2g15254.d	1.	PRO water LCS V172-P75	water	19 Sep 101 [illegible]
12	12	2g15255.d	1.04	L0109252-01 PRO water	water	19 Sep 101 [illegible]
13	13	2g15256.d	1.04	L0109252-02 PRO water	water	19 Sep 101 12::1
14	14	2g15257.d	1.	L0109252-03 PRO water	water	19 Sep 101 12::3
15	15	2g15258.d	1.04	L0109252-04 PRO water	water	19 Sep 101 12::4
16	16	2g15259.d	1.04	L0109252-05 MS PRO water	water	19 Sep 101 12::0
17	17	2g15260.d	1.04	L0109252-06 MSD PRO water	water	19 Sep 101 12::1
18	11	2g15261.d	1.	PRO water LCS RR	water	19 Sep 101 12::3
19	18	2g15262.d	1.	MECL2	water	19 Sep 101 12::4
20	19	2g15263.d	1.	PRO CONT CHK	SOS 55-03	19 Sep 101 12::0
21	20	2g15264.d	1.04	L0109252-07 PRO water	water	19 Sep 101 12::1
22	21	2g15265.d	1.05	L0109252-08 PRO water	water	19 Sep 101 12::3
23	22	2g15266.d	1.05	L0109252-09 PRO water	water	19 Sep 101 12::4
24	23	2g15267.d	1.04	L0109254-01 PRO water	water	19 Sep 101 12::0
25	24	2g15268.d	1.05	L0109254-02 PRO water	water	19 Sep 101 [illegible]
26	25	2g15269.d	1.04	L0109254-03 PRO water	water	19 Sep 101 [illegible]
27	26	2g15270.d	1.	L0109254-04 PRO water	water	19 Sep 101 12::5
28	18	2g15271.d	1.	mecl2	water	19 Sep 101 13::0
29	19	2g15272.d	1.	PRO CONT CHK	SOS 55-03	19 Sep 101 13::2

HV 9/20/01
[illegible] 9/20/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 9-19-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 091901A
Analyst Initials HY

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

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
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

Reviewed By: [illegible] 9/20/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g15390.d	1.	PENTANE		25 Sep 101 12::5
2	2	2g15391.d	1.	WIN DEF STD NS 13-45		25 Sep 101 12::1
3	2	2g15392.d	1.	WIN DEF STD		25 Sep 101 12::2
4	3	2g15393.d	1.	PRO CONT CHK SOS 55-03		25 Sep 101 12::4
5	4	2g15394.d	1.	PRO water BLK V172-P151	water	25 Sep 101 12::5
6	5	2g15395.d	10.4	L0109269-01 10X PRO water	water	25 Sep 101 13::1
7	6	2g15396.d	1.	PRO water LCS V172-P151	water	25 Sep 101 13::2
8	7	2g15397.d	1.	PRO water LCS DUP V172-P151	water	25 Sep 101 13::4
9	8	2g15398.d	1.1	L0109252-02 RE PRO water	water	25 Sep 101 13::5
10	9	2g15399.d	1.03	L0109352-03 RE PRO water	water	25 Sep 101 13::1
11	10	2g15400.d	1.1	L0109352-08 RE PRO water	water	25 Sep 101 13::2
12	11	2g15401.d	1.06	L0109340-04 PRO water	water	25 Sep 101 13::4
13	12	2g15402.d	1.05	L0109342-02 PRO water	water	25 Sep 101 13::2
14	13	2g15403.d	1.	PRO CONT CHK SOS 55-03	water	25 Sep 101 13::4
15	1	2g15404.d	1.	pentane	water	25 Sep 101 13::5
16	2	2g15405.d	1.05	TPH CONT CHK NS 14-01	water	25 Sep 101 12::1
17	3	2g15406.d	1.05	TPH ALIPHATIC @20ppm	SOS 55-23	25 Sep 101 12::2
18	4	2g15407.d	0.855	L0109313-01 TPH Aliphatic	water	25 Sep 101 12::4
19	5	2g15408.d	0.855	L0109313-01 TPH Aromatic	water	25 Sep 101 12::0
20	6	2g15409.d	0.855	pentane	water	25 Sep 101 12::1
21	7	2g15410.d	1.	TPH CONT CHK NS 14-01	water	25 Sep 101 12::3

HV 9/25/01

RDC 9/25/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 9-25-01 Instrument ID HP2 Column ID RTX 5 Data Subdirectory 092501
Analyst Initials HV

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

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___ ✓ TPH-T1006

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

Reviewed By: RJC 9/25/02

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Parameter: FLA-PRO-H SOP #: EXPRO Revision #: 2
Extraction Analyst(s): JAA TV/KD Analyst(s): DP, SMH
Date/Time Extracted: 9/18/01 20:45 Date TV/KD: 09/19/01
Spike/Surrogate Analyst: JAA Witness: GSP
Surrogate #: FS5003 8-13 Earliest Hold Date: 9/24
Spike #: A = FS5003 8-38 Spike #: B = —

Extraction Work Group WG 104844
Analytical Work Group WG 104872

Extract Relinquished By: DP
Extract Received By & Date: 9/19/01

	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 104844-02
2	LCS	9/25	✓			↓		1ml		T				WG 104844-03
3	09-252-01	FLA-PRO	✓			965ml				C				
4	02		✓			↓				C				
5	03		✓			1L				C				
6	04		✓			965ml				T				WG 104844-01
7	05MS		✓			↓		1ml		T			*	WG 104844-04
8	06MSD		✓			965ml	965ml	↓		T			*	WG 104844-05
9	07		✓			↓				T				
10	08		✓			950ml				T				
11	09		✓			↓				T				
12	09-254-01		✓			965ml				T				
13	02		✓			950ml				T				
14	03		✓			965ml				T				
15	04		✓			1L				T				
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 09/19/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1HCl Lot #: ER 1915
Florisil Lot #: — 09/19 DP
Silica Gel Lot #: V13558
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1913

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 Turner Date: 09/19/01

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Extraction Notes For Volume # 172 Page # 75

General Comments: MS of 09-252-04
MSD of L

Extraction Anomalies: nothing to report

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: Nothing to report

Supervisor Review: _____ Date: _____

Parameter: FLA-PRO-H SOP #: EXPRO Revision #: 1
Extraction Analyst(s): [illegible] TV/KD Analyst(s): JAW/SAM
Date/Time Extracted: 9-24-01 @ 1205 Date TV/KD: 9-24-01
Spike/Surrogate Analyst: [illegible] Witness: [illegible]
Surrogate #: ES50038-13 Earliest Hold Date: 9/27/01
Spike #: A = ES50038-38 Spike #: B = ——

Extraction Work Group WG 105122
Analytical Work Group WG [illegible]

Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 9/25/01

	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 105122-01
2	LCS		✓			↓	↓	1mL	↓	C				WG ↓ -02
3	LCS DUP		✓			↓	↓	↓	↓	C				↓ ↓ -03
4	09-340-04	FLA-PRO	✓			940mL	↓		↓	T				
5	09-342-02	↓	✓			950mL	↓		↓	T				
6	09-252-02	↓	✓			910mL	↓		↓	C				*
7	↓ -03	↓	✓			970mL	↓		↓	T				↓
8	↓ -08	↓	✓			910mL	↓		↓	T				↓
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

SAM 9/24/01

Methylene Chloride Lot #: 41109
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: 1:1 HCl Lot #: ER1915
Florisil Lot #: ——
Silica Gel Lot #: V13558
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER1913

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: _____ Date: _____

Extraction Notes For Volume # 172 Page # 151

General Comments: * Re-ext w/in hold

Extraction Anomalies: Nothing to report.

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

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.: L0109252

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: All acceptance criteria were met.

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: 10/3/01

Rev. 7/14/00

Semi-Volatile 8310 Checklist

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
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	
	Corrective Action	
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 curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK
NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 19-Sep-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG104897 09-252	9/25/2001	PFF
WG104897 09-254	9/25/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic 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	√
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:

L0109254-04 sent for re-extraction due to surrogate recovery <LCL.

L0109252-07 & 08 submitted for conf. of acenaphthylene by GC/MS.

Primary Reviewer: RDC 9/21/01

Secondary Reviewer: 9/24/01

Supervisor Review: 9/24/01

√ = Checked & OK

NA = Not Applicable

PAH HPLC DATA (8310)

Login Number: L0109252

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: RWC Date: 10/3/01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG104897
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG104843
EXT DATE : 18-Sep-01
EXT BENCH SHEET : V172P73

RUN DATE : 9/19/01
BLK FLNM : 4L002097
LCS FLNM : 4L002098

SAMP ID : L0109252 -04
SMPL FLNM : 4L002102
MS FLNM : 4L002103
MSD FLNM : 4L002104

ANALYTE	CONCENTRATION, µg/L								% RECOVERY														
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED*	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	1	ND	50	21.8	ND	50.0	23.7	20.8	ND	43.6	25	68	NA	45.1	40.0	25	68	13	50				
ACENAPTHYLENE	1	ND	50	23.0	ND	50.0	25.7	22.2	ND	46.0	25	77	NA	49.4	42.7	25	77	15	50				
1-METHYLNAPHTHALENE	1	ND	50	21.8	ND	50.0	23.8	20.6	ND	43.6	26	71	NA	45.3	39.6	26	71	14	50				
2-METHYLNAPHTHALENE	1	ND	50	22.1	ND	50.0	24.1	21.2	ND	44.2	26	72	NA	45.9	40.8	26	72	13	50				
ACENAPHTHENE	1	ND	50	23.2	ND	50.0	25.9	22.4	ND	46.4	25	78	NA	49.3	43.1	25	78	14	50				
FLUORENE	1	ND	50	26.3	ND	50.0	29.2	27.6	ND	52.6	29	84	NA	55.6	53.1	29	84	6	50				
PHENANTHRENE	1	ND	50	33.1	ND	50.0	37.3	36.0	ND	66.2	39	95	NA	71.0	69.2	39	95	4	50				
ANTHRACENE	1	ND	50	38.7	ND	50.0	38.7	43.5	ND	77.4	47	101	NA	73.7	83.7	47	101	12	50				
FLUORANTHENE	0.2	ND	5	4.26	ND	5.00	4.35	4.70	ND	85.2	55	104	NA	82.9	90.4	55	104	8	50				
PYRENE	0.2	ND	5	4.25	ND	5.00	4.30	4.70	ND	85.0	56	104	NA	81.9	90.4	56	104	9	50				
BENZO[a]ANTHRACENE	0.2	ND	5	4.44	ND	5.00	3.78	4.83	ND	88.8	50	115	NA	72.0	92.9	50	115	24	50				
CHRYSENE	0.2	ND	5	4.29	ND	5.00	3.47	4.70	ND	85.8	39	120	NA	66.1	90.3	39	120	30	50				
BENZO[b]FLUORANTHENE	0.2	ND	5	3.96	ND	5.00	2.76	4.07	ND	79.2	41	110	NA	52.6	58.1	41	110	38	50				
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.76	ND	2.50	1.17	1.78	ND	70.4	25	107	NA	44.6	68.5	25	107	41	50				
BENZO[a]PYRENE	0.2	ND	5	3.54	ND	5.00	2.38	3.54	ND	70.8	29	113	NA	45.3	68.1	29	113	39	50				
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	2.53	ND	5.00	1.15	1.73	ND	50.6	10	92	NA	21.9	33.3	10	92	40	50				
BENZO[g,h,i]PERYLENE	0.2	ND	5	2.34	ND	5.00	1.34	2.01	ND	46.8	11	84	NA	25.5	38.7	11	84	40	50				
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	2.80	ND	5.00	1.60	2.49	ND	56.0	16	98	NA	30.4	47.9	16	98	44	50				
SURROGATE																							
p-TERPHENYL-d14		6.69	10	8.31	4.96	10.0	6.04	8.72	66.9	83.1	40	132	47.8	57.5	83.9	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

* NOMINAL SPIKE AMOUNT

2.2.7.2 Sample Data

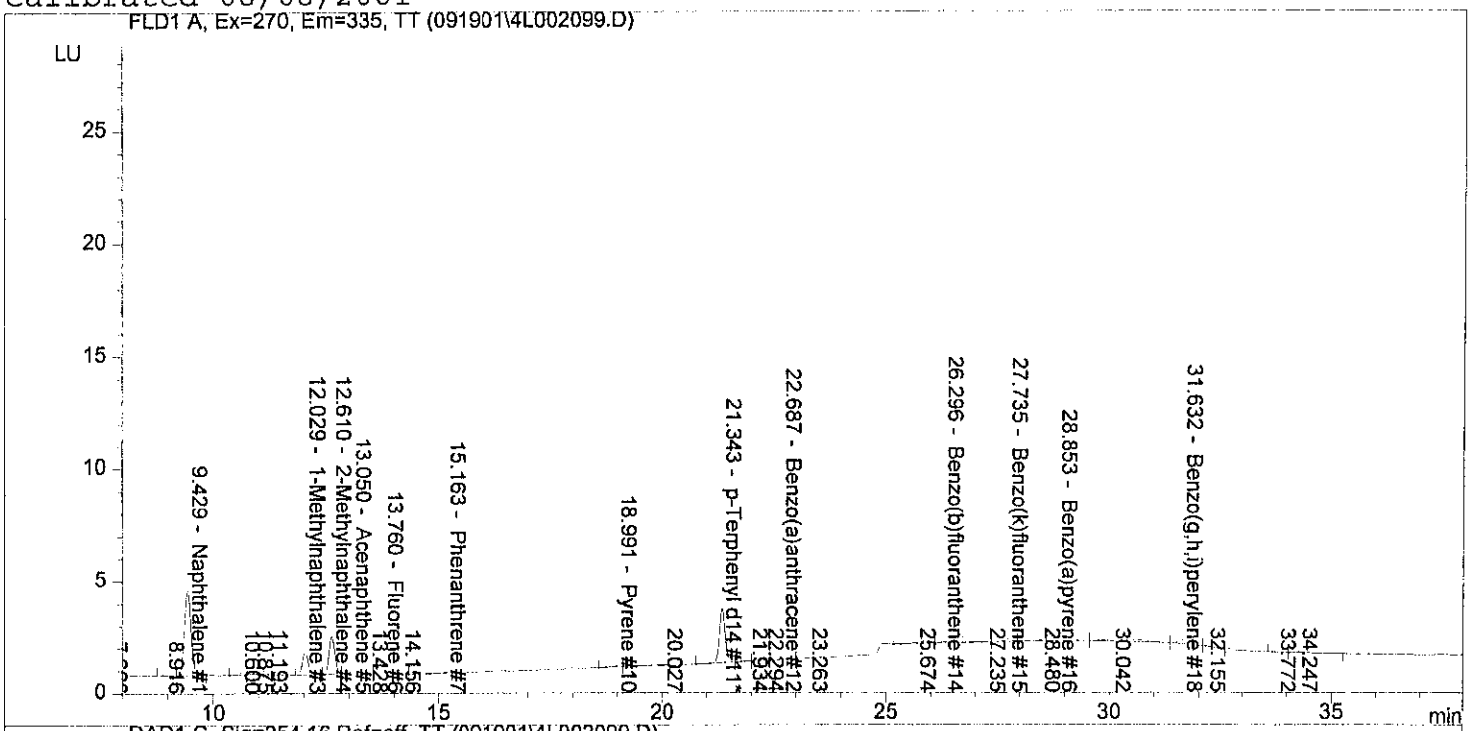
==========

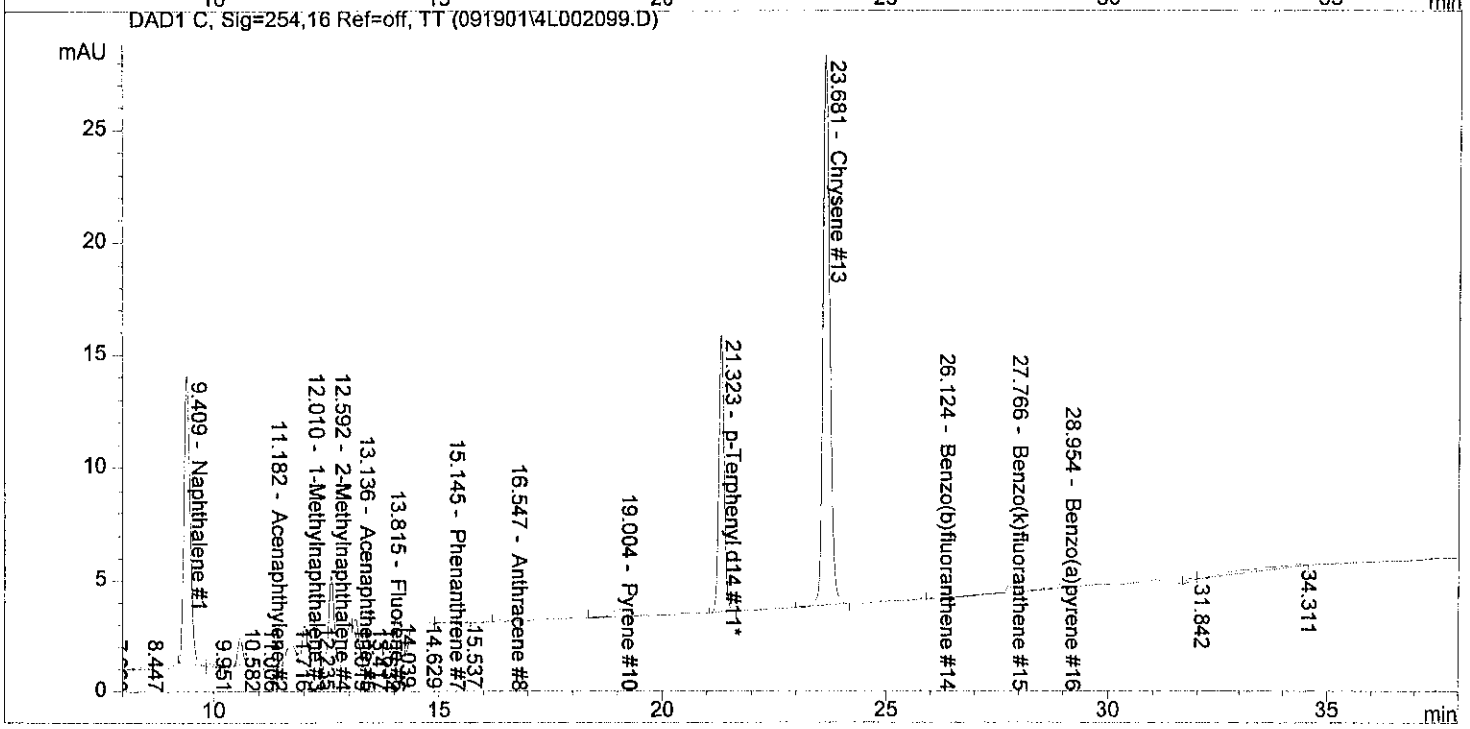
Injection Date : 9/19/2001 7:20:53 PM
Sample Name : L0109252-01 831W
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 AM
Multiplier : 1.0400
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	BBA	36.93642	2.52962e-2	9.71725e-1		Naphthalene #1
12.029	BB	9.65335	2.21330e-2	2.22204e-1		1-Methylnaphthalene #3
12.610	BB	15.50852	1.70635e-2	2.75215e-1		2-Methylnaphthalene #4
13.050	BB	1.16654	1.38416e-2	1.67926e-2		Acenaphthene #5
13.760	BB	3.20171	6.62187e-3	2.20493e-2		Fluorene #6
15.163	BB	3.89600e-1	1.63652e-1	6.63092e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.973		-	-	-		Fluoranthene #9
18.991	BB	3.80208e-1	3.86587e-2	1.52863e-2		Pyrene #10
21.343	BB	23.03522	2.97423e-1	7.12525		p-Terphenyl d14 #11*
22.687	BB	3.87261e-1	7.91256e-3	3.18679e-3		Benzo(a)anthracene #12
23.552		-	-	-		Chrysene #13
26.296	BB	5.35620e-1	1.63222e-2	9.09219e-3		Benzo(b)fluoranthene #14
27.735	BB	1.41432	2.76572e-3	4.06808e-3		Benzo(k)fluoranthene #15
28.853	BB	2.30877	4.57119e-3	1.09760e-2		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.632	BB	3.80555	2.65165e-2	1.04946e-1		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.84710

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	116.17854	8.25405e-3	9.97301e-1	F	Naphthalene #1
11.182	BB	7.22652e-1	2.96975e-2	2.23194e-2	<MDL	Acenaphthylene #2
12.010	BB	9.34769	1.29459e-2	1.25854e-1	↓	1-Methylnaphthalene #3
12.592	BB	32.97248	1.12393e-2	3.85410e-1	NC	2-Methylnaphthalene #4
13.136	BB	4.08956	2.03163e-2	8.64082e-2	<MDL	Acenaphthene #5
13.815	BB	6.08066e-1	1.75240e-2	1.10820e-2		Fluorene #6
15.145	BB	2.93493	1.72982e-2	5.27998e-2		Phenanthrene #7
16.547	PBA	3.60124	1.04262e-2	3.90491e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
19.004	BB	5.14784	1.43052e-2	7.65868e-2	NC	Pyrene #10
21.323	PBA	106.67569	6.56733e-2	7.28597	70%	p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.681	BBA	252.07298	1.51453e-2	3.97043	NC	Chrysene #13
26.124	BB	1.67558	2.07330e-2	3.61294e-2	<MDL	Benzo(b)fluoranthene #14
27.766	BB	2.61993	2.25837e-2	6.15344e-2	NC	Benzo(k)fluoranthene #15
28.954	BB	3.98825	2.61680e-2	1.08539e-1	NC	Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.526		-	-	-		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 13.25941

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 ***

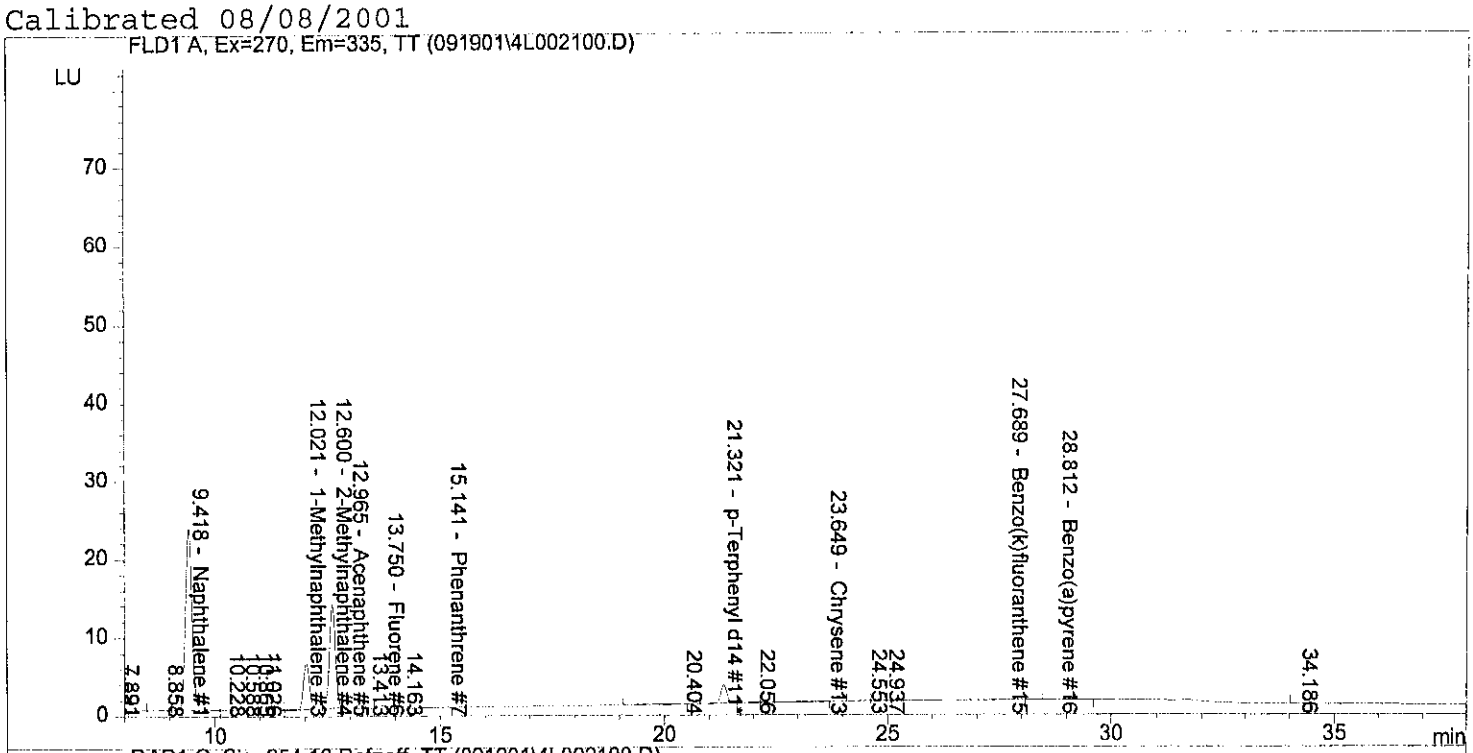
1,1

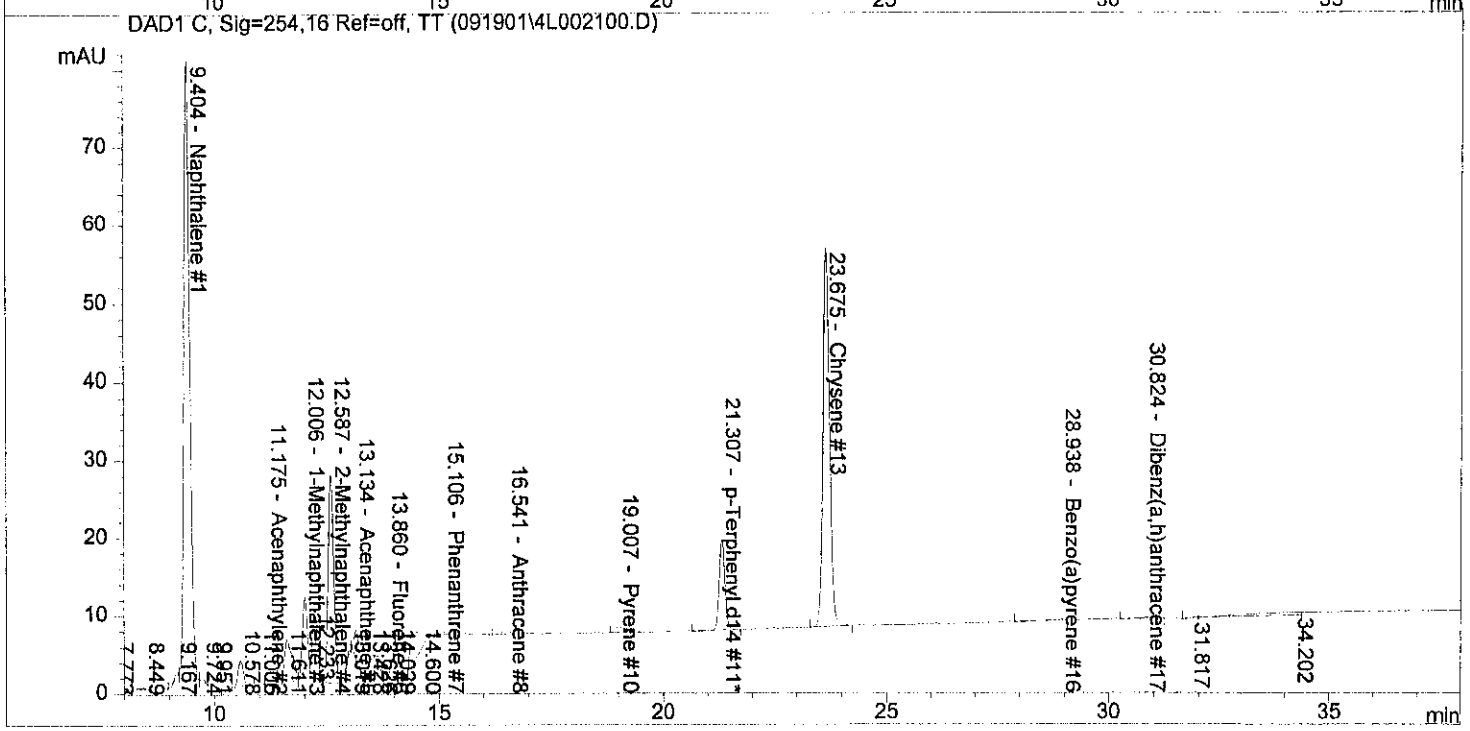
==========

Injection Date	: 9/19/2001 8:17:32 PM	Seq. Line :	6
Sample Name	: L0109252-02 831W	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 AM
Multiplier : 1.0400
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
9.418	BB	226.63759	2.52962e-2	5.96239		Naphthalene #1
12.021	BB	58.25603	2.21330e-2	1.34095		1-Methylnaphthalene #3
12.600	BB	118.90030	1.70635e-2	2.11001		2-Methylnaphthalene #4
12.965	BB	1.91160	1.38416e-2	2.75179e-2		Acenaphthene #5
13.750	BB	5.55949	6.62187e-3	3.82868e-2		Fluorene #6
15.141	BB	1.92786	1.63652e-1	3.28119e-1		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.973		-	-	-		Fluoranthene #9
18.985		-	-	-		Pyrene #10
21.321	BB	21.80731	2.97423e-1	6.74543		p-Terphenyl d14 #11*
22.674		-	-	-		Benzo(a)anthracene #12
23.649	BB	4.68401e-1	3.90495e-2	1.90225e-2		Chrysene #13
26.294		-	-	-		Benzo(b)fluoranthene #14
27.689	BB	1.53593	2.76572e-3	4.41785e-3		Benzo(k)fluoranthene #15
28.812	BBA	5.87839e-1	4.57119e-3	2.79461e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.542		-	-	-		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 16.57894

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
9.404	BB	692.05634	8.25405e-3	5.94076		Naphthalene #1
11.175	BB	5.49793e-1	2.96975e-2	1.69806e-2		Acenaphthylene #2
12.006	BB	65.11588	1.29459e-2	8.76700e-1		1-Methylnaphthalene #3
12.587	BB	225.55495	1.12393e-2	2.63648		2-Methylnaphthalene #4
13.134	BB	20.63921	2.03163e-2	4.36086e-1		Acenaphthene #5
13.860	BB	8.63279e-1	1.75240e-2	1.57332e-2		Fluorene #6
15.106	BB	3.35948	1.72982e-2	6.04377e-2		Phenanthrene #7
16.541	BB	7.12061	1.04262e-2	7.72105e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
19.007	BBA	7.27819	1.43052e-2	1.08281e-1		Pyrene #10
21.307	BB	101.74741	6.56733e-2	6.94937		p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.675	PBA	494.33878	1.51453e-2	7.78638		Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.723		-	-	-		Benzo(k)fluoranthene #15
28.938	BB	2.53950	2.61680e-2	6.91117e-2		Benzo(a)pyrene #16
30.824	BB	2.68767	9.41116e-2	2.63059e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.526		-	-	-		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 25.23659

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 ***

1,1

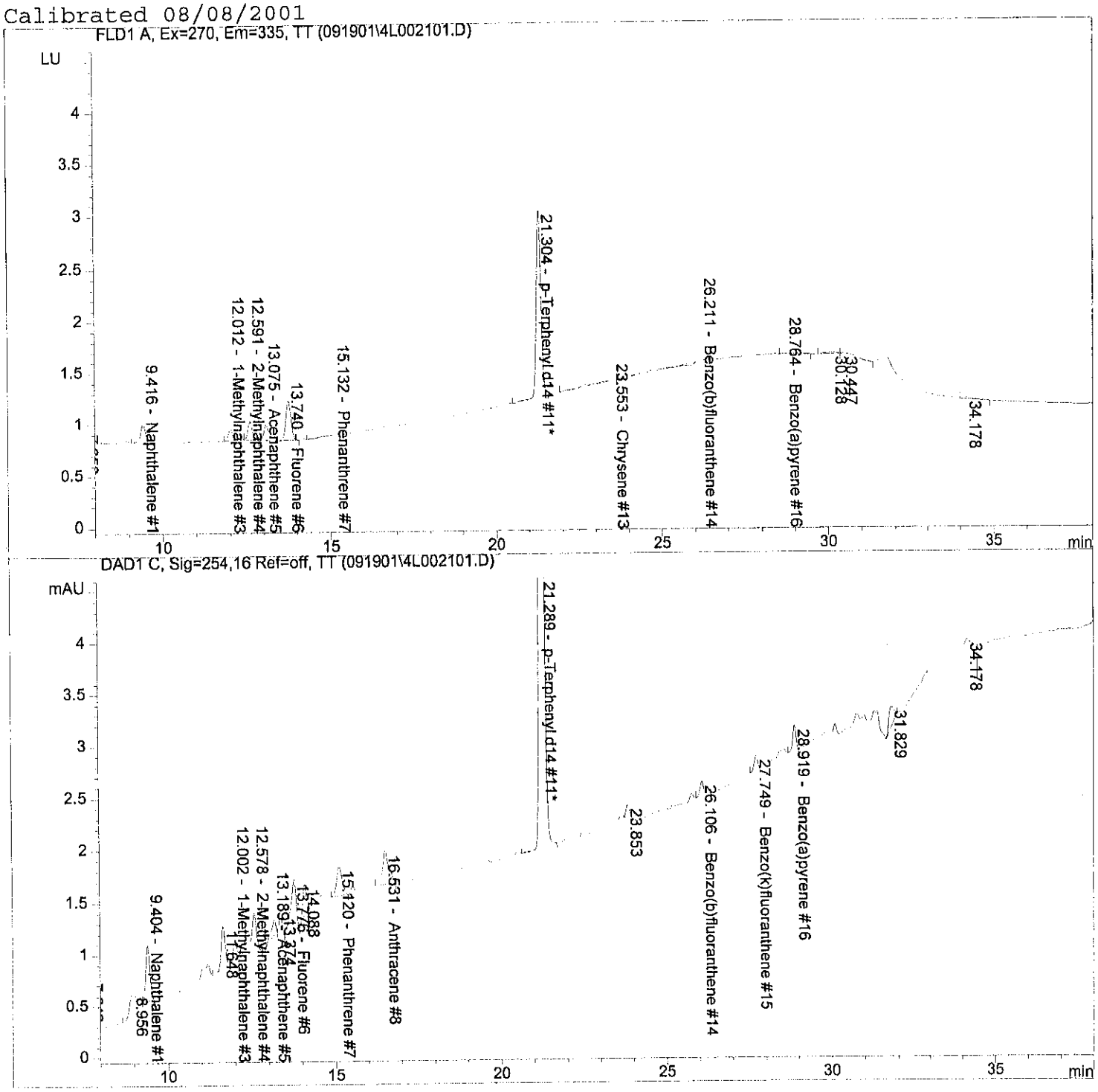
==========

Injection Date : 9/19/2001 9:14:07 PM
Sample Name : L0109252-03 831W
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, September 20, 2001 9:16:47 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/L]	Grp	Name
9.416	BBA	1.85606	2.52962e-2	4.69512e-2		Naphthalene #1
12.012	PBA	9.18070e-1	2.21330e-2	2.03196e-2		1-Methylnaphthalene #3
12.591	BB	1.68907	1.70635e-2	2.88215e-2		2-Methylnaphthalene #4
13.075	BB	1.51893	1.38416e-2	2.10244e-2		Acenaphthene #5
13.740	BB	3.98484	6.62187e-3	2.63871e-2		Fluorene #6
15.132	BB	2.87663e-1	1.63652e-1	4.70766e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.973		-	-	-		Fluoranthene #9
18.985		-	-	-		Pyrene #10
21.304	BB	16.62014	2.97423e-1	4.94321		p-Terphenyl d14 #11*
22.674		-	-	-		Benzo(a)anthracene #12
23.553	BB	5.42904e-1	3.90495e-2	2.12002e-2		Chrysene #13
26.211	BB	5.90080e-1	1.63222e-2	9.63139e-3		Benzo(b)fluoranthene #14
27.738		-	-	-		Benzo(k)fluoranthene #15
28.764	BBA	4.63940e-1	4.57119e-3	2.12076e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.542		-	-	-		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				5.16674		

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
9.404	BB	4.38977	8.25405e-3	3.62334e-2		Naphthalene #1
11.096		-	-	-		Acenaphthylene #2
12.002	BB	1.29690	1.29459e-2	1.67895e-2		1-Methylnaphthalene #3
12.578	BB	3.18973	1.12393e-2	3.58503e-2		2-Methylnaphthalene #4
13.189	BB	1.54403	2.03163e-2	3.13691e-2		Acenaphthene #5
13.776	BB	5.30847	1.75240e-2	9.30257e-2		Fluorene #6
15.120	BB	3.24318	1.72982e-2	5.61014e-2		Phenanthrene #7
16.531	BBA	4.74153	1.04262e-2	4.94361e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.968		-	-	-		Pyrene #10
21.289	BBA	77.09284	6.56733e-2	5.06294		p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.537		-	-	-		Chrysene #13
26.106	BBA	1.11847	2.07330e-2	2.31892e-2		Benzo(b)fluoranthene #14
27.749	PBA	9.26042e-1	2.25837e-2	2.09134e-2		Benzo(k)fluoranthene #15
28.919	BB	1.56992	2.61680e-2	4.10816e-2		Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Sig	Name
31.526		-	-	-		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				5.46693		

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,REF L0109252-04

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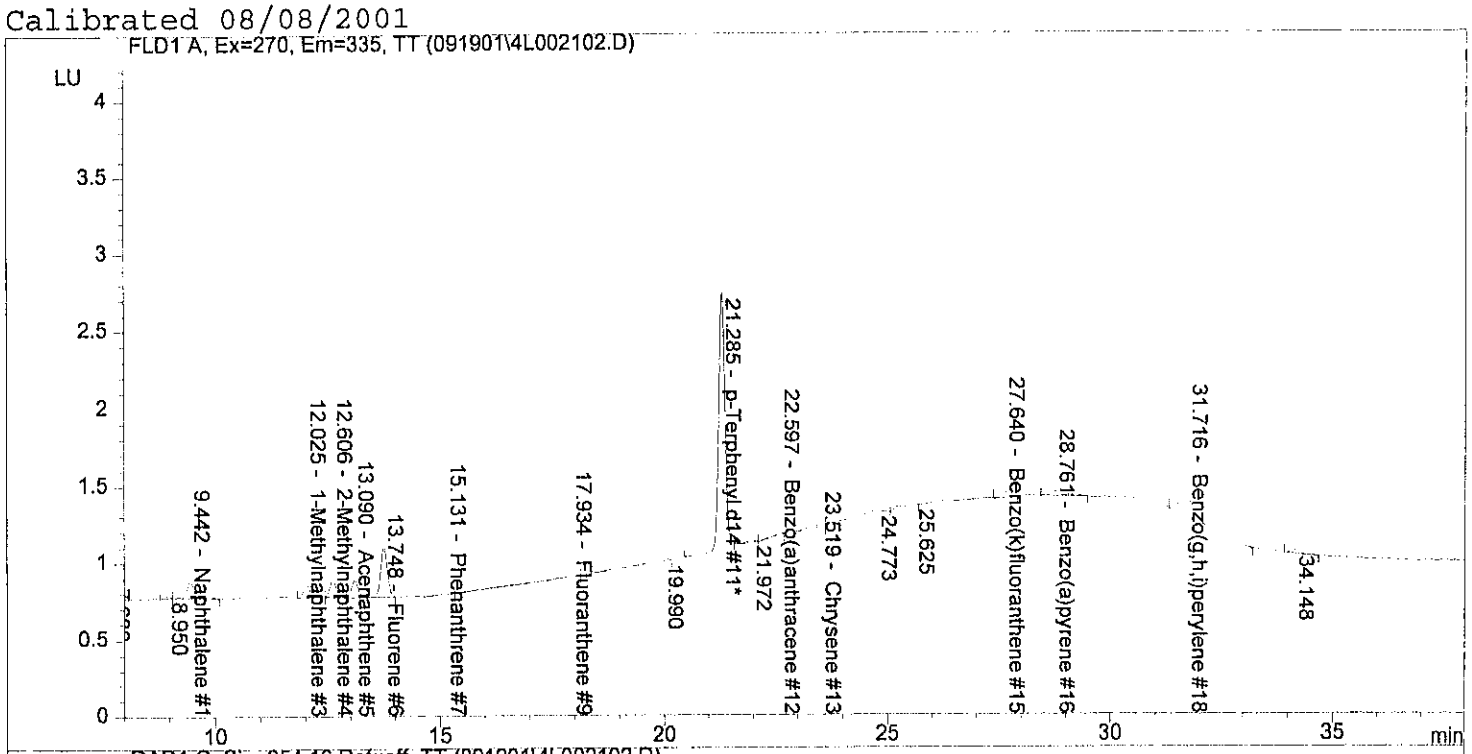
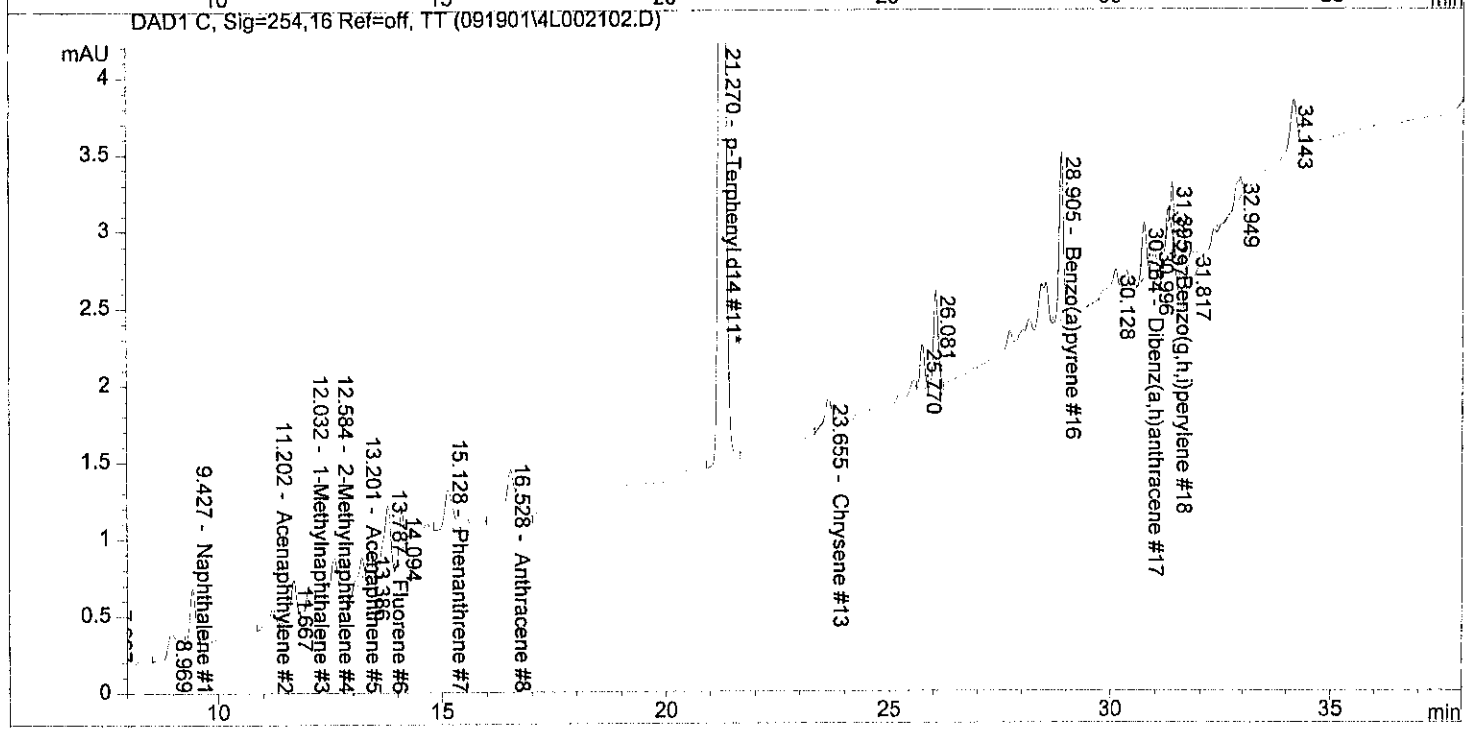
Injection Date	: 9/19/2001 10:10:46 PM	Seq. Line	: 8
Sample Name	: WG104843-01 WREF	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 AM
Multiplier : 1.0400
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	1.19947	2.52962e-2	3.15558e-2		Naphthalene #1
12.025	BB	8.90507e-1	2.21330e-2	2.04979e-2		1-Methylnaphthalene #3
12.606	BB	1.18231	1.70635e-2	2.09813e-2		2-Methylnaphthalene #4
13.090	BB	1.19543	1.38416e-2	1.72084e-2		Acenaphthene #5
13.748	BBA	3.37598	6.62187e-3	2.32495e-2		Fluorene #6
15.131	BB	1.85824e-1	1.63652e-1	3.16269e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.934	BB	2.20310e-1	2.32678e-2	5.33120e-3		Fluoranthene #9
18.985		-	-	-		Pyrene #10
21.285	BB	15.19389	2.97423e-1	4.69977		p-Terphenyl d14 #11*
22.597	BB	1.65851e-1	7.91256e-3	1.36480e-3		Benzo(a)anthracene #12
23.519	BB	4.61413e-1	3.90495e-2	1.87387e-2		Chrysene #13
26.294		-	-	-		Benzo(b)fluoranthene #14
27.640	BB	4.15725e-1	2.76572e-3	1.19577e-3		Benzo(k)fluoranthene #15
28.761	BBA	5.51928e-1	4.57119e-3	2.62389e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.716	BBA	1.21853	2.65165e-2	3.36036e-2		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				4.90775		

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
9.427	BB	2.83057	8.25405e-3	2.42982e-2	imx	Naphthalene #1
11.202	BB	1.44209	2.96975e-2	4.45396e-2		Acenaphthylene #2
12.032	BB	9.03042e-1	1.29459e-2	1.21583e-2		1-Methylnaphthalene #3
12.584	BB	1.92786	1.12393e-2	2.25344e-2		2-Methylnaphthalene #4
13.201	BB	1.34162	2.03163e-2	2.83472e-2		Acenaphthene #5
13.787	BB	5.11480	1.75240e-2	9.32170e-2		Fluorene #6
15.128	BB	3.04160	1.72982e-2	5.47189e-2		Phenanthrene #7
16.528	BB	6.41150	1.04262e-2	6.95213e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.968		-	-	-		Pyrene #10
21.270	BBA	72.58161	6.56733e-2	4.95734	47.7%	p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.655	PB	9.72929e-1	1.51453e-2	1.53247e-2	imx	Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.723		-	-	-		Benzo(k)fluoranthene #15
28.905	BB	7.26202	2.61680e-2	1.97634e-1	NC	Benzo(a)pyrene #16
30.764	BB	2.74311	9.41116e-2	2.68485e-1	NC	Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.395	BB	1.54591e-1	5.60829e-2	9.01673e-3		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.79713

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 ***

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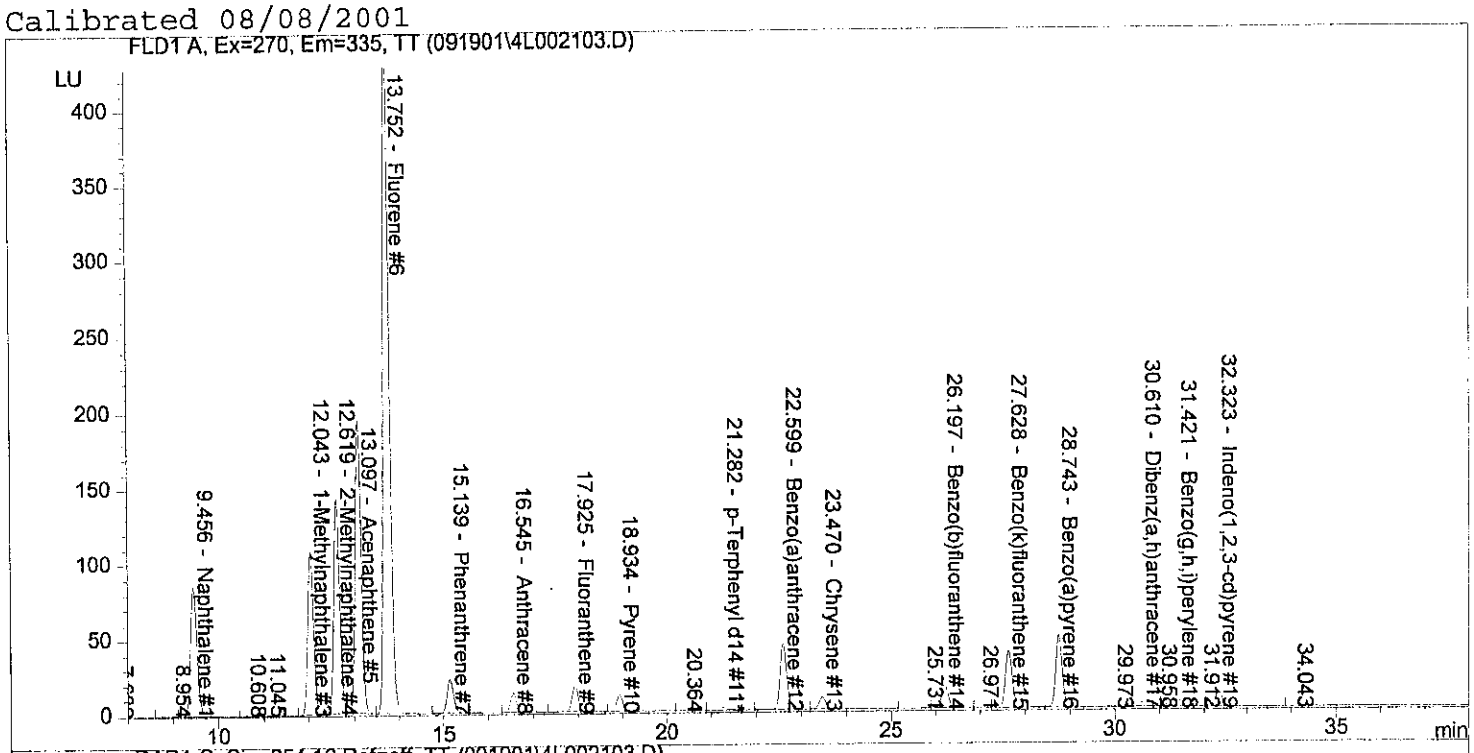
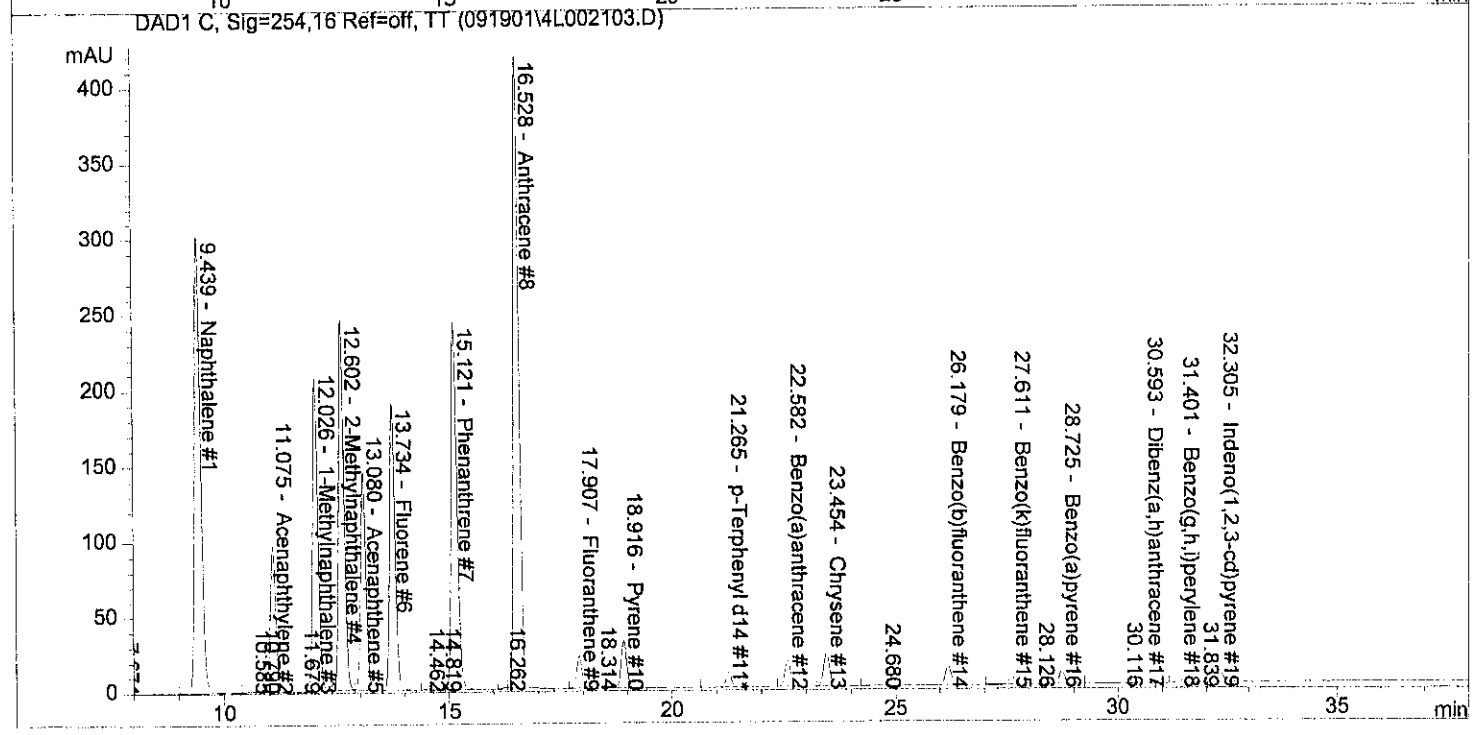
Injection Date : 9/19/2001 11:07:23 PM
Sample Name : WG104843-04 WMS
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 AM
Multiplier : 1.0500
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
9.456	BB	833.26288	2.52962e-2	22.13230		Naphthalene #1
12.043	PB	1004.23065	2.21330e-2	23.33792		1-Methylnaphthalene #3
12.619	BB	1304.81445	1.70635e-2	23.37793		2-Methylnaphthalene #4
13.097	BB	1784.68005	1.38416e-2	25.93790		Acenaphthene #5
13.752	BBA	4318.99072	6.62187e-3	30.02977		Fluorene #6
15.139	PBA	209.09741	1.63652e-1	35.93022		Phenanthrene #7
16.545	BBA	116.59163	3.10196e-1	37.97461		Anthracene #8
17.925	PBA	173.68118	2.32678e-2	4.24325		Fluoranthene #9
18.934	BBA	106.54467	3.86587e-2	4.32482		Pyrene #10
21.282	BB	19.04502	2.97423e-1	5.94764		p-Terphenyl d14 #11*
22.599	BB	444.33389	7.91256e-3	3.69161		Benzo(a)anthracene #12
23.470	BBA	81.40852	3.90495e-2	3.33791		Chrysene #13
26.197	BB	160.54793	1.63222e-2	2.75152		Benzo(b)fluoranthene #14
27.628	BB	398.94080	2.76572e-3	1.15852		Benzo(k)fluoranthene #15
28.743	BB	490.81924	4.57119e-3	2.35581		Benzo(a)pyrene #16
30.610	PB	27.65759	3.93496e-2	1.14273		Dibenz(a,h)anthracene #17
31.421	BB	44.76252	2.65165e-2	1.24629		Benzo(g,h,i)perylene #18
32.323	BBA	107.94435	1.38204e-2	1.56643		Indeno(1,2,3-cd)pyrene #1
Totals :				230.48719		

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
9.439	BB	2737.08521	8.25405e-3	23.72164		Naphthalene #1
11.075	BB	824.49713	2.96975e-2	25.70979		Acenaphthylene #2
12.026	BB	1752.79871	1.29459e-2	23.82605		1-Methylnaphthalene #3
12.602	BB	2042.16174	1.12393e-2	24.10004		2-Methylnaphthalene #4
13.080	BB	1213.77026	2.03163e-2	25.89234		Acenaphthene #5
13.734	BB	1586.16931	1.75240e-2	29.18584		Fluorene #6
15.121	BBA	2052.20459	1.72982e-2	37.27451		Phenanthrene #7
16.528	BBA	3539.43677	1.04262e-2	38.74796		Anthracene #8
17.907	PB	190.87648	2.17006e-2	4.34924		Fluoranthene #9
18.916	BBA	286.57187	1.43052e-2	4.30445		Pyrene #10
21.265	BBA	87.53696	6.56733e-2	6.03628		p-Terphenyl d14 #11*
22.582	PBA	161.75385	2.22694e-2	3.78227		Benzo(a)anthracene #12
23.454	BBA	218.27470	1.51453e-2	3.47113		Chrysene #13
26.179	BBA	126.69296	2.07330e-2	2.75806		Benzo(b)fluoranthene #14
27.611	BB	49.40986	2.25837e-2	1.17165		Benzo(k)fluoranthene #15
28.725	BB	86.51024	2.61680e-2	2.37699		Benzo(a)pyrene #16
30.593	BB	11.63826	9.41116e-2	1.15006		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.401	BB	22.82896	5.60829e-2	1.34433		Benzo(g,h,i)perylene #18
32.305	BB	73.93210	2.05608e-2	1.59611		Indeno(1,2,3-cd)pyrene #1

Totals : 260.79875

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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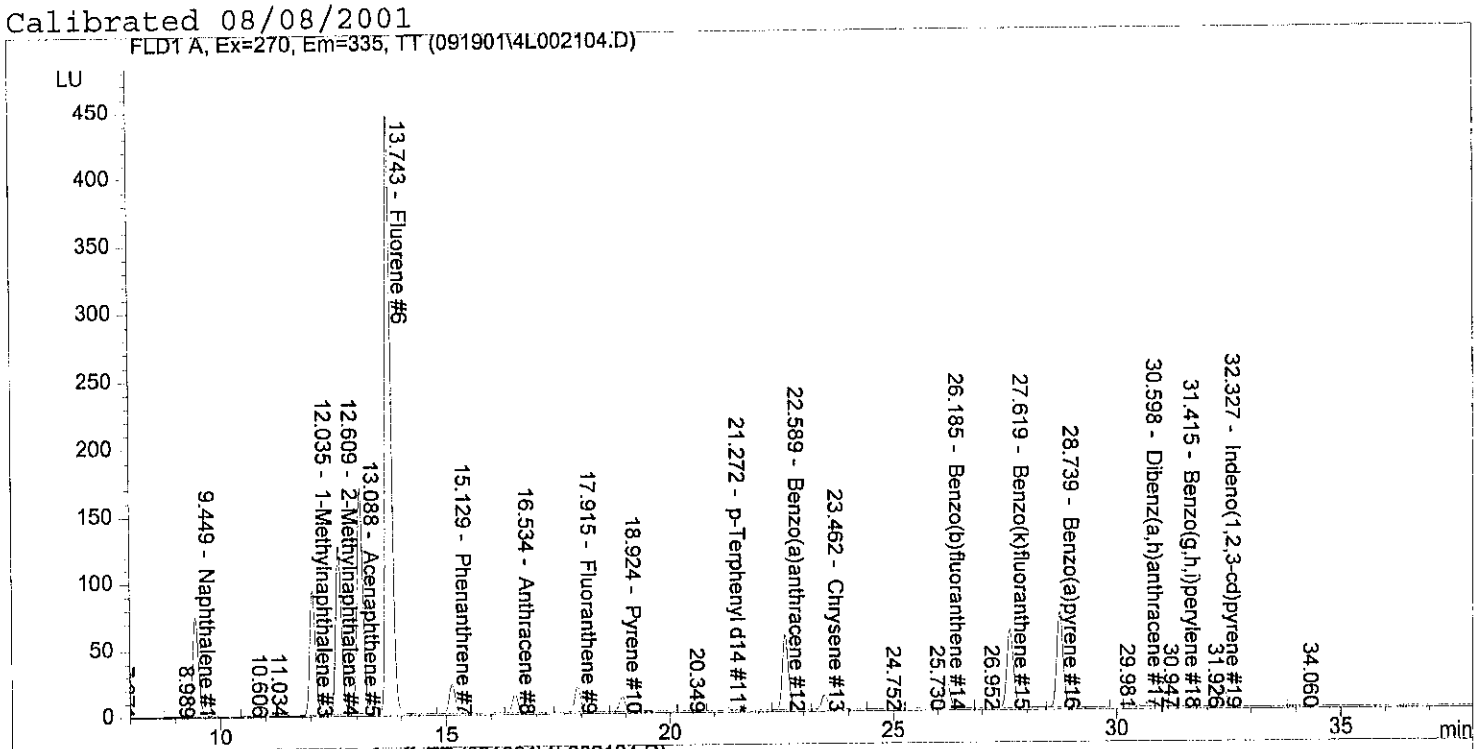
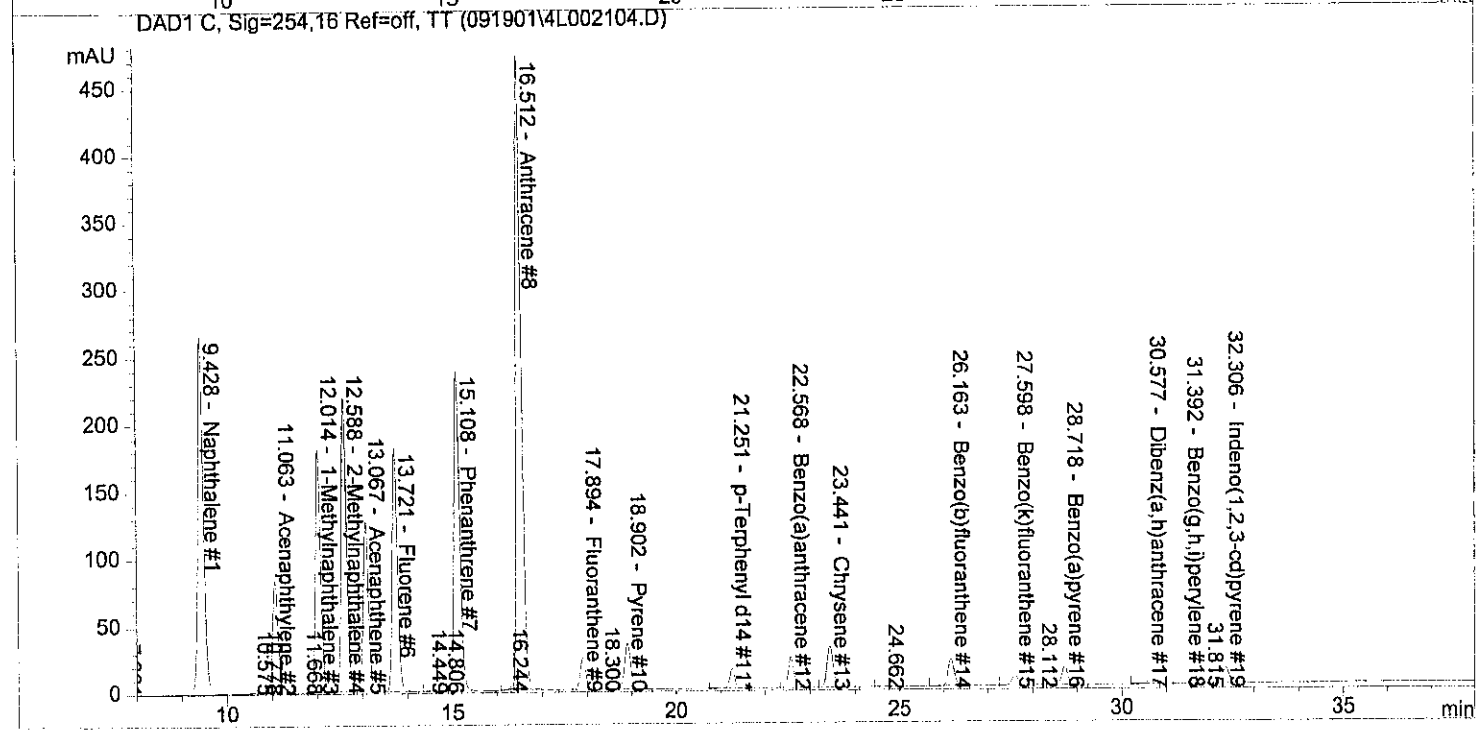
Injection Date : 9/20/2001 12:04:02 AM
Sample Name : WG104843-05 WMSD
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, September 20, 2001 9:16:47 AM
Multiplier	:	1.0400
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
9.449	BB	731.24036	2.52962e-2	19.23750		Naphthalene #1
12.035	BB	869.76624	2.21330e-2	20.02052		1-Methylnaphthalene #3
12.609	BB	1153.56445	1.70635e-2	20.47119		2-Methylnaphthalene #4
13.088	BB	1554.33337	1.38416e-2	22.37498		Acenaphthene #5
13.743	BBA	4128.58447	6.62187e-3	28.43249		Fluorene #6
15.129	PBA	202.81029	1.63652e-1	34.51797		Phenanthrene #7
16.534	BBA	131.97327	3.10196e-1	42.57513		Anthracene #8
17.915	PB	189.60013	2.32678e-2	4.58805		Fluoranthene #9
18.924	BBA	115.57992	3.86587e-2	4.64690		Pyrene #10
21.272	BB	27.34639	2.97423e-1	8.45878		p-Terphenyl d14 #11*
22.589	BB	570.43994	7.91256e-3	4.69419		Benzo(a)anthracene #12
23.462	BB	112.03631	3.90495e-2	4.54997		Chrysene #13
26.185	BB	236.73856	1.63222e-2	4.01865		Benzo(b)fluoranthene #14
27.619	BB	618.80328	2.76572e-3	1.77989		Benzo(k)fluoranthene #15
28.739	BB	737.15778	4.57119e-3	3.50448		Benzo(a)pyrene #16
30.598	BB	41.50655	3.93496e-2	1.69859		Dibenz(a,h)anthracene #17
31.415	BB	69.01567	2.65165e-2	1.90326		Benzo(g,h,i)perylene #18
32.327	BBA	170.05487	1.38204e-2	2.44424		Indeno(1,2,3-cd)pyrene #1
Totals :				229.91677		

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	2424.35010	8.25405e-3	20.81113		Naphthalene #1
11.063	BB	719.12793	2.96975e-2	22.21057		Acenaphthylene #2
12.014	BB	1528.46826	1.29459e-2	20.57882		1-Methylnaphthalene #3
12.588	BB	1811.12854	1.12393e-2	21.17001		2-Methylnaphthalene #4
13.067	BB	1059.40955	2.03163e-2	22.38426		Acenaphthene #5
13.721	BB	1516.60632	1.75240e-2	27.64010		Fluorene #6
15.108	BBA	2001.86157	1.72982e-2	36.01383		Phenanthrene #7
16.512	BBA	4008.06836	1.04262e-2	43.46041		Anthracene #8
17.894	PB	208.23109	2.17006e-2	4.69949		Fluoranthene #9
18.902	BBA	315.92749	1.43052e-2	4.70020		Pyrene #10
21.251	BBA	127.72202	6.56733e-2	8.72344		p-Terphenyl d14 #11*
22.568	PBA	208.40845	2.22694e-2	4.82678		Benzo(a)anthracene #12
23.441	BBA	298.25720	1.51453e-2	4.69788		Chrysene #13
26.163	BBA	188.70340	2.07330e-2	4.06888		Benzo(b)fluoranthene #14
27.598	BB	75.83070	2.25837e-2	1.78104		Benzo(k)fluoranthene #15
28.718	BBA	130.22180	2.61680e-2	3.54395		Benzo(a)pyrene #16
30.577	BB	17.69017	9.41116e-2	1.73145		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.392	BB	34.47506	5.60829e-2	2.01080		Benzo(g,h,i)perylene #18
32.306	BB	116.26375	2.05608e-2	2.48609		Indeno(1,2,3-cd)pyrene #1
Totals :				257.53913		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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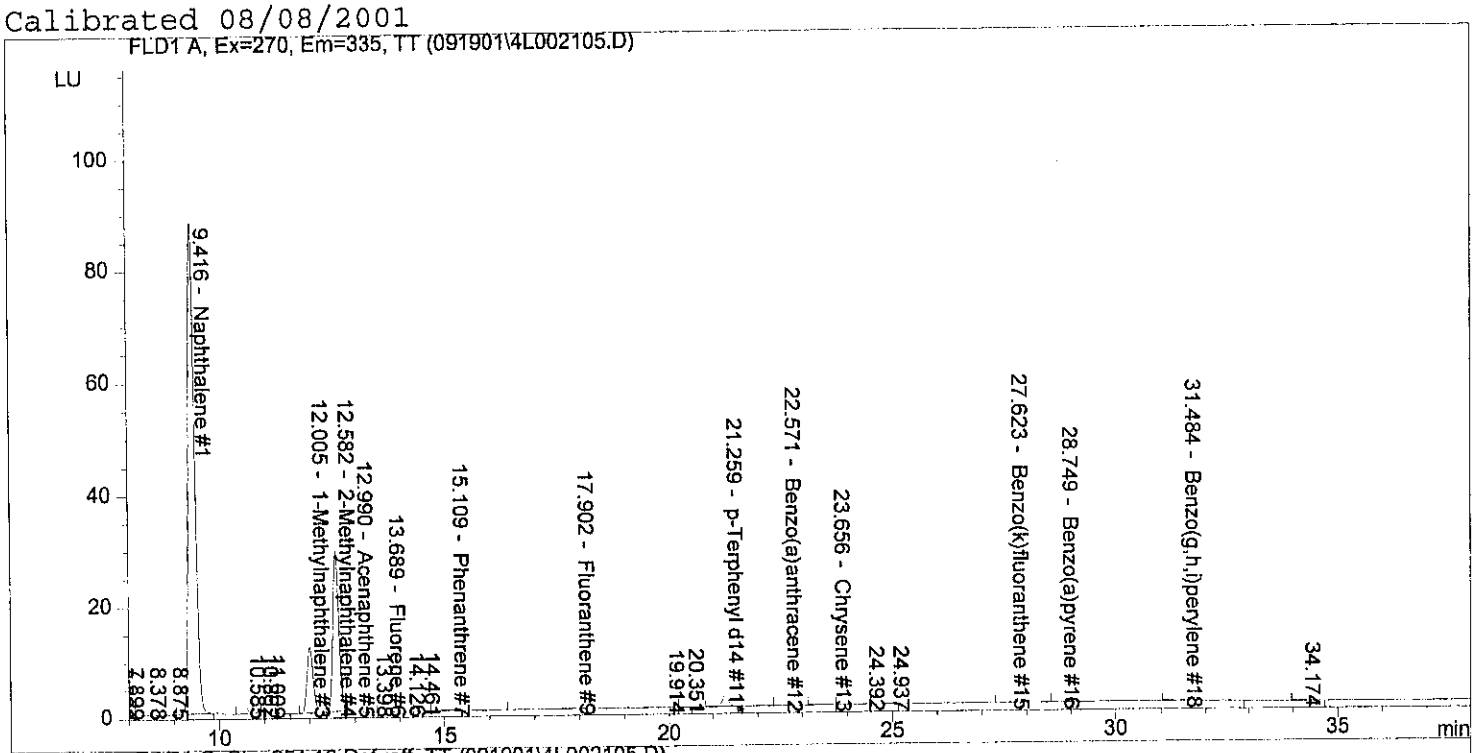
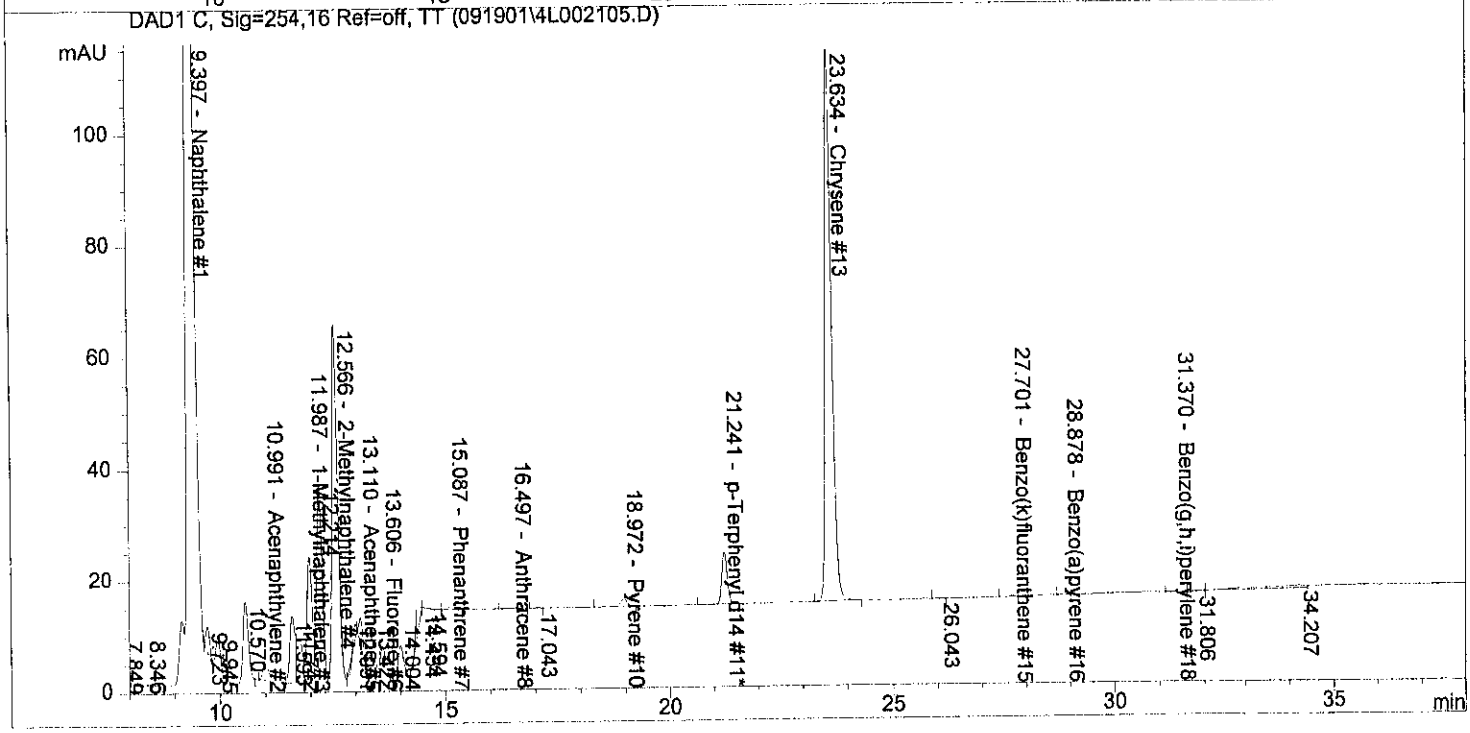
Injection Date : 9/20/2001 1:00:37 AM
Sample Name : L0109252-07 831W
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

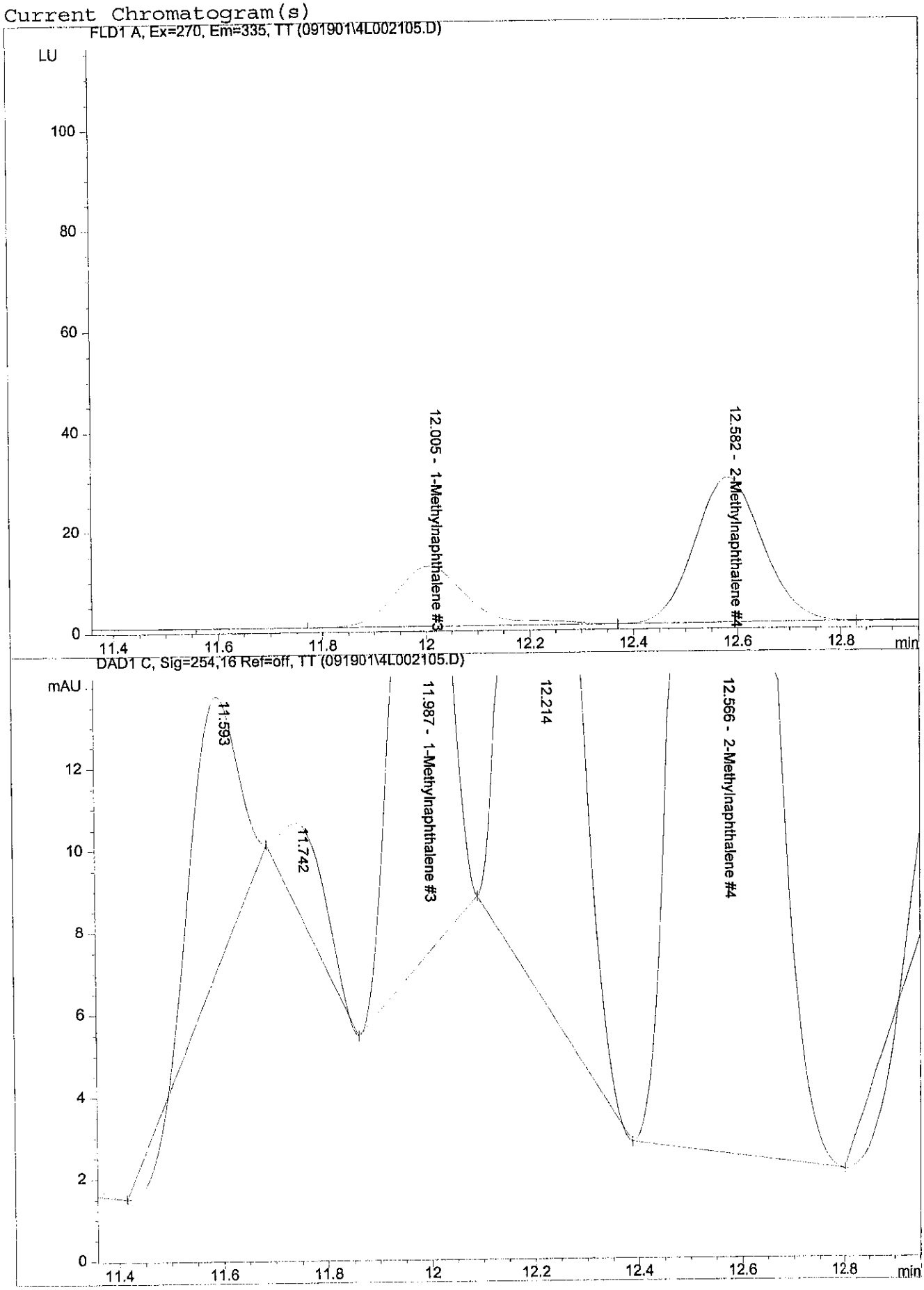
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001

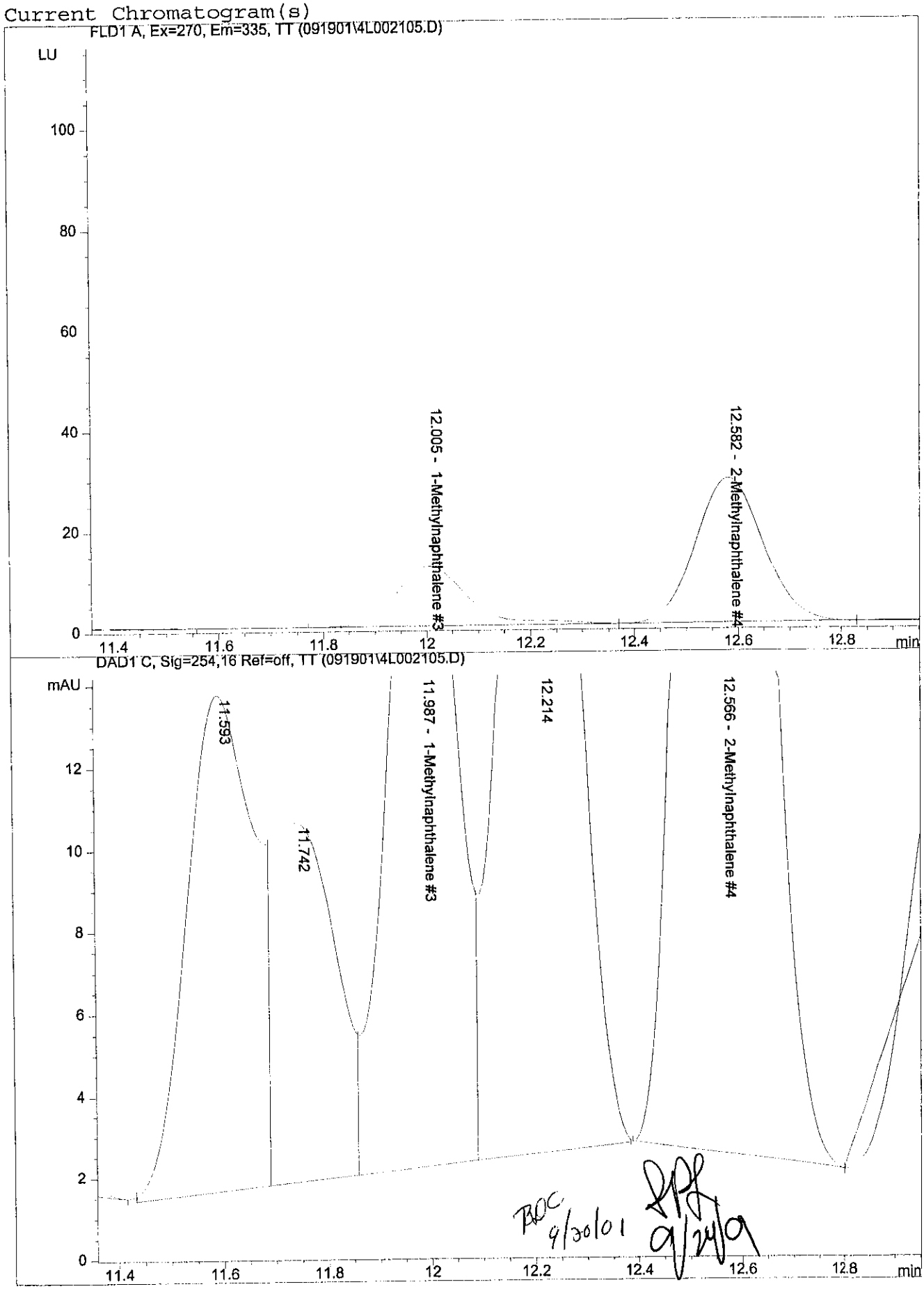




Current Chromatogram(s)



Current Chromatogram(s)



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, September 20, 2001 9:32:56 AM
Multiplier	:	1.0500
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
9.416	BB	857.01440	2.52962e-2	22.76316		Naphthalene #1
12.005	BB	116.15407	2.21330e-2	2.69937		1-Methylnaphthalene #3
12.582	BB	260.80344	1.70635e-2	4.67273		2-Methylnaphthalene #4
12.990	BB	3.16615	1.38416e-2	4.60157e-2		Acenaphthene #5
13.689	BB	10.39060	6.62187e-3	7.22454e-2		Fluorene #6
15.109	BB	3.93040e-1	1.63652e-1	6.75379e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.902	BB	5.86440e-1	2.32678e-2	1.43275e-2		Fluoranthene #9
18.985		-	-	-		Pyrene #10
21.259	BB	17.84598	2.97423e-1	5.57319		p-Terphenyl d14 #11*
22.571	BB	2.92225e-1	7.91256e-3	2.42786e-3		Benzo(a)anthracene #12
23.656	BB	3.56799e-1	3.90495e-2	1.46295e-2		Chrysene #13
26.294		-	-	-		Benzo(b)fluoranthene #14
27.623	BBA	5.06458e-1	2.76572e-3	1.47076e-3		Benzo(k)fluoranthene #15
28.749	BBA	3.36437e-1	4.57119e-3	1.61482e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.484	BBA	2.68725	2.65165e-2	7.48194e-2		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				36.00355		

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
9.397	BB	2702.28516	8.25405e-3	23.42004		Naphthalene #1
10.991	BB	40.41366	2.96975e-2	1.26019		Acenaphthylene #2
11.987	VV	180.48926	1.29459e-2	2.45342		1-Methylnaphthalene #3
12.566	BB	542.01453	1.12393e-2	6.39644		2-Methylnaphthalene #4
13.110	BB	22.89647	2.03163e-2	4.88431e-1		Acenaphthene #5
13.606	BB	35.39413	1.75240e-2	6.51259e-1		Fluorene #6
15.087	BB	3.58199	1.72982e-2	6.50602e-2		Phenanthrene #7
16.497	BBA	4.97474	1.04262e-2	5.44609e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.972	BBA	13.94041	1.43052e-2	2.09392e-1		Pyrene #10
21.241	BBA	82.65704	6.56733e-2	5.69977		p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.634	PBA	1003.36096	1.51453e-2	15.95601		Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.701	BB	1.02403	2.25837e-2	2.42827e-2		Benzo(k)fluoranthene #15
28.878	BBA	2.36202	2.61680e-2	6.49000e-2		Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]		
31.370	BB	2.68703	5.60829e-2	1.58231e-1	NL	Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 56.90189

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 ***

Acq On : 20 Sep 2001 16:31
Sample : L0109252-07 8310
Misc :
MS Integration Params: RTEINT.P
Quant Time: Sep 21 08:56:36 2001

Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 09/17/01
Last Update : Fri Sep 21 08:27:33 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	6.51	136	94009	1.00 ug/ml	0.00
6) Acenaphthene-d10	8.29	164	64097	1.00 ug/ml	0.00
11) Phenanthrene-d10	9.82	188	133235	1.00 ug/ml	0.00
15) Chrysene-d12	12.64	240	228978	1.00 ug/ml	0.00
20) Perylene-d12	15.07	264	161773	1.00 ug/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	5.83	82	3122	0.1039 ug/ml	0.02
Spiked Amount 2.500	Range	35 - 114	Recovery	= 4.00%#	
7) 2-Fluorobiphenyl	7.65	172	191	0.0023 ug/ml	0.08
Spiked Amount 2.500	Range	43 - 116	Recovery	= 0.00%#	
17) p-Terphenyl-d14	11.40	244	659203	2.6480 ug/ml	0.00
Spiked Amount 2.500	Range	33 - 141	Recovery	= 106.00%	
Target Compounds					Qvalue
3) Naphthalene	6.53	128	1951159	22.4077 ug/ml	99
4) 2-Methylnaphthalene	7.21	142	319508	5.2786 ug/ml	96
5) 1-Methylnaphthalene	7.32	142	149476	2.6589 ug/ml#	32

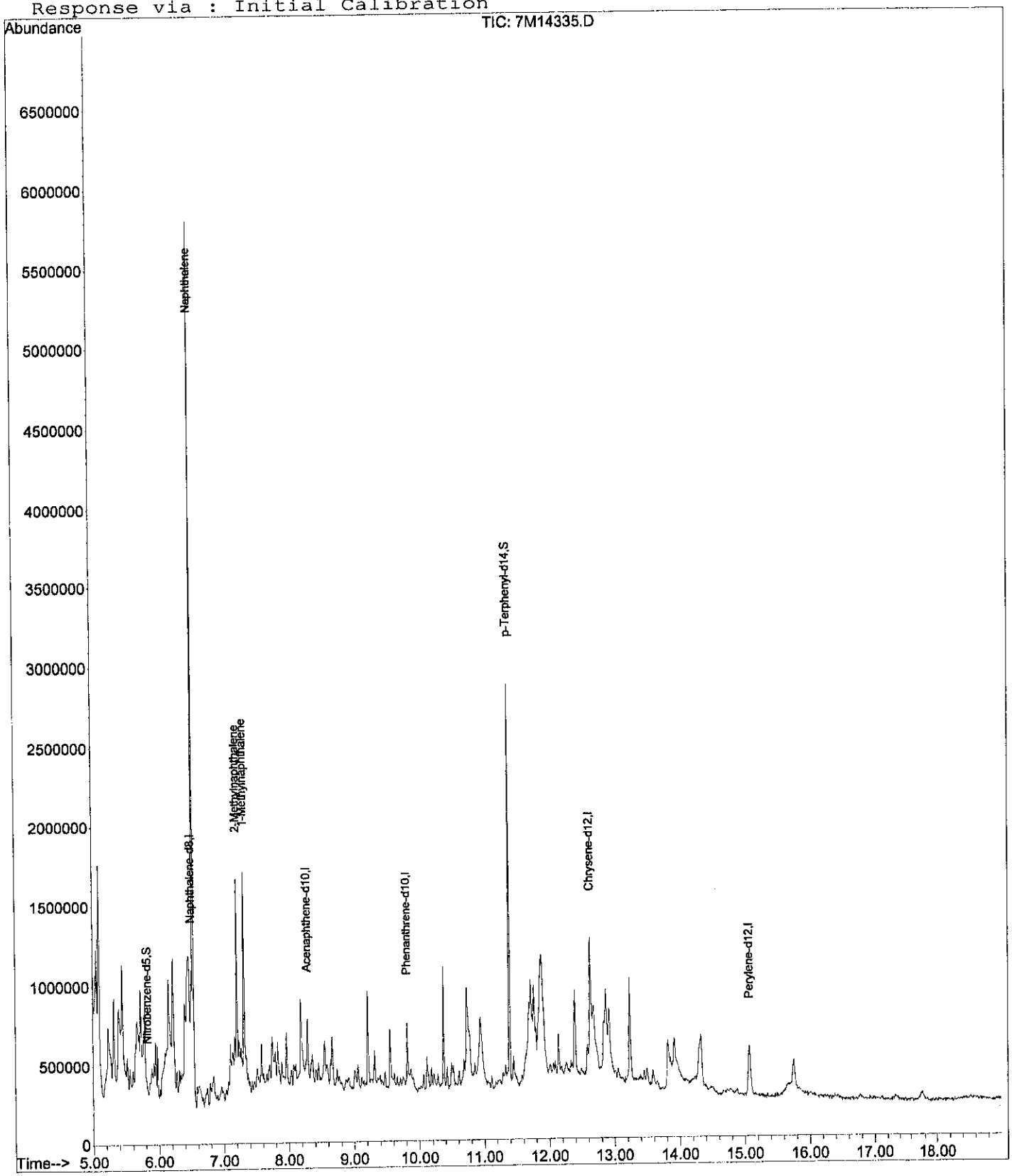
(#) = qualifier out of range (m) = manual integration

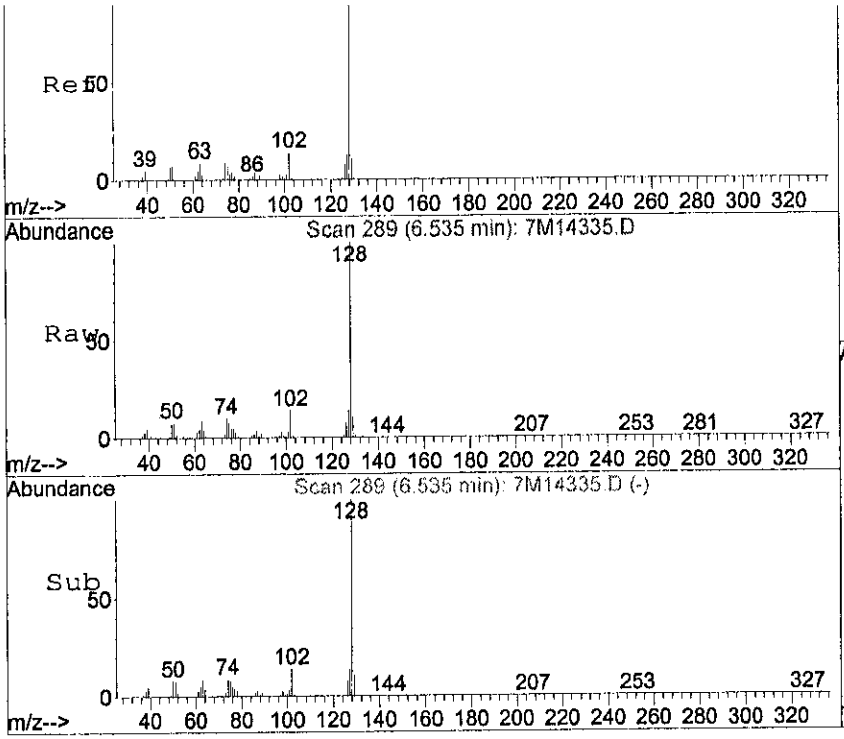
Data File : C:\MSDCHEM\1\[illegible]
Acq On : 20 Sep 2001 16:31
Sample : L0109252-07 8310
Misc :
MS Integration Params: RTEINT.P
Quant Time: Sep 21 8:56 2001

Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 09/17/01
Last Update : Fri Sep 21 08:27:33 2001
Response via : Initial Calibration

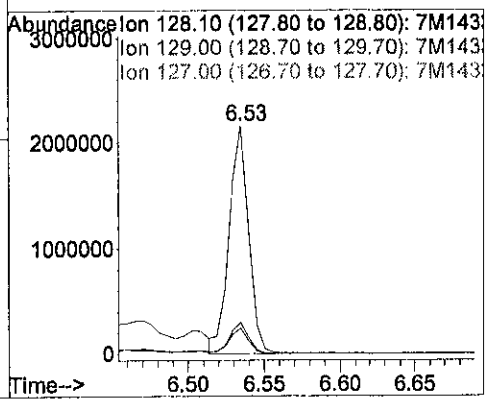


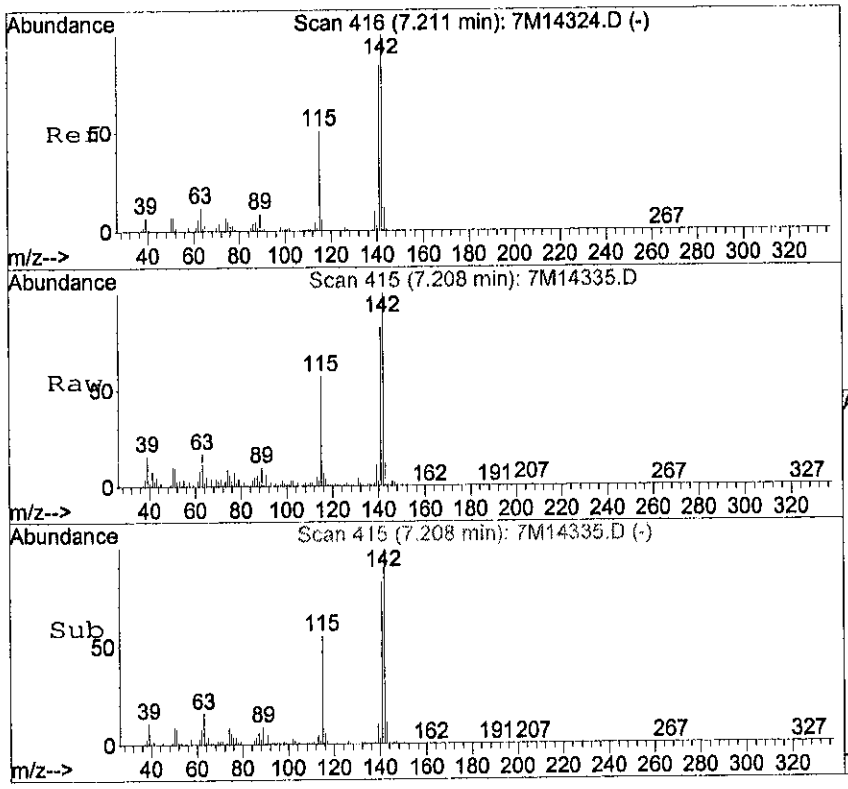


Concen: 22.41 ug/ml
RT: 6.53 min Scan# 289
Delta R.T. -0.01 min
Lab File: 7M14335.D
Acq: 20 Sep 2001 16:31

Tgt Ion:128 Resp: 1951159

Ion	Ratio	Lower	Upper
128	100		
129	11.1	9.0	13.4
127	13.3	11.0	16.6

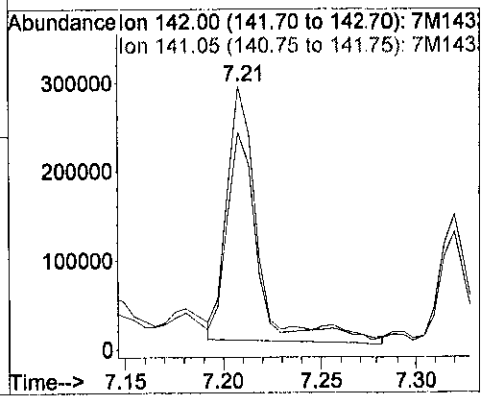


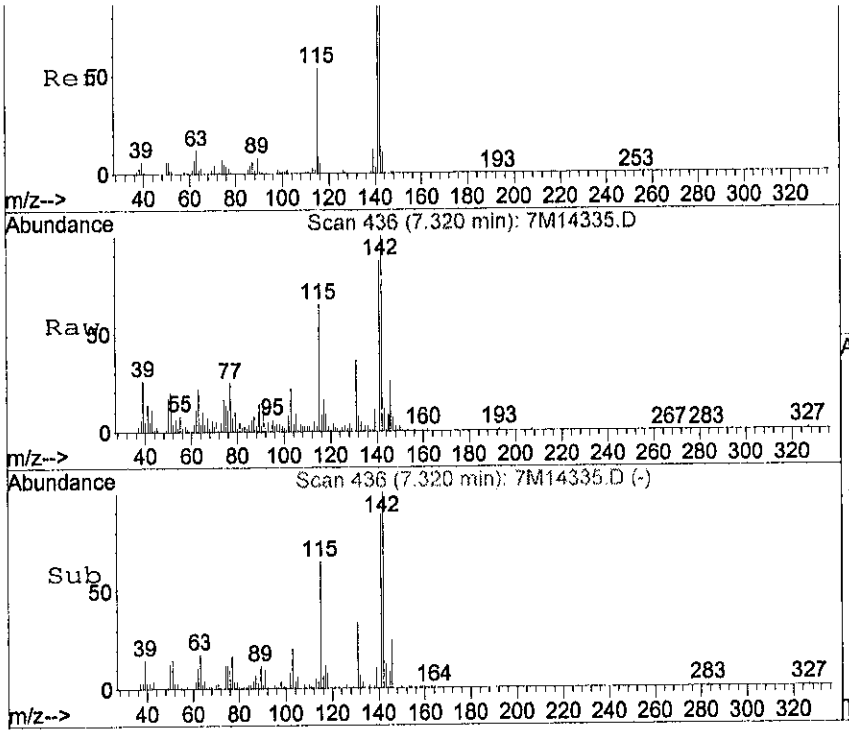


#4
2-Methylnaphthalene
Concen: 5.28 ug/ml
RT: 7.21 min Scan# 415
Delta R.T. -0.01 min
Lab File: 7M14335.D
Acq: 20 Sep 2001 16:31

Tgt Ion:142 Resp: 319508

Ion	Ratio	Lower	Upper
142	100		
141	82.6	69.4	104.0

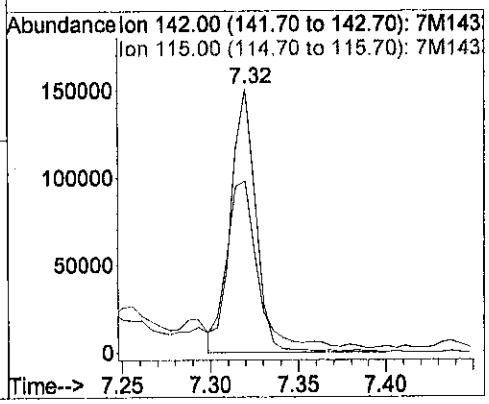




Concen: 2.66 ug/ml
RT: 7.32 min Scan# 436
Delta R.T. -0.01 min
Lab File: 7M14335.D
Acq: 20 Sep 2001 16:31

Tgt Ion:142 Resp: 149476

Ion	Ratio	Lower	Upper
142	100		
115	81.8	31.8	47.6#



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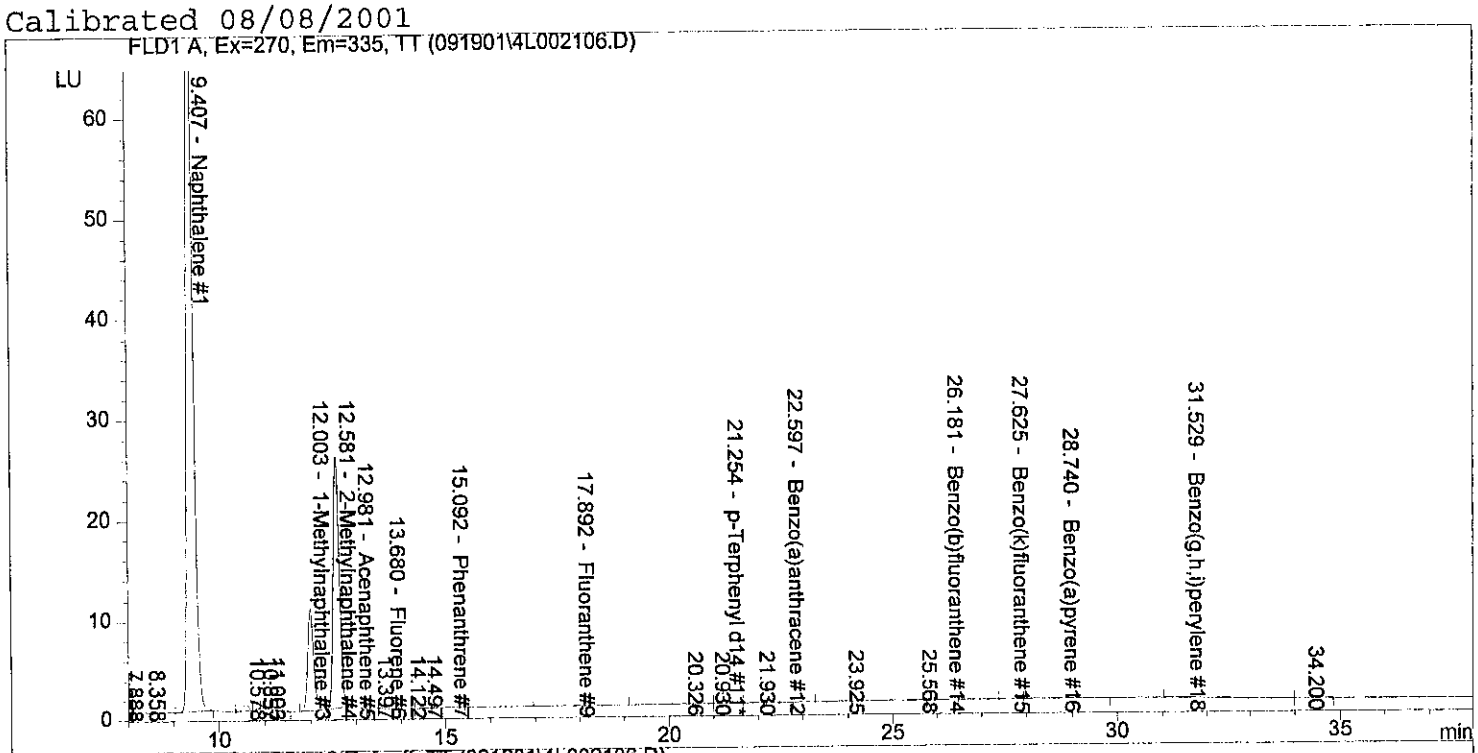
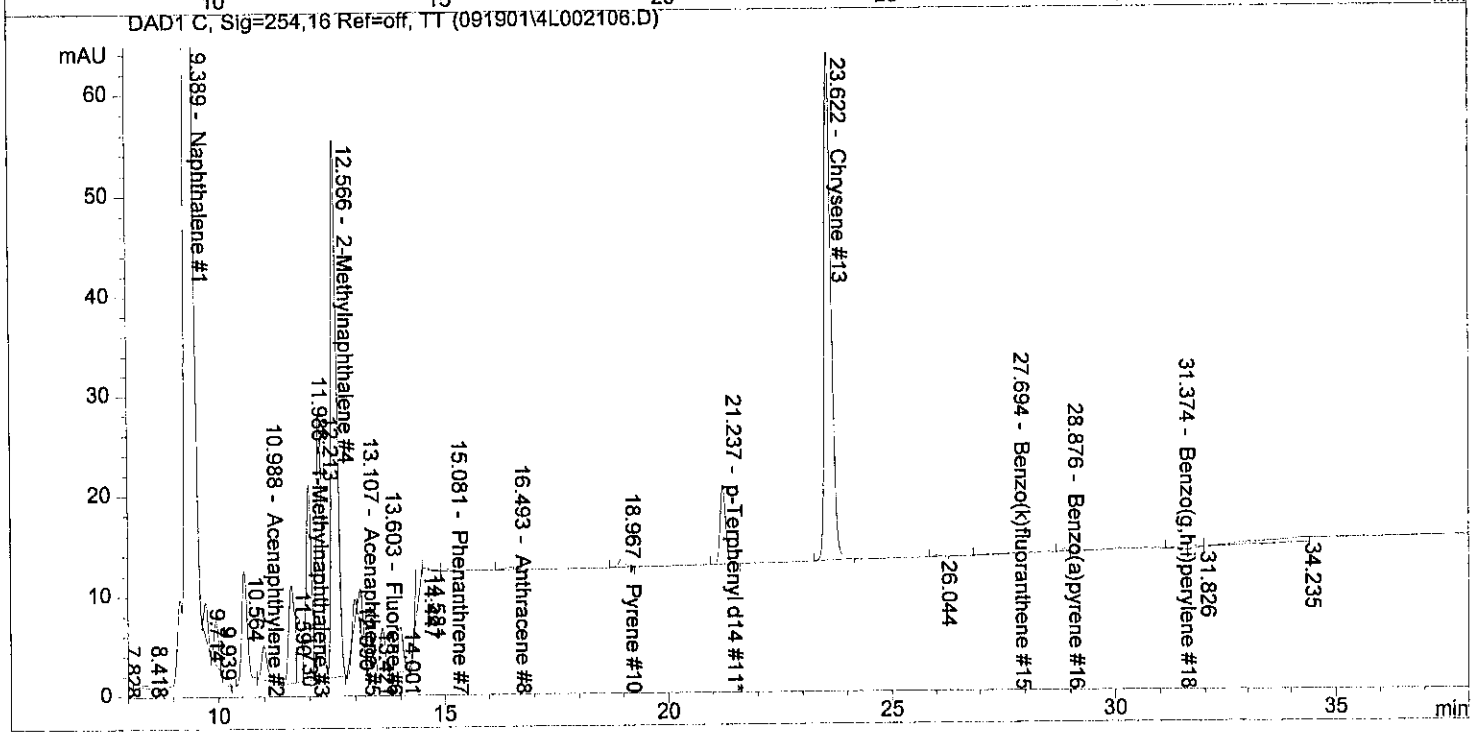
Injection Date : 9/20/2001 1:57:17 AM
Sample Name : L0109252-08 831W
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

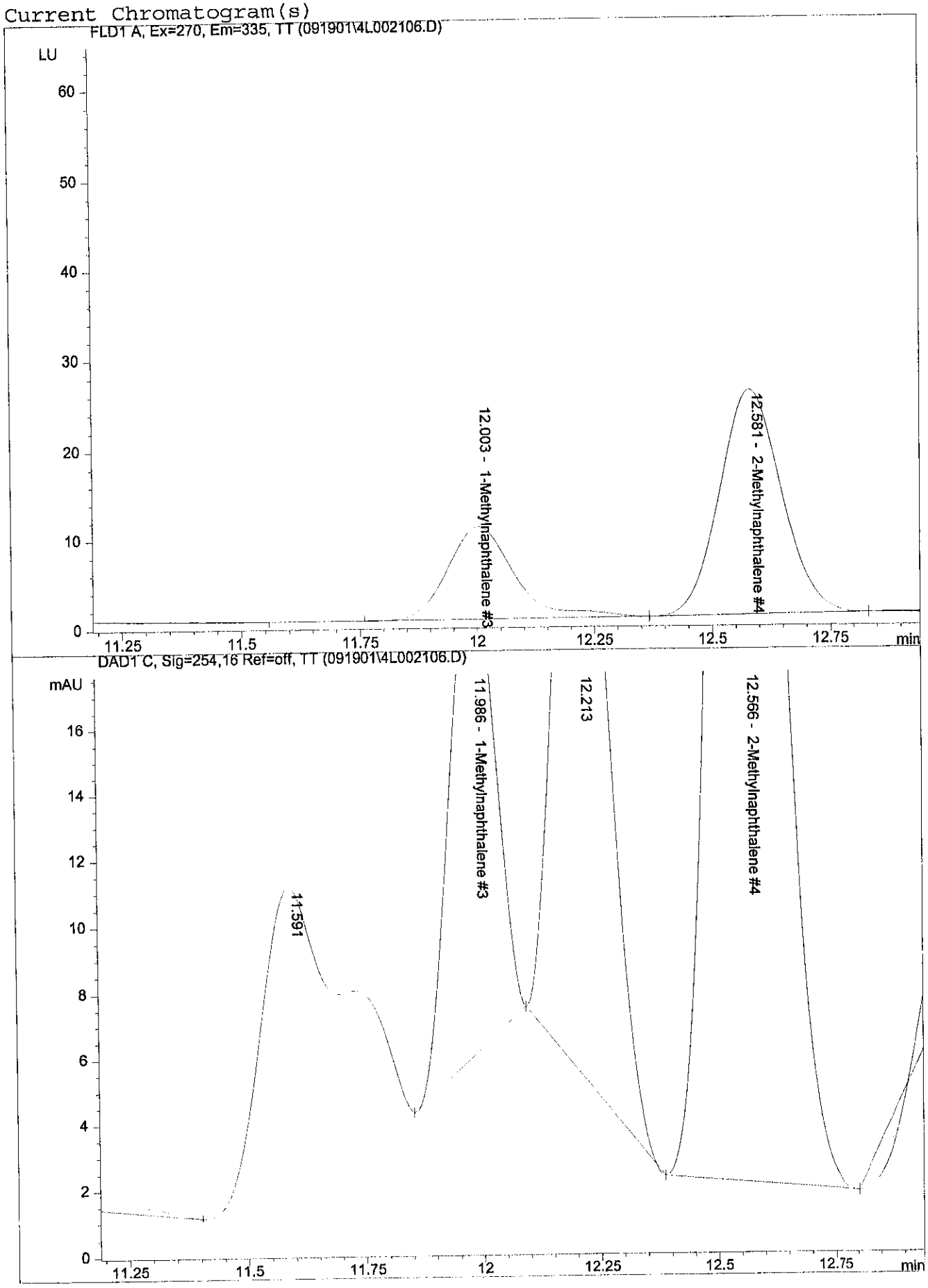
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001

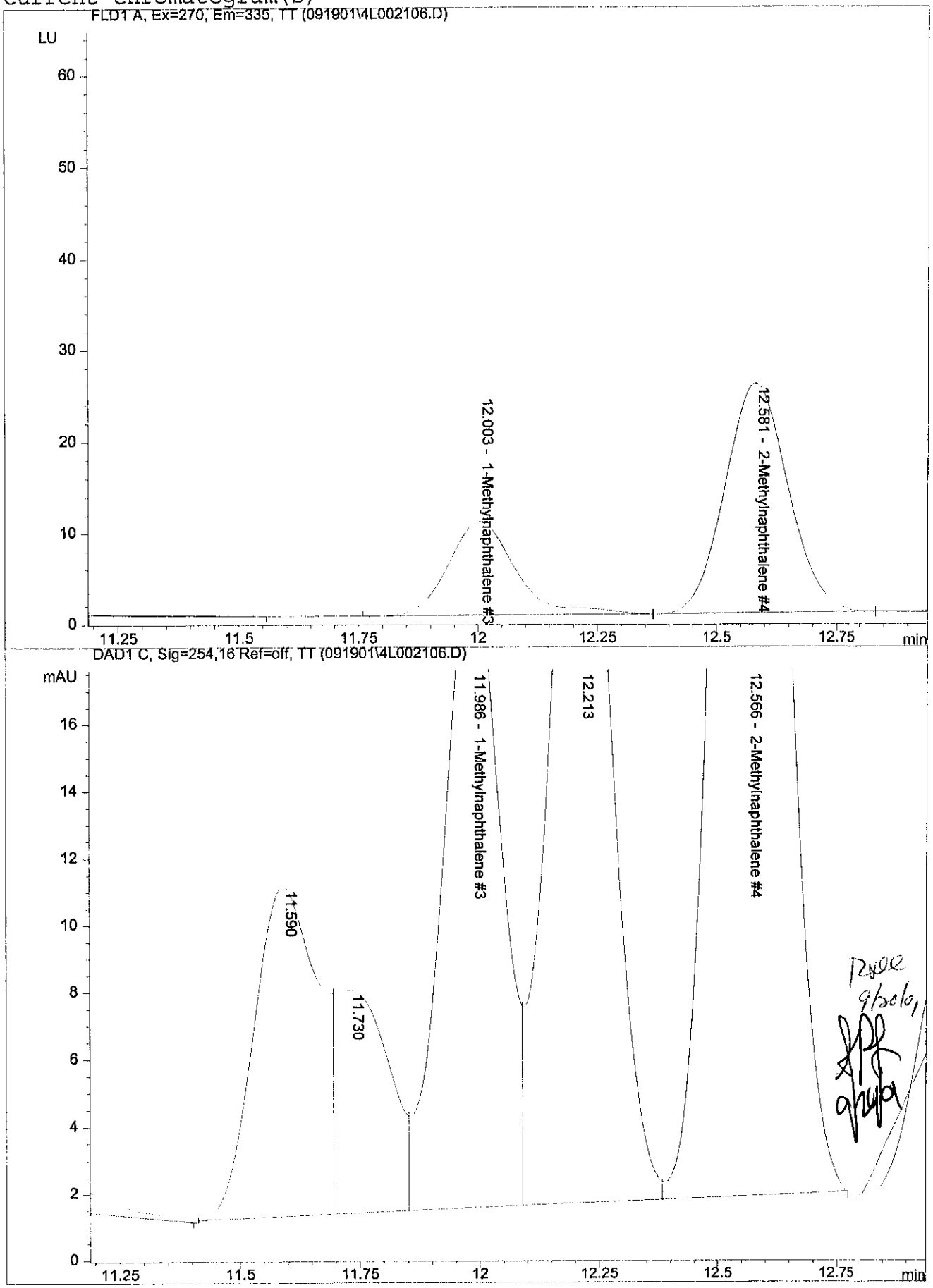




Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 9/20/2001 10:44:41 AM RDC

Page 1 of 1

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 AM
Multiplier : 1.0500
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
9.407	BB	760.78876	2.52962e-2	20.20731	C	Naphthalene #1
12.003	BB	101.28899	2.21330e-2	2.35392	✓	1-Methylnaphthalene #3
12.581	BB	228.93649	1.70635e-2	4.10178	C	2-Methylnaphthalene #4
12.981	BB	2.23806	1.38416e-2	3.25272e-2		Acenaphthene #5
13.680	BB	8.16773	6.62187e-3	5.67899e-2		Fluorene #6
15.092	BBA	1.88732e-1	1.63652e-1	3.24307e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.892	BBA	3.80524e-1	2.32678e-2	9.29668e-3		Fluoranthene #9
18.985		-	-	-		Pyrene #10
21.254	BB	14.71550	2.97423e-1	4.59556	43.8%	p-Terphenyl d14 #11*
22.597	BB	2.51014e-1	7.91256e-3	2.08547e-3		Benzo(a)anthracene #12
23.552		-	-	-		Chrysene #13
26.181	BB	1.86070e-1	1.63222e-2	3.18893e-3		Benzo(b)fluoranthene #14
27.625	BB	4.81034e-1	2.76572e-3	1.39692e-3		Benzo(k)fluoranthene #15
28.740	BB	1.65836	4.57119e-3	7.95972e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.529	BB	2.04408	2.65165e-2	5.69119e-2		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 31.46116

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
9.389	BB	2410.41504	8.25405e-3	20.89047	✓	Naphthalene #1 NC
10.988	BB	34.38834	2.96975e-2	1.07231	✓	Acenaphthylene #2 Needs conf.
11.986	VV	162.70807	1.29459e-2	2.21172	C ✓	1-Methylnaphthalene #3
12.566	VM	462.48306	1.12393e-2	5.45787	✓	2-Methylnaphthalene #4
13.107	BB	19.49386	2.03163e-2	4.15846e-1	NC	Acenaphthene #5
13.603	BB	28.47273	1.75240e-2	5.23904e-1	NC	Fluorene #6
15.081	BB	2.65256	1.72982e-2	4.81789e-2	mix	Phenanthrene #7
16.493	BB	4.76882	1.04262e-2	5.22066e-2	↓	Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.967	PB	7.77193	1.43052e-2	1.16738e-1	NC	Pyrene #10
21.237	PBA	67.78661	6.56733e-2	4.67436	44.5%	p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.622	PBA	515.50641	1.51453e-2	8.19787	NC	Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.694	PB	1.42054	2.25837e-2	3.36851e-2	LIMDL	Benzo(k)fluoranthene #15
28.876	BB	1.89914	2.61680e-2	5.21815e-2	↓	Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.374	BB	2.39876	5.60829e-2	1.41256e-1	NC	Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 43.88859

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:\MSDCHEM\1\DATA\[illegible]
Acq On : 20 Sep 2001 16:57
Sample : L0109252-08 8310
Misc :
MS Integration Params: RTEINT.P
Quant Time: Sep 21 08:56:46 2001

Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 09/17/01
Last Update : Fri Sep 21 08:27:33 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	6.51	136	85938	1.00 ug/ml	0.00
6) Acenaphthene-d10	8.29	164	64250	1.00 ug/ml	0.00
11) Phenanthrene-d10	9.82	188	121046	1.00 ug/ml	0.00
15) Chrysene-d12	12.64	240	327847	1.00 ug/ml	0.00
20) Perylene-d12	15.07	264	209092	1.00 ug/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	5.81	82	2666	0.0971 ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery	= 4.00%#	
7) 2-Fluorobiphenyl	0.00	172	0	0.0000 ug/ml	
Spiked Amount 2.500	Range 43 - 116		Recovery	= 0.00%#	
17) p-Terphenyl-d14	11.40	244	504283	1.4148 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	= 56.40%	
Target Compounds					Qvalue
3) Naphthalene	6.53	128	1639381	20.5953 ug/ml	98
4) 2-Methylnaphthalene	7.21	142	274303	4.9574 ug/ml	96
5) 1-Methylnaphthalene	7.32	142	117112	2.2789 ug/ml#	19

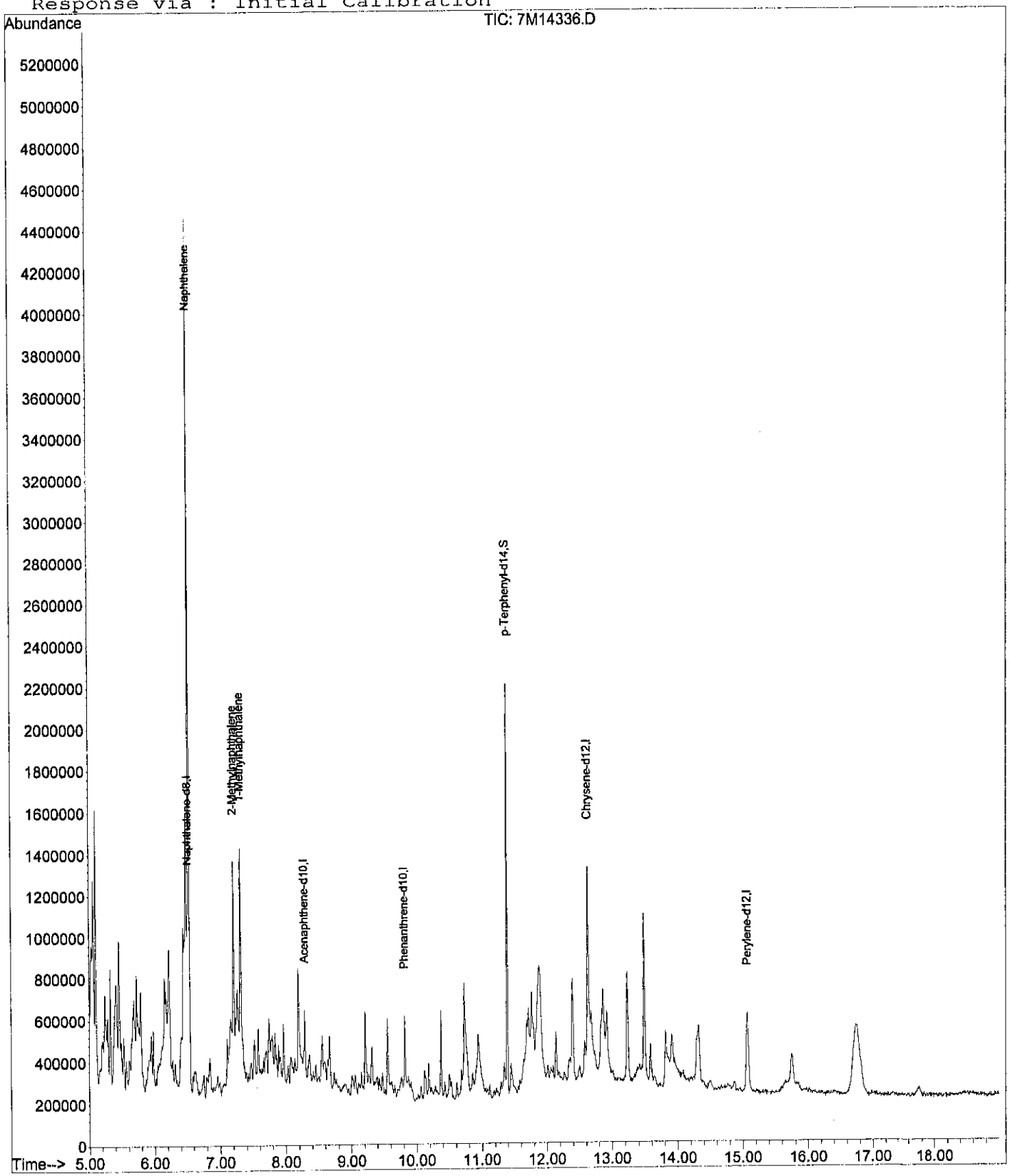
(#) = qualifier out of range (m) = manual integration

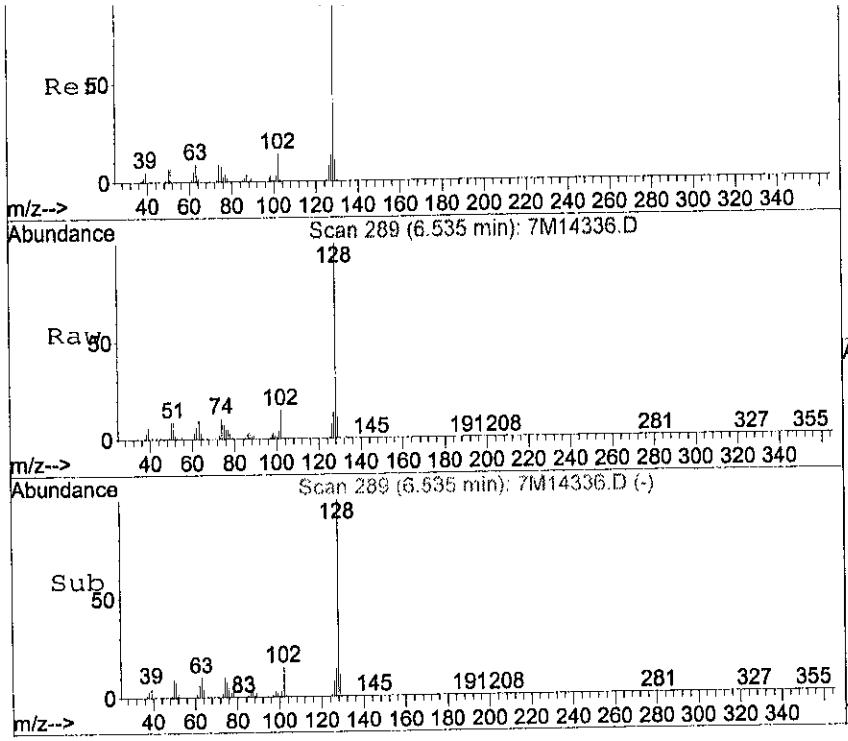
Acq On : 20 Sep 2001 16:57
Sample : L0109252-08 8310
Misc :
MS Integration Params: RTEINT.P
Quant Time: Sep 21 8:56 2001

Operator: mdc
Inst : HPMS7
Multiplr: 1.00

Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 09/17/01
Last Update : Fri Sep 21 08:27:33 2001
Response via : Initial Calibration

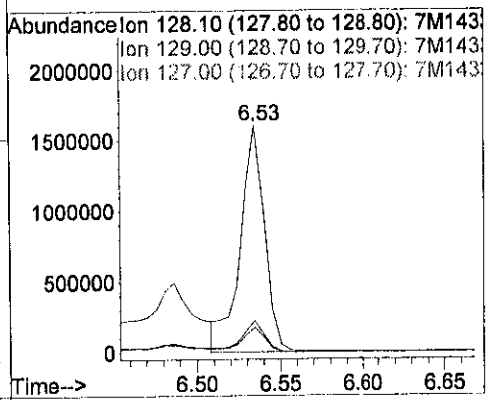


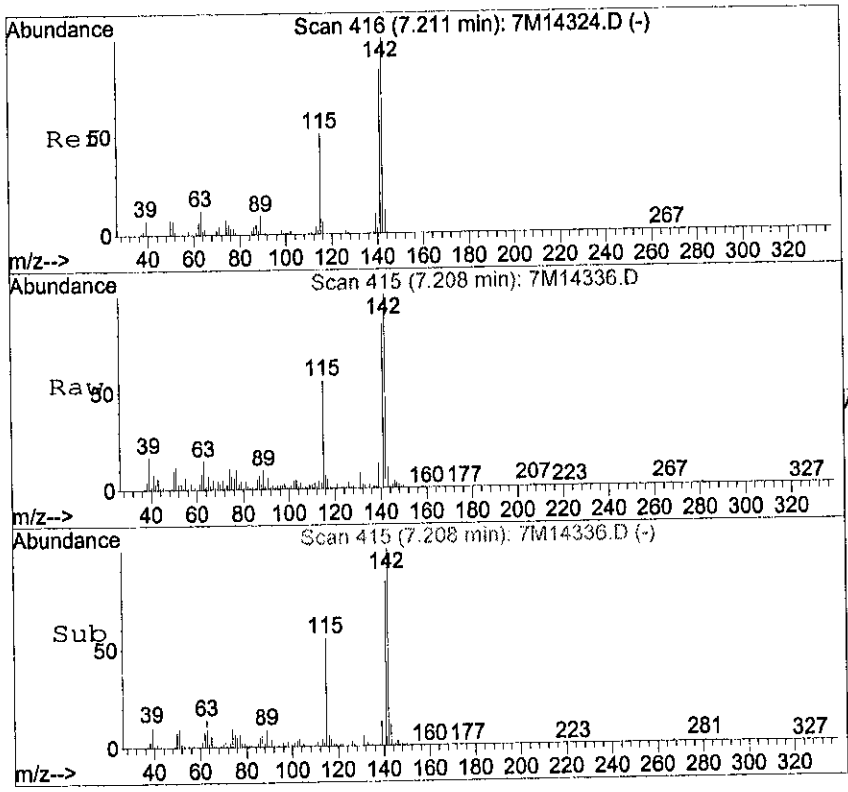


Concen: 20.60 ug/ml
RT: 6.53 min Scan# 289
Delta R.T. -0.01 min
Lab File: 7M14336.D
Acq: 20 Sep 2001 16:57

Tgt Ion:128 Resp: 1639381

Ion	Ratio	Lower	Upper
128	100		
129	11.4	9.0	13.4
127	12.7	11.0	16.6

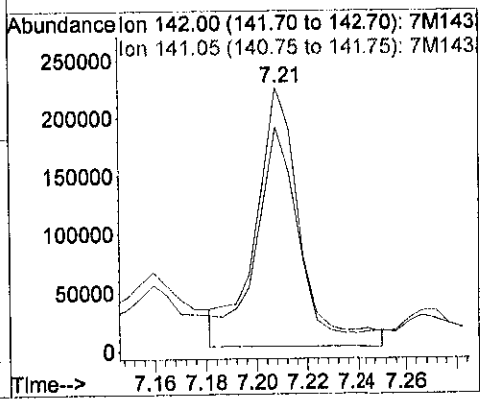


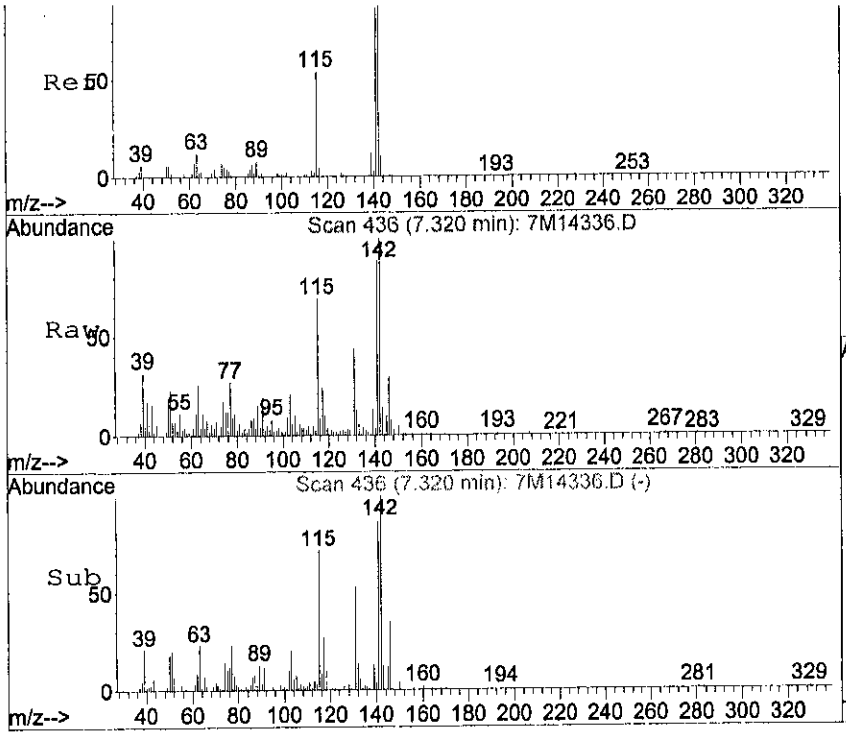


#4
2-Methylnaphthalene
Concen: 4.96 ug/ml
RT: 7.21 min Scan# 415
Delta R.T. -0.01 min
Lab File: 7M14336.D
Acq: 20 Sep 2001 16:57

Tgt Ion:142 Resp: 274303

Ion	Ratio	Lower	Upper
142	100		
141	82.6	69.4	104.0

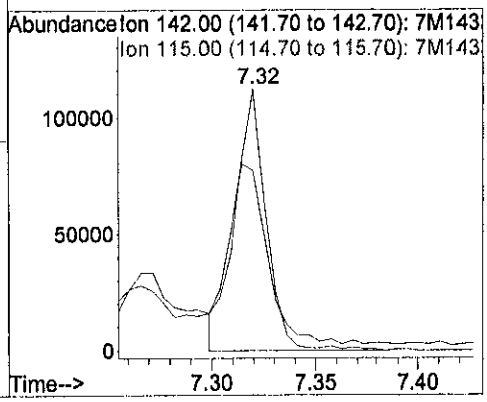




Concen: 2.28 ug/ml
RT: 7.32 min Scan# 436
Delta R.T. -0.01 min
Lab File: 7M14336.D
Acq: 20 Sep 2001 16:57

Tgt Ion:142 Resp: 117112

Ion	Ratio	Lower	Upper
142	100		
115	89.7	31.8	47.6#



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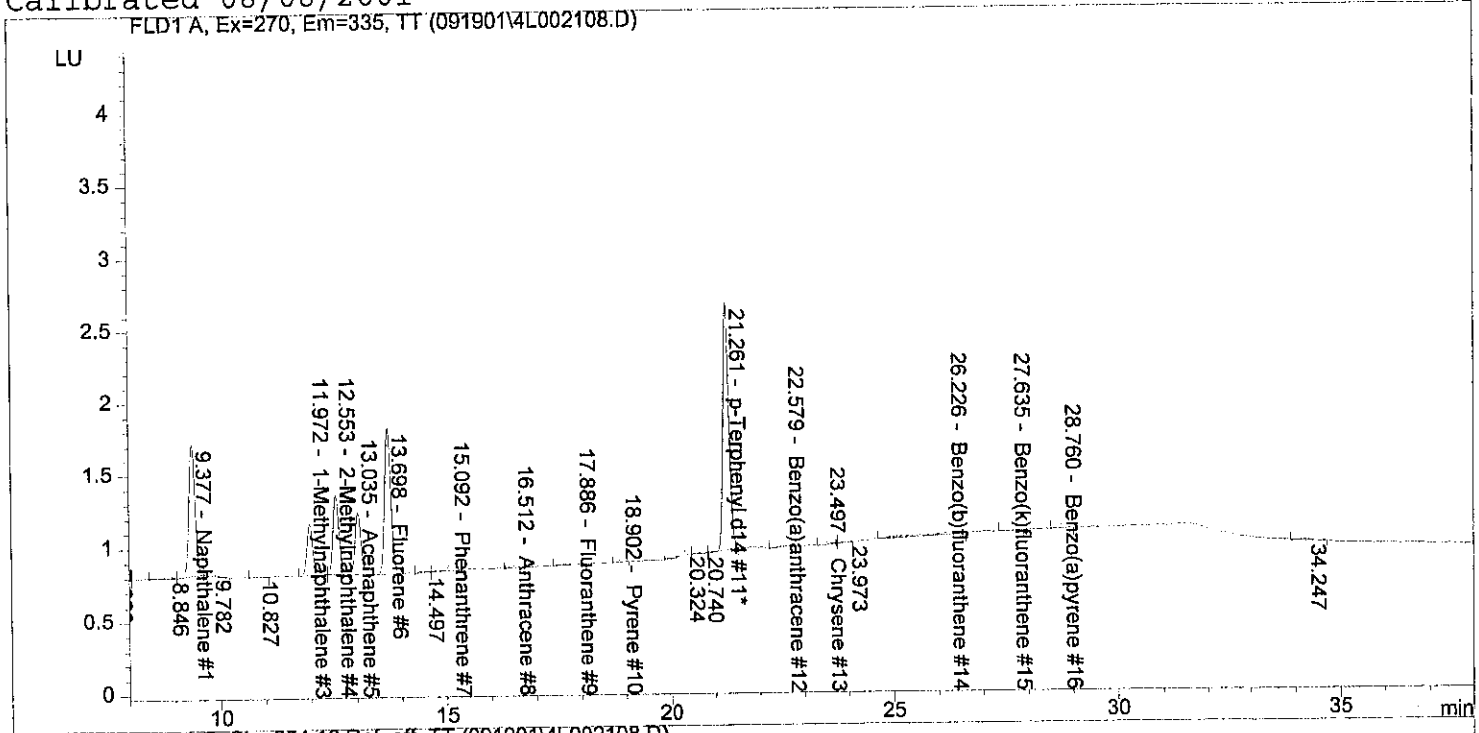
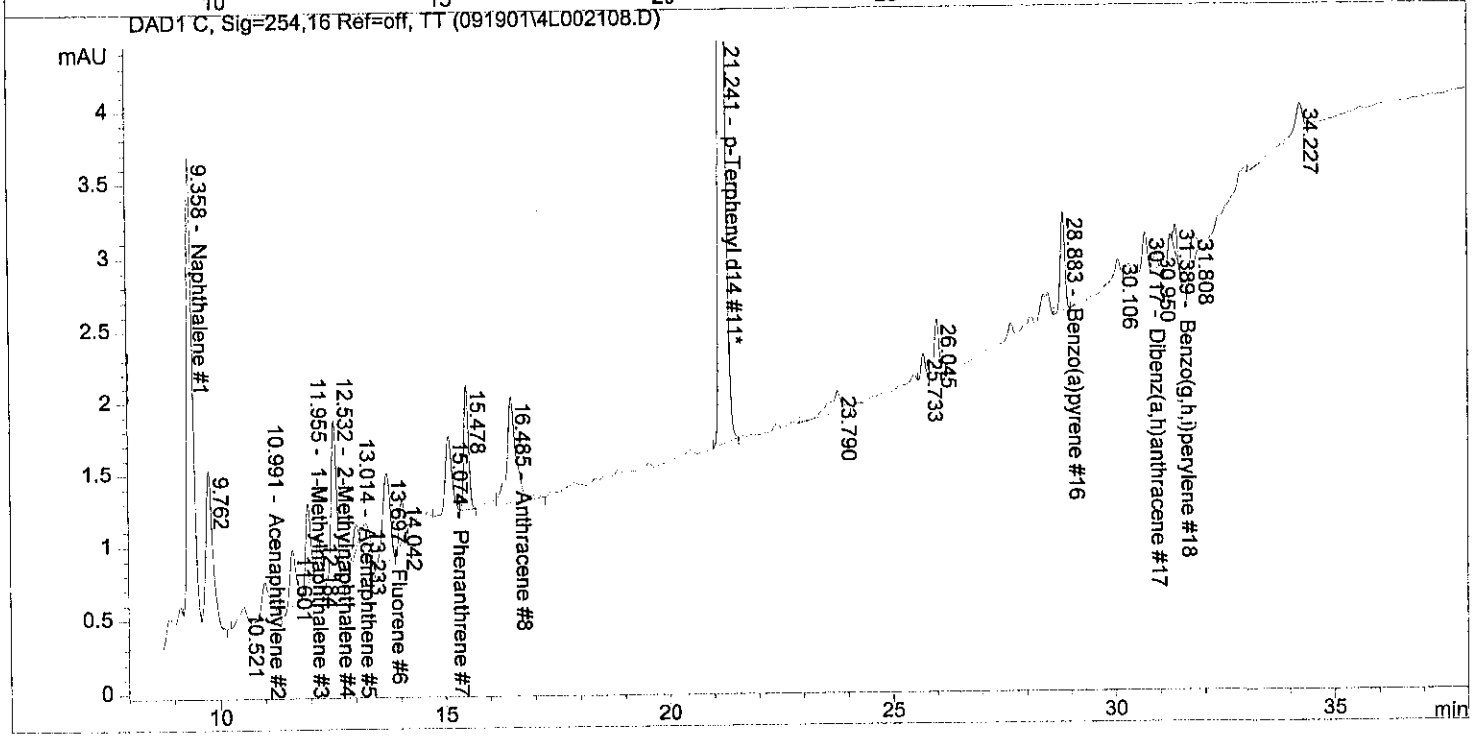
Injection Date : 9/20/2001 3:50:30 AM
Sample Name : L0109252-09 831W
Acq. Operator : RDC

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 AM
Multiplier : 1.0500
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
9.377	BB	8.75603	2.52962e-2	2.32569e-1		Naphthalene #1
11.972	BB	3.45422	2.21330e-2	8.02747e-2		1-Methylnaphthalene #3
12.553	BB	5.14671	1.70635e-2	9.22119e-2		2-Methylnaphthalene #4
13.035	BB	4.05042	1.38416e-2	5.88674e-2		Acenaphthene #5
13.698	BBA	9.66655	6.62187e-3	6.72112e-2		Fluorene #6
15.092	BB	5.32895e-1	1.63652e-1	9.15700e-2		Phenanthrene #7
16.512	PBA	1.78416e-1	3.10196e-1	5.81111e-2		Anthracene #8
17.886	PBA	4.87983e-1	2.32678e-2	1.19220e-2		Fluoranthene #9
18.902	BBA	1.97930e-1	3.86587e-2	8.03430e-3		Pyrene #10
21.261	BB	16.14585	2.97423e-1	5.04225		p-Terphenyl d14 #11*
22.579	PB	2.33988e-1	7.91256e-3	1.94401e-3		Benzo(a)anthracene #12
23.497	BB	2.38616e-1	3.90495e-2	9.78376e-3		Chrysene #13
26.226	BB	9.21589e-1	1.63222e-2	1.57945e-2		Benzo(b)fluoranthene #14
27.635	BB	4.05309e-1	2.76572e-3	1.17702e-3		Benzo(k)fluoranthene #15
28.760	BB	3.21866e-1	4.57119e-3	1.54488e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.542		-	-	-		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.77327

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
9.358	BB	27.57604	8.25405e-3	2.38995e-1	mol	Naphthalene #1
10.991	BB	3.63352	2.96975e-2	1.13302e-1		Acenaphthylene #2
11.955	BB	3.98388	1.29459e-2	5.41534e-2		1-Methylnaphthalene #3
12.532	BB	10.15358	1.12393e-2	1.19825e-1		2-Methylnaphthalene #4
13.014	BB	1.44794	2.03163e-2	3.08877e-2		Acenaphthene #5
13.697	BB	7.01286	1.75240e-2	1.29038e-1		Fluorene #6
15.074	BB	5.12173	1.72982e-2	9.30267e-2		Phenanthrene #7
16.485	BB	10.87415	1.04262e-2	1.19045e-1		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.968		-	-	-		Pyrene #10
21.241	BBA	74.80913	6.56733e-2	5.15861		p-Terphenyl d14 #11*
22.659		-	-	-		Benzo(a)anthracene #12
23.537		-	-	-		Chrysene #13
26.278		-	-	-		Benzo(b)fluoranthene #14
27.723		-	-	-		Benzo(k)fluoranthene #15
28.883	BB	4.47545	2.61680e-2	1.22969e-1	NC	Benzo(a)pyrene #16
30.717	BB	1.79811	9.41116e-2	1.77684e-1	NC	Dibenz(a,h)anthracene #17

49.1%

[min]		[mAU*s]		[ug/L]		
31.389	BB	5.12811e-1	5.60829e-2	3.01980e-2		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.38773

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 : 8/9/2001 2:38:03 PM

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/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

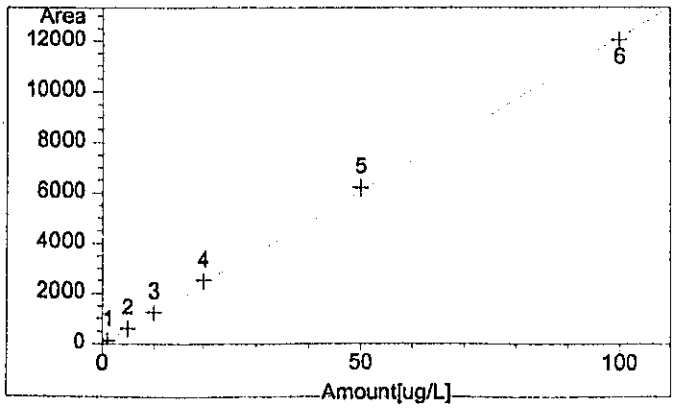
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

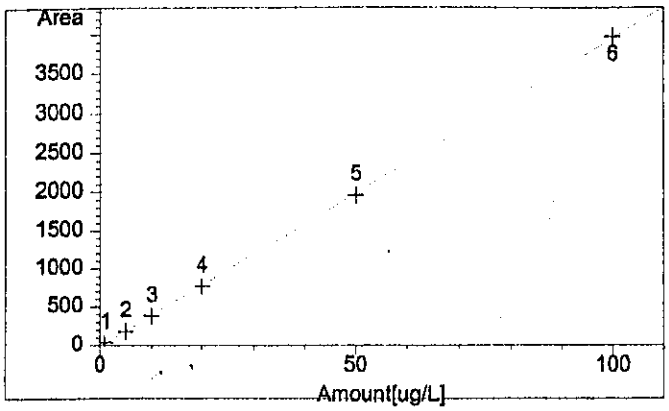
Peak Sum Table

No Entries in table

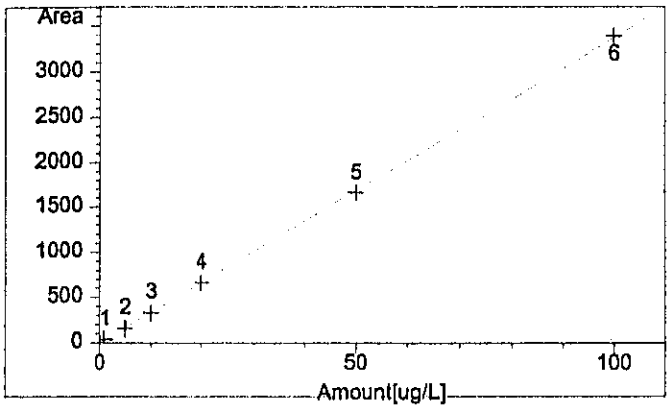
Calibration Curves



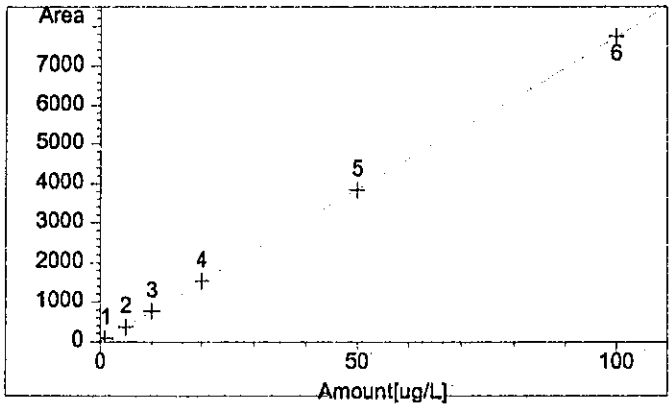
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount [ug/L]
y: Area



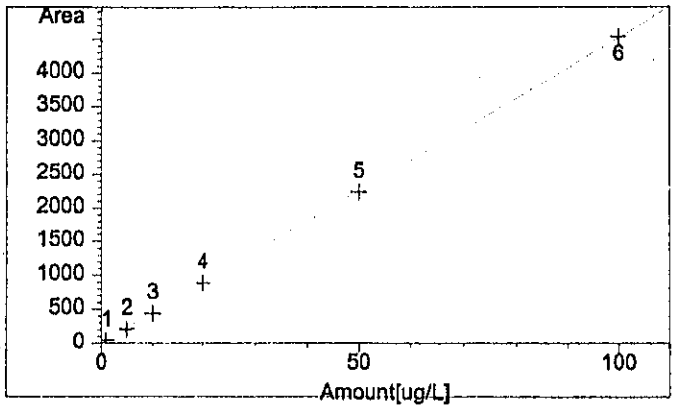
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount[ug/L]
y: Area



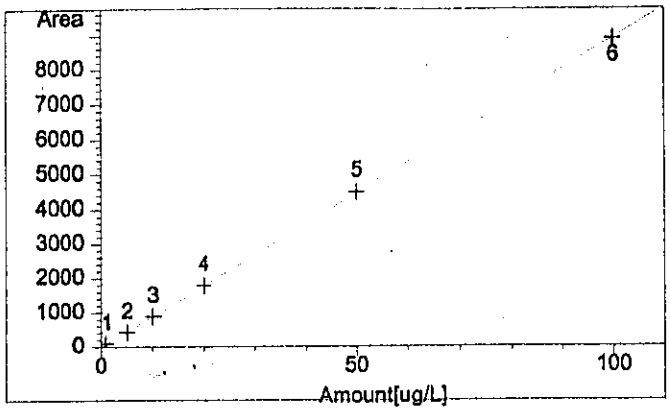
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount[ug/L]
y: Area



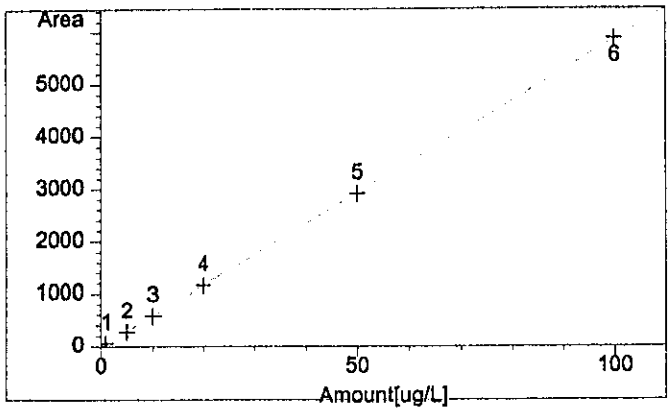
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount[ug/L]
y: Area



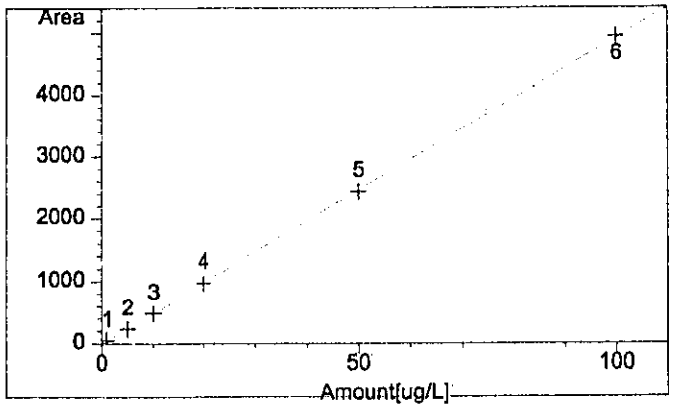
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount[ug/L]
y: Area



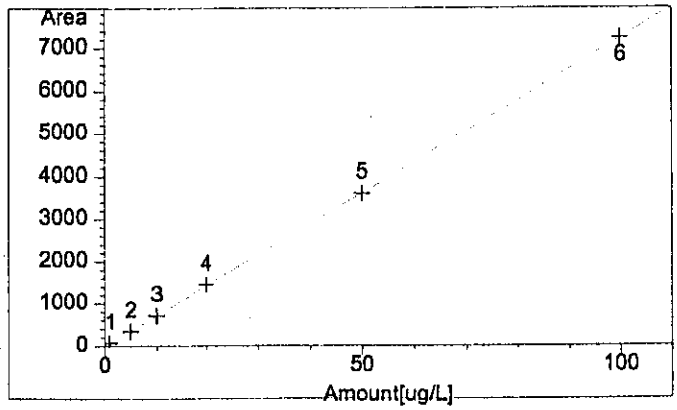
2-Methylnaphthalene #4 at exp. RT: 12.601
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



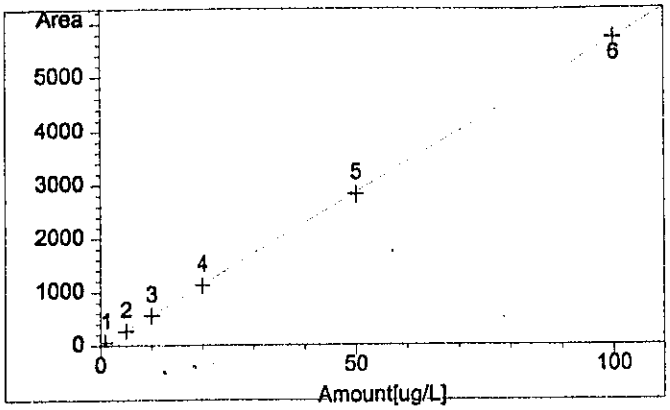
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



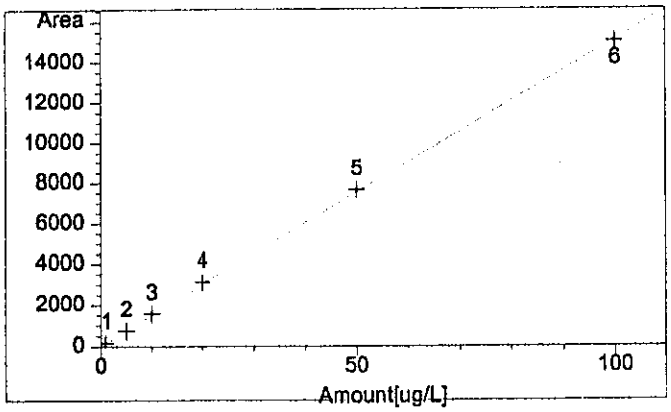
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



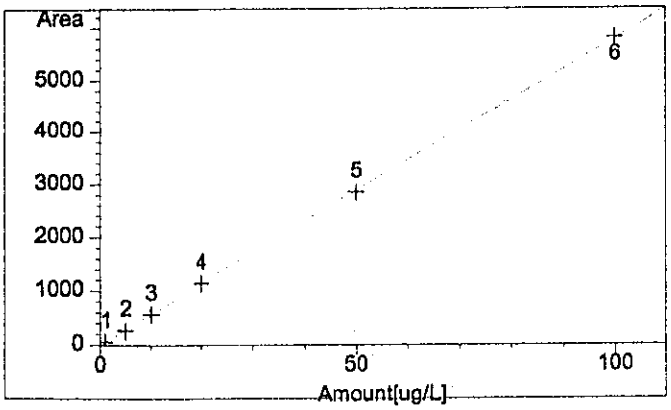
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



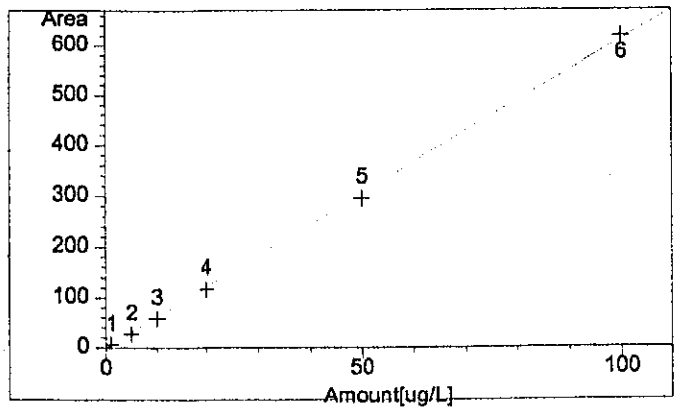
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount[ug/L]
y: Area



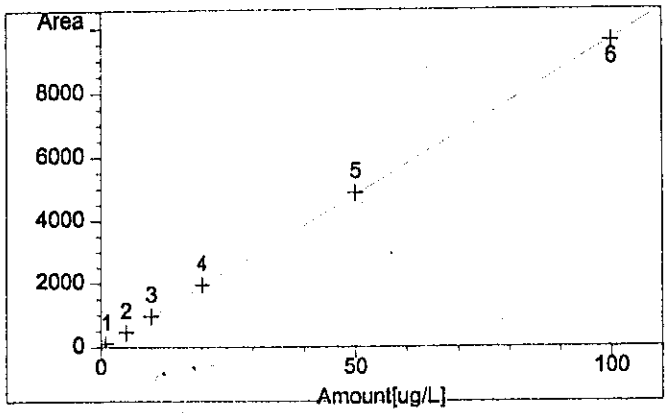
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount[ug/L]
y: Area



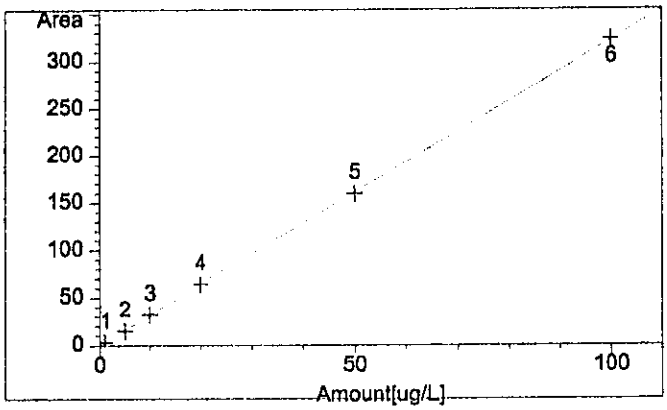
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount[ug/L]
y: Area



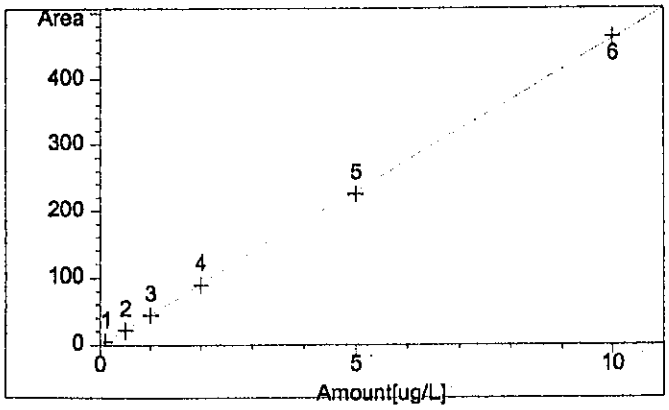
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount[ug/L]
y: Area



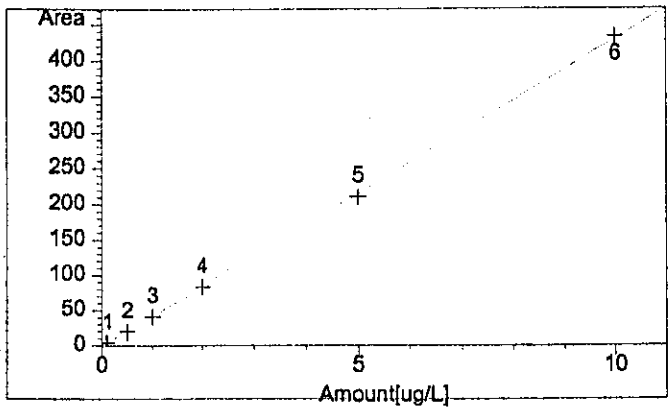
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



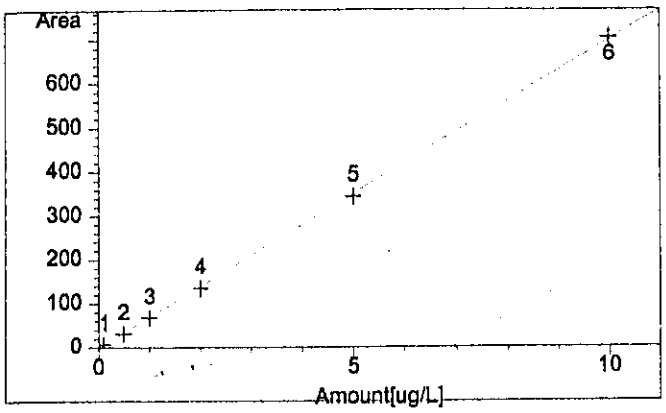
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount [ug/L]
y: Area



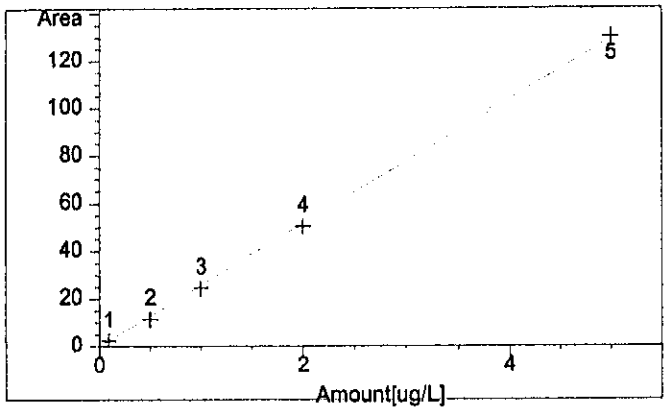
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area



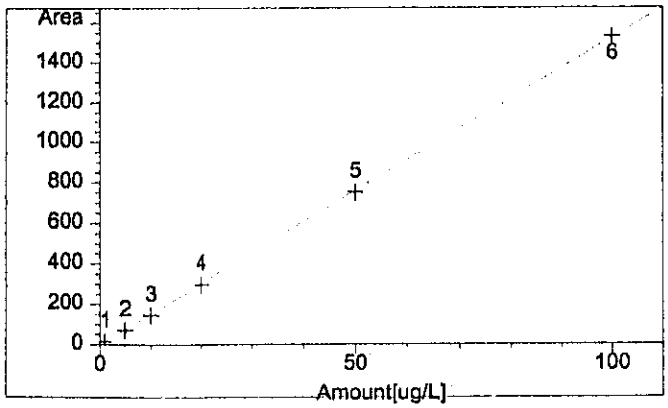
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area



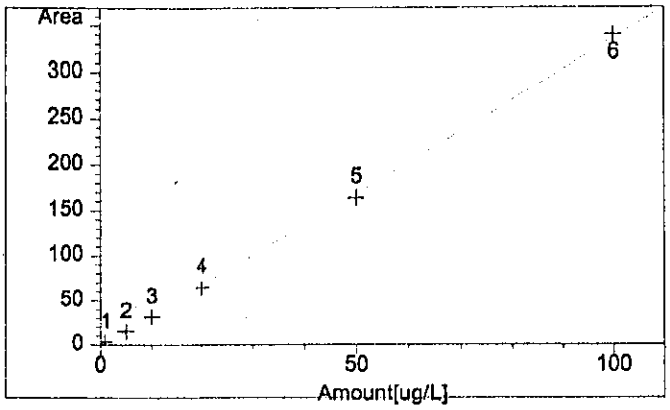
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount[ug/L]
y: Area



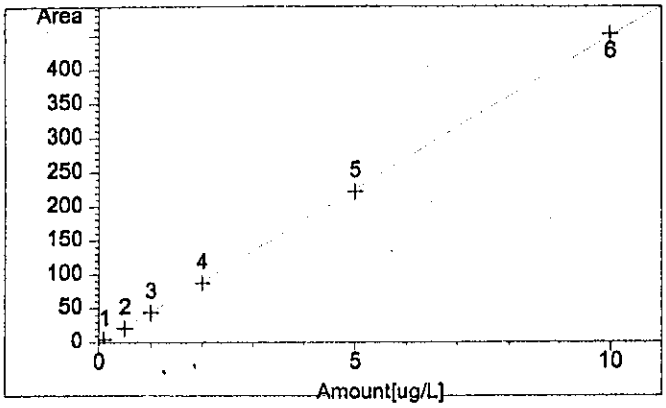
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount[ug/L]
y: Area



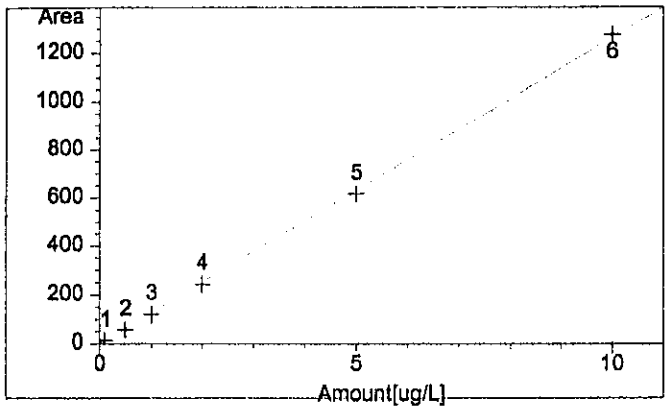
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount[ug/L]
y: Area



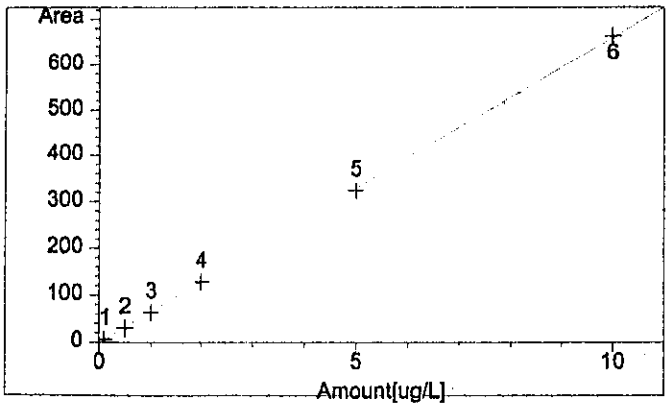
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount[ug/L]
y: Area



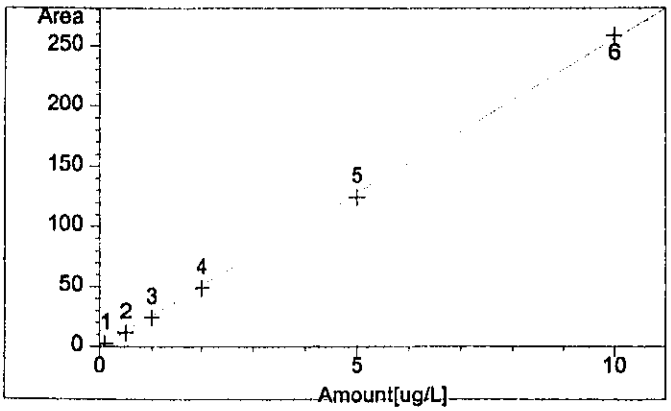
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount[ug/L]
y: Area



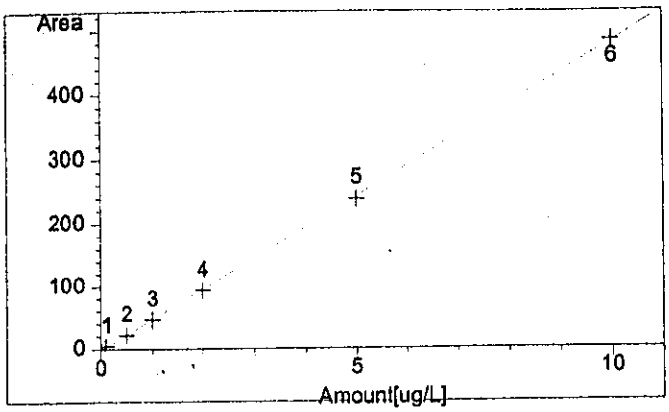
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount[ug/L]
y: Area



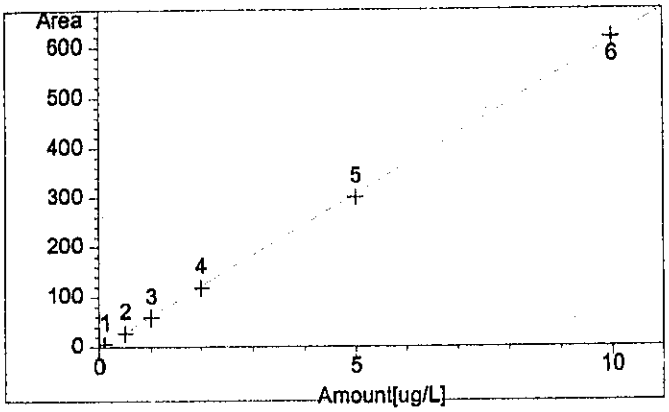
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount[ug/L]
y: Area



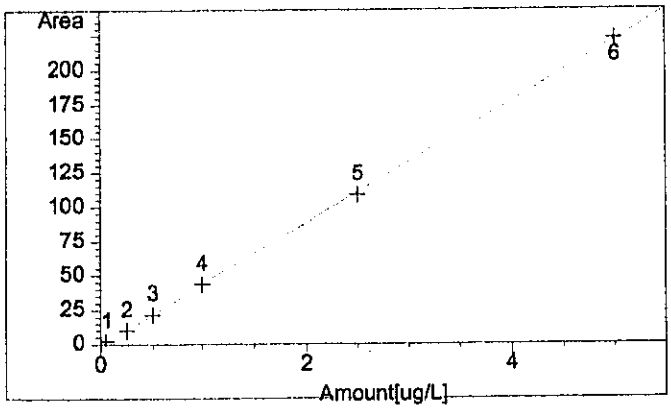
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount[ug/L]
y: Area



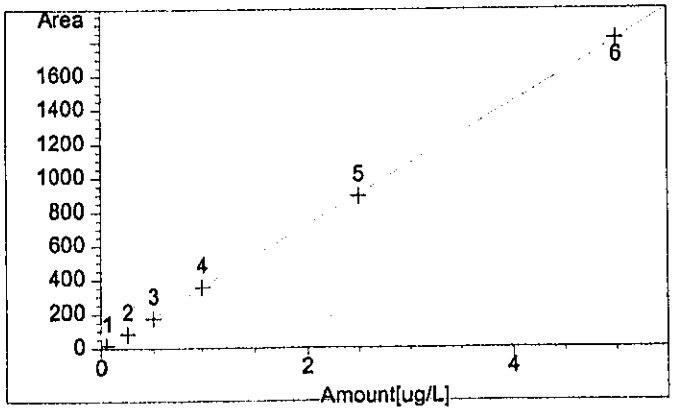
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount [ug/L]
y: Area



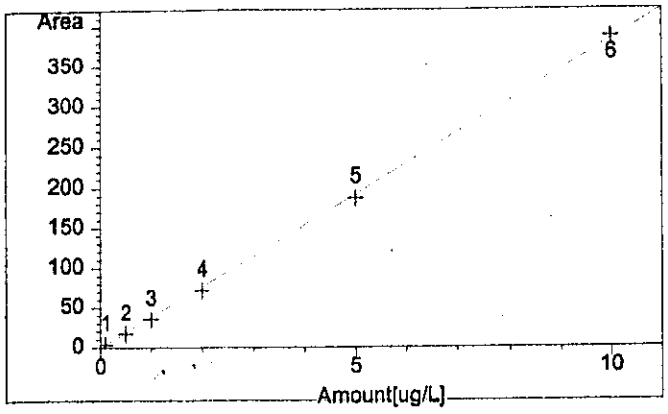
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount [ug/L]
y: Area



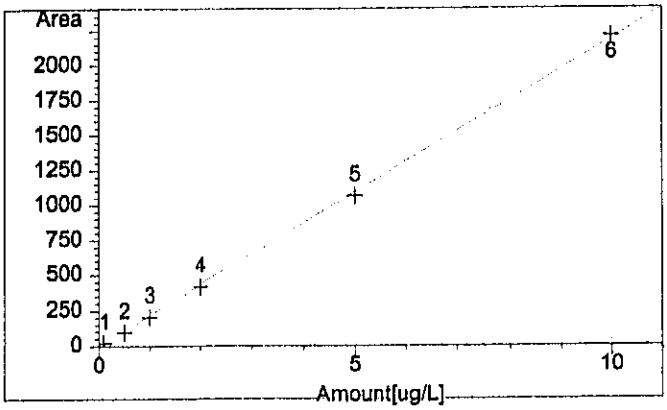
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount [ug/L]
y: Area



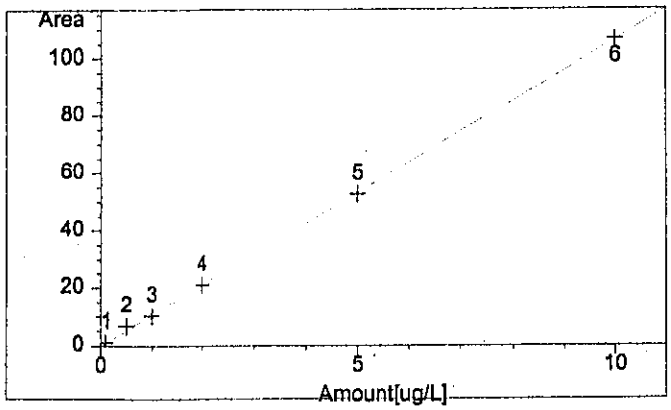
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount [ug/L]
y: Area



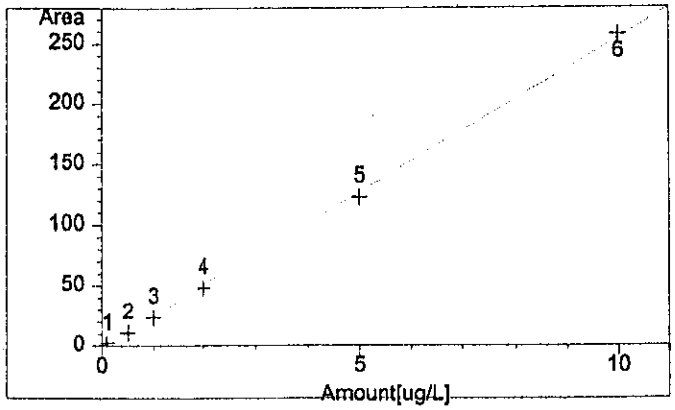
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount[ug/L]
y: Area



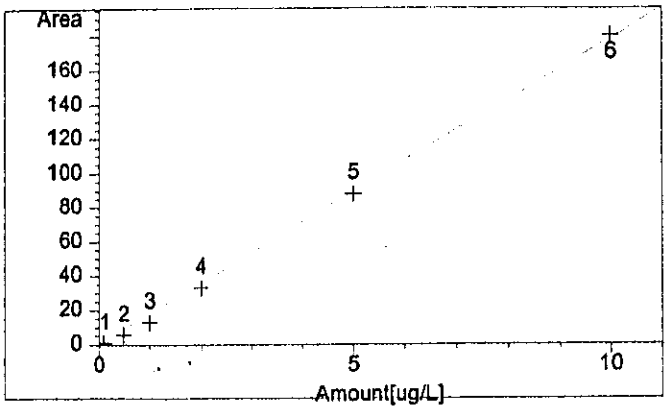
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount[ug/L]
y: Area



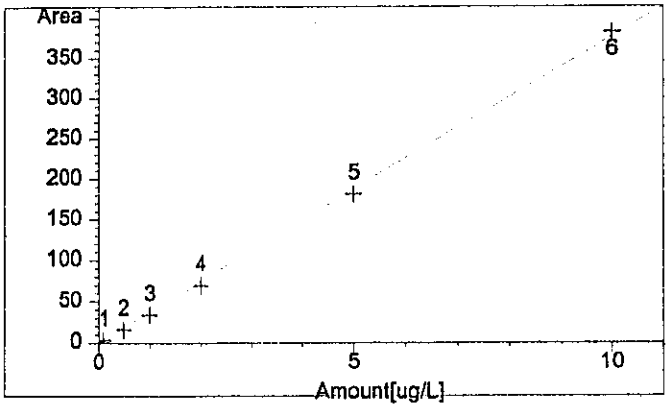
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount[ug/L]
y: Area



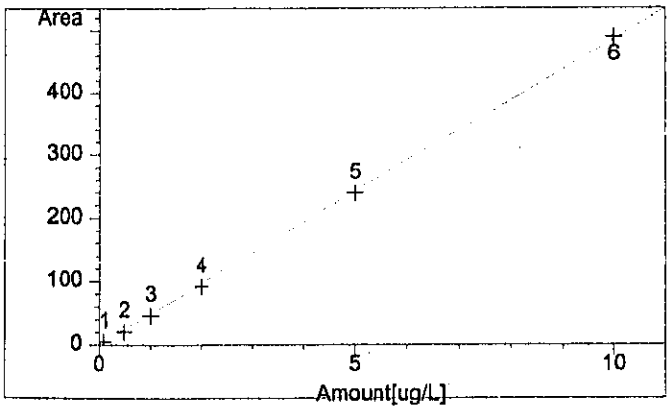
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount[ug/L]
y: Area



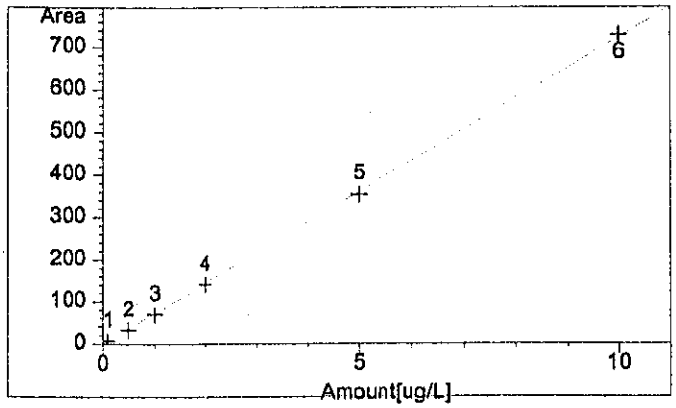
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount [ug/L]
y: Area

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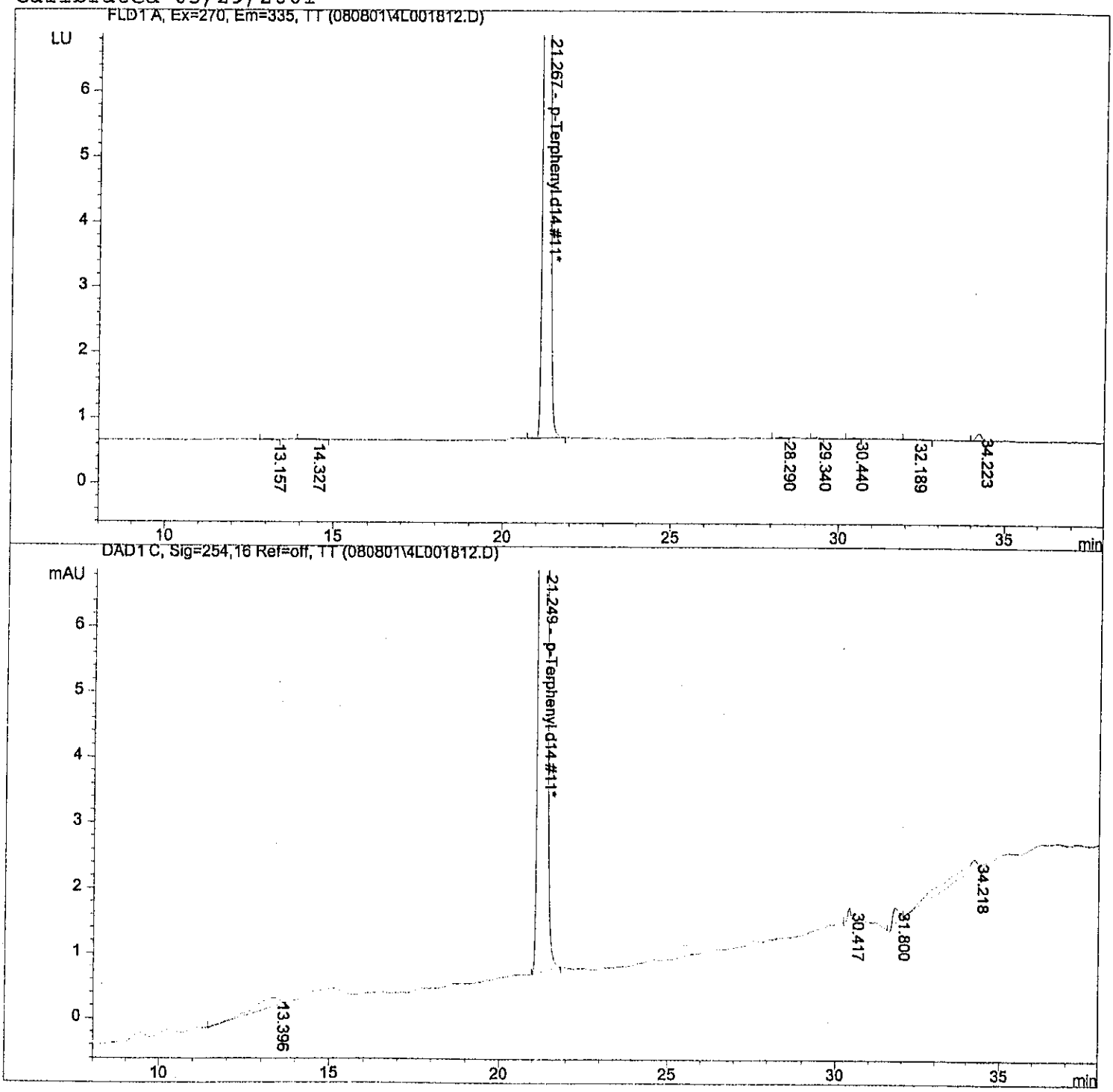
Injection Date : 8/8/2001 9:48:17 PM
Sample Name : 8310surr6/54-35
Acq. Operator : RDC

Seq. Line : 8
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:12:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:12:08 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
9.343		-	-	-		Naphthalene #1
11.976		-	-	-		1-Methylnaphthalene #3
12.520		-	-	-		2-Methylnaphthalene #4
13.006		-	-	-		Acenaphthene #5
13.674		-	-	-		Fluorene #6
15.213		-	-	-		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.978		-	-	-		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.267	PBA	339.18564	2.88970e-1	98.01453		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.760		-	-	-		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 98.01453

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
9.326		-	-	-		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.957		-	-	-		1-Methylnaphthalene #3
12.534		-	-	-		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.657		-	-	-		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.249	PBA	1529.22424	6.36953e-2	97.40433		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

ata File C:\HPCHEM\2\DATA\080801\4L001812.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				97.40433		

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\[illegible]

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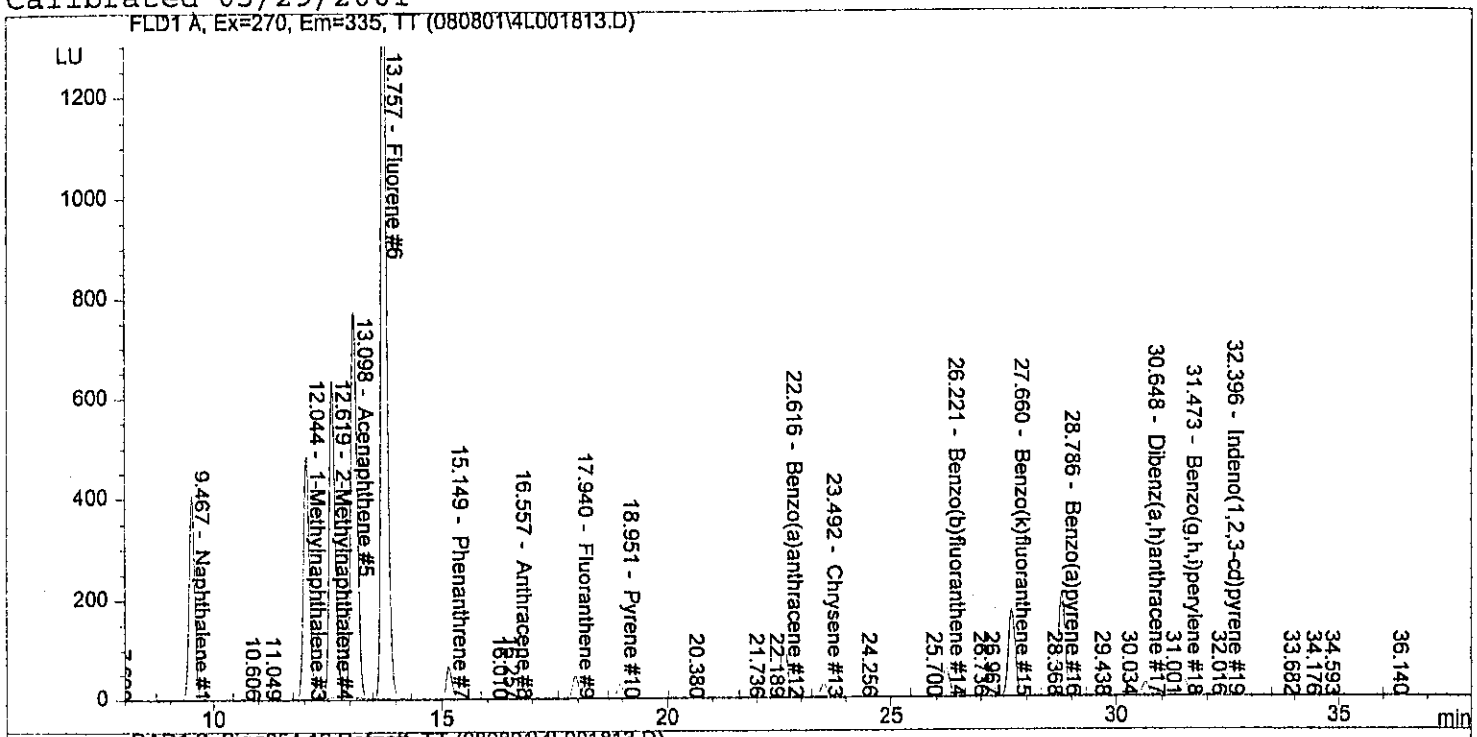
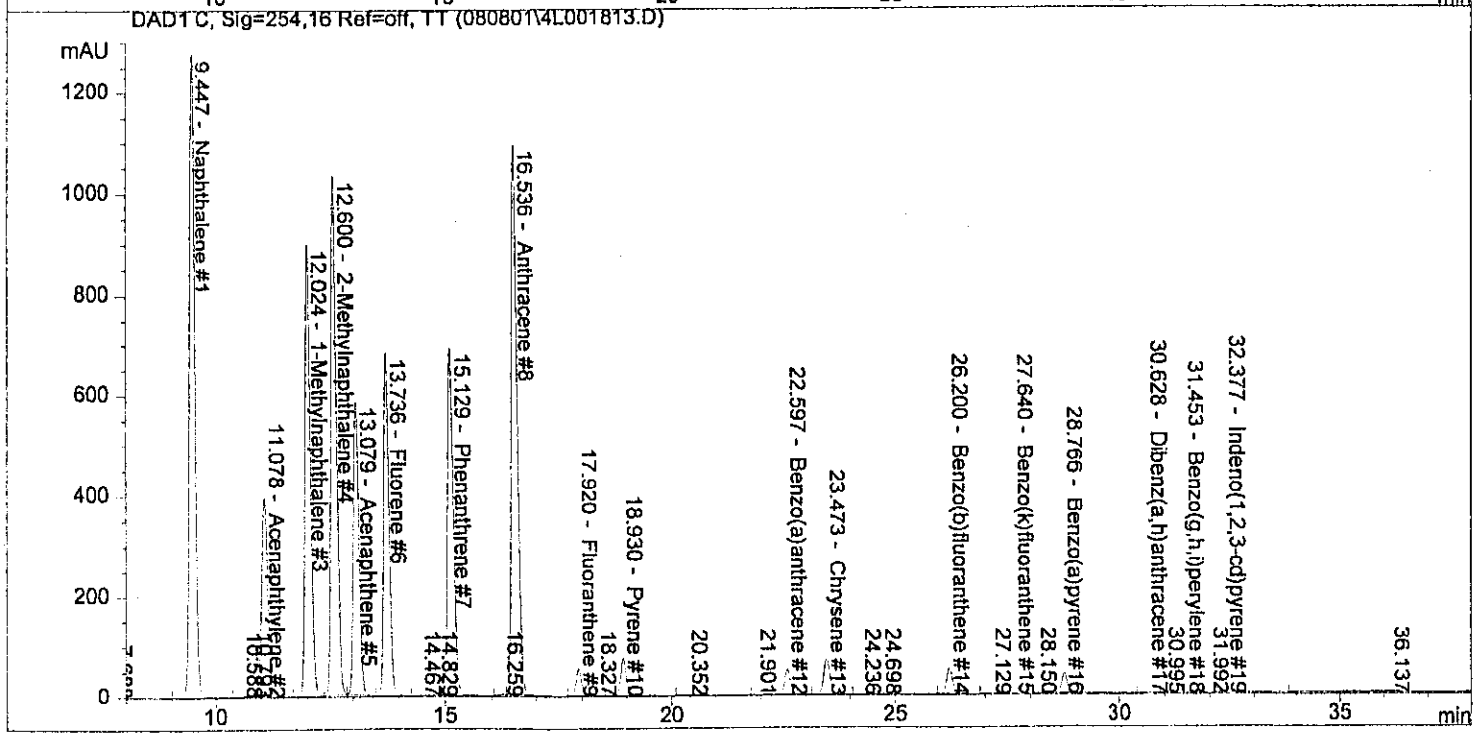
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

Seq. Line : 9
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:22:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:22:51 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
9.467	BB	3973.55249	2.55317e-2	101.45138		Naphthalene #1
12.044	PB	4535.38281	2.23759e-2	101.48305		1-Methylnaphthalene #3
12.619	BB	5875.01660	1.72227e-2	101.18389		2-Methylnaphthalene #4
13.098	BB	7228.99854	1.39785e-2	101.05076		Acenaphthene #5
13.757	BB	1.50256e4	6.61784e-3	99.43674		Fluorene #6
15.149	BBA	617.71191	1.63970e-1	101.28640		Phenanthrene #7
16.557	BB	323.14050	3.11421e-1	100.63288		Anthracene #8
17.940	PB	432.79266	2.34467e-2	10.14758		Fluoranthene #9
18.951	BB	273.80585	3.77948e-2	10.34844		Pyrene #10
21.267		-	-	-		p-Terphenyl d14 #11*
22.616	BB	1274.56396	7.97394e-3	10.16330		Benzo(a)anthracene #12
23.492	BB	258.58917	3.94274e-2	10.19549		Chrysene #13
26.221	BB	617.15186	1.63647e-2	10.09953		Benzo(b)fluoranthene #14
27.660	BB	1815.06726	2.77359e-3	5.03425		Benzo(k)fluoranthene #15
28.786	BB	2209.61670	4.57456e-3	10.10801		Benzo(a)pyrene #16
30.648	BB	257.09790	3.95004e-2	10.15546		Dibenz(a,h)anthracene #17
31.473	BB	382.48065	2.68798e-2	10.28100		Benzo(g,h,i)perylene #18
32.396	BB	728.48004	1.37724e-2	10.03289		Indeno(1,2,3-cd)pyrene #1

Totals : 803.09104

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
9.447	BB	1.20244e4	8.25610e-3	99.27448		Naphthalene #1
11.078	BB	3384.39795	2.97245e-2	100.59951		Acenaphthylene #2
12.024	BB	7740.20703	1.29528e-2	100.25726		1-Methylnaphthalene #3
12.600	BB	8884.32324	1.12464e-2	99.91623		2-Methylnaphthalene #4
13.079	BB	4940.15088	2.03275e-2	100.42072		Acenaphthene #5
13.736	BB	5731.11230	1.75642e-2	100.66232		Fluorene #6
15.129	BBA	5806.07617	1.73002e-2	100.44635		Phenanthrene #7
16.536	BBA	9552.15625	1.04130e-2	99.46643		Anthracene #8
17.920	PB	463.67642	2.17440e-2	10.08217		Fluoranthene #9
18.930	BB	703.95166	1.43310e-2	10.08832		Pyrene #10
21.249		-	-	-		p-Terphenyl d14 #11*
22.597	BBA	451.58978	2.23017e-2	10.07124		Benzo(a)anthracene #12
23.473	BBA	664.28351	1.51547e-2	10.06704		Chrysene #13
26.200	BBA	485.19955	2.07746e-2	10.07983		Benzo(b)fluoranthene #14
27.640	BB	222.55347	2.26386e-2	5.03829		Benzo(k)fluoranthene #15
28.766	BB	385.80145	2.60127e-2	10.03572		Benzo(a)pyrene #16
30.628	PB	106.53020	9.38245e-2	9.99514		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.453	BB	180.23679	5.63755e-2	10.16093		Benzo(g,h,i)perylene #18
32.377	BBA	489.90164	2.05716e-2	10.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 896.74006

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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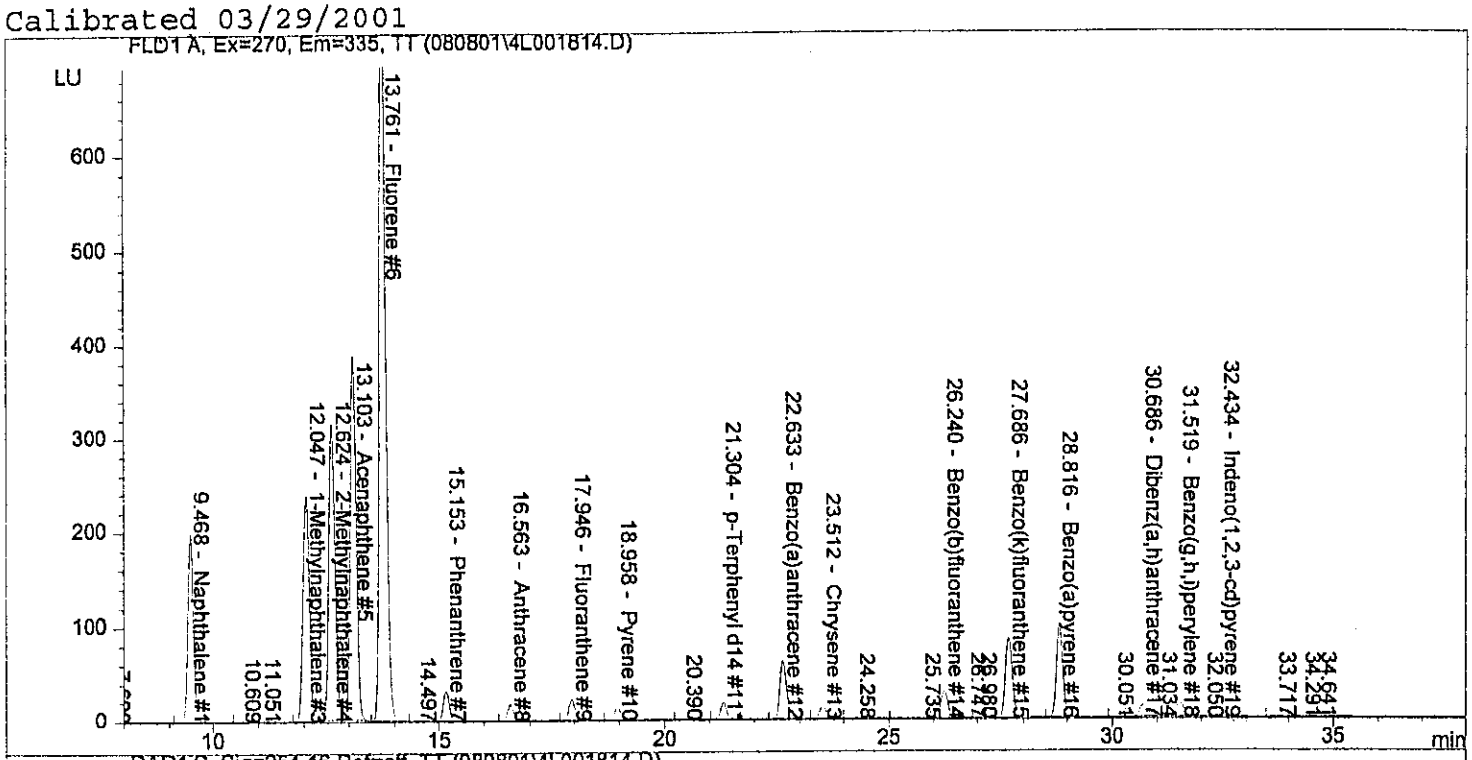
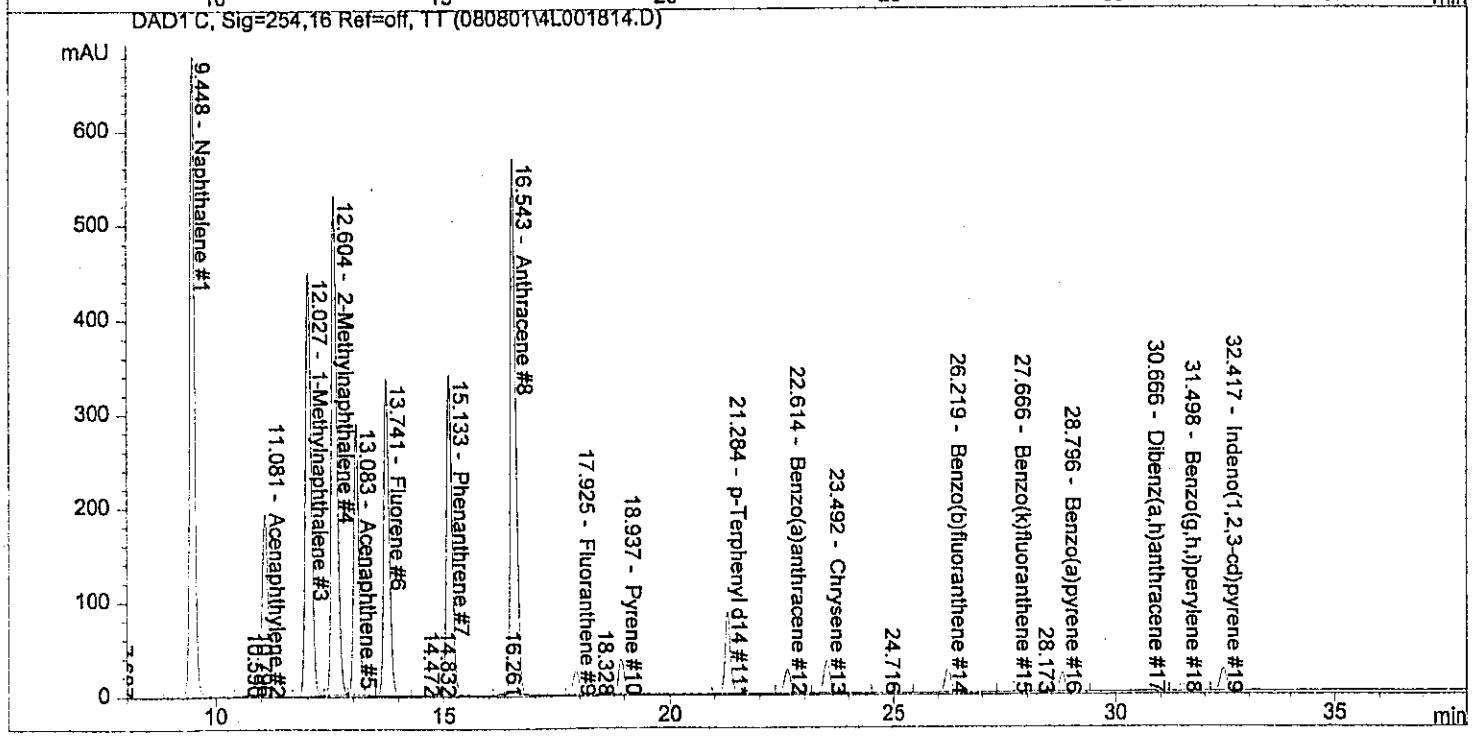
Injection Date	: 8/8/2001 11:41:36 PM	Seq. Line	: 10
Sample Name	: 8310 std 5/53-25	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:23:34 PM by RDC
(modified after loading)

Calibrated 03/29/2001





ata File C:\HPCHEM\2\DATA\080801\

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:23:32 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
9.468	PB	1948.04333	2.53373e-2	49.35817		Naphthalene #1
12.047	PB	2235.18970	2.21763e-2	49.56814		1-Methylnaphthalene #3
12.624	BB	2909.70630	1.70922e-2	49.73328		2-Methylnaphthalene #4
13.103	BB	3605.74121	1.38670e-2	50.00065		Acenaphthene #5
13.761	BB	7656.80322	6.53228e-3	50.01636		Fluorene #6
15.153	BBA	295.27972	1.63827e-1	48.37483		Phenanthrene #7
16.563	BB	159.95667	3.10549e-1	49.67436		Anthracene #8
17.946	BB	210.50659	2.32969e-2	4.90415		Fluoranthene #9
18.958	BBA	130.27173	3.71107e-2	4.83447		Pyrene #10
21.304	PB	163.61835	2.96033e-1	48.43651		p-Terphenyl d14 #11*
22.633	BB	616.44403	7.92426e-3	4.88486		Benzo(a)anthracene #12
23.512	BB	124.43752	3.91177e-2	4.86771		Chrysene #13
26.240	BB	299.93723	1.63317e-2	4.89849		Benzo(b)fluoranthene #14
27.686	BB	893.52496	2.76733e-3	2.47268		Benzo(k)fluoranthene #15
28.816	BB	1063.36975	4.57033e-3	4.85995		Benzo(a)pyrene #16
30.686	BB	122.84724	3.93851e-2	4.83834		Dibenz(a,h)anthracene #17
31.519	BB	181.30618	2.65675e-2	4.81686		Benzo(g,h,i)perylene #18
32.434	BB	354.48691	1.38152e-2	4.89732		Indeno(1,2,3-cd)pyrene #1
Totals :				441.43712		

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
9.448	PBA	6202.44971	8.25915e-3	51.22699		Naphthalene #1
11.081	BB	1657.23242	2.97185e-2	49.25050		Acenaphthylene #2
12.027	BB	3838.97803	1.29547e-2	49.73284		1-Methylnaphthalene #3
12.604	BB	4469.53662	1.12471e-2	50.26953		2-Methylnaphthalene #4
13.083	BB	2433.60547	2.03296e-2	49.47421		Acenaphthene #5
13.741	BB	2816.46851	1.75408e-2	49.40304		Fluorene #6
15.133	BBA	2852.19556	1.73083e-2	49.36677		Phenanthrene #7
16.543	BBA	4858.51855	1.04295e-2	50.67187		Anthracene #8
17.925	PB	226.24062	2.17178e-2	4.91345		Fluoranthene #9
18.937	BBA	342.22821	1.43193e-2	4.90046		Pyrene #10
21.284	PBA	752.44629	6.53529e-2	49.17455		p-Terphenyl d14 #11*
22.614	PBA	220.89987	2.22893e-2	4.92370		Benzo(a)anthracene #12
23.492	BBA	324.43796	1.51547e-2	4.91677		Chrysene #13
26.219	BBA	236.98158	2.07517e-2	4.91778		Benzo(b)fluoranthene #14
27.666	BB	108.82767	2.26066e-2	2.46022		Benzo(k)fluoranthene #15
28.796	BBA	186.41614	2.61378e-2	4.87251		Benzo(a)pyrene #16
30.666	BB	52.55205	9.41932e-2	4.95004		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.498	BB	87.58637	5.62695e-2	4.92844		Benzo(g,h,i)perylene #18
32.417	BBA	239.26749	2.05571e-2	4.91865		Indeno(1,2,3-cd)pyrene #1
Totals :				495.27231		

Results obtained with enhanced integrator!

*** End of Report ***

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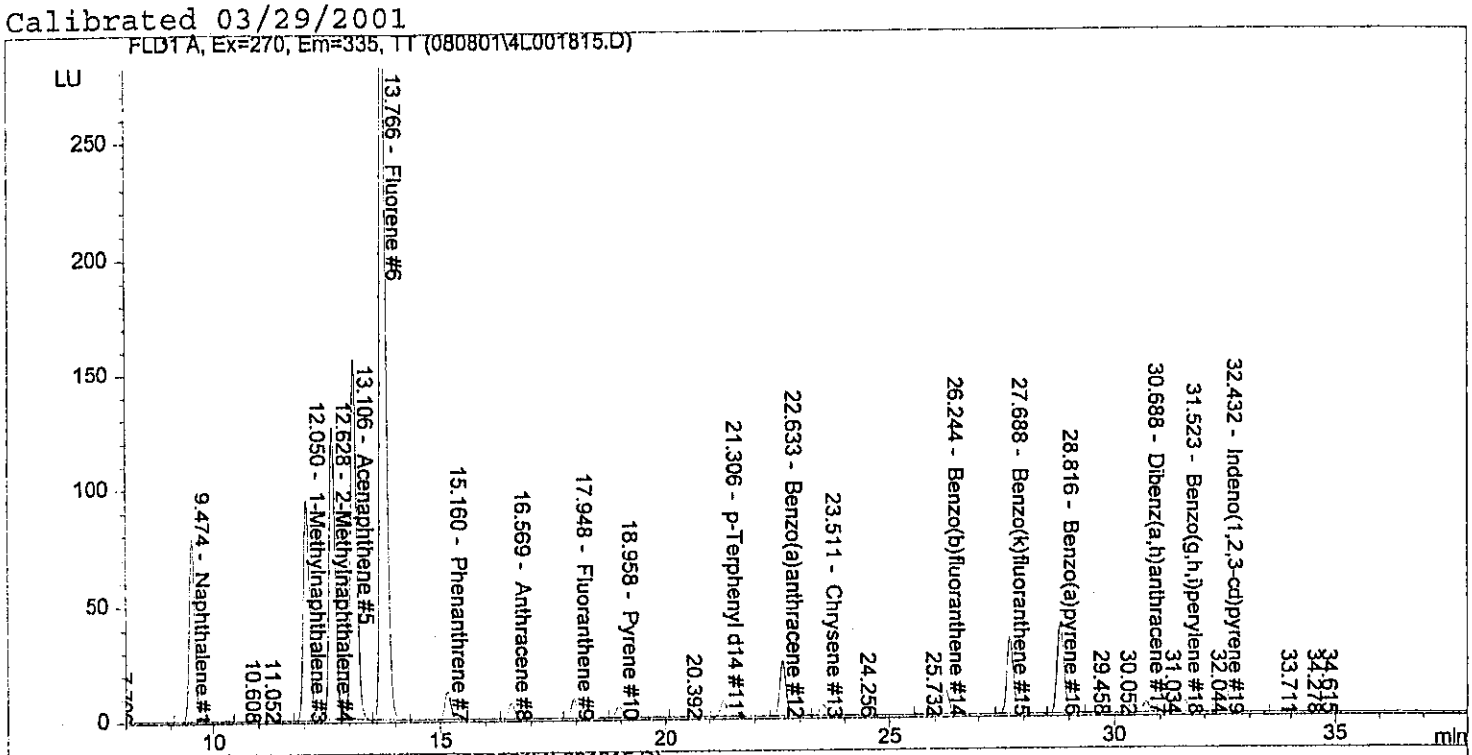
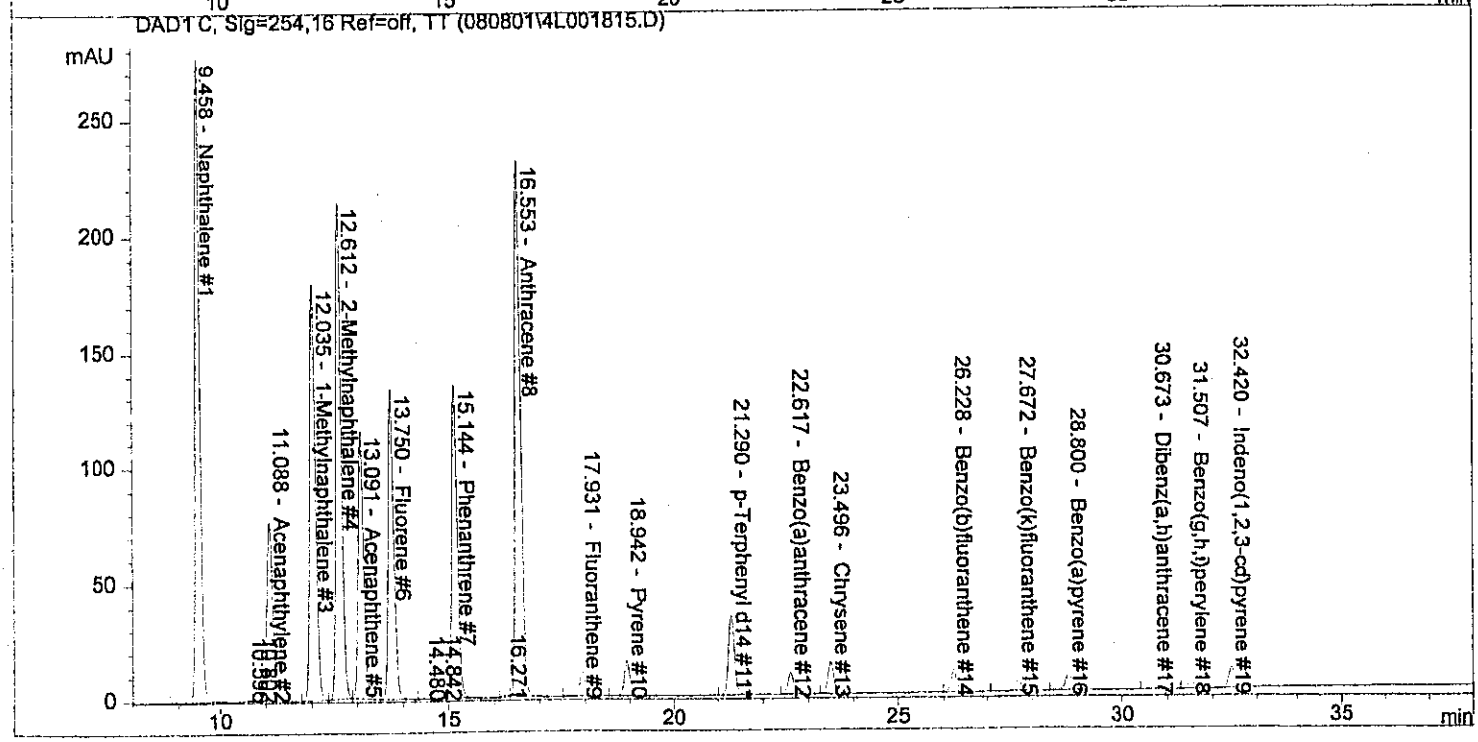
Injection Date : 8/9/2001 12:38:12 AM
Sample Name : 8310 std 4/53-25
Acq. Operator : RDC

Seq. Line : 11
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:24:08 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:24:05 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
9.474	PBA	771.00281	2.53062e-2	19.51118		Naphthalene #1
12.050	PB	887.93890	2.21431e-2	19.66168		1-Methylnaphthalene #3
12.628	BB	1160.72327	1.70700e-2	19.81357		2-Methylnaphthalene #4
13.106	BB	1445.95483	1.38473e-2	20.02258		Acenaphthene #5
13.766	BB	3112.09448	6.51797e-3	20.28453		Fluorene #6
15.160	BBA	116.85247	1.63688e-1	19.12731		Phenanthrene #7
16.569	BBA	63.99872	3.10306e-1	19.85918		Anthracene #8
17.948	BBA	83.17304	2.32743e-2	1.93580		Fluoranthene #9
18.958	BBA	50.45357	3.70193e-2	1.86776		Pyrene #10
21.306	BBA	64.98736	2.97101e-1	19.30782		p-Terphenyl d14 #11*
22.633	BB	242.58244	7.91528e-3	1.92011		Benzo(a)anthracene #12
23.511	BB	48.77195	3.90649e-2	1.90527		Chrysene #13
26.244	BBA	118.32101	1.63243e-2	1.93151		Benzo(b)fluoranthene #14
27.688	BB	355.36359	2.76617e-3	9.82998e-1		Benzo(k)fluoranthene #15
28.816	BB	414.51672	4.57086e-3	1.89470		Benzo(a)pyrene #16
30.688	BB	47.95410	3.93563e-2	1.88730		Dibenz(a,h)anthracene #17
31.523	BB	69.49560	2.65273e-2	1.84353		Benzo(g,h,i)perylene #18
32.432	BBA	140.75026	1.38193e-2	1.94508		Indeno(1,2,3-cd)pyrene #1

Totals : 175.70189

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
9.458	PBA	2499.14551	8.25594e-3	20.63280		Naphthalene #1
11.088	BBA	660.92621	2.97039e-2	19.63209		Acenaphthylene #2
12.035	PB	1534.10083	1.29485e-2	19.86429		1-Methylnaphthalene #3
12.612	BB	1794.47327	1.12416e-2	20.17276		2-Methylnaphthalene #4
13.091	BB	971.18744	2.03201e-2	19.73465		Acenaphthene #5
13.750	BBA	1121.39856	1.75287e-2	19.65661		Fluorene #6
15.144	BBA	1137.18030	1.73013e-2	19.67475		Phenanthrene #7
16.553	BBA	1952.77490	1.04274e-2	20.36233		Anthracene #8
17.931	PB	89.62297	2.17050e-2	1.94527		Fluoranthene #9
18.942	BBA	135.53003	1.43101e-2	1.93944		Pyrene #10
21.290	BBA	299.12198	6.56026e-2	19.62319		p-Terphenyl d14 #11*
22.617	PBA	87.18385	2.22768e-2	1.94218		Benzo(a)anthracene #12
23.496	PBA	128.16238	1.51490e-2	1.94153		Chrysene #13
26.228	PBA	93.81008	2.07392e-2	1.94555		Benzo(b)fluoranthene #14
27.672	BB	43.54576	2.25926e-2	9.83811e-1		Benzo(k)fluoranthene #15
28.800	BBA	71.60413	2.61650e-2	1.87352		Benzo(a)pyrene #16
30.673	BBA	21.07817	9.41491e-2	1.98449		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.507	PB	33.12908	5.60918e-2	1.85827		Benzo(g,h,i)perylene #18
32.420	BB	91.52023	2.05641e-2	1.88203		Indeno(1,2,3-cd)pyrene #1

Totals : 197.64957

Results obtained with enhanced integrator!

*** End of Report ***

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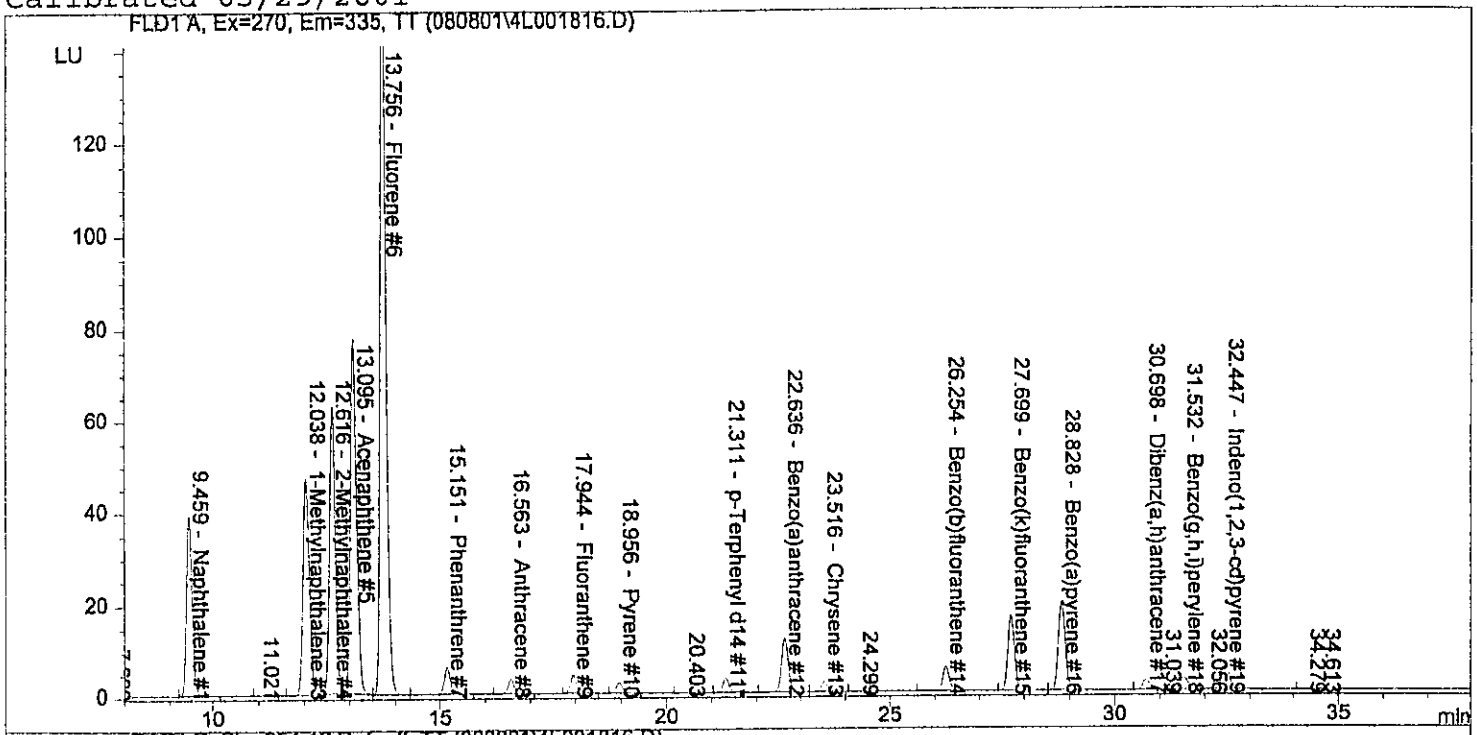
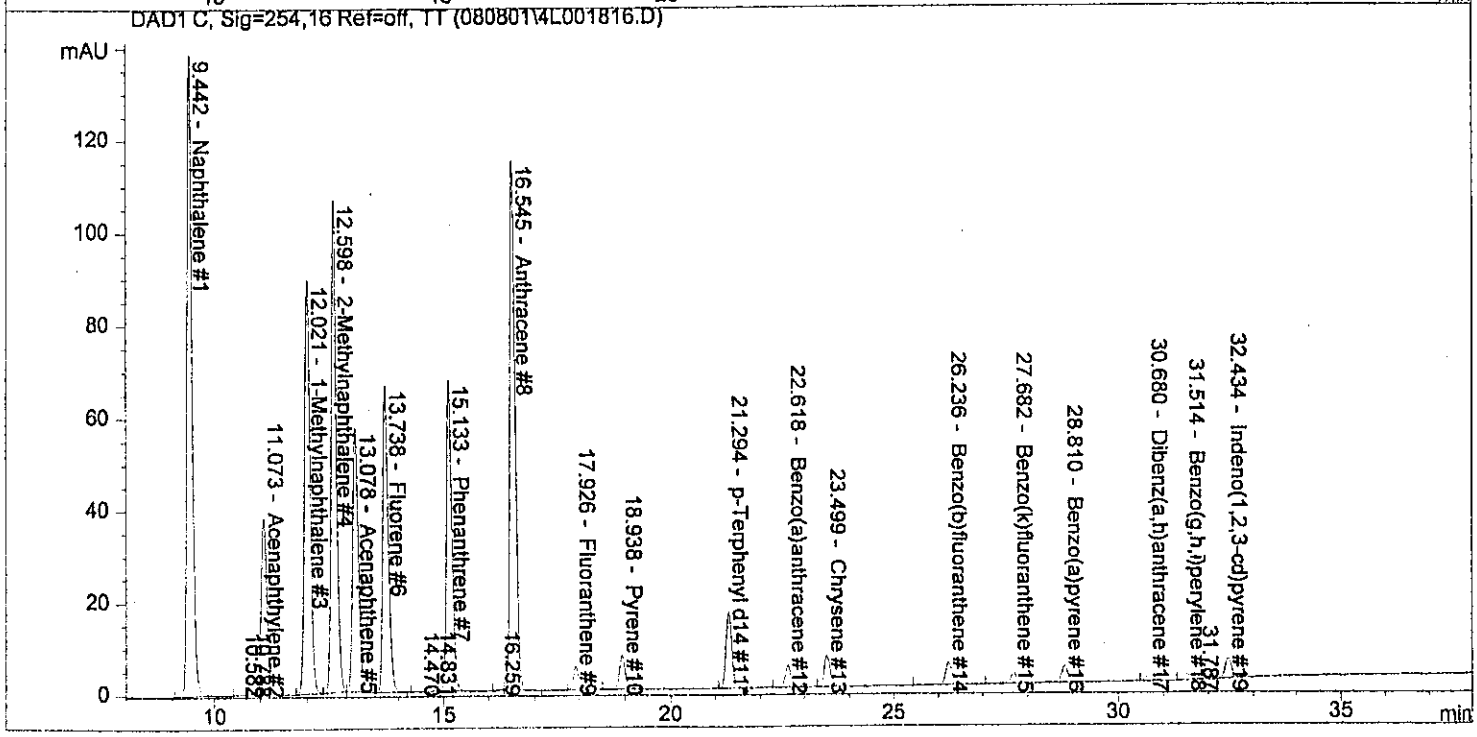
Injection Date : 8/9/2001 1:34:48 AM
Sample Name : 8310 std 3/53-25
Acq. Operator : RDC

Seq. Line : 12
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:53:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:53:51 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
9.459	BBA	381.56079	2.52975e-2	9.65254		Naphthalene #1
12.038	PB	438.85303	2.21343e-2	9.71369		1-Methylnaphthalene #3
12.616	BB	575.43298	1.70643e-2	9.81937		2-Methylnaphthalene #4
13.095	BB	718.90424	1.38423e-2	9.95132		Acenaphthene #5
13.756	BB	1559.63367	6.51366e-3	10.15893		Fluorene #6
15.151	BBA	58.15233	1.63652e-1	9.51677		Phenanthrene #7
16.563	BBA	32.12813	3.10210e-1	9.96646		Anthracene #8
17.944	BBA	41.21679	2.32680e-2	9.59030e-1		Fluoranthene #9
18.956	BBA	24.49013	3.70002e-2	9.06140e-1		Pyrene #10
21.311	BBA	31.73221	2.97355e-1	9.43572		p-Terphenyl d14 #11*
22.636	PB	119.82957	7.91289e-3	9.48198e-1		Benzo(a)anthracene #12
23.516	BBA	24.17820	3.90514e-2	9.44192e-1		Chrysene #13
26.254	PBA	58.33105	1.63221e-2	9.52086e-1		Benzo(b)fluoranthene #14
27.699	BB	176.43927	2.76576e-3	4.87989e-1		Benzo(k)fluoranthene #15
28.828	BB	203.54648	4.57102e-3	9.30415e-1		Benzo(a)pyrene #16
30.698	PB	23.53592	3.93487e-2	9.26108e-1		Dibenz(a,h)anthracene #17
31.532	BB	33.85759	2.65177e-2	8.97824e-1		Benzo(g,h,i)perylene #18
32.447	BBA	69.61817	1.38197e-2	9.62101e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				87.12889		

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
9.442	PBA	1248.26221	8.25422e-3	10.30343		Naphthalene #1
11.073	BBA	328.40460	2.96983e-2	9.75306		Acenaphthylene #2
12.021	PB	763.85205	1.29461e-2	9.88889		1-Methylnaphthalene #3
12.598	BB	894.31500	1.12395e-2	10.05166		2-Methylnaphthalene #4
13.078	BB	483.56268	2.03168e-2	9.82443		Acenaphthene #5
13.738	BBA	557.46277	1.75246e-2	9.76933		Fluorene #6
15.133	BBA	565.66064	1.72985e-2	9.78506		Phenanthrene #7
16.545	BBA	973.54010	1.04262e-2	10.15030		Anthracene #8
17.926	PB	44.25564	2.17013e-2	9.60407e-1		Fluoranthene #9
18.938	BBA	67.74028	1.43056e-2	9.69062e-1		Pyrene #10
21.294	BBA	145.31215	6.56589e-2	9.54104		p-Terphenyl d14 #11*
22.618	BBA	43.83417	2.22701e-2	9.76191e-1		Benzo(a)anthracene #12
23.499	BBA	63.60076	1.51457e-2	9.63280e-1		Chrysene #13
26.236	PBA	46.71288	2.07333e-2	9.68511e-1		Benzo(b)fluoranthene #14
27.682	BBA	21.84682	2.25837e-2	4.93381e-1		Benzo(k)fluoranthene #15
28.810	BBA	35.68842	2.61682e-2	9.33903e-1		Benzo(a)pyrene #16
30.680	BBA	10.35146	9.41628e-2	9.74722e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.514	PB	13.18469	5.60856e-2	7.39471e-1		Benzo(g,h,i)perylene #13
32.434	BB	45.97294	2.05614e-2	9.45269e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 97.99139

Results obtained with enhanced integrator!

*** End of Report ***

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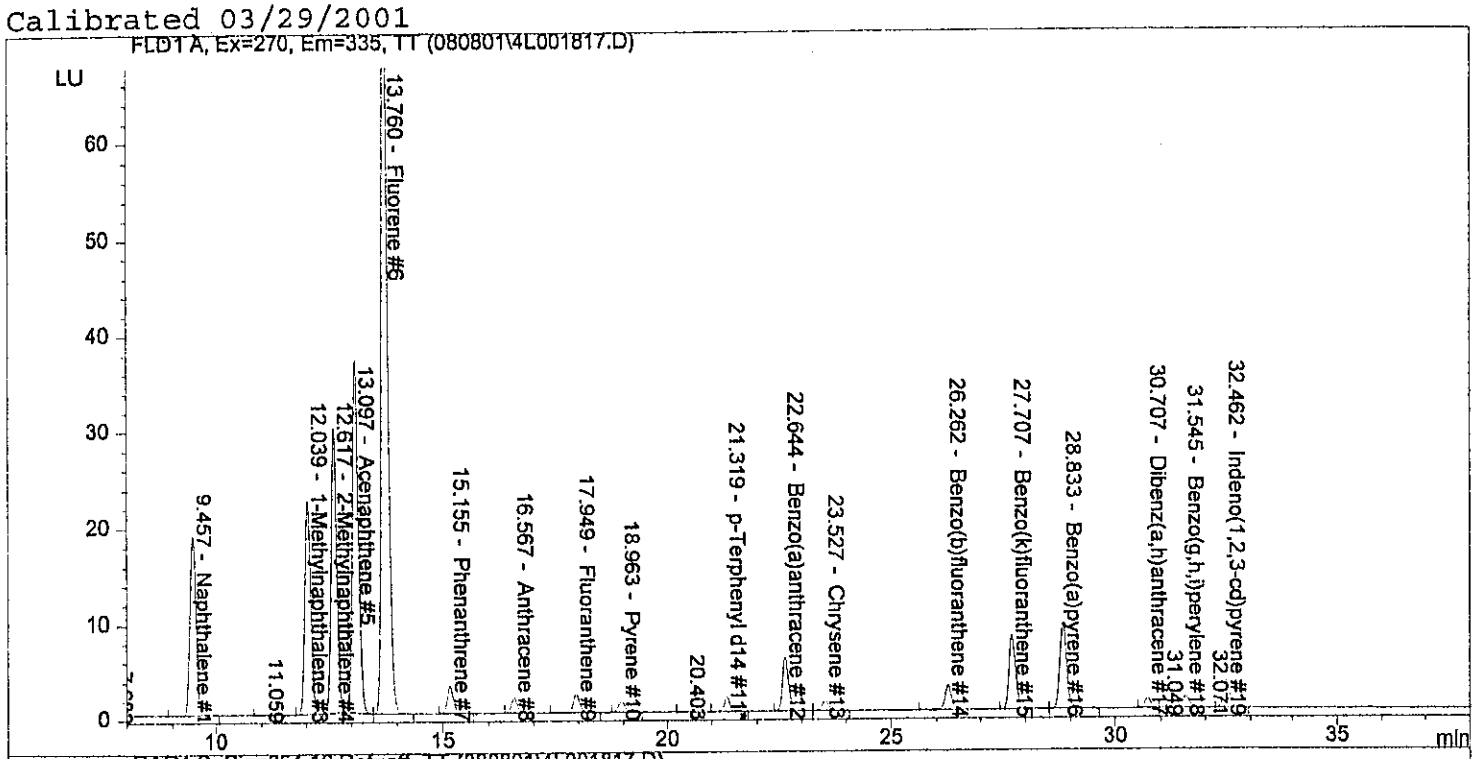
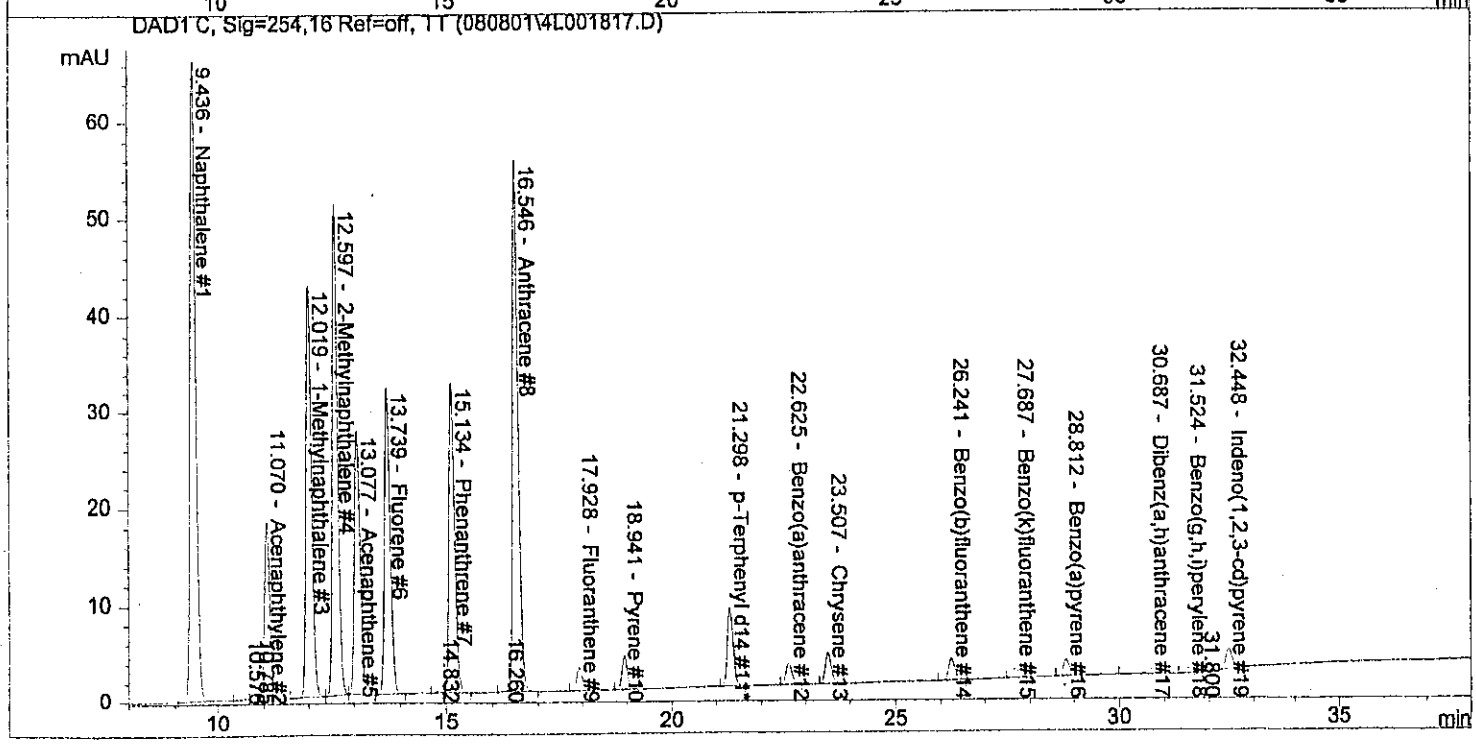
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

Seq. Line : 13
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:55:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:55:07 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
9.457	PBA	181.76619	2.52963e-2	4.59801		Naphthalene #1
12.039	PB	209.24336	2.21330e-2	4.63119		1-Methylnaphthalene #3
12.617	BB	274.39529	1.70636e-2	4.68216		2-Methylnaphthalene #4
13.097	BB	342.62488	1.38416e-2	4.74248		Acenaphthene #5
13.760	BBA	746.17523	6.51370e-3	4.86036		Fluorene #6
15.155	PBA	27.27178	1.63653e-1	4.46310		Phenanthrene #7
16.567	BBA	15.29622	3.10197e-1	4.74485		Anthracene #8
17.949	BBA	19.73562	2.32679e-2	4.59206e-1		Fluoranthene #9
18.963	BBA	11.52839	3.69974e-2	4.26520e-1		Pyrene #10
21.319	BBA	15.32359	2.97421e-1	4.55755		p-Terphenyl d14 #11*
22.644	BB	56.84493	7.91259e-3	4.49791e-1		Benzo(a)anthracene #12
23.527	BBA	11.43981	3.90499e-2	4.46723e-1		Chrysene #13
26.262	PBA	27.63313	1.63222e-2	4.51033e-1		Benzo(b)fluoranthene #14
27.707	PB	83.81139	2.76572e-3	2.31799e-1		Benzo(k)fluoranthene #15
28.833	BBA	96.67756	4.57119e-3	4.41931e-1		Benzo(a)pyrene #16
30.707	PB	10.91603	3.93495e-2	4.29540e-1		Dibenz(a,h)anthracene #17
31.545	BB	15.83937	2.65166e-2	4.20006e-1		Benzo(g,h,i)perylene #18
32.462	BBA	32.35181	1.38204e-2	4.47116e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.48338

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
9.436	PBA	597.19745	8.25408e-3	4.92931		Naphthalene #1
11.070	BBA	157.20731	2.96976e-2	4.66868		Acenaphthylene #2
12.019	BB	365.03561	1.29459e-2	4.72572		1-Methylnaphthalene #3
12.597	BB	428.27109	1.12393e-2	4.81347		2-Methylnaphthalene #4
13.077	BBA	231.24211	2.03164e-2	4.69801		Acenaphthene #5
13.739	BBA	266.30728	1.75241e-2	4.66679		Fluorene #6
15.134	BBA	270.24643	1.72983e-2	4.67479		Phenanthrene #7
16.546	BBA	465.29129	1.04262e-2	4.85122		Anthracene #8
17.928	PBA	21.37060	2.17007e-2	4.63757e-1		Fluoranthene #9
18.941	BBA	31.33940	1.43053e-2	4.48319e-1		Pyrene #10
21.298	PBA	70.24126	6.56728e-2	4.61294		p-Terphenyl d14 #11*
22.625	BBA	20.54964	2.22694e-2	4.57628e-1		Benzo(a)anthracene #12
23.507	BBA	30.26713	1.51453e-2	4.58406e-1		Chrysene #13
26.241	PBA	22.12707	2.07330e-2	4.58761e-1		Benzo(b)fluoranthene #14
27.687	PBA	10.19696	2.25839e-2	2.30287e-1		Benzo(k)fluoranthene #15
28.812	BBA	16.98781	2.61681e-2	4.44538e-1		Benzo(a)pyrene #16
30.687	BBA	6.85372	9.41128e-2	6.45023e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.524	PB	5.61006	5.60813e-2	3.14619e-1		Benzo(g,h,i)perylene #18
32.448	BB	21.11818	2.05610e-2	4.34211e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				46.99648		

Results obtained with enhanced integrator!

*** End of Report ***

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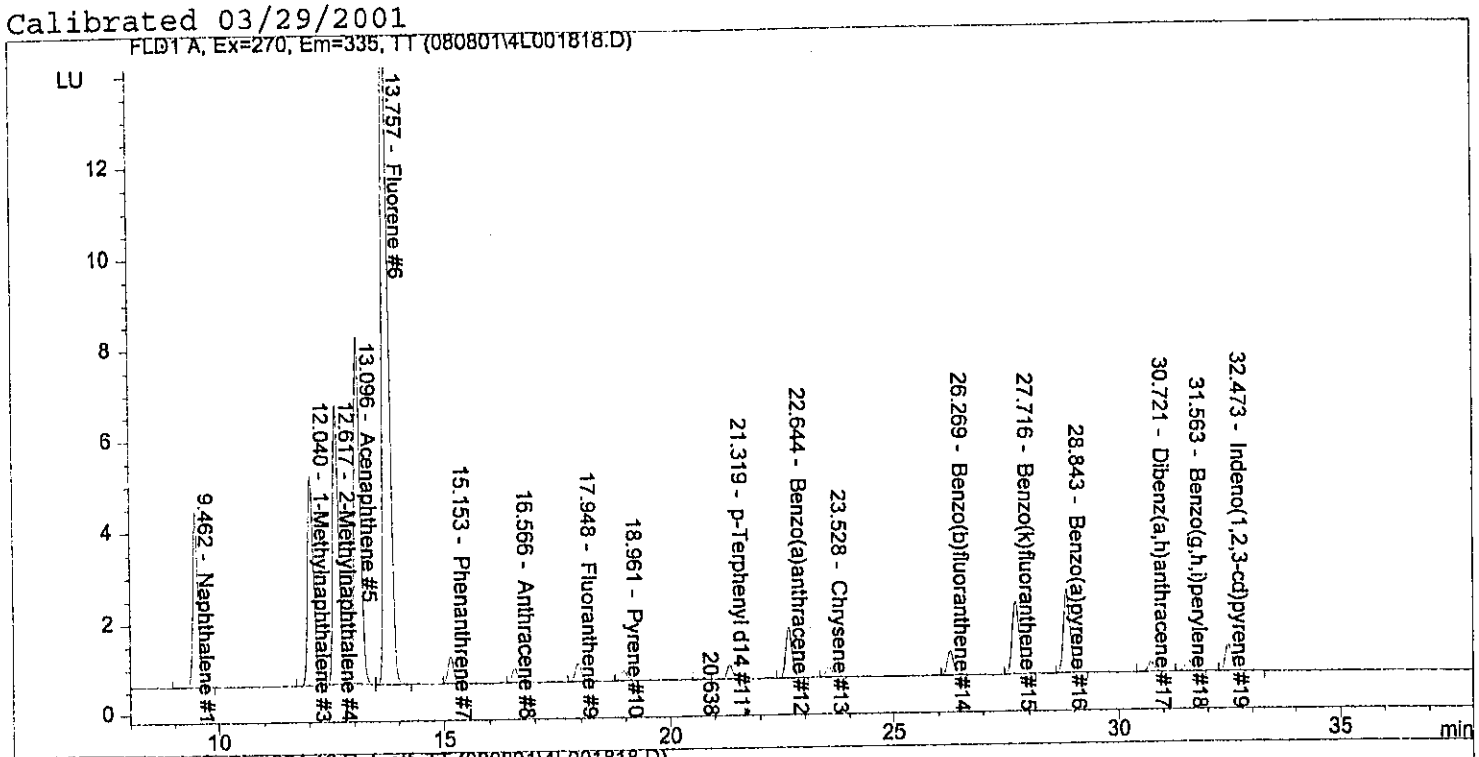
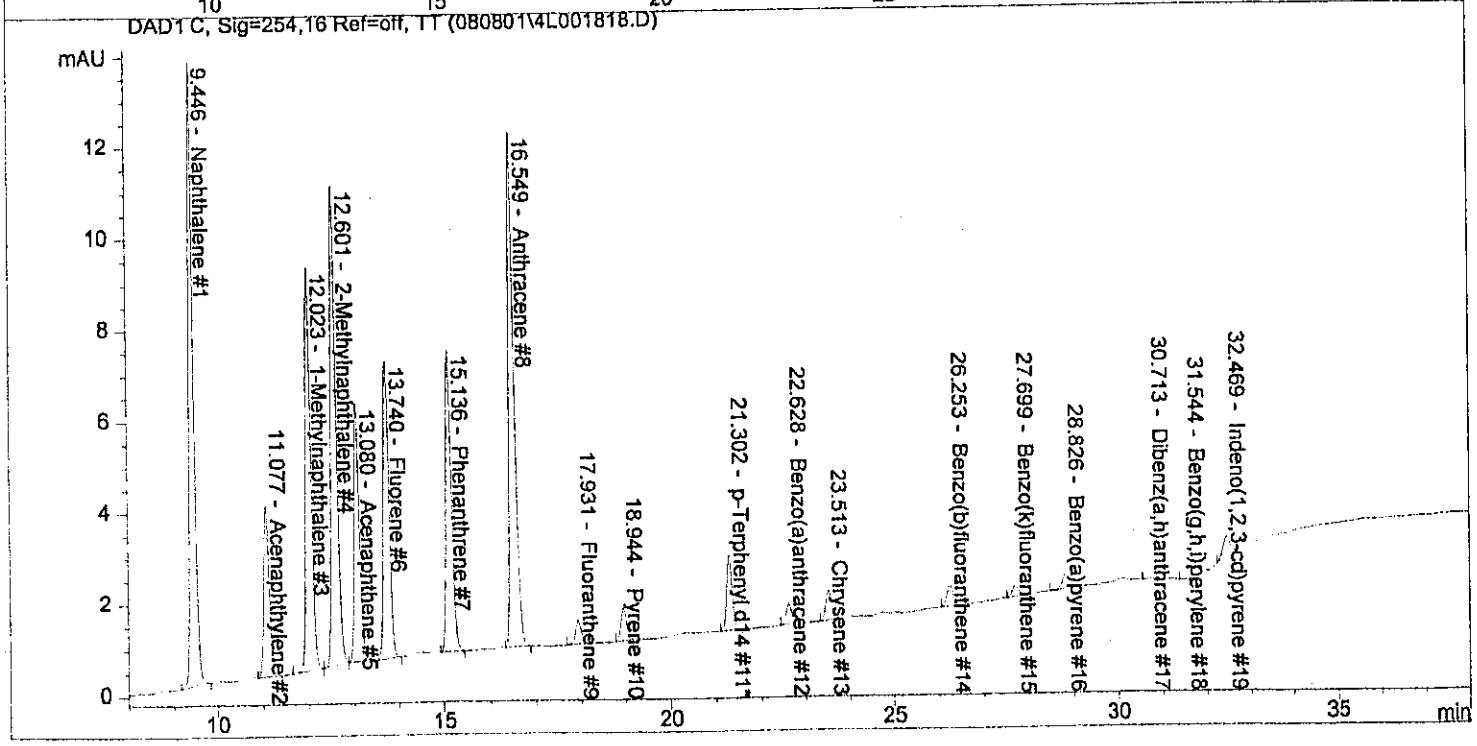
Injection Date : 8/9/2001 3:28:00 AM
Sample Name : 8310 std 1/53-25
Acq. Operator : RDC

Seq. Line : 14
Vial : 11
Inj : 1
Inj Volume : 8 µl

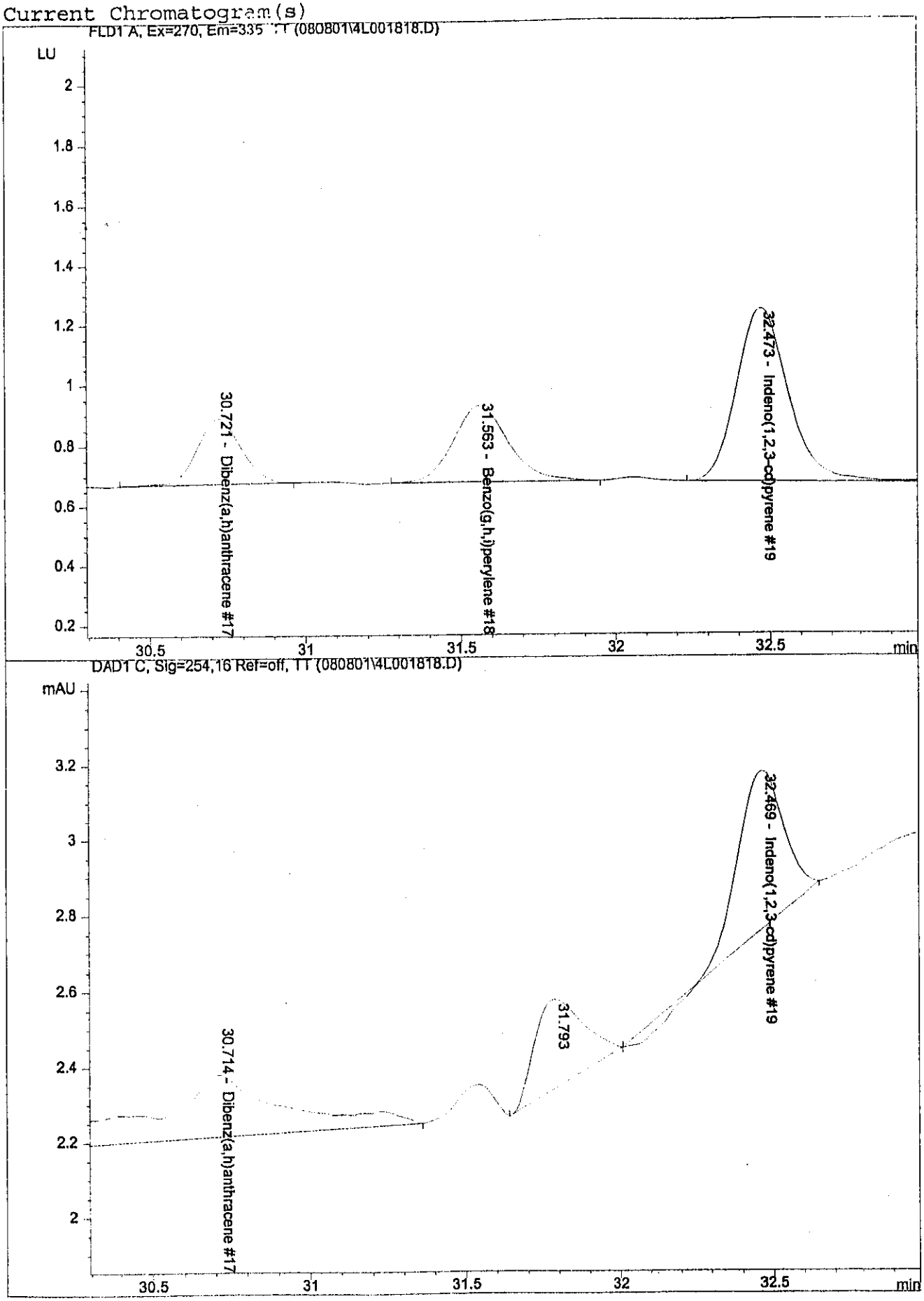
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

Calibrated 03/29/2001

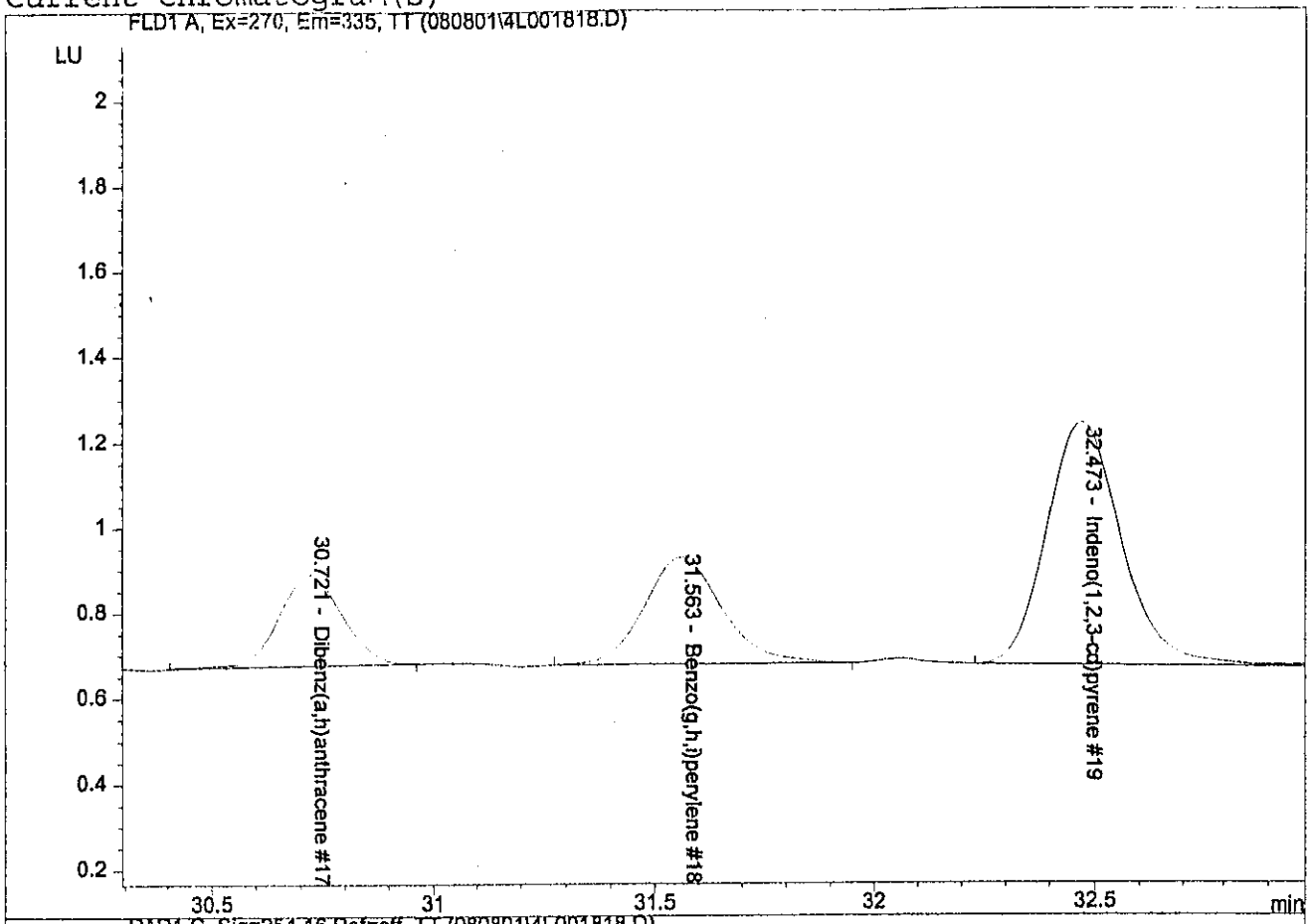


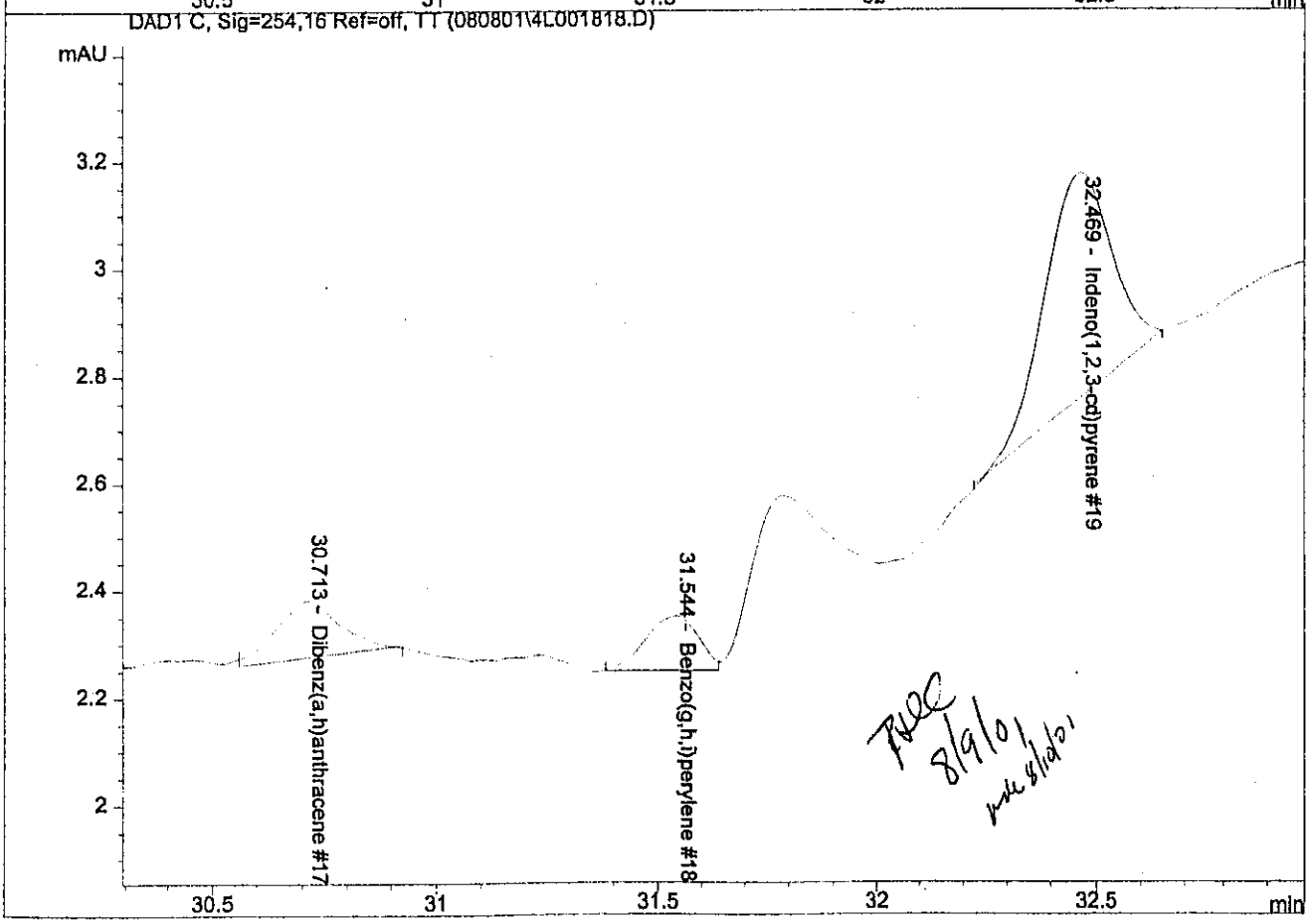


Current Chromatogram(s)



Current Chromatogram(s)





RWC 8/9/01
mk 8/10/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:57:05 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
9.462	PBA	37.17168	2.52962e-2	9.40302e-1		Naphthalene #1
12.040	PB	42.88826	2.21330e-2	9.49244e-1		1-Methylnaphthalene #3
12.617	BB	56.35436	1.70635e-2	9.61602e-1		2-Methylnaphthalene #4
13.096	BB	70.47864	1.38416e-2	9.75535e-1		Acenaphthene #5
13.757	BBA	154.16187	6.51364e-3	1.00416		Fluorene #6
15.153	BBA	5.49988	1.63652e-1	9.00067e-1		Phenanthrene #7
16.566	BBA	3.13834	3.10196e-1	9.73501e-1		Anthracene #8
17.948	BBA	3.92854	2.32678e-2	9.14086e-2		Fluoranthene #9
18.961	PBA	2.27570	3.69972e-2	8.41944e-2		Pyrene #10
21.319	BBA	3.07342	2.97423e-1	9.14105e-1		p-Terphenyl d14 #11*
22.644	BB	11.54687	7.91256e-3	9.13654e-2		Benzo(a)anthracene #12
23.528	BB	2.41118	3.90495e-2	9.41556e-2		Chrysene #13
26.269	BBA	5.57386	1.63222e-2	9.09776e-2		Benzo(b)fluoranthene #14
27.716	PBA	16.87873	2.76572e-3	4.66818e-2		Benzo(k)fluoranthene #15
28.843	PBA	19.26282	4.57119e-3	8.80540e-2		Benzo(a)pyrene #16
30.721	PBA	2.12374	3.93496e-2	8.35682e-2		Dibenz(a,h)anthracene #17
31.563	PB	3.08265	2.65165e-2	8.17409e-2		Benzo(g,h,i)perylene #18
32.473	BBA	6.64809	1.38204e-2	9.18793e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				8.46254		

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
9.446	PBA	122.72835	8.25405e-3	1.01301		Naphthalene #1
11.077	BBA	32.52021	2.96975e-2	9.65769e-1		Acenaphthylene #2
12.023	BB	75.33028	1.29459e-2	9.75215e-1		1-Methylnaphthalene #3
12.601	BB	88.22273	1.12393e-2	9.91560e-1		2-Methylnaphthalene #4
13.080	BBA	47.72895	2.03163e-2	9.69678e-1		Acenaphthene #5
13.740	BBA	54.47855	1.75240e-2	9.54682e-1		Fluorene #6
15.136	BBA	55.64261	1.72982e-2	9.62519e-1		Phenanthrene #7
16.549	BBA	95.56687	1.04262e-2	9.96398e-1		Anthracene #8
17.931	PBA	4.46854	2.17006e-2	9.69699e-2		Fluoranthene #9
18.944	BBA	6.23924	1.43052e-2	8.92539e-2		Pyrene #10
21.302	PBA	14.08348	6.56733e-2	9.24908e-1		p-Terphenyl d14 #11*
22.628	BBA	4.00703	2.22694e-2	8.92344e-2		Benzo(a)anthracene #12
23.513	PBA	6.06011	1.51453e-2	9.17822e-2		Chrysene #13
26.253	BBA	4.43454	2.07330e-2	9.19412e-2		Benzo(b)fluoranthene #14
27.699	BBA	2.30033	2.25837e-2	5.19499e-2		Benzo(k)fluoranthene #15
28.826	BBA	3.45270	2.61680e-2	9.03503e-2		Benzo(a)pyrene #16
30.713	MM	1.04021	9.41116e-2	9.78958e-2		Dibenz(a,h)anthracene #17

ata File C:\HPCHEM\2\DATA\080801\4L0010[illegible]

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.544	MV	8.44691e-1	5.60829e-2	4.73728e-2		Benzo(g,h,i)perylene #18
32.469	FM	4.35778	2.05608e-2	8.95994e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				9.59008		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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ata File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
PLC4 8/9/2001 2:40:05 PM RDC

==========

ijection Date : 8/9/2001 4:24:36 AM
ample Name : 8310alt5327/5529
cq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1

ignal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.470	20.0	19.085	-4.6
1-Methylnaphthalene #3	12.051	20.0	19.612	-1.9
2-Methylnaphthalene #4	12.628	20.0	19.236	-3.8
Acenaphthene #5	13.106	20.0	20.107	0.5
Fluorene #6	13.767	20.0	20.476	2.4
Phenanthrene #7	15.162	20.0	18.244	-8.8
Anthracene #8	16.577	20.0	20.286	1.4
Fluoranthene #9	17.959	2.0	1.875	-6.2
Pyrene #10	18.972	2.0	1.773	-11.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.654	2.0	1.764	-11.8
Chrysene #13	23.539	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.279	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.731	1.0	0.859	-14.1
Benzo(a)pyrene #16	28.859	2.0	1.936	-3.2
Dibenz(a,h)anthracene #1	30.737	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.575	2.0	1.778	-11.1
Indeno(1,2,3-cd)pyrene #	32.488	2.0	1.863	-6.9

ignal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.449	20.0	20.445	2.2
Acenaphthylene #2	11.083	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.030	20.0	20.220	1.1
2-Methylnaphthalene #4	12.606	20.0	19.941	-0.3
Acenaphthene #5	13.085	20.0	20.110	0.5
Fluorene #6	13.745	20.0	19.598	-2.0
Phenanthrene #7	15.141	20.0	19.075	-4.6
Anthracene #8	16.555	20.0	20.838	4.2
Fluoranthene #9	17.937	2.0	1.904	-4.8
Pyrene #10	18.950	2.0	1.866	-6.7
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.633	2.0	1.817	-9.1
Chrysene #13	23.517	2.0	1.889	-5.5
Benzo(b)fluoranthene #14	26.257	2.0	1.916	-4.2
Benzo(k)fluoranthene #15	27.709	1.0	0.861	-13.9
Benzo(a)pyrene #16	28.837	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.716	2.0	2.113	5.6
Benzo(g,h,i)perylene #18	31.551	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.471	2.0	1.847	-7.7

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\080801\4L001819.D

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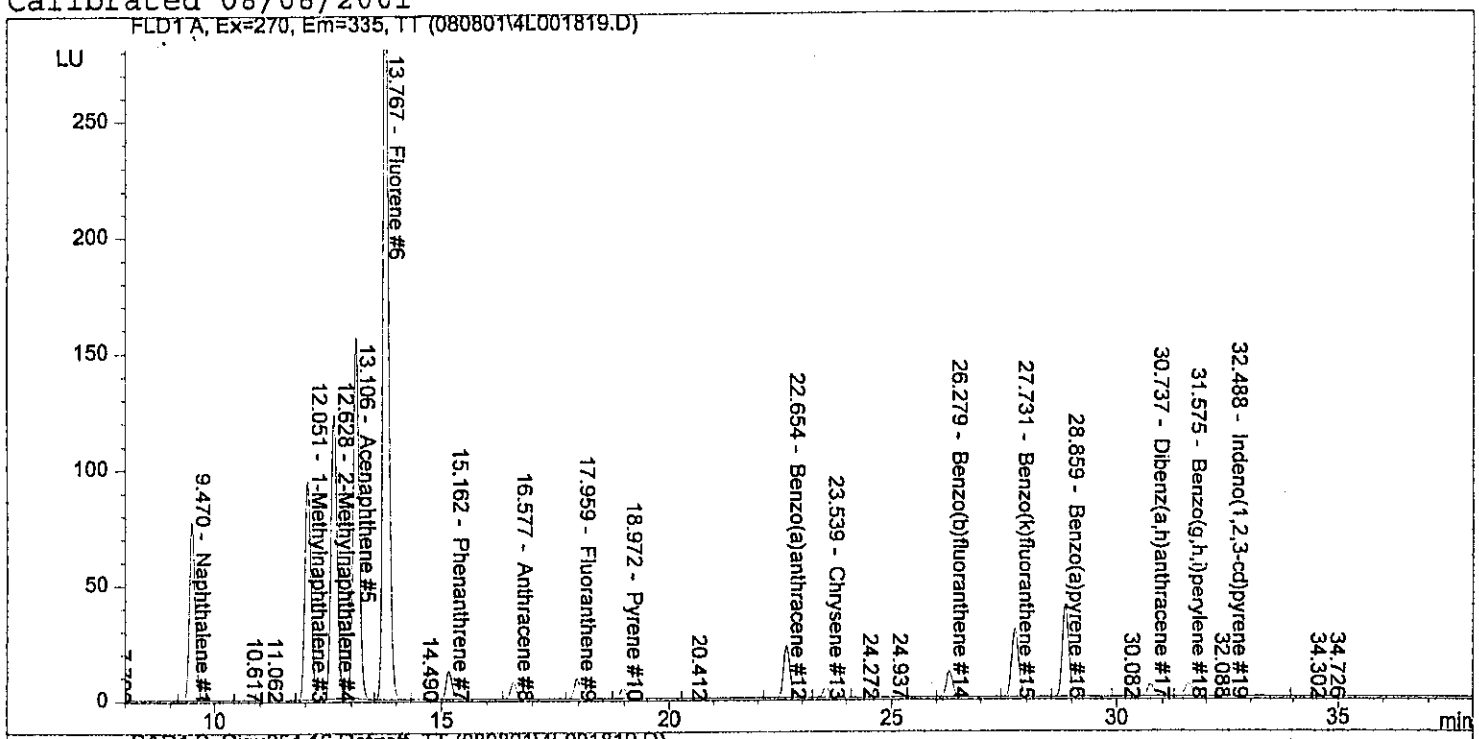
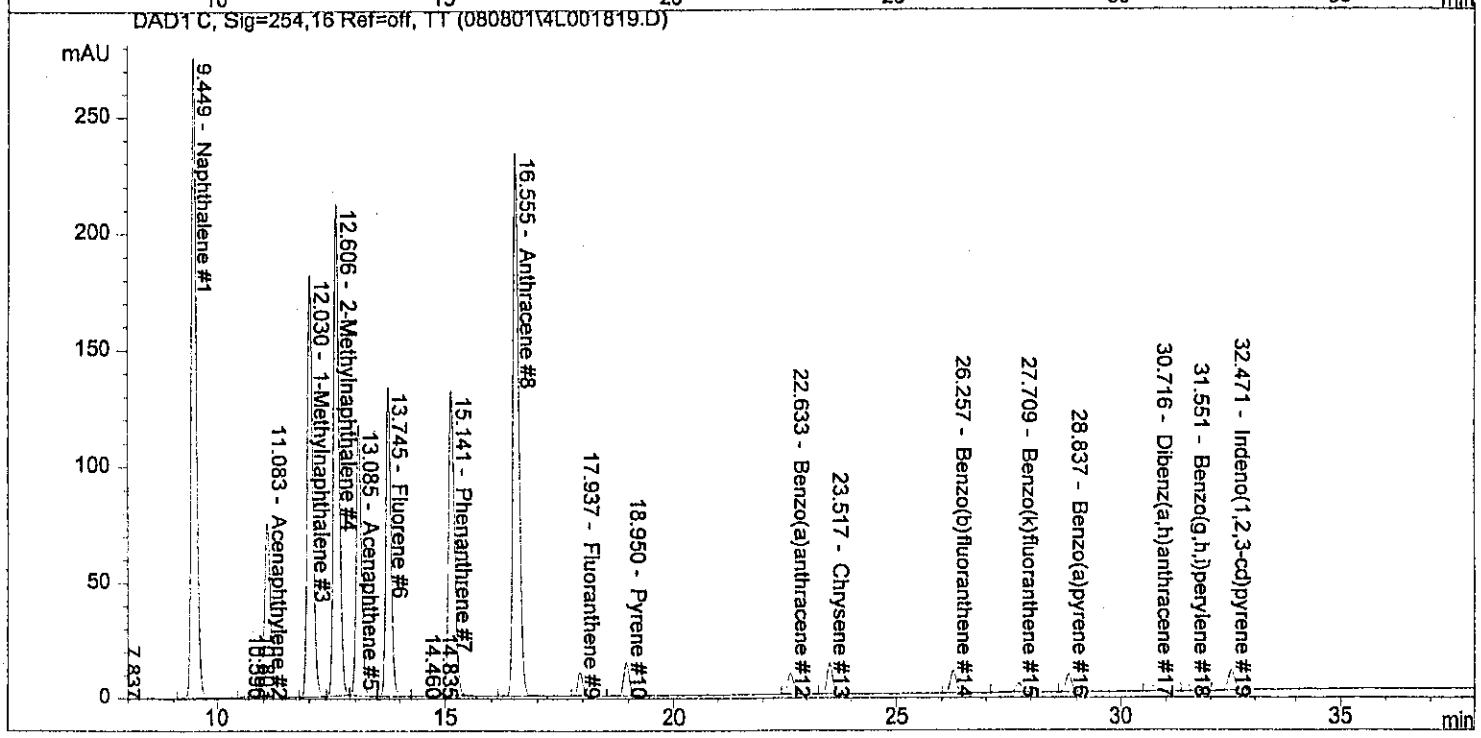
Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

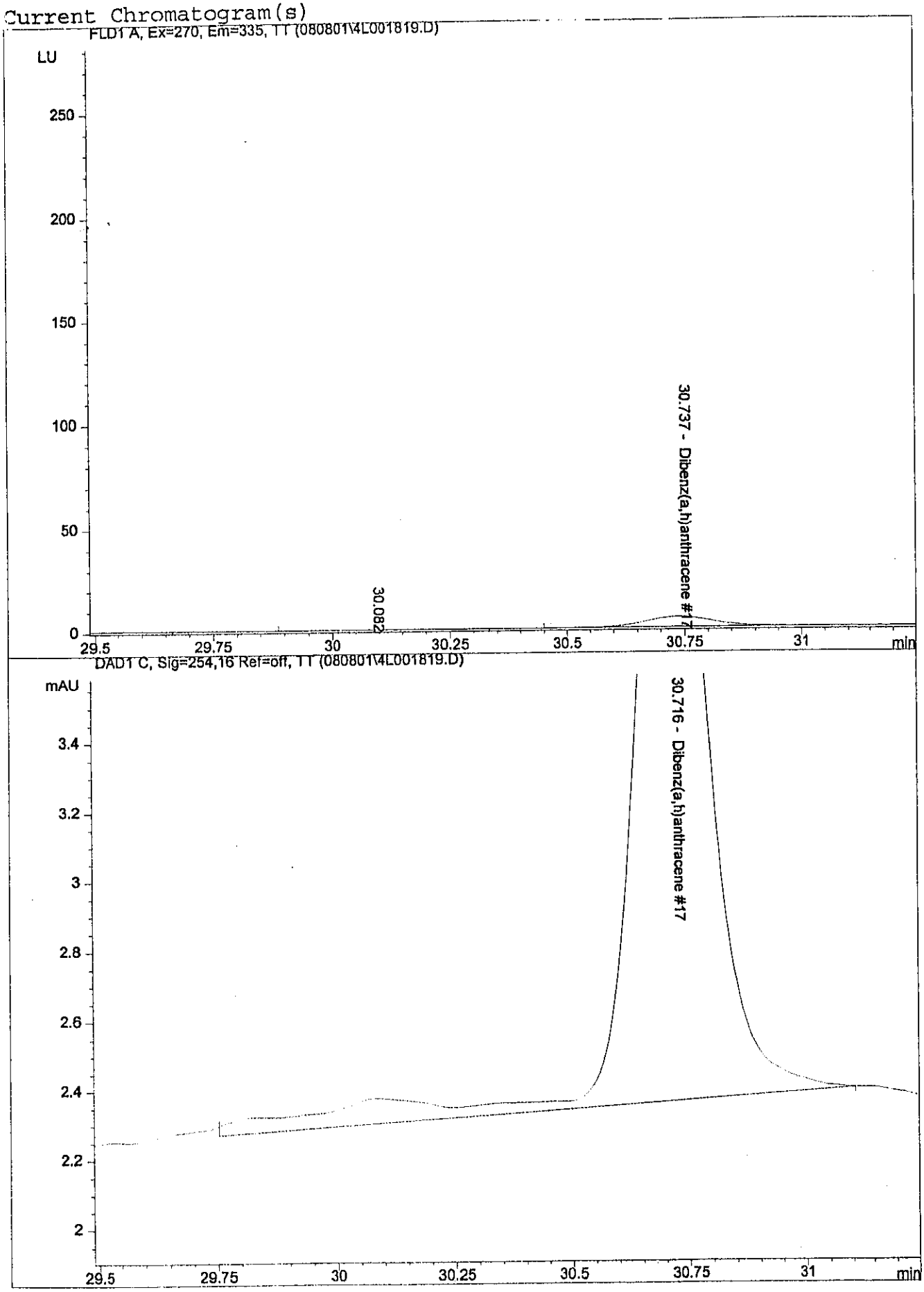
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 2:38:26 PM by RDC
Calibrated 08/08/2001



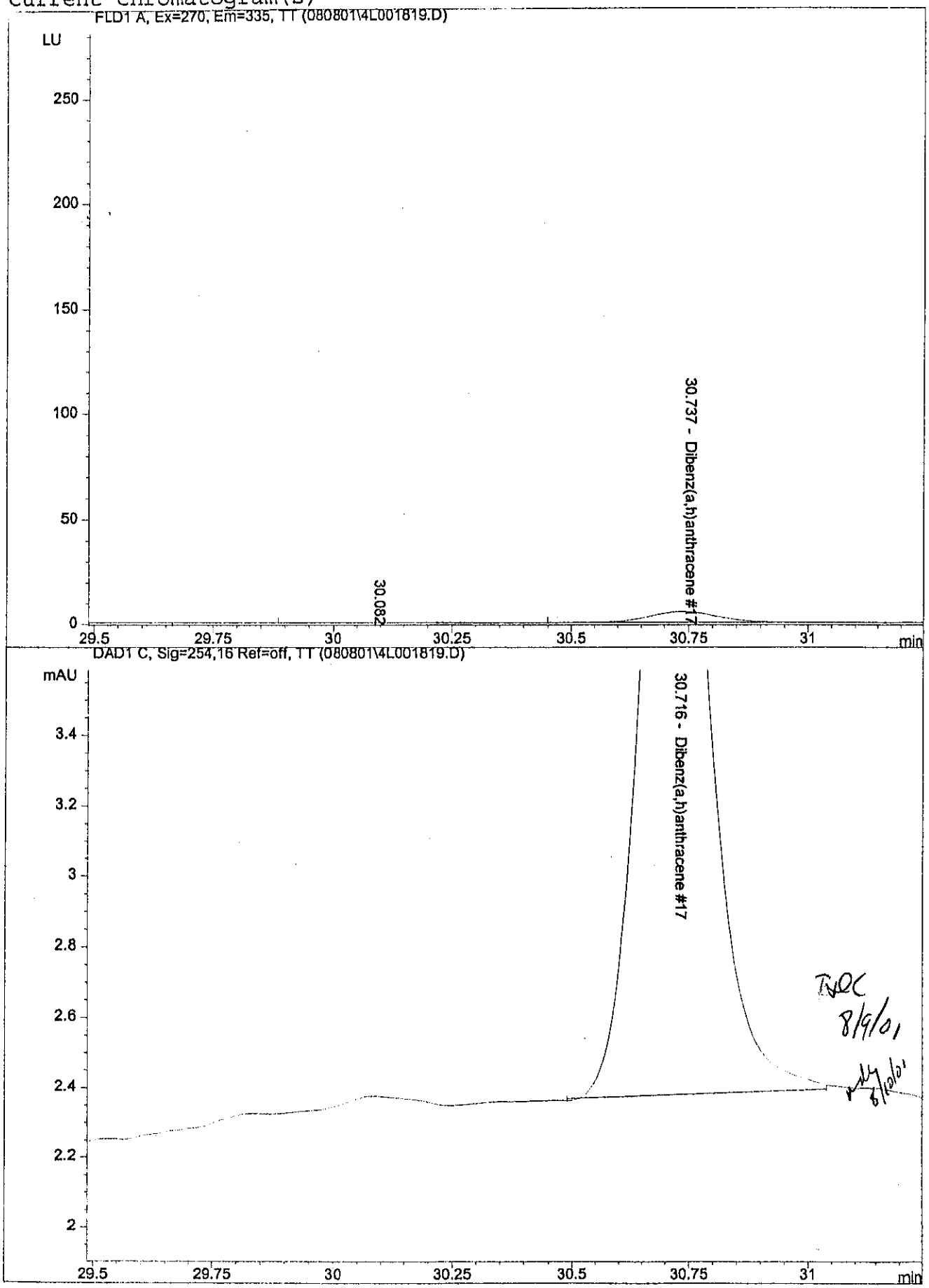


Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Current Chromatogram(s)



TJOC 8/9/01

ata File C:\HPCHEM\2\DATA\080801\4L0018[illegible]

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/9/2001 2:38:03 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
9.470	BBA	754.46277	2.52962e-2	19.08504		Naphthalene #1
12.051	PB	886.09137	2.21330e-2	19.61182		1-Methylnaphthalene #3
12.628	BB	1127.34106	1.70635e-2	19.23638		2-Methylnaphthalene #4
13.106	BB	1452.62085	1.38416e-2	20.10654		Acenaphthene #5
13.767	BB	3092.24097	6.62187e-3	20.47641		Fluorene #6
15.162	BBA	111.47997	1.63652e-1	18.24395		Phenanthrene #7
16.577	BBA	65.39610	3.10196e-1	20.28563		Anthracene #8
17.959	BBA	80.59158	2.32678e-2	1.87519		Fluoranthene #9
18.972	BBA	45.85996	3.86587e-2	1.77289		Pyrene #10
21.319		-	-	-		p-Terphenyl d14 #11*
22.654	BB	222.98581	7.91256e-3	1.76439		Benzo(a)anthracene #12
23.539	BBA	46.41417	3.90495e-2	1.81245		Chrysene #13
26.279	BBA	116.38370	1.63222e-2	1.89964		Benzo(b)fluoranthene #14
27.731	PB	310.48468	2.76572e-3	8.58712e-1		Benzo(k)fluoranthene #15
28.859	BBA	423.47870	4.57119e-3	1.93580		Benzo(a)pyrene #16
30.737	BB	51.95090	3.93496e-2	2.04424		Dibenz(a,h)anthracene #17
31.575	BB	67.06937	2.65165e-2	1.77844		Benzo(g,h,i)perylene #18
32.488	BBA	134.78470	1.38204e-2	1.86278		Indeno(1,2,3-cd)pyrene #1
Totals :				154.65030		

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
9.449	PBA	2477.01978	8.25405e-3	20.44544		Naphthalene #1
11.083	BB	647.54114	2.96975e-2	19.23036		Acenaphthylene #2
12.030	BB	1561.87817	1.29459e-2	20.21985		1-Methylnaphthalene #3
12.606	BB	1774.18762	1.12393e-2	19.94059		2-Methylnaphthalene #4
13.085	BB	989.82544	2.03163e-2	20.10963		Acenaphthene #5
13.745	BB	1118.36353	1.75240e-2	19.59821		Fluorene #6
15.141	BBA	1102.72717	1.72982e-2	19.07524		Phenanthrene #7
16.555	BBA	1998.58276	1.04262e-2	20.83759		Anthracene #8
17.937	PB	87.72285	2.17006e-2	1.90364		Fluoranthene #9
18.950	BBA	130.42879	1.43052e-2	1.86582		Pyrene #10
21.302		-	-	-		p-Terphenyl d14 #11*
22.633	BBA	81.60189	2.22694e-2	1.81723		Benzo(a)anthracene #12
23.517	PBA	124.75014	1.51453e-2	1.88938		Chrysene #13
26.257	BBA	92.43634	2.07330e-2	1.91648		Benzo(b)fluoranthene #14
27.709	BBA	38.12810	2.25837e-2	8.61073e-1		Benzo(k)fluoranthene #15
28.837	BBA	74.32523	2.61680e-2	1.94494		Benzo(a)pyrene #16
30.716	MM	22.44932	9.41116e-2	2.11274		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.551	PB	33.44667	5.60829e-2	1.87579		Benzo(g,h,i)perylene #18
32.471	BB	89.81290	2.05608e-2	1.84662		Indeno(1,2,3-cd)pyrene #1

Totals : 177.49063

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\091901\4L002096.D Sample Name: 8310 CCV
HPLC4 9/20/2001 9:07:03 AM RDC

1,1,SV54-35/53-25

==========

Injection Date : 9/19/2001 4:31:00 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.476	20.0	19.640	-1.8
1-Methylnaphthalene #3	12.066	20.0	19.605	-2.0
2-Methylnaphthalene #4	12.643	20.0	19.735	-1.3
Acenaphthene #5	13.122	20.0	19.790	-1.0
Fluorene #6	13.782	20.0	20.412	2.1
Phenanthrene #7	15.176	20.0	19.105	-4.5
Anthracene #8	16.588	20.0	19.108	-4.5
Fluoranthene #9	17.973	2.0	1.923	-3.8
Pyrene #10	18.985	2.0	1.964	-1.8
p-Terphenyl d14 #11*	21.345	20.0	19.459	-2.7
Benzo(a)anthracene #12	22.674	2.0	1.919	-4.1
Chrysene #13	23.552	2.0	1.960	-2.0
Benzo(b)fluoranthene #14	26.294	2.0	1.974	-1.3
Benzo(k)fluoranthene #15	27.738	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.858	2.0	1.979	-1.1
Dibenz(a,h)anthracene #1	30.762	2.0	2.025	1.3
Benzo(g,h,i)perylene #18	31.542	2.0	2.118	5.9
Indeno(1,2,3-cd)pyrene #	32.428	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	9.461	20.0	20.583	2.9
Acenaphthylene #2	11.098	20.0	19.452	-2.7
1-Methylnaphthalene #3	12.051	20.0	19.695	-1.5
2-Methylnaphthalene #4	12.628	20.0	19.989	-0.1
Acenaphthene #5	13.107	20.0	19.458	-2.7
Fluorene #6	13.766	20.0	19.509	-2.5
Phenanthrene #7	15.161	20.0	19.573	-2.1
Anthracene #8	16.573	20.0	19.497	-2.5
Fluoranthene #9	17.957	2.0	1.934	-3.3
Pyrene #10	18.968	2.0	1.870	-6.5
p-Terphenyl d14 #11*	21.330	20.0	19.573	-2.1
Benzo(a)anthracene #12	22.659	2.0	1.898	-5.1
Chrysene #13	23.537	2.0	1.921	-3.9
Benzo(b)fluoranthene #14	26.278	2.0	1.944	-2.8
Benzo(k)fluoranthene #15	27.723	1.0	0.994	-0.6
Benzo(a)pyrene #16	28.842	2.0	1.834	-8.3
Dibenz(a,h)anthracene #1	30.747	2.0	1.998	-0.1
Benzo(g,h,i)perylene #18	31.526	2.0	1.793	-10.4
Indeno(1,2,3-cd)pyrene #	32.416	2.0	1.888	-5.6

= Failed 15.0% Criteria

1,1,SV54-35/53-25

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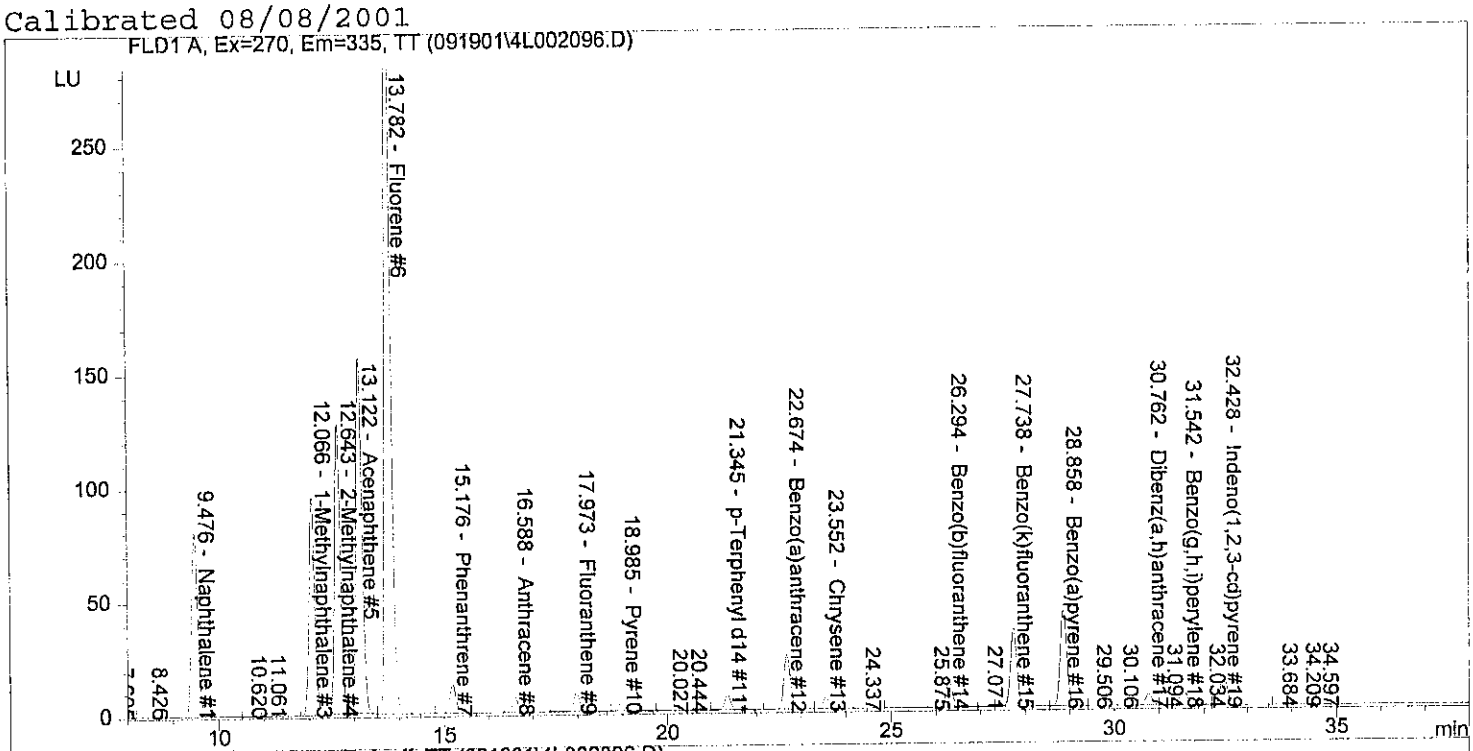
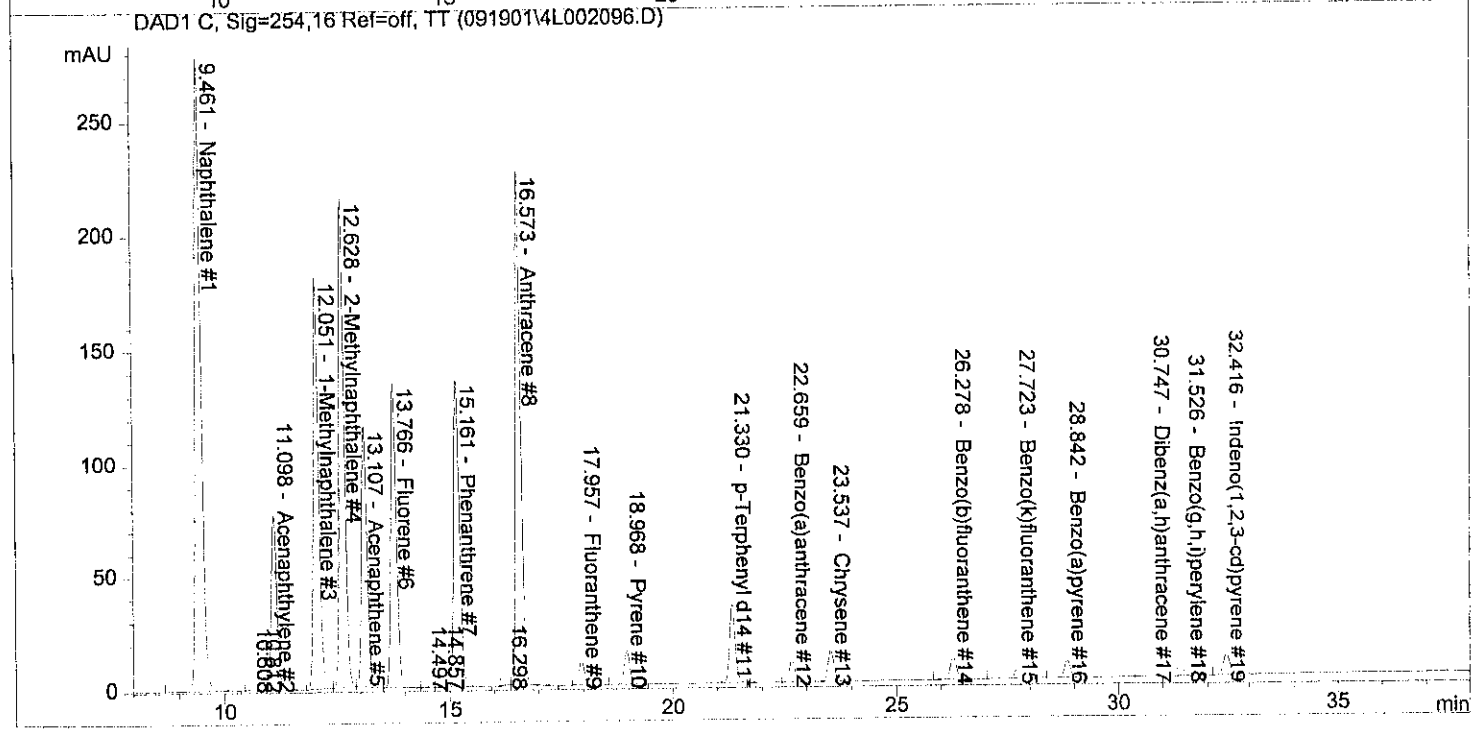
Injection Date : 9/19/2001 4:31:00 PM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/19/2001 5:10:01 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/19/2001 5:10:01 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
9.476	BB	776.41547	2.52962e-2	19.64036		Naphthalene #1
12.066	PB	885.77350	2.21330e-2	19.60478		1-Methylnaphthalene #3
12.643	BB	1156.54199	1.70635e-2	19.73465		2-Methylnaphthalene #4
13.122	BB	1429.76135	1.38416e-2	19.79013		Acenaphthene #5
13.782	BBA	3082.55298	6.62187e-3	20.41225		Fluorene #6
15.176	PBA	116.73846	1.63652e-1	19.10451		Phenanthrene #7
16.588	BBA	61.59975	3.10196e-1	19.10802		Anthracene #8
17.973	PBA	82.65851	2.32678e-2	1.92329		Fluoranthene #9
18.985	BBA	50.80592	3.86587e-2	1.96409		Pyrene #10
21.345	BBA	65.42699	2.97423e-1	19.45948		p-Terphenyl d14 #11*
22.674	BB	242.50835	7.91256e-3	1.91886		Benzo(a)anthracene #12
23.552	BB	50.20525	3.90495e-2	1.96049		Chrysene #13
26.294	BB	120.95483	1.63222e-2	1.97425		Benzo(b)fluoranthene #14
27.738	BB	359.71039	2.76572e-3	9.94857e-1		Benzo(k)fluoranthene #15
28.858	BB	432.84869	4.57119e-3	1.97863		Benzo(a)pyrene #16
30.762	BB	51.46733	3.93496e-2	2.02522		Dibenz(a,h)anthracene #17
31.542	BB	79.89020	2.65165e-2	2.11841		Benzo(g,h,i)perylene #18
32.428	BBA	140.55228	1.38204e-2	1.94249		Indeno(1,2,3-cd)pyrene #1
Totals :				175.65476		

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
9.461	BBA	2493.74390	8.25405e-3	20.58349		Naphthalene #1
11.098	BBA	655.01404	2.96975e-2	19.45229		Acenaphthylene #2
12.051	PB	1521.36755	1.29459e-2	19.69541		1-Methylnaphthalene #3
12.628	BB	1778.48242	1.12393e-2	19.98886		2-Methylnaphthalene #4
13.107	BB	957.74866	2.03163e-2	19.45795		Acenaphthene #5
13.766	BB	1113.27393	1.75240e-2	19.50902		Fluorene #6
15.161	BBA	1131.52893	1.72982e-2	19.57346		Phenanthrene #7
16.573	BBA	1870.00781	1.04262e-2	19.49705		Anthracene #8
17.957	PB	89.11069	2.17006e-2	1.93375		Fluoranthene #9
18.968	BBA	130.74899	1.43052e-2	1.87040		Pyrene #10
21.330	BBA	298.02948	6.56733e-2	19.57257		p-Terphenyl d14 #11*
22.659	PBA	85.20823	2.22694e-2	1.89754		Benzo(a)anthracene #12
23.537	PBA	126.85909	1.51453e-2	1.92132		Chrysene #13
26.278	PBA	93.75734	2.07330e-2	1.94387		Benzo(b)fluoranthene #14
27.723	BB	44.00542	2.25837e-2	9.93805e-1		Benzo(k)fluoranthene #15
28.842	BB	70.10412	2.61680e-2	1.83449		Benzo(a)pyrene #16
30.747	PBA	21.22879	9.41116e-2	1.99788		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.526	PB	31.96268	5.60829e-2	1.79256		Benzo(g,h,i)perylene #18
32.416	BBA	91.80885	2.05608e-2	1.88766		Indeno(1,2,3-cd)pyrene #1

Totals : 195.40335

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\091901\4L002107.D Sample Name: 8310 CCV
HPLC4 9/20/2001 10:48:29 AM RDC

1,1,SV54-35/53-25

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Injection Date : 9/20/2001 2:53:55 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.371	20.0	19.148	-4.3
1-Methylnaphthalene #3	11.983	20.0	19.179	-4.1
2-Methylnaphthalene #4	12.563	20.0	19.325	-3.4
Acenaphthene #5	13.046	20.0	19.665	-1.7
Fluorene #6	13.704	20.0	20.369	1.8
Phenanthrene #7	15.098	20.0	18.711	-6.4
Anthracene #8	16.511	20.0	19.564	-2.2
Fluoranthene #9	17.895	2.0	1.901	-4.9
Pyrene #10	18.907	2.0	1.849	-7.6
p-Terphenyl d14 #11*	21.264	20.0	19.416	-2.9
Benzo(a)anthracene #12	22.586	2.0	1.887	-5.7
Chrysene #13	23.461	2.0	1.889	-5.6
Benzo(b)fluoranthene #14	26.193	2.0	1.913	-4.4
Benzo(k)fluoranthene #15	27.630	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.750	2.0	1.807	-9.7
Dibenz(a,h)anthracene #1	30.614	2.0	1.900	-5.0
Benzo(g,h,i)perylene #18	31.434	2.0	1.827	-8.6
Indeno(1,2,3-cd)pyrene #	32.362	2.0	1.928	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.351	20.0	20.702	3.5
Acenaphthylene #2	11.002	20.0	19.618	-1.9
1-Methylnaphthalene #3	11.962	20.0	19.845	-0.8
2-Methylnaphthalene #4	12.542	20.0	20.129	0.6
Acenaphthene #5	13.025	20.0	19.698	-1.5
Fluorene #6	13.683	20.0	19.675	-1.6
Phenanthrene #7	15.077	20.0	19.751	-1.2
Anthracene #8	16.490	20.0	20.119	0.6
Fluoranthene #9	17.874	2.0	1.946	-2.7
Pyrene #10	18.885	2.0	1.935	-3.2
p-Terphenyl d14 #11*	21.243	20.0	19.743	-1.3
Benzo(a)anthracene #12	22.565	2.0	1.944	-2.8
Chrysene #13	23.441	2.0	1.943	-2.8
Benzo(b)fluoranthene #14	26.172	2.0	1.958	-2.1
Benzo(k)fluoranthene #15	27.610	1.0	0.988	-1.2
Benzo(a)pyrene #16	28.729	2.0	1.841	-7.9
Dibenz(a,h)anthracene #1	30.593	2.0	1.956	-2.2
Benzo(g,h,i)perylene #18	31.412	2.0	1.914	-4.3
Indeno(1,2,3-cd)pyrene #	32.342	2.0	1.917	-4.1

= Failed 15.0% Criteria

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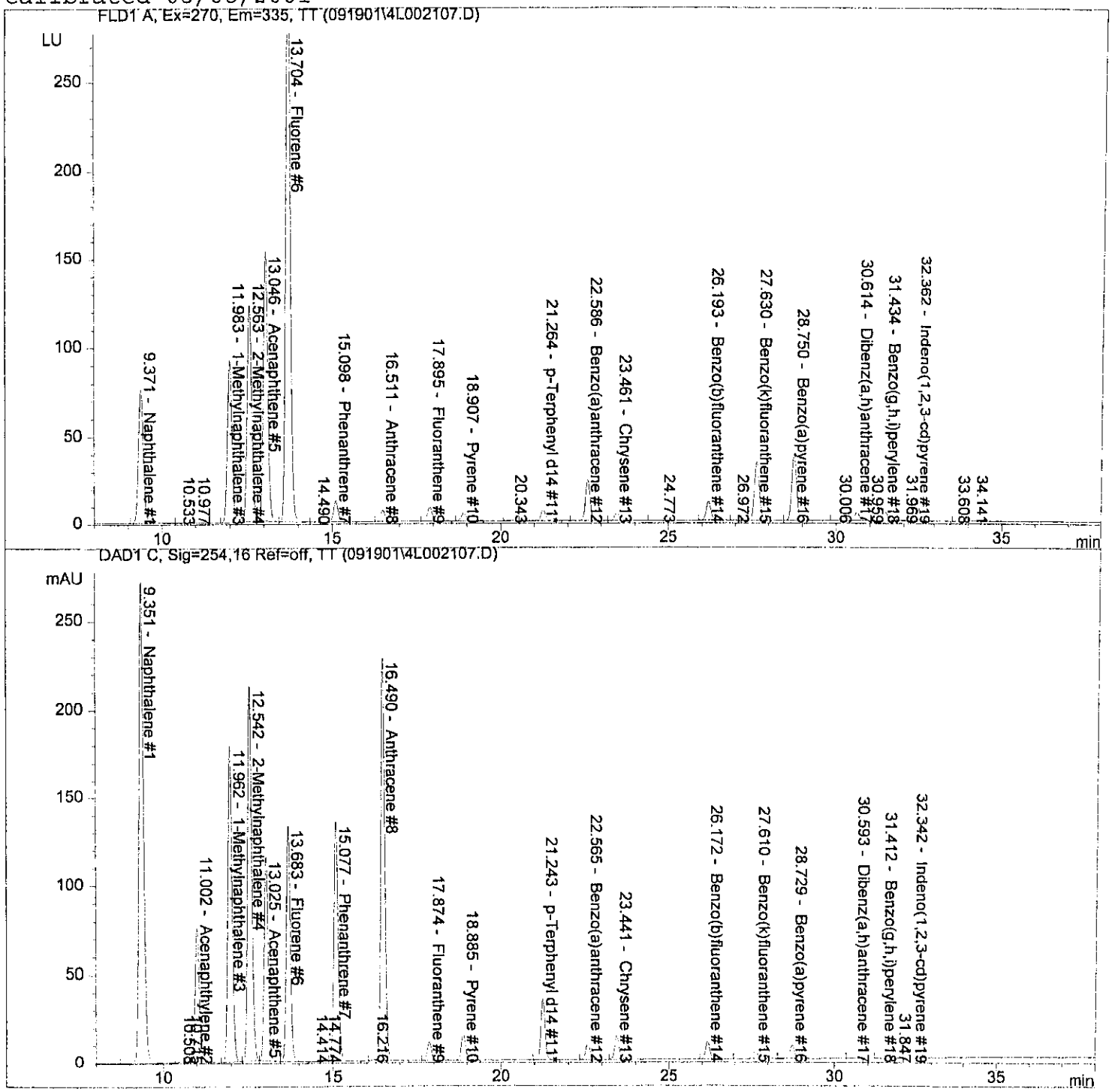
Injection Date	: 9/20/2001 2:53:55 AM	Seq. Line	: 13
Sample Name	: 8310 CCV	Vial	: 13
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001



Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.371	PB	756.95520	2.52962e-2	19.14809		Naphthalene #1
11.983	PB	866.52441	2.21330e-2	19.17875		1-Methylnaphthalene #3
12.563	BB	1132.53503	1.70635e-2	19.32500		2-Methylnaphthalene #4
13.046	BB	1420.74219	1.38416e-2	19.66529		Acenaphthene #5
13.704	BB	3076.02319	6.62187e-3	20.36901		Fluorene #6
15.098	BBA	114.33644	1.63652e-1	18.71142		Phenanthrene #7
16.511	BBA	63.06974	3.10196e-1	19.56400		Anthracene #8
17.895	PBA	81.70267	2.32678e-2	1.90105		Fluoranthene #9
18.907	BBA	47.82600	3.86587e-2	1.84889		Pyrene #10
21.264	BBA	65.27970	2.97423e-1	19.41567		p-Terphenyl d14 #11*
22.586	PB	238.46449	7.91256e-3	1.88686		Benzo(a)anthracene #12
23.461	BB	48.37333	3.90495e-2	1.88896		Chrysene #13
26.193	BB	117.17790	1.63222e-2	1.91260		Benzo(b)fluoranthene #14
27.630	BB	354.91495	2.76572e-3	9.81594e-1		Benzo(k)fluoranthene #15
28.750	BB	395.24081	4.57119e-3	1.80672		Benzo(a)pyrene #16
30.614	BB	48.27656	3.93496e-2	1.89966		Dibenz(a,h)anthracene #17
31.434	BB	68.90811	2.65165e-2	1.82720		Benzo(g,h,i)perylene #18
32.362	BBA	139.52138	1.38204e-2	1.92824		Indeno(1,2,3-cd)pyrene #1

Totals : 173.25901

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
9.351	PB	2508.14453	8.25405e-3	20.70235		Naphthalene #1
11.002	BBA	660.60339	2.96975e-2	19.61828		Acenaphthylene #2
11.962	PB	1532.94763	1.29459e-2	19.84532		1-Methylnaphthalene #3
12.542	BB	1790.95667	1.12393e-2	20.12906		2-Methylnaphthalene #4
13.025	BB	969.54315	2.03163e-2	19.69757		Acenaphthene #5
13.683	BB	1122.74927	1.75240e-2	19.67506		Fluorene #6
15.077	BBA	1141.80200	1.72982e-2	19.75117		Phenanthrene #7
16.490	BBA	1929.62915	1.04262e-2	20.11867		Anthracene #8
17.874	PB	89.67507	2.17006e-2	1.94600		Fluoranthene #9
18.885	BBA	135.27979	1.43052e-2	1.93521		Pyrene #10
21.243	BBA	300.62918	6.56733e-2	19.74330		p-Terphenyl d14 #11*
22.565	PBA	87.28237	2.22694e-2	1.94373		Benzo(a)anthracene #12
23.441	BBA	128.29381	1.51453e-2	1.94305		Chrysene #13
26.172	BBA	94.41952	2.07330e-2	1.95760		Benzo(b)fluoranthene #14
27.610	BB	43.76676	2.25837e-2	9.88415e-1		Benzo(k)fluoranthene #15
28.729	BBA	70.36957	2.61680e-2	1.84143		Benzo(a)pyrene #16
30.593	BBA	20.78684	9.41116e-2	1.95628		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.412	BB	34.12867	5.60829e-2	1.91404		Benzo(g,h,i)perylene #18
32.342	BB	93.24354	2.05608e-2	1.91716		Indeno(1,2,3-cd)pyrene #1

Totals : 197.62369

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\091901\4L002113.D Sample Name: 8310 CCV
HPLC4 9/20/2001 9:35:21 AM RDC

1,1,SV54-35/53-25

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Injection Date : 9/20/2001 8:33:35 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.377	20.0	18.875	-5.6
1-Methylnaphthalene #3	11.983	20.0	18.913	-5.4
2-Methylnaphthalene #4	12.562	20.0	19.092	-4.5
Acenaphthene #5	13.043	20.0	19.512	-2.4
Fluorene #6	13.701	20.0	20.409	2.0
Phenanthrene #7	15.090	20.0	18.629	-6.9
Anthracene #8	16.498	20.0	19.911	-0.4
Fluoranthene #9	17.878	2.0	1.897	-5.1
Pyrene #10	18.888	2.0	1.780	-11.0
p-Terphenyl d14 #11*	21.236	20.0	19.595	-2.0
Benzo(a)anthracene #12	22.553	2.0	1.859	-7.1
Chrysene #13	23.423	2.0	1.864	-6.8
Benzo(b)fluoranthene #14	26.146	2.0	1.913	-4.4
Benzo(k)fluoranthene #15	27.577	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.693	2.0	1.786	-10.7
Dibenz(a,h)anthracene #1	30.548	2.0	1.873	-6.3
Benzo(g,h,i)perylene #18	31.366	2.0	1.764	-11.8
Indeno(1,2,3-cd)pyrene #	32.291	2.0	1.907	-4.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	20.787	3.9
Acenaphthylene #2	11.005	20.0	19.712	-1.4
1-Methylnaphthalene #3	11.965	20.0	19.929	-0.4
2-Methylnaphthalene #4	12.544	20.0	20.215	1.1
Acenaphthene #5	13.025	20.0	19.786	-1.1
Fluorene #6	13.682	20.0	19.773	-1.1
Phenanthrene #7	15.072	20.0	19.843	-0.8
Anthracene #8	16.480	20.0	20.242	1.2
Fluoranthene #9	17.859	2.0	1.953	-2.4
Pyrene #10	18.869	2.0	1.938	-3.1
p-Terphenyl d14 #11*	21.218	20.0	19.821	-0.9
Benzo(a)anthracene #12	22.535	2.0	1.952	-2.4
Chrysene #13	23.405	2.0	1.957	-2.1
Benzo(b)fluoranthene #14	26.127	2.0	1.976	-1.2
Benzo(k)fluoranthene #15	27.558	1.0	0.993	-0.7
Benzo(a)pyrene #16	28.674	2.0	1.858	-7.1
Dibenz(a,h)anthracene #1	30.529	2.0	1.966	-1.7
Benzo(g,h,i)perylene #18	31.346	2.0	2.013	0.7
Indeno(1,2,3-cd)pyrene #	32.270	2.0	1.912	-4.4

= Failed 15.0% Criteria

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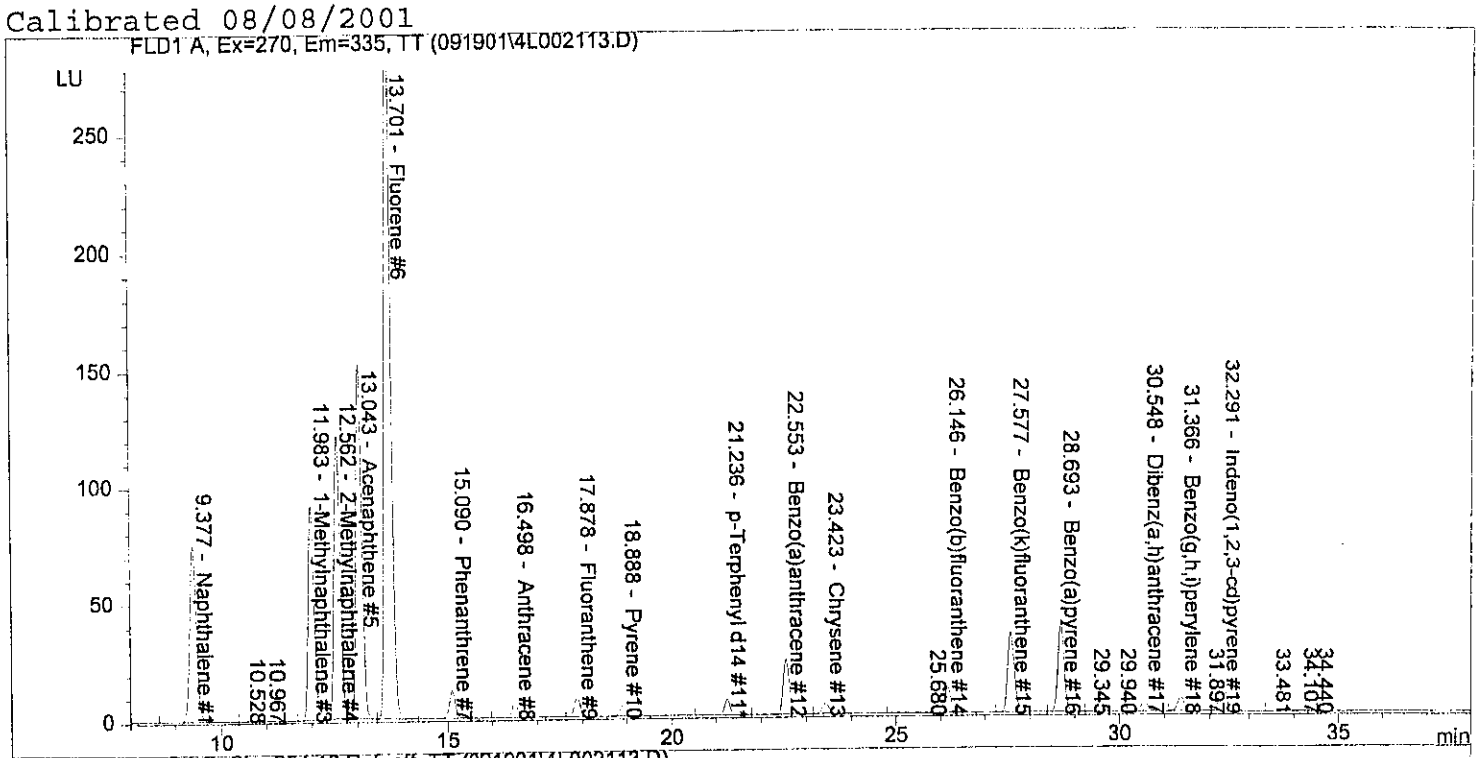
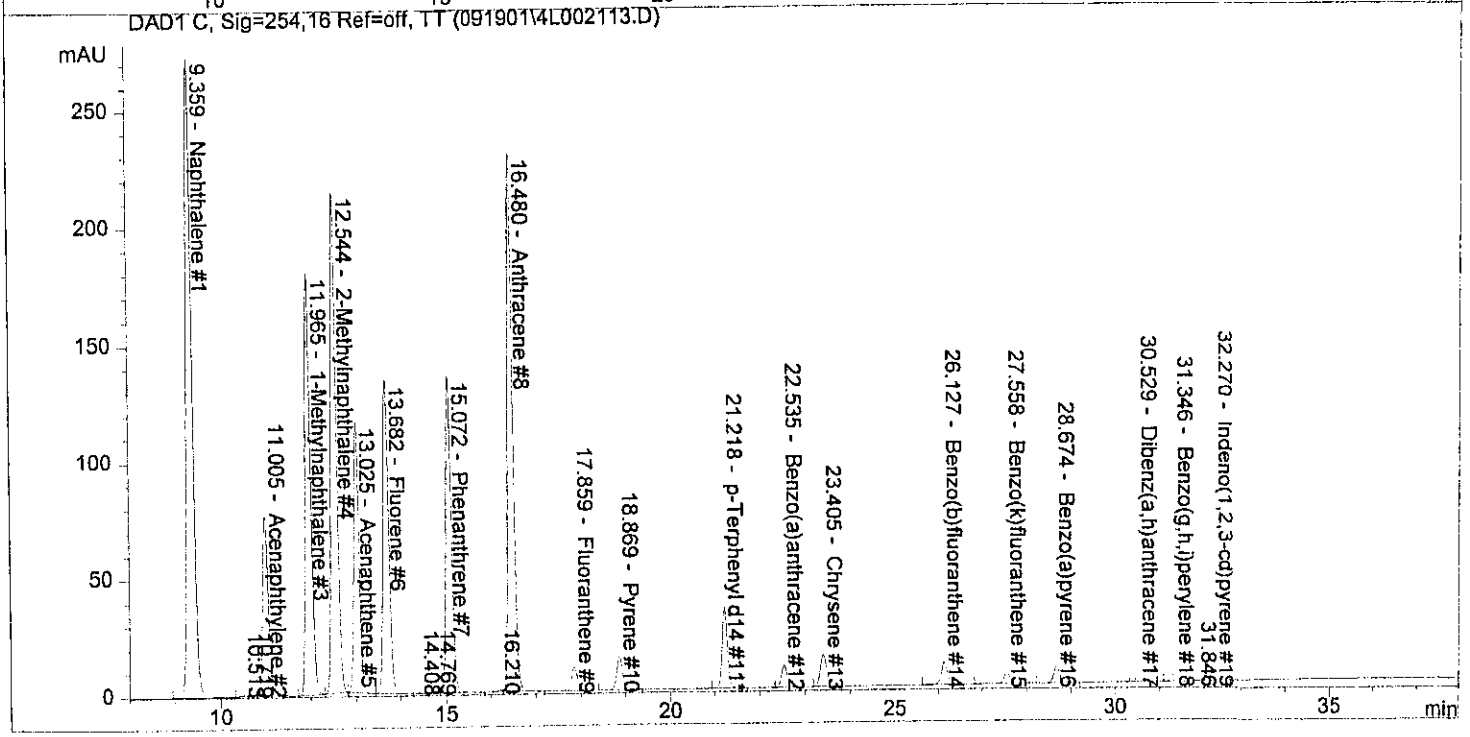
Injection Date : 9/20/2001 8:33:35 AM
Sample Name : 8310 CCV
Acq. Operator : RDC

Seq. Line : 19
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:32:56 AM by RDC
(modified after loading)

Calibrated 08/08/2001





Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:32:56 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/L]	Grp	Name
9.377	BB	746.15350	2.52962e-2	18.87485		Naphthalene #1
11.983	PB	854.51642	2.21330e-2	18.91297		1-Methylnaphthalene #3
12.562	BB	1118.89795	1.70635e-2	19.09231		2-Methylnaphthalene #4
13.043	BB	1409.63855	1.38416e-2	19.51160		Acenaphthene #5
13.701	BB	3082.01733	6.62187e-3	20.40871		Fluorene #6
15.090	BBA	113.83209	1.63652e-1	18.62888		Phenanthrene #7
16.498	BBA	64.18746	3.10196e-1	19.91072		Anthracene #8
17.878	PBA	81.53401	2.32678e-2	1.89712		Fluoranthene #9
18.888	BBA	46.03977	3.86587e-2	1.77984		Pyrene #10
21.236	BB	65.88138	2.97423e-1	19.59462		p-Terphenyl d14 #11*
22.553	BB	234.92413	7.91256e-3	1.85885		Benzo(a)anthracene #12
23.423	BB	47.73917	3.90495e-2	1.86419		Chrysene #13
26.146	BB	117.20052	1.63222e-2	1.91297		Benzo(b)fluoranthene #14
27.577	BB	354.34457	2.76572e-3	9.80016e-1		Benzo(k)fluoranthene #15
28.693	BB	390.77338	4.57119e-3	1.78630		Benzo(a)pyrene #16
30.548	BB	47.60123	3.93496e-2	1.87309		Dibenz(a,h)anthracene #17
31.366	BB	66.50989	2.65165e-2	1.76361		Benzo(g,h,i)perylene #18
32.291	BBA	137.98608	1.38204e-2	1.90702		Indeno(1,2,3-cd)pyrene #1
Totals :				172.55766		

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
9.359	PB	2518.44116	8.25405e-3	20.78734		Naphthalene #1
11.005	BBA	663.74701	2.96975e-2	19.71164		Acenaphthylene #2
11.965	PB	1539.43518	1.29459e-2	19.92931		1-Methylnaphthalene #3
12.544	BB	1798.55835	1.12393e-2	20.21450		2-Methylnaphthalene #4
13.025	BB	973.87952	2.03163e-2	19.78567		Acenaphthene #5
13.682	BB	1128.34668	1.75240e-2	19.77315		Fluorene #6
15.072	BBA	1147.13721	1.72982e-2	19.84346		Phenanthrene #7
16.480	BBA	1941.45471	1.04262e-2	20.24196		Anthracene #8
17.859	PB	89.98291	2.17006e-2	1.95268		Fluoranthene #9
18.869	BBA	135.49112	1.43052e-2	1.93823		Pyrene #10
21.218	BBA	301.81650	6.56733e-2	19.82127		p-Terphenyl d14 #11*
22.535	PBA	87.64182	2.22694e-2	1.95173		Benzo(a)anthracene #12
23.405	BBA	129.21687	1.51453e-2	1.95703		Chrysene #13
26.127	PBA	95.32490	2.07330e-2	1.97637		Benzo(b)fluoranthene #14
27.558	BB	43.95033	2.25837e-2	9.92561e-1		Benzo(k)fluoranthene #15
28.674	BBA	71.00561	2.61680e-2	1.85808		Benzo(a)pyrene #16
30.529	BB	20.89277	9.41116e-2	1.96625		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.346	BB	35.90196	5.60829e-2	2.01349		Benzo(g,h,i)perylene #18
32.270	BB	92.97766	2.05608e-2	1.91169		Indeno(1,2,3-cd)pyrene #1
Totals :				198.62641		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.4 Raw QC Data

1,1,V172P73

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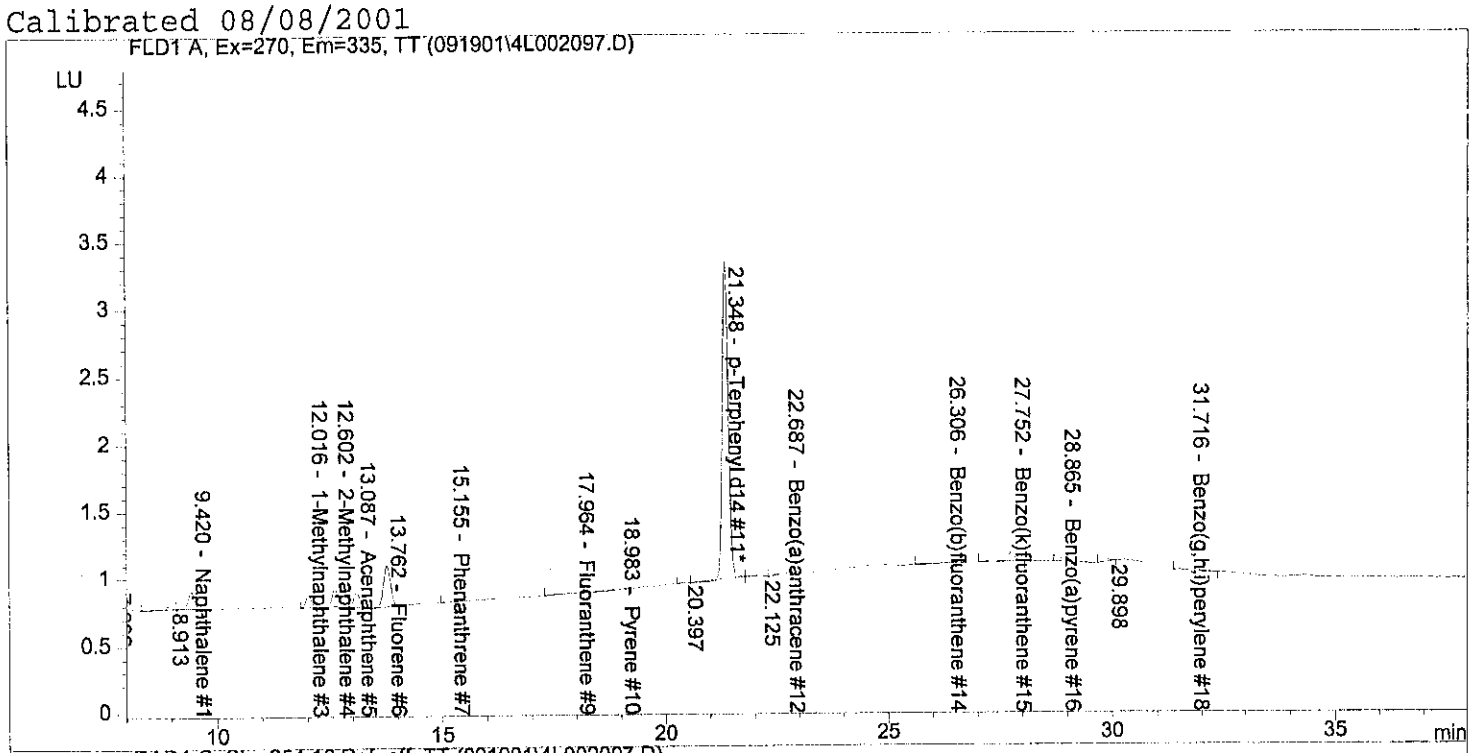
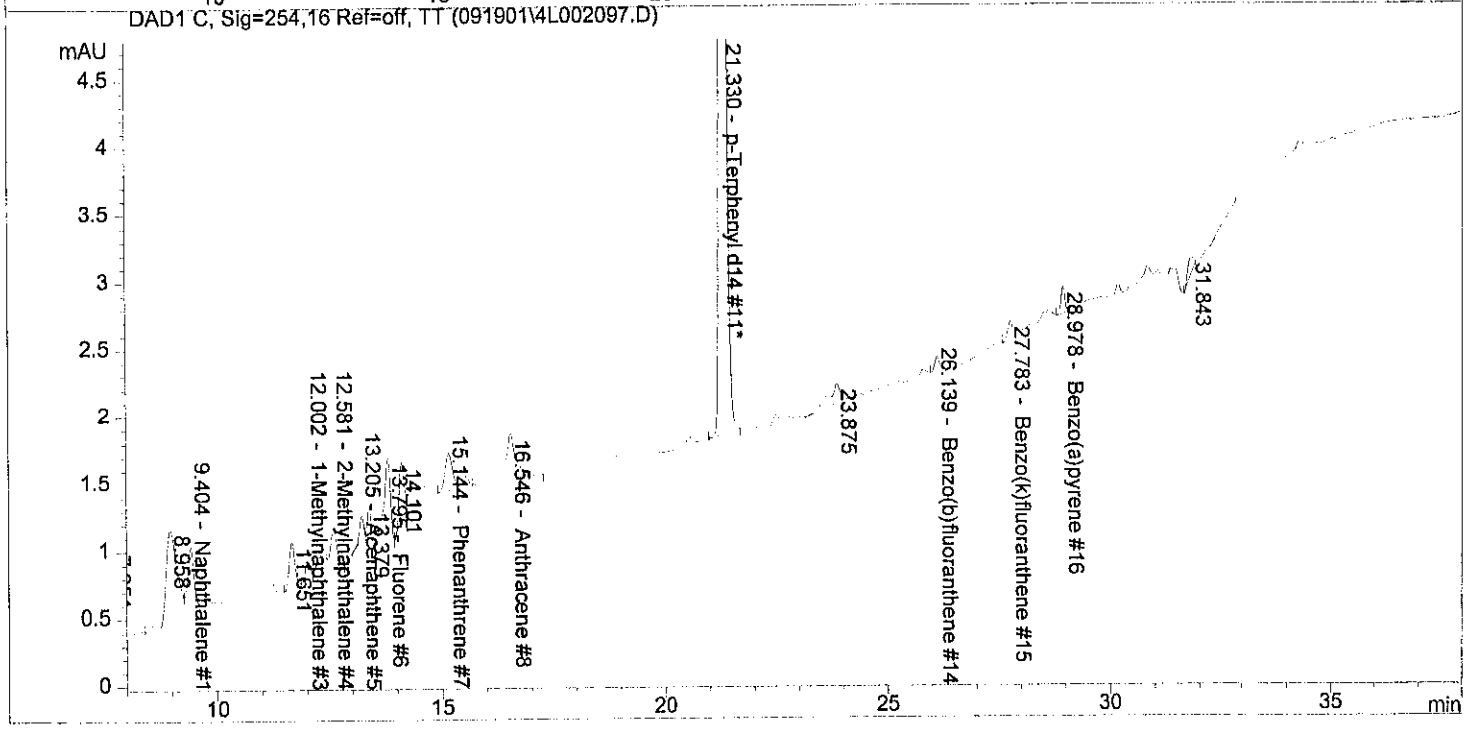
Injection Date : 9/19/2001 5:27:38 PM
Sample Name : WG109843-02 WBLK
Acq. Operator : RDC 4
RDC 9/20/01

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 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/L]	Grp	Name
9.420	BB	1.23180	2.52962e-2	3.11597e-2		Naphthalene #1
12.016	BB	8.09778e-1	2.21330e-2	1.79228e-2		1-Methylnaphthalene #3
12.602	BB	1.48893	1.70635e-2	2.54063e-2		2-Methylnaphthalene #4
13.087	BB	1.08806	1.38416e-2	1.50605e-2		Acenaphthene #5
13.762	BB	3.39060	6.62187e-3	2.24521e-2		Fluorene #6
15.155	BB	2.90144e-1	1.63652e-1	4.74828e-2		Phenanthrene #7
16.588		-	-	-		Anthracene #8
17.964	PB	5.32086e-1	2.32678e-2	1.23805e-2		Fluoranthene #9
18.983	BB	1.97076e-1	3.86587e-2	7.61871e-3		Pyrene #10
21.348	BB	22.32518	2.97423e-1	6.64002		p-Terphenyl d14 #11*
22.687	BB	3.12892e-1	7.91256e-3	2.47578e-3		Benzo(a)anthracene #12
23.552		-	-	-		Chrysene #13
26.306	BBA	2.54268e-1	1.63222e-2	4.15020e-3		Benzo(b)fluoranthene #14
27.752	BBA	8.63781e-1	2.76572e-3	2.38897e-3		Benzo(k)fluoranthene #15
28.865	PBA	2.27745e-1	4.57119e-3	1.04107e-3		Benzo(a)pyrene #16
30.762		-	-	-		Dibenz(a,h)anthracene #17
31.716	PBA	5.21486e-1	2.65165e-2	1.38280e-2		Benzo(g,h,i)perylene #18
32.372		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				6.84339		

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
9.404	BB	3.14045	8.25405e-3	2.59214e-2	<MDL	Naphthalene #1
11.096		-	-	-		Acenaphthylene #2
12.002	BB	9.62076e-1	1.29459e-2	1.24549e-2		1-Methylnaphthalene #3
12.581	BB	2.18604	1.12393e-2	2.45695e-2		2-Methylnaphthalene #4
13.205	BB	8.07458e-1	2.03163e-2	1.64046e-2		Acenaphthene #5
13.795	BB	6.53113	1.75240e-2	1.14451e-1		Fluorene #6
15.144	BB	3.22635	1.72982e-2	5.58101e-2		Phenanthrene #7
16.546	BB	8.51673	1.04262e-2	8.87970e-2		Anthracene #8
17.957		-	-	-		Fluoranthene #9
18.968		-	-	-		Pyrene #10
21.330	PBA	101.84727	6.56733e-2	6.68864		p-Terphenyl d14 #11*
22.659		-	-	-	66.9%	Benzo(a)anthracene #12
23.537		-	-	-		Chrysene #13
26.139	BBA	8.54005e-1	2.07330e-2	1.77061e-2	<MDL	Benzo(b)fluoranthene #14
27.783	BB	9.65669e-1	2.25837e-2	2.18084e-2		Benzo(k)fluoranthene #15
28.978	BB	1.30784	2.61680e-2	3.42235e-2		Benzo(a)pyrene #16
30.747		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.526		-	-	-		Benzo(g,h,i)perylene #18
32.416		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				7.10079		

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,V172P73

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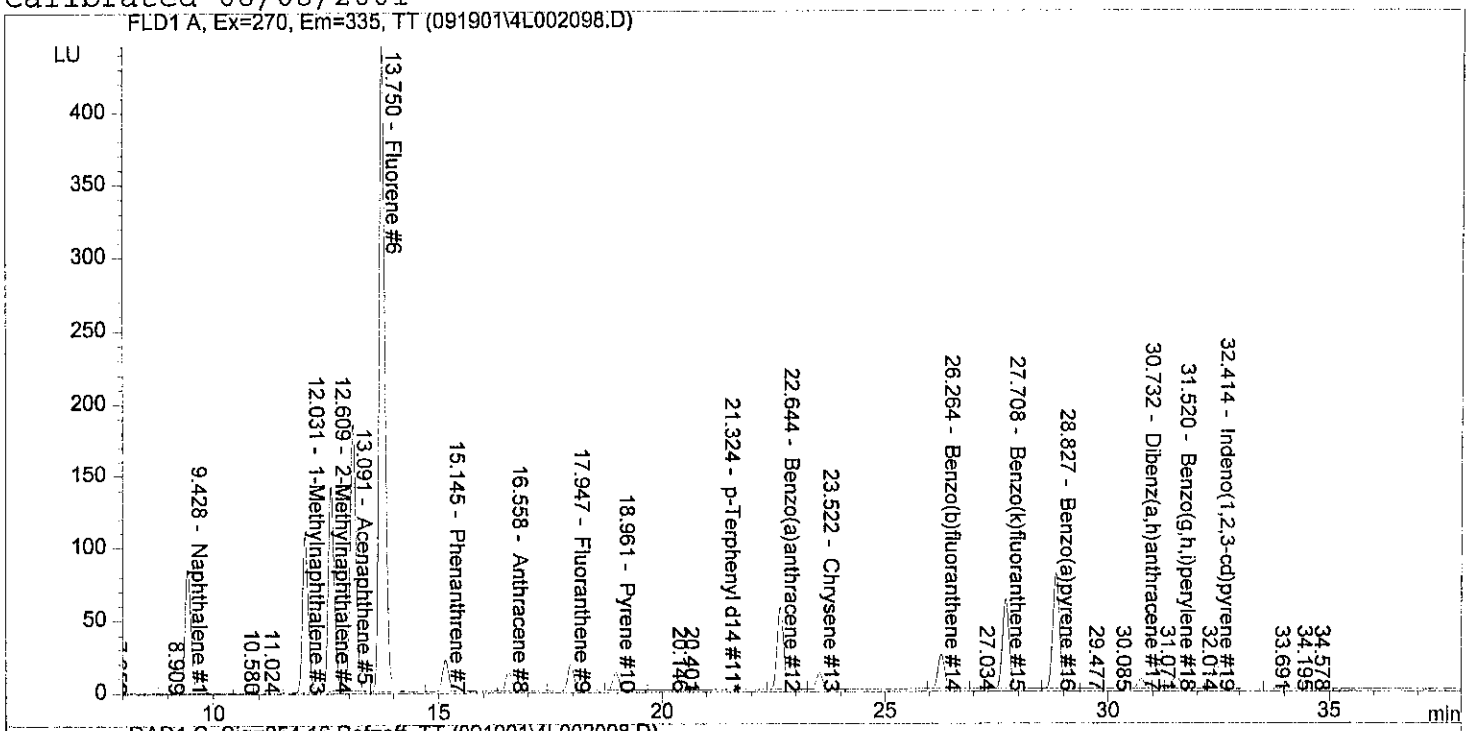
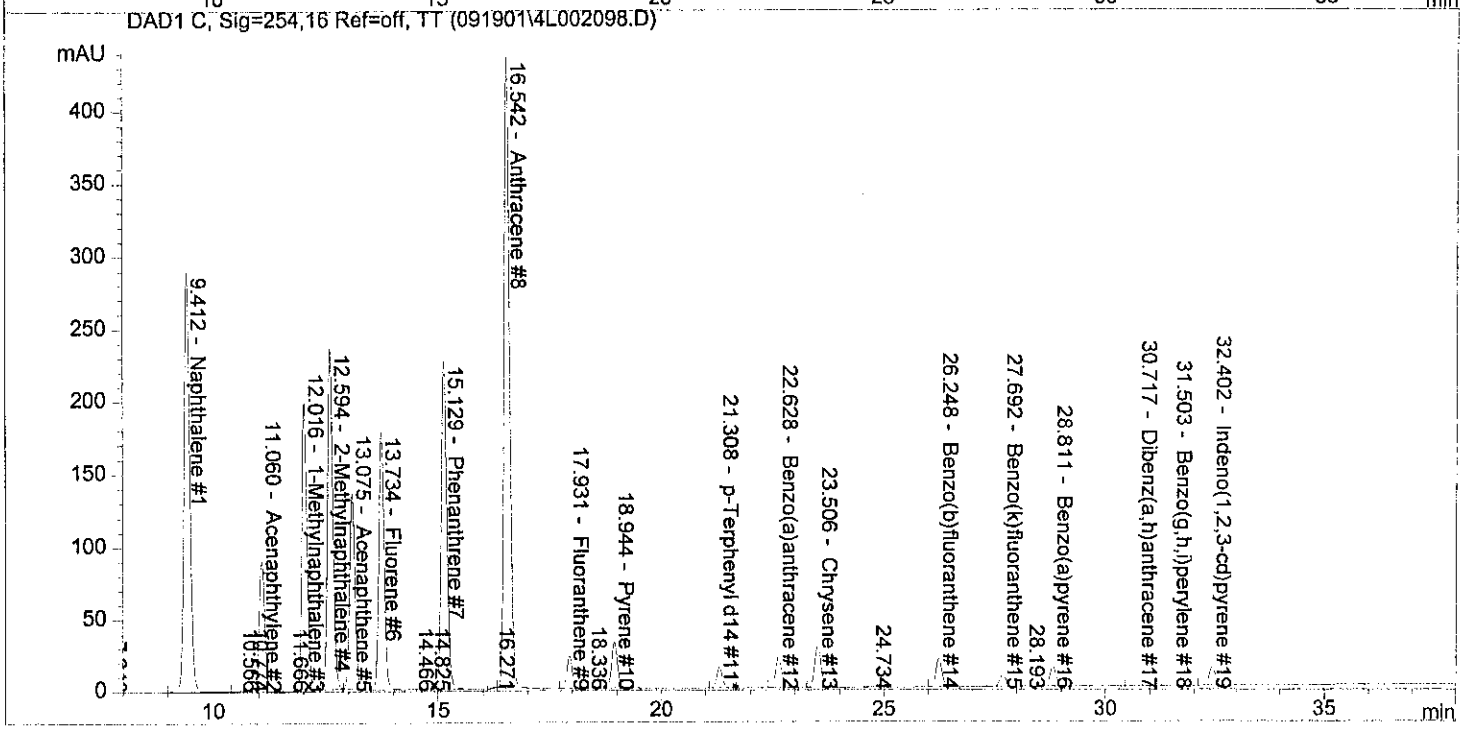
Injection Date : 9/19/2001 6:24:17 PM
Sample Name : WG10~~8~~843-03 WLCS
Acq. Operator : RDC 4 RDC 9/20/01

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 9/20/2001 9:16:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, September 20, 2001 9:16:47 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/L]	Grp	Name
9.428	BB	829.21521	2.52962e-2	20.97599		Naphthalene #1
12.031	PB	988.46259	2.21330e-2	21.87760		1-Methylnaphthalene #3
12.609	BB	1290.63525	1.70635e-2	22.02275		2-Methylnaphthalene #4
13.091	BB	1711.35938	1.38416e-2	23.68789		Acenaphthene #5
13.750	BBA	4131.95215	6.62187e-3	27.36124		Fluorene #6
15.145	PBA	199.47099	1.63652e-1	32.64388		Phenanthrene #7
16.558	BBA	122.36160	3.10196e-1	37.95612		Anthracene #8
17.947	PBA	180.43329	2.32678e-2	4.19829		Fluoranthene #9
18.961	PBA	118.42654	3.86587e-2	4.57822		Pyrene #10
21.324	BB	27.26801	2.97423e-1	8.11013		p-Terphenyl d14 #11*
22.644	BB	565.11157	7.91256e-3	4.47148		Benzo(a)anthracene #12
23.522	BBA	110.93658	3.90495e-2	4.33202		Chrysene #13
26.264	BB	244.74254	1.63222e-2	3.99473		Benzo(b)fluoranthene #14
27.708	BB	647.21576	2.76572e-3	1.79001		Benzo(k)fluoranthene #15
28.827	BB	816.58075	4.57119e-3	3.73275		Benzo(a)pyrene #16
30.732	BB	66.01223	3.93496e-2	2.59755		Dibenz(a,h)anthracene #17
31.520	BB	102.12946	2.65165e-2	2.70812		Benzo(g,h,i)perylene #18
32.414	BB	203.61610	1.38204e-2	2.81406		Indeno(1,2,3-cd)pyrene #1
Totals :				229.85281		

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
9.412	BB	2643.56836	8.25405e-3	21.82014		Naphthalene #1
11.060	BB	775.52527	2.96975e-2	23.03117		Acenaphthylene #2
12.016	BB	1681.85144	1.29459e-2	21.77301		1-Methylnaphthalene #3
12.594	BB	1968.65759	1.12393e-2	22.12629		2-Methylnaphthalene #4
13.075	BB	1140.92761	2.03163e-2	23.17948		Acenaphthene #5
13.734	BB	1502.25671	1.75240e-2	26.32555		Fluorene #6
15.129	BBA	1912.74683	1.72982e-2	33.08716		Phenanthrene #7
16.542	BBA	3715.30005	1.04262e-2	38.73640		Anthracene #8
17.931	PB	196.49486	2.17006e-2	4.26405		Fluoranthene #9
18.944	BBA	297.14346	1.43052e-2	4.25071		Pyrene #10
21.308	BBA	126.59094	6.56733e-2	8.31364 83.1%		p-Terphenyl d14 #11*
22.628	PBA	199.25346	2.22694e-2	4.43726		Benzo(a)anthracene #12
23.506	BBA	283.34286	1.51453e-2	4.29131		Chrysene #13
26.248	BBA	191.05542	2.07330e-2	3.96115		Benzo(b)fluoranthene #14
27.692	BB	77.96031	2.25837e-2	1.76063		Benzo(k)fluoranthene #15
28.811	BBA	135.29208	2.61680e-2	3.54033		Benzo(a)pyrene #16
30.717	BB	26.85723	9.41116e-2	2.52758		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.503	BB	41.65923	5.60829e-2	2.33637		Benzo(g,h,i)perylene #18
32.402	BB	136.40219	2.05608e-2	2.80454		Indeno(1,2,3-cd)pyrene #1

Totals : 252.56677

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========
*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PA11 Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001205	ACCN Blank	NA			✓
06	8310 CCV		SV53-25	/ 54-35	RR
07	V169 ppb BLK				RR
08	↓ LCS				RR
09	8310 CCV		SV53-25	/ 54-35	CC
10	↓ no-matrix		↓		CC
11	ESC 38-23 e/2b spike				✓
12	8310 SURR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	↓ ↓ 5/50		SV54-35	/ 53-25	✓
15	4/20		↓		✓
16	3/10				✓
17	2/5				✓
18	↓ ↓ 1/1		↓		✓
19	8310 ALT @ LVL 4	↓	SV53-27	/ SOS55-29	✓
			RDC 8/10/01		

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis. Reanalysis complete IS or SS = Interference with internal and/or surrogate standards SMI = Sample matrix interference
RR = Rerun MT = Missed Tune, beyond method tuning requirements CC = Continuing calibration failed
RR# = Rerun at a specified dilution RE = Re-extraction analysis required CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

ılysis Date/Time Aug. 3, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 030801

aily Check
- ✓ Mobile phase reservoir
- ✓ System pressure 113 bar
- ✓ Waste container

eturned to Control?
ES ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001206 – No result file contents / null

8310 CCV – failing low for p-Terphenyl-d14

Reviewed By: mde 8/1/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Sept. 19, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 091901
Analyst Initials PJC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L002095	AcCN Blank	NA			✓
96	8310 CCV		SVS4-35/53-25		✓
97	WG109243-02 V172P73 W BLK				✓
98	↓ -03 ↓ W LCS				✓
99	L0109252-01 8310W				✓
4L002100	↓ -02 ↓				✓
01	↓ -03 ↓				✓
02	WG104943-01 L0109252-04				✓
03	↓ -04 ↓ -05MS				✓
04	↓ -05 ↓ -06MSD				✓
05	L0109252-07 8310W				RR
06	↓ -08 ↓				RR
07	8310 CCV		SVS4-35/53-25		✓
08	L0109252-09 8310W			Rerun 4L0100	~~RE~~ ✓
09	L0109254-01				✓
10	-02				✓
11	-03				✓
12	↓ -04 ↓				RE
13	8310 CCV	✓			✓

PJC 9/20/01

Reviewed By: mlc 9/21/01

Status:
✓ = Compliant Analysis. Reanalysis complete
IS or SS = Interference with internal and/or surrogate standards
SMI = Sample matrix interference
RR = Rerun
MT = Missed Tune, beyond method tuning requirements
CC = Continuing calibration failed
RR# = Rerun at a specified dilution
RE = Re-extraction analysis required
CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Sept. 19, 2001 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 091901

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 124 bar
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0109252-07 } require conf. of acenaphthylene
↓ -08 }
4-04 RMC 9/21/01
L0109252-09 sent for re-ext due to low surrogate

Reviewed By: _____

Parameter: 8310 H2O SOP #: EXHPLC1 Revision #: 5
Extraction Analyst(s): JAQ TV/KD Analyst(s): JAQ
Date/Time Extracted: 9/18/01 20:00 Date TV/KD: 9/18/01
Spike/Surrogate Analyst: JAQ Witness: [illegible]
Surrogate #: ES500 38-39 Earliest Hold Date: 9/24
Spike #: A = ES500 39-23 Spike #: B = —

Extraction Work Group WG 104843
Analytical Work Group WG 104892
Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 9/19/01

	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	100µl		1ml	T				WG 104843-02
2	LCS			✓		↓		500µl		C				WG 104843-03
3	09-252-01	8310		✓	1.04	965ml				T				
4	02			✓	1.04	↓				T				
5	03			✓		1L				T				
6	04			✓	1.04	965ml				T				WG 104843-01
7	05MS			✓	1.05	950ml		500µl		C			*	WG 104843-04
8	06MSD			✓	1.04	965ml		↓		T			*	WG 104843-05
9	07			✓	1.05	950ml				T				
10	08			✓						T				
11	09			✓		↓				T				
12	09-254-01			✓	1.04	965ml				T				
13	02			✓	↓	↓				C				
14	03			✓	1.03	930ml				T				
15	04			✓	1.04	965ml				T				
16	05			✓				JAQ 9/18/01						
17														
18														
19														
20														
21								9/18/01 JAQ						
22														
23														
24														

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V18801
Reagent: Fortified Lot #: ER806
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1913

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: [illegible] Date: 09/19/01

Extraction Notes For Volume # 172 Page # 73

General Comments:
*MS of 09-252-04
MS Dof

Extraction Anomalies:
nothing to report

Concentration Anomalies:
nothing to report

Clean-Up Anomalies:
N/A

Supervisor Review: _____ Date: _____

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
	RF	**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

2.4.1 Miscellaneous General Chemistry

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0109252

METHOD

Analysis: SW-846 9056

HOLDING TIMES
Sample Analysis: Sample L0109252-09 was re-analyzed out of hold, due to original data being lost during systems installation.

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. Associated supportive data files were lost due to systems installation.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fractions -05 and -06 were chosen externally for the MS/MSD of sample fraction -04. 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: GSG REVIEWED: Steve Farm DATE: 10/4/01

Rev. 7/14/00

Figure 1
IC

254/252

Date: 09/18/01
Analyst: CSC
Method: 9056
Instrument: IC 1
Work Group: WG-104507

	Analyst
System Performance Check	✓
	✓
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
CSC 9/18/01

Secondary Reviewer Initials & Date Checked
RBC 10/1/01

- 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 10/1/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

For case NARR.
1) Ending CCV for 9/19/01 – data lost ?? new system
2) L0109252-09 & L0109254-02 run O.O.H. for NO_2, NO_3, & PO_4
RBC 10/1/01

Anions (9056)

Login Number: 10109254

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 external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

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

✓ Chromatograms and external standard reports for standards

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

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSG Date: 10/02/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG104807	**Prep Work Group:**	NA	**Blank Filename:**	IC1_010	**Sample Number:**	L0109252-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC1_011	**Sample Filename:**	IC1_018
Instrument:	IC1	**Ext Bench Sheet:**	NA	**Sample Number:**	L0109252-01	**MS Filename:**	IC1_020
Analyst:	GSG	**Run Date:**	18-Sep-01	**Sample Filename:**	IC1_014	**MSD Filename:**	IC1_021
				Duplicate Filename:	IC1_015		

	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	3.73	ND	ND	ND	3.66	4.06	4.02	ND	101.9	90	110	111	110	80	120	NA	1	20			
NITRATE-N	0.6	ND	4.06	4.04	ND	ND	ND	4.06	4.29	4.31	ND	99.6	90	110	105.7	106.3	80	120	NA	0	20			
PHOSPHATE-P	1	ND	9.78	9.36	ND	ND	ND	9.78	9.99	10.08	ND	95.7	90	110	102	103	80	120	NA	1	20			

NOTES & DEFINITIONS :

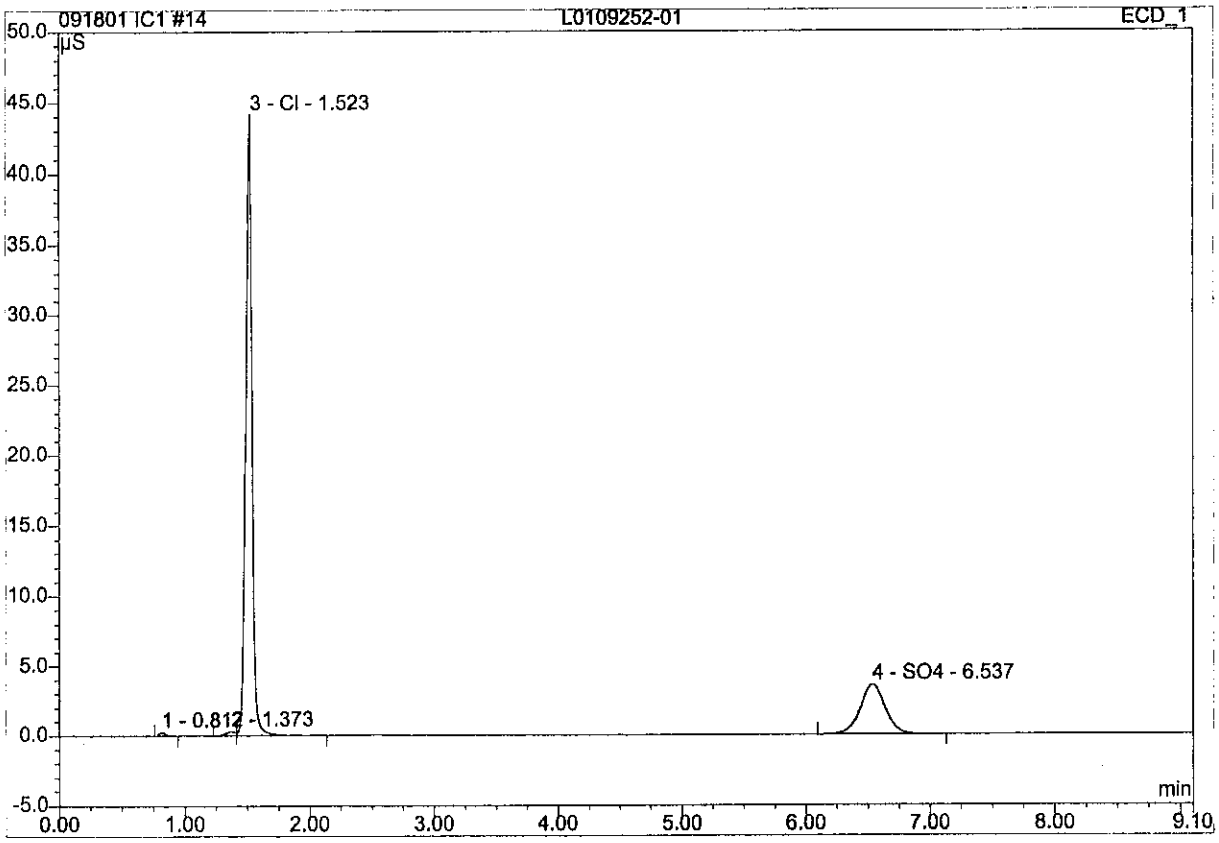
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

14 L0109252-01

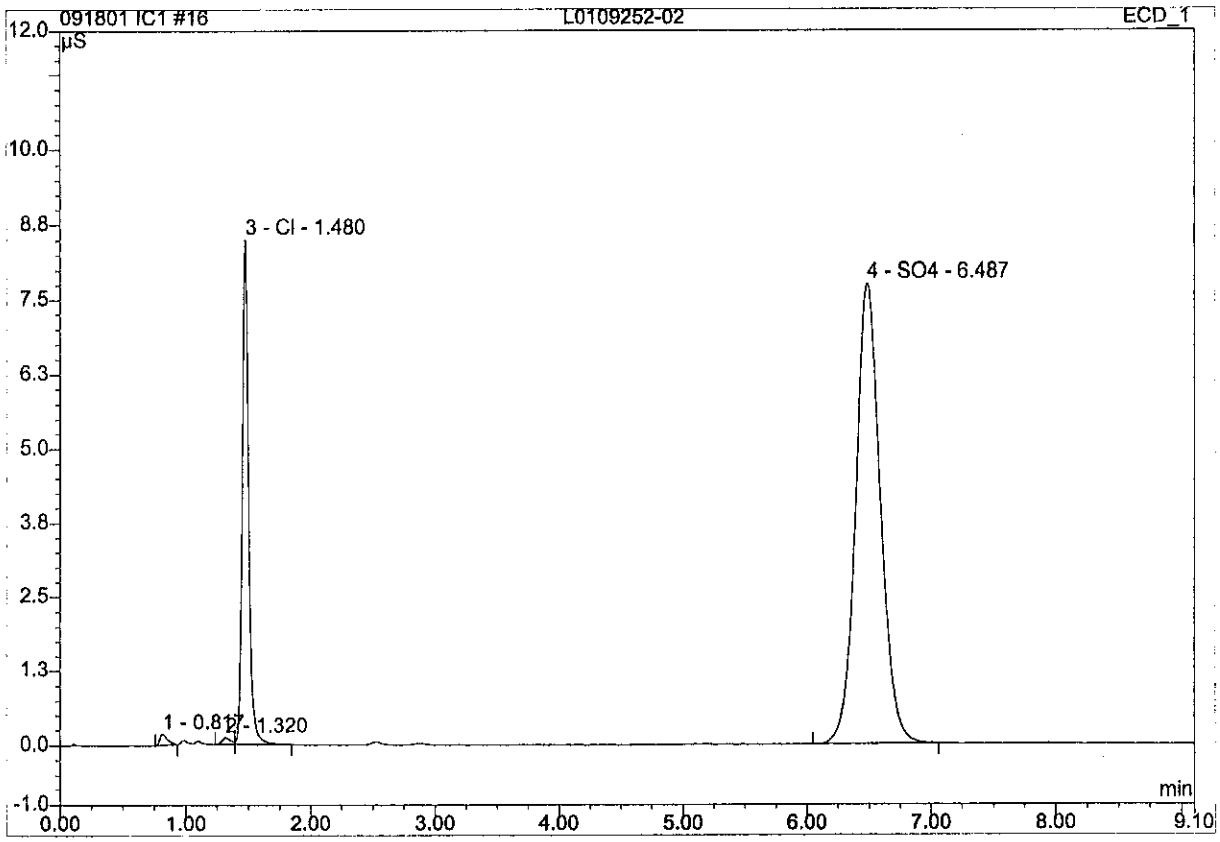
Sample Name:	**L0109252-01**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 16:04**	*Sample Weight:*	**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	Type
1	0.82	n.a.	0.240	0.015	0.44	n.a.	BMB
2	1.37	n.a.	0.299	0.026	0.76	n.a.	BM
3	1.52	Cl	44.076	2.539	74.78	21.062	MB
4	6.54	SO4	3.520	0.816	24.02	8.956	BMB
Total:			48.135	3.396	100.00	30.018	

16 L0109252-02

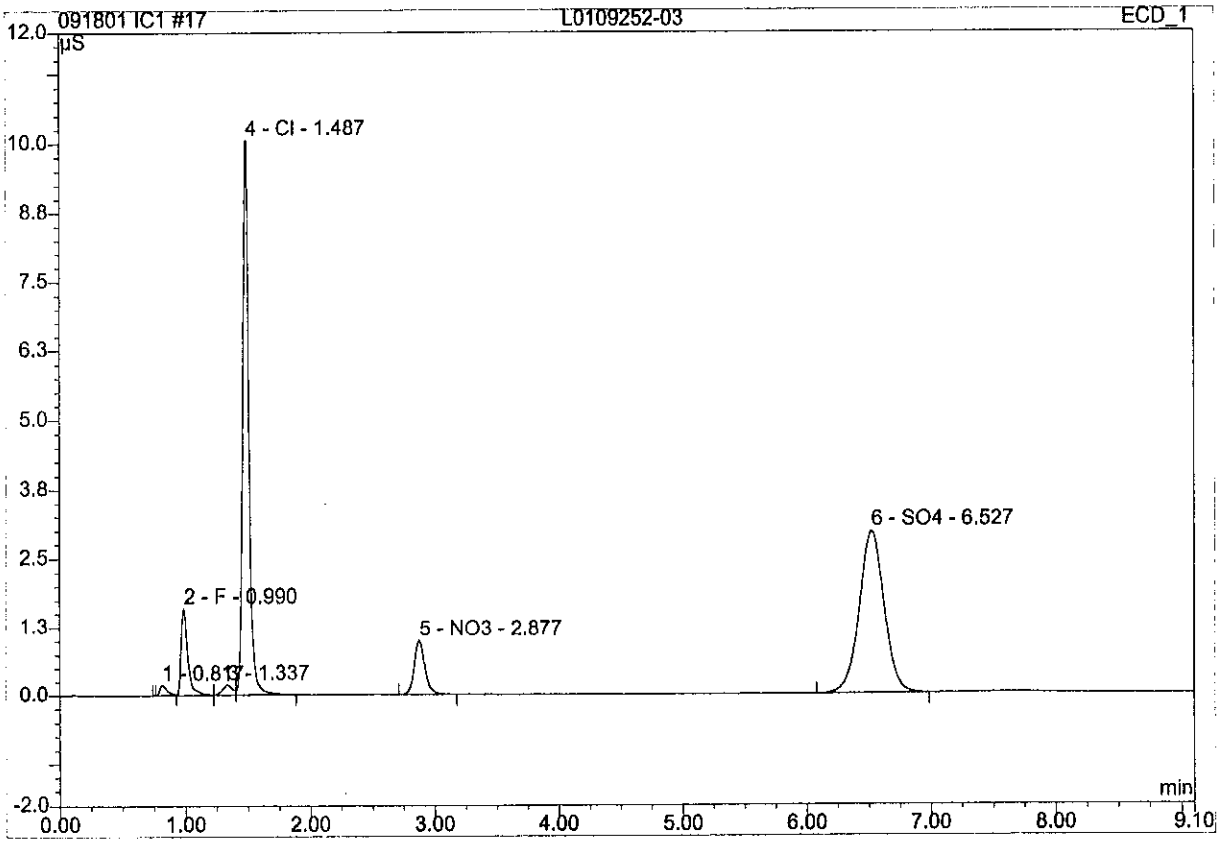
Sample Name:	**L0109252-02**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 16:27**	*Sample Weight:*	**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	Type
1	0.82	n.a.	0.173	0.012	0.53	n.a.	BMB
2	1.32	n.a.	0.101	0.008	0.35	n.a.	BM
3	1.48	Cl	8.483	0.495	21.59	4.108	MB
4	6.49	SO4	7.755	1.779	77.53	19.530	BMB
Total:			16.512	2.294	100.00	23.638	

17 L0109252-03

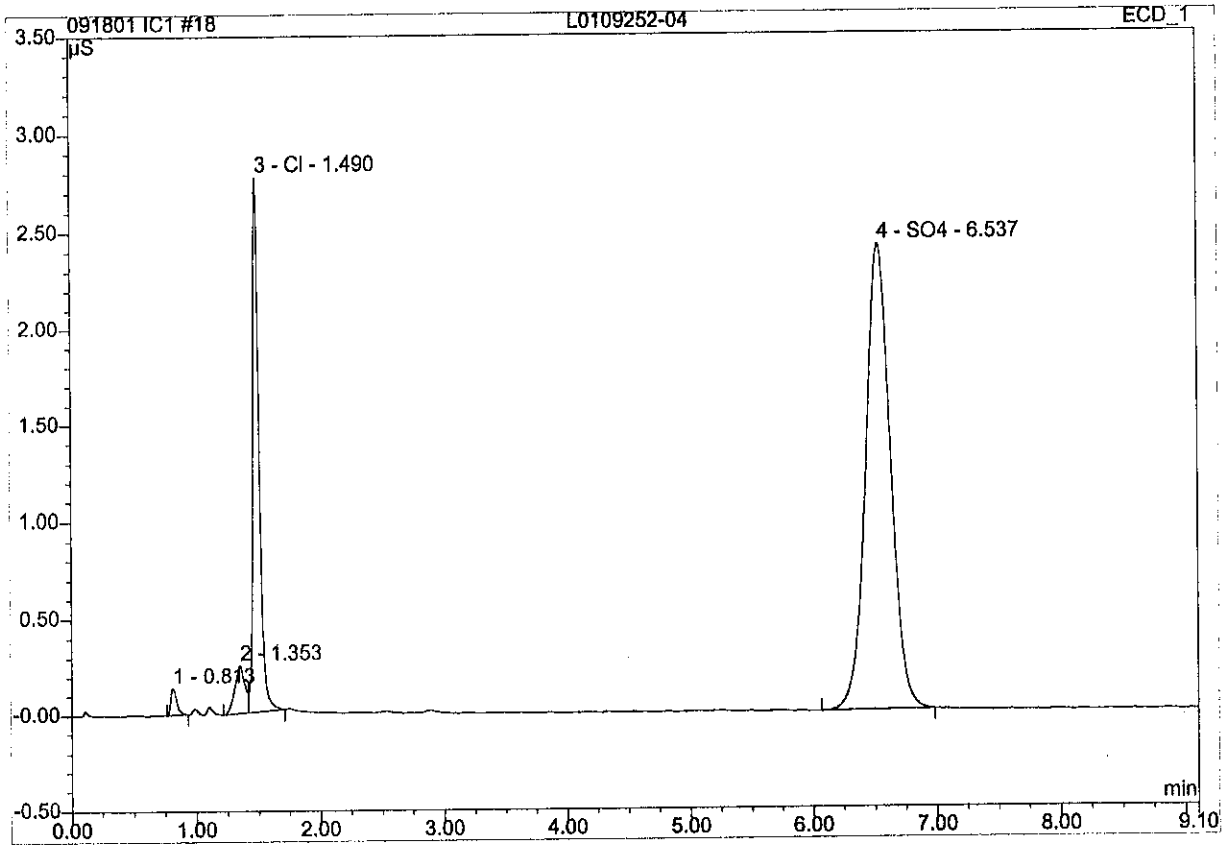
Sample Name:	**L0109252-03**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 16:39**	*Sample Weight:*	**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	Type
1	0.82	n.a.	0.180	0.012	0.80	n.a.	Ru
2	0.99	F	1.598	0.101	6.81	0.541	BM
3	1.34	n.a.	0.186	0.017	1.13	n.a.	M
4	1.49	Cl	10.050	0.570	38.33	4.726	MB
5	2.88	NO3	0.989	0.099	6.66	0.324	BMB
6	6.53	SO4	2.954	0.688	46.28	7.553	BMB
Total:			15.957	1.486	100.00	13.143	

18 L0109252-04

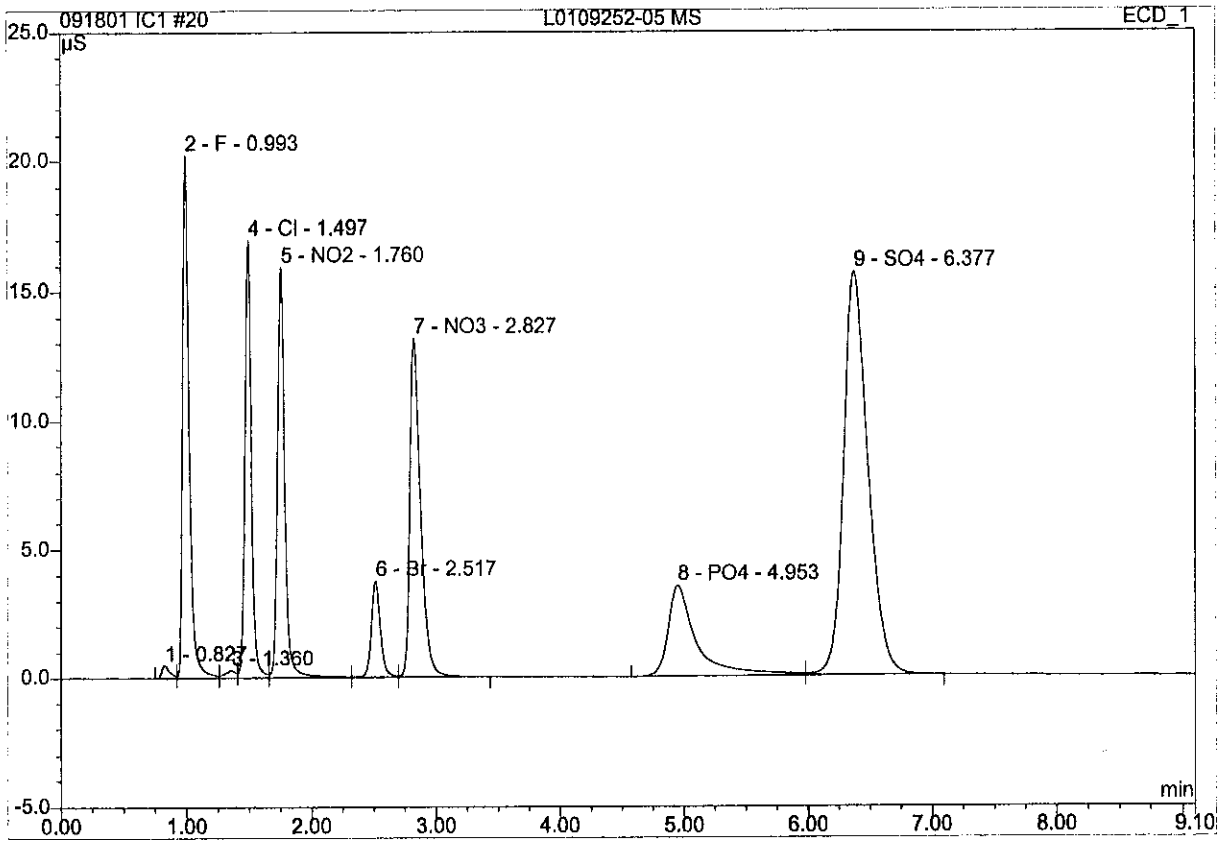
Sample Name:	**L0109252-04**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 16:51**	*Sample Weight:*	**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	Type
1	0.81	n.a.	0.140	0.008	1.04	n.a.	BMB
2	1.35	n.a.	0.252	0.023	3.10	n.a.	BM
3	1.49	Cl	2.763	0.160	21.27	1.328	MB
4	6.54	SO4	2.414	0.561	74.59	6.165	BMB
Total:			5.568	0.753	100.00	7.493	

20 L0109252-05 MS

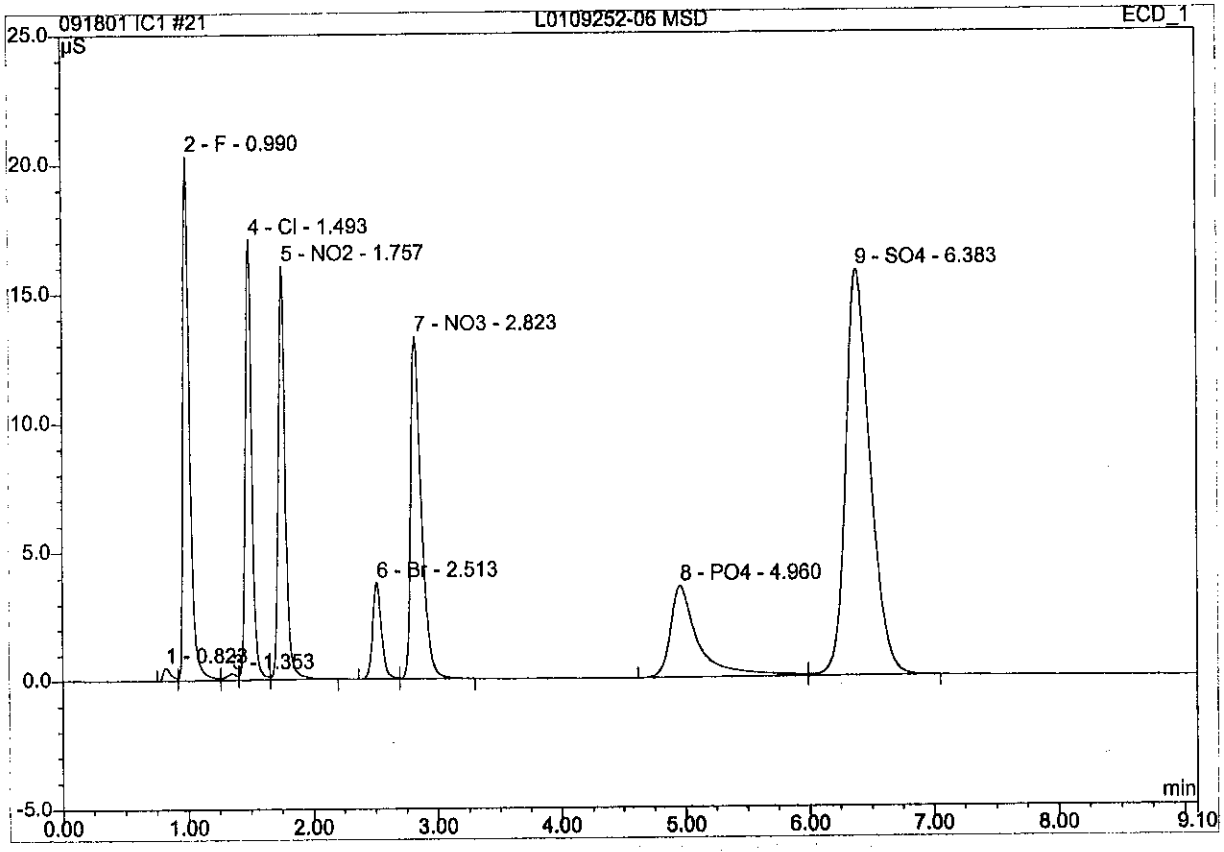
Sample Name:	**L0109252-05 MS**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 17:14**	*Sample Weight:*	**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	Type
1	0.83	n.a.	0.489	0.036	0.38	n.a.	BM
2	0.99	F	20.230	1.229	12.89	6.571	M
3	1.36	n.a.	0.294	0.029	0.30	n.a.	M
4	1.50	Cl	16.970	1.006	10.55	8.342	M
5	1.76	NO2	15.935	1.084	11.36	4.064	M
6	2.52	Br	3.750	0.319	3.35	6.730	M
7	2.83	NO3	13.162	1.311	13.75	4.293	MB
8	4.95	PO4	3.549	0.946	9.93	9.993	BM
9	6.38	SO4	15.658	3.575	37.49	39.251	MB
Total:			90.036	9.536	100.00	79.243	

21 L0109252-06 MSD

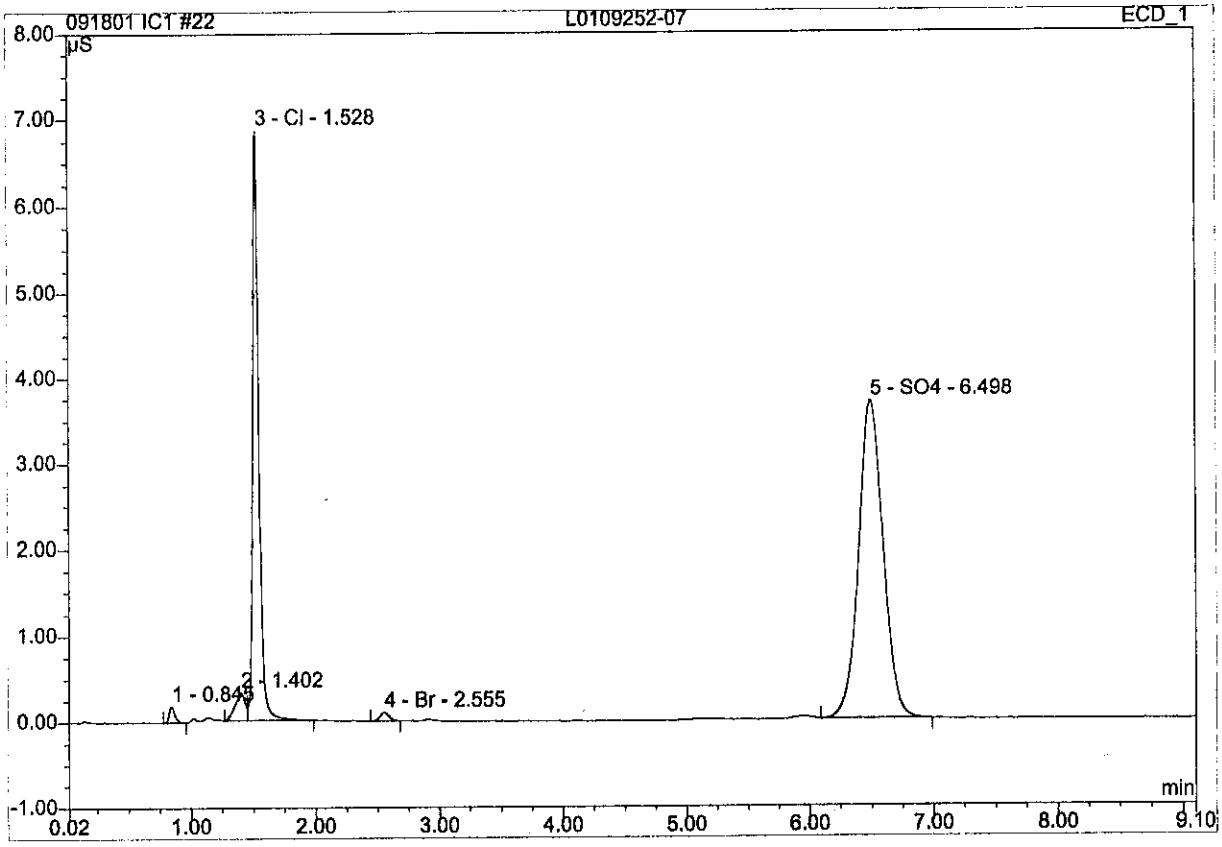
Sample Name:	**L0109252-06 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 17:25**	*Sample Weight:*	**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	Type
1	0.82	n.a.	0.522	0.039	0.40	n.a.	BM
2	0.99	F	20.335	1.238	12.94	6.619	M
3	1.35	n.a.	0.262	0.025	0.26	n.a.	M
4	1.49	Cl	17.095	1.009	10.55	8.368	M
5	1.76	NO2	16.047	1.070	11.19	4.015	MB
6	2.51	Br	3.768	0.313	3.27	6.598	BM
7	2.82	NO3	13.287	1.318	13.78	4.314	MB
8	4.96	PO4	3.589	0.955	9.98	10.078	BM
9	6.38	SO4	15.747	3.599	37.62	39.516	MB
Total:			90.653	9.566	100.00	79.508	

22 L0109252-07

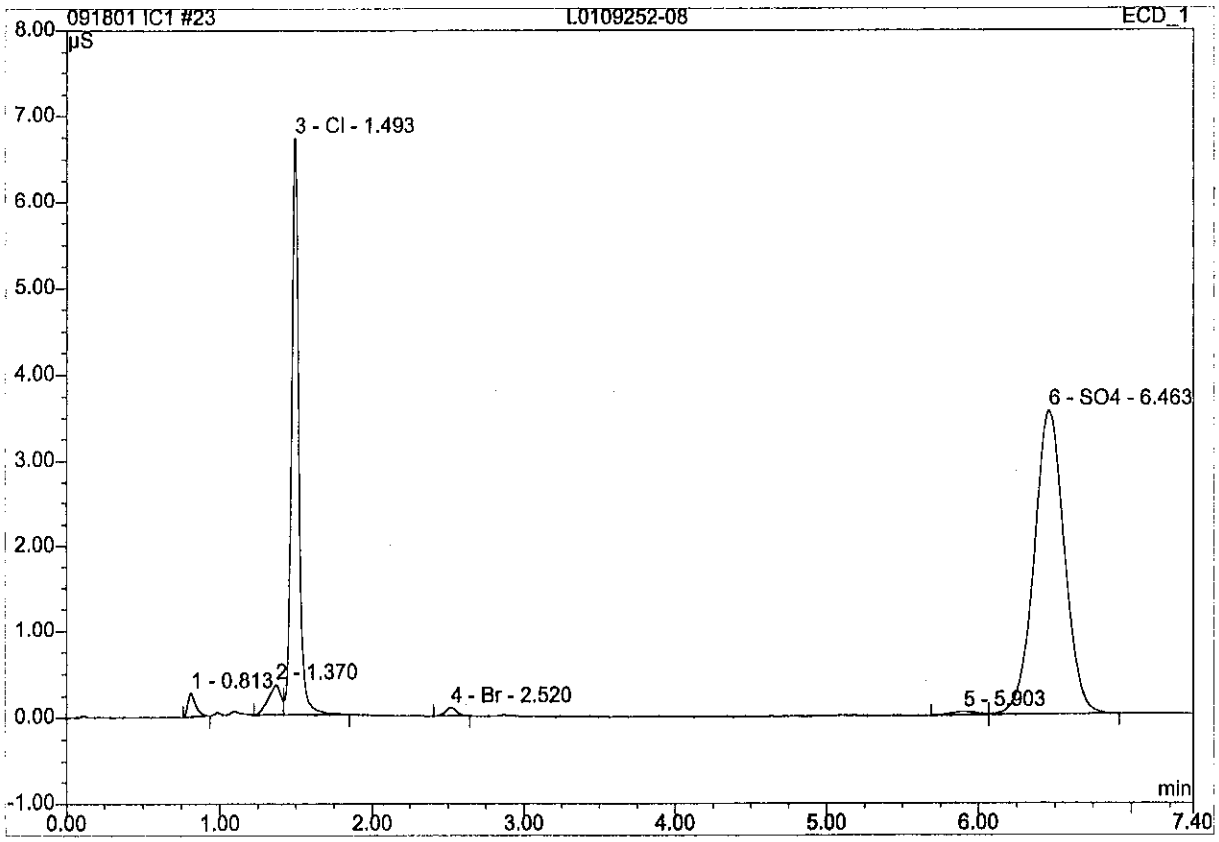
Sample Name:	**L0109252-07**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 17:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.08**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.84	n.a.	0.191	0.010	0.79	n.a.	BMB
2	1.40	n.a.	0.325	0.031	2.39	n.a.	BM
3	1.53	Cl	6.854	0.385	30.17	3.191	MB
4	2.55	Br	0.100	0.008	0.65	0.176	BMB
5	6.50	SO4	3.689	0.842	65.99	9.241	BMB
Total:			11.159	1.275	100.00	12.608	

23 L0109252-08

Sample Name:	**L0109252-08**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 17:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**7.40**	*Sample Amount:*	**1.0000**

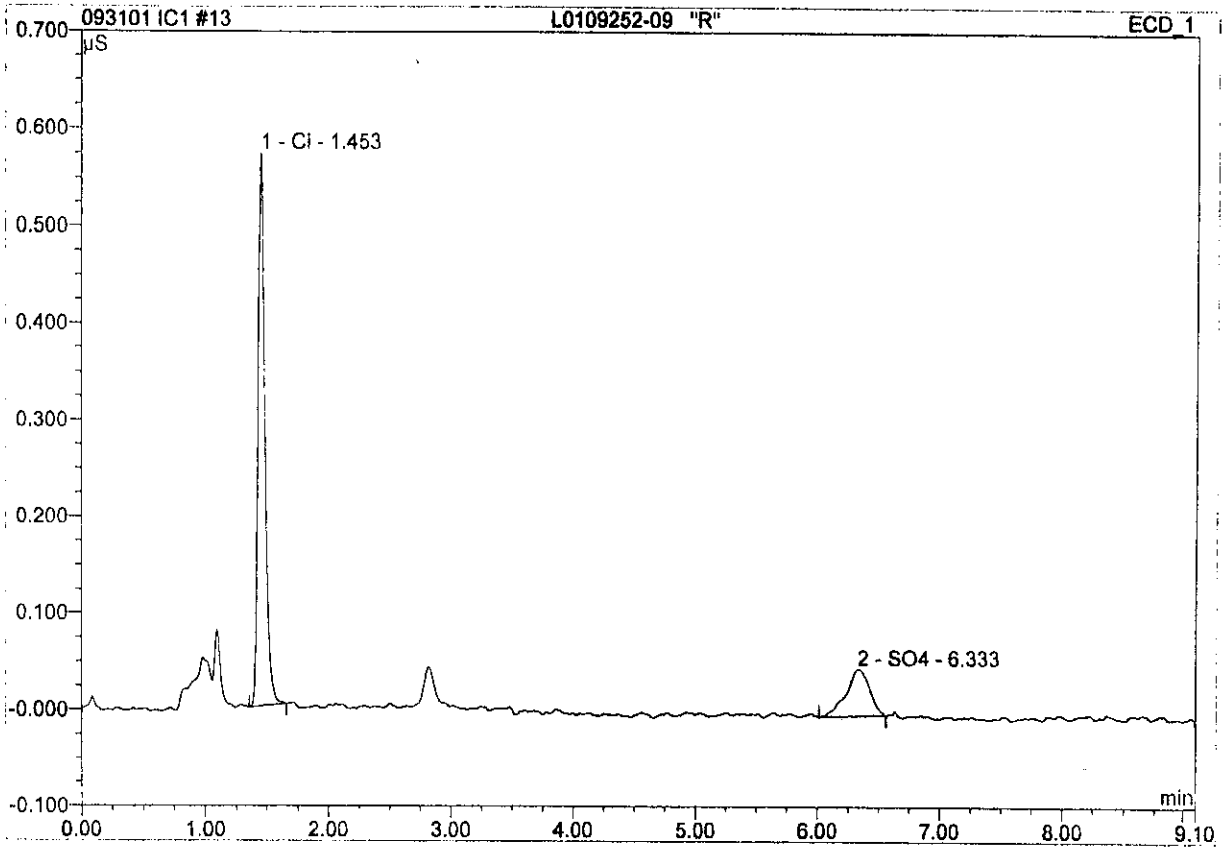


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.81	n.a.	0.272	0.016	1.31	n.a.	BMB
2	1.37	n.a.	0.346	0.033	2.67	n.a.	BM
3	1.49	Cl	6.713	0.372	29.85	3.088	MB
4	2.52	Br	0.096	0.008	0.63	0.166	BMB
5	5.90	n.a.	0.042	0.008	0.66	n.a.	BM
6	6.46	SO4	3.547	0.809	64.87	8.884	MB
Total:			11.017	1.247	100.00	12.138	

13 L0109252-09 "R"

Imported PeakNet Sample

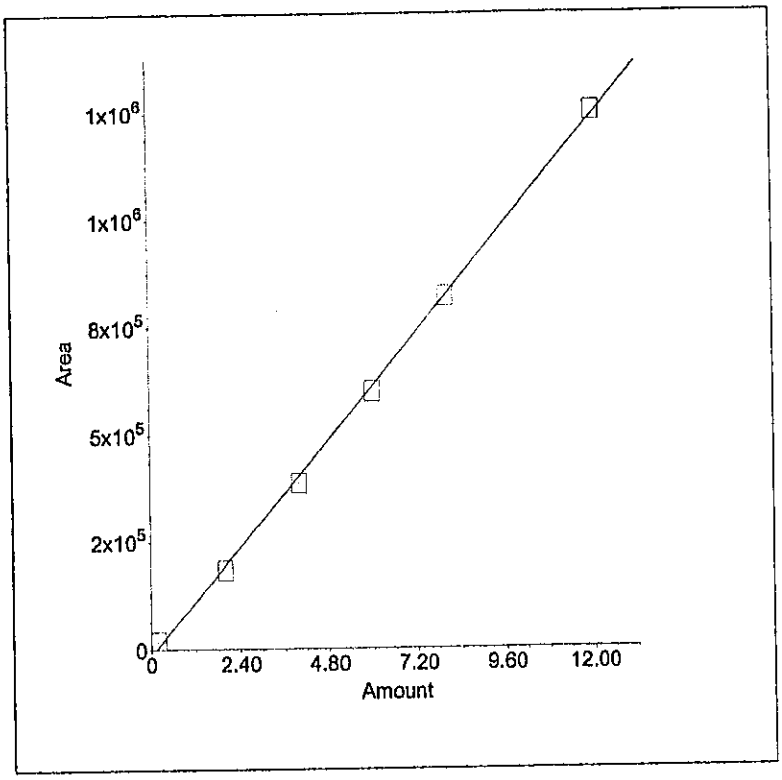
Sample Name:	**L0109252-09 "R"**	*Injection Volume:*	**25.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0100**
Recording Time:	**9/26/2001 21:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



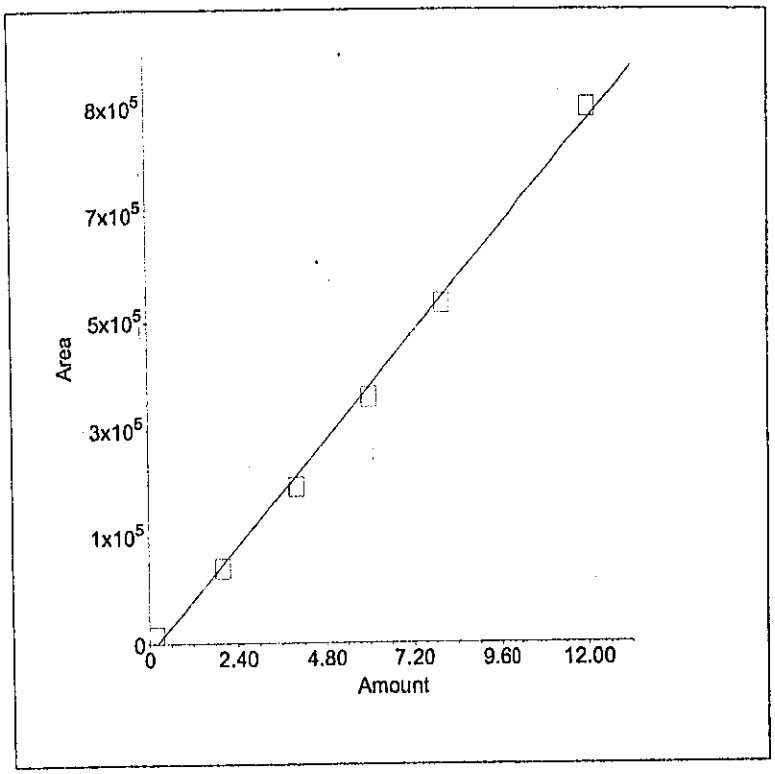
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.45	Cl	0.571	0.038	77.58	0.318	BMB
2	6.33	SO4	0.049	0.011	22.42	0.118	BMB
Total:			0.620	0.049	100.00	0.436	

2.4.5.3 Standards Data

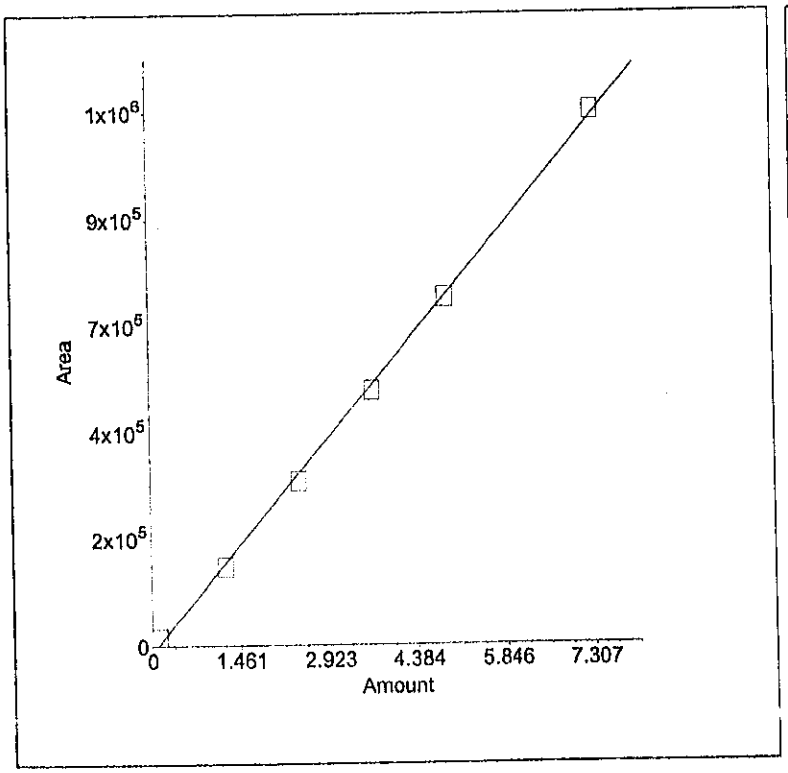
1. Component:F
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999226
Amt=8.892e-006*Resp+0.1449



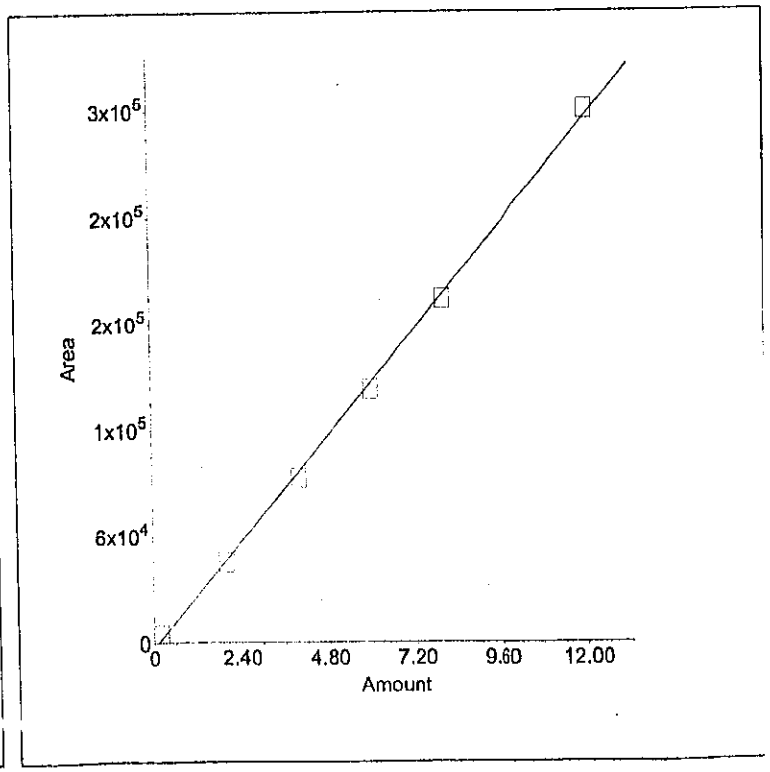
2. Component:Cl
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997491
Amt=1.353e-005*Resp+0.2299



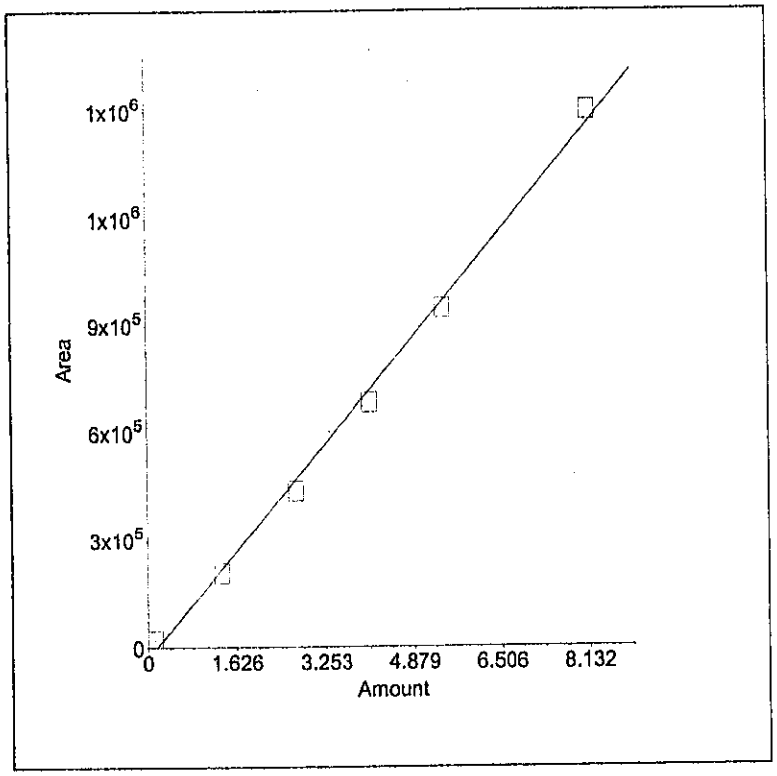
3. Component:NO2-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999057
Amt=6.207e-006*Resp+0.09556



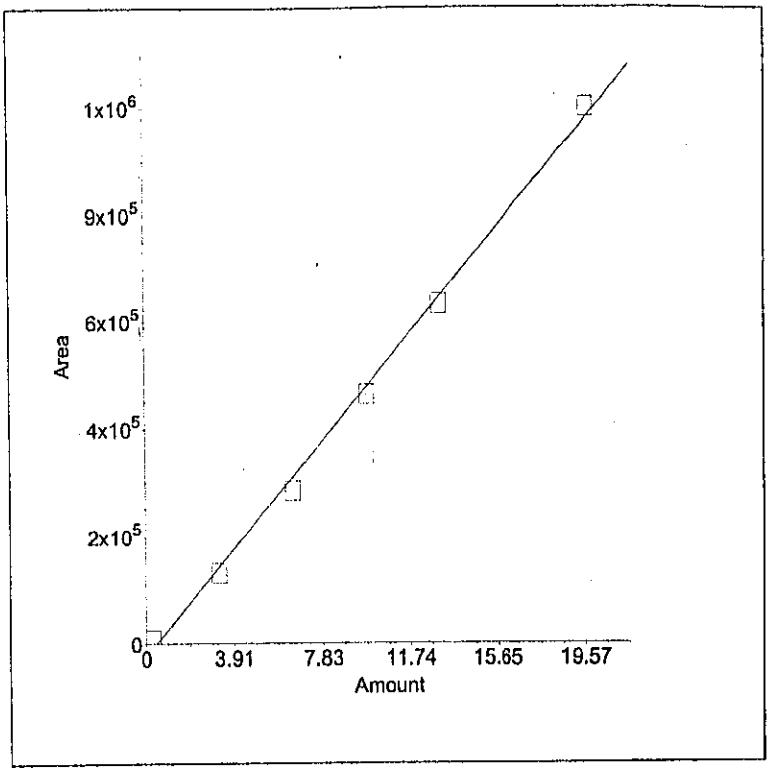
4. Component:Br
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999086
Amt=3.471e-005*Resp+0.1282



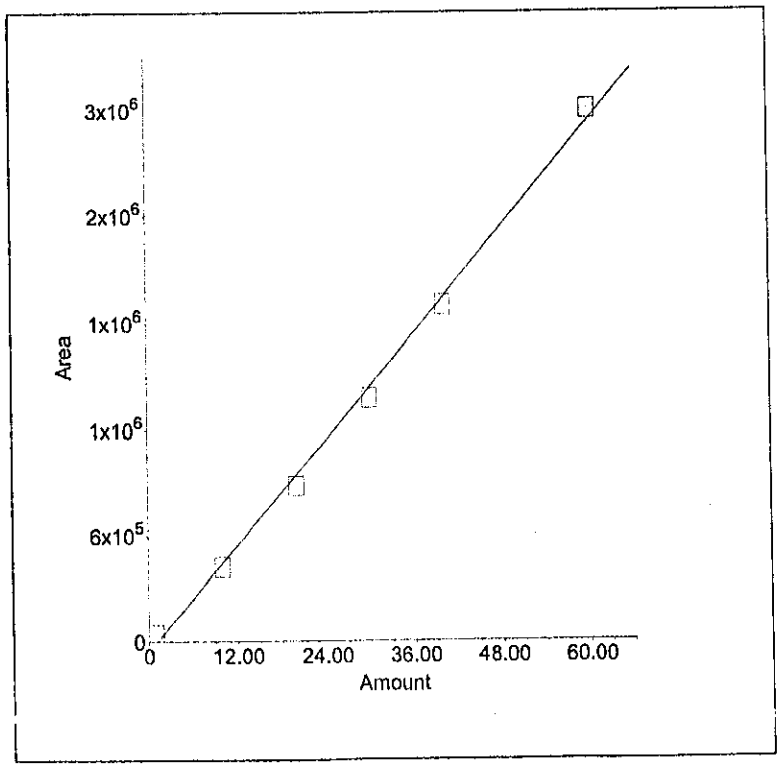
5. Component:NO3-N
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.996881
Amt=5.383e-006*Resp+0.1709



6. Component:PO4-P
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997020
Amt=1.733e-005*Resp+0.4699



7. Component:SO4
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.997310
Amt=1.827e-005*Resp+1.173



Sample Analysis Report

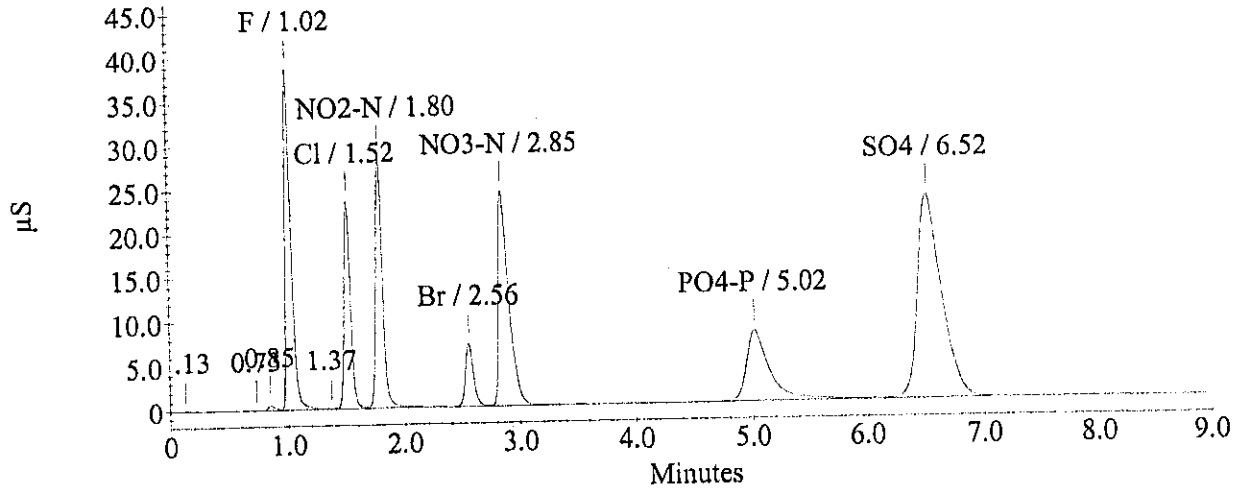
Sample Name : ANION LEVEL #6 09/14/01
Data File Name : C:\PEAKNET\DATA\091401\IC1_005.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 9:13
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	983
2		0.73	0.0000	793
3		0.85	0.0000	23217
4	F	1.02	12.0812	1346616
5		1.37	0.0000	3534
6	Cl	1.52	12.2141	889963
7	NO2-N	1.80	7.3988	1175590
8	Br	2.56	12.1557	347018
9	NO3-N	2.85	8.3244	1516824
10	PO4-P	5.02	19.8775	1127276
11	SO4	6.52	61.2554	3296386

ANION LEVEL #6 09/14/01



: PeakNet 5.1

Current Date : 9/14/200
Current Time : 10:46:3

Sample Analysis Report

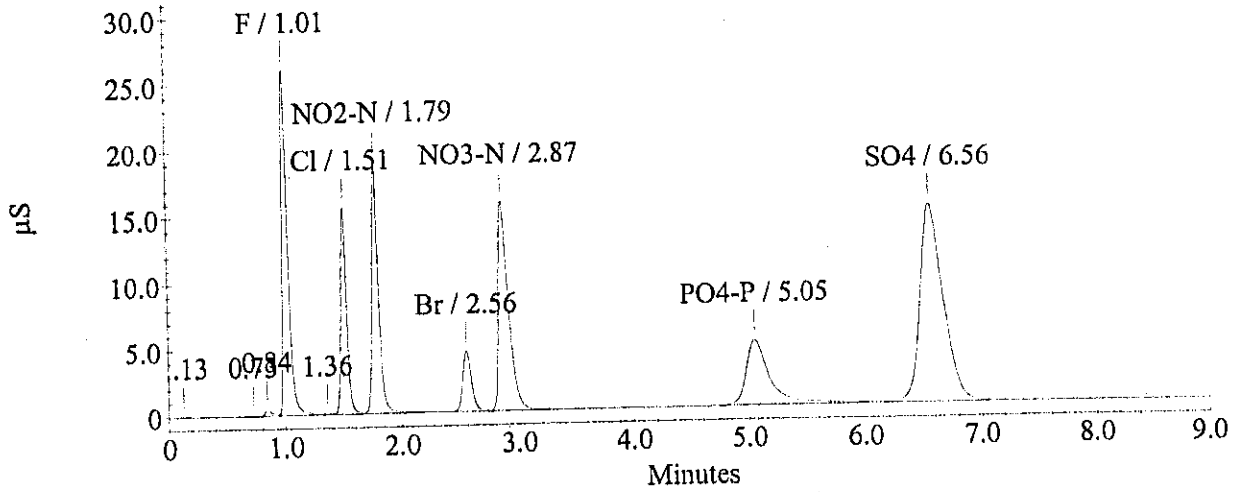
Sample Name : ANION LEVEL #5
Data File Name : C:\PEAKNET\DATA\091401\IC1_006.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 9:24
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	1121
2		0.73	0.0000	801
3		0.84	0.0000	18970
4	F	1.01	7.9708	881593
5		1.36	0.0000	3023
6	Cl	1.51	7.8316	563822
7	NO2-N	1.79	4.8542	766202
8	Br	2.56	7.8959	223958
9	NO3-N	2.87	5.3152	956253
10	PO4-P	5.05	12.7982	713256
11	SO4	6.56	39.2196	2084504

ANION LEVEL #5



Sample Analysis Report

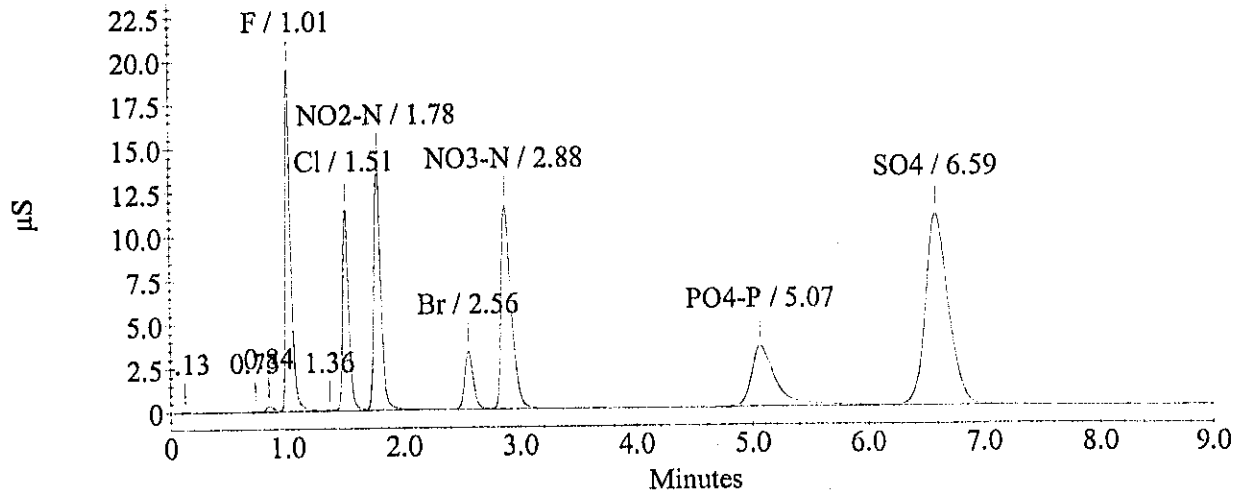
Sample Name : ANION LEVEL #4
Data File Name : C:\PEAKNET\DATA\091401\IC1_007.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 9:36
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	832
2		0.73	0.0000	1001
3		0.84	0.0000	14305
4	F	1.01	5.8967	647200
5		1.36	0.0000	2223
6	Cl	1.51	5.7803	410438
7	NO2-N	1.78	3.5838	561935
8	Br	2.56	5.8607	165163
9	NO3-N	2.88	3.8885	690298
10	PO4-P	5.07	9.5131	521722
11	SO4	6.59	28.8174	1513639

ANION LEVEL #4



Sample Analysis Report

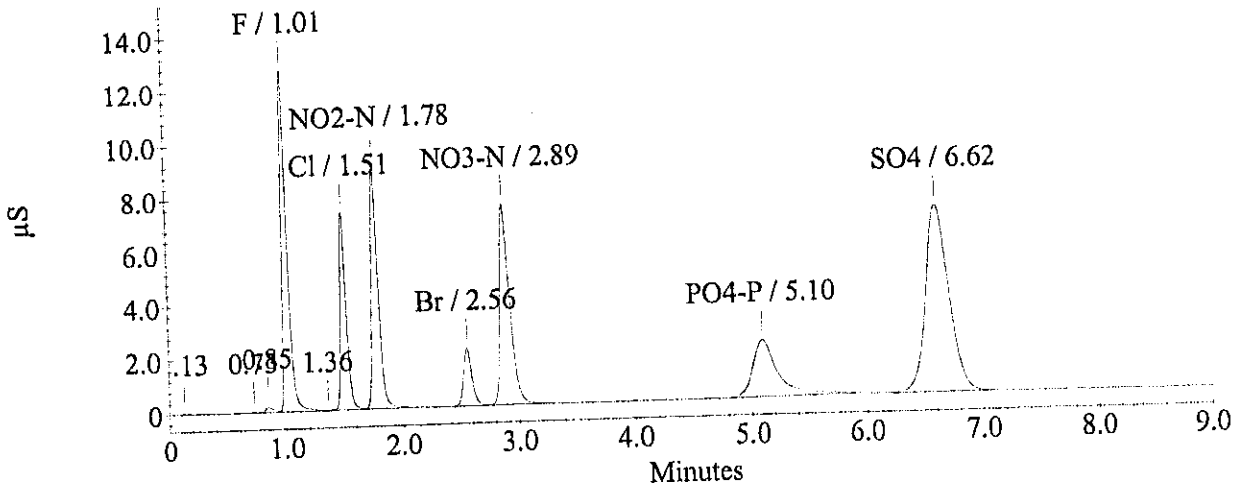
Sample Name : ANION LEVEL #3
Data File Name : C:\PEAKNET\DATA\091401\IC1_008.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 9:47
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	1095
2		0.73	0.0000	1056
3		0.85	0.0000	9170
4	F	1.01	3.8437	416413
5		1.36	0.0000	1255
6	Cl	1.51	3.7586	260950
7	NO2-N	1.78	2.3293	360177
8	Br	2.56	3.8614	107567
9	NO3-N	2.89	2.5416	440077
10	PO4-P	5.10	6.0421	320402
11	SO4	6.62	18.7755	963931

ANION LEVEL #3



Current Date : 9/14/200
Current Time : 10:46:4

: PeakNet 5.1

Sample Analysis Report

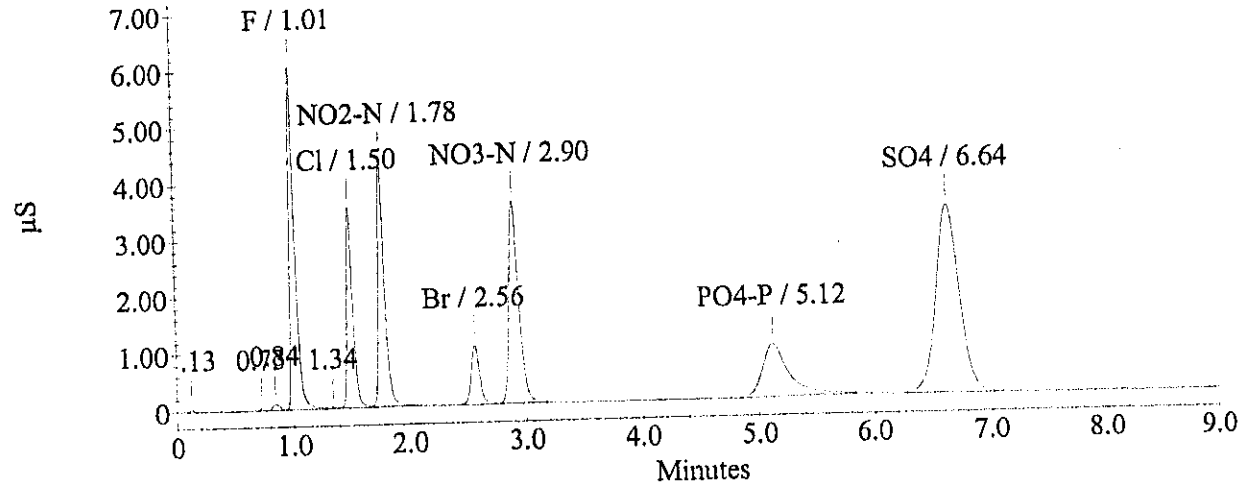
Sample Name : ANION LEVEL #2
Data File Name : C:\PEAKNET\DATA\091401\IC1_009.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 9:59
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	1023
2		0.73	0.0000	752
3		0.84	0.0000	4416
4	F	1.01	1.8970	197340
5		1.34	0.0000	1080
6	Cl	1.50	1.9159	124724
7	NO2-N	1.78	1.1601	171783
8	Br	2.56	1.9692	52997
9	NO3-N	2.90	1.2956	208886
10	PO4-P	5.12	3.0584	148945
11	SO4	6.64	9.5938	461139

ANION LEVEL #2



Sample Analysis Report

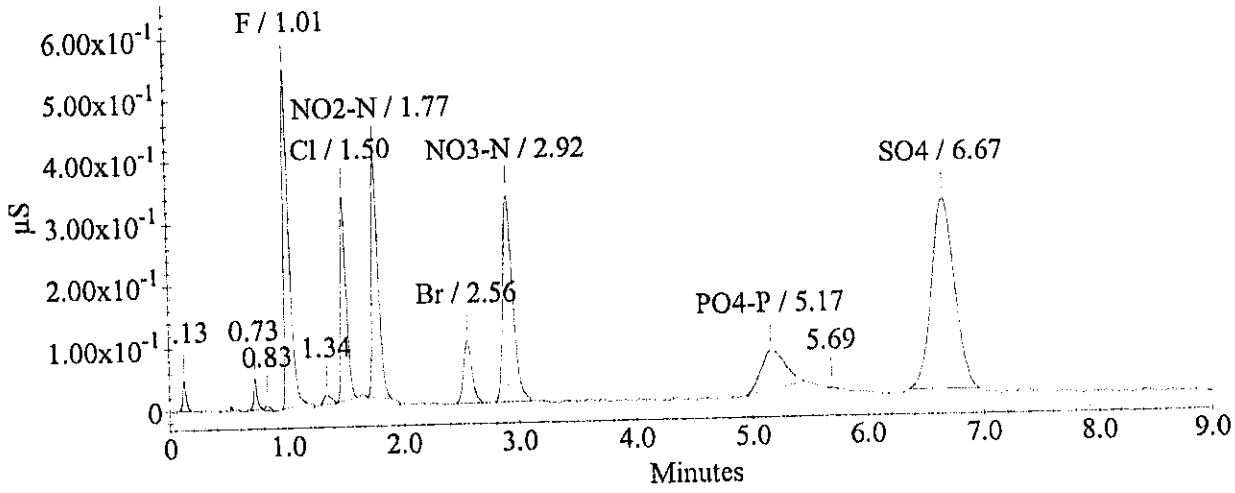
Sample Name : ANION LEVEL #1
Data File Name : C:\PEAKNET\DATA\091401\IC1_010.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 10:10
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	926
2		0.73	0.0000	1081
3		0.83	0.0000	227
4	F	1.01	0.3049	17993
5		1.34	0.0000	641
6	Cl	1.50	0.3823	11267
7	NO2-N	1.77	0.1907	15329
8	Br	2.56	0.3023	5015
9	NO3-N	2.92	0.2759	19503
10	PO4-P	5.17	0.6284	9148
11		5.69	0.0000	74
12	SO4	6.67	1.9477	42390

ANION LEVEL #1



Sample Analysis Report

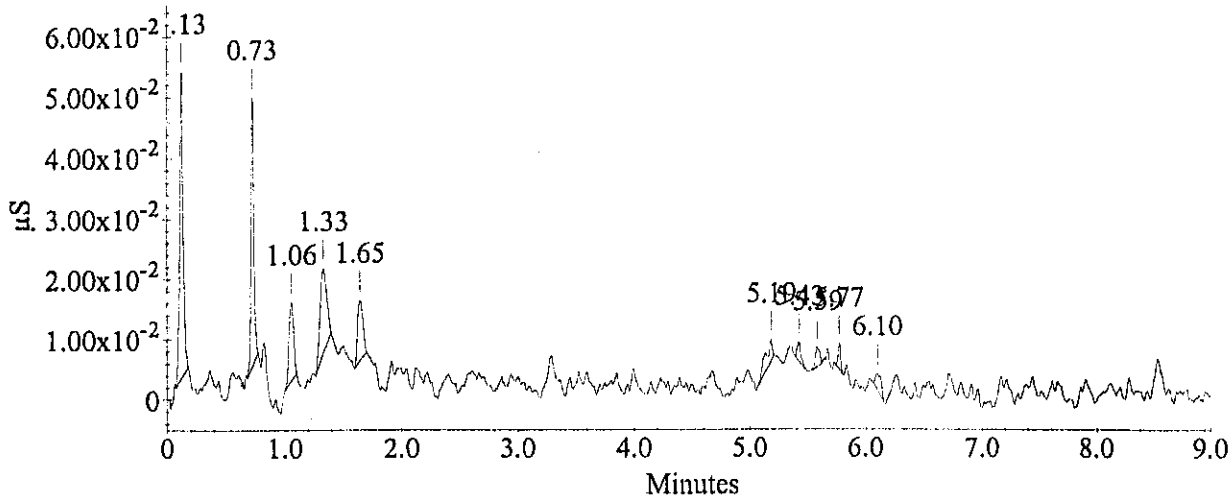
Sample Name : ELUENT BLANK
Data File Name : C:\PEAKNET\DATA\091401\IC1_011.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 10:22
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	949
2		0.73	0.0000	753
3		1.06	0.0000	357
4		1.33	0.0000	544
5		1.65	0.0000	330
6		5.19	0.0000	155
7		5.43	0.0000	75
8		5.59	0.0000	80
9		5.77	0.0000	67
10		6.10	0.0000	111

ELUENT BLANK



ICAL REPORT

INSTRUMENT : IC1
FILE NAME: IC1_012
DATE RUN: 14-Sep-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.88		-1.98	PASS
Cl	6.00		5.73		-4.58	PASS
NO2-N	3.66		NA		#VALUE!	#VALUE!
Br	6.00		5.80		-3.41	PASS
NO3-N	4.06		NA		#VALUE!	#VALUE!
PO4-P	9.70		9.43		-2.76	PASS
SO4	30.00		28.85		-3.84	PASS

Sample Analysis Report

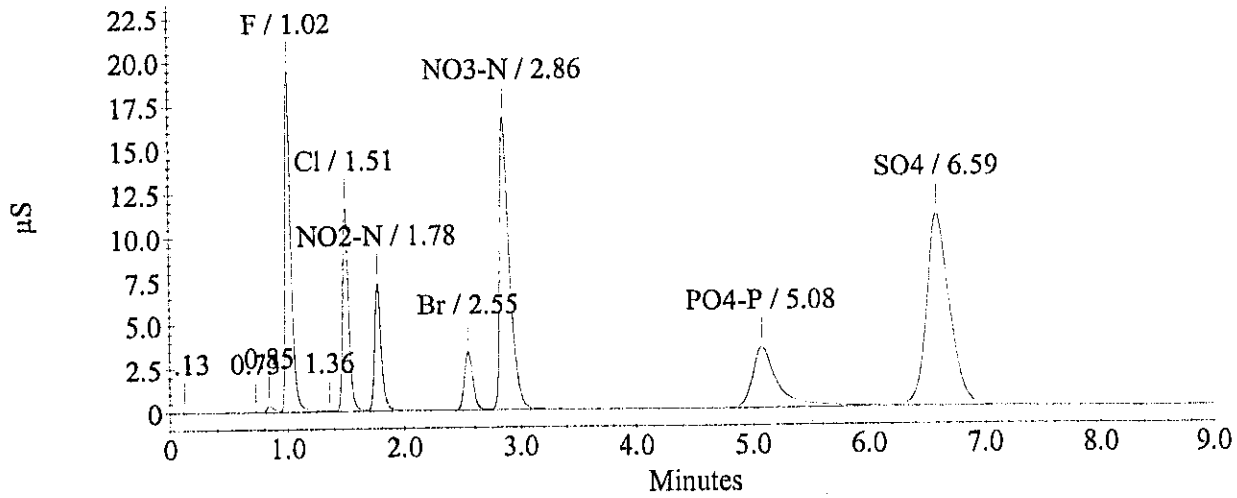
Sample Name : ANION ALT SV53-30 09/14/01
Data File Name : C:\PEAKNET\DATA\091401\IC1_012.DXD

Method File Name : C:\PeakNet\method\9056.met
Date Time Collected : 9/14/2001 10:33
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	722
2		0.73	0.0000	863
3		0.85	0.0000	16138
4	F	1.02	5.8814	645124
5		1.36	0.0000	1875
6	Cl	1.51	5.7250	406179
7	NO2-N	1.78	1.8863	288489
8	Br	2.55	5.7952	163247
9	NO3-N	2.86	5.5670	1002518
10	PO4-P	5.08	9.4327	517301
11	SO4	6.59	28.8492	1514695

ANION ALT SV53-30 09/14/01



INSTRUMENT : IC1
FILE NAME: IC1_013
DATE RUN: 14-Sep-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		NA		#VALUE!	#VALUE!
Cl	6.00		NA		#VALUE!	#VALUE!
NO2-N	3.66		3.53		-3.44	PASS
Br	6.00		NA		#VALUE!	#VALUE!
NO3-N	4.06		3.87		-4.77	PASS
PO4-P	9.70		NA		#VALUE!	#VALUE!
SO4	30.00		NA		#VALUE!	#VALUE!

Sample Analysis Report

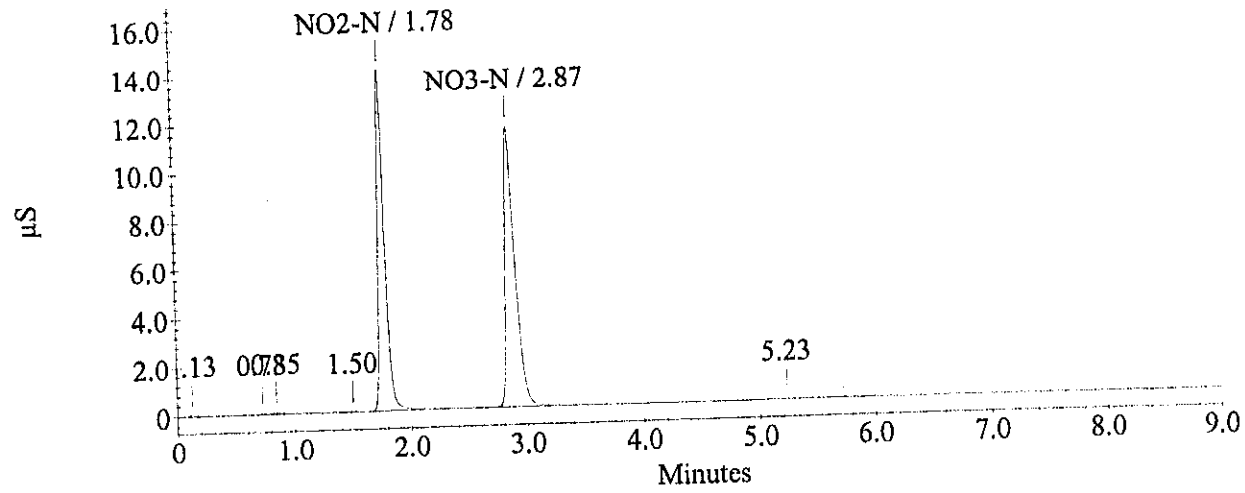
Sample Name : ANION ALT SOS55-32 09/14/01
Data File Name : C:\PEAKNET\DATA\091401\IC1_013.DXD

Method File Name : c:\peaknet\method\9056.met
Date Time Collected : 9/14/2001 10:45
System Operator : GSG

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (mg/L)	Peak Area
1		0.13	0.0000	1090
2		0.73	0.0000	807
3		0.85	0.0000	3331
4		1.50	0.0000	865
5	NO2-N	1.78	3.5341	553961
6	NO3-N	2.87	3.8662	686536
7		5.23	0.0000	268

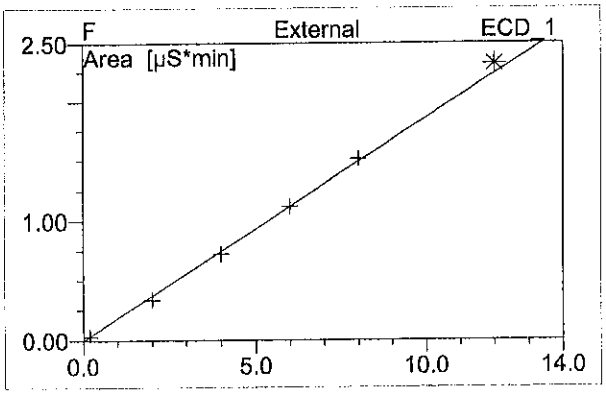
ANION ALT SOS55-32 09/14/01

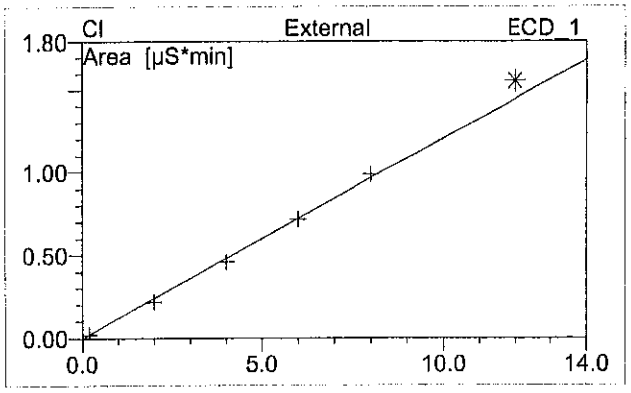


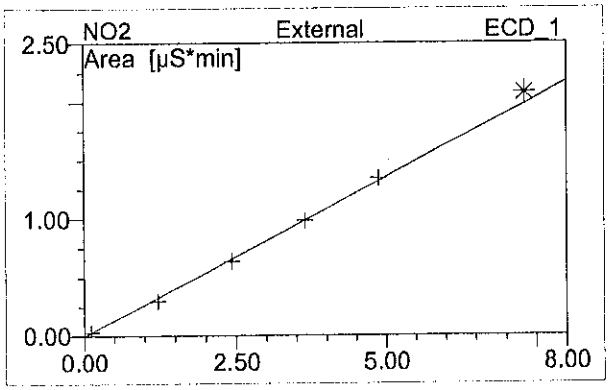
6 Std6

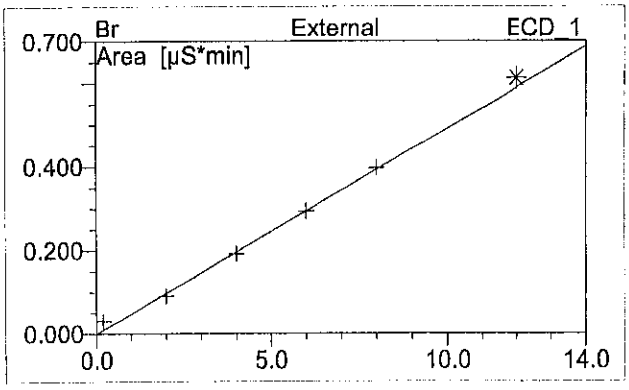
Imported PeakNet Sample

Sample Name:	**Std6**	*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:	**9/26/2001 18:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







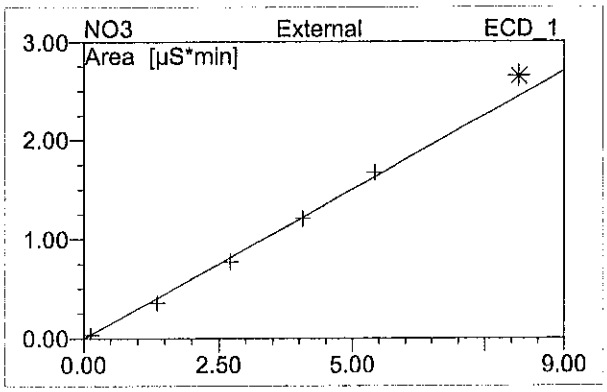


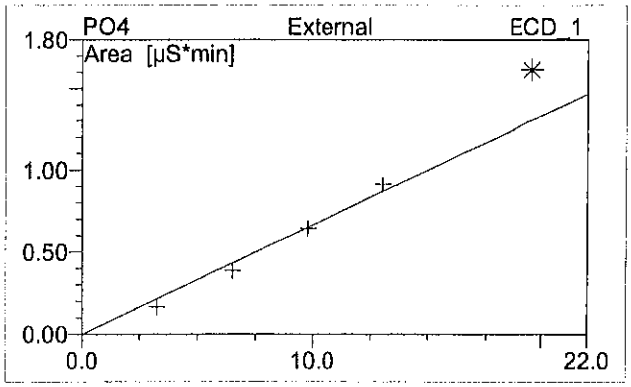
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.84	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.00	F	Lin	5	99.9555	0.0000	0.1865	0.0000
3	1.48	Cl	Lin	5	99.9254	0.0000	0.1204	0.0000
4	1.74	NO2	Lin	5	99.9571	0.0000	0.2713	0.0000
5	2.48	Br	Lin	5	99.7637	0.0000	0.0491	0.0000
6	2.76	NO3	Lin	5	99.9014	0.0000	0.3005	0.0000
7	4.85	PO4	Lin	4	99.9098	0.0000	0.0668	0.0000
8	6.20	SO4	Lin	5	99.9508	0.0000	0.0936	0.0000
Average:					99.9091	0.0000	0.1555	0.0000

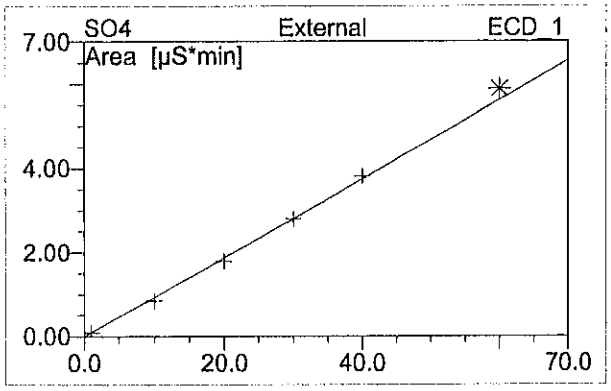
6 Std6

Imported PeakNet Sample

Sample Name:	**Std6**	*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:	**9/26/2001 18:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





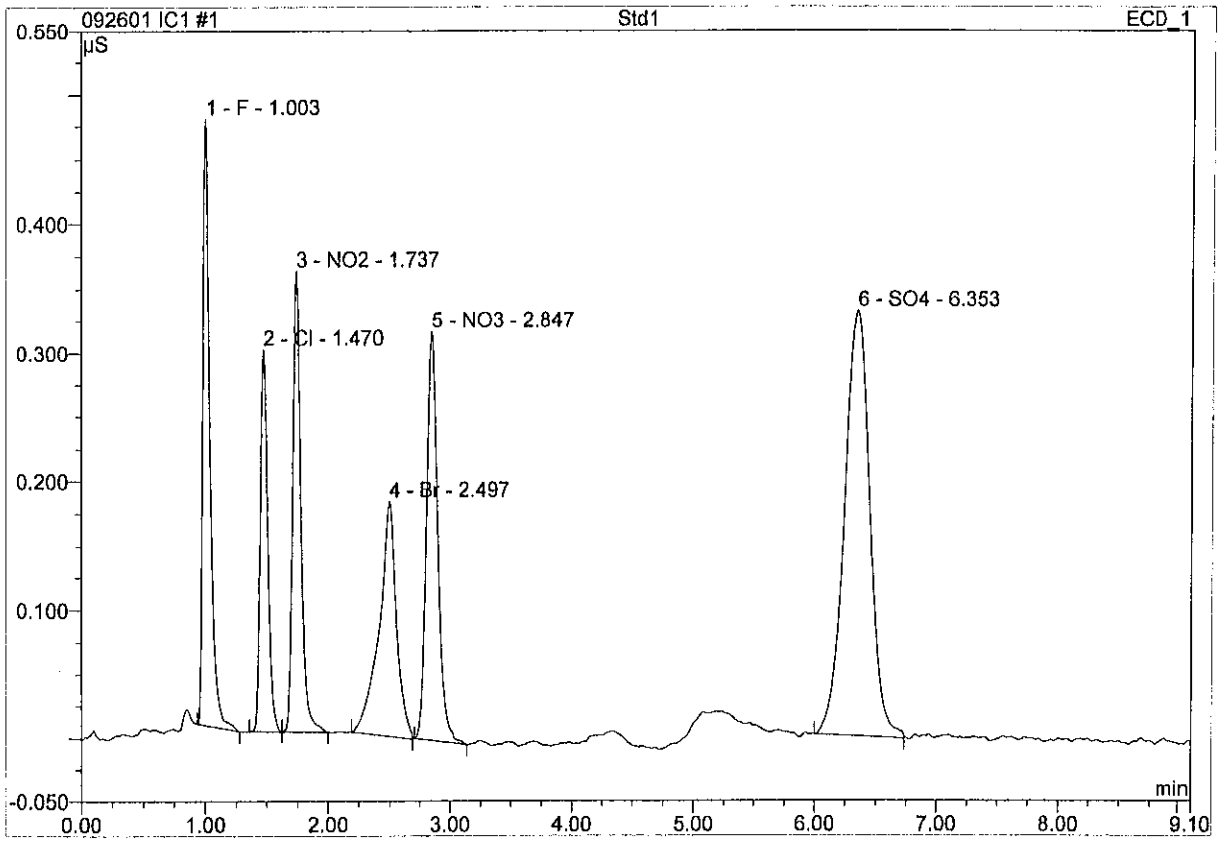


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.84	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.00	F	Lin	5	99.9555	0.0000	0.1865	0.0000
3	1.48	Cl	Lin	5	99.9254	0.0000	0.1204	0.0000
4	1.74	NO2	Lin	5	99.9571	0.0000	0.2713	0.0000
5	2.48	Br	Lin	5	99.7637	0.0000	0.0491	0.0000
6	2.76	NO3	Lin	5	99.9014	0.0000	0.3005	0.0000
7	4.85	PO4	Lin	4	99.9098	0.0000	0.0668	0.0000
8	6.20	SO4	Lin	5	99.9508	0.0000	0.0936	0.0000
Average:					99.9091	0.0000	0.1555	0.0000

1 Std1

Imported PeakNet Sample

Sample Name:	**Std1**	*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:	**9/26/2001 17:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

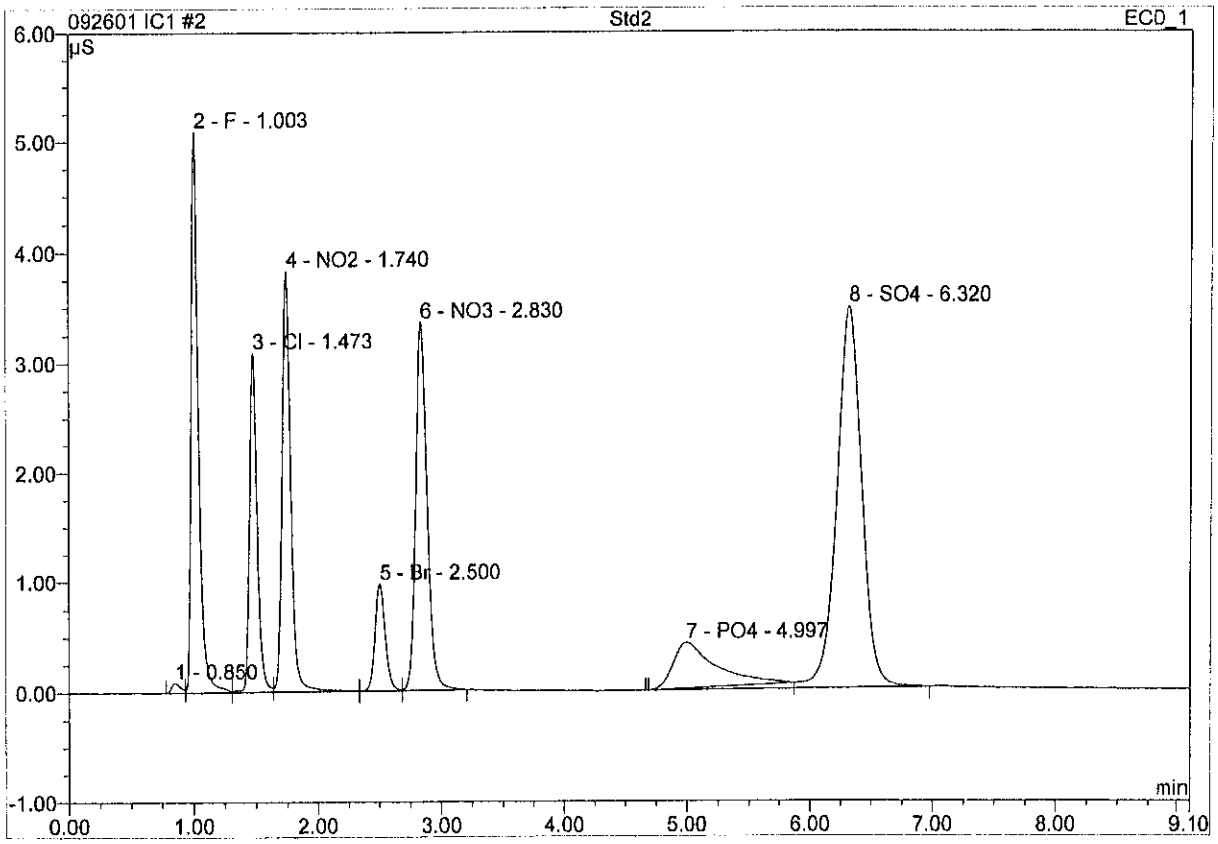


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.00	F	0.471	0.032	14.24	0.172	BMB
2	1.47	Cl	0.297	0.021	9.19	0.172	BM
3	1.74	NO2	0.358	0.028	12.57	0.104	MB
4	2.50	Br	0.182	0.030	13.49	0.619	BMB
5	2.85	NO3	0.318	0.035	15.36	0.115	BMB
6	6.35	SO4	0.332	0.079	35.15	0.846	BMB
Total:			1.959	0.225	100.00	2.028	

2 Std2

Imported PeakNet Sample

Sample Name:	**Std2**	*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:	**9/26/2001 17:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

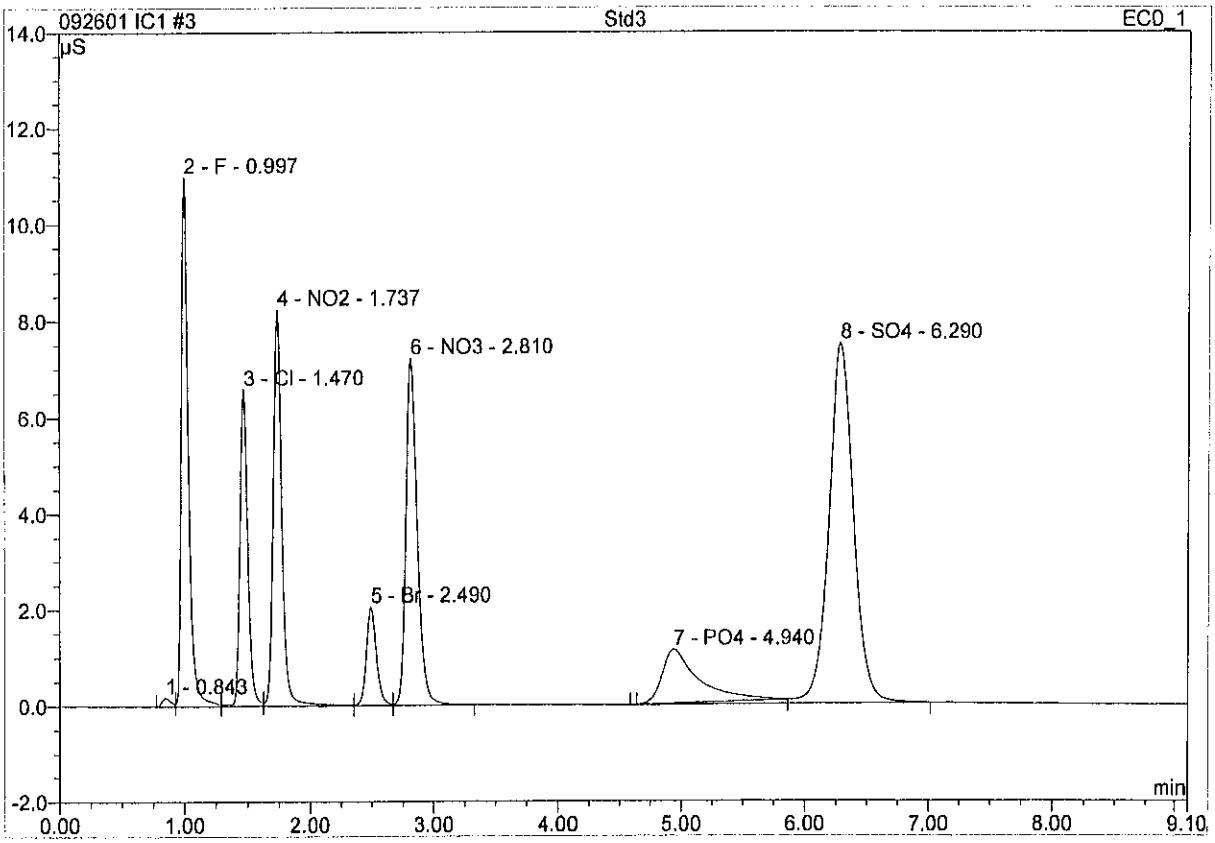


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.85	n.a.	0.085	0.007	0.31	n.a.	BM
2	1.00	F	5.089	0.337	14.46	1.806	M
3	1.47	Cl	3.086	0.217	9.31	1.801	M
4	1.74	NO2	3.822	0.301	12.91	1.108	M
5	2.50	Br	0.967	0.091	3.91	1.853	M
6	2.83	NO3	3.351	0.358	15.39	1.192	MB
7	5.00	PO4	0.415	0.165	7.10	2.476	Ru
8	6.32	SO4	3.474	0.853	36.62	9.111	BMB
Total:			20.288	2.329	100.00	19.346	

3 Std3

Imported PeakNet Sample

Sample Name:	**Std3**	*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:	**9/26/2001 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

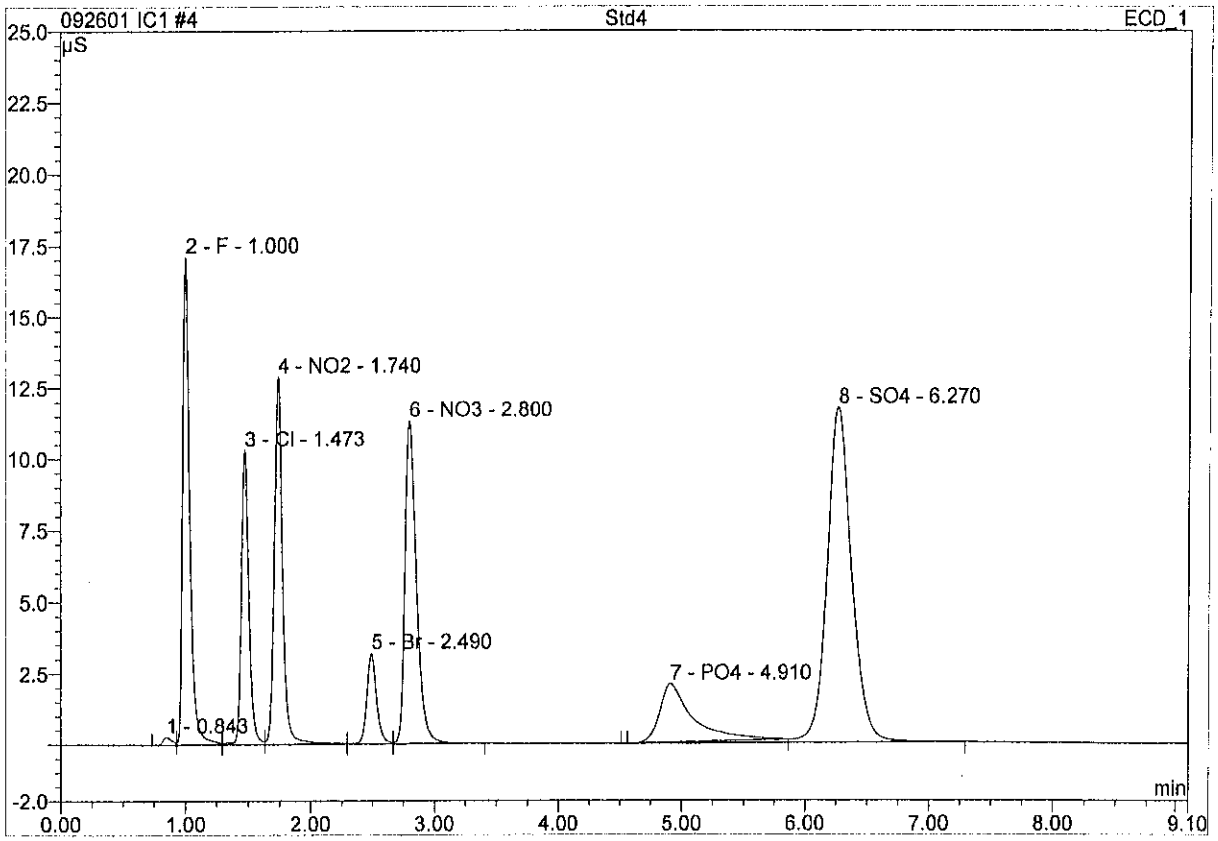


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.84	n.a.	0.173	0.015	0.30	n.a.	BM
2	1.00	F	10.982	0.720	14.46	3.863	M
3	1.47	Cl	6.582	0.459	9.21	3.812	M
4	1.74	NO2	8.232	0.640	12.85	2.359	M
5	2.49	Br	2.042	0.192	3.85	3.911	M
6	2.81	NO3	7.207	0.772	15.50	2.569	MB
7	4.94	PO4	1.118	0.388	7.79	5.807	Ru
8	6.29	SO4	7.483	1.795	36.04	19.176	BMB
Total:			43.819	4.981	100.00	41.496	

4 Std4

Imported PeakNet Sample

Sample Name:	**Std4**	*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:	**9/26/2001 18:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

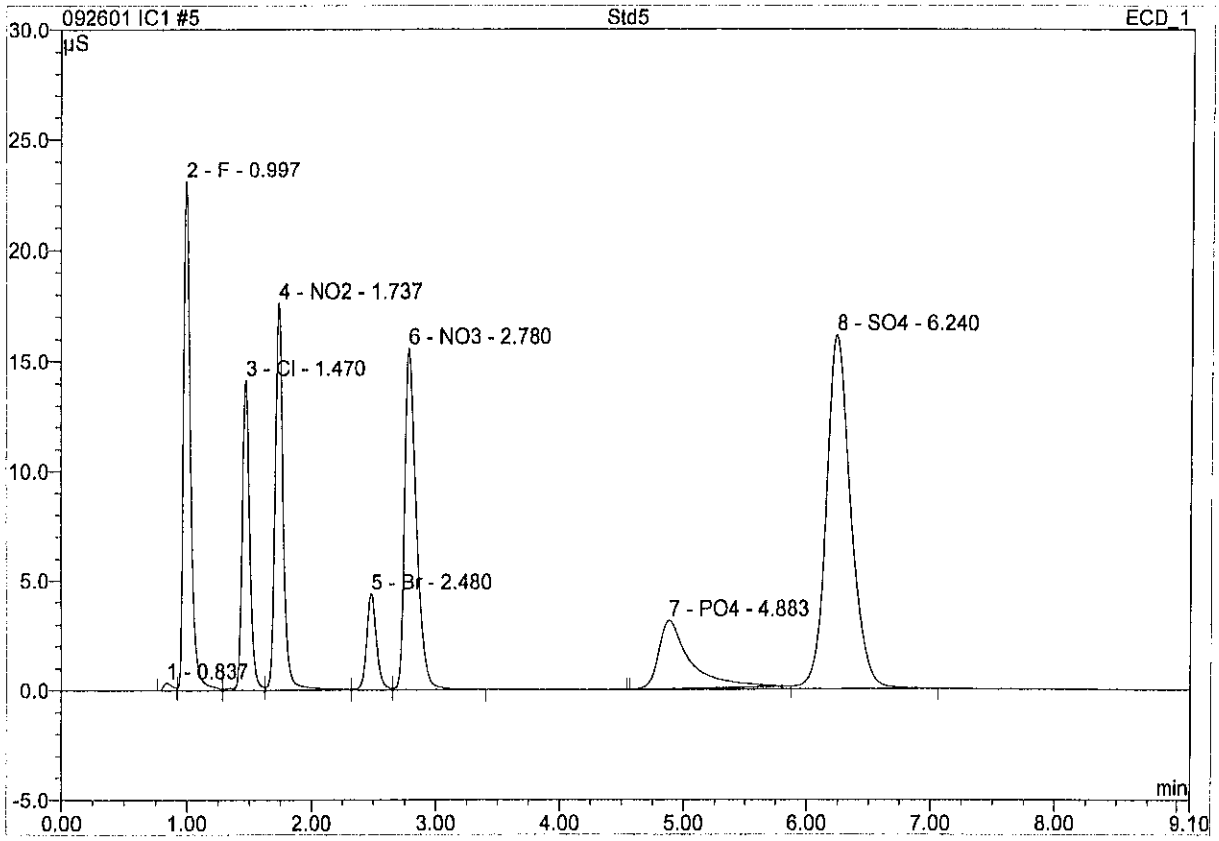


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.84	n.a.	0.259	0.022	0.28	n.a.	BM
2	1.00	F	17.104	1.117	14.33	5.989	M
3	1.47	Cl	10.294	0.717	9.20	5.952	M
4	1.74	NO2	12.881	0.985	12.64	3.631	M
5	2.49	Br	3.179	0.294	3.77	5.987	M
6	2.80	NO3	11.308	1.210	15.53	4.028	MB
7	4.91	PO4	2.064	0.645	8.28	9.664	Ru
8	6.27	SO4	11.738	2.802	35.96	29.939	BMB
Total:			68.827	7.793	100.00	65.190	

5 Std5

Imported PeakNet Sample

Sample Name:	**Std5**	*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:	**9/26/2001 18:34**	*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	Type
1	0.84	n.a.	0.348	0.029	0.27	n.a.	BM
2	1.00	F	23.094	1.515	14.21	8.126	M
3	1.47	Cl	14.140	0.985	9.24	8.181	M
4	1.74	NO2	17.604	1.344	12.60	4.954	M
5	2.48	Br	4.373	0.397	3.72	8.081	M
6	2.78	NO3	15.553	1.671	15.67	5.562	MB
7	4.88	PO4	3.119	0.914	8.57	13.690	Ru
8	6.24	SO4	16.113	3.808	35.71	40.684	BMB
Total:			94.345	10.664	100.00	89.278	

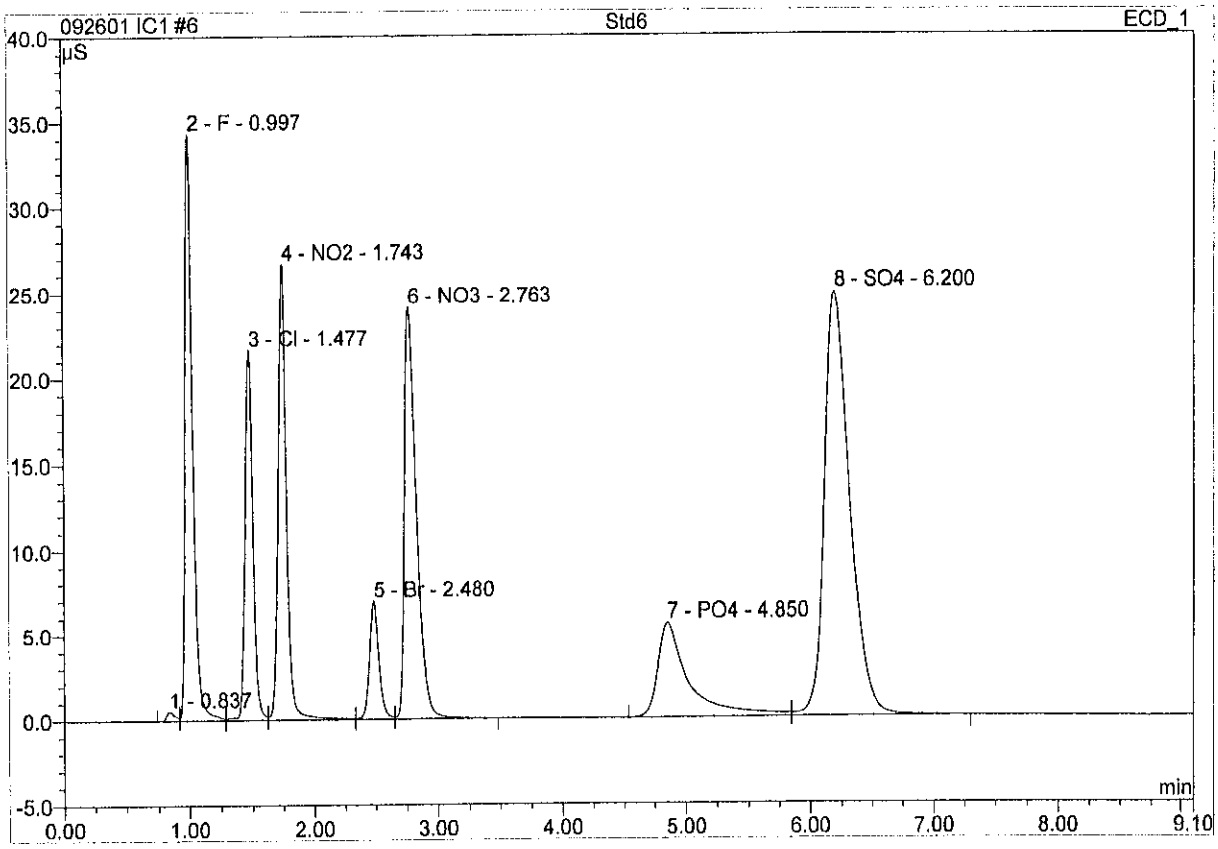
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

6 Std6

Imported PeakNet Sample

Sample Name:	**Std6**	*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:	**9/26/2001 18:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

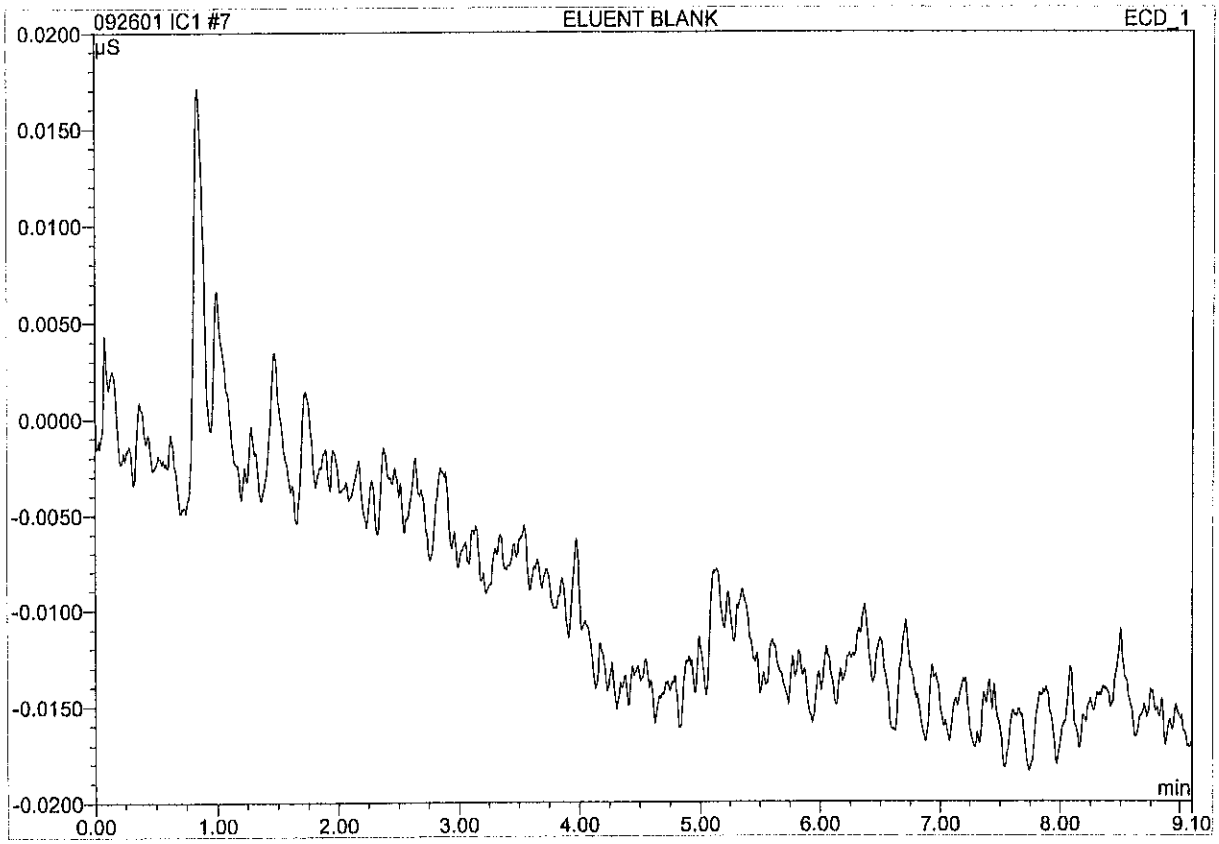


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.84	n.a.	0.536	0.044	0.26	n.a.	BM
2	1.00	F	34.337	2.324	13.86	12.463	M
3	1.48	Cl	21.664	1.556	9.28	12.925	M
4	1.74	NO2	26.658	2.079	12.40	7.664	M
5	2.48	Br	6.911	0.613	3.65	12.482	M
6	2.76	NO3	24.096	2.650	15.81	8.820	MB
7	4.85	PO4	5.584	1.616	9.64	24.192	BM
8	6.20	SO4	24.842	5.883	35.09	62.852	MB
Total:			144.626	16.766	100.00	141.397	

7 ELUENT BLANK

Imported PeakNet Sample

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:	**9/26/2001 18:57**	*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	Type
Total:			0.000	0.000	0.00	0.000	

INSTRUMENT : IC1
FILE NAME: IC1_008
DATE RUN: 26-Sep-01
ANALYST: GSG

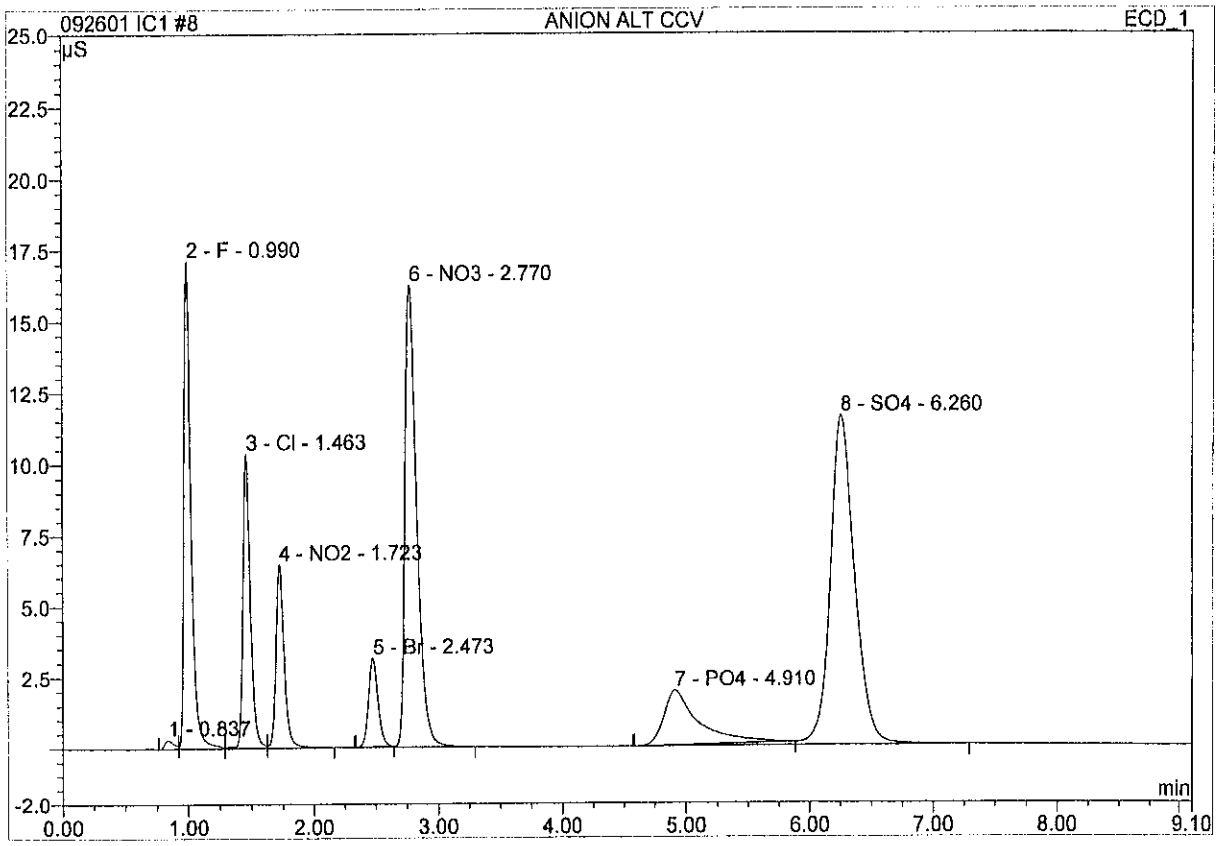
CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.88		-2.07	PASS
Cl	6.00		5.82		-3.02	PASS
NO2-N	3.66		NA		#VALUE!	#VALUE!
Br	6.00		5.56		-7.37	PASS
NO3-N	4.06		NA		#VALUE!	#VALUE!
PO4-P	9.70		9.25		-4.64	PASS
SO4	30.00		29.45		-1.83	PASS

8 ANION ALT CCV

Imported PeakNet Sample

Sample Name:	**ANION ALT CCV**	*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:	**9/26/2001 19:09**	*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	Type
1	0.84	n.a.	0.300	0.026	0.33	n.a.	BM
2	0.99	F	17.099	1.096	14.25	5.876	M
3	1.46	Cl	10.348	0.701	9.11	5.819	M
4	1.72	NO2	6.470	0.490	6.37	1.807	MB
5	2.47	Br	3.109	0.273	3.55	5.558	Ru
6	2.77	NO3	16.224	1.732	22.52	5.765	BMB
7	4.91	PO4	1.929	0.618	8.03	9.250	Ru
8	6.26	SO4	11.583	2.757	35.84	29.452	BMB
Total:			67.063	7.692	100.00	63.527	

INSTRUMENT : IC1
FILE NAME: IC1_009
DATE RUN: 26-Sep-01
ANALYST: GSG

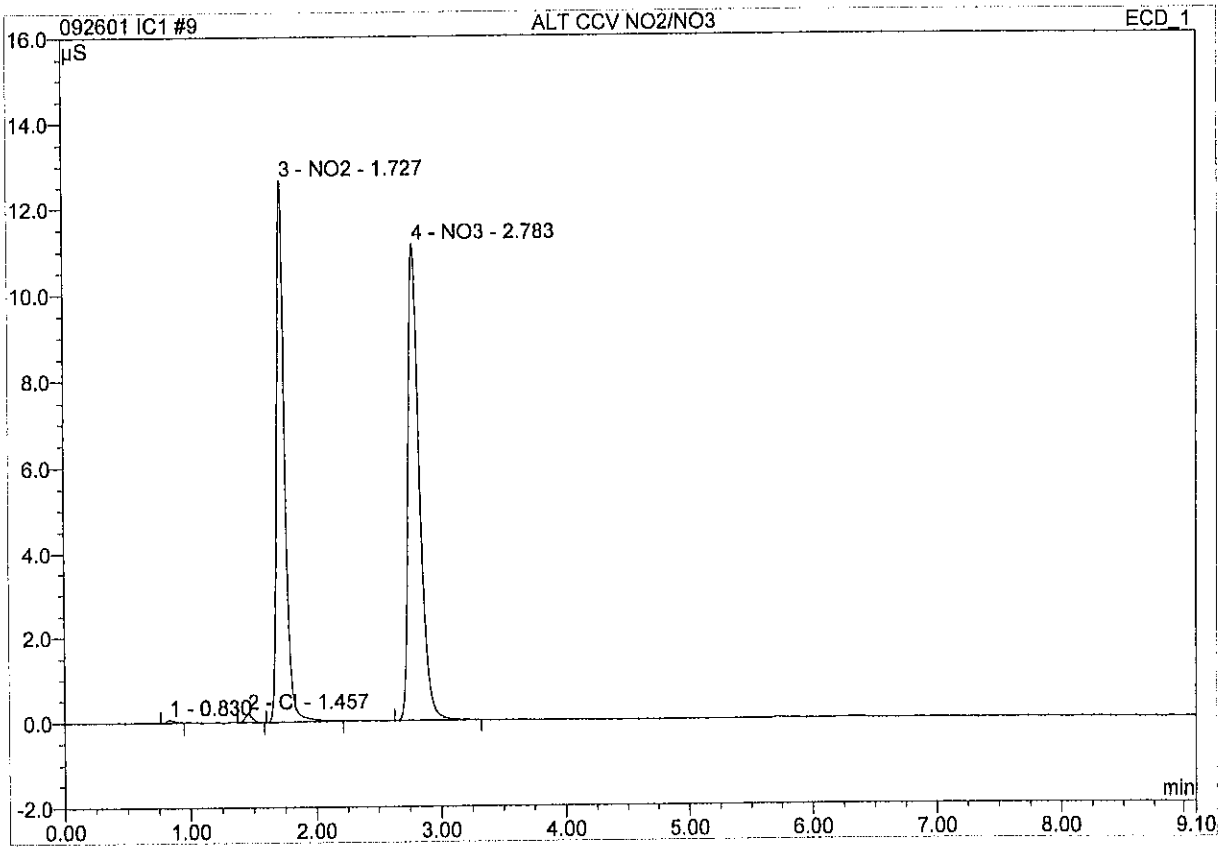
CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		NA		#VALUE!	#VALUE!
Cl	6.00		NA		#VALUE!	#VALUE!
NO2-N	3.66		3.40		-7.08	PASS
Br	6.00		NA		#VALUE!	#VALUE!
NO3-N	4.06		3.88		-4.36	PASS
PO4-P	9.70		NA		#VALUE!	#VALUE!
SO4	30.00		NA		#VALUE!	#VALUE!

9 ALT CCV NO2/NO3

Imported PeakNet Sample

Sample Name:	**ALT CCV NO2/NO3**	*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:	**9/26/2001 19:20**	*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	Type
1	0.83	n.a.	0.066	0.005	0.25	n.a.	BMB
2	1.46	Cl	0.191	0.013	0.60	0.106	BMB
3	1.73	NO2	12.661	0.923	43.78	3.401	BMB
4	2.78	NO3	11.134	1.167	55.37	3.883	BMB
Total:			24.052	2.107	100.00	7.389	

CCV REPORT

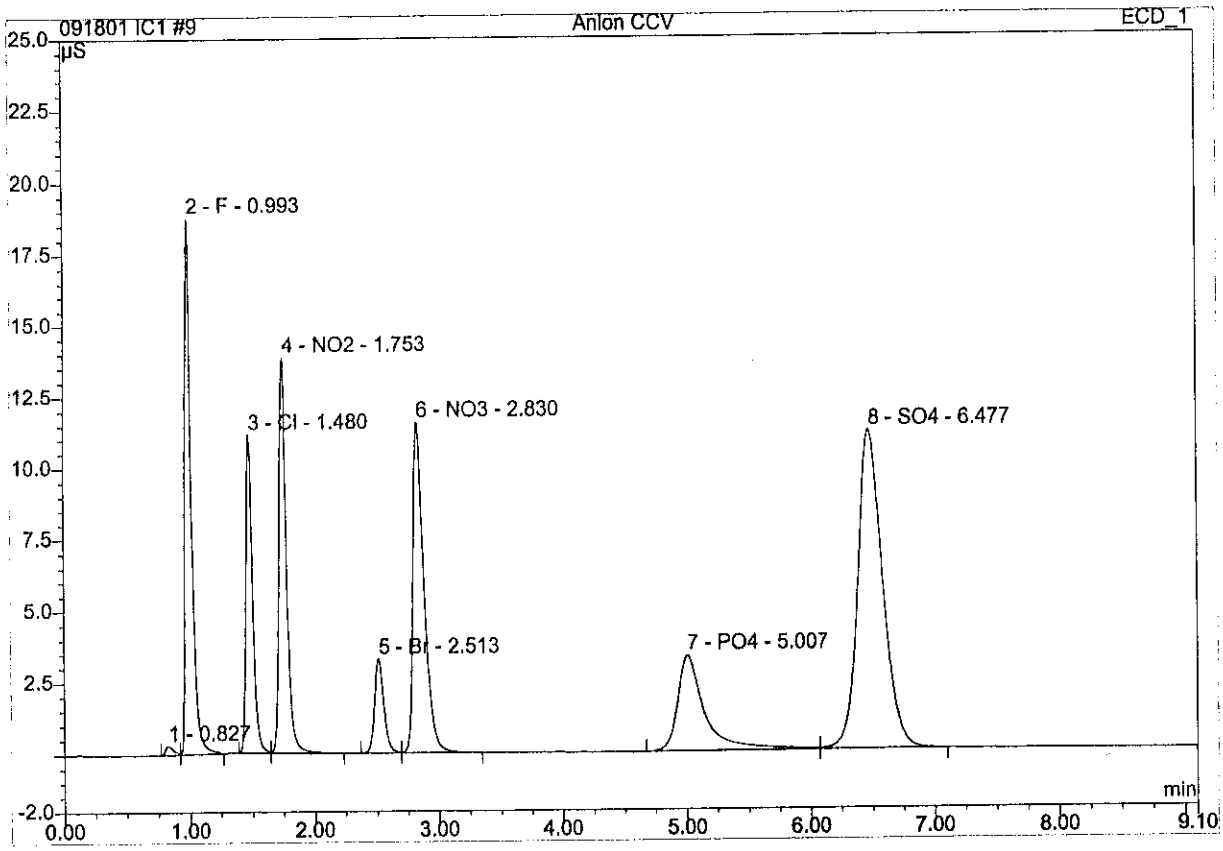
INSTRUMENT : IC1
FILE NAME: IC1_009
DATE RUN: 18-Sep-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.80		-3.33	**PASS**
Cl	6.00		5.65		-5.83	**PASS**
NO2-N	3.65		3.54		-3.10	**PASS**
Br	6.00		5.88		-2.00	**PASS**
NO3-N	4.07		3.84		-5.56	**PASS**
PO4-P	9.78		8.83		-9.75	**PASS**
SO4	30.00		28.3		-5.67	**PASS**

9 Anion CCV

Sample Name:	**Anion CCV**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 12:27**	*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	Type
1	0.83	n.a.	0.305	0.023	0.31	n.a.	BM
2	0.99	F	18.763	1.085	14.28	5.803	MB
3	1.48	Cl	11.129	0.682	8.97	5.653	BM
4	1.75	NO2	13.821	0.944	12.42	3.541	MB
5	2.51	Br	3.269	0.279	3.67	5.879	BM
6	2.83	NO3	11.556	1.172	15.42	3.838	MB
7	5.01	PO4	3.319	0.836	11.00	8.827	BM
8	6.48	SO4	11.130	2.579	33.93	28.311	MB
Total:			73.292	7.600	100.00	61.852	

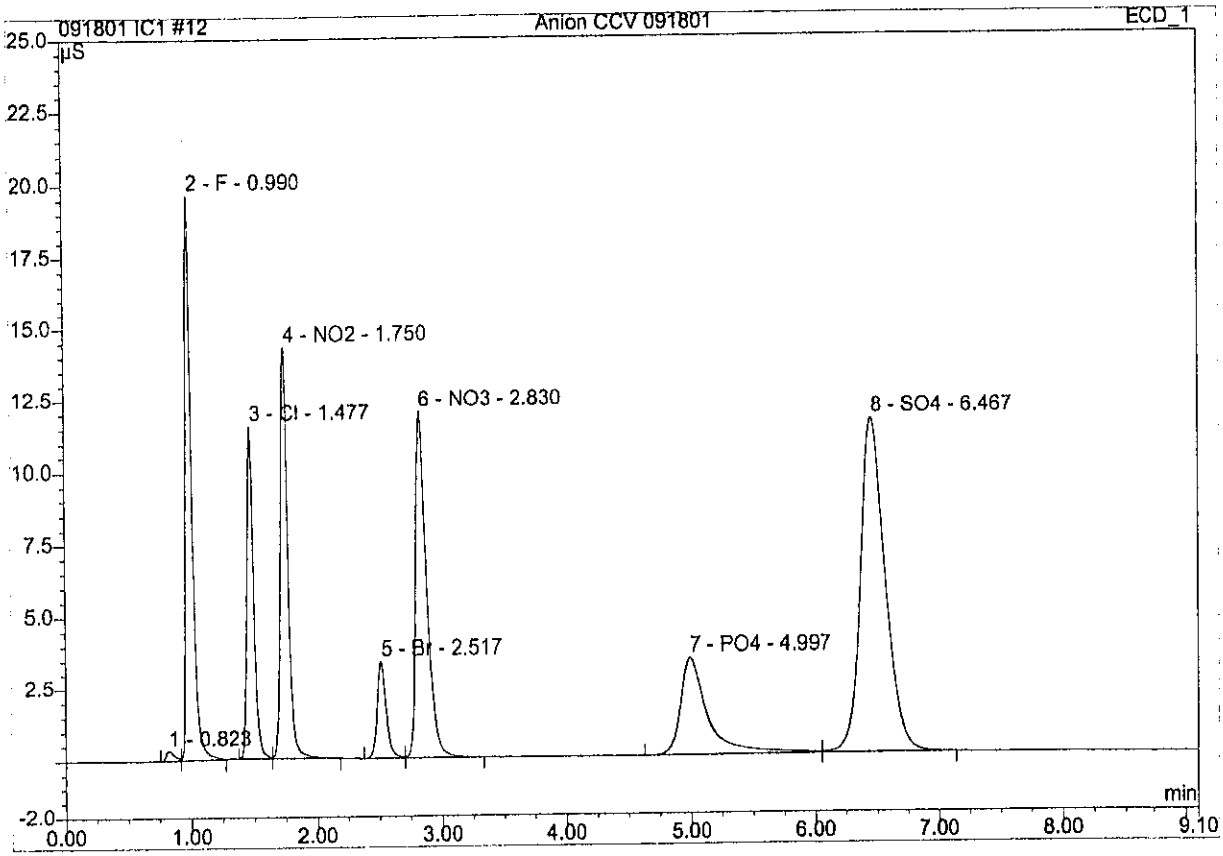
INSTRUMENT : IC1
FILE NAME: IC1_012
DATE RUN: 18-Sep-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		6.09		1.50	**PASS**
Cl	6.00		5.89		-1.83	**PASS**
NO2-N	3.65		3.67		0.45	**PASS**
Br	6.00		6.10		1.67	**PASS**
NO3-N	4.07		3.99		-1.87	**PASS**
PO4-P	9.78		9.18		-6.18	**PASS**
SO4	30.00		29.5		-1.67	**PASS**

12 Anion CCV 091801

Sample Name:	**Anion CCV 091801**	*Injection Volume:*	**25.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 14:47**	*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	Type
1	0.82	n.a.	0.340	0.026	0.33	n.a.	BM
2	0.99	F	19.636	1.139	14.38	6.090	MB
3	1.48	Cl	11.539	0.711	8.97	5.894	BM
4	1.75	NO2	14.295	0.979	12.36	3.673	MB
5	2.52	Br	3.398	0.290	3.66	6.102	BM
6	2.83	NO3	12.007	1.217	15.37	3.985	MB
7	5.00	PO4	3.411	0.870	10.98	9.182	BM
8	6.47	SO4	11.603	2.688	33.94	29.515	MB
Total:			76.229	7.920	100.00	64.441	

CCV REPORT

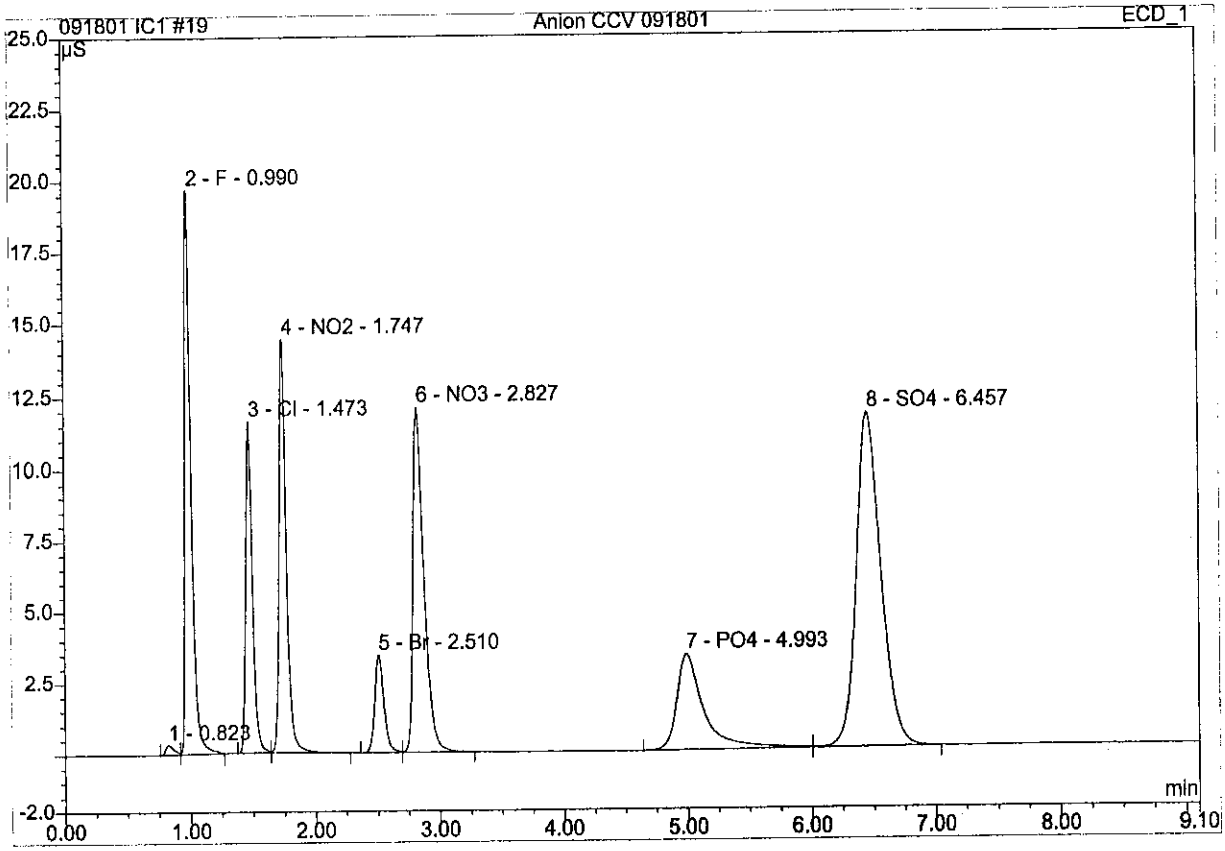
INSTRUMENT : IC1
FILE NAME: IC1_019
DATE RUN: 18-Sep-01
ANALYST: GSG

CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		6.12		2.00	**PASS**
Cl	6.00		5.92		-1.33	**PASS**
NO2-N	3.65		3.69		1.00	**PASS**
Br	6.00		6.12		2.00	**PASS**
NO3-N	4.07		4.00		-1.63	**PASS**
PO4-P	9.78		8.97		-8.32	**PASS**
SO4	30.00		29.4		-2.00	**PASS**

19 Anion CCV 091801

Sample Name:	**Anion CCV 091801**	*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:	**9/18/2001 17:02**	*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	Type
1	0.82	n.a.	0.340	0.026	0.33	n.a.	BM
2	0.99	F	19.673	1.144	14.47	6.115	MB
3	1.47	Cl	11.599	0.713	9.02	5.915	BM
4	1.75	NO2	14.401	0.984	12.45	3.691	MB
5	2.51	Br	3.418	0.291	3.68	6.123	BM
6	2.83	NO3	12.060	1.220	15.43	3.995	MB
7	4.99	PO4	3.371	0.849	10.74	8.966	BM
8	6.46	SO4	11.685	2.679	33.89	29.417	MB
Total:			76.549	7.907	100.00	64.221	

CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_010
DATE RUN: 26-Sep-01
ANALYST: GSG

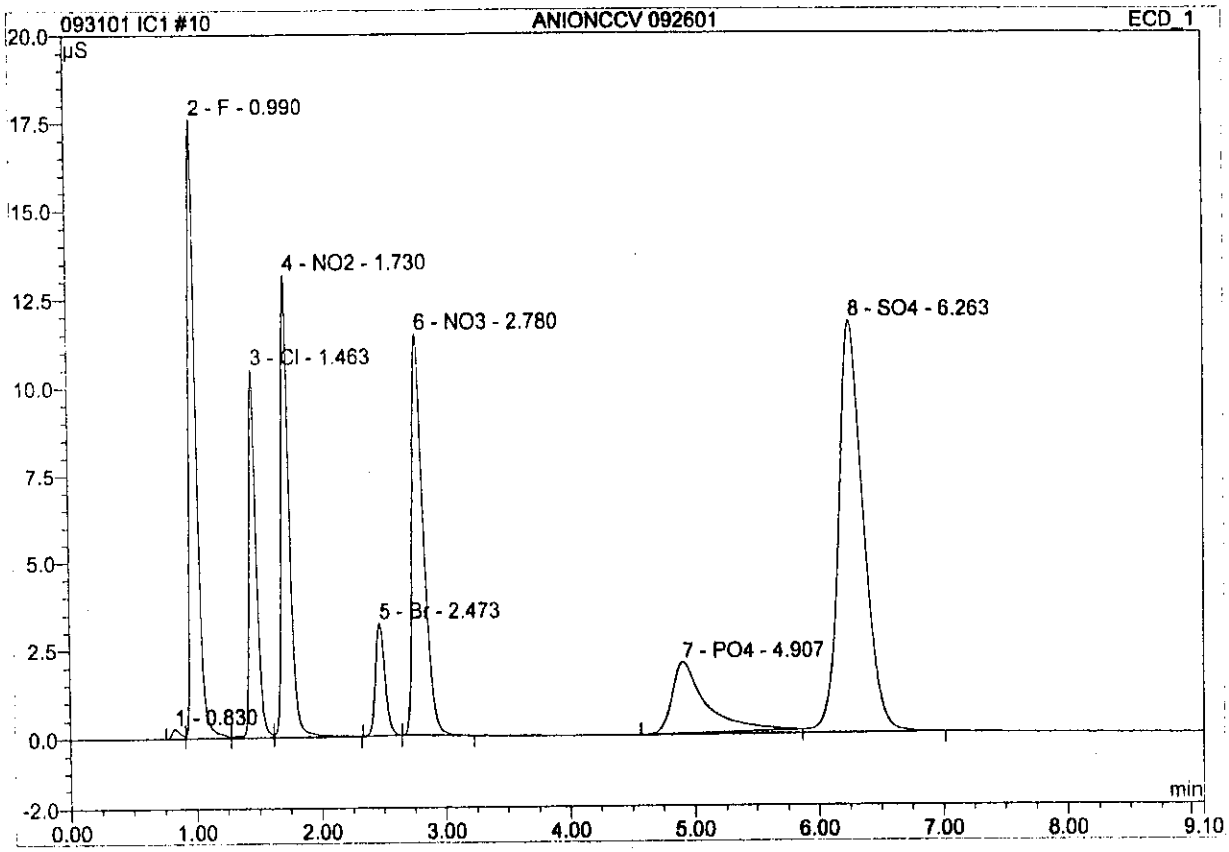
CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.97		-0.43	**PASS**
Cl	6.00		5.91		-1.50	**PASS**
NO2-N	3.65		3.59		-1.71	**PASS**
Br	6.00		5.71		-4.87	**PASS**
NO3-N	4.07		3.95		-2.81	**PASS**
PO4-P	9.78		9.44		-3.50	**PASS**
SO4	30.00		29.5		-1.66	**PASS**

10 ANIONCCV 092601

Imported PeakNet Sample

Sample Name:	**ANIONCCV 092601**	*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:	**9/26/2001 20:00**	*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	Type
1	0.83	n.a.	0.277	0.023	0.29	n.a.	BM
2	0.99	F	17.618	1.114	14.49	5.974	M
3	1.46	Cl	10.520	0.712	9.26	5.910	M
4	1.73	NO2	13.174	0.974	12.67	3.591	MB
5	2.47	Br	3.196	0.280	3.64	5.708	BMB
6	2.78	NO3	11.445	1.188	15.45	3.952	BMB
7	4.91	PO4	2.017	0.636	8.27	9.442	Ru
8	6.26	SO4	11.739	2.762	35.92	29.502	BMB
Total:			69.987	7.688	100.00	64.079	

CCV REPORT

INSTRUMENT : IC1
FILE NAME: IC1_015
DATE RUN: 26-Sep-01
ANALYST: GSG

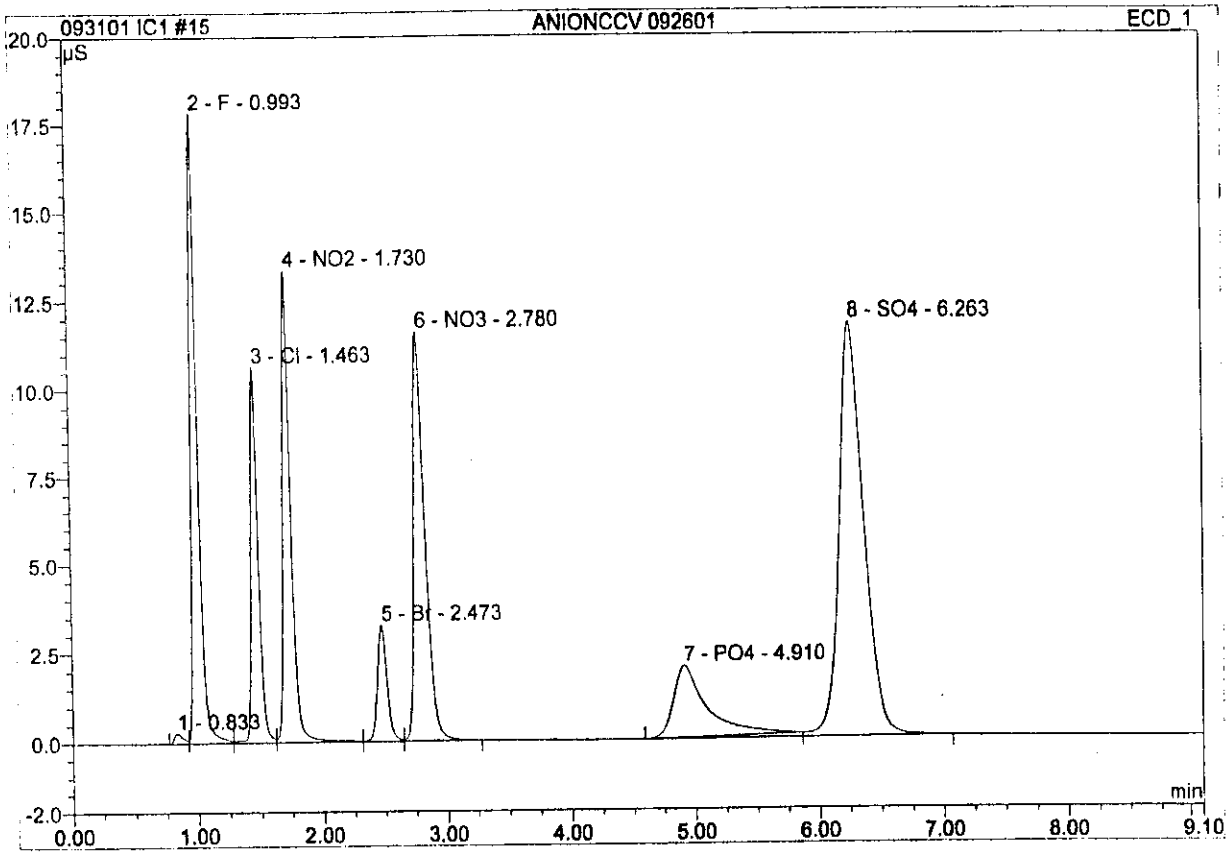
CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.96		-0.70	**PASS**
Cl	6.00		5.93		-1.13	**PASS**
NO2-N	3.65		3.63		-0.56	**PASS**
Br	6.00		5.90		-1.62	**PASS**
NO3-N	4.07		4.01		-1.36	**PASS**
PO4-P	9.78		9.42		-3.77	**PASS**
SO4	30.00		29.5		-1.72	**PASS**

15 ANIONCCV 092601

Imported PeakNet Sample

Sample Name:	**ANIONCCV 092601**	*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:	**9/26/2001 21:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

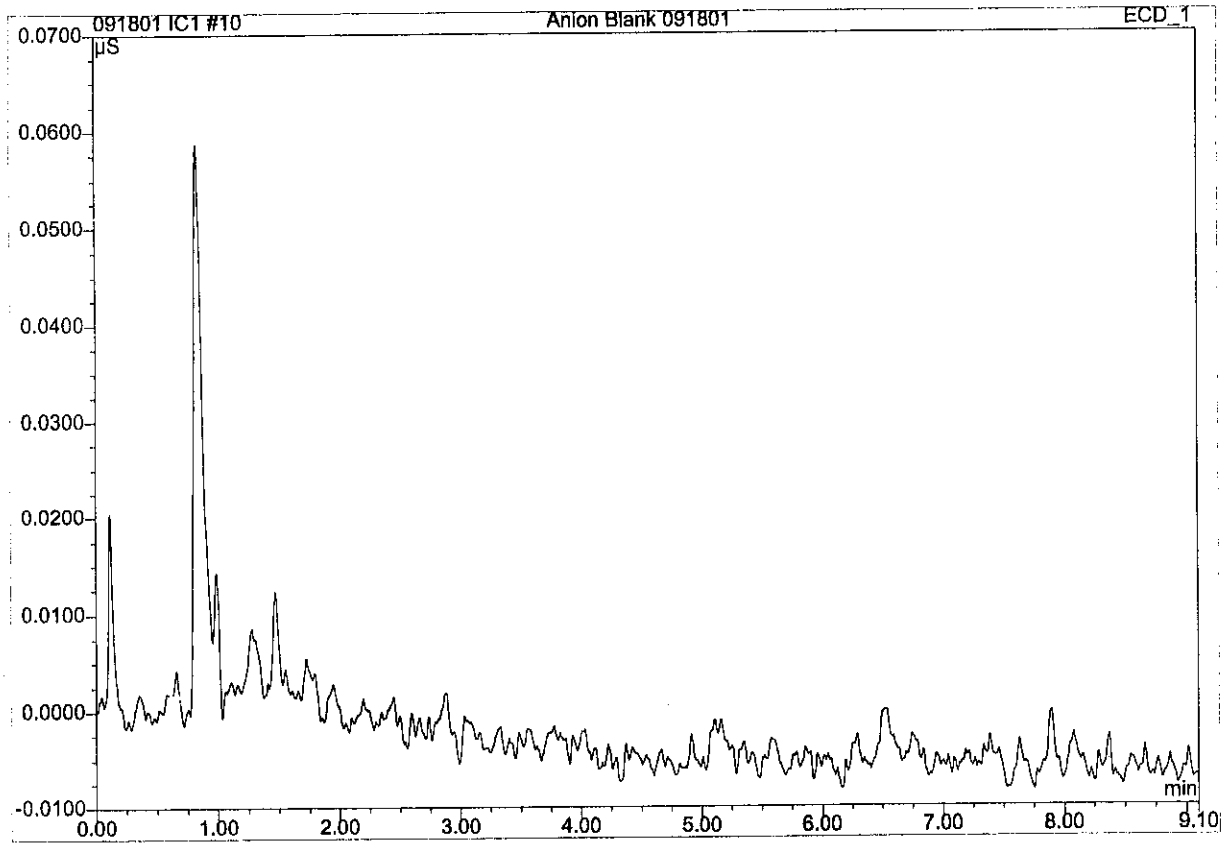


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.83	n.a.	0.279	0.023	0.29	n.a.	BM
2	0.99	F	17.826	1.111	14.39	5.958	M
3	1.46	Cl	10.655	0.714	9.25	5.932	M
4	1.73	NO2	13.345	0.986	12.76	3.633	M
5	2.47	Br	3.250	0.290	3.75	5.903	M
6	2.78	NO3	11.599	1.205	15.61	4.011	MB
7	4.91	PO4	2.012	0.634	8.21	9.415	Ru
8	6.26	SO4	11.746	2.760	35.74	29.484	BMB
Total:			70.712	7.722	100.00	64.335	

2.4.5.4 Raw QC Data

10 Anion Blank 091801

Sample Name:	**Anion Blank 091801**	*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:	**9/18/2001 12:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

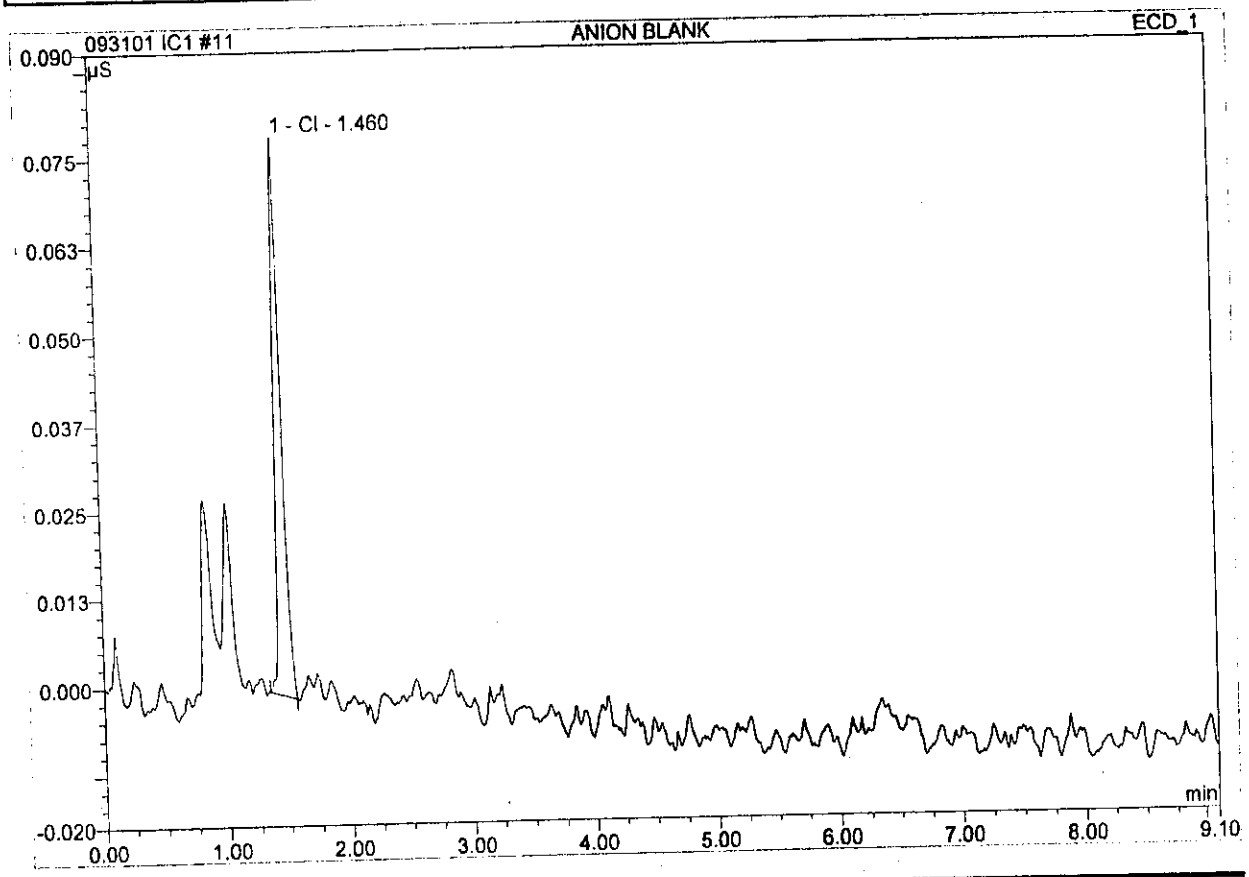


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

11 ANION BLANK

Imported PeakNet Sample

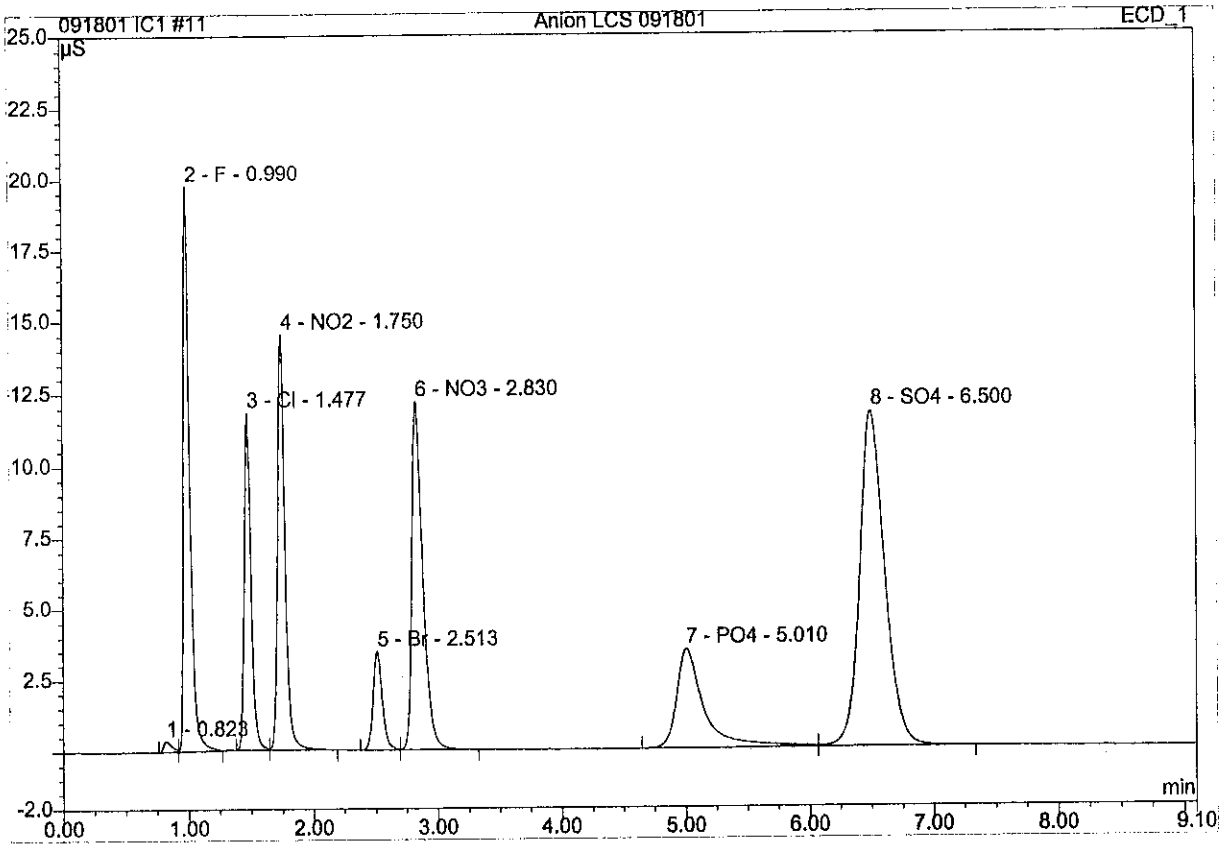
Sample Name:	**ANION BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/26/2001 20:12**	*Sample Weight:*	**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	Type
1	1.46	Cl	0.079	0.005	100.00	0.043	BMB
Total:			**0.079**	**0.005**	**100.00**	**0.043**	

11 Anion LCS 091801

Sample Name:	**Anion LCS 091801**	*Injection Volume:*	**25.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 12:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

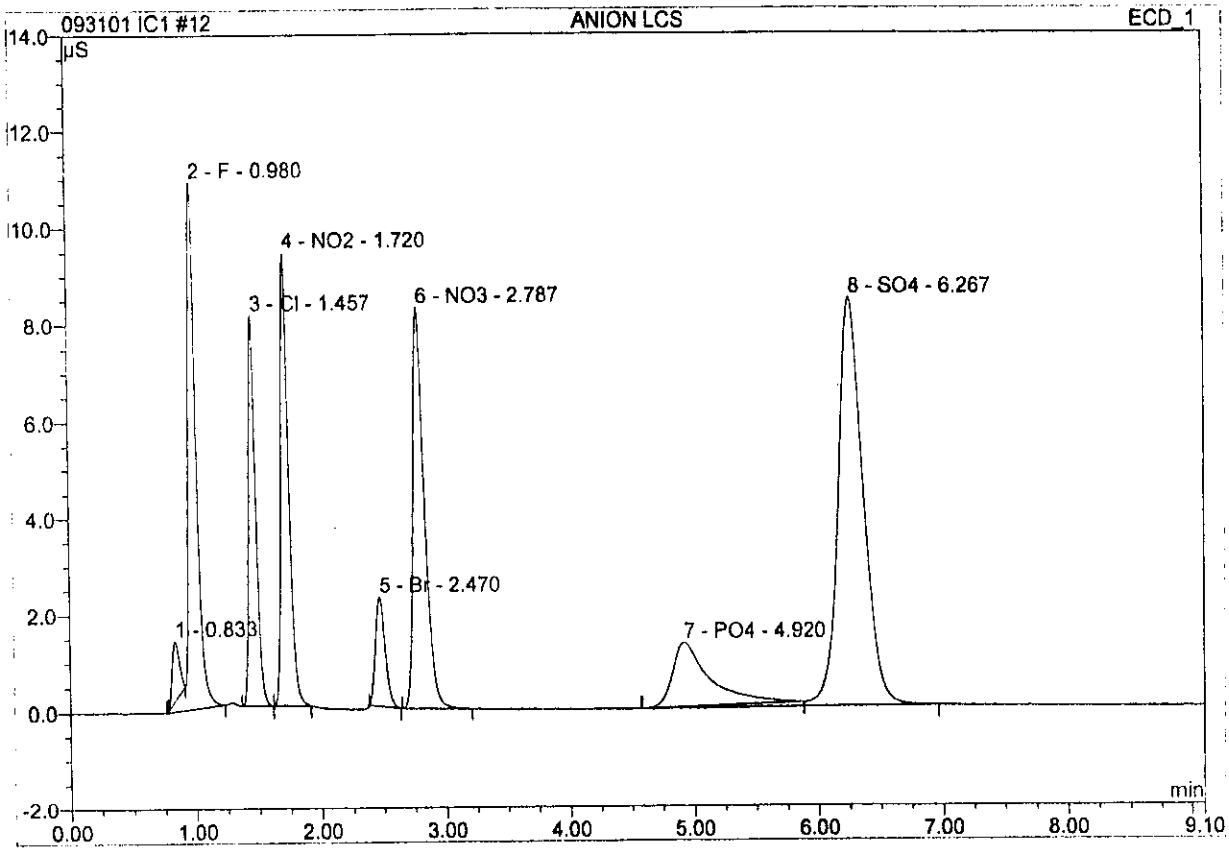


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.82	n.a.	0.368	0.029	0.35	n.a.	BM
2	0.99	F	19.775	1.157	14.36	6.188	MB
3	1.48	Cl	11.785	0.729	9.04	6.044	BM
4	1.75	NO2	14.475	0.994	12.33	3.729	MB
5	2.51	Br	3.443	0.293	3.64	6.184	BM
6	2.83	NO3	12.147	1.235	15.31	4.042	MB
7	5.01	PO4	3.480	0.887	11.00	9.364	BM
8	6.50	SO4	11.716	2.737	33.96	30.056	MB
Total:			77.188	8.061	100.00	65.607	

12 ANION LCS

Imported PeakNet Sample

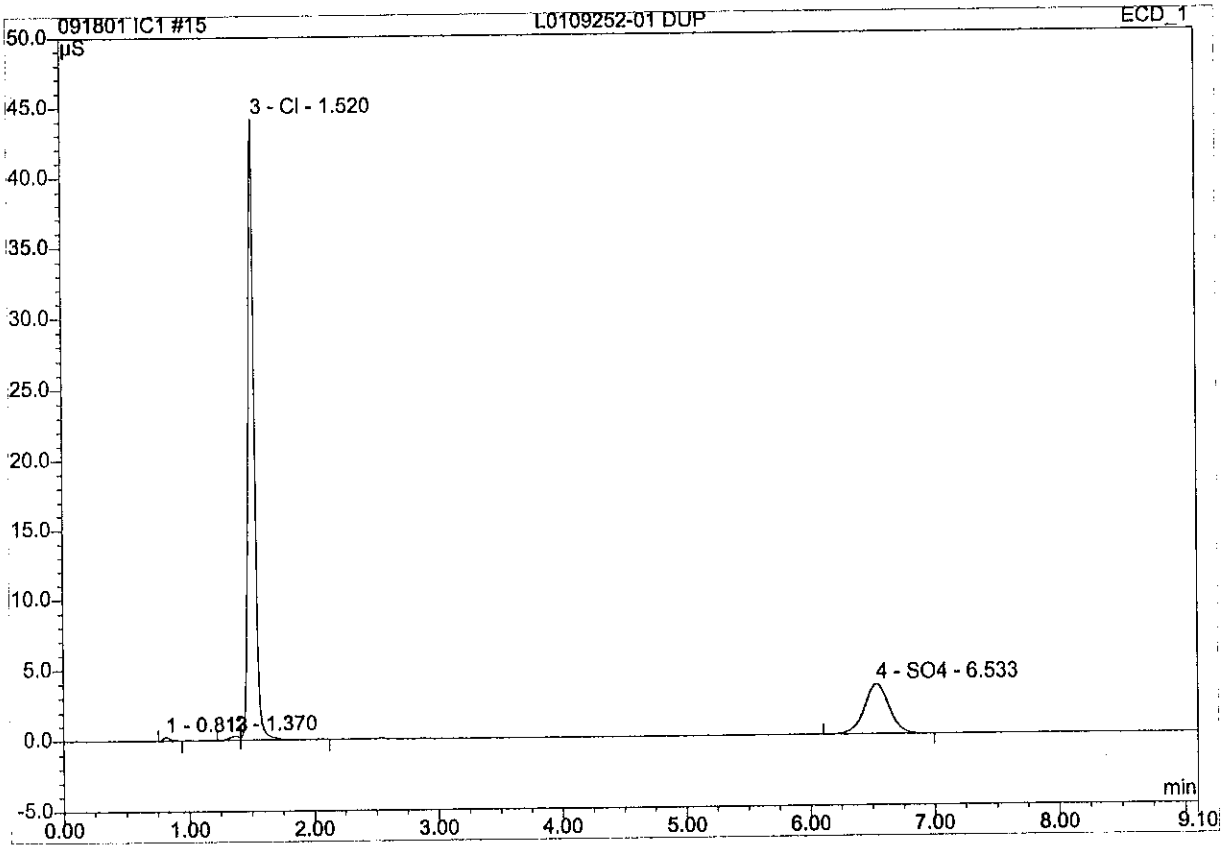
Sample Name:	**ANION LCS**	*Injection Volume:*	**25.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/26/2001 21:01**	*Sample Weight:*	**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	Type
1	0.83	n.a.	1.223	0.082	1.44	n.a.	Ru
2	0.98	F	10.888	0.859	15.02	4.606	BMB
3	1.46	Cl	8.090	0.532	9.31	4.420	BM
4	1.72	NO2	9.379	0.687	12.02	2.532	M
5	2.47	Br	2.256	0.198	3.46	4.035	BMB
6	2.79	NO3	8.291	0.870	15.21	2.894	BMB
7	4.92	PO4	1.323	0.455	7.96	6.754	Ru
8	6.27	SO4	8.454	2.034	35.58	21.729	BMB
Total:			49.904	5.717	100.00	46.969	

15 L0109252-01 DUP

Sample Name:	**L0109252-01 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/18/2001 16:16**	*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	Type
1	0.81	n.a.	0.247	0.016	0.46	n.a.	BMB
2	1.37	n.a.	0.296	0.026	0.75	n.a.	BM
3	1.52	Cl	44.133	2.538	74.85	21.051	MB
4	6.53	SO4	3.521	0.812	23.94	8.913	BMB
Total:			48.196	3.391	100.00	29.964	

IC Laboratory Maintenance / Runlog

Analysis Date/Time 09/14/01 Instrument ID IC1 Column ID AS4A-SC Data Subdirectory 091401
Analyst Initials RSC SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
IC1 - 001	DI H2O Blank 09/14/01				✓
002	Eluent ↓				✓
003	Anion CCV SoS55-37 09/14/01		SoS55-37		CC
004	Blank ↓				RR
005	Level #6		SoS55-45		✓
006	#5				✓
007	#4				✓
008	#3				✓
009	#2				✓
010	#1				✓
011	Eluent Blank				✓
012	Anion ALT. CCV SV53-30 09/14/01		SV53-30		✓
013	↓ SoS55-32 ↓		SoS55-32		✓
014	Anion CCV SoS55-45 09/14/01		SoS55-45		✓
015	Blank RR 09/14/01				✓
016	↓ LCS ↓		SoS55-45		✓
017	10109201-01				✓
018	-01 DUP				✓
019	-01 MS		SoS55-45		✓
020	-01 MSD		↓		✓
021	Anion CCV SoS55-45 09/14/01		SoS55-45		✓

Reviewed By: RRC 9/14/01

Status:
✓ = Compliant Analysis, Reanalysis complete
IS or SS = Interference with internal and/or surrogate standards
SMI = Sample matrix interference
RR = Rerun
MT = Missed Tune, beyond method tuning requirements
CC = Continuing calibration failed
RR# = Rerun at a specified dilution
RE = Re-extraction analysis required
CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES

IC Laboratory Maintenance / Runlog

Analysis Date/Time 09/14/01 Instrument ID IC1 Column ID AG4A-SC AS4A-SC Data Subdirectory 091401

Daily Check

- [x] Mobile phase reservoir
- [x] System pressure 1189 PSI
- [x] Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RDC 9/14/01

50

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 09/18/01 **Instrument ID** IC1 **Column ID** AS9A-SC AS4A-SC **Data Subdirectory** 09-18-01
Analyst Initials ASC **SOP # IC01 Rev. # 2** ✓ **9056**

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
IC1 - 009	Anion CCV 09/18/01 50555-45		50555-45		✓
-010	BLANK				✓
-011	LCS				✓
-012	Anion CCV 50555-45		50555-45		✓
013	LCS 09-18-01				✓
014	10109252-01				
015	-01 DUP				
016	-02				
017	-03				
018	-04				
019	Anion CCV 09-18-01 50555-45		50555-45		
020	10109252-05 MS				
021	-06 MSD				
022	-07				
023	-08				
					*

9/18/01

Reviewed By: GCZ 9/28/01

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 07-18-01 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 081801

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1150 PSI.
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

DATA LOST at this point, due to system installation

Reviewed By: EC 7/28/01

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 09/26/01 Instrument ID ICI Column ID AS4A-SC / AS4A-SC Data Subdirectory 092601
Analyst Initials BSO SOP # IC01 Rev. # 2 ✓ 9056

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
ICI - 007	Eluent Blank				✓
008	ALT CCV SV53-30		SV53-30		✓
009	ALT CCV 1/02/1/03 SOS55-48		SOS55-48		✓
010	Anion CCV SOS55-45		SOS55-45		✓
011	Blank				✓
012	LCS				✓
013	10109252-09 'R'				*
014	254-02 'R'				*
015	Anion CCV 09/26/01 SOS55-45		SOS55-45		✓
016	10109422-01				
017	-01 DUP				
018	-03				
019	-03 MS				
020	-03 MSD				
021	-01 @ 100X	100			
022	-03 @ 100X	100			
023	-03 MS @ 100X	100			
024	-03 MSD @ 100X	100			
025	Anion CCV 09/26/01 SOS55-45		SOS55-45		✓
026	Batch Blk				
027	LCS Fail				
028	10109268-01				
029	-01 DUP				
030	-02				
031	-03				
032	-04				
033	-05				
034	Anion CCV 09/26/01 SOS55-45		SOS55-45		
035	10109268-06 MS				
036	-07 MSD				
037	-08				
038	-09				
039	-10				
040	-11				
041	-12 MS				

Reviewed By: ECS 9/28/01

Status:
✓ = Compliant Analysis, Reanalysis complete IS or SS = Interference with internal and/or surrogate standards SMI = Sample matrix interference
RR = Rerun MT = Missed Tune, beyond method tuning requirements CC = Continuing calibration failed
RR# = Rerun at a specified dilution RE = Re-extraction analysis required CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance / Runlog

Analysis Date/Time 09/26/01 **Instrument ID** ECI **Column ID** AG4A/SC AS4A/SC **Data Subdirectory** 092601

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1181 PSI.
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

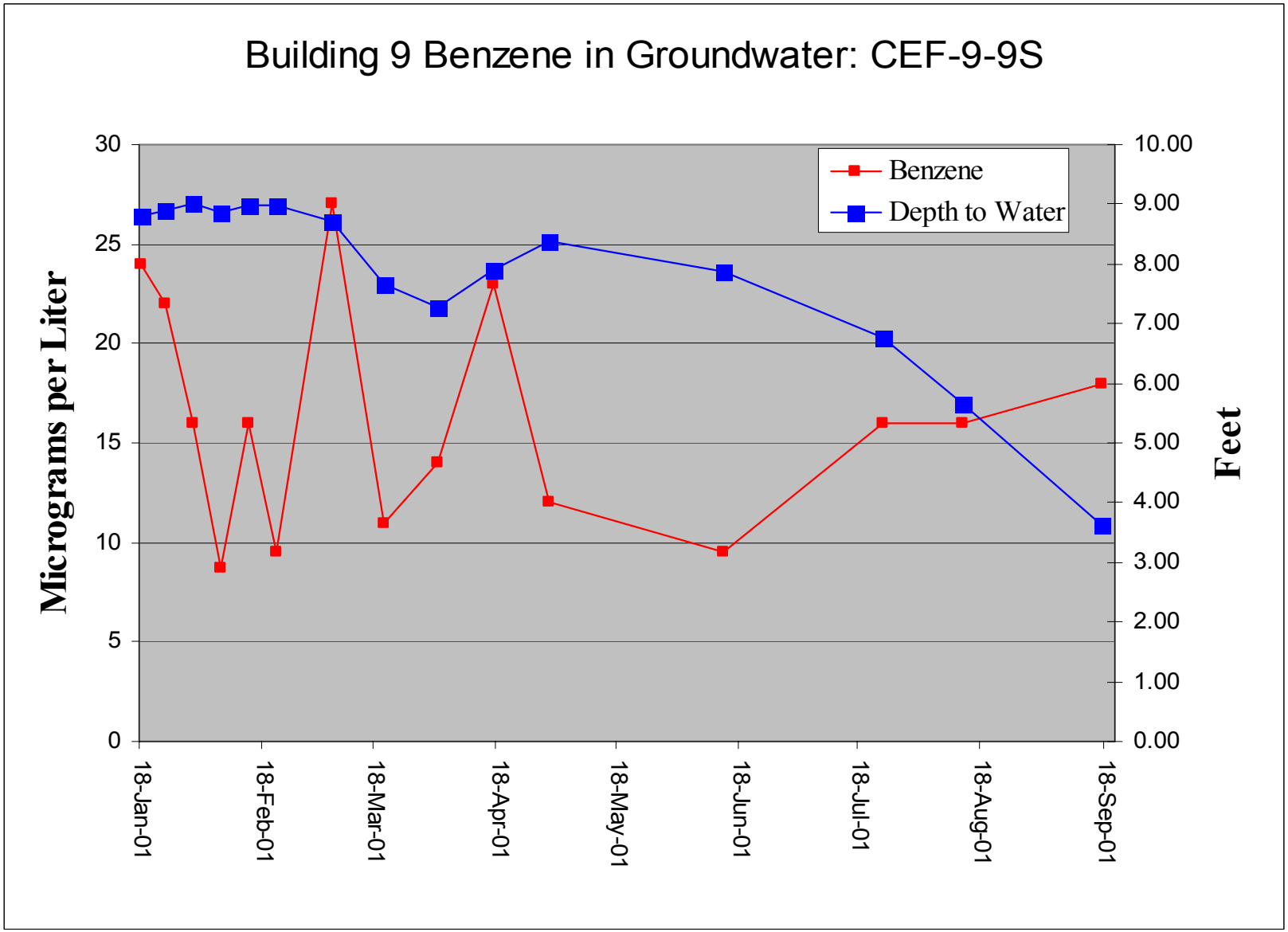
Comments

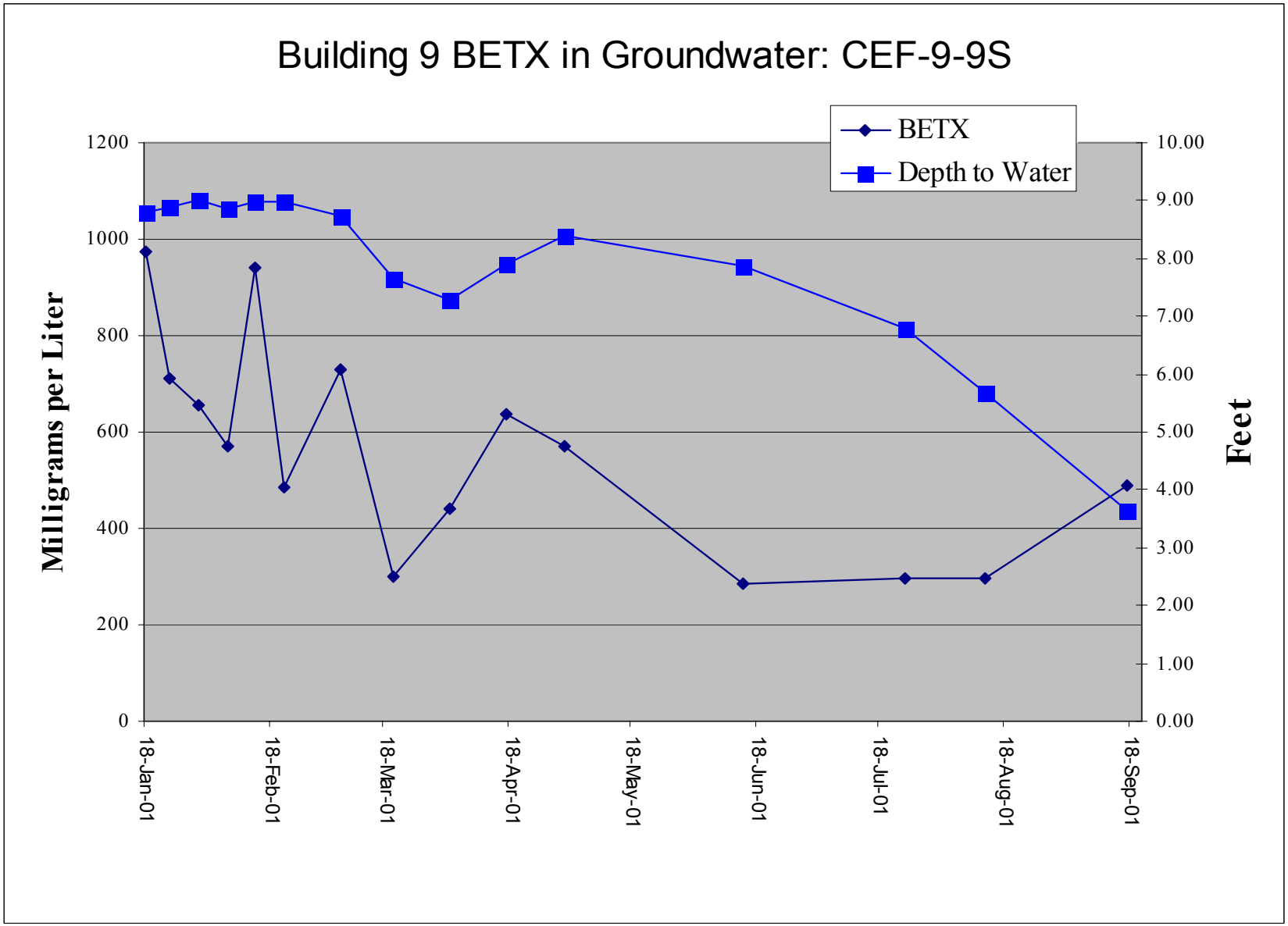
* Re-analyzed out of hold. Original analysis info was lost during systems installation. No original analysis data is available.

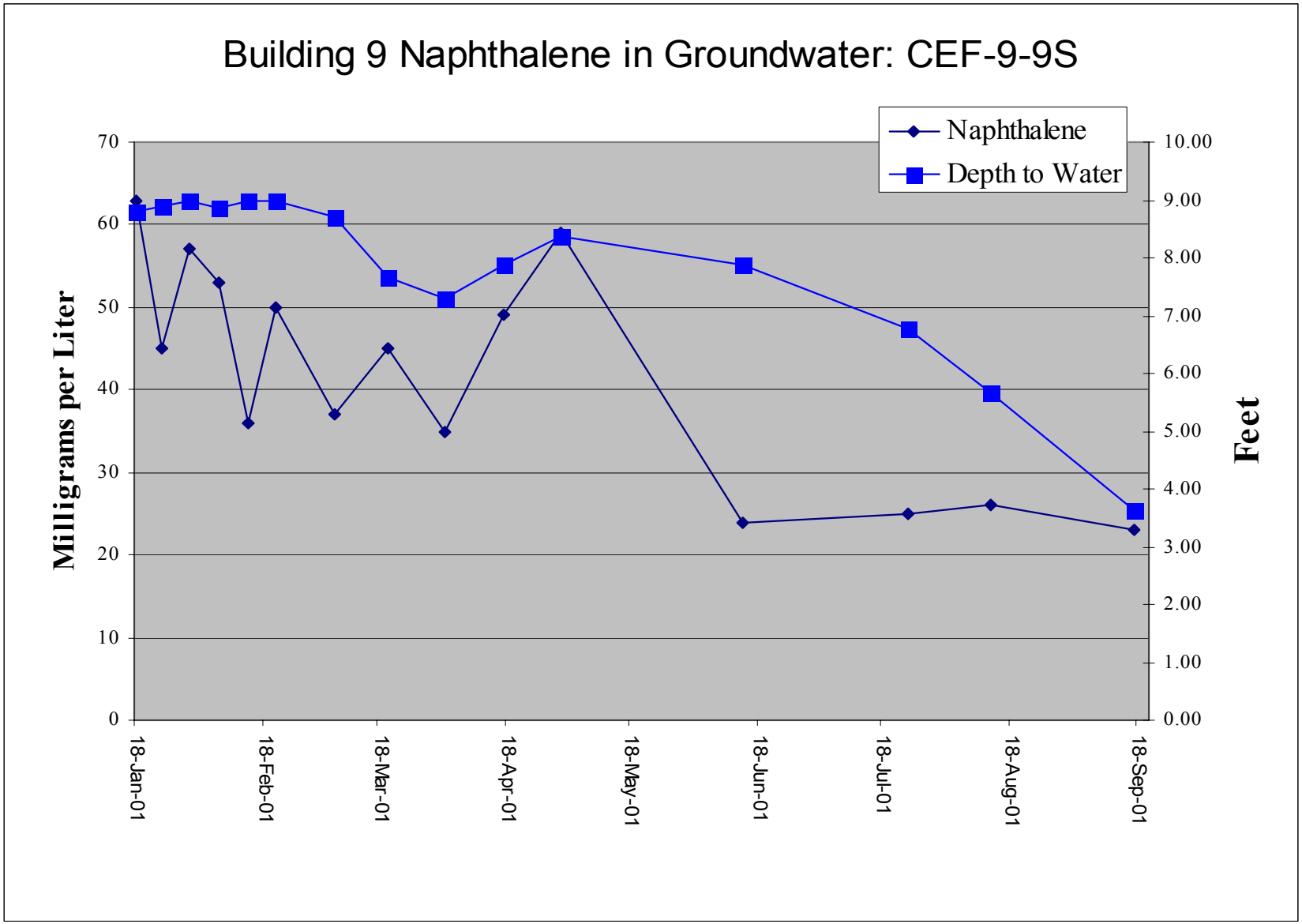
Reviewed By: ECI 9/28/01

Appendix D

Graphs for Monitoring Well CEF-9-9S


Building 9 Benzene in Groundwater: CEF-9-9S
Benzene
Depth to Water
Micrograms per Liter
Feet
30
25
20
15
10
5
0
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
18-Jan-01
18-Feb-01
18-Mar-01
18-Apr-01
18-May-01
18-Jun-01
18-Jul-01
18-Aug-01
18-Sep-01


Building 9 BETX in Groundwater: CEF-9-9S
BETX
Depth to Water
Milligrams per Liter
Feet
1200
1000
800
600
400
200
0
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
18-Jan-01
18-Feb-01
18-Mar-01
18-Apr-01
18-May-01
18-Jun-01
18-Jul-01
18-Aug-01
18-Sep-01


Building 9 Naphthalene in Groundwater: CEF-9-9S
Naphthalene
Depth to Water
Milligrams per Liter
Feet
70
60
50
40
30
20
10
0
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
18-Jan-01
18-Feb-01
18-Mar-01
18-Apr-01
18-May-01
18-Jun-01
18-Jul-01
18-Aug-01
18-Sep-01