N60200.AR.003516
NAS CECIL FIELD, FL
5090.3a

"SECOND QUARTER 2002 OPERATIONS AND MAINTENANCE STATUS REPORT FOR NUTRIENT INJECTION SYSTEM BUILDING 46 FORMER TANKS 46R, 46D, 46SUL AND 46UL NAS CECIL FIELD FL"
1/1/2003
CH2MHILL CONSTRUCTORS INC

Second Quarter 2002 Operations and Maintenance Status Report

Nutrient Injection System Building 46, Former Tanks 46R, 46D, 46SUL, and 46UL

April 1, 2002 – June 30, 2002

Naval Air Station Cecil Field Jacksonville, Florida

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

Submitted to:

U.S. Naval Facilities Engineering Command Southern Division

Prepared by:

CH2MHILL Constructors, Inc.

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

January 2003

Contents

Acronym List ..... **iii**
1.0 Introduction **1-1**
1.1 Objective 1-1
1.2 Site History 1-1
1.3 Remediation System/Technology Description 1-2
2.0 System Performance Monitoring **2-1**
2.1 Operational Efficiencies 2-1
2.1.1 Nutrient Injection System (West System) 2-1
2.1.2 Nutrient Injection System (East System) 2-1
2.2 Summary of Maintenance and System Downtime 2-1
2.2.1 Nutrient Injection System - West 2-1
2.2.2 Nutrient Injection System - East 2-1
2.3 Pressure/Flow Rate Monitoring 2-2
2.3.1 Nutrient Injection System - West 2-2
2.3.2 Nutrient Injection System - East 2-2
2.4 Water Level Measurements 2-16
3.0 Summary of Sampling and Laboratory Analytical Results **3-1**
3.1 Soil Monitoring 3-1
3.2 Groundwater Monitoring 3-2
4.0 Conclusions and Recommendations **4-1**
5.0 References **5-1**

Figure

1-1 Injection Well Location 1-3

Tables

2-1 Injection Well Measurements – West System 2-3
2-2 Injection System Data – West System 2-7
2-3 Injection Well Measurements – East System 2-8
2-4 Injection System Data – East System 2-15
2-5 Groundwater Monitoring Well – Water Level and LNAPL Data 2-17
3-1 OVA/FID Results 3-1
3-2 Soil Analytical Results 3-4
3-3 Groundwater Analytical Results 3-5
3-4 Groundwater Field Analytical Results 3-12

Appendices (CD Only)

A Laboratory Analytical Reports for Soil Samples
B Laboratory Analytical Reports for Groundwater Samples

Acronym List

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

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) has been contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (NAVFAC), to provide operation and maintenance (O&M) services for groundwater remediation at Building 46, Former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida, under Response Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) Numbers 0002 and 0062. The purpose of this Second Quarter 2002 O&M Report is to provide a summary of activities performed at the site during the period of April 1, 2002, to June 30, 2002.

1.1 Objective

The objective of the remedial action at Building 46 is to reduce the concentrations of petroleum contaminants in the groundwater and unsaturated soils to Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels (GCTLs) and Soil Cleanup Target Levels (SCTLs), as specified in Tables I and II, respectively, of Chapter 62-777, Florida Administrative Code (FAC). Nutrient injection using the PHOSter nutrient injection system is the technology currently utilized to achieve this objective.

1.2 Site History

Building 46 was the former base gas station that operated from 1946 to 1987. The station had a total of eight underground storage tanks (USTs), all of which were removed in June 1988. Four of the tanks, labeled 46R, 46D, 46SUL, and 46UL, were installed in 1970 and were used to store regular and unleaded gasoline and diesel fuel. These tanks were located adjacent to Building 46. The other four tanks were installed prior to 1970, and the contents of these tanks are unknown. These tanks were located just south of Building 46 (Tetra Tech NUS, Inc. [TtNUS], June 2000).

A Site Assessment Report (SAR) prepared for Building 46 (Harding Lawson Associates [HLA], 1998) concluded that operation of the USTs had resulted in contamination of soil and groundwater with fuel-related compounds, including benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl-tert-butyl ether (MTBE), naphthalene, and total recoverable petroleum hydrocarbons (TRPH). The SAR determined that an area of soil (approximately 5,500 square feet) at the location of the former USTs was highly contaminated to a depth of 7 feet below land surface (bls) and acted as a source of groundwater contamination. The SAR also established that groundwater contamination extends to the shallow (7 to 25 feet bls), intermediate (25 to 50 feet bls) and deep (50 to 92 feet bls) zones of the surficial aquifer over areas approximately 25,300 square feet (sq. ft.), 95,700 sq. ft., and 31,000 sq. ft., respectively. Plume maps that graphically show the horizontal extent of the groundwater contamination are included in the SAR.

A nutrient injection system was installed at the site during the period of November 2000 to January 2001 to treat the impacted soil and groundwater to achieve State-mandated cleanup target levels. The nutrient injection system commenced operation on January 18, 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 (contaminant) is available to sustain an effective microorganism population, propane will also be injected as a carbon source (TtNUS, June 2000).

The Building 46 nutrient injection system consists of two separate systems, labeled as the west system and the east system. Two separate systems allow for even gas distribution and more effective treatment of the relatively large extent of the contaminant plume. The west system consists of eight intermediate injection wells (labeled CEF-46-I1 through CEF-46-I8), three deep injection wells (labeled CEF-46-D1 through CEF-46-D3), and a temporary trailer containing air compressors, injection gas storage containers, and associated piping and instrumentation. The east system consists of 8 intermediate injection wells (labeled CEF-46-BI1 through CEF-46-BI8), 11 deep injection wells (labeled CEF-46-BD1 through CEF-46-BD11), and a temporary trailer containing air compressors, injection gas storage containers, and associated piping and instrumentation. The shallow interval is treated by the upward migraion of the injected air form the intermediate wells. The intermediate injection wells are 40 feet deep with a screen interval from 35 to 40 feet bls, and the deep injection wells are 90 feet deep with a screen interval of 85 to 90 feet bls. 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 20 pounds per square inch gauge (psig) for the intermediate wells and 50 psig for the deep wells. The locations of the injection wells are shown on Figure 1-1.

MAP SHOWING SPECIFIC PURPOSE SURVEY OF

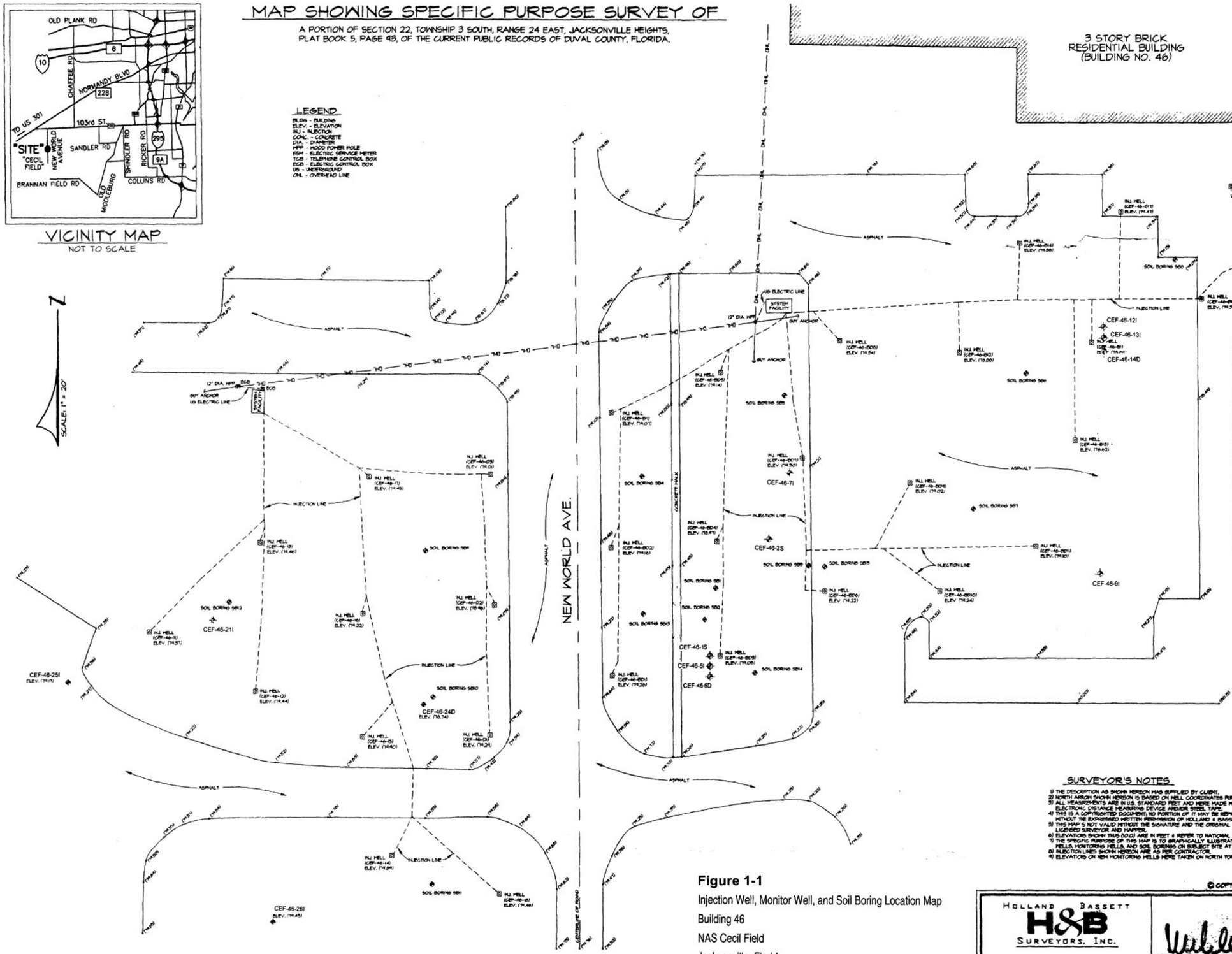
A PORTION OF SECTION 22, TOWNSHIP 3 SOUTH, RANGE 24 EAST, JACKSONVILLE HEIGHTS, PLAT BOOK 5, PAGE 93, OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA.

VICINITY MAP

NOT TO SCALE

LEGEND

BLDG - BUILDING
ELEV. - ELEVATION
INJ - INJECTION
CONC. - CONCRETE
DIA. - DIAMETER
HPP - WOOD POWER POLE
ESM - ELECTRIC SERVICE METER
TCB - TELEPHONE CONTROL BOX
ECB - ELECTRIC CONTROL BOX
UG - UNDERGROUND
OHL - OVERHEAD LINE



WELL #	NORTHING	EASTING
CEF-46-01B	214412.13	317000.45
CEF-46-01I	214416.41	317011.11
CEF-46-01S	214416.30	317021.11
CEF-46-02I	214426.80	316982.58
CEF-46-02S	214426.14	316992.24
CEF-46-03I	214439.37	316944.61
CEF-46-03S	214439.18	316954.63
CEF-46-04I	214434.05	316906.60
CEF-46-04S	214434.36	316916.48
CEF-46-05I	214444.48	316867.48
CEF-46-05S	214444.48	316877.51
CEF-46-06I	214452.46	316829.34
CEF-46-06S	214452.46	316839.31
CEF-46-07I	214444.07	316791.31
CEF-46-07S	214444.40	316801.32
CEF-46-08I	214453.75	316752.72
CEF-46-08S	214453.75	316762.72
CEF-46-09I	214461.07	316714.28
CEF-46-09S	214461.56	316724.04
CEF-46-10I	214452.46	316675.50
CEF-46-10S	214452.46	316685.50
CEF-46-11I	214460.61	316636.75
CEF-46-11S	214460.61	316646.61
CEF-46-12I	214469.39	316598.34
CEF-46-12S	214469.39	316608.34
CEF-46-13I	214478.20	316559.93
CEF-46-13S	214478.20	316569.93
CEF-46-14I	214486.96	316521.52
CEF-46-14S	214486.96	316531.52
CEF-46-15I	214495.75	316483.12
CEF-46-15S	214495.75	316493.12
CEF-46-16I	214504.45	316444.71
CEF-46-16S	214504.45	316454.71
CEF-46-17I	214513.16	316406.31
CEF-46-17S	214513.16	316416.31
CEF-46-18I	214521.87	316367.90
CEF-46-18S	214521.87	316377.90
CEF-46-19I	214530.58	316329.49
CEF-46-19S	214530.58	316339.49
CEF-46-20I	214539.29	316291.08
CEF-46-20S	214539.29	316301.08
CEF-46-21I	214547.99	316252.67
CEF-46-21S	214547.99	316262.67
CEF-46-22I	214556.70	316214.26
CEF-46-22S	214556.70	316224.26
CEF-46-23I	214565.41	316175.85
CEF-46-23S	214565.41	316185.85
CEF-46-24I	214574.12	316137.44
CEF-46-24S	214574.12	316147.44
CEF-46-25I	214582.83	316099.03
CEF-46-25S	214582.83	316109.03
CEF-46-26I	214591.53	316060.62
CEF-46-26S	214591.53	316070.62
CEF-46-27I	214600.24	316022.21
CEF-46-27S	214600.24	316032.21
CEF-46-28I	214608.95	315983.80
CEF-46-28S	214608.95	315993.80
CEF-46-29I	214617.66	315945.39
CEF-46-29S	214617.66	315955.39
CEF-46-30I	214626.36	315906.98
CEF-46-30S	214626.36	315916.98
CEF-46-31I	214635.07	315868.57
CEF-46-31S	214635.07	315878.57
CEF-46-32I	214643.78	315830.16
CEF-46-32S	214643.78	315840.16
CEF-46-33I	214652.49	315791.75
CEF-46-33S	214652.49	315801.75
CEF-46-34I	214661.19	315753.34
CEF-46-34S	214661.19	315763.34
CEF-46-35I	214669.90	315714.93
CEF-46-35S	214669.90	315724.93
CEF-46-36I	214678.61	315676.52
CEF-46-36S	214678.61	315686.52
SOIL BORING 581	214446.16	316941.17
SOIL BORING 582	214419.18	316968.24
SOIL BORING 583	214426.11	316961.31
SOIL BORING 584	214426.43	316961.43
SOIL BORING 585	214439.46	316948.42
SOIL BORING 586	214439.46	316948.42
SOIL BORING 587	214439.46	316948.42
SOIL BORING 588	214439.46	316948.42
SOIL BORING 589	214439.46	316948.42
SOIL BORING 590	214439.46	316948.42
SOIL BORING 591	214439.46	316948.42
SOIL BORING 592	214439.46	316948.42
SOIL BORING 593	214439.46	316948.42
SOIL BORING 594	214439.46	316948.42
SOIL BORING 595	214439.46	316948.42

SURVEYOR'S NOTES

1) THE DESCRIPTION AS SHOWN HEREON HAS 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 (0.0) ARE IN FEET & REFER TO NATIONAL GEODETIC VERTICAL DATUM (NAVD 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 46.
8) INJECTION LINES SHOWN HEREON ARE AS PER CONTRACTOR.
9) ELEVATIONS ON NEW MONITORING WELLS WERE TAKEN ON NORTH TOP OF PVC CASING.

© COPYRIGHT 2001: HOLLAND & BASSETT SURVEYORS, INC.

Figure 1-1

Injection Well, Monitor Well, and Soil Boring Location Map

Building 46

NAS Cecil Field

Jacksonville, Florida

HOLLAND BASSETT
H&B
SURVEYORS, INC.
7801 ALTON AVENUE TEL(904) 808-[illegible]
JACKSONVILLE, FLORIDA 32211 FAX(904) 808-[illegible]
FLORIDA CERTIFICATE OF AUTHORIZATION NO. LB 6789

ROBERT E. HOLLAND
FL REGISTRATION NO. 4242
CHARLES R. BASSETT, JR.
FL REGISTRATION NO. 4891

DATE: JANUARY 28, 2001
WORK ORDER NO.: 2841.00
PROJECT NUMBER: 17100
SHEET 1 OF 1
DRAWING NO.: D-17100

2.0 System Performance Monitoring

O&M checks of the system were performed monthly during the monitoring period. During an O&M check, maintenance activities (based upon manufacturer's recommendations) are completed and readings are taken from all system meters and gauges.

2.1 Operational Efficiencies

2.1.1 Nutrient Injection System (West System)

	Period	To Date
Hours of Possible Operation:	2,184	12,696
Hours of Actual Operation:	2,085	11,087
Percent Hours of Operation:	95.5	87.3

2.1.2 Nutrient Injection System (East System)

	Period	To Date
Hours of Possible Operation:	2,184	12,696
Hours of Actual Operation:	2,114	10,576
Percent Hours of Operation:	96.8	83.3

2.2 Summary of Maintenance and System Downtime

2.2.1 Nutrient Injection System - West

During the period of April 1, 2002, to June 30, 2002, the west nutrient injection system ran a total of 86.9 days out of a possible 91 days, experiencing 99 hours of downtime. The system downtime was the result of manually shutting down the system for a total of 76 hours during June 2002 to perform the second quarter 2002 groundwater sampling event and data collection. Additionally, the system was manually shut down for 23 hours in June 2002 for TtNUS to sample monitoring well CEF-46-19I.

2.2.2 Nutrient Injection System - East

During the period of April 1, 2002, to June 30, 2002, the east nutrient injection system ran a total of 88 days out of a possible 91 days, experiencing 70 hours of downtime. The system downtime was the result of manually shutting down the system during June 2002 to perform the second quarter 2002 groundwater sampling event and data collection.

2.3 Pressure/Flow Rate Monitoring

2.3.1 Nutrient Injection System - West

The west injection system is divided into two manifold legs. Leg #1 consists of intermediate injection wells CEF-46-I1, CEF-46-I2, CEF-46-I3, CEF-46-I4, CEF-46-I5, and CEF-46-I8. Leg #2 consists of intermediate injection wells CEF-46-I6 and CEF-46-I7, and deep injection wells CEF-46-D1, CEF-46-D2, and CEF-46-D3. During the second quarter of 2002, the injection pressure at the compressors averaged 48.7 psig. The design pressure is 20 psig for intermediate injection wells and 50 psig for deep injection wells. Each individual injection well has its own separate pressure regulator. Individual injection well pressures are not measured; adjustments are based upon flow rates, not pressure. The total gas injection flow rate averaged 10 actual cubic feet per minute (acfm) for Leg #1 and 6.3 acfm for Leg #2, compared to the combined design total gas injection flow rate of 18 to 30 acfm. The nitrous oxide injection rate averaged 1.17 actual cubic feet per hour (acfh), which is 0.12 percent by volume of airflow, compared to the design nitrous oxide injection rate of 0.07 to 0.10 percent by volume of airflow. The triethylphosphate (TEP) injection mass for the second quarter of 2002 totaled 21.51 pounds, compared to the design injection mass of 24.75 pounds. The data for the injection wells and injection system are tabulated in Table 2-1 and Table 2-2, respectively.

2.3.2 Nutrient Injection System - East

The east injection system is divided into two manifold legs. Leg #1 consists of intermediate injection wells CEF-46-BI2, CEF-46-BI3, CEF-46-BI4, CEF-46-BI5, CEF-46-BI6, CEF-46-BI7, and CEF-46-BI8, and deep injection wells CEF-46-BD9, CEF-46-BD10, and CEF-46-BD11. Leg #2 consists of intermediate injection well CEF-46-BI1, and deep injection wells CEF-46-BD1, CEF-46-BD2, CEF-46-BD3, CEF-46-BD4, CEF-46-BD5, CEF-46-BD6, CEF-46-BD7 and CEF-46-BD8. During the second quarter of 2002, the injection pressure at the compressors averaged 48.3 psig. The design pressure is 20 psig for intermediate injection wells and 50 psig for deep injection wells. Each individual injection well has its own separate pressure regulator. Individual injection well pressures are not measured; adjustments are based upon flow rates, not pressure. The total gas injection flow rate averaged 20.0 acfm for Leg #1 and 16.7 acfm for Leg #2, compared to the combined design total gas injection flow rate of 30 to 50 acfm. The nitrous oxide injection rate averaged 1.43 acfh, which is 0.06 percent by volume of airflow, compared to the design nitrous oxide injection rate of 0.07 to 0.10 percent by volume of airflow. The TEP injection mass for the entire second quarter of 2002 could not be quantified due to excessive condensation buildup in the TEP reservoir tank; however, the TEP injection mass for April 2002 was 7.05 pounds, compared to the quarterly design injection mass of 42.75 pounds. The problem was remedied by draining the tank, drying the tank, and adjusting the metering valve. The data for the injection wells and injection system are provided in Tables 2-3 and 2-4, respectively.

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-I1	01/19/2001	50	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-I2	01/19/2001	50	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	50	3
	11/12/2001	50	3
	12/11/2001	50	3
	01/11/2002	50	3
	02/04/2002	50	3
	03/11/2002	50	3
	04/15/2002	50	3
	05/13/2002	25	2
	06/17/2002	25	2
CEF-46-I3	01/19/2001	50	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-I4	01/19/2001	50	2.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	50	3
	11/12/2001	50	3
	12/11/2001	50	3
	01/11/2002	50	3
	02/04/2002	50	3
	03/11/2002	50	3
	04/15/2002	50	3
	05/13/2002	25	2
	06/17/2002	25	2
CEF-46-I5	01/19/2001	100	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	100	NA
	04/13/2001	25	2
	05/10/2001	2	2
	06/07/2001	2	2
	07/02/2001	5	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	25	3
	11/12/2001	25	3
	12/11/2001	25	3
	01/11/2002	25	3
	02/04/2002	25	3
	03/11/2002	25	3
	04/15/2002	25	3
	05/13/2002	25	3
	06/17/2002	25	3
CEF-46-I6	01/19/2001	40	2.5
(Leg #2)	02/28/2001	25	NA
	03/30/2001	25	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	50	3
	09/11/2001	50	2
	10/03/2001	60	3
	11/12/2001	60	3
	12/11/2001	60	3
	01/11/2002	60	3
	02/04/2002	60	3
	03/11/2002	60	3
	04/15/2002	60	3
	05/13/2002	25	2
	06/17/2002	25	2

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-I7	01/19/2001	40	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	25	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-I8	01/19/2001	50	2.75
(Leg #1)	02/28/2001	25	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	5	2
	06/07/2001	5	2
	07/02/2001	5	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	60	3
	11/12/2001	60	3
	12/11/2001	60	3
	01/11/2002	60	3
	02/04/2002	60	3
	03/11/2002	60	3
	04/15/2002	60	3
	05/13/2002	25	2
	06/17/2002	25	2
CEF-46-D1	01/19/2001	100	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	2
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	2
	01/11/2002	100	2
	02/04/2002	100	2
	03/11/2002	100	2
	04/15/2002	100	2
	05/13/2002	100	2
	06/17/2002	100	2

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-D2	01/19/2001	60	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	75	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	2
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	2
	01/11/2002	100	2
	02/04/2002	100	2
	03/11/2002	100	2
	04/15/2002	100	2
	05/13/2002	100	2
	06/17/2002	100	2
CEF-46-D3	01/19/2001	60	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	50	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	2
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0

NA = Not Available
acfm = actual cubic feet per minute

TABLE 2-2
Injection System Data - West System

Date	Air Supply Pressure (psig)	Total Gas Flow (acfm)	NOX Flow (acfh)	TEP Injection (pounds)
01/19/2001	22	29	1	initial startup
02/28/2001	22	NA	1	0.00
03/30/2001	28	NA	3	1.34
04/13/2001	38	22	2.5	0.00
05/10/2001	50	22	1.5	3.12
06/07/2001	48	22	1.5	2.68
07/02/2001	48	22	1.5	1.78
08/06/2001	50	29	1.5	1.78
09/11/2001	50	22	1.5	8.12
10/03/2001	52	19	1.5	1.34
11/12/2001	50	19	1.5	2.41
12/11/2001	50	19	1.5	2.14
01/11/2002	42	19	1.5	1.78
02/04/2002	43	19	0.2	NA
03/11/2002	45	19	1.5	5.18
04/15/2002	45	19	1.5	1.52
05/13/2002	50	15	1.5	11.87
06/17/2002	51	15	0.5	8.12

NA = Not Available
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour
NOX = nitrous oxide
TEP = triethylphosphate

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI1 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-BI2 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	0.5
	06/07/2001	25	0.5
	07/02/2001	5	1
	08/06/2001	25	2
	09/11/2001	25	0.5
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-BI3 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	1.5
	06/07/2001	25	1.5
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	40	2
	11/12/2001	40	2
	12/11/2001	40	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	4
	06/17/2002	100	4

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI4 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	1.75
	06/07/2001	25	1.75
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	50 *	1.5
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	20	4
	01/11/2002	20	4
	02/04/2002	20	4
	03/11/2002	20	4
	04/15/2002	20	4
	05/13/2002	20	4
	06/17/2002	20	4
CEF-46-BI5 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	1.75
	06/07/2001	25	1.75
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	20	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	4
	06/17/2002	100	4
CEF-46-BI6 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	40	2
	11/12/2001	40	2
	12/11/2001	40	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	4
	06/17/2002	100	4

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI7 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	40	2
	11/12/2001	40	2
	12/11/2001	40	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	4
	06/17/2002	100	4
CEF-46-BI8 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-BD1 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2.5
	06/07/2001	100	2.5
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	1.5
	10/03/2001	100	1.5
	11/12/2001	100	1.5
	12/11/2001	100	3
	01/11/2002	100	3
	02/04/2002	100	3
	03/11/2002	100	3
	04/15/2002	100	3
	05/13/2002	100	3
	06/17/2002	100	3

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD2 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	4
	06/17/2002	100	4
CEF-46-BD3 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	100	4
	09/11/2001	100	2.5
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	50	2
	01/11/2002	50	2
	02/04/2002	50	2
	03/11/2002	50	2
	04/15/2002	50	2
	05/13/2002	50	2
	06/17/2002	50	2
CEF-46-BD4 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2.5
	06/07/2001	100	2.5
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	2.5
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	4
	06/17/2002	100	4

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD5 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	2.5
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
	01/11/2002	100	4
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-BD6 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	2.5
	10/03/2001	100	2
	11/12/2001	35	2
	12/11/2001	35	4
	01/11/2002	35	4
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	40	2
CEF-46-BD7 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	1.5
	06/07/2001	100	1.5
	07/02/2001	100	3
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
	01/11/2002	100	4
	02/04/2002	100	4
	03/11/2002	100	4
	04/15/2002	100	4
	05/13/2002	100	3
	06/17/2002	40	2

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD8 (Leg #2)	01/19/2001	100	1.5
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-BD9 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2.5
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	50	1
	08/06/2001	10	1
	09/11/2001	10	1
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0
CEF-46-BD10 (Leg #1)	01/19/2001	100	1.75
	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	1
	06/07/2001	100	1
	07/02/2001	100	3
	08/06/2001	25	2
	09/11/2001	25	1
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD11	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	1
	06/07/2001	100	1
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	1.5
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
	01/11/2002	0	0
	02/04/2002	0	0
	03/11/2002	0	0
	04/15/2002	0	0
	05/13/2002	0	0
	06/17/2002	0	0

NA = Not Available
* = opened for pressure relief
acfm = actual cubic feet per minute

TABLE 2-4
Injection System Data - East System

Date	Air Supply Pressure (psig)	Total Gas Flow (acfm)	NOX Flow (acfh)	TEP Injection (pounds)
01/09/2001	40	31	1.5	initial startup
02/28/2001	38	NA	1	0.00
03/30/2001	8	NA	1	1.78
04/13/2001	40	NA	NA	0.00
05/10/2001	42	34	3.5	2.68
06/07/2001	42	34	2.25	7.14
07/02/2001	41	39	2.25	0.00
08/06/2001	50	32	3.5	4.02
09/11/2001	65	21	1.5	5.98
10/03/2001	46	19.5	1.5	1.25
11/12/2001	65	19.5	1.5	1.87
12/11/2001	65	45	1.5	2.05
01/11/2002	42	45	2.5	0.27
02/04/2002	42	37	1	0.27
03/11/2002	48	37	2	3.03
04/15/2002	48	37	2	7.05
05/13/2002	48	36	1.5	NA
06/17/2002	49	37	0.8	NA

NA = Not Available
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour
NOX = nitrous oxide
TEP = triethylphosphate

2.4 Water Level Measurements

Depth to water measurements were recorded at selected monitoring wells (CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-6D, CEF-46-7I, CEF-46-9I, CEF-46-12I, CEF-46-13I, CEF-46-14D, CEF-46-15I, CEF-46-21I, CEF-46-24D, CEF-46-25I, and CEF-46-26I) on June 6 and 7, 2002. The tops of casing elevation, depth to water measurements, and calculated water level elevations are provided on Table 2-5.

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

TABLE 2-5
Groundwater Monitoring Well - Water Level & LNAPL Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-1S	14.24	12/21/2000	79.08	no LNAPL	4.94	74.14
		01/25/2001		no LNAPL	6.46	72.62
		02/01/2001		no LNAPL	5.46	73.62
		02/08/2001		no LNAPL	5.32	73.76
		02/15/2001		no LNAPL	5.55	73.53
		02/22/2001		no LNAPL	6.00	73.08
		03/08/2001		no LNAPL	6.04	73.04
		03/21/2001		no LNAPL	4.90	74.18
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	5.30	73.78
		05/02/2001		no LNAPL	5.71	73.37
		06/29/2001		no LNAPL	5.47	73.61
		07/25/2001		no LNAPL	3.90	75.18
		08/20/2001		no LNAPL	3.74	75.34
		09/18/2001		no LNAPL	1.65	77.43
		10/24/2001		no LNAPL	3.69	75.39
		11/15/2001		no LNAPL	4.10	74.98
		12/17/2001		no LNAPL	4.02	75.06
		03/19/2002		no LNAPL	4.44	74.64
		06/06/2002		no LNAPL	5.70	73.38
CEF-46-2S	13.88	12/21/2000	79.08	no LNAPL	5.02	74.06
		01/25/2001		no LNAPL	5.10	73.98
		02/01/2001		no LNAPL	5.60	73.48
		02/08/2001		no LNAPL	5.69	73.39
		02/15/2001		no LNAPL	5.67	73.41
		02/22/2001		no LNAPL	6.07	73.01
		03/08/2001		no LNAPL	6.14	72.94
		03/21/2001		no LNAPL	5.00	74.08
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	5.41	73.67
		05/02/2001		no LNAPL	5.78	73.30
		06/29/2001		no LNAPL	6.18	72.90
		07/25/2001		no LNAPL	4.11	74.97
		08/20/2001		no LNAPL	3.19	75.89
		09/18/2001		no LNAPL	1.55	77.53
		10/24/2001		no LNAPL	3.88	75.20
		11/15/2001		no LNAPL	3.95	75.13
		12/17/2001		no LNAPL	4.26	74.82
		03/19/2002		no LNAPL	4.61	74.47
		06/06/2002		no LNAPL	5.88	73.20
CEF-46-5I	49.65	12/21/2000	79.18	no LNAPL	5.81	73.37
		01/25/2001		no LNAPL	5.12	74.06
		02/01/2001		no LNAPL	9.21	69.97
		02/08/2001		no LNAPL	8.17	71.01
		02/15/2001		no LNAPL	7.07	72.11
		02/22/2001		no LNAPL	8.35	70.83
		03/08/2001		no LNAPL	8.26	70.92
		03/21/2001		no LNAPL	5.96	73.22
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	6.93	72.25
		05/02/2001		no LNAPL	7.04	72.14
		06/29/2001		no LNAPL	7.45	71.73
		07/25/2001		NM	flowing	NM
		08/21/2001		no LNAPL	4.27	74.91
		09/18/2001		no LNAPL	3.16	76.02
		10/23/2001		no LNAPL	5.80	73.38
		11/15/2001		no LNAPL	6.50	72.68
		12/18/2001		no LNAPL	6.61	72.57
		03/19/2002		no LNAPL	5.08	74.10
		06/06/2002		no LNAPL	9.06	70.12

TABLE 2-5
Groundwater Monitoring Well - Water Level & LNAPL Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-6D	79.82	12/21/2000	79.17	no LNAPL	7.40	71.77
		01/25/2001		NM	NM	NM
		02/01/2001		NM	NM	NM
		02/08/2001		no LNAPL	11.90	67.27
		02/15/2001		NM	NM	NM
		02/22/2001		NM	NM	NM
		03/08/2001		NM	NM	NM
		03/21/2001		NM	NM	NM
		04/03/2001		NM	NM	NM
		04/18/2001		NM	NM	NM
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		NM	NM	NM
		08/21/2001		no LNAPL	8.15	71.02
		09/18/2001		no LNAPL	4.75	74.42
		10/23/2001		no LNAPL	flowing	NM
		11/15/2001		no LNAPL	8.20	70.97
		12/18/2001		no LNAPL	9.75	69.42
		03/19/2002		no LNAPL	8.85	70.32
		06/06/2002		no LNAPL	12.56	66.61
CEF-46-7I	29.68	12/21/2000	79.02	no LNAPL	5.45	73.57
		01/25/2001		NM	NM	NM
		02/01/2001		NM	NM	NM
		02/08/2001		NM	NM	NM
		02/15/2001		NM	NM	NM
		02/22/2001		no LNAPL	7.17	71.85
		03/08/2001		NM	NM	NM
		03/21/2001		NM	NM	NM
		04/03/2001		NM	NM	NM
		04/18/2001		NM	NM	NM
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		NM	flowing	NM
		08/20/2001		no LNAPL	3.70	75.32
		09/18/2001		no LNAPL	1.85	77.17
		10/24/2001		no LNAPL	4.76	74.26
		11/15/2001		no LNAPL	4.52	74.50
		12/18/2001		no LNAPL	3.88	75.14
		03/19/2002		no LNAPL	5.09	73.93
		06/06/2002		no LNAPL	7.91	71.11
CEF-46-9I	48.81	12/21/2000	79.05	no LNAPL	5.67	73.38
		01/25/2001		no LNAPL	5.91	73.14
		02/01/2001		no LNAPL	7.37	71.68
		02/08/2001		no LNAPL	6.53	72.52
		02/15/2001		no LNAPL	6.03	73.02
		02/22/2001		no LNAPL	7.51	71.54
		03/08/2001		no LNAPL	6.61	72.44
		03/21/2001		no LNAPL	5.70	73.35
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	6.30	72.75
		05/02/2001		no LNAPL	6.52	72.53
		06/29/2001		no LNAPL	6.11	72.94
		07/25/2001		no LNAPL	4.61	74.44
		08/20/2001		no LNAPL	3.74	75.31
		09/18/2001		no LNAPL	1.93	77.12
		10/23/2001		no LNAPL	4.72	74.33
		11/15/2001		no LNAPL	4.69	74.36
		12/18/2001		no LNAPL	5.42	73.63
		03/19/2002		no LNAPL	5.20	73.85
		06/06/2002		no LNAPL	7.30	71.75

TABLE 2-5
Groundwater Monitoring Well - Water Level & LNAPL Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-12I	29.61	12/21/2000	78.73	no LNAPL	5.23	73.50
		01/25/2001		no LNAPL	6.44	72.29
		02/01/2001		no LNAPL	6.50	72.23
		02/08/2001		no LNAPL	6.71	72.02
		02/15/2001		no LNAPL	5.66	73.07
		02/22/2001		no LNAPL	6.73	72.00
		03/08/2001		no LNAPL	8.24	70.49
		03/21/2001		no LNAPL	5.20	73.53
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	5.75	72.98
		05/02/2001		no LNAPL	5.97	72.76
		06/29/2001		no LNAPL	5.59	73.14
		07/25/2001		no LNAPL	4.14	74.59
		08/20/2001		no LNAPL	3.20	75.53
		09/17/2001		no LNAPL	1.59	77.14
		10/23/2001		no LNAPL	4.20	74.53
		11/15/2001		no LNAPL	4.10	74.63
		12/18/2001		no LNAPL	4.85	73.88
		03/18/2002		no LNAPL	4.70	74.03
		06/06/2002		no LNAPL	6.47	72.26
CEF-46-13I	39.56	12/21/2000	78.87	no LNAPL	5.43	73.44
		01/25/2001		no LNAPL	5.86	73.01
		02/01/2001		no LNAPL	7.06	71.81
		02/08/2001		no LNAPL	6.39	72.48
		02/15/2001		no LNAPL	5.77	73.10
		02/22/2001		no LNAPL	7.15	71.72
		03/08/2001		no LNAPL	6.37	72.50
		03/21/2001		no LNAPL	5.40	73.47
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	6.07	72.80
		05/02/2001		no LNAPL	6.23	72.64
		06/29/2001		no LNAPL	5.87	73.00
		07/25/2001		no LNAPL	4.35	74.52
		08/20/2001		no LNAPL	3.44	75.43
		09/17/2001		no LNAPL	1.75	77.12
		10/23/2001		no LNAPL	4.52	74.35
		11/15/2001		no LNAPL	4.37	74.50
		12/18/2001		no LNAPL	5.18	73.69
		03/19/2002		no LNAPL	4.95	73.92
		06/06/2002		no LNAPL	6.92	71.95
CEF-46-14D	78.79	12/21/2000	78.88	no LNAPL	6.86	72.02
		01/25/2001		no LNAPL	4.65	74.23
		02/01/2001		no LNAPL	11.45	67.43
		02/08/2001		no LNAPL	8.84	70.04
		02/15/2001		no LNAPL	7.76	71.12
		02/22/2001		no LNAPL	8.74	70.14
		03/08/2001		no LNAPL	7.84	71.04
		03/21/2001		no LNAPL	6.96	71.92
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	7.93	70.95
		05/02/2001		no LNAPL	7.74	71.14
		06/29/2001		no LNAPL	7.36	71.52
		07/25/2001		no LNAPL	5.47	73.41
		08/20/2001		no LNAPL	5.35	73.53
		09/17/2001		no LNAPL	3.29	75.59
		10/23/2001		no LNAPL	7.40	71.48
		11/15/2001		no LNAPL	8.32	70.56
		12/18/2001		no LNAPL	7.01	71.87
		03/19/2002		no LNAPL	7.21	71.67
		06/06/2002		no LNAPL	9.00	69.88

TABLE 2-5
Groundwater Monitoring Well - Water Level & LNAPL Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-15I	29.77	12/21/2000	79.75	no LNAPL	6.33	73.42
		01/25/2001		no LNAPL	6.99	72.76
		02/01/2001		no LNAPL	7.45	72.30
		02/08/2001		no LNAPL	7.35	72.40
		02/15/2001		no LNAPL	6.75	73.00
		02/22/2001		no LNAPL	7.75	72.00
		03/08/2001		no LNAPL	7.23	72.52
		03/21/2001		no LNAPL	6.16	73.59
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	6.95	72.80
		05/02/2001		no LNAPL	7.21	72.54
		06/29/2001		no LNAPL	7.15	72.60
		07/25/2001		no LNAPL	5.75	74.00
		08/20/2001		no LNAPL	4.21	75.54
		09/17/2001		no LNAPL	2.70	77.05
		10/23/2001		no LNAPL	5.29	74.46
		11/15/2001		no LNAPL	5.15	74.60
		12/18/2001		no LNAPL	5.87	73.88
		03/18/2002		no LNAPL	5.90	73.85
		06/06/2002		no LNAPL	7.51	72.24
CEF-46-21I	29.70	12/21/2000	79.33	no LNAPL	6.02	73.31
		01/25/2001		no LNAPL	1.50	77.83
		02/01/2001		no LNAPL	7.90	71.43
		02/08/2001		no LNAPL	8.15	71.18
		02/15/2001		no LNAPL	5.02	74.31
		02/22/2001		no LNAPL	8.28	71.05
		03/08/2001		NM	NM	NM
		03/21/2001		NM	NM	NM
		04/03/2001		NM	NM	NM
		04/18/2001		NM	NM	NM
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		NM	flowing	NM
		08/21/2001		no LNAPL	4.15	75.18
		09/18/2001		no LNAPL	2.15	77.18
		10/24/2001		no LNAPL	5.16	74.17
		11/16/2001		no LNAPL	5.25	74.08
		12/18/2001		no LNAPL	6.03	73.30
		03/19/2002		no LNAPL	5.74	73.59
		06/07/2002		no LNAPL	8.65	70.68
CEF-46-24D	90.45	12/21/2000	78.74	no LNAPL	7.30	71.44
		01/25/2001		no LNAPL	8.20	70.54
		02/01/2001		no LNAPL	11.45	67.29
		02/08/2001		no LNAPL	10.87	67.87
		02/15/2001		no LNAPL	8.91	69.83
		02/22/2001		no LNAPL	9.39	69.35
		03/08/2001		no LNAPL	9.40	69.34
		03/21/2001		no LNAPL	7.25	71.49
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	8.15	70.59
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		no LNAPL	5.93	72.81
		08/21/2001		no LNAPL	5.82	72.92
		09/18/2001		no LNAPL	3.40	75.34
		10/24/2001		no LNAPL	7.35	71.39
		11/16/2001		no LNAPL	6.50	72.24
		12/18/2001		no LNAPL	7.24	71.50
		03/19/2002		no LNAPL	6.71	72.03
		06/07/2002		no LNAPL	10.69	68.05

TABLE 2-5
Groundwater Monitoring Well - Water Level & LNAPL Data

Well Identification	Well Total Depth (feet bgs)	Date	Top of Casing Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-25I	50.45	12/21/2000	79.17	no LNAPL	6.25	72.92
		01/25/2001		no LNAPL	5.55	73.62
		02/01/2001		no LNAPL	8.26	70.91
		02/08/2001		no LNAPL	7.87	71.30
		02/15/2001		no LNAPL	9.05	70.12
		02/22/2001		no LNAPL	8.56	70.61
		03/08/2001		no LNAPL	8.70	70.47
		03/21/2001		no LNAPL	6.00	73.17
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	7.19	71.98
		05/02/2001		no LNAPL	7.04	72.13
		06/29/2001		no LNAPL	6.90	72.27
		07/25/2001		no LNAPL	4.86	74.31
		08/21/2001		no LNAPL	3.92	75.25
		09/18/2001		no LNAPL	1.92	77.25
		10/24/2001		no LNAPL	4.82	74.35
		11/16/2001		no LNAPL	4.84	74.33
		12/18/2001		no LNAPL	5.61	73.56
		03/19/2002		no LNAPL	5.43	73.74
		06/07/2002		no LNAPL	8.41	70.76
CEF-46-26I	47.76	12/21/2000	79.43	no LNAPL	7.09	72.34
		01/25/2001		no LNAPL	5.89	73.54
		02/01/2001		no LNAPL	9.45	69.98
		02/08/2001		no LNAPL	8.12	71.31
		02/15/2001		no LNAPL	8.77	70.66
		02/22/2001		no LNAPL	8.73	70.70
		03/08/2001		no LNAPL	8.47	70.96
		03/21/2001		no LNAPL	6.40	73.03
		04/03/2001		NM	NM	NM
		04/18/2001		no LNAPL	7.40	72.03
		05/02/2001		no LNAPL	7.32	72.11
		06/29/2001		NM	NM	NM
		07/25/2001		no LNAPL	5.21	74.22
		08/21/2001		no LNAPL	4.27	75.16
		09/18/2001		no LNAPL	2.21	77.22
		10/24/2001		no LNAPL	5.16	74.27
		11/16/2001		no LNAPL	5.21	74.22
		12/18/2001		no LNAPL	6.02	73.41
		03/19/2002		no LNAPL	5.84	73.59
		06/06/2002		no LNAPL	8.92	70.51

bgs = below ground surface
NM = Not Measured
Elevation is referenced to National Geodetic Vertical Datum 1929 (NGVD 1929)
LNAPL = light non-aqueous phase liquid
Depth to LNAPL measured from top of casing
Depth to water measured from top of casing

3.0 Summary of Sampling and Laboratory Analytical Results

3.1 Soil Monitoring

During the monitoring period, quarterly soil screening and sampling was conducted on June 20, 2002. Three soil borings, labeled SB-1, SB-2, and SB-14, were installed in the soil contamination area identified during the Site Assessment. The soil was screened using an organic vapor analyzer (OVA) meter equipped with a flame ionization detector (FID) and a sample was collected at 5 feet bls from SB-1, 4 feet bls from SB-2 and 4 feet bls from SB-14 for laboratory analysis. The corresponding OVA/FID results are presented in Table 3-1. The water table was encountered at 5.5 feet bls.

TABLE 3-1
OVA/FID Results

Date	Soil Boring No.	Depth (feet bls)	OVA/FID Unfiltered	OVA/FID Filtered	OVA/FID Net
6/20/02	SB-1	2	15,000	0	15,000
6/20/02	SB-1	4	7,927	0	7,927
6/20/02	SB-1	5	36,600	0	37,600
6/20/02	SB-2	2	18,700	0	18,700
6/20/02	SB-2	4	23,700	0	23,700
6/20/02	SB-2	5	18,900	0	18,900
6/20/02	SB-14	2	1,893	2	1,891
6/20/02	SB-14	4	2,955	4	2,951
6/20/02	SB-14	5	785	57	728

bls – below land surface
ppm – parts per million
OVA/FID – organic vapor analyzer equipped with a flame ionization detector

The laboratory soil samples were analyzed for BTEX and MTBE by U.S. Environmental Protection Agency (EPA) Method 8021B, naphthalene and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8310, and TRPH by Florida Petroleum Residual Organic (FL PRO) Method. The results indicated that BTEX, MTBE, naphthalene, and TRPH levels are generally lower than the baseline soil sampling event conducted on January 4, 2001; however, BTEX, naphthalene, and TRPH levels still exceed the Leachability SCTLs in SB-1 and SB-2. All contaminant concentrations were below the Direct Exposure Residential SCTLs in SB-14. The locations of the soil borings are shown on Figure 1-1. Copies of the analytical laboratory report from the soil sampling event are provided in Appendix A, and analytical results are summarized in Table 3-2.

3.2 Groundwater Monitoring

Fourteen monitoring wells, designated as CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-6D, CEF-46-7I, CEF-46-9I, CEF-46-12I, CEF-46-13I, CEF-46-14D, CEF-46-15I, CEF-46-21I, CEF-46-24D, CEF-46-25I, and CEF-46-26I, were sampled on June 6 and 7, 2002. The samples were analyzed for BTEX and MTBE by USEPA Method 8021B, naphthalene and PAHs by EPA Method 8310, TRPH by the FL PRO Method, and nitrate, nitrite, phosphate by EPA Method 300.0. Seven of the fourteen wells had contaminant concentrations above the GCTLs during the baseline sampling event conducted December 20, 2000. At the end of the second quarter of 2002, the results of the groundwater treatment are as follows:

- Six monitoring wells still exceed the GCTLs. These wells are CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, CEF-46-13I, and CEF-46-26I.
- The contaminant concentrations in monitoring wells CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, and CEF-46-13I still exceed the GCTLs but have decreased from the baseline sampling event. CEF-46-1S has experienced an 93 percent decrease in benzene, and 68 percent decrease in BTEX, and 67 percent decrease in naphthalenes, but TRPH has increased above the baseline concentration. CEF-46-2S has experienced a 98 percent decrease in benzene, 95 percent decrease in BTEX, and 98 percent decrease in naphthalene (TRPH did not exceed the GCTL). CEF-46-5I experienced a 99 percent decrease in benzene and 95 percent decrease in BTEX (naphthalene and TRPH did not exceed the GCTL). CEF-46-7I experienced a 99 percent decrease in benzene, 99 percent decrease in BTEX, 98% decrease in naphthalene, and 95 percent decrease in TRPH. CEF-46-13I experienced a 51 percent decrease in MTBE from the post baseline event (no other contaminants exceed the GCTLs).
- The contaminant concentrations in monitoring well CEF-46-26I still exceed the GCTLs but have not decreased below baseline concentrations. Initially after system startup, concentrations increased above the baseline concentrations and remained above baseline concentrations for 10 months until the 4th quarter of 2001. Since then the concentrations have decreased to present levels near the baseline concentrations.

The locations of the monitoring wells are shown on Figure 1-1. Copies of the analytical laboratory reports from the groundwater sampling events are provided in Appendix B, and analytical results are summarized in Table 3-3.

Field analytical tests were performed on the monitoring wells during each sampling event. The groundwater was tested for pH, conductivity, temperature, dissolved oxygen, carbon dioxide, alkalinity, ferrous iron, and hydrogen sulfide. The results from the field analytical tests are summarized on Table 3-4.

An evaluation of the field analytical tests for those monitoring wells that exceed GCTLs indicates the following:

- pH and temperature are acceptable for biological activity.
- The conductivity values have remained relatively constant, indicating that the groundwater samples represent the same groundwater conditions during each sampling event.

- The dissolved oxygen levels are generally greater than 1 milligram per liter, which indicates aerobic conditions.
- The carbon dioxide values are elevated in monitoring wells CEF-46-5I, CEF-46-6D, CEF-46-7I, CEF-46-21I, and CEF-46-26I, indicating a high level of aerobic activity.
- Carbon dioxide levels in CEF-46-1S and CEF-46-2S have decreased from previous levels during the first quarter 2002, indicating decreased aerobic activity.
- Hydrogen sulfide values have increased in CEF-46-2S and remained relatively constant in all the other wells. This may indicate that sulfate-based anaerobic degradation is occurring in CEF-46-2S.

TABLE 3-2
Soil Analytical Results

Soil Boring Number	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	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	<0.9	65	14	390	469	3.1	73	<0.18	<1.8	1.235	0.67	<0.18	0.179	0.039	<.018	0.48	0.02	0.024	0.01	0.006	<0.018	<0.018	9900
	06/27/2001	0.61	34	9.1	110	153.71	<0.0012	1.4	<0.18	0.16	0.15	0.15	<0.18	0.051	0.012	0.022	0.19	0.012	0.013	0.006	0.007	<0.018	0.0049	150
	09/20/2001	0.65	6.1	0.69	40	47.44	<0.15	8.8	<0.2	<0.2	<0.2	0.28	<0.2	0.11	0.019	<0.02	0.15	0.034	0.026	0.018	0.011	0.026	0.024	1500
	12/12/2001	0.069	0.13	0.013	0.55	0.762	0.0084	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	19
	03/07/2002	3	67	7.1	200	277.1	<1.2	23	<0.19	<0.19	<0.19	0.27	<0.19	0.057	0.0057	0.023	0.26	<0.019	<0.19	0.005	<0.019	<0.019	<0.019	1600
	06/20/2002	0.15	7.9	0.82	27	35.87	<.11	5.2	<0.18	<0.18	0.92 J	0.086 J	<0.18	0.024 J	<0.018	<0.018	0.04	<0.018	<0.018	.0035 J	.0038 J	<0.018	<0.018	180
SB-2	01/04/2001	7.1	120	10	610	747.1	3.8	38.5	<0.18	<0.18	0.515	0.66	<0.18	0.173	0.044	0.043	<0.018	0.017	0.029	0.022	<0.018	<0.018	0.0255	3900
	06/27/2001	1.4	57	47	420	525.4	<0.0011	0.84	0.17	1	0.46	0.59	0.086	0.21	0.046	0.077	0.071	0.026	0.037	0.019	0.007	<0.019	0.0091	1300
	09/20/2001	0.51	32	6	290	328.51	<0.12	7.4	<0.2	2.1	<0.20	0.58	<0.2	0.2	0.049	0.076	0.16	0.026	<0.020	0.02	<0.020	<0.020	<0.020	430
	12/12/2001	<11	99	110	620	829	<11	34	<0.2	0.12	0.38	0.23	<0.2	0.043	0.018	0.017	0.15	0.01	0.007	0.007	<0.020	0.008	0.015	1800
	03/07/2002	1.7	38	24	430	493.7	<1	24	<0.19	<0.19	<0.19	0.47	<0.19	0.085	0.012	0.049	<0.019	0.027	0.051	0.026	0.051	<0.019	0.015	2000
	06/20/2002	0.14	2.8	6	72	80.94	<.12	11	<0.17	<0.17	<0.17	0.2	0.1 J	0.065 J	0.015 J	0.028 J	0.075	0.013 J	0.018 J	0.010 J	<0.017	<0.017	<0.017	550
SB-3	01/04/2001	0.00038	<0.0011	<0.0011	<0.0033	0.00038	<0.0011	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	<0.018	<0.018	0.031	0.008	0.004	0.007	<0.018	<0.018	<0.018	16
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/07/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06/20/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	01/04/2001	0.0011	<0.0012	<0.0012	<0.0036	0.0011	<0.0012	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.075	0.0715	0.078	0.13	0.145	0.067	0.11	0.055	0.082	0.1025	25
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/07/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06/20/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	01/04/2001	<0.001	<0.001	0.011	0.0077	0.0187	0.0081	0.23	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	<0.018	<0.018	0.785	0.015	0.008	0.012	0.008	0.01	0.016	43
	06/27/2001	0.1	0.16	<0.0011	0.15	0.41	0.015	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	0.014	<0.019	<0.019	0.44	0.006	0.007	0.019	<0.019	0.023	<0.019	270
	09/20/2001	0.0025	0.0025	0.002	0.0024	0.0094	<0.0012	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.020	<0.020	<0.020	0.32	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	55
	12/12/2001	0.11	0.18	0.014	0.71	1.014	0.012	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.019	<0.019	<0.019	0.058	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	65
	03/07/2002	0.054	0.045	<0.0011	0.032	0.131	0.0021	0.56	<0.19	<0.19	<0.19	<0.19	<0.19	0.011	<0.019	<0.019	1.2	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	120
	06/20/2002	<0.11	0.11 J	<0.11	0.11 J	0.22	<0.11	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	<0.018	<0.018	1.4 J	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	23
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]		0.007	0.6	0.5	0.2	n/a	0.2	1.7	27	2.1	160	250	2500	1200	880	3.2	77	10	25	8	28	30	32000	340

All values reported in mg/kg
BTEX = sum of benzene, toluene, ethylbenzene, and xylene
1 = Ch 62-777 F.A.C Soil cleanup Target Level (SCTLs) reported in mg/kg
TRPH = total recoverable petroleum hydrocarbons
Shaded values indicate the compounds that exceed the SCTLs

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-1S	12/21/2000	13000	2900	40000	19000	74900	NA	550	N/A	N/A	1.4	<1.1	0.98	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.085 J	0.15	<1	23000
	01/25/2001	0.28	0.44	1.4	3.2	5.32	<1.0	<1.0	N/A	N/A	<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	0.20	0.25	290
	02/01/2001	9900	2300	33000	18000	63200	300	490	N/A	N/A	<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	0.20	<1.0	40000
	02/08/2001	10000	2900	42000	21000	75900	<500	510	N/A	N/A	<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	0.11	<1.0	55000
	02/15/2001	9000	2400	34000	18000	63400	<1000	430	N/A	N/A	<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	0.11	<1	74000
	02/22/2001	8900	2300	34000	17000	62200	<1000	600	N/A	N/A	<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	0.19	<1.0	5000
	03/08/2001	11000	2900	41000	20000	74900	<500	450	N/A	N/A	<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	56000
	03/21/2001	11000	2600	40000	19000	72600	<1000	440	120	150	<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	37000
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	9500	2500	39000	20000	71000	<1000	470	41	130	<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	53000
	05/02/2001	9900	2800	39000	21000	72700	<1000	420	38	130	<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	0.076	<1.0	44000
	06/29/2001	2700	930	15000	12000	30630	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS	26000
	07/25/2001	210	150	1300	1600	3260	<10	36	5.9	21	<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	2900
	08/20/2001	1200	590	6900	6300	14990	520	340	43	120	<1.0	62	17	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.17	<0.40	<1.0	32000
	09/18/2001	2100	1200	13000	11000	27300	230	400	61	130	<1.1	<1.1	1.3	<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	55000
	10/24/2001	2000	1500	16000	15000	34500	190	510	68	110	<1.0	<1.1	1.5	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	0.41	<1.0	63000
	11/15/2001	2000	1600	17000	17000	37600	160	490	60	100	<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	48000
	12/17/2001	2000	1600	18000	13000	34600	190	490	48	170	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	51000
	03/19/2002	1480	1460	14500	16400	33840	564	637	54.6	201	<1.1	95.7	28.1	<1.1	<1.1	<0.21	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	47500
	06/06/2002	970	1300	10000	12000	24270	720	180	65	190	<1.0	25	18	0.3 J	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.11 J	0.12 J	<1.0	46000
CEF-46-2S	12/21/2000	300	72	51	200	623	NA	230	N/A	N/A	<1.1	5.5	3.1	0.35	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.4	0.22	3100
	01/25/2001	7.3	0.96	1.5	3.3	13.06	7.1	11	N/A	N/A	<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	0.083	<0.40	<1.0	540
	02/01/2001	93	28	150	71	342	9.9	18	N/A	N/A	<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	860
	02/08/2001	230	67	390	180	867	<5.0	13	N/A	N/A	<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
	02/15/2001	360	88	630	270	1348	7.5	32	N/A	N/A	<1.1	26	3.1	2.0	2.3	0.51	0.6	0.68	0.65	0.58	0.33	0.63	0.53	0.55	0.73	<0.60	<0.40	<1.0	2100
	02/22/2001	340	88	610	260	1298	10	19	N/A	N/A	<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
	03/08/2001	390	76	440	160	1066	10	37	N/A	N/A	<1.0	29	<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	1700
	03/21/2001	49	5.4	16	8.4	78.8	<1.0	<1.0	<1.0	<1.0	4.4	<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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	90	12	19	9.5	130.5	12	72	2.9	4.7	<1.0	34	3.7	<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
	05/02/2001	760	180	730	520	2190	23	78	3.8	8.3	<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	<6.0	<4.0	<10	1900
	06/29/2001	1600	170	23	160	1953	39	<1.0	<1.0	<1.0	4.4	<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	NS	NS	NS	1100
	07/25/2001	1100	310	40	520	1970	54	27	2.3	5.7	<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	<0.61	<0.40	<1.0	980
	08/20/2001	730	160	12	220	1122	56	17	1	1.8	<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	<0.60	<0.40	<1.0	1300
	09/18/2001	21	7.6	2.4	2.7	33.7	32	0.94	<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	360
	10/24/2001	120	110	4.4	40	274.4	50	3.4	<1.1	<1.1	<1.0	<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	<0.60	<0.40	1.2	1000
	11/15/2001	8.2	4.1	<1.0	5.1	17.4	60	1.1	<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	550
	12/17/2001	39	82	<1.0	21	142	51	1.5	<1.1	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	920
	03/19/2002	2.95	3.13	<1.0	3.11	9.19	104	0.544	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	404
	06/06/2002	7.1	9.1	<1.0	12	28.2	200	4.8	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	500

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-5I	12/21/2000	850	38	13	150	1051	NA	1.6	N/A	N/A	<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	<0.6	<0.4	<1.0	<550
	01/25/2001	180	7.4	3.1	31	221.5	<1.0	<1.0	N/A	N/A	<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
	02/01/2001	240	12	5.3	64	321.3	5.2	0.43	N/A	N/A	<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	<0.60	<0.40	<1.0	<530
	02/08/2001	48	2.3	0.82	12	63.12	<1.0	<1.1	N/A	N/A	<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	300
	02/15/2001	37	<1.0	0.59	7.3	44.89	<1.0	6.5	N/A	N/A	<1.0	2.7	2.2	3.3	3.7	0.66	0.59	0.73	0.86	0.60	0.34	0.64	0.52	0.50	0.67	<0.60	<0.40	<1.0	210
	02/22/2001	53	2.7	0.94	7.7	64.34	2.1	0.52	N/A	N/A	<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	<0.60	<0.40	<1.0	330
	03/08/2001	64	2.9	0.53	5.5	72.93	<1.0	0.45	N/A	N/A	<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	400
	03/21/2001	0.13	<1.0	<1.0	<1.0	0.13	<1.0	0.52	<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
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	32	1.2	<1.0	4.8	38	<1.0	<1.0	<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
	05/02/2001	14	0.66	0.64	2.2	17.5	1.4	<1.1	<1.1	<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	<0.60	<0.40	<1.0	<530
	06/28/2001	<1.0	<1.0	1.5	9.5	11	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	0.8	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	<1.0	310
	07/25/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/21/2001	<1.0	1.6	3.9	20	25.5	<1.0	<1.0	<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	0.74	<540
	09/18/2001	1.2	2.3	5.7	30	39.2	<1.0	<1.0	<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	<530
	10/23/2001	0.91	2.2	4.3	22	29.41	<1.0	<1.2	<1.2	<1.2	<1.0	<1.2	<1.2	<1.2	<1.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.89	<0.40	<1.0	750
	11/15/2001	3.4	7.8	19	66	96.2	1.6	<1.0	<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	<6.0	<4.0	<10.0	<510
	12/18/2001	2.9	8.5	19	74	104.4	1.1	<1.0	<1.0	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	3.4	<1.0	<520
	03/19/2002	<1.0	2.37	2.06	51.3	55.73	1.71	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.661	7.71	<1.0	<540
	06/06/2002	<1.0	2.1	2.4	43	47.5	<1.0	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.661	7.71	<1.0	<500
CEF-46-6D	12/21/2000	2.8	9.9	6	18	36.7	NA	3.5	N/A	N/A	<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	<0.6	<0.4	0.22	<560
	02/08/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	N/A	N/A	<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
	02/15/2001	<1.0	0.41	0.59	5.0	6	<1.0	0.55	N/A	N/A	<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	<540
	02/22/2001	<1.0	<1.0	<1.0	1.9	1.9	<1.0	0.46	N/A	N/A	<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
	03/07/2001	<1.0	0.55	0.39	2.8	3.7	<1.0	<1.0	N/A	N/A	<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	<0.60	<0.60	<520
	03/21/2001	69	2.3	0.62	4.2	76.1	<1.0	1.7	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	<1.0	0.26	<1.0	0.85	1.1	<1.0	<1.1	<1.1	<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	<520
	05/02/2001	0.27	<1.0	0.43	1.3	2.0	<1.0	<1.1	<1.1	<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	<0.60	<0.40	<1.0	<520
	06/28/2001	<1.0	<1.0	<1.0	3.1	3.1	<1.0	<1.1	<1.1	<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
	07/25/2001	<1.0	<1.0	2.1	7.8	9.9	<1.0	<1.1	<1.1	<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	<0.61	<0.40	<1.0	<520
	08/21/2001	<1.0	1.2	1.6	11	13.8	<1.0	<1.0	<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	<540
	09/18/2001	0.82	1.4	2.3	12	16.5	<1.0	<1.1	<1.1	<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	NA	NA	NA	<520
	10/23/2001	0.54	0.89	1.7	7.7	10.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	11/15/2001	1.7	3.2	6.9	24	35.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.21	<0.20	<0.20	<0.21	<6.0	<4.0	<10.0	<520
	12/18/2001	<1.0	<1.0	0.84	4.1	4.94	<1.0	<1.1	<1.0	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	03/19/2002	0.982	2.6	2.18	31.7	37.5	<1.0	0.886	<1.0	<1.0	<1.0	<1.0	<1.0	0.955	<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	<550
	06/06/2002	<1.0	<1.0	<1.0	4.5	4.5	<1.0	0.92 J	<1.0	<1.0	<1.0	<1.0	<1.0	0.955	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.60	<0.40	<1.0	<500

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-7I	12/21/2000	9100	2800	17000	15000	43900	NA	260	N/A	N/A	0.86	<1.1	0.7	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	13000
	02/22/2001	6500	1400	10000	7900	25800	6100	120	N/A	N/A	<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	<0.6	<0.4	<1.0	17000
	03/07/2001	7500	1900	12000	10000	31400	5000	170	N/A	N/A	<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	<0.6	<0.4	<1.0	16000
	03/21/2001	4400	1100	7300	6200	19000	3100	180	5.4	39	<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	<0.6	<0.4	<1.0	15000
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	3400	730	3900	4400	12430	6100	200	6.1	22	<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	<0.6	<0.4	<1.0	6400
	05/02/2001	5900	1200	7300	6700	21100	17000	78	1.7	14	<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	<120	<80	<200	5500
	06/29/2001	1100	190	590	1200	3080	5000	24	<1.0	<1.0	<1.0	2.4	0.6	<1.0	<1.0	<0.20	0.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	NS	NS	3000
	07/25/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/20/2001	3900	780	6000	5300	15980	6700	68	1.5	20	<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	<0.6	<0.4	<1.0	5400
	09/18/2001	4600	1100	7700	4600	18000	4200	96	2.8	23	<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	NA	NA	NA	10000
	10/24/2001	1100	240	1600	1600	4540	3700	14	<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	3.7	3000
	11/15/2001	3900	860	2800	5000	12560	3100	160	<1.0	11	<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	<0.6	<0.4	<1.0	5600
	12/18/2001	500	96	540	680	1816	2600	9.7	<1.1	0.53	<1.0	<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	<0.6	<0.4	<1.0	1900
	03/19/2002	592	116	535	841	2084	4700	9.67	<1.0	3.36	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.15	<0.4	<1.0	1060
	06/06/2002	95	<50	53	140	288	4300	5.1	<1.0	3.36	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.15	<0.4	<1.0	650
CEF-46-9I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<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	<0.6	<0.4	<1.0	<570
	01/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	1.3	<1.0	N/A	N/A	<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
	02/01/2001	<1.0	<1.0	<1.0	0.15	0.15	<1.0	0.45	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	0.088	<0.21	0.084	0.13	0.15	0.081	0.19	0.099	<0.60	<0.40	<1.0	<520
	02/07/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.87	<1.0	N/A	N/A	<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
	02/14/2001	<1.0	0.17	<1.0	0.57	0.74	1.1	<1.0	N/A	N/A	<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
	02/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.93	<1.0	N/A	N/A	<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	<540
	03/08/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.87	0.75	N/A	N/A	<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	210
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.94	<1.0	<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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	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	<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	<510
	05/02/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.82	<1.1	<1.1	<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	<0.6	<0.4	<1.0	<530
	06/28/2001	<1.0	<1.0	<1.0	<1.0	<4.0	1	<1.1	<1.1	<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	<0.6	<0.4	0.37	<500
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.61	<0.40	<1.0	<520
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	1.4	<1.0	<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	<0.6	<0.4	<1.0	330
	09/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	3.1	<1.0	<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	NA	NA	NA	<520
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.59	<1.1	<1.1	<1.1	<1.0	<1.0	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.9	<0.40	<1.0	<540
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	<520
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	03/19/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.0	<1.0	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	0.155	<0.40	<1.0	<530
	06/06/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-12I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<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	<0.6	<0.4	<1.0	<530
	01/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	14	<1.0	N/A	N/A	<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
	02/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	13	<1.0	N/A	N/A	<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	<530
	02/07/2001	<1.0	0.13	<1.0	0.41	0.54	19	<1.0	N/A	N/A	<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
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	14	<1.0	N/A	N/A	<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	0.15	0.14	0.3	0.55	1.14	15	<1.1	N/A	N/A	<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
	03/08/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<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
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	21	<1.0	<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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	14	<1.0	<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	<540
	05/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	15	<1.0	<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	<540
	06/28/2001	<1.0	<1.0	<1.0	<1.0	<4.0	12	<1.0	<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
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	11	<1.0	<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	2	<0.40	<1.0	320
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	10	<1.0	<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
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	7.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	13	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.20	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.21	<0.40	<1.0	<530
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	17	<1.0	<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
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	12	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<560
	03/18/2002	<1.0	<1.0	<1.0	<1.0	<4.0	5.78	<1.1	<1.0	<1.1	<1.0	<1.0	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	06/06/2002	<1.0	<1.0	<1.0	<1.0	<4.0	2.8	<1.1	<1.0	<1.1	<1.0	<1.1	<1.1	0.59 J	<1.1	0.84	0.77	0.32	0.3	0.32	0.14 J	0.3	.15 J	.18 J	0.1 J	<0.60	<0.40	<1.0	<500
CEF-46-13I	12/20/2000	<1.0	<1.0	<1.0	0.45	0.45	NA	0.89	N/A	N/A	<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	<0.6	<0.4	<1.0	<540
	01/24/2001	<1.0	<1.0	1.5	0.62	2.12	280	0.60	N/A	N/A	<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	320
	02/01/2001	1.0	0.24	<1.0	0.41	1.65	190	0.39	N/A	N/A	<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	<530
	02/07/2001	0.59	<1.0	<1.0	0.95	1.54	300	<1.0	N/A	N/A	<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	250
	02/14/2001	<1.0	2	<1.0	8.4	10.4	200	<1.0	N/A	N/A	<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	230
	02/21/2001	<1.0	<1.0	<1.0	4	4	260	<1.1	N/A	N/A	<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	290
	03/08/2001	1.5	0.73	<1.0	<1.0	2.23	250	<1.0	N/A	N/A	<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	510
	03/21/2001	<1.0	<1.0	<1.0	7.7	7.7	250	0.73	<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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	0.92	<1.0	0.92	210	<1.0	<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	<530
	05/01/2001	<5.0	<5.0	<5.0	2	2	260	<1.1	<1.1	<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	<600
	06/28/2001	<1.0	0.2	0.99	1.4	2.59	210	<1.0	<1.0	<1.0	<1.0	0.83	<1.0	<1.0	<1.0	<0.20	0.35	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	350
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	180	<1.0	<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	410
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	190	<1.1	<1.1	<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	<0.61	<0.40	0.56	320
	09/17/2001	<1.0	<1.0	0.68	0.53	1.21	160	<1.0	<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	NA	NA	NA	310
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	130	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	170	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	140	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	03/19/2002	<1.0	<1.0	<1.0	<1.0	<4.0	136	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	06/06/2002	<1.0	<1.0	<1.0	<1.0	<4.0	160	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-14D	12/20/2000	<1.0	<1.0	0.42	0.37	0.79	NA	<1.1	N/A	N/A	<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	0.088	<0.4	0.26	<550
	01/24/2001	<1.0	<1.0	<1.0	0.23	0.23	<1.0	<1.0	N/A	N/A	<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	0.17	<530
	02/01/2001	<1.0	<1.0	<1.0	0.33	0.33	<1.0	<1.0	N/A	N/A	<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	0.24	<520
	02/07/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<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	470
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<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	400
	02/21/2001	0.11	<1.0	<1.0	0.35	0.46	0.41	<1.1	N/A	N/A	<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	0.28	230
	03/08/2001	0.21	<1.0	<1.0	<1.0	0.21	<1.0	<1.0	N/A	N/A	<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
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.75	<1.0	<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	<510
	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	<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	0.24	<530
	06/28/2001	<1.0	<1.0	0.63	0.5	1.13	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	0.33	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	0.44	<500
	07/25/2001	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<1.0	<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	0.18	<0.40	<1.0	300
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	0.65	<520
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<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	<0.60	<0.40	<1.0	<520
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.20	<0.23	<0.20	<0.20	<0.23	<0.20	<0.20	<0.20	<0.20	<0.23	<0.60	<0.40	<1.0	<520
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	03/19/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.391	<520
	06/06/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.391	<500
CEF-46-15I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<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	<0.6	<0.4	<1.0	<550
	01/24/2001	0.17	<1.0	<1.0	<1.0	0.17	<1.0	<1.0	N/A	N/A	<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
	02/01/2001	0.21	<1.0	<1.0	<1.0	0.21	0.68	<1.0	N/A	N/A	<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
	02/07/2001	0.21	<1.0	<1.0	<1.0	0.21	<1.0	<1.0	N/A	N/A	<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
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<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	0.11	<1.0	<1.0	0.25	0.36	0.27	<1.1	N/A	N/A	<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	0.38	0.38	<1.0	<1.0	N/A	N/A	<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	<530
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	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	<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	<530
	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	<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
	06/28/2001	<1.0	<1.0	1.1	<1.0	1.1	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	0.58	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.38	<0.40	<1.0	270
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.17	<0.40	<1.0	<520
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<530
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	3.1	<1.0	<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
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<530
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<550
	03/18/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.169	<0.40	<1.0	<530
	06/06/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-21I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<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	<0.6	<0.4	<1.0	<550
	01/25/2001	0.25	<1.0	0.70	<1.0	0.95	<1.0	<1.0	N/A	N/A	<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	300
	02/02/2001	0.45	<1.0	0.99	0.27	1.71	<1.0	<1.0	N/A	N/A	<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
	02/08/2001	0.91	<1.0	<1.0	<1.0	0.91	<1.0	<1.0	N/A	N/A	<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	200
	02/16/2001	0.19	0.14	0.97	0.55	1.85	<1.0	<1.0	N/A	N/A	<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	200
	02/22/2001	<1.0	0.18	0.68	<1.0	0.86	<1.0	<1.0	N/A	N/A	<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
	03/08/2001	<1.0	<1.0	0.32	<1.0	0.32	<1.0	<1.1	N/A	N/A	<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	230
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	0.26	<1.0	0.42	<1.0	0.68	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	05/02/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06/29/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.064	<0.21	<0.21	<0.21	NS	NS	NS	<550
	07/25/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/21/2001	1.3	<1.0	0.73	3.1	5.13	<1.0	<1.0	<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	0.59	0.7	<520
	09/18/2001	<1.0	<1.0	<1.0	1.6	1.6	<1.0	<1.0	<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	NA	NA	NA	<520
	10/24/2001	<1.0	<1.0	<1.0	0.58	0.58	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	<530
	11/16/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.60	<0.40	<1.0	<530
	03/19/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.1	<1.0	<1.1	<1.1	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	06/07/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.1	<1.0	<1.1	<1.1	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	0.15 J	<1.0	<500
CEF-46-24D	12/20/2000	<1.0	<1.0	0.47	0.41	0.88	NA	<1.1	N/A	N/A	<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	<0.6	<0.4	0.18	<500
	01/25/2001	8.3	0.81	1.0	2.0	12.11	<1.0	<1.0	N/A	N/A	<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	0.19	<510
	02/02/2001	0.25	<1.0	<1.0	0.40	0.65	<1.0	<1.0	N/A	N/A	<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	0.30	<500
	02/08/2001	0.28	0.13	<1.0	0.45	0.86	<1.0	<1.0	N/A	N/A	<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	0.18	340
	02/15/2001	0.16	0.11	0.60	0.54	1.41	<1.0	<1.0	N/A	N/A	<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	460
	02/24/2001	0.18	0.11	0.40	0.54	1.23	<1.0	<1.1	N/A	N/A	<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	<0.60	<0.40	<1.0	<500
	03/08/2001	0.24	<1.0	<1.0	0.4	0.64	<1.0	<1.0	N/A	N/A	<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	430
	03/21/2001	0.47	0.34	0.38	0.97	2.16	0.82	<1.0	<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	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.60	<0.40	0.26	<510
	04/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	05/02/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	0.24	650
	06/29/2001	<1.0	<1.0	<1.0	0.7	0.7	19	<1.0	<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	NS	NS	NS	<520
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	380
	08/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<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	<0.60	<0.40	<1.0	<540
	09/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<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	NA	NA	NA	<550
	10/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	11/16/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.1	<1.1	<1.0	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	03/19/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	06/07/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BTEX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	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 (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (mg/L)
CEF-46-25I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.6	<0.4	<1.0	<560
	01/25/2001	0.25	<1.0	<1.0	0.42	0.67	<1.0	<1.0	N/A	N/A	<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	320
	02/02/2001	0.27	<1.0	<1.0	<1.0	0.27	<1.0	<1.0	N/A	N/A	<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
	02/08/2001	0.21	0.15	<1.0	0.43	0.79	<1.0	<1.1	N/A	N/A	<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	<0.60	<0.40	<1.0	390
	02/15/2001	0.22	<1.0	0.58	0.46	1.26	<1.0	<1.0	N/A	N/A	<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	1000
	02/22/2001	0.46	<1.0	<1.0	<1.0	0.46	<1.0	<1.0	N/A	N/A	<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	610
	03/21/2001	0.42	<1.0	<1.0	<1.0	0.42	<1.0	<1.0	<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
	04/03/2001	0.28	<1.0	<1.0	<1.0	0.28	<1.0	<1.0	<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	<0.4	<1.0	380
	04/18/2001	0.32	<1.0	0.29	<1.0	0.61	<1.0	<1.0	<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	<0.4	<1.0	<530
	05/02/2001	0.19	<1.0	<1.0	<1.0	0.19	<1.0	<1.0	<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	<0.4	<1.0	1000
	06/29/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	0.33	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NS	NS	NS	<530
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	08/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<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	<0.4	<1.0	<520
	09/18/2001	<1.0	<1.0	1.3	0.81	2.11	<1.0	<1.0	<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	NA	NA	NA	<510
	10/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	<530
	11/16/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.4	<1.0	<510
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.1	<1.0	<1.0	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	<540
	03/19/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.4	<1.0	<520
	06/07/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.4	<1.0	<520
CEF-46-26I	12/20/2000	1300	78	41	310	1729	NA	<1.1	N/A	N/A	<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	<0.6	<0.4	<1.0	<530
	01/25/2001	2400	270	100	820	3590	<5.0	<1.0	N/A	N/A	<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	890
	02/02/2001	2000	150	77	600	2827	<1.0	<1.0	N/A	N/A	<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	590
	02/08/2001	2100	120	83	460	2763	18	<1.0	N/A	N/A	<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	730
	02/16/2001	2300	150	94	600	3144	10	<1.1	N/A	N/A	<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	<0.60	<0.40	<1.0	960
	02/22/2001	1800	140	240	620	2800	<100	<1.1	N/A	N/A	<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	<0.60	<0.40	<1.0	610
	03/08/2001	2100	160	85	620	2965	<50	<1.0	N/A	N/A	<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	1000
	03/21/2001	2400	190	110	750	3450	<10	<1.0	<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	630
	04/03/2001	2400	190	99	810	3499	<1.0	<1.0	<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	<0.6	<0.4	<1.0	1200
	04/18/2001	2300	190	110	750	3350	<50	<1.0	<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	<0.6	<0.4	<1.0	810
	05/02/2001	1100	100	46	390	1636	<50	<1.0	<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	<30	<20	<50	410
	06/29/2001	3400	260	180	1200	5040	<50	<1.0	<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	NS	NS	NS	1200
	07/25/2001	2100	180	87	790	3157	<25	<1.0	<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	850
	08/21/2001	2000	160	49	700	2909	<1.0	<1.0	<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	<0.6	<0.4	<1.0	930
	09/18/2001	2100	180	110	730	3120	<20	<1.1	<1.1	<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	NA	NA	NA	720
	10/24/2001	1300	97	22	390	1809	<20	<1.1	<1.0	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.22	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	720
	11/16/2001	1700	120	10	430	2260	10	<1.0	<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	0.12	0.15	<1.0	590
	12/18/2001	1300	68	<10	370	1738	11	<1.1	<1.0	<1.1	<1.0	<1.0	<1.1	<1.1	<1.0	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	720
	03/19/2002	1510	63.4	14	424	2011.4	14.9	<1.0	<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	0.148	<0.40	<1.0	360
	06/06/2002	1500	46	5	430	1981	14	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	290 J
Groundwater Criteria [1]		1	30	40	20	n/a	50	20	20	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	200	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

NS = Not Sampled
NA = Not Analyzed

BTEX = sum of benzene, toulene, ethylbenzene, and xylene
TRPH = total recoverable petroleum hydrocarbons

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-1S	12/21/2000	6.20	0.512	1.05	22.7	NR	200	1.4	1.0
	01/25/2001	6.56	0.128	4.63	22.1	70	80	0.1	0.0
	02/01/2001	6.47	0.275	1.83	20.1	>1000	>400	0.0	5.0
	02/08/2001	6.60	0.270	1.40	20.0	>1000	>400	0.0	1.0
	02/15/2001	5.20	0.240	1.50	20.0	>1000	>400	0.0	5.0
	02/22/2001	6.20	0.220	3.30	20.0	NR	NR	0.6	0.3
	03/08/2001	6.28	0.211	2.72	20.2	>1000	>400	1.0	1.0
	03/21/2001	6.20	0.220	2.30	20.0	500	340	0.2	2.0
	04/18/2001	6.30	0.280	2.80	20.0	>1000	>400	0.0	2.0
	05/02/2001	5.90	0.240	2.50	21.0	>1000	>400	0.4	2.0
	06/29/2001	5.97	0.190	NR	24.6	120	80	1.0	2.0
	07/25/2001	4.31	2.540	2.63	27.2	>1000	20	6.0	0.1
	08/20/2001	7.27	0.686	0.06	26.7	>1000	40	1.2	5.0
	09/18/2001	6.62	0.817	1.84	25.8	260	400	0.8	0.5
	10/24/2001	7.43	0.205	1.30	25.1	230	180	1.6	>5.0
	11/15/2001	8.00	0.241	0.66	24.3	150	120	1.6	5.0
	12/17/2001	6.00	0.263	1.19	23.5	180	100	2.8	0.7
	03/19/2002	6.55	0.201	1.21	21.7	100	80	1.2	0.5
	06/06/2002	6.56	0.194	0.94	25.8	100	120	2.0	0.9
CEF-46-2S	12/21/2000	6.20	0.962	1.06	23.2	352	720	1.0	0.0
	01/25/2001	6.55	0.511	2.15	19.9	400	200	1.0	0.3
	02/01/2001	6.39	0.625	1.81	20.3	>1000	>400	0.0	0.5
	02/08/2001	6.60	0.640	2.20	20.0	600	400	1.2	0.1
	02/15/2001	6.20	0.640	1.80	20.0	>1000	400	1.0	0.5
	02/22/2001	6.40	0.630	3.20	20.0	>1000	>400	0.8	0.5
	03/08/2001	6.52	0.576	1.67	20.2	80	300	0.6	1.0
	03/21/2001	6.50	0.580	2.00	20.0	360	420	1.0	0.5
	04/18/2001	6.40	0.690	2.00	20.0	440	300	1.2	0.5
	05/02/2001	6.30	0.670	3.30	21.0	400	380	1.0	2.0
	06/29/2001	6.52	0.689	NR	23.7	280	400	0.2	5.0
	07/25/2001	7.09	0.709	1.92	25.2	220	380	0.6	5.0
	08/20/2001	8.92	0.667	0.06	26.3	210	280	0.8	2.0
	09/18/2001	5.98	0.398	1.24	26.3	>1000	80	3.6	>5.0
	10/24/2001	8.13	0.530	1.89	24.9	140	220	0.2	>5.0
	11/15/2001	8.71	0.610	0.65	24.1	200	200	0.0	5.0
	12/17/2001	7.00	0.546	1.62	23.5	180	200	0.0	5.0
	03/19/2002	7.26	0.541	1.60	21.7	140	240	0.4	5.0
	06/06/2002	7.19	0.460	1.94	25.1	160	200	0.2	5.0
CEF-46-5I	12/21/2000	5.60	0.140	1.10	23.2	183	100	1.8	1.0
	01/25/2001	6.17	0.157	1.51	23.7	360	200	1.6	0.1
	02/01/2001	5.78	0.123	0.63	24.7	160	100	2.0	0.1
	02/08/2001	6.50	0.450	1.20	25.0	110	100	4.5	0.0
	02/15/2001	5.90	0.240	2.40	24.0	140	60	4.0	0.1
	02/22/2001	5.50	0.290	1.30	24.0	86	40	4.1	0.0
	03/08/2001	5.67	0.340	3.12	24.3	160	40	3.2	0.0
	03/21/2001	5.30	0.370	2.10	24.0	140	20	3.6	0.5
	04/18/2001	4.80	0.520	0.40	24.0	230	20	3.4	1.0
	05/02/2001	4.70	0.480	1.10	24.0	300	100	2.4	0.1
	06/29/2001	3.22	2.380	NR	24.6	400	100	4.0	0.0
	07/25/2001	NR	NR	NR	NR	NR	NR	NR	NR
	08/21/2001	NR	3.590	NR	27.1	340	20	7.4	0.0
	09/18/2001	3.02	3.440	0.47	25.6	>1000	20	7.0	0.0
	10/23/2001	5.05	5.930	1.34	25.7	500	20	8.0	0.1
	11/15/2001	3.81	6.280	0.71	25.2	>1000	20	80.0	0.0
	12/18/2001	2.00	6.200	1.60	25.5	NR	20	6.4	0.0
	03/19/2002	2.18	8.640	1.64	26.6	600	20	9.0	0.0
	06/06/2002	2.70	6.180	1.12	27.4	>1000	20	10.0	0.1

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-6D	12/21/2000	9.71	0.180	6.51	23.5	8	120	0.4	0.3
	02/08/2001	5.90	0.570	1.30	24.0	240	40	2.4	0.0
	02/15/2001	6.10	0.680	2.00	24.0	220	40	3.6	0.1
	02/22/2001	6.30	0.660	0.40	23.0	180	80	3.5	0.1
	03/08/2001	6.55	0.623	3.05	20.3	200	80	2.0	0.0
	03/21/2001	6.30	0.620	1.80	20.0	180	60	3.8	0.1
	04/18/2001	6.20	0.640	1.60	21.0	140	60	1.8	0.0
	05/02/2001	6.30	0.620	1.90	23.0	200	60	4.4	0.0
	06/29/2001	3.78	3.380	NR	25.2	400	60	4.4	0.2
	07/25/2001	6.83	2.430	3.19	26.7	360	20	6.0	0.0
	08/21/2001	NR	6.050	NR	27.3	>1000	20	8.0	0.0
	09/18/2001	2.74	7.040	0.19	25.4	300	20	6.5	0.0
	10/23/2001	4.92	5.890	0.76	26.1	500	20	6.2	0.0
	11/15/2001	3.80	7.770	1.76	24.8	>1000	20	10.0	0.0
	12/18/2001	2.00	6.510	0.07	24.6	NR	20	7.0	0.0
	03/19/2002	2.65	7.400	1.85	26.0	600	20	7.0	0.1
	06/06/2002	3.06	6.230	1.65	26.8	>1000	20	10.0	0.0
CEF-46-7I	12/21/2000	4.90	0.510	1.11	25.4	317	60	0.6	0.3
	02/22/2001	5.10	0.100	2.80	24.0	180	60	4.6	0.1
	03/08/2001	5.62	0.061	3.62	21.6	160	60	1.0	5.0
	03/21/2001	5.30	0.070	2.70	21.0	220	40	1.0	5.0
	04/18/2001	5.50	0.070	0.60	22.0	200	80	2.0	0.0
	05/02/2001	4.40	0.100	1.50	23.0	NR	NR	NR	NR
	06/29/2001	NR	NR	NR	NR	NR	NR	NR	NR
	07/25/2001	NR	NR	NR	NR	NR	NR	NR	NR
	08/20/2001	5.35	1.260	0.05	25.8	300	80	4.5	0.0
	09/18/2001	4.33	0.174	1.19	25.3	100	20	3.4	0.1
	10/24/2001	5.10	0.713	2.11	25.0	280	20	3.8	0.0
	11/15/2001	5.14	0.130	0.46	25.5	100	40	2.8	0.5
	12/18/2001	2.00	1.850	1.75	24.4	NR	20	5.0	0.0
	03/19/2002	2.69	2.650	1.81	26.0	>1000	20	4.0	0.0
	06/06/2002	2.65	2.920	2.83	25.6	>1000	20	3.6	0.0
CEF-46-9I	12/20/2000	5.29	0.079	1.47	24.6	84.6	20	0.8	0.3
	01/25/2001	5.06	0.068	1.70	25.1	140	60	0.6	0.1
	02/01/2001	5.18	0.079	1.99	25.5	140	60	1.0	0.2
	02/07/2001	5.00	0.070	1.70	25.0	120	40	0.6	0.2
	02/14/2001	5.00	0.070	2.20	25.0	160	40	0.8	0.3
	02/22/2001	5.00	0.070	2.30	25.0	110	20	0.7	0.2
	03/08/2001	5.04	0.069	1.43	24.9	80	20	0.2	0.0
	03/21/2001	5.00	0.070	3.00	25.0	160	20	0.2	0.1
	04/18/2001	4.60	0.040	0.70	26.0	140	20	0.8	0.3
	05/02/2001	4.40	0.070	1.90	25.0	120	40	0.6	0.5
	06/29/2001	4.73	0.690	NR	25.3	90	20	0.6	0.3
	07/25/2001	5.12	0.068	2.18	25.5	180	20	0.0	0.3
	08/20/2001	4.87	0.073	0.05	26.4	80	20	0.6	0.2
	09/18/2001	4.84	0.095	0.77	25.2	150	20	0.6	0.5
	10/23/2001	6.24	0.060	0.34	25.8	120	20	0.8	0.2
	11/15/2001	5.50	0.060	1.08	24.9	90	20	1.0	0.5
	12/18/2001	5.00	0.060	1.61	24.9	120	20	1.0	0.3
	03/19/2002	5.01	0.720	1.73	25.3	120	20	0.2	0.2
	06/06/2002	4.86	0.074	0.99	26.1	100	20	0.4	0.5

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-12I	12/20/2000	5.57	0.160	1.91	26.5	193.6	80	0.8	2.0
	01/24/2001	5.36	0.144	2.06	25.9	130	80	0.6	3.0
	02/01/2001	5.52	,152	2.07	25.7	260	80	0.5	1.0
	02/07/2001	5.30	0.152	2.82	26.0	360	60	0.6	1.0
	02/14/2001	5.30	0.150	2.70	26.0	120	100	0.6	0.8
	02/22/2001	5.20	0.150	1.90	26.0	180	80	0.4	0.5
	03/08/2001	5.46	0.148	1.94	25.4	300	40	0.2	0.5
	03/21/2001	5.30	0.150	0.70	26.0	200	40	0.2	0.7
	04/18/2001	5.00	0.150	1.60	26.0	220	80	0.8	2.0
	05/02/2001	5.00	0.150	0.80	26.0	280	40	0.6	0.3
	06/29/2001	4.99	0.015	NR	25.4	240	40	0.2	0.0
	07/25/2001	5.91	0.147	1.02	26.0	100	40	0.0	0.0
	08/20/2001	4.86	0.164	0.05	26.6	160	40	0.6	0.0
	09/17/2001	5.08	0.211	0.75	26.5	250	40	0.2	0.0
	10/23/2001	6.54	0.123	0.23	26.5	200	20	0.4	0.0
	11/15/2001	5.88	0.119	0.77	26.4	180	40	0.4	0.1
	12/18/2001	5.00	0.120	1.20	25.5	200	20	0.8	0.0
	03/18/2002	3.67	0.287	1.70	27.6	100	20	3.2	0.0
	06/06/2002	4.66	0.140	1.57	27.1	100	20	3.0	0.0
CEF-46-13I	12/20/2000	5.40	0.120	1.23	25.0	188	20	1.4	5.0
	01/24/2001	5.27	0.102	2.00	24.7	200	100	1.2	5.0
	02/01/2001	5.35	0.117	2.37	25.1	240	80	1.0	5.0
	02/07/2001	5.20	0.110	2.20	25.0	240	60	1.2	5.0
	02/14/2001	5.20	0.110	2.20	26.0	120	80	1.0	5.0
	02/22/2001	5.20	0.120	2.70	26.0	300	60	1.1	>5.0
	03/08/2001	5.42	0.123	1.99	25.4	220	20	0.6	0.0
	03/21/2001	5.20	0.110	1.80	25.0	260	40	1.2	5.0
	04/18/2001	5.00	0.110	0.60	26.0	340	160	0.8	2.0
	05/02/2001	5.00	0.120	2.50	27.0	200	40	1.4	1.0
	06/29/2001	4.99	0.110	NR	25.8	200	40	0.8	>5
	07/25/2001	5.62	0.113	2.37	25.8	220	60	1.0	5.0
	08/20/2001	4.29	0.110	0.05	26.4	360	40	0.6	2.0
	09/17/2001	4.93	0.148	6.60	26.0	220	20	0.8	2.0
	10/23/2001	6.33	0.093	0.89	25.9	200	40	1.0	5.0
	11/15/2001	5.89	0.093	2.07	25.7	200	20	0.8	5.0
	12/18/2001	4.00	0.093	1.16	25.3	220	20	1.0	5.0
	03/19/2002	5.03	0.115	1.27	25.7	200	20	0.8	5.0
	06/06/2002	4.15	0.330	0.66	27.4	260	20	10.0	1.5
CEF-46-14D	12/20/2000	5.87	0.109	1.52	24.9	84	540	2.4	0.3
	01/24/2001	5.77	0.093	1.63	23.4	70	160	2.2	0.5
	02/01/2001	5.78	0.099	0.58	25.8	140	100	2.4	0.7
	02/07/2001	5.60	0.090	0.60	`	140	40	2.2	0.5
	02/14/2001	5.70	0.090	1.60	25.0	110	60	2.4	0.7
	02/22/2001	5.60	0.100	0.60	25.0	100	60	1.8	0.5
	03/08/2001	6.03	0.098	3.54	23.2	120	20	2.0	2.0
	03/21/2001	5.80	0.100	2.20	24.0	100	40	2.0	1.0
	04/18/2001	5.40	0.100	1.70	25.0	120	60	2.0	0.7
	05/02/2001	5.40	0.100	1.20	1.3	120	40	2.0	0.5
	06/29/2001	5.40	0.083	NR	26.0	80	40	2.0	4.0
	07/25/2001	6.79	0.092	1.91	25.1	175	80	2.4	0.1
	08/20/2001	9.60	0.099	3.02	25.8	70	60	3.4	0.3
	09/17/2001	5.40	0.137	0.80	25.2	150	100	NR	2.0
	10/23/2001	7.53	0.074	1.42	25.3	60	60	2.6	0.5
	11/15/2001	6.23	0.082	1.40	24.6	100	40	2.6	1.0
	12/18/2001	5.00	0.078	0.90	24.7	110	40	2.0	2.0
	03/19/2002	5.52	0.094	1.85	25.1	120	40	1.5	1.0
	06/06/2002	5.30	0.097	0.72	26.2	100	40	1.8	0.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-15I	12/20/2000	5.01	0.108	1.27	22.2	86.6	40	3.2	1.0
	01/24/2001	4.56	0.142	2.06	22.5	220	40	1.2	0.0
	02/01/2001	4.36	0.197	0.68	24.1	200	40	0.4	0.0
	02/07/2001	4.13	0.205	2.77	23.4	120	40	0.8	0.0
	02/14/2001	4.00	0.210	4.60	23.0	150	60	1.4	0.7
	02/22/2001	4.00	0.190	3.40	23.0	100	20	1.2	0.0
	03/08/2001	4.27	0.191	1.27	23.1	100	40	0.8	0.0
	03/21/2001	4.30	0.180	0.70	23.0	200	40	2.4	0.0
	04/18/2001	4.00	0.180	2.30	23.0	160	20	1.6	0.0
	05/02/2001	4.20	0.160	1.20	24.0	200	20	4.0	0.0
	06/29/2001	3.49	0.208	NR	23.1	140	60	1.4	0.1
	07/25/2001	5.80	0.184	2.30	23.5	200	20	3.2	0.0
	08/20/2001	2.53	0.178	0.06	26.7	360	20	4.6	0.0
	09/17/2001	4.22	0.229	2.40	24.1	220	20	4.6	0.0
	10/23/2001	5.61	0.141	0.28	24.0	200	20	3.2	0.0
	11/15/2001	4.75	0.139	0.41	23.6	160	20	1.6	0.0
	12/18/2001	4.00	0.133	1.77	23.4	170	20	3.8	0.0
	03/18/2002	4.06	0.163	2.80	24.2	160	20	1.8	0.0
	06/06/2002	4.36	0.159	0.08	24.0	200	20	4.0	0.0
CEF-46-21I	12/20/2000	4.86	0.047	1.35	23.2	9.4	60	0.8	0.0
	01/25/2001	4.39	0.153	4.00	24.9	100	60	2.0	0.1
	02/02/2001	4.09	0.131	2.25	23.3	120	100	2.6	0.1
	02/08/2001	4.10	0.400	2.60	24.0	400	80	5.0	0.7
	02/16/2001	3.70	0.320	2.10	24.0	200	60	3.6	0.5
	02/22/2001	3.70	0.400	2.50	24.0	120	60	3.2	0.3
	03/08/2001	3.21	0.490	3.87	23.2	>1000	>400	5.0	0.1
	03/21/2001	NR	NR	NR	NR	NR	NR	NR	NR
	04/18/2001	3.10	1.400	0.80	22.0	640	20	4.2	0.0
	05/02/2001	NR	NR	NR	NR	NR	NR	NR	NR
	06/29/2001	NR	NR	NR	NR	NR	NR	NR	NR
	07/25/2001	NR	NR	NR	NR	NR	NR	NR	NR
	08/21/2001	NR	0.902	NR	26.7	500	20	5.2	0.1
	09/18/2001	3.07	2.430	2.66	26.5	400	20	4.8	0.3
	10/24/2001	6.01	0.537	1.77	26.7	240	20	2.8	0.7
	11/16/2001	2.04	0.584	1.68	26.0	NR	20	2.6	5.0
	12/18/2001	2.00	0.785	1.23	25.8	NR	20	3.6	0.3
	03/19/2002	3.21	0.948	1.87	25.6	600	20	1.2	0.3
	06/07/2002	2.76	2.220	3.63	25.6	NR	20	2.8	2.0
CEF-46-24D	12/20/2000	6.15	0.129	0.13	21.9	16.4	60	2.3	0.1
	01/25/2001	5.93	0.099	0.44	22.9	160	100	2.0	0.1
	02/02/2001	6.07	0.104	0.70	23.1	320	60	1.4	0.1
	02/08/2001	6.20	0.110	0.60	24.0	96	100	1.6	0.1
	02/15/2001	5.80	0.120	0.50	24.0	90	40	1.4	0.0
	02/22/2001	5.80	0.130	1.00	24.0	90	60	1.8	0.1
	03/08/2001	6.05	0.154	1.65	22.9	120	40	1.2	0.0
	03/21/2001	5.80	0.160	1.60	23.0	140	60	NR	0.1
	04/18/2001	5.90	0.210	2.00	24.0	120	60	3.0	0.0
	05/02/2001	3.60	0.590	5.10	23.0	100	20	0.2	0.0
	06/29/2001	3.55	0.770	NR	23.4	160	20	0.8	0.0
	07/25/2001	NR	2.500	1.76	26.5	>1000	20	4.4	0.0
	08/21/2001	NR	1.580	NR	27.9	140	20	6.4	0.1
	09/18/2001	3.56	1.140	0.50	26.7	160	20	2.2	0.1
	10/24/2001	5.51	1.380	1.13	26.8	260	20	5.0	0.0
	11/16/2001	2.33	0.774	0.96	26.0	NR	20	4.6	0.0
	12/18/2001	3.00	0.756	1.02	25.7	NR	20	5.0	0.0
	03/19/2002	3.60	0.920	1.35	25.9	200	20	3.4	0.1
	06/07/2002	2.94	2.520	3.53	28.1	NR	20	4.4	0.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-25I	12/20/2000	5.81	0.167	2.88	24.6	20.6	120	0.6	5.0
	01/25/2001	4.92	0.066	0.22	26.4	200	40	1.2	>5.0
	02/02/2001	5.15	0.077	0.82	26.6	200	40	1.2	5.0
	02/08/2001	5.20	0.060	0.70	27.0	140	40	1.1	>5.0
	02/15/2001	4.70	0.070	0.50	27.0	150	20	1.6	>5.0
	02/22/2001	5.00	0.070	1.50	27.0	140	40	1.5	>5.0
	03/08/2001	5.14	0.063	3.41	26.2	200	20	1.4	5.0
	03/21/2001	4.90	0.070	1.90	26.0	120	20	1.4	5.0
	04/18/2001	4.90	0.070	1.00	26.0	140	2	108.0	>5
	05/02/2001	4.60	0.070	1.60	27.0	160	20	1.4	5.0
	06/29/2001	4.58	0.066	NR	26.7	80	20	1.4	5.0
	07/25/2001	NR	0.447	2.45	26.7	>1000	20	3.6	5.0
	08/21/2001	NR	0.088	NR	27.7	180	20	2.6	5.0
	09/18/2001	4.53	0.195	1.70	26.5	120	20	4.0	5.0
	10/24/2001	6.11	0.214	0.98	26.6	60	20	2.5	5.0
	11/16/2001	3.39	0.288	2.08	25.9	NR	20	4.0	>5.0
	12/18/2001	4.00	0.449	1.32	26.0	NR	20	4.0	5.0
	03/19/2002	3.84	1.370	2.15	26.4	240	20	4.0	5.0
	06/07/2002	3.79	1.400	0.89	26.5	NR	20	4.0	5.0
CEF-46-26I	12/20/2000	8.53	0.099	0.03	23.1	24.2	NR	1.4	NR
	01/25/2001	5.13	0.049	0.37	24.8	220	100	1.0	5.0
	02/02/2001	5.20	0.042	0.46	24.3	200	60	1.0	5.0
	02/08/2001	5.30	0.040	0.80	24.0	250	140	0.8	>5.0
	02/16/2001	5.00	0.040	2.10	24.0	160	40	1.0	5.0
	02/22/2001	5.10	0.040	0.80	25.0	200	60	1.2	>5.0
	03/08/2001	5.17	0.040	1.22	24.0	240	40	1.0	2.0
	03/21/2001	5.1	0.04	2.3	24.0	240	60	NR	5.0
	04/18/2001	4.9	0.04	1.2	24.0	180	40	0.2	>5
	05/02/2001	5.07	0.043	0.99	24.5	160	60	1.0	5.0
	06/29/2001	4.63	0.098	NR	24.1	20	20	3.8	5.0
	07/25/2001	NR	0.383	2.01	24.4	>1000	40	5.0	5.0
	08/21/2001	NR	0.505	NR	25.7	200	20	7.2	5.0
	09/18/2001	3.97	1.13	0.93	24.4	260	20	6.0	3.0
	10/24/2001	6.47	1.84	0.55	24.7	260	20	8.0	2.0
	11/16/2001	3.31	2.12	2.86	24.2	NR	20	4.6	>5.0
	12/18/2001	3	2.15	1.87	24.3	NR	20	8.0	5.0
	03/19/2002	3.58	2.750	1.29	25.0	700	20	5.0	5.0
	06/06/2002	3.54	2.44	1.04	25.8	NR	20	6.0	5.0

NR = No Reading Taken
mS/cm = millisiemans per centimeter
°C = degrees Celcius
mg/L = milligrams per liter

4.0 Conclusions and Recommendations

The soil sampling results indicated that BTEX, MTBE, naphthalene, and TRPH levels are generally lower than from the baseline soil sampling event, but BTEX and TRPH levels still exceed the SCTLs for leachability to groundwater criteria.

The groundwater sampling results indicated that six of the fourteen groundwater monitoring wells sampled continue to exhibit groundwater contaminant concentrations that exceed the GCTLs. Five of these monitoring wells, CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, and CEF-46-13I, show that contaminant concentrations have decreased from the baseline sampling event. The sixth monitoring well, CEF-46-26I, initially increased above baseline sampling event concentrations but has now decreased to concentrations near baseline levels. Monitoring well CEF-46-26I is outside the influence of the nutrient injection system's radius of influence based on its proximity to the design radius of influence of the injection wells. LNAPL has never been detected in the groundwater at the site and was not noted in any monitoring well during the monitoring period.

CCI recommends to continue to operate the nutrient injection system. All fourteen groundwater monitoring wells will continue to be sampled quarterly during the next monitoring period. Soil sampling will continue to be conducted quarterly during the next period to monitor the soil contamination concentrations.

Additional delineation of the groundwater contamination in the vicinity of monitoring well CEF-46-26I is being performed by the Navy Comprehensive Long-Term Environmental Action Navy (CLEAN) contractor, but is not yet completed. The additional delineation is required to verify that the contaminant plume is not expanding in the southwesterly direction and to determine the viability of extending the nutrient injection system to include this area.

5.0 References

CH2M HILL Constructors, Inc. December 2001. Construction Completion Report, Installation of Nutrient Injection System at Building 46, Naval Air Station Cecil Field, Jacksonville, Florida.

Harding Lawson and Associates. October 1998. Site Assessment Report; Building 46, Former Tanks 46R, 46D, 46SUL and 46UL; Naval Air Station Cecil Field, Jacksonville, Florida.

Tetra Tech NUS, Inc. June 2000. Remedial Action Plan Addendum; Building 46, Former Tanks 46R, 46D, 46SUL and 46UL; Naval Air Station Cecil Field, Jacksonville, Florida.

Appendix A

Laboratory Analytical Reports for Soil Samples

(CD only)

KEMRON REPORT L0206417

PREPARED FOR CCI

WORK ID: BLDG 46 CECIL FIELD

Summary Report 1
Laboratory Report 2
Attachments 50

Full Sample Data Package..... 58
Volatiles Data 59
BTEX GC Data (8021) 60
QC Summary..... 63
Sample Data..... 100
Standards Data 115
Raw Data..... 181
Semivolatiles Data 200
Method 8011 201
QC Summary..... 204
Sample Data..... 226
Standards Data 237
Raw QC Data 264
PAH HPLC DATA (8310) 285
QC Summary..... 288
Sample Data..... 342
Standards Data 374
Raw QC Data 439
General Chemistry Data..... 475

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0206417

CHAIN OF CUSTODY:

The chain of custody number was 163151-053.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperature was 4 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

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

REVIEWED Stephanie Lyne DATE: 6/24/02.

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0206417

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The percent reproducibility for the LCS/LCS2 analyzed with the water fraction was above the advisory limit for dibenz(a,h)anthracene.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Fractions 01and 02 yielded a percent recovery for the surrogate by the fluorescence detector which was above the advisory limit. For the same fractions all acceptance criteria were met for the surrogate by the UV detector.
Samples: Sample fractions 01, 02, and 03 were re-analyzed at a dilution in order to maintain the analysis within the range of calibration. For sample fractions 01 and 02 confirmation of acenaphthylene was determined by the UV diode array detector. 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: 7/3/02

Rev. 7/14/00

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0206417

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: All acceptance criteria were met.

BATCH QA/QC

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

SAMPLES

Surrogates: TFT exceeded the upper control limit in fractions 01 and 03. The "M1" analysis of fraction 03 confirmed the outlier. Fraction 01 was initially analyzed un-diluted however due to the content of target and non-target analytes this analysis was used solely to confirm the TFT outlier. 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: 6/28/02

Rev. 6/00

5

REPORT NARRATIVE
GC PRO RANGE ORGANICS

KEMRON Report No.: L0206417

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

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

SAMPLES

Samples: Sample fraction -02 was analyzed at dilution to obtain the results with in the linear range of the instrument . All other 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: 7/1/02

Rev. 7/14/00

6

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120335**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q2-02	L0206417-01
062-CEF46-SB2-S-Q2-02	L0206417-02
062-CEF46-SB14-S-Q2-02	L0206417-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG120335

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

Field Sample ID: 062-CEF46-SB1-S-Q2-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HP5 22-APR-2002

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 24-JUN-02 09:22

Concentration Units: ug/kg File ID: 5G13802

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	55.5	110	150	50	
Ethylbenzene	55.5	110	7900	50	
Methyl tert-butyl ether	55.5	110	55.5	50	U
Toluene	55.5	110	820	50	
Xylenes, Total	27.8	170	27000	50	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	127	47 - 121	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG120335

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

Field Sample ID: 062-CEF46-SB2-S-Q2-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HP5 22-APR-2002

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 24-JUN-02 09:57

Concentration Units: ug/kg File ID: 5G13803

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	59.6	120	140	50	
Ethylbenzene	59.6	120	2800	50	
Methyl tert-butyl ether	59.6	120	59.6	50	U
Toluene	59.6	120	6000	50	
Xylenes, Total	29.8	180	72000	50	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	107	47 - 121	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG120335

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

Field Sample ID: 062-CEF46-SB14-S-Q2-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HP5 22-APR-2002

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 24-JUN-02 10:32

Concentration Units: ug/kg File ID: 5G13804

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	56.3	110	56.3	50	U
Ethylbenzene	56.3	110	110	50	J
Methyl tert-butyl ether	56.3	110	56.3	50	U
Toluene	56.3	110	56.3	50	U
Xylenes, Total	28.2	170	110	50	J

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	103	47 - 121	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA PACKAGE

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

AAB # : **WG120311**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
062-CEF46-SB14-S-Q2-02	L0206417-03

Comments:
RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.
Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

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

Date: **08-JUL-02**
Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG120311

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

Field Sample ID: 062-CEF46-SB14-S-02-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HP11 30-APR-2002

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 21-JUN-02 18:43

Concentration Units: ug/kg File ID: 11G13777

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.541	1.1	21.0	1	
Ethylbenzene	0.541	1.1	83.0	1	
Methyl tert-butyl ether	0.541	1.1	1.10	1	
Toluene	0.541	1.1	0.541	1	U
Xylenes, Total	0.541	3.2	14.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	171	47 - 121	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120409**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-EQB-W-Q2-02	L0206417-04
062-CEF46-TB-W-Q2-02	L0206417-06

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG120409

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

Field Sample ID: 062-CEF46-EQB-W-02-02 Lab Sample ID: L0206417-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 25-JUN-02 09:38

Concentration Units: ug/L File ID: 5G13820

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

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

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG120409

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

Field Sample ID: 062-CEF46-TB-W-Q2-02 Lab Sample ID: L0206417-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 25-JUN-02 10:13

Concentration Units: ug/L File ID: 5G13821

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

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120425**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q2-02	L0206417-01
062-CEF46-SB2-S-Q2-02	L0206417-02
062-CEF46-SB14-S-Q2-02	L0206417-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB1-S-Q2-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 03:07

Concentration Units: ug/kg File ID:4L003223.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.60	180	2000	1	
2-Methylnaphthalene	4.87	180	5000	1	I
Acenaphthene	59.8	180	59.8	1	U
Acenaphthylene	48.1	180	48.1	1	U
Anthracene	43.8	180	43.8	1	U
Benzo(a)anthracene	4.06	18	4.06	1	U
Benzo(a)pyrene	3.10	18	3.20	1	J
Benzo(b)fluoranthene	5.12	18	5.12	1	U
Benzo(g,h,i)perylene	3.84	18	3.84	1	U
Benzo(k)fluoranthene	2.14	18	2.14	1	U
Chrysene	4.06	18	29.0	1	
Dibenzo(a,h)anthracene	4.80	18	4.80	1	U
Fluoranthene	3.95	18	11.0	1	J,P
Fluorene	60.9	180	120	1	J,P
Indeno(1,2,3-cd)pyrene	3.42	18	3.42	1	U
Naphthalene	67.3	180	5400	1	I
Phenanthrene	50.2	180	59.0	1	J
Pyrene	3.95	18	3.95	1	U

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB1-S-02-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 03:07

Concentration Units: % Recovery File ID: 4L003223.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	209	50 - 150	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB1-S-Q2-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 03:07

Concentration Units: ug/kg File ID: 4L003223.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.60	180	2200	1	
2-Methylnaphthalene	4.87	180	5100	1	I
Acenaphthene	59.8	180	59.8	1	U
Acenaphthylene	48.0	180	48.0	1	U
Anthracene	43.8	180	43.8	1	U
Benzo(a)anthracene	4.06	18	4.06	1	U
Benzo(a)pyrene	3.10	18	3.50	1	J
Benzo(b)fluoranthene	5.12	18	5.12	1	U
Benzo(g,h,i)perylene	3.85	18	3.85	1	U
Benzo(k)fluoranthene	2.14	18	2.14	1	U
Chrysene	4.06	18	40.0	1	
Dibenzo(a,h)anthracene	4.81	18	4.81	1	U
Fluoranthene	3.95	18	24.0	1	J
Fluorene	60.9	180	920	1	J
Indeno(1,2,3-cd)pyrene	3.42	18	3.80	1	J
Naphthalene	67.3	180	4900	1	I
Phenanthrene	50.2	180	86.0	1	J
Pyrene	3.95	18	3.95	1	U

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB1-S-02-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 03:07

Concentration Units: % Recovery File ID: 4L003223.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.2	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB1-S-Q2-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 22:14

Concentration Units: ug/kg File ID: 4L003235.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	28.0	880	2300	5	
2-Methylnaphthalene	24.4	880	4900	5	
Acenaphthene	299	880	299	5	U
Acenaphthylene	48.1	180	48.1	1	U
Anthracene	219	880	219	5	U
Benzo(a)anthracene	20.3	88	20.3	5	U
Benzo(a)pyrene	15.5	88	15.5	5	U
Benzo(b)fluoranthene	25.6	88	25.6	5	U
Benzo(g,h,i)perylene	19.2	88	19.2	5	U
Benzo(k)fluoranthene	10.7	88	10.7	5	U
Dibenzo(a,h)anthracene	24.0	88	24.0	5	U
Fluoranthene	19.8	88	19.8	5	U
Fluorene	304	880	304	5	U
Indeno(1,2,3-cd)pyrene	17.1	88	17.1	5	U
Naphthalene	336	880	5200	5	
Phenanthrene	251	880	251	5	U
Pyrene	19.8	88	19.8	5	U

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	207	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB1-S-02-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 22:14

Concentration Units: ug/kg File ID: 4L003235.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	28.0	880	2200	5	
2-Methylnaphthalene	24.4	880	5200	5	
Acenaphthene	299	880	299	5	U
Acenaphthylene	240	880	240	5	U
Anthracene	219	880	219	5	U
Benzo(a)anthracene	20.3	88	20.3	5	U
Benzo(a)pyrene	3.10	18	3.10	1	U
Benzo(b)fluoranthene	25.6	88	25.6	5	U
Benzo(g,h,i)perylene	3.85	18	3.85	1	U
Benzo(k)fluoranthene	10.7	88	10.7	5	U
Dibenzo(a,h)anthracene	4.81	18	4.81	1	U
Fluoranthene	19.8	88	19.8	5	U
Fluorene	304	880	304	5	U
Indeno(1,2,3-cd)pyrene	3.42	18	3.42	1	U
Naphthalene	336	880	5300	5	
Phenanthrene	251	880	251	5	U
Pyrene	19.8	88	19.8	5	U

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	101	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB2-S-Q2-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 04:04

Concentration Units: ug/kg File ID: 4L003224.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.51	170	5800	1	I
2-Methylnaphthalene	4.79	170	10000	1	I
Acenaphthene	58.8	170	58.8	1	U
Acenaphthylene	47.3	170	47.3	1	U
Anthracene	43.1	170	70.0	1	J
Benzo(a)anthracene	3.99	17	8.60	1	J,P
Benzo(a)pyrene	3.05	17	10.0	1	J
Benzo(b)fluoranthene	5.04	17	5.50	1	J,P
Benzo(g,h,i)perylene	3.78	17	3.78	1	U
Benzo(k)fluoranthene	2.10	17	3.50	1	J,P
Chrysene	3.99	17	74.0	1	
Dibenzo(a,h)anthracene	4.73	17	4.73	1	U
Fluoranthene	3.89	17	33.0	1	J
Fluorene	59.9	170	59.9	1	U
Indeno(1,2,3-cd)pyrene	3.36	17	3.36	1	U
Naphthalene	66.2	170	11000	1	I
Phenanthrene	49.4	170	160	1	J
Pyrene	3.89	17	12.0	1	J

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB2-S-02-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 04:04

Concentration Units: % Recovery File ID: 4L003224.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	536	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB2-S-Q2-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 04:04

Concentration Units: ug/kg File ID: 4L003224.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.51	170	5000	1	I
2-Methylnaphthalene	4.79	170	9500	1	I
Acenaphthene	58.8	170	58.8	1	U
Acenaphthylene	47.3	170	47.3	1	U
Anthracene	43.1	170	100	1	J
Benzo(a)anthracene	3.99	17	28.0	1	J
Benzo(a)pyrene	3.05	17	10.0	1	J
Benzo(b)fluoranthene	5.04	17	13.0	1	J,P
Benzo(g,h,i)perylene	3.78	17	3.78	1	U
Benzo(k)fluoranthene	2.10	17	18.0	1	J
Chrysene	3.99	17	75.0	1	
Dibenzo(a,h)anthracene	4.73	17	4.73	1	U
Fluoranthene	3.89	17	65.0	1	J
Fluorene	59.9	170	59.9	1	U
Indeno(1,2,3-cd)pyrene	3.36	17	3.36	1	U
Naphthalene	66.2	170	7600	1	I
Phenanthrene	49.4	170	200	1	
Pyrene	3.89	17	15.0	1	J

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB2-S-Q2-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 04:04

Concentration Units: % Recovery File ID: 4L003224.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	99.6	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB2-S-Q2-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 23:11

Concentration Units: ug/kg File ID: 4L003236.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	27.5	870	5700	5	
2-Methylnaphthalene	24.0	870	11000	5	
Acenaphthene	294	870	294	5	U
Acenaphthylene	47.3	170	47.3	1	U
Anthracene	215	870	215	5	U
Benzo(a)anthracene	20.0	87	20.0	5	U
Benzo(a)pyrene	15.2	87	15.2	5	U
Benzo(b)fluoranthene	25.2	87	25.2	5	U
Benzo(g,h,i)perylene	18.9	87	18.9	5	U
Benzo(k)fluoranthene	10.5	87	10.5	5	U
Dibenzo(a,h)anthracene	23.6	87	23.6	5	U
Fluoranthene	19.4	87	19.4	5	U
Fluorene	299	870	299	5	U
Indeno(1,2,3-cd)pyrene	16.8	87	16.8	5	U
Naphthalene	331	870	11000	5	
Phenanthrene	247	870	247	5	U
Pyrene	19.4	87	19.4	5	U

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	515	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB2-S-02-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 23:11

Concentration Units: ug/kg File ID: 4L003236.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	27.5	870	5100	5	
2-Methylnaphthalene	24.0	870	12000	5	
Acenaphthene	294	870	294	5	U
Acenaphthylene	236	870	236	5	U
Anthracene	215	870	215	5	U
Benzo(a)anthracene	20.0	87	20.0	5	U
Benzo(a)pyrene	15.2	87	15.2	5	U
Benzo(b)fluoranthene	25.2	87	25.2	5	U
Benzo(g,h,i)perylene	3.79	17	3.79	1	U
Benzo(k)fluoranthene	10.5	87	10.5	5	U
Dibenzo(a,h)anthracene	4.73	17	4.73	1	U
Fluoranthene	19.4	87	19.4	5	U
Fluorene	299	870	299	5	U
Indeno(1,2,3-cd)pyrene	3.36	17	3.36	1	U
Naphthalene	331	870	11000	5	
Phenanthrene	247	870	247	5	U
Pyrene	19.4	87	19.4	5	U

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	104	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB14-S-02-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 05:00

Concentration Units: ug/kg File ID:4L003225.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.81	180	300	1	
2-Methylnaphthalene	5.05	180	610	1	
Acenaphthene	62.0	180	62.0	1	U
Acenaphthylene	49.9	180	49.9	1	U
Anthracene	45.4	180	45.4	1	U
Benzo(a)anthracene	4.21	18	4.21	1	U
Benzo(a)pyrene	3.21	18	3.21	1	U
Benzo(b)fluoranthene	5.31	18	5.80	1	J
Benzo(g,h,i)perylene	3.99	18	3.99	1	U
Benzo(k)fluoranthene	2.21	18	2.60	1	J
Chrysene	4.21	18	580	1	I,P
Dibenzo(a,h)anthracene	4.98	18	8.30	1	J
Fluoranthene	4.10	18	4.10	1	U
Fluorene	63.1	180	63.1	1	U
Indeno(1,2,3-cd)pyrene	3.54	18	3.54	1	U
Naphthalene	69.8	180	420	1	
Phenanthrene	52.0	180	52.0	1	U
Pyrene	4.10	18	4.10	1	U

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB14-S-02-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 05:00

Concentration Units: % Recovery File ID: 4L003225.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	87.8	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB14-S-02-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 05:00

Concentration Units: ug/kg File ID:4L003225.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.81	180	300	1	
2-Methylnaphthalene	5.05	180	620	1	
Acenaphthene	62.0	180	62.0	1	U
Acenaphthylene	49.8	180	49.8	1	U
Anthracene	45.4	180	45.4	1	U
Benzo(a)anthracene	4.21	18	4.21	1	U
Benzo(a)pyrene	3.22	18	3.22	1	U
Benzo(b)fluoranthene	5.31	18	14.0	1	J
Benzo(g,h,i)perylene	3.99	18	3.99	1	U
Benzo(k)fluoranthene	2.21	18	7.80	1	J
Chrysene	4.21	18	1400	1	I,P
Dibenzo(a,h)anthracene	4.98	18	7.70	1	J
Fluoranthene	4.10	18	4.10	1	U
Fluorene	63.1	180	63.1	1	U
Indeno(1,2,3-cd)pyrene	3.54	18	3.54	1	U
Naphthalene	69.8	180	430	1	
Phenanthrene	52.0	180	52.0	1	U
Pyrene	4.10	18	4.10	1	U

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB14-S-Q2-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 26-JUN-02 05:00

Concentration Units: % Recovery File ID:4L003225.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	81.2	50 - 150	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB14-S-Q2-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 27-JUN-02 00:08

Concentration Units: ug/kg File ID:4L003237.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Acenaphthene	310	910	310	5	U
Acenaphthylene	49.9	180	49.9	1	U
Anthracene	227	910	227	5	U
Benzo(a)anthracene	21.0	91	21.0	5	U
Benzo(a)pyrene	16.1	91	16.1	5	U
Benzo(b)fluoranthene	26.6	91	26.6	5	U
Benzo(g,h,i)perylene	19.9	91	19.9	5	U
Benzo(k)fluoranthene	11.1	91	11.1	5	U
Chrysene	21.0	91	570	5	J
Dibenzo(a,h)anthracene	24.9	91	24.9	5	U
Fluoranthene	20.5	91	20.5	5	U
Fluorene	316	910	316	5	U
Indeno(1,2,3-cd)pyrene	17.7	91	17.7	5	U
Phenanthrene	260	910	260	5	U
Pyrene	20.5	91	20.5	5	U

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	94.9	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG120425

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

Field Sample ID: 062-CEF46-SB14-S-Q2-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 27-JUN-02 00:08

Concentration Units: ug/kg File ID: 4L003237.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Acenaphthene	310	910	310	5	U
Acenaphthylene	249	910	249	5	U
Anthracene	45.5	180	45.5	1	U
Benzo(a)anthracene	4.21	18	4.21	1	U
Benzo(a)pyrene	3.22	18	3.22	1	U
Benzo(b)fluoranthene	26.6	91	26.6	5	U
Benzo(g,h,i)perylene	3.99	18	3.99	1	U
Benzo(k)fluoranthene	2.22	18	2.22	1	U
Chrysene	21.0	91	1400	5	J
Dibenzo(a,h)anthracene	4.99	18	4.99	1	U
Fluoranthene	20.5	91	20.5	5	U
Fluorene	316	910	316	5	U
Indeno(1,2,3-cd)pyrene	17.7	91	17.7	5	U
Phenanthrene	260	910	260	5	U
Pyrene	4.10	18	4.10	1	U

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	88.5	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

AAB # : **WG120426**

Lab Name : **Kemron Environmental Services**

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

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

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
062-CEF46-EQB-W-Q2-02	L0206417-04

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG120426

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

Field Sample ID: 062-CEF46-EQB-W-02-02 Lab Sample ID: L0206417-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 25-JUN-02 21:27

Concentration Units: ug/L File ID: 4L003217.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.407	1.1	0.407	1	U
2-Methylnaphthalene	0.378	1.1	0.378	1	U
Acenaphthene	0.466	1.1	0.466	1	U
Acenaphthylene	0.351	1.0	0.351	1	U
Anthracene	0.320	1.1	0.320	1	U
Benzo(a)anthracene	0.0337	0.22	0.0337	1	U
Benzo(a)pyrene	0.0596	0.22	0.0596	1	U
Benzo(b)fluoranthene	0.0382	0.22	0.0382	1	U
Benzo(g,h,i)perylene	0.0562	0.22	0.0562	1	U
Benzo(k)fluoranthene	0.0809	0.22	0.0809	1	U
Chrysene	0.0270	0.22	0.0450	1	J
Dibenzo(a,h)anthracene	0.0865	0.22	0.0865	1	U
Fluoranthene	0.0562	0.22	0.0562	1	U
Fluorene	0.628	1.1	0.628	1	U
Indeno(1,2,3-cd)pyrene	0.0899	0.22	0.0899	1	U
Naphthalene	0.403	1.1	0.403	1	U
Phenanthrene	0.322	1.1	0.400	1	I
Pyrene	0.0764	0.22	0.0764	1	U

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG120426

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

Field Sample ID: 062-CEF46-EQB-W-02-02 Lab Sample ID: L0206417-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 25-JUN-02 21:27

Concentration Units: % Recovery File ID: 4L003217.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	95.3	40 - 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG120426

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

Field Sample ID: 062-CEF46-EQB-W-Q2-02 Lab Sample ID: L0206417-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 25-JUN-02 21:27

Concentration Units: ug/L File ID: 4L003217.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.407	1.1	0.407	1	U
2-Methylnaphthalene	0.378	1.1	0.378	1	U
Acenaphthene	0.415	1.0	0.415	1	U
Acenaphthylene	0.394	1.1	0.394	1	U
Anthracene	0.320	1.1	0.320	1	U
Benzo(a)anthracene	0.0300	0.20	0.0300	1	U
Benzo(a)pyrene	0.0530	0.20	0.0530	1	U
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	U
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	U
Benzo(k)fluoranthene	0.0809	0.22	0.0809	1	U
Chrysene	0.0240	0.20	0.0240	1	U
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	U
Fluoranthene	0.0500	0.20	0.0500	1	U
Fluorene	0.628	1.1	0.628	1	U
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	U
Naphthalene	0.403	1.1	0.403	1	U
Phenanthrene	0.322	1.1	0.390	1	J
Pyrene	0.0680	0.20	0.0680	1	U

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG120426

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

Field Sample ID: 062-CEF46-EQB-W-Q2-02 Lab Sample ID: L0206417-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 25-JUN-02 21:27

Concentration Units: % Recovery File ID: 4L003217.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.1	40 - 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **D2216-90**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120393**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q2-02	L0206417-01
062-CEF46-SB2-S-Q2-02	L0206417-02
062-CEF46-SB14-S-Q2-02	L0206417-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG120393

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

Field Sample ID: 062-CEF46-SB1-S-Q2-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: OVEN 24-JUN-02

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 24-JUN-02 14:00

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	94.0	1	

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG120393

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

Field Sample ID: 062-CEF46-SB2-S-02-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: OVEN 24-JUN-02

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 24-JUN-02 14:00

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	95.0	1	

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG120393

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

Field Sample ID: 062-CEF46-SB14-S-02-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: OVEN 24-JUN-02

Date Received: 21-JUN-02 Date Extracted: Date Analyzed: 24-JUN-02 14:00

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	90.0	1	

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015 MOD**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120442**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q2-02	L0206417-01
062-CEF46-SB2-S-Q2-02	L0206417-02
062-CEF46-SB14-S-Q2-02	L0206417-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3550B AAB # : WG120442

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

Field Sample ID: 062-CEF46-SB1-S-02-02 Lab Sample ID: L0206417-01 Matrix: Soil

% Solids: 93.6 Initial Calibration ID: HP2 27-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 27-JUN-02 15:02

Concentration Units: ug/kg File ID: 2G20651

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5320	11000	180000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	85.8	43 - 136	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3550B AAB # : WG120442

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

Field Sample ID: 062-CEF46-SB2-S-Q2-02 Lab Sample ID: L0206417-02 Matrix: Soil

% Solids: 95.1 Initial Calibration ID: HP2 27-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 27-JUN-02 16:33

Concentration Units: ug/kg File ID: 2G20657

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	26300	53000	550000	5	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	43.3	43 - 136	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3550B AAB # : WG120442

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

Field Sample ID: 062-CEF46-SB14-S-Q2-02 Lab Sample ID: L0206417-03 Matrix: Soil

% Solids: 90.2 Initial Calibration ID: HP2 27-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 27-JUN-02 15:32

Concentration Units: ug/kg File ID: 2G20653

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5540	11000	23000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	83.4	43 – 136	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015 MOD**

AAB # : **WG120443**

Lab Name : **Kemron Environmental Services**

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

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-EQB-W-Q2-02	L0206417-04

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG120443

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

Field Sample ID: 062-CEF46-EQB-W-Q2-02 Lab Sample ID: L0206417-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 27-JUN-2002

Date Received: 21-JUN-02 Date Extracted: 24-JUN-02 Date Analyzed: 27-JUN-02 13:15

Concentration Units: ug/L File ID: 2G20646

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	266	1	U

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	99.5	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

06/17/2002

AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAD - DAVE A. DAULEY
DAH - DON A. HUNTER
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
DRB - DOUG R. BARNETT
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAL - JOHN A. LENT
JJG - JAKE J. GREUEY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MKZ - MARILYN K. ZUMBRO
MLR - MARY L. ROCHOTTE
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
OGT - OKEY G. TUCKER
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SMW - SHARON M. WASHBURN
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

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

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

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

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

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

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

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

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
163151-053

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 46	163151	Debbie Tornes Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 / Quarterly Soil Boring Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 (770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calendar days)	BTEX and MTBE by 8021B(EnCore)	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO						SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	062-CEF46-SB1-S-Q2-02	Soil Boring 1 @ 5' bls.	S	06/20/02	12:55	III/C	14	3	1	1						Grab	OVA : 30,760 ppm	
2	062-CEF46-SB2-S-Q2-02	Soil Boring 2 @ 4' bls.	S	06/20/02	12:35	III/C	14	3	1	1						Grab	OVA : 23,700 ppm	
3	062-CEF46-SB14-S-Q2-02	Soil Boring 14 @ 4' bls.	S	06/20/02	14:00	III/C	14	3	1	1						Grab	OVA : 2,955 ppm	
4	062-CEF46-EQB-W-Q2-02	Equipment Blank	W	06/20/02	14:05	III/C	14	2	2	2						Grab		
5	062-CEF46-TB-W-Q2-02	Trip Blank	W	–	–	III/C	14	2									Prepared by Lab	Both vials checked for headspace OK 6/24/02
6		Temperature Blank	W	--	--						1							
7																		
8																		
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track #791866735058, 791866735106 .

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Randy Dumaop	6/20/02	17:00	Federal Express	6/20/02	17:00
Printed Name and Signature:			Printed Name and Signature:		
			Jane K. Warden	6/21/02	10:12

KEMRON Internal Laboratory Chain of Custody

Work Order: L0206417 **Client:** CCI-638 **# of Samples:** 4 **Due Date:** 6/28/02 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-3	8260	AN	MCS 6.21.02 1530	V-1	ORG-4	JKW				
4	⊥	⊥	MCS 1530 6.21.02	⊥	⊥	JKW				
04 A	Fla-Pro	Ext	MK 6/24/02 @ 0710	Walkin	SWB	CEB	06-24-02 DLZ 2200	crusher	[illegible]	disposal
04 A	8310	Ext	MK 6/24/02 @ 0710	Walkin	SWB	CEB	06-24-02 DLZ 2200	crusher	[illegible]	disposal
1-3 A	8310 Fla-Pro	Ext	MK 6/24/02 @ 0725	Walkin	SWB	CEB	CEB 6/24/02 @ 0935	WALKIN	BLG	HOLD
06	8260WT	anal	Cus 6-24-02 @ 1120	V1	org4	SMW				
1-3A	PCTS	test	Tmm 6/24/02 @ 1410	Walkin	wet	SMW	Tmm @ 1500 6/24/02	Walkin	SMW	Hold
1-3	—	Archive 2	Blg 7/9/02 @ 0700	WALKIN	Archive	Blg				
				Report sent LR 7/9						

54

KEMRON Environmental Services

SAMPLES RECEIPT FORM

Marietta Laboratory

CLIENT:	DATE:	SHIPPED BY:
CCI BRG Other SMW	6-21-00	(X) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL 923	COOLER ID:	COOLER ID:
INDEX # : 7918 4673 5058	INDEX # :	INDEX # :
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (D) (E) 4 °C	TEMP : (D) (E) °C	TEMP : (D) (E) °C
TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN ( ) MELTED (✓)	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE (✓) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
SW CORES		

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

CRF#4

Sample Receipt Form #2

Client: CCI Project: Bldg 46
Date Received: 6/21/02

_____Cooler temperature > than 6 degrees Celcius
Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

_____Information on sample containers different from chain of custody

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

_____pH out (List sample ID, which container, pH prior to adjusting, amount of acid, preservative)

_____Insufficient sample volume

✓ Air bubbles present in Voa vials (List sample ID)
Trip blanks = headspace date trips made 11/22/03 didn't log call client. They are stored in VI cooler,

_____Hold time expired (List sample ID)

TSR:
Was client notified regarding information: (YES) NO
Name of person contacted: C. Newsome Company: CH2M Hill
TSR: SJT Date: 6/24/02

Analyze trip blank

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers _____

PROJECT: N.A.S Cecil Field Bldg 46 LIMS# L0206417

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 6/21/02 C-of-C Number: 163151-053
by (print) Jane K. Warden (sign) Jane K. Warden

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO
   If YES, enter carrier name & air bill number here: ~~Fed~~ ex 7918 6673 5058
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 2 = F & B, seal date: 6/20/02 seal name: custody seal
3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: wet Temp 4 °C ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: JKW (date) 6/21/02

B. **LOG-IN PHASE:** Date samples were logged-in: 6-21-02
by (print) Jane K. Warden (sign) Jane K. Warden

11. Describe type of packing in cooler: bubble wrap, 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 # TRIP Blank 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) _____

57

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: L0206417

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: All acceptance criteria were met.

BATCH QA/QC

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

SAMPLES

Surrogates: TFT exceeded the upper control limit in fractions 01 and 03. The "M1" analysis of fraction 03 confirmed the outlier. Fraction 01 was initially analyzed un-diluted however due to the content of target and non-target analytes this analysis was used solely to confirm the TFT outlier. 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: 6/28/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0206417

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)

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: Janice L. Schimmel **Date:** 6/26/02 62

2.1.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 11G13774
Date Analyzed: 06/21/02
Time Analyzed: 16:59
Analyst: JLS

Work Group: WG120311
Blank Sample ID: WG120311-01
Instrument ID: HP11
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120311-02	11G13775	06/21/02 17:34	
062-CEF46-SB14-S-Q2-02	L0206417-03	11G13777	06/21/02 18:43	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417 Run Date: 06/21/2002 Sample ID: WG120311-01
Instrument ID: HP11 Run Time: 16:59 Method: 8021B
File ID: 11G13774 Analyst: JLS Matrix: Solid
Workgroup (AAB#): WG120311 Units: ug/kg
Contract #: Cal ID: HP11-30-APR-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	94.7	47 - 121	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Run Date: 06/21/2002
Sample ID: WG120311-02
Instrument ID: HP11
Run Time: 17:34
Method: 8021B
File ID: 11G13775
Analyst: JLS
Matrix: Solid
Workgroup (AAB#): WG120311
Units: ug/kg
Contract #:
Cal ID: HP11-30-APR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	15.9	79.6	12 - 159	
Benzene	20	18.2	90.8	80 - 120	
Toluene	20	18.1	90.5	80 - 121	
Ethylbenzene	20	18.2	90.9	80 - 124	
Total xylenes	60	55.1	91.8	80 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	101	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG120311

Login Number: L0206417

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-SB14-S-Q2-02	06/20/02	06/21/02	06/21/02	14	1.20	06/21/02	14	1.20	

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

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HP11
Workgroup (AAB#): WG120311

Method: 8021
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0206417-03	1.00		171
WG120311-01	1.00		94.7
WG120311-02	1.00		101

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table Report
Method: 8021S.M
Title: Method 8021B- Soil 4/30/02
Last Calibration: Wed May 01 09:30:22 2002

Calibration Files

Compound	1 11G13484.D	10 11G13485.D	20 11G13486.D	50 11G13487.D	100 11G13488.D	200 11G13489.D	300 11G13490.D	Avg	%RSD
MTBE	130564.4	121945.8	118085.1	113558.8	117930.3	117525.0	117007.7	119517.0	4.561
Benzene	279113.8	268849.7	261094.0	253130.6	260157.9	258106.5	258096.1	262650.0	3.298
TFT	69260.2	88424.7	89870.6	87645.0	86019.6	89195.3	88120.0	85505.0	8.498
Toluene	259198.2	270831.2	272580.5	258699.4	261099.4	267050.4	261847.2	264472.0	2.140
Chlorobenzene	249596.2	263083.7	274302.8	266351.2	275208.6	280495.5	276123.7	269309.0	3.916
Ethylbenzene	217223.4	238323.7	243877.6	234407.7	240646.2	239754.2	236638.0	235839.0	3.706
m-,p-Xylene	275744.9	295029.5	294859.3	279070.4	285347.0	281979.0	276669.0	284100.0	2.844
o-Xylene	259615.7	262554.4	259540.1	245129.9	251145.2	249289.5	245123.9	253200.0	2.879
BFB	214211.4	225675.9	230793.0	232489.7	237922.4	243022.1	242490.5	232372.0	4.388
1,3-Dichlorobenzene	245015.0	228402.0	234891.6	228735.8	246888.1	250543.5	245202.9	239954.0	3.798
1,4-Dichlorobenzene	267249.8	238331.3	243679.5	233666.0	250309.3	251355.9	244594.6	247027.0	4.403
1,2-Dichlorobenzene	239096.9	211357.5	211951.1	201122.8	217264.0	213515.7	205864.1	214310.0	5.661
BCB	241933.0	217600.8	227469.0	227638.9	249625.9	248757.7	244103.5	236733.0	5.250

Wed May 01 09:31:03 2002

Login Number: L0206417
File ID: 11G13493
ALT ID: WG116964-08
Units: ug/kg

Instrument ID: HP11
Run Date: 04/30/2002
Run Time: 20:20
Analyst: CBN
Cal ID: HP11 - 30-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.0	214000	0.0	
1,4-Dichlorobenzene		20	19.2	238000	4.0	
1,3-Dichlorobenzene		20	19.2	230000	4.0	
o-Xylene		20	19.9	251000	0.5	
m-,p-Xylene		40	40.8	290000	2.0	
Ethylbenzene		20	20.8	245000	4.0	
Chlorobenzene		20	19.8	266000	1.0	
Toluene		20	20.1	266000	0.5	
Benzene		20	20.6	270000	3.0	
MTBE		20	20.1	120000	0.5	

Login Number: L0206417
File ID: 11G13773
CCV ID: WG120310-01
Units: ug/kg

Instrument ID: HP11
Run Date: 06/21/2002
Run Time: 16:14
Analyst: JLS
Cal ID: HP11 - 30-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.3	228000	6.5	
1,4-Dichlorobenzene		20	19.3	239000	3.5	
1,3-Dichlorobenzene		20	18.8	226000	6.0	
o-Xylene		20	19.2	243000	4.0	
m-,p-Xylene		40	40.1	285000	0.3	
Ethylbenzene		20	19.8	233000	1.0	
Chlorobenzene		20	18.8	253000	6.0	
Toluene		20	20.0	264000	0.0	
Benzene		20	18.3	241000	8.5	
MTBE		20	18.6	111000	7.0	

* Exceeds %D Limit

Login Number: L0206417
File ID: 11G13780
CCV ID: WG120310-02
Units: ug/kg

Instrument ID: HP11
Run Date: 06/21/2002
Run Time: 20:26
Analyst: JLS
Cal ID: HP11 - 30-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.0	214000	0.0	
1,4-Dichlorobenzene		20	18.7	231000	6.5	
1,3-Dichlorobenzene		20	18.4	221000	8.0	
o-Xylene		20	19.2	243000	4.0	
m-,p-Xylene		40	39.4	280000	1.5	
Ethylbenzene		20	19.4	229000	3.0	
Chlorobenzene		20	18.6	250000	7.0	
Toluene		20	19.4	256000	3.0	
Benzene		20	19.6	257000	2.0	
MTBE		20	17.6	105000	12.0	

* Exceeds %D Limit

Injection Log

Directory: C:\HPCHEM\1\DATA\043002

Analyst : CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13484.d	1.	WG116964-01 8021 STD1 1PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 15:07
2	2	11g13485.d	1.	WG116964-02 8021 STD2 10PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 15:42
3	3	11g13486.d	1.	WG116964-03 8021 STD3 20PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 16:17
4	4	11g13487.d	1.	WG116964-04 8021 STD4 50PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 16:51
5	5	11g13488.d	1.	WG116964-05 8021 STD5 100PP... ✓	7,1 S-92-(36,44)	30 Apr 2002 17:26
6	6	11g13489.d	1.	WG116964-06 8021 STD6 200PP... ✓	7,1 S-92-(36,44)	30 Apr 2002 18:01
7	7	11g13490.d	1.	WG116964-07 8021 STD7 300PP... ✓	7,1 S-92-(36,44)	30 Apr 2002 18:36
8	8	11g13491.d	1.	RINSE 5G	7,1 S-92-(36,44)	30 Apr 2002 19:10
9	9	11g13492.d	1.	RINSE 5G	7,1 S-92-(36,44)	30 Apr 2002 19:45
10	10	11g13493.d	1.	WG116964-08 ALT SOURCE 20PP...	7,1 S-92-(47,44)	30 Apr 2002 20:20

73

Injection Log

Directory: C:\HPCHEM\1\DATA\062102

WG120311

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13773.d	1.	WG120310-01 8021 STD 20PPB 5G ✓	7,1 S-(95-36,95-29)	21 Jun 2002 16:14
2	2	11g13774.d	1.	WG120311-01 SOIL BLANK 5G ✓	7,1 S-95-29	21 Jun 2002 16:59
3	3	11g13775.d	1.	WG120311-02 SOIL LCS 20PPB 5G ✓	7,1 S-(95-36,95-29)	21 Jun 2002 17:34
4	4	11g13776.d	1.	L0206416-01 A 5G ✓	7,1 S-95-29	21 Jun 2002 18:08
5	5	11g13777.d	1.	L0206417-03 A 5G HIGH SS	7,1 S-95-29	21 Jun 2002 18:43
6	6	11g13778.d	1.	RINSE 5G ✓	7,1 S-95-29	21 Jun 2002 19:17
7	7	11g13779.d	1.	5035 BLANK A 6/21/02 5G ✓	7,1 S-95-29	21 Jun 2002 19:51
8	8	11g13780.d	1.	WG120310-02 8021 STD 20PPB 5G ✓	7,1 S-(95-36,95-29)	21 Jun 2002 20:26
9	9	11g13781.d	1.	L0206417-01 A 5G RE @ 100x	7,1 S-95-29	21 Jun 2002 21:00
10	10	11g13782.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 21:35
11	11	11g13783.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 22:09
12	12	11g13784.d	1.	L0206417-02 A 5G RE @ 100x	7,1 S-95-29	21 Jun 2002 22:44
13	13	11g13785.d	1.	RINSE 5G c/o	7,1 S-95-29	21 Jun 2002 23:18
14	14	11g13786.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 23:53
15	15	11g13787.d	1.	RINSE 5G ϕ	7,1 S-95-29	22 Jun 2002 00:27
16	16	11g13788.d	1.	WG120310-03 8021 STD 20PPB 5G ✓	7,1 S-95-29	22 Jun 2002 01:02

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 5G13800
Date Analyzed: 06/24/02
Time Analyzed: 07:59
Analyst: CBN

Work Group: WG120335
Blank Sample ID: WG120335-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120335-02	5G13801	06/24/02 08:34	
062-CEF46-SB1-S-Q2-02	L0206417-01	5G13802	06/24/02 09:22	
062-CEF46-SB2-S-Q2-02	L0206417-02	5G13803	06/24/02 09:57	
062-CEF46-SB14-S-Q2-02	L0206417-03	5G13804	06/24/02 10:32	M1

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417 Run Date: 06/24/2002 Sample ID: WG120335-01
Instrument ID: HP5 Run Time: 07:59 Method: 8021B
File ID: 5G13800 Analyst: CBN Matrix: Solid
Workgroup (AAB#): WG120335 Units: ug/kg
Contract #: Cal ID: HP5-22-APR-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	50.0	100	50.0	100	ND
Benzene	50.0	100	50.0	100	ND
Toluene	50.0	100	50.0	100	ND
Ethylbenzene	50.0	100	50.0	100	ND
Total xylenes	50.0	300	50.0	100	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	103	47 - 121	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Instrument ID: HP5
File ID: 5G13801
Workgroup (AAB#): WG120335
Contract #:

Run Date: 06/24/2002
Run Time: 08:34
Analyst: CBN

Sample ID: WG120335-02
Method: 8021B
Matrix: Solid
Units: ug/kg
Cal ID: HP5-22-APR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	2000	2100	105	12 - 159	
Benzene	2000	2210	110	80 - 120	
Toluene	2000	2210	110	80 - 121	
Ethylbenzene	2000	2210	110	80 - 124	
Total xylenes	6000	6230	104	80 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	104	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/28/2002 08:22

SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HP5
Workgroup (AAB#): WG120335

Method: 8021
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0206417-01	50.0		127
L0206417-02	50.0		107
L0206417-03	50.0	M1	103
WG120335-01	100		103
WG120335-02	100		104

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 06/28/2002 08:22

78

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG120335

Login Number: L0206417

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-SB1-S-Q2-02	06/20/02	06/21/02	06/24/02	14	3.85	06/24/02	14	3.85	
062-CEF46-SB14-S-Q2-02	06/20/02	06/21/02	06/24/02	14	3.86	06/24/02	14	3.86	
062-CEF46-SB2-S-Q2-02	06/20/02	06/21/02	06/24/02	14	3.89	06/24/02	14	3.89	

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

Calibration Table Report
Method: 602STY.M
Title: METHOD 602 - Water - 4/22/02
Last Calibration: Tue Apr 23 13:19:26 2002

Calibration Files

Compound	1 SG12946.D	10 SG12947.D	20 SG12948.D	50 SG12949.D	100 SG12950.D	200 SG12951.D	300 SG12952.D	Avg	%RSD
MTBE	11757	10818	10755	10474	10368	9314	9786	10467	7.475
Benzene	56328	57962	57511	56878	55019	53645	55284	56090	2.721
TFT	17096	18143	17902	17945	17550	17784	17670	17727	1.908
Toluene	48925	52420	52492	52169	50514	49507	51762	51113	2.865
Chlorobenzene	51700	55103	55327	54632	54267	53033	54687	54107	2.393
Ethylbenzene	42551	45390	45328	44841	43943	42762	44719	44219	2.647
m-,p-Xylene	54205	54424	54253	53567	52018	50050	51746	52895	3.138
Styrene	47957	56536	57281	57945	53412	56698	58360	55455	6.629
o-Xylene	55799	53727	52896	51677	50041	48060	48753	51565	5.422
BFB	44443	48214	47901	48728	48756	48262	48155	47780	3.147
1,3-Dichlorobenzene	37248	44261	44516	44585	44704	43991	45035	43477	6.363
1,4-Dichlorobenzene	40973	49874	49545	48373	47853	46102	46703	47061	6.406
1,2-Dichlorobenzene	35066	38633	38986	38656	38695	37217	37954	37887	3.641
BCB	45926	47411	46888	47241	47429	46214	46650	46823	1.263

Tue Apr 23 13:21:51 2002

80

Login Number: L0206417
File ID: 5G12955
ALT ID: WG116507-08
Units: ug/L

Instrument ID: HP5
Run Date: 04/22/2002
Run Time: 18:42
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.6	40900	8.0	
1,4-Dichlorobenzene		20	21.6	50800	8.0	
1,3-Dichlorobenzene		20	21.3	46300	6.5	
o-Xylene		20	20.8	53600	4.0	
Styrene		20	21.0	58100	5.0	
m-,p-Xylene		40	42.1	55600	5.3	
Ethylbenzene		20	21.5	47600	7.5	
Chlorobenzene		20	20.9	56500	4.5	
Toluene		20	21.3	54400	6.5	
Benzene		20	21.2	59600	6.0	
MTBE		20	21.1	11100	5.5	

Login Number: L0206417
File ID: 5G13799
CCV ID: WG120334-01
Units: ug/L

Instrument ID: HP5
Run Date: 06/24/2002
Run Time: 07:24
Analyst: CBN
Cal ID: HP5 -

Analyte		Expected	Found	RF	%D	Q	
1,2-Dichlorobenzene		20	22.2	42000	11.0		
1,4-Dichlorobenzene		20	21.8	51300	9.0		
1,3-Dichlorobenzene		20	22.2	48200	11.0		
o-Xylene		20	19.0	48900	5.0		
Styrene		20	17.6	48900	12.0		
m-,p-Xylene		40	43.5	57500	8.8		
Ethylbenzene		20	22.1	48900	10.5		
Chlorobenzene		20	21.7	58800	8.5		
Toluene		20	21.9	56100	9.5		
Benzene		20	21.5	60400	7.5		
MTBE		20	20.9	10900	4.5		

* Exceeds %D Limit

Login Number: L0206417
File ID: 5G13806
CCV ID: WG120334-02
Units: ug/L

Instrument ID: HP5
Run Date: 06/24/2002
Run Time: 11:41
Analyst: CBN
Cal ID: HP5 -

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.5	40700	7.5	
1,4-Dichlorobenzene		20	21.7	51000	8.5	
1,3-Dichlorobenzene		20	21.8	47300	9.0	
o-Xylene		20	18.9	48800	5.5	
Styrene		20	17.6	48800	12.0	
m-,p-Xylene		40	43.2	57100	8.0	
Ethylbenzene		20	22.0	48700	10.0	
Chlorobenzene		20	21.4	58000	7.0	
Toluene		20	21.9	55900	9.5	
Benzene		20	21.9	61500	9.5	
MTBE		20	21.0	11000	5.0	

* Exceeds %D Limit

Directory: c:\hpchem\2\data\042202

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

84

Directory: c:\hpchem\2\data\062402

WG120335

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	5g13799.d	1.		WG120334-01 8021 STD 20PPB 5ML	1,1 S-95-(36,30)	24 Jun 102 12::2
2	2	5g13800.d	100.		WG120335-01 EXT BLANK 5G/10ML	7,100 S-95-30	24 Jun 102 12::5
3	3	5g13801.d	100.		WG120335-02 EXT LCS 5G/10ML	7,100 S-95-(36,30)	24 Jun 102 12::3
4	1	5g13802.d	1.		L0206417-01 C 4.81G/10ML	7,100 S-95-46	24 Jun 102 12::2
5	2	5g13803.d	100.		L0206417-02 C 4.41G/10ML	7,100 S-95-46	24 Jun 102 12::5
6	3	5g13804.d	100.		L0206417-03 C 4.92G/10ML	7,100 S-95-46	24 Jun 102 13::3
7	4	5g13805.d	100.		5035 BLANK 5G/10ML	7,100 S-95-46	24 Jun 102 13::0
8	5	5g13806.d	1.		WG120334-02 8021 STD 20PPB 5ML	1,1 S-95-(36,30)	24 Jun 102 13::4
9	1	5g13807.d	1.		WG120363-01 WATER BLANK 5ML	1,1 S-95-30	24 Jun 102 13::2
10	2	5g13808.d	1.		WG120363-01 WATER LCS 20PPB 5ML	1,1 S-95-(36,30)	24 Jun 102 12::0
11	3	5g13809.d	1.	DNR	L0206416-02 A 5ML	1,1 S-95-30	24 Jun 102 12::4
12	4	5g13810.d	1.		L0206416-03 A 5ML	1,1 S-95-30	24 Jun 102 12::1
13	5	5g13811.d	1.		L0206417-04 A 5ML	1,1 S-95-30	24 Jun 102 12::5
14	6	5g13812.d	1.		WG120363-03 L0206417-06 A 5ML	1,1 S-95-30	24 Jun 102 12::2
15	7	5g13813.d	1.		WG120363-04 L0206417-06 MS A 5ML	1,1 S-95-(36,30)	24 Jun 102 12::0
16	8	5g13814.d	1.		WG120363-05 L0206417-06 MSD A 5ML	1,1 S-95-(36,30)	24 Jun 102 12::3

METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 5G13816
Date Analyzed: 06/25/02
Time Analyzed: 07:10
Analyst: CBN

Work Group: WG120409
Blank Sample ID: WG120409-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120409-02	5G13817	06/25/02 07:44	
062-CEF46-EQB-W-Q2-02	L0206417-04	5G13820	06/25/02 09:38	
062-CEF46-TB-W-Q2-02	L0206417-06	5G13821	06/25/02 10:13	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417 Run Date: 06/25/2002 Sample ID: WG120409-01
Instrument ID: HP5 Run Time: 07:10 Method: 8021B
File ID: 5G13816 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG120409 Units: ug/L
Contract #: Cal ID: HP5-22-APR-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	101	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 06/26/2002
Version 1.2
Report generated 06/28/2002 08:22

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Run Date: 06/25/2002
Sample ID: WG120409-02
Instrument ID: HP5
Run Time: 07:44
Method: 8021B
File ID: 5G13817
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG120409
Units: ug/L
Contract #:
Cal ID: HP5-22-APR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.9	105	41 - 161	
Benzene	20	21.9	109	80 - 122	
Toluene	20	21.9	110	80 - 124	
Ethylbenzene	20	22.3	111	80 - 125	
Total xylenes	60	62.8	105	80 - 121	

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

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG120409

Login Number: L0206417

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-EQB-W-Q2-02	06/20/02	06/21/02	06/25/02	14	4.81	06/25/02	14	4.81	
062-CEF46-TB-W-Q2-02	06/20/02	06/21/02	06/25/02	14	5.43	06/25/02	14	5.43	

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

KEMRON FORMS - Modified 05/28/2002
Version 1.2
Report generated 06/28/2002 08:21

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HP5
Workgroup (AAB#): WG120409

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206417-04	1.00		104
L0206417-06	1.00		104
WG120409-01	1.00		101
WG120409-02	1.00		102

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table Report
Method: 602STY.M
Title: METHOD 602 - Water - 4/22/02
Last Calibration: Tue Apr 23 13:19:26 2002

Calibration Files

Compound	1 5G12946.D	10 5G12947.D	20 5G12948.D	50 5G12949.D	100 5G12950.D	200 5G12951.D	300 5G12952.D	Avg	%RSD
MTBE	11757	10818	10755	10474	10368	9314	9786	10467	7.475
Benzene	56328	57962	57511	56878	55019	53645	55284	56090	2.721
TFT	17096	18143	17902	17945	17550	17784	17670	17727	1.908
Toluene	48925	52420	52492	52169	[illegible]	[illegible]	51762	51113	2.865
Chlorobenzene	51700	55103	55327	54632	54267	53033	54687	54107	2.393
Ethylbenzene	42551	45390	45328	44841	43943	42762	44719	44219	2.647
m-,p-Xylene	54205	54424	54253	53567	52018	50050	51746	52895	3.138
Styrene	47957	56536	57281	57945	53412	56698	58360	55455	6.629
o-Xylene	55799	53727	52896	51677	50041	48060	48753	51565	5.422
BFB	44443	48214	47901	48728	48756	48262	48155	47780	3.147
1,3-Dichlorobenzene	37248	44261	44516	44585	44704	43991	45035	43477	6.363
1,4-Dichlorobenzene	40973	49874	49545	48373	47853	46102	46703	47061	6.406
1,2-Dichlorobenzene	35066	38633	38986	38656	38695	37217	37954	37887	3.641
BCB	45926	47411	46888	47241	47429	46214	46650	46823	1.263

Tue Apr 23 13:21:51 2002

Login Number: L0206417
File ID: 5G12955
ALT ID: WG116507-08
Units: ug/L

Instrument ID: HP5
Run Date: 04/22/2002
Run Time: 18:42
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.6	40900	8.0	
1,4-Dichlorobenzene		20	21.6	50800	8.0	
1,3-Dichlorobenzene		20	21.3	46300	6.5	
o-Xylene		20	20.8	53600	4.0	
Styrene		20	21.0	58100	5.0	
m-,p-Xylene		40	42.1	55600	5.3	
Ethylbenzene		20	21.5	47600	7.5	
Chlorobenzene		20	20.9	56500	4.5	
Toluene		20	21.3	54400	6.5	
Benzene		20	21.2	59600	6.0	
MTBE		20	21.1	11100	5.5	

Login Number: L0206417
File ID: 5G13815
CCV ID: WG120408-01
Units: ug/L

Instrument ID: HP5
Run Date: 06/25/2002
Run Time: 06:35
Analyst: CBN
Cal ID: HP5 -

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	22.0	41700	10.0	
1,4-Dichlorobenzene		20	22.5	52900	12.5	
1,3-Dichlorobenzene		20	21.2	46100	6.0	
o-Xylene		20	19.2	49400	4.0	
Styrene		20	17.8	49400	11.0	
m-,p-Xylene		40	43.5	57600	8.8	
Ethylbenzene		20	22.0	48700	10.0	
Chlorobenzene		20	21.8	59000	9.0	
Toluene		20	21.9	56000	9.5	
Benzene		20	21.4	60000	7.0	
MTBE		20	21.2	11100	6.0	

* Exceeds %D Limit

Login Number: L0206417
File ID: 5G13824
CCV ID: WG120408-02
Units: ug/L

Instrument ID: HP5
Run Date: 06/25/2002
Run Time: 11:57
Analyst: CBN
Cal ID: HP5 -

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.9	41500	9.5	
1,4-Dichlorobenzene		20	22.2	52200	11.0	
1,3-Dichlorobenzene		20	21.9	47500	9.5	
o-Xylene		20	19.2	49500	4.0	
Styrene		20	17.9	49500	10.5	
m-,p-Xylene		40	43.8	58000	9.5	
Ethylbenzene		20	22.2	49100	11.0	
Chlorobenzene		20	21.6	58500	8.0	
Toluene		20	22.0	56200	10.0	
Benzene		20	22.0	61600	10.0	
MTBE		20	21.3	11200	6.5	

* Exceeds %D Limit

Injection Log

Directory: c:\hpchem\2\data\042202

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

95

Injection Log

Directory: c:\hpchem\2\data\062502

WG120409

ANALYST CBN

ne	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	9	5g13815.d	1.	WG120408-01 8021 STD 20PPB 5ML ✓	1,1 S-95-(36,30)	25 Jun 102 12::3
	10	5g13816.d	1.	WG120409-01 WATER BLANK 5ML ✓	1,1 S-95-30	25 Jun 102 12::1
	11	5g13817.d	1.	WG120409-02 WATER LCS 20PPB 5ML ✓	1,1 S-95-(36,30)	25 Jun 102 12::4
	1	5g13818.d	1.	L0206416-02 A 5ML ✓	1,1 S-95-30 pH<2	25 Jun 102 12::2
	2	5g13819.d	1.	L0206416-03 A 5ML ✓	1,1 S-95-30	25 Jun 102 12::0
	3	5g13820.d	1.	L0206417-04 A 5ML ✓	1,1 S-95-30	25 Jun 102 12::3
	4	5g13821.d	1.	L0206417-06 A 5ML ✓	1,1 S-95-30	25 Jun 102 13::1
	5	5g13822.d	1.	WG120409-04 L0206416-03 MS B 5ML	1,1 S-95-(36,30)	25 Jun 102 13::4
	6	5g13823.d	1.	WG120409-05 L0206416-03 MSD B 5ML	1,1 S-95-(36,30)	25 Jun 102 13::2
0	7	5g13824.d	1.	WG120408-02 8021 STD 20PPB 5ML ✓	1,1 S-95-(36,30)	25 Jun 102 13::5
1	8	5g13825.d	1.	L0206450-01 A 5ML ✓	1,1 S-95-30 pH<2	25 Jun 102 12::4
2	9	5g13826.d	1.	WG120409-03 L0206452-01 A 5ML ✓	1,1 S-95-30	25 Jun 102 12::2
3	10	5g13827.d	1.	L0206454-01 A 5ML ✓	1,1 S-95-30	25 Jun 102 12::5
4	11	5g13828.d	1.	WG120409-04 L0206452-01 MS B 5ML ✓	1,1 S-95-(36,30)	25 Jun 102 12::3
5	12	5g13829.d	1.	WG120409-05 L0206452-01 MSD B 5ML ✓	1,1 S-95-(36,30)	25 Jun 102 12::0
6	13	5g13830.d	1.	WG120408-03 8021 STD 20PPB 5ML ✓	1,1 S-95-(36,30)	25 Jun 102 12::4

96

VOA - GC

Date: 6/21/02 **Analyst:** JLS **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 120311

	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 / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 6/24/02

Secondary Reviewers Initials & Date Checked: QJS 6/25/02

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 6/24/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 120335

	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	NA
Excel Spreadsheets / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 6/25/02

Secondary Reviewers Initials & Date Checked: GAS 6/25/02

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

98

VOA - GC

Date: 6/25/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 120409

	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	NA
Excel Spreadsheets / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 6/26/02

Secondary Reviewers Initials & Date Checked: JB 6/26/02

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

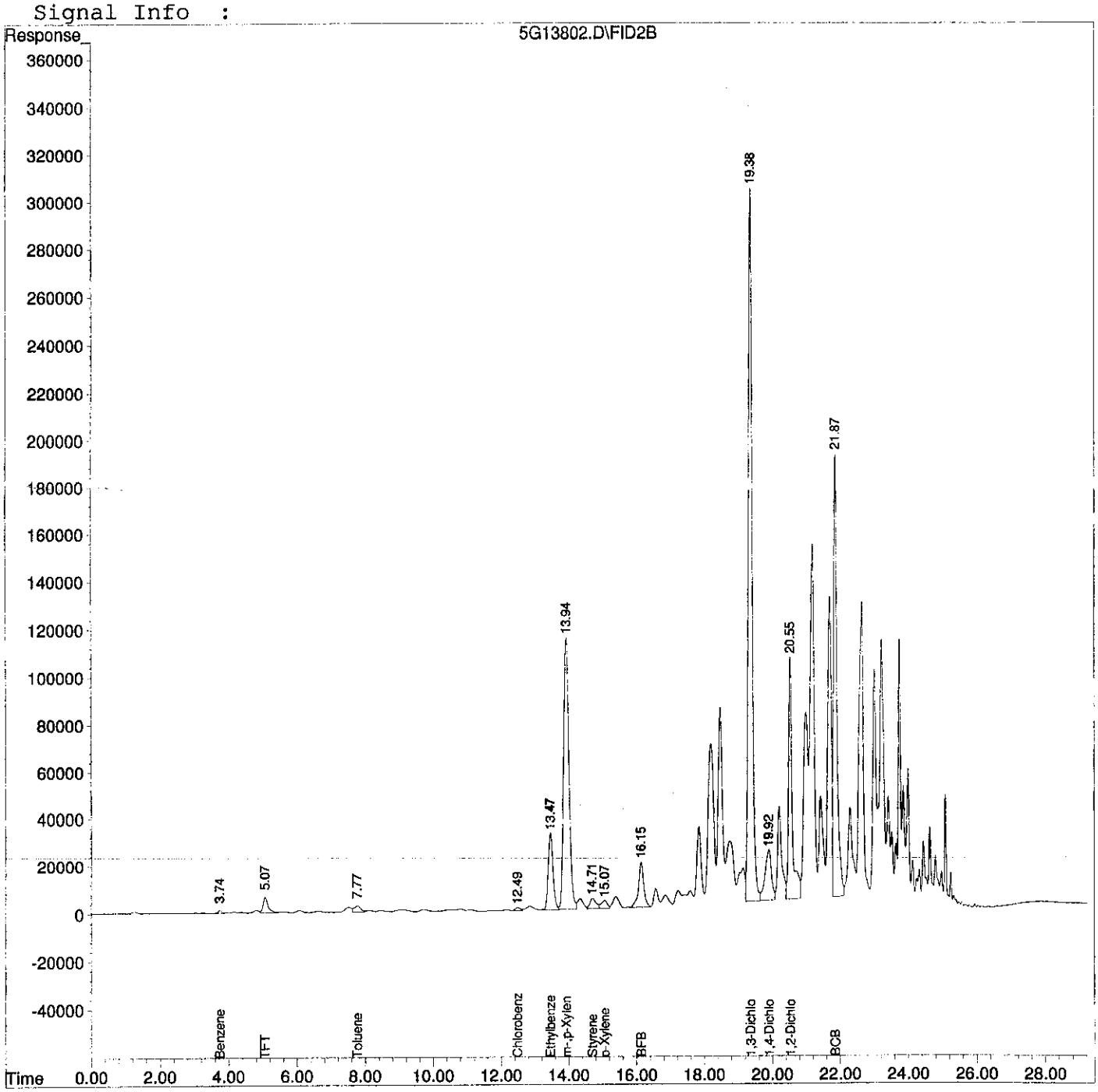
99

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\062402\5G13802.D Vial: 1
Acq On : 24 Jun 2002 9:22 Operator: CBN
Sample : L0206417-01 C 4.81G/10ML Inst : HP5
Misc : 7,100 S-95-46 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 25 8:23 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\062402\5G13802.D Vial: 1
Acq On : 24 Jun 2002 9:22 Operator: CBN
Sample : L0206417-01 C 4.81G/10ML Inst : HP5
Misc : 7,100 S-95-46 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 25 8:23 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	675149	38.0861 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 126.95%			
10) S BFB	16.15	1992259	41.6964 ug/L
Spiked Amount 30.000 Recovery = 138.99%			
14) S BCB	21.87	12939255	276.3450 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 921.15%#			
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.75	73728	131.4474 ug/L
4) TM Toluene	7.77	377423	738.4106 ug/L
5) TM Chlorobenzene	12.50	128244	237.0189 ug/L
6) TM Ethylbenzene	13.47	3160690	7147.7984 ug/L
7) TM m-,p-Xylene	13.94	12600348	23821.6111 ug/L
8) TM Styrene	14.72	551498	994.4889 ug/L
9) TM o-Xylene	15.07	411900	798.8044 ug/L
11) TM 1,3-Dichlorobenzene	19.38	23176506	53307.2773 ug/L
12) TM 1,4-Dichlorobenzene	19.92	2786531	5921.1645 ug/L
13) TM 1,2-Dichlorobenzene	20.55	7526435	19865.6392 ug/L

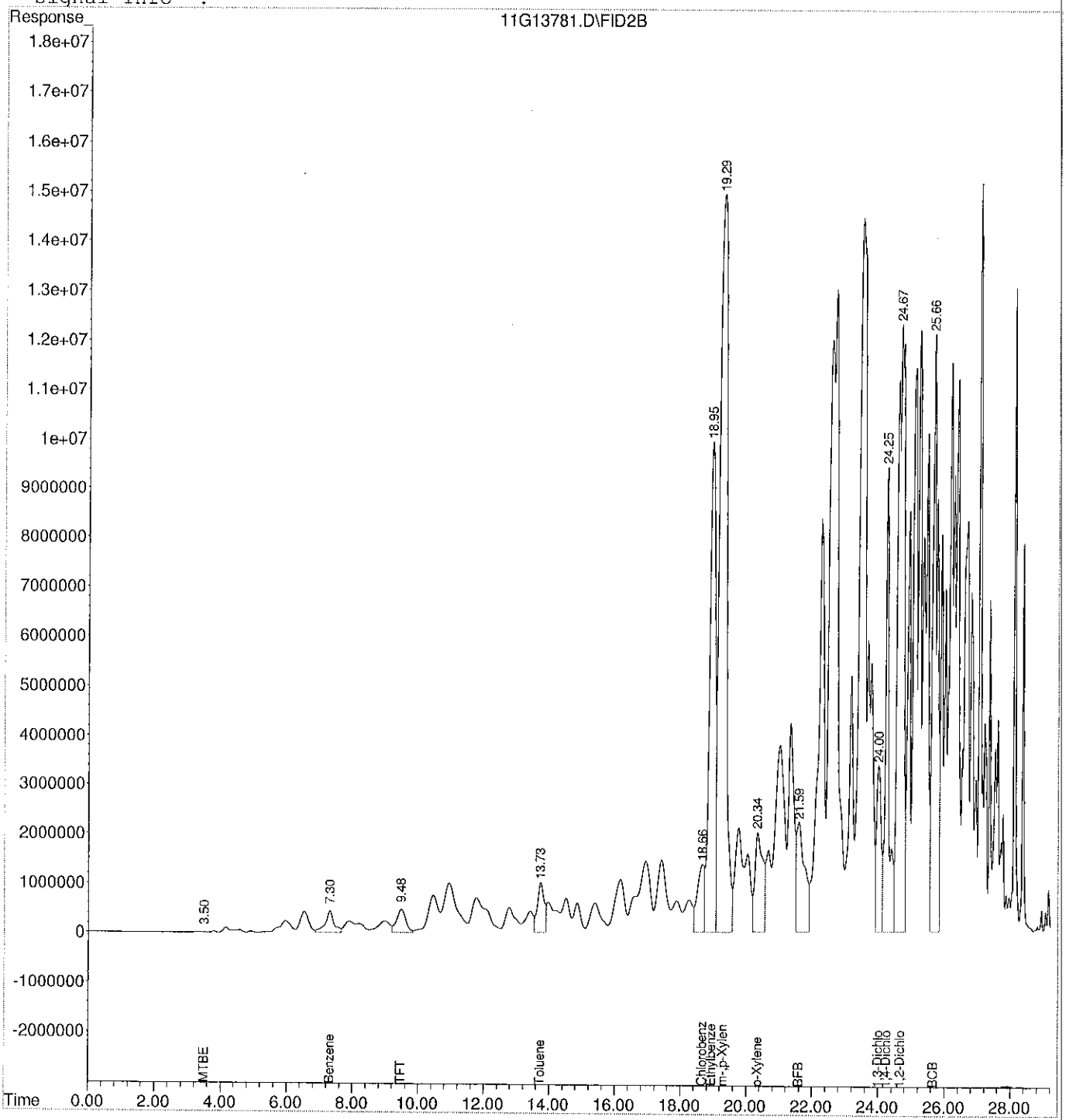
102

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

Data File : C:\HPCHEM\1\DATA\062102\11G13781.D Vial: 9
Acq On : 21 Jun 2002 21:00 Operator: JLS
Sample : L0206417-01 A 5G Inst : HP11
Misc : 7,1 S-95-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 21:30 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\062102\11G13781.D Vial: 9
Acq On : 21 Jun 2002 21:00 Operator: JLS
Sample : L0206417-01 A 5G Inst : HP11
Misc : 7,1 S-95-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 21:30 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.48f	88749941	1037.9498 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 3459.83%#
9) S BFB			21.58	381894624	1643.4612 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 5478.20%#
13) S BCB			25.66	1242039962	5246.5930 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 17488.64%#
Target Compounds					
1) TM MTBE			3.51	852606	7.1338 UG/KG
2) TM Benzene			7.31	78441732	298.6552 UG/KG
4) TM Toluene			13.73	142927784	540.4262 UG/KG
5) TM Chlorobenzene			18.66	196457892	729.4892 UG/KG
6) TM Ethylbenzene			18.95	1214117513	5148.0847 UG/KG
7) TM m-,p-Xylene			19.29	2412797479	8492.7790 UG/KG
8) TM o-Xylene			20.34	337501046	1332.9435 UG/KG
10) TM 1,3-Dichlorobenzene			24.00	332128512	1384.1334 UG/KG
11) TM 1,4-Dichlorobenzene			24.24	673685519	2727.1778 UG/KG
12) TM 1,2-Dichlorobenzene			24.68	1733662558	8089.4971 UG/KG

SMI conf only
DNR
6/28/02

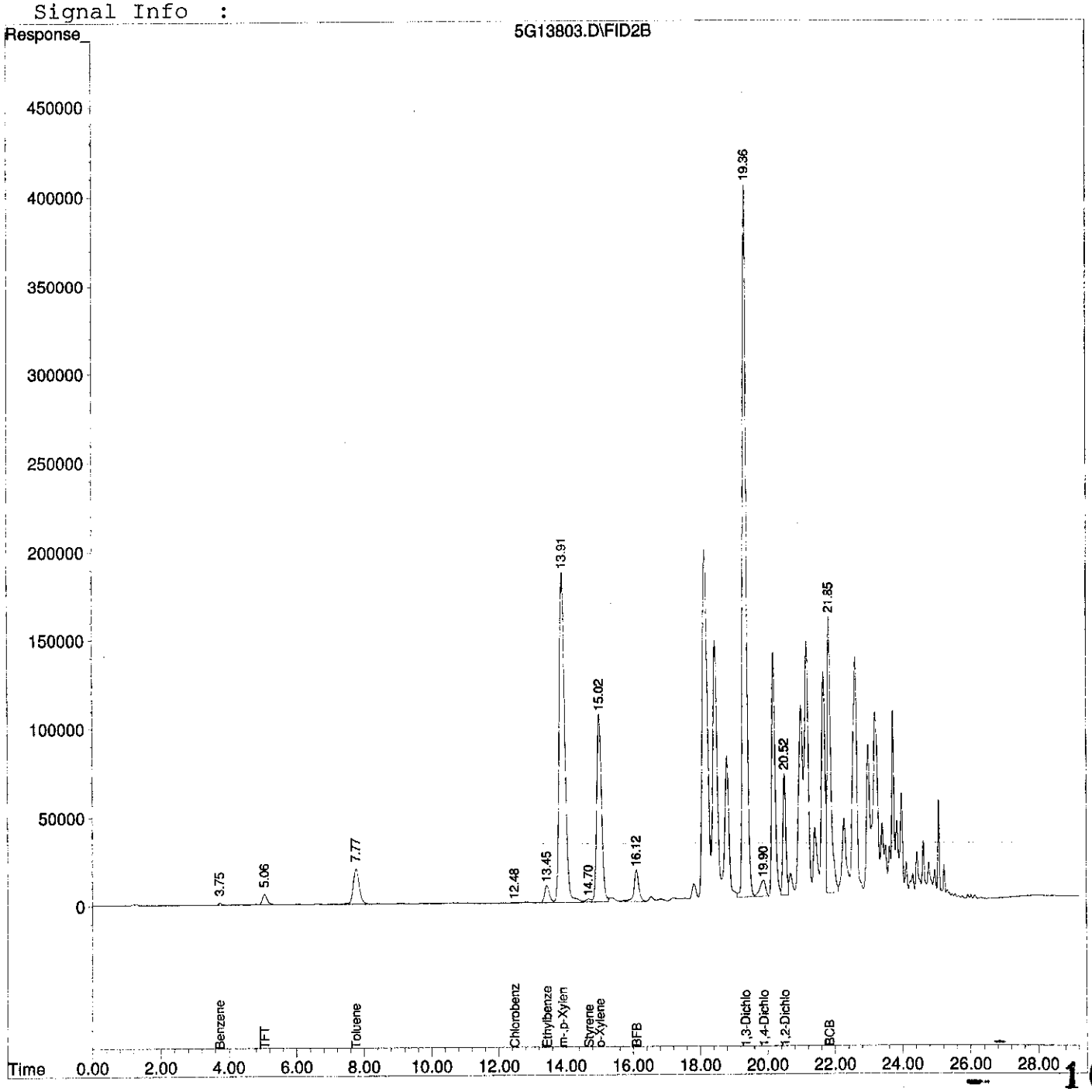
104

(f)=RT Delta > 1/2 Window (m)=manual int.
11G13781.D 8021S.M Fri Jun 28 10:32:27 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062402\5G13803.D Vial: 2
Acq On : 24 Jun 2002 9:57 Operator: CBN
Sample : L0206417-02 C 4.41G/10ML Inst : HP5
Misc : 7,100 S-95-46 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 24 10:26 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



105

Data File : C:\HPCHEM\2\DATA\062402\5G13803.D Vial: 2
Acq On : 24 Jun 2002 9:57 Operator: CBN
Sample : L0206417-02 C 4.41G/10ML Inst : HP5
Misc : 7,100 S-95-46 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 24 10:26 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.06	569852	32.1461 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery	= 107.15%
10) S BFB	16.13	1772346	37.0938 ug/L
Spiked Amount 30.000		Recovery	= 123.65%
14) S BCB	21.85	11317663	241.7125 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 805.71%#
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.75	65047	115.9706 ug/L
4) TM Toluene	7.77	2573963	5035.8374 ug/L
5) TM Chlorobenzene	12.49	37492	~~69.2919 ug/L~~
6) TM Ethylbenzene	13.45	1022061	2311.3585 ug/L
7) TM m-,p-Xylene	13.92	21426394	40507.7095 ug/L
8) TM Styrene	14.70	199117	~~359.0570 ug/L~~
9) TM o-Xylene	15.02	10452801	20271.2864 ug/L
11) TM 1,3-Dichlorobenzene	19.36	30964368	7~~1219.8020 ug/~~L
12) TM 1,4-Dichlorobenzene	19.90	1066366	2~~265.9458 ug/L~~
13) TM 1,2-Dichlorobenzene	20.53	4190072	1~~1059.4804 ug/L~~

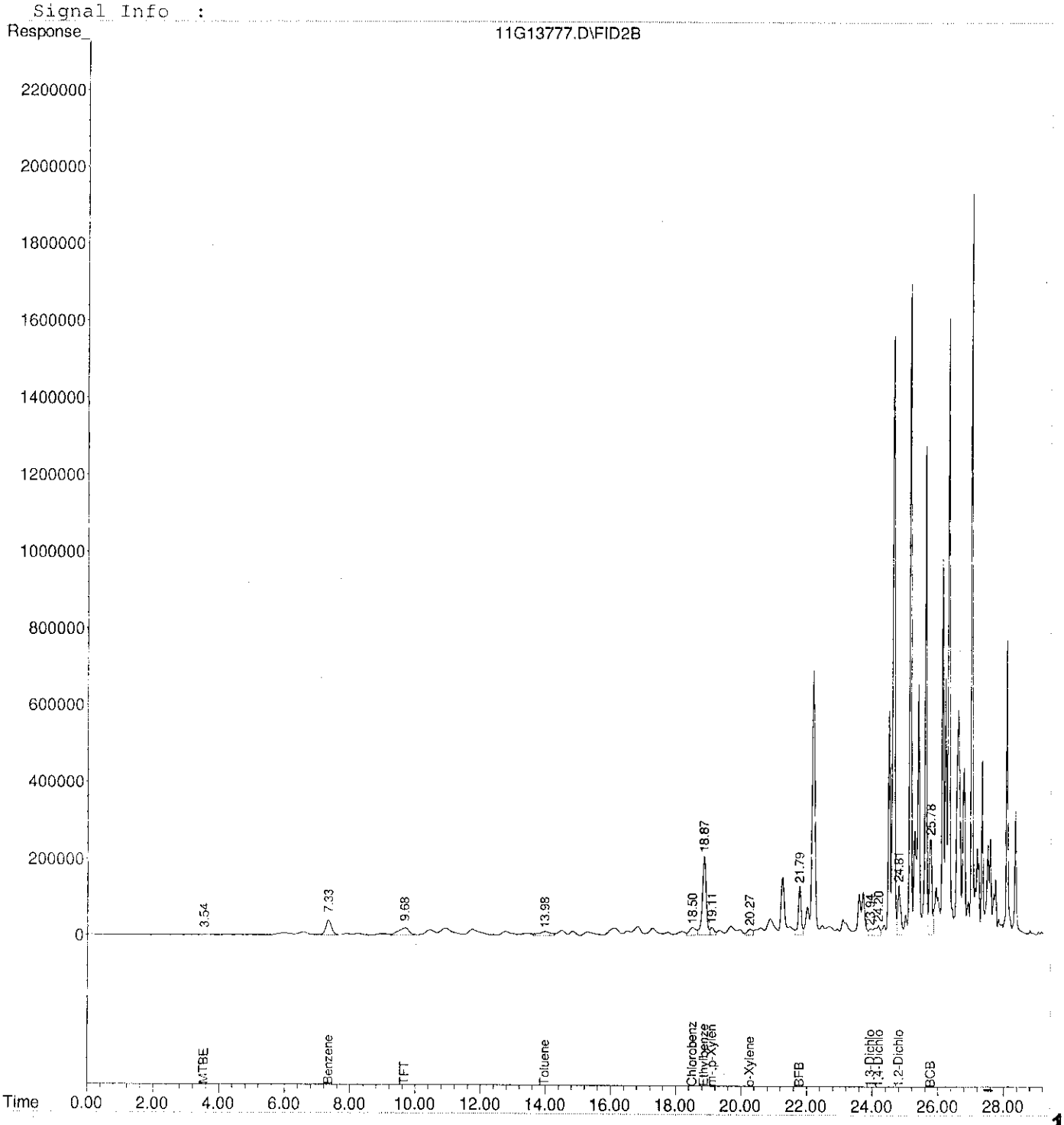
106

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

Data File : C:\HPCHEM\1\DATA\062102\11G13777.D Vial: 5
Acq On : 21 Jun 2002 6:43 pm Operator: JLS
Sample : L0206417-03 A 5G Inst : HP11
Misc : 7,1 S-95-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 19:12 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\062102\11G13777.D Vial: 5
Acq On : 21 Jun 2002 6:43 pm Operator: JLS
Sample : L0206417-03 A 5G Inst : HP11
Misc : 7,1 S-95-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 19:12 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	4384295	51.2753 UG/KG *
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 170.92%#
9) S BFB			21.80	8102813	34.8700 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 116.23%
13) S BCB			25.77	14332417	60.5426 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 201.81%#
Target Compounds					
1) TM MTBE			3.54	122631	1.0261 UG/KG
2) TM Benzene			7.33	5013868	19.0896 UG/KG
4) TM Toluene			13.98	2519964	~~9.5283 UG/KG~~
5) TM Chlorobenzene			18.51	2767814	~~10.2775 UG/KG~~
6) TM Ethylbenzene			18.87	18069602	76.6185 UG/KG
7) TM m-,p-Xylene			19.11	1782500	6.2742 UG/KG
8) TM o-Xylene			20.27	1747173	6.9004 UG/KG
10) TM 1,3-Dichlorobenzene			23.95	1083387	~~4.5150 UG/KG~~
11) TM 1,4-Dichlorobenzene			24.19	2720196	~~11.0118 UG/KG~~
12) TM 1,2-Dichlorobenzene			24.81	7749430	~~36.1599 UG/KG~~

(f)=RT Delta > 1/2 Window (m)=manual int.
11G13777.D 8021S.M Fri Jun 21 19:12:20 2002

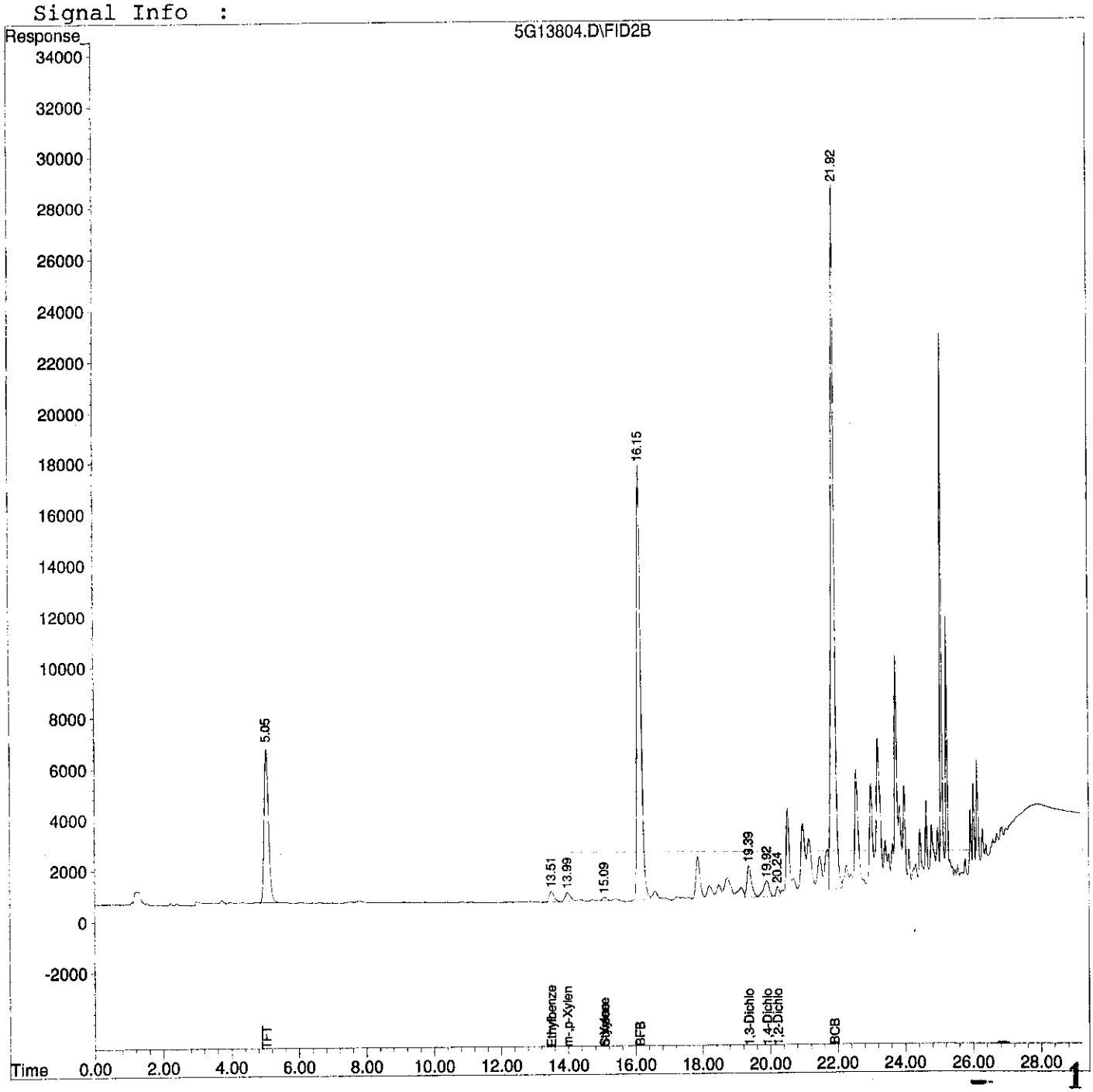
108

Data File : C:\HPCHEM\2\DATA\062402\5G13804.D
Acq On : 24 Jun 2002 10:32
Sample : L0206417-03 C 4.92G/10ML
Misc : 7,100 S-95-46
IntFile : autoint1.e
Quant Time: Jun 24 11:01 2002 Quant Results File: 602STY.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 100.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



109

5G13804.D 602STY.M Mon Jun 24 11:01:44 2002 Page 2

Data File : C:\HPCHEM\2\DATA\062402\5G13804.D Vial: 3
Acq On : 24 Jun 2002 10:32 Operator: CBN
Sample : L0206417-03 C 4.92G/10ML Inst : HP5
Misc : 7,100 S-95-46 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 24 11:01 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.05	548428	30.9376 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.13%
10) S BFB	16.15	1412742	29.5676 ug/L
Spiked Amount 30.000		Recovery =	98.56%
14) S BCB	21.92	1868087	39.8969 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	132.99%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.51	43037	97.3272 ug/L
7) TM m-,p-Xylene	13.99	36699	69.3815 ug/L
8) TM Styrene	15.10f	13278	23.9431 ug/L
9) TM o-Xylene	15.10	13278	25.7498 ug/L
11) TM 1,3-Dichlorobenzene	19.39	112119	257.8794 ug/L
12) TM 1,4-Dichlorobenzene	19.92	73038	155.2007 ug/L
13) TM 1,2-Dichlorobenzene	20.24	23047	60.8320 ug/L

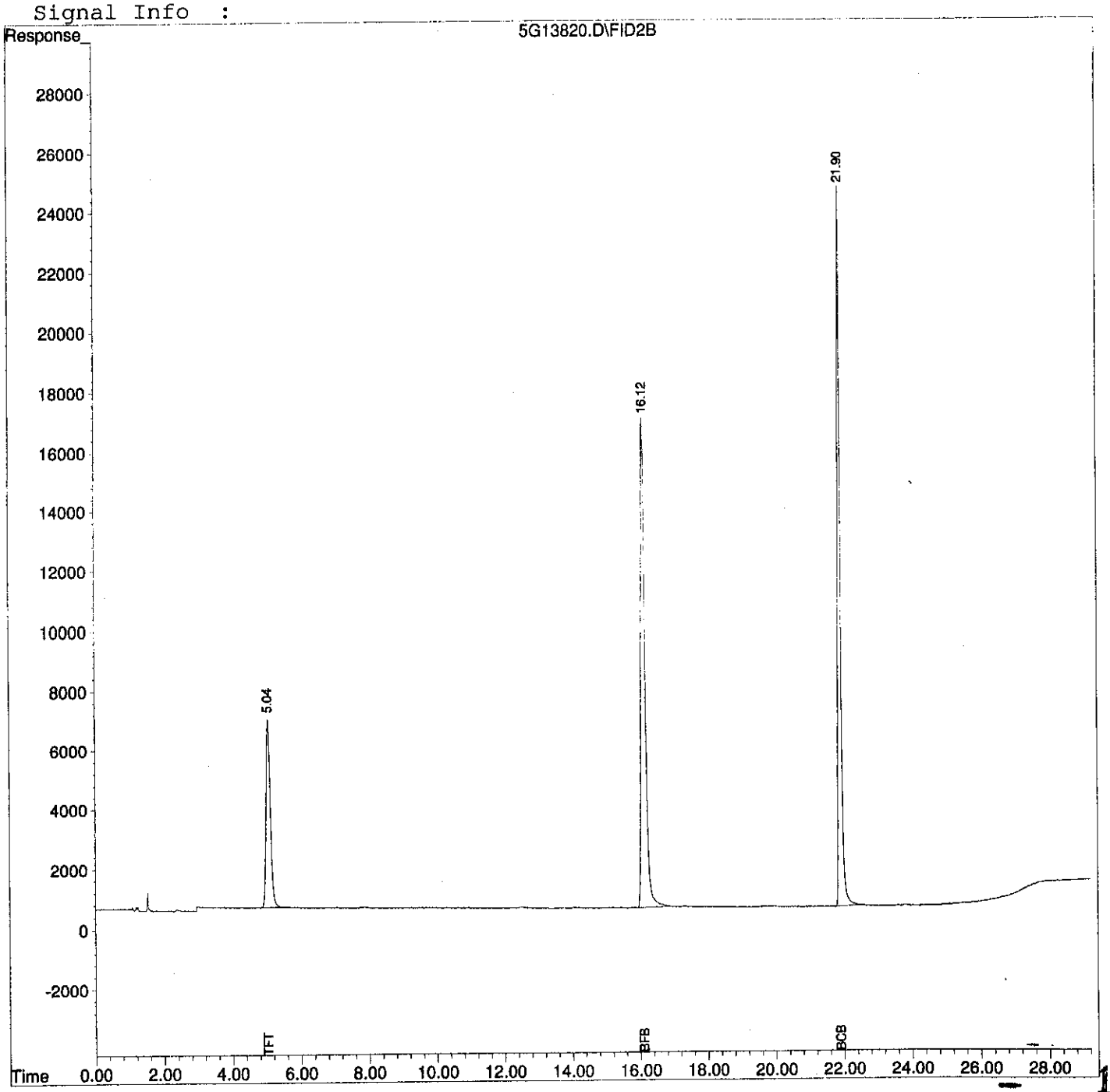
110

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

Data File : C:\HPCHEM\2\DATA\062502\5G13820.D Vial: 3
Acq On : 25 Jun 2002 9:38 Operator: CBN
Sample : L0206417-04 A 5ML Inst : HP5
Misc : 1,1 S-95-30 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 10:07 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\062502\5G13820.D Vial: 3
Acq On : 25 Jun 2002 9:38 Operator: CBN
Sample : L0206417-04 A 5ML Inst : HP5
Misc : 1,1 S-95-30 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 10:07 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.04	552410	31.1622 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 103.87%			
10) S BFB	16.12	1415353	29.6222 ug/L
Spiked Amount 30.000 Recovery = 98.74%			
14) S BCB	21.91	1319028	28.1706 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.90%			
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

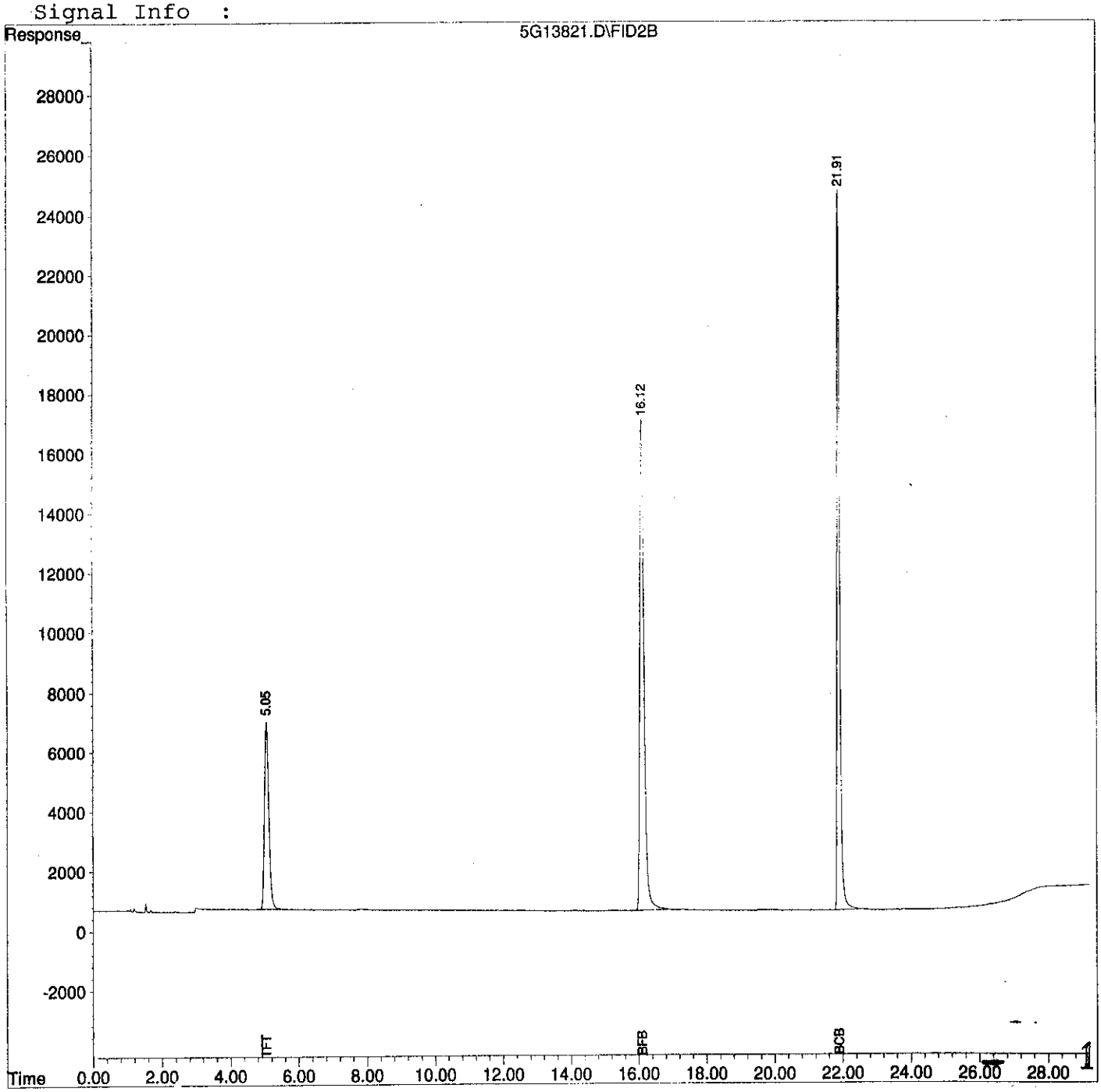
112

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

Data File : C:\HPCHEM\2\DATA\062502\5G13821.D Vial: 4
Acq On : 25 Jun 2002 10:13 Operator: CBN
Sample : L0206417-06 A 5ML Inst : HP5
Misc : 1,1 S-95-30 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 10:42 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



113

Data File : C:\HPCHEM\2\DATA\062502\5G13821.D Vial: 4
Acq On : 25 Jun 2002 10:13 Operator: CBN
Sample : L0206417-06 A 5ML Inst : HP5
Misc : 1,1 S-95-30 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 10:42 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.05	553650	31.2322 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	104.11%
10) S BFB	16.12	1419508	29.7092 ug/L
Spiked Amount 30.000		Recovery =	99.03%
14) S BCB	21.91	1335655	28.5257 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	95.09%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

114

(f)=RT Delta > 1/2 Window (m)=manual int.
5G13821.D 602STY.M Tue Jun 25 10:42:25 2002 Page 1

2.1.3.3 Standards Data

Calibration Table Report
Method: 602STY.M
Title: METHOD 602 - Water - 4/22/02
Last Calibration: Tue Apr 23 13:19:26 2002

Calibration Files

Compound	1 5G12946.D	10 5G12947.D	20 5G12948.D	50 5G12949.D	100 5G12950.D	200 5G12951.D	300 5G12952.D	Avg	%RSD
MTBE	11757	10818	10755	10474	10368	9314	9786	10467	7.475
Benzene	56328	57962	57511	56878	55019	53645	55284	56090	2.721
TFT	17096	18143	17902	17945	17550	17784	17670	17727	1.908
Toluene	48925	52420	52492	52169	50514	49507	51762	51113	2.865
Chlorobenzene	51700	55103	55327	54632	54267	53033	54687	54107	2.393
Ethylbenzene	42551	45390	45328	44841	43943	42762	44719	44219	2.647
m-,p-Xylene	54205	54424	54253	53567	52018	50050	51746	52895	3.138
Styrene	47957	56536	57281	57945	53412	56698	58360	55455	6.629
o-Xylene	55799	53727	52896	51677	50041	48060	48753	51565	5.422
BFB	44443	48214	47901	48728	48756	48262	48155	47780	3.147
1,3-Dichlorobenzene	37248	44261	44516	44585	44704	43991	45035	43477	6.363
1,4-Dichlorobenzene	40973	49874	49545	48373	47853	46102	46703	47061	6.406
1,2-Dichlorobenzene	35066	38633	38986	38656	38695	37217	37954	37887	3.641
BCB	45926	47411	46888	47241	47429	46214	46650	46823	1.263

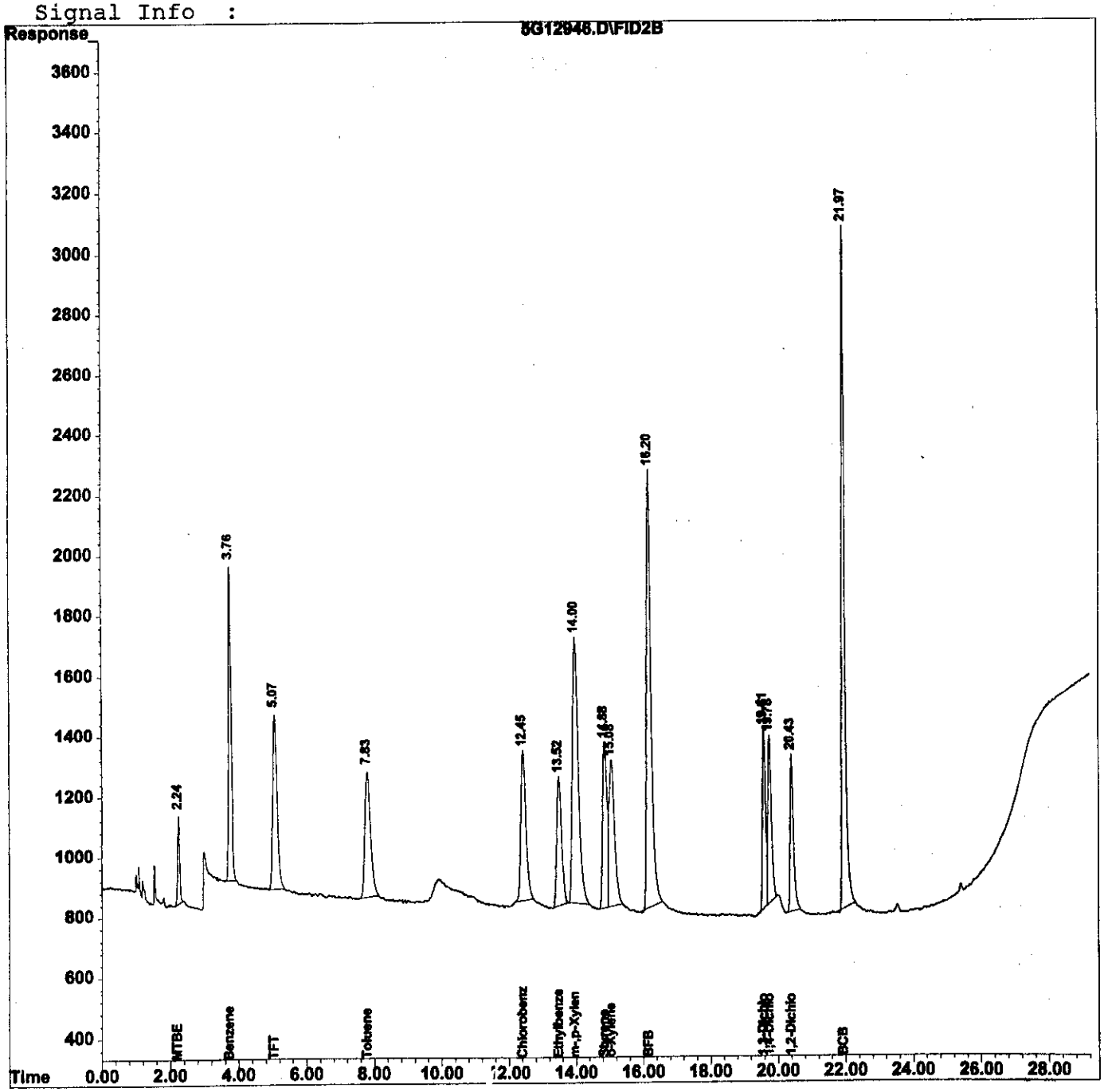
Tue Apr 23 13:21:51 2002

116

Data File : C:\HPCHEM\2\DATA\042202\5G12946.D Vial: 1
Acq On : 22 Apr 2002 13:29 Operator: CBN
Sample : WG116507-01 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\042202\5G12946.D Vial: 1
Acq On : 22 Apr 2002 13:29 Operator: CBN
Sample : WG116507-01 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	51288	2.8932 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	9.64%#
10) S BFB	16.20	133330	2.7905 ug/L
Spiked Amount 30.000		Recovery =	9.30%
14) S BCB	21.97	137779	2.9426 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	9.81%#
Target Compounds			
1) TM MTBE	2.24	11757	1.1232 ug/L
2) TM Benzene	3.76	56327	1.0042 ug/L
4) TM Toluene	7.83	48925	0.9572 ug/L
5) TM Chlorobenzene	12.45	51700	0.9555 ug/L
6) TM Ethylbenzene	13.52	42551	0.9623 ug/L
7) TM m-,p-Xylene	14.00	108410	2.0495 ug/L
8) TM Styrene	14.88	47957	0.8648 ug/L
9) TM o-Xylene	15.08	55799	1.0821 ug/L
11) TM 1,3-Dichlorobenzene	19.61	37248	0.7915 ug/L
12) TM 1,4-Dichlorobenzene	19.78	40973	0.8707 ug/L
13) TM 1,2-Dichlorobenzene	20.43	35066	0.9256 ug/L

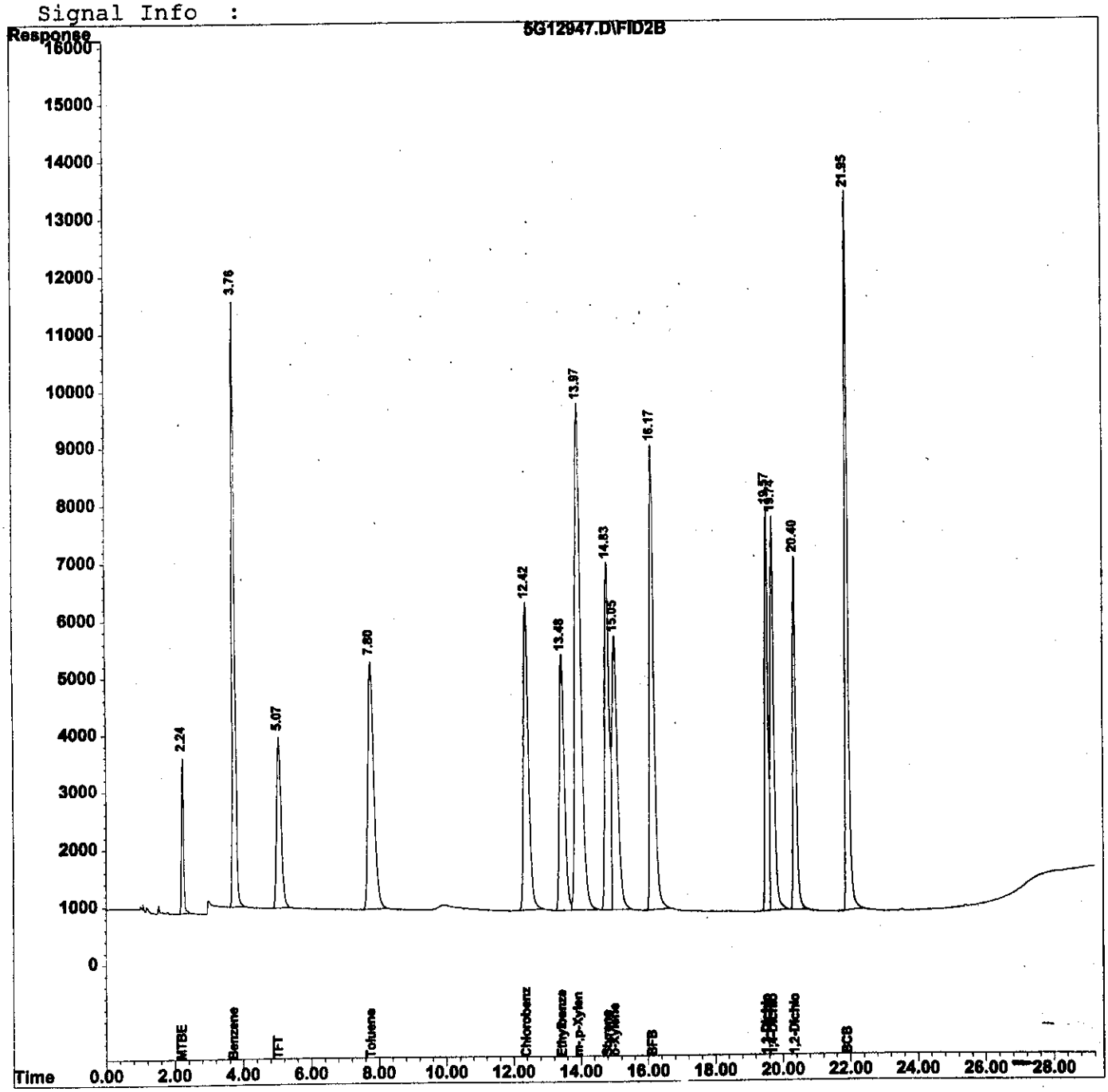
118

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

Data File : C:\HPCHEM\2\DATA\042202\5G12947.D Vial: 2
Acq On : 22 Apr 2002 14:04 Operator: CBN
Sample : WG116507-02 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



119

Data File : C:\HPCHEM\2\DATA\042202\5G12947.D Vial: 2
Acq On : 22 Apr 2002 14:04 Operator: CBN
Sample : WG116507-02 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	272138	15.3517 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	51.17%#
10) S BFB	16.17	723215	15.1363 ug/L
Spiked Amount 30.000		Recovery =	50.45%
14) S BCB	21.95	711170	15.1885 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	50.63%
Target Compounds			
1) TM MTBE	2.24	108182	10.3351 ug/L
2) TM Benzene	3.76	579615	10.3338 ug/L
4) TM Toluene	7.80	524199	10.2557 ug/L
5) TM Chlorobenzene	12.42	551031	10.1841 ug/L
6) TM Ethylbenzene	13.48	453901	10.2648 ug/L
7) TM m-,p-Xylene	13.97	1088481	20.5783 ug/L
8) TM Styrene	14.84	565358	10.1948 ug/L
9) TM o-Xylene	15.06	537265	10.4193 ug/L
11) TM 1,3-Dichlorobenzene	19.57	442610	9.4051 ug/L
12) TM 1,4-Dichlorobenzene	19.74	498740	10.5978 ug/L
13) TM 1,2-Dichlorobenzene	20.40	386329	10.1969 ug/L

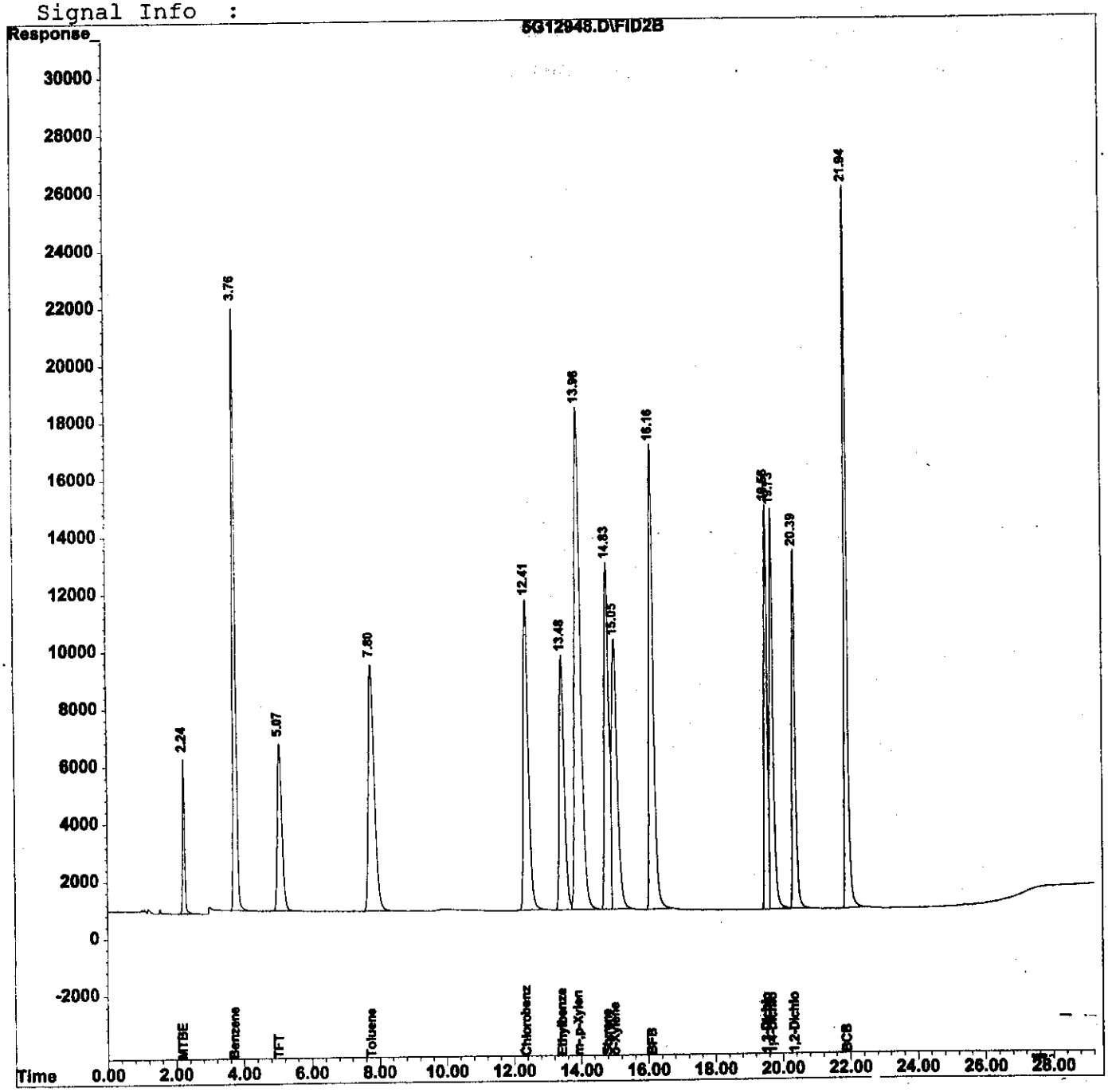
120

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

Data File : C:\HPCHEM\2\DATA\042202\5G12948.D Vial: 3
Acq On : 22 Apr 2002 14:39 Operator: CBN
Sample : WG116507-03 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



121

5G12948.D 602STY.M Tue Apr 23 13:18:15 2002 Page 2

Data File : C:\HPCHEM\2\DATA\042202\5G12948.D Vial: 3
Acq On : 22 Apr 2002 14:39 Operator: CBN
Sample : WG116507-03 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	537047	30.2956 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 100.99%	
10) S BFB	16.16	1437037	30.0761 ug/L
Spiked Amount 30.000		Recovery = 100.25%	
14) S BCB	21.94	1406625	30.0414 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 100.14%	
Target Compounds			
1) TM MTBE	2.24	215108	20.5503 ug/L
2) TM Benzene	3.76	1150225	20.5070 ug/L
4) TM Toluene	7.80	1049846	20.5397 ug/L
5) TM Chlorobenzene	12.41	1106539	20.4509 ug/L
6) TM Ethylbenzene	13.48	906551	20.5014 ug/L
7) TM m-,p-Xylene	13.97	2170128	41.0274 ug/L
8) TM Styrene	14.83	1145612	20.6582 ug/L
9) TM o-Xylene	15.05	1057926	20.5165 ug/L
11) TM 1,3-Dichlorobenzene	19.57	890328	18.9188 ug/L
12) TM 1,4-Dichlorobenzene	19.73	990896	21.0558 ug/L
13) TM 1,2-Dichlorobenzene	20.39	779720	20.5803 ug/L

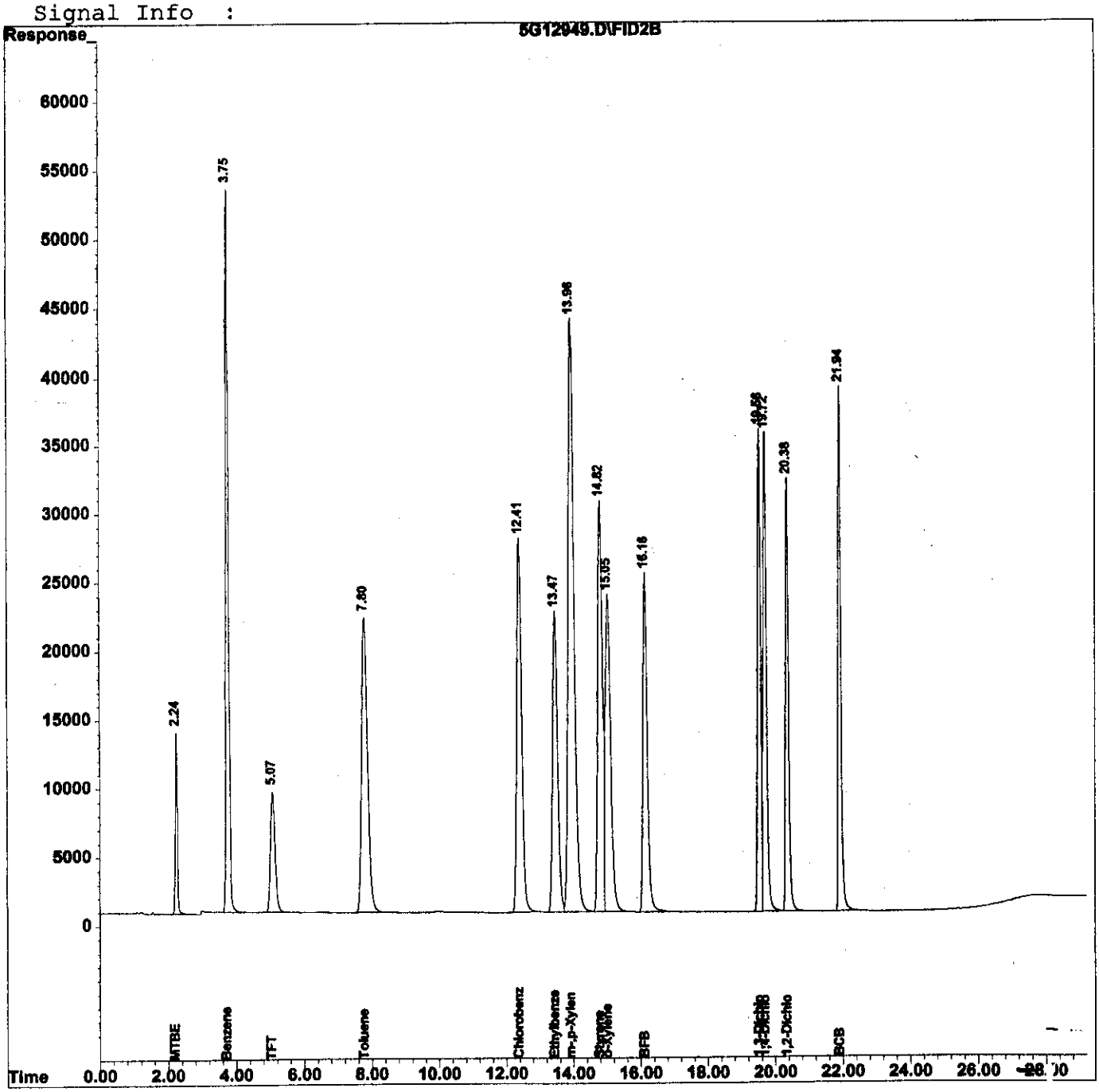
122

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

Data File : C:\HPCHEM\2\DATA\042202\5G12949.D Vial: 4
Acq On : 22 Apr 2002 15:14 Operator: CBN
Sample : WG116507-04 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



123

Data File : C:\HPCHEM\2\DATA\042202\5G12949.D Vial: 4
Acq On : 22 Apr 2002 15:14 Operator: CBN
Sample : WG116507-04 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	807512	45.5529 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	151.84%#
10) S BFB	16.16	2192778	45.8931 ug/L
Spiked Amount 30.000		Recovery =	152.98%
14) S BCB	21.94	2125866	45.4023 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	151.34%#
Target Compounds			
1) TM MTBE	2.24	523680	50.0297 ug/L
2) TM Benzene	3.76	2843877	50.7025 ug/L
4) TM Toluene	7.80	2608433	51.0328 ug/L
5) TM Chlorobenzene	12.41	2731610	50.4852 ug/L
6) TM Ethylbenzene	13.47	2242060	50.7035 ug/L
7) TM m-,p-Xylene	13.96	5356662	101.2705 ug/L
8) TM Styrene	14.82	2897265	52.2449 ug/L
9) TM o-Xylene	15.05	2583852	50.1091 ug/L
11) TM 1,3-Dichlorobenzene	19.56	2229246	47.3698 ug/L
12) TM 1,4-Dichlorobenzene	19.73	2418650	51.3944 ug/L
13) TM 1,2-Dichlorobenzene	20.38	1932782	51.0148 ug/L

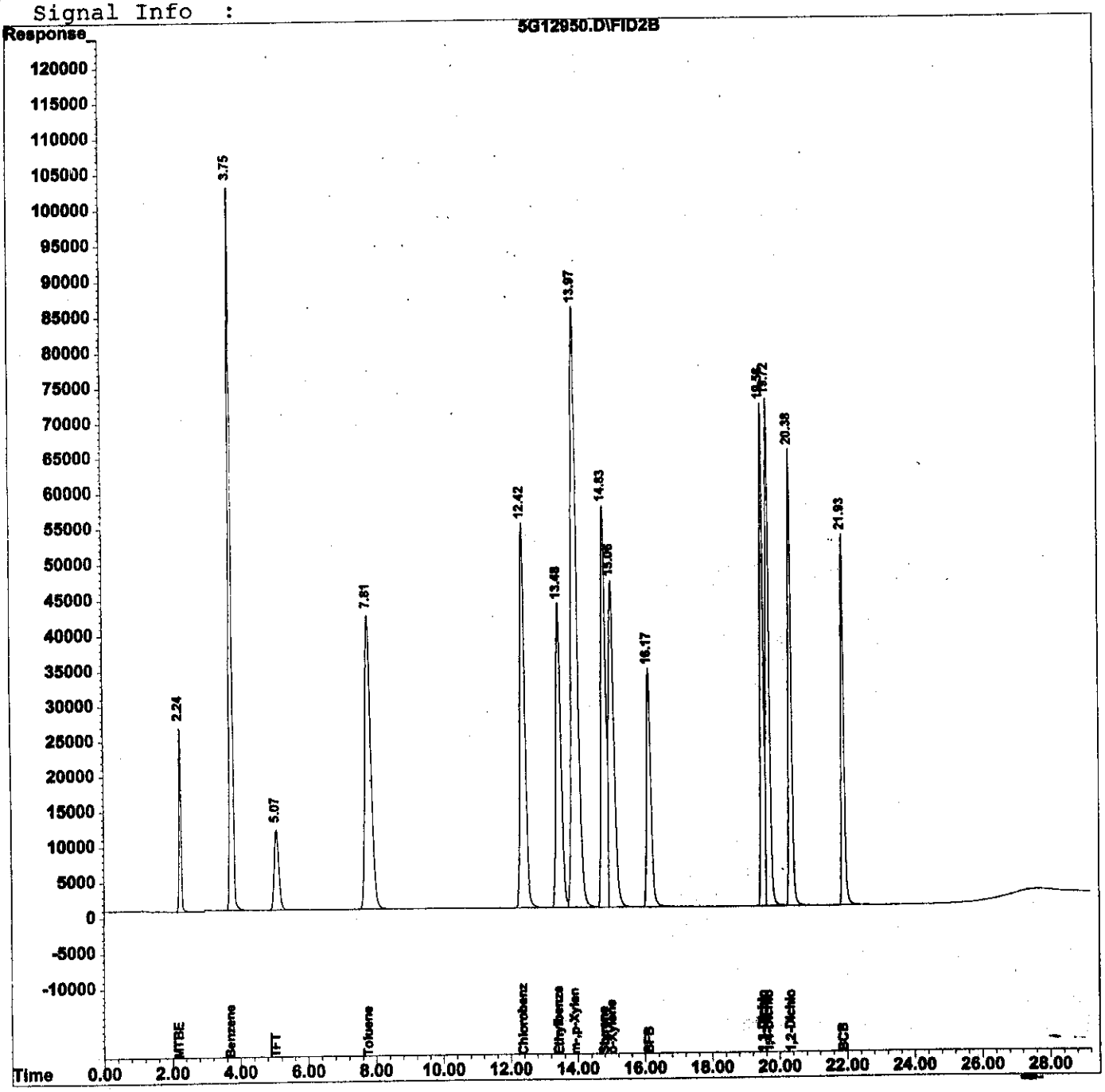
124

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

Data File : C:\HPCHEM\2\DATA\042202\5G12950.D Vial: 5
Acq On : 22 Apr 2002 15:48 Operator: CBN
Sample : WG116507-05 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



125

5G12950.D 602STY.M Tue Apr 23 13:18:22 2002 Page 2

Data File : C:\HPCHEM\2\DATA\042202\5G12950.D Vial: 5
Acq On : 22 Apr 2002 15:48 Operator: CBN
Sample : WG116507-05 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	1052975	59.3998 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery	= 198.00%#
10) S BFB	16.17	2925355	61.2254 ug/L
Spiked Amount 30.000		Recovery	= 204.08%
14) S BCB	21.94	2845744	60.7768 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 202.59%#
Target Compounds			
1) TM MTBE	2.24	1036822	99.0526 ug/L
2) TM Benzene	3.75	5501929	98.0920 ug/L
4) TM Toluene	7.81	5051424	98.8287 ug/L
5) TM Chlorobenzene	12.42	5426734	100.2960 ug/L
6) TM Ethylbenzene	13.49	4394325	99.3763 ug/L
7) TM m-,p-Xylene	13.97	10403552	196.6845 ug/L
8) TM Styrene	14.84	5341161	96.3145 ug/L
9) TM o-Xylene	15.06	5004098	97.0453 ug/L
11) TM 1,3-Dichlorobenzene	19.56	4470416	94.9929 ug/L
12) TM 1,4-Dichlorobenzene	19.72	4785322	101.6844 ug/L
13) TM 1,2-Dichlorobenzene	20.38	3869496	102.1334 ug/L

126

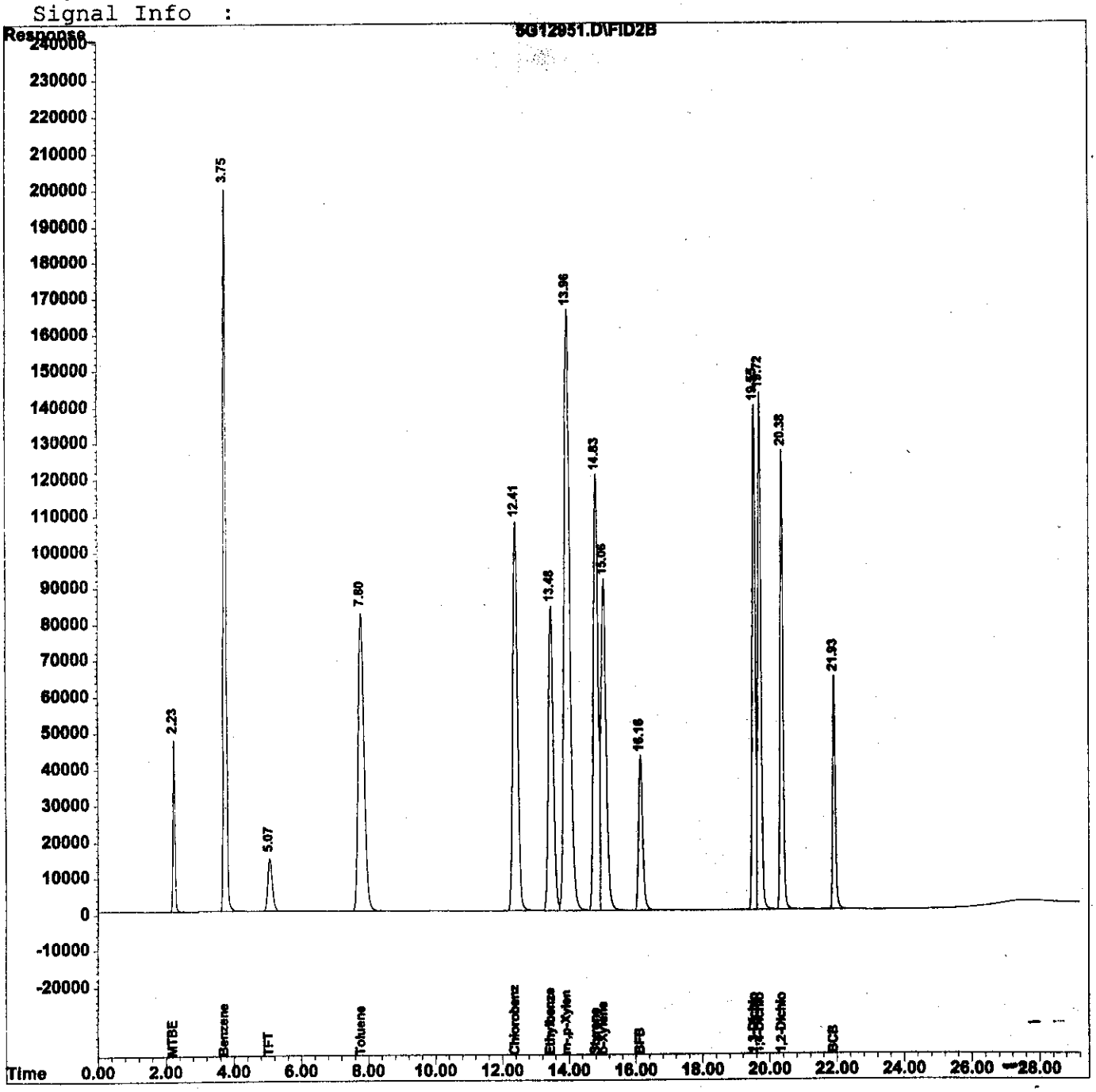
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12951.D Vial: 6
Acq On : 22 Apr 2002 16:23 Operator: CBN
Sample : WG116507-06 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



127

Data File : C:\HPCHEM\2\DATA\042202\5G12951.D Vial: 6
Acq On : 22 Apr 2002 16:23 Operator: CBN
Sample : WG116507-06 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	1333832	75.2433 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	250.81%#
10) S BFB	16.16	3619677	75.7570 ug/L
Spiked Amount 30.000		Recovery =	252.52%
14) S BCB	21.94	3466056	74.0249 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	246.75%#
Target Compounds			
1) TM MTBE	2.24	1862797	177.9620 ug/L
2) TM Benzene	3.75	10728979	191.2832 ug/L
4) TM Toluene	7.80	9901450	193.7172 ug/L
5) TM Chlorobenzene	12.41	10606672	196.0308 ug/L
6) TM Ethylbenzene	13.48	8552369	193.4091 ug/L
7) TM m-,p-Xylene	13.97	20020076	378.4899 ug/L
8) TM Styrene	14.83	11339575	204.4809 ug/L
9) TM o-Xylene	15.06	9611978	186.4066 ug/L
11) TM 1,3-Dichlorobenzene	19.55	8798263	186.9563 ug/L
12) TM 1,4-Dichlorobenzene	19.72	9220416	195.9268 ug/L
13) TM 1,2-Dichlorobenzene	20.38	7443401	196.4647 ug/L

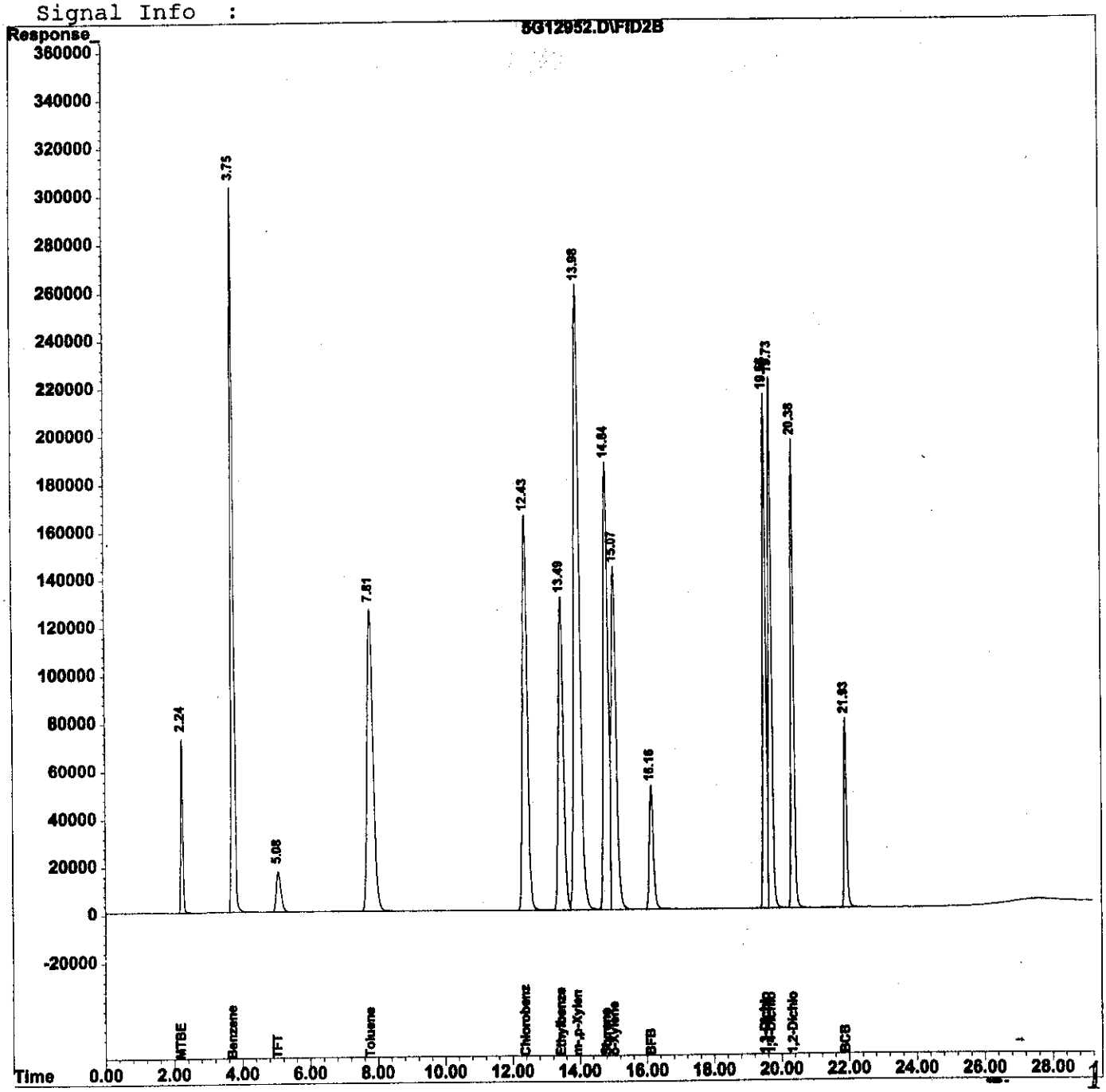
128

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

Data File : C:\HPCHEM\2\DATA\042202\5G12952.D Vial: 7
Acq On : 22 Apr 2002 16:58 Operator: CBN
Sample : WG116507-07 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



129

5G12952.D 602STY.M Tue Apr 23 13:18:28 2002 Page 2

Data File : C:\HPCHEM\2\DATA\042202\5G12952.D Vial: 7
Acq On : 22 Apr 2002 16:58 Operator: CBN
Sample : WG116507-07 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	1590258	89.7086 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 299.03%#	
10) S BFB	16.17	4333947	90.7061 ug/L
Spiked Amount 30.000		Recovery = 302.35%	
14) S BCB	21.93	4198503	89.6678 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 298.89%#	
Target Compounds			
1) TM MTBE	2.24	2935664	280.4582 ug/L
2) TM Benzene	3.75	16585339	295.6942 ug/L
4) TM Toluene	7.81	15528746	303.8126 ug/L
5) TM Chlorobenzene	12.43	16406053	303.2140 ug/L
6) TM Ethylbenzene	13.49	13415617	303.3899 ug/L
7) TM m-,p-Xylene	13.98	31047355	586.9664 ug/L
8) TM Styrene	14.84	17507932	315.7119 ug/L
9) TM o-Xylene	15.07	14625810	283.6407 ug/L
11) TM 1,3-Dichlorobenzene	19.56	13510483	287.0874 ug/L
12) TM 1,4-Dichlorobenzene	19.73	14010936	297.7217 ug/L
13) TM 1,2-Dichlorobenzene	20.38	11386255	300.5344 ug/L

130

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

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D
Acq On : 22 Apr 2002 18:42
Sample : WG116507-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-92-44
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.052 E3	-5.6	103	0.00
2	TM	Benzene	56.089	59.558 E3	-6.2	104	0.00
3	S	TFT	17.727	17.906 E3	-1.0	100	0.00
4	TM	Toluene	51.113	54.406 E3	-6.4	104	0.00
5	TM	Chlorobenzene	54.107	56.529 E3	-4.5	102	0.00
6	TM	Ethylbenzene	44.219	47.600 E3	-7.6	105	0.00
7	TM	m-,p-Xylene	52.895	55.632 E3	-5.2	103	0.00
8	TM	Styrene	55.455	58.150 E3	-4.9	102	0.00
9	TM	o-Xylene	51.565	53.613 E3	-4.0	101	-0.01
10	S	BFB	47.780	46.240 E3	3.2	97	-0.01
11	TM	1,3-Dichlorobenzene	43.477	46.342 E3	-6.6	104	-0.01
12	TM	1,4-Dichlorobenzene	47.061	50.837 E3	-8.0	103	-0.01
13	TM	1,2-Dichlorobenzene	37.887	40.945 E3	-8.1	105	0.00
14	S	BCB	46.823	46.651 E3	0.4	99	0.00

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.117	-5.6	103	0.00
2	TM	Benzene	20.000	21.237	-6.2	104	0.00
3	S	TFT	30.000	30.303	-1.0	100	0.00
4	TM	Toluene	20.000	21.288	-6.4	104	0.00
5	TM	Chlorobenzene	20.000	20.895	-4.5	102	0.00
6	TM	Ethylbenzene	20.000	21.529	-7.6	105	0.00
7	TM	m-,p-Xylene	40.000	42.070	-5.2	103	0.00
8	TM	Styrene	20.000	20.972	-4.9	102	0.00
9	TM	o-Xylene	20.000	20.795	-4.0	101	-0.01
10	S	BFB	30.000	29.033	3.2	97	-0.01
11	TM	1,3-Dichlorobenzene	20.000	21.318	-6.6	104	-0.01
12	TM	1,4-Dichlorobenzene	20.000	21.605	-8.0	103	-0.01
13	TM	1,2-Dichlorobenzene	20.000	21.614	-8.1	105	0.00
14	S	BCB	30.000	29.890	0.4	99	0.00

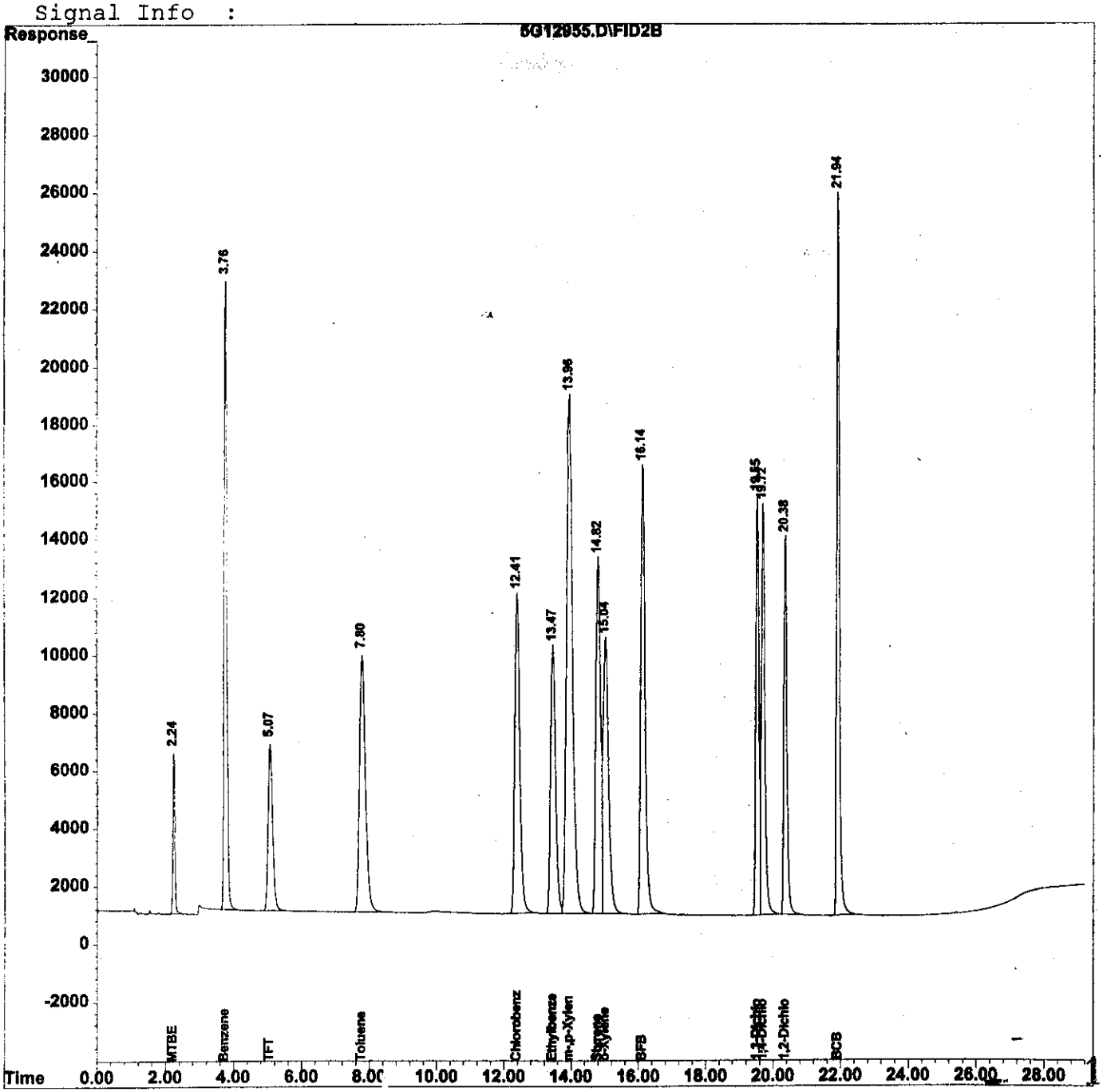
132

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12955.D 602STY.M Tue Apr 23 13:21:09 2002 Page 1

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:20 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



133

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:20 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	537186	30.3034 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	101.01%
10) S BFB	16.15	1387204	29.0331 ug/L
Spiked Amount 30.000		Recovery =	96.78%
14) S BCB	21.94	1399522	29.8897 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	99.63%
Target Compounds			
1) TM MTBE	2.24	221045	21.1175 ug/L
2) TM Benzene	3.76	1191168	21.2369 ug/L
4) TM Toluene	7.80	1088112	21.2884 ug/L
5) TM Chlorobenzene	12.41	1130584	20.8953 ug/L
6) TM Ethylbenzene	13.48	952001	21.5292 ug/L
7) TM m-,p-Xylene	13.96	2225281	42.0701 ug/L
8) TM Styrene	14.82	1162996	20.9717 ug/L
9) TM o-Xylene	15.04	1072269	20.7947 ug/L
11) TM 1,3-Dichlorobenzene	19.55	926849	21.3180 ug/L
12) TM 1,4-Dichlorobenzene	19.72	1016744	21.6050 ug/L
13) TM 1,2-Dichlorobenzene	20.38	818900	21.6144 ug/L

134

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

Calibration Table Report
Method: 8021S.M
Title: Method 8021B- Soil 4/30/02
Last Calibration: Wed May 01 09:30:22 2002

Calibration Files

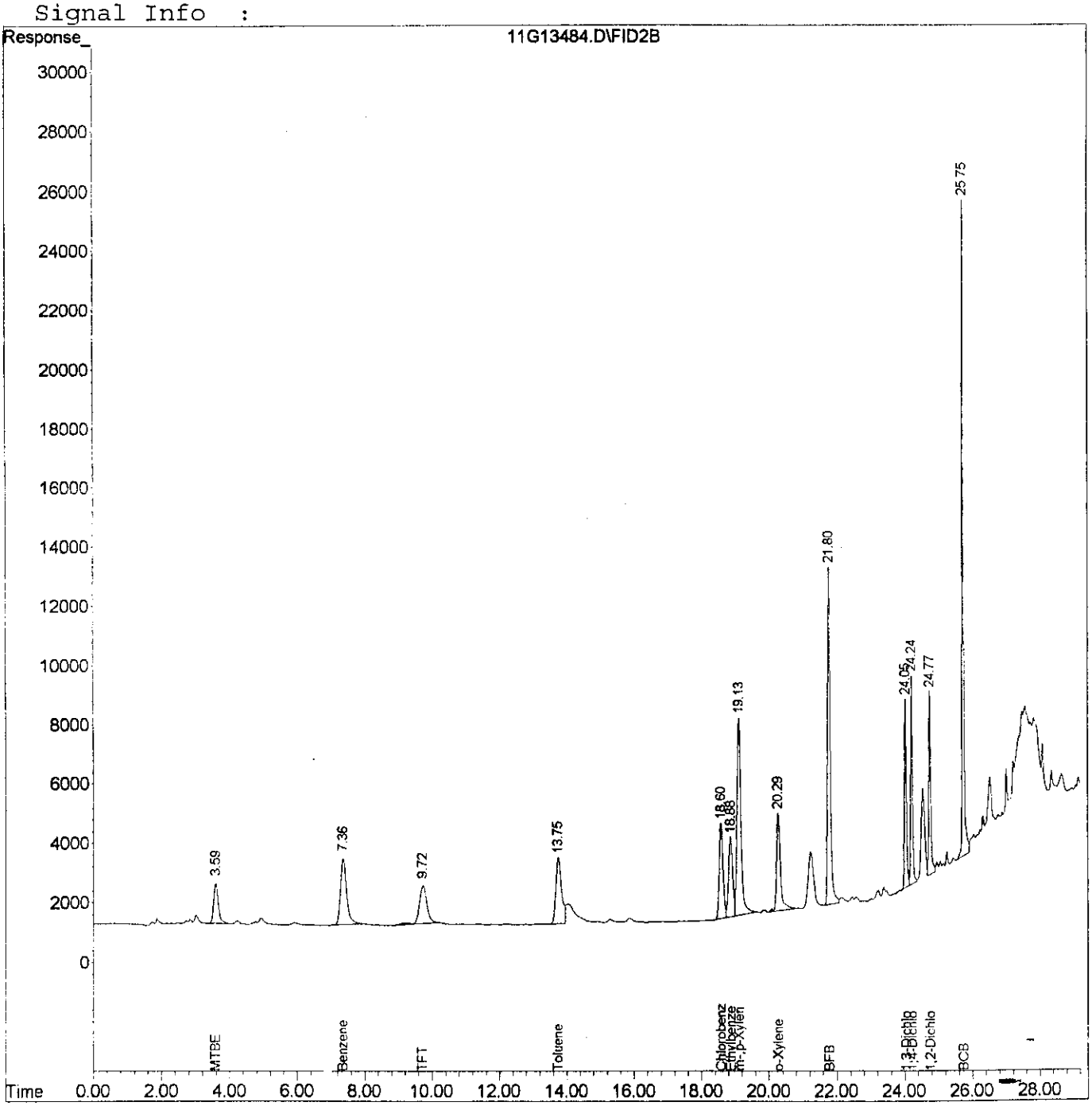
Compound	1 11G13484.D	10 11G13485.D	20 11G13486.D	50 11G13487.D	100 11G13488.D	200 11G13489.D	300 11G13490.D	Avg	%RSD
MTBE	130564.4	121945.8	118085.1	113558.8	117930.3	117525.0	117007.7	119517.0	4.561
Benzene	279113.8	268849.7	261094.0	253130.6	260157.9	258106.5	258096.1	262650.0	3.298
TFT	69260.2	88424.7	89870.6	87645.0	86019.6	89195.3	88120.0	85505.0	8.498
Toluene	259198.2	270831.2	272580.5	258699.4	261099.4	267050.4	261847.2	264472.0	2.140
Chlorobenzene	249596.2	263083.7	274302.8	266351.2	275208.6	280495.5	276123.7	269309.0	3.916
Ethylbenzene	217223.4	238323.7	243877.6	234407.7	240646.2	239754.2	236638.0	235839.0	3.706
m-,p-Xylene	275744.9	295029.5	294859.3	279070.4	285347.0	281979.0	276669.0	284100.0	2.844
o-Xylene	259615.7	262554.4	259540.1	245129.9	251145.2	249289.5	245123.9	253200.0	2.879
BFB	214211.4	225675.9	230793.0	232489.7	237922.4	243022.1	242490.5	232372.0	4.388
1,3-Dichlorobenzene	245015.0	228402.0	234891.6	228735.8	246888.1	250543.5	245202.9	239954.0	3.798
1,4-Dichlorobenzene	267249.8	238331.3	243679.5	233666.0	250309.3	251355.9	244594.6	247027.0	4.403
1,2-Dichlorobenzene	239096.9	211357.5	211951.1	201122.8	217264.0	213515.7	205864.1	214310.0	5.661
BCB	241933.0	217600.8	227469.0	227638.9	249625.9	248757.7	244103.5	236733.0	5.250

Wed May 01 09:31:03 2002

Data File : C:\HPCHEM\1\DATA\043002\11G13484.D Vial: 1
Acq On : 30 Apr 2002 3:07 pm Operator: CBN
Sample : WG116964-01 8021 STD1 1PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 15:37 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



136

Data File : C:\HPCHEM\1\DATA\043002\11G13484.D Vial: 1
Acq On : 30 Apr 2002 3:07 pm Operator: CBN
Sample : WG116964-01 8021 STD1 1PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 15:37 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.73	207781	4.2578 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery =	14.19%#
9) S BFB	21.80	642634	4.8062 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery =	16.02%#
13) S BCB	25.75	725799	5.3123 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery =	17.71%#
Target Compounds			
1) TM MTBE	3.59	130564	1.8334 UG/KG
2) TM Benzene	7.36	279114	1.7561 UG/KG
4) TM Toluene	13.76	259198	1.7331 UG/KG
5) TM Chlorobenzene	18.60	249596	1.6477 UG/KG
6) TM Ethylbenzene	18.88	217223	1.6248 UG/KG
7) TM m-,p-Xylene	19.13	551490	3.3749 UG/KG
8) TM o-Xylene	20.30	259616	1.8351 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	245015	1.8278 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	267250	1.9412 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	239097	1.8799 UG/KG

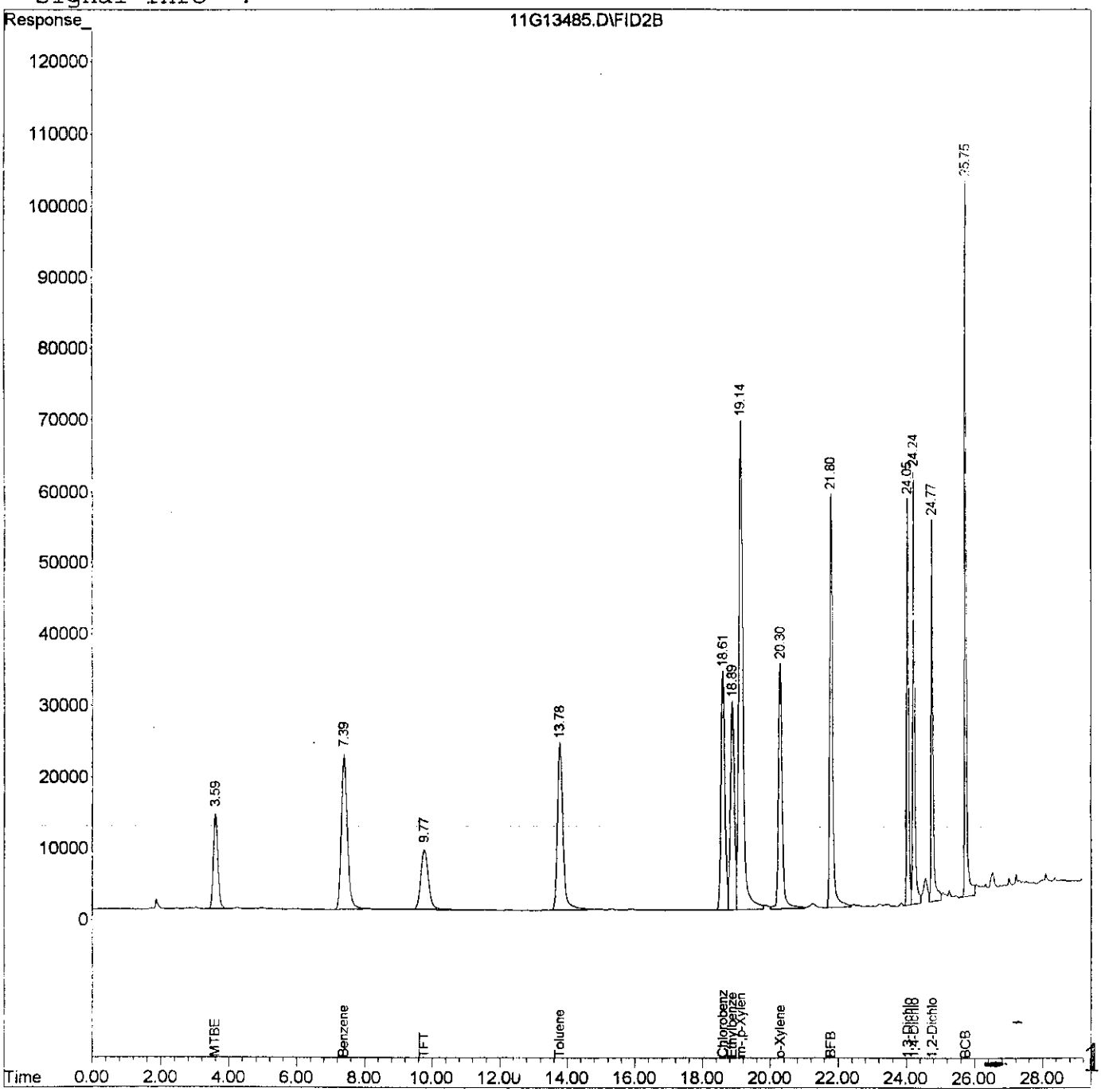
137

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

Data File : C:\HPCHEM\1\DATA\043002\11G13485.D Vial: 2
Acq On : 30 Apr 2002 3:42 pm Operator: CBN
Sample : WG116964-02 8021 STD2 10PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 16:11 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



138

Data File : C:\HPCHEM\1\DATA\043002\11G13485.D Vial: 2
Acq On : 30 Apr 2002 3:42 pm Operator: CBN
Sample : WG116964-02 8021 STD2 10PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 16:11 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.77	1326370	27.1797 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 90.60%
9) S BFB	21.81	3385138	25.3171 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 84.39%
13) S BCB	25.75	3264011	23.8900 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 79.63%
Target Compounds			
1) TM MTBE	3.59	1219458	17.1234 UG/KG
2) TM Benzene	7.39	2688497	16.9148 UG/KG
4) TM Toluene	13.78	2708312	18.1091 UG/KG
5) TM Chlorobenzene	18.61	2630837	17.3677 UG/KG
6) TM Ethylbenzene	18.89	2383237	17.8258 UG/KG
7) TM m-,p-Xylene	19.14	5900590	36.1090 UG/KG
8) TM o-Xylene	20.30	2625544	18.5586 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	2284019	17.0386 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	2383313	17.3111 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	2113575	16.6182 UG/KG

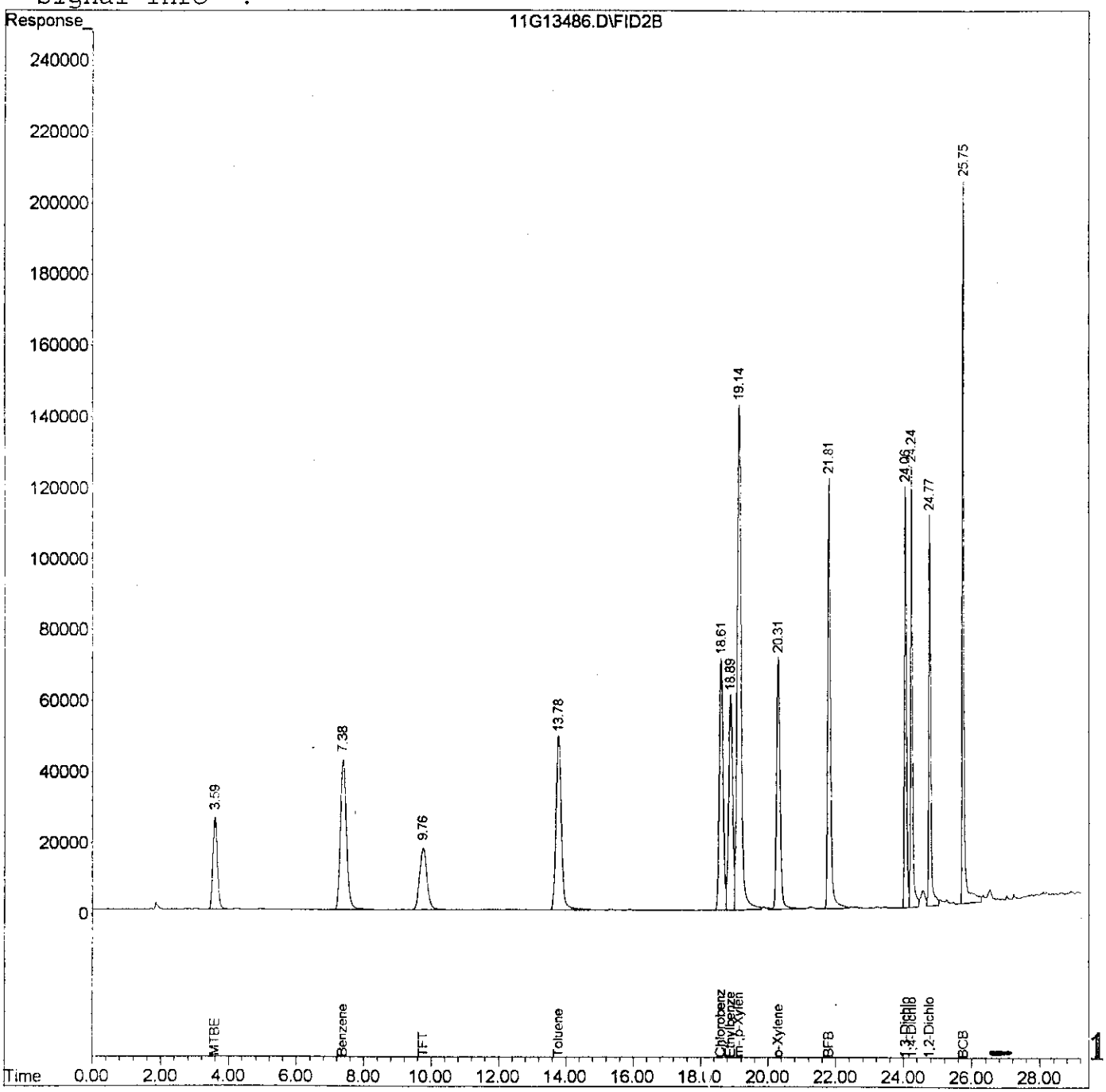
139

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

Data File : C:\HPCHEM\1\DATA\043002\11G13486.D Vial: 3
Acq On : 30 Apr 2002 4:17 pm Operator: CBN
Sample : WG116964-03 8021 STD3 20PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 16:46 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



140

Data File : C:\HPCHEM\1\DATA\043002\11G13486.D Vial: 3
Acq On : 30 Apr 2002 4:17 pm Operator: CBN
Sample : WG116964-03 8021 STD3 20PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 16:46 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.76	2696117	55.2483 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 184.16%#
9) S BFB	21.81	6923789	51.7823 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 172.61%#
13) S BCB	25.75	6824070	49.9469 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 166.49%#
Target Compounds			
1) TM MTBE	3.59	2361701	33.1625 UG/KG
2) TM Benzene	7.39	5221880	32.8536 UG/KG
4) TM Toluene	13.78	5451609	36.4522 UG/KG
5) TM Chlorobenzene	18.61	5486057	36.2167 UG/KG
6) TM Ethylbenzene	18.90	4877551	36.4825 UG/KG
7) TM m-,p-Xylene	19.14	11794374	72.1764 UG/KG
8) TM o-Xylene	20.31	5190802	36.6910 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	4697833	35.0455 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	4873590	35.3992 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	4239023	33.3298 UG/KG

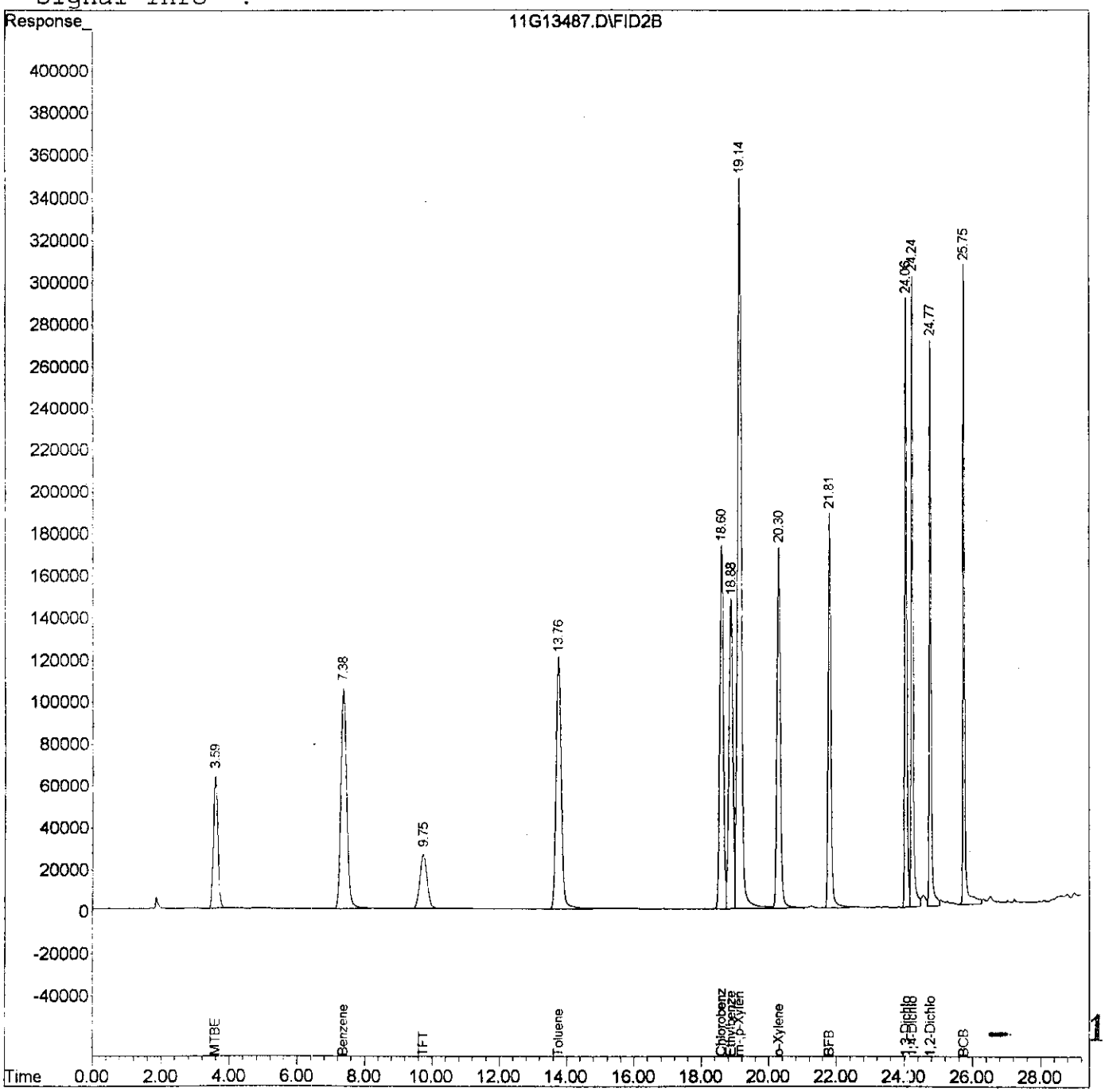
141

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

Data File : C:\HPCHEM\1\DATA\043002\11G13487.D Vial: 4
Acq On : 30 Apr 2002 4:51 pm Operator: CBN
Sample : WG116964-04 8021 STD4 50PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 17:21 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



142

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\043002\11G13487.D Vial: 4
Acq On : 30 Apr 2002 4:51 pm Operator: CBN
Sample : WG116964-04 8021 STD4 50PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 17:21 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

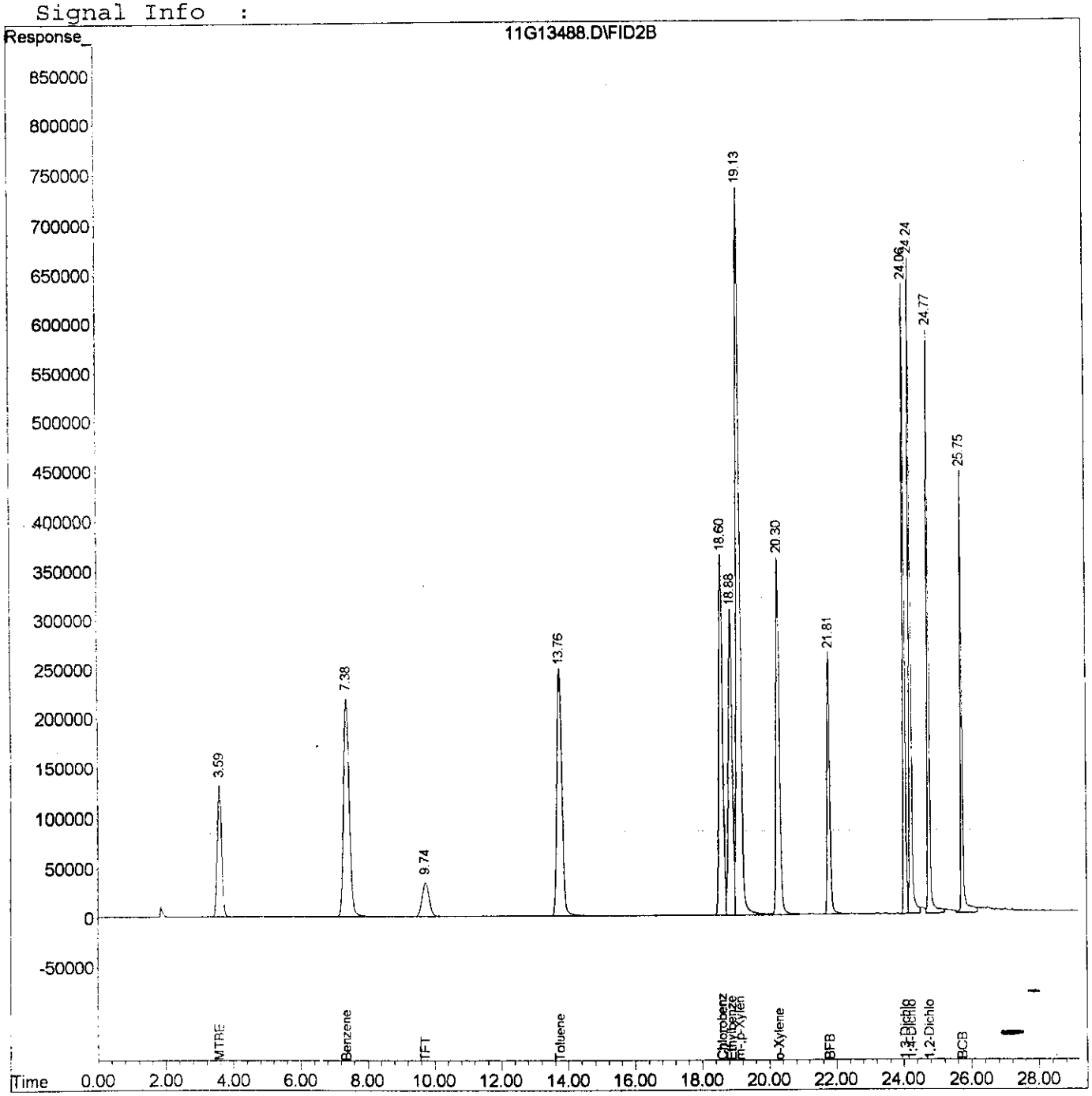
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.74	3944024	80.8202 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 269.40%#
9) S BFB	21.81	10462038	78.2445 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 260.82%#
13) S BCB	25.75	10243749	74.9763 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 249.92%#
Target Compounds			
1) TM MTBE	3.59	5677942	79.7284 UG/KG
2) TM Benzene	7.38	12656531	79.6289 UG/KG
4) TM Toluene	13.76	12934969	86.4896 UG/KG
5) TM Chlorobenzene	18.60	13317560	87.9170 UG/KG
6) TM Ethylbenzene	18.89	11720386	87.6647 UG/KG
7) TM m-,p-Xylene	19.14	27907041	170.7790 UG/KG
8) TM o-Xylene	20.30	12256496	86.6347 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	11436788	85.3176 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	11683301	84.8613 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	10056142	79.0676 UG/KG

Data File : C:\HPCHEM\1\DATA\043002\11G13488.D
Acq On : 30 Apr 2002 5:26 pm
Sample : WG116964-05 8021 STD5 100PPB 5G
Misc : 7,1 S-92-(36,44)
IntFile : AUTOINT1.E
Quant Time: Apr 30 17:55 2002 Quant Results File: 8021S.RES

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

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

Volume Inj. :
Signal Phase :
Signal Info :



144

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\043002\11G13488.D
Acq On : 30 Apr 2002 5:26 pm
Sample : WG116964-05 8021 STD5 100PPB 5G
Misc : 7,1 S-92-(36,44)
IntFile : AUTOINT1.E
Quant Time: Apr 30 17:55 2002 Quant Results File: 8021S.RES

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

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	5161177	105.7619 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 352.54%#
9) S BFB			21.81	14275345	106.7639 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 355.88%#
13) S BCB			25.75	14977553	109.6241 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 365.41%#
Target Compounds					
1) TM MTBE			3.59	11793031	165.5951 UG/KG
2) TM Benzene			7.38	26015792	163.6791 UG/KG
4) TM Toluene			13.76	26109936	174.5840 UG/KG
5) TM Chlorobenzene			18.60	27520859	181.6813 UG/KG
6) TM Ethylbenzene			18.89	24064618	179.9956 UG/KG
7) TM m-,p-Xylene			19.14	57069402	349.2399 UG/KG
8) TM o-Xylene			20.30	25114518	177.5213 UG/KG
10) TM 1,3-Dichlorobenzene			24.06	24688807	184.1766 UG/KG
11) TM 1,4-Dichlorobenzene			24.24	25030928	181.8113 UG/KG
12) TM 1,2-Dichlorobenzene			24.77	21726400	170.8263 UG/KG

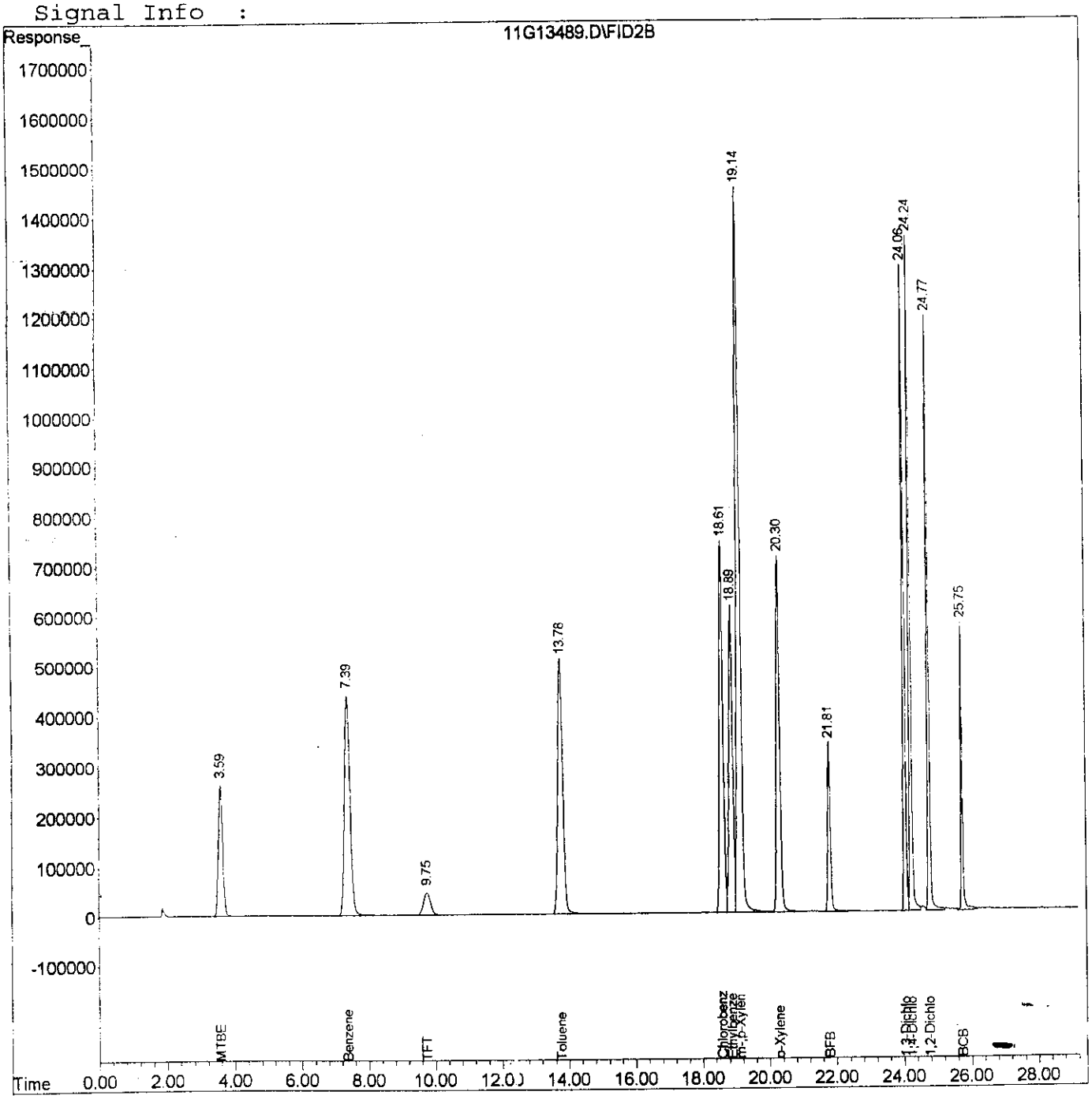
145

Data File : C:\HPCHEM\1\DATA\043002\11G13489.D
Acq On : 30 Apr 2002 6:01 pm
Sample : WG116964-06 8021 STD6 200PPB 5G
Misc : 7,1 S-92-(36,44)
IntFile : AUTOINT1.E
Quant Time: Apr 30 18:30 2002 Quant Results File: 8021S.RES

Vial: 6
Operator: CBN
Inst : HP11
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :



146

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\043002\11G13489.D
Acq On : 30 Apr 2002 6:01 pm
Sample : WG116964-06 8021 STD6 200PPB 5G
Misc : 7,1 S-92-(36,44)
IntFile : AUTOINT1.E
Quant Time: Apr 30 18:30 2002 Quant Results File: 8021S.RES

Vial: 6
Operator: CBN
Inst : HP11
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.76	6689645	137.0830 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 456.94%#
9) S BFB	21.81	18226658	136.3154 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 454.38%#
13) S BCB	25.75	18656827	136.5535 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 455.18%#
Target Compounds			
1) TM MTBE	3.59	23505000	330.0519 UG/KG
2) TM Benzene	7.39	51621305	324.7769 UG/KG
4) TM Toluene	13.77	53410090	357.1264 UG/KG
5) TM Chlorobenzene	18.61	56099108	370.3431 UG/KG
6) TM Ethylbenzene	18.89	47950839	358.6569 UG/KG
7) TM m-,p-Xylene	19.14	112791602	690.2356 UG/KG
8) TM o-Xylene	20.30	49857900	352.4193 UG/KG
10) TM 1,3-Dichlorobenzene	24.06	50108703	373.8071 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	50271173	365.1431 UG/KG
12) TM 1,2-Dichlorobenzene	24.78	42703135	335.7582 UG/KG

147

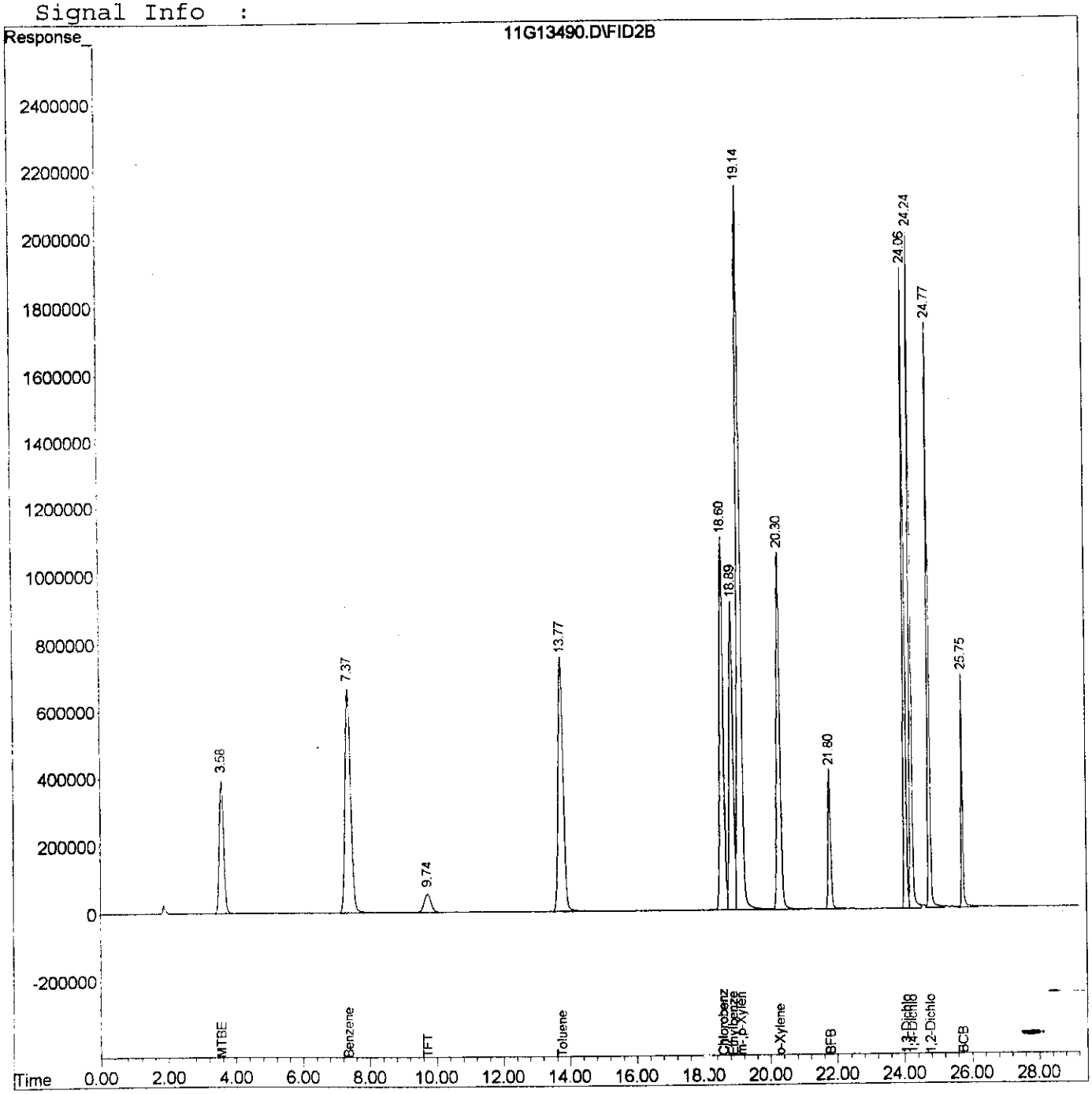
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\043002\11G13490.D
Acq.On : 30 Apr 2002 6:36 pm
Sample : WG116964-07 8021 STD7 300PPB 5G
Misc : 7,1 S-92-(36,44)
IntFile : AUTOINT1.E
Quant Time: Apr 30 19:05 2002 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 2/25/02
Last Update : Mon Feb 25 21:49:28 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



148

Data File : C:\HPCHEM\1\DATA\043002\11G13490.D Vial: 7
Acq On : 30 Apr 2002 6:36 pm Operator: CBN
Sample : WG116964-07 8021 STD7 300PPB 5G Inst : HP11
Misc : 7,1 S-92-(36,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Apr 30 19:05 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	7930796	162.5164 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 541.72%#
9) S BFB			21.80	21824147	163.2206 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 544.07%#
13) S BCB			25.75	21969319	160.7983 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 535.99%#
Target Compounds					
1) TM MTBE			3.58	35102298	492.8985 UG/KG
2) TM Benzene			7.38	77428822	487.1457 UG/KG
4) TM Toluene			13.76	78554157	525.2522 UG/KG
5) TM Chlorobenzene			18.61	82837121	546.8564 UG/KG
6) TM Ethylbenzene			18.89	70991394	530.9929 UG/KG
7) TM m-,p-Xylene			19.14	166001404	1015.8564 UG/KG
8) TM o-Xylene			20.30	73537158	519.7955 UG/KG
10) TM 1,3-Dichlorobenzene			24.06	73560883	548.7586 UG/KG
11) TM 1,4-Dichlorobenzene			24.24	73378372	532.9814 UG/KG
12) TM 1,2-Dichlorobenzene			24.77	61759236	485.5890 UG/KG

149

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

Data File : C:\HPCHEM\1\DATA\043002\11G13493.D
Acq On : 30 Apr 2002 20:20
Sample : WG116964-08 ALT SOURCE 20PPB 5G
Misc : 7,1 S-92-(47,44)
IntFile : AUTOINT1.E

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.085	-0.4	102	0.00
2	TM	Benzene	20.000	20.556	-2.8	103	0.00
3	S	TFT	30.000	29.891	0.4	95	-0.02
4	TM	Toluene	20.000	20.111	-0.6	98	-0.01
5	TM	Chlorobenzene	20.000	19.769	1.2	97	-0.01
6	TM	Ethylbenzene	20.000	20.787	-3.9	101	-0.01
7	TM	m-,p-Xylene	40.000	40.799	-2.0	98	-0.01
8	TM	o-Xylene	20.000	19.857	0.7	97	-0.01
9	S	BFB	30.000	28.968	3.4	97	0.00
10	TM	1,3-Dichlorobenzene	20.000	19.171	4.1	98	0.00
11	TM	1,4-Dichlorobenzene	20.000	19.241	3.8	98	0.00
12	TM	1,2-Dichlorobenzene	20.000	20.002	-0.0	101	0.00
13	S	BCB	30.000	27.486	8.4	95	0.00

150

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

Data File : C:\HPCHEM\1\DATA\043002\11G13493.D
Acq On : 30 Apr 2002 20:20
Sample : WG116964-08 ALT SOURCE 20PPB 5G
Misc : 7,1 S-92-(47,44)
IntFile : AUTOINT1.E

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	119.517	120.024 E3	-0.4	102	0.00
2	TM	Benzene	262.650	269.954 E3	-2.8	103	0.00
3	S	TFT	85.505	85.193 E3	0.4	95	-0.02
4	TM	Toluene	264.472	265.934 E3	-0.6	98	-0.01
5	TM	Chlorobenzene	269.309	266.192 E3	1.2	97	-0.01
6	TM	Ethylbenzene	235.839	245.116 E3	-3.9	101	-0.01
7	TM	m-,p-Xylene	284.100	289.778 E3	-2.0	98	-0.01
8	TM	o-Xylene	253.200	251.385 E3	0.7	97	-0.01
9	S	BFB	232.372	224.376 E3	3.4	97	0.00
10	TM	1,3-Dichlorobenzene	239.954	230.009 E3	4.1	98	0.00
11	TM	1,4-Dichlorobenzene	247.027	237.653 E3	3.8	98	0.00
12	TM	1,2-Dichlorobenzene	214.310	214.331 E3	-0.0	101	0.00
13	S	BCB	236.733	216.892 E3	8.4	95	0.00

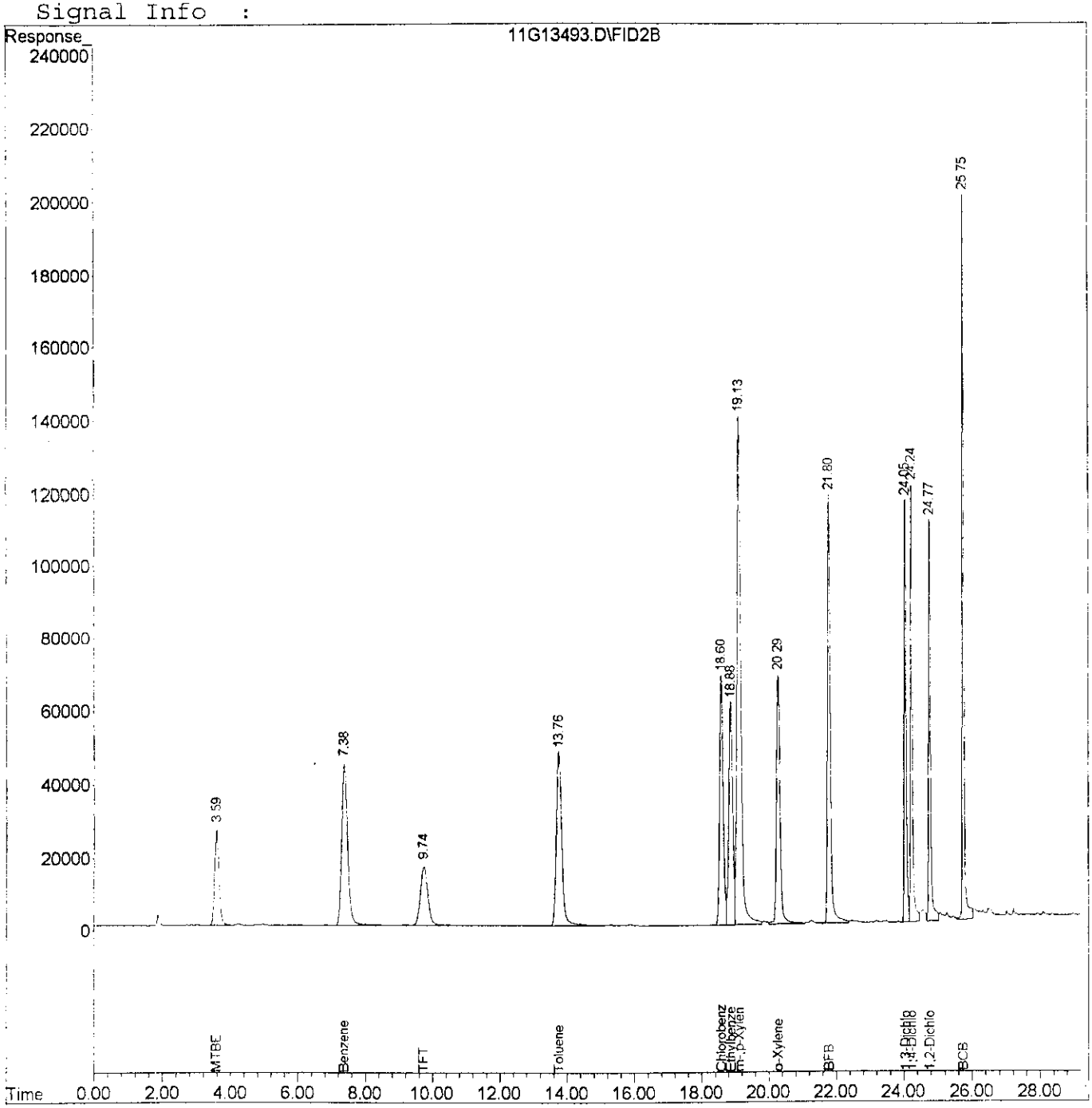
151

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

Data File : C:\HPCHEM\1\DATA\043002\11G13493.D Vial: 10
Acq On : 30 Apr 2002 20:20 Operator: CBN
Sample : WG116964-08 ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-92-(47,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 1 9:33 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



152

Data File : C:\HPCHEM\1\DATA\043002\11G13493.D Vial: 10
Acq On : 30 Apr 2002 20:20 Operator: CBN
Sample : WG116964-08 ALT SOURCE 20PPB 5G Inst : HP11
Misc : 7,1 S-92-(47,44) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 1 9:33 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.75	2555793	29.8906 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 99.64%
9) S BFB	21.80	6731290	28.9677 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 96.56%
13) S BCB	25.75	6506754	27.4857 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 91.62%
Target Compounds			
1) TM MTBE	3.59	2400475	20.0848 UG/KG
2) TM Benzene	7.38	5399074	20.5562 UG/KG
4) TM Toluene	13.76	5318684	20.1105 UG/KG
5) TM Chlorobenzene	18.60	5323839	19.7685 UG/KG
6) TM Ethylbenzene	18.88	4902317	20.7867 UG/KG
7) TM m-,p-Xylene	19.13	11591132	40.7995 UG/KG
8) TM o-Xylene	20.30	5027702	19.8567 UG/KG
10) TM 1,3-Dichlorobenzene	24.05	4600176	19.1711 UG/KG
11) TM 1,4-Dichlorobenzene	24.24	4753061	19.2411 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	4286616	20.0019 UG/KG

153

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

Data File : C:\HPCHEM\1\DATA\062102\11G13773.D Vial: 1
Acq On : 21 Jun 2002 16:14 Operator: JLS
Sample : WG120310-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	119.517	111.074	E3	7.1	94	-0.04
2	TM	Benzene	262.650	240.514	E3	8.4	92	-0.06
3	S	TFT	85.505	84.848	E3	0.8	94	-0.07
4	TM	Toluene	264.472	263.868	E3	0.2	97	-0.05
5	TM	Chlorobenzene	269.309	253.350	E3	5.9	92	-0.03
6	TM	Ethylbenzene	235.839	233.045	E3	1.2	96	-0.03
7	TM	m-,p-Xylene	284.100	284.936	E3	-0.3	97	-0.03
8	TM	o-Xylene	253.200	243.326	E3	3.9	94	-0.02
9	S	BFB	232.372	221.840	E3	4.5	96	-0.02
10	TM	1,3-Dichlorobenzene	239.954	226.070	E3	5.8	96	-0.01
11	TM	1,4-Dichlorobenzene	247.027	238.786	E3	3.3	98	-0.01
12	TM	1,2-Dichlorobenzene	214.310	227.902	E3	-6.3	108	-0.01
13	S	BCB	236.733	223.282	E3	5.7	98	-0.01

154

Data File : C:\HPCHEM\1\DATA\062102\11G13773.D Vial: 1
Acq On : 21 Jun 2002 16:14 Operator: JLS
Sample : WG120310-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration

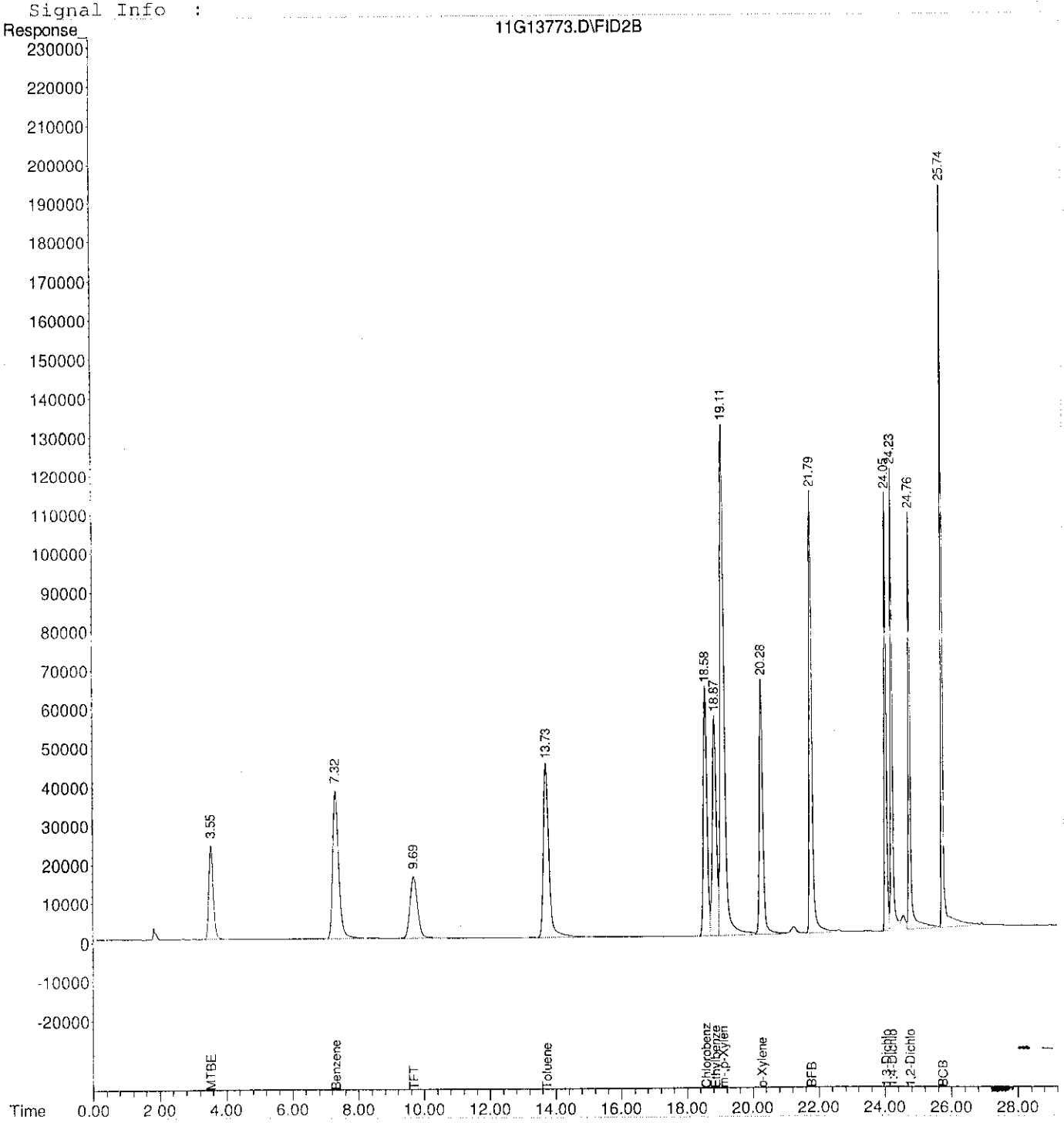
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.587	7.1	94	-0.04
2	TM	Benzene	20.000	18.314	8.4	92	-0.06
3	S	TFT	30.000	29.769	0.8	94	-0.07
4	TM	Toluene	20.000	19.954	0.2	97	-0.05
5	TM	Chlorobenzene	20.000	18.815	5.9	92	-0.03
6	TM	Ethylbenzene	20.000	19.763	1.2	96	-0.03
7	TM	m-,p-Xylene	40.000	40.118	-0.3	97	-0.03
8	TM	o-Xylene	20.000	19.220	3.9	94	-0.02
9	S	BFB	30.000	28.640	4.5	96	-0.02
10	TM	1,3-Dichlorobenzene	20.000	18.843	5.8	96	-0.01
11	TM	1,4-Dichlorobenzene	20.000	19.333	3.3	98	-0.01
12	TM	1,2-Dichlorobenzene	20.000	21.268	-6.3	108	-0.01
13	S	BCB	30.000	28.296	5.7	98	-0.01

Data File : C:\HPCHEM\1\DATA\062102\11G13773.D Vial: 1
Acq On : 21 Jun 2002 4:14 pm Operator: JLS
Sample : WG120310-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 16:43 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



156

Data File : C:\HPCHEM\1\DATA\062102\11G13773.D Vial: 1
Acq On : 21 Jun 2002 4:14 pm Operator: JLS
Sample : WG120310-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 16:43 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	2545435	29.7694 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 99.23%
9) S BFB	21.79	6655200	28.6403 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 95.47%
13) S BCB	25.74	6698475	28.2955 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 94.32%
Target Compounds			
1) TM MTBE	3.55	2221482	18.5872 UG/KG
2) TM Benzene	7.32	4810287	18.3145 UG/KG
4) TM Toluene	13.73	5277355	19.9543 UG/KG
5) TM Chlorobenzene	18.59	5066996	18.8148 UG/KG
6) TM Ethylbenzene	18.87	4660908	19.7631 UG/KG
7) TM m-,p-Xylene	19.12	11397449	40.1178 UG/KG
8) TM o-Xylene	20.29	4866528	19.2201 UG/KG
10) TM 1,3-Dichlorobenzene	24.05	4521399	18.8428 UG/KG
11) TM 1,4-Dichlorobenzene	24.23	4775726	19.3328 UG/KG
12) TM 1,2-Dichlorobenzene	24.77	4558031	21.2684 UG/KG

157

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

Data File : C:\HPCHEM\1\DATA\062102\11G13780.D Vial: 8
Acq On : 21 Jun 2002 20:26 Operator: JLS
Sample : WG120310-02 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	119.517	105.087	E3	12.1	89	-0.03
2	TM	Benzene	262.650	257.285	E3	2.0	99	-0.05
3	S	TFT	85.505	95.530	E3	-11.7	106	-0.06
4	TM	Toluene	264.472	256.011	E3	3.2	94	-0.04
5	TM	Chlorobenzene	269.309	250.404	E3	7.0	91	-0.03
6	TM	Ethylbenzene	235.839	228.760	E3	3.0	94	-0.03
7	TM	m-,p-Xylene	284.100	279.538	E3	1.6	95	-0.03
8	TM	o-Xylene	253.200	243.176	E3	4.0	94	-0.03
9	S	BFB	232.372	240.969	E3	-3.7	104	-0.02
10	TM	1,3-Dichlorobenzene	239.954	221.297	E3	7.8	94	-0.01
11	TM	1,4-Dichlorobenzene	247.027	230.808	E3	6.6	95	-0.01
12	TM	1,2-Dichlorobenzene	214.310	213.872	E3	0.2	101	-0.01
13	S	BCB	236.733	234.408	E3	1.0	103	-0.01

Data File : C:\HPCHEM\1\DATA\062102\11G13780.D Vial: 8
Acq On : 21 Jun 2002 20:26 Operator: JLS
Sample : WG120310-02 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E

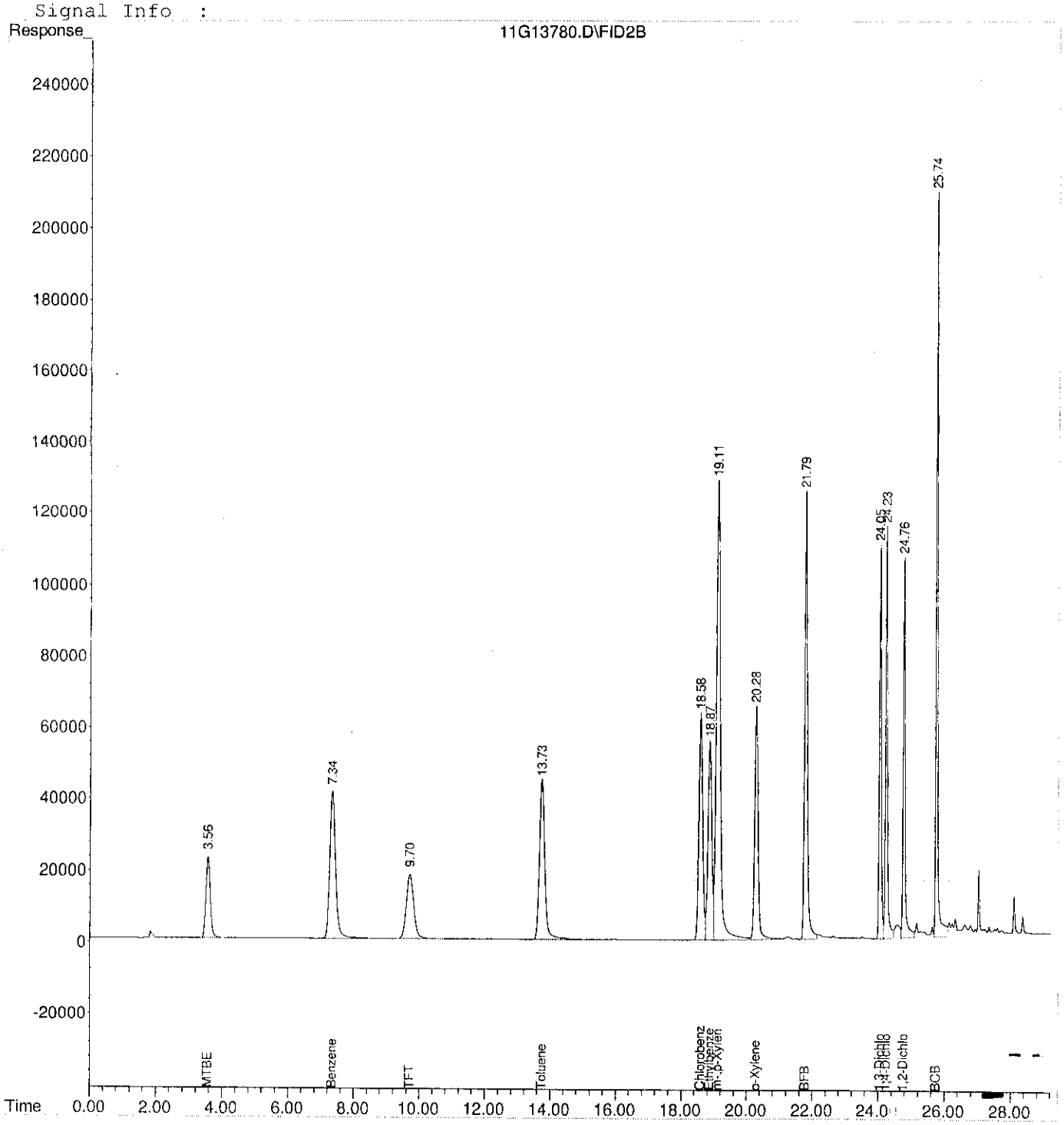
Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.585	12.1	89	-0.03
2	TM	Benzene	20.000	19.591	2.0	99	-0.05
3	S	TFT	30.000	33.517	-11.7	106	-0.06
4	TM	Toluene	20.000	19.360	3.2	94	-0.04
5	TM	Chlorobenzene	20.000	18.596	7.0	91	-0.03
6	TM	Ethylbenzene	20.000	19.400	3.0	94	-0.03
7	TM	m-,p-Xylene	40.000	39.358	1.6	95	-0.03
8	TM	o-Xylene	20.000	19.208	4.0	94	-0.03
9	S	BFB	30.000	31.110	-3.7	104	-0.02
10	TM	1,3-Dichlorobenzene	20.000	18.445	7.8	94	-0.01
11	TM	1,4-Dichlorobenzene	20.000	18.687	6.6	95	-0.01
12	TM	1,2-Dichlorobenzene	20.000	19.959	0.2	101	-0.01
13	S	BCB	30.000	29.705	1.0	103	-0.01

159

```
Data File : C:\HPCHEM\1\DATA\062102\11G13780.D          Vial: 8
Acq On    : 21 Jun 2002   8:26 pm                    Operator: JLS
Sample    : WG120310-02 8021 STD 20PPB 5G            Inst    : HP11
Misc      : 7,1 S-(95-36,95-29)                      Multiplr: 1.00
IntFile   : AUTOINT1.E
Quant Time: Jun 21 20:55 2002  Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title        : Method 8021B- Soil 4/30/02
Last Update  : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```



160

(Not Reviewed)

Data File : C:\HPCHEM\1\DATA\062102\11G13780.D
Acq On : 21 Jun 2002 8:26 pm
Sample : WG120310-02 8021 STD 20PPB 5G
Misc : 7,1 S-(95-36,95-29)
IntFile : AUTOINT1.E
Quant Time: Jun 21 20:55 2002 Quant Results File: 8021S.RES

Vial: 8
Operator: JLS
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.70	2865897	33.5173 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 111.72%
9) S BFB			21.79	7229080	31.1099 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 103.70%
13) S BCB			25.74	7032252	29.7055 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 99.02%
Target Compounds					
1) TM MTBE			3.56	2101740	17.5853 UG/KG
2) TM Benzene			7.34	5145691	19.5915 UG/KG
4) TM Toluene			13.74	5120229	19.3602 UG/KG
5) TM Chlorobenzene			18.58	5008086	18.5961 UG/KG
6) TM Ethylbenzene			18.87	4575194	19.3997 UG/KG
7) TM m-,p-Xylene			19.11	11181528	39.3577 UG/KG
8) TM o-Xylene			20.28	4863515	19.2082 UG/KG
10) TM 1,3-Dichlorobenzene			24.05	4425943	18.4450 UG/KG
11) TM 1,4-Dichlorobenzene			24.23	4616152	18.6869 UG/KG
12) TM 1,2-Dichlorobenzene			24.76	4277435	19.9591 UG/KG

(f)=RT Delta > 1/2 Window
(m)=manual int.
11G13780.D 8021S.M

Data File : C:\HPCHEM\2\DATA\062402\5G13799.D Vial: 1
Acq On : 24 Jun 2002 7:24 Operator: CBN
Sample : WG120334-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	10.925 E3	-4.4	102	0.00
2	TM	Benzene	56.089	60.420 E3	-7.7	105	0.00
3	S	TFT	17.727	18.174 E3	-2.5	102	0.00
4	TM	Toluene	51.113	56.069 E3	-9.7	107	0.00
5	TM	Chlorobenzene	54.107	58.836 E3	-8.7	106	0.01
6	TM	Ethylbenzene	44.219	48.900 E3	-10.6	108	0.01
7	TM	m-,p-Xylene	52.895	57.501 E3	-8.7	106	0.02
8	TM	Styrene	55.455	48.939 E3	11.8	85	0.25
9	TM	o-Xylene	51.565	48.939 E3	5.1	93	0.02
10	S	BFB	47.780	48.766 E3	-2.1	102	0.00
11	TM	1,3-Dichlorobenzene	43.477	48.208 E3	-10.9	108	0.00
12	TM	1,4-Dichlorobenzene	47.061	51.307 E3	-9.0	104	0.00
13	TM	1,2-Dichlorobenzene	37.887	42.025 E3	-10.9	108	0.00
14	S	BCB	46.823	45.192 E3	3.5	96	0.00

Data File : C:\HPCHEM\2\DATA\062402\5G13799.D Vial: 1
Acq On : 24 Jun 2002 7:24 Operator: CBN
Sample : WG120334-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.874	-4.4	102	0.00
2	TM	Benzene	20.000	21.544	-7.7	105	0.00
3	S	TFT	30.000	30.757	-2.5	102	0.00
4	TM	Toluene	20.000	21.939	-9.7	107	0.00
5	TM	Chlorobenzene	20.000	21.748	-8.7	106	0.01
6	TM	Ethylbenzene	20.000	22.117	-10.6	108	0.01
7	TM	m-,p-Xylene	40.000	43.484	-8.7	106	0.02
8	TM	Styrene	20.000	17.650	11.8	85	0.25
9	TM	o-Xylene	20.000	18.982	5.1	93	0.02
10	S	BFB	30.000	30.619	-2.1	102	0.00
11	TM	1,3-Dichlorobenzene	20.000	22.176	-10.9	108	0.00
12	TM	1,4-Dichlorobenzene	20.000	21.805	-9.0	104	0.00
13	TM	1,2-Dichlorobenzene	20.000	22.184	-10.9	108	0.00
14	S	BCB	30.000	28.955	3.5	96	0.00

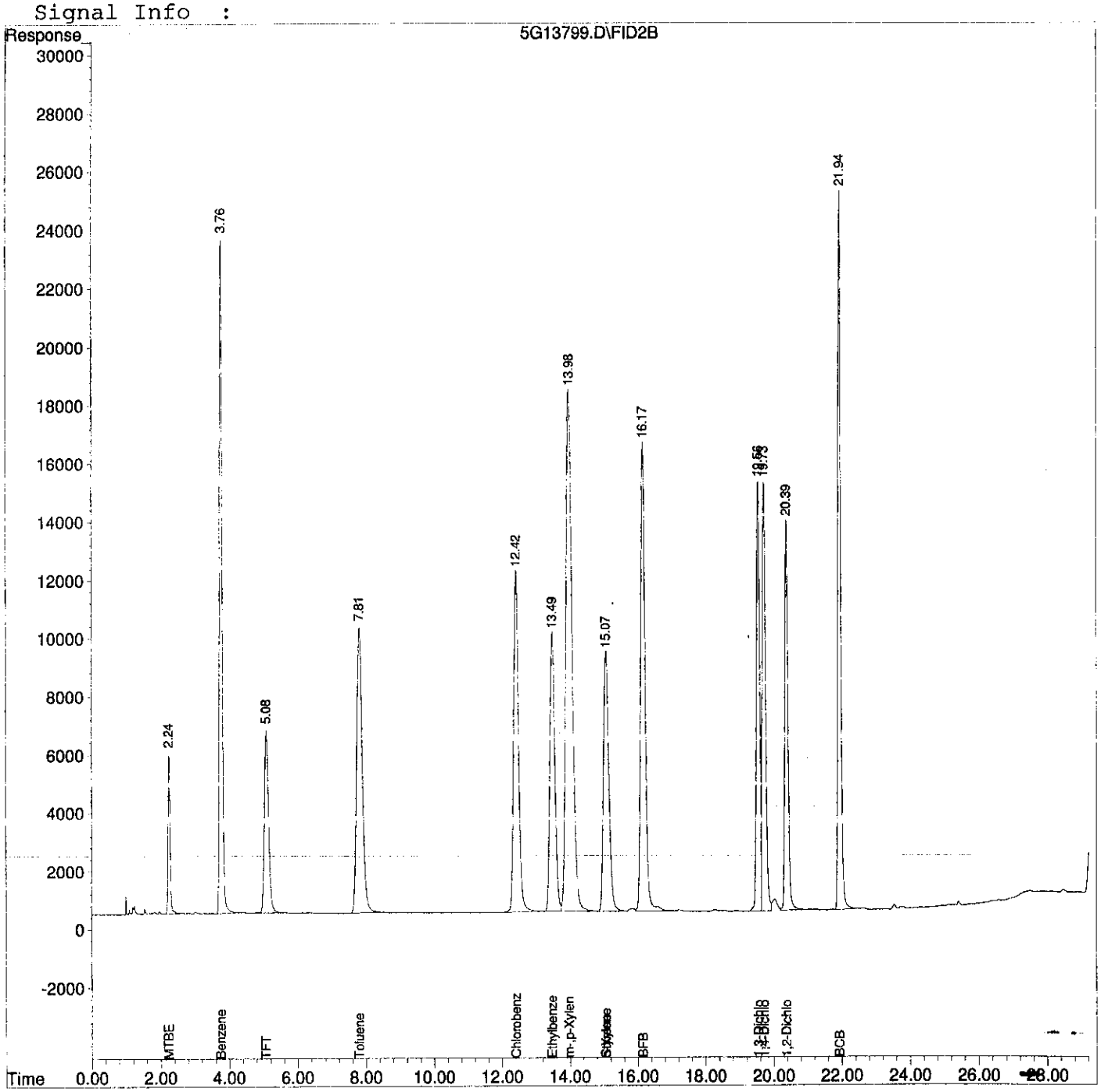
163

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13799.D 602STY.M Mon Jun 24 09:56:01 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062402\5G13799.D Vial: 1
Acq On : 24 Jun 2002 7:24 Operator: CBN
Sample : WG120334-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 7:53 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



164

Data File : C:\HPCHEM\2\DATA\062402\5G13799.D Vial: 1
Acq On : 24 Jun 2002 7:24 Operator: CBN
Sample : WG120334-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 7:53 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	545228	30.7571 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.52%			
10) S BFB	16.17	1462972	30.6189 ug/L
Spiked Amount 30.000 Recovery = 102.06%			
14) S BCB	21.94	1355764	28.9552 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 96.52%			
Target Compounds			
1) TM MTBE	2.25	218497	20.8741 ug/L
2) TM Benzene	3.76	1208397	21.5441 ug/L
4) TM Toluene	7.81	1121388	21.9394 ug/L
5) TM Chlorobenzene	12.42	1176729	21.7481 ug/L
6) TM Ethylbenzene	13.49	978002	22.1172 ug/L
7) TM m-,p-Xylene	13.98	2300052	43.4837 ug/L
8) TM Styrene	15.08	978775	17.6498 ug/L
9) TM o-Xylene	15.08	978775	18.9815 ug/L
11) TM 1,3-Dichlorobenzene	19.56	964157	22.1762 ug/L
12) TM 1,4-Dichlorobenzene	19.73	1026146	21.8048 ug/L
13) TM 1,2-Dichlorobenzene	20.39	840491	22.1843 ug/L

165

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

Data File : C:\HPCHEM\2\DATA\062402\5G13806.D
Acq On : 24 Jun 2002 11:41
Sample : WG120334-02 8021 STD 20PPB 5ML
Misc : 1,1 S-95-(36,30)
IntFile : autoint1.e

Vial: 5
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.004 E3	-5.1	102	0.00
2	TM	Benzene	56.089	61.542 E3	-9.7	107	-0.01
3	S	TFT	17.727	18.460 E3	-4.1	103	-0.03
4	TM	Toluene	51.113	55.854 E3	-9.3	106	-0.04
5	TM	Chlorobenzene	54.107	57.954 E3	-7.1	105	-0.04
6	TM	Ethylbenzene	44.219	48.695 E3	-10.1	107	-0.04
7	TM	m-,p-Xylene	52.895	57.094 E3	-7.9	105	-0.04
8	TM	Styrene	55.455	48.820 E3	12.0	85	0.19
9	TM	o-Xylene	51.565	48.820 E3	5.3	92	-0.04
10	S	BFB	47.780	47.757 E3	0.0	100	-0.04
11	TM	1,3-Dichlorobenzene	43.477	47.288 E3	-8.8	106	-0.04
12	TM	1,4-Dichlorobenzene	47.061	50.977 E3	-8.3	103	-0.04
13	TM	1,2-Dichlorobenzene	37.887	40.706 E3	-7.4	104	-0.03
14	S	BCB	46.823	43.771 E3	6.5	93	-0.03

166

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13806.D 602STY.M Mon Jun 24 12:14:05 2002

Data File : C:\HPCHEM\2\DATA\062402\5G13806.D Vial: 5
Acq On : 24 Jun 2002 11:41 Operator: CBN
Sample : WG120334-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

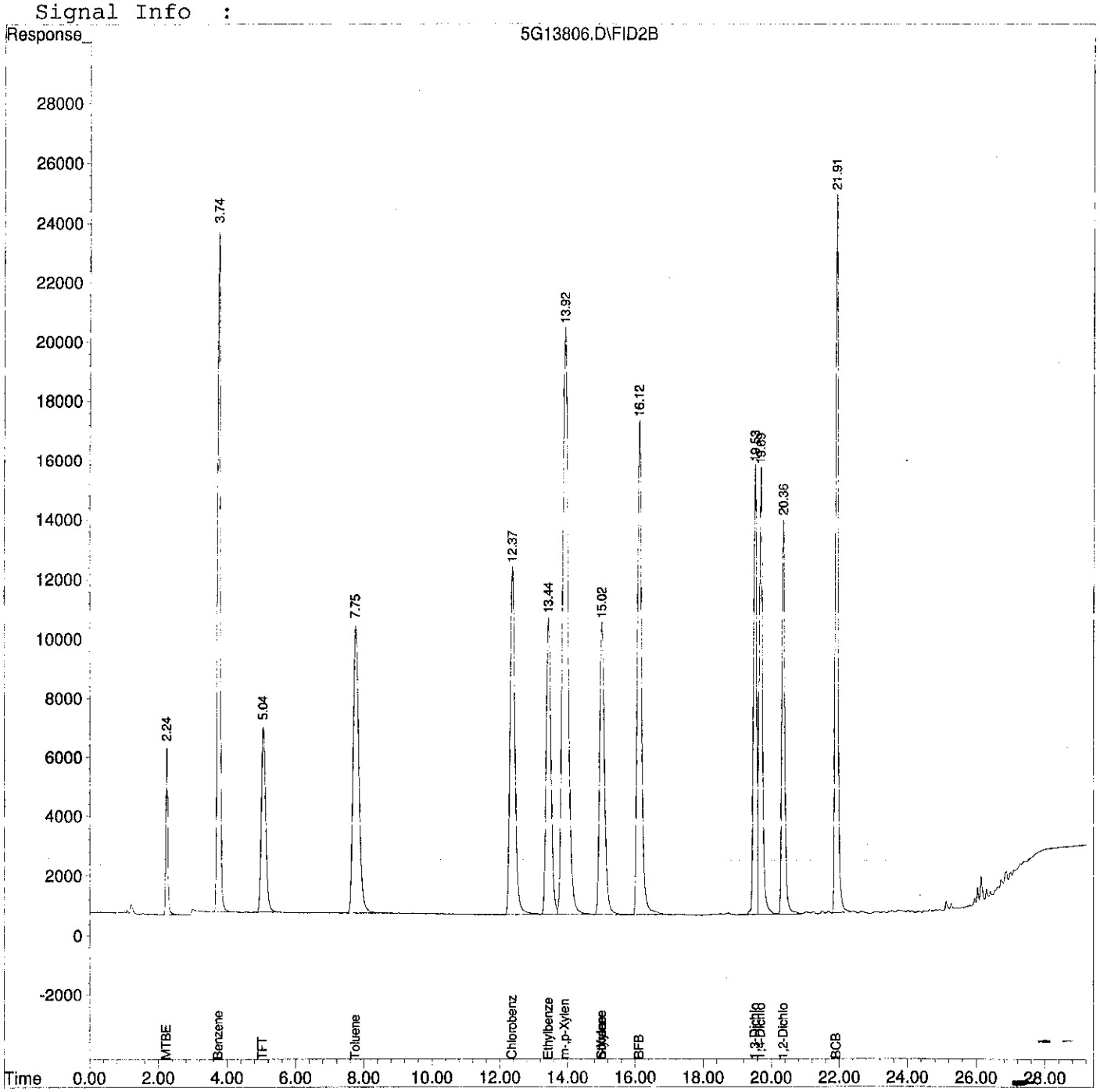
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.026	-5.1	102	0.00
2	TM	Benzene	20.000	21.944	-9.7	107	-0.01
3	S	TFT	30.000	31.241	-4.1	103	-0.03
4	TM	Toluene	20.000	21.855	-9.3	106	-0.04
5	TM	Chlorobenzene	20.000	21.422	-7.1	105	-0.04
6	TM	Ethylbenzene	20.000	22.024	-10.1	107	-0.04
7	TM	m-,p-Xylene	40.000	43.175	-7.9	105	-0.04
8	TM	Styrene	20.000	17.607	12.0	85	0.19
9	TM	o-Xylene	20.000	18.935	5.3	92	-0.04
10	S	BFB	30.000	29.985	0.1	100	-0.04
11	TM	1,3-Dichlorobenzene	20.000	21.753	-8.8	106	-0.04
12	TM	1,4-Dichlorobenzene	20.000	21.664	-8.3	103	-0.04
13	TM	1,2-Dichlorobenzene	20.000	21.488	-7.4	104	-0.03
14	S	BCB	30.000	28.044	6.5	93	-0.03

Data File : C:\HPCHEM\2\DATA\062402\5G13806.D Vial: 5
Acq On : 24 Jun 2002 11:41 Operator: CBN
Sample : WG120334-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 12:11 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



168

Data File : C:\HPCHEM\2\DATA\062402\5G13806.D Vial: 5
Acq On : 24 Jun 2002 11:41 Operator: CBN
Sample : WG120334-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 12:11 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.05	553800	31.2406 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.14%			
10) S BFB	16.12	1432700	29.9853 ug/L
Spiked Amount 30.000 Recovery = 99.95%			
14) S BCB	21.92	1313118	28.0444 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.48%			
Target Compounds			
1) TM MTBE	2.24	220087	21.0259 ug/L
2) TM Benzene	3.75	1230848	21.9444 ug/L
4) TM Toluene	7.76	1117071	21.8550 ug/L
5) TM Chlorobenzene	12.37	1159079	21.4219 ug/L
6) TM Ethylbenzene	13.44	973897	22.0244 ug/L
7) TM m-,p-Xylene	13.92	2283740	43.1753 ug/L
8) TM Styrene	15.02	976391	17.6068 ug/L
9) TM o-Xylene	15.02	976391	18.9353 ug/L
11) TM 1,3-Dichlorobenzene	19.53	945767	21.7532 ug/L
12) TM 1,4-Dichlorobenzene	19.69	1019532	21.6643 ug/L
13) TM 1,2-Dichlorobenzene	20.36	814120	21.4883 ug/L

169

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

Data File : C:\HPCHEM\2\DATA\062502\5G13815.D Vial: 9
Acq On : 25 Jun 2002 6:35 Operator: CBN
Sample : WG120408-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.073 E3	-5.8	103	0.00
2	TM	Benzene	56.089	60.013 E3	-7.0	104	0.00
3	S	TFT	17.727	18.232 E3	-2.8	102	0.09
4	TM	Toluene	51.113	56.006 E3	-9.6	107	0.11
5	TM	Chlorobenzene	54.107	58.958 E3	-9.0	107	0.05
6	TM	Ethylbenzene	44.219	48.680 E3	-10.1	107	0.06
7	TM	m-,p-Xylene	52.895	57.581 E3	-8.9	106	0.09
8	TM	Styrene	55.455	49.385 E3	10.9	86	0.29
9	TM	o-Xylene	51.565	49.385 E3	4.2	93	0.07
10	S	BFB	47.780	47.875 E3	-0.2	100	0.02
11	TM	1,3-Dichlorobenzene	43.477	46.064 E3	-6.0	103	0.00
12	TM	1,4-Dichlorobenzene	47.061	52.862 E3	-12.3	107	-0.01
13	TM	1,2-Dichlorobenzene	37.887	41.661 E3	-10.0	107	0.00
14	S	BCB	46.823	44.423 E3	5.1	95	0.00

170

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13815.D 602STY.M Tue Jun 25 07:07:26 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062502\5G13815.D Vial: 9
Acq On : 25 Jun 2002 6:35 Operator: CBN
Sample : WG120408-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.158	-5.8	103	0.00
2	TM	Benzene	20.000	21.399	-7.0	104	0.00
3	S	TFT	30.000	30.855	-2.9	102	0.09
4	TM	Toluene	20.000	21.914	-9.6	107	0.11
5	TM	Chlorobenzene	20.000	21.793	-9.0	107	0.05
6	TM	Ethylbenzene	20.000	22.018	-10.1	107	0.06
7	TM	m-,p-Xylene	40.000	43.544	-8.9	106	0.09
8	TM	Styrene	20.000	17.811	10.9	86	0.29
9	TM	o-Xylene	20.000	19.155	4.2	93	0.07
10	S	BFB	30.000	30.060	-0.2	100	0.02
11	TM	1,3-Dichlorobenzene	20.000	21.190	-6.0	103	0.00
12	TM	1,4-Dichlorobenzene	20.000	22.465	-12.3	107	-0.01
13	TM	1,2-Dichlorobenzene	20.000	21.992	-10.0	107	0.00
14	S	BCB	30.000	28.462	5.1	95	0.00

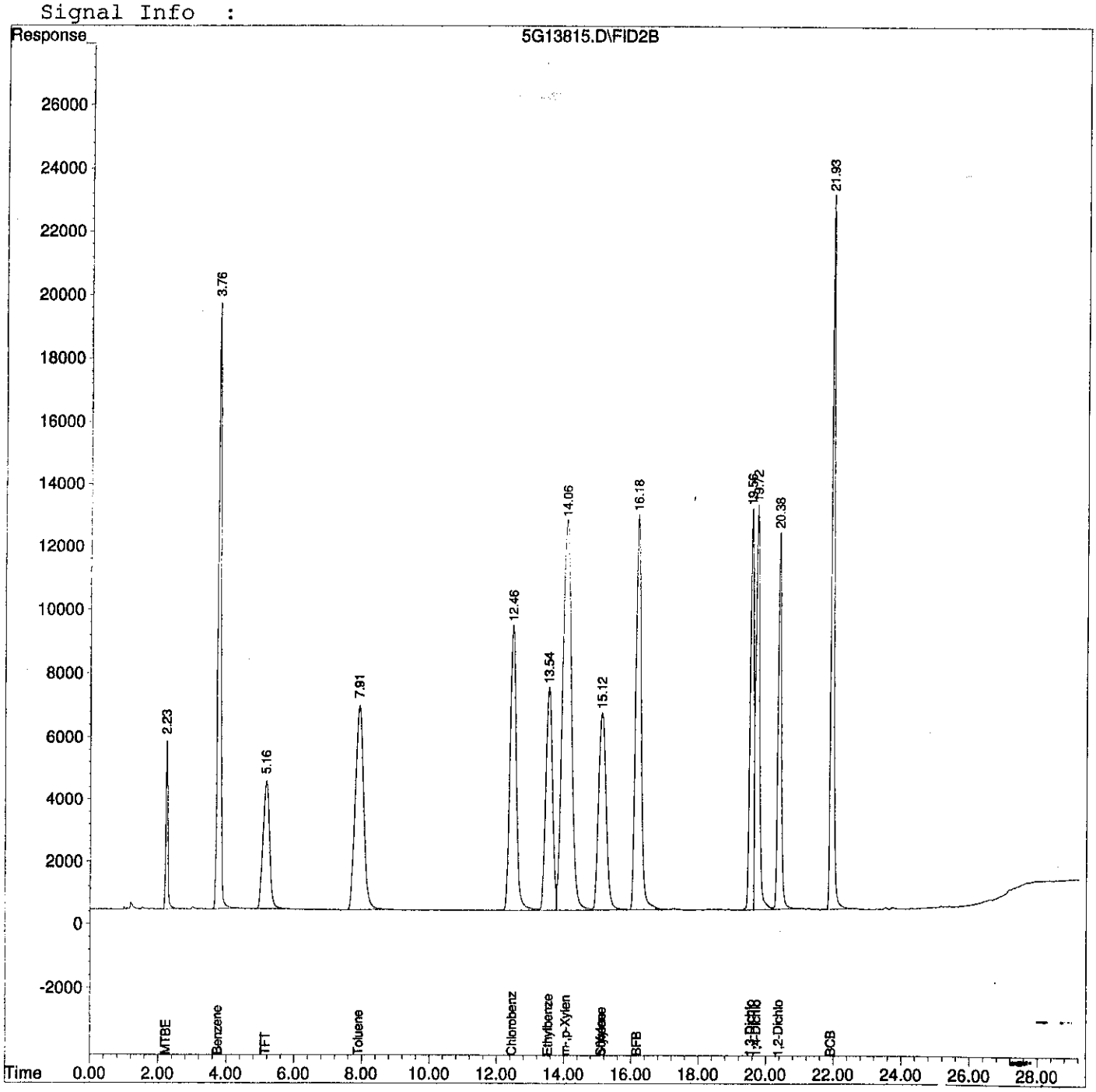
171

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13815.D 602STY.M Tue Jun 25 07:07:24 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062502\5G13815.D Vial: 9
Acq On : 25 Jun 2002 6:35 Operator: CBN
Sample : WG120408-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 7:07 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



172

Data File : C:\HPCHEM\2\DATA\062502\5G13815.D Vial: 9
Acq On : 25 Jun 2002 6:35 Operator: CBN
Sample : WG120408-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 7:07 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.16	546958	30.8546 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.85%			
10) S BFB	16.18	1436260	30.0598 ug/L
Spiked Amount 30.000 Recovery = 100.20%			
14) S BCB	21.93	1332675	28.4621 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 94.87%			
Target Compounds			
1) TM MTBE	2.24	221464	21.1575 ug/L
2) TM Benzene	3.76	1200264	21.3991 ug/L
4) TM Toluene	7.91	1120113	21.9145 ug/L
5) TM Chlorobenzene	12.46	1179156	21.7930 ug/L
6) TM Ethylbenzene	13.54	973604	22.0177 ug/L
7) TM m-,p-Xylene	14.06	2303258	43.5443 ug/L
8) TM Styrene	15.12f	987709	17.8109 ug/L
9) TM o-Xylene	15.12	987709	19.1548 ug/L
11) TM 1,3-Dichlorobenzene	19.56	921290	21.1902 ug/L
12) TM 1,4-Dichlorobenzene	19.72	1057236	22.4655 ug/L
13) TM 1,2-Dichlorobenzene	20.38	833216	21.9923 ug/L

173

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

Data File : C:\HPCHEM\2\DATA\062502\5G13824.D Vial: 7
Acq On : 25 Jun 2002 11:57 Operator: CBN
Sample : WG120408-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.152 E3	-6.5	104	-0.01
2	TM	Benzene	56.089	61.559 E3	-9.8	107	-0.03
3	S	TFT	17.727	18.450 E3	-4.1	103	-0.04
4	TM	Toluene	51.113	56.234 E3	-10.0	107	-0.06
5	TM	Chlorobenzene	54.107	58.523 E3	-8.2	106	-0.05
6	TM	Ethylbenzene	44.219	49.117 E3	-11.1	108	-0.05
7	TM	m-,p-Xylene	52.895	57.966 E3	-9.6	107	-0.05
8	TM	Styrene	55.455	49.514 E3	10.7	86	0.19
9	TM	o-Xylene	51.565	49.514 E3	4.0	94	-0.04
10	S	BFB	47.780	48.228 E3	-0.9	101	-0.04
11	TM	1,3-Dichlorobenzene	43.477	47.526 E3	-9.3	107	-0.03
12	TM	1,4-Dichlorobenzene	47.061	52.164 E3	-10.8	105	-0.03
13	TM	1,2-Dichlorobenzene	37.887	41.520 E3	-9.6	106	-0.03
14	S	BCB	46.823	44.509 E3	4.9	95	-0.02

174

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13824.D 602STY.M Tue Jun 25 13:02:43 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062502\5G13824.D Vial: 7
Acq On : 25 Jun 2002 11:57 Operator: CBN
Sample : WG120408-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.308	-6.5	104	-0.01
2	TM	Benzene	20.000	21.950	-9.7	107	-0.03
3	S	TFT	30.000	31.224	-4.1	103	-0.04
4	TM	Toluene	20.000	22.004	-10.0	107	-0.06
5	TM	Chlorobenzene	20.000	21.632	-8.2	106	-0.05
6	TM	Ethylbenzene	20.000	22.215	-11.1	108	-0.05
7	TM	m-,p-Xylene	40.000	43.835	-9.6	107	-0.05
8	TM	Styrene	20.000	17.857	10.7	86	0.19
9	TM	o-Xylene	20.000	19.205	4.0	94	-0.04
10	S	BFB	30.000	30.282	-0.9	101	-0.04
11	TM	1,3-Dichlorobenzene	20.000	21.862	-9.3	107	-0.03
12	TM	1,4-Dichlorobenzene	20.000	22.169	-10.8	105	-0.03
13	TM	1,2-Dichlorobenzene	20.000	21.918	-9.6	106	-0.03
14	S	BCB	30.000	28.518	4.9	95	-0.02

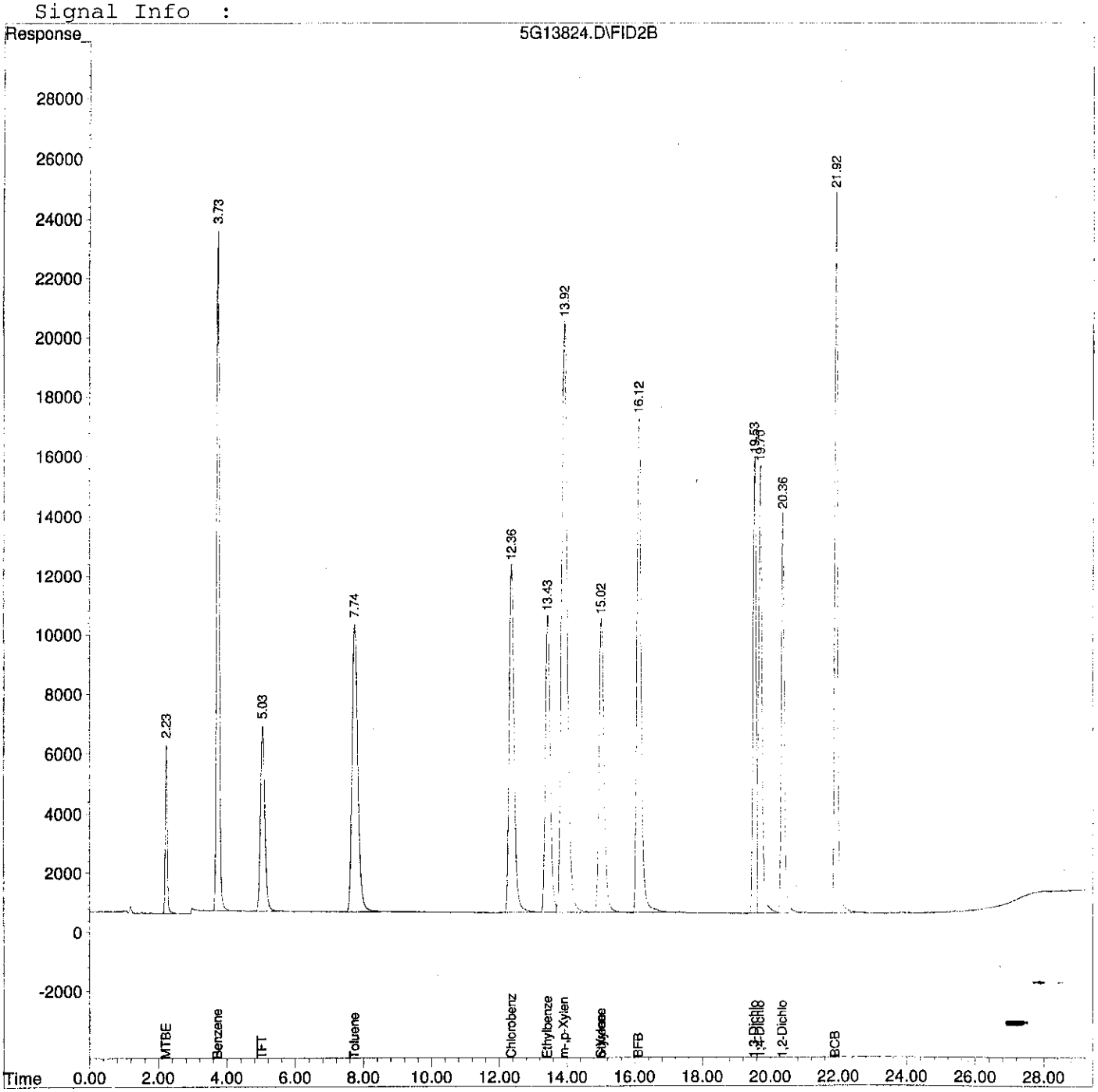
175

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13824.D 602STY.M Tue Jun 25 13:02:45 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062502\5G13824.D Vial: 7
Acq On : 25 Jun 2002 11:57 Operator: CBN
Sample : WG120408-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 12:26 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



176

Data File : C:\HPCHEM\2\DATA\062502\5G13824.D Vial: 7
Acq On : 25 Jun 2002 11:57 Operator: CBN
Sample : WG120408-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 12:26 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	553509	31.2242 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.08%			
10) S BFB	16.12	1446855	30.2815 ug/L
Spiked Amount 30.000 Recovery = 100.94%			
14) S BCB	21.92	1335271	28.5175 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 95.06%			
Target Compounds			
1) TM MTBE	2.23	223040	21.3081 ug/L
2) TM Benzene	3.73	1231172	21.9501 ug/L
4) TM Toluene	7.74	1124679	22.0038 ug/L
5) TM Chlorobenzene	12.36	1170469	21.6324 ug/L
6) TM Ethylbenzene	13.43	982332	22.2151 ug/L
7) TM m-,p-Xylene	13.92	2318621	43.8347 ug/L
8) TM Styrene	15.02	990288	17.8574 ug/L
9) TM o-Xylene	15.02	990288	19.2048 ug/L
11) TM 1,3-Dichlorobenzene	19.53	950516	21.8624 ug/L
12) TM 1,4-Dichlorobenzene	19.70	1043289	22.1691 ug/L
13) TM 1,2-Dichlorobenzene	20.37	830391	21.9177 ug/L

177

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 21-Jun-02
Filename: 11G13773
Sub Directory: 062102
Instrument: HP11
Matrix: SOIL

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.551	**3.530**	**3.572**
benzene	7.325	**7.280**	**7.370**
1,1,1-trifluorotoluene (SS)	9.692	**9.627**	**9.757**
toluene	13.732	**13.676**	**13.788**
chlorobenzene	18.586	**18.536**	**18.636**
ethylbenzene	18.870	**18.822**	**18.918**
m+p-xylene	19.117	**19.070**	**19.164**
o-xylene	20.285	**20.243**	**20.327**
bromofluorobenzene (SS)	21.792	**21.754**	**21.830**
1,3-dichlorobenzene	24.048	**24.025**	**24.071**
1,4-dichlorobenzene	24.231	**24.223**	**24.254**
1,2-dichlorobenzene	24.766	**24.743**	**24.789**

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

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

178

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 24-Jun-02
Filename: 5G13799
Sub Directory: 062402
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.246	**2.223**	**2.269**
benzene	3.761	**3.731**	**3.791**
1,1,1-trifluorotoluene (SS)	5.081	**5.037**	**5.125**
toluene	7.809	**7.741**	**7.877**
chlorobenzene	12.422	**12.345**	**12.499**
ethylbenzene	13.494	**13.408**	**13.580**
m+p-xylene	13.983	**13.880**	**14.086**
o-xylene	15.076	**14.973**	**15.179**
bromofluorobenzene (SS)	16.167	**16.081**	**16.253**
1,3-dichlorobenzene	19.561	**19.496**	**19.626**
1,4-dichlorobenzene	19.729	**19.665**	**19.793**
1,2-dichlorobenzene	20.390	**20.333**	**20.447**
bromochlorobenzene (SS)	21.945	**21.892**	**21.998**

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

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 25-Jun-02
Filename: 5G13815
Sub Directory: 062502
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.236	**2.213**	**2.259**
benzene	3.759	**3.729**	**3.789**
1,1,1-trifluorotoluene (SS)	5.162	**5.118**	**5.206**
toluene	7.909	**7.841**	**7.977**
chlorobenzene	12.461	**12.384**	**12.538**
ethylbenzene	13.540	**13.454**	**13.626**
m+p-xylene	14.055	**13.952**	**14.158**
o-xylene	15.121	**15.018**	**15.224**
bromofluorobenzene (SS)	16.181	**16.095**	**16.267**
1,3-dichlorobenzene	19.557	**19.492**	**19.622**
1,4-dichlorobenzene	19.721	**19.657**	**19.785**
1,2-dichlorobenzene	20.382	**20.325**	**20.439**
bromochlorobenzene (SS)	21.934	**21.881**	**21.987**

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

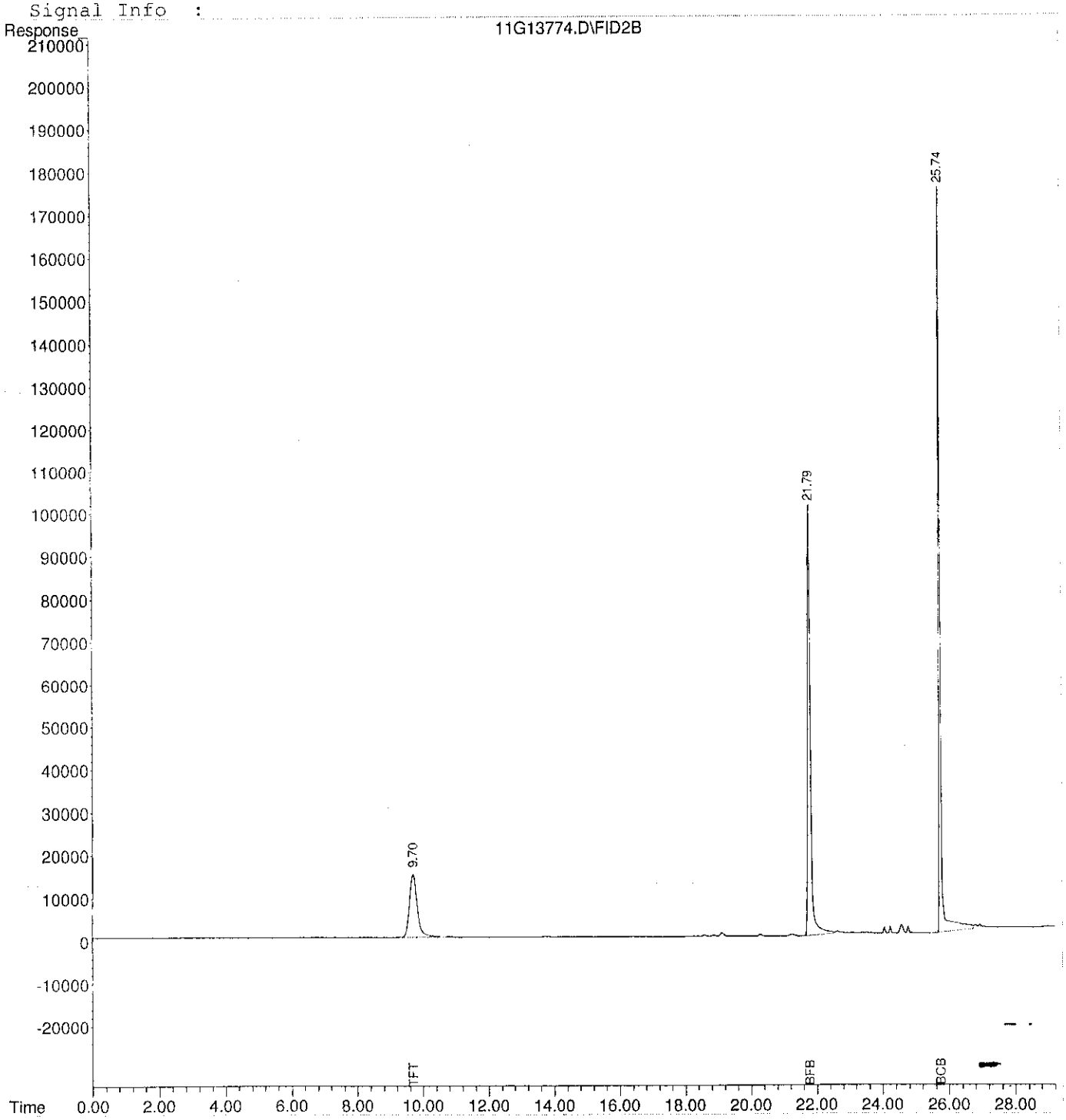
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683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

2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\062102\11G13774.D Vial: 2
Acq On : 21 Jun 2002 4:59 pm Operator: JLS
Sample : WG120311-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-95-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 17:29 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



182

Data File : C:\HPCHEM\1\DATA\062102\11G13774.D Vial: 2
Acq On : 21 Jun 2002 4:59 pm Operator: JLS
Sample : WG120311-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-95-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 17:29 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	2430038	28.4198 UG/KG ✓
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 94.73%
9) S BFB	21.79	6005792	25.8456 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 86.15%
13) S BCB	25.74	6264553	26.4626 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 88.21%
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	13.74	19921	<MDL UG/KG
5) TM Chlorobenzene	18.59	25448	<MDL UG/KG
6) TM Ethylbenzene	18.87	21819	<MDL UG/KG
7) TM m-,p-Xylene	19.12	67908	<MDL UG/KG
8) TM o-Xylene	20.29	27163	<MDL UG/KG
10) TM 1,3-Dichlorobenzene	24.05	47885	<MDL UG/KG
11) TM 1,4-Dichlorobenzene	24.23	57740	<MDL UG/KG
12) TM 1,2-Dichlorobenzene	24.77	63641	<MDL UG/KG

183

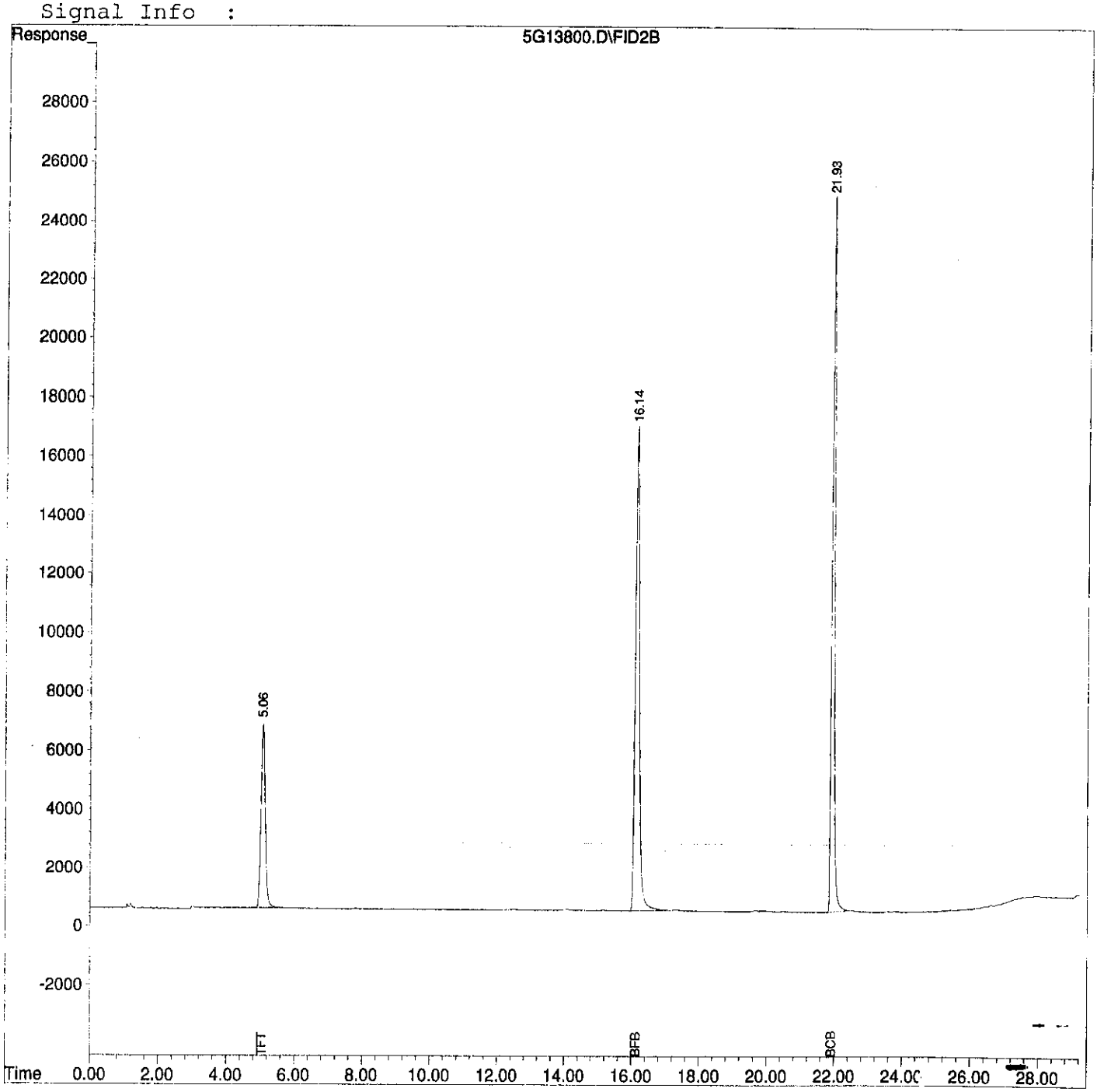
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\062402\5G13800.D
Acq On : 24 Jun 2002 7:59
Sample : WG120335-01 EXT BLANK 5G/10ML
Misc : 7,100 S-95-30
IntFile : autoint1.e
Quant Time: Jun 24 8:28 2002 Quant Results File: 602STY.RES

Vial: 2
Operator: CBN
Inst : HP5
Multiplr: 100.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



184

Data File : C:\HPCHEM\2\DATA\062402\5G13800.D Vial: 2
Acq On : 24 Jun 2002 7:59 Operator: CBN
Sample : WG120335-01 EXT BLANK 5G/10ML Inst : HP5
Misc : 7,100 S-95-30 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 24 8:28 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.06	548192	30.9243 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.08%
10) S BFB	16.14	1421970	29.7607 ug/L
Spiked Amount 30.000		Recovery =	99.20%
14) S BCB	21.93	1328545	28.3739 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	94.58%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

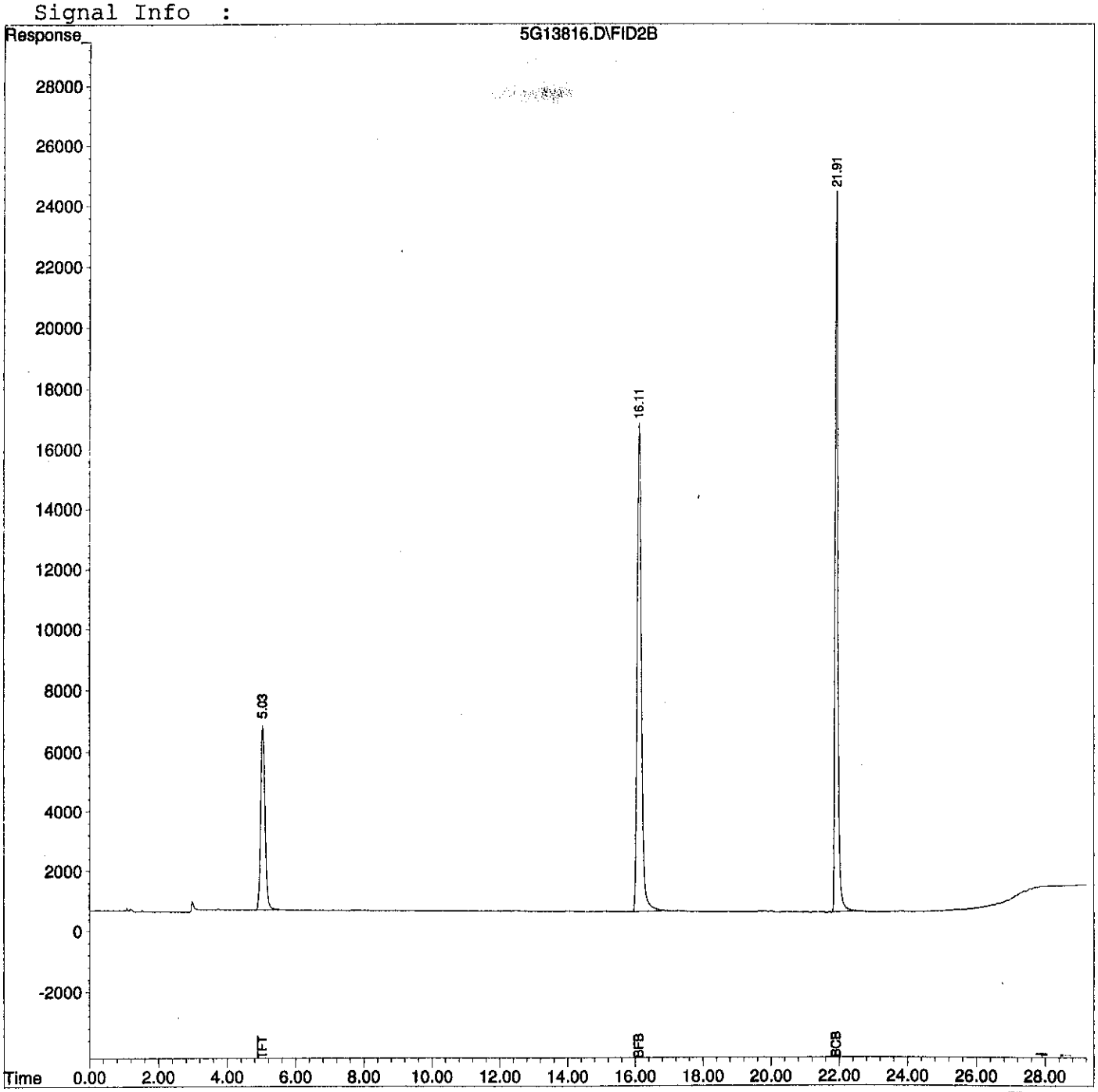
185

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

Data File : C:\HPCHEM\2\DATA\062502\5G13816.D Vial: 10
Acq On : 25 Jun 2002 7:10 Operator: CBN
Sample : WG120409-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-95-30 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 7:39 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



186

Data File : C:\HPCHEM\2\DATA\062502\5G13816.D Vial: 10
Acq On : 25 Jun 2002 7:10 Operator: CBN
Sample : WG120409-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-95-30 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 7:39 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	536775	30.2802 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.93%			
10) S BFB	16.11	1402550	29.3543 ug/L
Spiked Amount 30.000 Recovery = 97.85%			
14) S BCB	21.91	1313976	28.0627 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.54%			
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

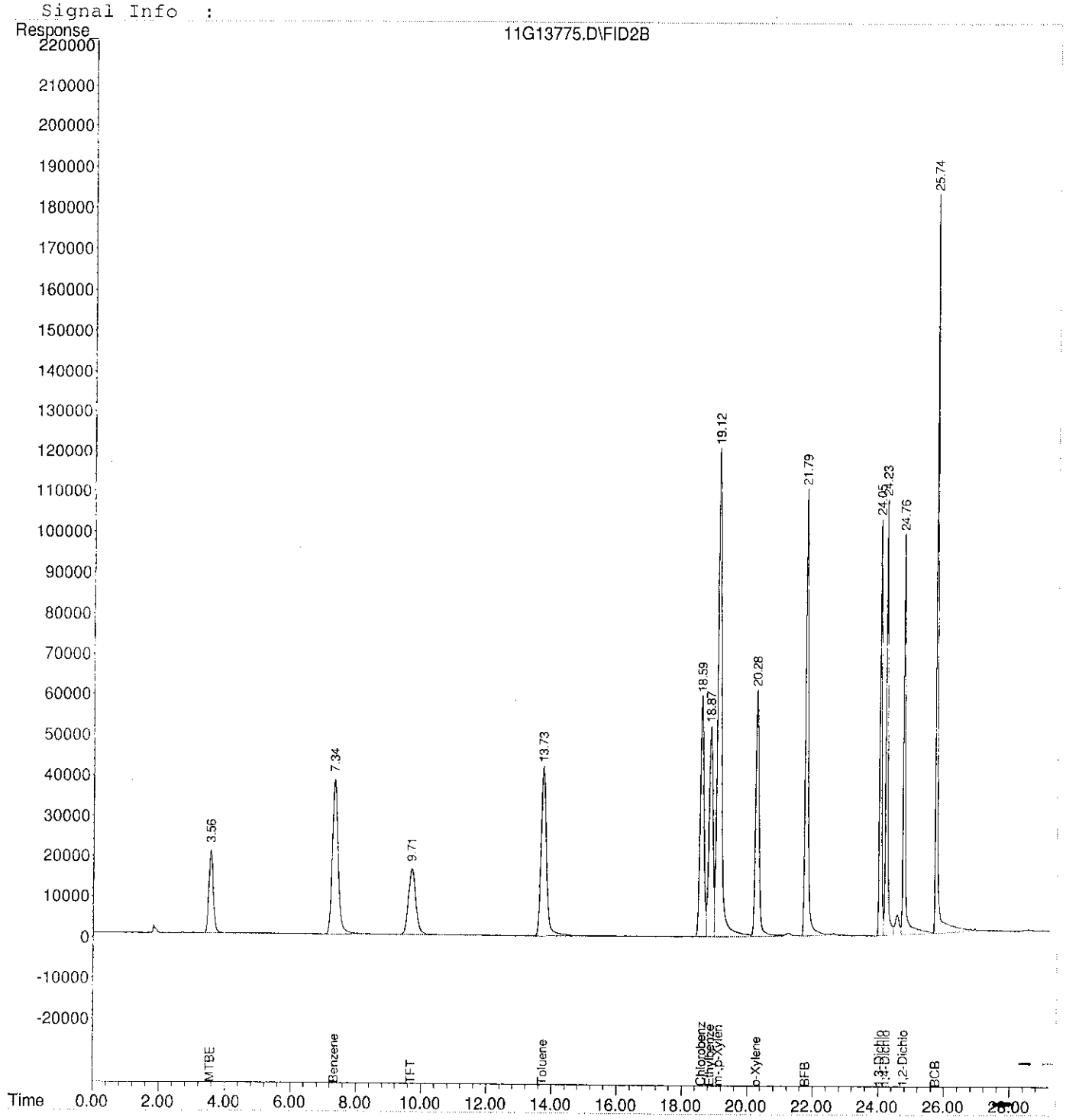
187

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

Data File : C:\HPCHEM\1\DATA\062102\11G13775.D Vial: 3
Acq On : 21 Jun 2002 5:34 pm Operator: JLS
Sample : WG120311-02 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 18:03 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



188

Data File : C:\HPCHEM\1\DATA\062102\11G13775.D Vial: 3
Acq On : 21 Jun 2002 5:34 pm Operator: JLS
Sample : WG120311-02 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-(95-36,95-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 21 18:03 2002 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : Method 8021B- Soil 4/30/02
Last Update : Wed May 01 09:30:22 2002
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.71	2586437	30.2489 UG/KG ✓
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 100.83%
9) S BFB	21.79	6457790	27.7907 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 92.64%
13) S BCB	25.74	6467492	27.3198 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 91.07%
Target Compounds			
1) TM MTBE	3.56	1901689	15.9115 UG/KG
2) TM Benzene	7.34	4772138	18.1692 UG/KG
4) TM Toluene	13.74	4786030	18.0965 UG/KG
5) TM Chlorobenzene	18.59	4707660	17.4805 UG/KG
6) TM Ethylbenzene	18.87	4288898	18.1857 UG/KG
7) TM m-,p-Xylene	19.12	10551982	37.1418 UG/KG
8) TM o-Xylene	20.29	4545356	17.9517 UG/KG
10) TM 1,3-Dichlorobenzene	24.05	4110312	17.1296 UG/KG
11) TM 1,4-Dichlorobenzene	24.23	4300381	17.4086 UG/KG
12) TM 1,2-Dichlorobenzene	24.76	4185065	19.5281 UG/KG

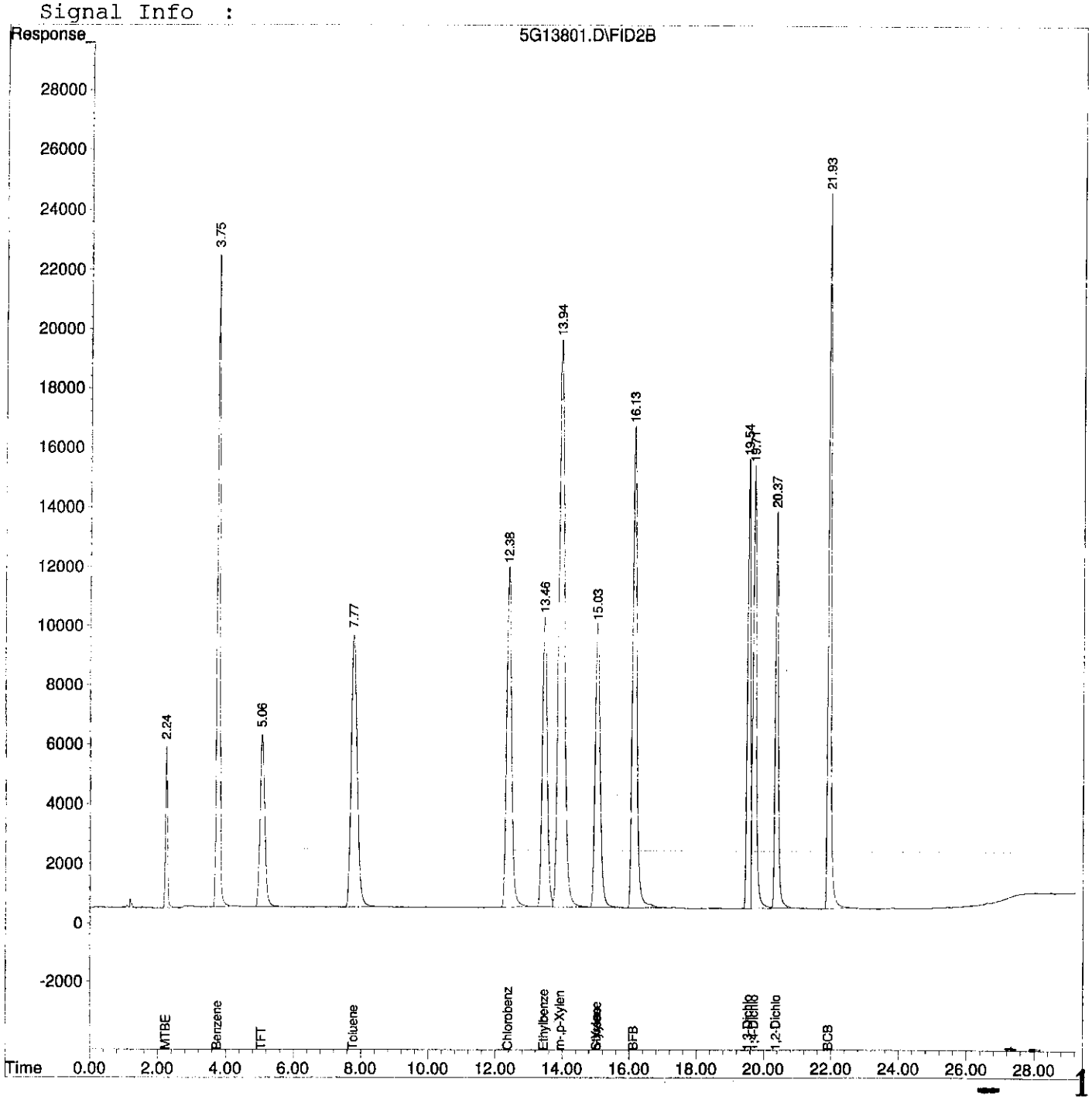
189

(f)=RT Delta > 1/2 Window (m)=manual int.
11G13775.D 8021S.M Fri Jun 21 18:03:34 2002 Page 1

Data File : C:\HPCHEM\2\DATA\062402\5G13801.D Vial: 3
Acq On : 24 Jun 2002 8:34 Operator: CBN
Sample : WG120335-02 EXT LCS 5G/10ML Inst : HP5
Misc : 7,100 S-95-(36,30) Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 24 9:03 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



190

Data File : C:\HPCHEM\2\DATA\062402\5G13801.D Vial: 3
Acq On : 24 Jun 2002 8:34 Operator: CBN
Sample : WG120335-02 EXT LCS 5G/10ML Inst : HP5
Misc : 7,100 S-95-(36,30) Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 24 9:03 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.06	552141	31.1471 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery	= 103.82%
10) S BFB	16.13	1427224	29.8707 ug/L
Spiked Amount 30.000		Recovery	= 99.57%
14) S BCB	21.93	1320865	28.2098 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 94.03%
Target Compounds			
1) TM MTBE	2.24	220093	2102.6554 ug/L
2) TM Benzene	3.76	1237456	2206.2167 ug/L
4) TM Toluene	7.77	1127430	2205.7646 ug/L
5) TM Chlorobenzene	12.39	1169863	2162.1226 ug/L
6) TM Ethylbenzene	13.46	976607	2208.5658 ug/L
7) TM m-,p-Xylene	13.94	2289039	4327.5474 ug/L
8) TM Styrene	15.03	979580	1766.4286 ug/L
9) TM o-Xylene	15.03	979580	1899.7158 ug/L
11) TM 1,3-Dichlorobenzene	19.54	943832	2170.8674 ug/L
12) TM 1,4-Dichlorobenzene	19.71	1032094	2193.1214 ug/L
13) TM 1,2-Dichlorobenzene	20.37	823848	2174.5045 ug/L

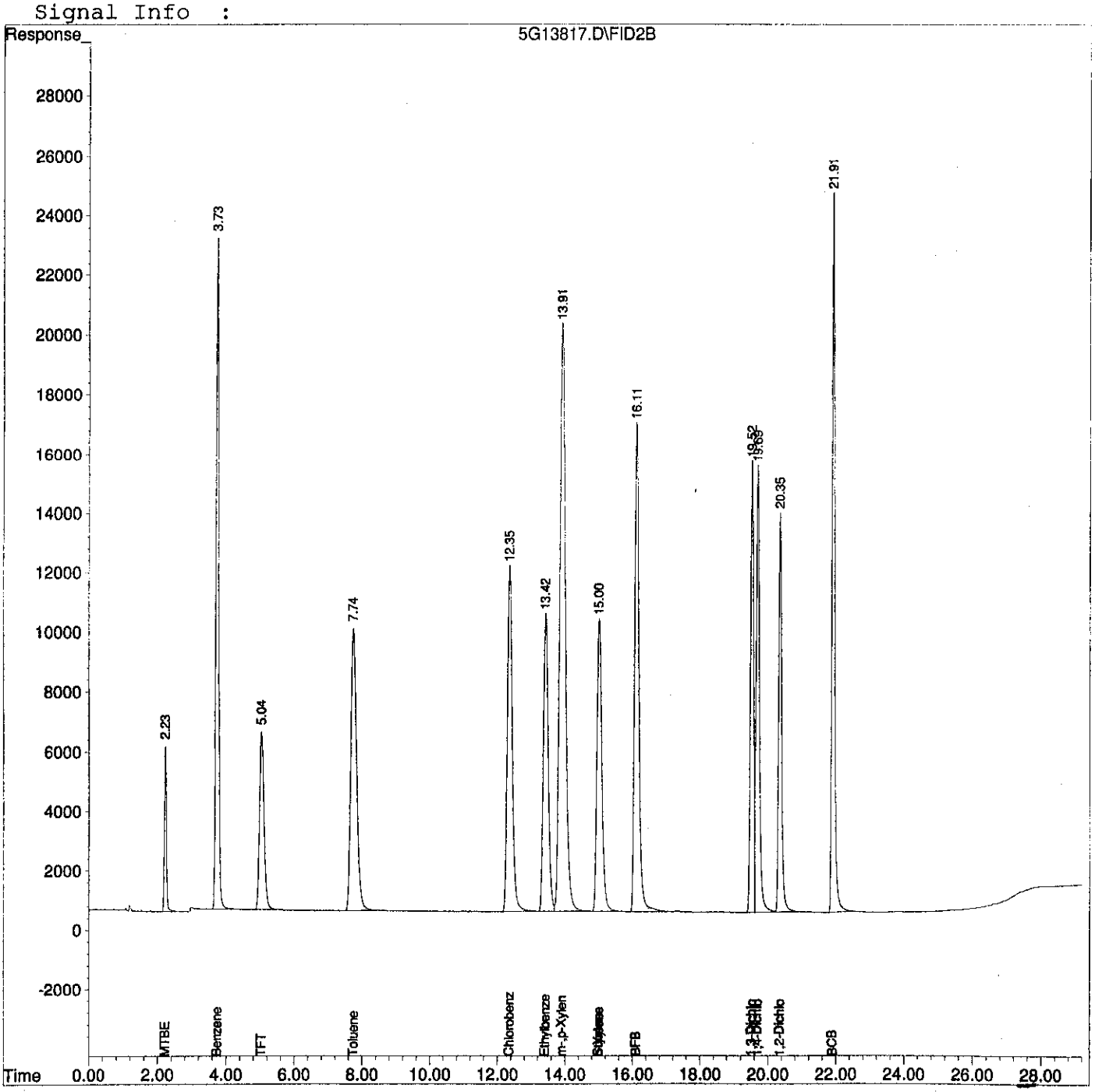
191

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

Data File : C:\HPCHEM\2\DATA\062502\5G13817.D Vial: 11
Acq On : 25 Jun 2002 7:44 Operator: CBN
Sample : WG120409-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 8:14 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



192

Data File : C:\HPCHEM\2\DATA\062502\5G13817.D Vial: 11
Acq On : 25 Jun 2002 7:44 Operator: CBN
Sample : WG120409-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-95-(36,30) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 8:14 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.04	544119	30.6945 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.32%			
10) S BFB	16.11	1431070	29.9512 ug/L
Spiked Amount 30.000 Recovery = 99.84%			
14) S BCB	21.91	1319203	28.1743 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.91%			
Target Compounds			
1) TM MTBE	2.23	219233	20.9444 ug/L
2) TM Benzene	3.74	1226211	21.8617 ug/L
4) TM Toluene	7.74	1119462	21.9017 ug/L
5) TM Chlorobenzene	12.35	1161801	21.4722 ug/L
6) TM Ethylbenzene	13.42	984992	22.2753 ug/L
7) TM m-,p-Xylene	13.91	2313238	43.7330 ug/L
8) TM Styrene	15.01	983352	17.7323 ug/L
9) TM o-Xylene	15.01	983352	19.0703 ug/L
11) TM 1,3-Dichlorobenzene	19.52	941155	21.6471 ug/L
12) TM 1,4-Dichlorobenzene	19.69	1030569	21.8988 ug/L
13) TM 1,2-Dichlorobenzene	20.35	824653	21.7663 ug/L

193

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

Directory: c:\hpchem\2\data\042202

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

194

Directory: C:\HPCHEM\1\DATA\043002

Analyst : CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13484.d	1.	WG116964-01 8021 STD1 1PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 15:07
2	2	11g13485.d	1.	WG116964-02 8021 STD2 10PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 15:42
3	3	11g13486.d	1.	WG116964-03 8021 STD3 20PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 16:17
4	4	11g13487.d	1.	WG116964-04 8021 STD4 50PPB 5G ✓	7,1 S-92-(36,44)	30 Apr 2002 16:51
5	5	11g13488.d	1.	WG116964-05 8021 STD5 100PP.. ✓	7,1 S-92-(36,44)	30 Apr 2002 17:26
6	6	11g13489.d	1.	WG116964-06 8021 STD6 200PP... ✓	7,1 S-92-(36,44)	30 Apr 2002 18:01
7	7	11g13490.d	1.	WG116964-07 8021 STD7 300PP... ✓	7,1 S-92-(36,44)	30 Apr 2002 18:36
8	8	11g13491.d	1.	RINSE 5G	7,1 S-92-(36,44)	30 Apr 2002 19:10
9	9	11g13492.d	1.	RINSE 5G	7,1 S-92-(36,44)	30 Apr 2002 19:45
10	10	11g13493.d	1.	WG116964-08 ALT SOURCE 20PP...	7,1 S-92-(47,44)	30 Apr 2002 20:20

195

Directory: C:\HPCHEM\1\DATA\062102

Injection Log WG120311

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13773.d	1.	WG120310-01 8021 STD 20PPB 5G ✓	7,1 S-(95-36,95-29)	21 Jun 2002 16:14
2	2	11g13774.d	1.	WG120311-01 SOIL BLANK 5G ✓	7,1 S-95-29	21 Jun 2002 16:59
3	3	11g13775.d	1.	WG120311-02 SOIL LCS 20PPB 5G ✓	7,1 S-(95-36,95-29)	21 Jun 2002 17:34
4	4	11g13776.d	1.	L0206416-01 A 5G ✓	7,1 S-95-29	21 Jun 2002 18:08
5	5	11g13777.d	1.	L0206417-03 A 5G HIGH SS	7,1 S-95-29	21 Jun 2002 18:43
6	6	11g13778.d	1.	RINSE 5G ✓	7,1 S-95-29	21 Jun 2002 19:17
7	7	11g13779.d	1.	5035 BLANK A 6/21/02 5G ✓	7,1 S-95-29	21 Jun 2002 19:51
8	8	11g13780.d	1.	WG120310-02 8021 STD 20PPB 5G ✓	7,1 S-(95-36,95-29)	21 Jun 2002 20:26
9	9	11g13781.d	1.	L0206417-01 A 5G RE @ 100x	7,1 S-95-29	21 Jun 2002 21:00
10	10	11g13782.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 21:35
11	11	11g13783.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 22:09
12	12	11g13784.d	1.	L0206417-02 A 5G RE @ 100x	7,1 S-95-29	21 Jun 2002 22:44
13	13	11g13785.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 23:18
14	14	11g13786.d	1.	RINSE 5G ϕ	7,1 S-95-29	21 Jun 2002 23:53
15	15	11g13787.d	1.	RINSE 5G ϕ	7,1 S-95-29	22 Jun 2002 00:27
16	16	11g13788.d	1.	WG120310-03 8021 STD 20PPB 5G ✓	7,1 S-95-29	22 Jun 2002 01:02

WG120335

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	5g13799.d	1.		WG120334-01 8021 STD 20PPB 5ML✓	1,1 S-95-(36,30)	24 Jun 102 12::2
2	2	5g13800.d	100.		WG120335-01 EXT BLANK 5G/10ML✓	7,100 S-95-30	24 Jun 102 12::5
3	3	5g13801.d	100.		WG120335-02 EXT LCS 5G/10ML✓	7,100 S-95-(36,30)	24 Jun 102 12::3
4	1	5g13802.d	1.		L0206417-01 C 4.81G/10ML✓	7,100 S-95-46	24 Jun 102 12::2
5	2	5g13803.d	100.		L0206417-02 C 4.41G/10ML✓	7,100 S-95-46	24 Jun 102 12::5
6	3	5g13804.d	100.		L0206417-03 C 4.92G/10ML✓	7,100 S-95-46	24 Jun 102 13::3
7	4	5g13805.d	100.		5035 BLANK 5G/10ML ✓	7,100 S-95-46	24 Jun 102 13::0
8	5	5g13806.d	1.		WG120334-02 8021 STD 20PPB 5ML✓	1,1 S-95-(36,30)	24 Jun 102 13::4
9	1	5g13807.d	1.		WG120363-01 WATER BLANK 5ML ✓	1,1 S-95-30	24 Jun 102 13::2
10	2	5g13808.d	1.		WG120363-01 WATER LCS 20PPB 5ML✓	1,1 S-95-(36,30)	24 Jun 102 12::0
11	3	5g13809.d	1.	DNR	L0206416-02 A 5ML	1,1 S-95-30	24 Jun 102 12::4
12	4	5g13810.d	1.		L0206416-03 A 5ML	1,1 S-95-30	24 Jun 102 12::1
13	5	5g13811.d	1.		L0206417-04 A 5ML	1,1 S-95-30	24 Jun 102 12::5
14	6	5g13812.d	1.		WG120363-03 L0206417-06 A 5ML	1,1 S-95-30	24 Jun 102 12::2
15	7	5g13813.d	1.		WG120363-04 L0206417-06 MS A 5ML	1,1 S-95-(36,30)	24 Jun 102 12::0
16	8	5g13814.d	1.		WG120363-05 L0206417-06 MSD A 5ML	1,1 S-95-(36,30)	24 Jun 102 12::3

Directory: c:\hpchem\2\data\062502

WG120409

ANALYST: CBN

Line	Vial	FileName	Multiplier		SampleName	Misc Info		Injected
1	9	5g13815.d	1.		WG120408-01 8021 STD 20PPB 5ML ✓	1,1 S-95-(36,30)		25 Jun 102 12::3
2	10	5g13816.d	1.		WG120409-01 WATER BLANK 5ML ✓	1,1 S-95-30		25 Jun 102 12::1
3	11	5g13817.d	1.		WG120409-02 WATER LCS 20PPB 5ML ✓	1,1 S-95-(36,30)		25 Jun 102 12::4
4	1	5g13818.d	1.		L0206416-02 A 5ML ✓	1,1 S-95-30	pH<2	25 Jun 102 12::2
5	2	5g13819.d	1.		L0206416-03 A 5ML ✓	1,1 S-95-30		25 Jun 102 12::0
6	3	5g13820.d	1.		L0206417-04 A 5ML ✓	1,1 S-95-30		25 Jun 102 12::3
7	4	5g13821.d	1.		L0206417-06 A 5ML ✓	1,1 S-95-30		25 Jun 102 13::1
8	5	5g13822.d	1.	DNR	WG120409-04 L0206416-03 MS B 5ML	1,1 S-95-(36,30)		25 Jun 102 13::4
9	6	5g13823.d	1.		WG120409-05 L0206416-03 MSD B 5ML	1,1 S-95-(36,30)		25 Jun 102 13::2
10	7	5g13824.d	1.		WG120408-02 8021 STD 20PPB 5ML ✓	1,1 S-95-(36,30)		25 Jun 102 13::5
11	8	5g13825.d	1.		L0206450-01 A 5ML ✓	1,1 S-95-30	pH<2	25 Jun 102 12::4
12	9	5g13826.d	1.		WG120409-03 L0206452-01 A 5ML ✓	1,1 S-95-30		25 Jun 102 12::2
13	10	5g13827.d	1.		L0206454-01 A 5ML ✓	1,1 S-95-30		25 Jun 102 12::5
14	11	5g13828.d	1.		WG120409-04 L0206452-01 MS B 5ML ✓	1,1 S-95-(36,30)		25 Jun 102 12::3
15	12	5g13829.d	1.		WG120409-05 L0206452-01 MSD B 5ML ✓	1,1 S-95-(36,30)		25 Jun 102 12::0
16	13	5g13830.d	1.		WG120408-03 8021 STD 20PPB 5ML ✓	1,1 S-95-(36,30)		25 Jun 102 12::4

198

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
KEMRON-DUNBAR	L0206264-01	A	6-12-02	1230	6-14-02	0815	3.40	5mL	NA	CBN	
↓	↓ -01	B	↓	↓	↓	↓	4.62	↓	↓	↓	
↓	↓ -02	A	↓	1415	↓	0818	4.61	↓	↓	↓	
↓	↓ -02	B	↓	↓	↓	↓	4.85	↓	↓	↓	
↓	↓ -03	A	↓	1730	↓	0820	5.05	↓	↓	↓	•
↓	↓ -03	B	↓	↓	↓	↓	5.20	↓	↓	↓	•
BLANK	BLANK	A	NA	NA	↓	0822	5.00	↓	↓	↓	
↓	↓	B	↓	↓	↓	↓	↓	↓	↓	↓	
ITCORPTN	L0206370-01	A	6-19-02	1620	6-20-02	1400	4.71	5mL	—	MES	
↓	-01	B	↓	↓	↓	1404	4.80	↓	—	↓	
↓	-01	C	↓	↓	↓	1406	4.83	—	10mL	↓	
BLANK	BLANK	A	NA	NA	↓	1408	5.00	5mL	—	↓	
↓	↓	B	↓	↓	↓	1410	↓	↓	—	↓	
↓	↓	C	↓	↓	↓	1412	↓	—	10mL	↓	
CCI-630	L0206416-01	A	6/20/02	1000	6/21/02	1620	5.08	5ml	—	QS	□
↓	↓ 01	B	↓	↓	↓	1621	4.92	↓	—	↓	• EF
↓	↓ 01	C	↓	↓	↓	1622	4.82	—	10ml	↓	
↓	L0206417-01	A	↓	1255	↓	1623	5.01	5ml	—	↓	□ ▲
↓	↓ 01	B	↓	↓	↓	1624 1635	4.69 4.66	↓	—	↓	
↓	↓ 01	C	↓	↓	↓	1636	4.46 4.81	—	10ml	↓	
↓	↓ 02	A	↓	1235	↓	1624	4.67	5ml	—	↓	□ ▲
↓	↓ 02	B	↓	↓	↓	1637	4.46	↓	—	↓	
↓	↓ 02	C	↓	↓	↓	1638	4.41	—	10ml	↓	
↓	↓ 03	A	↓	1400	↓	1625	5.12	5ml	—	↓	□
↓	↓ 03	B	↓	↓	↓	1639	4.96	↓	—	↓	
↓	↓ 03	C	↓	↓	↓	1640	4.92	—	10ml	↓	
Blank	Blank	A	NA	NA	↓	1641	5.00	5ml	—	↓	□
↓	↓	B	↓	↓	↓	1642	↓	↓	—	↓	
↓	↓	C	↓	↓	↓	1643	↓	—	10ml	↓	

Comments: • → PLUNGER NOT TURNED. TSR NOTIFIED - CBN 6/14/02

Supervisor Review: _____

* = improperly sealed cap
• = improperly sealed plunger
▲ = hydrocarbon odor
★ = samples preserved out of hold (past 48 hours from time of collection)

EF = sample effervesced

2.2 Semivolatiles Data

2.2.6 Method 8011

REPORT NARRATIVE
GC PRO RANGE ORGANICS

KEMRON Report No.: L0206417

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

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

SAMPLES

Samples: Sample fraction -02 was analyzed at dilution to obtain the results with in the linear range of the instrument . All other 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: 7/1/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0206417

A. QC Summary

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

B. Sample Data

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

C. Standards Data

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

D. Raw QC Data

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

Checked By: AV Date: 6/28/01

203

2.2.6.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 2G20648
Date Analyzed: 06/27/02
Time Analyzed: 13:59
Analyst: HV

Work Group: WG120442
Blank Sample ID: WG120337-01
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120337-02	2G20649	06/27/02 14:14	01
LCS2	WG120337-03	2G20650	06/27/02 14:47	01
062-CEF46-SB1-S-Q2-02	L0206417-01	2G20651	06/27/02 15:02	01
062-CEF46-SB14-S-Q2-02	L0206417-03	2G20653	06/27/02 15:32	01
062-CEF46-SB2-S-Q2-02	L0206417-02	2G20657	06/27/02 16:33	DL01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 2G20642
Date Analyzed: 06/27/02
Time Analyzed: 12:15
Analyst: HV

Work Group: WG120443
Blank Sample ID: WG120327-01
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120327-02	2G20643	06/27/02 12:30	01
LCS2	WG120327-03	2G20644	06/27/02 12:45	01
062-CEF46-EQB-W-Q2-02	L0206417-04	2G20646	06/27/02 13:15	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417
Run Date: 06/27/2002
Sample ID: WG120337-01
Instrument ID: HP2
Run Time: 13:59
Method: 8015 MOD
File ID: 2G20648
Analyst: HV
Matrix: Solid
Workgroup (AAB#): WG120442
Units: ug/kg
Contract #:
Cal ID: HP2-27-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5000	10000	5000	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	83.9	43 - 136	PASS

* Analyte detected above RDL

KEMRON FORMS - Modified 06/26/2002
Version 1.2
Report generated 06/28/2002 08:40

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417 Run Date: 06/27/2002 Sample ID: WG120327-01
Instrument ID: HP2 Run Time: 12:15 Method: 8015 MOD
File ID: 2G20642 Analyst: HV Matrix: Water
Workgroup (AAB#): WG120443 Units: ug/L
Contract #: Cal ID: HP2-27-JUN-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	91.3	49 - 174	PASS

* Analyte detected above RDL

KEMRON FORMS - Modified 06/26/2002
Version 1.2
Report generated 06/28/2002 08:40

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Run Date: 06/27/2002
Sample ID: WG120337-02
Instrument ID: HP2
Run Time: 14:14
Method: 8015 MOD
File ID: 2G20649
Analyst: HV
Matrix: Solid
Workgroup (AAB#): WG120442
Units: ug/kg
Contract #:
Cal ID: HP2-27-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	136000	92700	68.2	63 - 153	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	96.7	43 - 136	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/28/2002 08:40

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Run Date: 06/27/2002
Sample ID: WG120327-02
Instrument ID: HP2
Run Time: 12:30
Method: 8015 MOD
File ID: 2G20643
Analyst: HV
Matrix: Water
Workgroup (AAB#): WG120443
Units: ug/L
Contract #:
Cal ID: HP2-27-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2890	84.9	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	116	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/28/2002 08:40

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206417 Worknum: WG120442 Method: 8015 MOD
Instrument ID: HP2 Cal ID: HP2-27-JUN-2002 Matrix: Solid
Analyst: HV Contract #: Units: ug/kg
Sample ID: WG120337-02 LCS File ID: 2G20649 Run Date: 06/27/2002 14:14
Sample ID: WG120337-03 LCS2 File ID: 2G20650 Run Date: 06/27/2002 14:47

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
TRPH-Florida PRO	136000	92700	68.2	136000	98000	72.3	5.5	63 - 153	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
o-Terphenyl	96.7	104	43 - 136	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 06/14/2002
Version 1.2
Report generated 06/28/2002 08:40

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206417 Worknum: WG120443 Method: 8015 MOD
Instrument ID: HP2 Cal ID: HP2-27-JUN-2002 Matrix: Water
Analyst: HV Contract #: Units: ug/L
Sample ID: WG120327-02 LCS File ID: 2G20643 Run Date: 06/27/2002 12:30
Sample ID: WG120327-03 LCS2 File ID: 2G20644 Run Date: 06/27/2002 12:45

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
TRPH-Florida PRO	3400	2890	84.9	3400	2880	84.6	.349	50 - 150	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
o-Terphenyl	116	115	49 - 174	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 06/14/2002
Version 1.2
Report generated 06/28/2002 08:40

SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HP2
Workgroup (AAB#): WG120442

Method: FLA-PRO
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0206417-01	1.00	01	85.8
L0206417-02	5.00	DL01	43.3
L0206417-03	1.00	01	83.4
WG120337-01	1.00	01	83.9
WG120337-02	1.00	01	96.7
WG120337-03	1.00	01	104

Surrogates	Surrogate Limits		
1 - o-Terphenyl	43	-	136

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 06/28/2002 08:40

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HP2
Workgroup (AAB#): WG120443

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206417-04	1.00	01	99.5
WG120327-01	1.00	01	91.3
WG120327-02	1.00	01	116
WG120327-03	1.00	01	115

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002

Calibration Files

5	=2G20640.D	50	=2G20639.D	100	=2G20638.D
200	=2G20637.D	400	=2G20636.D	600	=2G20635.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.036	2.416	2.469	2.542	2.609	2.532	2.434	E4	8.46
2)	s	O-Terphenyl	2.044	2.204	2.179	2.057	2.089	2.043	2.103	E4	3.38
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\062702\2G20641.D
Acq On : 27 Jun 2002 11:58
Sample : WG120634-07 ALT PRO @200ppm
Misc : 1,1 SOS60-35
IntFile : PETRO.E

Vial: 8
Operator: HV
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3240.212	4.7	91	0.00
2	s	O-Terphenyl	200.000	3.838	98.1#	2	0.06

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

Data File : C:\HPCHEM\1\DATA\062702\2G20647.D Vial: 14
Acq On : 27 Jun 2002 13:30 Operator: HV
Sample : WG120634-08 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3633.820	-6.9	102	0.00
2	s	O-Terphenyl	200.000	201.558	-0.8	103	0.03

217

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20647.D FLASHPRO.M Thu Jun 27 16:02:21 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20654.D
Acq On : 27 Jun 2002 15:48
Sample : WG120634-09 PRO CCV @200ppm
Misc : 1,1 SOS60-34
IntFile : PETRO.E

Vial: 21
Operator: HV
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3720.495	-9.4	105	0.00
2	s	O-Terphenyl	200.000	201.162	-0.6	103	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20654.D FLASHPRO.M Thu Jun 27 15:59:37 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20658.D Vial: 25
Acq On : 27 Jun 2002 16:48 Operator: HV
Sample : WG120634-10 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3536.428	-4.0	100	0.00
2	s	O-Terphenyl	200.000	223.542	-11.8	114	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20658.D FLASHPRO.M Fri Jun 28 08:03:34 2002 HP2 Page 1

219

Directory: c:\hpchem\1\data\062702

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20634.d	1.	mecl2	1,1	27 Jun 102 13::0
2	2	2g20635.d	1.	WG120634-06 PRO @600ppm	1,1 SOS60-34	27 Jun 102 13::2
3	3	2g20636.d	1.	WG120634-05 PRO @400ppm	1,1 SOS60-34	27 Jun 102 13::3
4	4	2g20637.d	1.	WG120634-04 PRO @200ppm	1,1 SOS60-34	27 Jun 102 13::5
5	5	2g20638.d	1.	WG120634-03 PRO @100ppm	1,1 SOS60-34	27 Jun 102 13::0
6	6	2g20639.d	1.	WG120634-02 PRO @50ppm	1,1 SOS60-34	27 Jun 102 13::2
7	7	2g20640.d	1.	WG120634-01 PRO @5ppm	1,1 SOS60-34	27 Jun 102 13::3
8	8	2g20641.d	1.	WG120634-07 ALT PRO @200ppm	1,1 SOS60-35	27 Jun 102 13::5
9	9	2g20642.d	1.	WG120327-01 BLK V186-P101	1,1 water	27 Jun 102 13::1
10	10	2g20643.d	1.	WG120327-02 LCS V186-P101	1,1 water	27 Jun 102 13::3
11	11	2g20644.d	1.	WG120327-03 LCS DUP V186-P101	1,1 water	27 Jun 102 13::4
12	12	2g20645.d	1.	L0206416-02 PRO water	1,1 water	27 Jun 102 12::0
13	13	2g20646.d	1.	L0206417-04 PRO water	1,1 water	27 Jun 102 12::1
14	14	2g20647.d	1.	WG120634-08 PRO CCV @200ppm	1,1 SOS60-34	27 Jun 102 12::3
15	15	2g20648.d	1.	WG120337-01 BLK V186-P105	7,1 soil	27 Jun 102 12::5
16	16	2g20649.d	1.	WG120337-02 LCS V186-P105	7,1 soil	27 Jun 102 12::1
17	17	2g20650.d	1.	WG120337-03 LCS DUP V186-P105	7,1 soil	27 Jun 102 12::4
18	18	2g20651.d	1.	L0206417-01 PRO soil	7,1 soil	27 Jun 102 12::0
19	19	2g20652.d	1.	RR L0206417-02 PRO soil - RR @ 5X	7,1 soil	27 Jun 102 12::1
20	20	2g20653.d	1.	L0206417-03 PRO soil	7,1 soil	27 Jun 102 12::3
21	21	2g20654.d	1.	WG120634-09 PRO CCV @200ppm	1,1 SOS60-34	27 Jun 102 12::4
22	22	2g20655.d	1.	RR L0206416-01 10X PRO soil - RR str.	7,10 soil	27 Jun 102 12::0
23	23	2g20656.d	1.	L0206416-01 PRO soil	7,1 soil	27 Jun 102 12::1
24	24	2g20657.d	1.	L0206417-02 5X PRO soil	7,5 soil	27 Jun 102 12::3
25	25	2g20658.d	1.	WG120634-10 PRO CCV @200ppm	1,1 SOS60-34	27 Jun 102 12::4

HV 6/28/02

mde 6/28/02

220

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6-27-02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 062702
Analyst Initials HV

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

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # ___ 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

221

Parameter: FLA-PRO-H2O SOP #: EXPRO Revision #: 3
Extraction Analyst(s): DP, RSK TV/KD Analyst(s): DP
Date/Time Extracted: 06/24/02 0900 Date TV/KD: 06/24/02
Spike/Surrogate Analyst: DP Witness: KV
Surrogate #: CS50041-31 Earliest Hold Date: 06/27/02
Spike #: A = CS50041-07 Spike #: B = —

Extraction Work Group WG 120327
Analytical Work Group WG 120443
Extract Relinquished By: DP
Extract Received By & Date: KV 6/24/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 120327-01
2	LCS		✓					1mL						WG -02
3	LCS DUP		✓											WG -03
4	06-416-02	FLA-PRO	✓			950mL								
5	06-417-04		✓			940mL								
6														
7														
8														
9														
10														
11														
12														
13														
14								DP 06/24/02						
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Methylene Chloride Lot #: 42615
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: ER2199
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 6-24-02

Extraction Notes For Volume # 186 Page # 101

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: PCB-S SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 6-24-02 @ 09:00 Date TV/KD: 6-24-02
Spike/Surrogate Analyst: CAF Witness: [illegible]
Surrogate #: ESS0041-31 Earliest Hold Date: 7/04/02
Spike #: A = ESS00 41-07 Spike #: B = —

Extraction Work Group WG 120337
Analytical Work Group WG 120442

Extract Relinquished By: CAF
Extract Received By & Date: [illegible] 6/24/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank					25.01 g	1 mL		1 mL	T				WG 120337-
2	LCS					.00 g		1 mL		C				WG 120332
3	MS Dup					.09 g				C				WG 120337-0
4	06-41601	FLA-PRO				.08 g				O				
5	06-417-01					.09 g				C				
6	-02					.02 g				C				
7	-03					.01 g				C				
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-24-02

Methylene Chloride Lot #: 42015
Hexane Lot #: 4434 CAF 6-24-02
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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 # 186 Page # 105

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

2.2.6.2 Sample Data

Data File : C:\HPCHEM\1\DATA\062702\2G20651.D Vial: 18
Acq On : 27 Jun 2002 15:02 Operator: HV
Sample : L0206417-01 PRO soil Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	360526	17.145 ppb
Spiked Amount 20.000 Range 43 - 136 Recovery = 85.72%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	104066329	4275.738 ppb

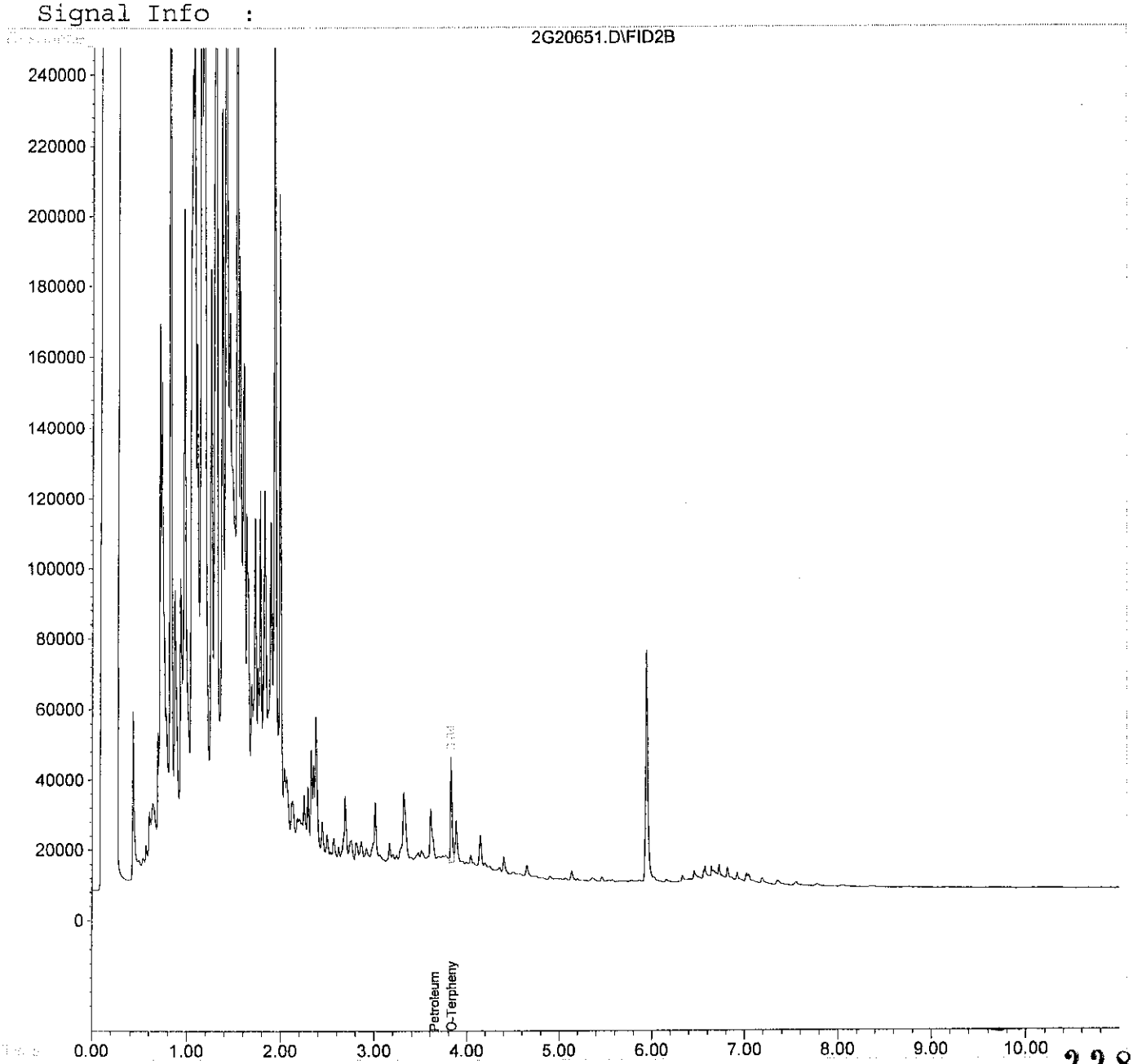
227

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20651.D FLASHPRO.M Thu Jun 27 15:56:54 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20651.D Vial: 18
Acq On : 27 Jun 2002 15:02 Operator: HV
Sample : L0206417-01 PRO soil Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



228

Data File : C:\HPCHEM\1\DATA\062702\2G20657.D Vial: 24
Acq On : 27 Jun 2002 16:33 Operator: HV
Sample : L0206417-02 5X PRO soil Inst : HP2
Misc : 7,5 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 28 8:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 17:01:24 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	182172	8.663 ppb
Spiked Amount 20.000 Range 43 - 136		Recovery =	43.32%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.66	63457766	2607.268 ppb

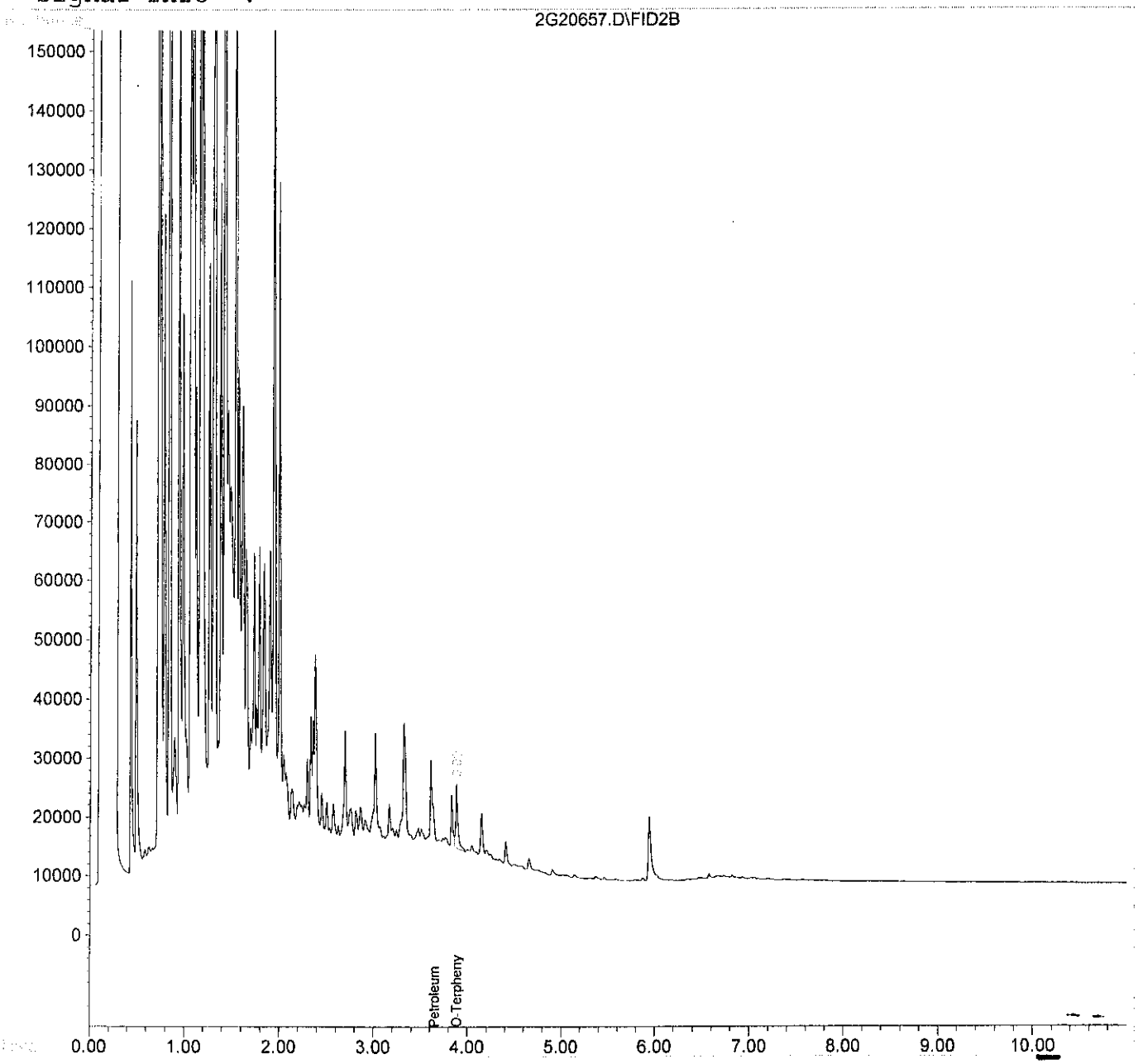
229

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20657.D FLASHPRO.M Fri Jun 28 08:02:54 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20657.D Vial: 24
Acq On : 27 Jun 2002 16:33 Operator: HV
Sample : L0206417-02 5X PRO soil Inst : HP2
Misc : 7,5 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 28 8:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 17:01:24 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



230

2G20657.D FLASHPRO.M Fri Jun 28 08:02:54 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\062702\2G20652.D Vial: 19
Acq On : 27 Jun 2002 15:17 Operator: HV
Sample : L0206417-02 PRO soil Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 28 8:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Fri Jun 28 08:06:37 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	1395253	66.352 ppb
Spiked Amount 20.000 Range 43 - 136 Recovery = 331.76%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	335097578	13768.040 ppb

RR @ dilu. 5X

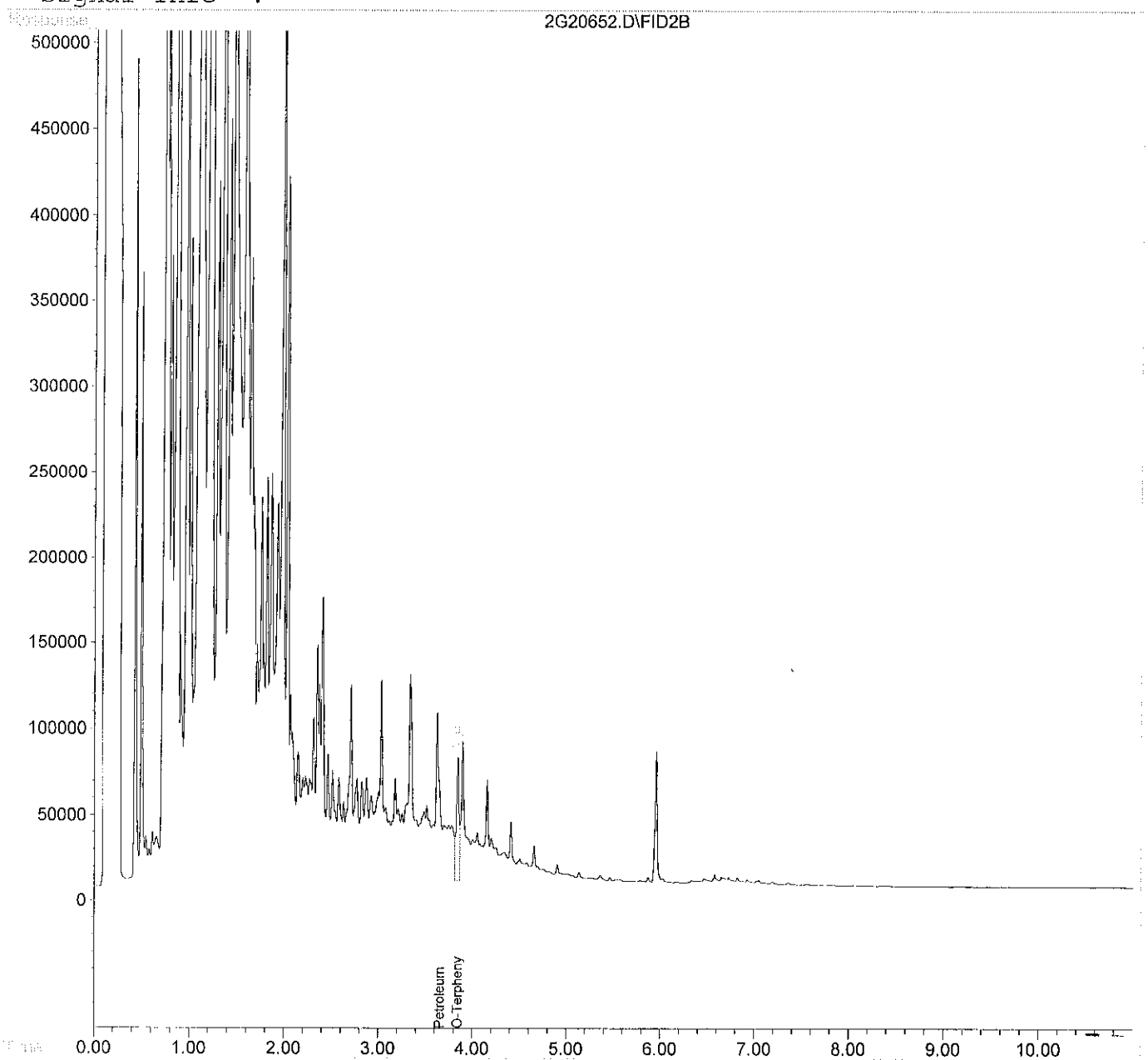
231

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

Data File : C:\HPCHEM\1\DATA\062702\2G20652.D Vial: 19
Acq On : 27 Jun 2002 15:17 Operator: HV
Sample : L0206417-02 PRO soil Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 28 8:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Fri Jun 28 08:06:37 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



232

Data File : C:\HPCHEM\1\DATA\062702\2G20653.D Vial: 20
Acq On : 27 Jun 2002 15:32 Operator: HV
Sample : L0206417-03 PRO soil Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:58 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	350692	16.677 ppb
Spiked Amount 20.000 Range 43 - 136 Recovery = 83.38%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	12354681	507.613 ppb

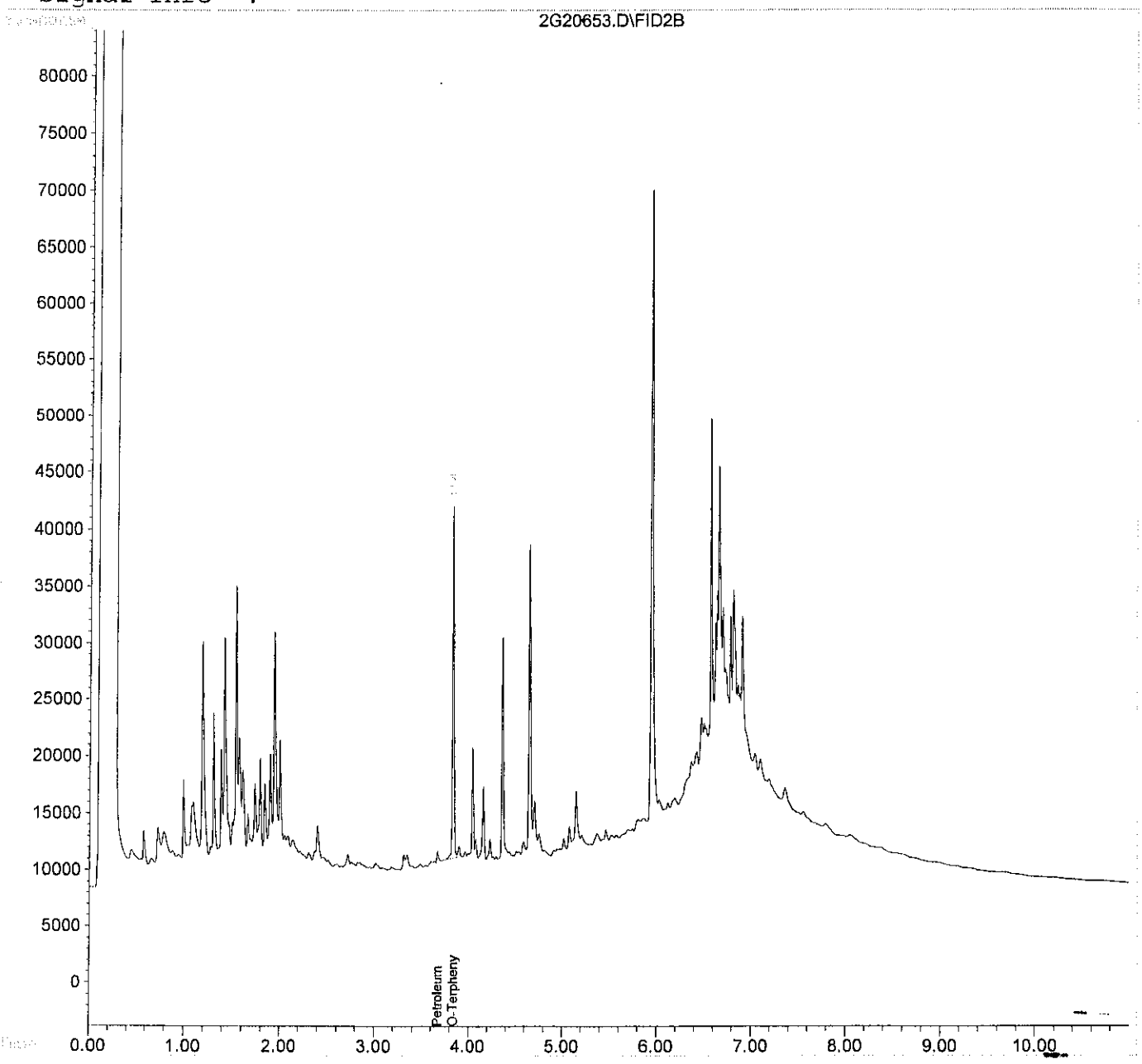
233

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

Data File : C:\HPCHEM\1\DATA\062702\2G20653.D Vial: 20
Acq On : 27 Jun 2002 15:32 Operator: HV
Sample : L0206417-03 PRO soil Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:58 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



234

Data File : C:\HPCHEM\1\DATA\062702\2G20646.D Vial: 13
Acq On : 27 Jun 2002 13:15 Operator: HV
Sample : L0206417-04 PRO water Inst : HP2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 14:14 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	418353	19.895 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 99.48%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	1717956	70.585 ppb

235

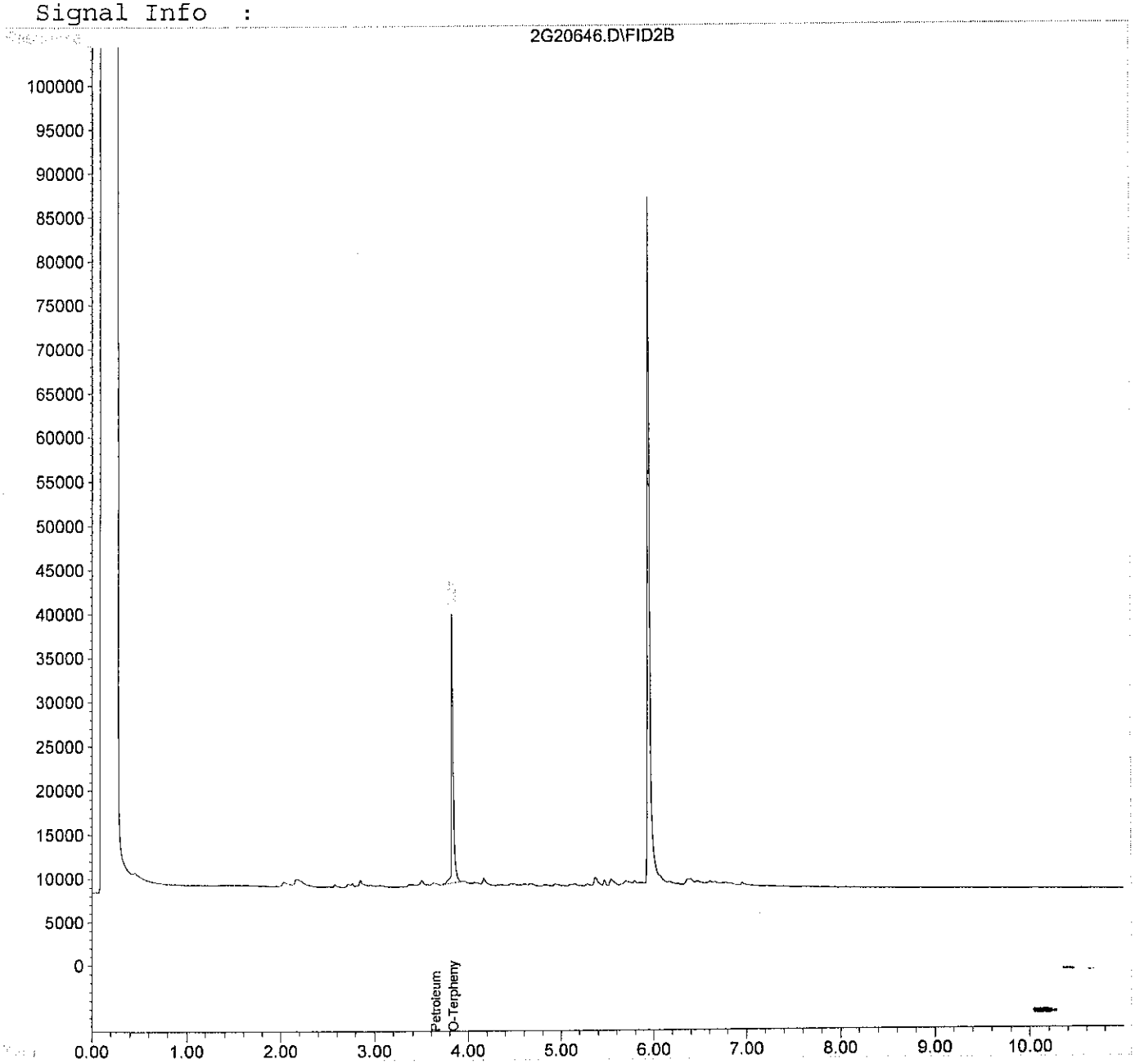
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20646.D FLASHPRO.M Thu Jun 27 14:56:10 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20646.D
Acq On : 27 Jun 2002 13:15
Sample : L0206417-04 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Jun 27 14:14 2002 Quant Results File: FLASHPRO.RES

Vial: 13
Operator: HV
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



236

2.2.6.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002

Calibration Files

5	=2G20640.D	50	=2G20639.D	100	=2G20638.D
200	=2G20637.D	400	=2G20636.D	600	=2G20635.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.036	2.416	2.469	2.542	2.609	2.532	2.434	E4	8.46
2)	s	O-Terphenyl	2.044	2.204	2.179	2.057	2.089	2.043	2.103	E4	3.38
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

238

Data File : C:\HPCHEM\1\DATA\062702\2G20635.D Vial: 2
Acq On : 27 Jun 2002 10:21 Operator: HV
Sample : WG120634-06 PRO @600ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	12259296	739.056 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 3695.28%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.66	258301296	13718.091 ppb

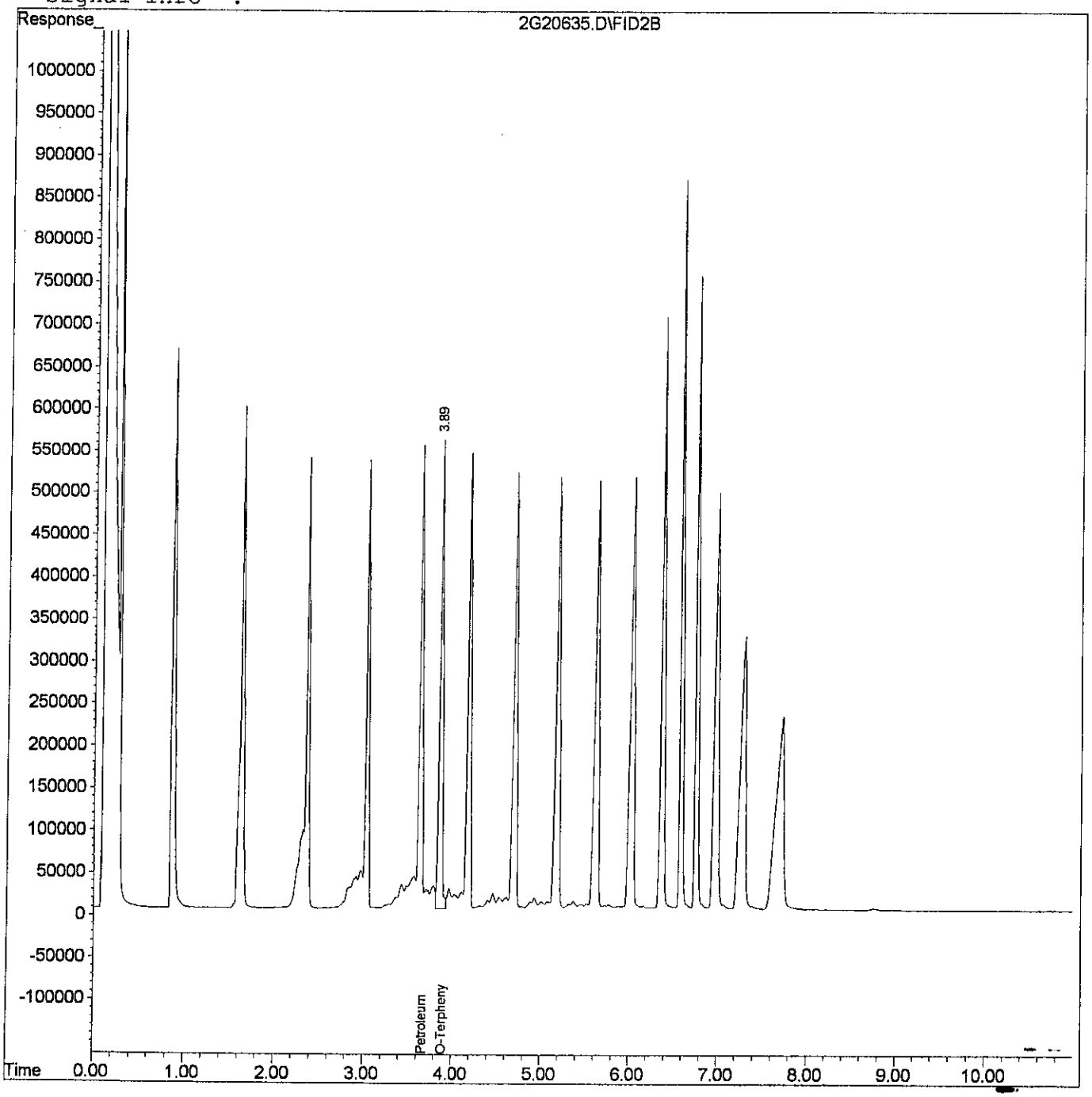
239

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

Data File : C:\HPCHEM\1\DATA\062702\2G20635.D Vial: 2
Acq On : 27 Jun 2002 10:21 Operator: HV
Sample : WG120634-06 PRO @600ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



250

```
Data File : C:\HPCHEM\1\DATA\062702\2G20636.D              Vial: 3
Acq On    : 27 Jun 2002  10:36                          Operator: HV
Sample    : WG120634-05 PRO @400ppm                     Inst    : HP2
Misc      : 1,1 SOS60-34                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 11:47 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                  3.88        8356637  503.783 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   = 2518.92%#
 3) s   n-Nonatriacontane            0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery      =    0.00%

   Target Compounds
 1) H   Petroleum Range              3.66      177378665 9420.381 ppb
```

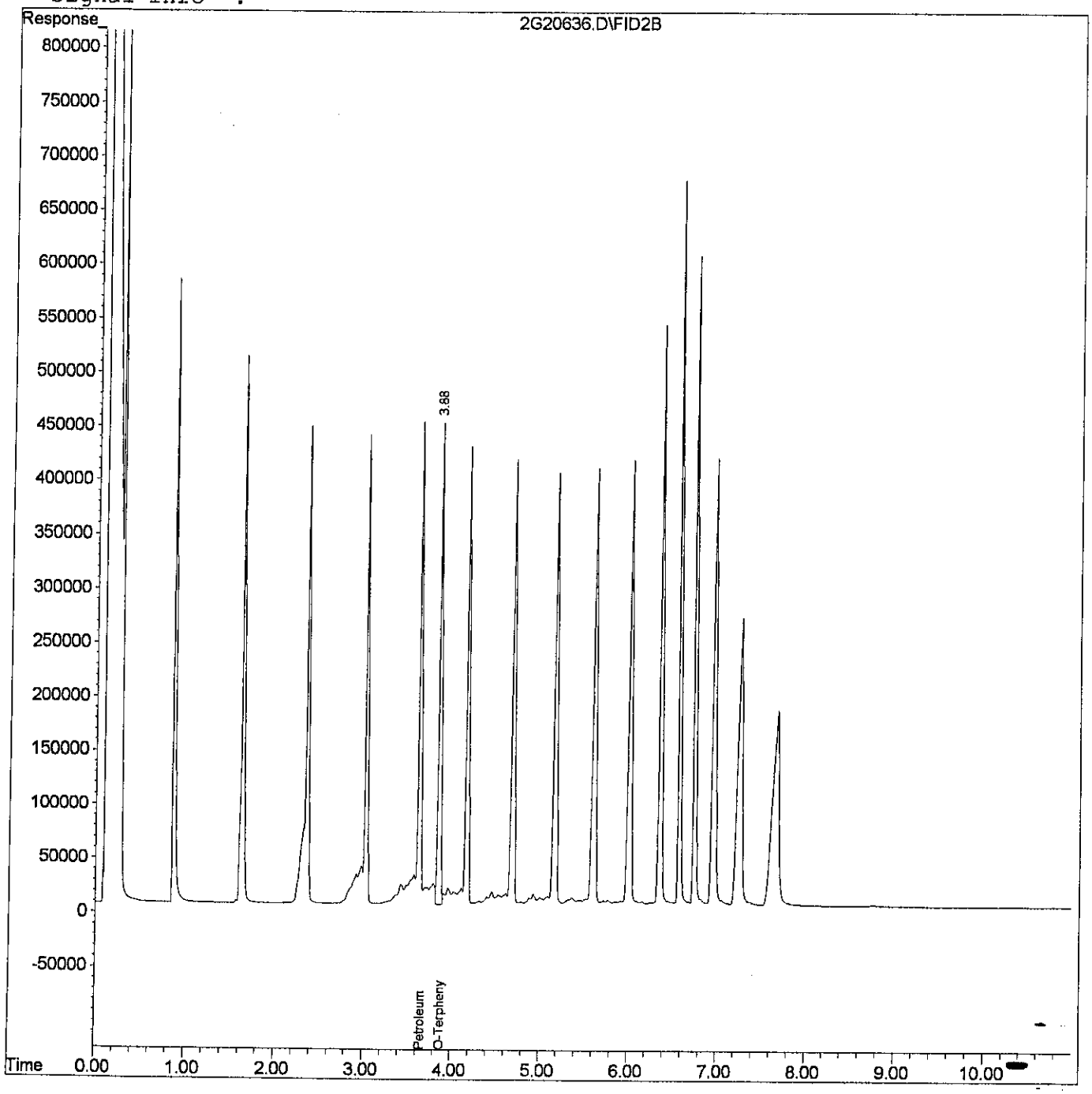
241

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

Data File : C:\HPCHEM\1\DATA\062702\2G20636.D Vial: 3
Acq On : 27 Jun 2002 10:36 Operator: HV
Sample : WG120634-05 PRO @400ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



242

```
Data File : C:\HPCHEM\1\DATA\062702\2G20637.D              Vial: 4
Acq On    : 27 Jun 2002  10:52                          Operator: HV
Sample    : WG120634-04 PRO @200ppm                     Inst    : HP2
Misc      : 1,1 SOS60-34                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 11:47 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                    3.86        4114688  248.056 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   = 1240.28%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery      =    0.00%

   Target Compounds
 1) H   Petroleum Range                3.66       86433135 4590.366 ppb
```

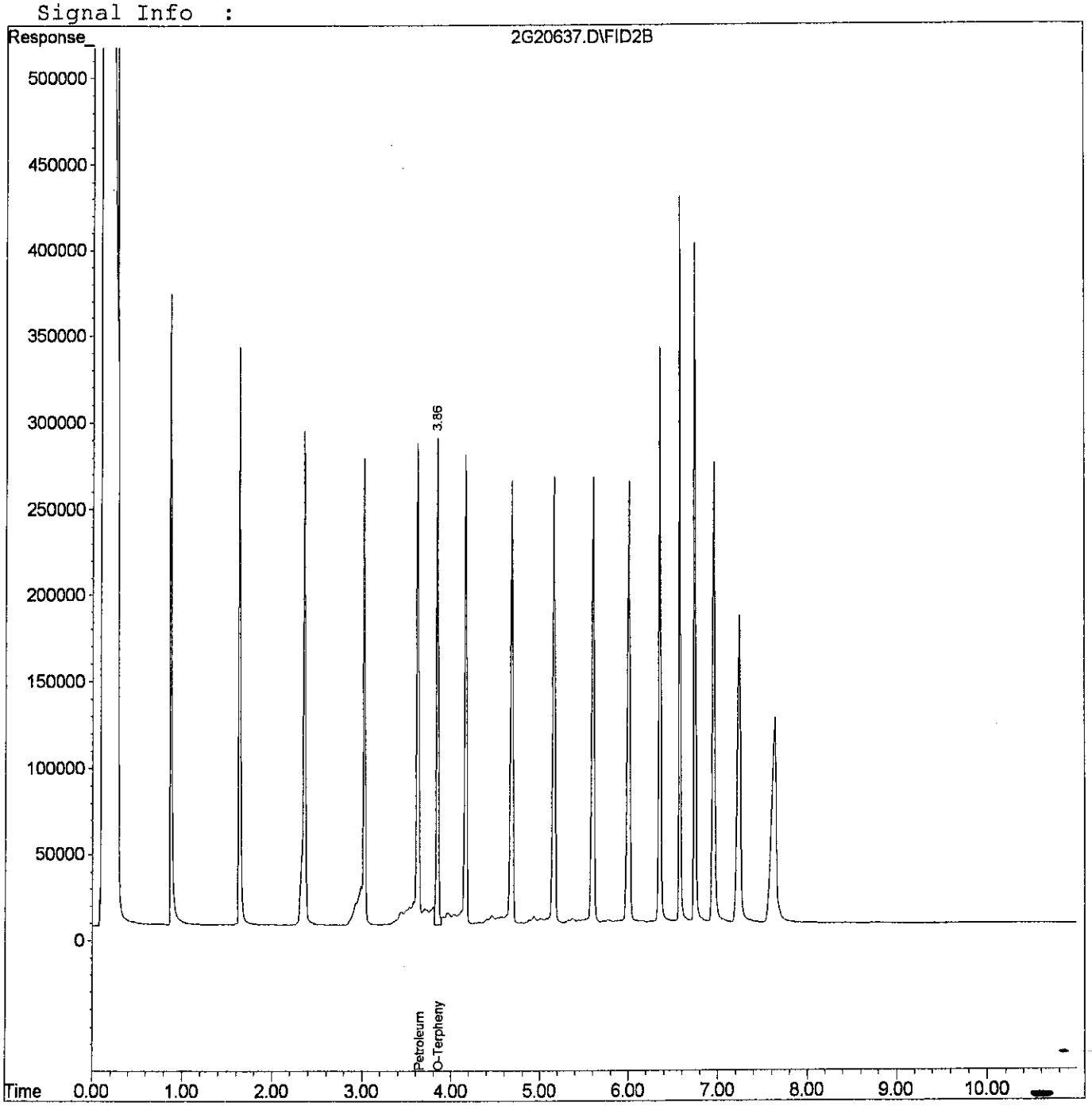
243

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

Data File : C:\HPCHEM\1\DATA\062702\2G20637.D Vial: 4
Acq On : 27 Jun 2002 10:52 Operator: HV
Sample : WG120634-04 PRO @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



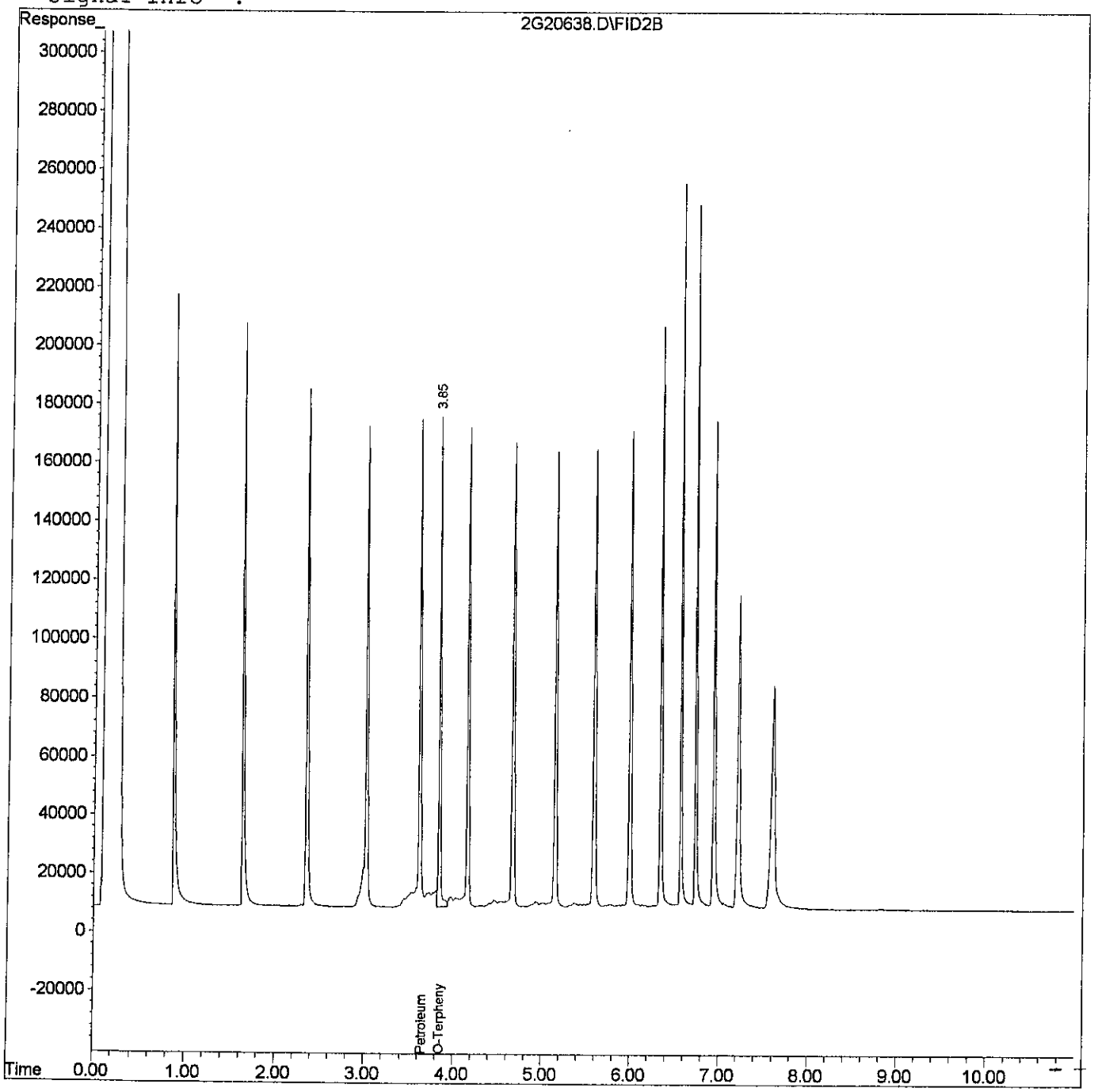
244

```
Data File : C:\HPCHEM\1\DATA\062702\2G20638.D          Vial: 5
Acq On    : 27 Jun 2002  11:07                      Operator: HV
Sample    : WG120634-03 PRO @100ppm                 Inst    : HP2
Misc      : 1,1 SOS60-34                            Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 11:48 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

      Compound                        R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                   3.85        2179198  131.374 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   =  656.87%#
 3) s   n-Nonatriacontane             0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery      =    0.00%

   Target Compounds
 1) H   Petroleum Range               3.66       41969778 2228.968 ppb
```

Data File : C:\HPCHEM\1\DATA\062702\2G20638.D Vial: 5
Acq On : 27 Jun 2002 11:07 Operator: HV
Sample : WG120634-03 PRO @100ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\062702\2G20639.D Vial: 6
Acq On : 27 Jun 2002 11:23 Operator: HV
Sample : WG120634-02 PRO @50ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	1101924	66.430 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 332.15%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	20532291	1090.447 ppb

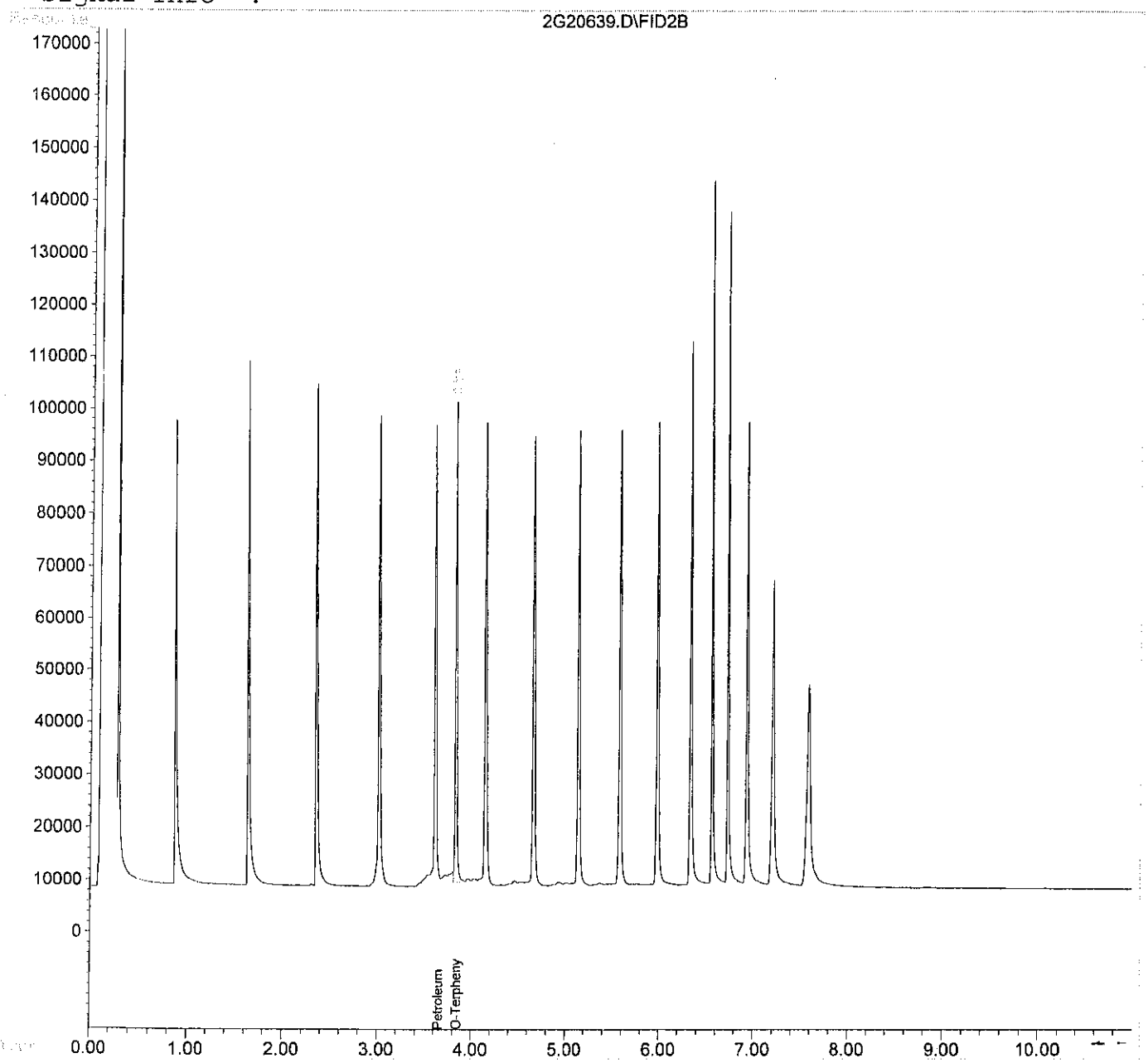
247

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

Data File : C:\HPCHEM\1\DATA\062702\2G20639.D Vial: 6
Acq On : 27 Jun 2002 11:23 Operator: HV
Sample : WG120634-02 PRO @50ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 11:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\062702\2G20640.D Vial: 7
Acq On : 27 Jun 2002 11:38 Operator: HV
Sample : WG120634-01 PRO @5ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 12:05 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	102201	4.860 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 24.30%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	1730497	71.100 ppb

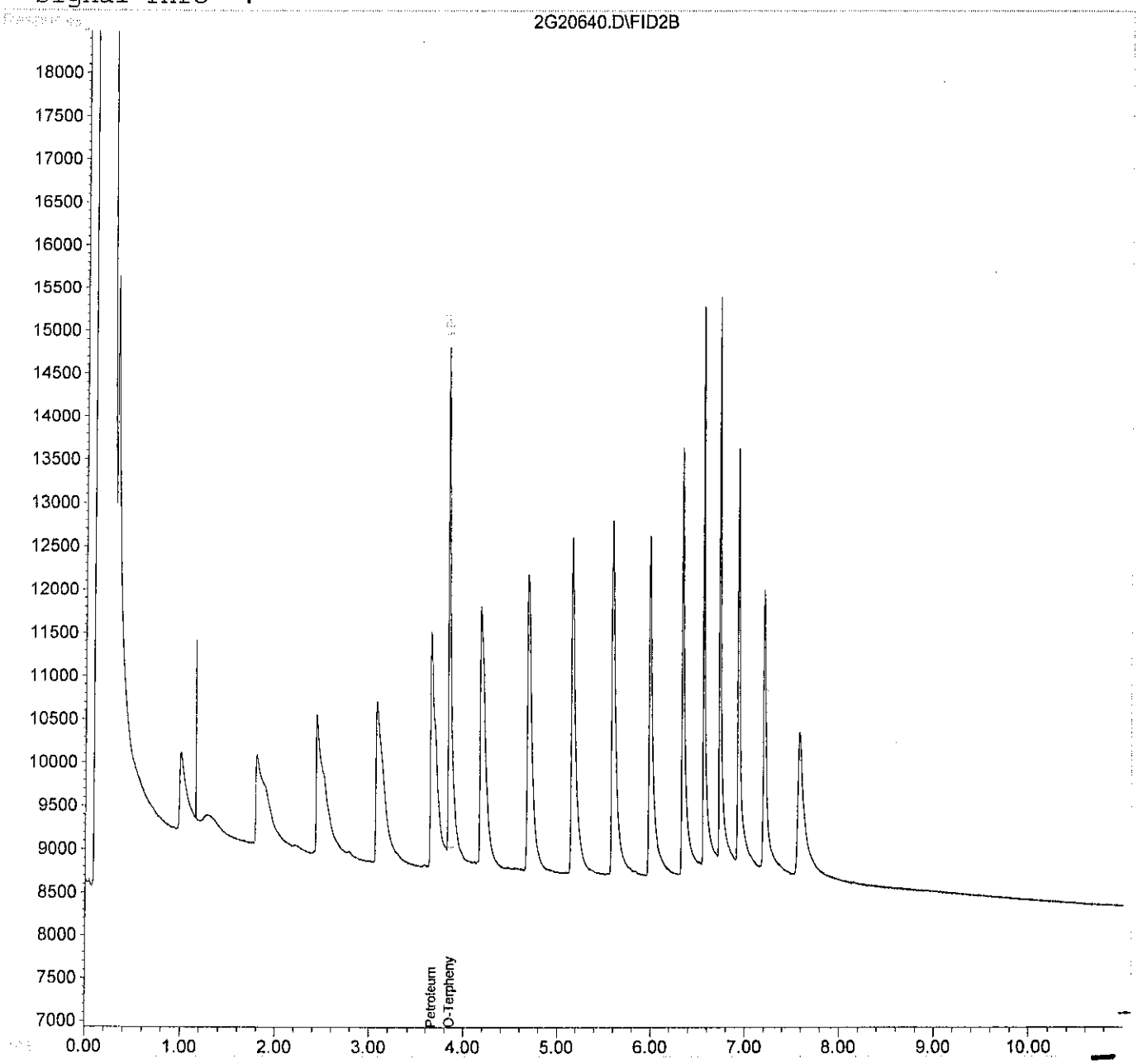
249

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20640.D FLASHPRO.M Thu Jun 27 14:55:57 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20640.D Vial: 7
Acq On : 27 Jun 2002 11:38 Operator: HV
Sample : WG120634-01 PRO @5ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 12:05 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



250

Data File : C:\HPCHEM\1\DATA\062702\2G20641.D Vial: 8
Acq On : 27 Jun 2002 11:58 Operator: HV
Sample : WG120634-07 ALT PRO @200ppm Inst : HP2
Misc : 1,1 SOS60-35 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3240.212	4.7	91	0.00
2	s	O-Terphenyl	200.000	3.838	98.1#	2	0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20641.D FLASHPRO.M Fri Jun 28 08:09:16 2002 HP2 Page 1

251

Data File : C:\HPCHEM\1\DATA\062702\2G20641.D Vial: 8
Acq On : 27 Jun 2002 11:58 Operator: HV
Sample : WG120634-07 ALT PRO @200ppm Inst : HP2
Misc : 1,1 SOS60-35 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 12:09 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	80702	3.838 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	19.19%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.66	78862882	3240.212 ppb

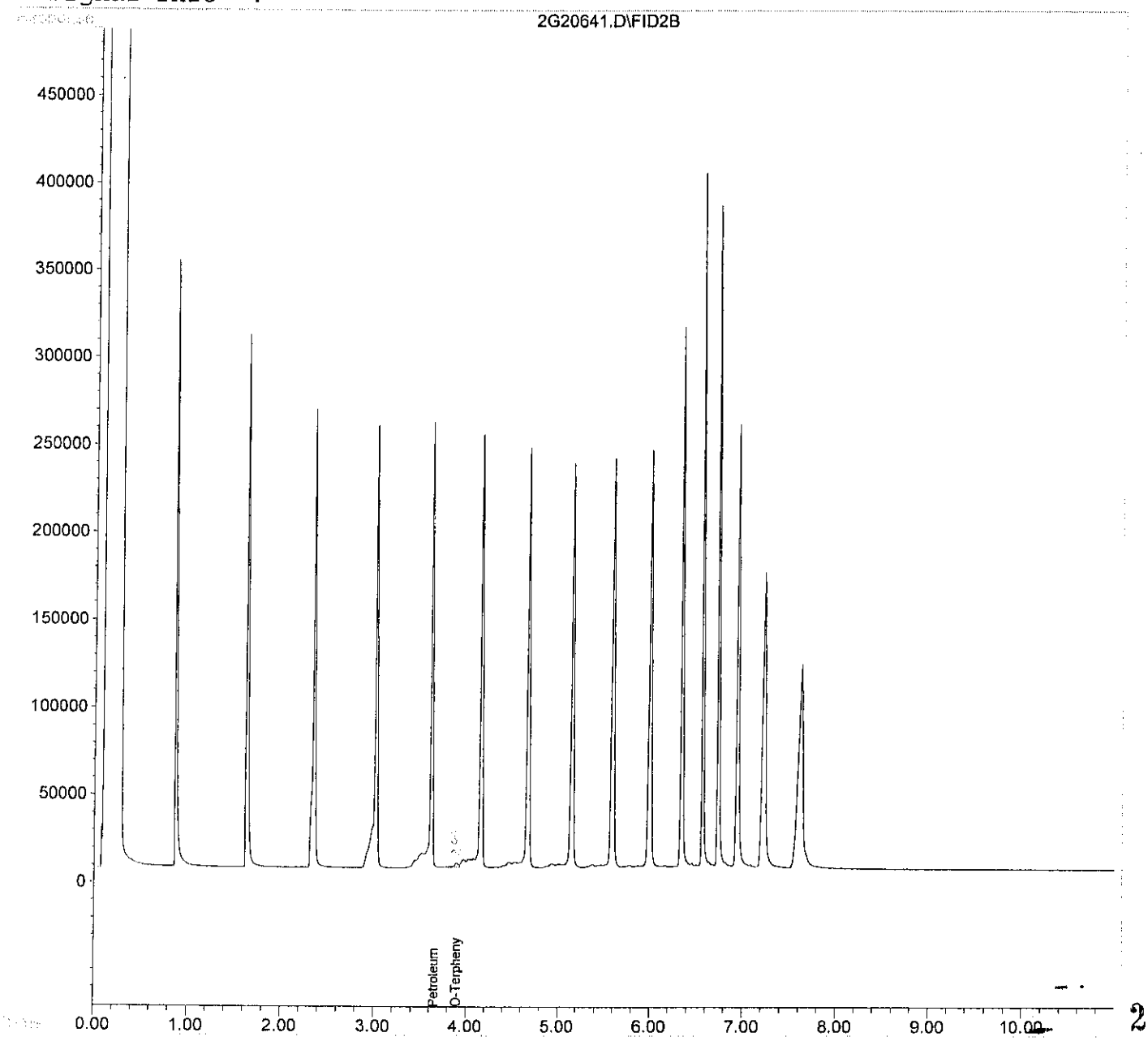
252

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20641.D FLASHPRO.M Fri Jun 28 08:09:20 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20641.D Vial: 8
Acq On : 27 Jun 2002 11:58 Operator: HV
Sample : WG120634-07 ALT PRO @200ppm Inst : HP2
Misc : 1,1 SOS60-35 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 12:09 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



253

2G20641.D FLASHPRO.M Fri Jun 28 08:09:21 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\062702\2G20647.D Vial: 14
Acq On : 27 Jun 2002 13:30 Operator: HV
Sample : WG120634-08 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3633.820	-6.9	102	0.00
2	s	O-Terphenyl	200.000	201.558	-0.8	103	0.03

254

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20647.D FLASHPRO.M Thu Jun 27 16:02:21 2002 HP2 Page 1

```
Data File : C:\HPCHEM\1\DATA\062702\2G20647.D              Vial: 14
Acq On    : 27 Jun 2002  13:30                          Operator: HV
Sample    : WG120634-08 PRO CCV @200ppm                 Inst    : HP2
Misc      : 1,1 SOS60-34                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 13:53 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.87        4238354  201.558 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1007.79%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.66       88442814 3633.820 ppb
```

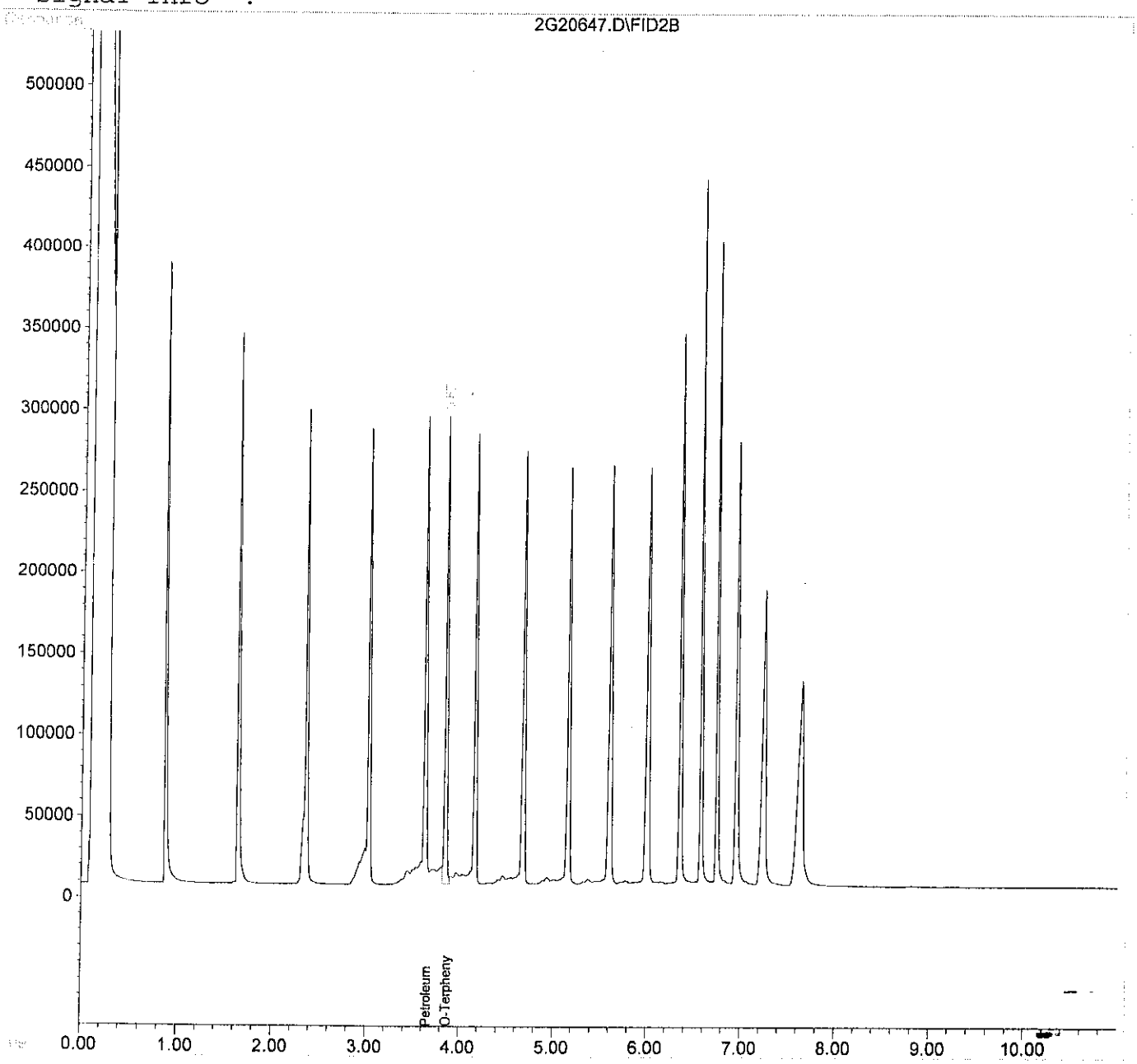
255

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                  (m)=manual int.
2G20647.D  FLASHPRO.M      Thu Jun 27 14:56:12 2002      HP2          Page 1
```

Data File : C:\HPCHEM\1\DATA\062702\2G20647.D Vial: 14
Acq On : 27 Jun 2002 13:30 Operator: HV
Sample : WG120634-08 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 13:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



256

Data File : C:\HPCHEM\1\DATA\062702\2G20654.D Vial: 21
Acq On : 27 Jun 2002 15:48 Operator: HV
Sample : WG120634-09 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3720.495	-9.4	105	0.00
2	s	O-Terphenyl	200.000	201.162	-0.6	103	0.02

257

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20654.D FLASHPRO.M Thu Jun 27 15:59:37 2002 HP2 Page 1

```
Data File : C:\HPCHEM\1\DATA\062702\2G20654.D              Vial: 21
Acq On    : 27 Jun 2002  15:48                          Operator: HV
Sample    : WG120634-09 PRO CCV @200ppm                 Inst    : HP2
Misc      : 1,1 SOS60-34                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 15:59 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.86        4230018  201.162 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1005.81%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.66       90552377 3720.495 ppb
```

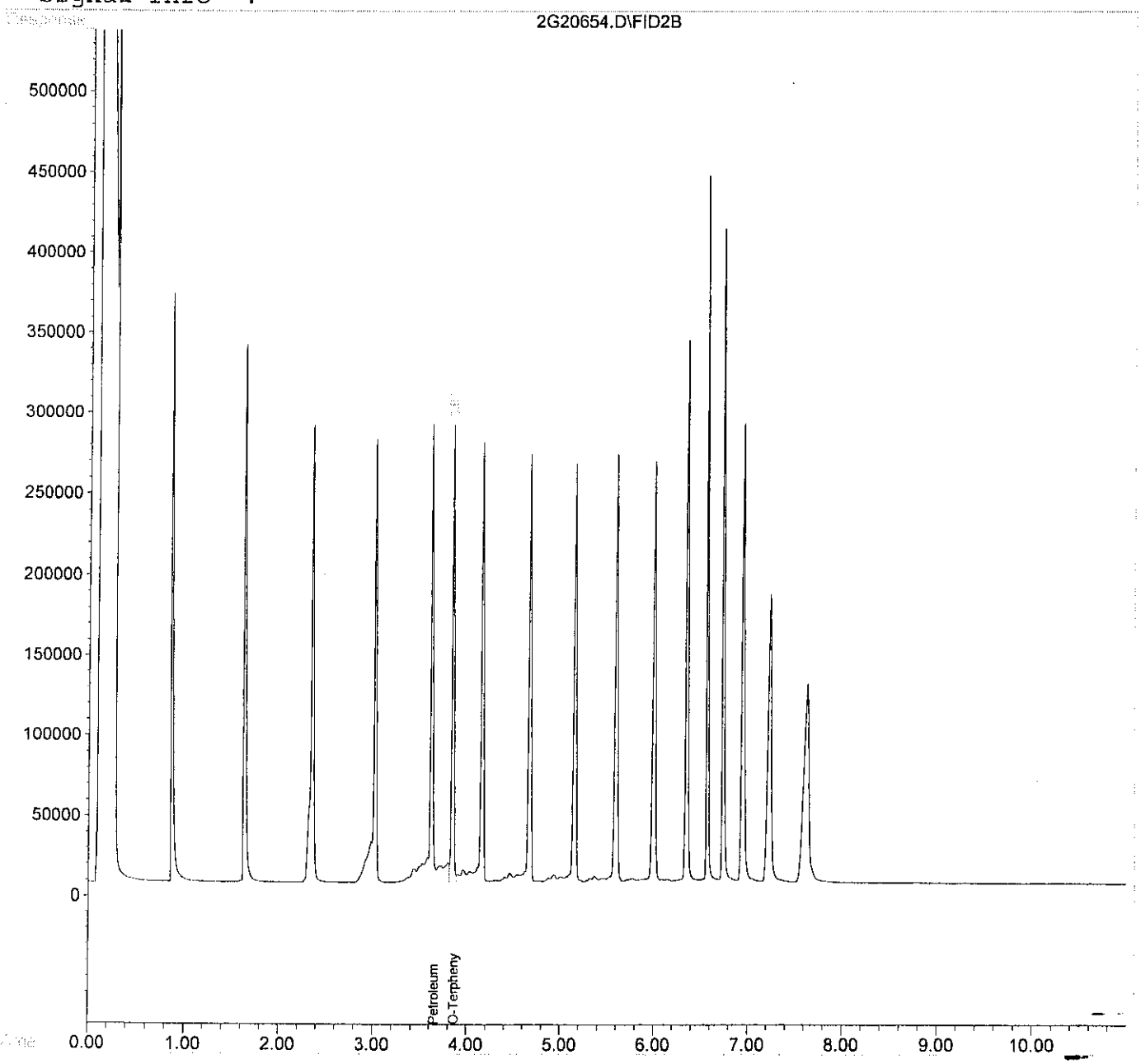
258

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
2G20654.D  FLASHPRO.M      Thu Jun 27 15:59:42 2002      HP2          Page 1
```

Data File : C:\HPCHEM\1\DATA\062702\2G20654.D Vial: 21
Acq On : 27 Jun 2002 15:48 Operator: HV
Sample : WG120634-09 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:59 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



259

Data File : C:\HPCHEM\1\DATA\062702\2G20658.D Vial: 25
Acq On : 27 Jun 2002 16:48 Operator: HV
Sample : WG120634-10 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3536.428	-4.0	100	0.00
2	s	O-Terphenyl	200.000	223.542	-11.8	114	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20658.D FLASHPRO.M Fri Jun 28 08:03:34 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20658.D Vial: 25
Acq On : 27 Jun 2002 16:48 Operator: HV
Sample : WG120634-10 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 17:00 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	4700628	223.542 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1117.71%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	86072417	3536.428 ppb

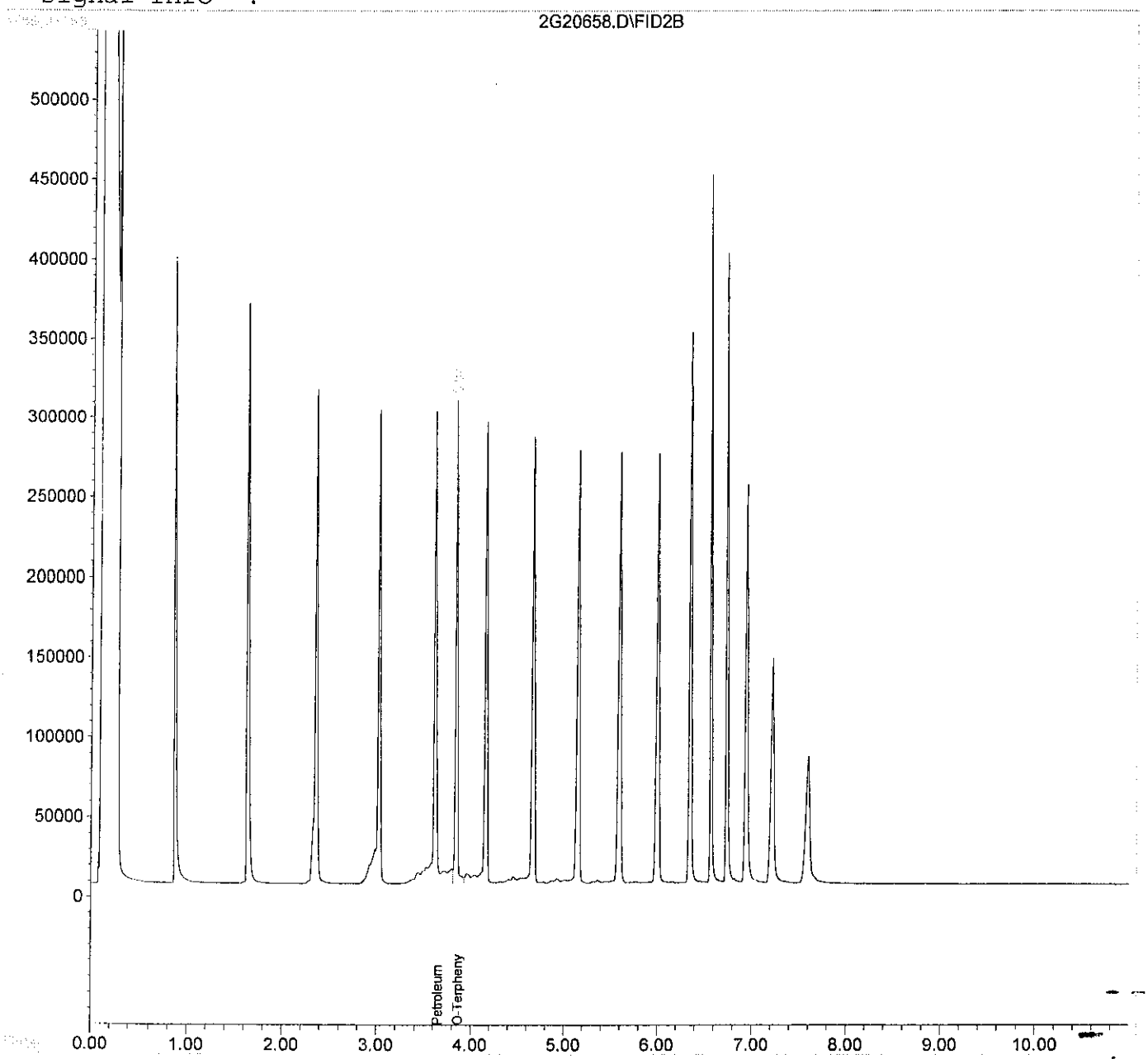
261

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

Data File : C:\HPCHEM\1\DATA\062702\2G20658.D Vial: 25
Acq On : 27 Jun 2002 16:48 Operator: HV
Sample : WG120634-10 PRO CCV @200ppm Inst : HP2
Misc : 1,1 SOS60-34 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 17:00 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



262

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-2

GC Column: RTX-5

	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

263

2.2.6.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\062702\2G20642.D Vial: 9
Acq On : 27 Jun 2002 12:15 Operator: HV
Sample : WG120327-01 BLK V186-P101 Inst : HP2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 14:13 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	383689	18.247 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	91.24%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.66	1491021	61.261 ppb

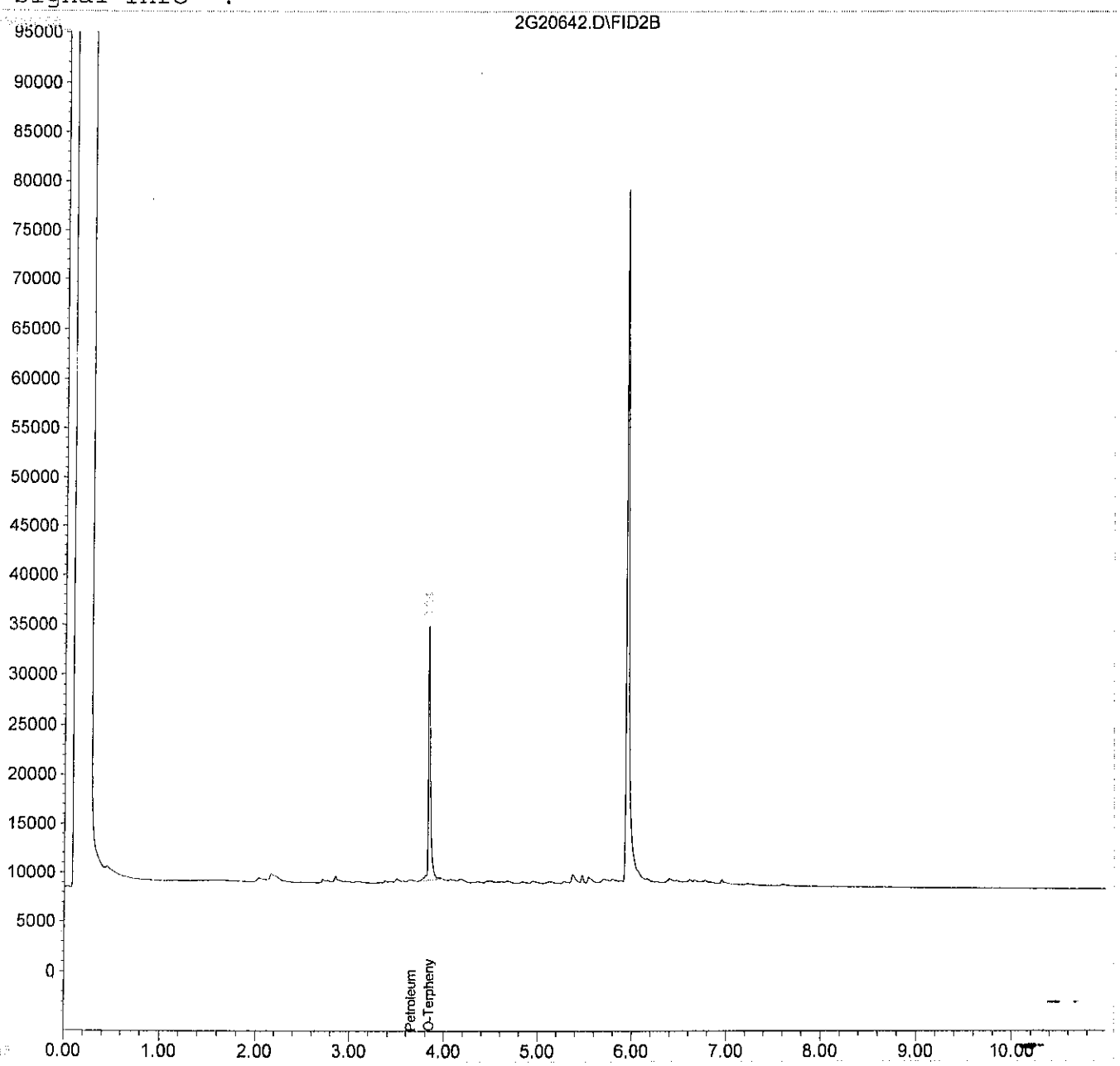
265

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20642.D FLASHPRO.M Thu Jun 27 14:56:01 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20642.D Vial: 9
Acq On : 27 Jun 2002 12:15 Operator: HV
Sample : WG120327-01 BLK V186-P101 Inst : HP2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 14:13 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



266

Data File : C:\HPCHEM\1\DATA\062702\2G20643.D Vial: 10
Acq On : 27 Jun 2002 12:30 Operator: HV
Sample : WG120327-02 LCS V186-P101 Inst : HP2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 14:13 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	486537	23.138 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	115.69%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.66	70286820	2887.851 ppb

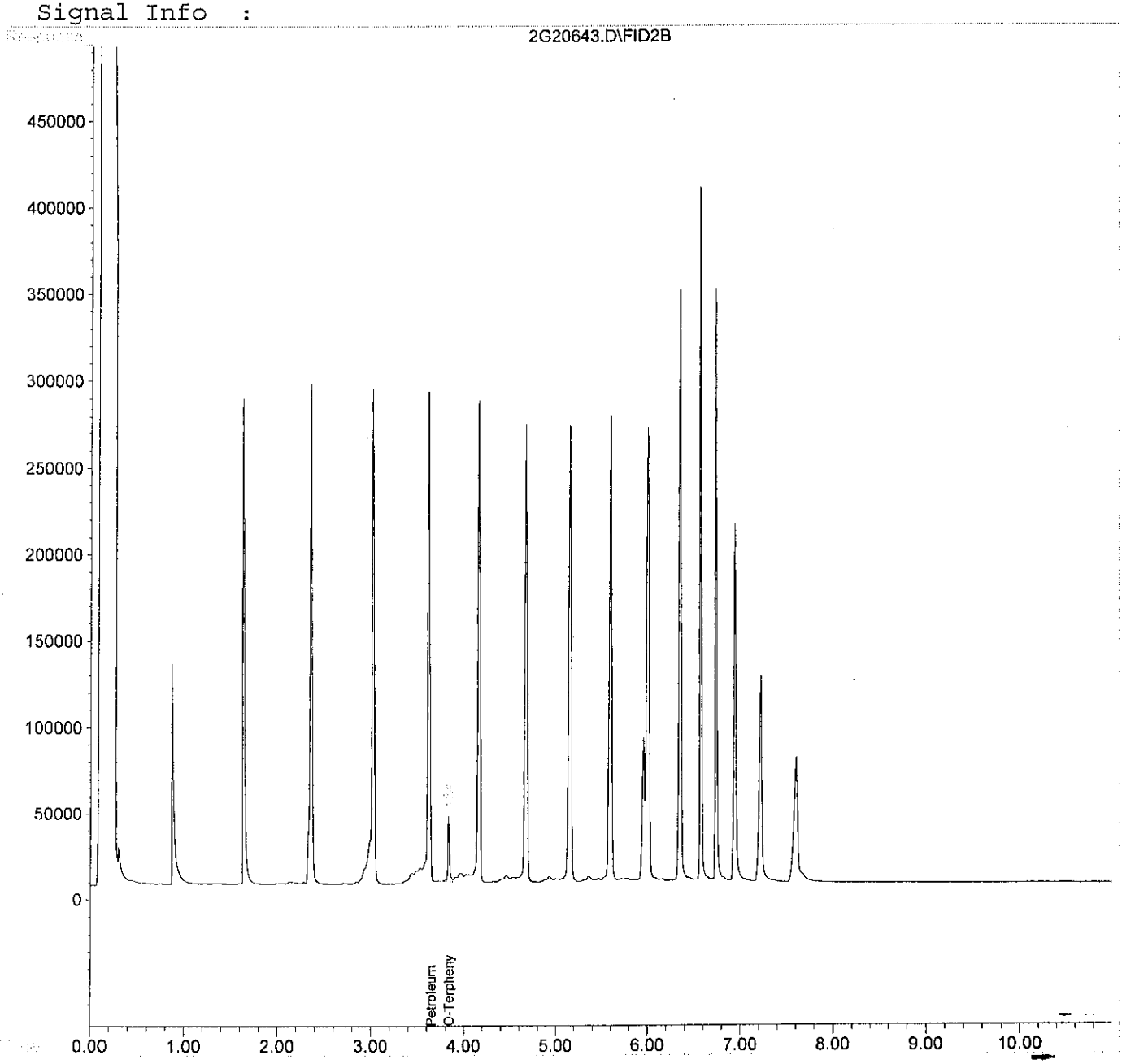
267

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20643.D FLASHPRO.M Thu Jun 27 14:56:04 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20643.D Vial: 10
Acq On : 27 Jun 2002 12:30 Operator: HV
Sample : WG120327-02 LCS V186-P101 Inst : HP2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 14:13 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



268

```
Data File : C:\HPCHEM\1\DATA\062702\2G20644.D              Vial: 11
Acq On    : 27 Jun 2002  12:45                          Operator: HV
Sample    : WG120327-03 LCS DUP V186-P101               Inst    : HP2
Misc      : 1,1 water                                   Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 14:14 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 11:47:00 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.84         482716   22.956 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  114.78%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.66       70042406 2877.809 ppb
```

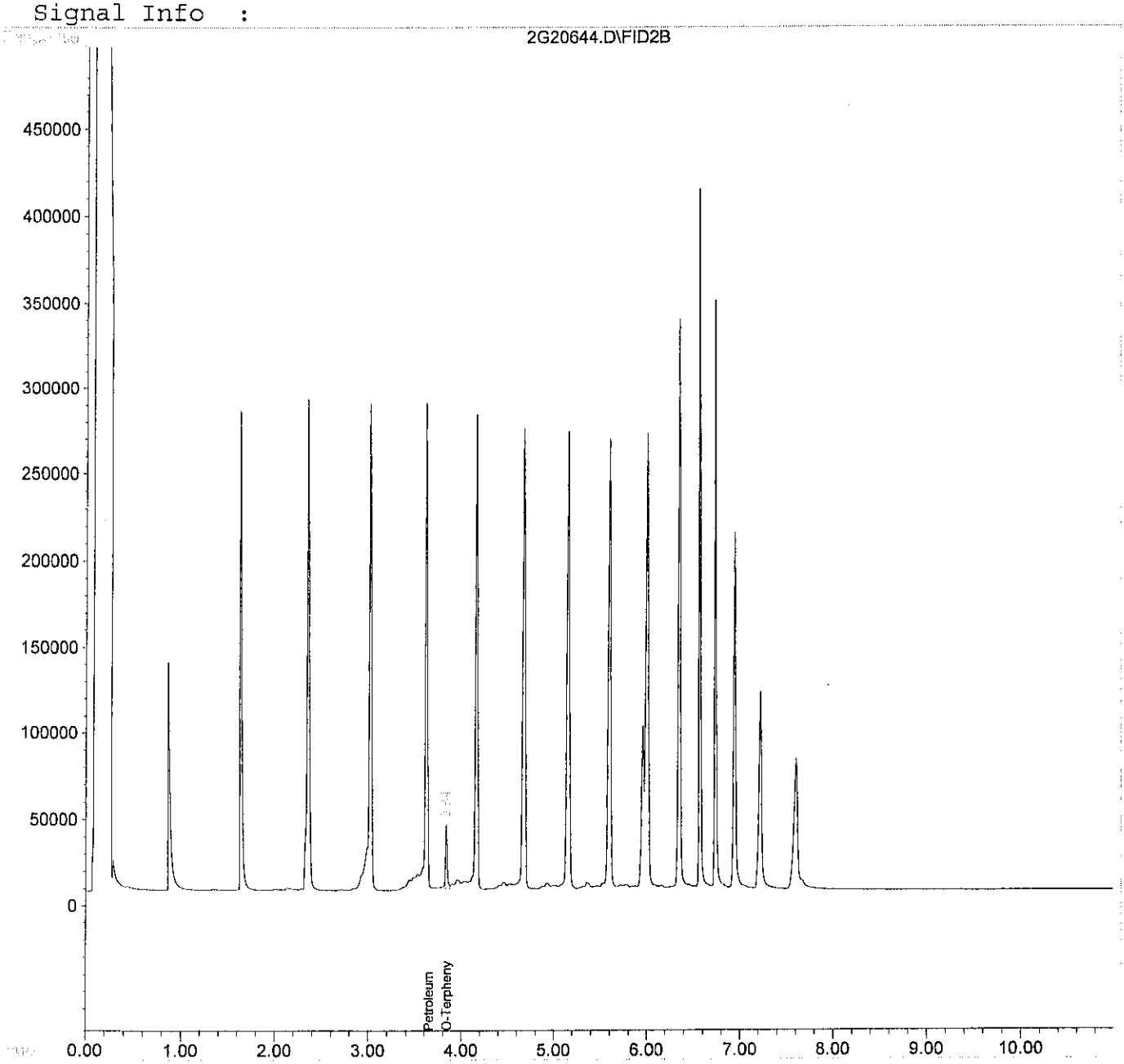
269

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

Data File : C:\HPCHEM\1\DATA\062702\2G20644.D Vial: 11
Acq On : 27 Jun 2002 12:45 Operator: HV
Sample : WG120327-03 LCS DUP V186-P101 Inst : HP2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 14:14 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 11:47:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



270

```
Data File : C:\HPCHEM\1\DATA\062702\2G20648.D              Vial: 15
Acq On    : 27 Jun 2002  13:59                          Operator: HV
Sample    : WG120337-01 BLK V186-P105                   Inst    : HP2
Misc      : 7,1 soil                                    Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 15:55 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                    3.84         352609   16.769 ppb
Spiked Amount     20.000   Range  43 - 136    Recovery    =   83.85%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   800.000                     Recovery      =    0.00%

   Target Compounds
 1) H   Petroleum Range                3.66         615714   25.298 ppb
```

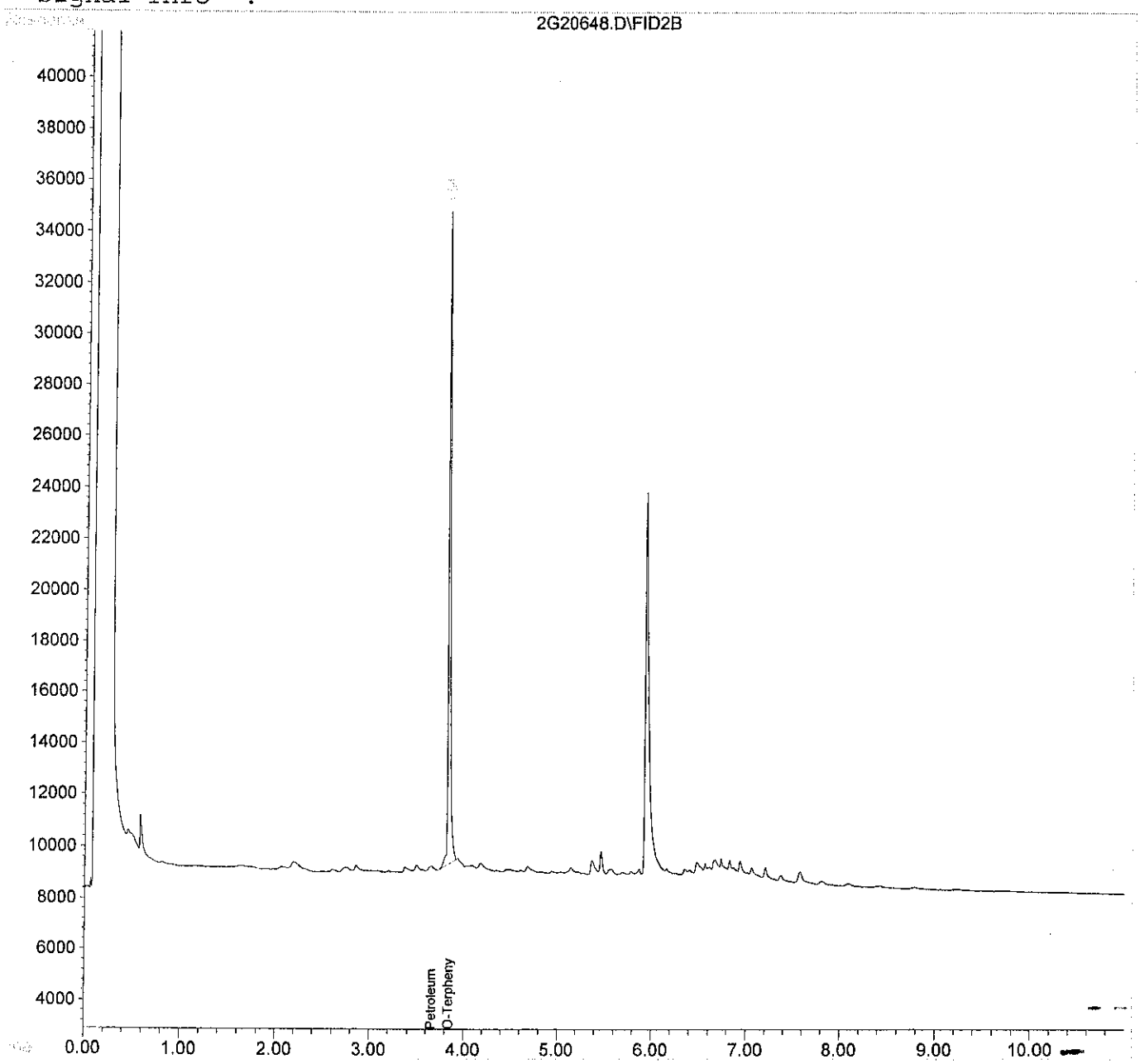
271

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
2G20648.D  FLASHPRO.M      Thu Jun 27 15:55:50 2002      HP2          Page 1
```

Data File : C:\HPCHEM\1\DATA\062702\2G20648.D Vial: 15
Acq On : 27 Jun 2002 13:59 Operator: HV
Sample : WG120337-01 BLK V186-P105 Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:55 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



272

Data File : C:\HPCHEM\1\DATA\062702\2G20649.D Vial: 16
Acq On : 27 Jun 2002 14:14 Operator: HV
Sample : WG120337-02 LCS V186-P105 Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	406697	19.341 ppb
Spiked Amount 20.000 Range 43 - 136 Recovery = 96.71%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.66	56426841	2318.390 ppb

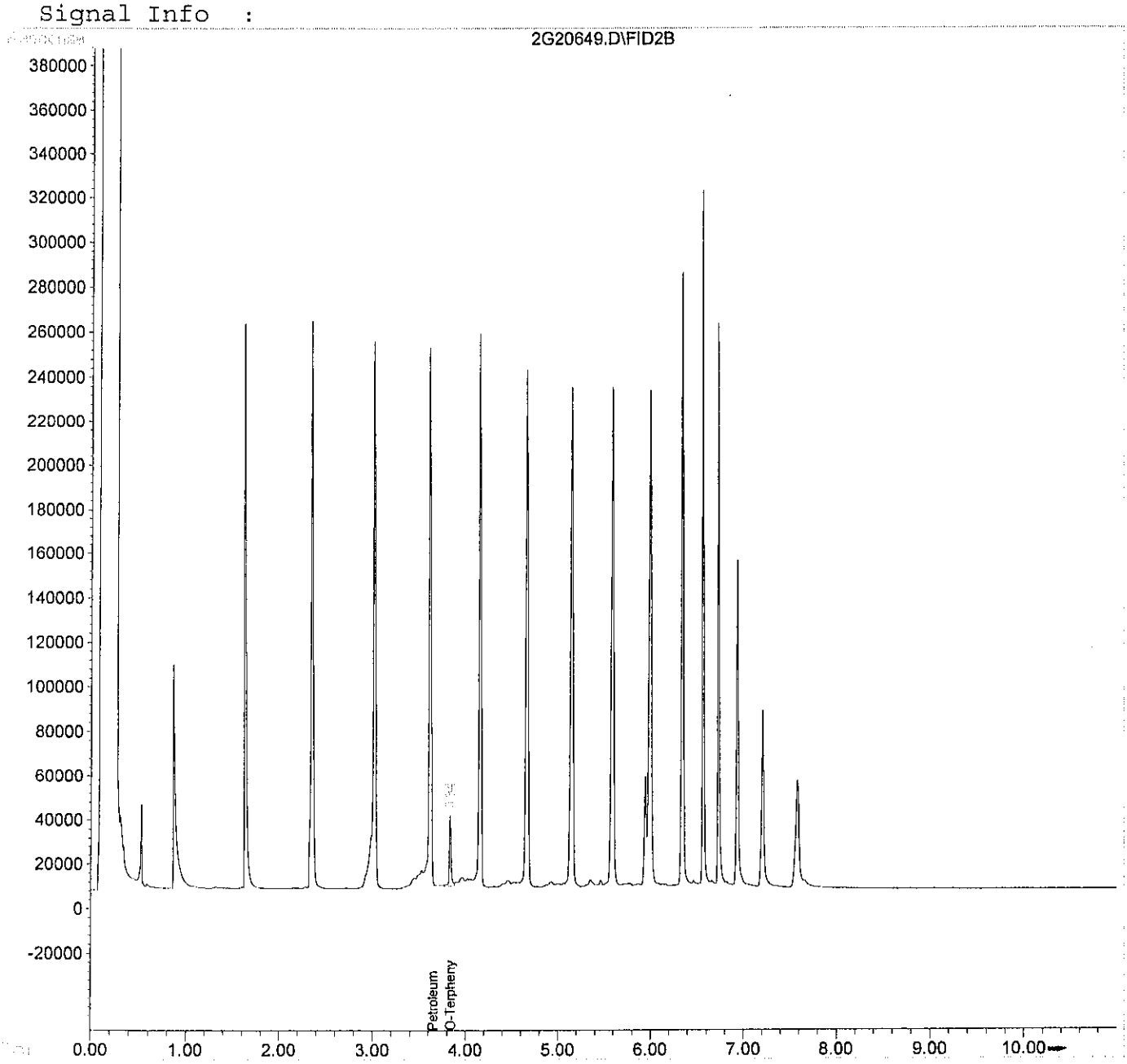
273

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

Data File : C:\HPCHEM\1\DATA\062702\2G20649.D Vial: 16
Acq On : 27 Jun 2002 14:14 Operator: HV
Sample : WG120337-02 LCS V186-P105 Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



274

```
Data File : C:\HPCHEM\1\DATA\062702\2G20650.D              Vial: 17
Acq On    : 27 Jun 2002  14:47                          Operator: HV
Sample    : WG120337-03 LCS DUP V186-P105               Inst    : HP2
Misc      : 7,1 soil                                    Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 27 15:56 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/27/02
Last Update  : Thu Jun 27 15:54:30 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.83         437662   20.813 ppb
Spiked Amount     20.000   Range  43 - 136    Recovery    =  104.07%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   800.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.66       59833053 2458.340 ppb
```

275

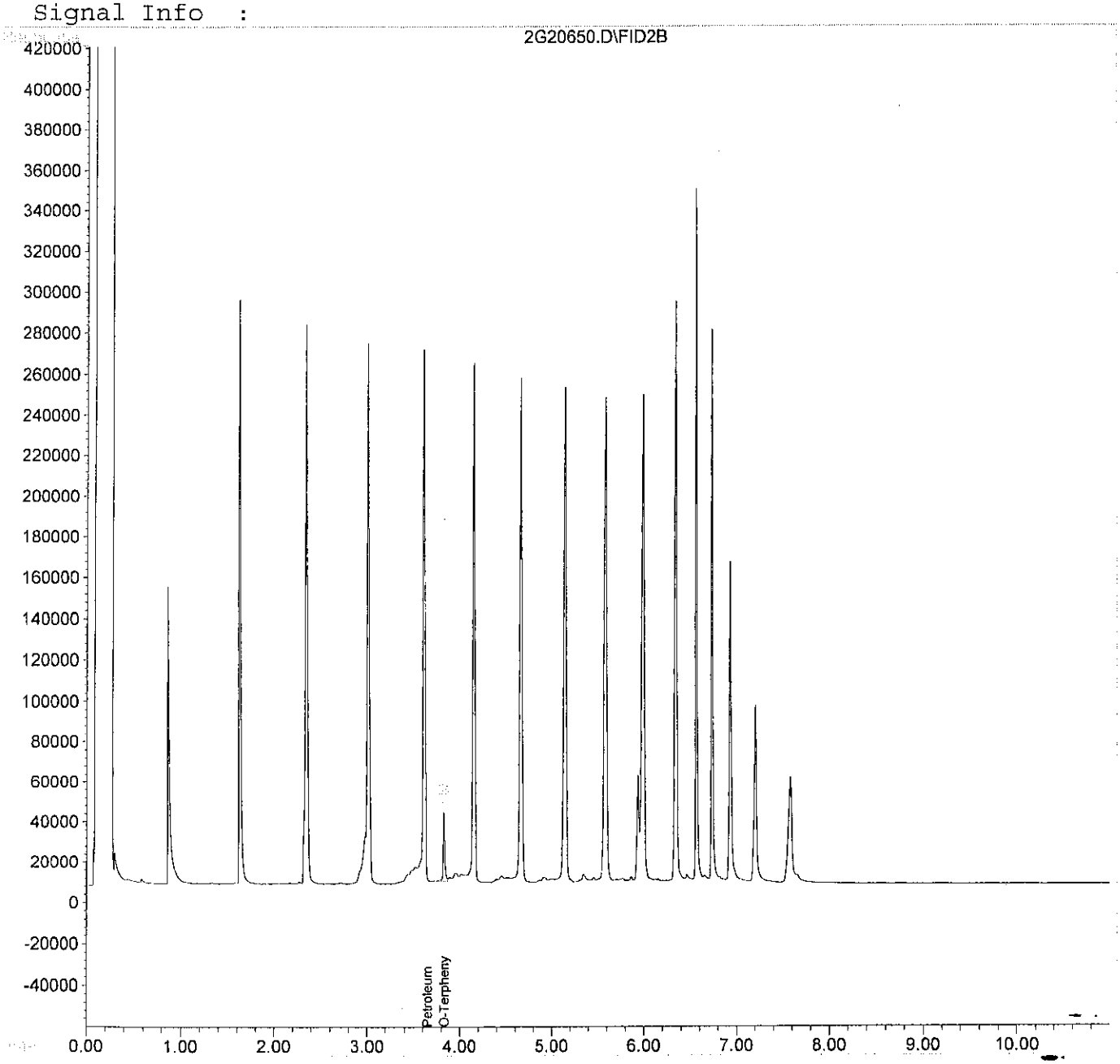
(f)=RT Delta > 1/2 Window (m)=manual int.

2G20650.D FLASHPRO.M Thu Jun 27 15:56:29 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\062702\2G20650.D Vial: 17
Acq On : 27 Jun 2002 14:47 Operator: HV
Sample : WG120337-03 LCS DUP V186-P105 Inst : HP2
Misc : 7,1 soil Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 27 15:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/27/02
Last Update : Thu Jun 27 15:54:30 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



276

Directory: c:\hpchem\1\data\062702

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20634.d	1.	mecl2	1,1	27 Jun 102 13::0
2	2	2g20635.d	1.	WG120634-06 PRO @600ppm	1,1 SOS60-34	27 Jun 102 13::2
3	3	2g20636.d	1.	WG120634-05 PRO @400ppm	1,1 SOS60-34	27 Jun 102 13::3
4	4	2g20637.d	1.	WG120634-04 PRO @200ppm	1,1 SOS60-34	27 Jun 102 13::5
5	5	2g20638.d	1.	WG120634-03 PRO @100ppm	1,1 SOS60-34	27 Jun 102 13::0
6	6	2g20639.d	1.	WG120634-02 PRO @50ppm	1,1 SOS60-34	27 Jun 102 13::2
7	7	2g20640.d	1.	WG120634-01 PRO @5ppm	1,1 SOS60-34	27 Jun 102 13::3
8	8	2g20641.d	1.	WG120634-07 ALT PRO @200ppm	1,1 SOS60-35	27 Jun 102 13::5
9	9	2g20642.d	1.	WG120327-01 BLK V186-P101	1,1 water	27 Jun 102 13::1
10	10	2g20643.d	1.	WG120327-02 LCS V186-P101	1,1 water	27 Jun 102 13::3
11	11	2g20644.d	1.	WG120327-03 LCS DUP V186-P101	1,1 water	27 Jun 102 13::4
12	12	2g20645.d	1.	L0206416-02 PRO water	1,1 water	27 Jun 102 12::0
13	13	2g20646.d	1.	L0206417-04 PRO water	1,1 water	27 Jun 102 12::1
14	14	2g20647.d	1.	WG120634-08 PRO CCV @200ppm	1,1 SOS60-34	27 Jun 102 12::3
15	15	2g20648.d	1.	WG120337-01 BLK V186-P105	7,1 soil	27 Jun 102 12::5
16	16	2g20649.d	1.	WG120337-02 LCS V186-P105	7,1 soil	27 Jun 102 12::1
17	17	2g20650.d	1.	WG120337-03 LCS DUP V186-P105	7,1 soil	27 Jun 102 12::4
18	18	2g20651.d	1.	L0206417-01 PRO soil	7,1 soil	27 Jun 102 12::0
19	19	2g20652.d	1.	RR L0206417-02 PRO soil - RR @ 5X	7,1 soil	27 Jun 102 12::1
20	20	2g20653.d	1.	L0206417-03 PRO soil	7,1 soil	27 Jun 102 12::3
21	21	2g20654.d	1.	WG120634-09 PRO CCV @200ppm	1,1 SOS60-34	27 Jun 102 12::4
22	22	2g20655.d	1.	RR L0206416-01 10X PRO soil - RR str.	7,10 soil	27 Jun 102 12::0
23	23	2g20656.d	1.	L0206416-01 PRO soil	7,1 soil	27 Jun 102 12::1
24	24	2g20657.d	1.	L0206417-02 5X PRO soil	7,5 soil	27 Jun 102 12::3
25	25	2g20658.d	1.	WG120634-10 PRO CCV @200ppm	1,1 SOS60-34	27 Jun 102 12::4

HV 6/28/02

mdeGlzslw

277

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6-27-02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 062702
Analyst Initials HV

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

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # ___ 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

278

Parameter: FLA-PRO-H2O SOP #: EXPRO Revision #: 3
Extraction Analyst(s): DP RSK TV/KD Analyst(s): DP
Date/Time Extracted: 06/24/02 0900 Date TV/KD: 06/24/02
Spike/Surrogate Analyst: DP Witness: RV
Surrogate #: ES50041-31 Earliest Hold Date: 06/27/02
Spike #: A = ES50041-07 Spike #: B = —

Extraction Work Group WG 120327
Analytical Work Group WG 120443

Extract Relinquished By: DP
Extract Received By & Date: RV 6/24/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 120327-01
2	LCS		✓					1mL						WG -02
3	LCS DUP		✓											WG -03
4	06-416-02	FLA-PRO	✓			950mL								
5	06-417-04		✓			940mL								
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 06/24/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: ER2199
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 6-24-02

Extraction Notes For Volume # 186 Page # 101

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: PRO-S SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 6-24-02 @ 09:00 Date TV/KD: 6-24-02
Spike/Surrogate Analyst: CAF Witness: [illegible]
Surrogate #: ES50041-31 Earliest Hold Date: 7/04/02
Spike #: A = ES50041-07 Spike #: B = —

Extraction Work Group WG 120337
Analytical Work Group WG TR0442

Extract Relinquished By: CAF
Extract Received By & Date: [illegible] 6/24/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank					25.01 g	1 mL		1 mL	T				WG 120337-
2	LCS					.00 g		1 mL		C				WG 120332
3	LCSDup					.09 g				C				WG 120337-2
4	06-416-01	FLA-PRO	~~10~~ 28			.08 g				O				
5	06-417-01					.09 g				C				
6	-02					.02 g				C				
7	-03					.01 g				C				
8		~~10~~ 28												
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-24-02

Methylene Chloride Lot #: 42015
Hexane Lot #: ~~41304~~ CAF 6-24-02
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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 # 186 Page # 125

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Date: _____

Analyst: HV

Method: TLA-PRD - water & soil - 06416 > level-4 ✓
06417

Instrument: HP2

Work Group: WG120443
WG120442

	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 HV 6/28/02

Secondary Reviewer Initials & Date Checked [illegible] 6/28/02

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

Supervisory Review Initials & Date Checked [illegible] 6/28/02

Comments: sample fraction 06417-02 was analyzed at 5x dilution.

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

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

		Example:
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
Where:	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0206417

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The percent reproducibility for the LCS/LCS2 analyzed with the water fraction was above the advisory limit for dibenz(a,h)anthracene.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Fractions 01and 02 yielded a percent recovery for the surrogate by the fluorescence detector which was above the advisory limit. For the same fractions all acceptance criteria were met for the surrogate by the UV detector.
Samples: Sample fractions 01, 02, and 03 were re-analyzed at a dilution in order to maintain the analysis within the range of calibration. For sample fractions 01 and 02 confirmation of acenaphthylene was determined by the UV diode array detector. 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: 7/3/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number L0206417

A. QC Summary

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

B. Sample Data

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

C. Standards Data

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

D. Raw QC Data

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

Checked By: RR Cutlip Date: 7/2/02

287

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 4L003218.R
Date Analyzed: 06/25/02
Time Analyzed: 22:24
Analyst: RDC

Work Group: WG120425
Blank Sample ID: WG120336-01
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120336-02	4L003219.R	06/25/02 23:21	01
LCS2	WG120336-03	4L003220.R	06/26/02 00:17	01
062-CEF46-SB1-S-Q2-02	L0206417-01	4L003223.R	06/26/02 03:07	01
062-CEF46-SB2-S-Q2-02	L0206417-02	4L003224.R	06/26/02 04:04	01
062-CEF46-SB14-S-Q2-02	L0206417-03	4L003225.R	06/26/02 05:00	01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 4L003218.F
Date Analyzed: 06/25/02
Time Analyzed: 22:24
Analyst: RDC

Work Group: WG120425
Blank Sample ID: WG120336-01
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120336-02	4L003219.F	06/25/02 23:21	CF01
LCS2	WG120336-03	4L003220.F	06/26/02 00:17	CF01
062-CEF46-SB1-S-Q2-02	L0206417-01	4L003223.F	06/26/02 03:07	CF01
062-CEF46-SB2-S-Q2-02	L0206417-02	4L003224.F	06/26/02 04:04	CF01
062-CEF46-SB14-S-Q2-02	L0206417-03	4L003225.F	06/26/02 05:00	CF01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 4L003213.R
Date Analyzed: 06/25/02
Time Analyzed: 17:41
Analyst: RDC

Work Group: WG120426
Blank Sample ID: WG120326-01
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120326-02	4L003214.R	06/25/02 18:37	01
LCS2	WG120326-03	4L003215.R	06/25/02 19:34	01
062-CEF46-EQB-W-Q2-02	L0206417-04	4L003217.R	06/25/02 21:27	01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0206417
Blank File ID: 4L003213.F
Date Analyzed: 06/25/02
Time Analyzed: 17:41
Analyst: RDC

Work Group: WG120426
Blank Sample ID: WG120326-01
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120326-02	4L003214.F	06/25/02 18:37	CF01
LCS2	WG120326-03	4L003215.F	06/25/02 19:34	CF01
062-CEF46-EQB-W-Q2-02	L0206417-04	4L003217.F	06/25/02 21:27	CF01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417
Run Date: 06/25/2002
Sample ID: WG120336-01
Instrument ID: HPLC4
Run Time: 22:24
Method: 8310
File ID: 4L003218.R
Analyst: RDC
Matrix: Solid
Workgroup (AAB#): WG120425
Units: ug/kg
Contract #:
Cal ID: HPLC4-19-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	55.9	165	55.9	1.00	ND
Acenaphthylene	44.9	165	44.9	1.00	ND
Anthracene	40.9	165	40.9	1.00	ND
Benzo(a)anthracene	3.79	16.5	3.79	1.00	ND
Benzo[a]pyrene	2.90	16.5	2.90	1.00	ND
Benzo(b)Fluoranthene	4.79	16.5	4.79	1.00	ND
Benzo[ghi]perylene	3.60	16.5	3.60	1.00	ND
Benzo[k]fluoranthene	2.00	16.5	2.00	1.00	ND
Chrysene	3.79	16.5	3.79	1.00	ND
Dibenz(a,h)Anthracene	4.49	16.5	4.49	1.00	ND
Fluoranthene	3.70	16.5	3.70	1.00	ND
Fluorene	56.9	165	56.9	1.00	ND
Indeno(1,2,3-cd)pyrene	3.20	16.5	3.20	1.00	ND
Naphthalene	62.9	165	62.9	1.00	ND
2-Methylnaphthalene	4.56	165	4.56	1.00	ND
Phenanthrene	46.9	165	46.9	1.00	ND
Pyrene	3.70	16.5	3.70	1.00	ND
1-Methylnaphthalene	5.24	165	5.24	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	88.3	50 - 150	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417 Run Date: 06/25/2002 Sample ID: WG120336-01
Instrument ID: HPLC4 Run Time: 22:24 Method: 8310
File ID: 4L003218.F Analyst: RDC Matrix: Solid
Workgroup (AAB#): WG120425 Units: ug/kg
Contract #: Cal ID: HPLC4-19-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	55.9	165	55.9	1.00	ND
Acenaphthylene	44.9	165	44.9	1.00	ND
Anthracene	40.9	165	40.9	1.00	ND
Benzo(a)anthracene	3.79	16.5	3.79	1.00	ND
Benzo[a]pyrene	2.90	16.5	2.90	1.00	ND
Benzo(b)Fluoranthene	4.79	16.5	4.79	1.00	ND
Benzo[ghi]perylene	3.60	16.5	3.60	1.00	ND
Benzo[k]fluoranthene	2.00	16.5	2.00	1.00	ND
Chrysene	3.79	16.5	3.79	1.00	ND
Dibenz(a,h)Anthracene	4.49	16.5	4.49	1.00	ND
Fluoranthene	3.70	16.5	3.70	1.00	ND
Fluorene	56.9	165	56.9	1.00	ND
Indeno(1,2,3-cd)pyrene	3.20	16.5	3.20	1.00	ND
Naphthalene	62.9	165	62.9	1.00	ND
2-Methylnaphthalene	4.56	165	4.56	1.00	ND
Phenanthrene	46.9	165	46.9	1.00	ND
Pyrene	3.70	16.5	3.70	1.00	ND
1-Methylnaphthalene	5.24	165	5.24	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	87.2	50 - 150	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417
Instrument ID: HPLC4
File ID: 4L003213.R
Workgroup (AAB#): WG120426
Contract #:

Run Date: 06/25/2002
Run Time: 17:41
Analyst: RDC

Sample ID: WG120326-01
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	4.15	10.0	4.15	1.00	ND
Acenaphthylene	3.51	10.0	3.51	1.00	ND
Anthracene	2.85	10.0	2.85	1.00	ND
Benzo(a)anthracene	0.300	2.00	0.300	1.00	ND
Benzo[a]pyrene	0.530	2.00	0.530	1.00	ND
Benzo(b)Fluoranthene	0.340	2.00	0.340	1.00	ND
Benzo[ghi]perylene	0.500	2.00	0.500	1.00	ND
Benzo[k]fluoranthene	0.720	2.00	0.720	1.00	ND
Chrysene	0.240	2.00	0.240	1.00	ND
Dibenz(a,h)Anthracene	0.770	2.00	0.770	1.00	ND
Fluoranthene	0.500	2.00	0.500	1.00	ND
Fluorene	5.59	10.0	5.59	1.00	ND
Indeno(1,2,3-cd)pyrene	0.800	2.00	0.800	1.00	ND
Naphthalene	3.59	10.0	3.59	1.00	ND
2-Methylnaphthalene	3.36	10.0	3.36	1.00	ND
1-Methylnaphthalene	3.62	10.0	3.62	1.00	ND
Phenanthrene	2.87	10.0	2.87	1.00	ND
Pyrene	0.680	2.00	0.680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	81.2	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206417
Instrument ID: HPLC4
File ID: 4L003213.F
Workgroup (AAB#): WG120426
Contract #:

Run Date: 06/25/2002
Run Time: 17:41
Analyst: RDC

Sample ID: WG120326-01
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	4.15	10.0	4.15	1.00	ND
Acenaphthylene	3.51	10.0	3.51	1.00	ND
Anthracene	2.85	10.0	2.85	1.00	ND
Benzo(a)anthracene	0.300	2.00	0.300	1.00	ND
Benzo[a]pyrene	0.530	2.00	0.530	1.00	ND
Benzo(b)Fluoranthene	0.340	2.00	0.340	1.00	ND
Benzo[ghi]perylene	0.500	2.00	0.500	1.00	ND
Benzo[k]fluoranthene	0.720	2.00	0.720	1.00	ND
Chrysene	0.240	2.00	0.240	1.00	ND
Dibenz(a,h)Anthracene	0.770	2.00	0.770	1.00	ND
Fluoranthene	0.500	2.00	0.500	1.00	ND
Fluorene	5.59	10.0	5.59	1.00	ND
Indeno(1,2,3-cd)pyrene	0.800	2.00	0.800	1.00	ND
Naphthalene	3.59	10.0	3.59	1.00	ND
2-Methylnaphthalene	3.36	10.0	3.36	1.00	ND
1-Methylnaphthalene	3.62	10.0	3.62	1.00	ND
Phenanthrene	2.87	10.0	2.87	1.00	ND
Pyrene	0.680	2.00	0.680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	80.6	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Instrument ID: HPLC4
File ID: 4L003219.R
Workgroup (AAB#): WG120425
Contract #:

Run Date: 06/25/2002
Run Time: 23:21
Analyst: RDC

Sample ID: WG120336-02
Method: 8310
Matrix: Solid
Units: ug/kg
Cal ID: HPLC4-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	1660	795	47.8	24 - 100	
Acenaphthylene	1660	782	47.0	26 - 94	
Anthracene	1660	987	59.4	40 - 92	
Benzo(a)anthracene	166	139	83.7	60 - 107	
Benzo[a]pyrene	166	120	72.0	51 - 101	
Benzo(b)Fluoranthene	166	142	85.1	61 - 108	
Benzo[ghi]perylene	166	140	84.4	53 - 118	
Benzo[k]fluoranthene	83.1	71.4	85.8	59 - 112	
Chrysene	166	145	87.2	60 - 104	
Dibenz(a,h)Anthracene	166	142	85.4	58 - 113	
Fluoranthene	166	121	73.1	54 - 105	
Fluorene	1660	847	50.9	28 - 98	
Indeno(1,2,3-cd)pyrene	166	141	85.1	58 - 105	
Naphthalene	1660	796	47.9	22 - 85	
2-Methylnaphthalene	1660	787	47.3	26 - 94	
Phenanthrene	1660	889	53.5	38 - 102	
Pyrene	166	125	75.0	50 - 108	
1-Methylnaphthalene	1660	776	46.7	26 - 94	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	88.6	50 - 150	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Instrument ID: HPLC4
File ID: 4L003219.F
Workgroup (AAB#): WG120425
Contract #:

Run Date: 06/25/2002
Run Time: 23:21
Analyst: RDC

Sample ID: WG120336-02
Method: 8310
Matrix: Solid
Units: ug/kg
Cal ID: HPLC4-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	1660	793	47.7	24 - 100	
Acenaphthylene	1660		0	26 - 94	*
Anthracene	1660	967	58.2	40 - 92	
Benzo(a)anthracene	166	138	83.2	60 - 107	
Benzo[a]pyrene	166	121	72.5	51 - 101	
Benzo(b)Fluoranthene	166	143	86.0	61 - 108	
Benzo[ghi]perylene	166	141	84.7	53 - 118	
Benzo[k]fluoranthene	83.1	71.1	85.5	59 - 112	
Chrysene	166	142	85.2	60 - 104	
Dibenz(a,h)Anthracene	166	141	84.7	58 - 113	
Fluoranthene	166	126	75.6	54 - 105	
Fluorene	1660	834	50.1	28 - 98	
Indeno(1,2,3-cd)pyrene	166	140	84.4	58 - 105	
Naphthalene	1660	767	46.1	22 - 85	
2-Methylnaphthalene	1660	785	47.2	26 - 94	
Phenanthrene	1660	901	54.2	38 - 102	
Pyrene	166	131	78.7	50 - 108	
1-Methylnaphthalene	1660	781	47.0	26 - 94	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	89.7	50 - 150	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Instrument ID: HPLC4
File ID: 4L003214.R
Workgroup (AAB#): WG120426
Contract #:

Run Date: 06/25/2002
Run Time: 18:37
Analyst: RDC

Sample ID: WG120326-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	20.2	40.5	25 - 78	
Acenaphthylene	50	20.3	40.5	25 - 77	
Anthracene	50	36.0	72.0	47 - 101	
Benzo(a)anthracene	5	4.05	80.9	50 - 115	
Benzo[a]pyrene	5	3.04	60.8	29 - 113	
Benzo(b)Fluoranthene	5	3.36	67.2	41 - 110	
Benzo[ghi]perylene	5	1.85	37.0	11 - 84	
Benzo[k]fluoranthene	2.5	1.42	56.9	25 - 107	
Chrysene	5	3.61	72.2	39 - 120	
Dibenz(a,h)Anthracene	5	1.76	35.2	10 - 92	
Fluoranthene	5	3.77	75.5	55 - 104	
Fluorene	50	24.3	48.6	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.25	44.9	16 - 98	
Naphthalene	50	19.4	38.7	25 - 68	
2-Methylnaphthalene	50	19.8	39.6	26 - 72	
1-Methylnaphthalene	50	19.3	38.6	26 - 71	
Phenanthrene	50	27.4	54.8	39 - 95	
Pyrene	5	3.85	76.9	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	64.2	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206417
Instrument ID: HPLC4
File ID: 4L003214.F
Workgroup (AAB#): WG120426
Contract #:

Run Date: 06/25/2002
Run Time: 18:37
Analyst: RDC

Sample ID: WG120326-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	20.2	40.4	25 - 78	
Acenaphthylene	50		0	25 - 77	*
Anthracene	50	35.0	70.0	47 - 101	
Benzo(a)anthracene	5	4.03	80.6	50 - 115	
Benzo[a]pyrene	5	3.06	61.1	29 - 113	
Benzo(b)Fluoranthene	5	3.34	66.8	41 - 110	
Benzo[ghi]perylene	5	1.86	37.2	11 - 84	
Benzo[k]fluoranthene	2.5	1.41	56.2	25 - 107	
Chrysene	5	3.66	73.2	39 - 120	
Dibenz(a,h)Anthracene	5	1.79	35.7	10 - 92	
Fluoranthene	5	3.83	76.6	55 - 104	
Fluorene	50	23.8	47.5	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.13	42.6	16 - 98	
Naphthalene	50	18.7	37.4	25 - 68	
2-Methylnaphthalene	50	19.6	39.2	26 - 72	
1-Methylnaphthalene	50	19.2	38.4	26 - 71	
Phenanthrene	50	27.8	55.6	39 - 95	
Pyrene	5	4.01	80.2	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	63.5	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206417 Worknum: WG120425 Method: 8310
Instrument ID: HPLC4 Cal ID: HPLC4-19-JUN-2002 Matrix: Solid
Analyst: RDC Contract #: Units: ug/kg
Sample ID: WG120336-02 LCS File ID: 4L003219.R Run Date: 06/25/2002 23:21
Sample ID: WG120336-03 LCS2 File ID: 4L003220.R Run Date: 06/26/2002 00:17

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	1660	795	47.8	1660	873	52.5	9.37	24 - 100	40	
Acenaphthylene	1660	782	47.0	1660	856	51.5	9.04	26 - 94	40	
Anthracene	1660	987	59.4	1660	1180	70.8	17.6	40 - 92	40	
Benzo(a)anthracene	166	139	83.7	166	146	88.0	5.07	60 - 107	40	
Benzo[a]pyrene	166	120	72.0	166	128	77.2	7.03	51 - 101	40	
Benzo(b)Fluoranthene	166	142	85.1	166	150	90.0	5.66	61 - 108	40	
Benzo[ghi]perylene	166	140	84.4	166	147	88.4	4.69	53 - 118	40	
Benzo[k]fluoranthene	83.1	71.4	85.8	83.2	75.3	90.5	5.35	59 - 112	40	
Chrysene	166	145	87.2	166	152	91.5	4.81	60 - 104	40	
Dibenz(a,h)Anthracene	166	142	85.4	166	150	90.4	5.71	58 - 113	40	
Fluoranthene	166	121	73.1	166	136	82.0	11.5	54 - 105	40	
Fluorene	1660	847	50.9	1660	995	59.8	16.1	28 - 98	40	
Indeno(1,2,3-cd)pyrene	166	141	85.1	166	150	89.9	5.59	58 - 105	40	
Naphthalene	1660	796	47.9	1660	846	50.9	6.09	22 - 85	40	
2-Methylnaphthalene	1660	787	47.3	1660	850	51.1	7.63	26 - 94	40	
Phenanthrene	1660	889	53.5	1660	1090	65.5	20.3	38 - 102	40	
Pyrene	166	125	75.0	166	138	83.0	10.3	50 - 108	40	
1-Methylnaphthalene	1660	776	46.7	1660	835	50.2	7.31	26 - 94	40	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
p-terphenyl-d14	88.6	92.1	50 - 150	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 06/14/2002
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206417 Worknum: WG120425 Method: 8310
Instrument ID: HPLC4 Cal ID: HPLC4-19-JUN-2002 Matrix: Solid
Analyst: RDC Contract #: Units: ug/kg
Sample ID: WG120336-02 LCS File ID: 4L003219.F Run Date: 06/25/2002 23:21
Sample ID: WG120336-03 LCS2 File ID: 4L003220.F Run Date: 06/26/2002 00:17

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	1660	793	47.7	1660	870	52.3	9.29	24 - 100	40	
Acenaphthylene	1660			1660				26 - 94	40	*
Anthracene	1660	967	58.2	1660	1150	69.3	17.5	40 - 92	40	
Benzo(a)anthracene	166	138	83.2	166	146	87.7	5.31	60 - 107	40	
Benzo[a]pyrene	166	121	72.5	166	129	77.4	6.59	51 - 101	40	
Benzo(b)Fluoranthene	166	143	86.0	166	150	90.3	4.96	61 - 108	40	
Benzo[ghi]perylene	166	141	84.7	166	147	88.6	4.57	53 - 118	40	
Benzo[k]fluoranthene	83.1	71.1	85.5	83.2	74.7	89.8	4.88	59 - 112	40	
Chrysene	166	142	85.2	166	148	89.0	4.48	60 - 104	40	
Dibenz(a,h)Anthracene	166	141	84.7	166	148	89.0	4.98	58 - 113	40	
Fluoranthene	166	126	75.6	166	141	84.9	11.7	54 - 105	40	
Fluorene	1660	834	50.1	1660	984	59.2	16.6	28 - 98	40	
Indeno(1,2,3-cd)pyrene	166	140	84.4	166	148	89.1	5.41	58 - 105	40	
Naphthalene	1660	767	46.1	1660	815	49.0	6.08	22 - 85	40	
2-Methylnaphthalene	1660	785	47.2	1660	848	51.0	7.61	26 - 94	40	
Phenanthrene	1660	901	54.2	1660	1110	66.5	20.5	38 - 102	40	
Pyrene	166	131	78.7	166	143	86.2	9.15	50 - 108	40	
1-Methylnaphthalene	1660	781	47.0	1660	840	50.5	7.23	26 - 94	40	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
p-terphenyl-d14	89.7	91.8	-	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206417 Worknum: WG120426 Method: 8310
Instrument ID: HPLC4 Cal ID: HPLC4-19-JUN-2002 Matrix: Water
Analyst: RDC Contract #: Units: ug/L
Sample ID: WG120326-02 LCS File ID: 4L003214.R Run Date: 06/25/2002 18:37
Sample ID: WG120326-03 LCS2 File ID: 4L003215.R Run Date: 06/25/2002 19:34

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	50.0	20.2	40.5	50.0	20.4	40.7	.643	25 - 78	50	
Acenaphthylene	50.0	20.3	40.5	50.0	20.4	40.7	.521	25 - 77	50	
Anthracene	50.0	36.0	72.0	50.0	37.4	74.8	3.85	47 - 101	50	
Benzo(a)anthracene	5.00	4.05	80.9	5.00	4.61	92.2	13	50 - 115	50	
Benzo[a]pyrene	5.00	3.04	60.8	5.00	3.76	75.2	21.2	29 - 113	50	
Benzo(b)Fluoranthene	5.00	3.36	67.2	5.00	3.99	79.8	17.1	41 - 110	50	
Benzo[ghi]perylene	5.00	1.85	37.0	5.00	3.08	61.7	49.9	11 - 84	50	
Benzo[k]fluoranthene	2.50	1.42	56.9	2.50	1.86	74.4	26.7	25 - 107	50	
Chrysene	5.00	3.61	72.2	5.00	4.47	89.4	21.2	39 - 120	50	
Dibenz(a,h)Anthracene	5.00	1.76	35.2	5.00	3.04	60.7	53.1	10 - 92	50	#
Fluoranthene	5.00	3.77	75.5	5.00	4.02	80.4	6.27	55 - 104	50	
Fluorene	50.0	24.3	48.6	50.0	24.6	49.2	1.17	29 - 84	50	
Indeno(1,2,3-cd)pyrene	5.00	2.25	44.9	5.00	3.20	63.9	35	16 - 98	50	
Naphthalene	50.0	19.4	38.7	50.0	19.2	38.5	.618	25 - 68	50	
2-Methylnaphthalene	50.0	19.8	39.6	50.0	19.7	39.5	.423	26 - 72	50	
1-Methylnaphthalene	50.0	19.3	38.6	50.0	19.2	38.5	.244	26 - 71	50	
Phenanthrene	50.0	27.4	54.8	50.0	28.6	57.1	4.2	39 - 95	50	
Pyrene	5.00	3.85	76.9	5.00	4.12	82.5	6.93	56 - 104	50	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
p-terphenyl-d14	64.2	85.6	40 - 132	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 06/14/2002
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206417 Worknum: WG120426 Method: 8310
Instrument ID: HPLC4 Cal ID: HPLC4-19-JUN-2002 Matrix: Water
Analyst: RDC Contract #: Units: ug/L
Sample ID: WG120326-02 LCS File ID: 4L003214.F Run Date: 06/25/2002 18:37
Sample ID: WG120326-03 LCS2 File ID: 4L003215.F Run Date: 06/25/2002 19:34

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	50.0	20.2	40.4	50.0	20.4	40.8	.975	25 - 78	50	
Acenaphthylene	50.0			50.0				25 - 77	50	*
Anthracene	50.0	35.0	70.0	50.0	36.4	72.9	4.07	47 - 101	50	
Benzo(a)anthracene	5.00	4.03	80.6	5.00	4.61	92.2	13.4	50 - 115	50	
Benzo[a]pyrene	5.00	3.06	61.1	5.00	3.81	76.3	22.1	29 - 113	50	
Benzo(b)Fluoranthene	5.00	3.34	66.8	5.00	3.99	79.8	17.8	41 - 110	50	
Benzo[ghi]perylene	5.00	1.86	37.2	5.00	3.17	63.4	52.2	11 - 84	50	#
Benzo[k]fluoranthene	2.50	1.41	56.2	2.50	1.85	74.1	27.4	25 - 107	50	
Chrysene	5.00	3.66	73.2	5.00	4.54	90.9	21.6	39 - 120	50	
Dibenz(a,h)Anthracene	5.00	1.79	35.7	5.00	3.07	61.4	52.9	10 - 92	50	#
Fluoranthene	5.00	3.83	76.6	5.00	4.11	82.2	6.98	55 - 104	50	
Fluorene	50.0	23.8	47.5	50.0	24.1	48.2	1.3	29 - 84	50	
Indeno(1,2,3-cd)pyrene	5.00	2.13	42.6	5.00	3.17	63.4	39.1	16 - 98	50	
Naphthalene	50.0	18.7	37.4	50.0	18.7	37.4	.0733	25 - 68	50	
2-Methylnaphthalene	50.0	19.6	39.2	50.0	19.6	39.2	.0769	26 - 72	50	
1-Methylnaphthalene	50.0	19.2	38.4	50.0	19.2	38.5	.114	26 - 71	50	
Phenanthrene	50.0	27.8	55.6	50.0	29.0	57.9	4.16	39 - 95	50	
Pyrene	5.00	4.01	80.2	5.00	4.34	86.9	7.95	56 - 104	50	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
p-terphenyl-d14	63.5	84.0	40 - 132	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

AAB#: WG120425

Analytical Method: 8310
Login Number: L0206417

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-SB1-S-Q2-02	06/20/02	06/21/02	06/24/02	14	3.85	06/26/02	40	1.74	
062-CEF46-SB14-S-Q2-02	06/20/02	06/21/02	06/24/02	14	3.80	06/26/02	40	1.82	
062-CEF46-SB2-S-Q2-02	06/20/02	06/21/02	06/24/02	14	3.86	06/26/02	40	1.78	

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

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG120426

Login Number: L0206417

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-EQB-W-Q2-02	06/20/02	06/21/02	06/24/02	7	3.79	06/25/02	40	1.52	

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

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HPLC4
Workgroup (AAB#): WG120425

Method: 8310
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0206417-01	1.00	01	96.2
L0206417-01	1.00	CF01	209
L0206417-02	1.00	01	99.6
L0206417-02	1.00	CF01	536
L0206417-03	1.00	01	81.2
L0206417-03	1.00	CF01	87.8
WG120336-01	1.00	01	88.3
WG120336-01	1.00	CF01	87.2
WG120336-02	1.00	01	88.6
WG120336-02	1.00	CF01	89.7
WG120336-03	1.00	01	92.1
WG120336-03	1.00	CF01	91.8

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	50	-	150

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206417
Instrument Id: HPLC4
Workgroup (AAB#): WG120426

Method: 8310
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206417-04	1.00	01	96.1
L0206417-04	1.00	CF01	95.3
WG120326-01	1.00	01	81.2
WG120326-01	1.00	CF01	80.6
WG120326-02	1.00	01	64.2
WG120326-02	1.00	CF01	63.5
WG120326-03	1.00	01	85.6
WG120326-03	1.00	CF01	84.0

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 6/20/2002 8:52:08 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 : Included
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
9.370	2	1	1.00000	121.88613	8.20438e-3			Naphthalene #1
		2	5.00000	604.13025	8.27636e-3			
		3	10.00000	1256.01123	7.96171e-3			
		4	20.00000	2522.50317	7.92863e-3			
		5	50.00000	6248.73438	8.00162e-3			
		6	100.00000	1.21595e4	8.22402e-3			
9.388	1	1	1.00000	35.50560	2.81646e-2			Naphthalene #1
		2	5.00000	180.32388	2.77279e-2			
		3	10.00000	372.80032	2.68240e-2			
		4	20.00000	753.95251	2.65269e-2			
		5	50.00000	1881.29065	2.65775e-2			
		6	100.00000	3818.87573	2.61857e-2			
10.995	2	1	1.00000	31.70620	3.15396e-2			Acenaphthylene #2
		2	5.00000	161.28902	3.10003e-2			
		3	10.00000	327.28607	3.05543e-2			
		4	20.00000	658.61700	3.03667e-2			
		5	50.00000	1646.95264	3.03591e-2			
		6	100.00000	3352.51904	2.98283e-2			
11.942	2	1	1.00000	72.22427	1.38458e-2			1-Methylnaphthalene #3

[min]	Sig		[ug/L]			
		2	5.00000	369.24078	1.35413e-2	
		3	10.00000	764.27496	1.30843e-2	
		4	20.00000	1542.24731	1.29681e-2	
		5	50.00000	3853.44678	1.29754e-2	
		6	100.00000	7760.07324	1.28865e-2	
11.959	1	1	1.00000	40.92273	2.44363e-2	1-Methylnaphthalene #3
		2	5.00000	206.59302	2.42022e-2	
		3	10.00000	427.56720	2.33881e-2	
		4	20.00000	858.01282	2.33097e-2	
		5	50.00000	2153.76392	2.32152e-2	
		6	100.00000	4358.92773	2.29414e-2	
12.516	2	1	1.00000	85.91975	1.16388e-2	2-Methylnaphthalene #4
		2	5.00000	431.87616	1.15774e-2	
		3	10.00000	893.57037	1.11911e-2	
		4	20.00000	1796.91260	1.11302e-2	
		5	50.00000	4472.15283	1.11803e-2	
		6	100.00000	8891.12988	1.12472e-2	
12.534	1	1	1.00000	53.13324	1.88206e-2	2-Methylnaphthalene #4
		2	5.00000	268.34698	1.86326e-2	
		3	10.00000	555.46735	1.80029e-2	
		4	20.00000	1119.16992	1.78704e-2	
		5	50.00000	2790.36157	1.79188e-2	
		6	100.00000	5631.00635	1.77588e-2	
12.994	2	1	1.00000	46.04076	2.17199e-2	Acenaphthene #5
		2	5.00000	232.43697	2.15112e-2	
		3	10.00000	481.32138	2.07761e-2	
		4	20.00000	969.13959	2.06369e-2	
		5	50.00000	2425.16016	2.06172e-2	
		6	100.00000	4910.46826	2.03647e-2	
13.012	1	1	1.00000	67.65919	1.47800e-2	Acenaphthene #5
		2	5.00000	339.82239	1.47136e-2	
		3	10.00000	703.58374	1.42129e-2	
		4	20.00000	1418.85522	1.40959e-2	
		5	50.00000	3535.51440	1.41422e-2	
		6	100.00000	7085.17041	1.41140e-2	
13.645	2	1	1.00000	52.90672	1.89012e-2	Fluorene #6
		2	5.00000	269.75366	1.85354e-2	
		3	10.00000	559.61633	1.78694e-2	
		4	20.00000	1129.35339	1.77092e-2	
		5	50.00000	2832.44678	1.76526e-2	
		6	100.00000	5749.89111	1.73916e-2	
13.663	1	1	1.00000	146.98784	6.80328e-3	Fluorene #6
		2	5.00000	734.63800	6.80607e-3	
		3	10.00000	1519.39380	6.58157e-3	
		4	20.00000	3055.26025	6.54609e-3	
		5	50.00000	7607.03076	6.57287e-3	
		6	100.00000	1.51592e4	6.59665e-3	
15.028	2	1	1.00000	59.91370	1.66907e-2	Phenanthrene #7
		2	5.00000	277.70538	1.80047e-2	
		3	10.00000	576.95782	1.73323e-2	
		4	20.00000	1164.06238	1.71812e-2	
		5	50.00000	2921.47241	1.71147e-2	
		6	100.00000	5932.12939	1.68574e-2	
15.046	1	1	1.00000	6.79399	1.47189e-1	Phenanthrene #7
		2	5.00000	27.54959	1.81491e-1	
		3	10.00000	57.20443	1.74812e-1	

[min]	Sig		[ug/L]			
		4	20.00000	113.53256	1.76161e-1	
		5	50.00000	286.03766	1.74802e-1	
		6	100.00000	586.44727	1.70518e-1	
16.431	2	1	1.00000	96.05915	1.04103e-2	Anthracene #8
		2	5.00000	483.02975	1.03513e-2	
		3	10.00000	1002.81183	9.97196e-3	
		4	20.00000	2019.75476	9.90219e-3	
		5	50.00000	5037.00098	9.92654e-3	
		6	100.00000	9947.86328	1.00524e-2	
16.450	1	1	1.00000	3.26255	3.06509e-1	Anthracene #8
		2	5.00000	15.88479	3.14767e-1	
		3	10.00000	32.94457	3.03540e-1	
		4	20.00000	66.23384	3.01960e-1	
		5	50.00000	165.22198	3.02623e-1	
		6	100.00000	335.92169	2.97688e-1	
17.806	2	1	1.00000e-1	4.17519	2.39510e-2	Fluoranthene #9
		2	5.00000e-1	21.38802	2.33776e-2	
		3	1.00000	44.70066	2.23710e-2	
		4	2.00000	90.59781	2.20756e-2	
		5	5.00000	227.65421	2.19631e-2	
		6	10.00000	464.57758	2.15249e-2	
17.824	1	1	1.00000e-1	3.92421	2.54828e-2	Fluoranthene #9
		2	5.00000e-1	18.78860	2.66119e-2	
		3	1.00000	38.41879	2.60289e-2	
		4	2.00000	78.11402	2.56036e-2	
		5	5.00000	195.60518	2.55617e-2	
		6	10.00000	397.42139	2.51622e-2	
18.809	2	1	1.00000e-1	6.27601	1.59337e-2	Pyrene #10
		2	5.00000e-1	30.01324	1.66593e-2	
		3	1.00000	67.82222	1.47444e-2	
		4	2.00000	137.22350	1.45748e-2	
		5	5.00000	345.94687	1.44531e-2	
		6	10.00000	706.87067	1.41469e-2	
18.828	1	1	1.00000e-1	2.23386	4.47655e-2	Pyrene #10
		2	5.00000e-1	11.53121	4.33606e-2	
		3	1.00000	23.72331	4.21526e-2	
		4	2.00000	47.68803	4.19392e-2	
		5	5.00000	120.33789	4.15497e-2	
21.150	2	1	1.00000	14.27093	7.00725e-2	p-Terphenyl d14 #11*
		2	5.00000	72.39475	6.90658e-2	
		3	10.00000	150.41772	6.64815e-2	
		4	20.00000	304.47540	6.56868e-2	
		5	50.00000	771.85547	6.47790e-2	
		6	100.00000	1553.84106	6.43566e-2	
21.166	1	1	1.00000	3.57698	2.79566e-1	p-Terphenyl d14 #11*
		2	5.00000	16.05081	3.11511e-1	
		3	10.00000	33.17809	3.01404e-1	
		4	20.00000	67.05980	2.98241e-1	
		5	50.00000	170.11554	2.93918e-1	
		6	100.00000	343.67426	2.90973e-1	
22.466	2	1	1.00000e-1	4.39682	2.27437e-2	Benzo(a)anthracene #12
		2	5.00000e-1	21.07132	2.37289e-2	
		3	1.00000	43.86306	2.27982e-2	
		4	2.00000	88.71733	2.25435e-2	
		5	5.00000	223.22693	2.23987e-2	
		6	10.00000	457.02676	2.18806e-2	

[min]	Sig		[ug/L]			
22.485	1	1	1.00000e-1	11.92573	8.38523e-3	Benzo(a)anthracene #12
		2	5.00000e-1	57.40008	8.71079e-3	
		3	1.00000	118.62704	8.42978e-3	
		4	2.00000	240.55975	8.31394e-3	
		5	5.00000	604.25543	8.27465e-3	
		6	10.00000	1235.15466	8.09615e-3	
23.337	2	1	1.00000e-1	6.15006	1.62600e-2	Chrysene #13
		2	5.00000e-1	30.91224	1.61748e-2	
		3	1.00000	64.16498	1.55848e-2	
		4	2.00000	130.01958	1.53823e-2	
		5	5.00000	327.80472	1.52530e-2	
		6	10.00000	668.69543	1.49545e-2	
23.357	1	1	1.00000e-1	2.37958	4.20241e-2	Chrysene #13
		2	5.00000e-1	11.79001	4.24088e-2	
		3	1.00000	24.51306	4.07946e-2	
		4	2.00000	49.27580	4.05879e-2	
		5	5.00000	123.19585	4.05858e-2	
		6	10.00000	252.46683	3.96092e-2	
26.064	2	1	1.00000e-1	4.57150	2.18747e-2	Benzo(b)fluoranthene #
		2	5.00000e-1	22.64764	2.20774e-2	
		3	1.00000	46.88808	2.13274e-2	
		4	2.00000	95.03743	2.10443e-2	
		5	5.00000	238.78767	2.09391e-2	
		6	10.00000	487.47803	2.05137e-2	
26.079	1	1	1.00000e-1	5.48437	1.82336e-2	Benzo(b)fluoranthene #
		2	5.00000e-1	27.72870	1.80319e-2	
		3	1.00000	57.64222	1.73484e-2	
		4	2.00000	116.48901	1.71690e-2	
		5	5.00000	292.99271	1.70653e-2	
		6	10.00000	595.50562	1.67925e-2	
27.495	2	1	5.00000e-2	2.19067	2.28241e-2	Benzo(k)fluoranthene #
		2	2.50000e-1	10.30655	2.42564e-2	
		3	5.00000e-1	21.77243	2.29648e-2	
		4	1.00000	43.78368	2.28396e-2	
		5	2.50000	109.96069	2.27354e-2	
		6	5.00000	224.33841	2.22878e-2	
27.510	1	1	5.00000e-2	16.92470	2.95426e-3	Benzo(k)fluoranthene #
		2	2.50000e-1	83.46227	2.99537e-3	
		3	5.00000e-1	174.54939	2.86452e-3	
		4	1.00000	351.08521	2.84831e-3	
		5	2.50000	882.24713	2.83367e-3	
		6	5.00000	1792.05200	2.79010e-3	
28.596	2	1	1.00000e-1	3.90243	2.56251e-2	Benzo(a)pyrene #16
		2	5.00000e-1	16.74469	2.98602e-2	
		3	1.00000	36.86427	2.71265e-2	
		4	2.00000	74.65511	2.67899e-2	
		5	5.00000	189.32166	2.64101e-2	
		6	10.00000	390.50266	2.56080e-2	
28.614	1	1	1.00000e-1	19.55420	5.11399e-3	Benzo(a)pyrene #16
		2	5.00000e-1	97.80115	5.11241e-3	
		3	1.00000	203.63187	4.91082e-3	
		4	2.00000	413.85422	4.83262e-3	
		5	5.00000	1045.54724	4.78218e-3	
		6	10.00000	2137.81030	4.67768e-3	
30.454	2	1	1.00000e-1	1.00112	9.98882e-2	Dibenz(a,h)anthracene
		2	5.00000e-1	5.15278	9.70350e-2	

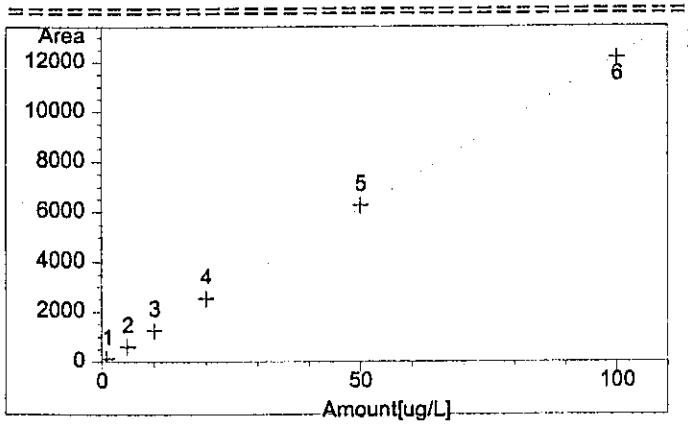
312

[min]	Sig			[ug/L]				
			3	1.00000	11.97529	8.35053e-2		
			4	2.00000	21.19111	9.43792e-2		
			5	5.00000	52.23464	9.57219e-2		
			6	10.00000	107.04004	9.34230e-2		
30.474	1	1	1.00000e-1		2.22269	4.49905e-2		Dibenz(a,h)anthracene
		2	5.00000e-1		11.53541	4.33448e-2		
		3	1.00000		23.79175	4.20314e-2		
		4	2.00000		48.37757	4.13415e-2		
		5	5.00000		122.97315	4.06593e-2		
		6	10.00000		251.97131	3.96871e-2		
31.264	2	1	1.00000e-1		2.34328	4.26753e-2		Benzo(g,h,i)perylene #
		2	5.00000e-1		9.25292	5.40370e-2		
		3	1.00000		18.48934	5.40852e-2		
		4	2.00000		36.61276	5.46258e-2		
		5	5.00000		92.88844	5.38280e-2		
		6	10.00000		190.01508	5.26274e-2		
31.287	1	1	1.00000e-1		3.18651	3.13823e-2		Benzo(g,h,i)perylene #
		2	5.00000e-1		16.16728	3.09267e-2		
		3	1.00000		33.82579	2.95632e-2		
		4	2.00000		68.83204	2.90562e-2		
		5	5.00000		174.47961	2.86566e-2		
		6	10.00000		358.59521	2.78866e-2		
32.225	2	1	1.00000e-1		3.42590	2.91894e-2		Indeno(1,2,3-cd)pyrene
		2	5.00000e-1		21.58914	2.31598e-2		
		3	1.00000		46.04763	2.17166e-2		
		4	2.00000		94.45714	2.11736e-2		
		5	5.00000		240.26486	2.08104e-2		
		6	10.00000		492.90811	2.02878e-2		
32.233	1	1	1.00000e-1		6.77440	1.47614e-2		Indeno(1,2,3-cd)pyrene
		2	5.00000e-1		33.25379	1.50359e-2		
		3	1.00000		68.94070	1.45052e-2		
		4	2.00000		139.75822	1.43104e-2		
		5	5.00000		351.40439	1.42286e-2		
		6	10.00000		717.39240	1.39394e-2		

Peak Sum Table

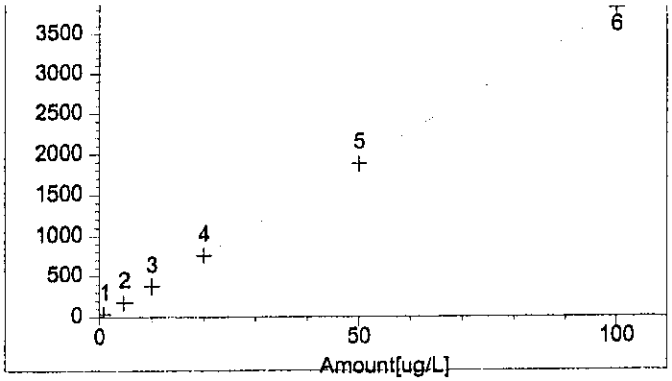
No Entries in table

Calibration Curves

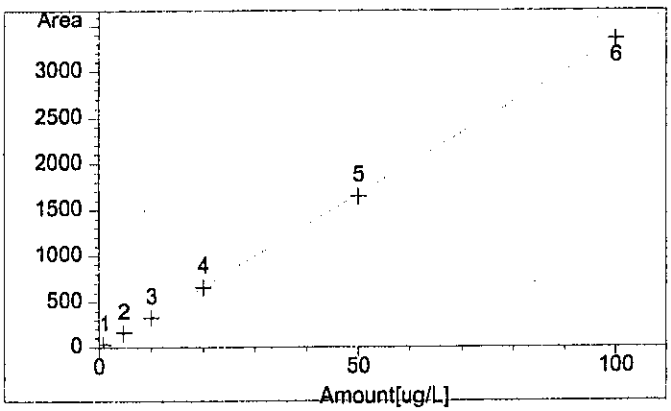


Naphthalene #1 at exp. RT: 9.370
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 70.57790
Formula: y = mx + b
m: 121.93837
b: 33.17626
x: Amount [ug/L]
y: Area

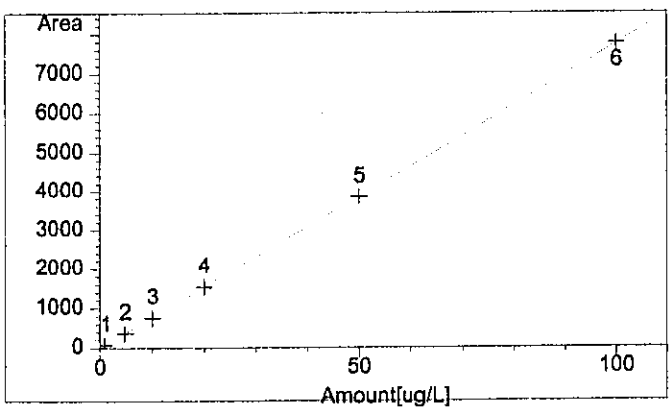
313



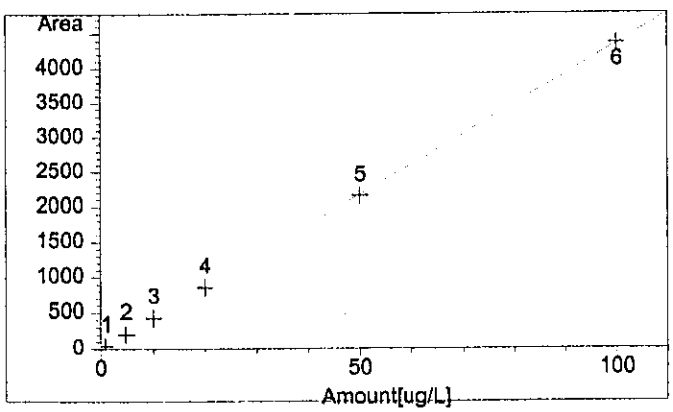
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.65995
Formula: y = mx + b
m: 38.17062
b: -8.14096
x: Amount [ug/L]
y: Area



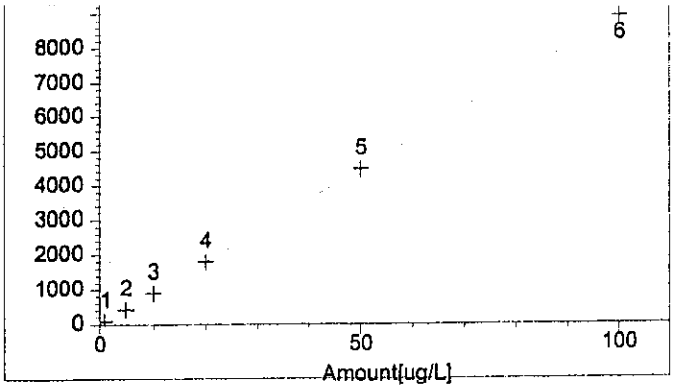
Acenaphthylene #2 at exp. RT: 10.995
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 11.19977
Formula: y = mx + b
m: 33.48891
b: -7.22387
x: Amount [ug/L]
y: Area



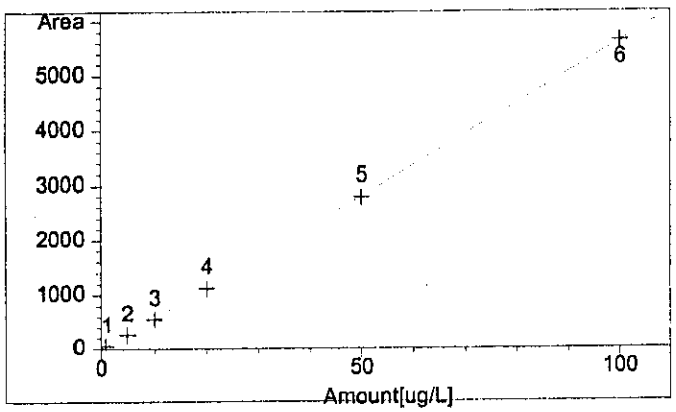
1-Methylnaphthalene #3 at exp. RT: 11.942
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.69411
Formula: y = mx + b
m: 77.62274
b: -10.90308
x: Amount [ug/L]
y: Area



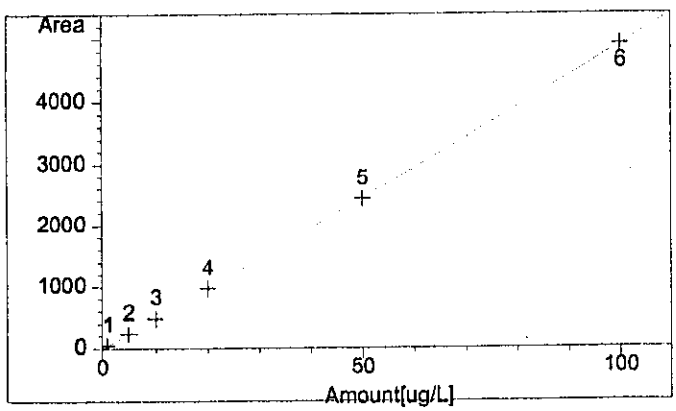
1-Methylnaphthalene #3 at exp. RT: 11.959
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.09079
Formula: y = mx + b
m: 43.58179
b: -8.63216
x: Amount [ug/L]
y: Area



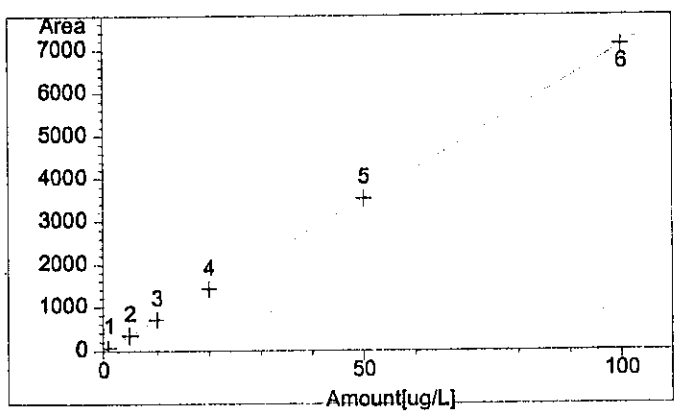
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 14.18056
Formula: y = mx + b
m: 89.00733
b: 2.31405
x: Amount [ug/L]
y: Area



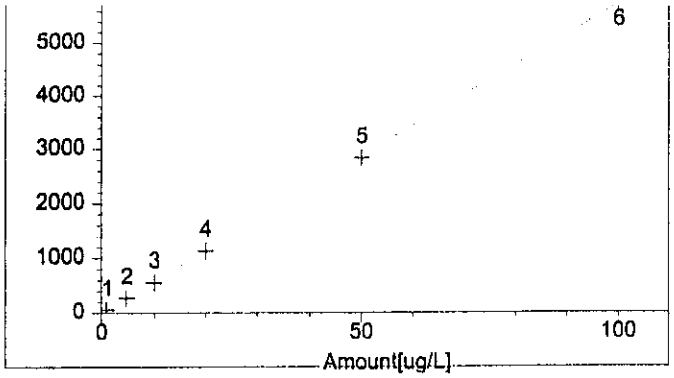
2-Methylnaphthalene #4 at exp. RT: 12.534
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 9.72550
Formula: y = mx + b
m: 56.30384
b: -7.86135
x: Amount [ug/L]
y: Area



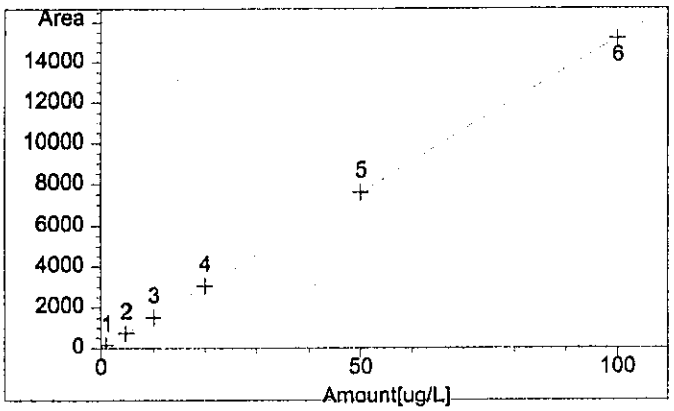
Acenaphthene #5 at exp. RT: 12.994
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 11.55898
Formula: y = mx + b
m: 49.09260
b: -9.52241
x: Amount [ug/L]
y: Area



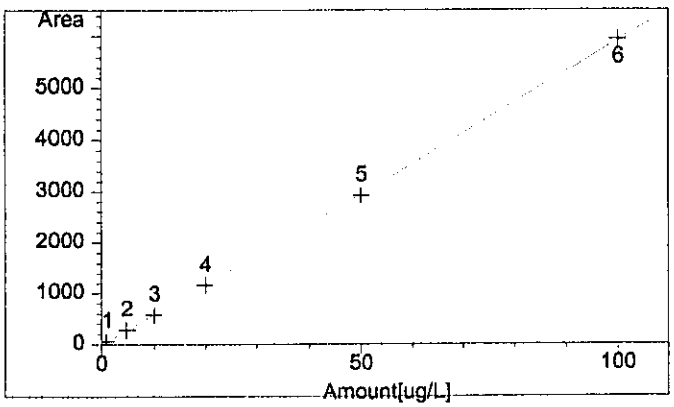
Acenaphthene #5 at exp. RT: 13.012
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.91307
Formula: y = mx + b
m: 70.88847
b: -4.94990
x: Amount [ug/L]
y: Area



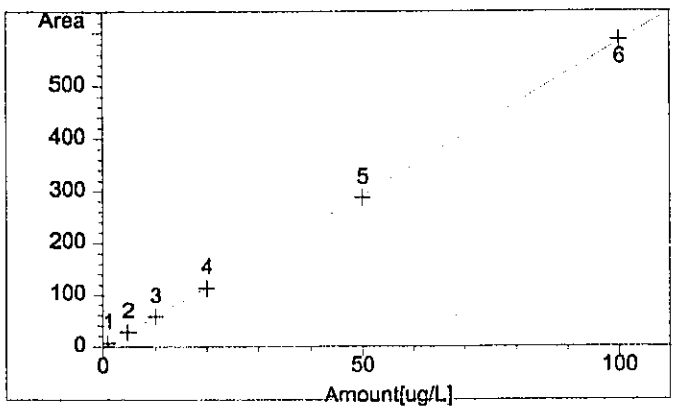
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 16.43131
Formula: y = mx + b
m: 57.48589
b: -14.05816
x: Amount[ug/L]
y: Area



Fluorene #6 at exp. RT: 13.663
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 18.11896
Formula: y = mx + b
m: 151.72220
b: 3.12530e-1
x: Amount[ug/L]
y: Area

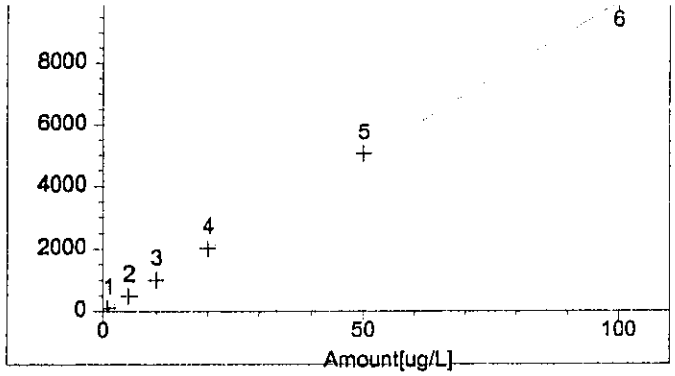


Phenanthrene #7 at exp. RT: 15.028
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 18.06229
Formula: y = mx + b
m: 59.29212
b: -13.72762
x: Amount[ug/L]
y: Area

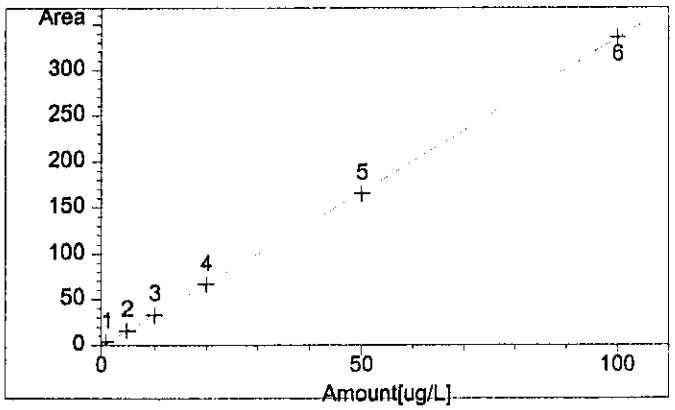


Phenanthrene #7 at exp. RT: 15.046
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 3.01563
Formula: y = mx + b
m: 5.85144
b: -1.54327
x: Amount[ug/L]
y: Area

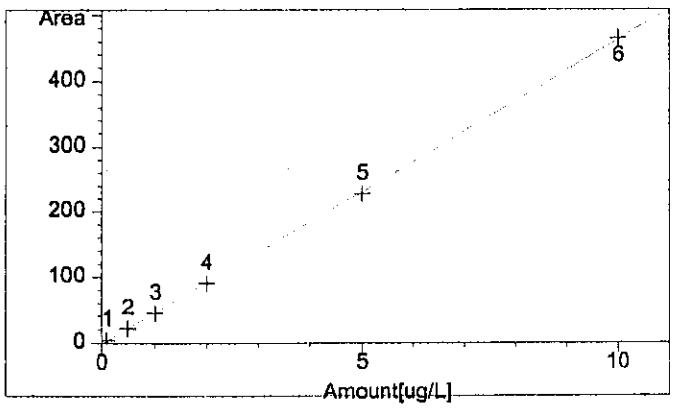
316



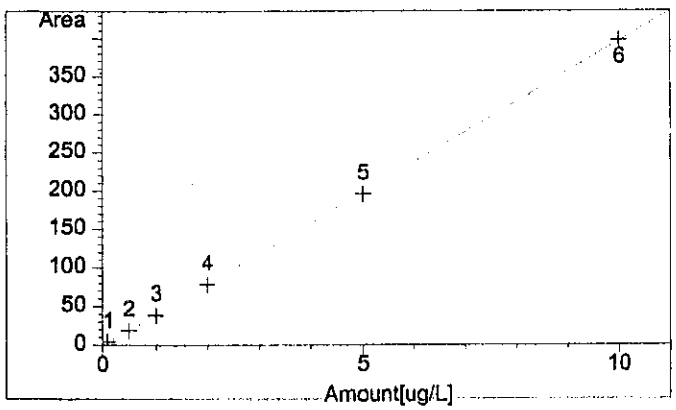
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 27.85848
Formula: y = mx + b
m: 99.66958
b: 6.85395
x: Amount [ug/L]
y: Area



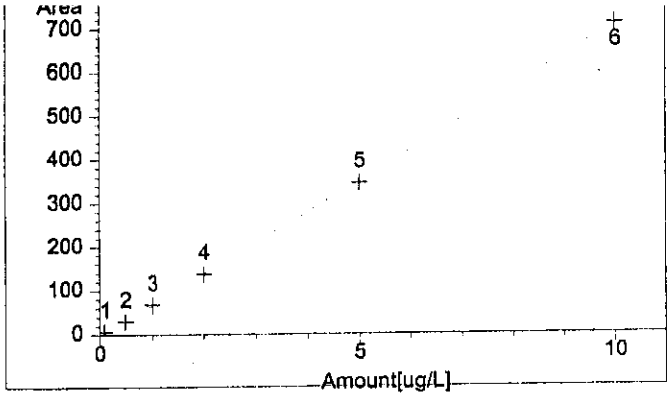
Anthracene #8 at exp. RT: 16.450
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.04930
Formula: y = mx + b
m: 3.35612
b: -6.81187e-1
x: Amount [ug/L]
y: Area



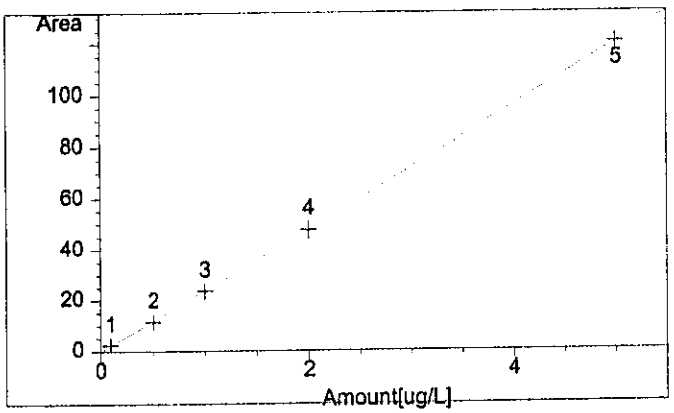
Fluoranthene #9 at exp. RT: 17.806
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.79879
Formula: y = mx + b
m: 46.44231
b: -1.53335
x: Amount [ug/L]
y: Area



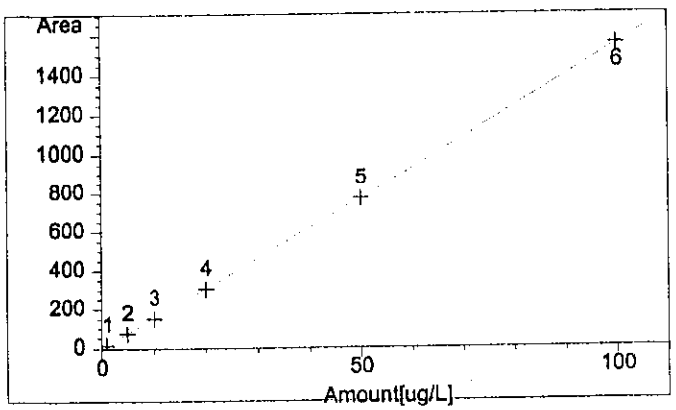
Fluoranthene #9 at exp. RT: 17.824
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.22857
Formula: y = mx + b
m: 39.72087
b: -9.33708e-1
x: Amount [ug/L]
y: Area



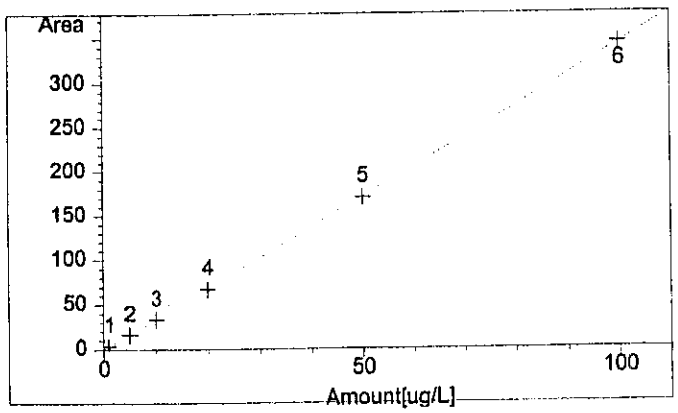
Pyrene #10 at exp. RT: [illegible]
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 3.15034
Formula: y = mx + b
m: 70.72982
b: -3.06030
x: Amount[ug/L]
y: Area



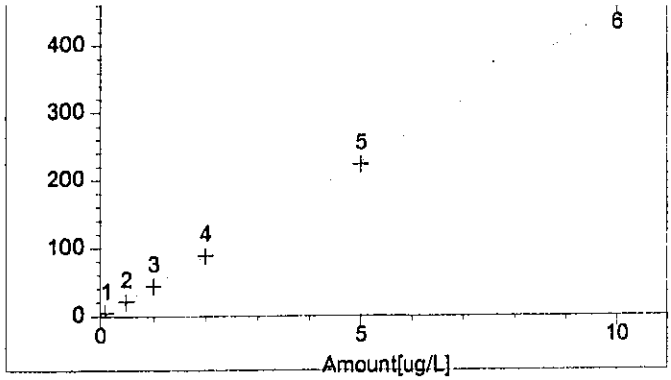
Pyrene #10 at exp. RT: 18.828
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.23587
Formula: y = mx + b
m: 24.10078
b: -2.92066e-1
x: Amount[ug/L]
y: Area



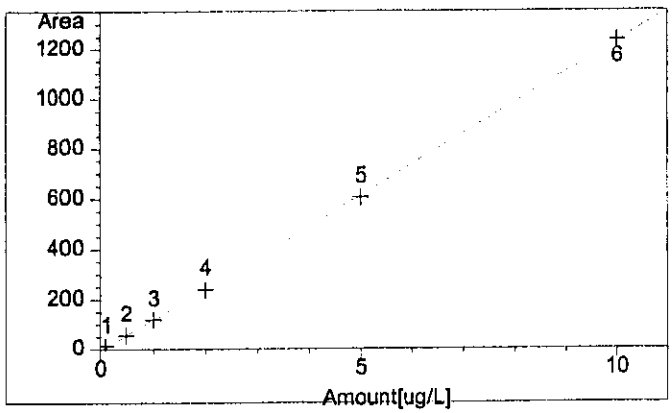
p-Terphenyl d14 #11* at exp. RT: 21.150
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.89474
Formula: y = mx + b
m: 15.55717
b: -3.76840
x: Amount[ug/L]
y: Area



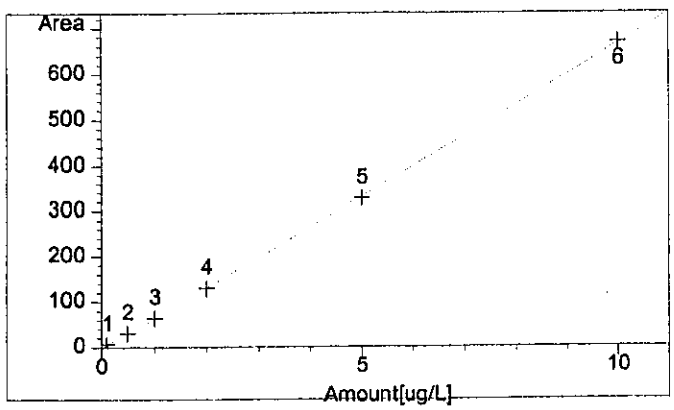
p-Terphenyl d14 #11* at exp. RT: 21.166
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.89731
Formula: y = mx + b
m: 3.43813
b: -8.33877e-1
x: Amount[ug/L]
y: Area



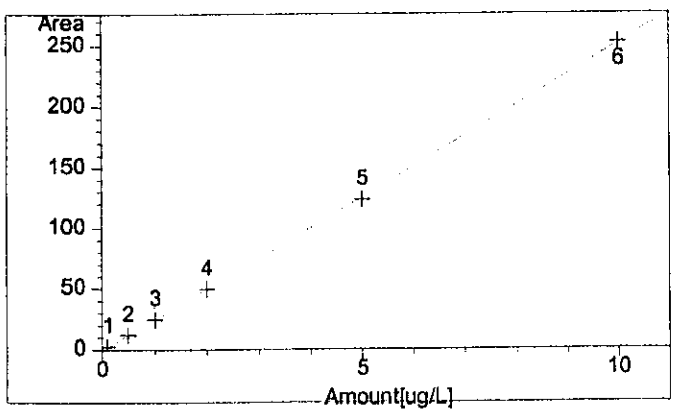
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.08992
Formula: y = mx + b
m: 45.66201
b: -1.57303
x: Amount[ug/L]
y: Area



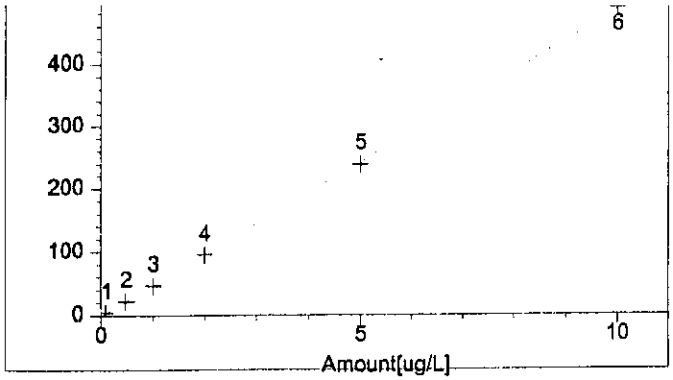
Benzo(a)anthracene #12 at exp. RT: 22.485
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 5.24449
Formula: y = mx + b
m: 123.41194
b: -3.93419
x: Amount[ug/L]
y: Area



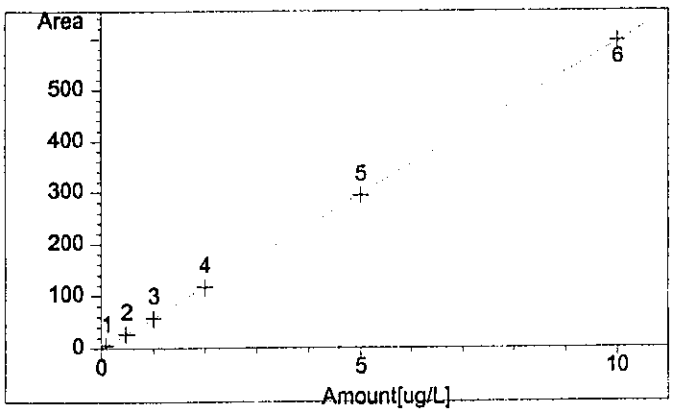
Chrysene #13 at exp. RT: 23.337
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 2.60337
Formula: y = mx + b
m: 66.84989
b: -2.23727
x: Amount[ug/L]
y: Area



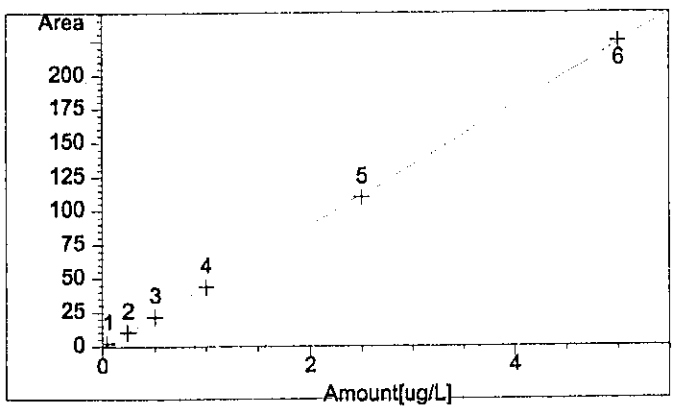
Chrysene #13 at exp. RT: 23.357
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.16361
Formula: y = mx + b
m: 25.21041
b: -7.56072e-1
x: Amount[ug/L]
y: Area



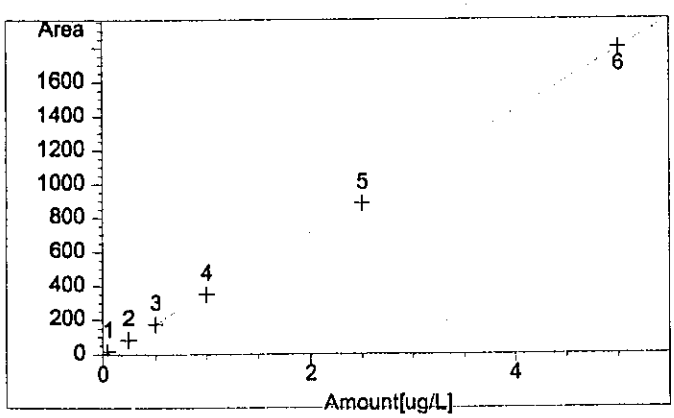
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.93804
Formula: y = mx + b
m: 48.71807
b: -1.53510
x: Amount [ug/L]
y: Area



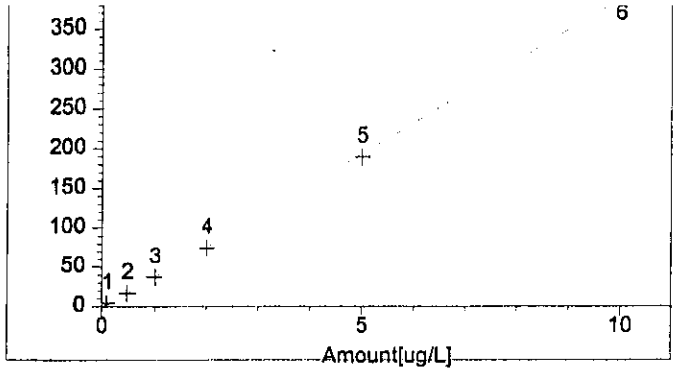
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.87852
Formula: y = mx + b
m: 59.54246
b: -1.66387
x: Amount [ug/L]
y: Area



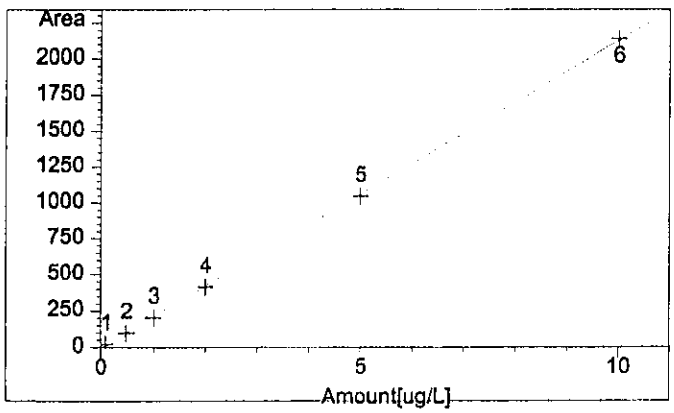
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 0.87725
Formula: y = mx + b
m: 44.83633
b: -6.60775e-1
x: Amount [ug/L]
y: Area



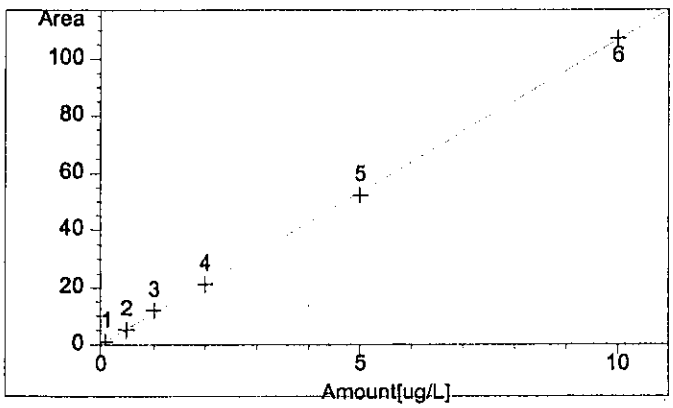
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 5.46079
Formula: y = mx + b
m: 358.31240
b: -4.56924
x: Amount [ug/L]
y: Area



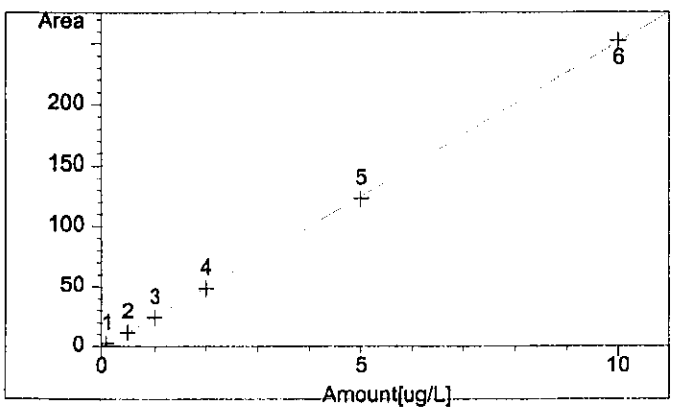
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 2.45350
Formula: y = mx + b
m: 39.02551
b: -1.98338
x: Amount [ug/L]
y: Area



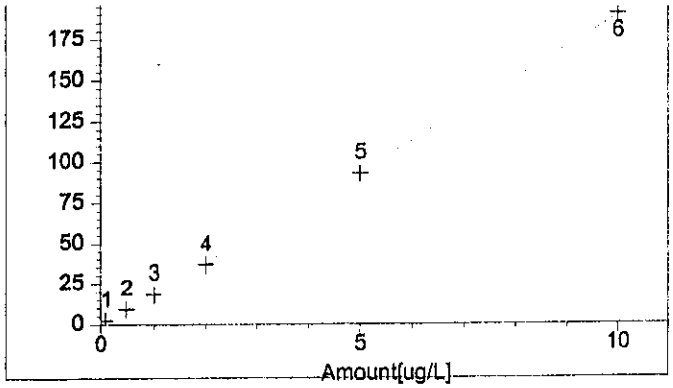
Benzo(a)pyrene #16 at exp. RT: 28.614
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.37532
Formula: y = mx + b
m: 213.72380
b: -8.15195
x: Amount [ug/L]
y: Area



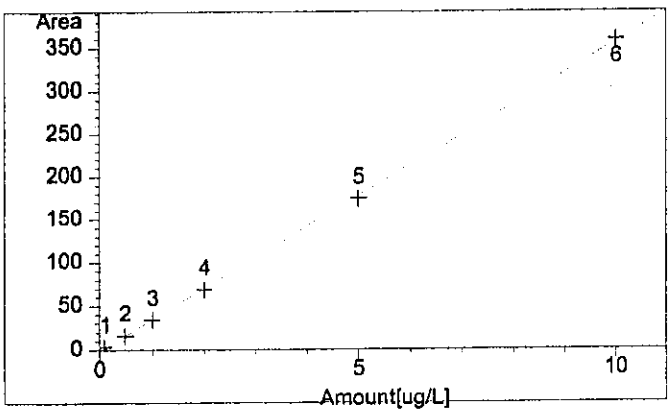
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 0.78590
Formula: y = mx + b
m: 10.64996
b: 7.22431e-2
x: Amount [ug/L]
y: Area



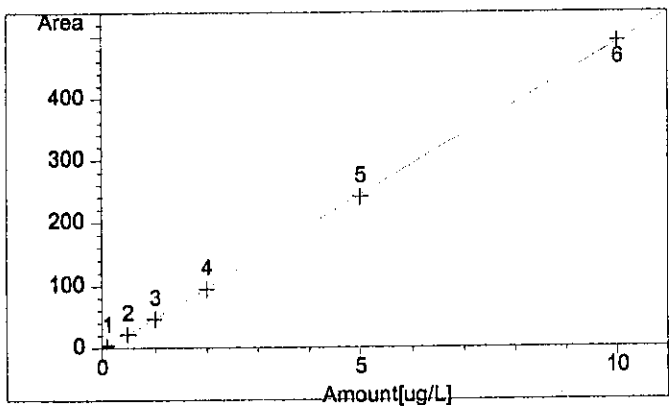
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.23730
Formula: y = mx + b
m: 25.19279
b: -1.10201
x: Amount [ug/L]
y: Area



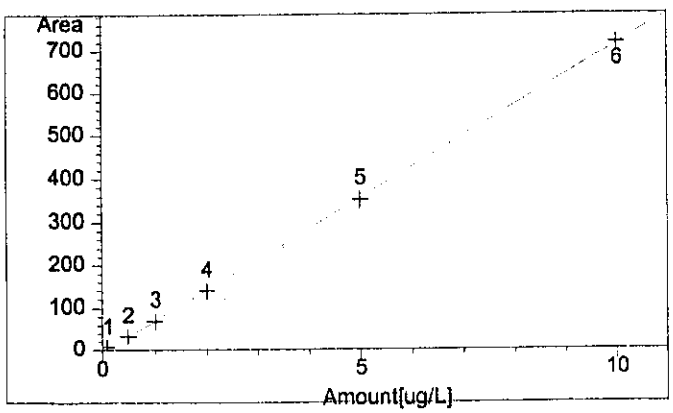
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 0.96678
Formula: y = mx + b
m: 18.95449
b: -4.21667e-1
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 1.93390
Formula: y = mx + b
m: 35.84471
b: -1.66074
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: 0.99992
Residual Std. Dev.: 2.46375
Formula: y = mx + b
m: 49.34055
b: -2.72022
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: 0.99995
Residual Std. Dev.: 2.87271
Formula: y = mx + b
m: 71.69796
b: -2.29402
x: Amount [ug/L]
y: Area

==========

322

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003191.D Sample Name: WG120164-08 ALT
HPLC4 6/20/2002 9:17:38 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/19/2002 11:39:56 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.387	20.0	19.539	-2.3
1-Methylnaphthalene #3	11.957	20.0	19.522	-2.4
2-Methylnaphthalene #4	12.532	20.0	19.193	-4.0
Acenaphthene #5	13.010	20.0	20.092	0.5
Fluorene #6	13.663	20.0	19.978	-0.1
Phenanthrene #7	15.046	20.0	19.187	-4.1
Anthracene #8	16.447	20.0	20.188	0.9
Fluoranthene #9	17.820	2.0	1.994	-0.3
Pyrene #10	18.822	2.0	1.884	-5.8
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.478	2.0	1.838	-8.1
Chrysene #13	23.345	2.0	1.912	-4.4
Benzo(b)fluoranthene #14	26.064	2.0	1.959	-2.0
Benzo(k)fluoranthene #15	27.495	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.603	2.0	2.046	2.3
Dibenz(a,h)anthracene #1	30.467	2.0	2.145	7.3
Benzo(g,h,i)perylene #18	31.284	2.0	1.972	-1.4
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.897	-5.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.372	20.0	20.073	0.4
Acenaphthylene #2	10.995	20.0	19.000	-5.0
1-Methylnaphthalene #3	11.942	20.0	19.740	-1.3
2-Methylnaphthalene #4	12.517	20.0	19.492	-2.5
Acenaphthene #5	12.996	20.0	20.090	0.4
Fluorene #6	13.647	20.0	19.779	-1.1
Phenanthrene #7	15.030	20.0	18.845	-5.8
Anthracene #8	16.432	20.0	20.458	2.3
Fluoranthene #9	17.804	2.0	1.944	-2.8
Pyrene #10	18.806	2.0	1.915	-4.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.462	2.0	1.853	-7.4
Chrysene #13	23.330	2.0	1.921	-4.0
Benzo(b)fluoranthene #14	26.048	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.480	1.0	0.880	-12.0
Benzo(a)pyrene #16	28.587	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.451	2.0	2.159	7.9
Benzo(g,h,i)perylene #18	31.267	2.0	1.941	-2.9
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.894	-5.3

= Failed 15.0% Criteria

323

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062502\4L003212.D Sample Name: WG120427-01 CCV
HPLC4 6/26/2002 2:09:40 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/25/2002 4:44:37 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.333	20.0	19.728	-1.4
1-Methylnaphthalene #3	11.897	20.0	19.771	-1.1
2-Methylnaphthalene #4	12.467	20.0	19.792	-1.0
Acenaphthene #5	12.944	20.0	19.807	-1.0
Fluorene #6	13.592	20.0	19.798	-1.0
Phenanthrene #7	14.976	20.0	19.634	-1.8
Anthracene #8	16.374	20.0	19.484	-2.6
Fluoranthene #9	17.745	2.0	2.008	0.4
Pyrene #10	18.749	2.0	2.035	1.8
p-Terphenyl d14 #11*	21.081	20.0	19.443	-2.8
Benzo(a)anthracene #12	22.399	2.0	1.963	-1.9
Chrysene #13	23.260	2.0	1.987	-0.7
Benzo(b)fluoranthene #14	25.973	2.0	1.955	-2.3
Benzo(k)fluoranthene #15	27.399	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.510	2.0	1.958	-2.1
Dibenz(a,h)anthracene #1	30.358	2.0	1.983	-0.9
Benzo(g,h,i)perylene #18	31.167	2.0	2.000	0.0
Indeno(1,2,3-cd)pyrene #	32.113	2.0	1.927	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.318	20.0	20.271	1.4
Acenaphthylene #2	10.939	20.0	19.824	-0.9
1-Methylnaphthalene #3	11.882	20.0	19.856	-0.7
2-Methylnaphthalene #4	12.452	20.0	20.029	0.1
Acenaphthene #5	12.928	20.0	19.833	-0.8
Fluorene #6	13.577	20.0	19.776	-1.1
Phenanthrene #7	14.961	20.0	19.356	-3.2
Anthracene #8	16.358	20.0	19.902	-0.5
Fluoranthene #9	17.728	2.0	1.964	-1.8
Pyrene #10	18.732	2.0	1.974	-1.3
p-Terphenyl d14 #11*	21.067	20.0	19.691	-1.5
Benzo(a)anthracene #12	22.384	2.0	1.954	-2.3
Chrysene #13	23.245	2.0	1.961	-1.9
Benzo(b)fluoranthene #14	25.957	2.0	1.962	-1.9
Benzo(k)fluoranthene #15	27.383	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.494	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.342	2.0	1.976	-1.2
Benzo(g,h,i)perylene #18	31.151	2.0	1.979	-1.1
Indeno(1,2,3-cd)pyrene #	32.094	2.0	1.998	-0.1

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062502\4L003221.D Sample Name: WG120427-02 CCV
HPLC4 6/26/2002 2:14:23 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/26/2002 1:14:27 AM Seq. Line : 11

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.380	20.0	20.108	0.5
1-Methylnaphthalene #3	11.950	20.0	20.175	0.9
2-Methylnaphthalene #4	12.524	20.0	20.195	1.0
Acenaphthene #5	13.002	20.0	20.167	0.8
Fluorene #6	13.655	20.0	20.098	0.5
Phenanthrene #7	15.043	20.0	20.050	0.3
Anthracene #8	16.450	20.0	19.771	-1.1
Fluoranthene #9	17.827	2.0	2.001	0.0
Pyrene #10	18.832	2.0	2.026	1.3
p-Terphenyl d14 #11*	21.174	20.0	19.419	-2.9
Benzo(a)anthracene #12	22.496	2.0	1.979	-1.1
Chrysene #13	23.368	2.0	1.978	-1.1
Benzo(b)fluoranthene #14	26.091	2.0	2.007	0.4
Benzo(k)fluoranthene #15	27.532	1.0	0.997	-0.3
Benzo(a)pyrene #16	28.641	2.0	1.961	-1.9
Dibenz(a,h)anthracene #1	30.508	2.0	1.974	-1.3
Benzo(g,h,i)perylene #18	31.312	2.0	1.948	-2.6
Indeno(1,2,3-cd)pyrene #	32.259	2.0	1.970	-1.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.361	20.0	20.476	2.4
Acenaphthylene #2	10.985	20.0	19.979	-0.1
1-Methylnaphthalene #3	11.930	20.0	20.102	0.5
2-Methylnaphthalene #4	12.504	20.0	20.269	1.3
Acenaphthene #5	12.982	20.0	20.056	0.3
Fluorene #6	13.635	20.0	19.946	-0.3
Phenanthrene #7	15.023	20.0	19.552	-2.2
Anthracene #8	16.429	20.0	20.036	0.2
Fluoranthene #9	17.806	2.0	1.984	-0.8
Pyrene #10	18.811	2.0	1.992	-0.4
p-Terphenyl d14 #11*	21.155	20.0	19.807	-1.0
Benzo(a)anthracene #12	22.476	2.0	1.980	-1.0
Chrysene #13	23.348	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.070	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.511	1.0	0.990	-1.0
Benzo(a)pyrene #16	28.620	2.0	1.956	-2.2
Dibenz(a,h)anthracene #1	30.487	2.0	1.977	-1.1
Benzo(g,h,i)perylene #18	31.291	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.241	2.0	1.974	-1.3

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062502\4L003226.D Sample Name: WG120427-03 CCV
HPLC4 6/26/2002 4:26:01 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/26/2002 5:57:33 AM Seq. Line : 16

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.381	20.0	19.911	-0.4
1-Methylnaphthalene #3	11.954	20.0	19.968	-0.2
2-Methylnaphthalene #4	12.528	20.0	20.023	0.1
Acenaphthene #5	13.006	20.0	20.053	0.3
Fluorene #6	13.659	20.0	20.096	0.5
Phenanthrene #7	15.044	20.0	19.594	-2.0
Anthracene #8	16.450	20.0	19.752	-1.2
Fluoranthene #9	17.829	2.0	1.971	-1.4
Pyrene #10	18.834	2.0	1.963	-1.9
p-Terphenyl d14 #11*	21.172	20.0	19.586	-2.1
Benzo(a)anthracene #12	22.494	2.0	1.958	-2.1
Chrysene #13	23.368	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.094	2.0	1.973	-1.4
Benzo(k)fluoranthene #15	27.530	1.0	0.993	-0.7
Benzo(a)pyrene #16	28.636	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.495	2.0	1.849	-7.6
Benzo(g,h,i)perylene #18	31.300	2.0	1.951	-2.4
Indeno(1,2,3-cd)pyrene #	32.241	2.0	2.001	0.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.363	20.0	20.528	2.6
Acenaphthylene #2	10.991	20.0	19.979	-0.1
1-Methylnaphthalene #3	11.937	20.0	20.116	0.6
2-Methylnaphthalene #4	12.511	20.0	20.278	1.4
Acenaphthene #5	12.989	20.0	20.055	0.3
Fluorene #6	13.641	20.0	19.947	-0.3
Phenanthrene #7	15.026	20.0	19.535	-2.3
Anthracene #8	16.432	20.0	20.001	0.0
Fluoranthene #9	17.810	2.0	1.987	-0.6
Pyrene #10	18.816	2.0	1.995	-0.2
p-Terphenyl d14 #11*	21.155	20.0	19.827	-0.9
Benzo(a)anthracene #12	22.476	2.0	1.975	-1.3
Chrysene #13	23.351	2.0	1.973	-1.3
Benzo(b)fluoranthene #14	26.075	2.0	2.227	11.3
Benzo(k)fluoranthene #15	27.512	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.617	2.0	1.949	-2.5
Dibenz(a,h)anthracene #1	30.479	2.0	1.848	-7.6
Benzo(g,h,i)perylene #18	31.281	2.0	2.003	0.1
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.990	-0.5

= Failed 15.0% Criteria

326

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062602\4L003238.D Sample Name: WG120546-03 CCV
HPLC4 6/27/2002 12:00:24 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/27/2002 1:04:52 AM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.398	20.0	20.022	0.1
1-Methylnaphthalene #3	11.969	20.0	20.067	0.3
2-Methylnaphthalene #4	12.543	20.0	20.079	0.4
Acenaphthene #5	13.020	20.0	20.100	0.5
Fluorene #6	13.674	20.0	20.104	0.5
Phenanthrene #7	15.062	20.0	19.657	-1.7
Anthracene #8	16.470	20.0	19.915	-0.4
Fluoranthene #9	17.846	2.0	1.995	-0.2
Pyrene #10	18.849	2.0	1.992	-0.4
p-Terphenyl d14 #11*	21.189	20.0	19.485	-2.6
Benzo(a)anthracene #12	22.509	2.0	1.967	-1.7
Chrysene #13	23.383	2.0	1.965	-1.7
Benzo(b)fluoranthene #14	26.107	2.0	1.991	-0.5
Benzo(k)fluoranthene #15	27.543	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.657	2.0	1.973	-1.3
Dibenz(a,h)anthracene #1	30.525	2.0	1.963	-1.9
Benzo(g,h,i)perylene #18	31.332	2.0	1.935	-3.3
Indeno(1,2,3-cd)pyrene #	32.275	2.0	1.981	-0.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.380	20.0	20.630	3.1
Acenaphthylene #2	11.007	20.0	20.026	0.1
1-Methylnaphthalene #3	11.952	20.0	20.211	1.1
2-Methylnaphthalene #4	12.526	20.0	20.368	1.8
Acenaphthene #5	13.002	20.0	20.130	0.7
Fluorene #6	13.656	20.0	20.039	0.2
Phenanthrene #7	15.045	20.0	19.611	-1.9
Anthracene #8	16.452	20.0	20.266	1.3
Fluoranthene #9	17.828	2.0	1.996	-0.2
Pyrene #10	18.831	2.0	2.008	0.4
p-Terphenyl d14 #11*	21.172	20.0	19.966	-0.2
Benzo(a)anthracene #12	22.492	2.0	1.986	-0.7
Chrysene #13	23.366	2.0	1.997	-0.1
Benzo(b)fluoranthene #14	26.089	2.0	1.989	-0.6
Benzo(k)fluoranthene #15	27.525	1.0	0.977	-2.3
Benzo(a)pyrene #16	28.639	2.0	1.965	-1.7
Dibenz(a,h)anthracene #1	30.508	2.0	2.026	1.3
Benzo(g,h,i)perylene #18	31.313	2.0	2.104	5.2
Indeno(1,2,3-cd)pyrene #	32.260	2.0	2.015	0.7

= Failed 15.0% Criteria

327

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062602\4L003234.D Sample Name: WG120546-02 CCV
HPLC4 6/27/2002 12:00:06 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/26/2002 9:18:16 PM Seq. Line : 8

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.358	20.0	20.081	0.4
1-Methylnaphthalene #3	11.940	20.0	20.078	0.4
2-Methylnaphthalene #4	12.518	20.0	20.100	0.5
Acenaphthene #5	12.997	20.0	20.103	0.5
Fluorene #6	13.651	20.0	20.044	0.2
Phenanthrene #7	15.040	20.0	19.791	-1.0
Anthracene #8	16.450	20.0	19.909	-0.5
Fluoranthene #9	17.829	2.0	1.978	-1.1
Pyrene #10	18.836	2.0	2.036	1.8
p-Terphenyl d14 #11*	21.175	20.0	19.529	-2.4
Benzo(a)anthracene #12	22.495	2.0	1.982	-0.9
Chrysene #13	23.366	2.0	1.990	-0.5
Benzo(b)fluoranthene #14	26.088	2.0	1.989	-0.6
Benzo(k)fluoranthene #15	27.518	1.0	0.993	-0.7
Benzo(a)pyrene #16	28.628	2.0	1.986	-0.7
Dibenz(a,h)anthracene #1	30.487	2.0	1.982	-0.9
Benzo(g,h,i)perylene #18	31.297	2.0	1.954	-2.3
Indeno(1,2,3-cd)pyrene #	32.241	2.0	1.975	-1.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.344	20.0	20.595	3.0
Acenaphthylene #2	10.977	20.0	20.006	0.0
1-Methylnaphthalene #3	11.927	20.0	20.155	0.8
2-Methylnaphthalene #4	12.504	20.0	20.313	1.6
Acenaphthene #5	12.984	20.0	20.081	0.4
Fluorene #6	13.637	20.0	20.005	0.0
Phenanthrene #7	15.026	20.0	19.570	-2.2
Anthracene #8	16.435	20.0	20.218	1.1
Fluoranthene #9	17.814	2.0	1.995	-0.2
Pyrene #10	18.821	2.0	2.016	0.8
p-Terphenyl d14 #11*	21.162	20.0	20.006	0.0
Benzo(a)anthracene #12	22.482	2.0	1.989	-0.5
Chrysene #13	23.352	2.0	1.991	-0.4
Benzo(b)fluoranthene #14	26.073	2.0	1.994	-0.3
Benzo(k)fluoranthene #15	27.504	1.0	0.999	-0.1
Benzo(a)pyrene #16	28.613	2.0	1.973	-1.4
Dibenz(a,h)anthracene #1	30.473	2.0	2.158	7.9
Benzo(g,h,i)perylene #18	31.282	2.0	1.973	-1.3
Indeno(1,2,3-cd)pyrene #	32.228	2.0	1.991	-0.4

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120164-01 STD6	8310	1	Sample		
3	3	WG120164-02 STD6	8310	1	Sample		
4	4	WG120164-03 STD5	8310	1	Sample		
5	5	WG120164-04 STD4	8310	1	Sample		
6	6	WG120164-05 STD3	8310	1	Sample		
7	7	WG120164-06 STD2	8310	1	Sample		
8	8	WG120164-07 STD1	8310	1	Sample		
9	9	WG120164-08 ALT	8310	1	Sample		
10	10	WG120073-01 WBLK	8310	1	Sample		
11	11	WG120073-02 WLCS	8310	1	Sample		
12	12	WG120073-03 WLCS	8310	1	Sample		
13	13	L0206140-11 REEX	8310	1	Sample		
14	14	L0206140-12 REEX	8310	1	Sample		
15	15 RDC 6/20/02	L0206146-01 REEX	8310	1	Sample		
16	16	L0206146-02 REEX	8310	1	Sample		
17	17	WG120174-01 CCV	8310	1	Sample		

RDC 6/20/02 329

No	1	1	8310	4L003183	01:01		accn blk
No	2	2	8310	4L003184	02:01	SOS 57-24	WG120164-01 ST
No	3	3	8310	4L003185	03:01	SOS 59-38	WG120164-02 ST
No	4	4	8310	4L003186	04:01	DIL'N of SOS 58-26/ 59-38	WG120164-03 ST
No	5	5	8310	4L003187	05:01		WG120164-04 ST
No	6	6	8310	4L003188	06:01		WG120164-05 ST
No	7	7	8310	4L003189	07:01		WG120164-06 ST
No	8	8	8310	4L003190	08:01		WG120164-07 ST
No	9	9	8310	4L003191	09:01	SOS 60-26/60-27 DIL'N	WG120164-08 AL
No	10	10	8310	4L003192	10:01		WG120073-01 WB
No	11	11	8310	4L003193	11:01		WG120073-02 WL
No	12	12	8310	4L003194	12:01		WG120073-03 WL
No	13	13	8310	4L003195	13:01	SURR. LOW	L0206140-11 RE
No	14	14	8310	4L003196	14:01	SURR. LOW	L0206140-12 RE
No	15	15	8310	4L003197	15:01	SURR. LOW	L0206146-01 RE
No	16	16	8310	4L003198	16:01		L0206146-02 RE
No	17	17	8310	4L003199	17:01	SOS 57-24/59-38 DIL'N.	WG120174-01 CC

RDC 6/20/02

6/20/02

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061902
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Column re-installed

Action Taken: Re-calibration

Comments

Re-extracts of L0206140-11 & 12 and L0206164-01 confirm the low % recovery of surrogate.

L0206164-02 surr. recovery was within limits & will be reported out of holding time.

RDC

Reviewed By: DR 6/20/02

1/12ban

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120427-01 CCV	8310	1	Sample		
3	3	WG120326-01 WBLK	8310	1	Sample		
4	4	WG120326-02 WLCS	8310	1	Sample		
5	5	WG120326-03 WLCS	8310	1	Sample		
6	6	L0206416-02 831W	8310	1	Sample		
7	7	L0206417-04 831W	8310	1	Sample		
8	8	WG120336-01 SBLK	8310	1	Sample		
9	9	WG120336-02 SLCS	8310	1	Sample		
10	10	WG120336-03 SLCS	8310	1	Sample		
11	11	WG120427-02 CCV	8310	1	Sample		
12	12	L0206416-01 831S	8310	1	Sample		
13	13	L0206417-01 831S	8310	1	Sample		
14	14	L0206417-02 831S	8310	1	Sample		
15	15	L0206417-03 831S	8310	1	Sample		
16	11	WG120427-03 CCV	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003211	01:01		accn blk
No	2	2	8310	4L003212	02:01	SOS 59-38/58-26	WG120427-01 CC
No	3	3	8310	4L003213	03:01		WG120326-01 WB
No	4	4	8310	4L003214	04:01		WG120326-02 WL
No	5	5	8310	4L003215	05:01		WG120326-03 WL
No	6	6	8310	4L003216	06:01		L0206416-02 83
No	7	7	8310	4L003217	07:01		L0206417-04 83
No	8	8	8310	4L003218	08:01		WG120336-01 SB
No	9	9	8310	4L003219	09:01		WG120336-02 SL
No	10	10	8310	4L003220	10:01		WG120336-03 SL
No	11	11	8310	4L003221	11:01	SOS 59-38/58-26	WG120427-02 CC
No	12	12	8310	4L003222	12:01		L0206416-01 83
No	13	13	8310	4L003223	13:01	Re 5x	L0206417-01 83
No	14	14	8310	4L003224	14:01		L0206417-02 83
No	15	15	8310	4L003225	15:01		L0206417-03 83
No	16	11	8310	4L003226	16:01	SOS 59-38/58-26	WG120427-03 CC

RDC 6/26/02

6/28/02

333

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 25, 200 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 062502
Analyst Initials BKC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 118 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RK 6/27/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120546-01 CCV	8310	1	Sample		
3	3	WG120510-01 WBLK	8310	1	Sample		
4	4	WG120510-02 WLCS	8310	1	Sample		
5	5	WG120510-03 WLCS	8310	1	Sample		
6	6	L0206473-01 610W	8310	1	Sample		
7	7	L0206473-04 610W	8310	1	Sample		
8	8	WG120546-02 CCV	8310	1	Sample		
9	9	L0206417-01 @ 5X	8310	1	Sample		
10	10	L0206417-02 @ 5X	8310	1	Sample		
11	11	L0206417-03 @ 5X	8310	1	Sample		
12	8	WG120546-03 CCV	8310	1	Sample		

PRC 6/27/03 335

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003227	01:01		accn blk
No	2	2	8310	4L003228	02:01	SOS 59-38/58-24	WG120546-01 CC
No	3	3	8310	4L003229	03:01		WG120510-01 WB
No	4	4	8310	4L003230	04:01		WG120510-02 WL
No	5	5	8310	4L003231	05:01		WG120510-03 WL
No	6	6	8310	4L003232	06:01		L0206473-01 61
No	7	7	8310	4L003233	07:01		L0206473-04 61
No	8	8	8310	4L003234	08:01	SOS 59-38/58-26	WG120546-02 CC
No	9	9	8310	4L003235	09:01		L0206417-01 @
No	10	10	8310	4L003236	10:01		L0206417-02 @
No	11	11	8310	4L003237	11:01		L0206417-03 @
No	12	8	8310	4L003238	12:01	SOS 59-38/58-26	WG120546-03 CC

Rec
6/27/02
7/1/02

336

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 26, 2002 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 062600
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 118 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: 7/1/02

Parameter: 8310 H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): RLK, DP TV/KD Analyst(s): DP
Date/Time Extracted: 06/24/02 0900 Date TV/KD: 06/24/02
Spike/Surrogate Analyst: RLK/DP Witness: DP/AA
Surrogate #: ES50040-50 Earliest Hold Date: 06/27/02
Spike #: A = ES50041-01 Spike #: B = —

Extraction Work Group WG 120326
Analytical Work Group WG 120424

Extract Relinquished By: CAF
Extract Received By & Date: RLC 6/24/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100uL		1mL	T				WG 120326-01
2	LCS			✓				500uL		C				WG -02
3	LCS DUP			✓						C				WG -03
4	06-416-02	8310		✓		960mL				T				
5	06-417-04			✓		890mL				T				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-24-02

Methylene Chloride Lot #: 4/2015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: Fortified Lot #: ER2183
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 6-24-02

Extraction Notes For Volume # 186 Page # 099

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: NONE

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

Parameter: 8310-S SOP #: EXHPLC2 Revision #: 6
Extraction Analyst(s): CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 6-24-02 @ 0915 Date TV/KD: 6-24-02
Spike/Surrogate Analyst: CAF Witness: DP
Surrogate #: ES100040-50 Earliest Hold Date: 7-04-02
Spike #: A = ES100040-34 Spike #: B = —

Extraction Work Group WG 120336
Analytical Work Group WG 120425
Extract Relinquished By: CAF
Extract Received By & Date: [illegible] 6/24/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank					30.04 g	100 ul		1 mL	T				WG 120336-
2	LCS					.07 g		500 ul		C				WG 120336-
3	LCS Dup					.06 g				C				WG 120336-
4	06-416-01 6-21-01 CAF	8310				.01 g				C				X
5	06-417-01					.02 g				C				
6	-02					.04 g				C				
7	-03					.04 g				C				
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-24-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 06/24/02

Extraction Notes For Volume # 18b Page # 107

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: ~~NONE~~ CAF 6-24-02
* SX06-416-01 Thick & Stuck to Side of Zymark as it concentrated to 1mL

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

2.2.7.2 Sample Data

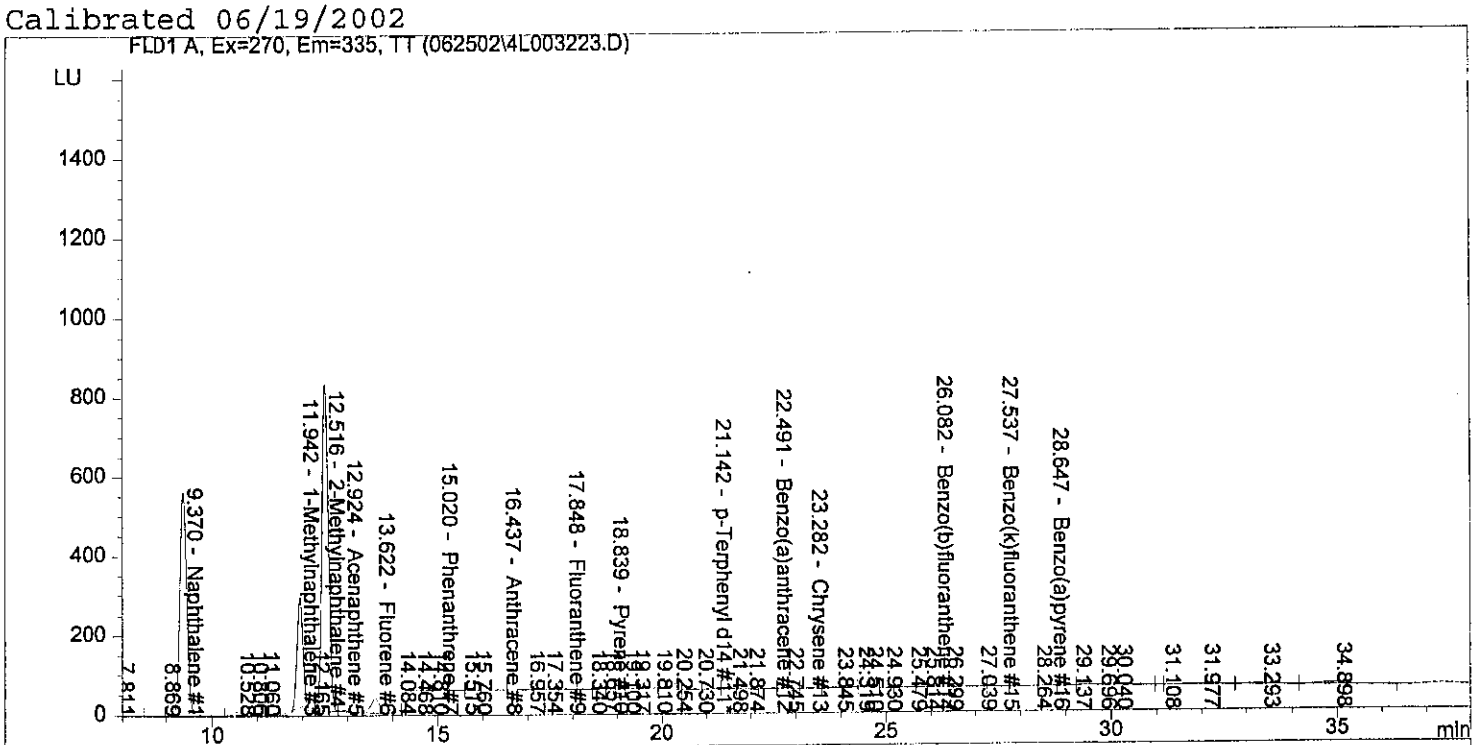
7,1

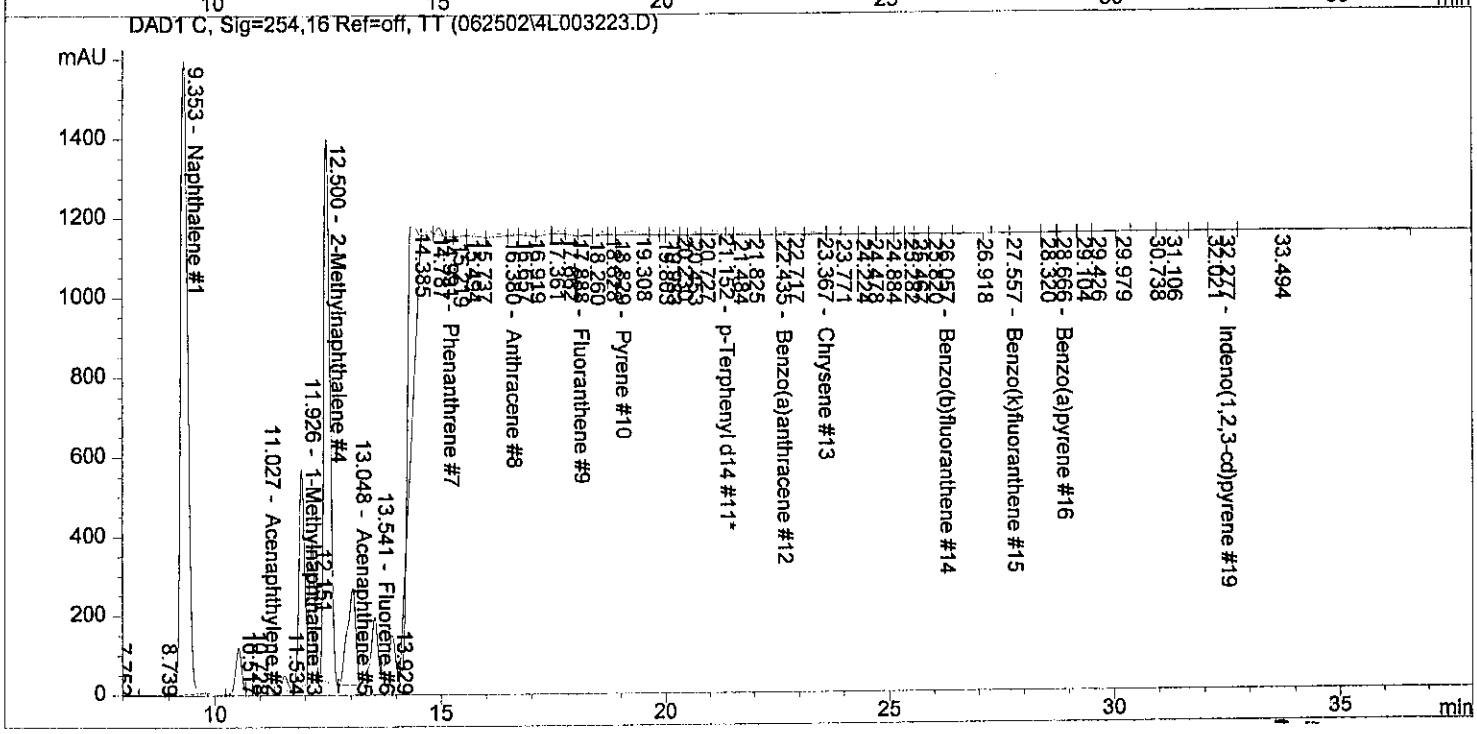
==========

Injection Date	: 6/26/2002 3:07:39 AM	Seq. Line	: 13
Sample Name	: L0206417-01 831S	Vial	: 13
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/26/2002 4:24:19 PM by RDC
(modified after loading)

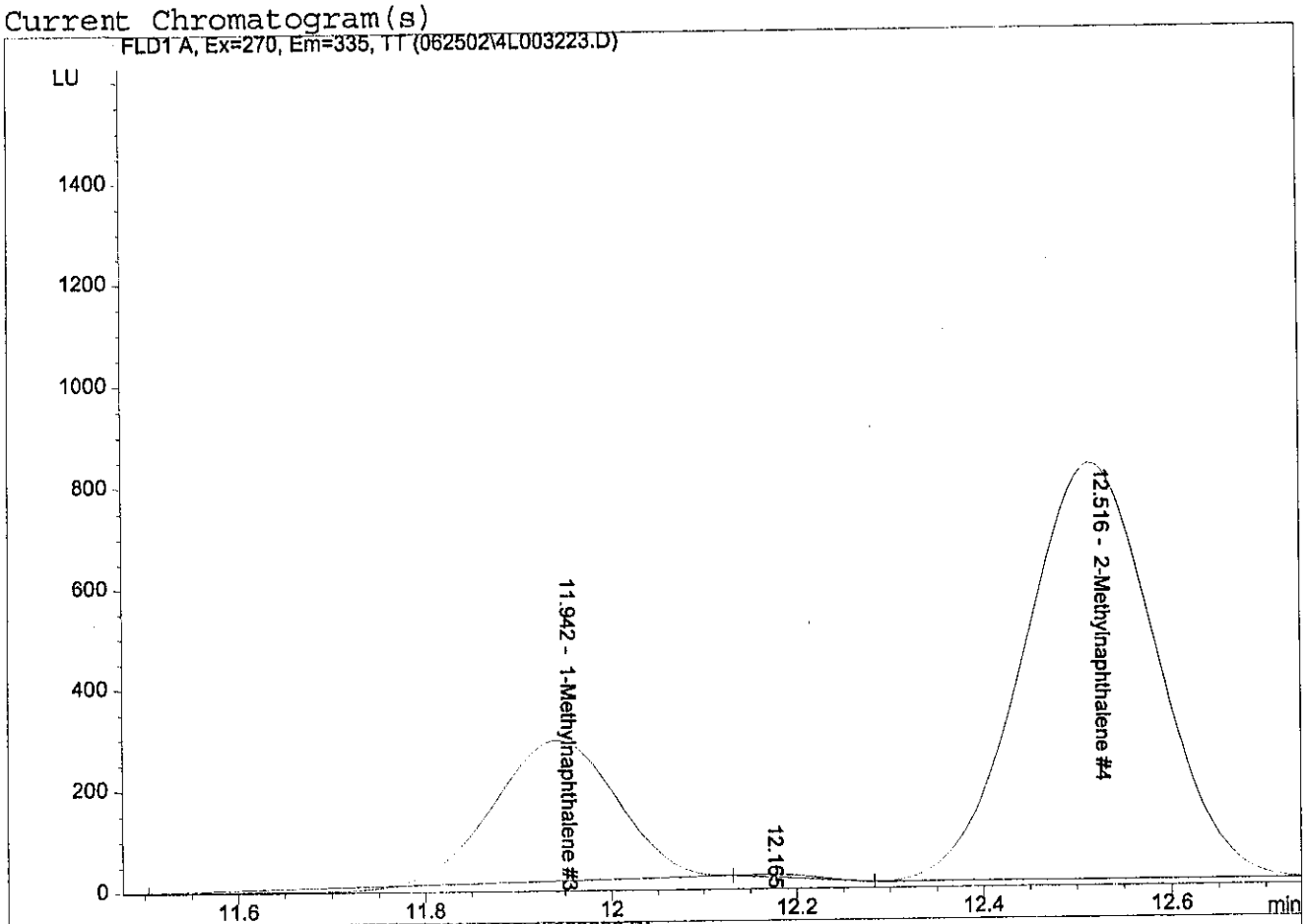
Calibrated 06/19/2002

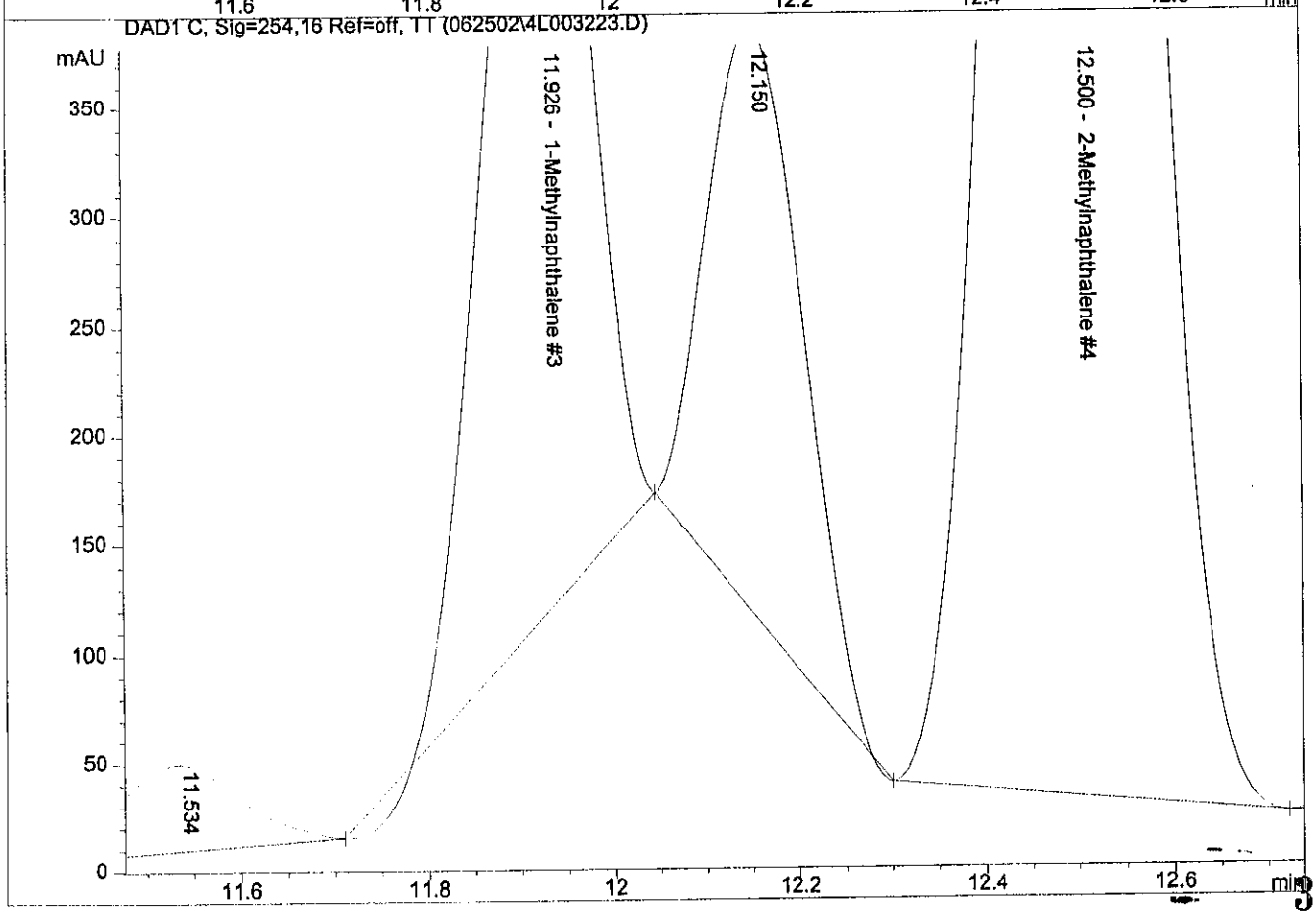




343

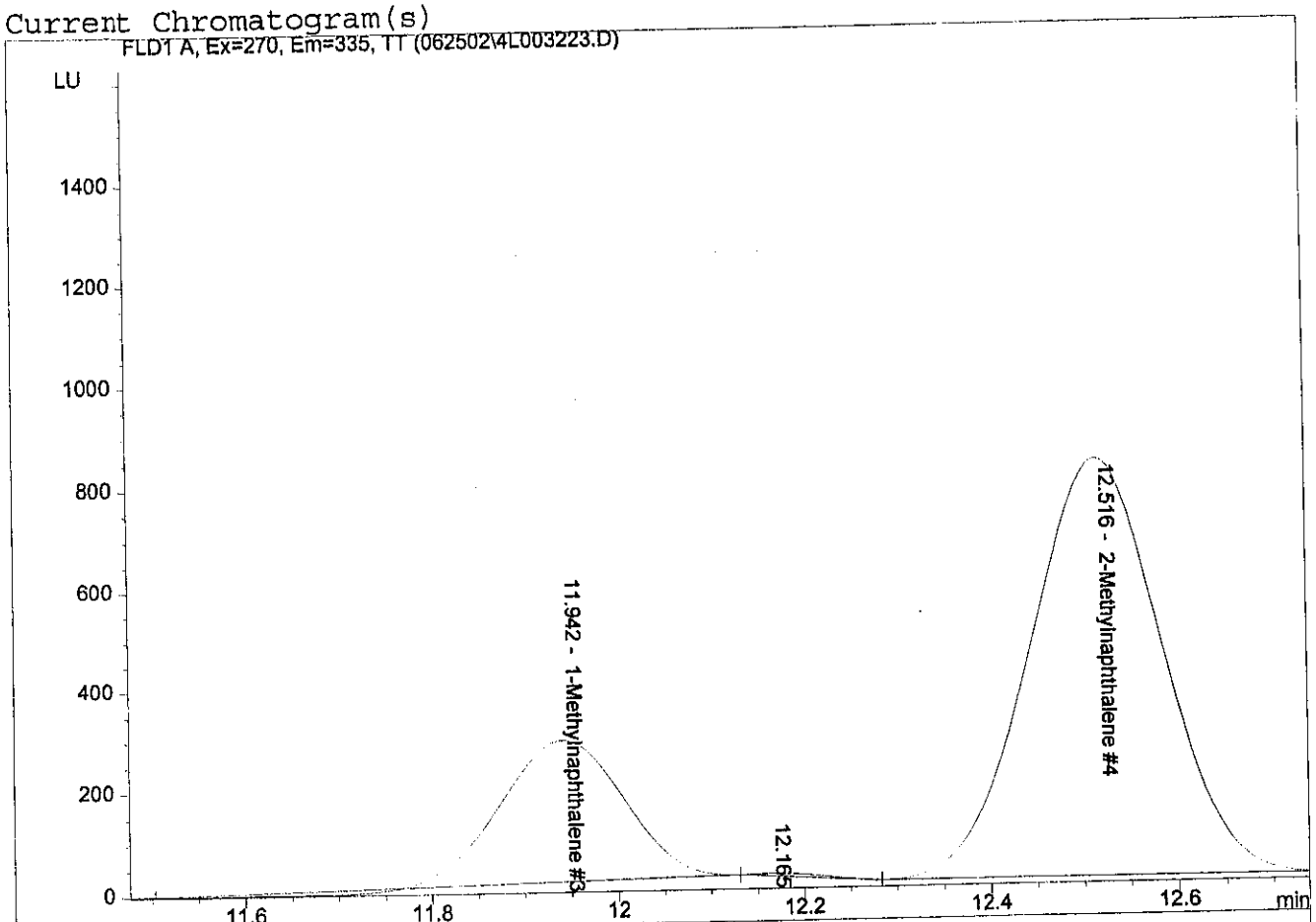
Current Chromatogram(s)

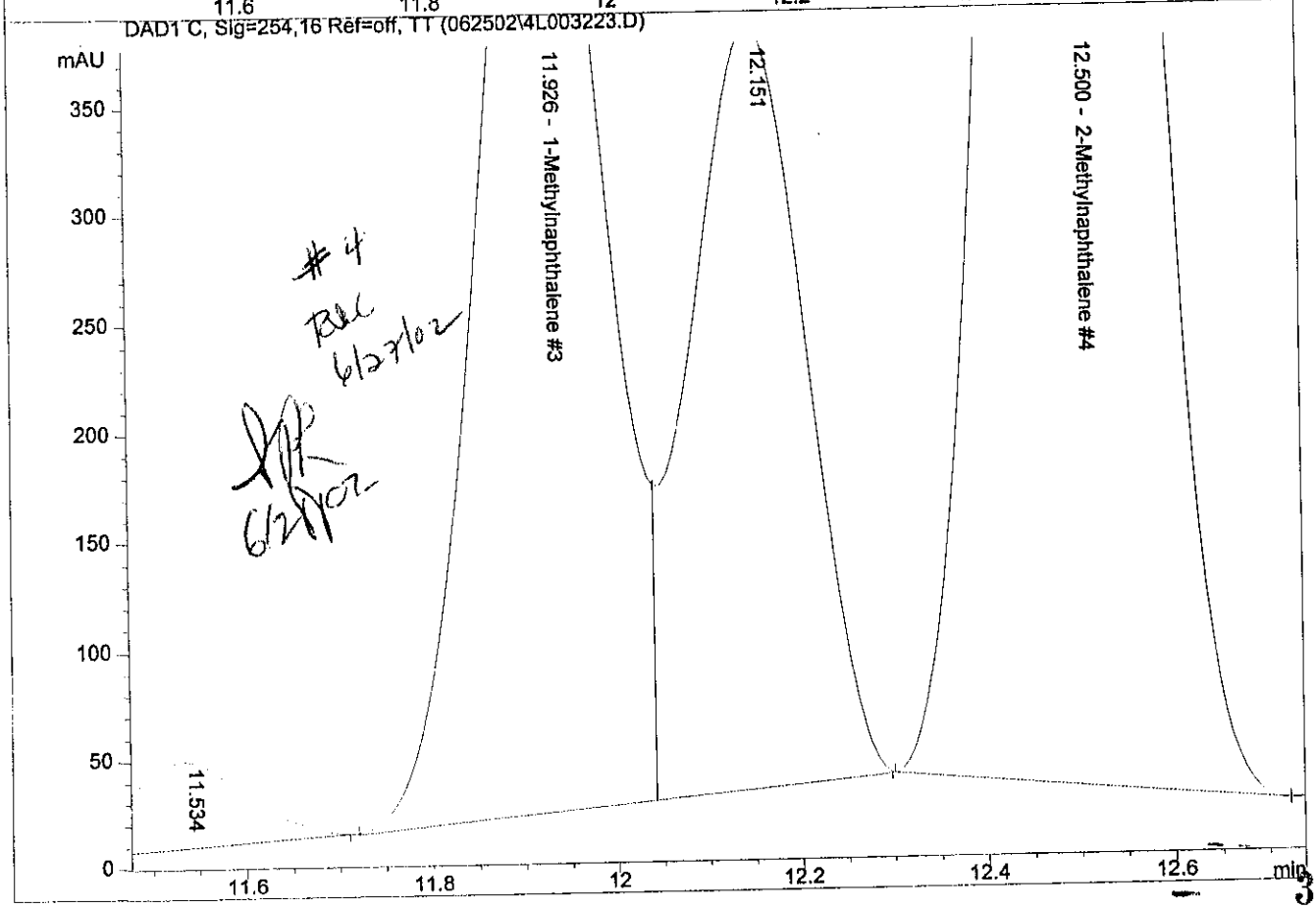




344

Current Chromatogram(s)





#4
RBL
6/27/02

6/27/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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	BB	5747.15674	2.62353e-2	150.77821	C	Naphthalene #1 I
11.942	BB	2467.66406	2.30256e-2	56.81952	C	1-Methylnaphthalene #3
12.516	BB	7971.88379	1.77783e-2	141.72647	C	2-Methylnaphthalene #4 I
12.924	BB	36.51197	1.60191e-2	5.84889e-1		Acenaphthene #5
13.622	BB	503.24841	6.58690e-3	3.31485	F	Fluorene #6 (P)
15.020	BB	8.12878	2.03343e-1	1.65293	F	Phenanthrene #7
16.437	BB	1.29736	4.54411e-1	5.89535e-1		Anthracene #8
17.848	BB	10.87451	2.73373e-2	2.97280e-1	C	Fluoranthene #9 (P)
18.839	BB	2.30397	4.67523e-2	1.07716e-1		Pyrene #10 <MDL
21.142	BB	70.90099	2.94276e-1	20.86449	20%	p-Terphenyl d14 #11*
22.491	BB	7.96686	1.21043e-2	9.64335e-2		Benzo(a)anthracene #12
23.282	BB	19.82130	4.11792e-2	8.16225e-1	C	Chrysene #13 I
26.082	BB	2.86595	2.65452e-2	7.60772e-2	<MDL	Benzo(b)fluoranthene #14
27.537	BB	10.20887	4.03998e-3	4.12436e-2	↓	Benzo(k)fluoranthene #15
28.647	BB	11.36100	8.03625e-3	9.12998e-2	F	Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.233		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 377.85716

Results obtained with enhanced integrator!

X33.3

RL@5X

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	BB	1.67045e4	8.18458e-3	136.71895	✓ I	Naphthalene #1
11.027	BB	332.05560	3.05103e-2	10.13110	<MDL	Acenaphthylene #2 Not conf.
11.926	MV	4878.82227	1.29116e-2	62.99347	✓	1-Methylnaphthalene #3
12.500	BB	1.27247e4	1.12330e-2	142.93664	✓ I	2-Methylnaphthalene #4
13.048	BB	3201.55884	2.04303e-2	65.40866	NC	Acenaphthene #5
13.541	BB	1470.06775	1.75619e-2	25.81722	✓	Fluorene #6 (P)
14.991	BB	128.88110	1.86621e-2	2.40519	F	Phenanthrene #7
16.380	BB	112.74806	9.42324e-3	1.06245	<MDL	Anthracene #8
17.888	BB	29.61525	2.26469e-2	6.70695e-1	✓	Fluoranthene #9 P
18.829	BB	7.69351	1.97622e-2	1.52041e-1	✗ NC	Pyrene #10
21.152	BB	145.82497	6.59401e-2	9.61572	96.2%	p-Terphenyl d14 #11*
22.435	BB	10.68322	2.51247e-2	2.68412e-1	NC	Benzo(a)anthracene #12
23.367	BB	73.62576	1.54134e-2	1.13483	✓	Chrysene #13 I
26.057	BB	5.84245	2.59195e-2	1.51433e-1	NC	Benzo(b)fluoranthene #14
27.557	BB	7.01640	2.44038e-2	1.71227e-1	↓	Benzo(k)fluoranthene #15
28.666	BB	1.81825	5.35757e-2	9.74140e-2	F	Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.277	BB	2.50221	4.23004e-2	1.05844e-1	mol	Indeno(1,2,3-cd)pyrene #1

Totals : 459.84129

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 ***

347

Search result of : DAD1, 11.029 (21.9 mAU, -) Ref=10.836 & 11.289
Library used : C:\HPCHEM\SPECLIBS\8310_CCV.UVL
Library Name : 8310 CCV
Parameters : Window 10.478 | 10.478 min

Library search results

#	Match	Entry	Time [min]	Name
1	312.7853	1	10.972	acenaphthylene

not confirmed

*** End of Report ***

348

7,5 5X dilution

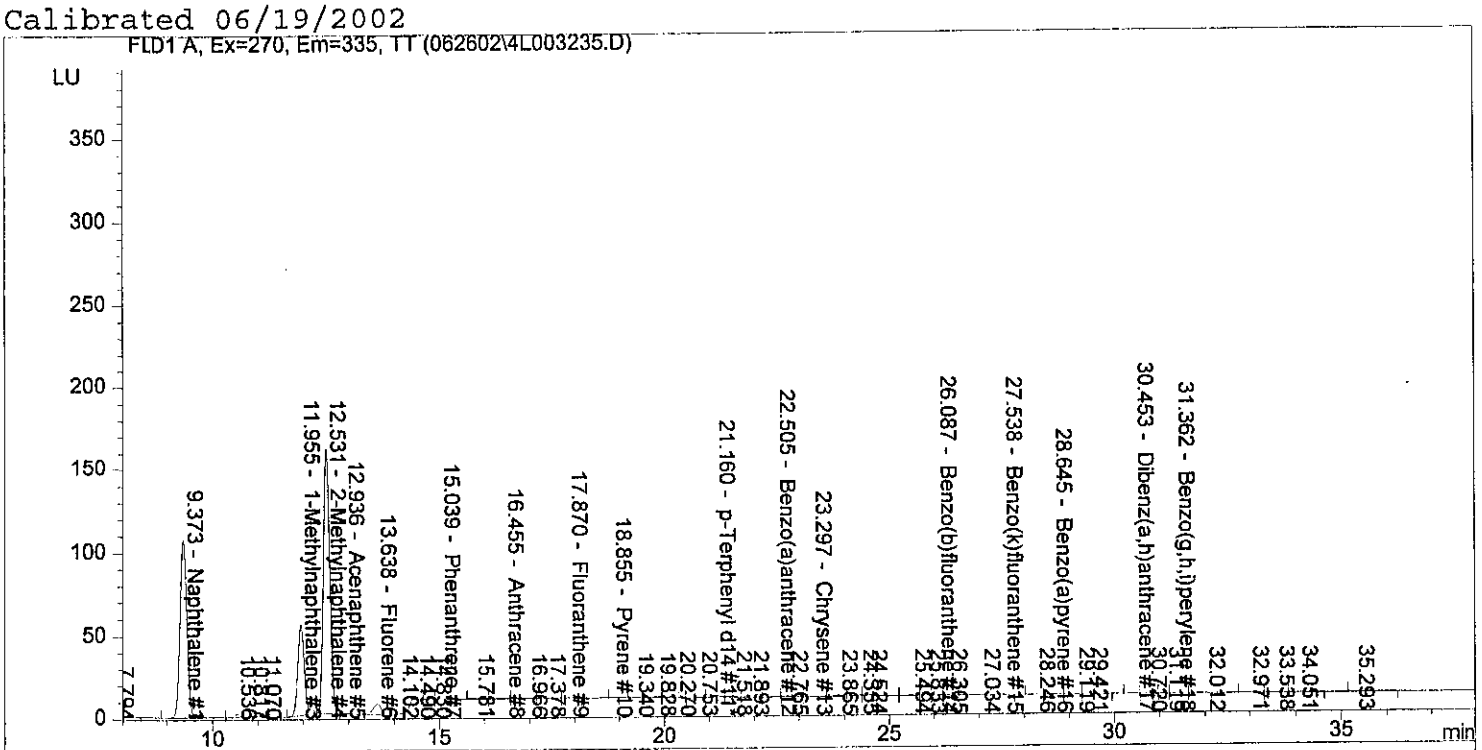
==========

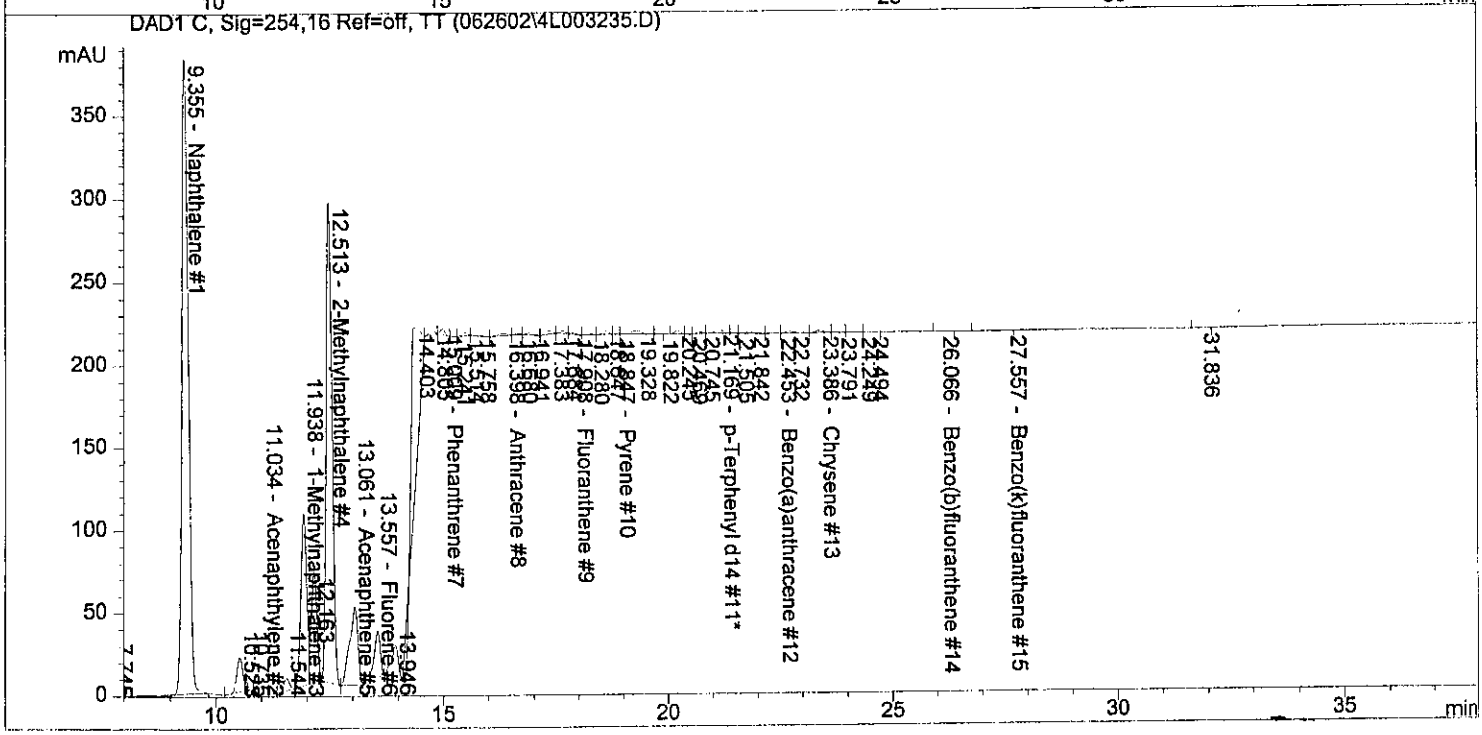
Injection Date : 6/26/2002 10:14:55 PM
Sample Name : L0206417-01 @ 5X
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/27/2002 11:59:17 AM by RDC
(modified after loading)

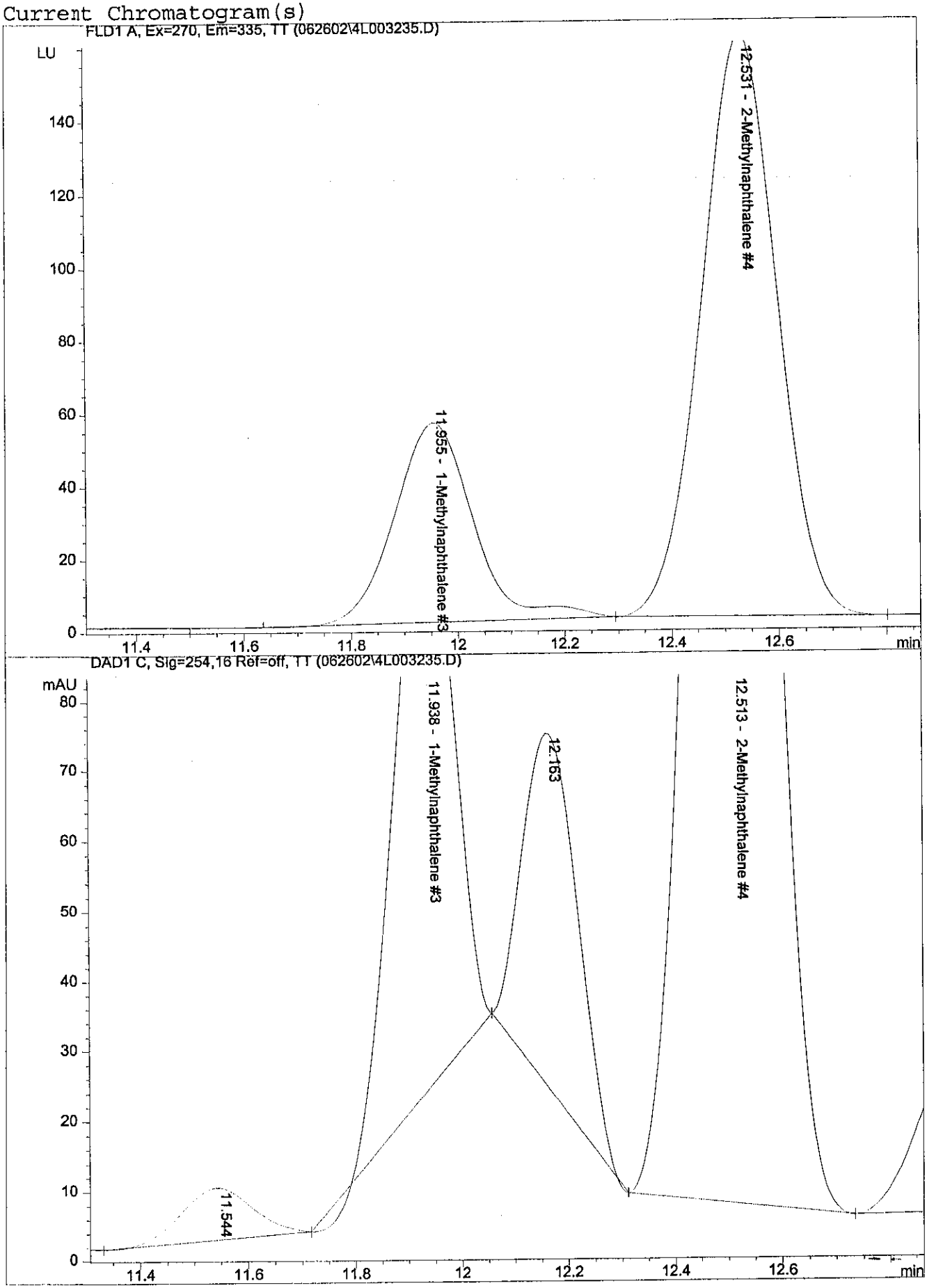
Calibrated 06/19/2002





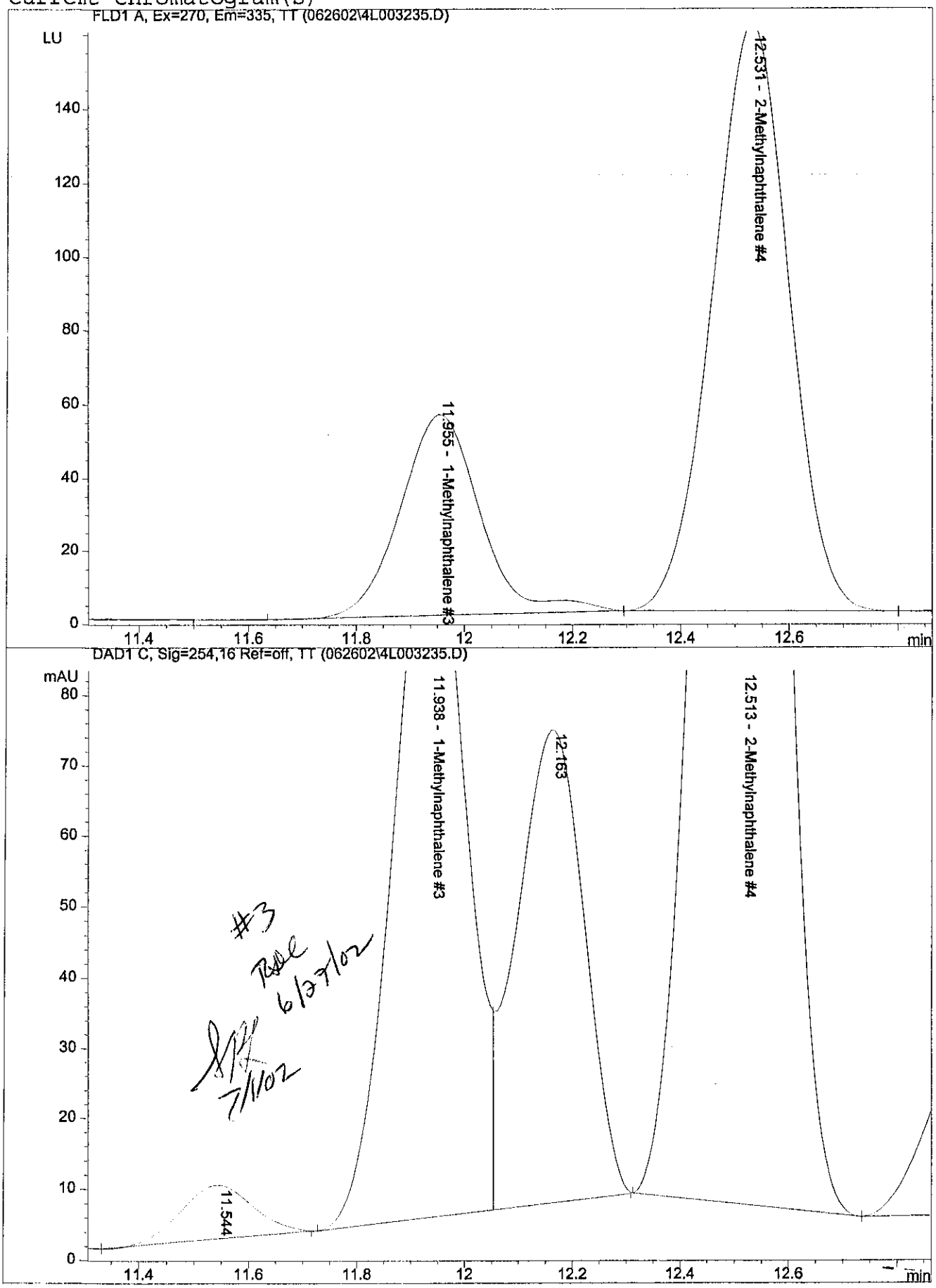
349

Current Chromatogram(s)



350

Current Chromatogram(s)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.373	BB	1112.16699	2.63899e-2	29.35001	C	Naphthalene #1
11.955	PB	564.78339	2.32961e-2	13.15723	C	1-Methylnaphthalene #3
12.531	BB	1554.64905	1.78506e-2	27.75140	C	2-Methylnaphthalene #4
12.936	BB	6.84772	2.43037e-2	1.66425e-1		Acenaphthene #5
13.638	BB	95.27516	6.56937e-3	6.25898e-1		Fluorene #6
15.039	BB	1.39131	3.60461e-1	5.01513e-1		Phenanthrene #7
16.455	BB	3.98446e-1	8.07365e-1	3.21691e-1		Anthracene #8
17.870	BB	1.98505	3.70176e-2	7.34817e-2		Fluoranthene #9
18.855	BB	4.45621e-1	6.86871e-2	3.06084e-2		Pyrene #10
21.160	BB	13.41866	3.08930e-1	4.14543	207%	p-Terphenyl d14 #11*
22.505	BB	1.58172	2.82573e-2	4.46951e-2		Benzo(a)anthracene #12
23.297	BB	4.01079	4.71436e-2	1.89083e-1		Chrysene #13
26.087	BB	4.89011e-1	7.39394e-2	3.61572e-2		Benzo(b)fluoranthene #14
27.538	BB	1.79092	9.91128e-3	1.77503e-2		Benzo(k)fluoranthene #15
28.645	BB	2.24586	2.16624e-2	4.86507e-2		Benzo(a)pyrene #16
30.453	BB	1.84048e-1	2.77366e-1	5.10486e-2		Dibenz(a,h)anthracene #17
31.362	BB	4.94807e-1	1.21534e-1	6.01358e-2		Benzo(g,h,i)perylene #18
32.233		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 76.57120

Results obtained with enhanced integrator!

X166.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.355	BB	3669.73340	8.12672e-3	29.82291		Naphthalene #1
11.034	BB	62.79228	3.32959e-2	2.09073	NC	Acenaphthylene #2
11.938	MV	941.49176	1.30320e-2	12.26953		1-Methylnaphthalene #3
12.513	BB	2610.58618	1.12251e-2	29.30402		2-Methylnaphthalene #4
13.061	BB	619.11182	2.06830e-2	12.80507		Acenaphthene #5
13.557	BB	284.07489	1.82564e-2	5.18620		Fluorene #6
15.009	BB	24.11032	2.64684e-2	6.38161e-1		Phenanthrene #7
16.398	BB	21.93736	6.89847e-3	1.51334e-1		Anthracene #8
17.908	BB	5.29550	2.77669e-2	1.47040e-1		Fluoranthene #9
18.847	BB	1.36694	4.57910e-2	6.25937e-2		Pyrene #10
21.169	BB	27.69352	7.30258e-2	2.02234	101%	p-Terphenyl d14 #11*
22.453	BB	2.16178	3.78357e-2	8.17924e-2		Benzo(a)anthracene #12
23.386	BB	13.86557	1.73726e-2	2.40881e-1		Chrysene #13
26.066	BBA	9.51311e-1	5.36488e-2	5.10367e-2		Benzo(b)fluoranthene #14
27.557	BB	3.34401	2.67105e-2	8.93201e-2		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 94.96295

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 ***

7,1

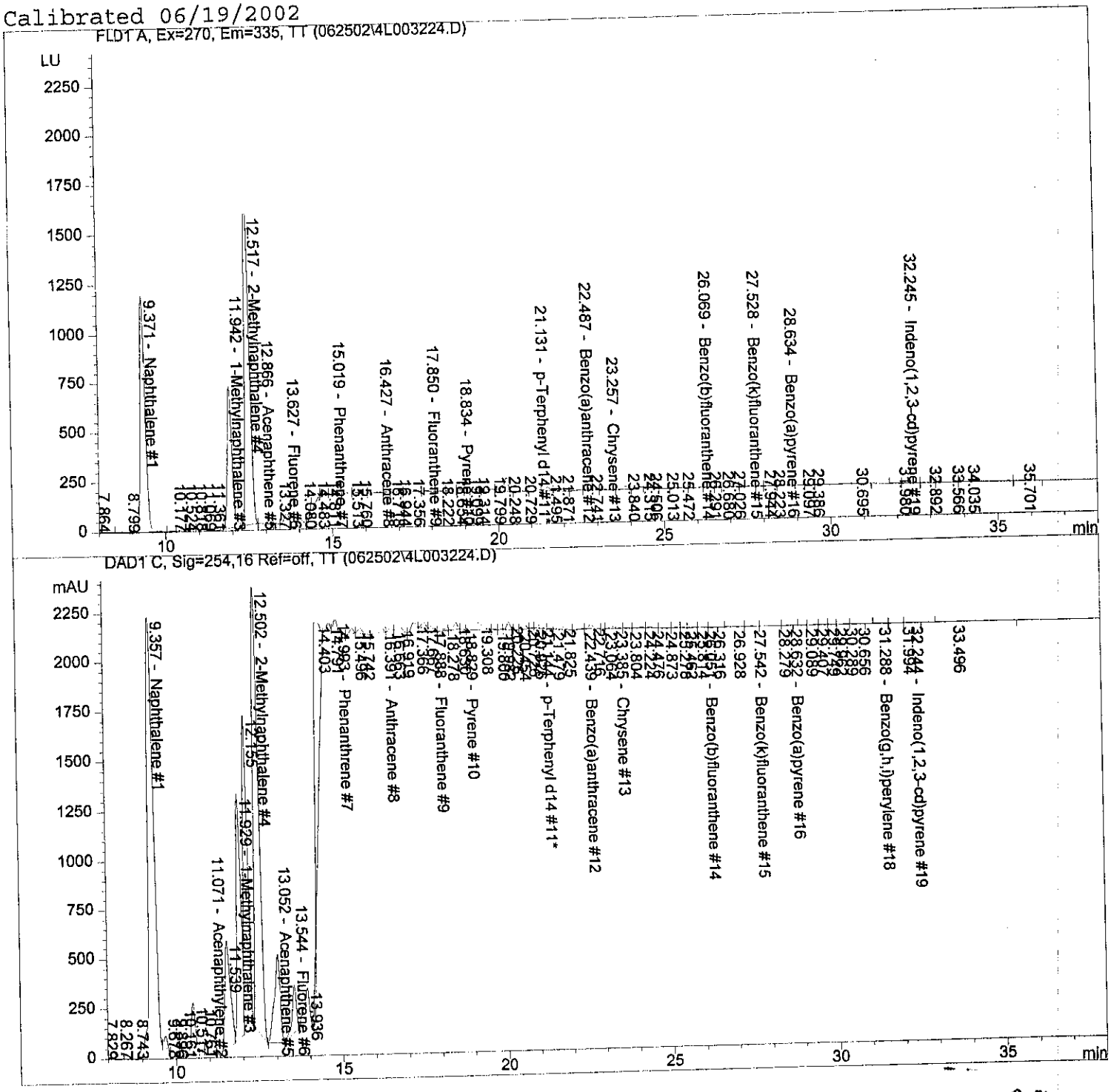
==========

Injection Date : 6/26/2002 4:04:17 AM
Sample Name : L0206417-02 831S
Acq. Operator : RDC

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/27/2002 8:48:24 AM by RDC
(modified after loading)

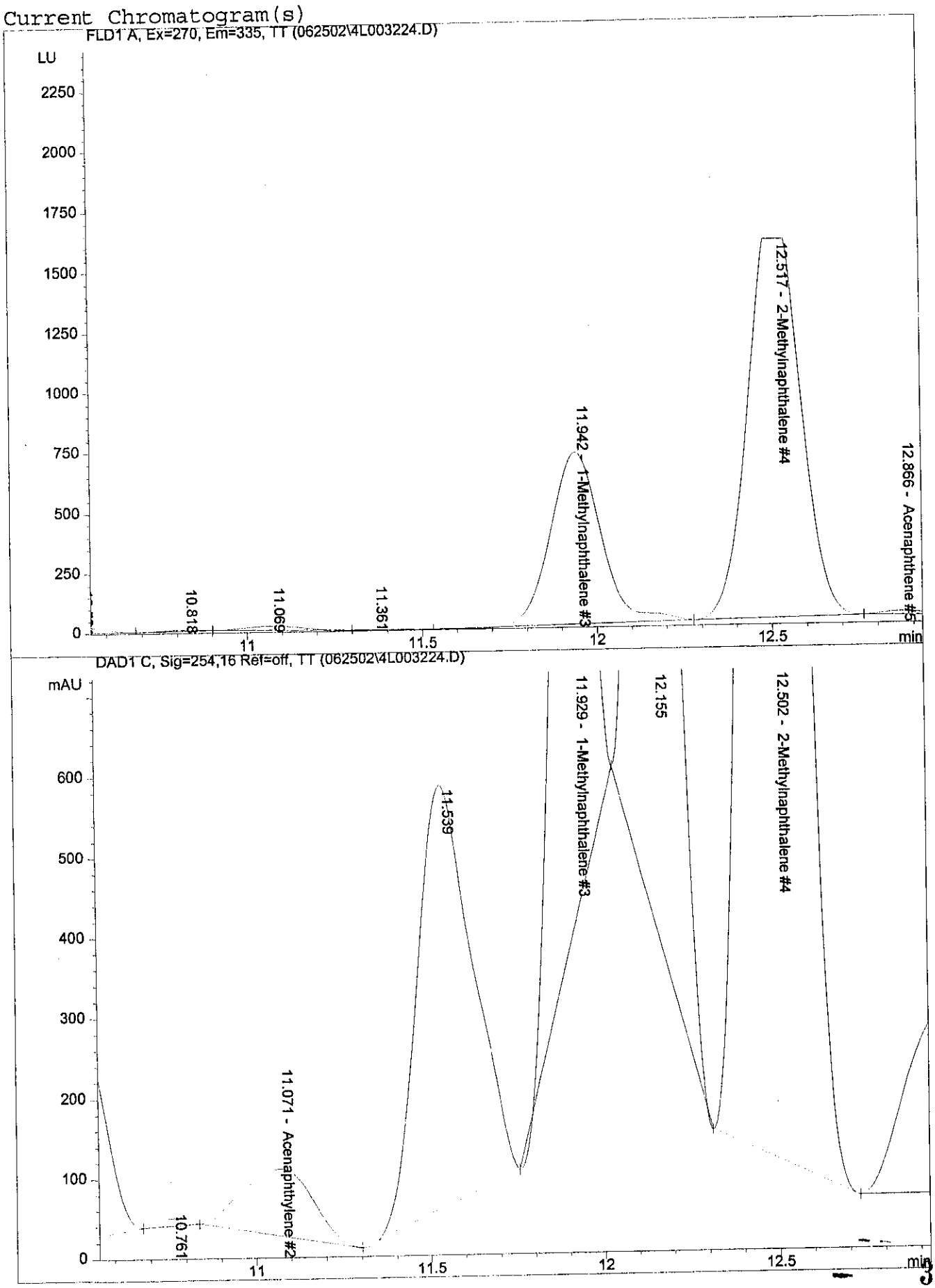
Calibrated 06/19/2002



354

Page 1 of 3

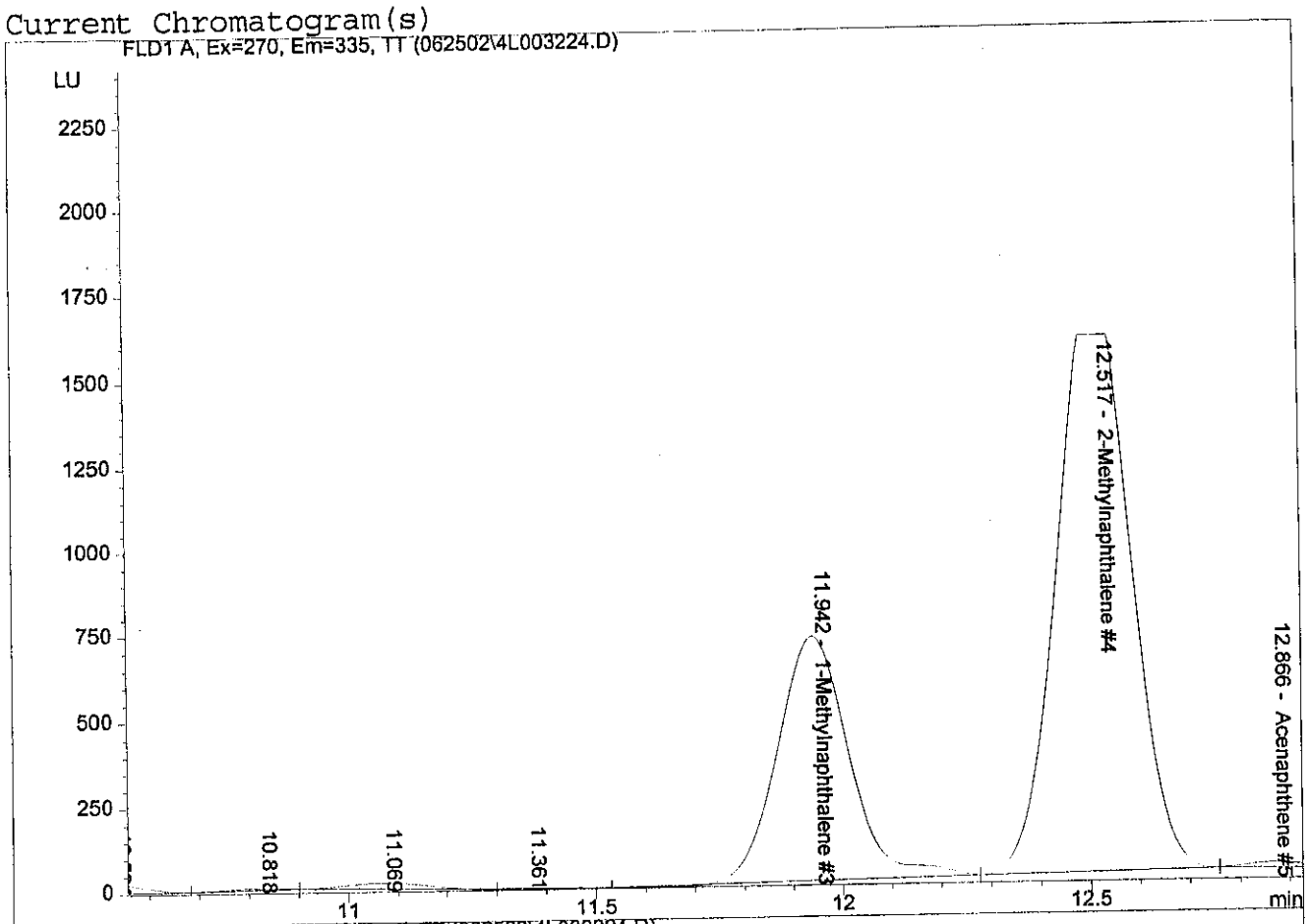
Current Chromatogram(s)

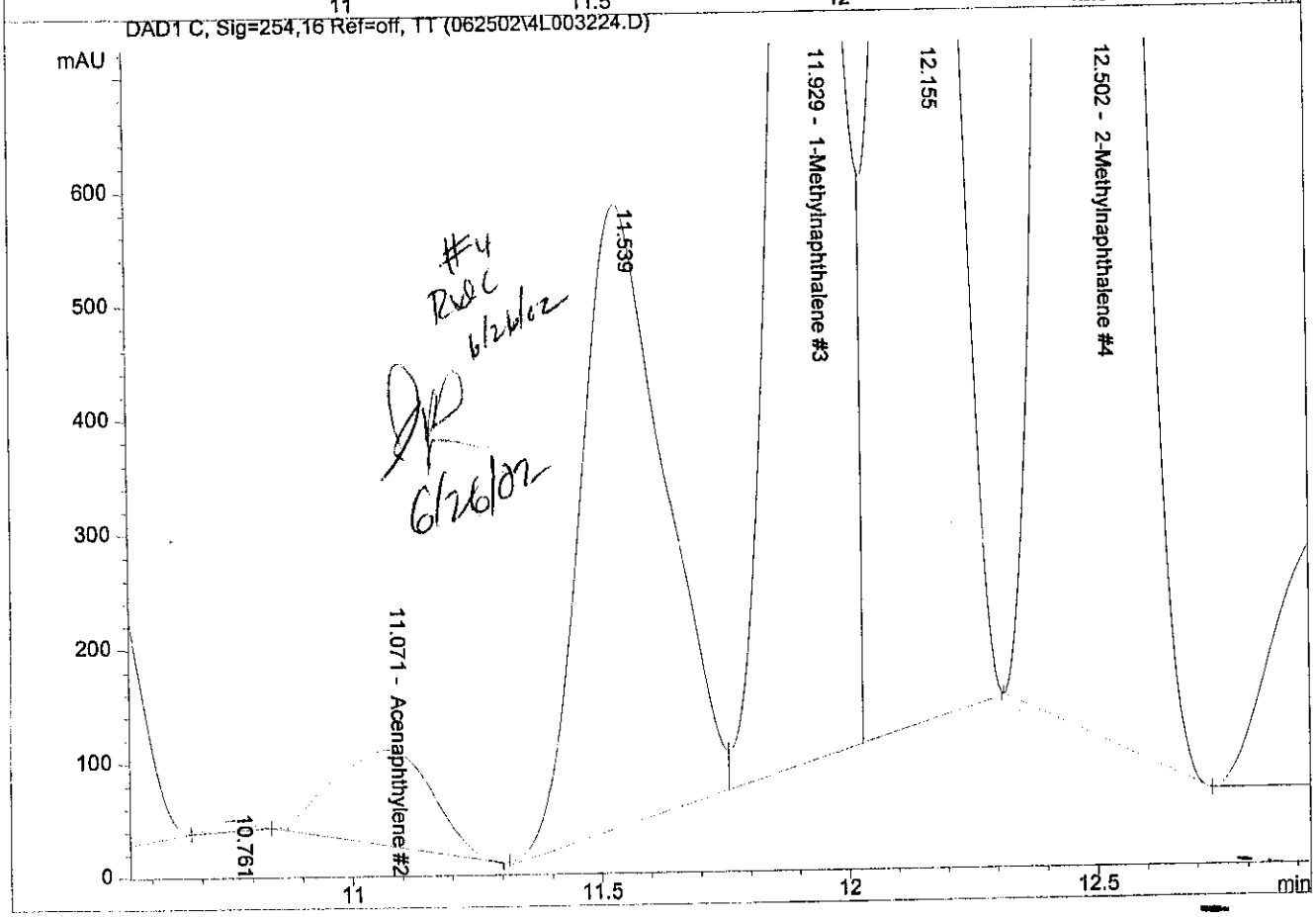


355

Page 1 of 1

Current Chromatogram(s)





#4
RDC
6/26/02

6/26/02

356

Page 1 of 1

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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	BB	1.22441e4	2.62156e-2	320.98659	C	Naphthalene #1 I
11.942	BB	7184.31250	2.29729e-2	165.04474	C	1-Methylnaphthalene #3 I
12.517	BB	1.68002e4	1.77691e-2	298.52355	C	2-Methylnaphthalene #4 I
12.866	BB	169.00514	1.45198e-2	2.45393		Acenaphthene #5
13.627	BB	685.62323	6.58799e-3	4.51688		Fluorene #6
15.019	BB	25.48560	1.81247e-1	4.61918	C	Phenanthrene #7 F
16.427	BB	6.04568	3.31536e-1	2.00436	F	Anthracene #8
17.850	BB	36.34819	2.58224e-2	9.38597e-1	C	Fluoranthene #9 P
18.834	BB	7.74831	4.30565e-2	3.33615e-1	F	Pyrene #10
21.131	BB	183.48134	2.92177e-1	53.60911	53.6%	p-Terphenyl d14 #11*
22.487	BB	26.41652	9.30971e-3	2.45930e-1	F,P	Benzo(a)anthracene #12
23.257	BB	52.41361	4.02383e-2	2.10904	C	Chrysene #13
26.069	BB	7.76224	2.03948e-2	1.58309e-1	F	Benzo(b)fluoranthene #14 P
27.528	BB	31.35995	3.19750e-3	1.00273e-1	F	Benzo(k)fluoranthene #15 P
28.634	BB	55.76794	5.36289e-3	2.99077e-1	F	Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.245	BB	3.33210	2.35496e-2	7.84698e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 856.02164

Results obtained with enhanced integrator!

X33.3 RR@5X

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	2.65234e4	8.19061e-3	217.24263	✓	Naphthalene #1 I
11.071	BB	1150.86304	3.00481e-2	~~34.58121~~	NC	Acenaphthylene #2
11.929	VV	1.11191e4	1.28955e-2	143.38625	✓	1-Methylnaphthalene #3 I
12.502	BB	2.42394e4	1.12340e-2	272.30469	✓	2-Methylnaphthalene #4 I
13.052	BB	5531.03711	2.04047e-2	112.85936	NC	Acenaphthene #5
13.544	BB	2185.14526	1.75075e-2	38.25641	NC	Fluorene #6
14.993	BB	327.15710	1.75733e-2	5.74924	✓	Phenanthrene #7
16.391	BB	300.80133	9.80454e-3	2.94922	F	Anthracene #8
17.888	BB	85.00845	2.19205e-2	1.86343	✓ P	Fluoranthene #9
18.829	BB	27.82776	1.56931e-2	4.36705e-1	F	Pyrene #10
21.144	BB	151.13138	6.58818e-2	9.95681	99.6%	p-Terphenyl d14 #11*
22.439	BB	35.49053	2.28707e-2	8.11693e-1	~~NC~~ ✓	Benzo(a)anthracene #12 P
23.385	BB	140.72281	1.51967e-2	2.13852	✓	Chrysene #13
26.051	BB	16.75371	2.24070e-2	3.75401e-1	F	Benzo(b)fluoranthene #14
27.542	BB	22.13731	2.29691e-2	5.08473e-1	✓	Benzo(k)fluoranthene #15 P
28.632	BB	9.34984	3.10599e-2	2.90405e-1	F	Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

357

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.288	BB	1.65969	6.61618e-2	1.09808e-1	2mpc	Benzo(g,h,i)perylene #18
32.244	BB	2.11756	4.63027e-2	9.80486e-2	↓	Indeno(1,2,3-cd)pyrene #1

Totals : 843.91830

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 ***

Search result of : DAD1, 11.070 (95.9 mAU, -) Ref=10.837 & 11.304
Library used : C:\HPCHEM\SPECLIBS\8310_CCV.UVL
Library Name : 8310 CCV
Parameters : Window 10.517 | 10.517 min

Library search results

#	Match	Entry	Time [min]	Name
1	278.8618	1	10.972	acenaphthylene

*** End of Report ***

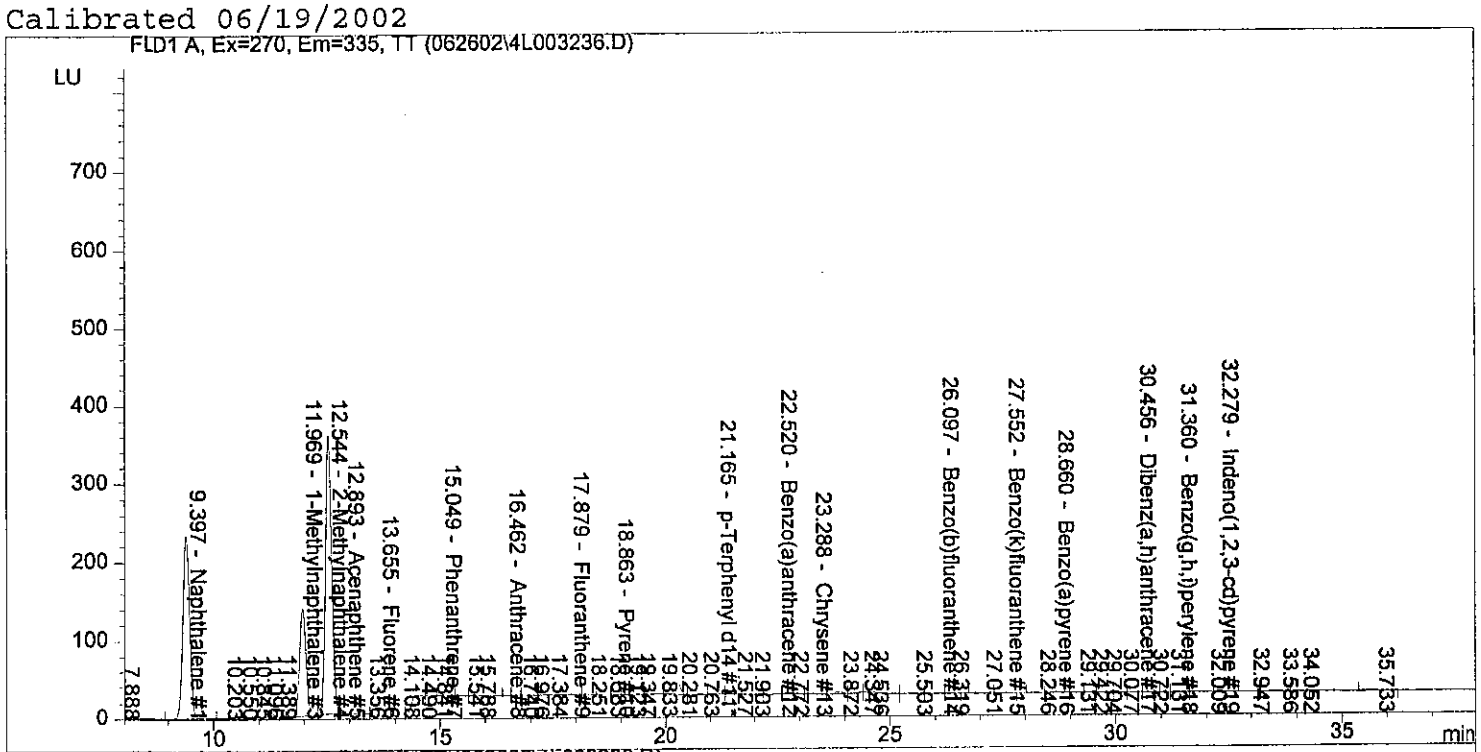
7,5 5X dilution

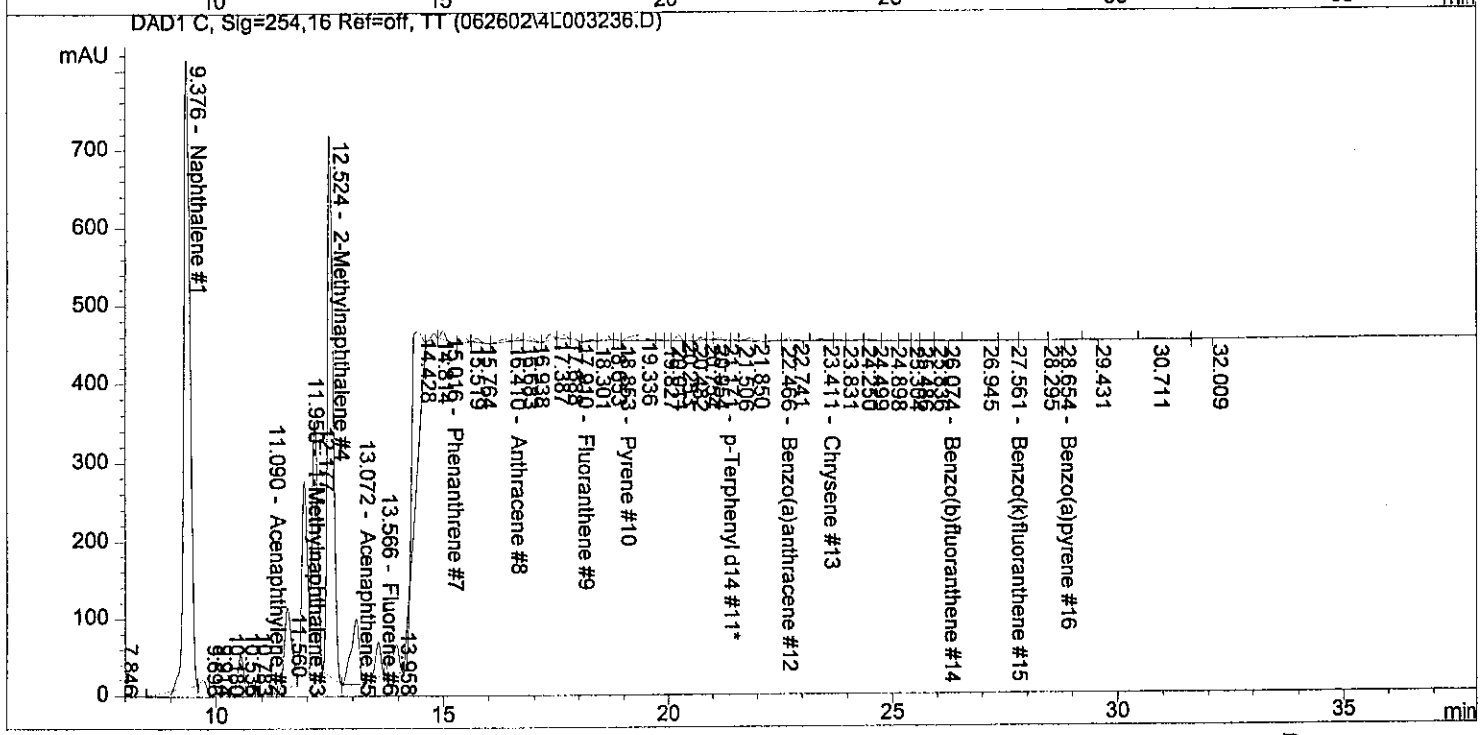
==========

Injection Date	: 6/26/2002 11:11:36 PM	Seq. Line	: 10
Sample Name	: L0206417-02 @ 5X	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/27/2002 12:10:52 PM by RDC
(modified after loading)

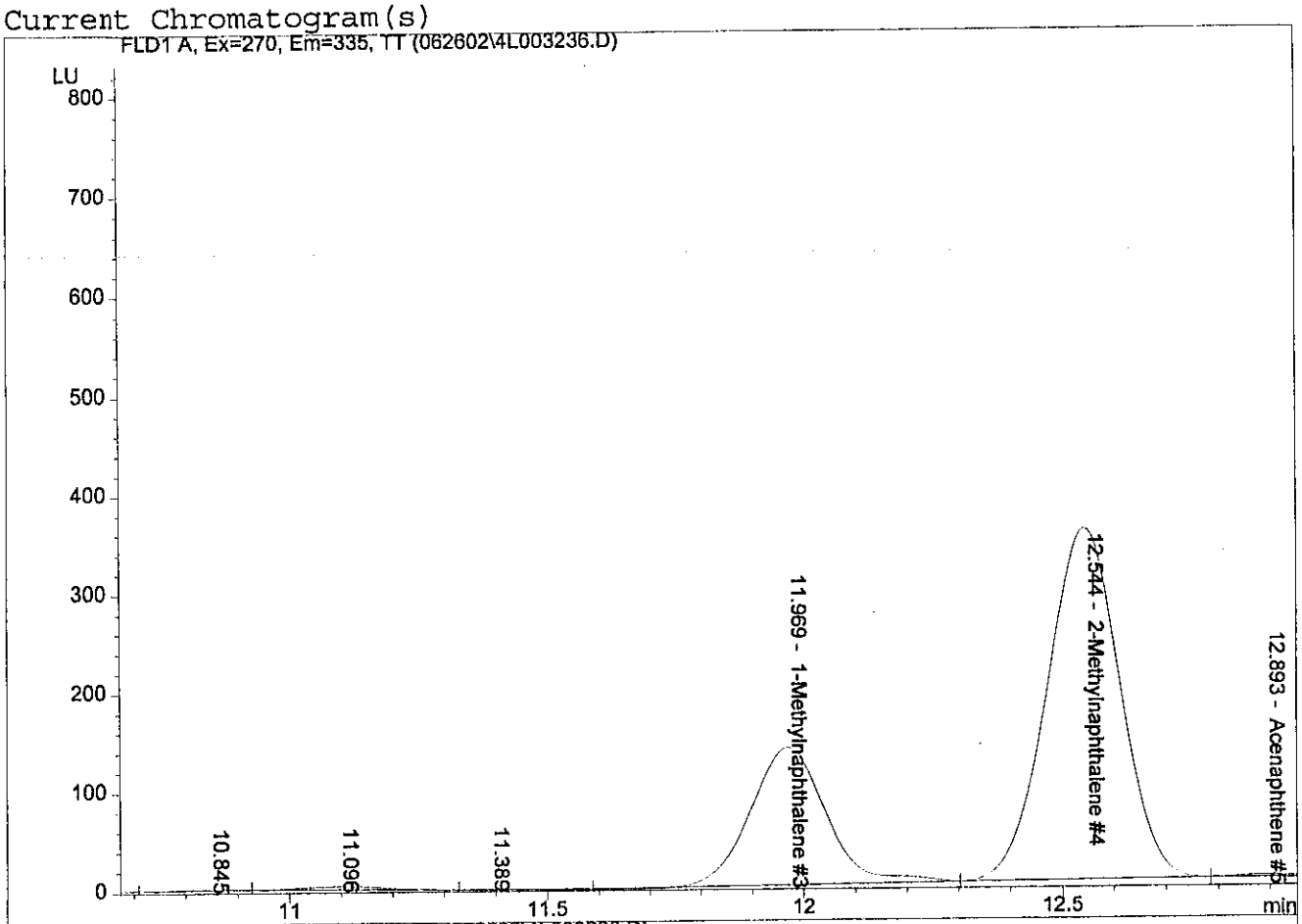
Calibrated 06/19/2002

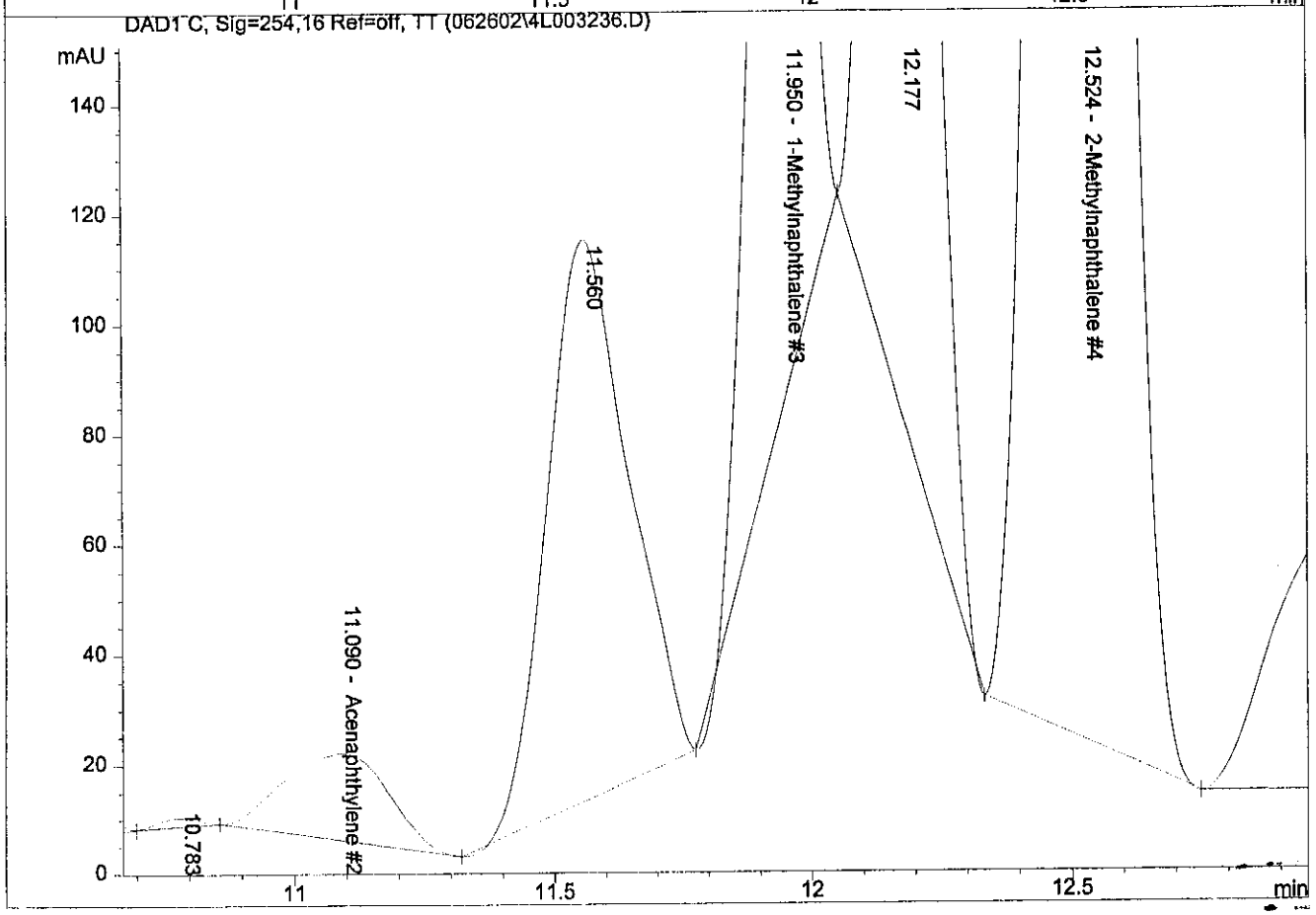




360

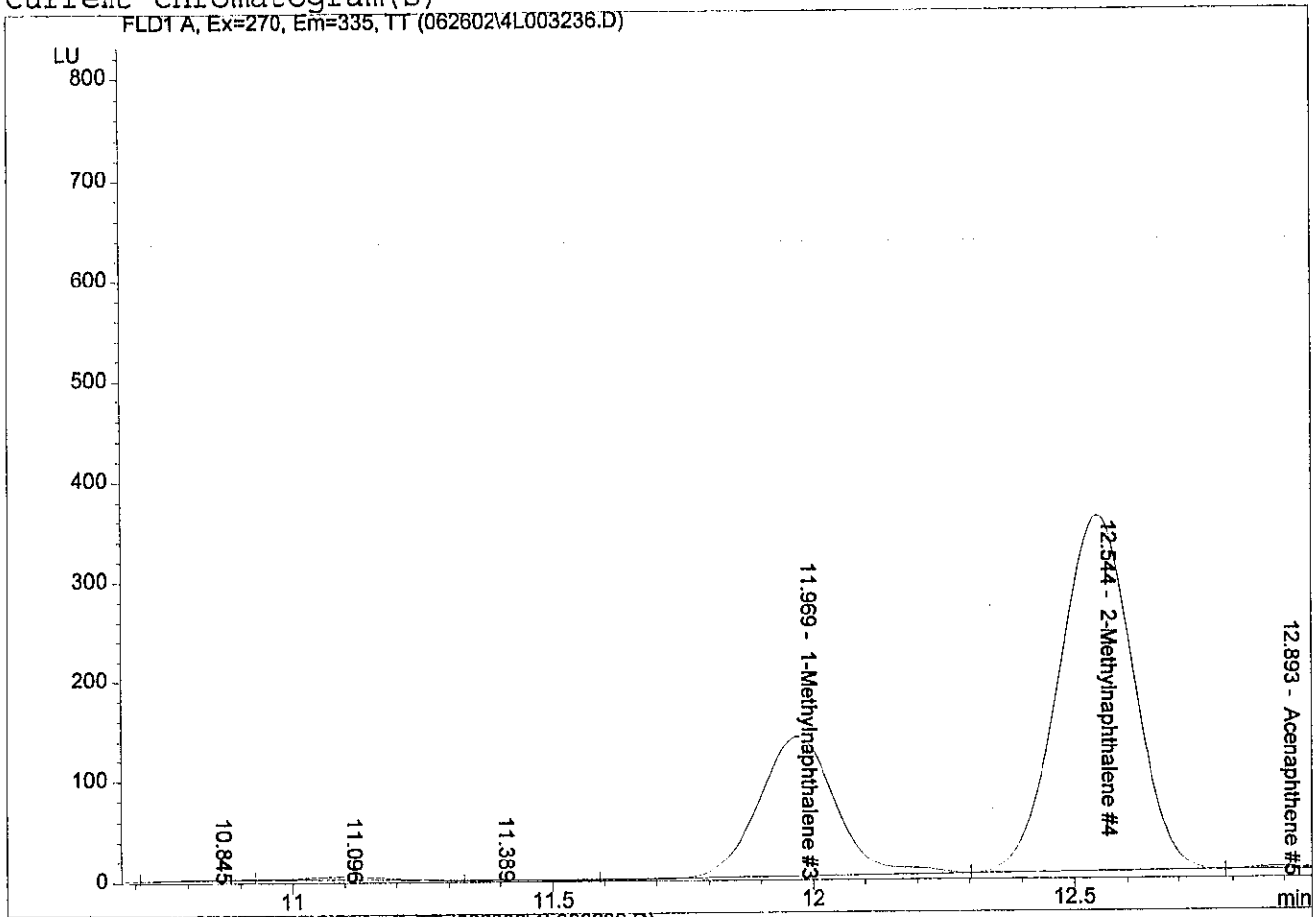
Current Chromatogram(s)

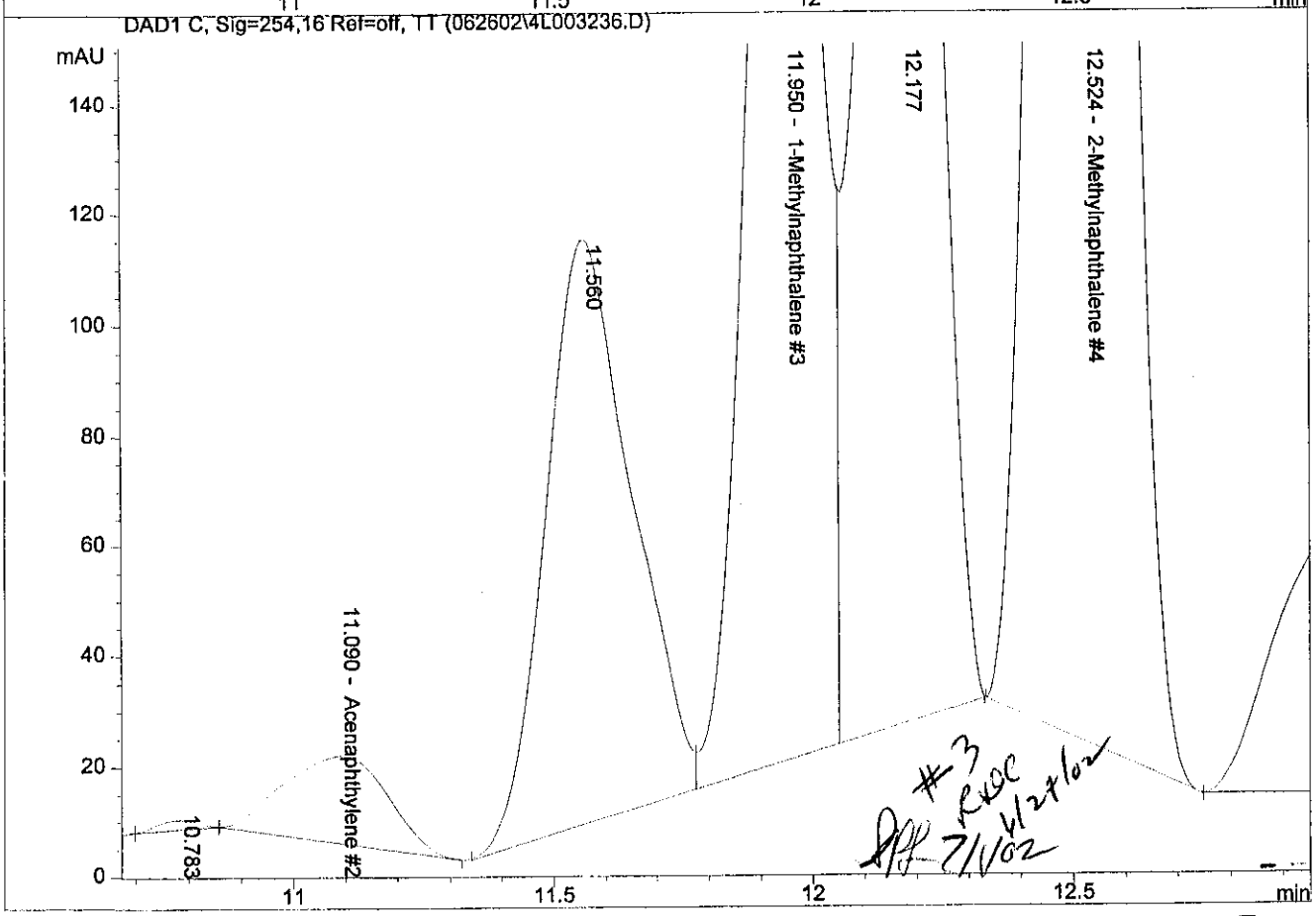




361

Current Chromatogram(s)





362

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.397	BB	2408.65088	2.62867e-2	63.31550		Naphthalene #1
11.969	BB	1404.15015	2.30864e-2	32.41680		1-Methylnaphthalene #3
12.544	BB	3469.60962	1.78010e-2	61.76259		2-Methylnaphthalene #4
12.893	BB	30.76718	1.63762e-2	5.03849e-1		Acenaphthene #5
13.655	BB	129.58279	6.57510e-3	8.52019e-1		Fluorene #6
15.049	BB	4.77749	2.26103e-1	1.08020		Phenanthrene #7
16.462	BB	1.71000e-1	1.48492	2.53921e-1		Anthracene #8
17.879	BB	6.97343	2.85466e-2	1.99068e-1		Fluoranthene #9
18.863	BB	1.49994	4.95718e-2	7.43545e-2		Pyrene #10
21.165	BB	34.57412	2.97871e-1	10.29861	515%	p-Terphenyl d14 #11*
22.520	BB	4.80136	1.47424e-2	7.07837e-2		Benzo(a)anthracene #12
23.288	BB	9.83651	4.27150e-2	4.20167e-1		Chrysene #13
26.097	BB	1.46722	3.58405e-2	5.25860e-2		Benzo(b)fluoranthene #14
27.552	BB	6.06402	4.89377e-3	2.96759e-2		Benzo(k)fluoranthene #15
28.660	BB	10.81649	8.20526e-3	8.87521e-2		Benzo(a)pyrene #16
30.456	BB	3.94100e-1	1.50689e-1	5.93864e-2		Dibenz(a,h)anthracene #17
31.360	BB	1.86087	5.27959e-2	9.82464e-2		Benzo(g,h,i)perylene #18
32.279	BB	4.67806e-1	8.23425e-2	3.85203e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 171.61504

Results obtained with enhanced integrator!

X166.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.376	BB	7664.41748	8.16537e-3	62.58277		Naphthalene #1
11.090	BB	218.94197	3.08459e-2	6.75346		Acenaphthylene #2
11.950	VV	2256.98950	1.29451e-2	29.21686		1-Methylnaphthalene #3
12.524	BB	6298.17578	1.12309e-2	70.73419		2-Methylnaphthalene #4
13.072	BB	1079.93665	2.05493e-2	22.19192		Acenaphthene #5
13.566	BB	425.48090	1.79703e-2	7.64603		Fluorene #6
15.016	BB	59.96972	2.07264e-2	1.24295		Phenanthrene #7
16.410	BB	58.02171	8.84796e-3	5.13374e-1		Anthracene #8
17.910	BB	15.97817	2.35984e-2	3.77060e-1		Fluoranthene #9
18.853	BB	5.02446	2.27497e-2	1.14305e-1		Pyrene #10
21.171	BB	28.56581	7.27587e-2	2.07841	104%	p-Terphenyl d14 #11*
22.466	BB	6.41959	2.72663e-2	1.75039e-1		Benzo(a)anthracene #12
23.411	BB	26.80104	1.62076e-2	4.34381e-1		Chrysene #13
26.074	BB	3.30286	3.00664e-2	9.93052e-2		Benzo(b)fluoranthene #14
27.561	BB	4.18221	2.58272e-2	1.08015e-1		Benzo(k)fluoranthene #15
28.654	BB	1.81183	5.36746e-2	9.72495e-2		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 204.36533

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 ***

7,1

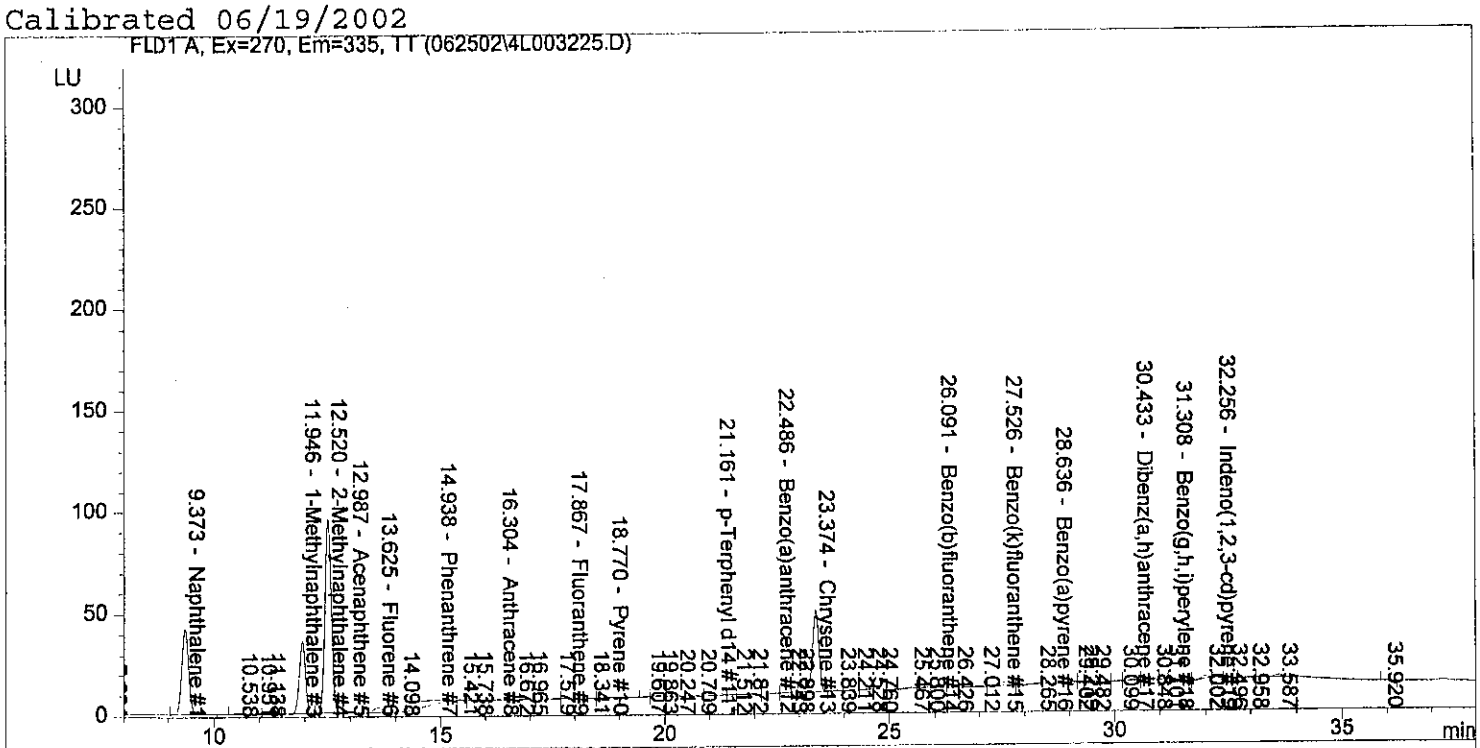
==========

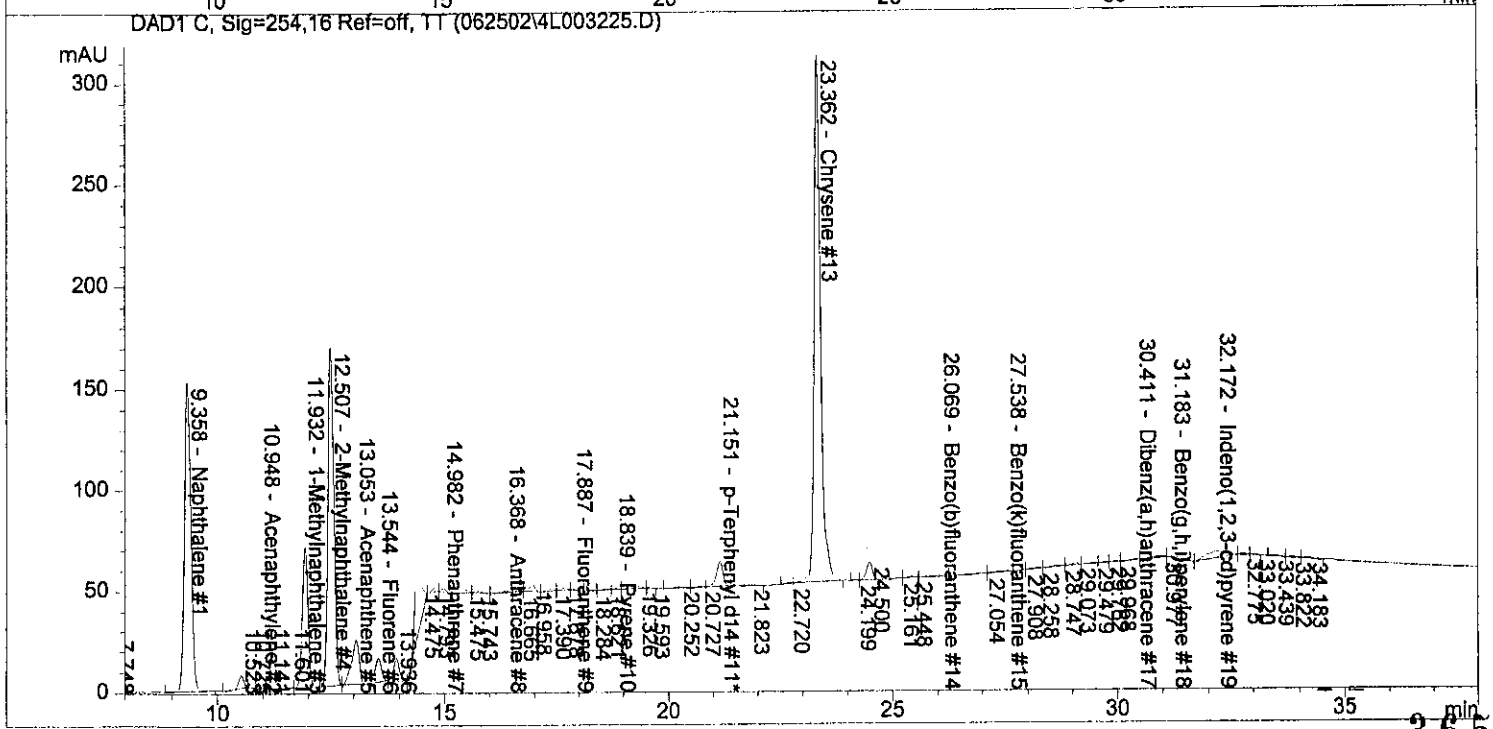
Injection Date : 6/26/2002 5:00:57 AM
Sample Name : L0206417-03 831S
Acq. Operator : RDC

Seq. Line : 15
Vial : 15
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/26/2002 4:16:38 PM by RDC
(modified after loading)

Calibrated 06/19/2002





365

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.373	BB	426.32394	2.66984e-2	11.38218	C	Naphthalene #1
11.946	BB	350.21463	2.35109e-2	8.23387	C	1-Methylnaphthalene #3
12.520	BB	926.36267	1.79115e-2	16.59254	C	2-Methylnaphthalene #4
12.987	BB	3.17490	3.61000e-2	1.14614e-1		Acenaphthene #5
13.625	BB	33.31307	6.52916e-3	2.17506e-1		Fluorene #6
14.938	BB	119.93939	1.73097e-1	20.76115		Phenanthrene #7
16.304	BB	1.88694	4.05528e-1	7.65209e-1		Anthracene #8
17.867	BB	3.49127	3.19087e-2	1.11402e-1		Fluoranthene #9
18.770	BB	5.36071	4.37531e-2	2.34547e-1		Pyrene #10
21.161	BB	29.35448	2.99118e-1	8.78045	87.8%	p-Terphenyl d14 #11*
22.486	BB	1.36736	3.14169e-2	4.29581e-2		Benzo(a)anthracene #12
23.374	BB	394.75589	3.97421e-2	15.68844	C	Chrysene #13 (P), I
26.091	BB	7.64066	2.04521e-2	1.56267e-1	F	Benzo(b)fluoranthene #14
27.526	BB	20.73468	3.40587e-3	7.06197e-2	F	Benzo(k)fluoranthene #15
28.636	BB	20.95138	6.49946e-3	1.36173e-1		Benzo(a)pyrene #16
30.433	BB	4.58793	4.92282e-2	2.25856e-1	F	Dibenz(a,h)anthracene #17
31.308	BB	4.94378	3.72698e-2	1.84254e-1		Benzo(g,h,i)perylene #18
32.256	BB	2.66358	2.59597e-2	6.91456e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 83.76718

Results obtained with enhanced integrator!

X33.3 RRE 5X

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	BBA	1442.49500	8.01225e-3	11.55763	✓	Naphthalene #1
10.948	BB	3.67909	8.84918e-2	3.25569e-1	<MDL	Acenaphthylene #2
11.932	BB	621.23267	1.31089e-2	8.14369	✓	1-Methylnaphthalene #3
12.507	BB	1505.07153	1.12178e-2	16.88353	✓	2-Methylnaphthalene #4
13.053	BB	251.45790	2.11410e-2	5.31608	NC	Acenaphthene #5
13.544	BB	125.36995	1.93462e-2	2.42543	NC	Fluorene #6
14.982	BB	10.81297	3.82775e-2	4.13893e-1	<MDL	Phenanthrene #7
16.368	BB	10.59093	3.54017e-3	3.74936e-2		Anthracene #8
17.887	BB	1.10180	5.14979e-2	5.67403e-2		Fluoranthene #9
18.839	BB	3.15899	2.78349e-2	8.79303e-2		Pyrene #10
21.151	BB	122.57029	6.62553e-2	8.12093	81.2%	p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.362	BB	2622.41064	1.49717e-2	39.26181	✓ I	Chrysene #13 (P)
26.069	BB	16.81518	2.24002e-2	3.76663e-1	F	Benzo(b)fluoranthene #14
27.538	BB	8.81705	2.39748e-2	2.11387e-1	F	Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.411	BB	2.29884	9.09463e-2	2.09071e-1	F	Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.183	BB	12.50223	5.45373e-2	6.81839e-1	NC	Benzo(g,h,i)perylene #18
32.172	BB	90.13100	2.08790e-2	1.88184	NC	Indeno(1,2,3-cd)pyrene #1

Totals : 95.99154

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 ***

367

7,5 5X dilution

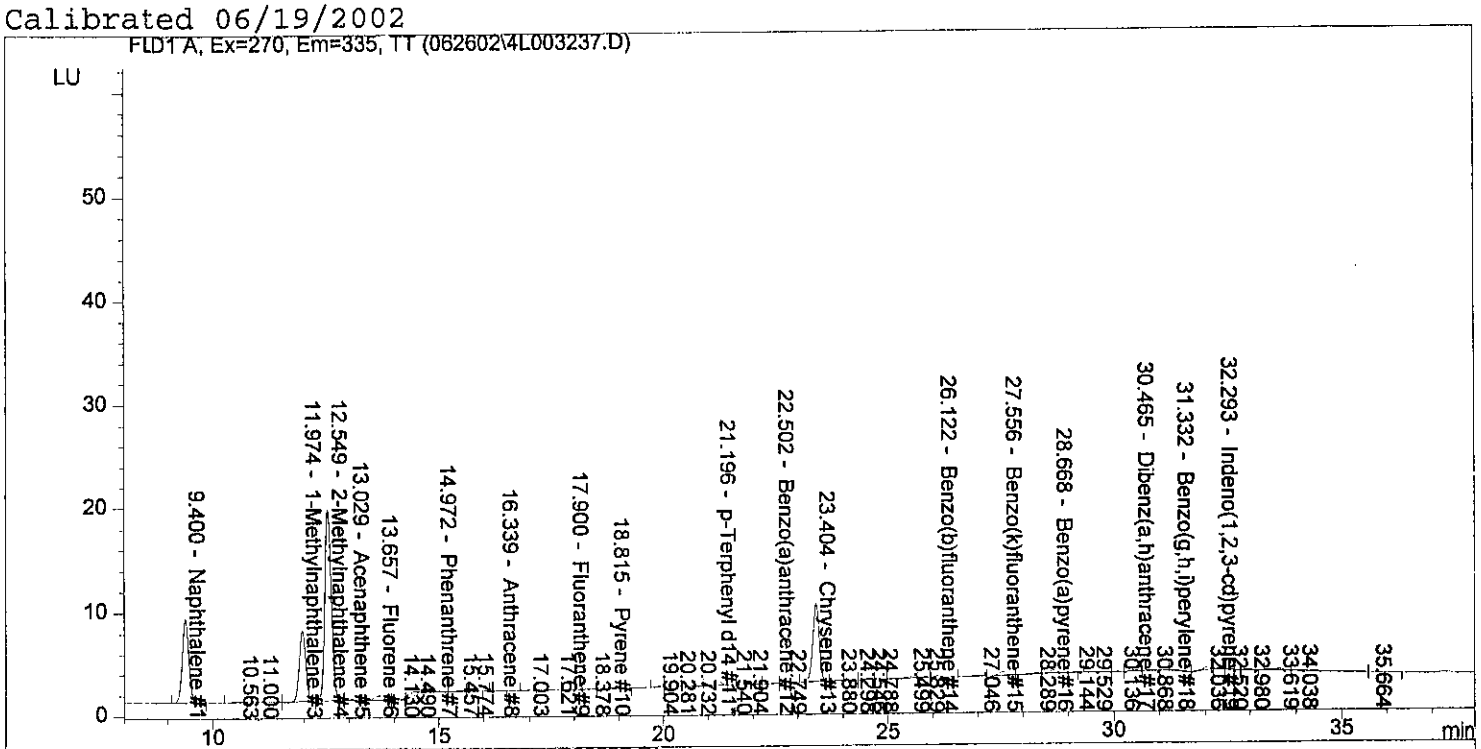
==========

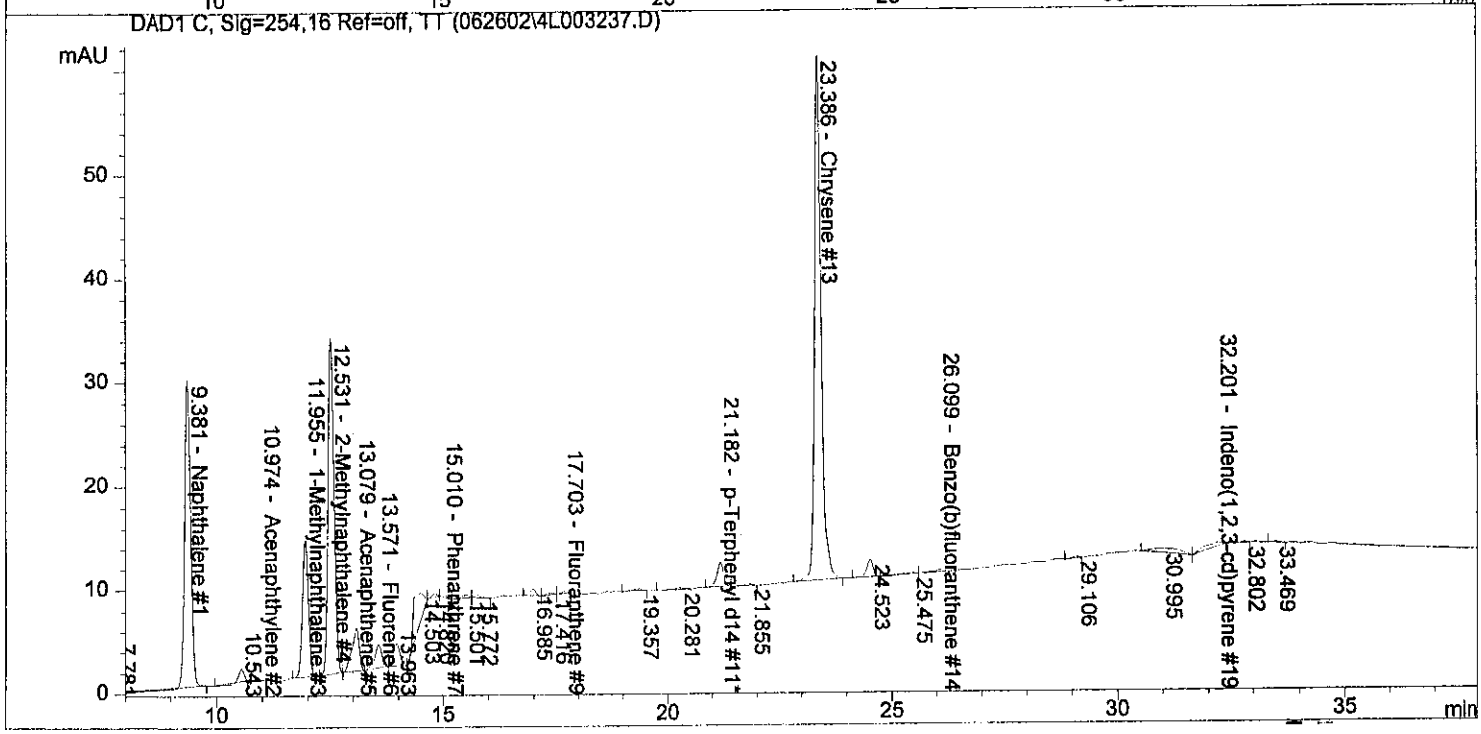
Injection Date : 6/27/2002 12:08:13 AM
Sample Name : L0206417-03 @ 5X
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/27/2002 12:12:37 PM by RDC
(modified after loading)

Calibrated 06/19/2002





368

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.400	BBA	83.50002	2.87524e-2	2.40082		Naphthalene #1
11.974	BB	68.84806	2.58223e-2	1.77781		1-Methylnaphthalene #3
12.549	BB	182.17943	1.85272e-2	3.37527		2-Methylnaphthalene #4
13.029	BB	5.53716e-1	1.40212e-1	7.76376e-2		Acenaphthene #5
13.657	BB	6.31909	6.26502e-3	3.95892e-2		Fluorene #6
14.972	BB	1.29819	3.74059e-1	4.85599e-1		Phenanthrene #7
16.339	BB	3.61459e-1	8.59490e-1	3.10671e-1		Anthracene #8
17.900	BB	6.89622e-1	5.92621e-2	4.08685e-2		Fluoranthene #9
18.815	BB	1.75053	4.84152e-2	8.47523e-2		Pyrene #10
21.196	BB	5.69418	3.33450e-1	1.89872		p-Terphenyl d14 #11*
22.502	BB	1.99987e-1	1.67506e-1	3.34990e-2		Benzo(a)anthracene #12
23.404	BB	76.55508	4.00579e-2	3.06664		Chrysene #13
26.122	BB	1.58385	3.44380e-2	5.45447e-2		Benzo(b)fluoranthene #14
27.556	BB	3.95795	6.01276e-3	2.37982e-2		Benzo(k)fluoranthene #15
28.668	BB	4.03015	1.41432e-2	5.69993e-2		Benzo(a)pyrene #16
30.465	BB	9.96176e-1	8.36048e-2	8.32851e-2		Dibenz(a,h)anthracene #17
31.332	BB	1.00768	7.38767e-2	7.44439e-2		Benzo(g,h,i)perylene #18
32.293	BB	5.00957e-1	7.78164e-2	3.89827e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 13.92394

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	277.86340	7.22170e-3	2.00665		Naphthalene #1
10.974	BB	7.85464e-1	3.04487e-1	2.39164e-1		Acenaphthylene #2
11.955	BB	121.07523	1.40429e-2	1.70025		1-Methylnaphthalene #3
12.531	BB	295.49139	1.11470e-2	3.29386		2-Methylnaphthalene #4
13.079	BB	49.15958	2.43154e-2	1.19533		Acenaphthene #5
13.571	BB	23.65347	2.77344e-2	6.56015e-1		Fluorene #6
15.010	BB	2.08353	1.27987e-1	2.66665e-1		Phenanthrene #7
16.431		-	-	-		Anthracene #8
17.703	BB	1.90196	3.88912e-2	7.39694e-2		Fluoranthene #9
18.809		-	-	-		Pyrene #10
21.182	BB	23.77636	7.44668e-2	1.77055		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.386	BBA	512.89185	1.50241e-2	7.70576		Chrysene #13
26.099	BB	3.45241	2.96532e-2	1.02375e-1		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.201	BB	12.57192	2.46526e-2	3.09930e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 19.32052

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 ***

370

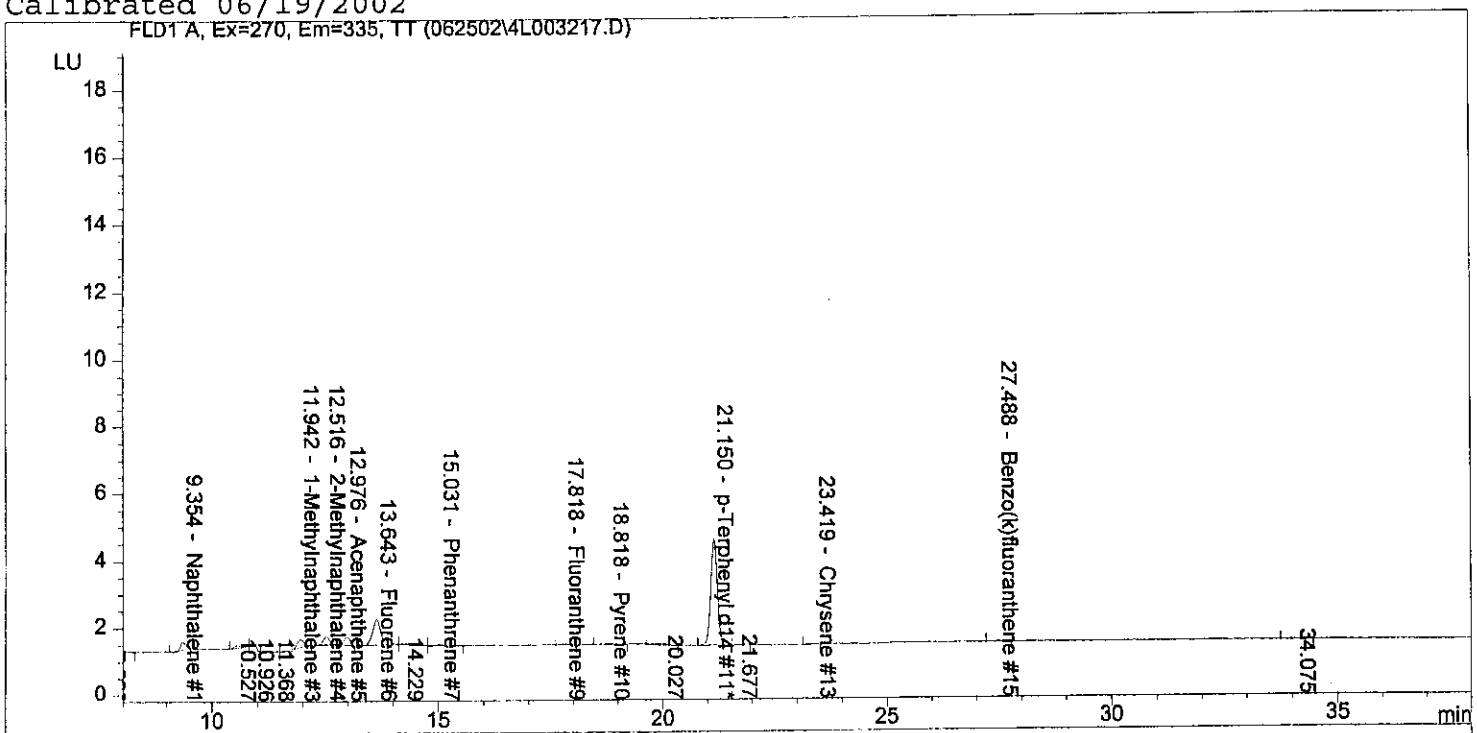
1,1

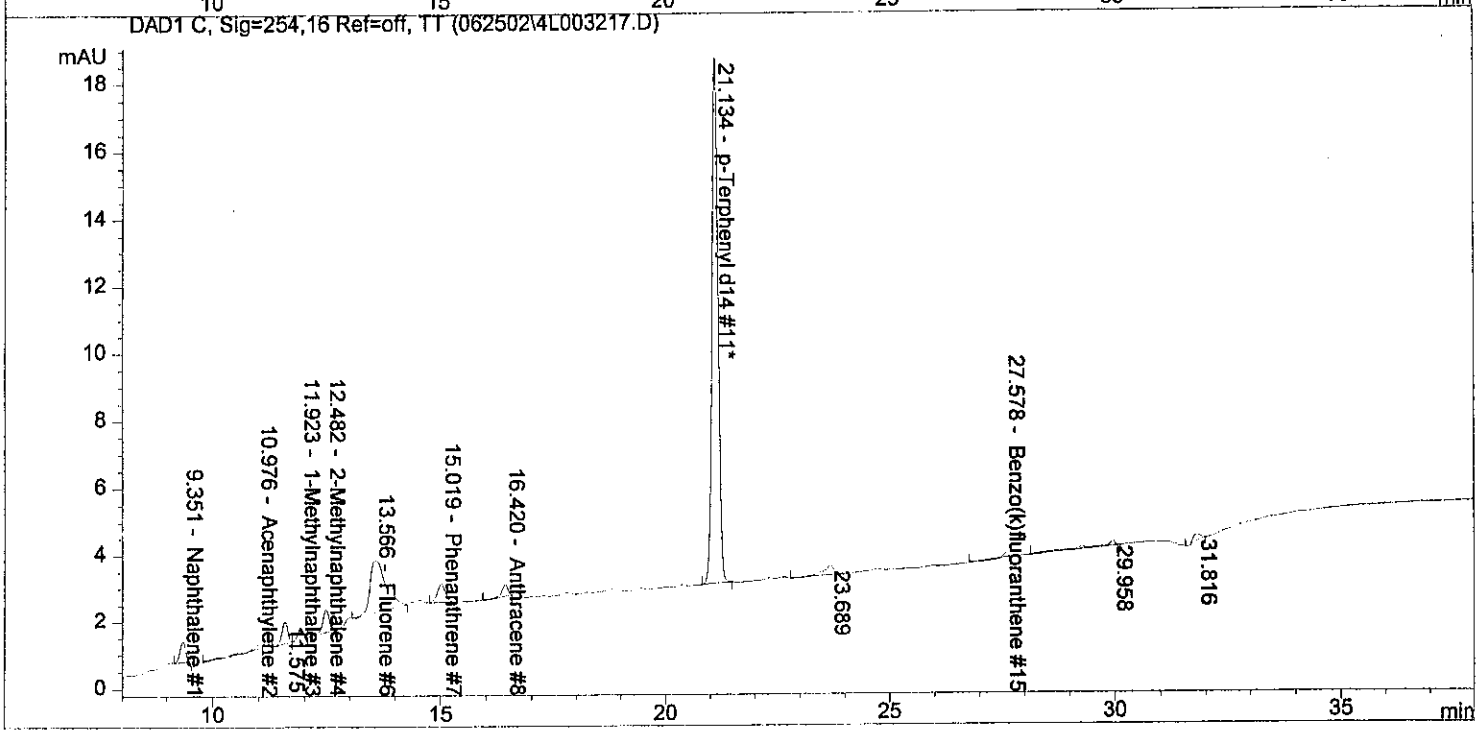
==========

Injection Date : 6/25/2002 9:27:46 PM
Sample Name : L0206417-04 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 : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





371

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.354	BB	2.00057	1.32807e-1	2.65689e-1		Naphthalene #1
11.942	BB	1.94687	1.24682e-1	2.42740e-1		1-Methylnaphthalene #3
12.516	BB	2.54536	7.26151e-2	1.84831e-1		2-Methylnaphthalene #4
12.976	BB	2.26769	4.48986e-2	1.01816e-1		Acenaphthene #5
13.643	BB	10.52518	6.39528e-3	6.73115e-2		Fluorene #6
15.031	BBA	5.54960e-1	6.46142e-1	3.58583e-1	F	Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.818	BB	5.40639e-1	6.86553e-2	3.71177e-2		Fluoranthene #9
18.818	BB	3.10169e-1	8.05631e-2	2.49882e-2		Pyrene #10
21.150	BB	31.94240	2.98449e-1	9.53316		p-Terphenyl d14 #11*
22.485		-	-	-		Benzo(a)anthracene #12
23.419	BB	2.62252e-1	1.54024e-1	4.03930e-2		Chrysene #13
26.079		-	-	-		Benzo(b)fluoranthene #14
27.488	PBA	3.27728e-1	4.17016e-2	1.36668e-2		Benzo(k)fluoranthene #15
28.614		-	-	-		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.233		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.87030

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	5.41698	0.00000	0.00000		Naphthalene #1
10.976	BB	1.89152e-1	1.17026	2.21358e-1	LMQ	Acenaphthylene #2
11.923	BB	2.94901	6.05131e-2	1.78454e-1		1-Methylnaphthalene #3
12.482	BB	7.29092	7.66917e-3	5.59153e-2		2-Methylnaphthalene #4
12.994		-	-	-		Acenaphthene #5
13.566	BB	38.07915	2.38177e-2	9.06959e-1	NC	Fluorene #6
15.019	BB	6.71753	5.13315e-2	3.44821e-1	NC F	Phenanthrene #7
16.420	PB	2.83375	0.00000	0.00000		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.809		-	-	-	96.1%	Pyrene #10
21.134	BBA	145.73291	6.59412e-2	9.60980		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.578	BBA	7.13927e-1	4.29462e-2	3.06604e-2	NC	Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

372

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 11.34797

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

2.2.7.3 Standards Data

Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 6/20/2002 8:52:08 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 : Included
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
9.370	2	1	1.00000	121.88613	8.20438e-3			Naphthalene #1
		2	5.00000	604.13025	8.27636e-3			
		3	10.00000	1256.01123	7.96171e-3			
		4	20.00000	2522.50317	7.92863e-3			
		5	50.00000	6248.73438	8.00162e-3			
		6	100.00000	1.21595e4	8.22402e-3			
9.388	1	1	1.00000	35.50560	2.81646e-2			Naphthalene #1
		2	5.00000	180.32388	2.77279e-2			
		3	10.00000	372.80032	2.68240e-2			
		4	20.00000	753.95251	2.65269e-2			
		5	50.00000	1881.29065	2.65775e-2			
		6	100.00000	3818.87573	2.61857e-2			
10.995	2	1	1.00000	31.70620	3.15396e-2			Acenaphthylene #2
		2	5.00000	161.28902	3.10003e-2			
		3	10.00000	327.28607	3.05543e-2			
		4	20.00000	658.61700	3.03667e-2			
		5	50.00000	1646.95264	3.03591e-2			
		6	100.00000	3352.51904	2.98283e-2			
11.942	2	1	1.00000	72.22427	1.38458e-2			1-Methylnaphthalene #3

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref Grp Name
		2	5.00000	369.24078	1.35413e-2	
		3	10.00000	764.27496	1.30843e-2	
		4	20.00000	1542.24731	1.29681e-2	
		5	50.00000	3853.44678	1.29754e-2	
		6	100.00000	7760.07324	1.28865e-2	
11.959	1	1	1.00000	40.92273	2.44363e-2	1-Methylnaphthalene #3
		2	5.00000	206.59302	2.42022e-2	
		3	10.00000	427.56720	2.33881e-2	
		4	20.00000	858.01282	2.33097e-2	
		5	50.00000	2153.76392	2.32152e-2	
		6	100.00000	4358.92773	2.29414e-2	
12.516	2	1	1.00000	85.91975	1.16388e-2	2-Methylnaphthalene #4
		2	5.00000	431.87616	1.15774e-2	
		3	10.00000	893.57037	1.11911e-2	
		4	20.00000	1796.91260	1.11302e-2	
		5	50.00000	4472.15283	1.11803e-2	
		6	100.00000	8891.12988	1.12472e-2	
12.534	1	1	1.00000	53.13324	1.88206e-2	2-Methylnaphthalene #4
		2	5.00000	268.34698	1.86326e-2	
		3	10.00000	555.46735	1.80029e-2	
		4	20.00000	1119.16992	1.78704e-2	
		5	50.00000	2790.36157	1.79188e-2	
		6	100.00000	5631.00635	1.77588e-2	
12.994	2	1	1.00000	46.04076	2.17199e-2	Acenaphthene #5
		2	5.00000	232.43697	2.15112e-2	
		3	10.00000	481.32138	2.07761e-2	
		4	20.00000	969.13959	2.06369e-2	
		5	50.00000	2425.16016	2.06172e-2	
		6	100.00000	4910.46826	2.03647e-2	
13.012	1	1	1.00000	67.65919	1.47800e-2	Acenaphthene #5
		2	5.00000	339.82239	1.47136e-2	
		3	10.00000	703.58374	1.42129e-2	
		4	20.00000	1418.85522	1.40959e-2	
		5	50.00000	3535.51440	1.41422e-2	
		6	100.00000	7085.17041	1.41140e-2	
13.645	2	1	1.00000	52.90672	1.89012e-2	Fluorene #6
		2	5.00000	269.75366	1.85354e-2	
		3	10.00000	559.61633	1.78694e-2	
		4	20.00000	1129.35339	1.77092e-2	
		5	50.00000	2832.44678	1.76526e-2	
		6	100.00000	5749.89111	1.73916e-2	
13.663	1	1	1.00000	146.98784	6.80328e-3	Fluorene #6
		2	5.00000	734.63800	6.80607e-3	
		3	10.00000	1519.39380	6.58157e-3	
		4	20.00000	3055.26025	6.54609e-3	
		5	50.00000	7607.03076	6.57287e-3	
		6	100.00000	1.51592e4	6.59665e-3	
15.028	2	1	1.00000	59.91370	1.66907e-2	Phenanthrene #7
		2	5.00000	277.70538	1.80047e-2	
		3	10.00000	576.95782	1.73323e-2	
		4	20.00000	1164.06238	1.71812e-2	
		5	50.00000	2921.47241	1.71147e-2	
		6	100.00000	5932.12939	1.68574e-2	
15.046	1	1	1.00000	6.79399	1.47189e-1	Phenanthrene #7
		2	5.00000	27.54959	1.81491e-1	
		3	10.00000	57.20443	1.74812e-1	

376

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.53256	1.76161e-1			
		5	50.00000	286.03766	1.74802e-1			
		6	100.00000	586.44727	1.70518e-1			
16.431	2	1	1.00000	96.05915	1.04103e-2			Anthracene #8
		2	5.00000	483.02975	1.03513e-2			
		3	10.00000	1002.81183	9.97196e-3			
		4	20.00000	2019.75476	9.90219e-3			
		5	50.00000	5037.00098	9.92654e-3			
		6	100.00000	9947.86328	1.00524e-2			
16.450	1	1	1.00000	3.26255	3.06509e-1			Anthracene #8
		2	5.00000	15.88479	3.14767e-1			
		3	10.00000	32.94457	3.03540e-1			
		4	20.00000	66.23384	3.01960e-1			
		5	50.00000	165.22198	3.02623e-1			
		6	100.00000	335.92169	2.97688e-1			
17.806	2	1	1.00000e-1	4.17519	2.39510e-2			Fluoranthene #9
		2	5.00000e-1	21.38802	2.33776e-2			
		3	1.00000	44.70066	2.23710e-2			
		4	2.00000	90.59781	2.20756e-2			
		5	5.00000	227.65421	2.19631e-2			
		6	10.00000	464.57758	2.15249e-2			
17.824	1	1	1.00000e-1	3.92421	2.54828e-2			Fluoranthene #9
		2	5.00000e-1	18.78860	2.66119e-2			
		3	1.00000	38.41879	2.60289e-2			
		4	2.00000	78.11402	2.56036e-2			
		5	5.00000	195.60518	2.55617e-2			
		6	10.00000	397.42139	2.51622e-2			
18.809	2	1	1.00000e-1	6.27601	1.59337e-2			Pyrene #10
		2	5.00000e-1	30.01324	1.66593e-2			
		3	1.00000	67.82222	1.47444e-2			
		4	2.00000	137.22350	1.45748e-2			
		5	5.00000	345.94687	1.44531e-2			
		6	10.00000	706.87067	1.41469e-2			
18.828	1	1	1.00000e-1	2.23386	4.47655e-2			Pyrene #10
		2	5.00000e-1	11.53121	4.33606e-2			
		3	1.00000	23.72331	4.21526e-2			
		4	2.00000	47.68803	4.19392e-2			
		5	5.00000	120.33789	4.15497e-2			
21.150	2	1	1.00000	14.27093	7.00725e-2			p-Terphenyl d14 #11*
		2	5.00000	72.39475	6.90658e-2			
		3	10.00000	150.41772	6.64815e-2			
		4	20.00000	304.47540	6.56868e-2			
		5	50.00000	771.85547	6.47790e-2			
		6	100.00000	1553.84106	6.43566e-2			
21.166	1	1	1.00000	3.57698	2.79566e-1			p-Terphenyl d14 #11*
		2	5.00000	16.05081	3.11511e-1			
		3	10.00000	33.17809	3.01404e-1			
		4	20.00000	67.05980	2.98241e-1			
		5	50.00000	170.11554	2.93918e-1			
		6	100.00000	343.67426	2.90973e-1			
22.466	2	1	1.00000e-1	4.39682	2.27437e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.07132	2.37289e-2			
		3	1.00000	43.86306	2.27982e-2			
		4	2.00000	88.71733	2.25435e-2			
		5	5.00000	223.22693	2.23987e-2			
		6	10.00000	457.02676	2.18806e-2			

377

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.485	1	1	1.00000e-1	11.92573	8.38523e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.40008	8.71079e-3			
		3	1.00000	118.62704	8.42978e-3			
		4	2.00000	240.55975	8.31394e-3			
		5	5.00000	604.25543	8.27465e-3			
		6	10.00000	1235.15466	8.09615e-3			
23.337	2	1	1.00000e-1	6.15006	1.62600e-2			Chrysene #13
		2	5.00000e-1	30.91224	1.61748e-2			
		3	1.00000	64.16498	1.55848e-2			
		4	2.00000	130.01958	1.53823e-2			
		5	5.00000	327.80472	1.52530e-2			
		6	10.00000	668.69543	1.49545e-2			
23.357	1	1	1.00000e-1	2.37958	4.20241e-2			Chrysene #13
		2	5.00000e-1	11.79001	4.24088e-2			
		3	1.00000	24.51306	4.07946e-2			
		4	2.00000	49.27580	4.05879e-2			
		5	5.00000	123.19585	4.05858e-2			
		6	10.00000	252.46683	3.96092e-2			
26.064	2	1	1.00000e-1	4.57150	2.18747e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.64764	2.20774e-2			
		3	1.00000	46.88808	2.13274e-2			
		4	2.00000	95.03743	2.10443e-2			
		5	5.00000	238.78767	2.09391e-2			
		6	10.00000	487.47803	2.05137e-2			
26.079	1	1	1.00000e-1	5.48437	1.82336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.72870	1.80319e-2			
		3	1.00000	57.64222	1.73484e-2			
		4	2.00000	116.48901	1.71690e-2			
		5	5.00000	292.99271	1.70653e-2			
		6	10.00000	595.50562	1.67925e-2			
27.495	2	1	5.00000e-2	2.19067	2.28241e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.30655	2.42564e-2			
		3	5.00000e-1	21.77243	2.29648e-2			
		4	1.00000	43.78368	2.28396e-2			
		5	2.50000	109.96069	2.27354e-2			
		6	5.00000	224.33841	2.22878e-2			
27.510	1	1	5.00000e-2	16.92470	2.95426e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.46227	2.99537e-3			
		3	5.00000e-1	174.54939	2.86452e-3			
		4	1.00000	351.08521	2.84831e-3			
		5	2.50000	882.24713	2.83367e-3			
		6	5.00000	1792.05200	2.79010e-3			
28.596	2	1	1.00000e-1	3.90243	2.56251e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.74469	2.98602e-2			
		3	1.00000	36.86427	2.71265e-2			
		4	2.00000	74.65511	2.67899e-2			
		5	5.00000	189.32166	2.64101e-2			
		6	10.00000	390.50266	2.56080e-2			
28.614	1	1	1.00000e-1	19.55420	5.11399e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.80115	5.11241e-3			
		3	1.00000	203.63187	4.91082e-3			
		4	2.00000	413.85422	4.83262e-3			
		5	5.00000	1045.54724	4.78218e-3			
		6	10.00000	2137.81030	4.67768e-3			
30.454	2	1	1.00000e-1	1.00112	9.98882e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	5.15278	9.70350e-2			

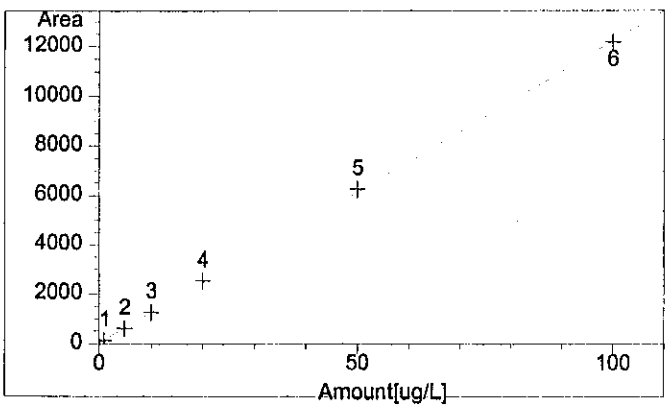
378

Retime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Sig	Name
		3	1.00000	11.97529	8.35053e-2			
		4	2.00000	21.19111	9.43792e-2			
		5	5.00000	52.23464	9.57219e-2			
		6	10.00000	107.04004	9.34230e-2			
30.474	1	1	1.00000e-1	2.22269	4.49905e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.53541	4.33448e-2			
		3	1.00000	23.79175	4.20314e-2			
		4	2.00000	48.37757	4.13415e-2			
		5	5.00000	122.97315	4.06593e-2			
		6	10.00000	251.97131	3.96871e-2			
31.264	2	1	1.00000e-1	2.34328	4.26753e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	9.25292	5.40370e-2			
		3	1.00000	18.48934	5.40852e-2			
		4	2.00000	36.61276	5.46258e-2			
		5	5.00000	92.88844	5.38280e-2			
		6	10.00000	190.01508	5.26274e-2			
31.287	1	1	1.00000e-1	3.18651	3.13823e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.16728	3.09267e-2			
		3	1.00000	33.82579	2.95632e-2			
		4	2.00000	68.83204	2.90562e-2			
		5	5.00000	174.47961	2.86566e-2			
		6	10.00000	358.59521	2.78866e-2			
32.225	2	1	1.00000e-1	3.42590	2.91894e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.58914	2.31598e-2			
		3	1.00000	46.04763	2.17166e-2			
		4	2.00000	94.45714	2.11736e-2			
		5	5.00000	240.26486	2.08104e-2			
		6	10.00000	492.90811	2.02878e-2			
32.233	1	1	1.00000e-1	6.77440	1.47614e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	33.25379	1.50359e-2			
		3	1.00000	68.94070	1.45052e-2			
		4	2.00000	139.75822	1.43104e-2			
		5	5.00000	351.40439	1.42286e-2			
		6	10.00000	717.39240	1.39394e-2			

Peak Sum Table

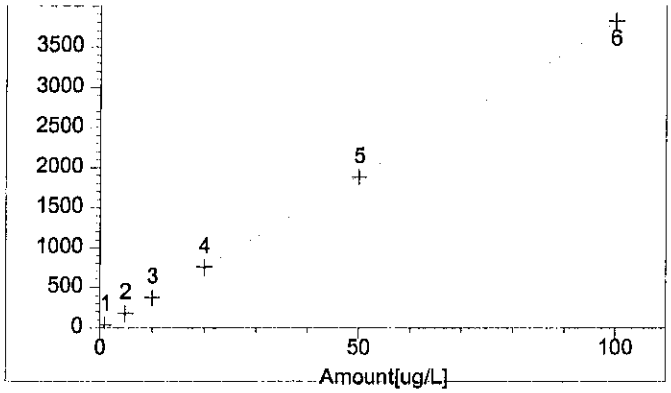
No Entries in table

Calibration Curves

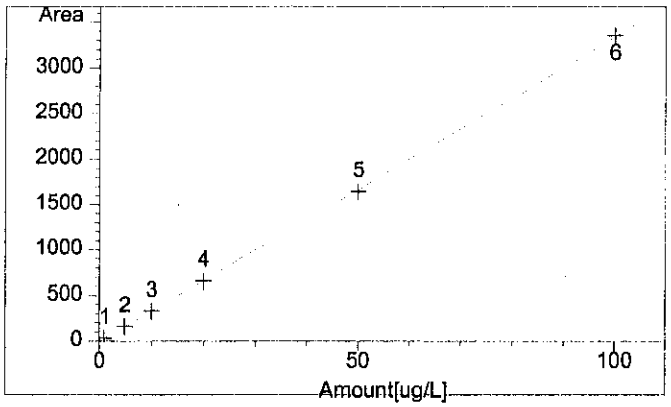


Naphthalene #1 at exp. RT: 9.370
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 70.57790
Formula: y = mx + b
m: 121.93837
b: 33.17626
x: Amount[ug/L]
y: Area

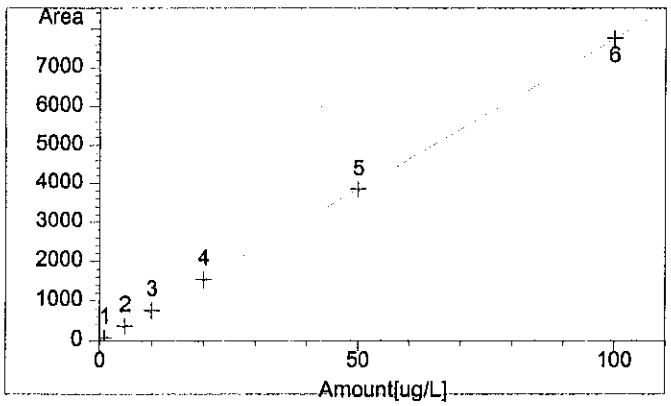
379



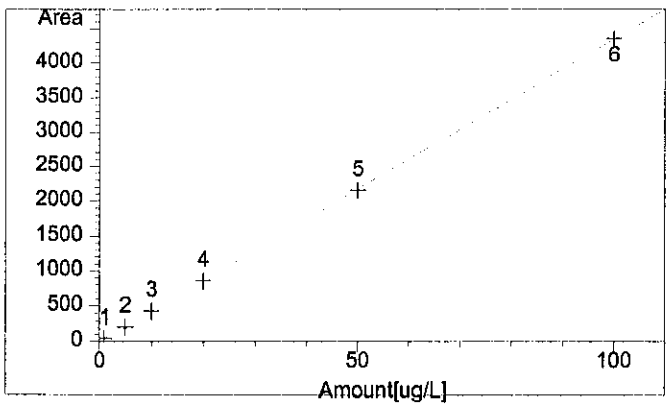
Naphthalene #1 at exp. RT: 9.388
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.65995
Formula: y = mx + b
m: 38.17062
b: -8.14096
x: Amount [ug/L]
y: Area



Acenaphthylene #2 at exp. RT: 10.995
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 11.19977
Formula: y = mx + b
m: 33.48891
b: -7.22387
x: Amount [ug/L]
y: Area

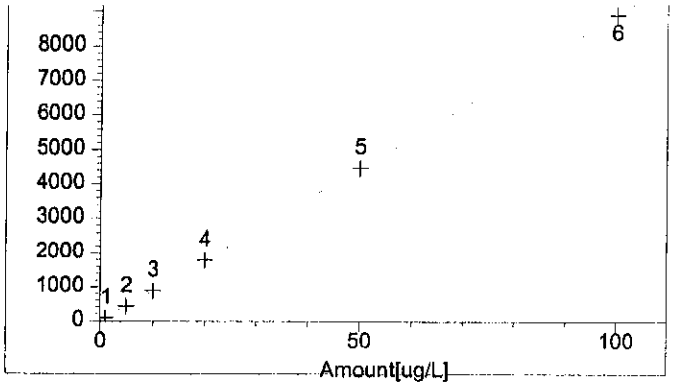


1-Methylnaphthalene #3 at exp. RT: 11.942
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.69411
Formula: y = mx + b
m: 77.62274
b: -10.90308
x: Amount [ug/L]
y: Area

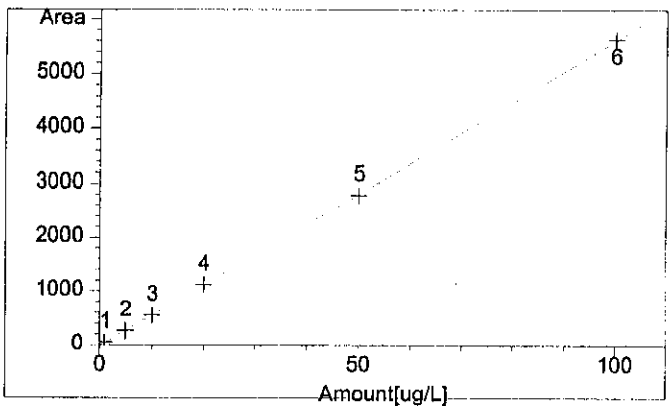


1-Methylnaphthalene #3 at exp. RT: 11.959
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.09079
Formula: y = mx + b
m: 43.58179
b: -8.63216
x: Amount [ug/L]
y: Area

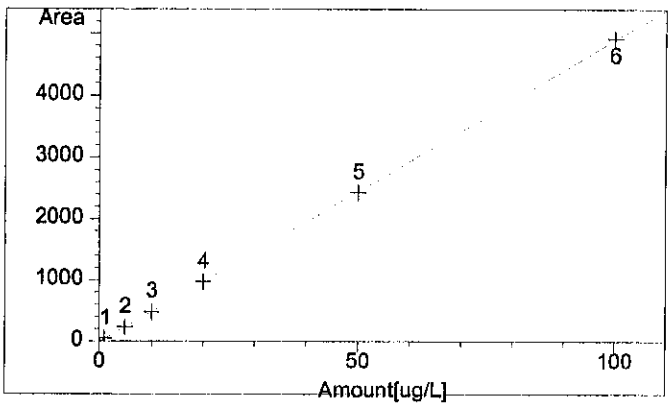
380



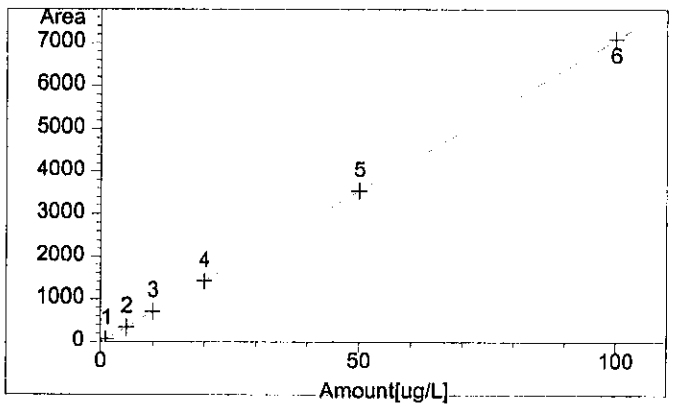
2-Methylnaphthalene #4 at exp. RT: 12.510
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 14.18056
Formula: y = mx + b
m: 89.00733
b: 2.31405
x: Amount [ug/L]
y: Area



2-Methylnaphthalene #4 at exp. RT: 12.534
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 9.72550
Formula: y = mx + b
m: 56.30384
b: -7.86135
x: Amount [ug/L]
y: Area

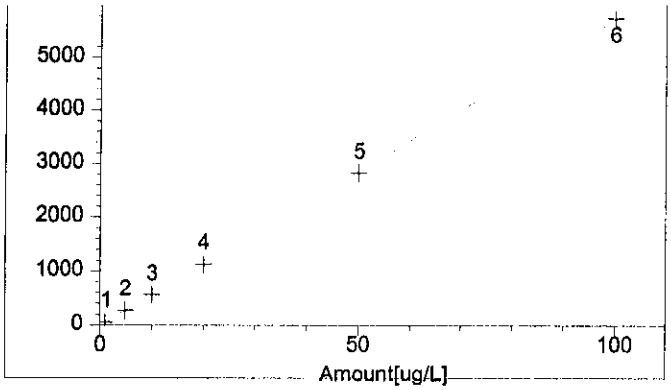


Acenaphthene #5 at exp. RT: 12.994
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 11.55898
Formula: y = mx + b
m: 49.09260
b: -9.52241
x: Amount [ug/L]
y: Area

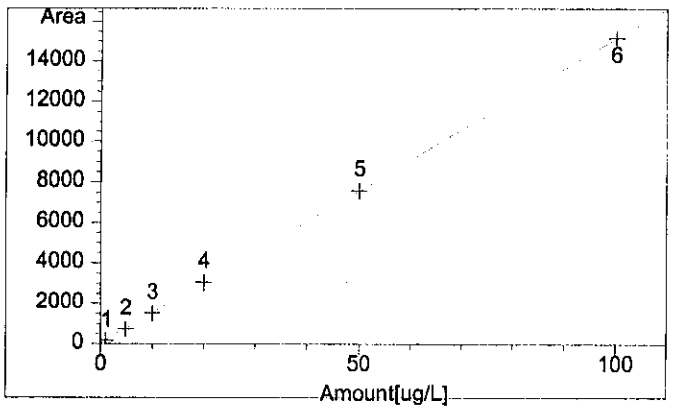


Acenaphthene #5 at exp. RT: 13.012
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.91307
Formula: y = mx + b
m: 70.88847
b: -4.94990
x: Amount [ug/L]
y: Area

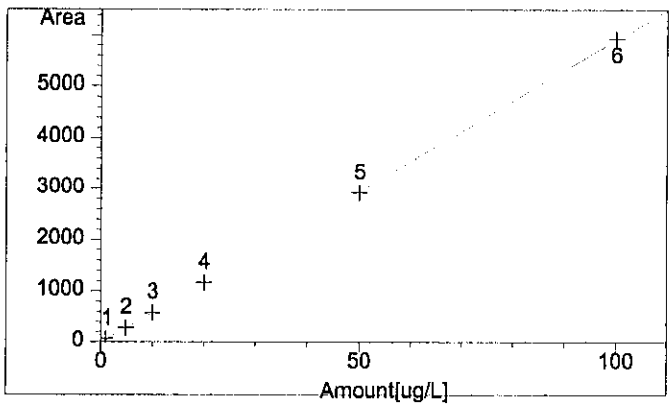
381



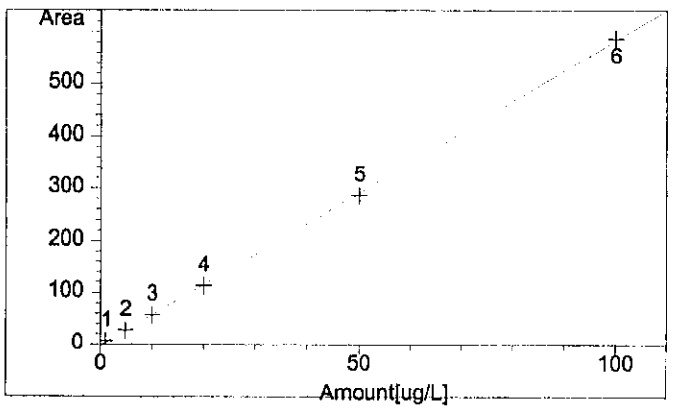
Fluorene #6 at exp. RT: 13.645
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 16.43131
Formula: y = mx + b
m: 57.48589
b: -14.05816
x: Amount[ug/L]
y: Area



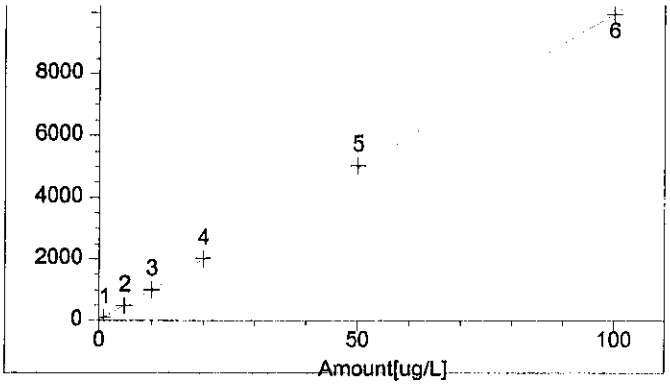
Fluorene #6 at exp. RT: 13.663
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 18.11896
Formula: y = mx + b
m: 151.72220
b: 3.12530e-1
x: Amount[ug/L]
y: Area



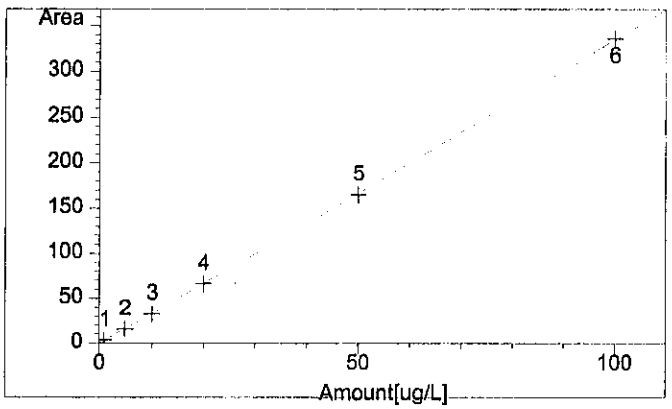
Phenanthrene #7 at exp. RT: 15.028
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 18.06229
Formula: y = mx + b
m: 59.29212
b: -13.72762
x: Amount[ug/L]
y: Area



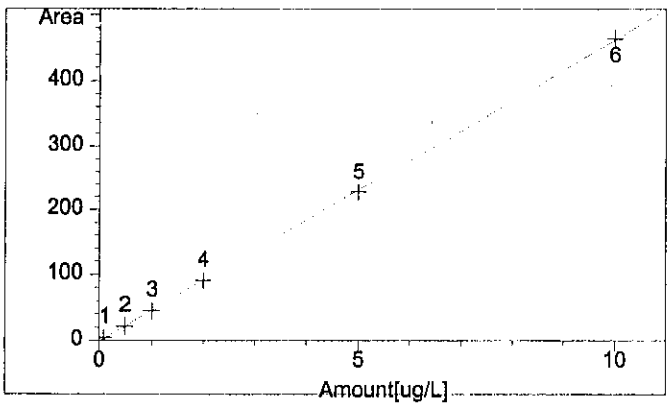
Phenanthrene #7 at exp. RT: 15.046
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 3.01563
Formula: y = mx + b
m: 5.85144
b: -1.54327
x: Amount[ug/L]
y: Area



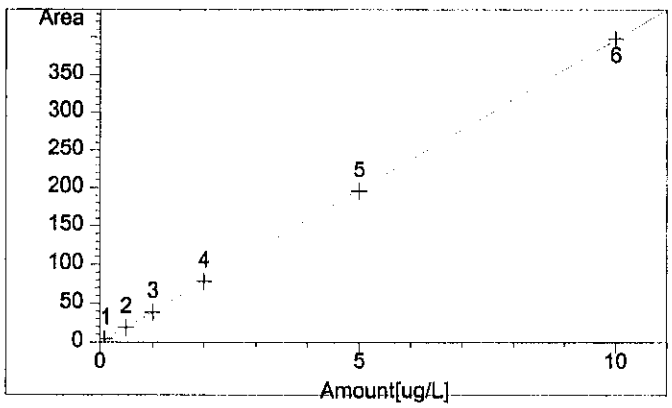
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 27.85848
Formula: y = mx + b
m: 99.66958
b: 6.85395
x: Amount [ug/L]
y: Area



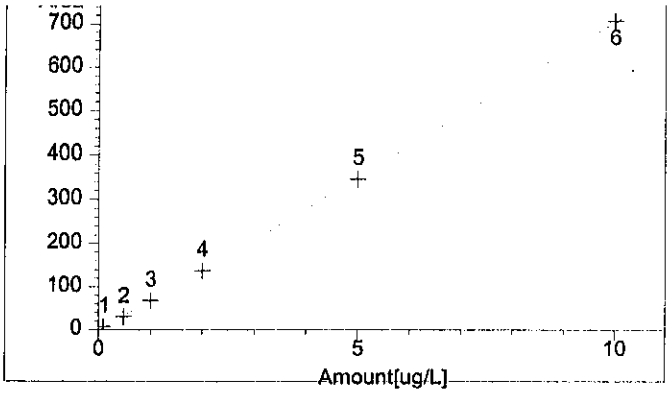
Anthracene #8 at exp. RT: 16.450
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.04930
Formula: y = mx + b
m: 3.35612
b: -6.81187e-1
x: Amount [ug/L]
y: Area



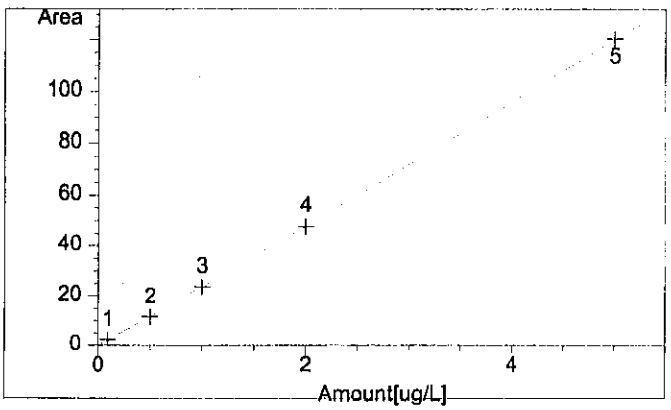
Fluoranthene #9 at exp. RT: 17.806
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.79879
Formula: y = mx + b
m: 46.44231
b: -1.53335
x: Amount [ug/L]
y: Area



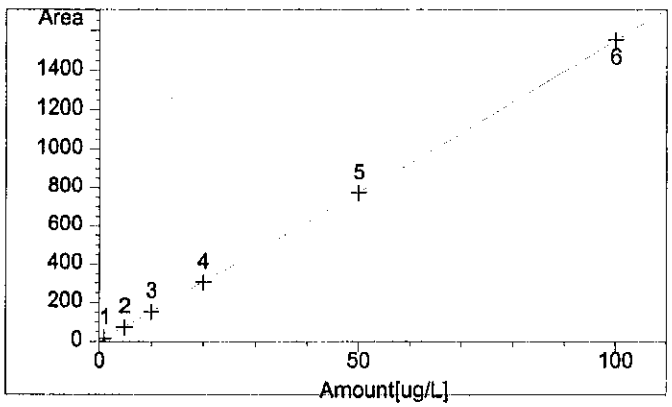
Fluoranthene #9 at exp. RT: 17.824
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.22857
Formula: y = mx + b
m: 39.72087
b: -9.33708e-1
x: Amount [ug/L]
y: Area



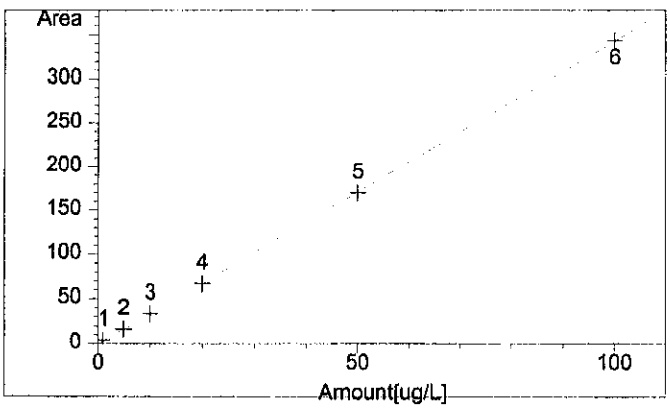
Pyrene #10 at exp. RT: 18.809
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 3.15034
Formula: y = mx + b
m: 70.72982
b: -3.06030
x: Amount [ug/L]
y: Area



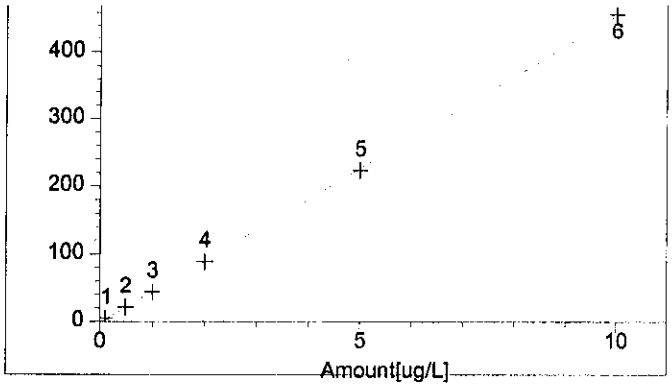
Pyrene #10 at exp. RT: 18.828
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.23587
Formula: y = mx + b
m: 24.10078
b: -2.92066e-1
x: Amount [ug/L]
y: Area



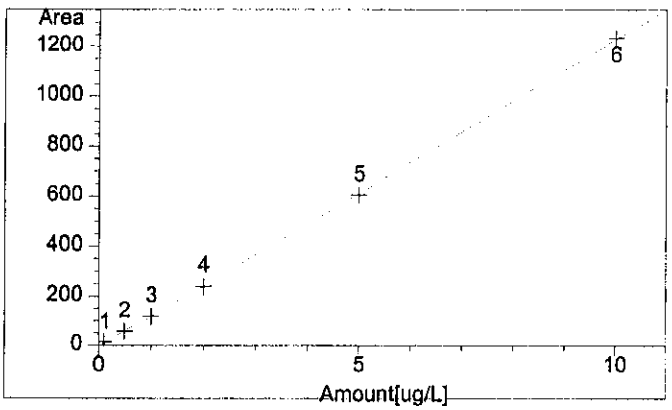
p-Terphenyl d14 #11* at exp. RT: 21.150
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.89474
Formula: y = mx + b
m: 15.55717
b: -3.76840
x: Amount [ug/L]
y: Area



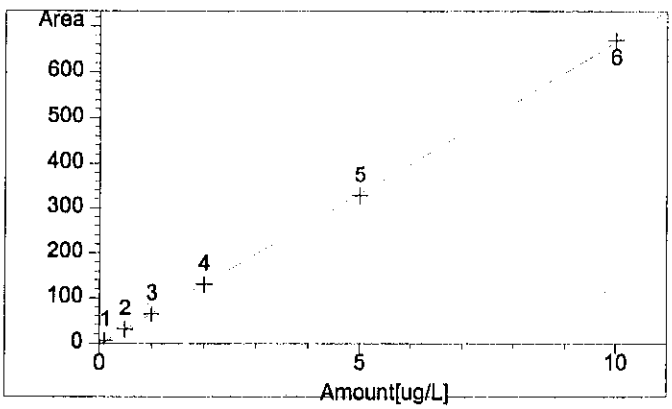
p-Terphenyl d14 #11* at exp. RT: 21.166
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.89731
Formula: y = mx + b
m: 3.43813
b: -8.33877e-1
x: Amount [ug/L]
y: Area



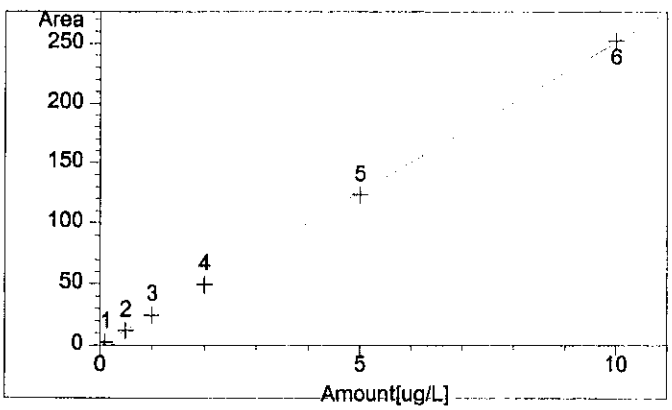
Benzo(a)anthracene #12 at exp. RT: 22.100
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.08992
Formula: y = mx + b
m: 45.66201
b: -1.57303
x: Amount[ug/L]
y: Area



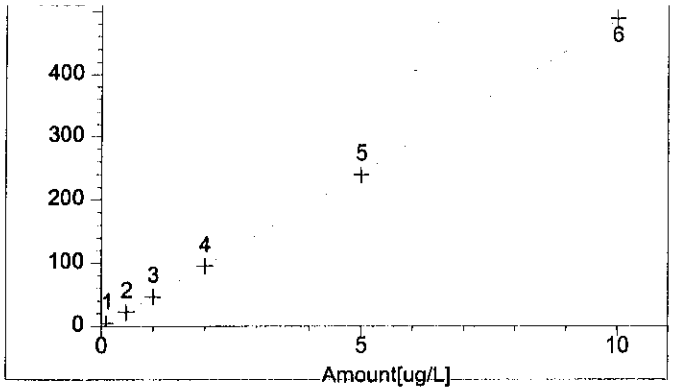
Benzo(a)anthracene #12 at exp. RT: 22.485
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 5.24449
Formula: y = mx + b
m: 123.41194
b: -3.93419
x: Amount[ug/L]
y: Area



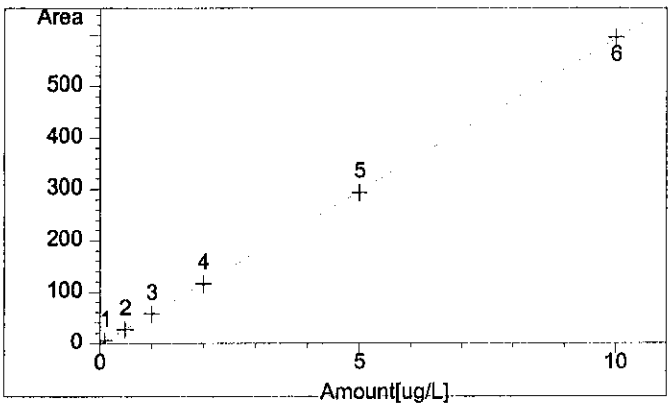
Chrysene #13 at exp. RT: 23.337
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 2.60337
Formula: y = mx + b
m: 66.84989
b: -2.23727
x: Amount[ug/L]
y: Area



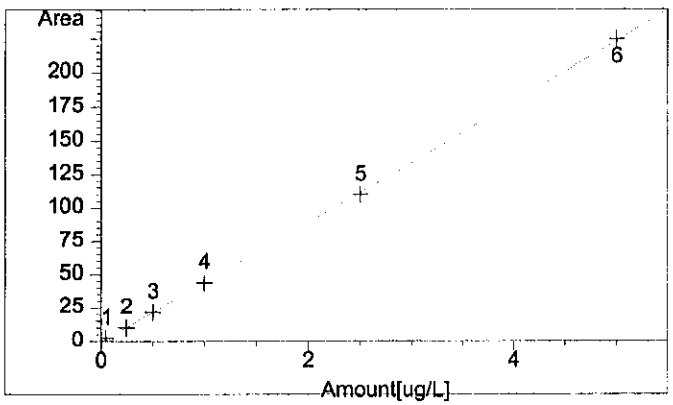
Chrysene #13 at exp. RT: 23.357
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.16361
Formula: y = mx + b
m: 25.21041
b: -7.56072e-1
x: Amount[ug/L]
y: Area



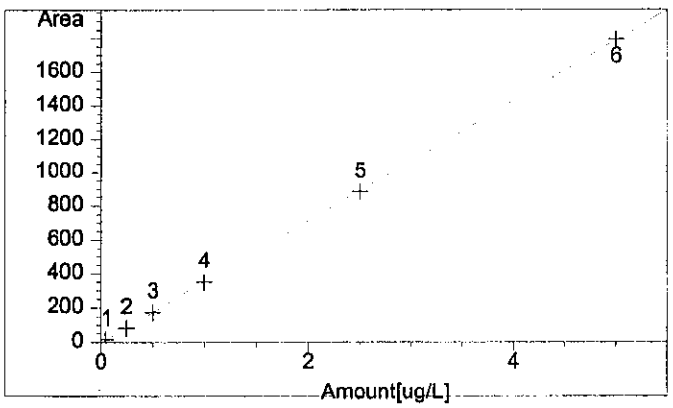
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.93804
Formula: y = mx + b
m: 48.71807
b: -1.53510
x: Amount [ug/L]
y: Area



Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.87852
Formula: y = mx + b
m: 59.54246
b: -1.66387
x: Amount [ug/L]
y: Area

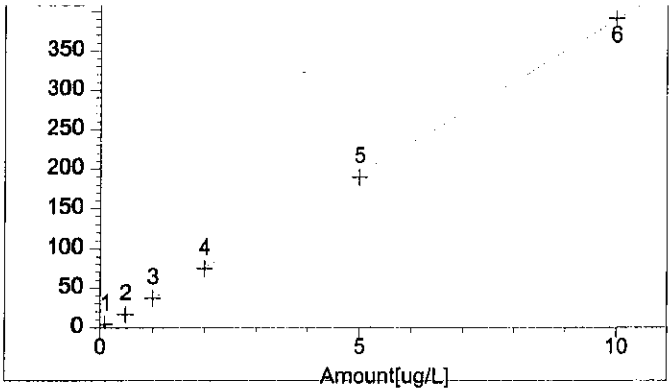


Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 0.87725
Formula: y = mx + b
m: 44.83633
b: -6.60775e-1
x: Amount [ug/L]
y: Area

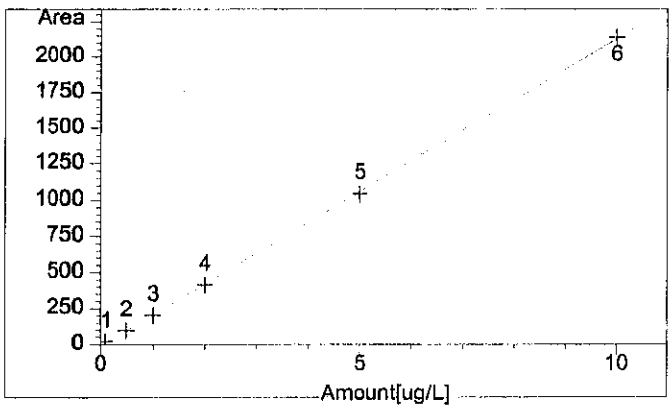


Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 5.46079
Formula: y = mx + b
m: 358.31240
b: -4.56924
x: Amount [ug/L]
y: Area

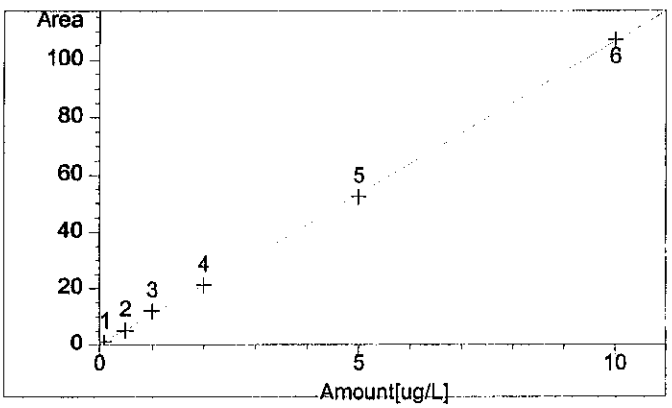
386



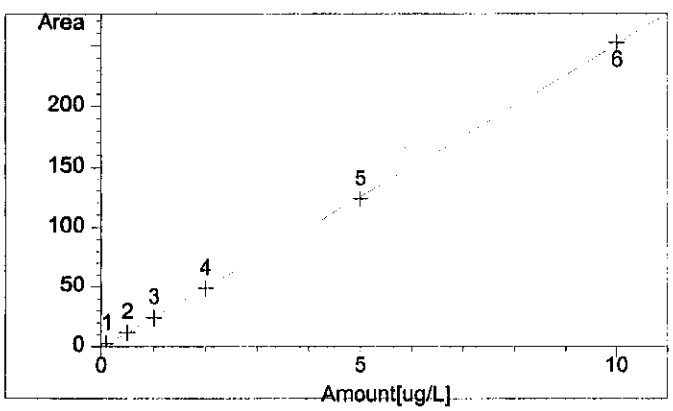
Benzo(a)pyrene #16 at exp. RT: 28.590
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 2.45350
Formula: y = mx + b
m: 39.02551
b: -1.98338
x: Amount [ug/L]
y: Area



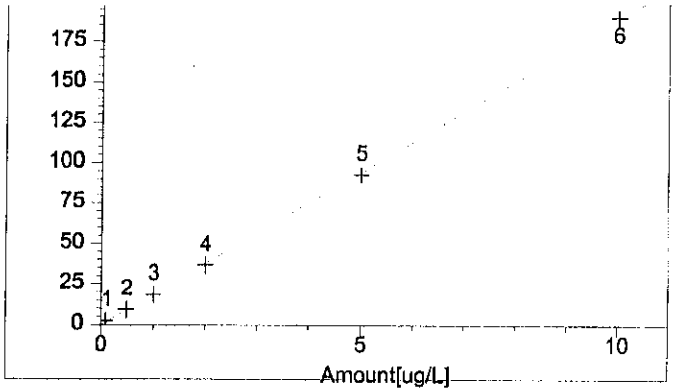
Benzo(a)pyrene #16 at exp. RT: 28.614
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.37532
Formula: y = mx + b
m: 213.72380
b: -8.15195
x: Amount [ug/L]
y: Area



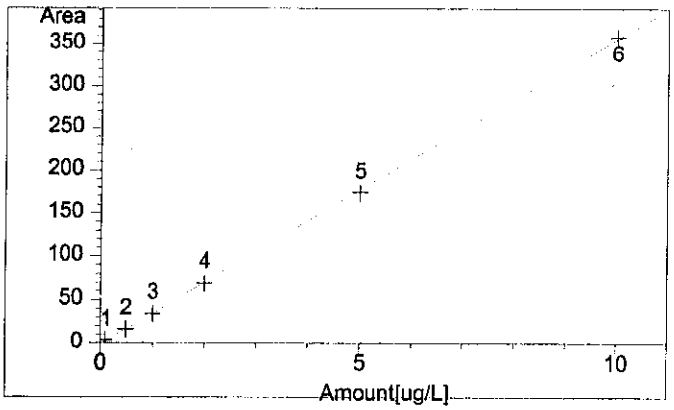
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 0.78590
Formula: y = mx + b
m: 10.64996
b: 7.22431e-2
x: Amount [ug/L]
y: Area



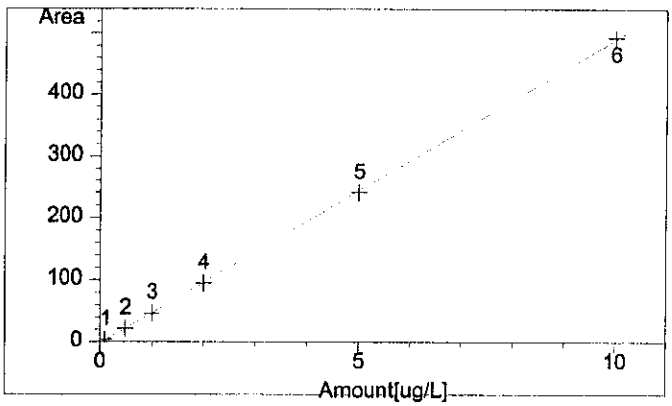
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.23730
Formula: y = mx + b
m: 25.19279
b: -1.10201
x: Amount [ug/L]
y: Area



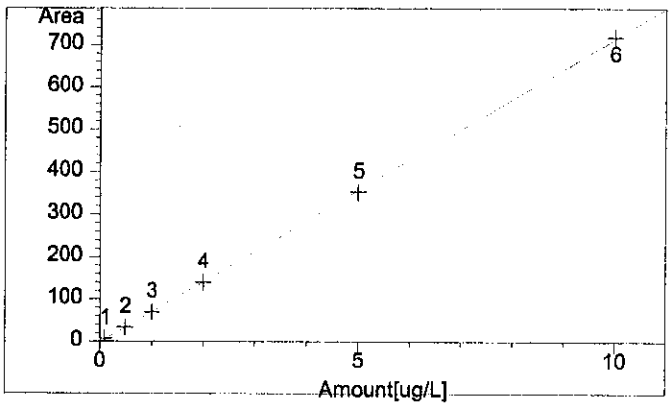
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 0.96678
Formula: y = mx + b
m: 18.95449
b: -4.21667e-1
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 1.93390
Formula: y = mx + b
m: 35.84471
b: -1.66074
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: 0.99992
Residual Std. Dev.: 2.46375
Formula: y = mx + b
m: 49.34055
b: -2.72022
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: 0.99995
Residual Std. Dev.: 2.87271
Formula: y = mx + b
m: 71.69796
b: -2.29402
x: Amount [ug/L]
y: Area

==========

388

1,1 SOS50-20 LEVEL 6 SURROGATE @ 100 ppm

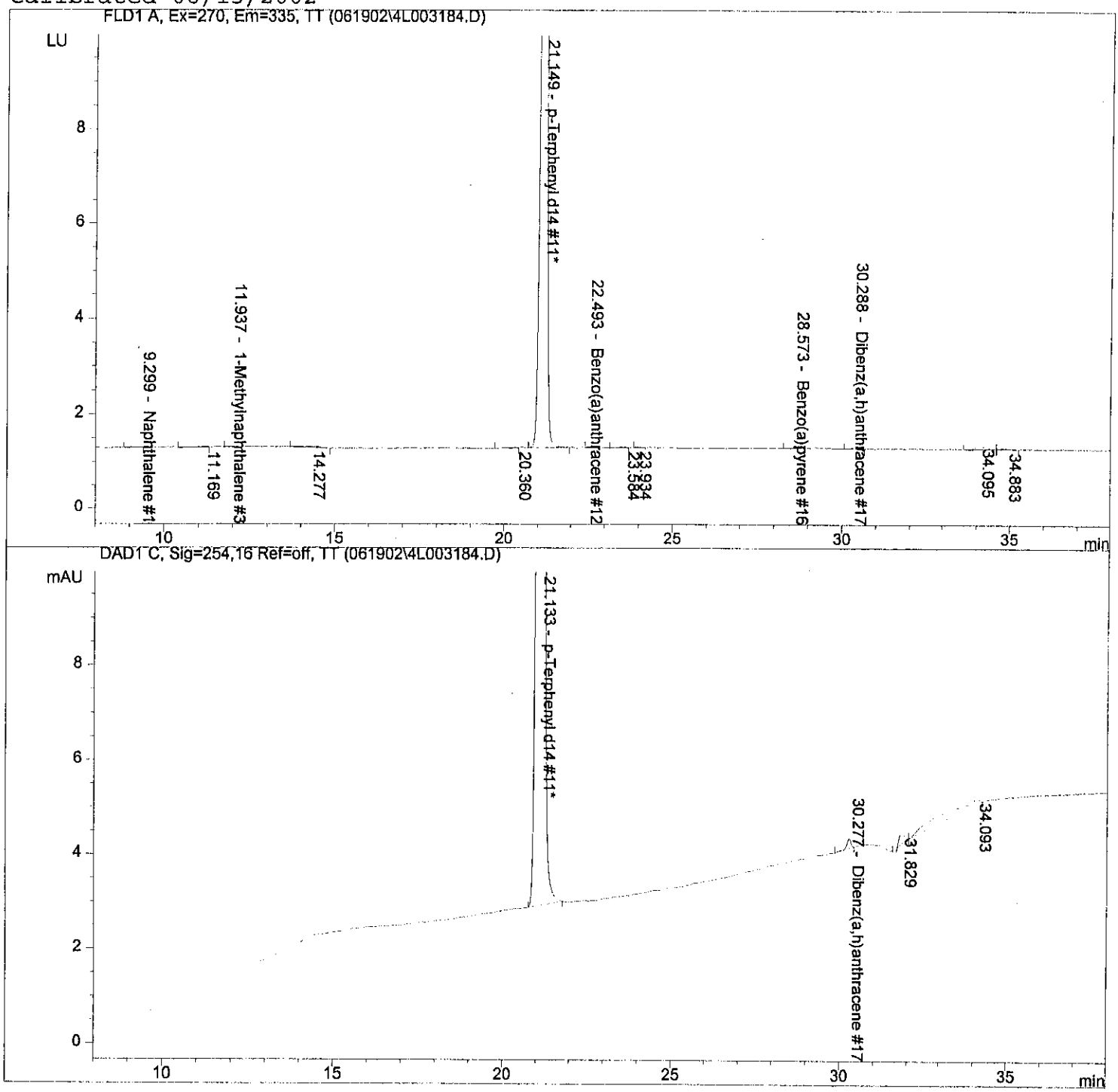
==========

Injection Date : 6/19/2002 5:03:30 PM
Sample Name : WG120164-01 STD6
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:42:11 AM by RDC
(modified after loading)

Calibrated 06/13/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:42:06 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
9.299	BB	2.77743e-1	0.00000	0.00000		Naphthalene #1
11.937	BB	1.78093e-1	0.00000	0.00000		1-Methylnaphthalene #3
12.497		-	-	-		2-Methylnaphthalene #4
12.974		-	-	-		Acenaphthene #5
13.625		-	-	-		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.779		-	-	-		Fluoranthene #9
18.779		-	-	-		Pyrene #10
21.149	BBA	343.67426	2.91907e-1	100.32083		p-Terphenyl d14 #11*
22.493	BB	2.04240e-1	0.00000	0.00000		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.438		-	-	-		Benzo(k)fluoranthene #15
28.573	PBA	1.70233e-1	0.00000	0.00000		Benzo(a)pyrene #16
30.288	PB	3.06192e-1	0.00000	0.00000		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.32083

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
9.335		-	-	-		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.479		-	-	-		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.606		-	-	-		Fluorene #6
14.988		-	-	-		Phenanthrene #7
16.387		-	-	-		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.133	PBA	1553.84106	6.45287e-2	100.26737		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.277	PBA	1.63578	0.00000	0.00000		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.26737

Results obtained with enhanced integrator!
7 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (1-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Benzo(a)anth
Warning : Negative results set to zero (cal. curve intercept), (Benzo(a)pyre
Warning : Negative results set to zero (cal. curve intercept), (Dibenz(a,h)a
Warning : Negative results set to zero (cal. curve intercept), (Dibenz(a,h)a

==========

*** End of Report ***

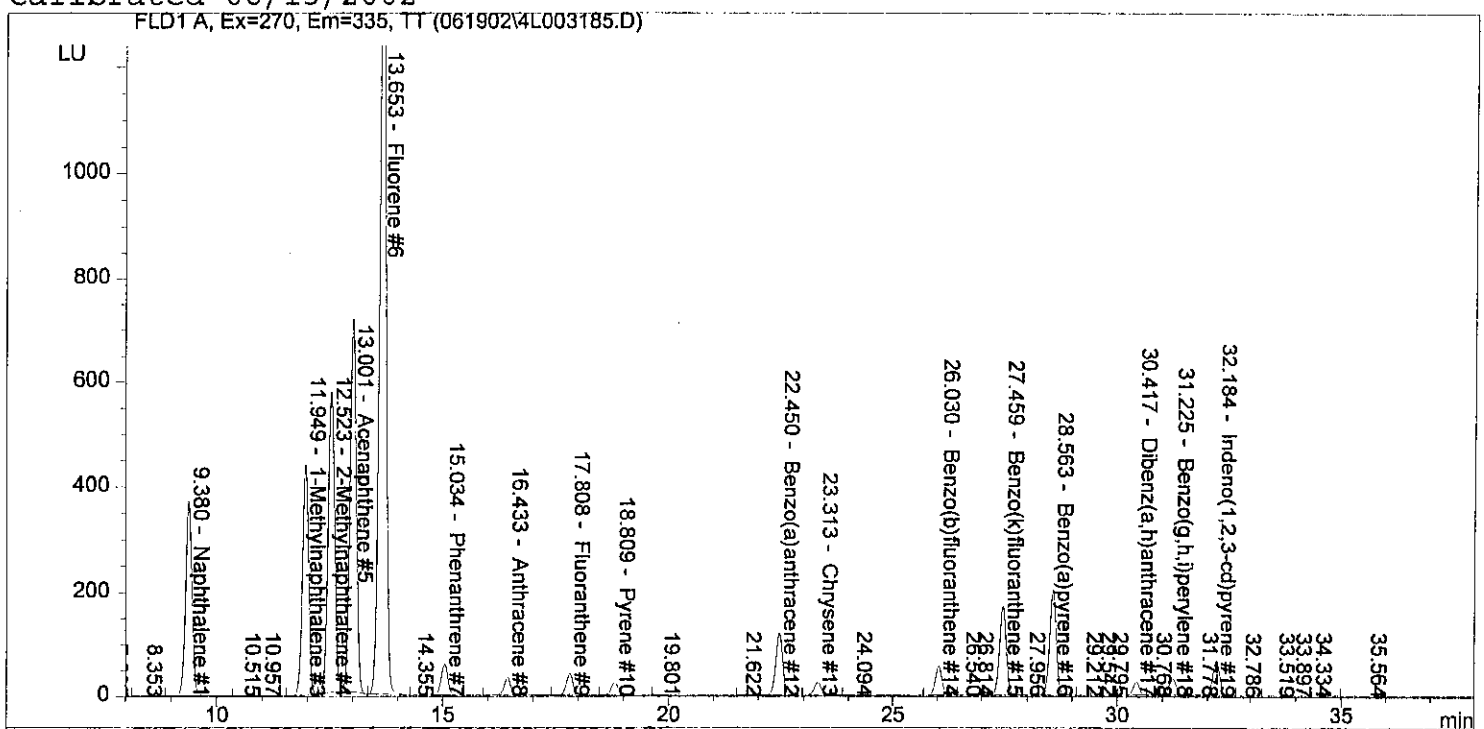
1,1 SOS39-38 LEVEL 6 STD @ 100/10/5 ppm

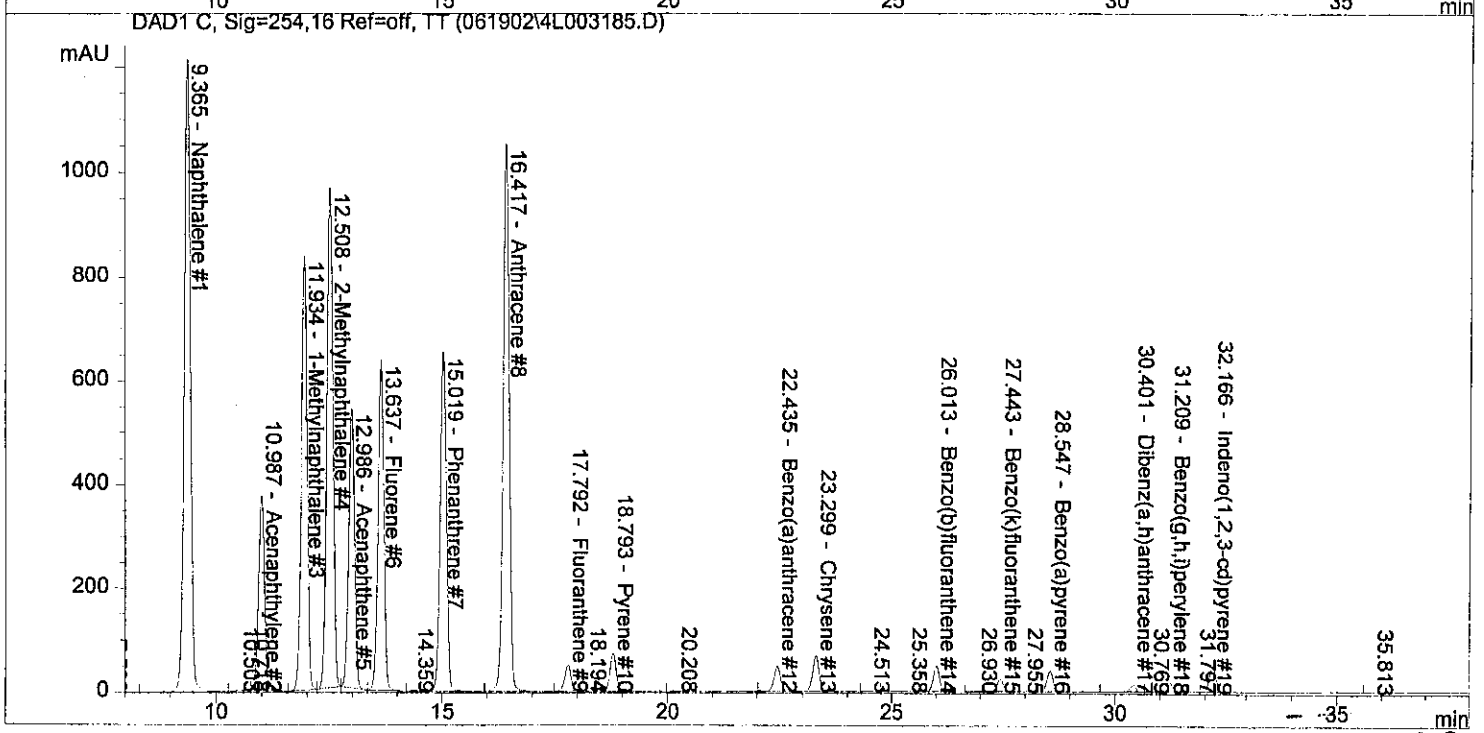
==========

Injection Date : 6/19/2002 6:00:05 PM Seq. Line : 3
Sample Name : WG120164-02 STD6 Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:42:54 AM by RDC
(modified after loading)

Calibrated 06/13/2002





392

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:42:48 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	3818.87573	2.62437e-2	100.22159		Naphthalene #1
11.949	BB	4358.92773	2.29707e-2	100.12780		1-Methylnaphthalene #3
12.523	BB	5631.00635	1.77559e-2	99.98355		2-Methylnaphthalene #4
13.001	BB	7085.17041	1.41037e-2	99.92711		Acenaphthene #5
13.653	BB	1.51592e4	6.59341e-3	99.95082		Fluorene #6
15.034	BBA	586.44727	1.71254e-1	100.43156		Phenanthrene #7
16.433	BB	335.92169	2.98537e-1	100.28501		Anthracene #8
17.808	BB	397.42139	2.52545e-2	10.03667		Fluoranthene #9
18.809	BBA	245.56323	4.14121e-2	10.16929		Pyrene #10
21.149		-	-	-		p-Terphenyl d14 #11*
22.450	BB	1235.15466	8.12984e-3	10.04161		Benzo(a)anthracene #12
23.313	BB	252.46683	3.97636e-2	10.03898		Chrysene #13
26.030	BB	595.50562	1.68622e-2	10.04154		Benzo(b)fluoranthene #14
27.459	BB	1792.05200	2.79946e-3	5.01678		Benzo(k)fluoranthene #15
28.563	BB	2137.81030	4.70006e-3	10.04783		Benzo(a)pyrene #16
30.417	BB	251.97131	3.98946e-2	10.05230		Dibenz(a,h)anthracene #17
31.225	BB	358.59521	2.80699e-2	10.06575		Benzo(g,h,i)perylene #18
32.184	BB	717.39240	1.39874e-2	10.03448		Indeno(1,2,3-cd)pyrene #1
Totals :				796.47265		

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	1.21595e4	8.19195e-3	99.61008		Naphthalene #1
10.987	BB	3352.51904	2.99467e-2	100.39688		Acenaphthylene #2
11.934	BB	7760.07324	1.29190e-2	100.25243		1-Methylnaphthalene #3
12.508	BB	8891.12988	1.12465e-2	99.99414		2-Methylnaphthalene #4
12.986	BB	4910.46826	2.04258e-2	100.30002		Acenaphthene #5
13.637	BB	5749.89111	1.74664e-2	100.42973		Fluorene #6
15.019	BBA	5932.12939	1.69982e-2	100.83579		Phenanthrene #7
16.417	BBA	9947.86328	1.00415e-2	99.89152		Anthracene #8
17.792	PB	464.57758	2.16306e-2	10.04910		Fluoranthene #9
18.793	BBA	706.87067	1.42266e-2	10.05634		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.435	BB	457.02676	2.20189e-2	10.06322		Benzo(a)anthracene #12
23.299	BBA	668.69543	1.50409e-2	10.05776		Chrysene #13
26.013	BBA	487.47803	2.06231e-2	10.05330		Benzo(b)fluoranthene #14
27.443	BB	224.33841	2.24204e-2	5.02976		Benzo(k)fluoranthene #15
28.547	BB	390.50266	2.57763e-2	10.06572		Benzo(a)pyrene #16
30.401	BB	107.04004	9.35045e-2	10.00873		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.209	BB	190.01508	5.28975e-2	10.05133		Benzo(g,h,i)perylene #18
32.166	BBA	492.90811	2.04215e-2	10.06594		Indeno(1,2,3-cd)pyrene #1

Totals : 897.21179

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

394

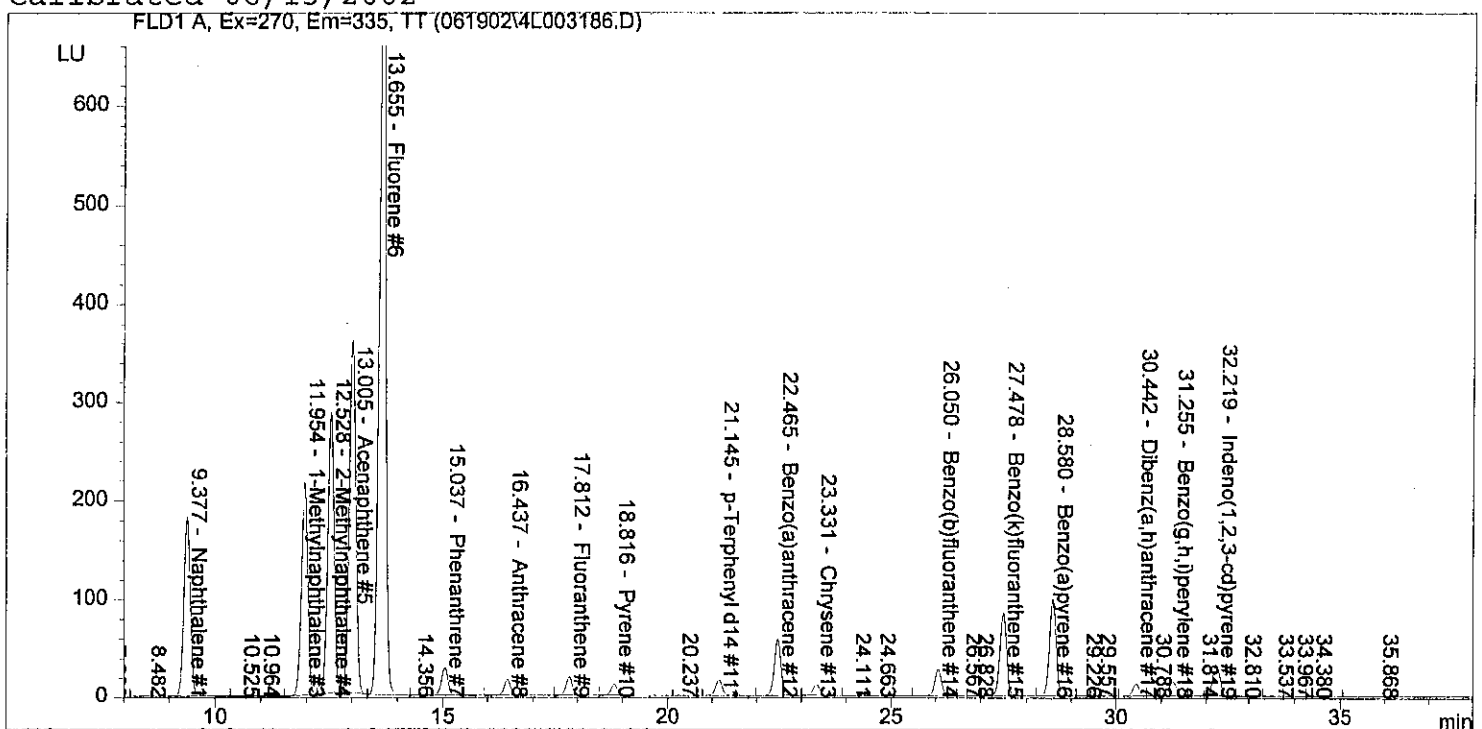
1,1 50339-50/50-20 LEVEL 5 STD @ 50/50/2.5 ppm

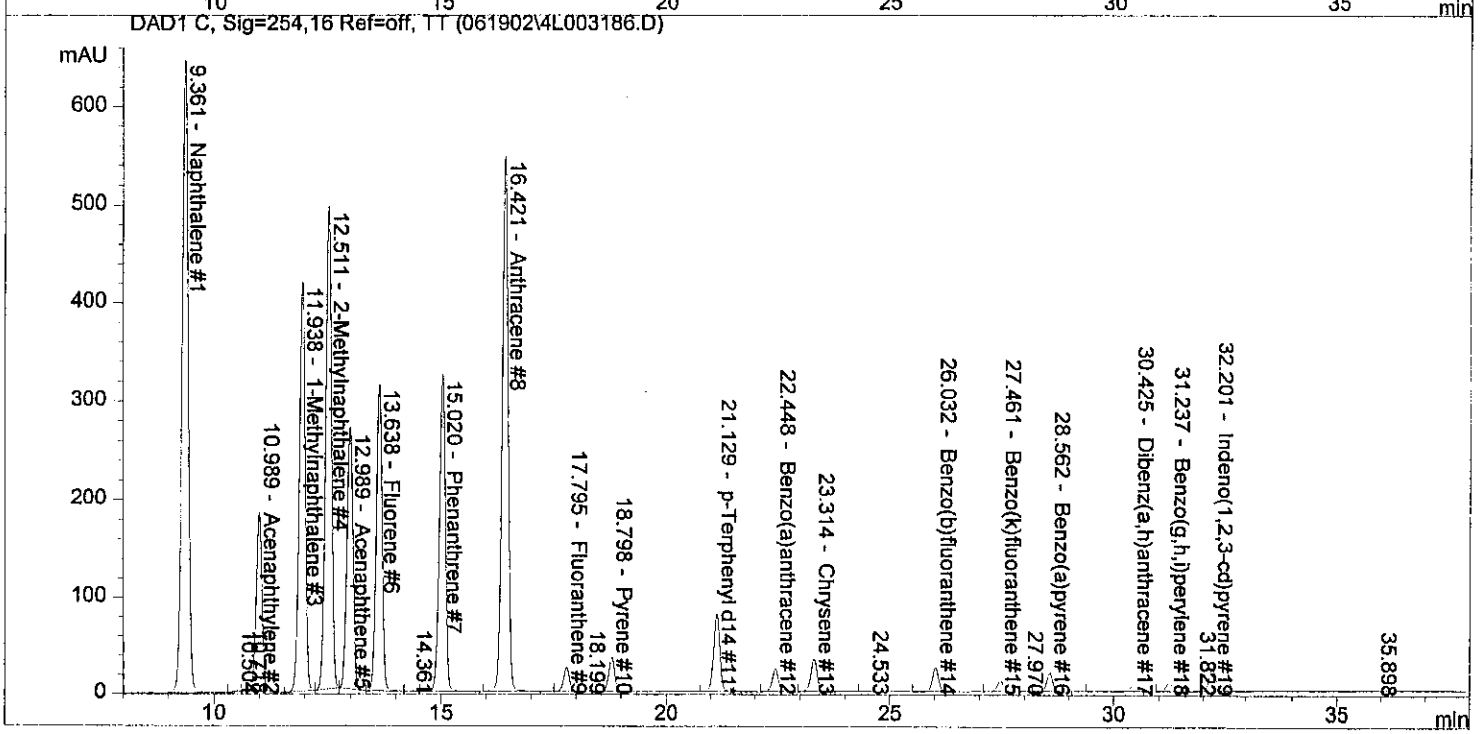
==========

Injection Date	: 6/19/2002 6:56:44 PM	Seq. Line :	4
Sample Name	: WG120164-03 STD5	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:43:28 AM by RDC
(modified after loading)

Calibrated 06/13/2002





395

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:43:25 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	1881.29065	2.63131e-2	49.50264		Naphthalene #1
11.954	BB	2153.76392	2.30283e-2	49.59744		1-Methylnaphthalene #3
12.528	BB	2790.36157	1.78058e-2	49.68456		2-Methylnaphthalene #4
13.005	BB	3535.51440	1.41219e-2	49.92802		Acenaphthene #5
13.655	BB	7607.03076	6.58907e-3	50.12324		Fluorene #6
15.037	BBA	286.03766	1.71937e-1	49.18044		Phenanthrene #7
16.437	PB	165.22198	2.99107e-1	49.41899		Anthracene #8
17.812	PB	195.60518	2.53087e-2	4.95052		Fluoranthene #9
18.816	BBA	120.33789	4.15558e-2	5.00074		Pyrene #10
21.145	BBA	170.11554	2.92305e-1	49.72557		p-Terphenyl d14 #11*
22.465	BB	604.25543	8.15514e-3	4.92779		Benzo(a)anthracene #12
23.331	BBA	123.19585	3.99046e-2	4.91608		Chrysene #13
26.050	PB	292.99271	1.68934e-2	4.94964		Benzo(b)fluoranthene #14
27.478	BB	882.24713	2.80542e-3	2.47507		Benzo(k)fluoranthene #15
28.580	BB	1045.54724	4.71635e-3	4.93116		Benzo(a)pyrene #16
30.442	BB	122.97315	4.00415e-2	4.92403		Dibenz(a,h)anthracene #17
31.255	BB	174.47961	2.81717e-2	4.91540		Benzo(g,h,i)perylene #18
32.219	BB	351.40439	1.40377e-2	4.93292		Indeno(1,2,3-cd)pyrene #1
Totals :				444.08425		

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	BBA	6248.73438	8.16646e-3	51.03002		Naphthalene #1
10.989	BB	1646.95264	3.00001e-2	49.40870		Acenaphthylene #2
11.938	BB	3853.44678	1.29242e-2	49.80286		1-Methylnaphthalene #3
12.511	BB	4472.15283	1.12330e-2	50.23561		2-Methylnaphthalene #4
12.989	BB	2425.16016	2.04531e-2	49.60203		Acenaphthene #5
13.638	BB	2832.44678	1.74887e-2	49.53595		Fluorene #6
15.020	BBA	2921.47241	1.69744e-2	49.59022		Phenanthrene #7
16.421	BBA	5037.00098	1.00204e-2	50.47291		Anthracene #8
17.795	PB	227.65421	2.16931e-2	4.93852		Fluoranthene #9
18.798	BBA	345.94687	1.42645e-2	4.93476		Pyrene #10
21.129	BBA	771.85547	6.46190e-2	49.87651		p-Terphenyl d14 #11*
22.448	PBA	223.22693	2.20610e-2	4.92460		Benzo(a)anthracene #12
23.314	BBA	327.80472	1.50602e-2	4.93681		Chrysene #13
26.032	BBA	238.78767	2.06928e-2	4.94118		Benzo(b)fluoranthene #14
27.461	BB	109.96069	2.24624e-2	2.46999		Benzo(k)fluoranthene #15
28.562	BB	189.32166	2.59120e-2	4.90571		Benzo(a)pyrene #16
30.425	BB	52.23464	9.42516e-2	4.92320		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.237	BB	92.88844	5.27344e-2	4.89842		Benzo(g,h,i)perylene #18
32.201	BBA	240.26486	2.05147e-2	4.92897		Indeno(1,2,3-cd)pyrene #1

Totals : 496.35698

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

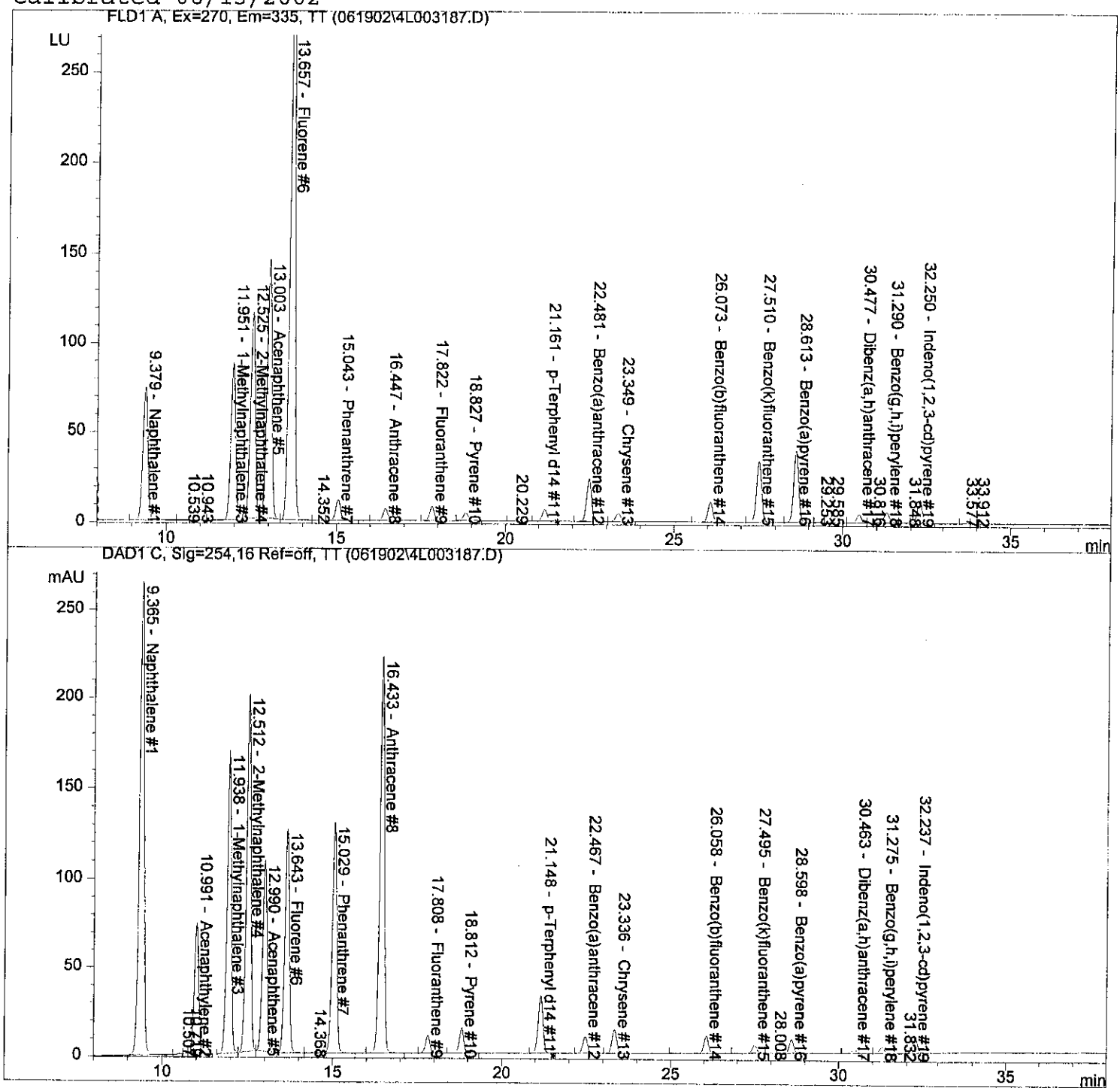
==========

Injection Date : 6/19/2002 7:53:21 PM
Sample Name : WG120164-04 STD4
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:44:13 AM by RDC
(modified after loading)

Calibrated 06/13/2002



398

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:44:09 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
9.379	BB	753.95251	2.64927e-2	19.97423		Naphthalene #1
11.951	BB	858.01282	2.31793e-2	19.88811		1-Methylnaphthalene #3
12.525	BB	1119.16992	1.78859e-2	20.01739		2-Methylnaphthalene #4
13.003	BB	1418.85522	1.41532e-2	20.08132		Acenaphthene #5
13.657	BB	3055.26025	6.59083e-3	20.13672		Fluorene #6
15.043	BBA	113.53256	1.73929e-1	19.74655		Phenanthrene #7
16.447	PBA	66.23384	3.01005e-1	19.93674		Anthracene #8
17.822	PB	78.11402	2.54898e-2	1.99111		Fluoranthene #9
18.827	BBA	47.68803	4.18033e-2	1.99352		Pyrene #10
21.161	BB	67.05980	2.94501e-1	19.74918		p-Terphenyl d14 #11*
22.481	BB	240.55975	8.23501e-3	1.98101		Benzo(a)anthracene #12
23.349	BB	49.27580	4.03067e-2	1.98615		Chrysene #13
26.073	PB	116.48901	1.70374e-2	1.98467		Benzo(b)fluoranthene #14
27.510	BB	351.08521	2.82853e-3	9.93056e-1		Benzo(k)fluoranthene #15
28.613	BB	413.85422	4.77227e-3	1.97503		Benzo(a)pyrene #16
30.477	BB	48.37757	4.05591e-2	1.96215		Dibenz(a,h)anthracene #17
31.290	BB	68.83204	2.85657e-2	1.96623		Benzo(g,h,i)perylene #18
32.250	BB	139.75822	1.41788e-2	1.98160		Indeno(1,2,3-cd)pyrene #1

Totals : 178.34476

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	BBA	2522.50317	8.11604e-3	20.47273		Naphthalene #1
10.991	BBA	658.61700	3.02252e-2	19.90686		Acenaphthylene #2
11.938	PB	1542.24731	1.29857e-2	20.02717		1-Methylnaphthalene #3
12.512	BB	1796.91260	1.12303e-2	20.17988		2-Methylnaphthalene #4
12.990	BB	969.13959	2.05833e-2	19.94806		Acenaphthene #5
13.643	BB	1129.35339	1.76278e-2	19.90797		Fluorene #6
15.029	BBA	1164.06238	1.71101e-2	19.91720		Phenanthrene #7
16.433	BBA	2019.75476	1.00006e-2	20.19869		Anthracene #8
17.808	PB	90.59781	2.19570e-2	1.98925		Fluoranthene #9
18.812	BBA	137.22350	1.44595e-2	1.98419		Pyrene #10
21.148	PBA	304.47540	6.50902e-2	19.81837		p-Terphenyl d14 #11*
22.467	BBA	88.71733	2.22988e-2	1.97829		Benzo(a)anthracene #12
23.336	BBA	130.01958	1.51969e-2	1.97589		Chrysene #13
26.058	BBA	95.03743	2.09855e-2	1.99441		Benzo(b)fluoranthene #14
27.495	PBA	43.78368	2.26996e-2	9.93871e-1		Benzo(k)fluoranthene #15
28.598	BBA	74.65511	2.63487e-2	1.96706		Benzo(a)pyrene #16
30.463	BB	21.19111	9.52662e-2	2.01880		Dibenz(a,h)anthracene #17

399

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.275	BB	36.61276	5.26000e-2	1.92583		Benzo(g,h,i)perylene #18
32.237	BB	94.45714	2.08931e-2	1.97350		Indeno(1,2,3-cd)pyrene #1

Totals : 199.17802

Results obtained with enhanced integrator!

*** End of Report ***

400

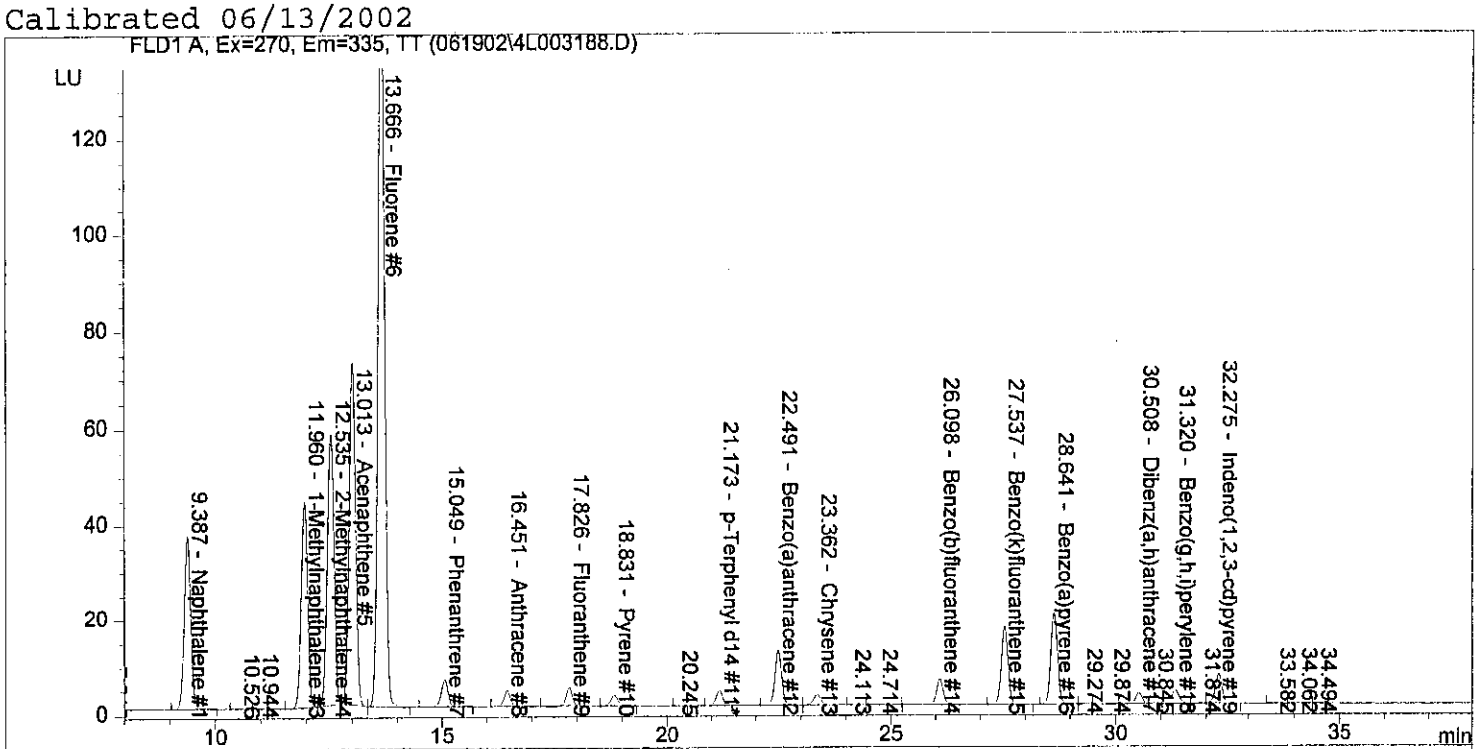
==========

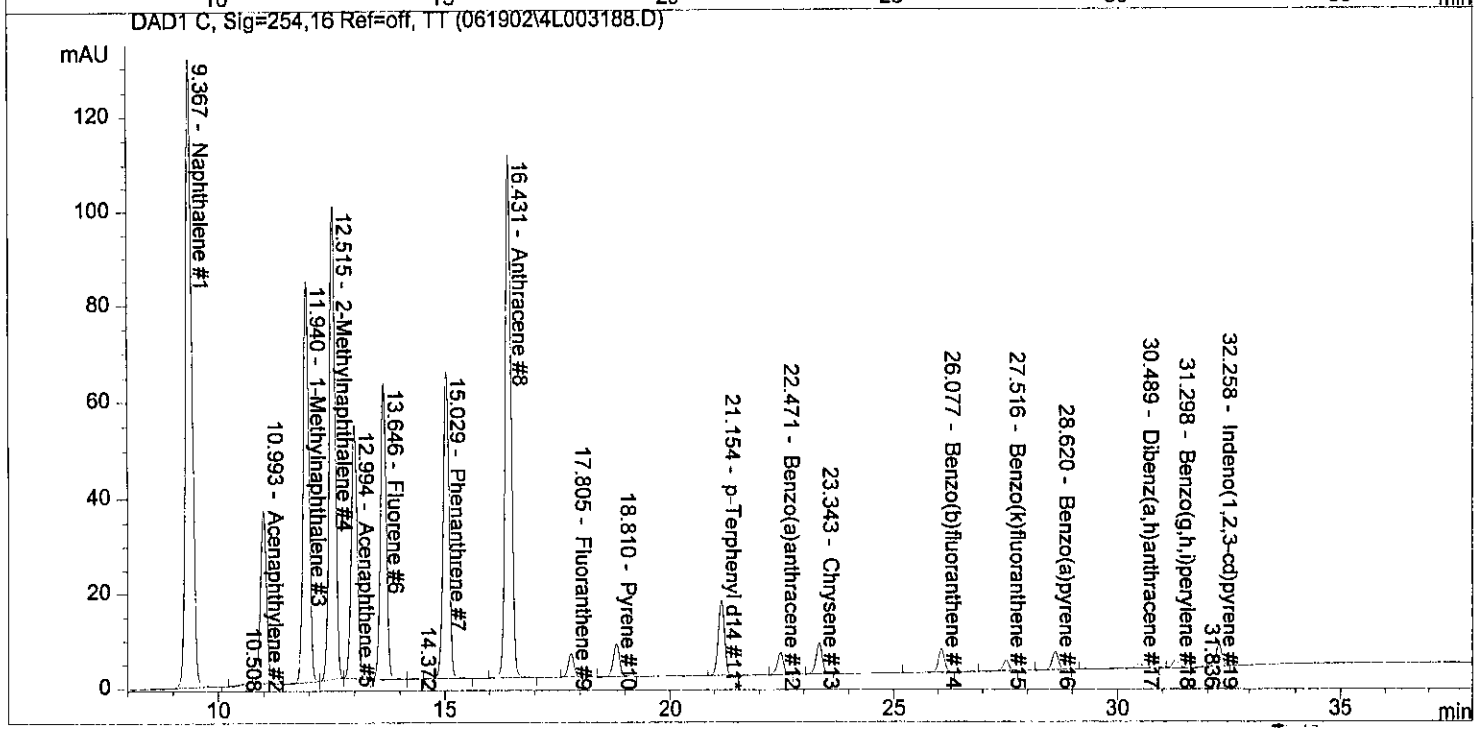
Injection Date : 6/19/2002 8:49:59 PM
Sample Name : WG120164-05 STD3
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:44:50 AM by RDC
(modified after loading)

Calibrated 06/13/2002





401

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, June 20, 2002 8:44:47 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
9.387	BB	372.80032	2.67856e-2	9.98566		Naphthalene #1
11.960	BB	427.56720	2.34118e-2	10.01011		1-Methylnaphthalene #3
12.535	BB	555.46735	1.80126e-2	10.00542		2-Methylnaphthalene #4
13.013	BB	703.58374	1.42041e-2	9.99375		Acenaphthene #5
13.666	BB	1519.39380	6.59104e-3	10.01438		Fluorene #6
15.049	BBA	57.20443	1.76518e-1	10.09759		Phenanthrene #7
16.451	BBA	32.94457	3.04050e-1	10.01681		Anthracene #8
17.826	PB	38.41879	2.58349e-2	9.92545e-1		Fluoranthene #9
18.831	BBA	23.72331	4.20555e-2	9.97697e-1		Pyrene #10
21.173	BB	33.17809	2.98544e-1	9.90512		p-Terphenyl d14 #11*
22.491	BB	118.62704	8.37669e-3	9.93702e-1		Benzo(a)anthracene #12
23.362	BB	24.51306	4.08600e-2	1.00160		Chrysene #13
26.098	BB	57.64222	1.72859e-2	9.96397e-1		Benzo(b)fluoranthene #14
27.537	PBA	174.54939	2.86391e-3	4.99893e-1		Benzo(k)fluoranthene #15
28.641	BB	203.63187	4.86675e-3	9.91025e-1		Benzo(a)pyrene #16
30.508	BB	23.79175	4.14859e-2	9.87021e-1		Dibenz(a,h)anthracene #17
31.320	BB	33.82579	2.92449e-2	9.89233e-1		Benzo(g,h,i)perylene #18
32.275	BBA	68.94070	1.44207e-2	9.94171e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 89.47213

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	PBA	1256.01123	7.99501e-3	10.04182		Naphthalene #1
10.993	BB	327.28607	3.05782e-2	10.00783		Acenaphthylene #2
11.940	BB	764.27496	1.30750e-2	9.99287		1-Methylnaphthalene #3
12.515	BB	893.57037	1.12157e-2	10.02200		2-Methylnaphthalene #4
12.994	BB	481.32138	2.07914e-2	10.00732		Acenaphthene #5
13.646	BB	559.61633	1.78466e-2	9.98725		Fluorene #6
15.029	BBA	576.95782	1.73039e-2	9.98360		Phenanthrene #7
16.431	BBA	1002.81183	9.97595e-3	10.00400		Anthracene #8
17.805	BBA	44.70066	2.23857e-2	1.00066		Fluoranthene #9
18.810	BBA	67.82222	1.47614e-2	1.00115		Pyrene #10
21.154	BBA	150.41772	6.58969e-2	9.91207		p-Terphenyl d14 #11*
22.471	BBA	43.86306	2.26669e-2	9.94240e-1		Benzo(a)anthracene #12
23.343	BBA	64.16498	1.54198e-2	9.89412e-1		Chrysene #13
26.077	BBA	46.88808	2.12232e-2	9.95115e-1		Benzo(b)fluoranthene #14
27.516	PBA	21.77243	2.30482e-2	5.01816e-1		Benzo(k)fluoranthene #15
28.620	BBA	36.86427	2.70988e-2	9.98976e-1		Benzo(a)pyrene #16
30.489	BBA	11.97529	9.44798e-2	1.13142		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.298	BB	18.48934	5.35680e-2	9.90436e-1		Benzo(g,h,i)perylene #18
32.258	BBA	46.04763	2.15335e-2	9.91566e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 99.55356

Results obtained with enhanced integrator!

*** End of Report ***

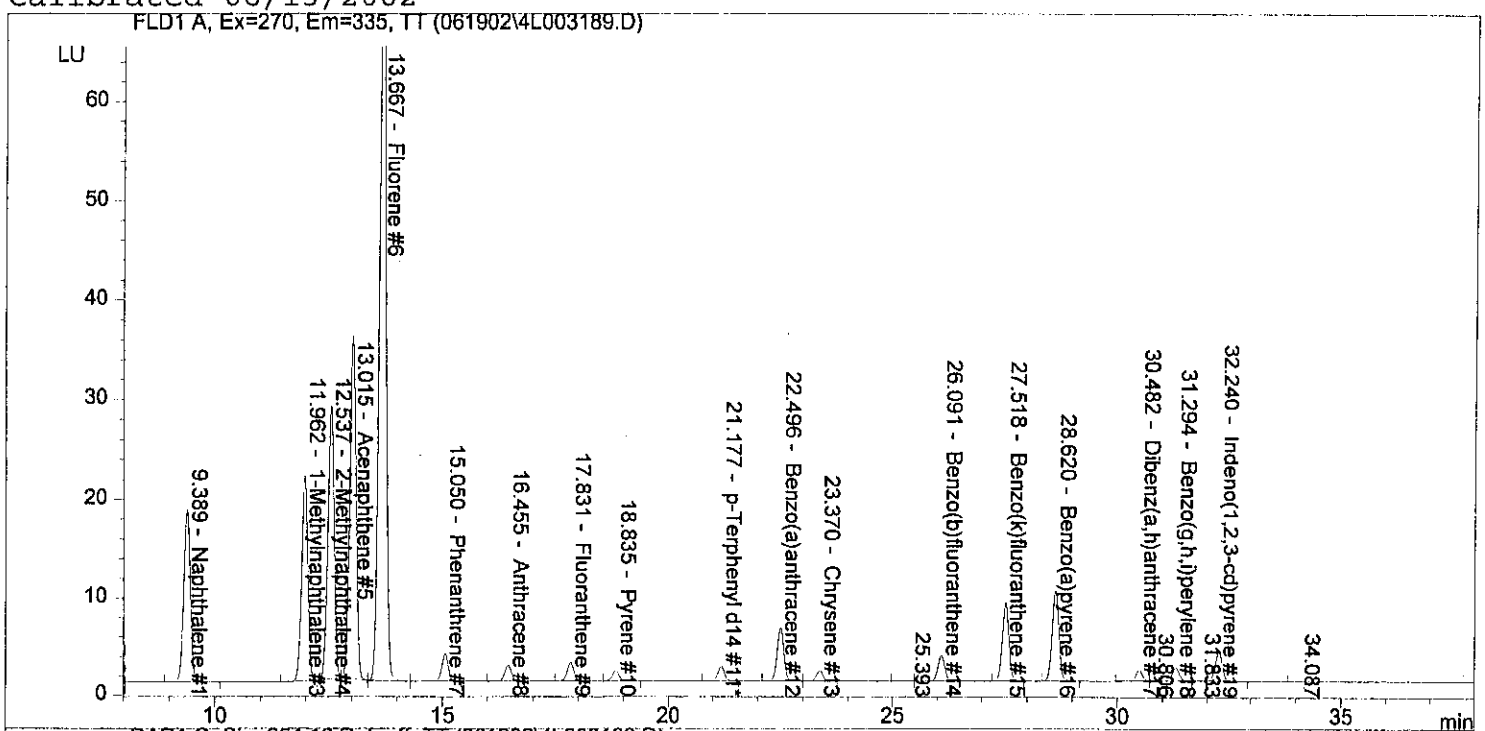
403

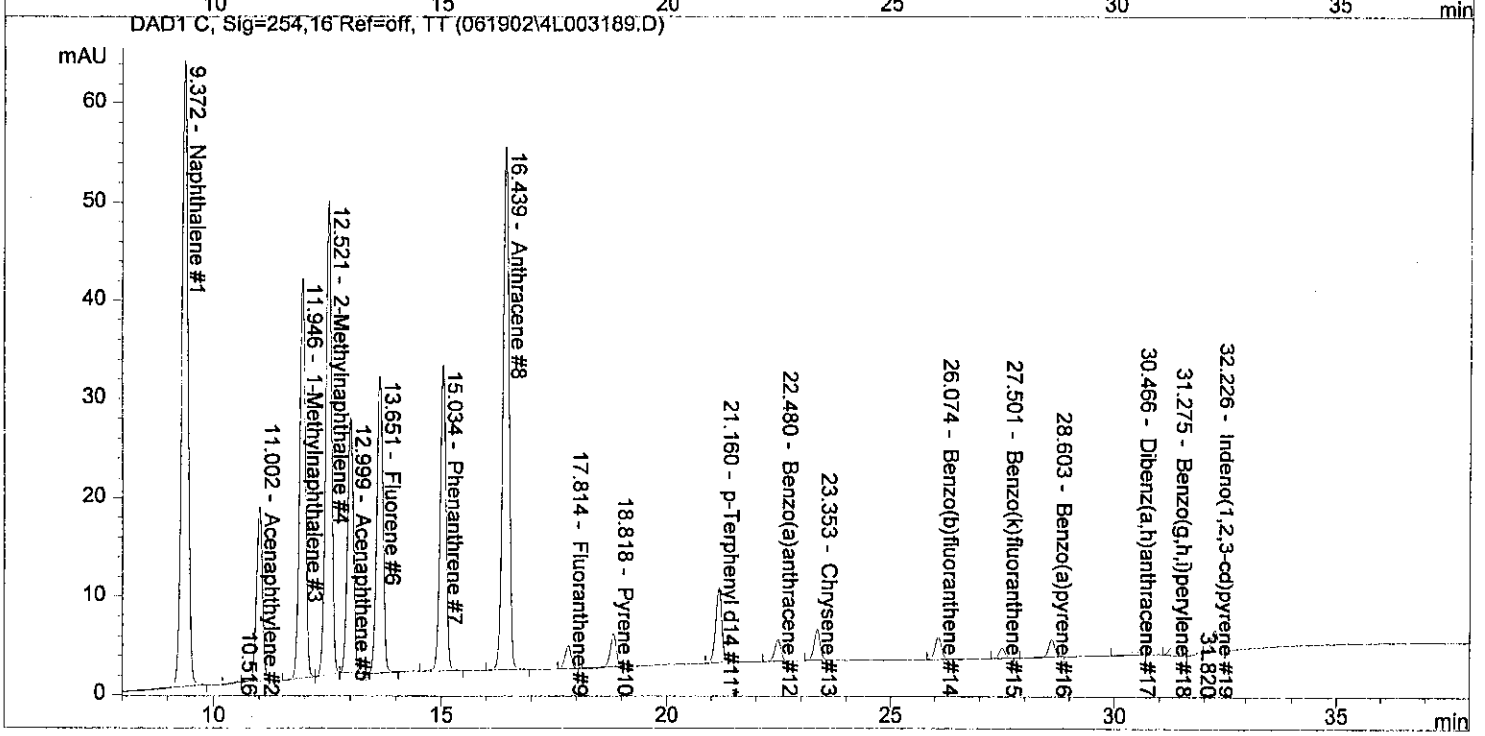
==========

Injection Date	: 6/19/2002 9:46:37 PM	Seq. Line	: 7
Sample Name	: WG120164-06 STD2	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:45:23 AM by RDC
(modified after loading)

Calibrated 06/13/2002





404

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, June 20, 2002 8:45:20 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
9.389	BBA	180.32388	2.73749e-2	4.93634		Naphthalene #1
11.962	BB	206.59302	2.38973e-2	4.93702		1-Methylnaphthalene #3
12.537	BB	268.34698	1.82743e-2	4.90387		2-Methylnaphthalene #4
13.015	BB	339.82239	1.43081e-2	4.86222		Acenaphthene #5
13.667	BB	734.63800	6.58745e-3	4.83939		Fluorene #6
15.050	BBA	27.54959	1.82175e-1	5.01885		Phenanthrene #7
16.455	PBA	15.88479	3.10694e-1	4.93531		Anthracene #8
17.831	PB	18.78860	2.64718e-2	4.97369e-1		Fluoranthene #9
18.835	BBA	11.53121	4.25437e-2	4.90580e-1		Pyrene #10
21.177	BBA	16.05081	3.06498e-1	4.91953		p-Terphenyl d14 #11*
22.496	BB	57.40008	8.66535e-3	4.97392e-1		Benzo(a)anthracene #12
23.370	BB	11.79001	4.22270e-2	4.97857e-1		Chrysene #13
26.091	BBA	27.72870	1.77868e-2	4.93204e-1		Benzo(b)fluoranthene #14
27.518	PBA	83.46227	2.94334e-3	2.45658e-1		Benzo(k)fluoranthene #15
28.620	PB	97.80115	5.06761e-3	4.95618e-1		Benzo(a)pyrene #16
30.482	BB	11.53541	4.34070e-2	5.00718e-1		Dibenz(a,h)anthracene #17
31.294	BB	16.16728	3.07342e-2	4.96888e-1		Benzo(g,h,i)perylene #18
32.240	BBA	33.25379	1.49021e-2	4.95551e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				44.06336		

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
9.372	PBA	604.13025	7.76042e-3	4.68830		Naphthalene #1
11.002	BBA	161.28902	3.11731e-2	5.02788		Acenaphthylene #2
11.946	PB	369.24078	1.32537e-2	4.89379		1-Methylnaphthalene #3
12.521	BB	431.87616	1.11748e-2	4.82614		2-Methylnaphthalene #4
12.999	BB	232.43697	2.12095e-2	4.92988		Acenaphthene #5
13.651	BBA	269.75366	1.83088e-2	4.93887		Fluorene #6
15.034	BBA	277.70538	1.77090e-2	4.91789		Phenanthrene #7
16.439	PBA	483.02975	9.90100e-3	4.78248		Anthracene #8
17.814	BBA	21.38802	2.33539e-2	4.99493e-1		Fluoranthene #9
18.818	BBA	30.01324	1.56292e-2	4.69082e-1		Pyrene #10
21.160	PBA	72.39475	6.76238e-2	4.89561		p-Terphenyl d14 #11*
22.480	BBA	21.07132	2.35836e-2	4.96939e-1		Benzo(a)anthracene #12
23.353	BBA	30.91224	1.58965e-2	4.91397e-1		Chrysene #13
26.074	BBA	22.64764	2.18898e-2	4.95751e-1		Benzo(b)fluoranthene #14
27.501	BBA	10.30655	2.38100e-2	2.45399e-1		Benzo(k)fluoranthene #15
28.603	BBA	16.74469	2.87600e-2	4.81577e-1		Benzo(a)pyrene #16
30.466	BBA	5.15278	9.32878e-2	4.80691e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.275	BB	9.25292	5.39457e-2	4.99155e-1		Benzo(g,h,i)perylene #18
32.226	BB	21.58914	2.28197e-2	4.92657e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 48.55298

Results obtained with enhanced integrator!

*** End of Report ***

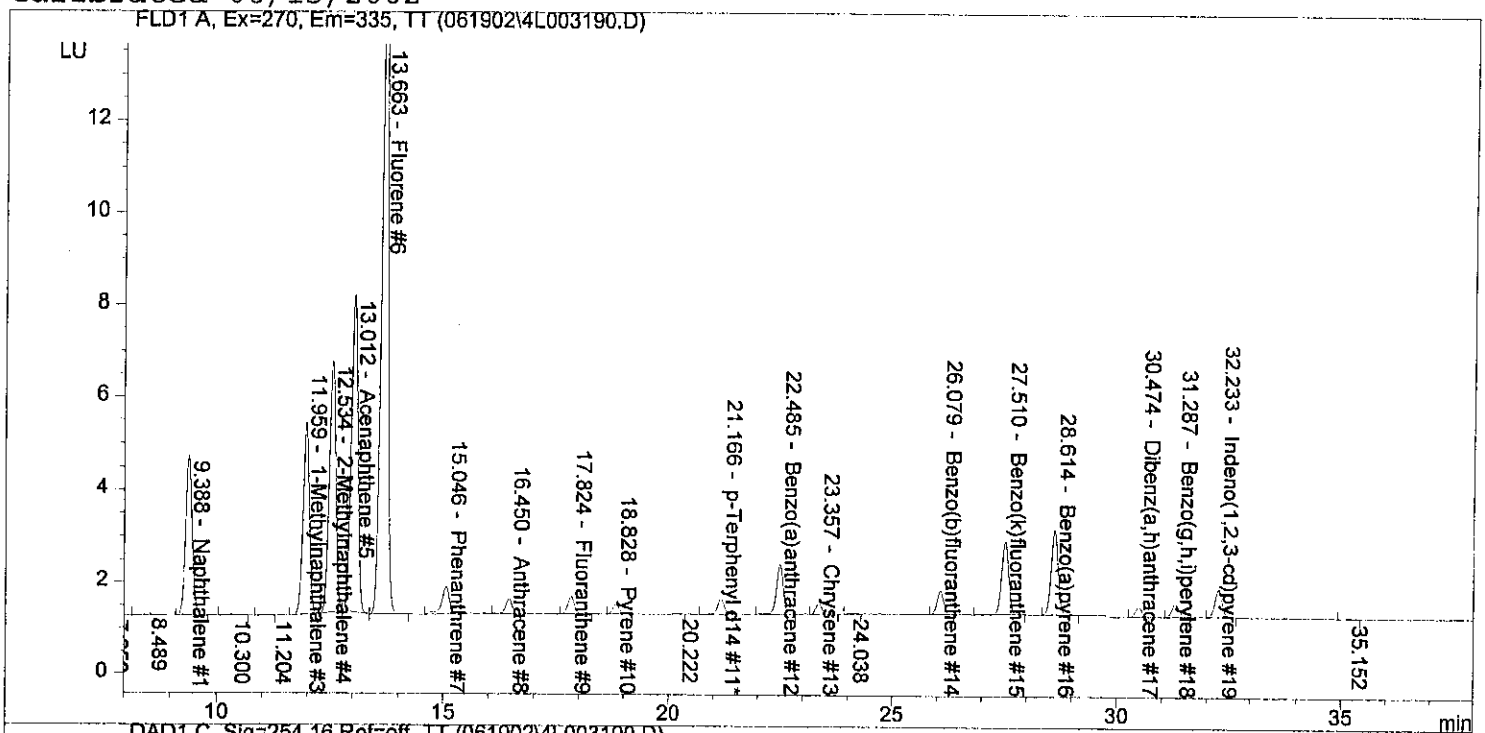
406

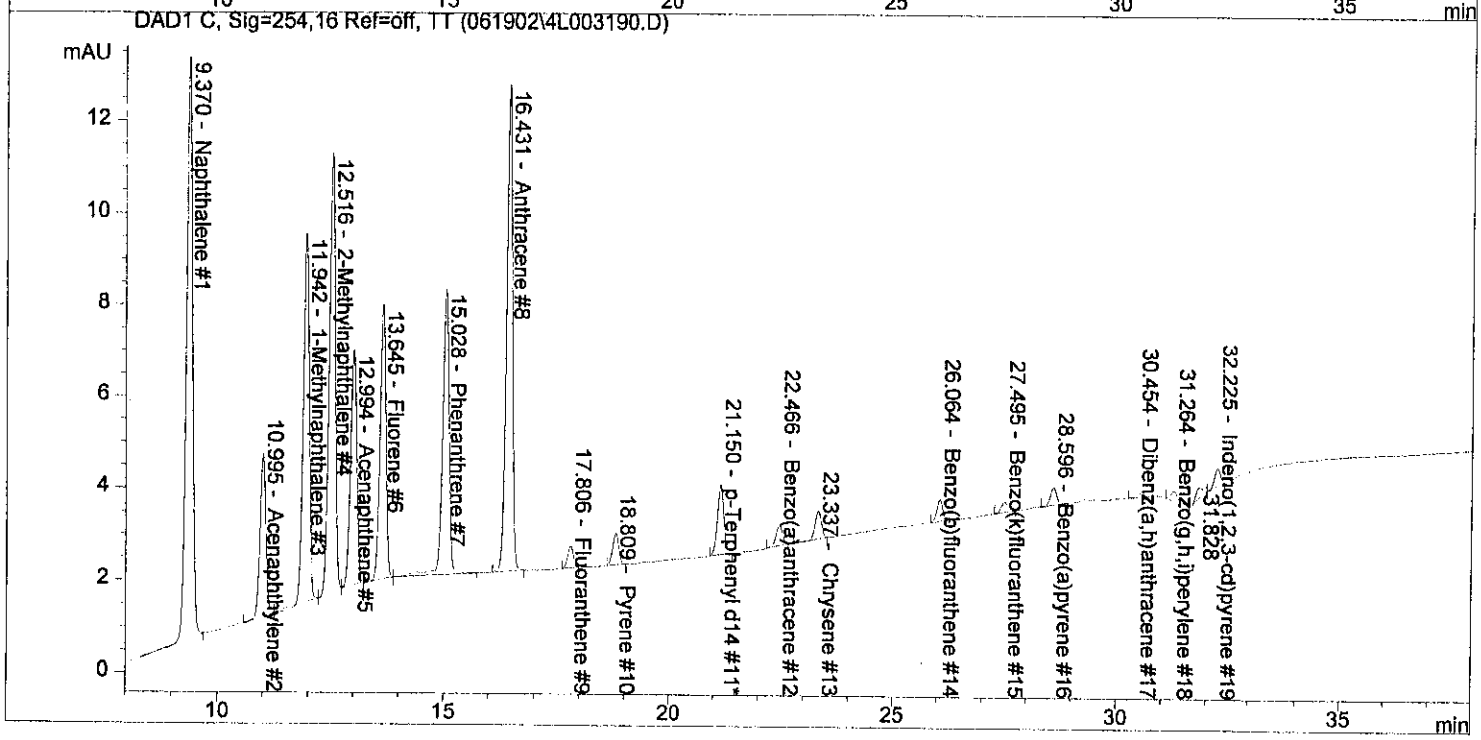
==========

Injection Date	: 6/19/2002 10:43:19 PM	Seq. Line :	8
Sample Name	: WG120164-07 STD1	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:50:59 AM by RDC
(modified after loading)

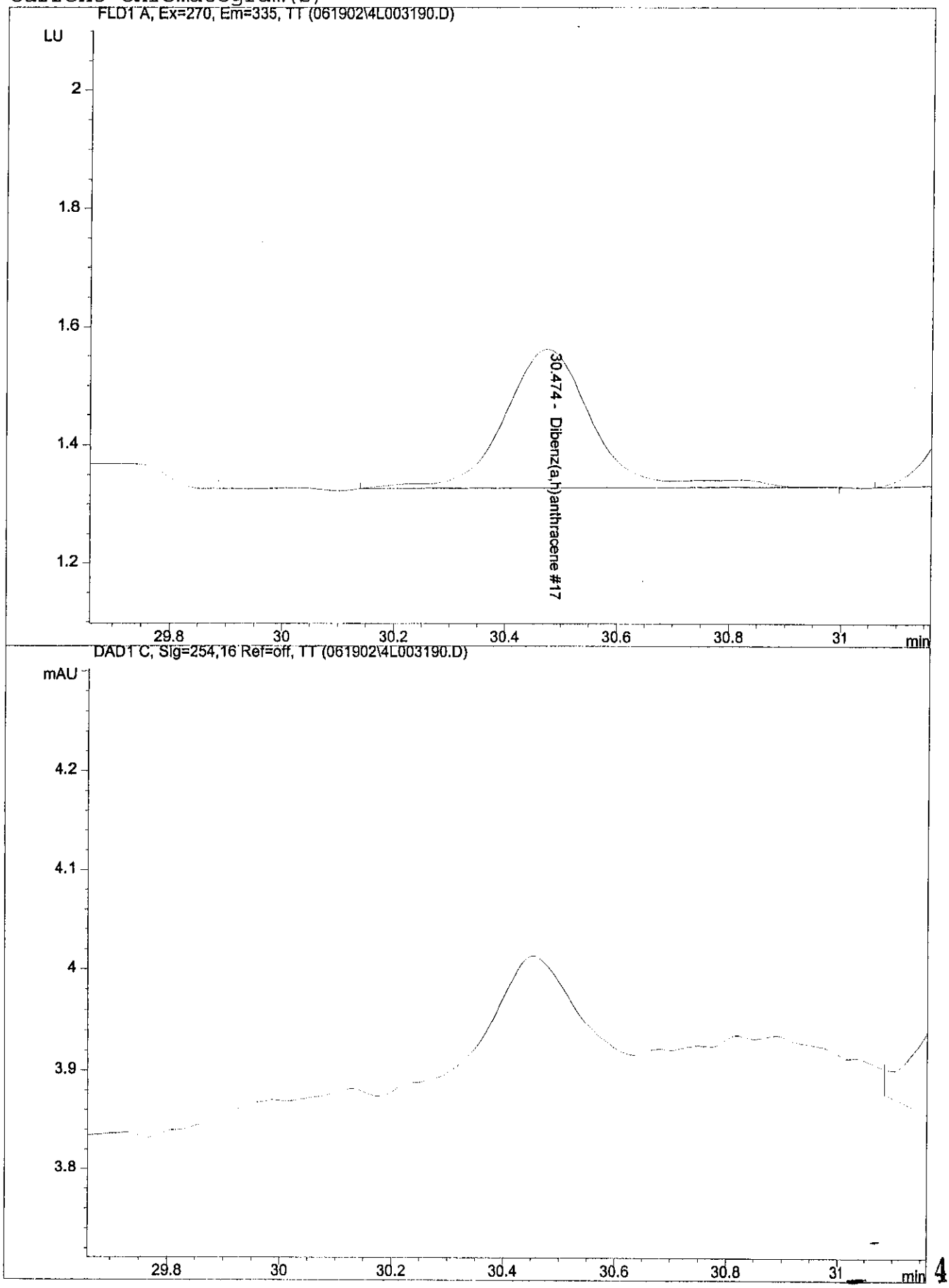
Calibrated 06/13/2002





407

Current Chromatogram(s)

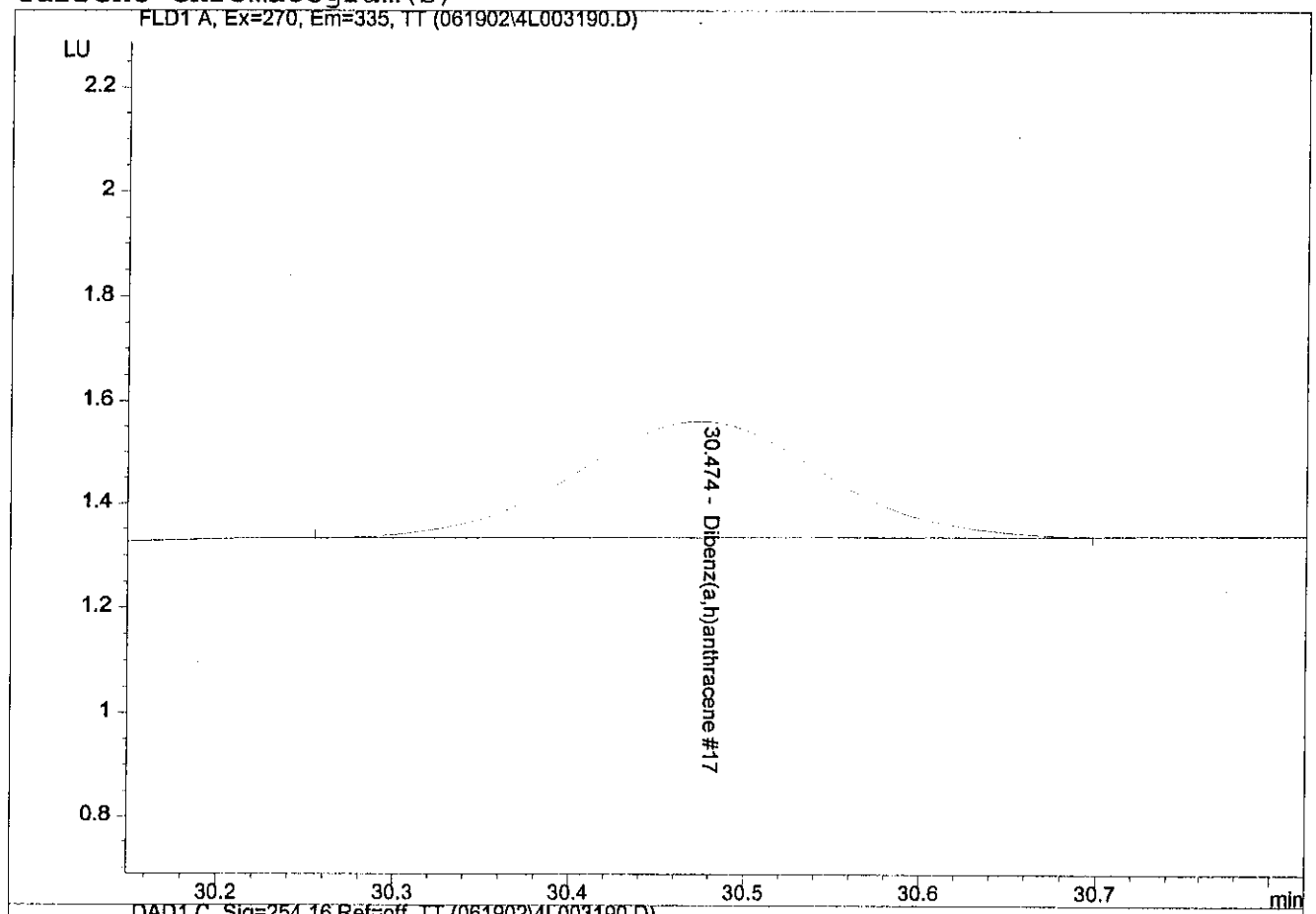


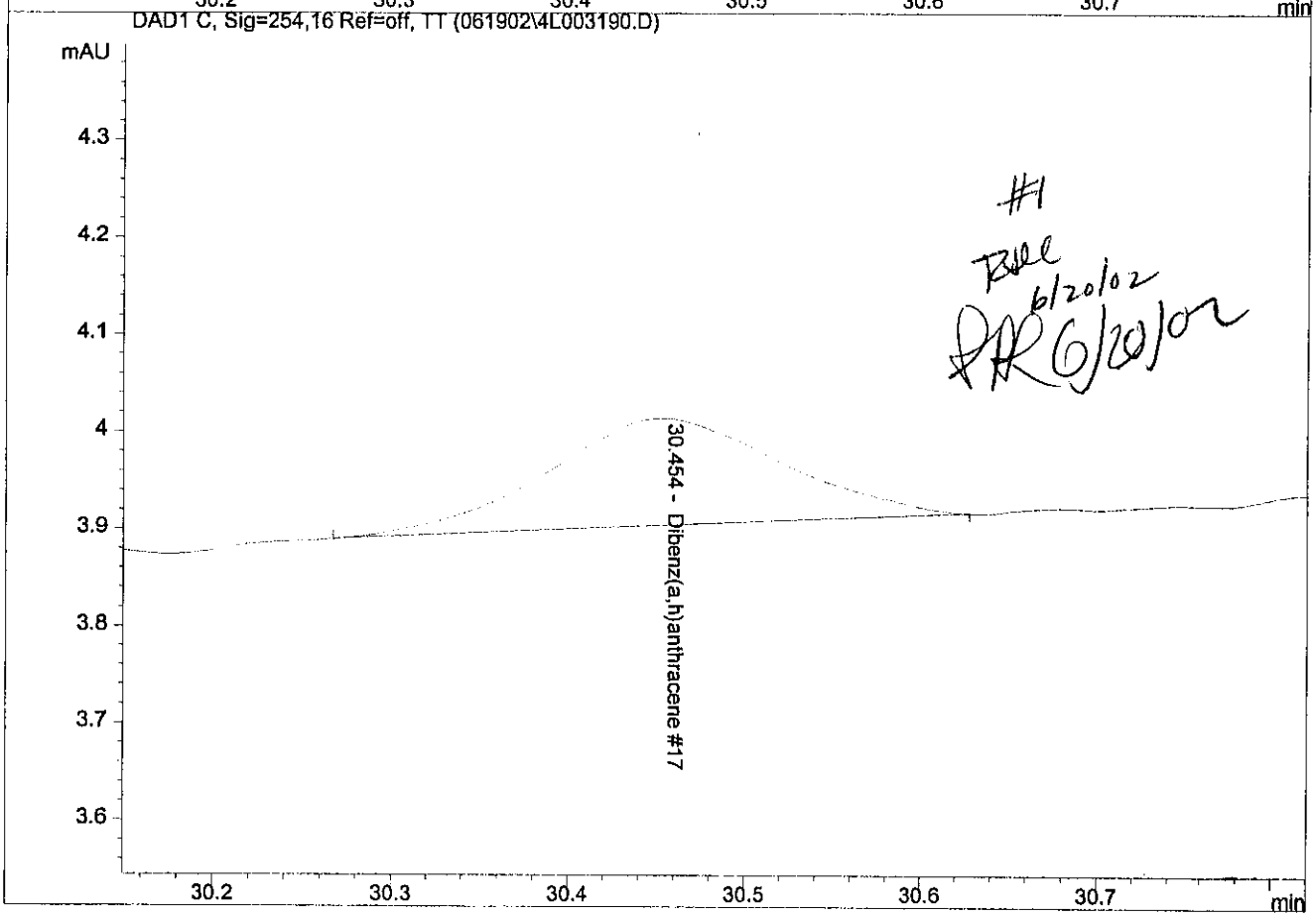
408

HPLC4 6/20/2002 8:46:12 AM RDC

Page 1 of 1

Current Chromatogram(s)





#1
BWC 6/20/02
PAR 6/20/02

409

HPLC4 6/20/2002 8:48:43 AM RDC

Page 1 of 1

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:50:56 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
9.388	BBA	35.50560	3.22050e-2	1.14346		Naphthalene #1
11.959	BB	40.92273	2.77854e-2	1.13705		1-Methylnaphthalene #3
12.534	BB	53.13324	2.03886e-2	1.08331		2-Methylnaphthalene #4
13.012	BB	67.65919	1.51387e-2	1.02427		Acenaphthene #5
13.663	BB	146.98784	6.57698e-3	9.66736e-1		Fluorene #6
15.046	BBA	6.79399	2.09718e-1	1.42482		Phenanthrene #7
16.450	BBA	3.26255	3.60175e-1	1.17509		Anthracene #8
17.824	BBA	3.92421	3.11659e-2	1.22302e-1		Fluoranthene #9
18.828	BBA	2.23386	4.69174e-2	1.04807e-1		Pyrene #10
21.166	BB	3.57698	3.58661e-1	1.28292		p-Terphenyl d14 #11*
22.485	BB	11.92573	1.07760e-2	1.28512e-1		Benzo(a)anthracene #12
23.357	BB	2.37958	5.22694e-2	1.24379e-1		Chrysene #13
26.079	BBA	5.48437	2.18900e-2	1.20053e-1		Benzo(b)fluoranthene #14
27.510	PBA	16.92470	3.54432e-3	5.99866e-2		Benzo(k)fluoranthene #15
28.614	BBA	19.55420	6.62954e-3	1.29635e-1		Benzo(a)pyrene #16
30.474	MM	2.22269	5.93741e-2	1.31970e-1		Dibenz(a,h)anthracene #17
31.287	PBA	3.18651	4.24380e-2	1.35229e-1		Benzo(g,h,i)perylene #18
32.233	BB	6.77440	1.86704e-2	1.26481e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 10.42102

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
9.370	PBA	121.88613	5.96867e-3	7.27498e-1		Naphthalene #1
10.995	BB	31.70620	3.66640e-2	1.16248		Acenaphthylene #2
11.942	BB	72.22427	1.48276e-2	1.07092		1-Methylnaphthalene #3
12.516	BB	85.91975	1.09324e-2	9.39313e-1		2-Methylnaphthalene #4
12.994	BB	46.04076	2.45826e-2	1.13180		Acenaphthene #5
13.645	BB	52.90672	2.20179e-2	1.16489		Fluorene #6
15.028	BBA	59.91370	2.07300e-2	1.24201		Phenanthrene #7
16.431	BBA	96.05915	9.31727e-3	8.95009e-1		Anthracene #8
17.806	BBA	4.17519	2.94398e-2	1.22917e-1		Fluoranthene #9
18.809	BBA	6.27601	2.10324e-2	1.32000e-1		Pyrene #10
21.150	BBA	14.27093	8.12526e-2	1.15955		p-Terphenyl d14 #11*
22.466	PBA	4.39682	2.97351e-2	1.30740e-1		Benzo(a)anthracene #12
23.337	BBA	6.15006	2.04006e-2	1.25465e-1		Chrysene #13
26.064	BBA	4.57150	2.74189e-2	1.25346e-1		Benzo(b)fluoranthene #14
27.495	BB	2.19067	2.90307e-2	6.35967e-2		Benzo(k)fluoranthene #15
28.596	BB	3.90243	3.86476e-2	1.50819e-1		Benzo(a)pyrene #16
30.454	MM	1.00112	8.71212e-2	8.72187e-2		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264	BBA	2.34328	6.22516e-2	1.45873e-1		Benzo(g,h,i)perylene #18
32.225	BB	3.42590	3.63599e-2	1.24565e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 10.70201

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003191.D Sample Name: WG120164-08 ALT
HPLC4 6/20/2002 9:17:38 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/19/2002 11:39:56 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.387	20.0	19.539	-2.3
1-Methylnaphthalene #3	11.957	20.0	19.522	-2.4
2-Methylnaphthalene #4	12.532	20.0	19.193	-4.0
Acenaphthene #5	13.010	20.0	20.092	0.5
Fluorene #6	13.663	20.0	19.978	-0.1
Phenanthrene #7	15.046	20.0	19.187	-4.1
Anthracene #8	16.447	20.0	20.188	0.9
Fluoranthene #9	17.820	2.0	1.994	-0.3
Pyrene #10	18.822	2.0	1.884	-5.8
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.478	2.0	1.838	-8.1
Chrysene #13	23.345	2.0	1.912	-4.4
Benzo(b)fluoranthene #14	26.064	2.0	1.959	-2.0
Benzo(k)fluoranthene #15	27.495	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.603	2.0	2.046	2.3
Dibenz(a,h)anthracene #1	30.467	2.0	2.145	7.3
Benzo(g,h,i)perylene #18	31.284	2.0	1.972	-1.4
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.897	-5.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.372	20.0	20.073	0.4
Acenaphthylene #2	10.995	20.0	19.000	-5.0
1-Methylnaphthalene #3	11.942	20.0	19.740	-1.3
2-Methylnaphthalene #4	12.517	20.0	19.492	-2.5
Acenaphthene #5	12.996	20.0	20.090	0.4
Fluorene #6	13.647	20.0	19.779	-1.1
Phenanthrene #7	15.030	20.0	18.845	-5.8
Anthracene #8	16.432	20.0	20.458	2.3
Fluoranthene #9	17.804	2.0	1.944	-2.8
Pyrene #10	18.806	2.0	1.915	-4.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.462	2.0	1.853	-7.4
Chrysene #13	23.330	2.0	1.921	-4.0
Benzo(b)fluoranthene #14	26.048	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.480	1.0	0.880	-12.0
Benzo(a)pyrene #16	28.587	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.451	2.0	2.159	7.9
Benzo(g,h,i)perylene #18	31.267	2.0	1.941	-2.9
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.894	-5.3

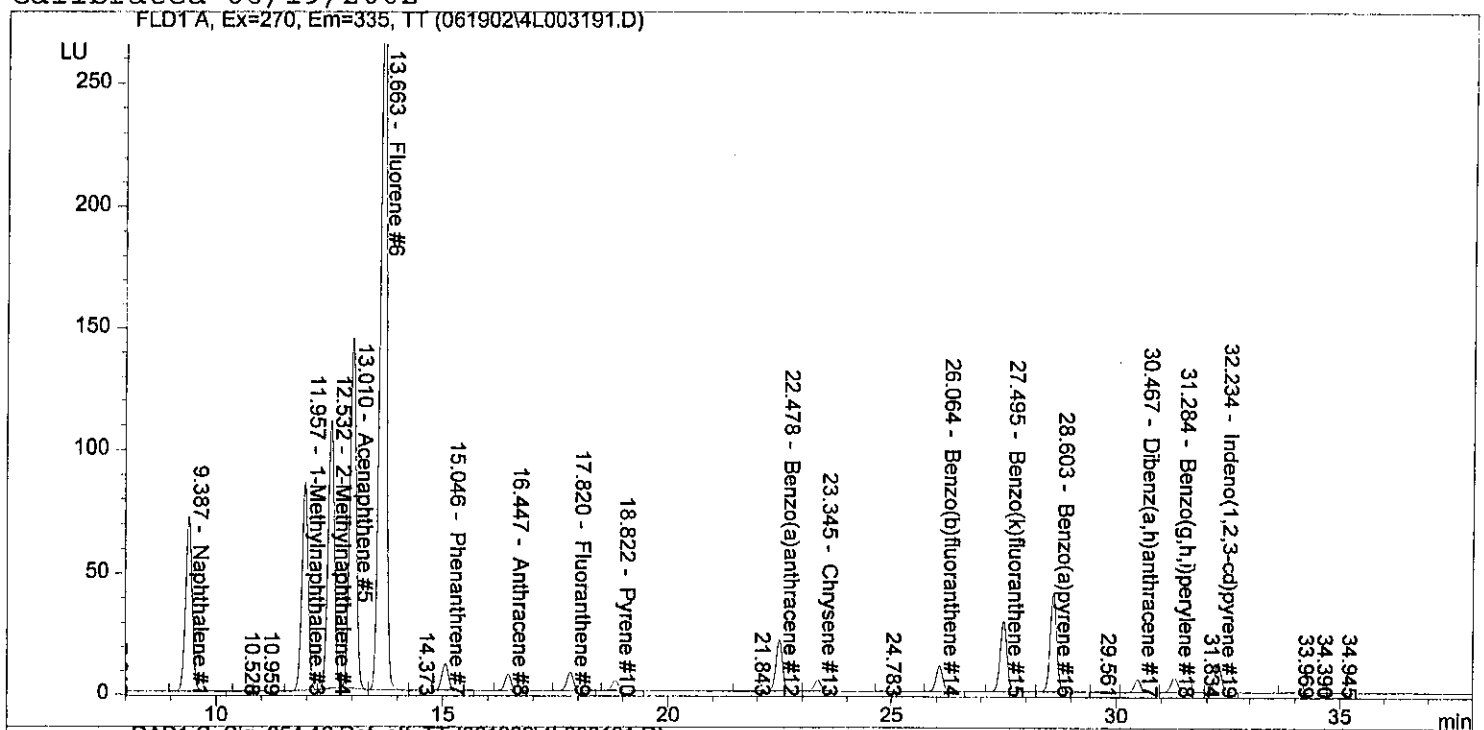
= Failed 15.0% Criteria

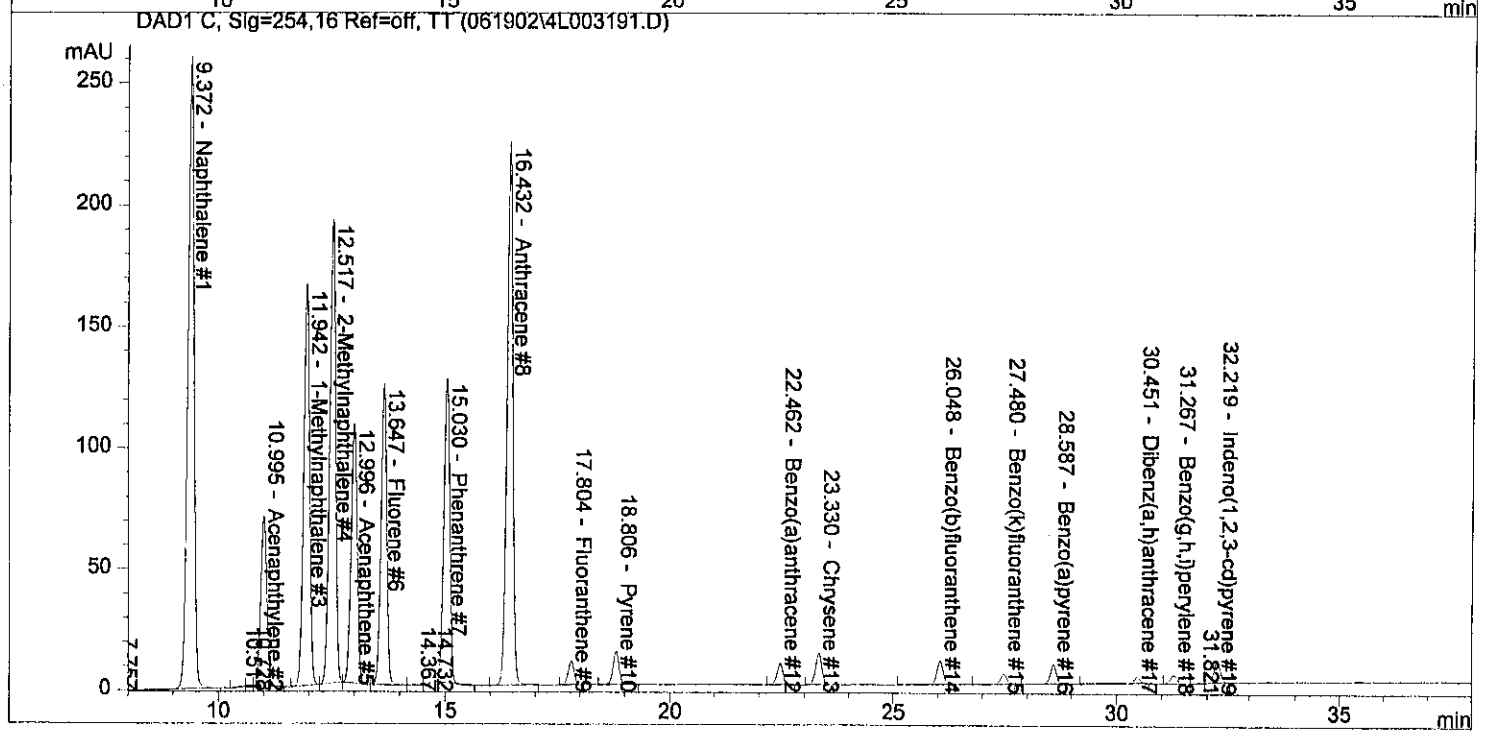
412

==========

Injection Date	: 6/19/2002 11:39:56 PM	Seq. Line :	9
Sample Name	: WG120164-08 ALT	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





413

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	6/20/2002 8:52:08 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
9.387	BBA	737.66528	2.64873e-2	19.53875		Naphthalene #1
11.957	BB	842.18378	2.31805e-2	19.52228		1-Methylnaphthalene #3
12.532	BB	1072.79504	1.78909e-2	19.19330		2-Methylnaphthalene #4
13.010	BB	1419.36682	1.41559e-2	20.09236		Acenaphthene #5
13.663	BB	3031.48169	6.59031e-3	19.97841		Fluorene #6
15.046	BBA	110.72682	1.73280e-1	19.18674		Phenanthrene #7
16.447	PBA	67.07290	3.00989e-1	20.18824		Anthracene #8
17.820	BBA	78.28062	2.54760e-2	1.99427		Fluoranthene #9
18.822	BBA	45.12201	4.17610e-2	1.88434		Pyrene #10
21.166		-	-	-		p-Terphenyl d14 #11*
22.478	BB	222.92839	8.24594e-3	1.83825		Benzo(a)anthracene #12
23.345	BB	47.43394	4.02984e-2	1.91151		Chrysene #13
26.064	BBA	114.99720	1.70377e-2	1.95929		Benzo(b)fluoranthene #14
27.495	BB	311.48776	2.83180e-3	8.82071e-1		Benzo(k)fluoranthene #15
28.603	BBA	429.06128	4.76783e-3	2.04569		Benzo(a)pyrene #16
30.467	BB	52.93916	4.05202e-2	2.14510		Dibenz(a,h)anthracene #17
31.284	BB	69.01328	2.85695e-2	1.97167		Benzo(g,h,i)perylene #18
32.234	BB	133.70982	1.41867e-2	1.89690		Indeno(1,2,3-cd)pyrene #1
Totals :				156.22920		

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
9.372	BBA	2480.78638	8.09119e-3	20.07252		Naphthalene #1
10.995	BBA	629.07135	3.02035e-2	19.00018		Acenaphthylene #2
11.942	PB	1521.38184	1.29751e-2	19.74016		1-Methylnaphthalene #3
12.517	BB	1737.28711	1.12201e-2	19.49247		2-Methylnaphthalene #4
12.996	BB	976.73950	2.05683e-2	20.08983		Acenaphthene #5
13.647	BB	1122.93054	1.76134e-2	19.77857		Fluorene #6
15.030	BBA	1103.63745	1.70754e-2	18.84509		Phenanthrene #7
16.432	PBA	2045.92957	9.99954e-3	20.45835		Anthracene #8
17.804	PB	88.76682	2.19040e-2	1.94435		Fluoranthene #9
18.806	BBA	132.37604	1.44652e-2	1.91484		Pyrene #10
21.150		-	-	-		p-Terphenyl d14 #11*
22.462	BBA	83.02850	2.23150e-2	1.85278		Benzo(a)anthracene #12
23.330	BBA	126.16646	1.52241e-2	1.92078		Chrysene #13
26.048	PBA	94.24934	2.08606e-2	1.96610		Benzo(b)fluoranthene #14
27.480	PBA	38.80268	2.26831e-2	8.80167e-1		Benzo(k)fluoranthene #15
28.587	BBA	77.06660	2.62837e-2	2.02560		Benzo(a)pyrene #16
30.451	BBA	23.06487	9.36030e-2	2.15894		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.267	BB	36.37280	5.33696e-2	1.94120		Benzo(g,h,i)perylene #18
32.219	BB	90.73181	2.08749e-2	1.89402		Indeno(1,2,3-cd)pyrene #1

Totals : 175.97593

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062502\4L003212.D Sample Name: WG120427-01 CCV
HPLC4 6/26/2002 2:09:40 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/25/2002 4:44:37 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.333	20.0	19.728	-1.4
1-Methylnaphthalene #3	11.897	20.0	19.771	-1.1
2-Methylnaphthalene #4	12.467	20.0	19.792	-1.0
Acenaphthene #5	12.944	20.0	19.807	-1.0
Fluorene #6	13.592	20.0	19.798	-1.0
Phenanthrene #7	14.976	20.0	19.634	-1.8
Anthracene #8	16.374	20.0	19.484	-2.6
Fluoranthene #9	17.745	2.0	2.008	0.4
Pyrene #10	18.749	2.0	2.035	1.8
p-Terphenyl d14 #11*	21.081	20.0	19.443	-2.8
Benzo(a)anthracene #12	22.399	2.0	1.963	-1.9
Chrysene #13	23.260	2.0	1.987	-0.7
Benzo(b)fluoranthene #14	25.973	2.0	1.955	-2.3
Benzo(k)fluoranthene #15	27.399	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.510	2.0	1.958	-2.1
Dibenz(a,h)anthracene #1	30.358	2.0	1.983	-0.9
Benzo(g,h,i)perylene #18	31.167	2.0	2.000	0.0
Indeno(1,2,3-cd)pyrene #	32.113	2.0	1.927	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.318	20.0	20.271	1.4
Acenaphthylene #2	10.939	20.0	19.824	-0.9
1-Methylnaphthalene #3	11.882	20.0	19.856	-0.7
2-Methylnaphthalene #4	12.452	20.0	20.029	0.1
Acenaphthene #5	12.928	20.0	19.833	-0.8
Fluorene #6	13.577	20.0	19.776	-1.1
Phenanthrene #7	14.961	20.0	19.356	-3.2
Anthracene #8	16.358	20.0	19.902	-0.5
Fluoranthene #9	17.728	2.0	1.964	-1.8
Pyrene #10	18.732	2.0	1.974	-1.3
p-Terphenyl d14 #11*	21.067	20.0	19.691	-1.5
Benzo(a)anthracene #12	22.384	2.0	1.954	-2.3
Chrysene #13	23.245	2.0	1.961	-1.9
Benzo(b)fluoranthene #14	25.957	2.0	1.962	-1.9
Benzo(k)fluoranthene #15	27.383	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.494	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.342	2.0	1.976	-1.2
Benzo(g,h,i)perylene #18	31.151	2.0	1.979	-1.1
Indeno(1,2,3-cd)pyrene #	32.094	2.0	1.998	-0.1

= Failed 15.0% Criteria

416

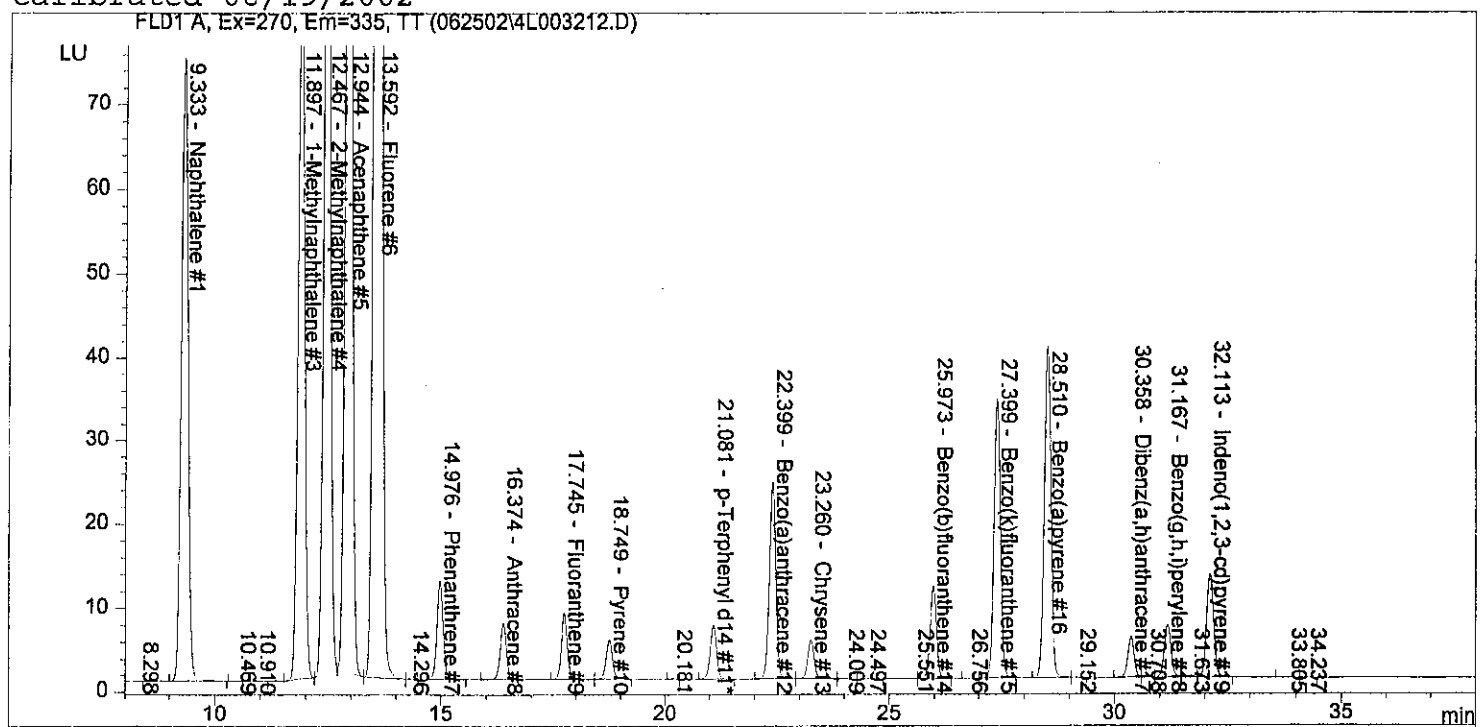
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

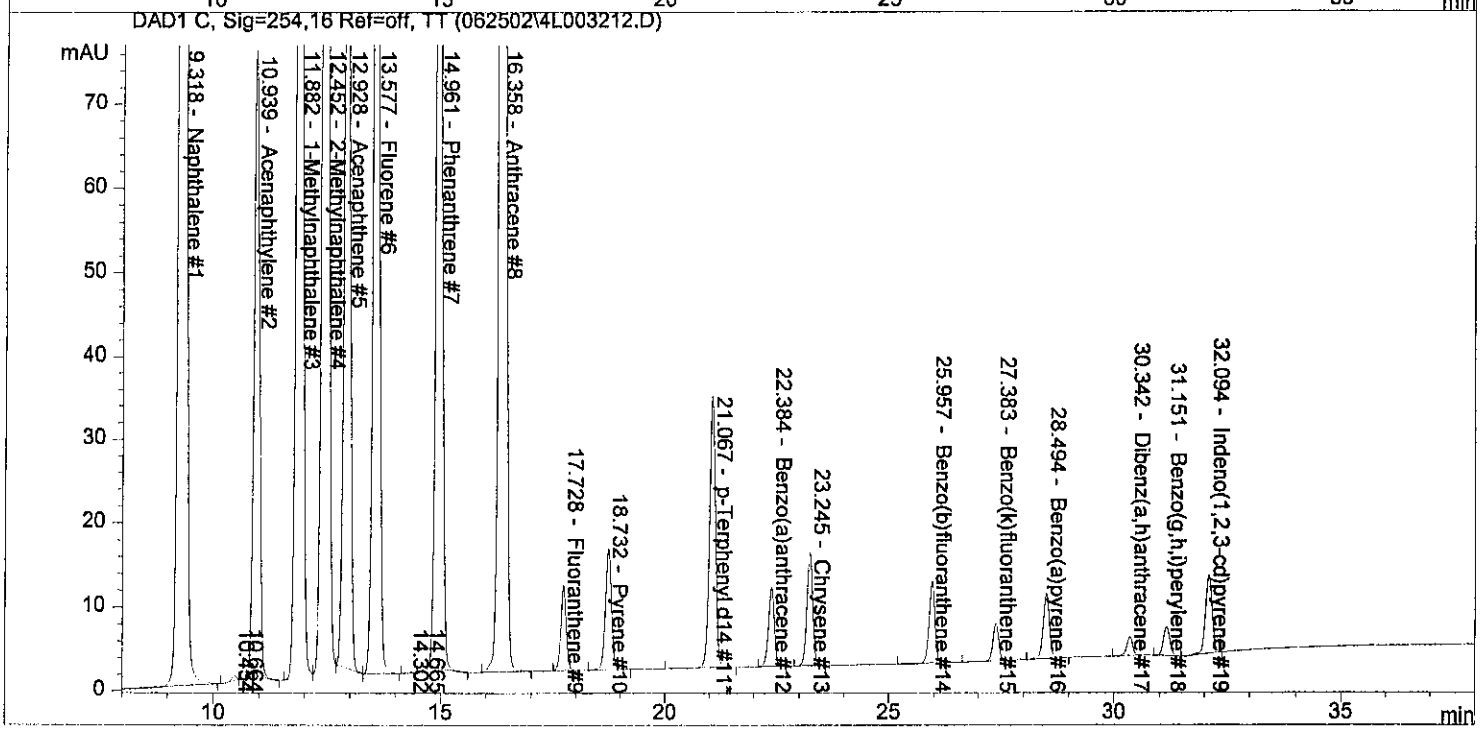
==========

Injection Date : 6/25/2002 4:44:37 PM
Sample Name : WG120427-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





417

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.333	PBA	744.88635	2.64845e-2	19.72793		Naphthalene #1
11.897	BB	853.00787	2.31776e-2	19.77064		1-Methylnaphthalene #3
12.467	BB	1106.49597	1.78870e-2	19.79185		2-Methylnaphthalene #4
12.944	BB	1399.10583	1.41566e-2	19.80655		Acenaphthene #5
13.592	BB	3004.09033	6.59031e-3	19.79788		Fluorene #6
14.976	BBA	113.34530	1.73225e-1	19.63423		Phenanthrene #7
16.374	BBA	64.70977	3.01100e-1	19.48411		Anthracene #8
17.745	BB	78.83427	2.54739e-2	2.00821		Fluoranthene #9
18.749	BBA	48.76380	4.17409e-2	2.03545		Pyrene #10
21.081	BB	66.01328	2.94530e-1	19.44287		p-Terphenyl d14 #11*
22.399	BB	238.27878	8.23673e-3	1.96264		Benzo(a)anthracene #12
23.260	BB	49.33612	4.02740e-2	1.98696		Chrysene #13
25.973	BB	114.74129	1.70383e-2	1.95499		Benzo(b)fluoranthene #14
27.399	BB	346.43771	2.82767e-3	9.79611e-1		Benzo(k)fluoranthene #15
28.510	BB	410.40375	4.77187e-3	1.95840		Benzo(a)pyrene #16
30.358	BB	48.85048	4.05893e-2	1.98281		Dibenz(a,h)anthracene #17
31.167	BB	70.01462	2.85599e-2	1.99961		Benzo(g,h,i)perylene #18
32.113	BB	135.88257	1.41829e-2	1.92720		Indeno(1,2,3-cd)pyrene #1

Totals : 176.25195

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
9.318	BBA	2504.95068	8.09225e-3	20.27069		Naphthalene #1
10.939	BBA	656.65472	3.01891e-2	19.82383		Acenaphthylene #2
11.882	PB	1530.34875	1.29746e-2	19.85568		1-Methylnaphthalene #3
12.452	BB	1785.00684	1.12205e-2	20.02861		2-Methylnaphthalene #4
12.928	BB	964.14740	2.05708e-2	19.83333		Acenaphthene #5
13.577	BBA	1122.76746	1.76134e-2	19.77573		Fluorene #6
14.961	BBA	1133.93921	1.70698e-2	19.35614		Phenanthrene #7
16.358	PBA	1990.49414	9.99860e-3	19.90216		Anthracene #8
17.728	BB	89.69545	2.19002e-2	1.96435		Fluoranthene #9
18.732	BBA	136.57634	1.44551e-2	1.97423		Pyrene #10
21.067	PBA	302.57129	6.50796e-2	19.69122		p-Terphenyl d14 #11*
22.384	PBA	87.66633	2.22930e-2	1.95435		Benzo(a)anthracene #12
23.245	BBA	128.88681	1.52186e-2	1.96147		Chrysene #13
25.957	PBA	94.03175	2.08614e-2	1.96163		Benzo(b)fluoranthene #14
27.383	PBA	43.93678	2.26388e-2	9.94675e-1		Benzo(k)fluoranthene #15
28.494	BB	77.07747	2.62836e-2	2.02588		Benzo(a)pyrene #16
30.342	PB	21.11235	9.35758e-2	1.97560		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.151	BB	37.08899	5.33578e-2	1.97899		Benzo(g,h,i)perylene #18
32.094	BB	95.86693	2.08424e-2	1.99810		Indeno(1,2,3-cd)pyrene #1

Totals : 197.32665

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062502\4L003221.D Sample Name: WG120427-02 CCV
HPLC4 6/26/2002 2:14:23 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/26/2002 1:14:27 AM Seq. Line : 11

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.380	20.0	20.108	0.5
1-Methylnaphthalene #3	11.950	20.0	20.175	0.9
2-Methylnaphthalene #4	12.524	20.0	20.195	1.0
Acenaphthene #5	13.002	20.0	20.167	0.8
Fluorene #6	13.655	20.0	20.098	0.5
Phenanthrene #7	15.043	20.0	20.050	0.3
Anthracene #8	16.450	20.0	19.771	-1.1
Fluoranthene #9	17.827	2.0	2.001	0.0
Pyrene #10	18.832	2.0	2.026	1.3
p-Terphenyl d14 #11*	21.174	20.0	19.419	-2.9
Benzo(a)anthracene #12	22.496	2.0	1.979	-1.1
Chrysene #13	23.368	2.0	1.978	-1.1
Benzo(b)fluoranthene #14	26.091	2.0	2.007	0.4
Benzo(k)fluoranthene #15	27.532	1.0	0.997	-0.3
Benzo(a)pyrene #16	28.641	2.0	1.961	-1.9
Dibenz(a,h)anthracene #1	30.508	2.0	1.974	-1.3
Benzo(g,h,i)perylene #18	31.312	2.0	1.948	-2.6
Indeno(1,2,3-cd)pyrene #	32.259	2.0	1.970	-1.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.361	20.0	20.476	2.4
Acenaphthylene #2	10.985	20.0	19.979	-0.1
1-Methylnaphthalene #3	11.930	20.0	20.102	0.5
2-Methylnaphthalene #4	12.504	20.0	20.269	1.3
Acenaphthene #5	12.982	20.0	20.056	0.3
Fluorene #6	13.635	20.0	19.946	-0.3
Phenanthrene #7	15.023	20.0	19.552	-2.2
Anthracene #8	16.429	20.0	20.036	0.2
Fluoranthene #9	17.806	2.0	1.984	-0.8
Pyrene #10	18.811	2.0	1.992	-0.4
p-Terphenyl d14 #11*	21.155	20.0	19.807	-1.0
Benzo(a)anthracene #12	22.476	2.0	1.980	-1.0
Chrysene #13	23.348	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.070	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.511	1.0	0.990	-1.0
Benzo(a)pyrene #16	28.620	2.0	1.956	-2.2
Dibenz(a,h)anthracene #1	30.487	2.0	1.977	-1.1
Benzo(g,h,i)perylene #18	31.291	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.241	2.0	1.974	-1.3

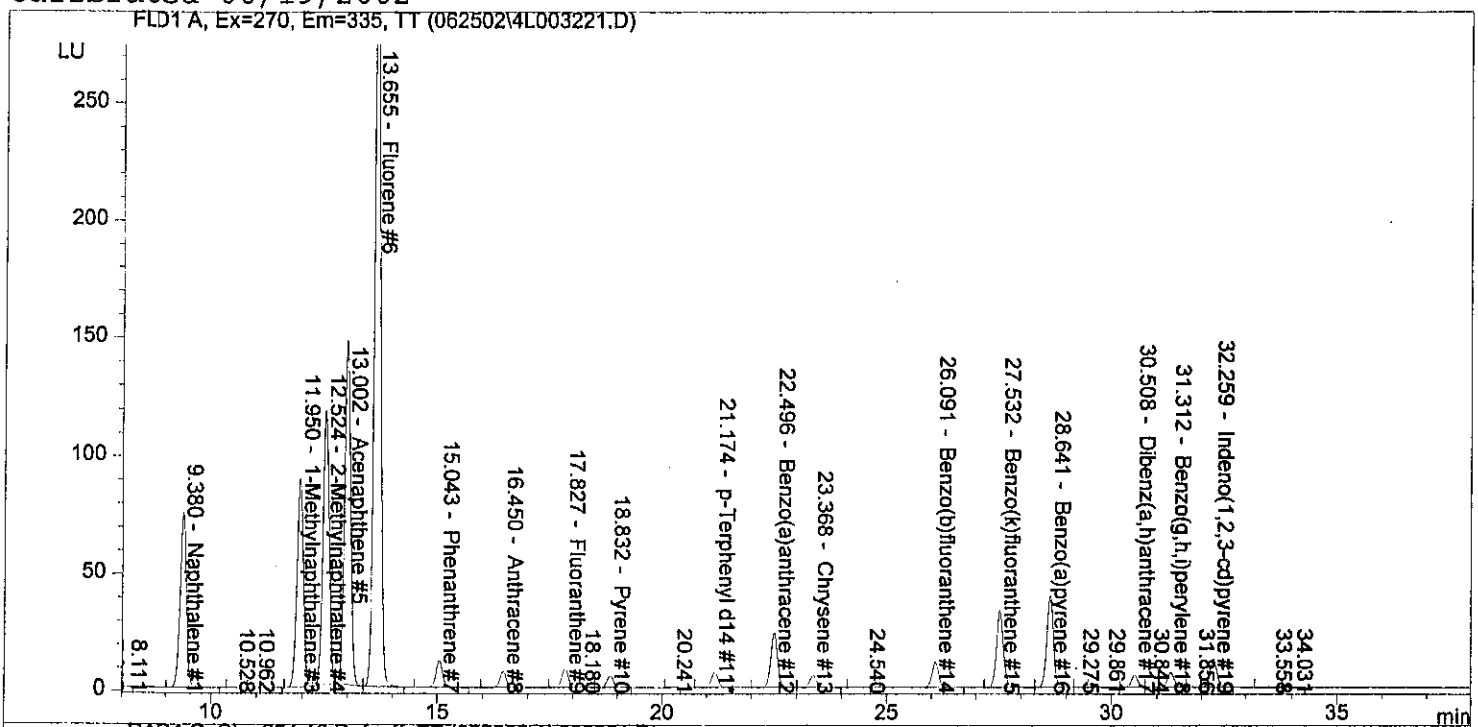
= Failed 15.0% Criteria

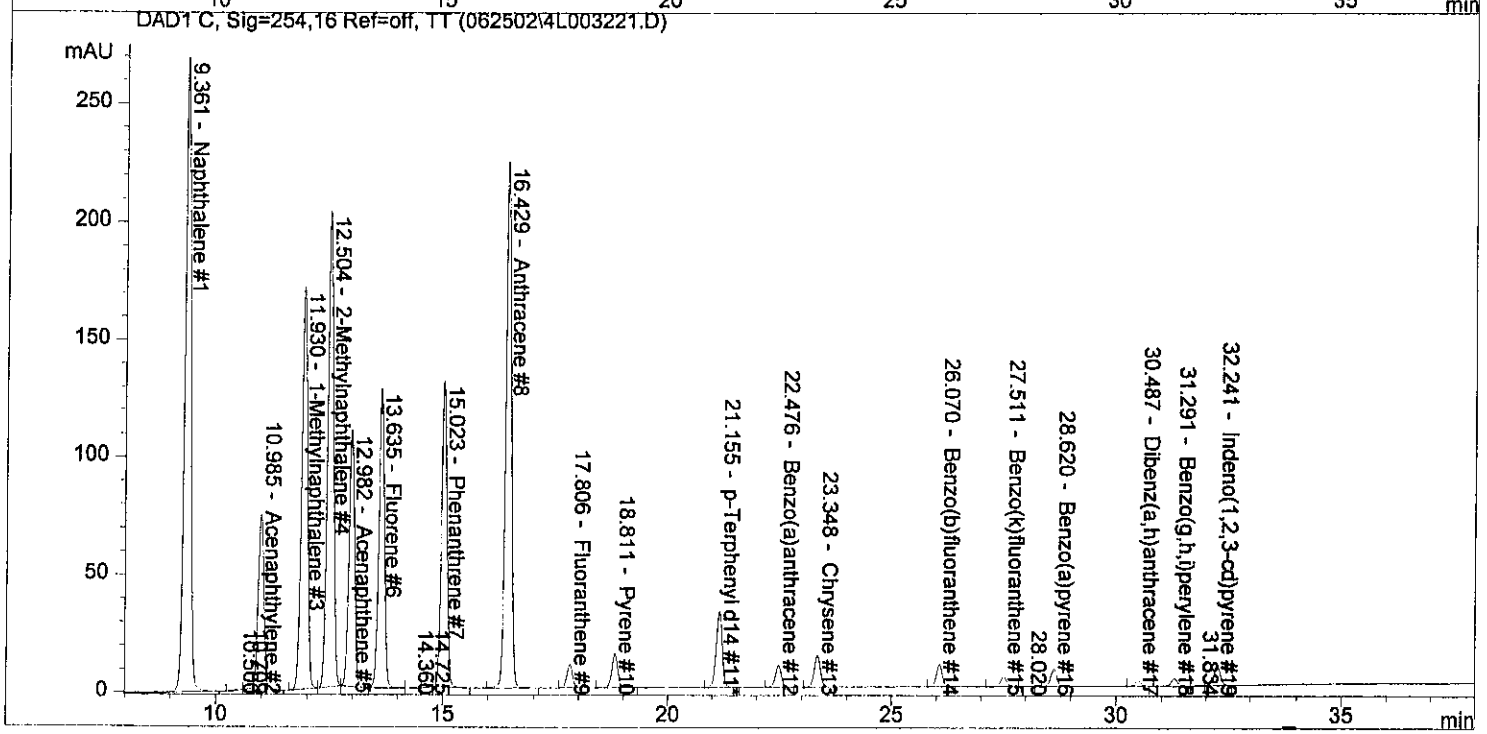
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date	: 6/26/2002 1:14:27 AM	Seq. Line	: 11
Sample Name	: WG120427-02 CCV	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





421

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	6/20/2002 8:52:08 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	759.37537	2.64790e-2	20.10751		Naphthalene #1
11.950	PB	870.62311	2.31729e-2	20.17483		1-Methylnaphthalene #3
12.524	BB	1129.20325	1.78844e-2	20.19515		2-Methylnaphthalene #4
13.002	BB	1424.65479	1.41557e-2	20.16696		Acenaphthene #5
13.655	BB	3049.61328	6.59032e-3	20.09792		Fluorene #6
15.043	BBA	115.78040	1.73176e-1	20.05038		Phenanthrene #7
16.450	PBA	65.67242	3.01054e-1	19.77095		Anthracene #8
17.827	PB	78.54680	2.54750e-2	2.00098		Fluoranthene #9
18.832	BBA	48.53543	4.17421e-2	2.02597		Pyrene #10
21.174	BBA	65.93216	2.94534e-1	19.41927		p-Terphenyl d14 #11*
22.496	BB	240.29626	8.23561e-3	1.97899		Benzo(a)anthracene #12
23.368	BB	49.11829	4.02767e-2	1.97832		Chrysene #13
26.091	BBA	117.85667	1.70318e-2	2.00732		Benzo(b)fluoranthene #14
27.532	BB	352.50262	2.82704e-3	9.96538e-1		Benzo(k)fluoranthene #15
28.641	BB	411.04123	4.77173e-3	1.96138		Benzo(a)pyrene #16
30.508	BB	48.62401	4.05935e-2	1.97382		Dibenz(a,h)anthracene #17
31.312	BB	68.16312	2.85778e-2	1.94795		Benzo(g,h,i)perylene #18
32.259	BB	138.94594	1.41777e-2	1.96993		Indeno(1,2,3-cd)pyrene #1
Totals :				178.82417		

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	BBA	2529.98877	8.09332e-3	20.47602		Naphthalene #1
10.985	BBA	661.86664	3.01865e-2	19.97947		Acenaphthylene #2
11.930	PB	1549.45911	1.29735e-2	20.10187		1-Methylnaphthalene #3
12.504	BB	1806.39270	1.12206e-2	20.26888		2-Methylnaphthalene #4
12.982	BB	975.05908	2.05686e-2	20.05560		Acenaphthene #5
13.635	BB	1132.54700	1.76115e-2	19.94585		Fluorene #6
15.023	BBA	1145.53577	1.70678e-2	19.55173		Phenanthrene #7
16.429	PBA	2003.85034	9.99883e-3	20.03617		Anthracene #8
17.806	PB	90.60416	2.18965e-2	1.98391		Fluoranthene #9
18.811	BBA	137.86732	1.44521e-2	1.99248		Pyrene #10
21.155	BBA	304.37439	6.50749e-2	19.80712		p-Terphenyl d14 #11*
22.476	PBA	88.83562	2.22878e-2	1.97995		Benzo(a)anthracene #12
23.348	BBA	130.49362	1.52154e-2	1.98551		Chrysene #13
26.070	BBA	95.07347	2.08577e-2	1.98301		Benzo(b)fluoranthene #14
27.511	BBA	43.73114	2.26403e-2	9.90088e-1		Benzo(k)fluoranthene #15
28.620	BBA	74.34456	2.63079e-2	1.95585		Benzo(a)pyrene #16
30.487	BBA	21.13054	9.35760e-2	1.97731		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.291	BB	37.93689	5.33444e-2	2.02372		Benzo(g,h,i)perylene #18
32.241	BB	94.66889	2.08497e-2	1.97381		Indeno(1,2,3-cd)pyrene #1

Totals : 199.06835

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062502\4L003226.D Sample Name: WG120427-03 CCV
HPLC4 6/26/2002 4:26:01 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/26/2002 5:57:33 AM Seq. Line : 16

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.381	20.0	19.911	-0.4
1-Methylnaphthalene #3	11.954	20.0	19.968	-0.2
2-Methylnaphthalene #4	12.528	20.0	20.023	0.1
Acenaphthene #5	13.006	20.0	20.053	0.3
Fluorene #6	13.659	20.0	20.096	0.5
Phenanthrene #7	15.044	20.0	19.594	-2.0
Anthracene #8	16.450	20.0	19.752	-1.2
Fluoranthene #9	17.829	2.0	1.971	-1.4
Pyrene #10	18.834	2.0	1.963	-1.9
p-Terphenyl d14 #11*	21.172	20.0	19.586	-2.1
Benzo(a)anthracene #12	22.494	2.0	1.958	-2.1
Chrysene #13	23.368	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.094	2.0	1.973	-1.4
Benzo(k)fluoranthene #15	27.530	1.0	0.993	-0.7
Benzo(a)pyrene #16	28.636	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.495	2.0	1.849	-7.6
Benzo(g,h,i)perylene #18	31.300	2.0	1.951	-2.4
Indeno(1,2,3-cd)pyrene #	32.241	2.0	2.001	0.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.363	20.0	20.528	2.6
Acenaphthylene #2	10.991	20.0	19.979	-0.1
1-Methylnaphthalene #3	11.937	20.0	20.116	0.6
2-Methylnaphthalene #4	12.511	20.0	20.278	1.4
Acenaphthene #5	12.989	20.0	20.055	0.3
Fluorene #6	13.641	20.0	19.947	-0.3
Phenanthrene #7	15.026	20.0	19.535	-2.3
Anthracene #8	16.432	20.0	20.001	0.0
Fluoranthene #9	17.810	2.0	1.987	-0.6
Pyrene #10	18.816	2.0	1.995	-0.2
p-Terphenyl d14 #11*	21.155	20.0	19.827	-0.9
Benzo(a)anthracene #12	22.476	2.0	1.975	-1.3
Chrysene #13	23.351	2.0	1.973	-1.3
Benzo(b)fluoranthene #14	26.075	2.0	2.227	11.3
Benzo(k)fluoranthene #15	27.512	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.617	2.0	1.949	-2.5
Dibenz(a,h)anthracene #1	30.479	2.0	1.848	-7.6
Benzo(g,h,i)perylene #18	31.281	2.0	2.003	0.1
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.990	-0.5

= Failed 15.0% Criteria

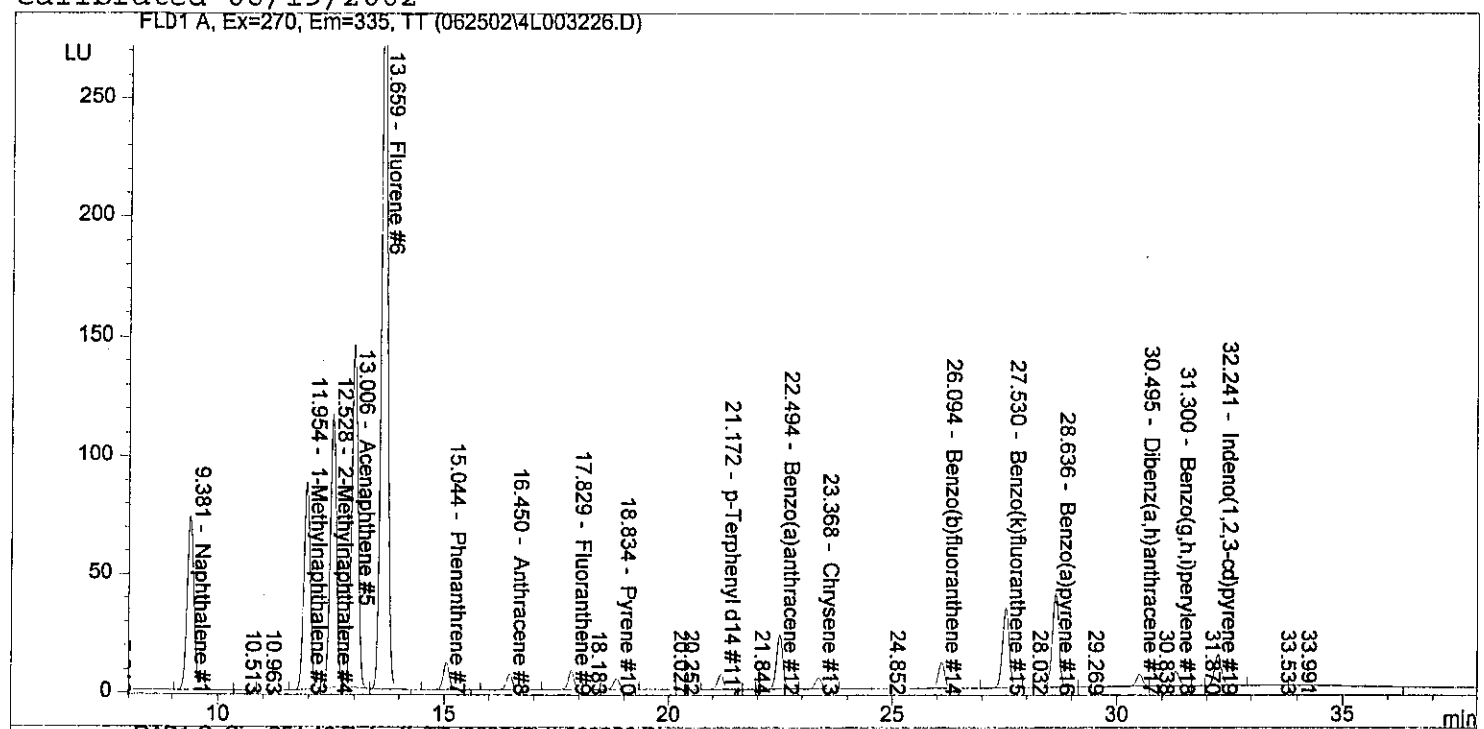
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

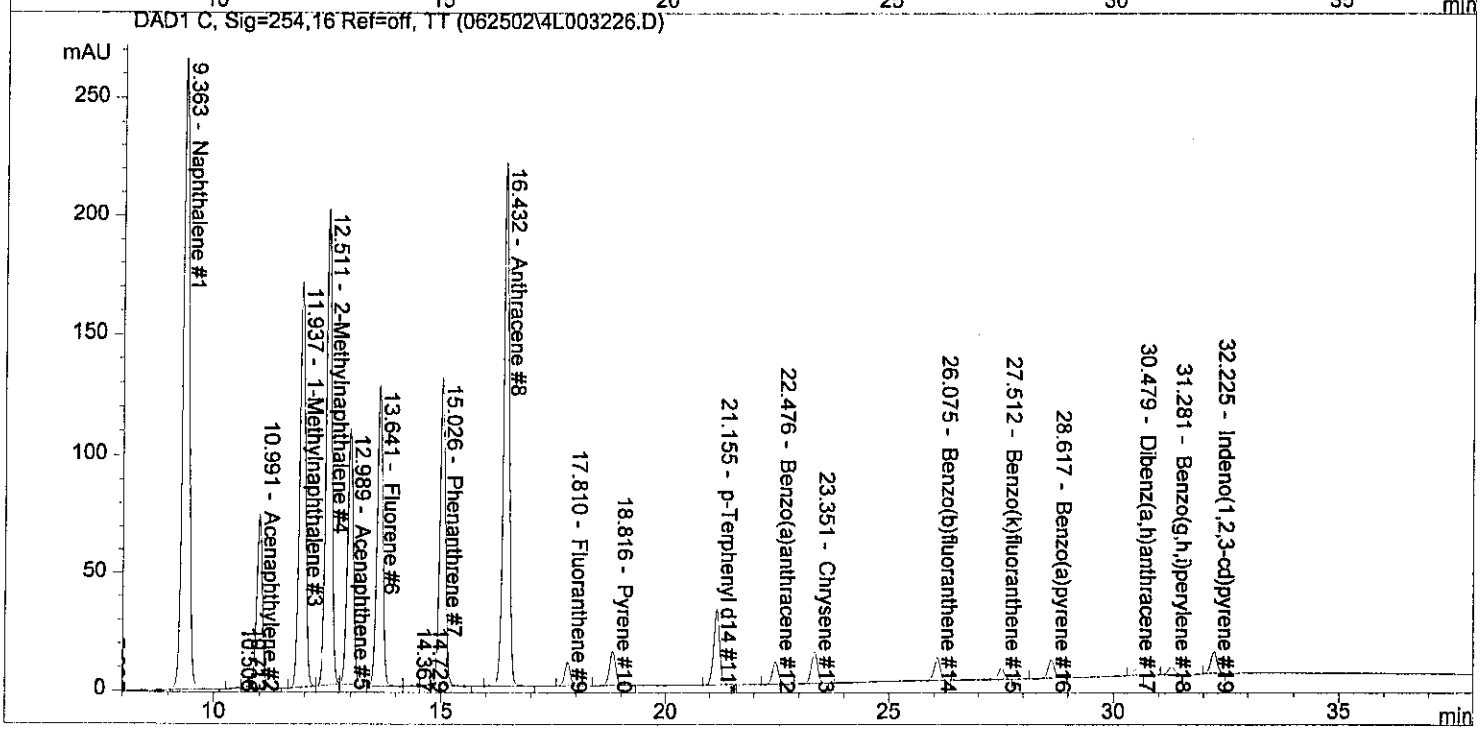
==========

Injection Date : 6/26/2002 5:57:33 AM Seq. Line : 16
Sample Name : WG120427-03 CCV Vial : 11
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/26/2002 4:24:19 PM by RDC
(modified after loading)

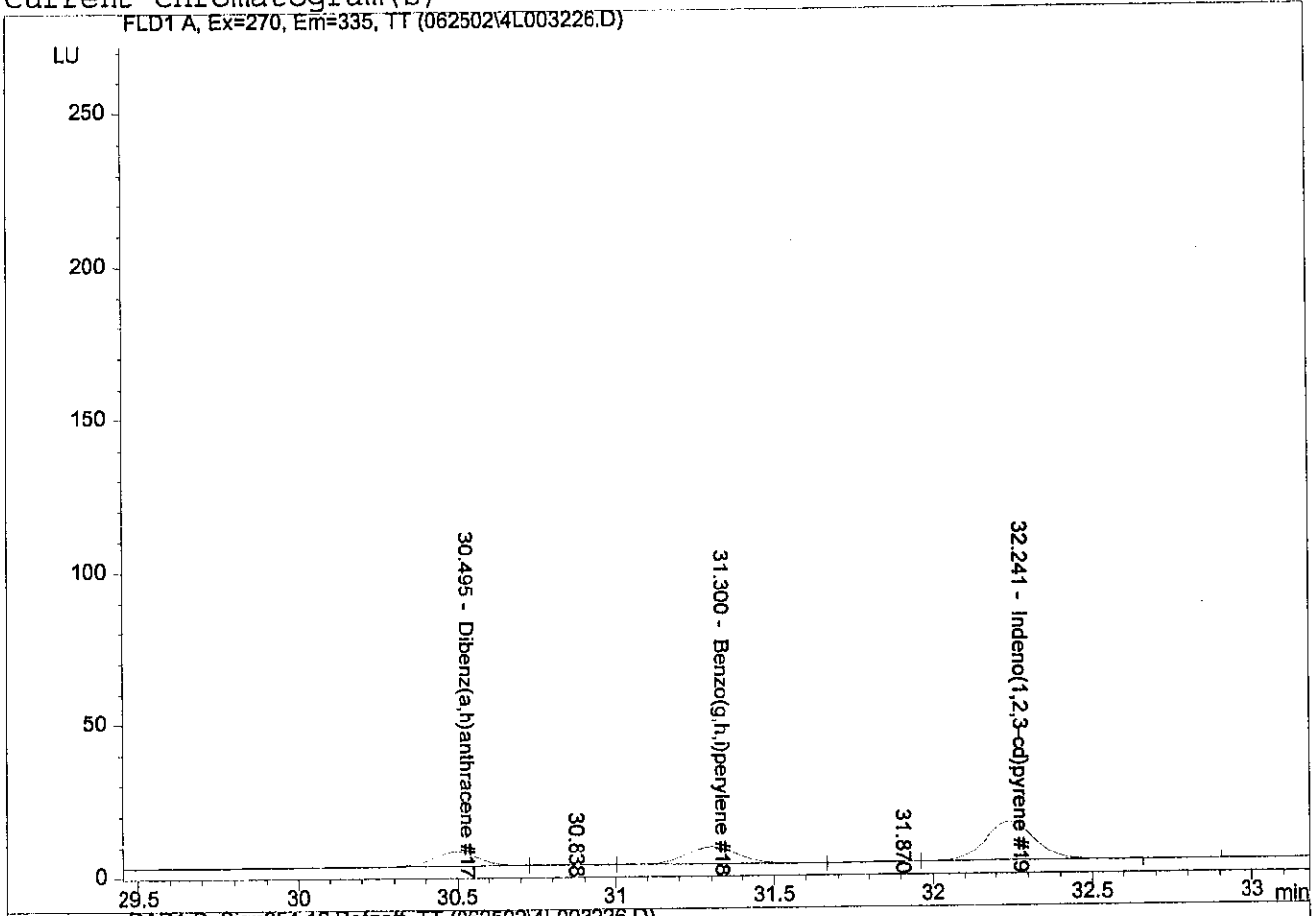
Calibrated 06/19/2002

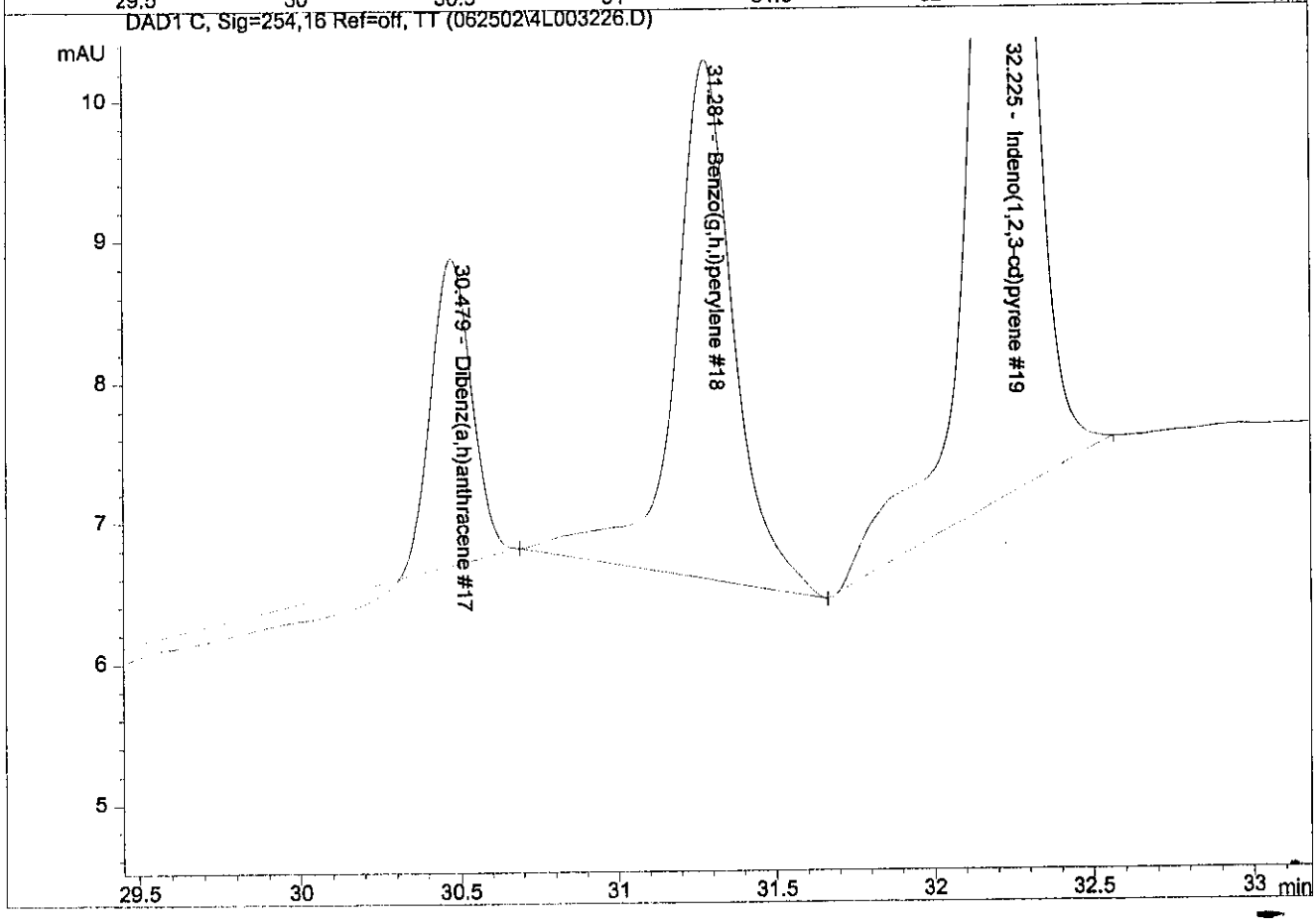




425

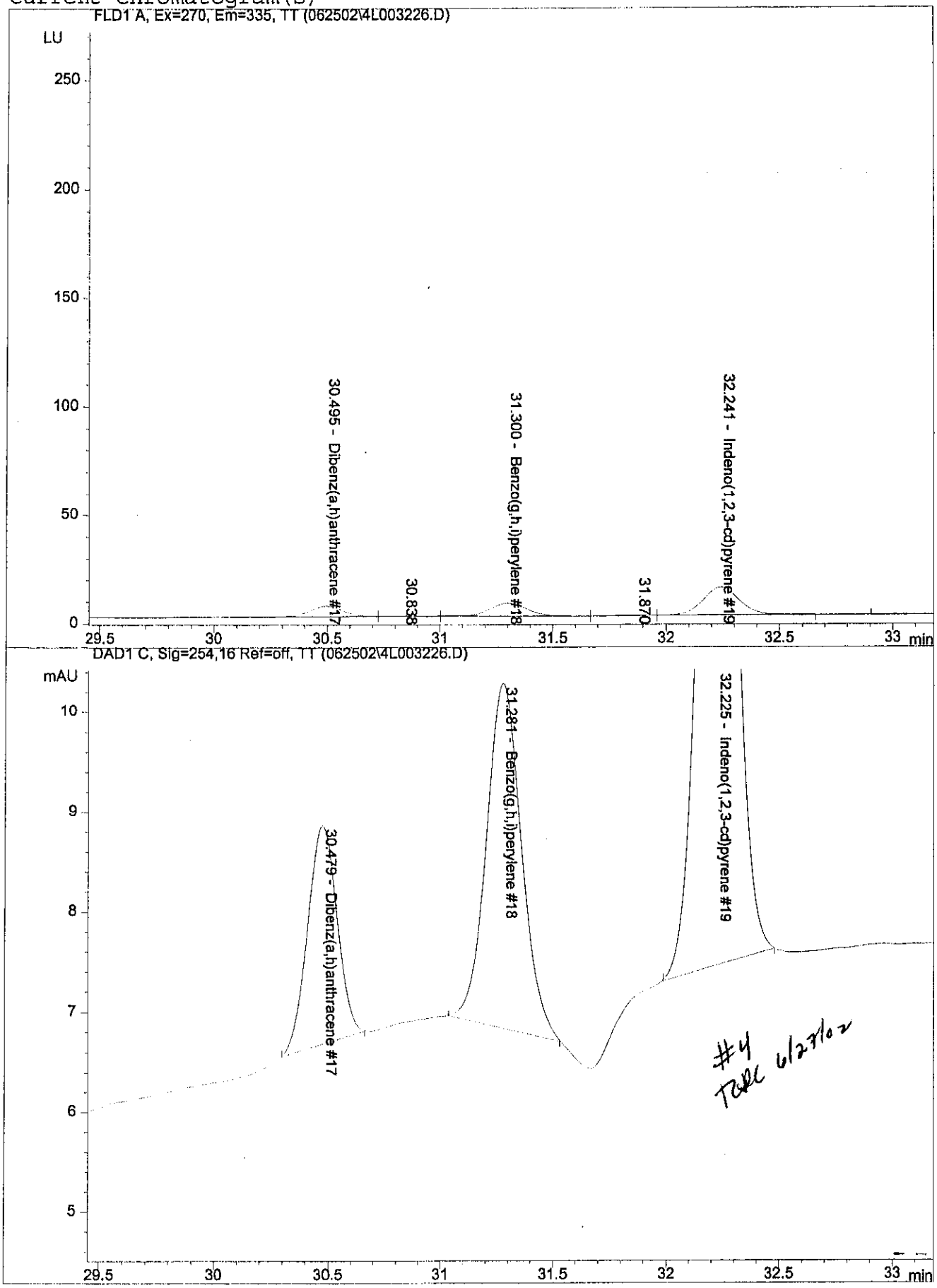
Current Chromatogram(s)





426

Current Chromatogram(s)



427

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.381	BB	751.88837	2.64818e-2	19.91137		Naphthalene #1
11.954	BB	861.60657	2.31752e-2	19.96794		1-Methylnaphthalene #3
12.528	BB	1119.51892	1.78855e-2	20.02315		2-Methylnaphthalene #4
13.006	BB	1416.56824	1.41560e-2	20.05288		Acenaphthene #5
13.659	BB	3049.28271	6.59032e-3	20.09574		Fluorene #6
15.044	BBA	113.10786	1.73230e-1	19.59365		Phenanthrene #7
16.450	PB	65.60823	3.01057e-1	19.75182		Anthracene #8
17.829	PB	77.37089	2.54795e-2	1.97137		Fluoranthene #9
18.834	BBA	47.01522	4.17502e-2	1.96289		Pyrene #10
21.172	BB	66.50472	2.94503e-1	19.58581		p-Terphenyl d14 #11*
22.494	BB	237.68289	8.23707e-3	1.95781		Benzo(a)anthracene #12
23.368	BBA	48.20382	4.02883e-2	1.94205		Chrysene #13
26.094	BB	115.79095	1.70361e-2	1.97262		Benzo(b)fluoranthene #14
27.530	BB	351.17334	2.82717e-3	9.92828e-1		Benzo(k)fluoranthene #15
28.636	BB	407.52356	4.77253e-3	1.94492		Benzo(a)pyrene #16
30.495	BB	45.47454	4.06558e-2	1.84880		Dibenz(a,h)anthracene #17
31.300	BB	68.28902	2.85766e-2	1.95147		Benzo(g,h,i)perylene #18
32.241	BB	141.17171	1.41740e-2	2.00097		Indeno(1,2,3-cd)pyrene #1

Totals : 177.52811

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	BBA	2536.37305	8.09360e-3	20.52838		Naphthalene #1
10.991	BBA	661.85907	3.01865e-2	19.97924		Acenaphthylene #2
11.937	PB	1550.54456	1.29734e-2	20.11585		1-Methylnaphthalene #3
12.511	BB	1807.20361	1.12206e-2	20.27799		2-Methylnaphthalene #4
12.989	BB	975.05225	2.05686e-2	20.05546		Acenaphthene #5
13.641	BB	1132.62939	1.76115e-2	19.94729		Fluorene #6
15.026	BBA	1144.56458	1.70679e-2	19.53535		Phenanthrene #7
16.432	PBA	2000.30469	9.99877e-3	20.00059		Anthracene #8
17.810	PB	90.75709	2.18959e-2	1.98721		Fluoranthene #9
18.816	BBA	138.07491	1.44517e-2	1.99541		Pyrene #10
21.155	PBA	304.68637	6.50740e-2	19.82717		p-Terphenyl d14 #11*
22.476	PBA	88.60715	2.22888e-2	1.97495		Benzo(a)anthracene #12
23.351	PBA	129.66599	1.52170e-2	1.97313		Chrysene #13
26.075	PB	106.94010	2.08209e-2	2.22659		Benzo(b)fluoranthene #14
27.512	BB	42.94455	2.26465e-2	9.72544e-1		Benzo(k)fluoranthene #15
28.617	BB	74.08288	2.63103e-2	1.94914		Benzo(a)pyrene #16
30.479	MM	19.75456	9.35537e-2	1.84811		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.281	MM	37.53590	5.33506e-2	2.00256		Benzo(g,h,i)perylene #18
32.225	MM	95.45327	2.08449e-2	1.98971		Indeno(1,2,3-cd)pyrene #1

Totals : 199.18668

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062602\4L003238.D Sample Name: WG120546-03 CCV
HPLC4 6/27/2002 12:00:24 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/27/2002 1:04:52 AM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.398	20.0	20.022	0.1
1-Methylnaphthalene #3	11.969	20.0	20.067	0.3
2-Methylnaphthalene #4	12.543	20.0	20.079	0.4
Acenaphthene #5	13.020	20.0	20.100	0.5
Fluorene #6	13.674	20.0	20.104	0.5
Phenanthrene #7	15.062	20.0	19.657	-1.7
Anthracene #8	16.470	20.0	19.915	-0.4
Fluoranthene #9	17.846	2.0	1.995	-0.2
Pyrene #10	18.849	2.0	1.992	-0.4
p-Terphenyl d14 #11*	21.189	20.0	19.485	-2.6
Benzo(a)anthracene #12	22.509	2.0	1.967	-1.7
Chrysene #13	23.383	2.0	1.965	-1.7
Benzo(b)fluoranthene #14	26.107	2.0	1.991	-0.5
Benzo(k)fluoranthene #15	27.543	1.0	0.995	-0.5
Benzo(a)pyrene #16	28.657	2.0	1.973	-1.3
Dibenz(a,h)anthracene #1	30.525	2.0	1.963	-1.9
Benzo(g,h,i)perylene #18	31.332	2.0	1.935	-3.3
Indeno(1,2,3-cd)pyrene #	32.275	2.0	1.981	-0.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.380	20.0	20.630	3.1
Acenaphthylene #2	11.007	20.0	20.026	0.1
1-Methylnaphthalene #3	11.952	20.0	20.211	1.1
2-Methylnaphthalene #4	12.526	20.0	20.368	1.8
Acenaphthene #5	13.002	20.0	20.130	0.7
Fluorene #6	13.656	20.0	20.039	0.2
Phenanthrene #7	15.045	20.0	19.611	-1.9
Anthracene #8	16.452	20.0	20.266	1.3
Fluoranthene #9	17.828	2.0	1.996	-0.2
Pyrene #10	18.831	2.0	2.008	0.4
p-Terphenyl d14 #11*	21.172	20.0	19.966	-0.2
Benzo(a)anthracene #12	22.492	2.0	1.986	-0.7
Chrysene #13	23.366	2.0	1.997	-0.1
Benzo(b)fluoranthene #14	26.089	2.0	1.989	-0.6
Benzo(k)fluoranthene #15	27.525	1.0	0.977	-2.3
Benzo(a)pyrene #16	28.639	2.0	1.965	-1.7
Dibenz(a,h)anthracene #1	30.508	2.0	2.026	1.3
Benzo(g,h,i)perylene #18	31.313	2.0	2.104	5.2
Indeno(1,2,3-cd)pyrene #	32.260	2.0	2.015	0.7

= Failed 15.0% Criteria

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

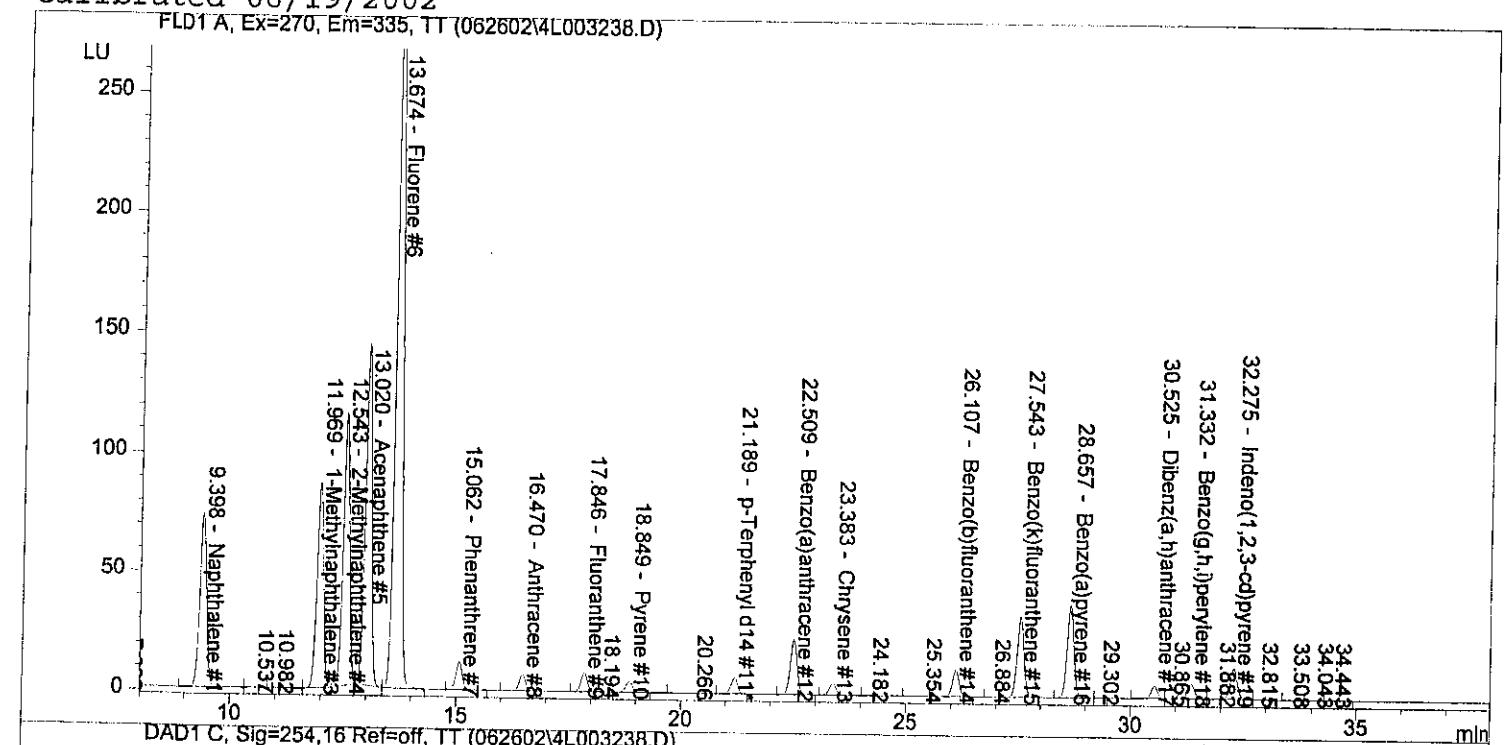
==========

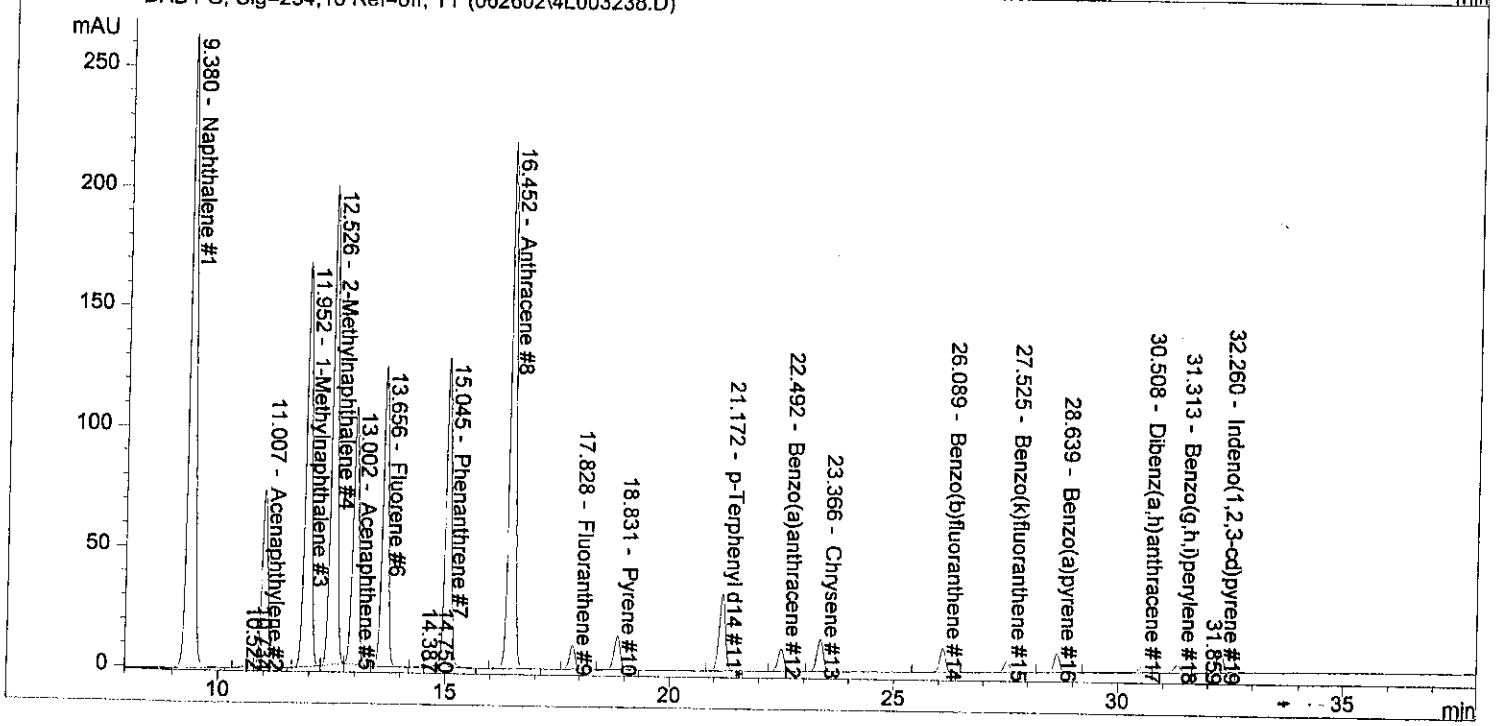
Injection Date : 6/27/2002 1:04:52 AM
Sample Name : WG120546-03 CCV
Acq. Operator : RDC

Seq. Line : 12
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/27/2002 11:59:17 AM by RDC
(modified after loading)

Calibrated 06/19/2002





431

HPLC4 6/27/2002 12:00:21 PM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.398	BB	756.09509	2.64802e-2	20.02158		Naphthalene #1
11.969	BB	865.94116	2.31741e-2	20.06740		1-Methylnaphthalene #3
12.543	BB	1122.65894	1.78851e-2	20.07892		2-Methylnaphthalene #4
13.020	BB	1419.92859	1.41558e-2	20.10029		Acenaphthene #5
13.674	BB	3050.47046	6.59032e-3	20.10357		Fluorene #6
15.062	PBA	113.48068	1.73222e-1	19.65737		Phenanthrene #7
16.470	PB	66.15592	3.01031e-1	19.91501		Anthracene #8
17.846	PB	78.31887	2.54758e-2	1.99524		Fluoranthene #9
18.849	BB	47.70760	4.17465e-2	1.99162		Pyrene #10
21.189	BB	66.15958	2.94522e-1	19.48542		p-Terphenyl d14 #11*
22.509	BBA	238.79547	8.23644e-3	1.96682		Benzo(a)anthracene #12
23.383	BB	48.79486	4.02808e-2	1.96549		Chrysene #13
26.107	BB	116.86998	1.70338e-2	1.99075		Benzo(b)fluoranthene #14
27.543	BB	351.83789	2.82710e-3	9.94683e-1		Benzo(k)fluoranthene #15
28.657	BB	413.61877	4.77115e-3	1.97344		Benzo(a)pyrene #16
30.525	BB	48.34089	4.05988e-2	1.96258		Dibenz(a,h)anthracene #17
31.332	BB	67.68648	2.85826e-2	1.93466		Benzo(g,h,i)perylene #18
32.275	BB	139.75717	1.41763e-2	1.98124		Indeno(1,2,3-cd)pyrene #1
Totals :				178.18609		

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
9.380	BBA	2548.76074	8.09412e-3	20.62997		Naphthalene #1
11.007	BBA	663.42621	3.01858e-2	20.02604		Acenaphthylene #2
11.952	PB	1557.90710	1.29730e-2	20.21070		1-Methylnaphthalene #3
12.526	BB	1815.20801	1.12207e-2	20.36792		2-Methylnaphthalene #4
13.002	BB	978.72974	2.05679e-2	20.13037		Acenaphthene #5
13.656	BBA	1137.91064	1.76105e-2	20.03916		Fluorene #6
15.045	BBA	1149.02612	1.70671e-2	19.61059		Phenanthrene #7
16.452	PBA	2026.78870	9.99922e-3	20.26631		Anthracene #8
17.828	PB	91.14484	2.18943e-2	1.99556		Fluoranthene #9
18.831	BBA	138.93874	1.44497e-2	2.00763		Pyrene #10
21.172	PBA	306.83917	6.50685e-2	19.96555		p-Terphenyl d14 #11*
22.492	BBA	89.11172	2.22866e-2	1.98600		Benzo(a)anthracene #12
23.366	PBA	131.28650	1.52138e-2	1.99737		Chrysene #13
26.089	BBA	95.34059	2.08568e-2	1.98850		Benzo(b)fluoranthene #14
27.525	BB	43.12692	2.26451e-2	9.76612e-1		Benzo(k)fluoranthene #15
28.639	BBA	74.70816	2.63045e-2	1.96516		Benzo(a)pyrene #16
30.508	BB	21.65433	9.35838e-2	2.02649		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.313	BB	39.45584	5.33218e-2	2.10386		Benzo(g,h,i)perylene #18
32.260	BB	96.68676	2.08375e-2	2.01471		Indeno(1,2,3-cd)pyrene #1
Totals :				200.30849		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\062602\4L003234.D Sample Name: WG120546-02 CCV
HPLC4 6/27/2002 12:00:06 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/26/2002 9:18:16 PM Seq. Line : 8

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.358	20.0	20.081	0.4
1-Methylnaphthalene #3	11.940	20.0	20.078	0.4
2-Methylnaphthalene #4	12.518	20.0	20.100	0.5
Acenaphthene #5	12.997	20.0	20.103	0.5
Fluorene #6	13.651	20.0	20.044	0.2
Phenanthrene #7	15.040	20.0	19.791	-1.0
Anthracene #8	16.450	20.0	19.909	-0.5
Fluoranthene #9	17.829	2.0	1.978	-1.1
Pyrene #10	18.836	2.0	2.036	1.8
p-Terphenyl d14 #11*	21.175	20.0	19.529	-2.4
Benzo(a)anthracene #12	22.495	2.0	1.982	-0.9
Chrysene #13	23.366	2.0	1.990	-0.5
Benzo(b)fluoranthene #14	26.088	2.0	1.989	-0.6
Benzo(k)fluoranthene #15	27.518	1.0	0.993	-0.7
Benzo(a)pyrene #16	28.628	2.0	1.986	-0.7
Dibenz(a,h)anthracene #1	30.487	2.0	1.982	-0.9
Benzo(g,h,i)perylene #18	31.297	2.0	1.954	-2.3
Indeno(1,2,3-cd)pyrene #	32.241	2.0	1.975	-1.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.344	20.0	20.595	3.0
Acenaphthylene #2	10.977	20.0	20.006	0.0
1-Methylnaphthalene #3	11.927	20.0	20.155	0.8
2-Methylnaphthalene #4	12.504	20.0	20.313	1.6
Acenaphthene #5	12.984	20.0	20.081	0.4
Fluorene #6	13.637	20.0	20.005	0.0
Phenanthrene #7	15.026	20.0	19.570	-2.2
Anthracene #8	16.435	20.0	20.218	1.1
Fluoranthene #9	17.814	2.0	1.995	-0.2
Pyrene #10	18.821	2.0	2.016	0.8
p-Terphenyl d14 #11*	21.162	20.0	20.006	0.0
Benzo(a)anthracene #12	22.482	2.0	1.989	-0.5
Chrysene #13	23.352	2.0	1.991	-0.4
Benzo(b)fluoranthene #14	26.073	2.0	1.994	-0.3
Benzo(k)fluoranthene #15	27.504	1.0	0.999	-0.1
Benzo(a)pyrene #16	28.613	2.0	1.973	-1.4
Dibenz(a,h)anthracene #1	30.473	2.0	2.158	7.9
Benzo(g,h,i)perylene #18	31.282	2.0	1.973	-1.3
Indeno(1,2,3-cd)pyrene #	32.228	2.0	1.991	-0.4

= Failed 15.0% Criteria

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

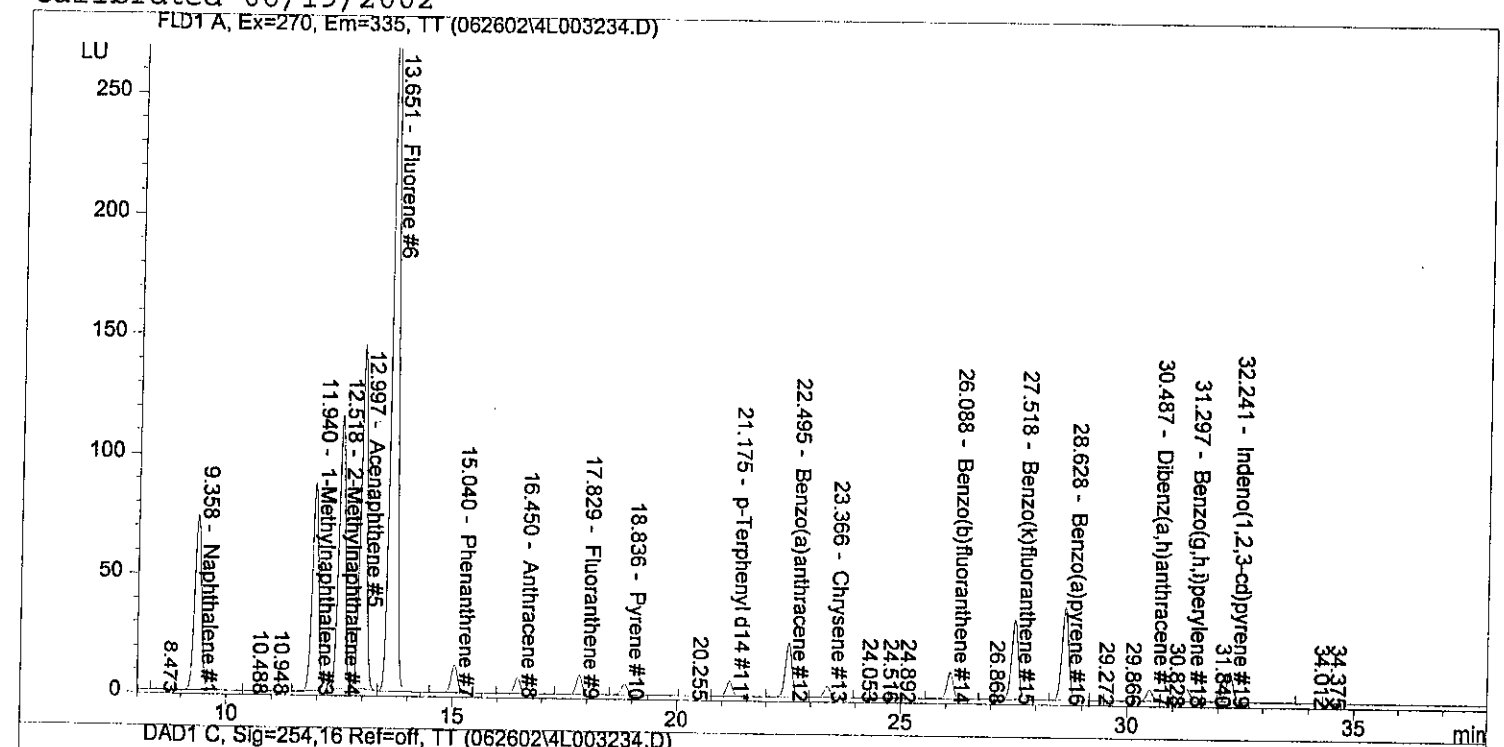
==========

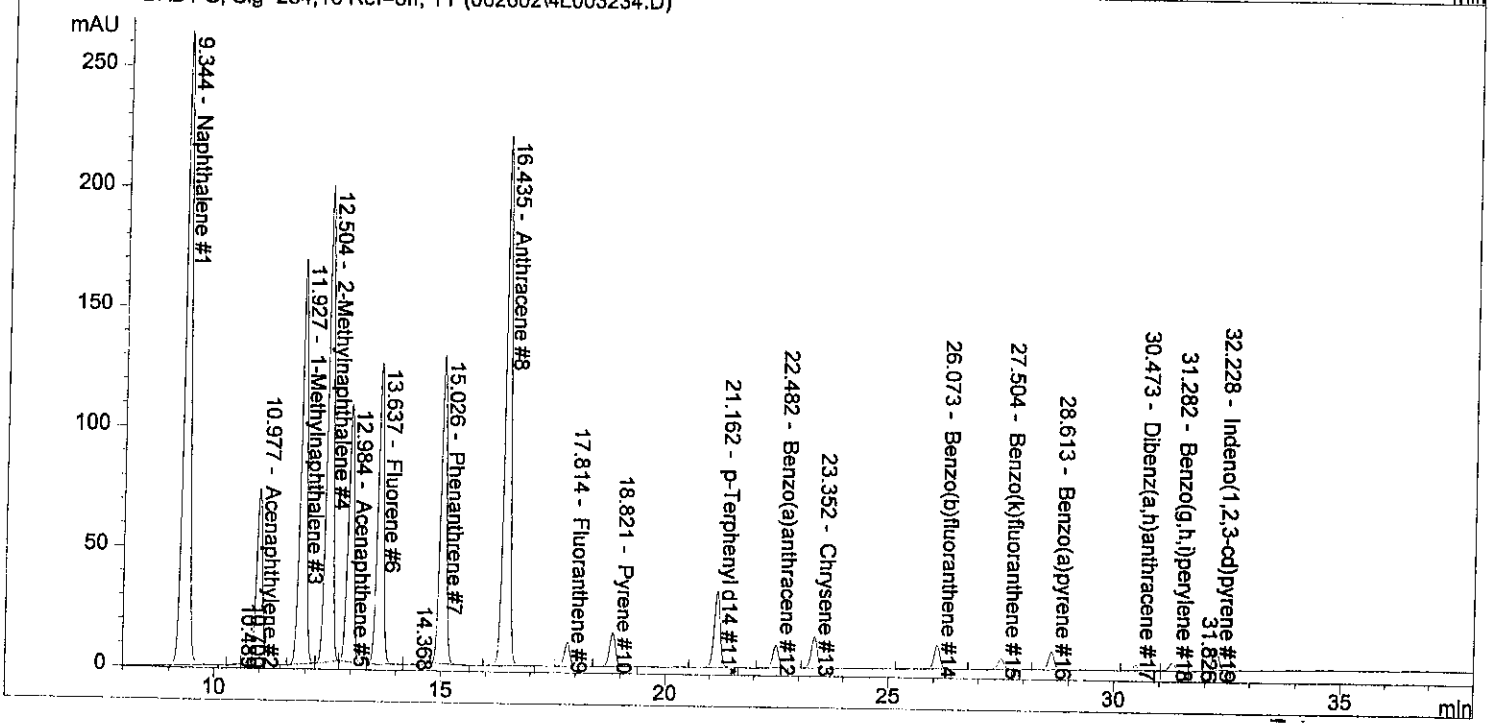
Injection Date : 6/26/2002 9:18:16 PM
Sample Name : WG120546-02 CCV
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/27/2002 11:59:17 AM by RDC
(modified after loading)

Calibrated 06/19/2002





435

HPLC4 6/27/2002 12:00:03 PM RDC

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	6/20/2002 8:52:08 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
9.358	BB	758.37555	2.64794e-2	20.08132		Naphthalene #1
11.940	BB	866.41553	2.31740e-2	20.07829		1-Methylnaphthalene #3
12.518	BB	1123.84009	1.78850e-2	20.09990		2-Methylnaphthalene #4
12.997	BB	1420.15210	1.41558e-2	20.10344		Acenaphthene #5
13.651	BB	3041.38379	6.59032e-3	20.04368		Fluorene #6
15.040	BB	114.26168	1.73206e-1	19.79084		Phenanthrene #7
16.450	BBA	66.13503	3.01032e-1	19.90879		Anthracene #8
17.829	PB	77.63188	2.54785e-2	1.97794		Fluoranthene #9
18.836	BBA	48.76672	4.17409e-2	2.03557		Pyrene #10
21.175	BBA	66.30818	2.94513e-1	19.52864		p-Terphenyl d14 #11*
22.495	BB	240.61281	8.23543e-3	1.98155		Benzo(a)anthracene #12
23.366	BB	49.41279	4.02731e-2	1.99001		Chrysene #13
26.088	BB	116.75210	1.70341e-2	1.98877		Benzo(b)fluoranthene #14
27.518	BB	351.14502	2.82718e-3	9.92749e-1		Benzo(k)fluoranthene #15
28.628	BB	416.29416	4.77056e-3	1.98596		Benzo(a)pyrene #16
30.487	BB	48.84058	4.05895e-2	1.98242		Dibenz(a,h)anthracene #17
31.297	BB	68.39482	2.85755e-2	1.95442		Benzo(g,h,i)perylene #18
32.241	BB	139.29539	1.41771e-2	1.97480		Indeno(1,2,3-cd)pyrene #1
Totals :				178.49907		

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
9.344	BBA	2544.45337	8.09394e-3	20.59464		Naphthalene #1
10.977	BBA	662.74426	3.01861e-2	20.00567		Acenaphthylene #2
11.927	PB	1553.61816	1.29732e-2	20.15545		1-Methylnaphthalene #3
12.504	BB	1810.34521	1.12207e-2	20.31328		2-Methylnaphthalene #4
12.984	BB	976.31122	2.05683e-2	20.08110		Acenaphthene #5
13.637	BB	1135.92468	1.76109e-2	20.00461		Fluorene #6
15.026	BBA	1146.59729	1.70676e-2	19.56963		Phenanthrene #7
16.435	PBA	2021.94153	9.99914e-3	20.21768		Anthracene #8
17.814	BB	91.12859	2.18944e-2	1.99521		Fluoranthene #9
18.821	BBA	139.49615	1.44485e-2	2.01551		Pyrene #10
21.162	BBA	307.46298	6.50669e-2	20.00565		p-Terphenyl d14 #11*
22.482	PBA	89.26300	2.22860e-2	1.98931		Benzo(a)anthracene #12
23.352	BBA	130.88701	1.52146e-2	1.99139		Chrysene #13
26.073	PBA	95.61386	2.08558e-2	1.99411		Benzo(b)fluoranthene #14
27.504	PBA	44.13919	2.26372e-2	9.99189e-1		Benzo(k)fluoranthene #15
28.613	BBA	74.99532	2.63019e-2	1.97252		Benzo(a)pyrene #16
30.473	BB	23.05268	9.36028e-2	2.15780		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.282	BB	36.98315	5.33595e-2	1.97340		Benzo(g,h,i)perylene #18
32.228	BB	95.53802	2.08444e-2	1.99143		Indeno(1,2,3-cd)pyrene #1

Totals : 200.02759

Results obtained with enhanced integrator!

*** End of Report ***

437

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8310

Column: LC-PAH

	STD #1	STD #2	STD #3
Date Run	10/30/2001	10/31/2001	11/2/2001
File #	4L002247	4L002275	4L002311
Time	0:54	3:51	14:47

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Naphthalene (FLD)	9.337	9.362	9.352	0.038
1-Methylnaphthalene (FLD)	11.935	11.941	11.940	0.010
2-Methylnaphthalene (FLD)	12.517	12.523	12.521	0.009
Acenaphthene (FLD)	13.001	13.006	13.005	0.008
Fluorene (FLD)	13.664	13.667	13.669	0.008
Phenanthrene (FLD)	15.062	15.066	15.071	0.014
Anthracene (FLD)	16.475	16.483	16.493	0.027
Fluoranthene (FLD)	17.860	17.869	17.883	0.035
Pyrene (FLD)	18.868	18.881	18.897	0.044
p-Terphenyl-d14 (FLD)	21.217	21.244	21.262	0.068
Benzo(a)anthracene (FLD)	22.535	22.572	22.587	0.080
Chrysene (FLD)	23.401	23.449	23.467	0.102
Benzo(b)fluoranthene (FLD)	26.119	26.182	26.204	0.132
Benzo(k)fluoranthene (FLD)	27.554	27.629	27.650	0.151
Benzo(a)pyrene (FLD)	28.666	28.739	28.758	0.146
Dibenz(a,h)anthracene (FLD)	30.532	30.615	30.635	0.164
Benzo(g,h,i)perylene (FLD)	31.340	31.420	31.445	0.165
Indeno(1,2,3-cd)pyrene (FLD)	32.285	32.355	32.382	0.150
Naphthalene (VWD)	9.318	9.341	9.330	0.035
Acenaphthylene (VWD)	10.959	10.965	10.968	0.014
1-Methylnaphthalene (VWD)	11.916	11.920	11.922	0.009
2-Methylnaphthalene (VWD)	12.498	12.502	12.502	0.007
Acenaphthene (VWD)	12.982	12.986	12.986	0.007
Fluorene (VWD)	13.644	13.646	13.649	0.008
Phenanthrene (VWD)	15.042	15.045	15.052	0.015
Anthracene (VWD)	16.456	16.462	16.474	0.027
Fluoranthene (VWD)	17.840	17.848	17.863	0.035
Pyrene (VWD)	18.848	18.859	18.876	0.042
p-Terphenyl-d14 (VWD)	21.198	21.223	21.243	0.068
Benzo(a)anthracene (VWD)	22.516	22.551	22.568	0.080
Chrysene (VWD)	23.382	23.428	23.448	0.102
Benzo(b)fluoranthene (VWD)	26.099	26.160	26.184	0.131
Benzo(k)fluoranthene (VWD)	27.535	27.609	27.632	0.152
Benzo(a)pyrene (VWD)	28.646	28.717	28.738	0.145
Dibenz(a,h)anthracene (VWD)	30.513	30.595	30.617	0.164
Benzo(g,h,i)perylene (VWD)	31.320	31.398	31.426	0.165
Indeno(1,2,3-cd)pyrene (VWD)	32.266	32.338	32.367	0.156

2.2.7.4 Raw QC Data

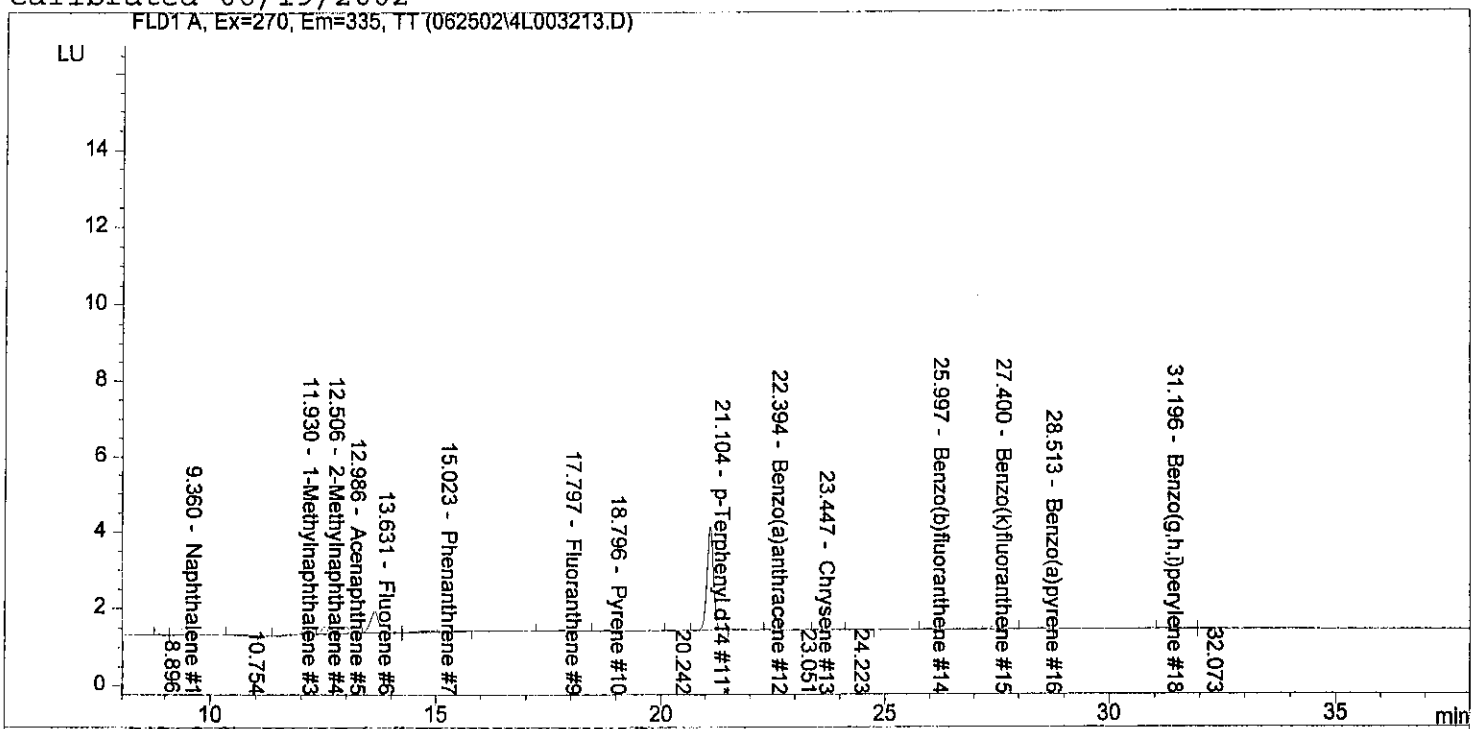
1,1 V186P99 BLK 062402 @ 0900

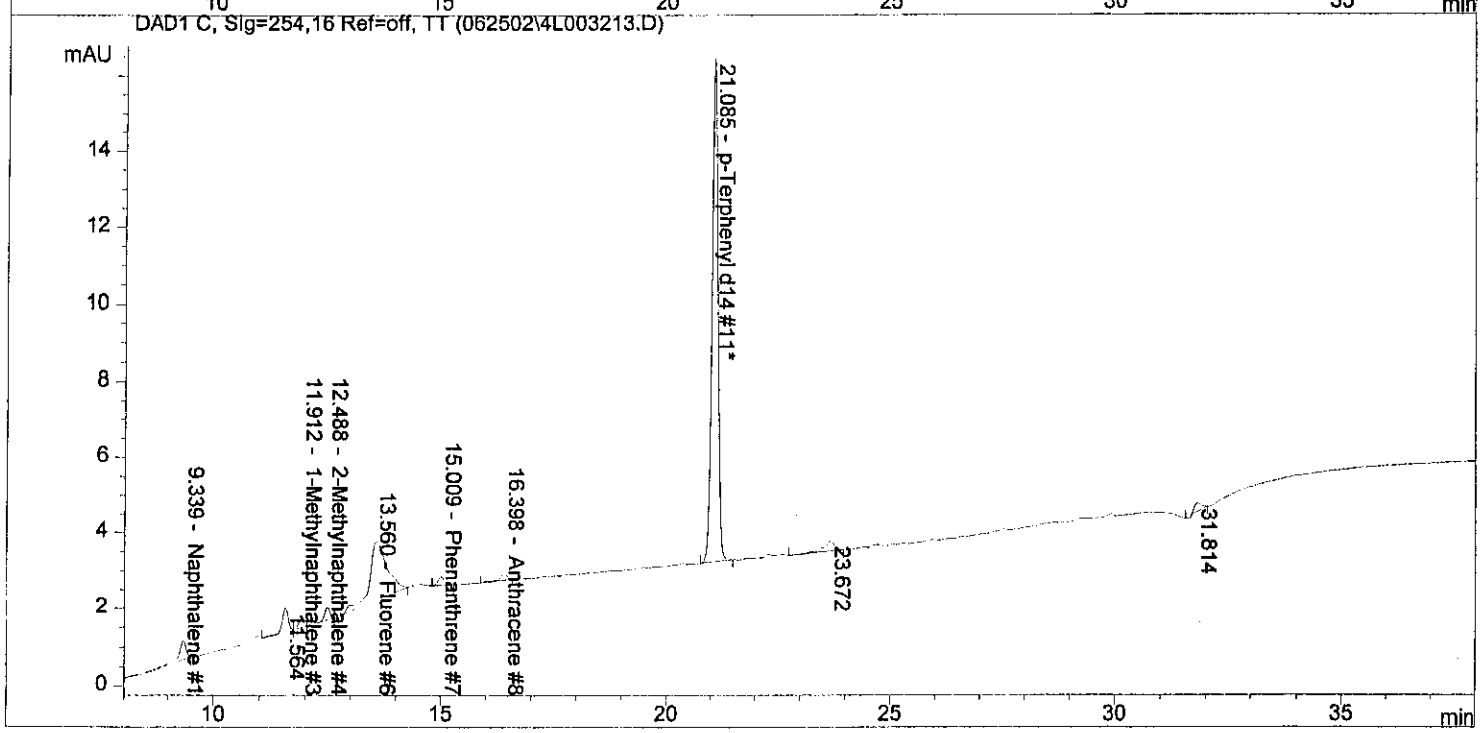
==========

Injection Date : 6/25/2002 5:41:16 PM
Sample Name : WG120326-01 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 : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





440

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.360	BB	1.63196	1.56887e-1	2.56032e-1		Naphthalene #1
11.930	BBA	1.40179	1.64242e-1	2.30233e-1		1-Methylnaphthalene #3
12.506	PB	2.02040	8.68677e-2	1.75508e-1		2-Methylnaphthalene #4
12.986	BB	1.72020	5.46987e-2	9.40929e-2		Acenaphthene #5
13.631	BB	8.91476	6.35993e-3	5.66972e-2		Fluorene #6
15.023	BB	2.22740	2.89306e-1	6.44399e-1		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.797	BBA	3.47259e-1	9.28680e-2	3.22492e-2		Fluoranthene #9
18.796	PB	2.87312e-1	8.36714e-2	2.40398e-2		Pyrene #10
21.104	BBA	26.86296	2.99884e-1	8.05578		p-Terphenyl d14 #11*
22.394	BB	1.66262e-1	1.99840e-1	3.32257e-2		Benzo(a)anthracene #12
23.447	BB	1.55623e-1	2.32378e-1	3.61635e-2		Chrysene #13
25.997	BBA	2.17066e-1	1.45531e-1	3.15899e-2		Benzo(b)fluoranthene #14
27.400	BBA	7.71231e-1	1.93256e-2	1.49045e-2		Benzo(k)fluoranthene #15
28.513	BBA	4.19131e-1	9.56825e-2	4.01035e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.196	BBA	2.79019e-1	1.93950e-1	5.41157e-2		Benzo(g,h,i)perylene #18
32.233		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.77913

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
9.339	BB	4.58741	0.00000	0.00000		Naphthalene #1
10.995		-	-	-		Acenaphthylene #2
11.912	BB	1.72657	9.42363e-2	1.62706e-1	mol	1-Methylnaphthalene #3
12.488	BB	3.41810	3.62894e-3	1.24041e-2		2-Methylnaphthalene #4
12.994		-	-	-		Acenaphthene #5
13.560	BB	41.89005	2.32335e-2	9.73251e-1	NC	Fluorene #6
15.009	BB	2.33483	1.16027e-1	2.70904e-1	cmol	Phenanthrene #7
16.398	PBA	1.79552	0.00000	0.00000		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.809		-	-	-		Pyrene #10
21.085	PBA	122.49126	6.62566e-2	8.11585		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-	81.2%	Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.53511

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

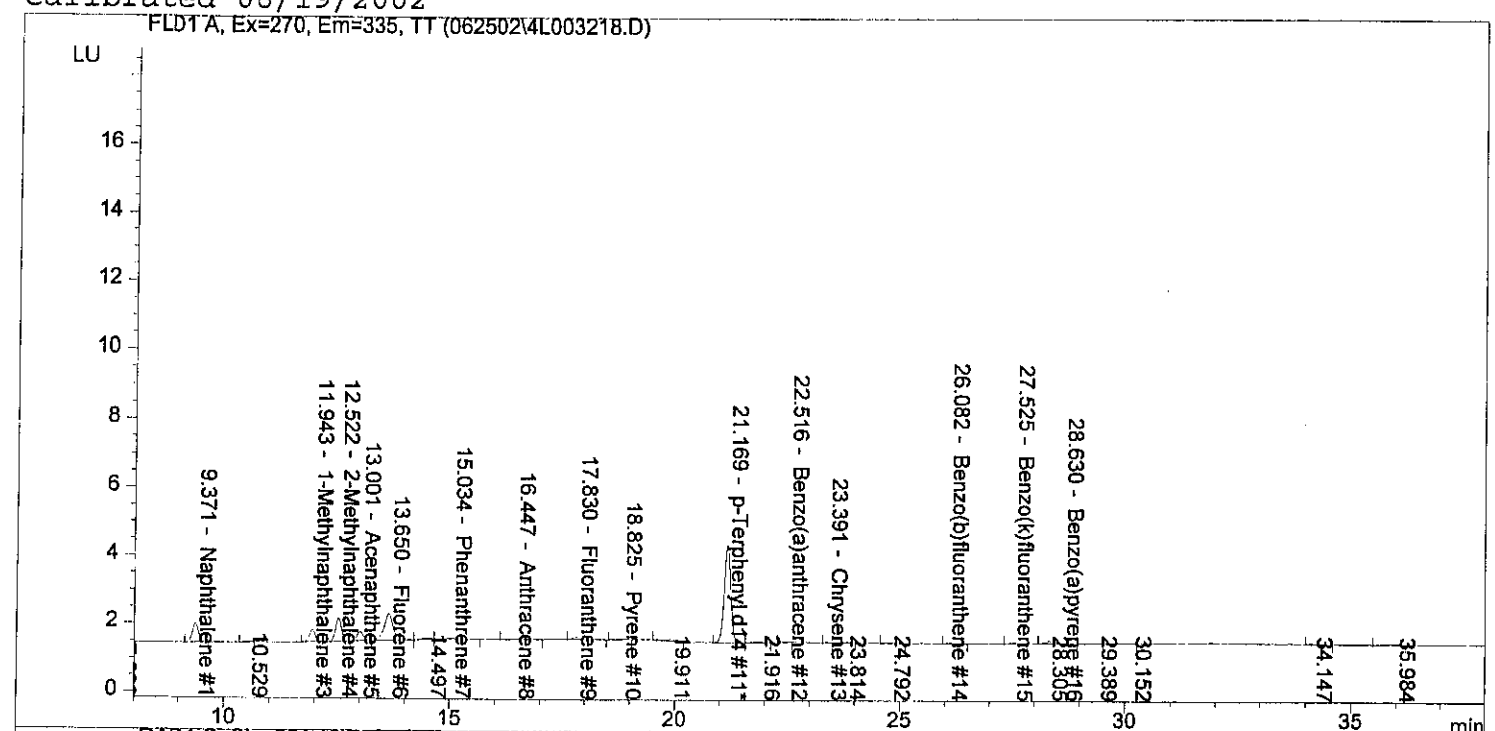
*** End of Report ***

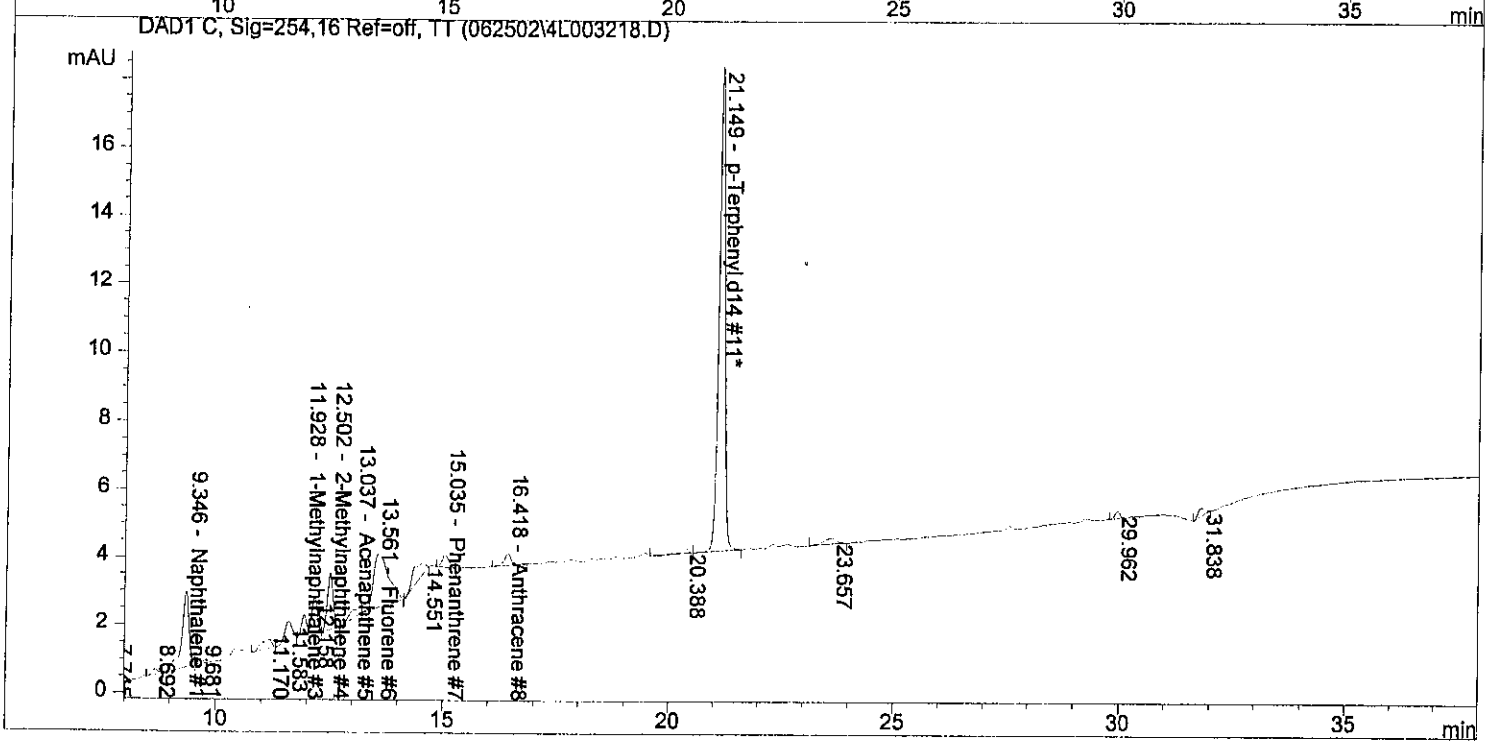
7,1 V186P107 BLK 062402 @ 0915

==========

Injection Date	: 6/25/2002 10:24:27 PM	Seq. Line :	8
Sample Name	: WG120336-01 SBLK	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





443

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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	BBA	5.51295	6.48849e-2	3.57707e-1		Naphthalene #1
11.943	BB	3.10013	8.68356e-2	2.69202e-1		1-Methylnaphthalene #3
12.522	BB	6.60244	3.89081e-2	2.56888e-1		2-Methylnaphthalene #4
13.001	BB	2.63870	4.05692e-2	1.07050e-1		Acenaphthene #5
13.650	BB	11.59723	6.41337e-3	7.43774e-2		Fluorene #6
15.034	BB	4.69488e-1	7.32661e-1	3.43976e-1		Phenanthrene #7
16.447	BB	3.39862e-1	8.95174e-1	3.04235e-1		Anthracene #8
17.830	BBA	7.63329e-1	5.59707e-2	4.27241e-2		Fluoranthene #9
18.825	BBA	3.35084e-1	7.76581e-2	2.60220e-2		Pyrene #10
21.169	BB	29.14772	2.99177e-1	8.72032	87.2%	p-Terphenyl d14 #11*
22.516	BB	1.86656e-1	1.78891e-1	3.33910e-2		Benzo(a)anthracene #12
23.391	BB	1.56634e-1	2.31135e-1	3.62035e-2		Chrysene #13
26.082	BBA	1.83567e-1	1.69025e-1	3.10273e-2		Benzo(b)fluoranthene #14
27.525	BBA	4.44101e-1	3.15053e-2	1.39915e-2		Benzo(k)fluoranthene #15
28.630	BB	2.06519e-1	1.89371e-1	3.91087e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.233		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.65622

Results obtained with enhanced integrator!

X33.3

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	25.22323	0.00000	0.00000		Naphthalene #1
10.995		-	-	-		Acenaphthylene #2
11.928	BB	3.25947	5.59765e-2	1.82454e-1		1-Methylnaphthalene #3
12.502	BB	14.94408	9.49532e-3	1.41899e-1		2-Methylnaphthalene #4
13.037	BB	3.49474	7.58726e-2	2.65155e-1		Acenaphthene #5
13.561	BB	37.63962	2.38927e-2	8.99313e-1		Fluorene #6
15.035	BB	4.05199	7.40044e-2	2.99865e-1		Phenanthrene #7
16.418	PB	4.37042	0.00000	0.00000		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.809		-	-	-		Pyrene #10
21.149	BBA	133.56685	6.60926e-2	8.82778		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-	88.3%	Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

444

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.61646

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

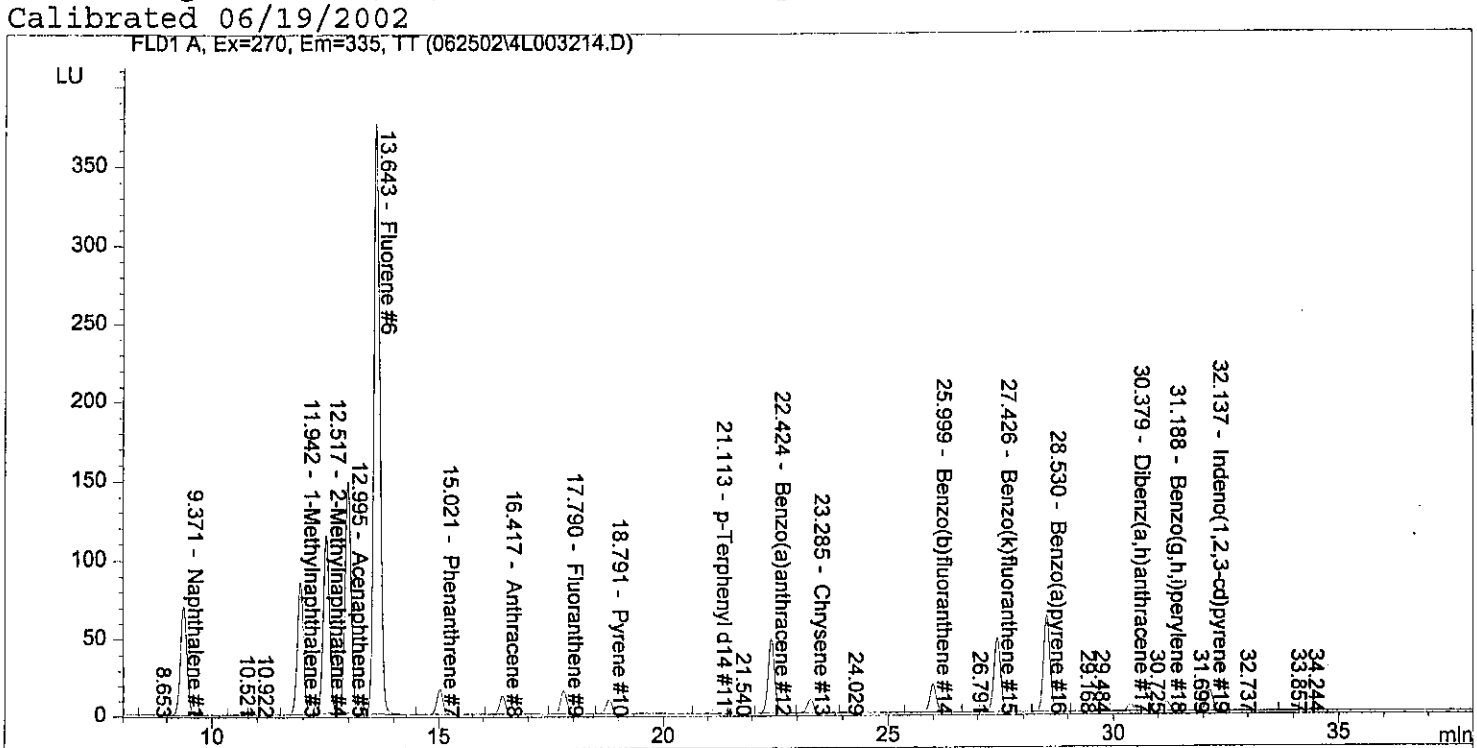
1,1 V186P99 LCS 062402 @ 0900

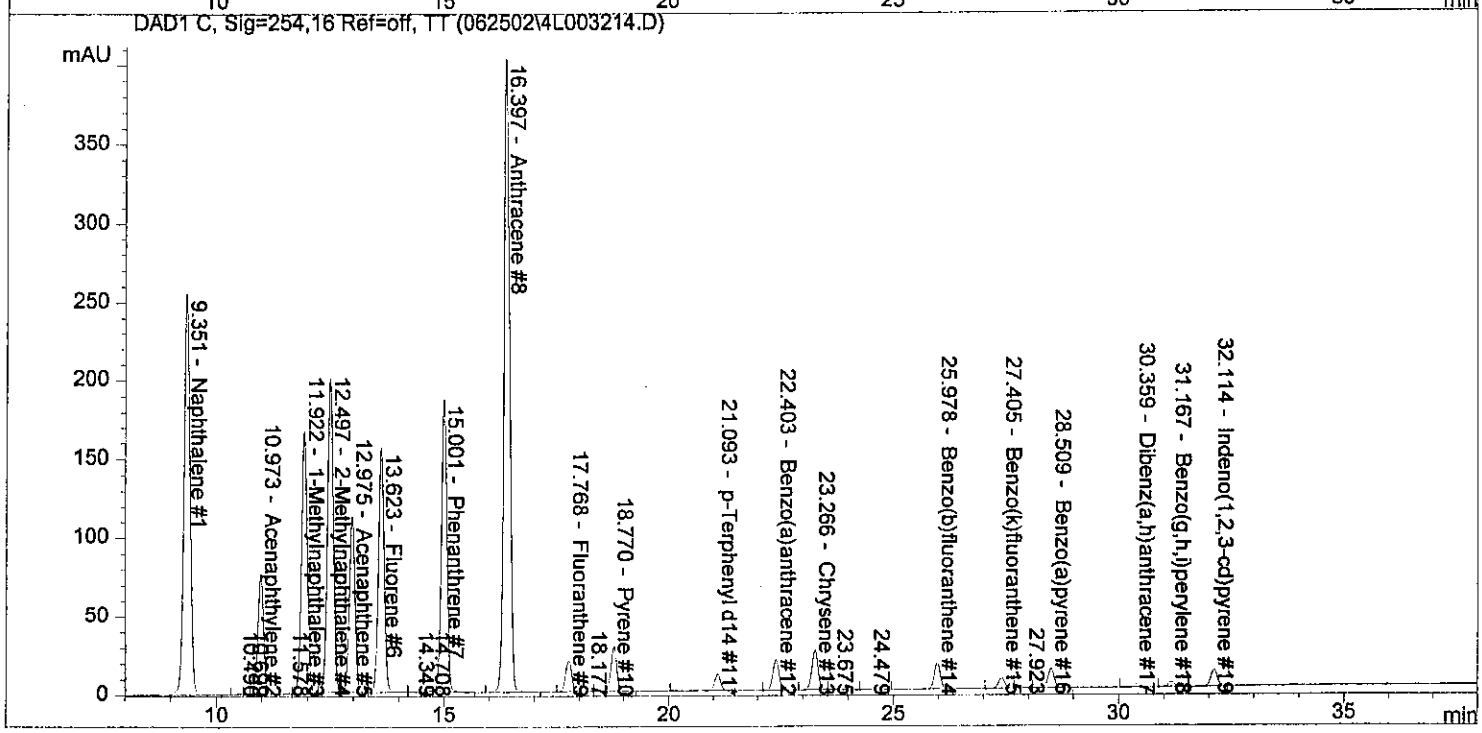
==========

Injection Date : 6/25/2002 6:37:52 PM
Sample Name : WG120326-02 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 : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





446

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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	BBA	705.40643	2.65005e-2	18.69363		Naphthalene #1
11.942	BB	828.94836	2.31843e-2	19.21859		1-Methylnaphthalene #3
12.517	BB	1094.49158	1.78883e-2	19.57864		2-Methylnaphthalene #4
12.995	BB	1427.73779	1.41556e-2	20.21045		Acenaphthene #5
13.643	BB	3605.92847	6.59042e-3	23.76459		Fluorene #6
15.021	BBA	161.05334	1.72536e-1	27.78744		Phenanthrene #7
16.417	BB	116.72163	2.99702e-1	34.98174		Anthracene #8
17.790	BBA	151.24452	2.53311e-2	3.83119		Fluoranthene #9
18.791	BBA	96.40156	4.16181e-2	4.01205		Pyrene #10
21.113	BB	21.00584	3.02402e-1	6.35220		p-Terphenyl d14 #11*
22.424	BB	493.68933	8.16752e-3	4.03222		Benzo(a)anthracene #12
23.285	BBA	91.47693	3.99940e-2	3.65853		Chrysene #13
25.999	PBA	197.10146	1.69365e-2	3.33821		Benzo(b)fluoranthene #14
27.426	BB	498.88510	2.81642e-3	1.40507		Benzo(k)fluoranthene #15
28.530	BB	644.93231	4.73808e-3	3.05574		Benzo(a)pyrene #16
30.379	BB	43.87551	4.06909e-2	1.78533		Dibenz(a,h)anthracene #17
31.188	BB	64.96667	2.86113e-2	1.85878		Benzo(g,h,i)perylene #18
32.137	BB	150.56540	1.41599e-2	2.13199		Indeno(1,2,3-cd)pyrene #1

Totals : 199.69640

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	BBA	2393.20654	8.08718e-3	19.35429		Naphthalene #1
10.973	BB	671.00494	3.01821e-2	20.25234		Acenaphthylene #2
11.922	BB	1486.24292	1.29773e-2	19.28747		1-Methylnaphthalene #3
12.497	BB	1766.10046	1.12203e-2	19.81619		2-Methylnaphthalene #4
12.975	BB	984.23474	2.05667e-2	20.24250		Acenaphthene #5
13.623	BB	1382.59326	1.75725e-2	24.29555		Fluorene #6
15.001	BBA	1610.76294	1.70094e-2	27.39808		Phenanthrene #7
16.397	PBA	3593.69751	1.00140e-2	35.98734		Anthracene #8
17.768	PB	173.75417	2.17221e-2	3.77431		Fluoranthene #9
18.770	BBA	269.03427	1.42991e-2	3.84696		Pyrene #10
21.093	PBA	96.09270	6.67998e-2	6.41897		p-Terphenyl d14 #11*
22.403	PBA	183.13789	2.20881e-2	4.04518		Benzo(a)anthracene #12
23.266	PB	239.16266	1.50988e-2	3.61107		Chrysene #13
25.978	BBA	162.25658	2.07205e-2	3.36203		Benzo(b)fluoranthene #14
27.405	BB	63.11502	2.25368e-2	1.42241		Benzo(k)fluoranthene #15
28.509	BBA	116.62412	2.60600e-2	3.03923		Benzo(a)pyrene #16
30.359	BB	18.82584	9.35367e-2	1.76091		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.167	BB	34.64827	5.34000e-2	1.85022		Benzo(g,h,i)perylene #18
32.114	BB	108.06081	2.07775e-2	2.24523		Indeno(1,2,3-cd)pyrene #1

Totals : 222.01030

Results obtained with enhanced integrator!

*** End of Report ***

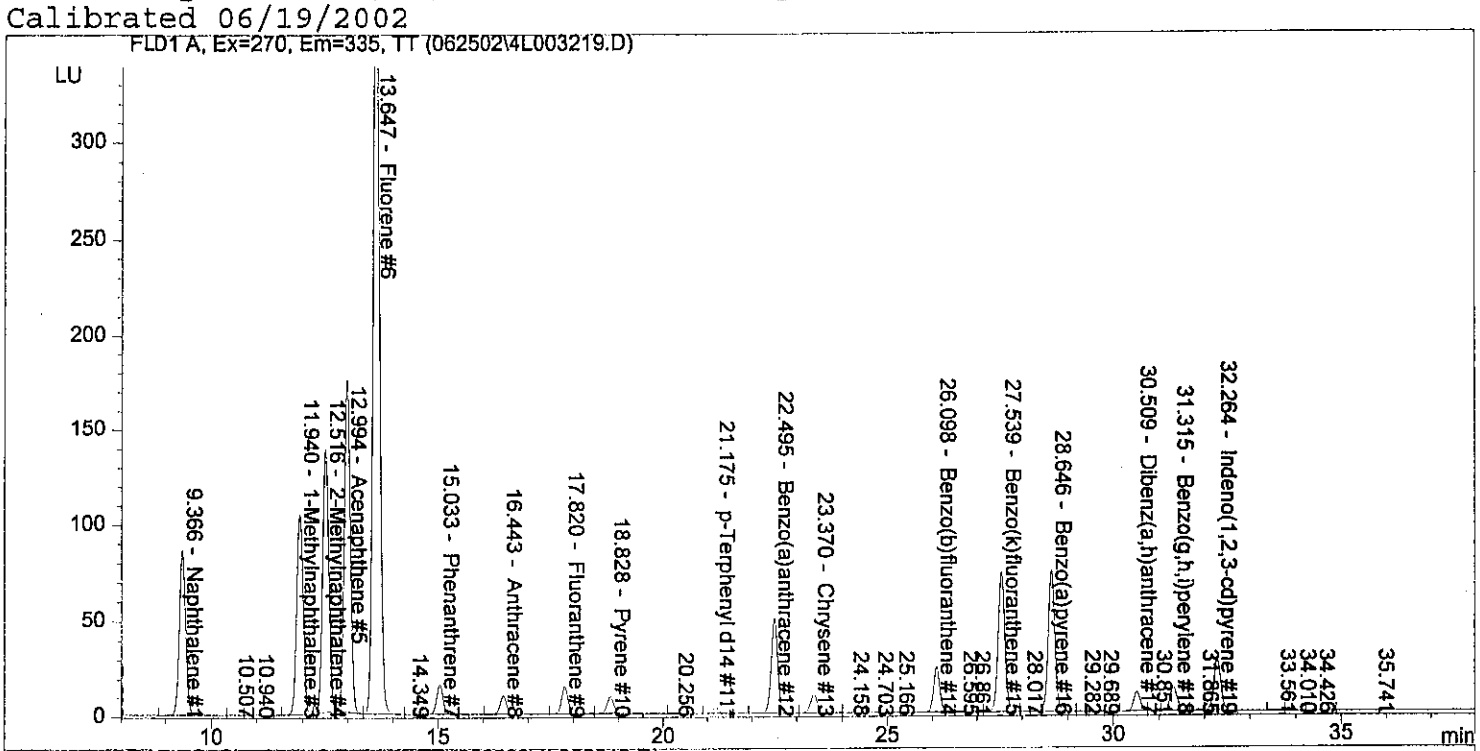
7,1 V186P107 LCS 062402 @ 0915

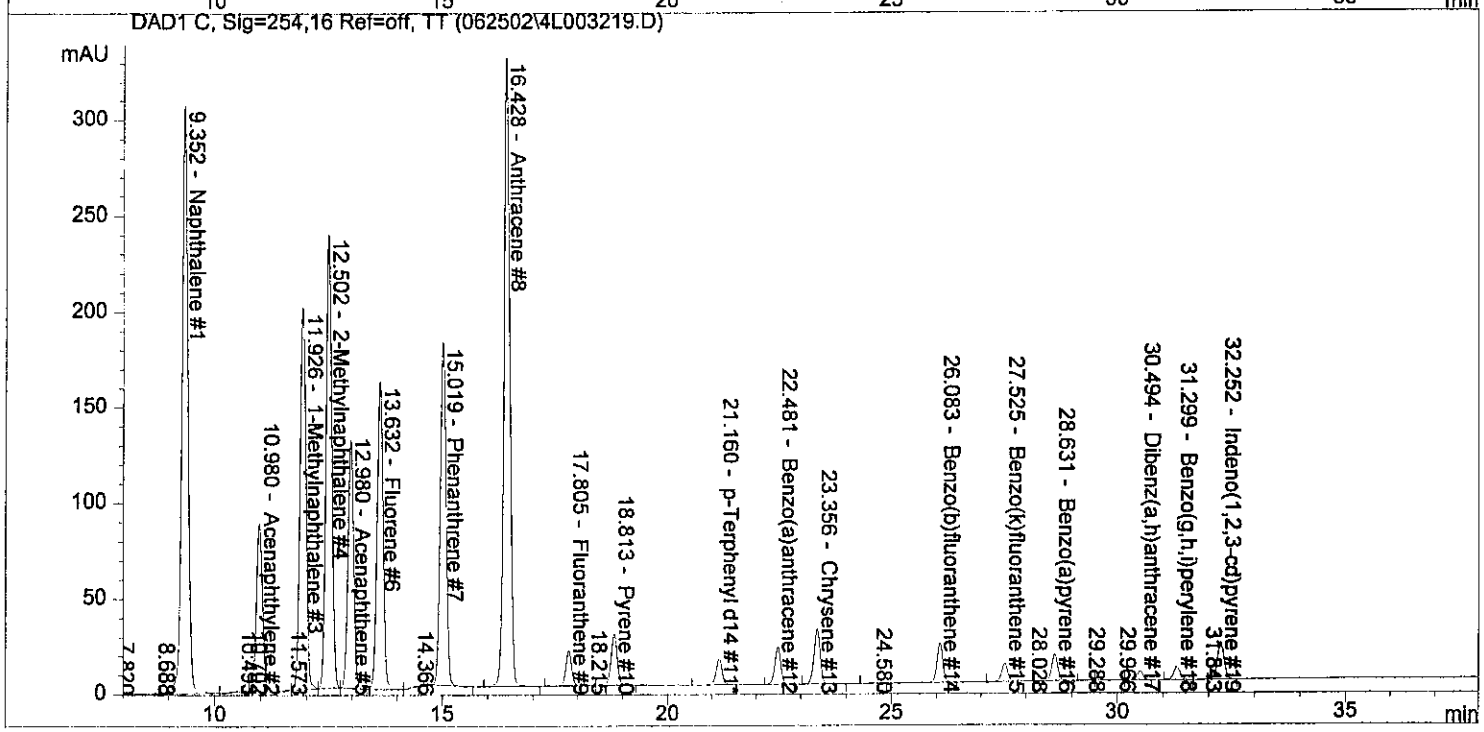
==========

Injection Date : 6/25/2002 11:21:06 PM
Sample Name : WG120336-02 SLCS
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.366	BB	871.74731	2.64428e-2	23.05145		Naphthalene #1
11.940	PB	1015.26685	2.31405e-2	23.49374		1-Methylnaphthalene #3
12.516	BB	1321.91956	1.78664e-2	23.61794		2-Methylnaphthalene #4
12.994	BB	1684.69006	1.41481e-2	23.83519		Acenaphthene #5
13.647	BB	3803.18579	6.59045e-3	25.06471		Fluorene #6
15.033	BBA	157.04648	1.72577e-1	27.10267		Phenanthrene #7
16.443	BB	96.92073	3.00058e-1	29.08180		Anthracene #8
17.820	BB	149.20990	2.53332e-2	3.77997		Fluoranthene #9
18.828	BBA	94.57947	4.16206e-2	3.93645		Pyrene #10
21.175	PB	30.00640	2.98938e-1	8.97007	89.7%	p-Terphenyl d14 #11*
22.495	BB	509.63394	8.16550e-3	4.16141		Benzo(a)anthracene #12
23.370	BB	106.58517	3.99475e-2	4.25781		Chrysene #13
26.098	BB	254.26047	1.69046e-2	4.29818		Benzo(b)fluoranthene #14
27.539	BB	761.50879	2.80761e-3	2.13802		Benzo(k)fluoranthene #15
28.646	BB	766.42084	4.72870e-3	3.62418		Benzo(a)pyrene #16
30.509	BB	105.59469	4.01081e-2	4.23521		Dibenz(a,h)anthracene #17
31.315	BB	150.10710	2.82068e-2	4.23404		Benzo(g,h,i)perylene #18
32.264	BB	300.31924	1.40539e-2	4.22067		Indeno(1,2,3-cd)pyrene #1

Totals : 223.10351

Results obtained with enhanced integrator!

X33.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.352	BB	2951.79785	8.10869e-3	23.93522		Naphthalene #1
10.980	BB	780.15906	3.01371e-2	23.51175		Acenaphthylene #2
11.926	BB	1799.79883	1.29609e-2	23.32695		1-Methylnaphthalene #3
12.502	BB	2109.10107	1.12227e-2	23.66982		2-Methylnaphthalene #4
12.980	BB	1164.48120	2.05362e-2	23.91406		Acenaphthene #5
13.632	BB	1449.33862	1.75643e-2	25.45663		Fluorene #6
15.019	BBA	1571.33105	1.70130e-2	26.73304		Phenanthrene #7
16.428	PBA	2965.44922	1.00100e-2	29.68403		Anthracene #8
17.805	BB	168.13913	2.17285e-2	3.65340		Fluoranthene #9
18.813	BBA	262.01230	1.43034e-2	3.74768		Pyrene #10
21.160	BBA	134.05229	6.60860e-2	8.85898	88.6%	p-Terphenyl d14 #11*
22.481	PBA	189.48531	2.20818e-2	4.18419		Benzo(a)anthracene #12
23.356	BBA	289.34131	1.50746e-2	4.36169		Chrysene #13
26.083	BBA	205.77737	2.06794e-2	4.25535		Benzo(b)fluoranthene #14
27.525	BB	95.55919	2.24576e-2	2.14603		Benzo(k)fluoranthene #15
28.631	BBA	138.50111	2.59912e-2	3.59981		Benzo(a)pyrene #16
30.494	BB	45.53100	9.37481e-2	4.26844		Dibenz(a,h)anthracene #17

450

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.299	BB	79.57197	5.30375e-2	4.22030		Benzo(g,h,i)perylene #18
32.252	BBA	207.11911	2.05335e-2	4.25288		Indeno(1,2,3-cd)pyrene #1
Totals :				247.78025		

Results obtained with enhanced integrator!

*** End of Report ***

451

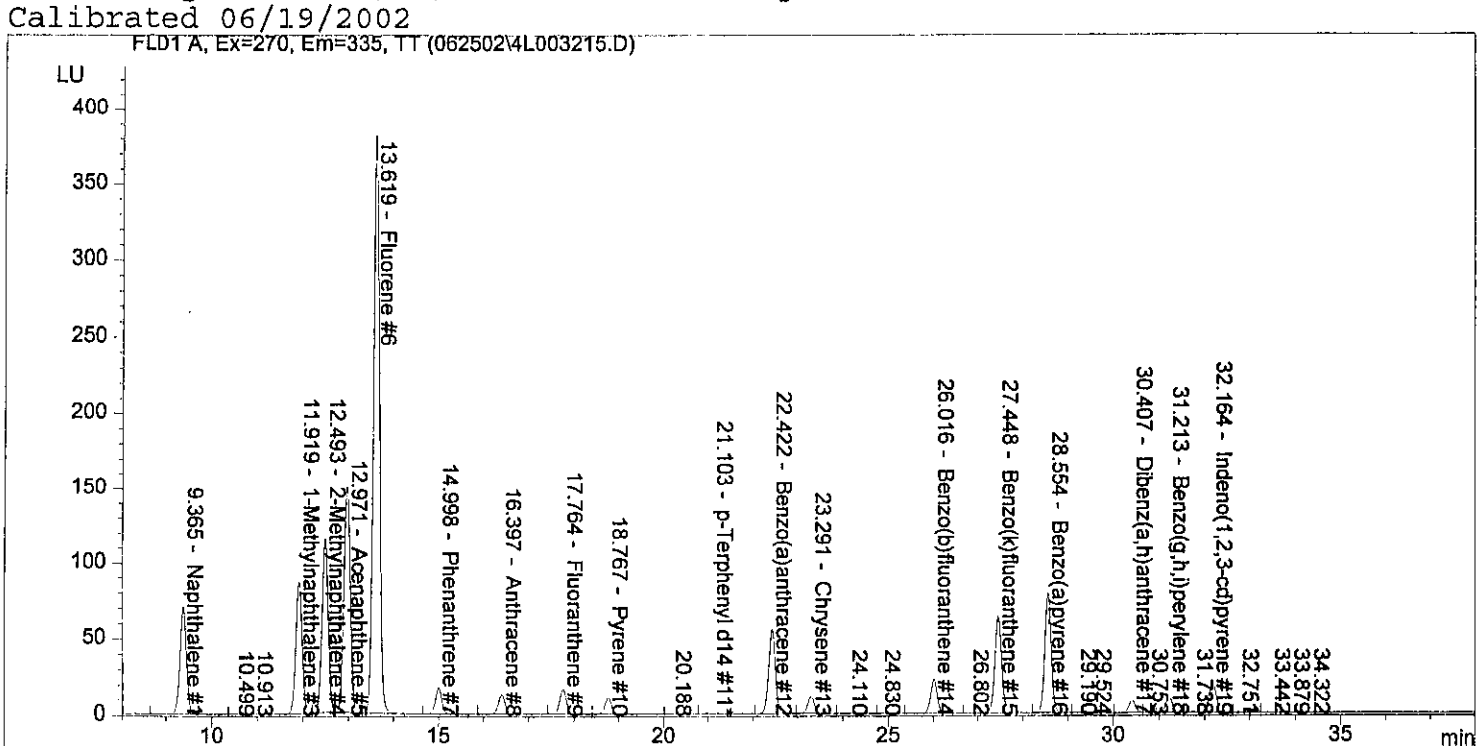
1,1 V186P99 LCS2 062402 @ 0900

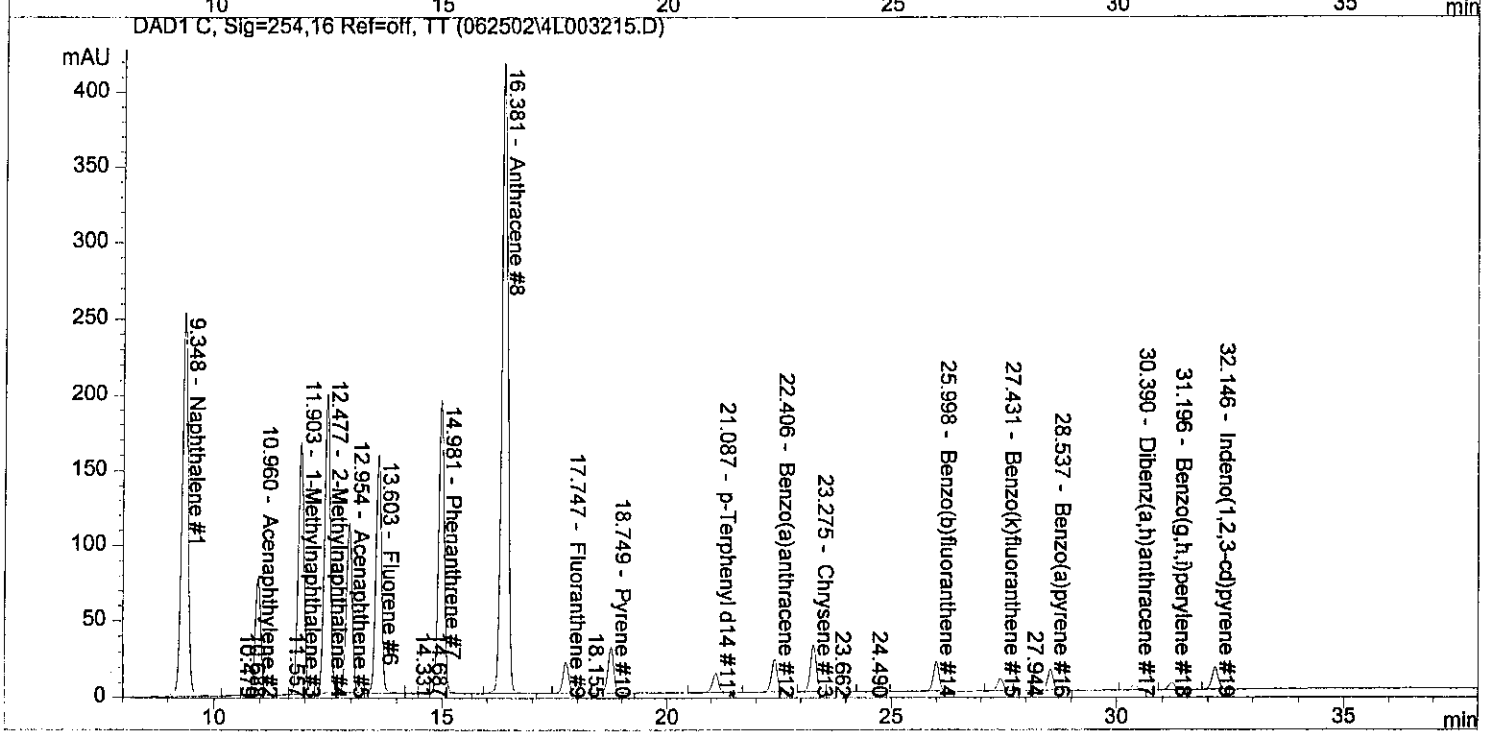
==========

Injection Date : 6/25/2002 7:34:28 PM
Sample Name : WG120326-03 WLCS
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





452

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.365	BB	704.88330	2.65007e-2	18.67992		Naphthalene #1
11.919	BB	829.89972	2.31840e-2	19.24042		1-Methylnaphthalene #3
12.493	BB	1095.33997	1.78882e-2	19.59371		2-Methylnaphthalene #4
12.971	BB	1441.76514	1.41551e-2	20.40833		Acenaphthene #5
13.619	BB	3653.04370	6.59043e-3	24.07513		Fluorene #6
14.998	BBA	167.96434	1.72468e-1	28.96851		Phenanthrene #7
16.397	PB	121.60254	2.99633e-1	36.43608		Anthracene #8
17.764	BB	162.24701	2.53206e-2	4.10819		Fluoranthene #9
18.767	BBA	104.41298	4.16085e-2	4.34447		Pyrene #10
21.103	BB	28.05103	2.99502e-1	8.40134		p-Terphenyl d14 #11*
22.422	BB	564.90613	8.15938e-3	4.60928		Benzo(a)anthracene #12
23.291	BB	113.77366	3.99298e-2	4.54295		Chrysene #13
26.016	BB	235.99696	1.69131e-2	3.99145		Benzo(b)fluoranthene #14
27.448	BB	658.99780	2.81021e-3	1.85192		Benzo(k)fluoranthene #15
28.554	BB	806.82849	4.72621e-3	3.81324		Benzo(a)pyrene #16
30.407	BB	76.25021	4.02676e-2	3.07041		Dibenz(a,h)anthracene #17
31.213	BB	111.91734	2.83121e-2	3.16861		Benzo(g,h,i)perylene #18
32.164	BB	224.89011	1.40897e-2	3.16863		Indeno(1,2,3-cd)pyrene #1

Totals : 212.47259

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
9.348	BBA	2378.66577	8.08648e-3	19.23504		Naphthalene #1
10.960	BB	674.54877	3.01804e-2	20.35816		Acenaphthylene #2
11.903	BB	1482.59192	1.29776e-2	19.24043		1-Methylnaphthalene #3
12.477	BB	1758.63855	1.12202e-2	19.73236		2-Methylnaphthalene #4
12.954	BB	990.64746	2.05655e-2	20.37313		Acenaphthene #5
13.603	BB	1398.95923	1.75704e-2	24.58025		Fluorene #6
14.981	BBA	1680.53174	1.70034e-2	28.57478		Phenanthrene #7
16.381	PBA	3734.46411	1.00147e-2	37.39968		Anthracene #8
17.747	PB	185.11255	2.17104e-2	4.01888		Fluoranthene #9
18.749	BBA	288.58810	1.42882e-2	4.12342		Pyrene #10
21.087	BBA	129.36073	6.61515e-2	8.55741 25.6%		p-Terphenyl d14 #11*
22.406	PBA	208.82341	2.20650e-2	4.60769		Benzo(a)anthracene #12
23.275	PB	296.52298	1.50718e-2	4.46912		Chrysene #13
25.998	BBA	192.89604	2.06896e-2	3.99095		Benzo(b)fluoranthene #14
27.431	BB	82.73071	2.24815e-2	1.85991		Benzo(k)fluoranthene #15
28.537	BBA	144.74895	2.59754e-2	3.75991		Benzo(a)pyrene #16
30.390	BB	32.40711	9.36877e-2	3.03615		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.196	BB	58.02102	5.31414e-2	3.08332		Benzo(g,h,i)perylene #18
32.146	BB	154.96771	2.06231e-2	3.19591		Indeno(1,2,3-cd)pyrene #1
Totals :				234.19648		

Results obtained with enhanced integrator!

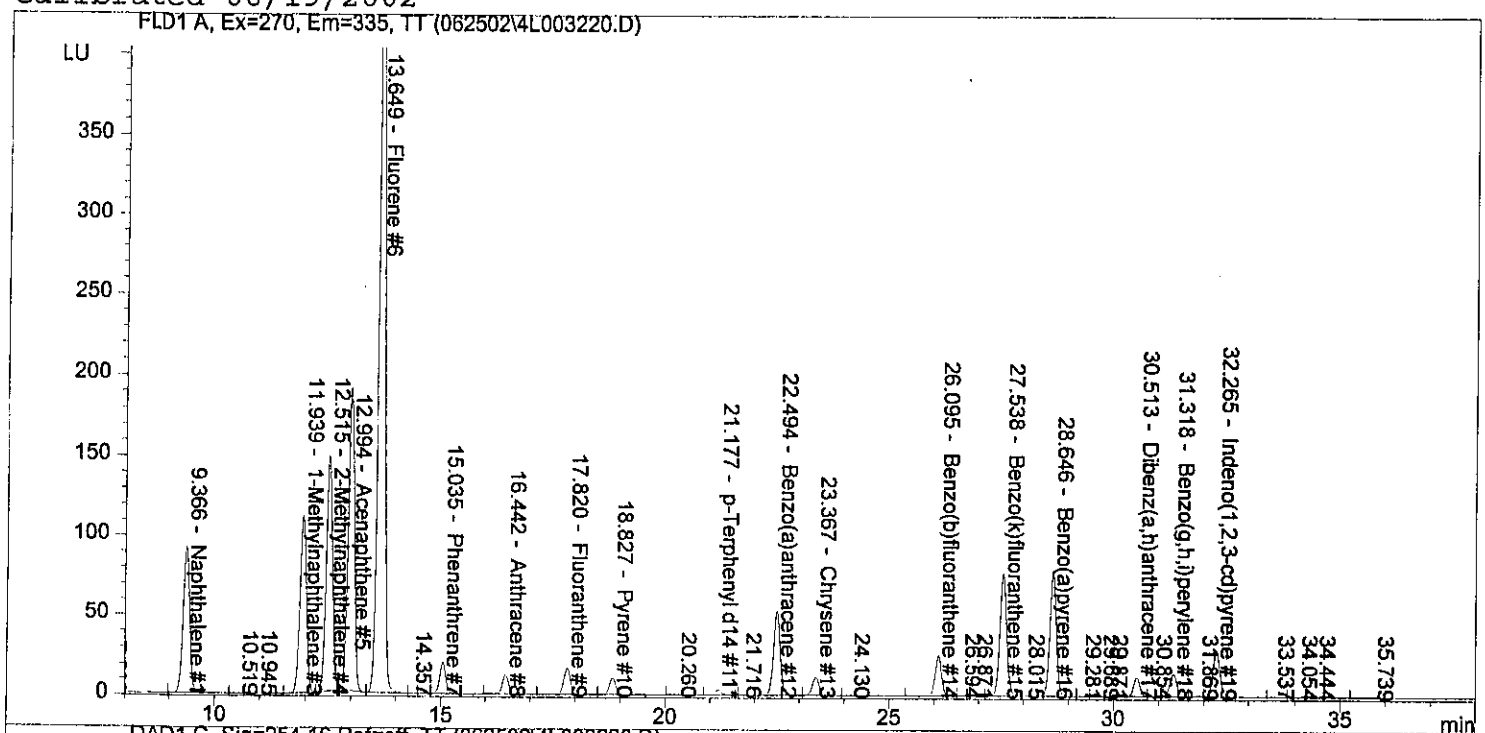
*** End of Report ***

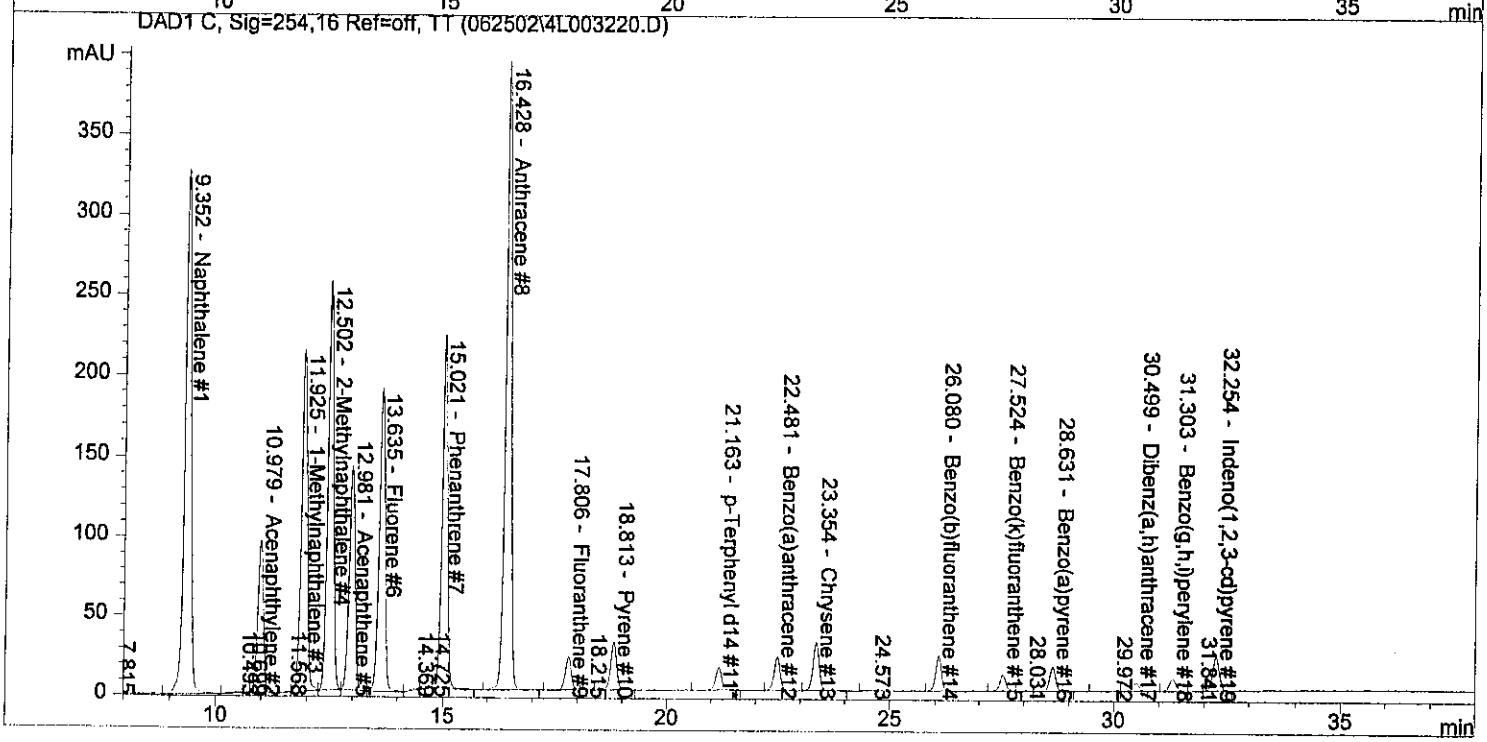
7,1 V186P107 LCS2 062402 @ 0915

==========

Injection Date : 6/26/2002 12:17:47 AM Seq. Line : 10
Sample Name : WG120336-03 SLCS Vial : 10
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:39 AM by RDC
Calibrated 06/19/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.366	BB	926.59985	2.64283e-2	24.48849		Naphthalene #1
11.939	BB	1091.74011	2.31268e-2	25.24844		1-Methylnaphthalene #3
12.515	BB	1426.60596	1.78586e-2	25.47725		2-Methylnaphthalene #4
12.994	BB	1848.63953	1.41444e-2	26.14797		Acenaphthene #5
13.649	BB	4490.03076	6.59053e-3	29.59170		Fluorene #6
15.035	BBA	193.11792	1.72264e-1	33.26721		Phenanthrene #7
16.442	BB	115.65257	2.99718e-1	34.66320		Anthracene #8
17.820	BB	167.69110	2.53159e-2	4.24524		Fluoranthene #9
18.827	BBA	103.62965	4.16094e-2	4.31197		Pyrene #10
21.177	BB	30.73192	2.98748e-1	9.18109	91.8%	p-Terphenyl d14 #11*
22.494	BB	537.45074	8.16226e-3	4.38681		Benzo(a)anthracene #12
23.367	BB	111.47395	3.99352e-2	4.45173		Chrysene #13
26.095	PB	267.22446	1.68993e-2	4.51591		Benzo(b)fluoranthene #14
27.538	BB	799.58496	2.80681e-3	2.24428		Benzo(k)fluoranthene #15
28.646	BB	819.11029	4.72550e-3	3.87071		Benzo(a)pyrene #16
30.513	BB	110.99148	4.00880e-2	4.44943		Dibenz(a,h)anthracene #17
31.318	BB	157.14165	2.81930e-2	4.43029		Benzo(g,h,i)perylene #18
32.265	BB	317.00488	1.40483e-2	4.45339		Indeno(1,2,3-cd)pyrene #1

Totals : 249.42512

Results obtained with enhanced integrator!

X333

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.352	BB	3133.95410	8.11405e-3	25.42906		Naphthalene #1
10.979	BB	854.43073	3.01131e-2	25.72955		Acenaphthylene #2
11.925	BB	1936.49988	1.29554e-2	25.08805		1-Methylnaphthalene #3
12.502	BB	2275.43994	1.12236e-2	25.53864		2-Methylnaphthalene #4
12.981	BB	1279.41296	2.05213e-2	26.25519		Acenaphthene #5
13.635	BB	1705.85864	1.75389e-2	29.91894		Fluorene #6
15.021	BBA	1929.45178	1.69856e-2	32.77298		Phenanthrene #7
16.428	PBA	3534.01978	1.00137e-2	35.38859		Anthracene #8
17.806	BB	188.88318	2.17069e-2	4.10007		Fluoranthene #9
18.813	BBA	290.48450	1.42873e-2	4.15023		Pyrene #10
21.163	BBA	139.52486	6.60151e-2	9.21075	92.1%	p-Terphenyl d14 #11*
22.481	PBA	199.36491	2.20728e-2	4.40055		Benzo(a)anthracene #12
23.354	BBA	303.65930	1.50691e-2	4.57587		Chrysene #13
26.080	PBA	217.80634	2.06709e-2	4.50226		Benzo(b)fluoranthene #14
27.524	BB	100.80994	2.24495e-2	2.26314		Benzo(k)fluoranthene #15
28.631	BBA	148.67596	2.59661e-2	3.86054		Benzo(a)pyrene #16
30.499	BB	48.18657	9.37563e-2	4.51779		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.303	BB	83.39004	5.30247e-2	4.42173		Benzo(g,h,i)perylene #18
32.254	BB	219.14429	2.05189e-2	4.49660		Indeno(1,2,3-cd)pyrene #1

Totals : 276.62051

Results obtained with enhanced integrator!

*** End of Report ***

456

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120164-01 STD6	8310	1	Sample		
3	3	WG120164-02 STD6	8310	1	Sample		
4	4	WG120164-03 STD5	8310	1	Sample		
5	5	WG120164-04 STD4	8310	1	Sample		
6	6	WG120164-05 STD3	8310	1	Sample		
7	7	WG120164-06 STD2	8310	1	Sample		
8	8	WG120164-07 STD1	8310	1	Sample		
9	9	WG120164-08 ALT	8310	1	Sample		
10	10	WG120073-01 WBLK	8310	1	Sample		
11	11	WG120073-02 WLCS	8310	1	Sample		
12	12	WG120073-03 WLCS	8310	1	Sample		
13	13	L0206140-11 REEX	8310	1	Sample		
14	14	L0206140-12 REEX	8310	1	Sample		
15	15	L0206146-01 REEX	8310	1	Sample		
16	16	L0206146-02 REEX	8310	1	Sample		
17	17	WG120174-01 CCV	8310	1	Sample		

No	1	1	8310	4L003183	01:01 ✓		accn blk
No	2	2	8310	4L003184	02:01 ✓	SOS 58-26	WG120164-01 ST
No	3	3	8310	4L003185	03:01 ✓	SOS 59-38	WG120164-02 ST
No	4	4	8310	4L003186	04:01 ✓	DIL'N of SOS 58-26/ 59-38	WG120164-03 ST
No	5	5	8310	4L003187	05:01 ✓		WG120164-04 ST
No	6	6	8310	4L003188	06:01 ✓		WG120164-05 ST
No	7	7	8310	4L003189	07:01 ✓		WG120164-06 ST
No	8	8	8310	4L003190	08:01 ✓		WG120164-07 ST
No	9	9	8310	4L003191	09:01 ✓	SOS 60-26/60-27 DIL'N	WG120164-08 AL
No	10	10	8310	4L003192	10:01 ✓		WG120073-01 WB
No	11	11	8310	4L003193	11:01 ✓		WG120073-02 WL
No	12	12	8310	4L003194	12:01 ✓		WG120073-03 WL
No	13	13	8310	4L003195	13:01	SURR. LOW	L0206140-11 RE
No	14	14	8310	4L003196	14:01	SURR. LOW	L0206140-12 RE
No	15	15	8310	4L003197	15:01	SURR. LOW	L0206146-01 RE
No	16	16	8310	4L003198	16:01 ✓		L0206146-02 RE
No	17	17	8310	4L003199	17:01 ✓	SOS 58-26/59-38 DIL'N.	WG120174-01 CC

RDC 6/20/02

6/20/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061902
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Column re-installed

Action Taken: re-calibration

Comments

Re-extracts of L0206140-11 & 12 and L0206164-01 confirm the low % recovery of surrogate.

L0206164-02 surr. recovery was within limits & will be reported out of holding time.

RDC

Reviewed By: DR 6/20/02

1/13ba

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120427-01 CCV	8310	1	Sample		
3	3	WG120326-01 WBLK	8310	1	Sample		
4	4	WG120326-02 WLCS	8310	1	Sample		
5	5	WG120326-03 WLCS	8310	1	Sample		
6	6	L0206416-02 831W	8310	1	Sample		
7	7	L0206417-04 831W	8310	1	Sample		
8	8	WG120336-01 SBLK	8310	1	Sample		
9	9	WG120336-02 SLCS	8310	1	Sample		
10	10	WG120336-03 SLCS	8310	1	Sample		
11	11	WG120427-02 CCV	8310	1	Sample		
12	12	L0206416-01 831S	8310	1	Sample		
13	13	L0206417-01 831S	8310	1	Sample		
14	14	L0206417-02 831S	8310	1	Sample		
15	15	L0206417-03 831S	8310	1	Sample		
16	11	WG120427-03 CCV	8310	1	Sample		

460

Set	Run	Vial	Method	Datafile	Seqfable	Calib:Rf:Ri	Sample Name
No	1	1	8310	4L003211	01:01		accn blk
No	2	2	8310	4L003212	02:01	SOS 59-38/58-26	WG120427-01 CC
No	3	3	8310	4L003213	03:01		WG120326-01 WB
No	4	4	8310	4L003214	04:01		WG120326-02 WL
No	5	5	8310	4L003215	05:01		WG120326-03 WL
No	6	6	8310	4L003216	06:01		L0206416-02 83
No	7	7	8310	4L003217	07:01		L0206417-04 83
No	8	8	8310	4L003218	08:01		WG120336-01 SB
No	9	9	8310	4L003219	09:01		WG120336-02 SL
No	10	10	8310	4L003220	10:01		WG120336-03 SL
No	11	11	8310	4L003221	11:01	SOS 59-38/58-26	WG120427-02 CC
No	12	12	8310	4L003222	12:01		L0206416-01 83
No	13	13	8310	4L003223	13:01	RL 5X	L0206417-01 83
No	14	14	8310	4L003224	14:01		L0206417-02 83
No	15	15	8310	4L003225	15:01		L0206417-03 83
No	16	11	8310	4L003226	16:01	SOS 59-38/58-26	WG120427-03 CC

RMC 6/26/02

6/28/02

461

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time: June 25, 200 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 062502
Analyst Initials BKC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 118 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RK 6/27/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120546-01 CCV	8310	1	Sample		
3	3	WG120510-01 WBLK	8310	1	Sample		
4	4	WG120510-02 WLCS	8310	1	Sample		
5	5	WG120510-03 WLCS	8310	1	Sample		
6	6	L0206473-01 610W	8310	1	Sample		
7	7	L0206473-04 610W	8310	1	Sample		
8	8	WG120546-02 CCV	8310	1	Sample		
9	9	L0206417-01 @ 5X	8310	1	Sample		
10	10	L0206417-02 @ 5X	8310	1	Sample		
11	11	L0206417-03 @ 5X	8310	1	Sample		
12	8	WG120546-03 CCV	8310	1	Sample		

463

PDC 6/27/02

Set	Run	Vial	Method	Datafile	Seqfable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003227	01:01		accn blk
No	2	2	8310	4L003228	02:01	SOS 59-37/58-24	WG120546-01 CC
No	3	3	8310	4L003229	03:01		WG120510-01 WB
No	4	4	8310	4L003230	04:01		WG120510-02 WL
No	5	5	8310	4L003231	05:01		WG120510-03 WL
No	6	6	8310	4L003232	06:01		L0206473-01 61
No	7	7	8310	4L003233	07:01		L0206473-04 61
No	8	8	8310	4L003234	08:01	SOS 59-37/58-26	WG120546-02 CC
No	9	9	8310	4L003235	09:01		L0206417-01 @
No	10	10	8310	4L003236	10:01		L0206417-02 @
No	11	11	8310	4L003237	11:01		L0206417-03 @
No	12	8	8310	4L003238	12:01	SOS 59-37/58-26	WG120546-03 CC

Rec'd
6/27/02
7/1/02

464

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 26, 2002 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 062600
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 118 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: 7/1/02

Parameter: 8310-H,O SOP #: EXHELC1 Revision #: 6
Extraction Analyst(s): RLK, DP TV/KD Analyst(s): DP
Date/Time Extracted: 06/24/02 0800 Date TV/KD: 06/24/02
Spike/Surrogate Analyst: RLK/DP Witness: DP/MA
Surrogate #: ES50040-50 Earliest Hold Date: 06/27/02
Spike #: A = ES50041-01 Spike #: B = ——

Extraction Work Group WG 120326
Analytical Work Group WG 120424

Extract Relinquished By: CAF
Extract Received By & Date: RLK 6/24/02

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank			✓		1L	100uL		1mL	T				WG120326-01
2	LCS			✓				500uL		C				WG -02
3	LCS DUP			✓						C				WG -03
4	06-416-02	8310		✓		960mL				T				
5	06-417-04			✓		890mL				T				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-24-02

Methylene Chloride Lot #: 4/2015
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: Acetonitrile Lot #: 41264
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: Florisil Lot #: ER2183
Acid: —— Lot #: ——
Florisil Lot #: ——
Silica Gel Lot #: ——
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: ER2152

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: 6-24-02

466

Extraction Notes For Volume # 186 Page # 099

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: NONE

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

Parameter: 8310-S SOP #: EXHPLC2 Revision #: 6a
Extraction Analyst(s): CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 6-24-02 @ 0945 Date TV/KD: 6-24-02
Spike/Surrogate Analyst: CAF Witness: DP
Surrogate #: ESS0040-50 Earliest Hold Date: 7-04-02
Spike #: A = ESS0040-34 Spike #: B = —

Extraction Work Group WG 120336
Analytical Work Group WG 120425

Extract Relinquished By: CAF
Extract Received By & Date: Trac 6/24/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank					30.04 g	100 ul		1 mL	T				WG 120336-
2	LCS					.07 g		500 ul		C				WG 120336-
3	LCS Dup					.06 g				C				WG 120336-
4	06-416-01 6-24-02 CAF	8310				.01 g				C				X
5	06-417-01					.02 g				C				
6	-02					.04 g				C				
7	-03					.04 g				C				
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-24-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetone, tr. IR Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EK2152

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: 06/24/02

Extraction Notes For Volume # 18b Page # 127

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: ~~NONE~~ CAF 6-24-02
* SX06-416-01 Thick & Stuck to Side of zymark as it concentrated to 1ml

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Run Date: 19-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG120172 06-140	6/14/2002	
WG120172 06-164	6/17/2002	

		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	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

Samples were re-extracted out of holding time. Three samples confirmed the previous low surr. recovery results. L0206164-02 surrogate recovery met the acceptance criteria. This sample will be reported.

Recalibration following re-installation of the LC-PAH column is included.

Primary Reviewer: RDC 6/20/02

Secondary Reviewer: RR 6/20/02

Supervisor Review: RR 6/20/02

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 25-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG120425 06-416	6/28/2002	
WG120425 06-417	6/28/2002	
WG120426 06-416	6/28/2002	
WG120426 06-417	6/28/2002	

		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	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0206416-01 and L0206417-01,02 soils yielded percent recoveries for the surrogate by the confirming FLD which were above advisory limits. UV detector recovery met all acceptance criteria for the surrogate.

LCS/LCS DUP for water fractions yielded % RPD for dibenz(a,h)anthracene which was above the advisory limit.

L0206417-01, 02, & 03 will required re-analysis at 5X dilution.

Primary Reviewer: RDC 6/27/02

Secondary Reviewer: 6/27/02

Supervisor Review: 6/28/02

√ = Checked & OK

NA = Not Applicable

471

Semi-Volatile 8310 Checklist

Run Date: 26-Jun-02 (dil'n.)

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG120425 06-417	6/28/2002	
WG120545 06-473	7/9/2002	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	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:

Primary Reviewer: RDC 7/1/02

Secondary Reviewer: 7/1/02

Supervisor Review: 7/1/02

√ = Checked & OK

NA = Not Applicable

472

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

PERCENT SOLIDS DATA

Login Number: L0206417

✓ **Analysis benchsheet**

✓ **Calculation spreadsheet**

Example calculation:

[(WT3 - WT1)/(WT2 - WT1)] * 100 = % solids

100 - (% solids) = % moisture

where: WT1 = Weight (grams) of empty container
WT2 = Weight (grams) of container and wet sample
WT3 = Weight (grams) of container and dry sample
100 = factor to get units as percent weight

Checked By: dlh Date: 6/26/02

PERCENT SOLIDS

Workgroup: 120393 Approval: dlh 6/26/02
ADT (on): Tmm 6/24/02 @ 1400 ADT (off): dlh 6/25/02 0900

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
06-416-01	1.29	26.21	24.46		
06-417-01	1.28	25.50	23.94		
02	1.27	30.87	29.43		
03	1.27	22.59	20.51		
06-423-06	1.26	19.26	3.87		
07	1.30	17.17	3.72		
08	1.27	19.68	10.38		
09	1.28	17.11	6.21		
Duplicate 06-416-01	1.26	22.07	20.60		

Workgroup: 120516 Approval:
ADT (on): Tmm 6/26/02 @ 830 ADT (off):

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
06-475-01	1.26	27.50			
02-03-04	1.26	26.56			
05	1.27	21.80			
06	1.27	24.01			
07	1.27	23.41			
08	1.26	28.67			

476

PERCENT SOLID REPORT

Workgroup (AAB#):WG120393 Run Date:06/24/2002
Method:D2216-90 Run Time:14:00
Analyst:TMM

SAMPLE NUMBER	Pan WT.	Int WT.	Fnl WT.	% Solid	UNITS
L0206416-01	1.290	26.21	24.46	92.98	%
L0206417-01	1.280	25.50	23.94	93.56	%
L0206417-02	1.270	30.87	29.43	95.14	%
L0206417-03	1.270	22.59	20.51	90.24	%
L0206423-06	1.260	19.26	3.870	14.50	%
L0206423-07	1.300	17.17	3.720	15.25	%
L0206423-08	1.270	19.68	10.38	49.48	%
L0206423-09	1.280	17.11	6.210	31.14	%
WG120393-01	1.290	26.21	24.46	92.98	%
WG120393-02	1.260	22.07	20.60	92.94	%

KEMRON FORMS - Modified 03/05/2002
Version 1.2
Report generated 06/26/2002 09:58

Appendix B

Laboratory Analytical Reports for Groundwater Samples

(CD only)

KEMRON REPORT L0206140

PREPARED FOR: CH2M HILL CONSTRUCTORS, INC (CCI)

WORK ID: NAS CECIL FIELD BLDG 46

Summary Report 1
Laboratory Report 2
Attachments 139

Full Sample Data Package..... 149
Volatiles Data 150
BTEX GC Data (8021) 151
QC Summary..... 154
Sample Data..... 214
Standards Data 247
Raw Data..... 317
Semivolatiles Data 343
PAH HPLC DATA (8310) 344
QC Summary..... 347
Sample Data..... 413
Standards Data 493
Raw QC Data 607
Method 8011 644
QC Summary..... 647
Sample Data..... 678
Standards Data 711
Raw QC Data 769
General Chemistry Data..... 794
QC Summary..... 798
Sample Data..... 837
Standards Data 872
Raw QC Data 916

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0206140

CHAIN OF CUSTODY:

The chain of custody number was 163151-048.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperatures were 2, 2, 1, 1, 1, 1, 1 and 1 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

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

REVIEWED: Stephanie D Lepe DATE: 6/10/02

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0206140

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: The average % drifts option was used for CCV WG119487-02 analyzed 6/10/02 on HP-11. 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 07. Fractions 05 and 12 were selected for MS/MSD analyses. Outliers were acceptable in the LCS.

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: CSH REVIEWED: _____ DATE: 6/13/02

Rev. 6/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0206140

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

BATCH QA/QC

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

SAMPLES

Surrogates: Sample fractions 11 and 12 yielded % recoveries for d14-p-terphenyl that were below acceptable limits. These samples were re-extracted outside of extraction holding time with similar results. Only the original analysis has been reported.
Samples: Several samples required dilution analysis in order to obtain results within the linear range of the instrument.

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: 6/27/02

Rev. 7/14/00

5

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0206140

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample 07 was chosen by the client for MS/MSD analysis. All other acceptance criteria were met.

SAMPLES

Samples: Samples 01 and 12 were analyzed at a dilution to maintain analysis within calibration range. All acceptance criteria were met.
Surrogates: Sample 11 yielded a % recovery for o-terphenyl that was below the advisory limit. The sample was re-extracted, out of hold, yielding an acceptable surrogate recovery. Both sets of data were reported. 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: CLK REVIEWED: _____ DATE: 6/4/02

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.:L0206140

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 : Ending CCVs failed to meet criteria for phosphate. This was due to a high metals content in several samples. All samples were re-analyzed outside of holding time for phosphate. Sample fractions 03, 04, 05, 11 were re-analyzed at dilutions in order to get the ending CCV to meet criteria.

BATCH QA/QC

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

SAMPLES

All acceptance criteria were met.

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

Analyst: RDC REVIEWED: _____ DATE: 6/27/02

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119381**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-IS-Q2-02-17		L0206140-01
062-CEF46-2S-Q2-02-17		L0206140-02
062-CEF46-5I-Q2-02-17		L0206140-03
062-CEF46-6D-Q2-02-17		L0206140-04
062-CEF46-9I-Q2-02-17		L0206140-06
062-CEF46-12I-Q2-02-17	RS01	L0206140-07
062-CEF46-13I-Q2-02-17		L0206140-08
062-CEF46-14D-Q2-02-17		L0206140-09
062-CEF46-15I-Q2-02-17		L0206140-10
062-CEF46-26I-Q2-02-17		L0206140-11

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

8

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119381**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		
062-46EQB-Q2-02-17		L0206140-13
062-46TB1-Q2-02-17		L0206140-14
062-CEF46-12I-Q2-02-17	MS01	L0206140-17
062-CEF46-12I-Q2-02-17	SD01	L0206140-18

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 13:54

Concentration Units: ug/L File ID: 5G13685

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	50.0	100	970	100	
Ethylbenzene	50.0	100	1300	100	
Methyl tert-butyl ether	50.0	100	720	100	
Toluene	50.0	100	10000	100	
Xylenes, Total	50.0	100	12000	100	

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

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 14:28

Concentration Units: ug/L File ID: 5G13686

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	7.10	1	
Ethylbenzene	0.500	1.0	9.10	1	
Methyl tert-butyl ether	0.500	1.0	200	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	12.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	120	70 – 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q2-02-17 Lab Sample ID: L0206140-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 17:34

Concentration Units: ug/L File ID: 5G13691

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	2.10	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.40	1	
Xylenes, Total	0.500	1.0	43.0	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.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 18:09

Concentration Units: ug/L File ID: 5G13692

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	4.50	1	

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.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q2-02-17 Lab Sample ID: L0206140-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 19:18

Concentration Units: ug/L File ID: 5G13694

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	105	70 – 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 15:03

Concentration Units: ug/L File ID: 5G13687

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	2.80	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	115	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q2-02-17 Lab Sample ID: L0206140-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 19:53

Concentration Units: ug/L File ID: 5G13695

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	160	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	106	70 – 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q2-02-17 Lab Sample ID: L0206140-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 20:28

Concentration Units: ug/L File ID: 5G13696

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	106	70 - 130	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q2-02-17 Lab Sample ID: L0206140-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 21:02

Concentration Units: ug/L File ID: 5G13697

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	105	70 – 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 21:37

Concentration Units: ug/L File ID: 5G13698

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	5.00	10	1500	10	
Ethylbenzene	5.00	10	46.0	10	
Methyl tert-butyl ether	5.00	10	14.0	10	
Toluene	5.00	10	5.00	10	ND
Xylenes, Total	5.00	10	430	10	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	105	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-02-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 22:12

Concentration Units: ug/L File ID: 5G13699

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

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

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46TB1-Q2-02-17 Lab Sample ID: L0206140-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 22:46

Concentration Units: ug/L File ID: 5G13700

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.90	1	
Xylenes, Total	0.500	1.0	0.500	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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 15:38

Concentration Units: ug/L File ID: 5G13688

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	23.0	1	
Ethylbenzene	0.500	1.0	23.0	1	
Methyl tert-butyl ether	0.500	1.0	23.0	1	
Toluene	0.500	1.0	23.0	1	
Xylenes, Total	0.500	1.0	65.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	111	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119381

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 16:12

Concentration Units: ug/L File ID: 5G13689

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	23.0	1	
Ethylbenzene	0.500	1.0	23.0	1	
Methyl tert-butyl ether	0.500	1.0	24.0	1	
Toluene	0.500	1.0	23.0	1	
Xylenes, Total	0.500	1.0	65.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	113	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119546**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
062-CEF46-7I-Q2-02-17	L0206140-05

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119546

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 11-JUN-02 10:12

Concentration Units: ug/L File ID: 5G13712

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	25.0	50	95.0	50	
Ethylbenzene	25.0	50	25.0	50	ND
Methyl tert-butyl ether	25.0	50	4300	50	
Toluene	25.0	50	53.0	50	
Xylenes, Total	25.0	50	140	50	

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

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119488**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-46DUP-Q2-02-17	L0206140-12

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119488

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 13-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 10-JUN-02 12:04

Concentration Units: ug/L File ID: 11G13741

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	25.0	50	950	50	
Ethylbenzene	25.0	50	1200	50	
Methyl tert-butyl ether	25.0	50	590	50	
Toluene	25.0	50	10000	50	
Xylenes, Total	25.0	50	11000	50	

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.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG119924

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF46-IS-Q2-02-17		L0206140-01
062-CEF46-2S-Q2-02-17		L0206140-02
062-CEF46-5I-Q2-02-17		L0206140-03
062-CEF46-6D-Q2-02-17		L0206140-04
062-CEF46-7I-Q2-02-17		L0206140-05
062-CEF46-9I-Q2-02-17		L0206140-06
062-CEF46-12I-Q2-02-17	RS01	L0206140-07
062-CEF46-13I-Q2-02-17		L0206140-08
062-CEF46-14D-Q2-02-17		L0206140-09
062-CEF46-15I-Q2-02-17		L0206140-10

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 01-JUL-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG119924

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		
062-CEF46-26I-Q2-02-17		L0206140-11
062-46DUP-Q2-02-17		L0206140-12
062-46EQB-Q2-02-17		L0206140-13
062-CEF46-12I-Q2-02-17	MS01	L0206140-17
062-CEF46-12I-Q2-02-17	SD01	L0206140-18

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 01-JUL-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 09:09

Concentration Units: ug/L File ID: 4L003154.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	88.0	1	
2-Methylnaphthalene	0.336	1.0	140	1	I
Acenaphthene	0.415	1.0	0.810	1	J,P
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	1.20	1	P
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	580	1	I
Phenanthrene	0.287	1.0	0.420	1	J
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 09:09

Concentration Units: % Recovery File ID: 4L003154.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	57.7	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 09:09

Concentration Units: ug/L File ID: 4L003154.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	65.0	1	
2-Methylnaphthalene	0.336	1.0	190	1	I
Acenaphthene	0.415	1.0	25.0	1	P
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	18.0	1	P
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	180	1	I
Phenanthrene	0.287	1.0	0.300	1	J
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 09:09

Concentration Units: % Recovery File ID: 4L003154.R

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

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 13:57

Concentration Units: ug/L File ID: 4L003176.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.62	10	90.0	10	
2-Methylnaphthalene	3.36	10	150	10	
Acenaphthene	4.15	10	4.15	10	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	2.85	10	2.85	10	ND
Benzo(a)anthracene	0.300	2.0	0.300	10	ND
Benzo(a)pyrene	0.530	2.0	0.530	10	ND
Benzo(b)fluoranthene	0.340	2.0	0.340	10	ND
Benzo(g,h,i)perylene	0.500	2.0	0.500	10	ND
Benzo(k)fluoranthene	0.720	2.0	0.720	10	ND
Chrysene	0.240	2.0	0.240	10	ND
Dibenzo(a,h)anthracene	0.770	2.0	0.770	10	ND
Fluoranthene	0.500	2.0	0.500	10	ND
Fluorene	5.59	10	5.59	10	ND
Indeno(1,2,3-cd)pyrene	0.800	2.0	0.800	10	ND
Naphthalene	3.59	10	770	10	
Phenanthrene	2.87	10	2.87	10	ND
Pyrene	0.680	2.0	0.680	10	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WQ119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 13:57

Concentration Units: % Recovery File ID: 4L003176.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 13:57

Concentration Units: ug/L File ID: 4L003176.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.62	10	69.0	10	
2-Methylnaphthalene	3.36	10	200	10	
Acenaphthene	4.15	10	4.15	10	ND
Acenaphthylene	3.51	10	3.51	10	ND
Anthracene	2.85	10	2.85	10	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	5.59	10	5.59	10	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	3.59	10	780	10	
Phenanthrene	2.87	10	2.87	10	ND
Pyrene	0.680	2.0	0.680	10	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 13:57

Concentration Units: % Recovery File ID: 4L003176.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 10:05

Concentration Units: ug/L File ID: 4L003155.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	0.381	1	ND
2-Methylnaphthalene	0.354	1.1	0.354	1	ND
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0316	0.21	0.0316	1	ND
Benzo(a)pyrene	0.0558	0.21	0.0558	1	ND
Benzo(b)fluoranthene	0.0358	0.21	0.0358	1	ND
Benzo(g,h,i)perylene	0.0526	0.21	0.0526	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.0811	0.21	0.0811	1	ND
Fluoranthene	0.0526	0.21	0.0526	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0842	0.21	0.0842	1	ND
Naphthalene	0.378	1.1	5.10	1	
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 10:05

Concentration Units: % Recovery File ID: 4L003155.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	59.5	40 - 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 10:05

Concentration Units: ug/L File ID: 4L003155.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	0.381	1	ND
2-Methylnaphthalene	0.354	1.1	0.354	1	ND
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.369	1.1	0.369	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0526	0.21	0.0526	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	4.80	1	
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 10:05

Concentration Units: % Recovery File ID: 4L003155.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	59.2	40 - 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q2-02-17 Lab Sample ID: L0206140-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 11:02

Concentration Units: ug/L File ID: 4L003156.R

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	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q2-02-17 Lab Sample ID: L0206140-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 11:02

Concentration Units: % Recovery File ID: 4L003156.R

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.

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 11:59

Concentration Units: ug/L File ID: 4L003157.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.375	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	1.30	1	
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 11:59

Concentration Units: % Recovery File ID: 4L003157.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	63.0	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 11:59

Concentration Units: ug/L File ID: 4L003157.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.375	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.920	1	J
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 11:59

Concentration Units: % Recovery File ID: 4L003157.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	63.5	40 - 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 12:55

Concentration Units: ug/L File ID: 4L003158.F

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	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	5.30	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 12:55

Concentration Units: % Recovery File ID: 4L003158.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	49.0	40 – 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 12:55

Concentration Units: ug/L File ID: 4L003158.R

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	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	5.10	1	
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WQ119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 12:55

Concentration Units: % Recovery File ID: 4L003158.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	49.2	40 – 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q2-02-17 Lab Sample ID: L0206140-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 13:52

Concentration Units: ug/L File ID: 4L003159.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q2-02-17 Lab Sample ID: L0206140-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 13:52

Concentration Units: % Recovery File ID: 4L003159.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	88.4	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 14:49

Concentration Units: ug/L File ID: 4L003160.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	0.385	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0319	0.21	0.360	1	
Benzo(a)pyrene	0.0564	0.21	0.290	1	
Benzo(b)fluoranthene	0.0362	0.21	0.300	1	
Benzo(g,h,i)perylene	0.0532	0.21	0.170	1	J
Benzo(k)fluoranthene	0.0766	0.21	0.130	1	J
Chrysene	0.0255	0.21	0.420	1	
Dibenzo(a,h)anthracene	0.0819	0.21	0.180	1	J
Fluoranthene	0.0532	0.21	1.00	1	
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0851	0.21	0.110	1	J
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.720	1	J
Pyrene	0.0723	0.21	1.00	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 14:49

Concentration Units: % Recovery File ID: 4L003160.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	73.2	40 - 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 14:49

Concentration Units: ug/L File ID: 4L003160.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0319	0.21	0.320	1	
Benzo(a)pyrene	0.0564	0.21	0.300	1	
Benzo(b)fluoranthene	0.0362	0.21	0.320	1	
Benzo(g,h,i)perylene	0.0532	0.21	0.100	1	J
Benzo(k)fluoranthene	0.0766	0.21	0.140	1	J
Chrysene	0.0255	0.21	0.300	1	
Dibenzo(a,h)anthracene	0.0819	0.21	0.180	1	J
Fluoranthene	0.0532	0.21	0.840	1	
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0851	0.21	0.150	1	J
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.590	1	J
Pyrene	0.0723	0.21	0.770	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 14:49

Concentration Units: % Recovery File ID: 4L003160.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	57.7	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q2-02-17 Lab Sample ID: L0206140-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 15:45

Concentration Units: ug/L File ID: 4L003161.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q2-02-17 Lab Sample ID: L0206140-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 15:45

Concentration Units: % Recovery File ID: 4L003161.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	63.3	40 — 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q2-02-17 Lab Sample ID: L0206140-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 17:39

Concentration Units: ug/L File ID: 4L003163.R

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	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q2-02-17 Lab Sample ID: L0206140-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 17:39

Concentration Units: % Recovery File ID: 4L003163.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	73.6	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q2-02-17 Lab Sample ID: L0206140-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 18:35

Concentration Units: ug/L File ID: 4L003164.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q2-02-17 Lab Sample ID: L0206140-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 18:35

Concentration Units: % Recovery File ID: 4L003164.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.2	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 19:32

Concentration Units: ug/L File ID: 4L003165.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.373	1.1	0.373	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 19:32

Concentration Units: % Recovery File ID: 4L003165.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	20.2	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-02-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 20:28

Concentration Units: ug/L File ID: 4L003166.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	61.0	1	
2-Methylnaphthalene	0.350	1.0	100	1	
Acenaphthene	0.432	1.0	0.550	1	J,P
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0313	0.21	0.0313	1	ND
Benzo(a)pyrene	0.0552	0.21	0.0552	1	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1	ND
Benzo(g,h,i)perylene	0.0521	0.21	0.0521	1	ND
Benzo(k)fluoranthene	0.0750	0.21	0.0750	1	ND
Chrysene	0.0250	0.21	0.0250	1	ND
Dibenzo(a,h)anthracene	0.0802	0.21	0.0802	1	ND
Fluoranthene	0.0521	0.21	0.0521	1	ND
Fluorene	0.582	1.0	0.670	1	J,P
Indeno(1,2,3-cd)pyrene	0.0833	0.21	0.0833	1	ND
Naphthalene	0.374	1.0	460	1	I
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-02-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 20:28

Concentration Units: % Recovery File ID: 4L003166.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	26.7	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 20:28

Concentration Units: ug/L File ID: 4L003166.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	49.0	1	
2-Methylnaphthalene	0.350	1.0	130	1	I
Acenaphthene	0.432	1.0	44.0	1	P
Acenaphthylene	0.366	1.0	0.366	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0521	0.21	0.0521	1	ND
Fluorene	0.582	1.0	13.0	1	P
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.374	1.0	200	1	I
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-02-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 20:28

Concentration Units: % Recovery File ID: 4L003166.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	26.9	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 14:54

Concentration Units: ug/L File ID: 4L003177.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.77	10	61.0	10	
2-Methylnaphthalene	3.50	10	100	10	
Acenaphthene	4.32	10	4.32	10	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	2.97	10	2.97	10	ND
Benzo(a)anthracene	0.313	2.1	0.313	10	ND
Benzo(a)pyrene	0.552	2.1	0.552	10	ND
Benzo(b)fluoranthene	0.354	2.1	0.354	10	ND
Benzo(g,h,i)perylene	0.521	2.1	0.521	10	ND
Benzo(k)fluoranthene	0.750	2.1	0.750	10	ND
Chrysene	0.250	2.1	0.250	10	ND
Dibenzo(a,h)anthracene	0.802	2.1	0.802	10	ND
Fluoranthene	0.521	2.1	0.521	10	ND
Fluorene	5.82	10	5.82	10	ND
Indeno(1,2,3-cd)pyrene	0.833	2.1	0.833	10	ND
Naphthalene	3.74	10	470	10	
Phenanthrene	2.99	10	2.99	10	ND
Pyrene	0.708	2.1	0.708	10	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 14:54

Concentration Units: % Recovery File ID: 4L003177.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 14:54

Concentration Units: ug/L File ID: 4L003177.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.77	10	48.0	10	
2-Methylnaphthalene	3.50	10	120	10	
Acenaphthene	4.32	10	4.32	10	ND
Acenaphthylene	3.66	10	3.66	10	ND
Anthracene	2.97	10	2.97	10	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	5.82	10	5.82	10	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	3.74	10	500	10	
Phenanthrene	2.99	10	2.99	10	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WQ119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 17-JUN-02 14:54

Concentration Units: % Recovery File ID: 4L003177.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 21:25

Concentration Units: ug/L File ID: 4L003167.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.389	1.1	0.389	1	ND
2-Methylnaphthalene	0.361	1.1	0.361	1	ND
Acenaphthene	0.446	1.1	0.446	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.306	1.1	0.306	1	ND
Benzo(a)anthracene	0.0323	0.22	0.0323	1	ND
Benzo(a)pyrene	0.0570	0.22	0.0570	1	ND
Benzo(b)fluoranthene	0.0366	0.22	0.0366	1	ND
Benzo(g,h,i)perylene	0.0538	0.22	0.0538	1	ND
Benzo(k)fluoranthene	0.0774	0.22	0.0774	1	ND
Chrysene	0.0258	0.22	0.0258	1	ND
Dibenzo(a,h)anthracene	0.0828	0.22	0.0828	1	ND
Fluoranthene	0.0538	0.22	0.0538	1	ND
Fluorene	0.601	1.1	0.601	1	ND
Indeno(1,2,3-cd)pyrene	0.0860	0.22	0.0860	1	ND
Naphthalene	0.386	1.1	0.386	1	ND
Phenanthrene	0.309	1.1	0.370	1	J
Pyrene	0.0731	0.22	0.0731	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 21:25

Concentration Units: % Recovery File ID: 4L003167.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.5	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 21:25

Concentration Units: ug/L File ID: 4L003167.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.361	1.1	0.361	1	ND
Acenaphthene	0.446	1.1	0.446	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.306	1.1	0.306	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.601	1.1	0.601	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.386	1.1	0.386	1	ND
Phenanthrene	0.309	1.1	0.430	1	J
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 21:25

Concentration Units: % Recovery File ID: 4L003167.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	57.6	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 22:22

Concentration Units: ug/L File ID: 4L003168.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	15.0	1	
2-Methylnaphthalene	0.354	1.1	15.0	1	
Acenaphthene	0.437	1.1	17.0	1	
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	23.0	1	
Benzo(a)anthracene	0.0316	0.21	2.10	1	
Benzo(a)pyrene	0.0558	0.21	1.50	1	
Benzo(b)fluoranthene	0.0358	0.21	1.70	1	
Benzo(g,h,i)perylene	0.0526	0.21	1.00	1	
Benzo(k)fluoranthene	0.0758	0.21	0.680	1	
Chrysene	0.0253	0.21	1.80	1	
Dibenzo(a,h)anthracene	0.0811	0.21	0.690	1	
Fluoranthene	0.0526	0.21	2.70	1	
Fluorene	0.588	1.1	19.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	1.10	1	
Naphthalene	0.378	1.1	15.0	1	
Phenanthrene	0.302	1.1	23.0	1	
Pyrene	0.0716	0.21	2.60	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 22:22

Concentration Units: % Recovery File ID: 4L003168.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	30.3	40 – 132	*

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 22:22

Concentration Units: ug/L File ID: 4L003168.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	15.0	1	
2-Methylnaphthalene	0.354	1.1	15.0	1	
Acenaphthene	0.437	1.1	17.0	1	
Acenaphthylene	0.369	1.1	17.0	1	
Anthracene	0.300	1.1	23.0	1	
Benzo(a)anthracene	0.0316	0.21	2.10	1	
Benzo(a)pyrene	0.0558	0.21	1.50	1	
Benzo(b)fluoranthene	0.0358	0.21	1.70	1	
Benzo(g,h,i)perylene	0.0526	0.21	1.00	1	
Benzo(k)fluoranthene	0.0758	0.21	0.680	1	
Chrysene	0.0253	0.21	1.70	1	
Dibenzo(a,h)anthracene	0.0811	0.21	0.720	1	
Fluoranthene	0.0526	0.21	2.60	1	
Fluorene	0.588	1.1	19.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	1.10	1	
Naphthalene	0.378	1.1	15.0	1	
Phenanthrene	0.302	1.1	24.0	1	
Pyrene	0.0716	0.21	2.60	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 22:22

Concentration Units: % Recovery File ID: 4L003168.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	29.8	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 23:18

Concentration Units: ug/L File ID: 4L003169.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	17.0	1	
2-Methylnaphthalene	0.348	1.0	17.0	1	
Acenaphthene	0.430	1.0	20.0	1	
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	37.0	1	
Benzo(a)anthracene	0.0311	0.21	3.70	1	
Benzo(a)pyrene	0.0549	0.21	2.90	1	
Benzo(b)fluoranthene	0.0352	0.21	3.10	1	
Benzo(g,h,i)perylene	0.0518	0.21	2.30	1	
Benzo(k)fluoranthene	0.0746	0.21	1.30	1	
Chrysene	0.0249	0.21	3.40	1	
Dibenzo(a,h)anthracene	0.0798	0.21	1.30	1	
Fluoranthene	0.0518	0.21	4.50	1	
Fluorene	0.579	1.0	27.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	2.10	1	
Naphthalene	0.372	1.0	16.0	1	
Phenanthrene	0.297	1.0	37.0	1	
Pyrene	0.0705	0.21	4.30	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 23:18

Concentration Units: % Recovery File ID: 4L003169.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	55.2	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 23:18

Concentration Units: ug/L File ID: 4L003169.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	17.0	1	
2-Methylnaphthalene	0.348	1.0	17.0	1	
Acenaphthene	0.430	1.0	21.0	1	
Acenaphthylene	0.364	1.0	20.0	1	
Anthracene	0.295	1.0	38.0	1	
Benzo(a)anthracene	0.0311	0.21	3.70	1	
Benzo(a)pyrene	0.0549	0.21	3.00	1	
Benzo(b)fluoranthene	0.0352	0.21	3.10	1	
Benzo(g,h,i)perylene	0.0518	0.21	2.20	1	
Benzo(k)fluoranthene	0.0746	0.21	1.30	1	
Chrysene	0.0249	0.21	3.60	1	
Dibenzo(a,h)anthracene	0.0798	0.21	1.40	1	
Fluoranthene	0.0518	0.21	4.40	1	
Fluorene	0.579	1.0	27.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	2.20	1	
Naphthalene	0.372	1.0	17.0	1	
Phenanthrene	0.297	1.0	37.0	1	
Pyrene	0.0705	0.21	4.40	1	

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 15-JUN-02 23:18

Concentration Units: % Recovery File ID: 4L003169.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	55.3	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015 MOD**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119767**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-IS-Q2-02-17		L0206140-01
062-CEF46-2S-Q2-02-17		L0206140-02
062-CEF46-5I-Q2-02-17		L0206140-03
062-CEF46-6D-Q2-02-17		L0206140-04
062-CEF46-7I-Q2-02-17		L0206140-05
062-CEF46-9I-Q2-02-17		L0206140-06
062-CEF46-12I-Q2-02-17	RS01	L0206140-07
062-CEF46-13I-Q2-02-17		L0206140-08
062-CEF46-14D-Q2-02-17		L0206140-09
062-CEF46-15I-Q2-02-17		L0206140-10

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

86

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8015 MOD

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG119767

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID		
062-CEF46-26I-Q2-02-17		L0206140-11
062-46DUP-Q2-02-17		L0206140-12
062-46EQB-Q2-02-17		L0206140-13
062-CEF46-12I-Q2-02-17	MS01	L0206140-17
062-CEF46-12I-Q2-02-17	SD01	L0206140-18

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 01-JUL-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 14-JUN-02 13:02

Concentration Units: ug/L File ID: 2G20479

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	2500	5000	46000	10	

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

Internal Std	Qualifier

Comments:

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

Page 1 of 1

88

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 15:59

Concentration Units: ug/L File ID: 2G20445

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	740	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	103	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q2-02-17 Lab Sample ID: L0206140-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 16:14

Concentration Units: ug/L File ID: 2G20446

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	76.7	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 16:29

Concentration Units: ug/L File ID: 2G20447

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	71.0	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 16:45

Concentration Units: ug/L File ID: 2G20448

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	650	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	73.4	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q2-02-17 Lab Sample ID: L0206140-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 17:00

Concentration Units: ug/L File ID: 2G20449

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	75.2	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 19:16

Concentration Units: ug/L File ID: 2G20458

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	61.7	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q2-02-17 Lab Sample ID: L0206140-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 18:16

Concentration Units: ug/L File ID: 2G20454

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	71.8	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q2-02-17 Lab Sample ID: L0206140-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 18:31

Concentration Units: ug/L File ID: 2G20455

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	84.8	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q2-02-17 Lab Sample ID: L0206140-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 17:15

Concentration Units: ug/L File ID: 2G20450

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	272	540	272	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	60.7	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 17:30

Concentration Units: ug/L File ID: 2G20451

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	290	1	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	43.9	49 - 174	*

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 14-JUN-02 13:18

Concentration Units: ug/L File ID: 2G20480

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	2660	5300	48000	10	

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

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 19:01

Concentration Units: ug/L File ID: 2G20457

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

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.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 19:32

Concentration Units: ug/L File ID: 2G20459

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	2900	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	78.2	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 19:47

Concentration Units: ug/L File ID: 2G20460

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	2900	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	72.9	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8015 MOD

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG120200

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID	Lab Sample ID
062-CEF46-26I-Q2-02-17	L0206140-11

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 01-JUL-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG120200

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-JUN-2002

Date Received: 07-JUN-02 Date Extracted: 17-JUN-02 Date Analyzed: 19-JUN-02 23:16

Concentration Units: ug/L File ID: 2G20584

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	253	510	500	1	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	77.4	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA PACKAGE

Analytical Method : 9056
Lab Name : Kemron Environmental Services
Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG120157
Contract # : Colleen Kurtz
Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF46-IS-Q2-02-17		L0206140-01
062-CEF46-2S-Q2-02-17		L0206140-02
062-CEF46-5I-Q2-02-17		L0206140-03
062-CEF46-6D-Q2-02-17		L0206140-04
062-CEF46-7I-Q2-02-17		L0206140-05
062-CEF46-9I-Q2-02-17		L0206140-06
062-CEF46-12I-Q2-02-17	RS01	L0206140-07
062-CEF46-13I-Q2-02-17		L0206140-08
062-CEF46-14D-Q2-02-17		L0206140-09
062-CEF46-15I-Q2-02-17		L0206140-10

Comments:
RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.
Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner
Name: David L. Bumgarner
Date: 01-JUL-02
Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120157**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		
062-CEF46-26I-Q2-02-17		L0206140-11
062-46DUP-Q2-02-17		L0206140-12
062-46EQB-Q2-02-17		L0206140-13
062-CEF46-12I-Q2-02-17	MS01	L0206140-17
062-CEF46-12I-Q2-02-17	SD01	L0206140-18

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 19:03

Concentration Units: mg/L File ID: 061902.23

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.540	1	
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 19:14

Concentration Units: mg/L File ID: 061902.24

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q2-02-17 Lab Sample ID: L0206140-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 20:46

Concentration Units: mg/L File ID: 061902.32

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 20:58

Concentration Units: mg/L File ID: 061902.33

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 21:09

Concentration Units: mg/L File ID: 061902.34

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q2-02-17 Lab Sample ID: L0206140-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 19:26

Concentration Units: mg/L File ID: 061902.25

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 18:28

Concentration Units: mg/L File ID: 061902.20

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-02-02-17 Lab Sample ID: L0206140-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 19:37

Concentration Units: mg/L File ID: 061902.26

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q2-02-17 Lab Sample ID: L0206140-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 19:49

Concentration Units: mg/L File ID: 061902.27

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q2-02-17 Lab Sample ID: L0206140-10 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 20:00

Concentration Units: mg/L File ID: 061902.28

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 21:21

Concentration Units: mg/L File ID: 061902.35

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 20:12

Concentration Units: mg/L File ID: 061902.29

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.520	1	
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 20:35

Concentration Units: mg/L File ID: 061902.31

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 18:40

Concentration Units: mg/L File ID: 061902.21

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	3.90	1	
Nitrite	0.0610	0.40	3.60	1	
Phosphate	0.163	1.0	8.80	1	

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120157

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 18:51

Concentration Units: mg/L File ID: 061902.22

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.00	1	
Nitrite	0.0610	0.40	3.70	1	
Phosphate	0.163	1.0	9.10	1	

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119433**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-IS-Q2-02-17		L0206140-01
062-CEF46-2S-Q2-02-17		L0206140-02
062-CEF46-5I-Q2-02-17		L0206140-03
062-CEF46-6D-Q2-02-17		L0206140-04
062-CEF46-7I-Q2-02-17		L0206140-05
062-CEF46-9I-Q2-02-17		L0206140-06
062-CEF46-12I-Q2-02-17	RS01	L0206140-07
062-CEF46-13I-Q2-02-17		L0206140-08
062-CEF46-14D-Q2-02-17		L0206140-09
062-CEF46-15I-Q2-02-17		L0206140-10

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

199

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG119433**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		
062-CEF46-26I-Q2-02-17		L0206140-11
062-46DUP-Q2-02-17		L0206140-12
062-46EQB-Q2-02-17		L0206140-13
062-CEF46-12I-Q2-02-17	MS01	L0206140-17
062-CEF46-12I-Q2-02-17	SD01	L0206140-18

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **01-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-IS-Q2-02-17 Lab Sample ID: L0206140-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 16:13

Concentration Units: mg/L File ID: 060702.18

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.110	1	J
Nitrite	0.0610	0.40	0.120	1	J
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q2-02-17 Lab Sample ID: L0206140-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 16:24

Concentration Units: mg/L File ID: 060702.19

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q2-02-17 Lab Sample ID: L0206140-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 16:36

Concentration Units: mg/L File ID: 060702.20

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q2-02-17 Lab Sample ID: L0206140-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 17:37

Concentration Units: mg/L File ID: 060702.23

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.150	1	J
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q2-02-17 Lab Sample ID: L0206140-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 17:49

Concentration Units: mg/L File ID: 060702.24

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q2-02-17 Lab Sample ID: L0206140-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 18:06

Concentration Units: mg/L File ID: 060702.25

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 18:17

Concentration Units: mg/L File ID: 060702.26

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q2-02-17 Lab Sample ID: L0206140-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 18:29

Concentration Units: mg/L File ID: 060702.27

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q2-02-17 Lab Sample ID: L0206140-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 18:40

Concentration Units: mg/L File ID: 060702.28

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q2-02-17 Lab Sample ID: L0206140-10 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 18:52

Concentration Units: mg/L File ID: 060702.29

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q2-02-17 Lab Sample ID: L0206140-11 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 19:03

Concentration Units: mg/L File ID: 060702.30

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.110	1	J
Phosphate	0.163	1.0	0.330	1	F,A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q2-02-17 Lab Sample ID: L0206140-12 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 19:15

Concentration Units: mg/L File ID: 060702.31

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.120	1	J
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q2-02-17 Lab Sample ID: L0206140-13 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 19:26

Concentration Units: mg/L File ID: 060702.32

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-17 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 19:49

Concentration Units: mg/L File ID: 060702.34

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.30	1	
Nitrite	0.0610	0.40	3.80	1	
Phosphate	0.163	1.0	6.60	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG119433

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q2-02-17 Lab Sample ID: L0206140-18 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 07-JUN-02 Date Extracted: Date Analyzed: 07-JUN-02 20:01

Concentration Units: mg/L File ID: 060702.35

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.20	1	
Nitrite	0.0610	0.40	3.80	1	
Phosphate	0.163	1.0	6.40	1	A

Comments:

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

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

06/17/2002

AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAD - DAVE A. DAULEY
DAH - DON A. HUNTER
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
DRB - DOUG R. BARNETT
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAL - JOHN A. LENT
JJG - JAKE J. GREUEY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MKZ - MARILYN K. ZUMBRO
MLR - MARY L. ROCHOTTE
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
OGT - OKEY G. TUCKER
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SMW - SHARON M. WASHBURN
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

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

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

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

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

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

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

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

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

163151-048 page _1_ of _2_

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 46	163151	Teressa Davis Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL	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	062-CEF46-1S-Q2-02-17	CEF-46-1S	W	06/06/02	14:40	III/C	14	2	2	2	1				Grab	Turbid	
2	062-CEF46-2S-Q2-02-17	CEF-46-2S	W	06/06/02	15:20	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q2-02-17	CEF-46-5I	W	06/06/02	13:30	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q2-02-17	CEF-46-6D	W	06/06/02	13:40	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q2-02-17	CEF-46-7I	W	06/06/02	15:55	III/C	14	2	2	2	1				Grab	Turbid	
6	062-CEF46-9I-Q2-02-17	CEF-46-9I	W	06/06/02	12:20	III/C	14	2	2	2	1				Grab		
7	062-CEF46-12I-Q2-02-17	CEF-46-12I	W	06/06/02	10:15	III/C	14	6	6	6	3				Grab	MS/MSD	
8	062-CEF46-13I-Q2-02-17	CEF-46-13I	W	06/06/02	10:55	III/C	14	2	2	2	1				Grab		
9	062-CEF46-14D-Q2-02-17	CEF-46-14D	W	06/06/02	11:45	III/C	14	2	2	2	1				Grab		
10	062-CEF46-15I-Q2-02-17	CEF-46-15I	W	06/06/02	9:40	III/C	14	2	2	2	1				Grab		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track #792047716886, 792730198195, 792047716934, 791855809240, 791855809300, 781855809354, 792047717080, 792047717106.(8 Coolers)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	6/6/02	18:00	Federal Express	6/6/02	18:00
Printed Name and Signature:			Printed Name and Signature:		
			SHAUNA WELCH Shauna Welch	6/7/02	1022

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

Form CCI001, Rev 02/00

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
163151-048 page _2_ of _2_

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 46	163151	Teressa Davis Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ DATA LEVEL	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	062-CEF46-26I-Q2-02-17	CEF-46-26I	W	06/06/02	16:35	III/C	14	2	2	2	1				Grab	Turbid	
2	062-46DUP-Q2-02-17	Duplicate	W	06/06/02	NA	III/C	14	2	2	2	1				Grab		
3	062-46EQB-Q2-02-17	Equipment Blank	W	06/06/02	12:30	III/C	14	2	2	2	1				Grab		
4	062-46TB1-Q2-02-17	Trip Blank No. 1	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
5	NA	Temperature Blank	W	NA	NA	III/C	14					8			Grab	Prepared by Lab	
6																	
7																	
8																	
9																	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track #792047716886, 792730198195, 792047716934, 791855809240, 791855809300, 781855809354, 792047717080, 792047717106.(8 Coolers)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	6/6/02	18:00	Federal Express	6/6/02	18:00
Printed Name and Signature:			Printed Name and Signature:		
			SHAUNA WELCH Shauna Welch	6/7/02	1022

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

Form CCI001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: 06-140 **Client:** CCI **# of Samples:** 18 (NO 15, 16, 17) SMW **Due Date:** 06-14-02 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-14, 17-18	BTEX	ANAL	CBN 6/7/02 @1323	V-1	ORG-4	SMW	SMW 6-25-02 1100	ARCH 2	SMW	ARCH 2
(1-13 ~~1-14~~ JUR, 17, 18)	9056	Analysis	JUR 06/07/02/1400	Walk In	Wet Lab	SMW	CMC 6/21/02 @1115	Arch.	JKW	Arch.
1-13A, 17, 18	8310	EXT	CEB 6/11/02 @0703	WALKIN	ELAB	[illegible]	06-11-02 DEL	crusher	[illegible]	disposal
1-13A, 17, 18	PRO	EXT	CEB 6/11/02 @0836	WALKIN	ELAB	[illegible]	06-11-02 DEL 2000	crusher	[illegible]	disposal
11B	PRO	REEXT	CEB 6/17/02 @0934	WALKIN	ELAB	SMW	06-17-02 DEL 2100	crusher	~~[illegible]~~ CEB	disposal
11, 12 B	8310	REEXT	CEB 6/18/02 @1320	WALKIN	ELAB	SMW	06-18-02 DEL 2230	crusher	06-7-02 DEL 2100 [illegible]	disposal

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

CLIENT:	DATE:	SHIPPED BY:
CCI BRG Other SMW	6-7-02	(X) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-583	COOLER ID: KL-606	COOLER ID: KL 725
INDEX #: 7920 4771 7080	INDEX #: 7920 4771 6886	INDEX #: 7918 5580 9354
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : 2 °C (D) (E)	TEMP : 2 °C (D) (E)	TEMP : 1 °C (D) (E)
TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
13	12	2-61 VOAS
14D	15	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

14

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

CLIENT:	DATE:	SHIPPED BY:
CC1 BRG Other SMW	6-7-02	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL 282	COOLER ID: ~~KL 282~~ KL670	COOLER ID: KL 1045
INDEX # : 7920 4771 7106	INDEX #: 7918 5580 9300 ~~7920 4771 7106~~	INDEX # : 7920 4771 6934
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (D) (E) 1 °C	TEMP : (D) (E) 1 °C	TEMP : (D) (E) 1 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO
LOG-IN COMMENTS 125 121	LOG-IN COMMENTS 60 51	LOG-IN COMMENTS 41 EQUIP RINSE

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

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

CLIENT:	DATE:	SHIPPED BY:
CCI BRG Other SMW	6-7-02	( ) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL 738	COOLER ID: KL1081	COOLER ID:
INDEX # : 7918 5580 9240	INDEX # : 7927 3019 8195	INDEX # :
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (D) (E) 1 °C	TEMP : (D) (E) 1 °C	TEMP : (D) (E) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS 71 25	LOG-IN COMMENTS Dup 75	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

147

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 8

PROJECT: _____ LIMS# 10206140

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 6/7/02 C-of-C Number: ~~10206140~~ SM06702

by (print) SHAUNA WELCH (sign) Shauna Welch

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO

   If YES, enter carrier name & air bill number here: _____

2. Were custody seals on outside of cooler? ..... YES NO

   How many & where? 1 FRONT, seal date: 6/6/02 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: _____ Temp _____°C ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: _____ (date) _____

B. **LOG-IN PHASE:** Date samples were logged-in: 06/07/02

by (print) SHAUNA WELCH (sign) Shauna Welch

11. Describe type of packing in cooler: bubble wrap
12. Were all bottles sealed in separate plastic bags? ..... VOA only ..... 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: L0206140

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: The average % drifts option was used for CCV WG119487-02 analyzed 6/10/02 on HP-11. 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 07. Fractions 05 and 12 were selected for MS/MSD analyses. Outliers were acceptable in the LCS.

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: CSH REVIEWED: [signature] DATE: 6/13/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0206140

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: C Brian Noll **Date:** 6/12/02

2.1.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 5G13678
Date Analyzed: 06/07/02
Time Analyzed: 09:04
Analyst: CSH

Work Group: WG119381
Blank Sample ID: WG119381-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119381-02	5G13679	06/07/02 09:59	
062-CEF46-IS-Q2-02-17	L0206140-01	5G13685	06/07/02 13:54	
062-CEF46-2S-Q2-02-17	L0206140-02	5G13686	06/07/02 14:28	
062-CEF46-12I-Q2-02-17	L0206140-07	5G13687	06/07/02 15:03	
062-CEF46-12I-Q2-02-17	L0206140-17	5G13688	06/07/02 15:38	
062-CEF46-12I-Q2-02-17	L0206140-18	5G13689	06/07/02 16:12	
062-CEF46-5I-Q2-02-17	L0206140-03	5G13691	06/07/02 17:34	
062-CEF46-6D-Q2-02-17	L0206140-04	5G13692	06/07/02 18:09	
062-CEF46-9I-Q2-02-17	L0206140-06	5G13694	06/07/02 19:18	
062-CEF46-13I-Q2-02-17	L0206140-08	5G13695	06/07/02 19:53	
062-CEF46-14D-Q2-02-17	L0206140-09	5G13696	06/07/02 20:28	
062-CEF46-15I-Q2-02-17	L0206140-10	5G13697	06/07/02 21:02	
062-CEF46-26I-Q2-02-17	L0206140-11	5G13698	06/07/02 21:37	
062-46EQB-Q2-02-17	L0206140-13	5G13699	06/07/02 22:12	
062-46TB1-Q2-02-17	L0206140-14	5G13700	06/07/02 22:46	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140
Run Date: 06/07/2002
Sample ID: WG119381-01
Instrument ID: HP5
Run Time: 09:04
Method: 8021B
File ID: 5G13678
Analyst: CSH
Matrix: Water
Workgroup (AAB#): WG119381
Units: ug/L
Contract #:
Cal ID: HP5-22-APR-2002

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

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

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/13/2002 08:23

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Instrument ID: HP5
File ID: 5G13679
Workgroup (AAB#): WG119381
Contract #:

Run Date: 06/07/2002
Run Time: 09:59
Analyst: CSH

Sample ID: WG119381-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-22-APR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.4	102	41 - 161	
Benzene	20	21.8	109	80 - 122	
Toluene	20	22.0	110	80 - 124	
Ethylbenzene	20	22.0	110	80 - 125	
Total xylenes	60	62.1	104	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	105	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/12/2002
Version 1.3
Report generated 06/13/2002 08:23

157

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0206140
Instrument ID: HP5
Parent ID: L0206140-07
Sample ID: L0206140-17 MS
Sample ID: L0206140-18 MSD

Cal ID: HP5-22-APR-2002
Contract #:
File ID: 5G13687 Dil: 1
File ID: 5G13688 Dil: 1
File ID: 5G13689 Dil: 1

Worknum: WG119381
Method: 8021B
Matrix: Water
Units: ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	ND	20.0	23.2	116	20.0	22.9	115	1.27	80 - 122	24	
Ethylbenzene	ND	20.0	23.4	117	20.0	23.0	115	1.47	80 - 125	25	
Methyl tert-butyl ether	2.81	20.0	23.4	103	20.0	24.0	106	2.51	41 - 161	73	
Toluene	ND	20.0	23.4	117	20.0	23.2	116	0.831	80 - 124	26	
Xylenes, Total	ND	60.0	65.5	109	60.0	64.6	108	1.37	80 - 121	24	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 05/29/2002
Version 1.2
Report generated 06/13/2002 08:23

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method 8021B

AAB#: WG119381

Login Number: L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46EQB-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.40	06/07/02	14	1.40	
062-46TB1-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.95	06/07/02	14	1.95	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.20	06/07/02	14	1.20	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.22	06/07/02	14	1.22	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.25	06/07/02	14	1.25	
062-CEF46-13I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.37	06/07/02	14	1.37	
062-CEF46-14D-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.36	06/07/02	14	1.36	
062-CEF46-15I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.47	06/07/02	14	1.47	
062-CEF46-26I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.21	06/07/02	14	1.21	
062-CEF46-2S-Q2-02-17	06/06/02	06/07/02	06/07/02	14	0.964	06/07/02	14	0.964	
062-CEF46-5I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.17	06/07/02	14	1.17	
062-CEF46-6D-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.19	06/07/02	14	1.19	
062-CEF46-9I-Q2-02-17	06/06/02	06/07/02	06/07/02	14	1.29	06/07/02	14	1.29	
062-CEF46-IS-Q2-02-17	06/06/02	06/07/02	06/07/02	14	0.968	06/07/02	14	0.968	

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

SURROGATE STANDARDS

Login Number: L0206140
Instrument Id: HP5
Workgroup (AAB#): WG119381

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206140-01	100		108
L0206140-02	1.00		120
L0206140-03	1.00		108
L0206140-04	1.00		107
L0206140-06	1.00		105
L0206140-07	1.00		115
L0206140-08	1.00		106
L0206140-09	1.00		106
L0206140-10	1.00		105
L0206140-11	10.0		105
L0206140-13	1.00		103
L0206140-14	1.00		104
L0206140-17	1.00		111
L0206140-18	1.00		113
WG119381-01	1.00		103
WG119381-02	1.00		105

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte		Summary			
		AVG RF	% RSD	R^2	Q
BROMOCHLOROBENZENE		46800	1.26		
1,2-DICHLOROBENZENE		37900	3.64		
1,4-DICHLOROBENZENE		47100	6.41		
1,3-DICHLOROBENZENE		43500	6.36		
P-BROMOFLUOROBENZENE		47800	3.15		
O-XYLENE		51600	5.42		
STYRENE		55500	6.63		
M-,P-XYLENE		52900	3.13		
ETHYLBENZENE		44200	2.65		
CHLOROBENZENE		54100	2.39		
TOLUENE		51100	2.86		
A,A,A-TRIFLUOROTOLUENE		17700	1.89		
BENZENE		56100	2.72		
METHYLTERT-BUTYL ETHER		10500	7.49		

= CC
* = SPCC

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-01	5G12946	1
	Conc	Response	RF
BROMOCHLOROBENZENE	3.0	137779	45930
1,2-DICHLOROBENZENE	1.0	35066	35070
1,4-DICHLOROBENZENE	1.0	40973	40970
1,3-DICHLOROBENZENE	1.0	37248	37250
P-BROMOFLUOROBENZENE	3.0	133330	44440
O-XYLENE	1.0	55799	55800
STYRENE	1.0	47957	47960
M-,P-XYLENE	2.0	108410	54200
ETHYLBENZENE	1.0	42551	42550
CHLOROBENZENE	1.0	51700	51700
TOLUENE	1.0	48925	48930
A,A,A-TRIFLUOROTOLUENE	3.0	51288	17100
BENZENE	1.0	56327	56330
METHYLTERT-BUTYL ETHER	1.0	11757	11760

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

	Sample #	File #	Level
	WG116507-02	5G12947	2
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	15.0	711170	47410
1,2-DICHLOROBENZENE	10.0	386329	38630
1,4-DICHLOROBENZENE	10.0	498740	49870
1,3-DICHLOROBENZENE	10.0	442610	44260
P-BROMOFLUOROBENZENE	15.0	723215	48210
O-XYLENE	10.0	537265	53730
STYRENE	10.0	565358	56540
M-,P-XYLENE	20.0	1088481	54420
ETHYLBENZENE	10.0	453901	45390
CHLOROBENZENE	10.0	551031	55100
TOLUENE	10.0	524199	52420
A,A,A-TRIFLUOROTOLUENE	15.0	272138	18140
BENZENE	10.0	579615	57960
METHYLTERT-BUTYL ETHER	10.0	108182	10820

INITIAL CALIBRATION

Login Number: L0206140
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 22-APR-02
Instrument ID: HP5

		Sample #	File #	Level
		WG116507-03	5G12948	3
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		30.0	1406625	46890
1,2-DICHLOROBENZENE		20.0	779720	38990
1,4-DICHLOROBENZENE		20.0	990896	49540
1,3-DICHLOROBENZENE		20.0	890328	44520
P-BROMOFLUOROBENZENE		30.0	1437037	47900
O-XYLENE		20.0	1057926	52900
STYRENE		20.0	1145612	57280
M-,P-XYLENE		40.0	2170128	54250
ETHYLBENZENE		20.0	906551	45330
CHLOROBENZENE		20.0	1106539	55330
TOLUENE		20.0	1049846	52490
A,A,A-TRIFLUOROTOLUENE		30.0	537047	17900
BENZENE		20.0	1150225	57510
METHYLTERT-BUTYL ETHER		20.0	215108	10760

INITIAL CALIBRATION

Login Number: L0206140
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 22-APR-02
Instrument ID: HP5

		Sample #	File #	Level
		WG116507-04	5G12949	4
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		45.0	2125866	47240
1,2-DICHLOROBENZENE		50.0	1932782	38660
1,4-DICHLOROBENZENE		50.0	2418650	48370
1,3-DICHLOROBENZENE		50.0	2229246	44580
P-BROMOFLUOROBENZENE		45.0	2192778	48730
O-XYLENE		50.0	2583852	51680
STYRENE		50.0	2897265	57950
M-,P-XYLENE		100.0	5356662	53570
ETHYLBENZENE		50.0	2242060	44840
CHLOROBENZENE		50.0	2731610	54630
TOLUENE		50.0	2608433	52170
A,A,A-TRIFLUOROTOLUENE		45.0	807512	17940
BENZENE		50.0	2843877	56880
METHYLTERT-BUTYL ETHER		50.0	523680	10470

INITIAL CALIBRATION

Login Number: L0206140
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 22-APR-02
Instrument ID: HP5

		Sample #	File #	Level
		WG116507-05	5G12950	5
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		60.0	2845744	47430
1,2-DICHLOROBENZENE		100.0	3869496	38690
1,4-DICHLOROBENZENE		100.0	4785322	47850
1,3-DICHLOROBENZENE		100.0	4470416	44700
P-BROMOFLUOROBENZENE		60.0	2925355	48760
O-XYLENE		100.0	5004098	50040
STYRENE		100.0	5341161	53410
M-,P-XYLENE		200.0	10403552	52020
ETHYLBENZENE		100.0	4394325	43940
CHLOROBENZENE		100.0	5426734	54270
TOLUENE		100.0	5051424	50510
A,A,A-TRIFLUOROTOLUENE		60.0	1052975	17550
BENZENE		100.0	5501929	55020
METHYLTERT-BUTYL ETHER		100.0	1036822	10370

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

	Sample #	File #	Level
	WG116507-06	5G12951	6
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	75.0	3466056	46210
1,2-DICHLOROBENZENE	200.0	7443401	37220
1,4-DICHLOROBENZENE	200.0	9220416	46100
1,3-DICHLOROBENZENE	200.0	8798263	43990
P-BROMOFLUOROBENZENE	75.0	3619677	48260
O-XYLENE	200.0	9611978	48060
STYRENE	200.0	11339575	56700
M-,P-XYLENE	400.0	20020076	50050
ETHYLBENZENE	200.0	8552369	42760
CHLOROBENZENE	200.0	10606672	53030
TOLUENE	200.0	9901450	49510
A,A,A-TRIFLUOROTOLUENE	75.0	1333832	17780
BENZENE	200.0	10728979	53640
METHYLTERT-BUTYL ETHER	200.0	1862797	9314

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:25

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

	Sample #	File #	Level
	WG116507-07	5G12952	7
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	90.0	4198503	46650
1,2-DICHLOROBENZENE	300.0	11386255	37950
1,4-DICHLOROBENZENE	300.0	14010936	46700
1,3-DICHLOROBENZENE	300.0	13510483	45030
P-BROMOFLUOROBENZENE	90.0	4333947	48150
O-XYLENE	300.0	14625810	48750
STYRENE	300.0	17507932	58360
M-,P-XYLENE	600.0	31047355	51750
ETHYLBENZENE	300.0	13415617	44720
CHLOROBENZENE	300.0	16406053	54690
TOLUENE	300.0	15528746	51760
A,A,A-TRIFLUOROTOLUENE	90.0	1590258	17670
BENZENE	300.0	16585339	55280
METHYLTERT-BUTYL ETHER	300.0	2935664	9786

Login Number: L0206140
File ID: 5G12955
ALT ID: WG116507-08
Units: ug/L

Instrument ID: HP5
Run Date: 04/22/2002
Run Time: 18:42
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.6	40900	8.0	
1,4-Dichlorobenzene		20	21.6	50800	8.0	
1,3-Dichlorobenzene		20	21.3	46300	6.5	
o-Xylene		20	20.8	53600	4.0	
Styrene		20	21.0	58100	5.0	
m-,p-Xylene		40	42.1	55600	5.3	
Ethylbenzene		20	21.5	47600	7.5	
Chlorobenzene		20	20.9	56500	4.5	
Toluene		20	21.3	54400	6.5	
Benzene		20	21.2	59600	6.0	
MTBE		20	21.1	11100	5.5	

KEMRON FORMS - Modified 06/10/2002
Version 1.2
Report generated 06/13/2002 08:35

Login Number: L0206140
File ID: 5G13677
CCV ID: WG119380-01
Units: ug/L

Instrument ID: HP5
Run Date: 06/07/2002
Run Time: 08:30
Analyst: CSH
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.8	41300	9.0	
1,4-Dichlorobenzene		20	21.8	51400	9.0	
1,3-Dichlorobenzene		20	21.4	46600	7.0	
o-Xylene		20	18.9	48600	5.5	
Styrene		20	17.5	48600	12.5	
m-,p-Xylene		40	43.4	57400	8.5	
Ethylbenzene		20	22.1	48800	10.5	
Chlorobenzene		20	21.3	57600	6.5	
Toluene		20	21.9	55900	9.5	
Benzene		20	21.5	60300	7.5	
MTBE		20	20.9	10900	4.5	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/13/2002 08:37

Login Number: L0206140
File ID: 5G13690
CCV ID: WG119380-02
Units: ug/L

Instrument ID: HP5
Run Date: 06/07/2002
Run Time: 16:47
Analyst: CSH
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	23.0	43500	15.0	
1,4-Dichlorobenzene		20	21.9	51400	9.5	
1,3-Dichlorobenzene		20	23.7	51400	18.5	*
o-Xylene		20	19.5	50200	2.5	
Styrene		20	18.1	50200	9.5	
m-,p-Xylene		40	44.4	58700	11.0	
Ethylbenzene		20	22.6	50100	13.0	
Chlorobenzene		20	22.1	59700	10.5	
Toluene		20	22.7	58100	13.5	
Benzene		20	22.8	64000	14.0	
MTBE		20	20.8	10900	4.0	

* Exceeds %D Limit

Login Number: L0206140
File ID: 5G13701
CCV ID: WG119380-03
Units: ug/L

Instrument ID: HP5
Run Date: 06/07/2002
Run Time: 23:21
Analyst: CSH
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.2	40200	6.0	
1,4-Dichlorobenzene		20	21.0	49500	5.0	
1,3-Dichlorobenzene		20	20.8	45200	4.0	
o-Xylene		20	18.4	47500	8.0	
Styrene		20	17.1	47500	14.5	
m-,p-Xylene		40	42.0	55600	5.0	
Ethylbenzene		20	21.5	47600	7.5	
Chlorobenzene		20	21.0	56700	5.0	
Toluene		20	21.6	55200	8.0	
Benzene		20	21.7	60800	8.5	
MTBE		20	21.3	11100	6.5	

* Exceeds %D Limit

Injection Log

Directory: c:\hpchem\2\data\042202

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

Directory: c:\hpchem\2\data\060702

Injection Log

WG119381

Analyst: CSH

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g13677.d	1.	WG119380-01 8021 STD 20PPB 5ML ✓	1,1 S-94-04,93-47	7 Jun 102 12::3
2	2	5g13678.d	1.	WG119381-01 WATER BLANK 5ML ✓	1,1 S-93-47	7 Jun 102 12::0
3	3	5g13679.d	1.	WG119381-02 WATER LCS 20PPB 5ML ✓	1,1 S-94-04,93-47	7 Jun 102 12::5
4	1	5g13680.d	1.	L0206036-01 A 5ML ✓	1,1 S-93-47 pH<2	7 Jun 102 13::4
5	2	5g13681.d	1.	RINSE 5ML cont.	1,1 S-93-47	7 Jun 102 13::1
6	3	5g13682.d	1.	RINSE 5ML ✓	1,1 S-93-47	7 Jun 102 13::0
7	4	5g13683.d	10.	L0206106-03 B 5ML 10X ✓	1,10 S-93-47 pH<2	7 Jun 102 13::4
8	5	5g13684.d	100.	L0206106-04 A 5ML 100X ✓	1,100 S-93-47	7 Jun 102 12::1
9	6	5g13685.d	100.	L0206140-01 A 5ML 100X ✓	1,100 S-93-47	7 Jun 102 12::5
10	7	5g13686.d	1.	L0206140-02 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::2
11	8	5g13687.d	1.	WG119381-03 L0206140-07 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::0
12	9	5g13688.d	1.	WG119381-04 L0206140-17 MS A 5ML ✓	1,1 S-94-04,93-47	7 Jun 102 12::3
13	10	5g13689.d	1.	WG119381-05 L0206140-18 MSD A 5ML ✓	1,1 S-94-04,93-47	7 Jun 102 12::1
14	11	5g13690.d	1.	WG119380-02 8021 STD 20PPB 5ML ✓	1,1 S-94-04,93-47	7 Jun 102 12::4
15	12	5g13691.d	1.	L0206140-03 A 5ML ✓	1,1 S-93-47 pH<2	7 Jun 102 12::3
16	13	5g13692.d	1.	L0206140-04 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::0
17	14	5g13693.d	50.	L0206140-05 A 5ML 50X RR STR	1,50 S-93-47	7 Jun 102 12::4
18	15	5g13694.d	1.	L0206140-06 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::1
19	16	5g13695.d	1.	L0206140-08 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::5
20	17	5g13696.d	1.	L0206140-09 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::2
21	18	5g13697.d	1.	L0206140-10 A 5ML ✓	1,1 S-93-47	7 Jun 102 12::0
22	19	5g13698.d	10.	L0206140-11 A 5ML 10X ✓	1,10 S-93-47	7 Jun 102 12::3
23	20	5g13699.d	1.	L0206140-13 A 5ML ✓	1,1 S-93-47	7 Jun 102 13::1
24	21	5g13700.d	1.	L0206140-14 A 5ML ✓ RR (T.B.)	1,1 S-93-47	7 Jun 102 13::4
25	22	5g13701.d	1.	WG119380-03 8021 STD 20PPB 5ML ✓	1,1 S-94-04,93-47	7 Jun 102 13::2
26	23	5g13702.d	1.	~~L0206140-12 A 5ML~~ RR @ SOX DWR	1,1 S-93-47 pH<2	7 Jun 102 13::5
27	24	5g13703.d	1.	WG119380-04 8021 STD 20PPB 5ML cb	1,1 S-94-04,93-47	8 Jun 102 13::3

Reanalyses — File number

L0206140-05 STR
-12 SOX
-14 STRT

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 11G13738
Date Analyzed: 06/10/02
Time Analyzed: 10:09
Analyst: CSH

Work Group: WG119488
Blank Sample ID: WG119488-01
Instrument ID: HP11
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119488-02	11G13739	06/10/02 10:43	
062-46DUP-Q2-02-17	L0206140-12	11G13741	06/10/02 12:04	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/10/2002 Sample ID: WG119488-01
Instrument ID: HP11 Run Time: 10:09 Method: 8021B
File ID: 11G13738 Analyst: CSH Matrix: Water
Workgroup (AAB#): WG119488 Units: ug/L
Contract #: Cal ID: HP11-13-MAY-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	87.2	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/13/2002 08:23

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Instrument ID: HP11
File ID: 11G13739
Workgroup (AAB#): WG119488
Contract #:

Run Date: 06/10/2002
Run Time: 10:43
Analyst: CSH

Sample ID: WG119488-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP11-13-MAY-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	16.7	83.5	41 - 161	
Benzene	20	17.2	85.9	80 - 122	
Toluene	20	17.0	84.9	80 - 124	
Ethylbenzene	20	17.2	85.8	80 - 125	
Total xylenes	60	50.9	84.9	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	81.5	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/12/2002
Version 1.3
Report generated 06/13/2002 08:23

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method8021B

AAB#:WG119488

Login Number:L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46DUP-Q2-02-17	06/06/02	06/07/02	06/10/02	14	4.50	06/10/02	14	4.50	

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

KEMRON FORMS - Modified 05/28/2002
Version 1.2
Report generated 06/13/2002 08:25

178

SURROGATE STANDARDS

Login Number: L0206140
Instrument Id: HP11
Workgroup (AAB#): WG119488

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206140-12	50.0		101
WG119488-01	1.00		87.2
WG119488-02	1.00		81.5

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 06/13/2002 08:25

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

Analyte		Summary			
		AVG RF	% RSD	R^2	Q
BROMOCHLOROBENZENE		309000	7.51		
1,2-DICHLOROBENZENE		274000	4.77		
1,4-DICHLOROBENZENE		318000	3.41		
1,3-DICHLOROBENZENE		301000	4.87		
P-BROMOFLUOROBENZENE		313000	6.66		
O-XYLENE		304000	3.35		
M-,P-XYLENE		351000	4.38		
ETHYLBENZENE		283000	3.09		
CHLOROBENZENE		329000	4.70		
TOLUENE		322000	3.32		
A,A,A-TRIFLUOROTOLUENE		109000	5.10		
BENZENE		324000	3.66		
METHYLTERT-BUTYL ETHER		142000	4.33		

= CC
* = SPCC

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:25

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

	Sample #	File #	Level
	WG117338-01	11G13543	1
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	3.0	814157	271400
1,2-DICHLOROBENZENE	1.0	253900	253900
1,4-DICHLOROBENZENE	1.0	310897	310900
1,3-DICHLOROBENZENE	1.0	300155	300200
P-BROMOFLUOROBENZENE	3.0	819273	273100
O-XYLENE	1.0	301874	301900
M-,P-XYLENE	2.0	740850	370400
ETHYLBENZENE	1.0	286492	286500
CHLOROBENZENE	1.0	311354	311400
TOLUENE	1.0	317869	317900
A,A,A-TRIFLUOROTOLUENE	3.0	290715	96910
BENZENE	1.0	308432	308400
METHYLTERT-BUTYL ETHER	1.0	151555	151600

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

Analyte		Sample #	File #	Level
		WG117338-02	11G13535	2
		Conc	Response	RF
BROMOCHLOROBENZENE		15.0	4263676	284200
1,2-DICHLOROBENZENE		10.0	2854135	285400
1,4-DICHLOROBENZENE		10.0	3093648	309400
1,3-DICHLOROBENZENE		10.0	2833267	283300
P-BROMOFLUOROBENZENE		15.0	4509200	300600
O-XYLENE		10.0	3144748	314500
M-,P-XYLENE		20.0	7277709	363900
ETHYLBENZENE		10.0	2835474	283500
CHLOROBENZENE		10.0	3208368	320800
TOLUENE		10.0	3272433	327200
A,A,A-TRIFLUOROTOLUENE		15.0	1627317	108500
BENZENE		10.0	3275430	327500
METHYLTERT-BUTYL ETHER		10.0	1402067	140200

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

	Sample #	File #	Level
	WG117338-03	11G13536	3
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	30.0	9208420	306900
1,2-DICHLOROBENZENE	20.0	5787652	289400
1,4-DICHLOROBENZENE	20.0	6489562	324500
1,3-DICHLOROBENZENE	20.0	5896208	294800
P-BROMOFLUOROBENZENE	30.0	9344446	311500
O-XYLENE	20.0	6240785	312000
M-,P-XYLENE	40.0	14366047	359200
ETHYLBENZENE	20.0	5730160	286500
CHLOROBENZENE	20.0	6600647	330000
TOLUENE	20.0	6556825	327800
A,A,A-TRIFLUOROTOLUENE	30.0	3257171	108600
BENZENE	20.0	6761172	338100
METHYLTERT-BUTYL ETHER	20.0	2846083	142300

INITIAL CALIBRATION

Login Number: L0206140
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 13-MAY-02
Instrument ID: HP11

		Sample #	File #	Level
		WG117338-04	11G13537	4
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		45.0	14930551	331800
1,2-DICHLOROBENZENE		50.0	13166373	263300
1,4-DICHLOROBENZENE		50.0	15092969	301900
1,3-DICHLOROBENZENE		50.0	14117714	282400
P-BROMOFLUOROBENZENE		45.0	15059484	334700
O-XYLENE		50.0	14228168	284600
M-,P-XYLENE		100.0	32523856	325200
ETHYLBENZENE		50.0	13200860	264000
CHLOROBENZENE		50.0	15516675	310300
TOLUENE		50.0	14990780	299800
A,A,A-TRIFLUOROTOLUENE		45.0	5138497	114200
BENZENE		50.0	15453398	309100
METHYLTERT-BUTYL ETHER		50.0	6585968	131700

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:25

INITIAL CALIBRATION

Login Number: L0206140
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 13-MAY-02
Instrument ID: HP11

		Sample #	File #	Level
		WG117338-05	11G13538	5
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		60.0	19197037	320000
1,2-DICHLOROBENZENE		100.0	28377708	283800
1,4-DICHLOROBENZENE		100.0	33110643	331100
1,3-DICHLOROBENZENE		100.0	31674928	316700
P-BROMOFLUOROBENZENE		60.0	19207480	320100
O-XYLENE		100.0	31127004	311300
M-,P-XYLENE		200.0	70676483	353400
ETHYLBENZENE		100.0	29006956	290100
CHLOROBENZENE		100.0	34450221	344500
TOLUENE		100.0	33011484	330100
A,A,A-TRIFLUOROTOLUENE		60.0	6602653	110000
BENZENE		100.0	33418790	334200
METHYLTERT-BUTYL ETHER		100.0	13930766	139300

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:25

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

		Sample #	File #	Level
		WG117338-06	11G13539	6
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		75.0	24041990	320600
1,2-DICHLOROBENZENE		200.0	55461402	277300
1,4-DICHLOROBENZENE		200.0	65456433	327300
1,3-DICHLOROBENZENE		200.0	63586793	317900
P-BROMOFLUOROBENZENE		75.0	23977388	319700
O-XYLENE		200.0	61222910	306100
M-,P-XYLENE		400.0	138936411	347300
ETHYLBENZENE		200.0	57583861	287900
CHLOROBENZENE		200.0	69152463	345800
TOLUENE		200.0	65804025	329000
A,A,A-TRIFLUOROTOLUENE		75.0	8253341	110000
BENZENE		200.0	66144142	330700
METHYLTERT-BUTYL ETHER		200.0	27978725	139900

INITIAL CALIBRATION

Login Number: L0206140
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 13-MAY-02
Instrument ID: HP11

		Sample #	File #	Level
		WG117338-07	11G13540	7
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		90.0	29665891	329600
1,2-DICHLOROBENZENE		300.0	80369936	267900
1,4-DICHLOROBENZENE		300.0	96774635	322600
1,3-DICHLOROBENZENE		300.0	92528991	308400
P-BROMOFLUOROBENZENE		90.0	29708663	330100
O-XYLENE		300.0	90189977	300600
M-,P-XYLENE		600.0	203840990	339700
ETHYLBENZENE		300.0	85208496	284000
CHLOROBENZENE		300.0	102811588	342700
TOLUENE		300.0	96849261	322800
A,A,A-TRIFLUOROTOLUENE		90.0	10089835	112100
BENZENE		300.0	95965113	319900
METHYLTERT-BUTYL ETHER		300.0	43697556	145700

Login Number: L0206140
File ID: 11G13544
ALT ID: WG117338-08
Units: ug/L

Instrument ID: HP11
Run Date: 05/13/2002
Run Time: 17:59
Analyst: CBN
Cal ID: HP11 - 13-MAY-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.0	288000	5.0	
1,4-Dichlorobenzene		20	19.8	316000	1.0	
1,3-Dichlorobenzene		20	19.3	290000	3.5	
o-Xylene		20	20.4	310000	2.0	
m-,p-Xylene		40	40.8	358000	2.0	
Ethylbenzene		20	20.9	296000	4.5	
Chlorobenzene		20	19.8	327000	1.0	
Toluene		20	20.6	332000	3.0	
Benzene		20	19.1	309000	4.5	
MTBE		20	20.8	147000	4.0	

KEMRON FORMS - Modified 06/10/2002
Version 1.2
Report generated 06/13/2002 08:35

188

Login Number: L0206140
File ID: 11G13737
CCV ID: WG119487-01
Units: ug/L

Instrument ID: HP11
Run Date: 06/10/2002
Run Time: 09:19
Analyst: CSH
Cal ID: HP11 - 13-MAY-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.2	263000	4.0	
1,4-Dichlorobenzene		20	18.8	299000	6.0	
1,3-Dichlorobenzene		20	18.6	280000	7.0	
o-Xylene		20	19.7	300000	1.5	
m-,p-Xylene		40	39.0	343000	2.5	
Ethylbenzene		20	19.9	282000	0.5	
Chlorobenzene		20	18.8	310000	6.0	
Toluene		20	22.5	362000	12.5	
Benzene		20	17.7	287000	11.5	
MTBE		20	18.1	128000	9.5	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/13/2002 08:37

Login Number: L0206140
File ID: 11G13748
CCV ID: WG119487-02
Units: ug/L

Instrument ID: HP11
Run Date: 06/10/2002
Run Time: 16:05
Analyst: CSH
Cal ID: HP11 - 13-MAY-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.7	270000	1.5	
1,4-Dichlorobenzene		20	18.7	298000	6.5	
1,3-Dichlorobenzene		20	17.9	270000	10.5	
o-Xylene		20	18.8	287000	6.0	
m-,p-Xylene		40	37.7	331000	5.8	
Ethylbenzene		20	19.2	272000	4.0	
Chlorobenzene		20	18.4	303000	8.0	
Toluene		20	18.8	302000	6.0	
Benzene		20	17.8	288000	11.0	
MTBE		20	14.3	101000	28.5	*

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/13/2002 08:37

Directory: C:\HPCHEM\1\DATA\051302

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13534.d	1.	WG117338-01 8021 STD 1 1PPB..RR	1,1 S-(94-01,93-49)	13 May 2002 11:
2	2	11g13535.d	1.	WG117338-02 8021 STD 2 10PP.✓	1,1 S-(94-01,93-49)	13 May 2002 12:
3	3	11g13536.d	1.	WG117338-03 8021 STD 3 20PP..✓	1,1 S-(94-01,93-49)	13 May 2002 12:
4	4	11g13537.d	1.	WG117338-04 8021 STD 4 50PP..✓	1,1 S-(94-01,93-49)	13 May 2002 13:
5	5	11g13538.d	1.	WG117338-05 8021 STD 5 100P...✓	1,1 S-(94-01,93-49)	13 May 2002 14:
6	6	11g13539.d	1.	WG117338-06 8021 STD 6 200P...✓	1,1 S-(94-01,93-49)	13 May 2002 14:
7	7	11g13540.d	1.	WG117338-07 8021 STD 7 300P..✓	1,1 S-(94-01,92-44)	13 May 2002 15:
8	8	11g13541.d	1.	RINSE 5ML RR	1,1 S-93-50	13 May 2002 15:
9	9	11g13542.d	1.	RINSE 5ML✓	1,1 S-93-50	13 May 2002 16:
10	10	11g13543.d	1.	WG117338-01 8021 STD 1 1PPB..✓	1,1 S-(94-01,92-44)	13 May 2002 17:
11	11	11g13544.d	1.	WG117338-08 ALT SOURCE 20PP..✓	1,1 S-(92-47,93-50)	13 May 2002 17:

WG 119488

ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	11g13737.d	1.	WG119487-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)	10 Jun 2002 09:19
	2	11g13738.d	1.	WG119488-01 WATER BLANK 5ML ✓	1,1 S-93-50	10 Jun 2002 10:09
	3	11g13739.d	1.	WG119488-02 WATER LCS 20PPB... ✓	1,1 S-(94-04,93-50)	10 Jun 2002 10:43
	1	11g13740.d	1. DUR	L0206140-05 B 5ML ✓ RR @ 5x (MTBE)	1,1 S-93-50 pH<2	10 Jun 2002 11:29
	2	11g13741.d	50.	WG119488-03 L0206140-12 B 5... ✓	1,50 S-93-50	10 Jun 2002 12:04
	3	11g13742.d	50.	WG119488-04 L0206140-12 MS ... ✓	1,50 S-(94-04,93-50)	10 Jun 2002 12:38
	4	11g13743.d	50.	WG119488-05 L0206140-12 MSD... ✓	1,50 S-(94-04,93-50)	10 Jun 2002 13:13
	5	11g13744.d	1.	L0206140-14 B 5ML ✓	1,1 S-93-50	10 Jun 2002 13:47
	6	11g13745.d	1.	L0206164-01 A 5ML ✓	1,1 S-93-50	10 Jun 2002 14:22
	7	11g13746.d	1.	L0206164-02 A 5ML ✓	1,1 S-93-50	10 Jun 2002 14:56
	8	11g13747.d	1.	L0206164-03 A 5ML ✓	1,1 S-93-50	10 Jun 2002 15:30
	9	11g13748.d	1.	WG119487-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)	10 Jun 2002 16:05
	10	11g13749.d	1.	L0206164-04 A 5ML RR CCV	1,1 S-93-50 pH<2	10 Jun 2002 16:39
	11	11g13750.d	5.	L0206140-05 A 5ML 5X	1,5 S-93-50	10 Jun 2002 17:14

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 5G13708
Date Analyzed: 06/11/02
Time Analyzed: 07:32
Analyst: CBN

Work Group: WG119546
Blank Sample ID: WG119546-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119546-02	5G13709	06/11/02 08:07	
062-CEF46-7I-Q2-02-17	L0206140-05	5G13712	06/11/02 10:12	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/11/2002 Sample ID: WG119546-01
Instrument ID: HP5 Run Time: 07:32 Method: 8021B
File ID: 5G13708 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG119546 Units: ug/L
Contract #: Cal ID: HP5-22-APR-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	99.1	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/13/2002 08:23

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Run Date: 06/11/2002
Sample ID: WG119546-02
Instrument ID: HP5
Run Time: 08:07
Method: 8021B
File ID: 5G13709
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG119546
Units: ug/L
Contract #:
Cal ID: HP5-22-APR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.9	105	41 - 161	
Benzene	20	21.6	108	80 - 122	
Toluene	20	21.8	109	80 - 124	
Ethylbenzene	20	21.8	109	80 - 125	
Total xylenes	60	61.9	103	80 - 121	

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

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/12/2002
Version 1.3
Report generated 06/13/2002 08:23

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method8021B

Login Number:L0206140

AAB#:WG119546

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-7I-Q2-02-17	06/06/02	06/07/02	06/11/02	14	4.76	06/11/02	14	4.76	

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

KEMRON FORMS - Modified 05/28/2002
Version 1.2
Report generated 06/13/2002 08:25

SURROGATE STANDARDS

Login Number: L0206140
Instrument Id: HP5
Workgroup (AAB#): WG119546

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206140-05	50.0		103
WG119546-01	1.00		99.1
WG119546-02	1.00		102

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte		Summary			
		AVG RF	% RSD	R^2	Q
BROMOCHLOROBENZENE		46800	1.26		
1,2-DICHLOROBENZENE		37900	3.64		
1,4-DICHLOROBENZENE		47100	6.41		
1,3-DICHLOROBENZENE		43500	6.36		
P-BROMOFLUOROBENZENE		47800	3.15		
O-XYLENE		51600	5.42		
STYRENE		55500	6.63		
M-,P-XYLENE		52900	3.13		
ETHYLBENZENE		44200	2.65		
CHLOROBENZENE		54100	2.39		
TOLUENE		51100	2.86		
A,A,A-TRIFLUOROTOLUENE		17700	1.89		
BENZENE		56100	2.72		
METHYLTERT-BUTYL ETHER		10500	7.49		

= CC
* = SPCC

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:42

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte		Sample #	File #	Level
		WG116507-01	5G12946	1
		Conc	Response	RF
BROMOCHLOROBENZENE		3.0	137779	45930
1,2-DICHLOROBENZENE		1.0	35066	35070
1,4-DICHLOROBENZENE		1.0	40973	40970
1,3-DICHLOROBENZENE		1.0	37248	37250
P-BROMOFLUOROBENZENE		3.0	133330	44440
O-XYLENE		1.0	55799	55800
STYRENE		1.0	47957	47960
M-,P-XYLENE		2.0	108410	54200
ETHYLBENZENE		1.0	42551	42550
CHLOROBENZENE		1.0	51700	51700
TOLUENE		1.0	48925	48930
A,A,A-TRIFLUOROTOLUENE		3.0	51288	17100
BENZENE		1.0	56327	56330
METHYLTERT-BUTYL ETHER		1.0	11757	11760

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-02	5G12947	2
	Conc	Response	RF
BROMOCHLOROBENZENE	15.0	711170	47410
1,2-DICHLOROBENZENE	10.0	386329	38630
1,4-DICHLOROBENZENE	10.0	498740	49870
1,3-DICHLOROBENZENE	10.0	442610	44260
P-BROMOFLUOROBENZENE	15.0	723215	48210
O-XYLENE	10.0	537265	53730
STYRENE	10.0	565358	56540
M-,P-XYLENE	20.0	1088481	54420
ETHYLBENZENE	10.0	453901	45390
CHLOROBENZENE	10.0	551031	55100
TOLUENE	10.0	524199	52420
A,A,A-TRIFLUOROTOLUENE	15.0	272138	18140
BENZENE	10.0	579615	57960
METHYLTERT-BUTYL ETHER	10.0	108182	10820

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:42

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte		Sample #	File #	Level
		WG116507-03	5G12948	3
		Conc	Response	RF
BROMOCHLOROBENZENE		30.0	1406625	46890
1,2-DICHLOROBENZENE		20.0	779720	38990
1,4-DICHLOROBENZENE		20.0	990896	49540
1,3-DICHLOROBENZENE		20.0	890328	44520
P-BROMOFLUOROBENZENE		30.0	1437037	47900
O-XYLENE		20.0	1057926	52900
STYRENE		20.0	1145612	57280
M-,P-XYLENE		40.0	2170128	54250
ETHYLBENZENE		20.0	906551	45330
CHLOROBENZENE		20.0	1106539	55330
TOLUENE		20.0	1049846	52490
A,A,A-TRIFLUOROTOLUENE		30.0	537047	17900
BENZENE		20.0	1150225	57510
METHYLTERT-BUTYL ETHER		20.0	215108	10760

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:42

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte		Sample #	File #	Level
		WG116507-04	5G12949	4
		Conc	Response	RF
BROMOCHLOROBENZENE		45.0	2125866	47240
1,2-DICHLOROBENZENE		50.0	1932782	38660
1,4-DICHLOROBENZENE		50.0	2418650	48370
1,3-DICHLOROBENZENE		50.0	2229246	44580
P-BROMOFLUOROBENZENE		45.0	2192778	48730
O-XYLENE		50.0	2583852	51680
STYRENE		50.0	2897265	57950
M-,P-XYLENE		100.0	5356662	53570
ETHYLBENZENE		50.0	2242060	44840
CHLOROBENZENE		50.0	2731610	54630
TOLUENE		50.0	2608433	52170
A,A,A-TRIFLUOROTOLUENE		45.0	807512	17940
BENZENE		50.0	2843877	56880
METHYLTERT-BUTYL ETHER		50.0	523680	10470

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:42

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

	Sample #	File #	Level
	WG116507-05	5G12950	5
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	60.0	2845744	47430
1,2-DICHLOROBENZENE	100.0	3869496	38690
1,4-DICHLOROBENZENE	100.0	4785322	47850
1,3-DICHLOROBENZENE	100.0	4470416	44700
P-BROMOFLUOROBENZENE	60.0	2925355	48760
O-XYLENE	100.0	5004098	50040
STYRENE	100.0	5341161	53410
M-,P-XYLENE	200.0	10403552	52020
ETHYLBENZENE	100.0	4394325	43940
CHLOROBENZENE	100.0	5426734	54270
TOLUENE	100.0	5051424	50510
A,A,A-TRIFLUOROTOLUENE	60.0	1052975	17550
BENZENE	100.0	5501929	55020
METHYLTERT-BUTYL ETHER	100.0	1036822	10370

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:42

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-06	5G12951	6
	Conc	Response	RF
BROMOCHLOROBENZENE	75.0	3466056	46210
1,2-DICHLOROBENZENE	200.0	7443401	37220
1,4-DICHLOROBENZENE	200.0	9220416	46100
1,3-DICHLOROBENZENE	200.0	8798263	43990
P-BROMOFLUOROBENZENE	75.0	3619677	48260
O-XYLENE	200.0	9611978	48060
STYRENE	200.0	11339575	56700
M-,P-XYLENE	400.0	20020076	50050
ETHYLBENZENE	200.0	8552369	42760
CHLOROBENZENE	200.0	10606672	53030
TOLUENE	200.0	9901450	49510
A,A,A-TRIFLUOROTOLUENE	75.0	1333832	17780
BENZENE	200.0	10728979	53640
METHYLTERT-BUTYL ETHER	200.0	1862797	9314

INITIAL CALIBRATION

Login Number: L0206140
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte		Sample #	File #	Level
		WG116507-07	5G12952	7
		Conc	Response	RF
BROMOCHLOROBENZENE		90.0	4198503	46650
1,2-DICHLOROBENZENE		300.0	11386255	37950
1,4-DICHLOROBENZENE		300.0	14010936	46700
1,3-DICHLOROBENZENE		300.0	13510483	45030
P-BROMOFLUOROBENZENE		90.0	4333947	48150
O-XYLENE		300.0	14625810	48750
STYRENE		300.0	17507932	58360
M-,P-XYLENE		600.0	31047355	51750
ETHYLBENZENE		300.0	13415617	44720
CHLOROBENZENE		300.0	16406053	54690
TOLUENE		300.0	15528746	51760
A,A,A-TRIFLUOROTOLUENE		90.0	1590258	17670
BENZENE		300.0	16585339	55280
METHYLTERT-BUTYL ETHER		300.0	2935664	9786

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 08:42

Login Number: L0206140
File ID: 5G12955
ALT ID: WG116507-08
Units: ug/L

Instrument ID: HP5
Run Date: 04/22/2002
Run Time: 18:42
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.6	40900	8.0	
1,4-Dichlorobenzene		20	21.6	50800	8.0	
1,3-Dichlorobenzene		20	21.3	46300	6.5	
o-Xylene		20	20.8	53600	4.0	
Styrene		20	21.0	58100	5.0	
m-,p-Xylene		40	42.1	55600	5.3	
Ethylbenzene		20	21.5	47600	7.5	
Chlorobenzene		20	20.9	56500	4.5	
Toluene		20	21.3	54400	6.5	
Benzene		20	21.2	59600	6.0	
MTBE		20	21.1	11100	5.5	

KEMRON FORMS - Modified 06/10/2002
Version 1.2
Report generated 06/13/2002 08:35

Login Number: L0206140
File ID: 5G13707
CCV ID: WG119545-01
Units: ug/L

Instrument ID: HP5
Run Date: 06/11/2002
Run Time: 06:48
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.5	40700	7.5	
1,4-Dichlorobenzene		20	21.5	50500	7.5	
1,3-Dichlorobenzene		20	21.6	47000	8.0	
o-Xylene		20	19.0	48900	5.0	
Styrene		20	17.6	48900	12.0	
m-,p-Xylene		40	43.3	57200	8.3	
Ethylbenzene		20	21.7	47900	8.5	
Chlorobenzene		20	20.9	56500	4.5	
Toluene		20	21.9	56100	9.5	
Benzene		20	20.9	58500	4.5	
MTBE		20	20.2	10600	1.0	

* Exceeds %D Limit

Login Number: L0206140
File ID: 5G13715
CCV ID: WG119545-02
Units: ug/L

Instrument ID: HP5
Run Date: 06/11/2002
Run Time: 11:56
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte	Expected	Found	RF	%D	Q
1,2-Dichlorobenzene	20	20.7	39300	3.5	
1,4-Dichlorobenzene	20	20.5	48300	2.5	
1,3-Dichlorobenzene	20	20.1	43700	0.5	
o-Xylene	20	17.2	44400	14.0	
Styrene	20	16.0	44400	20.0	*
m-,p-Xylene	40	38.6	51000	3.5	
Ethylbenzene	20	19.6	43400	2.0	
Chlorobenzene	20	19.9	53800	0.5	
Toluene	20	19.7	50400	1.5	
Benzene	20	19.6	55000	2.0	
MTBE	20	21.3	11100	6.5	

* Exceeds %D Limit

Injection Log

Directory: c:\hpchem\2\data\042202

Analyst: CEN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

209

Line	Vial	FileName	Multiplier	SampleName	Misc Info		Injected
1	1	5g13707.d	1.	WG119545-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::4
2	2	5g13708.d	1.	WG119546-01 WATER BLANK 5ML ✓	1,1 S-93-47		11 Jun 102 12::3
3	3	5g13709.d	1.	WG119546-02 WATER LCS 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::0
4	1	5g13710.d	1.	L0206164-04 B 5ML ✓	1,1 S-93-47		11 Jun 102 12::5
5	2	5g13711.d	10.	WG119546-03 L0206140-05 A 5ML 10X	1,10 S-93-47 RR @ 50X	PH<2	11 Jun 102 12::2
6	3	5g13712.d	50.	WG119546-03 L0206140-05 A 5ML 50X	1,50 S-93-47 ✓		11 Jun 102 13::1
7	4	5g13713.d	50.	WG119546-05 L0206140-04 MS A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::4
8	5	5g13714.d	50.	WG119546-05 L0206140-05 MSD A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::2
9	6	5g13715.d	1.	WG119545-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 13::5
10	1	5g13716.d	1.	L0206190-01 A 5ML HIGH 305	1,1 S-93-47		11 Jun 102 12::4
11	2	5g13717.d	1.	L0206190-02 A 5ML ✓ RR @ 5X HIGH 335	1,1 S-93-47	PH<2	11 Jun 102 12::2
12	3	5g13718.d	1.	L0206190-03 A 5ML RR @ 100X	1,1 S-93-47		11 Jun 102 12::5
13	4	5g13719.d	1.	L0206190-04 A 5ML RR @ 10	1,1 S-93-47		11 Jun 102 12::3
14	5	5g13720.d	1.	L0206191-01 A 5ML	1,1 S-93-47		11 Jun 102 12::0
15	6	5g13721.d	1.	L0206191-02 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::4
16	7	5g13722.d	1.	L0206191-03 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::1
17	8	5g13723.d	1.	L0206191-04 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::5
18	9	5g13724.d	1.	L0206191-05 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::2
19	10	5g13725.d	50.	L0206191-06 A 5ML 50X RR @ 10X	1,50 S-93-47		11 Jun 102 12::0
20	11	5g13726.d	1.	WG119545-03 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::3

REANALYSIS FILE #

L0206190-01
-02
-03
-04

L0206191-0~~4~~1
CBN
6/12/02
-06

VOA - GC

Date: 6/7/02 Analyst: CSH Method: (8021) 8015 602

Instrument: HP5 Work Group: WG 119381

	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 / FORMS	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 6/10/02

Secondary Reviewers Initials & Date Checked: CBN 6/11/02

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

Supervisory Review Initials & Date Checked: _____

Comments _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 6/10/02 **Analyst:** CSH **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 119488

	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 / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 6/12/02

Secondary Reviewers Initials & Date Checked: CBN 6/12/02

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 6/11/02 Analyst: CBN Method: (8021) 8015 602

Instrument: HP5 Work Group: WG119546

	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 / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 6/12/02

Secondary Reviewers Initials & Date Checked: CBN 6/12/02

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

Supervisory Review Initials & Date Checked: _____

Comments _____

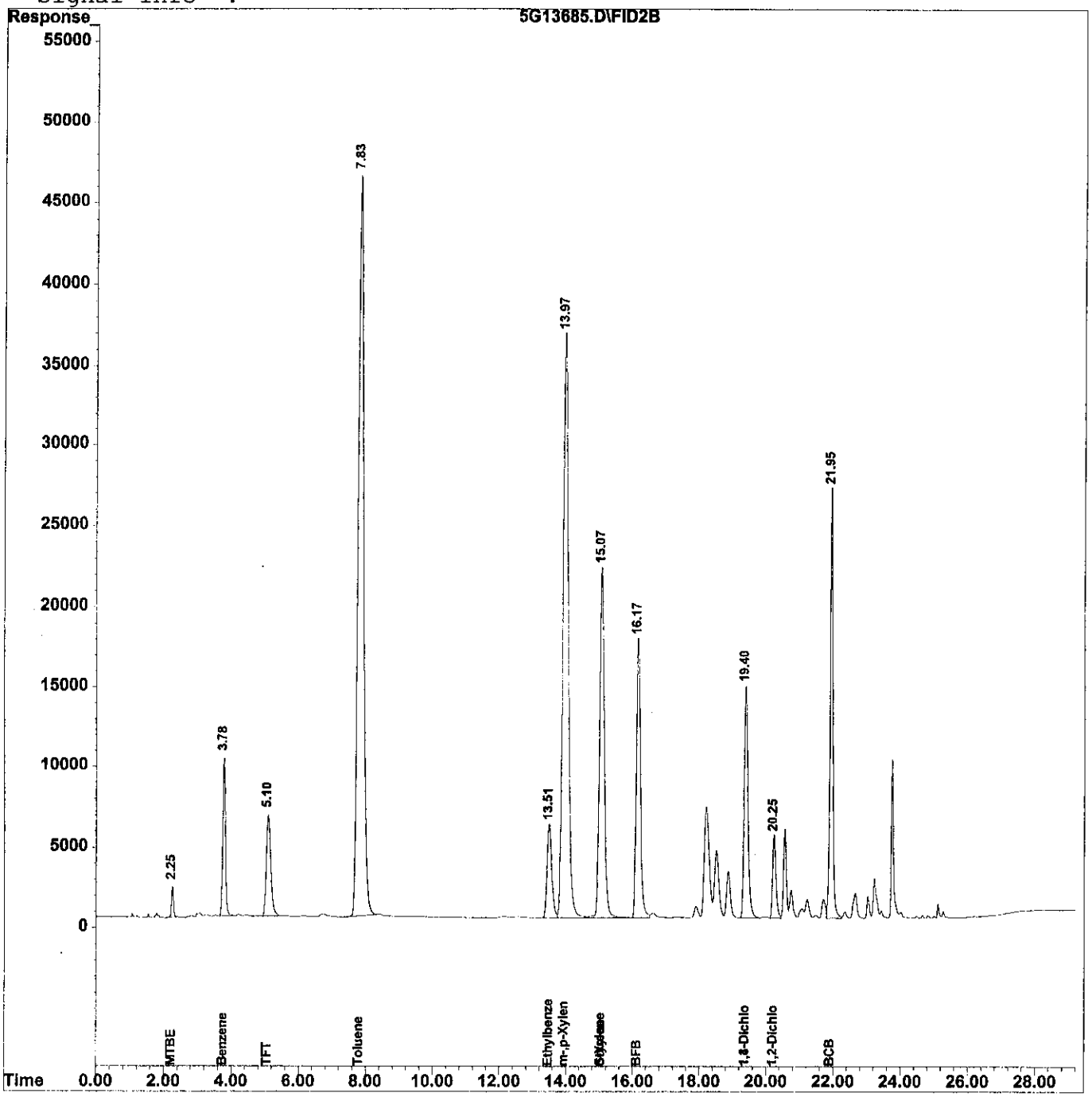
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\060702\5G13685.D Vial: 6
Acq On : 7 Jun 2002 13:54 Operator: CSH
Sample : L0206140-01 A 5ML 100X Inst : HP5
Misc : 1,100 S-93-47 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 7 14:23 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13685.D Vial: 6
Acq On : 7 Jun 2002 13:54 Operator: CSH
Sample : L0206140-01 A 5ML 100X Inst : HP5
Misc : 1,100 S-93-47 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Jun 7 14:23 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

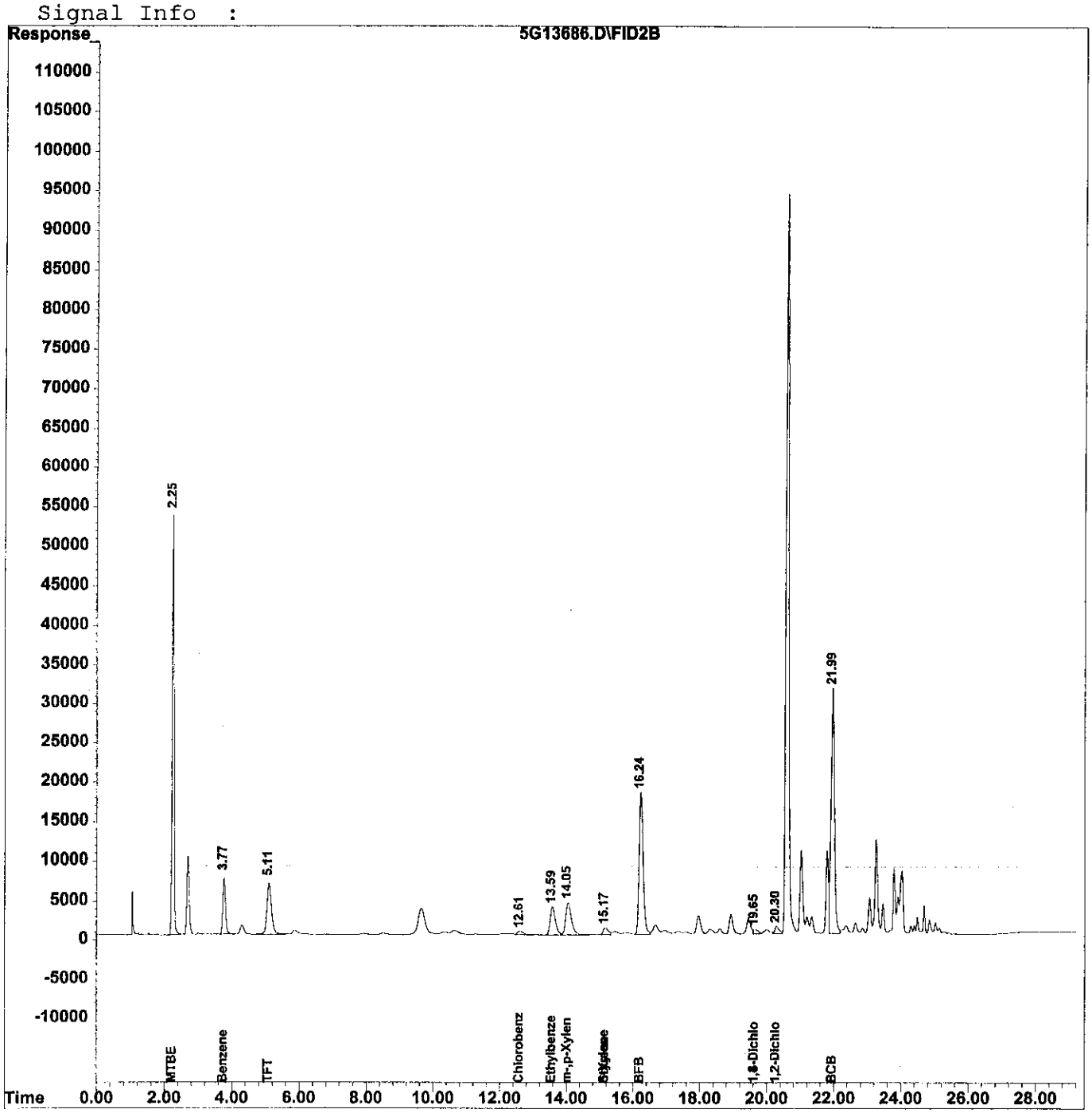
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.10	572877	32.3168 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 107.72%	
10) S BFB	16.17	1469961	30.7651 ug/L
Spiked Amount 30.000		Recovery = 102.55%	
14) S BCB	21.95	1509218	32.2325 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 107.44%	
Target Compounds			
1) TM MTBE	2.25✓	75266	719.0506 ug/L
2) TM Benzene	3.78✓	541338	965.1319 ug/L
4) TM Toluene	7.83✓	5280934	10331.8995 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.51✓	569855	1288.7088 ug/L
7) TM m-,p-Xylene	13.97✓	4075066	7704.1236 ug/L
8) TM Styrene	15.08	2140602	~~3860.0408 ug/L~~
9) TM o-Xylene	15.08✓	2140602	4151.3032 ug/L
11) TM 1,3-Dichlorobenzene	19.40	1126075	~~2590.0373 ug/L~~
12) TM 1,4-Dichlorobenzene	19.40f	1126075	~~2392.8239 ug/L~~
13) TM 1,2-Dichlorobenzene	20.25	355813	~~939.1514 ug/L~~

Data File : C:\HPCHEM\2\DATA\060702\5G13686.D Vial: 7
Acq On : 7 Jun 2002 14:28 Operator: CSH
Sample : L0206140-02 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 14:58 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13686.D Vial: 7
Acq On : 7 Jun 2002 14:28 Operator: CSH
Sample : L0206140-02 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 14:58 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

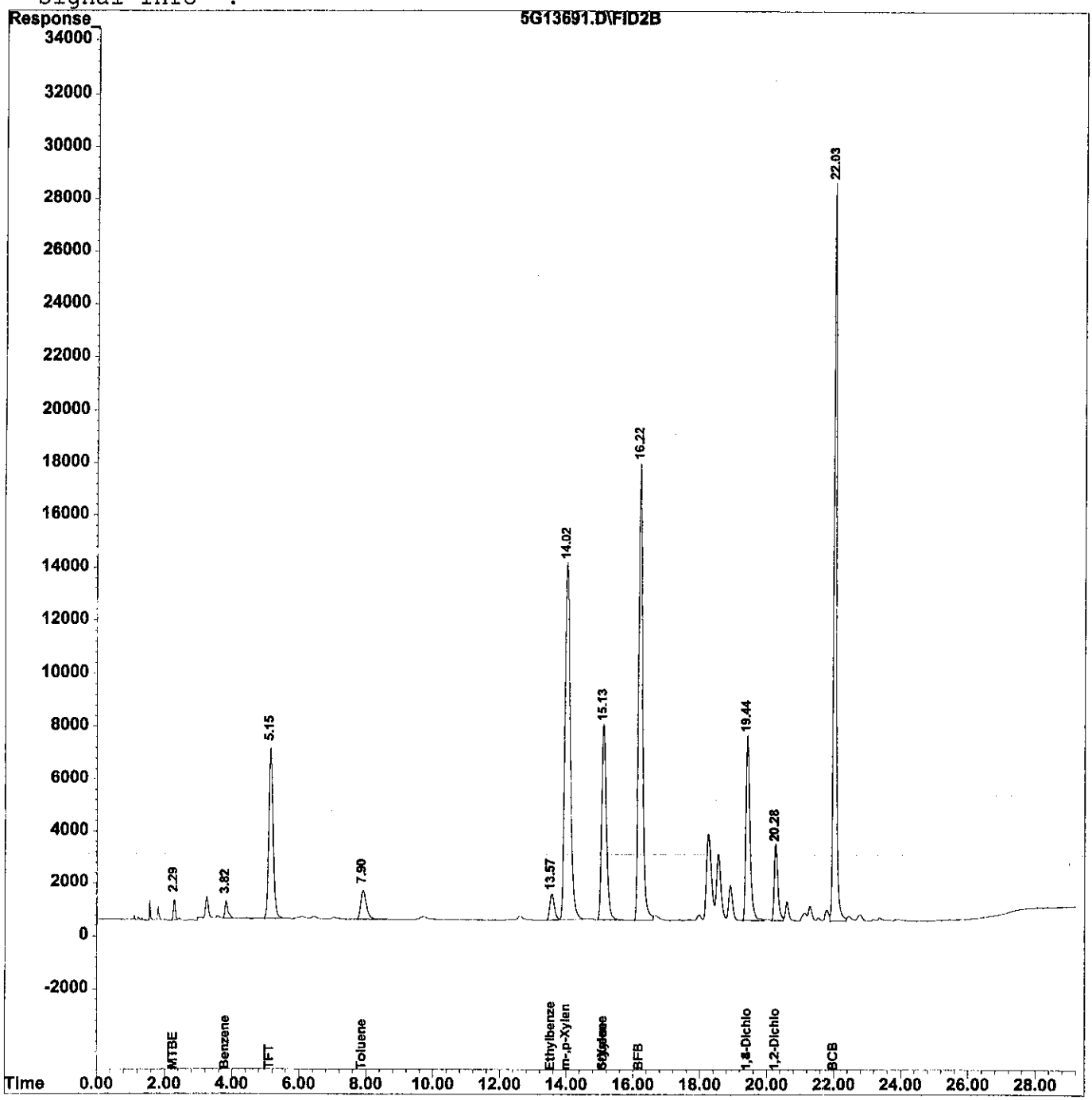
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	640288	36.1196 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 120.40%	
10) S BFB	16.24	1509377	31.5901 ug/L
Spiked Amount 30.000		Recovery = 105.30%	
14) S BCB	21.99	2208156	47.1598 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 157.20%#	
Target Compounds			
1) TM MTBE	2.25✓	2069750	197.7332 ug/L
2) TM Benzene	3.77✓	396326	7.0660 ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	12.61	56321	~~1.0409 ug/L~~
6) TM Ethylbenzene	13.59✓	400846	9.0650 ug/L
7) TM m-,p-Xylene	14.06✓	518591	9.8042 ug/L
8) TM Styrene	15.17f	95770	~~1.7270 ug/L~~
9) TM o-Xylene	15.17✓	95770	1.8573 ug/L
11) TM 1,3-Dichlorobenzene	19.66	57569	~~1.3241 ug/L~~
12) TM 1,4-Dichlorobenzene	19.66	57569	~~1.2233 ug/L~~
13) TM 1,2-Dichlorobenzene	20.30	85063	~~2.2452 ug/L~~

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

Data File : C:\HPCHEM\2\DATA\060702\5G13691.D Vial: 12
Acq On : 7 Jun 2002 17:34 Operator: CSH
Sample : L0206140-03 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 18:04 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



5G13691.D 602STY.M Fri Jun 07 18:04:11 2002 Page 2 of 2

Data File : C:\HPCHEM\2\DATA\060702\5G13691.D Vial: 12
Acq On : 7 Jun 2002 17:34 Operator: CSH
Sample : L0206140-03 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 18:04 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.15	574991	32.4360 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	108.12%
10) S BFB	16.22	1467640	30.7166 ug/L
Spiked Amount 30.000		Recovery =	102.39%
14) S BCB	22.03	1589539	33.9479 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	113.16%
Target Compounds			
1) TM MTBE	2.29	29544	~~2.8225 ug/L~~
2) TM Benzene	3.82	38853	0.6927 ug/L
4) TM Toluene	7.91	124139	2.4287 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.57	94074	2.1274 ug/L
7) TM m-,p-Xylene	14.02	1541585	29.1445 ug/L
8) TM Styrene	15.13f	730331	13.1697 ug/L
9) TM o-Xylene	15.13	730331	14.1634 ug/L
11) TM 1,3-Dichlorobenzene	19.44	595266	13.6914 ug/L
12) TM 1,4-Dichlorobenzene	19.44f	595266	12.6489 ug/L
13) TM 1,2-Dichlorobenzene	20.29	218785	5.7747 ug/L

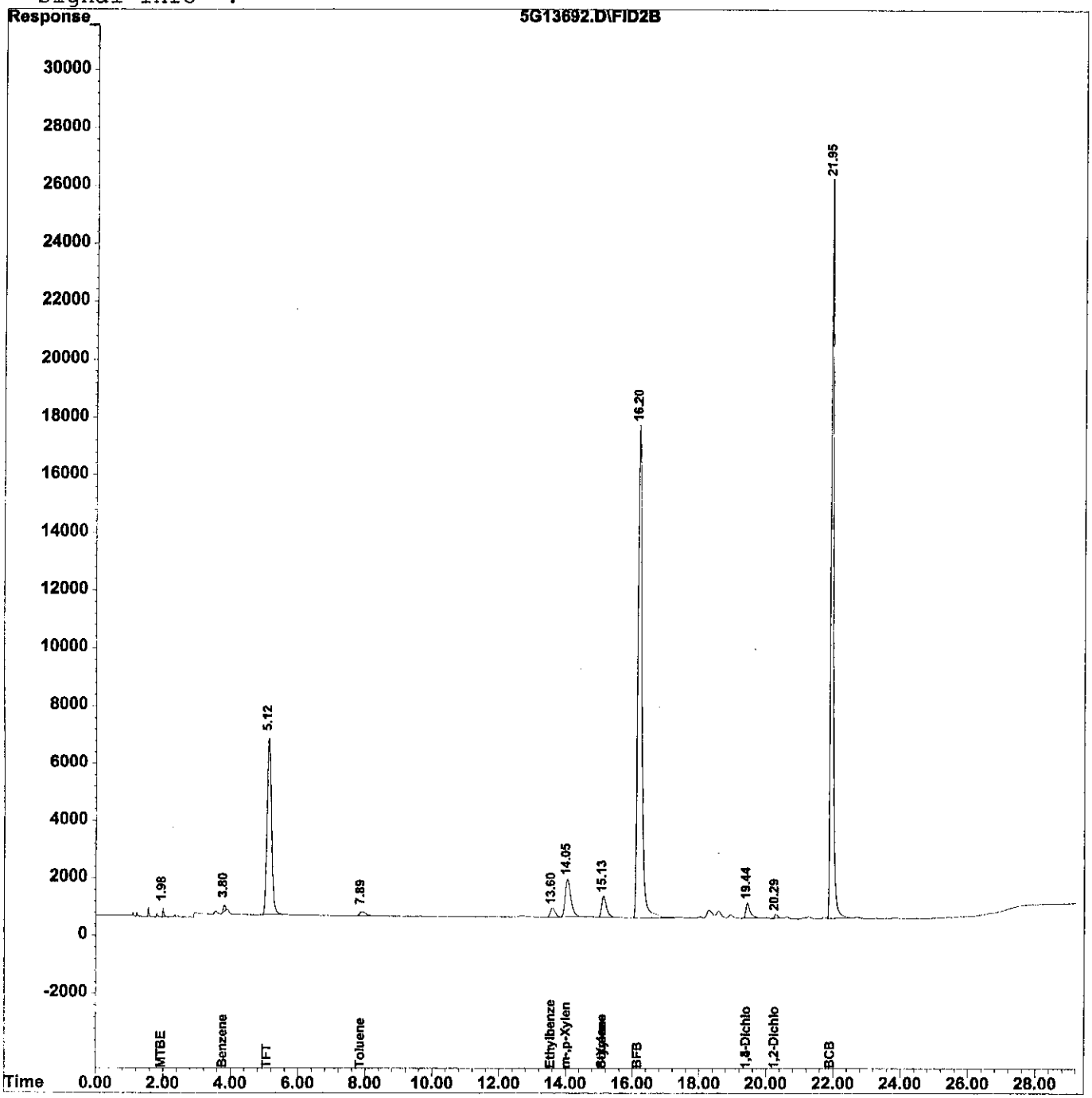
RT out calibration

(f)=RT Delta > 1/2 Window (m)=manual int 9.9.0

Data File : C:\HPCHEM\2\DATA\060702\5G13692.D Vial: 13
Acq On : 7 Jun 2002 18:09 Operator: CSH
Sample : L0206140-04 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 18:38 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13692.D Vial: 13
Acq On : 7 Jun 2002 18:09 Operator: CSH
Sample : L0206140-04 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 18:38 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

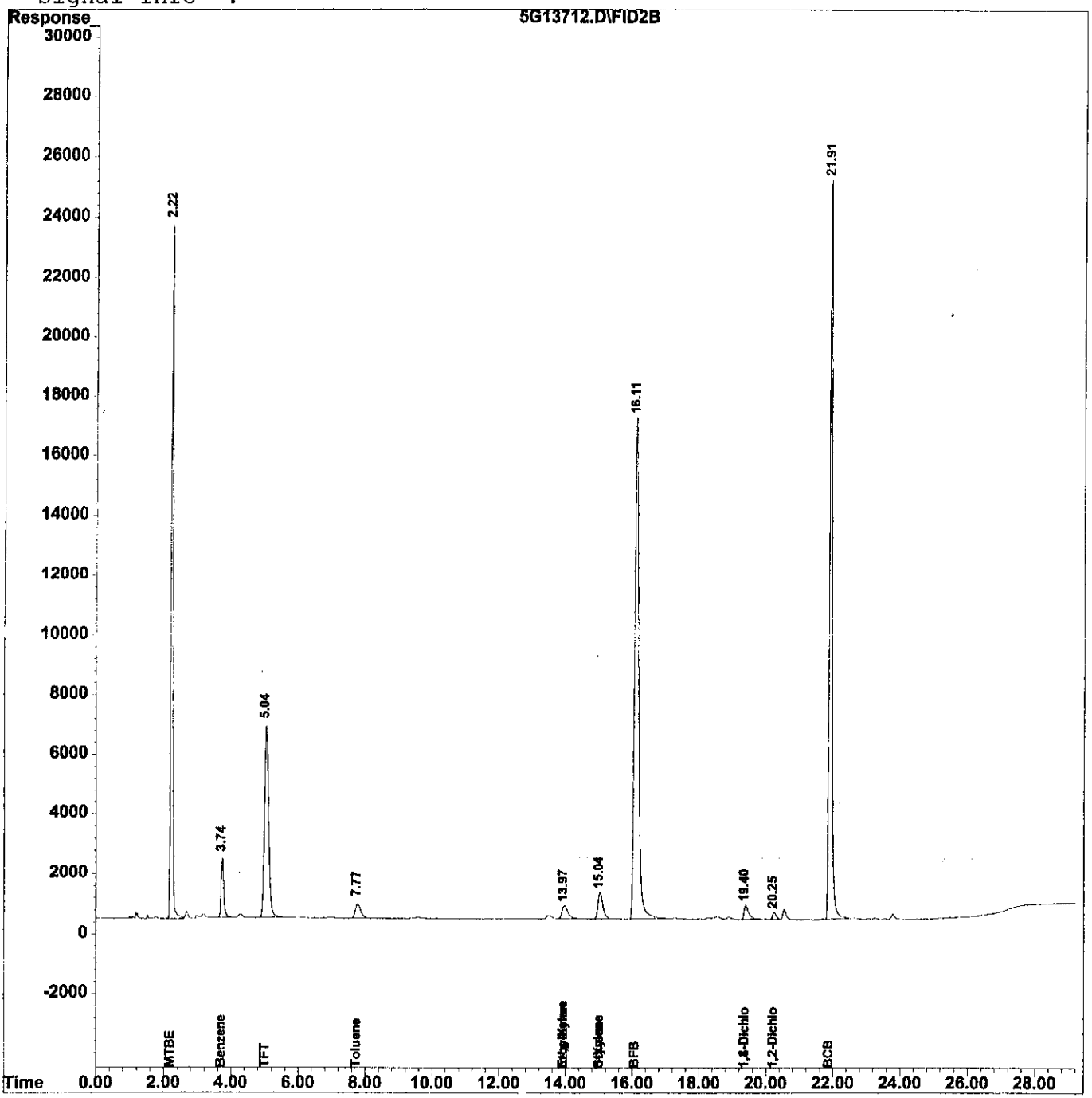
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.12	567782	32.0294 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	106.76% ✓
10) S BFB	16.20	1464132	30.6431 ug/L
Spiked Amount 30.000		Recovery =	102.14%
14) S BCB	21.95	1389249	29.6703 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	98.90%
Target Compounds			
1) TM MTBE	1.98f	7914	~~0.7560 ug/L~~
2) TM Benzene	3.80✓	9633	0.1718 ug/L
4) TM Toluene	7.89✓	17668	0.3457 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.60✓	31809	0.7193 ug/L
7) TM m-,p-Xylene	14.06✓	158209	2.9910 ug/L
8) TM Styrene	~~15.14f~~✓	76563	~~1.3806 ug/L~~
9) TM o-Xylene	15.14✓	76563	1.4848 ug/L
11) TM 1,3-Dichlorobenzene	19.45	48458	~~1.1146 ug/L~~
12) TM 1,4-Dichlorobenzene	19.45f	48458	~~1.0297 ug/L~~
13) TM 1,2-Dichlorobenzene	20.30	10452	~~0.2759 ug/L~~

Data File : C:\HPCHEM\2\DATA\061102\5G13712.D Vial: 3
Acq On : 11 Jun 2002 10:12 Operator: CBN
Sample : WG119546-03 L0206140-05 A 5ML 50X Inst : HP5
Misc : 1,50 S-93-47 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 11 10:41 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\061102\5G13712.D Vial: 3
Acq On : 11 Jun 2002 10:12 Operator: CBN
Sample : WG119546-03 L0206140-05 A 5ML 50X Inst : HP5
Misc : 1,50 S-93-47 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 11 10:41 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

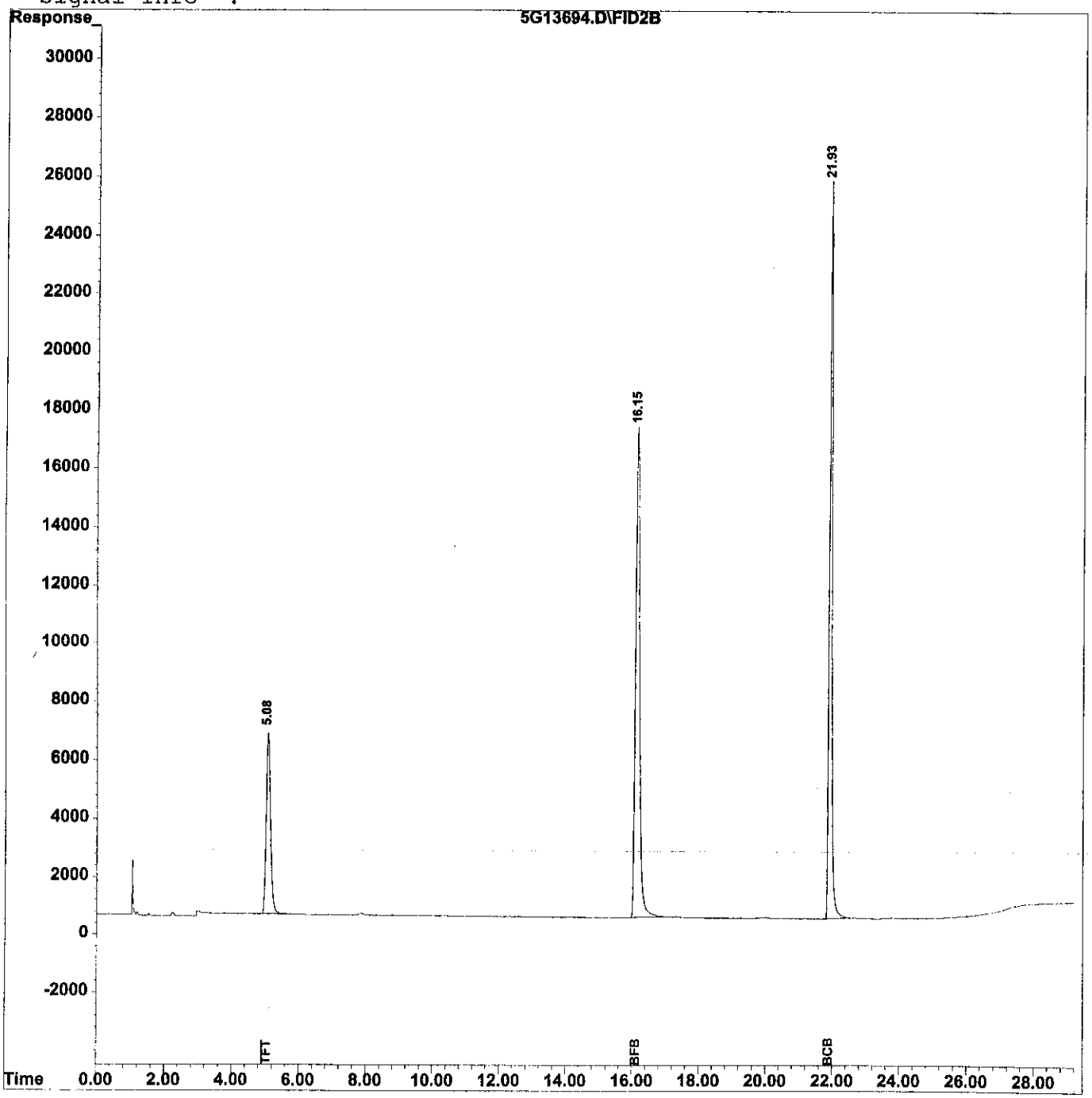
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.04	549078	30.9742 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 103.25%	
10) S BFB	16.11	1448467	30.3153 ug/L
Spiked Amount 30.000		Recovery = 101.05%	
14) S BCB	21.92	1364502	29.1418 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 97.14%	
Target Compounds			
1) TM MTBE	2.23 ✓	909207	4343.0450 ug/L
2) TM Benzene	3.74 ✓	106645	95.0668 ug/L
4) TM Toluene	7.77 ✓	53914	52.7398 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.97f	53316	~~60.2857 ug/L~~
7) TM m-,p-Xylene	13.97 ✓	53316	50.3979 ug/L
8) TM Styrene	15.04	89287	~~80.5031 ug/L~~
9) TM o-Xylene	15.04 ✓	89287	86.5775 ug/L
11) TM 1,3-Dichlorobenzene	19.40	44237	~~50.8743 ug/L~~
12) TM 1,4-Dichlorobenzene	19.40f	44237	~~47.0006 ug~~/L
13) TM 1,2-Dichlorobenzene	20.25	18997	~~25.0708 ug~~/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13694.D Vial: 15
Acq On : 7 Jun 2002 19:18 Operator: CSH
Sample : L0206140-06 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 19:48 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13694.D Vial: 15
Acq On : 7 Jun 2002 19:18 Operator: CSH
Sample : L0206140-06 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 19:48 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

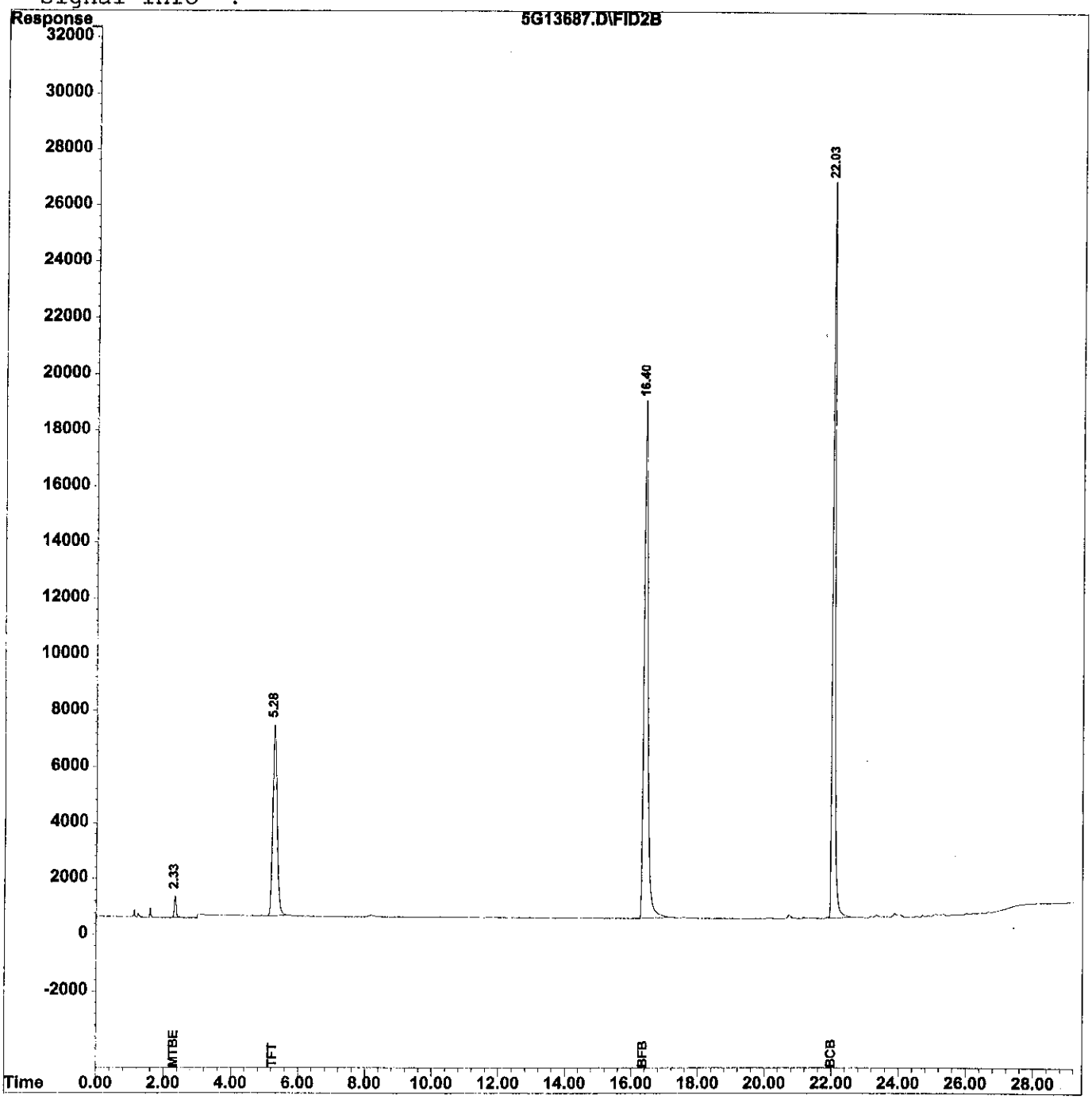
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	558327	31.4960 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 104.99%	
10) S BFB	16.15	1448911	30.3246 ug/L
Spiked Amount 30.000		Recovery = 101.08%	
14) S BCB	21.94	1374955	29.3651 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 97.88%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13687.D Vial: 8
Acq On : 7 Jun 2002 15:03 Operator: CSH
Sample : WG119381-03 L0206140-07 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 15:32 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13687.D Vial: 8
Acq On : 7 Jun 2002 15:03 Operator: CSH
Sample : WG119381-03 L0206140-07 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 15:32 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

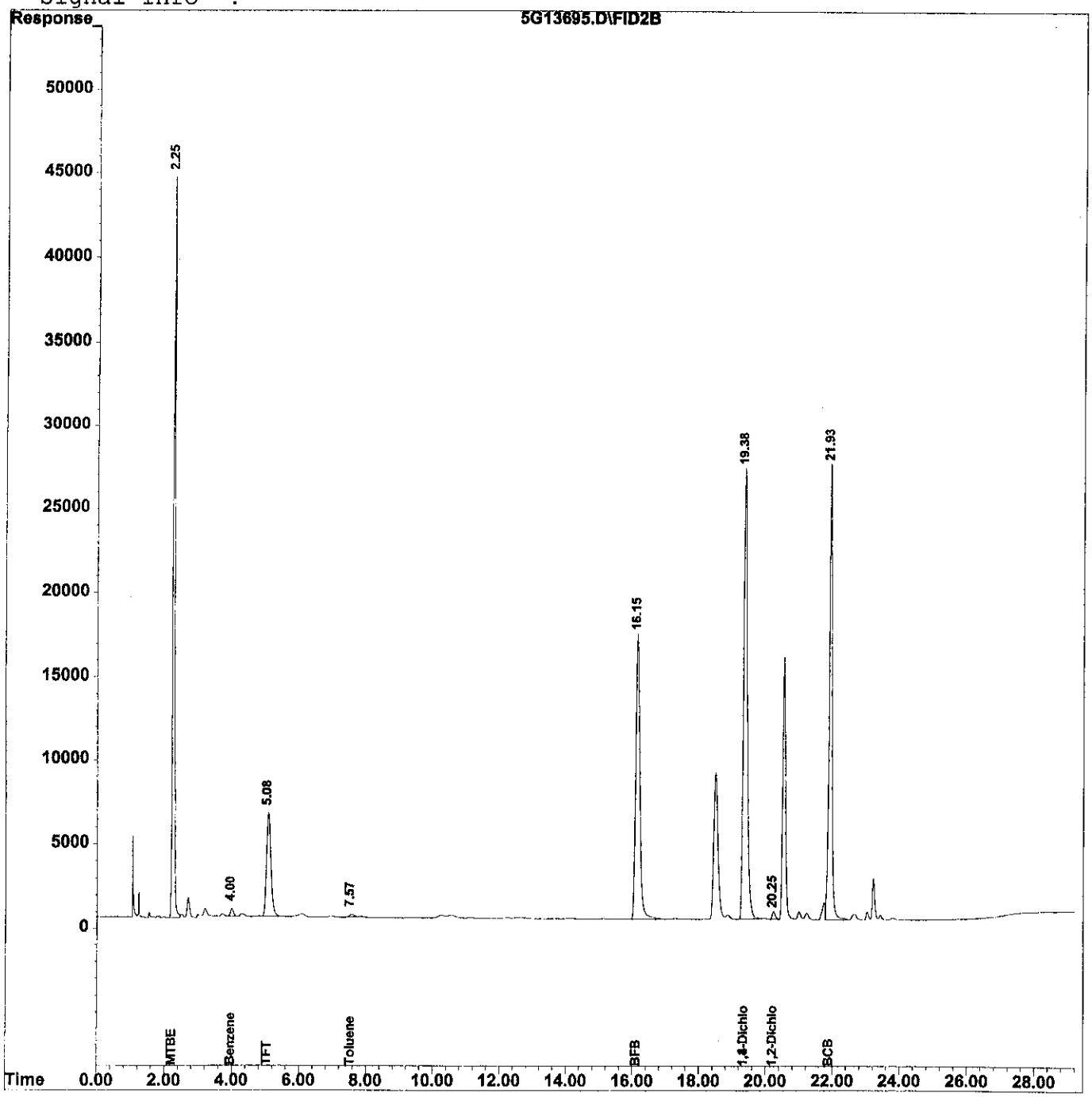
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	612811	34.5695 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	115.23%
10) S BFB	16.40	1536539	32.1586 ug/L
Spiked Amount 30.000		Recovery =	107.20%
14) S BCB	22.04	1402814	29.9600 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.87%
Target Compounds			
1) TM MTBE	2.33	29374	~~2.8063 ug/L~~
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13695.D Vial: 16
Acq On : 7 Jun 2002 19:53 Operator: CSH
Sample : L0206140-08 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 20:22 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13695.D Vial: 16
Acq On : 7 Jun 2002 19:53 Operator: CSH
Sample : L0206140-08 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 20:22 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

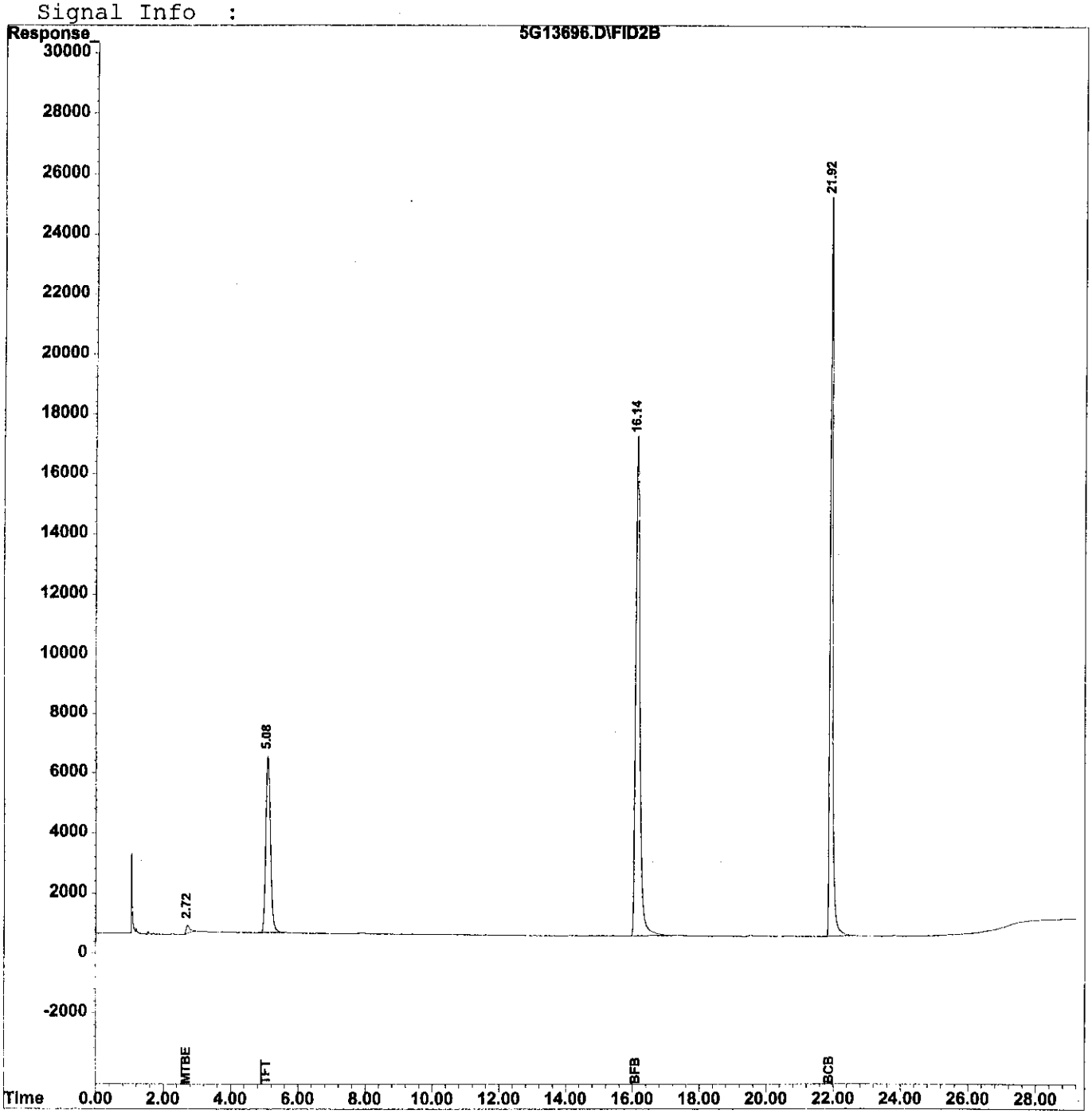
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	563497	31.7877 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	105.96%
10) S BFB	16.15	1465245	30.6664 ug/L
Spiked Amount 30.000		Recovery =	102.22%
14) S BCB	21.93	1618527	34.5670 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	115.22%
Target Compounds			
1) TM MTBE	2.25	1718264	164.1541 ug/L
2) TM Benzene	4.00	29325	~~0.5228 ug/L~~
4) TM Toluene	7.57	15062	~~0.2947 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 Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	19.38	2087715	~~48.0186 ug/L~~
12) TM 1,4-Dichlorobenzene	19.38f	2087715	~~44.3623 ug/L~~
13) TM 1,2-Dichlorobenzene	20.25	30107	~~0.7947 ug/L~~

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

Data File : C:\HPCHEM\2\DATA\060702\5G13696.D Vial: 17
Acq On : 7 Jun 2002 20:28 Operator: CSH
Sample : L0206140-09 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 20:57 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13696.D Vial: 17
Acq On : 7 Jun 2002 20:28 Operator: CSH
Sample : L0206140-09 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 20:57 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

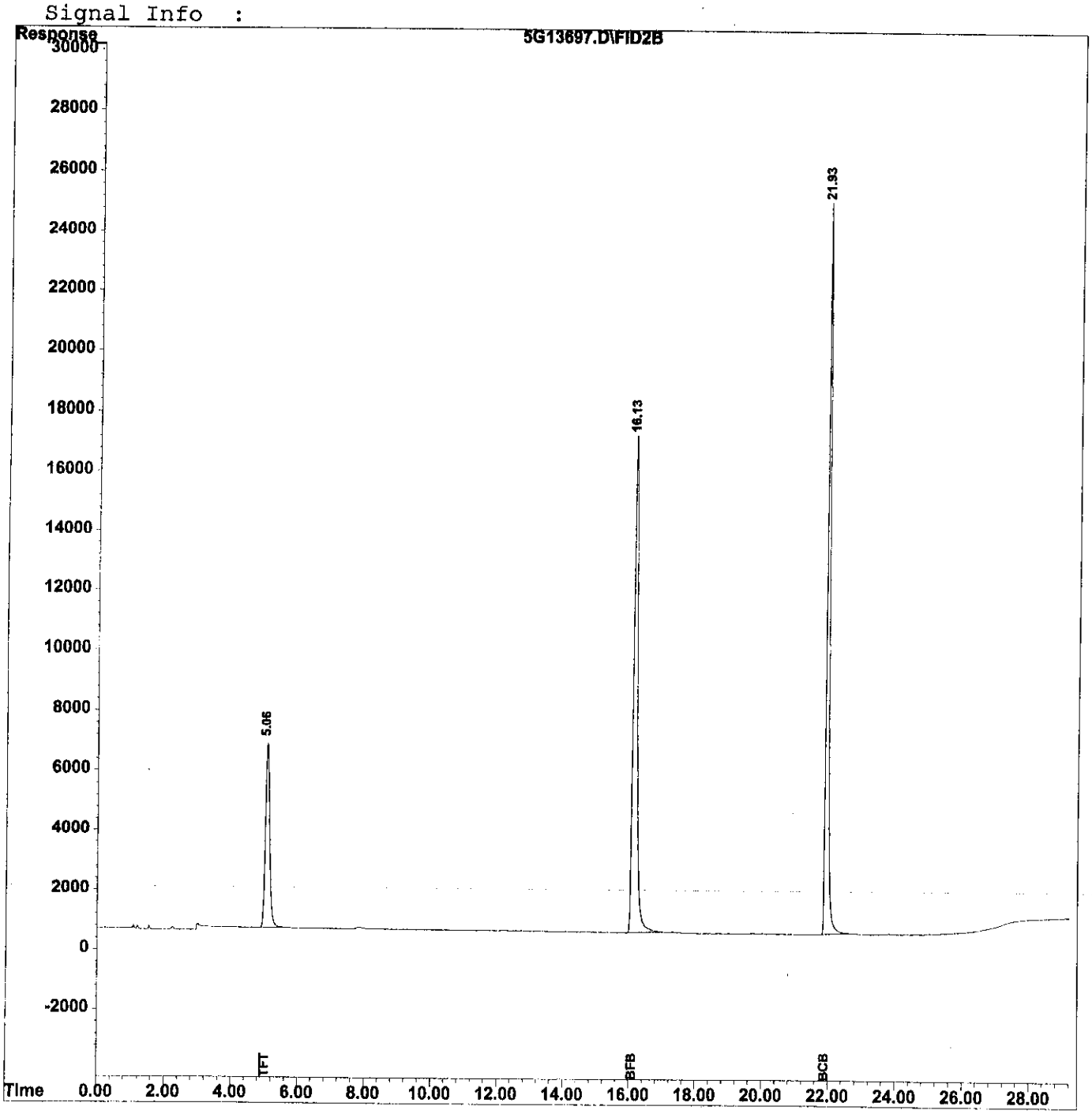
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	562406	31.7261 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	105.75%
10) S BFB	16.14	1465786	30.6778 ug/L
Spiked Amount 30.000		Recovery =	102.26%
14) S BCB	21.93	1359767	29.0407 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	96.80%
Target Compounds			
1) TM MTBE	2.72f	18635	~~1.7803 ug/L~~
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

Data File : C:\HPCHEM\2\DATA\060702\5G13697.D
Acq On : 7 Jun 2002 21:02
Sample : L0206140-10 A 5ML
Misc : 1,1 S-93-47
IntFile : autoint1.e
Quant Time: Jun 7 21:31 2002 Quant Results File: 602STY.RES

Vial: 18
Operator: CSH
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13697.D Vial: 18
Acq On : 7 Jun 2002 21:02 Operator: CSH
Sample : L0206140-10 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 21:31 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

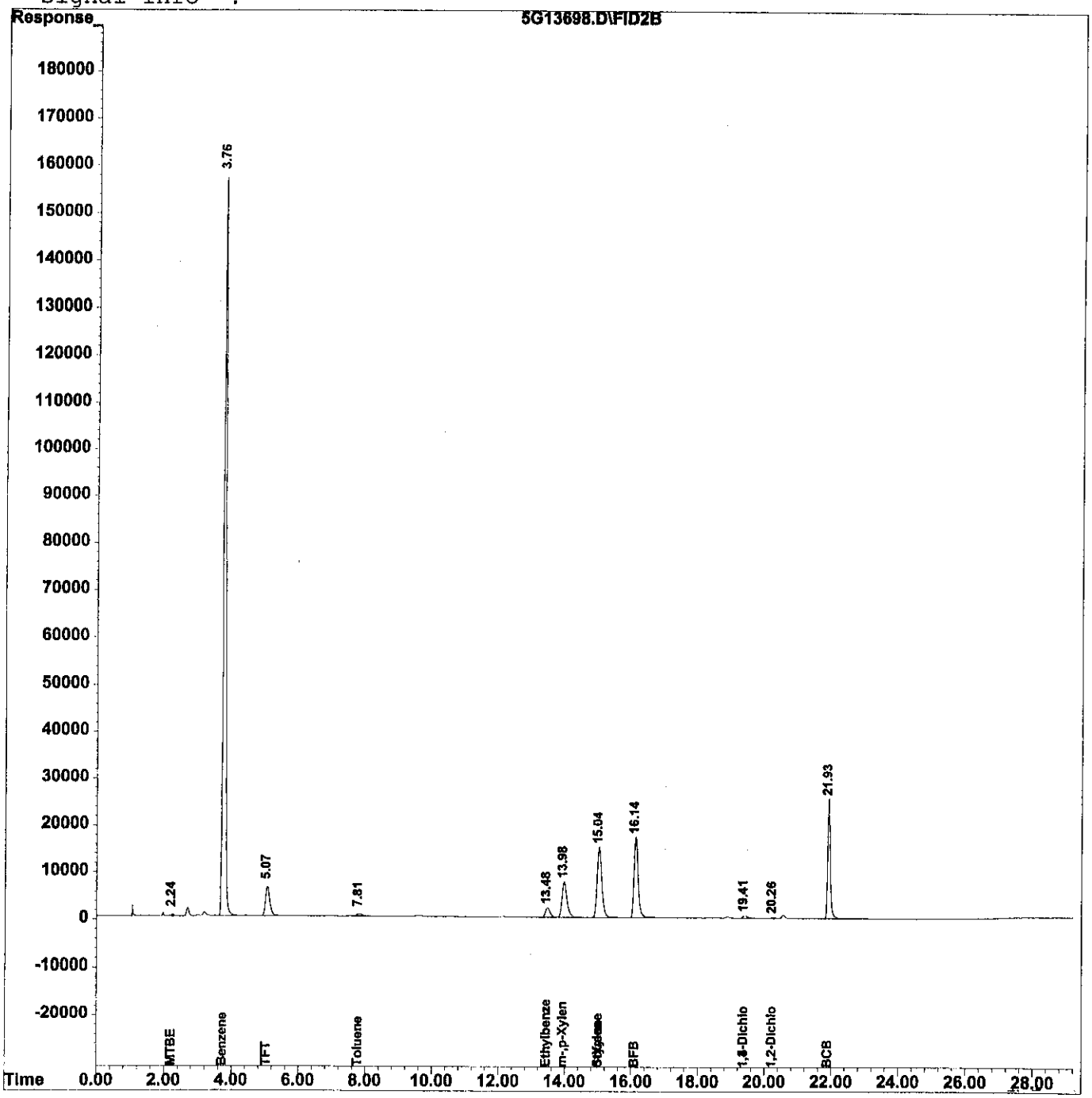
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.06	557274	31.4366 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 104.79%	
10) S BFB	16.13	1438975	30.1166 ug/L
Spiked Amount 30.000		Recovery = 100.39%	
14) S BCB	21.93	1340713	28.6337 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 95.45%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

Data File : C:\HPCHEM\2\DATA\060702\5G13698.D Vial: 19
Acq On : 7 Jun 2002 21:37 Operator: CSH
Sample : L0206140-11 A 5ML 10X Inst : HP5
Misc : 1,10 S-93-47 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Jun 7 22:06 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13698.D Vial: 19
Acq On : 7 Jun 2002 21:37 Operator: CSH
Sample : L0206140-11 A 5ML 10X Inst : HP5
Misc : 1,10 S-93-47 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Jun 7 22:06 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	559061	31.5374 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	105.12%
10) S BFB	16.14	1466833	30.6997 ug/L
Spiked Amount 30.000		Recovery =	102.33%
14) S BCB	21.93	1380905	29.4921 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	98.31%
Target Compounds			
1) TM MTBE	2.25	15135	14.4596 ug/L
2) TM Benzene	3.76	8365436	1491.4443 ug/L
4) TM Toluene	7.82	51054	9.9886 ug/L F
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.48	204424	46.2299 ug/L
7) TM m-,p-Xylene	13.98	800319	151.3044 ug/L
8) TM Styrene	15.04	1456430	~~262.6307 ug/L~~
9) TM o-Xylene	15.04	1456430	282.4477 ug/L
11) TM 1,3-Dichlorobenzene	19.41	53602	~~12.3289 ug/L~~
12) TM 1,4-Dichlorobenzene	19.41f	53602	~~11.3901 ug/L~~
13) TM 1,2-Dichlorobenzene	20.26	16517	~~4.3595 ug/L~~

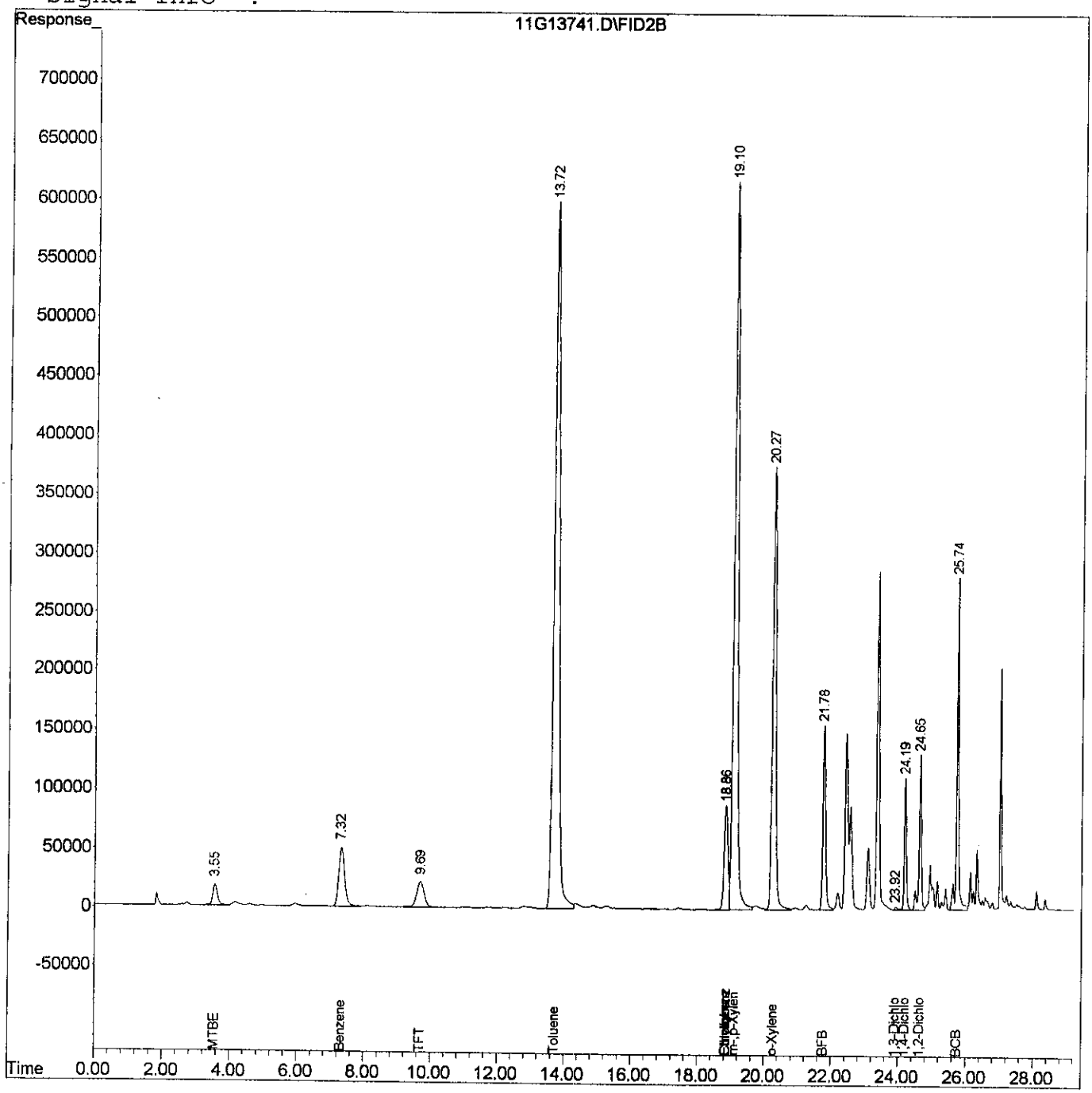
(f)=RT Delta > 1/2 Window (m)=manual int.

236

Data File : C:\HPCHEM\1\DATA\061002\11G13741.D Vial: 2
Acq On : 10 Jun 2002 12:04 pm Operator: CSH
Sample : WG119488-03 L0206140-12 B 5ML 50X Inst : HP11
Misc : 1,50 S-93-50 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 10 12:33 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13741.D Vial: 2
Acq On : 10 Jun 2002 12:04 pm Operator: CSH
Sample : WG119488-03 L0206140-12 B 5ML 50X Inst : HP11
Misc : 1,50 S-93-50 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 10 12:33 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

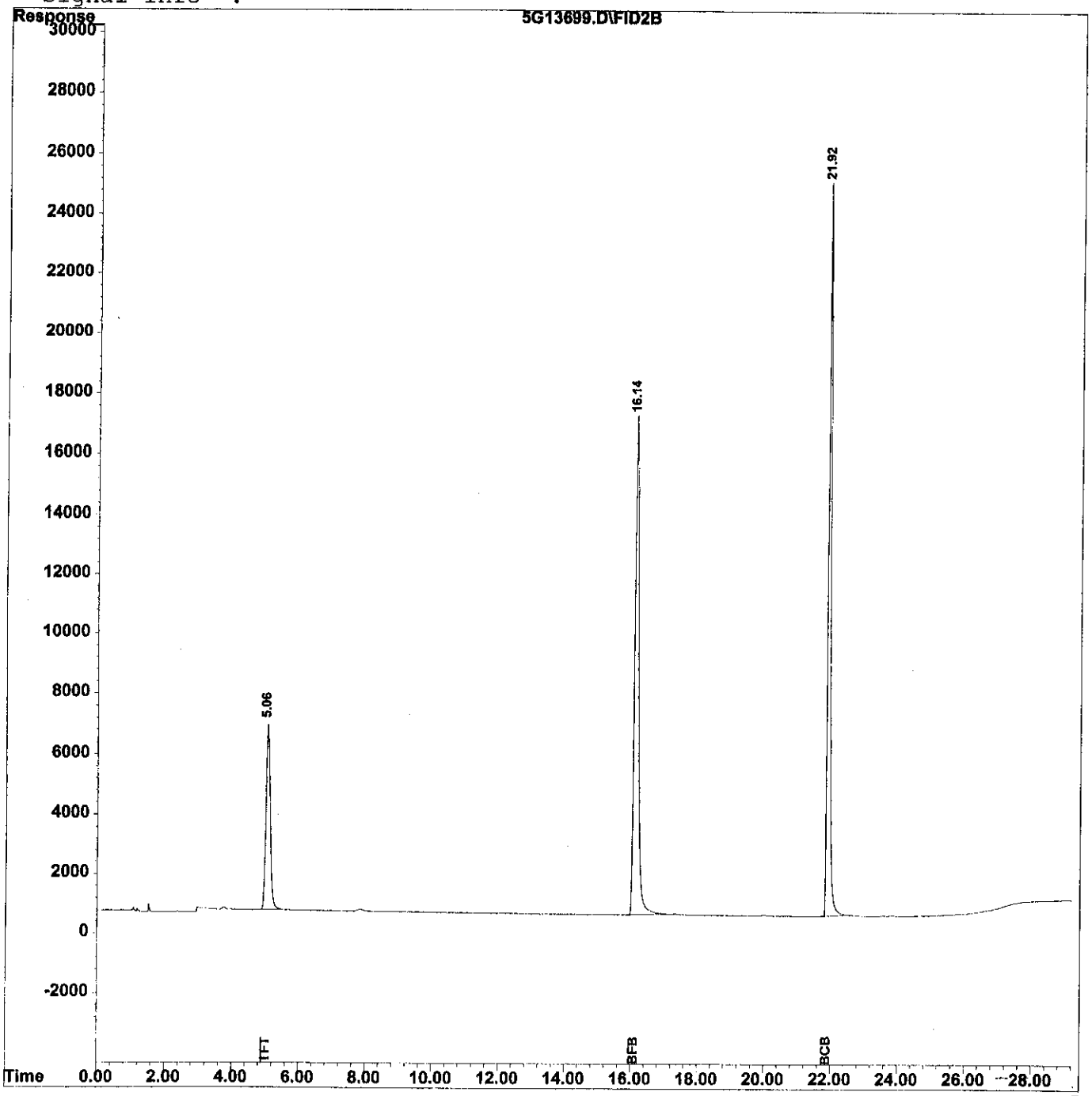
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	3295255	30.3370 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 101.12%
9) S BFB	21.78	8669498	27.7138 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 92.38%
13) S BCB	25.74	10922386	35.3230 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 117.74%
Target Compounds			
1) TM MTBE	3.55	1657483	585.5975 UG/L
2) TM Benzene	7.33	6125301	945.3065 UG/L
4) TM Toluene	13.72	64194875	9964.9005 UG/L
5) TM Chlorobenzene	18.86f	6906762	~~1048.5097 UG/L~~
6) TM Ethylbenzene	18.86	6906762	1219.3021 UG/L
7) TM m-,p-Xylene	19.11	49496291	7044.5649 UG/L
8) TM o-Xylene	20.27	26755422	4394.4301 UG/L
10) T 1,3-Dichlorobenzene	23.92	184027	~~30.6163 UG~~/L
11) T 1,4-Dichlorobenzene	24.20	4654020	7~~31.2483 UG/L~~
12) T 1,2-Dichlorobenzene	24.65	5950571	10~~84.1706 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\060702\5G13699.D Vial: 20
Acq On : 7 Jun 2002 22:12 Operator: CSH
Sample : L0206140-13 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 22:41 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13699.D Vial: 20
Acq On : 7 Jun 2002 22:12 Operator: CSH
Sample : L0206140-13 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 22:41 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

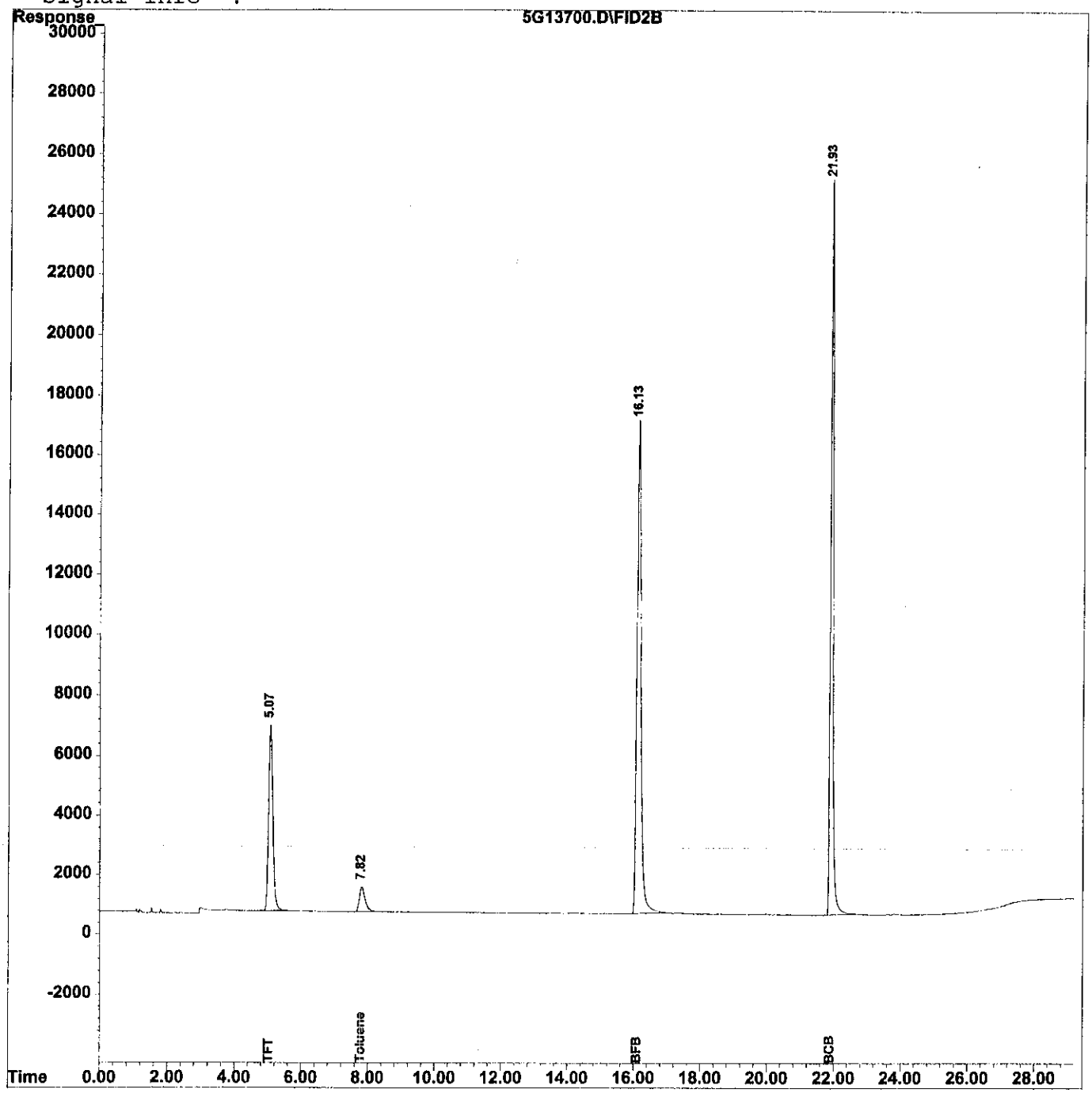
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	550050	31.0291 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 103.43%	
10) S BFB	16.14	1439150	30.1203 ug/L
Spiked Amount 30.000		Recovery = 100.40%	
14) S BCB	21.93	1348295	28.7957 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 95.99%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13700.D Vial: 21
Acq On : 7 Jun 2002 22:46 Operator: CSH
Sample : L0206140-14 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 23:16 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13700.D Vial: 21
Acq On : 7 Jun 2002 22:46 Operator: CSH
Sample : L0206140-14 A 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 23:16 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

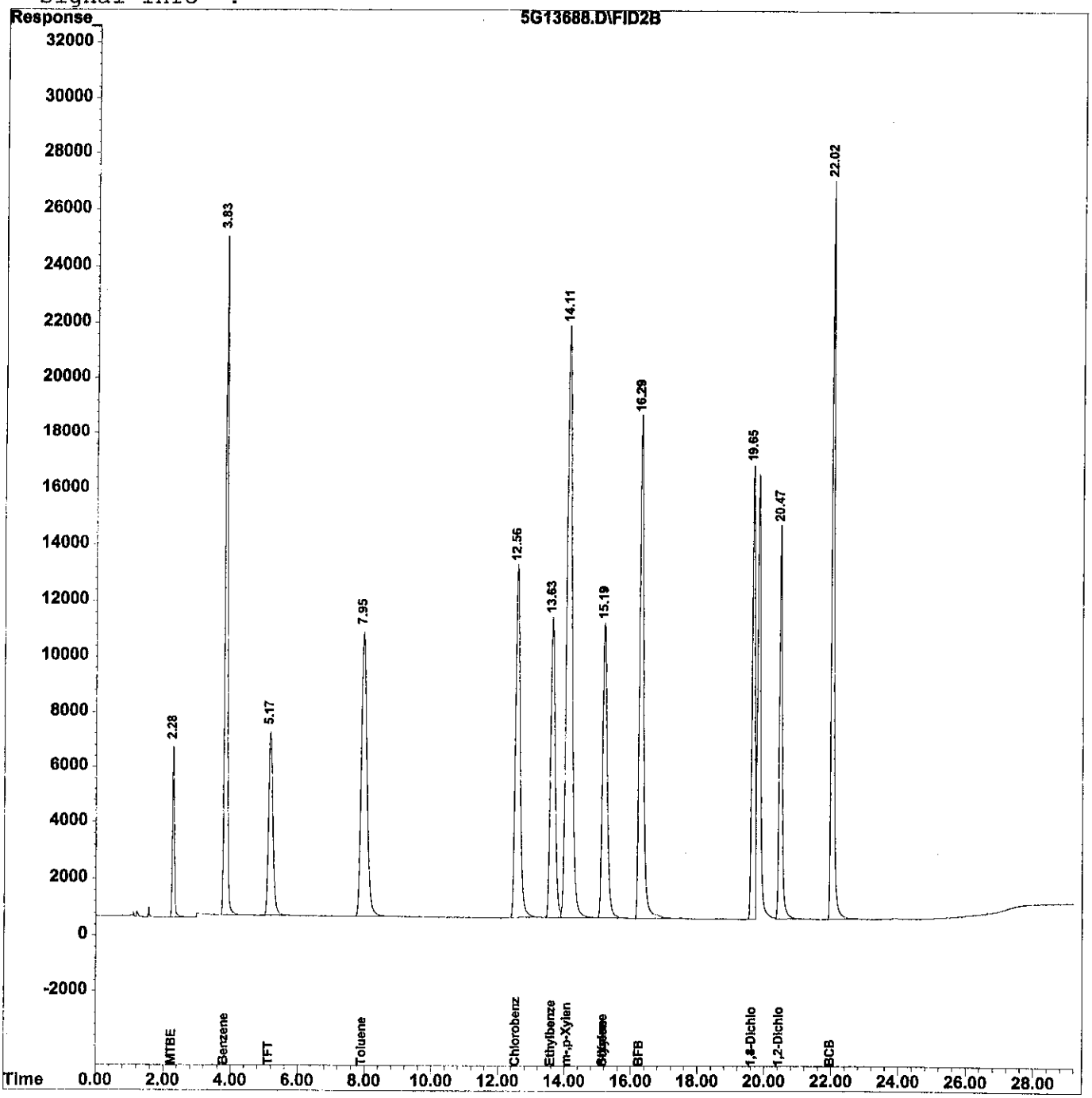
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	551148	31.0910 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	103.64%
10) S BFB	16.14	1422699	29.7760 ug/L
Spiked Amount 30.000		Recovery =	99.25%
14) S BCB	21.93	1349001	28.8108 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	96.04%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	7.82	99349	1.9437 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 Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

Data File : C:\HPCHEM\2\DATA\060702\5G13688.D Vial: 9
Acq On : 7 Jun 2002 15:38 Operator: CSH
Sample : WG119381-04 L0206140-17 MS A 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 16:07 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13688.D Vial: 9
Acq On : 7 Jun 2002 15:38 Operator: CSH
Sample : WG119381-04 L0206140-17 MS A 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 16:07 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

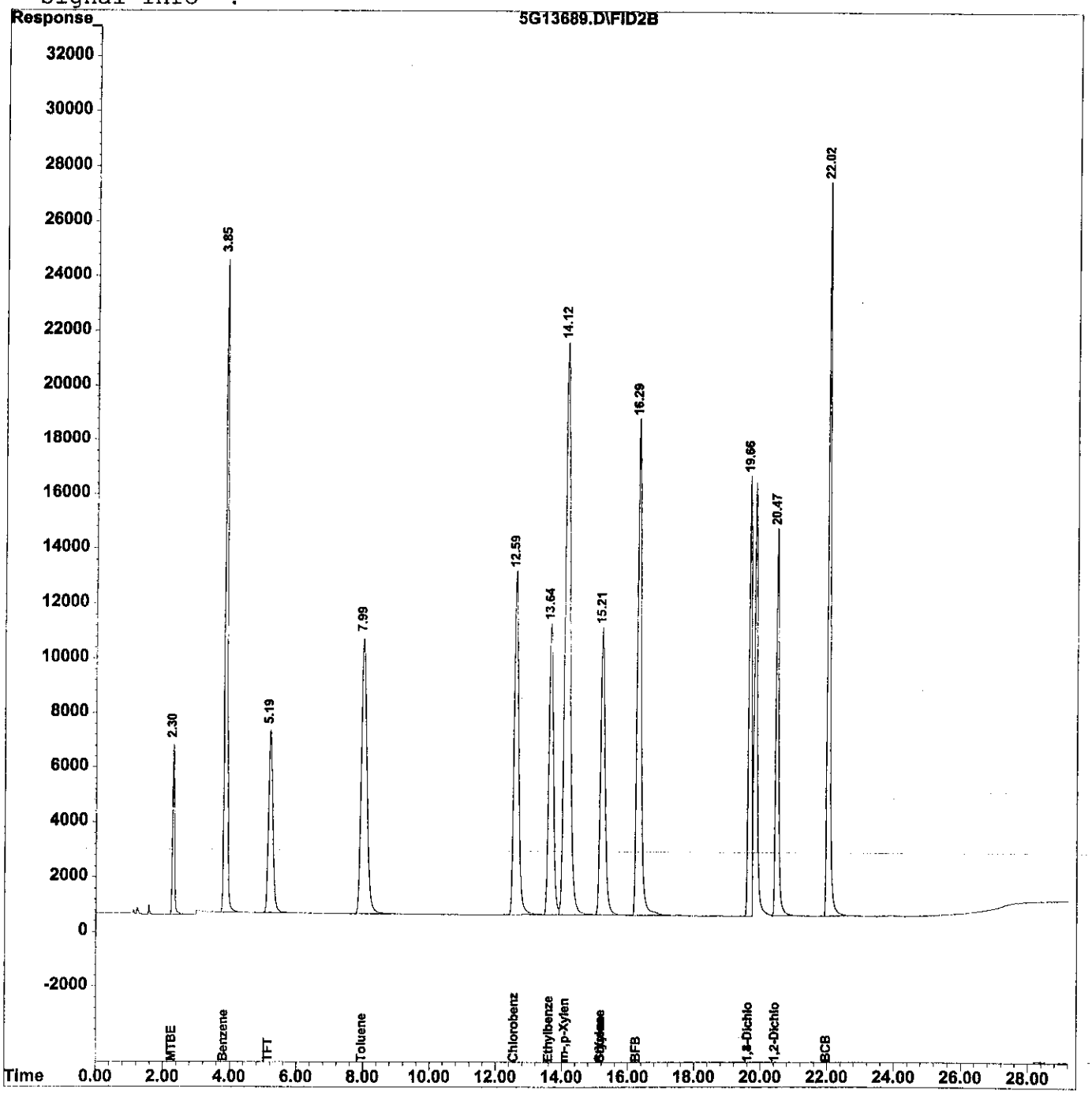
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	589060	33.2297 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 110.77%	
10) S BFB	16.29	1535685	32.1407 ug/L
Spiked Amount 30.000		Recovery = 107.14%	
14) S BCB	22.02	1425358	30.4415 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 101.47%	
Target Compounds			
1) TM MTBE	2.29	245371	23.4415 ug/L
2) TM Benzene	3.83	1303182	23.2340 ug/L
4) TM Toluene	7.95	1194280	23.3655 ug/L
5) TM Chlorobenzene	12.57	1231782	22.7656 ug/L
6) TM Ethylbenzene	13.63	1033698	23.3768 ug/L
7) TM m-,p-Xylene	14.11	2409661	45.5559 ug/L
8) TM Styrene	15.19f	1027853	18.5348 ug/L
9) TM o-Xylene	15.19	1027853	19.9333 ug/L
11) TM 1,3-Dichlorobenzene	19.65	974313	22.4097 ug/L
12) TM 1,4-Dichlorobenzene	19.65	974313	20.7034 ug/L
13) TM 1,2-Dichlorobenzene	20.47	852802	22.5093 ug/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13689.D Vial: 10
Acq On : 7 Jun 2002 16:12 Operator: CSH
Sample : WG119381-05 L0206140-18 MSD A 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 16:42 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13689.D Vial: 10
Acq On : 7 Jun 2002 16:12 Operator: CSH
Sample : WG119381-05 L0206140-18 MSD A 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 16:42 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	598611	33.7685 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 112.56%	
10) S BFB	16.30	1548058	32.3997 ug/L
Spiked Amount 30.000		Recovery = 108.00%	
14) S BCB	22.02	1446198	30.8866 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 102.96%	
Target Compounds			
1) TM MTBE	2.30	251599	24.0365 ug/L
2) TM Benzene	3.85	1286685	22.9399 ug/L
4) TM Toluene	7.99	1184382	23.1719 ug/L
5) TM Chlorobenzene	12.59	1218095	22.5126 ug/L
6) TM Ethylbenzene	13.65	1018619	23.0357 ug/L
7) TM m-,p-Xylene	14.12	2376811	44.9349 ug/L
8) TM Styrene	15.21f	1013935	18.2838 ug/L
9) TM o-Xylene	15.21	1013935	19.6634 ug/L
11) TM 1,3-Dichlorobenzene	19.66	967517	22.2534 ug/L
12) TM 1,4-Dichlorobenzene	19.66	967517	20.5590 ug/L
13) TM 1,2-Dichlorobenzene	20.48	853688	22.5327 ug/L

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

2.1.3.3 Standards Data

Calibration Table Report
Method: 602STY.M
Title: METHOD 602 - Water - 4/22/02
Last Calibration: Tue Apr 23 13:19:26 2002

Calibration Files

Compound	1 5G12946.D	10 5G12947.D	20 5G12948.D	50 5G12949.D	100 5G12950.D	200 5G12951.D	300 5G12952.D	Avg	%RSD
MTBE	11757	10818	10755	10474	10368	9314	9786	10467	7.475
Benzene	56328	57962	57511	56878	55019	53645	55284	56090	2.721
TFT	17096	18143	17902	17945	17550	17784	17670	17727	1.908
Toluene	48925	52420	52492	52169	50514	49507	51762	51113	2.865
Chlorobenzene	51700	55103	55327	54632	54267	53033	54687	54107	2.393
Ethylbenzene	42551	45390	45328	44841	43943	42762	44719	44219	2.647
m-,p-Xylene	54205	54424	54253	53567	52018	50050	51746	52895	3.138
Styrene	47957	56536	57281	57945	53412	56698	58360	55455	6.629
o-Xylene	55799	53727	52896	51677	50041	48060	48753	51565	5.422
BFB	44443	48214	47901	48728	48756	48262	48155	47780	3.147
1,3-Dichlorobenzene	37248	44261	44516	44585	44704	43991	45035	43477	6.363
1,4-Dichlorobenzene	40973	49874	49545	48373	47853	46102	46703	47061	6.406
1,2-Dichlorobenzene	35066	38633	38986	38656	38695	37217	37954	37887	3.641
BCB	45926	47411	46888	47241	47429	46214	46650	46823	1.263

Tue Apr 23 13:21:51 2002

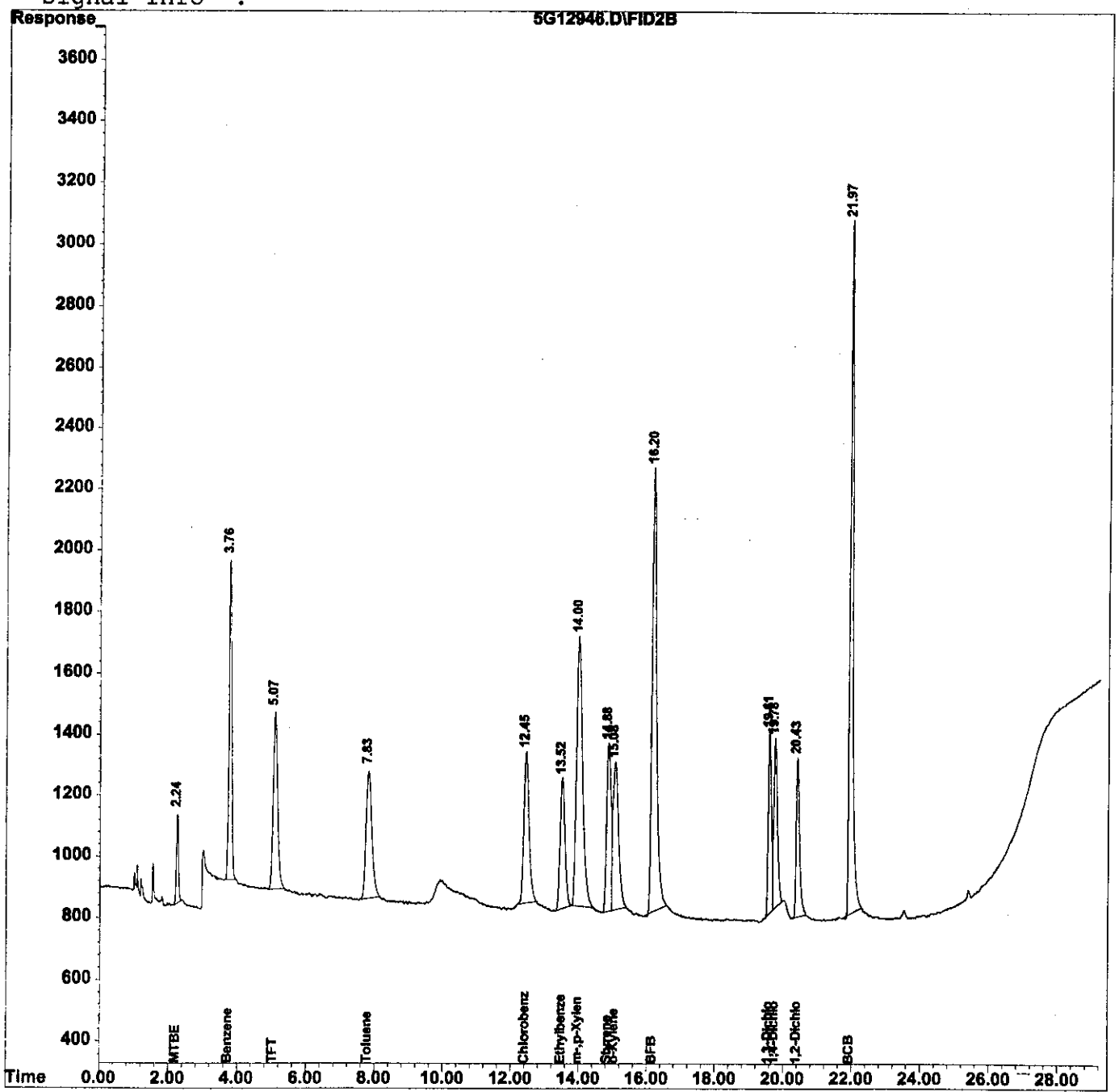
Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12946.D
Acq On : 22 Apr 2002 13:29
Sample : WG116507-01 STD1 1PPB 5ML
Misc : 1,1 S-(93-17),S-92-(36,44)
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

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

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



249

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12946.D Vial: 1
Acq On : 22 Apr 2002 13:29 Operator: CBN
Sample : WG116507-01 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	51288	2.8932 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 9.64%#			
10) S BFB	16.20	133330	2.7905 ug/L
Spiked Amount 30.000 Recovery = 9.30%			
14) S BCB	21.97	137779	2.9426 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 9.81%#			
Target Compounds			
1) TM MTBE	2.24	11757	1.1232 ug/L
2) TM Benzene	3.76	56327	1.0042 ug/L
4) TM Toluene	7.83	48925	0.9572 ug/L
5) TM Chlorobenzene	12.45	51700	0.9555 ug/L
6) TM Ethylbenzene	13.52	42551	0.9623 ug/L
7) TM m-,p-Xylene	14.00	108410	2.0495 ug/L
8) TM Styrene	14.88	47957	0.8648 ug/L
9) TM o-Xylene	15.08	55799	1.0821 ug/L
11) TM 1,3-Dichlorobenzene	19.61	37248	0.7915 ug/L
12) TM 1,4-Dichlorobenzene	19.78	40973	0.8707 ug/L
13) TM 1,2-Dichlorobenzene	20.43	35066	0.9256 ug/L

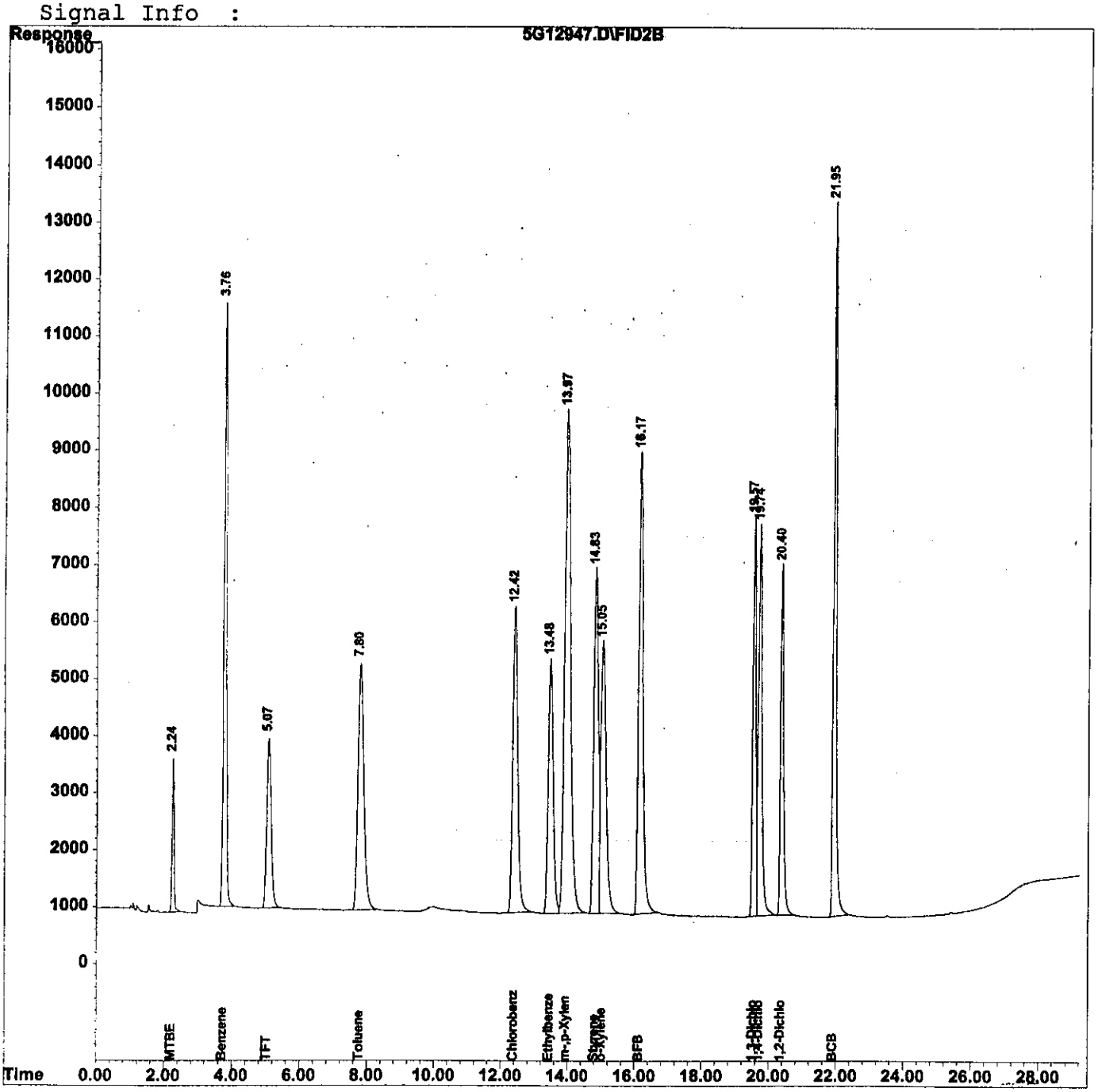
250

Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12947.D Vial: 2
Acq On : 22 Apr 2002 14:04 Operator: CBN
Sample : WG116507-02 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12947.D Vial: 2
Acq On : 22 Apr 2002 14:04 Operator: CBN
Sample : WG116507-02 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	272138	15.3517 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 51.17%#			
10) S BFB	16.17	723215	15.1363 ug/L
Spiked Amount 30.000 Recovery = 50.45%			
14) S BCB	21.95	711170	15.1885 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 50.63%			
Target Compounds			
1) TM MTBE	2.24	108182	10.3351 ug/L
2) TM Benzene	3.76	579615	10.3338 ug/L
4) TM Toluene	7.80	524199	10.2557 ug/L
5) TM Chlorobenzene	12.42	551031	10.1841 ug/L
6) TM Ethylbenzene	13.48	453901	10.2648 ug/L
7) TM m-,p-Xylene	13.97	1088481	20.5783 ug/L
8) TM Styrene	14.84	565358	10.1948 ug/L
9) TM o-Xylene	15.06	537265	10.4193 ug/L
11) TM 1,3-Dichlorobenzene	19.57	442610	9.4051 ug/L
12) TM 1,4-Dichlorobenzene	19.74	498740	10.5978 ug/L
13) TM 1,2-Dichlorobenzene	20.40	386329	10.1969 ug/L

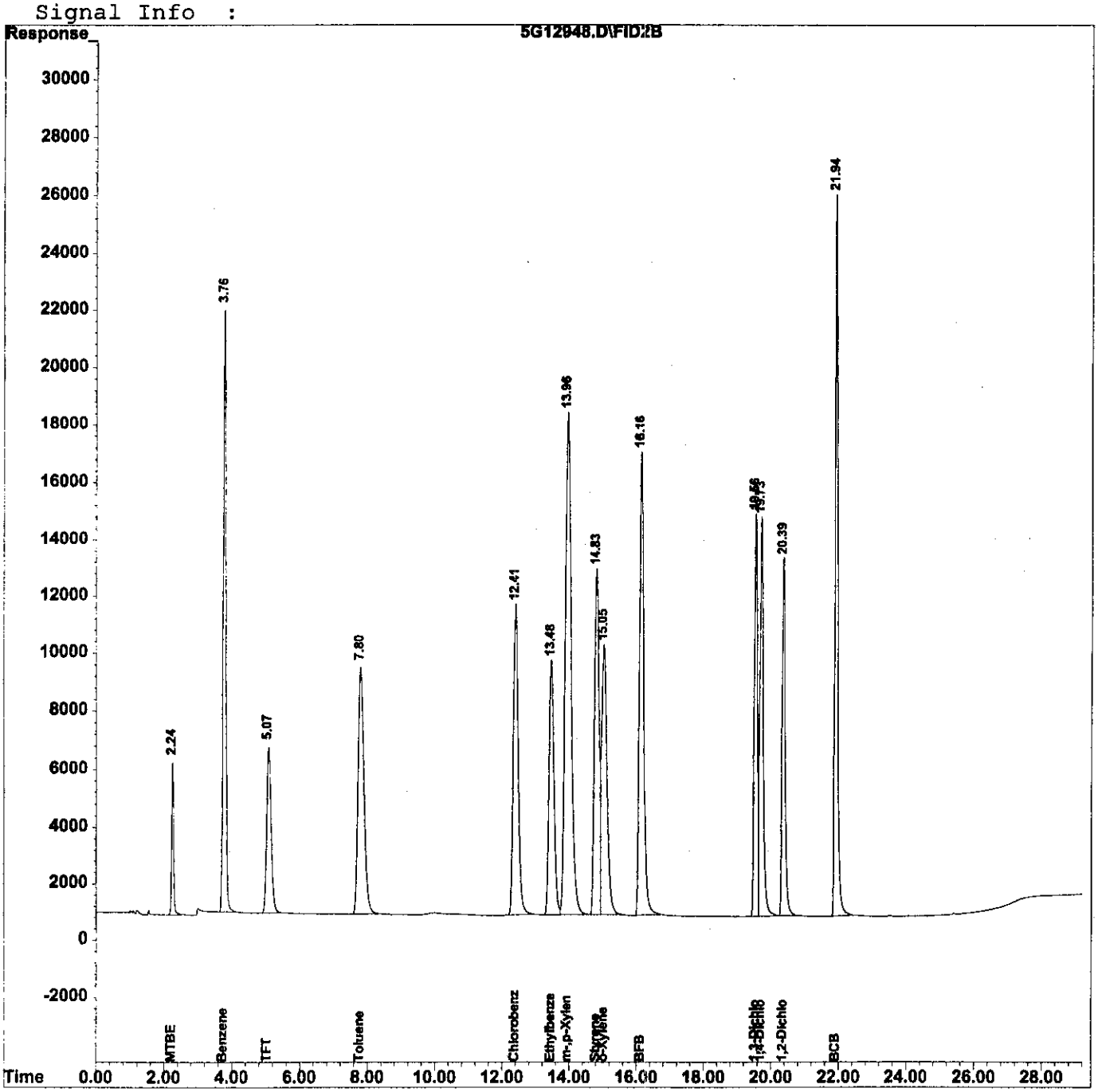
(f)=RT Delta > 1/2 Window (m)=manual int ... 252

Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12948.D Vial: 3
Acq On : 22 Apr 2002 14:39 Operator: CBN
Sample : WG116507-03 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12948.D Vial: 3
Acq On : 22 Apr 2002 14:39 Operator: CBN
Sample : WG116507-03 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	537047	30.2956 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.99%			
10) S BFB	16.16	1437037	30.0761 ug/L
Spiked Amount 30.000 Recovery = 100.25%			
14) S BCB	21.94	1406625	30.0414 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 100.14%			
Target Compounds			
1) TM MTBE	2.24	215108	20.5503 ug/L
2) TM Benzene	3.76	1150225	20.5070 ug/L
4) TM Toluene	7.80	1049846	20.5397 ug/L
5) TM Chlorobenzene	12.41	1106539	20.4509 ug/L
6) TM Ethylbenzene	13.48	906551	20.5014 ug/L
7) TM m-,p-Xylene	13.97	2170128	41.0274 ug/L
8) TM Styrene	14.83	1145612	20.6582 ug/L
9) TM o-Xylene	15.05	1057926	20.5165 ug/L
11) TM 1,3-Dichlorobenzene	19.57	890328	18.9188 ug/L
12) TM 1,4-Dichlorobenzene	19.73	990896	21.0558 ug/L
13) TM 1,2-Dichlorobenzene	20.39	779720	20.5803 ug/L

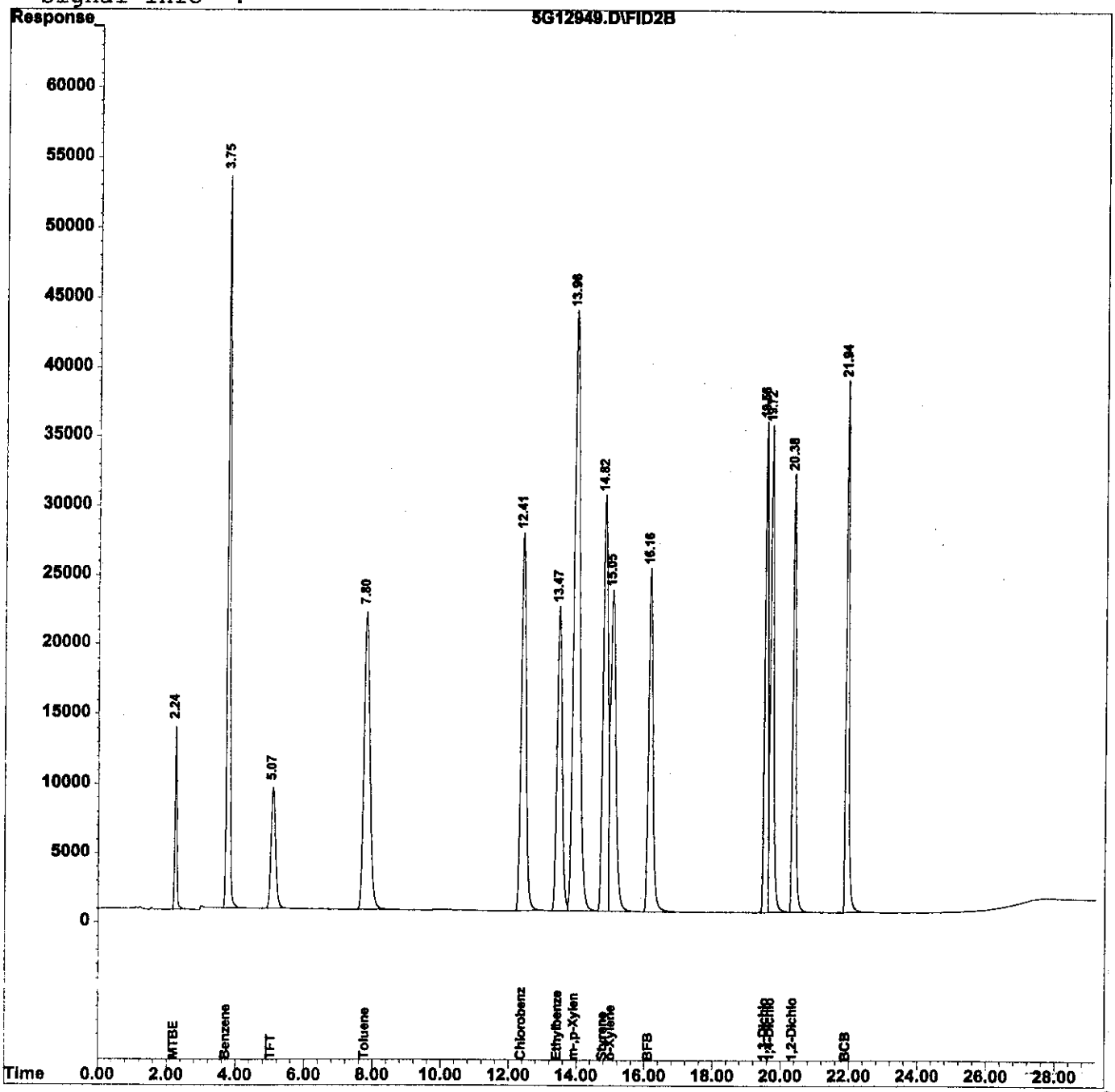
Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12949.D
Acq On : 22 Apr 2002 15:14
Sample : WG116507-04 STD4 50PPB 5ML
Misc : 1,1 S-(93-17),S-92-(36,44)
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



255

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12949.D Vial: 4
Acq On : 22 Apr 2002 15:14 Operator: CBN
Sample : WG116507-04 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

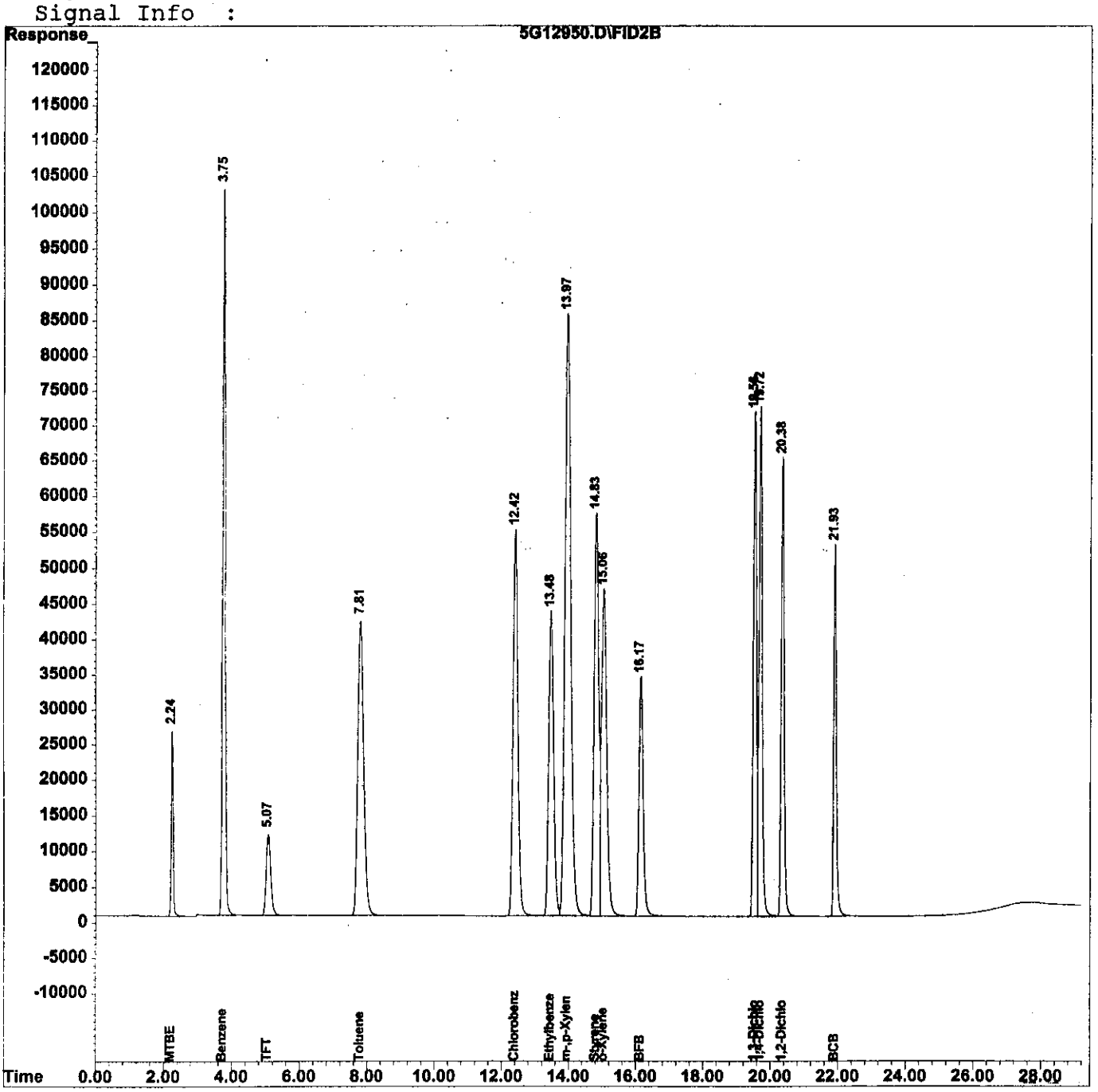
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	807512	45.5529 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 151.84%#	
10) S BFB	16.16	2192778	45.8931 ug/L
Spiked Amount 30.000		Recovery = 152.98%	
14) S BCB	21.94	2125866	45.4023 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 151.34%#	
Target Compounds			
1) TM MTBE	2.24	523680	50.0297 ug/L
2) TM Benzene	3.76	2843877	50.7025 ug/L
4) TM Toluene	7.80	2608433	51.0328 ug/L
5) TM Chlorobenzene	12.41	2731610	50.4852 ug/L
6) TM Ethylbenzene	13.47	2242060	50.7035 ug/L
7) TM m-,p-Xylene	13.96	5356662	101.2705 ug/L
8) TM Styrene	14.82	2897265	52.2449 ug/L
9) TM o-Xylene	15.05	2583852	50.1091 ug/L
11) TM 1,3-Dichlorobenzene	19.56	2229246	47.3698 ug/L
12) TM 1,4-Dichlorobenzene	19.73	2418650	51.3944 ug/L
13) TM 1,2-Dichlorobenzene	20.38	1932782	51.0148 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12950.D Vial: 5
Acq On : 22 Apr 2002 15:48 Operator: CBN
Sample : WG116507-05 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12950.D Vial: 5
Acq On : 22 Apr 2002 15:48 Operator: CBN
Sample : WG116507-05 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	1052975	59.3998 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 198.00%#			
10) S BFB	16.17	2925355	61.2254 ug/L
Spiked Amount 30.000 Recovery = 204.08%			
14) S BCB	21.94	2845744	60.7768 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 202.59%#			
Target Compounds			
1) TM MTBE	2.24	1036822	99.0526 ug/L
2) TM Benzene	3.75	5501929	98.0920 ug/L
4) TM Toluene	7.81	5051424	98.8287 ug/L
5) TM Chlorobenzene	12.42	5426734	100.2960 ug/L
6) TM Ethylbenzene	13.49	4394325	99.3763 ug/L
7) TM m-,p-Xylene	13.97	10403552	196.6845 ug/L
8) TM Styrene	14.84	5341161	96.3145 ug/L
9) TM o-Xylene	15.06	5004098	97.0453 ug/L
11) TM 1,3-Dichlorobenzene	19.56	4470416	94.9929 ug/L
12) TM 1,4-Dichlorobenzene	19.72	4785322	101.6844 ug/L
13) TM 1,2-Dichlorobenzene	20.38	3869496	102.1334 ug/L

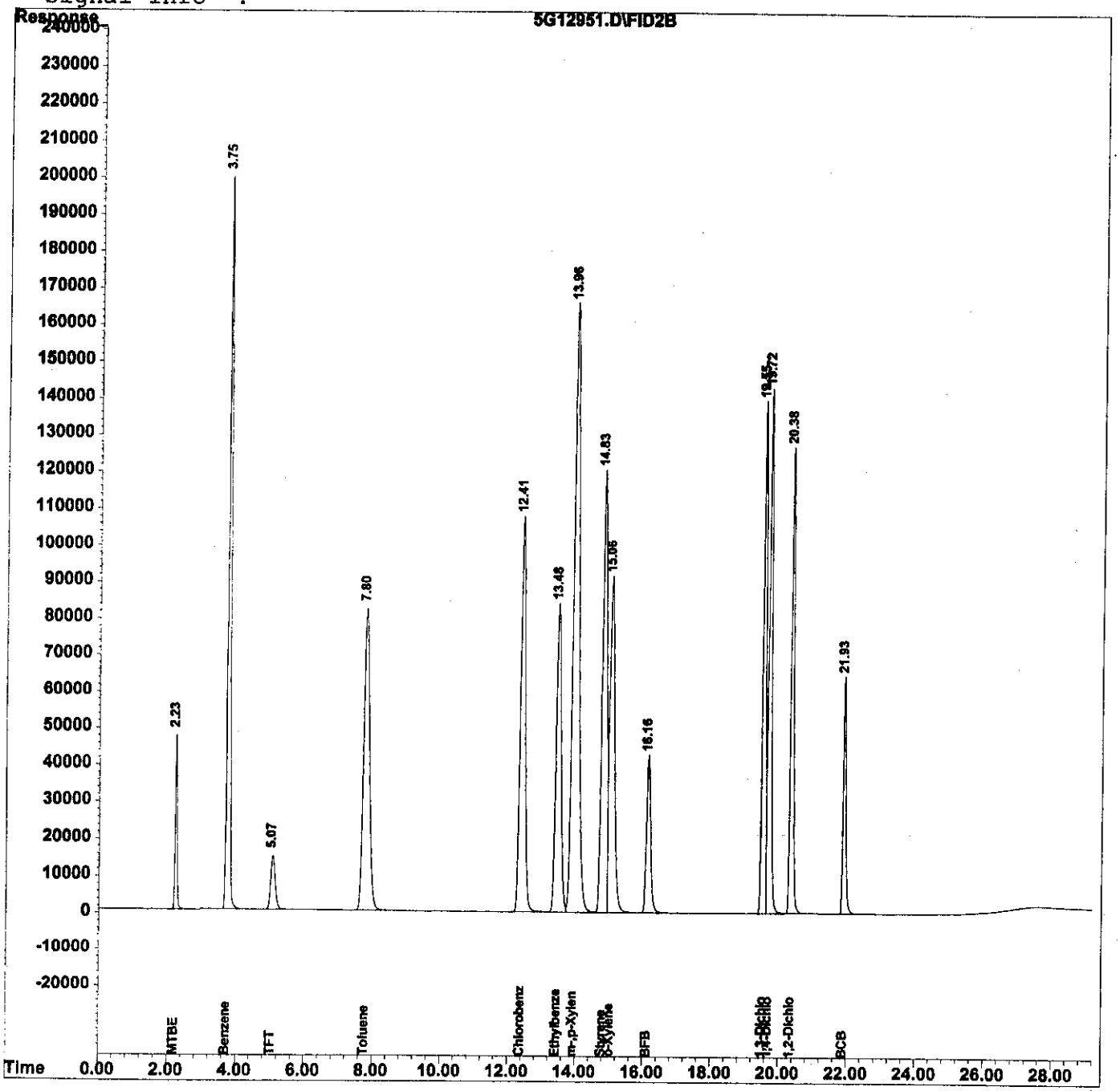
Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12951.D
Acq On : 22 Apr 2002 16:23
Sample : WG116507-06 STD6 200PPB 5ML
Misc : 1,1 S-(93-17),S-92-(36,44)
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Vial: 6
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12951.D Vial: 6
Acq On : 22 Apr 2002 16:23 Operator: CBN
Sample : WG116507-06 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	1333832	75.2433 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 250.81%#			
10) S BFB	16.16	3619677	75.7570 ug/L
Spiked Amount 30.000 Recovery = 252.52%			
14) S BCB	21.94	3466056	74.0249 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 246.75%#			
Target Compounds			
1) TM MTBE	2.24	1862797	177.9620 ug/L
2) TM Benzene	3.75	10728979	191.2832 ug/L
4) TM Toluene	7.80	9901450	193.7172 ug/L
5) TM Chlorobenzene	12.41	10606672	196.0308 ug/L
6) TM Ethylbenzene	13.48	8552369	193.4091 ug/L
7) TM m-,p-Xylene	13.97	20020076	378.4899 ug/L
8) TM Styrene	14.83	11339575	204.4809 ug/L
9) TM o-Xylene	15.06	9611978	186.4066 ug/L
11) TM 1,3-Dichlorobenzene	19.55	8798263	186.9563 ug/L
12) TM 1,4-Dichlorobenzene	19.72	9220416	195.9268 ug/L
13) TM 1,2-Dichlorobenzene	20.38	7443401	196.4647 ug/L

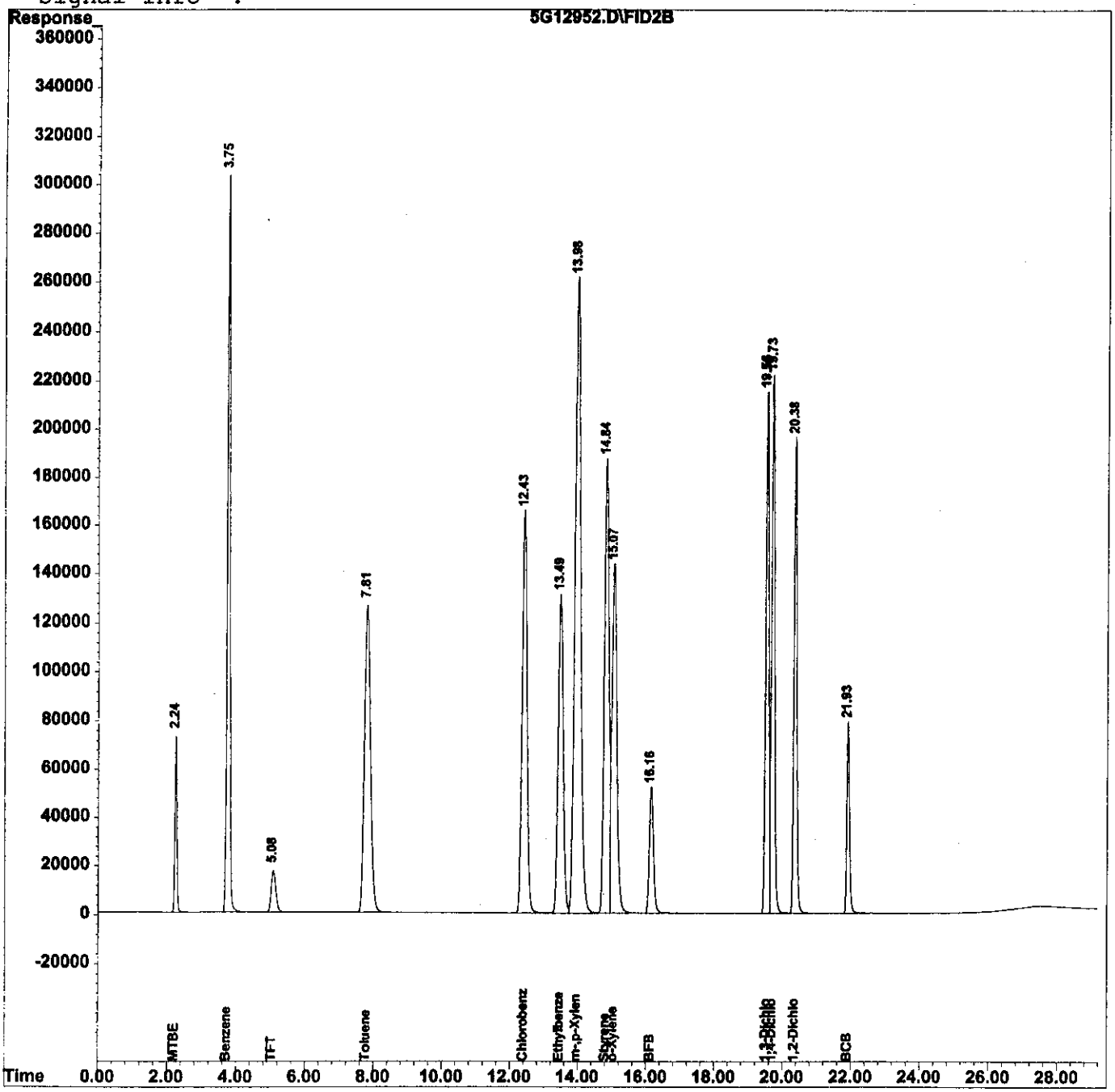
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12952.D Vial: 7
Acq On : 22 Apr 2002 16:58 Operator: CBN
Sample : WG116507-07 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12952.D Vial: 7
Acq On : 22 Apr 2002 16:58 Operator: CBN
Sample : WG116507-07 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	1590258	89.7086 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 299.03%#			
10) S BFB	16.17	4333947	90.7061 ug/L
Spiked Amount 30.000 Recovery = 302.35%			
14) S BCB	21.93	4198503	89.6678 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 298.89%#			
Target Compounds			
1) TM MTBE	2.24	2935664	280.4582 ug/L
2) TM Benzene	3.75	16585339	295.6942 ug/L
4) TM Toluene	7.81	15528746	303.8126 ug/L
5) TM Chlorobenzene	12.43	16406053	303.2140 ug/L
6) TM Ethylbenzene	13.49	13415617	303.3899 ug/L
7) TM m-,p-Xylene	13.98	31047355	586.9664 ug/L
8) TM Styrene	14.84	17507932	315.7119 ug/L
9) TM o-Xylene	15.07	14625810	283.6407 ug/L
11) TM 1,3-Dichlorobenzene	19.56	13510483	287.0874 ug/L
12) TM 1,4-Dichlorobenzene	19.73	14010936	297.7217 ug/L
13) TM 1,2-Dichlorobenzene	20.38	11386255	300.5344 ug/L

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.052 E3	-5.6	103	0.00
2	TM	Benzene	56.089	59.558 E3	-6.2	104	0.00
3	S	TFT	17.727	17.906 E3	-1.0	100	0.00
4	TM	Toluene	51.113	54.406 E3	-6.4	104	0.00
5	TM	Chlorobenzene	54.107	56.529 E3	-4.5	102	0.00
6	TM	Ethylbenzene	44.219	47.600 E3	-7.6	105	0.00
7	TM	m-,p-Xylene	52.895	55.632 E3	-5.2	103	0.00
8	TM	Styrene	55.455	58.150 E3	-4.9	102	0.00
9	TM	o-Xylene	51.565	53.613 E3	-4.0	101	-0.01
10	S	BFB	47.780	46.240 E3	3.2	97	-0.01
11	TM	1,3-Dichlorobenzene	43.477	46.342 E3	-6.6	104	-0.01
12	TM	1,4-Dichlorobenzene	47.061	50.837 E3	-8.0	103	-0.01
13	TM	1,2-Dichlorobenzene	37.887	40.945 E3	-8.1	105	0.00
14	S	BCB	46.823	46.651 E3	0.4	99	0.00

263

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.117	-5.6	103	0.00
2	TM	Benzene	20.000	21.237	-6.2	104	0.00
3	S	TFT	30.000	30.303	-1.0	100	0.00
4	TM	Toluene	20.000	21.288	-6.4	104	0.00
5	TM	Chlorobenzene	20.000	20.895	-4.5	102	0.00
6	TM	Ethylbenzene	20.000	21.529	-7.6	105	0.00
7	TM	m-,p-Xylene	40.000	42.070	-5.2	103	0.00
8	TM	Styrene	20.000	20.972	-4.9	102	0.00
9	TM	o-Xylene	20.000	20.795	-4.0	101	-0.01
10	S	BFB	30.000	29.033	3.2	97	-0.01
11	TM	1,3-Dichlorobenzene	20.000	21.318	-6.6	104	-0.01
12	TM	1,4-Dichlorobenzene	20.000	21.605	-8.0	103	-0.01
13	TM	1,2-Dichlorobenzene	20.000	21.614	-8.1	105	0.00
14	S	BCB	30.000	29.890	0.4	99	0.00

264

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

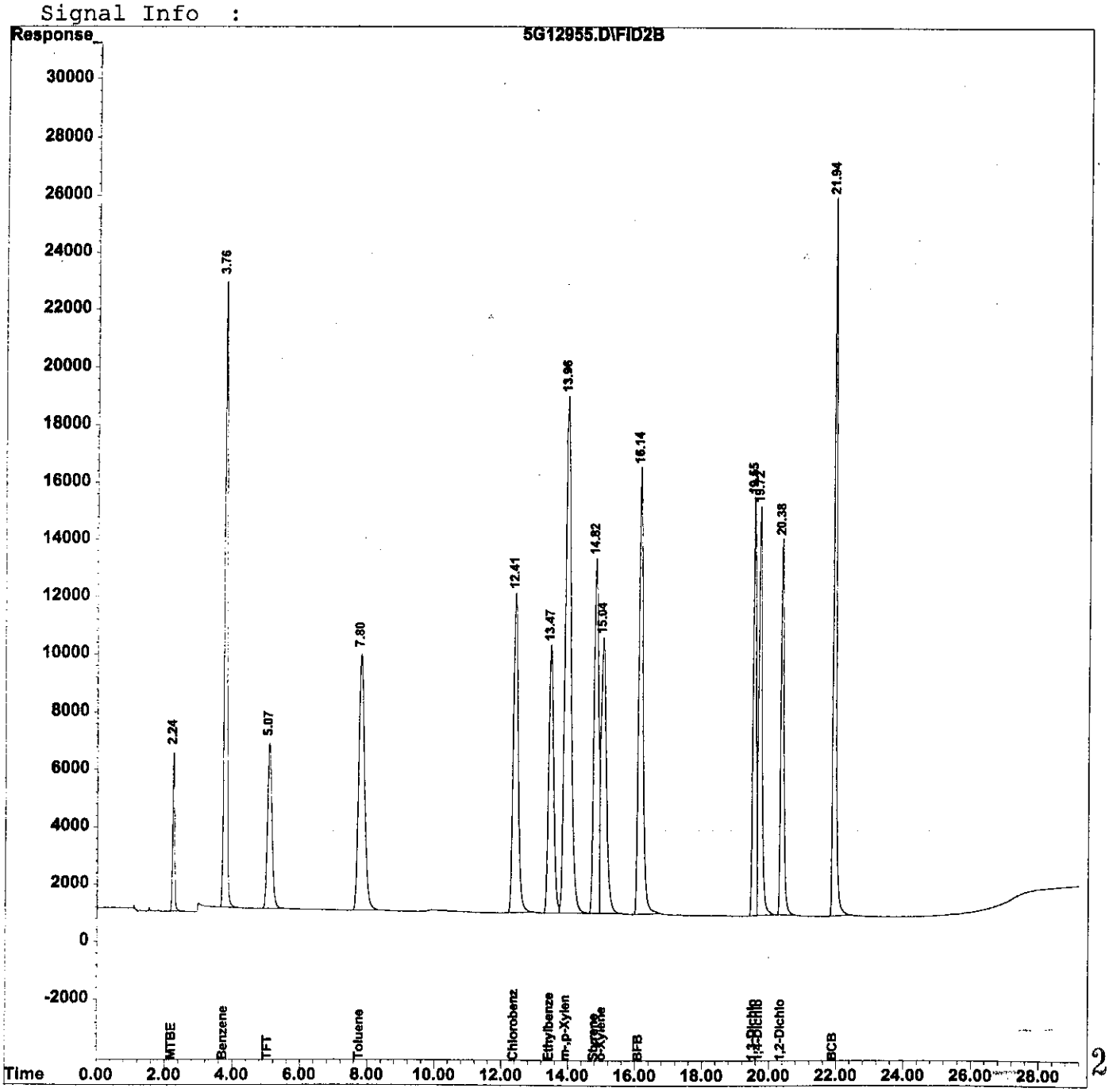
Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D
Acq On : 22 Apr 2002 18:42
Sample : WG116507-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-92-44
IntFile : autoint1.e
Quant Time: Apr 23 13:20 2002 Quant Results File: 602STY.RES

Vial: 10
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



265

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:20 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	537186	30.3034 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	101.01%
10) S BFB	16.15	1387204	29.0331 ug/L
Spiked Amount 30.000		Recovery =	96.78%
14) S BCB	21.94	1399522	29.8897 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.63%
Target Compounds			
1) TM MTBE	2.24	221045	21.1175 ug/L
2) TM Benzene	3.76	1191168	21.2369 ug/L
4) TM Toluene	7.80	1088112	21.2884 ug/L
5) TM Chlorobenzene	12.41	1130584	20.8953 ug/L
6) TM Ethylbenzene	13.48	952001	21.5292 ug/L
7) TM m-,p-Xylene	13.96	2225281	42.0701 ug/L
8) TM Styrene	14.82	1162996	20.9717 ug/L
9) TM o-Xylene	15.04	1072269	20.7947 ug/L
11) TM 1,3-Dichlorobenzene	19.55	926849	21.3180 ug/L
12) TM 1,4-Dichlorobenzene	19.72	1016744	21.6050 ug/L
13) TM 1,2-Dichlorobenzene	20.38	818900	21.6144 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
5G12955.D 602STY.M Tue Apr 23 13:20:56 2002

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 5/13/02
Last Calibration: Mon May 13 17:42:47 2002

Calibration Files

Compound	1 11G13543.D	10 11G13535.D	20 11G13536.D	50 11G13537.D	100 11G13538.D	200 11G13539.D	300 11G13540.D	Avg	%RSD
MTBE	151554.8	140206.7	142304.1	131719.4	139307.7	139893.6	145658.5	141521.0	4.315
Benzene	308432.3	327543.0	338058.6	309068.0	334187.9	330720.7	319883.7	323985.0	3.655
TFT	96905.0	108487.8	108572.4	114188.8	110044.2	110044.5	112109.3	108622.0	5.105
Toluene	317868.6	327243.3	327841.3	299815.6	330114.8	329020.1	322830.9	322105.0	3.321
Chlorobenzene	311353.7	320836.8	330032.4	310333.5	344502.2	345762.3	342705.3	329361.0	4.697
Ethylbenzene	286492.3	283547.4	286508.0	264017.2	290069.6	287919.3	284028.3	283226.0	3.092
m-,p-Xylene	370425.0	363885.4	359151.2	325238.6	353382.4	347341.0	339735.0	351308.0	4.377
o-Xylene	301874.5	314474.8	312039.3	284563.4	311270.0	306114.6	300633.3	304424.0	3.350
BFB	273090.9	300613.3	311481.5	334655.2	320124.7	319698.5	330096.3	312823.0	6.661
1,3-Dichlorobenzene	300154.6	283326.7	294810.4	282354.3	316749.3	317934.0	308430.0	300537.0	4.874
1,4-Dichlorobenzene	310897.1	309364.8	324478.1	301859.4	331106.4	327282.2	322582.1	318224.0	3.409
1,2-Dichlorobenzene	253900.0	285413.5	289382.6	263327.5	283777.1	277307.0	267899.8	274430.0	4.768
BCB	271385.6	284245.0	306947.3	331790.0	319950.6	320559.9	329621.0	309214.0	7.503

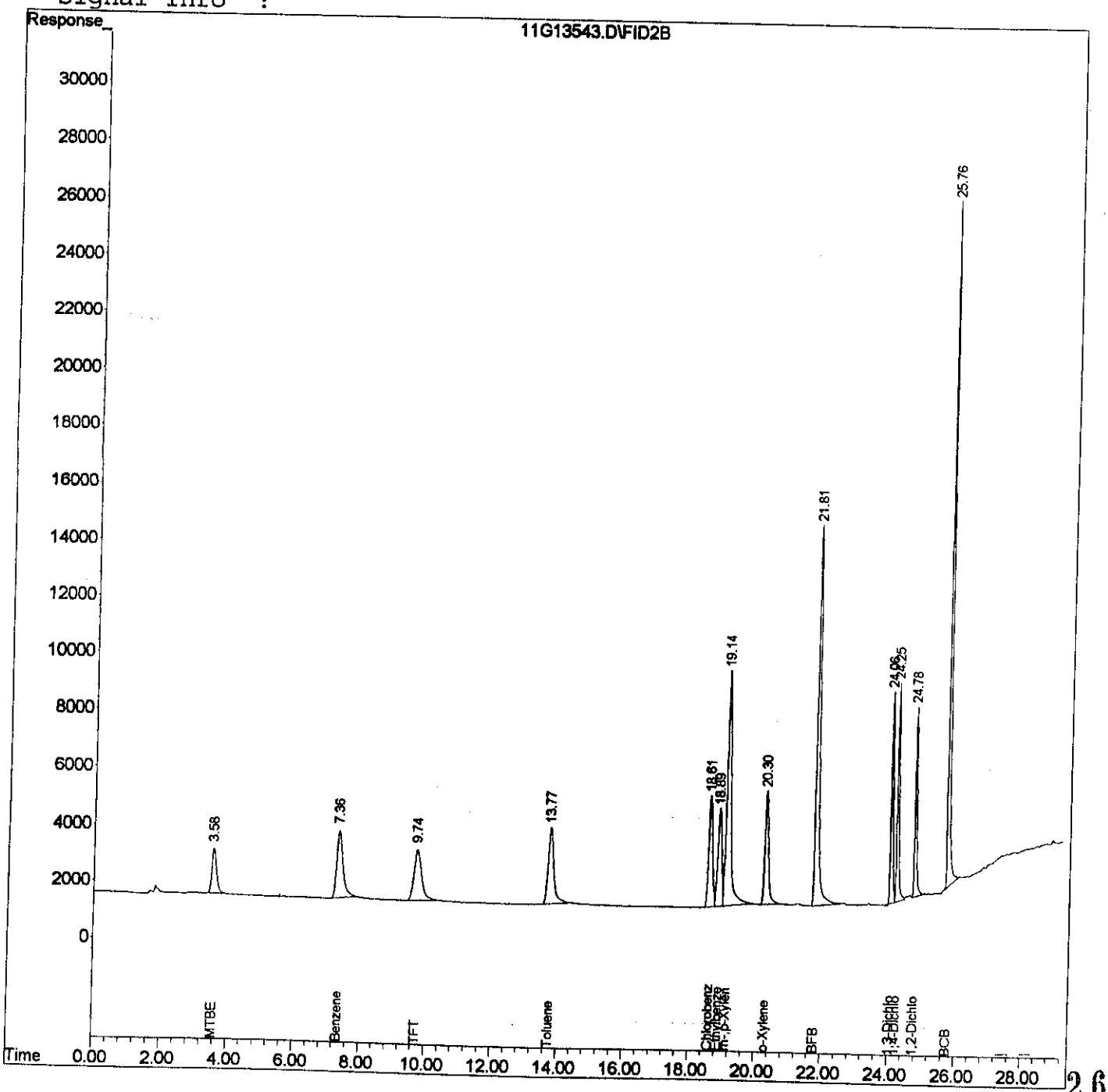
Mon May 13 18:19:57 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13543.D
Acq On : 13 May 2002 5:11 pm
Sample : WG117338-01 8021 STD 1 1PPB 5ML
Misc : 1,1 S-(94-01,92-44)
IntFile : autoint1.e
Quant Time: May 13 17:40 2002 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



268

11G13543.D 8021W.M Mon May 13 17:40:20 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13543.D
Acq On : 13 May 2002 5:11 pm
Sample : WG117338-01 8021 STD 1 1PPB 5ML
Misc : 1,1 S-(94-01,92-44)
IntFile : autoint1.e
Quant Time: May 13 17:40 2002 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	290715	2.6068 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery =	8.69%#
9) S BFB			21.81	819273	2.5730 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery =	8.58%#
13) S BCB			25.76	814157	2.5226 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery =	8.41%#
Target Compounds					
1) TM MTBE			3.58	151555	1.1208 UG/L
2) TM Benzene			7.37	308432	0.8882 UG/L
4) TM Toluene			13.77	317869	0.8975 UG/L
5) TM Chlorobenzene			18.61	311354	0.8266 UG/L
6) TM Ethylbenzene			18.89	286492	0.8885 UG/L
7) TM m-,p-Xylene			19.14	740850	1.8562 UG/L
8) TM o-Xylene			20.31	301874	0.8487 UG/L
10) T 1,3-Dichlorobenzene			24.06	300155	0.8480 UG/L
11) T 1,4-Dichlorobenzene			24.25	310897	0.8169 UG/L
12) T 1,2-Dichlorobenzene			24.78	253900	0.7689 UG/L

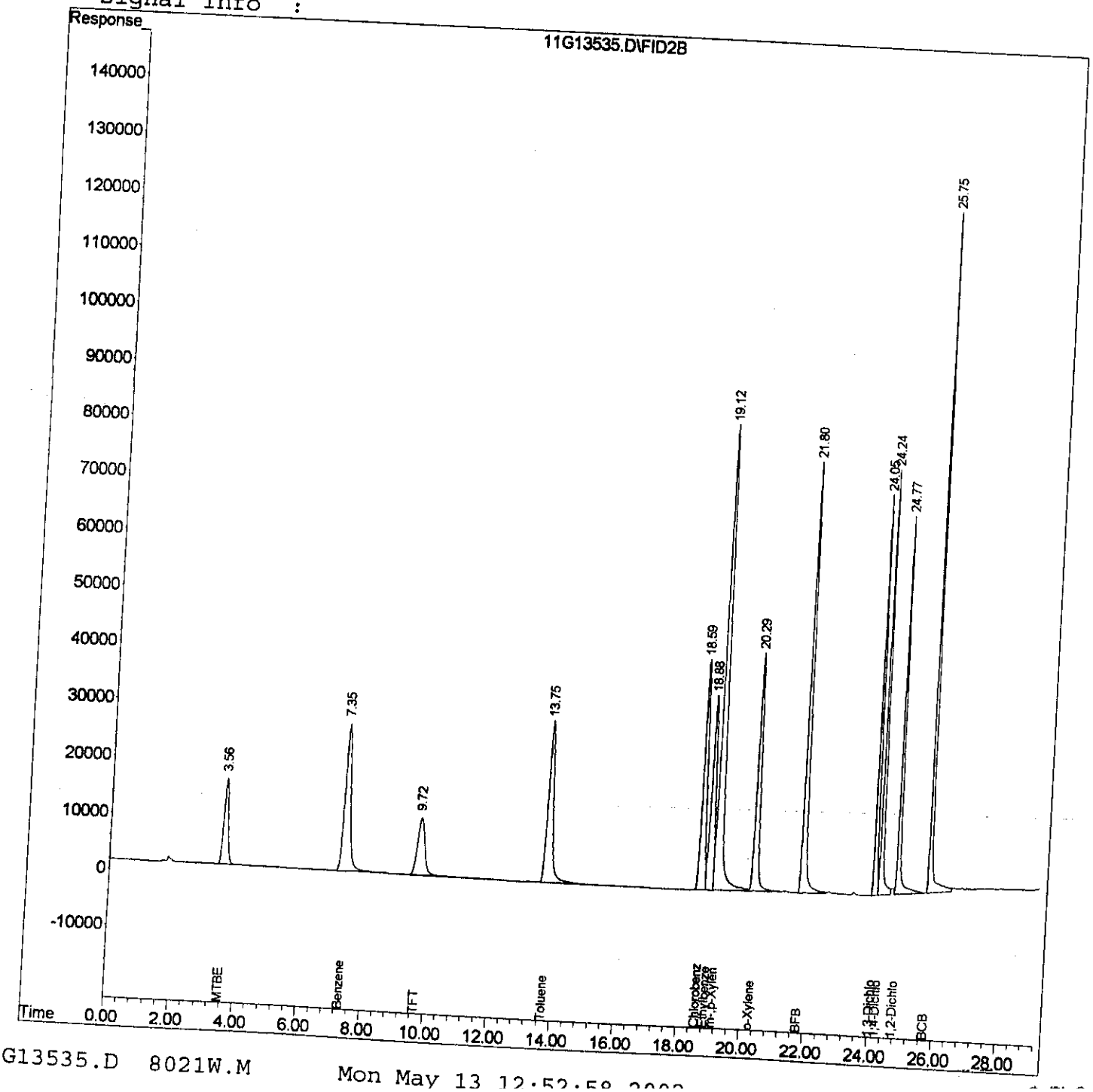
(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\1\DATA\051302\11G13535.D
Acq On : 13 May 2002 12:23 pm
Sample : WG117338-02 8021 STD 2 10PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 12:52 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G13535.D 8021W.M Mon May 13 12:52:58 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13535.D
Acq On : 13 May 2002 12:23 pm
Sample : WG117338-02 8021 STD 2 10PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 12:52 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.72	1627317	14.5922 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 48.64%#
9) S BFB			21.80	4509200	14.1618 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 47.21%#
13) S BCB			25.75	4263676	13.2107 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 44.04%
Target Compounds					
1) TM MTBE			3.56	1402067	10.3684 UG/L
2) TM Benzene			7.35	3275430	9.4323 UG/L
4) TM Toluene			13.75	3272433	9.2394 UG/L
5) TM Chlorobenzene			18.60	3208368	8.5176 UG/L
6) TM Ethylbenzene			18.88	2835474	8.7934 UG/L
7) TM m-,p-Xylene			19.12	7277709	18.2347 UG/L
8) TM o-Xylene			20.29	3144748	8.8417 UG/L
10) T 1,3-Dichlorobenzene			24.06	2833267	8.0050 UG/L
11) T 1,4-Dichlorobenzene			24.24	3093648	8.1288 UG/L
12) T 1,2-Dichlorobenzene			24.77	2854135	8.6437 UG/L

(f)=RT Delta > 1/2 Window

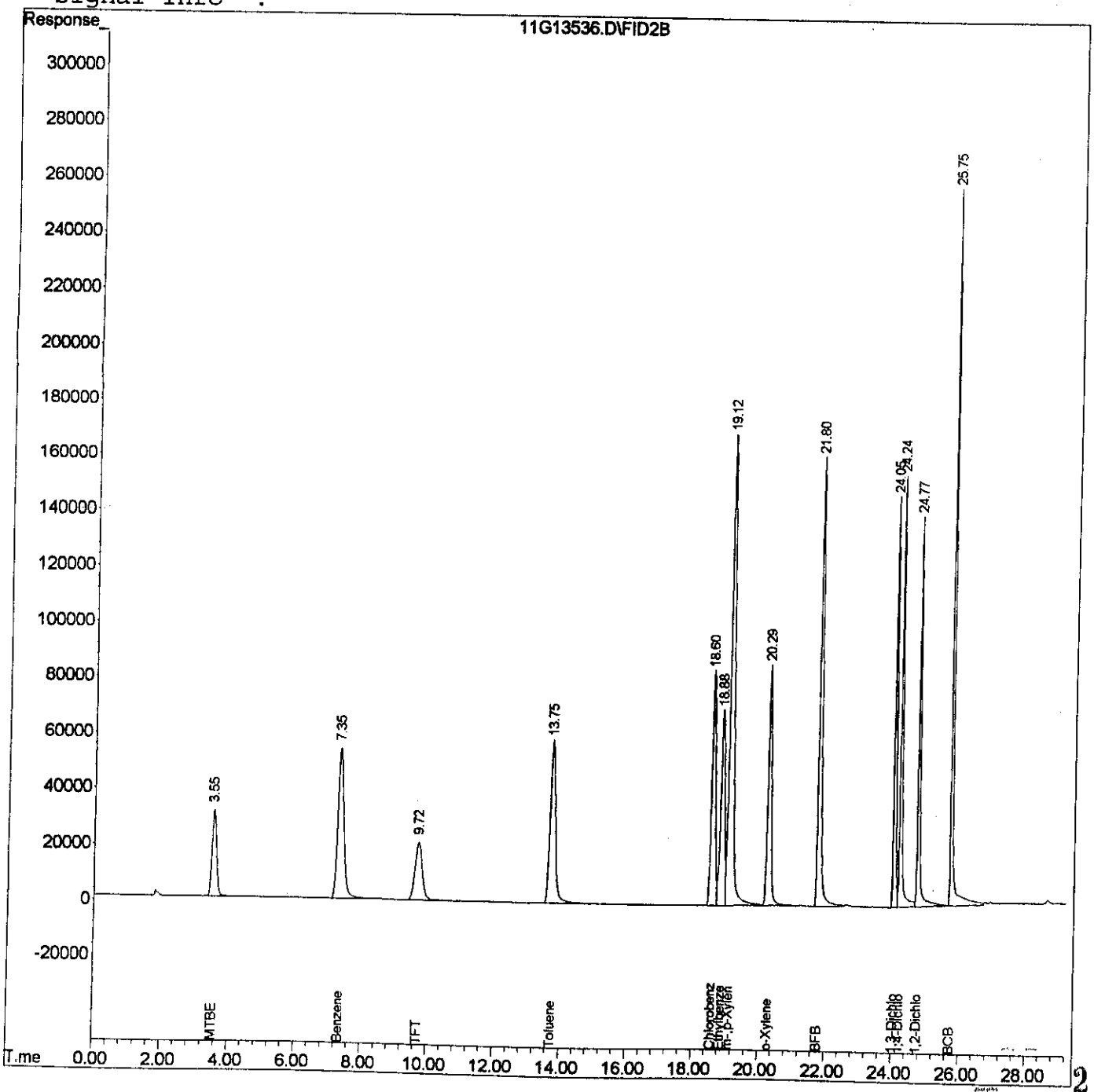
271

Data File : C:\HPCHEM\1\DATA\051302\11G13536.D
Acq On : 13 May 2002 12:58 pm
Sample : WG117338-03 8021 STD 3 20PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 13:27 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



272

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13536.D Vial: 3
Acq On : 13 May 2002 12:58 pm Operator: CBN
Sample : WG117338-03 8021 STD 3 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 13:27 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

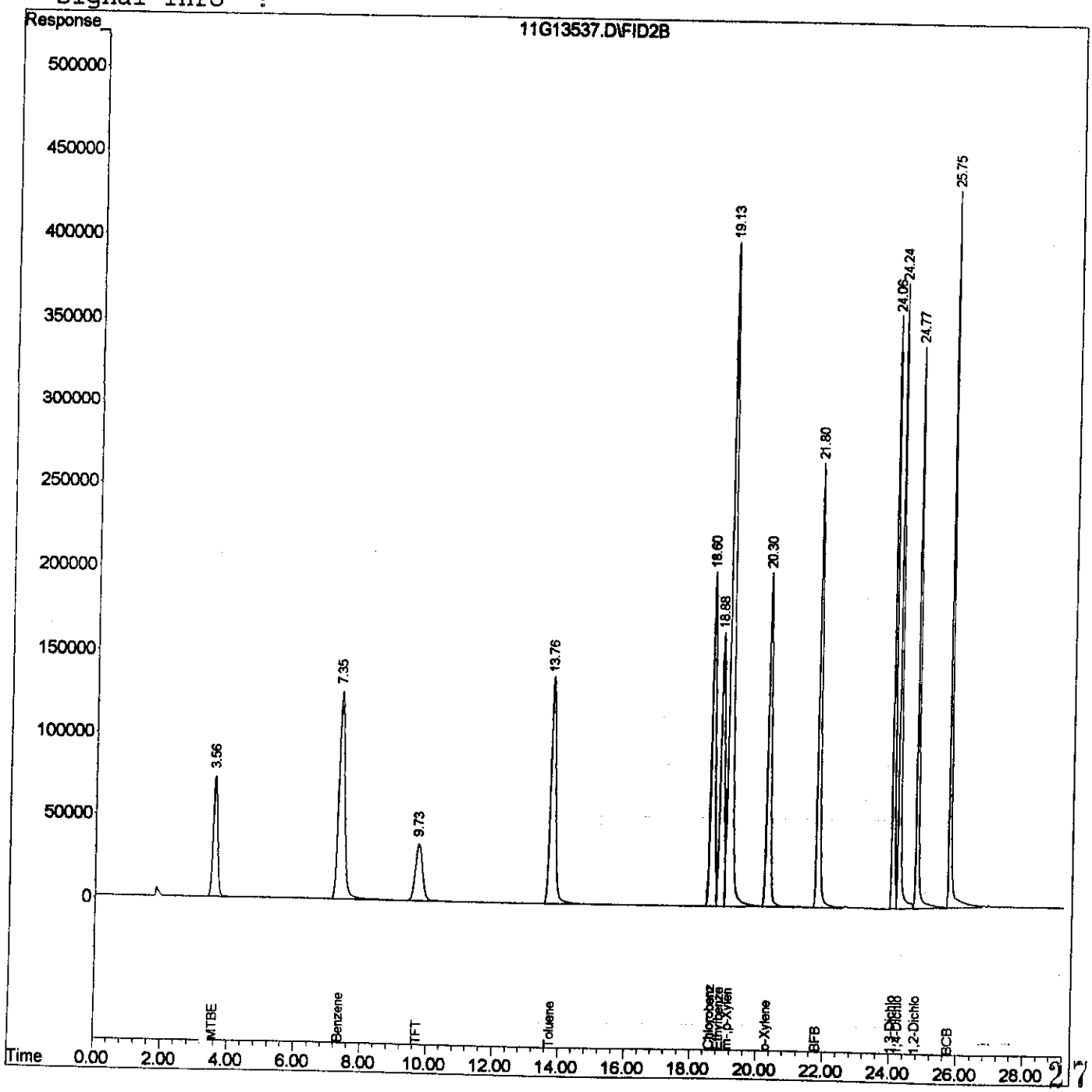
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	3257171	29.2071 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 97.36%
9) S BFB	21.80	9344446	29.3475 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 97.82%
13) S BCB	25.75	9208420	28.5316 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 95.11%
Target Compounds			
1) TM MTBE	3.56	2846083	21.0471 UG/L
2) TM Benzene	7.35	6761172	19.4702 UG/L
4) TM Toluene	13.75	6556825	18.5126 UG/L
5) TM Chlorobenzene	18.60	6600647	17.5234 UG/L
6) TM Ethylbenzene	18.88	5730160	17.7705 UG/L
7) TM m-,p-Xylene	19.13	14366047	35.9949 UG/L
8) TM o-Xylene	20.29	6240785	17.5465 UG/L
10) T 1,3-Dichlorobenzene	24.06	5896208	16.6589 UG/L
11) T 1,4-Dichlorobenzene	24.24	6489562	17.0519 UG/L
12) T 1,2-Dichlorobenzene	24.77	5787652	17.5277 UG/L

Data File : C:\HPCHEM\1\DATA\051302\11G13537.D
Acq On : 13 May 2002 1:33 pm
Sample : WG117338-04 8021 STD 4 50PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 14:02 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



274

11G13537.D 8021W.M Mon May 13 14:02:18 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13537.D
Acq On : 13 May 2002 1:33 pm
Sample : WG117338-04 8021 STD 4 50PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 14:02 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.73	5138497	46.0769 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 153.59%#
9) S BFB			21.81	15059484	47.2964 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 157.65%#
13) S BCB			25.75	14930551	46.2612 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 154.20%#
Target Compounds					
1) TM MTBE			3.56	6585968	48.7039 UG/L
2) TM Benzene			7.36	15453398	44.5014 UG/L
4) TM Toluene			13.76	14990780	42.3251 UG/L
5) TM Chlorobenzene			18.60	15516675	41.1937 UG/L
6) TM Ethylbenzene			18.89	13200860	40.9387 UG/L
7) TM m-,p-Xylene			19.13	32523856	81.4904 UG/L
8) TM o-Xylene			20.30	14228168	40.0038 UG/L
10) T 1,3-Dichlorobenzene			24.06	14117714	39.8876 UG/L
11) T 1,4-Dichlorobenzene			24.24	15092969	39.6580 UG/L
12) T 1,2-Dichlorobenzene			24.77	13166373	39.8740 UG/L

(f)=RT Delta > 1/2 Window

275

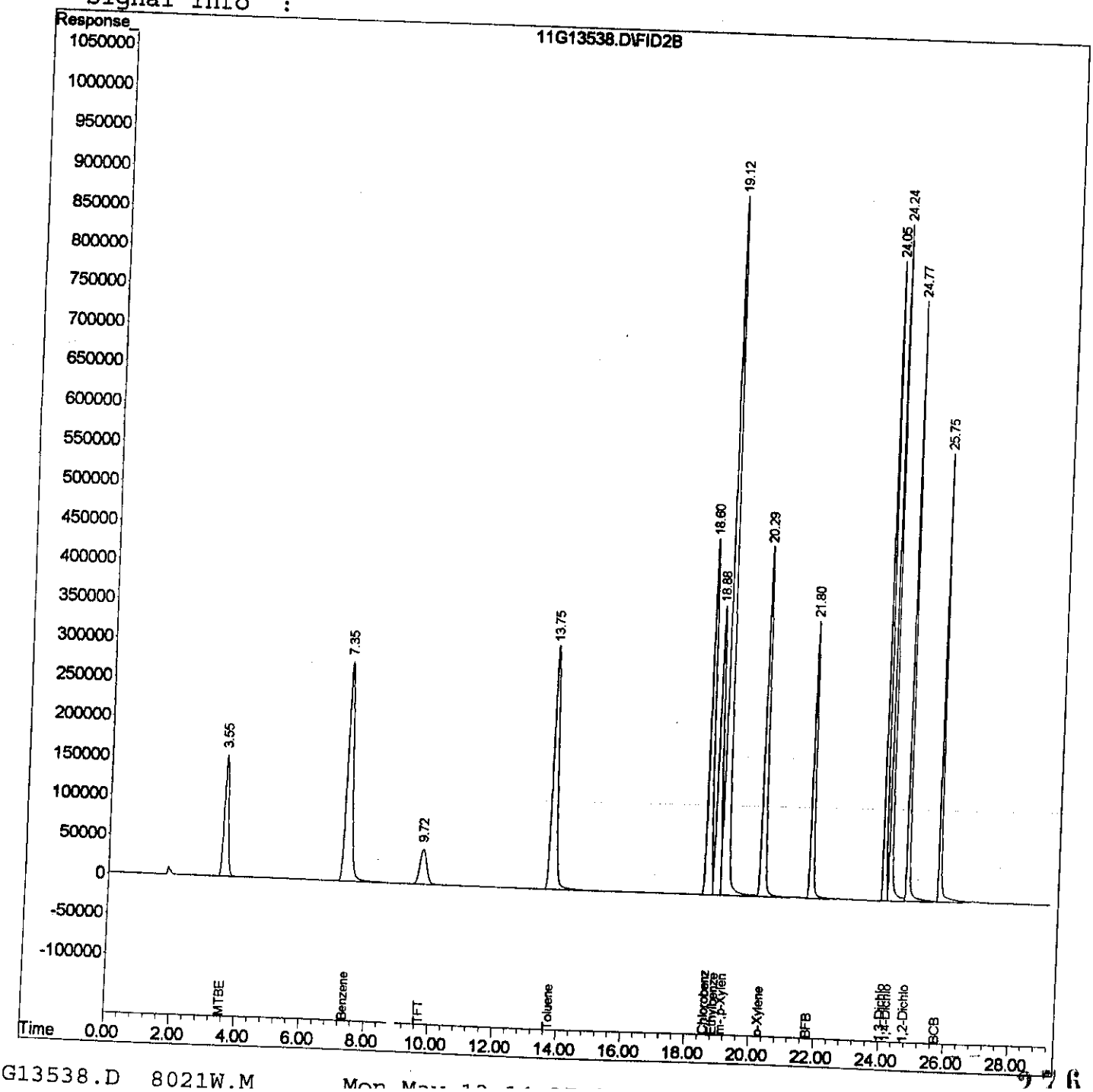
(Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13538.D
Acq On : 13 May 2002 2:07 pm
Sample : WG117338-05 8021 STD 5 100PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 14:37 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G13538.D 8021W.M Mon May 13 14:37 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13538.D
Acq On : 13 May 2002 2:07 pm
Sample : WG117338-05 8021 STD 5 100PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 14:37 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.72	6602653	59.2060 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 197.35%#
9) S BFB			21.80	19207480	60.3238 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 201.08%#
13) S BCB			25.75	19197037	59.4806 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 198.27%#
Target Compounds					
1) TM MTBE			3.56	13930766	103.0194 UG/L
2) TM Benzene			7.35	33418790	96.2365 UG/L
4) TM Toluene			13.75	33011484	93.2048 UG/L
5) TM Chlorobenzene			18.60	34450221	91.4586 UG/L
6) TM Ethylbenzene			18.88	29006956	89.9569 UG/L
7) TM m-,p-Xylene			19.12	70676483	177.0840 UG/L
8) TM o-Xylene			20.29	31127004	87.5163 UG/L
10) T 1,3-Dichlorobenzene			24.05	31674928	89.4930 UG/L
11) T 1,4-Dichlorobenzene			24.24	33110643	87.0010 UG/L
12) T 1,2-Dichlorobenzene			24.77	28377708	85.9411 UG/L

277

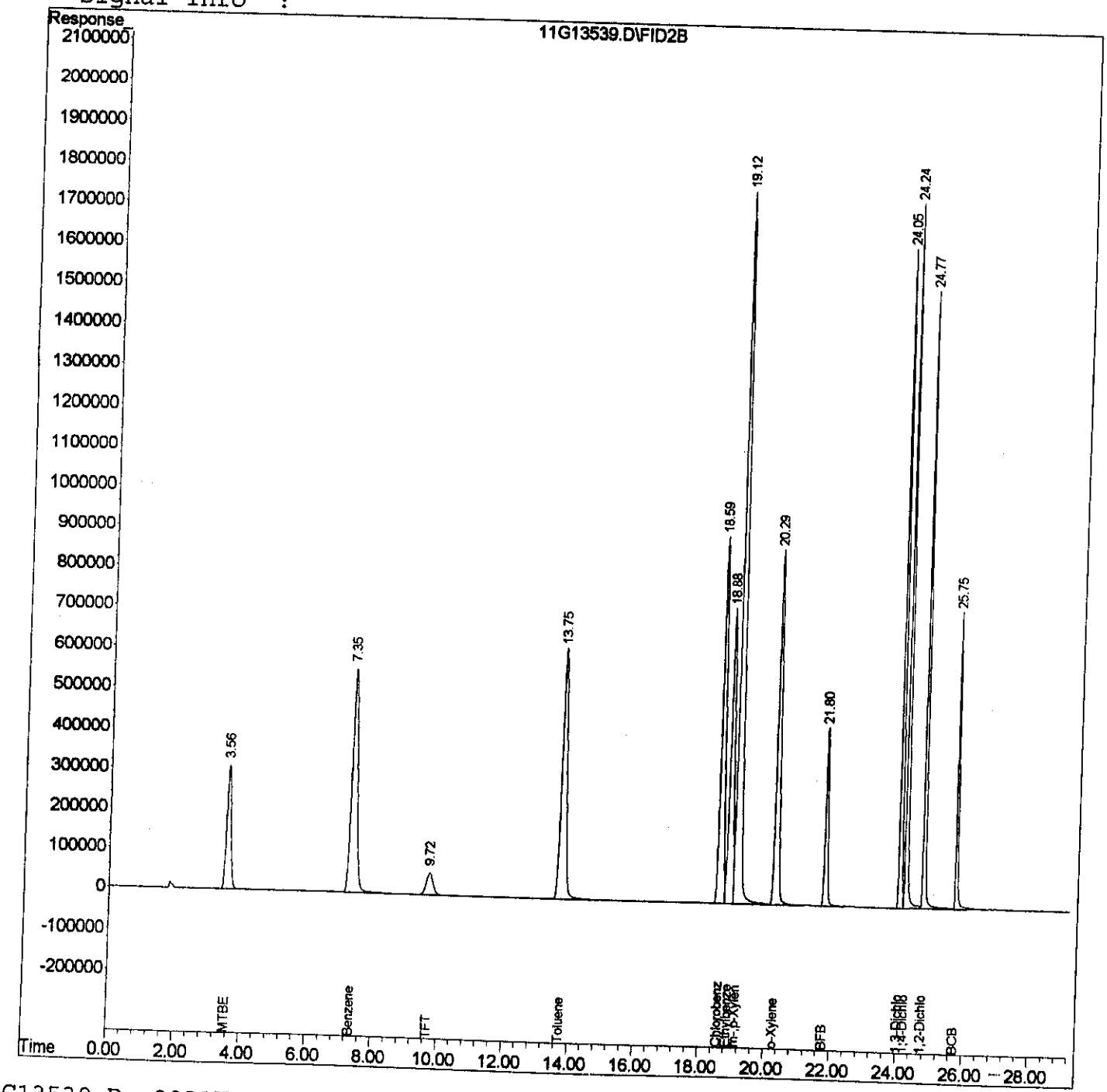
(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\1\DATA\051302\11G13539.D
Acq On : 13 May 2002 2:42 pm
Sample : WG117338-06 8021 STD 6 200PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 15:12 2002 Quant Results File: 8021W.RES

Vial: 6
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G13539.D 8021W.M Mon May 13 15:12:11 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13539.D
Acq On : 13 May 2002 2:42 pm
Sample : WG117338-06 8021 STD 6 200PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 15:12 2002 Quant Results File: 8021W.RES

Vial: 6
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.72	8253341	74.0077 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 246.69%#
9) S BFB			21.80	23977388	75.3043 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 251.01%#
13) S BCB			25.75	24041990	74.4923 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 248.31%#
Target Compounds					
1) TM MTBE			3.56	27978725	206.9054 UG/L
2) TM Benzene			7.35	66144142	190.4762 UG/L
4) TM Toluene			13.75	65804025	185.7915 UG/L
5) TM Chlorobenzene			18.59	69152463	183.5862 UG/L
6) TM Ethylbenzene			18.88	57583861	178.5801 UG/L
7) TM m-,p-Xylene			19.12	138936411	348.1131 UG/L
8) TM o-Xylene			20.29	61222910	172.1336 UG/L
10) T 1,3-Dichlorobenzene			24.05	63586793	179.6554 UG/L
11) T 1,4-Dichlorobenzene			24.24	65456433	171.9922 UG/L
12) T 1,2-Dichlorobenzene			24.77	55461402	167.9633 UG/L

(f)=RT Delta > 1/2 Window

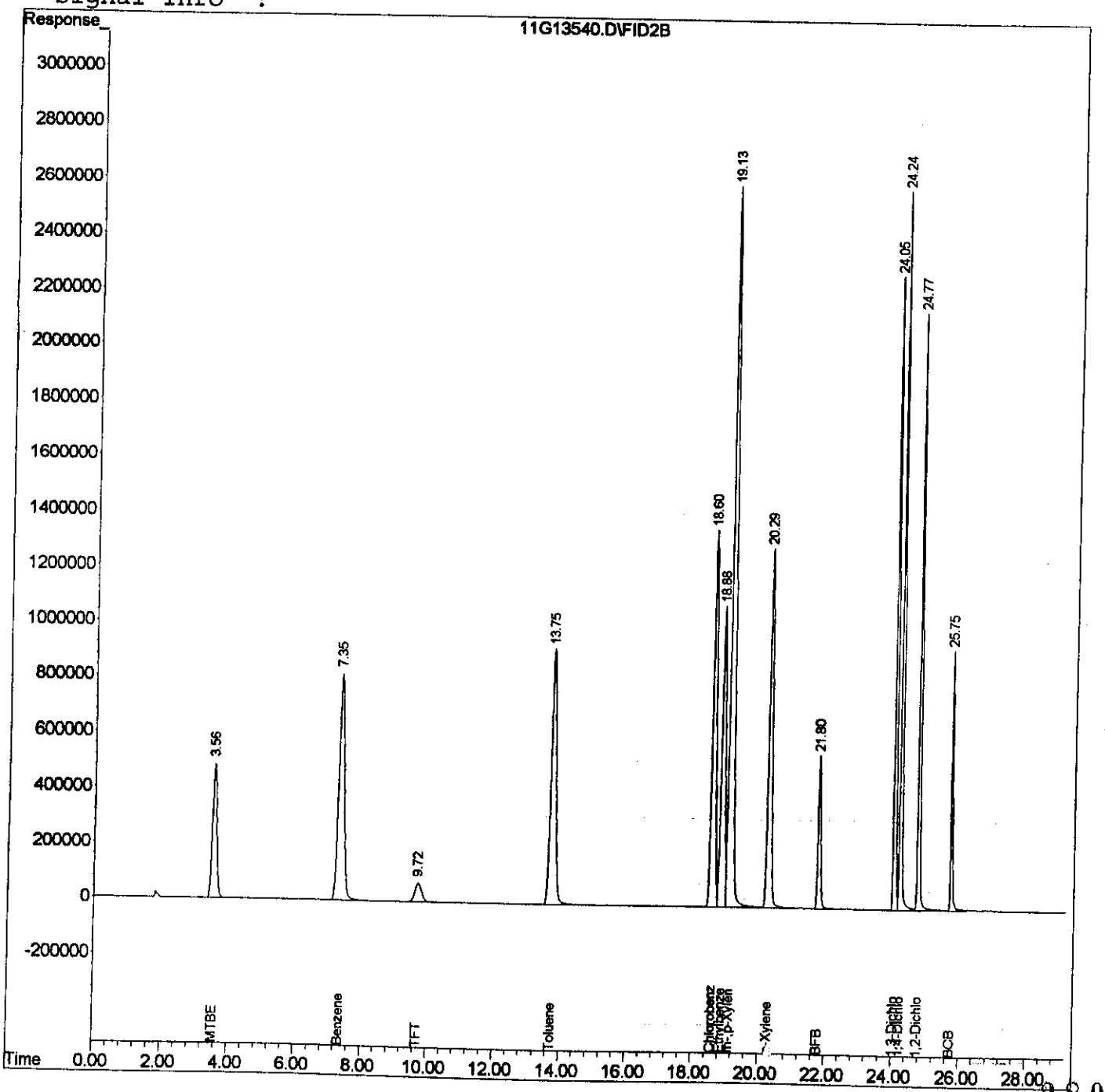
279

Data File : C:\HPCHEM\1\DATA\051302\11G13540.D
Acq On : 13 May 2002 3:17 pm
Sample : WG117338-07 8021 STD 7 300PPB 5ML
Misc : 1,1 S-(94-01,92-44)
IntFile : autoint1.e
Quant Time: May 13 15:47 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G13540.D 8021W.M

Data File : C:\HPCHEM\1\DATA\051302\11G13540.D
Acq On : 13 May 2002 3:17 pm
Sample : WG117338-07 8021 STD 7 300PPB 5ML
Misc : 1,1 S-(94-01,92-44)
IntFile : autoint1.e
Quant Time: May 13 15:47 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.73	10089835	90.4756 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 301.59%#
9) S BFB			21.80	29708663	93.3042 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 311.01%#
13) S BCB			25.75	29665891	91.9176 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 306.39%#
Target Compounds					
1) TM MTBE			3.56	43697556	323.1477 UG/L
2) TM Benzene			7.36	95965113	276.3520 UG/L
4) TM Toluene			13.75	96849261	273.4449 UG/L
5) TM Chlorobenzene			18.60	102811588	272.9446 UG/L
6) TM Ethylbenzene			18.88	85208496	264.2501 UG/L
7) TM m-,p-Xylene			19.13	203840990	510.7352 UG/L
8) TM o-Xylene			20.29	90189977	253.5771 UG/L
10) T 1,3-Dichlorobenzene			24.06	92528991	261.4275 UG/L
11) T 1,4-Dichlorobenzene			24.24	96774635	254.2834 UG/L
12) T 1,2-Dichlorobenzene			24.77	80369936	243.3980 UG/L

(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e

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

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	141.521	147.371	E3	-4.1	104	0.01
2	TM	Benzene	323.985	309.186	E3	4.6	91	0.02
3	S	TFT	108.622	111.350	E3	-2.5	103	0.02
4	TM	Toluene	322.105	331.935	E3	-3.1	101	0.02
5	TM	Chlorobenzene	329.361	326.842	E3	0.8	99	0.01
6	TM	Ethylbenzene	283.226	296.198	E3	-4.6	103	0.01
7	TM	m-,p-Xylene	351.308	358.489	E3	-2.0	100	0.00
8	TM	o-Xylene	304.424	310.084	E3	-1.9	99	0.00
9	S	BFB	312.823	312.169	E3	0.2	100	0.00
10	T	1,3-Dichlorobenzene	300.537	290.478	E3	3.3	99	0.00
11	T	1,4-Dichlorobenzene	318.224	315.630	E3	0.8	97	0.00
12	T	1,2-Dichlorobenzene	274.430	288.099	E3	-5.0	100	0.00
13	S	BCB	309.214	310.874	E3	-0.5	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13544.D 8021W.M Mon May 13 18:31:21 2002

282

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e

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

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.827	-4.1	104	0.01
2	TM	Benzene	20.000	19.086	4.6	91	0.02
3	S	TFT	30.000	30.753	-2.5	103	0.02
4	TM	Toluene	20.000	20.610	-3.0	101	0.02
5	TM	Chlorobenzene	20.000	19.847	0.8	99	0.01
6	TM	Ethylbenzene	20.000	20.916	-4.6	103	0.01
7	TM	m-,p-Xylene	40.000	40.818	-2.0	100	0.00
8	TM	o-Xylene	20.000	20.372	-1.9	99	0.00
9	S	BFB	30.000	29.937	0.2	100	0.00
10	T	1,3-Dichlorobenzene	20.000	19.331	3.3	99	0.00
11	T	1,4-Dichlorobenzene	20.000	19.837	0.8	97	0.00
12	T	1,2-Dichlorobenzene	20.000	20.996	-5.0	100	0.00
13	S	BCB	30.000	30.161	-0.5	101	0.00

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

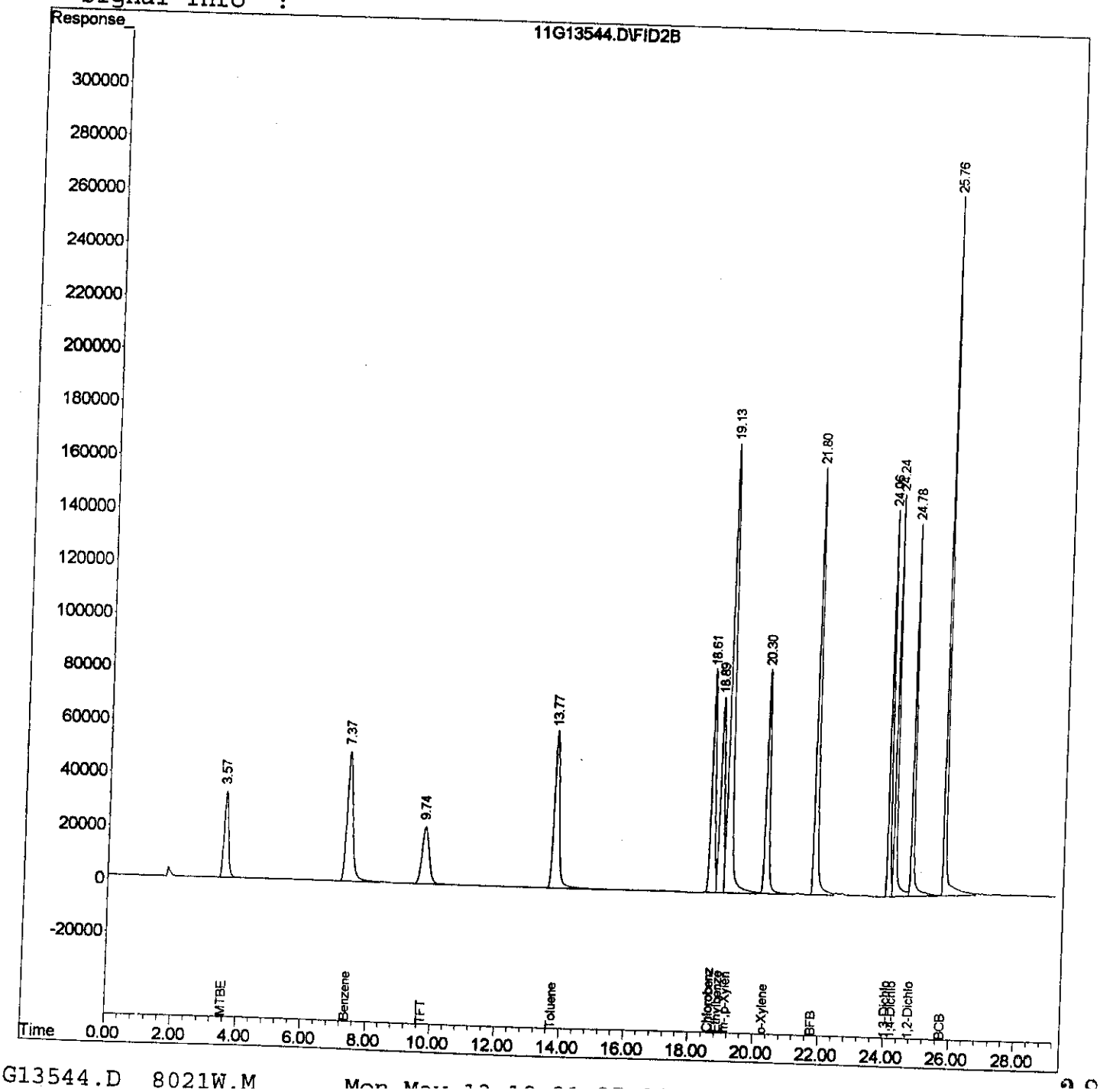
(Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e
Quant Time: May 13 18:28 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G13544.D 8021W.M Mon May 13 ...

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e
Quant Time: May 13 18:28 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	3340486	30.7534 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 102.51%
9) S BFB			21.81	9365082	29.9373 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 99.79%
13) S BCB			25.76	9326225	30.1610 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 100.54%
Target Compounds					
1) TM MTBE			3.57	2947419	20.8268 UG/L
2) TM Benzene			7.37	6183728	19.0865 UG/L
4) TM Toluene			13.77	6638700	20.6104 UG/L
5) TM Chlorobenzene			18.61	6536836	19.8470 UG/L
6) TM Ethylbenzene			18.89	5923954	20.9160 UG/L
7) TM m-,p-Xylene			19.14	14339562	40.8176 UG/L
8) TM o-Xylene			20.30	6201687	20.3719 UG/L
10) T 1,3-Dichlorobenzene			24.06	5809558	19.3306 UG/L
11) T 1,4-Dichlorobenzene			24.24	6312608	19.8370 UG/L
12) T 1,2-Dichlorobenzene			24.78	5761972	20.9962 UG/L

(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\2\DATA\060702\5G13677.D Vial: 1
Acq On : 7 Jun 2002 8:30 Operator: CSH
Sample : WG119380-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	10.942 E3	-4.5	102	0.00
2	TM	Benzene	56.089	60.261 E3	-7.4	105	0.01
3	S	TFT	17.727	18.012 E3	-1.6	101	0.03
4	TM	Toluene	51.113	55.854 E3	-9.3	106	0.04
5	TM	Chlorobenzene	54.107	57.632 E3	-6.5	104	0.05
6	TM	Ethylbenzene	44.219	48.794 E3	-10.3	108	0.04
7	TM	m-,p-Xylene	52.895	57.430 E3	-8.6	106	0.04
8	TM	Styrene	55.455	48.601 E3	12.4	85	0.27
9	TM	o-Xylene	51.565	48.601 E3	5.7	92	0.04
10	S	BFB	47.780	47.779 E3	0.0	100	0.03
11	TM	1,3-Dichlorobenzene	43.477	46.582 E3	-7.1	105	0.02
12	TM	1,4-Dichlorobenzene	47.061	51.403 E3	-9.2	104	0.02
13	TM	1,2-Dichlorobenzene	37.887	41.329 E3	-9.1	106	0.01
14	S	BCB	46.823	45.385 E3	3.1	97	0.01

Data File : C:\HPCHEM\2\DATA\060702\5G13677.D Vial: 1
Acq On : 7 Jun 2002 8:30 Operator: CSH
Sample : WG119380-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

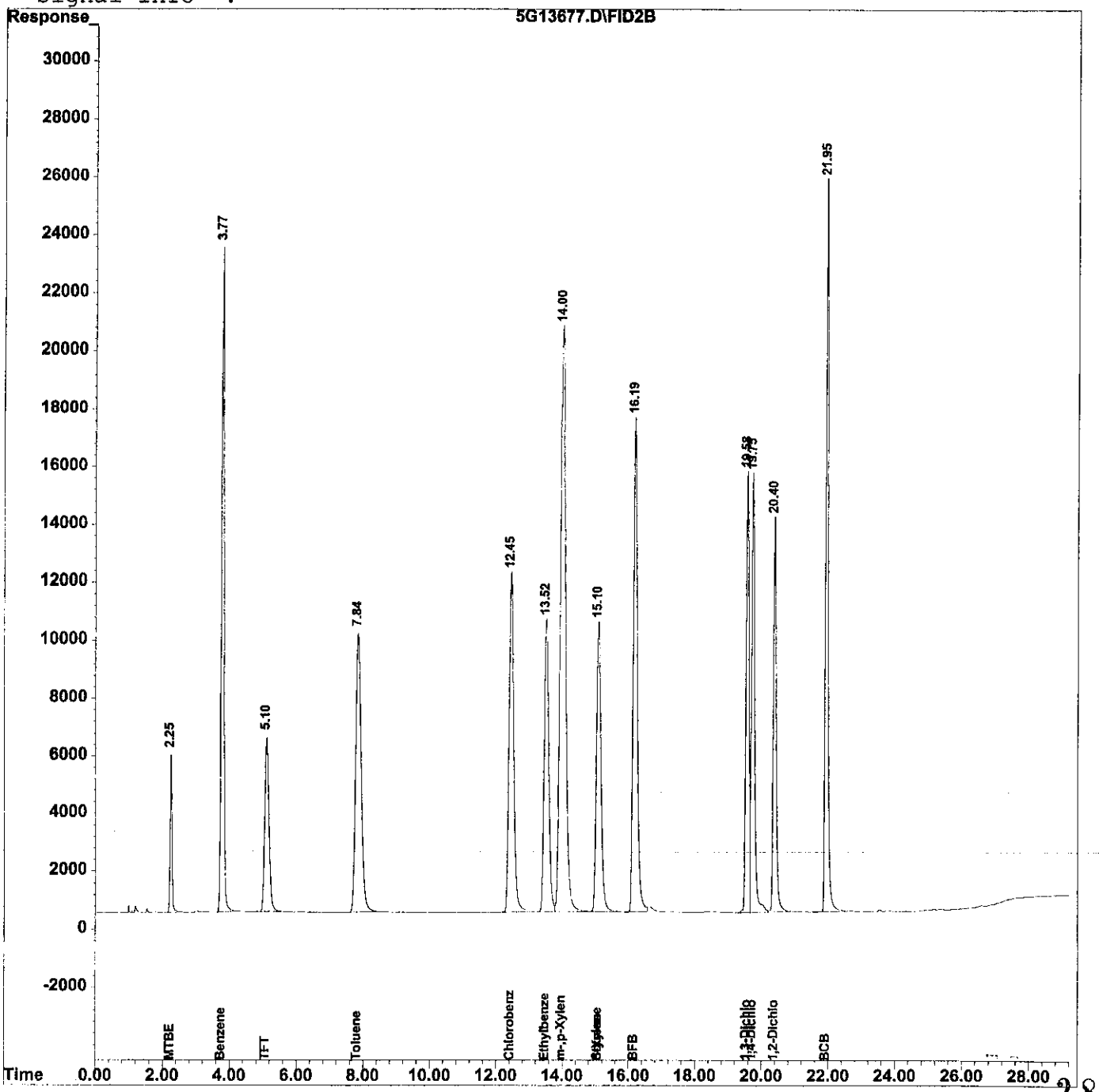
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.908	-4.5	102	0.00
2	TM	Benzene	20.000	21.487	-7.4	105	0.01
3	S	TFT	30.000	30.483	-1.6	101	0.03
4	TM	Toluene	20.000	21.855	-9.3	106	0.04
5	TM	Chlorobenzene	20.000	21.303	-6.5	104	0.05
6	TM	Ethylbenzene	20.000	22.069	-10.3	108	0.04
7	TM	m-,p-Xylene	40.000	43.430	-8.6	106	0.04
8	TM	Styrene	20.000	17.528	12.4	85	0.27
9	TM	o-Xylene	20.000	18.851	5.7	92	0.04
10	S	BFB	30.000	29.999	0.0	100	0.03
11	TM	1,3-Dichlorobenzene	20.000	21.428	-7.1	105	0.02
12	TM	1,4-Dichlorobenzene	20.000	21.845	-9.2	104	0.02
13	TM	1,2-Dichlorobenzene	20.000	21.817	-9.1	106	0.01
14	S	BCB	30.000	29.078	3.1	97	0.01

Data File : C:\HPCHEM\2\DATA\060702\5G13677.D Vial: 1
Acq On : 7 Jun 2002 8:30 Operator: CSH
Sample : WG119380-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 8:59 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13677.D Vial: 1
Acq On : 7 Jun 2002 8:30 Operator: CSH
Sample : WG119380-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 8:59 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.10	540364	30.4827 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 101.61%			
10) S BFB	16.19	1433373	29.9994 ug/L
Spiked Amount 30.000 Recovery = 100.00%			
14) S BCB	21.96	1361536	29.0785 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 96.93%			
Target Compounds			
1) TM MTBE	2.25	218849	20.9077 ug/L
2) TM Benzene	3.77	1205220	21.4874 ug/L
4) TM Toluene	7.84	1117071	21.8550 ug/L
5) TM Chlorobenzene	12.45	1152639	21.3029 ug/L
6) TM Ethylbenzene	13.52	975872	22.0690 ug/L
7) TM m-,p-Xylene	14.00	2297187	43.4295 ug/L
8) TM Styrene	15.10f	972023	17.5280 ug/L
9) TM o-Xylene	15.10	972023	18.8506 ug/L
11) TM 1,3-Dichlorobenzene	19.58	931637	21.4282 ug/L
12) TM 1,4-Dichlorobenzene	19.75	1028058	21.8454 ug/L
13) TM 1,2-Dichlorobenzene	20.40	826578	21.8171 ug/L

Data File : C:\HPCHEM\2\DATA\060702\5G13690.D Vial: 11
Acq On : 7 Jun 2002 16:47 Operator: CSH
Sample : WG119380-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	10.870 E3	-3.9	101	0.06
2	TM	Benzene	56.089	64.033 E3	-14.2	111	0.09
3	S	TFT	17.727	19.670 E3	-11.0	110	0.12
4	TM	Toluene	51.113	58.089 E3	-13.6	111	0.18
5	TM	Chlorobenzene	54.107	59.694 E3	-10.3	108	0.17
6	TM	Ethylbenzene	44.219	50.071 E3	-13.2	110	0.16
7	TM	m-,p-Xylene	52.895	58.678 E3	-10.9	108	0.15
8	TM	Styrene	55.455	50.159 E3	9.6	88	0.37
9	TM	o-Xylene	51.565	50.159 E3	2.7	95	0.14
10	S	BFB	47.780	51.138 E3	-7.0	107	0.13
11	TM	1,3-Dichlorobenzene	43.477	51.434 E3	-18.3#	116	0.12
12	TM	1,4-Dichlorobenzene	47.061	51.434 E3	-9.3	104	-0.04
13	TM	1,2-Dichlorobenzene	37.887	43.485 E3	-14.8	112	0.14
14	S	BCB	46.823	47.237 E3	-0.9	101	0.12

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

Data File : C:\HPCHEM\2\DATA\060702\5G13690.D Vial: 11
Acq On : 7 Jun 2002 16:47 Operator: CSH
Sample : WG119380-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

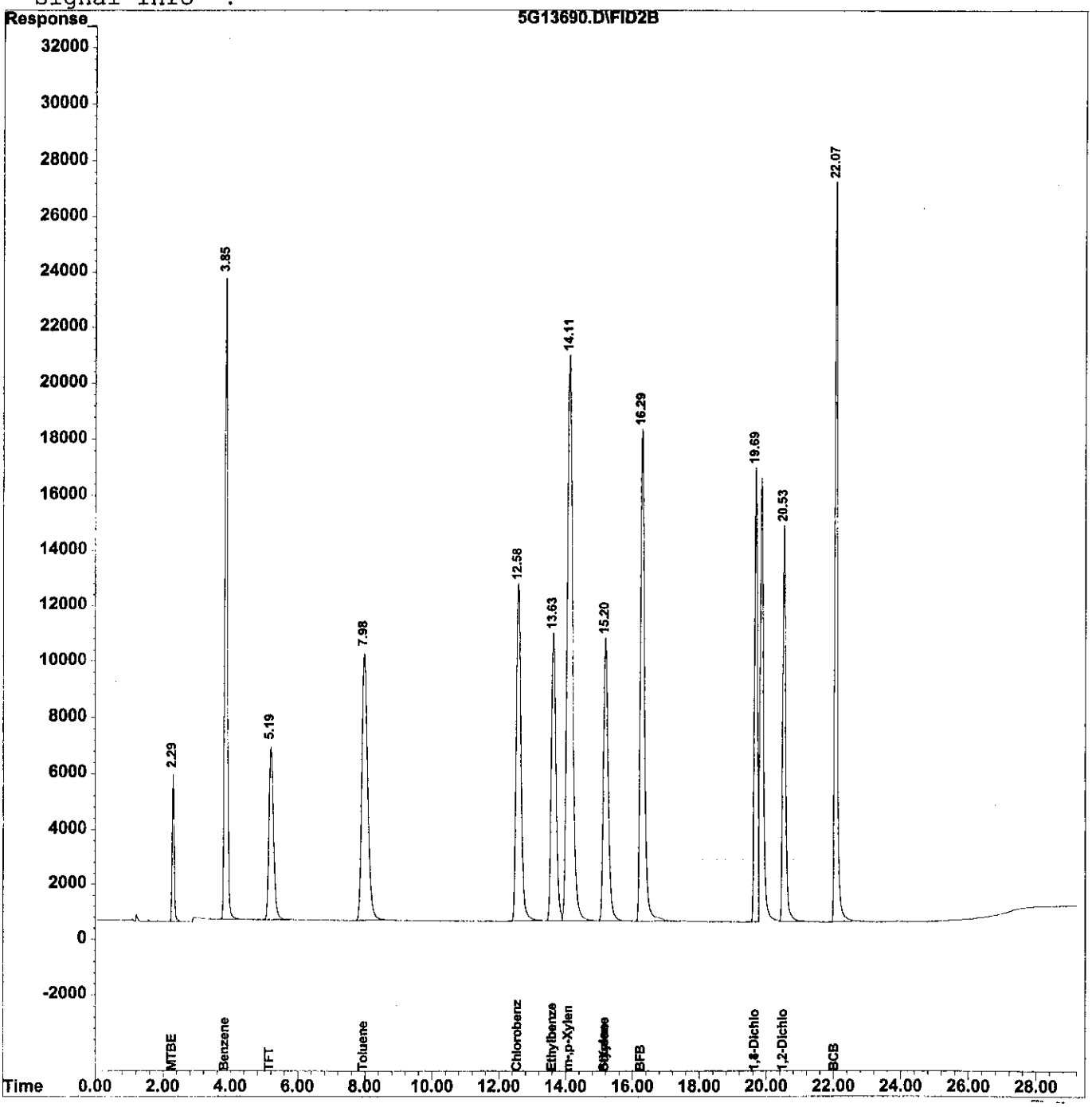
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.769	-3.8	101	0.06
2	TM	Benzene	20.000	22.833	-14.2	111	0.09
3	S	TFT	30.000	33.288	-11.0	110	0.12
4	TM	Toluene	20.000	22.730	-13.7	111	0.18
5	TM	Chlorobenzene	20.000	22.065	-10.3	108	0.17
6	TM	Ethylbenzene	20.000	22.647	-13.2	110	0.16
7	TM	m-,p-Xylene	40.000	44.373	-10.9	108	0.15
8	TM	Styrene	20.000	18.090	9.6	88	0.37
9	TM	o-Xylene	20.000	19.455	2.7	95	0.14
10	S	BFB	30.000	32.109	-7.0	107	0.13
11	TM	1,3-Dichlorobenzene	20.000	23.660	-18.3#	116	0.12
12	TM	1,4-Dichlorobenzene	20.000	21.859	-9.3	104	-0.04
13	TM	1,2-Dichlorobenzene	20.000	22.955	-14.8	112	0.14
14	S	BCB	30.000	30.265	-0.9	101	0.12

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

Data File : C:\HPCHEM\2\DATA\060702\5G13690.D Vial: 11
Acq On : 7 Jun 2002 16:47 Operator: CSH
Sample : WG119380-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 17:16 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13690.D Vial: 11
Acq On : 7 Jun 2002 16:47 Operator: CSH
Sample : WG119380-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 17:16 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	590099	33.2883 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 110.96%	
10) S BFB	16.29	1534152	32.1086 ug/L
Spiked Amount 30.000		Recovery = 107.03%	
14) S BCB	22.07	1417101	30.2652 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 100.88%	
Target Compounds			
1) TM MTBE	2.30	217394	20.7687 ug/L
2) TM Benzene	3.85	1280665	22.8325 ug/L
4) TM Toluene	7.98	1161774	22.7296 ug/L
5) TM Chlorobenzene	12.58	1193871	22.0649 ug/L
6) TM Ethylbenzene	13.64	1001423	22.6469 ug/L
7) TM m-,p-Xylene	14.11	2347117	44.3735 ug/L
8) TM Styrene	15.20f	1003172	18.0897 ug/L
9) TM o-Xylene	15.20	1003172	19.4547 ug/L
11) TM 1,3-Dichlorobenzene	19.69	1028684	23.6603 ug/L
12) TM 1,4-Dichlorobenzene	19.69	1028684	21.8588 ug/L
13) TM 1,2-Dichlorobenzene	20.53	869695	22.9552 ug/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13701.D Vial: 22
Acq On : 7 Jun 2002 23:21 Operator: CSH
Sample : WG119380-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.140 E3	-6.4	104	0.00
2	TM	Benzene	56.089	60.776 E3	-8.4	106	0.00
3	S	TFT	17.727	18.472 E3	-4.2	103	0.00
4	TM	Toluene	51.113	55.240 E3	-8.1	105	0.00
5	TM	Chlorobenzene	54.107	56.735 E3	-4.9	103	0.00
6	TM	Ethylbenzene	44.219	47.580 E3	-7.6	105	0.00
7	TM	m-,p-Xylene	52.895	55.580 E3	-5.1	102	0.00
8	TM	Styrene	55.455	47.542 E3	14.3	83	0.23
9	TM	o-Xylene	51.565	47.542 E3	7.8	90	0.00
10	S	BFB	47.780	48.225 E3	-0.9	101	-0.01
11	TM	1,3-Dichlorobenzene	43.477	45.211 E3	-4.0	102	-0.02
12	TM	1,4-Dichlorobenzene	47.061	49.531 E3	-5.2	100	-0.02
13	TM	1,2-Dichlorobenzene	37.887	40.188 E3	-6.1	103	-0.01
14	S	BCB	46.823	45.016 E3	3.9	96	0.00

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

Data File : C:\HPCHEM\2\DATA\060702\5G13701.D Vial: 22
Acq On : 7 Jun 2002 23:21 Operator: CSH
Sample : WG119380-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

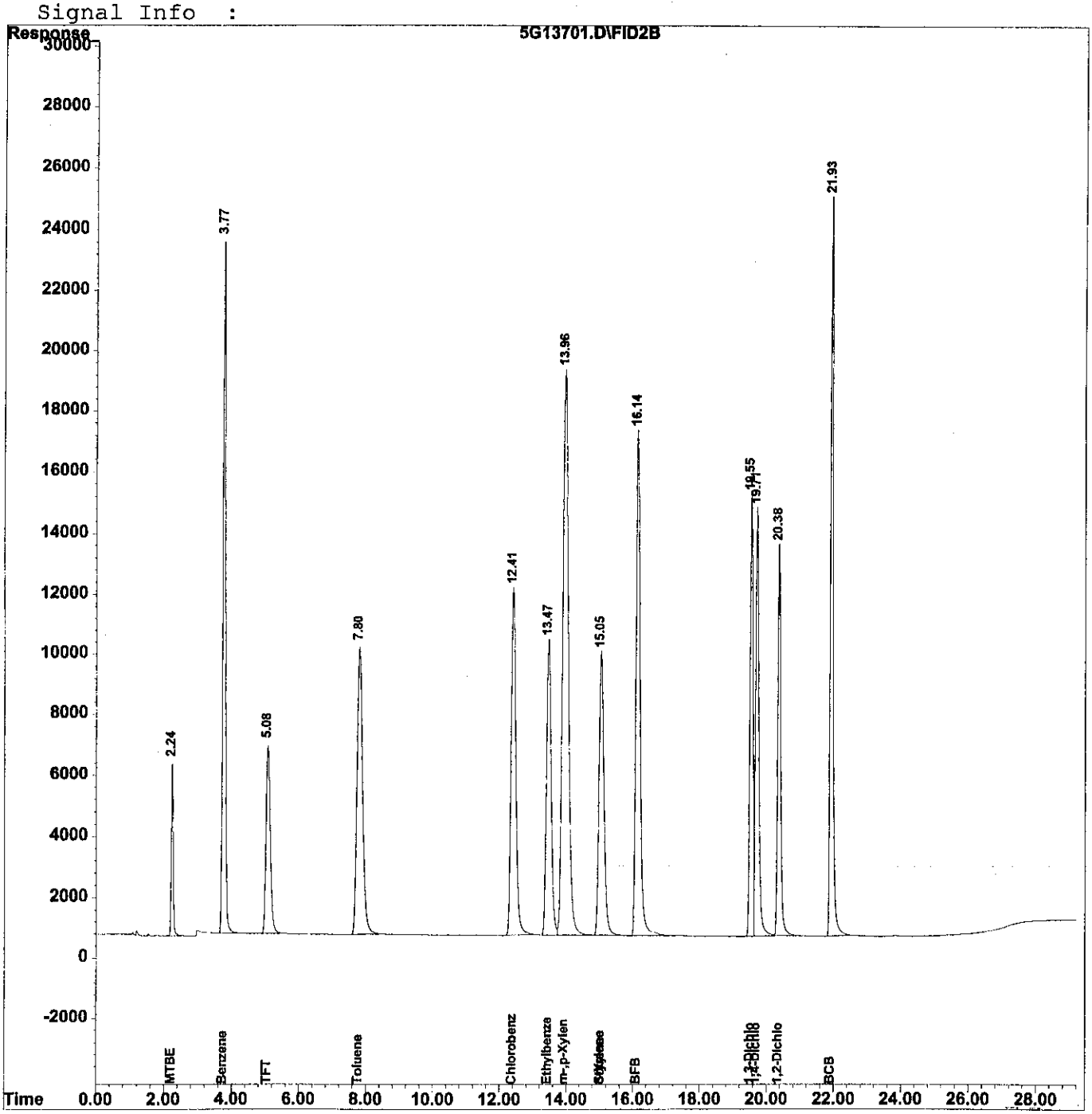
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.286	-6.4	104	0.00
2	TM	Benzene	20.000	21.671	-8.4	106	0.00
3	S	TFT	30.000	31.261	-4.2	103	0.00
4	TM	Toluene	20.000	21.615	-8.1	105	0.00
5	TM	Chlorobenzene	20.000	20.971	-4.9	103	0.00
6	TM	Ethylbenzene	20.000	21.520	-7.6	105	0.00
7	TM	m-,p-Xylene	40.000	42.031	-5.1	102	0.00
8	TM	Styrene	20.000	17.146	14.3	83	0.23
9	TM	o-Xylene	20.000	18.440	7.8	90	0.00
10	S	BFB	30.000	30.280	-0.9	101	-0.01
11	TM	1,3-Dichlorobenzene	20.000	20.798	-4.0	102	-0.02
12	TM	1,4-Dichlorobenzene	20.000	21.050	-5.3	100	-0.02
13	TM	1,2-Dichlorobenzene	20.000	21.215	-6.1	103	-0.01
14	S	BCB	30.000	28.842	3.9	96	0.00

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

Data File : C:\HPCHEM\2\DATA\060702\5G13701.D Vial: 22
Acq On : 7 Jun 2002 23:21 Operator: CSH
Sample : WG119380-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 23:50 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13701.D Vial: 22
Acq On : 7 Jun 2002 23:21 Operator: CSH
Sample : WG119380-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 23:50 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	554166	31.2613 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.20%			
10) S BFB	16.15	1446761	30.2796 ug/L
Spiked Amount 30.000 Recovery = 100.93%			
14) S BCB	21.93	1350473	28.8422 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 96.14%			
Target Compounds			
1) TM MTBE	2.25	222808	21.2859 ug/L
2) TM Benzene	3.77	1215512	21.6709 ug/L
4) TM Toluene	7.81	1104804	21.6150 ug/L
5) TM Chlorobenzene	12.41	1134695	20.9713 ug/L
6) TM Ethylbenzene	13.48	951593	21.5200 ug/L
7) TM m-,p-Xylene	13.96	2223187	42.0305 ug/L
8) TM Styrene	15.06	950843	17.1461 ug/L
9) TM o-Xylene	15.06	950843	18.4399 ug/L
11) TM 1,3-Dichlorobenzene	19.55	904222	20.7976 ug/L
12) TM 1,4-Dichlorobenzene	19.72	990619	21.0499 ug/L
13) TM 1,2-Dichlorobenzene	20.38	803756	21.2147 ug/L

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	141.521	128.370	E3	9.3	90	0.00
2	TM	Benzene	323.985	287.362	E3	11.3	85	0.00
3	S	TFT	108.622	98.354	E3	9.5	91	0.00
4	TM	Toluene	322.105	361.933	E3	-12.4	110	0.00
5	TM	Chlorobenzene	329.361	309.610	E3	6.0	94	0.00
6	TM	Ethylbenzene	283.226	282.106	E3	0.4	98	0.00
7	TM	m-,p-Xylene	351.308	342.875	E3	2.4	95	0.00
8	TM	o-Xylene	304.424	299.581	E3	1.6	96	0.00
9	S	BFB	312.823	273.294	E3	12.6	88	0.00
10	T	1,3-Dichlorobenzene	300.537	279.833	E3	6.9	95	0.00
11	T	1,4-Dichlorobenzene	318.224	298.811	E3	6.1	92	0.00
12	T	1,2-Dichlorobenzene	274.430	263.000	E3	4.2	91	0.00
13	S	BCB	309.214	259.375	E3	16.1#	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13737.D 8021W.M Mon Jun 10 10:29:19 2002 Page 1

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

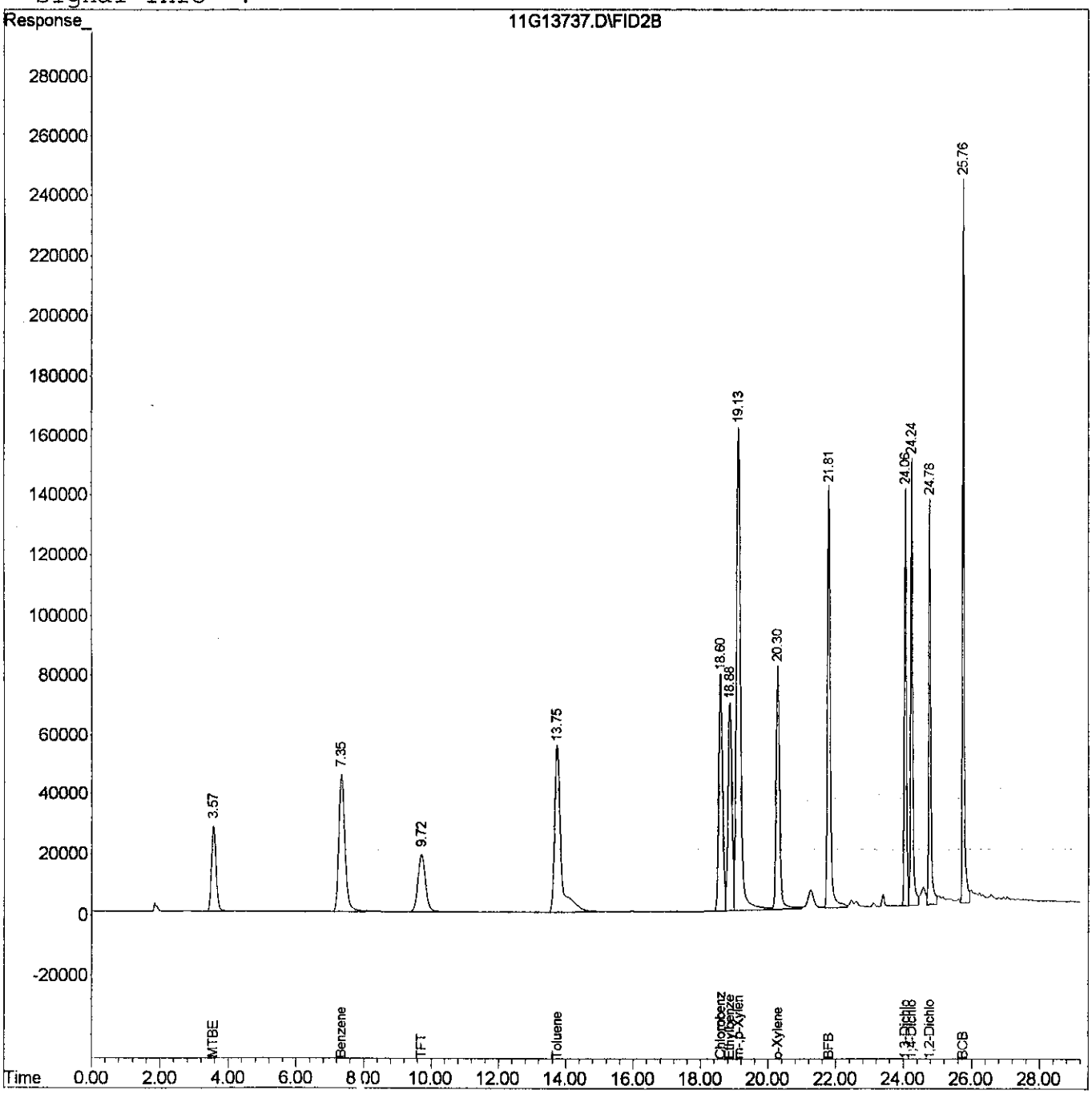
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.141	9.3	90	0.00
2	TM	Benzene	20.000	17.739	11.3	85	0.00
3	S	TFT	30.000	27.164	9.5	91	0.00
4	TM	Toluene	20.000	22.473	-12.4	110	0.00
5	TM	Chlorobenzene	20.000	18.801	6.0	94	0.00
6	TM	Ethylbenzene	20.000	19.921	0.4	98	0.00
7	TM	m-,p-Xylene	40.000	39.040	2.4	95	0.00
8	TM	o-Xylene	20.000	19.682	1.6	96	0.00
9	S	BFB	30.000	26.209	12.6	88	0.00
10	T	1,3-Dichlorobenzene	20.000	18.622	6.9	95	0.00
11	T	1,4-Dichlorobenzene	20.000	18.780	6.1	92	0.00
12	T	1,2-Dichlorobenzene	20.000	19.167	4.2	91	0.00
13	S	BCB	30.000	25.165	16.1#	85	0.00

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 am Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 9:49 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 am Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 9:49 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	2950619	27.1642 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 90.55%
9) S BFB	21.81	8198832	26.2092 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 87.36%
13) S BCB	25.76	7781244	25.1646 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 83.88%
Target Compounds			
1) TM MTBE	3.57	2567397	18.1415 UG/L
2) TM Benzene	7.35	5747245	17.7392 UG/L
4) TM Toluene	13.75	7238661	22.4730 UG/L
5) TM Chlorobenzene	18.60	6192209	18.8007 UG/L
6) TM Ethylbenzene	18.88	5642113	19.9209 UG/L
7) TM m-,p-Xylene	19.13	13715010	39.0398 UG/L
8) TM o-Xylene	20.30	5991622	19.6818 UG/L
10) T 1,3-Dichlorobenzene	24.06	5596667	18.6222 UG/L
11) T 1,4-Dichlorobenzene	24.24	5976227	18.7799 UG/L
12) T 1,2-Dichlorobenzene	24.78	5259996	19.1670 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
11G13737.D 8021W.M Mon Jun 10 09:49:05 2002 Page 1

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 16:05 Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	141.521	100.872	E3	28.7#	71	0.00
2	TM	Benzene	323.985	287.807	E3	11.2	85	0.00
3	S	TFT	108.622	109.878	E3	-1.2	101	-0.02
4	TM	Toluene	322.105	302.284	E3	6.2	92	-0.01
5	TM	Chlorobenzene	329.361	303.038	E3	8.0	92	-0.01
6	TM	Ethylbenzene	283.226	271.861	E3	4.0	95	-0.01
7	TM	m-,p-Xylene	351.308	330.865	E3	5.8	92	-0.01
8	TM	o-Xylene	304.424	286.779	E3	5.8	92	-0.01
9	S	BFB	312.823	297.075	E3	5.0	95	-0.01
10	T	1,3-Dichlorobenzene	300.537	269.569	E3	10.3	91	0.00
11	T	1,4-Dichlorobenzene	318.224	297.686	E3	6.5	92	0.00
12	T	1,2-Dichlorobenzene	274.430	269.932	E3	1.6	93	0.00
13	S	BCB	309.214	308.252	E3	0.3	100	0.00

AVE = 7.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13748.D 8021W.M Tue Jun 11 06:42:45 2002 Page 20 9

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 16:05 Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

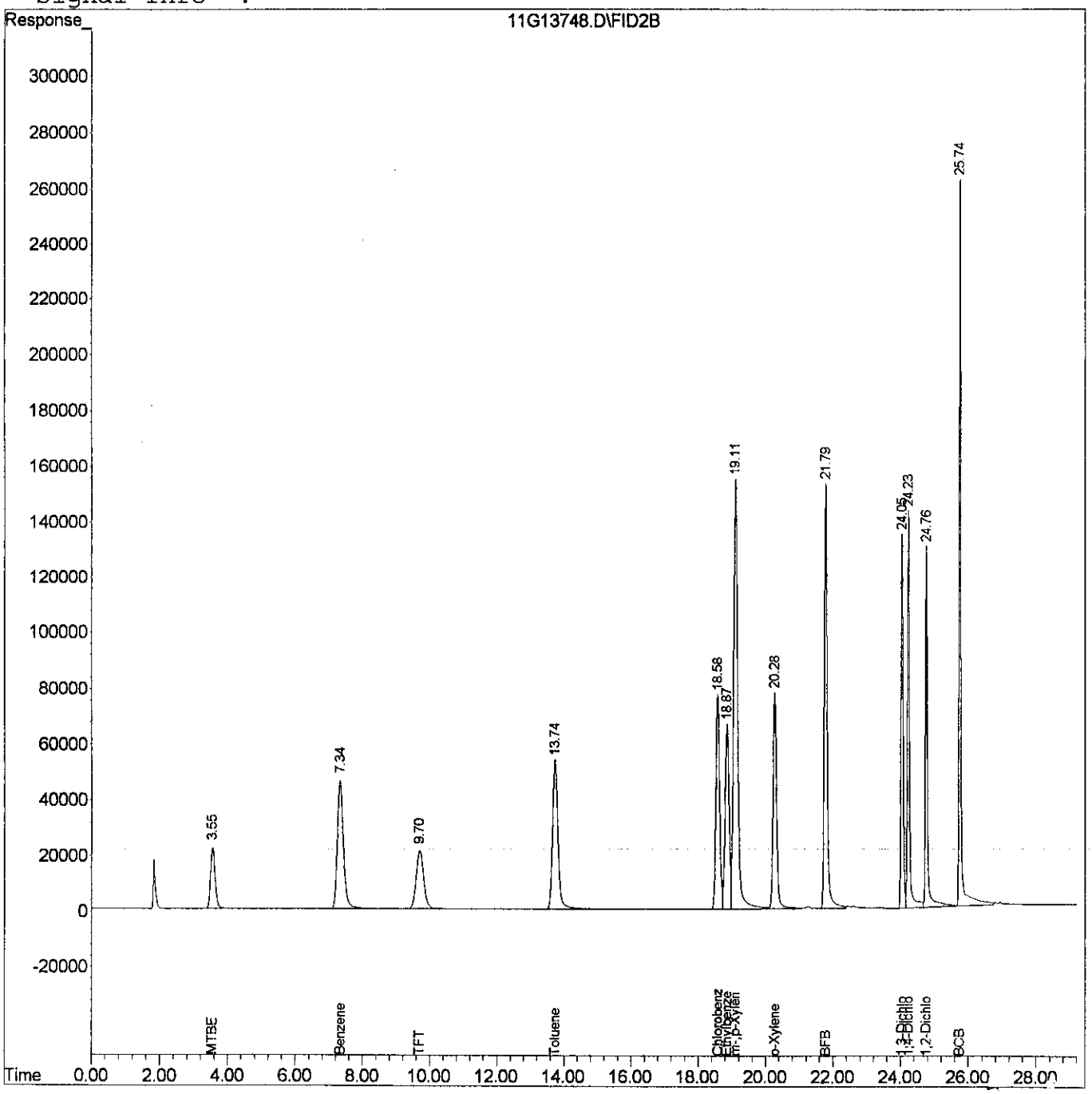
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	14.255	28.7#	71	0.00
2	TM	Benzene	20.000	17.767	11.2	85	0.00
3	S	TFT	30.000	30.347	-1.2	101	-0.02
4	TM	Toluene	20.000	18.769	6.2	92	-0.01
5	TM	Chlorobenzene	20.000	18.402	8.0	92	-0.01
6	TM	Ethylbenzene	20.000	19.197	4.0	95	-0.01
7	TM	m-,p-Xylene	40.000	37.672	5.8	92	-0.01
8	TM	o-Xylene	20.000	18.841	5.8	92	-0.01
9	S	BFB	30.000	28.490	5.0	95	-0.01
10	T	1,3-Dichlorobenzene	20.000	17.939	10.3	91	0.00
11	T	1,4-Dichlorobenzene	20.000	18.709	6.5	92	0.00
12	T	1,2-Dichlorobenzene	20.000	19.672	1.6	93	0.00
13	S	BCB	30.000	29.907	0.3	100	0.00

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 4:05 pm Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 16:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 4:05 pm Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 16:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.71	3296334	30.3469 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 101.16%
9) S BFB	21.79	8912240	28.4897 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 94.97%
13) S BCB	25.74	9247558	29.9066 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 99.69%
Target Compounds			
1) TM MTBE	3.56	2017447	14.2555 UG/L
2) TM Benzene	7.34	5756144	17.7667 UG/L
4) TM Toluene	13.74	6045676	18.7693 UG/L
5) TM Chlorobenzene	18.58	6060759	18.4016 UG/L
6) TM Ethylbenzene	18.87	5437220	19.1975 UG/L
7) TM m-,p-Xylene	19.11	13234600	37.6723 UG/L
8) TM o-Xylene	20.28	5735574	18.8407 UG/L
10) T 1,3-Dichlorobenzene	24.05	5391388	17.9392 UG/L
11) T 1,4-Dichlorobenzene	24.23	5953724	18.7092 UG/L
12) T 1,2-Dichlorobenzene	24.77	5398647	19.6722 UG/L

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

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	10.569 E3	-1.0	98	-0.02
2	TM	Benzene	56.089	58.511 E3	-4.3	102	-0.03
3	S	TFT	17.727	17.840 E3	-0.6	100	-0.05
4	TM	Toluene	51.113	56.051 E3	-9.7	107	-0.07
5	TM	Chlorobenzene	54.107	56.505 E3	-4.4	102	-0.06
6	TM	Ethylbenzene	44.219	47.938 E3	-8.4	106	-0.06
7	TM	m-,p-Xylene	52.895	57.204 E3	-8.1	105	-0.06
8	TM	Styrene	55.455	48.883 E3	11.9	85	0.17
9	TM	o-Xylene	51.565	48.883 E3	5.2	92	-0.05
10	S	BFB	47.780	47.182 E3	1.3	98	-0.06
11	TM	1,3-Dichlorobenzene	43.477	47.040 E3	-8.2	106	-0.05
12	TM	1,4-Dichlorobenzene	47.061	50.512 E3	-7.3	102	-0.05
13	TM	1,2-Dichlorobenzene	37.887	40.653 E3	-7.3	104	-0.04
14	S	BCB	46.823	44.106 E3	5.8	94	-0.04

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

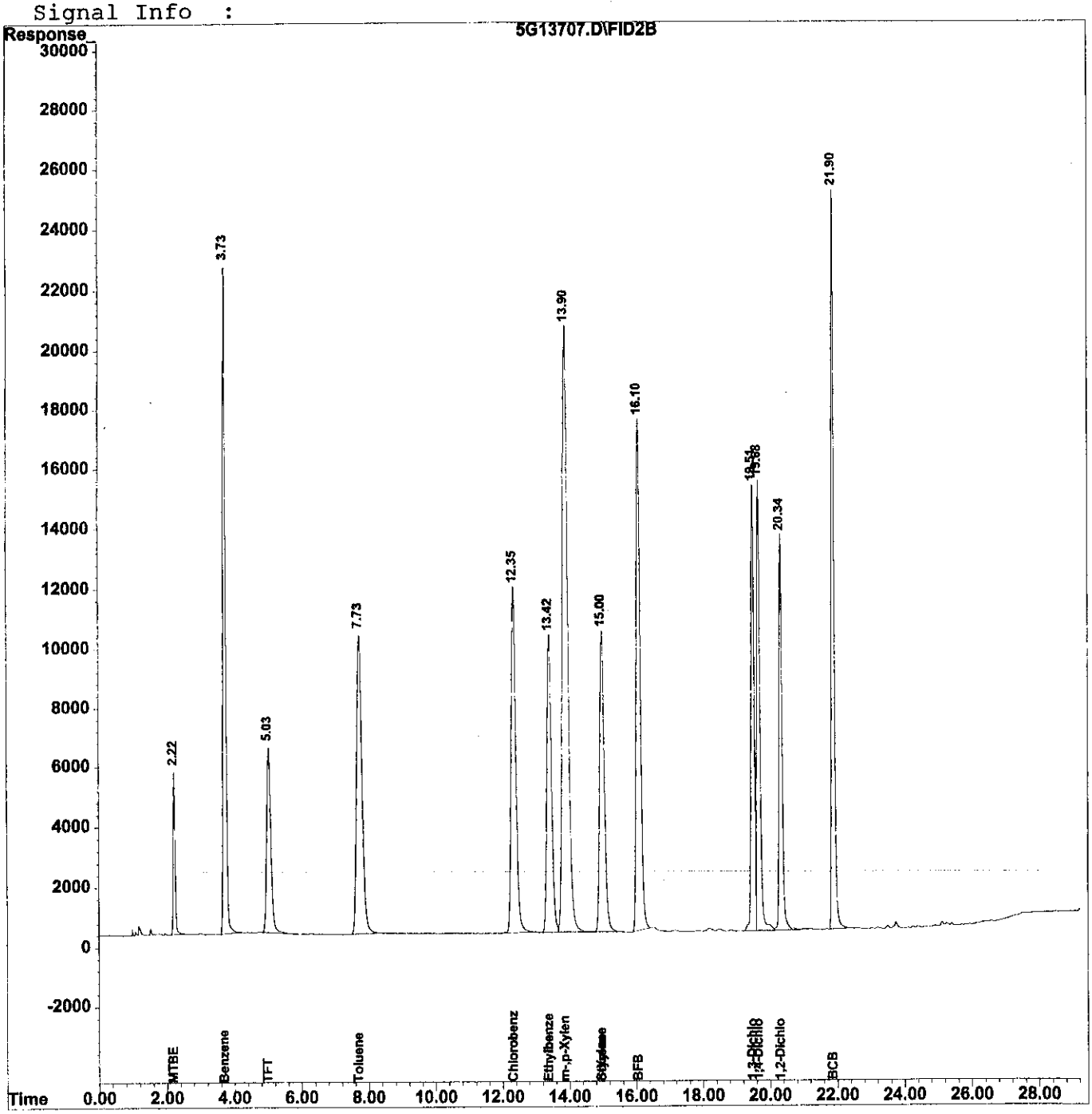
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.194	-1.0	98	-0.02
2	TM	Benzene	20.000	20.863	-4.3	102	-0.03
3	S	TFT	30.000	30.191	-0.6	100	-0.05
4	TM	Toluene	20.000	21.932	-9.7	107	-0.07
5	TM	Chlorobenzene	20.000	20.886	-4.4	102	-0.06
6	TM	Ethylbenzene	20.000	21.682	-8.4	106	-0.06
7	TM	m-,p-Xylene	40.000	43.259	-8.1	105	-0.06
8	TM	Styrene	20.000	17.629	11.9	85	0.17
9	TM	o-Xylene	20.000	18.960	5.2	92	-0.05
10	S	BFB	30.000	29.624	1.3	98	-0.06
11	TM	1,3-Dichlorobenzene	20.000	21.639	-8.2	106	-0.05
12	TM	1,4-Dichlorobenzene	20.000	21.467	-7.3	102	-0.05
13	TM	1,2-Dichlorobenzene	20.000	21.460	-7.3	104	-0.04
14	S	BCB	30.000	28.259	5.8	94	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13707.D 602STY.M Tue Jun 11 07:19:35 2002 Page 1

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 7:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 7:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	535202	30.1915 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.64%			
10) S BFB	16.10	1415449	29.6243 ug/L
Spiked Amount 30.000 Recovery = 98.75%			
14) S BCB	21.91	1323184	28.2594 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 94.20%			
Target Compounds			
1) TM MTBE	2.22	211377	20.1938 ug/L
2) TM Benzene	3.73	1170219	20.8634 ug/L
4) TM Toluene	7.73	1121015	21.9321 ug/L
5) TM Chlorobenzene	12.35	1130106	20.8864 ug/L
6) TM Ethylbenzene	13.42	958757	21.6820 ug/L
7) TM m-,p-Xylene	13.90	2288168	43.2590 ug/L
8) TM Styrene	15.00	977651	17.6295 ug/L
9) TM o-Xylene	15.00	977651	18.9597 ug/L
11) TM 1,3-Dichlorobenzene	19.51	940791	21.6387 ug/L
12) TM 1,4-Dichlorobenzene	19.68	1010244	21.4669 ug/L
13) TM 1,2-Dichlorobenzene	20.35	813058	21.4603 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
5G13707.D 602STY.M Tue Jun 11 07:18:14 2002 Page 1

309

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.141 E3	-6.4	104	-0.02
2	TM	Benzene	56.089	55.042 E3	1.9	96	-0.03
3	S	TFT	17.727	18.660 E3	-5.3	104	-0.04
4	TM	Toluene	51.113	50.360 E3	1.5	96	-0.06
5	TM	Chlorobenzene	54.107	53.834 E3	0.5	97	-0.03
6	TM	Ethylbenzene	44.219	43.382 E3	1.9	96	-0.03
7	TM	m-,p-Xylene	52.895	51.013 E3	3.6	94	-0.03
8	TM	Styrene	55.455	44.410 E3	19.9#	78	0.20
9	TM	o-Xylene	51.565	44.410 E3	13.9	84	-0.02
10	S	BFB	47.780	49.404 E3	-3.4	103	-0.04
11	TM	1,3-Dichlorobenzene	43.477	43.680 E3	-0.5	98	-0.04
12	TM	1,4-Dichlorobenzene	47.061	48.317 E3	-2.7	98	-0.03
13	TM	1,2-Dichlorobenzene	37.887	39.280 E3	-3.7	101	-0.03
14	S	BCB	46.823	46.132 E3	1.5	98	-0.03

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

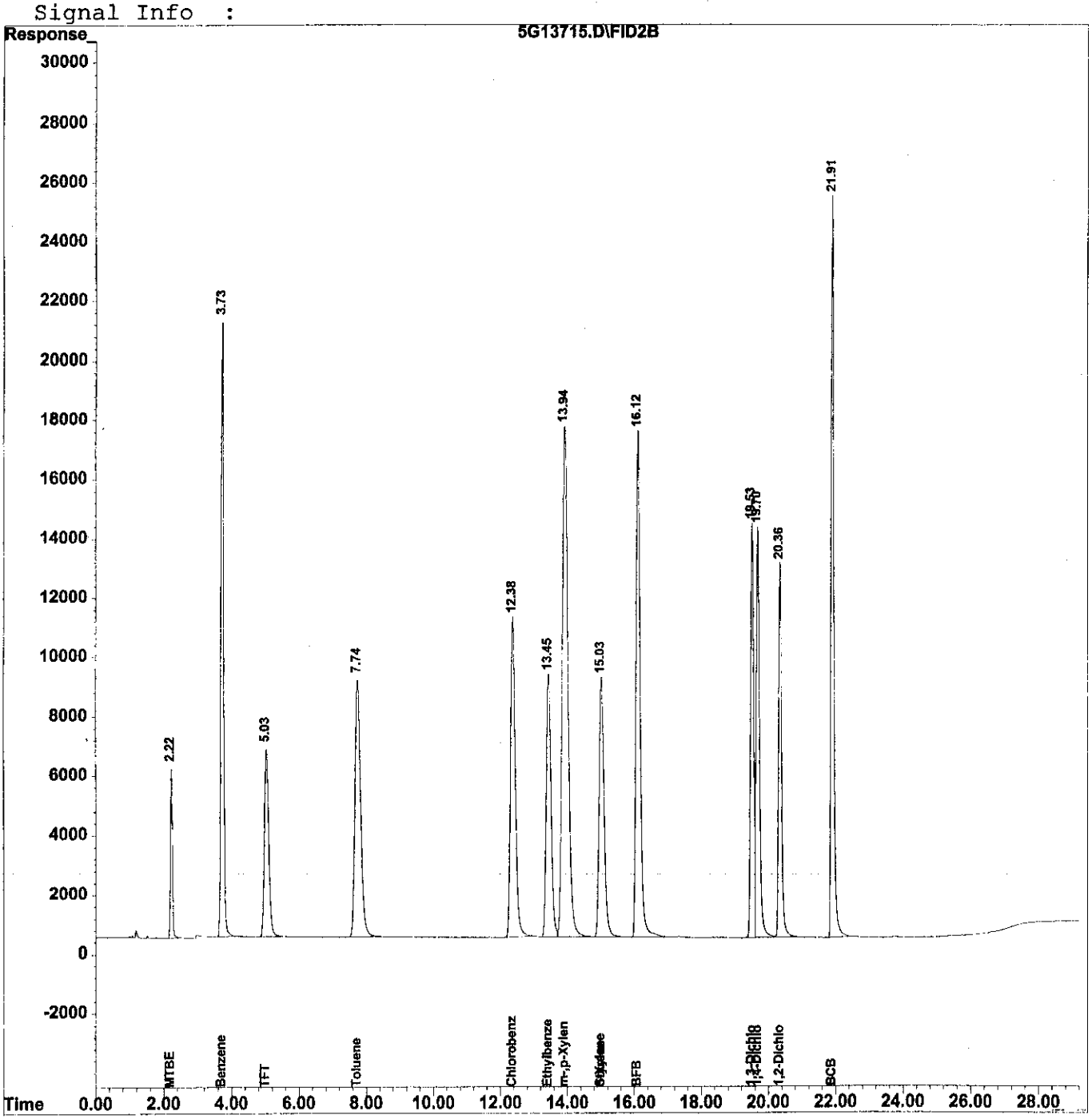
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.287	-6.4	104	-0.02
2	TM	Benzene	20.000	19.626	1.9	96	-0.03
3	S	TFT	30.000	31.578	-5.3	104	-0.04
4	TM	Toluene	20.000	19.706	1.5	96	-0.06
5	TM	Chlorobenzene	20.000	19.899	0.5	97	-0.03
6	TM	Ethylbenzene	20.000	19.622	1.9	96	-0.03
7	TM	m-,p-Xylene	40.000	38.577	3.6	94	-0.03
8	TM	Styrene	20.000	16.016	19.9#	78	0.20
9	TM	o-Xylene	20.000	17.225	13.9	84	-0.02
10	S	BFB	30.000	31.020	-3.4	103	-0.04
11	TM	1,3-Dichlorobenzene	20.000	20.093	-0.5	98	-0.04
12	TM	1,4-Dichlorobenzene	20.000	20.534	-2.7	98	-0.03
13	TM	1,2-Dichlorobenzene	20.000	20.736	-3.7	101	-0.03
14	S	BCB	30.000	29.557	1.5	98	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13715.D 602STY.M Tue Jun 11 14:29:58 2002 Page 311

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 12:25 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 11 Jun 2002 11:56
Sample : WG119545-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(94-04,93-47)
IntFile : autoint1.e
Quant Time: Jun 11 12:25 2002 Quant Results File: 602STY.RES

Vial: 6
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	559787	31.5784 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	105.26%
10) S BFB	16.12	1482121	31.0196 ug/L
Spiked Amount 30.000		Recovery =	103.40%
14) S BCB	21.92	1383966	29.5575 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	98.53%
Target Compounds			
1) TM MTBE	2.22	222820	21.2870 ug/L
2) TM Benzene	3.73	1100837	19.6264 ug/L
4) TM Toluene	7.74	1007208	19.7055 ug/L
5) TM Chlorobenzene	12.38	1076679	19.8990 ug/L
6) TM Ethylbenzene	13.45	867646	19.6215 ug/L
7) TM m-,p-Xylene	13.94	2040509	38.5769 ug/L
8) TM Styrene	15.03	888191	16.0163 ug/L
9) TM o-Xylene	15.03	888191	17.2248 ug/L
11) TM 1,3-Dichlorobenzene	19.53	873597	20.0932 ug/L
12) TM 1,4-Dichlorobenzene	19.70	966331	20.5338 ug/L
13) TM 1,2-Dichlorobenzene	20.36	785608	20.7357 ug/L

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 7-Jun-02
Filename: 5G13677
Sub Directory: 060702
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.247	**2.224**	**2.270**
benzene	3.771	**3.741**	**3.801**
1,1,1-trifluorotoluene (SS)	5.101	**5.057**	**5.145**
toluene	7.843	**7.775**	**7.911**
chlorobenzene	12.455	**12.378**	**12.532**
ethylbenzene	13.519	**13.433**	**13.605**
m+p-xylene	14.003	**13.900**	**14.106**
o-xylene	15.096	**14.993**	**15.199**
bromofluorobenzene (SS)	16.193	**16.107**	**16.279**
1,3-dichlorobenzene	19.581	**19.516**	**19.646**
1,4-dichlorobenzene	19.747	**19.683**	**19.811**
1,2-dichlorobenzene	20.404	**20.347**	**20.461**
bromochlorobenzene (SS)	21.955	**21.902**	**22.008**

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

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 10-Jun-02
Filename: 11G13737
Sub Directory: 061002
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.567	3.539	3.595
benzene	7.353	7.300	7.406
1,1,1-trifluorotoluene (SS)	9.720	9.647	9.793
toluene	13.751	13.686	13.816
chlorobenzene	18.601	18.545	18.657
ethylbenzene	18.884	18.833	18.935
m+p-xylene	19.131	19.080	19.182
o-xylene	20.299	20.255	20.343
bromofluorobenzene (SS)	21.808	21.768	21.848
1,3-dichlorobenzene	24.063	24.035	24.091
1,4-dichlorobenzene	24.245	24.219	24.271
1,2-dichlorobenzene	24.780	24.757	24.803
bromochlorobenzene (SS)	25.759	25.739	25.779

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G13230 **DATE #1:** 1/18/2002
CONT STD #2: 11G13241 **DATE #2:** 1/18/2002
CONT STD #3: 11G13257 **DATE #3:** 1/18/2002

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.578	3.594	3.578	3.583	0.009	0.028
benzene	7.453	7.483	7.452	7.463	0.018	0.053
1,1,1-trifluorotoluene (SS)	9.870	9.914	9.874	9.886	0.024	0.073
toluene	13.910	13.948	13.911	13.923	0.022	0.065
chlorobenzene	18.755	18.786	18.753	18.765	0.019	0.056
ethylbenzene	19.037	19.064	19.033	19.045	0.017	0.051
m+p-xylene	19.282	19.309	19.278	19.290	0.017	0.051
o-xylene	20.439	20.462	20.435	20.445	0.015	0.044
bromofluorobenzene (SS)	21.936	21.958	21.934	21.943	0.013	0.040
1,3-dichlorobenzene	24.164	24.178	24.160	24.167	0.009	0.028
1,4-dichlorobenzene	24.345	24.357	24.340	24.347	0.009	0.026
1,2-dichlorobenzene	24.875	24.885	24.870	24.877	0.008	0.023
bromochlorobenzene (SS)	25.848	25.854	25.841	25.848	0.007	0.020

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 11-Jun-02
Filename: 5G13707
Sub Directory: 061102
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.224	**2.201**	**2.247**
benzene	3.726	**3.696**	**3.756**
1,1,1-trifluorotoluene (SS)	5.028	**4.984**	**5.072**
toluene	7.730	**7.662**	**7.798**
chlorobenzene	12.347	**12.270**	**12.424**
ethylbenzene	13.418	**13.332**	**13.504**
m+p-xylene	13.903	**13.800**	**14.006**
o-xylene	14.999	**14.896**	**15.102**
bromofluorobenzene (SS)	16.097	**16.011**	**16.183**
1,3-dichlorobenzene	19.513	**19.448**	**19.578**
1,4-dichlorobenzene	19.682	**19.618**	**19.746**
1,2-dichlorobenzene	20.346	**20.289**	**20.403**
bromochlorobenzene (SS)	21.907	**21.854**	**21.960**

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

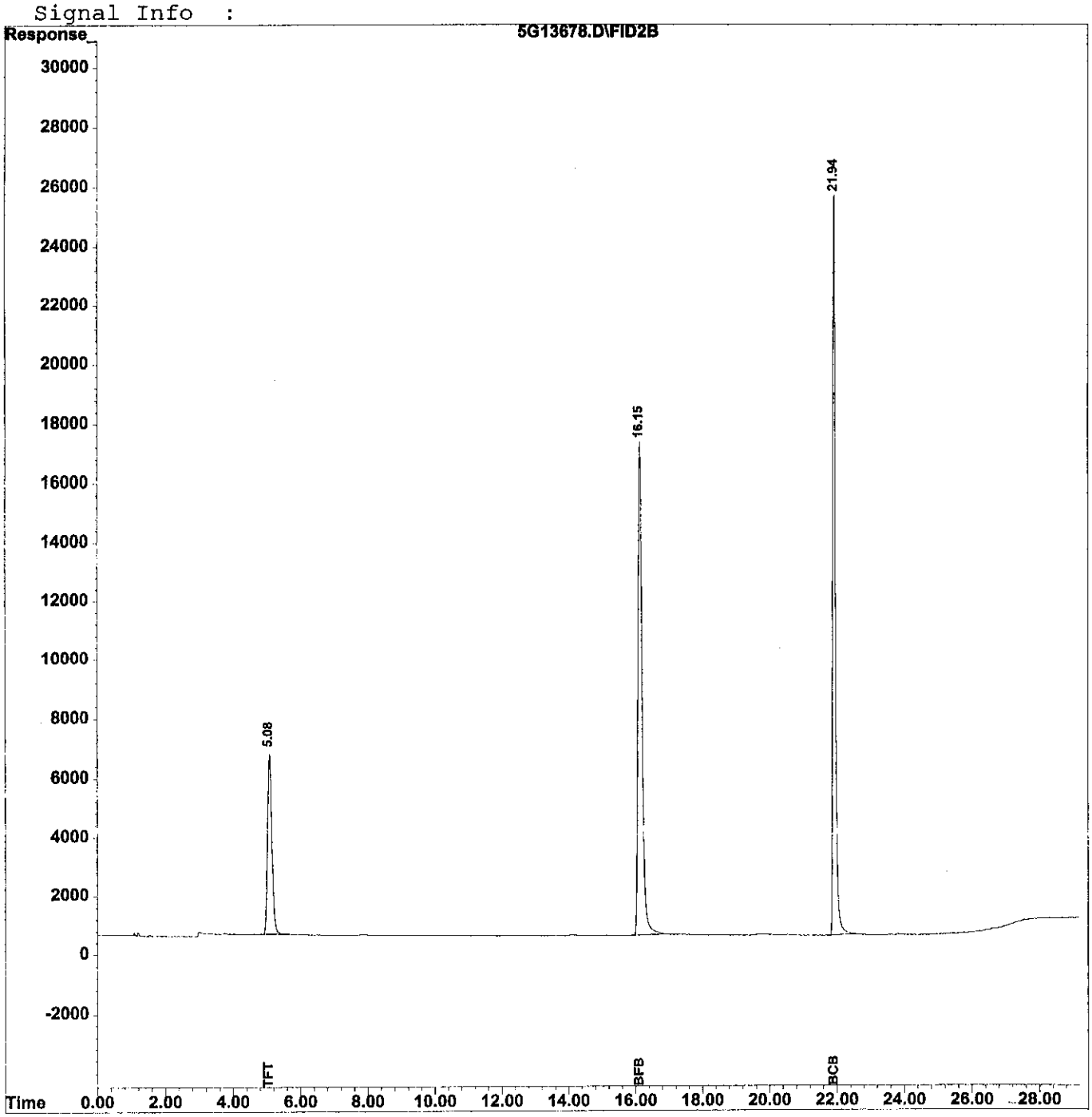
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683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

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\060702\5G13678.D Vial: 2
Acq On : 7 Jun 2002 9:04 Operator: CSH
Sample : WG119381-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 9:34 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



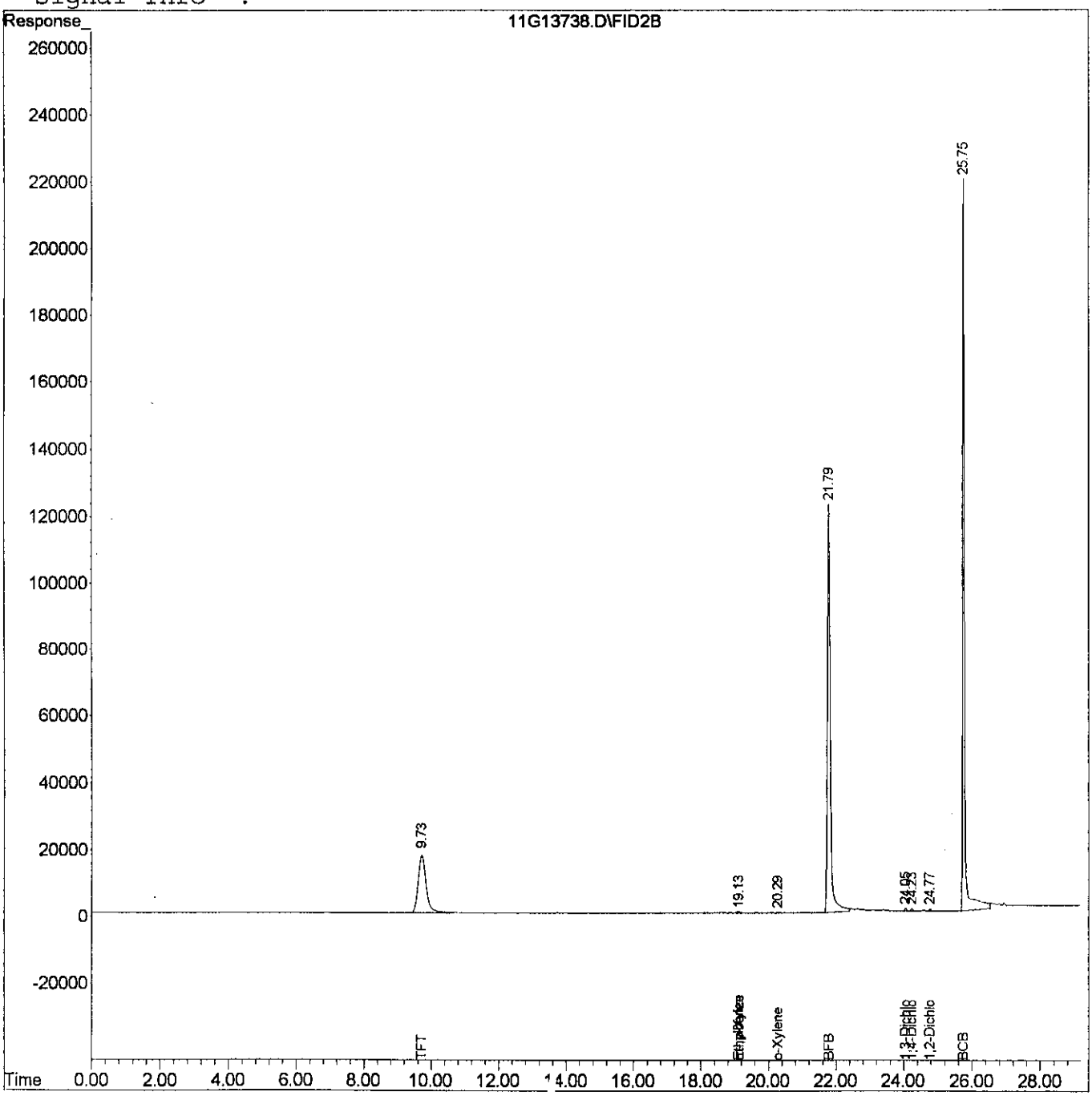
```
Data File : C:\HPCHEM\2\DATA\060702\5G13678.D              Vial: 2
Acq On    :  7 Jun 2002   9:04                          Operator: CSH
Sample    : WG119381-01 WATER BLANK 5ML                 Inst    : HP5
Misc      : 1,1 S-93-47                                 Multiplr: 1.00
IntFile   : autoint1.e
Quant Time: Jun  7  9:34 2002  Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title        : METHOD 602 - Water - 4/22/02
Last Update  : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	548587	30.9465 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	103.16%
10) S BFB	16.15	1431841	29.9673 ug/L
Spiked Amount 30.000		Recovery =	99.89%
14) S BCB	21.94	1366938	29.1938 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	97.31%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

Data File : C:\HPCHEM\1\DATA\061002\11G13738.D Vial: 2
Acq On : 10 Jun 2002 10:09 am Operator: CSH
Sample : WG119488-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 10:38 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13738.D Vial: 2
Acq On : 10 Jun 2002 10:09 am Operator: CSH
Sample : WG119488-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 10:38 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

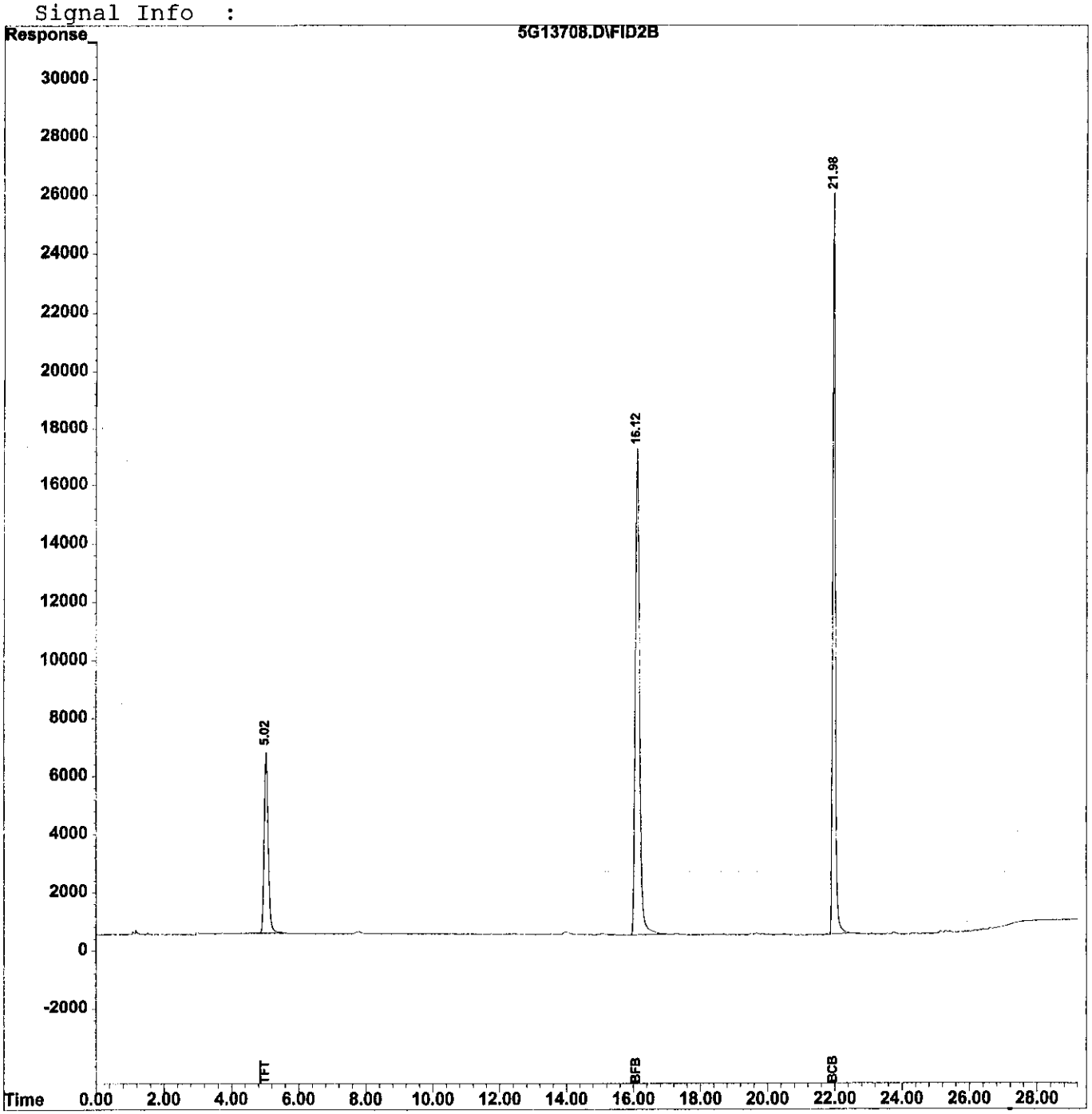
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	2842386	26.1678 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 87.23%
9) S BFB	21.80	7294112	23.3171 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 77.72%
13) S BCB	25.75	7844372	25.3687 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 84.56%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	19.12	44537	0.1572 UG/L
7) TM m-,p-Xylene	19.12	44537	0.1268 UG/L
8) TM o-Xylene	20.29	15231	0.0500 UG/L
10) T 1,3-Dichlorobenzene	24.05	32201	0.1071 UG/L
11) T 1,4-Dichlorobenzene	24.24	29912	0.0940 UG/L
12) T 1,2-Dichlorobenzene	24.77	27485	0.1002 UG/L

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

Data File : C:\HPCHEM\2\DATA\061102\5G13708.D Vial: 2
Acq On : 11 Jun 2002 7:32 Operator: CBN
Sample : WG119546-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:01 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\061102\5G13708.D Vial: 2
Acq On : 11 Jun 2002 7:32 Operator: CBN
Sample : WG119546-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:01 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

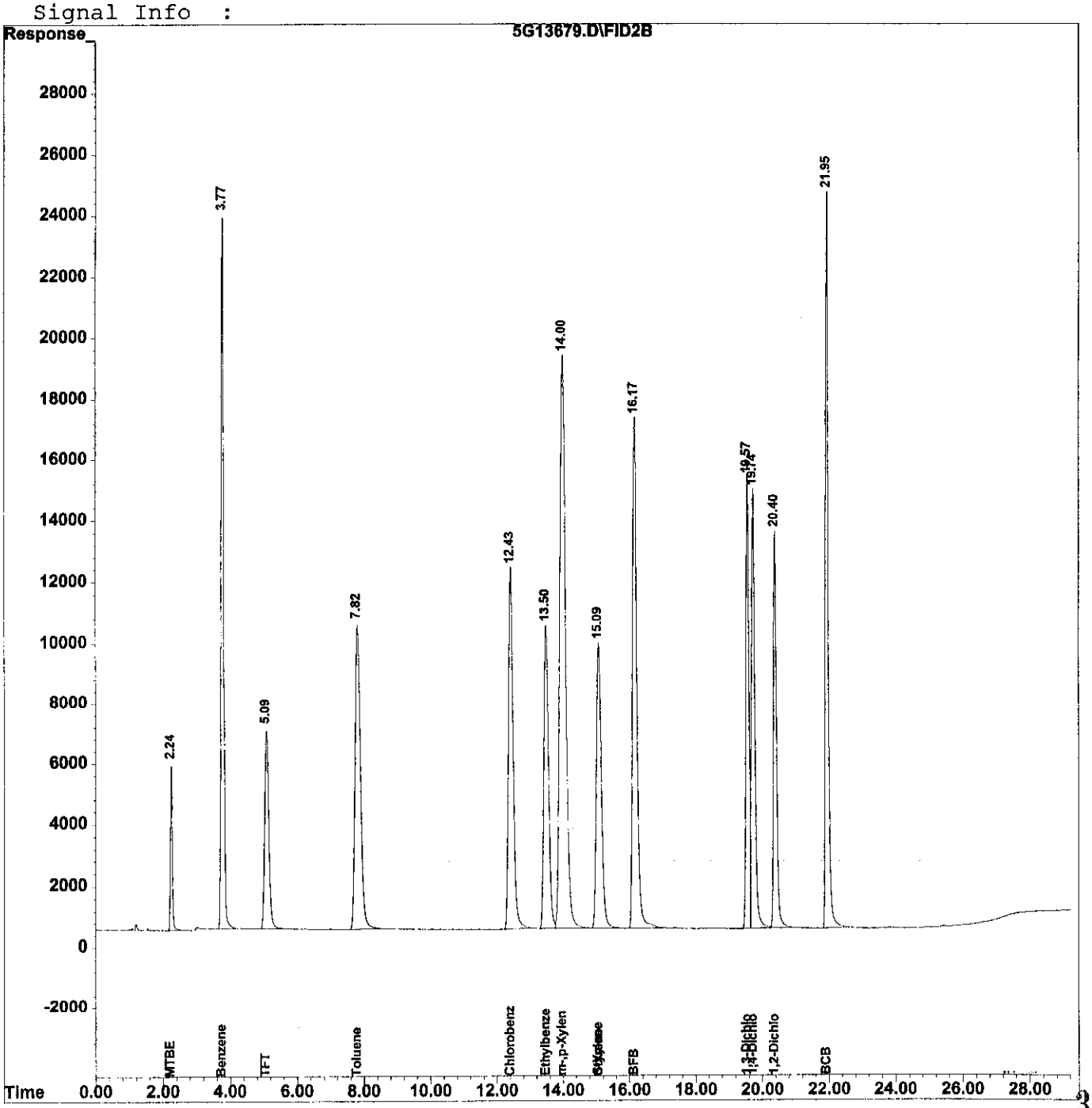
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	527025	29.7302 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.10%
10) S BFB	16.12	1468790	30.7406 ug/L
Spiked Amount 30.000		Recovery =	102.47%
14) S BCB	21.98	1365522	29.1636 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	97.21%
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	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 Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\060702\5G13679.D Vial: 3
Acq On : 7 Jun 2002 9:59 Operator: CSH
Sample : WG119381-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 10:28 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\060702\5G13679.D Vial: 3
Acq On : 7 Jun 2002 9:59 Operator: CSH
Sample : WG119381-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-94-04,93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 7 10:28 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	556723	31.4055 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.69%			
10) S BFB	16.17	1466197	30.6864 ug/L
Spiked Amount 30.000 Recovery = 102.29%			
14) S BCB	21.95	1355124	28.9415 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 96.47%			
Target Compounds			
1) TM MTBE	2.25	213195	20.3675 ug/L
2) TM Benzene	3.77	1225546	21.8498 ug/L
4) TM Toluene	7.82	1126608	22.0416 ug/L
5) TM Chlorobenzene	12.43	1156642	21.3769 ug/L
6) TM Ethylbenzene	13.50	974503	22.0381 ug/L
7) TM m-,p-Xylene	14.00	2284789	43.1951 ug/L
8) TM Styrene	15.09f	975610	17.5927 ug/L
9) TM o-Xylene	15.09	975610	18.9202 ug/L
11) TM 1,3-Dichlorobenzene	19.57	924907	21.2734 ug/L
12) TM 1,4-Dichlorobenzene	19.74	1014877	21.5654 ug/L
13) TM 1,2-Dichlorobenzene	20.40	812006	21.4325 ug/L

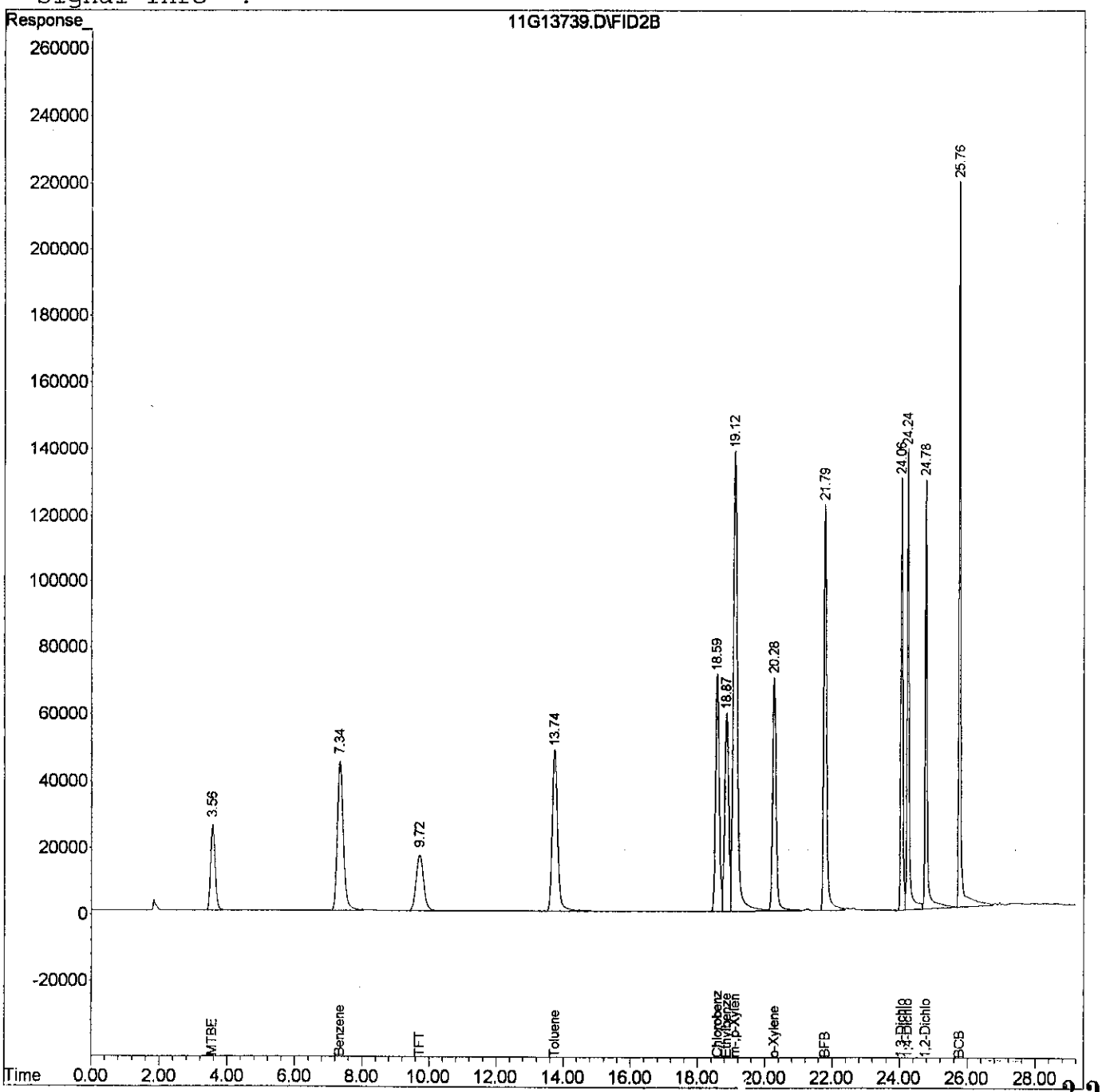
325

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

Data File : C:\HPCHEM\1\DATA\061002\11G13739.D Vial: 3
Acq On : 10 Jun 2002 10:43 am Operator: CSH
Sample : WG119488-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 11:12 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



326

Data File : C:\HPCHEM\1\DATA\061002\11G13739.D Vial: 3
Acq On : 10 Jun 2002 10:43 am Operator: CSH
Sample : WG119488-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 11:12 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

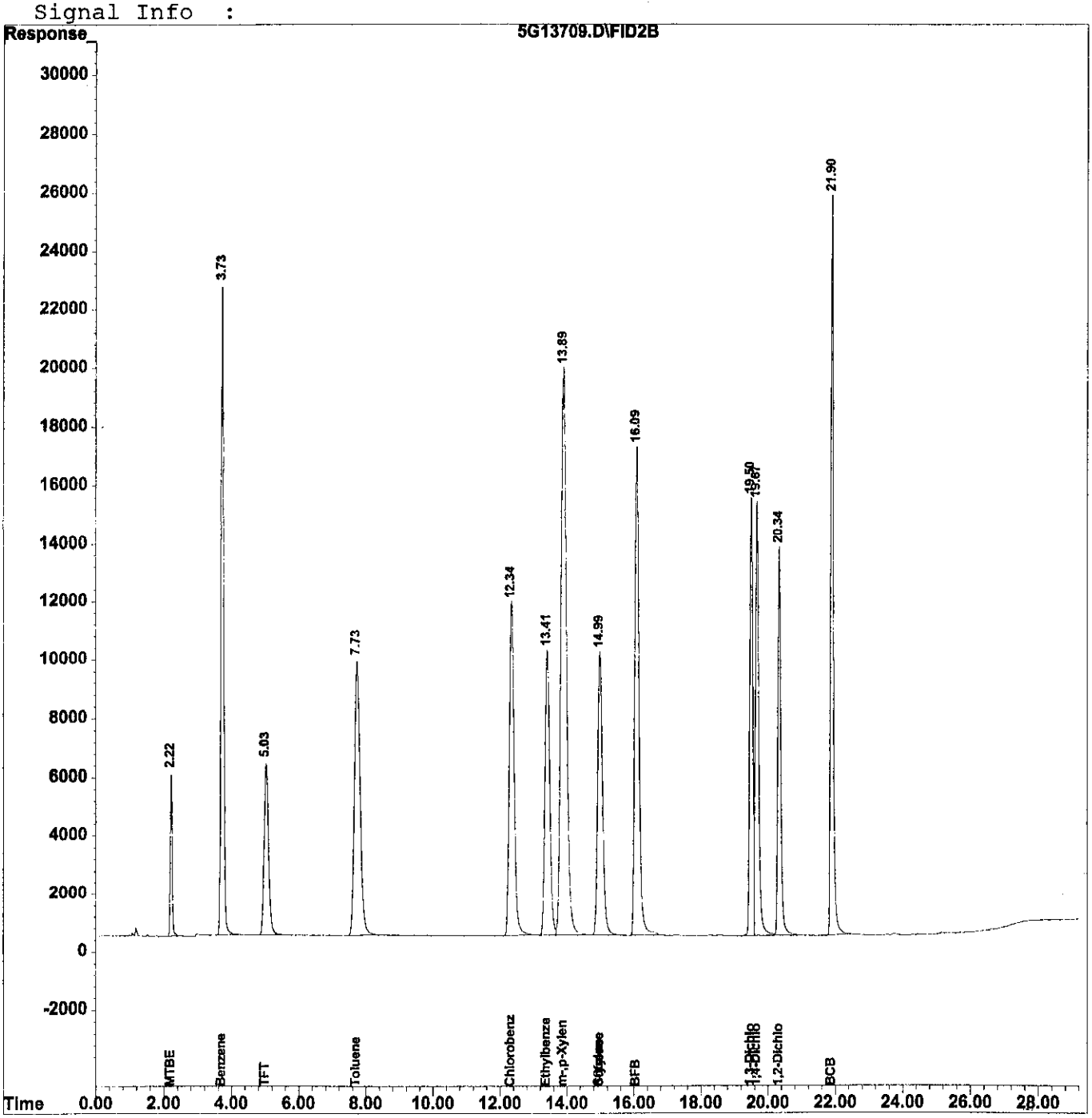
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	2654506	24.4381 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 81.46%
9) S BFB	21.79	7120496	22.7621 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 75.87%
13) S BCB	25.76	7732958	25.0084 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 83.36%
Target Compounds			
1) TM MTBE	3.56	2362627	16.6946 UG/L
2) TM Benzene	7.34	5568758	17.1883 UG/L
4) TM Toluene	13.74	5467034	16.9728 UG/L
5) TM Chlorobenzene	18.59	5599243	17.0003 UG/L
6) TM Ethylbenzene	18.87	4861098	17.1633 UG/L
7) TM m-,p-Xylene	19.12	11908436	33.8974 UG/L
8) TM o-Xylene	20.29	5186293	17.0364 UG/L
10) T 1,3-Dichlorobenzene	24.06	5219614	17.3676 UG/L
11) T 1,4-Dichlorobenzene	24.24	5789337	18.1926 UG/L
12) T 1,2-Dichlorobenzene	24.78	5372640	19.5775 UG/L

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

Data File : C:\HPCHEM\2\DATA\061102\5G13709.D Vial: 3
Acq On : 11 Jun 2002 8:07 Operator: CBN
Sample : WG119546-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:36 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\061102\5G13709.D Vial: 3
Acq On : 11 Jun 2002 8:07 Operator: CBN
Sample : WG119546-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:36 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

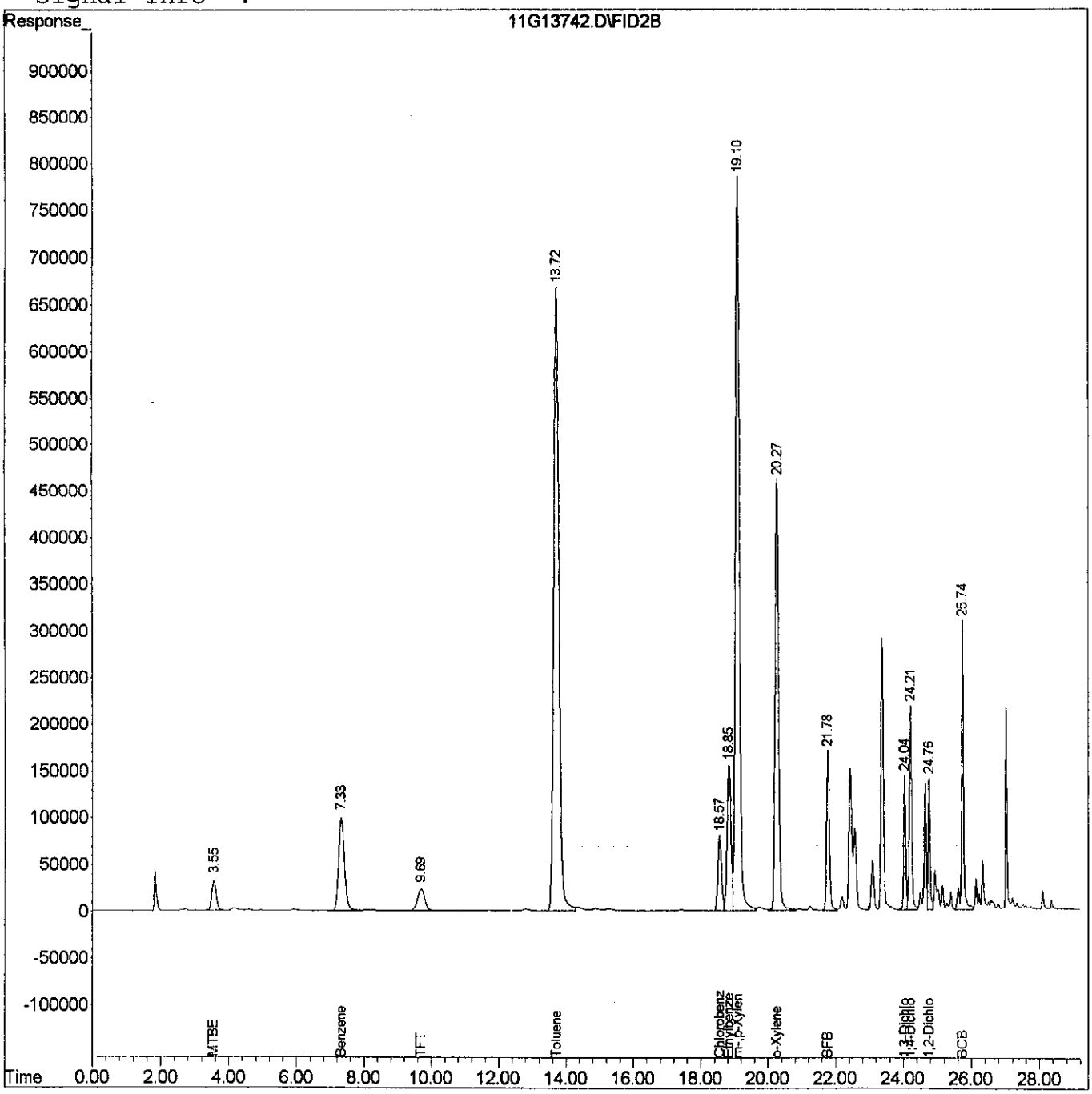
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	541584	30.5515 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 101.84%			
10) S BFB	16.09	1455428	30.4610 ug/L
Spiked Amount 30.000 Recovery = 101.54%			
14) S BCB	21.90	1369343	29.2452 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 97.48%			
Target Compounds			
1) TM MTBE	2.22	218964	20.9187 ug/L
2) TM Benzene	3.73	1213294	21.6314 ug/L
4) TM Toluene	7.73	1115761	21.8293 ug/L
5) TM Chlorobenzene	12.34	1148945	21.2346 ug/L
6) TM Ethylbenzene	13.41	966111	21.8483 ug/L
7) TM m-,p-Xylene	13.90	2274802	43.0063 ug/L
8) TM Styrene	14.99	972230	17.5317 ug/L
9) TM o-Xylene	14.99	972230	18.8546 ug/L
11) TM 1,3-Dichlorobenzene	19.51	941288	21.6502 ug/L
12) TM 1,4-Dichlorobenzene	19.68	1025928	21.8002 ug/L
13) TM 1,2-Dichlorobenzene	20.34	823108	21.7255 ug/L

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

Data File : C:\HPCHEM\1\DATA\061002\11G13742.D Vial: 3
Acq On : 10 Jun 2002 12:38 pm Operator: CSH
Sample : WG119488-04 L0206140-12 MS B 5ML 50X Inst : HP11
Misc : 1,50 S-(94-04,93-50) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 10 13:08 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13742.D Vial: 3
Acq On : 10 Jun 2002 12:38 pm Operator: CSH
Sample : WG119488-04 L0206140-12 MS B 5ML 50X Inst : HP11
Misc : 1,50 S-(94-04,93-50) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 10 13:08 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

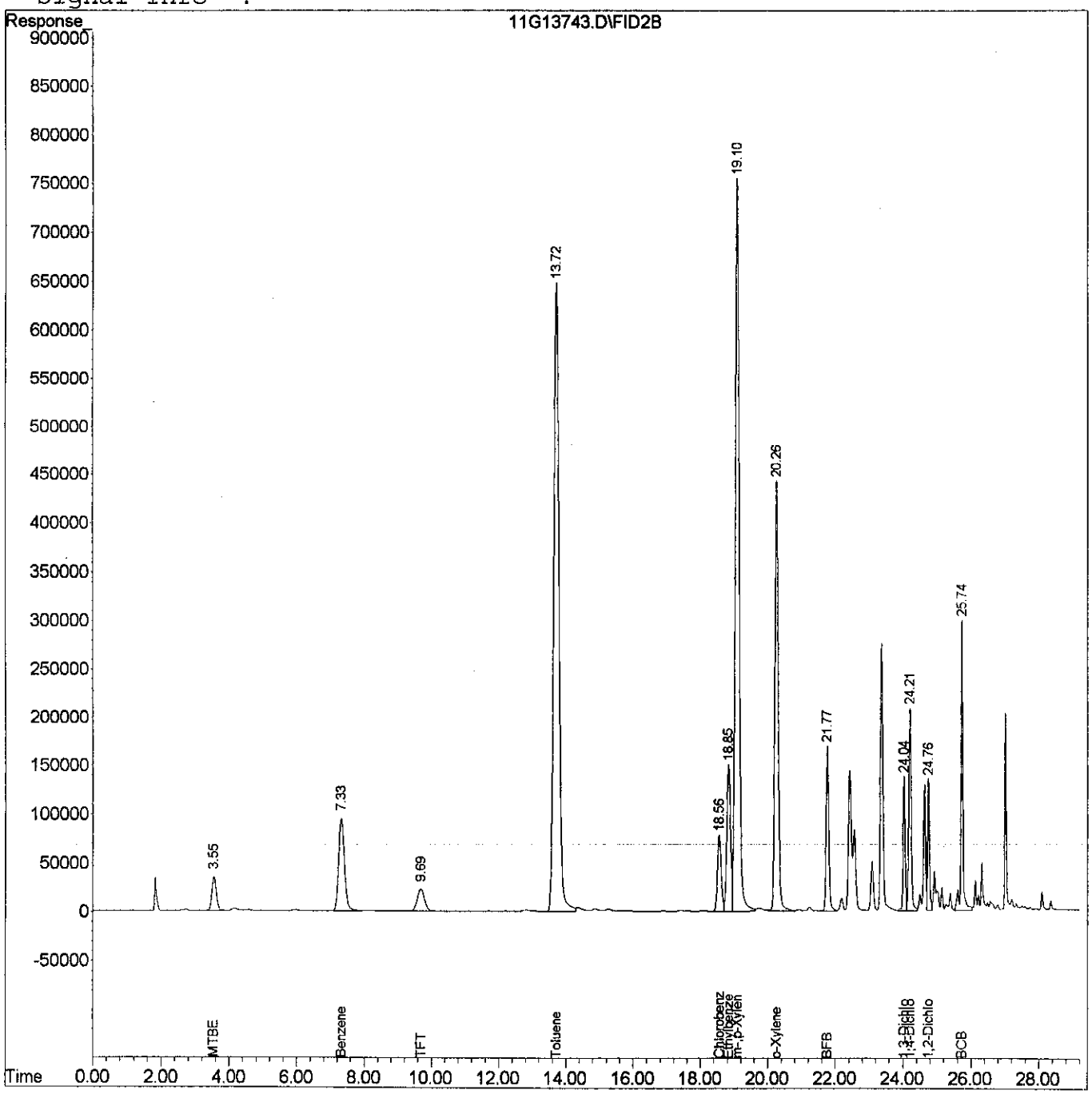
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	3507820	32.2939 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 107.65%
9) S BFB	21.78	9449818	30.2082 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 100.69%
13) S BCB	25.74	11912603	38.5254 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 128.42%
Target Compounds			
1) TM MTBE	3.56	2938400	1038.1520 UG/L
2) TM Benzene	7.33	11922766	1840.0189 UG/L
4) TM Toluene	13.72	71241471	11058.7359 UG/L
5) TM Chlorobenzene	18.57	6174079	937.2818 UG/L
6) TM Ethylbenzene	18.85	12267135	2165.6087 UG/L
7) TM m-,p-Xylene	19.10	62941813	8958.2002 UG/L
8) TM o-Xylene	20.27	32769225	5382.1639 UG/L
10) T 1,3-Dichlorobenzene	24.04	5764385	959.0142 UG/L
11) T 1,4-Dichlorobenzene	24.21	10526374	1653.9237 UG/L
12) T 1,2-Dichlorobenzene	24.76	5313688	968.1330 UG/L

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

Data File : C:\HPCHEM\1\DATA\061002\11G13743.D Vial: 4
Acq On : 10 Jun 2002 1:13 pm Operator: CSH
Sample : WG119488-05 L0206140-12 MSD B 5ML 50X Inst : HP11
Misc : 1,50 S-(94-04,93-50) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 10 13:42 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13743.D Vial: 4
Acq On : 10 Jun 2002 1:13 pm Operator: CSH
Sample : WG119488-05 L0206140-12 MSD B 5ML 50X Inst : HP11
Misc : 1,50 S-(94-04,93-50) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 10 13:42 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

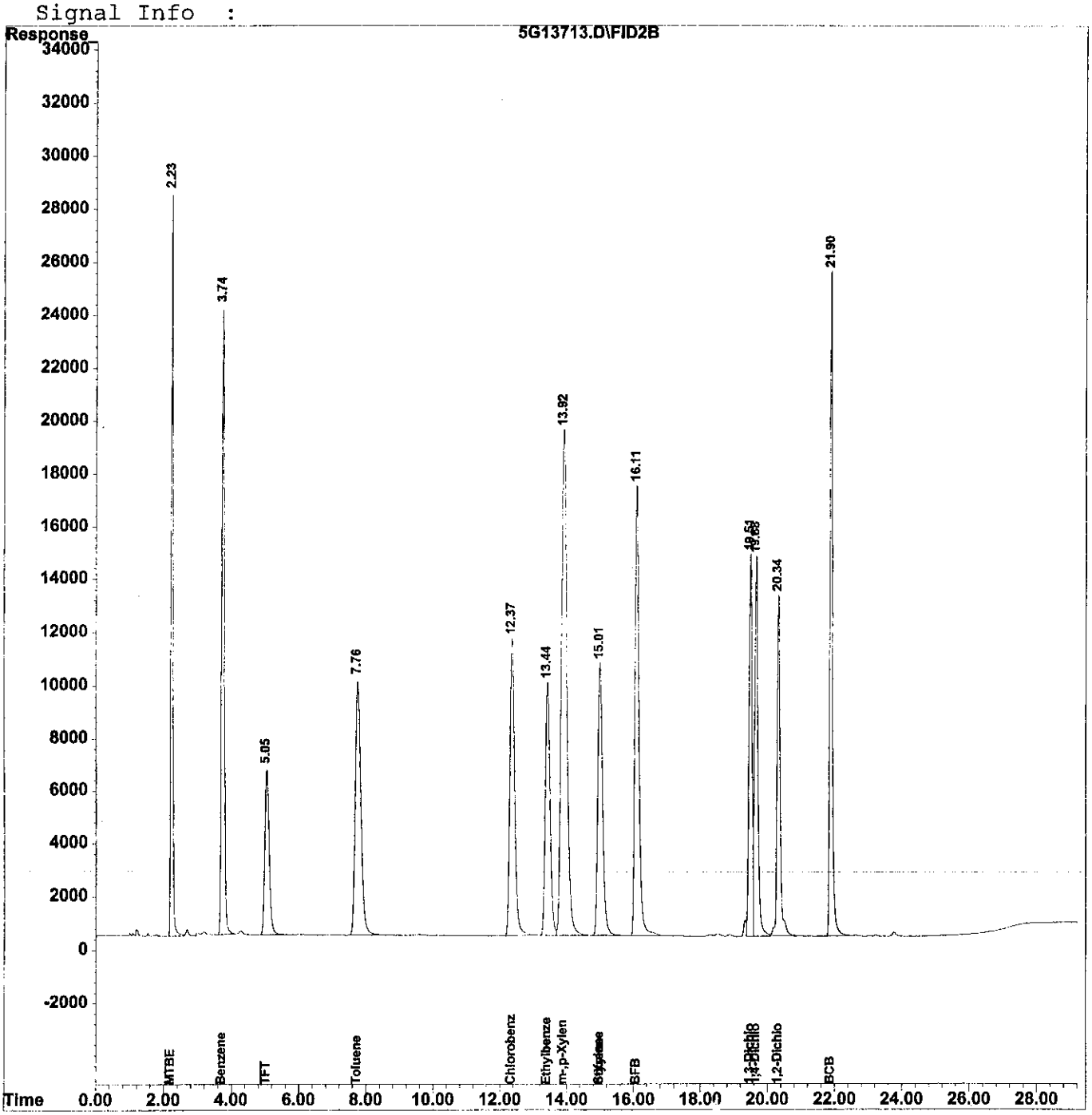
Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.69	3541008	32.5994 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 108.66%
9) S BFB			21.78	9368474	29.9482 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 99.83%
13) S BCB			25.74	11507287	37.2146 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 124.05%
Target Compounds					
1) TM MTBE			3.55	3240893	1145.0243 UG/L
2) TM Benzene			7.33	11466833	1769.6556 UG/L
4) TM Toluene			13.72	69191593	10740.5356 UG/L
5) TM Chlorobenzene			18.56	5966204	905.7244 UG/L
6) TM Ethylbenzene			18.85	11798746	2082.9205 UG/L
7) TM m-,p-Xylene			19.10	60482144	8608.1275 UG/L
8) TM o-Xylene			20.27	31491995	5172.3860 UG/L
10) T 1,3-Dichlorobenzene			24.04	5507683	916.3068 UG/L
11) T 1,4-Dichlorobenzene			24.21	10072434	1582.5997 UG/L
12) T 1,2-Dichlorobenzene			24.76	5065041	922.8306 UG/L

Data File : C:\HPCHEM\2\DATA\061102\5G13713.D Vial: 4
Acq On : 11 Jun 2002 10:47 Operator: CBN
Sample : WG119546-04 L0206140-05 MS A 5ML 50X Inst : HP5
Misc : 1,50 S-(94-04,93-47) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 11 11:16 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\061102\5G13713.D Vial: 4
Acq On : 11 Jun 2002 10:47 Operator: CBN
Sample : WG119546-04 L0206140-05 MS A 5ML 50X Inst : HP5
Misc : 1,50 S-(94-04,93-47) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 11 11:16 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

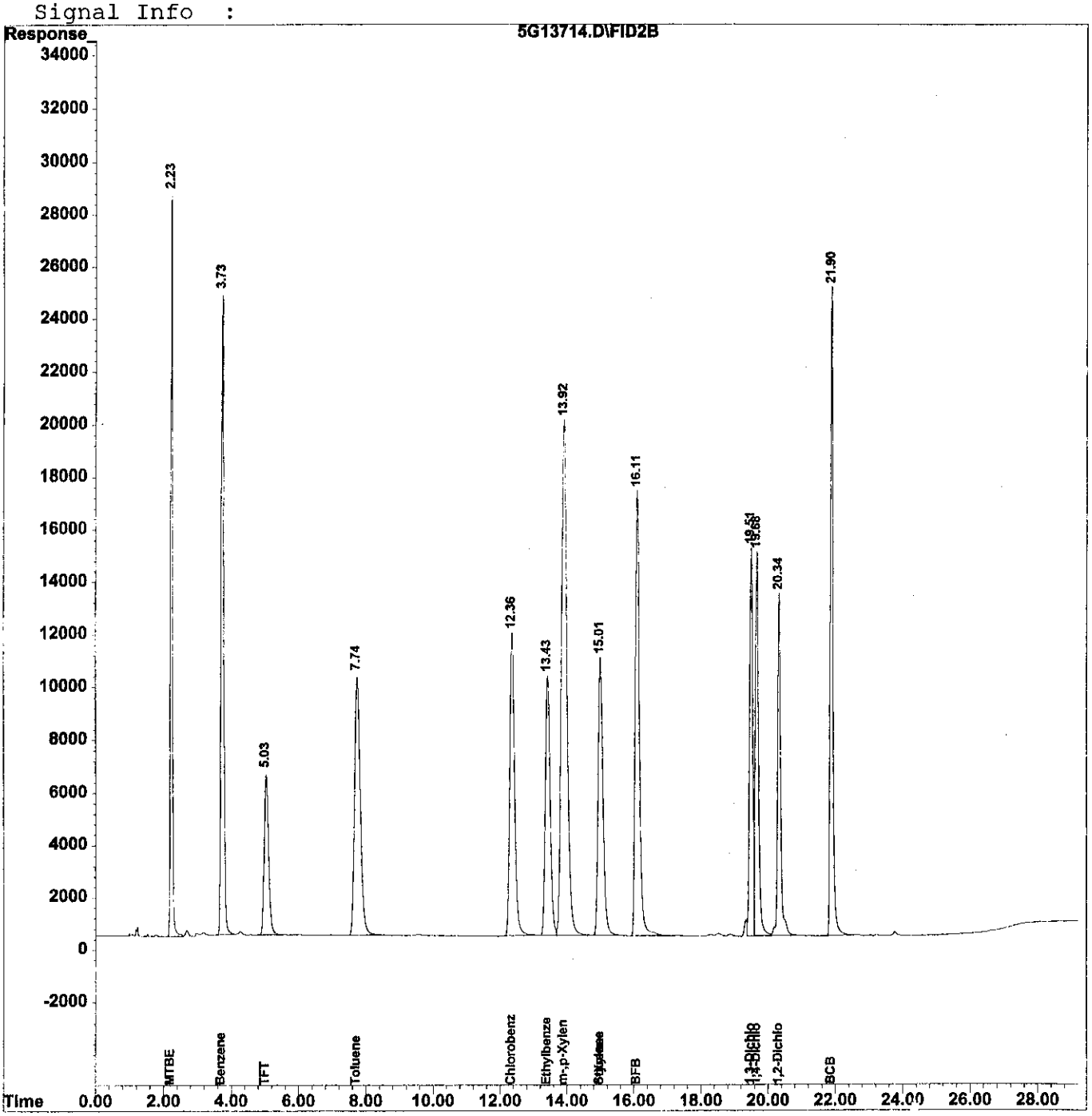
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.05	553485	31.2228 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.08%			
10) S BFB	16.11	1472245	30.8130 ug/L
Spiked Amount 30.000 Recovery = 102.71%			
14) S BCB	21.90	1379520	29.4625 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.21%			
Target Compounds			
1) TM MTBE	2.23	1092324	5217.7482 ug/L
2) TM Benzene	3.74	1268333	1130.6333 ug/L
4) TM Toluene	7.76	1112724	1088.4966 ug/L
5) TM Chlorobenzene	12.37	1109207	1025.0090 ug/L
6) TM Ethylbenzene	13.44	932623	1054.5486 ug/L
7) TM m-,p-Xylene	13.92	2210667	2089.6905 ug/L
8) TM Styrene	15.01	1018996	918.7529 ug/L
9) TM o-Xylene	15.01	1018996	988.0782 ug/L
11) TM 1,3-Dichlorobenzene	19.51	913746	1050.8333 ug/L
12) TM 1,4-Dichlorobenzene	19.68	984541	1046.0368 ug/L
13) TM 1,2-Dichlorobenzene	20.34	838074	1106.0263 ug/L

Data File : C:\HPCHEM\2\DATA\061102\5G13714.D Vial: 5
Acq On : 11 Jun 2002 11:21 Operator: CBN
Sample : WG119546-05 L0206140-05 MSD A 5ML 50X Inst : HP5
Misc : 1,50 S-(94-04,93-47) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 11 11:51 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\061102\5G13714.D Vial: 5
Acq On : 11 Jun 2002 11:21 Operator: CBN
Sample : WG119546-05 L0206140-05 MSD A 5ML 50X Inst : HP5
Misc : 1,50 S-(94-04,93-47) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Jun 11 11:51 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	555348	31.3280 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.43%			
10) S BFB	16.11	1478569	30.9453 ug/L
Spiked Amount 30.000 Recovery = 103.15%			
14) S BCB	21.90	1356255	28.9657 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 96.55%			
Target Compounds			
1) TM MTBE	2.23	1104376	5275.3176 ug/L
2) TM Benzene	3.73	1320309	1176.9666 ug/L
4) TM Toluene	7.74	1158119	1132.9029 ug/L
5) TM Chlorobenzene	12.36	1155092	1067.4112 ug/L
6) TM Ethylbenzene	13.43	976389	1104.0366 ug/L
7) TM m-,p-Xylene	13.92	2311965	2185.4450 ug/L
8) TM Styrene	15.01	1064290	959.5909 ug/L
9) TM o-Xylene	15.01	1064290	1031.9975 ug/L
11) TM 1,3-Dichlorobenzene	19.51	937955	1078.6752 ug/L
12) TM 1,4-Dichlorobenzene	19.68	1007895	1070.8494 ug/L
13) TM 1,2-Dichlorobenzene	20.34	850095	1121.8910 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
5G13714.D 602STY.M Tue Jun 11 11:51:12 2002 Page 1

Injection Log

Directory: c:\hpchem\2\data\042202

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

338

Directory: C:\HPCHEM\1\DATA\051302

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13534.d	1.	WG117338-01 8021 STD 1 1PPB..RR	1,1 S-(94-01,93-49)	13 May 2002 11:4
2	2	11g13535.d	1.	WG117338-02 8021 STD 2 10PP.✓	1,1 S-(94-01,93-49)	13 May 2002 12:2
3	3	11g13536.d	1.	WG117338-03 8021 STD 3 20PP..✓	1,1 S-(94-01,93-49)	13 May 2002 12:5
4	4	11g13537.d	1.	WG117338-04 8021 STD 4 50PP..✓	1,1 S-(94-01,93-49)	13 May 2002 13:3
5	5	11g13538.d	1.	WG117338-05 8021 STD 5 100P...✓	1,1 S-(94-01,93-49)	13 May 2002 14:0
6	6	11g13539.d	1.	WG117338-06 8021 STD 6 200P...✓	1,1 S-(94-01,93-49)	13 May 2002 14:4
7	7	11g13540.d	1.	WG117338-07 8021 STD 7 300P...✓	1,1 S-(94-01,92-44)	13 May 2002 15:1
8	8	11g13541.d	1.	RINSE 5ML RR	1,1 S-93-50	13 May 2002 15:5
9	9	11g13542.d	1.	RINSE 5ML✓	1,1 S-93-50	13 May 2002 16:2
10	10	11g13543.d	1.	WG117338-01 8021 STD 1 1PPB..✓	1,1 S-(94-01,92-44)	13 May 2002 17:1
11	11	11g13544.d	1.	WG117338-08 ALT SOURCE 20PP..✓	1,1 S-(92-47,93-50)	13 May 2002 17:5

339

Directory: c:\hpchem\2\data\060702

Injection Log

WG119381

Analyst: CSH

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g13677.d	1.	WG119380-01 8021 STD 20PPB 5ML	1,1 S-94-04,93-47	7 Jun 102 12::3
2	2	5g13678.d	1.	WG119381-01 WATER BLANK 5ML	1,1 S-93-47	7 Jun 102 12::0
3	3	5g13679.d	1.	WG119381-02 WATER LCS 20PPB 5ML	1,1 S-94-04,93-47	7 Jun 102 12::5
4	1	5g13680.d	1.	L0206036-01 A 5ML	1,1 S-93-47 pH<2	7 Jun 102 13::4
5	2	5g13681.d	1.	RINSE 5ML cont.	1,1 S-93-47	7 Jun 102 13::1
6	3	5g13682.d	1.	RINSE 5ML	1,1 S-93-47	7 Jun 102 13::0
7	4	5g13683.d	10.	L0206106-03 B 5ML 10X	1,10 S-93-47 pH<2	7 Jun 102 13::4
8	5	5g13684.d	100.	L0206106-04 A 5ML 100X	1,100 S-93-47	7 Jun 102 12::1
9	6	5g13685.d	100.	L0206140-01 A 5ML 100X	1,100 S-93-47	7 Jun 102 12::5
10	7	5g13686.d	1.	L0206140-02 A 5ML	1,1 S-93-47	7 Jun 102 12::2
11	8	5g13687.d	1.	WG119381-03 L0206140-07 A 5ML	1,1 S-93-47	7 Jun 102 12::0
12	9	5g13688.d	1.	WG119381-04 L0206140-17 MS A 5ML	1,1 S-94-04,93-47	7 Jun 102 12::3
13	10	5g13689.d	1.	WG119381-05 L0206140-18 MSD A 5ML	1,1 S-94-04,93-47	7 Jun 102 12::1
14	11	5g13690.d	1.	WG119380-02 8021 STD 20PPB 5ML	1,1 S-94-04,93-47	7 Jun 102 12::4
15	12	5g13691.d	1.	L0206140-03 A 5ML	1,1 S-93-47 pH<2	7 Jun 102 12::3
16	13	5g13692.d	1.	L0206140-04 A 5ML	1,1 S-93-47	7 Jun 102 12::0
17	14	5g13693.d	50.	L0206140-05 A 5ML 50X RR STR	1,50 S-93-47	7 Jun 102 12::4
18	15	5g13694.d	1.	L0206140-06 A 5ML	1,1 S-93-47	7 Jun 102 12::1
19	16	5g13695.d	1.	L0206140-08 A 5ML	1,1 S-93-47	7 Jun 102 12::5
20	17	5g13696.d	1.	L0206140-09 A 5ML	1,1 S-93-47	7 Jun 102 12::2
21	18	5g13697.d	1.	L0206140-10 A 5ML	1,1 S-93-47	7 Jun 102 12::0
22	19	5g13698.d	10.	L0206140-11 A 5ML 10X	1,10 S-93-47	7 Jun 102 12::3
23	20	5g13699.d	1.	L0206140-13 A 5ML	1,1 S-93-47	7 Jun 102 13::1
24	21	5g13700.d	1.	L0206140-14 A 5ML RR (T.B.)	1,1 S-93-47	7 Jun 102 13::4
25	22	5g13701.d	1.	WG119380-03 8021 STD 20PPB 5ML	1,1 S-94-04,93-47	7 Jun 102 13::2
26	23	5g13702.d	1.	~~L0206140-12 A 5ML~~ RR @ 50X Dur	1,1 S-93-47 pH<2	7 Jun 102 13::5
27	24	5g13703.d	1.	WG119380-04 8021 STD 20PPB 5ML cb	1,1 S-94-04,93-47	8 Jun 102 13::3

Reanalyses — File number

L0206140-05 STR
- -12 50x
- -14 STRT

340

WG119488

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13737.d	1.	WG119487-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)	10 Jun 2002 09:19
2	2	11g13738.d	1.	WG119488-01 WATER BLANK 5ML ✓	1,1 S-93-50	10 Jun 2002 10:09
3	3	11g13739.d	1.	WG119488-02 WATER LCS 20PPB... ✓	1,1 S-(94-04,93-50)	10 Jun 2002 10:43
4	1	11g13740.d	1.	DWR L0206140-05 B 5ML ✓ RR @ 5x (MTBE)	1,1 S-93-50 pH<2	10 Jun 2002 11:29
5	2	11g13741.d	50.	WG119488-03 L0206140-12 B 5... ✓	1,50 S-93-50	10 Jun 2002 12:04
6	3	11g13742.d	50.	WG119488-04 L0206140-12 MS ... ✓	1,50 S-(94-04,93-50)	10 Jun 2002 12:38
7	4	11g13743.d	50.	WG119488-05 L0206140-12 MSD... ✓	1,50 S-(94-04,93-50)	10 Jun 2002 13:13
8	5	11g13744.d	1.	L0206140-14 B 5ML ✓	1,1 S-93-50	10 Jun 2002 13:47
9	6	11g13745.d	1.	L0206164-01 A 5ML ✓	1,1 S-93-50	10 Jun 2002 14:22
10	7	11g13746.d	1.	L0206164-02 A 5ML ✓	1,1 S-93-50	10 Jun 2002 14:56
11	8	11g13747.d	1.	L0206164-03 A 5ML ✓	1,1 S-93-50	10 Jun 2002 15:30
12	9	11g13748.d	1.	WG119487-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)	10 Jun 2002 16:05
13	10	11g13749.d	1.	L0206164-04 A 5ML RR CCV	1,1 S-93-50 pH<2	10 Jun 2002 16:39
14	11	11g13750.d	5.	L0206140-05 A 5ML 5X	1,5 S-93-50	10 Jun 2002 17:14

341

Line	Vial	FileName	Multiplier	SampleName	Misc Info		Injected
1	1	5g13707.d	1.	WG119545-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::4
2	2	5g13708.d	1.	WG119546-01 WATER BLANK 5ML ✓	1,1 S-93-47		11 Jun 102 12::3
3	3	5g13709.d	1.	WG119546-02 WATER LCS 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::0
4	1	5g13710.d	1.	L0206164-04 B 5ML ✓	1,1 S-93-47	pH<2	11 Jun 102 12::5
5	2	5g13711.d	10.	WG119546-03 L0206140-05 A 5ML 10X	1,10 S-93-47 RR @ 50x		11 Jun 102 12::2
6	3	5g13712.d	50.	WG119546-03 L0206140-05 A 5ML 50X	1,50 S-93-47 ✓		11 Jun 102 13::1
7	4	5g13713.d	50.	WG119546-05 L0206140-04 MS A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::4
8	5	5g13714.d	50.	WG119546-05 L0206140-05 MSD A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::2
9	6	5g13715.d	1.	WG119545-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 13::5
10	1	5g13716.d	1.	L0206190-01 A 5ML HIGH 335	1,1 S-93-47	pH<2	11 Jun 102 12::4
11	2	5g13717.d	1.	L0206190-02 A 5ML ✓ RR @ 5x HIGH 335	1,1 S-93-47		11 Jun 102 12::2
12	3	5g13718.d	1.	L0206190-03 A 5ML RR @ 100x	1,1 S-93-47		11 Jun 102 12::5
13	4	5g13719.d	1.	L0206190-04 A 5ML RR @ 40	1,1 S-93-47		11 Jun 102 12::3
14	5	5g13720.d	1.	L0206191-01 A 5ML	1,1 S-93-47		11 Jun 102 12::0
15	6	5g13721.d	1.	L0206191-02 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::4
16	7	5g13722.d	1.	L0206191-03 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::1
17	8	5g13723.d	1.	L0206191-04 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::5
18	9	5g13724.d	1.	L0206191-05 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::2
19	10	5g13725.d	50.	L0206191-06 A 5ML 50X RR @ 10x	1,50 S-93-47		11 Jun 102 12::0
20	11	5g13726.d	1.	WG119545-03 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::3

REANALYSIS	FILE #
L0206190-01	
-02	
-03	
-04	
L0206191-~~04~~1	
CBN 6/12/02	
-06	

342

2.2 Semivolatiles Data

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0206140

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

BATCH QA/QC

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

SAMPLES

Surrogates: Sample fractions 11 and 12 yielded % recoveries for d14-p-terphenyl that were below acceptable limits. These samples were re-extracted outside of extraction holding time with similar results. Only the original analysis has been reported.
Samples: Several samples required dilution analysis in order to obtain results within the linear range of the instrument.

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: 6/27/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number 06-140

A. QC Summary

___Method Blank Summary
___Method Blank Results
___Laboratory Control Sample (LCS)
___Matrix Spike/Matrix Spike Duplicate (MS/MSD)
___Holding Time Summary
___Surrogate Recovery Summary
✓ Initial Calibration Summary
✓ Initial Calibration Verification (ICV) Form (Second Source)
✓ Continuing Calibration Verification (CCV)
✓ Instrument Run Log
✓ Extraction Bench Sheet

B. Sample Data

___Target compound and surrogate results summary (See Summary Report)
✓ Chromatograms and quantitation report

C. Standards Data

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

D. Raw QC Data

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

Checked By: SPL Date: 6-27-02

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 4L003152.F
Date Analyzed: 06/15/02
Time Analyzed: 07:15
Analyst: RDC

Work Group: WG119924
Blank Sample ID: WG119548-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119548-03	4L003153.F	06/15/02 08:12	CF01
062-CEF46-IS-Q2-02-17	L0206140-01	4L003154.F	06/15/02 09:09	CF01
062-CEF46-2S-Q2-02-17	L0206140-02	4L003155.F	06/15/02 10:05	CF01
062-CEF46-6D-Q2-02-17	L0206140-04	4L003157.F	06/15/02 11:59	CF01
062-CEF46-7I-Q2-02-17	L0206140-05	4L003158.F	06/15/02 12:55	CF01
062-CEF46-12I-Q2-02-17	L0206140-07	4L003160.F	06/15/02 14:49	CF01
062-46DUP-Q2-02-17	L0206140-12	4L003166.F	06/15/02 20:28	CF01
062-46EQB-Q2-02-17	L0206140-13	4L003167.F	06/15/02 21:25	CF01
062-CEF46-12I-Q2-02-17	L0206140-17	4L003168.F	06/15/02 22:22	CF01
062-CEF46-12I-Q2-02-17	L0206140-18	4L003169.F	06/15/02 23:18	CF01
062-CEF46-IS-Q2-02-17	L0206140-01	4L003176.F	06/17/02 13:57	CFDL01
062-46DUP-Q2-02-17	L0206140-12	4L003177.F	06/17/02 14:54	CFDL01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 4L003152.R
Date Analyzed: 06/15/02
Time Analyzed: 07:15
Analyst: RDC

Work Group: WG119924
Blank Sample ID: WG119548-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119548-03	4L003153.R	06/15/02 08:12	01
062-CEF46-IS-Q2-02-17	L0206140-01	4L003154.R	06/15/02 09:09	01
062-CEF46-2S-Q2-02-17	L0206140-02	4L003155.R	06/15/02 10:05	01
062-CEF46-5I-Q2-02-17	L0206140-03	4L003156.R	06/15/02 11:02	01
062-CEF46-6D-Q2-02-17	L0206140-04	4L003157.R	06/15/02 11:59	01
062-CEF46-7I-Q2-02-17	L0206140-05	4L003158.R	06/15/02 12:55	01
062-CEF46-9I-Q2-02-17	L0206140-06	4L003159.R	06/15/02 13:52	01
062-CEF46-12I-Q2-02-17	L0206140-07	4L003160.R	06/15/02 14:49	01
062-CEF46-13I-Q2-02-17	L0206140-08	4L003161.R	06/15/02 15:45	01
062-CEF46-14D-Q2-02-17	L0206140-09	4L003163.R	06/15/02 17:39	01
062-CEF46-15I-Q2-02-17	L0206140-10	4L003164.R	06/15/02 18:35	01
062-CEF46-26I-Q2-02-17	L0206140-11	4L003165.R	06/15/02 19:32	01
062-46DUP-Q2-02-17	L0206140-12	4L003166.R	06/15/02 20:28	01
062-46EQB-Q2-02-17	L0206140-13	4L003167.R	06/15/02 21:25	01
062-CEF46-12I-Q2-02-17	L0206140-17	4L003168.R	06/15/02 22:22	01
062-CEF46-12I-Q2-02-17	L0206140-18	4L003169.R	06/15/02 23:18	01
062-CEF46-IS-Q2-02-17	L0206140-01	4L003176.R	06/17/02 13:57	DL01
062-46DUP-Q2-02-17	L0206140-12	4L003177.R	06/17/02 14:54	DL01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/07/2002 Sample ID: WG119433-01
Instrument ID: IC2 Run Time: 14:52 Method: 8310
File ID: 060702.11 Analyst: JWR Matrix: Water
Workgroup (AAB#): WG119433 Units: mg/L
Contract #: Cal ID: IC2-21-MAY-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140
Run Date: 06/12/2002
Sample ID: WG119551-02
Instrument ID: HP2
Run Time: 15:28
Method: 8310
File ID: 2G20443
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG119767
Units: ug/L
Contract #:
Cal ID: HP2-12-JUN-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	64.0	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/15/2002 Sample ID: WG119548-02
Instrument ID: HPLC4 Run Time: 07:15 Method: 8310
File ID: 4L003152.R Analyst: RDC Matrix: Water
Workgroup (AAB#): WG119924 Units: ug/L
Contract #: Cal ID: HPLC4-13-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	81.0	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140
Run Date: 06/15/2002
Sample ID: WG119548-02
Instrument ID: HPLC4
Run Time: 07:15
Method: 8310
File ID: 4L003152.F
Analyst: RDC
Matrix: Water
Workgroup (AAB#): WG119924
Units: ug/L
Contract #:
Cal ID: HPLC4-13-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	81.7	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Run Date: 06/15/2002
Sample ID: WG119548-03
Instrument ID: HPLC4
Run Time: 08:12
Method: 8310
File ID: 4L003153.R
Analyst: RDC
Matrix: Water
Workgroup (AAB#): WG119924
Units: ug/L
Contract #:
Cal ID: HPLC4-13-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	31.6	63.2	25 - 78	
Acenaphthylene	50	31.2	62.4	25 - 77	
Anthracene	50	40.0	80.0	47 - 101	
Benzo(a)anthracene	5	4.14	82.7	50 - 115	
Benzo[a]pyrene	5	3.22	64.4	29 - 113	
Benzo(b)Fluoranthene	5	3.45	68.9	41 - 110	
Benzo[ghi]perylene	5	2.05	41.0	11 - 84	
Benzo[k]fluoranthene	2.5	1.46	58.3	25 - 107	
Chrysene	5	3.74	74.7	39 - 120	
Dibenz(a,h)Anthracene	5	2.17	43.4	10 - 92	
Fluoranthene	5	4.13	82.7	55 - 104	
Fluorene	50	33.6	67.3	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.40	48.0	16 - 98	
Naphthalene	50	28.4	56.9	25 - 68	
2-Methylnaphthalene	50	30.0	60.1	26 - 72	
1-Methylnaphthalene	50	30.0	59.9	26 - 71	
Phenanthrene	50	36.0	71.9	39 - 95	
Pyrene	5	4.14	82.9	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	63.8	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140
Run Date: 06/19/2002
Sample ID: WG120157-01
Instrument ID: IC1
Run Time: 16:55
Method: 8310
File ID: 061902.12
Analyst: RDC
Matrix: Water
Workgroup (AAB#): WG120157
Units: mg/L
Contract #:
Cal ID: IC1-18-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140
Run Date: 06/19/2002
Sample ID: WG119976-01
Instrument ID: HP2
Run Time: 22:31
Method: 8310
File ID: 2G20581
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG120200
Units: ug/L
Contract #:
Cal ID: HP2-19-JUN-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	72.9	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Instrument ID: HPLC4
File ID: 4L003153.F
Workgroup (AAB#): WG119924
Contract #:

Run Date: 06/15/2002
Run Time: 08:12
Analyst: RDC

Sample ID: WG119548-03
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-13-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	31.4	62.7	25 - 78	
Acenaphthylene	50		0	25 - 77	*
Anthracene	50	39.1	78.2	47 - 101	
Benzo(a)anthracene	5	4.03	80.6	50 - 115	
Benzo[a]pyrene	5	3.20	63.9	29 - 113	
Benzo(b)Fluoranthene	5	3.41	68.2	41 - 110	
Benzo[ghi]perylene	5	2.06	41.2	11 - 84	
Benzo[k]fluoranthene	2.5	1.45	57.9	25 - 107	
Chrysene	5	3.61	72.1	39 - 120	
Dibenz(a,h)Anthracene	5	1.99	39.7	10 - 92	
Fluoranthene	5	4.23	84.7	55 - 104	
Fluorene	50	33.7	67.5	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.34	46.7	16 - 98	
Naphthalene	50	28.7	57.4	25 - 68	
2-Methylnaphthalene	50	29.4	58.8	26 - 72	
1-Methylnaphthalene	50	29.4	58.8	26 - 71	
Phenanthrene	50	35.3	70.5	39 - 95	
Pyrene	5	4.14	82.9	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	63.3	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0206140 Cal ID: HPLC4-13-JUN-2002 Worknum: WG119924
Instrument ID: HPLC4 Contract #: Method: 8310
Parent ID: L0206140-07 File ID: 4L003160.F Dil: 1 Matrix: Water
Sample ID: L0206140-17 MS File ID: 4L003168.F Dil: 1 Units: ug/L
Sample ID: L0206140-18 MSD File ID: 4L003169.F Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Naphthalene	ND	52.6	14.9	28.3	51.8	16.3	31.5	9.21	25 - 68	50	
1-Methylnaphthalene	ND	52.6	15.2	28.9	51.8	16.7	32.2	9.78	26 - 71	50	
2-Methylnaphthalene	ND	52.6	15.0	28.5	51.8	16.5	31.9	9.87	26 - 72	50	
Acenaphthylene	ND	52.6			51.8			NA	25 - 77	50	*
Acenaphthene	ND	52.6	16.9	32.1	51.8	20.4	39.4	18.7	25 - 78	50	
Fluorene	ND	52.6	19.4	36.9	51.8	26.5	51.2	30.9	29 - 84	50	
Phenanthrene	ND	52.6	23.3	44.3	51.8	36.6	70.7	44.3	39 - 95	50	
Anthracene	ND	52.6	22.8	43.3	51.8	37.3	72.0	47.9	47 - 101	50	*
Fluoranthene	ND	5.26	2.69	51.1	5.18	4.45	85.9	49.5	55 - 104	50	*
Pyrene	ND	5.26	2.59	49.2	5.18	4.32	83.4	50.1	56 - 104	50	*
Benzo(a)anthracene	ND	5.26	2.08	39.5	5.18	3.68	71.0	55.6	50 - 115	50	*
Chrysene	ND	5.26	1.76	33.5	5.18	3.44	66.4	64.7	39 - 120	50	*
Benzo(b)fluoranthene	ND	5.26	1.68	31.9	5.18	3.12	60.2	59.9	41 - 110	50	*
Benzo(k)fluoranthene	ND	2.63	0.678	25.8	2.59	1.33	51.4	65.1	25 - 107	50	#
Benzo(a)pyrene	ND	5.26	1.51	28.7	5.18	2.93	56.6	63.7	29 - 113	50	*
Indeno(1,2,3-cd)pyrene	ND	5.26	1.06	20.2	5.18	2.07	40.0	64.8	16 - 98	50	#
Dibenzo(a,h)anthracene	ND	5.26	0.692	13.2	5.18	1.27	24.5	58.8	10 - 92	50	#
Benzo(g,h,i)perylene	ND	5.26	1.04	19.8	5.18	2.27	43.8	73.8	11 - 84	50	#

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0206140 Cal ID: HPLC4-13-JUN-2002 Worknum: WG119924
Instrument ID: HPLC4 Contract #: Method: 8310
Parent ID: L0206140-07 File ID: 4L003160.R Dil: 1 Matrix: Water
Sample ID: L0206140-17 MS File ID: 4L003168.R Dil: 1 Units: ug/L
Sample ID: L0206140-18 MSD File ID: 4L003169.R Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Naphthalene	ND	52.6	14.8	28.1	51.8	16.6	32.0	11.4	25 - 68	50	
1-Methylnaphthalene	ND	52.6	15.4	29.3	51.8	17.2	33.2	11.2	26 - 71	50	
2-Methylnaphthalene	ND	52.6	15.3	29.1	51.8	17.0	32.8	10.3	26 - 72	50	
Acenaphthylene	ND	52.6	17.1	32.5	51.8	20.5	39.6	18.1	25 - 77	50	
Acenaphthene	ND	52.6	17.1	32.5	51.8	20.7	40.0	19.1	25 - 78	50	
Fluorene	ND	52.6	19.4	36.9	51.8	26.6	51.4	31.0	29 - 84	50	
Phenanthrene	0.592	52.6	23.9	44.3	51.8	37.5	71.3	44.1	39 - 95	50	
Anthracene	ND	52.6	23.3	44.3	51.8	38.0	73.4	47.6	47 - 101	50	*
Fluoranthene	0.835	5.26	2.65	34.5	5.18	4.38	68.4	49.3	55 - 104	50	*
Pyrene	0.773	5.26	2.62	35.1	5.18	4.38	69.6	50.2	56 - 104	50	*
Benzo(a)anthracene	0.317	5.26	2.11	34.1	5.18	3.74	66.1	55.6	50 - 115	50	*
Chrysene	0.299	5.26	1.75	27.6	5.18	3.55	62.8	68.1	39 - 120	50	*
Benzo(b)fluoranthene	0.319	5.26	1.72	26.6	5.18	3.13	54.3	58.3	41 - 110	50	*
Benzo(k)fluoranthene	0.142	2.63	0.682	20.5	2.59	1.34	46.3	64.9	25 - 107	50	*
Benzo(a)pyrene	0.304	5.26	1.55	23.7	5.18	2.95	51.1	62.5	29 - 113	50	*
Indeno(1,2,3-cd)pyrene	0.152	5.26	1.09	17.8	5.18	2.18	39.2	66.4	16 - 98	50	#
Dibenzo(a,h)anthracene	0.176	5.26	0.717	10.3	5.18	1.39	23.4	63.9	10 - 92	50	#
Benzo(g,h,i)perylene	0.102	5.26	1.02	17.5	5.18	2.24	41.3	74.6	11 - 84	50	#

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310 AAB#: WG119924

Login Number: L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46DUP-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.36	06/15/02	40	4.49	
062-46DUP-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.36	06/17/02	40	6.26	
062-46EQB-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.84	06/15/02	40	4.53	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.94	06/15/02	40	4.25	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.94	06/15/02	40	4.57	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.94	06/15/02	40	4.61	
062-CEF46-13I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.91	06/15/02	40	4.29	
062-CEF46-14D-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.88	06/15/02	40	4.37	
062-CEF46-15I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.96	06/15/02	40	4.41	
062-CEF46-26I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.67	06/15/02	40	4.45	
062-CEF46-2S-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.73	06/15/02	40	4.06	
062-CEF46-5I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.80	06/15/02	40	4.10	
062-CEF46-6D-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.80	06/15/02	40	4.13	
062-CEF46-7I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.70	06/15/02	40	4.17	
062-CEF46-9I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.85	06/15/02	40	4.21	
062-CEF46-IS-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.75	06/15/02	40	4.02	
062-CEF46-IS-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.75	06/17/02	40	6.22	

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206140
Instrument Id: HPLC4
Workgroup (AAB#): WG119924

Method: 8310
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206140-01	1.00	01	57.5
L0206140-01	1.00	CF01	57.7
L0206140-01	10.0	CFDL01	DL
L0206140-01	10.0	DL01	DL
L0206140-02	1.00	01	59.2
L0206140-02	1.00	CF01	59.5
L0206140-03	1.00	01	55.1
L0206140-04	1.00	01	63.5
L0206140-04	1.00	CF01	63.0
L0206140-05	1.00	01	49.2
L0206140-05	1.00	CF01	49.0
L0206140-06	1.00	01	88.4
L0206140-07	1.00	01	57.7
L0206140-07	1.00	CF01	73.2
L0206140-08	1.00	01	63.3
L0206140-09	1.00	01	73.6
L0206140-10	1.00	01	43.2
L0206140-11	1.00	01	20.2
L0206140-12	1.00	01	26.9
L0206140-12	1.00	CF01	26.7
L0206140-12	10.0	CFDL01	DL
L0206140-12	10.0	DL01	DL
L0206140-13	1.00	01	57.6
L0206140-13	1.00	CF01	58.5
L0206140-17	1.00	01	29.8
L0206140-17	1.00	CF01	30.3
L0206140-18	1.00	01	55.3
L0206140-18	1.00	CF01	55.2
WG119548-02	1.00	01	81.0
WG119548-02	1.00	CF01	81.7
WG119548-03	1.00	01	63.8
WG119548-03	1.00	CF01	63.3

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Friday, June 14, 2002 9:14:03 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 : Included
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
9.335	2	1	1.00000	118.44469	8.44276e-3			Naphthalene #1
		2	5.00000	598.90387	8.34859e-3			
		3	10.00000	1219.35925	8.20103e-3			
		4	20.00000	2498.67944	8.00423e-3			
		5	50.00000	6195.70996	8.07010e-3			
		6	100.00000	1.19505e4	8.36782e-3			
9.353	1	1	1.00000	35.70203	2.80096e-2			Naphthalene #1
		2	5.00000	178.95563	2.79399e-2			
		3	10.00000	371.85556	2.68922e-2			
		4	20.00000	754.54517	2.65060e-2			
		5	50.00000	1885.17432	2.65227e-2			
		6	100.00000	3817.44727	2.61955e-2			
10.959	2	1	1.00000	32.34379	3.09178e-2			Acenaphthylene #2
		2	5.00000	157.19412	3.18078e-2			
		3	10.00000	325.59451	3.07130e-2			
		4	20.00000	658.50293	3.03719e-2			
		5	50.00000	1639.64368	3.04944e-2			
		6	100.00000	3321.14795	3.01101e-2			
11.906	2	1	1.00000	73.52287	1.36012e-2			1-Methylnaphthalene #3

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref Grp	Name
		2	5.00000	365.23682	1.36897e-2		
		3	10.00000	757.97943	1.31930e-2		
		4	20.00000	1536.99390	1.30124e-2		
		5	50.00000	3823.69092	1.30764e-2		
		6	100.00000	7652.24854	1.30681e-2		
11.924	1	1	1.00000	41.21246	2.42645e-2		1-Methylnaphthalene #3
		2	5.00000	205.97406	2.42749e-2		
		3	10.00000	427.16837	2.34100e-2		
		4	20.00000	865.41754	2.31102e-2		
		5	50.00000	2162.71216	2.31191e-2		
		6	100.00000	4362.68555	2.29217e-2		
12.479	2	1	1.00000	85.92275	1.16384e-2		2-Methylnaphthalene #4
		2	5.00000	427.72684	1.16897e-2		
		3	10.00000	887.82635	1.12635e-2		
		4	20.00000	1791.84399	1.11617e-2		
		5	50.00000	4440.55420	1.12599e-2		
		6	100.00000	8770.67480	1.14016e-2		
12.497	1	1	1.00000	53.61522	1.86514e-2		2-Methylnaphthalene #4
		2	5.00000	267.76404	1.86732e-2		
		3	10.00000	555.40234	1.80050e-2		
		4	20.00000	1125.70947	1.77666e-2		
		5	50.00000	2815.32397	1.77599e-2		
		6	100.00000	5651.09082	1.76957e-2		
12.956	2	1	1.00000	45.75132	2.18573e-2		Acenaphthene #5
		2	5.00000	230.37761	2.17035e-2		
		3	10.00000	479.64664	2.08487e-2		
		4	20.00000	968.64014	2.06475e-2		
		5	50.00000	2413.63843	2.07156e-2		
		6	100.00000	4859.52686	2.05781e-2		
12.974	1	1	1.00000	68.11809	1.46804e-2		Acenaphthene #5
		2	5.00000	339.83661	1.47130e-2		
		3	10.00000	704.82605	1.41879e-2		
		4	20.00000	1426.86951	1.40167e-2		
		5	50.00000	3551.90137	1.40770e-2		
		6	100.00000	7092.07813	1.41002e-2		
13.606	2	1	1.00000	52.41635	1.90780e-2		Fluorene #6
		2	5.00000	267.85175	1.86670e-2		
		3	10.00000	555.59216	1.79988e-2		
		4	20.00000	1125.01990	1.77775e-2		
		5	50.00000	2806.76538	1.78141e-2		
		6	100.00000	5664.78320	1.76529e-2		
13.625	1	1	1.00000	147.37762	6.78529e-3		Fluorene #6
		2	5.00000	732.50269	6.82591e-3		
		3	10.00000	1519.64282	6.58049e-3		
		4	20.00000	3071.66968	6.51112e-3		
		5	50.00000	7586.48193	6.59067e-3		
		6	100.00000	1.50207e4	6.65746e-3		
14.988	2	1	1.00000	59.16147	1.69029e-2		Phenanthrene #7
		2	5.00000	271.73749	1.84001e-2		
		3	10.00000	563.78528	1.77372e-2		
		4	20.00000	1137.39648	1.75840e-2		
		5	50.00000	2834.24902	1.76414e-2		
		6	100.00000	5720.03760	1.74824e-2		
15.006	1	1	1.00000	5.49246	1.82068e-1		Phenanthrene #7
		2	5.00000	27.09999	1.84502e-1		
		3	10.00000	56.03428	1.78462e-1		

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.91219	1.75574e-1			
		5	50.00000	286.42151	1.74568e-1			
		6	100.00000	583.99371	1.71235e-1			
16.387	2	1	1.00000	93.73675	1.06682e-2			Anthracene #8
		2	5.00000	479.37994	1.04301e-2			
		3	10.00000	1007.09772	9.92952e-3			
		4	20.00000	2016.31750	9.91907e-3			
		5	50.00000	4994.17480	1.00117e-2			
		6	100.00000	9770.11133	1.02353e-2			
16.405	1	1	1.00000	3.27440	3.05399e-1			Anthracene #8
		2	5.00000	15.91612	3.14147e-1			
		3	10.00000	32.93192	3.03657e-1			
		4	20.00000	66.59662	3.00316e-1			
		5	50.00000	165.24231	3.02586e-1			
		6	100.00000	330.63736	3.02446e-1			
17.762	2	1	1.00000e-1	2.86666	3.48838e-2			Fluoranthene #9
		2	5.00000e-1	21.47706	2.32806e-2			
		3	1.00000	44.35479	2.25455e-2			
		4	2.00000	90.19173	2.21750e-2			
		5	5.00000	225.76083	2.21473e-2			
		6	10.00000	458.29434	2.18200e-2			
17.779	1	1	1.00000e-1	3.76502	2.65603e-2			Fluoranthene #9
		2	5.00000e-1	18.56896	2.69267e-2			
		3	1.00000	38.54884	2.59411e-2			
		4	2.00000	77.44264	2.58256e-2			
		5	5.00000	194.82120	2.56646e-2			
		6	10.00000	394.78314	2.53304e-2			
18.761	2	1	1.00000e-1	5.78315	1.72916e-2			Pyrene #10
		2	5.00000e-1	30.90943	1.61763e-2			
		3	1.00000	67.05128	1.49140e-2			
		4	2.00000	137.28792	1.45679e-2			
		5	5.00000	342.14008	1.46139e-2			
		6	10.00000	696.78912	1.43515e-2			
18.779	1	1	1.00000e-1	2.23349	4.47730e-2			Pyrene #10
		2	5.00000e-1	11.37372	4.39610e-2			
		3	1.00000	23.43897	4.26640e-2			
		4	2.00000	48.14644	4.15399e-2			
		5	5.00000	120.60387	4.14580e-2			
21.086	2	1	1.00000	14.27733	7.00411e-2			p-Terphenyl d14 #11*
		2	5.00000	72.29396	6.91621e-2			
		3	10.00000	150.04201	6.66480e-2			
		4	20.00000	302.29453	6.61606e-2			
		5	50.00000	765.97974	6.52759e-2			
		6	100.00000	1538.62390	6.49931e-2			
21.105	1	1	1.00000	3.43824	2.90847e-1			p-Terphenyl d14 #11*
		2	5.00000	15.96525	3.13180e-1			
		3	10.00000	33.36931	2.99677e-1			
		4	20.00000	66.93617	2.98792e-1			
		5	50.00000	168.95605	2.95935e-1			
		6	100.00000	342.27563	2.92162e-1			
22.401	2	1	1.00000e-1	4.17491	2.39526e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.50113	2.32546e-2			
		3	1.00000	43.38402	2.30500e-2			
		4	2.00000	88.38959	2.26271e-2			
		5	5.00000	220.76303	2.26487e-2			
		6	10.00000	449.91843	2.22263e-2			

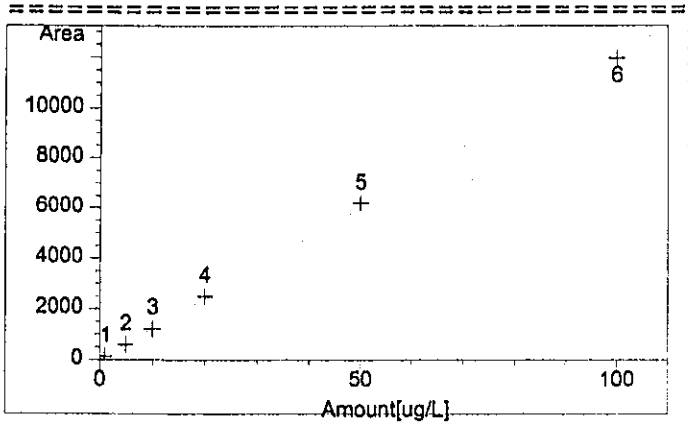
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.418	1	1	1.00000e-1	11.68998	8.55433e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.25381	8.73304e-3			
		3	1.00000	119.10960	8.39563e-3			
		4	2.00000	240.75162	8.30732e-3			
		5	5.00000	603.67468	8.28261e-3			
		6	10.00000	1230.57483	8.12628e-3			
23.266	2	1	1.00000e-1	7.56785	1.32138e-2			Chrysene #13
		2	5.00000e-1	30.82063	1.62229e-2			
		3	1.00000	63.84754	1.56623e-2			
		4	2.00000	129.65228	1.54259e-2			
		5	5.00000	324.23495	1.54209e-2			
		6	10.00000	658.83282	1.51784e-2			
23.280	1	1	1.00000e-1	2.35546	4.24546e-2			Chrysene #13
		2	5.00000e-1	11.91314	4.19705e-2			
		3	1.00000	24.15862	4.13931e-2			
		4	2.00000	49.60668	4.03171e-2			
		5	5.00000	123.50459	4.04843e-2			
		6	10.00000	251.15788	3.98156e-2			
25.984	2	1	1.00000e-1	4.71679	2.12008e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.19203	2.25306e-2			
		3	1.00000	43.42394	2.30288e-2			
		4	2.00000	94.69703	2.11200e-2			
		5	5.00000	236.61021	2.11318e-2			
		6	10.00000	480.16330	2.08262e-2			
26.003	1	1	1.00000e-1	5.60739	1.78336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.48360	1.81927e-2			
		3	1.00000	57.64073	1.73488e-2			
		4	2.00000	116.12308	1.72231e-2			
		5	5.00000	291.03116	1.71803e-2			
		6	10.00000	592.02631	1.68911e-2			
27.418	2	1	5.00000e-2	2.02281	2.47181e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.12679	2.46870e-2			
		3	5.00000e-1	21.38502	2.33809e-2			
		4	1.00000	43.30220	2.30935e-2			
		5	2.50000	108.54563	2.30318e-2			
		6	5.00000	220.91960	2.26327e-2			
27.438	1	1	5.00000e-2	16.96901	2.94655e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.42035	2.99687e-3			
		3	5.00000e-1	173.46057	2.88250e-3			
		4	1.00000	351.66119	2.84365e-3			
		5	2.50000	879.42432	2.84277e-3			
		6	5.00000	1779.80371	2.80930e-3			
28.535	2	1	1.00000e-1	3.59195	2.78400e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.33183	3.06151e-2			
		3	1.00000	36.80410	2.71709e-2			
		4	2.00000	74.00938	2.70236e-2			
		5	5.00000	188.39293	2.65403e-2			
		6	10.00000	385.66537	2.59292e-2			
28.553	1	1	1.00000e-1	19.68503	5.08000e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.54757	5.12570e-3			
		3	1.00000	203.09286	4.92386e-3			
		4	2.00000	412.69138	4.84624e-3			
		5	5.00000	1041.60461	4.80029e-3			
		6	10.00000	2128.17065	4.69887e-3			
30.399	2	1	1.00000e-1	8.17798e-1	1.22280e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.54521	1.10006e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.34522	9.66630e-2			
		4	2.00000	20.79541	9.61751e-2			
		5	5.00000	53.20811	9.39706e-2			
		6	10.00000	106.05376	9.42918e-2			
30.418	1	1	1.00000e-1	2.33135	4.28935e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.57100	4.32115e-2			
		3	1.00000	23.94359	4.17648e-2			
		4	2.00000	48.37633	4.13425e-2			
		5	5.00000	122.52839	4.08069e-2			
		6	10.00000	250.75458	3.98796e-2			
31.206	2	1	1.00000e-1	3.35385	2.98165e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.93342	5.59696e-2			
		3	1.00000	21.12121	4.73458e-2			
		4	2.00000	37.91122	5.27548e-2			
		5	5.00000	92.63392	5.39759e-2			
		6	10.00000	187.07765	5.34537e-2			
31.227	1	1	1.00000e-1	3.26803	3.05995e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.23036	3.08065e-2			
		3	1.00000	33.76281	2.96184e-2			
		4	2.00000	68.38602	2.92457e-2			
		5	5.00000	173.07938	2.88885e-2			
		6	10.00000	354.98242	2.81704e-2			
32.159	2	1	1.00000e-1	3.43245	2.91337e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.74642	2.41005e-2			
		3	1.00000	45.65535	2.19032e-2			
		4	2.00000	93.60317	2.13668e-2			
		5	5.00000	237.44170	2.10578e-2			
		6	10.00000	485.43732	2.06000e-2			
32.172	1	1	1.00000e-1	6.85877	1.45799e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.92362	1.51867e-2			
		3	1.00000	69.03428	1.44856e-2			
		4	2.00000	140.00281	1.42854e-2			
		5	5.00000	351.97876	1.42054e-2			
		6	10.00000	715.64252	1.39735e-2			

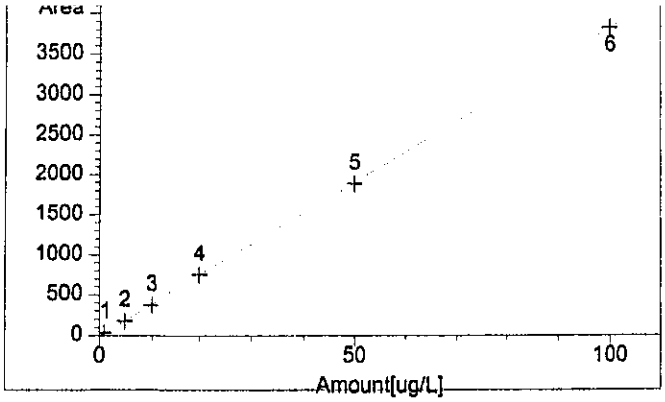
Peak Sum Table

No Entries in table

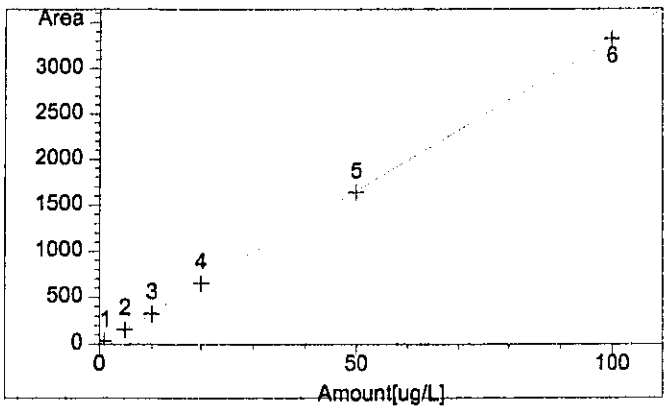
Calibration Curves



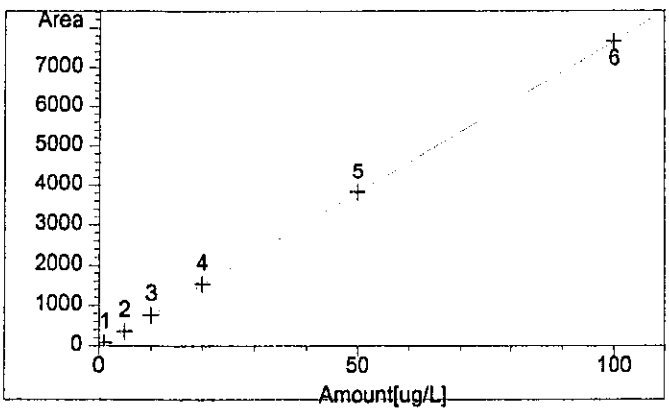
Naphthalene #1 at exp. RT: 9.335
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 90.64647
Formula: y = mx + b
m: 120.00596
b: 37.21961
x: Amount[ug/L]
y: Area



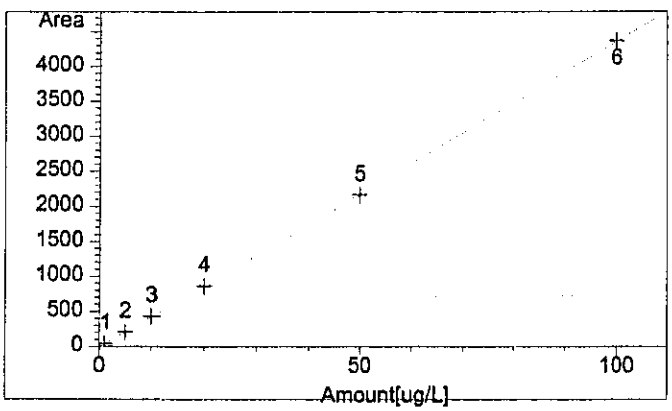
Naphthalene #1 at exp. RT: 9.353
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 9.16561
Formula: y = mx + b
m: 38.17339
b: -8.08139
x: Amount[ug/L]
y: Area



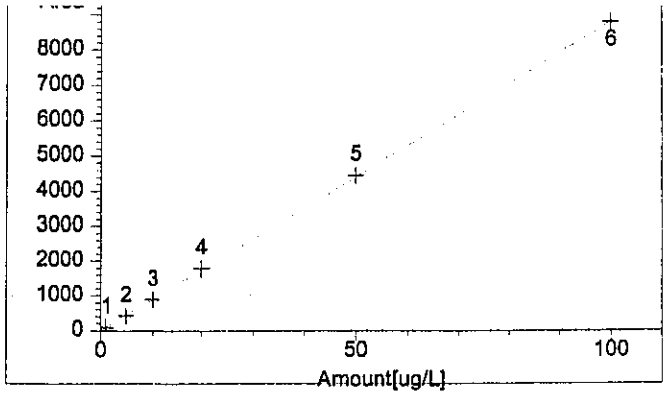
Acenaphthylene #2 at exp. RT: 10.959
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 8.09380
Formula: y = mx + b
m: 33.19524
b: -5.69815
x: Amount[ug/L]
y: Area



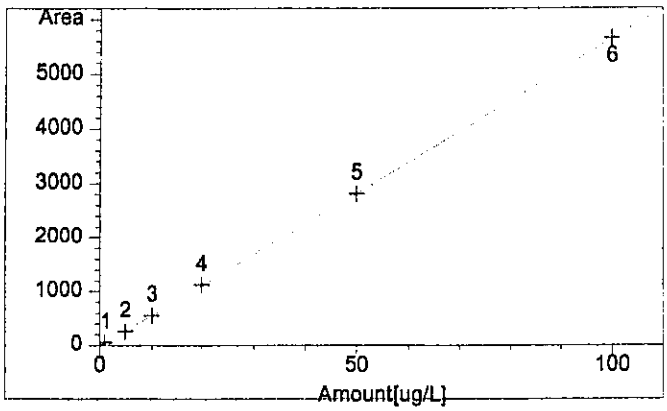
1-Methylnaphthalene #3 at exp. RT: 11.906
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 1.00000
Residual Std. Dev.: 7.81901
Formula: y = mx + b
m: 76.58082
b: -4.90862
x: Amount[ug/L]
y: Area



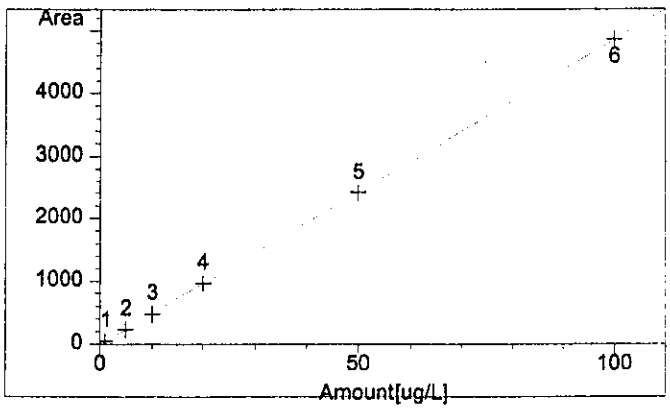
1-Methylnaphthalene #3 at exp. RT: 11.924
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 7.54227
Formula: y = mx + b
m: 43.63739
b: -7.34061
x: Amount[ug/L]
y: Area



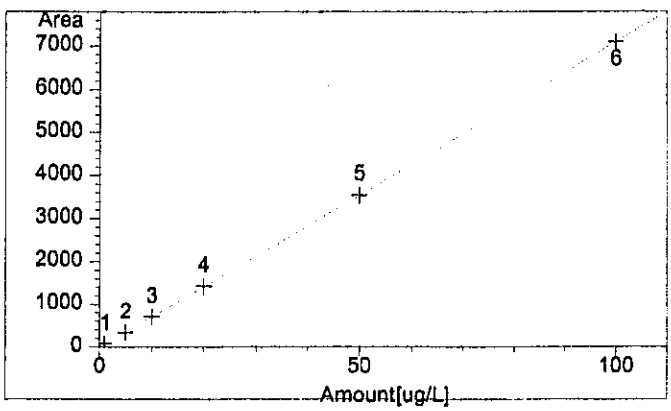
2-Methylnaphthalene #4 at exp. RT: 12.479
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 25.91757
Formula: y = mx + b
m: 87.84855
b: 9.24548
x: Amount [ug/L]
y: Area



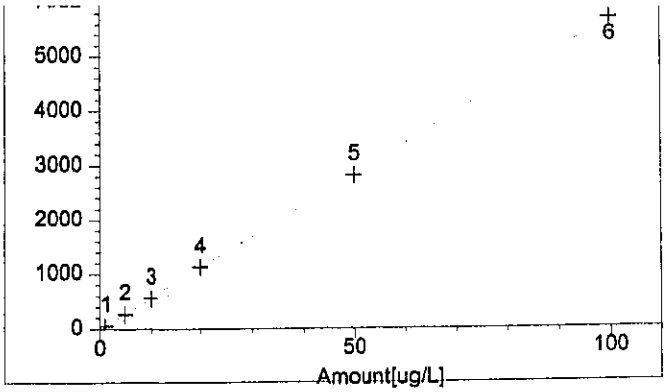
2-Methylnaphthalene #4 at exp. RT: 12.497
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.96731
Formula: y = mx + b
m: 56.55348
b: -7.14867
x: Amount [ug/L]
y: Area



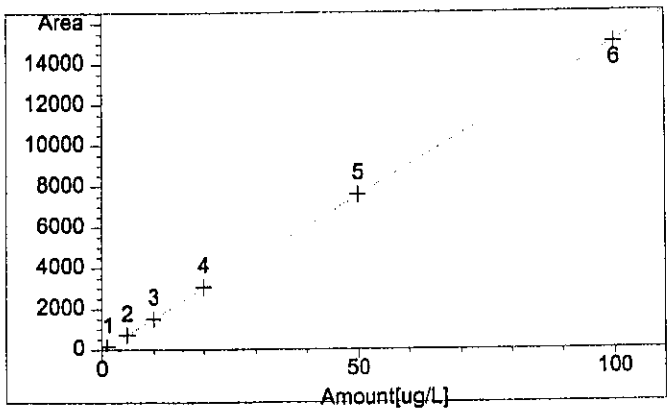
Acenaphthene #5 at exp. RT: 12.956
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 6.84725
Formula: y = mx + b
m: 48.60673
b: -6.18160
x: Amount [ug/L]
y: Area



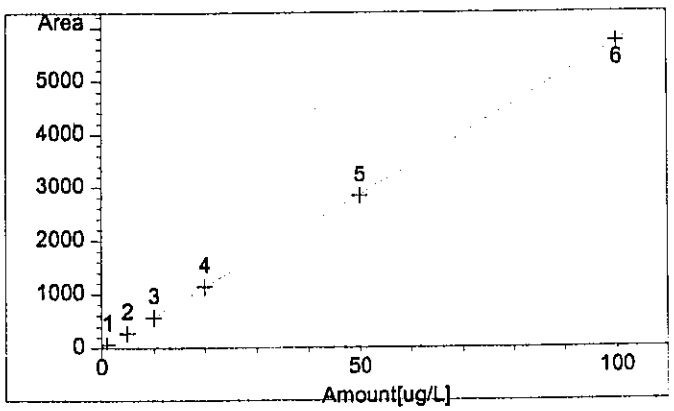
Acenaphthene #5 at exp. RT: 12.974
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 7.82229
Formula: y = mx + b
m: 70.98815
b: -2.88099
x: Amount [ug/L]
y: Area



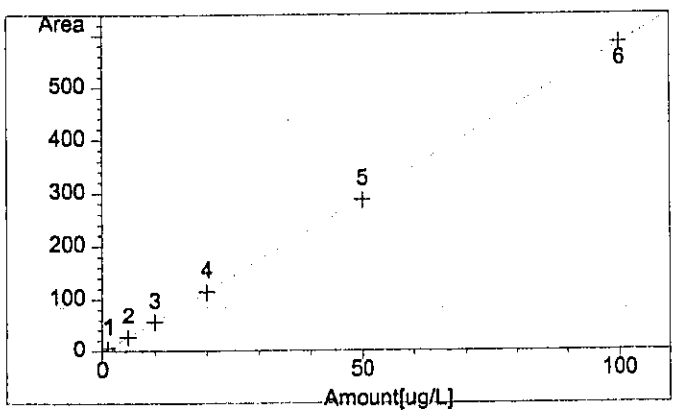
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.05830
Formula: y = mx + b
m: 56.65678
b: -9.39024
x: Amount[ug/L]
y: Area



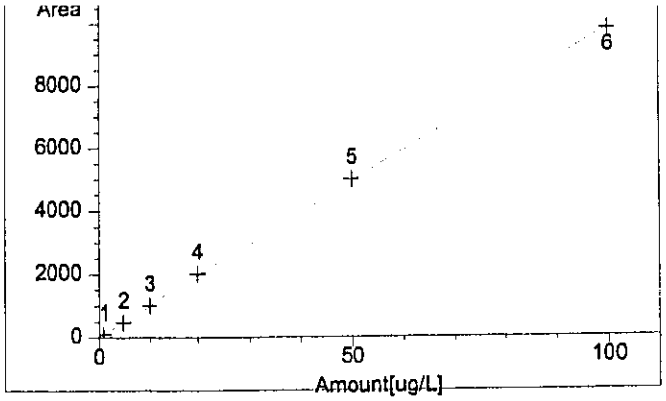
Fluorene #6 at exp. RT: 13.625
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 39.83191
Formula: y = mx + b
m: 150.39549
b: 14.97901
x: Amount[ug/L]
y: Area



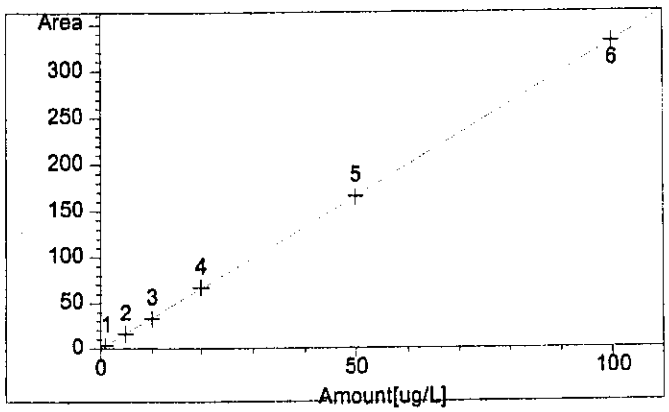
Phenanthrene #7 at exp. RT: 14.988
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.76481
Formula: y = mx + b
m: 57.17977
b: -7.01003
x: Amount[ug/L]
y: Area



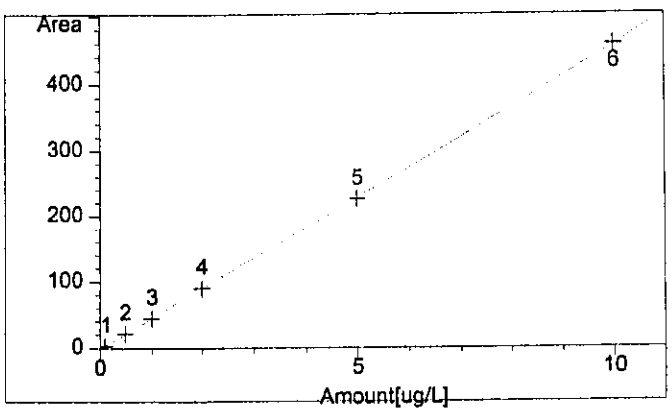
Phenanthrene #7 at exp. RT: 15.006
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 2.20575
Formula: y = mx + b
m: 5.83768
b: -1.83622
x: Amount[ug/L]
y: Area



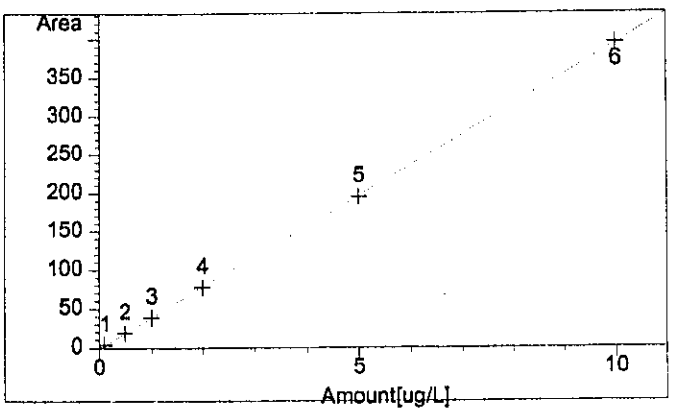
Anthracene #8 at exp. RT: 16.[illegible]
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 47.43795
Formula: y = mx + b
m: 97.94194
b: 20.51670
x: Amount [ug/L]
y: Area



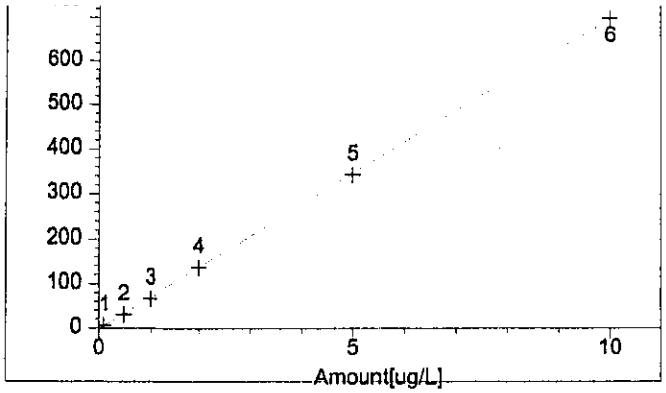
Anthracene #8 at exp. RT: 16.405
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 0.34234
Formula: y = mx + b
m: 3.30779
b: -9.27632e-2
x: Amount [ug/L]
y: Area



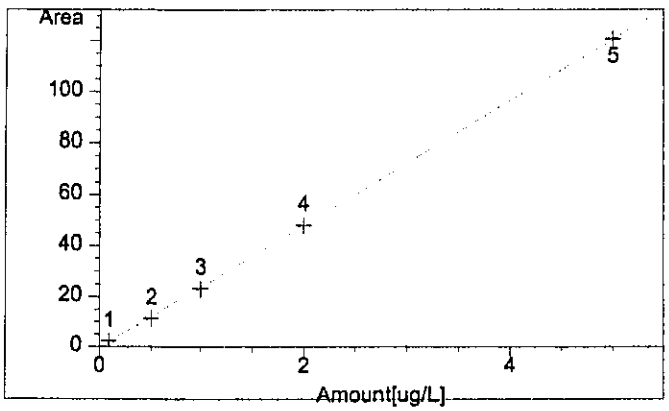
Fluoranthene #9 at exp. RT: 17.762
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 1.25331
Formula: y = mx + b
m: 45.86610
b: -1.45201
x: Amount [ug/L]
y: Area



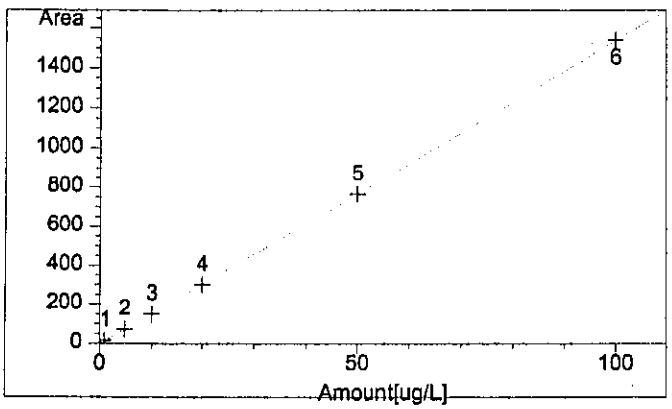
Fluoranthene #9 at exp. RT: 17.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.03650
Formula: y = mx + b
m: 39.47219
b: -8.93275e-1
x: Amount [ug/L]
y: Area



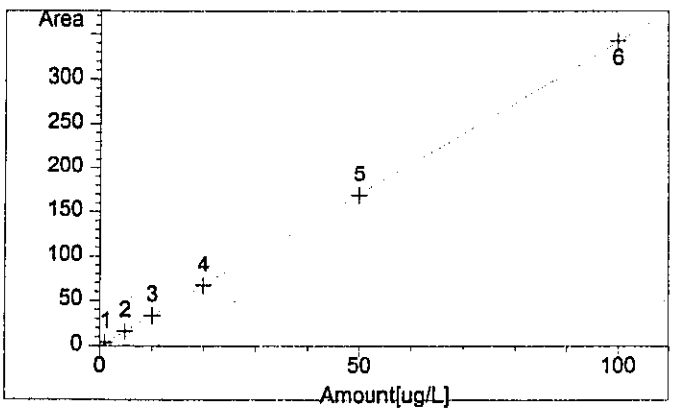
Pyrene #10 at exp. RT: 18.781
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.45753
Formula: y = mx + b
m: 69.71068
b: -2.37968
x: Amount[ug/L]
y: Area



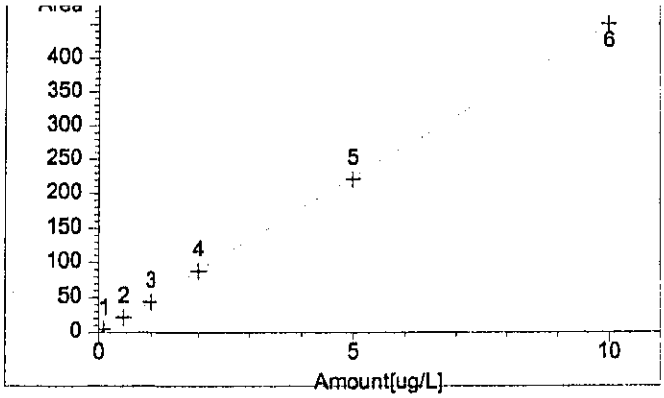
Pyrene #10 at exp. RT: 18.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.33832
Formula: y = mx + b
m: 24.18326
b: -3.63256e-1
x: Amount[ug/L]
y: Area



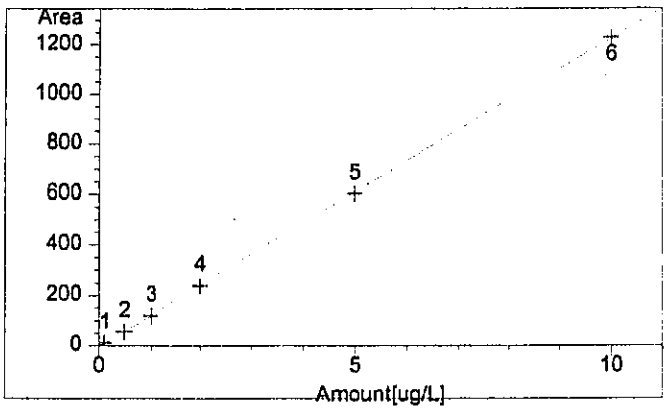
p-Terphenyl d14 #11* at exp. RT: 21.086
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.33106
Formula: y = mx + b
m: 15.40471
b: -3.10922
x: Amount[ug/L]
y: Area



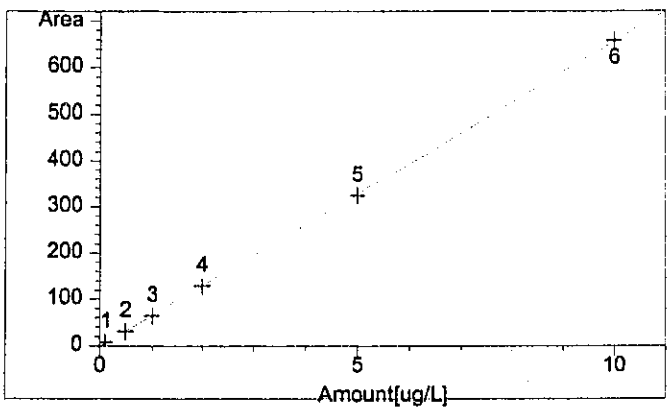
p-Terphenyl d14 #11* at exp. RT: 21.105
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.94806
Formula: y = mx + b
m: 3.42244
b: -8.04824e-1
x: Amount[ug/L]
y: Area



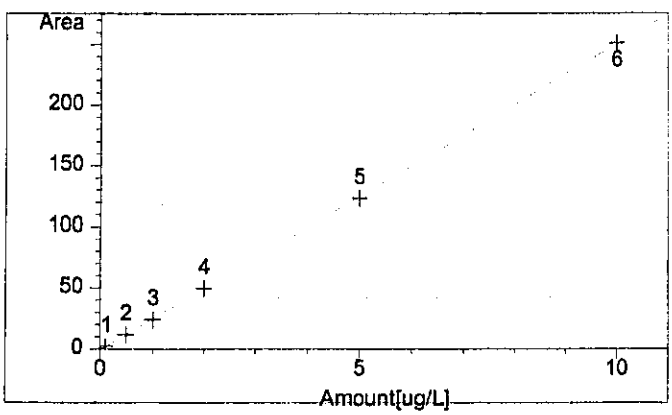
Benzo(a)anthracene #12 at exp. RT: 22.401
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 1.60319
Formula: y = mx + b
m: 44.95295
b: -1.14196
x: Amount[ug/L]
y: Area



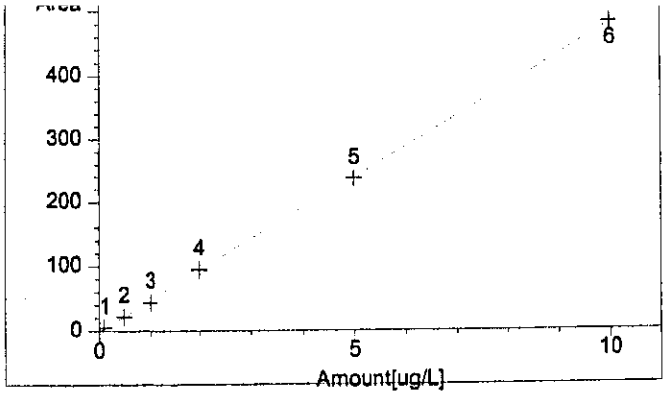
Benzo(a)anthracene #12 at exp. RT: 22.418
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 4.52026
Formula: y = mx + b
m: 122.97900
b: -3.47928
x: Amount[ug/L]
y: Area



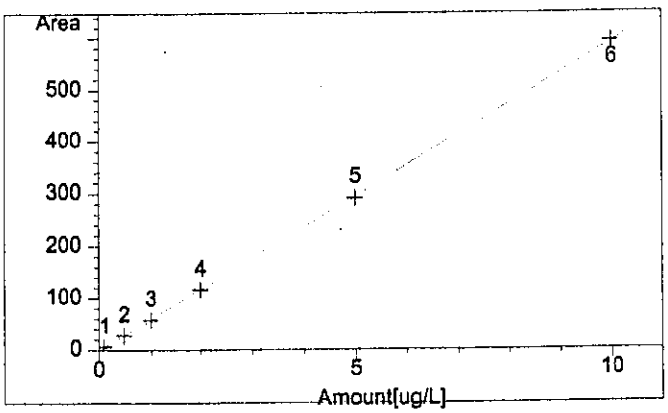
Chrysene #13 at exp. RT: 23.266
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.23172
Formula: y = mx + b
m: 65.81764
b: -1.32173
x: Amount[ug/L]
y: Area



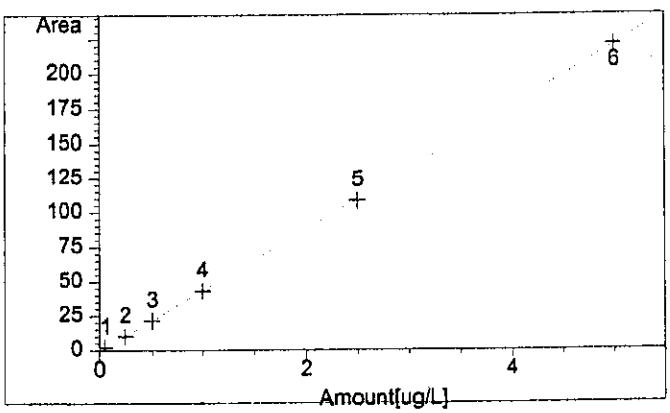
Chrysene #13 at exp. RT: 23.280
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 0.79966
Formula: y = mx + b
m: 25.10251
b: -6.01486e-1
x: Amount[ug/L]
y: Area



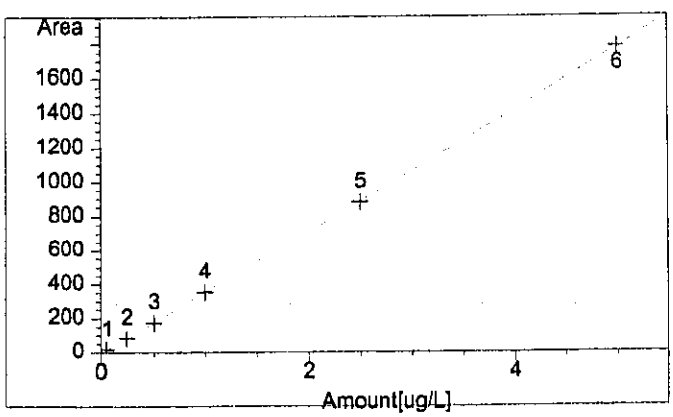
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.98687
Formula: y = mx + b
m: 48.07187
b: -1.76192
x: Amount[ug/L]
y: Area



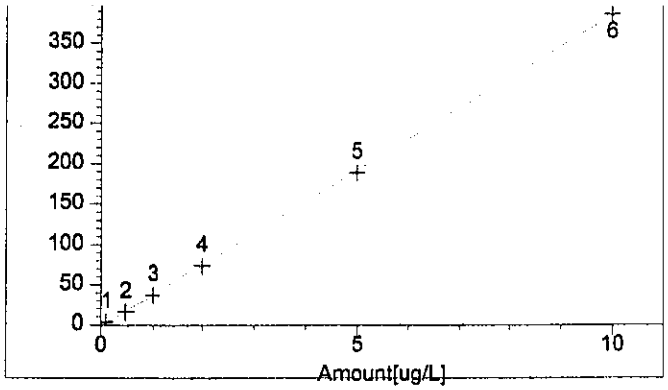
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.94362
Formula: y = mx + b
m: 59.17522
b: -1.53526
x: Amount[ug/L]
y: Area



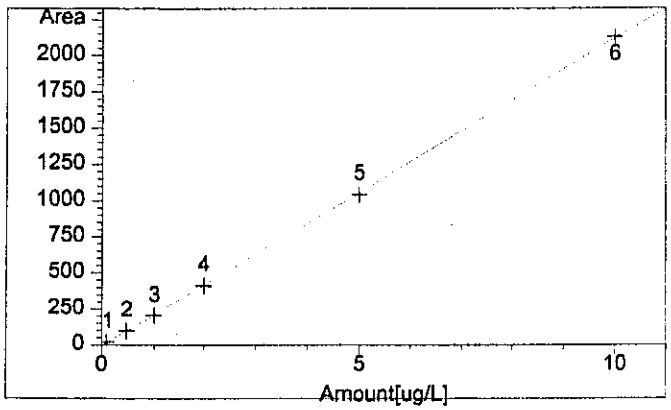
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 0.74646
Formula: y = mx + b
m: 44.17713
b: -6.49330e-1
x: Amount[ug/L]
y: Area



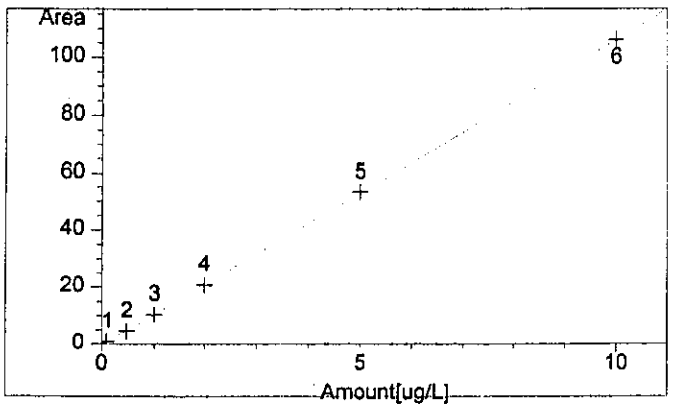
Benzo(k)fluoranthene #15 at exp. RT: 27.4
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 4.14920
Formula: y = mx + b
m: 355.95834
b: -3.66763
x: Amount[ug/L]
y: Area



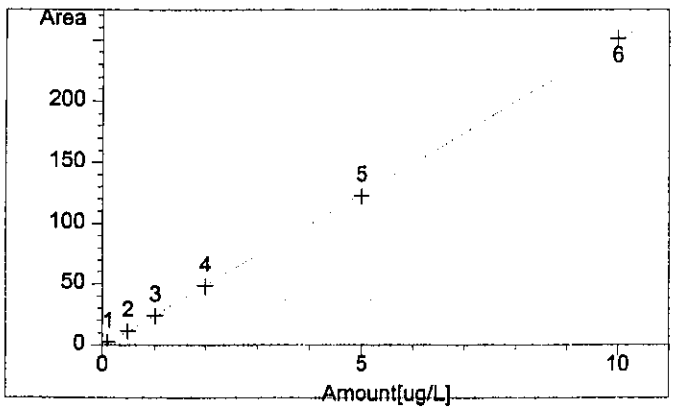
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 1.94176
Formula: y = mx + b
m: 38.58652
b: -1.84481
x: Amount[ug/L]
y: Area



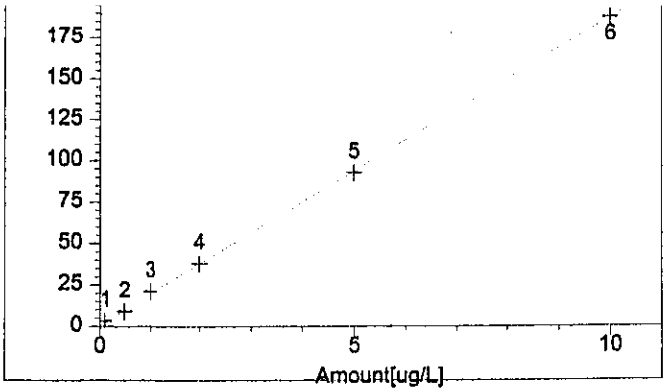
Benzo(a)pyrene #16 at exp. RT: 28.553
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.01693
Formula: y = mx + b
m: 212.75704
b: -7.78412
x: Amount[ug/L]
y: Area



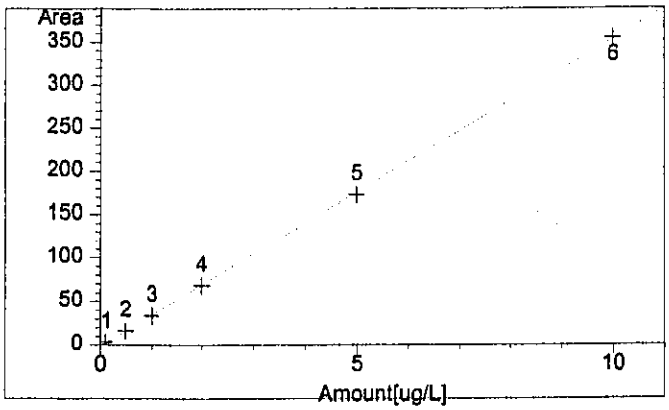
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 0.29835
Formula: y = mx + b
m: 10.64723
b: -3.24711e-1
x: Amount[ug/L]
y: Area



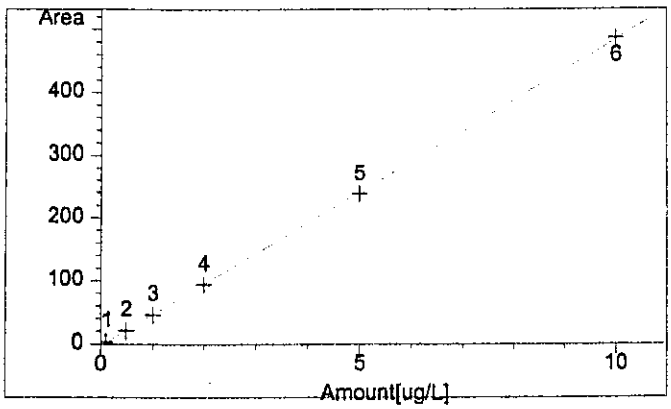
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.15752
Formula: y = mx + b
m: 25.06189
b: -9.49414e-1
x: Amount[ug/L]
y: Area



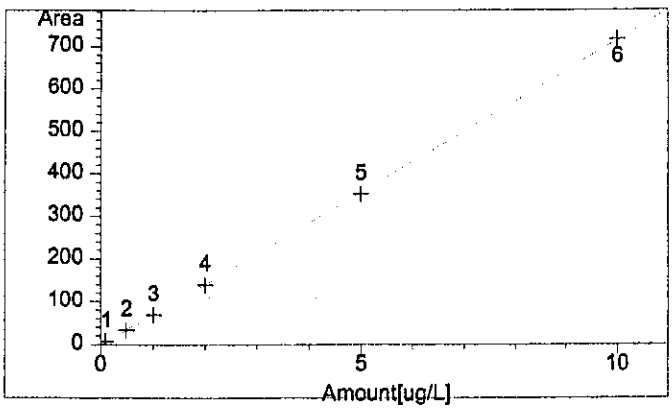
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 1.17004
Formula: y = mx + b
m: 18.59234
b: 7.44819e-1
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 1.77276
Formula: y = mx + b
m: 35.47662
b: -1.45086
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: 0.99994
Residual Std. Dev.: 2.14429
Formula: y = mx + b
m: 48.61738
b: -2.56671
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: 0.99997
Residual Std. Dev.: 2.36150
Formula: y = mx + b
m: 71.55789
b: -2.07657
x: Amount[ug/L]
y: Area

==========

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : 6/20/2002 8:52:08 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 : Included
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
9.370	2	1	1.00000	121.88613	8.20438e-3			Naphthalene #1
		2	5.00000	604.13025	8.27636e-3			
		3	10.00000	1256.01123	7.96171e-3			
		4	20.00000	2522.50317	7.92863e-3			
		5	50.00000	6248.73438	8.00162e-3			
		6	100.00000	1.21595e4	8.22402e-3			
9.388	1	1	1.00000	35.50560	2.81646e-2			Naphthalene #1
		2	5.00000	180.32388	2.77279e-2			
		3	10.00000	372.80032	2.68240e-2			
		4	20.00000	753.95251	2.65269e-2			
		5	50.00000	1881.29065	2.65775e-2			
		6	100.00000	3818.87573	2.61857e-2			
10.995	2	1	1.00000	31.70620	3.15396e-2			Acenaphthylene #2
		2	5.00000	161.28902	3.10003e-2			
		3	10.00000	327.28607	3.05543e-2			
		4	20.00000	658.61700	3.03667e-2			
		5	50.00000	1646.95264	3.03591e-2			
		6	100.00000	3352.51904	2.98283e-2			
11.942	2	1	1.00000	72.22427	1.38458e-2			1-Methylnaphthalene #3

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	369.24078	1.35413e-2			
		3	10.00000	764.27496	1.30843e-2			
		4	20.00000	1542.24731	1.29681e-2			
		5	50.00000	3853.44678	1.29754e-2			
		6	100.00000	7760.07324	1.28865e-2			
11.959	1	1	1.00000	40.92273	2.44363e-2			1-Methylnaphthalene #3
		2	5.00000	206.59302	2.42022e-2			
		3	10.00000	427.56720	2.33881e-2			
		4	20.00000	858.01282	2.33097e-2			
		5	50.00000	2153.76392	2.32152e-2			
		6	100.00000	4358.92773	2.29414e-2			
12.516	2	1	1.00000	85.91975	1.16388e-2			2-Methylnaphthalene #4
		2	5.00000	431.87616	1.15774e-2			
		3	10.00000	893.57037	1.11911e-2			
		4	20.00000	1796.91260	1.11302e-2			
		5	50.00000	4472.15283	1.11803e-2			
		6	100.00000	8891.12988	1.12472e-2			
12.534	1	1	1.00000	53.13324	1.88206e-2			2-Methylnaphthalene #4
		2	5.00000	268.34698	1.86326e-2			
		3	10.00000	555.46735	1.80029e-2			
		4	20.00000	1119.16992	1.78704e-2			
		5	50.00000	2790.36157	1.79188e-2			
		6	100.00000	5631.00635	1.77588e-2			
12.994	2	1	1.00000	46.04076	2.17199e-2			Acenaphthene #5
		2	5.00000	232.43697	2.15112e-2			
		3	10.00000	481.32138	2.07761e-2			
		4	20.00000	969.13959	2.06369e-2			
		5	50.00000	2425.16016	2.06172e-2			
		6	100.00000	4910.46826	2.03647e-2			
13.012	1	1	1.00000	67.65919	1.47800e-2			Acenaphthene #5
		2	5.00000	339.82239	1.47136e-2			
		3	10.00000	703.58374	1.42129e-2			
		4	20.00000	1418.85522	1.40959e-2			
		5	50.00000	3535.51440	1.41422e-2			
		6	100.00000	7085.17041	1.41140e-2			
13.645	2	1	1.00000	52.90672	1.89012e-2			Fluorene #6
		2	5.00000	269.75366	1.85354e-2			
		3	10.00000	559.61633	1.78694e-2			
		4	20.00000	1129.35339	1.77092e-2			
		5	50.00000	2832.44678	1.76526e-2			
		6	100.00000	5749.89111	1.73916e-2			
13.663	1	1	1.00000	146.98784	6.80328e-3			Fluorene #6
		2	5.00000	734.63800	6.80607e-3			
		3	10.00000	1519.39380	6.58157e-3			
		4	20.00000	3055.26025	6.54609e-3			
		5	50.00000	7607.03076	6.57287e-3			
		6	100.00000	1.51592e4	6.59665e-3			
15.028	2	1	1.00000	59.91370	1.66907e-2			Phenanthrene #7
		2	5.00000	277.70538	1.80047e-2			
		3	10.00000	576.95782	1.73323e-2			
		4	20.00000	1164.06238	1.71812e-2			
		5	50.00000	2921.47241	1.71147e-2			
		6	100.00000	5932.12939	1.68574e-2			
15.046	1	1	1.00000	6.79399	1.47189e-1			Phenanthrene #7
		2	5.00000	27.54959	1.81491e-1			
		3	10.00000	57.20443	1.74812e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.53256	1.76161e-1			
		5	50.00000	286.03766	1.74802e-1			
		6	100.00000	586.44727	1.70518e-1			
16.431	2	1	1.00000	96.05915	1.04103e-2			Anthracene #8
		2	5.00000	483.02975	1.03513e-2			
		3	10.00000	1002.81183	9.97196e-3			
		4	20.00000	2019.75476	9.90219e-3			
		5	50.00000	5037.00098	9.92654e-3			
		6	100.00000	9947.86328	1.00524e-2			
16.450	1	1	1.00000	3.26255	3.06509e-1			Anthracene #8
		2	5.00000	15.88479	3.14767e-1			
		3	10.00000	32.94457	3.03540e-1			
		4	20.00000	66.23384	3.01960e-1			
		5	50.00000	165.22198	3.02623e-1			
		6	100.00000	335.92169	2.97688e-1			
17.806	2	1	1.00000e-1	4.17519	2.39510e-2			Fluoranthene #9
		2	5.00000e-1	21.38802	2.33776e-2			
		3	1.00000	44.70066	2.23710e-2			
		4	2.00000	90.59781	2.20756e-2			
		5	5.00000	227.65421	2.19631e-2			
		6	10.00000	464.57758	2.15249e-2			
17.824	1	1	1.00000e-1	3.92421	2.54828e-2			Fluoranthene #9
		2	5.00000e-1	18.78860	2.66119e-2			
		3	1.00000	38.41879	2.60289e-2			
		4	2.00000	78.11402	2.56036e-2			
		5	5.00000	195.60518	2.55617e-2			
		6	10.00000	397.42139	2.51622e-2			
18.809	2	1	1.00000e-1	6.27601	1.59337e-2			Pyrene #10
		2	5.00000e-1	30.01324	1.66593e-2			
		3	1.00000	67.82222	1.47444e-2			
		4	2.00000	137.22350	1.45748e-2			
		5	5.00000	345.94687	1.44531e-2			
		6	10.00000	706.87067	1.41469e-2			
18.828	1	1	1.00000e-1	2.23386	4.47655e-2			Pyrene #10
		2	5.00000e-1	11.53121	4.33606e-2			
		3	1.00000	23.72331	4.21526e-2			
		4	2.00000	47.68803	4.19392e-2			
		5	5.00000	120.33789	4.15497e-2			
21.150	2	1	1.00000	14.27093	7.00725e-2			p-Terphenyl d14 #11*
		2	5.00000	72.39475	6.90658e-2			
		3	10.00000	150.41772	6.64815e-2			
		4	20.00000	304.47540	6.56868e-2			
		5	50.00000	771.85547	6.47790e-2			
		6	100.00000	1553.84106	6.43566e-2			
21.166	1	1	1.00000	3.57698	2.79566e-1			p-Terphenyl d14 #11*
		2	5.00000	16.05081	3.11511e-1			
		3	10.00000	33.17809	3.01404e-1			
		4	20.00000	67.05980	2.98241e-1			
		5	50.00000	170.11554	2.93918e-1			
		6	100.00000	343.67426	2.90973e-1			
22.466	2	1	1.00000e-1	4.39682	2.27437e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.07132	2.37289e-2			
		3	1.00000	43.86306	2.27982e-2			
		4	2.00000	88.71733	2.25435e-2			
		5	5.00000	223.22693	2.23987e-2			
		6	10.00000	457.02676	2.18806e-2			

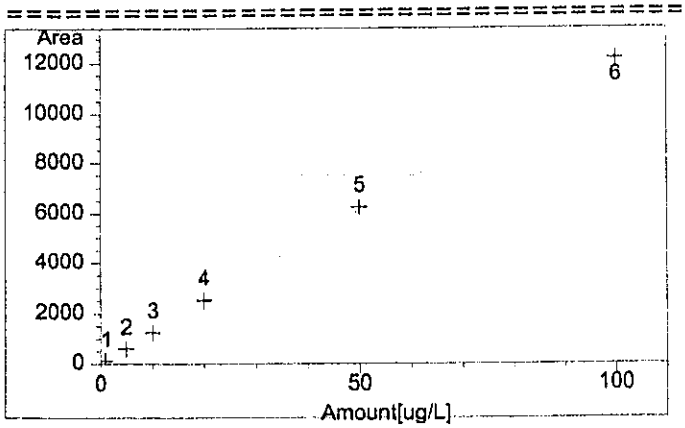
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.485	1	1	1.00000e-1	11.92573	8.38523e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.40008	8.71079e-3			
		3	1.00000	118.62704	8.42978e-3			
		4	2.00000	240.55975	8.31394e-3			
		5	5.00000	604.25543	8.27465e-3			
		6	10.00000	1235.15466	8.09615e-3			
23.337	2	1	1.00000e-1	6.15006	1.62600e-2			Chrysene #13
		2	5.00000e-1	30.91224	1.61748e-2			
		3	1.00000	64.16498	1.55848e-2			
		4	2.00000	130.01958	1.53823e-2			
		5	5.00000	327.80472	1.52530e-2			
		6	10.00000	668.69543	1.49545e-2			
23.357	1	1	1.00000e-1	2.37958	4.20241e-2			Chrysene #13
		2	5.00000e-1	11.79001	4.24088e-2			
		3	1.00000	24.51306	4.07946e-2			
		4	2.00000	49.27580	4.05879e-2			
		5	5.00000	123.19585	4.05858e-2			
		6	10.00000	252.46683	3.96092e-2			
26.064	2	1	1.00000e-1	4.57150	2.18747e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.64764	2.20774e-2			
		3	1.00000	46.88808	2.13274e-2			
		4	2.00000	95.03743	2.10443e-2			
		5	5.00000	238.78767	2.09391e-2			
		6	10.00000	487.47803	2.05137e-2			
26.079	1	1	1.00000e-1	5.48437	1.82336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.72870	1.80319e-2			
		3	1.00000	57.64222	1.73484e-2			
		4	2.00000	116.48901	1.71690e-2			
		5	5.00000	292.99271	1.70653e-2			
		6	10.00000	595.50562	1.67925e-2			
27.495	2	1	5.00000e-2	2.19067	2.28241e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.30655	2.42564e-2			
		3	5.00000e-1	21.77243	2.29648e-2			
		4	1.00000	43.78368	2.28396e-2			
		5	2.50000	109.96069	2.27354e-2			
		6	5.00000	224.33841	2.22878e-2			
27.510	1	1	5.00000e-2	16.92470	2.95426e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.46227	2.99537e-3			
		3	5.00000e-1	174.54939	2.86452e-3			
		4	1.00000	351.08521	2.84831e-3			
		5	2.50000	882.24713	2.83367e-3			
		6	5.00000	1792.05200	2.79010e-3			
28.596	2	1	1.00000e-1	3.90243	2.56251e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.74469	2.98602e-2			
		3	1.00000	36.86427	2.71265e-2			
		4	2.00000	74.65511	2.67899e-2			
		5	5.00000	189.32166	2.64101e-2			
		6	10.00000	390.50266	2.56080e-2			
28.614	1	1	1.00000e-1	19.55420	5.11399e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.80115	5.11241e-3			
		3	1.00000	203.63187	4.91082e-3			
		4	2.00000	413.85422	4.83262e-3			
		5	5.00000	1045.54724	4.78218e-3			
		6	10.00000	2137.81030	4.67768e-3			
30.454	2	1	1.00000e-1	1.00112	9.98882e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	5.15278	9.70350e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	11.97529	8.35053e-2			
		4	2.00000	21.19111	9.43792e-2			
		5	5.00000	52.23464	9.57219e-2			
		6	10.00000	107.04004	9.34230e-2			
30.474	1	1	1.00000e-1	2.22269	4.49905e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.53541	4.33448e-2			
		3	1.00000	23.79175	4.20314e-2			
		4	2.00000	48.37757	4.13415e-2			
		5	5.00000	122.97315	4.06593e-2			
		6	10.00000	251.97131	3.96871e-2			
31.264	2	1	1.00000e-1	2.34328	4.26753e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	9.25292	5.40370e-2			
		3	1.00000	18.48934	5.40852e-2			
		4	2.00000	36.61276	5.46258e-2			
		5	5.00000	92.88844	5.38280e-2			
		6	10.00000	190.01508	5.26274e-2			
31.287	1	1	1.00000e-1	3.18651	3.13823e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.16728	3.09267e-2			
		3	1.00000	33.82579	2.95632e-2			
		4	2.00000	68.83204	2.90562e-2			
		5	5.00000	174.47961	2.86566e-2			
		6	10.00000	358.59521	2.78866e-2			
32.225	2	1	1.00000e-1	3.42590	2.91894e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.58914	2.31598e-2			
		3	1.00000	46.04763	2.17166e-2			
		4	2.00000	94.45714	2.11736e-2			
		5	5.00000	240.26486	2.08104e-2			
		6	10.00000	492.90811	2.02878e-2			
32.233	1	1	1.00000e-1	6.77440	1.47614e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	33.25379	1.50359e-2			
		3	1.00000	68.94070	1.45052e-2			
		4	2.00000	139.75822	1.43104e-2			
		5	5.00000	351.40439	1.42286e-2			
		6	10.00000	717.39240	1.39394e-2			

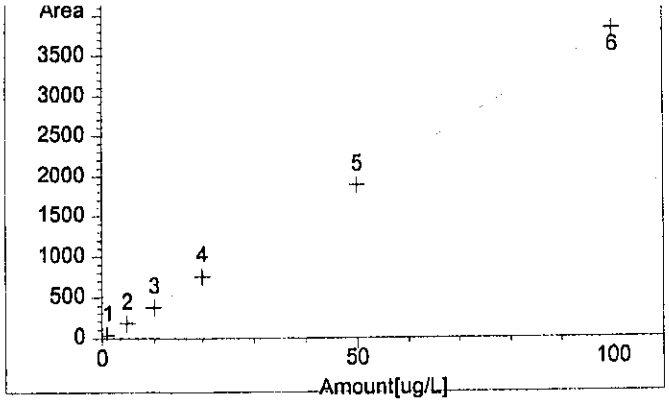
Peak Sum Table

No Entries in table

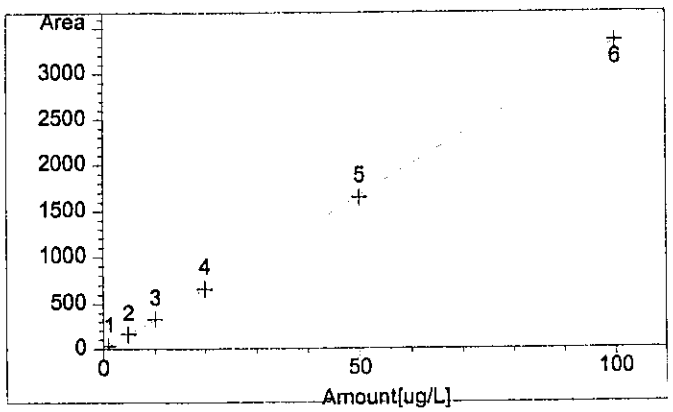
Calibration Curves



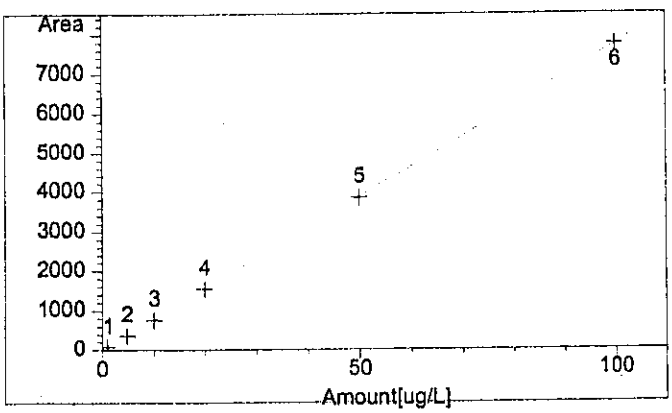
Naphthalene #1 at exp. RT: 9.370
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 70.57790
Formula: y = mx + b
m: 121.93837
b: 33.17626
x: Amount[ug/L]
y: Area



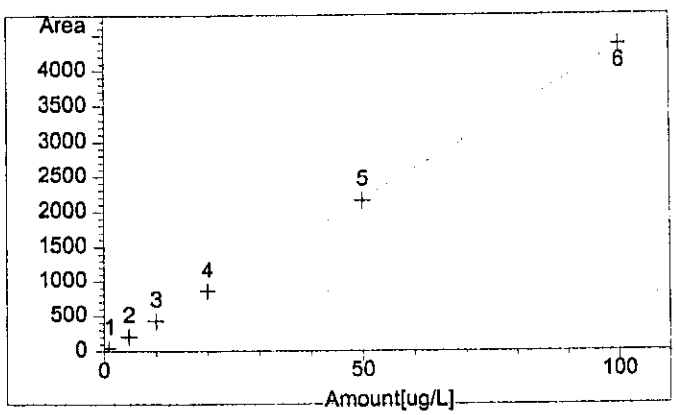
Naphthalene #1 at exp. RT: 9.988
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.65995
Formula: y = mx + b
m: 38.17062
b: -8.14096
x: Amount [ug/L]
y: Area



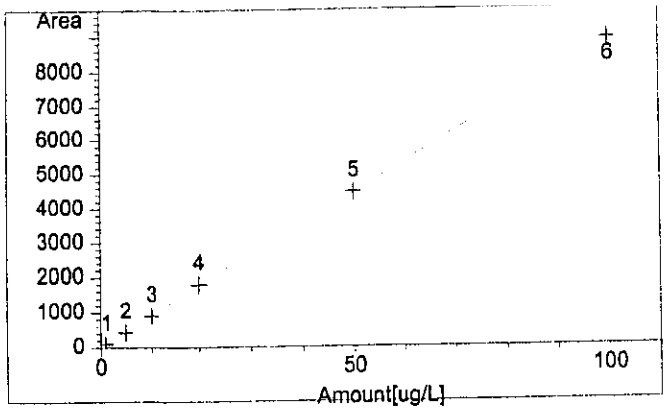
Acenaphthylene #2 at exp. RT: 10.995
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 11.19977
Formula: y = mx + b
m: 33.48891
b: -7.22387
x: Amount [ug/L]
y: Area



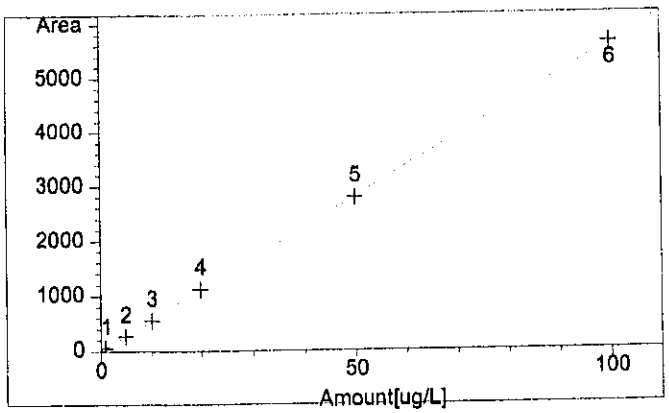
1-Methylnaphthalene #3 at exp. RT: 11.942
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.69411
Formula: y = mx + b
m: 77.62274
b: -10.90308
x: Amount [ug/L]
y: Area



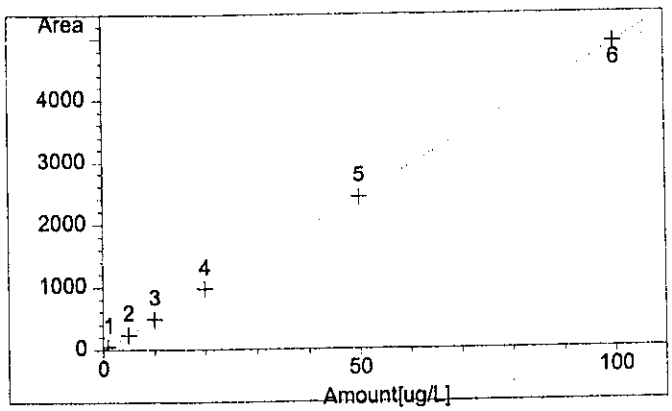
1-Methylnaphthalene #3 at exp. RT: 11.959
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.09079
Formula: y = mx + b
m: 43.58179
b: -8.63216
x: Amount [ug/L]
y: Area



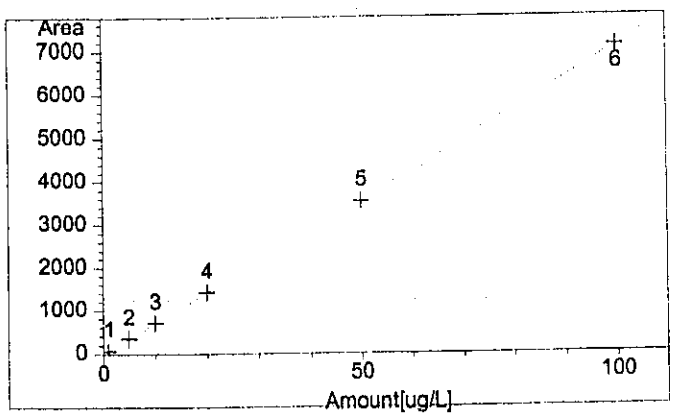
2-Methylnaphthalene #4 at exp. RT: 12.510
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 14.18056
Formula: y = mx + b
m: 89.00733
b: 2.31405
x: Amount [ug/L]
y: Area



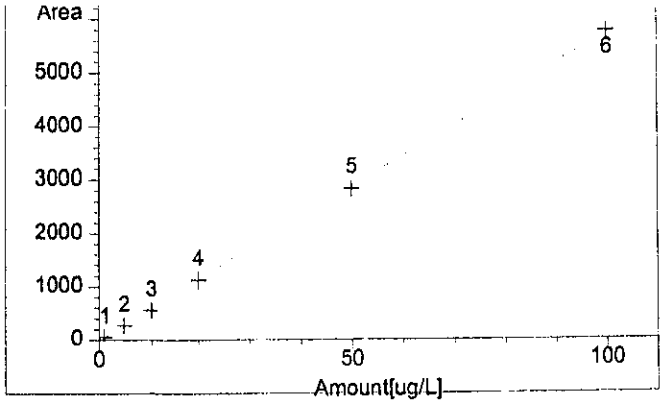
2-Methylnaphthalene #4 at exp. RT: 12.534
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 9.72550
Formula: y = mx + b
m: 56.30384
b: -7.86135
x: Amount [ug/L]
y: Area



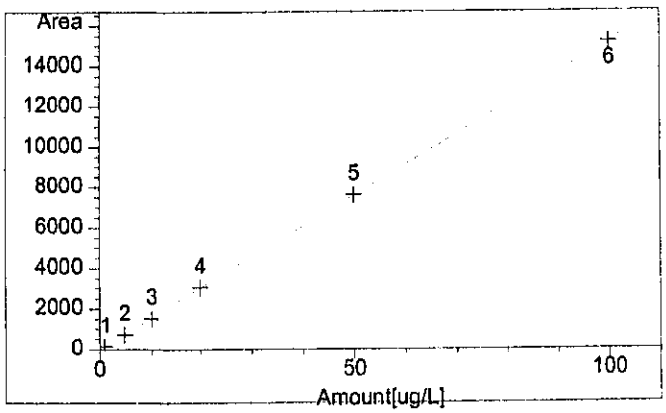
Acenaphthene #5 at exp. RT: 12.994
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 11.55898
Formula: y = mx + b
m: 49.09260
b: -9.52241
x: Amount [ug/L]
y: Area



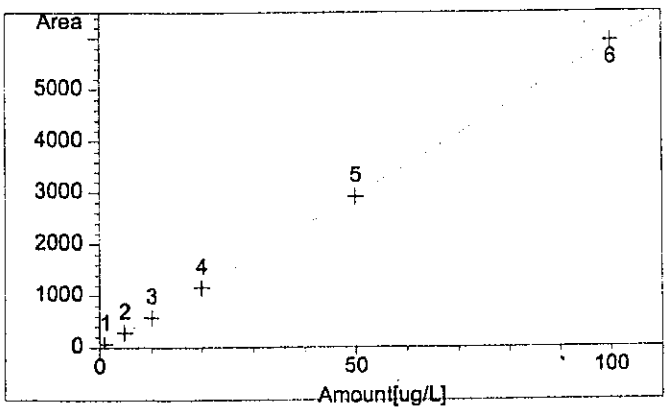
Acenaphthene #5 at exp. RT: 13.012
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.91307
Formula: y = mx + b
m: 70.88847
b: -4.94990
x: Amount [ug/L]
y: Area



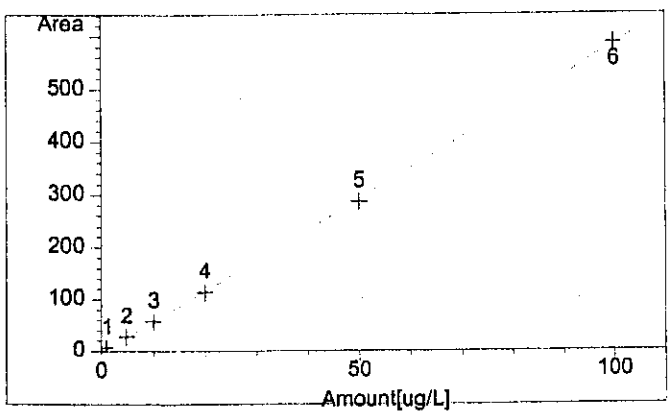
Fluorene #6 at exp. RT: 13.645
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 16.43131
Formula: y = mx + b
m: 57.48589
b: -14.05816
x: Amount [ug/L]
y: Area



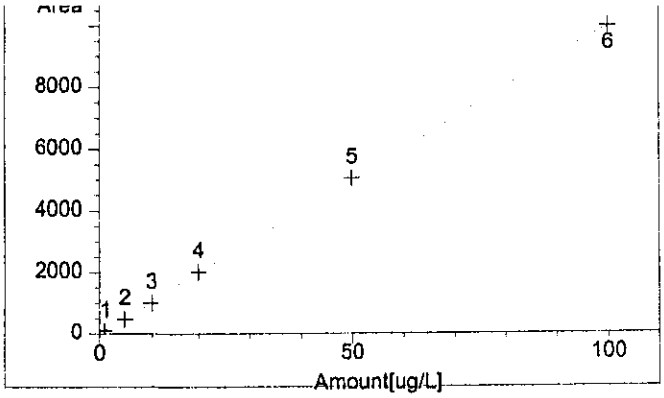
Fluorene #6 at exp. RT: 13.663
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 18.11896
Formula: y = mx + b
m: 151.72220
b: 3.12530e-1
x: Amount [ug/L]
y: Area



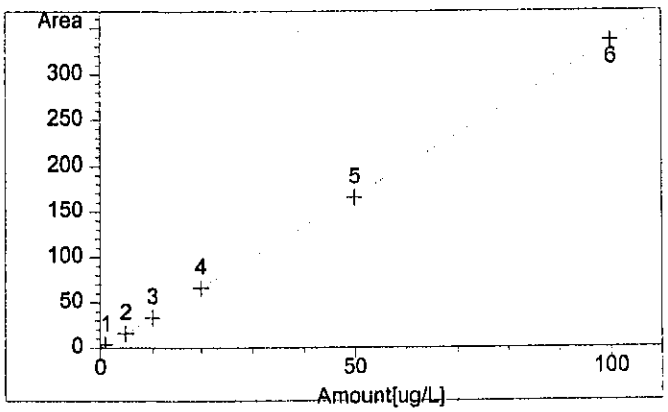
Phenanthrene #7 at exp. RT: 15.028
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 18.06229
Formula: y = mx + b
m: 59.29212
b: -13.72762
x: Amount [ug/L]
y: Area



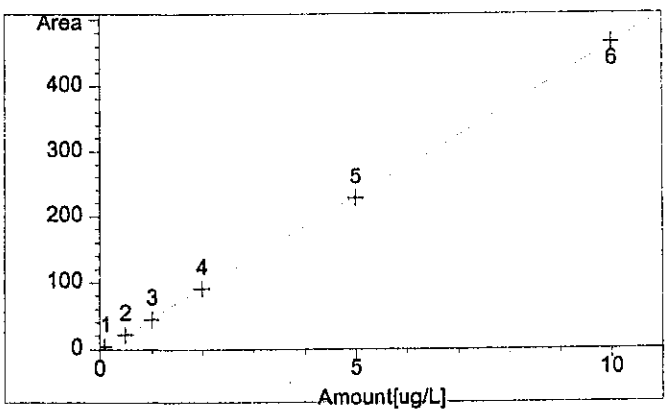
Phenanthrene #7 at exp. RT: 15.046
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 3.01563
Formula: y = mx + b
m: 5.85144
b: -1.54327
x: Amount [ug/L]
y: Area



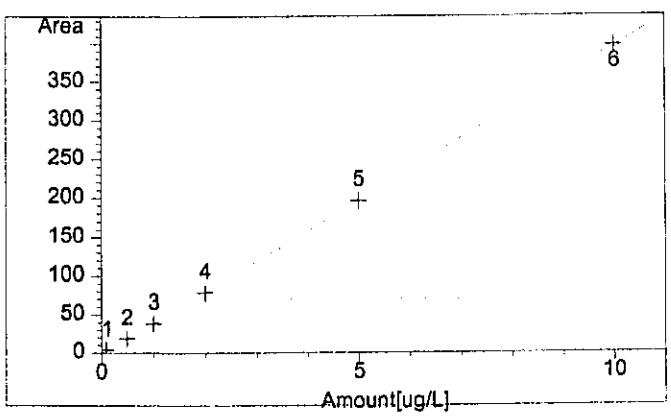
Anthracene #8 at exp. RT: 16.151
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 27.85848
Formula: y = mx + b
m: 99.66958
b: 6.85395
x: Amount[ug/L]
y: Area



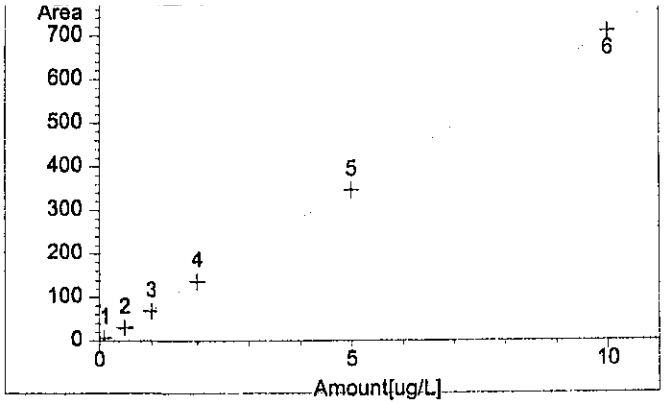
Anthracene #8 at exp. RT: 16.450
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.04930
Formula: y = mx + b
m: 3.35612
b: -6.81187e-1
x: Amount[ug/L]
y: Area



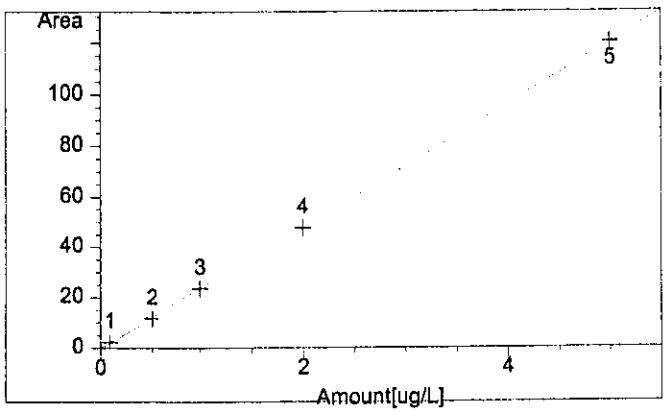
Fluoranthene #9 at exp. RT: 17.806
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.79879
Formula: y = mx + b
m: 46.44231
b: -1.53335
x: Amount[ug/L]
y: Area



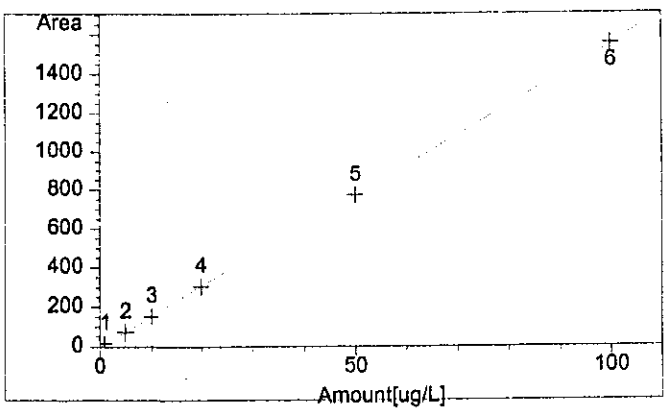
Fluoranthene #9 at exp. RT: 17.824
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.22857
Formula: y = mx + b
m: 39.72087
b: -9.33708e-1
x: Amount[ug/L]
y: Area



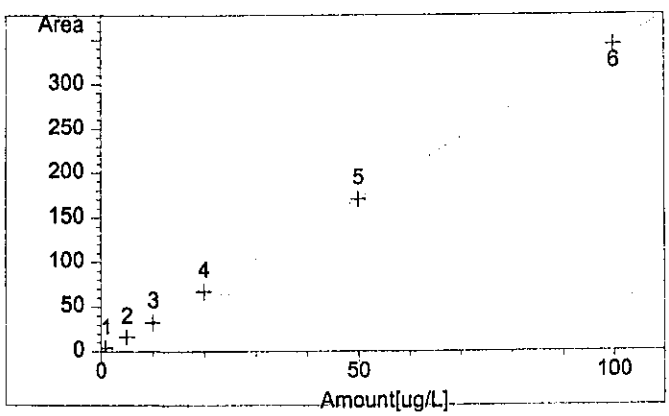
Pyrene #10 at exp. RT: 18.809
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 3.15034
Formula: y = mx + b
m: 70.72982
b: -3.06030
x: Amount [ug/L]
y: Area



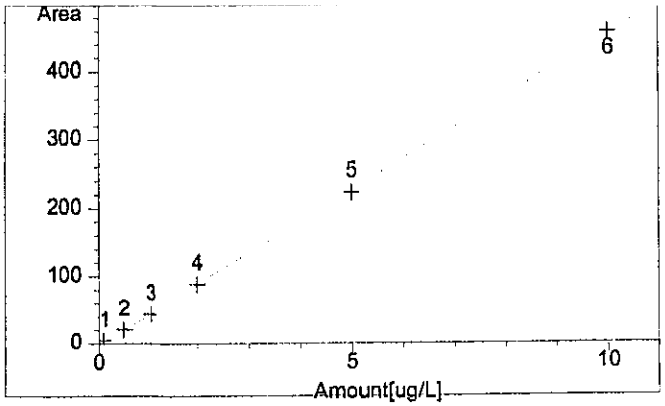
Pyrene #10 at exp. RT: 18.828
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.23587
Formula: y = mx + b
m: 24.10078
b: -2.92066e-1
x: Amount [ug/L]
y: Area



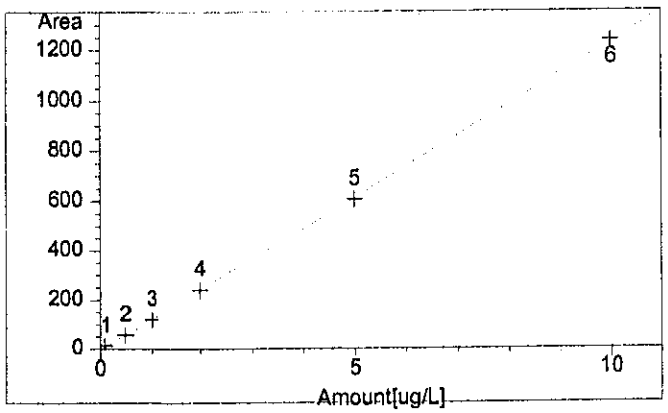
p-Terphenyl d14 #11* at exp. RT: 21.150
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.89474
Formula: y = mx + b
m: 15.55717
b: -3.76840
x: Amount [ug/L]
y: Area



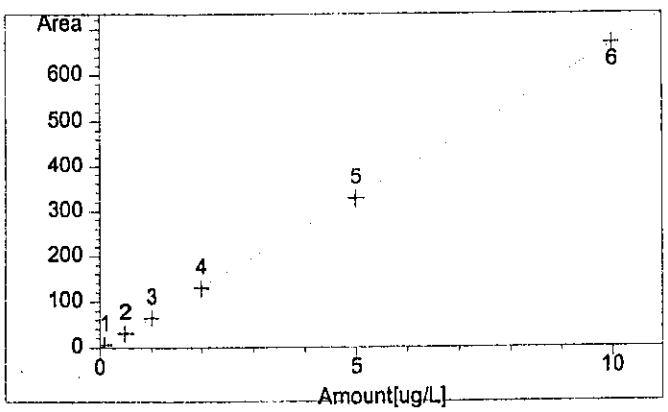
p-Terphenyl d14 #11* at exp. RT: 21.166
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.89731
Formula: y = mx + b
m: 3.43813
b: -8.33877e-1
x: Amount [ug/L]
y: Area



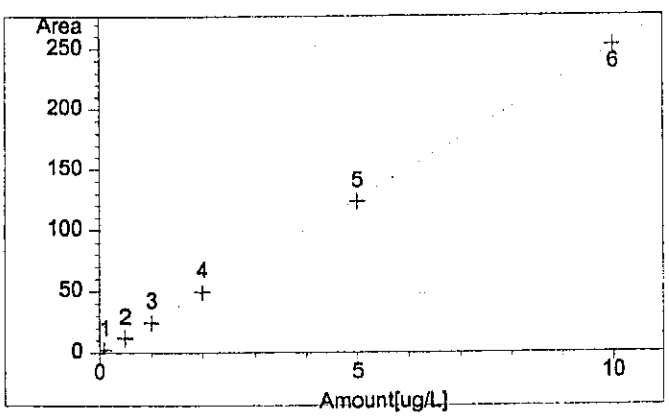
Benzo(a)anthracene #12 at exp. RT: 22.466
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.08992
Formula: y = mx + b
m: 45.66201
b: -1.57303
x: Amount [ug/L]
y: Area



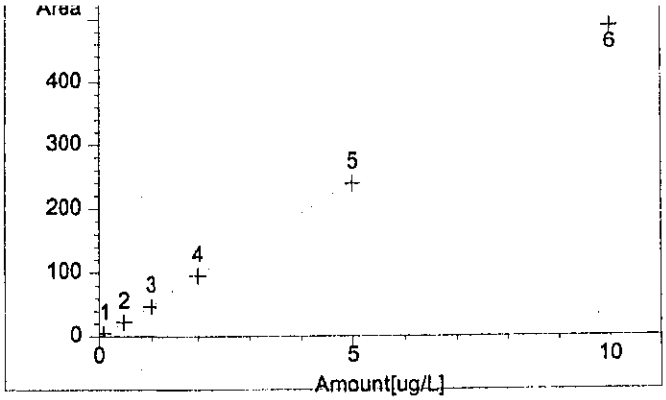
Benzo(a)anthracene #12 at exp. RT: 22.485
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 5.24449
Formula: y = mx + b
m: 123.41194
b: -3.93419
x: Amount [ug/L]
y: Area



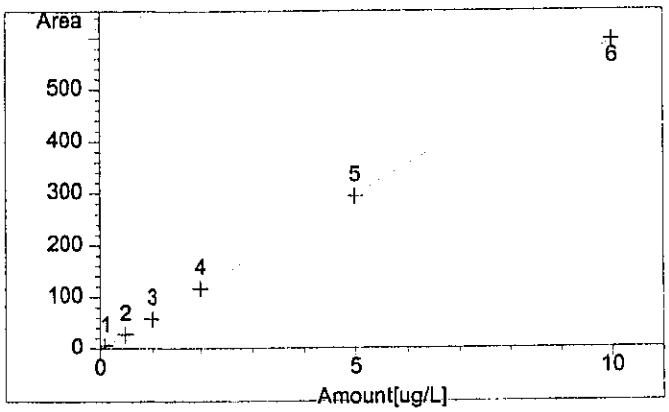
Chrysene #13 at exp. RT: 23.337
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 2.60337
Formula: y = mx + b
m: 66.84989
b: -2.23727
x: Amount [ug/L]
y: Area



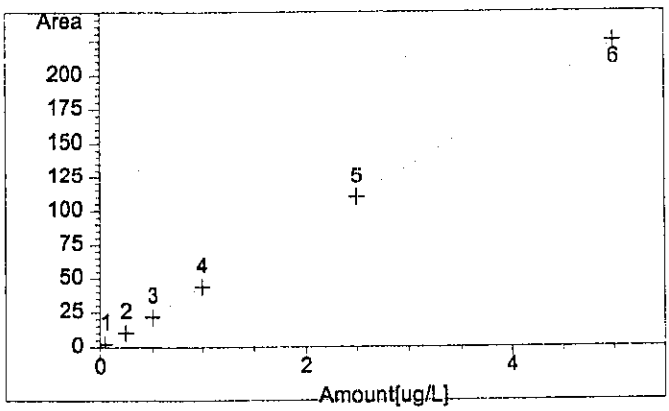
Chrysene #13 at exp. RT: 23.357
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.16361
Formula: y = mx + b
m: 25.21041
b: -7.56072e-1
x: Amount [ug/L]
y: Area



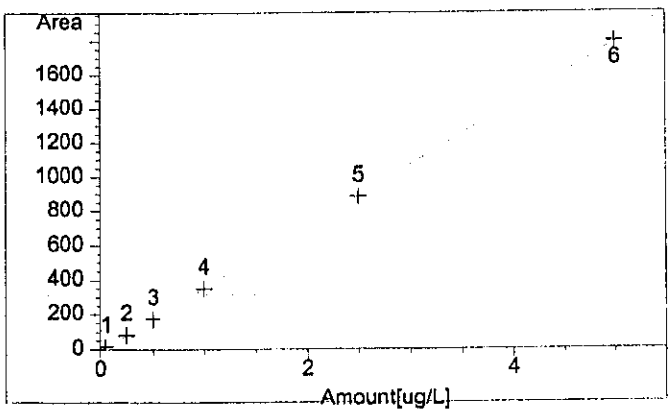
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.93804
Formula: y = mx + b
m: 48.71807
b: -1.53510
x: Amount [ug/L]
y: Area



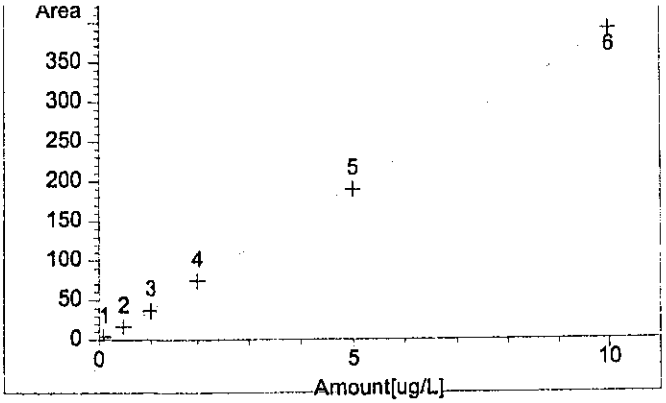
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.87852
Formula: y = mx + b
m: 59.54246
b: -1.66387
x: Amount [ug/L]
y: Area



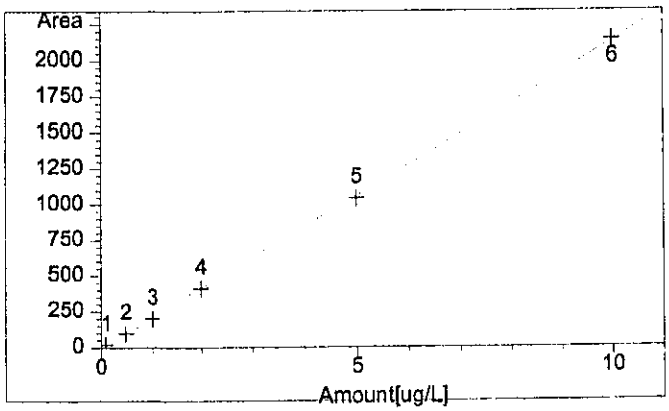
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 0.87725
Formula: y = mx + b
m: 44.83633
b: -6.60775e-1
x: Amount [ug/L]
y: Area



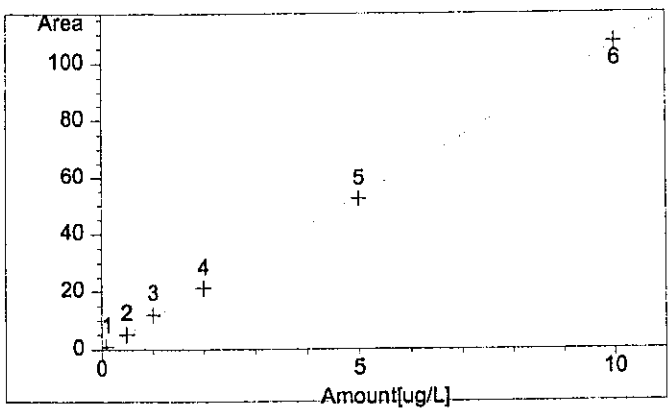
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 5.46079
Formula: y = mx + b
m: 358.31240
b: -4.56924
x: Amount [ug/L]
y: Area



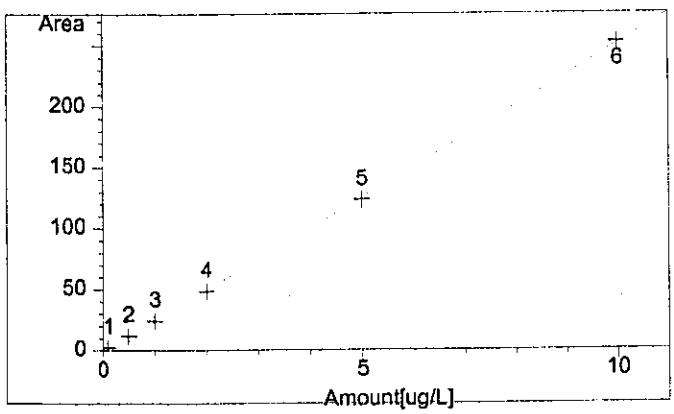
Benzo(a)pyrene #16 at exp. RT: 28.590
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 2.45350
Formula: y = mx + b
m: 39.02551
b: -1.98338
x: Amount [ug/L]
y: Area



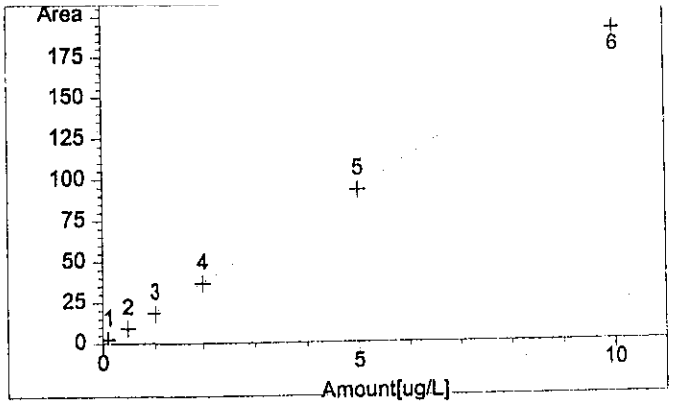
Benzo(a)pyrene #16 at exp. RT: 28.614
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.37532
Formula: y = mx + b
m: 213.72380
b: -8.15195
x: Amount [ug/L]
y: Area



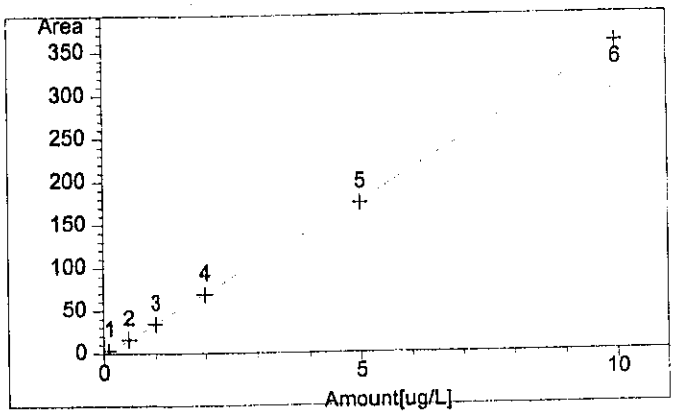
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 0.78590
Formula: y = mx + b
m: 10.64996
b: 7.22431e-2
x: Amount [ug/L]
y: Area



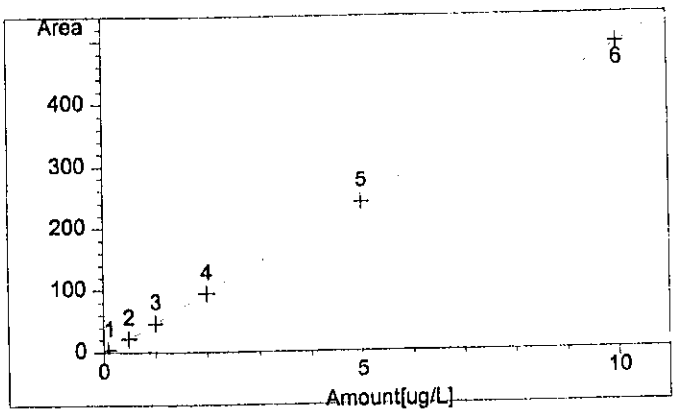
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.23730
Formula: y = mx + b
m: 25.19279
b: -1.10201
x: Amount [ug/L]
y: Area



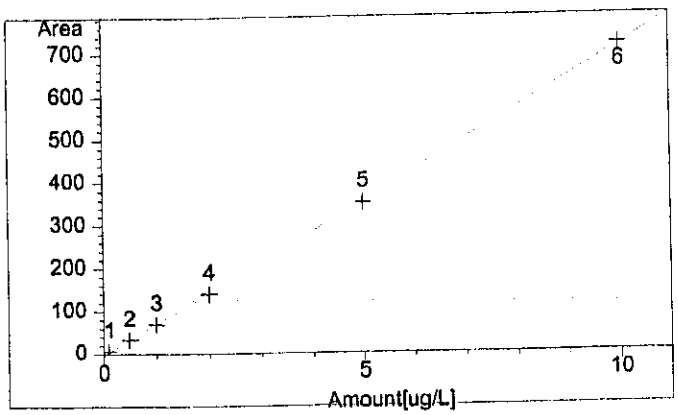
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 0.96678
Formula: y = mx + b
m: 18.95449
b: -4.21667e-1
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 1.93390
Formula: y = mx + b
m: 35.84471
b: -1.66074
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: 0.99992
Residual Std. Dev.: 2.46375
Formula: y = mx + b
m: 49.34055
b: -2.72022
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: 0.99995
Residual Std. Dev.: 2.87271
Formula: y = mx + b
m: 71.69796
b: -2.29402
x: Amount [ug/L]
y: Area

==========

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061302\4L003130.D Sample Name: WG119840-08 ALT
HPLC4 6/14/2002 9:20:03 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/14/2002 4:41:30 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.353	20.0	19.636	-1.8
1-Methylnaphthalene #3	11.923	20.0	19.634	-1.8
2-Methylnaphthalene #4	12.497	20.0	19.240	-3.8
Acenaphthene #5	12.975	20.0	20.191	1.0
Fluorene #6	13.626	20.0	20.156	0.8
Phenanthrene #7	15.007	20.0	19.424	-2.9
Anthracene #8	16.402	20.0	20.494	2.5
Fluoranthene #9	17.774	2.0	2.011	0.5
Pyrene #10	18.774	2.0	1.908	-4.6
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.416	2.0	1.861	-7.0
Chrysene #13	23.280	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.001	2.0	1.981	-0.9
Benzo(k)fluoranthene #15	27.443	1.0	0.888	-11.2
Benzo(a)pyrene #16	28.560	2.0	2.072	3.6
Dibenz(a,h)anthracene #1	30.417	2.0	2.178	8.9
Benzo(g,h,i)perylene #18	31.225	2.0	2.014	0.7
Indeno(1,2,3-cd)pyrene #	32.171	2.0	1.909	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	20.298	1.5
Acenaphthylene #2	10.959	20.0	19.150	-4.3
1-Methylnaphthalene #3	11.907	20.0	19.874	-0.6
2-Methylnaphthalene #4	12.480	20.0	19.624	-1.9
Acenaphthene #5	12.958	20.0	20.239	1.2
Fluorene #6	13.609	20.0	19.969	-0.2
Phenanthrene #7	14.989	20.0	19.480	-2.6
Anthracene #8	16.385	20.0	20.776	3.9
Fluoranthene #9	17.755	2.0	1.981	-0.9
Pyrene #10	18.756	2.0	1.911	-4.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.399	2.0	1.903	-4.8
Chrysene #13	23.263	2.0	1.940	-3.0
Benzo(b)fluoranthene #14	25.983	2.0	2.137	6.9
Benzo(k)fluoranthene #15	27.425	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.542	2.0	2.012	0.6
Dibenz(a,h)anthracene #1	30.400	2.0	2.132	6.6
Benzo(g,h,i)perylene #18	31.205	2.0	2.022	1.1
Indeno(1,2,3-cd)pyrene #	32.151	2.0	1.915	-4.2

= Failed 15.0% Criteria

390

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003199.D Sample Name: WG120174-01 CCV
HPLC4 6/20/2002 8:59:19 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/20/2002 7:13:04 AM Seq. Line : 17

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	19.848	-0.8
1-Methylnaphthalene #3	11.986	20.0	19.913	-0.4
2-Methylnaphthalene #4	12.560	20.0	19.906	-0.5
Acenaphthene #5	13.037	20.0	19.962	-0.2
Fluorene #6	13.690	20.0	20.054	0.3
Phenanthrene #7	15.074	20.0	19.668	-1.7
Anthracene #8	16.477	20.0	19.795	-1.0
Fluoranthene #9	17.852	2.0	1.982	-0.9
Pyrene #10	18.855	2.0	1.967	-1.7
p-Terphenyl d14 #11*	21.190	20.0	19.752	-1.2
Benzo(a)anthracene #12	22.505	2.0	1.959	-2.1
Chrysene #13	23.373	2.0	1.958	-2.1
Benzo(b)fluoranthene #14	26.088	2.0	1.977	-1.2
Benzo(k)fluoranthene #15	27.515	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.620	2.0	1.977	-1.1
Dibenz(a,h)anthracene #1	30.479	2.0	1.949	-2.6
Benzo(g,h,i)perylene #18	31.291	2.0	1.948	-2.6
Indeno(1,2,3-cd)pyrene #	32.240	2.0	1.964	-1.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.393	20.0	20.469	2.3
Acenaphthylene #2	11.020	20.0	19.908	-0.5
1-Methylnaphthalene #3	11.966	20.0	20.053	0.3
2-Methylnaphthalene #4	12.540	20.0	20.207	1.0
Acenaphthene #5	13.017	20.0	19.966	-0.2
Fluorene #6	13.670	20.0	19.911	-0.4
Phenanthrene #7	15.054	20.0	19.877	-0.6
Anthracene #8	16.457	20.0	20.104	0.5
Fluoranthene #9	17.831	2.0	1.976	-1.2
Pyrene #10	18.834	2.0	1.980	-1.0
p-Terphenyl d14 #11*	21.171	20.0	19.823	-0.9
Benzo(a)anthracene #12	22.485	2.0	1.974	-1.3
Chrysene #13	23.353	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.067	2.0	1.988	-0.6
Benzo(k)fluoranthene #15	27.495	1.0	0.992	-0.8
Benzo(a)pyrene #16	28.599	2.0	1.983	-0.8
Dibenz(a,h)anthracene #1	30.458	2.0	2.125	6.3
Benzo(g,h,i)perylene #18	31.270	2.0	1.993	-0.4
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.968	-1.6

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003151.D Sample Name: WG119863-03 CCV
HPLC4 6/17/2002 9:41:54 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/15/2002 6:19:19 AM Seq. Line : 21

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.363	20.0	20.160	0.8
1-Methylnaphthalene #3	11.936	20.0	20.132	0.7
2-Methylnaphthalene #4	12.511	20.0	20.073	0.4
Acenaphthene #5	12.989	20.0	20.190	0.9
Fluorene #6	13.642	20.0	20.320	1.6
Phenanthrene #7	15.026	20.0	19.811	-0.9
Anthracene #8	16.431	20.0	20.190	0.9
Fluoranthene #9	17.808	2.0	2.000	0.0
Pyrene #10	18.810	2.0	1.994	-0.3
p-Terphenyl d14 #11*	21.143	20.0	20.082	0.4
Benzo(a)anthracene #12	22.462	2.0	1.995	-0.3
Chrysene #13	23.331	2.0	1.987	-0.7
Benzo(b)fluoranthene #14	26.052	2.0	2.030	1.5
Benzo(k)fluoranthene #15	27.485	1.0	1.003	0.3
Benzo(a)pyrene #16	28.596	2.0	2.068	3.4
Dibenz(a,h)anthracene #1	30.466	2.0	1.978	-1.1
Benzo(g,h,i)perylene #18	31.276	2.0	2.035	1.8
Indeno(1,2,3-cd)pyrene #	32.232	2.0	1.990	-0.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.767	3.8
Acenaphthylene #2	10.969	20.0	20.177	0.9
1-Methylnaphthalene #3	11.916	20.0	20.315	1.6
2-Methylnaphthalene #4	12.491	20.0	20.472	2.4
Acenaphthene #5	12.968	20.0	20.190	0.9
Fluorene #6	13.621	20.0	20.183	0.9
Phenanthrene #7	15.005	20.0	20.146	0.7
Anthracene #8	16.410	20.0	20.536	2.7
Fluoranthene #9	17.786	2.0	2.010	0.5
Pyrene #10	18.788	2.0	2.000	0.0
p-Terphenyl d14 #11*	21.123	20.0	20.014	0.1
Benzo(a)anthracene #12	22.441	2.0	2.002	0.1
Chrysene #13	23.311	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.030	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.464	1.0	1.010	1.0
Benzo(a)pyrene #16	28.575	2.0	2.075	3.7
Dibenz(a,h)anthracene #1	30.445	2.0	2.003	0.2
Benzo(g,h,i)perylene #18	31.254	2.0	2.062	3.1
Indeno(1,2,3-cd)pyrene #	32.211	2.0	2.003	0.1

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003162.D Sample Name: WG119863-04 CCV
HPLC4 6/17/2002 10:49:22 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========
Injection Date : 6/15/2002 4:42:25 PM Seq. Line : 32

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.371	20.0	19.972	-0.1
1-Methylnaphthalene #3	11.943	20.0	20.000	0.0
2-Methylnaphthalene #4	12.515	20.0	19.954	-0.2
Acenaphthene #5	12.992	20.0	20.111	0.6
Fluorene #6	13.642	20.0	20.319	1.6
Phenanthrene #7	15.024	20.0	19.854	-0.7
Anthracene #8	16.425	20.0	20.159	0.8
Fluoranthene #9	17.799	2.0	2.002	0.1
Pyrene #10	18.802	2.0	1.981	-1.0
p-Terphenyl d14 #11*	21.127	20.0	20.069	0.3
Benzo(a)anthracene #12	22.444	2.0	1.983	-0.8
Chrysene #13	23.312	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.030	2.0	1.999	-0.1
Benzo(k)fluoranthene #15	27.457	1.0	1.001	0.1
Benzo(a)pyrene #16	28.564	2.0	2.064	3.2
Dibenz(a,h)anthracene #1	30.425	2.0	1.977	-1.1
Benzo(g,h,i)perylene #18	31.239	2.0	2.019	1.0
Indeno(1,2,3-cd)pyrene #	32.197	2.0	1.982	-0.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.354	20.0	20.869	4.3
Acenaphthylene #2	10.979	20.0	20.193	1.0
1-Methylnaphthalene #3	11.927	20.0	20.382	1.9
2-Methylnaphthalene #4	12.499	20.0	20.526	2.6
Acenaphthene #5	12.976	20.0	20.252	1.3
Fluorene #6	13.626	20.0	20.257	1.3
Phenanthrene #7	15.007	20.0	20.225	1.1
Anthracene #8	16.408	20.0	20.540	2.7
Fluoranthene #9	17.781	2.0	2.020	1.0
Pyrene #10	18.784	2.0	2.014	0.7
p-Terphenyl d14 #11*	21.112	20.0	20.082	0.4
Benzo(a)anthracene #12	22.428	2.0	2.017	0.8
Chrysene #13	23.296	2.0	2.009	0.5
Benzo(b)fluoranthene #14	26.012	2.0	2.039	1.9
Benzo(k)fluoranthene #15	27.440	1.0	1.020	2.0
Benzo(a)pyrene #16	28.547	2.0	2.069	3.4
Dibenz(a,h)anthracene #1	30.409	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.221	2.0	2.000	0.0
Indeno(1,2,3-cd)pyrene #	32.178	2.0	1.999	0.0

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003173.D Sample Name: WG119863-05 CCV
HPLC4 6/17/2002 10:55:46 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/16/2002 3:05:26 AM Seq. Line : 43

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.377	20.0	20.123	0.6
1-Methylnaphthalene #3	11.947	20.0	20.159	0.8
2-Methylnaphthalene #4	12.522	20.0	20.117	0.6
Acenaphthene #5	13.001	20.0	20.225	1.1
Fluorene #6	13.653	20.0	20.407	2.0
Phenanthrene #7	15.035	20.0	19.940	-0.3
Anthracene #8	16.437	20.0	20.322	1.6
Fluoranthene #9	17.810	2.0	2.023	1.1
Pyrene #10	18.815	2.0	2.011	0.6
p-Terphenyl d14 #11*	21.145	20.0	19.902	-0.5
Benzo(a)anthracene #12	22.462	2.0	1.998	-0.1
Chrysene #13	23.331	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.051	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.485	1.0	1.005	0.5
Benzo(a)pyrene #16	28.592	2.0	2.080	4.0
Dibenz(a,h)anthracene #1	30.455	2.0	1.985	-0.7
Benzo(g,h,i)perylene #18	31.269	2.0	2.020	1.0
Indeno(1,2,3-cd)pyrene #	32.233	2.0	1.985	-0.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.361	20.0	20.956	4.8
Acenaphthylene #2	10.984	20.0	20.269	1.3
1-Methylnaphthalene #3	11.930	20.0	20.465	2.3
2-Methylnaphthalene #4	12.506	20.0	20.599	3.0
Acenaphthene #5	12.984	20.0	20.320	1.6
Fluorene #6	13.636	20.0	20.339	1.7
Phenanthrene #7	15.018	20.0	20.296	1.5
Anthracene #8	16.420	20.0	20.581	2.9
Fluoranthene #9	17.793	2.0	2.030	1.5
Pyrene #10	18.797	2.0	2.022	1.1
p-Terphenyl d14 #11*	21.129	20.0	20.160	0.8
Benzo(a)anthracene #12	22.445	2.0	2.021	1.1
Chrysene #13	23.314	2.0	2.016	0.8
Benzo(b)fluoranthene #14	26.034	2.0	2.045	2.3
Benzo(k)fluoranthene #15	27.468	1.0	1.021	2.1
Benzo(a)pyrene #16	28.574	2.0	2.077	3.8
Dibenz(a,h)anthracene #1	30.437	2.0	2.027	1.4
Benzo(g,h,i)perylene #18	31.251	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.215	2.0	2.009	0.4

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061702\4L003175.D Sample Name: WG119988-01 CCV
HPLC4 6/17/2002 2:54:21 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========
Injection Date : 6/17/2002 12:23:36 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.334	20.0	20.736	3.7
1-Methylnaphthalene #3	11.910	20.0	20.616	3.1
2-Methylnaphthalene #4	12.481	20.0	20.498	2.5
Acenaphthene #5	12.955	20.0	20.332	1.7
Fluorene #6	13.601	20.0	20.257	1.3
Phenanthrene #7	14.983	20.0	20.156	0.8
Anthracene #8	16.388	20.0	19.723	-1.4
Fluoranthene #9	17.766	2.0	1.994	-0.3
Pyrene #10	18.775	2.0	2.142	7.1
p-Terphenyl d14 #11*	21.112	20.0	19.587	-2.1
Benzo(a)anthracene #12	22.432	2.0	2.011	0.5
Chrysene #13	23.298	2.0	2.022	1.1
Benzo(b)fluoranthene #14	26.016	2.0	2.005	0.2
Benzo(k)fluoranthene #15	27.447	1.0	0.996	-0.4
Benzo(a)pyrene #16	28.554	2.0	1.929	-3.6
Dibenz(a,h)anthracene #1	30.413	2.0	1.990	-0.5
Benzo(g,h,i)perylene #18	31.224	2.0	1.930	-3.5
Indeno(1,2,3-cd)pyrene #	32.180	2.0	1.959	-2.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.315	20.0	20.480	2.4
Acenaphthylene #2	10.947	20.0	19.832	-0.8
1-Methylnaphthalene #3	11.892	20.0	20.040	0.2
2-Methylnaphthalene #4	12.462	20.0	20.169	0.8
Acenaphthene #5	12.937	20.0	19.833	-0.8
Fluorene #6	13.582	20.0	19.932	-0.3
Phenanthrene #7	14.964	20.0	20.244	1.2
Anthracene #8	16.369	20.0	19.884	-0.6
Fluoranthene #9	17.747	2.0	1.981	-1.0
Pyrene #10	18.755	2.0	1.984	-0.8
p-Terphenyl d14 #11*	21.094	20.0	19.747	-1.3
Benzo(a)anthracene #12	22.413	2.0	1.965	-1.7
Chrysene #13	23.279	2.0	1.969	-1.5
Benzo(b)fluoranthene #14	25.996	2.0	1.984	-0.8
Benzo(k)fluoranthene #15	27.428	1.0	1.000	0.0
Benzo(a)pyrene #16	28.535	2.0	1.879	-6.0
Dibenz(a,h)anthracene #1	30.394	2.0	2.001	0.0
Benzo(g,h,i)perylene #18	31.204	2.0	1.831	-8.4
Indeno(1,2,3-cd)pyrene #	32.159	2.0	1.951	-2.5

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061702\4L003178.D Sample Name: WG119988-~~01~~ 02 CCV
HPLC4 6/17/2002 5:01:05 PM RDC

RDC 6/17/02

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/17/2002 3:50:45 PM Seq. Line : 5

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.327	20.0	20.129	0.6
1-Methylnaphthalene #3	11.890	20.0	20.126	0.6
2-Methylnaphthalene #4	12.463	20.0	20.050	0.2
Acenaphthene #5	12.939	20.0	20.128	0.6
Fluorene #6	13.585	20.0	20.193	1.0
Phenanthrene #7	14.967	20.0	19.863	-0.7
Anthracene #8	16.377	20.0	20.355	1.8
Fluoranthene #9	17.759	2.0	1.981	-1.0
Pyrene #10	18.768	2.0	2.014	0.7
p-Terphenyl d14 #11*	21.113	20.0	20.261	1.3
Benzo(a)anthracene #12	22.436	2.0	1.998	-0.1
Chrysene #13	23.304	2.0	2.034	1.7
Benzo(b)fluoranthene #14	26.032	2.0	1.996	-0.2
Benzo(k)fluoranthene #15	27.466	1.0	1.003	0.3
Benzo(a)pyrene #16	28.575	2.0	1.928	-3.6
Dibenz(a,h)anthracene #1	30.439	2.0	2.023	1.1
Benzo(g,h,i)perylene #18	31.248	2.0	1.931	-3.5
Indeno(1,2,3-cd)pyrene #	32.205	2.0	1.978	-1.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.308	20.0	20.698	3.5
Acenaphthylene #2	10.927	20.0	20.007	0.0
1-Methylnaphthalene #3	11.870	20.0	20.241	1.2
2-Methylnaphthalene #4	12.443	20.0	20.323	1.6
Acenaphthene #5	12.919	20.0	20.079	0.4
Fluorene #6	13.565	20.0	20.027	0.1
Phenanthrene #7	14.947	20.0	20.011	0.1
Anthracene #8	16.357	20.0	20.445	2.2
Fluoranthene #9	17.738	2.0	2.000	0.0
Pyrene #10	18.747	2.0	2.005	0.2
p-Terphenyl d14 #11*	21.094	20.0	20.394	2.0
Benzo(a)anthracene #12	22.416	2.0	1.992	-0.4
Chrysene #13	23.285	2.0	2.029	1.4
Benzo(b)fluoranthene #14	26.011	2.0	2.012	0.6
Benzo(k)fluoranthene #15	27.446	1.0	1.011	1.1
Benzo(a)pyrene #16	28.554	2.0	1.927	-3.6
Dibenz(a,h)anthracene #1	30.419	2.0	2.065	3.2
Benzo(g,h,i)perylene #18	31.227	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.183	2.0	1.983	-0.8

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119840-01 STD6	8310	1	Sample		
3	3	WG119840-02 STD6	8310	1	Sample		
4	4	WG119840-03 STD5	8310	1	Sample		
5	5	WG119840-04 STD4	8310	1	Sample		
6	6	WG119840-05 STD3	8310	1	Sample		
7	7	WG119840-06 STD2	8310	1	Sample		
8	8	WG119840-07 STD1	8310	1	Sample		
9	9	WG119840-08 ALT	8310	1	Sample		

RDC 6/14/02

Set	Run	Vial	Method	Datafile	Seqfable	Calibration	Sample Name
							RDC 6/14/02
No	1	1	8310	4L003122	01:01		accn blk
No	2	2	8310	4L003123	02:01	SOS 58-26	WG119840-01 ST
No	3	3	8310	4L003124	03:01	SOS 59-38	WG119840-02 ST
No	4	4	8310	4L003125	04:01	DILN of SOS 58-26	WG119840-03 ST
No	5	5	8310	4L003126	05:01	& 59-38	WG119840-04 ST
No	6	6	8310	4L003127	06:01		WG119840-05 ST
No	7	7	8310	4L003128	07:01		WG119840-06 ST
No	8	8	8310	4L003129	08:01		WG119840-07 ST
No	9	9	8310	4L003130	09:01	SOS 60-26/60-27	WG119840-08 AL

RRC
6/14/02

RDC 6/14/02

398

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 13, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061302
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Re-installed LC-PAH column for 8310 ~~HC~~ / 610 analysis

Action Taken: recalibration

Comments

Reviewed By: [signature] 6/14/02

399

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT"	Sample Name
No	1	1	8310	4L003131	01:01 ✓		accn blk
No	2	2	8310	4L003132	02:01 ✓	SOS 59-38/58-26	WG119863-01 CC
No	3	3	8310	4L003133	03:01 ✓		WG119312-02 WB
No	4	4	8310	4L003134	04:01 ✓		WG119312-03 WL
No	5	5	8310	4L003135	05:01 ✓		L0206078-05 61
No	6	6	8310	4L003136	06:01 ✓		L0206078-07 61
No	7	7	8310	4L003137	07:01 ✓		L0206078-09 61
No	8	8	8310	4L003138	08:01 ✓		L0206078-12 61
No	9	9	8310	4L003139	09:01 ✓		L0206078-15 61
No	10	10	8310	4L003140	10:01 ✓		L0206078-18 61
No	11	11	8310	4L003141	11:01 ✓	SOS 59-38/58-26	WG119863-02 CC
No	12	12	8310	4L003142	12:01 ✓		L0206102-01 83
No	13	13	8310	4L003143	13:01 ✓		L0206102-02 83
No	14	14	8310	4L003144	14:01 ✓		L0206102-03 83
No	15	15	8310	4L003145	15:01 ✓		WG119312-01 WR
No	16	16	8310	4L003146	16:01 ✓		WG119312-04 WM
No	17	17	8310	4L003147	17:01 ✓		WG119312-05 WM
No	18	18	8310	4L003148	18:01 ✓	accn. NC	L0206102-07 83
No	19	19	8310	4L003149	19:01 ✓		L0206102-08 83
No	20	20	8310	4L003150	20:01 ✓		L0206102-09 83
No	21	21	8310	4L003151	21:01 ✓	SOS 59-38/58-26	WG119863-03 CC
No	22	22	8310	4L003152	22:01 ✓		WG119548-02 WB
No	23	23	8310	4L003153	23:01 ✓		WG119548-03 WL
No	24	24	8310	4L003154	24:01	RR 10X, Accn. NC	L0206140-01 83
No	25	25	8310	4L003155	25:01 ✓		L0206140-02 83
No	26	26	8310	4L003156	26:01 ✓		L0206140-03 83
No	27	27	8310	4L003157	27:01 ✓		L0206140-04 83
No	28	28	8310	4L003158	28:01 ✓		L0206140-05 83
No	29	29	8310	4L003159	29:01 ✓		L0206140-06 83
No	30	30	8310	4L003160	30:01 ✓		WG119548-01 WR
No	31	31	8310	4L003161	31:01 ✓		L0206140-08 83
No	32	21	8310	4L003162	32:01 ✓	SOS 59-38/58-26	WG119863-04 CC
No	33	32	8310	4L003163	33:01 ✓		L0206140-09 83
No	34	33	8310	4L003164	34:01 ✓		L0206140-10 83
No	35	34	8310	4L003165	35:01	RE needed low surr.	L0206140-11 83
No	36	35	8310	4L003166 Accn. NC	36:01	RR 10X, RE low surr.	L0206140-12 83
No	37	36	8310	4L003167	37:01 ✓		L0206140-13 83
No	38	37	8310	4L003168	38:01 ✓	low surr	WG119548-0 WMS
No	39	38	8310	4L003169	39:01 ✓		WG119548-05 WM
No	40	39	8310	4L003170	40:01	RE low surr.	L0206164-01 83
No	41	40	8310	4L003171	41:01	RE low surr.	L0206164-02 83
No	42	41	8310	4L003172	42:01 ✓		L0206164-03 83
No	43	21	8310	4L003173	43:01 ✓		WG119863-05 CC

RDE 6/17/02

6/18/02

6/18/02

400

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119863-01 CCV	8310	1	Sample		
3	3	WG119312-02 WBLK	8310	1	Sample		
4	4	WG119312-03 WLCS	8310	1	Sample		
5	5	L0206078-05 610W	8310	1	Sample		
6	6	L0206078-07 610W	8310	1	Sample		
7	7	L0206078-09 610W	8310	1	Sample		
8	8	L0206078-12 610W	8310	1	Sample		
9	9	L0206078-15 610W	8310	1	Sample		
10	10	L0206078-18 610W	8310	1	Sample		
11	11	WG119863-02 CCV	8310	1	Sample		
12	12	L0206102-01 831W	8310	1	Sample		
13	13	L0206102-02 831W	8310	1	Sample		
14	14	L0206102-03 831W	8310	1	Sample		
15	15	WG119312-01 WREF	8310	1	Sample		
16	16	WG119312-04 WMS	8310	1	Sample		
17	17	WG119312-05 WMSD	8310	1	Sample		
18	18	L0206102-07 831W	8310	1	Sample		
19	19	L0206102-08 831W	8310	1	Sample		
20	20	L0206102-09 831W	8310	1	Sample		
21	21	WG119863-03 CCV	8310	1	Sample		
22	22	WG119548-02 WBLK	8310	1	Sample		
23	23	WG119548-03 WLCS	8310	1	Sample		
24	24	L0206140-01 831W	8310	1	Sample		
25	25	L0206140-02 831W	8310	1	Sample		
26	26	L0206140-03 831W	8310	1	Sample		
27	27	L0206140-04 831W	8310	1	Sample		
28	28	L0206140-05 831W	8310	1	Sample		
29	29	L0206140-06 831W	8310	1	Sample		
30	30	WG119548-01 WREF	8310	1	Sample		
31	31	L0206140-08 831W	8310	1	Sample		
32	21	WG119863-04 CCV	8310	1	Sample		
33	32	L0206140-09 831W	8310	1	Sample		
34	33	L0206140-10 831W	8310	1	Sample		
35	34	L0206140-11 831W	8310	1	Sample		
36	35	L0206140-12 831W	8310	1	Sample		
37	36	L0206140-13 831W	8310	1	Sample		
38	37	WG119548-0 WMS	8310	1	Sample		
39	38	WG119548-05 WMSD	8310	1	Sample		
40	39	L0206164-01 831W	8310	1	Sample		
41	40	L0206164-02 831W	8310	1	Sample		
42	41	L0206164-03 831W	8310	1	Sample		
43	21	WG119863-05 CCV	8310	1	Sample		

401

tzwc 6/14/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061402
Analyst Initials RBC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0206140-11 & 12 need RE-EXT for low surr.
L0206164-01 & 02 ↓ ↓ ↓ ↓ ↓ } submitted for reext.

L0206140-01 & 12 need 10X dilN.
Acenaphthylene not confirming by DAD

Reviewed By: DR 6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119988-01 CCV	8310	1	Sample		
3	3	L0206140-01 10X	8310	1	Sample		
4	4	L0206140-12 10X	8310	1	Sample		
5	5	WG119988-01 CCV	8310	1	Sample		

TDEC 01/17/02

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003174	01:01✓		accn blk
No	2	2	8310	4L003175	02:01✓	505 59-37/58-26	WG119988-01 CC
No	3	3	8310	4L003176	03:01✓		L0206140-01 10
No	4	4	8310	4L003177	04:01✓		L0206140-12 10
No	5	5	8310	4L003178	05:01✓	505 59-38/58-26	WG119988-01 CC

DEC 6/17/02

6/18/02

404

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 17, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061702
Analyst Initials RWC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: [signature] 6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120164-01 STD6	8310	1	Sample		
3	3	WG120164-02 STD6	8310	1	Sample		
4	4	WG120164-03 STD5	8310	1	Sample		
5	5	WG120164-04 STD4	8310	1	Sample		
6	6	WG120164-05 STD3	8310	1	Sample		
7	7	WG120164-06 STD2	8310	1	Sample		
8	8	WG120164-07 STD1	8310	1	Sample		
9	9	WG120164-08 ALT	8310	1	Sample		
10	10	WG120073-01 WBLK	8310	1	Sample		
11	11	WG120073-02 WLCS	8310	1	Sample		
12	12	WG120073-03 WLCS	8310	1	Sample		
13	13	L0206140-11 REEX	8310	1	Sample		
14	14	L0206140-12 REEX	8310	1	Sample		
15	15 RPC	L0206146-01 REEX	8310	1	Sample		
16	16 6/20/16	L0206146-02 REEX	8310	1	Sample		
17	17	WG120174-01 CCV	8310	1	Sample		

RPC 6/20/16

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003183	01:01		accn blk
No	2	2	8310	4L003184	02:01	SOS 58-26	WG120164-01 ST
No	3	3	8310	4L003185	03:01	SOS 59-38	WG120164-02 ST
No	4	4	8310	4L003186	04:01	DIL'N of SOS 58-26/	WG120164-03 ST
No	5	5	8310	4L003187	05:01	59-38	WG120164-04 ST
No	6	6	8310	4L003188	06:01		WG120164-05 ST
No	7	7	8310	4L003189	07:01		WG120164-06 ST
No	8	8	8310	4L003190	08:01		WG120164-07 ST
No	9	9	8310	4L003191	09:01	SOS 60-26/60-27 DIL'N	WG120164-08 AL
No	10	10	8310	4L003192	10:01		WG120073-01 WB
No	11	11	8310	4L003193	11:01		WG120073-02 WL
No	12	12	8310	4L003194	12:01		WG120073-03 WL
No	13	13	8310	4L003195	13:01	SURR. LOW	L0206140-11 RE
No	14	14	8310	4L003196	14:01	SURR. LOW	L0206140-12 RE
No	15	15	8310	4L003197	15:01	SURR. LOW	L0206146-01 RE
No	16	16	8310	4L003198	16:01		L0206146-02 RE
No	17	17	8310	4L003199	17:01	SOS 58-26/59-38 DIL'N	WG120174-01 CC

RAC 6/20/02

6/20/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061902
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Column re-installed

Action Taken: re-calibration

Comments

Re-extracts of L0206140-11 & 12 and L0206164-01 confirm the low % recovery of surrogate.

L0206164-02 surr. recovery was within limits & will be reported out of holding time.

RDC

Reviewed By: DR 6/20/02

Parameter: 8310-H_2O SOP #: EXH PLC Revision #: 6
Extraction Analyst(s): GSG, [illegible] TV/KD Analyst(s): GSG
Date/Time Extracted: 06/06/02 @ 1450 Date TV/KD: 06/06/02
Spike/Surrogate Analyst: GSG / CEB Witness: CEB / [illegible]
Surrogate #: ES50040-50 Earliest Hold Date: 06/11/02
Spike #: A = ES50041-01 Spike #: B = —

Extraction Work Group WG 119312
Analytical Work Group WG 119449
Extract Relinquished By: [illegible]
Extract Received By & Date: EC 6/7/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank					1L	100µL		1mL					WG 119312-02
2	LCS					⊥		500µL						WG ⊥ -03
3	06-078-05	610				850mL								
4	-07					1L								
5	-09					850mL								
6	-12					1L								
7	-15					925mL								
8	-18					⊥								
9	06-102-01	8310				1L								
10	-02					⊥								
11	-03					950mL								
12	-04					1L								WG 119312-01
13	-05MS					⊥		500µL						⊥ -04 X
14	-06MSD					—		⊥						— -05 X
15	-07					930mL								
16	-08					1L								
17	-09					930mL	⊥		⊥					
18														
19														
20														
21														
22														
23														
24														

06/06/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: CR2163
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR2152

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: 6/7/02

Extraction Notes For Volume # 185 Page # 131

General Comments: *MS, MSD of 06-102-04

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): DP TV/KD Analyst(s): CAF
Date/Time Extracted: 06/18/02 @ 1410 Date TV/KD: 06/18/02
Spike/Surrogate Analyst: DP Witness: CEB
Surrogate #: ES500040-50 Earliest Hold Date: OUC
Spike #: A = ES500041-01 Spike #: B = —

Extraction Work Group WG 120073
Analytical Work Group WG 120172

Extract Relinquished By: CAF
Extract Received By & Date: ZAPC 6/18/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100 µL		1mL	T				WG 120073-01
2	LCS			✓		1		500 µL		T				WG 1 -02
3	06-140-11	8310		✓		960 mL				T				Reext. out of hold ⊗
4	1 -12			✓		1				6/18 DP TC				⊗
5	06-164-01			✓		970 mL				2 T				⊗
6	1 -02			✓		950 mL				T				⊗
7	LCS DUP*			✓		1L		500 µL		T				WG 120073-03
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 06/18/02

Methylene Chloride Lot #: H2015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: H1264
Reagent: Fortified Lot #: ER2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 6-18-02

Extraction Notes For Volume # 186 Page # 047

General Comments: x LCS Dup is out of order on the back sheet.

Extraction Anomalies: (x) Sample required pH adjustment prior to extraction to achieve a neutral (5-9) pH.

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

2.2.7.2 Sample Data

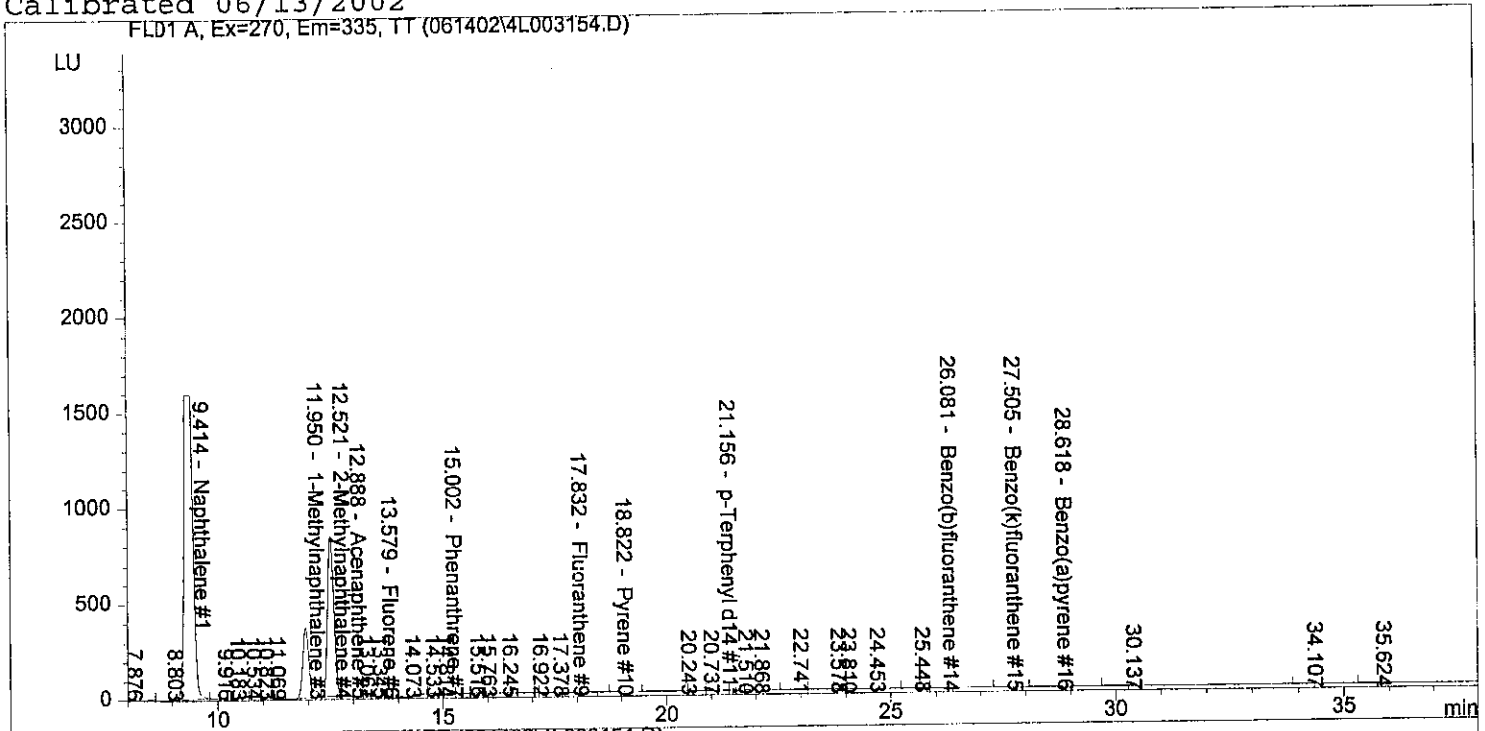
1,1

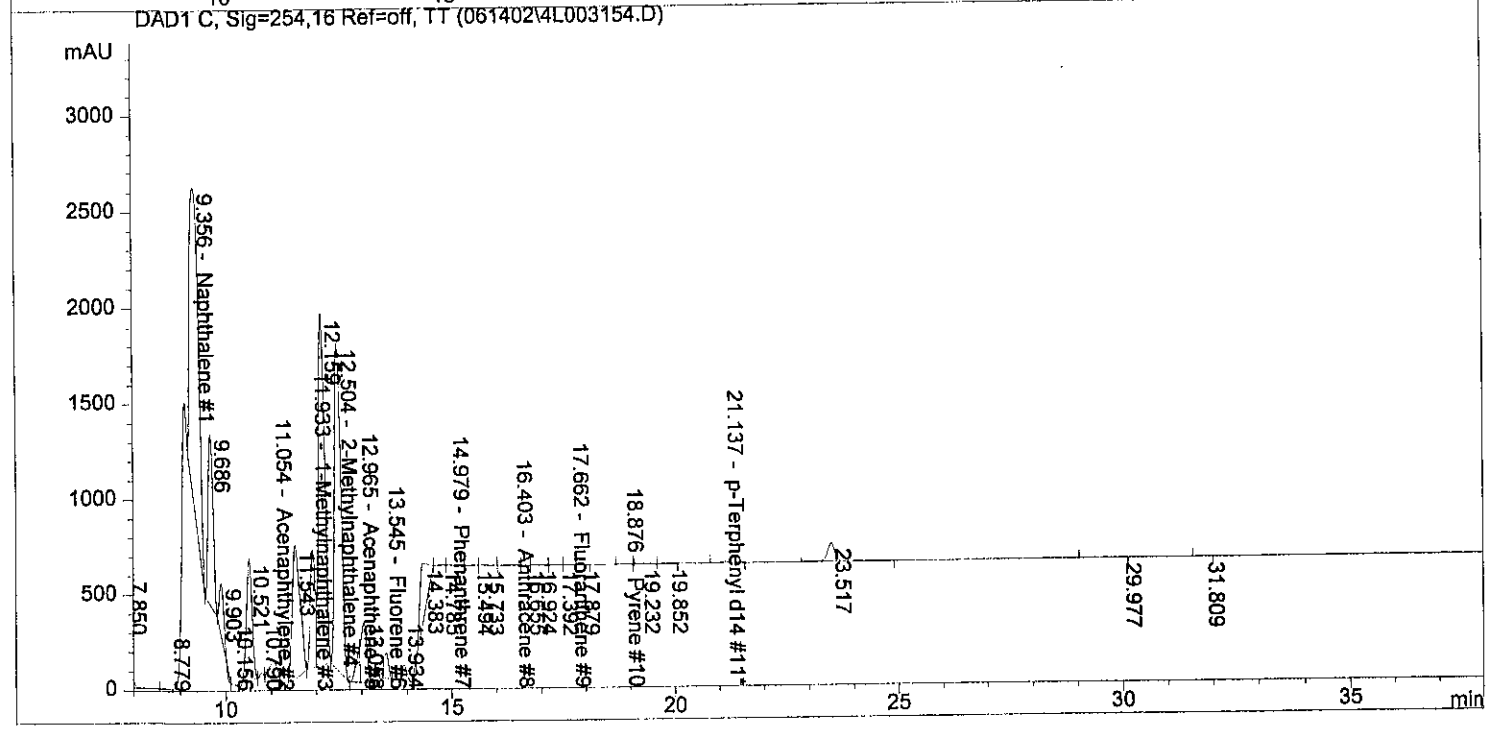
==========

Injection Date : 6/15/2002 9:09:16 AM
Sample Name : L0206140-01 831W
Acq. Operator : RDC

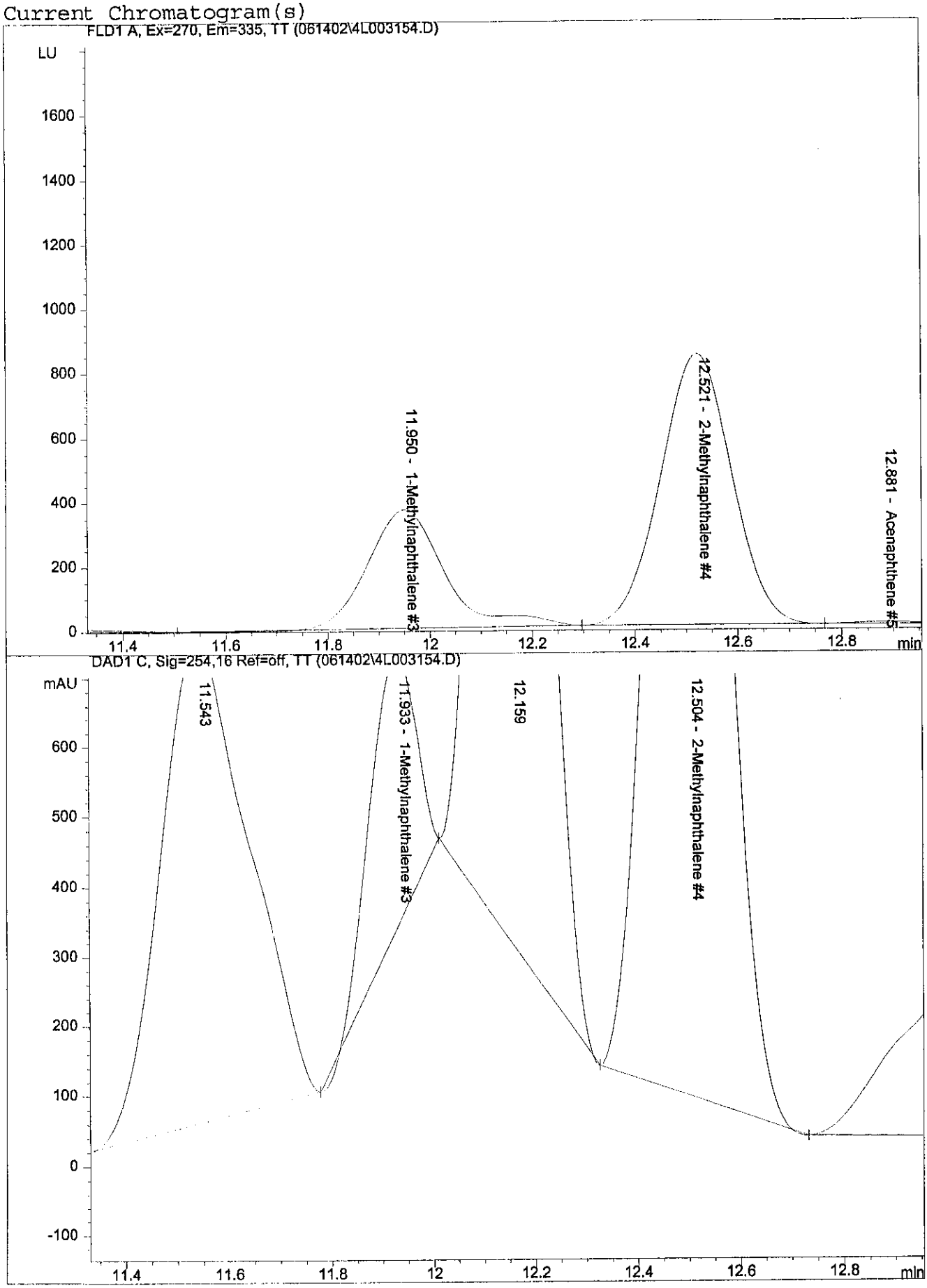
Seq. Line : 24
Vial : 24
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002

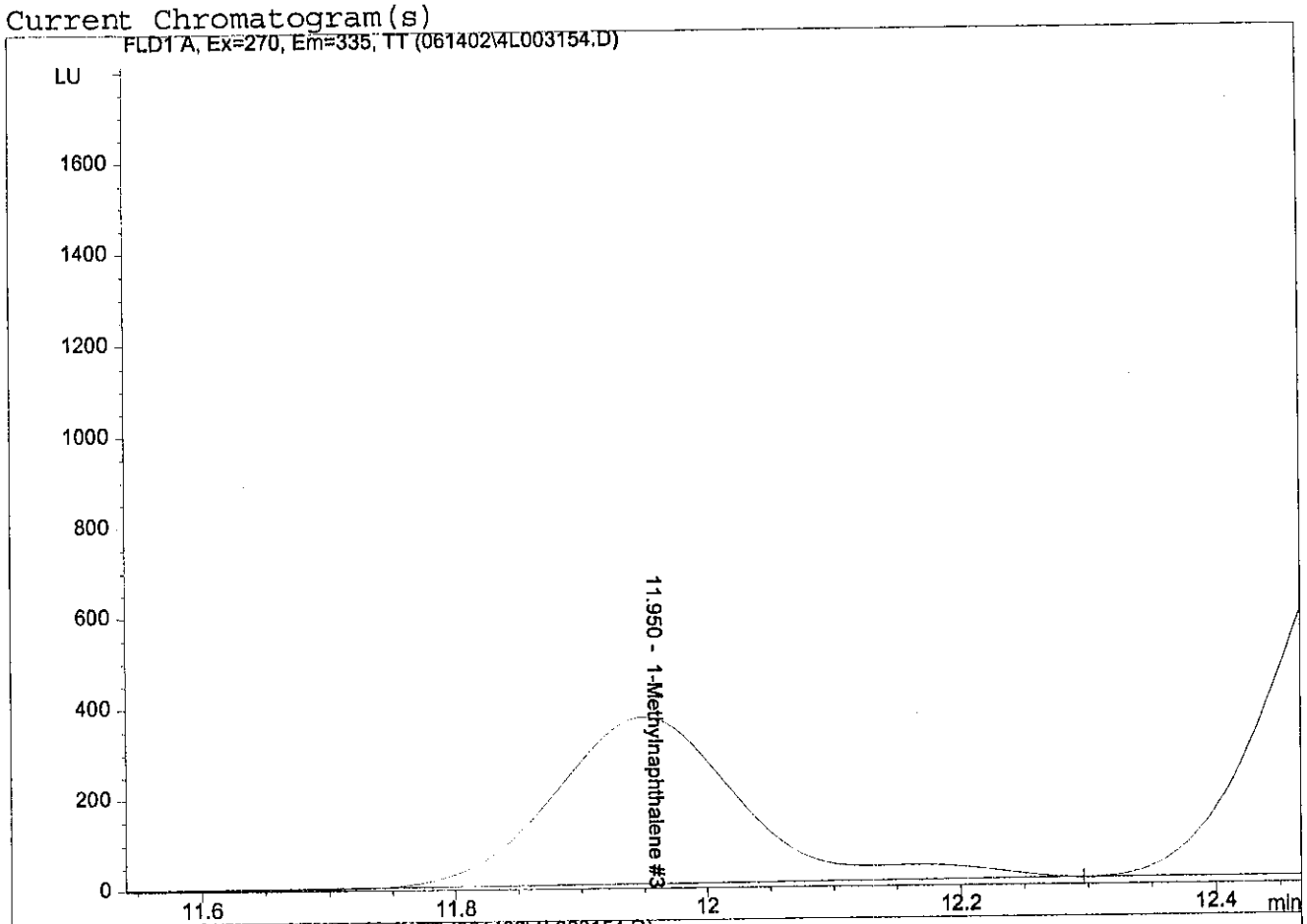


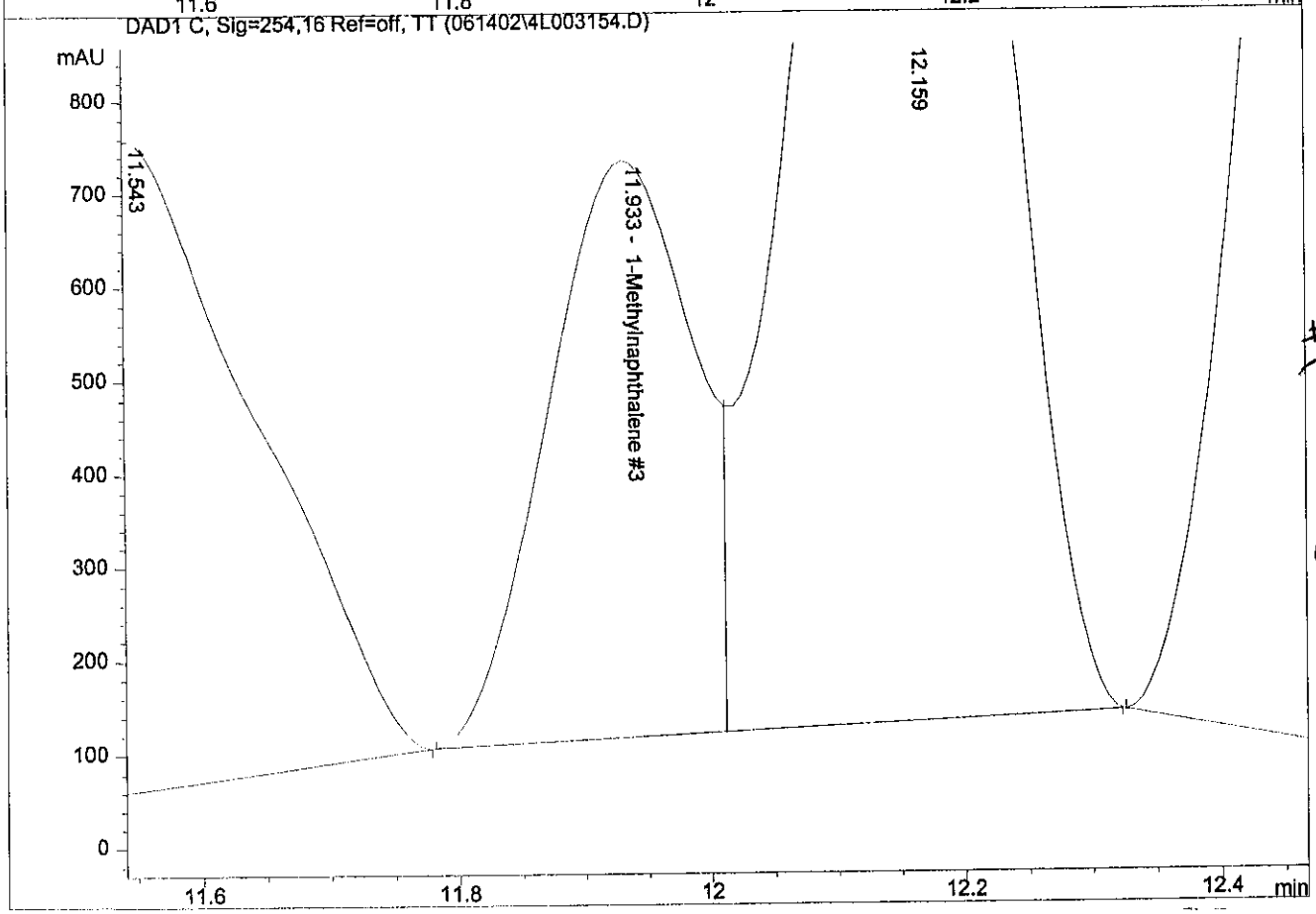


Current Chromatogram(s)



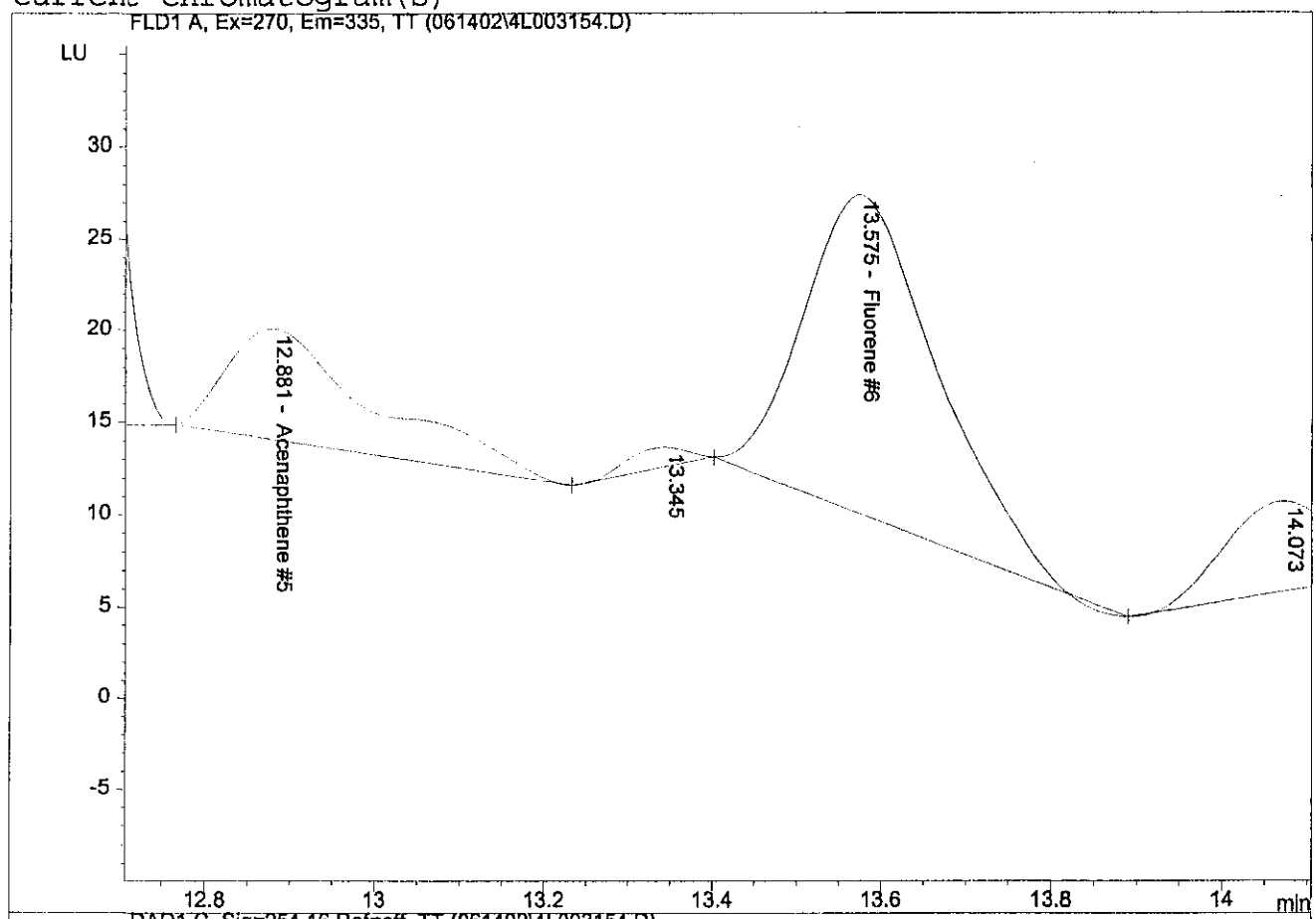
Current Chromatogram(s)

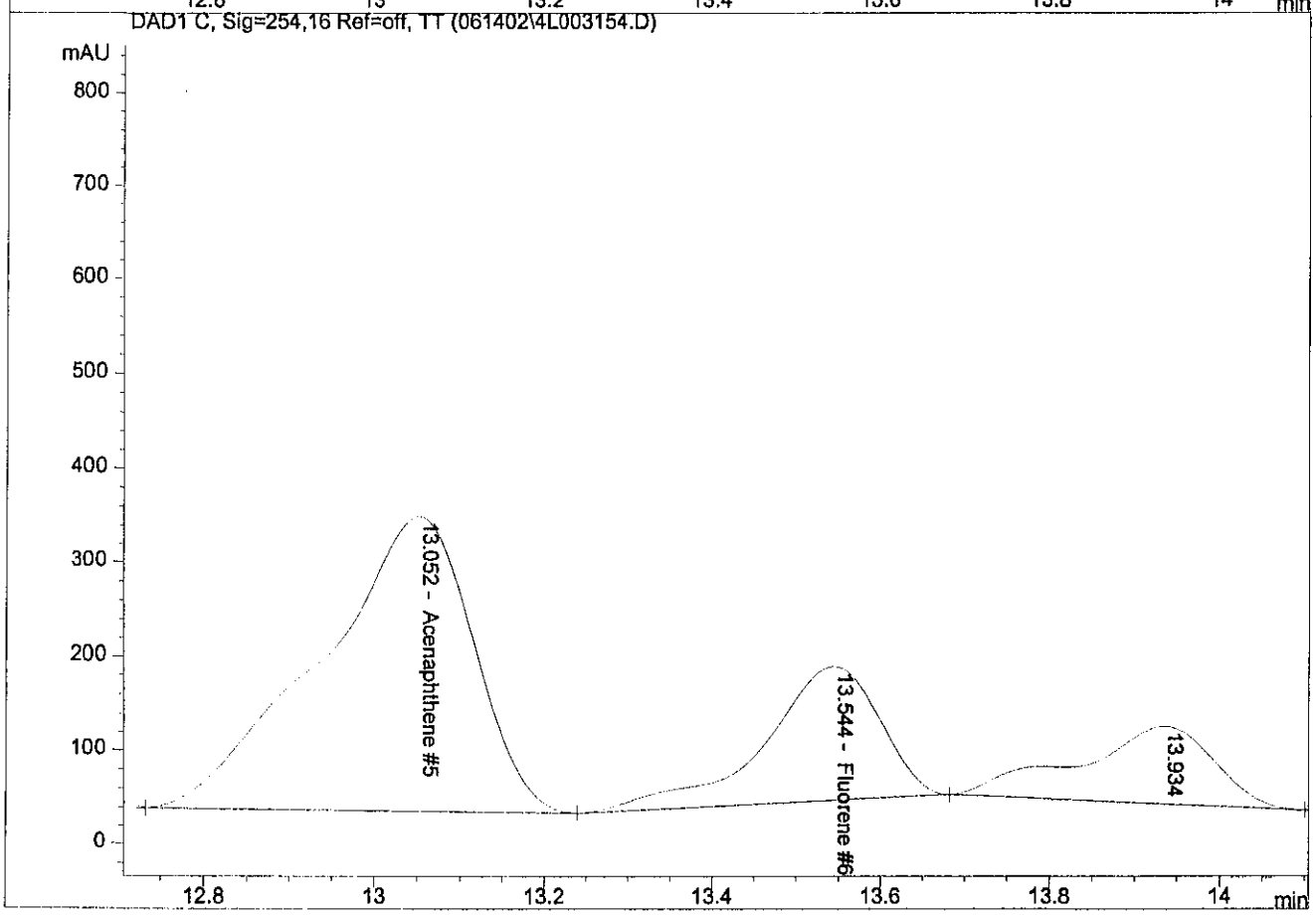




#3
6/17/02
6/17/02

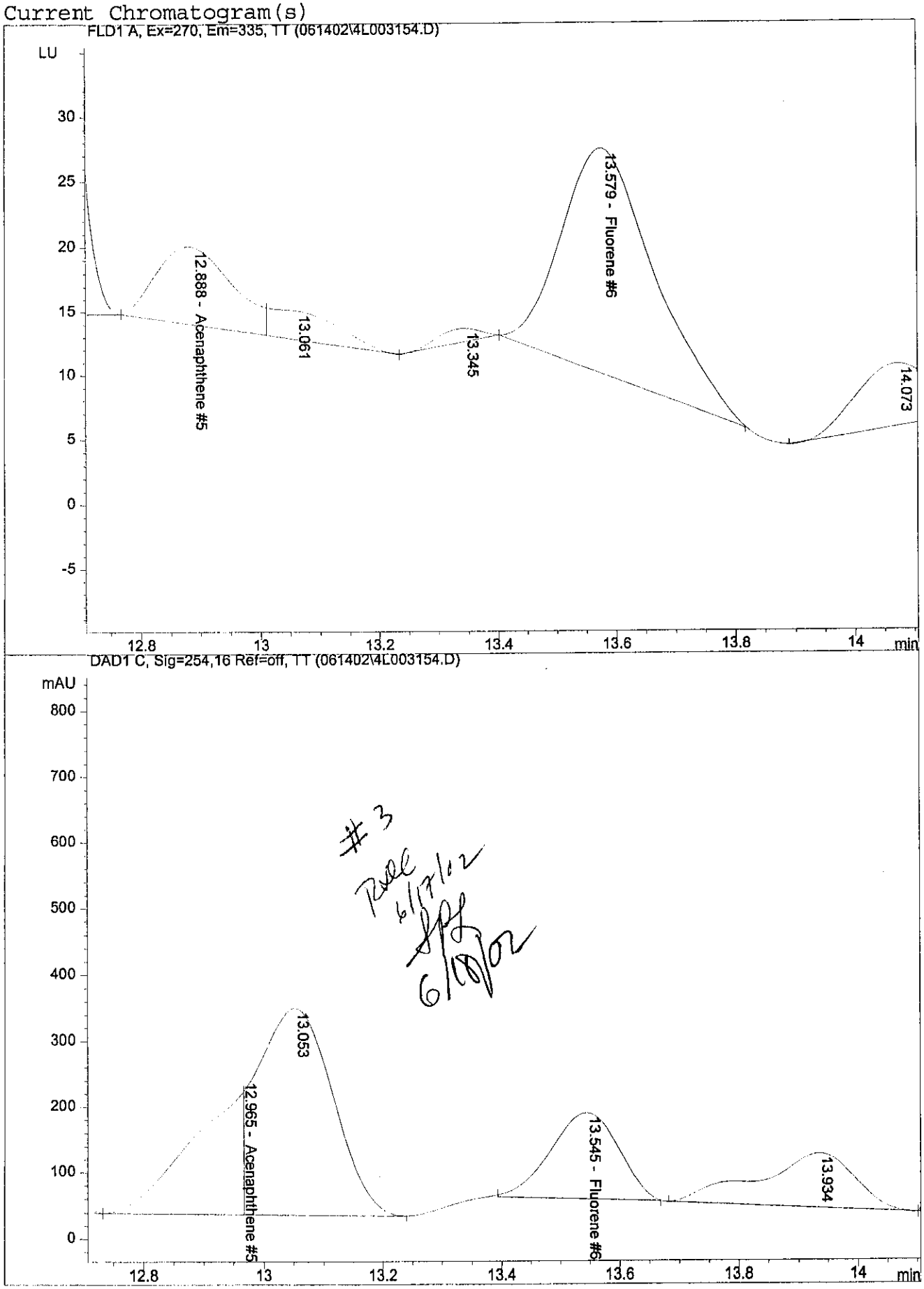
Current Chromatogram(s)





417

Current Chromatogram(s)



#3
RDL 6/17/02
6/18/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.414	BB	2.19723e4	2.62059e-2	575.80410	I	Naphthalene #1
11.950	BB	3816.67285	2.29602e-2	87.63158		1-Methylnaphthalene #3
12.521	BB	8101.09766	1.76980e-2	143.37308	I	2-Methylnaphthalene #4
12.888	MF	54.39135	1.48330e-2	8.06787e-1	C	Acenaphthene #5 (P), F
13.579	MF	191.60748	6.12934e-3	1.17443	C	Fluorene #6 (P)
15.002	BB	6.35656e-1	6.66138e-1	4.23435e-1	F	Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.832	BBA	2.59170e-1	1.12653e-1	2.91964e-2		Fluoranthene #9
18.822	BB	1.73225e-1	1.28065e-1	2.21840e-2		Pyrene #10
21.156	BB	18.94365	3.04603e-1	5.77029		p-Terphenyl d14 #11*
22.418		-	-	- 57.7%		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.081	BB	1.67801e-1	1.71513e-1	2.87800e-2		Benzo(b)fluoranthene #14
27.505	BBA	3.48453e-1	3.23787e-2	1.12824e-2		Benzo(k)fluoranthene #15
28.618	BBA	4.28611e-1	9.00618e-2	3.86015e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 815.11374

Results obtained with enhanced integrator!

RR@ 10X

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	2.18555e4	8.31873e-3	181.81034	I	Naphthalene #1
11.054	BB	1205.18494	3.02672e-2	36.47762	NC	Acenaphthylene #2
11.933	MV	4958.46875	1.30710e-2	64.81228	✓	1-Methylnaphthalene #3
12.504	BB	1.64893e4	1.13768e-2	187.59665	I	2-Methylnaphthalene #4
12.965	MF	1185.38367	2.06806e-2	24.51441	✓	Acenaphthene #5 (P)
13.545	MM	1037.35217	1.78099e-2	18.47515	✓	Fluorene #6 (P)
14.979	BB	9.93886	2.98238e-2	2.96414e-1	F	Phenanthrene #7
16.403	BB	38.60181	4.78349e-3	1.84651e-1	<MDL	Anthracene #8
17.662	BB	5.50014	2.75584e-2	1.51575e-1	NC	Fluoranthene #9
18.876	BB	11.72155	1.72573e-2	2.02282e-1	↓	Pyrene #10
21.137	BB	85.48607	6.72763e-2	5.75118		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	- 57.5%		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

419

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 520.27255

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 ***

Search result of : DAD1, 11.051 (101 mAU, -) Ref=10.851 & 11.278
Library used : C:\HPCHEM\SPECLIBS\8310_CCV.UVL
Library Name : 8310 CCV
Parameters : Window 10.499 | 10.499 min

Library search results

#	Match	Entry	Time [min]	Name
1	299.7272	1	10.972	acenaphthylene

*** End of Report ***

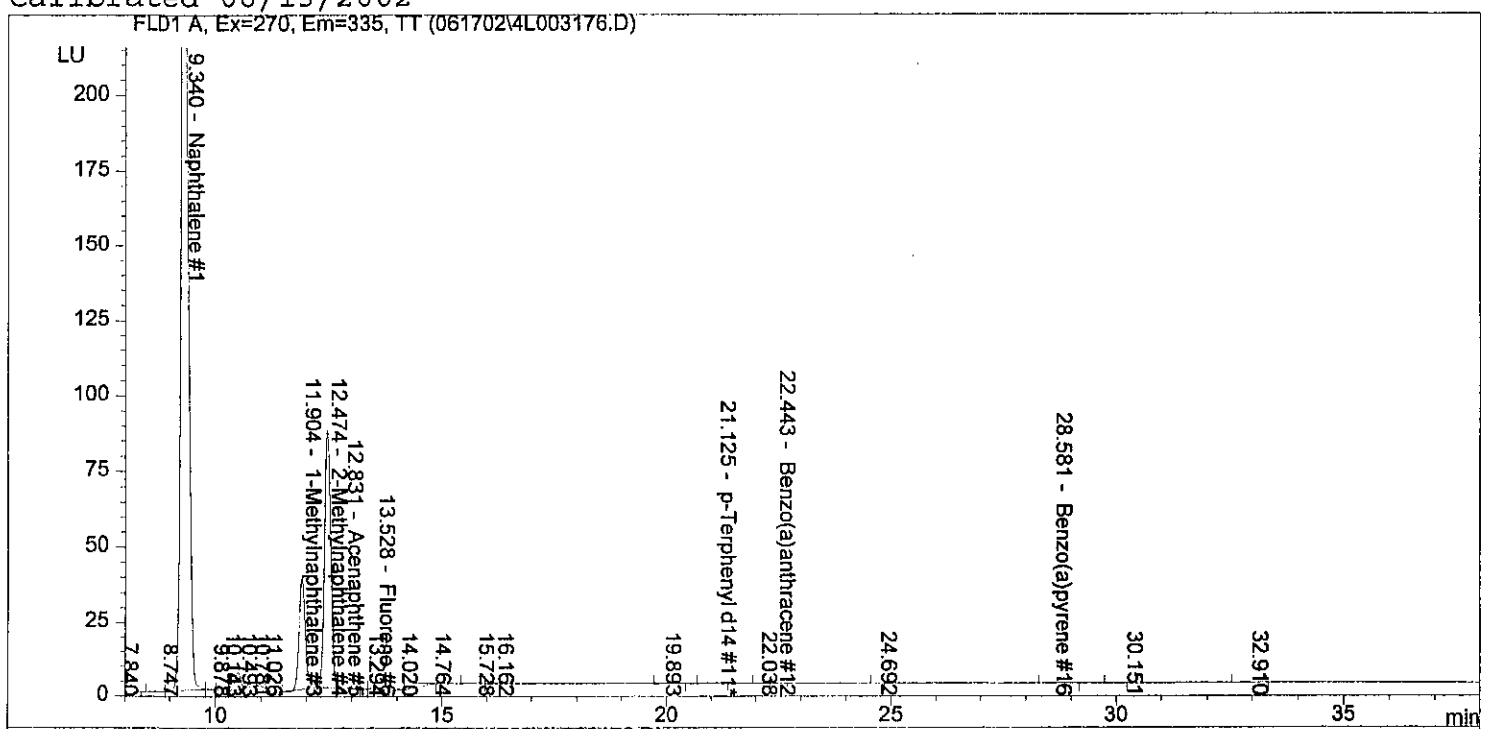
1,10 10X dil'n.

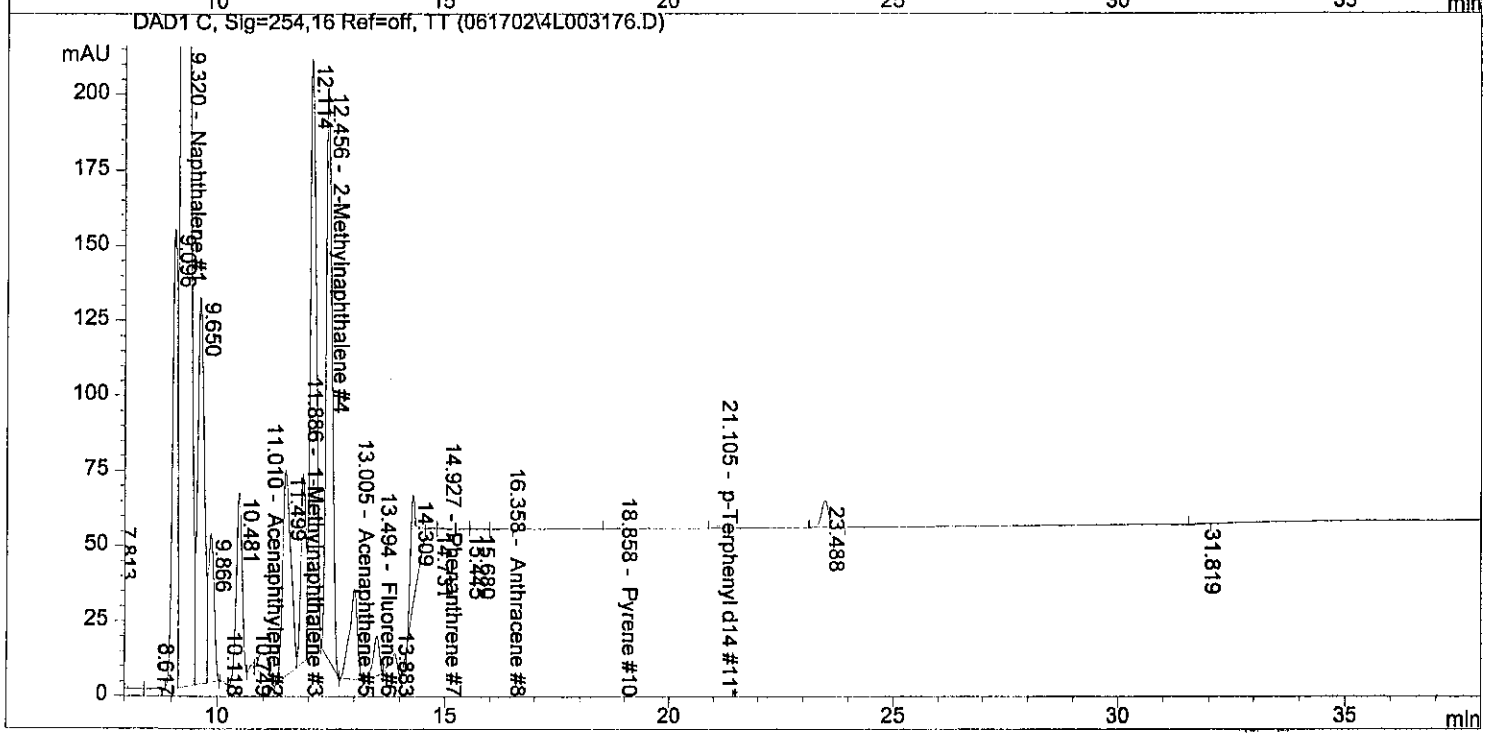
==========

Injection Date : 6/17/2002 1:57:33 PM Seq. Line : 3
Sample Name : L0206140-01 10X Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

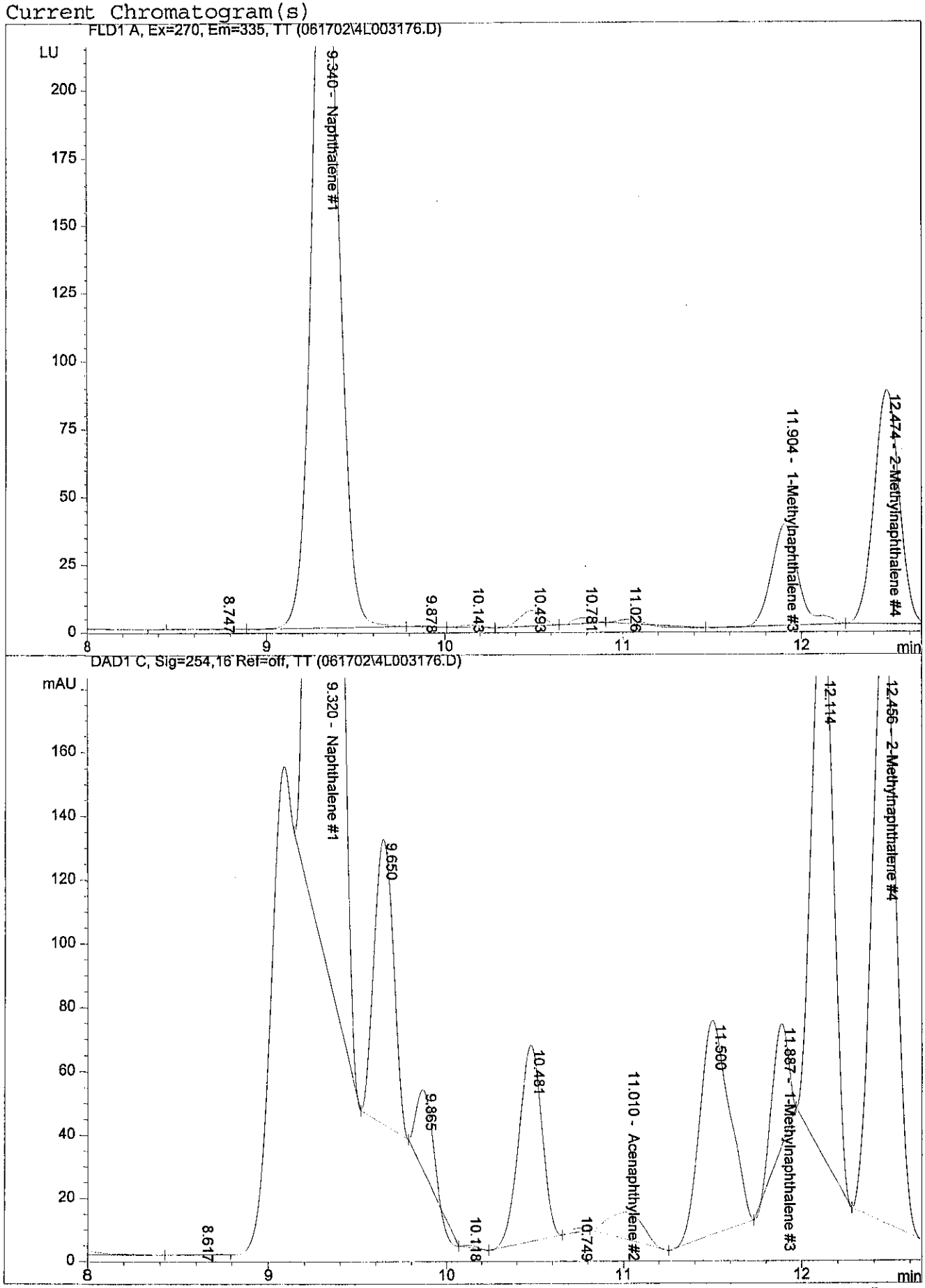
Calibrated 06/13/2002



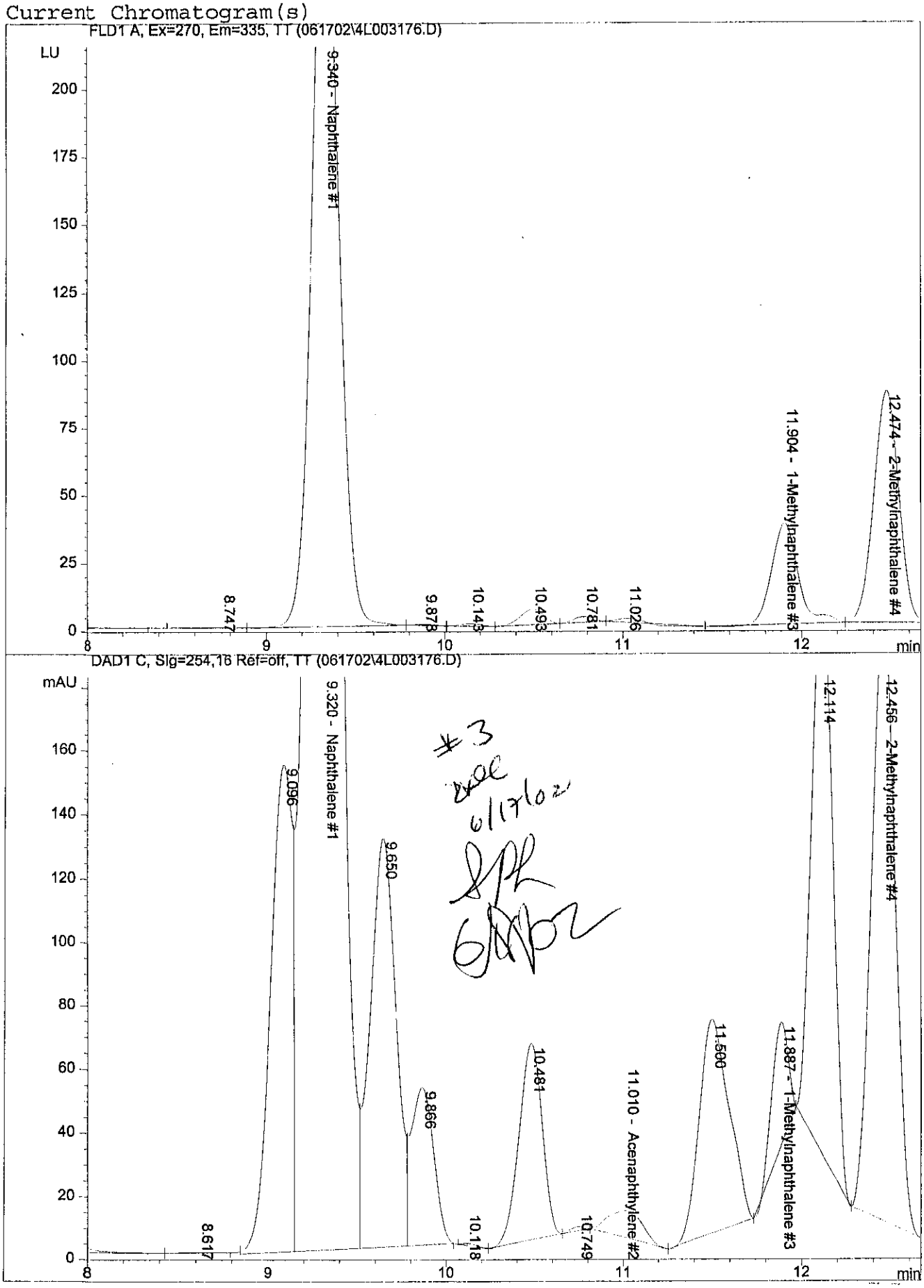


422

Current Chromatogram(s)



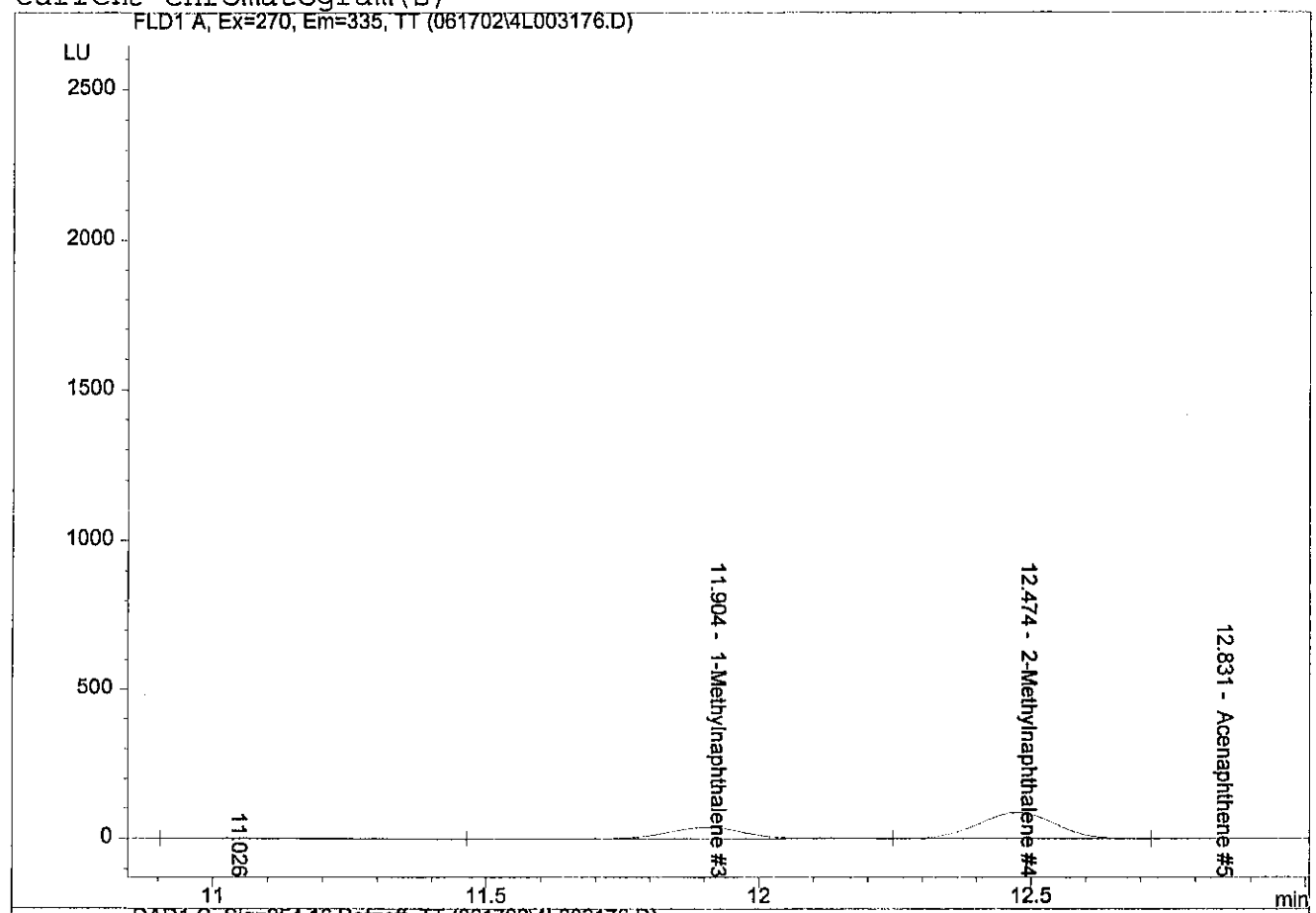
Current Chromatogram(s)

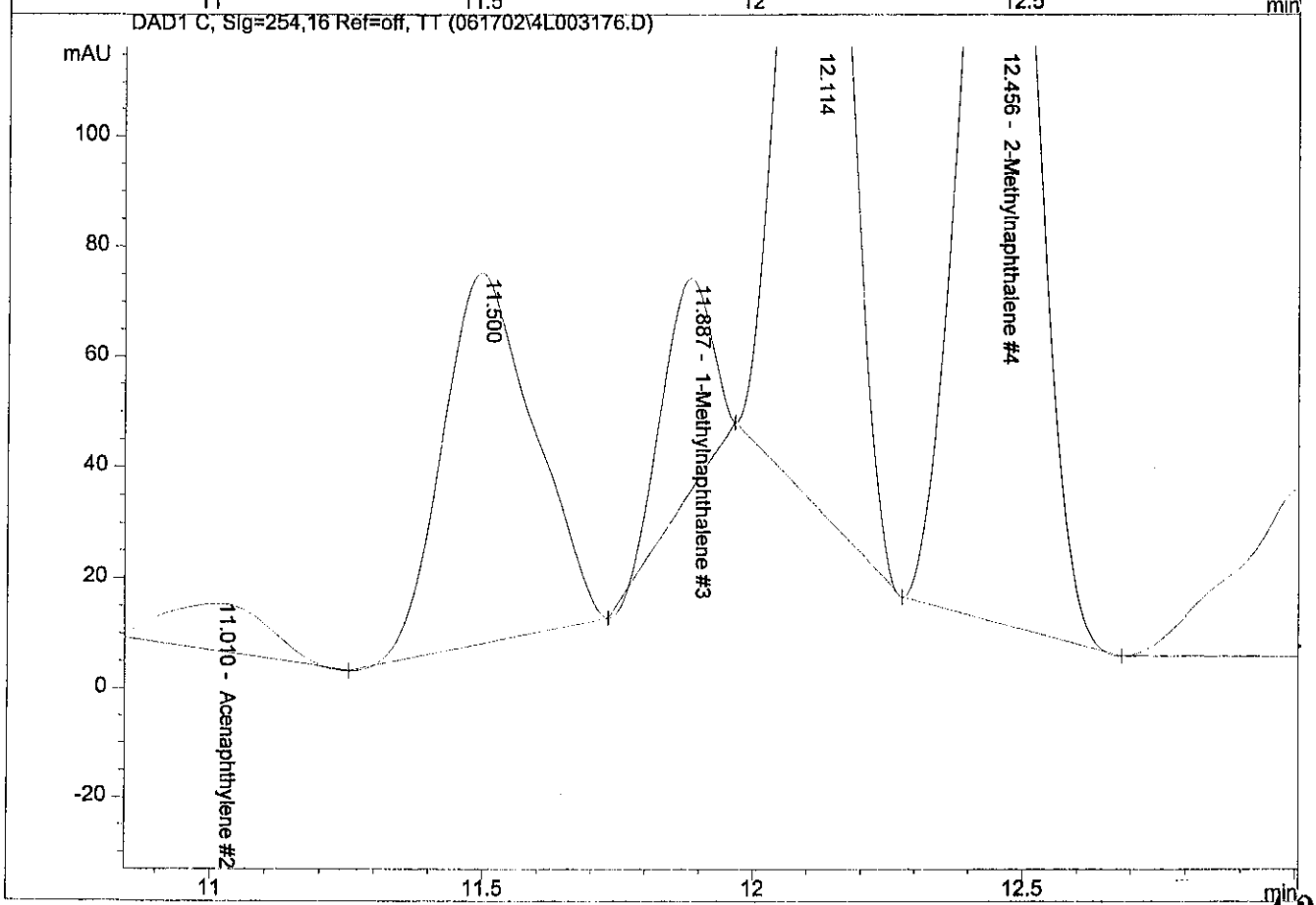


#3
DOC
6/17/02

424

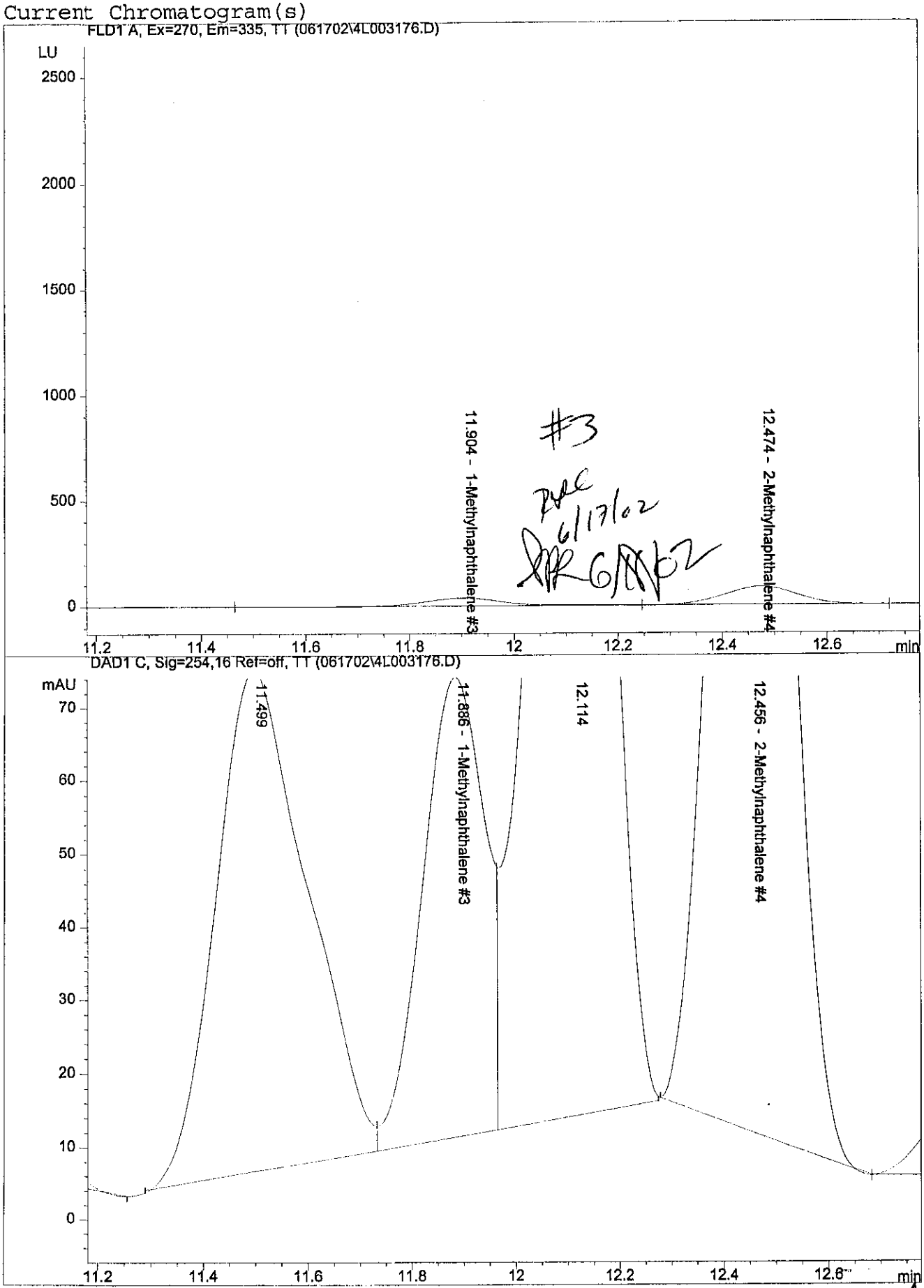
Current Chromatogram(s)





425

Current Chromatogram(s)



426

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.340	BB	2944.43481	2.62682e-2	77.34489		Naphthalene #1
11.904	BB	384.81888	2.33533e-2	8.98678		1-Methylnaphthalene #3
12.474	BB	832.74585	1.78342e-2	14.85133		2-Methylnaphthalene #4
12.831	BB	6.78782	2.00658e-2	1.36203e-1		Acenaphthene #5
13.528	BB	18.21783	1.18210e-3	2.15354e-2		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.779		-	-	-		Fluoranthene #9
18.779		-	-	-		Pyrene #10
21.125	BB	2.09518	4.04428e-1	8.47349e-1		p-Terphenyl d14 #11*
22.443	BB	2.07617e-1	1.44400e-1	2.99799e-2		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.438		-	-	-		Benzo(k)fluoranthene #15
28.581	BB	2.49034e-1	1.51615e-1	3.77574e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 102.25582

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT X10

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.320	VV	9378.94043	8.29985e-3	77.84381		Naphthalene #1
11.010	BB	114.62694	3.16223e-2	3.62477	NC	Acenaphthylene #2
11.886	VV	521.86133	1.31809e-2	6.87861		1-Methylnaphthalene #3
12.456	BB	1729.54602	1.13224e-2	19.58257		2-Methylnaphthalene #4
13.005	BB	372.58798	2.09146e-2	7.79253		Acenaphthene #5
13.494	BB	127.33535	1.89517e-2	2.41323		Fluorene #6
14.927	BB	1.01361	1.38439e-1	1.40323e-1		Phenanthrene #7
16.358	BB	3.63222	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.858	BBA	1.68670	3.45836e-2	5.83323e-2		Pyrene #10
21.105	BBA	8.20580	8.95120e-2	7.34517e-1		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 119.06870

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

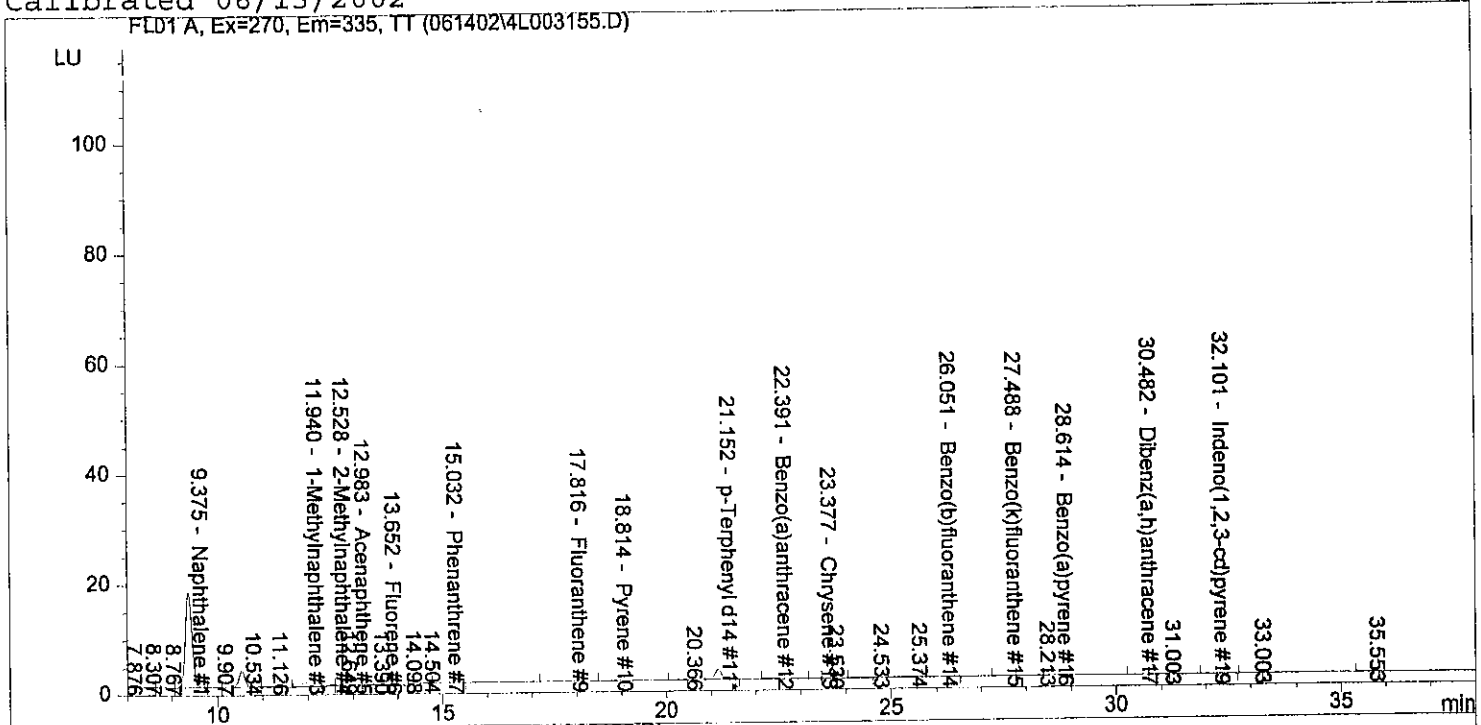
*** End of Report ***

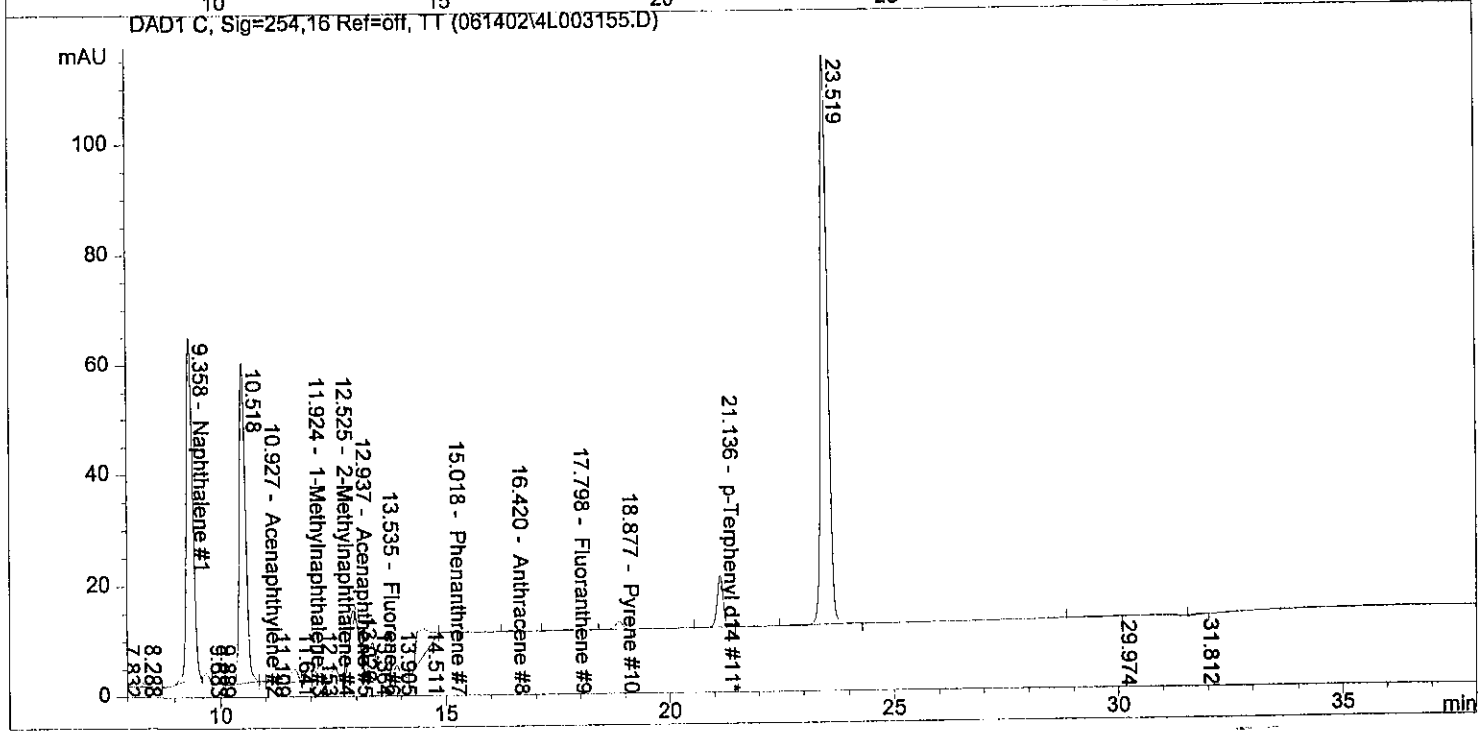
==========

Injection Date : 6/15/2002 10:05:54 AM
Sample Name : L0206140-02 831W
Acq. Operator : RDC

Seq. Line : 25
Vial : 25
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





429

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.375	BB	175.70566	2.74011e-2	4.81453		Naphthalene #1
11.940	BB	9.23482	4.11318e-2	3.79845e-1		1-Methylnaphthalene #3
12.528	BB	6.42699e-1	2.14362e-1	1.37770e-1		2-Methylnaphthalene #4
12.983	BB	14.41481	1.69023e-2	2.43643e-1		Acenaphthene #5
13.652	BB	17.48685	9.53572e-4	1.66750e-2		Fluorene #6
15.032	BB	5.66102e-1	7.26936e-1	4.11520e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.816	BBA	9.82249e-1	4.83738e-2	4.75151e-2		Fluoranthene #9
18.814	BBA	4.65446e-1	7.36232e-2	3.42676e-2		Pyrene #10
21.152	BBA	19.54910	3.04218e-1	5.94719	59.5%	p-Terphenyl d14 #11*
22.391	BB	2.68631e-1	1.13449e-1	3.04760e-2		Benzo(a)anthracene #12
23.377	BB	1.47576e-1	2.02201e-1	2.98401e-2		Chrysene #13
26.051	BBA	2.01741e-1	1.45501e-1	2.93535e-2		Benzo(b)fluoranthene #14
27.488	BB	4.21055e-1	2.72801e-2	1.14864e-2		Benzo(k)fluoranthene #15
28.614	BB	3.04736e-1	1.24761e-1	3.80192e-2		Benzo(a)pyrene #16
30.482	BB	2.53885e-1	1.89113e-1	4.80131e-2		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.101	BBA	1.89215e-1	1.67342e-1	3.16637e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 12.25181

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	578.93011	7.79719e-3	4.51403		Naphthalene #1
10.927	BB	5.49157e-1	3.42705e-1	1.88199e-1	<MDL	Acenaphthylene #2
11.924	BB	7.13651	2.20397e-2	1.57287e-1		1-Methylnaphthalene #3
12.525	BB	23.74537	6.95106e-3	1.65056e-1		2-Methylnaphthalene #4
12.937	BB	5.68693	4.29361e-2	2.44175e-1		Acenaphthene #5
13.535	BB	2.65927	7.99750e-2	2.12676e-1		Fluorene #6
15.018	BB	4.25068	4.63303e-2	1.96935e-1		Phenanthrene #7
16.420	BB	2.57750	0.00000	0.00000		Anthracene #8
17.798	BB	3.41935	3.10610e-2	1.06208e-1	NC	Fluoranthene #9
18.877	BBA	16.25121	1.64456e-2	2.67260e-1	NC	Pyrene #10
21.136	BBA	88.12862	6.72055e-2	5.92272		p-Terphenyl d14 #11*
22.401		-	-	-	59.2%	Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

430

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 11.97455

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

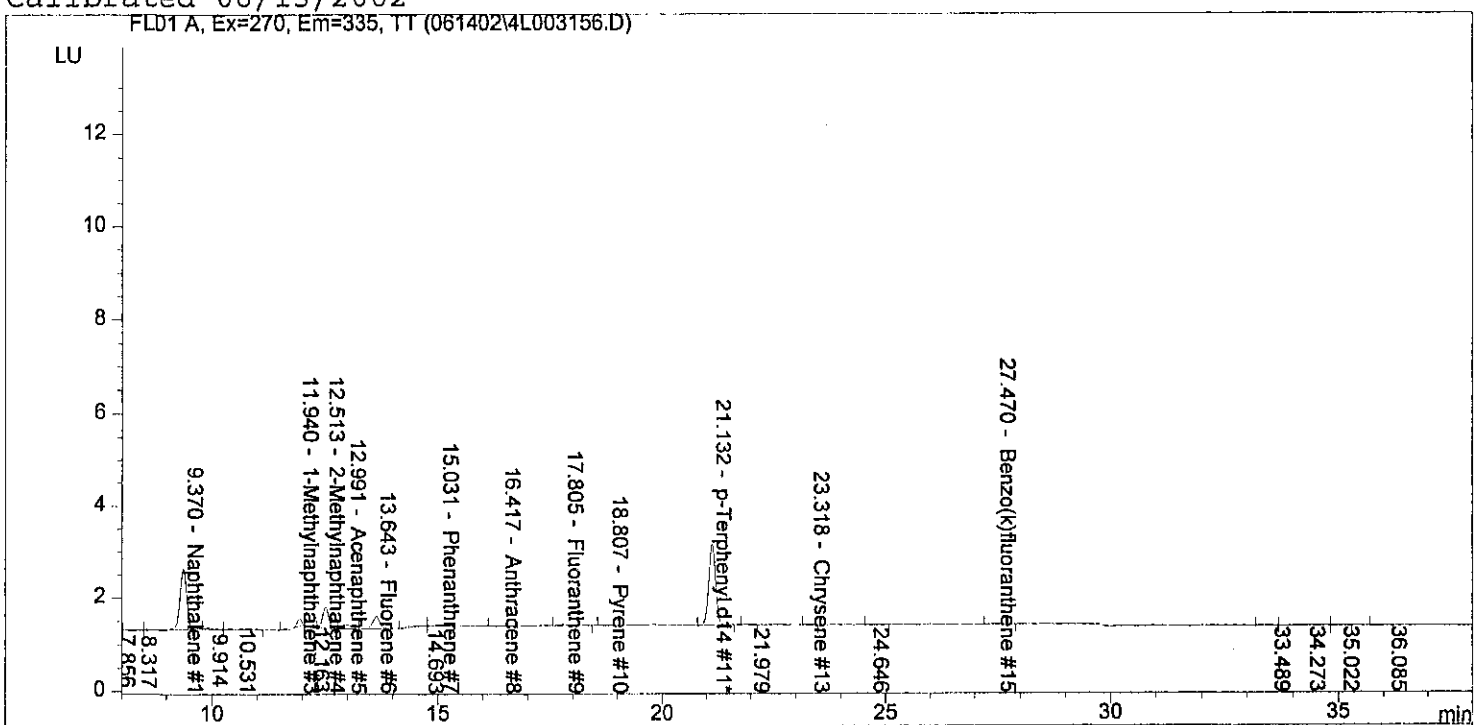
1,1

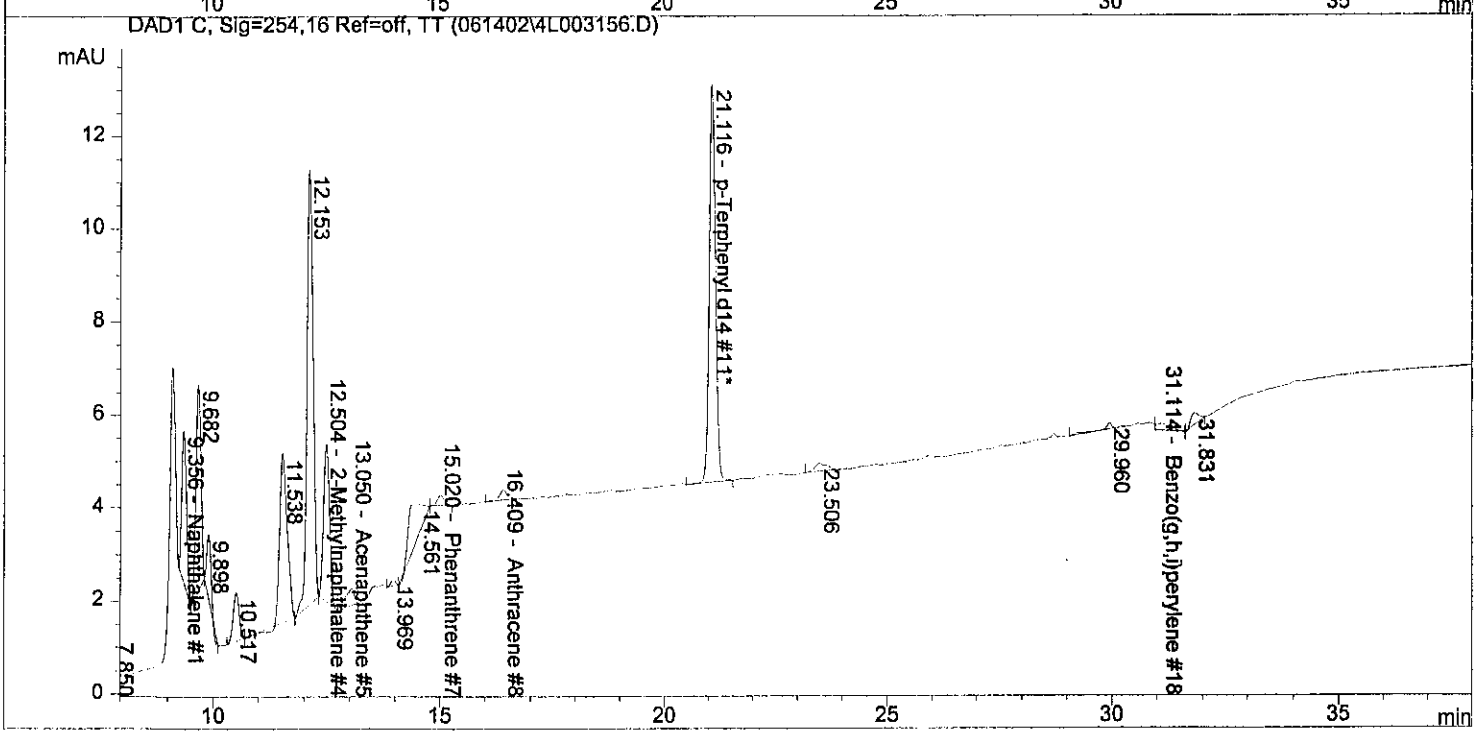
==========

Injection Date : 6/15/2002 11:02:29 AM
Sample Name : L0206140-03 831W
Acq. Operator : RDC

Seq. Line : 26
Vial : 26
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





432

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	BB	13.05578	4.24115e-2	5.53715e-1		Naphthalene #1
11.940	BB	8.35998e-1	2.24135e-1	1.87376e-1		1-Methylnaphthalene #3
12.513	BB	4.31278	4.69919e-2	2.02666e-1		2-Methylnaphthalene #4
12.991	BB	9.55641e-1	5.65548e-2	5.40461e-2		Acenaphthene #5
13.643	BB	2.87578	0.00000	0.00000		Fluorene #6
15.031	BB	1.98059e-1	1.75944	3.48474e-1		Phenanthrene #7
16.417	BB	2.28454e-1	4.25072e-1	9.71095e-2		Anthracene #8
17.805	BBA	5.39008e-1	6.73197e-2	3.62859e-2		Fluoranthene #9
18.807	PBA	2.11277e-1	1.12447e-1	2.37575e-2		Pyrene #10
21.132	BBA	18.15875	3.05139e-1	5.54095		p-Terphenyl d14 #11*
22.418		-	-	-		Benzo(a)anthracene #12
23.318	BB	2.19590e-1	1.48955e-1	3.27089e-2		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.470	PBA	3.15333e-1	3.54844e-2	1.11894e-2		Benzo(k)fluoranthene #15
28.553		-	-	-		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.08827

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	23.94150	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.504	BB	32.11709	8.10636e-3	2.60353e-1	LOQ	2-Methylnaphthalene #4
13.050	BB	4.87141	4.66799e-2	2.27397e-1		Acenaphthene #5
13.606		-	-	-		Fluorene #6
15.020	BB	2.61669	6.43405e-2	1.68359e-1		Phenanthrene #7
16.409	PB	2.86454	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.116	BBA	81.80013	6.73826e-2	5.51191		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

55.1%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.114	BB	3.31443	4.16989e-2	1.38208e-1		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.30623

Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

434

1,1

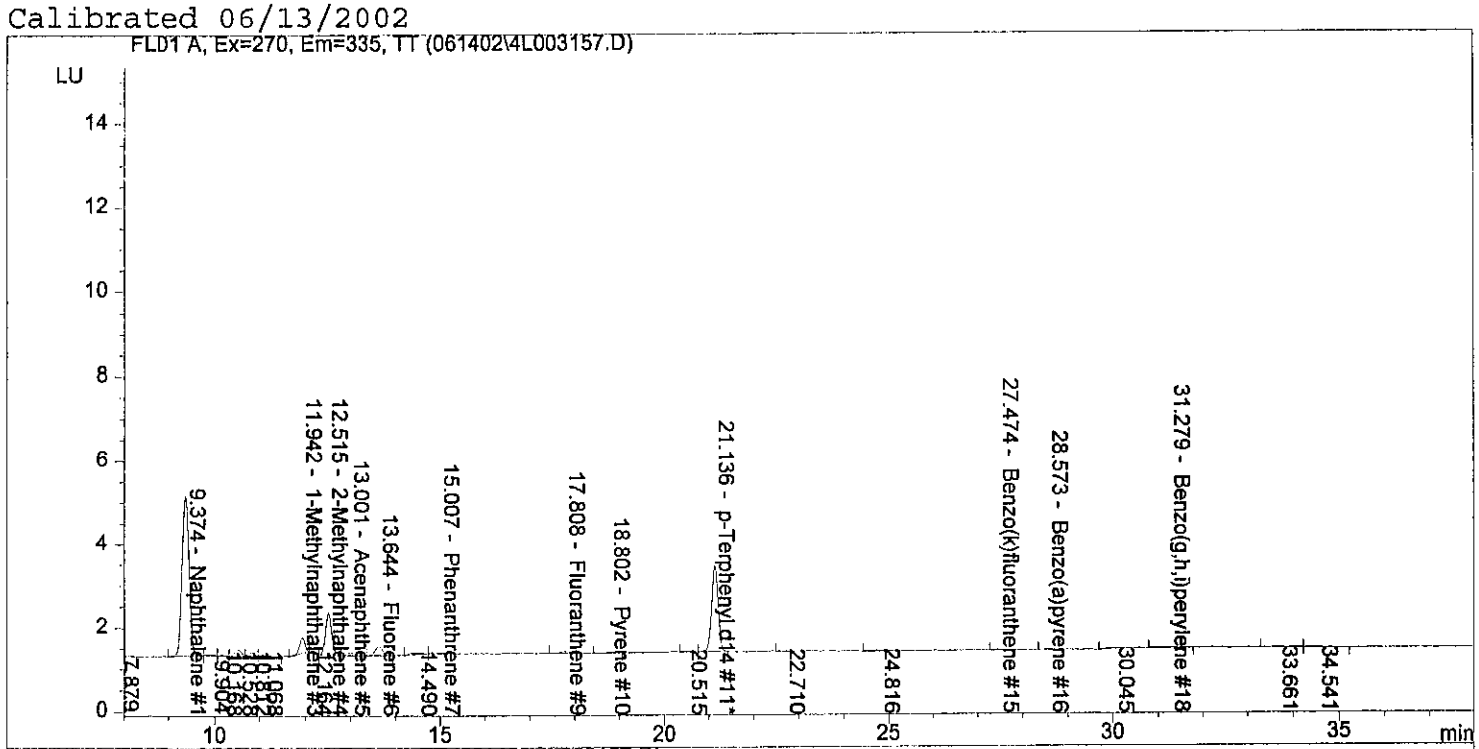
==========

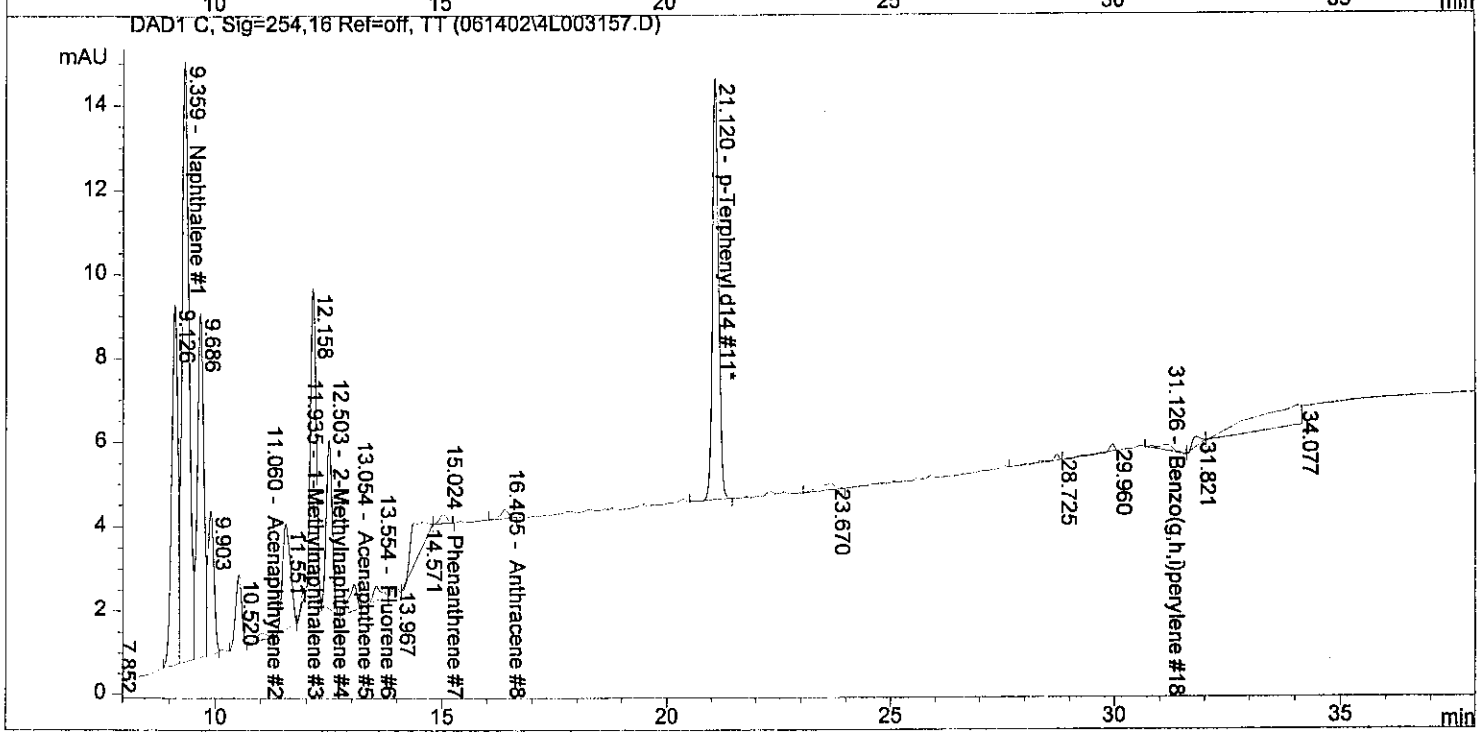
Injection Date : 6/15/2002 11:59:07 AM
Sample Name : L0206140-04 831W
Acq. Operator : RDC

Seq. Line : 27
Vial : 27
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

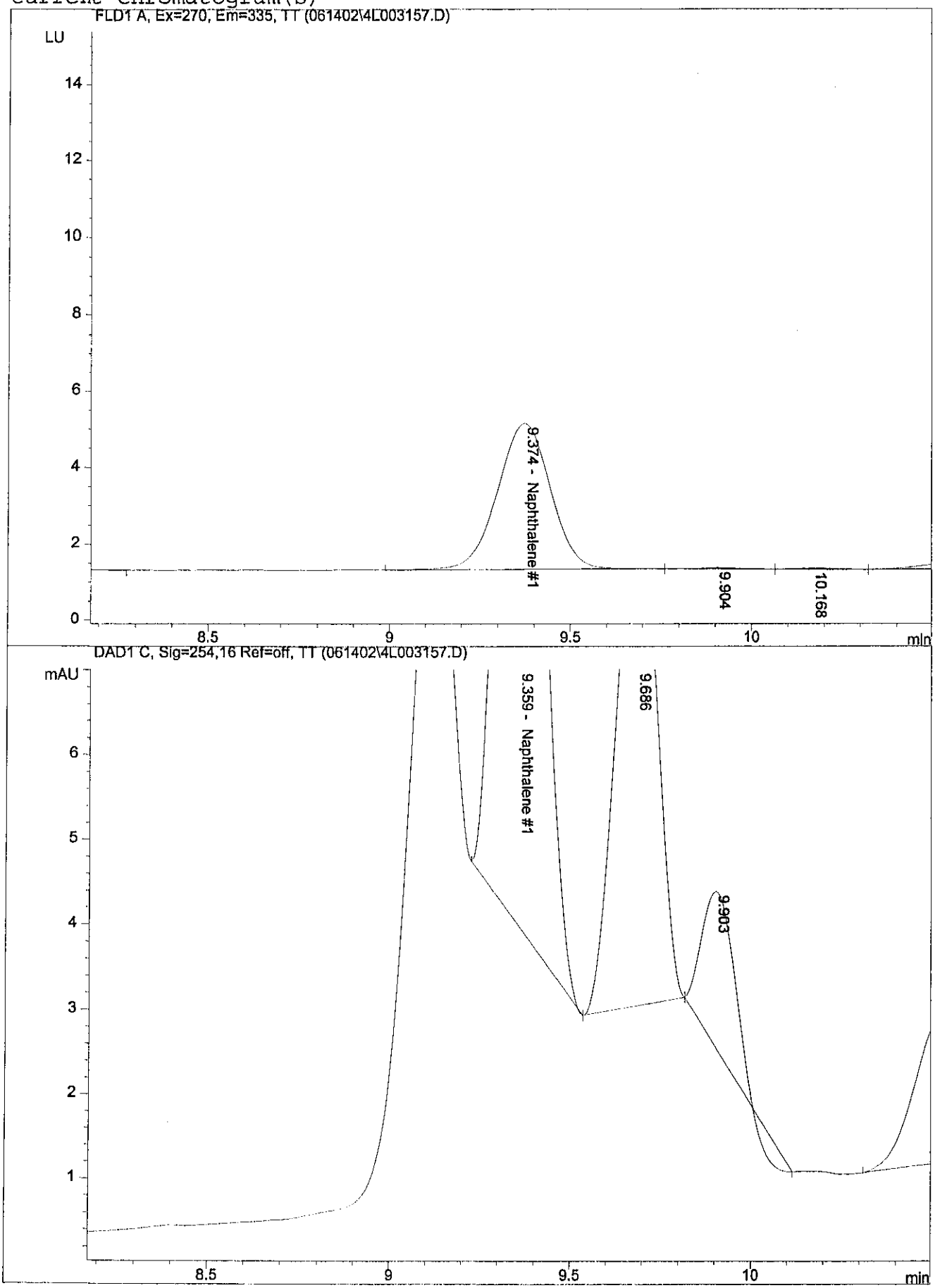
Calibrated 06/13/2002



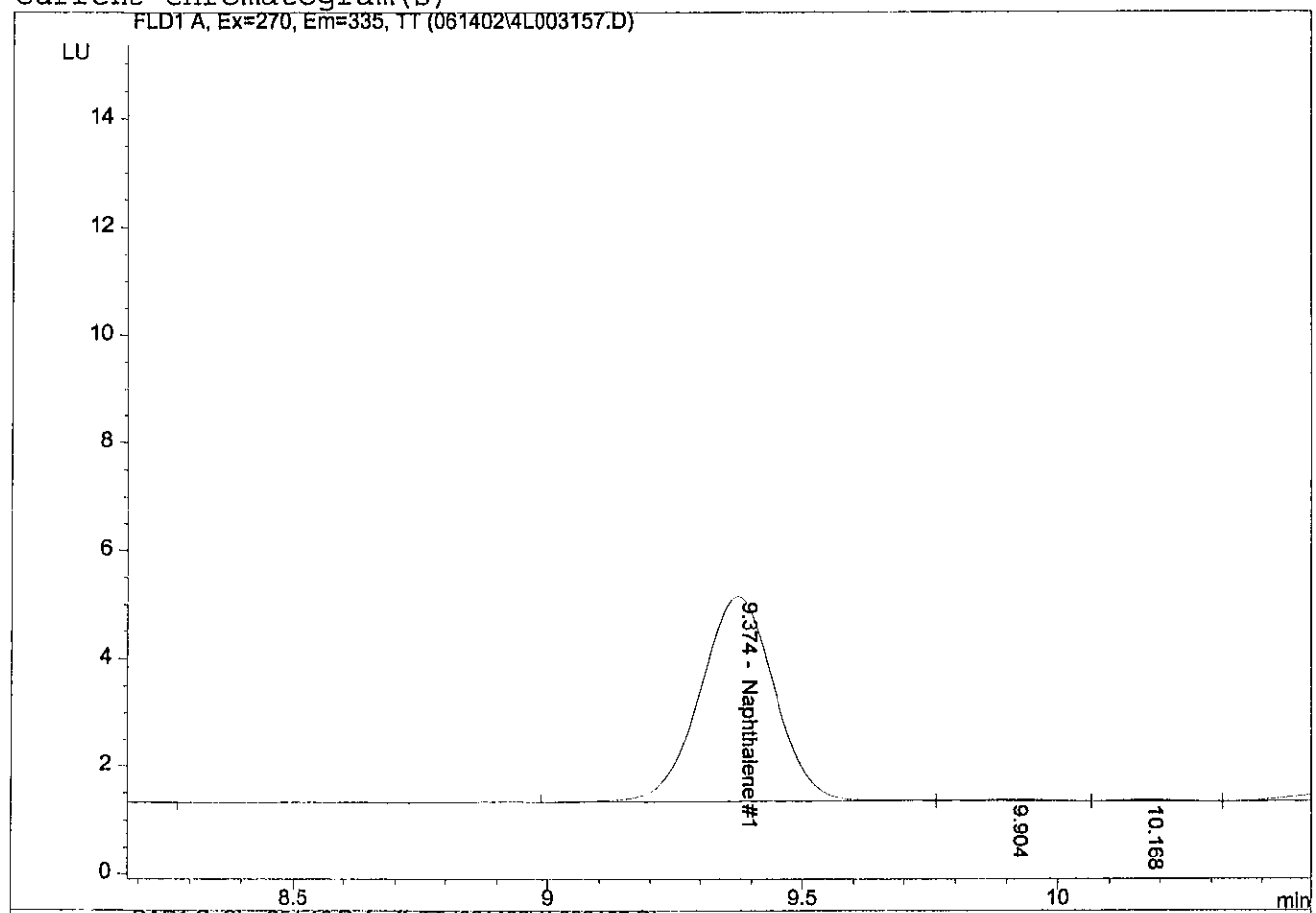


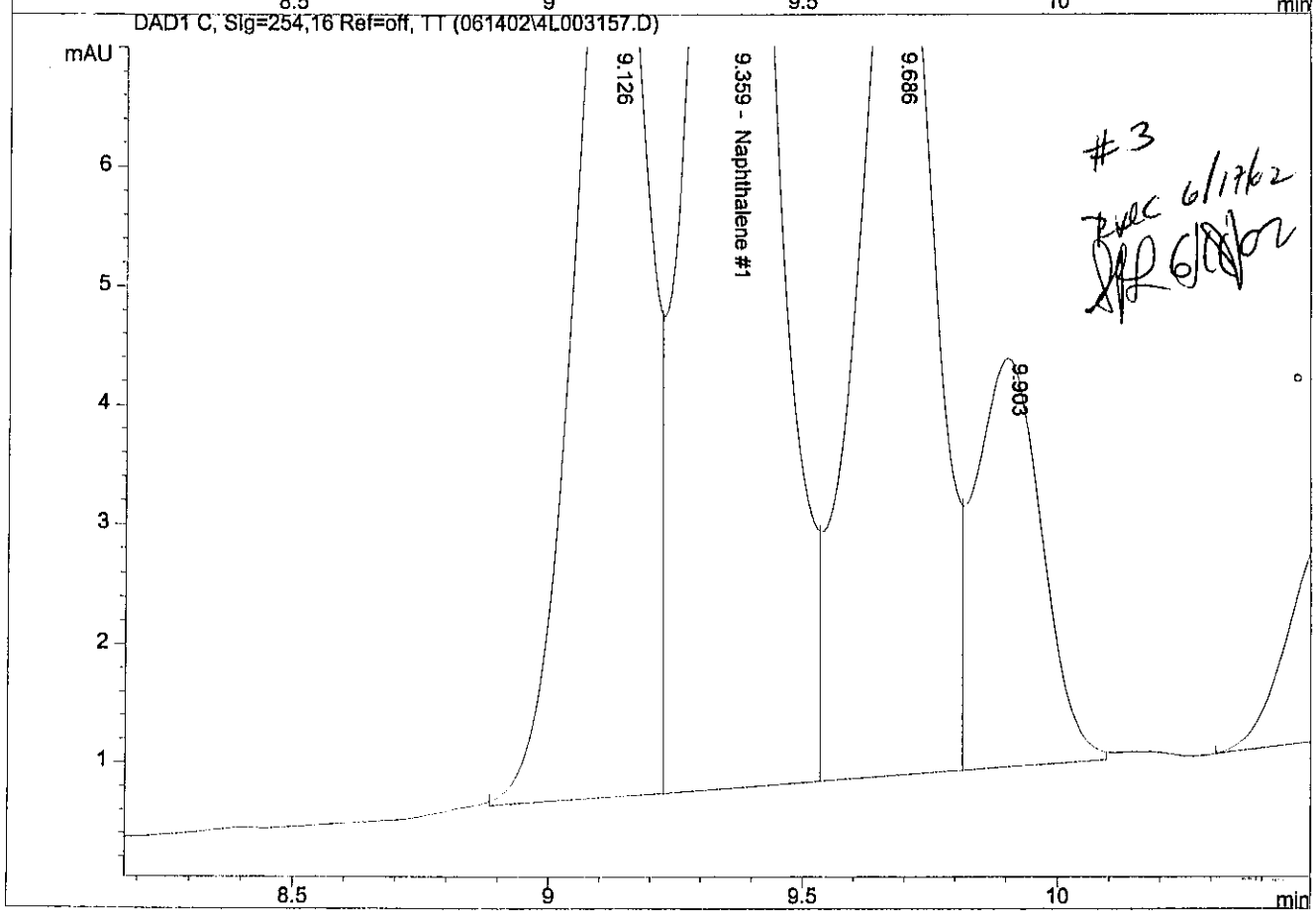
435

Current Chromatogram(s)



Current Chromatogram(s)





#3
Rec 6/17/02
6/18/02

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	BB	38.96923	3.16288e-2	1.23255		Naphthalene #1
11.942	BB	3.22399	7.50932e-2	2.42100e-1		1-Methylnaphthalene #3
12.515	BB	9.88793	3.04662e-2	3.01248e-1		2-Methylnaphthalene #4
13.001	BB	8.06443e-1	6.44117e-2	5.19444e-2		Acenaphthene #5
13.644	BB	2.65639	0.00000	0.00000		Fluorene #6
15.007	BB	2.12530e-1	1.65131	3.50953e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.808	BB	5.29163e-1	6.81008e-2	3.60365e-2		Fluoranthene #9
18.802	BB	3.14608e-1	8.90961e-2	2.80303e-2		Pyrene #10
21.136	BB	20.77257	3.03510e-1	6.30468		p-Terphenyl d14 #11*
22.418		-	-	-		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.474	PBA	4.18024e-1	2.74575e-2	1.14779e-2		Benzo(k)fluoranthene #15
28.573	BB	2.68190e-1	1.41122e-1	3.78475e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.279	BB	2.44499e-1	1.95454e-1	4.77881e-2		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

63.1%

Totals : 8.64465

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	VV	144.02266	6.17945e-3	8.89981e-1	F	Naphthalene #1
11.060	BB	2.80207	9.13851e-2	2.56067e-1		Acenaphthylene #2
11.935	BB	1.13009	6.97770e-2	7.88540e-2		1-Methylnaphthalene #3
12.503	BB	37.58309	8.58294e-3	3.22573e-1		2-Methylnaphthalene #4
13.054	BB	8.15173	3.61744e-2	2.94884e-1		Acenaphthene #5
13.554	BB	4.48659	5.45911e-2	2.44928e-1		Fluorene #6
15.024	BB	2.51610	6.62134e-2	1.66600e-1		Phenanthrene #7
16.405	BBA	2.67339	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.120	BBA	94.75762	6.70452e-2	6.35305		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

amol

63.5%

438

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.126	BB	3.02421	4.05390e-2	1.22598e-1		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.72953

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

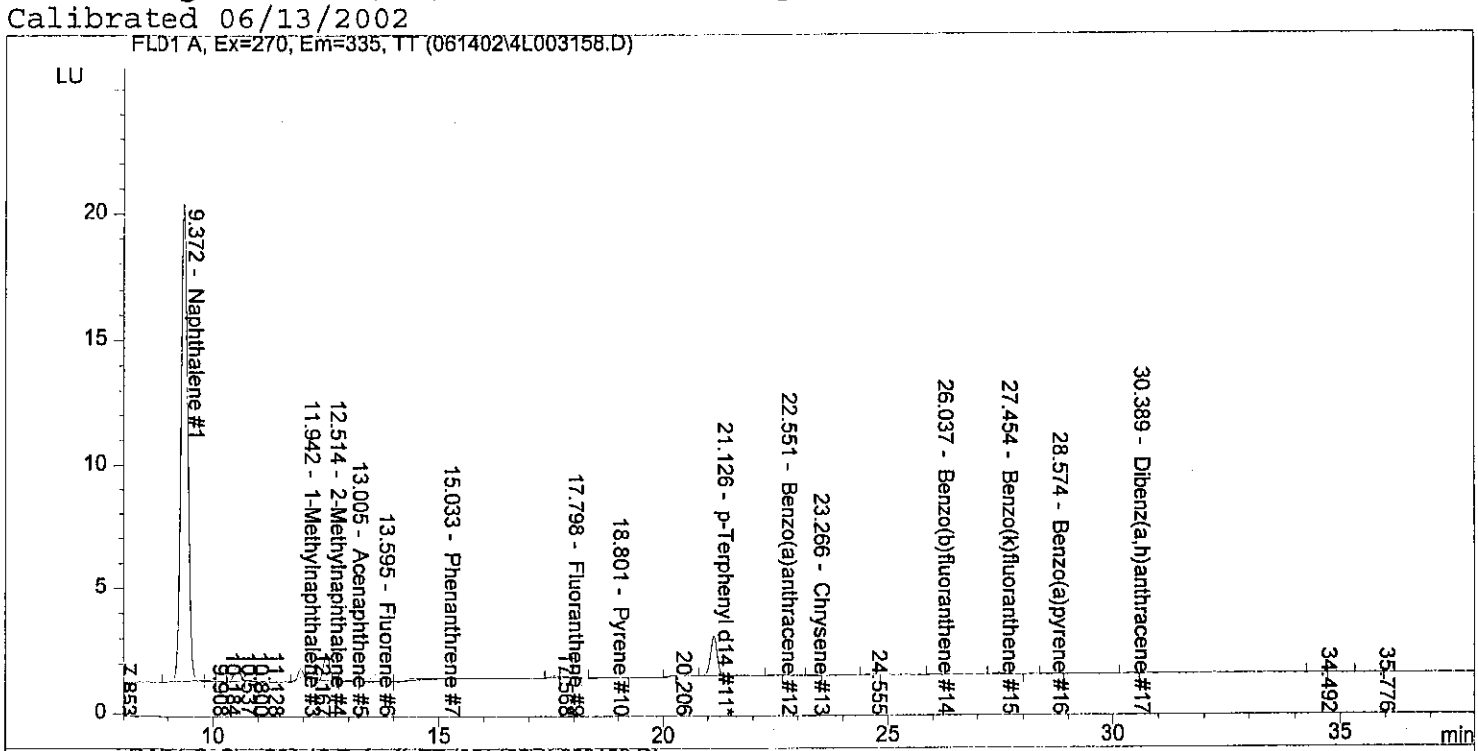
1,1

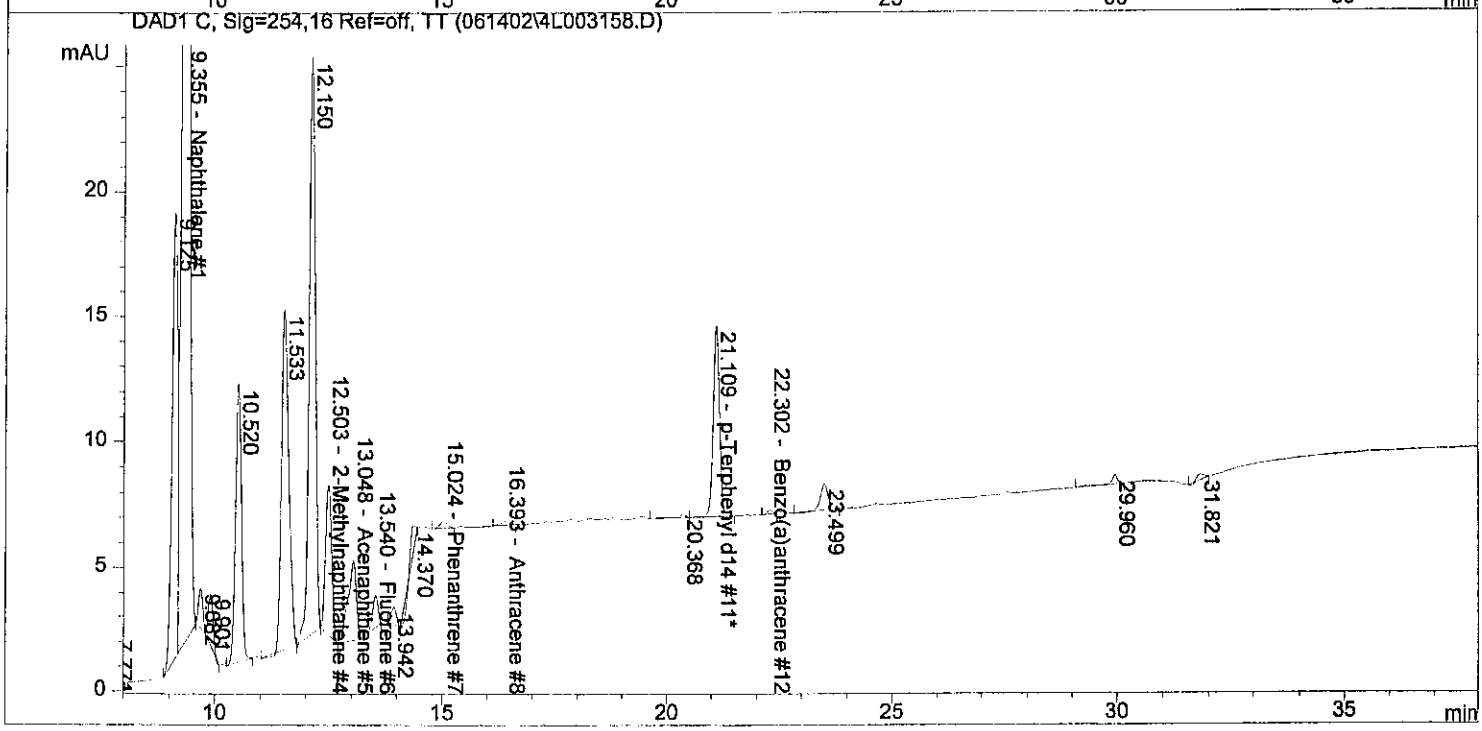
==========

Injection Date : 6/15/2002 12:55:44 PM
Sample Name : L0206140-05 831W
Acq. Operator : RDC

Seq. Line : 28
Vial : 28
Inj : 1
Inj Volume : 8 µl

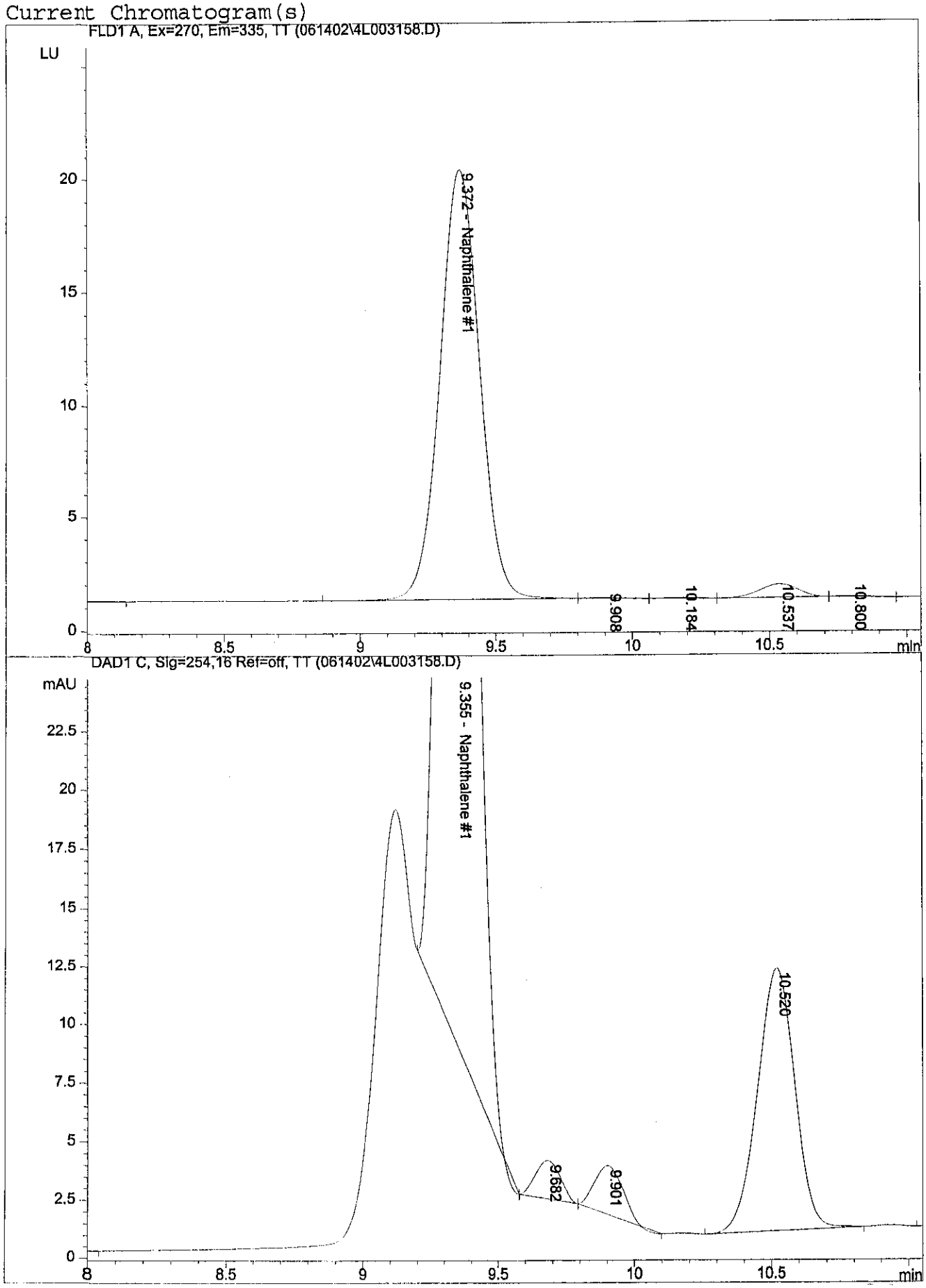
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002



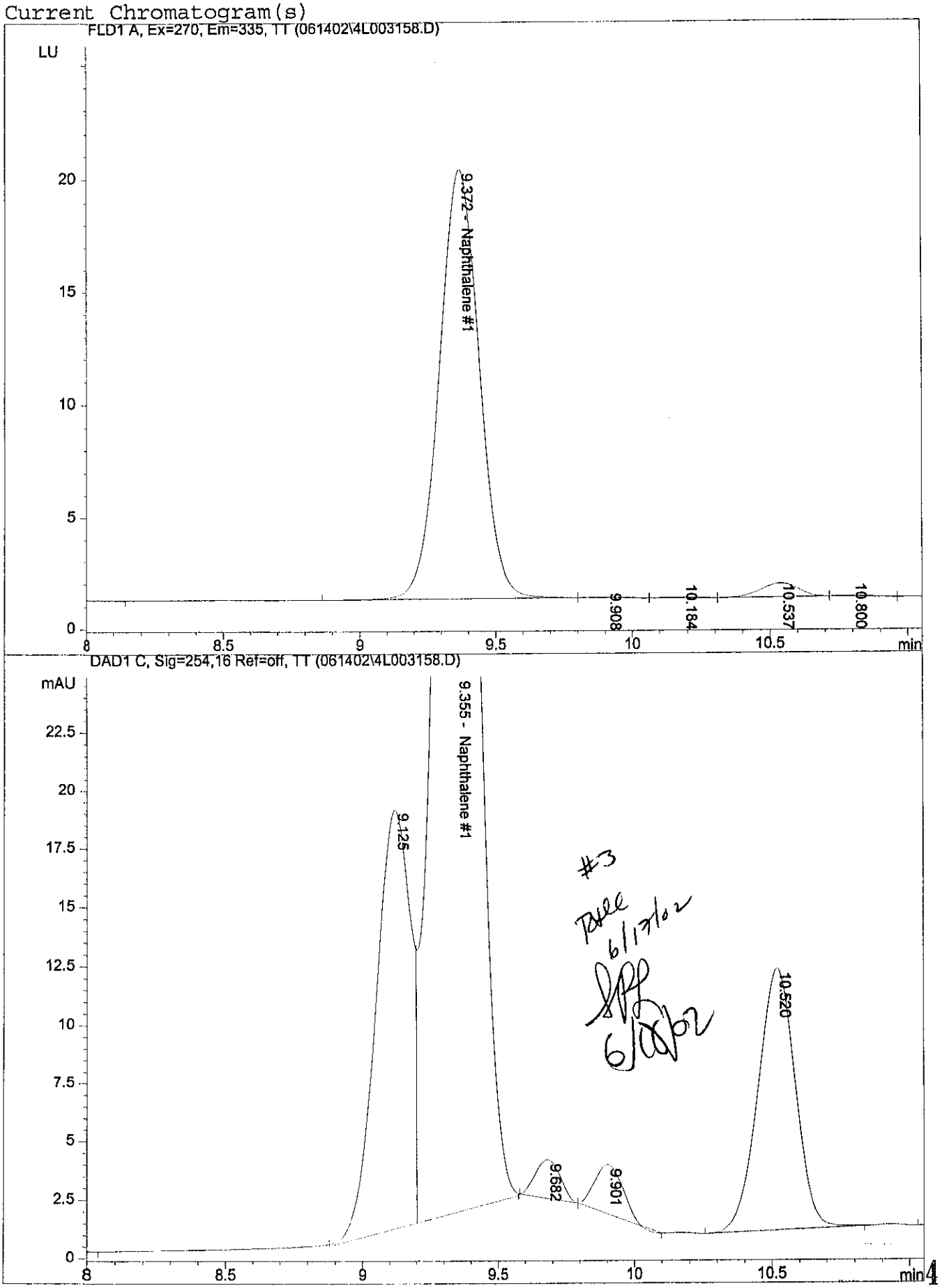


440

Current Chromatogram(s)



Current Chromatogram(s)



#3
6/17/02
6/18/02

442

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.372	BB	194.34058	2.72856e-2	5.30270	C	Naphthalene #1
11.942	BB	2.55641	8.87188e-2	2.26801e-1		1-Methylnaphthalene #3
12.514	BB	10.41195	2.98228e-2	3.10514e-1		2-Methylnaphthalene #4
13.005	BB	7.55711e-1	6.77901e-2	5.12297e-2		Acenaphthene #5
13.595	BB	3.99257	0.00000	0.00000		Fluorene #6
15.033	BB	3.22589	2.68808e-1	8.67145e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.798	BBA	1.92726e-1	1.42757e-1	2.75131e-2		Fluoranthene #9
18.801	BBA	5.40311e-1	6.91515e-2	3.73634e-2		Pyrene #10
21.126	BB	15.97361	3.06911e-1	4.90247	49.1%	p-Terphenyl d14 #11*
22.551	BB	2.63288e-1	1.15587e-1	3.04326e-2		Benzo(a)anthracene #12
23.266	BB	3.06790e-1	1.17939e-1	3.61827e-2		Chrysene #13
26.037	BB	1.95765e-1	1.49427e-1	2.92525e-2		Benzo(b)fluoranthene #14
27.454	BB	8.88933e-1	1.44002e-2	1.28008e-2		Benzo(k)fluoranthene #15
28.574	BB	3.73491e-1	1.02659e-1	3.83424e-2		Benzo(a)pyrene #16
30.389	BB	1.66554e-1	2.67351e-1	4.45285e-2		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 11.91728

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
9.355	VM	647.63312	7.85403e-3	5.08653		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-	NC	1-Methylnaphthalene #3
12.503	BB	56.76748	9.52929e-3	5.40954e-1		2-Methylnaphthalene #4
13.048	BB	41.38812	2.36460e-2	9.78665e-1	NC	Acenaphthene #5
13.540	BB	12.13578	3.13072e-2	3.79937e-1		Fluorene #6
15.024	BB	3.23026	5.54412e-2	1.79089e-1		Phenanthrene #7
16.393	BBA	2.00322	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-	49.2%	Pyrene #10
21.109	BBA	72.61064	6.76949e-2	4.91537		p-Terphenyl d14 #11*
22.302	BB	1.46589	3.95753e-2	5.80130e-2	NC	Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 12.13856

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

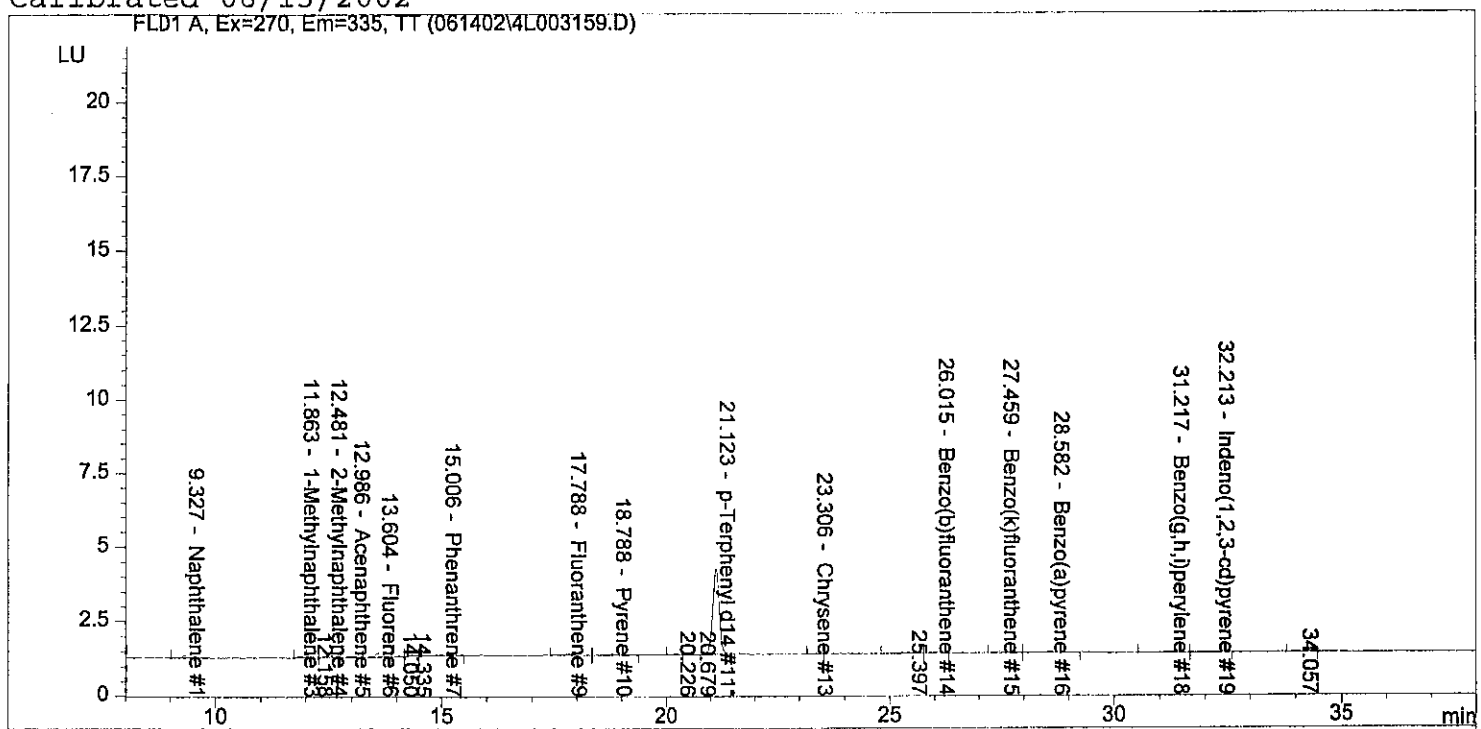
1,1

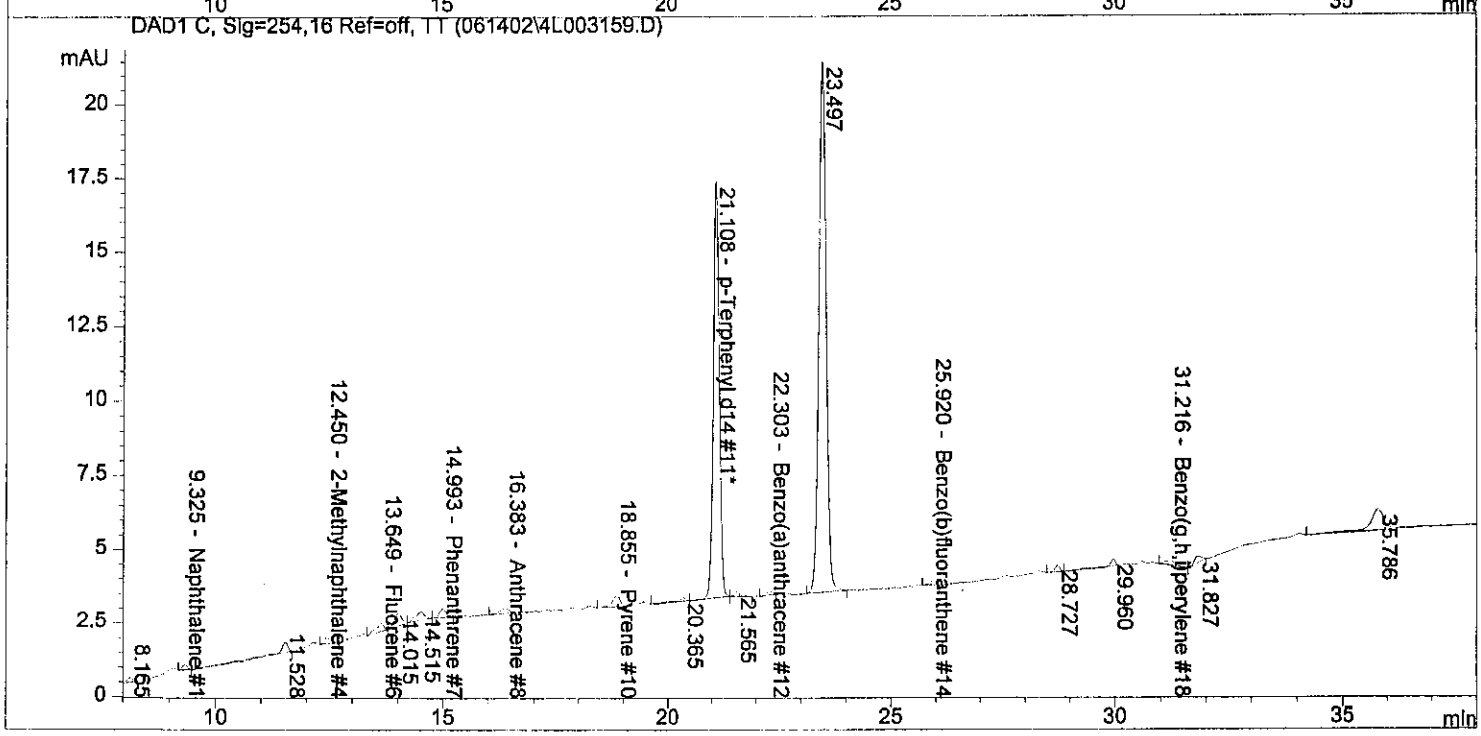
==========

Injection Date : 6/15/2002 1:52:21 PM
Sample Name : L0206140-06 831W
Acq. Operator : RDC

Seq. Line : 29
Vial : 29
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.327	BB	7.72139e-1	3.00373e-1	2.31929e-1		Naphthalene #1
11.863	BB	2.91100e-1	6.00789e-1	1.74889e-1		1-Methylnaphthalene #3
12.481	BB	9.40582e-1	1.52073e-1	1.43037e-1		2-Methylnaphthalene #4
12.986	BB	3.54601e-1	1.28537e-1	4.55793e-2		Acenaphthene #5
13.604	BB	1.62295	0.00000	0.00000		Fluorene #6
15.006	BBA	6.04402e-1	6.91727e-1	4.18081e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.788	BB	6.67510e-1	5.92371e-2	3.95414e-2		Fluoranthene #9
18.788	BB	5.09143e-1	7.08534e-2	3.60745e-2		Pyrene #10
21.123	BB	29.97228	3.00035e-1	8.99273		p-Terphenyl d14 #11*
22.418		-	-	-		Benzo(a)anthracene #12
23.306	BB	1.62390e-1	1.87390e-1	3.04303e-2		Chrysene #13
26.015	BBA	2.63564e-1	1.15336e-1	3.03983e-2		Benzo(b)fluoranthene #14
27.459	BB	7.34471e-1	1.68378e-2	1.23669e-2		Benzo(k)fluoranthene #15
28.582	BB	6.91140e-1	5.76372e-2	3.98354e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.217	BB	4.75288e-1	1.14233e-1	5.42935e-2		Benzo(g,h,i)perylene #18
32.213	BB	4.27855e-1	8.18002e-2	3.49986e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 10.28418

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
9.325	BB	1.40719	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.450	BB	2.02511	0.00000	0.00000		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.649	BB	3.33756	6.73089e-2	2.24647e-1	cmx	Fluorene #6
14.993	BB	3.33429	5.42570e-2	1.80909e-1	↓	Phenanthrene #7
16.383	BBA	2.49147	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.855	BB	4.55722	2.18357e-2	9.95098e-2	93.4%	Pyrene #10
21.108	BB	133.03488	6.64324e-2	8.83782		p-Terphenyl d14 #11*
22.303	PB	1.22764	4.29386e-2	5.27129e-2	NC	Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.920	BBA	1.02990	5.63899e-2	5.80759e-2	NC	Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.216	BB	1.90199	3.27232e-2	6.22393e-2	NC	Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.51592

Results obtained with enhanced integrator!
6 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (2-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

447

1,1 L0206140-07 REF

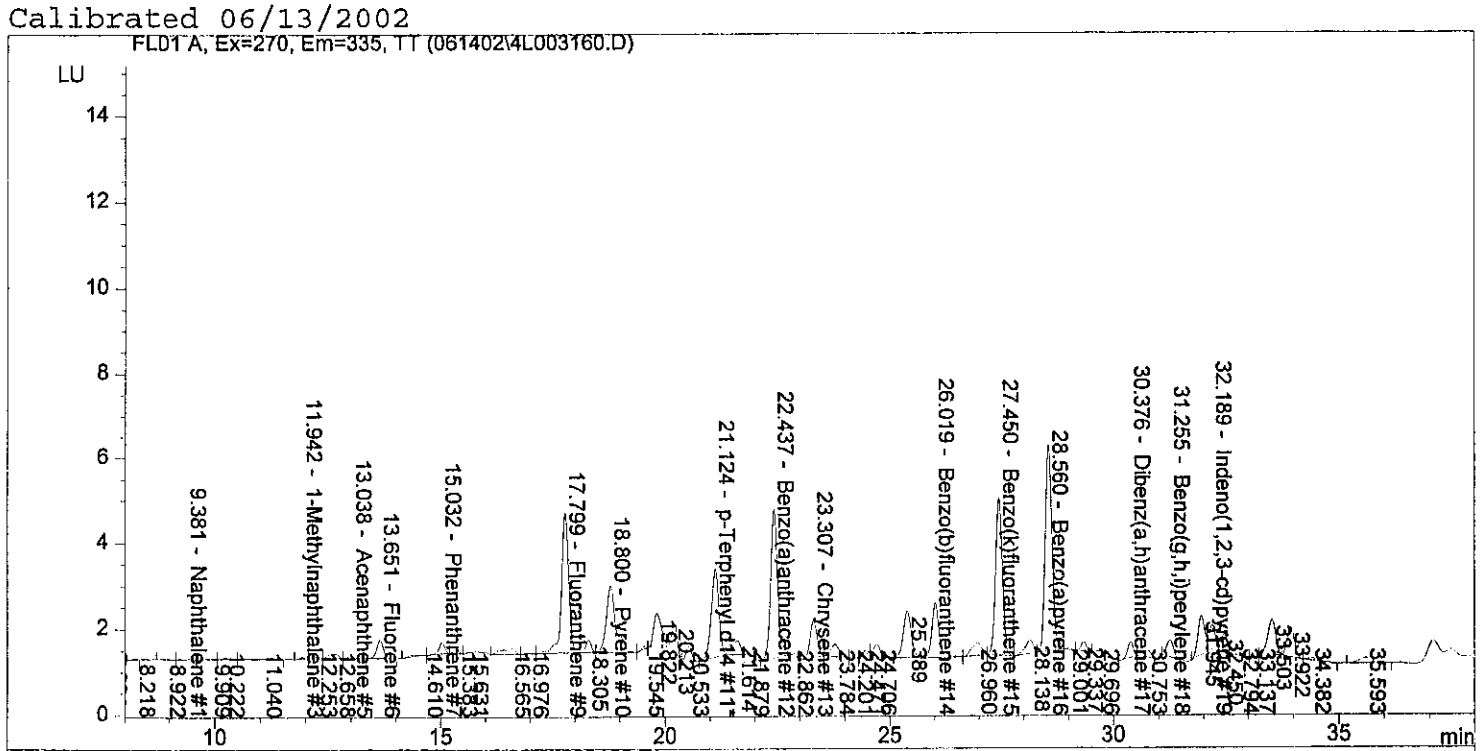
==========

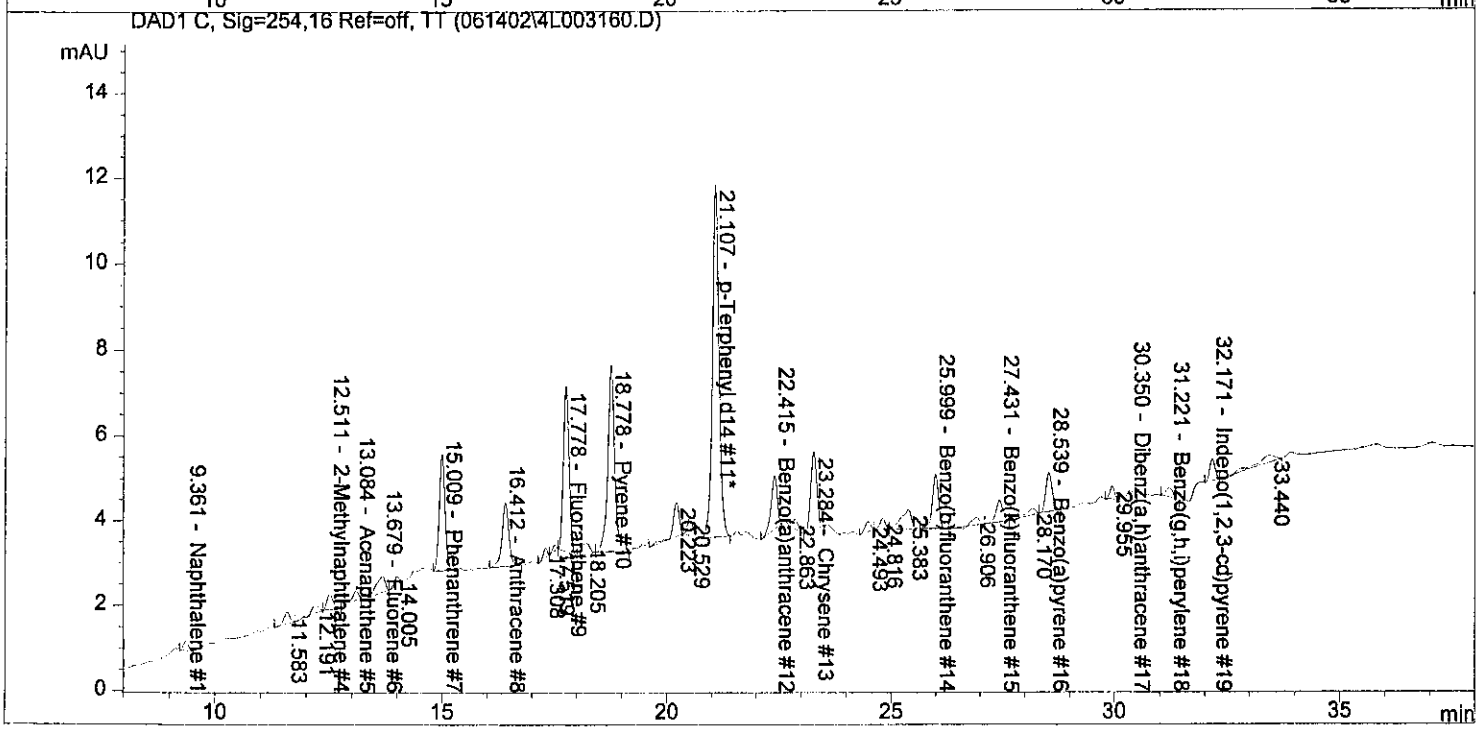
Injection Date : 6/15/2002 2:49:01 PM
Sample Name : WG119548-01 WREF
Acq. Operator : RDC

Seq. Line : 30
Vial : 30
Inj : 1
Inj Volume : 8 µl

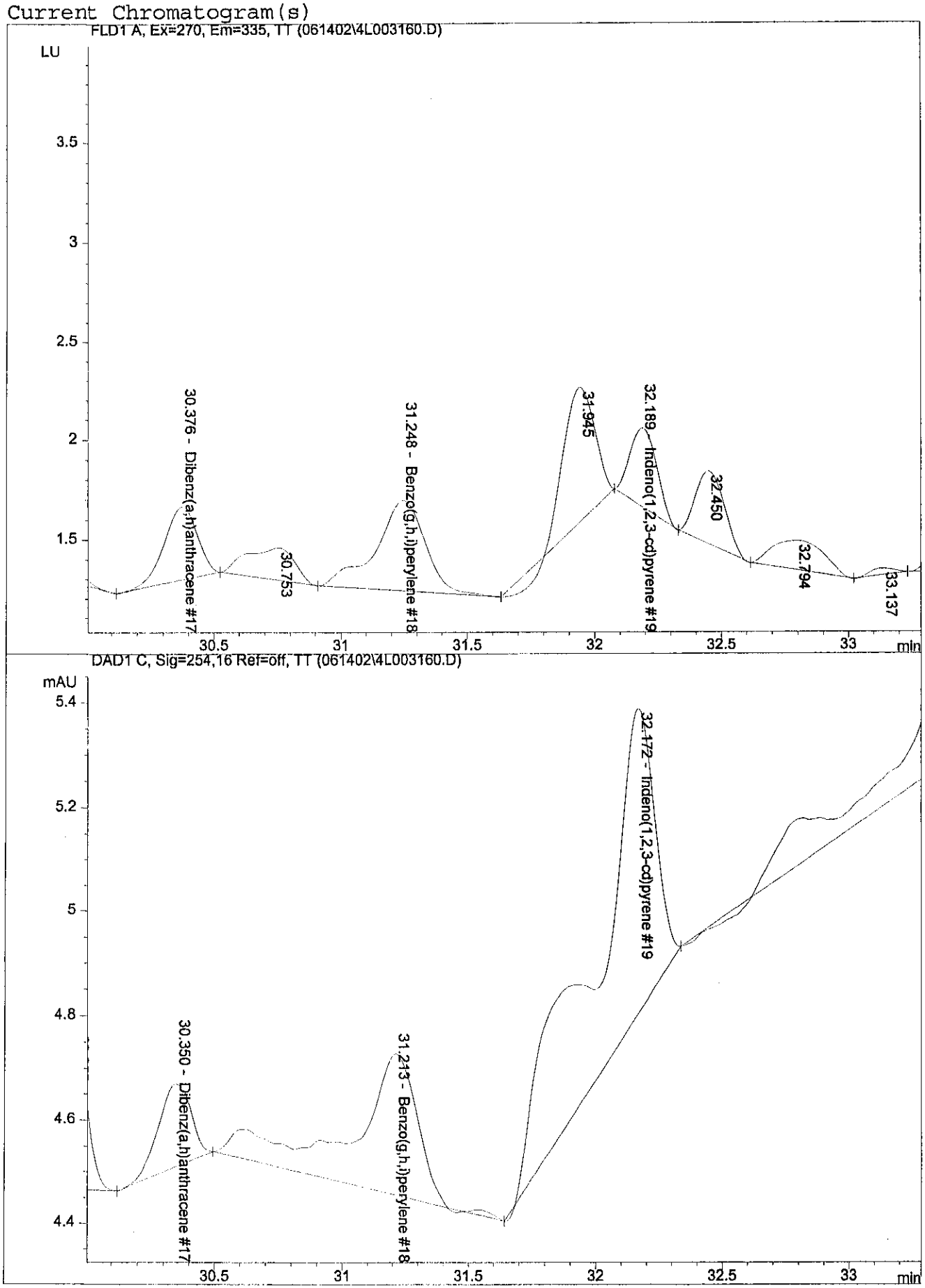
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002



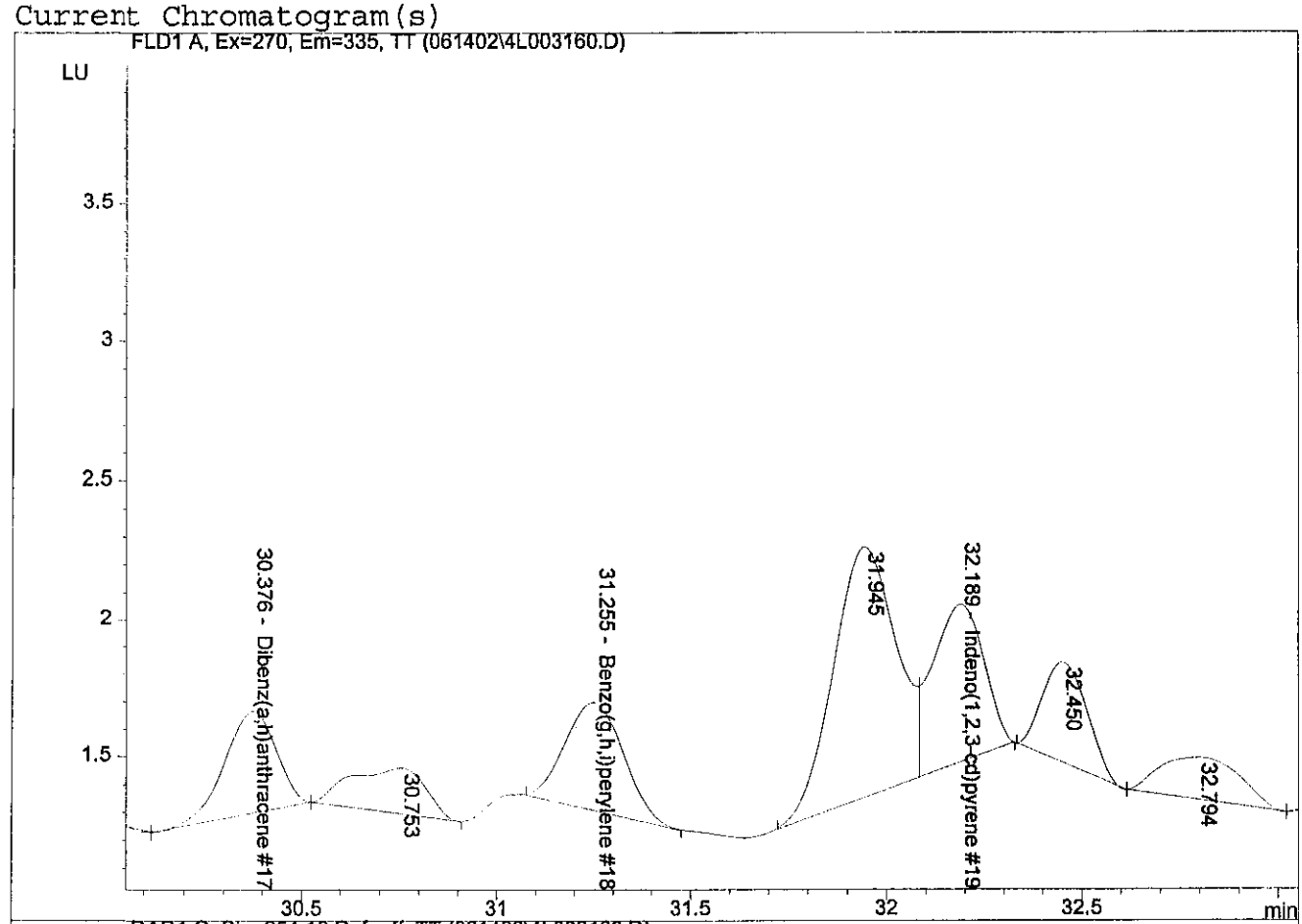


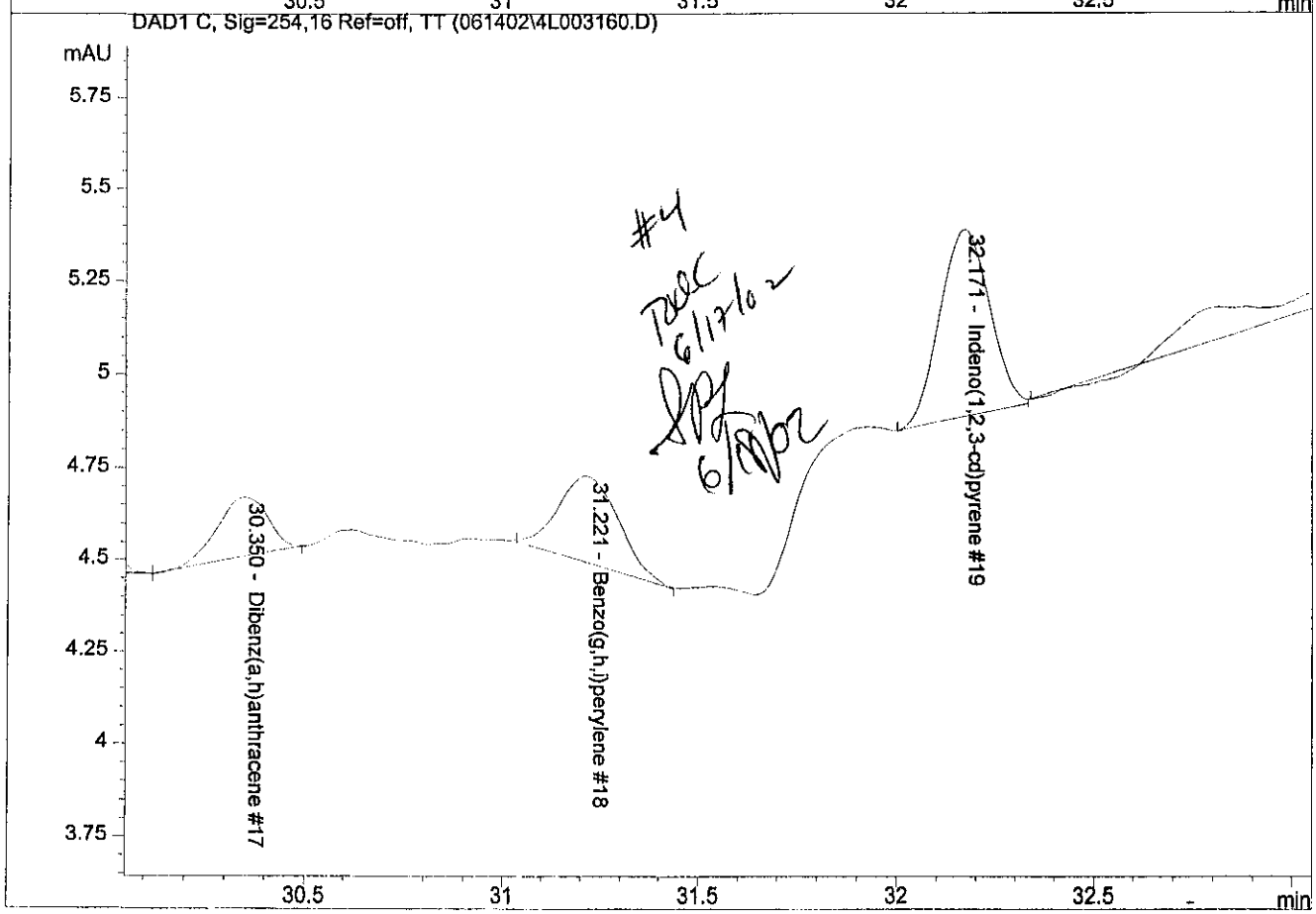
Current Chromatogram(s)



449

Current Chromatogram(s)





450

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.381	BB	8.79022e-1	2.67035e-1	2.34729e-1		Naphthalene #1
11.942	BB	3.42074e-1	5.14677e-1	1.76057e-1		1-Methylnaphthalene #3
12.497		-	-	-		2-Methylnaphthalene #4
13.038	BB	9.35161e-1	5.74849e-2	5.37576e-2		Acenaphthene #5
13.651	BB	4.53844	0.00000	0.00000		Fluorene #6
15.032	BB	2.37550	3.03714e-1	7.21472e-1	F	Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.799	BB	36.24284	2.59587e-2	9.40817e-1	C	Fluoranthene #9
18.800	BB	22.61170	4.20152e-2	9.50036e-1		Pyrene #10
21.124	BB	24.25783	3.01883e-1	7.32303	73.2%	p-Terphenyl d14 #11*
22.437	BB	37.96209	8.87673e-3	3.36979e-1	C	Benzo(a)anthracene #12
23.307	BB	9.36005	4.23966e-2	3.96834e-1	C	Chrysene #13
26.019	BB	15.03600	1.86244e-2	2.80037e-1	C	Benzo(b)fluoranthene #14
27.450	BB	38.98417	3.07362e-3	1.19822e-1	F	Benzo(k)fluoranthene #15
28.560	BB	50.91830	5.41874e-3	2.75913e-1	C	Benzo(a)pyrene #16
30.376	BB	3.37818	5.11152e-2	1.72676e-1	F	Dibenz(a,h)anthracene #17
31.255	MM	4.12228	3.81084e-2	1.57094e-1	F	Benzo(g,h,i)perylene #18
32.189	VM	5.29473	1.94555e-2	1.03012e-1	F	Indeno(1,2,3-cd)pyrene #1

Totals : 12.24227

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	1.66821	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.511	BB	3.85814	0.00000	0.00000		2-Methylnaphthalene #4
13.084	BB	2.08902	8.14514e-2	1.70154e-1	L mix	Acenaphthene #5
13.679	BB	5.48561	4.78636e-2	2.62561e-1		Fluorene #6
15.009	BB	24.83558	2.24250e-2	5.56938e-1	F	Phenanthrene #7
16.412	BB	16.18063	0.00000	0.00000		Anthracene #8
17.778	BB	34.56973	2.27184e-2	7.85367e-1		Fluoranthene #9
18.778	BB	48.27285	1.50522e-2	7.26611e-1		Pyrene #10
21.107	BB	85.70650	6.72702e-2	5.76549	57.7%	p-Terphenyl d14 #11*
22.415	BB	12.24732	2.43197e-2	2.97851e-1		Benzo(a)anthracene #12
23.284	BB	17.20774	1.63605e-2	2.81527e-1		Chrysene #13
25.999	BB	12.63768	2.37024e-2	2.99543e-1		Benzo(b)fluoranthene #14
27.431	BB	5.25139	2.54351e-2	1.33569e-1	F	Benzo(k)fluoranthene #15
28.539	BB	9.19781	3.11137e-2	2.86178e-1		Benzo(a)pyrene #16
30.350	BB	1.43779	1.15132e-1	1.65536e-1	F	Dibenz(a,h)anthracene #17

451

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.221	MM	2.52631	3.79283e-2	9.58187e-2	F	Benzo(g,h,i)perylene #18
32.171	MM	4.39321	3.25860e-2	1.43157e-1	F	Indeno(1,2,3-cd)pyrene #1

Totals : 9.97030

Results obtained with enhanced integrator!
6 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (2-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

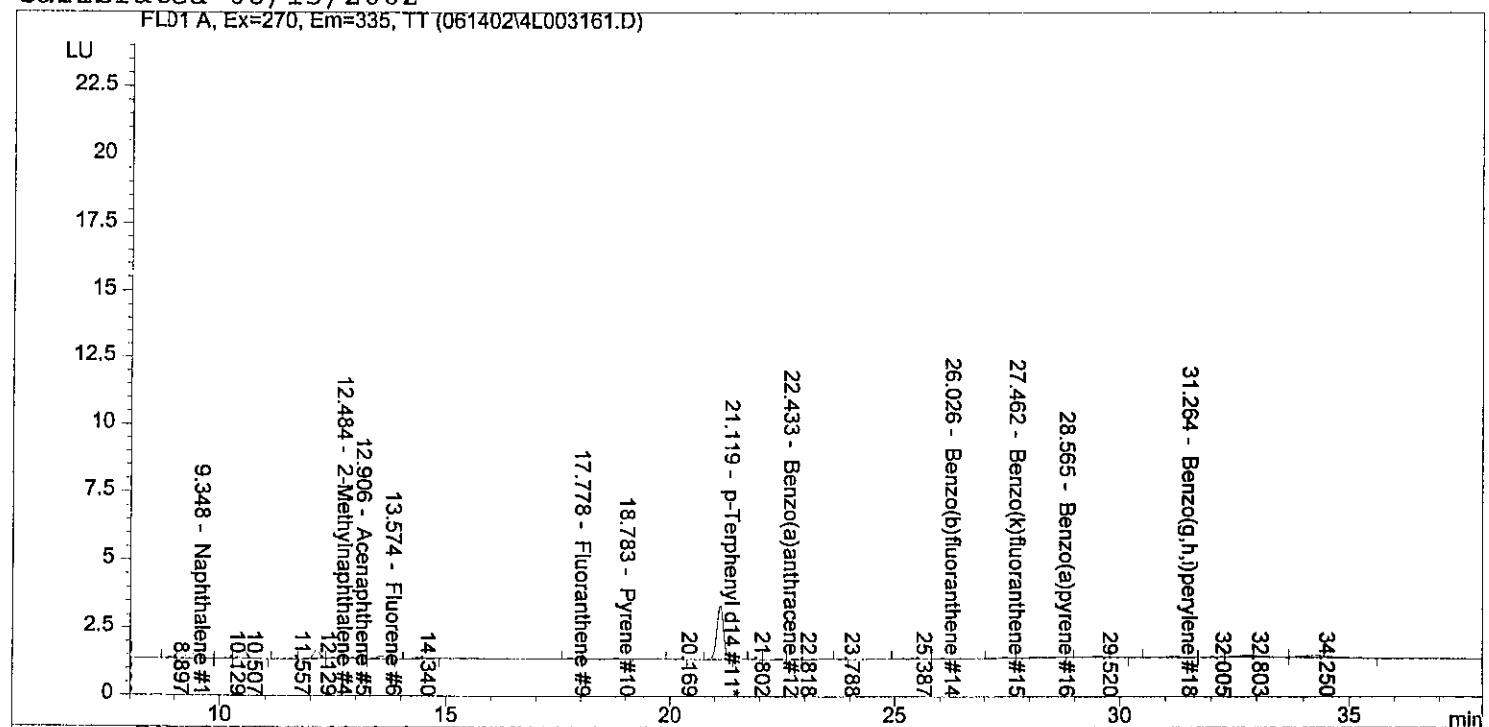
1,1

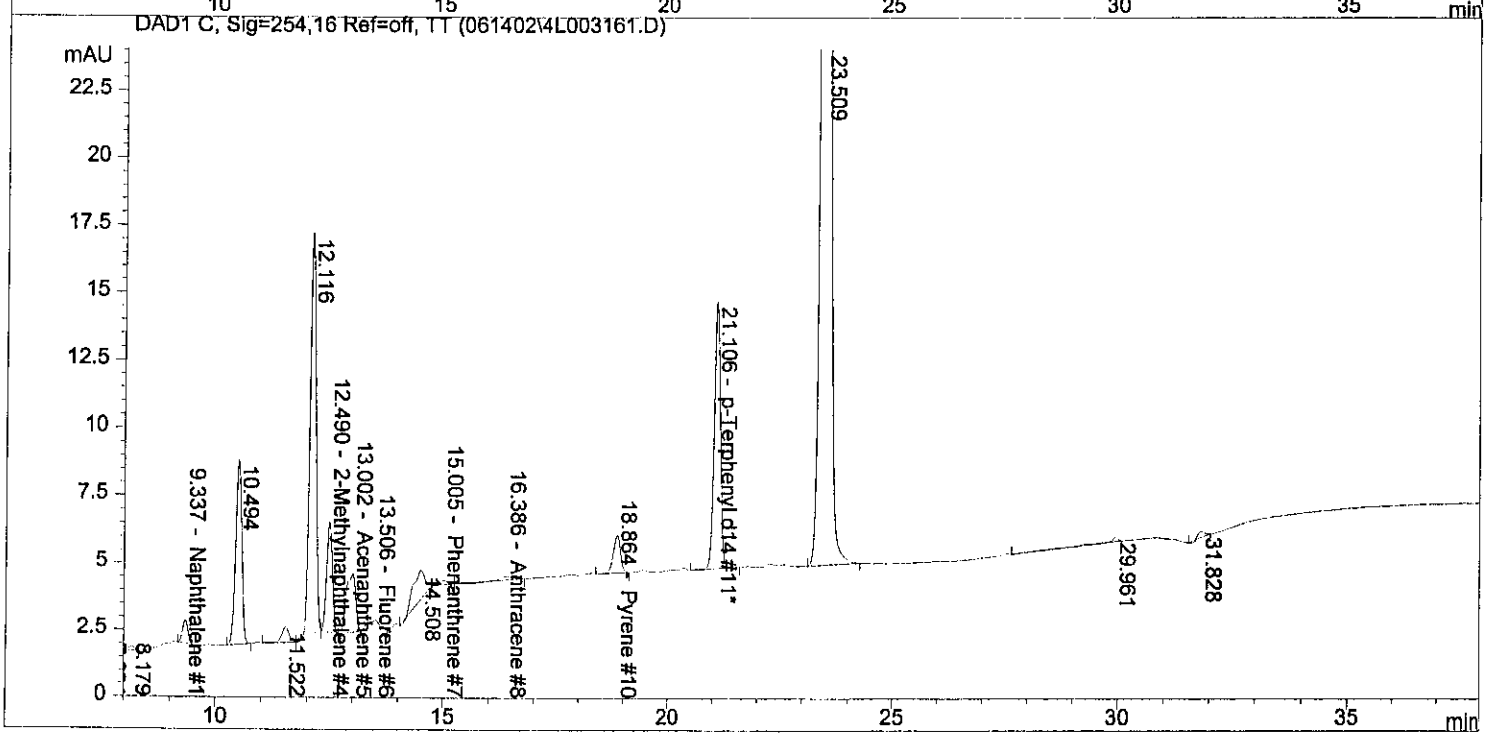
==========

Injection Date	: 6/15/2002 3:45:44 PM	Seq. Line :	31
Sample Name	: L0206140-08 831W	Vial :	31
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.348	BB	3.26821	9.09725e-2	2.97317e-1		Naphthalene #1
11.924		-	-	-		1-Methylnaphthalene #3
12.484	BB	4.97150e-1	2.71943e-1	1.35196e-1		2-Methylnaphthalene #4
12.906	BB	7.40411e-1	6.88998e-2	5.10142e-2		Acenaphthene #5
13.574	BB	1.68671	0.00000	0.00000		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.778	BB	4.29693e-1	7.80009e-2	3.35165e-2		Fluoranthene #9
18.783	BB	6.91179e-1	6.30833e-2	4.36019e-2		Pyrene #10
21.119	BB	21.23447	3.03263e-1	6.43964		p-Terphenyl d14 #11*
22.433	BB	3.85428e-1	8.15346e-2	3.14257e-2		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.026	BB	1.83541e-1	1.58254e-1	2.90460e-2		Benzo(b)fluoranthene #14
27.462	PB	4.09720e-1	2.79571e-2	1.14546e-2		Benzo(k)fluoranthene #15
28.565	BB	3.24515e-1	1.17444e-1	3.81122e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.264	BB	1.40482	5.72990e-2	8.04947e-2		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				7.19082		

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
9.337	BB	7.37535	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.490	BB	37.00919	8.53952e-3	3.16041e-1	<MDL	2-Methylnaphthalene #4
13.002	BB	32.93747	2.44344e-2	8.04808e-1	NC	Acenaphthene #5
13.506	BB	2.05578	9.82712e-2	2.02024e-1	<MDL	Fluorene #6
15.005	BB	1.95535	8.01867e-2	1.56793e-1		Phenanthrene #7
16.386	BB	3.00729	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.864	BB	16.51557	1.64119e-2	2.71052e-1	NC	Pyrene #10
21.106	BBA	94.41115	6.70531e-2	6.33056		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-	63.36	Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.08127

Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

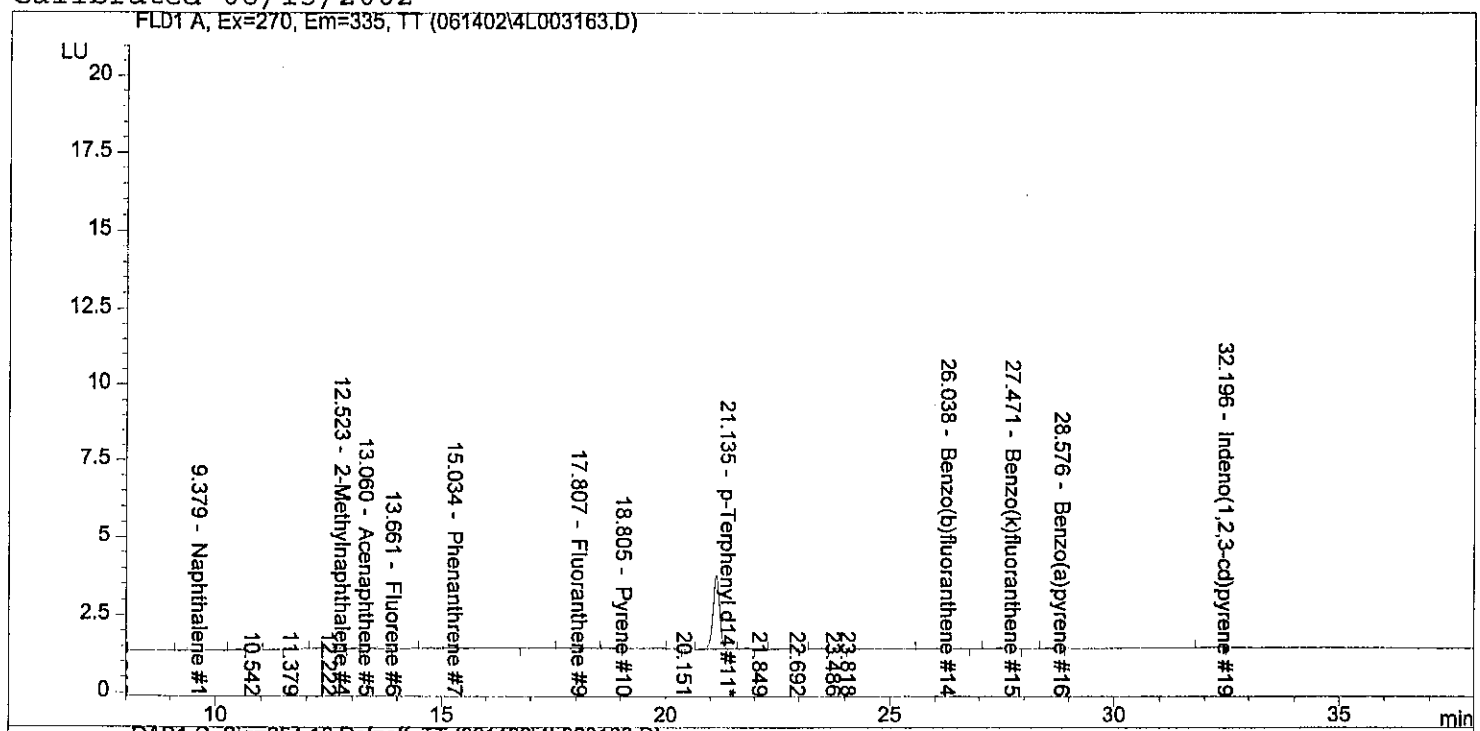
1,1

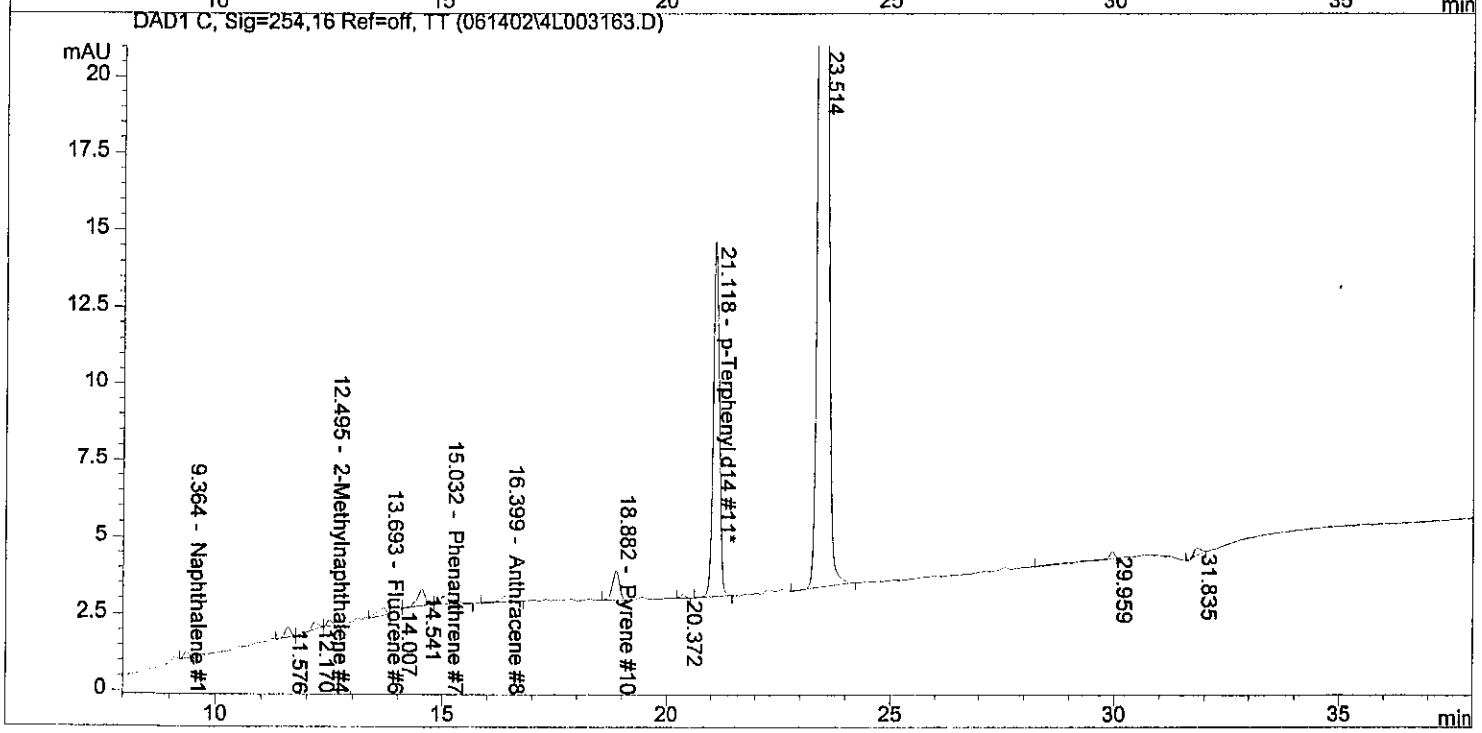
==========

Injection Date : 6/15/2002 5:39:02 PM Seq. Line : 33
Sample Name : L0206140-09 831W Vial : 32
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.379	BB	9.62646e-1	2.46113e-1	2.36920e-1		Naphthalene #1
11.924		-	-	-		1-Methylnaphthalene #3
12.523	BB	9.99659e-1	1.44131e-1	1.44082e-1		2-Methylnaphthalene #4
13.060	BB	2.02664e-1	2.14340e-1	4.34390e-2		Acenaphthene #5
13.661	BB	1.63778	0.00000	0.00000		Fluorene #6
15.034	BBA	2.40896	3.01875e-1	7.27203e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.807	BBA	6.22302e-1	6.17000e-2	3.83961e-2		Fluoranthene #9
18.805	BB	4.01832e-1	7.87322e-2	3.16371e-2		Pyrene #10
21.135	BB	24.88913	3.01637e-1	7.50749		p-Terphenyl d14 #11*
22.418		-	-	-		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.038	BB	4.18449e-1	7.89002e-2	3.30157e-2		Benzo(b)fluoranthene #14
27.471	BB	5.63513e-1	2.10938e-2	1.18866e-2		Benzo(k)fluoranthene #15
28.576	BB	3.23139e-1	1.17924e-1	3.81057e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.196	BB	4.47333e-1	7.88469e-2	3.52708e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.84745

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	1.71125	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.495	BB	1.83151	0.00000	0.00000		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.693	BB	3.32925	6.74328e-2	2.24501e-1		Fluorene #6
15.032	BBA	3.42503	5.32829e-2	1.82496e-1		Phenanthrene #7
16.399	BBA	2.52801	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.882	BBA	10.75960	1.75177e-2	1.88483e-1		Pyrene #10
21.118	BBA	110.30349	6.67450e-2	7.36221		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.95769

Results obtained with enhanced integrator!
6 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (2-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

1,1

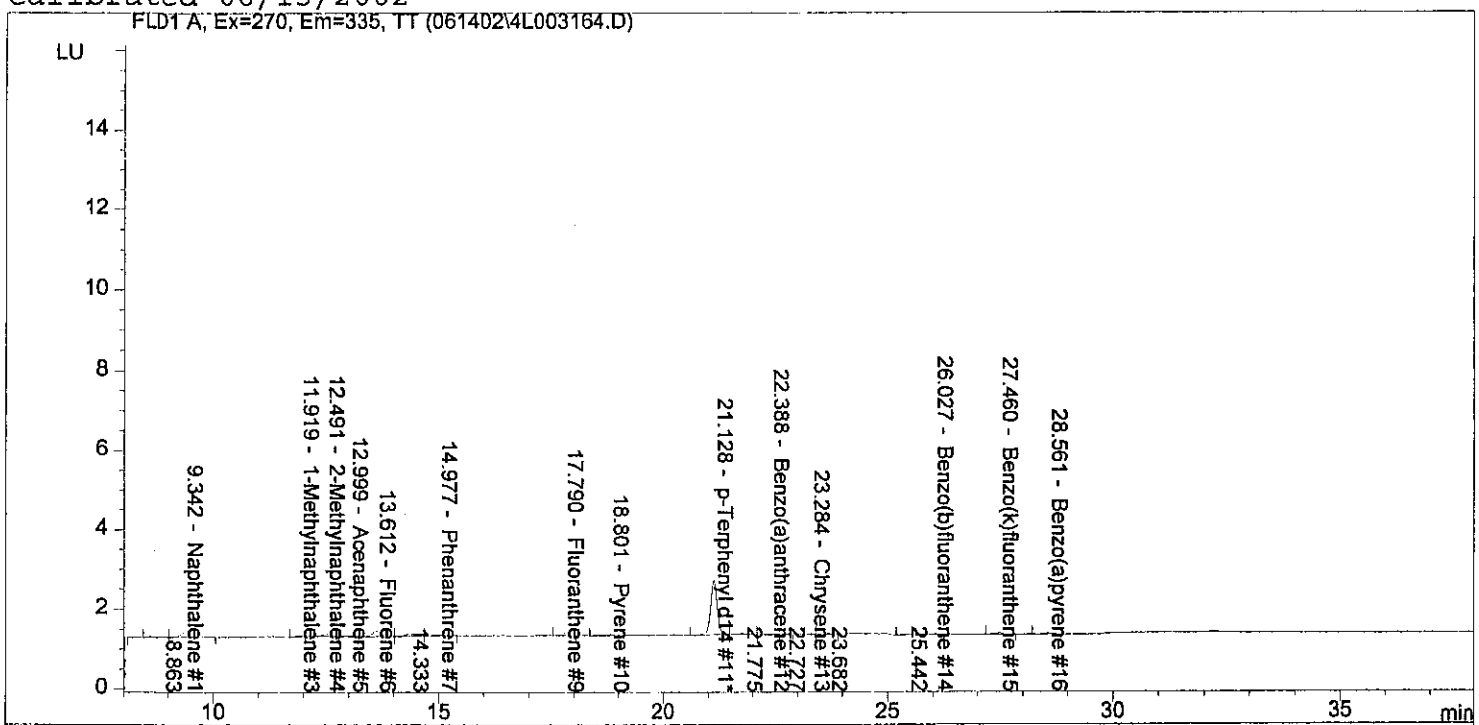
==========

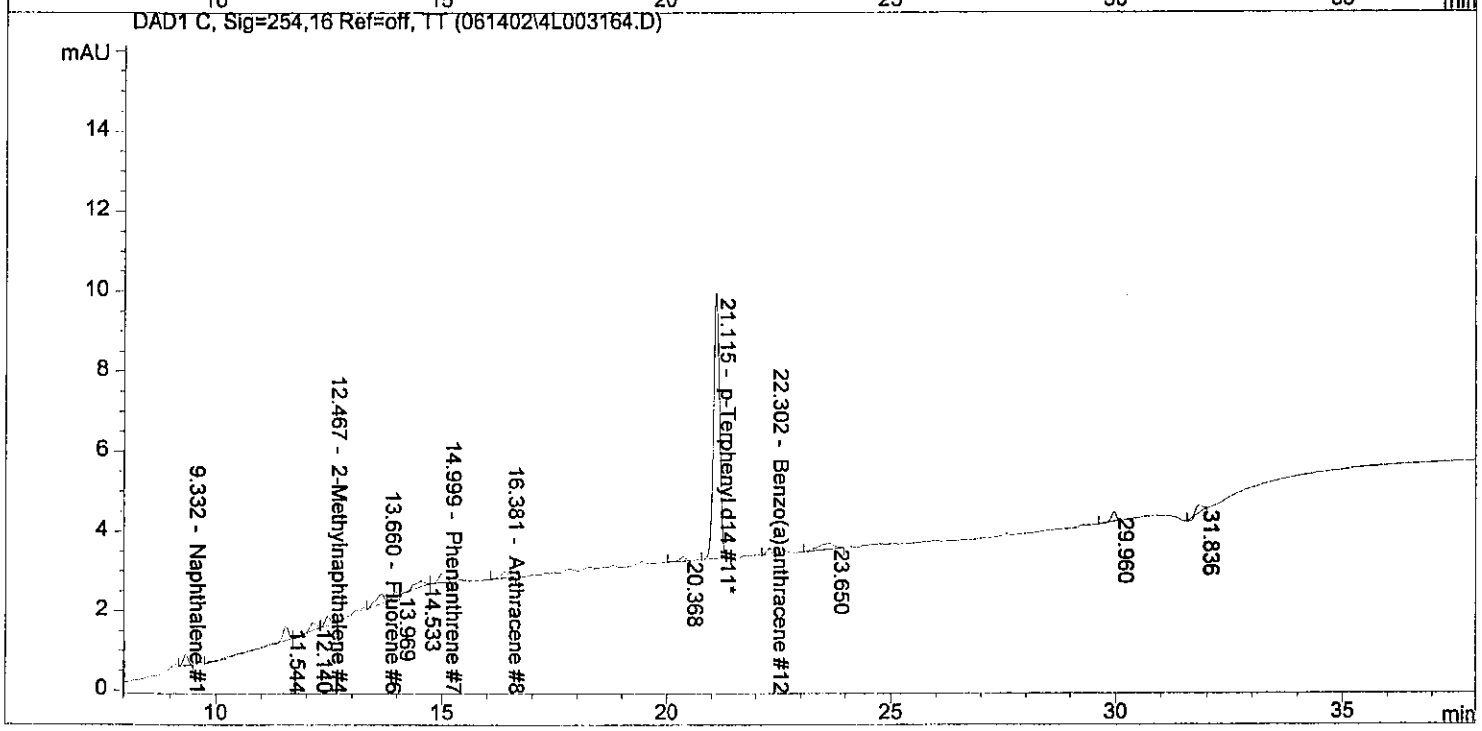
Injection Date : 6/15/2002 6:35:38 PM
Sample Name : L0206140-10 831W
Acq. Operator : RDC

Seq. Line : 34
Vial : 33
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.342	BBA	1.19370	2.03546e-1	2.42973e-1		Naphthalene #1
11.919	PB	1.83398e-1	9.40148e-1	1.72421e-1		1-Methylnaphthalene #3
12.491	BB	9.90889e-1	1.45250e-1	1.43927e-1		2-Methylnaphthalene #4
12.999	BB	2.50809e-1	1.75900e-1	4.41172e-2		Acenaphthene #5
13.612	BB	1.83637	0.00000	0.00000		Fluorene #6
14.977	BBA	3.00438e-1	1.21826	3.66011e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.790	BB	6.13751e-1	6.22067e-2	3.81794e-2		Fluoranthene #9
18.801	BBA	3.95610e-1	7.93201e-2	3.13798e-2		Pyrene #10
21.128	BB	14.10534	3.08861e-1	4.35658		p-Terphenyl d14 #11*
22.388	BB	3.44024e-1	9.03688e-2	3.10891e-2		Benzo(a)anthracene #12
23.284	BB	1.91696e-1	1.64832e-1	3.15977e-2		Chrysene #13
26.027	BBA	2.04572e-1	1.43721e-1	2.94014e-2		Benzo(b)fluoranthene #14
27.460	BBA	6.53095e-1	1.85858e-2	1.21383e-2		Benzo(k)fluoranthene #15
28.561	BBA	3.12325e-1	1.21844e-1	3.80549e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.53787

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
9.332	BB	2.14446	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.467	BB	2.27985	0.00000	0.00000		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.660	BB	3.27749	6.82190e-2	2.23587e-1	C MDC	Fluorene #6
14.999	BB	2.80435	6.12051e-2	1.71641e-1	✓	Phenanthrene #7
16.381	PB	1.82130	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-	43.2%	Pyrene #10
21.115	PBA	63.39309	6.80991e-2	4.31701		p-Terphenyl d14 #11*
22.302	BB	1.20264	4.33687e-2	5.21568e-2	NC	Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.76440

Results obtained with enhanced integrator!
6 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (2-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

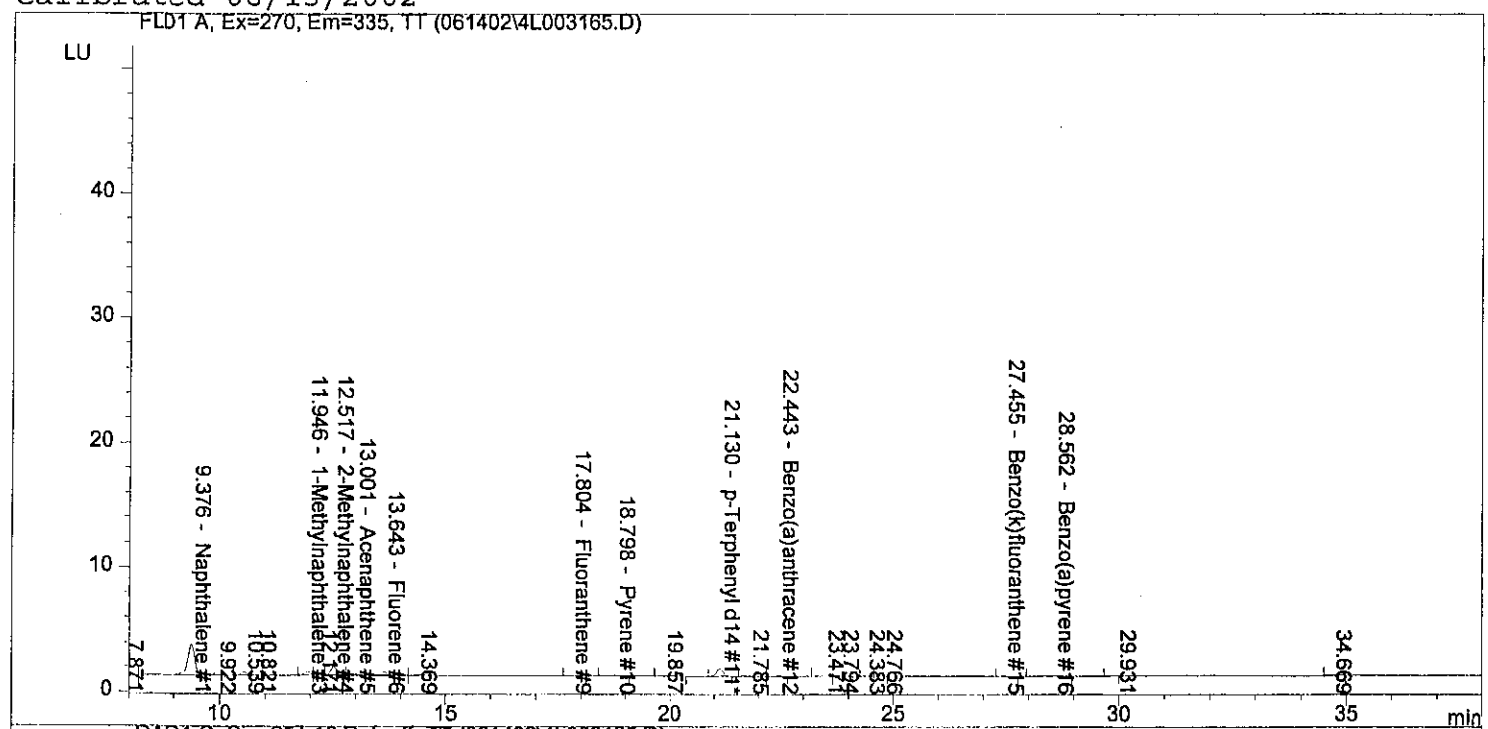
1,1

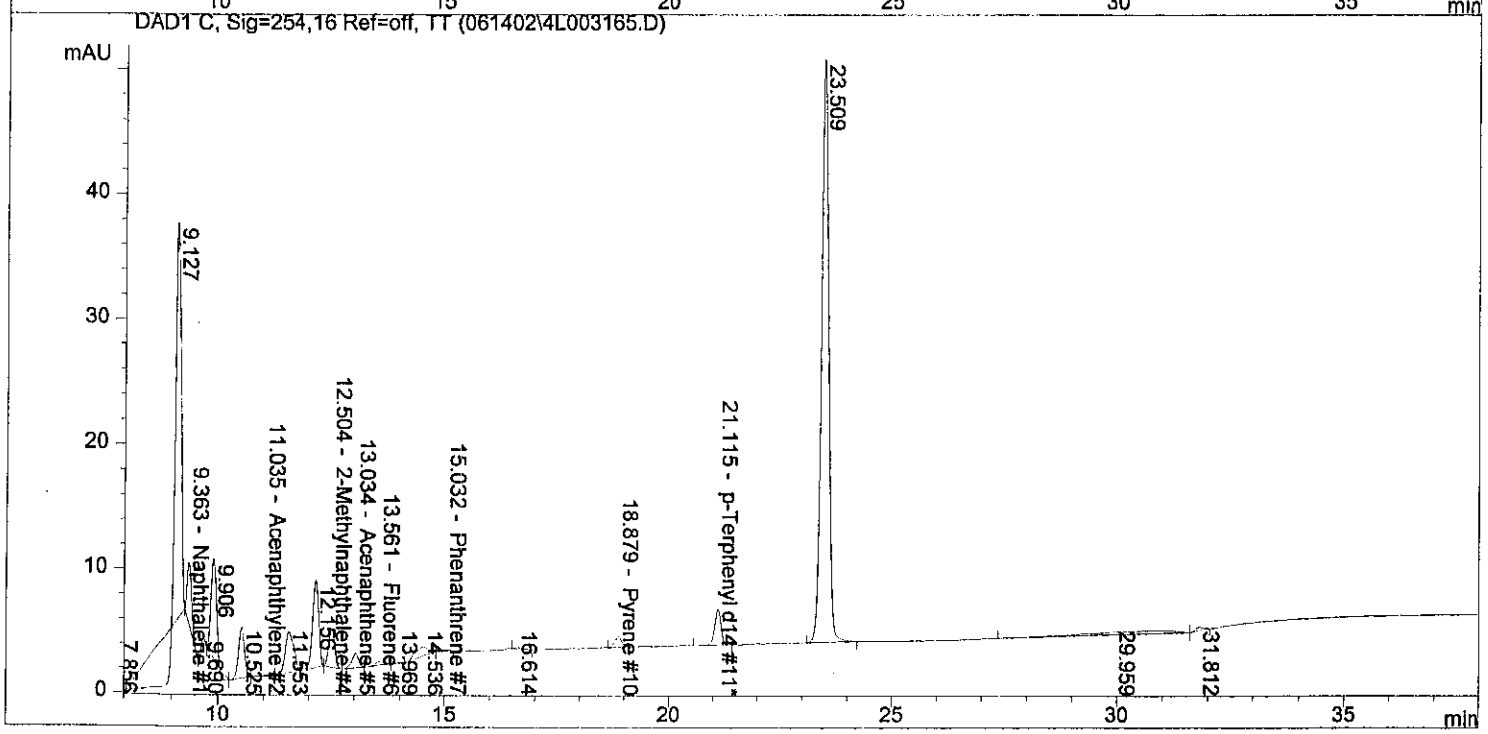
==========

Injection Date : 6/15/2002 7:32:17 PM Seq. Line : 35
Sample Name : L0206140-11 831W Vial : 34
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.376	BB	27.11327	3.40043e-2	9.21968e-1		Naphthalene #1
11.946	BB	1.99299	1.07321e-1	2.13890e-1		1-Methylnaphthalene #3
12.517	BB	6.04987	3.85763e-2	2.33382e-1		2-Methylnaphthalene #4
13.001	BB	1.02748	5.35857e-2	5.50580e-2		Acenaphthene #5
13.643	BB	2.94037	0.00000	0.00000		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.804	BB	2.25134e-1	1.25854e-1	2.83341e-2		Fluoranthene #9
18.798	BBA	3.56081e-1	8.35351e-2	2.97453e-2		Pyrene #10
21.130	BB	6.43191	3.28750e-1	2.11449		p-Terphenyl d14 #11*
22.443	BB	4.25443e-1	7.46308e-2	3.17511e-2		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.455	PBA	2.65120e-1	4.16729e-2	1.10483e-2		Benzo(k)fluoranthene #15
28.562	BBA	3.35965e-1	1.13601e-1	3.81660e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.67784

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	33.97105	0.00000	0.00000		Naphthalene #1
11.035	BB	2.11581	1.11255e-1	2.35394e-1	CMDL	Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.504	BB	29.00220	7.75442e-3	2.24895e-1		2-Methylnaphthalene #4
13.034	BB	13.03699	3.03283e-2	3.95390e-1		Acenaphthene #5
13.561	BB	4.04914	5.85820e-2	2.37207e-1		Fluorene #6
15.032	BB	1.29063	1.12478e-1	1.45168e-1		Phenanthrene #7
16.387		-	-	-		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.879	BBA	8.77561	1.82349e-2	1.60023e-1	NC	Pyrene #10
21.115	BBA	27.97578	7.21299e-2	2.01789		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-	20.2% *	Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.41597

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)

==========

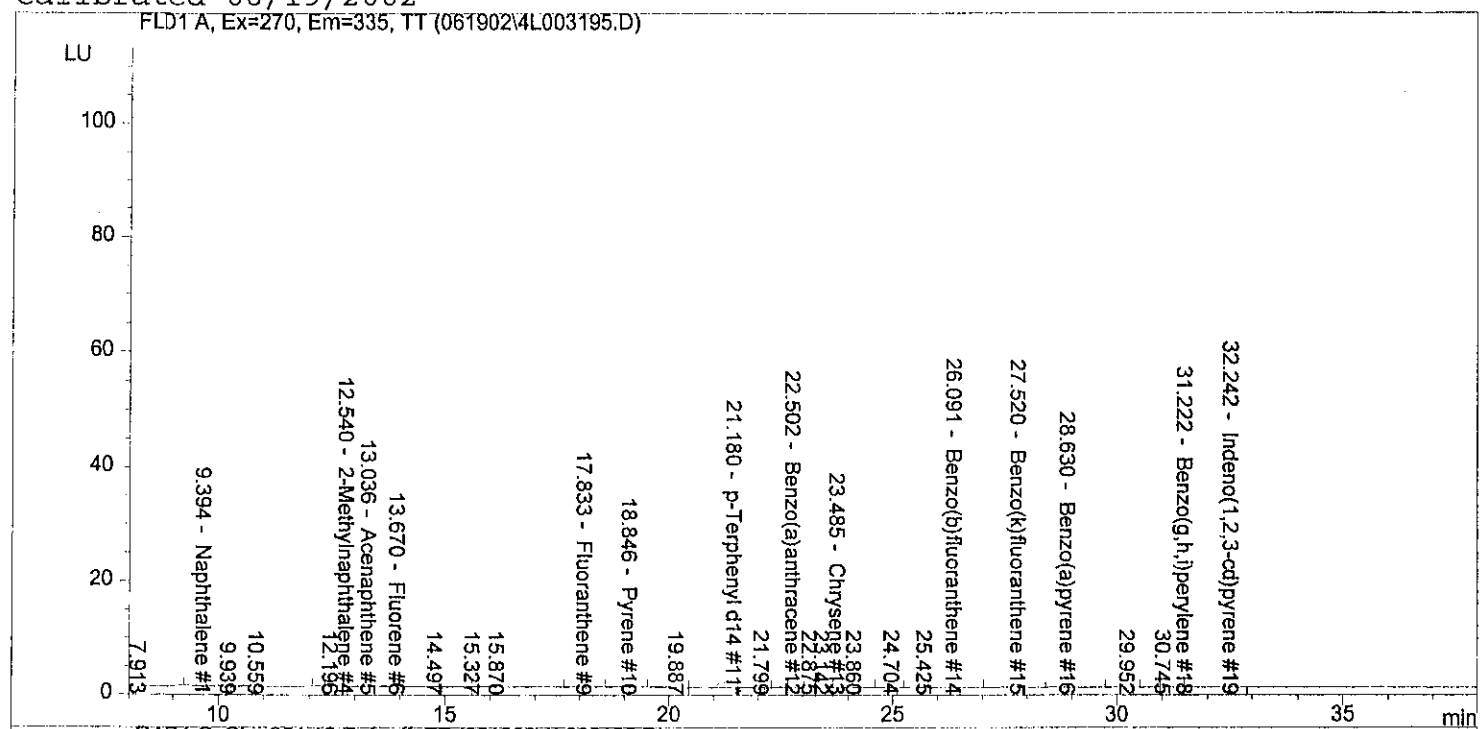
*** End of Report ***

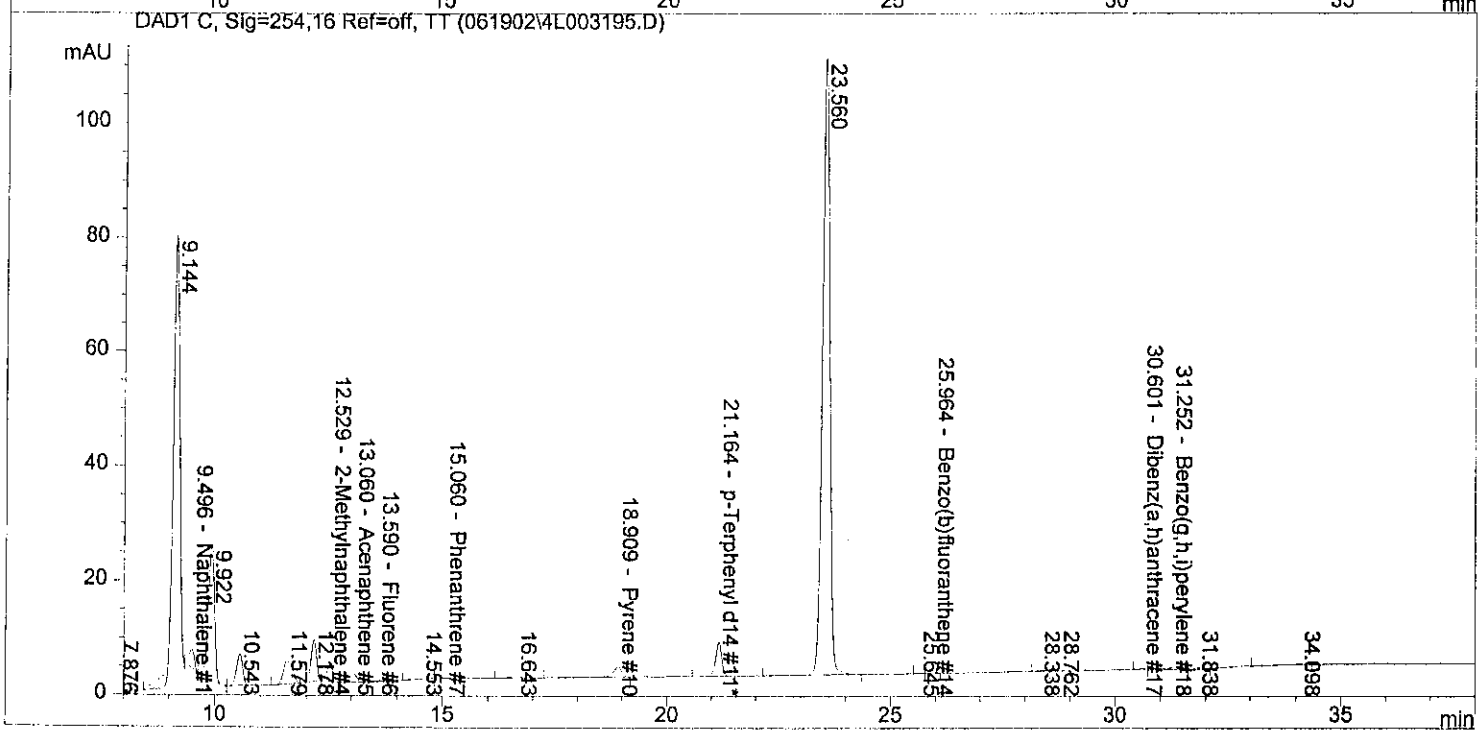
1,1

==========

Injection Date : 6/20/2002 3:26:29 AM Seq. Line : 13
Sample Name : L0206140-11 REEX Vial : 13
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





465

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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	BB	7.66770	5.40133e-2	4.14158e-1		Naphthalene #1
11.959		-	-	-		1-Methylnaphthalene #3
12.540	BB	2.60484	7.13625e-2	1.85888e-1		2-Methylnaphthalene #4
13.036	BB	7.07230e-1	1.12839e-1	7.98032e-2		Acenaphthene #5
13.670	BB	1.99575	5.55886e-3	1.10941e-2		Fluorene #6
15.046		-	-	-		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.833	BBA	3.75292e-1	8.78115e-2	3.29550e-2		Fluoranthene #9
18.846	BBA	4.73163e-1	6.71042e-2	3.17512e-2		Pyrene #10
21.180	BB	13.77195	3.08467e-1	4.24819	43.4%	p-Terphenyl d14 #11*
22.502	BB	7.23629e-1	5.21566e-2	3.77420e-2		Benzo(a)anthracene #12
23.485	BB	2.93017e-1	1.42017e-1	4.16133e-2		Chrysene #13
26.091	BBA	3.17586e-1	1.04784e-1	3.32781e-2		Benzo(b)fluoranthene #14
27.520	BBA	5.49518e-1	2.59969e-2	1.42857e-2		Benzo(k)fluoranthene #15
28.630	PBA	3.87020e-1	1.03233e-1	3.99533e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.222	BB	2.16038e-1	2.42359e-1	5.23587e-2		Benzo(g,h,i)perylene #18
32.242	BB	7.74694e-1	5.52483e-2	4.28006e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 5.26587

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
9.496	BB	29.60743	0.00000	0.00000		Naphthalene #1
10.995		-	-	-		Acenaphthylene #2
11.942		-	-	-		1-Methylnaphthalene #3
12.529	BB	26.52872	1.02550e-2	2.72053e-1	<MDL	2-Methylnaphthalene #4
13.060	BB	15.09483	3.32196e-2	5.01445e-1	NC	Acenaphthene #5
13.590	BB	2.61204	1.11020e-1	2.89988e-1	<MDL	Fluorene #6
15.060	BB	1.50752	1.70446e-1	2.56951e-1		Phenanthrene #7
16.431		-	-	-		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.909	BB	24.82714	1.58811e-2	3.94281e-1	NC	Pyrene #10
21.164	BBA	57.37865	6.85006e-2	3.93047	39.3%	p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
25.964	BB	2.25773	3.44827e-2	7.78525e-2	NC	Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.601	BB	1.62807	8.97305e-2	1.46087e-1	NC	Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.252	BB	3.94507	5.83970e-2	2.30380e-1	NC	Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.09951

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene

==========

*** End of Report ***

1,1

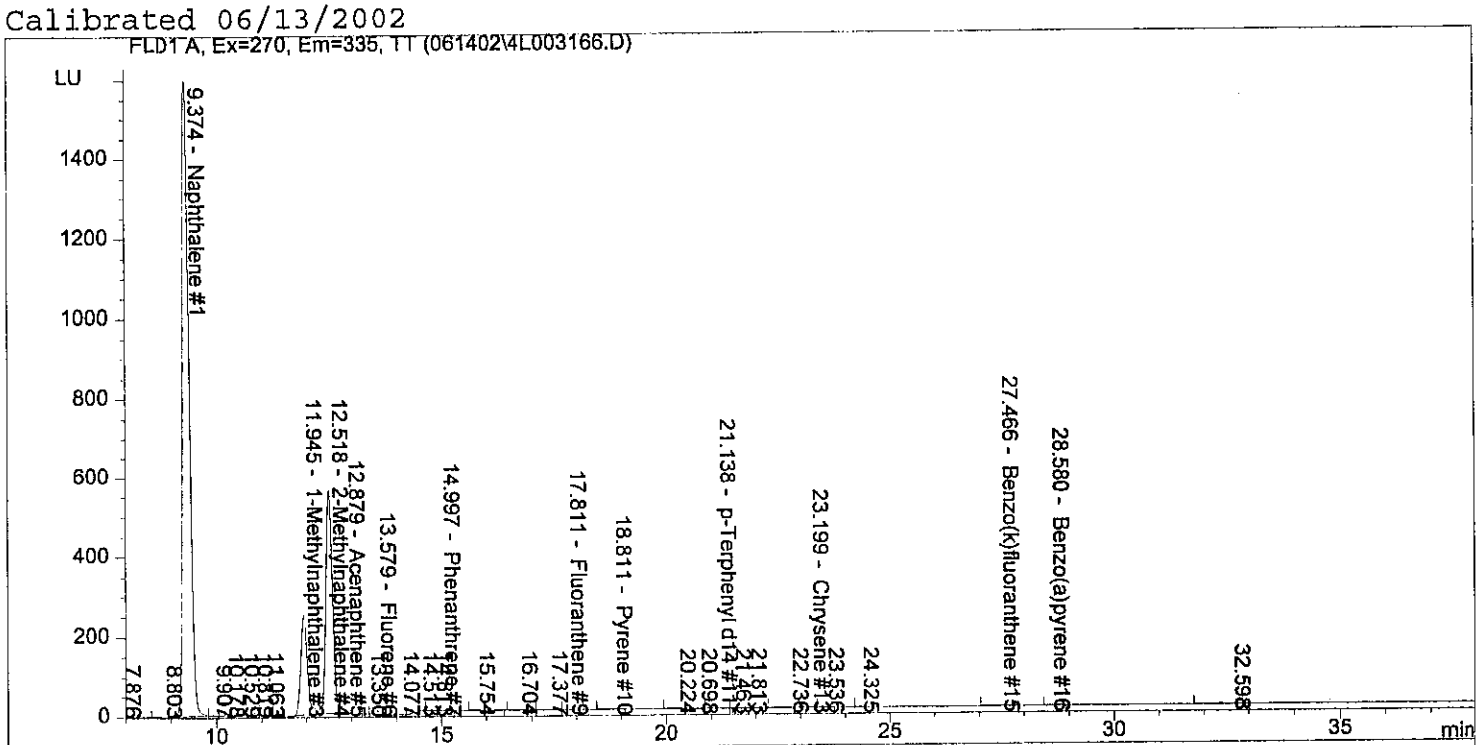
==========

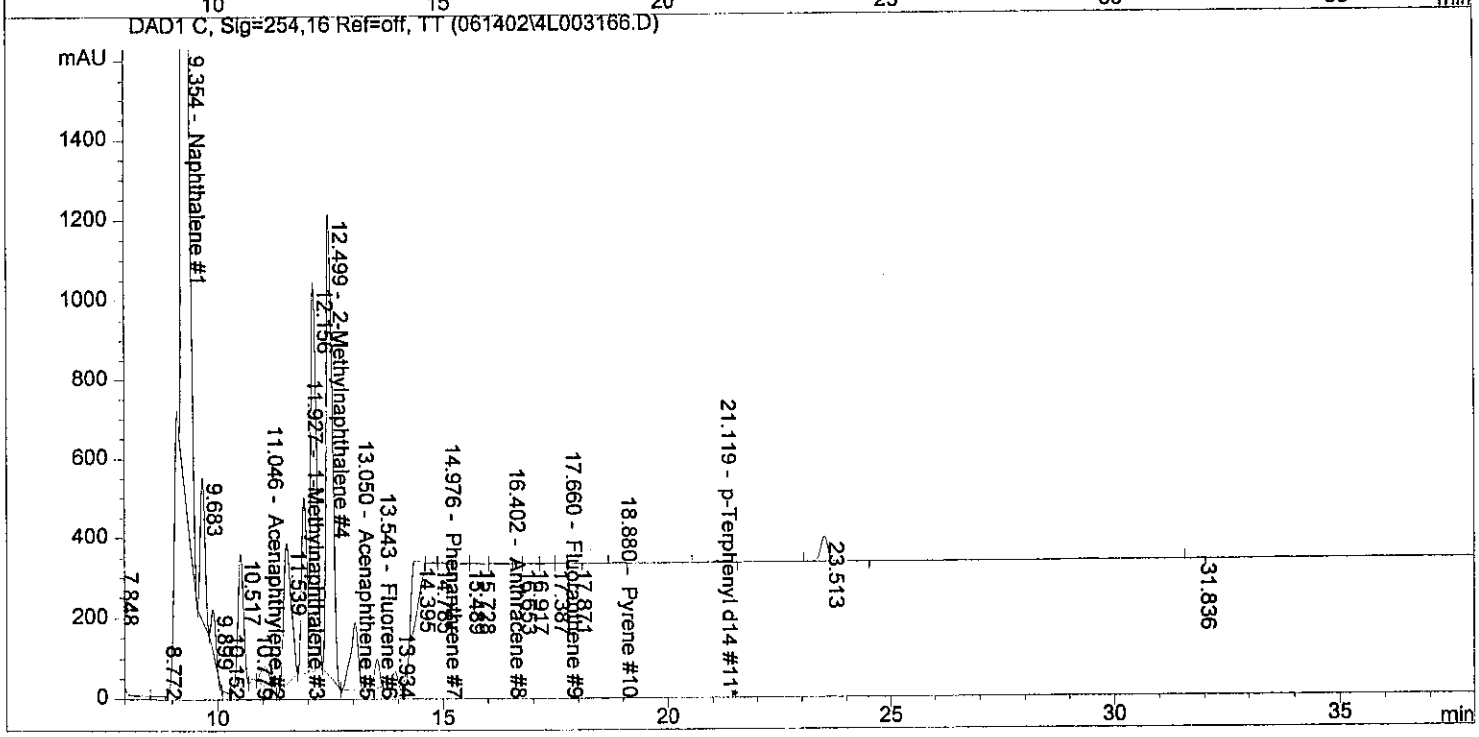
Injection Date : 6/15/2002 8:28:58 PM
Sample Name : L0206140-12 831W
Acq. Operator : RDC

Seq. Line : 36
Vial : 35
Inj : 1
Inj Volume : 8 µl

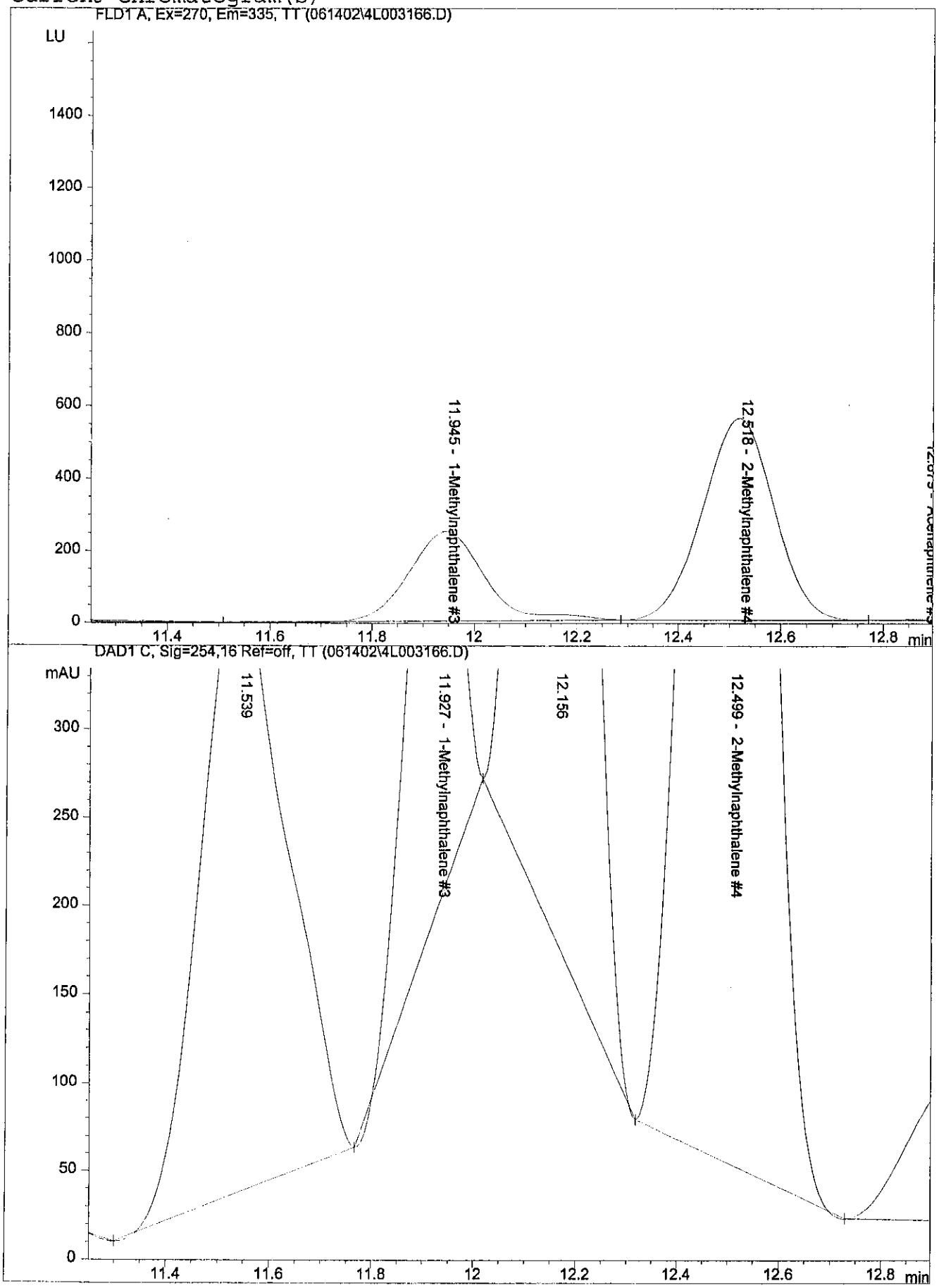
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002

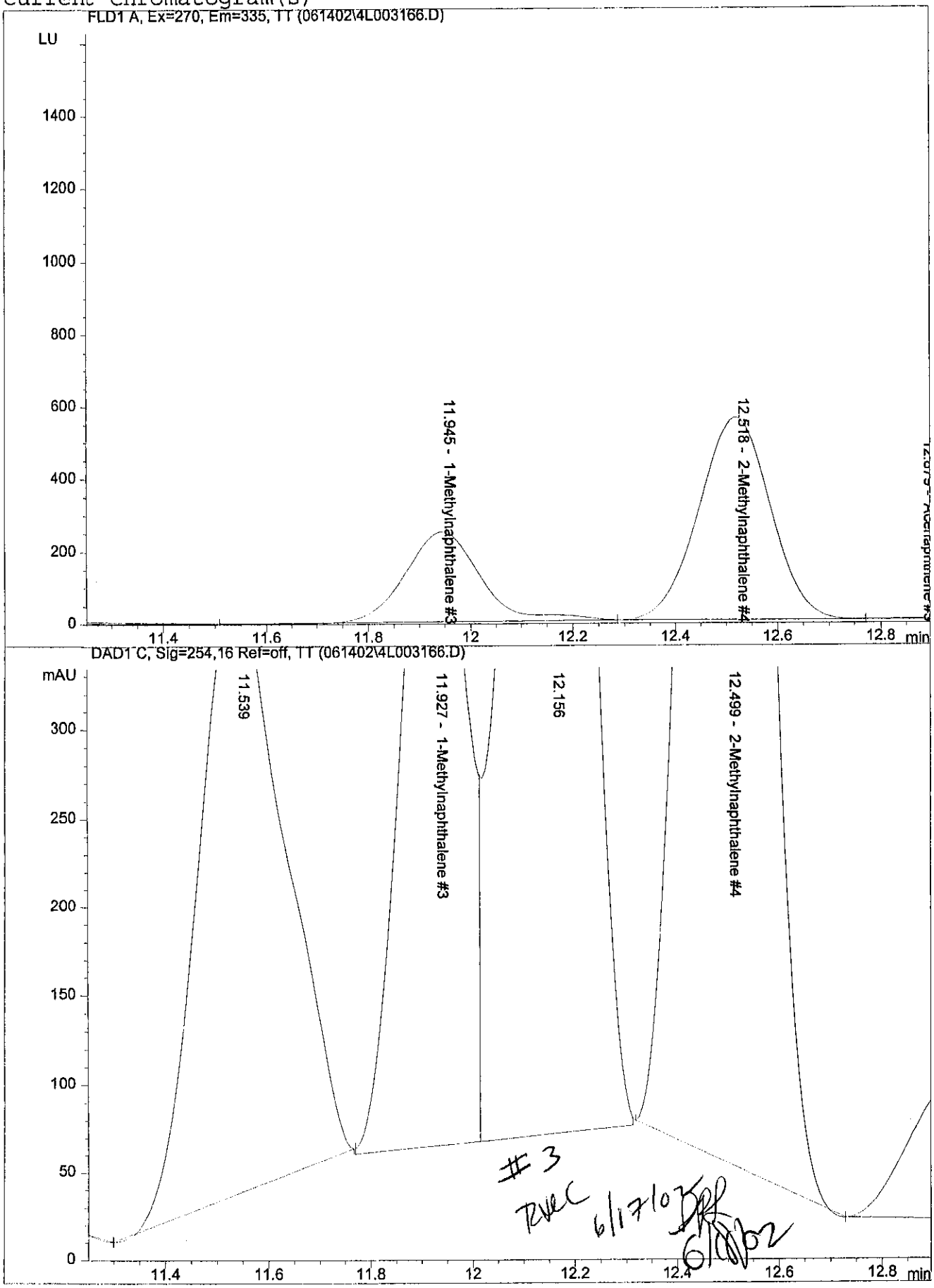




Current Chromatogram(s)



Current Chromatogram(s)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	BB	1.68901e4	2.62088e-2	442.66789	I	Naphthalene #1
11.945	BB	2541.93506	2.29823e-2	58.41953	C	1-Methylnaphthalene #3
12.518	BB	5421.77979	1.77057e-2	95.99637	C	2-Methylnaphthalene #4
12.879	BB	34.56089	1.52611e-2	5.27438e-1	F,P	Acenaphthene #5
13.579	BB	111.14967	5.75307e-3	6.39452e-1	F,P	Fluorene #6
14.997	BB	2.29379e-1	1.54260	3.53839e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.811	BB	2.56949e-1	1.13408e-1	2.91401e-2		Fluoranthene #9
18.811	BB	2.92213e-1	9.27551e-2	2.71043e-2		Pyrene #10
21.138	BB	8.34186	3.20379e-1	2.67256		p-Terphenyl d14 #11*
22.418		-	-	- 26.7%		Benzo(a)anthracene #12
23.199	BB	1.66149e-1	1.84051e-1	3.05800e-2		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.466	PB	4.03262e-1	2.83598e-2	1.14364e-2		Benzo(k)fluoranthene #15
28.580	BBA	1.71017e-1	2.18637e-1	3.73907e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 601.41273

Results obtained with enhanced integrator!

RR 10X

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.354	BB	2.34250e4	8.31968e-3	194.88856	I	Naphthalene #1
11.046	BB	693.52496	3.03723e-2	21.06396	NC	Acenaphthylene #2
11.927	MV	3631.20215	1.30758e-2	47.48070	✓	1-Methylnaphthalene #3
12.499	BB	1.06510e4	1.13733e-2	121.13756	I	2-Methylnaphthalene #4
13.050	BB	2056.76392	2.06351e-2	42.44156	P	Acenaphthene #5
13.543	BB	702.82867	1.78860e-2	12.57076	P	Fluorene #6
14.976	BB	5.90650	3.82449e-2	2.25893e-1	LMOL	Phenanthrene #7
16.402	BB	24.67690	1.72129e-3	4.24762e-2	↓	Anthracene #8
17.660	BB	3.22691	3.16131e-2	1.02013e-1	NC	Fluoranthene #9
18.880	BB	8.46109	1.83795e-2	1.55511e-1	↓	Pyrene #10
21.119	BB	38.28625	7.01870e-2	2.68720		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	- * 26.9%		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 442.79619

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 ***

Search result of : DAD1, 11.046 (39.8 mAU,Apx) Ref=10.780 & 12.726
Library used : C:\HPCHEM\SPECLIBS\8310_CCV.UVL
Library Name : 8310 CCV
Parameters : Window 10.494 | 10.494 min

Library search results

#	Match	Entry	Time [min]	Name
1	144.7750	1	10.972	acenaphthylene

*** End of Report ***

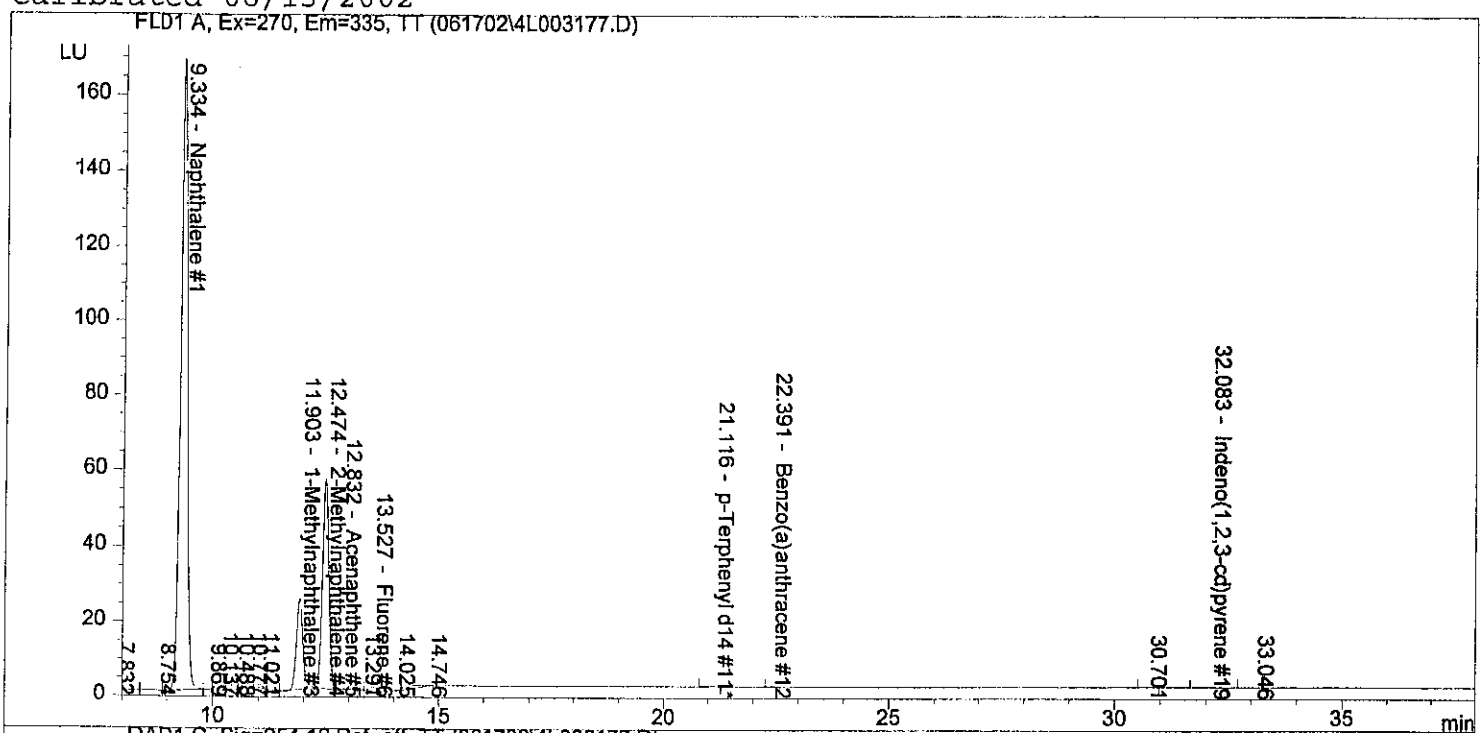
1,10 10X dil'n.

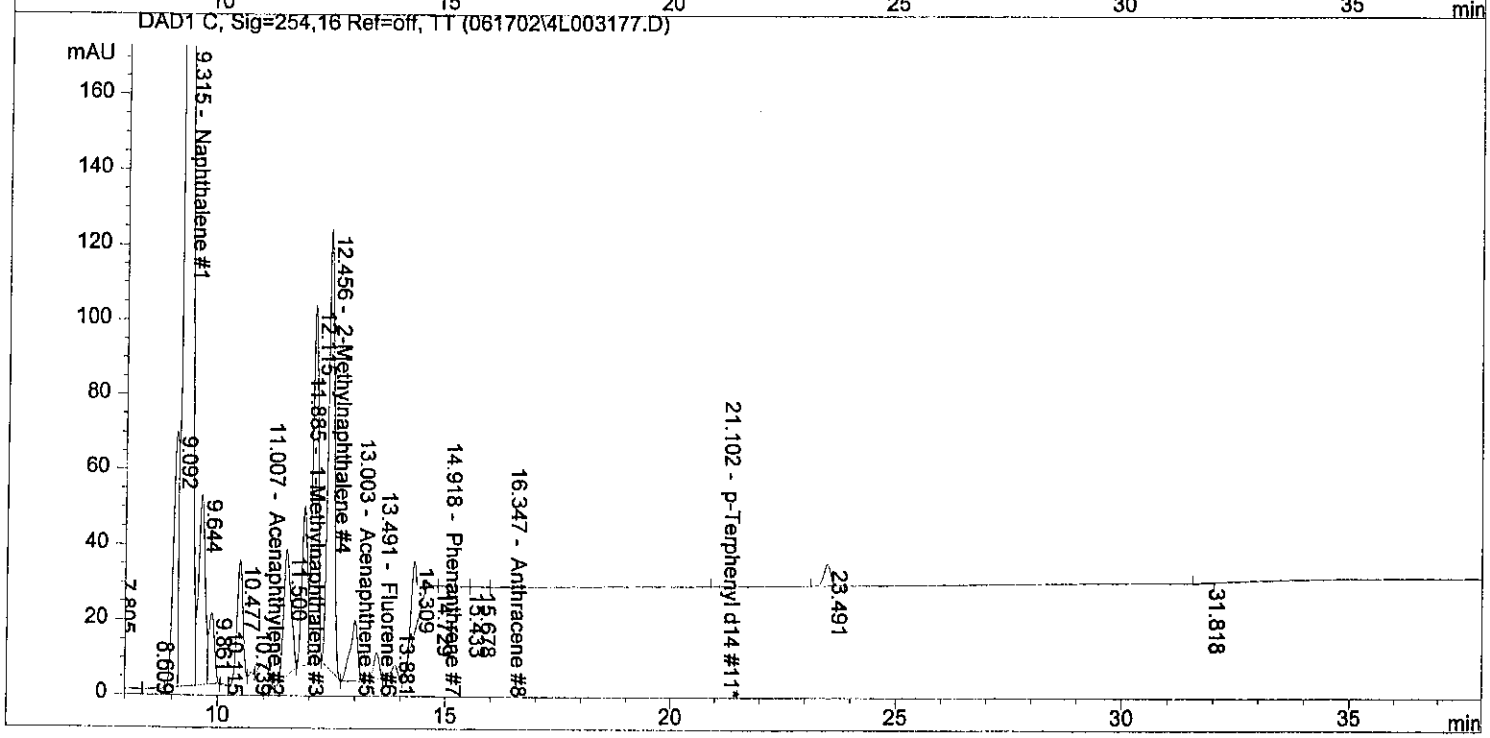
==========

Injection Date	: 6/17/2002 2:54:11 PM	Seq. Line :	4
Sample Name	: L0206140-12 10X	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

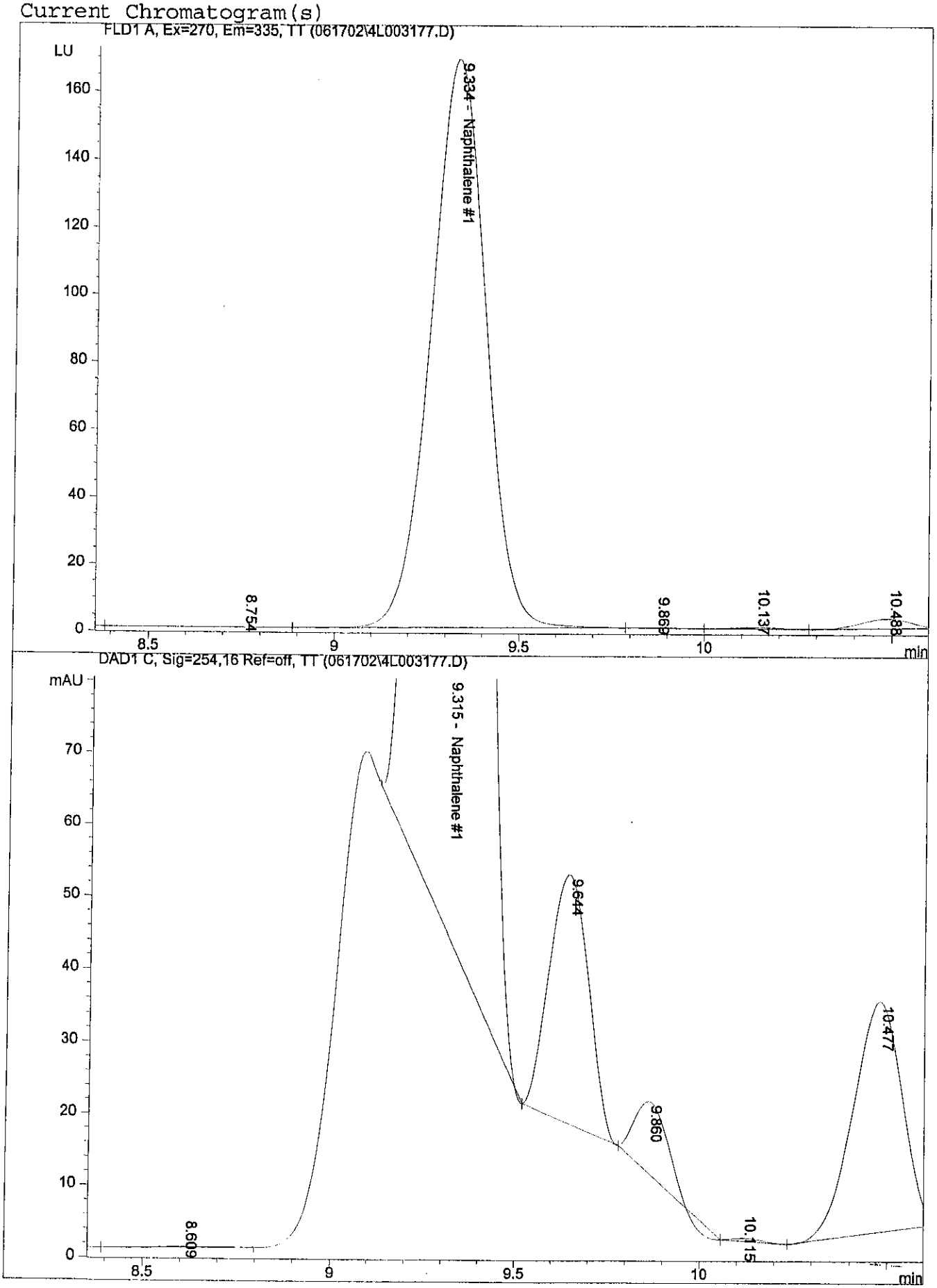
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002



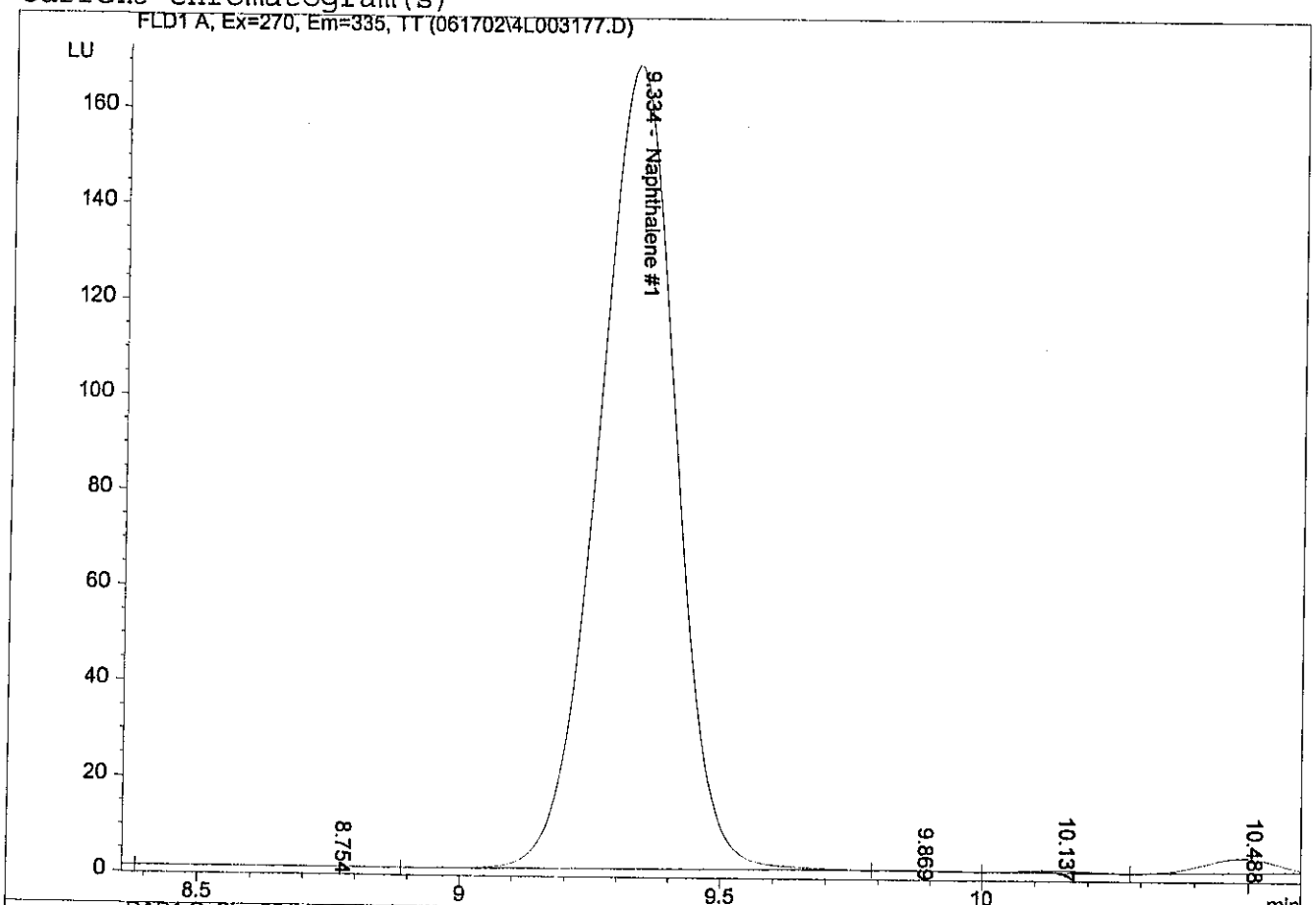


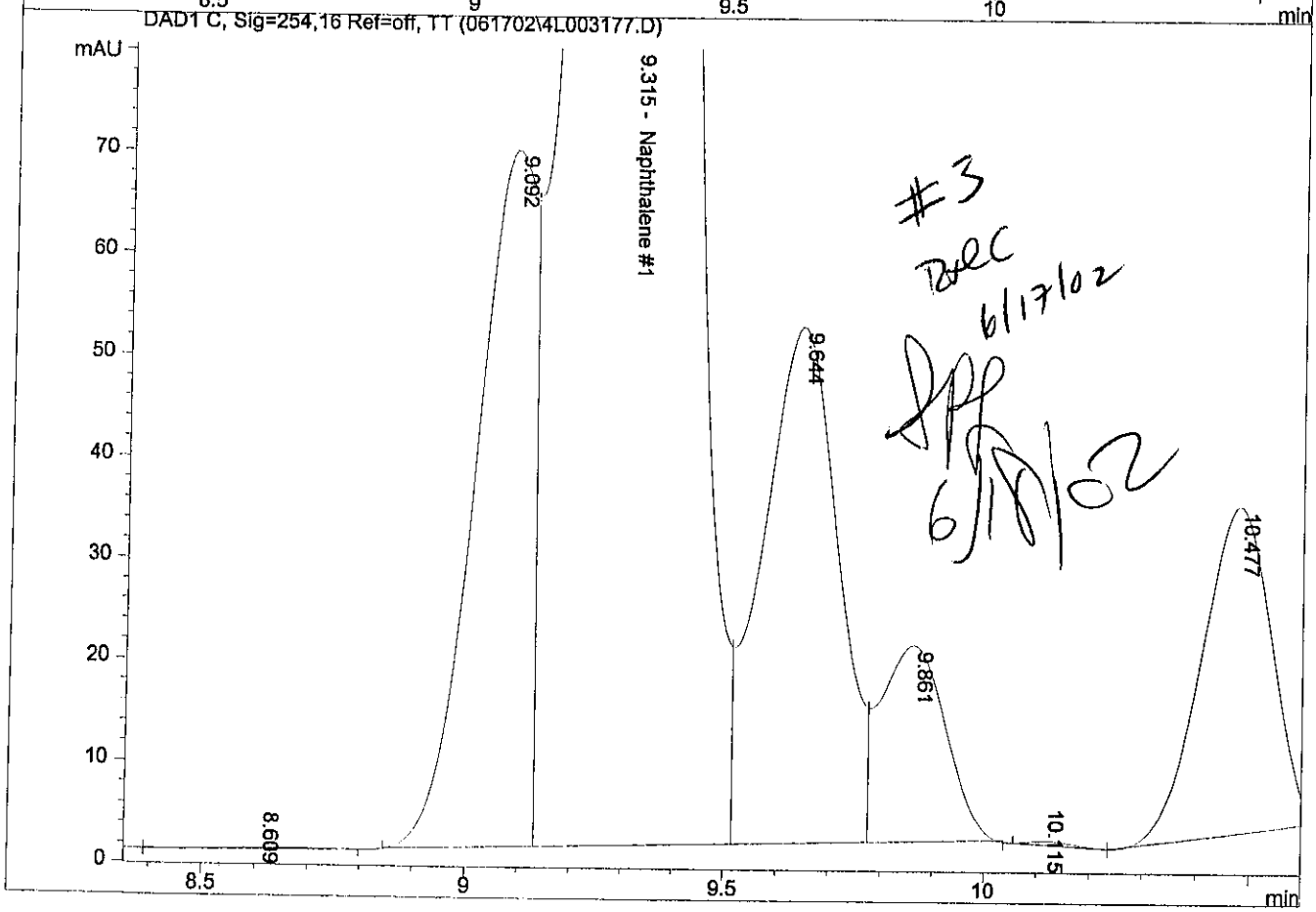
Current Chromatogram(s)



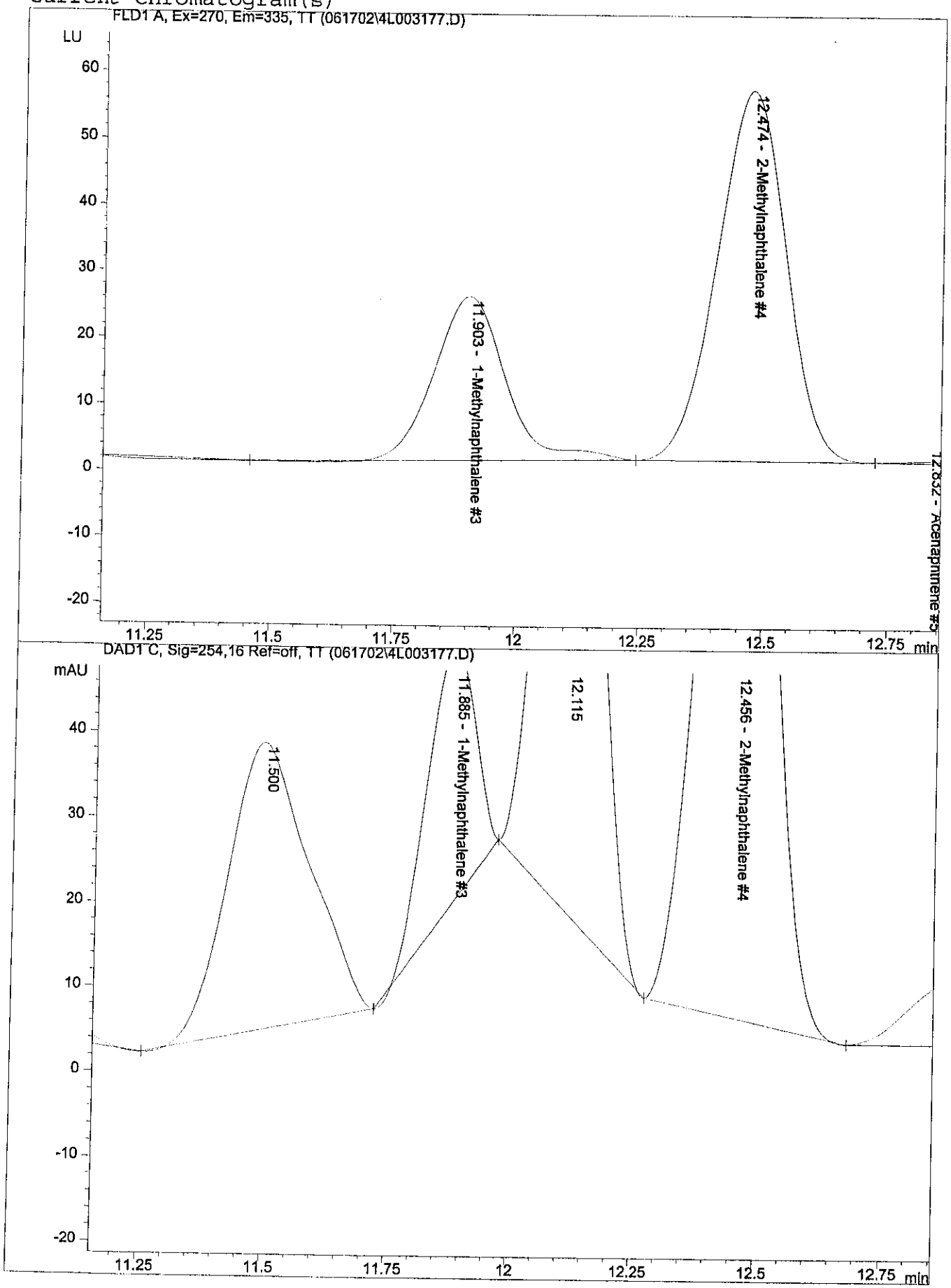
475

Current Chromatogram(s)



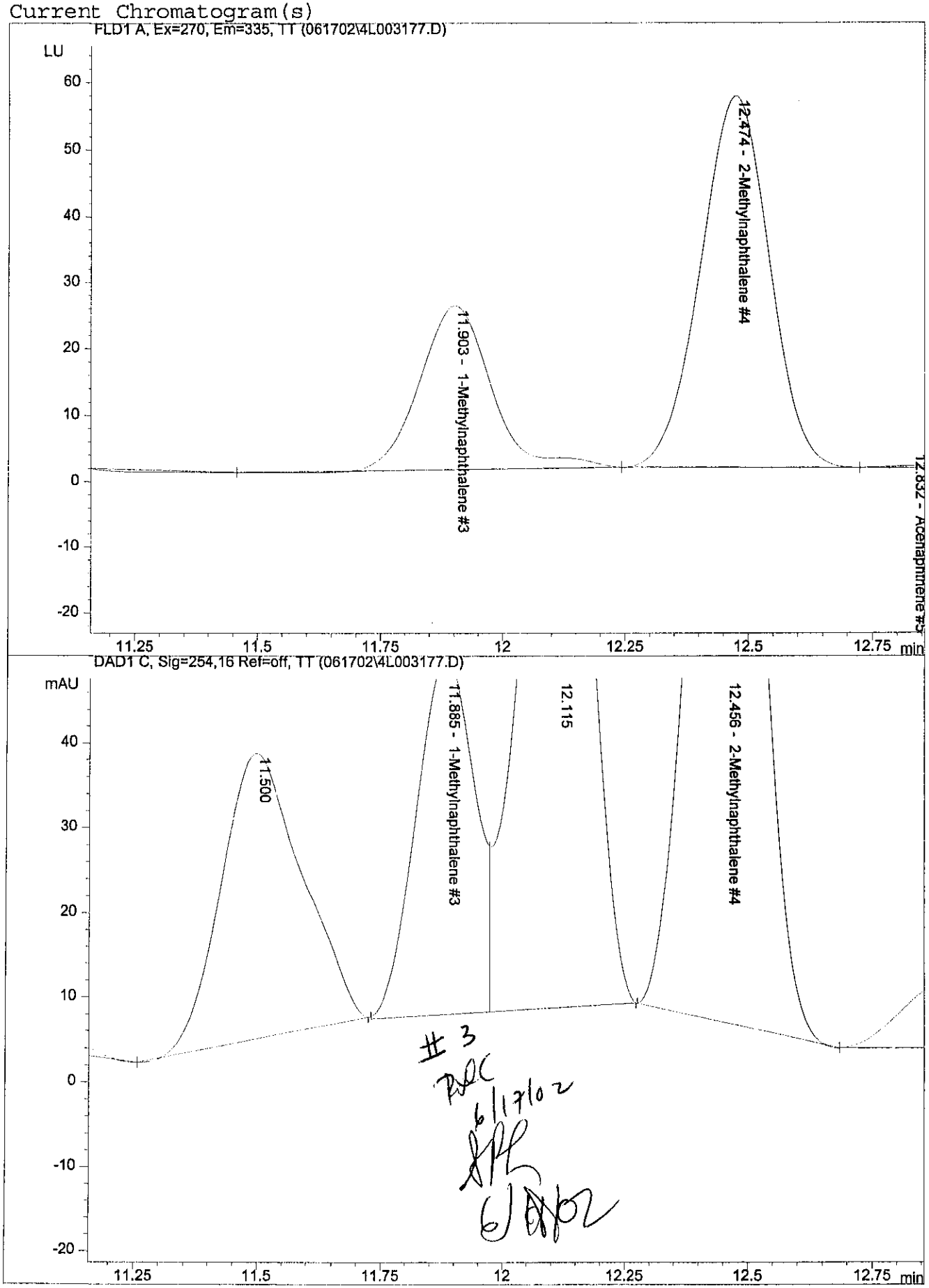


Current Chromatogram(s)



HPLC4 6/17/2002

Current Chromatogram(s)



#3
RDC
6/17/02
6/18/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.334	BB	1725.73767	2.63189e-2	45.41958	✓	Naphthalene #1
11.903	BB	249.49638	2.35904e-2	5.88571		1-Methylnaphthalene #3
12.474	BB	537.74762	1.79174e-2	9.63506	✓	2-Methylnaphthalene #4
12.832	BB	3.56721	2.54639e-2	9.08348e-2		Acenaphthene #5
13.527	BB	10.62650	0.00000	0.00000		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.779		-	-	-		Fluoranthene #9
18.779		-	-	-		Pyrene #10
21.116	BB	8.05689e-1	5.84064e-1	4.70574e-1	DL	p-Terphenyl d14 #11*
22.391	BB	1.99153e-1	1.50191e-1	2.99110e-2		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.438		-	-	-		Benzo(k)fluoranthene #15
28.553		-	-	-		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.083	BB	3.70928e-1	9.22096e-2	3.42031e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 61.56587

Results obtained with enhanced integrator!

X10

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.315	VV	5769.20068	8.27916e-3	47.76414	✓	Naphthalene #1
11.007	BB	66.74937	3.26964e-2	2.18247	NC	Acenaphthylene #2
11.885	MV	350.95978	1.32407e-2	4.64697		1-Methylnaphthalene #3
12.456	BB	1053.51428	1.12833e-2	11.88715	✓	2-Methylnaphthalene #4
13.003	BB	199.04967	2.12122e-2	4.22228		Acenaphthene #5
13.491	BB	67.08362	2.01208e-2	1.34977		Fluorene #6
14.918	BB	6.59917e-1	2.03264e-1	1.34137e-1		Phenanthrene #7
16.347	BB	2.43152	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.102	BBA	3.63827	1.20391e-1	4.38015e-1	DL	p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 72.62493

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

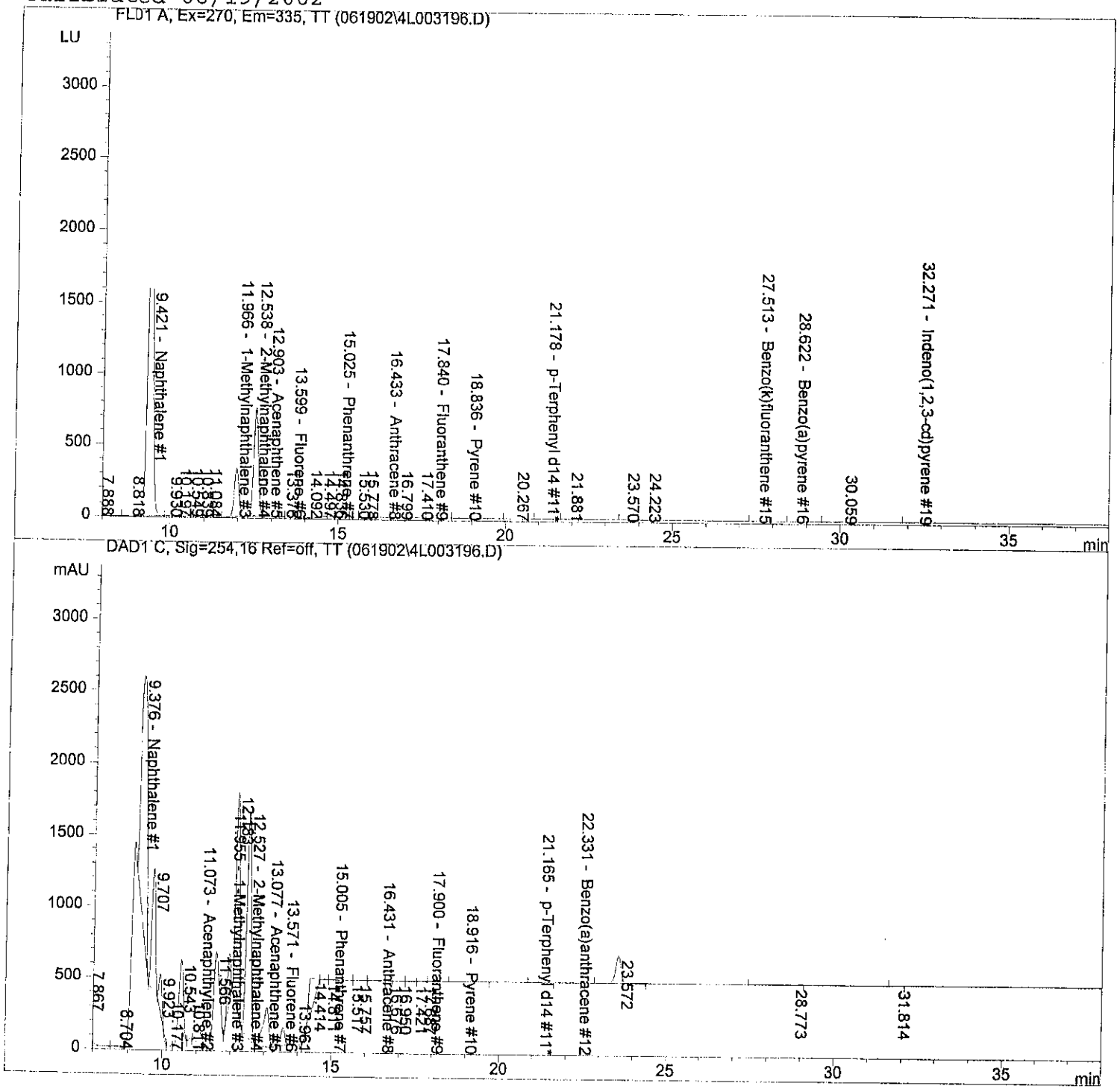
1,1

==========

Injection Date : 6/20/2002 4:23:09 AM
Sample Name : L0206140-12 REEX
Acq. Operator : RDC

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.421	BB	2.12284e4	2.62082e-2	556.35911	I	Naphthalene #1
11.966	BB	3476.19360	2.30023e-2	79.96060	✓	1-Methylnaphthalene #3
12.538	BB	7325.73584	1.77798e-2	130.25038	I	2-Methylnaphthalene #4
12.903	BB	63.53672	1.52057e-2	9.66118e-1	F	Acenaphthene #5
13.599	BB	182.39458	6.57970e-3	1.20010	✓	Fluorene #6 (f)
15.025	BB	4.92139e-1	7.06806e-1	3.47847e-1	C	Phenanthrene #7
16.433	BB	1.63184e-1	1.54177	2.51592e-1		Anthracene #8
17.840	BB	3.10289e-1	1.00933e-1	3.13185e-2		Fluoranthene #9
18.836	BB	4.31316e-1	6.95890e-2	3.00149e-2		Pyrene #10
21.178	BB	10.25904	3.14497e-1	3.22644		p-Terphenyl d14 #11*
22.485		-	-	-		Benzo(a)anthracene #12
23.357		-	-	-		Chrysene #13
26.079		-	-	-		Benzo(b)fluoranthene #14
27.513	BBA	2.45475e-1	5.47396e-2	1.34372e-2		Benzo(k)fluoranthene #15
28.622	PBA	2.01698e-1	1.93786e-1	3.90862e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.271	PB	2.91520e-1	1.23702e-1	3.60616e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 772.71211

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
9.376	BB	2.13968e4	8.18815e-3	175.20026	I	Naphthalene #1
11.073	BB	1059.13586	3.00643e-2	31.84218	NC	Acenaphthylene #2
11.955	BB	2261.68896	1.29449e-2	29.27740	✓	1-Methylnaphthalene #3
12.527	BB	1.51011e4	1.12333e-2	169.63495	I	2-Methylnaphthalene #4
13.077	BB	3430.37524	2.04262e-2	70.06957	F	Acenaphthene #5
13.571	BB	1190.25159	1.76010e-2	20.94966	F	Fluorene #6
15.005	BB	9.59326	4.09998e-2	3.93322e-1	✓	Phenanthrene #7
16.431	BB	34.96212	8.06626e-3	2.82013e-1	<MDL	Anthracene #8
17.900	BBA	1.46378e-1	2.47086e-1	3.61681e-2	<MDL	Fluoranthene #9
18.916	PB	34.55659	1.53904e-2	5.31839e-1	NC	Pyrene #10
21.165	BB	47.71524	6.93556e-2	3.30932	331%	p-Terphenyl d14 #11*
22.331	PB	1.32770	4.78467e-2	6.35261e-2	NC	Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

482

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 501.59021

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

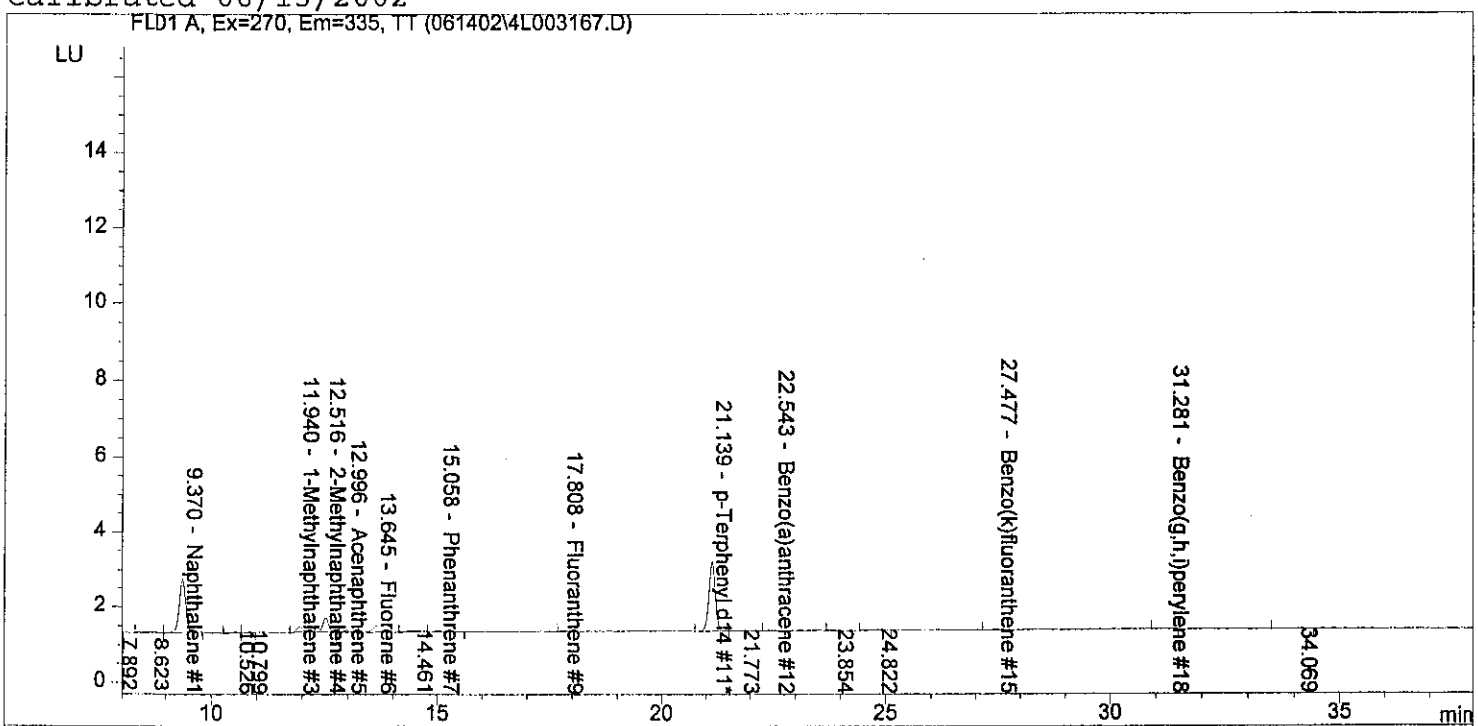
==========

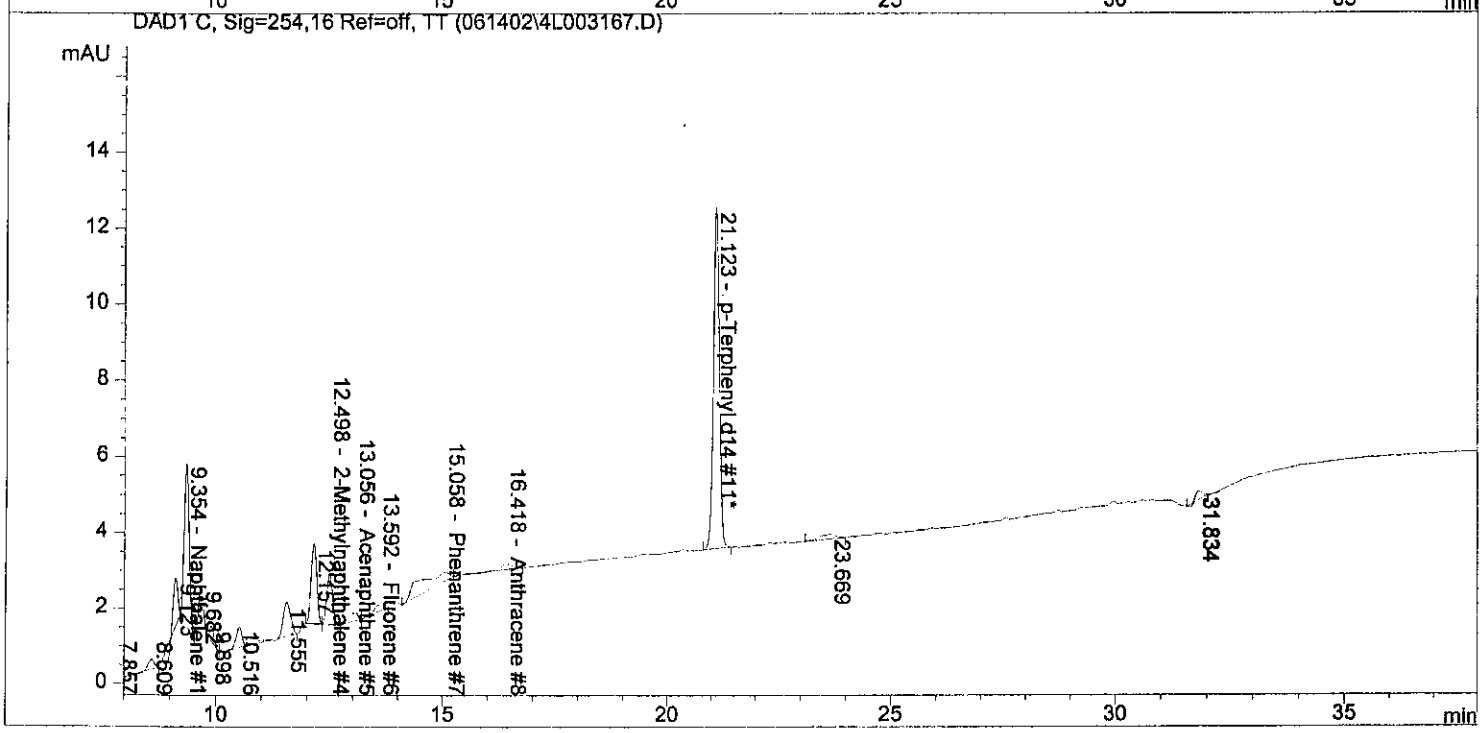
Injection Date : 6/15/2002 9:25:35 PM
Sample Name : L0206140-13 831W
Acq. Operator : RDC

Seq. Line : 37
Vial : 36
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	BB	14.62547	4.06712e-2	5.94835e-1		Naphthalene #1
11.940	BB	1.30936	1.51389e-1	1.98224e-1		1-Methylnaphthalene #3
12.516	BB	3.69028	5.19360e-2	1.91659e-1		2-Methylnaphthalene #4
12.996	BB	7.03577e-1	7.17694e-2	5.04953e-2		Acenaphthene #5
13.645	BBA	2.09257	0.00000	0.00000		Fluorene #6
15.058	BBA	1.58993e-1	2.14966	3.41782e-1	F	Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.808	BBA	1.85849e-1	1.47102e-1	2.73388e-2		Fluoranthene #9
18.779		-	-	-		Pyrene #10
21.139	BB	19.22720	3.04420e-1	5.85314	58.6%	p-Terphenyl d14 #11*
22.543	BB	3.22840e-1	9.57651e-2	3.09168e-2		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.477	BBA	2.21782e-1	4.92672e-2	1.09266e-2		Benzo(k)fluoranthene #15
28.553		-	-	-		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.281	BB	1.60799e-1	2.82520e-1	4.54288e-2		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.34474

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
9.354	BB	34.38551	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.498	BB	12.67447	3.07965e-3	3.90329e-2		2-Methylnaphthalene #4
13.056	BB	3.20501	6.02536e-2	1.93113e-1		Acenaphthene #5
13.592	BB	2.21455	9.24911e-2	2.04826e-1		Fluorene #6
15.058	BB	16.01279	2.51449e-2	4.02639e-1	F	Phenanthrene #7
16.418	BB	3.32811	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.123	BBA	85.63866	6.72720e-2	5.76109		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-	57.6%	Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.60070

Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

1,1 L0206140-17 MS

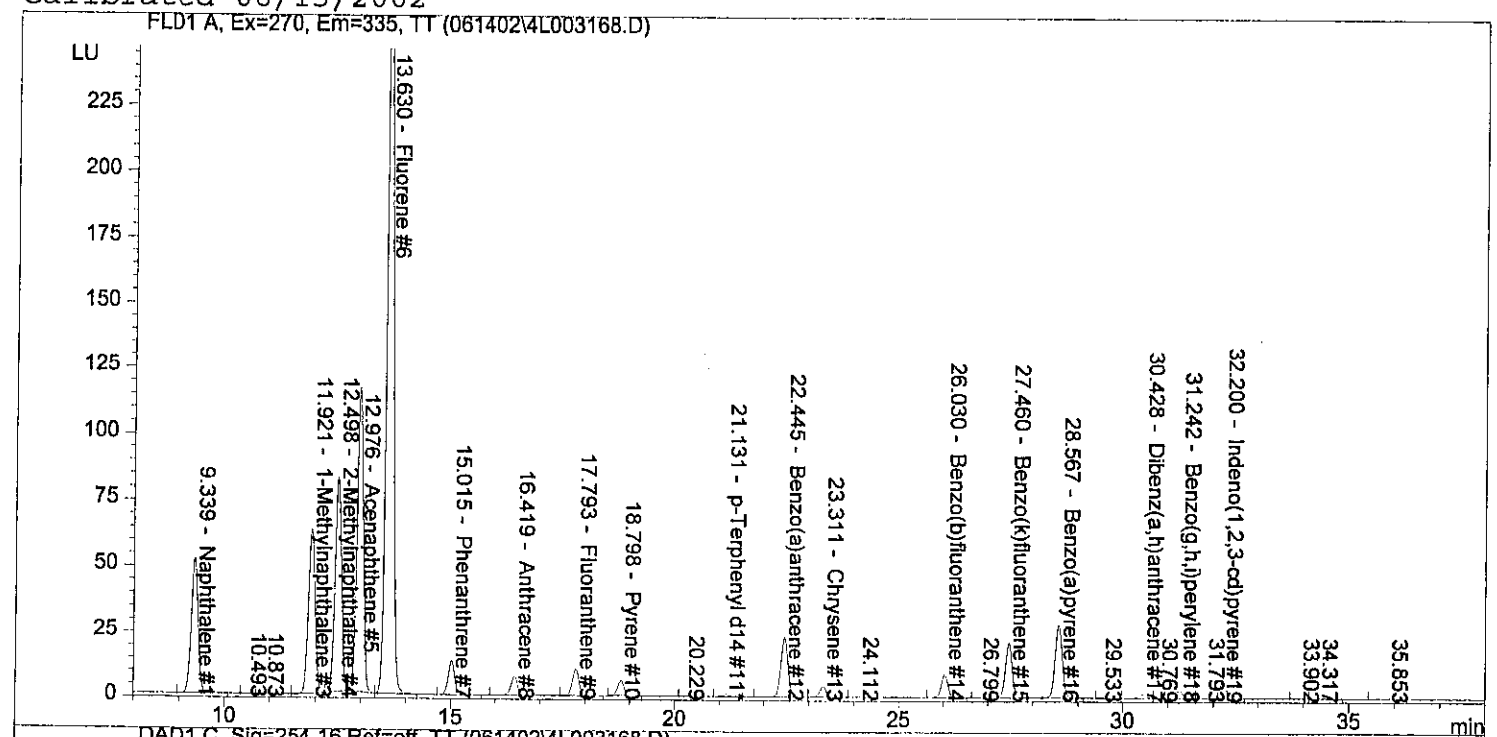
==========

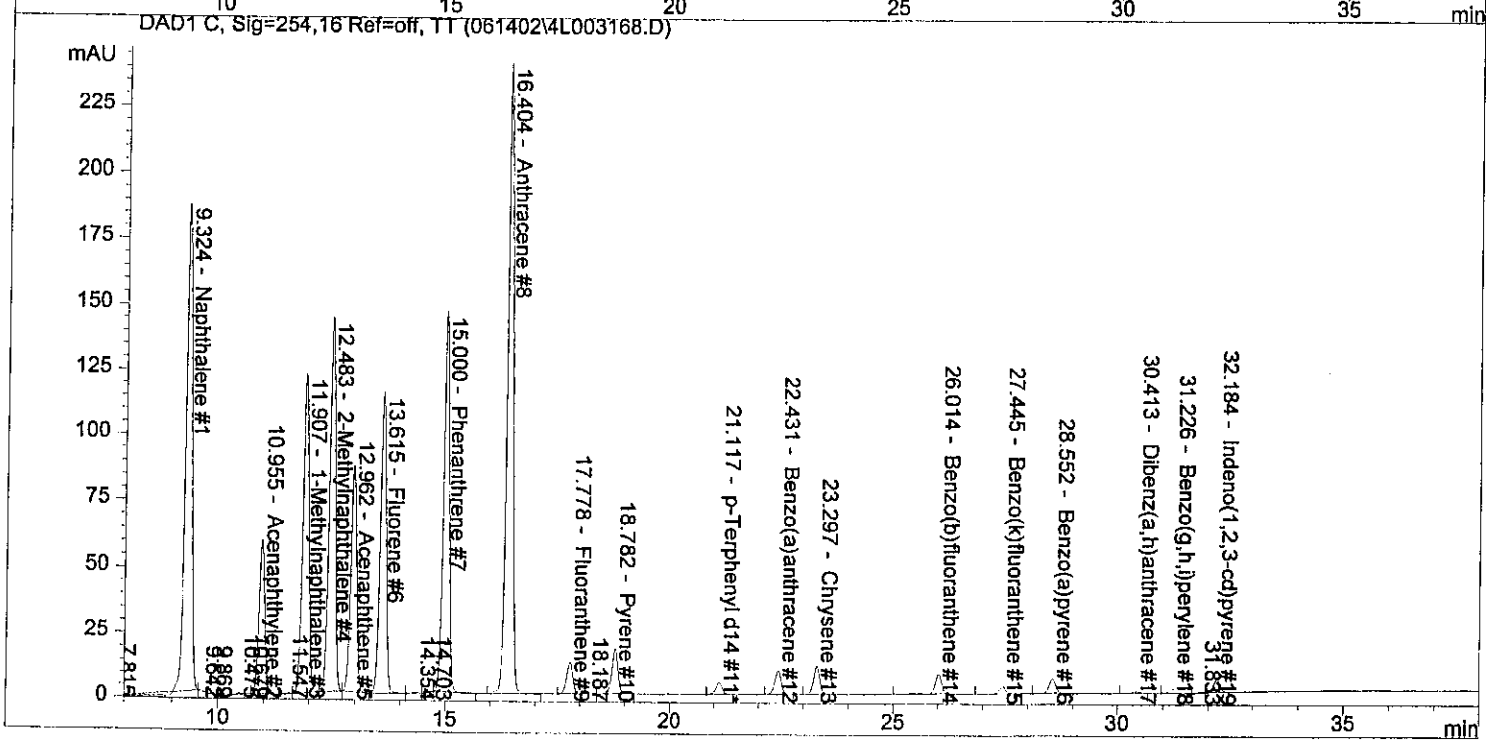
Injection Date : 6/15/2002 10:22:13 PM
Sample Name : WG119548-0½ WMS
Acq. Operator : RDC

Seq. Line : 38
Vial : 37
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.339	BB	531.42554	2.65946e-2	14.13306		Naphthalene #1
11.921	BB	621.53998	2.31868e-2	14.41151		1-Methylnaphthalene #3
12.498	BB	797.73920	1.78408e-2	14.23233		2-Methylnaphthalene #4
12.976	BB	1136.79419	1.41226e-2	16.05444		Acenaphthene #5
13.630	BB	2789.02661	6.61343e-3	18.44502		Fluorene #6
15.015	PBA	127.63251	1.73766e-1	22.17813		Phenanthrene #7
16.419	BBA	71.70786	3.02708e-1	21.70656		Anthracene #8
17.793	PBA	99.87669	2.55609e-2	2.55294		Fluoranthene #9
18.798	BBA	59.17332	4.16048e-2	2.46189		Pyrene #10
21.131	BBA	9.56224	3.16782e-1	3.02914		p-Terphenyl d14 #11*
22.445	PB	239.64171	8.24953e-3	1.97693		Benzo(a)anthracene #12
23.311	BB	41.35297	4.04161e-2	1.67133		Chrysene #13
26.030	PBA	93.00402	1.71779e-2	1.59762		Benzo(b)fluoranthene #14
27.460	BB	225.59038	2.85499e-3	6.44059e-1		Benzo(k)fluoranthene #15
28.567	BB	298.13568	4.82292e-3	1.43788		Benzo(a)pyrene #16
30.428	BB	15.52868	4.23408e-2	6.57496e-1		Dibenz(a,h)anthracene #17
31.242	BB	33.71279	2.94007e-2	9.91178e-1		Benzo(g,h,i)perylene #18
32.200	BB	69.73191	1.43909e-2	1.00350		Indeno(1,2,3-cd)pyrene #1

Totals : 139.18501

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
9.324	BB	1724.55957	8.15308e-3	14.06047		Naphthalene #1
10.955	BB	532.14954	3.04474e-2	16.20256		Acenaphthylene #2
11.907	BB	1116.13110	1.31155e-2	14.63865		1-Methylnaphthalene #3
12.483	BB	1287.67053	1.13015e-2	14.55260		2-Methylnaphthalene #4
12.962	BB	782.16943	2.07359e-2	16.21897		Acenaphthene #5
13.615	BB	1036.36536	1.78101e-2	18.45773		Fluorene #6
15.000	BBA	1292.08057	1.75836e-2	22.71941		Phenanthrene #7
16.404	PBA	2192.85620	1.01146e-2	22.17987		Anthracene #8
17.778	PB	113.98920	2.20803e-2	2.51692		Fluoranthene #9
18.782	BBA	171.20343	1.45444e-2	2.49005		Pyrene #10
21.117	BBA	42.78744	6.96324e-2	2.97939		p-Terphenyl d14 #11*
22.431	PBA	89.10582	2.25306e-2	2.00761		Benzo(a)anthracene #12
23.297	PB	107.96224	1.53795e-2	1.66041		Chrysene #13
26.014	BBA	76.57317	2.12808e-2	1.62954		Benzo(b)fluoranthene #14
27.445	BBA	27.97776	2.31615e-2	6.48007e-1		Benzo(k)fluoranthene #15
28.552	BBA	54.85989	2.67873e-2	1.46955		Benzo(a)pyrene #16
30.413	BB	6.92731	9.83236e-2	6.81118e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.226	BB	18.75806	5.16499e-2	9.68853e-1		Benzo(g,h,i)perylene #18
32.184	BB	47.93371	2.16702e-2	1.03873		Indeno(1,2,3-cd)pyrene #1
Totals :				157.12042		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 L0206140-18 MSD

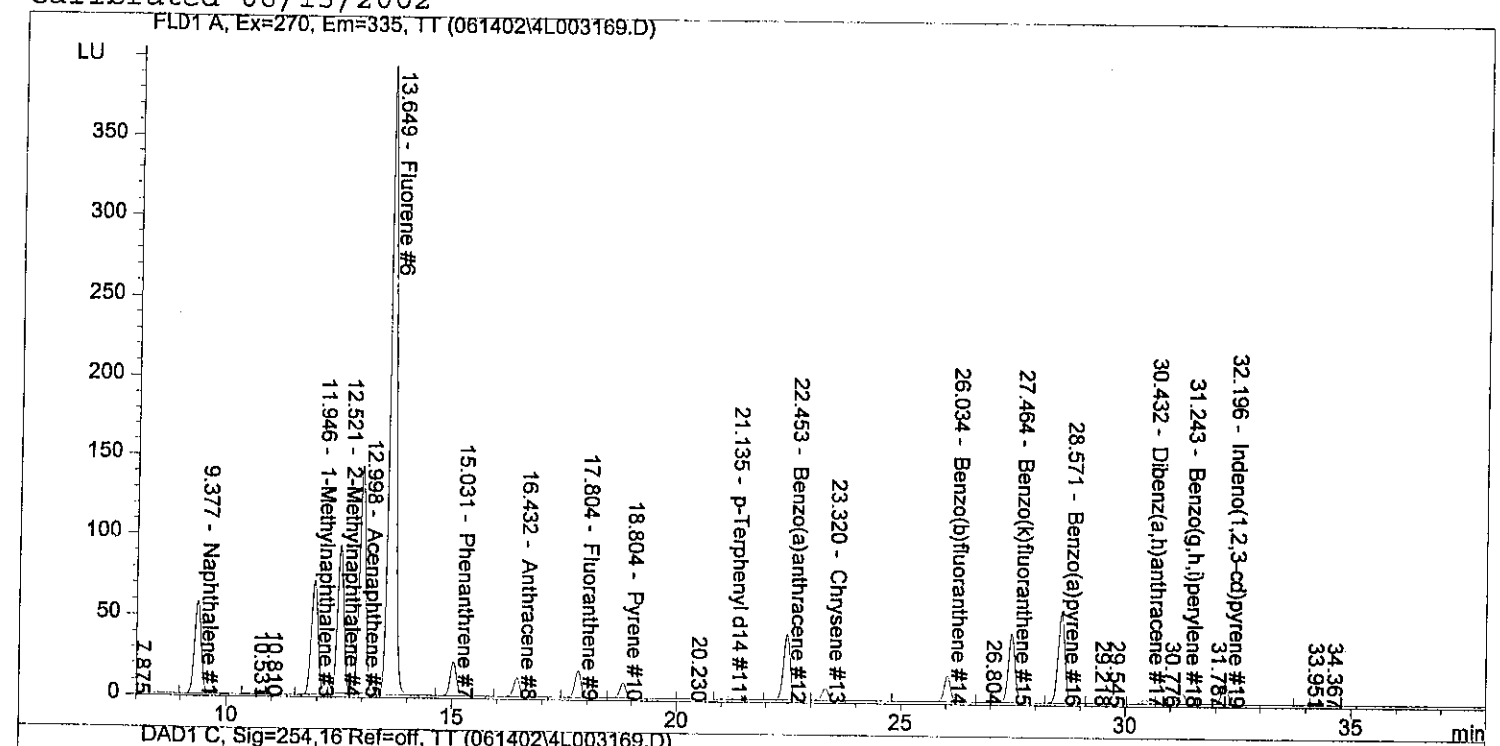
==========

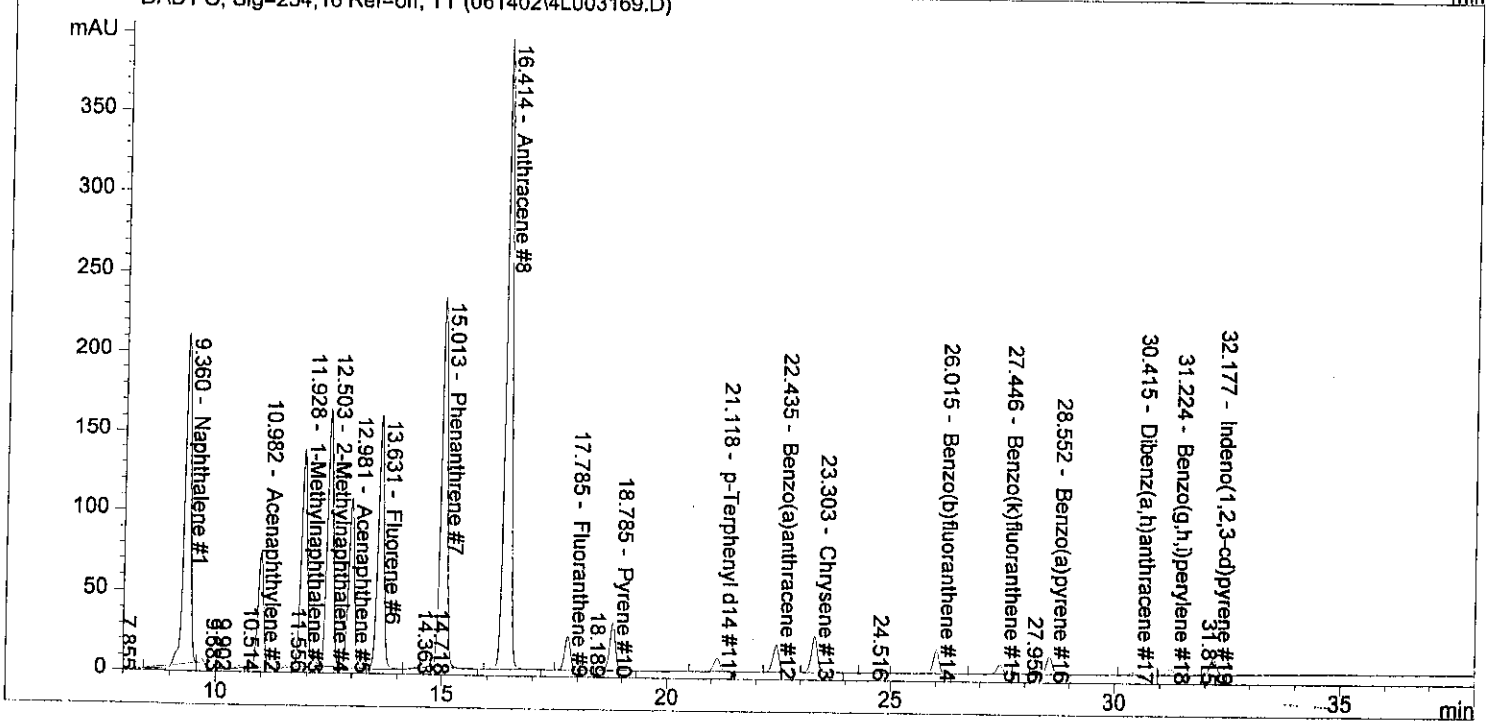
Injection Date : 6/15/2002 11:18:51 PM
Sample Name : WG119548-05 WMSD
Acq. Operator : RDC

Seq. Line : 39
Vial : 38
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





490

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	592.85077	2.65534e-2	15.74218		Naphthalene #1
11.946	BB	697.34326	2.31574e-2	16.14863		1-Methylnaphthalene #3
12.521	BB	895.55365	1.78235e-2	15.96192		2-Methylnaphthalene #4
12.998	BB	1393.47668	1.41160e-2	19.67029		Acenaphthene #5
13.649	BB	3863.45581	6.62336e-3	25.58904		Fluorene #6
15.031	BBA	204.52115	1.72839e-1	35.34924		Phenanthrene #7
16.432	BBA	118.89257	3.02553e-1	35.97130		Anthracene #8
17.804	PB	168.74739	2.54684e-2	4.29773		Fluoranthene #9
18.804	BBA	100.54800	4.15003e-2	4.17277		Pyrene #10
21.135	BBA	18.09142	3.05187e-1	5.52127		p-Terphenyl d14 #11*
22.453	PB	433.34512	8.19676e-3	3.55202		Benzo(a)anthracene #12
23.320	BBA	82.79241	4.01261e-2	3.32213		Chrysene #13
26.034	BB	176.62218	1.70459e-2	3.01068		Benzo(b)fluoranthene #14
27.464	BB	452.69336	2.83208e-3	1.28206		Benzo(k)fluoranthene #15
28.571	BB	593.44684	4.76185e-3	2.82590		Benzo(a)pyrene #16
30.432	BB	29.74266	4.11749e-2	1.22465		Dibenz(a,h)anthracene #17
31.243	BB	76.18909	2.87244e-2	2.18848		Benzo(g,h,i)perylene #18
32.196	BBA	141.15768	1.41803e-2	2.00166		Indeno(1,2,3-cd)pyrene #1

Totals : 197.83196

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
9.360	PB	1958.74915	8.17458e-3	16.01195		Naphthalene #1
10.982	BB	649.73755	3.03890e-2	19.74487		Acenaphthylene #2
11.928	BB	1268.67554	1.31086e-2	16.63059		1-Methylnaphthalene #3
12.503	BB	1449.73926	1.13106e-2	16.39747		2-Methylnaphthalene #4
12.981	BB	964.29785	2.07052e-2	19.96595		Acenaphthene #5
13.631	BB	1442.73792	1.77650e-2	25.63026		Fluorene #6
15.013	BBA	2060.10864	1.75482e-2	36.15122		Phenanthrene #7
16.414	BBA	3607.96289	1.01521e-2	36.62829		Anthracene #8
17.785	PB	192.60904	2.19670e-2	4.23103		Fluoranthene #9
18.785	BBA	292.12219	1.44619e-2	4.22463		Pyrene #10
21.118	BBA	82.13397	6.73726e-2	5.53358		p-Terphenyl d14 #11*
22.435	BBA	161.15041	2.24031e-2	3.61027		Benzo(a)anthracene #12
23.303	BBA	224.22540	1.52831e-2	3.42685		Chrysene #13
26.015	BBA	143.27290	2.10580e-2	3.01704		Benzo(b)fluoranthene #14
27.446	PB	56.37864	2.28969e-2	1.29089		Benzo(k)fluoranthene #15
28.552	BB	108.09621	2.63581e-2	2.84921		Benzo(a)pyrene #16
30.415	BB	14.00450	9.60988e-2	1.34582		Dibenz(a,h)anthracene #17

491

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.224	BB	40.86285	5.28052e-2	2.15777		Benzo(g,h,i)perylene #18
32.177	BB	99.79005	2.10978e-2	2.10535		Indeno(1,2,3-cd)pyrene #1

Totals : 220.95306

Results obtained with enhanced integrator!

*** End of Report ***

2.2.7.3 Standards Data

==========

Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : Friday, June 14, 2002 9:14:03 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 : Included
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
9.335	2	1	1.00000	118.44469	8.44276e-3			Naphthalene #1
		2	5.00000	598.90387	8.34859e-3			
		3	10.00000	1219.35925	8.20103e-3			
		4	20.00000	2498.67944	8.00423e-3			
		5	50.00000	6195.70996	8.07010e-3			
		6	100.00000	1.19505e4	8.36782e-3			
9.353	1	1	1.00000	35.70203	2.80096e-2			Naphthalene #1
		2	5.00000	178.95563	2.79399e-2			
		3	10.00000	371.85556	2.68922e-2			
		4	20.00000	754.54517	2.65060e-2			
		5	50.00000	1885.17432	2.65227e-2			
		6	100.00000	3817.44727	2.61955e-2			
10.959	2	1	1.00000	32.34379	3.09178e-2			Acenaphthylene #2
		2	5.00000	157.19412	3.18078e-2			
		3	10.00000	325.59451	3.07130e-2			
		4	20.00000	658.50293	3.03719e-2			
		5	50.00000	1639.64368	3.04944e-2			
		6	100.00000	3321.14795	3.01101e-2			
11.906	2	1	1.00000	73.52287	1.36012e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.23682	1.36897e-2			
		3	10.00000	757.97943	1.31930e-2			
		4	20.00000	1536.99390	1.30124e-2			
		5	50.00000	3823.69092	1.30764e-2			
		6	100.00000	7652.24854	1.30681e-2			
11.924	1	1	1.00000	41.21246	2.42645e-2			1-Methylnaphthalene #3
		2	5.00000	205.97406	2.42749e-2			
		3	10.00000	427.16837	2.34100e-2			
		4	20.00000	865.41754	2.31102e-2			
		5	50.00000	2162.71216	2.31191e-2			
		6	100.00000	4362.68555	2.29217e-2			
12.479	2	1	1.00000	85.92275	1.16384e-2			2-Methylnaphthalene #4
		2	5.00000	427.72684	1.16897e-2			
		3	10.00000	887.82635	1.12635e-2			
		4	20.00000	1791.84399	1.11617e-2			
		5	50.00000	4440.55420	1.12599e-2			
		6	100.00000	8770.67480	1.14016e-2			
12.497	1	1	1.00000	53.61522	1.86514e-2			2-Methylnaphthalene #4
		2	5.00000	267.76404	1.86732e-2			
		3	10.00000	555.40234	1.80050e-2			
		4	20.00000	1125.70947	1.77666e-2			
		5	50.00000	2815.32397	1.77599e-2			
		6	100.00000	5651.09082	1.76957e-2			
12.956	2	1	1.00000	45.75132	2.18573e-2			Acenaphthene #5
		2	5.00000	230.37761	2.17035e-2			
		3	10.00000	479.64664	2.08487e-2			
		4	20.00000	968.64014	2.06475e-2			
		5	50.00000	2413.63843	2.07156e-2			
		6	100.00000	4859.52686	2.05781e-2			
12.974	1	1	1.00000	68.11809	1.46804e-2			Acenaphthene #5
		2	5.00000	339.83661	1.47130e-2			
		3	10.00000	704.82605	1.41879e-2			
		4	20.00000	1426.86951	1.40167e-2			
		5	50.00000	3551.90137	1.40770e-2			
		6	100.00000	7092.07813	1.41002e-2			
13.606	2	1	1.00000	52.41635	1.90780e-2			Fluorene #6
		2	5.00000	267.85175	1.86670e-2			
		3	10.00000	555.59216	1.79988e-2			
		4	20.00000	1125.01990	1.77775e-2			
		5	50.00000	2806.76538	1.78141e-2			
		6	100.00000	5664.78320	1.76529e-2			
13.625	1	1	1.00000	147.37762	6.78529e-3			Fluorene #6
		2	5.00000	732.50269	6.82591e-3			
		3	10.00000	1519.64282	6.58049e-3			
		4	20.00000	3071.66968	6.51112e-3			
		5	50.00000	7586.48193	6.59067e-3			
		6	100.00000	1.50207e4	6.65746e-3			
14.988	2	1	1.00000	59.16147	1.69029e-2			Phenanthrene #7
		2	5.00000	271.73749	1.84001e-2			
		3	10.00000	563.78528	1.77372e-2			
		4	20.00000	1137.39648	1.75840e-2			
		5	50.00000	2834.24902	1.76414e-2			
		6	100.00000	5720.03760	1.74824e-2			
15.006	1	1	1.00000	5.49246	1.82068e-1			Phenanthrene #7
		2	5.00000	27.09999	1.84502e-1			
		3	10.00000	56.03428	1.78462e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.91219	1.75574e-1			
		5	50.00000	286.42151	1.74568e-1			
		6	100.00000	583.99371	1.71235e-1			
16.387	2	1	1.00000	93.73675	1.06682e-2			Anthracene #8
		2	5.00000	479.37994	1.04301e-2			
		3	10.00000	1007.09772	9.92952e-3			
		4	20.00000	2016.31750	9.91907e-3			
		5	50.00000	4994.17480	1.00117e-2			
		6	100.00000	9770.11133	1.02353e-2			
16.405	1	1	1.00000	3.27440	3.05399e-1			Anthracene #8
		2	5.00000	15.91612	3.14147e-1			
		3	10.00000	32.93192	3.03657e-1			
		4	20.00000	66.59662	3.00316e-1			
		5	50.00000	165.24231	3.02586e-1			
		6	100.00000	330.63736	3.02446e-1			
17.762	2	1	1.00000e-1	2.86666	3.48838e-2			Fluoranthene #9
		2	5.00000e-1	21.47706	2.32806e-2			
		3	1.00000	44.35479	2.25455e-2			
		4	2.00000	90.19173	2.21750e-2			
		5	5.00000	225.76083	2.21473e-2			
		6	10.00000	458.29434	2.18200e-2			
17.779	1	1	1.00000e-1	3.76502	2.65603e-2			Fluoranthene #9
		2	5.00000e-1	18.56896	2.69267e-2			
		3	1.00000	38.54884	2.59411e-2			
		4	2.00000	77.44264	2.58256e-2			
		5	5.00000	194.82120	2.56646e-2			
		6	10.00000	394.78314	2.53304e-2			
18.761	2	1	1.00000e-1	5.78315	1.72916e-2			Pyrene #10
		2	5.00000e-1	30.90943	1.61763e-2			
		3	1.00000	67.05128	1.49140e-2			
		4	2.00000	137.28792	1.45679e-2			
		5	5.00000	342.14008	1.46139e-2			
		6	10.00000	696.78912	1.43515e-2			
18.779	1	1	1.00000e-1	2.23349	4.47730e-2			Pyrene #10
		2	5.00000e-1	11.37372	4.39610e-2			
		3	1.00000	23.43897	4.26640e-2			
		4	2.00000	48.14644	4.15399e-2			
		5	5.00000	120.60387	4.14580e-2			
21.086	2	1	1.00000	14.27733	7.00411e-2			p-Terphenyl d14 #11*
		2	5.00000	72.29396	6.91621e-2			
		3	10.00000	150.04201	6.66480e-2			
		4	20.00000	302.29453	6.61606e-2			
		5	50.00000	765.97974	6.52759e-2			
		6	100.00000	1538.62390	6.49931e-2			
21.105	1	1	1.00000	3.43824	2.90847e-1			p-Terphenyl d14 #11*
		2	5.00000	15.96525	3.13180e-1			
		3	10.00000	33.36931	2.99677e-1			
		4	20.00000	66.93617	2.98792e-1			
		5	50.00000	168.95605	2.95935e-1			
		6	100.00000	342.27563	2.92162e-1			
22.401	2	1	1.00000e-1	4.17491	2.39526e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.50113	2.32546e-2			
		3	1.00000	43.38402	2.30500e-2			
		4	2.00000	88.38959	2.26271e-2			
		5	5.00000	220.76303	2.26487e-2			
		6	10.00000	449.91843	2.22263e-2			

496

HPLC4 6/14/2002 9:18:30 AM PDT

page 496

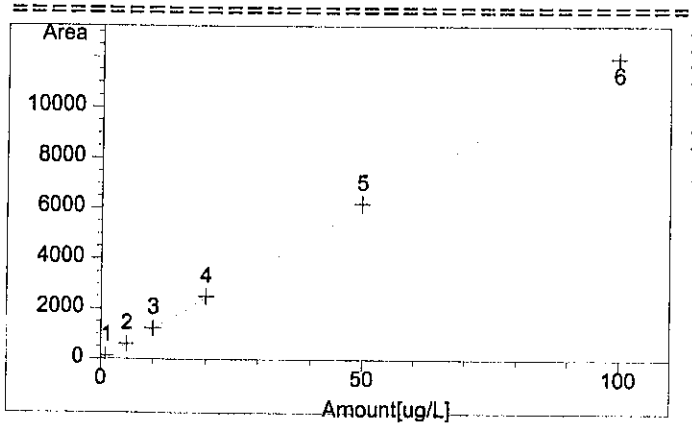
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.418	1	1	1.00000e-1	11.68998	8.55433e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.25381	8.73304e-3			
		3	1.00000	119.10960	8.39563e-3			
		4	2.00000	240.75162	8.30732e-3			
		5	5.00000	603.67468	8.28261e-3			
		6	10.00000	1230.57483	8.12628e-3			
23.266	2	1	1.00000e-1	7.56785	1.32138e-2			Chrysene #13
		2	5.00000e-1	30.82063	1.62229e-2			
		3	1.00000	63.84754	1.56623e-2			
		4	2.00000	129.65228	1.54259e-2			
		5	5.00000	324.23495	1.54209e-2			
		6	10.00000	658.83282	1.51784e-2			
23.280	1	1	1.00000e-1	2.35546	4.24546e-2			Chrysene #13
		2	5.00000e-1	11.91314	4.19705e-2			
		3	1.00000	24.15862	4.13931e-2			
		4	2.00000	49.60668	4.03171e-2			
		5	5.00000	123.50459	4.04843e-2			
		6	10.00000	251.15788	3.98156e-2			
25.984	2	1	1.00000e-1	4.71679	2.12008e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.19203	2.25306e-2			
		3	1.00000	43.42394	2.30288e-2			
		4	2.00000	94.69703	2.11200e-2			
		5	5.00000	236.61021	2.11318e-2			
		6	10.00000	480.16330	2.08262e-2			
26.003	1	1	1.00000e-1	5.60739	1.78336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.48360	1.81927e-2			
		3	1.00000	57.64073	1.73488e-2			
		4	2.00000	116.12308	1.72231e-2			
		5	5.00000	291.03116	1.71803e-2			
		6	10.00000	592.02631	1.68911e-2			
27.418	2	1	5.00000e-2	2.02281	2.47181e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.12679	2.46870e-2			
		3	5.00000e-1	21.38502	2.33809e-2			
		4	1.00000	43.30220	2.30935e-2			
		5	2.50000	108.54563	2.30318e-2			
		6	5.00000	220.91960	2.26327e-2			
27.438	1	1	5.00000e-2	16.96901	2.94655e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.42035	2.99687e-3			
		3	5.00000e-1	173.46057	2.88250e-3			
		4	1.00000	351.66119	2.84365e-3			
		5	2.50000	879.42432	2.84277e-3			
		6	5.00000	1779.80371	2.80930e-3			
28.535	2	1	1.00000e-1	3.59195	2.78400e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.33183	3.06151e-2			
		3	1.00000	36.80410	2.71709e-2			
		4	2.00000	74.00938	2.70236e-2			
		5	5.00000	188.39293	2.65403e-2			
		6	10.00000	385.66537	2.59292e-2			
28.553	1	1	1.00000e-1	19.68503	5.08000e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.54757	5.12570e-3			
		3	1.00000	203.09286	4.92386e-3			
		4	2.00000	412.69138	4.84624e-3			
		5	5.00000	1041.60461	4.80029e-3			
		6	10.00000	2128.17065	4.69887e-3			
30.399	2	1	1.00000e-1	8.17798e-1	1.22280e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.54521	1.10006e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.34522	9.66630e-2			
		4	2.00000	20.79541	9.61751e-2			
		5	5.00000	53.20811	9.39706e-2			
		6	10.00000	106.05376	9.42918e-2			
30.418	1	1	1.00000e-1	2.33135	4.28935e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.57100	4.32115e-2			
		3	1.00000	23.94359	4.17648e-2			
		4	2.00000	48.37633	4.13425e-2			
		5	5.00000	122.52839	4.08069e-2			
		6	10.00000	250.75458	3.98796e-2			
31.206	2	1	1.00000e-1	3.35385	2.98165e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.93342	5.59696e-2			
		3	1.00000	21.12121	4.73458e-2			
		4	2.00000	37.91122	5.27548e-2			
		5	5.00000	92.63392	5.39759e-2			
		6	10.00000	187.07765	5.34537e-2			
31.227	1	1	1.00000e-1	3.26803	3.05995e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.23036	3.08065e-2			
		3	1.00000	33.76281	2.96184e-2			
		4	2.00000	68.38602	2.92457e-2			
		5	5.00000	173.07938	2.88885e-2			
		6	10.00000	354.98242	2.81704e-2			
32.159	2	1	1.00000e-1	3.43245	2.91337e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.74642	2.41005e-2			
		3	1.00000	45.65535	2.19032e-2			
		4	2.00000	93.60317	2.13668e-2			
		5	5.00000	237.44170	2.10578e-2			
		6	10.00000	485.43732	2.06000e-2			
32.172	1	1	1.00000e-1	6.85877	1.45799e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.92362	1.51867e-2			
		3	1.00000	69.03428	1.44856e-2			
		4	2.00000	140.00281	1.42854e-2			
		5	5.00000	351.97876	1.42054e-2			
		6	10.00000	715.64252	1.39735e-2			

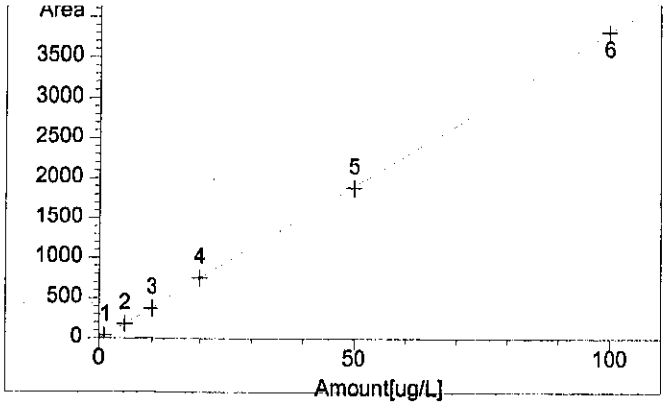
Peak Sum Table

No Entries in table

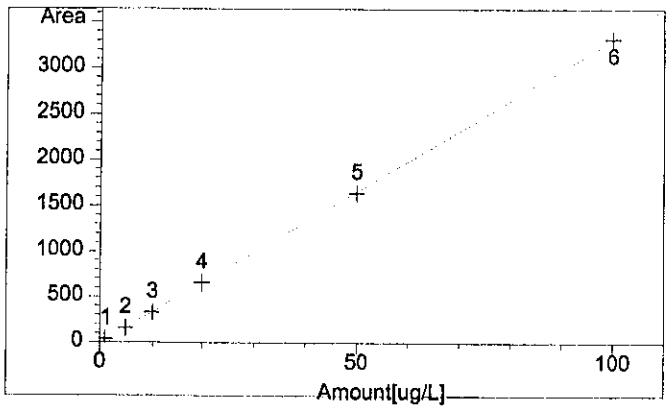
Calibration Curves



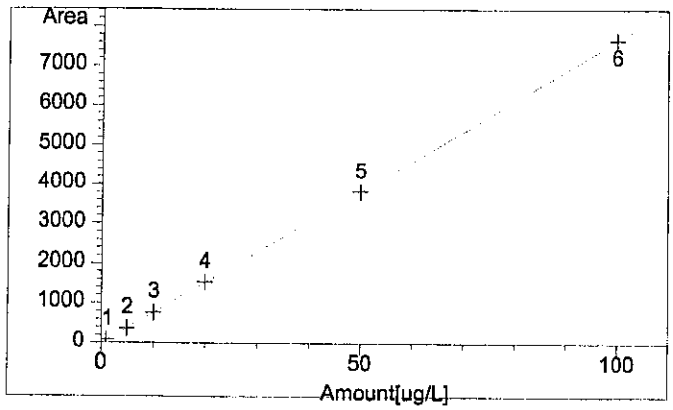
Naphthalene #1 at exp. RT: 9.335
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 90.64647
Formula: y = mx + b
m: 120.00596
b: 37.21961
x: Amount[ug/L]
y: Area



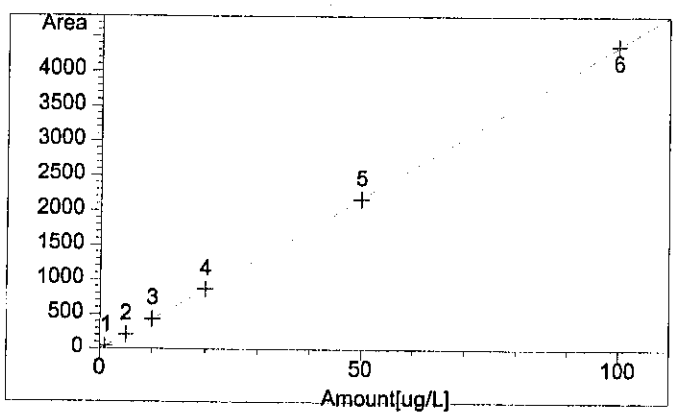
Naphthalene #1 at exp. RT: 9.353
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 9.16561
Formula: y = mx + b
m: 38.17339
b: -8.08139
x: Amount[ug/L]
y: Area



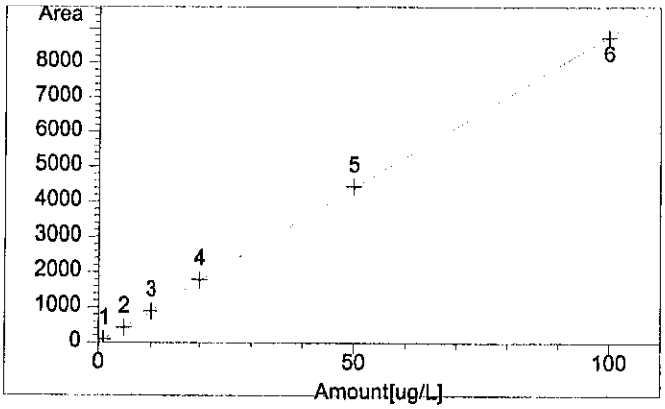
Acenaphthylene #2 at exp. RT: 10.959
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 8.09380
Formula: y = mx + b
m: 33.19524
b: -5.69815
x: Amount[ug/L]
y: Area



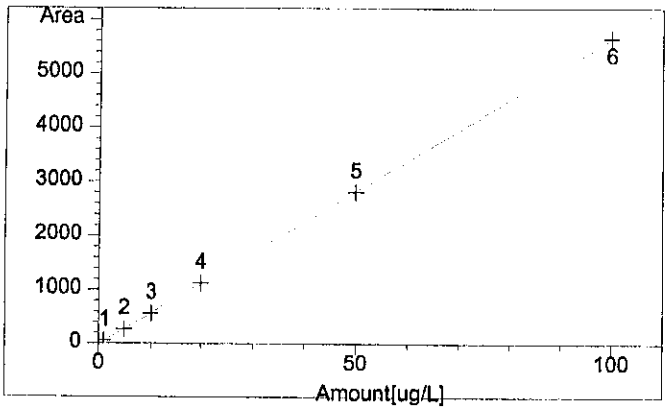
1-Methylnaphthalene #3 at exp. RT: 11.906
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 1.00000
Residual Std. Dev.: 7.81901
Formula: y = mx + b
m: 76.58082
b: -4.90862
x: Amount[ug/L]
y: Area



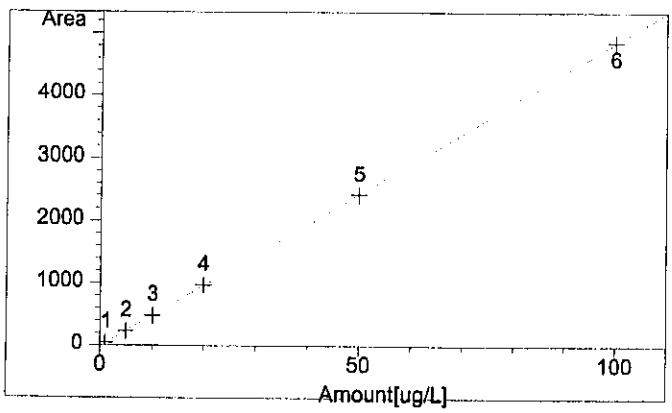
1-Methylnaphthalene #3 at exp. RT: 11.924
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 7.54227
Formula: y = mx + b
m: 43.63739
b: -7.34061
x: Amount[ug/L]
y: Area



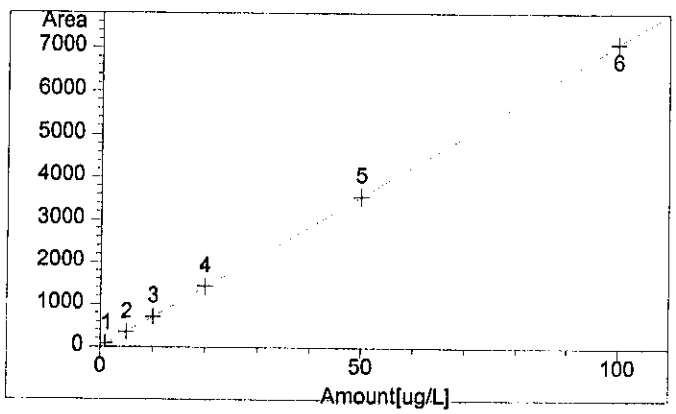
2-Methylnaphthalene #4 at exp. RT: 12.479
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 25.91757
Formula: y = mx + b
m: 87.84855
b: 9.24548
x: Amount [ug/L]
y: Area



2-Methylnaphthalene #4 at exp. RT: 12.497
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.96731
Formula: y = mx + b
m: 56.55348
b: -7.14867
x: Amount [ug/L]
y: Area

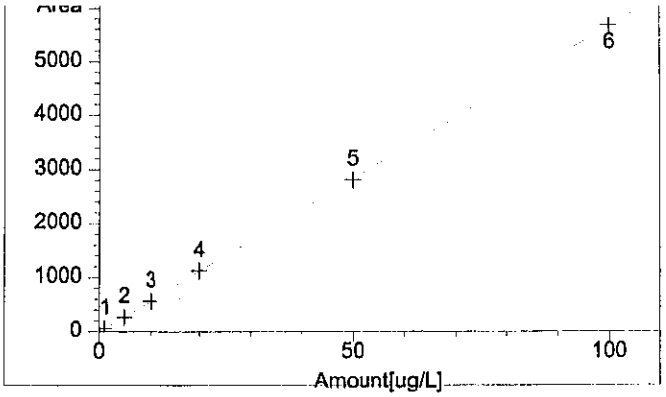


Acenaphthene #5 at exp. RT: 12.956
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 6.84725
Formula: y = mx + b
m: 48.60673
b: -6.18160
x: Amount [ug/L]
y: Area

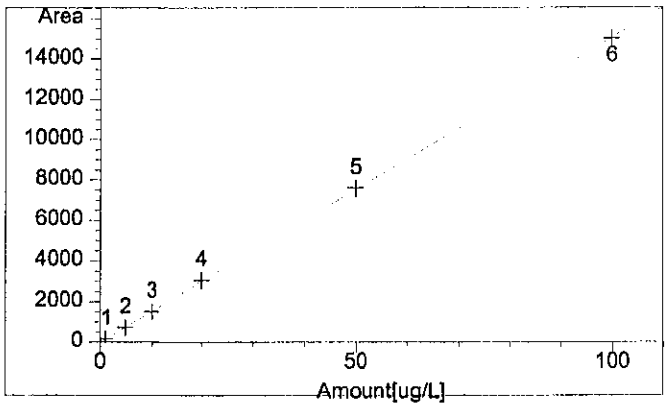


Acenaphthene #5 at exp. RT: 12.974
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 7.82229
Formula: y = mx + b
m: 70.98815
b: -2.88099
x: Amount [ug/L]
y: Area

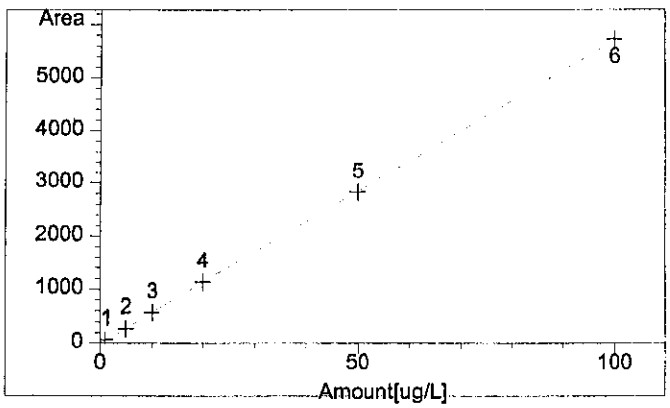
500



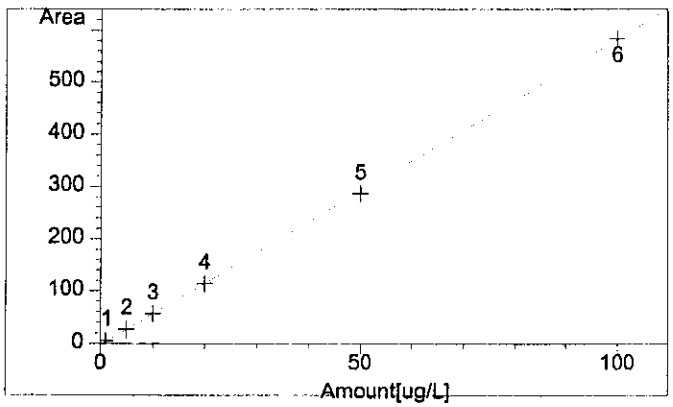
Fluorene #6 at exp. RT: 13.606
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.05830
Formula: y = mx + b
m: 56.65678
b: -9.39024
x: Amount[ug/L]
y: Area



Fluorene #6 at exp. RT: 13.625
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 39.83191
Formula: y = mx + b
m: 150.39549
b: 14.97901
x: Amount[ug/L]
y: Area

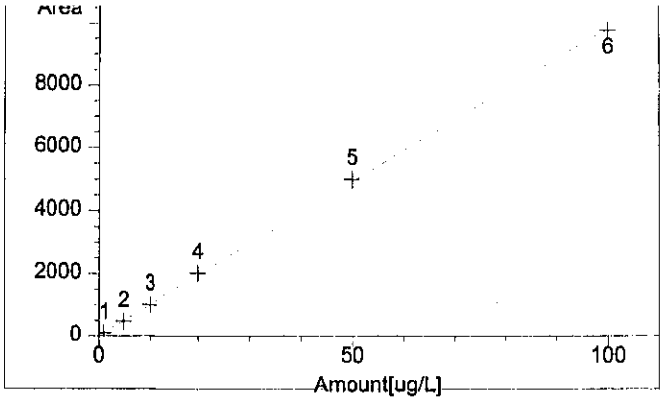


Phenanthrene #7 at exp. RT: 14.988
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.76481
Formula: y = mx + b
m: 57.17977
b: -7.01003
x: Amount[ug/L]
y: Area

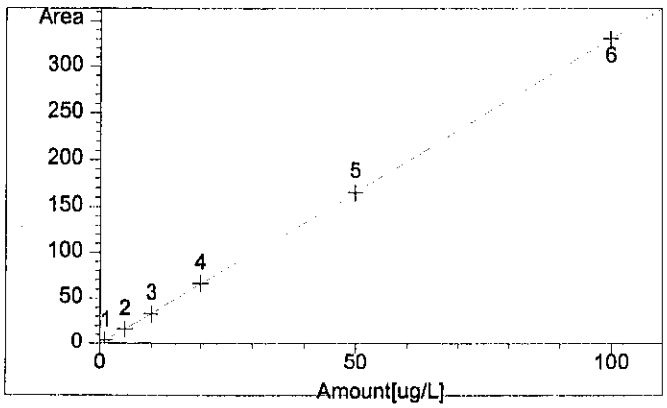


Phenanthrene #7 at exp. RT: 15.006
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 2.20575
Formula: y = mx + b
m: 5.83768
b: -1.83622
x: Amount[ug/L]
y: Area

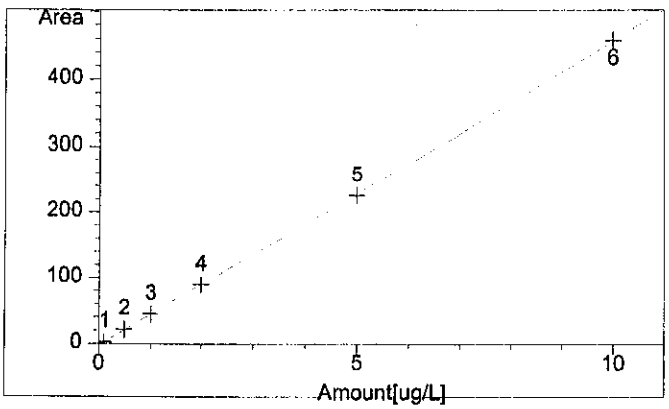
501



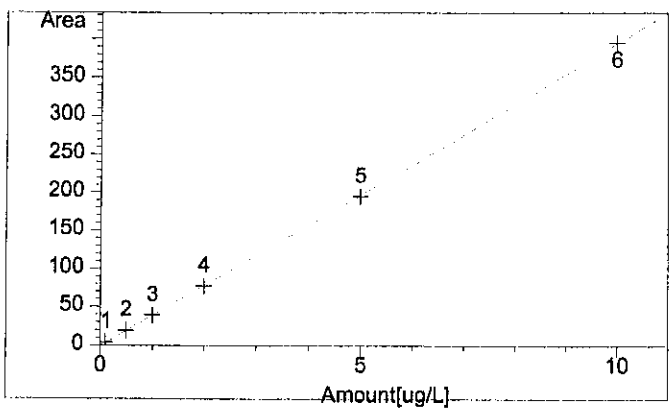
Anthracene #8 at exp. RT: 16.387
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 47.43795
Formula: y = mx + b
m: 97.94194
b: 20.51670
x: Amount[ug/L]
y: Area



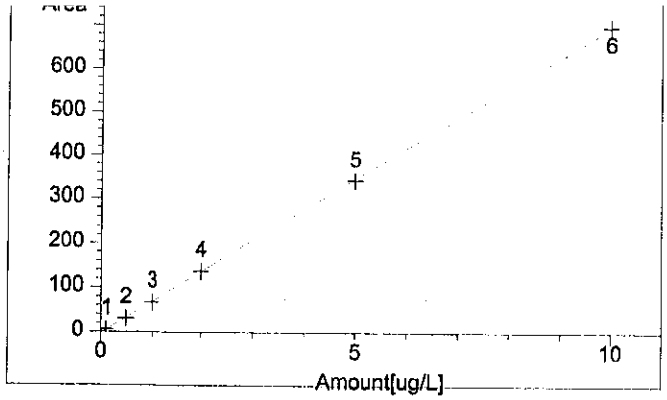
Anthracene #8 at exp. RT: 16.405
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 0.34234
Formula: y = mx + b
m: 3.30779
b: -9.27632e-2
x: Amount[ug/L]
y: Area



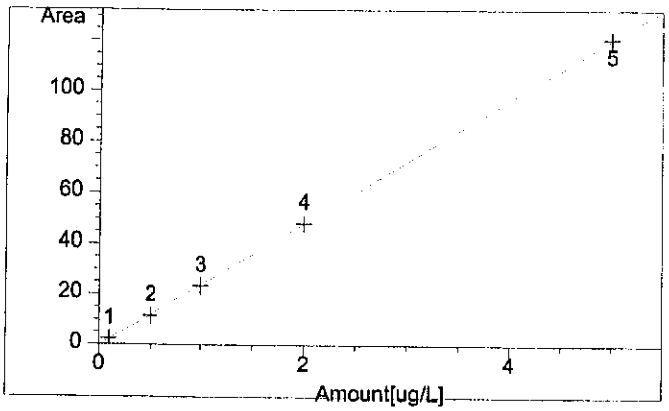
Fluoranthene #9 at exp. RT: 17.762
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 1.25331
Formula: y = mx + b
m: 45.86610
b: -1.45201
x: Amount[ug/L]
y: Area



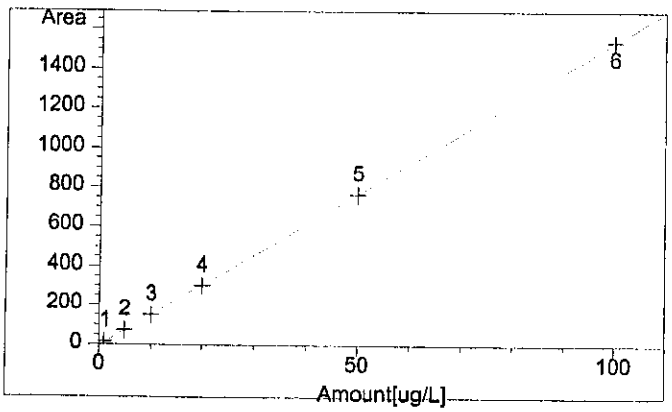
Fluoranthene #9 at exp. RT: 17.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.03650
Formula: y = mx + b
m: 39.47219
b: -8.93275e-1
x: Amount[ug/L]
y: Area



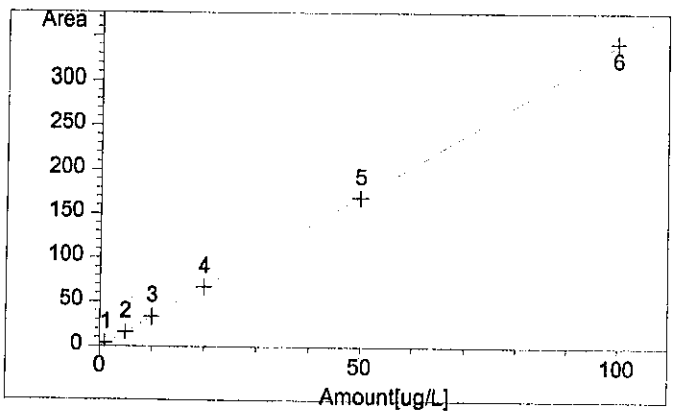
Pyrene #10 at exp. RT: 18.761
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.45753
Formula: y = mx + b
m: 69.71068
b: -2.37968
x: Amount [ug/L]
y: Area



Pyrene #10 at exp. RT: 18.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.33832
Formula: y = mx + b
m: 24.18326
b: -3.63256e-1
x: Amount [ug/L]
y: Area

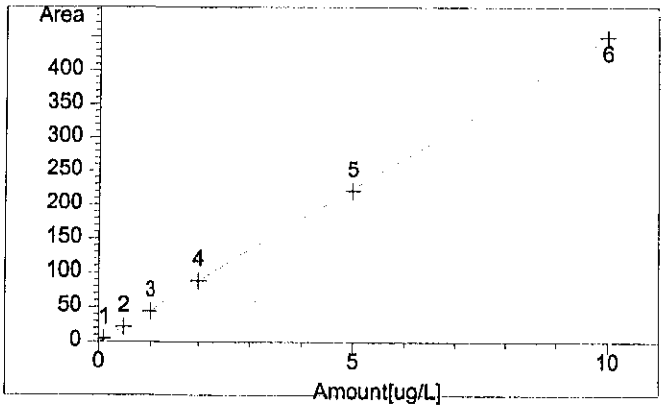


p-Terphenyl d14 #11* at exp. RT: 21.086
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.33106
Formula: y = mx + b
m: 15.40471
b: -3.10922
x: Amount [ug/L]
y: Area

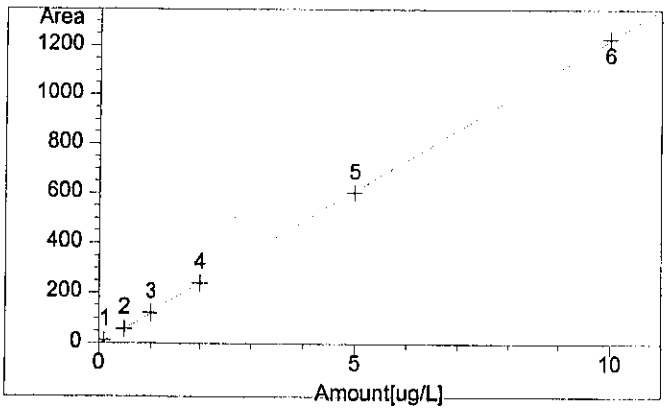


p-Terphenyl d14 #11* at exp. RT: 21.105
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.94806
Formula: y = mx + b
m: 3.42244
b: -8.04824e-1
x: Amount [ug/L]
y: Area

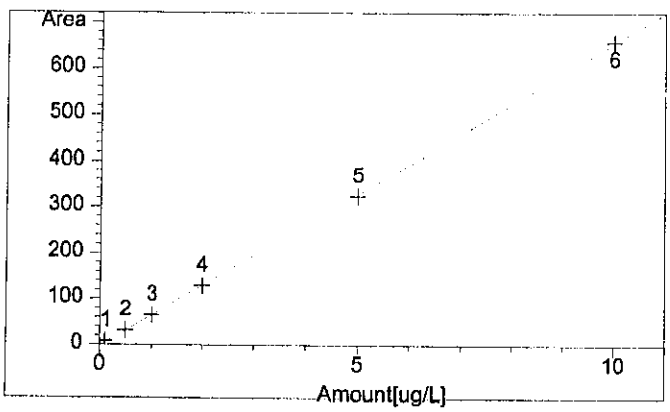
503



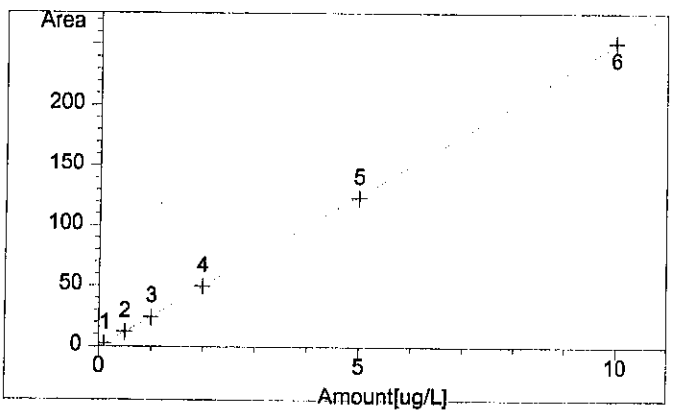
Benzo(a)anthracene #12 at exp. RT: 22.401
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 1.60319
Formula: y = mx + b
m: 44.95295
b: -1.14196
x: Amount [ug/L]
y: Area



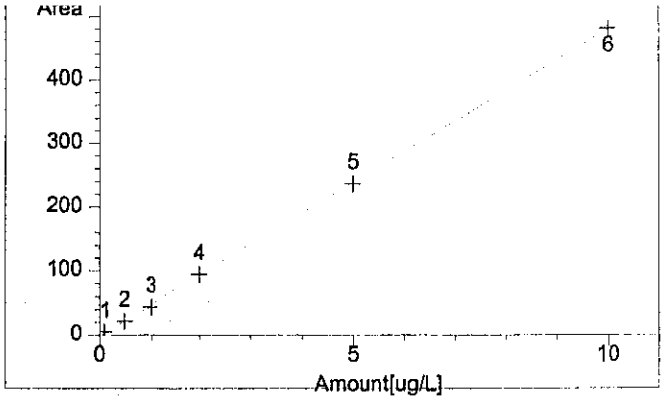
Benzo(a)anthracene #12 at exp. RT: 22.418
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 4.52026
Formula: y = mx + b
m: 122.97900
b: -3.47928
x: Amount [ug/L]
y: Area



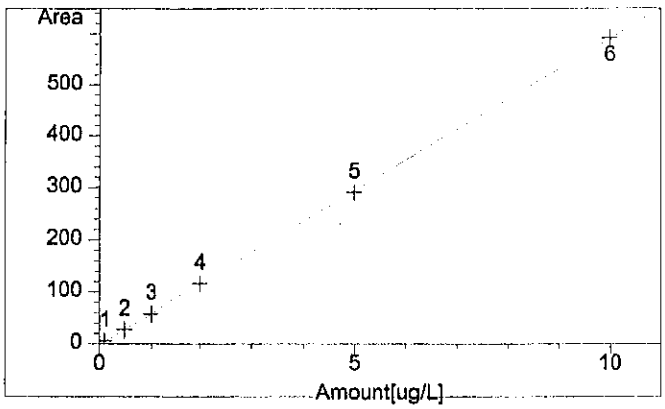
Chrysene #13 at exp. RT: 23.266
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.23172
Formula: y = mx + b
m: 65.81764
b: -1.32173
x: Amount [ug/L]
y: Area



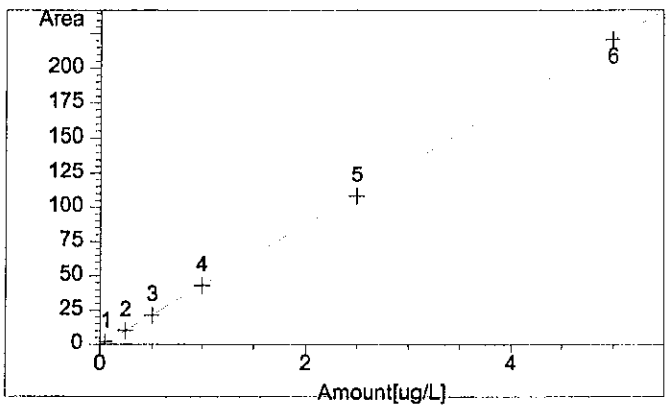
Chrysene #13 at exp. RT: 23.280
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 0.79966
Formula: y = mx + b
m: 25.10251
b: -6.01486e-1
x: Amount [ug/L]
y: Area



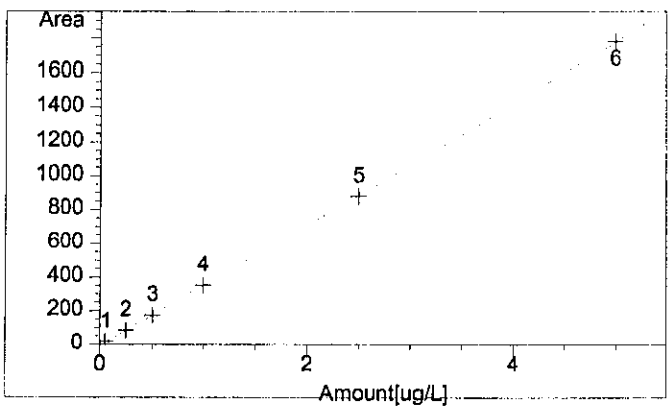
Benzo(b)fluoranthene #14 at exp. RT: 25.9
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.98687
Formula: y = mx + b
m: 48.07187
b: -1.76192
x: Amount[ug/L]
y: Area



Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.94362
Formula: y = mx + b
m: 59.17522
b: -1.53526
x: Amount[ug/L]
y: Area

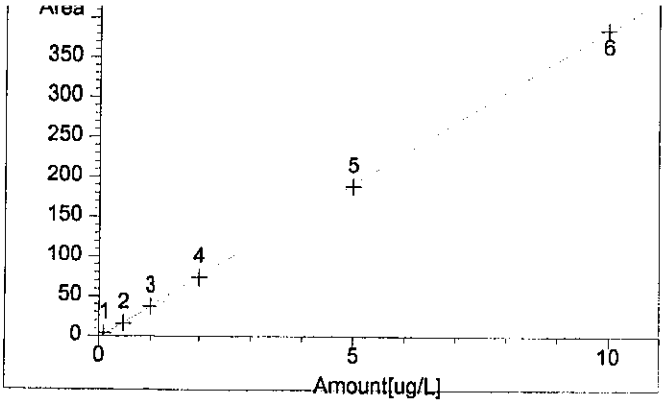


Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 0.74646
Formula: y = mx + b
m: 44.17713
b: -6.49330e-1
x: Amount[ug/L]
y: Area

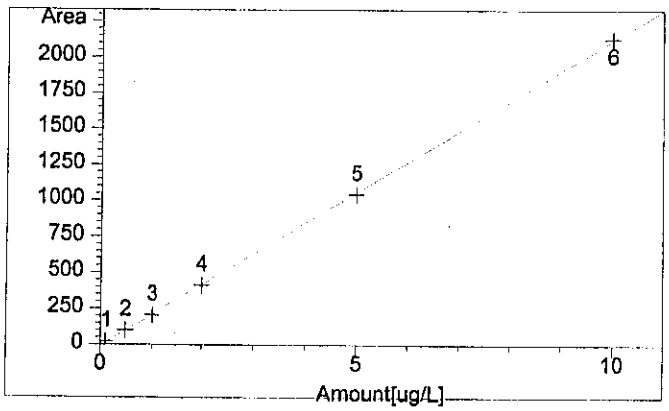


Benzo(k)fluoranthene #15 at exp. RT: 27.4
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 4.14920
Formula: y = mx + b
m: 355.95834
b: -3.66763
x: Amount[ug/L]
y: Area

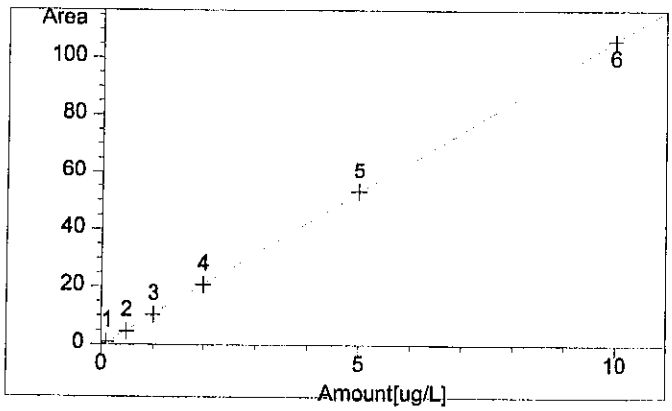
505



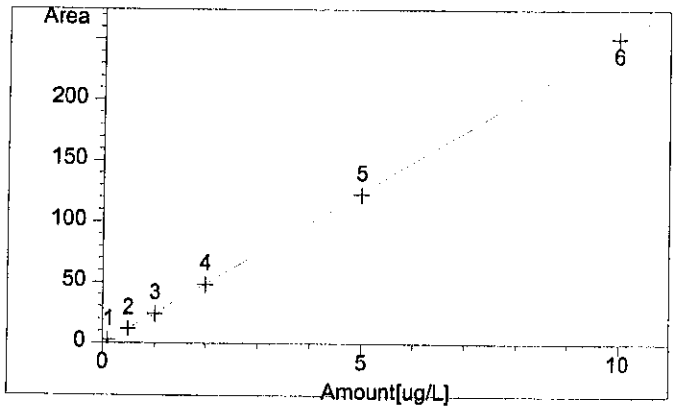
Benzo(a)pyrene #16 at exp. RT: 28.535
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 1.94176
Formula: y = mx + b
m: 38.58652
b: -1.84481
x: Amount[ug/L]
y: Area



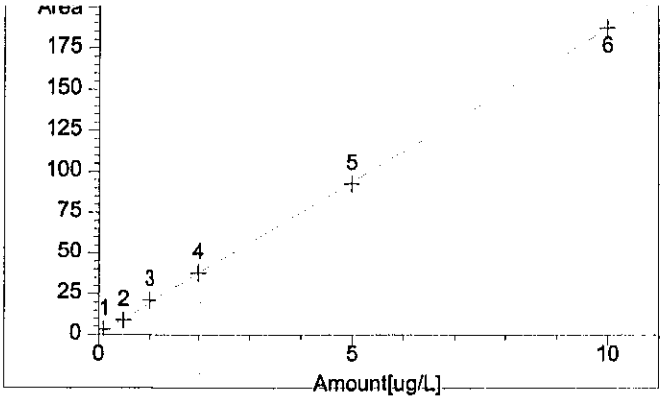
Benzo(a)pyrene #16 at exp. RT: 28.553
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.01693
Formula: y = mx + b
m: 212.75704
b: -7.78412
x: Amount[ug/L]
y: Area



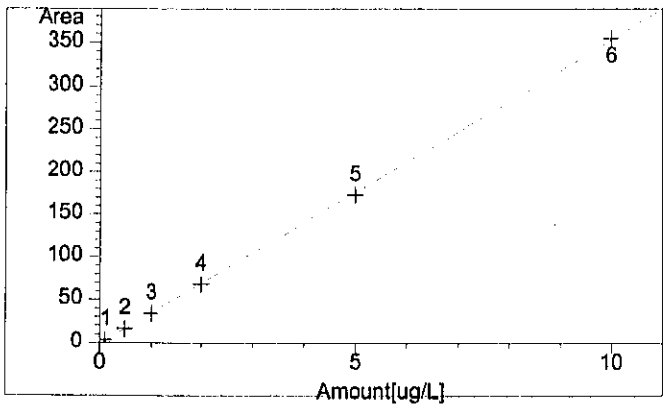
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 0.29835
Formula: y = mx + b
m: 10.64723
b: -3.24711e-1
x: Amount[ug/L]
y: Area



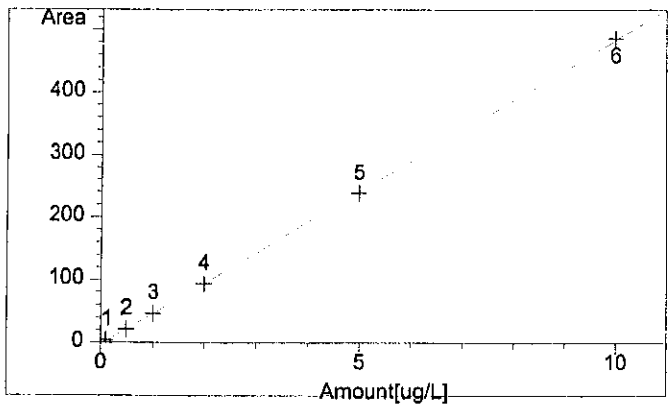
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.15752
Formula: y = mx + b
m: 25.06189
b: -9.49414e-1
x: Amount[ug/L]
y: Area



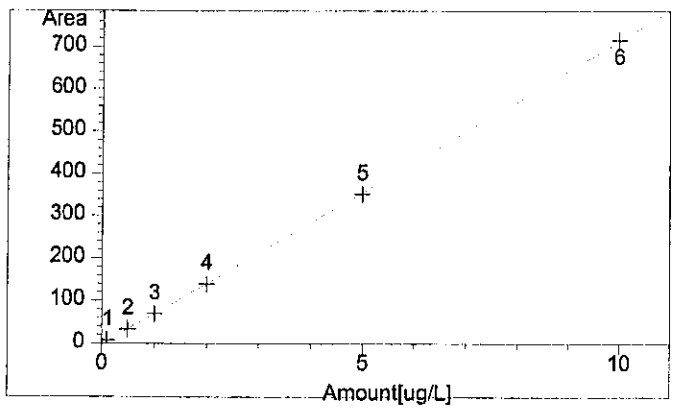
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 1.17004
Formula: y = mx + b
m: 18.59234
b: 7.44819e-1
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 1.77276
Formula: y = mx + b
m: 35.47662
b: -1.45086
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: 0.99994
Residual Std. Dev.: 2.14429
Formula: y = mx + b
m: 48.61738
b: -2.56671
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: 0.99997
Residual Std. Dev.: 2.36150
Formula: y = mx + b
m: 71.55789
b: -2.07657
x: Amount[ug/L]
y: Area

==========

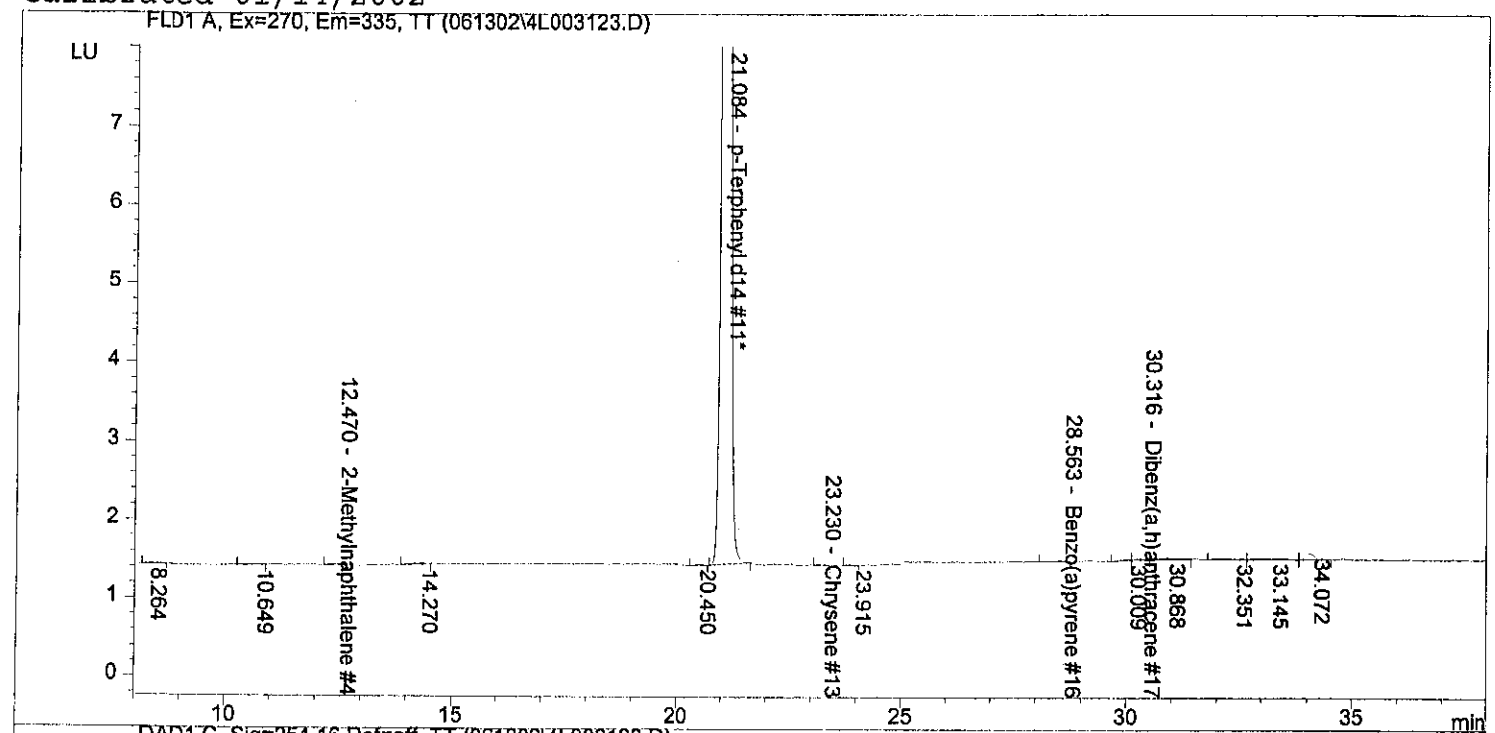
1,1 SOS58-26 LEVEL 6 SURROGATE @ 100 ppm

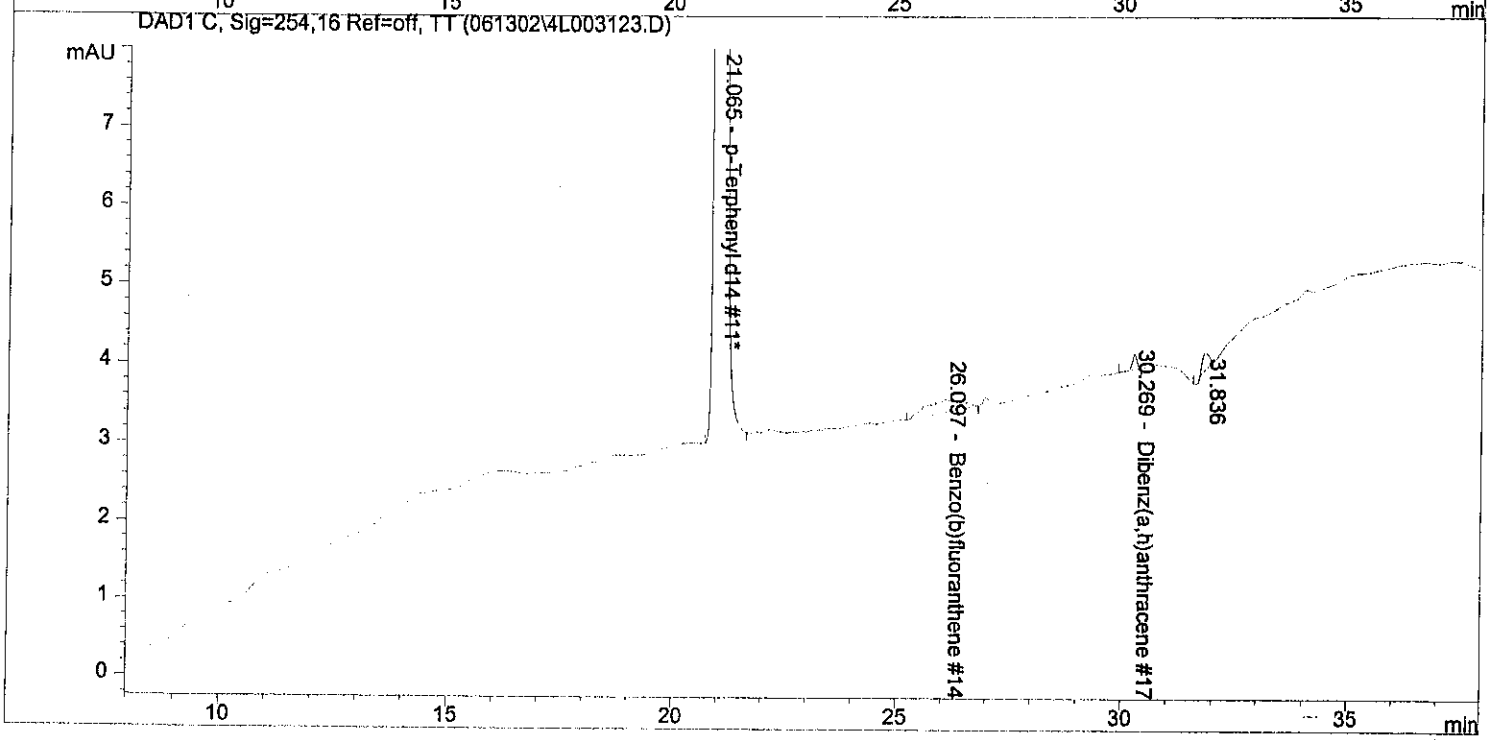
==========

Injection Date	: 6/13/2002 10:05:00 PM	Seq. Line :	2
Sample Name	: WG119840-01 STD6	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:03:08 AM by RDC
(modified after loading)

Calibrated 01/14/2002





508

HPLC4 6/14/2002 9:03:08 AM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:02:42 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
9.342		-	-	-		Naphthalene #1
11.908		-	-	-		1-Methylnaphthalene #3
12.470	BBA	1.78080e-1	1.76307e-2	3.13969e-3		2-Methylnaphthalene #4
12.960		-	-	-		Acenaphthene #5
13.611		-	-	-		Fluorene #6
14.992		-	-	-		Phenanthrene #7
16.391		-	-	-		Anthracene #8
17.765		-	-	-		Fluoranthene #9
18.766		-	-	-		Pyrene #10
21.084	BBA	342.27563	2.91938e-1	99.92331		p-Terphenyl d14 #11*
22.412		-	-	-		Benzo(a)anthracene #12
23.230	BB	1.49638e-1	3.98605e-2	5.96463e-3		Chrysene #13
25.992		-	-	-		Benzo(b)fluoranthene #14
27.434		-	-	-		Benzo(k)fluoranthene #15
28.563	BBA	2.31745e-1	4.72512e-3	1.09502e-3		Benzo(a)pyrene #16
30.316	BB	2.11069e-1	4.00249e-2	8.44802e-3		Dibenz(a,h)anthracene #17
31.216		-	-	-		Benzo(g,h,i)perylene #18
32.167		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				99.94195		

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
9.322		-	-	-		Naphthalene #1
10.943		-	-	-		Acenaphthylene #2
11.889		-	-	-		1-Methylnaphthalene #3
12.462		-	-	-		2-Methylnaphthalene #4
12.940		-	-	-		Acenaphthene #5
13.590		-	-	-		Fluorene #6
14.972		-	-	-		Phenanthrene #7
16.371		-	-	-		Anthracene #8
17.745		-	-	-		Fluoranthene #9
18.745		-	-	-		Pyrene #10
21.065	PBA	1538.62390	6.50759e-2	100.12728		p-Terphenyl d14 #11*
22.392		-	-	-		Benzo(a)anthracene #12
23.257		-	-	-		Chrysene #13
26.097	PB	8.94292	2.09236e-2	1.87118e-1		Benzo(b)fluoranthene #14
27.413		-	-	-		Benzo(k)fluoranthene #15
28.530		-	-	-		Benzo(a)pyrene #16
30.269	BBA	1.42871	9.44938e-2	1.35004e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.195		-	-	-		Benzo(g,h,i)perylene #18
32.144		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.44940

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 ***

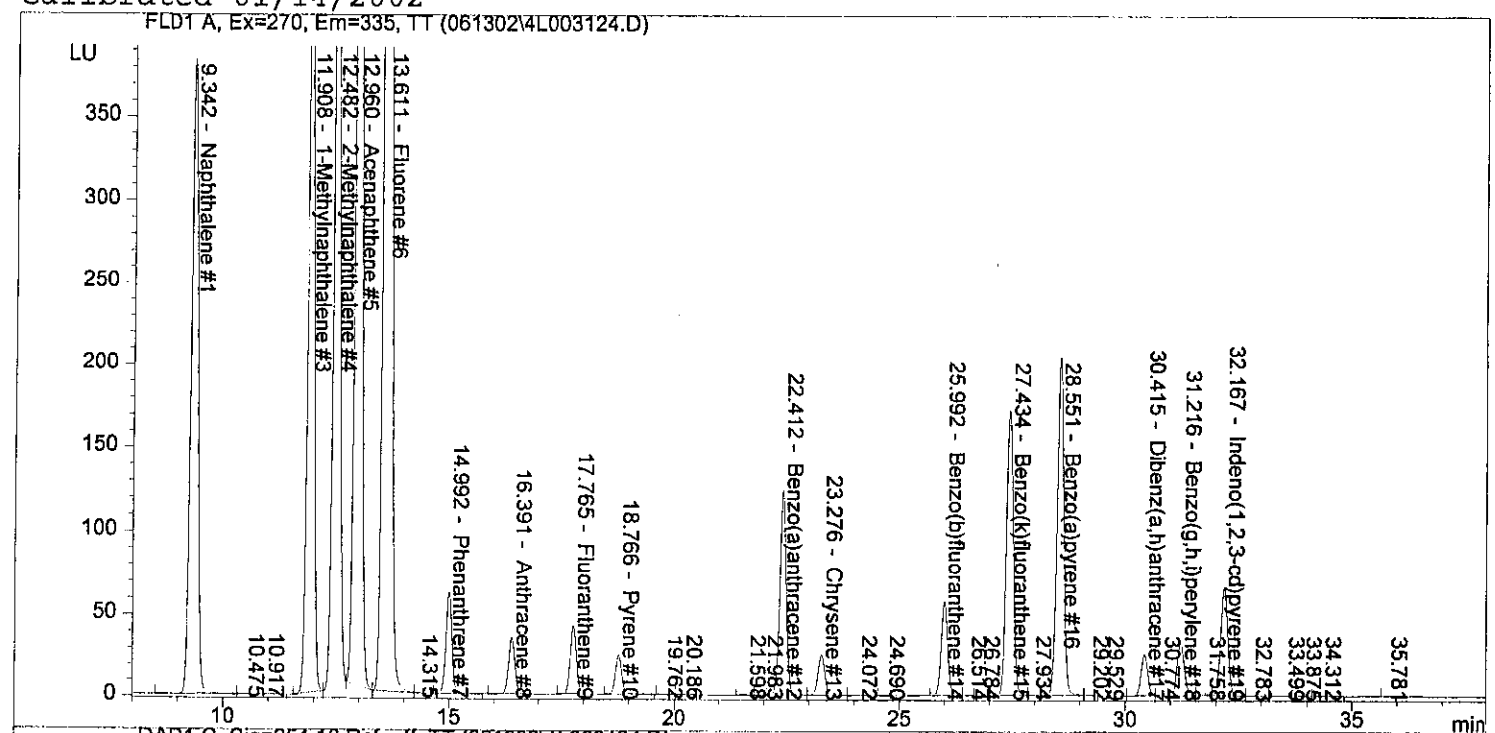
1,1 SOS59-38 LEVEL 6 STD @ 100/10/5 ppm

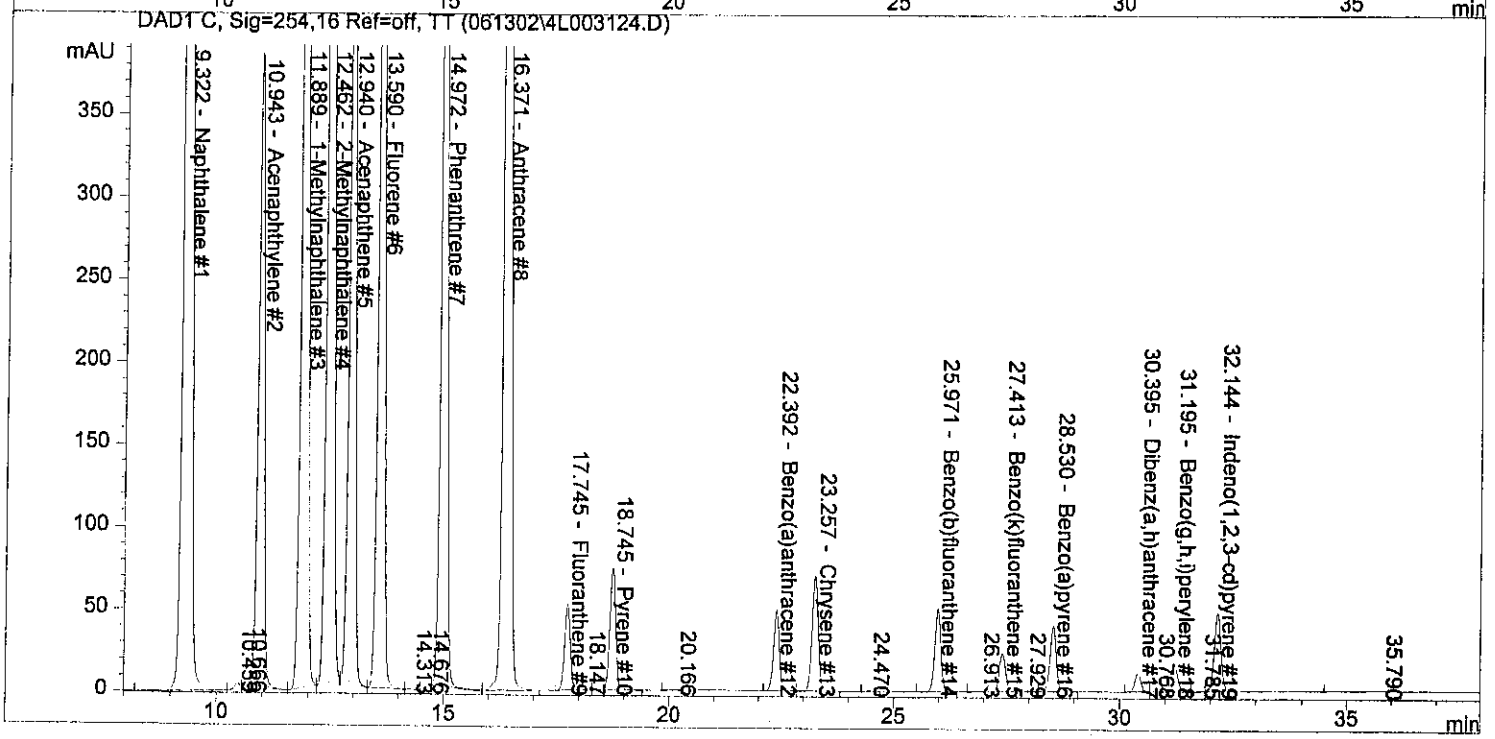
==========

Injection Date	: 6/13/2002 11:01:38 PM	Seq. Line	: 3
Sample Name	: WG119840-02 STD6	Vial	: 3
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:02:46 AM by RDC
(modified after loading)

Calibrated 01/14/2002





511

HPLC4 6/14/2002 9:02:47 AM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:02:42 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
9.342	BB	3817.44727	2.61760e-2	99.92567		Naphthalene #1
11.908	BB	4362.68555	2.28929e-2	99.87447		1-Methylnaphthalene #3
12.482	BB	5651.09082	1.76307e-2	99.63297		2-Methylnaphthalene #4
12.960	BB	7092.07813	1.40500e-2	99.64367		Acenaphthene #5
13.611	BB	1.50207e4	6.62709e-3	99.54381		Fluorene #6
14.992	BBA	583.99371	1.71696e-1	100.26935		Phenanthrene #7
16.391	PB	330.63736	3.03302e-1	100.28311		Anthracene #8
17.765	BB	394.78314	2.51141e-2	9.91464		Fluoranthene #9
18.766	BBA	245.93037	4.06594e-2	9.99938		Pyrene #10
21.084		-	-	-		p-Terphenyl d14 #11*
22.412	BB	1230.57483	8.13570e-3	10.01159		Benzo(a)anthracene #12
23.276	BB	251.15788	3.98605e-2	10.01128		Chrysene #13
25.992	BB	592.02631	1.69028e-2	10.00692		Benzo(b)fluoranthene #14
27.434	BB	1779.80371	2.81213e-3	5.00504		Benzo(k)fluoranthene #15
28.551	BB	2128.17065	4.72512e-3	10.05586		Benzo(a)pyrene #16
30.415	BB	250.75458	4.00249e-2	10.03642		Dibenz(a,h)anthracene #17
31.216	BB	354.98242	2.81184e-2	9.98154		Benzo(g,h,i)perylene #18
32.167	BB	715.64252	1.39865e-2	10.00935		Indeno(1,2,3-cd)pyrene #1
Totals :				794.20506		

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
9.322	BB	1.19505e4	8.30314e-3	99.22712		Naphthalene #1
10.943	BB	3321.14795	3.02035e-2	100.31018		Acenaphthylene #2
11.889	BB	7652.24854	1.30763e-2	100.06281		1-Methylnaphthalene #3
12.462	BB	8770.67480	1.13600e-2	99.63456		2-Methylnaphthalene #4
12.940	BB	4859.52686	2.05944e-2	100.07911		Acenaphthene #5
13.590	BB	5664.78320	1.77273e-2	100.42143		Fluorene #6
14.972	BB	5720.03760	1.75290e-2	100.26666		Phenanthrene #7
16.371	BBA	9770.11133	1.02038e-2	99.69273		Anthracene #8
17.745	PB	458.29434	2.19487e-2	10.05898		Fluoranthene #9
18.745	BBA	696.78912	1.44782e-2	10.08825		Pyrene #10
21.065		-	-	-		p-Terphenyl d14 #11*
22.392	BB	449.91843	2.23535e-2	10.05727		Benzo(a)anthracene #12
23.257	BBA	658.83282	1.52615e-2	10.05477		Chrysene #13
25.971	BBA	480.16330	2.09236e-2	10.04676		Benzo(b)fluoranthene #14
27.413	BB	220.91960	2.27584e-2	5.02779		Benzo(k)fluoranthene #15
28.530	BB	385.66537	2.62367e-2	10.11860		Benzo(a)pyrene #16
30.395	PB	106.05376	9.44938e-2	10.02142		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.195	BB	187.07765	5.37764e-2	10.06036		Benzo(g,h,i)perylene #18
32.144	BB	485.43732	2.07205e-2	10.05852		Indeno(1,2,3-cd)pyrene #1

Totals : 895.28732

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

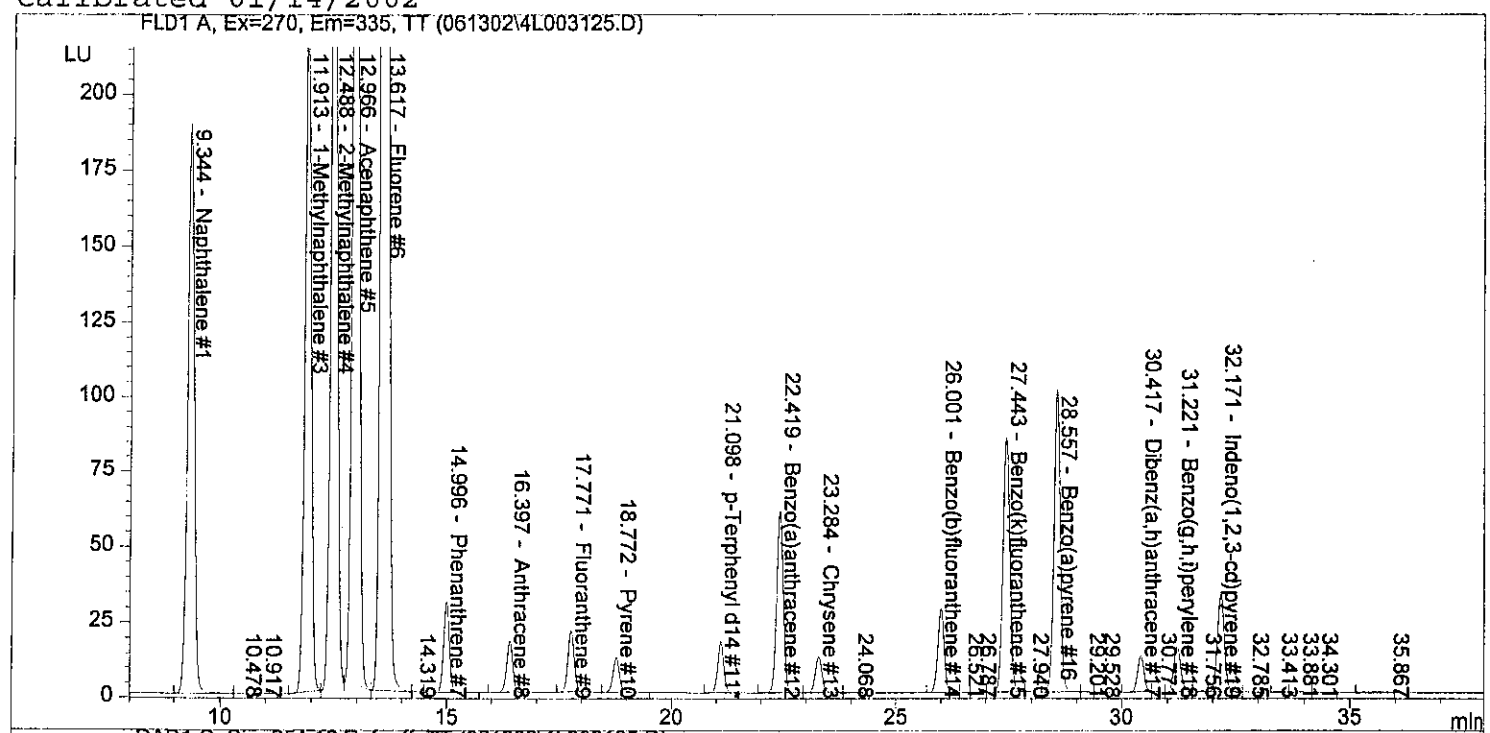
1,1 SOS59-38/58-26 LEVEL 5 STD @ 50/50/2.5 ppm

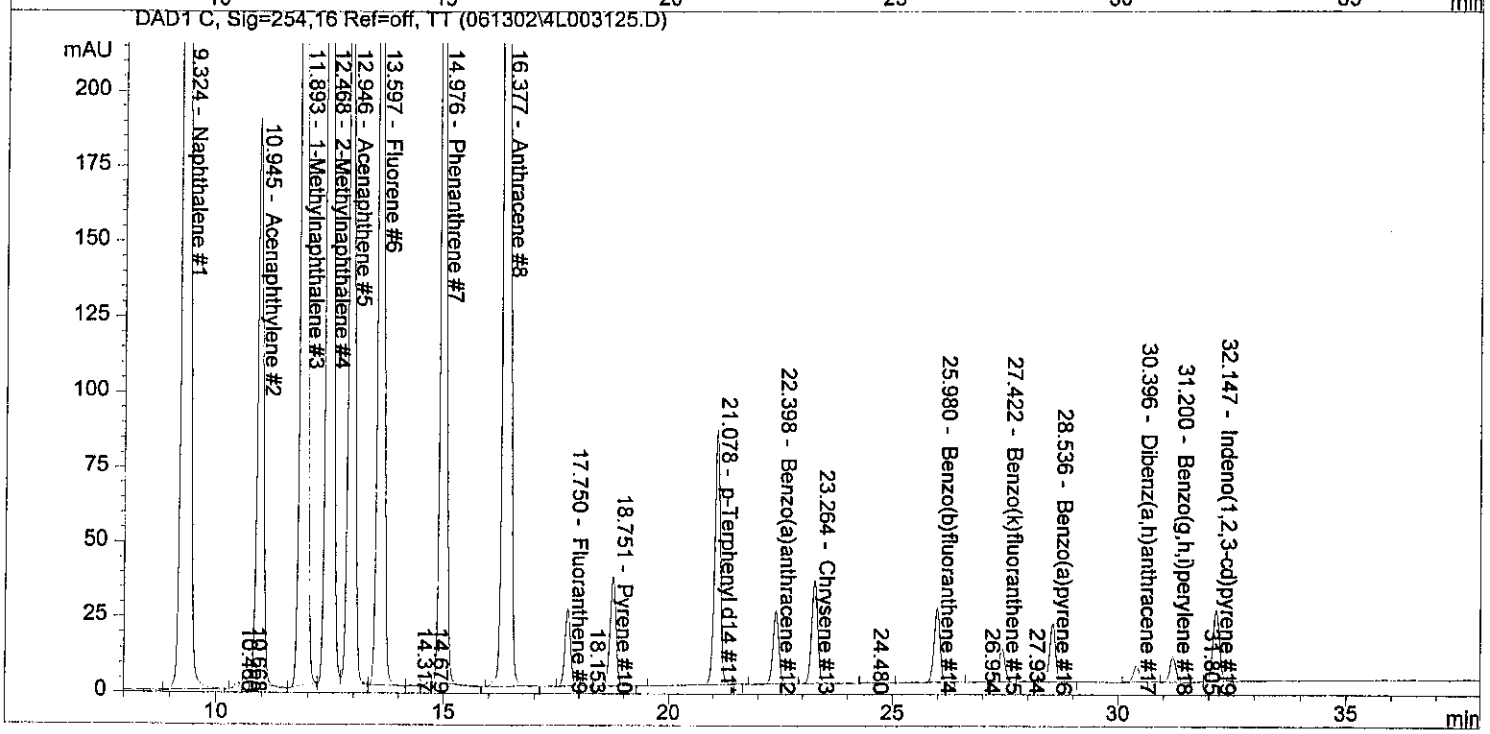
==========

Injection Date	: 6/13/2002 11:58:14 PM	Seq. Line :	4
Sample Name	: WG119840-03 STD5	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:03:45 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:03:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.344	BB	1885.17432	2.62620e-2	49.50850		Naphthalene #1
11.913	BB	2162.71216	2.29604e-2	49.65673		1-Methylnaphthalene #3
12.488	BB	2815.32397	1.76997e-2	49.83046		2-Methylnaphthalene #4
12.966	BB	3551.90137	1.40873e-2	50.03685		Acenaphthene #5
13.617	BB	7586.48193	6.63786e-3	50.35801		Fluorene #6
14.996	BBA	286.42151	1.72041e-1	49.27616		Phenanthrene #7
16.397	PB	165.24231	3.02535e-1	49.99152		Anthracene #8
17.771	PB	194.82120	2.53682e-2	4.94227		Fluoranthene #9
18.772	BBA	120.60387	4.14587e-2	5.00008		Pyrene #10
21.098	BB	168.95605	2.93088e-1	49.51891		p-Terphenyl d14 #11*
22.419	BB	603.67468	8.16153e-3	4.92691		Benzo(a)anthracene #12
23.284	BB	123.50459	3.99703e-2	4.93651		Chrysene #13
26.001	BB	291.03116	1.69547e-2	4.93435		Benzo(b)fluoranthene #14
27.443	BB	879.42432	2.81705e-3	2.47738		Benzo(k)fluoranthene #15
28.557	BB	1041.60461	4.72555e-3	4.92215		Benzo(a)pyrene #16
30.417	BB	122.52839	4.01053e-2	4.91403		Dibenz(a,h)anthracene #17
31.221	BB	173.07938	2.83215e-2	4.90187		Benzo(g,h,i)perylene #18
32.171	BB	351.97876	1.40258e-2	4.93679		Indeno(1,2,3-cd)pyrene #1
Totals :				445.06949		

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
9.324	BBA	6195.70996	8.29589e-3	51.39892		Naphthalene #1
10.945	BB	1639.64368	3.02076e-2	49.52967		Acenaphthylene #2
11.893	BB	3823.69092	1.30729e-2	49.98657		1-Methylnaphthalene #3
12.468	BB	4440.55420	1.13665e-2	50.47341		2-Methylnaphthalene #4
12.946	BB	2413.63843	2.06106e-2	49.74644		Acenaphthene #5
13.597	BB	2806.76538	1.77008e-2	49.68200		Fluorene #6
14.976	BBA	2834.24902	1.75238e-2	49.66678		Phenanthrene #7
16.377	BBA	4994.17480	1.01861e-2	50.87104		Anthracene #8
17.750	PB	225.76083	2.19135e-2	4.94721		Fluoranthene #9
18.751	BBA	342.14008	1.44277e-2	4.93629		Pyrene #10
21.078	PBA	765.97974	6.51146e-2	49.87647		p-Terphenyl d14 #11*
22.398	BBA	220.76303	2.23358e-2	4.93093		Benzo(a)anthracene #12
23.264	BBA	324.23495	1.52455e-2	4.94313		Chrysene #13
25.980	PBA	236.61021	2.09101e-2	4.94754		Benzo(b)fluoranthene #14
27.422	BB	108.54563	2.27278e-2	2.46701		Benzo(k)fluoranthene #15
28.536	BBA	188.39293	2.61148e-2	4.91985		Benzo(a)pyrene #16
30.396	PB	53.20811	9.42831e-2	5.01662		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.200	BB	92.63392	5.36167e-2	4.96672		Benzo(g,h,i)perylene #18
32.147	BBA	237.44170	2.07228e-2	4.92046		Indeno(1,2,3-cd)pyrene #1
Totals :				498.22705		

Results obtained with enhanced integrator!

*** End of Report ***

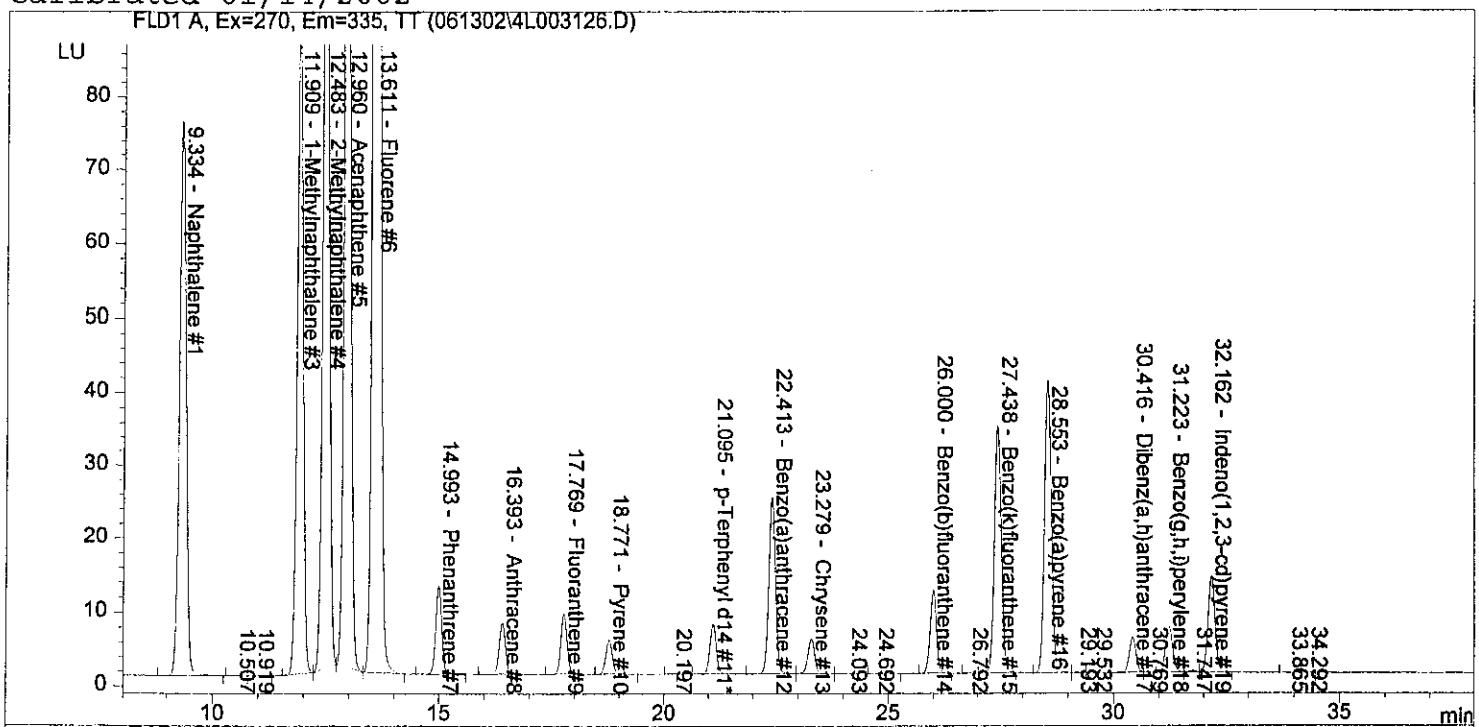
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

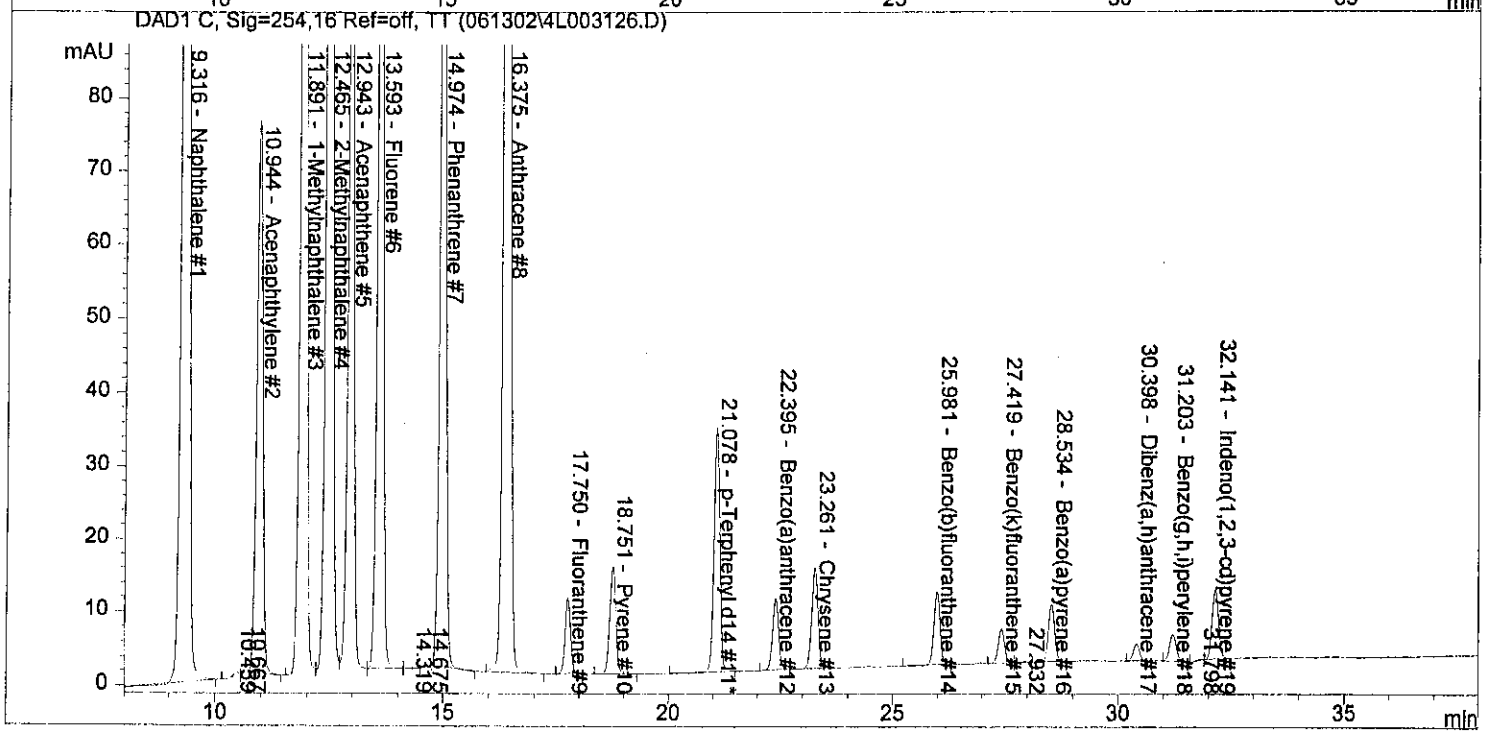
==========

Injection Date	: 6/14/2002 12:54:55 AM	Seq. Line :	5
Sample Name	: WG119840-04 STD4	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:04:24 AM by RDC
(modified after loading)

Calibrated 01/14/2002





517

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:04:18 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
9.334	BBA	754.54517	2.62729e-2	19.82412		Naphthalene #1
11.909	BB	865.41754	2.29694e-2	19.87815		1-Methylnaphthalene #3
12.483	BB	1125.70947	1.77112e-2	19.93764		2-Methylnaphthalene #4
12.960	BB	1426.86951	1.40935e-2	20.10956		Acenaphthene #5
13.611	BB	3071.66968	6.63912e-3	20.39317		Fluorene #6
14.993	BBA	113.91219	1.72066e-1	19.60039		Phenanthrene #7
16.393	PBA	66.59662	3.02478e-1	20.14398		Anthracene #8
17.769	BB	77.44264	2.54072e-2	1.96760		Fluoranthene #9
18.771	BBA	48.14644	4.15143e-2	1.99876		Pyrene #10
21.095	BB	66.93617	2.93177e-1	19.62415		p-Terphenyl d14 #11*
22.413	BB	240.75162	8.16425e-3	1.96556		Benzo(a)anthracene #12
23.279	BB	49.60668	3.99715e-2	1.98285		Chrysene #13
26.000	BB	116.12308	1.69606e-2	1.96952		Benzo(b)fluoranthene #14
27.438	BB	351.66119	2.81749e-3	9.90801e-1		Benzo(k)fluoranthene #15
28.553	BB	412.69138	4.72525e-3	1.95007		Benzo(a)pyrene #16
30.416	BB	48.37633	4.01211e-2	1.94091		Dibenz(a,h)anthracene #17
31.223	BB	68.38602	2.83478e-2	1.93860		Benzo(g,h,i)perylene #18
32.162	BB	140.00281	1.40312e-2	1.96440		Indeno(1,2,3-cd)pyrene #1

Totals : 178.18024

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
9.316	BBA	2498.67944	8.29533e-3	20.72737		Naphthalene #1
10.944	BBA	658.50293	3.02016e-2	19.88782		Acenaphthylene #2
11.891	PB	1536.99390	1.30705e-2	20.08927		1-Methylnaphthalene #3
12.465	BB	1791.84399	1.13662e-2	20.36648		2-Methylnaphthalene #4
12.943	BB	968.64014	2.06106e-2	19.96428		Acenaphthene #5
13.593	BB	1125.01990	1.76942e-2	19.90638		Fluorene #6
14.974	BBA	1137.39648	1.75204e-2	19.92767		Phenanthrene #7
16.375	BBA	2016.31750	1.01817e-2	20.52949		Anthracene #8
17.750	PB	90.19173	2.19034e-2	1.97551		Fluoranthene #9
18.751	BBA	137.28792	1.44175e-2	1.97935		Pyrene #10
21.078	PBA	302.29453	6.51086e-2	19.68196		p-Terphenyl d14 #11*
22.395	PBA	88.38959	2.23283e-2	1.97359		Benzo(a)anthracene #12
23.261	BBA	129.65228	1.52393e-2	1.97581		Chrysene #13
25.981	PBA	94.69703	2.09016e-2	1.97932		Benzo(b)fluoranthene #14
27.419	BB	43.30220	2.27256e-2	9.84067e-1		Benzo(k)fluoranthene #15
28.534	BB	74.00938	2.60983e-2	1.93152		Benzo(a)pyrene #16
30.398	PBA	20.79541	9.43053e-2	1.96112		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.203	BB	37.91122	5.35429e-2	2.02988		Benzo(g,h,i)perylene #18
32.141	BBA	93.60317	2.07224e-2	1.93968		Indeno(1,2,3-cd)pyrene #1

Totals : 199.81055

Results obtained with enhanced integrator!

*** End of Report ***

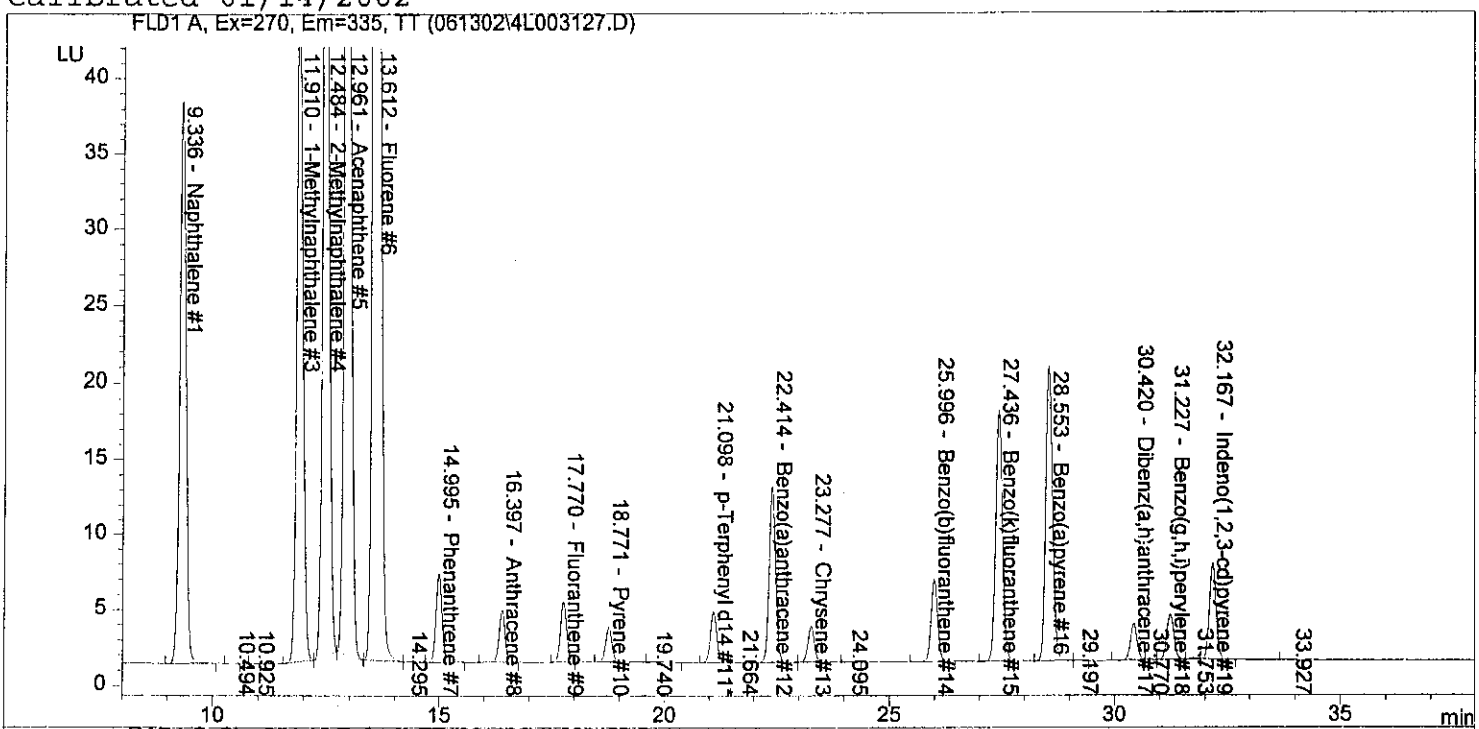
1,1 SOS59-38/58-26 LEVEL 3 STD @ 10/1/.5 ppm

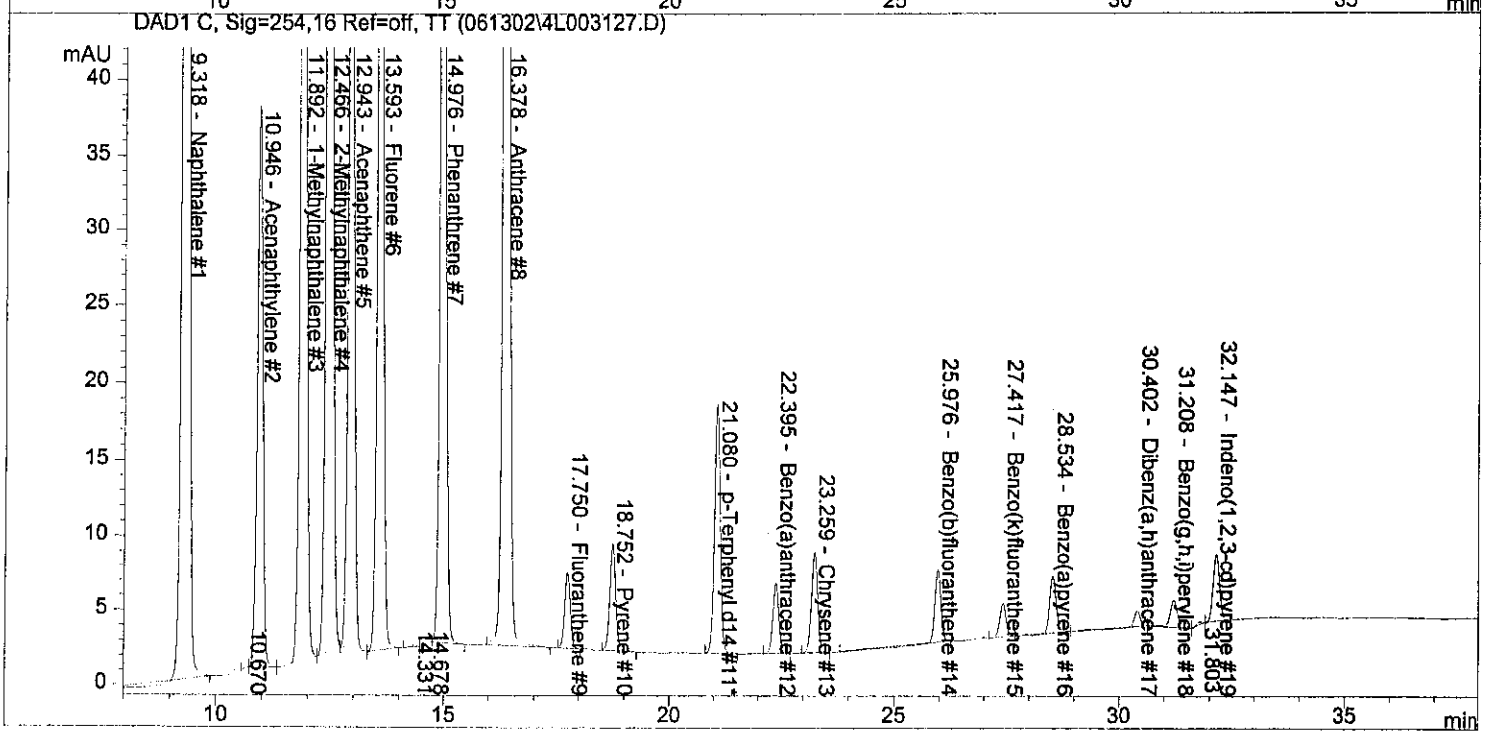
==========

Injection Date	: 6/14/2002 1:51:31 AM	Seq. Line	: 6
Sample Name	: WG119840-05 STD3	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:05:00 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:04:56 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
9.336	BBA	371.85556	2.62768e-2	9.77118		Naphthalene #1
11.910	BB	427.16837	2.29725e-2	9.81312		1-Methylnaphthalene #3
12.484	BB	555.40234	1.77148e-2	9.83887		2-Methylnaphthalene #4
12.961	BB	704.82605	1.40956e-2	9.93493		Acenaphthene #5
13.612	BB	1519.64282	6.63998e-3	10.09040		Fluorene #6
14.995	BBA	56.03428	1.72084e-1	9.64260		Phenanthrene #7
16.397	BBA	32.93192	3.02467e-1	9.96081		Anthracene #8
17.770	PB	38.54884	2.54172e-2	9.79803e-1		Fluoranthene #9
18.771	BBA	23.43897	4.15409e-2	9.73675e-1		Pyrene #10
21.098	BB	33.36931	2.93182e-1	9.78328		p-Terphenyl d14 #11*
22.414	BB	119.10960	8.16492e-3	9.72520e-1		Benzo(a)anthracene #12
23.277	BBA	24.15862	3.99772e-2	9.65794e-1		Chrysene #13
25.996	BBA	57.64073	1.69625e-2	9.77732e-1		Benzo(b)fluoranthene #14
27.436	BB	173.46057	2.81775e-3	4.88769e-1		Benzo(k)fluoranthene #15
28.553	BB	203.09286	4.72524e-3	9.59662e-1		Benzo(a)pyrene #16
30.420	BB	23.94359	4.01220e-2	9.60663e-1		Dibenz(a,h)anthracene #17
31.227	BB	33.76281	2.83539e-2	9.57306e-1		Benzo(g,h,i)perylene #18
32.167	BB	69.03428	1.40332e-2	9.68772e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 88.03988

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
9.318	BBA	1219.35925	8.29679e-3	10.11677		Naphthalene #1
10.946	BB	325.59451	3.02017e-2	9.83350		Acenaphthylene #2
11.892	BB	757.97943	1.30709e-2	9.90750		1-Methylnaphthalene #3
12.466	BB	887.82635	1.13668e-2	10.09178		2-Methylnaphthalene #4
12.943	BB	479.64664	2.06118e-2	9.88638		Acenaphthene #5
13.593	BBA	555.59216	1.76936e-2	9.83044		Fluorene #6
14.976	BBA	563.78528	1.75204e-2	9.87776		Phenanthrene #7
16.378	BBA	1007.09772	1.01805e-2	10.25275		Anthracene #8
17.750	BBA	44.35479	2.19032e-2	9.71513e-1		Fluoranthene #9
18.752	BBA	67.05128	1.44166e-2	9.66649e-1		Pyrene #10
21.080	BBA	150.04201	6.51073e-2	9.76883		p-Terphenyl d14 #11*
22.395	BBA	43.38402	2.23286e-2	9.68704e-1		Benzo(a)anthracene #12
23.259	BBA	63.84754	1.52388e-2	9.72957e-1		Chrysene #13
25.976	PBA	43.42394	2.09127e-2	9.08112e-1		Benzo(b)fluoranthene #14
27.417	BB	21.38502	2.27323e-2	4.86132e-1		Benzo(k)fluoranthene #15
28.534	BB	36.80410	2.60959e-2	9.60435e-1		Benzo(a)pyrene #16
30.402	BB	10.34522	9.43221e-2	9.75783e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.208	BB	21.12121	5.34825e-2	1.12962		Benzo(g,h,i)perylene #18
32.147	BB	45.65535	2.07246e-2	9.46189e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.85178

Results obtained with enhanced integrator!

*** End of Report ***

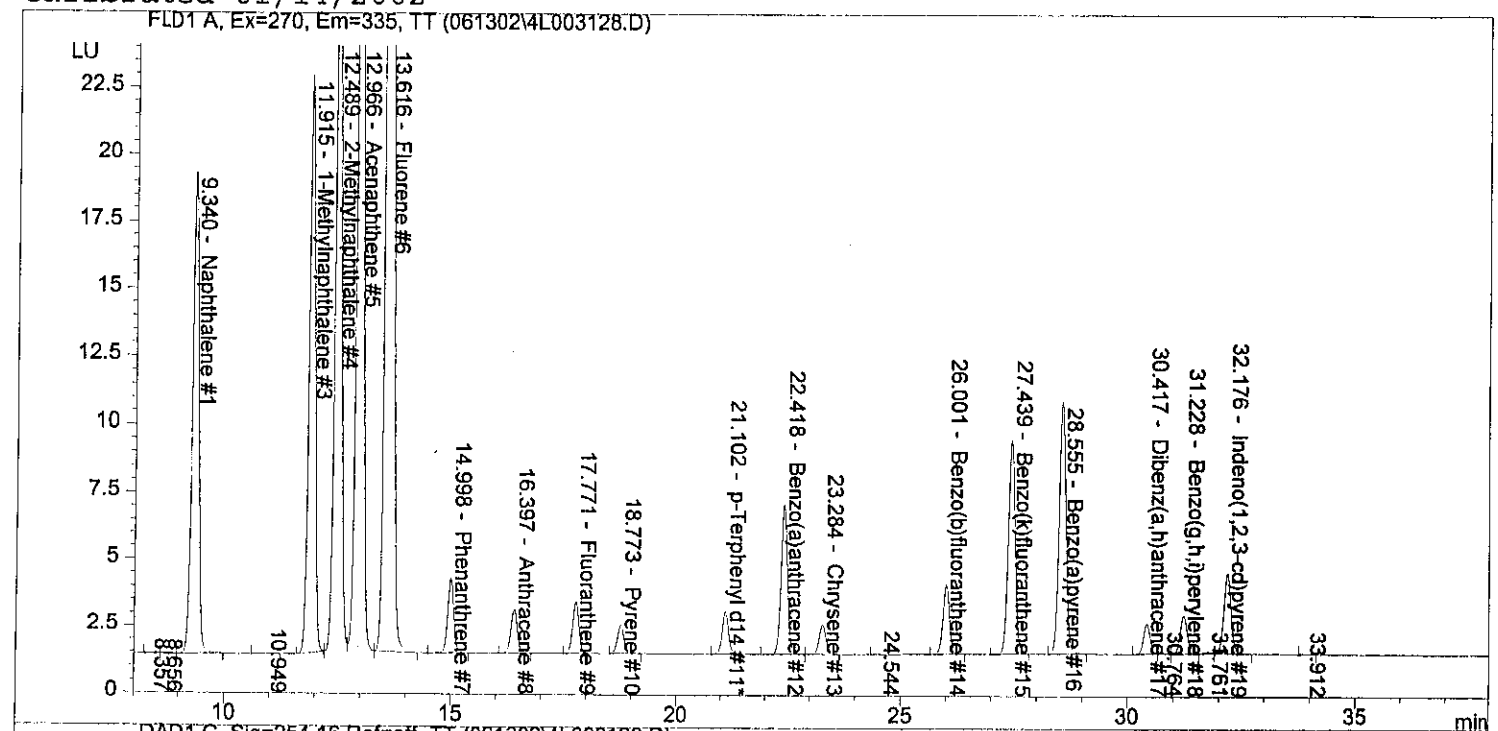
1,1 SOS59-38/58-26 LEVEL 2 STD @ 5/.5 /.25 ppm

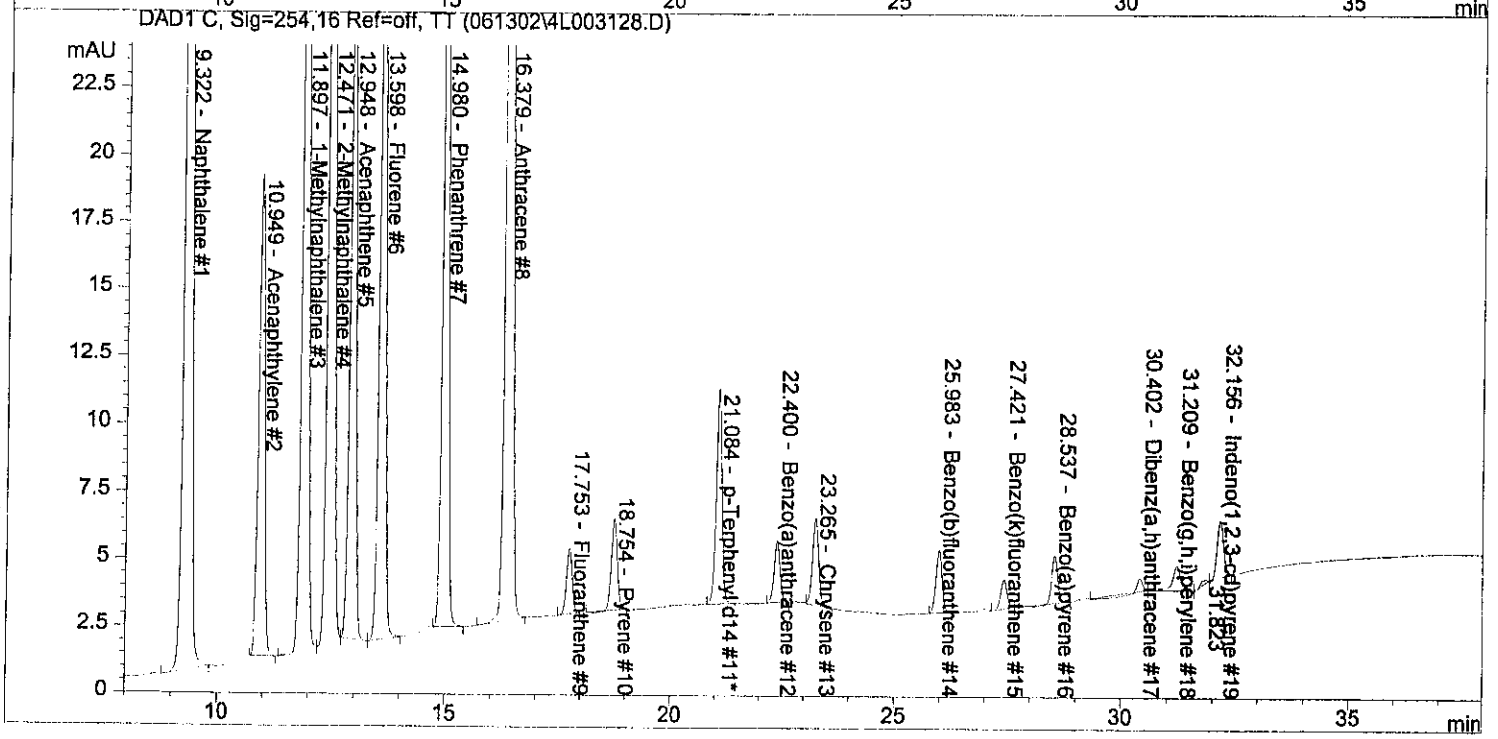
==========

Injection Date	: 6/14/2002 2:48:12 AM	Seq. Line	: 7
Sample Name	: WG119840-06 STD2	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:05:37 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:05:33 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
9.340	BBA	178.95563	2.62757e-2	4.70218		Naphthalene #1
11.915	BB	205.97406	2.29713e-2	4.73149		1-Methylnaphthalene #3
12.489	BB	267.76404	1.77143e-2	4.74326		2-Methylnaphthalene #4
12.966	BB	339.83661	1.40950e-2	4.79001		Acenaphthene #5
13.616	BB	732.50269	6.63969e-3	4.86359		Fluorene #6
14.998	BBA	27.09999	1.72074e-1	4.66322		Phenanthrene #7
16.397	BBA	15.91612	3.02439e-1	4.81365		Anthracene #8
17.771	BB	18.56896	2.54164e-2	4.71956e-1		Fluoranthene #9
18.773	BBA	11.37372	4.15286e-2	4.72334e-1		Pyrene #10
21.102	BB	15.96525	2.93173e-1	4.68058		p-Terphenyl d14 #11*
22.418	BB	57.25381	8.16445e-3	4.67446e-1		Benzo(a)anthracene #12
23.284	BB	11.91314	3.99732e-2	4.76206e-1		Chrysene #13
26.001	BBA	27.48360	1.69618e-2	4.66172e-1		Benzo(b)fluoranthene #14
27.439	BBA	83.42035	2.81761e-3	2.35046e-1		Benzo(k)fluoranthene #15
28.555	PB	97.54757	4.72489e-3	4.60902e-1		Benzo(a)pyrene #16
30.417	PB	11.57100	4.01183e-2	4.64209e-1		Dibenz(a,h)anthracene #17
31.228	BB	16.23036	2.83529e-2	4.60178e-1		Benzo(g,h,i)perylene #18
32.176	BB	32.92362	1.40329e-2	4.62012e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				42.42445		

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
9.322	BBA	598.90387	8.29620e-3	4.96863		Naphthalene #1
10.949	BBA	157.19412	3.01994e-2	4.74717		Acenaphthylene #2
11.897	PB	365.23682	1.30701e-2	4.77368		1-Methylnaphthalene #3
12.471	BB	427.72684	1.13662e-2	4.86161		2-Methylnaphthalene #4
12.948	BB	230.37761	2.06107e-2	4.74825		Acenaphthene #5
13.598	BBA	267.85175	1.76921e-2	4.73885		Fluorene #6
14.980	BBA	271.73749	1.75192e-2	4.76062		Phenanthrene #7
16.379	PBA	479.37994	1.01797e-2	4.87993		Anthracene #8
17.753	PBA	21.47706	2.19011e-2	4.70372e-1		Fluoranthene #9
18.754	BBA	30.90943	1.44152e-2	4.45567e-1		Pyrene #10
21.084	BBA	72.29396	6.51030e-2	4.70655		p-Terphenyl d14 #11*
22.400	BBA	21.50113	2.23264e-2	4.80043e-1		Benzo(a)anthracene #12
23.265	BBA	30.82063	1.52375e-2	4.69628e-1		Chrysene #13
25.983	BBA	22.19203	2.09116e-2	4.64071e-1		Benzo(b)fluoranthene #14
27.421	BB	10.12679	2.27316e-2	2.30198e-1		Benzo(k)fluoranthene #15
28.537	BB	16.55305	2.60937e-2	4.31930e-1		Benzo(a)pyrene #16
30.402	BB	1.24579	9.44447e-2	1.17658e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.209	BB	12.63941	5.34416e-2	6.75471e-1		Benzo(g,h,i)perylene #18
32.156	BB	20.74642	2.07249e-2	4.29967e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 47.40020

Results obtained with enhanced integrator!

*** End of Report ***

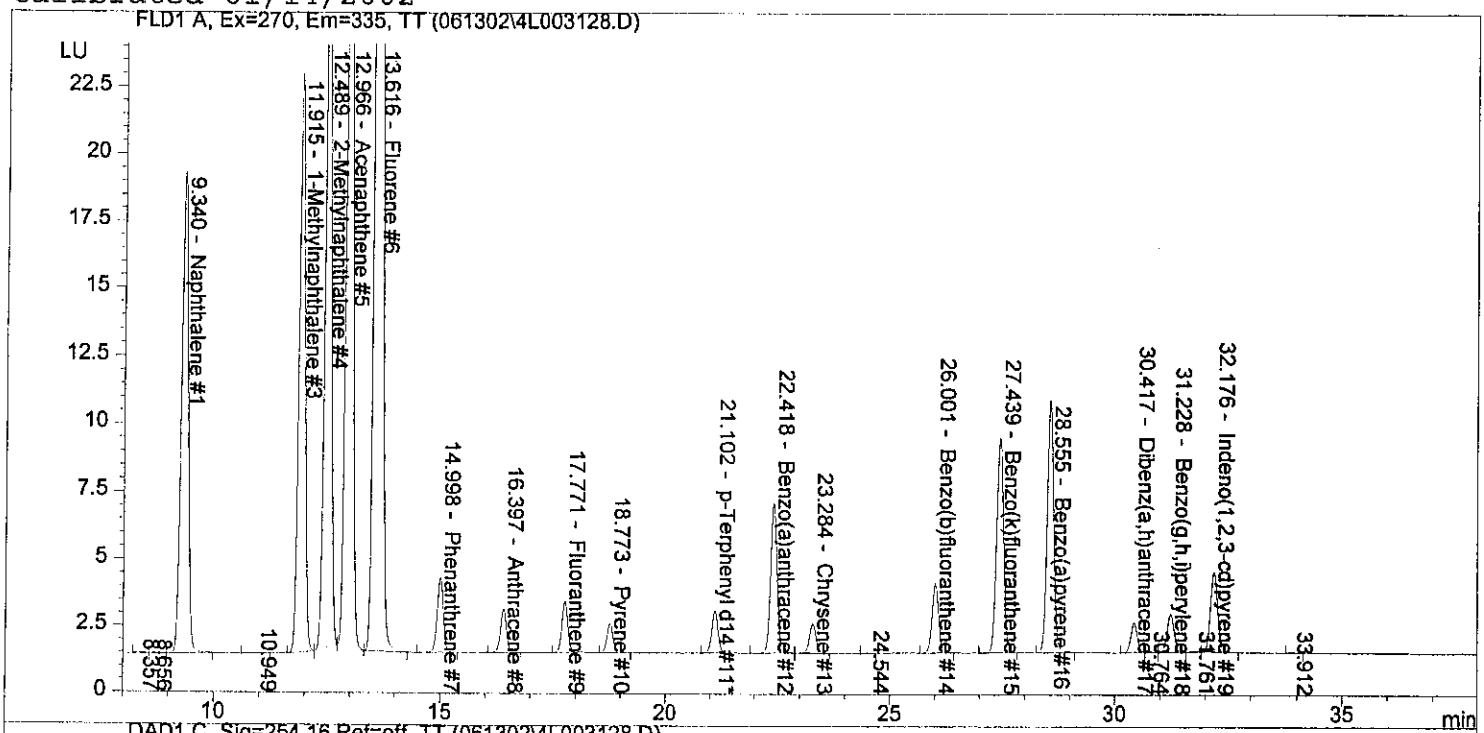
1,1 SOS59-38/58-26 LEVEL 2 STD @ 5/.5 /.25 ppm

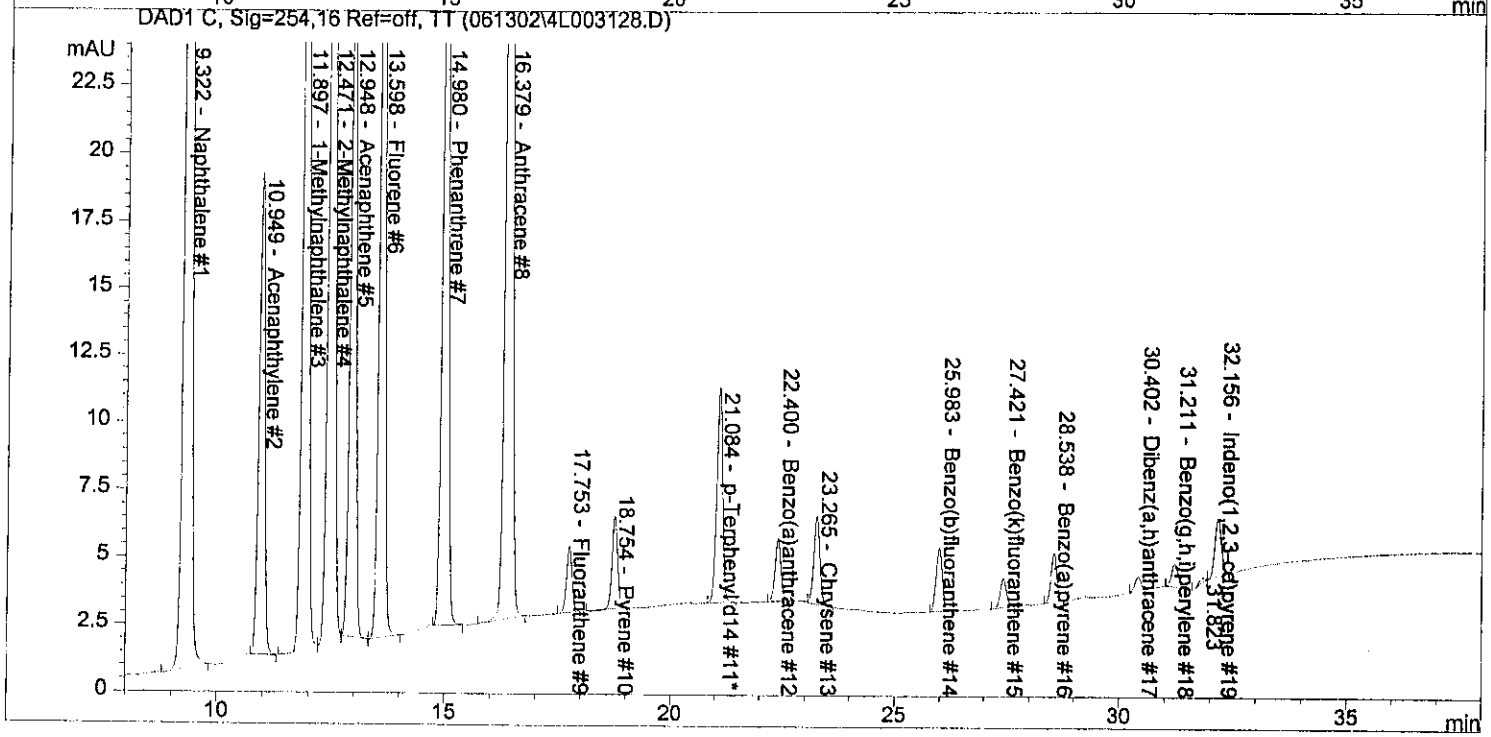
==========

Injection Date	: 6/14/2002 2:48:12 AM	Seq. Line :	7
Sample Name	: WG119840-06 STD2	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

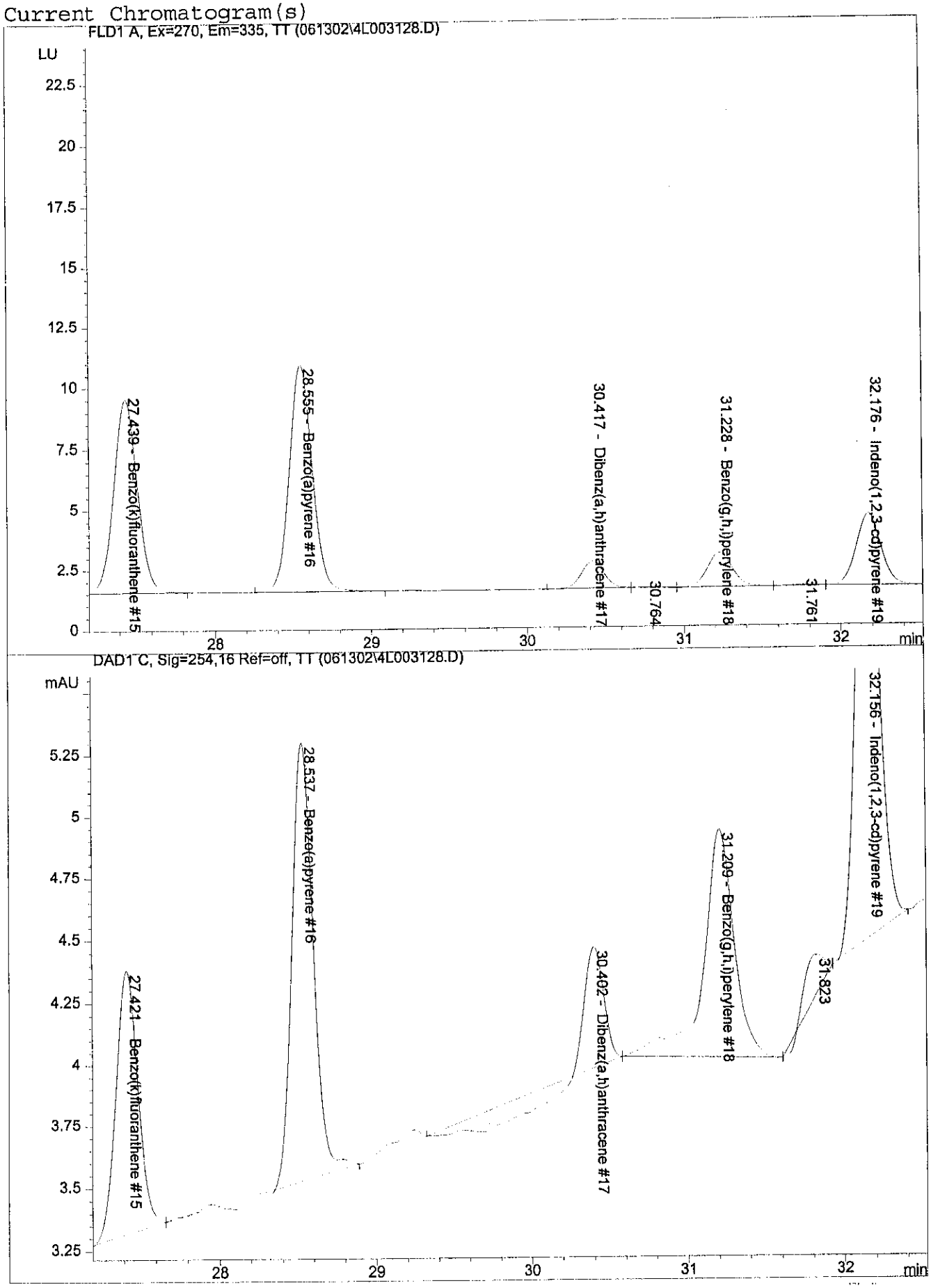
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:09:18 AM by RDC
(modified after loading)

Calibrated 01/14/2002

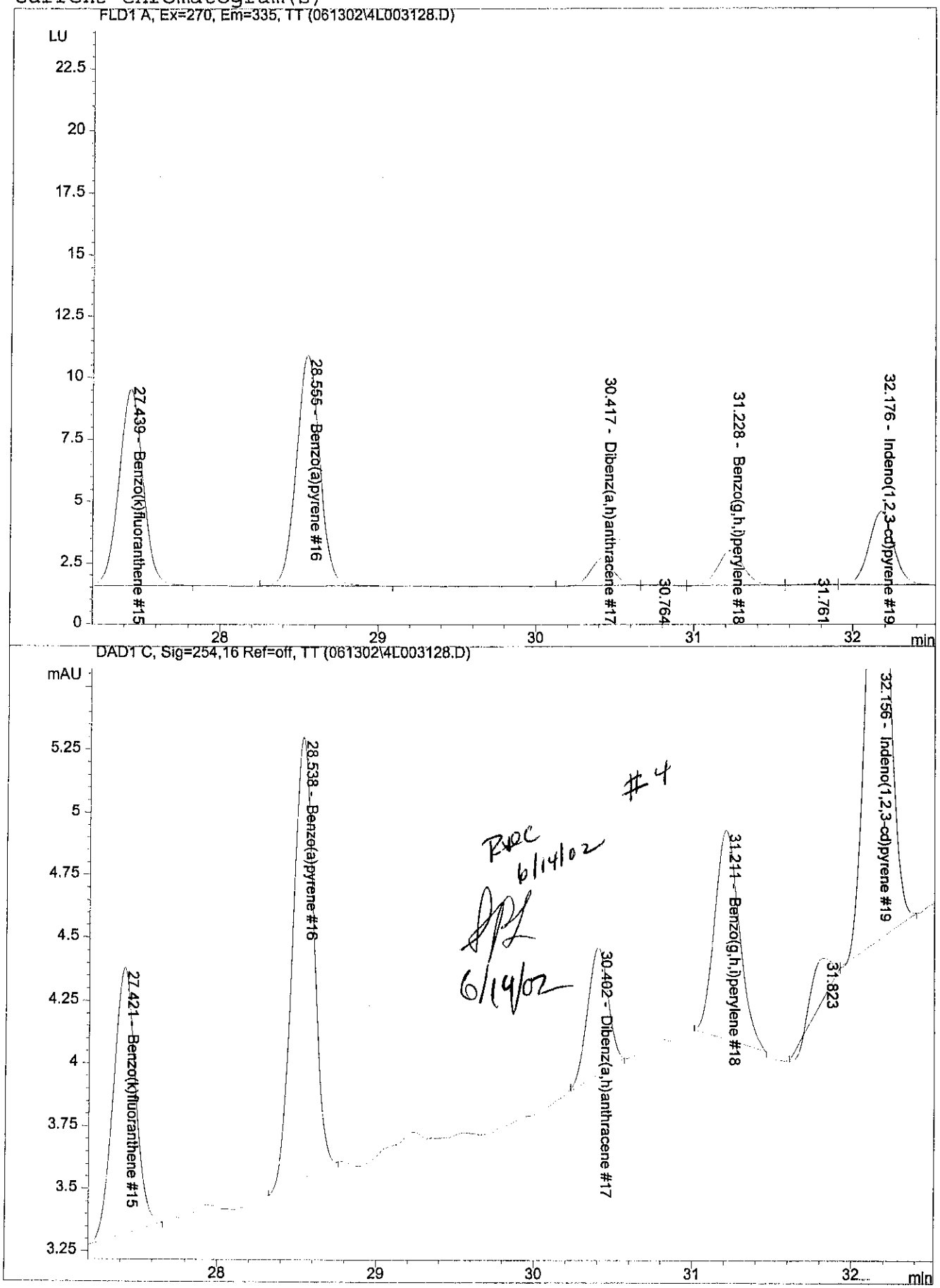




Current Chromatogram(s)



Current Chromatogram(s)



528

HPLC4 6/14/2002 9:08:47 AM RDC

Page 1 of 1

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:09:13 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
9.340	BBA	178.95563	2.62757e-2	4.70218		Naphthalene #1
11.915	BB	205.97406	2.29713e-2	4.73149		1-Methylnaphthalene #3
12.489	BB	267.76404	1.77143e-2	4.74326		2-Methylnaphthalene #4
12.966	BB	339.83661	1.40950e-2	4.79001		Acenaphthene #5
13.616	BB	732.50269	6.63969e-3	4.86359		Fluorene #6
14.998	BBA	27.09999	1.72074e-1	4.66322		Phenanthrene #7
16.397	BBA	15.91612	3.02439e-1	4.81365		Anthracene #8
17.771	BB	18.56896	2.54164e-2	4.71956e-1		Fluoranthene #9
18.773	BBA	11.37372	4.15286e-2	4.72334e-1		Pyrene #10
21.102	BB	15.96525	2.93173e-1	4.68058		p-Terphenyl d14 #11*
22.418	BB	57.25381	8.16445e-3	4.67446e-1		Benzo(a)anthracene #12
23.284	BB	11.91314	3.99732e-2	4.76206e-1		Chrysene #13
26.001	BBA	27.48360	1.69618e-2	4.66172e-1		Benzo(b)fluoranthene #14
27.439	BBA	83.42035	2.81761e-3	2.35046e-1		Benzo(k)fluoranthene #15
28.555	PB	97.54757	4.72489e-3	4.60902e-1		Benzo(a)pyrene #16
30.417	PB	11.57100	4.01183e-2	4.64209e-1		Dibenz(a,h)anthracene #17
31.228	BB	16.23036	2.83529e-2	4.60178e-1		Benzo(g,h,i)perylene #18
32.176	BB	32.92362	1.40329e-2	4.62012e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 42.42445

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
9.322	BBA	598.90387	8.29620e-3	4.96863		Naphthalene #1
10.949	BBA	157.19412	3.01994e-2	4.74717		Acenaphthylene #2
11.897	PB	365.23682	1.30701e-2	4.77368		1-Methylnaphthalene #3
12.471	BB	427.72684	1.13662e-2	4.86161		2-Methylnaphthalene #4
12.948	BB	230.37761	2.06107e-2	4.74825		Acenaphthene #5
13.598	BBA	267.85175	1.76921e-2	4.73885		Fluorene #6
14.980	BBA	271.73749	1.75192e-2	4.76062		Phenanthrene #7
16.379	PBA	479.37994	1.01797e-2	4.87993		Anthracene #8
17.753	PBA	21.47706	2.19011e-2	4.70372e-1		Fluoranthene #9
18.754	BBA	30.90943	1.44152e-2	4.45567e-1		Pyrene #10
21.084	BBA	72.29396	6.51030e-2	4.70655		p-Terphenyl d14 #11*
22.400	BBA	21.50113	2.23264e-2	4.80043e-1		Benzo(a)anthracene #12
23.265	BBA	30.82063	1.52375e-2	4.69628e-1		Chrysene #13
25.983	BBA	22.19203	2.09116e-2	4.64071e-1		Benzo(b)fluoranthene #14
27.421	BB	10.12679	2.27316e-2	2.30198e-1		Benzo(k)fluoranthene #15
28.538	MM	16.33183	2.60943e-2	4.26167e-1		Benzo(a)pyrene #16
30.402	MM	4.54521	9.43319e-2	4.28758e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.211	MM	8.93342	5.34823e-2	4.77779e-1		Benzo(g,h,i)perylene #18
32.156	BB	20.74642	2.07249e-2	4.29967e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 47.50785

Results obtained with enhanced integrator!

*** End of Report ***

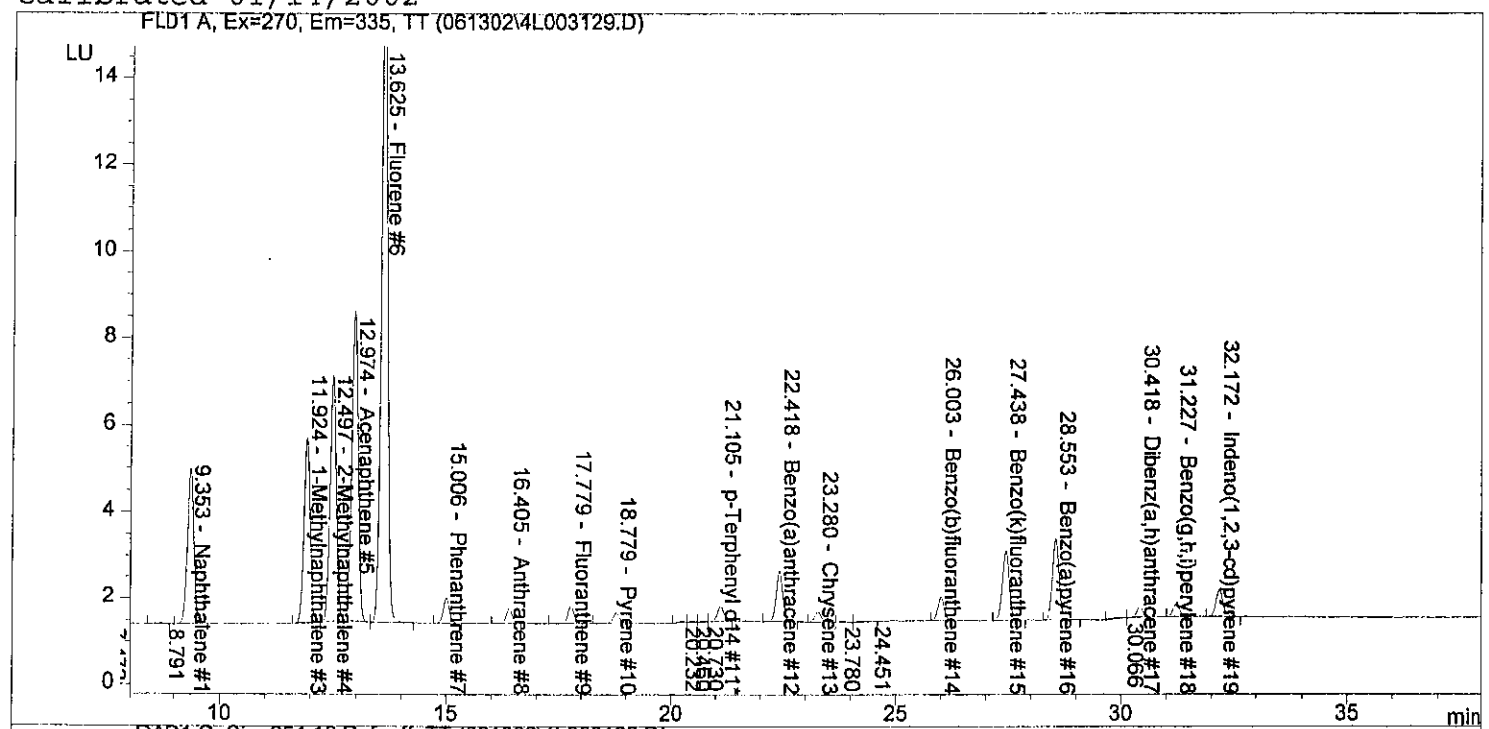
1,1 SOS59-38/58-26 LEVEL 1 STD @ 1/.1/.05 ppm

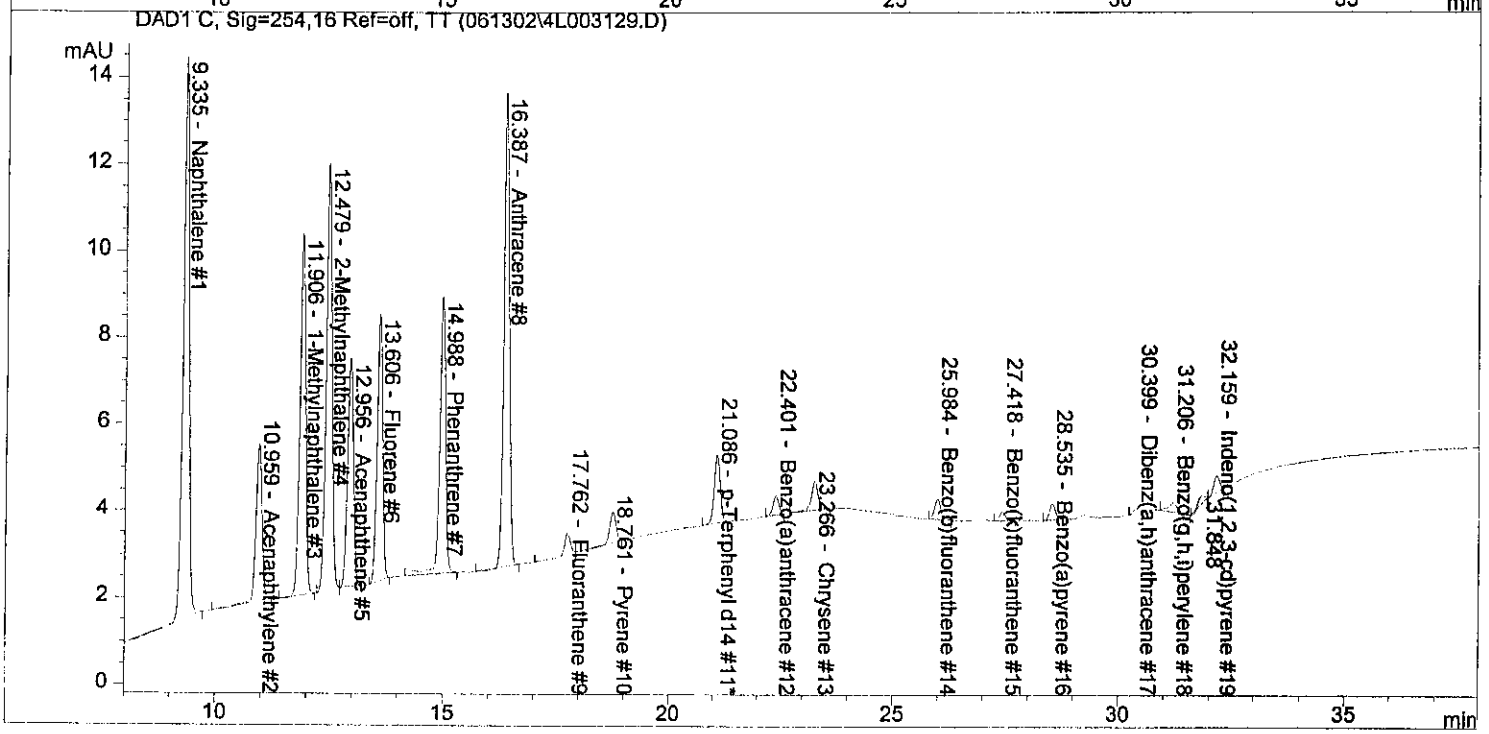
==========

Injection Date	: 6/14/2002 3:44:52 AM	Seq. Line :	8
Sample Name	: WG119840-07 STD1	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

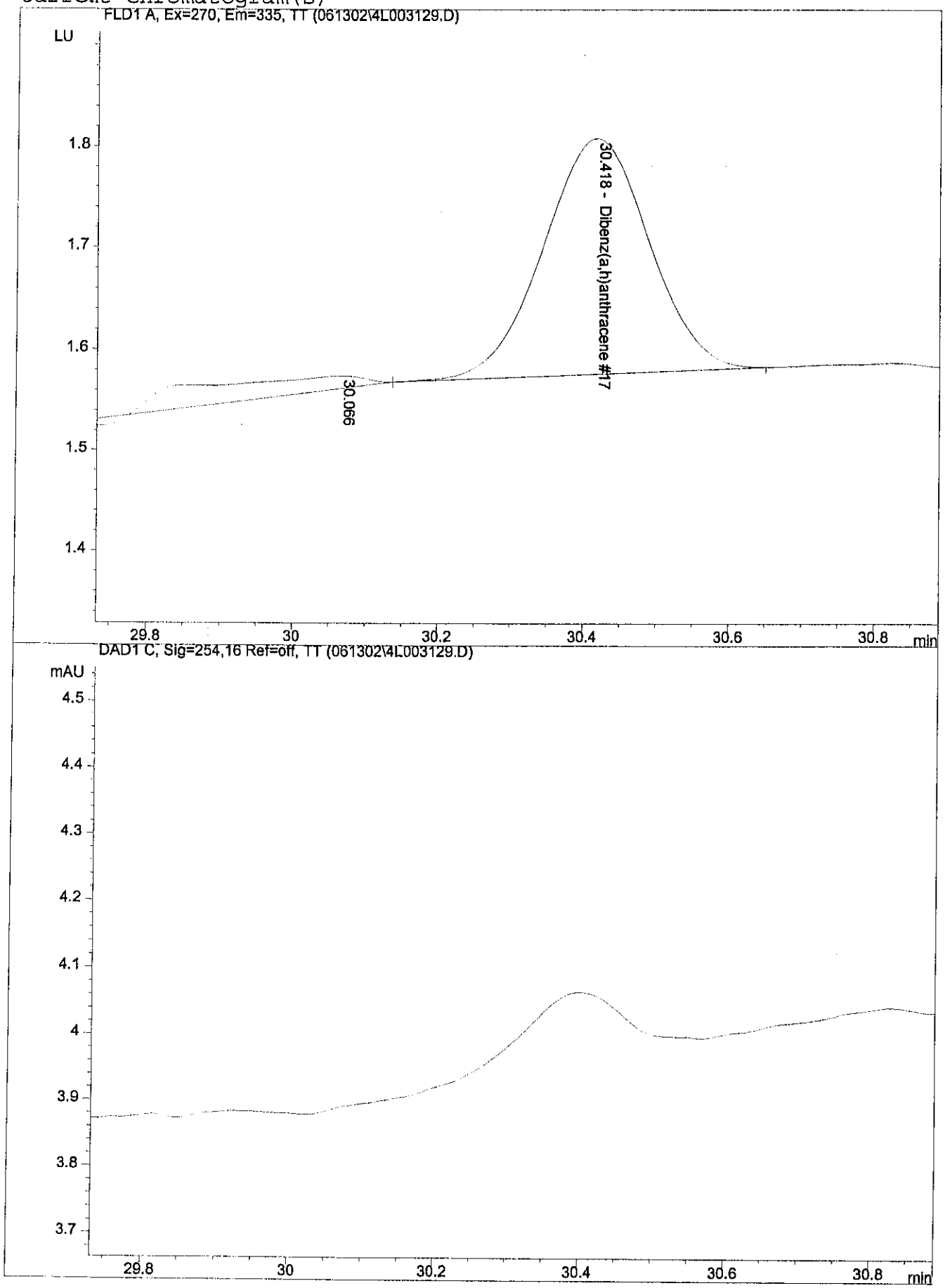
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:11:05 AM by RDC
(modified after loading)

Calibrated 01/14/2002

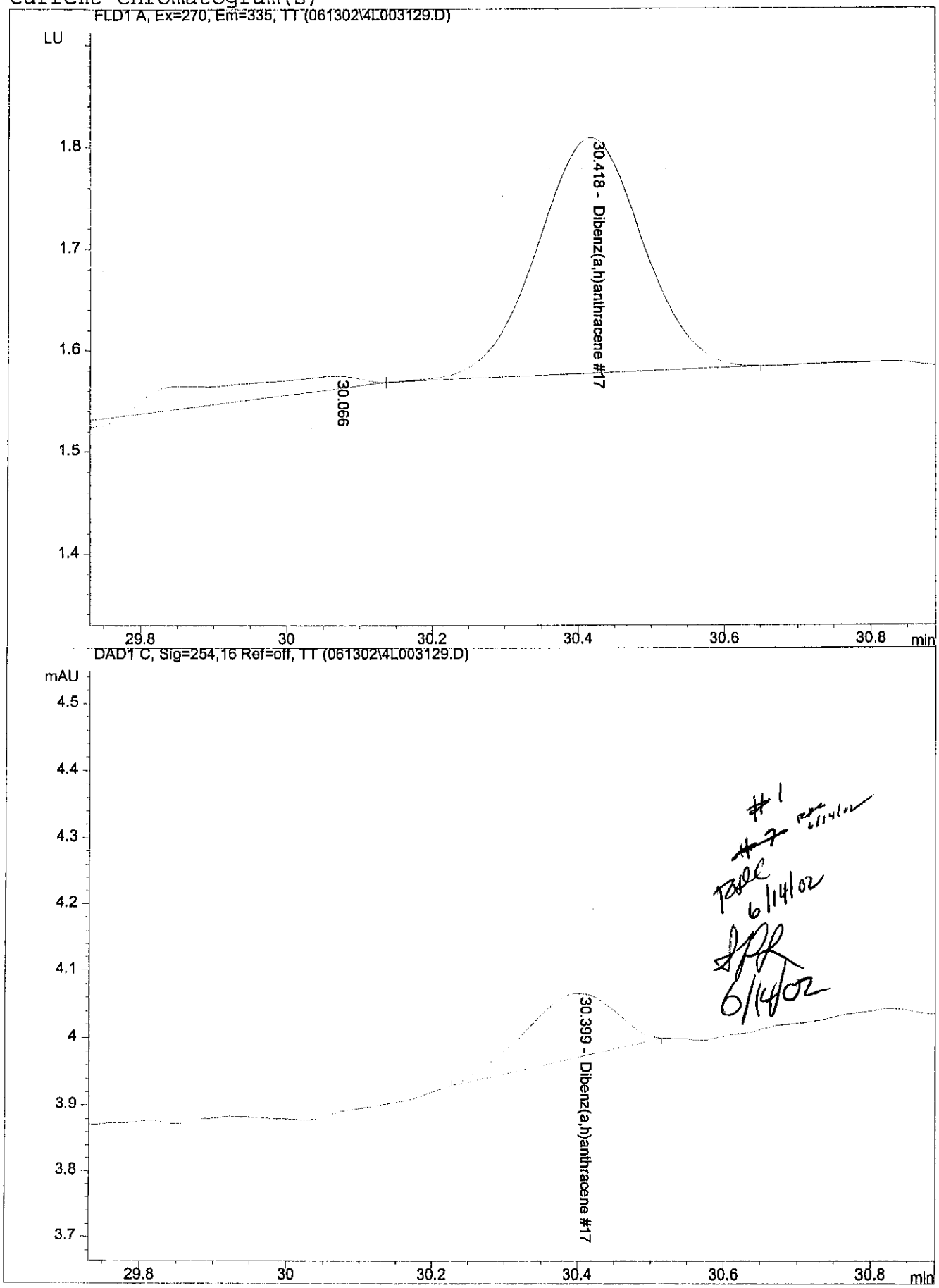




Current Chromatogram(s)



Current Chromatogram(s)



#1

6/14/02

6/14/02

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Friday, June 14, 2002 9:10:59 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.353	BBA	35.70203	2.62757e-2	9.38096e-1		Naphthalene #1
11.924	BB	41.21246	2.29713e-2	9.46704e-1		1-Methylnaphthalene #3
12.497	BB	53.61522	1.77144e-2	9.49759e-1		2-Methylnaphthalene #4
12.974	BB	68.11809	1.40950e-2	9.60126e-1		Acenaphthene #5
13.625	BB	147.37762	6.63969e-3	9.78542e-1		Fluorene #6
15.006	BBA	5.49246	1.72074e-1	9.45109e-1		Phenanthrene #7
16.405	BBA	3.27440	3.02438e-1	9.90305e-1		Anthracene #8
17.779	PBA	3.76502	2.54164e-2	9.56934e-2		Fluoranthene #9
18.779	PBA	2.23349	4.15282e-2	9.27527e-2		Pyrene #10
21.105	BB	3.43824	2.93173e-1	1.00800		p-Terphenyl d14 #11*
22.418	BBA	11.68998	8.16445e-3	9.54423e-2		Benzo(a)anthracene #12
23.280	PBA	2.35546	3.99734e-2	9.41556e-2		Chrysene #13
26.003	BBA	5.60739	1.69618e-2	9.51115e-2		Benzo(b)fluoranthene #14
27.438	PBA	16.96901	2.81761e-3	4.78120e-2		Benzo(k)fluoranthene #15
28.553	BBA	19.68503	4.72488e-3	9.30094e-2		Benzo(a)pyrene #16
30.418	BBA	2.33135	4.01182e-2	9.35298e-2		Dibenz(a,h)anthracene #17
31.227	BBA	3.26803	2.83532e-2	9.26588e-2		Benzo(g,h,i)perylene #18
32.172	BB	6.85877	1.40328e-2	9.62480e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				8.61305		

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
9.335	PBA	118.44469	8.29618e-3	9.82638e-1		Naphthalene #1
10.959	BBA	32.34379	3.01988e-2	9.76744e-1		Acenaphthylene #2
11.906	PBA	73.52287	1.30701e-2	9.60949e-1		1-Methylnaphthalene #3
12.479	BB	85.92275	1.13661e-2	9.76611e-1		2-Methylnaphthalene #4
12.956	BBA	45.75132	2.06107e-2	9.42967e-1		Acenaphthene #5
13.606	PBA	52.41635	1.76920e-2	9.27351e-1		Fluorene #6
14.988	BBA	59.16147	1.75194e-2	1.03647		Phenanthrene #7
16.387	PBA	93.73675	1.01797e-2	9.54210e-1		Anthracene #8
17.762	PB	2.86666	2.19016e-2	6.27845e-2		Fluoranthene #9
18.761	BB	5.78315	1.44153e-2	8.33657e-2		Pyrene #10
21.086	BBA	14.27733	6.51028e-2	9.29495e-1		p-Terphenyl d14 #11*
22.401	BBA	4.17491	2.23265e-2	9.32110e-2		Benzo(a)anthracene #12
23.266	BBA	7.56785	1.52372e-2	1.15313e-1		Chrysene #13
25.984	BBA	4.71679	2.09116e-2	9.86358e-2		Benzo(b)fluoranthene #14
27.418	PBA	2.02281	2.27316e-2	4.59816e-2		Benzo(k)fluoranthene #15
28.535	PBA	3.59195	2.60939e-2	9.37281e-2		Benzo(a)pyrene #16
30.399	MM	8.17798e-1	9.43319e-2	7.71445e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206	BBA	3.35385	5.34797e-2	1.79363e-1		Benzo(g,h,i)perylene #18
32.159	BB	3.43245	2.07250e-2	7.11377e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.60810

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061302\4L003130.D Sample Name: WG119840-08 ALT
HPLC4 6/14/2002 9:20:03 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/14/2002 4:41:30 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.353	20.0	19.636	-1.8
1-Methylnaphthalene #3	11.923	20.0	19.634	-1.8
2-Methylnaphthalene #4	12.497	20.0	19.240	-3.8
Acenaphthene #5	12.975	20.0	20.191	1.0
Fluorene #6	13.626	20.0	20.156	0.8
Phenanthrene #7	15.007	20.0	19.424	-2.9
Anthracene #8	16.402	20.0	20.494	2.5
Fluoranthene #9	17.774	2.0	2.011	0.5
Pyrene #10	18.774	2.0	1.908	-4.6
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.416	2.0	1.861	-7.0
Chrysene #13	23.280	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.001	2.0	1.981	-0.9
Benzo(k)fluoranthene #15	27.443	1.0	0.888	-11.2
Benzo(a)pyrene #16	28.560	2.0	2.072	3.6
Dibenz(a,h)anthracene #1	30.417	2.0	2.178	8.9
Benzo(g,h,i)perylene #18	31.225	2.0	2.014	0.7
Indeno(1,2,3-cd)pyrene #	32.171	2.0	1.909	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	20.298	1.5
Acenaphthylene #2	10.959	20.0	19.150	-4.3
1-Methylnaphthalene #3	11.907	20.0	19.874	-0.6
2-Methylnaphthalene #4	12.480	20.0	19.624	-1.9
Acenaphthene #5	12.958	20.0	20.239	1.2
Fluorene #6	13.609	20.0	19.969	-0.2
Phenanthrene #7	14.989	20.0	19.480	-2.6
Anthracene #8	16.385	20.0	20.776	3.9
Fluoranthene #9	17.755	2.0	1.981	-0.9
Pyrene #10	18.756	2.0	1.911	-4.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.399	2.0	1.903	-4.8
Chrysene #13	23.263	2.0	1.940	-3.0
Benzo(b)fluoranthene #14	25.983	2.0	2.137	6.9
Benzo(k)fluoranthene #15	27.425	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.542	2.0	2.012	0.6
Dibenz(a,h)anthracene #1	30.400	2.0	2.132	6.6
Benzo(g,h,i)perylene #18	31.205	2.0	2.022	1.1
Indeno(1,2,3-cd)pyrene #	32.151	2.0	1.915	-4.2

= Failed 15.0% Criteria

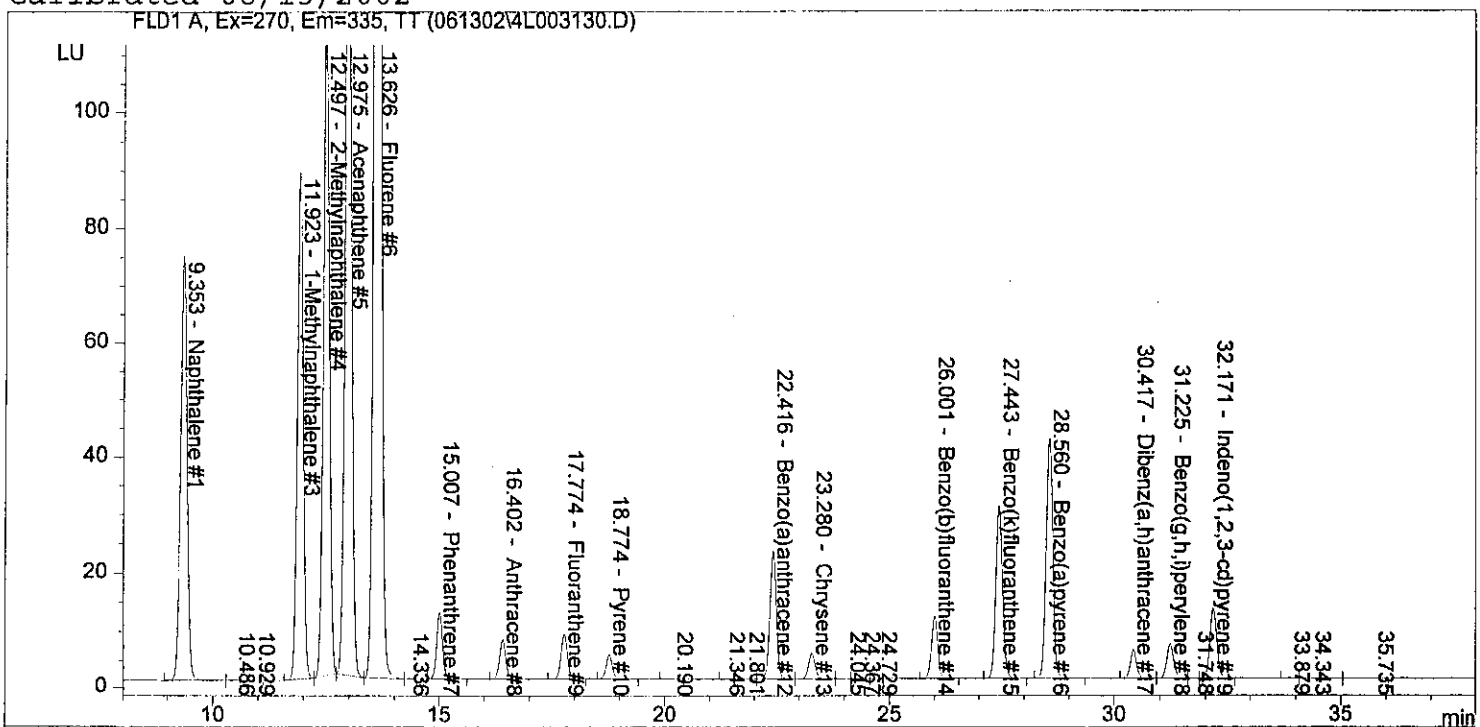
1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

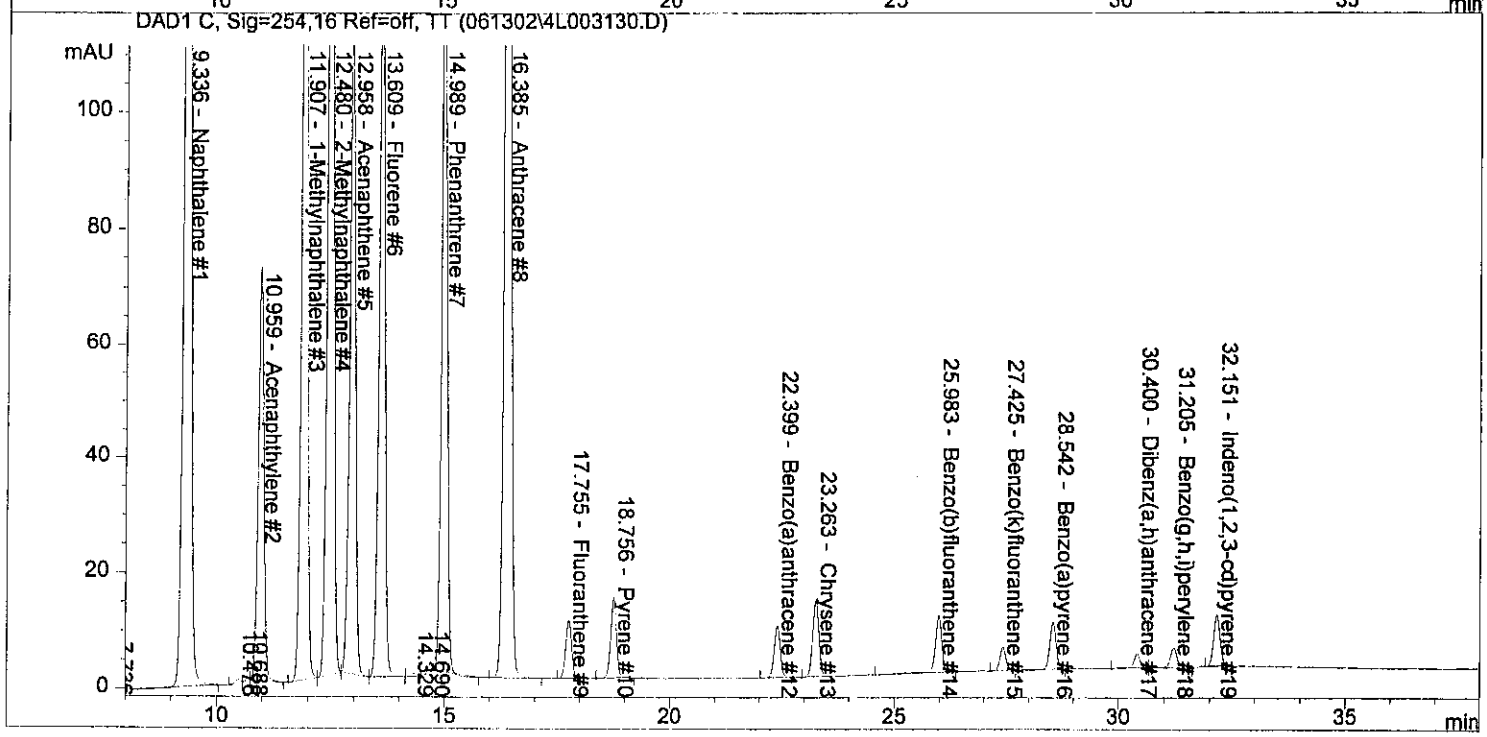
==========

Injection Date : 6/14/2002 4:41:30 AM
Sample Name : WG119840-08 ALT
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:15:22 AM by RDC
Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.353	BBA	741.47394	2.64818e-2	19.63555		Naphthalene #1
11.923	PB	849.44037	2.31142e-2	19.63410		1-Methylnaphthalene #3
12.497	BB	1080.91748	1.77993e-2	19.23960		2-Methylnaphthalene #4
12.975	BB	1430.41858	1.41152e-2	20.19069		Acenaphthene #5
13.626	BB	3046.35132	6.61644e-3	20.15601		Fluorene #6
15.007	BBA	111.55358	1.74121e-1	19.42379		Phenanthrene #7
16.402	PBA	67.69711	3.02731e-1	20.49403		Anthracene #8
17.774	BBA	78.48293	2.56226e-2	2.01094		Fluoranthene #9
18.774	BBA	45.76949	4.16791e-2	1.90763		Pyrene #10
21.105		-	-	-		p-Terphenyl d14 #11*
22.416	BB	225.32762	8.25703e-3	1.86054		Benzo(a)anthracene #12
23.280	BB	48.14102	4.03344e-2	1.94174		Chrysene #13
26.001	BBA	115.71564	1.71232e-2	1.98142		Benzo(b)fluoranthene #14
27.443	PBA	312.50757	2.84229e-3	8.88237e-1		Benzo(k)fluoranthene #15
28.560	BBA	433.13422	4.78467e-3	2.07240		Benzo(a)pyrene #16
30.417	PB	53.64731	4.06074e-2	2.17848		Dibenz(a,h)anthracene #17
31.225	BB	70.01231	2.87717e-2	2.01437		Benzo(g,h,i)perylene #18
32.171	BB	134.54210	1.41904e-2	1.90920		Indeno(1,2,3-cd)pyrene #1

Totals : 157.53873

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	BBA	2473.13794	8.20751e-3	20.29831		Naphthalene #1
10.959	BBA	629.97772	3.03973e-2	19.14961		Acenaphthylene #2
11.907	PB	1517.02673	1.31004e-2	19.87358		1-Methylnaphthalene #3
12.480	BB	1733.14465	1.13225e-2	19.62354		2-Methylnaphthalene #4
12.958	BB	977.54700	2.07034e-2	20.23853		Acenaphthene #5
13.609	BBA	1121.97900	1.77979e-2	19.96882		Fluorene #6
14.989	BBA	1106.84570	1.75995e-2	19.47989		Phenanthrene #7
16.385	BBA	2055.34277	1.01082e-2	20.77584		Anthracene #8
17.755	BB	89.41918	2.21566e-2	1.98123		Fluoranthene #9
18.756	BBA	130.87094	1.46058e-2	1.91148		Pyrene #10
21.086		-	-	-		p-Terphenyl d14 #11*
22.399	BBA	84.40978	2.25464e-2	1.90314		Benzo(a)anthracene #12
23.263	PBA	126.38636	1.53524e-2	1.94033		Chrysene #13
25.983	BBA	100.98494	2.11651e-2	2.13736		Benzo(b)fluoranthene #14
27.425	BB	38.33561	2.30196e-2	8.82469e-1		Benzo(k)fluoranthene #15
28.542	BB	75.80901	2.65464e-2	2.01246		Benzo(a)pyrene #16
30.400	PB	22.37718	9.52840e-2	2.13219		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.205	BB	38.34106	5.27407e-2	2.02214		Benzo(g,h,i)perylene #18
32.151	BBA	90.54501	2.11518e-2	1.91519		Indeno(1,2,3-cd)pyrene #1

Totals : 178.24611

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

==========

Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 6/20/2002 8:52:08 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 : Included
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
9.370	2	1	1.00000	121.88613	8.20438e-3			Naphthalene #1
		2	5.00000	604.13025	8.27636e-3			
		3	10.00000	1256.01123	7.96171e-3			
		4	20.00000	2522.50317	7.92863e-3			
		5	50.00000	6248.73438	8.00162e-3			
		6	100.00000	1.21595e4	8.22402e-3			
9.388	1	1	1.00000	35.50560	2.81646e-2			Naphthalene #1
		2	5.00000	180.32388	2.77279e-2			
		3	10.00000	372.80032	2.68240e-2			
		4	20.00000	753.95251	2.65269e-2			
		5	50.00000	1881.29065	2.65775e-2			
		6	100.00000	3818.87573	2.61857e-2			
10.995	2	1	1.00000	31.70620	3.15396e-2			Acenaphthylene #2
		2	5.00000	161.28902	3.10003e-2			
		3	10.00000	327.28607	3.05543e-2			
		4	20.00000	658.61700	3.03667e-2			
		5	50.00000	1646.95264	3.03591e-2			
		6	100.00000	3352.51904	2.98283e-2			
11.942	2	1	1.00000	72.22427	1.38458e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	369.24078	1.35413e-2			
		3	10.00000	764.27496	1.30843e-2			
		4	20.00000	1542.24731	1.29681e-2			
		5	50.00000	3853.44678	1.29754e-2			
		6	100.00000	7760.07324	1.28865e-2			
11.959	1	1	1.00000	40.92273	2.44363e-2			1-Methylnaphthalene #3
		2	5.00000	206.59302	2.42022e-2			
		3	10.00000	427.56720	2.33881e-2			
		4	20.00000	858.01282	2.33097e-2			
		5	50.00000	2153.76392	2.32152e-2			
		6	100.00000	4358.92773	2.29414e-2			
12.516	2	1	1.00000	85.91975	1.16388e-2			2-Methylnaphthalene #4
		2	5.00000	431.87616	1.15774e-2			
		3	10.00000	893.57037	1.11911e-2			
		4	20.00000	1796.91260	1.11302e-2			
		5	50.00000	4472.15283	1.11803e-2			
		6	100.00000	8891.12988	1.12472e-2			
12.534	1	1	1.00000	53.13324	1.88206e-2			2-Methylnaphthalene #4
		2	5.00000	268.34698	1.86326e-2			
		3	10.00000	555.46735	1.80029e-2			
		4	20.00000	1119.16992	1.78704e-2			
		5	50.00000	2790.36157	1.79188e-2			
		6	100.00000	5631.00635	1.77588e-2			
12.994	2	1	1.00000	46.04076	2.17199e-2			Acenaphthene #5
		2	5.00000	232.43697	2.15112e-2			
		3	10.00000	481.32138	2.07761e-2			
		4	20.00000	969.13959	2.06369e-2			
		5	50.00000	2425.16016	2.06172e-2			
		6	100.00000	4910.46826	2.03647e-2			
13.012	1	1	1.00000	67.65919	1.47800e-2			Acenaphthene #5
		2	5.00000	339.82239	1.47136e-2			
		3	10.00000	703.58374	1.42129e-2			
		4	20.00000	1418.85522	1.40959e-2			
		5	50.00000	3535.51440	1.41422e-2			
		6	100.00000	7085.17041	1.41140e-2			
13.645	2	1	1.00000	52.90672	1.89012e-2			Fluorene #6
		2	5.00000	269.75366	1.85354e-2			
		3	10.00000	559.61633	1.78694e-2			
		4	20.00000	1129.35339	1.77092e-2			
		5	50.00000	2832.44678	1.76526e-2			
		6	100.00000	5749.89111	1.73916e-2			
13.663	1	1	1.00000	146.98784	6.80328e-3			Fluorene #6
		2	5.00000	734.63800	6.80607e-3			
		3	10.00000	1519.39380	6.58157e-3			
		4	20.00000	3055.26025	6.54609e-3			
		5	50.00000	7607.03076	6.57287e-3			
		6	100.00000	1.51592e4	6.59665e-3			
15.028	2	1	1.00000	59.91370	1.66907e-2			Phenanthrene #7
		2	5.00000	277.70538	1.80047e-2			
		3	10.00000	576.95782	1.73323e-2			
		4	20.00000	1164.06238	1.71812e-2			
		5	50.00000	2921.47241	1.71147e-2			
		6	100.00000	5932.12939	1.68574e-2			
15.046	1	1	1.00000	6.79399	1.47189e-1			Phenanthrene #7
		2	5.00000	27.54959	1.81491e-1			
		3	10.00000	57.20443	1.74812e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.53256	1.76161e-1			
		5	50.00000	286.03766	1.74802e-1			
		6	100.00000	586.44727	1.70518e-1			
16.431	2	1	1.00000	96.05915	1.04103e-2			Anthracene #8
		2	5.00000	483.02975	1.03513e-2			
		3	10.00000	1002.81183	9.97196e-3			
		4	20.00000	2019.75476	9.90219e-3			
		5	50.00000	5037.00098	9.92654e-3			
		6	100.00000	9947.86328	1.00524e-2			
16.450	1	1	1.00000	3.26255	3.06509e-1			Anthracene #8
		2	5.00000	15.88479	3.14767e-1			
		3	10.00000	32.94457	3.03540e-1			
		4	20.00000	66.23384	3.01960e-1			
		5	50.00000	165.22198	3.02623e-1			
		6	100.00000	335.92169	2.97688e-1			
17.806	2	1	1.00000e-1	4.17519	2.39510e-2			Fluoranthene #9
		2	5.00000e-1	21.38802	2.33776e-2			
		3	1.00000	44.70066	2.23710e-2			
		4	2.00000	90.59781	2.20756e-2			
		5	5.00000	227.65421	2.19631e-2			
		6	10.00000	464.57758	2.15249e-2			
17.824	1	1	1.00000e-1	3.92421	2.54828e-2			Fluoranthene #9
		2	5.00000e-1	18.78860	2.66119e-2			
		3	1.00000	38.41879	2.60289e-2			
		4	2.00000	78.11402	2.56036e-2			
		5	5.00000	195.60518	2.55617e-2			
		6	10.00000	397.42139	2.51622e-2			
18.809	2	1	1.00000e-1	6.27601	1.59337e-2			Pyrene #10
		2	5.00000e-1	30.01324	1.66593e-2			
		3	1.00000	67.82222	1.47444e-2			
		4	2.00000	137.22350	1.45748e-2			
		5	5.00000	345.94687	1.44531e-2			
		6	10.00000	706.87067	1.41469e-2			
18.828	1	1	1.00000e-1	2.23386	4.47655e-2			Pyrene #10
		2	5.00000e-1	11.53121	4.33606e-2			
		3	1.00000	23.72331	4.21526e-2			
		4	2.00000	47.68803	4.19392e-2			
		5	5.00000	120.33789	4.15497e-2			
21.150	2	1	1.00000	14.27093	7.00725e-2			p-Terphenyl d14 #11*
		2	5.00000	72.39475	6.90658e-2			
		3	10.00000	150.41772	6.64815e-2			
		4	20.00000	304.47540	6.56868e-2			
		5	50.00000	771.85547	6.47790e-2			
		6	100.00000	1553.84106	6.43566e-2			
21.166	1	1	1.00000	3.57698	2.79566e-1			p-Terphenyl d14 #11*
		2	5.00000	16.05081	3.11511e-1			
		3	10.00000	33.17809	3.01404e-1			
		4	20.00000	67.05980	2.98241e-1			
		5	50.00000	170.11554	2.93918e-1			
		6	100.00000	343.67426	2.90973e-1			
22.466	2	1	1.00000e-1	4.39682	2.27437e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.07132	2.37289e-2			
		3	1.00000	43.86306	2.27982e-2			
		4	2.00000	88.71733	2.25435e-2			
		5	5.00000	223.22693	2.23987e-2			
		6	10.00000	457.02676	2.18806e-2			

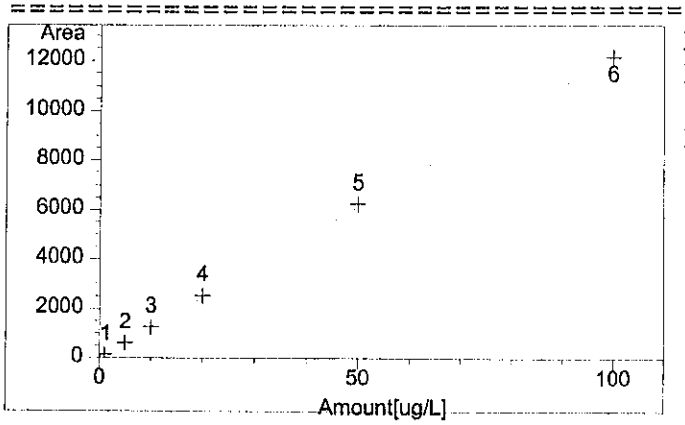
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.485	1	1	1.00000e-1	11.92573	8.38523e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.40008	8.71079e-3			
		3	1.00000	118.62704	8.42978e-3			
		4	2.00000	240.55975	8.31394e-3			
		5	5.00000	604.25543	8.27465e-3			
		6	10.00000	1235.15466	8.09615e-3			
23.337	2	1	1.00000e-1	6.15006	1.62600e-2			Chrysene #13
		2	5.00000e-1	30.91224	1.61748e-2			
		3	1.00000	64.16498	1.55848e-2			
		4	2.00000	130.01958	1.53823e-2			
		5	5.00000	327.80472	1.52530e-2			
		6	10.00000	668.69543	1.49545e-2			
23.357	1	1	1.00000e-1	2.37958	4.20241e-2			Chrysene #13
		2	5.00000e-1	11.79001	4.24088e-2			
		3	1.00000	24.51306	4.07946e-2			
		4	2.00000	49.27580	4.05879e-2			
		5	5.00000	123.19585	4.05858e-2			
		6	10.00000	252.46683	3.96092e-2			
26.064	2	1	1.00000e-1	4.57150	2.18747e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.64764	2.20774e-2			
		3	1.00000	46.88808	2.13274e-2			
		4	2.00000	95.03743	2.10443e-2			
		5	5.00000	238.78767	2.09391e-2			
		6	10.00000	487.47803	2.05137e-2			
26.079	1	1	1.00000e-1	5.48437	1.82336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.72870	1.80319e-2			
		3	1.00000	57.64222	1.73484e-2			
		4	2.00000	116.48901	1.71690e-2			
		5	5.00000	292.99271	1.70653e-2			
		6	10.00000	595.50562	1.67925e-2			
27.495	2	1	5.00000e-2	2.19067	2.28241e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.30655	2.42564e-2			
		3	5.00000e-1	21.77243	2.29648e-2			
		4	1.00000	43.78368	2.28396e-2			
		5	2.50000	109.96069	2.27354e-2			
		6	5.00000	224.33841	2.22878e-2			
27.510	1	1	5.00000e-2	16.92470	2.95426e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.46227	2.99537e-3			
		3	5.00000e-1	174.54939	2.86452e-3			
		4	1.00000	351.08521	2.84831e-3			
		5	2.50000	882.24713	2.83367e-3			
		6	5.00000	1792.05200	2.79010e-3			
28.596	2	1	1.00000e-1	3.90243	2.56251e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.74469	2.98602e-2			
		3	1.00000	36.86427	2.71265e-2			
		4	2.00000	74.65511	2.67899e-2			
		5	5.00000	189.32166	2.64101e-2			
		6	10.00000	390.50266	2.56080e-2			
28.614	1	1	1.00000e-1	19.55420	5.11399e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.80115	5.11241e-3			
		3	1.00000	203.63187	4.91082e-3			
		4	2.00000	413.85422	4.83262e-3			
		5	5.00000	1045.54724	4.78218e-3			
		6	10.00000	2137.81030	4.67768e-3			
30.454	2	1	1.00000e-1	1.00112	9.98882e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	5.15278	9.70350e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	11.97529	8.35053e-2			
		4	2.00000	21.19111	9.43792e-2			
		5	5.00000	52.23464	9.57219e-2			
		6	10.00000	107.04004	9.34230e-2			
30.474	1	1	1.00000e-1	2.22269	4.49905e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.53541	4.33448e-2			
		3	1.00000	23.79175	4.20314e-2			
		4	2.00000	48.37757	4.13415e-2			
		5	5.00000	122.97315	4.06593e-2			
		6	10.00000	251.97131	3.96871e-2			
31.264	2	1	1.00000e-1	2.34328	4.26753e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	9.25292	5.40370e-2			
		3	1.00000	18.48934	5.40852e-2			
		4	2.00000	36.61276	5.46258e-2			
		5	5.00000	92.88844	5.38280e-2			
		6	10.00000	190.01508	5.26274e-2			
31.287	1	1	1.00000e-1	3.18651	3.13823e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.16728	3.09267e-2			
		3	1.00000	33.82579	2.95632e-2			
		4	2.00000	68.83204	2.90562e-2			
		5	5.00000	174.47961	2.86566e-2			
		6	10.00000	358.59521	2.78866e-2			
32.225	2	1	1.00000e-1	3.42590	2.91894e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.58914	2.31598e-2			
		3	1.00000	46.04763	2.17166e-2			
		4	2.00000	94.45714	2.11736e-2			
		5	5.00000	240.26486	2.08104e-2			
		6	10.00000	492.90811	2.02878e-2			
32.233	1	1	1.00000e-1	6.77440	1.47614e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	33.25379	1.50359e-2			
		3	1.00000	68.94070	1.45052e-2			
		4	2.00000	139.75822	1.43104e-2			
		5	5.00000	351.40439	1.42286e-2			
		6	10.00000	717.39240	1.39394e-2			

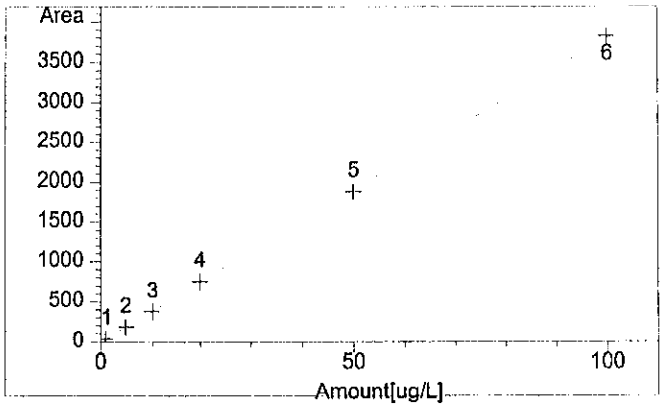
Peak Sum Table

No Entries in table

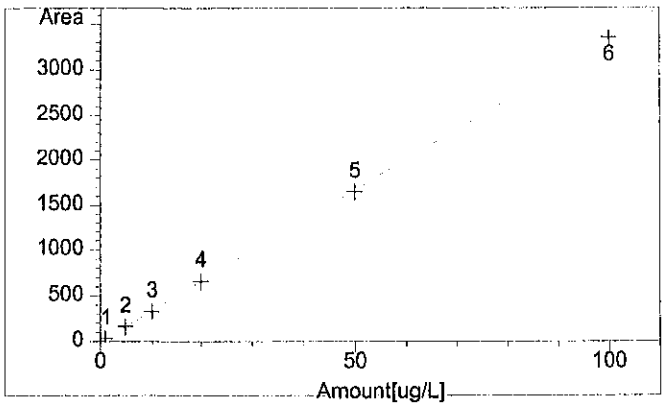
Calibration Curves



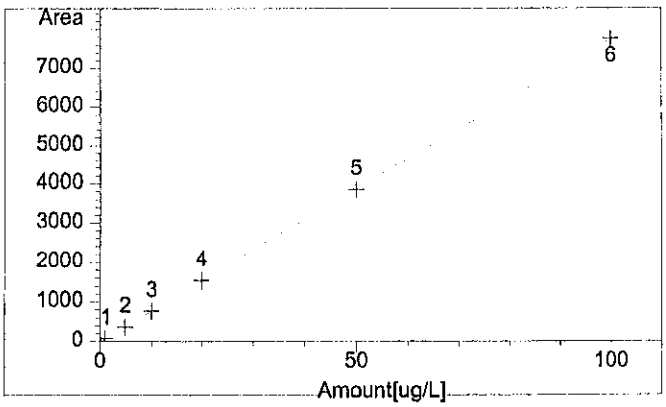
Naphthalene #1 at exp. RT: 9.370
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 70.57790
Formula: y = mx + b
m: 121.93837
b: 33.17626
x: Amount [ug/L]
y: Area



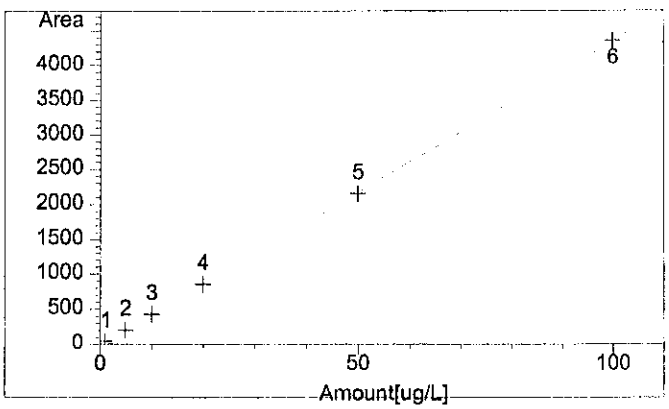
Naphthalene #1 at exp. RT: 9.388
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.65995
Formula: y = mx + b
m: 38.17062
b: -8.14096
x: Amount[ug/L]
y: Area



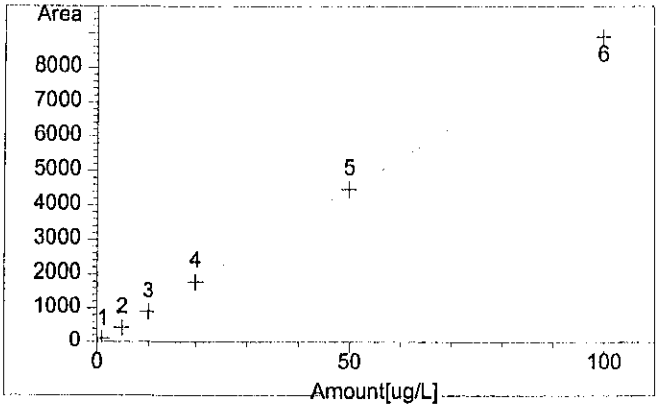
Acenaphthylene #2 at exp. RT: 10.995
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 11.19977
Formula: y = mx + b
m: 33.48891
b: -7.22387
x: Amount[ug/L]
y: Area



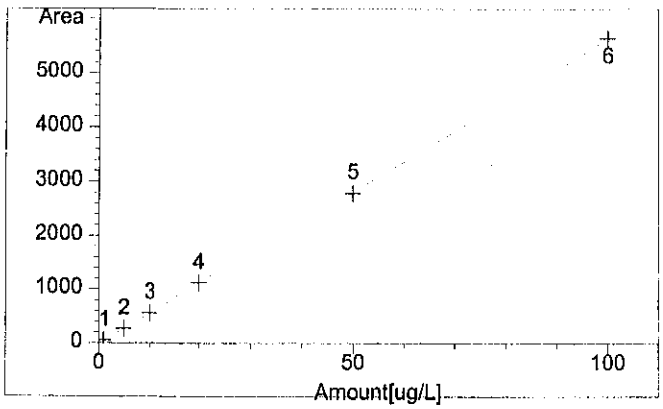
1-Methylnaphthalene #3 at exp. RT: 11.942
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.69411
Formula: y = mx + b
m: 77.62274
b: -10.90308
x: Amount[ug/L]
y: Area



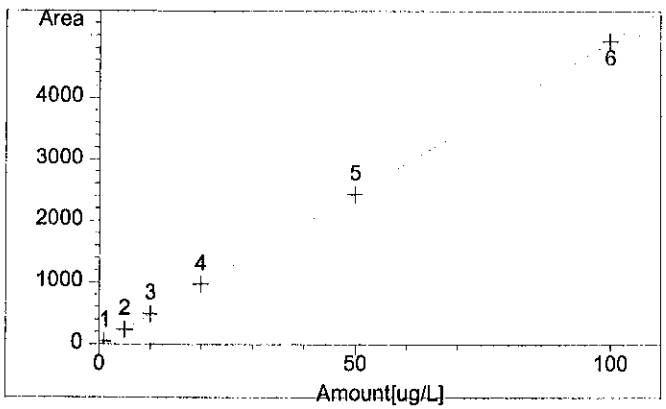
1-Methylnaphthalene #3 at exp. RT: 11.959
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.09079
Formula: y = mx + b
m: 43.58179
b: -8.63216
x: Amount[ug/L]
y: Area



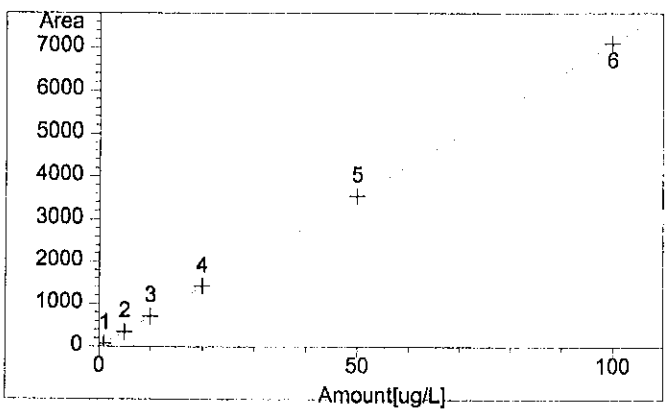
2-Methylnaphthalene #4 at exp. RT: 12.516
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 14.18056
Formula: y = mx + b
m: 89.00733
b: 2.31405
x: Amount[ug/L]
y: Area



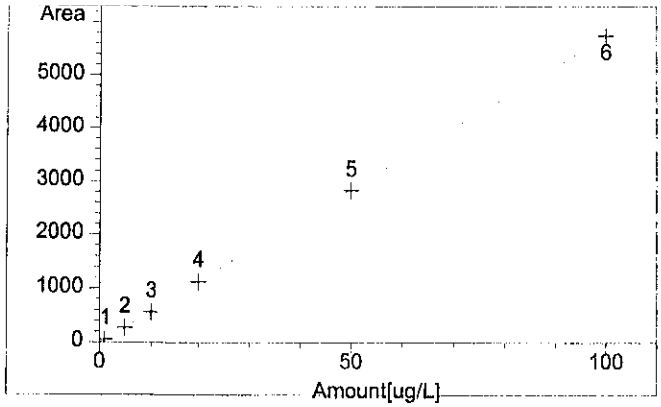
2-Methylnaphthalene #4 at exp. RT: 12.534
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 9.72550
Formula: y = mx + b
m: 56.30384
b: -7.86135
x: Amount[ug/L]
y: Area



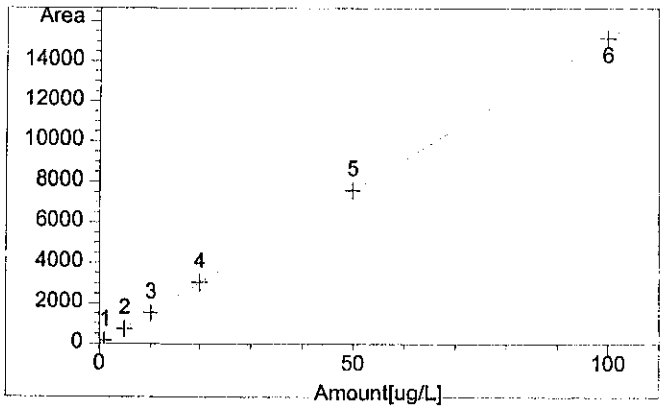
Acenaphthene #5 at exp. RT: 12.994
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 11.55898
Formula: y = mx + b
m: 49.09260
b: -9.52241
x: Amount[ug/L]
y: Area



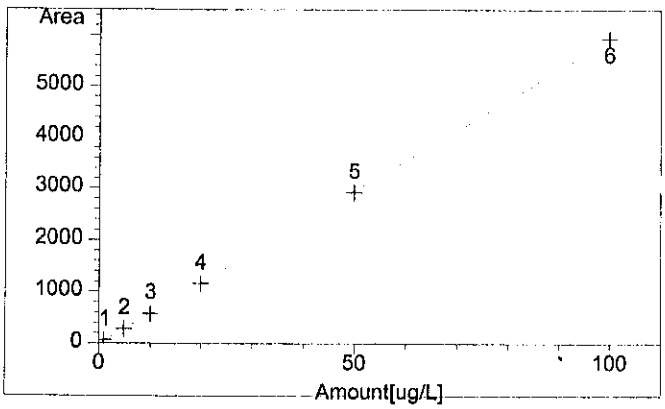
Acenaphthene #5 at exp. RT: 13.012
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.91307
Formula: y = mx + b
m: 70.88847
b: -4.94990
x: Amount[ug/L]
y: Area



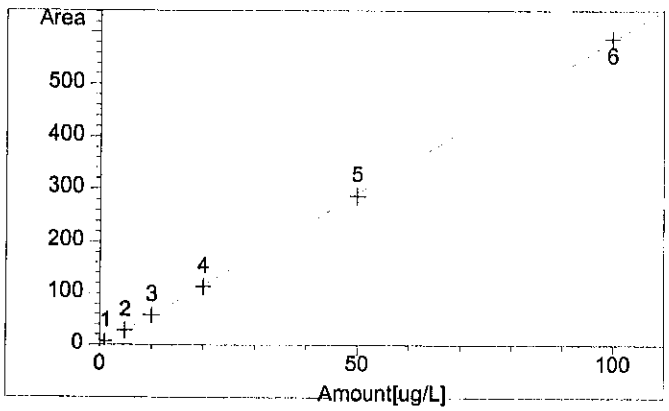
Fluorene #6 at exp. RT: 13.645
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 16.43131
Formula: y = mx + b
m: 57.48589
b: -14.05816
x: Amount [ug/L]
y: Area



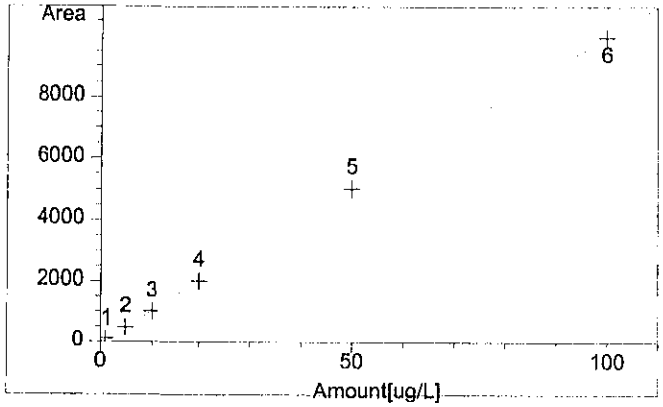
Fluorene #6 at exp. RT: 13.663
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 18.11896
Formula: y = mx + b
m: 151.72220
b: 3.12530e-1
x: Amount [ug/L]
y: Area



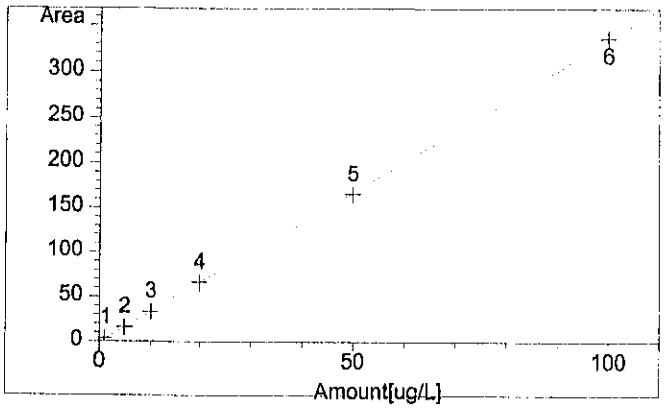
Phenanthrene #7 at exp. RT: 15.028
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 18.06229
Formula: y = mx + b
m: 59.29212
b: -13.72762
x: Amount [ug/L]
y: Area



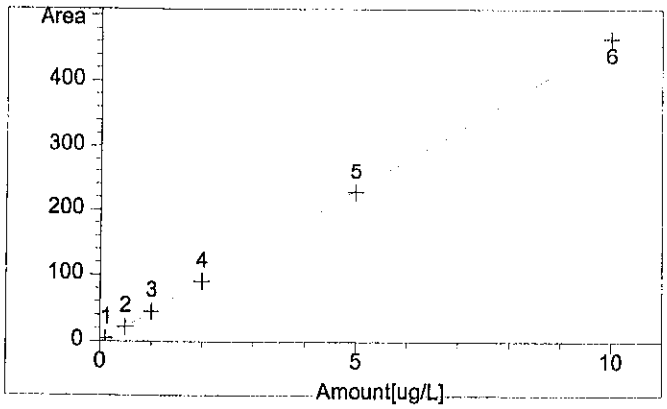
Phenanthrene #7 at exp. RT: 15.046
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 3.01563
Formula: y = mx + b
m: 5.85144
b: -1.54327
x: Amount [ug/L]
y: Area



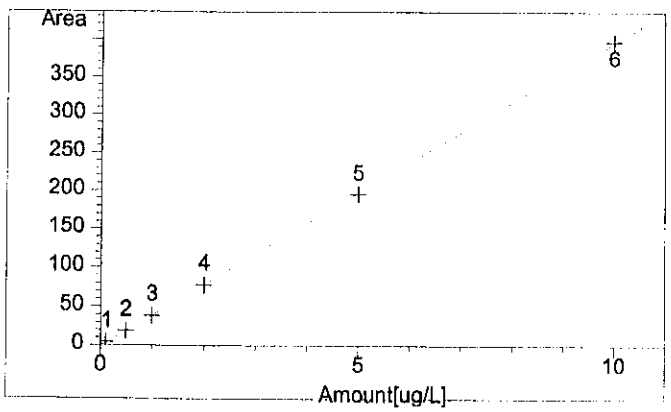
Anthracene #8 at exp. RT: 16.431
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 27.85848
Formula: y = mx + b
m: 99.66958
b: 6.85395
x: Amount [ug/L]
y: Area



Anthracene #8 at exp. RT: 16.450
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.04930
Formula: y = mx + b
m: 3.35612
b: -6.81187e-1
x: Amount [ug/L]
y: Area

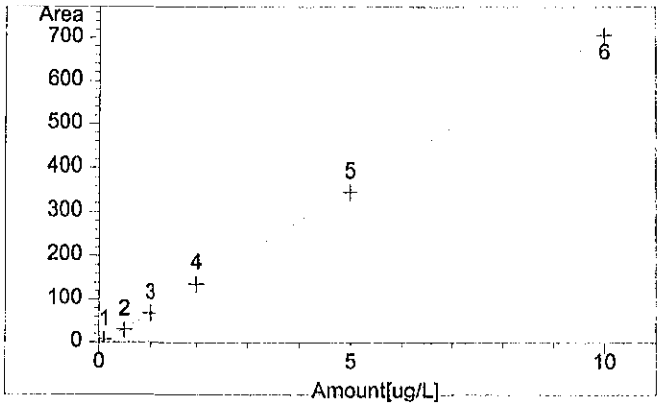


Fluoranthene #9 at exp. RT: 17.806
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.79879
Formula: y = mx + b
m: 46.44231
b: -1.53335
x: Amount [ug/L]
y: Area

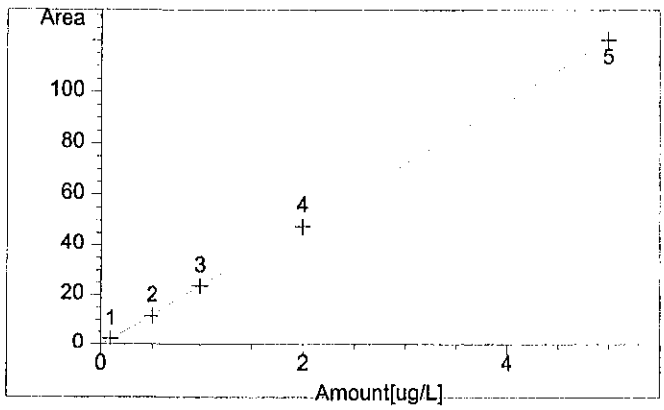


Fluoranthene #9 at exp. RT: 17.824
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.22857
Formula: y = mx + b
m: 39.72087
b: -9.33708e-1
x: Amount [ug/L]
y: Area

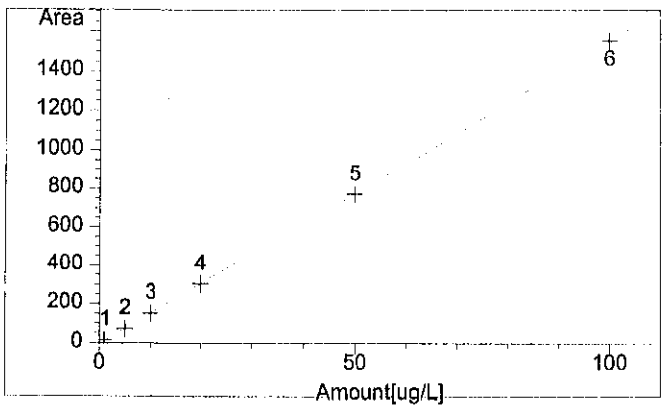
548



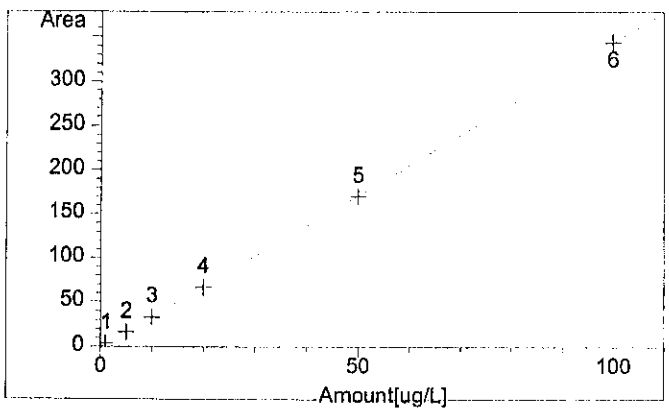
Pyrene #10 at exp. RT: 18.809
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 3.15034
Formula: y = mx + b
m: 70.72982
b: -3.06030
x: Amount[ug/L]
y: Area



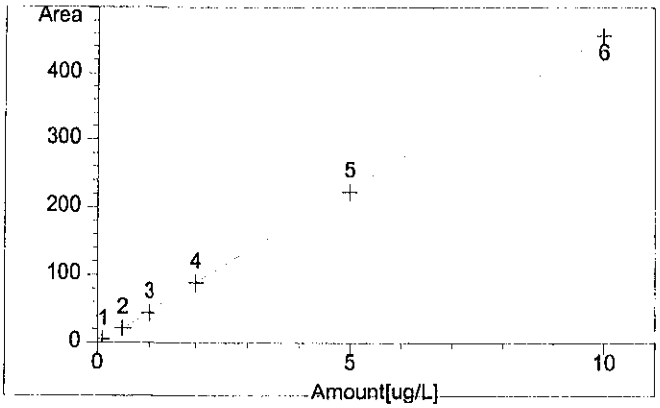
Pyrene #10 at exp. RT: 18.828
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.23587
Formula: y = mx + b
m: 24.10078
b: -2.92066e-1
x: Amount[ug/L]
y: Area



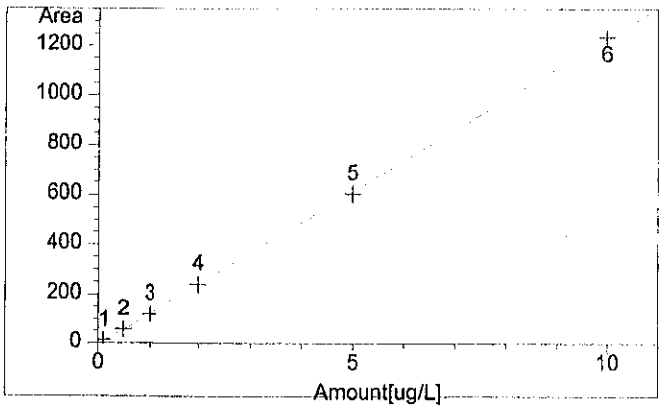
p-Terphenyl d14 #11* at exp. RT: 21.150
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.89474
Formula: y = mx + b
m: 15.55717
b: -3.76840
x: Amount[ug/L]
y: Area



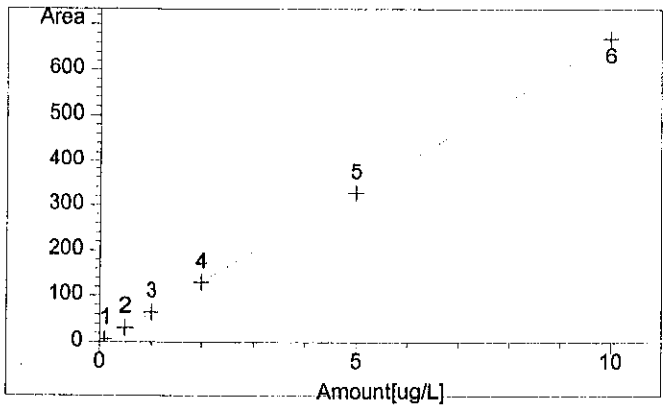
p-Terphenyl d14 #11* at exp. RT: 21.166
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.89731
Formula: y = mx + b
m: 3.43813
b: -8.33877e-1
x: Amount[ug/L]
y: Area



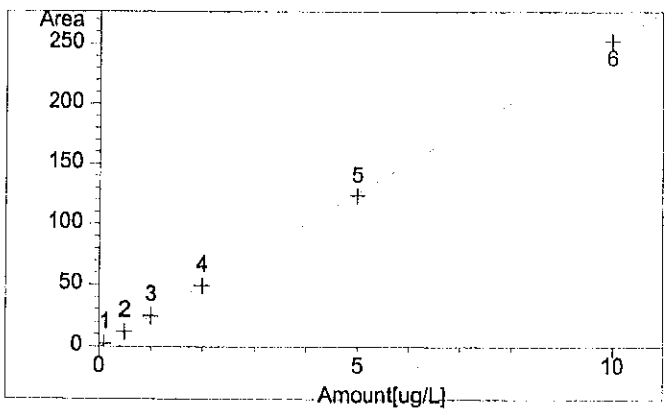
Benzo(a)anthracene #12 at exp. RT: 22.466
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.08992
Formula: y = mx + b
m: 45.66201
b: -1.57303
x: Amount[ug/L]
y: Area



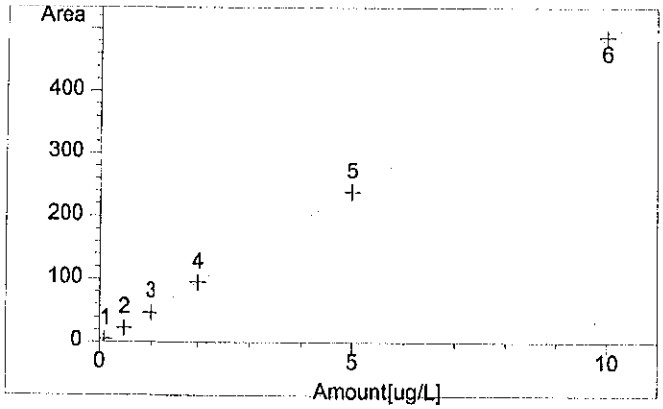
Benzo(a)anthracene #12 at exp. RT: 22.485
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 5.24449
Formula: y = mx + b
m: 123.41194
b: -3.93419
x: Amount[ug/L]
y: Area



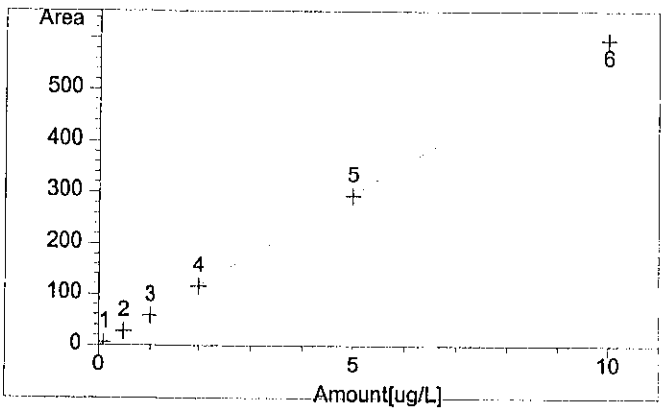
Chrysene #13 at exp. RT: 23.337
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 2.60337
Formula: y = mx + b
m: 66.84989
b: -2.23727
x: Amount[ug/L]
y: Area



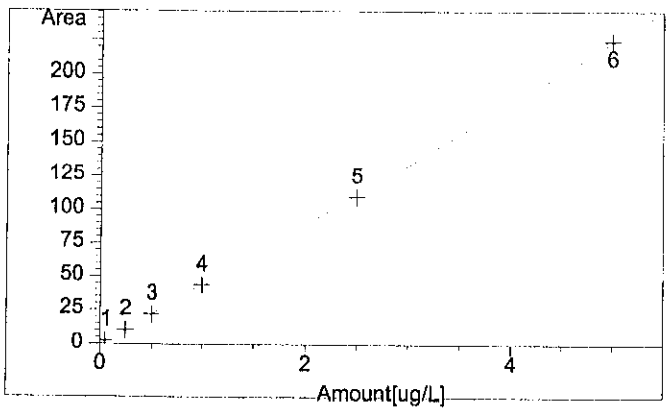
Chrysene #13 at exp. RT: 23.357
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.16361
Formula: y = mx + b
m: 25.21041
b: -7.56072e-1
x: Amount[ug/L]
y: Area



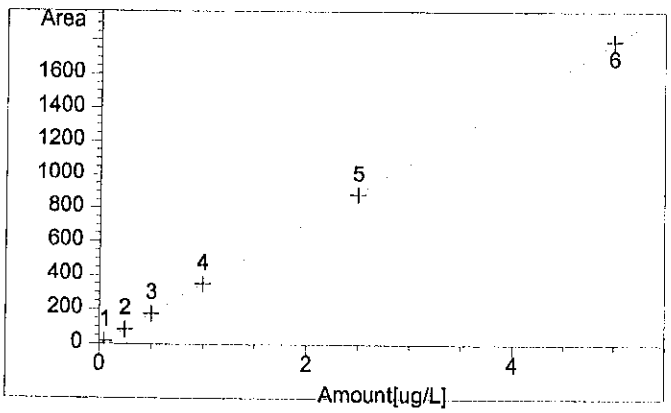
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.93804
Formula: y = mx + b
m: 48.71807
b: -1.53510
x: Amount [ug/L]
y: Area



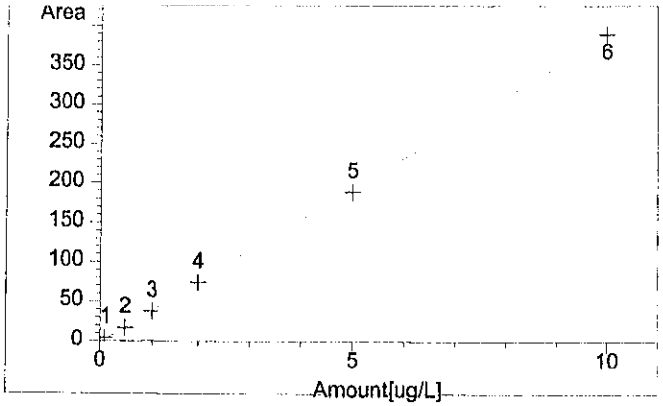
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.87852
Formula: y = mx + b
m: 59.54246
b: -1.66387
x: Amount [ug/L]
y: Area



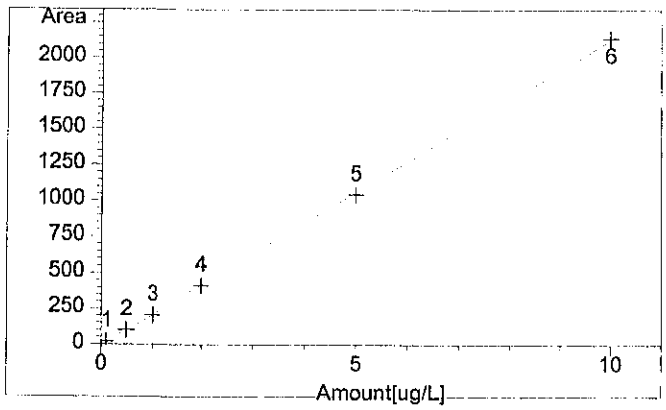
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 0.87725
Formula: y = mx + b
m: 44.83633
b: -6.60775e-1
x: Amount [ug/L]
y: Area



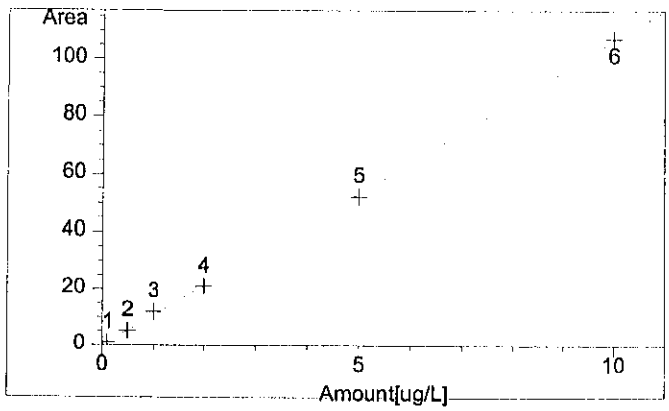
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 5.46079
Formula: y = mx + b
m: 358.31240
b: -4.56924
x: Amount [ug/L]
y: Area



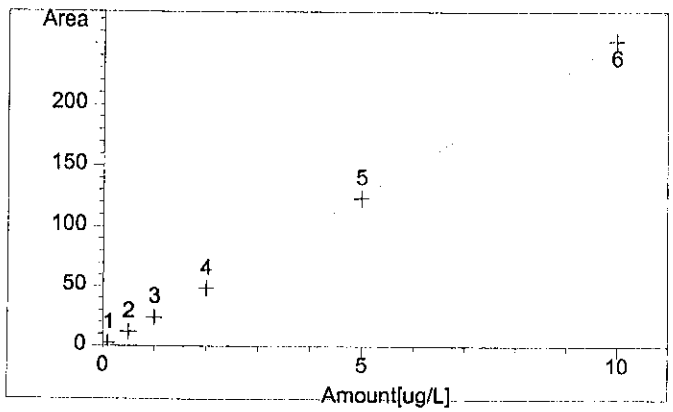
Benzo(a)pyrene #16 at exp. RT: 28.596
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 2.45350
Formula: y = mx + b
m: 39.02551
b: -1.98338
x: Amount[ug/L]
y: Area



Benzo(a)pyrene #16 at exp. RT: 28.614
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.37532
Formula: y = mx + b
m: 213.72380
b: -8.15195
x: Amount[ug/L]
y: Area

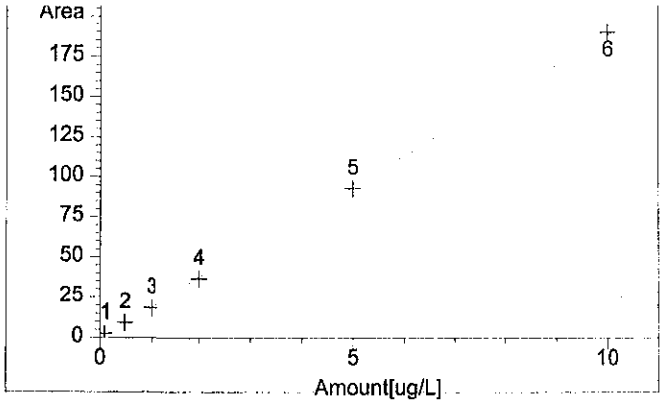


Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 0.78590
Formula: y = mx + b
m: 10.64996
b: 7.22431e-2
x: Amount[ug/L]
y: Area

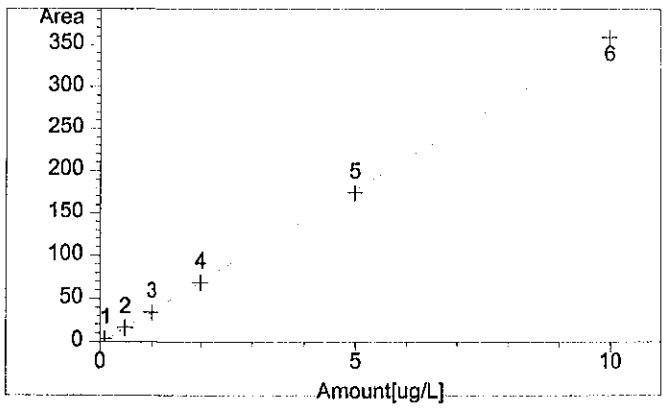


Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.23730
Formula: y = mx + b
m: 25.19279
b: -1.10201
x: Amount[ug/L]
y: Area

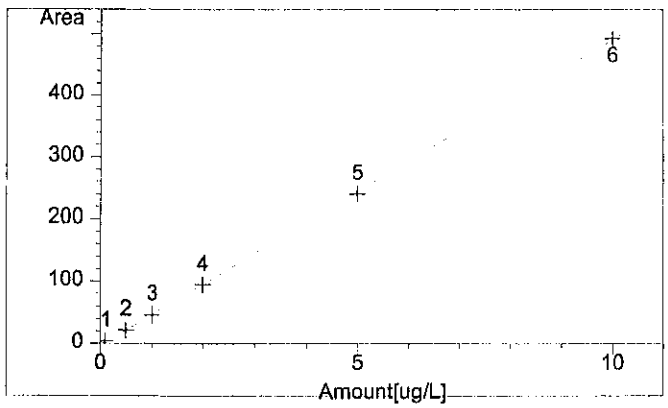
552



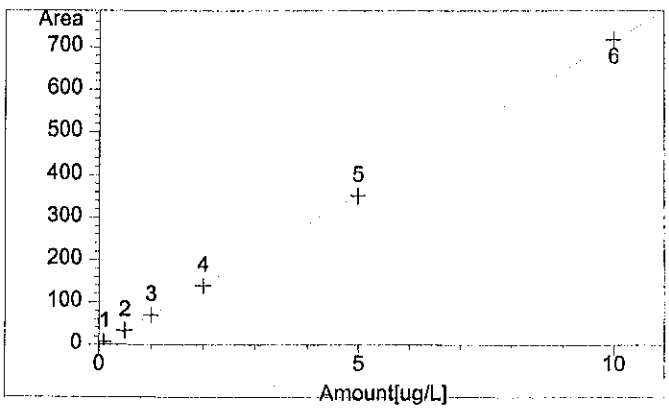
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 0.96678
Formula: y = mx + b
m: 18.95449
b: -4.21667e-1
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 1.93390
Formula: y = mx + b
m: 35.84471
b: -1.66074
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: 0.99992
Residual Std. Dev.: 2.46375
Formula: y = mx + b
m: 49.34055
b: -2.72022
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: 0.99995
Residual Std. Dev.: 2.87271
Formula: y = mx + b
m: 71.69796
b: -2.29402
x: Amount[ug/L]
y: Area

==========

1,1 SOS58-26 LEVEL 6 SURROGATE @ 100 ppm

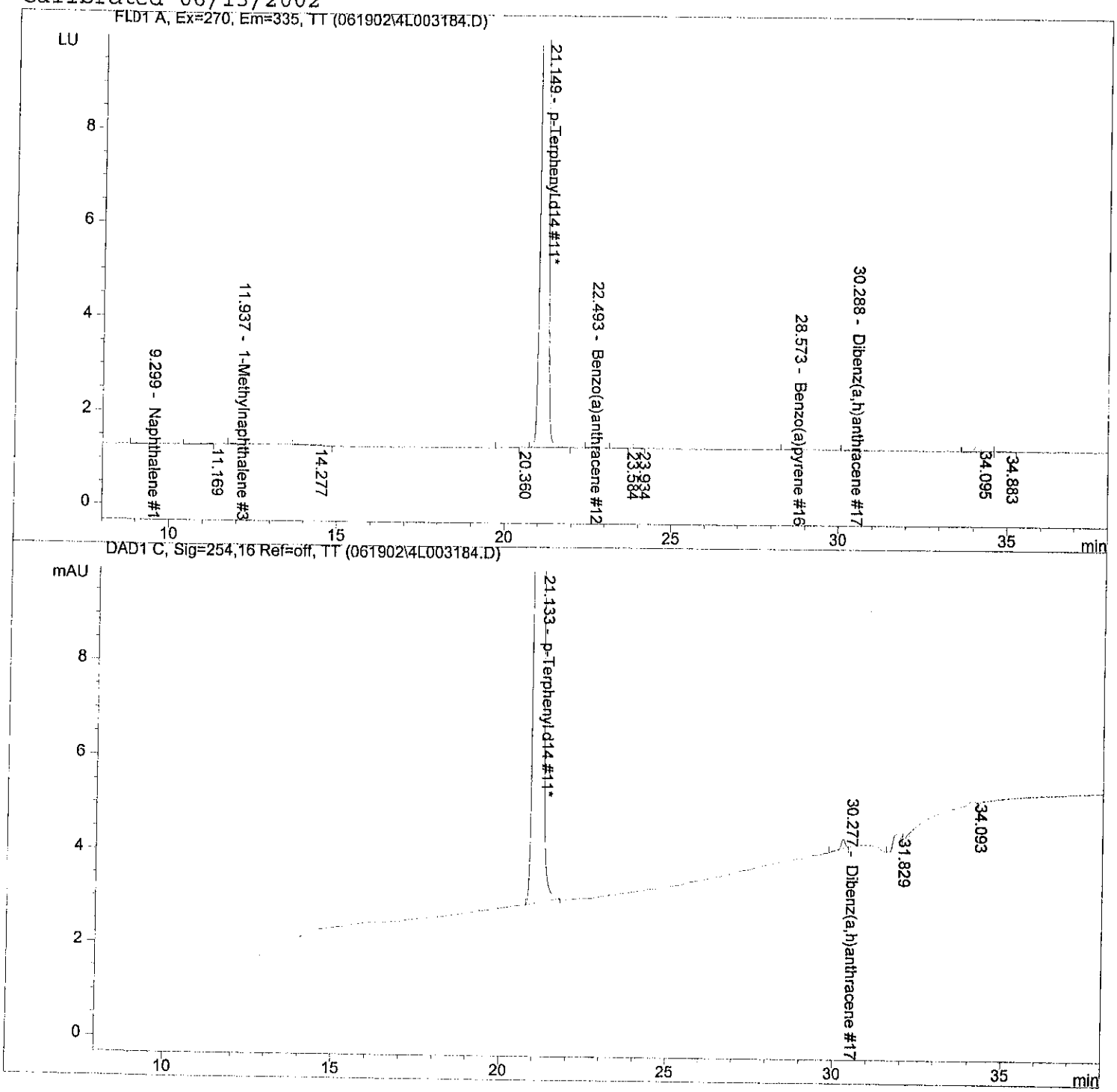
==========

Injection Date : 6/19/2002 5:03:30 PM
Sample Name : WG120164-01 STD6
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:42:11 AM by RDC
(modified after loading)

Calibrated 06/13/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:42:06 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
9.299	BB	2.77743e-1	0.00000	0.00000		Naphthalene #1
11.937	BB	1.78093e-1	0.00000	0.00000		1-Methylnaphthalene #3
12.497		-	-	-		2-Methylnaphthalene #4
12.974		-	-	-		Acenaphthene #5
13.625		-	-	-		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.779		-	-	-		Fluoranthene #9
18.779		-	-	-		Pyrene #10
21.149	BBA	343.67426	2.91907e-1	100.32083		p-Terphenyl d14 #11*
22.493	BB	2.04240e-1	0.00000	0.00000		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.438		-	-	-		Benzo(k)fluoranthene #15
28.573	PBA	1.70233e-1	0.00000	0.00000		Benzo(a)pyrene #16
30.288	PB	3.06192e-1	0.00000	0.00000		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				100.32083		

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
9.335		-	-	-		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.479		-	-	-		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.606		-	-	-		Fluorene #6
14.988		-	-	-		Phenanthrene #7
16.387		-	-	-		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.133	PBA	1553.84106	6.45287e-2	100.26737		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.277	PBA	1.63578	0.00000	0.00000		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.26737

Results obtained with enhanced integrator!
7 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (1-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Benzo(a)anth
Warning : Negative results set to zero (cal. curve intercept), (Benzo(a)pyre
Warning : Negative results set to zero (cal. curve intercept), (Dibenz(a,h)a
Warning : Negative results set to zero (cal. curve intercept), (Dibenz(a,h)a

==========

*** End of Report ***

1,1 SOS59-38 LEVEL 6 STD @ 100/10/5 ppm

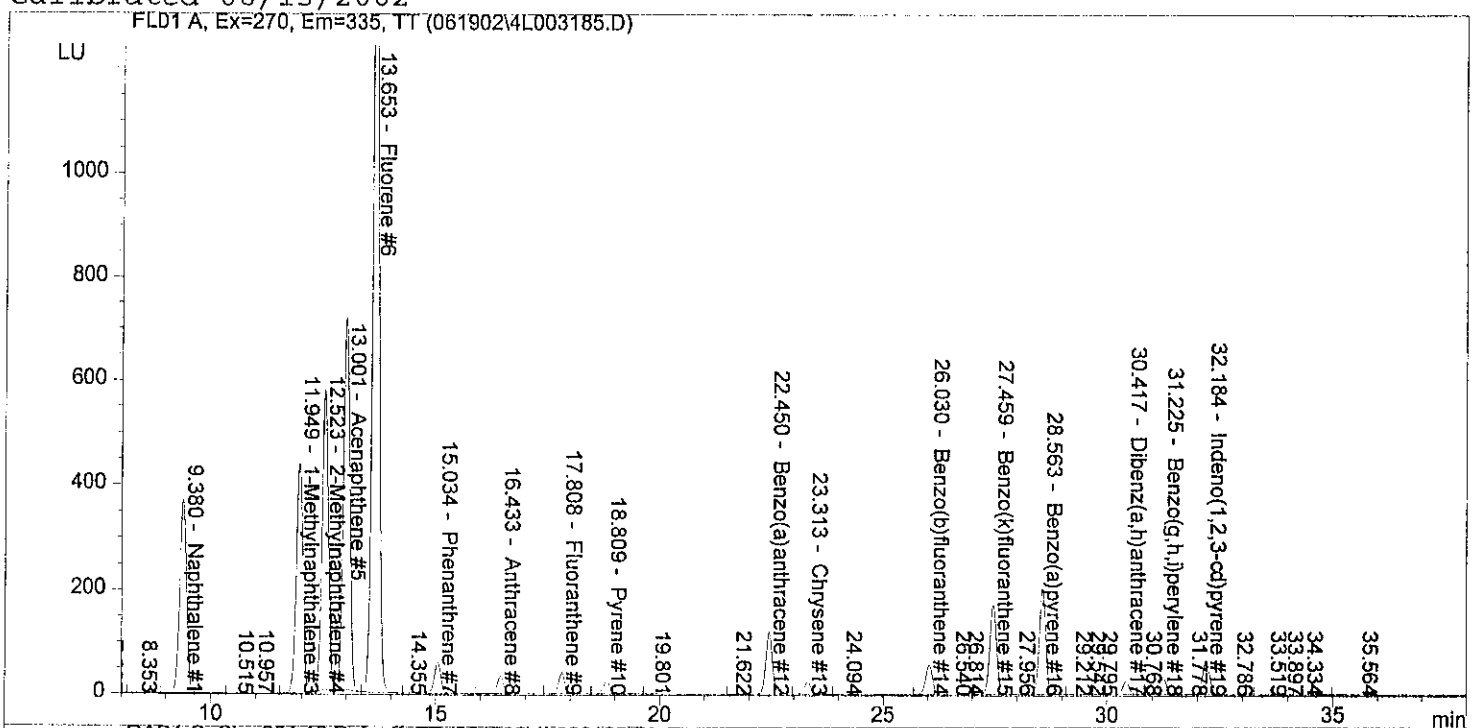
==========

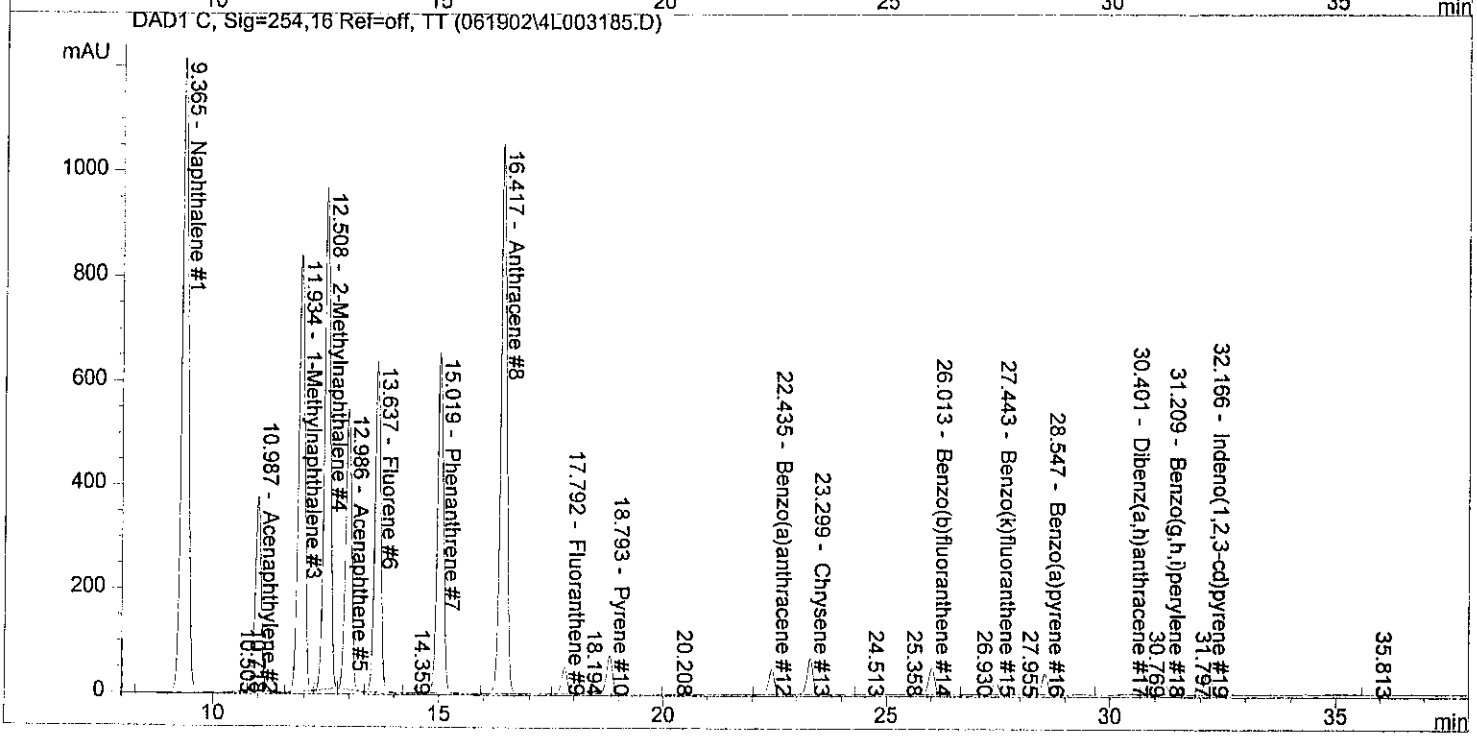
Injection Date : 6/19/2002 6:00:05 PM
Sample Name : WG120164-02 STD6
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:42:54 AM by RDC
(modified after loading)

Calibrated 06/13/2002





557

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:42:48 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	3818.87573	2.62437e-2	100.22159		Naphthalene #1
11.949	BB	4358.92773	2.29707e-2	100.12780		1-Methylnaphthalene #3
12.523	BB	5631.00635	1.77559e-2	99.98355		2-Methylnaphthalene #4
13.001	BB	7085.17041	1.41037e-2	99.92711		Acenaphthene #5
13.653	BB	1.51592e4	6.59341e-3	99.95082		Fluorene #6
15.034	BBA	586.44727	1.71254e-1	100.43156		Phenanthrene #7
16.433	BB	335.92169	2.98537e-1	100.28501		Anthracene #8
17.808	BB	397.42139	2.52545e-2	10.03667		Fluoranthene #9
18.809	BBA	245.56323	4.14121e-2	10.16929		Pyrene #10
21.149		-	-	-		p-Terphenyl d14 #11*
22.450	BB	1235.15466	8.12984e-3	10.04161		Benzo(a)anthracene #12
23.313	BB	252.46683	3.97636e-2	10.03898		Chrysene #13
26.030	BB	595.50562	1.68622e-2	10.04154		Benzo(b)fluoranthene #14
27.459	BB	1792.05200	2.79946e-3	5.01678		Benzo(k)fluoranthene #15
28.563	BB	2137.81030	4.70006e-3	10.04783		Benzo(a)pyrene #16
30.417	BB	251.97131	3.98946e-2	10.05230		Dibenz(a,h)anthracene #17
31.225	BB	358.59521	2.80699e-2	10.06575		Benzo(g,h,i)perylene #18
32.184	BB	717.39240	1.39874e-2	10.03448		Indeno(1,2,3-cd)pyrene #1

Totals : 796.47265

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	1.21595e4	8.19195e-3	99.61008		Naphthalene #1
10.987	BB	3352.51904	2.99467e-2	100.39688		Acenaphthylene #2
11.934	BB	7760.07324	1.29190e-2	100.25243		1-Methylnaphthalene #3
12.508	BB	8891.12988	1.12465e-2	99.99414		2-Methylnaphthalene #4
12.986	BB	4910.46826	2.04258e-2	100.30002		Acenaphthene #5
13.637	BB	5749.89111	1.74664e-2	100.42973		Fluorene #6
15.019	BBA	5932.12939	1.69982e-2	100.83579		Phenanthrene #7
16.417	BBA	9947.86328	1.00415e-2	99.89152		Anthracene #8
17.792	PB	464.57758	2.16306e-2	10.04910		Fluoranthene #9
18.793	BBA	706.87067	1.42266e-2	10.05634		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.435	BB	457.02676	2.20189e-2	10.06322		Benzo(a)anthracene #12
23.299	BBA	668.69543	1.50409e-2	10.05776		Chrysene #13
26.013	BBA	487.47803	2.06231e-2	10.05330		Benzo(b)fluoranthene #14
27.443	BB	224.33841	2.24204e-2	5.02976		Benzo(k)fluoranthene #15
28.547	BB	390.50266	2.57763e-2	10.06572		Benzo(a)pyrene #16
30.401	BB	107.04004	9.35045e-2	10.00873		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.209	BB	190.01508	5.28975e-2	10.05133		Benzo(g,h,i)perylene #18
32.166	BBA	492.90811	2.04215e-2	10.06594		Indeno(1,2,3-cd)pyrene #1

Totals : 897.21179

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

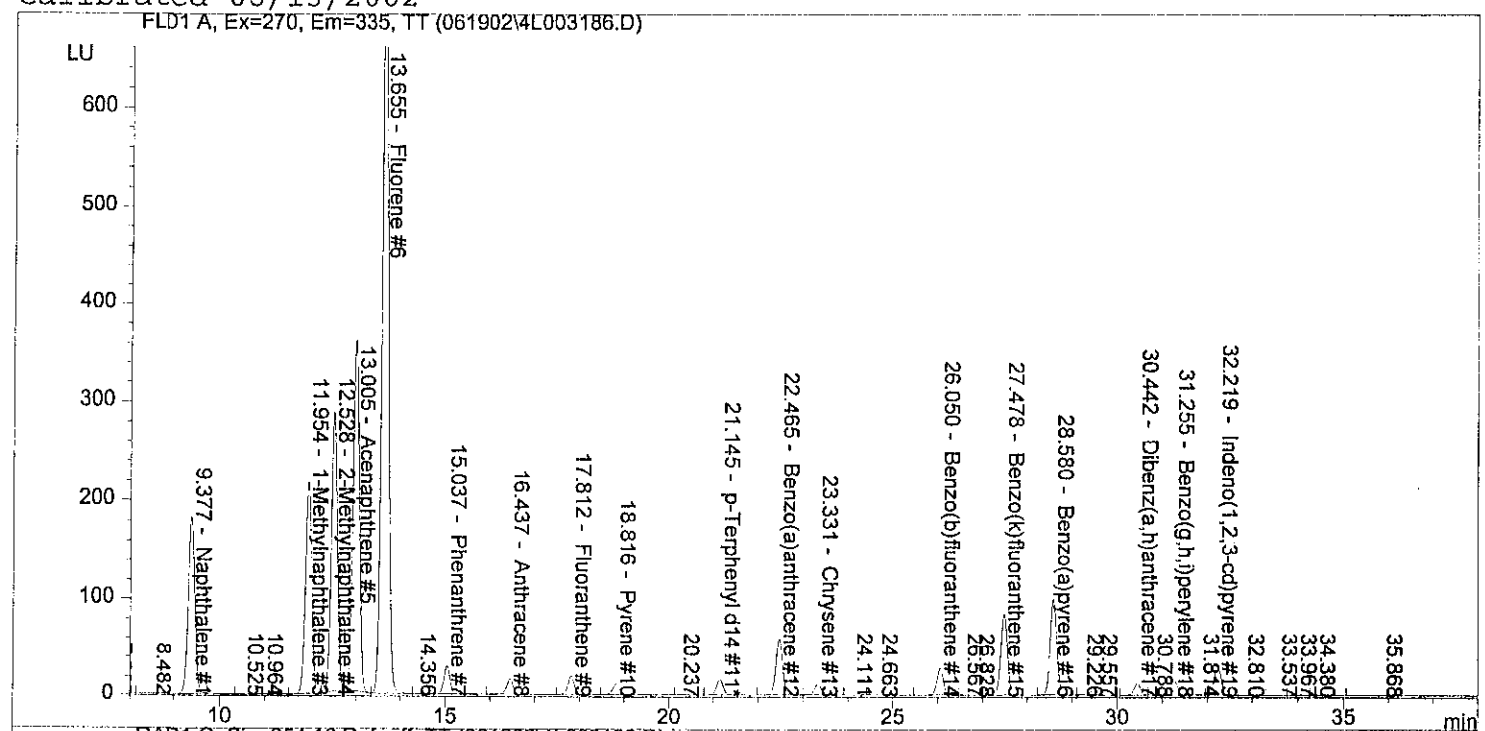
1,1 SOS59-38/58-26 LEVEL 5 STD @ 50/50/2.5 ppm

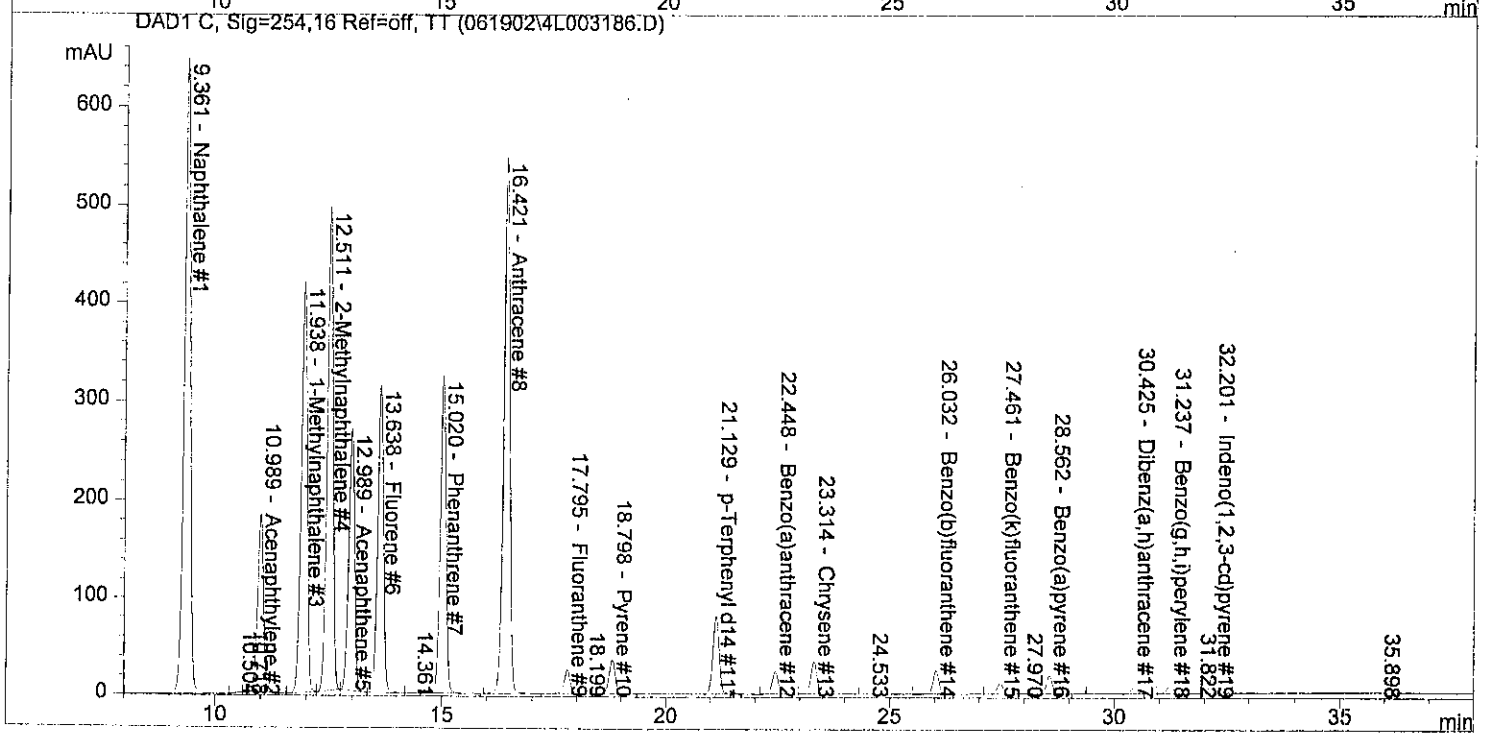
==========

Injection Date	: 6/19/2002 6:56:44 PM	Seq. Line :	4
Sample Name	: WG120164-03 STD5	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:43:28 AM by RDC
(modified after loading)

Calibrated 06/13/2002





560

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:43:25 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	1881.29065	2.63131e-2	49.50264		Naphthalene #1
11.954	BB	2153.76392	2.30283e-2	49.59744		1-Methylnaphthalene #3
12.528	BB	2790.36157	1.78058e-2	49.68456		2-Methylnaphthalene #4
13.005	BB	3535.51440	1.41219e-2	49.92802		Acenaphthene #5
13.655	BB	7607.03076	6.58907e-3	50.12324		Fluorene #6
15.037	BBA	286.03766	1.71937e-1	49.18044		Phenanthrene #7
16.437	PB	165.22198	2.99107e-1	49.41899		Anthracene #8
17.812	PB	195.60518	2.53087e-2	4.95052		Fluoranthene #9
18.816	BBA	120.33789	4.15558e-2	5.00074		Pyrene #10
21.145	BBA	170.11554	2.92305e-1	49.72557		p-Terphenyl d14 #11*
22.465	BB	604.25543	8.15514e-3	4.92779		Benzo(a)anthracene #12
23.331	BBA	123.19585	3.99046e-2	4.91608		Chrysene #13
26.050	PB	292.99271	1.68934e-2	4.94964		Benzo(b)fluoranthene #14
27.478	BB	882.24713	2.80542e-3	2.47507		Benzo(k)fluoranthene #15
28.580	BB	1045.54724	4.71635e-3	4.93116		Benzo(a)pyrene #16
30.442	BB	122.97315	4.00415e-2	4.92403		Dibenz(a,h)anthracene #17
31.255	BB	174.47961	2.81717e-2	4.91540		Benzo(g,h,i)perylene #18
32.219	BB	351.40439	1.40377e-2	4.93292		Indeno(1,2,3-cd)pyrene #1
Totals :				444.08425		

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	BBA	6248.73438	8.16646e-3	51.03002		Naphthalene #1
10.989	BB	1646.95264	3.00001e-2	49.40870		Acenaphthylene #2
11.938	BB	3853.44678	1.29242e-2	49.80286		1-Methylnaphthalene #3
12.511	BB	4472.15283	1.12330e-2	50.23561		2-Methylnaphthalene #4
12.989	BB	2425.16016	2.04531e-2	49.60203		Acenaphthene #5
13.638	BB	2832.44678	1.74887e-2	49.53595		Fluorene #6
15.020	BBA	2921.47241	1.69744e-2	49.59022		Phenanthrene #7
16.421	BBA	5037.00098	1.00204e-2	50.47291		Anthracene #8
17.795	PB	227.65421	2.16931e-2	4.93852		Fluoranthene #9
18.798	BBA	345.94687	1.42645e-2	4.93476		Pyrene #10
21.129	BBA	771.85547	6.46190e-2	49.87651		p-Terphenyl d14 #11*
22.448	PBA	223.22693	2.20610e-2	4.92460		Benzo(a)anthracene #12
23.314	BBA	327.80472	1.50602e-2	4.93681		Chrysene #13
26.032	BBA	238.78767	2.06928e-2	4.94118		Benzo(b)fluoranthene #14
27.461	BB	109.96069	2.24624e-2	2.46999		Benzo(k)fluoranthene #15
28.562	BB	189.32166	2.59120e-2	4.90571		Benzo(a)pyrene #16
30.425	BB	52.23464	9.42516e-2	4.92320		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.237	BB	92.88844	5.27344e-2	4.89842		Benzo(g,h,i)perylene #18
32.201	BBA	240.26486	2.05147e-2	4.92897		Indeno(1,2,3-cd)pyrene #1

Totals : 496.35698

Results obtained with enhanced integrator!

*** End of Report ***

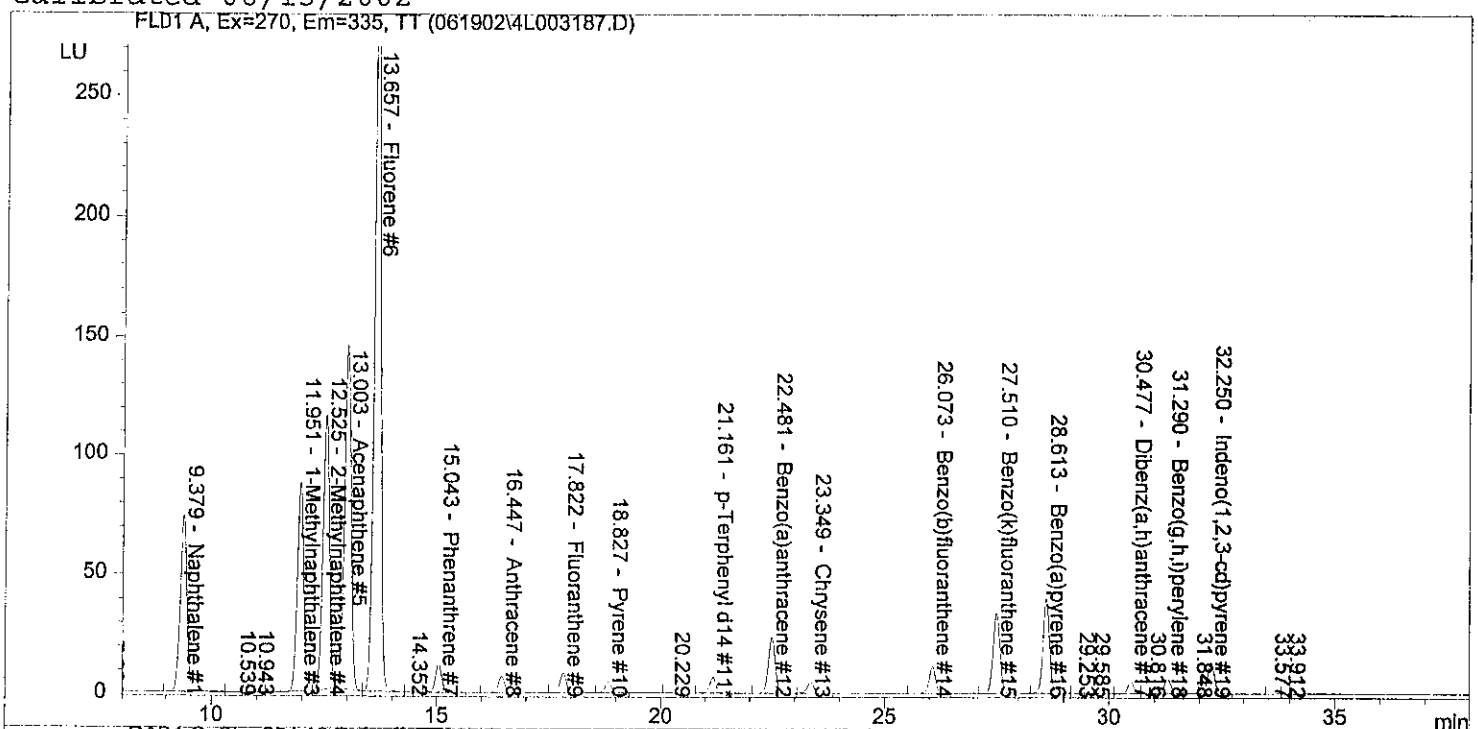
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

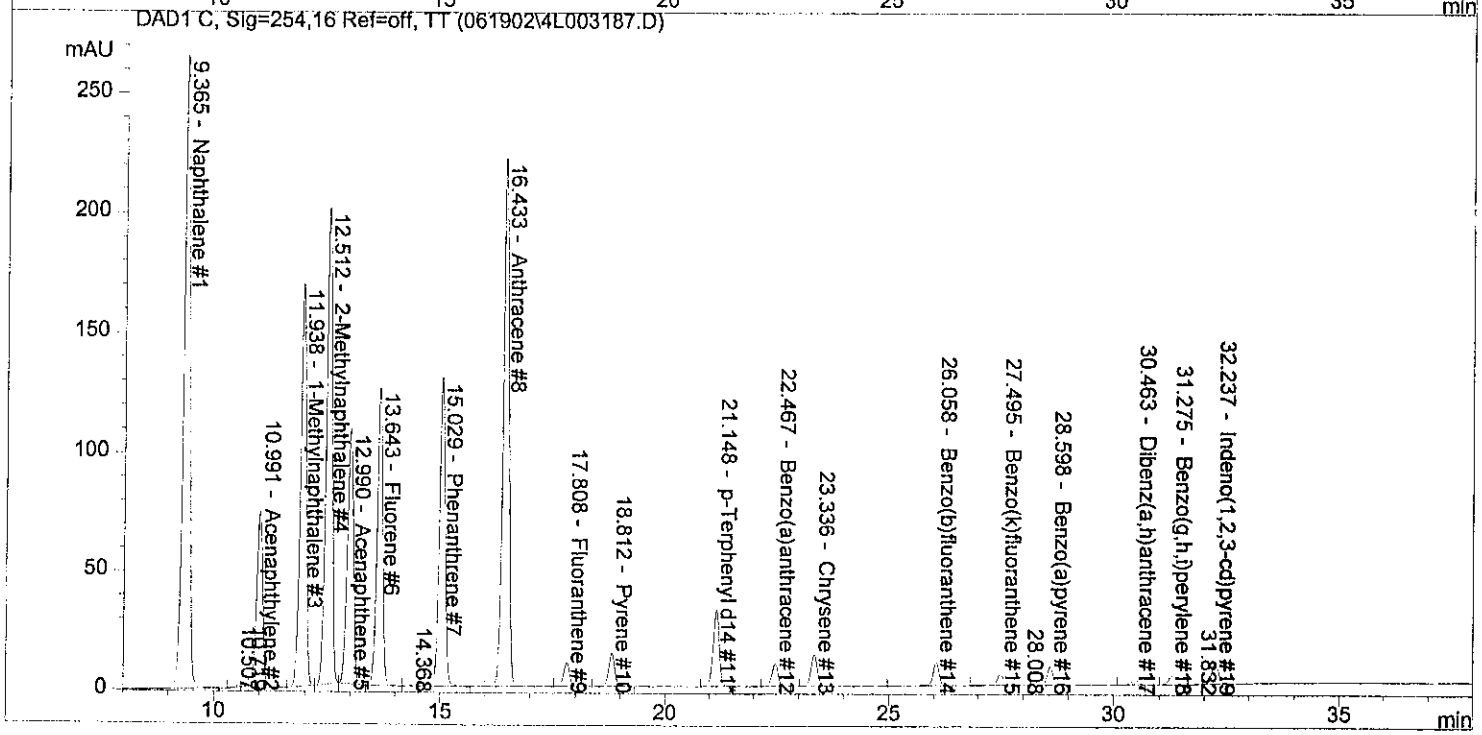
==========

Injection Date	: 6/19/2002 7:53:21 PM	Seq. Line :	5
Sample Name	: WG120164-04 STD4	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:44:13 AM by RDC
(modified after loading)

Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:44:09 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
9.379	BB	753.95251	2.64927e-2	19.97423		Naphthalene #1
11.951	BB	858.01282	2.31793e-2	19.88811		1-Methylnaphthalene #3
12.525	BB	1119.16992	1.78859e-2	20.01739		2-Methylnaphthalene #4
13.003	BB	1418.85522	1.41532e-2	20.08132		Acenaphthene #5
13.657	BB	3055.26025	6.59083e-3	20.13672		Fluorene #6
15.043	BBA	113.53256	1.73929e-1	19.74655		Phenanthrene #7
16.447	PBA	66.23384	3.01005e-1	19.93674		Anthracene #8
17.822	PB	78.11402	2.54898e-2	1.99111		Fluoranthene #9
18.827	BBA	47.68803	4.18033e-2	1.99352		Pyrene #10
21.161	BB	67.05980	2.94501e-1	19.74918		p-Terphenyl d14 #11*
22.481	BB	240.55975	8.23501e-3	1.98101		Benzo(a)anthracene #12
23.349	BB	49.27580	4.03067e-2	1.98615		Chrysene #13
26.073	PB	116.48901	1.70374e-2	1.98467		Benzo(b)fluoranthene #14
27.510	BB	351.08521	2.82853e-3	9.93056e-1		Benzo(k)fluoranthene #15
28.613	BB	413.85422	4.77227e-3	1.97503		Benzo(a)pyrene #16
30.477	BB	48.37757	4.05591e-2	1.96215		Dibenz(a,h)anthracene #17
31.290	BB	68.83204	2.85657e-2	1.96623		Benzo(g,h,i)perylene #18
32.250	BB	139.75822	1.41788e-2	1.98160		Indeno(1,2,3-cd)pyrene #1

Totals : 178.34476

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	BBA	2522.50317	8.11604e-3	20.47273		Naphthalene #1
10.991	BBA	658.61700	3.02252e-2	19.90686		Acenaphthylene #2
11.938	PB	1542.24731	1.29857e-2	20.02717		1-Methylnaphthalene #3
12.512	BB	1796.91260	1.12303e-2	20.17988		2-Methylnaphthalene #4
12.990	BB	969.13959	2.05833e-2	19.94806		Acenaphthene #5
13.643	BB	1129.35339	1.76278e-2	19.90797		Fluorene #6
15.029	BBA	1164.06238	1.71101e-2	19.91720		Phenanthrene #7
16.433	BBA	2019.75476	1.00006e-2	20.19869		Anthracene #8
17.808	PB	90.59781	2.19570e-2	1.98925		Fluoranthene #9
18.812	BBA	137.22350	1.44595e-2	1.98419		Pyrene #10
21.148	PBA	304.47540	6.50902e-2	19.81837		p-Terphenyl d14 #11*
22.467	BBA	88.71733	2.22988e-2	1.97829		Benzo(a)anthracene #12
23.336	BBA	130.01958	1.51969e-2	1.97589		Chrysene #13
26.058	BBA	95.03743	2.09855e-2	1.99441		Benzo(b)fluoranthene #14
27.495	PBA	43.78368	2.26996e-2	9.93871e-1		Benzo(k)fluoranthene #15
28.598	BBA	74.65511	2.63487e-2	1.96706		Benzo(a)pyrene #16
30.463	BB	21.19111	9.52662e-2	2.01880		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.275	BB	36.61276	5.26000e-2	1.92583		Benzo(g,h,i)perylene #18
32.237	BB	94.45714	2.08931e-2	1.97350		Indeno(1,2,3-cd)pyrene #1

Totals : 199.17802

Results obtained with enhanced integrator!

*** End of Report ***

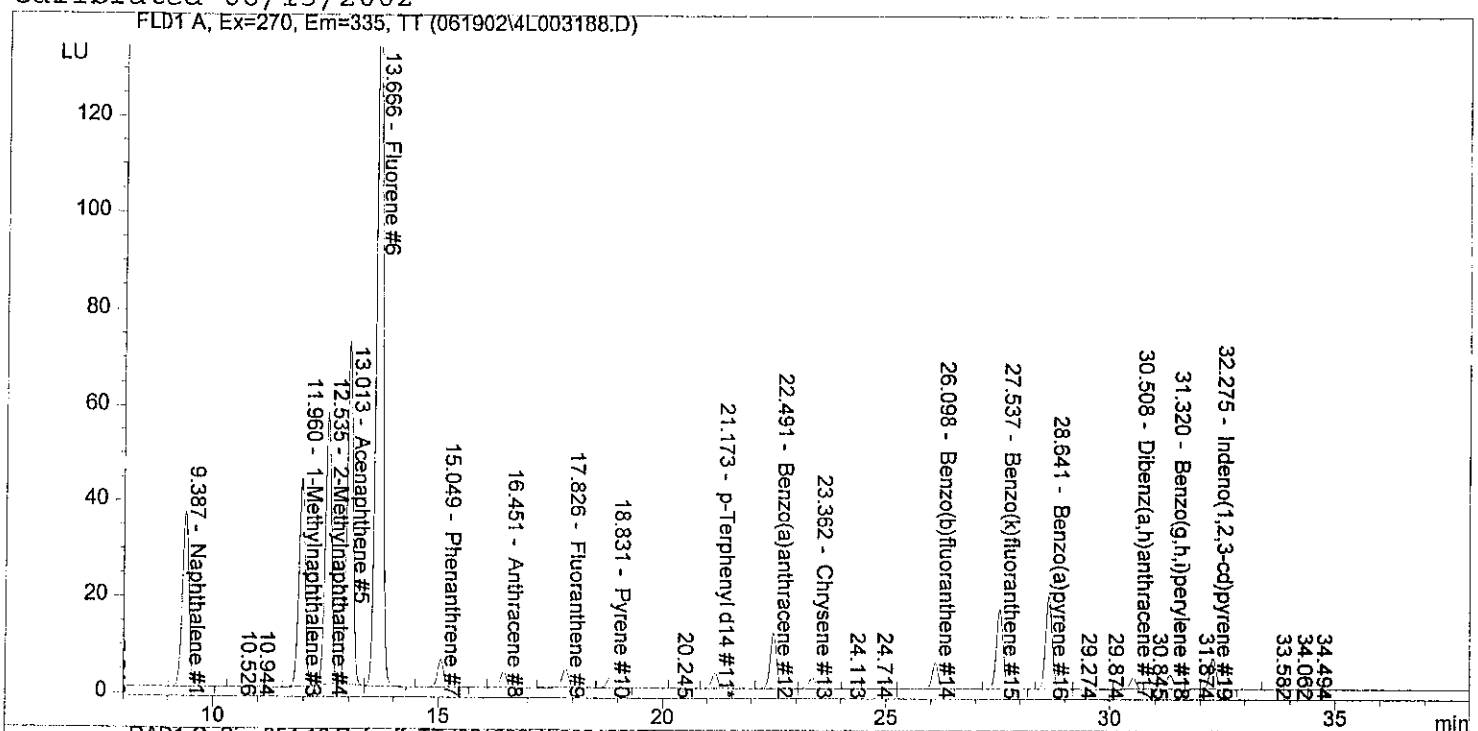
1,1 SOS59-38/58-26 LEVEL 3 STD @ 10/1/.5 ppm

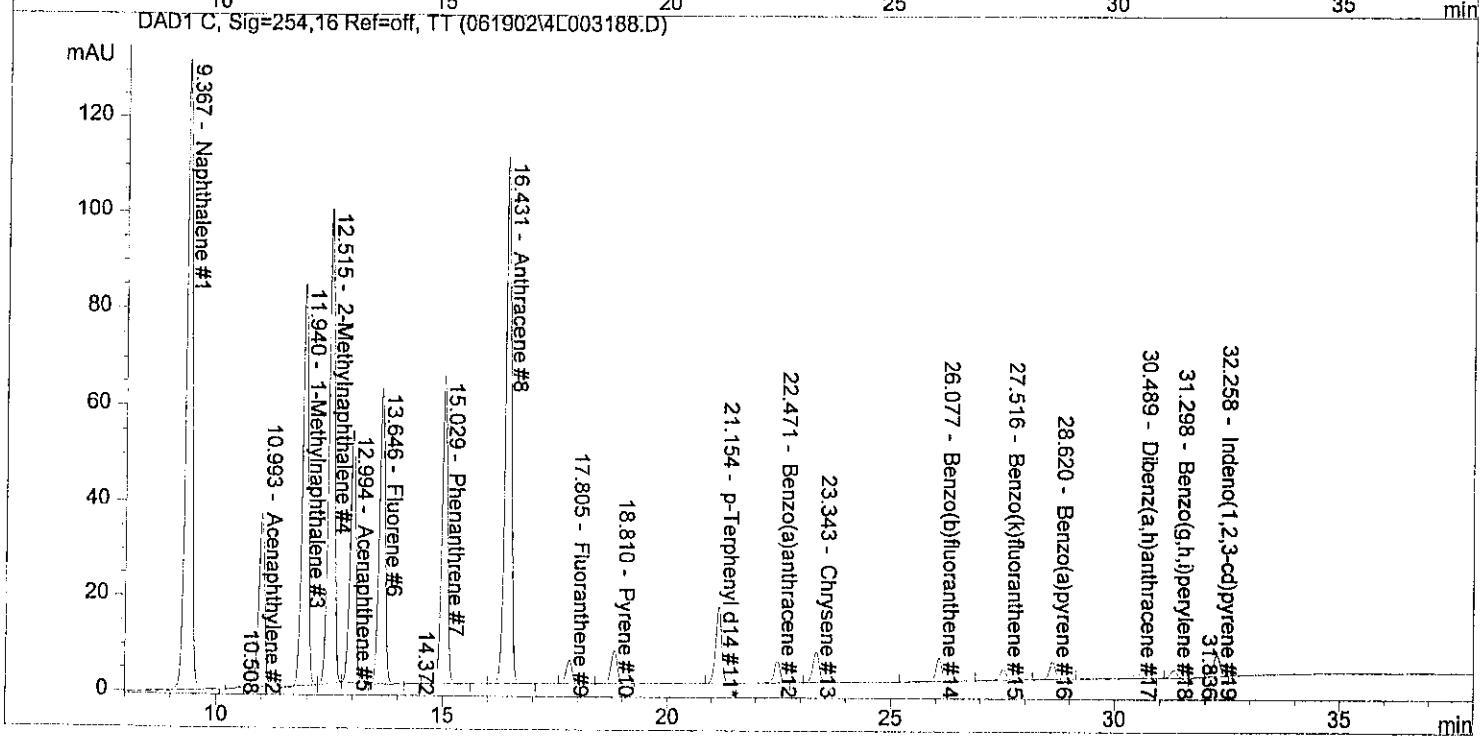
==========

Injection Date	: 6/19/2002 8:49:59 PM	Seq. Line :	6
Sample Name	: WG120164-05 STD3	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:44:50 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:44:47 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
9.387	BB	372.80032	2.67856e-2	9.98566		Naphthalene #1
11.960	BB	427.56720	2.34118e-2	10.01011		1-Methylnaphthalene #3
12.535	BB	555.46735	1.80126e-2	10.00542		2-Methylnaphthalene #4
13.013	BB	703.58374	1.42041e-2	9.99375		Acenaphthene #5
13.666	BB	1519.39380	6.59104e-3	10.01438		Fluorene #6
15.049	BBA	57.20443	1.76518e-1	10.09759		Phenanthrene #7
16.451	BBA	32.94457	3.04050e-1	10.01681		Anthracene #8
17.826	PB	38.41879	2.58349e-2	9.92545e-1		Fluoranthene #9
18.831	BBA	23.72331	4.20555e-2	9.97697e-1		Pyrene #10
21.173	BB	33.17809	2.98544e-1	9.90512		p-Terphenyl d14 #11*
22.491	BB	118.62704	8.37669e-3	9.93702e-1		Benzo(a)anthracene #12
23.362	BB	24.51306	4.08600e-2	1.00160		Chrysene #13
26.098	BB	57.64222	1.72859e-2	9.96397e-1		Benzo(b)fluoranthene #14
27.537	PBA	174.54939	2.86391e-3	4.99893e-1		Benzo(k)fluoranthene #15
28.641	BB	203.63187	4.86675e-3	9.91025e-1		Benzo(a)pyrene #16
30.508	BB	23.79175	4.14859e-2	9.87021e-1		Dibenz(a,h)anthracene #17
31.320	BB	33.82579	2.92449e-2	9.89233e-1		Benzo(g,h,i)perylene #18
32.275	BBA	68.94070	1.44207e-2	9.94171e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 89.47213

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	PBA	1256.01123	7.99501e-3	10.04182		Naphthalene #1
10.993	BB	327.28607	3.05782e-2	10.00783		Acenaphthylene #2
11.940	BB	764.27496	1.30750e-2	9.99287		1-Methylnaphthalene #3
12.515	BB	893.57037	1.12157e-2	10.02200		2-Methylnaphthalene #4
12.994	BB	481.32138	2.07914e-2	10.00732		Acenaphthene #5
13.646	BB	559.61633	1.78466e-2	9.98725		Fluorene #6
15.029	BBA	576.95782	1.73039e-2	9.98360		Phenanthrene #7
16.431	BBA	1002.81183	9.97595e-3	10.00400		Anthracene #8
17.805	BBA	44.70066	2.23857e-2	1.00066		Fluoranthene #9
18.810	BBA	67.82222	1.47614e-2	1.00115		Pyrene #10
21.154	BBA	150.41772	6.58969e-2	9.91207		p-Terphenyl d14 #11*
22.471	BBA	43.86306	2.26669e-2	9.94240e-1		Benzo(a)anthracene #12
23.343	BBA	64.16498	1.54198e-2	9.89412e-1		Chrysene #13
26.077	BBA	46.88808	2.12232e-2	9.95115e-1		Benzo(b)fluoranthene #14
27.516	PBA	21.77243	2.30482e-2	5.01816e-1		Benzo(k)fluoranthene #15
28.620	BBA	36.86427	2.70988e-2	9.98976e-1		Benzo(a)pyrene #16
30.489	BBA	11.97529	9.44798e-2	1.13142		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.298	BB	18.48934	5.35680e-2	9.90436e-1		Benzo(g,h,i)perylene #18
32.258	BBA	46.04763	2.15335e-2	9.91566e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 99.55356

Results obtained with enhanced integrator!

*** End of Report ***

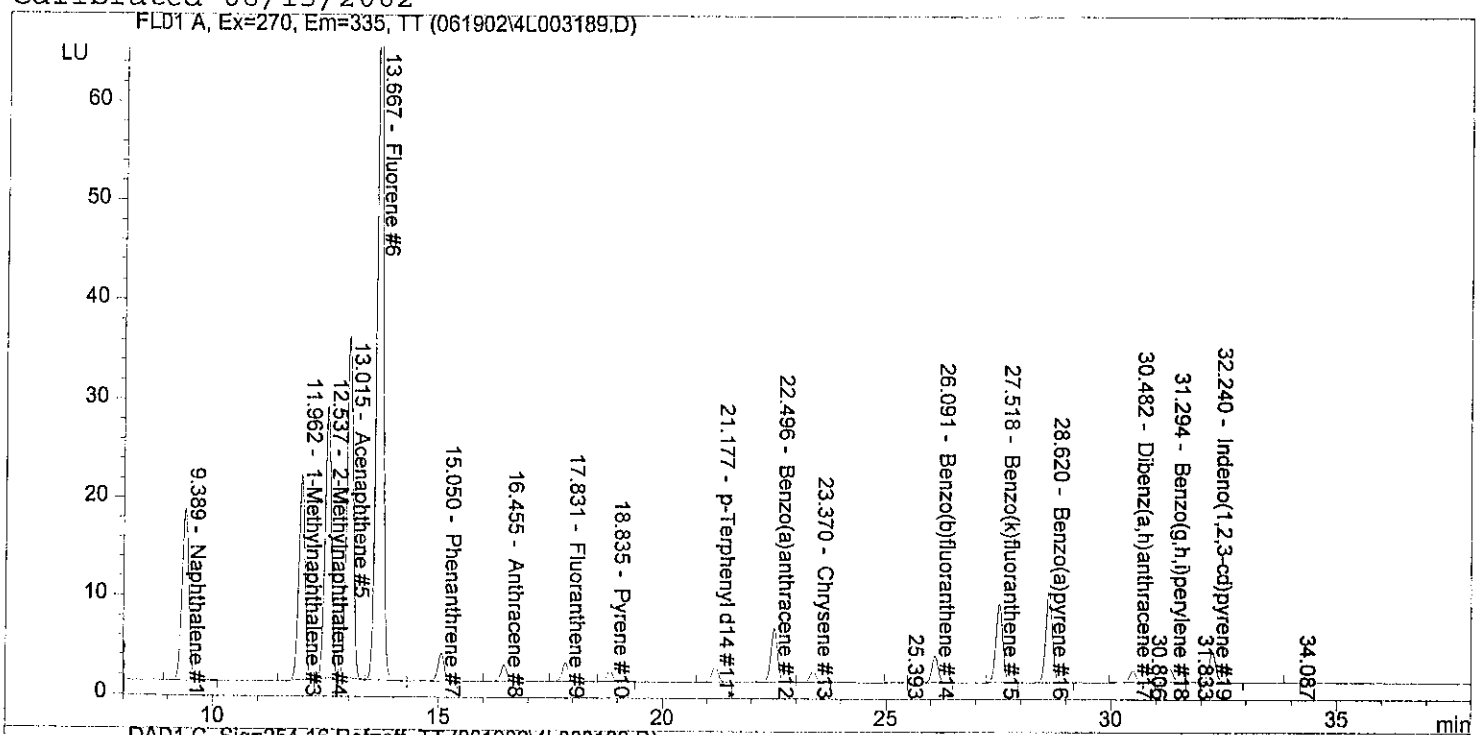
1,1 SOS59-38/58-26 LEVEL 2 STD @ 5/.5 /.25 ppm

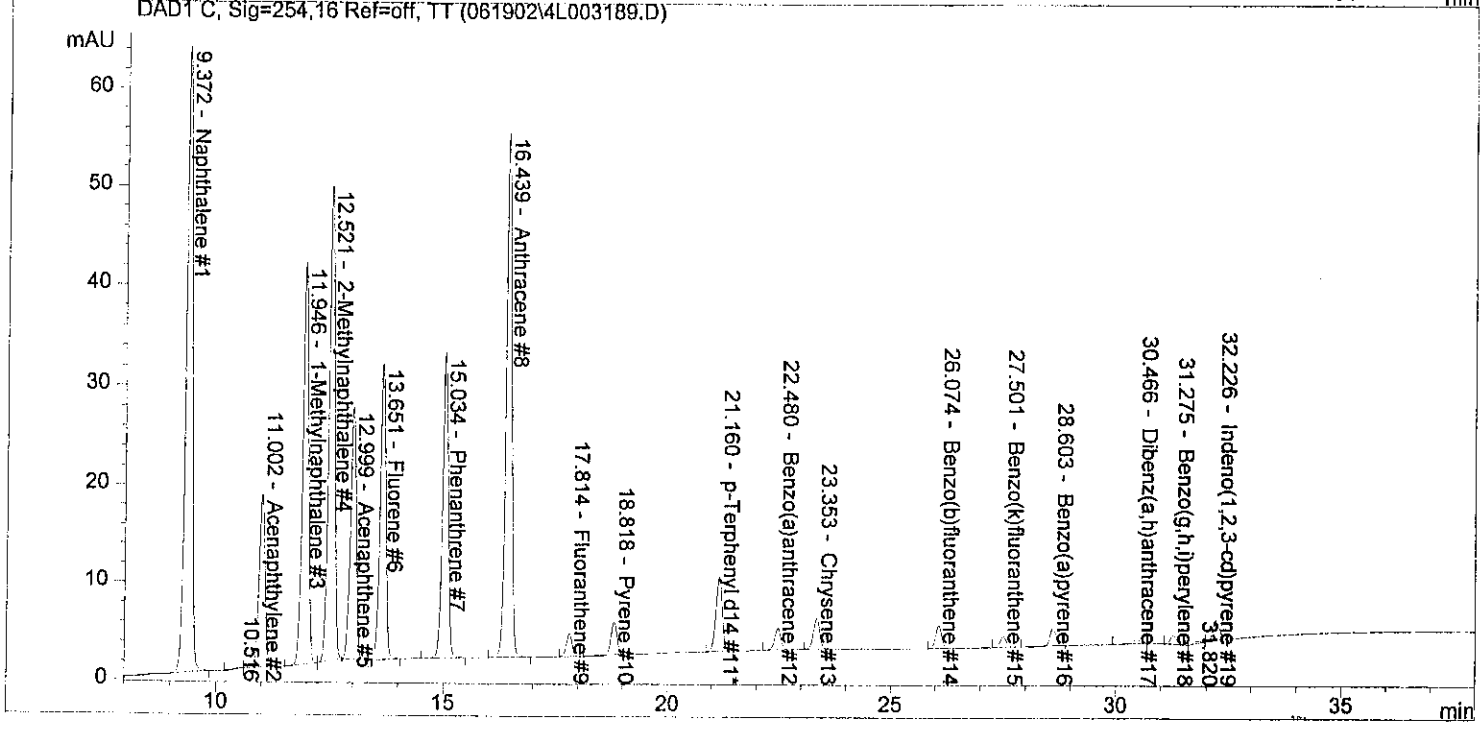
==========

Injection Date	: 6/19/2002 9:46:37 PM	Seq. Line :	7
Sample Name	: WG120164-06 STD2	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:45:23 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:45:20 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
9.389	BBA	180.32388	2.73749e-2	4.93634		Naphthalene #1
11.962	BB	206.59302	2.38973e-2	4.93702		1-Methylnaphthalene #3
12.537	BB	268.34698	1.82743e-2	4.90387		2-Methylnaphthalene #4
13.015	BB	339.82239	1.43081e-2	4.86222		Acenaphthene #5
13.667	BB	734.63800	6.58745e-3	4.83939		Fluorene #6
15.050	BBA	27.54959	1.82175e-1	5.01885		Phenanthrene #7
16.455	PBA	15.88479	3.10694e-1	4.93531		Anthracene #8
17.831	PB	18.78860	2.64718e-2	4.97369e-1		Fluoranthene #9
18.835	BBA	11.53121	4.25437e-2	4.90580e-1		Pyrene #10
21.177	BBA	16.05081	3.06498e-1	4.91953		p-Terphenyl d14 #11*
22.496	BB	57.40008	8.66535e-3	4.97392e-1		Benzo(a)anthracene #12
23.370	BB	11.79001	4.22270e-2	4.97857e-1		Chrysene #13
26.091	BBA	27.72870	1.77868e-2	4.93204e-1		Benzo(b)fluoranthene #14
27.518	PBA	83.46227	2.94334e-3	2.45658e-1		Benzo(k)fluoranthene #15
28.620	PB	97.80115	5.06761e-3	4.95618e-1		Benzo(a)pyrene #16
30.482	BB	11.53541	4.34070e-2	5.00718e-1		Dibenz(a,h)anthracene #17
31.294	BB	16.16728	3.07342e-2	4.96888e-1		Benzo(g,h,i)perylene #18
32.240	BBA	33.25379	1.49021e-2	4.95551e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 44.06336

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
9.372	PBA	604.13025	7.76042e-3	4.68830		Naphthalene #1
11.002	BBA	161.28902	3.11731e-2	5.02788		Acenaphthylene #2
11.946	PB	369.24078	1.32537e-2	4.89379		1-Methylnaphthalene #3
12.521	BB	431.87616	1.11748e-2	4.82614		2-Methylnaphthalene #4
12.999	BB	232.43697	2.12095e-2	4.92988		Acenaphthene #5
13.651	BBA	269.75366	1.83088e-2	4.93887		Fluorene #6
15.034	BBA	277.70538	1.77090e-2	4.91789		Phenanthrene #7
16.439	PBA	483.02975	9.90100e-3	4.78248		Anthracene #8
17.814	BBA	21.38802	2.33539e-2	4.99493e-1		Fluoranthene #9
18.818	BBA	30.01324	1.56292e-2	4.69082e-1		Pyrene #10
21.160	PBA	72.39475	6.76238e-2	4.89561		p-Terphenyl d14 #11*
22.480	BBA	21.07132	2.35836e-2	4.96939e-1		Benzo(a)anthracene #12
23.353	BBA	30.91224	1.58965e-2	4.91397e-1		Chrysene #13
26.074	BBA	22.64764	2.18898e-2	4.95751e-1		Benzo(b)fluoranthene #14
27.501	BBA	10.30655	2.38100e-2	2.45399e-1		Benzo(k)fluoranthene #15
28.603	BBA	16.74469	2.87600e-2	4.81577e-1		Benzo(a)pyrene #16
30.466	BBA	5.15278	9.32878e-2	4.80691e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.275	BB	9.25292	5.39457e-2	4.99155e-1		Benzo(g,h,i)perylene #18
32.226	BB	21.58914	2.28197e-2	4.92657e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 48.55298

Results obtained with enhanced integrator!

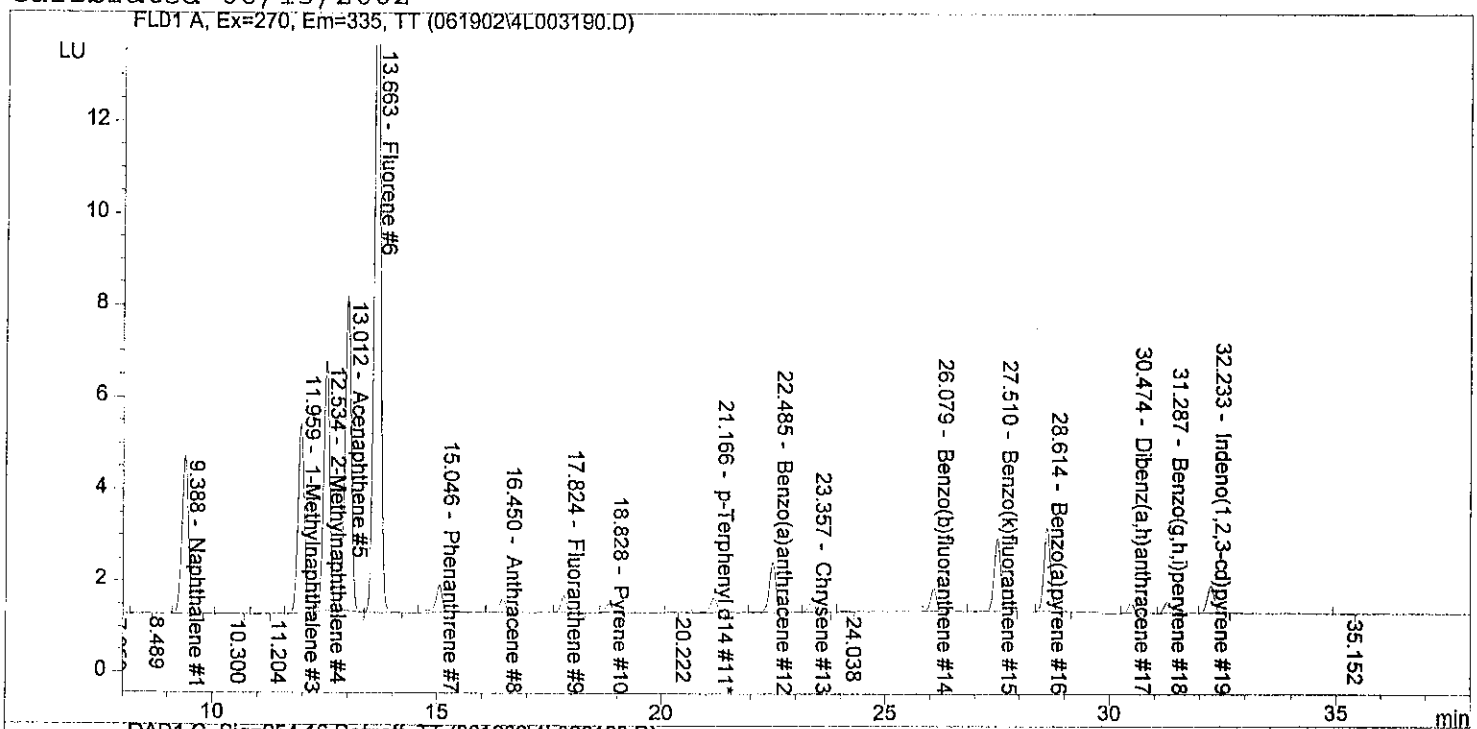
*** End of Report ***

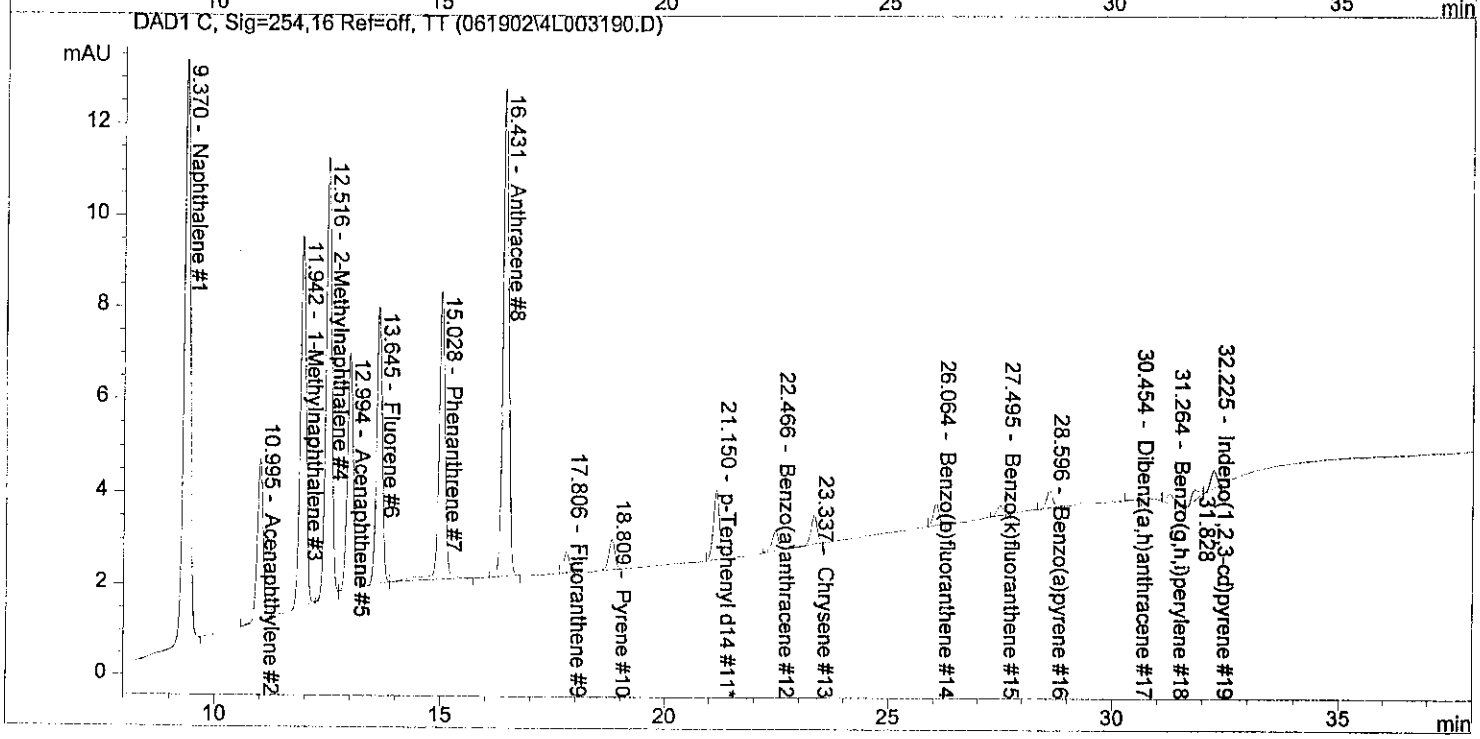
1,1 SOS59-38/58-26 LEVEL 1 STD @ 1/.1/.05 ppm

==========

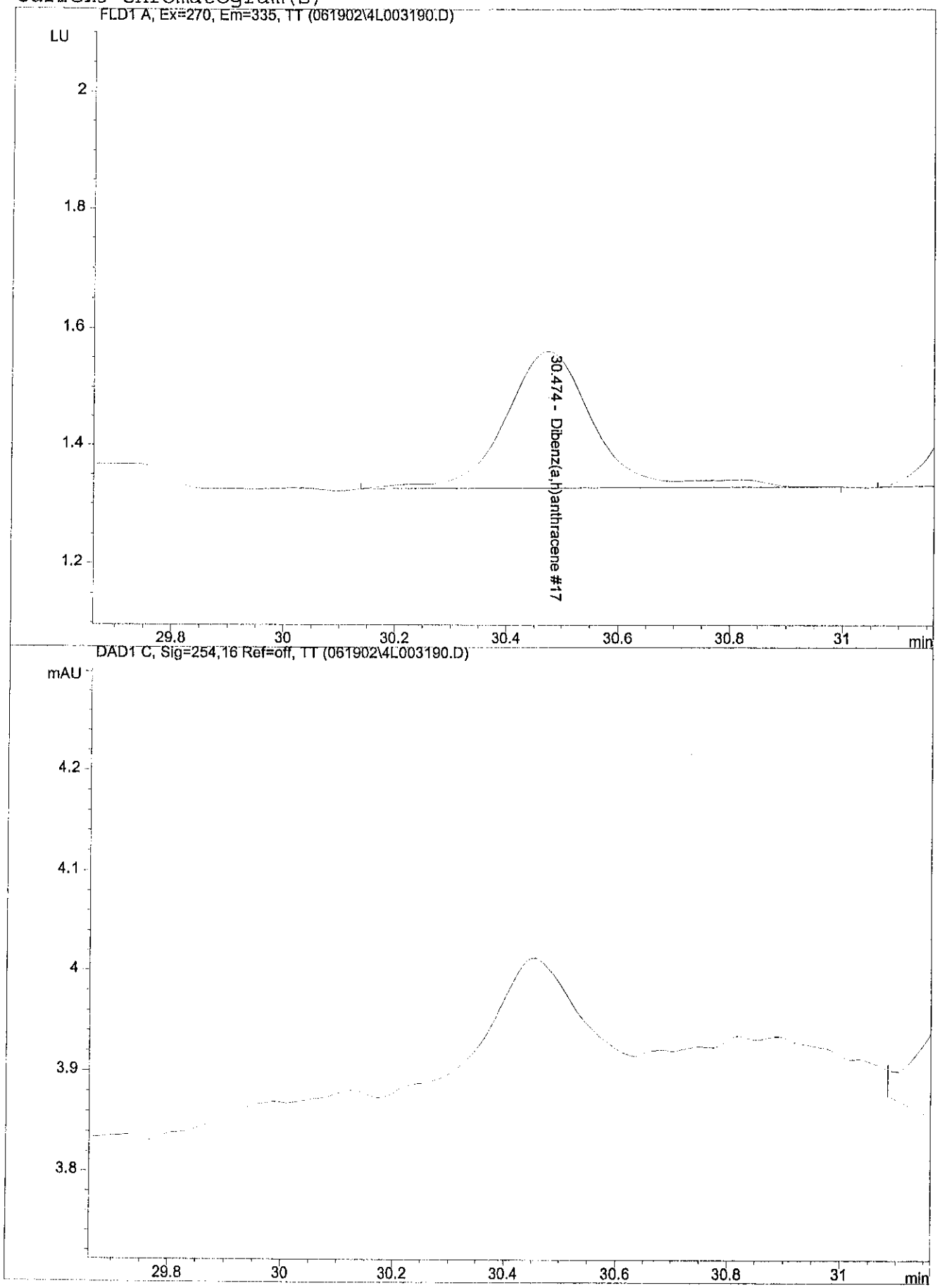
Injection Date	: 6/19/2002 10:43:19 PM	Seq. Line :	8
Sample Name	: WG120164-07 STD1	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 2/11/2002 4:29:00 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 6/20/2002 8:50:59 AM by RDC (modified after loading)		

Calibrated 06/13/2002

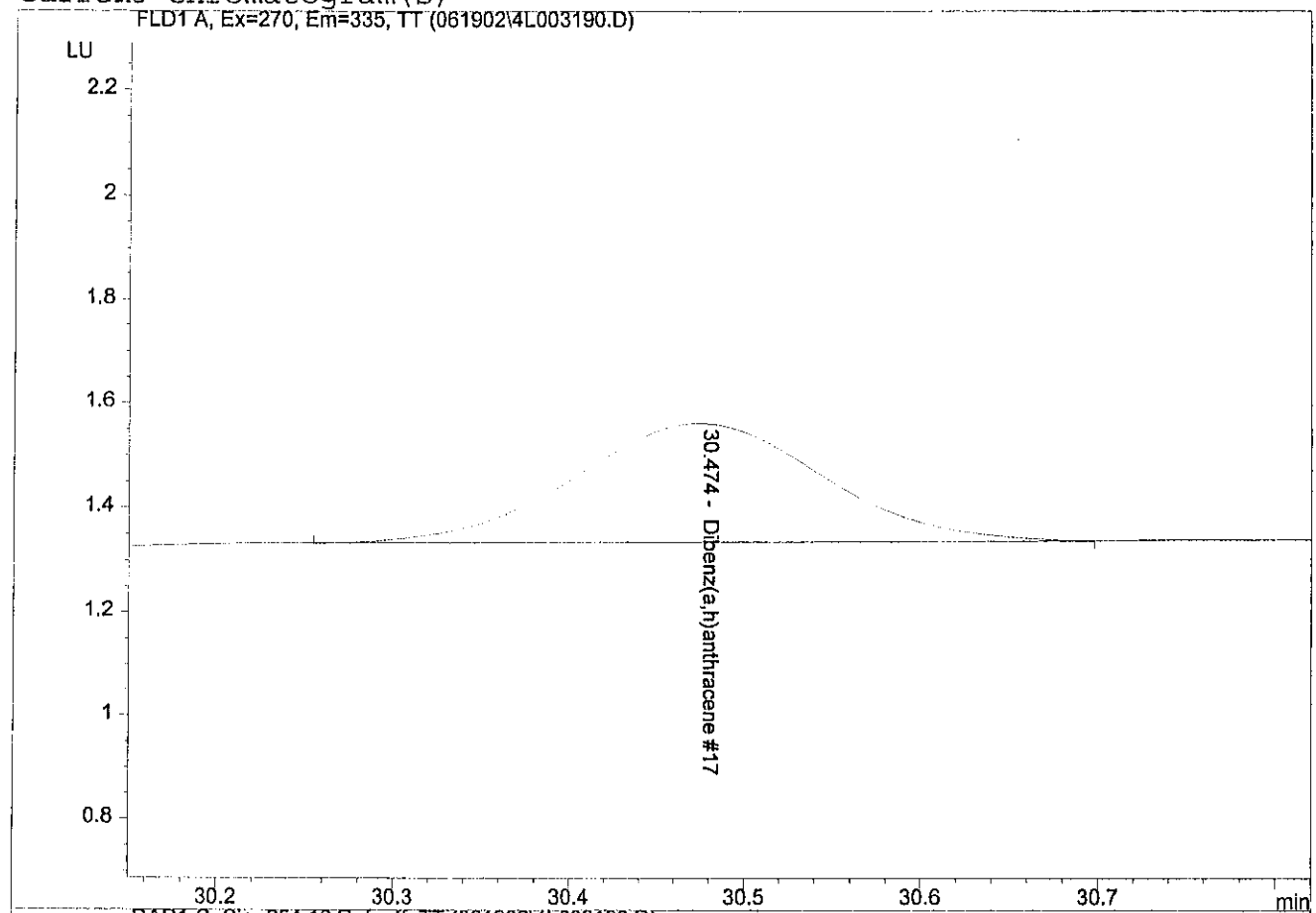


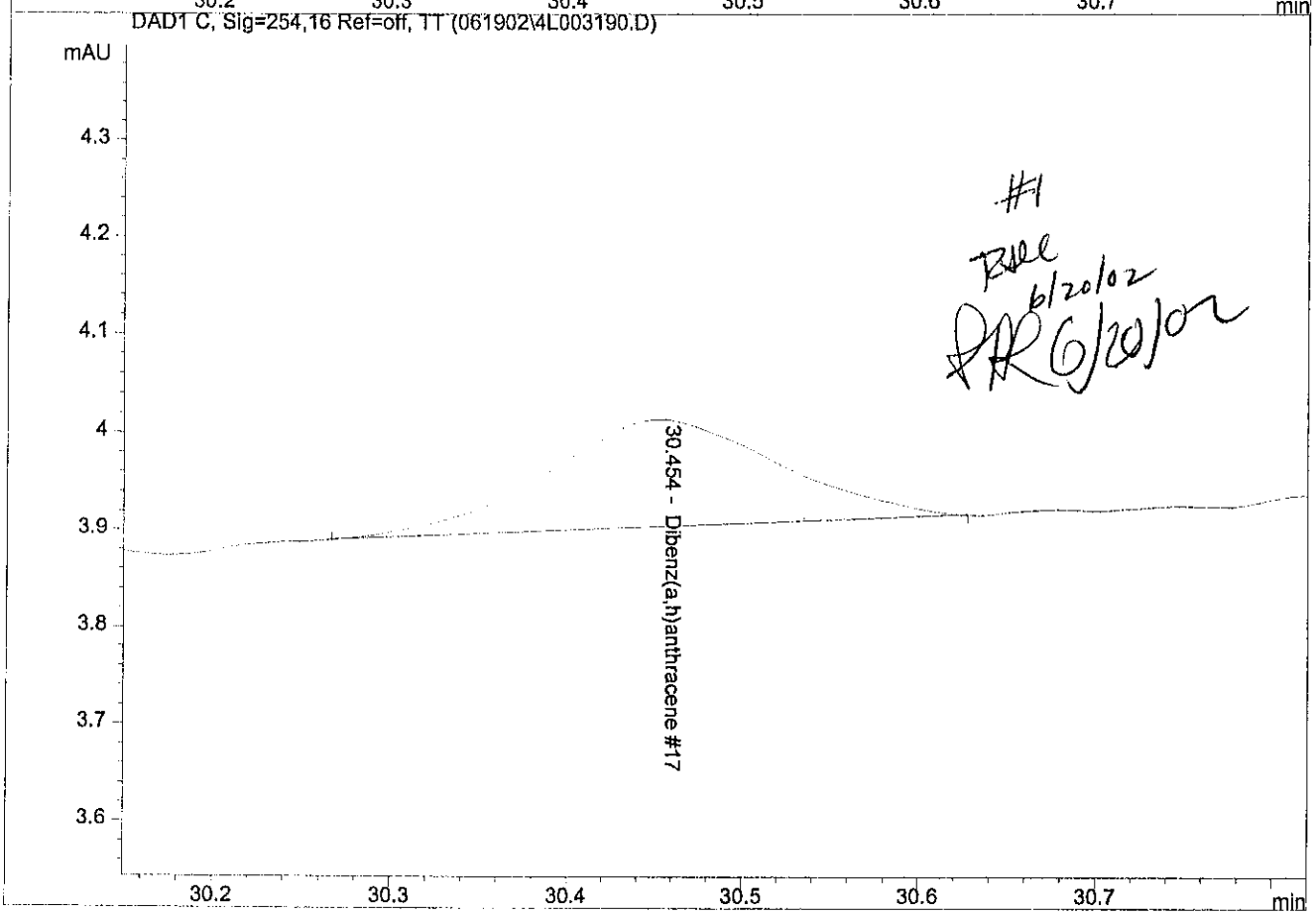


Current Chromatogram(s)



Current Chromatogram(s)





#1
BWL 6/20/02
PAR 6/20/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:50:56 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
9.388	BBA	35.50560	3.22050e-2	1.14346		Naphthalene #1
11.959	BB	40.92273	2.77854e-2	1.13705		1-Methylnaphthalene #3
12.534	BB	53.13324	2.03886e-2	1.08331		2-Methylnaphthalene #4
13.012	BB	67.65919	1.51387e-2	1.02427		Acenaphthene #5
13.663	BB	146.98784	6.57698e-3	9.66736e-1		Fluorene #6
15.046	BBA	6.79399	2.09718e-1	1.42482		Phenanthrene #7
16.450	BBA	3.26255	3.60175e-1	1.17509		Anthracene #8
17.824	BBA	3.92421	3.11659e-2	1.22302e-1		Fluoranthene #9
18.828	BBA	2.23386	4.69174e-2	1.04807e-1		Pyrene #10
21.166	BB	3.57698	3.58661e-1	1.28292		p-Terphenyl d14 #11*
22.485	BB	11.92573	1.07760e-2	1.28512e-1		Benzo(a)anthracene #12
23.357	BB	2.37958	5.22694e-2	1.24379e-1		Chrysene #13
26.079	BBA	5.48437	2.18900e-2	1.20053e-1		Benzo(b)fluoranthene #14
27.510	PBA	16.92470	3.54432e-3	5.99866e-2		Benzo(k)fluoranthene #15
28.614	BBA	19.55420	6.62954e-3	1.29635e-1		Benzo(a)pyrene #16
30.474	MM	2.22269	5.93741e-2	1.31970e-1		Dibenz(a,h)anthracene #17
31.287	PBA	3.18651	4.24380e-2	1.35229e-1		Benzo(g,h,i)perylene #18
32.233	BB	6.77440	1.86704e-2	1.26481e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 10.42102

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
9.370	PBA	121.88613	5.96867e-3	7.27498e-1		Naphthalene #1
10.995	BB	31.70620	3.66640e-2	1.16248		Acenaphthylene #2
11.942	BB	72.22427	1.48276e-2	1.07092		1-Methylnaphthalene #3
12.516	BB	85.91975	1.09324e-2	9.39313e-1		2-Methylnaphthalene #4
12.994	BB	46.04076	2.45826e-2	1.13180		Acenaphthene #5
13.645	BB	52.90672	2.20179e-2	1.16489		Fluorene #6
15.028	BBA	59.91370	2.07300e-2	1.24201		Phenanthrene #7
16.431	BBA	96.05915	9.31727e-3	8.95009e-1		Anthracene #8
17.806	BBA	4.17519	2.94398e-2	1.22917e-1		Fluoranthene #9
18.809	BBA	6.27601	2.10324e-2	1.32000e-1		Pyrene #10
21.150	BBA	14.27093	8.12526e-2	1.15955		p-Terphenyl d14 #11*
22.466	PBA	4.39682	2.97351e-2	1.30740e-1		Benzo(a)anthracene #12
23.337	BBA	6.15006	2.04006e-2	1.25465e-1		Chrysene #13
26.064	BBA	4.57150	2.74189e-2	1.25346e-1		Benzo(b)fluoranthene #14
27.495	BB	2.19067	2.90307e-2	6.35967e-2		Benzo(k)fluoranthene #15
28.596	BB	3.90243	3.86476e-2	1.50819e-1		Benzo(a)pyrene #16
30.454	MM	1.00112	8.71212e-2	8.72187e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264	BBA	2.34328	6.22516e-2	1.45873e-1		Benzo(g,h,i)perylene #18
32.225	BB	3.42590	3.63599e-2	1.24565e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 10.70201

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003191.D Sample Name: WG120164-08 ALT
HPLC4 6/20/2002 9:17:38 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/19/2002 11:39:56 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.387	20.0	19.539	-2.3
1-Methylnaphthalene #3	11.957	20.0	19.522	-2.4
2-Methylnaphthalene #4	12.532	20.0	19.193	-4.0
Acenaphthene #5	13.010	20.0	20.092	0.5
Fluorene #6	13.663	20.0	19.978	-0.1
Phenanthrene #7	15.046	20.0	19.187	-4.1
Anthracene #8	16.447	20.0	20.188	0.9
Fluoranthene #9	17.820	2.0	1.994	-0.3
Pyrene #10	18.822	2.0	1.884	-5.8
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.478	2.0	1.838	-8.1
Chrysene #13	23.345	2.0	1.912	-4.4
Benzo(b)fluoranthene #14	26.064	2.0	1.959	-2.0
Benzo(k)fluoranthene #15	27.495	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.603	2.0	2.046	2.3
Dibenz(a,h)anthracene #1	30.467	2.0	2.145	7.3
Benzo(g,h,i)perylene #18	31.284	2.0	1.972	-1.4
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.897	-5.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.372	20.0	20.073	0.4
Acenaphthylene #2	10.995	20.0	19.000	-5.0
1-Methylnaphthalene #3	11.942	20.0	19.740	-1.3
2-Methylnaphthalene #4	12.517	20.0	19.492	-2.5
Acenaphthene #5	12.996	20.0	20.090	0.4
Fluorene #6	13.647	20.0	19.779	-1.1
Phenanthrene #7	15.030	20.0	18.845	-5.8
Anthracene #8	16.432	20.0	20.458	2.3
Fluoranthene #9	17.804	2.0	1.944	-2.8
Pyrene #10	18.806	2.0	1.915	-4.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.462	2.0	1.853	-7.4
Chrysene #13	23.330	2.0	1.921	-4.0
Benzo(b)fluoranthene #14	26.048	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.480	1.0	0.880	-12.0
Benzo(a)pyrene #16	28.587	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.451	2.0	2.159	7.9
Benzo(g,h,i)perylene #18	31.267	2.0	1.941	-2.9
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.894	-5.3

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003191.D Sample Name: WG120164-08 ALT
HPLC4 6/20/2002 9:17:38 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/19/2002 11:39:56 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.387	20.0	19.539	-2.3
1-Methylnaphthalene #3	11.957	20.0	19.522	-2.4
2-Methylnaphthalene #4	12.532	20.0	19.193	-4.0
Acenaphthene #5	13.010	20.0	20.092	0.5
Fluorene #6	13.663	20.0	19.978	-0.1
Phenanthrene #7	15.046	20.0	19.187	-4.1
Anthracene #8	16.447	20.0	20.188	0.9
Fluoranthene #9	17.820	2.0	1.994	-0.3
Pyrene #10	18.822	2.0	1.884	-5.8
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.478	2.0	1.838	-8.1
Chrysene #13	23.345	2.0	1.912	-4.4
Benzo(b)fluoranthene #14	26.064	2.0	1.959	-2.0
Benzo(k)fluoranthene #15	27.495	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.603	2.0	2.046	2.3
Dibenz(a,h)anthracene #1	30.467	2.0	2.145	7.3
Benzo(g,h,i)perylene #18	31.284	2.0	1.972	-1.4
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.897	-5.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.372	20.0	20.073	0.4
Acenaphthylene #2	10.995	20.0	19.000	-5.0
1-Methylnaphthalene #3	11.942	20.0	19.740	-1.3
2-Methylnaphthalene #4	12.517	20.0	19.492	-2.5
Acenaphthene #5	12.996	20.0	20.090	0.4
Fluorene #6	13.647	20.0	19.779	-1.1
Phenanthrene #7	15.030	20.0	18.845	-5.8
Anthracene #8	16.432	20.0	20.458	2.3
Fluoranthene #9	17.804	2.0	1.944	-2.8
Pyrene #10	18.806	2.0	1.915	-4.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.462	2.0	1.853	-7.4
Chrysene #13	23.330	2.0	1.921	-4.0
Benzo(b)fluoranthene #14	26.048	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.480	1.0	0.880	-12.0
Benzo(a)pyrene #16	28.587	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.451	2.0	2.159	7.9
Benzo(g,h,i)perylene #18	31.267	2.0	1.941	-2.9
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.894	-5.3

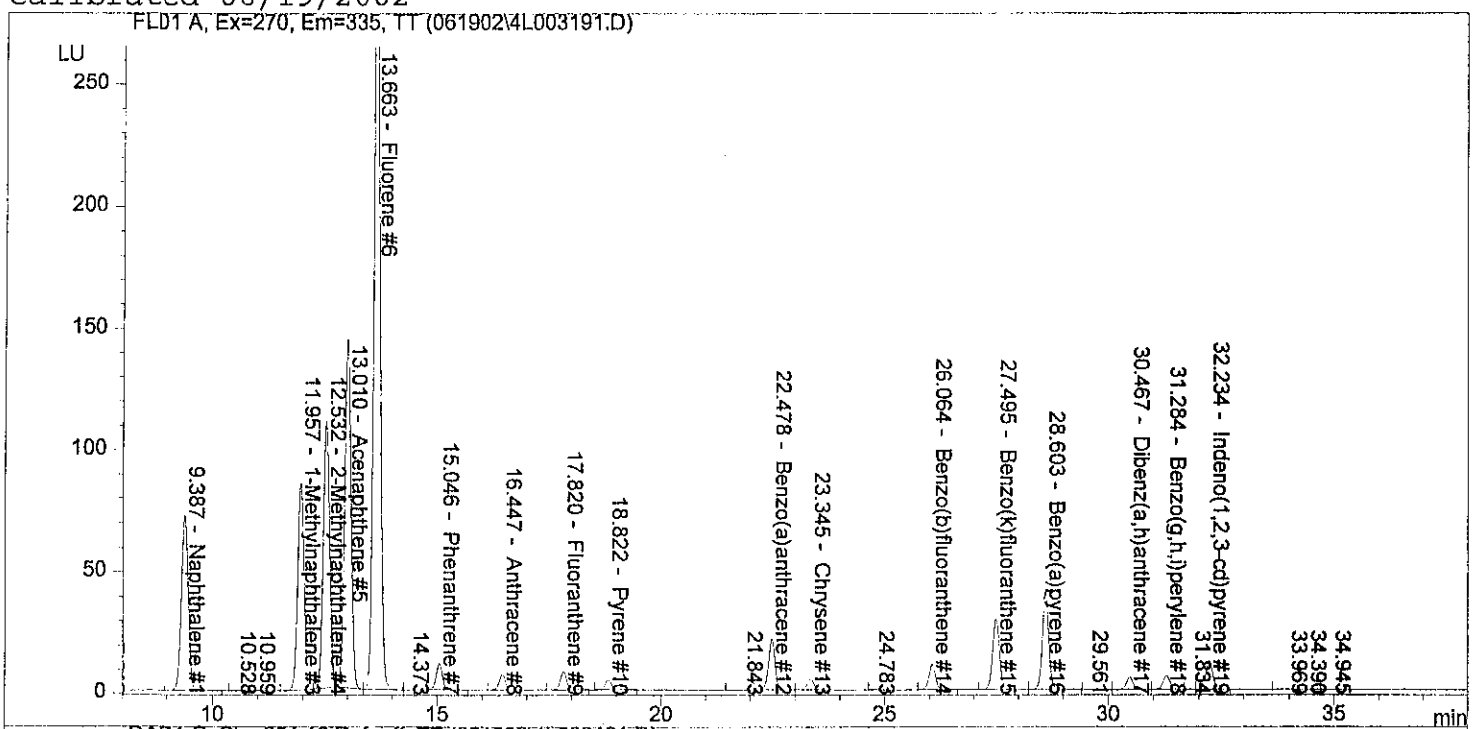
= Failed 15.0% Criteria

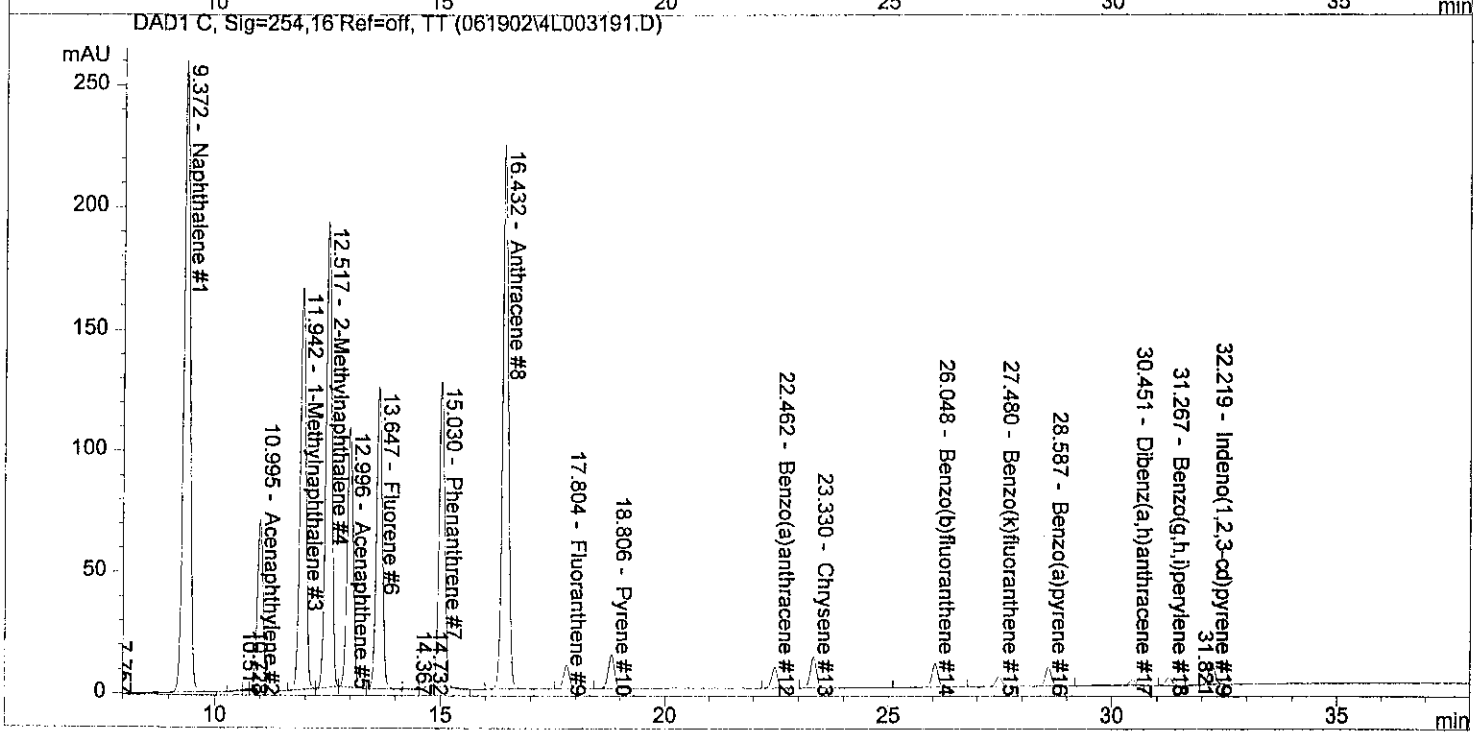
1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date	: 6/19/2002 11:39:56 PM	Seq. Line :	9
Sample Name	: WG120164-08 ALT	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





579

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.387	BBA	737.66528	2.64873e-2	19.53875		Naphthalene #1
11.957	BB	842.18378	2.31805e-2	19.52228		1-Methylnaphthalene #3
12.532	BB	1072.79504	1.78909e-2	19.19330		2-Methylnaphthalene #4
13.010	BB	1419.36682	1.41559e-2	20.09236		Acenaphthene #5
13.663	BB	3031.48169	6.59031e-3	19.97841		Fluorene #6
15.046	BBA	110.72682	1.73280e-1	19.18674		Phenanthrene #7
16.447	PBA	67.07290	3.00989e-1	20.18824		Anthracene #8
17.820	BBA	78.28062	2.54760e-2	1.99427		Fluoranthene #9
18.822	BBA	45.12201	4.17610e-2	1.88434		Pyrene #10
21.166		-	-	-		p-Terphenyl d14 #11*
22.478	BB	222.92839	8.24594e-3	1.83825		Benzo(a)anthracene #12
23.345	BB	47.43394	4.02984e-2	1.91151		Chrysene #13
26.064	BBA	114.99720	1.70377e-2	1.95929		Benzo(b)fluoranthene #14
27.495	BB	311.48776	2.83180e-3	8.82071e-1		Benzo(k)fluoranthene #15
28.603	BBA	429.06128	4.76783e-3	2.04569		Benzo(a)pyrene #16
30.467	BB	52.93916	4.05202e-2	2.14510		Dibenz(a,h)anthracene #17
31.284	BB	69.01328	2.85695e-2	1.97167		Benzo(g,h,i)perylene #18
32.234	BB	133.70982	1.41867e-2	1.89690		Indeno(1,2,3-cd)pyrene #1

Totals : 156.22920

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
9.372	BBA	2480.78638	8.09119e-3	20.07252		Naphthalene #1
10.995	BBA	629.07135	3.02035e-2	19.00018		Acenaphthylene #2
11.942	PB	1521.38184	1.29751e-2	19.74016		1-Methylnaphthalene #3
12.517	BB	1737.28711	1.12201e-2	19.49247		2-Methylnaphthalene #4
12.996	BB	976.73950	2.05683e-2	20.08983		Acenaphthene #5
13.647	BB	1122.93054	1.76134e-2	19.77857		Fluorene #6
15.030	BBA	1103.63745	1.70754e-2	18.84509		Phenanthrene #7
16.432	PBA	2045.92957	9.99954e-3	20.45835		Anthracene #8
17.804	PB	88.76682	2.19040e-2	1.94435		Fluoranthene #9
18.806	BBA	132.37604	1.44652e-2	1.91484		Pyrene #10
21.150		-	-	-		p-Terphenyl d14 #11*
22.462	BBA	83.02850	2.23150e-2	1.85278		Benzo(a)anthracene #12
23.330	BBA	126.16646	1.52241e-2	1.92078		Chrysene #13
26.048	PBA	94.24934	2.08606e-2	1.96610		Benzo(b)fluoranthene #14
27.480	PBA	38.80268	2.26831e-2	8.80167e-1		Benzo(k)fluoranthene #15
28.587	BBA	77.06660	2.62837e-2	2.02560		Benzo(a)pyrene #16
30.451	BBA	23.06487	9.36030e-2	2.15894		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.267	BB	36.37280	5.33696e-2	1.94120		Benzo(g,h,i)perylene #18
32.219	BB	90.73181	2.08749e-2	1.89402		Indeno(1,2,3-cd)pyrene #1

Totals : 175.97593

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003199.D Sample Name: WG120174-01 CCV
HPLC4 6/20/2002 8:59:19 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/20/2002 7:13:04 AM Seq. Line : 17

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	19.848	-0.8
1-Methylnaphthalene #3	11.986	20.0	19.913	-0.4
2-Methylnaphthalene #4	12.560	20.0	19.906	-0.5
Acenaphthene #5	13.037	20.0	19.962	-0.2
Fluorene #6	13.690	20.0	20.054	0.3
Phenanthrene #7	15.074	20.0	19.668	-1.7
Anthracene #8	16.477	20.0	19.795	-1.0
Fluoranthene #9	17.852	2.0	1.982	-0.9
Pyrene #10	18.855	2.0	1.967	-1.7
p-Terphenyl d14 #11*	21.190	20.0	19.752	-1.2
Benzo(a)anthracene #12	22.505	2.0	1.959	-2.1
Chrysene #13	23.373	2.0	1.958	-2.1
Benzo(b)fluoranthene #14	26.088	2.0	1.977	-1.2
Benzo(k)fluoranthene #15	27.515	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.620	2.0	1.977	-1.1
Dibenz(a,h)anthracene #1	30.479	2.0	1.949	-2.6
Benzo(g,h,i)perylene #18	31.291	2.0	1.948	-2.6
Indeno(1,2,3-cd)pyrene #	32.240	2.0	1.964	-1.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.393	20.0	20.469	2.3
Acenaphthylene #2	11.020	20.0	19.908	-0.5
1-Methylnaphthalene #3	11.966	20.0	20.053	0.3
2-Methylnaphthalene #4	12.540	20.0	20.207	1.0
Acenaphthene #5	13.017	20.0	19.966	-0.2
Fluorene #6	13.670	20.0	19.911	-0.4
Phenanthrene #7	15.054	20.0	19.877	-0.6
Anthracene #8	16.457	20.0	20.104	0.5
Fluoranthene #9	17.831	2.0	1.976	-1.2
Pyrene #10	18.834	2.0	1.980	-1.0
p-Terphenyl d14 #11*	21.171	20.0	19.823	-0.9
Benzo(a)anthracene #12	22.485	2.0	1.974	-1.3
Chrysene #13	23.353	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.067	2.0	1.988	-0.6
Benzo(k)fluoranthene #15	27.495	1.0	0.992	-0.8
Benzo(a)pyrene #16	28.599	2.0	1.983	-0.8
Dibenz(a,h)anthracene #1	30.458	2.0	2.125	6.3
Benzo(g,h,i)perylene #18	31.270	2.0	1.993	-0.4
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.968	-1.6

= Failed 15.0% Criteria

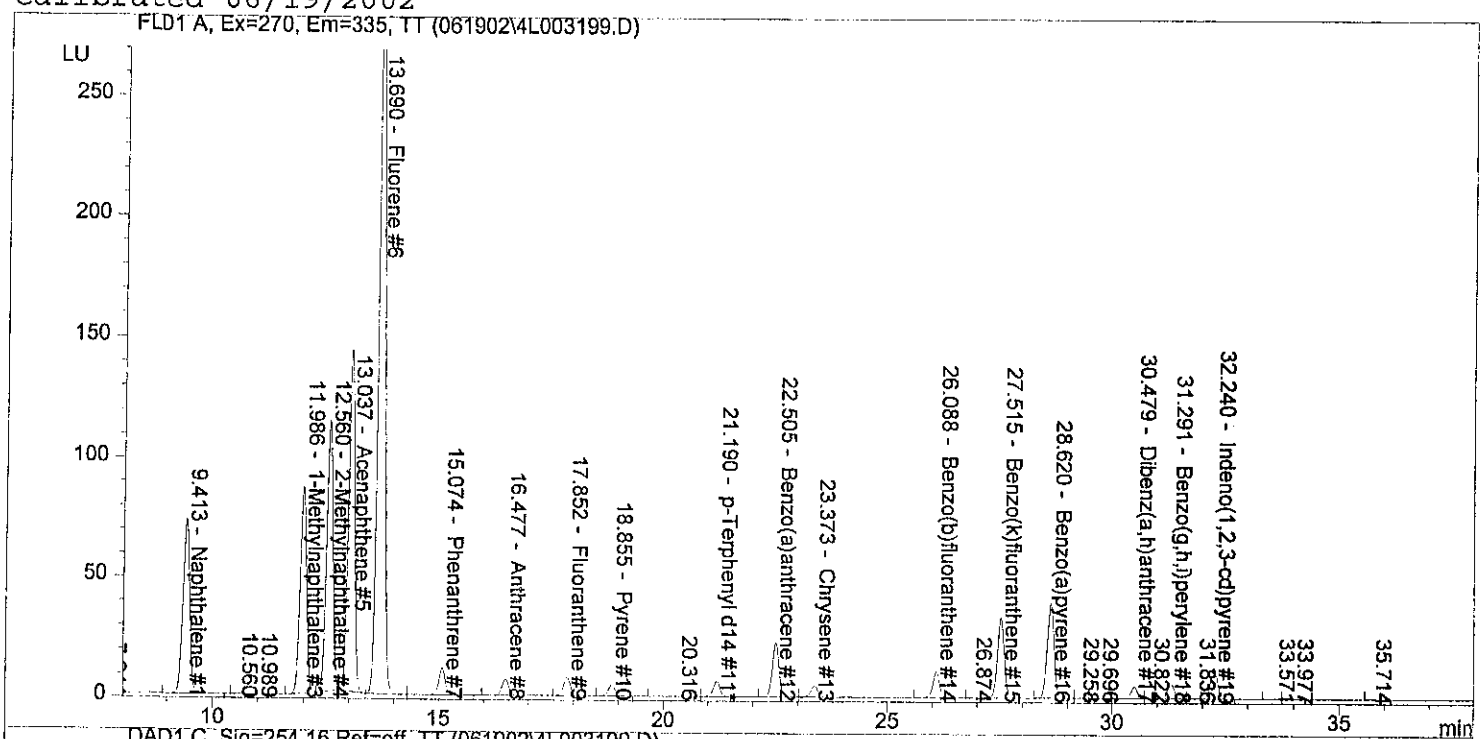
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

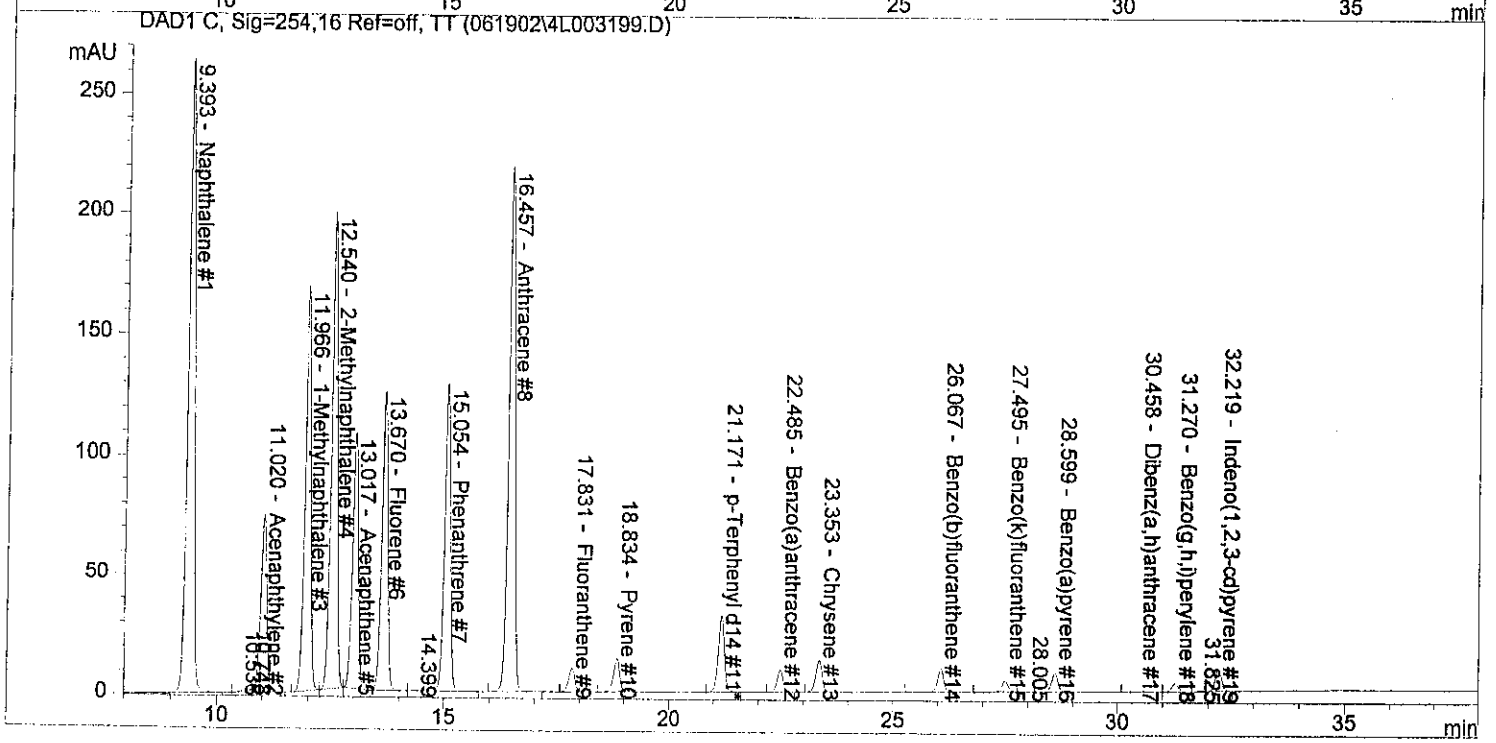
==========

Injection Date : 6/20/2002 7:13:04 AM
Sample Name : WG120174-01 CCV
Acq. Operator : RDC

Seq. Line : 17
Vial : 17
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





583

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.413	BB	749.48706	2.64827e-2	19.84846		Naphthalene #1
11.986	BB	859.22571	2.31759e-2	19.91331		1-Methylnaphthalene #3
12.560	BB	1112.94543	1.78862e-2	19.90640		2-Methylnaphthalene #4
13.037	BB	1410.12061	1.41562e-2	19.96193		Acenaphthene #5
13.690	BB	3042.93872	6.59032e-3	20.05393		Fluorene #6
15.074	BBA	113.54522	1.73221e-1	19.66839		Phenanthrene #7
16.477	PBA	65.75275	3.01050e-1	19.79488		Anthracene #8
17.852	PB	77.77711	2.54779e-2	1.98160		Fluoranthene #9
18.855	BB	47.11324	4.17497e-2	1.96696		Pyrene #10
21.190	BB	67.07735	2.94471e-1	19.75236		p-Terphenyl d14 #11*
22.505	BB	237.79007	8.23701e-3	1.95868		Benzo(a)anthracene #12
23.373	BBA	48.61469	4.02831e-2	1.95835		Chrysene #13
26.088	PB	116.02925	1.70356e-2	1.97663		Benzo(b)fluoranthene #14
27.515	BB	349.76276	2.82732e-3	9.88891e-1		Benzo(k)fluoranthene #15
28.620	BB	414.43826	4.77097e-3	1.97727		Benzo(a)pyrene #16
30.479	BB	47.99523	4.06053e-2	1.94886		Dibenz(a,h)anthracene #17
31.291	BB	68.17415	2.85777e-2	1.94826		Benzo(g,h,i)perylene #18
32.240	BB	138.50458	1.41784e-2	1.96377		Indeno(1,2,3-cd)pyrene #1

Totals : 177.56894

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
9.393	BBA	2529.08740	8.09329e-3	20.46863		Naphthalene #1
11.020	BBA	659.47870	3.01877e-2	19.90816		Acenaphthylene #2
11.966	PB	1545.66589	1.29737e-2	20.05300		1-Methylnaphthalene #3
12.540	BB	1800.87952	1.12206e-2	20.20694		2-Methylnaphthalene #4
13.017	BB	970.68304	2.05695e-2	19.96646		Acenaphthene #5
13.670	BB	1130.51941	1.76119e-2	19.91058		Fluorene #6
15.054	BBA	1164.82104	1.70644e-2	19.87699		Phenanthrene #7
16.457	PBA	2010.60986	9.99895e-3	20.10399		Anthracene #8
17.831	PB	90.21717	2.18981e-2	1.97558		Fluoranthene #9
18.834	BBA	136.96854	1.44542e-2	1.97977		Pyrene #10
21.171	PBA	304.61673	6.50742e-2	19.82270		p-Terphenyl d14 #11*
22.485	PBA	88.54465	2.22891e-2	1.97358		Benzo(a)anthracene #12
23.353	BBA	129.57343	1.52172e-2	1.97174		Chrysene #13
26.067	BBA	95.32658	2.08568e-2	1.98821		Benzo(b)fluoranthene #14
27.495	PB	43.80433	2.26398e-2	9.91720e-1		Benzo(k)fluoranthene #15
28.599	BB	75.41525	2.62982e-2	1.98328		Benzo(a)pyrene #16
30.458	BB	22.70441	9.35983e-2	2.12509		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.270	BB	37.34850	5.33536e-2	1.99268		Benzo(g,h,i)perylene #18
32.219	BB	94.39774	2.08513e-2	1.96832		Indeno(1,2,3-cd)pyrene #1

Totals : 199.26742

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003151.D Sample Name: WG119863-03 CCV
HPLC4 6/17/2002 9:41:54 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/15/2002 6:19:19 AM Seq. Line : 21

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.363	20.0	20.160	0.8
1-Methylnaphthalene #3	11.936	20.0	20.132	0.7
2-Methylnaphthalene #4	12.511	20.0	20.073	0.4
Acenaphthene #5	12.989	20.0	20.190	0.9
Fluorene #6	13.642	20.0	20.320	1.6
Phenanthrene #7	15.026	20.0	19.811	-0.9
Anthracene #8	16.431	20.0	20.190	0.9
Fluoranthene #9	17.808	2.0	2.000	0.0
Pyrene #10	18.810	2.0	1.994	-0.3
p-Terphenyl d14 #11*	21.143	20.0	20.082	0.4
Benzo(a)anthracene #12	22.462	2.0	1.995	-0.3
Chrysene #13	23.331	2.0	1.987	-0.7
Benzo(b)fluoranthene #14	26.052	2.0	2.030	1.5
Benzo(k)fluoranthene #15	27.485	1.0	1.003	0.3
Benzo(a)pyrene #16	28.596	2.0	2.068	3.4
Dibenz(a,h)anthracene #1	30.466	2.0	1.978	-1.1
Benzo(g,h,i)perylene #18	31.276	2.0	2.035	1.8
Indeno(1,2,3-cd)pyrene #	32.232	2.0	1.990	-0.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.767	3.8
Acenaphthylene #2	10.969	20.0	20.177	0.9
1-Methylnaphthalene #3	11.916	20.0	20.315	1.6
2-Methylnaphthalene #4	12.491	20.0	20.472	2.4
Acenaphthene #5	12.968	20.0	20.190	0.9
Fluorene #6	13.621	20.0	20.183	0.9
Phenanthrene #7	15.005	20.0	20.146	0.7
Anthracene #8	16.410	20.0	20.536	2.7
Fluoranthene #9	17.786	2.0	2.010	0.5
Pyrene #10	18.788	2.0	2.000	0.0
p-Terphenyl d14 #11*	21.123	20.0	20.014	0.1
Benzo(a)anthracene #12	22.441	2.0	2.002	0.1
Chrysene #13	23.311	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.030	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.464	1.0	1.010	1.0
Benzo(a)pyrene #16	28.575	2.0	2.075	3.7
Dibenz(a,h)anthracene #1	30.445	2.0	2.003	0.2
Benzo(g,h,i)perylene #18	31.254	2.0	2.062	3.1
Indeno(1,2,3-cd)pyrene #	32.211	2.0	2.003	0.1

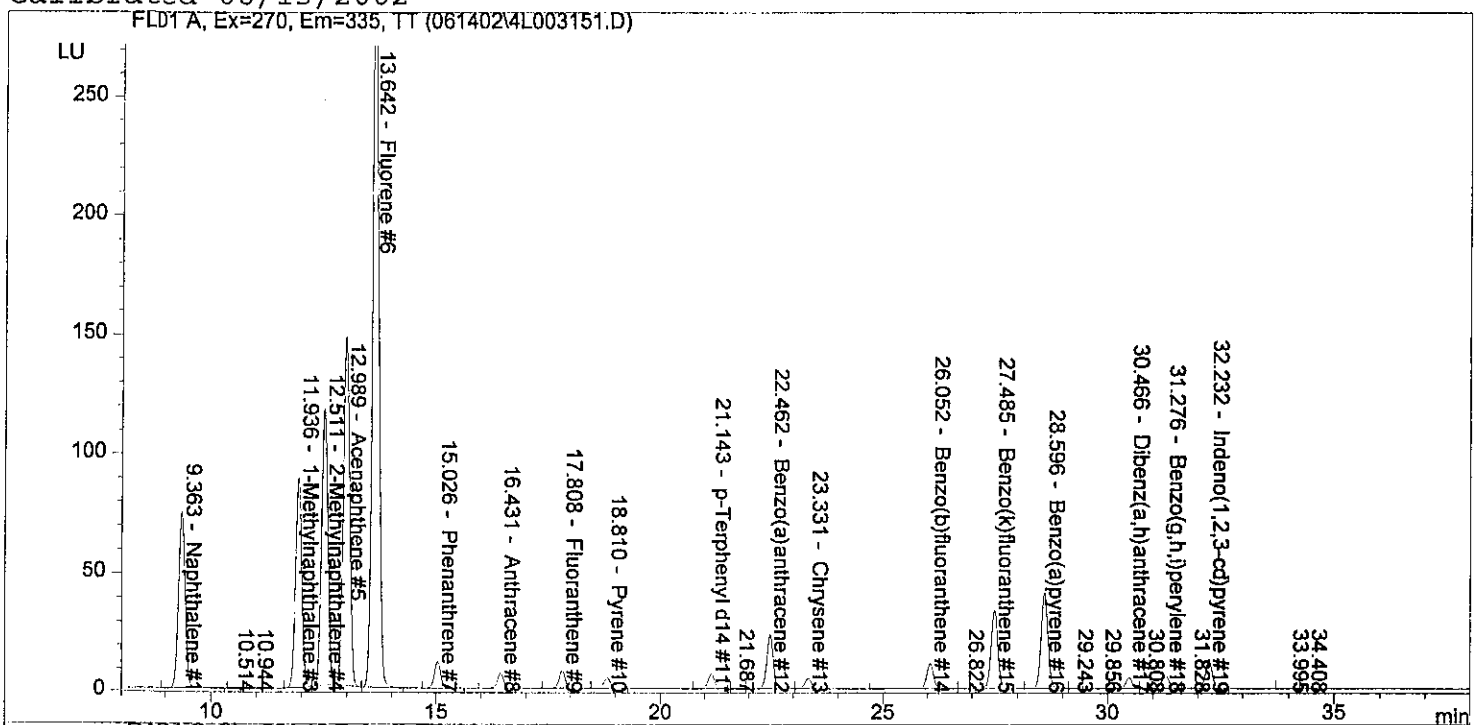
= Failed 15.0% Criteria

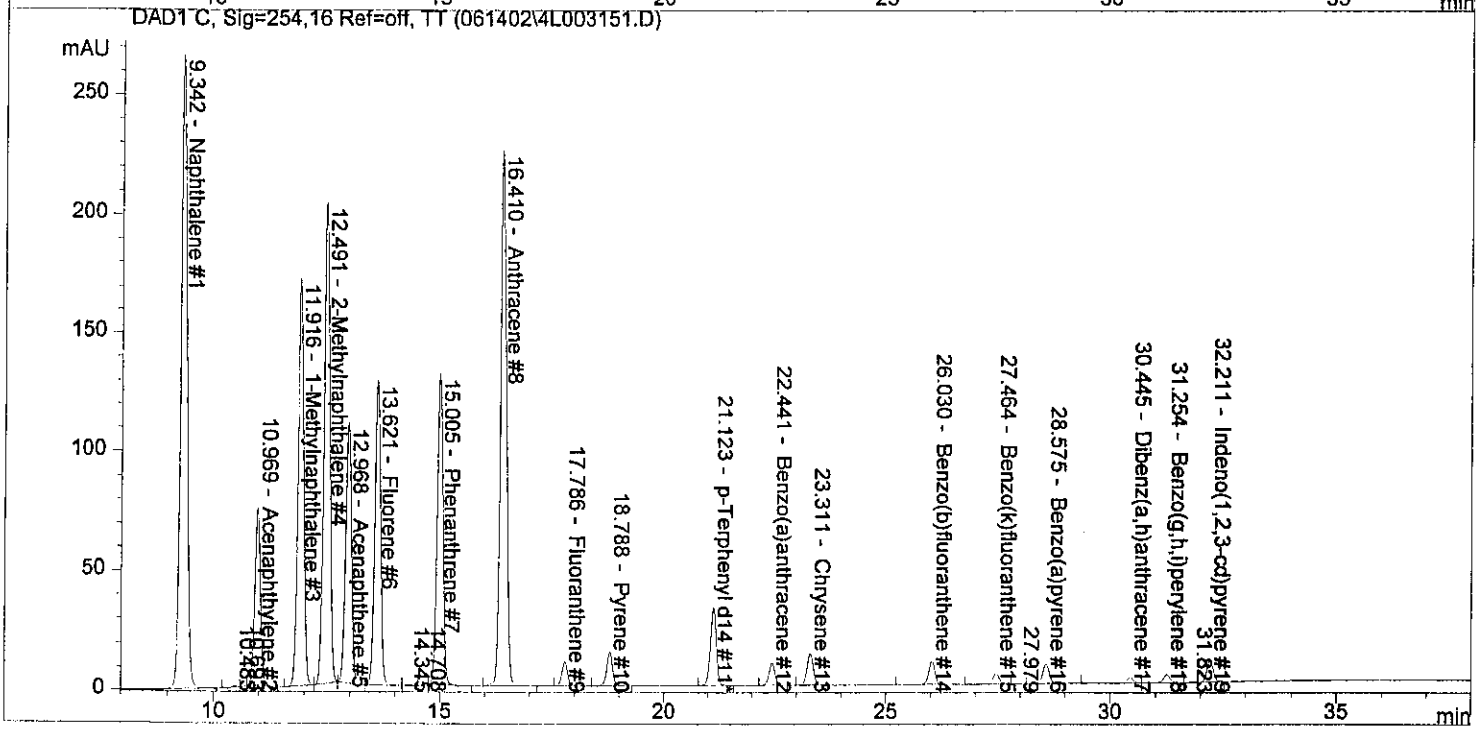
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date	: 6/15/2002 6:19:19 AM	Seq. Line	: 21
Sample Name	: WG119863-03 CCV	Vial	: 21
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.363	BBA	761.49371	2.64743e-2	20.15999		Naphthalene #1
11.936	PB	871.14648	2.31092e-2	20.13152		1-Methylnaphthalene #3
12.511	BB	1128.03711	1.77944e-2	20.07279		2-Methylnaphthalene #4
12.989	BB	1430.34351	1.41152e-2	20.18963		Acenaphthene #5
13.642	BB	3070.94263	6.61670e-3	20.31952		Fluorene #6
15.026	BBA	113.81528	1.74065e-1	19.81122		Phenanthrene #7
16.431	PBA	66.69012	3.02738e-1	20.18961		Anthracene #8
17.808	PB	78.03944	2.56243e-2	1.99970		Fluoranthene #9
18.810	BBA	47.85608	4.16648e-2	1.99391		Pyrene #10
21.143	BB	67.92536	2.95651e-1	20.08220		p-Terphenyl d14 #11*
22.462	BB	241.81070	8.24847e-3	1.99457		Benzo(a)anthracene #12
23.331	BB	49.27583	4.03229e-2	1.98695		Chrysene #13
26.052	BB	118.58526	1.71177e-2	2.02991		Benzo(b)fluoranthene #14
27.485	BB	353.23618	2.83849e-3	1.00266		Benzo(k)fluoranthene #15
28.596	BB	432.28293	4.78483e-3	2.06840		Benzo(a)pyrene #16
30.466	BB	48.61948	4.06804e-2	1.97786		Dibenz(a,h)anthracene #17
31.276	BB	70.74438	2.87657e-2	2.03501		Benzo(g,h,i)perylene #18
32.232	BB	140.31125	1.41815e-2	1.98983		Indeno(1,2,3-cd)pyrene #1

Totals : 180.03527

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
9.342	BBA	2529.32812	8.21030e-3	20.76654		Naphthalene #1
10.969	BBA	664.08209	3.03833e-2	20.17700		Acenaphthylene #2
11.916	PB	1550.81189	1.30994e-2	20.31475		1-Methylnaphthalene #3
12.491	BB	1807.66809	1.13250e-2	20.47185		2-Methylnaphthalene #4
12.968	BB	975.17664	2.07037e-2	20.18976		Acenaphthene #5
13.621	BB	1134.11658	1.77963e-2	20.18305		Fluorene #6
15.005	BBA	1144.90674	1.75958e-2	20.14553		Phenanthrene #7
16.410	BBA	2031.84607	1.01070e-2	20.53594		Anthracene #8
17.786	PB	90.73675	2.21515e-2	2.00995		Fluoranthene #9
18.788	BBA	137.06593	1.45941e-2	2.00035		Pyrene #10
21.123	PBA	305.20706	6.55765e-2	20.01442		p-Terphenyl d14 #11*
22.441	BBA	88.83590	2.25314e-2	2.00160		Benzo(a)anthracene #12
23.311	BBA	130.18159	1.53478e-2	1.99800		Chrysene #13
26.030	BBA	95.50357	2.11860e-2	2.02333		Benzo(b)fluoranthene #14
27.464	PBA	43.96133	2.29705e-2	1.00981		Benzo(k)fluoranthene #15
28.575	BBA	78.21353	2.65271e-2	2.07477		Benzo(a)pyrene #16
30.445	BB	21.00448	9.53731e-2	2.00326		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.254	BB	39.08805	5.27607e-2	2.06231		Benzo(g,h,i)perylene #18
32.211	BB	94.80490	2.11256e-2	2.00281		Indeno(1,2,3-cd)pyrene #1

Totals : 201.98505

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003162.D Sample Name: WG119863-04 CCV
HPLC4 6/17/2002 10:49:22 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/15/2002 4:42:25 PM Seq. Line : 32

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.371	20.0	19.972	-0.1
1-Methylnaphthalene #3	11.943	20.0	20.000	0.0
2-Methylnaphthalene #4	12.515	20.0	19.954	-0.2
Acenaphthene #5	12.992	20.0	20.111	0.6
Fluorene #6	13.642	20.0	20.319	1.6
Phenanthrene #7	15.024	20.0	19.854	-0.7
Anthracene #8	16.425	20.0	20.159	0.8
Fluoranthene #9	17.799	2.0	2.002	0.1
Pyrene #10	18.802	2.0	1.981	-1.0
p-Terphenyl d14 #11*	21.127	20.0	20.069	0.3
Benzo(a)anthracene #12	22.444	2.0	1.983	-0.8
Chrysene #13	23.312	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.030	2.0	1.999	-0.1
Benzo(k)fluoranthene #15	27.457	1.0	1.001	0.1
Benzo(a)pyrene #16	28.564	2.0	2.064	3.2
Dibenz(a,h)anthracene #1	30.425	2.0	1.977	-1.1
Benzo(g,h,i)perylene #18	31.239	2.0	2.019	1.0
Indeno(1,2,3-cd)pyrene #	32.197	2.0	1.982	-0.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.354	20.0	20.869	4.3
Acenaphthylene #2	10.979	20.0	20.193	1.0
1-Methylnaphthalene #3	11.927	20.0	20.382	1.9
2-Methylnaphthalene #4	12.499	20.0	20.526	2.6
Acenaphthene #5	12.976	20.0	20.252	1.3
Fluorene #6	13.626	20.0	20.257	1.3
Phenanthrene #7	15.007	20.0	20.225	1.1
Anthracene #8	16.408	20.0	20.540	2.7
Fluoranthene #9	17.781	2.0	2.020	1.0
Pyrene #10	18.784	2.0	2.014	0.7
p-Terphenyl d14 #11*	21.112	20.0	20.082	0.4
Benzo(a)anthracene #12	22.428	2.0	2.017	0.8
Chrysene #13	23.296	2.0	2.009	0.5
Benzo(b)fluoranthene #14	26.012	2.0	2.039	1.9
Benzo(k)fluoranthene #15	27.440	1.0	1.020	2.0
Benzo(a)pyrene #16	28.547	2.0	2.069	3.4
Dibenz(a,h)anthracene #1	30.409	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.221	2.0	2.000	0.0
Indeno(1,2,3-cd)pyrene #	32.178	2.0	1.999	0.0

= Failed 15.0% Criteria

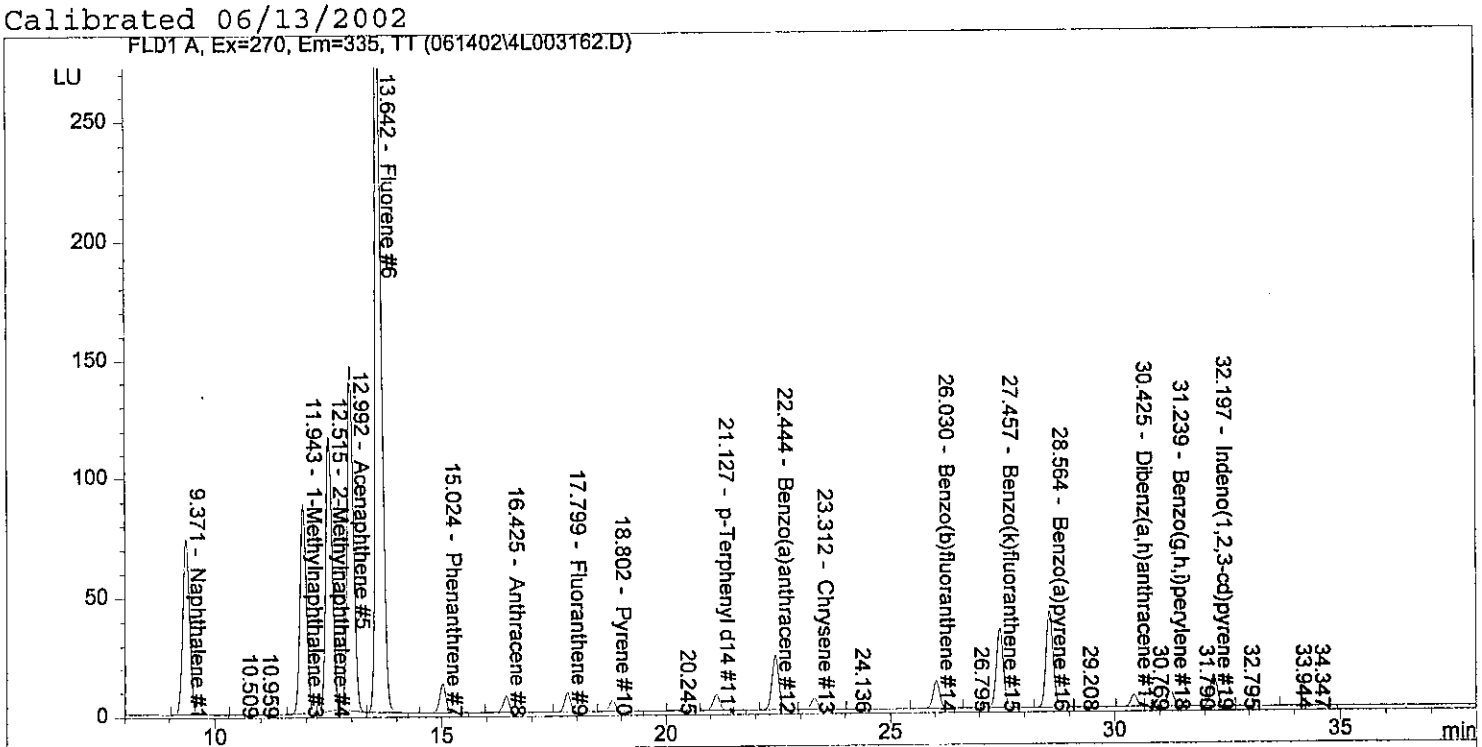
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

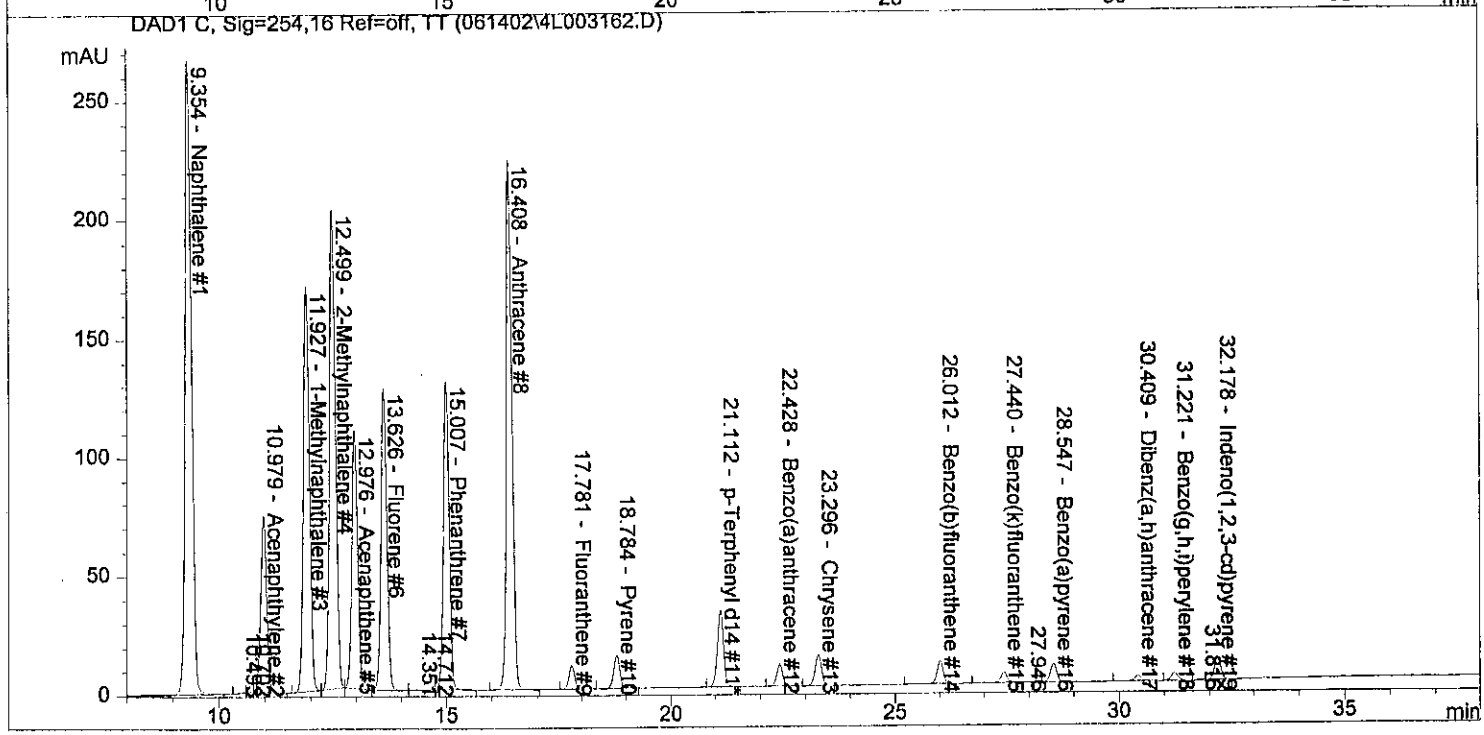
==========

Injection Date	: 6/15/2002 4:42:25 PM	Seq. Line :	32
Sample Name	: WG119863-04 CCV	Vial :	21
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	PBA	754.33313	2.64769e-2	19.97241		Naphthalene #1
11.943	BB	865.41675	2.31105e-2	20.00022		1-Methylnaphthalene #3
12.515	BB	1121.32532	1.77951e-2	19.95410		2-Methylnaphthalene #4
12.992	BB	1424.75830	1.41153e-2	20.11095		Acenaphthene #5
13.642	BB	3070.89819	6.61670e-3	20.31922		Fluorene #6
15.024	BBA	114.06263	1.74059e-1	19.85360		Phenanthrene #7
16.425	PBA	66.59044	3.02738e-1	20.15947		Anthracene #8
17.799	PB	78.12949	2.56239e-2	2.00199		Fluoranthene #9
18.802	BBA	47.54172	4.16669e-2	1.98091		Pyrene #10
21.127	BB	67.88014	2.95653e-1	20.06899		p-Terphenyl d14 #11*
22.444	BB	240.44403	8.24913e-3	1.98345		Benzo(a)anthracene #12
23.312	BB	49.24593	4.03232e-2	1.98575		Chrysene #13
26.030	BBA	116.73699	1.71212e-2	1.99868		Benzo(b)fluoranthene #14
27.457	BB	352.71536	2.83853e-3	1.00119		Benzo(k)fluoranthene #15
28.564	BB	431.26700	4.78503e-3	2.06363		Benzo(a)pyrene #16
30.425	BB	48.60230	4.06807e-2	1.97717		Dibenz(a,h)anthracene #17
31.239	BB	70.18008	2.87703e-2	2.01910		Benzo(g,h,i)perylene #18
32.197	BB	139.72926	1.41824e-2	1.98169		Indeno(1,2,3-cd)pyrene #1

Totals : 179.43254

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
9.354	BBA	2541.63354	8.21089e-3	20.86908		Naphthalene #1
10.979	BBA	664.61700	3.03831e-2	20.19311		Acenaphthylene #2
11.927	PB	1555.92419	1.30993e-2	20.38151		1-Methylnaphthalene #3
12.499	BB	1812.41431	1.13252e-2	20.52588		2-Methylnaphthalene #4
12.976	BB	978.18439	2.07033e-2	20.25164		Acenaphthene #5
13.626	BB	1138.32654	1.77957e-2	20.25736		Fluorene #6
15.007	BBA	1149.43030	1.75954e-2	20.22464		Phenanthrene #7
16.408	PBA	2032.25513	1.01071e-2	20.54011		Anthracene #8
17.781	PB	91.19827	2.21497e-2	2.02002		Fluoranthene #9
18.784	BBA	137.99599	1.45924e-2	2.01369		Pyrene #10
21.112	PBA	306.25113	6.55743e-2	20.08219		p-Terphenyl d14 #11*
22.428	BBA	89.51380	2.25293e-2	2.01668		Benzo(a)anthracene #12
23.296	BBA	130.92561	1.53469e-2	2.00930		Chrysene #13
26.012	PBA	96.23603	2.11830e-2	2.03857		Benzo(b)fluoranthene #14
27.440	PBA	44.41175	2.29671e-2	1.02001		Benzo(k)fluoranthene #15
28.547	BBA	77.97203	2.65290e-2	2.06852		Benzo(a)pyrene #16
30.409	PBA	21.43666	9.53438e-2	2.04385		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.221	BB	37.93303	5.27295e-2	2.00019		Benzo(g,h,i)perylene #18
32.178	BB	94.62574	2.11267e-2	1.99913		Indeno(1,2,3-cd)pyrene #1

Totals : 202.55548

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003173.D Sample Name: WG119863-05 CCV
HPLC4 6/17/2002 10:55:46 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========
Injection Date : 6/16/2002 3:05:26 AM Seq. Line : 43

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.377	20.0	20.123	0.6
1-Methylnaphthalene #3	11.947	20.0	20.159	0.8
2-Methylnaphthalene #4	12.522	20.0	20.117	0.6
Acenaphthene #5	13.001	20.0	20.225	1.1
Fluorene #6	13.653	20.0	20.407	2.0
Phenanthrene #7	15.035	20.0	19.940	-0.3
Anthracene #8	16.437	20.0	20.322	1.6
Fluoranthene #9	17.810	2.0	2.023	1.1
Pyrene #10	18.815	2.0	2.011	0.6
p-Terphenyl d14 #11*	21.145	20.0	19.902	-0.5
Benzo(a)anthracene #12	22.462	2.0	1.998	-0.1
Chrysene #13	23.331	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.051	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.485	1.0	1.005	0.5
Benzo(a)pyrene #16	28.592	2.0	2.080	4.0
Dibenz(a,h)anthracene #1	30.455	2.0	1.985	-0.7
Benzo(g,h,i)perylene #18	31.269	2.0	2.020	1.0
Indeno(1,2,3-cd)pyrene #	32.233	2.0	1.985	-0.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.361	20.0	20.956	4.8
Acenaphthylene #2	10.984	20.0	20.269	1.3
1-Methylnaphthalene #3	11.930	20.0	20.465	2.3
2-Methylnaphthalene #4	12.506	20.0	20.599	3.0
Acenaphthene #5	12.984	20.0	20.320	1.6
Fluorene #6	13.636	20.0	20.339	1.7
Phenanthrene #7	15.018	20.0	20.296	1.5
Anthracene #8	16.420	20.0	20.581	2.9
Fluoranthene #9	17.793	2.0	2.030	1.5
Pyrene #10	18.797	2.0	2.022	1.1
p-Terphenyl d14 #11*	21.129	20.0	20.160	0.8
Benzo(a)anthracene #12	22.445	2.0	2.021	1.1
Chrysene #13	23.314	2.0	2.016	0.8
Benzo(b)fluoranthene #14	26.034	2.0	2.045	2.3
Benzo(k)fluoranthene #15	27.468	1.0	1.021	2.1
Benzo(a)pyrene #16	28.574	2.0	2.077	3.8
Dibenz(a,h)anthracene #1	30.437	2.0	2.027	1.4
Benzo(g,h,i)perylene #18	31.251	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.215	2.0	2.009	0.4

= Failed 15.0% Criteria

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

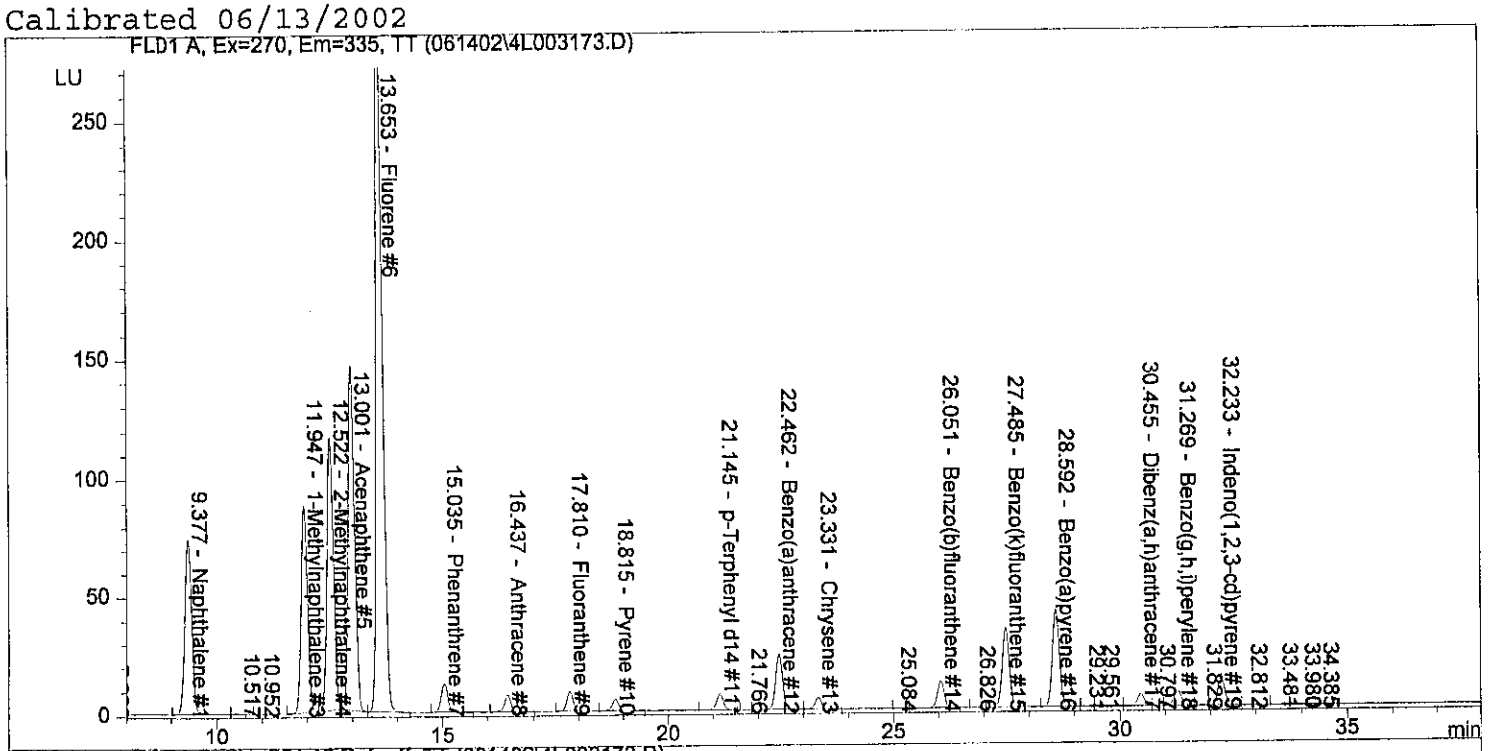
==========

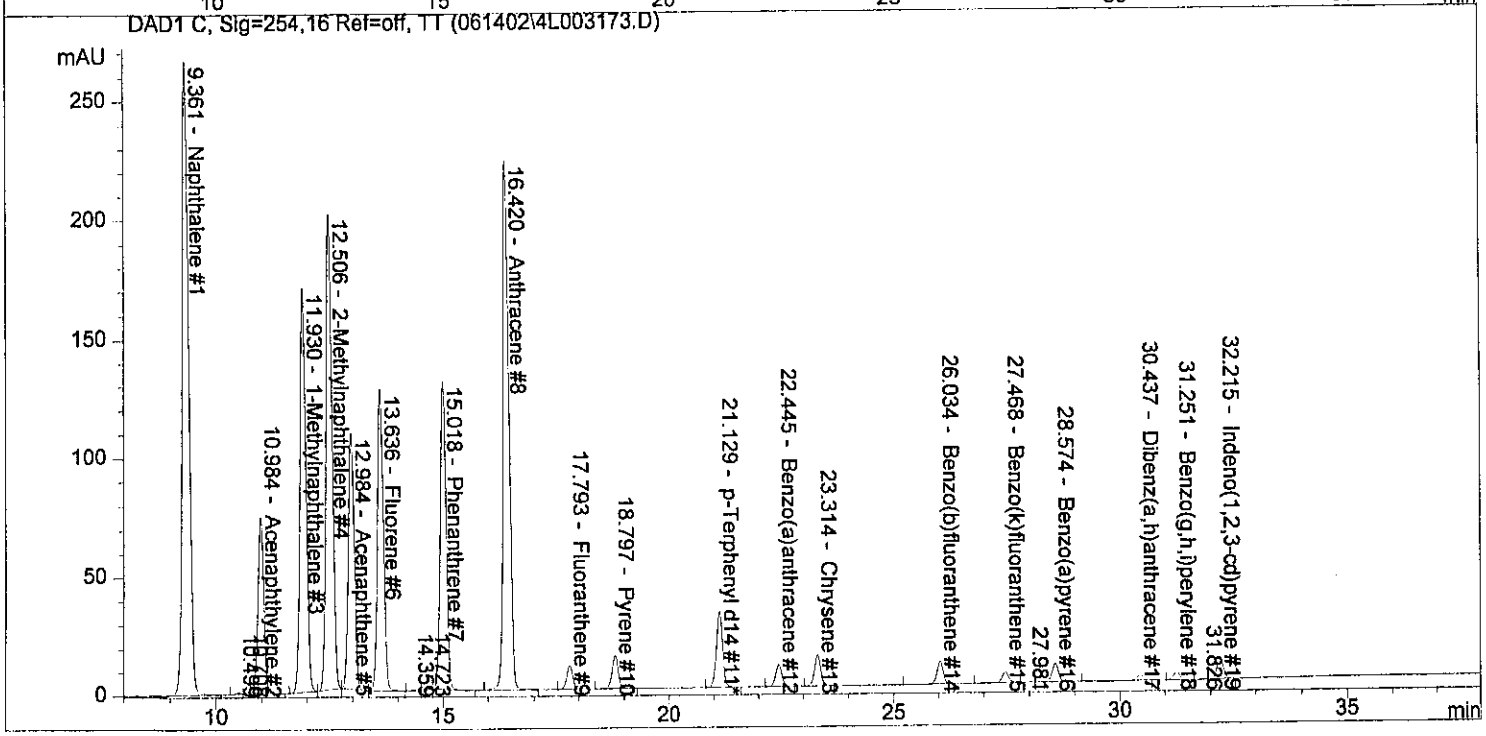
Injection Date : 6/16/2002 3:05:26 AM
Sample Name : WG119863-05 CCV
Acq. Operator : RDC

Seq. Line : 43
Vial : 21
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	PB	760.07599	2.64748e-2	20.12285		Naphthalene #1
11.947	BB	872.35144	2.31090e-2	20.15914		1-Methylnaphthalene #3
12.522	BB	1130.55090	1.77942e-2	20.11724		2-Methylnaphthalene #4
13.001	BB	1432.81921	1.41152e-2	20.22450		Acenaphthene #5
13.653	BB	3084.15723	6.61684e-3	20.40738		Fluorene #6
15.035	BBA	114.56673	1.74047e-1	19.93995		Phenanthrene #7
16.437	BBA	67.12714	3.02735e-1	20.32172		Anthracene #8
17.810	PB	78.95570	2.56209e-2	2.02292		Fluoranthene #9
18.815	BBA	48.27294	4.16621e-2	2.01115		Pyrene #10
21.145	BB	67.30986	2.95683e-1	19.90236		p-Terphenyl d14 #11*
22.462	BB	242.25102	8.24826e-3	1.99815		Benzo(a)anthracene #12
23.331	BBA	49.55540	4.03202e-2	1.99808		Chrysene #13
26.051	BB	118.20010	1.71185e-2	2.02340		Benzo(b)fluoranthene #14
27.485	BB	354.00174	2.83842e-3	1.00481		Benzo(k)fluoranthene #15
28.592	BB	434.64508	4.78437e-3	2.07950		Benzo(a)pyrene #16
30.455	BB	48.79999	4.06775e-2	1.98506		Dibenz(a,h)anthracene #17
31.269	BB	70.22708	2.87699e-2	2.02043		Benzo(g,h,i)perylene #18
32.233	BB	139.95387	1.41820e-2	1.98483		Indeno(1,2,3-cd)pyrene #1

Totals : 180.32347

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	BBA	2552.01440	8.21139e-3	20.95558		Naphthalene #1
10.984	BBA	667.12219	3.03821e-2	20.26858		Acenaphthylene #2
11.930	PB	1562.34827	1.30991e-2	20.46540		1-Methylnaphthalene #3
12.506	BB	1818.83691	1.13254e-2	20.59899		2-Methylnaphthalene #4
12.984	BB	981.48633	2.07029e-2	20.31957		Acenaphthene #5
13.636	BBA	1142.95972	1.77951e-2	20.33914		Fluorene #6
15.018	BBA	1153.50989	1.75950e-2	20.29599		Phenanthrene #7
16.420	PBA	2036.28638	1.01073e-2	20.58127		Anthracene #8
17.793	PB	91.66614	2.21480e-2	2.03022		Fluoranthene #9
18.797	BBA	138.54767	1.45914e-2	2.02160		Pyrene #10
21.129	PBA	307.45343	6.55717e-2	20.16024		p-Terphenyl d14 #11*
22.445	BBA	89.71758	2.25286e-2	2.02121		Benzo(a)anthracene #12
23.314	BBA	131.38145	1.53463e-2	2.01623		Chrysene #13
26.034	PBA	96.56528	2.11817e-2	2.04542		Benzo(b)fluoranthene #14
27.468	PBA	44.45292	2.29668e-2	1.02094		Benzo(k)fluoranthene #15
28.574	BBA	78.28257	2.65265e-2	2.07656		Benzo(a)pyrene #16
30.437	BBA	21.26134	9.53555e-2	2.02739		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.251	BBA	37.63296	5.27211e-2	1.98405		Benzo(g,h,i)perylene #18
32.215	BB	95.08902	2.11240e-2	2.00866		Indeno(1,2,3-cd)pyrene #1

Totals : 203.23704

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061702\4L003175.D Sample Name: WG119988-01 CCV
HPLC4 6/17/2002 2:54:21 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/17/2002 12:23:36 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.334	20.0	20.736	3.7
1-Methylnaphthalene #3	11.910	20.0	20.616	3.1
2-Methylnaphthalene #4	12.481	20.0	20.498	2.5
Acenaphthene #5	12.955	20.0	20.332	1.7
Fluorene #6	13.601	20.0	20.257	1.3
Phenanthrene #7	14.983	20.0	20.156	0.8
Anthracene #8	16.388	20.0	19.723	-1.4
Fluoranthene #9	17.766	2.0	1.994	-0.3
Pyrene #10	18.775	2.0	2.142	7.1
p-Terphenyl d14 #11*	21.112	20.0	19.587	-2.1
Benzo(a)anthracene #12	22.432	2.0	2.011	0.5
Chrysene #13	23.298	2.0	2.022	1.1
Benzo(b)fluoranthene #14	26.016	2.0	2.005	0.2
Benzo(k)fluoranthene #15	27.447	1.0	0.996	-0.4
Benzo(a)pyrene #16	28.554	2.0	1.929	-3.6
Dibenz(a,h)anthracene #1	30.413	2.0	1.990	-0.5
Benzo(g,h,i)perylene #18	31.224	2.0	1.930	-3.5
Indeno(1,2,3-cd)pyrene #	32.180	2.0	1.959	-2.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.315	20.0	20.480	2.4
Acenaphthylene #2	10.947	20.0	19.832	-0.8
1-Methylnaphthalene #3	11.892	20.0	20.040	0.2
2-Methylnaphthalene #4	12.462	20.0	20.169	0.8
Acenaphthene #5	12.937	20.0	19.833	-0.8
Fluorene #6	13.582	20.0	19.932	-0.3
Phenanthrene #7	14.964	20.0	20.244	1.2
Anthracene #8	16.369	20.0	19.884	-0.6
Fluoranthene #9	17.747	2.0	1.981	-1.0
Pyrene #10	18.755	2.0	1.984	-0.8
p-Terphenyl d14 #11*	21.094	20.0	19.747	-1.3
Benzo(a)anthracene #12	22.413	2.0	1.965	-1.7
Chrysene #13	23.279	2.0	1.969	-1.5
Benzo(b)fluoranthene #14	25.996	2.0	1.984	-0.8
Benzo(k)fluoranthene #15	27.428	1.0	1.000	0.0
Benzo(a)pyrene #16	28.535	2.0	1.879	-6.0
Dibenz(a,h)anthracene #1	30.394	2.0	2.001	0.0
Benzo(g,h,i)perylene #18	31.204	2.0	1.831	-8.4
Indeno(1,2,3-cd)pyrene #	32.159	2.0	1.951	-2.5

= Failed 15.0% Criteria

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

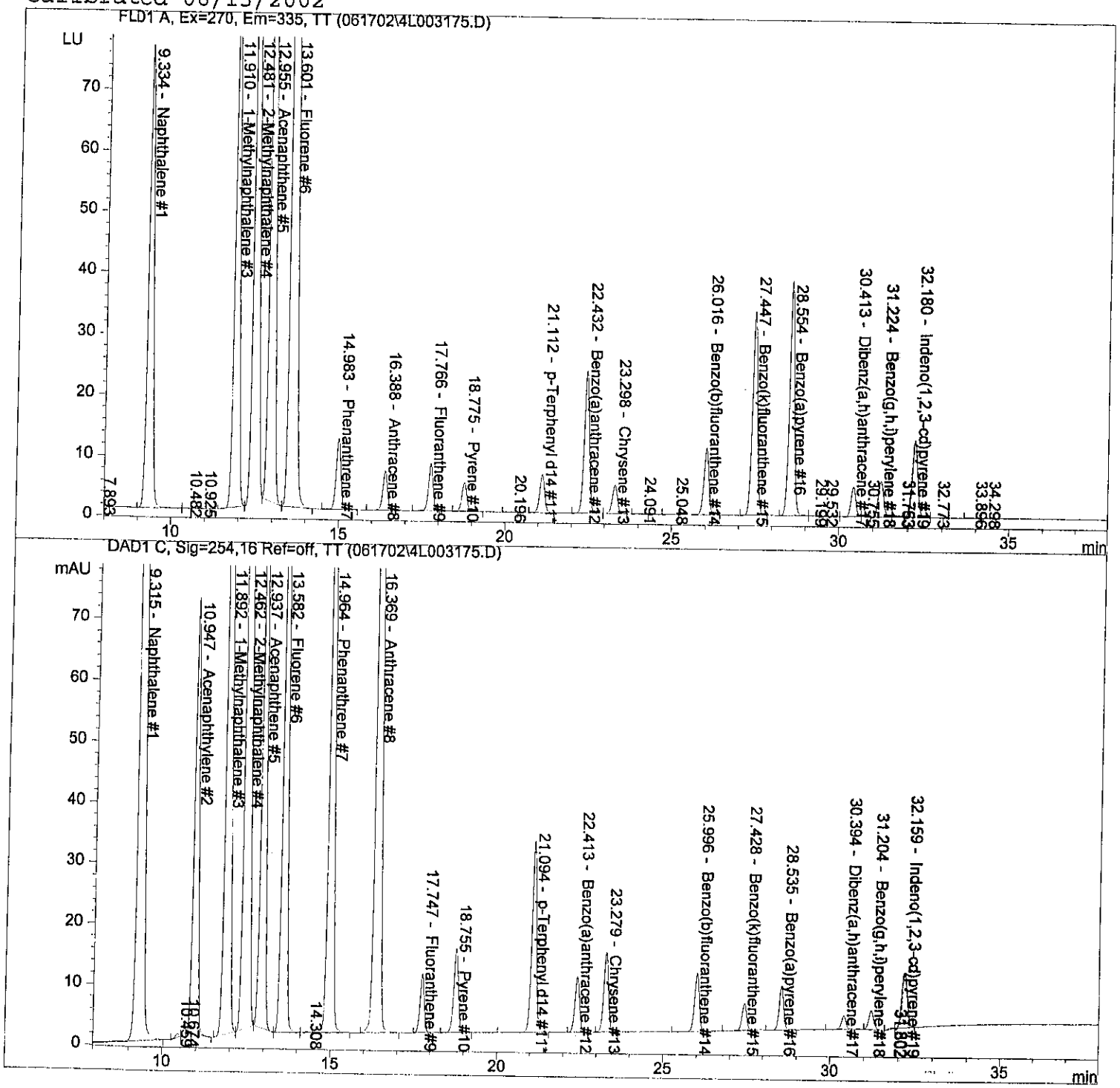
==========

Injection Date : 6/17/2002 12:23:36 PM
Sample Name : WG119988-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002



599

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Friday, June 14, 2002 9:14:03 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
9.334	BB	783.47351	2.64665e-2	20.73578		Naphthalene #1
11.910	BB	892.27588	2.31047e-2	20.61573		1-Methylnaphthalene #3
12.481	BB	1152.07104	1.77921e-2	20.49776		2-Methylnaphthalene #4
12.955	BB	1440.47729	1.41150e-2	20.33238		Acenaphthene #5
13.601	BB	3061.58496	6.61660e-3	20.25730		Fluorene #6
14.983	BBA	115.82507	1.74017e-1	20.15550		Phenanthrene #7
16.388	PBA	65.14769	3.02748e-1	19.72330		Anthracene #8
17.766	PB	77.82452	2.56251e-2	1.99426		Fluoranthene #9
18.775	BBA	51.43563	4.16430e-2	2.14193		Pyrene #10
21.112	BB	66.22893	2.95740e-1	19.58652		p-Terphenyl d14 #11*
22.432	BB	243.81123	8.24751e-3	2.01084		Benzo(a)anthracene #12
23.298	BBA	50.15109	4.03144e-2	2.02181		Chrysene #13
26.016	BB	117.09625	1.71205e-2	2.00475		Benzo(b)fluoranthene #14
27.447	BB	350.78076	2.83869e-3	9.95758e-1		Benzo(k)fluoranthene #15
28.554	BB	402.55026	4.79108e-3	1.92865		Benzo(a)pyrene #16
30.413	BB	48.91762	4.06756e-2	1.98976		Dibenz(a,h)anthracene #17
31.224	BB	67.01410	2.87978e-2	1.92986		Benzo(g,h,i)perylene #18
32.180	BB	138.09880	1.41848e-2	1.95891		Indeno(1,2,3-cd)pyrene #1
Totals :				180.88080		

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
9.315	BBA	2494.90137	8.20861e-3	20.47966		Naphthalene #1
10.947	BBA	652.61401	3.03878e-2	19.83152		Acenaphthylene #2
11.892	PB	1529.74255	1.31000e-2	20.03963		1-Methylnaphthalene #3
12.462	BB	1781.01868	1.13241e-2	20.16850		2-Methylnaphthalene #4
12.937	BB	957.85065	2.07061e-2	19.83331		Acenaphthene #5
13.582	BB	1119.89673	1.77981e-2	19.93207		Fluorene #6
14.964	BBA	1150.53357	1.75953e-2	20.24394		Phenanthrene #7
16.369	PBA	1968.03650	1.01037e-2	19.88443		Anthracene #8
17.747	PB	89.40830	2.21567e-2	1.98099		Fluoranthene #9
18.755	BBA	135.93169	1.45961e-2	1.98408		Pyrene #10
21.094	BBA	301.08035	6.55856e-2	19.74653		p-Terphenyl d14 #11*
22.413	BBA	87.19196	2.25368e-2	1.96503		Benzo(a)anthracene #12
23.279	BBA	128.28223	1.53500e-2	1.96914		Chrysene #13
25.996	PBA	93.59750	2.11938e-2	1.98368		Benzo(b)fluoranthene #14
27.428	PBA	43.52846	2.29738e-2	1.00001		Benzo(k)fluoranthene #15
28.535	BBA	70.66560	2.65924e-2	1.87916		Benzo(a)pyrene #16
30.394	BBA	20.97747	9.53749e-2	2.00073		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.204	BBA	34.79549	5.26343e-2	1.83144		Benzo(g,h,i)perylene #18
32.159	BB	92.26468	2.11410e-2	1.95057		Indeno(1,2,3-cd)pyrene #1
Totals :				198.70442		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061702\4L003178.D Sample Name: WG119988-~~01~~ 02 CCV
HPLC4 6/17/2002 5:01:05 PM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

PRL 6/17/02

==========

Injection Date : 6/17/2002 3:50:45 PM Seq. Line : 5

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.327	20.0	20.129	0.6
1-Methylnaphthalene #3	11.890	20.0	20.126	0.6
2-Methylnaphthalene #4	12.463	20.0	20.050	0.2
Acenaphthene #5	12.939	20.0	20.128	0.6
Fluorene #6	13.585	20.0	20.193	1.0
Phenanthrene #7	14.967	20.0	19.863	-0.7
Anthracene #8	16.377	20.0	20.355	1.8
Fluoranthene #9	17.759	2.0	1.981	-1.0
Pyrene #10	18.768	2.0	2.014	0.7
p-Terphenyl d14 #11*	21.113	20.0	20.261	1.3
Benzo(a)anthracene #12	22.436	2.0	1.998	-0.1
Chrysene #13	23.304	2.0	2.034	1.7
Benzo(b)fluoranthene #14	26.032	2.0	1.996	-0.2
Benzo(k)fluoranthene #15	27.466	1.0	1.003	0.3
Benzo(a)pyrene #16	28.575	2.0	1.928	-3.6
Dibenz(a,h)anthracene #1	30.439	2.0	2.023	1.1
Benzo(g,h,i)perylene #18	31.248	2.0	1.931	-3.5
Indeno(1,2,3-cd)pyrene #	32.205	2.0	1.978	-1.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.308	20.0	20.698	3.5
Acenaphthylene #2	10.927	20.0	20.007	0.0
1-Methylnaphthalene #3	11.870	20.0	20.241	1.2
2-Methylnaphthalene #4	12.443	20.0	20.323	1.6
Acenaphthene #5	12.919	20.0	20.079	0.4
Fluorene #6	13.565	20.0	20.027	0.1
Phenanthrene #7	14.947	20.0	20.011	0.1
Anthracene #8	16.357	20.0	20.445	2.2
Fluoranthene #9	17.738	2.0	2.000	0.0
Pyrene #10	18.747	2.0	2.005	0.2
p-Terphenyl d14 #11*	21.094	20.0	20.394	2.0
Benzo(a)anthracene #12	22.416	2.0	1.992	-0.4
Chrysene #13	23.285	2.0	2.029	1.4
Benzo(b)fluoranthene #14	26.011	2.0	2.012	0.6
Benzo(k)fluoranthene #15	27.446	1.0	1.011	1.1
Benzo(a)pyrene #16	28.554	2.0	1.927	-3.6
Dibenz(a,h)anthracene #1	30.419	2.0	2.065	3.2
Benzo(g,h,i)perylene #18	31.227	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.183	2.0	1.983	-0.8

= Failed 15.0% Criteria

602

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

02 RDC 6/17/02

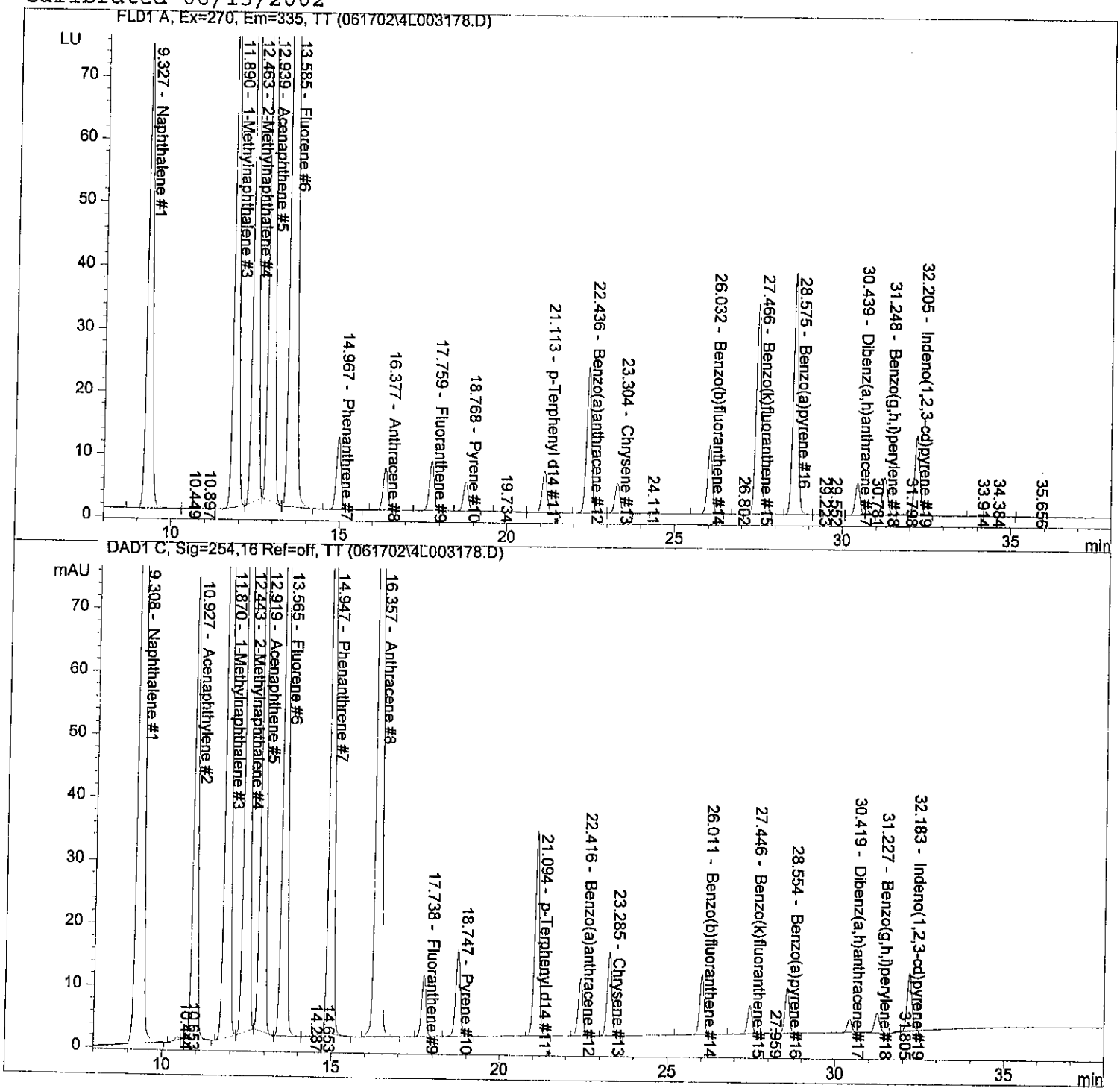
==========

Injection Date : 6/17/2002 3:50:45 PM
Sample Name : WG119988-01 CCV
Acq. Operator : RDC 02 RDC 6/17/02

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002



02

TRC 6/17/02

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Friday, June 14, 2002 9:14:03 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
9.327	BB	760.30695	2.64747e-2	20.12890		Naphthalene #1
11.890	BB	870.91217	2.31093e-2	20.12615		1-Methylnaphthalene #3
12.463	BB	1126.73901	1.77946e-2	20.04983		2-Methylnaphthalene #4
12.939	BB	1425.94507	1.41153e-2	20.12767		Acenaphthene #5
13.585	BB	3051.90552	6.61650e-3	20.19294		Fluorene #6
14.967	BBA	114.11465	1.74057e-1	19.86251		Phenanthrene #7
16.377	PBA	67.23575	3.02734e-1	20.35456		Anthracene #8
17.759	PB	77.29128	2.56271e-2	1.98075		Fluoranthene #9
18.768	BBA	48.33078	4.16617e-2	2.01354		Pyrene #10
21.113	BB	68.53564	2.95620e-1	20.26052		p-Terphenyl d14 #11*
22.436	BB	242.22780	8.24827e-3	1.99796		Benzo(a)anthracene #12
23.304	BB	50.46058	4.03115e-2	2.03414		Chrysene #13
26.032	PB	116.57758	1.71215e-2	1.99598		Benzo(b)fluoranthene #14
27.466	BB	353.48306	2.83847e-3	1.00335		Benzo(k)fluoranthene #15
28.575	BB	402.34402	4.79113e-3	1.92768		Benzo(a)pyrene #16
30.439	BB	49.74543	4.06628e-2	2.02279		Dibenz(a,h)anthracene #17
31.248	BB	67.04080	2.87976e-2	1.93061		Benzo(g,h,i)perylene #18
32.205	BB	139.43321	1.41828e-2	1.97756		Indeno(1,2,3-cd)pyrene #1
Totals :				179.98745		

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
9.308	BBA	2521.08643	8.20990e-3	20.69786		Naphthalene #1
10.927	BBA	658.42914	3.03855e-2	20.00670		Acenaphthylene #2
11.870	PB	1545.17542	1.30996e-2	20.24115		1-Methylnaphthalene #3
12.443	BB	1794.60034	1.13246e-2	20.32310		2-Methylnaphthalene #4
12.919	BB	969.80292	2.07044e-2	20.07920		Acenaphthene #5
13.565	BB	1125.25232	1.77974e-2	20.02660		Fluorene #6
14.947	BBA	1137.21838	1.75965e-2	20.01107		Phenanthrene #7
16.357	PBA	2022.98730	1.01066e-2	20.44549		Anthracene #8
17.738	PB	90.25941	2.21533e-2	1.99955		Fluoranthene #9
18.747	BBA	137.37509	1.45935e-2	2.00478		Pyrene #10
21.094	BBA	311.05603	6.55641e-2	20.39410		p-Terphenyl d14 #11*
22.416	BBA	88.39657	2.25329e-2	1.99183		Benzo(a)anthracene #12
23.285	BBA	132.20387	1.53454e-2	2.02872		Chrysene #13
26.011	BBA	94.98196	2.11881e-2	2.01248		Benzo(b)fluoranthene #14
27.446	PBA	44.00339	2.29702e-2	1.01077		Benzo(k)fluoranthene #15
28.554	BBA	72.52554	2.65750e-2	1.92737		Benzo(a)pyrene #16
30.419	PB	21.65650	9.53294e-2	2.06450		Dibenz(a,h)anthracene #17

02
TPPC 6/17/02

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.227	BB	37.63997	5.27213e-2	1.98443		Benzo(g,h,i)perylene #18
32.183	BB	93.84577	2.11313e-2	1.98309		Indeno(1,2,3-cd)pyrene #1
Totals :				201.23279		

Results obtained with enhanced integrator!

*** End of Report ***

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8310

Column: LC-PAH

	STD #1	STD #2	STD #3
Date Run	10/30/2001	10/31/2001	11/2/2001
File #	4L002247	4L002275	4L002311
Time	0:54	3:51	14:47

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Naphthalene (FLD)	9.337	9.362	9.352	0.038
1-Methylnaphthalene (FLD)	11.935	11.941	11.940	0.010
2-Methylnaphthalene (FLD)	12.517	12.523	12.521	0.009
Acenaphthene (FLD)	13.001	13.006	13.005	0.008
Fluorene (FLD)	13.664	13.667	13.669	0.008
Phenanthrene (FLD)	15.062	15.066	15.071	0.014
Anthracene (FLD)	16.475	16.483	16.493	0.027
Fluoranthene (FLD)	17.860	17.869	17.883	0.035
Pyrene (FLD)	18.868	18.881	18.897	0.044
p-Terphenyl-d14 (FLD)	21.217	21.244	21.262	0.068
Benzo(a)anthracene (FLD)	22.535	22.572	22.587	0.080
Chrysene (FLD)	23.401	23.449	23.467	0.102
Benzo(b)fluoranthene (FLD)	26.119	26.182	26.204	0.132
Benzo(k)fluoranthene (FLD)	27.554	27.629	27.650	0.151
Benzo(a)pyrene (FLD)	28.666	28.739	28.758	0.146
Dibenz(a,h)anthracene (FLD)	30.532	30.615	30.635	0.164
Benzo(g,h,i)perylene (FLD)	31.340	31.420	31.445	0.165
Indeno(1,2,3-cd)pyrene (FLD)	32.285	32.355	32.382	0.150
Naphthalene (VWD)	9.318	9.341	9.330	0.035
Acenaphthylene (VWD)	10.959	10.965	10.968	0.014
1-Methylnaphthalene (VWD)	11.916	11.920	11.922	0.009
2-Methylnaphthalene (VWD)	12.498	12.502	12.502	0.007
Acenaphthene (VWD)	12.982	12.986	12.986	0.007
Fluorene (VWD)	13.644	13.646	13.649	0.008
Phenanthrene (VWD)	15.042	15.045	15.052	0.015
Anthracene (VWD)	16.456	16.462	16.474	0.027
Fluoranthene (VWD)	17.840	17.848	17.863	0.035
Pyrene (VWD)	18.848	18.859	18.876	0.042
p-Terphenyl-d14 (VWD)	21.198	21.223	21.243	0.068
Benzo(a)anthracene (VWD)	22.516	22.551	22.568	0.080
Chrysene (VWD)	23.382	23.428	23.448	0.102
Benzo(b)fluoranthene (VWD)	26.099	26.160	26.184	0.131
Benzo(k)fluoranthene (VWD)	27.535	27.609	27.632	0.152
Benzo(a)pyrene (VWD)	28.646	28.717	28.738	0.145
Dibenz(a,h)anthracene (VWD)	30.513	30.595	30.617	0.164
Benzo(g,h,i)perylene (VWD)	31.320	31.398	31.426	0.165
Indeno(1,2,3-cd)pyrene (VWD)	32.266	32.338	32.367	0.156

2.2.7.4 Raw QC Data

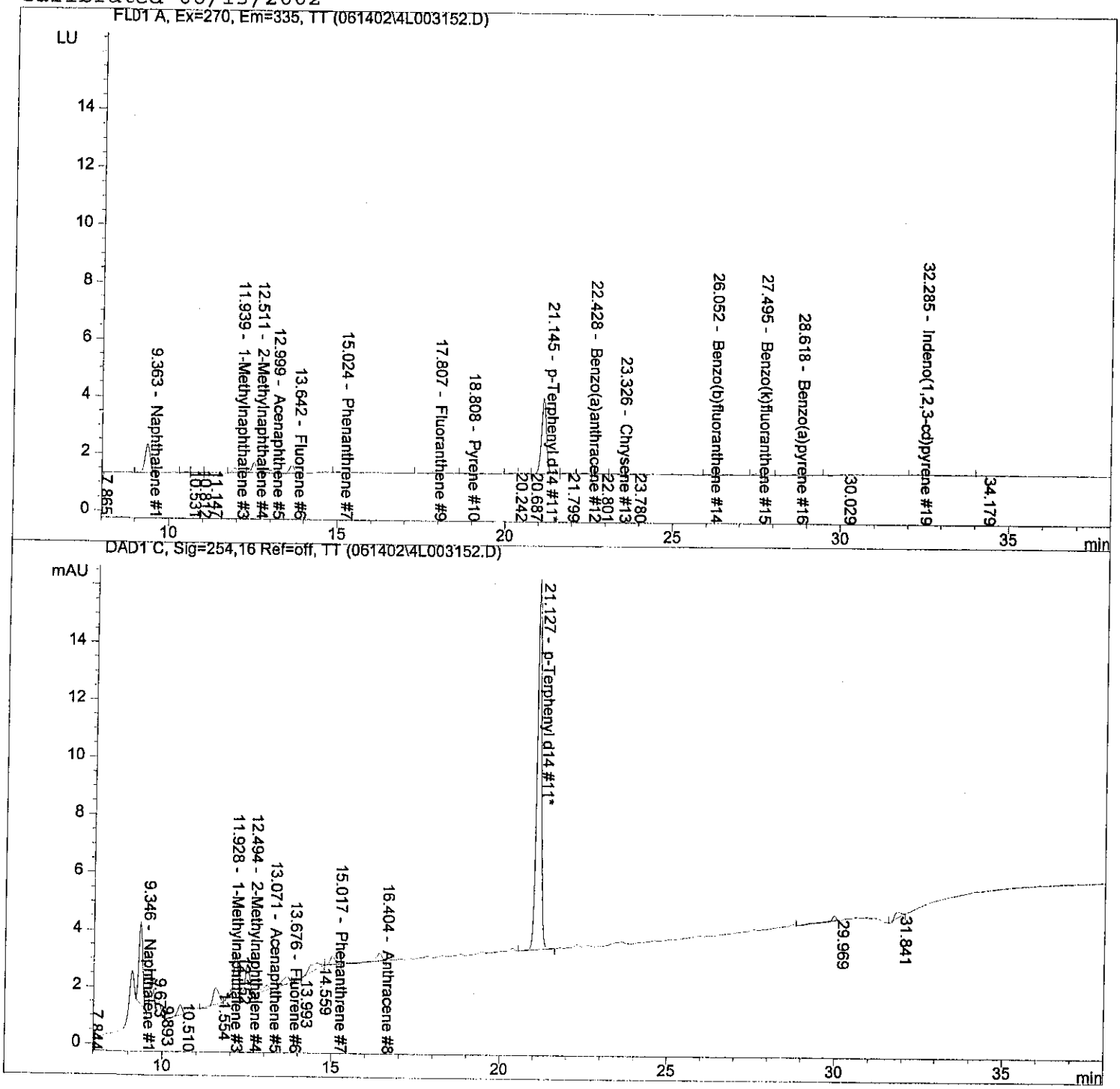
1,1 V185P165 BLK 061102 0845

==========

Injection Date : 6/15/2002 7:15:53 AM
Sample Name : WG119548-02 WBLK
Acq. Operator : RDC

Seq. Line : 22
Vial : 22
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.363	BBA	10.20258	4.69461e-2	4.78972e-1		Naphthalene #1
11.939	BB	1.43333	1.40278e-1	2.01065e-1		1-Methylnaphthalene #3
12.511	BB	3.60506	5.27458e-2	1.90152e-1		2-Methylnaphthalene #4
12.999	BB	1.08175	5.16038e-2	5.58226e-2		Acenaphthene #5
13.642	BB	3.05338	0.00000	0.00000		Fluorene #6
15.024	BB	2.33196e-1	1.52015	3.54493e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.807	BB	6.95659e-1	5.78653e-2	4.02545e-2		Fluoranthene #9
18.808	BB	2.99152e-1	9.15627e-2	2.73912e-2		Pyrene #10
21.145	BB	27.14438	3.00852e-1	8.16645		p-Terphenyl d14 #11*
22.428	BB	3.21221e-1	9.62068e-2	3.09036e-2		Benzo(a)anthracene #12
23.326	BB	2.96861e-1	1.20552e-1	3.57871e-2		Chrysene #13
26.052	PBA	1.50017e-1	1.89841e-1	2.84795e-2		Benzo(b)fluoranthene #14
27.495	BB	6.00783e-1	1.99595e-2	1.19913e-2		Benzo(k)fluoranthene #15
28.618	BBA	3.69957e-1	1.03595e-1	3.83258e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.285	PB	1.52092e-1	2.04777e-1	3.11449e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.69123

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	23.04501	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.928	BB	8.08226e-1	9.23642e-2	7.46512e-2		1-Methylnaphthalene #3
12.494	BB	9.79359	6.37070e-4	6.23920e-3		2-Methylnaphthalene #4
13.071	BB	2.43931	7.27092e-2	1.77360e-1		Acenaphthene #5
13.676	BB	3.72138	6.21871e-2	2.31422e-1		Fluorene #6
15.017	BB	3.21280	5.56474e-2	1.78784e-1		Phenanthrene #7
16.404	BB	3.53260	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.127	BBA	121.63887	6.65745e-2	8.09805		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.76651

Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

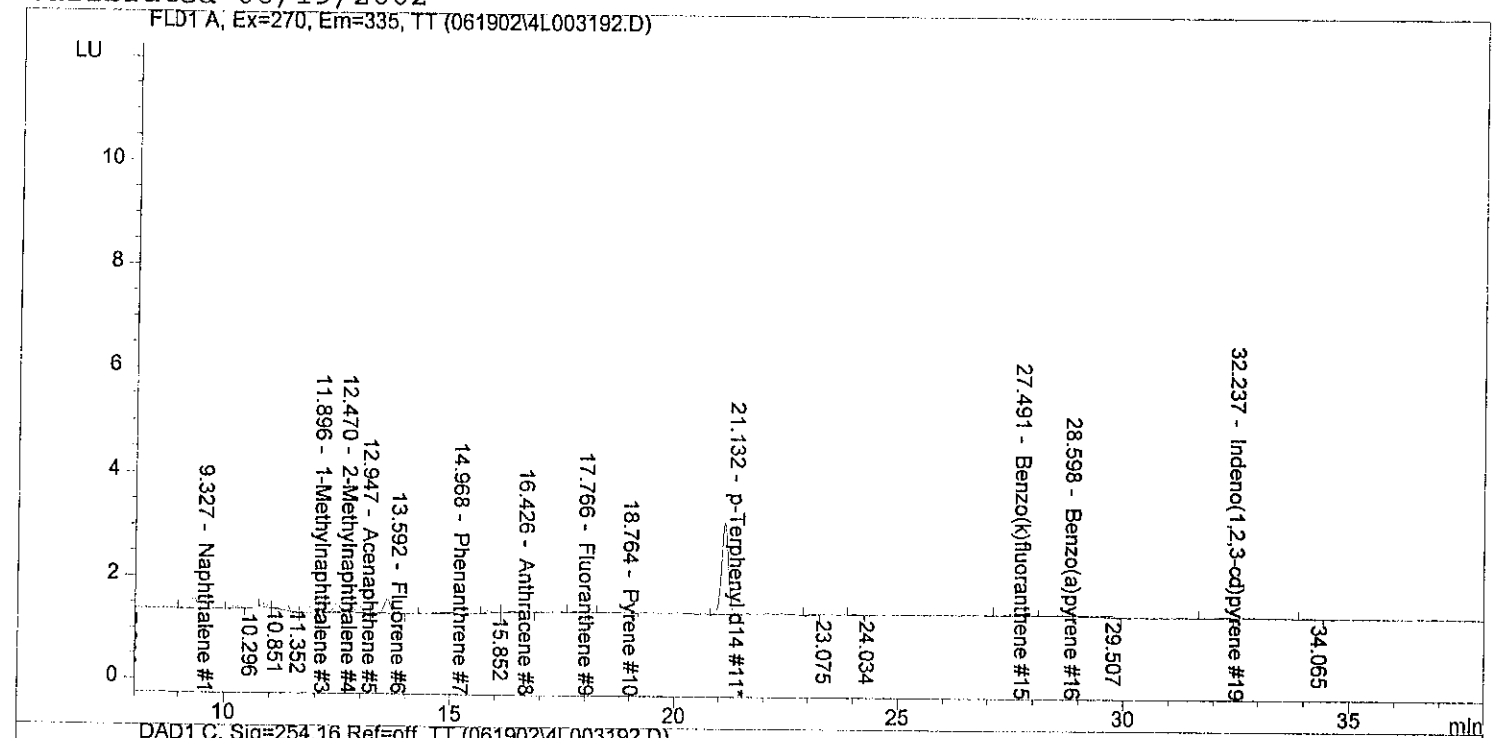
1,1 V186P47 BLK 061802 @ 1410

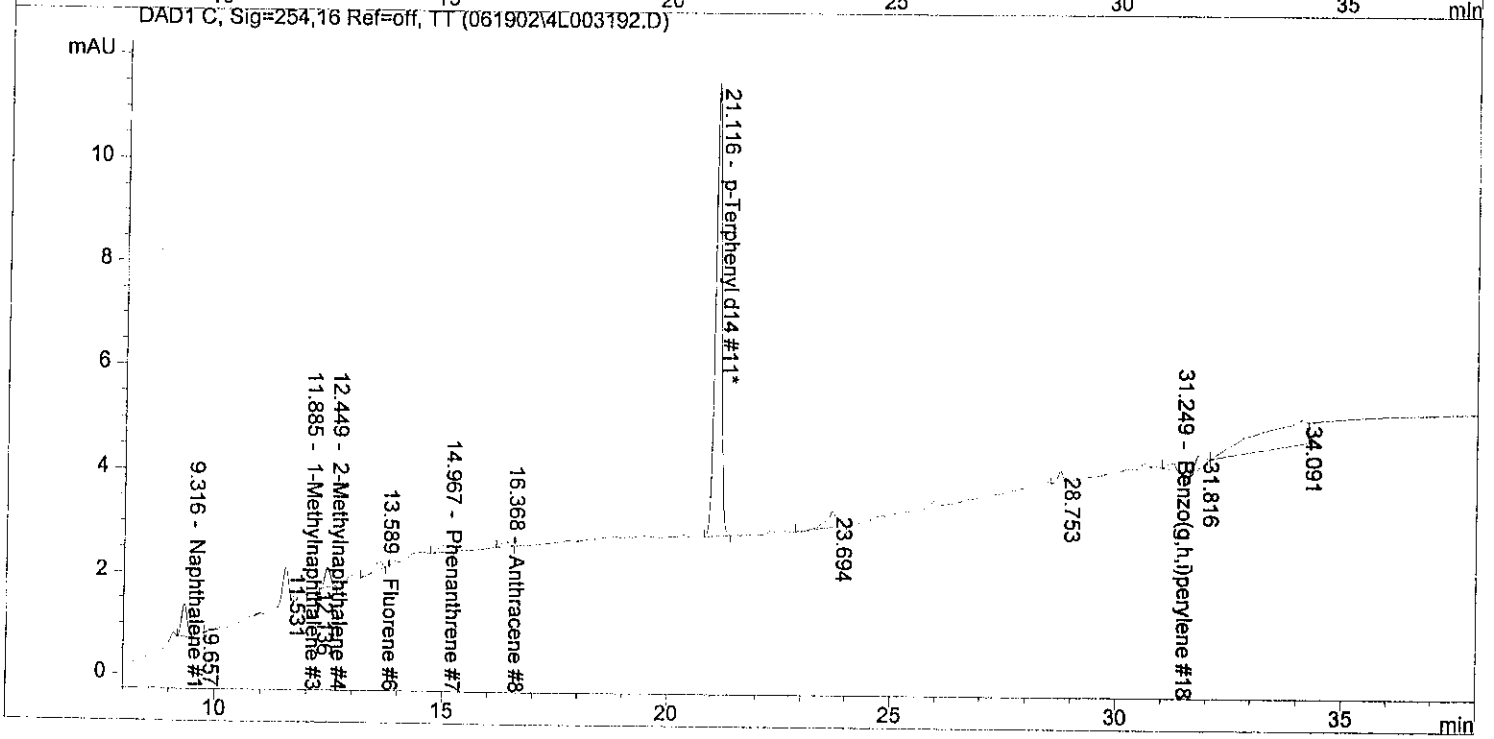
==========

Injection Date : 6/20/2002 12:36:36 AM
Sample Name : WG120073-01 WBLK
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.327	BB	2.65012	1.06677e-1	2.82706e-1		Naphthalene #1
11.896	BB	1.19375	1.88866e-1	2.25459e-1		1-Methylnaphthalene #3
12.470	BB	1.90442	9.10764e-2	1.73448e-1		2-Methylnaphthalene #4
12.947	BB	1.39585	6.41310e-2	8.95174e-2		Acenaphthene #5
13.592	BB	3.02192	5.90935e-3	1.78576e-2		Fluorene #6
14.968	BB	4.44081e-1	7.64801e-1	3.39634e-1		Phenanthrene #7
16.426	BBA	3.74135e-1	8.40465e-1	3.14448e-1		Anthracene #8
17.766	PBA	1.71050e-1	1.62601e-1	2.78130e-2		Fluoranthene #9
18.764	PB	2.39148e-1	9.21662e-2	2.20413e-2		Pyrene #10
21.132	BB	18.57417	3.03913e-1	5.64494		p-Terphenyl d14 #11*
22.485		-	-	-		Benzo(a)anthracene #12
23.357		-	-	-		Chrysene #13
26.079		-	-	-		Benzo(b)fluoranthene #14
27.491	BBA	4.31548e-1	3.23405e-2	1.39565e-2		Benzo(k)fluoranthene #15
28.598	BB	4.44311e-1	9.05253e-2	4.02214e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.237	BB	2.82011e-1	1.27403e-1	3.59289e-2		Indeno(1,2,3-cd)pyrene #1

56.4%

Totals : 7.22797

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
9.316	BB	5.43327	0.00000	0.00000		Naphthalene #1
10.995		-	-	-		Acenaphthylene #2
11.885	BB	1.36294	1.15941e-1	1.58021e-1		1-Methylnaphthalene #3
12.449	BB	3.51171	3.83170e-3	1.34558e-2		2-Methylnaphthalene #4
12.994		-	-	-		Acenaphthene #5
13.589	BB	1.72606	1.59077e-1	2.74576e-1		Fluorene #6
14.967	BB	1.88901	1.39430e-1	2.63385e-1		Phenanthrene #7
16.368	BBA	1.33014	0.00000	0.00000		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.809		-	-	-		Pyrene #10
21.116	BBA	83.76583	6.71708e-2	5.62662		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

56.3%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.249	BB	1.73877	6.55522e-2	1.13980e-1	NC	Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.45003

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

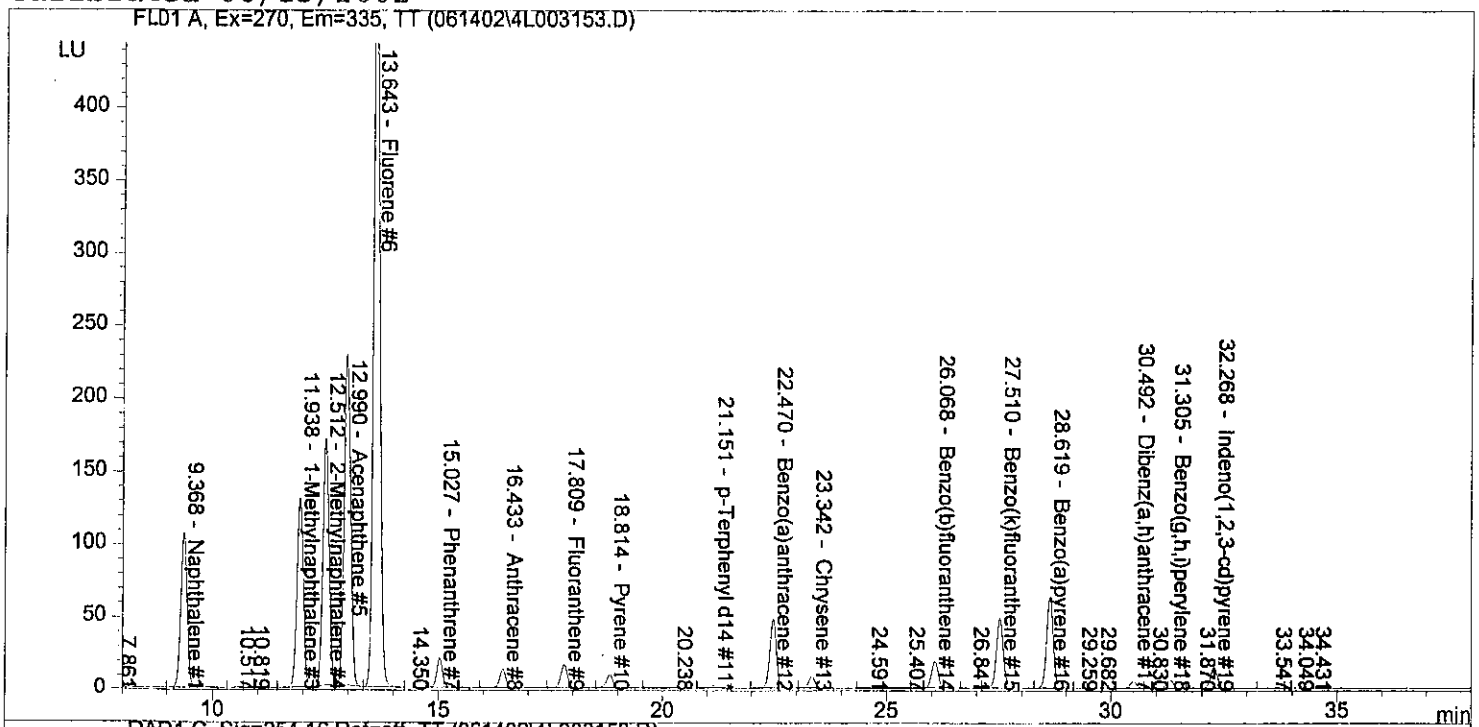
613

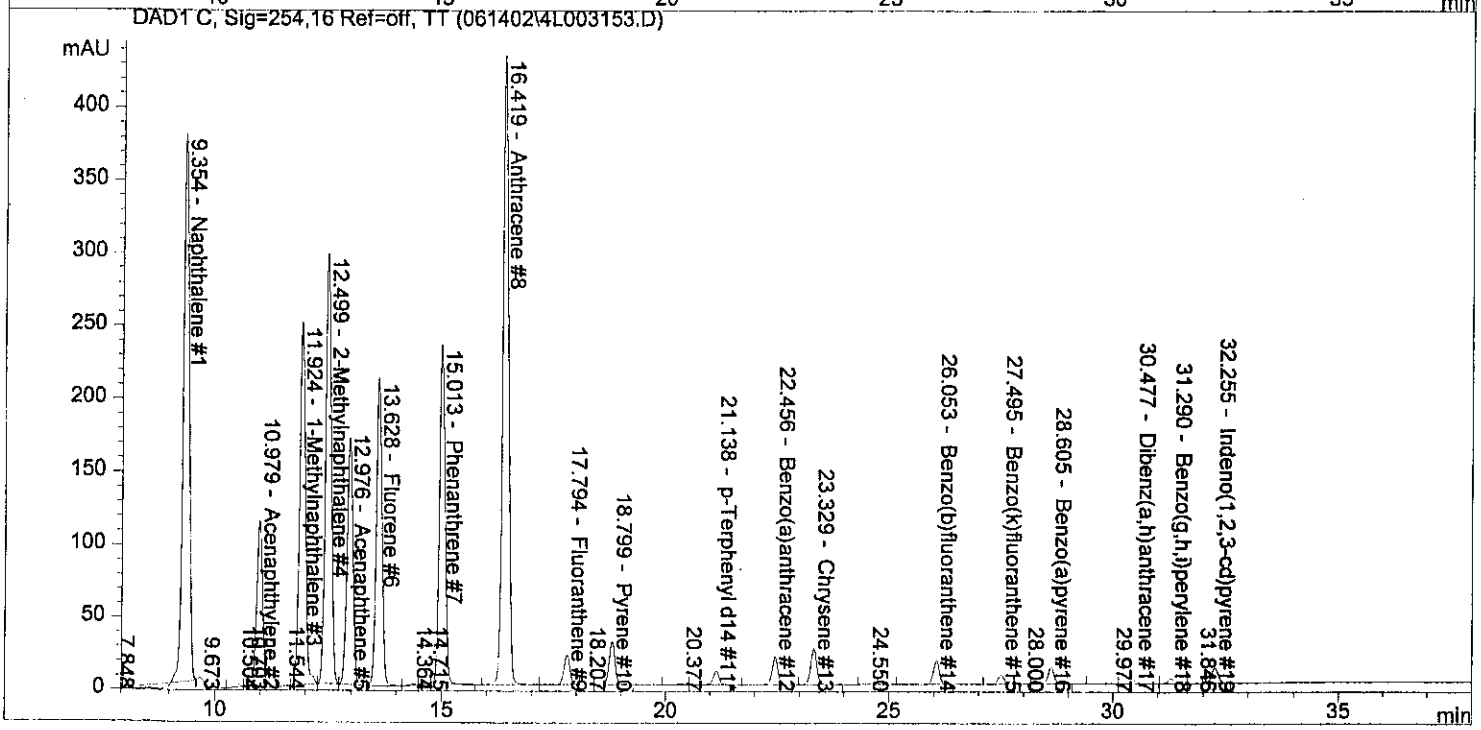
1,1 V185P165 BLK 061102 0845

==========

Injection Date	: 6/15/2002 8:12:32 AM	Seq. Line	: 23
Sample Name	: WG119548-03 WLCS	Vial	: 23
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





614

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.368	BB	1088.20251	2.63908e-2	28.71854		Naphthalene #1
11.938	BB	1275.95007	2.30480e-2	29.40805		1-Methylnaphthalene #3
12.512	BB	1655.00964	1.77588e-2	29.39091		2-Methylnaphthalene #4
12.990	BB	2224.35815	1.41051e-2	31.37480		Acenaphthene #5
13.643	BB	5089.01563	6.62956e-3	33.73796		Fluorene #6
15.027	BBA	204.01131	1.72843e-1	35.26190		Phenanthrene #7
16.433	PBA	129.25926	3.02534e-1	39.10533		Anthracene #8
17.809	BBA	166.26759	2.54704e-2	4.23490		Fluoranthene #9
18.814	BBA	99.85730	4.15013e-2	4.14421		Pyrene #10
21.151	BB	20.85701	3.03464e-1	6.32935 63.3%		p-Terphenyl d14 #11*
22.470	BB	492.38809	8.18893e-3	4.03213		Benzo(a)anthracene #12
23.342	BB	89.93190	4.01031e-2	3.60655		Chrysene #13
26.068	BBA	200.11156	1.70286e-2	3.40762		Benzo(b)fluoranthene #14
27.510	BB	511.30966	2.82947e-3	1.44673		Benzo(k)fluoranthene #15
28.619	BB	672.00470	4.75464e-3	3.19514		Benzo(a)pyrene #16
30.492	BB	48.80359	4.06775e-2	1.98521		Dibenz(a,h)anthracene #17
31.305	BB	71.59914	2.87588e-2	2.05910		Benzo(g,h,i)perylene #18
32.268	BB	165.11749	1.41504e-2	2.33649		Indeno(1,2,3-cd)pyrene #1

Totals : 263.77492

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
9.354	BB	3448.43335	8.24298e-3	28.42537		Naphthalene #1
10.979	BB	1029.36609	3.02916e-2	31.18111		Acenaphthylene #2
11.924	BB	2289.27759	1.30861e-2	29.95771		1-Methylnaphthalene #3
12.499	BB	2648.65039	1.13435e-2	30.04495		2-Methylnaphthalene #4
12.976	BB	1528.85889	2.06565e-2	31.58082		Acenaphthene #5
13.628	BB	1896.93823	1.77375e-2	33.64696		Fluorene #6
15.013	BBA	2049.33838	1.75485e-2	35.96286		Phenanthrene #7
16.419	BB	3936.11523	1.01569e-2	39.97877		Anthracene #8
17.794	BB	188.16165	2.19708e-2	4.13407		Fluoranthene #9
18.799	BBA	286.45572	1.44642e-2	4.14334		Pyrene #10
21.138	BBA	95.22154	6.70349e-2	6.38316 63.8%		p-Terphenyl d14 #11*
22.456	PBA	184.76534	2.23830e-2	4.13560		Benzo(a)anthracene #12
23.329	BBA	244.60028	1.52756e-2	3.73641		Chrysene #13
26.053	BBA	163.93582	2.10258e-2	3.44688		Benzo(b)fluoranthene #14
27.495	BB	63.77553	2.28666e-2	1.45833		Benzo(k)fluoranthene #15
28.605	BBA	122.34278	2.63066e-2	3.21842		Benzo(a)pyrene #16
30.477	BB	22.80592	9.52584e-2	2.17246		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.290	BB	38.83859	5.27541e-2	2.04890		Benzo(g,h,i)perylene #18
32.255	BB	114.09921	2.10315e-2	2.39967		Indeno(1,2,3-cd)pyrene #1

Totals : 298.05580

Results obtained with enhanced integrator!

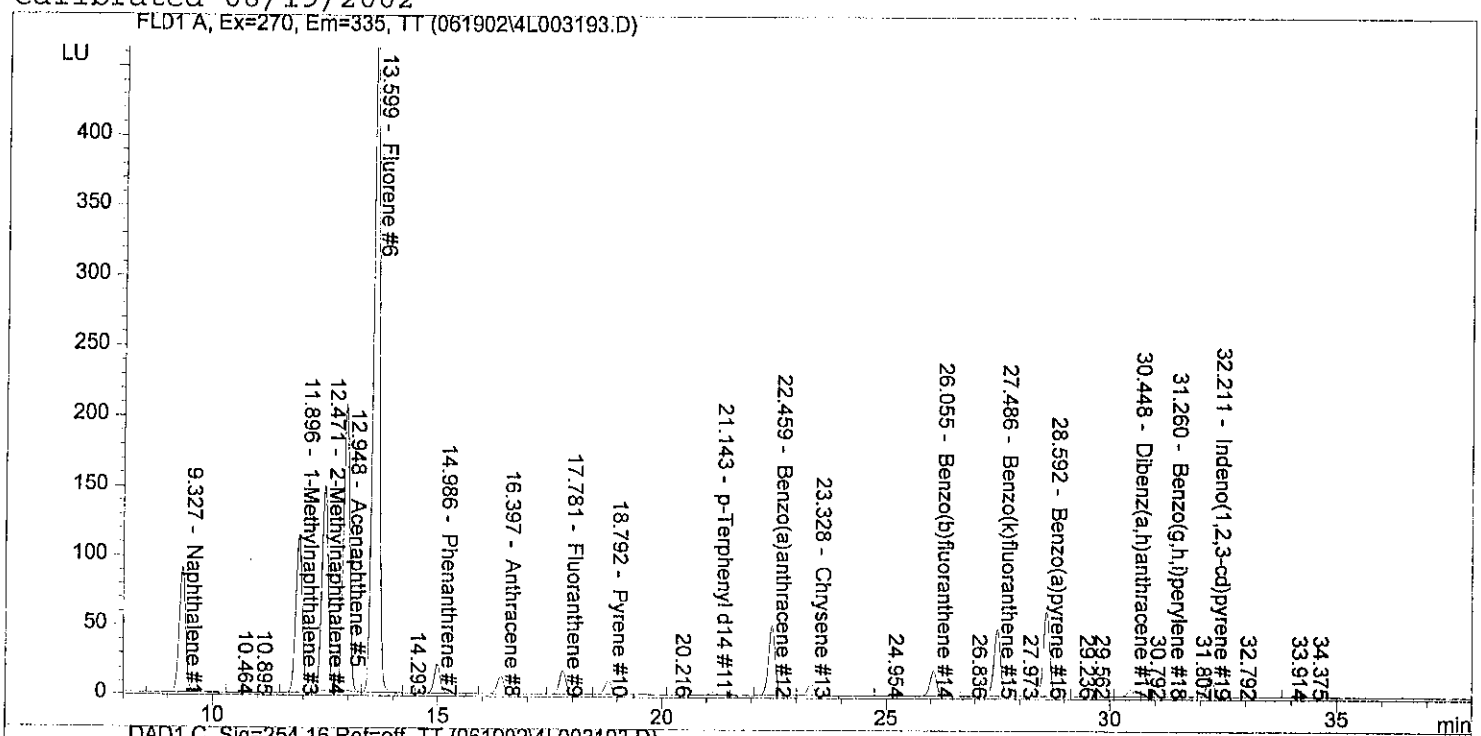
*** End of Report ***

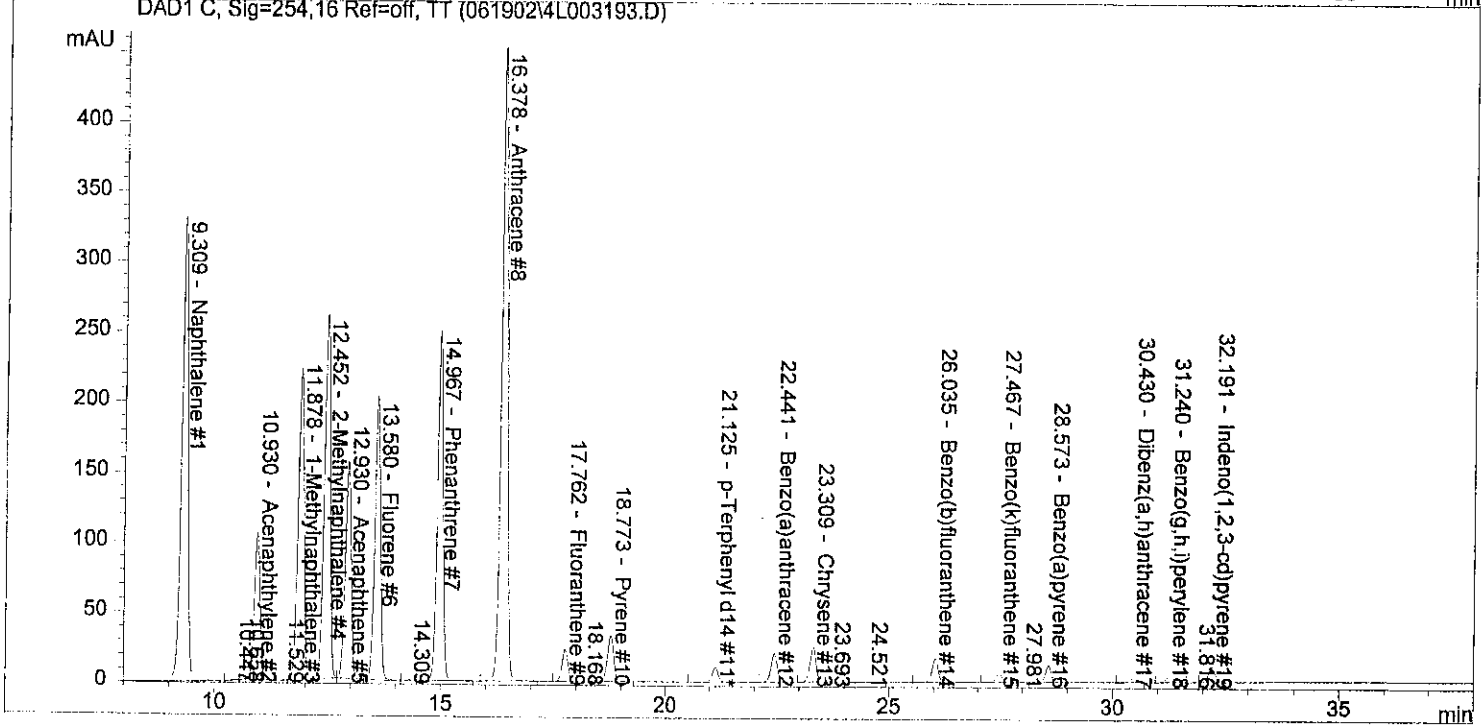
1,1 V186P47 LCS 061802 @ 1410

==========

Injection Date	: 6/20/2002 1:33:13 AM	Seq. Line	: 11
Sample Name	: WG120073-02 WLCS	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





617

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.327	BBA	935.42493	2.64262e-2	24.71969		Naphthalene #1
11.896	BB	1124.34448	2.31215e-2	25.99656		1-Methylnaphthalene #3
12.471	BB	1452.07715	1.78569e-2	25.92964		2-Methylnaphthalene #4
12.948	BB	2036.65710	1.41410e-2	28.80027		Acenaphthene #5
13.599	BB	4912.77393	6.59057e-3	32.37800		Fluorene #6
14.986	BBA	220.59528	1.72094e-1	37.96304		Phenanthrene #7
16.397	PBA	137.07370	2.99444e-1	41.04591		Anthracene #8
17.781	PB	185.78419	2.53022e-2	4.70075		Fluoranthene #9
18.792	BBA	110.06080	4.16025e-2	4.57881		Pyrene #10
21.143	BBA	23.03270	3.01386e-1	6.94173	69.4%	p-Terphenyl d14 #11*
22.459	PB	528.36932	8.16328e-3	4.31323		Benzo(a)anthracene #12
23.328	BB	93.61204	3.99865e-2	3.74322		Chrysene #13
26.055	BBA	203.83879	1.69318e-2	3.45136		Benzo(b)fluoranthene #14
27.486	BB	508.07745	2.81596e-3	1.43073		Benzo(k)fluoranthene #15
28.592	BB	652.53778	4.73739e-3	3.09133		Benzo(a)pyrene #16
30.448	BB	48.61209	4.05937e-2	1.97335		Dibenz(a,h)anthracene #17
31.260	BB	70.71571	2.85533e-2	2.01917		Benzo(g,h,i)perylene #18
32.211	BB	160.65709	1.41466e-2	2.27274		Indeno(1,2,3-cd)pyrene #1
Totals :				255.34952		

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
9.309	BBA	3196.87036	8.11576e-3	25.94502		Naphthalene #1
10.930	BB	944.55377	3.00890e-2	28.42068		Acenaphthylene #2
11.878	BB	2025.07642	1.29522e-2	26.22916		1-Methylnaphthalene #3
12.452	BB	2354.57642	1.12240e-2	26.42774		2-Methylnaphthalene #4
12.930	BB	1409.84192	2.05072e-2	28.91198		Acenaphthene #5
13.580	BB	1837.24695	1.75287e-2	32.20451		Fluorene #6
14.967	BBA	2274.50708	1.69674e-2	38.59256		Phenanthrene #7
16.378	PBA	4199.32324	1.00168e-2	42.06368		Anthracene #8
17.762	PB	211.52150	2.16882e-2	4.58752		Fluoranthene #9
18.773	BBA	322.76715	1.42724e-2	4.60665		Pyrene #10
21.125	BBA	104.25984	6.66024e-2	6.94395	69.4%	p-Terphenyl d14 #11*
22.441	PBA	198.62534	2.20735e-2	4.38435		Benzo(a)anthracene #12
23.309	PB	248.34311	1.50936e-2	3.74840		Chrysene #13
26.035	BB	168.11125	2.07137e-2	3.48221		Benzo(b)fluoranthene #14
27.467	BB	63.79777	2.25343e-2	1.43764		Benzo(k)fluoranthene #15
28.573	BB	121.40891	2.60429e-2	3.16184		Benzo(a)pyrene #16
30.430	BB	21.61476	9.35832e-2	2.02278		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.240	BB	40.17577	5.33117e-2	2.14184		Benzo(g,h,i)perylene #18
32.191	BB	110.32629	2.07670e-2	2.29115		Indeno(1,2,3-cd)pyrene #1

Totals : 287.60366

Results obtained with enhanced integrator!

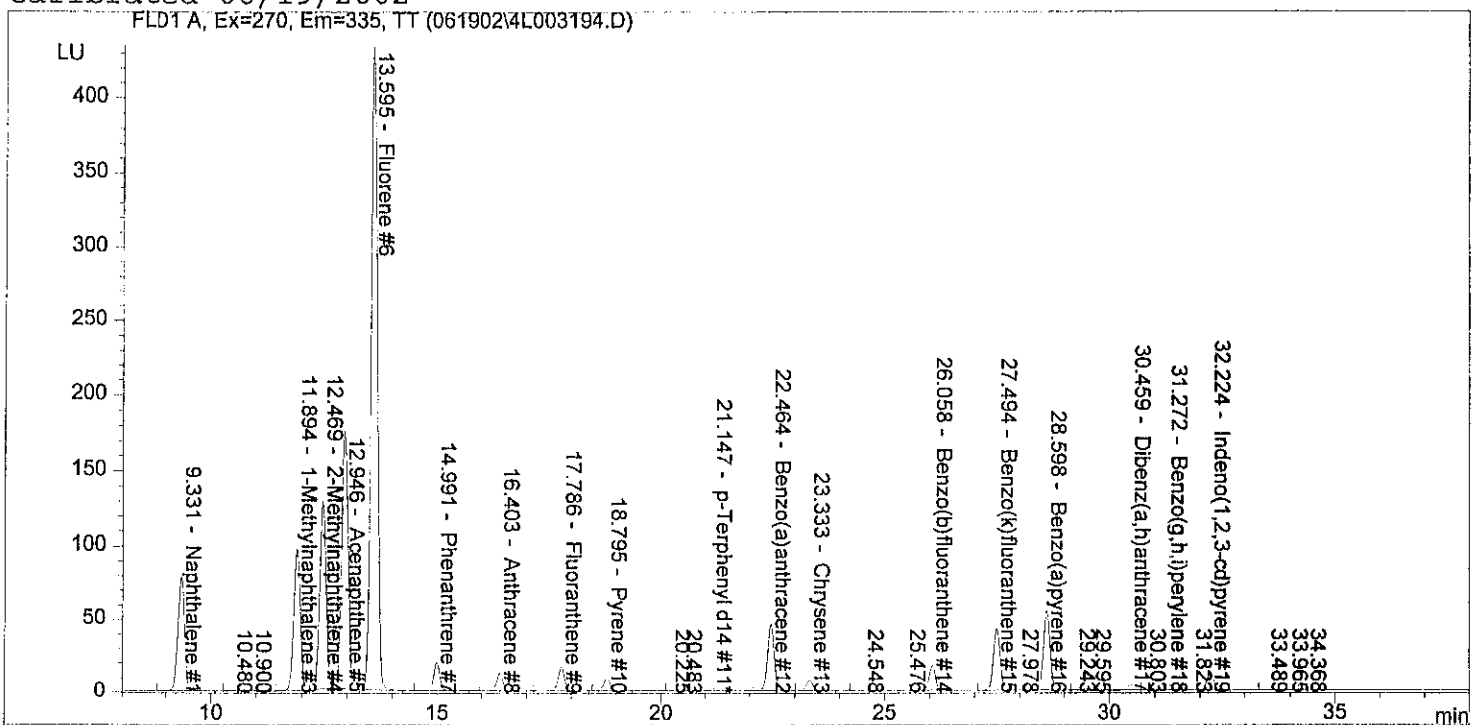
*** End of Report ***

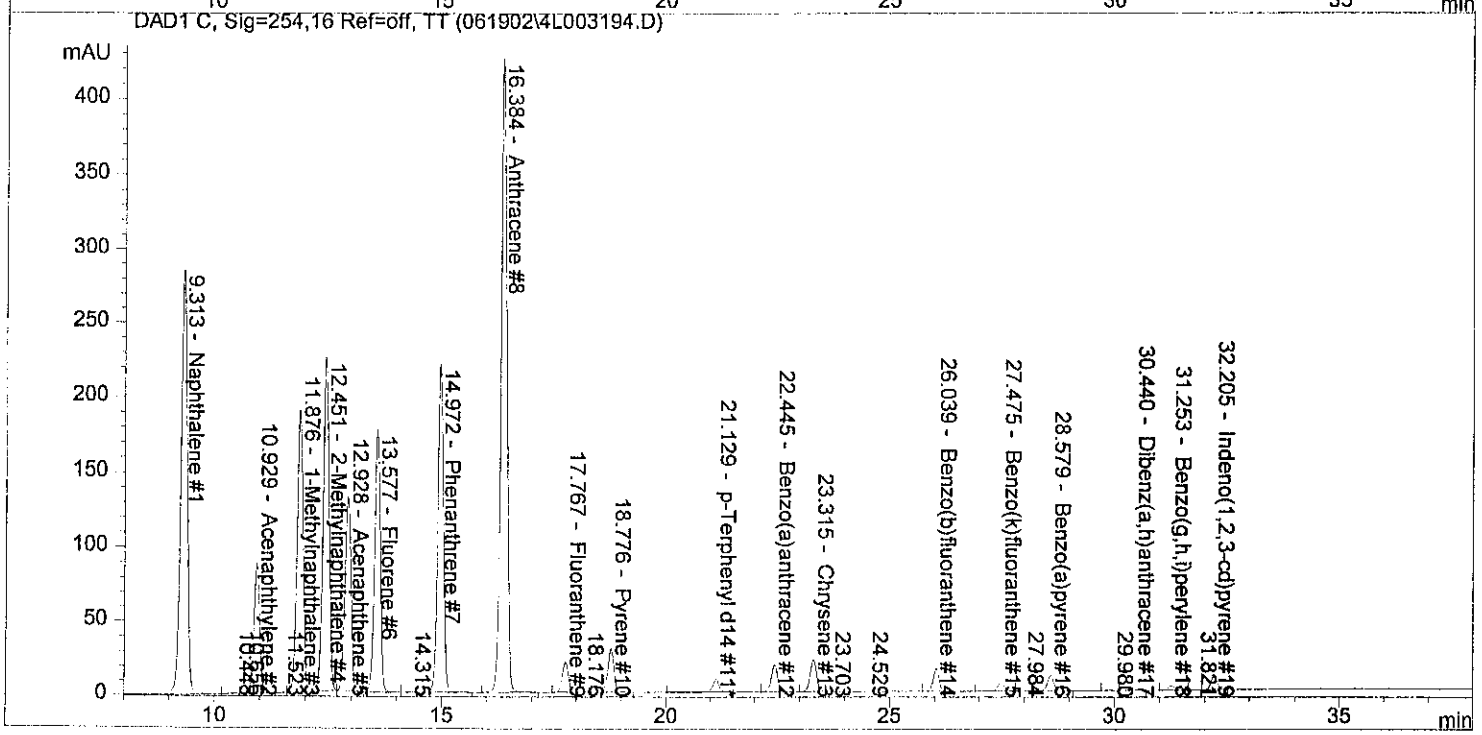
1,1 V186P47 LCS2 061802 @ 1410

==========

Injection Date : 6/20/2002 2:29:50 AM Seq. Line : 12
Sample Name : WG120073-03 WLCS Vial : 12
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





620

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.331	BB	801.23694	2.64643e-2	21.20421		Naphthalene #1
11.894	BB	957.50305	2.31522e-2	22.16832		1-Methylnaphthalene #3
12.469	BB	1252.51636	1.78723e-2	22.38529		2-Methylnaphthalene #4
12.946	BB	1715.94397	1.41474e-2	24.27608		Acenaphthene #5
13.595	BB	4288.15039	6.59051e-3	28.26111		Fluorene #6
14.991	BBA	195.37445	1.72248e-1	33.65285		Phenanthrene #7
16.403	PB	130.06868	2.99524e-1	38.95868		Anthracene #8
17.786	BBA	166.82796	2.53166e-2	4.22351		Fluoranthene #9
18.795	BBA	99.00043	4.16148e-2	4.11989		Pyrene #10
21.147	BB	18.66735	3.03848e-1	5.67204		p-Terphenyl d14 #11*
22.464	BB	477.98218	8.16964e-3	3.90494		Benzo(a)anthracene #12
23.333	BB	80.35316	4.00394e-2	3.21729		Chrysene #13
26.058	BBA	184.14188	1.69465e-2	3.12056		Benzo(b)fluoranthene #14
27.494	BB	443.68930	2.81960e-3	1.25103		Benzo(k)fluoranthene #15
28.598	BB	575.62018	4.74520e-3	2.73143		Benzo(a)pyrene #16
30.459	BB	40.09786	4.07848e-2	1.63538		Dibenz(a,h)anthracene #17
31.272	BB	58.65079	2.86881e-2	1.68258		Benzo(g,h,i)perylene #18
32.224	BB	138.47348	1.41785e-2	1.96334		Indeno(1,2,3-cd)pyrene #1

Totals : 224.42853

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
9.313	BB	2745.27979	8.10176e-3	22.24159		Naphthalene #1
10.929	BB	793.56989	3.01325e-2	23.91221		Acenaphthylene #2
11.876	BB	1726.29395	1.29642e-2	22.38000		1-Methylnaphthalene #3
12.451	BB	2031.06799	1.12222e-2	22.79311		2-Methylnaphthalene #4
12.928	BB	1187.43079	2.05330e-2	24.38154		Acenaphthene #5
13.577	BB	1601.60669	1.75483e-2	28.10542		Fluorene #6
14.972	BBA	2010.16394	1.69808e-2	34.13424		Phenanthrene #7
16.384	PBA	3939.98828	1.00157e-2	39.46173		Anthracene #8
17.767	PB	189.62018	2.17062e-2	4.11594		Fluoranthene #9
18.776	BBA	289.45502	1.42878e-2	4.13567		Pyrene #10
21.129	BBA	86.41685	6.70821e-2	5.79702		p-Terphenyl d14 #11*
22.445	BBA	179.30223	2.20922e-2	3.96118		Benzo(a)anthracene #12
23.315	PB	212.72226	1.51162e-2	3.21556		Chrysene #13
26.039	BBA	151.37845	2.07344e-2	3.13874		Benzo(b)fluoranthene #14
27.475	BBA	55.60232	2.25684e-2	1.25486		Benzo(k)fluoranthene #15
28.579	BBA	106.75813	2.61003e-2	2.78642		Benzo(a)pyrene #16
30.440	BB	17.67043	9.35132e-2	1.65242		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.253	BB	32.89240	5.34343e-2	1.75758		Benzo(g,h,i)perylene #18
32.205	BB	95.39568	2.08452e-2	1.98854		Indeno(1,2,3-cd)pyrene #1

Totals : 251.21377

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119840-01 STD6	8310	1	Sample		
3	3	WG119840-02 STD6	8310	1	Sample		
4	4	WG119840-03 STD5	8310	1	Sample		
5	5	WG119840-04 STD4	8310	1	Sample		
6	6	WG119840-05 STD3	8310	1	Sample		
7	7	WG119840-06 STD2	8310	1	Sample		
8	8	WG119840-07 STD1	8310	1	Sample		
9	9	WG119840-08 ALT	8310	1	Sample		

RDC 6/14/02 3

2

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
							RDC 6/14/02
No	1	1	8310	4L003122	01:01		accn blk
No	2	2	8310	4L003123	02:01	SOS 58-26	WG119840-01 ST
No	3	3	8310	4L003124	03:01	SOS 59-38	WG119840-02 ST
No	4	4	8310	4L003125	04:01	DIL'N of SOS 58-26	WG119840-03 ST
No	5	5	8310	4L003126	05:01	& 59-38	WG119840-04 ST
No	6	6	8310	4L003127	06:01		WG119840-05 ST
No	7	7	8310	4L003128	07:01		WG119840-06 ST
No	8	8	8310	4L003129	08:01		WG119840-07 ST
No	9	9	8310	4L003130	09:01	SOS 60-26/60-27	WG119840-08 AL

RRC
6/14/02

rdc 6/14/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 13, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061302
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Re-installed LC-PAH column for 8310 ~~/16~~ rep. index / 610 analysis

Action Taken: recalibration

Comments

Reviewed By: [signature] 6/14/02

625

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003131	01:01 ✓		accn blk
No	2	2	8310	4L003132	02:01 ✓	SOS 59-38/58-26	WG119863-01 CC
No	3	3	8310	4L003133	03:01 ✓		WG119312-02 WB
No	4	4	8310	4L003134	04:01 ✓		WG119312-03 WL
No	5	5	8310	4L003135	05:01 ✓		L0206078-05 61
No	6	6	8310	4L003136	06:01 ✓		L0206078-07 61
No	7	7	8310	4L003137	07:01 ✓		L0206078-09 61
No	8	8	8310	4L003138	08:01 ✓		L0206078-12 61
No	9	9	8310	4L003139	09:01 ✓		L0206078-15 61
No	10	10	8310	4L003140	10:01 ✓		L0206078-18 61
No	11	11	8310	4L003141	11:01 ✓	SOS 59-38/58-26	WG119863-02 CC
No	12	12	8310	4L003142	12:01 ✓		L0206102-01 83
No	13	13	8310	4L003143	13:01 ✓		L0206102-02 83
No	14	14	8310	4L003144	14:01 ✓		L0206102-03 83
No	15	15	8310	4L003145	15:01 ✓		WG119312-01 WR
No	16	16	8310	4L003146	16:01 ✓		WG119312-04 WM
No	17	17	8310	4L003147	17:01 ✓		WG119312-05 WM
No	18	18	8310	4L003148	18:01 ✓	accn. NC	L0206102-07 83
No	19	19	8310	4L003149	19:01 ✓		L0206102-08 83
No	20	20	8310	4L003150	20:01 ✓		L0206102-09 83
No	21	21	8310	4L003151	21:01 ✓	SOS 59-38/58-26	WG119863-03 CC
No	22	22	8310	4L003152	22:01 ✓		WG119548-02 WB
No	23	23	8310	4L003153	23:01 ✓		WG119548-03 WL
No	24	24	8310	4L003154	24:01	RR 10X, Accn. NC	L0206140-01 83
No	25	25	8310	4L003155	25:01 ✓		L0206140-02 83
No	26	26	8310	4L003156	26:01 ✓		L0206140-03 83
No	27	27	8310	4L003157	27:01 ✓		L0206140-04 83
No	28	28	8310	4L003158	28:01 ✓		L0206140-05 83
No	29	29	8310	4L003159	29:01 ✓		L0206140-06 83
No	30	30	8310	4L003160	30:01 ✓		WG119548-01 WR
No	31	31	8310	4L003161	31:01 ✓		L0206140-08 83
No	32	21	8310	4L003162	32:01 ✓	SOS 59-38/58-26	WG119863-04 CC
No	33	32	8310	4L003163	33:01 ✓		L0206140-09 83
No	34	33	8310	4L003164	34:01 ✓		L0206140-10 83
No	35	34	8310	4L003165	35:01	RE needed low surr.	L0206140-11 83
No	36	35	8310	4L003166 Accn. NC	36:01	RR 10X, RE low surr.	L0206140-12 83
No	37	36	8310	4L003167	37:01 ✓		L0206140-13 83
No	38	37	8310	4L003168	38:01 ✓	low surr	WG119548-0 WMS
No	39	38	8310	4L003169	39:01 ✓		WG119548-05 WM
No	40	39	8310	4L003170	40:01	RE low surr.	L0206164-01 83
No	41	40	8310	4L003171	41:01	RE low surr.	L0206164-02 83
No	42	41	8310	4L003172	42:01 ✓		L0206164-03 83
No	43	21	8310	4L003173	43:01 ✓		WG119863-05 CC

RDC 6/17/02

6/18/02

6/18/02

626

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119863-01 CCV	8310	1	Sample		
3	3	WG119312-02 WBLK	8310	1	Sample		
4	4	WG119312-03 WLCS	8310	1	Sample		
5	5	L0206078-05 610W	8310	1	Sample		
6	6	L0206078-07 610W	8310	1	Sample		
7	7	L0206078-09 610W	8310	1	Sample		
8	8	L0206078-12 610W	8310	1	Sample		
9	9	L0206078-15 610W	8310	1	Sample		
10	10	L0206078-18 610W	8310	1	Sample		
11	11	WG119863-02 CCV	8310	1	Sample		
12	12	L0206102-01 831W	8310	1	Sample		
13	13	L0206102-02 831W	8310	1	Sample		
14	14	L0206102-03 831W	8310	1	Sample		
15	15	WG119312-01 WREF	8310	1	Sample		
16	16	WG119312-04 WMS	8310	1	Sample		
17	17	WG119312-05 WMSD	8310	1	Sample		
18	18	L0206102-07 831W	8310	1	Sample		
19	19	L0206102-08 831W	8310	1	Sample		
20	20	L0206102-09 831W	8310	1	Sample		
21	21	WG119863-03 CCV	8310	1	Sample		
22	22	WG119548-02 WBLK	8310	1	Sample		
23	23	WG119548-03 WLCS	8310	1	Sample		
24	24	L0206140-01 831W	8310	1	Sample		
25	25	L0206140-02 831W	8310	1	Sample		
26	26	L0206140-03 831W	8310	1	Sample		
27	27	L0206140-04 831W	8310	1	Sample		
28	28	L0206140-05 831W	8310	1	Sample		
29	29	L0206140-06 831W	8310	1	Sample		
30	30	WG119548-01 WREF	8310	1	Sample		
31	31	L0206140-08 831W	8310	1	Sample		
32	21	WG119863-04 CCV	8310	1	Sample		
33	32	L0206140-09 831W	8310	1	Sample		
34	33	L0206140-10 831W	8310	1	Sample		
35	34	L0206140-11 831W	8310	1	Sample		
36	35	L0206140-12 831W	8310	1	Sample		
37	36	L0206140-13 831W	8310	1	Sample		
38	37	WG119548-0 WMS	8310	1	Sample		
39	38	WG119548-05 WMSD	8310	1	Sample		
40	39	L0206164-01 831W	8310	1	Sample		
41	40	L0206164-02 831W	8310	1	Sample		
42	41	L0206164-03 831W	8310	1	Sample		
43	21	WG119863-05 CCV	8310	1	Sample		

tvec 6/14/02

627

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 14 2002 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 061402
Analyst Initials RBC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0206140-11 & 12 need RE-EXT for low surr. } submit for recert.
L0206164-01 & 02 ↓ ↓ ↓ ↓ ↓
L0206140-01 & 12 need 10X dilN.
Acenaphthylene not confirming by DAO

Reviewed By: RR 6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119988-01 CCV	8310	1	Sample		
3	3	L0206140-01 10X	8310	1	Sample		
4	4	L0206140-12 10X	8310	1	Sample		
5	5	WG119988-01 CCV	8310	1	Sample		

TAOC 6/17/02 9

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003174	01:01✓		accn blk
No	2	2	8310	4L003175	02:01✓	50 59-38/58-26	WG119988-01 CC
No	3	3	8310	4L003176	03:01✓		L0206140-01 10
No	4	4	8310	4L003177	04:01✓		L0206140-12 10
No	5	5	8310	4L003178	05:01✓	50 59-38/58-26	WG119988-01 CC

630

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 17, 2002 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 061702
Analyst Initials PWC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: [signature] 6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120164-01 STD6	8310	1	Sample		
3	3	WG120164-02 STD6	8310	1	Sample		
4	4	WG120164-03 STD5	8310	1	Sample		
5	5	WG120164-04 STD4	8310	1	Sample		
6	6	WG120164-05 STD3	8310	1	Sample		
7	7	WG120164-06 STD2	8310	1	Sample		
8	8	WG120164-07 STD1	8310	1	Sample		
9	9	WG120164-08 ALT	8310	1	Sample		
10	10	WG120073-01 WBLK	8310	1	Sample		
11	11	WG120073-02 WLCS	8310	1	Sample		
12	12	WG120073-03 WLCS	8310	1	Sample		
13	13	L0206140-11 REEX	8310	1	Sample		
14	14	L0206140-12 REEX	8310	1	Sample		
15	15	L0206146-01 REEX	8310	1	Sample		
16	16	L0206146-02 REEX	8310	1	Sample		
17	17	WG120174-01 CCV	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003183	01:01 ✓		accn blk
No	2	2	8310	4L003184	02:01 ✓	SOS 58-24	WG120164-01 ST
No	3	3	8310	4L003185	03:01 ✓	SOS 59-32	WG120164-02 ST
No	4	4	8310	4L003186	04:01 ✓	DIL'N of SOS 58-26/ 59-38	WG120164-03 ST
No	5	5	8310	4L003187	05:01 ✓		WG120164-04 ST
No	6	6	8310	4L003188	06:01 ✓		WG120164-05 ST
No	7	7	8310	4L003189	07:01 ✓		WG120164-06 ST
No	8	8	8310	4L003190	08:01 ✓		WG120164-07 ST
No	9	9	8310	4L003191	09:01 ✓	SOS 60-26/60-27 DIL'N	WG120164-08 AL
No	10	10	8310	4L003192	10:01 ✓		WG120073-01 WB
No	11	11	8310	4L003193	11:01 ✓		WG120073-02 WL
No	12	12	8310	4L003194	12:01 ✓		WG120073-03 WL
No	13	13	8310	4L003195	13:01	SURR. LOW	L0206140-11 RE
No	14	14	8310	4L003196	14:01	SURR. LOW	L0206140-12 RE
No	15	15	8310	4L003197	15:01	SURR. LOW	L0206~~146~~ 144-01 RE*
No	16	16	8310	4L003198	16:01 ✓		L0206~~146~~ 148-02 RE*
No	17	17	8310	4L003199	17:01 ✓	SOS 58-26/59-38 DIL'N.	WG120174-01 CC

RDC 6/20/02

6/20/02

633

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061902
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: Column re-installed

Action Taken: re-calibration

Comments

Re-extrate of L0206140-11 & 12 and L0206164-01 confirm the low % recovery of surrogate.

L0206164-02 surr. recovery was within limits & will be reported out of holding time.

RDC

Reviewed By: DAR 6/20/02

Volume 185
Page 165

Parameter: 8310 SOP #: EX HPLC Revision #: 6
Extraction Analyst(s): CAF GSG ~~REK~~ TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 08:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: REK/CAF Witness: —
Surrogate #: ESS0040-50 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-01 Spike #: B = —

Extraction Work Group WG 119548
Analytical Work Group WG 119924

Extract Relinquished By: CAF
Extract Received By & Date: CAF 6/11/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100µl		1mL	T				WG 119548-02
2	LCS			✓				500µl		C				WG 119548-03
3	06-140-01	8310		✓						C				
4	-02			✓		950mL				T				
5	-03			✓		1L				T				*
6	-04			✓		965mL				T				*
7	-05			✓		1L				T				*
8	-06			✓		965 mL				T				
9	-07			✓		940 mL				C				WG119548-01
10	-08			✓						T				
11	-09			✓		1L				T				
12	-10			✓		965mL				T				*
13	-11			✓		940mL				T				
14	-12			✓		960mL				C				CAF 6-11-02
15	-13			✓		930mL				T				~~WG 119548-01~~
16	-17MS			✓		950mL		500µl		C				WG 119548-04
17	-18MSD			✓		965 mL				C				WG 119548-05
18	06-164-01			✓						T				*
19	-02			✓		910 mL				T				*
20	-03			✓		950mL				C				*
21														
22						CAF 6-11-02								
23														
24														

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41214
Reagent: Fortified Lot #: 2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: 6/11/02

635

Extraction Notes For Volume # 185 Page # 165

General Comments: * pH Adj. c̄ NaOH
MS, MSD of 06-140-07

Extraction Anomalies: * pH Adj c̄ NaOH

Concentration Anomalies: * precipitate in concentration
Stage SX 06-164-01, 06-164-03

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): DP TV/KD Analyst(s): CAF
Date/Time Extracted: 06/18/02 @ 1410 Date TV/KD: 06/18/02
Spike/Surrogate Analyst: DP Witness: CEB
Surrogate #: ESS0040-50 Earliest Hold Date: OUT
Spike #: A = ESS0041-01 Spike #: B = —

Extraction Work Group WG 120073
Analytical Work Group WG 120172

Extract Relinquished By: CAF
Extract Received By & Date: ZPC 6/18/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100 µL		1mL	T				WG 120073-01
2	LCS			✓		1		500 µL		T				WG 1 -02
3	06-140-11	8310		✓		960 mL				T				Reext. out of hold ⊗
4	1 -12			✓		1				6/18 ZPC				⊗
5	06-164-01			✓		970 mL				R T				⊗
6	1 -02			✓		950 mL				T				⊗
7	LCS Dup			✓		1L		500 µL		T				WG 120073-03
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 06/18/02

Methylene Chloride Lot #: 412015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: CR 2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: 6-18-02

R 2 7

Extraction Notes For Volume # 186 Page # 047

General Comments: x LCS Dup is out of order on the bench sheet.

Extraction Anomalies: (*) Sample required pH adjustment prior to extraction to achieve a neutral (5-9) pH.

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

RDC 6/14/02 13

Semi-Volatile 8310 Checklist

Run Date: ~~14~~-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	NA
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	NA
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
8310 re-calibration

Primary Reviewer: RDC 6/14/02

Secondary Reviewer: 6/14/02

Supervisor Review: 6/14/02

√ = Checked & OK
NA = Not Applicable

639

Semi-Volatile 8310 Checklist

Run Date: 14-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG119449 06-078	6/13/2002	a1
↓ 06-102	↓	
WG119924 06-140	6/14/02	
↓ 06-164	6/17/02	

		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	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	√

	Supervisor
Case Narrative:	✓
Corrective Action:	✓
Results Reporting/Data Qualifiers:	✓
Client Data Package Assembly:	✓
Check for Completeness:	✓
Check for compliance with method and project requirements:	✓
Check the reasonableness of results:	✓

Comments:

LEVEL X

REEXT REQUESTED FOR
06-140-11 & 12
06-164-01 & 02
due to low surr recovery

06-140-01 & 12 need 10x dil.

06-102-07
↓ -08
06-140-01
↓ -12
} Acenaphthene CONF. VIA DAD

06-140-~~0~~ -17 MS yielded
% rec. < adv. limit
for 8 analytes & surr.

06-140 17, 18 MS/MSD
% RPD was high for
10 analytes

Primary Reviewer: RDC 6/17/02

Secondary Reviewer: [signature] 6/17/02

Supervisor Review: [signature] 6/17/02

√ = Checked & OK

NA = Not Applicable

Resubmitted 6/17/02 for 06-102
06-140
06-164
↓

640

Semi-Volatile 8310 Checklist

Run Date: 17-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG119924 06-140	6/14/2002	

		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	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
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:
dilutions for L0206140-01 & 12.

Primary Reviewer: RDC 6/17/02

Secondary Reviewer: 6/17/02

Supervisor Review: 6/17/02

√ = Checked & OK
NA = Not Applicable

641

Semi-Volatile 8310 Checklist

Run Date: 19-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG120172 06-140	6/14/2002	
WG120172 06-164	6/17/2002	

		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	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments: Samples were re-extracted out of holding time. Three samples confirmed the previous low surr. recovery results. L0206164-02 surrogate recovery met the acceptance criteria. This sample will be reported.

Recalibration following re-installation of the LC-PAH column is included.

Primary Reviewer: RDC 6/20/02

Secondary Reviewer: DR 6/20/02

Supervisor Review: DR 6/20/02

√ = Checked & OK

NA = Not Applicable

642

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

643

2.2.6 Method 8011

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0206140

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample 07 was chosen by the client for MS/MSD analysis. All other acceptance criteria were met.

SAMPLES

Samples: Samples 01 and 12 were analyzed at a dilution to maintain analysis within calibration range. All acceptance criteria were met.
Surrogates: Sample 11 yielded a % recovery for o-terphenyl that was below the advisory limit. The sample was re-extracted, out of hold, yielding an acceptable surrogate recovery. Both sets of data were reported. 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: CLK REVIEWED: _____ DATE: 6/21/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0206140

A. QC Summary

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

B. Sample Data

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

C. Standards Data

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

D. Raw QC Data

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

Checked By: CLK Date: 6/20/02

2.2.6.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 2G20443
Date Analyzed: 06/12/02
Time Analyzed: 15:28
Analyst: CLK

Work Group: WG119767
Blank Sample ID: WG119551-02
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119551-03	2G20444	06/12/02 15:44	01
062-CEF46-2S-Q2-02-17	L0206140-02	2G20445	06/12/02 15:59	01
062-CEF46-5I-Q2-02-17	L0206140-03	2G20446	06/12/02 16:14	01
062-CEF46-6D-Q2-02-17	L0206140-04	2G20447	06/12/02 16:29	01
062-CEF46-7I-Q2-02-17	L0206140-05	2G20448	06/12/02 16:45	01
062-CEF46-9I-Q2-02-17	L0206140-06	2G20449	06/12/02 17:00	01
062-CEF46-15I-Q2-02-17	L0206140-10	2G20450	06/12/02 17:15	01
062-CEF46-26I-Q2-02-17	L0206140-11	2G20451	06/12/02 17:30	01
062-CEF46-13I-Q2-02-17	L0206140-08	2G20454	06/12/02 18:16	01
062-CEF46-14D-Q2-02-17	L0206140-09	2G20455	06/12/02 18:31	01
062-46EQB-Q2-02-17	L0206140-13	2G20457	06/12/02 19:01	01
062-CEF46-12I-Q2-02-17	L0206140-07	2G20458	06/12/02 19:16	01
062-CEF46-12I-Q2-02-17	L0206140-17	2G20459	06/12/02 19:32	01
062-CEF46-12I-Q2-02-17	L0206140-18	2G20460	06/12/02 19:47	01
062-CEF46-IS-Q2-02-17	L0206140-01	2G20479	06/14/02 13:02	DL01
062-46DUP-Q2-02-17	L0206140-12	2G20480	06/14/02 13:18	DL01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 2G20581
Date Analyzed: 06/19/02
Time Analyzed: 22:31
Analyst: CLK

Work Group: WG120200
Blank Sample ID: WG119976-01
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119976-02	2G20582	06/19/02 22:46	01
LCS	WG119976-03	2G20583	06/19/02 23:01	01
062-CEF46-26I-Q2-02-17	L0206140-11	2G20584	06/19/02 23:16	RE01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 06/20/2002 16:13

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140
Run Date: 06/12/2002
Sample ID: WG119551-02
Instrument ID: HP2
Run Time: 15:28
Method: 8015 MOD
File ID: 2G20443
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG119767
Units: ug/L
Contract #:
Cal ID: HP2-12-JUN-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	64.0	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/20/2002 16:13

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/19/2002 Sample ID: WG119976-01
Instrument ID: HP2 Run Time: 22:31 Method: 8015 MOD
File ID: 2G20581 Analyst: CLK Matrix: Water
Workgroup (AAB#): WG120200 Units: ug/L
Contract #: Cal ID: HP2-19-JUN-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	72.9	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/20/2002 16:13

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Run Date: 06/12/2002
Sample ID: WG119551-03
Instrument ID: HP2
Run Time: 15:44
Method: 8015 MOD
File ID: 2G20444
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG119767
Units: ug/L
Contract #:
Cal ID: HP2-12-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2750	80.9	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	96.2	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Run Date: 06/19/2002
Sample ID: WG119976-02
Instrument ID: HP2
Run Time: 22:46
Method: 8015 MOD
File ID: 2G20582
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG120200
Units: ug/L
Contract #:
Cal ID: HP2-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2580	76.0	50 - 150	
TRPH-Florida PRO	3400	2720	80.0	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	85.4	49 - 174	PASS
o-Terphenyl	122	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/20/2002 16:14

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum:L0206140 Cal ID: HP2-12-JUN-2002 Worknum:WG119767
Instrument ID:HP2 Contract #: Method:8015 MOD
Parent ID:L0206140-07 File ID:2G20458 Dil:1 Matrix:Water
Sample ID:L0206140-17 MS File ID:2G20459 Dil:1 Units:ug/L
Sample ID:L0206140-18 MSD File ID:2G20460 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
TRPH-Florida PRO	ND	3400	2910	85.6	3400	2910	85.6	0.0265	50 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 05/29/2002
Version 1.2
Report generated 06/20/2002 16:14

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG119767

Login Number: L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46DUP-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.45	06/14/02	7	3.11	
062-46EQB-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.93	06/12/02	7	1.34	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.02	06/12/02	7	1.35	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.02	06/12/02	7	1.37	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.02	06/12/02	7	1.38	
062-CEF46-13I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.99	06/12/02	7	1.31	
062-CEF46-14D-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.96	06/12/02	7	1.32	
062-CEF46-15I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	5.05	06/12/02	7	1.27	
062-CEF46-26I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.76	06/12/02	7	1.28	
062-CEF46-2S-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.81	06/12/02	7	1.22	
062-CEF46-5I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.89	06/12/02	7	1.23	
062-CEF46-6D-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.88	06/12/02	7	1.24	
062-CEF46-7I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.78	06/12/02	7	1.25	
062-CEF46-9I-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.93	06/12/02	7	1.26	
062-CEF46-IS-Q2-02-17	06/06/02	06/07/02	06/11/02	7	4.84	06/14/02	7	3.10	

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

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG120200

Login Number: L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-26I-Q2-02-17	06/06/02	06/07/02	06/17/02	7	10.7	06/19/02	7	2.53	*EXT

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 05/28/2002
Version 1.2
Report generated 06/20/2002 16:13

SURROGATE STANDARDS

Login Number: L0206140
Instrument Id: HP2
Workgroup (AAB#): WG119767

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206140-01	10.0	DL01	DL
L0206140-02	1.00	01	103
L0206140-03	1.00	01	76.7
L0206140-04	1.00	01	71.0
L0206140-05	1.00	01	73.4
L0206140-06	1.00	01	75.2
L0206140-07	1.00	01	61.7
L0206140-08	1.00	01	71.8
L0206140-09	1.00	01	84.8
L0206140-10	1.00	01	60.7
L0206140-11	1.00	01	43.9
L0206140-12	10.0	DL01	DL
L0206140-13	1.00	01	78.9
L0206140-17	1.00	01	78.2
L0206140-18	1.00	01	72.9
WG119551-02	1.00	01	64.0
WG119551-03	1.00	01	96.2

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 06/20/2002 16:15

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number: L0206140

Instrument Id: HP2

Workgroup (AAB#): WG120200

Method: FLA-PRO

Matrix: WATER

Sample Number	Dilution	Tag	1
L0206140-11	1.00	RE01	77.4
WG119976-01	1.00	01	72.9
WG119976-02	1.00	01	85.4
WG119976-03	1.00	01	122

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 06/20/2002 16:15

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002

Calibration Files

5	=2G20441.D	50	=2G20440.D	100	=2G20439.D
200	=2G20438.D	400	=2G20437.D	600	=2G20436.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.497	3.019	3.156	3.109	3.094	3.053	2.988	E4	8.20
2)	s	O-Terphenyl	3.304	2.925	2.991	2.944	2.808	2.823	2.966	E4	6.08
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:14:44 2002

Calibration Files

5	=2G20579.D	50	=2G20578.D	100	=2G20577.D
200	=2G20576.D	400	=2G20575.D	600	=2G20574.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.278	1.778	1.872	1.948	2.009	1.413	1.883	E4	15.16
2)	s	O-Terphenyl	1.411	1.706	1.790	1.725	1.743	1.579	1.659	E4	8.48
3)	s	n-Nonatriacontane							0.000	0	-1.00

660

#) = Out of Range

Data File : [illegible]

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2951.497	13.2	83	0.00
2	s	O-Terphenyl	200.000	1.081	99.5#	1	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20442.D FLASHPRO.M Thu Jun 13 09:52:22 2002 HP2 Page 1

661

Data File : C:\HPCHEM\1\DATA\061902\2G20580.D Vial: 23
Acq On : 19 Jun 2002 22:15 Operator: CLK
Sample : WG120195-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2728.274	19.8	78	0.00
2	s	O-Terphenyl	200.000	0.696	99.7#	0	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20580.D FLASHPRO.M Thu Jun 20 08:39:12 2002 HP2 Page 1

Login Number: L0206140
File ID: 2G20453
CCV ID: WG119761-08
Units: mg/L

Instrument ID: HP2
Run Date: 06/12/2002
Run Time: 18:01
Analyst: CLK
Cal ID: HP2 - 12-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3580	31500	5.3	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/20/2002 16:15

Login Number: L0206140
File ID: 2G20463
CCV ID: WG119761-09
Units: mg/L

Instrument ID: HP2
Run Date: 06/12/2002
Run Time: 20:33
Analyst: CLK
Cal ID: HP2 - 12-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3630	31900	6.8	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/20/2002 16:15

Login Number: L0206140
File ID: 2G20477
CCV ID: WG119894-01
Units: mg/L

Instrument ID: HP2
Run Date: 06/14/2002
Run Time: 12:25
Analyst: HV
Cal ID: HP2 -

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3440	30200	1.2	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/20/2002 16:15

Login Number: L0206140
File ID: 2G20481
CCV ID: WG119894-02
Units: mg/L

Instrument ID: HP2
Run Date: 06/14/2002
Run Time: 13:33
Analyst: HV
Cal ID: HP2 -

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3610	31700	6.2	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/20/2002 16:15

Login Number: L0206140
File ID: 2G20586
CCV ID: WG120195-08
Units: mg/L

Instrument ID: HP2
Run Date: 06/19/2002
Run Time: 23:47
Analyst: CLK
Cal ID: HP2 - 19-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3550	19700	4.4	

* Exceeds %D Limit

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20420.d	1.	NA CH2CL2	1,1	12 Jun 102 12::1
2	2	2g20421.d	1.	✓ WIN DEF STD	1,1 SOS 60-20	12 Jun 102 12::2
3	3	2g20422.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::4
4	4	2g20423.d	1.	✓ 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::2
5	5	2g20424.d	1.	RR WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::4
6	6	2g20425.d	1.	WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::5
7	7	2g20426.d	1.	L0206140-02 WATER PRO	1,1	12 Jun 102 13::1
8	8	2g20427.d	1.	L0206140-03 WATER PRO	1,1	12 Jun 102 13::2
9	9	2g20428.d	1.	L0206140-04 WATER PRO	1,1	12 Jun 102 13::4
10	10	2g20429.d	1.	L0206140-05 WATER PRO	1,1	12 Jun 102 13::5
11	11	2g20430.d	1.	L0206140-06 WATER PRO	1,1	12 Jun 102 13::1
12	12	2g20431.d	1.	L0206140-10 WATER PRO	1,1	12 Jun 102 13::3
13	13	2g20432.d	1.	L0206140-11 WATER PRO	1,1	12 Jun 102 13::4
14	1	2g20433.d	1.	NA CH2CL2	1,1	12 Jun 102 13::0
15	4	2g20434.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 13::1
16	1	2g20435.d	1.	NA CH2CL2	1,1	12 Jun 102 12::2
17	14	2g20436.d	1.	✓ WG119761-06 600ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
18	15	2g20437.d	1.	WG119761-05 400ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
19	16	2g20438.d	1.	WG119761-04 200ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::1
20	17	2g20439.d	1.	WG119761-03 100ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::2
21	18	2g20440.d	1.	WG119761-02 50ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
22	19	2g20441.d	1.	WG119761-01 5ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
23	20	2g20442.d	1.	WG119761-07 200ppm PRO ALT SOURCE STD	1,1 SOS 59-1	12 Jun 102 12::1
24	5	2g20443.d	1.	WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::2
25	6	2g20444.d	1.	WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::4
26	7	2g20445.d	1.	L0206140-02 WATER PRO	1,1	12 Jun 102 12::5
27	8	2g20446.d	1.	L0206140-03 WATER PRO	1,1	12 Jun 102 12::1
28	9	2g20447.d	1.	L0206140-04 WATER PRO	1,1	12 Jun 102 12::2
29	10	2g20448.d	1.	L0206140-05 WATER PRO	1,1	12 Jun 102 12::4
30	11	2g20449.d	1.	L0206140-06 WATER PRO	1,1	12 Jun 102 12::0
31	12	2g20450.d	1.	L0206140-10 WATER PRO	1,1	12 Jun 102 12::1
32	13	2g20451.d	1.	RE L0206140-11 WATER PRO	1,1	12 Jun 102 12::3
33	1	2g20452.d	1.	NA CH2CL2	1,1	12 Jun 102 12::4
34	16	2g20453.d	1.	✓ WG119761-08 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::0
35	21	2g20454.d	1.	✓ L0206140-08 WATER PRO	1,1	12 Jun 102 12::1
36	22	2g20455.d	1.	✓ L0206140-09 WATER PRO	1,1	12 Jun 102 12::3
37	23	2g20456.d	1.	RR10 L0206140-12 WATER PRO	1,1	12 Jun 102 12::4
38	24	2g20457.d	1.	✓ L0206140-13 WATER PRO	1,1	12 Jun 102 12::0
39	25	2g20458.d	1.	✓ WG119551-01 L0206140-07 WATER PRO	1,1	12 Jun 102 12::1
40	26	2g20459.d	1.	✓ WG119551-04 L0206140-17 WATER PRO MS	1,1	12 Jun 102 12::3
41	27	2g20460.d	1.	✓ WG119551-05 L0206140-18 WATER PRO MSD	1,1	12 Jun 102 12::4
42	28	2g20461.d	1.	RR10 L0206140-01 WATER PRO	1,1	12 Jun 102 12::0
43	1	2g20462.d	1.	NA CH2CL2	1,1	12 Jun 102 12::1
44	16	2g20463.d	1.	✓ WG119761-09 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::3
45	29	2g20464.d	1.	✓ L0206164-01 WATER PRO	1,1	12 Jun 102 12::4
46	30	2g20465.d	1.	✓ L0206164-02 WATER PRO	1,1	12 Jun 102 12::0
47	31	2g20466.d	1.	✓ L0206164-03 WATER PRO	1,1	12 Jun 102 12::2
48	1	2g20467.d	1.	NA CH2CL2	1,1	12 Jun 102 12::3
49	16	2g20468.d	1.	✓ WG119761-10 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::5

CLK 6/13/02 RRC 6/13/02

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/12/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061202
Analyst Initials CLK

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

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

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

Daily Check

☒ Gases >500 psi

Preventative Maintenance

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

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0206140-11 WATER PRO, o-terphenyl low, Needs RE
" -12 " " Needs 10X
" -01 " " Needs 10X

Reviewed By: RDC 6/13/02

Directory: [illegible]

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20476.d	1.	NA MECL2	1,1 SOS 59-6	14 Jun 102 13::5
2	2	2g20477.d	1.	✓ WG119894-01 PRO CCV 200ppm	1,1 SOS 59-6	14 Jun 102 13::2
3	3	2g20478.d	1.	EXT LAB PRO SURR	1,1 SOS 59-6	14 Jun 102 13::4
4	4	2g20479.d	1.	L0206140-01 10X	1,10 WATER	14 Jun 102 12::0
5	5	2g20480.d	1.	L0206140-12 10X	1,10 WATER	14 Jun 102 12::1
6	6	2g20481.d	1.	WG119894-02 PRO CCV 200ppm	1,1 SOS 59-6	14 Jun 102 12::3
7	1	2g20482.d	1.	WIN DEF STD	1,1 SOS 60-20	14 Jun 102 12::4
8	2	2g20483.d	1.	WG119920-01 DRO CCV	1,1 NS 15-27	14 Jun 102 12::5
9	3	2g20484.d	1.	WG119882-01 BLK V186-P15	1,1 WATER	14 Jun 102 12::1
10	4	2g20485.d	1.	WG119882-02 LCS V186-P15	1,1 WATER	14 Jun 102 12::2
11	5	2g20486.d	1.	WG119882-03 LCS DUP V186-P15	1,1 WATER	14 Jun 102 12::3
12	6	2g20487.d	1.	L0206246-01 DRO	1,1 WATER	14 Jun 102 12::4
13	2	2g20488.d	1.	WG119920-02 DRO CCV	1,1 NS 15-27	14 Jun 102 12::5

CLK 6/17/02
TRC 6/17/02

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/14/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061402

Analyst Initials CLK

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

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS05 Rev. # ___ TNRCC 1005 ___
SOP # GCS02 Rev. # 5 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

RLC 6/17/02

671

Directory: c:\hpchem\1\data\061902

ıe	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
		2g20545.d	1.	NA PENTANE	1,1	19 Jun 102 13::0
	2	2g20546.d	1.	✓ WIN DEF STD TPH	1,1 SOS 60-28	19 Jun 102 13::2
	3	2g20547.d	1.	✓ 1000ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::3
	4	2g20548.d	1.	RR 5000ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::5
	5	2g20549.d	1.	✓ 2500ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::0
	6	2g20550.d	1.	✓ 10000ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::2
	7	2g20551.d	1.	✓ 500ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::3
	8	2g20552.d	1.	✓ 50ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::5
	4	2g20553.d	1.	✓ 5000ppm TPH STD	1,1 NS 15-25	19 Jun 102 12::1
	9	2g20554.d	1.	✓ 1000ppm TPH ALT SOURCE STD	1,1 SOS58-20 NS15-33	19 Jun 102 12::2
	10	2g20555.d	1.	✓ WG120169-01 BLK 6/17/02	10,1 SOIL	19 Jun 102 12::4
	11	2g20556.d	1.	✓ WG120169-02 LCS 6/17/02	10,1 SOIL	19 Jun 102 12::0
	12	2g20557.d	1.	✓ WG120169-03 L0206196-01 TPH Soil REF	10,1 SOIL	19 Jun 102 12::1
	13	2g20558.d	1.	✓ WG120169-04 L0206196-01 TPH Soil MS	10,1 SOIL	19 Jun 102 12::3
	14	2g20559.d	1.	✓ WG120169-05 L0206196-01 TPH Soil MSD	10,1 SOIL	19 Jun 102 12::4
	15	2g20560.d	1.	✓ L0206196-02 TPH Soil	7,1 SOIL	19 Jun 102 12::0
	1	2g20561.d	1.	NA PENTANE	1,1	19 Jun 102 12::1
	3	2g20562.d	1.	✓ 1000ppm TPH CCV	1,1 NS 15-25	19 Jun 102 12::3
	16	2g20563.d	1.	NA CH2CL2	1,1	19 Jun 102 12::3
	17	2g20564.d	1.	✓ WIN DEF STD PRO	1,1 SOS 60-20	19 Jun 102 12::4
	18	2g20565.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	19 Jun 102 12::0
	19	2g20566.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	19 Jun 102 12::5
	17	2g20567.d	1.	✓ WIN DEF STD DRO	1,1 SOS 60-20	19 Jun 102 12::0
	18	2g20568.d	1.	CC 1000ppm DRO CCV	1,1 NS 15-27	19 Jun 102 12::1
	18	2g20569.d	1.	CC 1000ppm DRO CCV	1,1 NS 15-27	19 Jun 102 12::3
	19	2g20570.d	1.	RR L0206264-01 SOIL DRO Prelim	7,1 SOIL	19 Jun 102 12::5
	20	2g20571.d	1.	L0206264-02 SOIL DRO Prelim	7,1 SOIL	19 Jun 102 12::0
	21	2g20572.d	1.	L0206264-03 SOIL DRO Prelim	7,1 SOIL	19 Jun 102 12::1
	22	2g20573.d	1.	L0206314-01 WATER DRO Prelim	1,1	19 Jun 102 12::2
	17	2g20574.d	1.	✓ WG120195-01 600ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::4
	18	2g20575.d	1.	WG120195-02 400ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::5
	19	2g20576.d	1.	WG120195-03 200ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::1
	20	2g20577.d	1.	WG120195-04 100ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::2
	21	2g20578.d	1.	WG120195-05 50ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::4
	22	2g20579.d	1.	WG120195-06 5ppm PRO STD	1,1 SOS 59-6	19 Jun 102 13::0
	23	2g20580.d	1.	WG120195-07 200ppm PRO ALT SOURCE STD	1,1 SOS 59-1	19 Jun 102 13::1
	24	2g20581.d	1.	✓ WG119976-01 BLK 6/17 V186P27	1,1	19 Jun 102 13::3
	25	2g20582.d	1.	✓ WG119976-02 LCS 6/17 V186P27	1,1	19 Jun 102 13::4
	26	2g20583.d	1.	✓ WG119976-02 LCS DUP 6/17 V186P27	1,1	19 Jun 102 13::0
	27	2g20584.d	1.	✓ L0206140-11 WATER PRO RE	1,1,RE	19 Jun 102 13::1
	28	2g20585.d	1.	NA CH2CL2	1,1,RE	19 Jun 102 13::3
	19	2g20586.d	1.	✓ WG120195-08 200ppm PRO CCV	1,1 SOS 59-6	19 Jun 102 13::4

CLK 6/20/02
REC 6/20/02

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/19/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061902
Analyst Initials CLK

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

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS05 Rev. # 0 TNRCC 1005 ✓
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ___

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

Daily Check
- ☒ Gases>500 psi

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

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0206214-01 SOIL DRO Prelim, Needs RR
-02
-03
L0206314-01 WATER DRO Prelim,

WG120169-02 LCS 6/17/02, o-Terphenyl high
L0206140-11 WATER PRO RE, OUT OF Hold, Reported

Parameter: FlA-PRO-H2O SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF GSC REK TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 10:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: REK/CAF Witness: [illegible]
Surrogate #: ESS0040-18 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-07 Spike #: B = —

Extraction Work Group WG 119551
Analytical Work Group WG 119767
Extract Relinquished By: CAF
Extract Received By & Date: RAC
6/11/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓			1 L	1 mL		1 mL	T				WG 119551-0
2	LCS		✓					1 mL		T				WG 119551-0
6/14 3	06-140-01	FlA-PRO	✓							C	✓			*
4	-02		✓							T	✓			*
5	-03		✓							T	✓			*
6	-04		✓							T				
7	-05		✓							T				
8	-06		✓							T				
9	-07		✓							T				WG 119551-01
10	-08		✓							T				
11	-09		✓							T				
12	-10		✓			920 mL				T				
13	-11		✓			960 mL				T				
14	-12		✓			940 mL				C				
15	-13		✓			1 L				T				
16	-17 MS		✓					1 mL		C				WG 119551-04
17	-18 MSD		✓							C				WG 119551-05
6/17 18	06-164-01		✓							T				
19	-02		✓							T				
20	-03		✓			965 mL				T				
21														
22														
23														
24														

CAF 6-11-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #:
Acid: 1:1 HCl Lot #: ER 2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: 6/11/02

674

Extraction Notes For Volume # 185 Page # 167

General Comments: MS, MSD of 06-140-07
* Emulsions

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Volume 186
Page 27

Parameter: PRO H_2O SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 6-17-02 @ 10:30 Date TV/KD: 6-17-02
Spike/Surrogate Analyst: CAF Witness: CEB
Surrogate #: ESS0040-18 Earliest Hold Date: OUT
Spike #: A = ESS0041-07 Spike #: B = —

Extraction Work Group WG 119976
Analytical Work Group WG 120200

Extract Relinquished By: CAF
Extract Received By & Date: AN 6/17/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank					1 L	1 mL		1 mL	T				WG 119976
2	LCS					↓	↓	1 mL	↓	T				WG 119976
3	LCS Dup					↓	↓	↓	↓	T				WG 119976
6/14 4	06-140-11	FIA-PRO				990 mL	↓		↓	C				RE-EXT auto
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-17-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1N HCL Lot #: ER2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time:
Dried Na_2SO_4 Lot #: ER2152

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: 6-17-02

676

Extraction Notes For Volume # 186 Page # 27

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.6.2 Sample Data

Data File : C:\HPCHEM\1\DATA\061402\2G20479.D Vial: 4
Acq On : 14 Jun 2002 13:02 Operator: HV
Sample : L0206140-01 10X Inst : HP2
Misc : 1,10 WATER Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 14 13:46 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Fri Jun 14 13:45:44 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

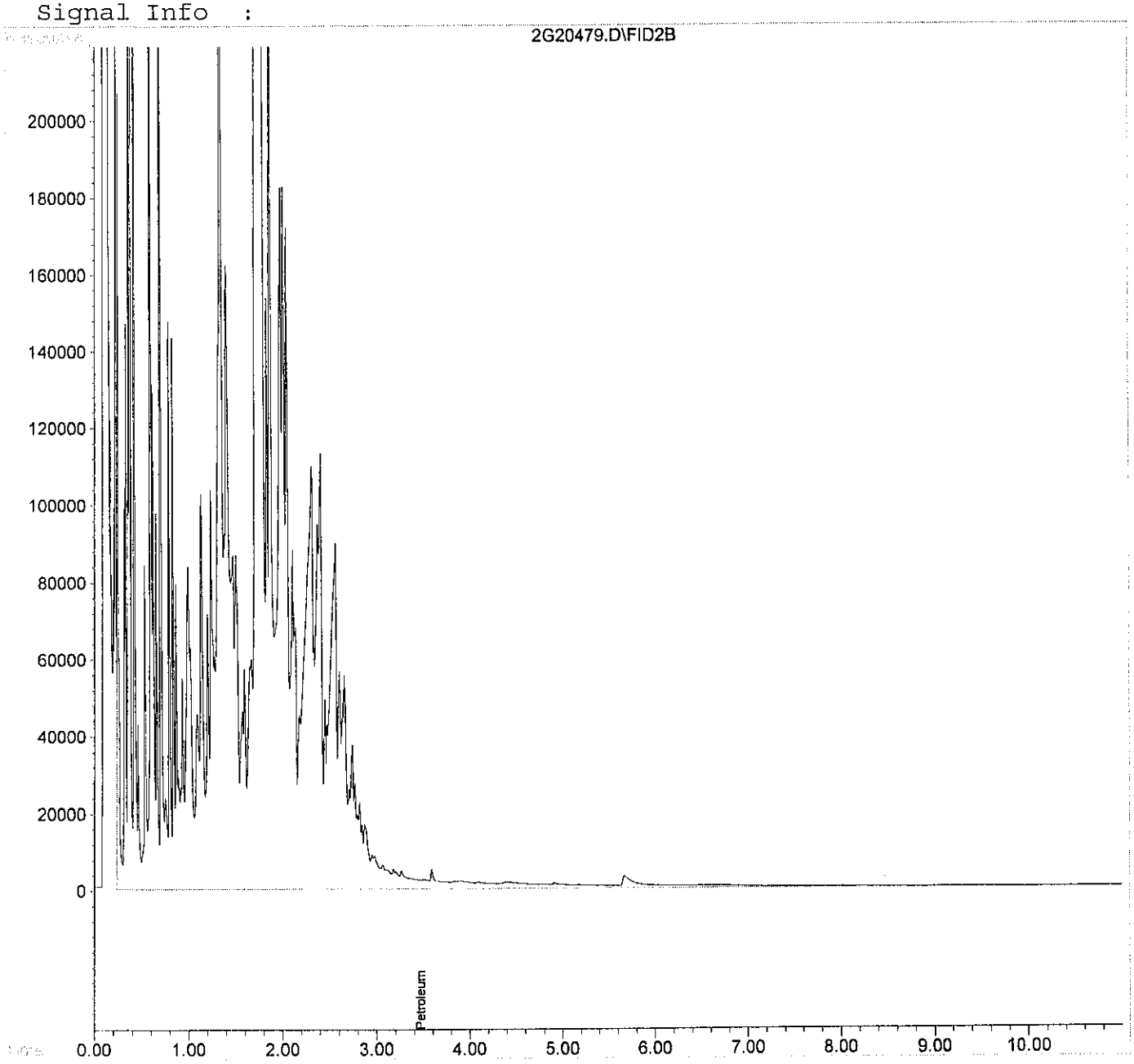
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	0.00	0	N.D.	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 0.00%#				
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000 Recovery = 0.00%				
Target Compounds				
1) H Petroleum Range	3.48	136991876	4584.785	ppb

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

Data File : C:\HPCHEM\1\DATA\061402\2G20479.D Vial: 4
Acq On : 14 Jun 2002 13:02 Operator: HV
Sample : L0206140-01 10X Inst : HP2
Misc : 1,10 WATER Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 14 13:46 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Fri Jun 14 13:45:44 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 12 Jun 2002 15:59 Operator: CLK
Sample : L0206140-02 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:54 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

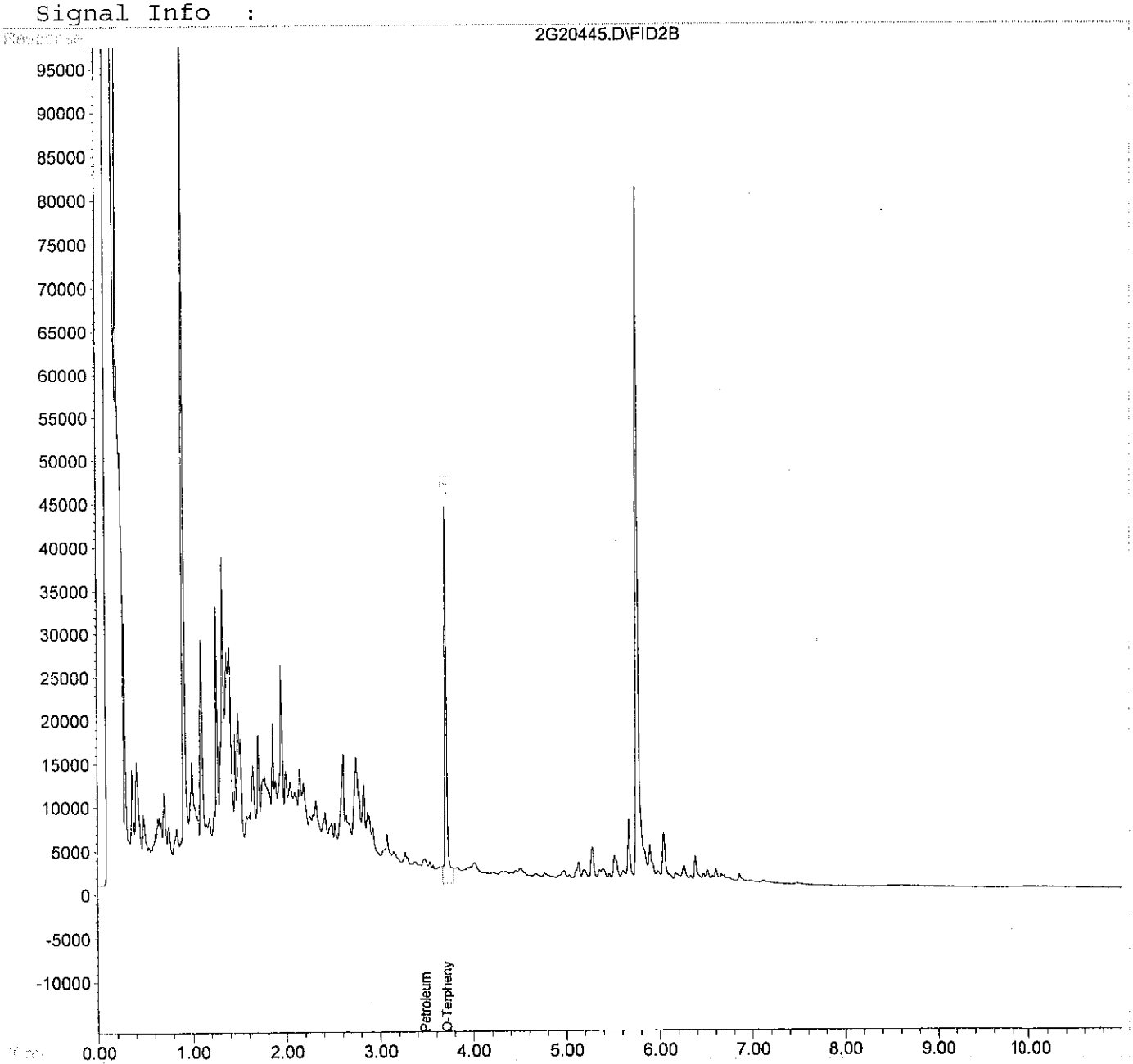
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	612065	20.636 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	103.18%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	22171750	742.035 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20445.D FLASHPRO.M Thu Jun 13 09:54:17 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20445.D
Acq On : 12 Jun 2002 15:59 Operator: CLK
Sample : L0206140-02 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:54 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20446.D
Acq On : 12 Jun 2002 16:14
Sample : L0206140-03 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:54 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	455097	15.344 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	76.72%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	4617857	154.548 ppb

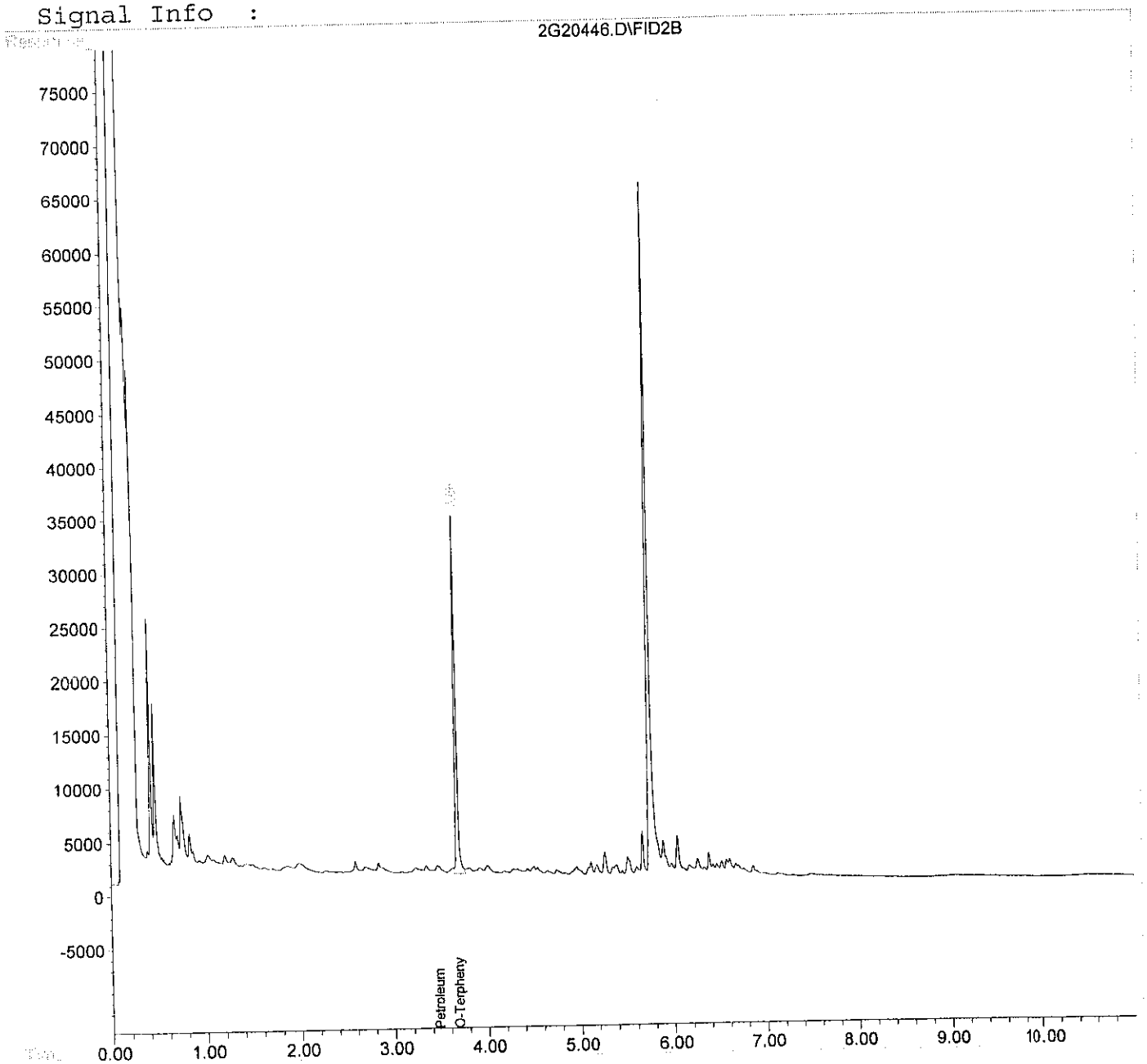
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20446.D FLASHPRO.M Thu Jun 13 09:54:39 2002 HP2 Page 683

Data File : C:\HPCHEM\1\DATA\061202\2G20446.D
Acq On : 12 Jun 2002 16:14
Sample : L0206140-03 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:54 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20447.D
Acq On : 12 Jun 2002 16:29
Sample : L0206140-04 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:54 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	420910	14.191 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	70.96%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	3971870	132.929 ppb

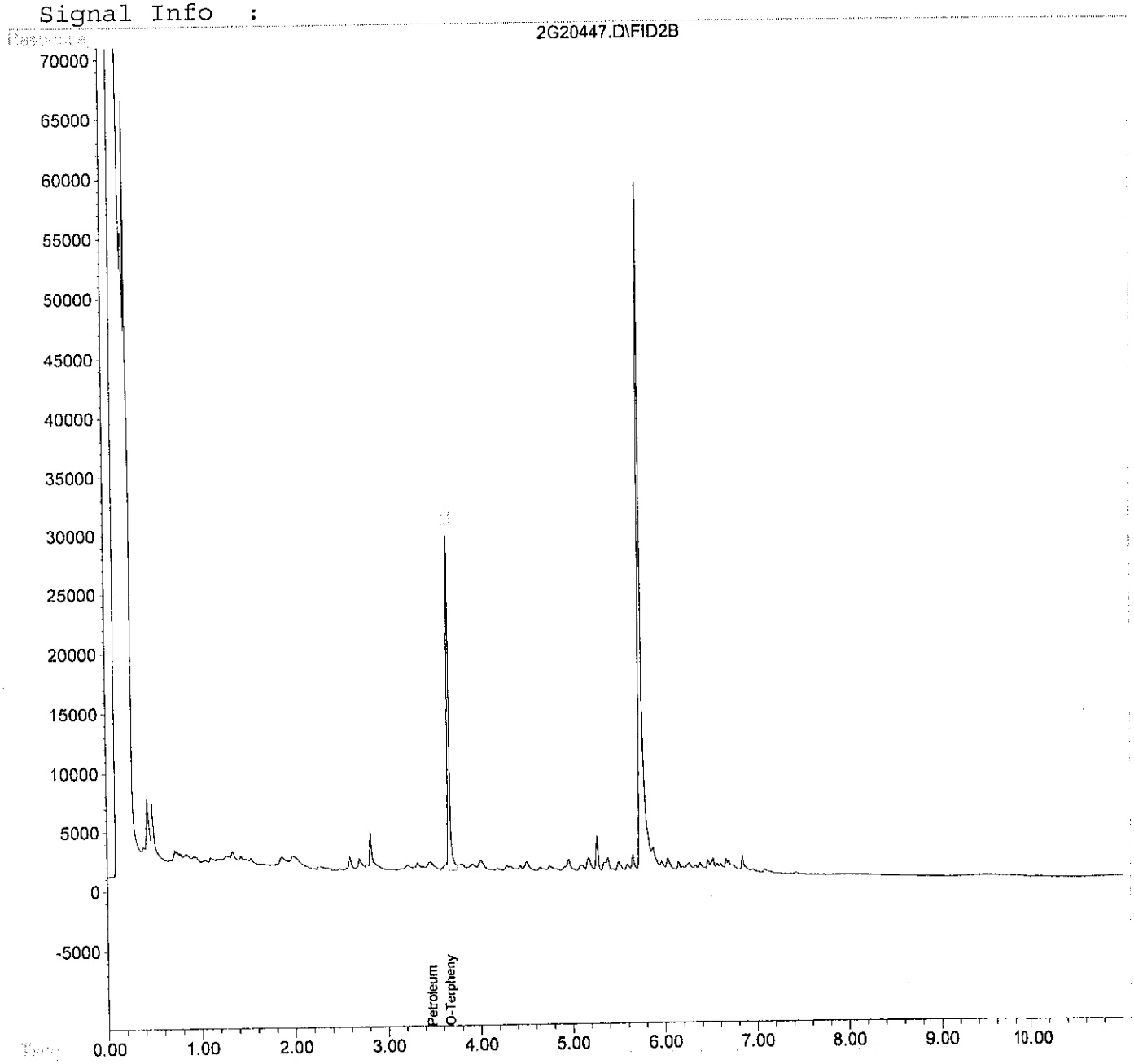
(f)=RT Delta > 1/2 Window
(m)=manual int.
2G20447.D FLASHPRO.M Thu Jun 13 09:54:58 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20447.D
Acq On : 12 Jun 2002 16:29
Sample : L0206140-04 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:54 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20448.D
Acq On : 12 Jun 2002 16:45 Operator: CLK
Sample : L0206140-05 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:55 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	435367	14.679 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	73.40%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	19285151	645.427 ppb

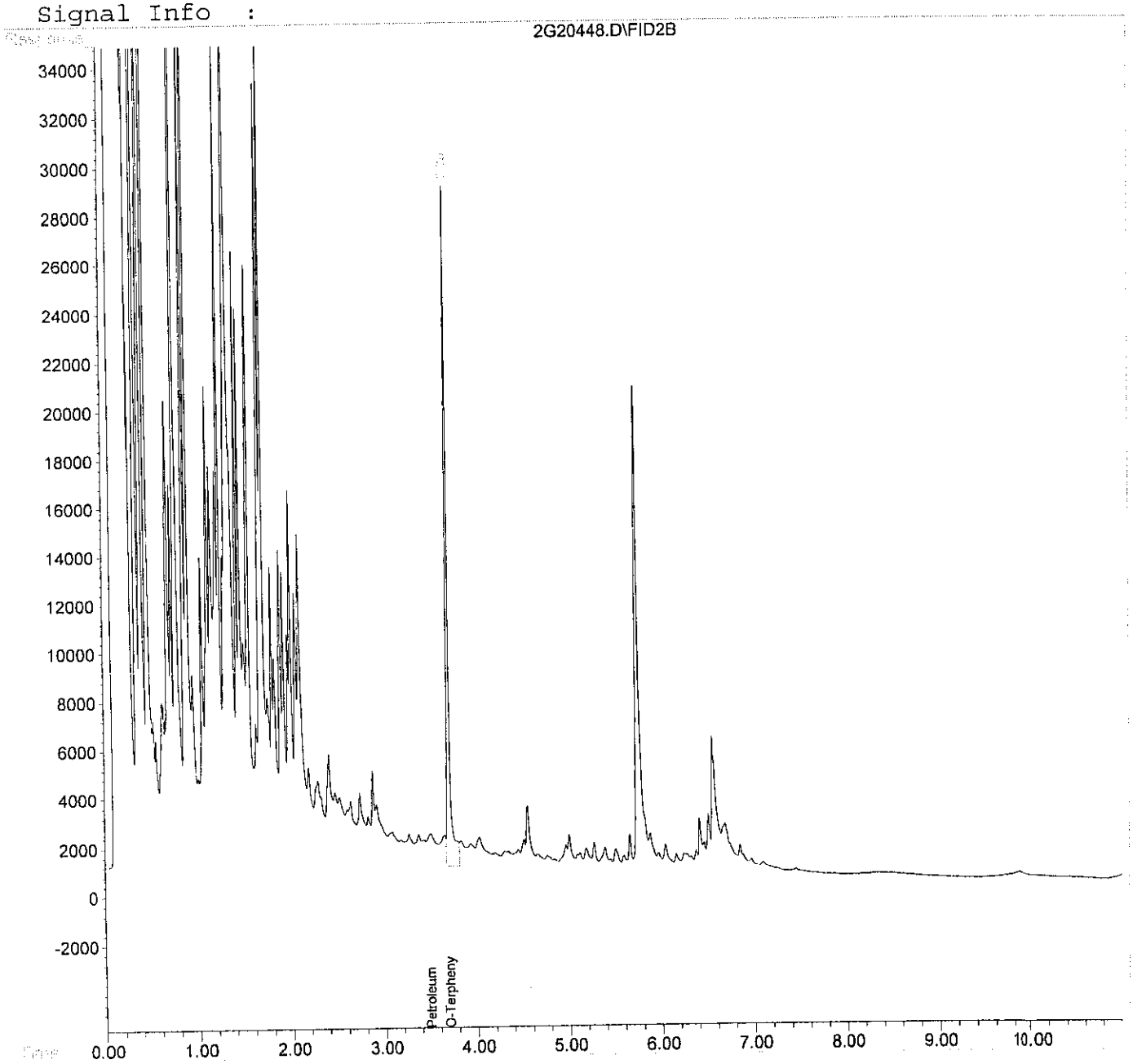
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20448.D FLASHPRO.M Thu Jun 13 09:55:55 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20448.D
Acq On : 12 Jun 2002 16:45
Sample : L0206140-05 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:55 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20449.D
Acq On : 12 Jun 2002 17:00
Sample : L0206140-06 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:56 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	445742	15.029 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	75.15%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1316015	44.044 ppb

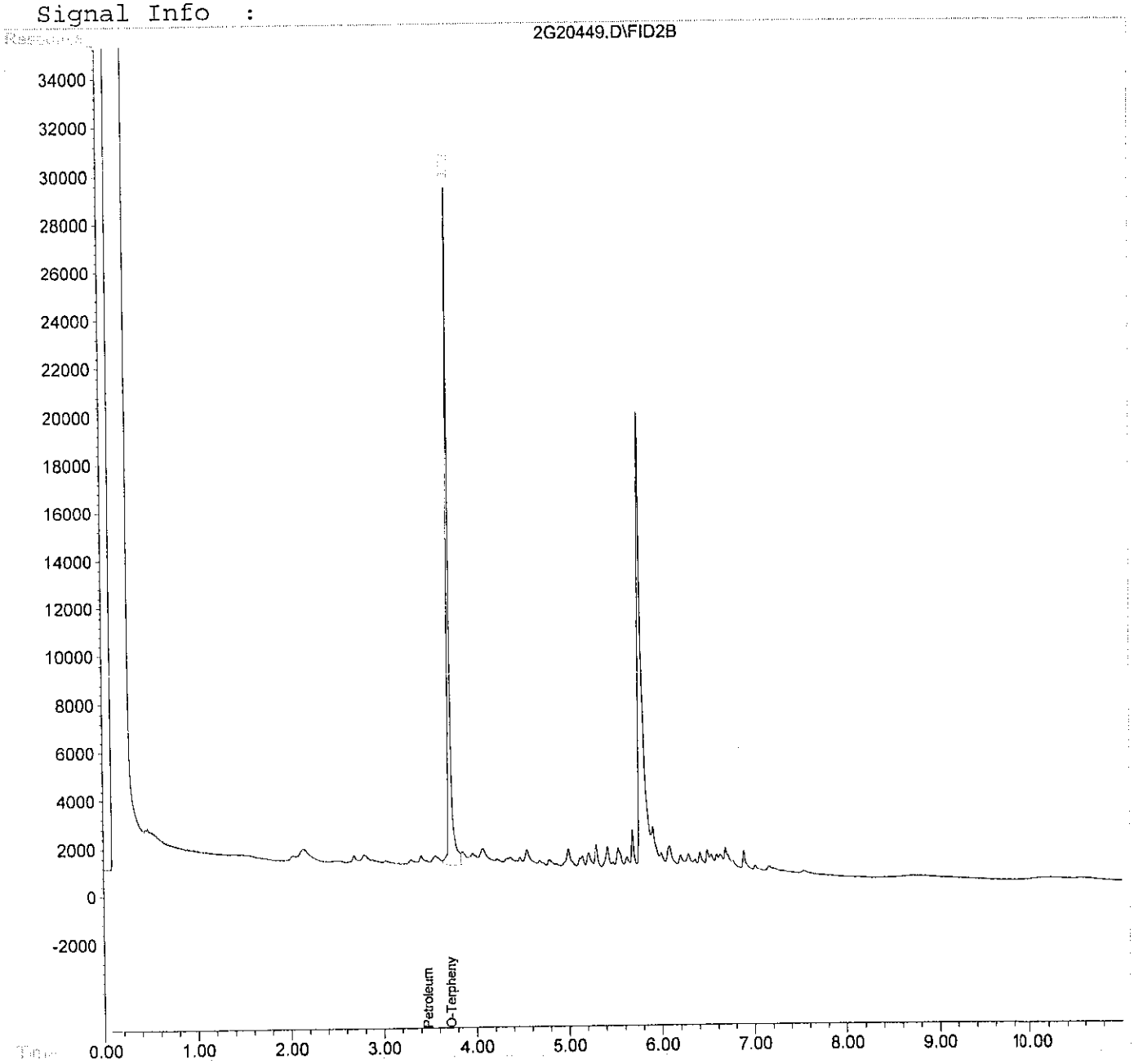
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\061202\2G20449.D
Acq On : 12 Jun 2002 17:00
Sample : L0206140-06 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:56 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20458.D Vial: 25
Acq On : 12 Jun 2002 19:16 Operator: CLK
Sample : WG119551-01 L0206140-07 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

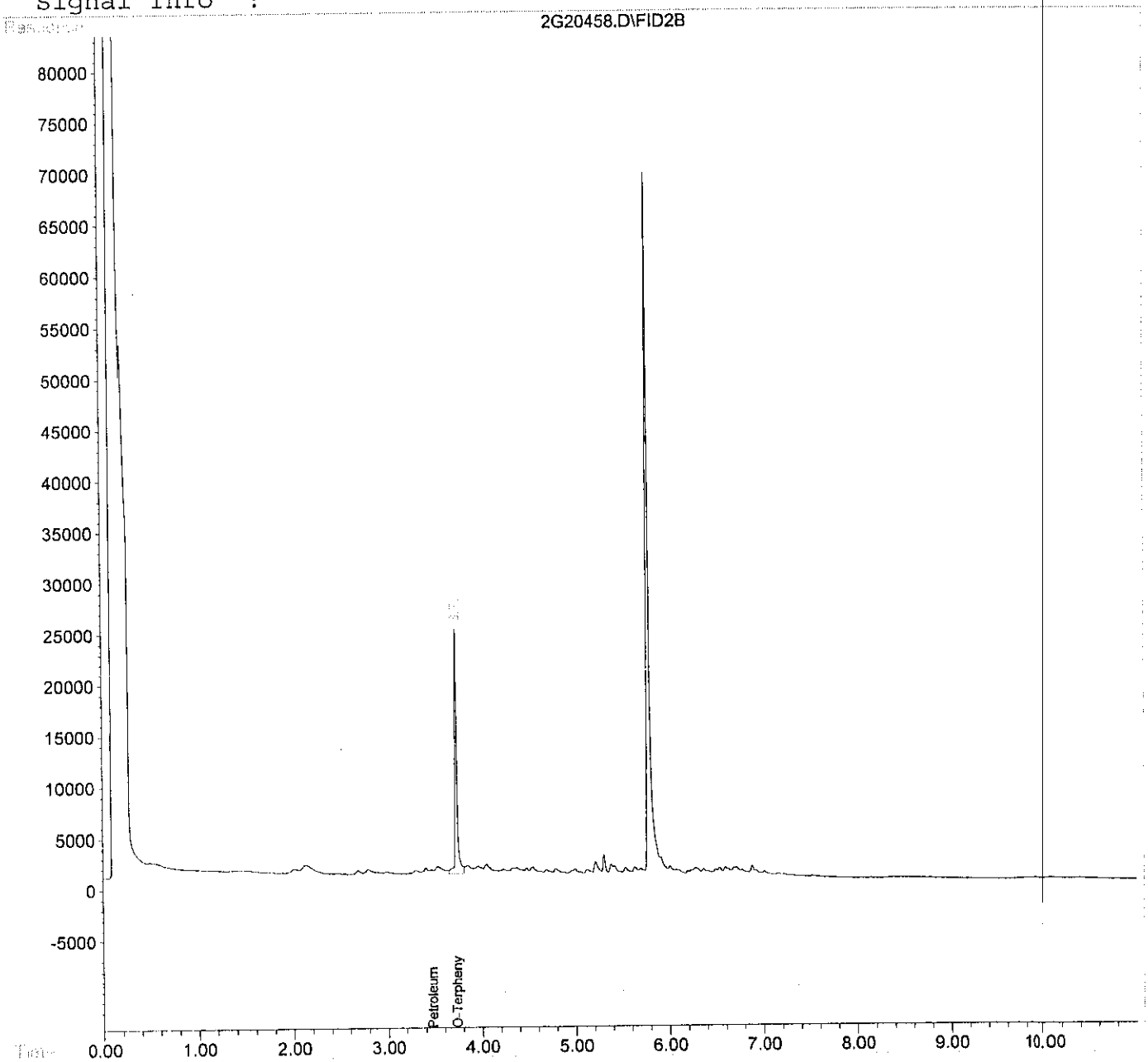
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	365966	12.339 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	61.70%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
~~1)~~ H Petroleum Range	3.48	2264599	~~75.791~~ ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20458.D FLASHPRO.M Thu Jun 13 10:02:58 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20458.D
Acq On : 12 Jun 2002 19:16 Operator: CLK
Sample : WG119551-01 L0206140-07 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20454.D
Acq On : 12 Jun 2002 18:16
Sample : L0206140-08 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:58 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	425668	14.352 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	71.76%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2896149	96.927 ppb

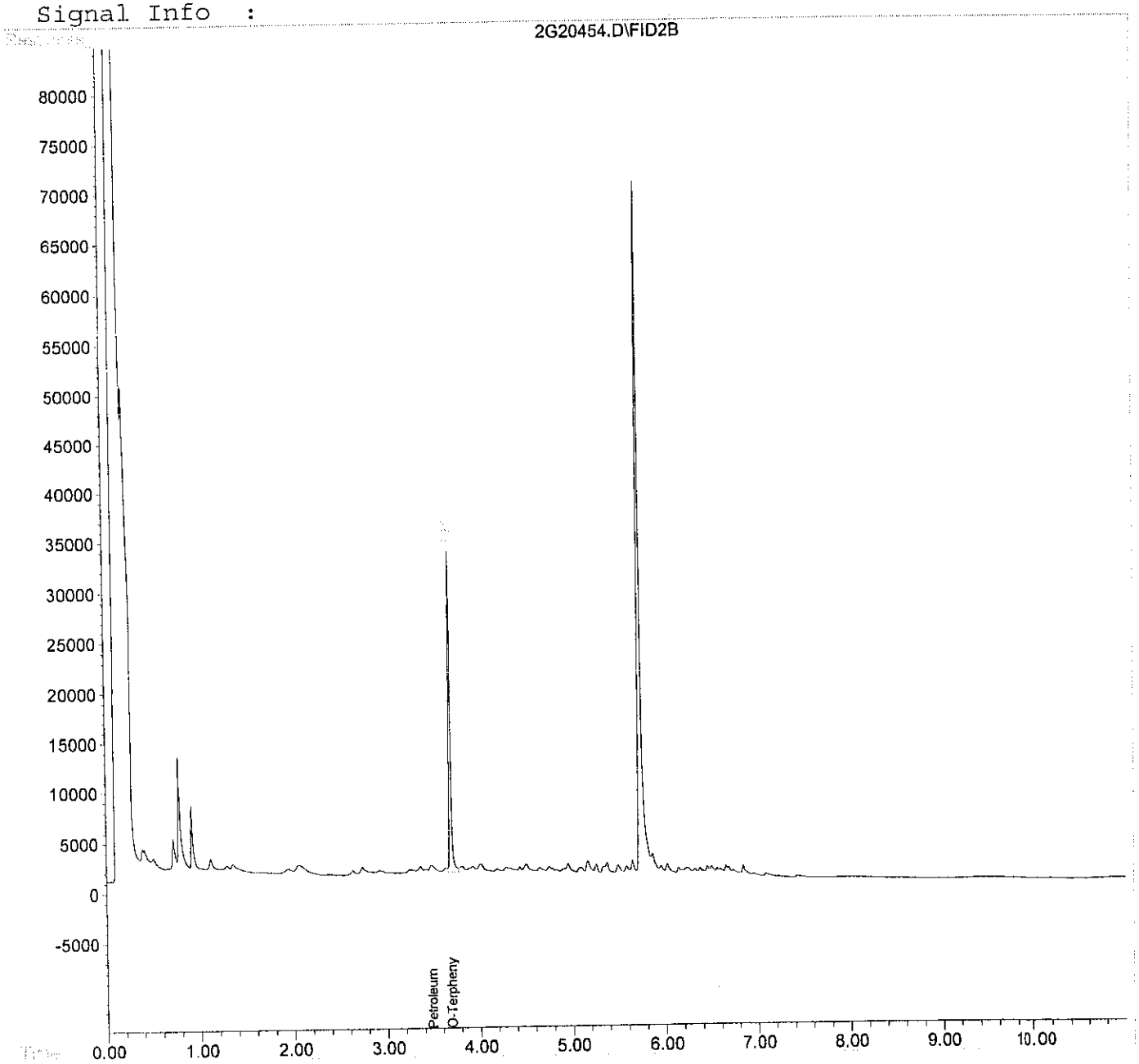
(f)=RT Delta > 1/2 Window
(m)=manual int.
2G20454.D FLASHPRO.M Thu Jun 13 09:58:47 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20454.D
Acq On : 12 Jun 2002 18:16
Sample : L0206140-08 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:58 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20455.D
Acq On : 12 Jun 2002 18:31
Sample : L0206140-09 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:59 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.72	502851	16.954 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	84.77%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2961919	99.128 ppb

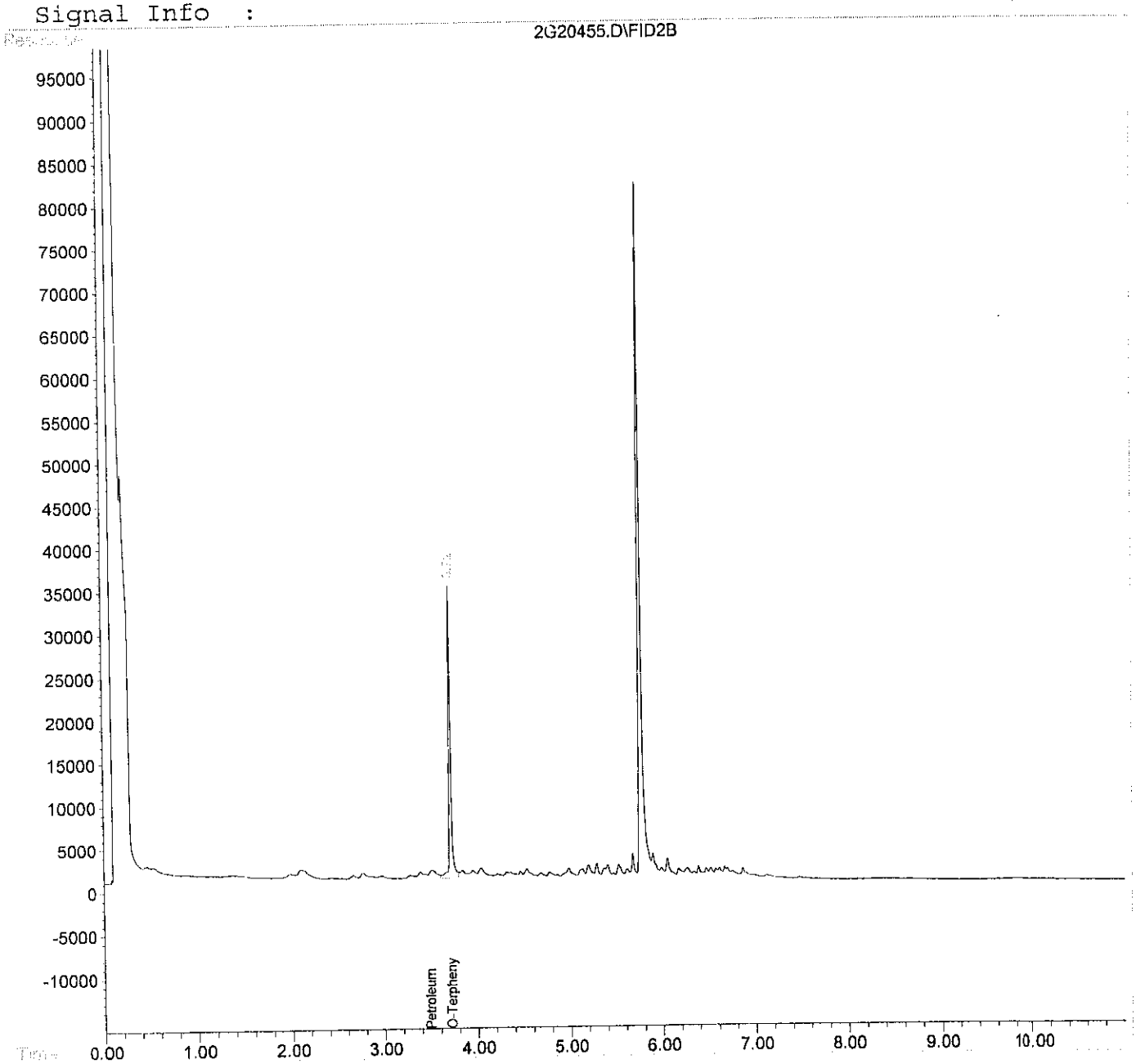
(f)=RT Delta > 1/2 Window (m)=manual int..
2G20455.D FLASHPRO.M Thu Jun 13 09:59:14 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20455.D
Acq On : 12 Jun 2002 18:31
Sample : L0206140-09 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:59 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20450.D Vial: 12
Acq On : 12 Jun 2002 17:15 Operator: CLK
Sample : L0206140-10 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	359832	12.132 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	60.66%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2842106	95.118 ppb

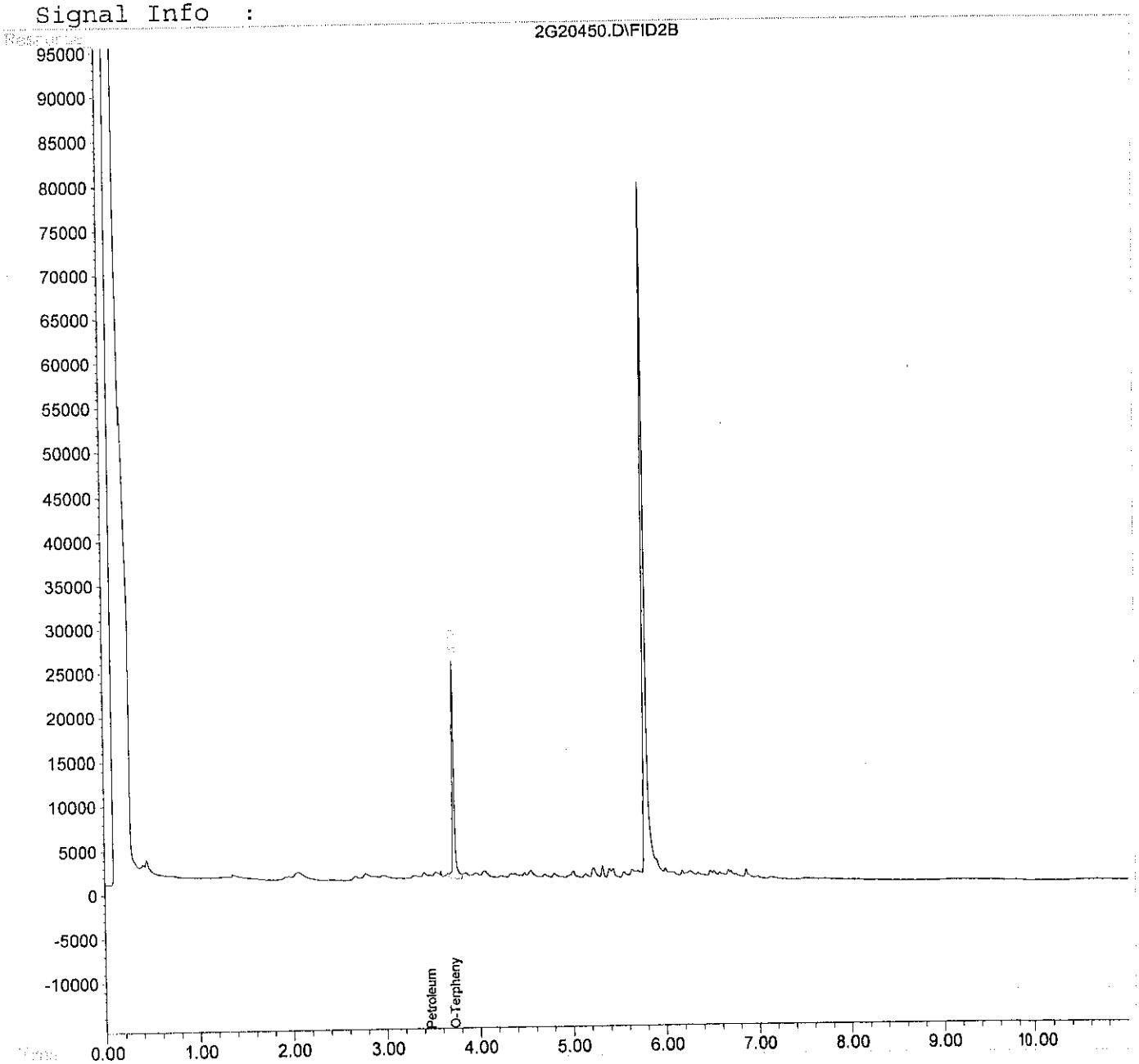
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20450.D FLASHPRO.M Thu Jun 13 09:56:38 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20450.D
Acq On : 12 Jun 2002 17:15
Sample : L0206140-10 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:56 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20451.D
Acq On : 12 Jun 2002 17:30
Sample : L0206140-11 WATER PRO
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:56 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.72	260399	8.780	ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	43.90%#	
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
1) H Petroleum Range	3.48	8394664	280.949	ppb F

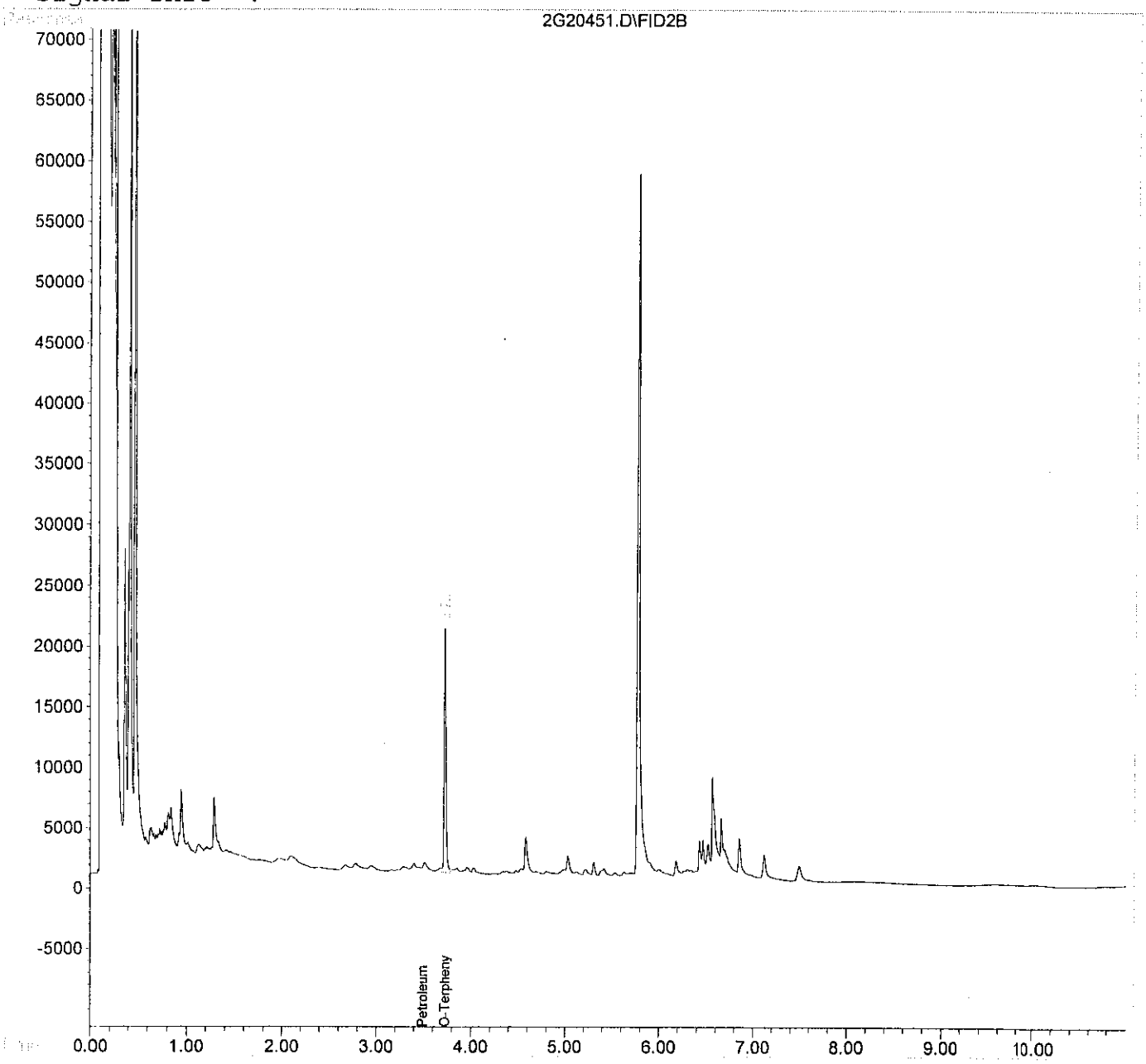
Needs RE

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20451.D FLASHPRO.M Thu Jun 13 09:56:57 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20451.D Vial: 13
Acq On : 12 Jun 2002 17:30 Operator: CLK
Sample : L0206140-11 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:56 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20584.D Vial: 27
Acq On : 19 Jun 2002 23:16 Operator: CLK
Sample : L0206140-11 WATER PRO RE Inst : HP2
Misc : 1,1,RE Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:21 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.65f	256535	15.465 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	77.33%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	9284330	493.080 ppb f

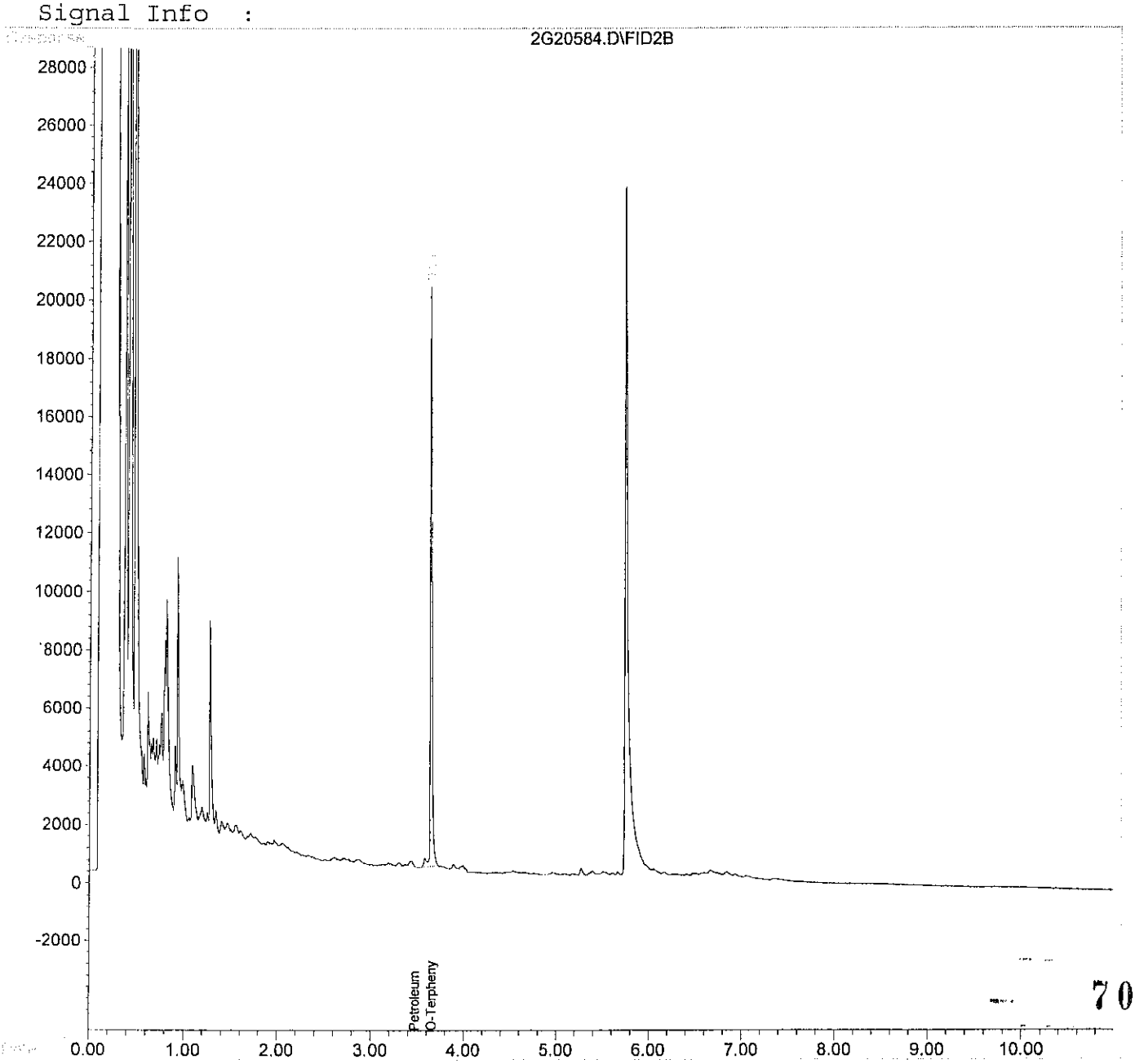
701

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20584.D FLASHPRO.M Thu Jun 20 08:21:24 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061902\2G20584.D Vial: 27
Acq On : 19 Jun 2002 23:16 Operator: CLK
Sample : L0206140-11 WATER PRO RE Inst : HP2
Misc : 1,1,RE Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:21 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



702

```
Data File : C:\HPCHEM\1\DATA\061402\2G20480.D              Vial: 5
Acq On    : 14 Jun 2002  13:18                          Operator: HV
Sample    : L0206140-12 10X                             Inst    : HP2
Misc      : 1,10 WATER                                  Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 14 13:46 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/12/02
Last Update  : Fri Jun 14 13:45:44 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.62          30371    1.024 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   =    5.12%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48      134539177 4502.699 ppb
```

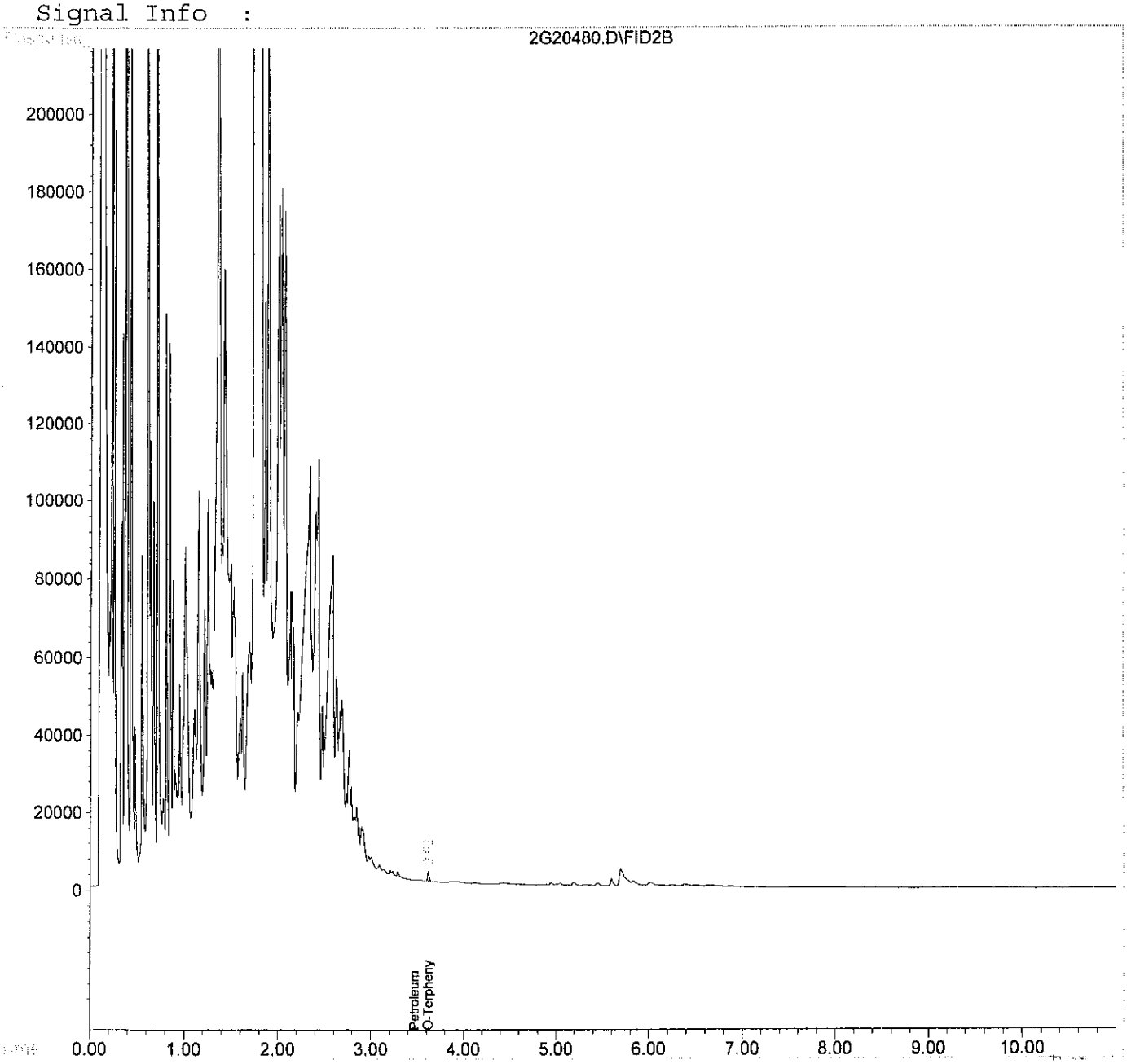
703

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

Data File : C:\HPCHEM\1\DATA\061402\2G20480.D Vial: 5
Acq On : 14 Jun 2002 13:18 Operator: HV
Sample : L0206140-12 10X Inst : HP2
Misc : 1,10 WATER Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 14 13:46 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Fri Jun 14 13:45:44 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20457.D Vial: 24
Acq On : 12 Jun 2002 19:01 Operator: CLK
Sample : L0206140-13 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

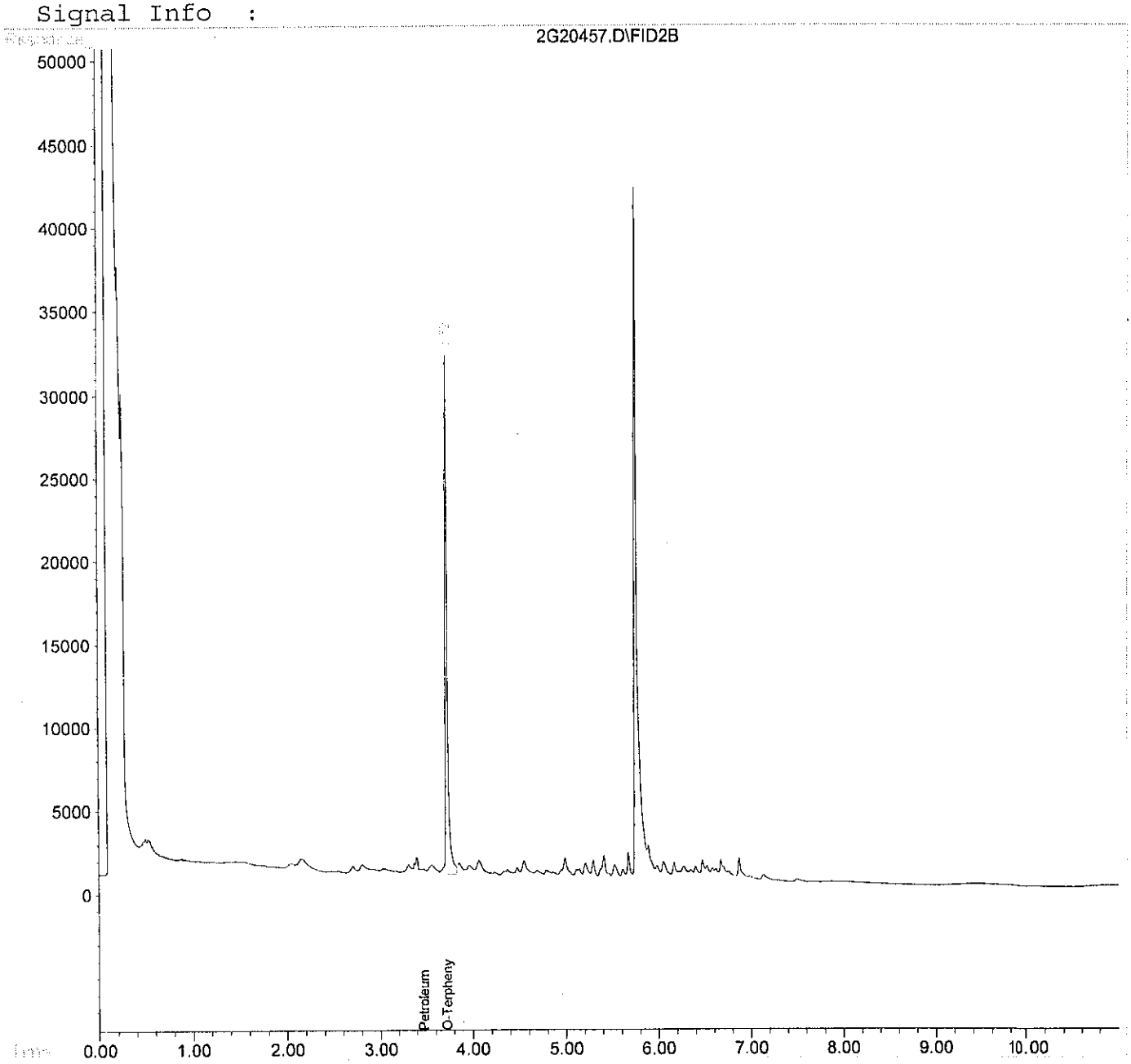
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.72	467933	15.777 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	78.88%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2431976	81.392 ppb

(f)=RT Delta > 1/2 Window (m)=manual int...
2G20457.D FLASHPRO.M Thu Jun 13 10:02:38 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20457.D Vial: 24
Acq On : 12 Jun 2002 19:01 Operator: CLK
Sample : L0206140-13 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:58:26 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20459.D Vial: 26
Acq On : 12 Jun 2002 19:32 Operator: CLK
Sample : WG119551-04 L0206140-17 WATER PRO MS Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:03 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:03:48 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

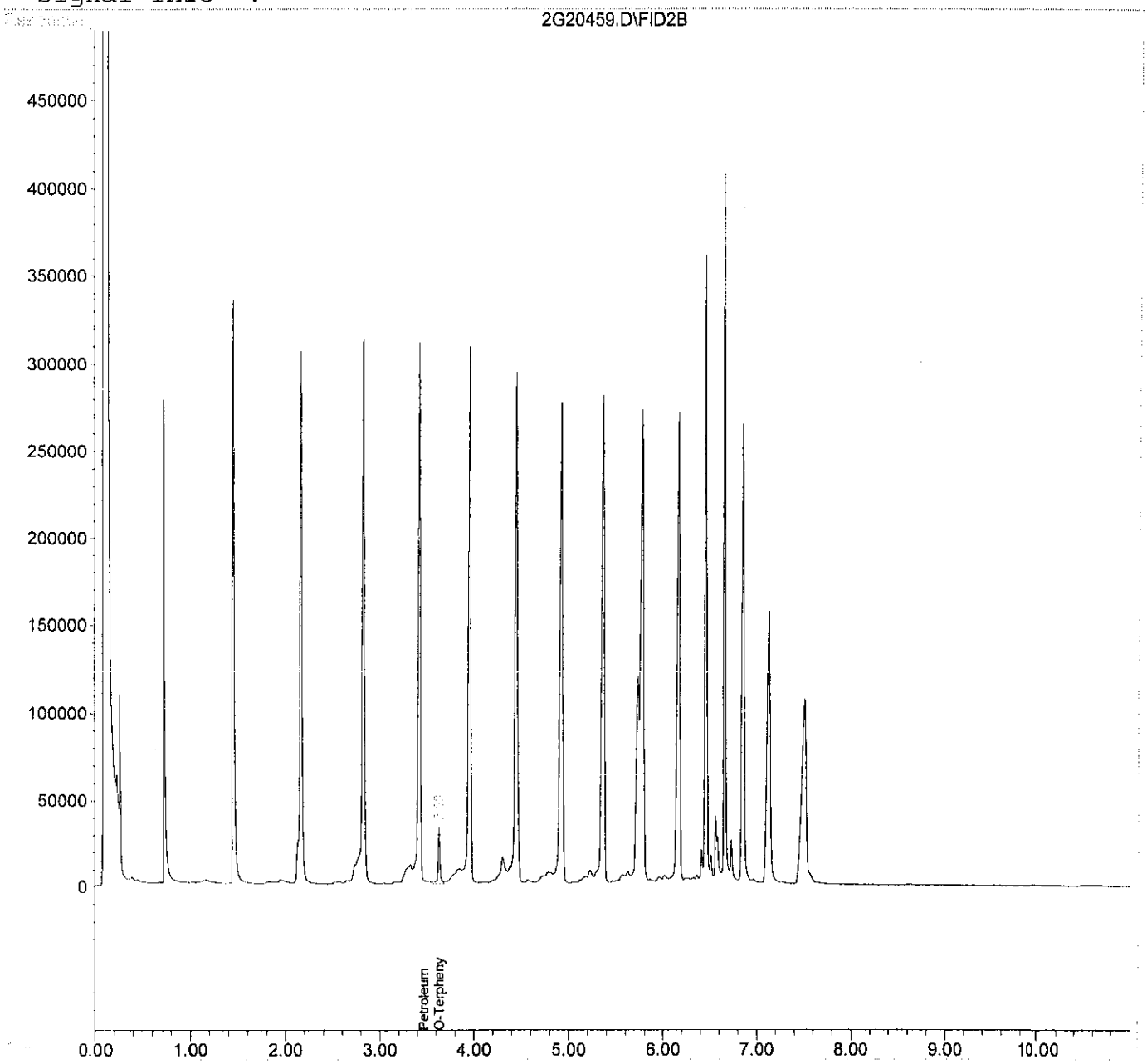
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.63	463665	15.633 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 78.16%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	87012036	2912.081 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20459.D FLASHPRO.M Thu Jun 13 10:04:05 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20459.D Vial: 20
Acq On : 12 Jun 2002 19:32 Operator: CLK
Sample : WG119551-04 L0206140-17 WATER PRO MS Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:03 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:03:48 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20460.D Vial: 27
Acq On : 12 Jun 2002 19:47 Operator: CLK
Sample : WG119551-05 L0206140-18 WATER PRO MSD Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:04 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:04:32 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

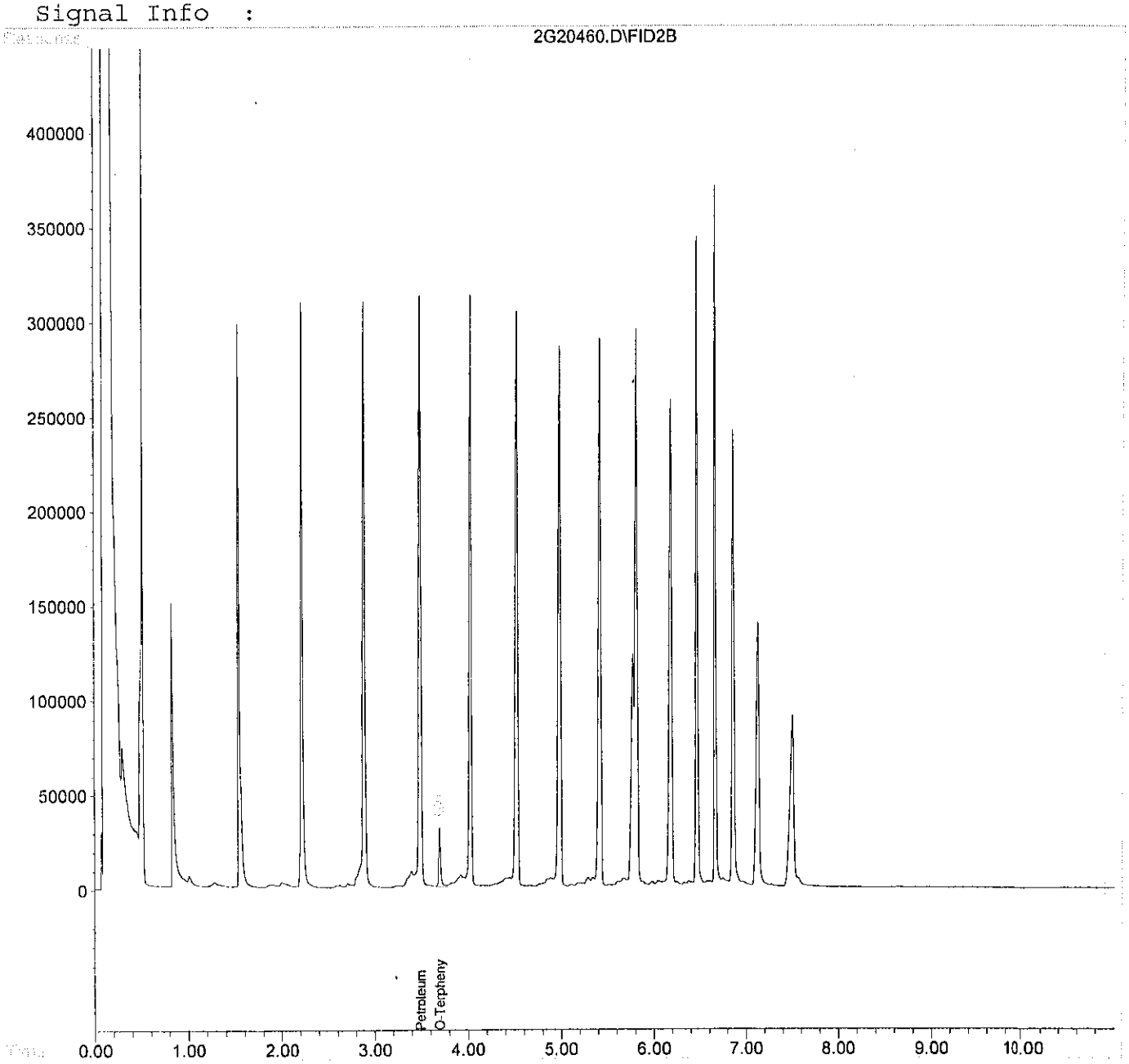
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	432450	14.580 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	72.90%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	86989095	2911.313 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20460.D FLASHPRO.M Thu Jun 13 10:04:49 2002 HP2 Page 1

Acq On : 12 Jun 2002 19:47 Operator: CLK
Sample : WG119551-05 L0206140-18 WATER PRO MSD Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:04 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:04:32 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.6.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002

Calibration Files

5	=2G20441.D	50	=2G20440.D	100	=2G20439.D
200	=2G20438.D	400	=2G20437.D	600	=2G20436.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.497	3.019	3.156	3.109	3.094	3.053	2.988	E4	8.20
2)	s	O-Terphenyl	3.304	2.925	2.991	2.944	2.808	2.823	2.966	E4	6.08
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

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

Acq On : 12 Jun 2002 13:42 Operator: CLK
Sample : WG119761-06 600ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	16940805	571.174 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2855.87%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	311375470	10420.980 ppb

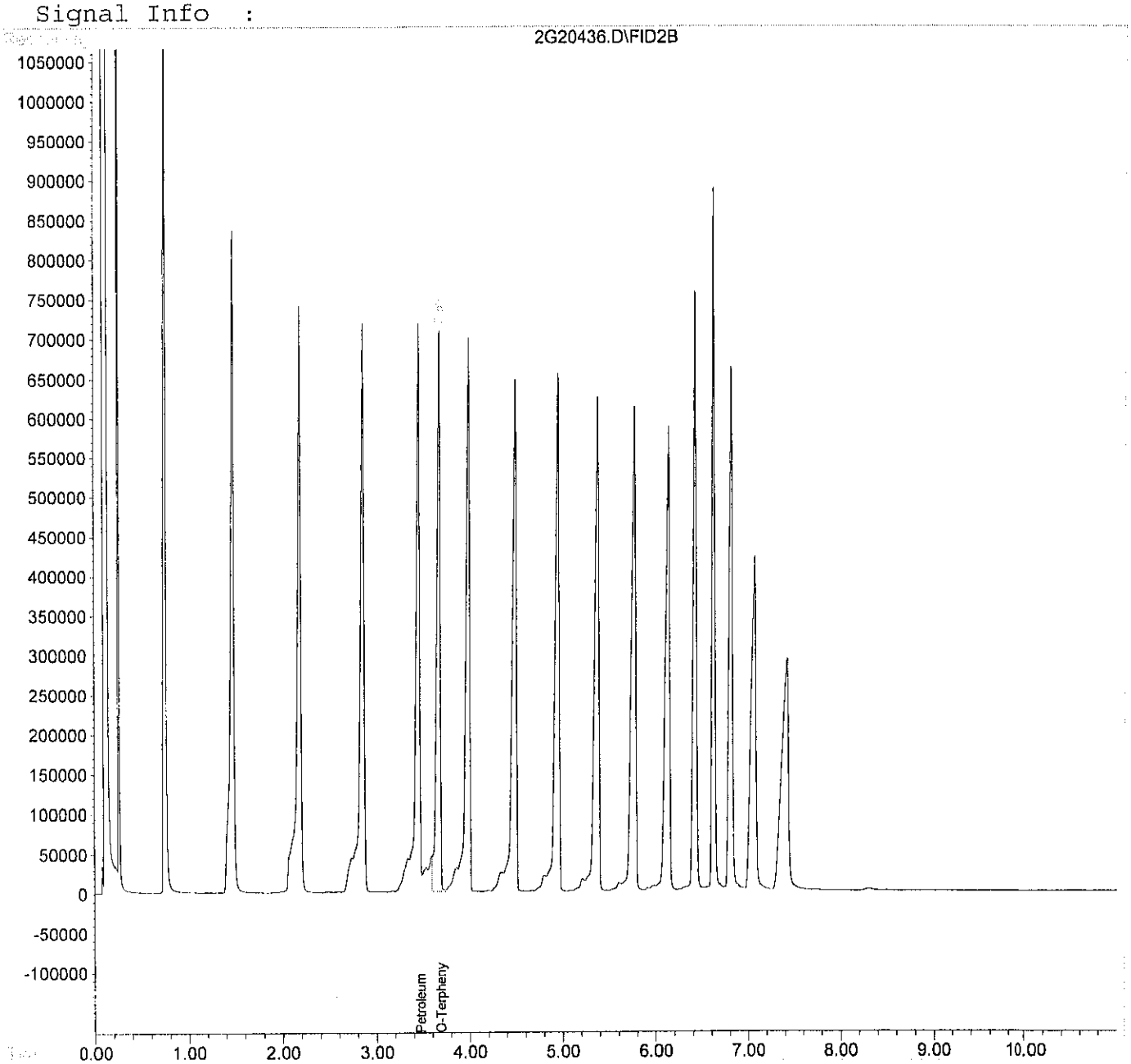
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20436.D FLASHPRO.M Thu Jun 13 09:47:26 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20436.D

Acq On : 12 Jun 2002 13:42 Operator: CLK
Sample : WG119761-06 600ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20437.D Vial: 15
Acq On : 12 Jun 2002 13:57 Operator: CLK
Sample : WG119761-05 400ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	11231208	378.670 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1893.35%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	210386963	7041.140 ppb

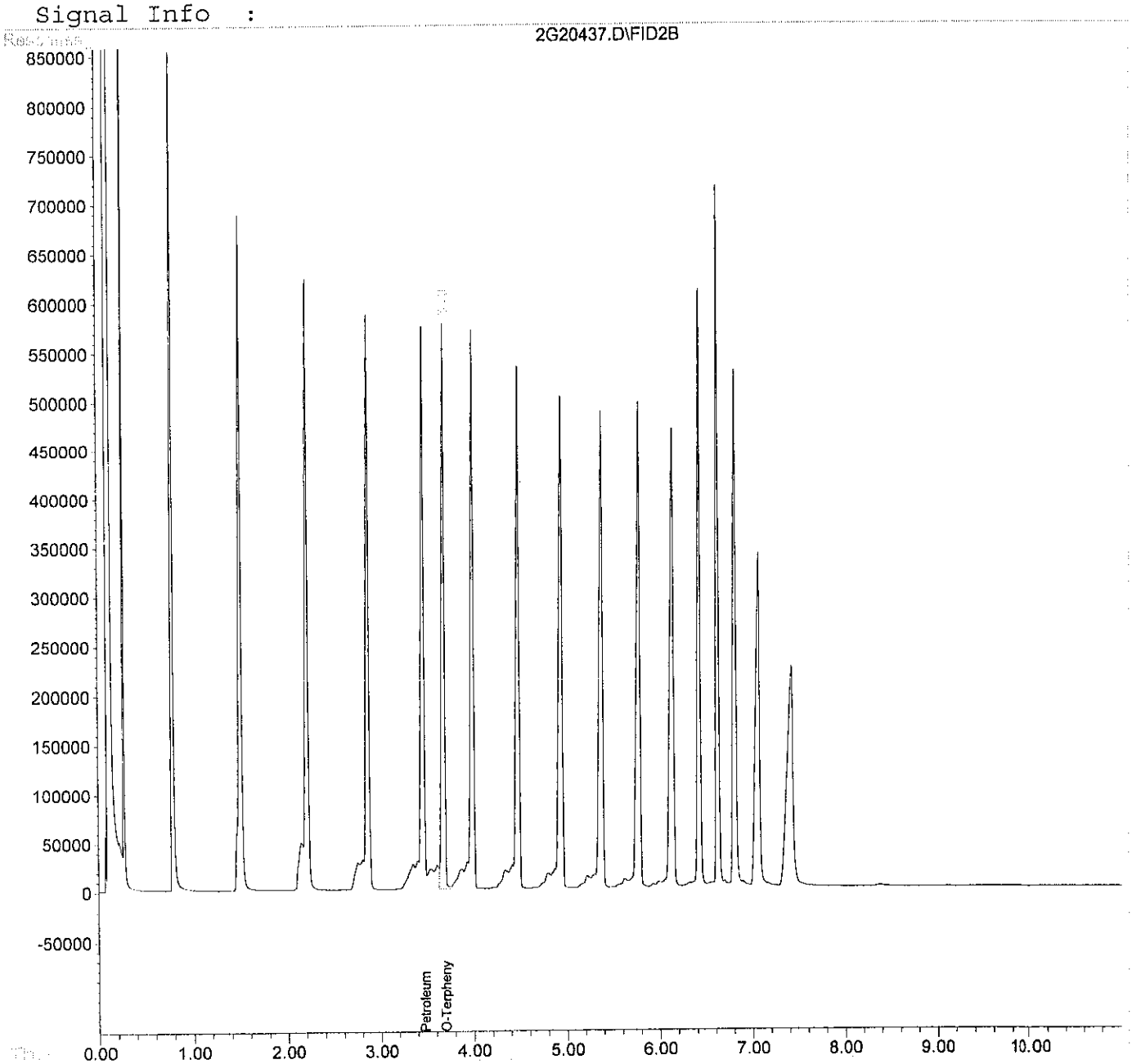
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20437.D FLASHPRO.M Thu Jun 13 09:47:45 2002 HP2 Page 715

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

Acq On : 12 Jun 2002 13:57 Operator: CLK
Sample : WG119761-05 400ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 12 Jun 2002 14:12 Operator: CLK
Sample : WG119761-04 200ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

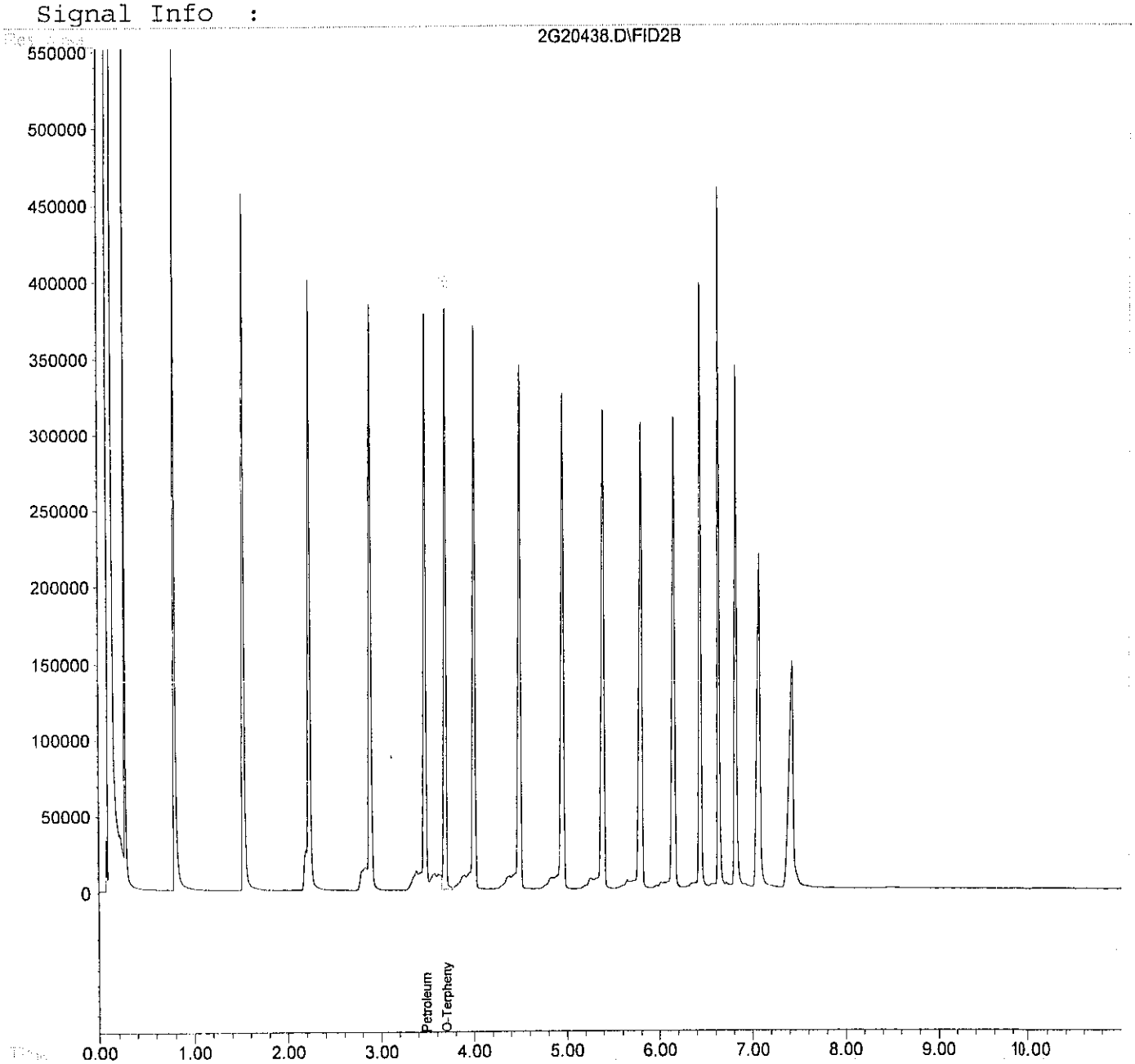
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	5887177	198.491 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	992.46%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	105716877	3538.087 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20438.D FLASHPRO.M Thu Jun 13 09:48:08 2002 HP2 Page 1

Acq On : 12 Jun 2002 14:12 Operator: CLK
Sample : WG119761-04 200ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 12 Jun 2002 14:28 Operator: CLK
Sample : WG119761-03 100ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	2991381	100.857 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	504.29%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	53651248	1795.577 ppb

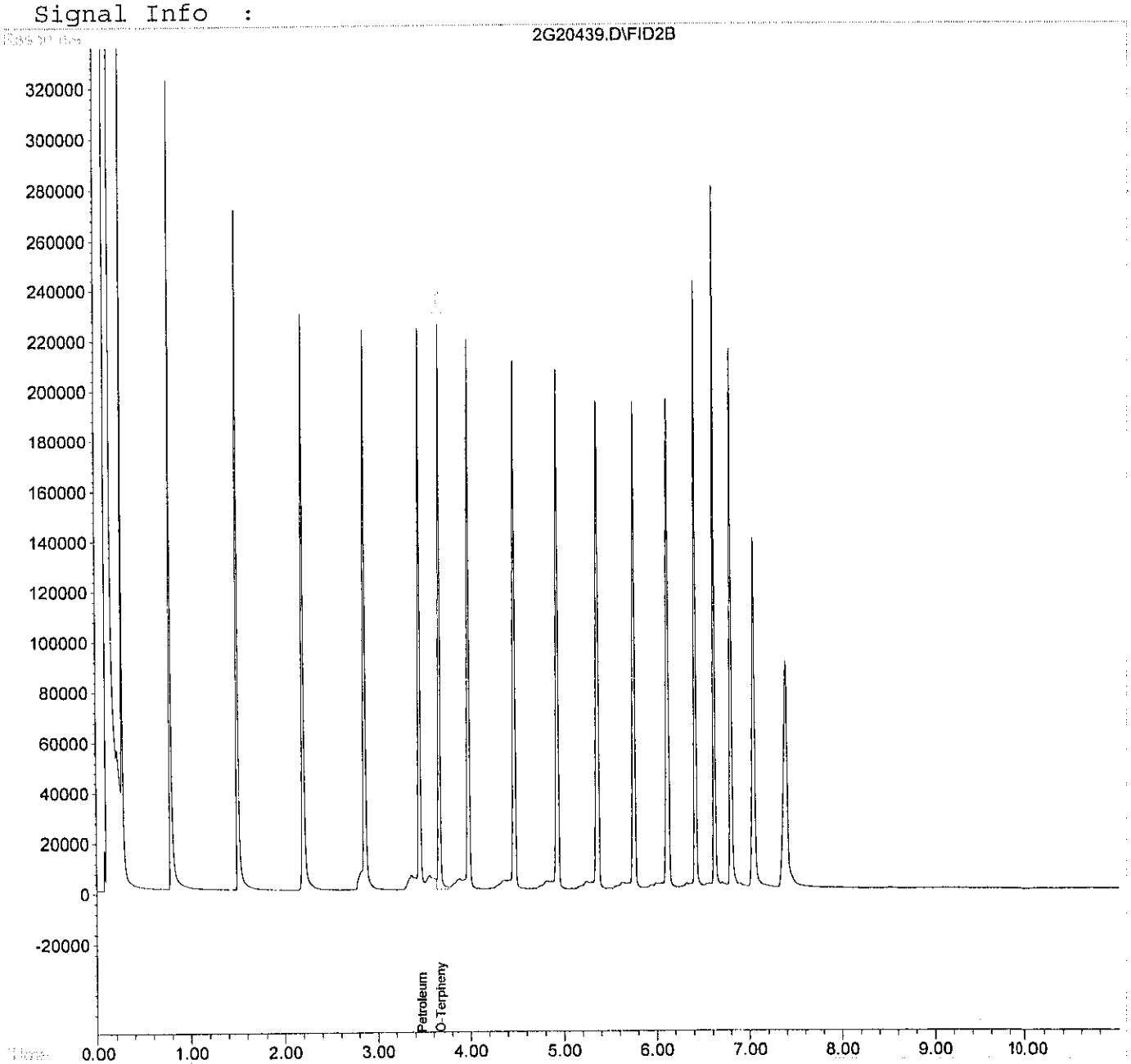
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 12 Jun 2002 14:28 Operator: CLK
Sample : WG119761-03 100ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Jun 2002 14:43 Operator: CLK
Sample : WG119761-02 50ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

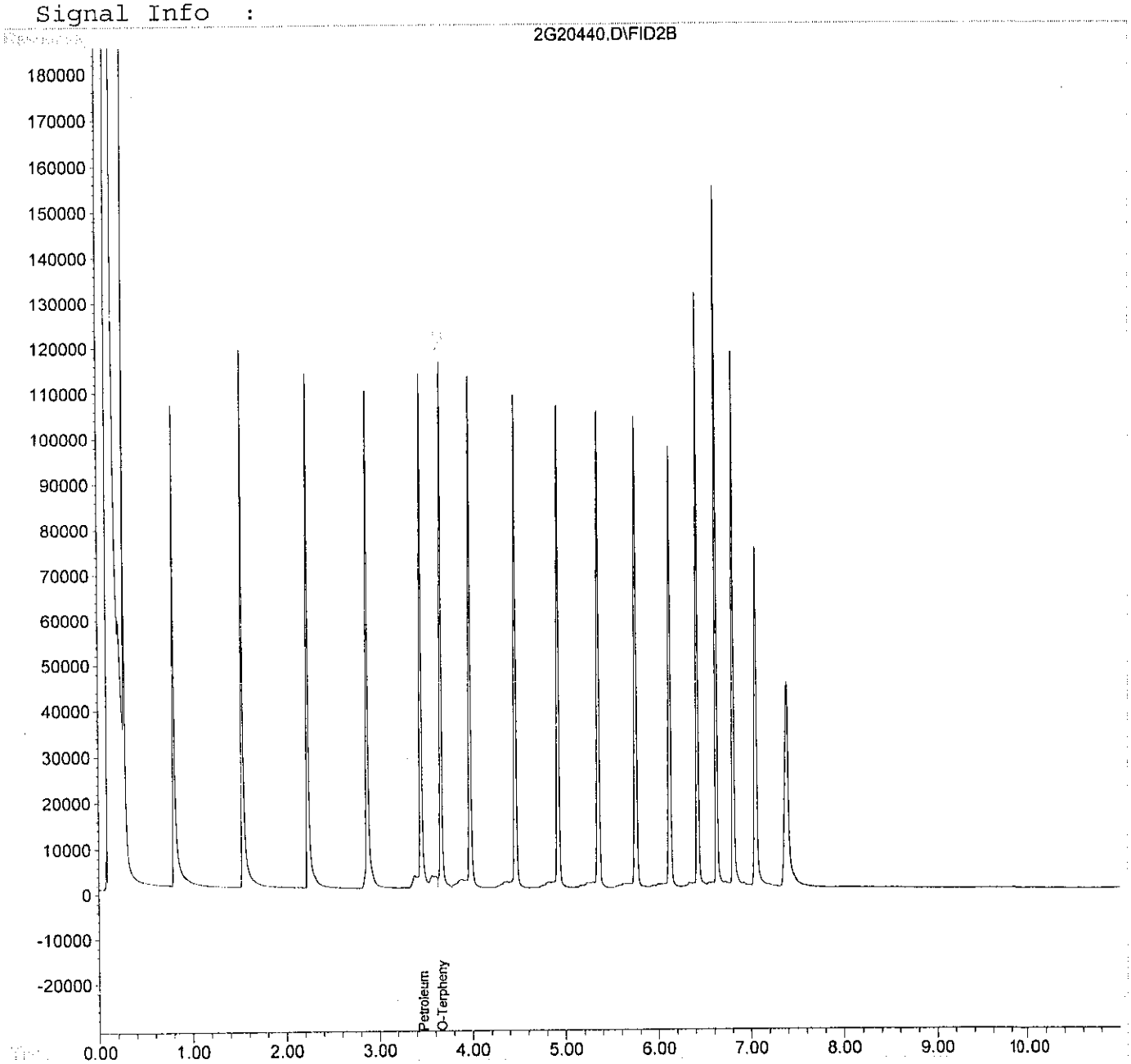
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	1462593	49.313 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	246.57%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	25658574	858.730 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20440.D FLASHPRO.M Thu Jun 13 09:48:49 2002 HP2 Page 1

Acq On : 12 Jun 2002 14:43 Operator: CLK
Sample : WG119761-02 50ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\

Acq On : 12 Jun 2002 14:58 Operator: CLK
Sample : WG119761-01 5ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

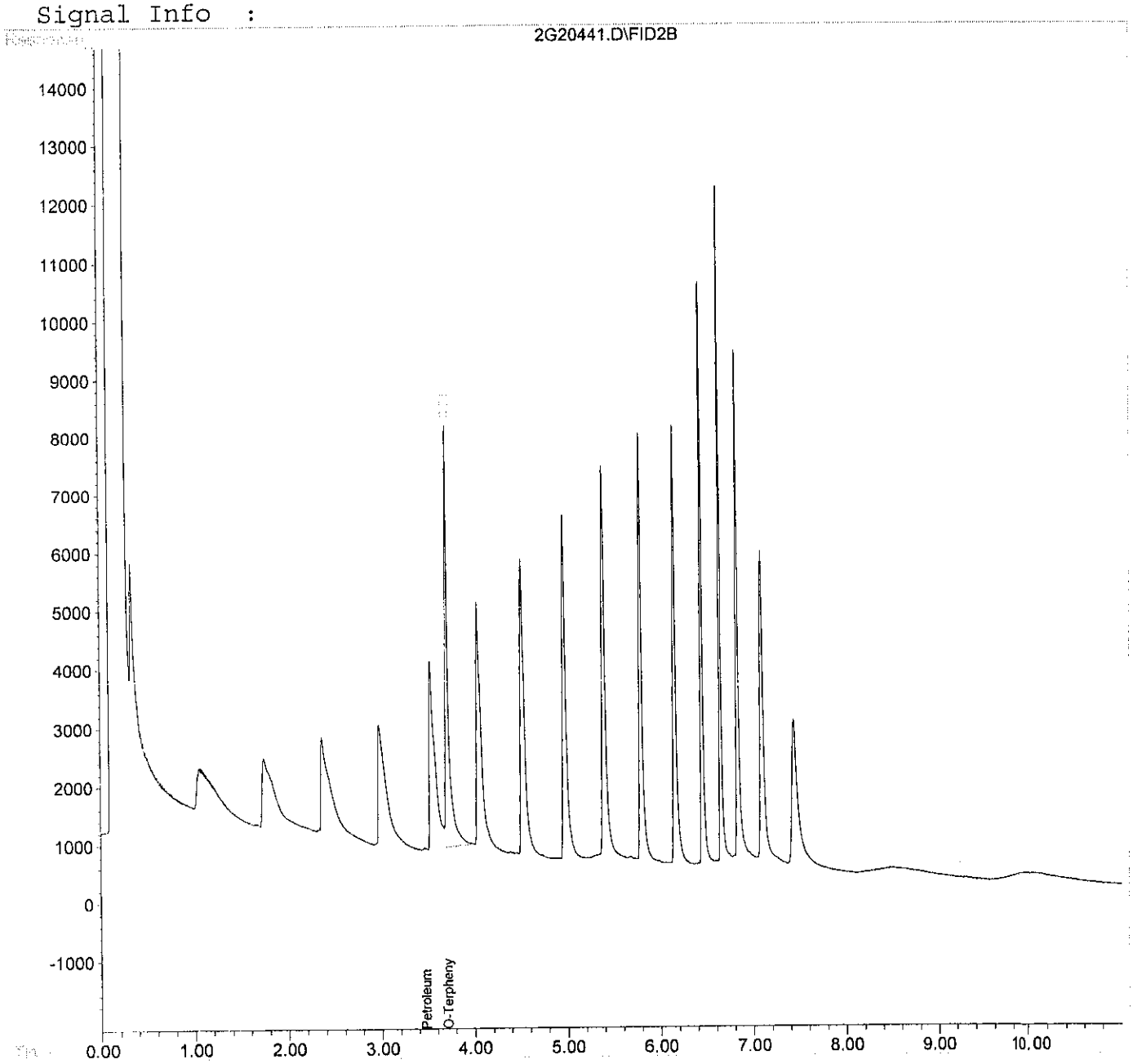
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	165218	5.570 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	27.85%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2122659	71.040 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20441.D FLASHPRO.M Thu Jun 13 09:49:09 2002 HP2 Page 1

Acq On : 12 Jun 2002 14:58 Operator: CLK
Sample : WG119761-01 5ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2951.497	13.2	83	0.00
2	s	O-Terphenyl	200.000	1.081	99.5#	1	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20442.D FLASHPRO.M Thu Jun 13 09:52:22 2002 HP2 Page 1

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

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

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

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 12 Jun 2002 15:13
Sample : WG119761-07 200ppm PRO ALT SOURCE STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Jun 13 9:52 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.72	32064	1.081 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	5.41%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	88189777	2951.497 ppb

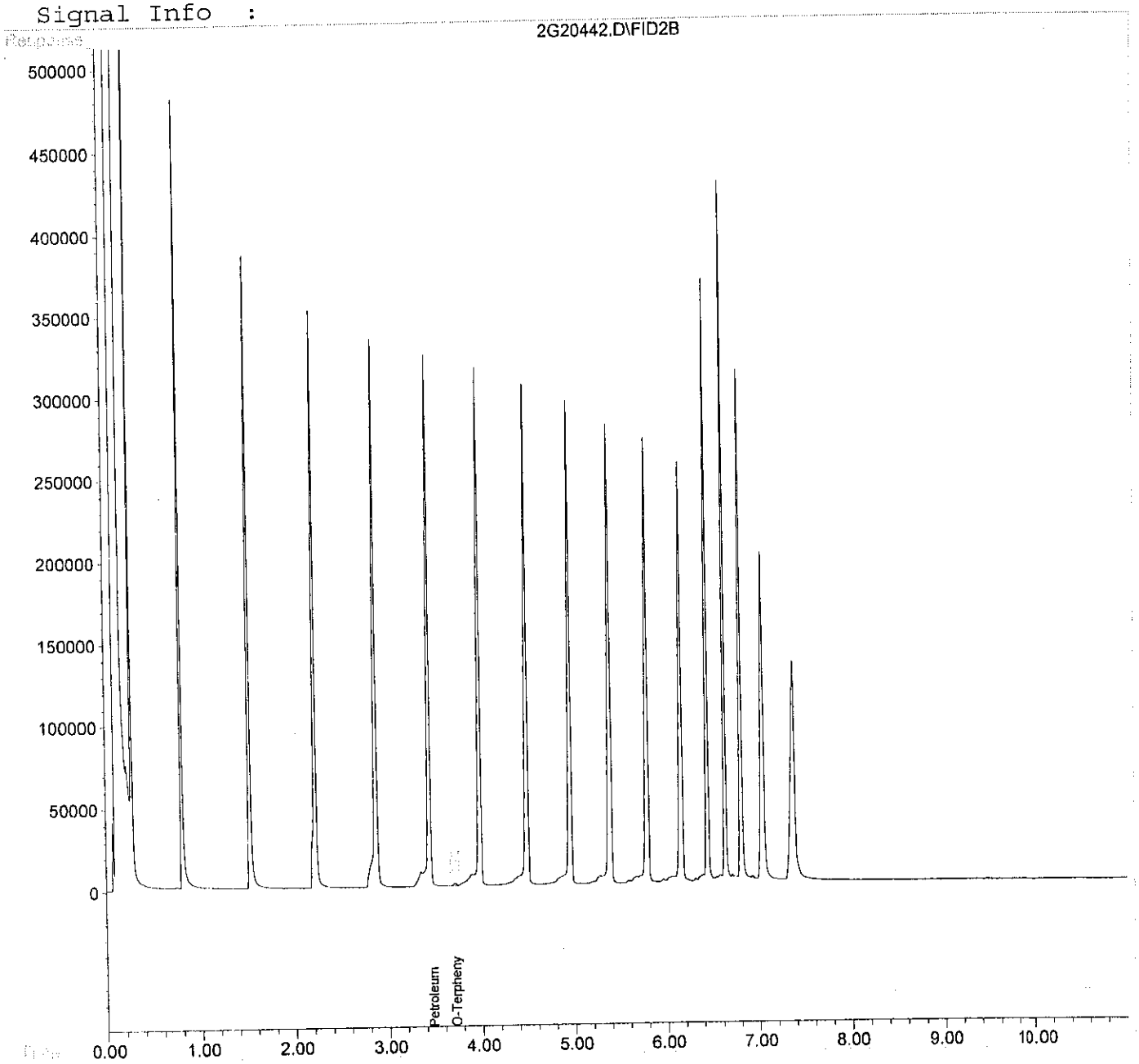
(f)=RT Delta > 1/2 Window
(m)=manual int.
2G20442.D FLASHPRO.M Thu Jun 13 09:52:31 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 12 Jun 2002 15:13
Sample : WG119761-07 200ppm PRO ALT SOURCE STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Jun 13 9:52 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
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 06/19/02
Last Update : Thu Jun 20 08:14:44 2002

Calibration Files

5	=2G20579.D	50	=2G20578.D	100	=2G20577.D
200	=2G20576.D	400	=2G20575.D	600	=2G20574.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.278	1.778	1.872	1.948	2.009	1.413	1.883	E4	15.16
2)	s	O-Terphenyl	1.411	1.706	1.790	1.725	1.743	1.579	1.659	E4	8.48
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\061902\2G20574.D Vial: 17
Acq On : 19 Jun 2002 20:42 Operator: CLK
Sample : WG120195-01 600ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:11 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	9471525	319.341 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1596.71%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	144167237	4824.927 ppb

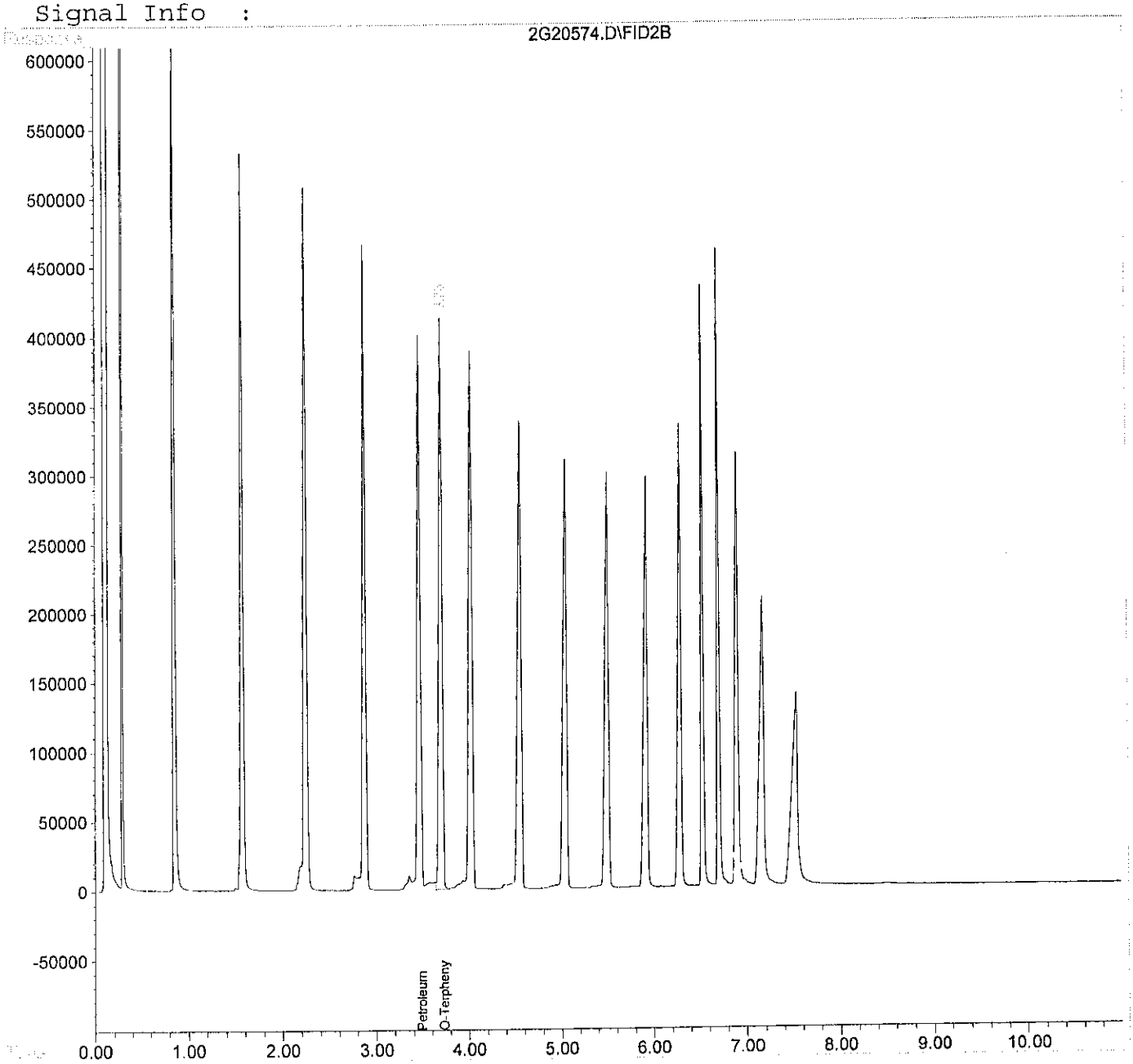
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\061902\2G20574.D
Acq On : 19 Jun 2002 20:42
Sample : WG120195-01 600ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:11 2002 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20575.D Vial: 18
Acq On : 19 Jun 2002 20:58 Operator: CLK
Sample : WG120195-02 400ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:12 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	6972922	235.098 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1175.49%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	136613903	4572.135 ppb

732

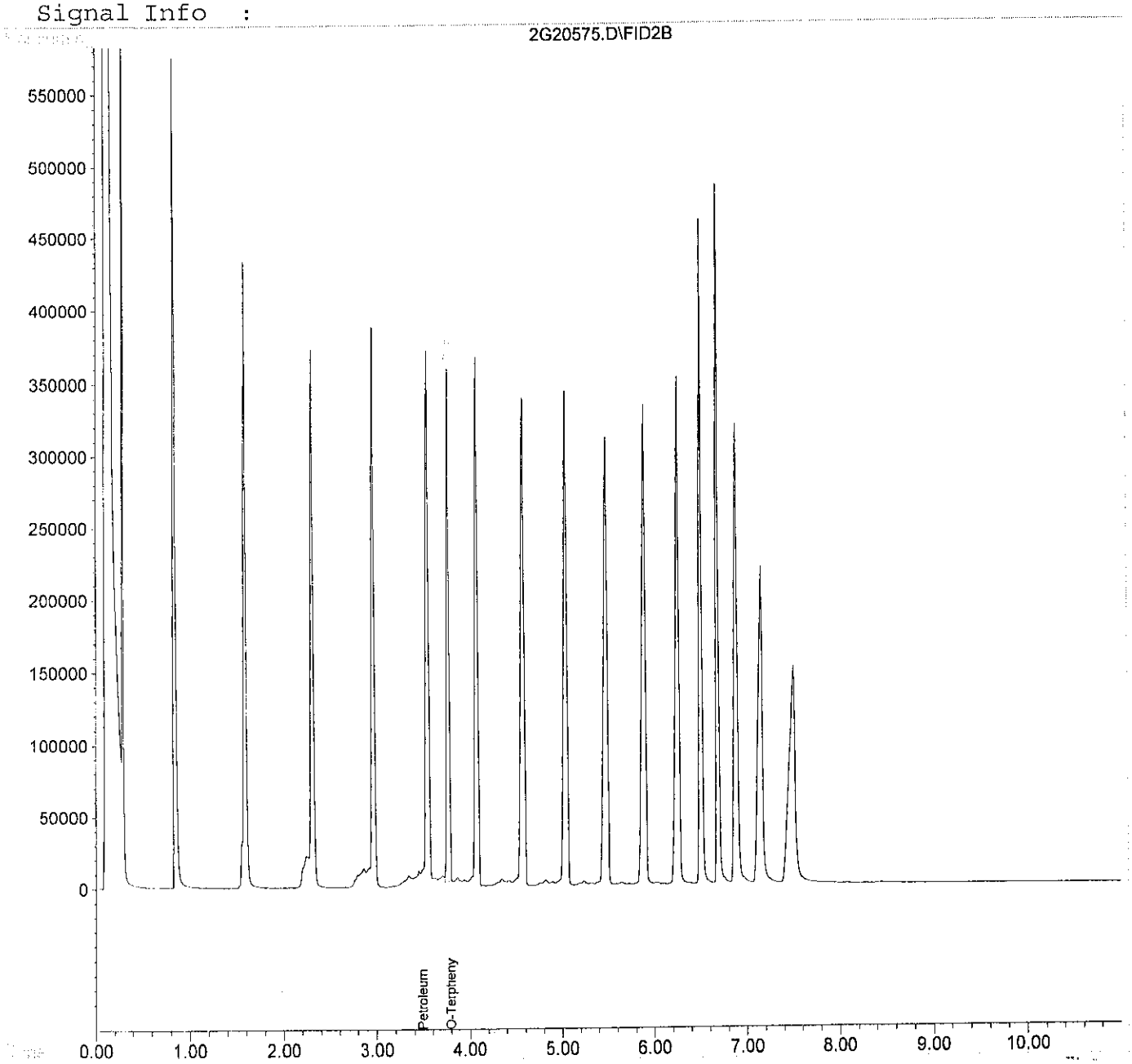
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\061902\2G20575.D
Acq On : 19 Jun 2002 20:58
Sample : WG120195-02 400ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:12 2002 Quant Results File: FLASHPRO.RES

Vial: 18
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20576.D Vial: 19
Acq On : 19 Jun 2002 21:13 Operator: CLK
Sample : WG120195-03 200ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:12 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	3449014	116.286 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 581.43%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	66222811	2216.316 ppb

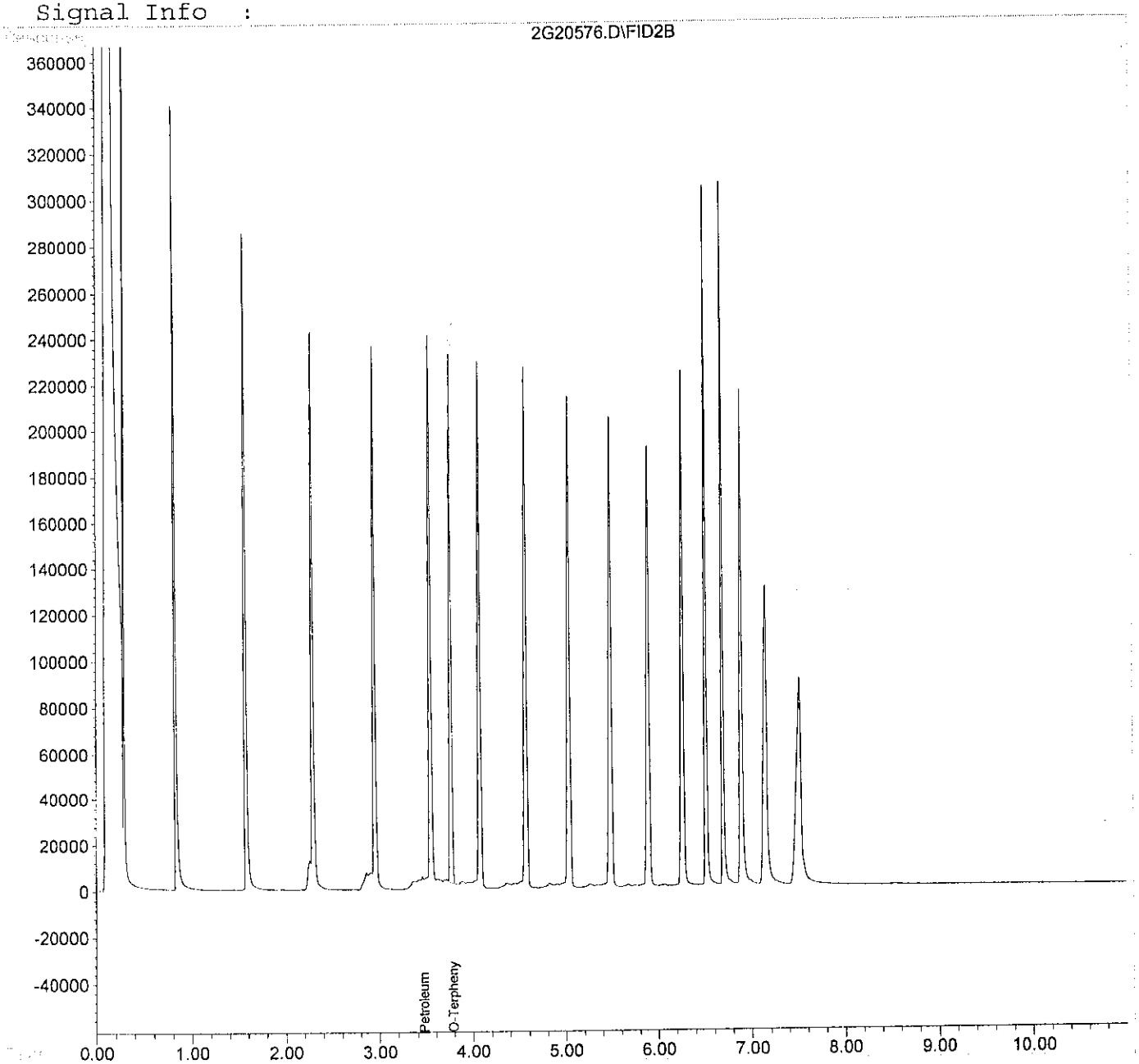
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\061902\2G20576.D
Acq On : 19 Jun 2002 21:13
Sample : WG120195-03 200ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:12 2002 Quant Results File: FLASHPRO.RES

Vial: 19
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20577.D
Acq On : 19 Jun 2002 21:29
Sample : WG120195-04 100ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:12 2002 Quant Results File: FLASHPRO.RES

Vial: 20
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	1790000	60.351 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 301.76%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	31816755	1064.829 ppb

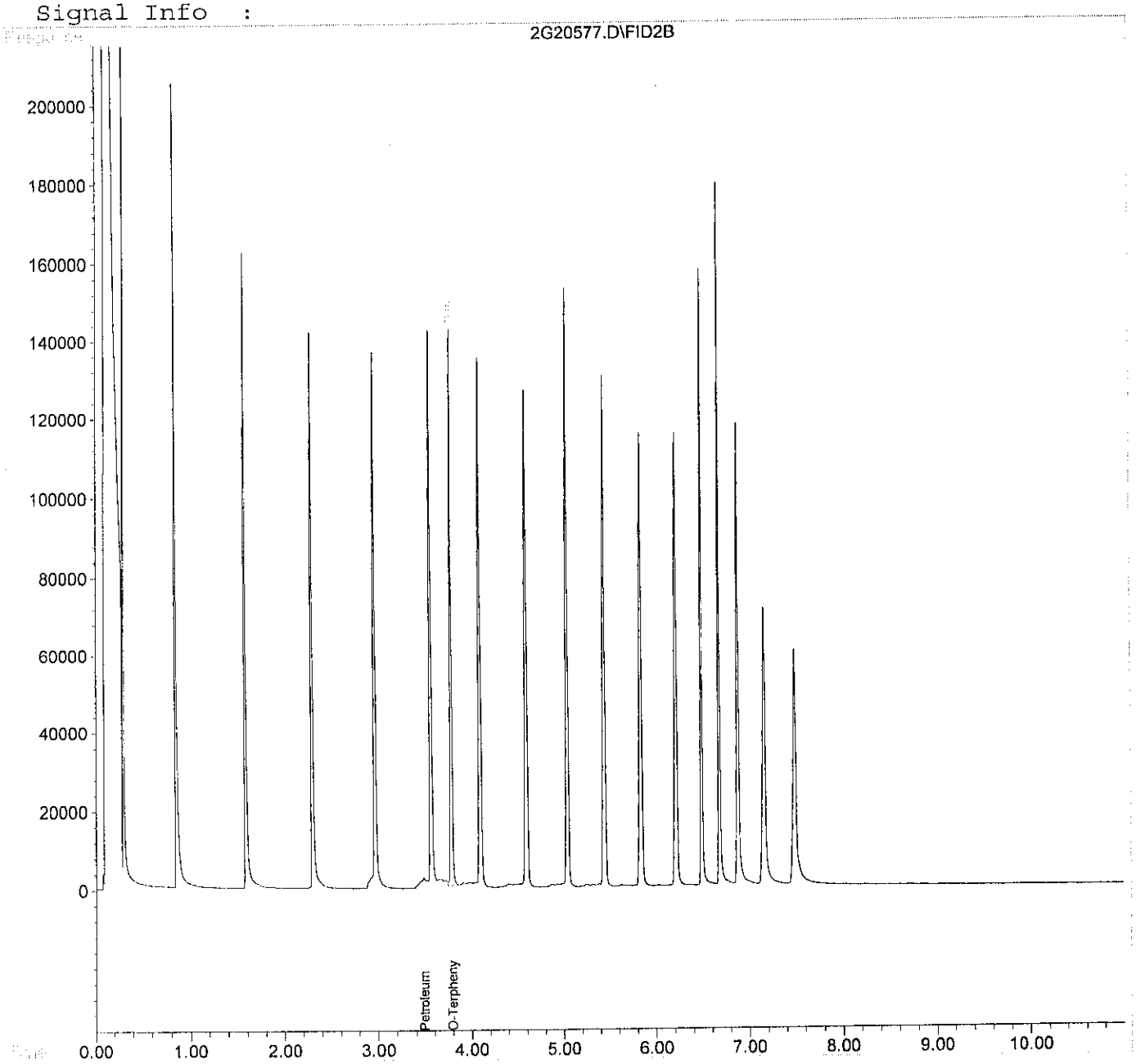
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\061902\2G20577.D
Acq On : 19 Jun 2002 21:29
Sample : WG120195-04 100ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:12 2002 Quant Results File: FLASHPRO.RES

Vial: 20
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Wed Jun 19 18:16:37 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20578.D
Acq On : 19 Jun 2002 21:44
Sample : WG120195-05 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:13 2002 Quant Results File: FLASHPRO.RES

Vial: 21
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:13:27 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.64	852912	28.757 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	143.79%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	15115015	505.863 ppb

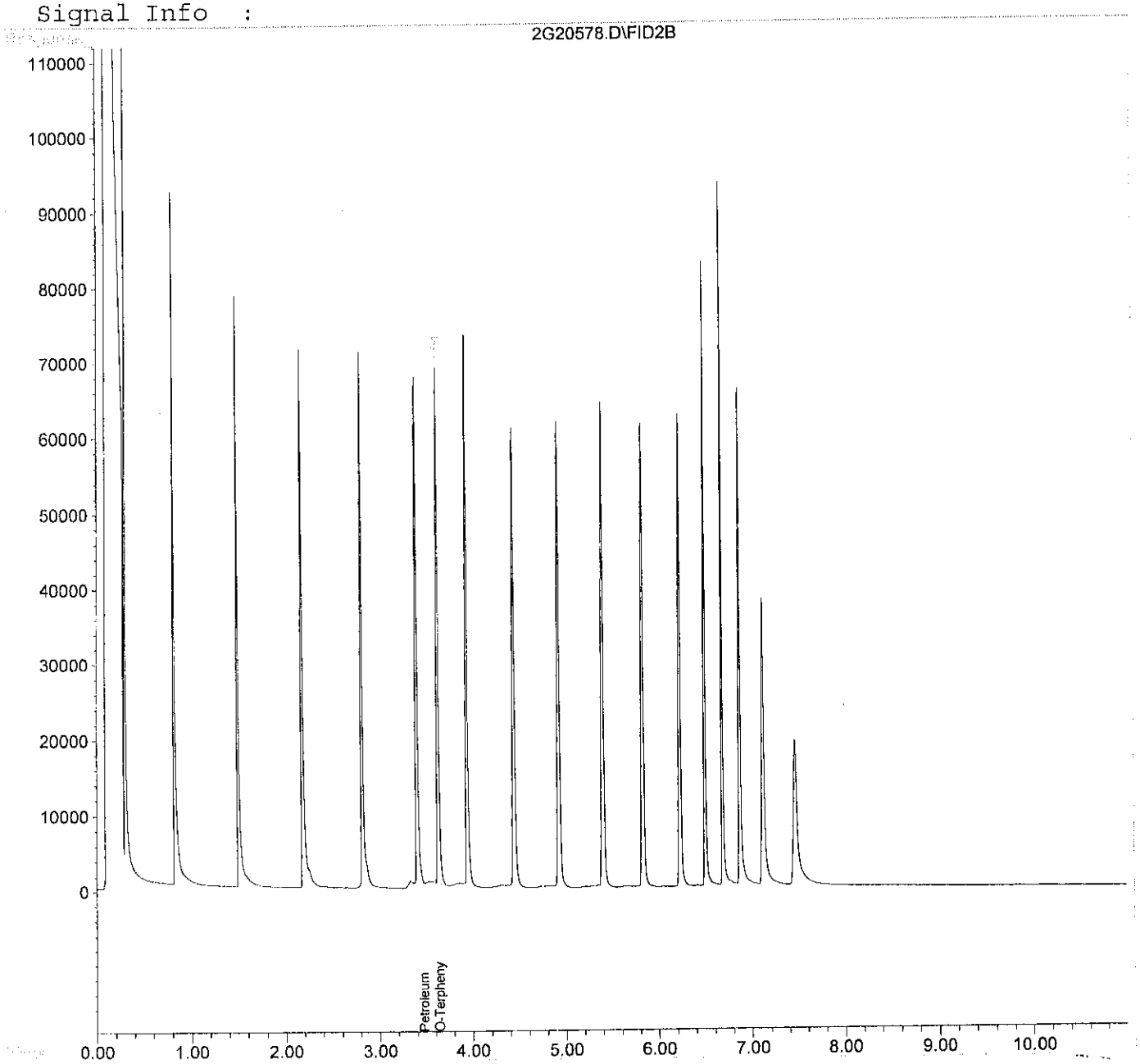
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\061902\2G20578.D
Acq On : 19 Jun 2002 21:44
Sample : WG120195-05 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:13 2002 Quant Results File: FLASHPRO.RES

Vial: 21
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:13:27 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20579.D Vial: 22
Acq On : 19 Jun 2002 22:00 Operator: CLK
Sample : WG120195-06 5ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:13 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:13:27 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	70526	2.378 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	11.89%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1935938	64.791 ppb

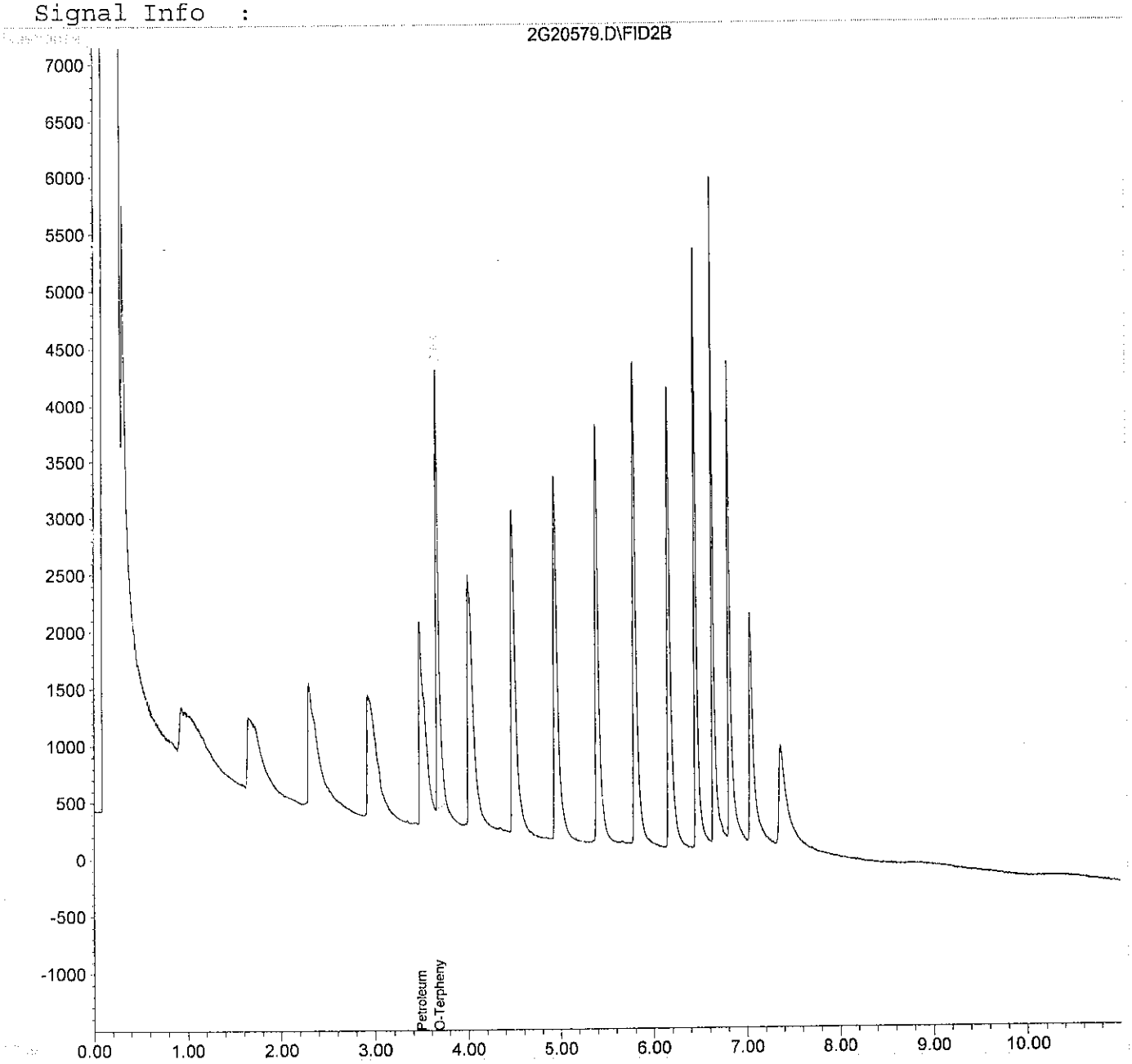
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20579.D FLASHPRO.M Thu Jun 20 08:25:22 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061902\2G20579.D
Acq On : 19 Jun 2002 22:00
Sample : WG120195-06 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 20 8:13 2002 Quant Results File: FLASHPRO.RES

Vial: 22
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:13:27 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20580.D Vial: 23
Acq On : 19 Jun 2002 22:15 Operator: CLK
Sample : WG120195-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2728.274	19.8	78	0.00
2	s	O-Terphenyl	200.000	0.696	99.7#	0	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20580.D FLASHPRO.M Thu Jun 20 08:39:12 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061902\2G20580.D Vial: 23
Acq On : 19 Jun 2002 22:15 Operator: CLK
Sample : WG120195-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

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

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

Acq On : 19 Jun 2002 22:15 Operator: CLK
Sample : WG120195-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:18 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:14:18 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.72	11541	0.696 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	3.48%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	51371343	2728.274 ppb

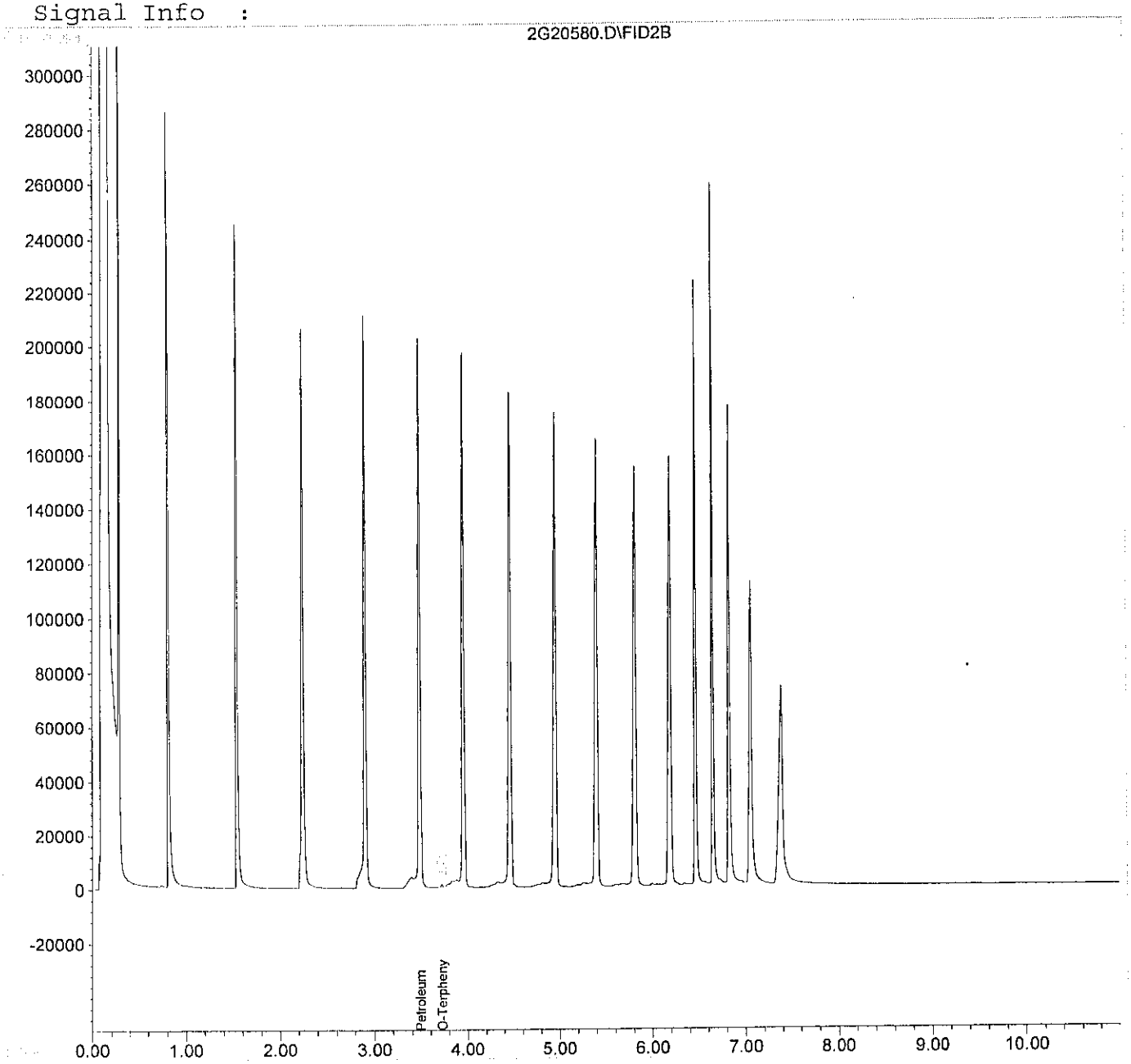
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20580.D FLASHPRO.M Thu Jun 20 08:25:43 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061902\2G20580.D
Acq On : 19 Jun 2002 22:15
Sample : WG120195-07 200ppm PRO ALT SOURCE STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Jun 20 8:18 2002 Quant Results File: FLASHPRO.RES

Vial: 23
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:14:18 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20453.D
Acq On : 12 Jun 2002 18:01
Sample : WG119761-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3583.541	-5.4	101	0.00
2	s	O-Terphenyl	200.000	195.132	2.4	98	0.00

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

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D
Acq On : 12 Jun 2002 18:01
Sample : WG119761-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

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

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D
Acq On : 12 Jun 2002 18:01 Operator: CLK
Sample : WG119761-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:57 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:57:25 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

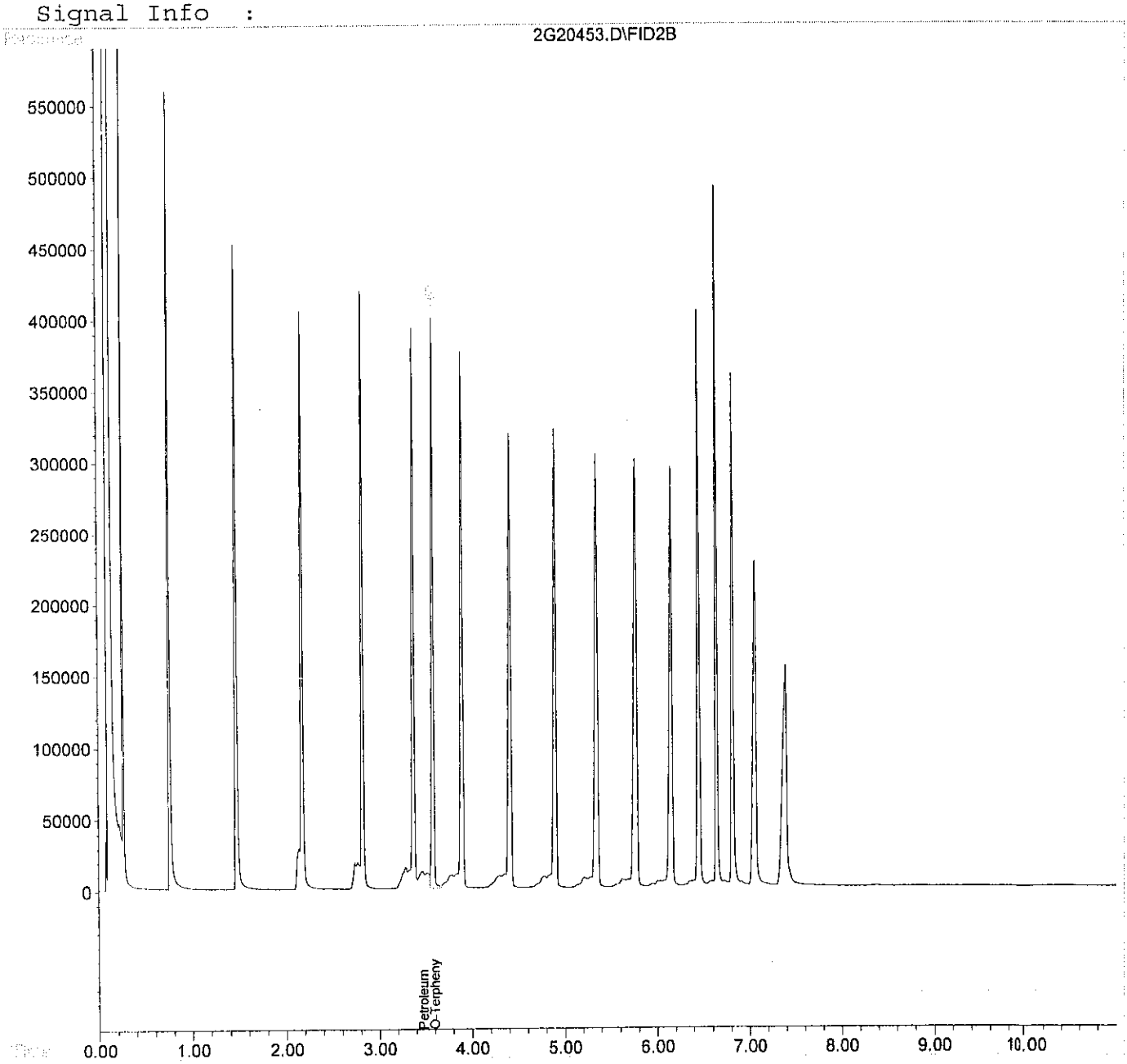
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.60	5787538	195.132 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	975.66%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	107075018	3583.541 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20453.D FLASHPRO.M Thu Jun 13 09:57:51 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D Vial: 16
Acq On : 12 Jun 2002 18:01 Operator: CLK
Sample : WG119761-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:57 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:57:25 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061202\2G20463.D Vial: 16
Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3625.443	-6.6	102	0.00
2	s	O-Terphenyl	200.000	206.019	-3.0	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20463.D FLASHPRO.M Thu Jun 13 10:06:16 2002 HP2 Page 1

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

Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

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

Data File : C:\HPCHEM\1\DATA\061202\2G20463.D Vial: 16
Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	6110445	206.019 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1030.10%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	108327060	3625.443 ppb

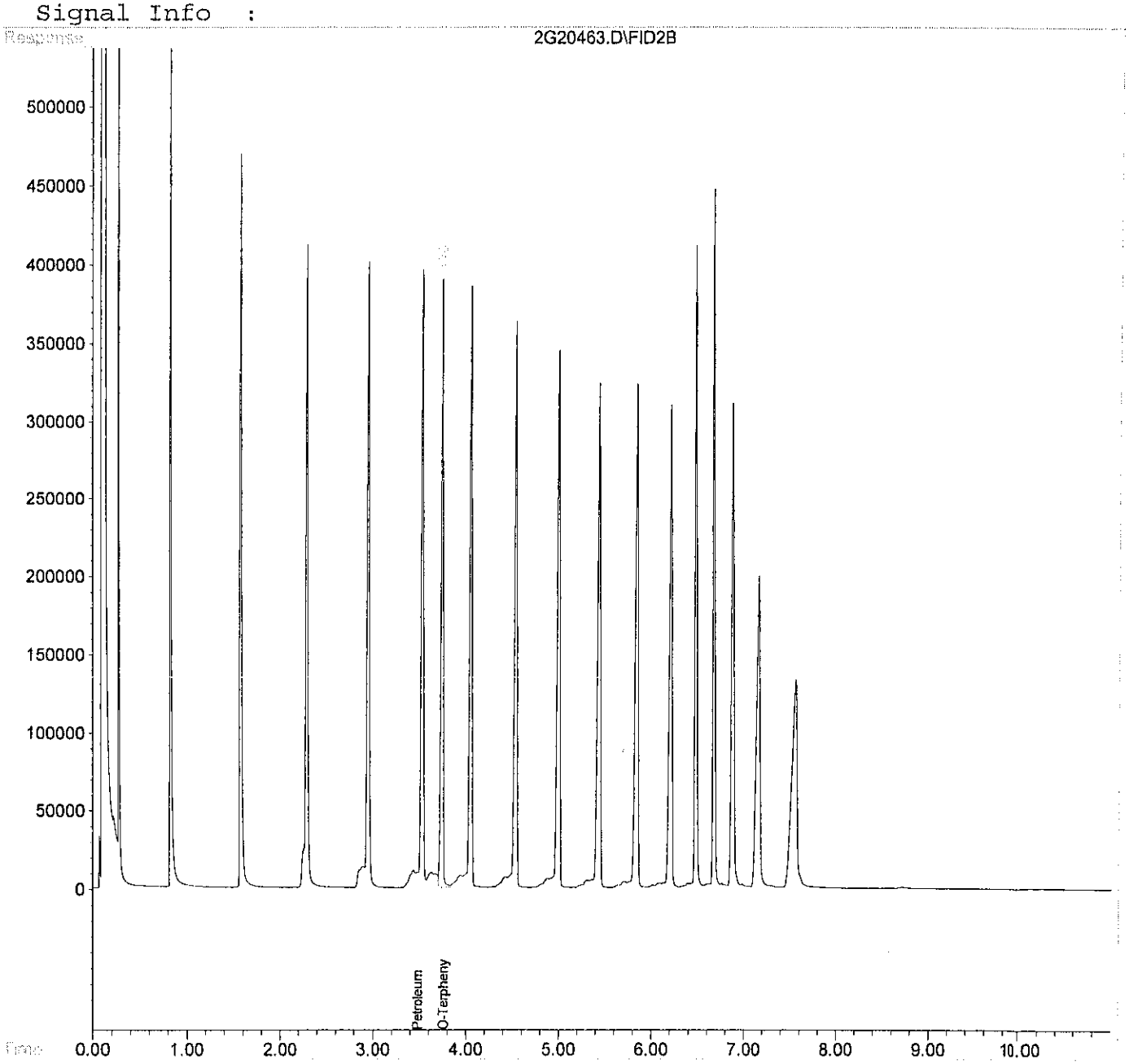
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20463.D FLASHPRO.M Thu Jun 13 10:06:23 2002 HP2 Page 1

752

Data File : C:\HPCHEM\1\DATA\061202\2G20463.D Vial: 16
Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061402\2G20477.D Vial: 2
Acq On : 14 Jun 2002 12:25 Operator: HV
Sample : WG119894-01 PRO CCV 200ppm Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3441.355	-1.2	97	0.00
2	s	O-Terphenyl	200.000	199.723	0.1	101	0.00

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

Data File : C:\HPCHEM\1\DATA\061402\2G20477.D Vial: 2
Acq On : 14 Jun 2002 12:25 Operator: HV
Sample : WG119894-01 PRO CCV 200ppm Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20477.D FLASHPRO.M Fri Jun 14 13:49:06 2002 HP2 Page 2

```
Data File : C:\HPCHEM\1\DATA\061402\2G20477.D              Vial: 2
Acq On    : 14 Jun 2002  12:25                          Operator: HV
Sample    : WG119894-01 PRO CCV 200ppm                  Inst    : HP2
Misc      : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 14 12:54 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/12/02
Last Update  : Fri Jun 14 12:45:01 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.68        5923719  199.723 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  998.62%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48      102826566 3441.355 ppb
```

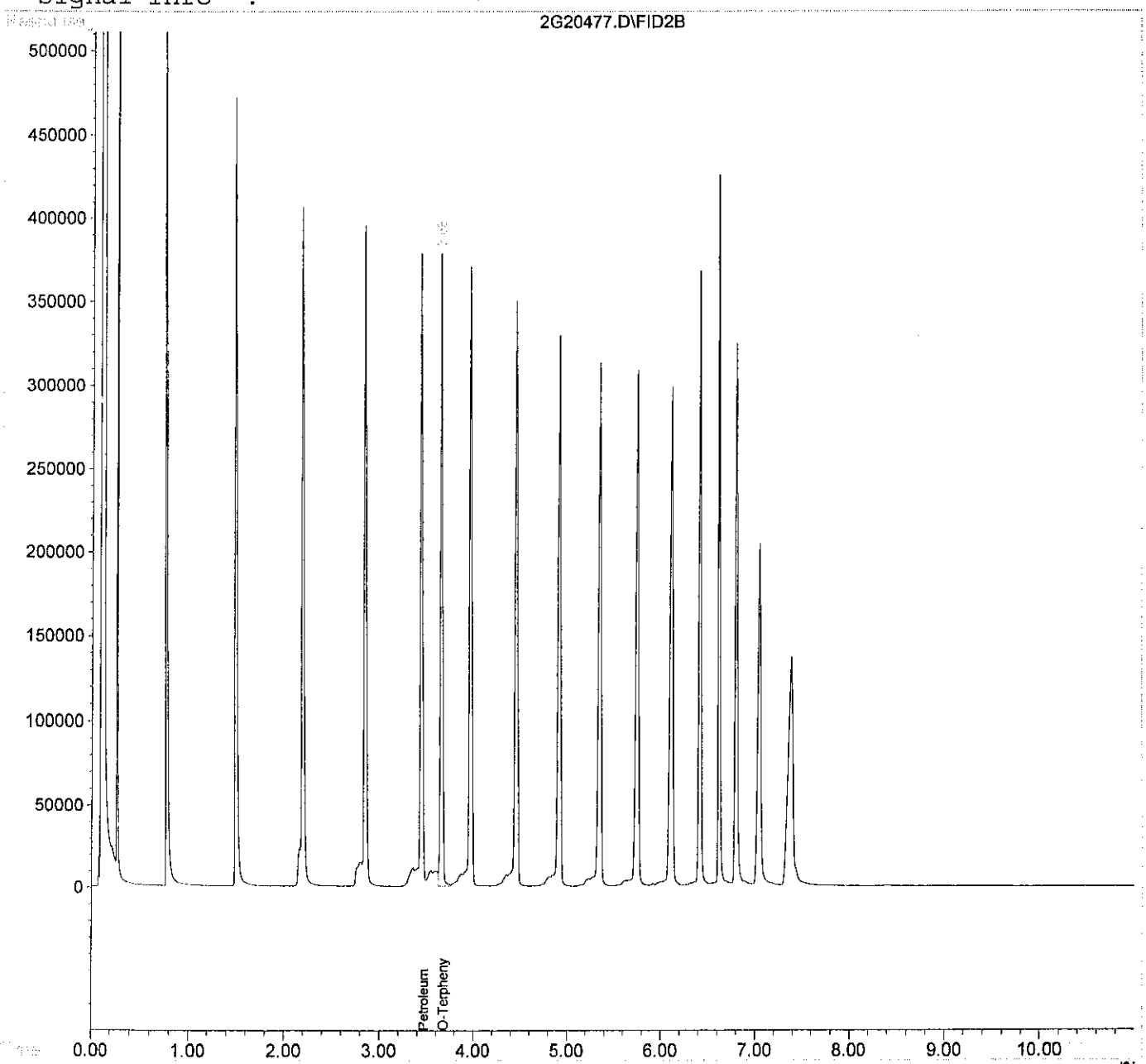
(f)=RT Delta > 1/2 Window (m)=manual int.

756

Data File : C:\HPCHEM\1\DATA\061402\2G20477.D Vial: 2
Acq On : 14 Jun 2002 12:25 Operator: HV
Sample : WG119894-01 PRO CCV 200ppm Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 14 12:54 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Fri Jun 14 12:45:01 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



757

Data File : C:\HPCHEM\1\DATA\061402\2G20481.D Vial: 6
Acq On : 14 Jun 2002 13:33 Operator: HV
Sample : WG119894-02 PRO CCV 200ppm Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3611.272	-6.2	102	0.00
2	s	O-Terphenyl	200.000	198.619	0.7	100	0.00

758

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

Data File : C:\HPCHEM\1\DATA\061402\2G20481.D Vial: 6
Acq On : 14 Jun 2002 13:33 Operator: HV
Sample : WG119894-02 PRO CCV 200ppm Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20481.D FLASHPRO.M Fri Jun 14 13:46:06 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\061402\2G20481.D
Acq On : 14 Jun 2002 13:33
Sample : WG119894-02 PRO CCV 200ppm
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Jun 14 13:45 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: HV
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Fri Jun 14 13:45:44 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	5890970	198.619 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	993.09%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	107903638	3611.272 ppb

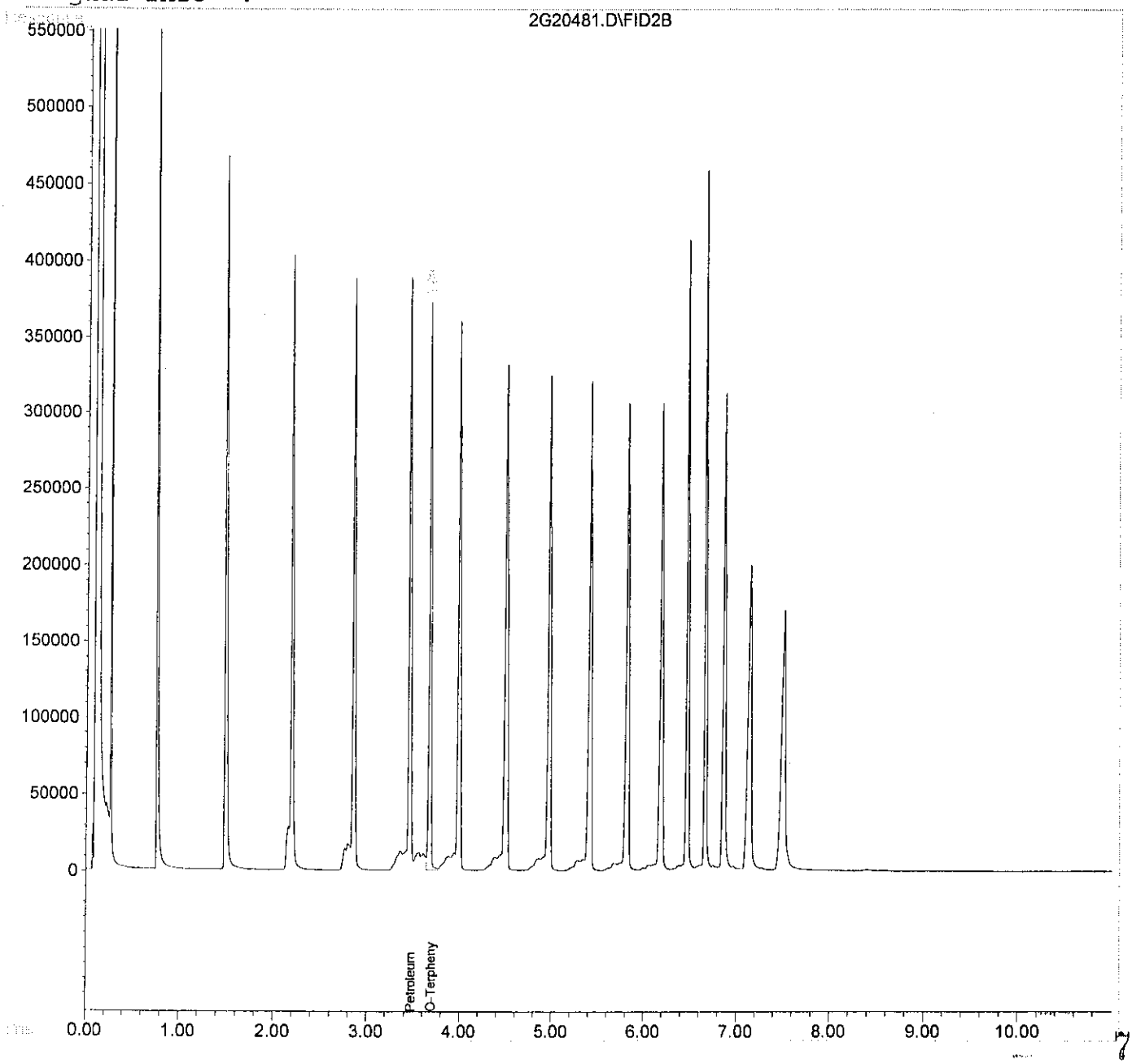
760

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

Data File : C:\HPCHEM\1\DATA\061402\2G20481.D Vial: 6
Acq On : 14 Jun 2002 13:33 Operator: HV
Sample : WG119894-02 PRO CCV 200ppm Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 14 13:45 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Fri Jun 14 13:45:44 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



761

Data File : C:\HPCHEM\1\DATA\061902\2G20586.D
Acq On : 19 Jun 2002 23:47
Sample : WG120195-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Vial: 19
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3553.998	-4.5	101	0.00
2	s	O-Terphenyl	200.000	202.746	-1.4	98	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20586.D FLASHPRO.M Thu Jun 20 08:26:05 2002 HP2 Page 762

Data File : C:\HPCHEM\1\DATA\061902\2G20586.D
Acq On : 19 Jun 2002 23:47
Sample : WG120195-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Vial: 19
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration

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

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

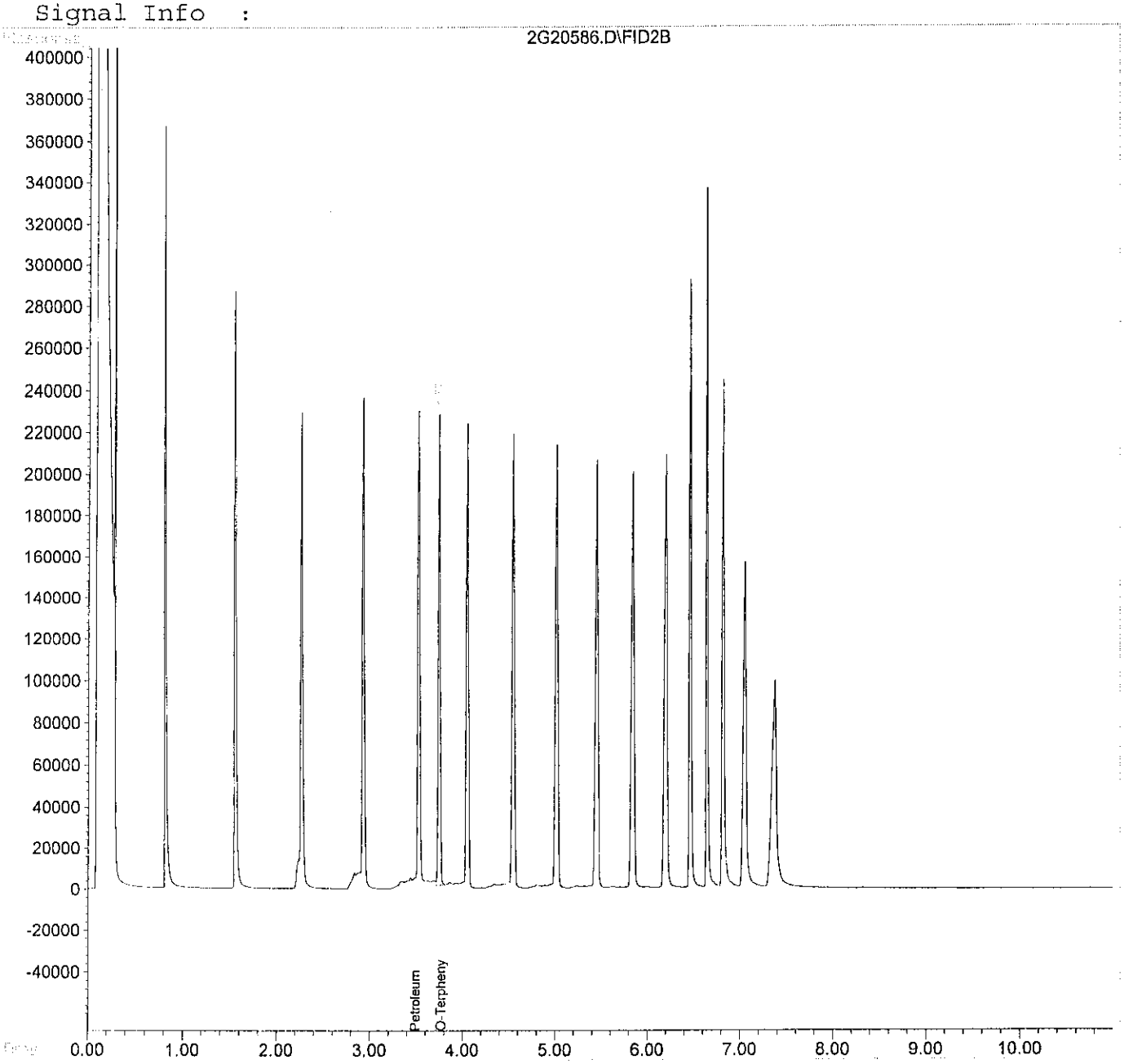
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Data File : C:\HPCHEM\1\DATA\061902\2G20586.D              Vial: 19
Acq On    : 19 Jun 2002  23:47                          Operator: CLK
Sample    : WG120195-08 200ppm PRO CCV                  Inst    : HP2
Misc      : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 20  8:21 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/19/02
Last Update  : Thu Jun 20 08:20:27 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.77        3363108  202.746 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1013.73%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48       66919110 3553.998 ppb
```

Data File : C:\HPCHEM\1\DATA\061902\2G20586.D Vial: 19
Acq On : 19 Jun 2002 23:47 Operator: CLK
Sample : WG120195-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:21 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

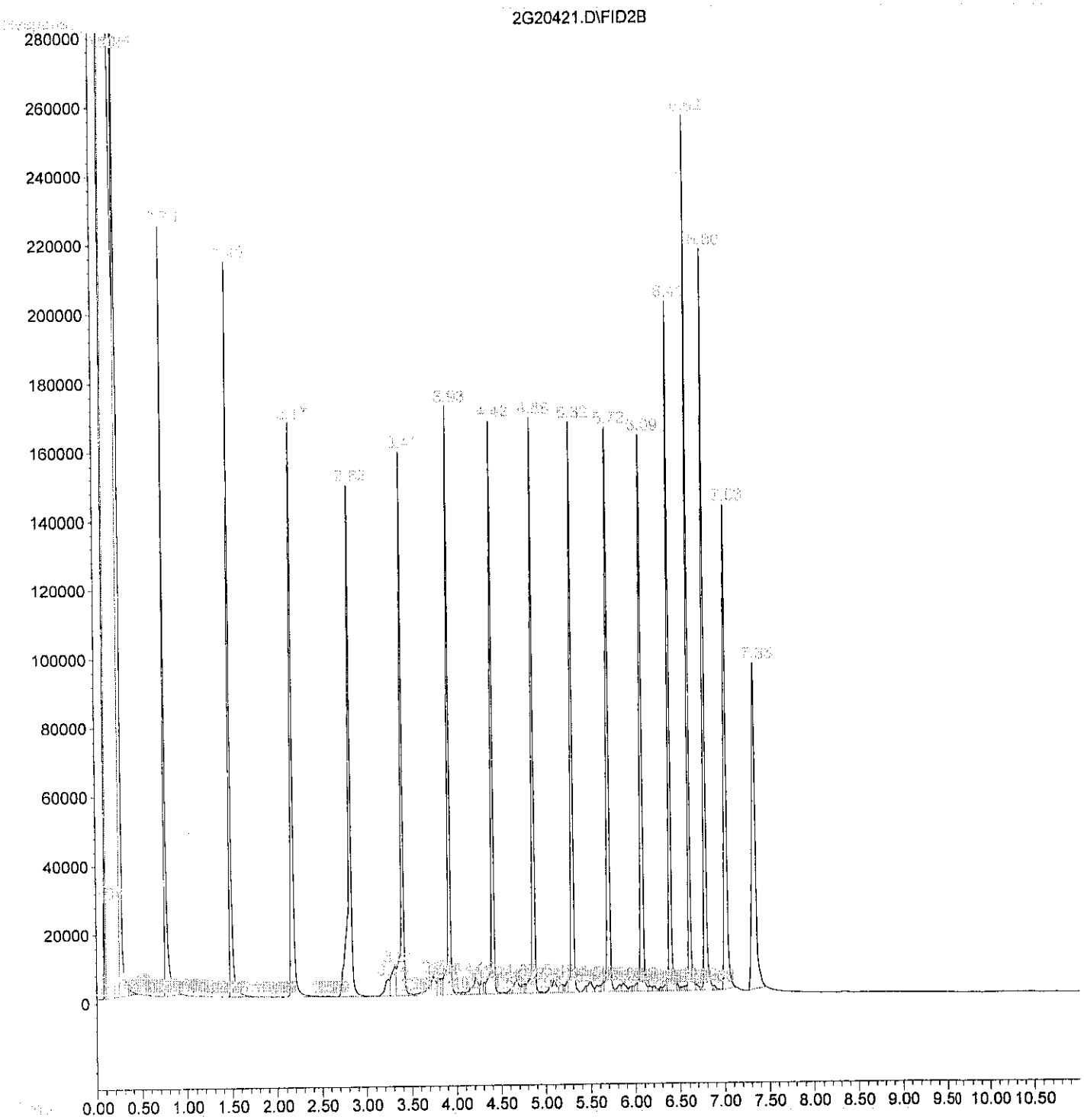
Instrument ID: HP-2

GC Column: RTX-5

	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

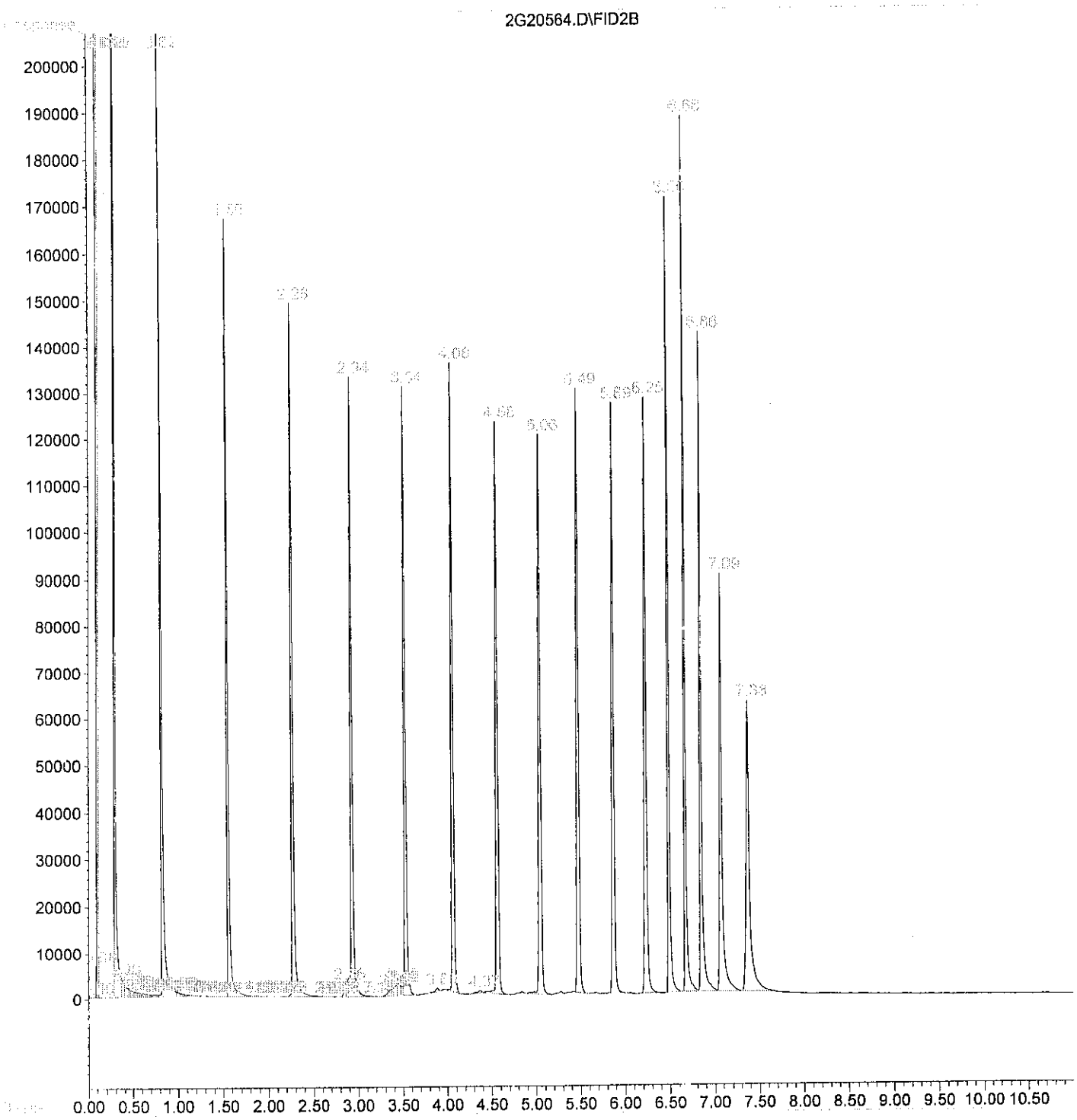
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

File : C:\HPCHEM\1\DATA\061202\2G20421.D
Operator : CLK
Acquired : 12 Jun 2002 8:27 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: WIN DEF STD
Misc Info : 1,1 SOS 60-20
Vial Number: 2



767

File : C:\HPCHEM\1\DATA\061902\2G20564.D
Operator : CLK
Acquired : 19 Jun 2002 17:49 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: WIN DEF STD PRO
Misc Info : 1,1 SOS 60-20
Vial Number: 17



768

2.2.6.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\061202\2G20443.D Vial: 5
Acq On : 12 Jun 2002 15:28 Operator: CLK
Sample : WG119551-02 BLK 6/11 V185P167 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	379330	12.789 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	63.94%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	3360374	112.464 ppb

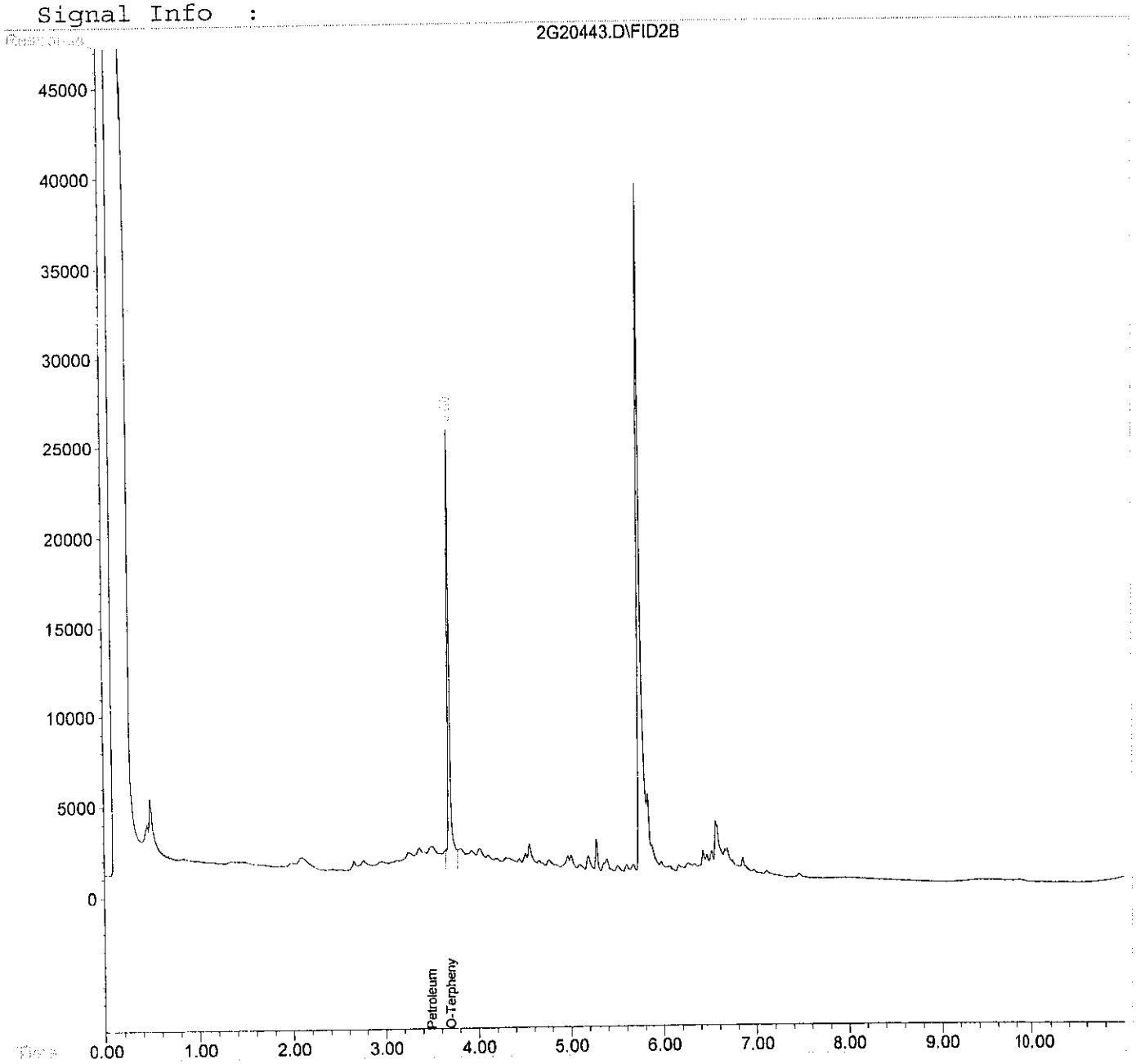
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20443.D FLASHPRO.M Thu Jun 13 09:53:35 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 12 Jun 2002 15:28
Sample : WG119551-02 BLK 6/11 V185P167
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20581.D Vial: 24
Acq On : 19 Jun 2002 22:31 Operator: CLK
Sample : WG119976-01 BLK 6/17 V186P27 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:19 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:19:45 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	241732	14.573 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	72.87%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	386532	20.528 ppb

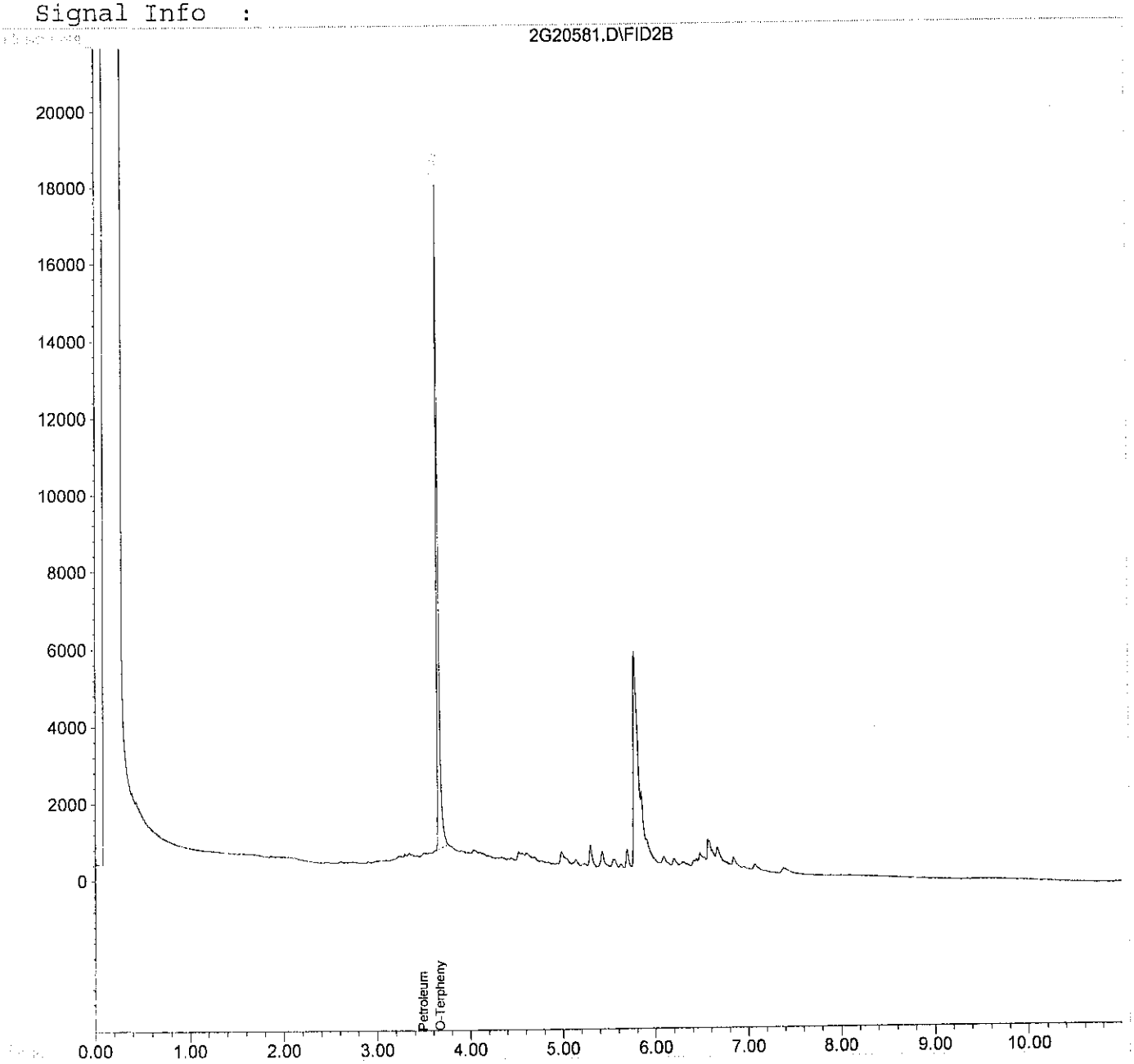
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20581.D FLASHPRO.M Thu Jun 20 08:20:04 2002 HP2 Page 772

Data File : C:\HPCHEM\1\DATA\061902\2G20581.D
Acq On : 19 Jun 2002 22:31
Sample : WG119976-01 BLK 6/17 V186P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 20 8:19 2002 Quant Results File: FLASHPRO.RES

Vial: 24
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:19:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 12 Jun 2002 15:44 Operator: CLK
Sample : WG119551-03 LCS 6/11 V185P167 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	570364	19.230 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	96.15%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	82237461	2752.288 ppb

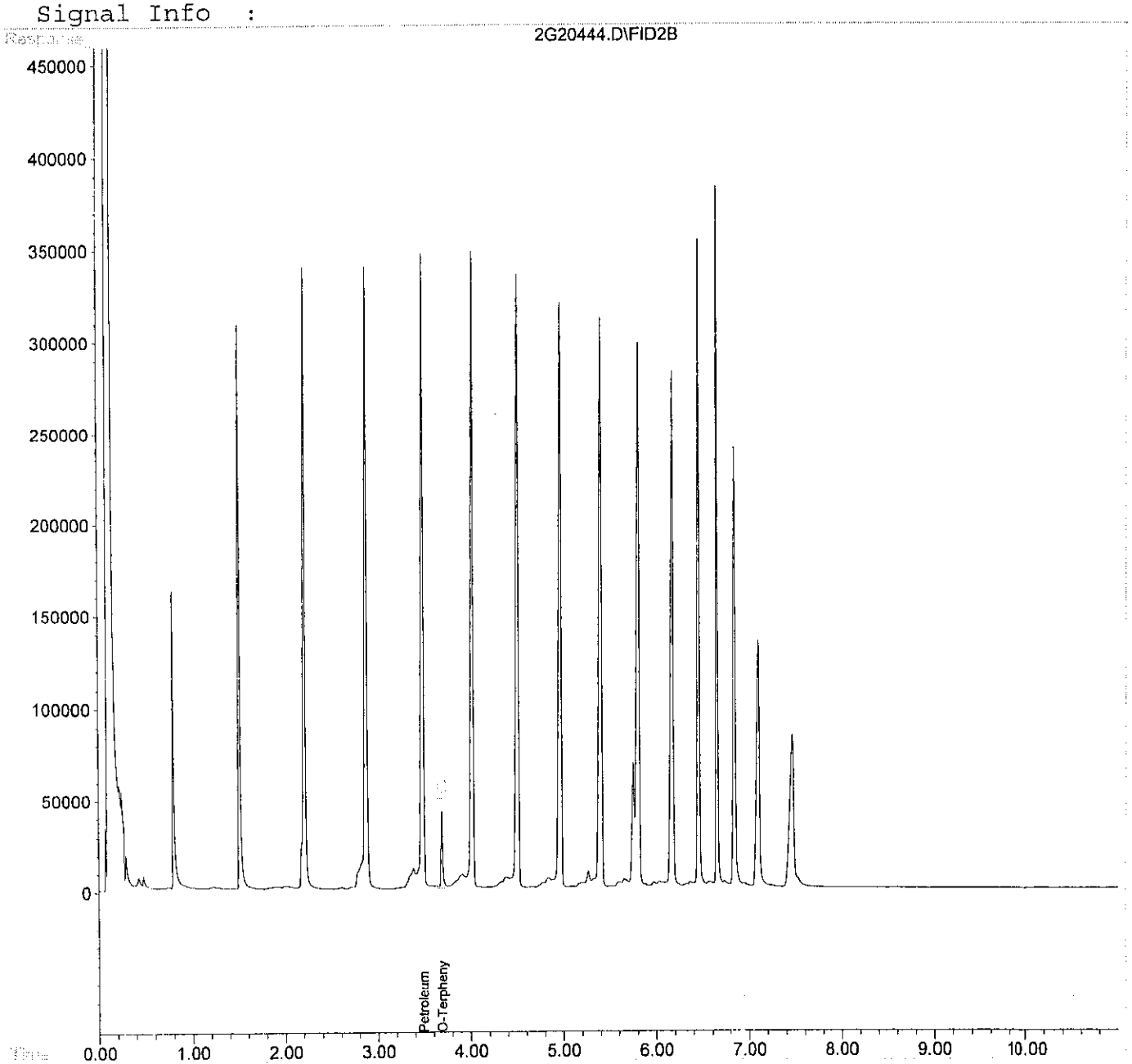
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20444.D FLASHPRO.M Thu Jun 13 09:53:54 2002 HP2 Page 1

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

Acq On : 12 Jun 2002 15:44 Operator: CLK
Sample : WG119551-03 LCS 6/11 V185P167 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061902\2G20582.D Vial: 25
Acq On : 19 Jun 2002 22:46 Operator: CLK
Sample : WG119976-02 LCS 6/17 V186P27 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:20 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

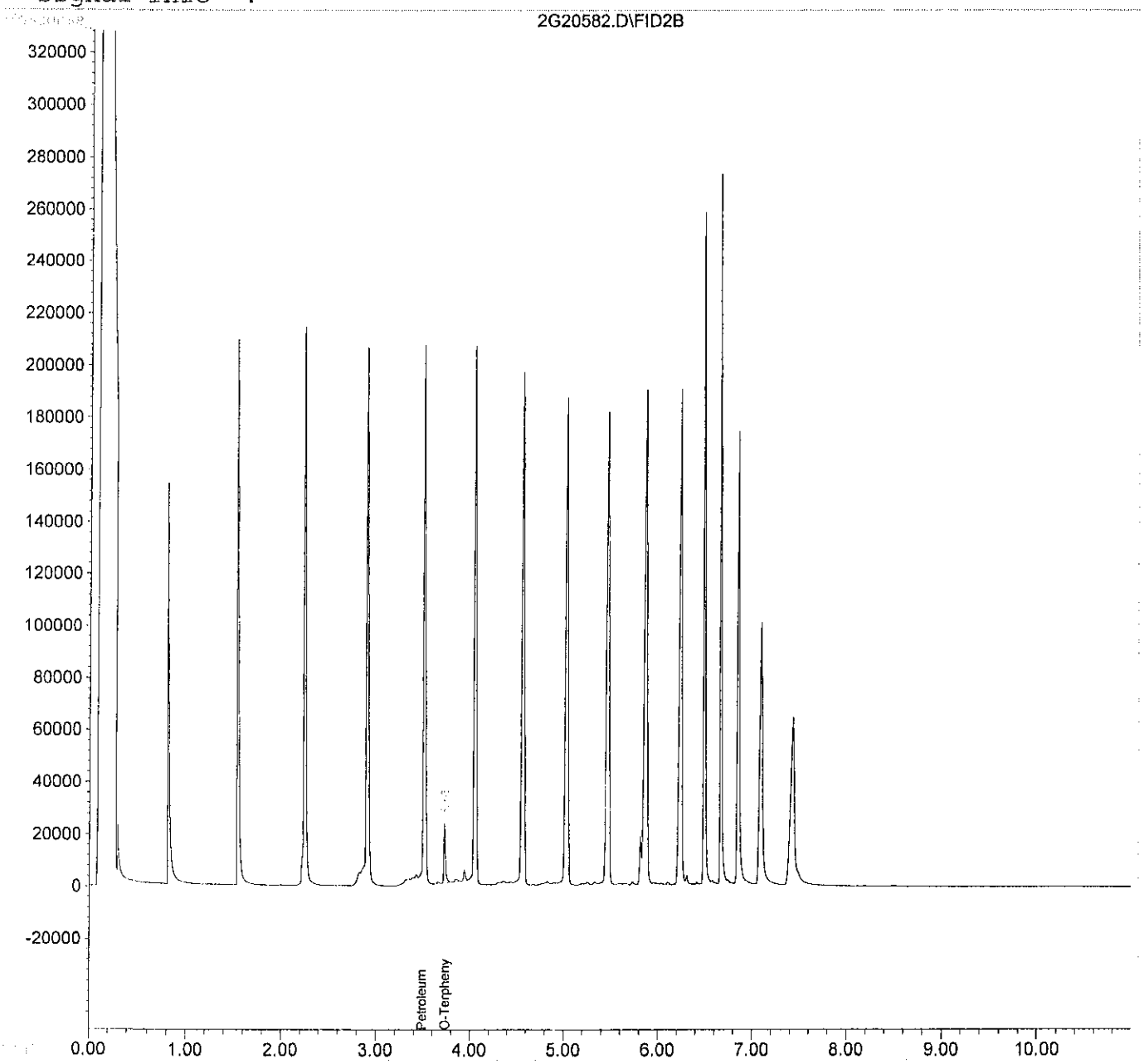
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	283212	17.074 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	85.37%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	48657468	2584.143 ppb

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

Data File : C:\HPCHEM\1\DATA\061902\2G20582.D Vial: 25
Acq On : 19 Jun 2002 22:46 Operator: CLK
Sample : WG119976-02 LCS 6/17 V186P27 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 20 8:20 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



```
Data File : C:\HPCHEM\1\DATA\061902\2G20583.D                Vial: 26
Acq On    : 19 Jun 2002  23:01                            Operator: CLK
Sample    : WG119976-02 LCS DUP 6/17 V186P27              Inst    : HP2
Misc      : 1,1                                           Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jun 20  8:20 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 06/19/02
Last Update  : Thu Jun 20 08:20:27 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.69         403293   24.313 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   =  121.57%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48       51232163 2720.882 ppb
```

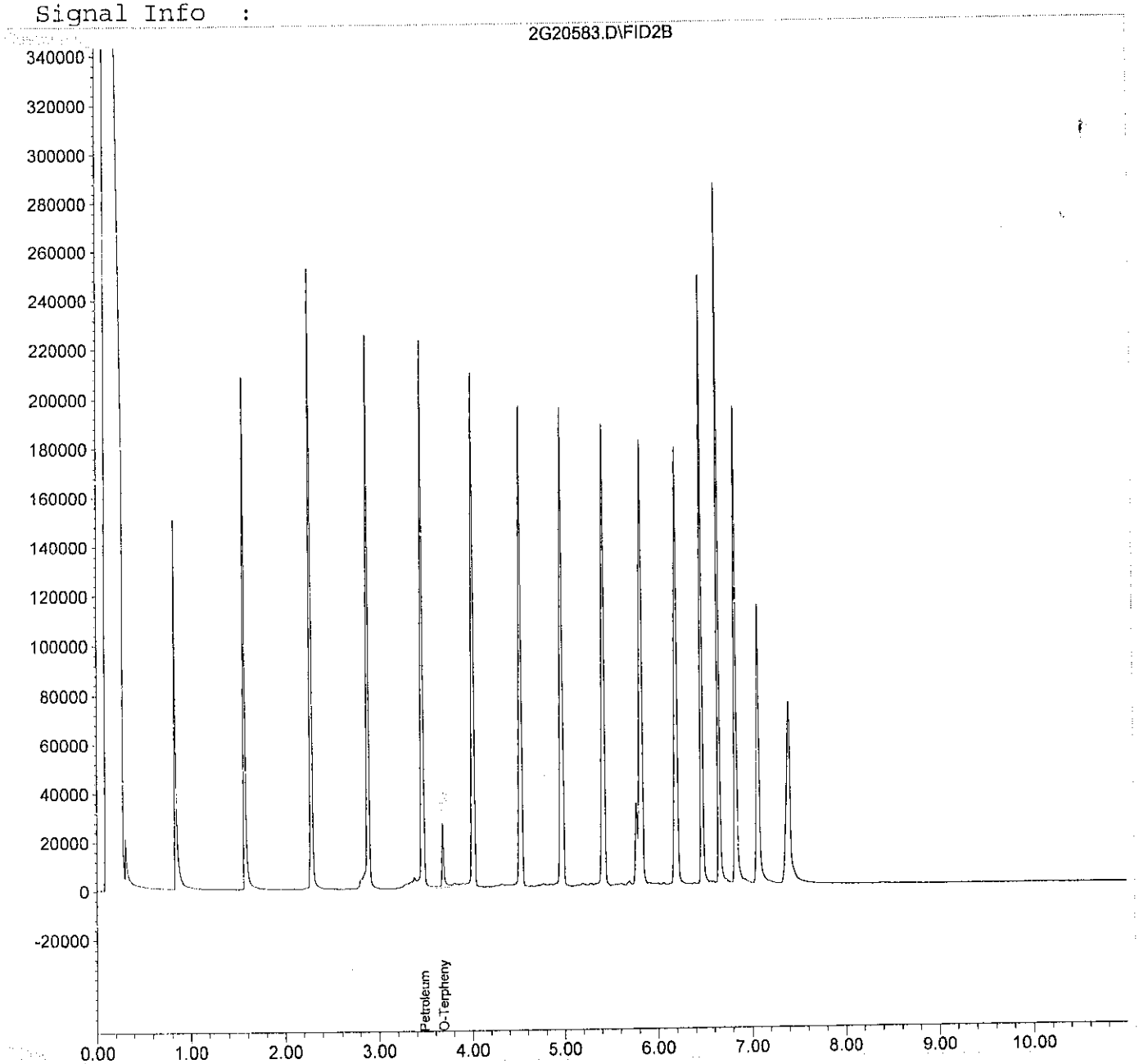
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\061902\2G20583.D
Acq On : 19 Jun 2002 23:01
Sample : WG119976-02 LCS DUP 6/17 V186P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 20 8:20 2002 Quant Results File: FLASHPRO.RES

Vial: 26
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/19/02
Last Update : Thu Jun 20 08:20:27 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20420.d	1.	NA CH2CL2	1,1	12 Jun 102 12::1
2	2	2g20421.d	1.	✓ WIN DEF STD	1,1 SOS 60-20	12 Jun 102 12::2
3	3	2g20422.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::4
4	4	2g20423.d	1.	✓ 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::2
5	5	2g20424.d	1.	RR WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::4
6	6	2g20425.d	1.	WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::5
7	7	2g20426.d	1.	L0206140-02 WATER PRO	1,1	12 Jun 102 13::1
8	8	2g20427.d	1.	L0206140-03 WATER PRO	1,1	12 Jun 102 13::2
9	9	2g20428.d	1.	L0206140-04 WATER PRO	1,1	12 Jun 102 13::4
10	10	2g20429.d	1.	L0206140-05 WATER PRO	1,1	12 Jun 102 13::5
11	11	2g20430.d	1.	L0206140-06 WATER PRO	1,1	12 Jun 102 13::1
12	12	2g20431.d	1.	L0206140-10 WATER PRO	1,1	12 Jun 102 13::3
13	13	2g20432.d	1.	L0206140-11 WATER PRO	1,1	12 Jun 102 13::4
14	1	2g20433.d	1.	NA CH2CL2	1,1	12 Jun 102 13::0
15	4	2g20434.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 13::1
16	1	2g20435.d	1.	NA CH2CL2	1,1	12 Jun 102 12::2
17	14	2g20436.d	1.	✓ WG119761-06 600ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
18	15	2g20437.d	1.	WG119761-05 400ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
19	16	2g20438.d	1.	WG119761-04 200ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::1
20	17	2g20439.d	1.	WG119761-03 100ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::2
21	18	2g20440.d	1.	WG119761-02 50ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
22	19	2g20441.d	1.	WG119761-01 5ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
23	20	2g20442.d	1.	WG119761-07 200ppm PRO ALT SOURCE STD	1,1 SOS 59-1	12 Jun 102 12::1
24	5	2g20443.d	1.	WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::2
25	6	2g20444.d	1.	WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::4
26	7	2g20445.d	1.	L0206140-02 WATER PRO	1,1	12 Jun 102 12::5
27	8	2g20446.d	1.	L0206140-03 WATER PRO	1,1	12 Jun 102 12::1
28	9	2g20447.d	1.	L0206140-04 WATER PRO	1,1	12 Jun 102 12::2
29	10	2g20448.d	1.	L0206140-05 WATER PRO	1,1	12 Jun 102 12::4
30	11	2g20449.d	1.	L0206140-06 WATER PRO	1,1	12 Jun 102 12::0
31	12	2g20450.d	1.	L0206140-10 WATER PRO	1,1	12 Jun 102 12::1
32	13	2g20451.d	1.	RE L0206140-11 WATER PRO	1,1	12 Jun 102 12::3
33	1	2g20452.d	1.	NA CH2CL2	1,1	12 Jun 102 12::4
34	16	2g20453.d	1.	✓ WG119761-08 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::0
35	21	2g20454.d	1.	✓ L0206140-08 WATER PRO	1,1	12 Jun 102 12::1
36	22	2g20455.d	1.	✓ L0206140-09 WATER PRO	1,1	12 Jun 102 12::3
37	23	2g20456.d	1.	RR10 L0206140-12 WATER PRO	1,1	12 Jun 102 12::4
38	24	2g20457.d	1.	✓ L0206140-13 WATER PRO	1,1	12 Jun 102 12::0
39	25	2g20458.d	1.	✓ WG119551-01 L0206140-07 WATER PRO	1,1	12 Jun 102 12::1
40	26	2g20459.d	1.	✓ WG119551-04 L0206140-17 WATER PRO MS	1,1	12 Jun 102 12::3
41	27	2g20460.d	1.	✓ WG119551-05 L0206140-18 WATER PRO MSD	1,1	12 Jun 102 12::4
42	28	2g20461.d	1.	RR10 L0206140-01 WATER PRO	1,1	12 Jun 102 12::0
43	1	2g20462.d	1.	NA CH2CL2	1,1	12 Jun 102 12::1
44	16	2g20463.d	1.	✓ WG119761-09 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::3
45	29	2g20464.d	1.	✓ L0206164-01 WATER PRO	1,1	12 Jun 102 12::4
46	30	2g20465.d	1.	✓ L0206164-02 WATER PRO	1,1	12 Jun 102 12::0
47	31	2g20466.d	1.	✓ L0206164-03 WATER PRO	1,1	12 Jun 102 12::2
48	1	2g20467.d	1.	NA CH2CL2	1,1	12 Jun 102 12::3
49	16	2g20468.d	1.	✓ WG119761-10 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::5

CLK 6/13/02 RAC 6/13/02

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/12/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061202
Analyst Initials CLK

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

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

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

Daily Check

☒ Gases >500 psi

Preventative Maintenance

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

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0206140-11 WATER PRO, o-terphenyl low, Needs RE
" -12 " " Needs 10X
" -01 " " Needs 10X

Reviewed By: RDC 6/13/02

781

Directory: C:\hpchem\1\data\001402

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20476.d	1.	MECL2	1,1 SOS 59-6	14 Jun 102 13::5
2	2	2g20477.d	1.	WG119894-01 PRO CCV 200ppm	1,1 SOS 59-6	14 Jun 102 13::2
3	3	2g20478.d	1.	EXT LAB PRO SURR	1,1 SOS 59-6	14 Jun 102 13::4
4	4	2g20479.d	1.	L0206140-01 10X	1,10 WATER	14 Jun 102 12::0
5	5	2g20480.d	1.	L0206140-12 10X	1,10 WATER	14 Jun 102 12::1
6	6	2g20481.d	1.	WG119894-02 PRO CCV 200ppm	1,1 SOS 59-6	14 Jun 102 12::3
7	1	2g20482.d	1.	WIN DEF STD	1,1 SOS 60-20	14 Jun 102 12::4
8	2	2g20483.d	1.	WG119920-01 DRO CCV	1,1 NS 15-27	14 Jun 102 12::5
9	3	2g20484.d	1.	WG119882-01 BLK V186-P15	1,1 WATER	14 Jun 102 12::1
10	4	2g20485.d	1.	WG119882-02 LCS V186-P15	1,1 WATER	14 Jun 102 12::2
11	5	2g20486.d	1.	WG119882-03 LCS DUP V186-P15	1,1 WATER	14 Jun 102 12::3
12	6	2g20487.d	1.	L0206246-01 DRO	1,1 WATER	14 Jun 102 12::4
13	2	2g20488.d	1.	WG119920-02 DRO CCV	1,1 NS 15-27	14 Jun 102 12::5

CLK 6/17/02

TRC 6/17/02

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/14/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061402
Analyst Initials CLK

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

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 5 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

Directory: c:\hpchem\1\data\061902

ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
		2g20545.d	1.	NA PENTANE	1,1	19 Jun 102 13::0
	2	2g20546.d	1.	✓ WIN DEF STD TPH	1,1 SOS 60-28	19 Jun 102 13::2
	3	2g20547.d	1.	✓ 1000ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::3
	4	2g20548.d	1.	RR 5000ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::5
	5	2g20549.d	1.	✓ 2500ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::0
	6	2g20550.d	1.	✓ 10000ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::2
	7	2g20551.d	1.	✓ 500ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::3
	8	2g20552.d	1.	✓ 50ppm TPH STD	1,1 NS 15-25	19 Jun 102 13::5
	4	2g20553.d	1.	✓ 5000ppm TPH STD	1,1 NS 15-25	19 Jun 102 12::1
0	9	2g20554.d	1.	✓ 1000ppm TPH ALT SOURCE STD	1,1 SOS58-20 NS15-33	19 Jun 102 12::2
1	10	2g20555.d	1.	✓ WG120169-01 BLK 6/17/02	10,1 SOIL	19 Jun 102 12::4
2	11	2g20556.d	1.	✓ WG120169-02 LCS 6/17/02	10,1 SOIL	19 Jun 102 12::0
3	12	2g20557.d	1.	✓ WG120169-03 L0206196-01 TPH Soil REF	10,1 SOIL	19 Jun 102 12::1
4	13	2g20558.d	1.	✓ WG120169-04 L0206196-01 TPH Soil MS	10,1 SOIL	19 Jun 102 12::3
5	14	2g20559.d	1.	✓ WG120169-05 L0206196-01 TPH Soil MSD	10,1 SOIL	19 Jun 102 12::4
6	15	2g20560.d	1.	✓ L0206196-02 TPH Soil	7,1 SOIL	19 Jun 102 12::0
7	1	2g20561.d	1.	NA PENTANE	1,1	19 Jun 102 12::1
8	3	2g20562.d	1.	✓ 1000ppm TPH CCV	1,1 NS 15-25	19 Jun 102 12::3
9	16	2g20563.d	1.	NA CH2CL2	1,1	19 Jun 102 12::3
0	17	2g20564.d	1.	✓ WIN DEF STD PRO	1,1 SOS 60-20	19 Jun 102 12::4
1	18	2g20565.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	19 Jun 102 12::0
2	19	2g20566.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	19 Jun 102 12::5
3	17	2g20567.d	1.	✓ WIN DEF STD DRO	1,1 SOS 60-20	19 Jun 102 12::0
4	18	2g20568.d	1.	CC 1000ppm DRO CCV	1,1 NS 15-27	19 Jun 102 12::1
5	18	2g20569.d	1.	CC 1000ppm DRO CCV	1,1 NS 15-27	19 Jun 102 12::3
6	19	2g20570.d	1.	RR L0206264-01 SOIL DRO Prelim	7,1 SOIL	19 Jun 102 12::5
7	20	2g20571.d	1.	L0206264-02 SOIL DRO Prelim	7,1 SOIL	19 Jun 102 12::0
8	21	2g20572.d	1.	L0206264-03 SOIL DRO Prelim	7,1 SOIL	19 Jun 102 12::1
9	22	2g20573.d	1.	L0206314-01 WATER DRO Prelim	1,1	19 Jun 102 12::2
0	17	2g20574.d	1.	✓ WG120195-01 600ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::4
1	18	2g20575.d	1.	WG120195-02 400ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::5
2	19	2g20576.d	1.	WG120195-03 200ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::1
3	20	2g20577.d	1.	WG120195-04 100ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::2
4	21	2g20578.d	1.	WG120195-05 50ppm PRO STD	1,1 SOS 59-6	19 Jun 102 12::4
5	22	2g20579.d	1.	WG120195-06 5ppm PRO STD	1,1 SOS 59-6	19 Jun 102 13::0
6	23	2g20580.d	1.	WG120195-07 200ppm PRO ALT SOURCE STD	1,1 SOS 59-1	19 Jun 102 13::1
7	24	2g20581.d	1.	✓ WG119976-01 BLK 6/17 V186P27	1,1	19 Jun 102 13::3
8	25	2g20582.d	1.	✓ WG119976-02 LCS 6/17 V186P27	1,1	19 Jun 102 13::4
9	26	2g20583.d	1.	✓ WG119976-02 LCS DUP 6/17 V186P27	1,1	19 Jun 102 13::0
0	27	2g20584.d	1.	✓ L0206140-11 WATER PRO RE	1,1,RE	19 Jun 102 13::1
1	28	2g20585.d	1.	NA CH2CL2	1,1,RE	19 Jun 102 13::3
2	19	2g20586.d	1.	✓ WG120195-08 200ppm PRO CCV	1,1 SOS 59-6	19 Jun 102 13::4

CLK 6/20/02
RAC 6/20/02

784

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/19/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061902
Analyst Initials CLK

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

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS05 Rev. # 0 TNRCC 1005 ✓
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ___

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

Daily Check
- ☒ Gases>500 psi

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

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0206214-01 SOIL DRO Prelim, Needs RR
-02
-03
L0206314-01 WATER DRO Prelim,

WG120169-02 LCS 6/17/02, o-Terphenyl high

L0206140-11 WATER PRO RE, OUT OF Hold, Reported

785

Parameter: FlA-PRO-H2O SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF GSG REK TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 10:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: REK/CAF Witness: [illegible]
Surrogate #: ESS0040-18 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-07 Spike #: B = —

Extraction Work Group WG 119551
Analytical Work Group WG 119767

Extract Relinquished By: CAF
Extract Received By & Date: [illegible]
6/11/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓			1 L	1 mL		1 mL	T				WG 119551-02
2	LCS		✓					1 mL		T				WG 119551-03
6/14 3	06-140-01	FlA-PRO	✓							C	✓			*
4	-02		✓							T	✓			*
5	-03		✓							T	✓			*
6	-04		✓							T				
7	-05		✓							T				
8	-06		✓							T				
9	-07		✓							T				WG 119551-01
10	-08		✓							T				
11	-09		✓							T				
12	-10		✓			920 mL				T				
13	-11		✓			960 mL				T				
14	-12		✓			940 mL				C				
15	-13		✓			1 L				T				
16	-17 MS		✓					1 mL		C				WG 119551-04
17	-18 MSD		✓							C				WG 119551-05
6/17 18	06-164-01		✓							T				
19	-02		✓							T				
20	-03		✓			965 mL				T				
21														
22														
23														
24														

CAF 6-11-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #:
Acid: 1:1 HCl Lot #: ER 2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: 6/11/02

786

Extraction Notes For Volume # 185 Page # 167

General Comments: MS, MSD of 06-140-07
* Emulsions

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Volume 186
Page 27

Parameter: PRO H_2C SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 6-17-02 @ 10:30 Date TV/KD: 6-17-02
Spike/Surrogate Analyst: CAF Witness: CEB
Surrogate #: ESS0041-18 Earliest Hold Date: cut
Spike #: A = ESS0041-07 Spike #: B = —

Extraction Work Group WG 119976
Analytical Work Group WG 120200

Extract Relinquished By: CAF
Extract Received By & Date: [illegible] 6/17/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank					1 L	1 mL		1 mL	T				WG 119976
2	LCS					↓	↓	1 mL	↓	T				WG 119976
3	LCS Dup					↓	↓	↓	↓	T				WG 119976
4	06-14-01	FIA-PRO				990 mL	↓		↓	C				RE-EXT auto
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 6-17-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1N HCL Lot #: ER2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time:
Dried Na_2SO_4 Lot #: ER2152

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: 6-17-02

Extraction Notes For Volume # 186 Page # 27

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Date: 6/12/02
Analyst: CLK
Method: 8015 PRO
Instrument: HP2
Work Group: W6119767

06-140 6/14 —
06-164 6/17 —

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	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	NA
Check Sample Histories	NA
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 6/13/02

Secondary Reviewer Initials & Date Checked [illegible] 6/12/02

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

Supervisory Review Initials & Date Checked [illegible] 6/14/02

Comments: 06-140-11 Needs RE

✓ - Checked & OK
NA - Not Applicable

790

Date: 6-14-02
Analyst: HV
Method: 8011 - CL-PRO water
Instrument: HP2
Work Group: WG 197767

06140-01, -12 } dilutions.

06-246 6/18 PI

	Analyst
System Performance Check	
Endrin & DDT Breakdown	
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 6/14/02

Secondary Reviewer Initials & Date Checked PR 6/17/02

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

Supervisory Review Initials & Date Checked PR 6/17/02

Comments: Dilution analyses for 06140-01 10X
-12 10X
and these were uploaded

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

791

Date: 6/17/02
Analyst: CLK
Method: 8015 TPH, PRO, DRO
Instrument: HP2
Work Group: WG120170, WG120200

06-196 6/17 ro
06-140 (RE) 6/14 —

06-264
06-314 > DRO Prelim Only

	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	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	↓
Check Sample Histories	↓
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 6/20/02

Secondary Reviewer Initials & Date Checked DRR 6/20/02

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

Supervisory Review Initials & Date Checked DRR 6/20/02

Comments: DRO Results are Prelims only, Samples need RR

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

792

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**

2.4 General Chemistry Data

2.4.5 Common Anions (300)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.:L0206140

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 : Ending CCVs failed to meet criteria for phosphate. This was due to a high metals content in several samples. All samples were re-analyzed outside of holding time for phosphate. Sample fractions 03, 04, 05, 11 were re-analyzed at dilutions in order to get the ending CCV to meet criteria.

BATCH QA/QC

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

SAMPLES

All acceptance criteria were met.

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

Analyst: RDC REVIEWED: _____ DATE: 6/20/02

Rev. 7/14/00

Anions (9056)

Login Number: 06-140

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: [signature] Date: 6/27/02

2.4.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 060702.11
Date Analyzed: 06/07/02
Time Analyzed: 14:52
Analyst: JWR

Work Group: WG119433
Blank Sample ID: WG119433-01
Instrument ID: IC2
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119433-02	060702.12	06/07/02 15:04	01
062-CEF46-IS-Q2-02-17	L0206140-01	060702.18	06/07/02 16:13	01
062-CEF46-2S-Q2-02-17	L0206140-02	060702.19	06/07/02 16:24	01
062-CEF46-5I-Q2-02-17	L0206140-03	060702.20	06/07/02 16:36	01
062-CEF46-6D-Q2-02-17	L0206140-04	060702.23	06/07/02 17:37	01
062-CEF46-7I-Q2-02-17	L0206140-05	060702.24	06/07/02 17:49	01
062-CEF46-9I-Q2-02-17	L0206140-06	060702.25	06/07/02 18:06	01
062-CEF46-12I-Q2-02-17	L0206140-07	060702.26	06/07/02 18:17	01
062-CEF46-13I-Q2-02-17	L0206140-08	060702.27	06/07/02 18:29	01
062-CEF46-14D-Q2-02-17	L0206140-09	060702.28	06/07/02 18:40	01
062-CEF46-15I-Q2-02-17	L0206140-10	060702.29	06/07/02 18:52	01
062-CEF46-26I-Q2-02-17	L0206140-11	060702.30	06/07/02 19:03	01
062-46DUP-Q2-02-17	L0206140-12	060702.31	06/07/02 19:15	01
062-46EQB-Q2-02-17	L0206140-13	060702.32	06/07/02 19:26	01
062-CEF46-12I-Q2-02-17	L0206140-17	060702.34	06/07/02 19:49	01
062-CEF46-12I-Q2-02-17	L0206140-18	060702.35	06/07/02 20:01	01
DUP	WG119433-04	060702.36	06/07/02 20:12	01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206140
Blank File ID: 061902.12
Date Analyzed: 06/19/02
Time Analyzed: 16:55
Analyst: RDC

Work Group: WG120157
Blank Sample ID: WG120157-01
Instrument ID: IC1
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120157-02	061902.13	06/19/02 17:07	01
DUP	WG120157-04	061902.15	06/19/02 17:31	01
062-CEF46-12I-Q2-02-17	L0206140-07	061902.20	06/19/02 18:28	02
062-CEF46-12I-Q2-02-17	L0206140-17	061902.21	06/19/02 18:40	02
062-CEF46-12I-Q2-02-17	L0206140-18	061902.22	06/19/02 18:51	02
062-CEF46-IS-Q2-02-17	L0206140-01	061902.23	06/19/02 19:03	02
062-CEF46-2S-Q2-02-17	L0206140-02	061902.24	06/19/02 19:14	02
062-CEF46-9I-Q2-02-17	L0206140-06	061902.25	06/19/02 19:26	02
062-CEF46-13I-Q2-02-17	L0206140-08	061902.26	06/19/02 19:37	02
062-CEF46-14D-Q2-02-17	L0206140-09	061902.27	06/19/02 19:49	02
062-CEF46-15I-Q2-02-17	L0206140-10	061902.28	06/19/02 20:00	02
062-46DUP-Q2-02-17	L0206140-12	061902.29	06/19/02 20:12	02
062-46EQB-Q2-02-17	L0206140-13	061902.31	06/19/02 20:35	02
062-CEF46-5I-Q2-02-17	L0206140-03	061902.32	06/19/02 20:46	DL01
062-CEF46-6D-Q2-02-17	L0206140-04	061902.33	06/19/02 20:58	DL01
062-CEF46-7I-Q2-02-17	L0206140-05	061902.34	06/19/02 21:09	DL01
062-CEF46-26I-Q2-02-17	L0206140-11	061902.35	06/19/02 21:21	DL01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/07/2002 Sample ID: WG119433-01
Instrument ID: IC2 Run Time: 14:52 Method: 9056
File ID: 060702.11 Analyst: JWR Matrix: Water
Workgroup (AAB#): WG119433 Units: mg/L
Contract #: Cal ID: IC2-21-MAY-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206140 Run Date: 06/19/2002 Sample ID: WG120157-01
Instrument ID: IC1 Run Time: 16:55 Method: 9056
File ID: 061902.12 Analyst: RDC Matrix: Water
Workgroup (AAB#): WG120157 Units: mg/L
Contract #: Cal ID: IC1-18-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Run Date: 06/07/2002
Sample ID: WG119433-02
Instrument ID: IC2
Run Time: 15:04
Method: 9056
File ID: 060702.12
Analyst: JWR
Matrix: Water
Workgroup (AAB#): WG119433
Units: mg/L
Contract #:
Cal ID: IC2-21-MAY-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	4.27	105	90 - 110	
Nitrite	3.65	3.81	104	90 - 110	
Phosphate	9.78	10.3	105	90 - 110	

KEMRON FORMS - Modified 06/19/2002
Version 1.3

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206140
Run Date: 06/19/2002
Sample ID: WG120157-02
Instrument ID: IC1
Run Time: 17:07
Method: 9056
File ID: 061902.13
Analyst: RDC
Matrix: Water
Workgroup (AAB#): WG120157
Units: mg/L
Contract #:
Cal ID: IC1-18-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	3.96	97.3	90 - 110	
Nitrite	3.65	3.61	98.7	90 - 110	
Phosphate	9.78	9.11	93.1	90 - 110	

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0206140 Cal ID: IC2-21-MAY-2002 Worknum: WG119433
Instrument ID: IC2 Contract #: Method: 9056
Parent ID: L0206140-07 File ID: 060702.26 Dil: 1 Matrix: Water
Sample ID: L0206140-17 MS File ID: 060702.34 Dil: 1 Units: mg/L
Sample ID: L0206140-18 MSD File ID: 060702.35 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Nitrate	ND	4.07	4.27	105	4.07	4.23	104	0.932	80 - 120	20	
Nitrite	ND	3.65	3.80	104	3.65	3.76	103	1.01	80 - 120	20	
Phosphate	ND	9.78	6.59	67.4	9.78	6.38	65.2	3.27	80 - 120	20	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0206140 Cal ID: IC1-18-JUN-2002 Worknum: WG120157
Instrument ID: IC1 Contract #: Method: 9056
Parent ID: L0206140-07 File ID: 061902.20 Dil: 1 Matrix: Water
Sample ID: L0206140-17 MS File ID: 061902.21 Dil: 1 Units: mg/L
Sample ID: L0206140-18 MSD File ID: 061902.22 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Nitrate	ND	4.07	3.89	95.6	4.07	3.96	97.3	1.69	80 - 120	20	
Nitrite	ND	3.65	3.63	99.5	3.65	3.66	100	1.01	80 - 120	20	
Phosphate	ND	9.78	8.82	90.2	9.78	9.05	92.5	2.60	80 - 120	20	

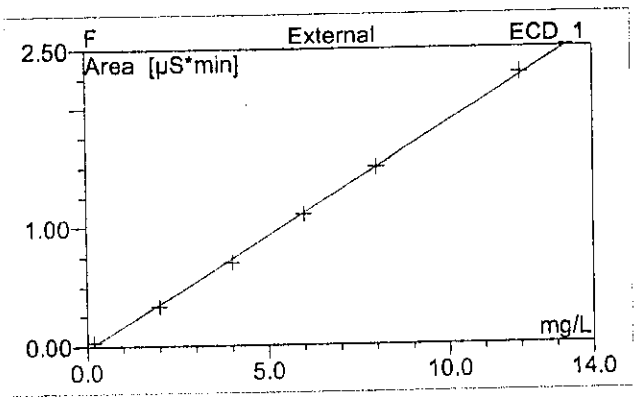
* FAILS %REC LIMIT

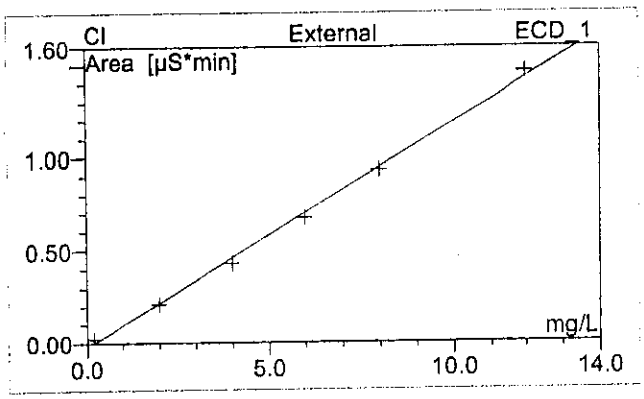
FAILS RPD LIMIT

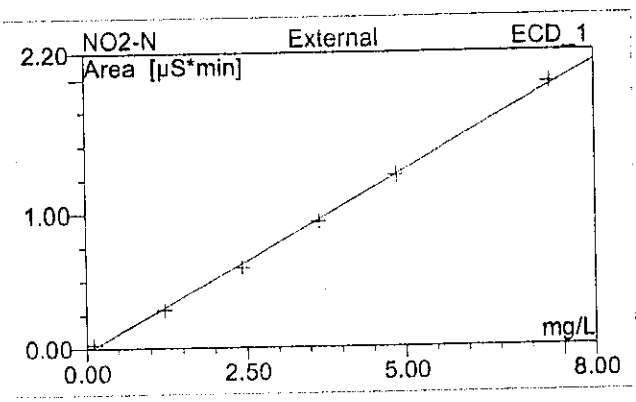
6 Anion std. #6

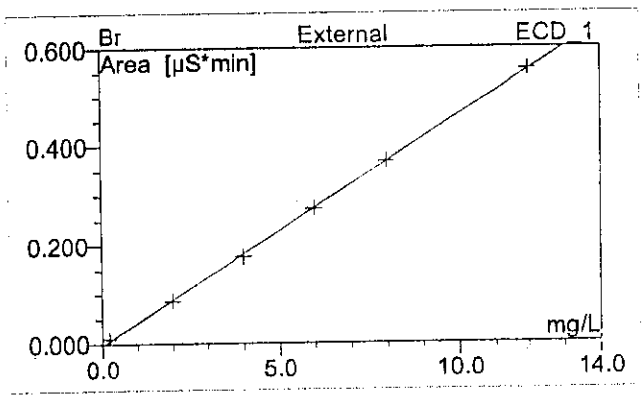
1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







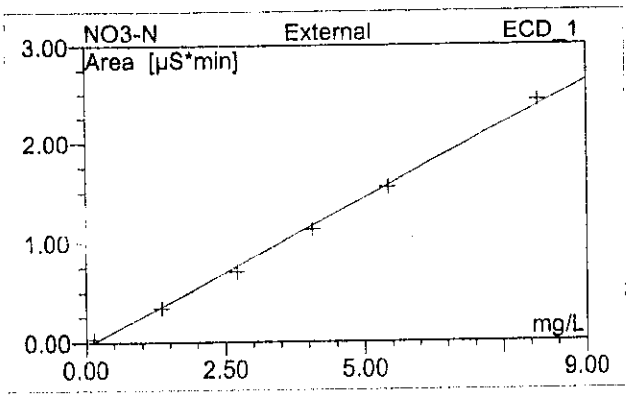


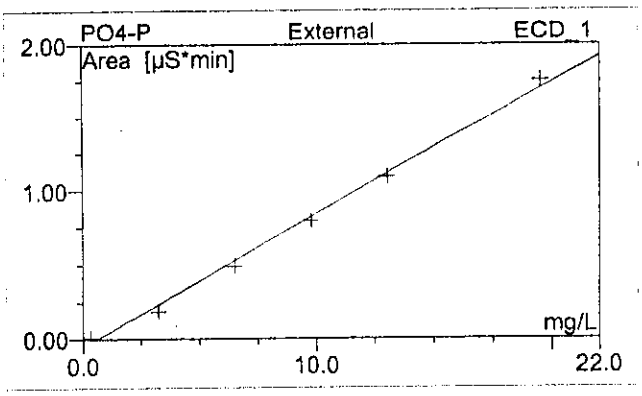
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

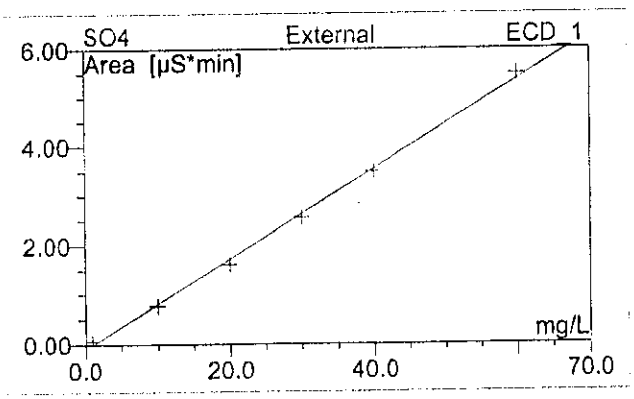
6 Anion std. #6

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





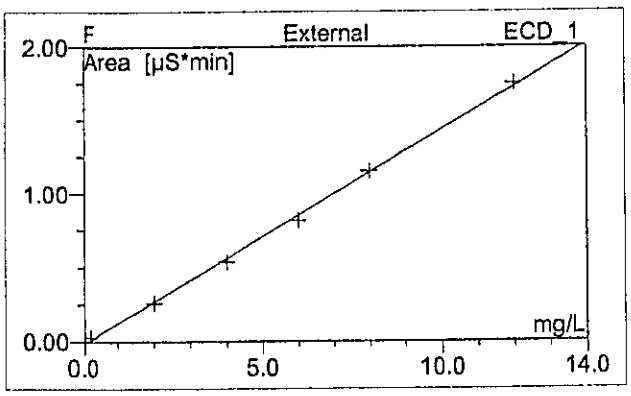


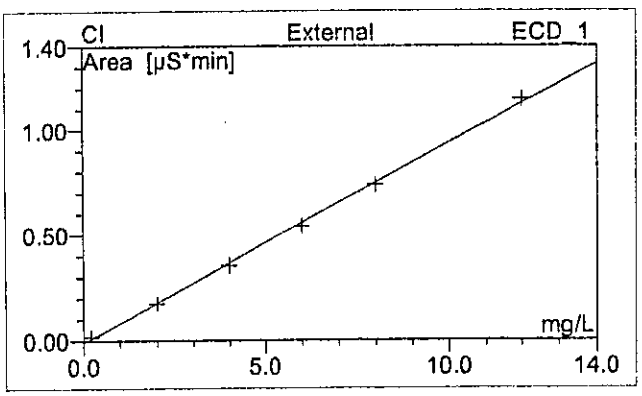
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

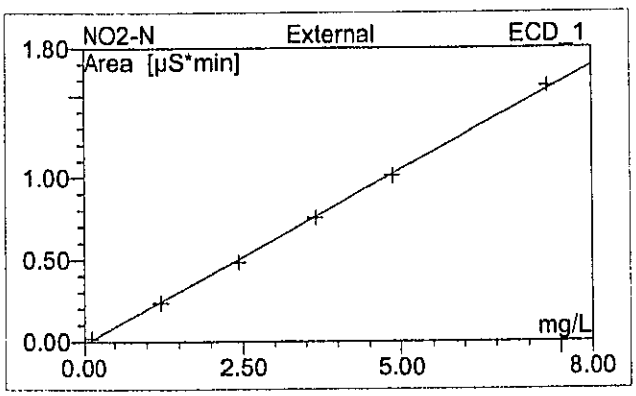
6 ANION STD #6

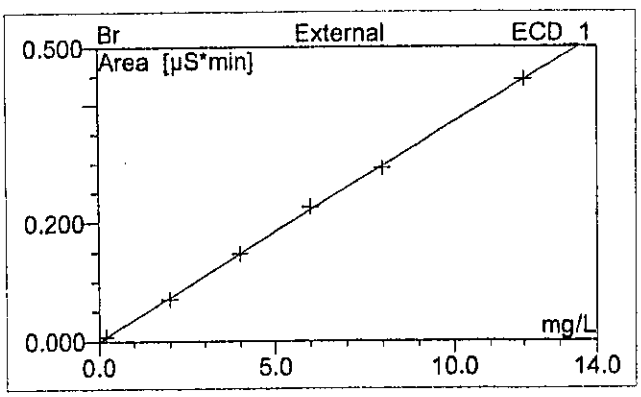
1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**









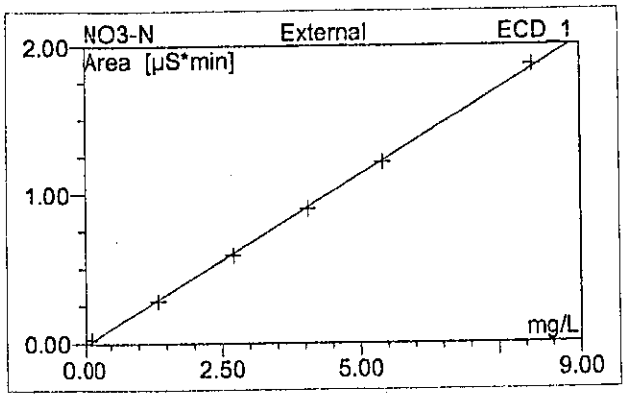
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

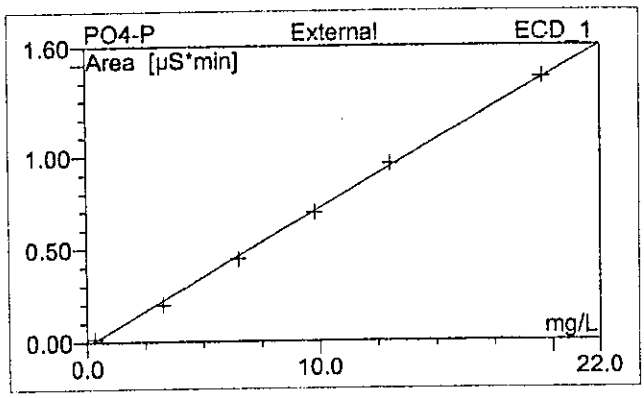
809

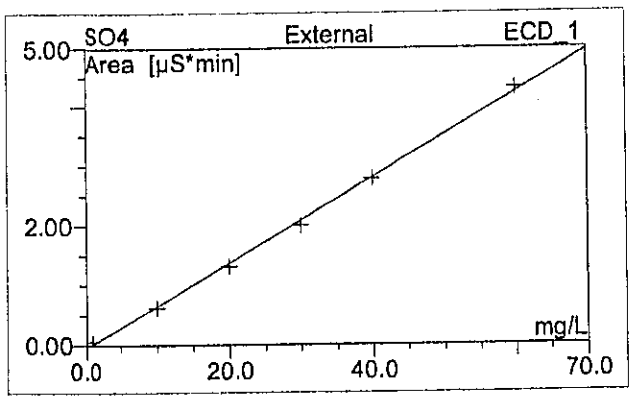
6 ANION STD #6

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*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	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

8 ANION ALT STD

1,1 RDC ANION ALT STD SOS0059-44

Sample Name:	**ANION ALT STD**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantit. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**5/21/2002 18:41**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8089	-3.19	PASS
Cl	6	5.9068	-1.55	PASS
NO2-N	3.65	3.6652	0.42	PASS
Br	6	6.3346	5.58	PASS
NO3-N	4.07	4.1408	1.74	PASS
PO4-P	9.78	9.8359	0.57	PASS
SO4	30	29.3113	-2.30	PASS

8 Alt anion std.

1,1 RDC SOS0060-31

Sample Name:	**Alt anion std.**		*Injection Volume:*
Vial Number:	**8**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/18/2002 18:09**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

Alt anion std.	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8684	-2.19	PASS
Cl	6	5.8510	-2.48	PASS
NO2-N	3.65	3.5135	-3.74	PASS
Br	6	5.8699	-2.17	PASS
NO3-N	4.07	3.9347	-3.33	PASS
PO4-P	9.78	9.2540	-5.38	PASS
SO4	30	28.6141	1.62	PASS

Login Number: L0206140
File ID: 060702.10
CCV ID: WG119436-01
Units: mg/L

Instrument ID: IC2
Run Date: 06/07/2002
Run Time: 14:40
Analyst: JWR
Cal ID: IC2 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	30.3	0	1.0	
PO4-P		9.78	10.5	0	7.4	
NO3-N		4.07	4.21	0	3.4	
Br		6	6.32	0	5.3	
NO2-N		3.65	3.73	0	2.2	
Cl		6	6.12	0	2.0	
F		6	6.47	0	7.8	

* Exceeds %D Limit

Login Number: L0206140
File ID: 060702.33
CCV ID: WG119436-03
Units: mg/L

Instrument ID: IC2
Run Date: 06/07/2002
Run Time: 19:38
Analyst: JWR
Cal ID: IC2 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	31.1	0	3.7	
PO4-P		9.78	6.35	0	35.1	*
NO3-N		4.07	4.23	0	3.9	
Br		6	6.31	0	5.2	
NO2-N		3.65	3.70	0	1.4	
Cl		6	6.01	0	0.2	
F		6	6.28	0	4.7	

* Exceeds %D Limit

Login Number: L0206140
File ID: 060702.44
CCV ID: WG119436-04
Units: mg/L

Instrument ID: IC2
Run Date: 06/07/2002
Run Time: 21:44
Analyst: JWR
Cal ID: IC2 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	31.0	0	3.3	
PO4-P		9.78	6.39	0	34.7	*
NO3-N		4.07	4.26	0	4.7	
Br		6	6.36	0	6.0	
NO2-N		3.65	3.78	0	3.6	
Cl		6	6.17	0	2.8	
F		6	6.40	0	6.7	

* Exceeds %D Limit

CONTINUING CALIBRATION REPORT

Login Number: L0206140
File ID: 060702.21
CCV ID: WG119436-02
Units: mg/L

Instrument ID: IC2
Run Date: 06/07/2002
Run Time: 16:47
Analyst: JWR
Cal ID: IC2 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	31.4	0	4.7	
PO4-P		9.78	6.16	0	37.0	*
NO3-N		4.07	4.17	0	2.5	
Br		6	6.22	0	3.7	
NO2-N		3.65	3.66	0	0.3	
Cl		6	5.97	0	0.5	
F		6	6.09	0	1.5	

* Exceeds %D Limit

Login Number: L0206140
File ID: 060702.22
CCV ID: WG119436-02
Units: mg/L

Instrument ID: IC2
Run Date: 06/07/2002
Run Time: 17:26
Analyst: JWR
Cal ID: IC2 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	31.1	0	3.7	
PO4-P		9.78	6.63	0	32.2	*
NO3-N		4.07	4.17	0	2.5	
Br		6	6.25	0	4.2	
NO2-N		3.65	3.68	0	0.8	
Cl		6	6.01	0	0.2	
F		6	6.33	0	5.5	

* Exceeds %D Limit

CONTINUING CALIBRATION REPORT

Login Number: L0206140
File ID: 061902.11
CCV ID: WG120161-01
Units: mg/L

Instrument ID: IC1
Run Date: 06/19/2002
Run Time: 16:44
Analyst: RDC
Cal ID: IC1 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	29.2	0	2.7	
PO4-P		9.78	9.39	0	4.0	
NO3-N		4.07	3.98	0	2.2	
Br		6	6.01	0	0.2	
NO2-N		3.65	3.60	0	1.4	
Cl		6	5.80	0	3.3	
F		6	5.94	0	1.0	

* Exceeds %D Limit

CONTINUING CALIBRATION REPORT

Login Number: L0206140
File ID: 061902.36
CCV ID: WG120161-04
Units: mg/L

Instrument ID: IC1
Run Date: 06/19/2002
Run Time: 21:32
Analyst: RDC
Cal ID: IC1 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	29.2	0	2.7	
PO4-P		9.78	9.18	0	6.1	
NO3-N		4.07	4.01	0	1.5	
Br		6	6.05	0	0.8	
NO2-N		3.65	3.62	0	0.8	
Cl		6	5.85	0	2.5	
F		6	5.98	0	0.3	

* Exceeds %D Limit

Login Number: L0206140
File ID: 061902.19
CCV ID: WG120161-02
Units: mg/L

Instrument ID: IC1
Run Date: 06/19/2002
Run Time: 18:17
Analyst: RDC
Cal ID: IC1 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	29.2	0	2.7	
PO4-P		9.78	9.32	0	4.7	
NO3-N		4.07	3.99	0	2.0	
Br		6	6.03	0	0.5	
NO2-N		3.65	3.61	0	1.1	
Cl		6	5.83	0	2.8	
F		6	5.95	0	0.8	

* Exceeds %D Limit

Login Number: L0206140
File ID: 061902.30
CCV ID: WG120161-03
Units: mg/L

Instrument ID: IC1
Run Date: 06/19/2002
Run Time: 20:23
Analyst: RDC
Cal ID: IC1 -

Analyte		Expected	Found	RF	%D	Q
SO4		30	29.2	0	2.7	
PO4-P		9.78	9.32	0	4.7	
NO3-N		4.07	4.00	0	1.7	
Br		6	6.03	0	0.5	
NO2-N		3.65	3.62	0	0.8	
Cl		6	5.86	0	2.3	
F		6	5.99	0	0.2	

* Exceeds %D Limit

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056

AAB#: WG119433

Login Number: L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46DUP-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.80	06/07/02	2	1.80	
062-46EQB-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.29	06/07/02	2	1.29	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.33	06/07/02	2	1.33	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.40	06/07/02	2	1.40	
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.41	06/07/02	2	1.41	
062-CEF46-13I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.32	06/07/02	2	1.32	
062-CEF46-14D-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.29	06/07/02	2	1.29	
062-CEF46-15I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.38	06/07/02	2	1.38	
062-CEF46-26I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.10	06/07/02	2	1.10	
062-CEF46-2S-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.04	06/07/02	2	1.04	
062-CEF46-5I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.13	06/07/02	2	1.13	
062-CEF46-6D-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.16	06/07/02	2	1.16	
062-CEF46-7I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.08	06/07/02	2	1.08	
062-CEF46-9I-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.24	06/07/02	2	1.24	
062-CEF46-IS-Q2-02-17	06/06/02	06/07/02	06/07/02	2	1.06	06/07/02	2	1.06	

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056 AAB#: WG120157

Login Number: L0206140

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46DUP-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.8	06/19/02	2	13.8	*ANAL
062-46EQB-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.3	06/19/02	2	13.3	*ANAL
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.3	06/19/02	2	13.3	*ANAL
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.4	06/19/02	2	13.4	*ANAL
062-CEF46-12I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.4	06/19/02	2	13.4	*ANAL
062-CEF46-13I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.4	06/19/02	2	13.4	*ANAL
062-CEF46-14D-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.3	06/19/02	2	13.3	*ANAL
062-CEF46-15I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.4	06/19/02	2	13.4	*ANAL
062-CEF46-26I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.2	06/19/02	2	13.2	*ANAL
062-CEF46-2S-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.2	06/19/02	2	13.2	*ANAL
062-CEF46-5I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.3	06/19/02	2	13.3	*ANAL
062-CEF46-6D-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.3	06/19/02	2	13.3	*ANAL
062-CEF46-7I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.2	06/19/02	2	13.2	*ANAL
062-CEF46-9I-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.3	06/19/02	2	13.3	*ANAL
062-CEF46-IS-Q2-02-17	06/06/02	06/07/02	06/19/02	2	13.2	06/19/02	2	13.2	*ANAL

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

Sequence: 060702 IC2
Operator: Analyst

Printed: 6/18/2002 13:09:01

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	5/21/2002 17:13:47
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	5/21/2002 17:25:17
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	5/21/2002 17:36:47
4	ANION STD #4	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:48:17
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:59:47
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	5/21/2002 18:11:17
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	5/21/2002 18:30:18
8	ANION ALT STD	Unknown	36	25.0	9056	9056	Finished	5/21/2002 18:41:48
9	ELUENT BLANK	Unknown	44	25.0	9056	9056	Finished	6/7/2002 14:29:16
10	WG119436-01 CCV	Unknown	41	25.0	9056	9056	Finished	6/7/2002 14:40:46
11	WG119433-01 ANION BLANK	Unknown	43	25.0	9056	9056	Finished	6/7/2002 14:52:38
12	WG119433-02 ANION LCS	Unknown	43	25.0	9056	9056	Finished	6/7/2002 15:04:08
13	L0206124-04	Unknown	44	25.0	9056	9056	Finished	6/7/2002 15:15:38
14	L0206124-06	Unknown	44	25.0	9056	9056	Finished	6/7/2002 15:27:08
15	L0206135-01	Unknown	45	25.0	9056	9056	Finished	6/7/2002 15:38:39
16	L0206135-03	Unknown	44	25.0	9056	9056	Finished	6/7/2002 15:50:09
17	L0206135-05 (ER)	Unknown	44	25.0	9056	9056	Finished	6/7/2002 16:01:40
18	L0206140-01	Unknown	43	25.0	9056	9056	Finished	6/7/2002 16:13:10
19	L0206140-02	Unknown	44	25.0	9056	9056	Finished	6/7/2002 16:24:39
20	L0206140-03	Unknown	43	25.0	9056	9056	Finished	6/7/2002 16:36:10
21	WG119436-02 CCV	Unknown	44	25.0	9056	9056	Finished	6/7/2002 16:47:40
22	WG119436-02 CCV	Unknown	45	25.0	9056	9056	Finished	6/7/2002 17:26:28
23	L0206140-04	Unknown	45	25.0	9056	9056	Finished	6/7/2002 17:37:59
24	L0206140-05	Unknown	46	25.0	9056	9056	Finished	6/7/2002 17:49:29
25	L0206140-06	Unknown	46	25.0	9056	9056	Finished	6/7/2002 18:06:26
26	WG119433-05 L0206140-07 REF	Unknown	47	25.0	9056	9056	Finished	6/7/2002 18:17:56
27	L0206140-08 RAL 6/17/02	Unknown	45	25.0	9056	9056	Finished	6/7/2002 18:29:26
28	L0206140-09	Unknown	46	25.0	9056	9056	Finished	6/7/2002 18:40:56
29	L0206140-10	Unknown	47	25.0	9056	9056	Finished	6/7/2002 18:52:26
30	WG119433-03 L0206140-11 REF	Unknown	47	25.0	9056	9056	Finished	6/7/2002 19:03:56
31	L0206140-12	Unknown	48	25.0	9056	9056	Finished	6/7/2002 19:15:26
32	L0206140-13 (EB)	Unknown	48	25.0	9056	9056	Finished	6/7/2002 19:26:56
33	WG119436-03 CCV	Unknown	46	25.0	9056	9056	Finished	6/7/2002 19:38:26
34	WG119433-06 L0206140-17 MS	Unknown	47	25.0	9056	9056	Finished	6/7/2002 19:49:56
35	WG119433-07 L0206140-18 MSD	Unknown	48	25.0	9056	9056	Finished	6/7/2002 20:01:26
36	WG119433-04 DUP	Unknown	48	25.0	9056	9056	Finished	6/7/2002 20:12:55
37	L0206124-04 RR@1/10 CL,SO4	Unknown	49	25.0	9056	9056	Finished	6/7/2002 20:24:25
38	L0206124-06 RR@1/10 CL,SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 20:35:55
39	L0206135-01 RR@1/10 CL,SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 20:47:25
40	L0206135-03 RR@1/10 CL,SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 20:58:55
41	L0206140-03 RR@1/100 for SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 21:10:25
42	L0206140-04 RR@1/100 for SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 21:21:55

KEMRON Environmental Services, Inc.

Work Group Report (wk02)

19-JUN-02 03:45 PM

Work Group: WG120161

Department: 9 Semivolatile - GC

Operator: rdc

Created: 19-JUN-02

Due:

Sample	Account Name	C	Product	QC Key	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG120161-01	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-02	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-03	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-04	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-05	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-06	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		

Comments:

Sequence: 060702 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000	✓	1,1 RDC ANION STD SOS0059-46
2	ANION STD #2	1.0000	✓	1,1 RDC ANION STD SOS0059-46
3	ANION STD #3	1.0000	✓	1,1 RDC ANION STD SOS0059-46
4	ANION STD #4	1.0000	✓	1,1 RDC ANION STD SOS0059-46
5	ANION STD #5	1.0000	✓	1,1 RDC ANION STD SOS0059-46
6	ANION STD #6	1.0000	✓	1,1 RDC ANION STD SOS0059-46
7	ELUENT BLANK	1.0000	✓	1,1 RDC
8	ANION ALT STD	1.0000	✓	1,1 RDC ANION ALT STD SOS0059-44
9	ELUENT BLANK	1.0000	✓	1,1 JWR
10	WG119436-01 CCV	1.0000	✓	1,1 JWR SOS0059-46 06/07/02
11	WG119433-01 ANION BLANK	1.0000	✓	1,1 JWR 06/07/02
12	WG119433-02 ANION LCS	1.0000	✓	1,1 JWR SOS0059-46 06/07/02
13	L0206124-04	1.0000	RR5X	1,1 JWR
14	L0206124-06	1.0000	RR5X	1,1 JWR
15	L0206135-01	1.0000	RR10X	1,1 JWR
16	L0206135-03	1.0000	RR10X	1,1 JWR
17	L0206135-05 (ER)	1.0000	✓	1,1 JWR
18	L0206140-01	1.0000	✓	1,1 JWR
19	L0206140-02	1.0000	✓	1,1 JWR
20	L0206140-03	1.0000	✓	1,1 JWR
21	WG119436-02 CCV	1.0000	CC	1,1 JWR SOS0059-46 06/07/02 CC
22	WG119436-02 CCV	1.0000	CC	1,1 JWR SOS0059-46 06/07/02 CC
23	L0206140-04	1.0000	RR	1,1 JWR
24	L0206140-05	1.0000		1,1 JWR
25	L0206140-06	1.0000		1,1 JWR
26	WG119433-05 L0206140-07 REF	1.0000		1,1 JWR REF for MS/MSD
27	L0206140-08	1.0000		1,1 JWR
28	L0206140-09	1.0000		1,1 JWR
29	L0206140-10	1.0000		1,1 JWR
30	WG119433-03 L0206140-11 REF	1.0000		1,1 JWR REF for DUP
31	L0206140-12	1.0000		1,1 JWR
32	L0206140-13 (EB)	1.0000		1,1 JWR
33	WG119436-03 CCV	1.0000	CC	1,1 JWR SOS0059-46 06/07/02
34	WG119433-06 L0206140-17 MS	1.0000	RR	1,1 JWR MS of L0206140-07
35	WG119433-07 L0206140-18 MSD	1.0000		1,1 JWR MSD of L0206140-07
36	WG119433-04 DUP	1.0000		1,1 JWR DUP of L0206140-11
37	L0206124-04 RR@1/10 CL,SO4	1.0000	✓	1,10 JWR
38	L0206124-06 RR@1/10 CL,SO4	1.0000	✓	1,10 JWR
39	L0206135-01 RR@1/10 CL,SO4	1.0000	✓	1,10 JWR
40	L0206135-03 RR@1/10 CL,SO4	1.0000	✓	1,10 JWR
41	L0206140-03 RR@1/100 for SO4	1.0000	✓	1,100 JWR (for SO4 Coellution over PO4)
42	L0206140-04 RR@1/100 for SO4	1.0000	✓	1,100 JWR (for SO4 Coellution over PO4)

RR PO4-P

PO4-P low

PO4-P low

6/18/02 RDC

Sequence: 060702 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	L0206140-11 RR@1/100 for SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 21:33:25
44	WG119436-04 CCV	Unknown	53	25.0	9056	9056	Finished	6/7/2002 21:44:55
45	L0206052-09 RR@1/500 CL	Unknown	54	25.0	9056	9056	Finished	6/7/2002 21:56:25
46	L0206052-11 RR@1/500 CL	Unknown	55	25.0	9056	9056	Finished	6/7/2002 22:07:55
47	L0206052-13 RR@1/500 CL	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:19:26
48	L0206052-17 RR@1/500 CL	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:30:56
49	L0206052-19 RR@1/500 CL	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:42:25
50	L0206052-09 RR@1/10 SO4	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:53:56
51	L0206052-11 RR@1/5 SO4	Unknown	56	25.0	9056	9056	Finished	6/7/2002 23:05:26
52	L0206052-13 RR@1/20 SO4	Unknown	55	25.0	9056	9056	Finished	6/7/2002 23:16:56
53	L0206052-17 RR@1/5 SO4	Unknown	55	25.0	9056	9056	Finished	6/7/2002 23:28:27
54	L0206052-19 RR@1/10 SO4	Unknown	55	25.0	9056	9056	Finished	6/7/2002 23:39:57
55	WG119436-05 CCV	Unknown	56	25.0	9056	9056	Finished	6/7/2002 23:51:27
56	END	Unknown	41	25.0	DX-320 OFF	9056	Finished	6/8/2002 00:02:56

Sequence: 060702 IC2
Operator: Analyst

Printed: 6/18/2002 13:09:01

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Dil. Factor	Sample ID	Comment
43	L0206140-11 RR@1/100 for SO4	1.0000	✓	1,100 JWR (for SO4 Coellution over PO4)
44	WG119436-04 CCV	1.0000	cc	1,1 JWR SOS0059-46 06/07/02 PO4-P low
45	L0206052-09 RR@1/500 CL	1.0000	✓	1,500 JWR
46	L0206052-11 RR@1/500 CL	1.0000	✓	1,500 JWR
47	L0206052-13 RR@1/500 CL	1.0000	✓	1,500 JWR
48	L0206052-17 RR@1/500 CL	1.0000	✓	1,500 JWR
49	L0206052-19 RR@1/500 CL	1.0000	✓	1,500 JWR
50	L0206052-09 RR@1/10 SO4	1.0000	✓	1,10 JWR
51	L0206052-11 RR@1/5 SO4	1.0000	✓	1,5 JWR
52	L0206052-13 RR@1/20 SO4	1.0000	✓	1,20 JWR
53	L0206052-17 RR@1/5 SO4	1.0000	✓	1,5 JWR
54	L0206052-19 RR@1/10 SO4	1.0000	✓	1,10 JWR
55	WG119436-05 CCV	1.0000	cc	1,1 JWR SOS0059-46 06/07/02 PO4-P low
56	END	1.0000		1,1 JWR

RQC
6/18/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time JUNE 7, 2002 Instrument ID IC2 Column ID AG4A-SC / AS4A-SC Data Subdirectory 060702
Analyst Initials JWR SOP # IC01 Rev. # 2 / 9056 SOP # IC02 Rev. # 314.0

Daily Check
- ☐ Mobile phase reservoir
- ☑ System pressure 1306 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Several samples contained very large amt. of SO_4. Samples were highly colored with iron. High metals content fouled the column & affected PO_4-P recovery. Samples will need RR out of hold for phosphate.

all but initial CCV failed low for PO_4-P

Reviewed By: SK 6/9/02

829

Sequence: 061902 IC1
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	Anion std. #1	Standard	1	25.0	9056	9056	Finished	6/18/2002 15:41:21
2	Anion std. #2	Standard	2	25.0	9056	9056	Finished	6/18/2002 15:52:52
3	Anion std. #3	Standard	3	25.0	9056	9056	Finished	6/18/2002 16:04:23
4	Anion std. #4	Standard	4	25.0	9056	9056	Finished	6/18/2002 16:15:53
5	Anion std. #5	Standard	5	25.0	9056	9056	Finished	6/18/2002 16:27:24
6	Anion std. #6	Standard	6	25.0	9056	9056	Finished	6/18/2002 16:38:55
7	eluent blank	Unknown	9	25.0	9056	9056	Finished	6/18/2002 16:52:46
8	Alt anion std.	Unknown	8	25.0	9056	9056	Finished	6/18/2002 18:09:19
9	DI H2O	Unknown	12	25.0	9056	9056	Finished	6/19/2002 16:21:25
10	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:32:56
11	WG120161-01 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:44:26
12	WG120157-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 16:55:57
13	WG120157-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 17:07:28
14	WG120157-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 17:19:36
15	WG120157-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 17:31:07
16	L0206334-06 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:42:37
17	L0206334-07 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:54:08
18	L0206334-08 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:05:39
19	WG120161-02 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:17:09
20	WG120157-05 REF for MS/MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:28:40
21	WG120157-06 MS	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:40:10
22	WG120157-07 MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:51:41
23	L0206140-01 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:03:11
24	L0206140-02 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:14:42
25	L0206140-06 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:26:13
26	L0206140-08 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:37:43
27	L0206140-09 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:49:13
28	L0206140-10 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:00:44
29	L0206140-12 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:12:14
30	WG120161-03 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 20:23:45
31	L0206140-13 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:35:16
32	L0206140-03 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:46:47
33	L0206140-04 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:58:18
34	L0206140-05 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:09:48
35	L0206140-11 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:21:19
36	WG120161-04 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 21:32:50
37	WG120162-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 21:44:20
38	WG120162-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 21:55:51
39	WG120162-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:07:21
40	WG120162-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 22:18:52
41	WG120162-05 REF for MS/MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:30:23
42	WG120162-06 MS	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:41:53

Sequence: 061902 IC1
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
1	Anion std. #1	1.0000	1.0000	1.0000		
2	Anion std. #2	1.0000	1.0000	1.0000		
3	Anion std. #3	1.0000	1.0000	1.0000		
4	Anion std. #4	1.0000	1.0000	1.0000		
5	Anion std. #5	1.0000	1.0000	1.0000		
6	Anion std. #6	1.0000	1.0000	1.0000		
7	eluent blank	1.0000	1.0000	1.0000		
8	Alt anion std.	1.0000	1.0000	1.0000		
9	DI H2O	1.0000	1.0000	1.0000		
10	ELUENT BLANK	1.0000	1.0000	1.0000		
11	WG120161-01 CCV	1.0000	1.0000	1.0000		
12	WG120157-01 ANION BLANK	1.0000	1.0000	1.0000		
13	WG120157-02 ANION LCS	1.0000	1.0000	1.0000		
14	WG120157-03 REF for DUP	1.0000	1.0000	1.0000		
15	WG120157-04 DUP	1.0000	1.0000	1.0000		
16	L0206334-06 9056W	1.0000	1.0000	1.0000		
17	L0206334-07 9056W	1.0000	1.0000	1.0000		
18	L0206334-08 9056W	1.0000	1.0000	1.0000		
19	WG120161-02 CCV	1.0000	1.0000	1.0000		
20	WG120157-05 REF for MS/MSD	1.0000	1.0000	1.0000		
21	WG120157-06 MS	1.0000	1.0000	1.0000		
22	WG120157-07 MSD	1.0000	1.0000	1.0000		
23	L0206140-01 9056W RR	1.0000	1.0000	1.0000		
24	L0206140-02 9056W RR	1.0000	1.0000	1.0000		
25	L0206140-06 9056W RR	1.0000	1.0000	1.0000		
26	L0206140-08 9056W RR	1.0000	1.0000	1.0000		
27	L0206140-09 9056W RR	1.0000	1.0000	1.0000		
28	L0206140-10 9056W RR	1.0000	1.0000	1.0000		
29	L0206140-12 9056W RR	1.0000	1.0000	1.0000		
30	WG120161-03 CCV	1.0000	1.0000	1.0000		
31	L0206140-13 9056W RR	1.0000	1.0000	1.0000		
32	L0206140-03 @ 100X	1.0000	1.0000	1.0000		
33	L0206140-04 @ 100X	1.0000	1.0000	1.0000		
34	L0206140-05 @ 100X	1.0000	1.0000	1.0000		
35	L0206140-11 @ 100X	1.0000	1.0000	1.0000		
36	WG120161-04 CCV	1.0000	1.0000	1.0000		
37	WG120162-01 ANION BLANK	1.0000	1.0000	1.0000		
38	WG120162-02 ANION LCS	1.0000	1.0000	1.0000		
39	WG120162-03 REF for DUP	1.0000	1.0000	1.0000		
40	WG120162-04 DUP	1.0000	1.0000	1.0000		
41	WG120162-05 REF for MS/MSD	1.0000	1.0000	1.0000		
42	WG120162-06 MS	1.0000	1.0000	1.0000		

BookNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 061902 IC1
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
1	Anion std. #1	1,1 RDC SOS0060-25
2	Anion std. #2	1,1 RDC SOS0060-25
3	Anion std. #3	1,1 RDC SOS0060-25
4	Anion std. #4	1,1 RDC SOS0060-25
5	Anion std. #5	1,1 RDC SOS0060-25
6	Anion std. #6	1,1 RDC SOS0060-25
7	eluent blank	1,1 RDC
8	Alt anion std.	1,1 RDC SOS0060-31
9	DI H2O	1,1 RDC
10	ELUENT BLANK	1,1 RDC
11	WG120161-01 CCV	1,1 RDC SOS0060-25
12	WG120157-01 ANION BLANK	1,1 RDC
13	WG120157-02 ANION LCS	1,1 RDC SOS0060-25
14	WG120157-03 REF for DUP	1,1 RDC L0206334-05 REF
15	WG120157-04 DUP	1,1 RDC L0206334-05 DUP
16	L0206334-06 9056W	1,1 RDC
17	L0206334-07 9056W	1,1 RDC
18	L0206334-08 9056W	1,1 RDC
19	WG120161-02 CCV	1,1 RDC SOS0060-25
20	WG120157-05 REF for MS/MSD	1,1 RDC L0206140-07 REF (RR)
21	WG120157-06 MS	1,1 RDC L0206140-17 MS(RR)
22	WG120157-07 MSD	1,1 RDC L0206140-18 MSD (RR)
23	L0206140-01 9056W RR	1,1 RDC
24	L0206140-02 9056W RR	1,1 RDC
25	L0206140-06 9056W RR	1,1 RDC
26	L0206140-08 9056W RR	1,1 RDC
27	L0206140-09 9056W RR	1,1 RDC
28	L0206140-10 9056W RR	1,1 RDC
29	L0206140-12 9056W RR	1,1 RDC
30	WG120161-03 CCV	1,1 RDC SOS0060-25
31	L0206140-13 9056W RR	1,1 RDC
32	L0206140-03 @ 100X	1,100 RDC
33	L0206140-04 @ 100X	1,100 RDC
34	L0206140-05 @ 100X	1,100 RDC
35	L0206140-11 @ 100X	1,100 RDC
36	WG120161-04 CCV	1,1 RDC SOS0060-25
37	WG120162-01 ANION BLANK	1,1 RDC
38	WG120162-02 ANION LCS	1,1 RDC SOS0060-25
39	WG120162-03 REF for DUP	1,100 RDC L0206164-01 REF 100X
40	WG120162-04 DUP	1,100 RDC L0206164-01 DUP 100X
41	WG120162-05 REF for MS/MSD	1,100 RDC L0206164-02 REF 100X
42	WG120162-06 MS	1,100 RDC L0206164-02 MS 100X

832

Sequence: 061902 IC1
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	WG120162-07 MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:53:24
44	L0206164-03 @ 100X	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:04:55
45	WG120161-05 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:16:25
46	end	Unknown	13	25.0	System Off	9056	Finished	6/19/2002 23:27:56

Sequence: 061902 IC1
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
43	WG120162-07 MSD	1.0000	1.0000	1.0000		
44	L0206164-03 @ 100X	1.0000	1.0000	1.0000		
45	WG120161-05 CCV	1.0000	1.0000	1.0000		
46	end	1.0000	1.0000	1.0000		

Sequence: 061902 IC1
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
43	WG120162-07 MSD	1,100 RDC L0206164-02 MSD 100X
44	L0206164-03 @ 100X	1,100 RDC
45	WG120161-05 CCV	1,1 RDC SOS0060-25
46	end	1,1 RDC

AP C 6/20/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID IC1 Column ID AG4A-SC AS4A-SC Data Subdirectory 061902
Analyst Initials RDC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ___ ___ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1129 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0206140 & L0206164 SDGs are RR
Out of holding time for PO_4-P

06-140-03, 04, 05, & 11
06-164-01, 02, & 03
RR was @ 100x dil'n. due to the extreme amt. of Fe RDC 6/20/02

Reviewed By: _____

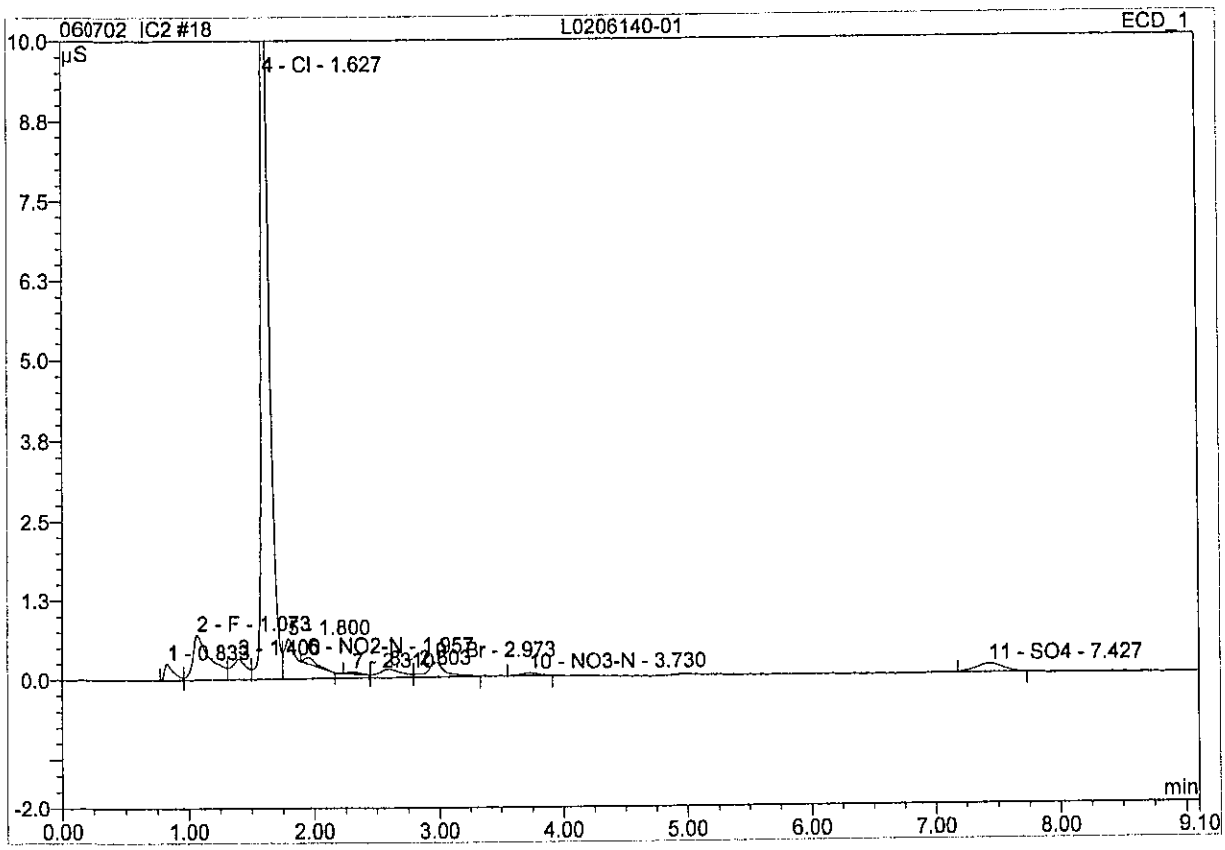
836

2.4.5.2 Sample Data

18 L0206140-01

1,1 JWR

Sample Name:	**L0206140-01**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 16:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



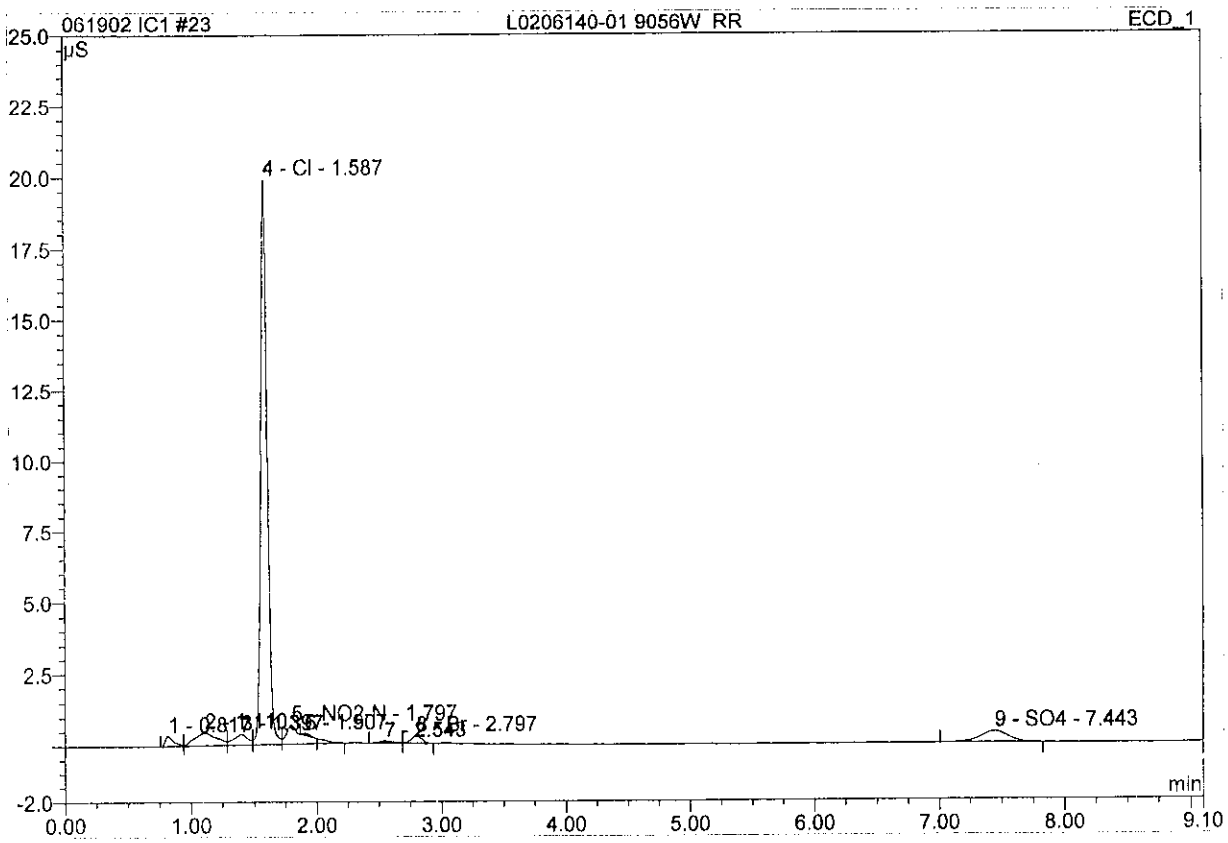
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.251	0.022	1.57	n.a.	BM
2	1.07	F	0.697	0.115	8.25	0.938	M
3	1.40	n.a.	0.320	0.044	3.13	n.a.	M
4	1.63	Cl	14.341	0.958	68.97	10.220	M
5	1.80	n.a.	0.621	0.133	9.55	n.a.	M
6	1.96	NO2-N	0.100	0.011	0.77	0.125 F	Rd
7	2.31	n.a.	0.029	0.003	0.24	n.a.	Rd
8	2.60	n.a.	0.128	0.028	1.99	n.a.	M
9	2.97	Br	0.235	0.037	2.65	1.010	MB
10	3.73	NO3-N	0.041	0.007	0.50	0.110 F	BMB
11	7.43	SO4	0.130	0.033	2.37	1.295	BMB

Total:		16.892	1.388	100.00	13.697

23 L0206140-01 9056W RR

1,1 RDC

Sample Name:	**L0206140-01 9056W RR**	*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:	**6/19/2002 19:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

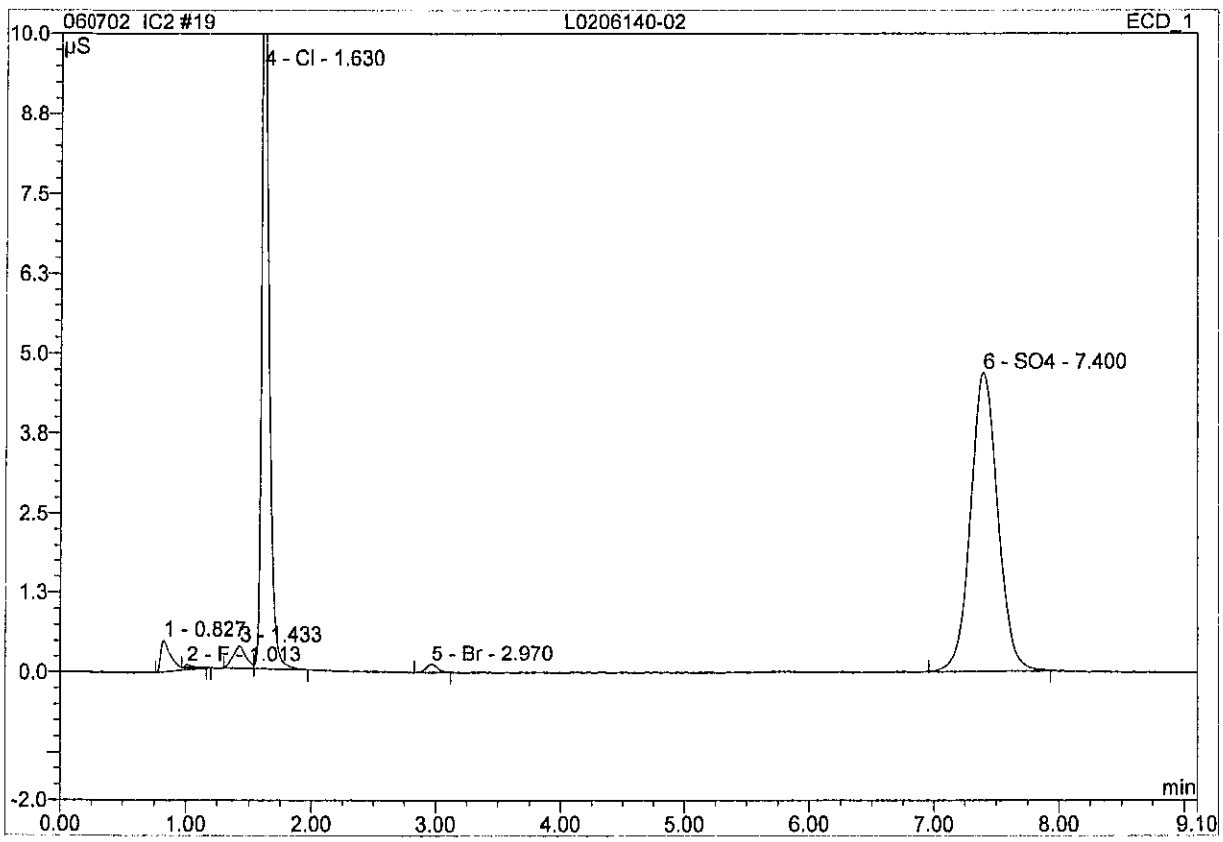


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.357	0.028	1.75	n.a.	BM
2	1.11	n.a.	0.462	0.094	5.75	n.a.	M
3	1.40	n.a.	0.390	0.050	3.09	n.a.	M
4	1.59	Cl	19.882	1.191	73.22	10.038	M
5	1.80	NO2-N	0.669	0.119	7.29	0.537	MB
6	1.91	n.a.	0.073	0.005	0.32	n.a.	Rd
7	2.54	n.a.	0.076	0.012	0.71	n.a.	BM
8	2.80	Br	0.273	0.028	1.69	0.669	MB
9	7.44	SO4	0.393	0.100	6.17	2.141	BMB
Total:			22.576	1.627	100.00	13.385	

19 L0206140-02

1,1 JWR

Sample Name:	**L0206140-02**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 16:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



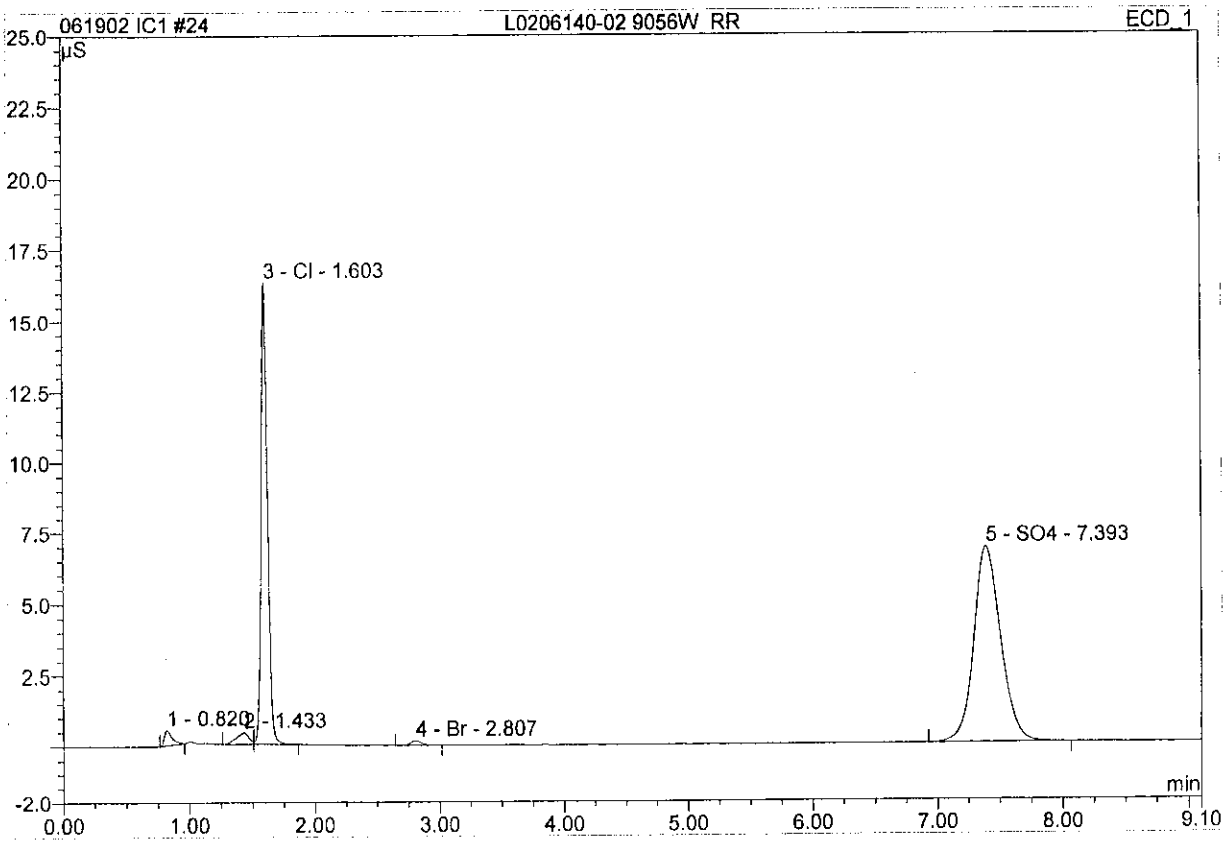
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.499	0.050	2.40	n.a.	BMB
2	1.01	F	0.044	0.003	0.15	0.172	Rd
3	1.43	n.a.	0.365	0.042	2.04	n.a.	BM
4	1.63	Cl	12.259	0.795	38.20	8.510	MB
5	2.97	Br	0.128	0.014	0.65	0.385	BMB
6	7.40	SO4	4.683	1.178	56.56	17.282	BMB
Total:			17.980	2.082	100.00	26.349	

841

24 L0206140-02 9056W RR

1,1 RDC

Sample Name:	**L0206140-02 9056W RR**	*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:	**6/19/2002 19:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

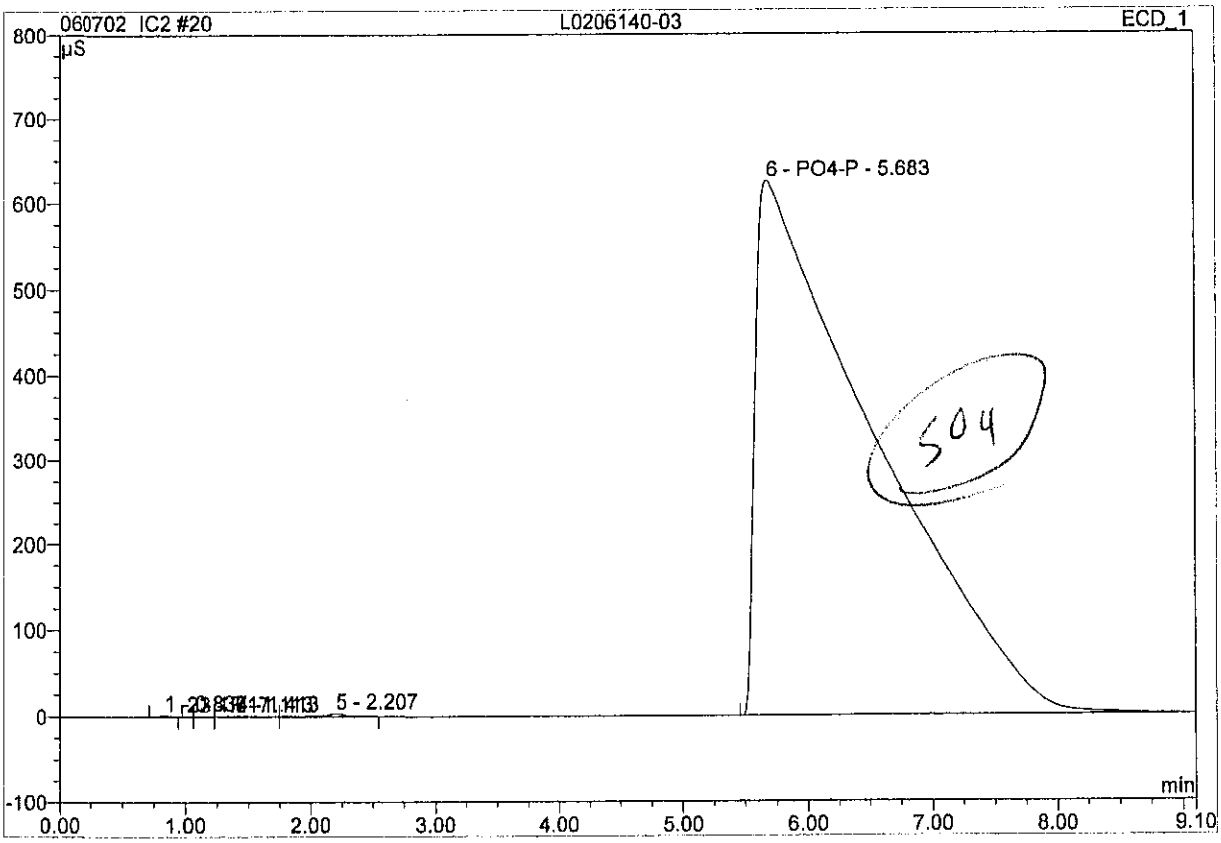


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.543	0.040	1.43	n.a.	BMB
2	1.43	n.a.	0.411	0.048	1.74	n.a.	BM
3	1.60	Cl	16.284	0.963	34.81	8.150	MB
4	2.81	Br	0.158	0.016	0.56	0.411	BMB
5	7.39	SO4	6.850	1.700	61.45	19.710	BMB
Total:			24.246	2.766	100.00	28.271	

20 L0206140-03

1,1 JWR

Sample Name:	**L0206140-03**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 16:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

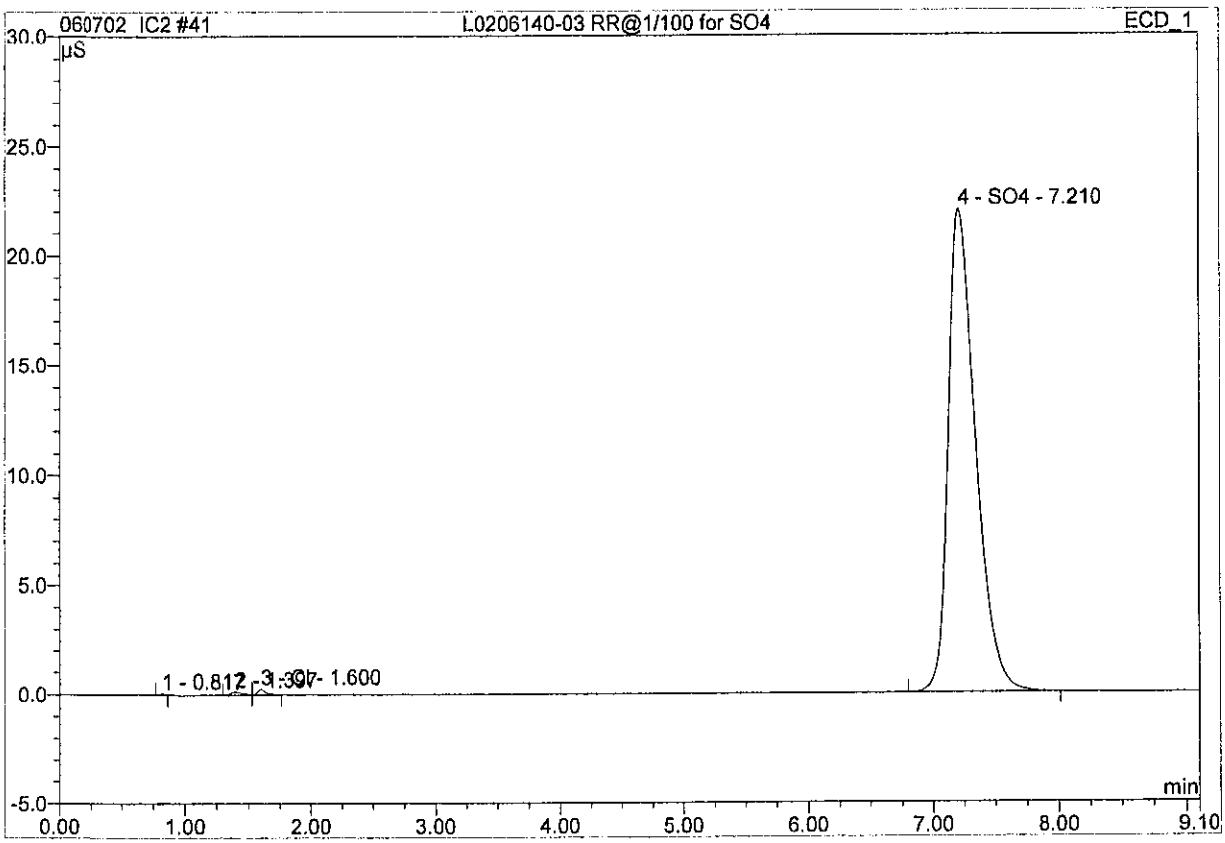


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.84	n.a.	1.640	0.151	0.02	n.a.	BM
2	1.02	n.a.	0.397	0.028	0.00	n.a.	BM
3	1.11	F	0.398	0.052	0.01	0.510	M
4	1.41	n.a.	0.838	0.233	0.03	n.a.	M
5	2.21	n.a.	3.319	0.696	0.10	n.a.	MB
6	5.68	~~PO4-P~~ 504	624.853	682.699	99.83	9261.858	BMB
Total:			631.446	683.860	100.00	9262.368	

41 L0206140-03 RR@1/100 for SO4

1,100 JWR (for SO4 Coellution over PO4)

Sample Name:	**L0206140-03 RR@1/100 for SO4**	*Injection Volume:*	**25.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 21:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



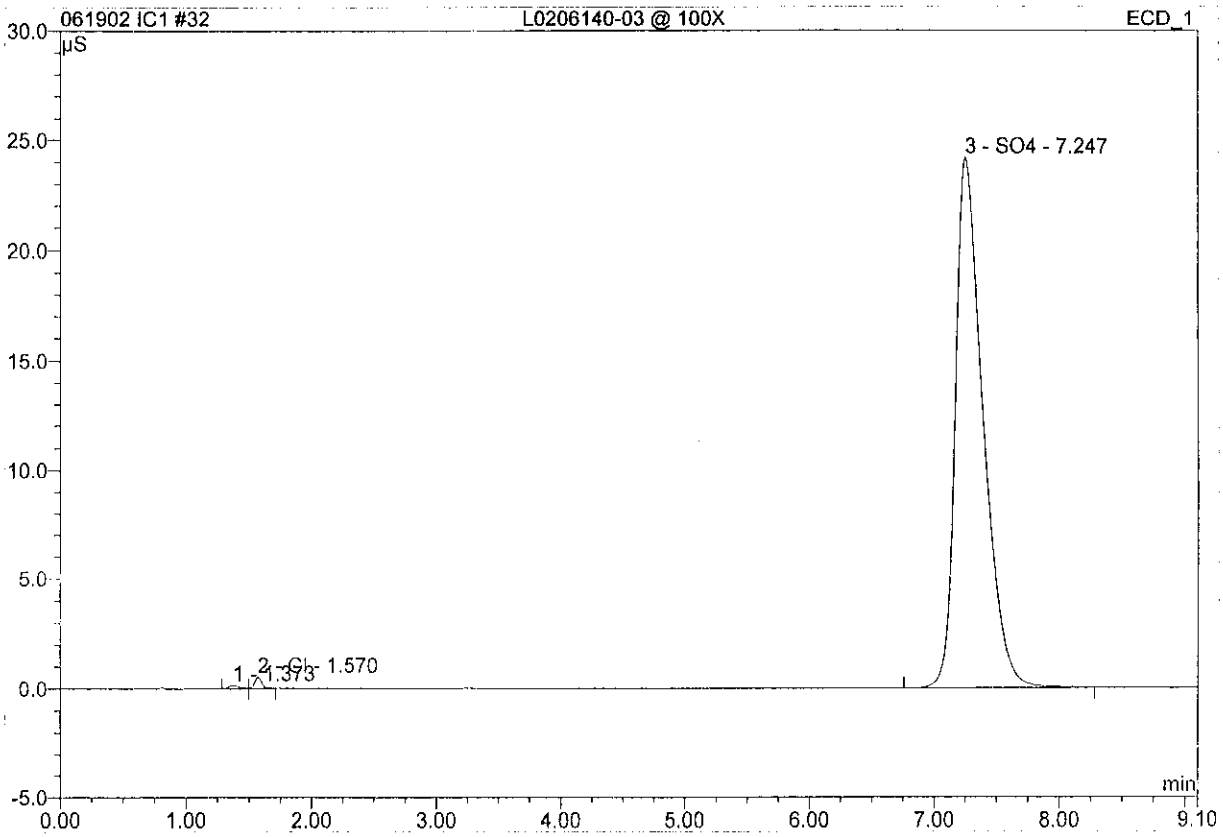
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.048	0.002	0.04	n.a.	BMB
2	1.40	n.a.	0.134	0.015	0.26	n.a.	BM
3	1.60	Cl	0.242	0.019	0.34	0.334	MB
4	7.21	SO4	22.013	5.589	99.36	78.884	BMB
Total:			22.437	5.625	100.00	79.218	

x 100

32 L0206140-03 @ 100X

1,100 RDC

Sample Name:	**L0206140-03 @ 100X**	*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:	**6/19/2002 20:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

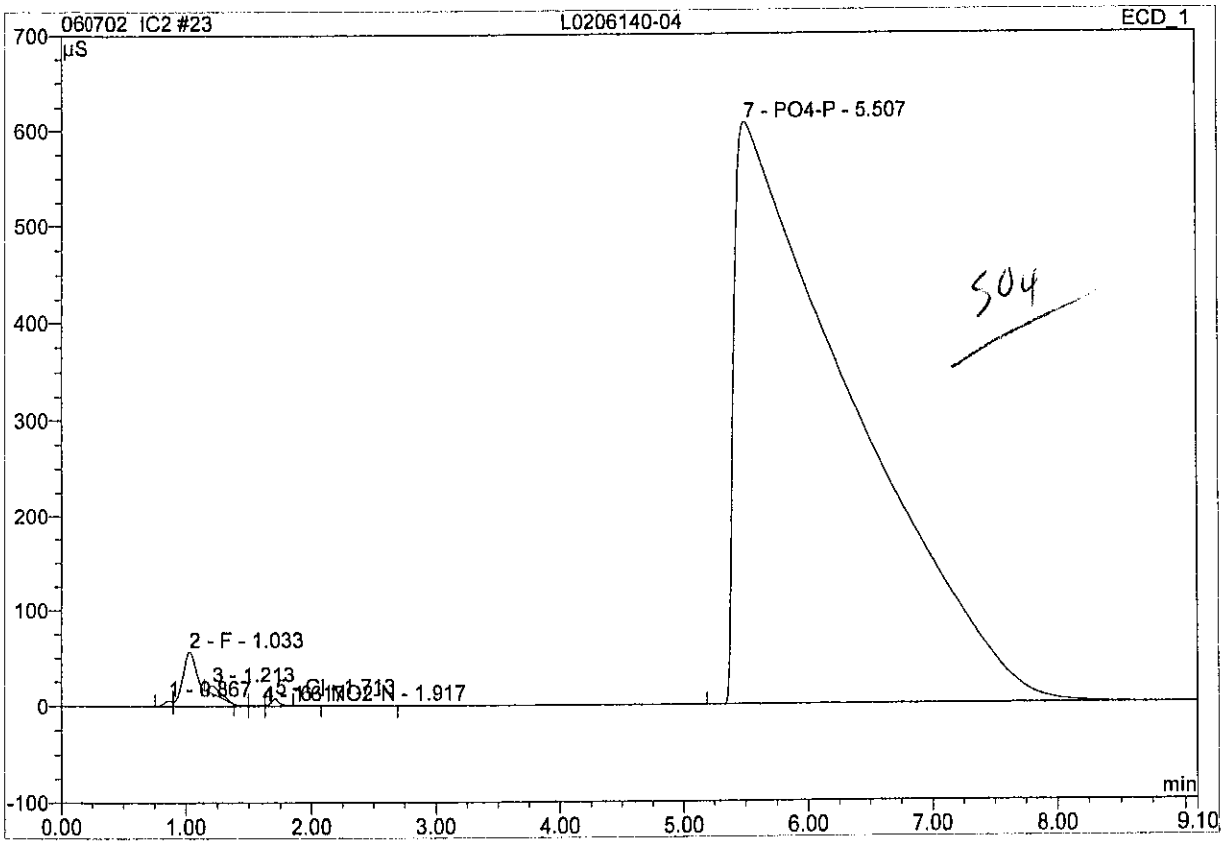


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.37	n.a.	0.157	0.015	0.24	n.a.	BM
2	1.57	Cl	0.531	0.035	0.56	0.488	MB
3	7.25	SO4	24.169	6.195	99.20	69.094	BMB
Total:			24.858	6.245	100.00	69.582	

23 L0206140-04

1,1 JWR

Sample Name:	**L0206140-04**	*Injection Volume:*	**25.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 17:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

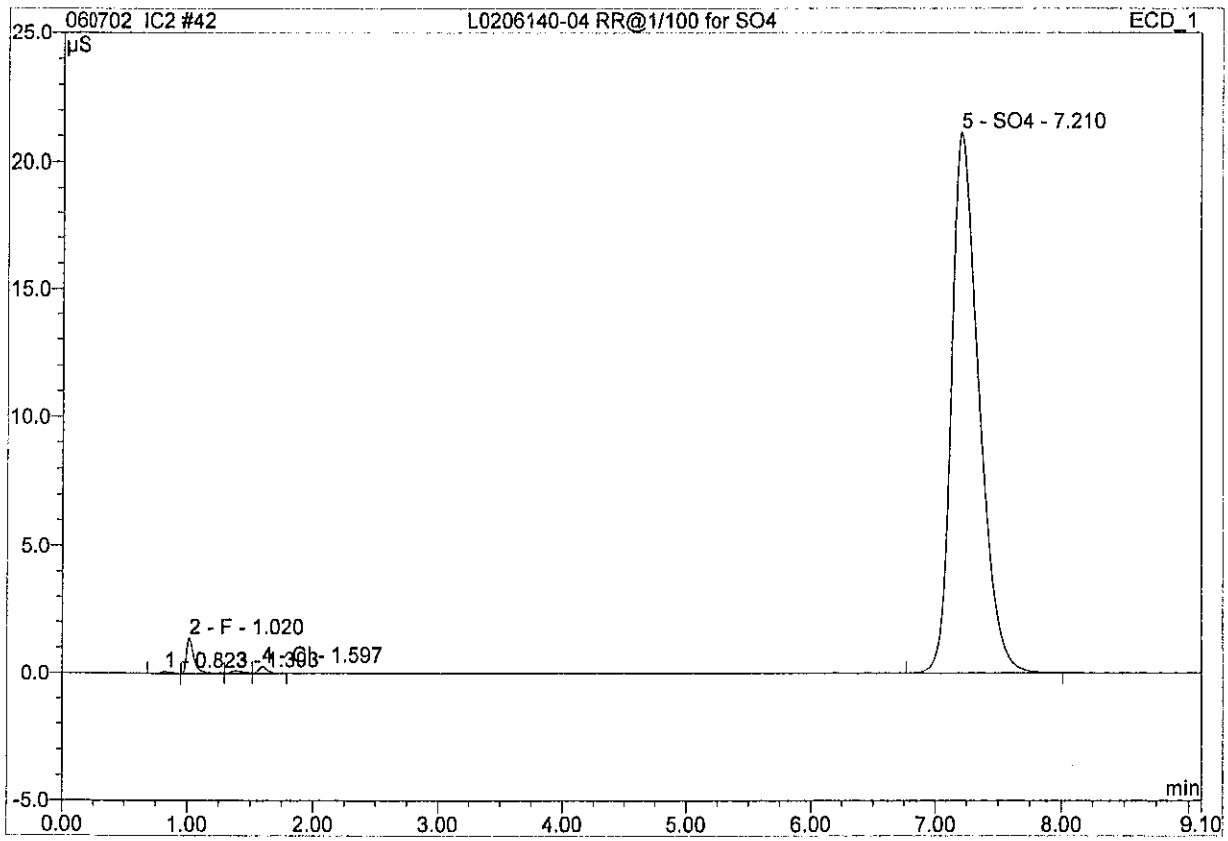


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	5.584	0.438	0.07	n.a.	BM
2	1.03	F	56.914	10.103	1.50	69.487	M
3	1.21	n.a.	8.245	0.935	0.14	n.a.	Rd
4	1.62	n.a.	0.759	0.089	0.01	n.a.	M
5	1.71	Cl	7.684	0.910	0.14	9.718	MB
6	1.92	NO2-N	0.162	0.017	0.00	0.153	Rd
7	5.51	PO4-P SO4	607.436	660.682	98.14	8963.166	BMB
Total:			686.783	673.173	100.00	9042.524	

42 L0206140-04 RR@1/100 for SO4

1,100 JWR (for SO4 Coellution over PO4)

Sample Name:	**L0206140-04 RR@1/100 for SO4**	*Injection Volume:*	**25.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 21:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



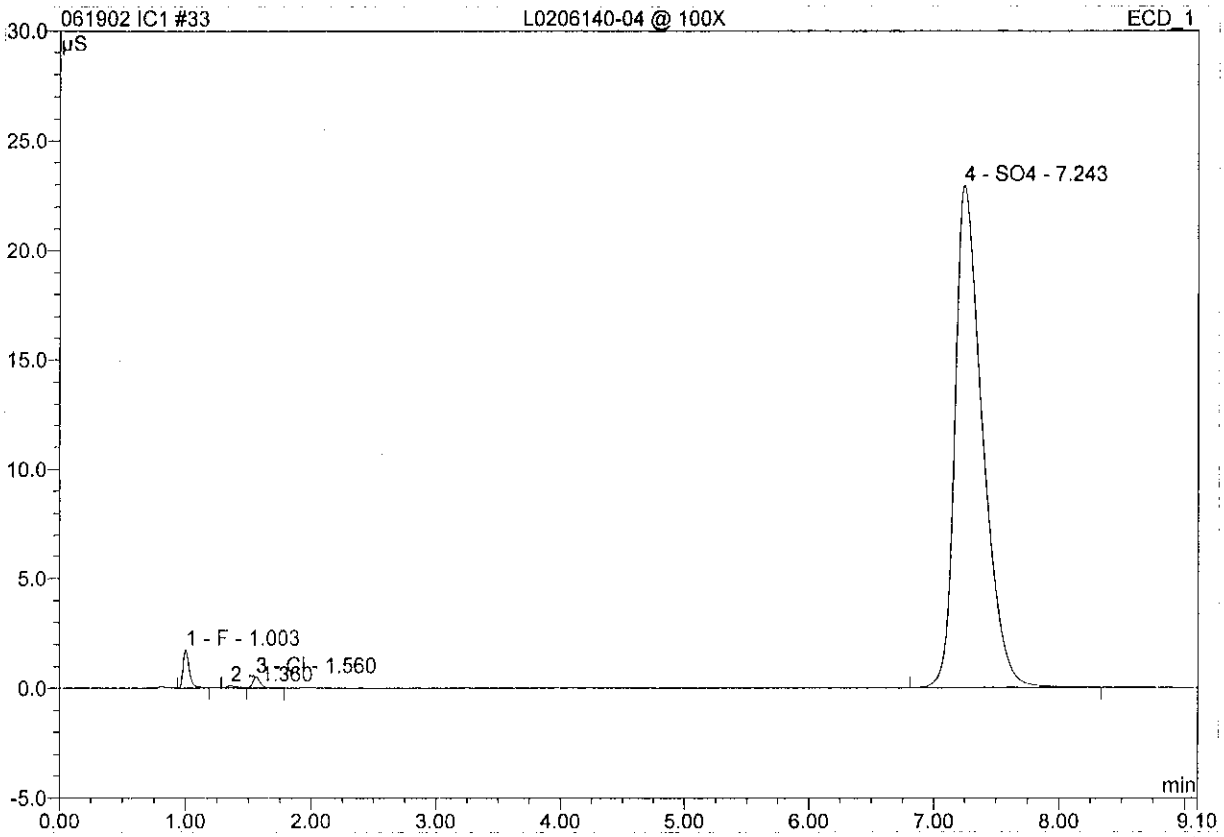
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.076	0.007	0.13	n.a.	BMB
2	1.02	F	1.386	0.100	1.83	0.840	BM
3	1.39	n.a.	0.110	0.014	0.25	n.a.	M
4	1.60	Cl	0.281	0.023	0.42	0.374	MB
5	7.21	SO4	21.133	5.346	97.37	75.499	BMB
Total:			22.984	5.491	100.00	76.713	

X100

33 L0206140-04 @ 100X

1,100 RDC

Sample Name:	**L0206140-04 @ 100X**	*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:	**6/19/2002 20:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

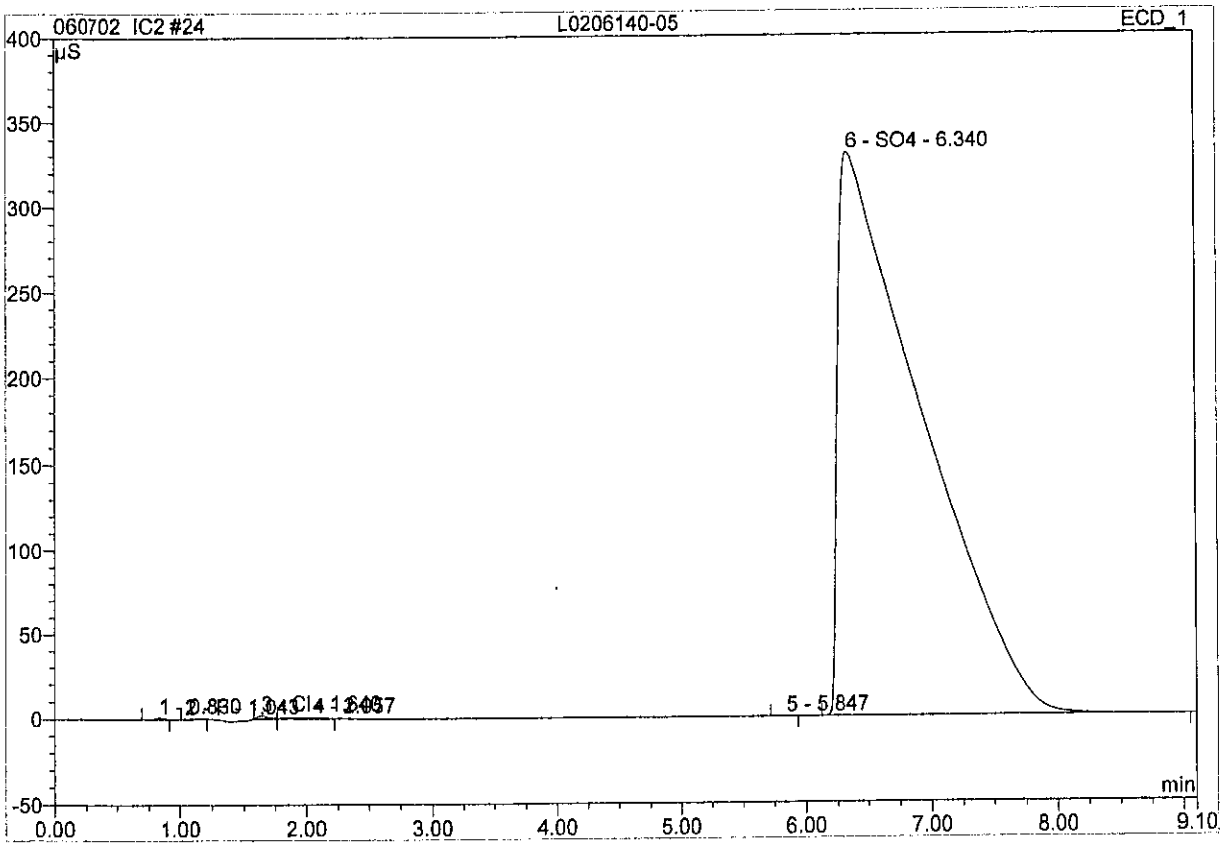


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.00	F	1.765	0.102	1.69	0.677	BMB
2	1.36	n.a.	0.099	0.008	0.14	n.a.	Ru
3	1.56	Cl	0.532	0.039	0.64	0.518	BMB
4	7.24	SO4	22.954	5.865	97.53	65.473	BMB
Total:			25.351	6.014	100.00	66.667	

24 L0206140-05

1,1 JWR

Sample Name:	**L0206140-05**	*Injection Volume:*	**25.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 17:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

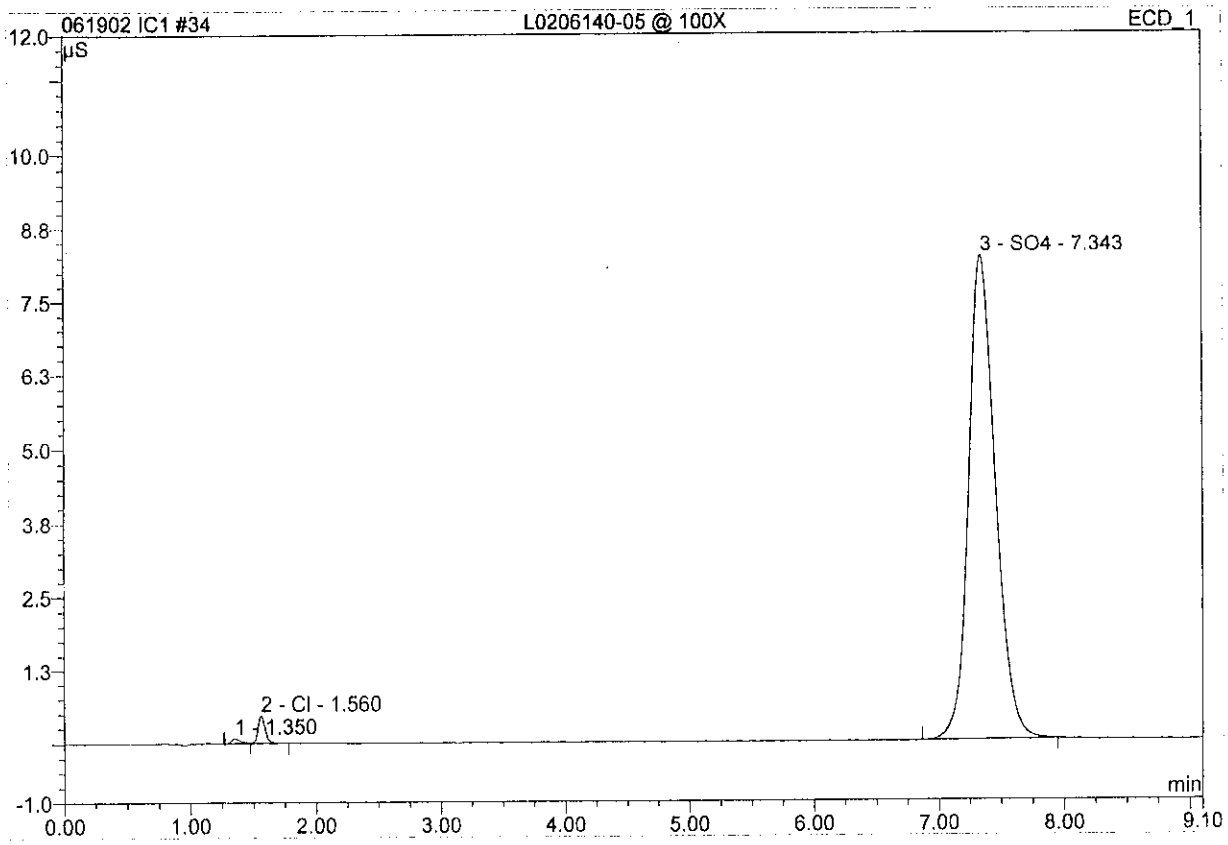


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.911	0.062	0.02	n.a.	BMB
2	1.04	F	0.179	0.012	0.00	0.234	BMB
3	1.64	Cl	1.817	0.178	0.07	2.001	BM
4	2.06	n.a.	0.754	0.228	0.09	n.a.	M
5	5.85	n.a.	0.015	0.002	0.00	n.a.	BMB
6	6.34	SO4	330.481	255.489	99.81	3568.901	BMB
Total:			334.157	255.971	100.00	3571.136	

34 L0206140-05 @ 100X

1,100 RDC

Sample Name:	**L0206140-05 @ 100X**	*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:	**6/19/2002 21:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

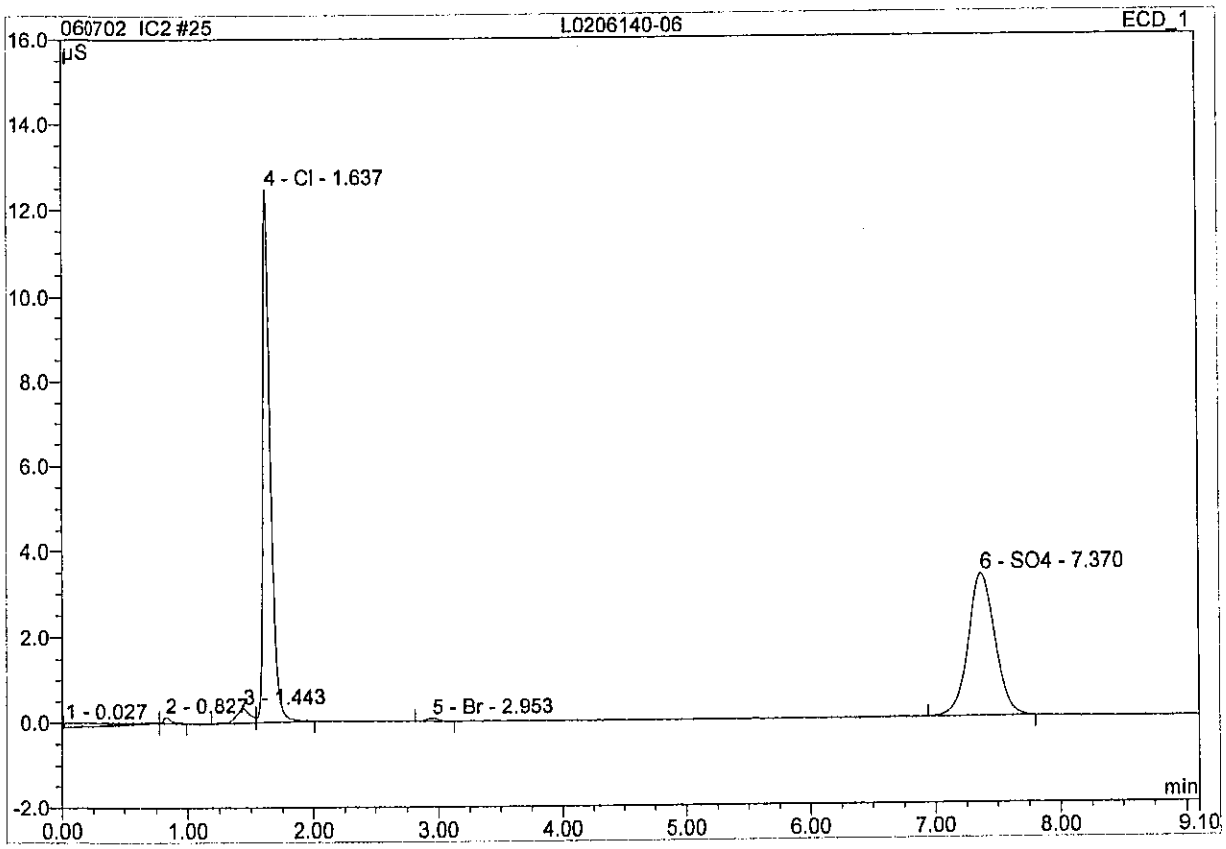


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.35	n.a.	0.072	0.006	0.30	n.a.	Ru
2	1.56	Cl	0.463	0.033	1.58	0.470	BMB
3	7.34	SO4	8.212	2.036	98.12	23.403	BMB
Total:			8.748	2.075	100.00	23.873	

25 L0206140-06

1,1 JWR

Sample Name:	**L0206140-06**	*Injection Volume:*	**25.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 18:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

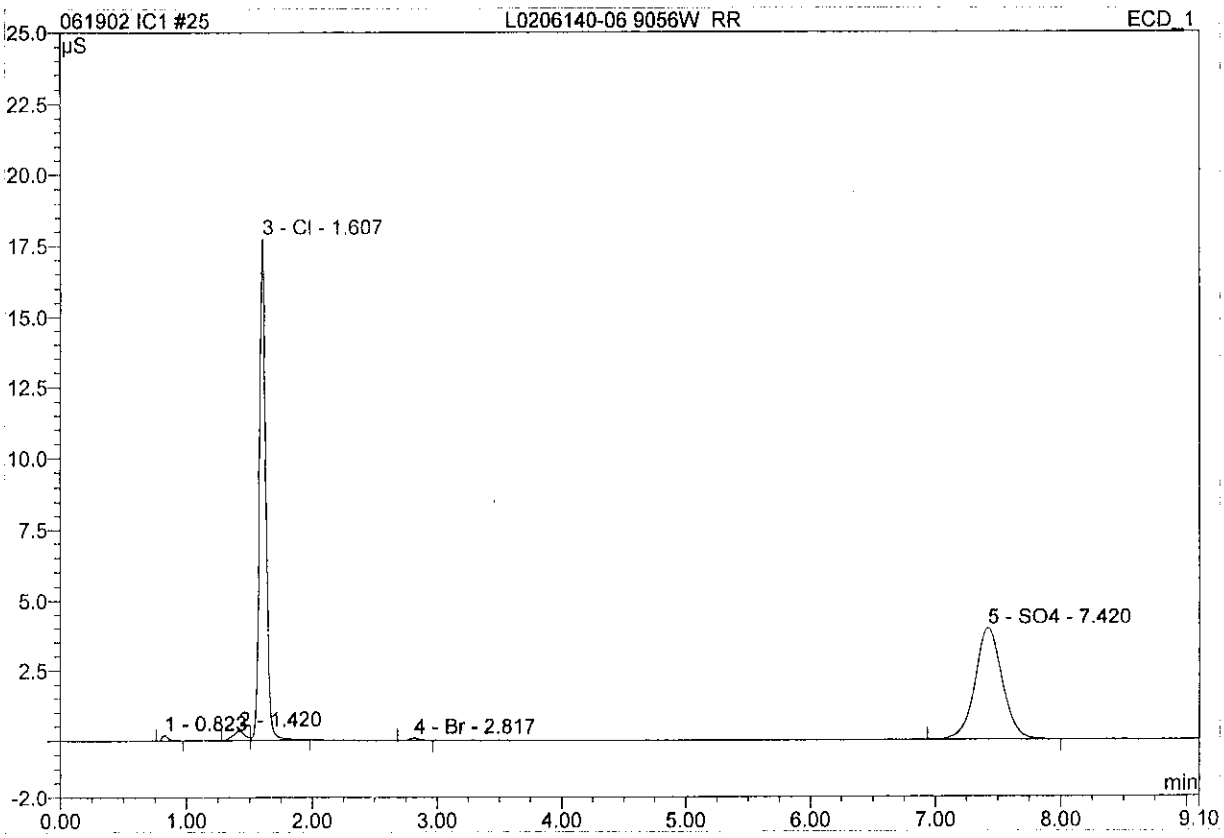


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.03	n.a.	0.103	0.041	2.28	n.a.	BMB
2	0.83	n.a.	0.133	0.010	0.55	n.a.	bMB
3	1.44	n.a.	0.341	0.042	2.37	n.a.	BM
4	1.64	Cl	12.471	0.856	47.92	9.147	MB
5	2.95	Br	0.064	0.007	0.41	0.213	BMB
6	7.37	SO4	3.319	0.830	46.48	12.425	BMB
Total:			16.431	1.786	100.00	21.785	

25 L0206140-06 9056W RR

1,1 RDC

Sample Name:	**L0206140-06 9056W RR**	*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:	**6/19/2002 19:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

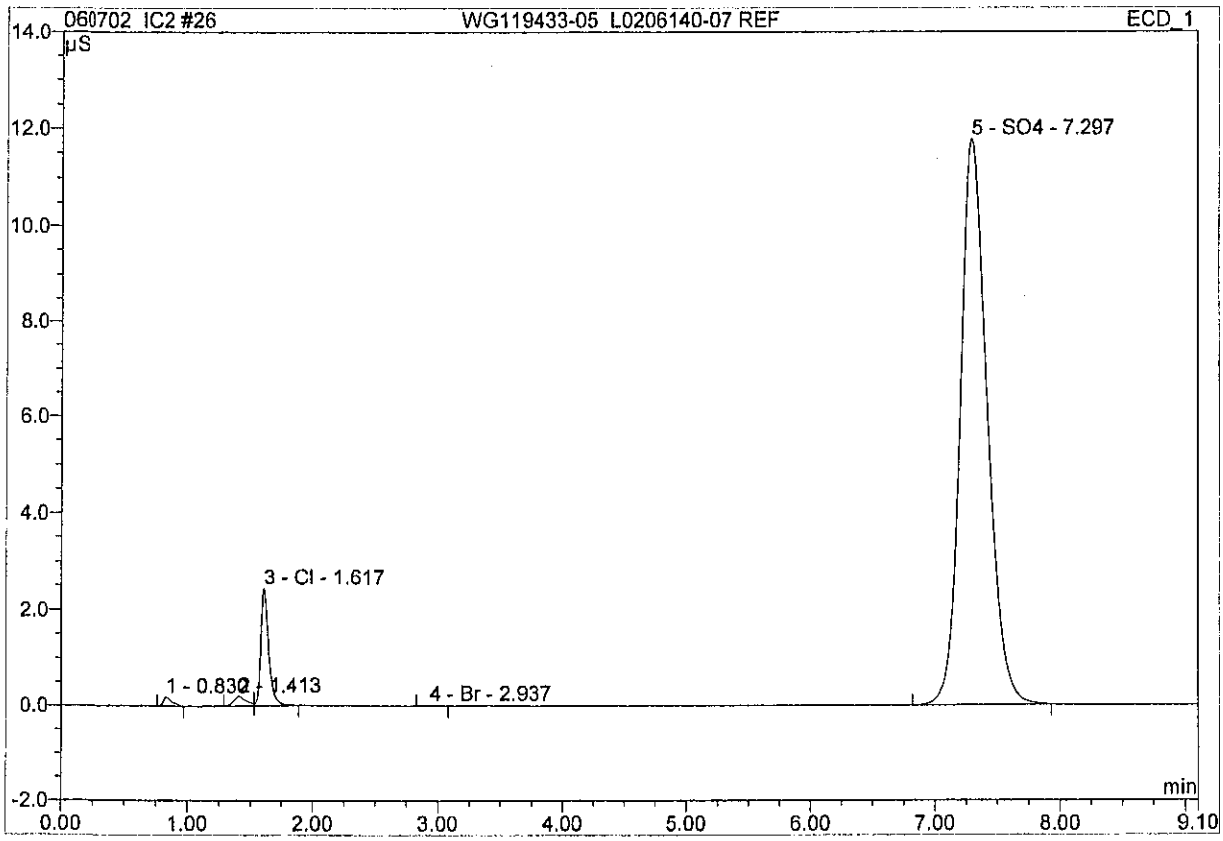


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.186	0.012	0.56	n.a.	BMB
2	1.42	n.a.	0.325	0.036	1.70	n.a.	BM
3	1.61	Cl	17.734	1.055	50.25	8.916	MB
4	2.82	Br	0.079	0.008	0.36	0.241	BMB
5	7.42	SO4	3.954	0.990	47.13	11.915	BMB
Total:			22.278	2.101	100.00	21.072	

26 WG119433-05 L0206140-07 REF

1,1 JWR REF for MS/MSD

Sample Name:	**WG119433-05 L0206140-07 REF**	*Injection Volume:*	**25.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 18:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

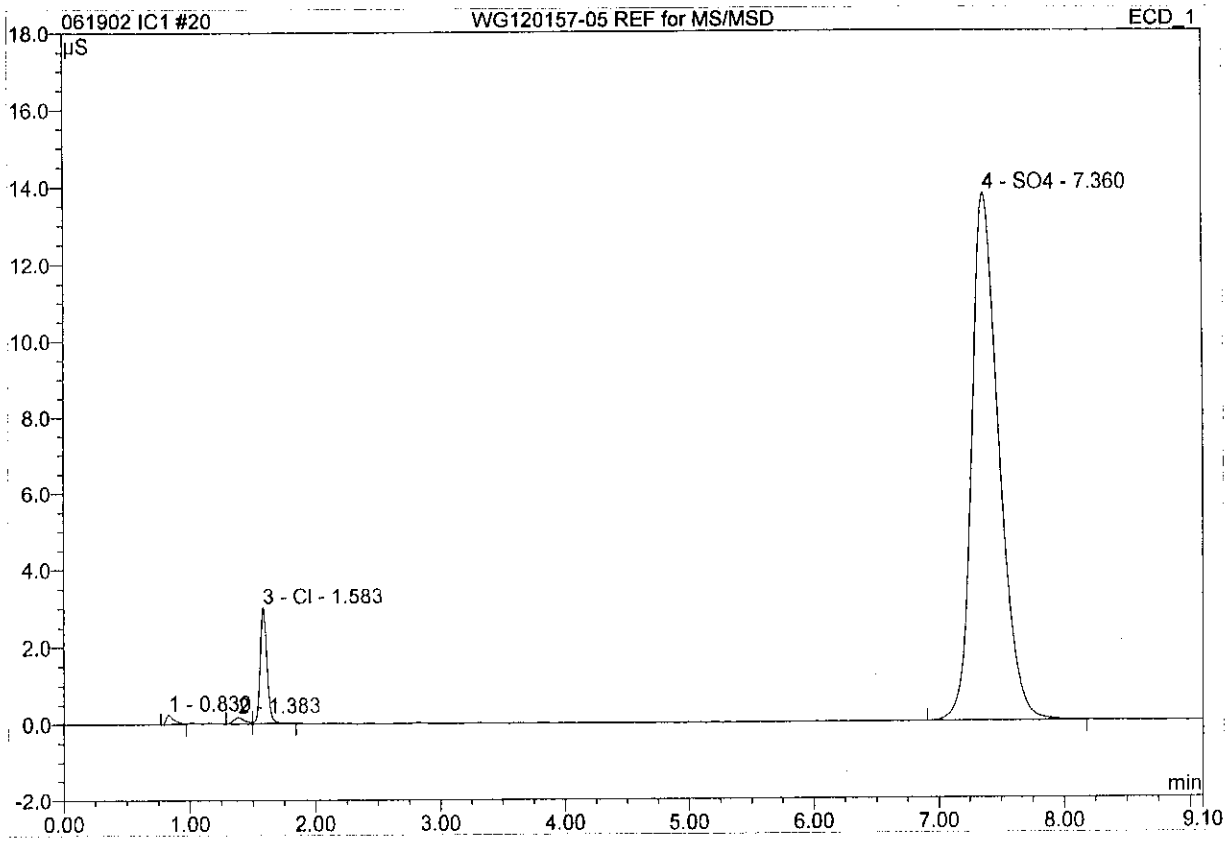


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.188	0.016	0.50	n.a.	BMB
2	1.41	n.a.	0.200	0.023	0.74	n.a.	BM
3	1.62	Cl	2.442	0.179	5.68	2.018	MB
4	2.94	Br	0.023	0.003	0.08	0.088	BMB
5	7.30	SO4	11.762	2.932	92.99	41.785	BMB
Total:			14.615	3.153	100.00	43.892	

20 WG120157-05 REF for MS/MSD

1,1 RDC L0206140-07 REF (RR)

Sample Name:	**WG120157-05 REF for MS/MSD**	*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:	**6/19/2002 18:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

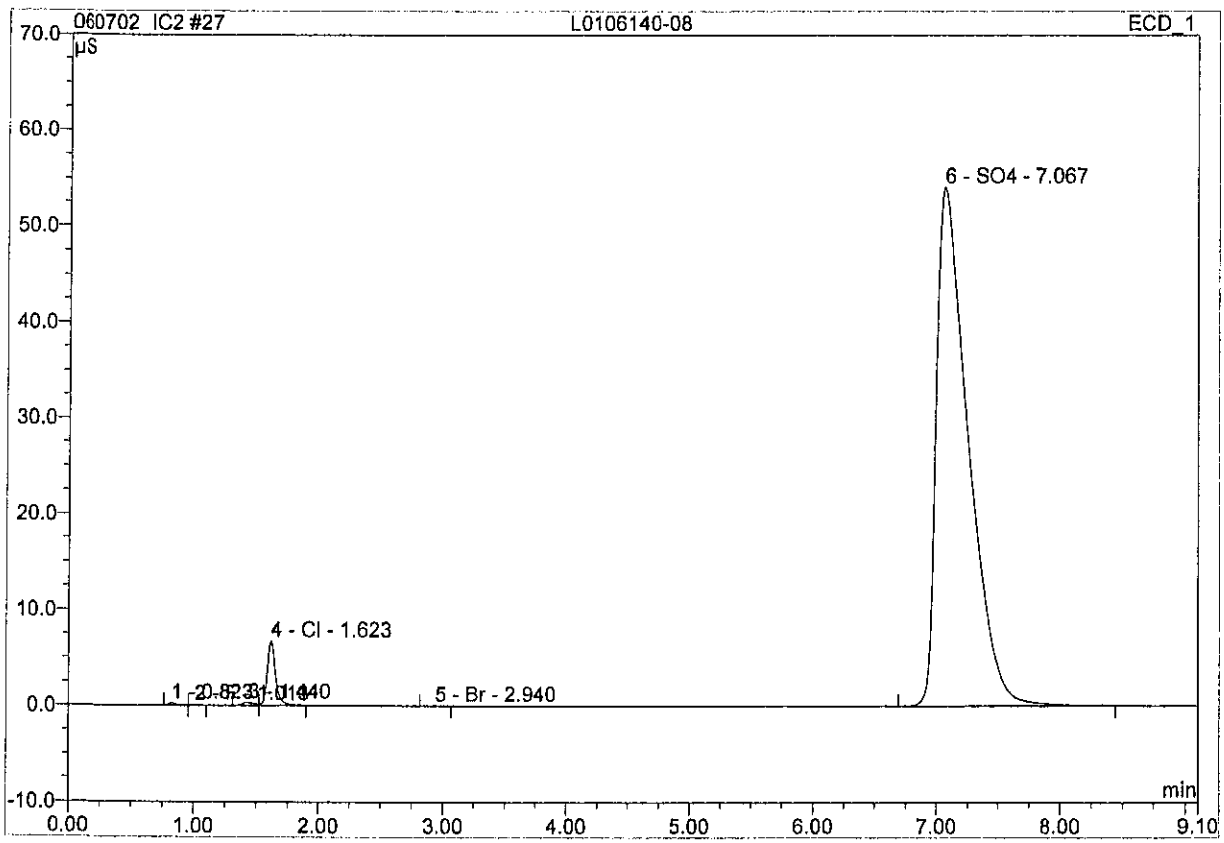


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.240	0.018	0.50	n.a.	BMB
2	1.38	n.a.	0.165	0.017	0.45	n.a.	BM
3	1.58	Cl	2.993	0.191	5.21	1.775	MB
4	7.36	SO4	13.744	3.437	93.84	38.791	BMB
Total:			17.142	3.662	100.00	40.566	

27 L0106140-08

1,1 JWR

Sample Name:	**L0106140-08**	*Injection Volume:*	**25.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 18:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

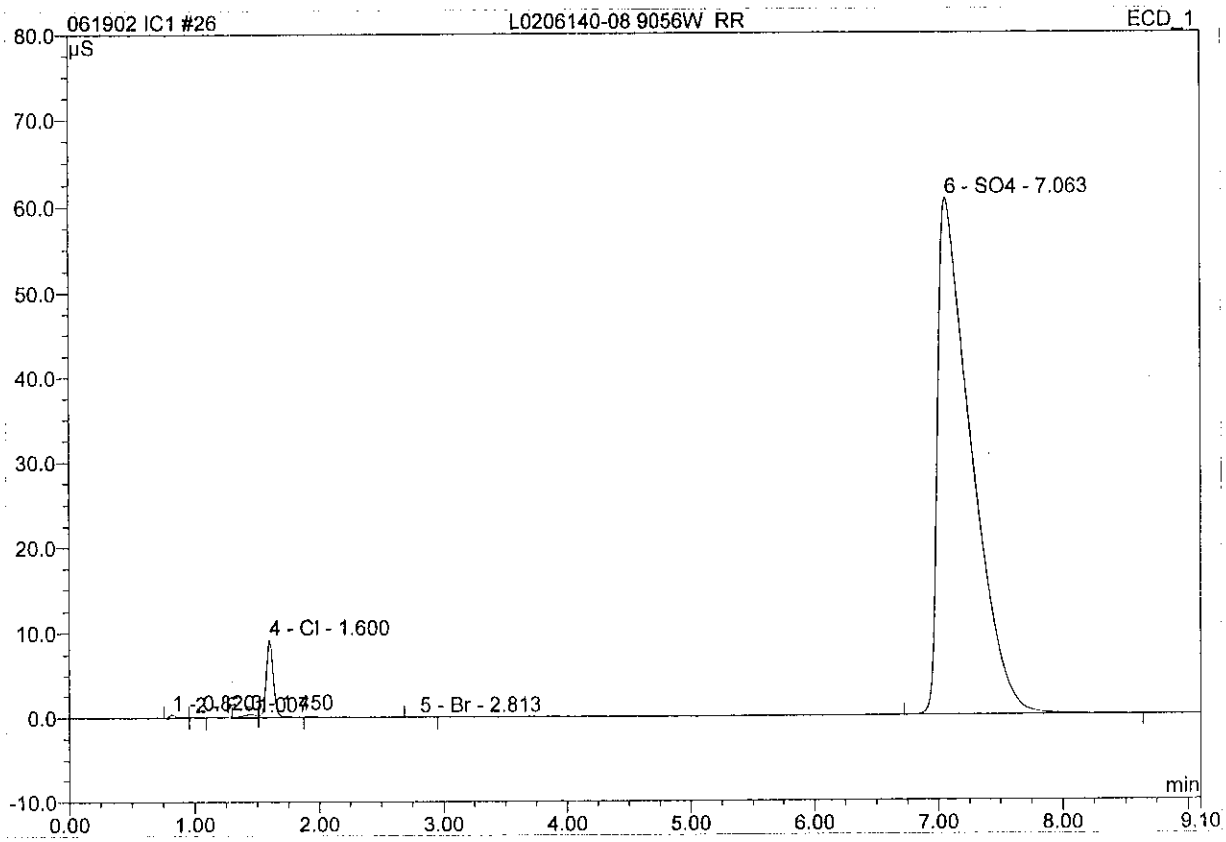


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.233	0.017	0.10	n.a.	BM
2	1.01	F	0.101	0.007	0.04	0.197	MB
3	1.44	n.a.	0.307	0.035	0.21	n.a.	BM
4	1.62	Cl	6.747	0.510	3.06	5.501	MB
5	2.94	Br	0.044	0.005	0.03	0.151	BMB
6	7.07	SO4	54.102	16.082	96.56	225.430	BMB
Total:			61.534	16.656	100.00	231.279	

26 L0206140-08 9056W RR

1,1 RDC

Sample Name:	**L0206140-08 9056W RR**	*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:	**6/19/2002 19:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

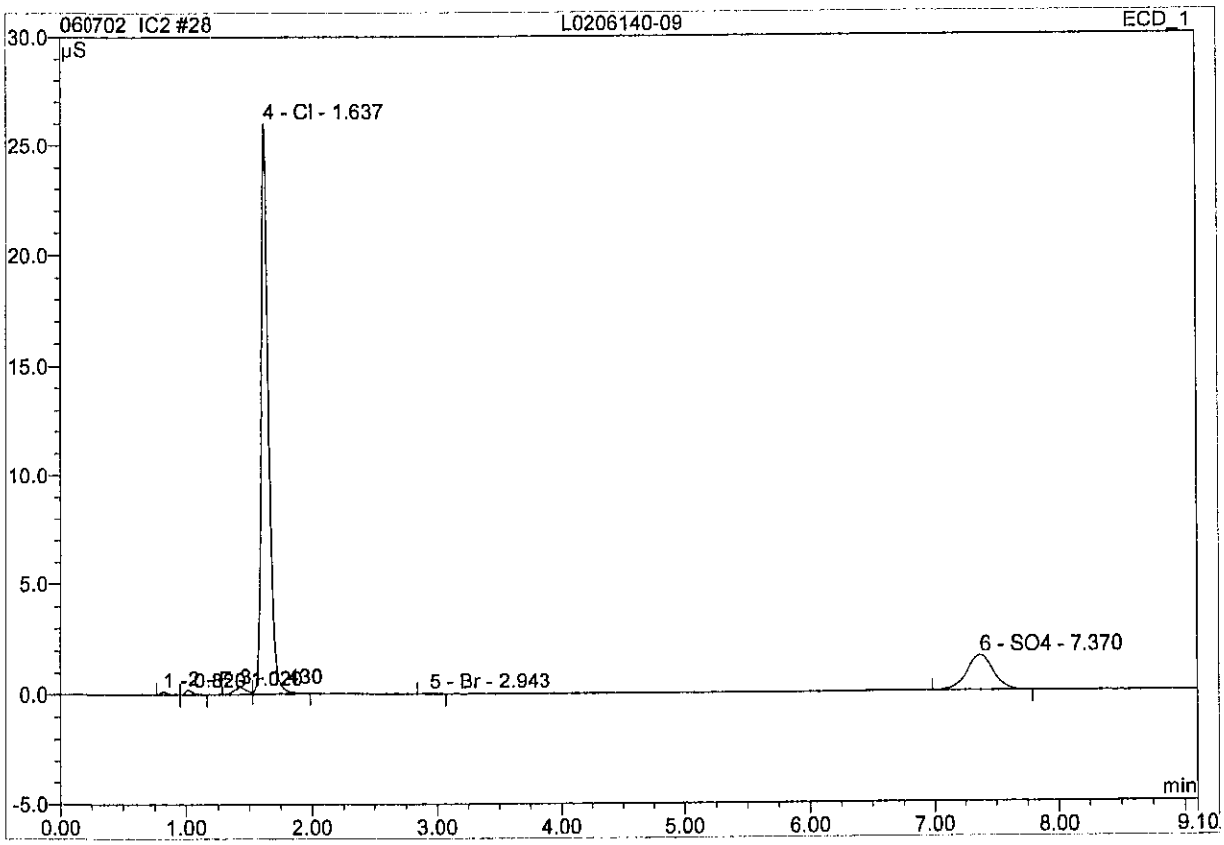


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.365	0.024	0.12	n.a.	BM
2	1.01	F	0.120	0.007	0.04	0.182	MB
3	1.45	n.a.	0.406	0.046	0.24	n.a.	BM
4	1.60	Cl	9.200	0.610	3.11	5.238	MB
5	2.81	Br	0.055	0.005	0.03	0.194	BMB
6	7.06	SO4	60.711	18.941	96.47	209.109	BMB
Total:			70.857	19.634	100.00	214.724	

28 L0206140-09

1,1 JWR

Sample Name:	**L0206140-09**	*Injection Volume:*	**25.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 18:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

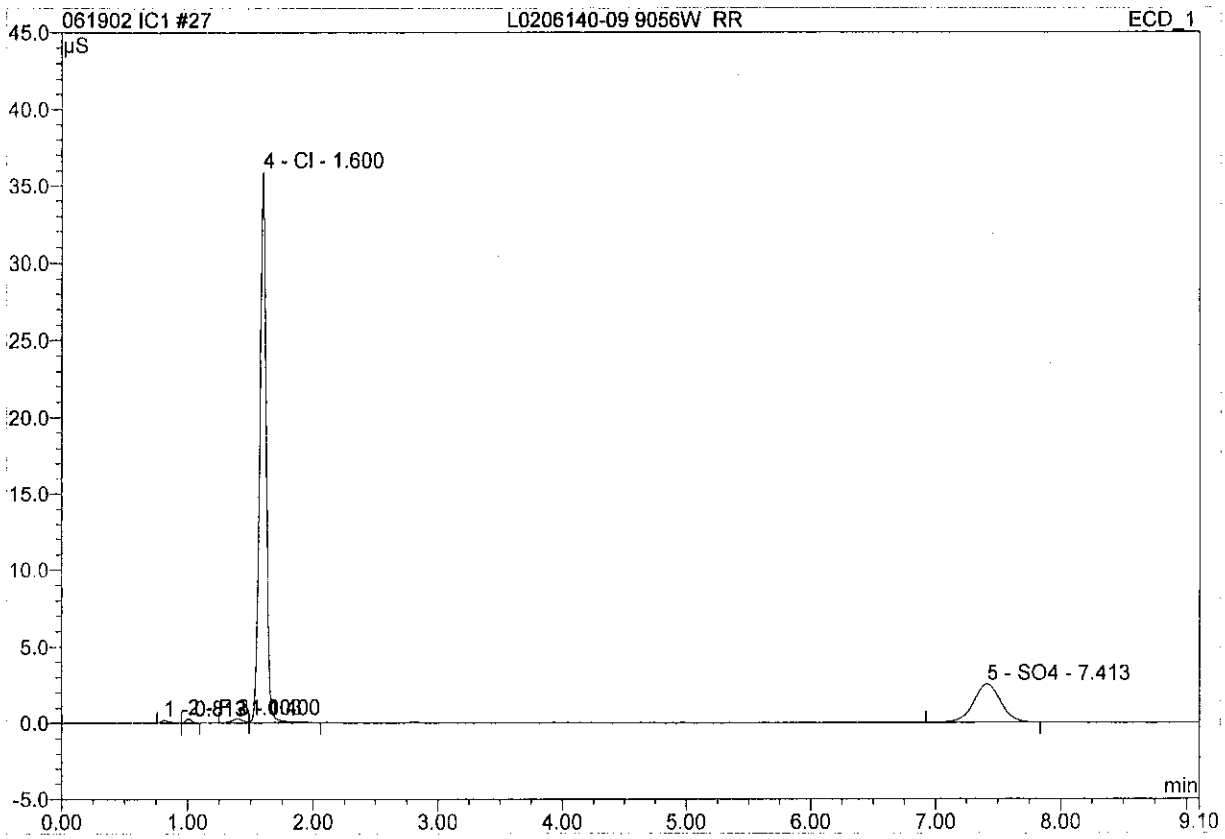


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.120	0.008	0.36	n.a.	BM
2	1.02	F	0.195	0.014	0.63	0.248	MB
3	1.43	n.a.	0.305	0.035	1.57	n.a.	BM
4	1.64	Cl	25.995	1.759	79.13	18.669	MB
5	2.94	Br	0.046	0.005	0.21	0.144	BMB
6	7.37	SO4	1.598	0.402	18.09	6.453	BMB
Total:			28.261	2.223	100.00	25.514	

27 L0206140-09 9056W RR

1,1 RDC

Sample Name:	**L0206140-09 9056W RR**	*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:	**6/19/2002 19:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

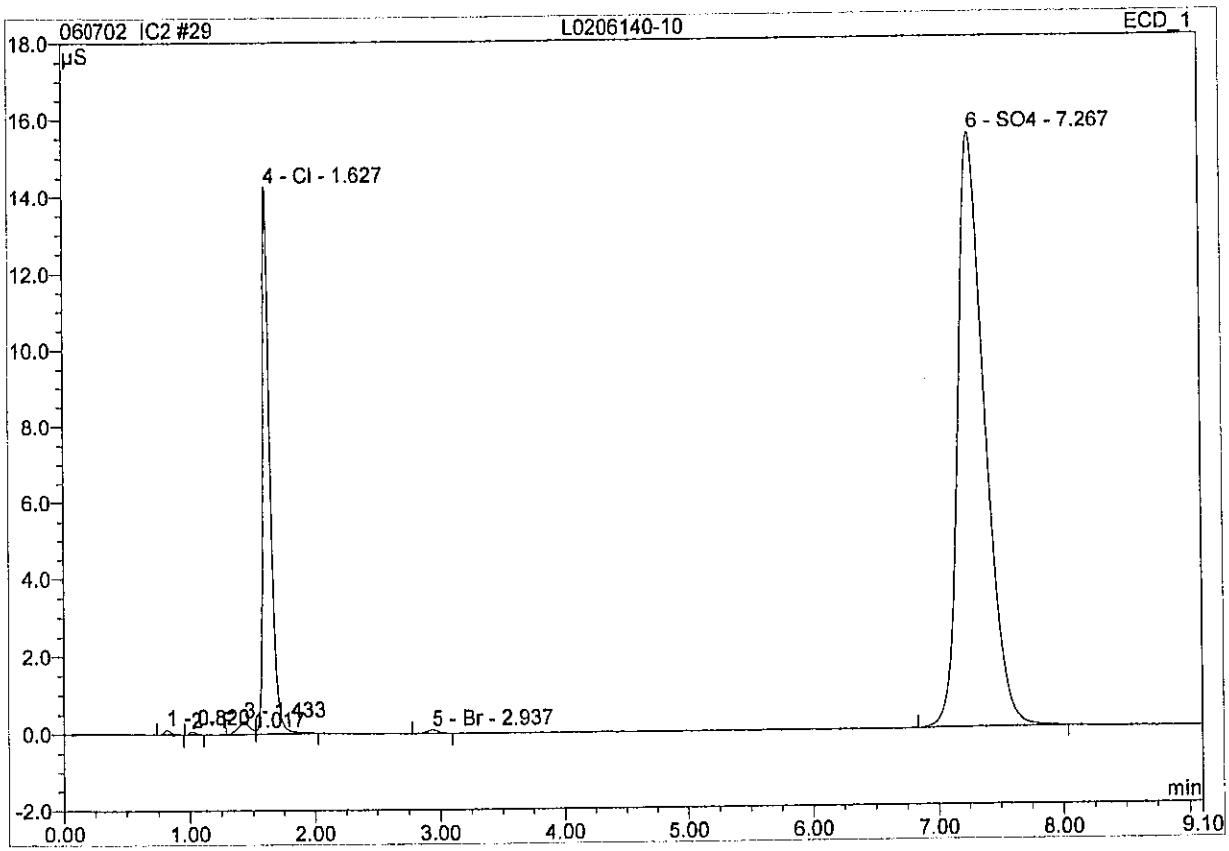


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.81	n.a.	0.201	0.014	0.49	n.a.	BM
2	1.00	F	0.271	0.015	0.52	0.222	MB
3	1.40	n.a.	0.282	0.030	1.04	n.a.	BM
4	1.60	Cl	35.885	2.156	75.79	18.008	MB
5	7.41	SO4	2.515	0.630	22.16	7.964	BMB
Total:			39.155	2.845	100.00	26.194	

29 L0206140-10

1,1 JWR

Sample Name:	**L0206140-10**	*Injection Volume:*	**25.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 18:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

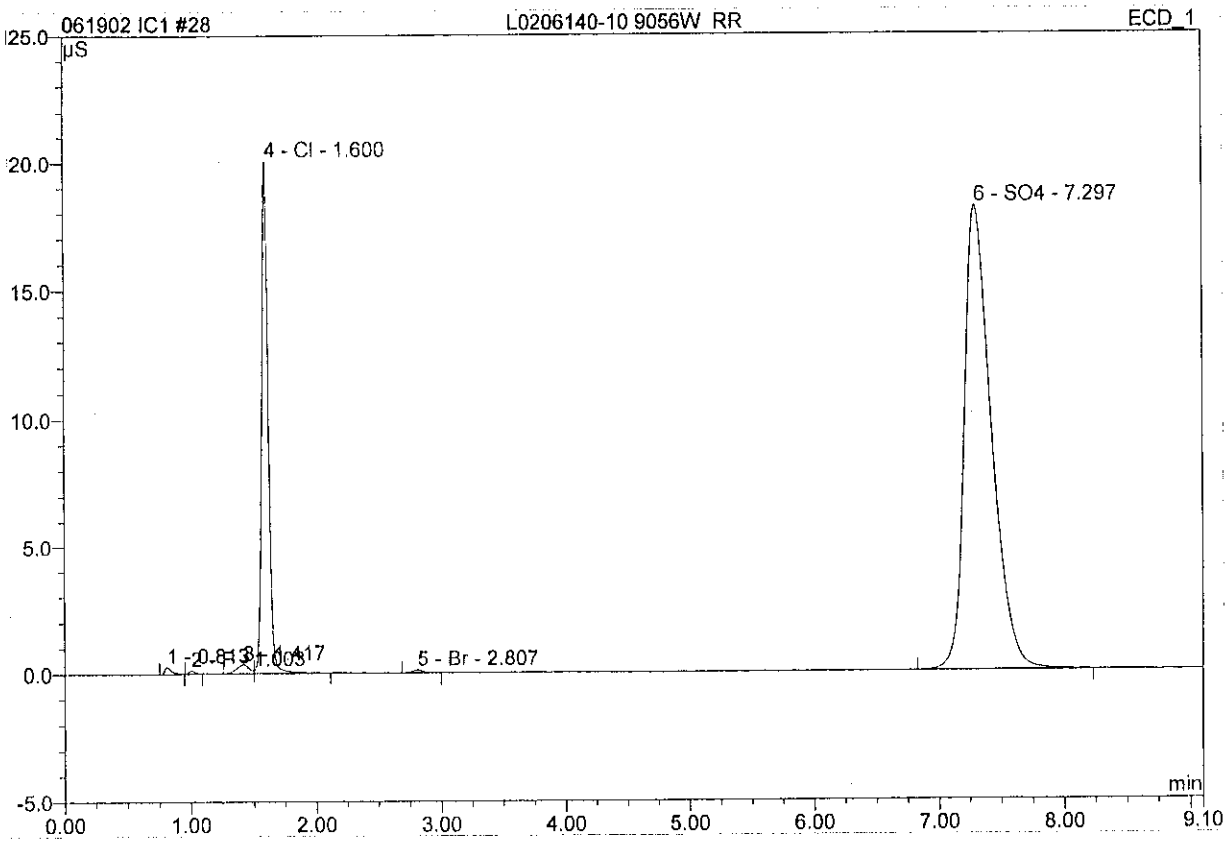


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.133	0.009	0.18	n.a.	BMB
2	1.02	F	0.072	0.005	0.10	0.183	BMB
3	1.43	n.a.	0.318	0.037	0.76	n.a.	BM
4	1.63	Cl	14.259	0.985	20.12	10.506	MB
5	2.94	Br	0.090	0.010	0.21	0.296	BMB
6	7.27	SO4	15.474	3.848	78.63	54.573	BMB
Total:			30.346	4.893	100.00	65.559	

28 L0206140-10 9056W RR

1,1 RDC

Sample Name:	**L0206140-10 9056W RR**	*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:	**6/19/2002 20:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

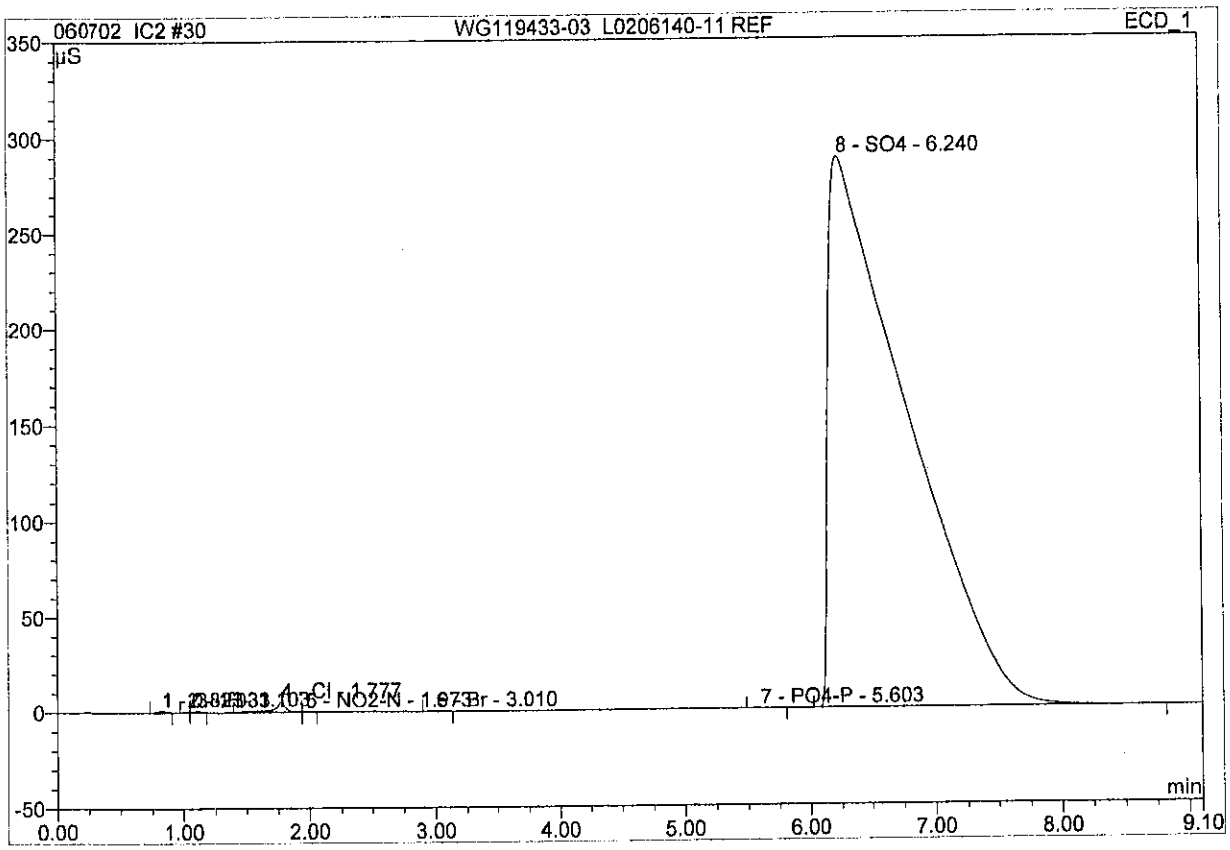


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.81	n.a.	0.256	0.017	0.29	n.a.	BMB
2	1.00	F	0.110	0.006	0.10	0.176	BMB
3	1.42	n.a.	0.346	0.039	0.67	n.a.	BM
4	1.60	Cl	20.044	1.212	20.78	10.208	MB
5	2.81	Br	0.108	0.011	0.18	0.309	BMB
6	7.30	SO4	18.151	4.548	77.97	50.997	BMB
Total:			39.015	5.832	100.00	61.689	

30 WG119433-03 L0206140-11 REF

1,1 JWR REF for DUP

Sample Name:	**WG119433-03 L0206140-11 REF**	*Injection Volume:*	**25.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 19:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

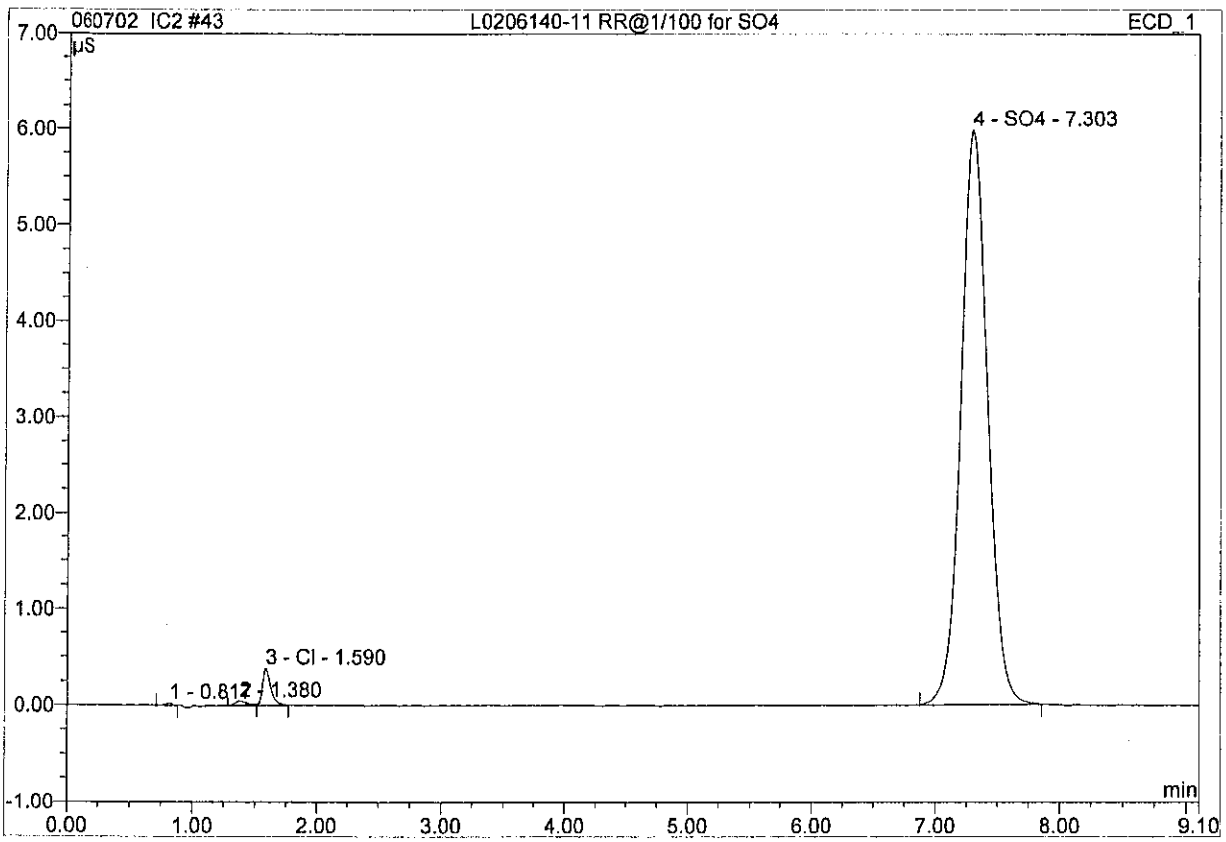


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.779	0.055	0.03	n.a.	BMB
2	1.03	n.a.	0.501	0.029	0.01	n.a.	BM
3	1.10	F	0.642	0.058	0.03	0.549	M
4	1.78	Cl	5.025	0.552	0.26	5.951	BM
5	1.97	NO2-N	0.089	0.008	0.00	0.110	MB
6	3.01	Br	0.075	0.008	0.00	0.226	BMB
7	5.60	PO4-P	0.021	0.004	0.00	0.327	BMB
8	6.24	SO4	288.142	207.923	99.66	2904.612	BMB
Total:			295.274	208.636	100.00	2911.776	

43 L0206140-11 RR@1/100 for SO4

1,100 JWR (for SO4 Coellution over PO4)

Sample Name:	**L0206140-11 RR@1/100 for SO4**	*Injection Volume:*	**25.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 21:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



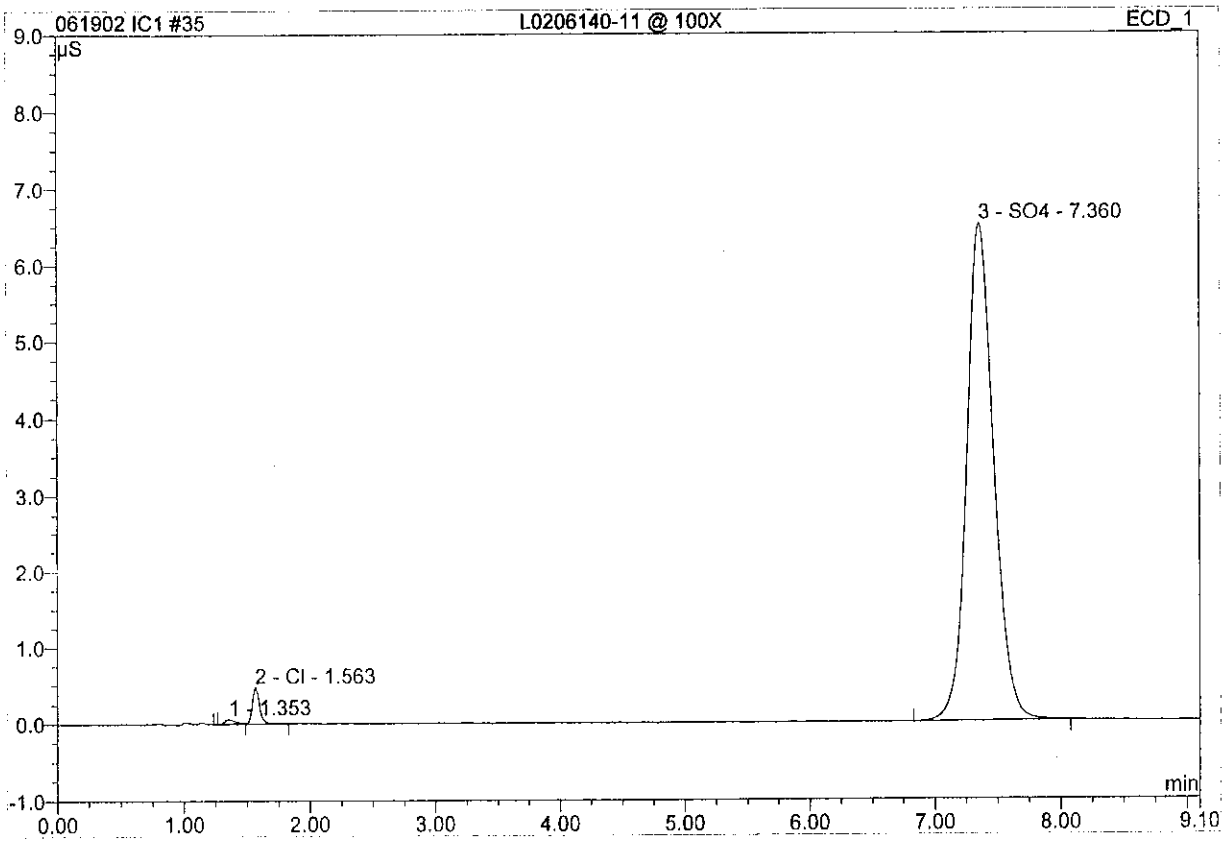
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.024	0.001	0.10	n.a.	BM
2	1.38	n.a.	0.042	0.004	0.27	n.a.	Ru
3	1.59	Cl	0.384	0.031	2.00	0.453	BMB
4	7.30	SO4	5.983	1.492	97.62	21.668	BMB
Total:			6.432	1.528	100.00	22.121	

x 100

35 L0206140-11 @ 100X

1,100 RDC

Sample Name:	**L0206140-11 @ 100X**	*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:	**6/19/2002 21:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

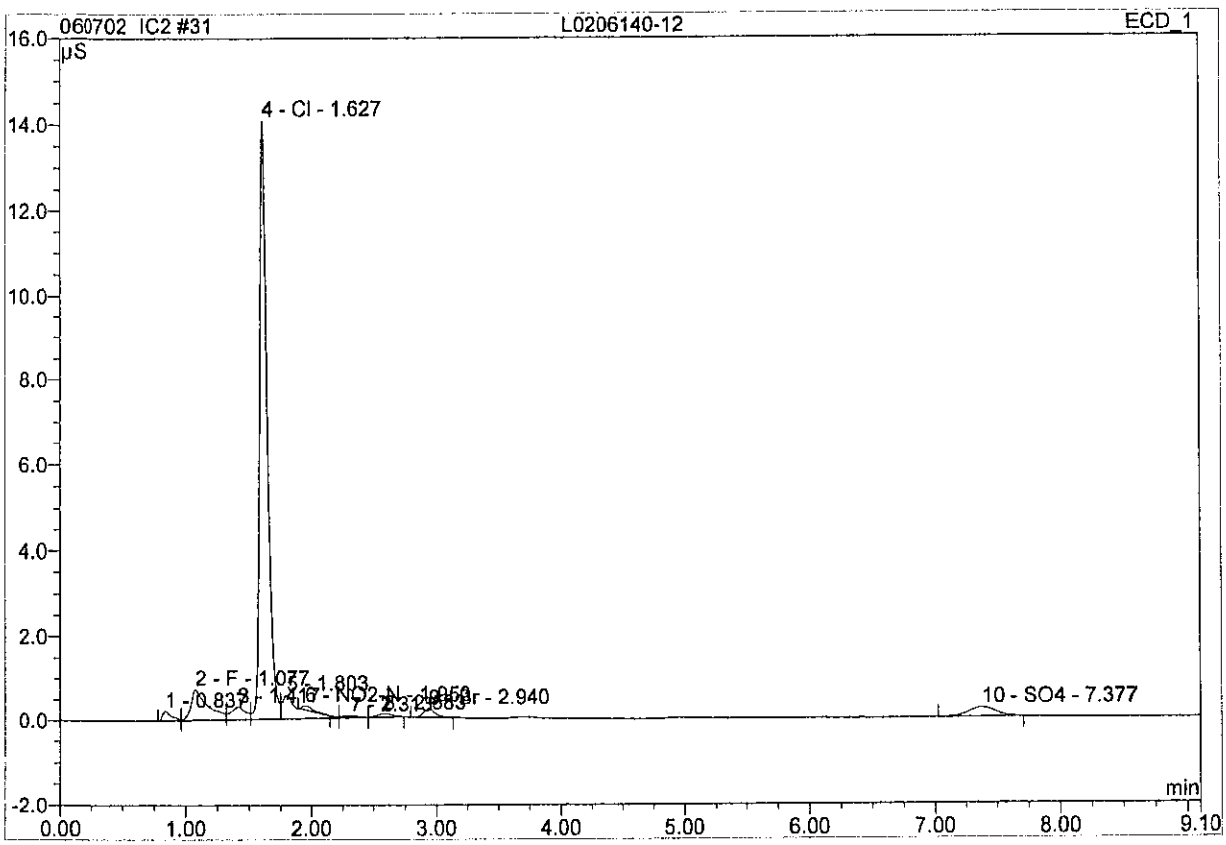


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.35	n.a.	0.057	0.005	0.31	n.a.	Ru
2	1.56	Cl	0.469	0.033	1.99	0.471	BMB
3	7.36	SO4	6.501	1.622	97.70	18.862	BMB
Total:			7.027	1.661	100.00	19.333	

31 L0206140-12

1,1 JWR

Sample Name:	**L0206140-12**	*Injection Volume:*	**25.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 19:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

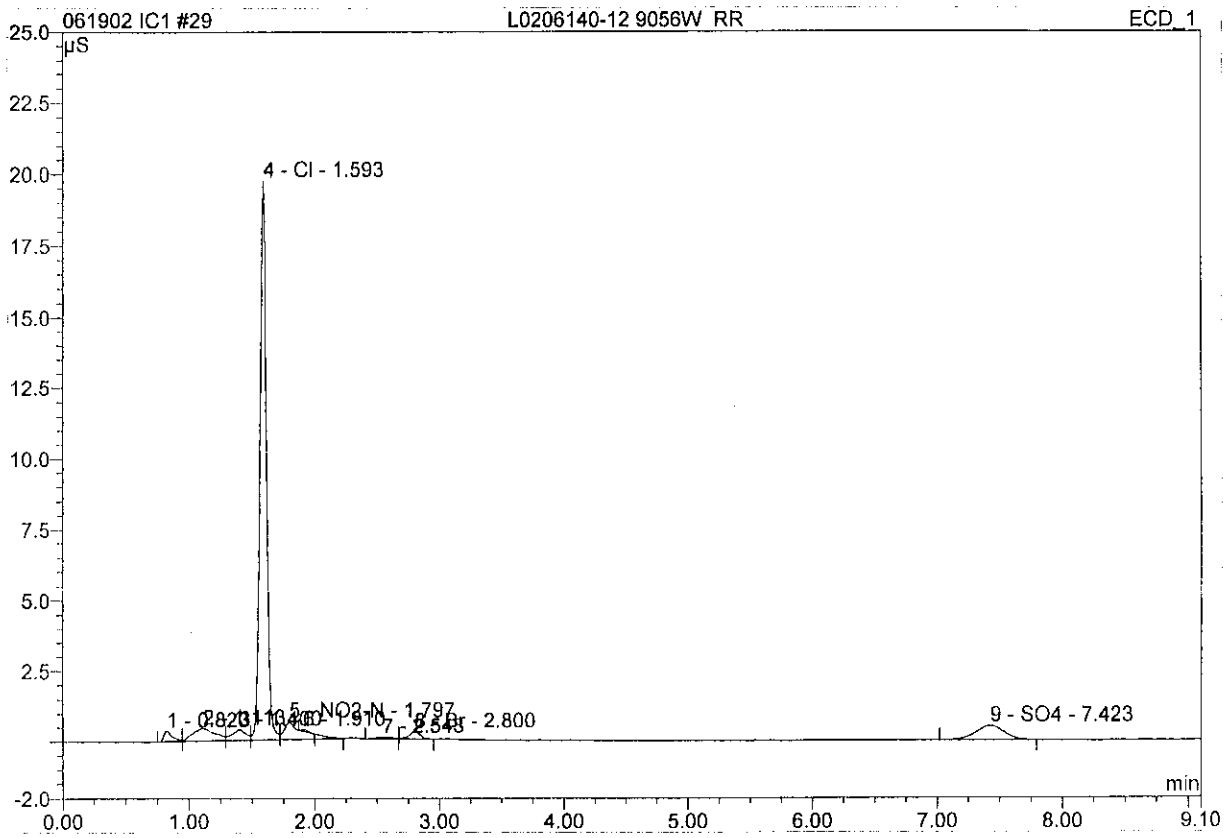


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.84	n.a.	0.219	0.019	1.41	n.a.	BM
2	1.08	F	0.737	0.116	8.55	0.945	M
3	1.42	n.a.	0.307	0.041	3.02	n.a.	M
4	1.63	Cl	14.060	0.968	71.52	10.333	M
5	1.80	n.a.	0.575	0.101	7.49	n.a.	M
6	1.95	NO2-N	0.097	0.010	0.77	0.124	Rd
7	2.31	n.a.	0.053	0.008	0.59	n.a.	M
8	2.58	n.a.	0.078	0.012	0.87	n.a.	MB
9	2.94	Br	0.204	0.022	1.60	0.603	BMB
10	7.38	SO4	0.226	0.057	4.19	1.628	BMB
Total:			16.555	1.354	100.00	13.633	

29 L0206140-12 9056W RR

1,1 RDC

Sample Name:	**L0206140-12 9056W RR**	*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:	**6/19/2002 20:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

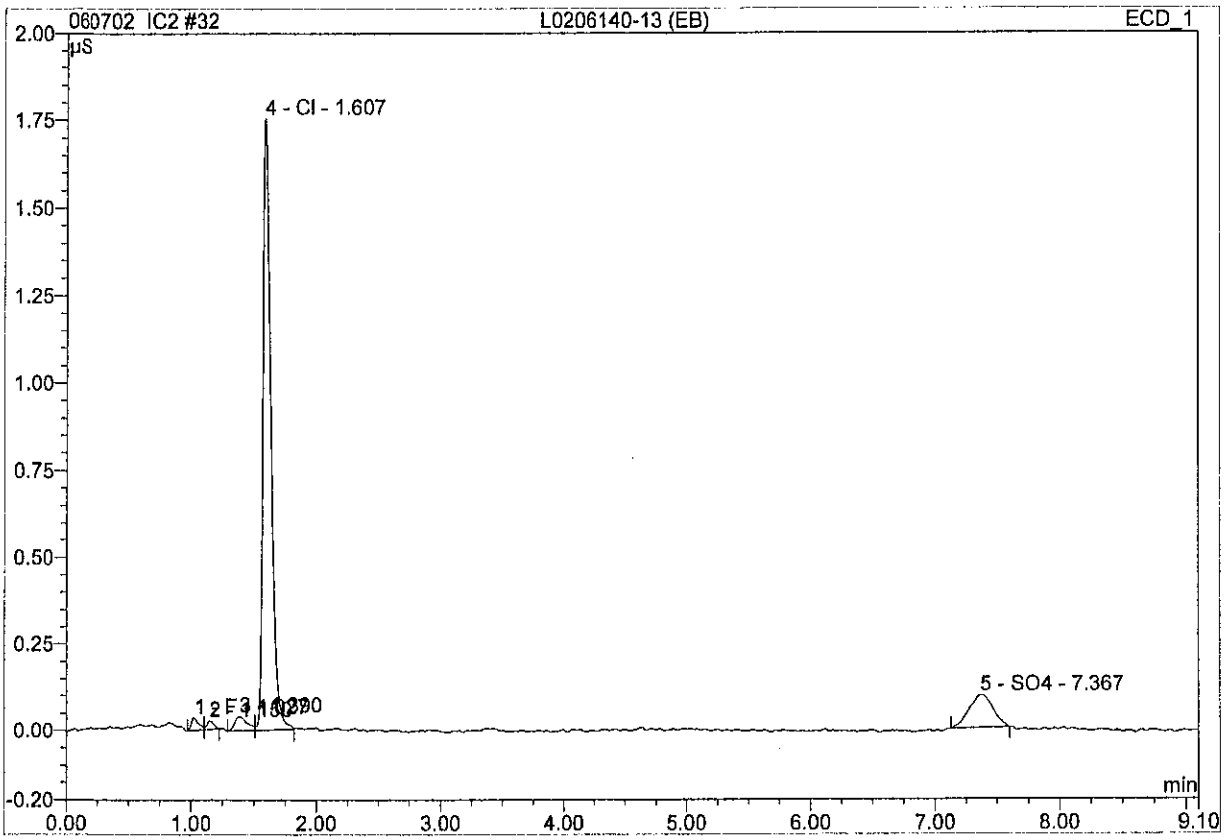


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.379	0.031	1.86	n.a.	BM
2	1.11	n.a.	0.455	0.093	5.66	n.a.	M
3	1.40	n.a.	0.389	0.050	3.05	n.a.	M
4	1.59	Cl	19.703	1.182	71.97	9.960	M
5	1.80	NO2-N	0.653	0.114	6.93	0.519	MB
6	1.91	n.a.	0.071	0.005	0.33	n.a.	Rd
7	2.54	n.a.	0.068	0.010	0.63	n.a.	BM
8	2.80	Br	0.270	0.028	1.69	0.675	MB
9	7.42	SO4	0.511	0.130	7.89	2.462	BMB
Total:			22.499	1.642	100.00	13.616	

32 L0206140-13 (EB)

1,1 JWR

Sample Name:	**L0206140-13 (EB)**	*Injection Volume:*	**25.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 19:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

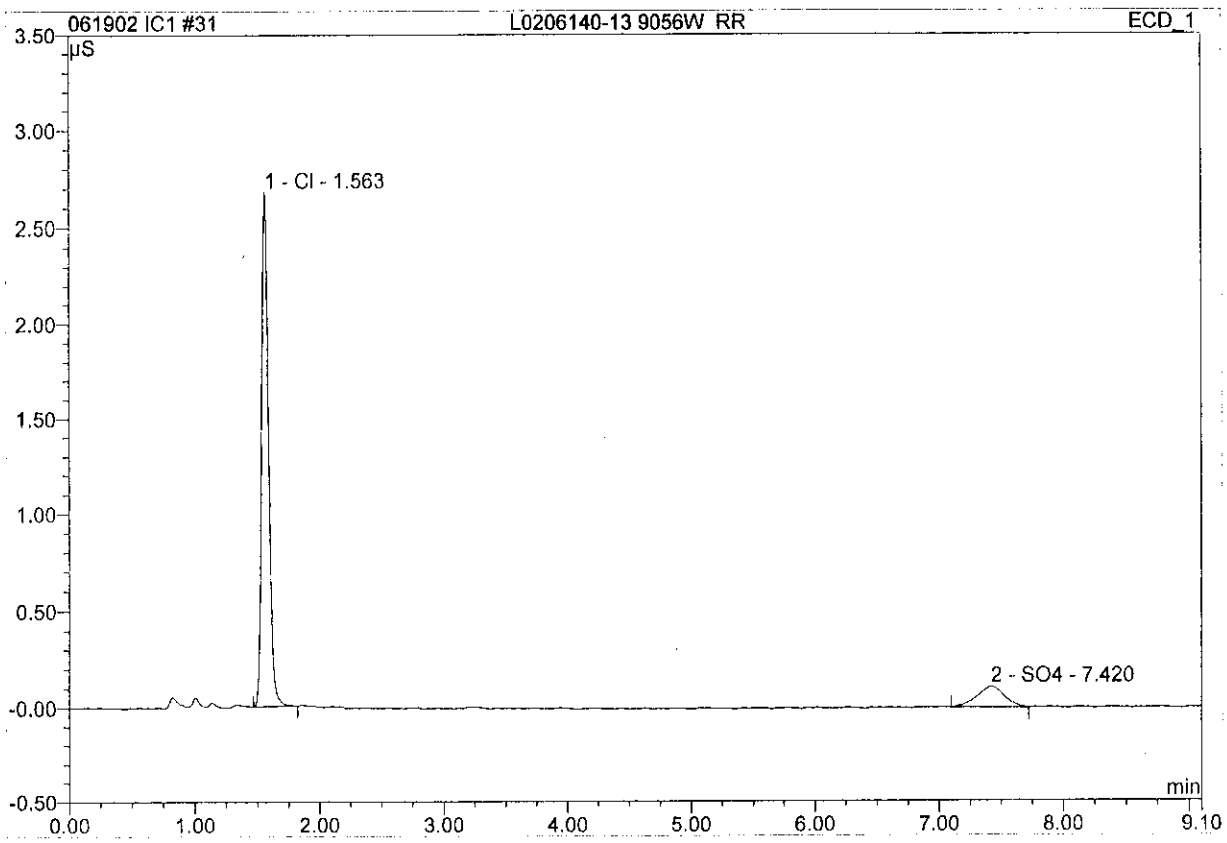


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.03	F	0.037	0.003	1.57	0.169	BM
2	1.15	n.a.	0.026	0.002	1.02	n.a.	MB
3	1.39	n.a.	0.043	0.005	3.07	n.a.	BM
4	1.61	Cl	1.753	0.130	81.00	1.495	MB
5	7.37	SO4	0.095	0.021	13.34	1.134	BMB
Total:			1.953	0.160	100.00	2.797	

31 L0206140-13 9056W RR

1,1 RDC

Sample Name:	**L0206140-13 9056W RR**	*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:	**6/19/2002 20:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

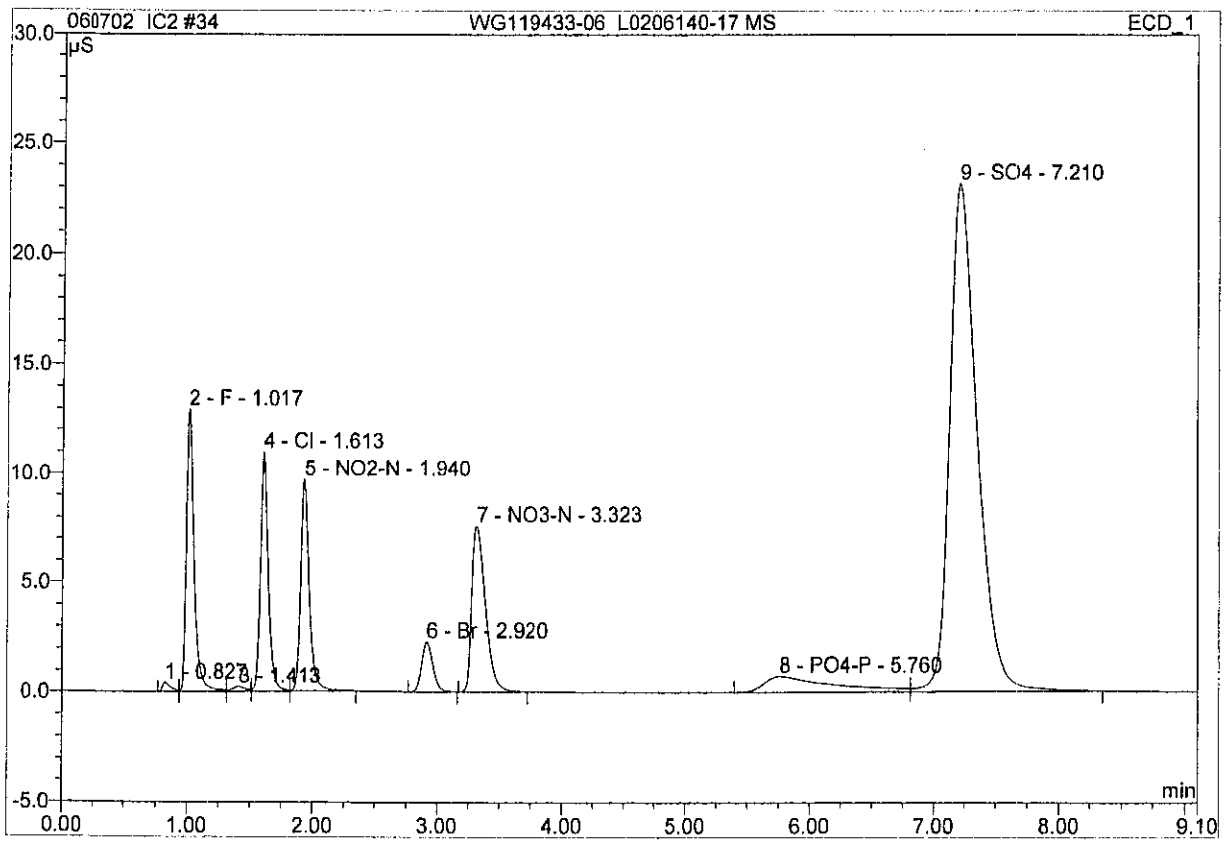


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.56	Cl	2.677	0.173	86.35	1.630	BMB
2	7.42	SO4	0.109	0.027	13.65	1.339	BMB
Total:			2.786	0.201	100.00	2.970	

34 WG119433-06 L0206140-17 MS

1,1 JWR MS of L0206140-07

Sample Name:	**WG119433-06 L0206140-17 MS**	*Injection Volume:*	**25.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 19:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

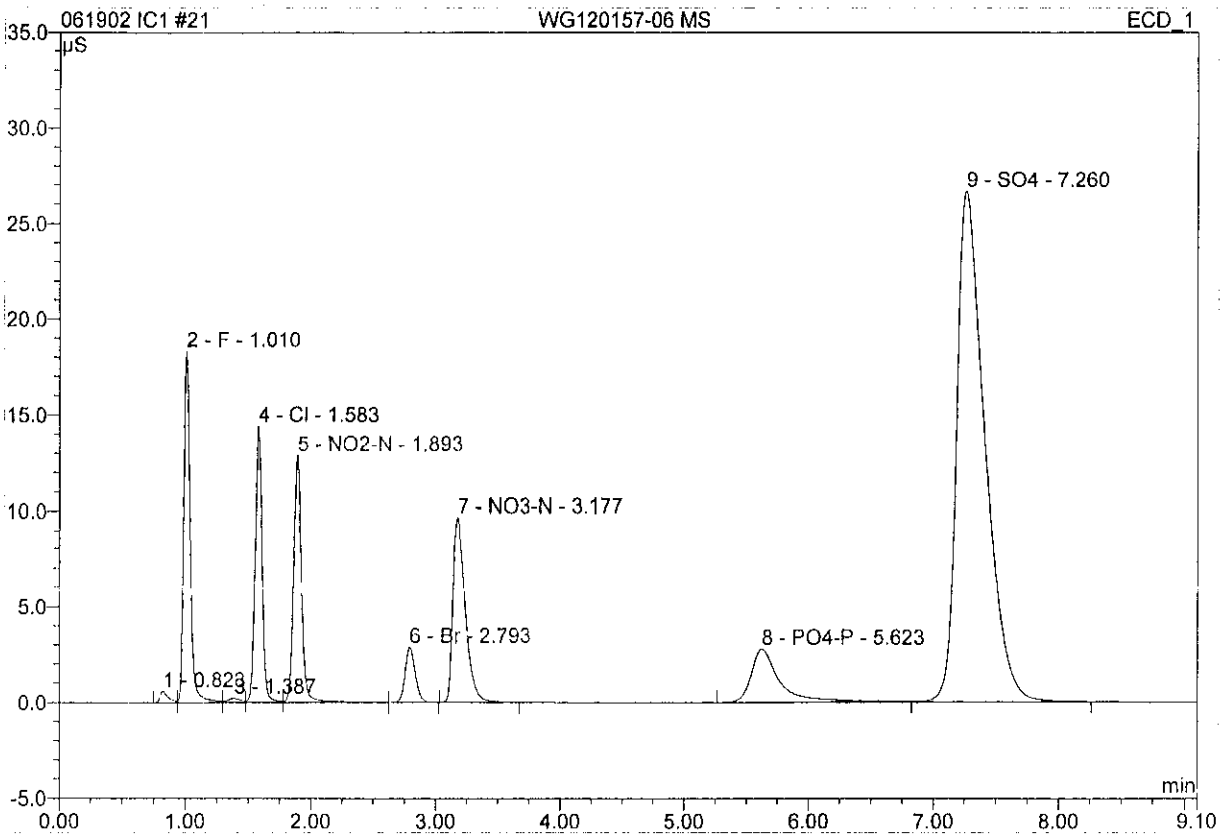


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.433	0.034	0.33	n.a.	BM
2	1.02	F	12.959	0.909	8.92	6.389	M
3	1.41	n.a.	0.217	0.027	0.26	n.a.	M
4	1.61	Cl	10.964	0.791	7.76	8.461	M
5	1.94	NO2-N	9.702	0.793	7.78	3.799	MB
6	2.92	Br	2.296	0.238	2.34	6.453	BMB
7	3.32	NO3-N	7.606	0.959	9.41	4.270	BMB
8	5.76	PO4-P	0.748	0.465	4.57	6.587	BM
9	7.21	SO4	23.152	5.974	58.63	84.263	MB
Total:			68.078	10.189	100.00	120.222	

21 WG120157-06 MS

1,1 RDC L0206140-17 MS(RR)

Sample Name:	**WG120157-06 MS**	*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:	**6/19/2002 18:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

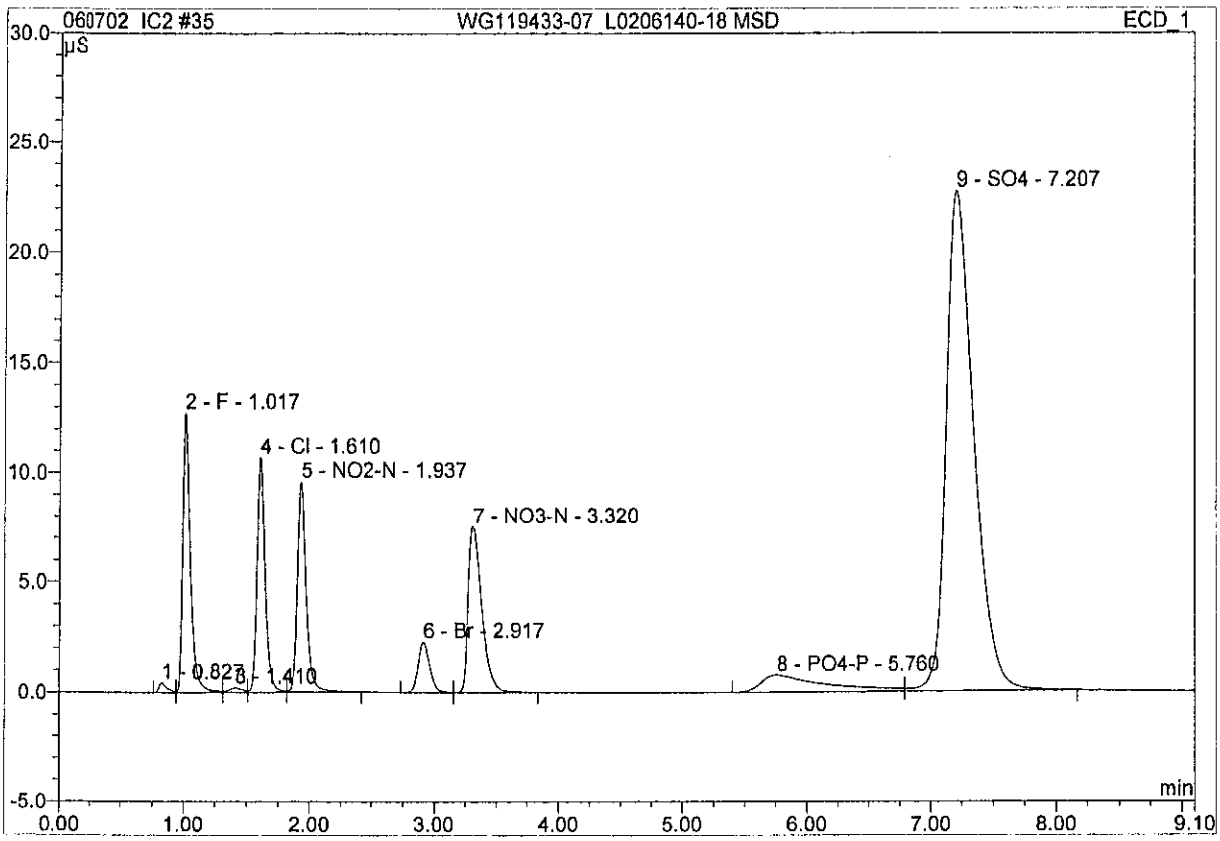


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.565	0.044	0.36	n.a.	BM
2	1.01	F	18.312	1.086	8.96	5.840	M
3	1.39	n.a.	0.221	0.025	0.21	n.a.	M
4	1.58	Cl	14.409	0.919	7.58	7.788	M
5	1.89	NO2-N	12.874	0.947	7.81	3.627	M
6	2.79	Br	2.871	0.272	2.25	5.935	MB
7	3.18	NO3-N	9.635	1.115	9.20	3.895	BMB
8	5.62	PO4-P	2.776	0.736	6.07	8.820	Ru
9	7.26	SO4	26.644	6.973	57.54	77.636	BMB
Total:			88.306	12.118	100.00	113.540	

35 WG119433-07 L0206140-18 MSD

1,1 JWR MSD of L0206140-07

Sample Name:	**WG119433-07 L0206140-18 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 20:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

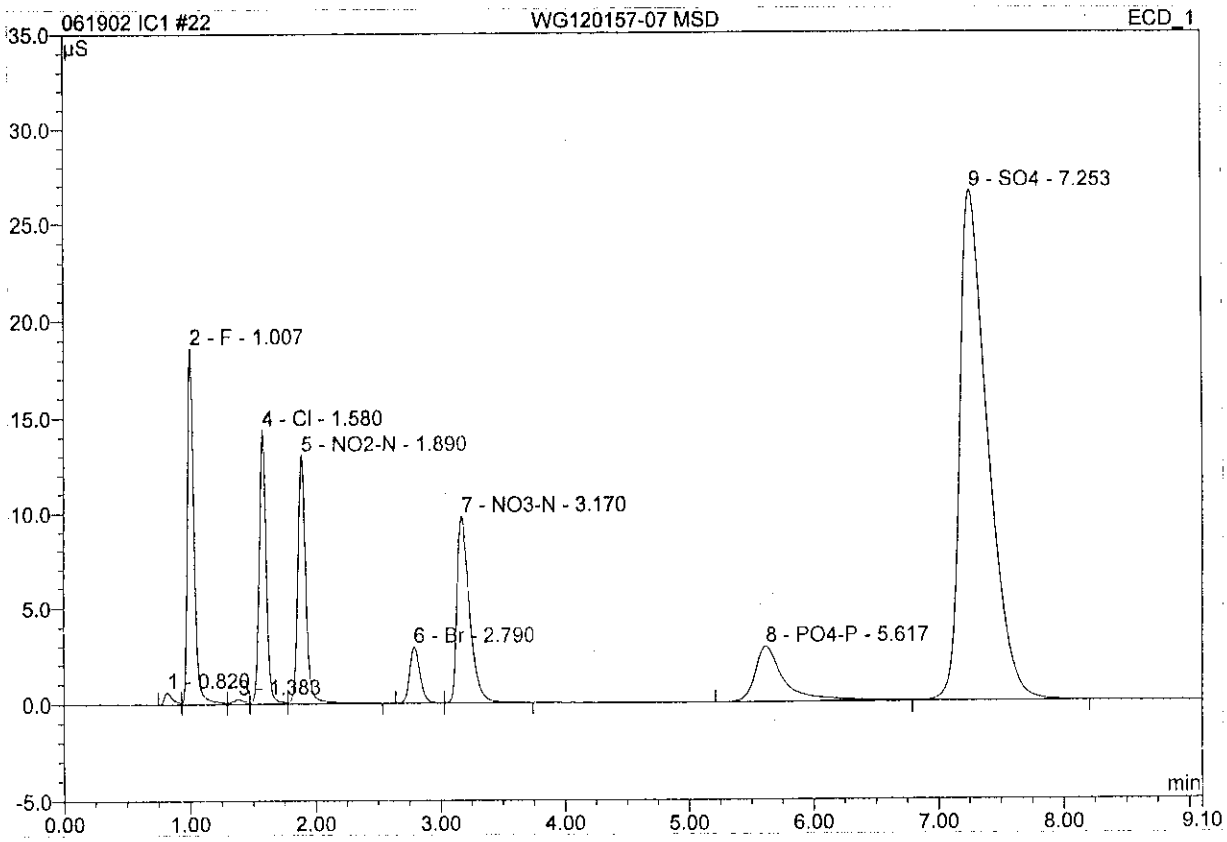


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.429	0.034	0.34	n.a.	BM
2	1.02	F	12.736	0.894	8.97	6.286	M
3	1.41	n.a.	0.212	0.026	0.26	n.a.	M
4	1.61	Cl	10.690	0.774	7.77	8.285	M
5	1.94	NO2-N	9.565	0.785	7.87	3.761	MB
6	2.92	Br	2.264	0.236	2.37	6.402	BM
7	3.32	NO3-N	7.503	0.950	9.53	4.230	MB
8	5.76	PO4-P	0.750	0.450	4.51	6.375	BM
9	7.21	SO4	22.701	5.818	58.38	82.081	MB
Total:			66.850	9.965	100.00	117.421	

22 WG120157-07 MSD

1,1 RDC L0206140-18 MSD (RR)

Sample Name:	**WG120157-07 MSD**	*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:	**6/19/2002 18:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



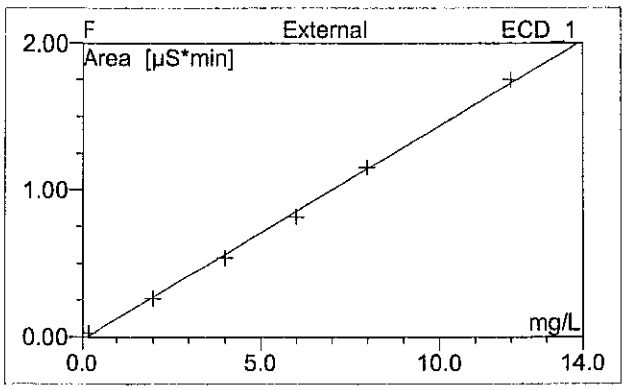
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.582	0.045	0.37	n.a.	BM
2	1.01	F	18.578	1.101	9.07	5.919	M
3	1.38	n.a.	0.217	0.025	0.20	n.a.	M
4	1.58	Cl	14.372	0.916	7.55	7.767	M
5	1.89	NO2-N	13.020	0.957	7.88	3.664	MB
6	2.79	Br	2.905	0.276	2.28	6.023	BM
7	3.17	NO3-N	9.778	1.135	9.35	3.961	MB
8	5.62	PO4-P	2.873	0.757	6.24	9.052	Ru
9	7.25	SO4	26.557	6.925	57.05	77.108	BMB
Total:			88.881	12.137	100.00	113.494	

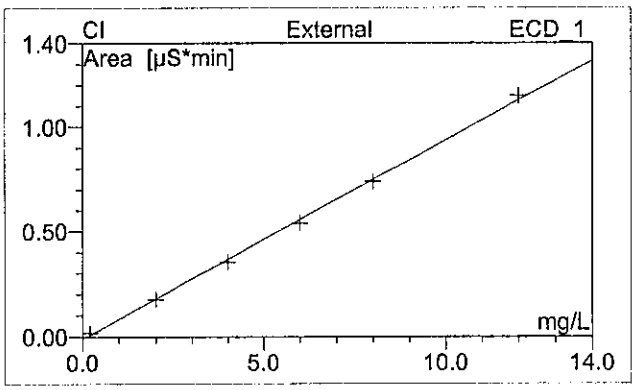
2.4.5.3 Standards Data

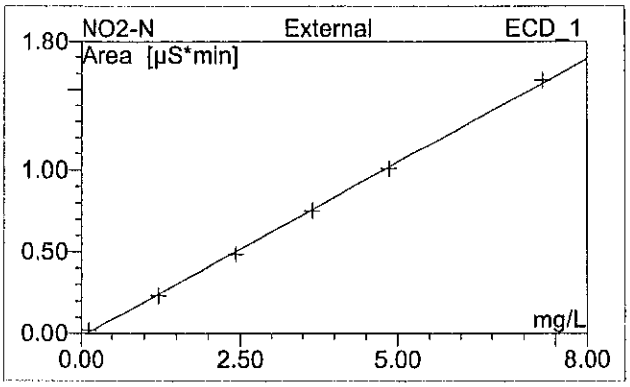
6 ANION STD #6

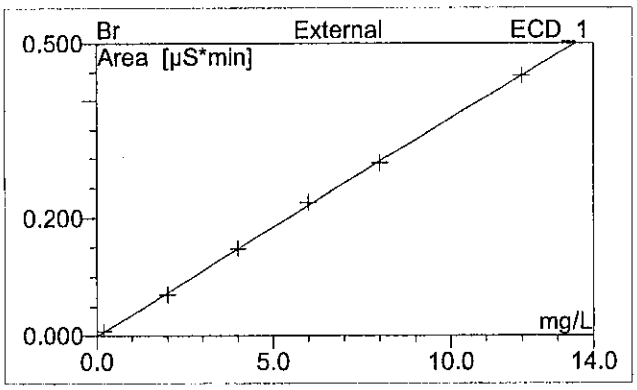
1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







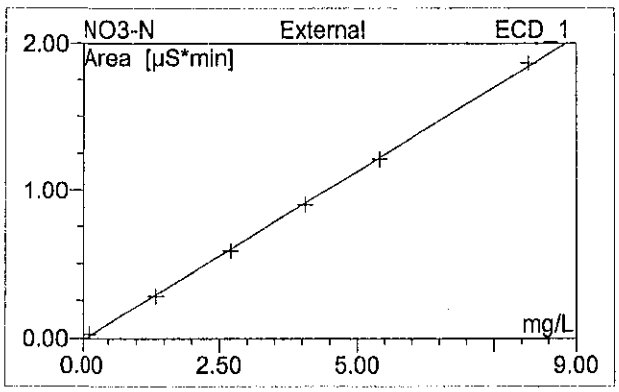


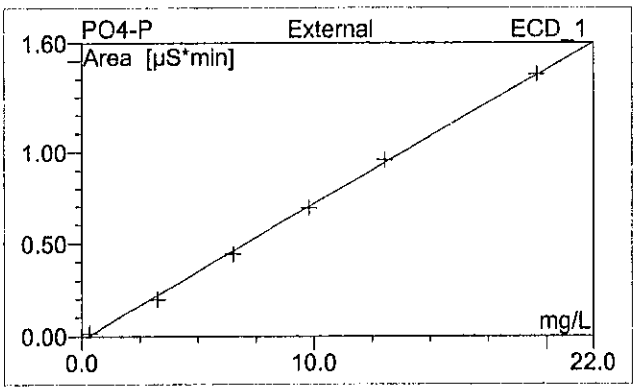
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

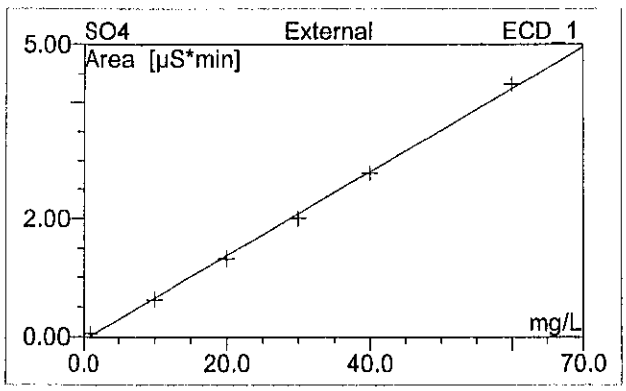
6 ANION STD #6

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





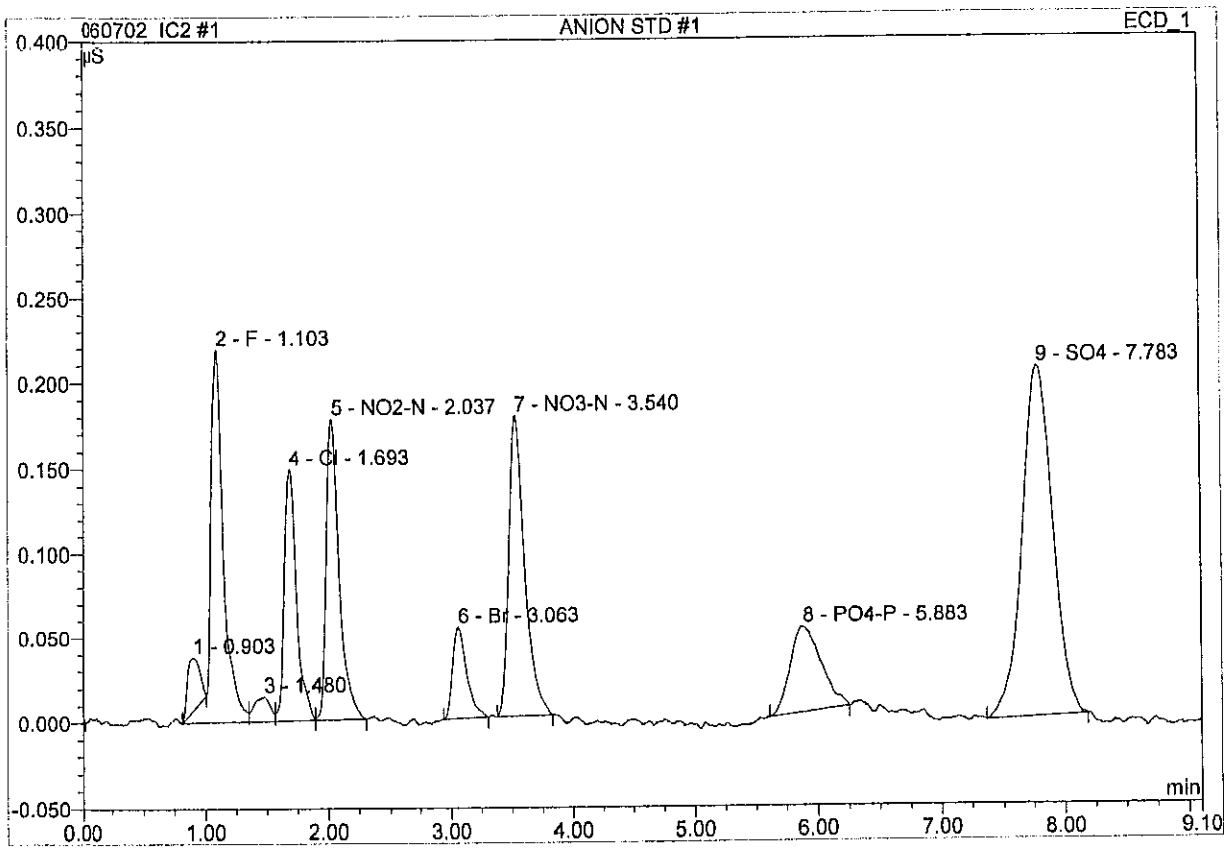


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

1 ANION STD #1

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

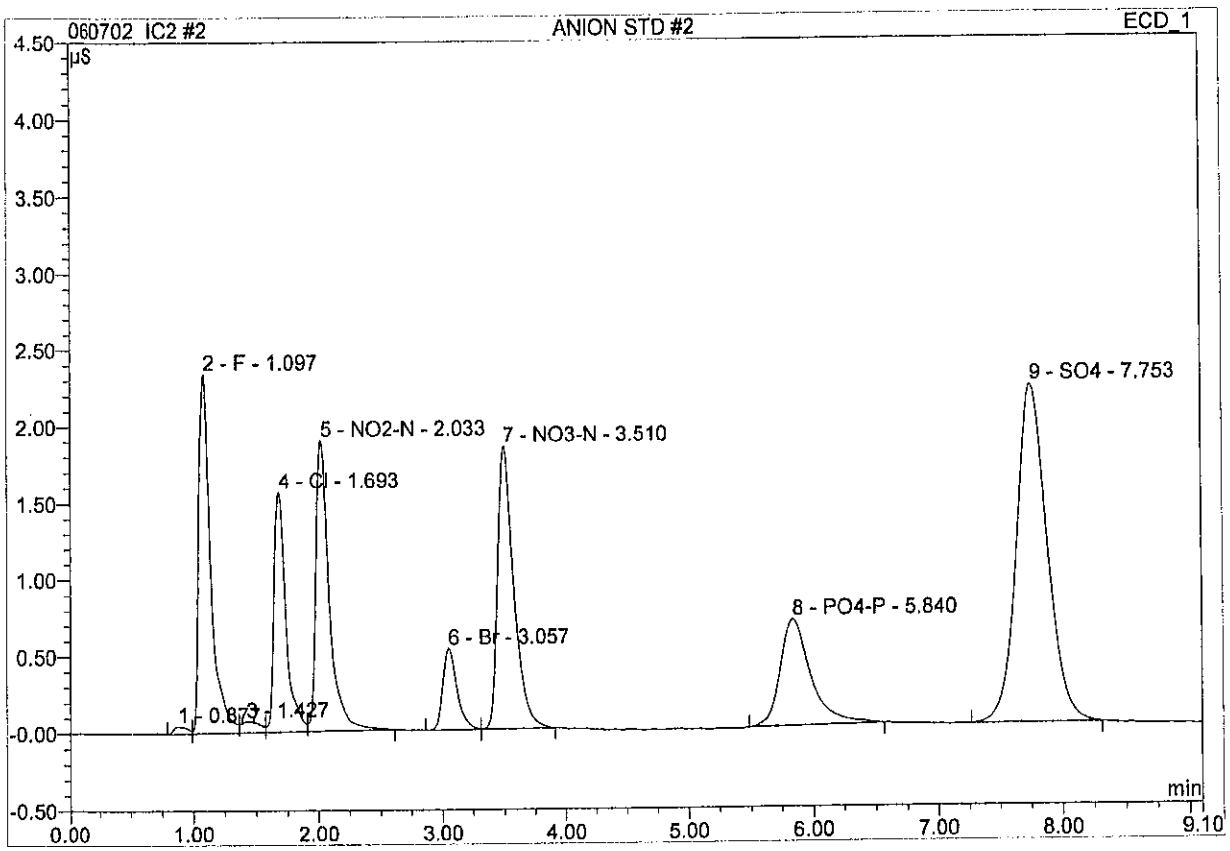


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.031	0.004	1.99	n.a.	Ru
2	1.10	F	0.219	0.027	15.07	0.338	BM
3	1.48	n.a.	0.015	0.002	1.24	n.a.	M
4	1.69	Cl	0.149	0.017	9.60	0.312	M
5	2.04	NO2-N	0.177	0.022	11.98	0.176	MB
6	3.06	Br	0.054	0.007	4.07	0.215	BMB
7	3.54	NO3-N	0.177	0.027	14.93	0.197	BMB
8	5.88	PO4-P	0.050	0.015	8.08	0.473	BMB
9	7.78	SO4	0.206	0.060	33.03	1.667	BMB
Total:			1.078	0.180	100.00	3.379	

2 ANION STD #2

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

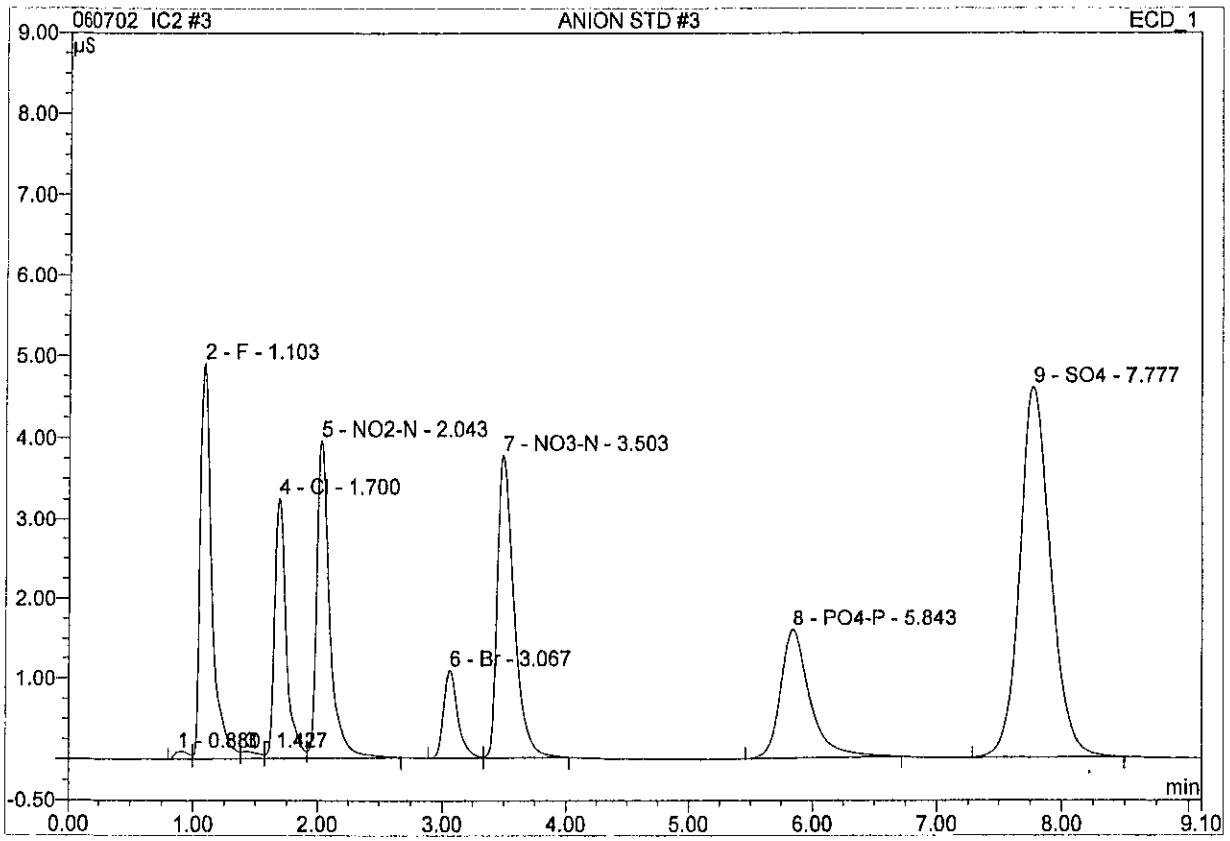


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.048	0.006	0.32	n.a.	BM
2	1.10	F	2.339	0.258	13.84	1.922	M
3	1.43	n.a.	0.073	0.013	0.67	n.a.	M
4	1.69	Cl	1.563	0.175	9.38	1.972	M
5	2.03	NO2-N	1.894	0.235	12.63	1.180	MB
6	3.06	Br	0.527	0.071	3.79	1.922	BM
7	3.51	NO3-N	1.842	0.279	15.00	1.301	MB
8	5.84	PO4-P	0.692	0.196	10.54	2.941	BMB
9	7.75	SO4	2.205	0.630	33.82	9.638	BMB
Total:			11.182	1.863	100.00	20.875	

3 ANION STD #3

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

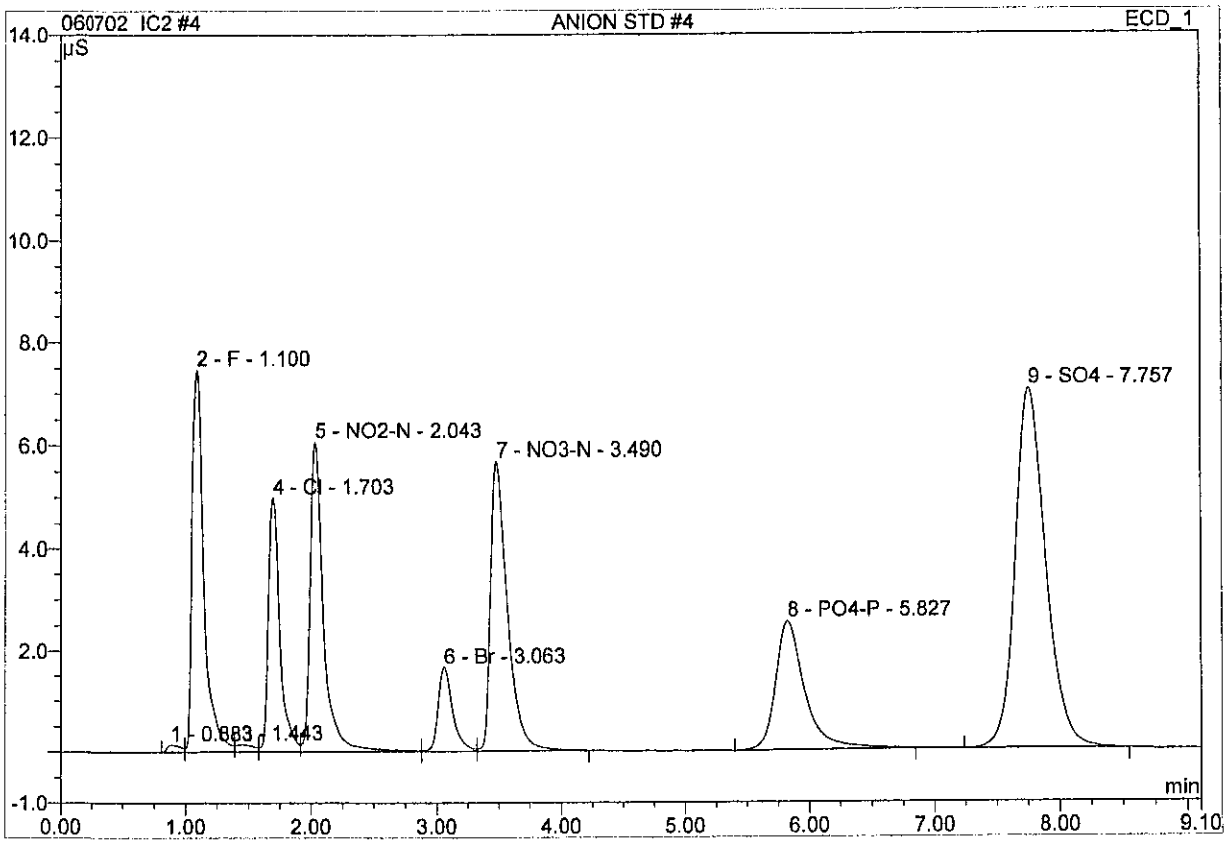


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.094	0.012	0.31	n.a.	BM
2	1.10	F	4.912	0.537	13.77	3.836	M
3	1.43	n.a.	0.092	0.014	0.37	n.a.	M
4	1.70	Cl	3.254	0.355	9.11	3.872	M
5	2.04	NO2-N	3.956	0.484	12.42	2.350	MB
6	3.07	Br	1.095	0.148	3.79	4.002	BM
7	3.50	NO3-N	3.775	0.586	15.03	2.641	MB
8	5.84	PO4-P	1.602	0.443	11.36	6.282	BMB
9	7.78	SO4	4.598	1.320	33.85	19.266	BMB
Total:			23.380	3.899	100.00	42.249	

4 ANION STD #4

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #4**	*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:	**5/21/2002 17:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

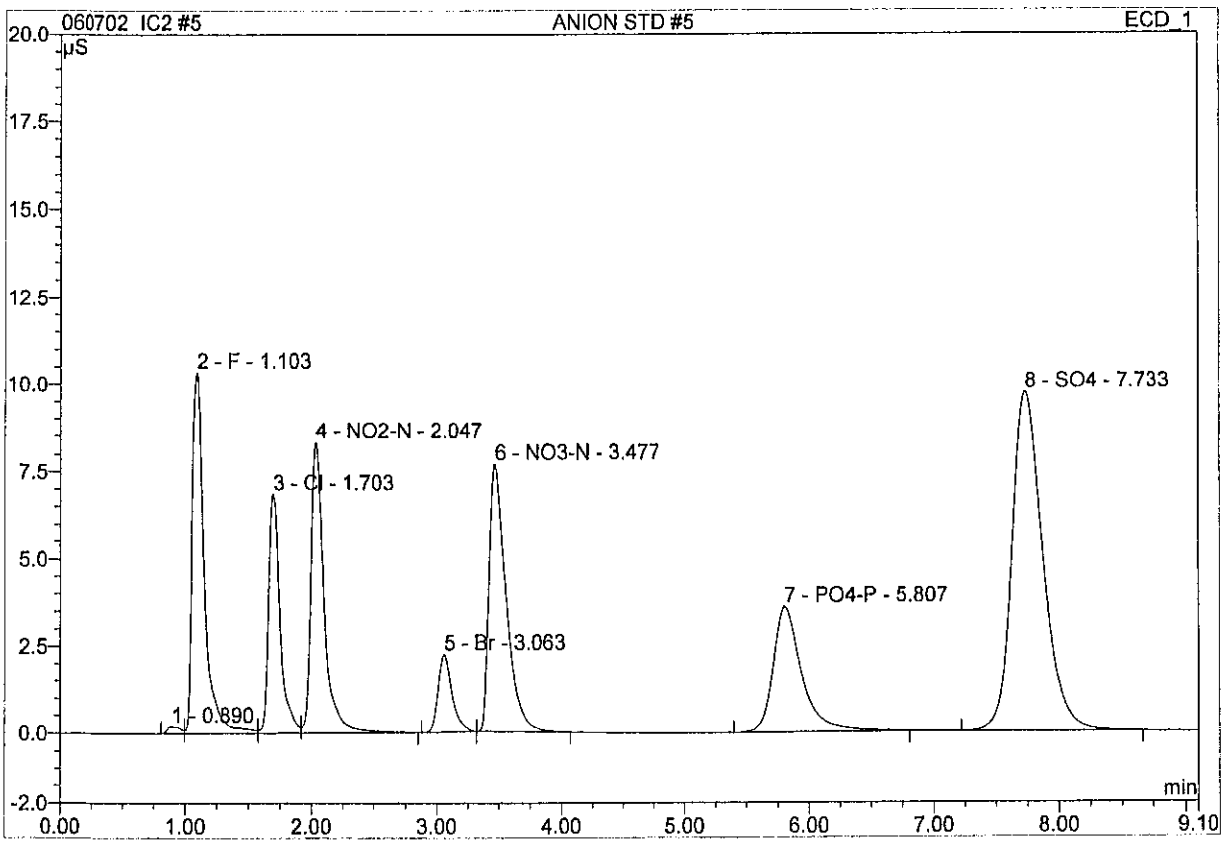


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.142	0.018	0.30	n.a.	BM
2	1.10	F	7.465	0.814	13.64	5.737	M
3	1.44	n.a.	0.148	0.024	0.40	n.a.	M
4	1.70	Cl	4.985	0.539	9.03	5.812	M
5	2.04	NO2-N	6.061	0.753	12.63	3.614	M
6	3.06	Br	1.660	0.226	3.79	6.127	M
7	3.49	NO3-N	5.673	0.898	15.05	4.005	MB
8	5.83	PO4-P	2.536	0.693	11.61	9.675	BMB
9	7.76	SO4	7.031	2.003	33.56	28.804	BMB
Total:			35.700	5.968	100.00	63.774	

5 ANION STD #5

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

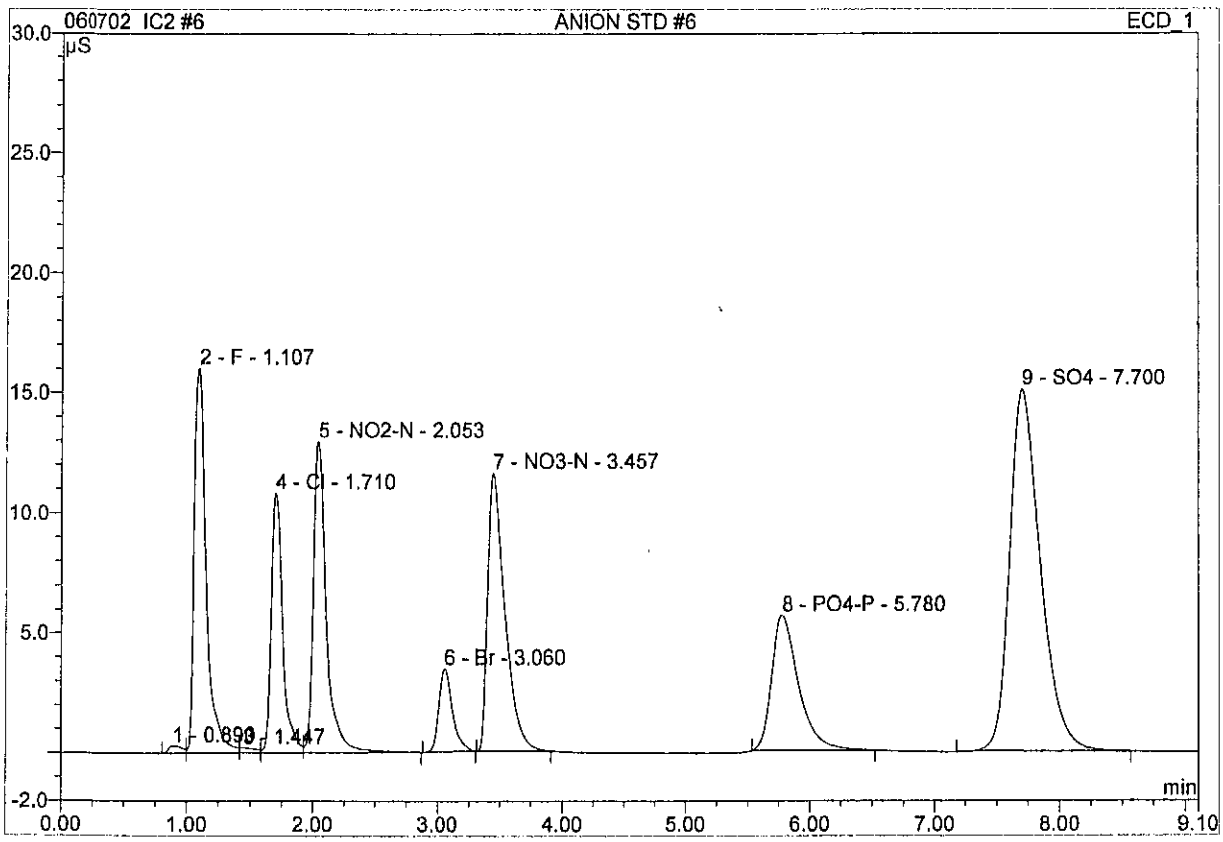


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.194	0.024	0.30	n.a.	BM
2	1.10	F	10.342	1.152	14.12	8.059	M
3	1.70	Cl	6.851	0.736	9.02	7.889	M
4	2.05	NO2-N	8.312	1.008	12.36	4.811	MB
5	3.06	Br	2.237	0.292	3.58	7.906	BMB
6	3.48	NO3-N	7.654	1.210	14.83	5.369	BMB
7	5.81	PO4-P	3.586	0.955	11.70	13.232	BMB
8	7.73	SO4	9.708	2.782	34.09	39.690	BMB
Total:			48.884	8.161	100.00	86.958	

6 ANION STD #6

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

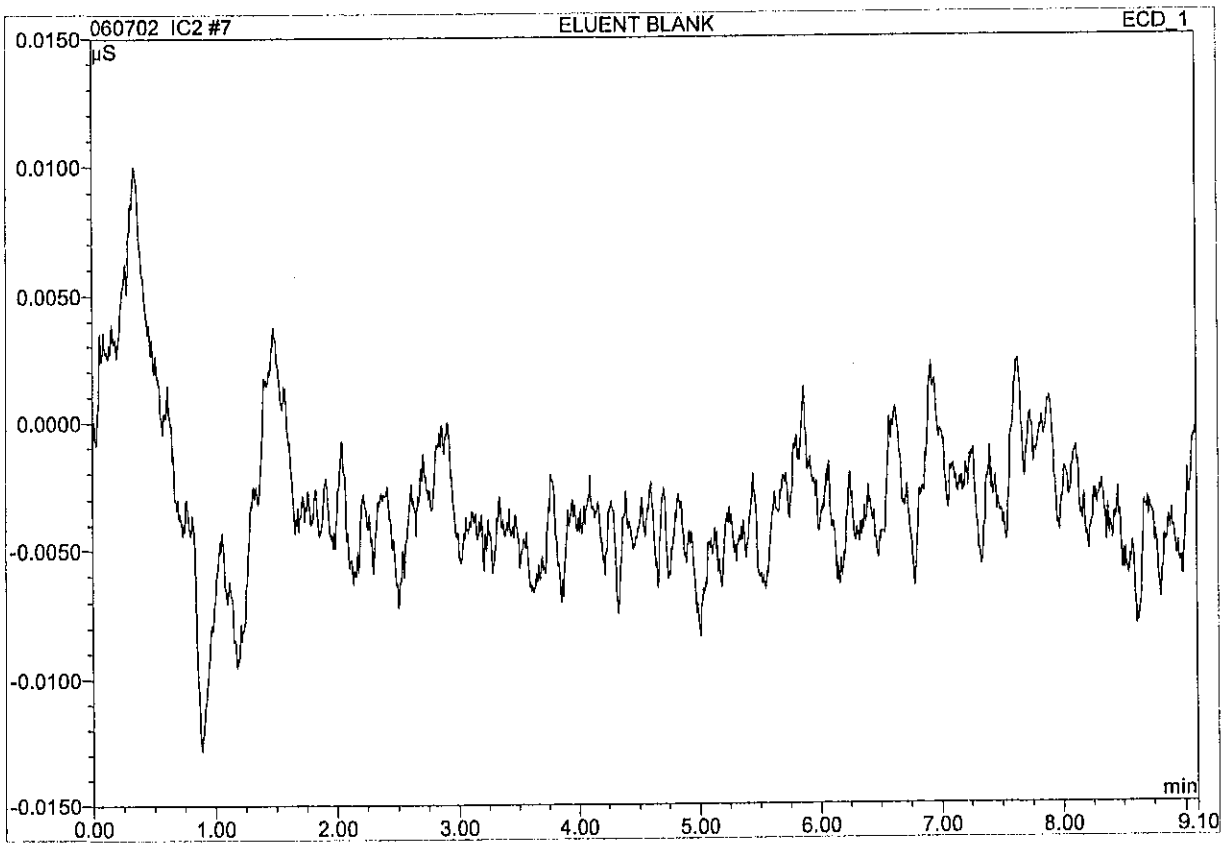


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.291	0.037	0.29	n.a.	BM
2	1.11	F	16.013	1.749	13.92	12.158	M
3	1.45	n.a.	0.209	0.029	0.23	n.a.	M
4	1.71	Cl	10.807	1.147	9.12	12.214	M
5	2.05	NO2-N	12.949	1.559	12.40	7.400	MB
6	3.06	Br	3.465	0.444	3.53	12.011	BMB
7	3.46	NO3-N	11.570	1.865	14.83	8.229	BM
8	5.78	PO4-P	5.651	1.427	11.35	19.630	BM
9	7.70	SO4	15.063	4.315	34.32	61.098	MB
Total:			76.018	12.572	100.00	132.740	

7 ELUENT BLANK

1,1 RDC

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:	**5/21/2002 18:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

8 ANION ALT STD

1,1 RDC ANION ALT STD SOS0059-44

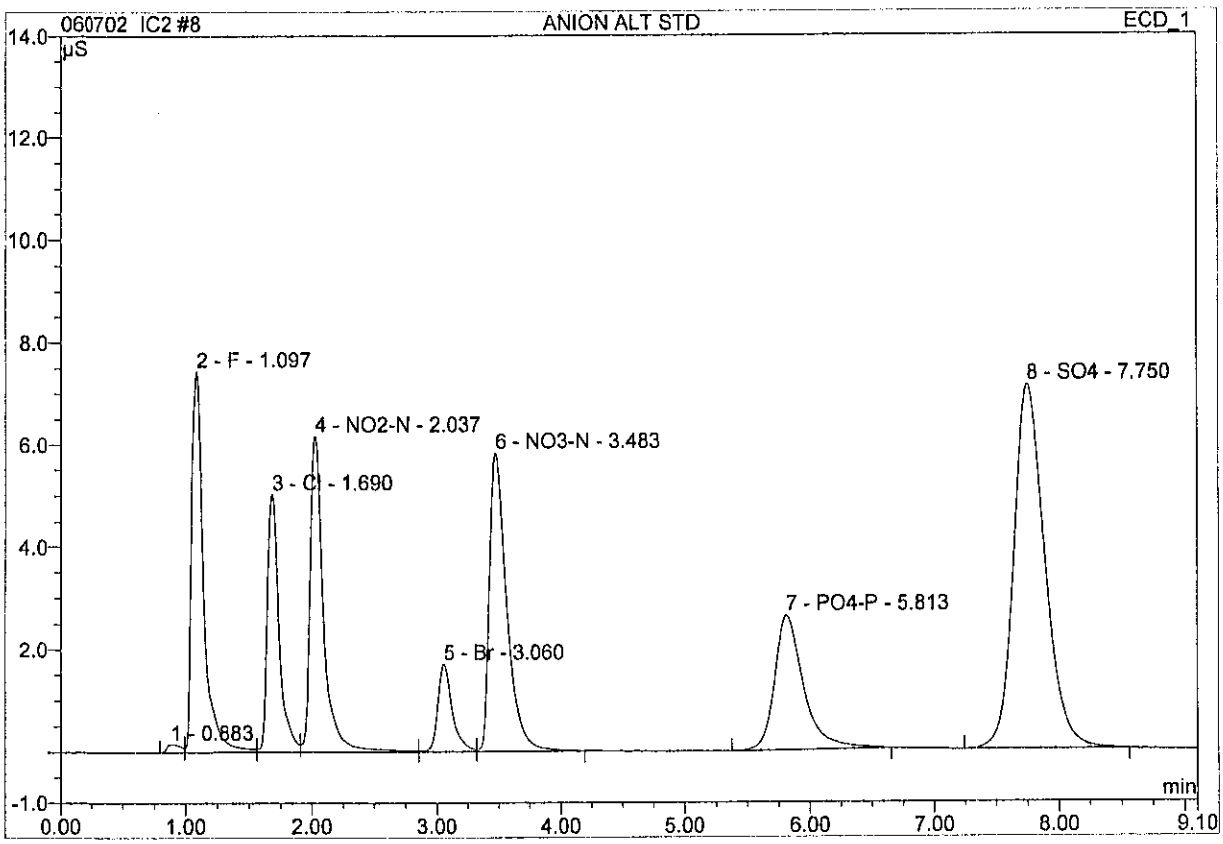
Sample Name:	**ANION ALT STD**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**5/21/2002 18:41**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8089	-3.19	PASS
Cl	6	5.9068	-1.55	PASS
NO2-N	3.65	3.6652	0.42	PASS
Br	6	6.3346	5.58	PASS
NO3-N	4.07	4.1408	1.74	PASS
PO4-P	9.78	9.8359	0.57	PASS
SO4	30	29.3113	-2.30	PASS

8 ANION ALT STD

1,1 RDC ANION ALT STD SOS0059-44

Sample Name:	**ANION ALT STD**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

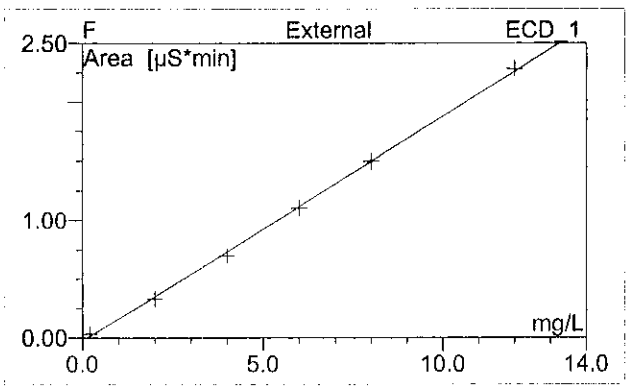


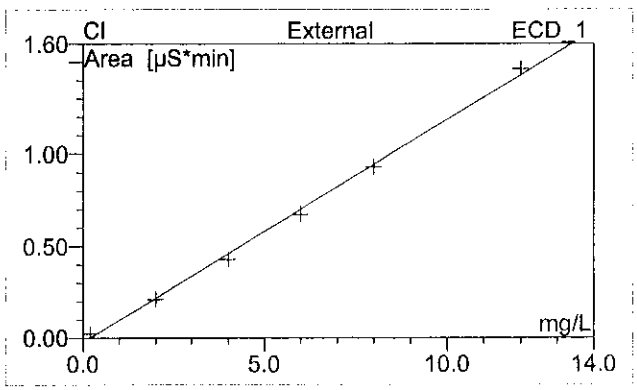
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.154	0.020	0.33	n.a.	BM
2	1.10	F	7.438	0.824	13.59	5.809	M
3	1.69	Cl	5.032	0.548	9.04	5.907	M
4	2.04	NO2-N	6.164	0.764	12.60	3.665	M
5	3.06	Br	1.704	0.234	3.86	6.335	M
6	3.48	NO3-N	5.819	0.929	15.32	4.141	MB
7	5.81	PO4-P	2.622	0.705	11.62	9.836	BMB
8	7.75	SO4	7.115	2.039	33.62	29.311	BMB
Total:			36.049	6.064	100.00	65.003	

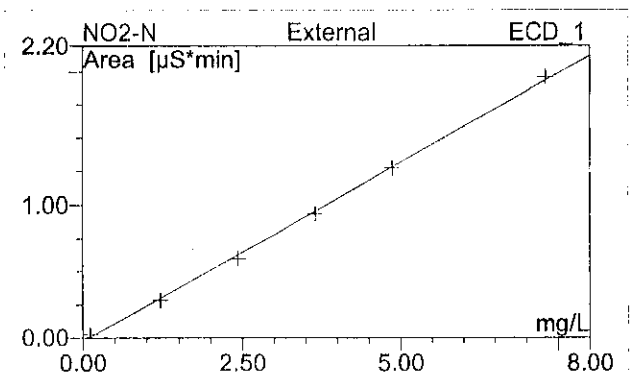
6 Anion std. #6

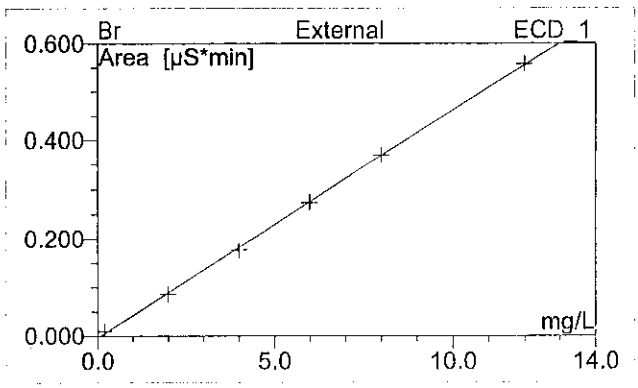
1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**









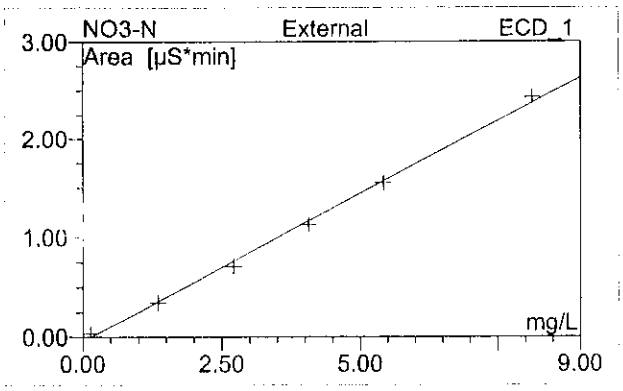
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

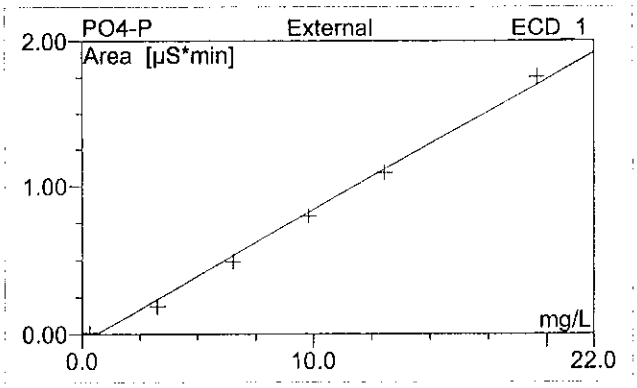
884

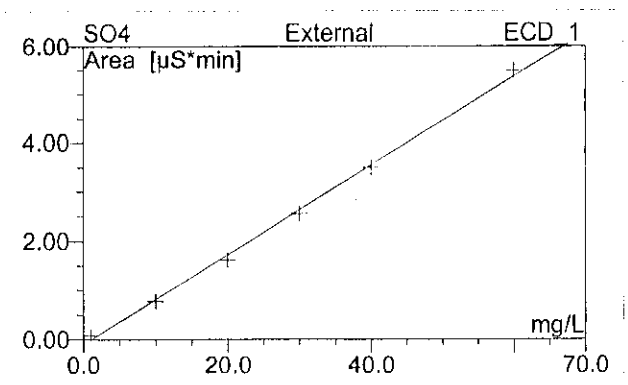
6 Anion std. #6

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





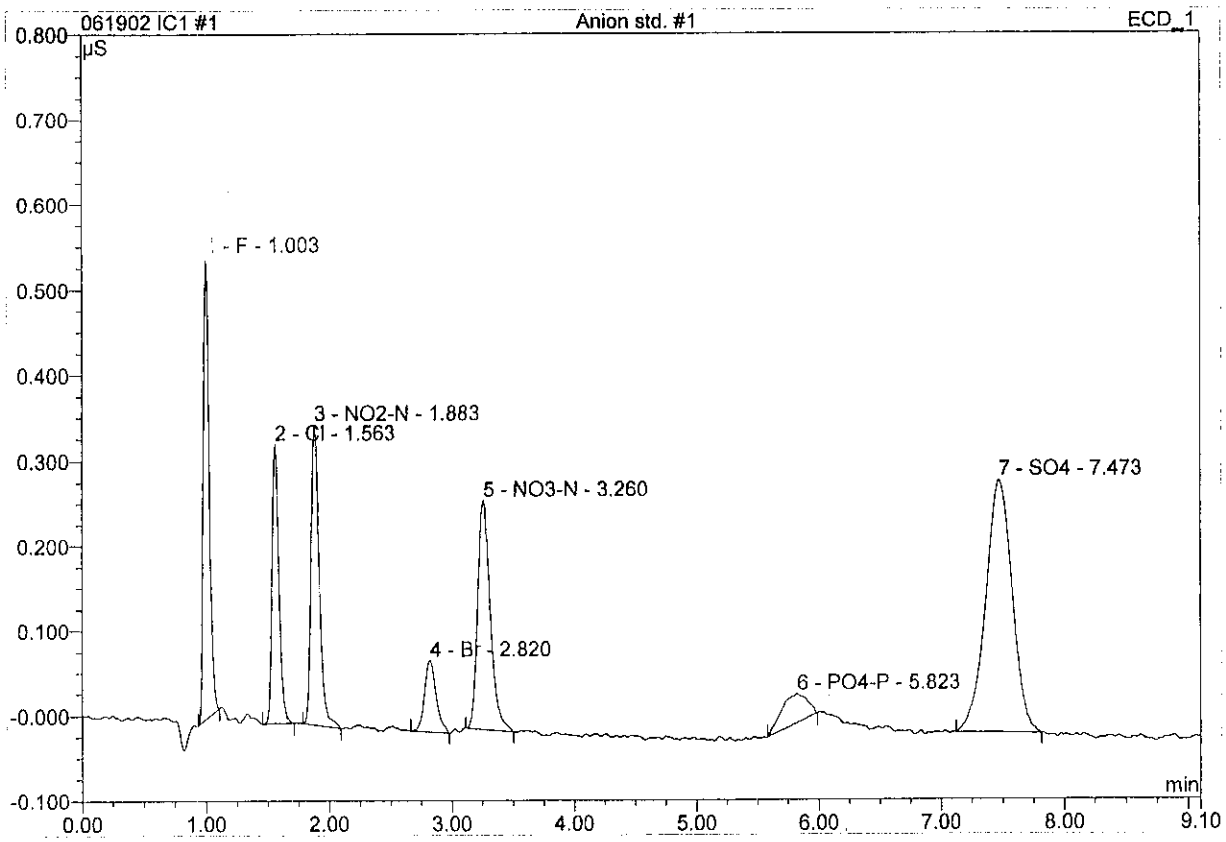


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

1 Anion std. #1

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 15:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



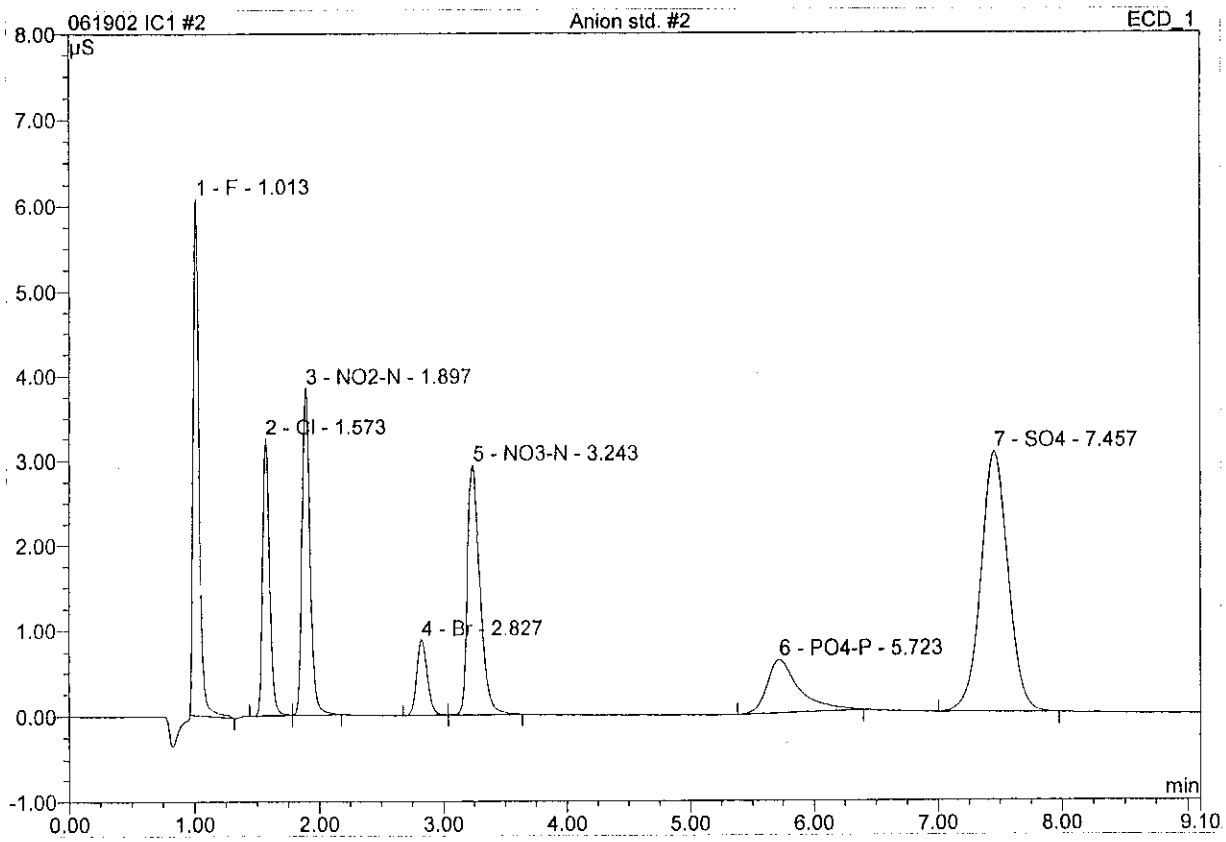
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.00	F	0.541	0.030	14.93	0.303	BMB
2	1.56	Cl	0.328	0.022	10.70	0.378	BMB
3	1.88	NO2-N	0.352	0.027	13.38	0.196	BMB
4	2.82	Br	0.084	0.009	4.53	0.275	BMB
5	3.26	NO3-N	0.270	0.032	15.79	0.255	BMB
6	5.82	PO4-P	0.033	0.008	4.06	0.715	BMB
7	7.47	SO4	0.297	0.074	36.60	1.855	BMB
Total:			1.905	0.203	100.00	3.978	

886

2 Anion std. #2

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 15:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

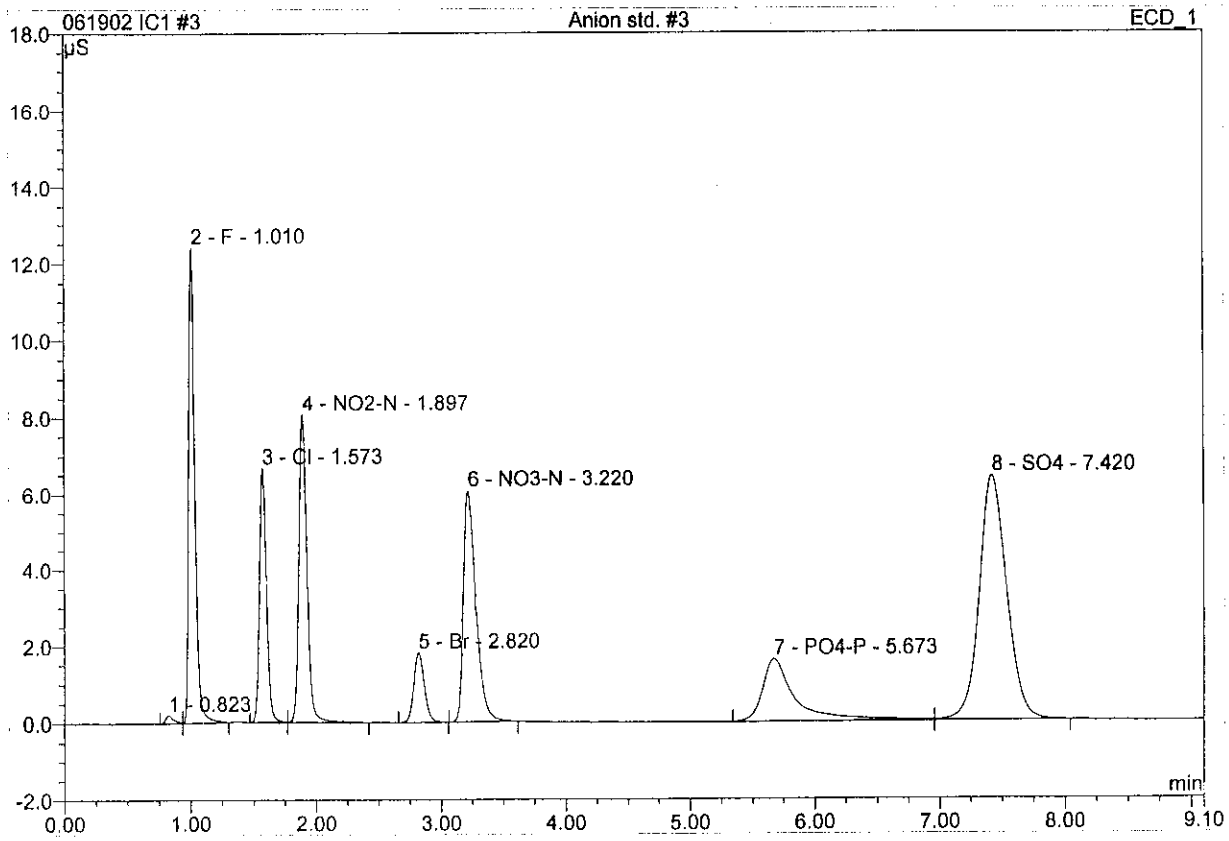


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.01	F	6.078	0.333	15.04	1.891	BMB
2	1.57	Cl	3.251	0.211	9.53	1.942	BM
3	1.90	NO2-N	3.843	0.284	12.83	1.154	MB
4	2.83	Br	0.878	0.086	3.90	1.934	BM
5	3.24	NO3-N	2.928	0.341	15.41	1.295	MB
6	5.72	PO4-P	0.625	0.188	8.48	2.715	BMB
7	7.46	SO4	3.052	0.771	34.81	9.508	BMB
Total:			20.655	2.215	100.00	20.439	

3 Anion std. #3

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



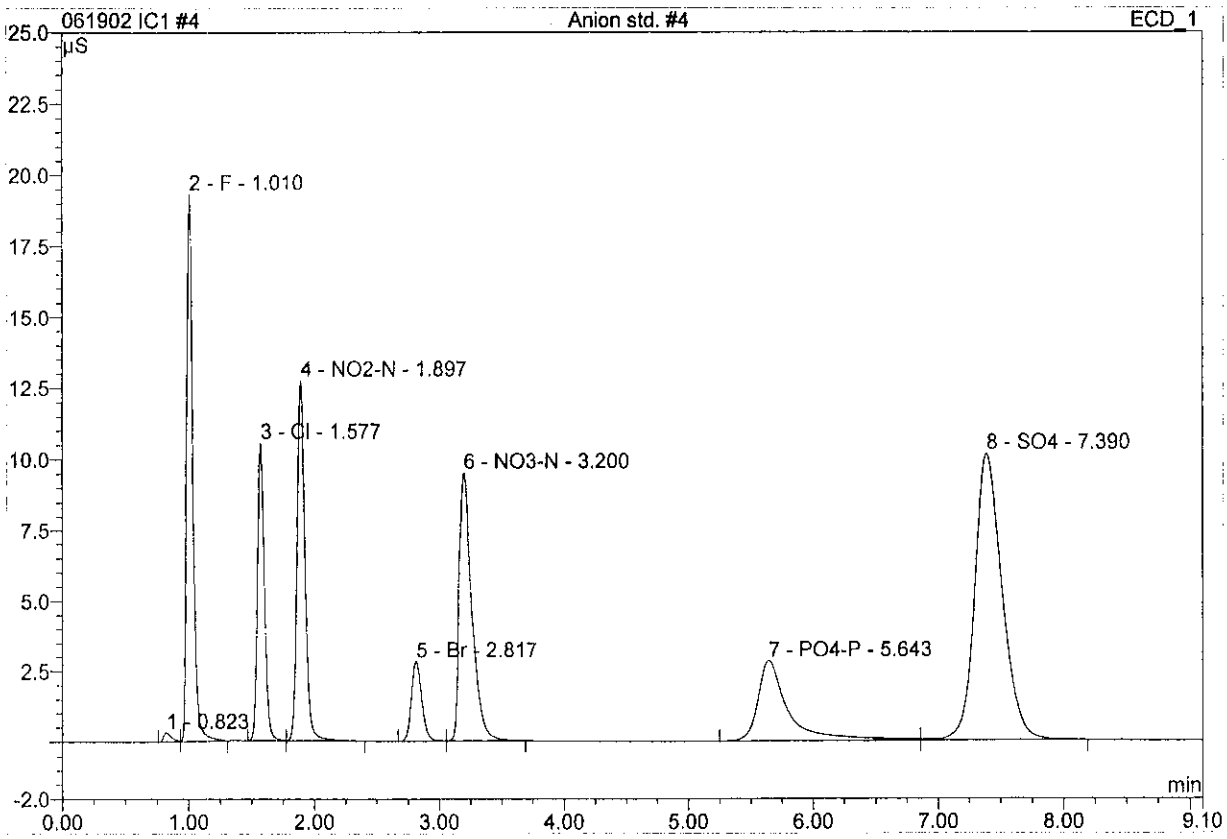
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.199	0.015	0.31	n.a.	BM
2	1.01	F	12.401	0.701	14.81	3.820	MB
3	1.57	Cl	6.665	0.429	9.06	3.740	BM
4	1.90	NO2-N	8.054	0.599	12.65	2.329	MB
5	2.82	Br	1.806	0.177	3.73	3.879	BMB
6	3.22	NO3-N	6.061	0.710	14.99	2.532	BMB
7	5.67	PO4-P	1.618	0.489	10.33	6.067	BM
8	7.42	SO4	6.395	1.614	34.11	18.772	MB
Total:			43.200	4.733	100.00	41.138	

888

4 Anion std. #4

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

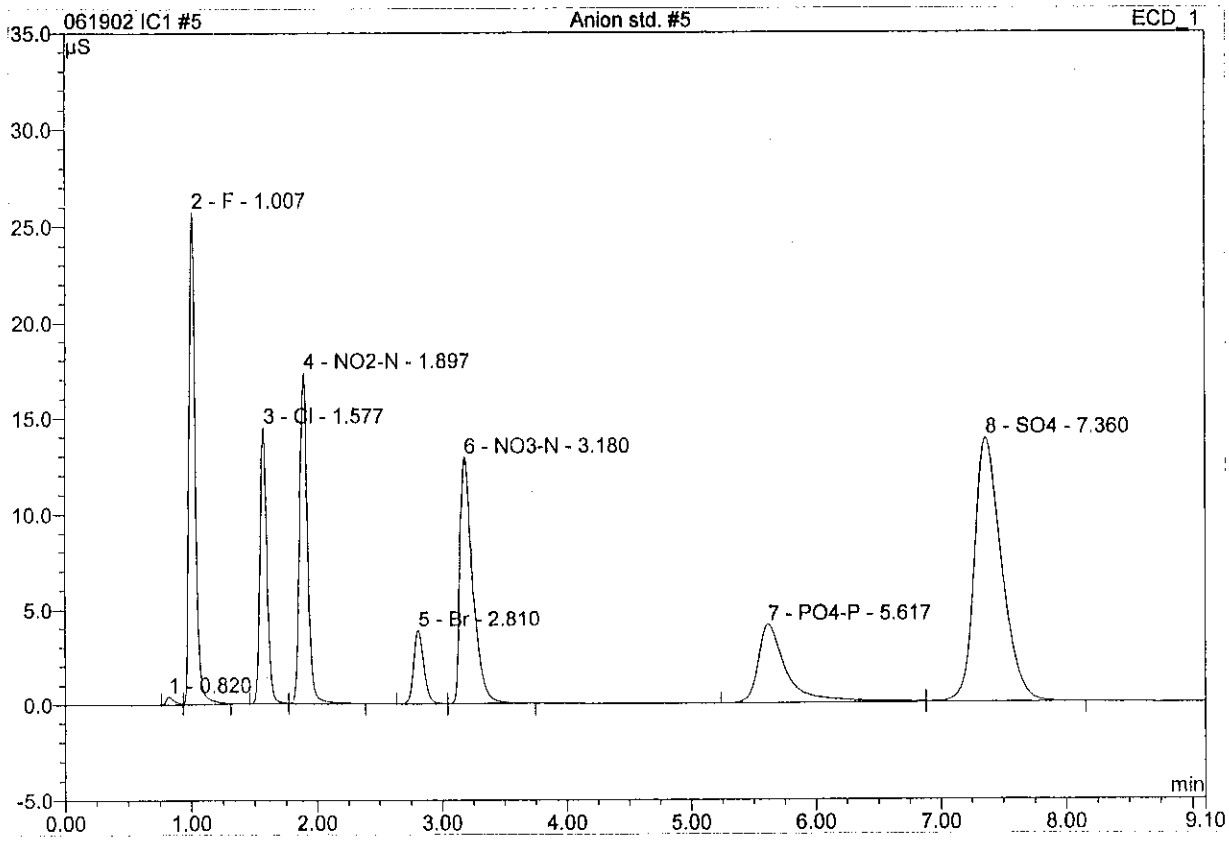


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.313	0.023	0.31	n.a.	BM
2	1.01	F	19.323	1.104	14.75	5.935	MB
3	1.58	Cl	10.535	0.675	9.02	5.775	BM
4	1.90	NO2-N	12.703	0.935	12.49	3.582	MB
5	2.82	Br	2.824	0.273	3.65	5.961	BM
6	3.20	NO3-N	9.486	1.124	15.02	3.925	MB
7	5.64	PO4-P	2.831	0.794	10.61	9.469	BM
8	7.39	SO4	10.115	2.555	34.13	29.103	MB
Total:			68.131	7.485	100.00	63.750	

5 Anion std. #5

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

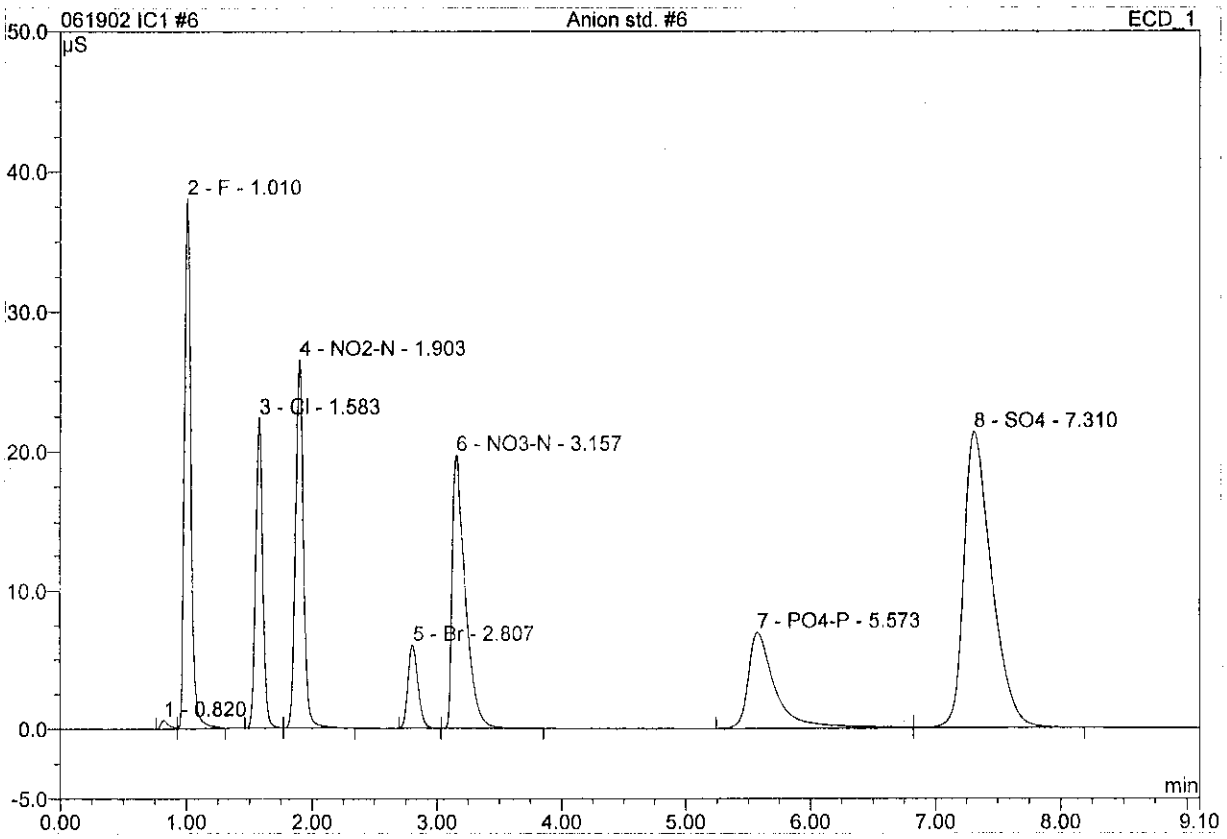


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.422	0.032	0.31	n.a.	BM
2	1.01	F	25.736	1.497	14.63	7.993	MB
3	1.58	Cl	14.466	0.930	9.09	7.882	BM
4	1.90	NO2-N	17.301	1.274	12.46	4.849	MB
5	2.81	Br	3.843	0.369	3.61	8.016	BM
6	3.18	NO3-N	12.871	1.547	15.12	5.345	MB
7	5.62	PO4-P	4.112	1.092	10.67	12.778	BM
8	7.36	SO4	13.824	3.491	34.12	39.394	MB
Total:			92.575	10.232	100.00	86.255	

6 Anion std. #6

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

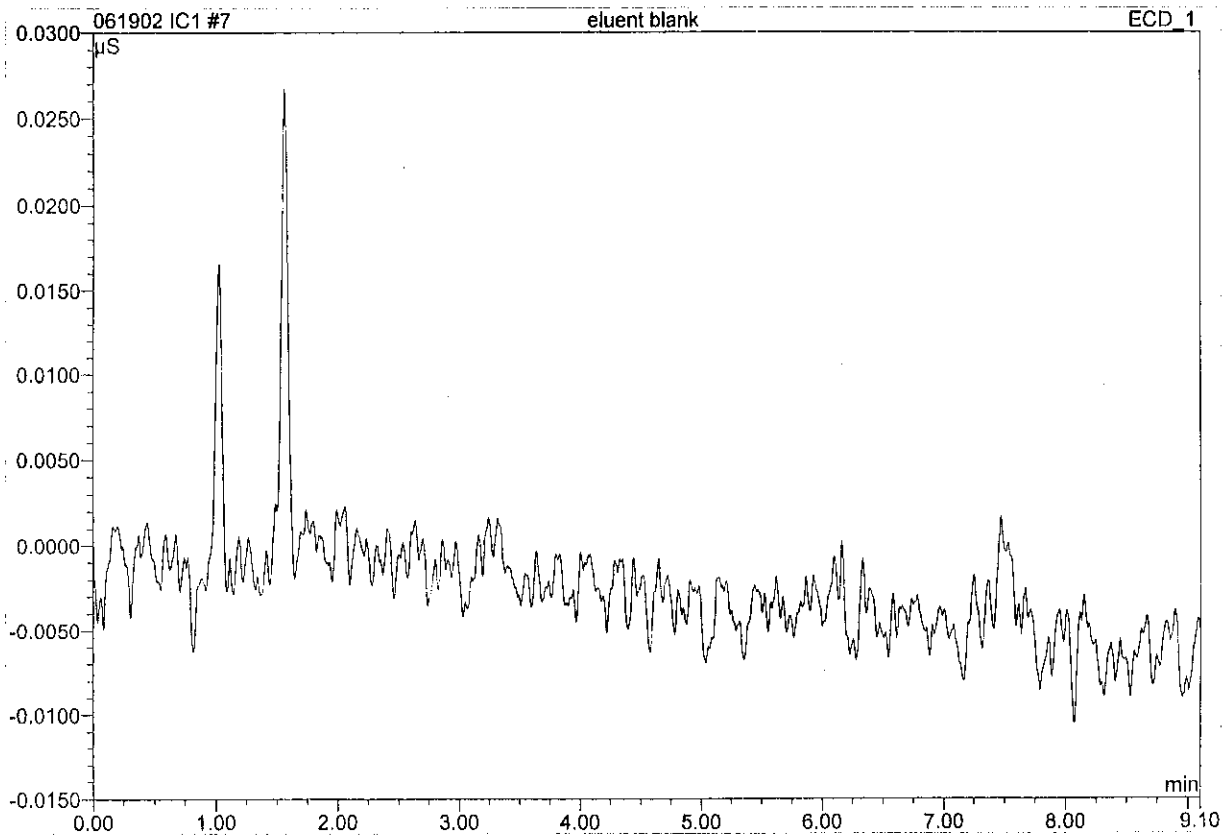


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.631	0.048	0.30	n.a.	BM
2	1.01	F	38.063	2.282	14.28	12.114	MB
3	1.58	Cl	22.319	1.463	9.16	12.285	BM
4	1.90	NO2-N	26.446	1.959	12.26	7.403	MB
5	2.81	Br	5.997	0.557	3.48	12.060	BMB
6	3.16	NO3-N	19.698	2.433	15.22	8.321	BMB
7	5.57	PO4-P	6.959	1.753	10.97	20.141	BM
8	7.31	SO4	21.318	5.488	34.34	61.330	MB
Total:			141.431	15.983	100.00	133.653	

7 eluent blank

1,1 RDC

Sample Name:	**eluent blank**	*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:	**6/18/2002 16:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

8 Alt anion std.

1,1 RDC SOS0060-31

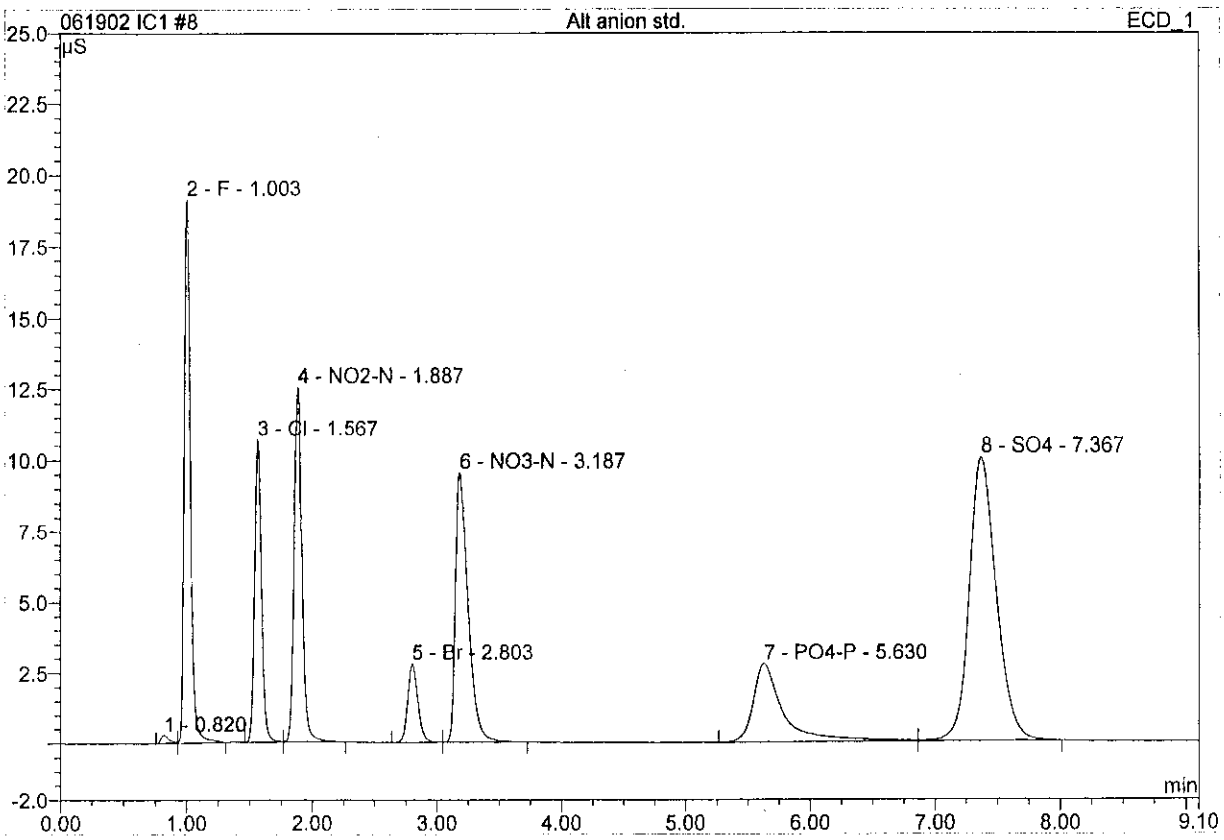
Sample Name:	**Alt anion std.**		*Injection Volume:*
Vial Number:	**8**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/18/2002 18:09**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

Alt anion std.	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8684	-2.19	PASS
Cl	6	5.8510	-2.48	PASS
NO2-N	3.65	3.5135	-3.74	PASS
Br	6	5.8699	-2.17	PASS
NO3-N	4.07	3.9347	-3.33	PASS
PO4-P	9.78	9.2540	-5.38	PASS
SO4	30	28.6141	4.62	PASS

8 Alt anion std.

1,1 RDC SOS0060-31

Sample Name:	**Alt anion std.**	*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:	**6/18/2002 18:09**	*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 mg/L	Type
1	0.82	n.a.	0.269	0.021	0.28	n.a.	BM
2	1.00	F	19.142	1.092	14.76	5.868	MB
3	1.57	Cl	10.693	0.684	9.25	5.851	BM
4	1.89	NO2-N	12.521	0.917	12.39	3.514	MB
5	2.80	Br	2.790	0.269	3.64	5.870	BM
6	3.19	NO3-N	9.529	1.127	15.24	3.935	MB
7	5.63	PO4-P	2.788	0.775	10.48	9.254	BM
8	7.37	SO4	10.027	2.510	33.94	28.614	MB
Total:			67.757	7.395	100.00	62.906	

10 WG119436-01 CCV

1,1 JWR SOS0059-46 06/07/02

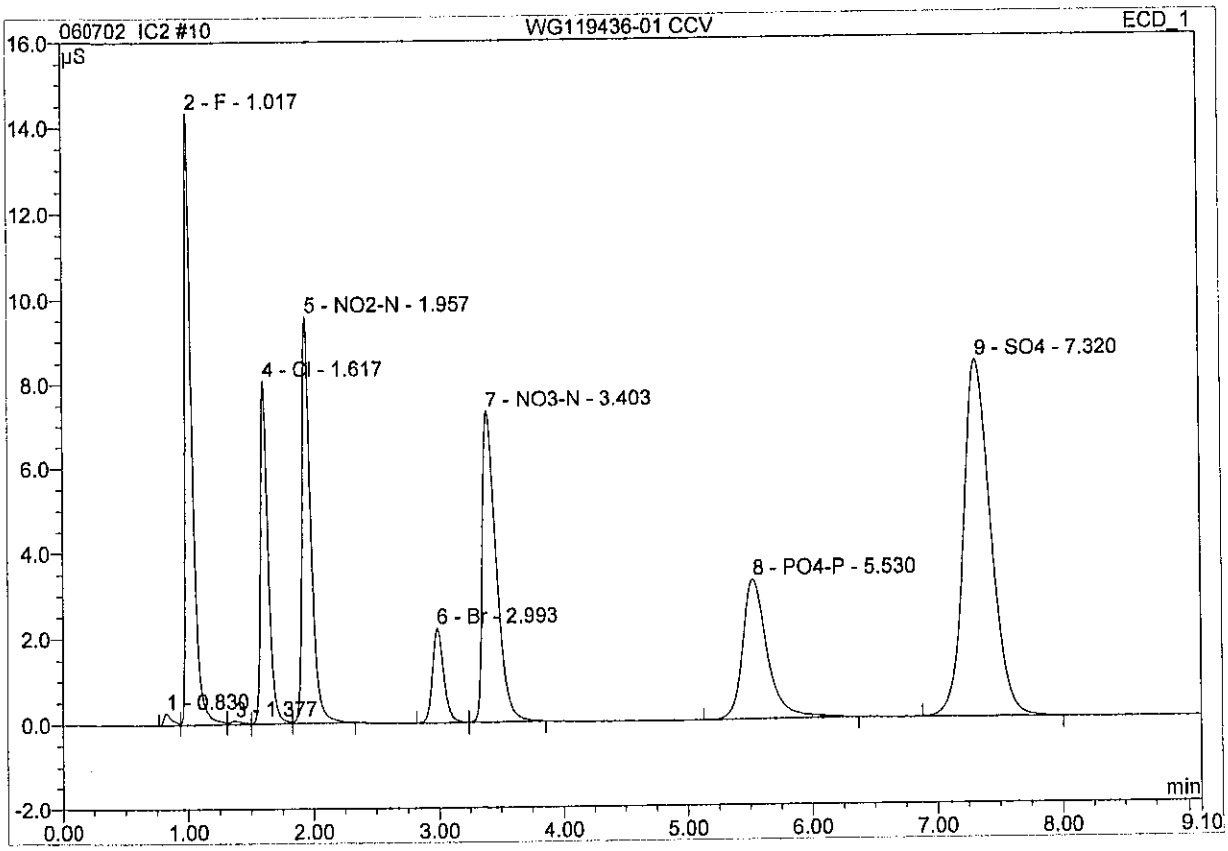
Sample Name:	**WG119436-01 CCV**	*Injection Volume:*	
Vial Number:	**41**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/7/2002 14:40**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG119436-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.4705	7.84	PASS
Cl	6	6.1176	1.96	PASS
NO2-N	3.65	3.7291	2.17	PASS
Br	6	6.3177	5.29	PASS
NO3-N	4.07	4.2121	3.49	PASS
PO4-P	9.78	10.4822	7.18	PASS
SO4	30	30.2903	0.97	PASS

10 WG119436-01 CCV

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119436-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 14:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.271	0.022	0.35	n.a.	BM
2	1.02	F	14.338	0.921	14.53	6.470	M
3	1.38	n.a.	0.076	0.009	0.15	n.a.	M
4	1.62	Cl	8.064	0.568	8.97	6.118	M
5	1.96	NO2-N	9.569	0.778	12.27	3.729	MB
6	2.99	Br	2.202	0.233	3.68	6.318	BM
7	3.40	NO3-N	7.301	0.946	14.92	4.212	MB
8	5.53	PO4-P	3.259	0.752	11.87	10.482	BMB
9	7.32	SO4	8.382	2.109	33.27	30.290	BMB
Total:			53.462	6.338	100.00	67.619	

21 WG119436-02 CCV

1,1 JWR SOS0059-46 06/07/02

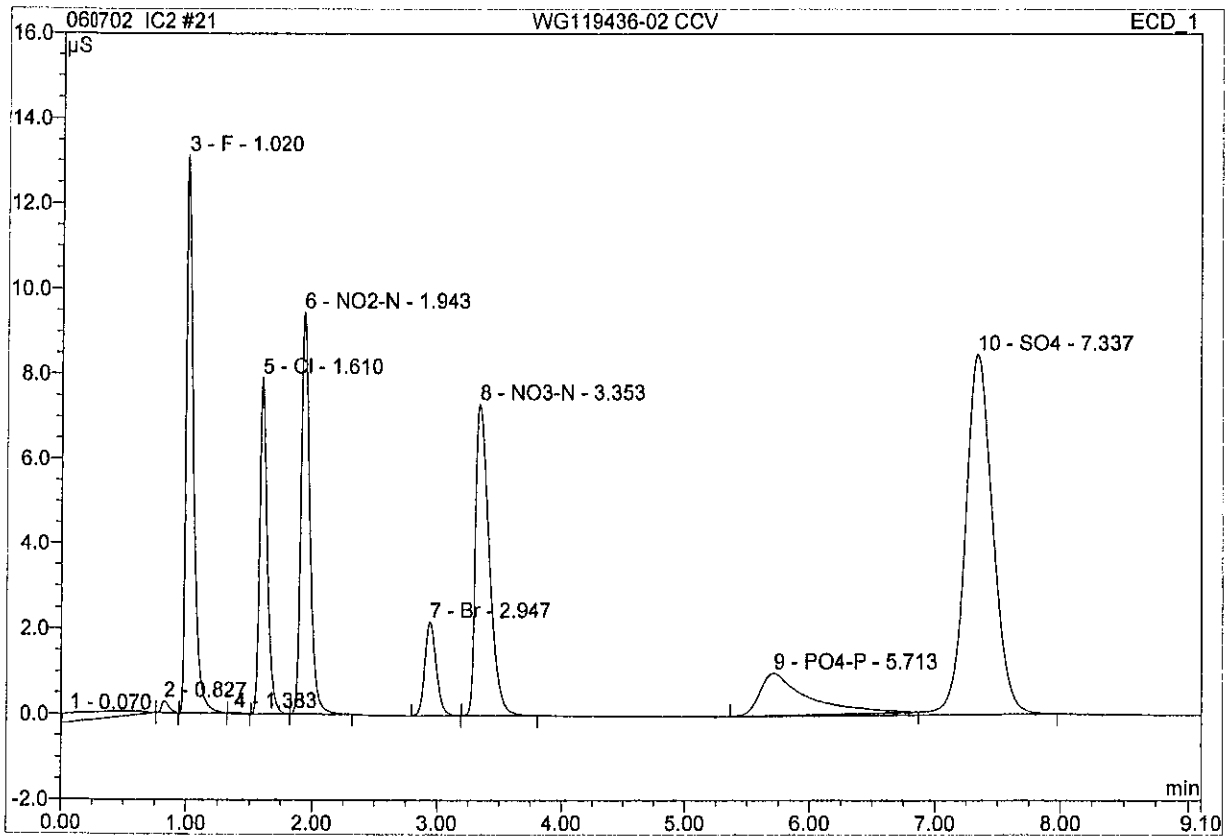
Sample Name:	**WG119436-02 CCV**	*Injection Volume:*	
Vial Number:	**44**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/7/2002 16:47**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG119436-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.0850	1.42	PASS
Cl	6	5.9746	-0.42	PASS
NO2-N	3.65	3.6586	0.23	PASS
Br	6	6.2233	3.72	PASS
NO3-N	4.07	4.1747	2.57	PASS
PO4-P	9.78	6.1560	-37.05	FAIL
SO4	30	31.4306	4.77	PASS

21 WG119436-02 CCV

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119436-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 16:47**	*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 mg/L	Type
1	0.07	n.a.	0.210	0.102	1.67	n.a.	BMB
2	0.83	n.a.	0.269	0.019	0.31	n.a.	bMB
3	1.02	F	13.109	0.865	14.18	6.085	BMB
4	1.38	n.a.	0.029	0.003	0.05	n.a.	BMB
5	1.61	Cl	7.904	0.555	9.10	5.975	BMB
6	1.94	NO2-N	9.455	0.763	12.51	3.659	BMB
7	2.95	Br	2.187	0.230	3.77	6.223	BMB
8	3.35	NO3-N	7.326	0.937	15.37	4.175	BMB
9	5.71	PO4-P	0.986	0.433	7.11	6.156	Ru
10	7.34	SO4	8.456	2.191	35.93	31.431	BMB
Total:			49.932	6.097	100.00	63.703	

22 WG119436-02 CCV

1,1 JWR SOS0059-46 06/07/02

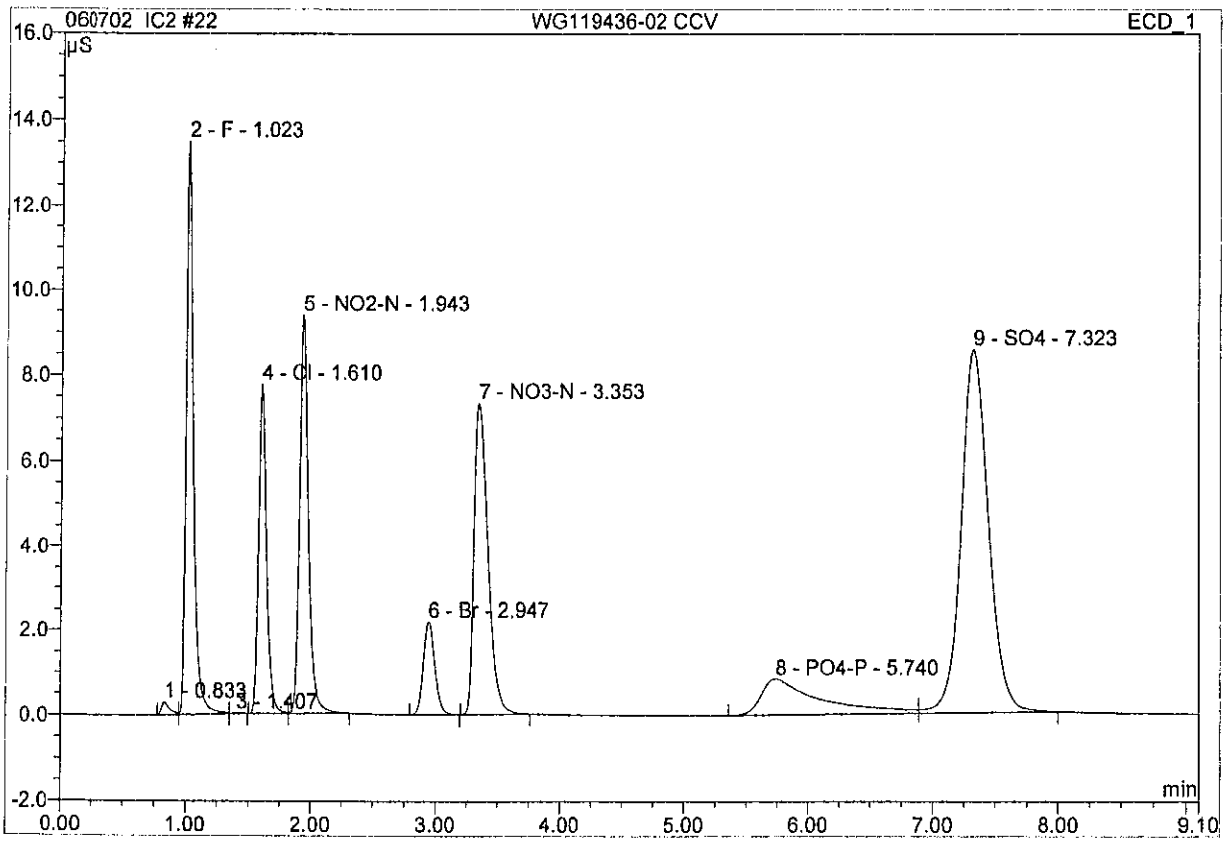
Sample Name:	**WG119436-02 CCV**		*Injection Volume:*
Vial Number:	**45**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/7/2002 17:26**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

WG119436-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.3264	5.44	PASS
Cl	6	6.0059	0.10	PASS
NO2-N	3.65	3.6793	0.80	PASS
Br	6	6.2504	4.17	PASS
NO3-N	4.07	4.1731	2.53	PASS
PO4-P	9.78	6.6257	-32.25	FAIL
SO4	30	31.1254	3.75	PASS

22 WG119436-02 CCV

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119436-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 17:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.299	0.023	0.38	n.a.	BM
2	1.02	F	13.491	0.900	14.86	6.326	M
3	1.41	n.a.	0.024	0.002	0.03	n.a.	MB
4	1.61	Cl	7.755	0.558	9.21	6.006	BM
5	1.94	NO2-N	9.371	0.767	12.67	3.679	MB
6	2.95	Br	2.197	0.231	3.81	6.250	BMB
7	3.35	NO3-N	7.334	0.937	15.47	4.173	BMB
8	5.74	PO4-P	0.842	0.468	7.73	6.626	BM
9	7.32	SO4	8.532	2.169	35.83	31.125	MB
Total:			49.844	6.054	100.00	64.186	

33 WG119436-03 CCV

1,1 JWR SOS0059-46 06/07/02

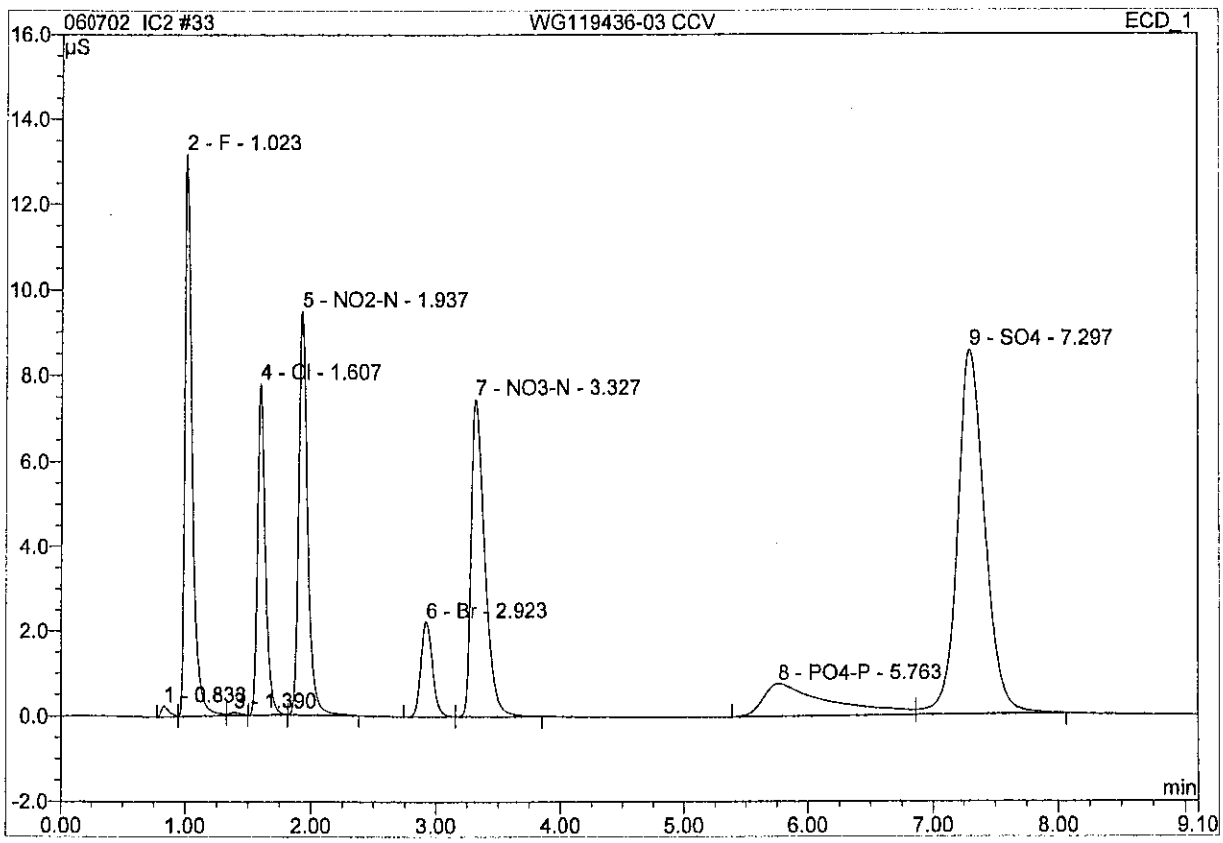
Sample Name:	**WG119436-03 CCV**	*Injection Volume:*	
Vial Number:	**46**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/7/2002 19:38**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG119436-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2762	4.60	PASS
Cl	6	6.0067	0.11	PASS
NO2-N	3.65	3.7027	1.44	PASS
Br	6	6.3077	5.13	PASS
NO3-N	4.07	4.2322	3.99	PASS
PO4-P	9.78	6.3502	-35.07	FAIL
SO4	30	31.1304	3.77	PASS

33 WG119436-03 CCV

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119436-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 19:38**	*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 mg/L	Type
1	0.83	n.a.	0.239	0.018	0.30	n.a.	BM
2	1.02	F	13.180	0.892	14.76	6.276	M
3	1.39	n.a.	0.064	0.006	0.10	n.a.	MB
4	1.61	Cl	7.781	0.558	9.22	6.007	BMB
5	1.94	NO2-N	9.463	0.772	12.77	3.703	BMB
6	2.92	Br	2.230	0.233	3.85	6.308	BM
7	3.33	NO3-N	7.458	0.950	15.71	4.232	MB
8	5.76	PO4-P	0.746	0.448	7.41	6.350	BM
9	7.30	SO4	8.536	2.169	35.88	31.130	MB
Total:			49.699	6.047	100.00	64.006	

44 WG119436-04 CCV

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119436-04 CCV**		*Injection Volume:*
Vial Number:	**53**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/7/2002 21:44**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

WG119436-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.3960	6.60	PASS
Cl	6	6.1692	2.82	PASS
NO2-N	3.65	3.7785	3.52	PASS
Br	6	6.3588	5.98	PASS
NO3-N	4.07	4.2559	4.57	PASS
PO4-P	9.78	6.3936	-34.63	FAIL
SO4	30	31.0177	3.39	PASS

55 WG119436-05 CCV

1,1 JWR SOS0059-46 06/07/02

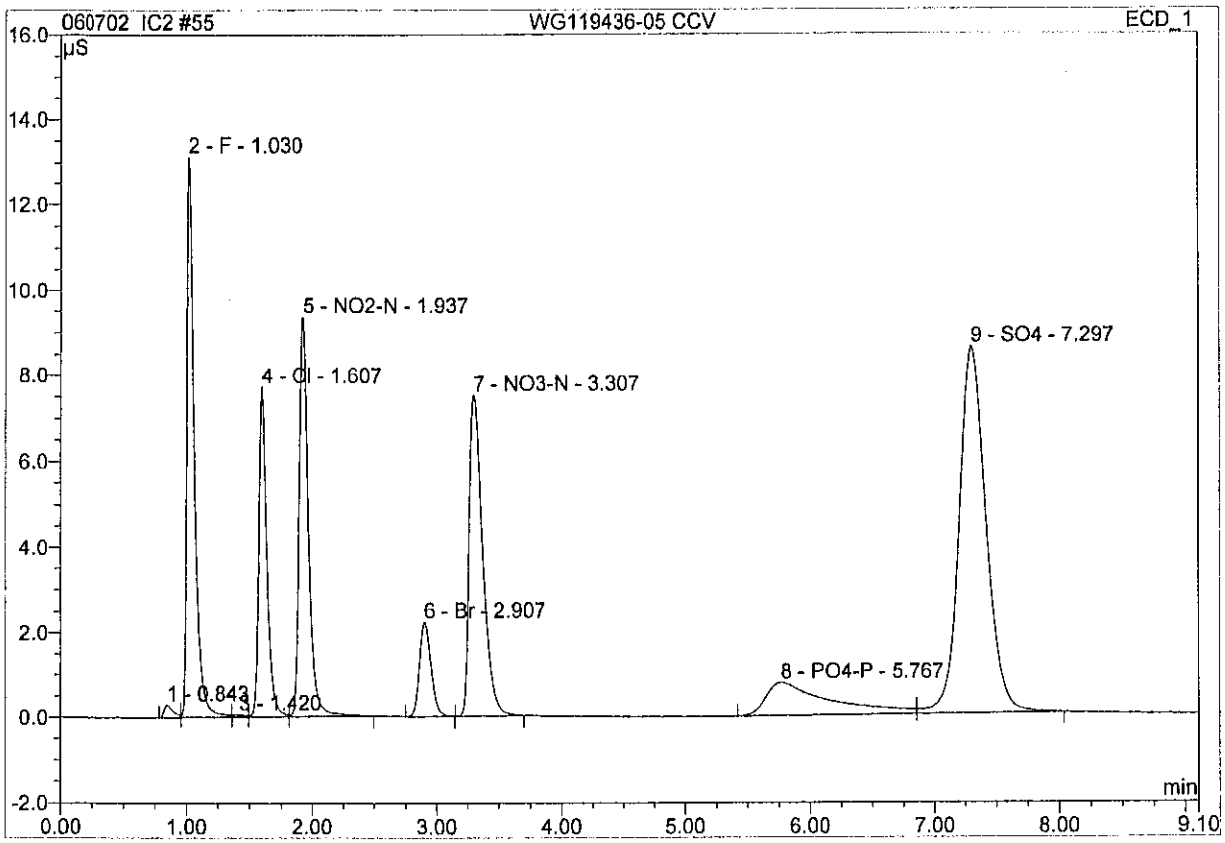
Sample Name:	**WG119436-05 CCV**	*Injection Volume:*	
Vial Number:	**56**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/7/2002 23:51**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG119436-05 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.4359	7.26	PASS
Cl	6	6.1931	3.22	PASS
NO2-N	3.65	3.7879	3.78	PASS
Br	6	6.3020	5.03	PASS
NO3-N	4.07	4.2038	3.29	PASS
PO4-P	9.78	6.3875	-34.69	FAIL
SO4	30	31.0850	3.62	PASS

55 WG119436-05 CCV

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119436-05 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**56**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 23:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.84	n.a.	0.291	0.025	0.41	n.a.	BM
2	1.03	F	13.133	0.916	15.00	6.436	M
3	1.42	n.a.	0.058	0.007	0.11	n.a.	M
4	1.61	Cl	7.707	0.575	9.42	6.193	M
5	1.94	NO2-N	9.344	0.790	12.95	3.788	MB
6	2.91	Br	2.231	0.233	3.81	6.302	BMB
7	3.31	NO3-N	7.488	0.944	15.46	4.204	BMB
8	5.77	PO4-P	0.766	0.451	7.38	6.387	BM
9	7.30	SO4	8.564	2.166	35.47	31.085	MB
Total:			49.582	6.106	100.00	64.395	

11 WG120161-01 CCV

1,1 RDC SOS0060-25

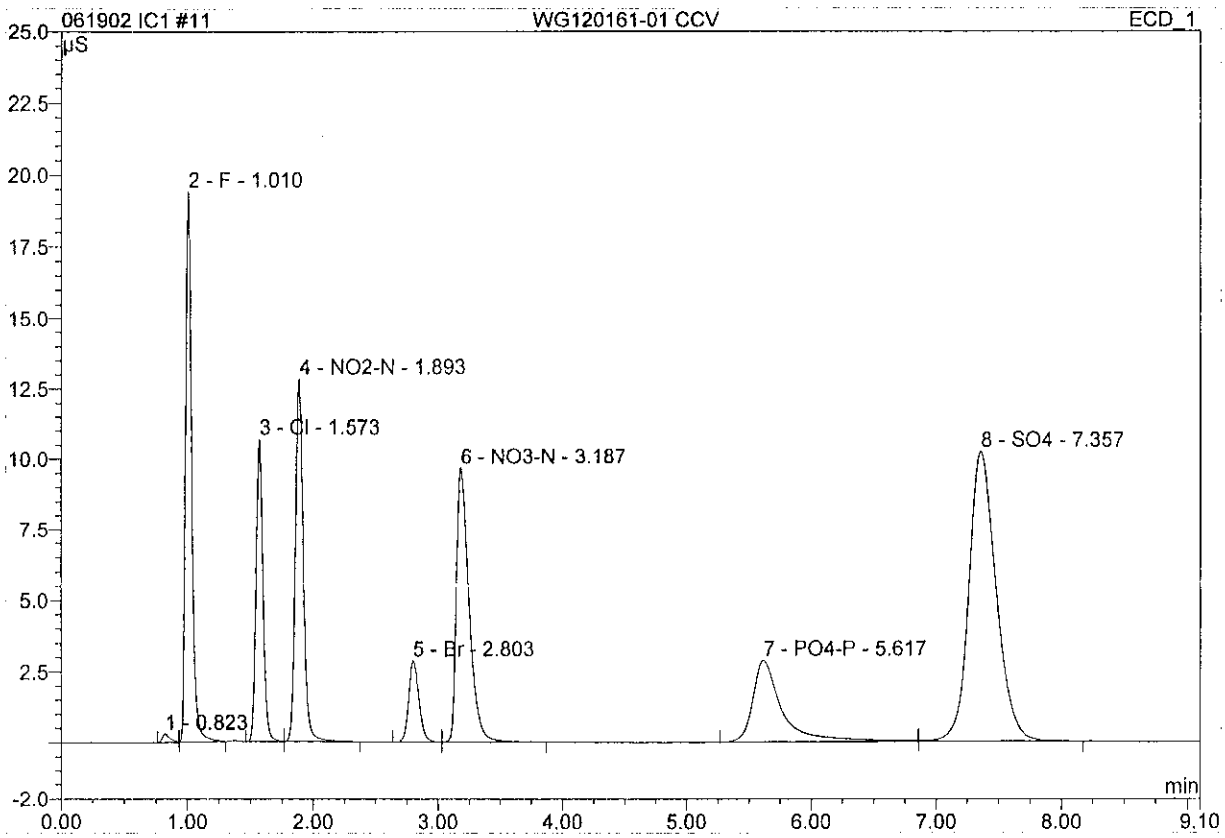
Sample Name:	**WG120161-01 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 16:44**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9354	-1.08	PASS
Cl	6	5.8025	-3.29	PASS
NO2-N	3.65	3.5962	-1.47	PASS
Br	6	6.0127	0.21	PASS
NO3-N	4.07	3.9808	-2.19	PASS
PO4-P	9.78	9.3869	-4.02	PASS
SO4	30	29.2424	-2.53	PASS

11 WG120161-01 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 16:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.298	0.022	0.30	n.a.	BM
2	1.01	F	19.413	1.104	14.69	5.935	MB
3	1.57	Cl	10.676	0.679	9.03	5.802	BM
4	1.89	NO2-N	12.822	0.939	12.49	3.596	MB
5	2.80	Br	2.857	0.276	3.67	6.013	BM
6	3.19	NO3-N	9.652	1.141	15.18	3.981	MB
7	5.62	PO4-P	2.872	0.787	10.47	9.387	BM
8	7.36	SO4	10.205	2.567	34.16	29.242	MB
Total:			68.795	7.515	100.00	63.957	

19 WG120161-02 CCV

1,1 RDC SOS0060-25

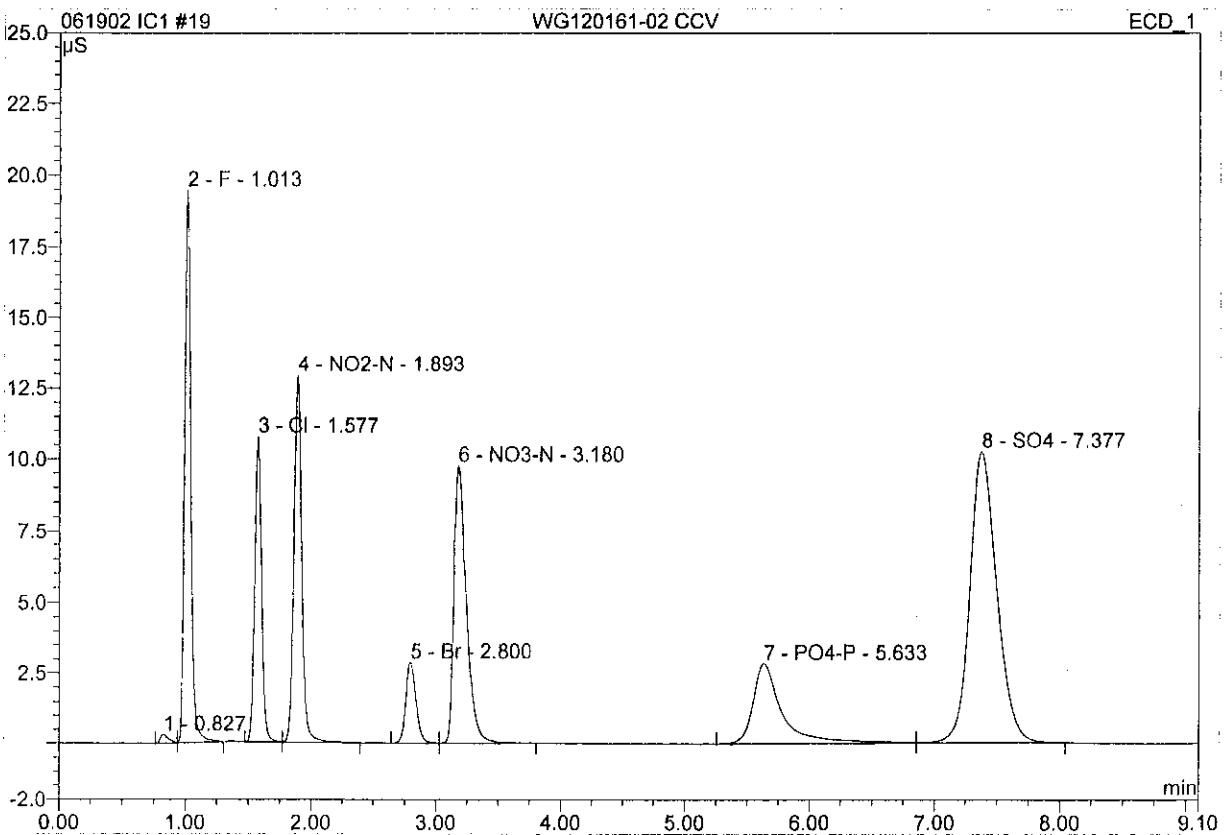
Sample Name:	**WG120161-02 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 18:17**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9512	-0.81	PASS
Cl	6	5.8287	-2.85	PASS
NO2-N	3.65	3.6126	-1.03	PASS
Br	6	6.0287	0.48	PASS
NO3-N	4.07	3.9929	-1.90	PASS
PO4-P	9.78	9.3198	-4.71	PASS
SO4	30	29.1878	-2.71	PASS

19 WG120161-02 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 18:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.301	0.023	0.30	n.a.	BM
2	1.01	F	19.452	1.107	14.73	5.951	MB
3	1.58	Cl	10.746	0.682	9.07	5.829	BM
4	1.89	NO2-N	12.910	0.943	12.54	3.613	MB
5	2.80	Br	2.878	0.277	3.68	6.029	BM
6	3.18	NO3-N	9.737	1.144	15.22	3.993	MB
7	5.63	PO4-P	2.823	0.781	10.39	9.320	BM
8	7.38	SO4	10.211	2.562	34.08	29.188	MB
Total:			69.057	7.519	100.00	63.922	

30 WG120161-03 CCV

1,1 RDC SOS0060-25

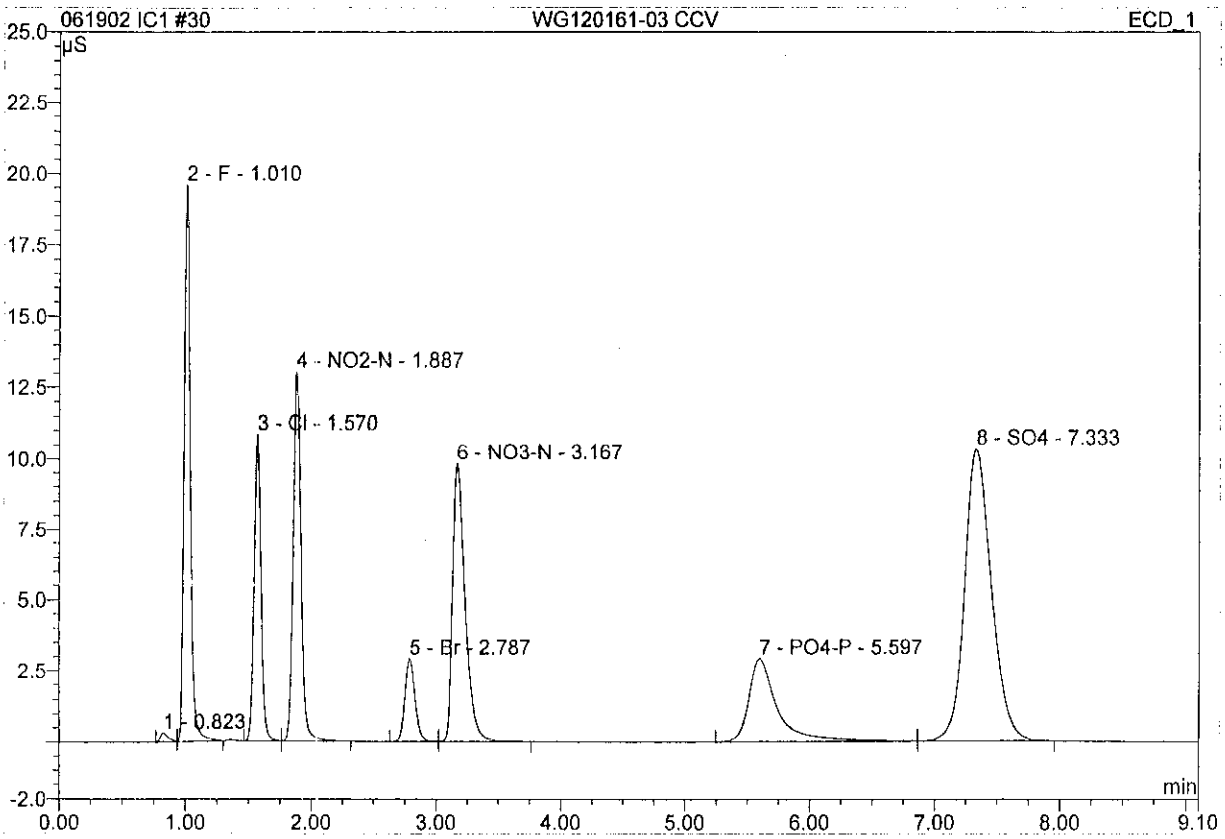
Sample Name:	**WG120161-03 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 20:23**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9894	-0.18	PASS
Cl	6	5.8598	-2.34	PASS
NO2-N	3.65	3.6202	-0.82	PASS
Br	6	6.0343	0.57	PASS
NO3-N	4.07	4.0048	-1.60	PASS
PO4-P	9.78	9.3221	-4.68	PASS
SO4	30	29.2395	-2.53	PASS

30 WG120161-03 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 20:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.307	0.023	0.30	n.a.	BM
2	1.01	F	19.586	1.115	14.78	5.989	MB
3	1.57	Cl	10.826	0.685	9.09	5.860	BM
4	1.89	NO2-N	13.016	0.945	12.53	3.620	MB
5	2.79	Br	2.898	0.277	3.67	6.034	BM
6	3.17	NO3-N	9.816	1.148	15.22	4.005	MB
7	5.60	PO4-P	2.920	0.781	10.36	9.322	BM
8	7.33	SO4	10.315	2.567	34.04	29.240	MB
Total:			69.683	7.541	100.00	64.070	

36 WG120161-04 CCV

1,1 RDC SOS0060-25

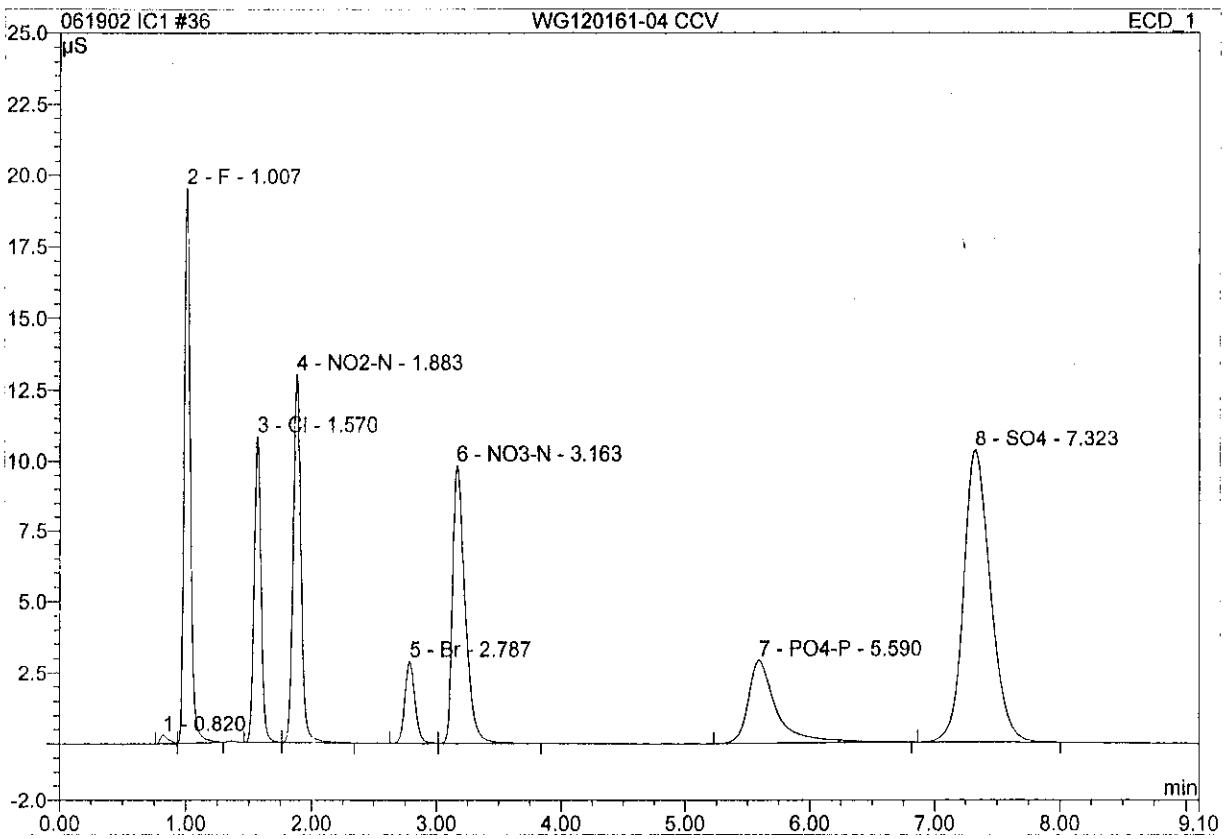
Sample Name:	**WG120161-04 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 21:32**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9777	-0.37	PASS
Cl	6	5.8535	-2.44	PASS
NO2-N	3.65	3.6223	-0.76	PASS
Br	6	6.0524	0.87	PASS
NO3-N	4.07	4.0148	-1.36	PASS
PO4-P	9.78	9.1814	-6.12	PASS
SO4	30	29.1620	-2.79	PASS

36 WG120161-04 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-04 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 21:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.302	0.023	0.30	n.a.	BM
2	1.01	F	19.532	1.112	14.79	5.978	MB
3	1.57	Cl	10.826	0.685	9.10	5.853	BM
4	1.88	NO2-N	13.019	0.946	12.57	3.622	MB
5	2.79	Br	2.900	0.278	3.69	6.052	BM
6	3.16	NO3-N	9.814	1.151	15.30	4.015	MB
7	5.59	PO4-P	2.928	0.769	10.22	9.181	BMB
8	7.32	SO4	10.320	2.560	34.03	29.162	BMB
Total:			69.641	7.523	100.00	63.864	

45 WG120161-05 CCV

1,1 RDC SOS0060-25

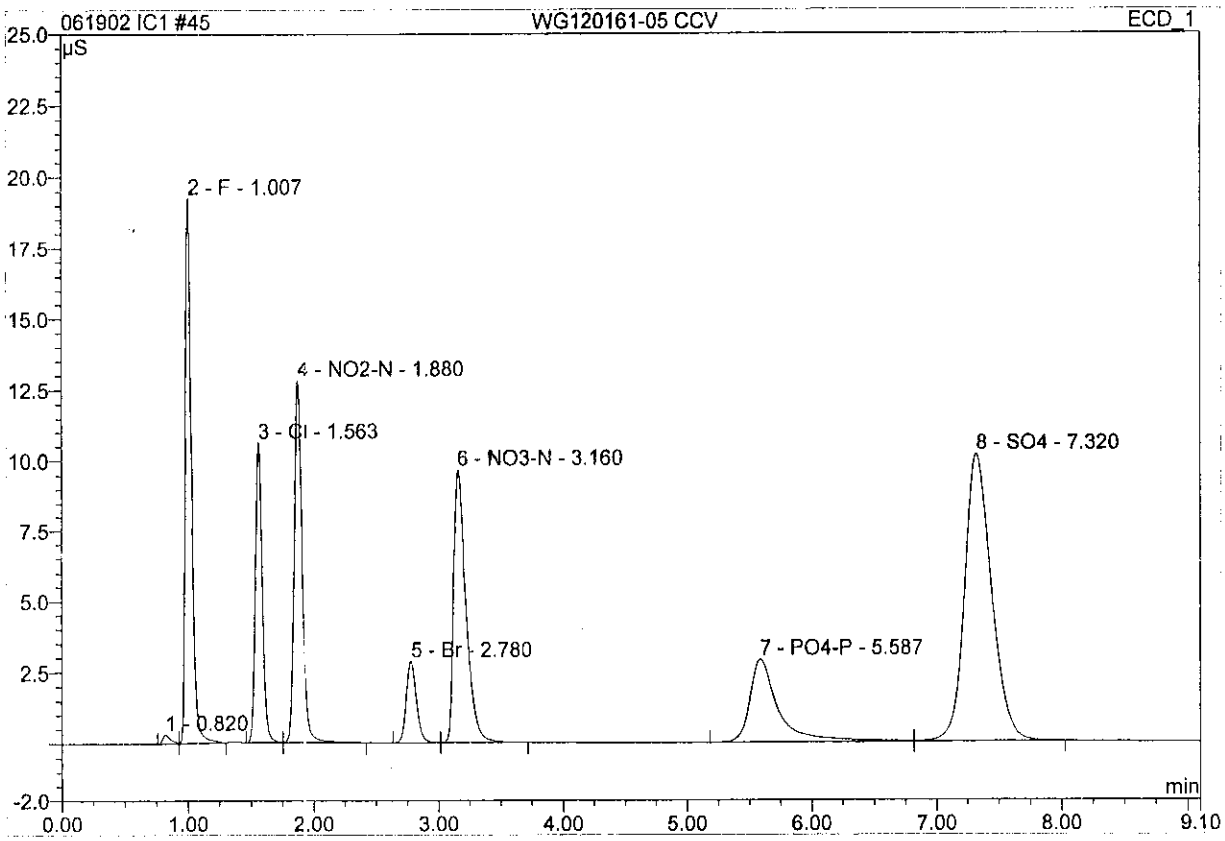
Sample Name:	**WG120161-05 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 23:16**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-05 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8986	-1.69	PASS
Cl	6	5.7835	-3.61	PASS
NO2-N	3.65	3.5793	-1.94	PASS
Br	6	5.9443	-0.93	PASS
NO3-N	4.07	3.9294	-3.46	PASS
PO4-P	9.78	9.3656	-4.24	PASS
SO4	30	28.8273	-3.91	PASS

45 WG120161-05 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-05 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 23:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



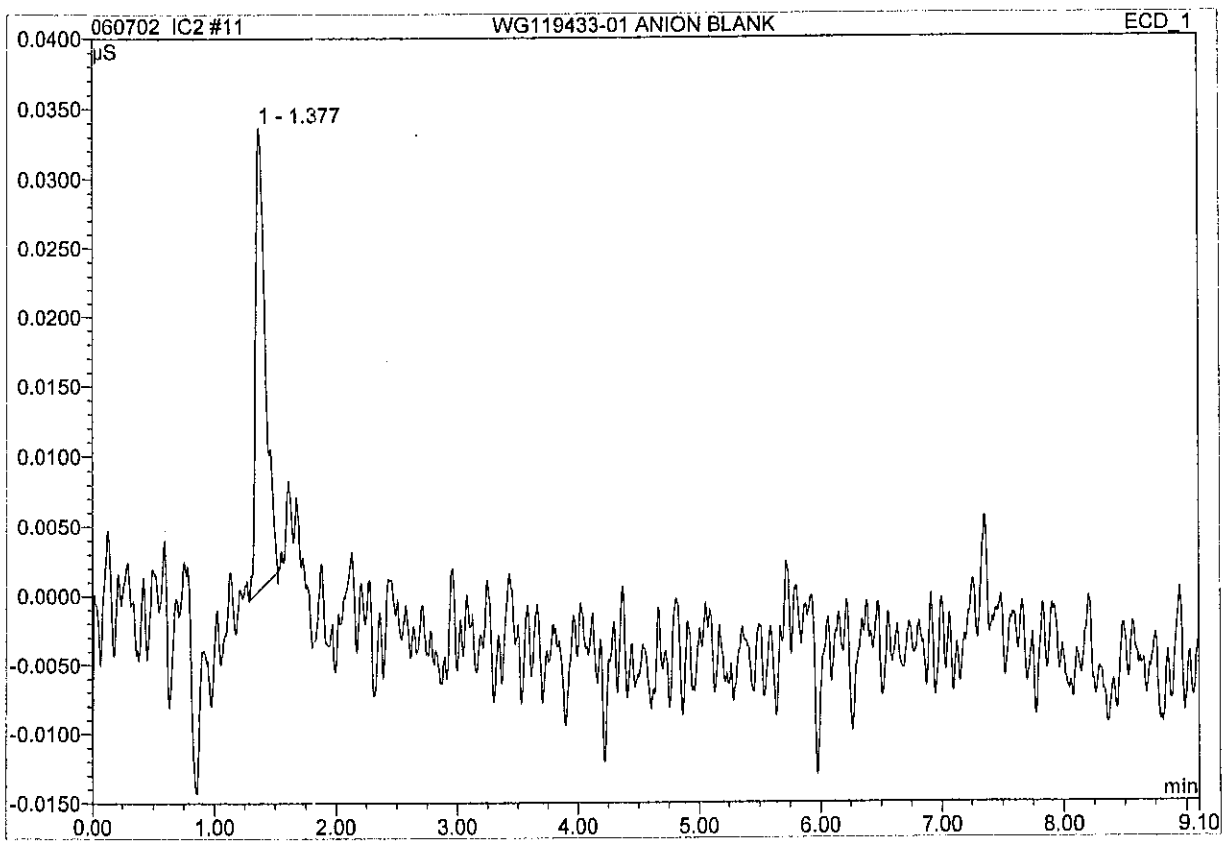
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.313	0.023	0.31	n.a.	BM
2	1.01	F	19.250	1.097	14.74	5.899	MB
3	1.56	Cl	10.630	0.676	9.08	5.783	BM
4	1.88	NO2-N	12.795	0.934	12.55	3.579	MB
5	2.78	Br	2.849	0.273	3.66	5.944	BM
6	3.16	NO3-N	9.645	1.125	15.12	3.929	MB
7	5.59	PO4-P	2.908	0.785	10.55	9.366	BM
8	7.32	SO4	10.140	2.530	33.98	28.827	MB
Total:			68.531	7.444	100.00	63.328	

2.4.5.4 Raw QC Data

11 WG119433-01 ANION BLANK

1,1 JWR 06/07/02

Sample Name:	**WG119433-01 ANION BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 14:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

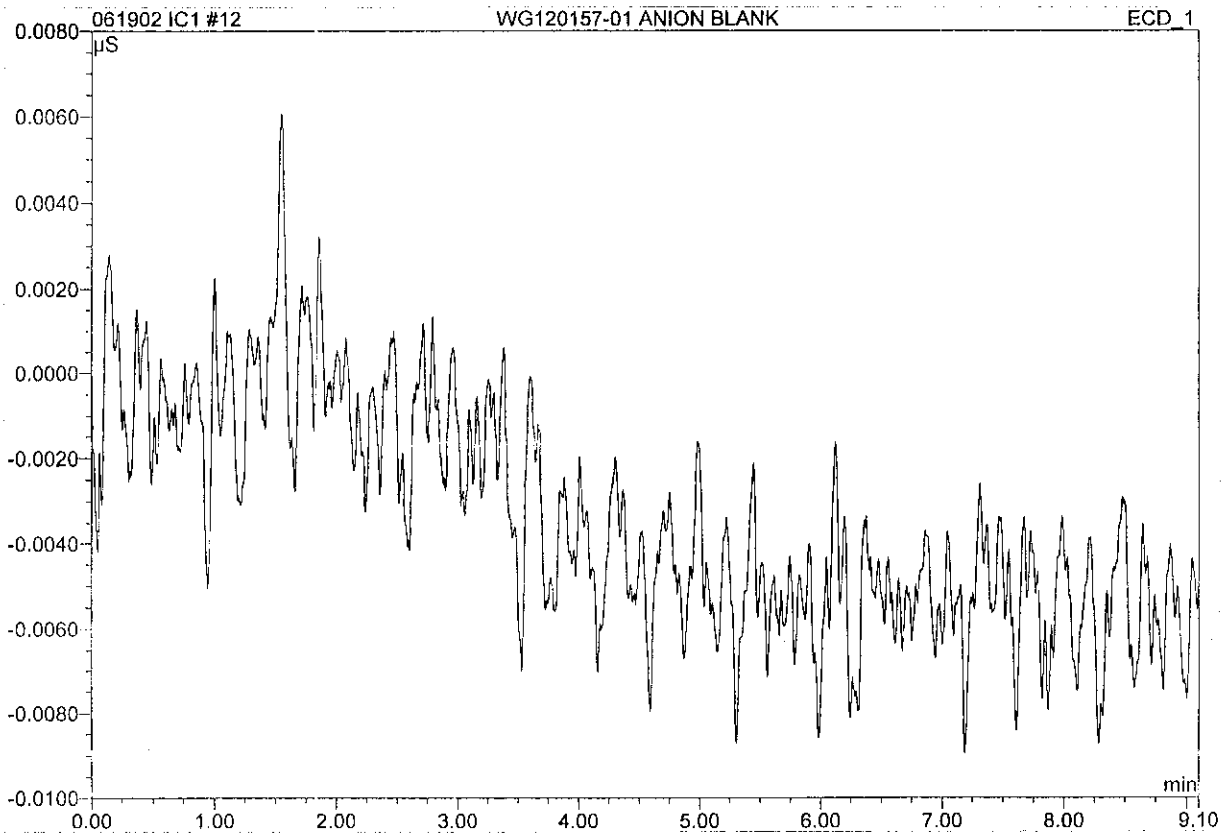


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.38	n.a.	0.033	0.003	100.00	n.a.	BMB
Total:			0.033	0.003	100.00	0.000	

12 WG120157-01 ANION BLANK

1,1 RDC

Sample Name:	**WG120157-01 ANION BLANK**	*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:	**6/19/2002 16:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

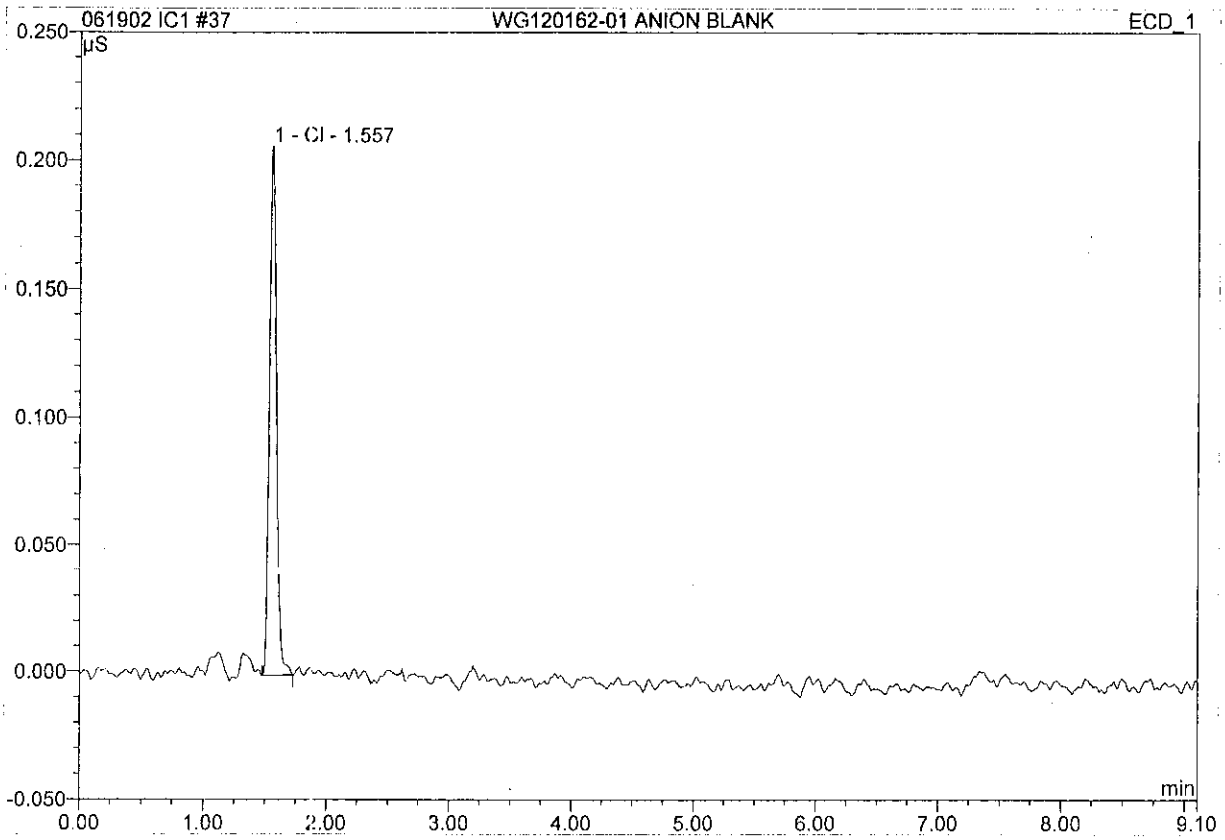


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

37 WG120162-01 ANION BLANK

1,1 RDC

Sample Name:	**WG120162-01 ANION BLANK**	*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:	**6/19/2002 21:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

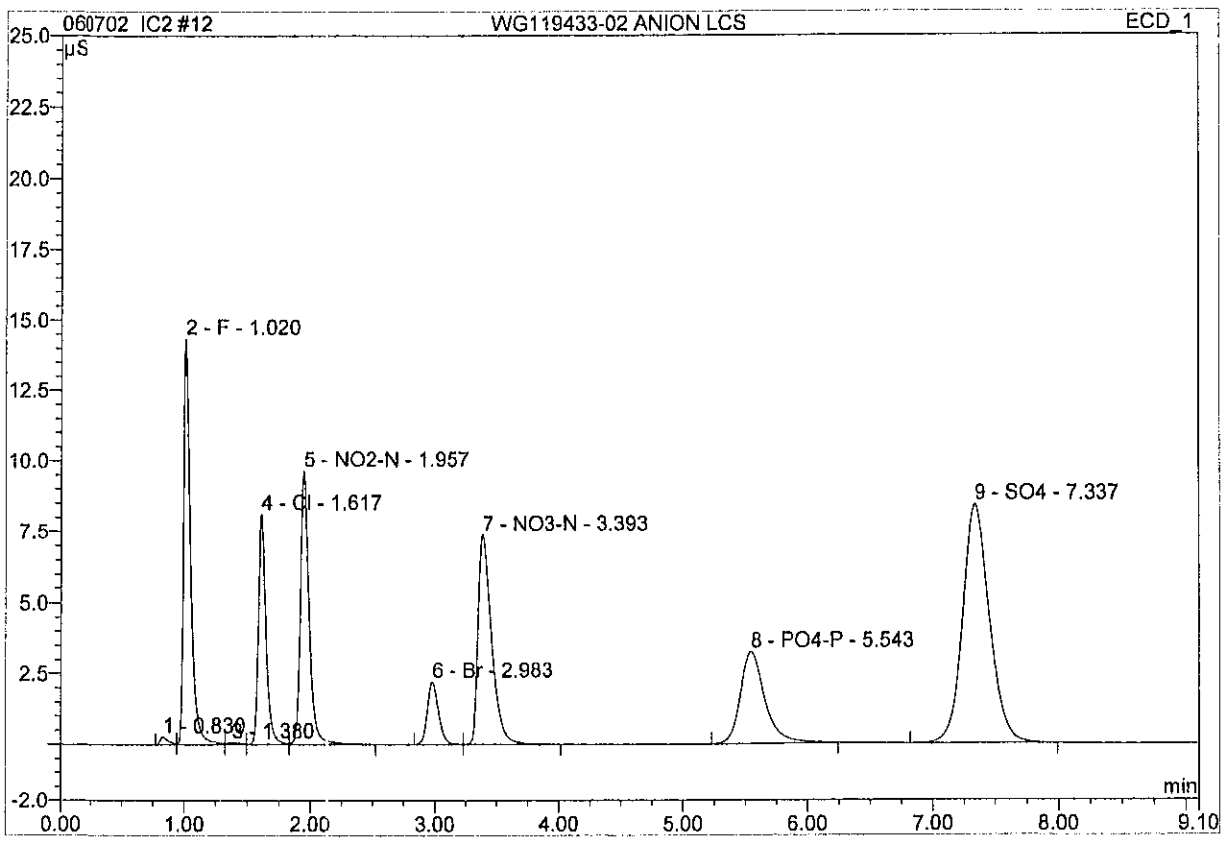


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.56 Cl		0.207	0.014	100.00	0.313	BMB
Total:			0.207	0.014	100.00	0.313	

12 WG119433-02 ANION LCS

1,1 JWR SOS0059-46 06/07/02

Sample Name:	**WG119433-02 ANION LCS**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 15:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

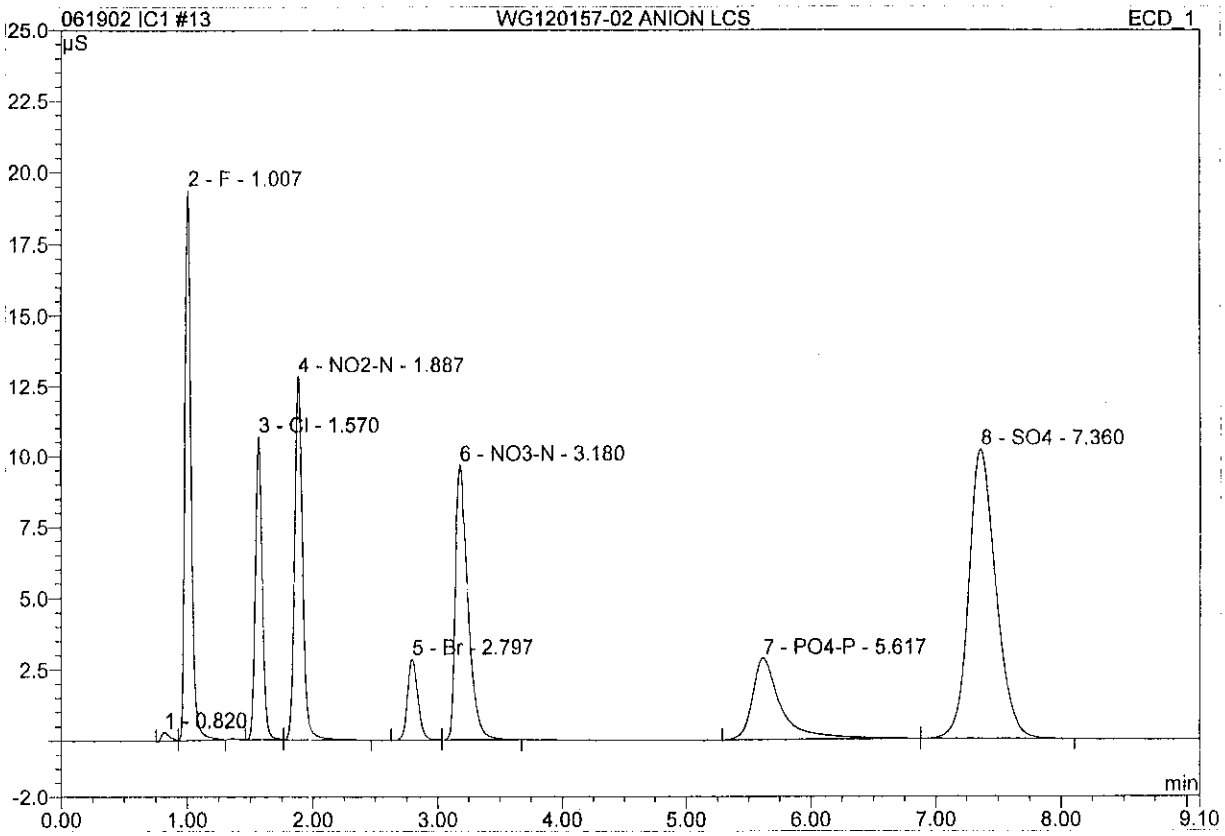


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.270	0.021	0.33	n.a.	BM
2	1.02	F	14.348	0.923	14.49	6.485	M
3	1.38	n.a.	0.082	0.010	0.16	n.a.	M
4	1.62	Cl	8.119	0.573	9.01	6.173	M
5	1.96	NO2-N	9.640	0.794	12.47	3.806	MB
6	2.98	Br	2.218	0.235	3.69	6.364	BM
7	3.39	NO3-N	7.378	0.959	15.05	4.269	MB
8	5.54	PO4-P	3.253	0.740	11.63	10.321	BMB
9	7.34	SO4	8.402	2.112	33.16	30.326	BMB
Total:			53.710	6.368	100.00	67.742	

13 WG120157-02 ANION LCS

1,1 RDC SOS0060-25

Sample Name:	**WG120157-02 ANION LCS**	*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:	**6/19/2002 17:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

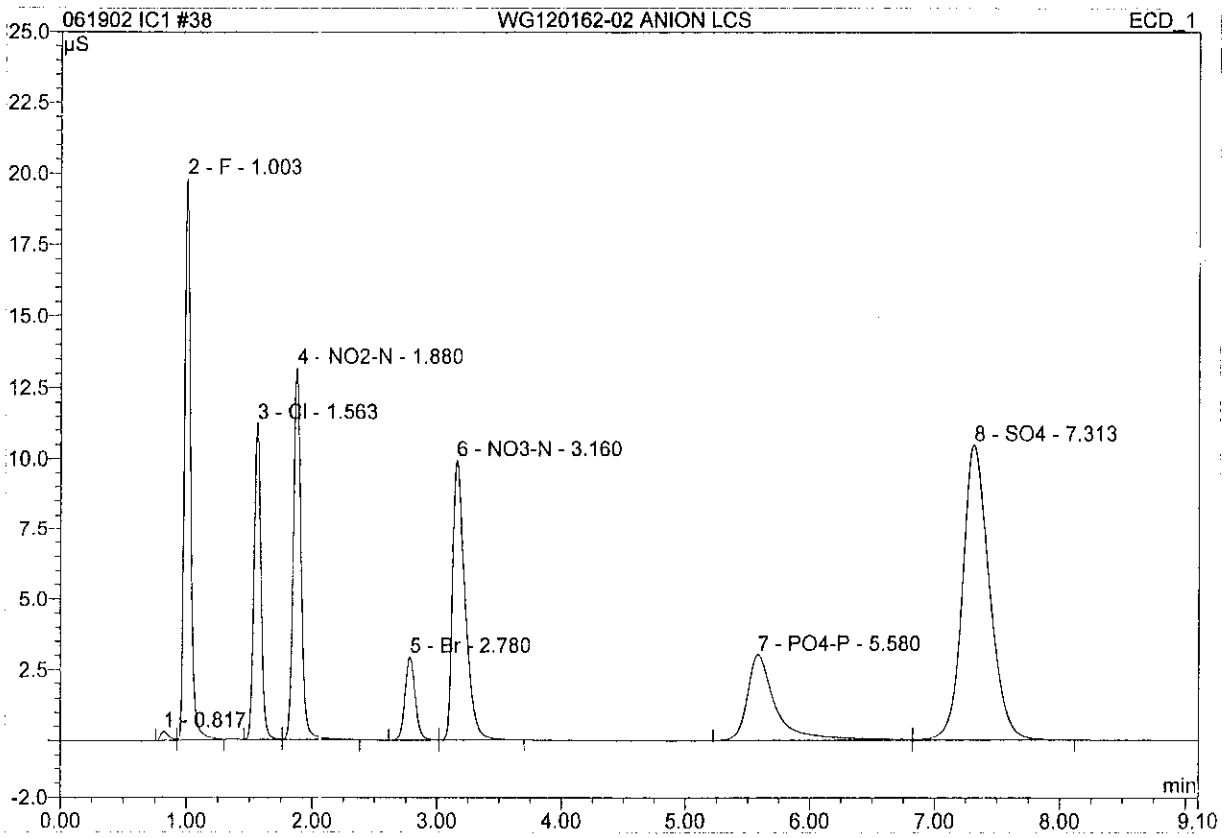


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.302	0.023	0.31	n.a.	BM
2	1.01	F	19.368	1.105	14.81	5.938	MB
3	1.57	Cl	10.665	0.679	9.10	5.805	BM
4	1.89	NO2-N	12.826	0.942	12.62	3.607	MB
5	2.80	Br	2.856	0.275	3.69	5.996	BM
6	3.18	NO3-N	9.652	1.134	15.19	3.957	MB
7	5.62	PO4-P	2.865	0.762	10.22	9.111	BMB
8	7.36	SO4	10.163	2.542	34.07	28.965	BMB
Total:			68.698	7.461	100.00	63.378	

38 WG120162-02 ANION LCS

1,1 RDC SOS0060-25

Sample Name:	**WG120162-02 ANION LCS**	*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:	**6/19/2002 21:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

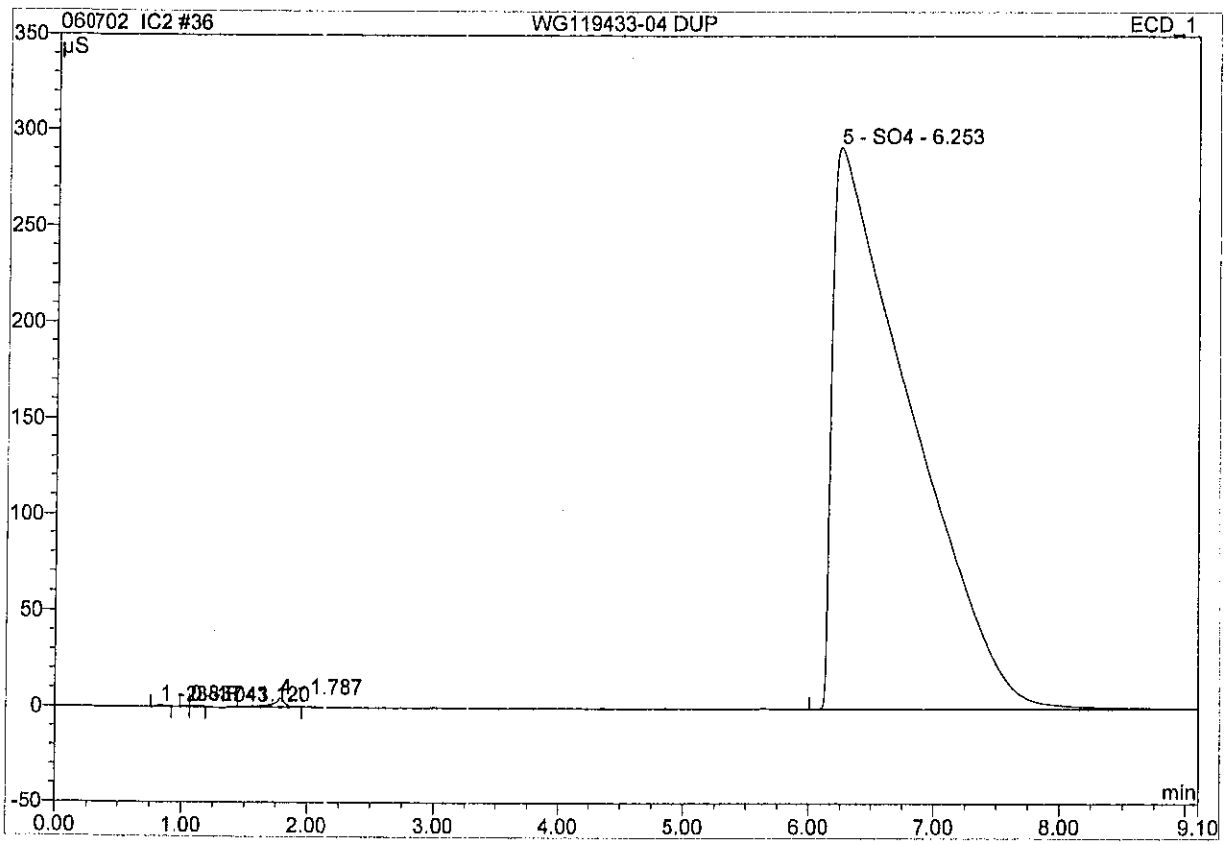


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.325	0.024	0.32	n.a.	BM
2	1.00	F	19.804	1.130	14.70	6.071	MB
3	1.56	Cl	11.222	0.714	9.29	6.096	BM
4	1.88	NO2-N	13.146	0.961	12.50	3.679	MB
5	2.78	Br	2.927	0.281	3.65	6.121	BM
6	3.16	NO3-N	9.911	1.161	15.10	4.048	MB
7	5.58	PO4-P	3.008	0.805	10.47	9.584	BM
8	7.31	SO4	10.451	2.613	33.98	29.744	MB
Total:			70.795	7.689	100.00	65.343	

36 WG119433-04 DUP

1,1 JWR DUP of L0206140-11

Sample Name:	**WG119433-04 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/7/2002 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 mg/L	Type
1	0.84	n.a.	0.820	0.058	0.03	n.a.	BM
2	1.04	n.a.	0.466	0.027	0.01	n.a.	BM
3	1.12	F	0.633	0.056	0.03	0.538	MB
4	1.79	n.a.	4.606	0.509	0.24	n.a.	BM
5	6.25	SO4	291.609	211.816	99.69	2958.977	BMB
Total:			298.134	212.467	100.00	2959.516	

Sequence: 060702 IC2
Operator: Analyst
Printed: 6/18/2002 13:09:01

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	5/21/2002 17:13:47
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	5/21/2002 17:25:17
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	5/21/2002 17:36:47
4	ANION STD #4	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:48:17
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:59:47
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	5/21/2002 18:11:17
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	5/21/2002 18:30:18
8	ANION ALT STD	Unknown	36	25.0	9056	9056	Finished	5/21/2002 18:41:48
9	ELUENT BLANK	Unknown	44	25.0	9056	9056	Finished	6/7/2002 14:29:16
10	WG119436-01 CCV	Unknown	41	25.0	9056	9056	Finished	6/7/2002 14:40:46
11	WG119433-01 ANION BLANK	Unknown	43	25.0	9056	9056	Finished	6/7/2002 14:52:38
12	WG119433-02 ANION LCS	Unknown	43	25.0	9056	9056	Finished	6/7/2002 15:04:08
13	L0206124-04	Unknown	44	25.0	9056	9056	Finished	6/7/2002 15:15:38
14	L0206124-06	Unknown	44	25.0	9056	9056	Finished	6/7/2002 15:27:08
15	L0206135-01	Unknown	45	25.0	9056	9056	Finished	6/7/2002 15:38:39
16	L0206135-03	Unknown	44	25.0	9056	9056	Finished	6/7/2002 15:50:09
17	L0206135-05 (ER)	Unknown	44	25.0	9056	9056	Finished	6/7/2002 16:01:40
18	L0206140-01	Unknown	43	25.0	9056	9056	Finished	6/7/2002 16:13:10
19	L0206140-02	Unknown	44	25.0	9056	9056	Finished	6/7/2002 16:24:39
20	L0206140-03	Unknown	43	25.0	9056	9056	Finished	6/7/2002 16:36:10
21	WG119436-02 CCV	Unknown	44	25.0	9056	9056	Finished	6/7/2002 16:47:40
22	WG119436-02 CCV	Unknown	45	25.0	9056	9056	Finished	6/7/2002 17:26:28
23	L0206140-04	Unknown	45	25.0	9056	9056	Finished	6/7/2002 17:37:59
24	L0206140-05	Unknown	46	25.0	9056	9056	Finished	6/7/2002 17:49:29
25	L0206140-06	Unknown	46	25.0	9056	9056	Finished	6/7/2002 18:06:26
26	WG119433-05 L0206140-07 REF	Unknown	47	25.0	9056	9056	Finished	6/7/2002 18:17:56
27	L0206140-08 RAC 6/17/02	Unknown	45	25.0	9056	9056	Finished	6/7/2002 18:29:26
28	L0206140-09	Unknown	46	25.0	9056	9056	Finished	6/7/2002 18:40:56
29	L0206140-10	Unknown	47	25.0	9056	9056	Finished	6/7/2002 18:52:26
30	WG119433-03 L0206140-11 REF	Unknown	47	25.0	9056	9056	Finished	6/7/2002 19:03:56
31	L0206140-12	Unknown	48	25.0	9056	9056	Finished	6/7/2002 19:15:26
32	L0206140-13 (EB)	Unknown	48	25.0	9056	9056	Finished	6/7/2002 19:26:56
33	WG119436-03 CCV	Unknown	46	25.0	9056	9056	Finished	6/7/2002 19:38:26
34	WG119433-06 L0206140-17 MS	Unknown	47	25.0	9056	9056	Finished	6/7/2002 19:49:56
35	WG119433-07 L0206140-18 MSD	Unknown	48	25.0	9056	9056	Finished	6/7/2002 20:01:26
36	WG119433-04 DUP	Unknown	48	25.0	9056	9056	Finished	6/7/2002 20:12:55
37	L0206124-04 RR@1/10 CL,SO4	Unknown	49	25.0	9056	9056	Finished	6/7/2002 20:24:25
38	L0206124-06 RR@1/10 CL,SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 20:35:55
39	L0206135-01 RR@1/10 CL,SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 20:47:25
40	L0206135-03 RR@1/10 CL,SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 20:58:55
41	L0206140-03 RR@1/100 for SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 21:10:25
42	L0206140-04 RR@1/100 for SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 21:21:55

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

KEMRON Environmental Services, Inc.

Work Group Report (wk02)

19-JUN-02 03:45 PM

Work Group: WG120161 **Created:** 19-JUN-02

Department: 9 Semivolatile - GC **Operator:** rdc **Due:**

Sample	Account Name	C	Product	QC Key	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG120161-01	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-02	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-03	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-04	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-05	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		
WG120161-06	CCV	S	9056QC	STD	1	Water	DONE	U	19-JUN-02		

Comments:

Sequence: 060702 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC ANION STD SOS0059-46
2	ANION STD #2	1.0000		1,1 RDC ANION STD SOS0059-46
3	ANION STD #3	1.0000		1,1 RDC ANION STD SOS0059-46
4	ANION STD #4	1.0000		1,1 RDC ANION STD SOS0059-46
5	ANION STD #5	1.0000		1,1 RDC ANION STD SOS0059-46
6	ANION STD #6	1.0000		1,1 RDC ANION STD SOS0059-46
7	ELUENT BLANK	1.0000		1,1 RDC
8	ANION ALT STD	1.0000		1,1 RDC ANION ALT STD SOS0059-44
9	ELUENT BLANK	1.0000		1,1 JWR
10	WG119436-01 CCV	1.0000		1,1 JWR SOS0059-46 06/07/02
11	WG119433-01 ANION BLANK	1.0000		1,1 JWR 06/07/02
12	WG119433-02 ANION LCS	1.0000		1,1 JWR SOS0059-46 06/07/02
13	L0206124-04	1.0000	RR5X	1,1 JWR
14	L0206124-06	1.0000	RR5X	1,1 JWR
15	L0206135-01	1.0000	RR10X	1,1 JWR
16	L0206135-03	1.0000	RR10X	1,1 JWR
17	L0206135-05 (ER)	1.0000		1,1 JWR
18	L0206140-01	1.0000		1,1 JWR
19	L0206140-02	1.0000		1,1 JWR
20	L0206140-03	1.0000		1,1 JWR
21	WG119436-02 CCV	1.0000	CC	1,1 JWR SOS0059-46 06/07/02 CC
22	WG119436-02 CCV	1.0000	CC	1,1 JWR SOS0059-46 06/07/02 CC
23	L0206140-04	1.0000	RR	1,1 JWR
24	L0206140-05	1.0000		1,1 JWR
25	L0206140-06	1.0000		1,1 JWR
26	WG119433-05 L0206140-07 REF	1.0000		1,1 JWR REF for MS/MSD
27	L0206140-08	1.0000		1,1 JWR
28	L0206140-09	1.0000		1,1 JWR
29	L0206140-10	1.0000		1,1 JWR
30	WG119433-03 L0206140-11 REF	1.0000		1,1 JWR REF for DUP
31	L0206140-12	1.0000		1,1 JWR
32	L0206140-13 (EB)	1.0000		1,1 JWR
33	WG119436-03 CCV	1.0000	CC	1,1 JWR SOS0059-46 06/07/02
34	WG119433-06 L0206140-17 MS	1.0000	RR	1,1 JWR MS of L0206140-07
35	WG119433-07 L0206140-18 MSD	1.0000		1,1 JWR MSD of L0206140-07
36	WG119433-04 DUP	1.0000		1,1 JWR DUP of L0206140-11
37	L0206124-04 RR@1/10 CL,SO4	1.0000		1,10 JWR
38	L0206124-06 RR@1/10 CL,SO4	1.0000		1,10 JWR
39	L0206135-01 RR@1/10 CL,SO4	1.0000		1,10 JWR
40	L0206135-03 RR@1/10 CL,SO4	1.0000		1,10 JWR
41	L0206140-03 RR@1/100 for SO4	1.0000		1,100 JWR (for SO4 Coellution over PO4)
42	L0206140-04 RR@1/100 for SO4	1.0000		1,100 JWR (for SO4 Coellution over PO4)

RR PO4-P

PO4-P low

PO4-P low

6/18/02 RJC

Sequence: 060702 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	L0206140-11 RR@1/100 for SO4	Unknown	50	25.0	9056	9056	Finished	6/7/2002 21:33:25
44	WG119436-04 CCV	Unknown	53	25.0	9056	9056	Finished	6/7/2002 21:44:55
45	L0206052-09 RR@1/500 CL	Unknown	54	25.0	9056	9056	Finished	6/7/2002 21:56:25
46	L0206052-11 RR@1/500 CL	Unknown	55	25.0	9056	9056	Finished	6/7/2002 22:07:55
47	L0206052-13 RR@1/500 CL	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:19:26
48	L0206052-17 RR@1/500 CL	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:30:56
49	L0206052-19 RR@1/500 CL	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:42:25
50	L0206052-09 RR@1/10 SO4	Unknown	56	25.0	9056	9056	Finished	6/7/2002 22:53:56
51	L0206052-11 RR@1/5 SO4	Unknown	56	25.0	9056	9056	Finished	6/7/2002 23:05:26
52	L0206052-13 RR@1/20 SO4	Unknown	55	25.0	9056	9056	Finished	6/7/2002 23:16:56
53	L0206052-17 RR@1/5 SO4	Unknown	55	25.0	9056	9056	Finished	6/7/2002 23:28:27
54	L0206052-19 RR@1/10 SO4	Unknown	55	25.0	9056	9056	Finished	6/7/2002 23:39:57
55	WG119436-05 CCV	Unknown	56	25.0	9056	9056	Finished	6/7/2002 23:51:27
56	END	Unknown	41	25.0	DX-320 OFF	9056	Finished	6/8/2002 00:02:56

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 56

Created: 6/7/2002 13:52:37 by Analyst
Last Update: 6/18/2002 13:00:44 by Analyst

No.	Name	Dil. Factor	Sample ID	Comment
43	L0206140-11 RR@1/100 for SO4	1.0000	✓	1,100 JWR (for SO4 Coellution over PO4)
44	WG119436-04 CCV	1.0000	cc	1,1 JWR SOS0059-46 06/07/02 PO4-P low
45	L0206052-09 RR@1/500 CL	1.0000	✓	1,500 JWR
46	L0206052-11 RR@1/500 CL	1.0000	✓	1,500 JWR
47	L0206052-13 RR@1/500 CL	1.0000	✓	1,500 JWR
48	L0206052-17 RR@1/500 CL	1.0000	✓	1,500 JWR
49	L0206052-19 RR@1/500 CL	1.0000	✓	1,500 JWR
50	L0206052-09 RR@1/10 SO4	1.0000	✓	1,10 JWR
51	L0206052-11 RR@1/5 SO4	1.0000	✓	1,5 JWR
52	L0206052-13 RR@1/20 SO4	1.0000	✓	1,20 JWR
53	L0206052-17 RR@1/5 SO4	1.0000	✓	1,5 JWR
54	L0206052-19 RR@1/10 SO4	1.0000	✓	1,10 JWR
55	WG119436-05 CCV	1.0000	cc	1,1 JWR SOS0059-46 06/07/02 PO4-P low
56	END	1.0000		1,1 JWR

RQC
6/18/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time JUNE 7, 2002 Instrument ID IC2 Column ID AG4A-SC / AS4A-SC Data Subdirectory 060702
Analyst Initials JWR SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☐ Mobile phase reservoir
- ☑ System pressure 1306 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

Several samples contained very large amt. of SO_4. Samples were highly colored with iron. High metals content fouled the column & affected PO_4-P recoveries. Samples will need RR out of hold for phosphate.

all but initial CCV failed low for PO_4-P

Reviewed By: SK 6/9/02

Sequence: 061902 IC1
Operator: Analyst
Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	Anion std. #1	Standard	1	25.0	9056	9056	Finished	6/18/2002 15:41:21
2	Anion std. #2	Standard	2	25.0	9056	9056	Finished	6/18/2002 15:52:52
3	Anion std. #3	Standard	3	25.0	9056	9056	Finished	6/18/2002 16:04:23
4	Anion std. #4	Standard	4	25.0	9056	9056	Finished	6/18/2002 16:15:53
5	Anion std. #5	Standard	5	25.0	9056	9056	Finished	6/18/2002 16:27:24
6	Anion std. #6	Standard	6	25.0	9056	9056	Finished	6/18/2002 16:38:55
7	eluent blank	Unknown	9	25.0	9056	9056	Finished	6/18/2002 16:52:46
8	Alt anion std.	Unknown	8	25.0	9056	9056	Finished	6/18/2002 18:09:19
9	DI H2O	Unknown	12	25.0	9056	9056	Finished	6/19/2002 16:21:25
10	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:32:56
11	WG120161-01 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:44:26
12	WG120157-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 16:55:57
13	WG120157-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 17:07:28
14	WG120157-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 17:19:36
15	WG120157-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 17:31:07
16	L0206334-06 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:42:37
17	L0206334-07 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:54:08
18	L0206334-08 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:05:39
19	WG120161-02 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:17:09
20	WG120157-05 REF for MS/MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:28:40
21	WG120157-06 MS	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:40:10
22	WG120157-07 MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:51:41
23	L0206140-01 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:03:11
24	L0206140-02 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:14:42
25	L0206140-06 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:26:13
26	L0206140-08 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:37:43
27	L0206140-09 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:49:13
28	L0206140-10 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:00:44
29	L0206140-12 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:12:14
30	WG120161-03 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 20:23:45
31	L0206140-13 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:35:16
32	L0206140-03 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:46:47
33	L0206140-04 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:58:18
34	L0206140-05 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:09:48
35	L0206140-11 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:21:19
36	WG120161-04 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 21:32:50
37	WG120162-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 21:44:20
38	WG120162-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 21:55:51
39	WG120162-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:07:21
40	WG120162-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 22:18:52
41	WG120162-05 REF for MS/MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:30:23
42	WG120162-06 MS	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:41:53

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
1	Anion std. #1	1.0000	1.0000	1.0000		
2	Anion std. #2	1.0000	1.0000	1.0000		
3	Anion std. #3	1.0000	1.0000	1.0000		
4	Anion std. #4	1.0000	1.0000	1.0000		
5	Anion std. #5	1.0000	1.0000	1.0000		
6	Anion std. #6	1.0000	1.0000	1.0000		
7	eluent blank	1.0000	1.0000	1.0000		
8	Alt anion std.	1.0000	1.0000	1.0000		
9	DI H2O	1.0000	1.0000	1.0000		
10	ELUENT BLANK	1.0000	1.0000	1.0000		
11	WG120161-01 CCV	1.0000	1.0000	1.0000		
12	WG120157-01 ANION BLANK	1.0000	1.0000	1.0000		
13	WG120157-02 ANION LCS	1.0000	1.0000	1.0000		
14	WG120157-03 REF for DUP	1.0000	1.0000	1.0000		
15	WG120157-04 DUP	1.0000	1.0000	1.0000		
16	L0206334-06 9056W	1.0000	1.0000	1.0000		
17	L0206334-07 9056W	1.0000	1.0000	1.0000		
18	L0206334-08 9056W	1.0000	1.0000	1.0000		
19	WG120161-02 CCV	1.0000	1.0000	1.0000		
20	WG120157-05 REF for MS/MSD	1.0000	1.0000	1.0000		
21	WG120157-06 MS	1.0000	1.0000	1.0000		
22	WG120157-07 MSD	1.0000	1.0000	1.0000		
23	L0206140-01 9056W RR	1.0000	1.0000	1.0000		
24	L0206140-02 9056W RR	1.0000	1.0000	1.0000		
25	L0206140-06 9056W RR	1.0000	1.0000	1.0000		
26	L0206140-08 9056W RR	1.0000	1.0000	1.0000		
27	L0206140-09 9056W RR	1.0000	1.0000	1.0000		
28	L0206140-10 9056W RR	1.0000	1.0000	1.0000		
29	L0206140-12 9056W RR	1.0000	1.0000	1.0000		
30	WG120161-03 CCV	1.0000	1.0000	1.0000		
31	L0206140-13 9056W RR	1.0000	1.0000	1.0000		
32	L0206140-03 @ 100X	1.0000	1.0000	1.0000		
33	L0206140-04 @ 100X	1.0000	1.0000	1.0000		
34	L0206140-05 @ 100X	1.0000	1.0000	1.0000		
35	L0206140-11 @ 100X	1.0000	1.0000	1.0000		
36	WG120161-04 CCV	1.0000	1.0000	1.0000		
37	WG120162-01 ANION BLANK	1.0000	1.0000	1.0000		
38	WG120162-02 ANION LCS	1.0000	1.0000	1.0000		
39	WG120162-03 REF for DUP	1.0000	1.0000	1.0000		
40	WG120162-04 DUP	1.0000	1.0000	1.0000		
41	WG120162-05 REF for MS/MSD	1.0000	1.0000	1.0000		
42	WG120162-06 MS	1.0000	1.0000	1.0000		

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
1	Anion std. #1	1,1 RDC SOS0060-25
2	Anion std. #2	1,1 RDC SOS0060-25
3	Anion std. #3	1,1 RDC SOS0060-25
4	Anion std. #4	1,1 RDC SOS0060-25
5	Anion std. #5	1,1 RDC SOS0060-25
6	Anion std. #6	1,1 RDC SOS0060-25
7	eluent blank	1,1 RDC
8	Alt anion std.	1,1 RDC SOS0060-31
9	DI H2O	1,1 RDC
10	ELUENT BLANK	1,1 RDC
11	WG120161-01 CCV	1,1 RDC SOS0060-25
12	WG120157-01 ANION BLANK	1,1 RDC
13	WG120157-02 ANION LCS	1,1 RDC SOS0060-25
14	WG120157-03 REF for DUP	1,1 RDC L0206334-05 REF
15	WG120157-04 DUP	1,1 RDC L0206334-05 DUP
16	L0206334-06 9056W	1,1 RDC
17	L0206334-07 9056W	1,1 RDC
18	L0206334-08 9056W	1,1 RDC
19	WG120161-02 CCV	1,1 RDC SOS0060-25
20	WG120157-05 REF for MS/MSD	1,1 RDC L0206140-07 REF (RR)
21	WG120157-06 MS	1,1 RDC L0206140-17 MS(RR)
22	WG120157-07 MSD	1,1 RDC L0206140-18 MSD (RR)
23	L0206140-01 9056W RR	1,1 RDC
24	L0206140-02 9056W RR	1,1 RDC
25	L0206140-06 9056W RR	1,1 RDC
26	L0206140-08 9056W RR	1,1 RDC
27	L0206140-09 9056W RR	1,1 RDC
28	L0206140-10 9056W RR	1,1 RDC
29	L0206140-12 9056W RR	1,1 RDC
30	WG120161-03 CCV	1,1 RDC SOS0060-25
31	L0206140-13 9056W RR	1,1 RDC
32	L0206140-03 @ 100X	1,100 RDC
33	L0206140-04 @ 100X	1,100 RDC
34	L0206140-05 @ 100X	1,100 RDC
35	L0206140-11 @ 100X	1,100 RDC
36	WG120161-04 CCV	1,1 RDC SOS0060-25
37	WG120162-01 ANION BLANK	1,1 RDC
38	WG120162-02 ANION LCS	1,1 RDC SOS0060-25
39	WG120162-03 REF for DUP	1,100 RDC L0206164-01 REF 100X
40	WG120162-04 DUP	1,100 RDC L0206164-01 DUP 100X
41	WG120162-05 REF for MS/MSD	1,100 RDC L0206164-02 REF 100X
42	WG120162-06 MS	1,100 RDC L0206164-02 MS 100X

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	WG120162-07 MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:53:24
44	L0206164-03 @ 100X	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:04:55
45	WG120161-05 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:16:25
46	end	Unknown	13	25.0	System Off	9056	Finished	6/19/2002 23:27:56

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
43	WG120162-07 MSD	1.0000	1.0000	1.0000		
44	L0206164-03 @ 100X	1.0000	1.0000	1.0000		
45	WG120161-05 CCV	1.0000	1.0000	1.0000		
46	end	1.0000	1.0000	1.0000		

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
43	WG120162-07 MSD	1,100 RDC L0206164-02 MSD 100X
44	L0206164-03 @ 100X	1,100 RDC
45	WG120161-05 CCV	1,1 RDC SOS0060-25
46	end	1,1 RDC

AP 6/20/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID ICI Column ID AG4A-SC / AS4A-SC Data Subdirectory 061902
Analyst Initials RDC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1129 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0206140 & L0206164 SDGs are RR
out of holding time for PO_4-P

06-140-03, 04, 05, & 11
06-164-01, 02, & 03
> RR was @ 100x dil'n. due to the extreme amt. of Fe per 6/20/02

Reviewed By: ____

Semi-Volatile 9056 Checklist

Run Date: 6/7/2002

Analyst: JWR

Instrument: IC2

dil'n.

Workorders:	Due Date:	Priority:
WG119433 06-052	6/18/2002	
WG119433 06-124	6/13/2002	
WG119433 06-135	6/13/2002	
WG119433 06-140	6/14/2002	

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	
Data Package:	Level 2	
	Level 3	
	Level 4	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Π = Checked & OK

NA = Not Applicable

Comments:

L0206124, L0206135, & L0206140 all sample fractions require re-analysis out of holding time for PO4-P.

All CCVs except the initial one failed low for PO4-P. The loss in recovery for the phosphate can be attributed to samples which were extremely high in iron.

Primary Reviewer: JWR 6/12/02

Secondary Reviewer: 6/19/02

Supervisor Review: 6/19/02

937

Semi-Volatile 9056 Checklist

Run Date: 6/19/2002

Analyst: RDC

Instrument: IC1

Workorders:	Due Date:	Priority:
WG120157 06-140	6/14/2002	
WG120157 06-334	6/26/2002	A2
WG120162 06-164	6/17/2002	

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	
Data Package:	Level 2	
	Level 3	
	Level 4	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Π = Checked & OK

NA = Not Applicable

Comments:

L0206334-08 needs re-analyzed @ 2X.

L0206140 & L0206164 SDGs are RR out of holding time for PO4-P. Several samples know: 'o be high in iron were analyzed at 100X. Previously analysis of these samples fouled the column and resulted in low recovery of PO4-P standards.

Non client MS/MSD yielded high recoveries for SO4.

Primary Reviewer: RDC 6/20/02

Secondary Reviewer: 6/21/02

Supervisor Review: 6/21/02

938

KEMRON REPORT L0206164

PREPARED FOR CCI

WORK ID: NAS CECIL FIELD BUILDING 46

Summary Report 1
Laboratory Report 2
Attachments 36

Full Sample Data Package..... 43
Volatiles Data 44
BTEX GC Data (8021) 45
QC Summary..... 48
Sample Data..... 87
Standards Data 96
Raw Data..... 153
Semivolatiles Data 166
Method 8011 167
QC Summary..... 170
Sample Data..... 185
Standards Data 192
Raw QC Data 224
PAH HPLC DATA (8310) 235
QC Summary..... 238
Sample Data..... 299
Standards Data 362
Raw QC Data 420
General Chemistry Data..... 453
Common Anions (9056) ..... ?
QC Summary..... 457
Sample Data..... 488
Standards Data 495
Raw QC Data 528

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0206164

CHAIN OF CUSTODY:

The chain of custody number was 163151-049.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperatures were 3 and 4 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

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

REVIEWED: Stephanie L Lee DATE: 6/11/02

3

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0206164

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: The average % drifts option was used for CCV WG119487-02 analyzed 6/10/02 on HP-11. All acceptance criteria were met.

BATCH QA/QC

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

SAMPLES

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

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

Analyst: CBN REVIEWED: [signature] DATE: 6/13/02

Rev. 6/00

4

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0206164

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

BATCH QA/QC

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

SAMPLES

Surrogates: Sample fractions 01 and 02 yielded % recoveries for d14-p-terphenyl that were below acceptable limits. Theses samples were re-extracted outside of extraction holding time. Sample fraction 01 confirmed sample matrix effects. Sample fraction 02 yielded a % recovery for the surrogate that was within limits. Both analyses have been reported.
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: 6/27/02

Rev. 7/14/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0206164

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

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

SAMPLES

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

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

Analyst: CLK REVIEWED: _____ DATE: 6/14/02

Rev. 7/14/00

6

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0206164

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: Due to instrument calibration problems resulting from samples containing high levels of iron, samples were re-analyzed out of holding time for PO4-P. All holding times were met for other analytes.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : Continuing calibration for PO4-P failed low for the initial analysis of these samples. All samples were re-analyzed out of holding time for PO4-P.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS analyzed on 08-Jun-2002 yielded a percent recovery for PO4-P which was below the advisory limit. All samples were re-analyzed out of holding time for PO4-P with an LCS which met all acceptance criteria.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

All sample fractions were re-analyzed, out of holding time, at a 100X dilution in order to allow for analysis of PO4-P without fouling the ion chromatography column. 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: 7/1/02

Rev. 7/14/00

7

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021B**

AAB # : **WG119488**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **SHAW E & I**

Field sample ID	Lab Sample ID
062-CEF46-21I-Q2-02-17	L0206164-01
062-CEF46-24D-Q2-02-17	L0206164-02
062-CEF46-25I-Q2-02-17	L0206164-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-JUL-02**

Title: **Laboratory Director**

8

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119488

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q2-02-17 Lab Sample ID: L0206164-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 13-MAY-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 10-JUN-02 14:22

Concentration Units: ug/L File ID: 11G13745

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	90.5	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119488

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 13-MAY-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 10-JUN-02 14:56

Concentration Units: ug/L File ID: 11G13746

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	96.2	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119488

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q2-02-17 Lab Sample ID: L0206164-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 13-MAY-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 10-JUN-02 15:30

Concentration Units: ug/L File ID: 11G13747

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	97.7	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA PACKAGE

Analytical Method : **8021B**
Lab Name : **Kemron Environmental Services**
Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG119546**
Contract # : **Colleen Kurtz**
Prime Contractor : **SHAW E & I**

Field sample ID	Lab Sample ID
062-46TB2-Q2-02-17	L0206164-04

Comments:
RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.
Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner
Name: **David L. Bumgarner**
Date: **05-JUL-02**
Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021B Preparatory Method: 8021B\5030B AAB # : WG119546

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46TB2-Q2-02-17 Lab Sample ID: L0206164-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 22-APR-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 11-JUN-02 08:50

Concentration Units: ug/L File ID: 5G13710

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.50	1	
Xylenes, Total	0.500	1.0	0.500	1	ND

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

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

AAB # : **WG119924**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **SHAW E & I**

Field sample ID	Lab Sample ID
062-CEF46-21I-Q2-02-17	L0206164-01
062-CEF46-24D-Q2-02-17	L0206164-02
062-CEF46-25I-Q2-02-17	L0206164-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q2-02-17 Lab Sample ID: L0206164-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 16-JUN-02 00:15

Concentration Units: ug/L File ID:4L003170.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.375	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q2-02-17 Lab Sample ID: L0206164-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 16-JUN-02 00:15

Concentration Units: % Recovery File ID: 4L003170.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	32.4	40 - 132	*

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 16-JUN-02 01:12

Concentration Units: ug/L File ID: 4L003171.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.369	1.1	0.369	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.313	1.1	0.313	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.614	1.1	0.614	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.395	1.1	0.395	1	ND
Phenanthrene	0.315	1.1	0.315	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 16-JUN-02 01:12

Concentration Units: % Recovery File ID: 4L003171.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	39.0	40 - 132	*

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q2-02-17 Lab Sample ID: L0206164-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 16-JUN-02 02:08

Concentration Units: ug/L File ID: 4L003172.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.354	1.1	0.354	1	ND
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	0.378	1	ND
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG119924

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q2-02-17 Lab Sample ID: L0206164-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 13-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 16-JUN-02 02:08

Concentration Units: % Recovery File ID: 4L003172.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	41.5	40 – 132	

Internal Std	Qualifier

Comments:

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

Page 2 of 2

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120172**

Contract # : **Colleen Kurtz**

Prime Contractor : **SHAW E & I**

Field sample ID	Lab Sample ID
062-CEF46-24D-Q2-02-17	L0206164-02

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG120172

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 18-JUN-02 Date Analyzed: 20-JUN-02 06:16

Concentration Units: ug/L File ID:4L003198.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	0.381	1	ND
2-Methylnaphthalene	0.354	1.1	0.354	1	ND
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0316	0.21	0.0316	1	ND
Benzo(a)pyrene	0.0558	0.21	0.0558	1	ND
Benzo(b)fluoranthene	0.0358	0.21	0.0358	1	ND
Benzo(g,h,i)perylene	0.0526	0.21	0.0526	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.0811	0.21	0.0811	1	ND
Fluoranthene	0.0526	0.21	0.0526	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0842	0.21	0.0842	1	ND
Naphthalene	0.378	1.1	0.378	1	ND
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG120172

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 19-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 18-JUN-02 Date Analyzed: 20-JUN-02 06:16

Concentration Units: % Recovery File ID: 4L003198.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	41.5	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8015 MOD

AAB # : WG119767

Lab Name : Kemron Environmental Services

Contract # : Colleen Kurtz

Base/Command : NAS Cecil Field Jacksonville (

Prime Contractor : SHAW E & I

Field sample ID	Lab Sample ID
062-CEF46-21I-Q2-02-17	L0206164-01
062-CEF46-24D-Q2-02-17	L0206164-02
062-CEF46-25I-Q2-02-17	L0206164-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 05-JUL-02

Title: Laboratory Director

24

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q2-02-17 Lab Sample ID: L0206164-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 20:49

Concentration Units: ug/L File ID: 2G20464

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	53.4	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 21:05

Concentration Units: ug/L File ID: 2G20465

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	81.4	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 MOD Preparatory Method: 8015 MOD\3510C AAB # : WG119767

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q2-02-17 Lab Sample ID: L0206164-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 12-JUN-2002

Date Received: 08-JUN-02 Date Extracted: 11-JUN-02 Date Analyzed: 12-JUN-02 21:20

Concentration Units: ug/L File ID: 2G20466

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	259	520	259	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	75.2	49 - 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 9056

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG120162

Contract # : Colleen Kurtz

Prime Contractor : SHAW E & I

Field sample ID	Lab Sample ID
062-CEF46-21I-Q2-02-17	L0206164-01
062-CEF46-24D-Q2-02-17	L0206164-02
062-CEF46-25I-Q2-02-17	L0206164-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 05-JUL-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120162

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q2-02-17 Lab Sample ID: L0206164-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 22:07

Concentration Units: mg/L File ID: 061902.39

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120162

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 22:30

Concentration Units: mg/L File ID: 061902.41

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120162

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q2-02-17 Lab Sample ID: L0206164-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC1 18-JUN-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 19-JUN-02 23:04

Concentration Units: mg/L File ID: 061902.44

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG120130**

Contract # : **Colleen Kurtz**

Prime Contractor : **SHAW E & I**

Field sample ID	Lab Sample ID
062-CEF46-21I-Q2-02-17	L0206164-01
062-CEF46-24D-Q2-02-17	L0206164-02
062-CEF46-25I-Q2-02-17	L0206164-03

Comments:

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

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-JUL-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120130

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q2-02-17 Lab Sample ID: L0206164-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 08-JUN-02 14:16

Concentration Units: mg/L File ID: 060802.13

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.150	1	J
Phosphate	0.163	1.0	0.300	1	F,A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120130

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q2-02-17 Lab Sample ID: L0206164-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 08-JUN-02 14:39

Concentration Units: mg/L File ID: 060802.15

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056 AAB # : WG120130

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q2-02-17 Lab Sample ID: L0206164-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAY-2002

Date Received: 08-JUN-02 Date Extracted: Date Analyzed: 08-JUN-02 14:51

Concentration Units: mg/L File ID: 060802.16

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	A

Comments:

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

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

06/17/2002

AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAD - DAVE A. DAULEY
DAH - DON A. HUNTER
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
DRB - DOUG R. BARNETT
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAL - JOHN A. LENT
JJG - JAKE J. GREUEY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MKZ - MARILYN K. ZUMBRO
MLR - MARY L. ROCHOTTE
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
OGT - OKEY G. TUCKER
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SMW - SHARON M. WASHBURN
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

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

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

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

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

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

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

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

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
163151-049

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 46	163151	Stephanie Tepe Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 Quarterly GW Sampling Event	0062	3868	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	062-CEF46-21I-Q2-02-17	CEF-46-21I	W	06/07/02	9:35	III/C	14	2	2	2	1				Grab		
2	062-CEF46-24D-Q-02-17	CEF-46-24D	W	06/07/02	8:00	III/C	14	2	2	2	1				Grab		
3	062-CEF46-25I-Q2-02-17	CEF-46-25I	W	06/07/02	8:50	III/C	14	2	2	2	1				Grab		
4	062-46TB2-Q2-02-17	Trip Blank #2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
5	NA	Temperature Blank	W	NA	NA	III/C	14					2			Grab	Prepared by Lab	
6																	
7																	
8																	
9																	
10																	
11																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 792730278369, 792047999980. (2 Cooler) Saturday Delivery

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop [signature]	6/7/02	11:00	Federal Express Track # 792730278369, 792047999980. (2 Cooler) Saturday Delivery	6/7/02	11:00
Printed Name and Signature:			Printed Name and Signature:		
Brenda Gregory / Brenda Gregory	6/8/02	0916			

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

Form CC1001, Rev 02/00

C/C Dealed Smith tact [illegible] 3/2

KEMRON Internal Laboratory Chain of Custody

Work Order: L0206164 **Client:** CCI **# of Samples:** 4 **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
1-3	9056	analysis	JWR @ 1050 06/08/02	Log In	HPLC	[illegible]	[illegible] 6/21/02 1115	arch.	JKW	arch.
1-4	BETX	ANAL	CBN 6/10/02 @ 1004	U-1	ORG-3	[illegible]	SMW 6-25-02 @ 1100	ARCH 2	SMW	ARCH2
1-3A	8310	EXT	CEB 6/11/02 @ 0703	WALKIN	ELAB	[illegible]	06-11-02 DeL 2000	cnosher	[illegible]	diposal
1-3A	PRO	EXT	CEB 6/11/02 @ 0837	WALKIN	ELAB	[illegible]	06-11-02 DeL 2000	cnosher	[illegible]	disposal
1,2B	8310	REEXT	CEB 6/18/02 @ 1321	WALKIN	ELAB	SMW	06-18-02 DeL 2250	cnosher	[illegible]	disposal

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

CLIENT: CCI	DATE: 6/8/02	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG Other		

COOLER ID: KL994	COOLER ID: KL321	COOLER ID:
INDEX # : 792730278369	INDEX # : 792047999980	INDEX # :
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (D) (E) 3 °C	TEMP : (D) (E) 2 °C	TEMP : (D) (E) °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	SAMPLE INTACT (✓) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO
SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO
LEGIBLE (✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO	LEGIBLE ( ) YES ( ) NO
MATCH COC (✓) YES ( ) NO	MATCH COC (✓) YES ( ) NO	MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS 850	LOG-IN COMMENTS 935	LOG-IN COMMENTS
800	VOS	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 2

PROJECT: NAS Cecil Field/Bldg. 46 LIMS# L0206164

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 6/8/02 C-of-C Number: 163151
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: fed ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? 1-front, seal date: 6/7/02 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 3/2 °C ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: BLG (date) 6/8/02

B. **LOG-IN PHASE:** Date samples were logged-in: 6/8/02
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: dividers; baggie; bubble wrap
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) —

42

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: L0206164

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: The average % drifts option was used for CCV WG119487-02 analyzed 6/10/02 on HP-11. All acceptance criteria were met.

BATCH QA/QC

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

SAMPLES

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

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

Analyst: CBN REVIEWED: [signature] DATE: 6/13/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0206164

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: C Brian Noll **Date:** 6/12/02

47

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 11G13738
Date Analyzed: 06/10/02
Time Analyzed: 10:09
Analyst: CSH

Work Group: WG119488
Blank Sample ID: WG119488-01
Instrument ID: HP11
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119488-02	11G13739	06/10/02 10:43	
062-CEF46-21I-Q2-02-17	L0206164-01	11G13745	06/10/02 14:22	
062-CEF46-24D-Q2-02-17	L0206164-02	11G13746	06/10/02 14:56	
062-CEF46-25I-Q2-02-17	L0206164-03	11G13747	06/10/02 15:30	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Run Date: 06/10/2002
Sample ID: WG119488-01
Instrument ID: HP11
Run Time: 10:09
Method: 8021B
File ID: 11G13738
Analyst: CSH
Matrix: Water
Workgroup (AAB#): WG119488
Units: ug/L
Contract #:
Cal ID: HP11-13-MAY-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	87.2	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Instrument ID: HP11
File ID: 11G13739
Workgroup (AAB#): WG119488
Contract #:

Run Date: 06/10/2002
Run Time: 10:43
Analyst: CSH

Sample ID: WG119488-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP11-13-MAY-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	16.7	83.5	41 - 161	
Benzene	20	17.2	85.9	80 - 122	
Toluene	20	17.0	84.9	80 - 124	
Ethylbenzene	20	17.2	85.8	80 - 125	
Total xylenes	60	50.9	84.9	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	81.5	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG119488

Login Number: L0206164

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-21I-Q2-02-17	06/07/02	06/08/02	06/10/02	14	3.20	06/10/02	14	3.20	
062-CEF46-24D-Q2-02-17	06/07/02	06/08/02	06/10/02	14	3.29	06/10/02	14	3.29	
062-CEF46-25I-Q2-02-17	06/07/02	06/08/02	06/10/02	14	3.28	06/10/02	14	3.28	

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

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206164
Instrument Id: HP11
Workgroup (AAB#): WG119488

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206164-01	1.00		90.5
L0206164-02	1.00		96.2
L0206164-03	1.00		97.7
WG119488-01	1.00		87.2
WG119488-02	1.00		81.5

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Login Number: L0206164
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 13-MAY-02
Instrument ID: HP11

Analyte		Summary AVG RF	% RSD	R^2	Q
BROMOCHLOROBENZENE		309000	7.51		
1,2-DICHLOROBENZENE		274000	4.77		
1,4-DICHLOROBENZENE		318000	3.41		
1,3-DICHLOROBENZENE		301000	4.87		
P-BROMOFLUOROBENZENE		313000	6.66		
O-XYLENE		304000	3.35		
M-,P-XYLENE		351000	4.38		
ETHYLBENZENE		283000	3.09		
CHLOROBENZENE		329000	4.70		
TOLUENE		322000	3.32		
A,A,A-TRIFLUOROTOLUENE		109000	5.10		
BENZENE		324000	3.66		
METHYLTERT-BUTYL ETHER		142000	4.33		

= CC
* = SPCC

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

	Sample #	File #	Level
	WG117338-01	11G13543	1
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	3.0	814157	271400
1,2-DICHLOROBENZENE	1.0	253900	253900
1,4-DICHLOROBENZENE	1.0	310897	310900
1,3-DICHLOROBENZENE	1.0	300155	300200
P-BROMOFLUOROBENZENE	3.0	819273	273100
O-XYLENE	1.0	301874	301900
M-,P-XYLENE	2.0	740850	370400
ETHYLBENZENE	1.0	286492	286500
CHLOROBENZENE	1.0	311354	311400
TOLUENE	1.0	317869	317900
A,A,A-TRIFLUOROTOLUENE	3.0	290715	96910
BENZENE	1.0	308432	308400
METHYLTERT-BUTYL ETHER	1.0	151555	151600

INITIAL CALIBRATION

Login Number: L0206164

Analyst: CBN

Analytical Method: 8021

Initial Calibration Date: 13-MAY-02

Instrument ID: HP11

		Sample #	File #	Level
		WG117338-02	11G13535	2
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		15.0	4263676	284200
1,2-DICHLOROBENZENE		10.0	2854135	285400
1,4-DICHLOROBENZENE		10.0	3093648	309400
1,3-DICHLOROBENZENE		10.0	2833267	283300
P-BROMOFLUOROBENZENE		15.0	4509200	300600
O-XYLENE		10.0	3144748	314500
M-,P-XYLENE		20.0	7277709	363900
ETHYLBENZENE		10.0	2835474	283500
CHLOROBENZENE		10.0	3208368	320800
TOLUENE		10.0	3272433	327200
A,A,A-TRIFLUOROTOLUENE		15.0	1627317	108500
BENZENE		10.0	3275430	327500
METHYLTERT-BUTYL ETHER		10.0	1402067	140200

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

	Sample #	File #	Level
	WG117338-03	11G13536	3
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	30.0	9208420	306900
1,2-DICHLOROBENZENE	20.0	5787652	289400
1,4-DICHLOROBENZENE	20.0	6489562	324500
1,3-DICHLOROBENZENE	20.0	5896208	294800
P-BROMOFLUOROBENZENE	30.0	9344446	311500
O-XYLENE	20.0	6240785	312000
M-,P-XYLENE	40.0	14366047	359200
ETHYLBENZENE	20.0	5730160	286500
CHLOROBENZENE	20.0	6600647	330000
TOLUENE	20.0	6556825	327800
A,A,A-TRIFLUOROTOLUENE	30.0	3257171	108600
BENZENE	20.0	6761172	338100
METHYLTERT-BUTYL ETHER	20.0	2846083	142300

INITIAL CALIBRATION

Login Number: L0206164

Analyst: CBN

Analytical Method: 8021

Initial Calibration Date: 13-MAY-02

Instrument ID: HP11

	Sample #	File #	Level
	WG117338-04	11G13537	4
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	45.0	14930551	331800
1,2-DICHLOROBENZENE	50.0	13166373	263300
1,4-DICHLOROBENZENE	50.0	15092969	301900
1,3-DICHLOROBENZENE	50.0	14117714	282400
P-BROMOFLUOROBENZENE	45.0	15059484	334700
O-XYLENE	50.0	14228168	284600
M-,P-XYLENE	100.0	32523856	325200
ETHYLBENZENE	50.0	13200860	264000
CHLOROBENZENE	50.0	15516675	310300
TOLUENE	50.0	14990780	299800
A,A,A-TRIFLUOROTOLUENE	45.0	5138497	114200
BENZENE	50.0	15453398	309100
METHYLTERT-BUTYL ETHER	50.0	6585968	131700

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

	Sample #	File #	Level
	WG117338-05	11G13538	5
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	60.0	19197037	320000
1,2-DICHLOROBENZENE	100.0	28377708	283800
1,4-DICHLOROBENZENE	100.0	33110643	331100
1,3-DICHLOROBENZENE	100.0	31674928	316700
P-BROMOFLUOROBENZENE	60.0	19207480	320100
O-XYLENE	100.0	31127004	311300
M-,P-XYLENE	200.0	70676483	353400
ETHYLBENZENE	100.0	29006956	290100
CHLOROBENZENE	100.0	34450221	344500
TOLUENE	100.0	33011484	330100
A,A,A-TRIFLUOROTOLUENE	60.0	6602653	110000
BENZENE	100.0	33418790	334200
METHYLTERT-BUTYL ETHER	100.0	13930766	139300

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

Analyte	Sample #	File #	Level
	WG117338-06	11G13539	6
	Conc	Response	RF
BROMOCHLOROBENZENE	75.0	24041990	320600
1,2-DICHLOROBENZENE	200.0	55461402	277300
1,4-DICHLOROBENZENE	200.0	65456433	327300
1,3-DICHLOROBENZENE	200.0	63586793	317900
P-BROMOFLUOROBENZENE	75.0	23977388	319700
O-XYLENE	200.0	61222910	306100
M-,P-XYLENE	400.0	138936411	347300
ETHYLBENZENE	200.0	57583861	287900
CHLOROBENZENE	200.0	69152463	345800
TOLUENE	200.0	65804025	329000
A,A,A-TRIFLUOROTOLUENE	75.0	8253341	110000
BENZENE	200.0	66144142	330700
METHYLTERT-BUTYL ETHER	200.0	27978725	139900

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP11

Analyst: CBN
Initial Calibration Date: 13-MAY-02

Analyte	Sample #	File #	Level
	WG117338-07	11G13540	7
	Conc	Response	RF
BROMOCHLOROBENZENE	90.0	29665891	329600
1,2-DICHLOROBENZENE	300.0	80369936	267900
1,4-DICHLOROBENZENE	300.0	96774635	322600
1,3-DICHLOROBENZENE	300.0	92528991	308400
P-BROMOFLUOROBENZENE	90.0	29708663	330100
O-XYLENE	300.0	90189977	300600
M-,P-XYLENE	600.0	203840990	339700
ETHYLBENZENE	300.0	85208496	284000
CHLOROBENZENE	300.0	102811588	342700
TOLUENE	300.0	96849261	322800
A,A,A-TRIFLUOROTOLUENE	90.0	10089835	112100
BENZENE	300.0	95965113	319900
METHYLTERT-BUTYL ETHER	300.0	43697556	145700

KEMRON FORMS - Modified 04/03/2002
Version 1.0
Report generated 06/13/2002 09:01

Login Number: L0206164
File ID: 11G13544
ALT ID: WG117338-08
Units: ug/L

Instrument ID: HP11
Run Date: 05/13/2002
Run Time: 17:59
Analyst: CBN
Cal ID: HP11 - 13-MAY-02

Analyte	Expected	Found	RF	%D	Q
1,2-Dichlorobenzene	20	21.0	288000	5.0	
1,4-Dichlorobenzene	20	19.8	316000	1.0	
1,3-Dichlorobenzene	20	19.3	290000	3.5	
o-Xylene	20	20.4	310000	2.0	
m-,p-Xylene	40	40.8	358000	2.0	
Ethylbenzene	20	20.9	296000	4.5	
Chlorobenzene	20	19.8	327000	1.0	
Toluene	20	20.6	332000	3.0	
Benzene	20	19.1	309000	4.5	
MTBE	20	20.8	147000	4.0	

Login Number: L0206164
File ID: 11G13737
CCV ID: WG119487-01
Units: ug/L

Instrument ID: HP11
Run Date: 06/10/2002
Run Time: 09:19
Analyst: CSH
Cal ID: HP11 - 13-MAY-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.2	263000	4.0	
1,4-Dichlorobenzene		20	18.8	299000	6.0	
1,3-Dichlorobenzene		20	18.6	280000	7.0	
o-Xylene		20	19.7	300000	1.5	
m-,p-Xylene		40	39.0	343000	2.5	
Ethylbenzene		20	19.9	282000	0.5	
Chlorobenzene		20	18.8	310000	6.0	
Toluene		20	22.5	362000	12.5	
Benzene		20	17.7	287000	11.5	
MTBE		20	18.1	128000	9.5	

* Exceeds %D Limit

Login Number: L0206164
File ID: 11G13748
CCV ID: WG119487-02
Units: ug/L

Instrument ID: HP11
Run Date: 06/10/2002
Run Time: 16:05
Analyst: CSH
Cal ID: HP11 - 13-MAY-02

Analyte	Expected	Found	RF	%D	Q
1,2-Dichlorobenzene	20	19.7	270000	1.5	
1,4-Dichlorobenzene	20	18.7	298000	6.5	
1,3-Dichlorobenzene	20	17.9	270000	10.5	
o-Xylene	20	18.8	287000	6.0	
m-,p-Xylene	40	37.7	331000	5.8	
Ethylbenzene	20	19.2	272000	4.0	
Chlorobenzene	20	18.4	303000	8.0	
Toluene	20	18.8	302000	6.0	
Benzene	20	17.8	288000	11.0	
MTBE	20	14.3	101000	28.5	*

* Exceeds %D Limit

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13534.d	1.	WG117338-01 8021 STD 1 1PPB..RR	1,1 S-(94-01,93-49)	13 May 2002 11:
2	2	11g13535.d	1.	WG117338-02 8021 STD 2 10PP.✓	1,1 S-(94-01,93-49)	13 May 2002 12:
3	3	11g13536.d	1.	WG117338-03 8021 STD 3 20PP..✓	1,1 S-(94-01,93-49)	13 May 2002 12:
4	4	11g13537.d	1.	WG117338-04 8021 STD 4 50PP..✓	1,1 S-(94-01,93-49)	13 May 2002 13:
5	5	11g13538.d	1.	WG117338-05 8021 STD 5 100P..✓	1,1 S-(94-01,93-49)	13 May 2002 14:
6	6	11g13539.d	1.	WG117338-06 8021 STD 6 200P..✓	1,1 S-(94-01,93-49)	13 May 2002 14:
7	7	11g13540.d	1.	WG117338-07 8021 STD 7 300P..✓	1,1 S-(94-01,92-44)	13 May 2002 15:
8	8	11g13541.d	1.	RINSE 5ML RR	1,1 S-93-50	13 May 2002 15:
9	9	11g13542.d	1.	RINSE 5ML✓	1,1 S-93-50	13 May 2002 16:
10	10	11g13543.d	1.	WG117338-01 8021 STD 1 1PPB..✓	1,1 S-(94-01,92-44)	13 May 2002 17:
11	11	11g13544.d	1.	WG117338-08 ALT SOURCE 20PP..✓	1,1 S-(92-47,93-50)	13 May 2002 17:

WG 119488

ine	Vial	FileName	Multiplier		SampleName	Misc Info		Injected
	1	11g13737.d	1.		WG119487-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)		10 Jun 2002 09:19
	2	11g13738.d	1.		WG119488-01 WATER BLANK 5ML ✓	1,1 S-93-50		10 Jun 2002 10:09
	3	11g13739.d	1.		WG119488-02 WATER LCS 20PPB... ✓	1,1 S-(94-04,93-50)		10 Jun 2002 10:43
	1	11g13740.d	1.	DUR	L0206140-05 B 5ML ✓ RR @ 5x (MTBE)	1,1 S-93-50	pH<2	10 Jun 2002 11:29
	2	11g13741.d	50.		WG119488-03 L0206140-12 B 5... ✓	1,50 S-93-50		10 Jun 2002 12:04
	3	11g13742.d	50.		WG119488-04 L0206140-12 MS ... ✓	1,50 S-(94-04,93-50)		10 Jun 2002 12:38
	4	11g13743.d	50.		WG119488-05 L0206140-12 MSD... ✓	1,50 S-(94-04,93-50)		10 Jun 2002 13:13
	5	11g13744.d	1.		L0206140-14 B 5ML ✓	1,1 S-93-50		10 Jun 2002 13:47
	6	11g13745.d	1.		L0206164-01 A 5ML ✓	1,1 S-93-50		10 Jun 2002 14:22
)	7	11g13746.d	1.		L0206164-02 A 5ML ✓	1,1 S-93-50		10 Jun 2002 14:56
	8	11g13747.d	1.		L0206164-03 A 5ML ✓	1,1 S-93-50		10 Jun 2002 15:30
,	9	11g13748.d	1.		WG119487-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)		10 Jun 2002 16:05
	10	11g13749.d	1.		L0206164-04 A 5ML RR CCV	1,1 S-93-50	pH<2	10 Jun 2002 16:39
	11	11g13750.d	5.		L0206140-05 A 5ML 5X	1,5 S-93-50		10 Jun 2002 17:14

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 5G13708
Date Analyzed: 06/11/02
Time Analyzed: 07:32
Analyst: CBN

Work Group: WG119546
Blank Sample ID: WG119546-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119546-02	5G13709	06/11/02 08:07	
062-46TB2-Q2-02-17	L0206164-04	5G13710	06/11/02 08:50	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Run Date: 06/11/2002
Sample ID: WG119546-01
Instrument ID: HP5
Run Time: 07:32
Method: 8021B
File ID: 5G13708
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG119546
Units: ug/L
Contract #:
Cal ID: HP5-22-APR-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	99.1	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/13/2002 09:02

68

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Run Date: 06/11/2002
Sample ID: WG119546-02
Instrument ID: HP5
Run Time: 08:07
Method: 8021B
File ID: 5G13709
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG119546
Units: ug/L
Contract #:
Cal ID: HP5-22-APR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.9	105	41 - 161	
Benzene	20	21.6	108	80 - 122	
Toluene	20	21.8	109	80 - 124	
Ethylbenzene	20	21.8	109	80 - 125	
Total xylenes	60	61.9	103	80 - 121	

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

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG119546

Login Number: L0206164

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46TB2-Q2-02-17	06/07/02	06/08/02	06/11/02	14	4.37	06/11/02	14	4.37	

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

SURROGATE STANDARDS

Login Number: L0206164
Instrument Id: HP5
Workgroup (AAB#): WG119546

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206164-04	1.00		102
WG119546-01	1.00		99.1
WG119546-02	1.00		102

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Login Number: L0206164
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 22-APR-02
Instrument ID: HP5

Analyte		Summary AVG RF	% RSD	R^2	Q
BROMOCHLOROBENZENE		46800	1.26		
1,2-DICHLOROBENZENE		37900	3.64		
1,4-DICHLOROBENZENE		47100	6.41		
1,3-DICHLOROBENZENE		43500	6.36		
P-BROMOFLUOROBENZENE		47800	3.15		
O-XYLENE		51600	5.42		
STYRENE		55500	6.63		
M-,P-XYLENE		52900	3.13		
ETHYLBENZENE		44200	2.65		
CHLOROBENZENE		54100	2.39		
TOLUENE		51100	2.86		
A,A,A-TRIFLUOROTOLUENE		17700	1.89		
BENZENE		56100	2.72		
METHYLTERT-BUTYL ETHER		10500	7.49		

= CC

* = SPCC

INITIAL CALIBRATION

Login Number: L0206164
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 22-APR-02
Instrument ID: HP5

		Sample #	File #	Level
		WG116507-01	5G12946	1
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		3.0	137779	45930
1,2-DICHLOROBENZENE		1.0	35066	35070
1,4-DICHLOROBENZENE		1.0	40973	40970
1,3-DICHLOROBENZENE		1.0	37248	37250
P-BROMOFLUOROBENZENE		3.0	133330	44440
O-XYLENE		1.0	55799	55800
STYRENE		1.0	47957	47960
M-,P-XYLENE		2.0	108410	54200
ETHYLBENZENE		1.0	42551	42550
CHLOROBENZENE		1.0	51700	51700
TOLUENE		1.0	48925	48930
A,A,A-TRIFLUOROTOLUENE		3.0	51288	17100
BENZENE		1.0	56327	56330
METHYLTERT-BUTYL ETHER		1.0	11757	11760

INITIAL CALIBRATION

Login Number: L0206164
Analyst: CBN
Analytical Method: 8021
Initial Calibration Date: 22-APR-02
Instrument ID: HP5

	Sample #	File #	Level
	WG116507-02	5G12947	2
Analyte	Conc	Response	RF
BROMOCHLOROBENZENE	15.0	711170	47410
1,2-DICHLOROBENZENE	10.0	386329	38630
1,4-DICHLOROBENZENE	10.0	498740	49870
1,3-DICHLOROBENZENE	10.0	442610	44260
P-BROMOFLUOROBENZENE	15.0	723215	48210
O-XYLENE	10.0	537265	53730
STYRENE	10.0	565358	56540
M-,P-XYLENE	20.0	1088481	54420
ETHYLBENZENE	10.0	453901	45390
CHLOROBENZENE	10.0	551031	55100
TOLUENE	10.0	524199	52420
A,A,A-TRIFLUOROTOLUENE	15.0	272138	18140
BENZENE	10.0	579615	57960
METHYLTERT-BUTYL ETHER	10.0	108182	10820

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-03	5G12948	3
	Conc	Response	RF
BROMOCHLOROBENZENE	30.0	1406625	46890
1,2-DICHLOROBENZENE	20.0	779720	38990
1,4-DICHLOROBENZENE	20.0	990896	49540
1,3-DICHLOROBENZENE	20.0	890328	44520
P-BROMOFLUOROBENZENE	30.0	1437037	47900
O-XYLENE	20.0	1057926	52900
STYRENE	20.0	1145612	57280
M-,P-XYLENE	40.0	2170128	54250
ETHYLBENZENE	20.0	906551	45330
CHLOROBENZENE	20.0	1106539	55330
TOLUENE	20.0	1049846	52490
A,A,A-TRIFLUOROTOLUENE	30.0	537047	17900
BENZENE	20.0	1150225	57510
METHYLTERT-BUTYL ETHER	20.0	215108	10760

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

		Sample #	File #	Level
		WG116507-04	5G12949	4
Analyte		Conc	Response	RF
BROMOCHLOROBENZENE		45.0	2125866	47240
1,2-DICHLOROBENZENE		50.0	1932782	38660
1,4-DICHLOROBENZENE		50.0	2418650	48370
1,3-DICHLOROBENZENE		50.0	2229246	44580
P-BROMOFLUOROBENZENE		45.0	2192778	48730
O-XYLENE		50.0	2583852	51680
STYRENE		50.0	2897265	57950
M-,P-XYLENE		100.0	5356662	53570
ETHYLBENZENE		50.0	2242060	44840
CHLOROBENZENE		50.0	2731610	54630
TOLUENE		50.0	2608433	52170
A,A,A-TRIFLUOROTOLUENE		45.0	807512	17940
BENZENE		50.0	2843877	56880
METHYLTERT-BUTYL ETHER		50.0	523680	10470

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-05	5G12950	5
	Conc	Response	RF
BROMOCHLOROBENZENE	60.0	2845744	47430
1,2-DICHLOROBENZENE	100.0	3869496	38690
1,4-DICHLOROBENZENE	100.0	4785322	47850
1,3-DICHLOROBENZENE	100.0	4470416	44700
P-BROMOFLUOROBENZENE	60.0	2925355	48760
O-XYLENE	100.0	5004098	50040
STYRENE	100.0	5341161	53410
M-,P-XYLENE	200.0	10403552	52020
ETHYLBENZENE	100.0	4394325	43940
CHLOROBENZENE	100.0	5426734	54270
TOLUENE	100.0	5051424	50510
A,A,A-TRIFLUOROTOLUENE	60.0	1052975	17550
BENZENE	100.0	5501929	55020
METHYLTERT-BUTYL ETHER	100.0	1036822	10370

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-06	5G12951	6
	Conc	Response	RF
BROMOCHLOROBENZENE	75.0	3466056	46210
1,2-DICHLOROBENZENE	200.0	7443401	37220
1,4-DICHLOROBENZENE	200.0	9220416	46100
1,3-DICHLOROBENZENE	200.0	8798263	43990
P-BROMOFLUOROBENZENE	75.0	3619677	48260
O-XYLENE	200.0	9611978	48060
STYRENE	200.0	11339575	56700
M-,P-XYLENE	400.0	20020076	50050
ETHYLBENZENE	200.0	8552369	42760
CHLOROBENZENE	200.0	10606672	53030
TOLUENE	200.0	9901450	49510
A,A,A-TRIFLUOROTOLUENE	75.0	1333832	17780
BENZENE	200.0	10728979	53640
METHYLTERT-BUTYL ETHER	200.0	1862797	9314

INITIAL CALIBRATION

Login Number: L0206164
Analytical Method: 8021
Instrument ID: HP5

Analyst: CBN
Initial Calibration Date: 22-APR-02

Analyte	Sample #	File #	Level
	WG116507-07	5G12952	7
	Conc	Response	RF
BROMOCHLOROBENZENE	90.0	4198503	46650
1,2-DICHLOROBENZENE	300.0	11386255	37950
1,4-DICHLOROBENZENE	300.0	14010936	46700
1,3-DICHLOROBENZENE	300.0	13510483	45030
P-BROMOFLUOROBENZENE	90.0	4333947	48150
O-XYLENE	300.0	14625810	48750
STYRENE	300.0	17507932	58360
M-,P-XYLENE	600.0	31047355	51750
ETHYLBENZENE	300.0	13415617	44720
CHLOROBENZENE	300.0	16406053	54690
TOLUENE	300.0	15528746	51760
A,A,A-TRIFLUOROTOLUENE	90.0	1590258	17670
BENZENE	300.0	16585339	55280
METHYLTERT-BUTYL ETHER	300.0	2935664	9786

Login Number: L0206164
File ID: 5G12955
ALT ID: WG116507-08
Units: ug/L

Instrument ID: HP5
Run Date: 04/22/2002
Run Time: 18:42
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.6	40900	8.0	
1,4-Dichlorobenzene		20	21.6	50800	8.0	
1,3-Dichlorobenzene		20	21.3	46300	6.5	
o-Xylene		20	20.8	53600	4.0	
Styrene		20	21.0	58100	5.0	
m-,p-Xylene		40	42.1	55600	5.3	
Ethylbenzene		20	21.5	47600	7.5	
Chlorobenzene		20	20.9	56500	4.5	
Toluene		20	21.3	54400	6.5	
Benzene		20	21.2	59600	6.0	
MTBE		20	21.1	11100	5.5	

Login Number: L0206164
File ID: 5G13707
CCV ID: WG119545-01
Units: ug/L

Instrument ID: HP5
Run Date: 06/11/2002
Run Time: 06:48
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte	Expected	Found	RF	%D	Q
1,2-Dichlorobenzene	20	21.5	40700	7.5	
1,4-Dichlorobenzene	20	21.5	50500	7.5	
1,3-Dichlorobenzene	20	21.6	47000	8.0	
o-Xylene	20	19.0	48900	5.0	
Styrene	20	17.6	48900	12.0	
m-,p-Xylene	40	43.3	57200	8.3	
Ethylbenzene	20	21.7	47900	8.5	
Chlorobenzene	20	20.9	56500	4.5	
Toluene	20	21.9	56100	9.5	
Benzene	20	20.9	58500	4.5	
MTBE	20	20.2	10600	1.0	

* Exceeds %D Limit

Login Number: L0206164
File ID: 5G13715
CCV ID: WG119545-02
Units: ug/L

Instrument ID: HP5
Run Date: 06/11/2002
Run Time: 11:56
Analyst: CBN
Cal ID: HP5 - 22-APR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.7	39300	3.5	
1,4-Dichlorobenzene		20	20.5	48300	2.5	
1,3-Dichlorobenzene		20	20.1	43700	0.5	
o-Xylene		20	17.2	44400	14.0	
Styrene		20	16.0	44400	20.0	*
m-,p-Xylene		40	38.6	51000	3.5	
Ethylbenzene		20	19.6	43400	2.0	
Chlorobenzene		20	19.9	53800	0.5	
Toluene		20	19.7	50400	1.5	
Benzene		20	19.6	55000	2.0	
MTBE		20	21.3	11100	6.5	

* Exceeds %D Limit

Directory: c:\hpchem\2\data\042202

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

Line	Vial	FileName	Multiplier	SampleName	Misc Info		Injected
1	1	5g13707.d	1.	WG119545-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::4
2	2	5g13708.d	1.	WG119546-01 WATER BLANK 5ML ✓	1,1 S-93-47		11 Jun 102 12::3
3	3	5g13709.d	1.	WG119546-02 WATER LCS 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::0
4	1	5g13710.d	1.	L0206164-04 B 5ML ✓	1,1 S-93-47		11 Jun 102 12::5
5	2	5g13711.d	10.	WG119546-03 L0206140-05 A 5ML 10X	1,10 S-93-47 RR @ 50x	PH<2	11 Jun 102 12::2
6	3	5g13712.d	50.	WG119546-03 L0206140-05 A 5ML 50X	1,50 S-93-47 ✓		11 Jun 102 13::1
7	4	5g13713.d	50.	WG119546-05 L0206140-04 MS A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::4
8	5	5g13714.d	50.	WG119546-05 L0206140-05 MSD A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::2
9	6	5g13715.d	1.	WG119545-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 13::5
10	1	5g13716.d	1.	L0206190-01 A 5ML HIGH SSS	1,1 S-93-47	PH<2	11 Jun 102 12::4
11	2	5g13717.d	1.	L0206190-02 A 5ML ✓ RR @ 5x HIGH SSS	1,1 S-93-47		11 Jun 102 12::2
12	3	5g13718.d	1.	L0206190-03 A 5ML RR @ 100x	1,1 S-93-47		11 Jun 102 12::5
13	4	5g13719.d	1.	L0206190-04 A 5ML RR @ 10	1,1 S-93-47		11 Jun 102 12::3
14	5	5g13720.d	1.	L0206191-01 A 5ML	1,1 S-93-47		11 Jun 102 12::0
15	6	5g13721.d	1.	L0206191-02 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::4
16	7	5g13722.d	1.	L0206191-03 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::1
17	8	5g13723.d	1.	L0206191-04 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::5
18	9	5g13724.d	1.	L0206191-05 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::2
19	10	5g13725.d	50.	L0206191-06 A 5ML 50X RR @ 10x	1,50 S-93-47		11 Jun 102 12::0
20	11	5g13726.d	1.	WG119545-03 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::3

REANALYSIS FILE #

L0206190-01
-02
-03
-04

L0206191-0~~4~~1
CBN
6/12/02
-06

VOA - GC

Date: 6/10/02 **Analyst:** CSH **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 119488

	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 / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 6/12/02

Secondary Reviewers Initials & Date Checked: CBN 6/12/02

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 6/11/02 Analyst: CBN Method: (8021) 8015 602

Instrument: HP5 Work Group: WG119546

	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 / Forms	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 6/12/02

Secondary Reviewers Initials & Date Checked: CBN 6/12/02

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

Supervisory Review Initials & Date Checked. _____

Comments _____

✓ = Checked & OK
NA = Not Applicable

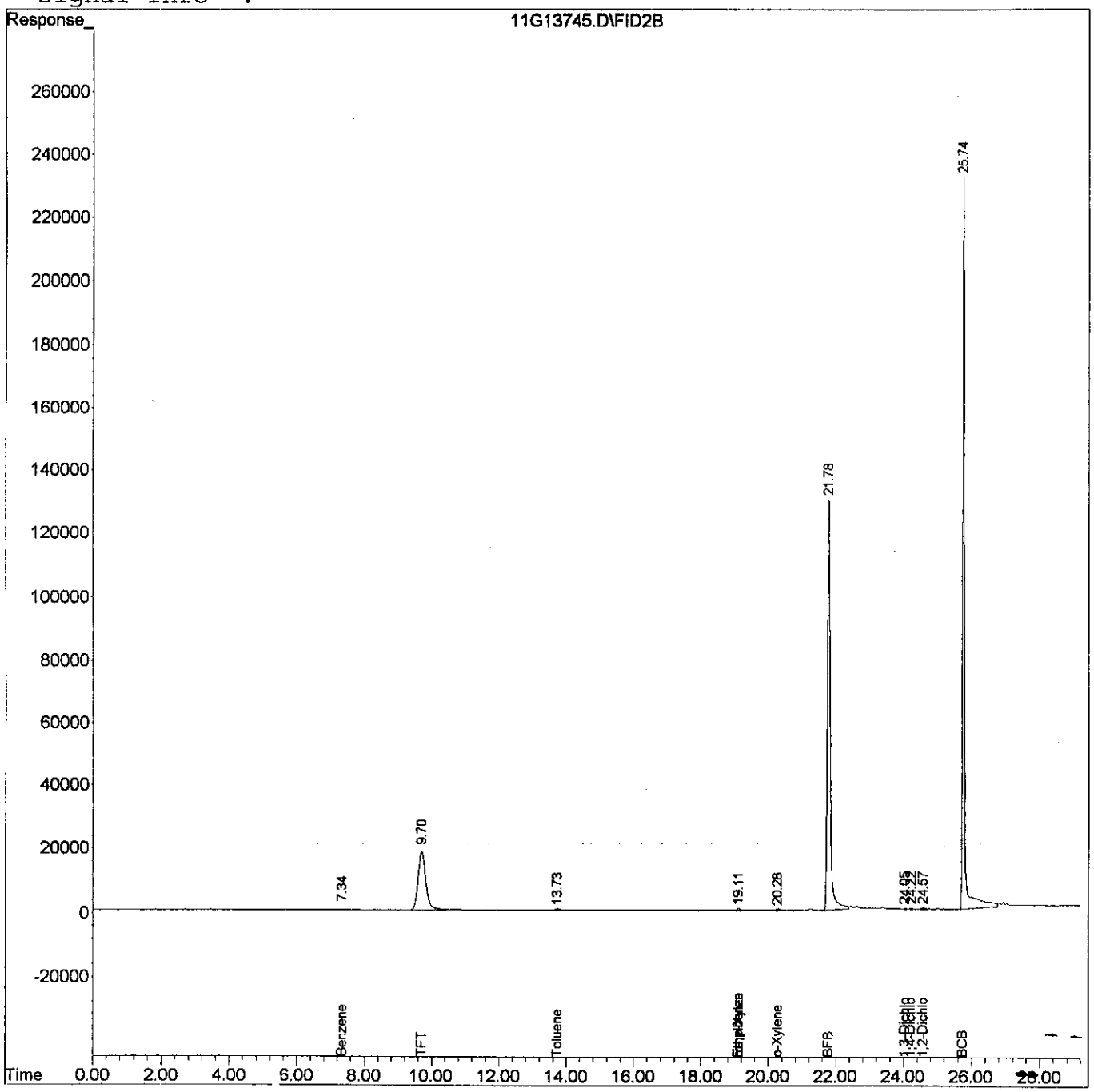
86

2.1.3.2 Sample Data

Data File : C:\HPCHEM\1\DATA\061002\11G13745.D Vial: 6
Acq On : 10 Jun 2002 2:22 pm Operator: CSH
Sample : L0206164-01 A 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 14:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



88

Data File : C:\HPCHEM\1\DATA\061002\11G13745.D Vial: 6
Acq On : 10 Jun 2002 2:22 pm Operator: CSH
Sample : L0206164-01 A 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 14:51 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	2947962	27.1397 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 90.47%
9) S BFB	21.78	7728125	24.7045 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 82.35%
13) S BCB	25.74	8482568	27.4327 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 91.44%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.34	28596	~~0.0883 UG/L~~
4) TM Toluene	13.73	49003	~~0.1521 UG/L~~
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	19.11	58247	~~0.2057 UG/L~~
7) TM m-,p-Xylene	19.11	58247	~~0.1658 UG/L~~
8) TM o-Xylene	20.28	37223	~~0.1223 UG/L~~
10) T 1,3-Dichlorobenzene	24.05	12298	~~0.0409 UG/L~~
11) T 1,4-Dichlorobenzene	24.22	14217	~~0.0447 UG/L~~
12) T 1,2-Dichlorobenzene	24.58	39704	~~0.1447 UG/L~~

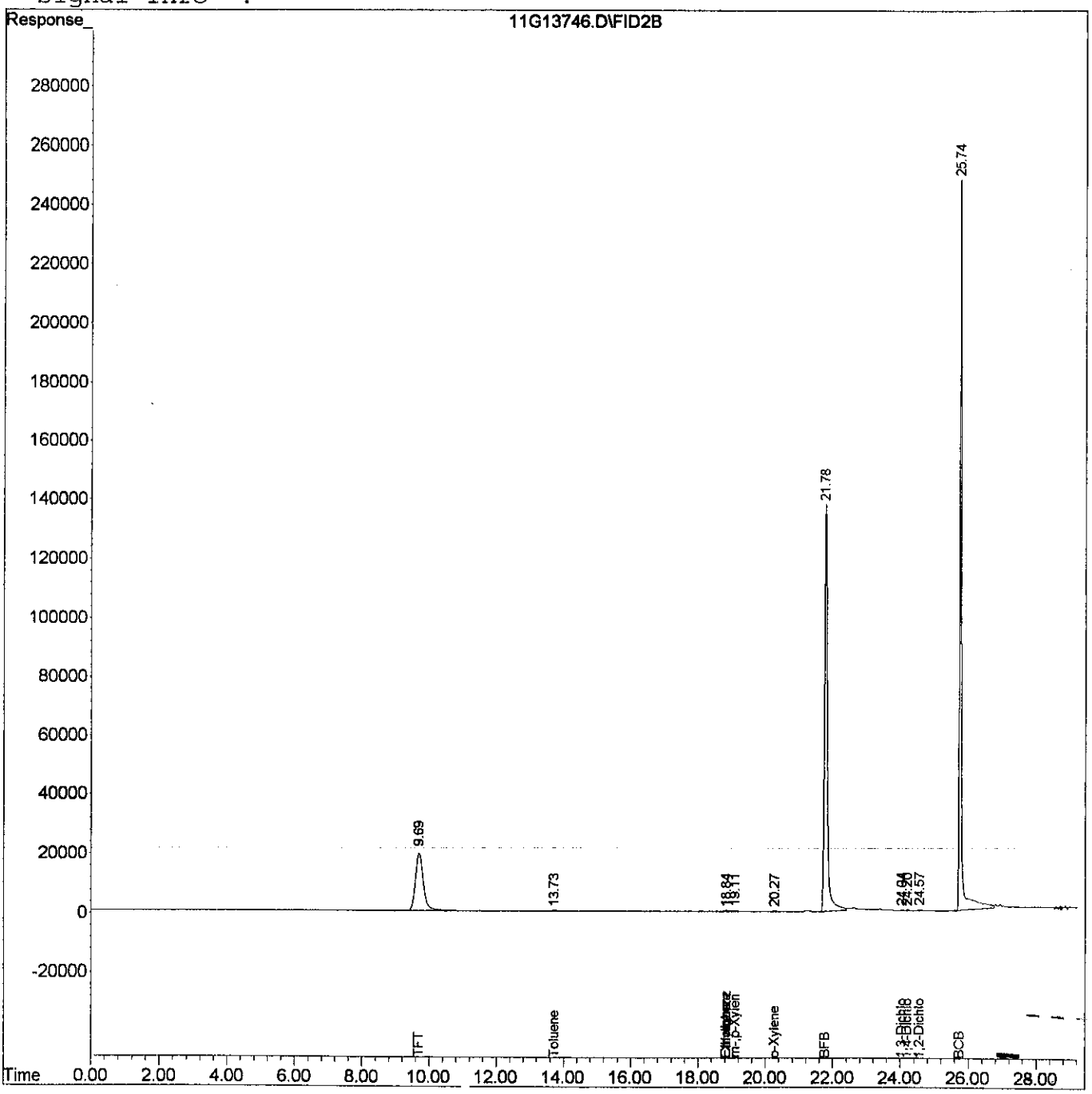
89

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

Data File : C:\HPCHEM\1\DATA\061002\11G13746.D Vial: 7
Acq On : 10 Jun 2002 2:56 pm Operator: CSH
Sample : L0206164-02 A 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 15:25 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



90

Data File : C:\HPCHEM\1\DATA\061002\11G13746.D Vial: 7
Acq On : 10 Jun 2002 2:56 pm Operator: CSH
Sample : L0206164-02 A 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 15:25 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	3135933	28.8702 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 96.23%
9) S BFB	21.78	8217370	26.2684 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 87.56%
13) S BCB	25.74	8920692	28.8496 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 96.17%
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	13.73	35056	0.1088 UG/L
5) TM Chlorobenzene	18.84	35771	0.1086 UG/L
6) TM Ethylbenzene	18.84	35771	0.1263 UG/L
7) TM m-,p-Xylene	19.11	32190	0.0916 UG/L
8) TM o-Xylene	20.28	24691	0.0811 UG/L
10) T 1,3-Dichlorobenzene	24.04	10421	0.0347 UG/L
11) T 1,4-Dichlorobenzene	24.21	15807	0.0497 UG/L
12) T 1,2-Dichlorobenzene	24.57	34048	0.1241 UG/L

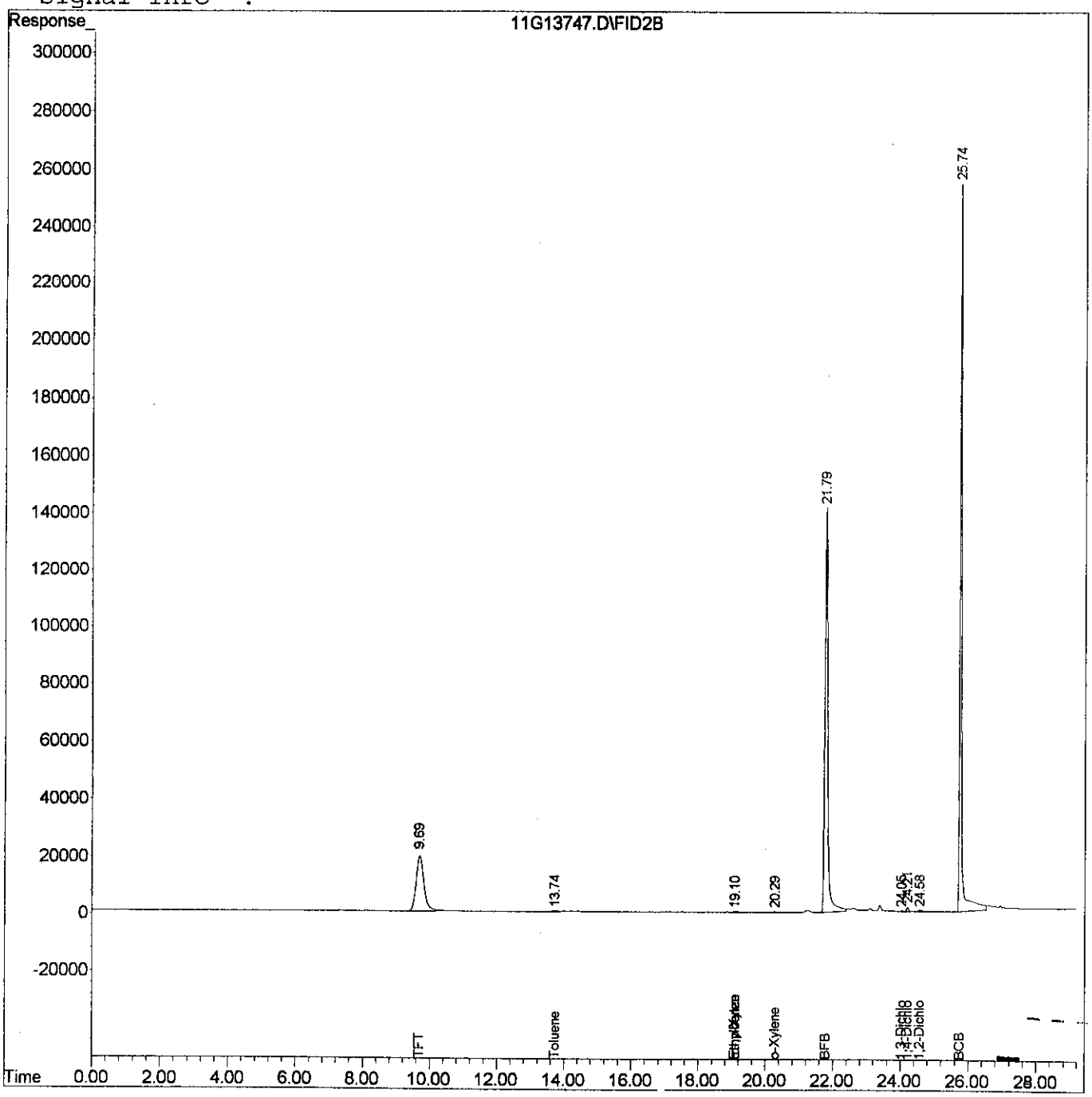
91

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

Data File : C:\HPCHEM\1\DATA\061002\11G13747.D Vial: 8
Acq On : 10 Jun 2002 3:30 pm Operator: CSH
Sample : L0206164-03 A 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 16:00 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



92

Data File : C:\HPCHEM\1\DATA\061002\11G13747.D Vial: 8
Acq On : 10 Jun 2002 3:30 pm Operator: CSH
Sample : L0206164-03 A 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 16:00 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	3184102	29.3137 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 97.71%
9) S BFB	21.79	8460204	27.0447 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 90.15%
13) S BCB	25.75	9125915	29.5132 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 98.38%
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	13.73	52027	~~0.1615 UG/L~~
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	19.11	24720	~~0.0873 UG/L~~
7) TM m-,p-Xylene	19.11	24720	~~0.0704 UG/L~~
8) TM o-Xylene	20.29	20187	~~0.0663 UG/L~~
10) T 1,3-Dichlorobenzene	24.05	8968	~~0.0298 UG/L~~
11) T 1,4-Dichlorobenzene	24.20	66054	~~0.2076 UG/L~~
12) T 1,2-Dichlorobenzene	24.57	41578	~~0.1515 UG/L~~

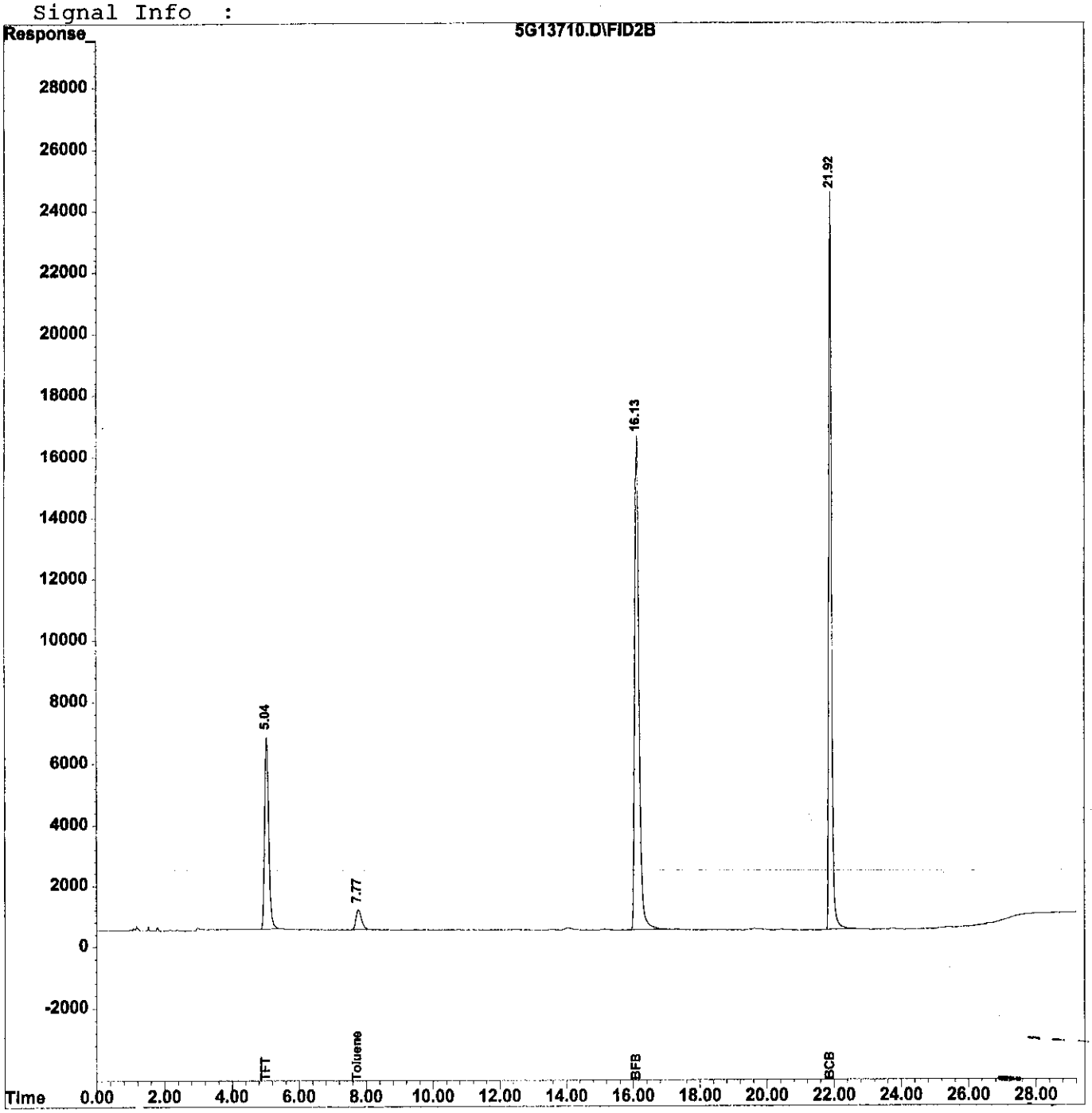
93

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

Data File : C:\HPCHEM\2\DATA\061102\5G13710.D Vial: 1
Acq On : 11 Jun 2002 8:50 Operator: CBN
Sample : L0206164-04 B 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 9:20 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



94

Data File : C:\HPCHEM\2\DATA\061102\5G13710.D Vial: 1
Acq On : 11 Jun 2002 8:50 Operator: CBN
Sample : L0206164-04 B 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 9:20 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.04	542044	30.5774 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	101.92%
10) S BFB	16.14	1442756	30.1958 ug/L
Spiked Amount 30.000		Recovery =	100.65%
14) S BCB	21.92	1356050	28.9613 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	96.54%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	7.77	76015	1.4872 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 Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

95

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

2.1.3.3 Standards Data

Calibration Table Report
Method: 602STY.M
Title: METHOD 602 - Water - 4/22/02
Last Calibration: Tue Apr 23 13:19:26 2002

Calibration Files

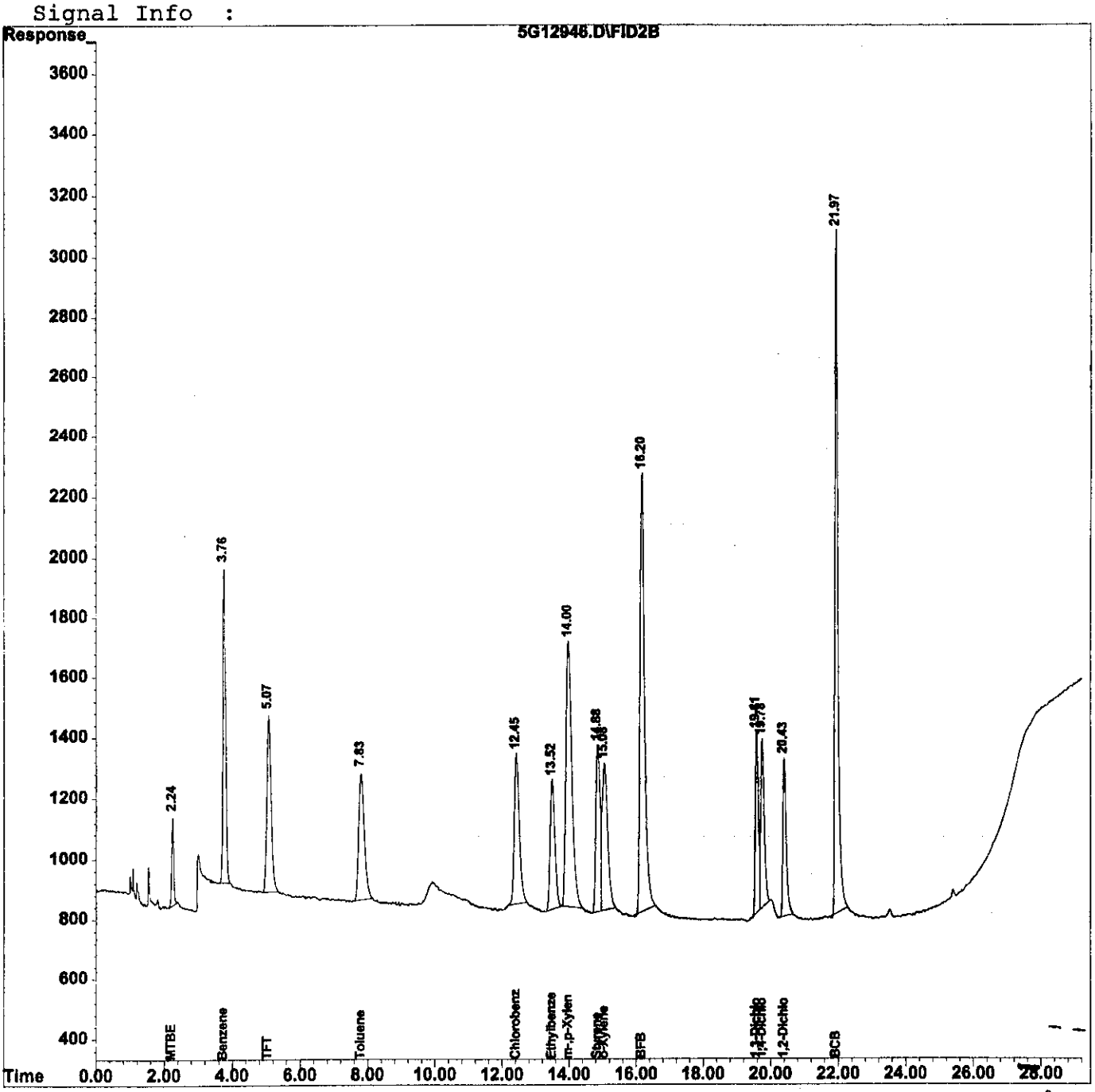
Compound	1 5G12946.D	10 5G12947.D	20 5G12948.D	50 5G12949.D	100 5G12950.D	200 5G12951.D	300 5G12952.D	Avg	%RSD
MTBE	11757	10818	10755	10474	10368	9314	9786	10467	7.475
Benzene	56328	57962	57511	56878	55019	53645	55284	56090	2.721
TFT	17096	18143	17902	17945	17550	17784	17670	17727	1.908
Toluene	48925	52420	52492	52169	50514	49507	51762	51113	2.865
Chlorobenzene	51700	55103	55327	54632	54267	53033	54687	54107	2.393
Ethylbenzene	42551	45390	45328	44841	43943	42762	44719	44219	2.647
m-,p-Xylene	54205	54424	54253	53567	52018	50050	51746	52895	3.138
Styrene	47957	56536	57281	57945	53412	56698	58360	55455	6.629
o-Xylene	55799	53727	52896	51677	50041	48060	48753	51565	5.422
BFB	44443	48214	47901	48728	48756	48262	48155	47780	3.147
1,3-Dichlorobenzene	37248	44261	44516	44585	44704	43991	45035	43477	6.363
1,4-Dichlorobenzene	40973	49874	49545	48373	47853	46102	46703	47061	6.406
1,2-Dichlorobenzene	35066	38633	38986	38656	38695	37217	37954	37887	3.641
BCB	45926	47411	46888	47241	47429	46214	46650	46823	1.263

Tue Apr 23 13:21:51 2002

Data File : C:\HPCHEM\2\DATA\042202\5G12946.D Vial: 1
Acq On : 22 Apr 2002 13:29 Operator: CBN
Sample : WG116507-01 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



98

Data File : C:\HPCHEM\2\DATA\042202\5G12946.D Vial: 1
Acq On : 22 Apr 2002 13:29 Operator: CBN
Sample : WG116507-01 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

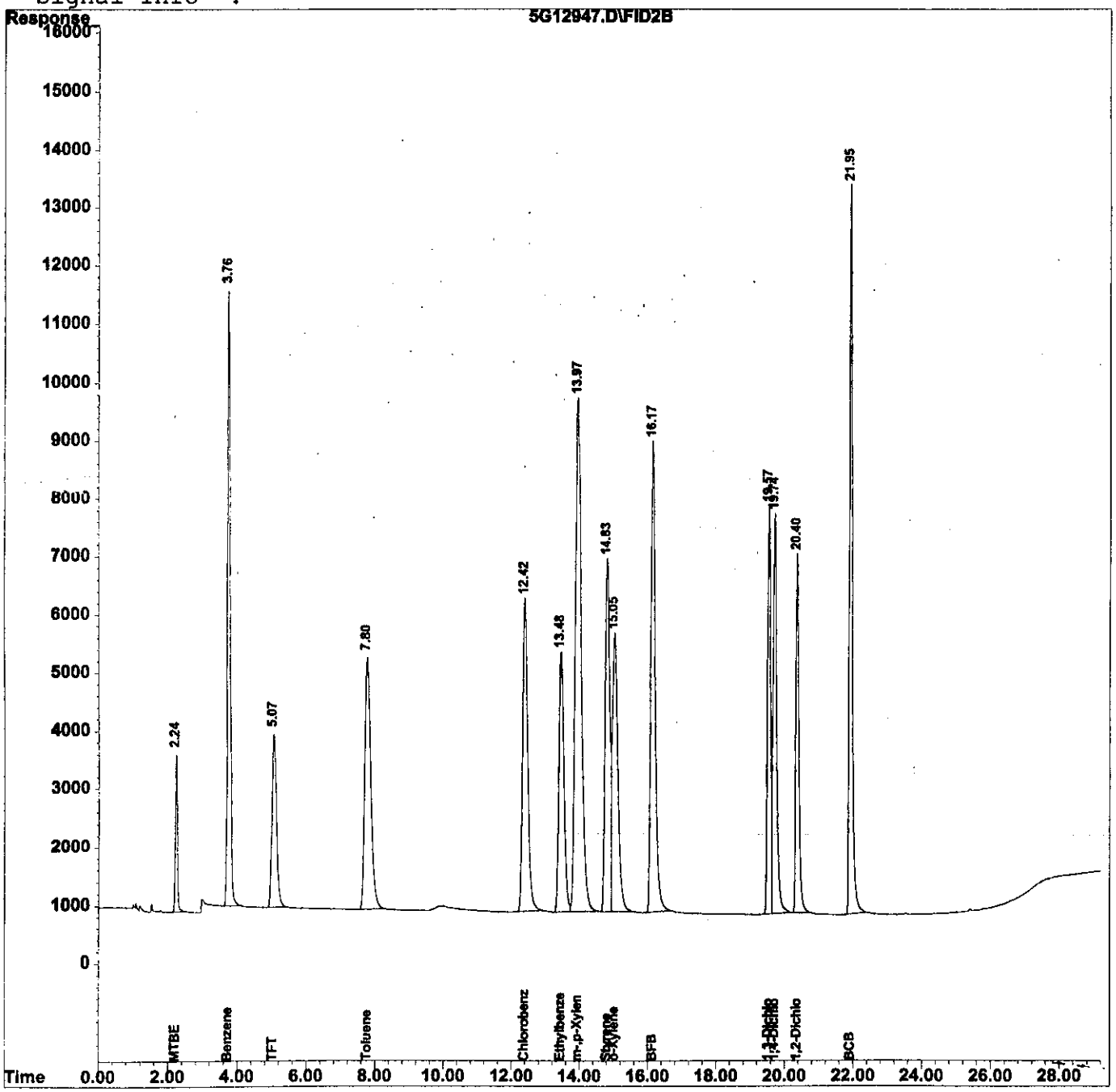
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	51288	2.8932 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	9.64%#
10) S BFB	16.20	133330	2.7905 ug/L
Spiked Amount 30.000		Recovery =	9.30%
14) S BCB	21.97	137779	2.9426 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	9.81%#
Target Compounds			
1) TM MTBE	2.24	11757	1.1232 ug/L
2) TM Benzene	3.76	56327	1.0042 ug/L
4) TM Toluene	7.83	48925	0.9572 ug/L
5) TM Chlorobenzene	12.45	51700	0.9555 ug/L
6) TM Ethylbenzene	13.52	42551	0.9623 ug/L
7) TM m-,p-Xylene	14.00	108410	2.0495 ug/L
8) TM Styrene	14.88	47957	0.8648 ug/L
9) TM o-Xylene	15.08	55799	1.0821 ug/L
11) TM 1,3-Dichlorobenzene	19.61	37248	0.7915 ug/L
12) TM 1,4-Dichlorobenzene	19.78	40973	0.8707 ug/L
13) TM 1,2-Dichlorobenzene	20.43	35066	0.9256 ug/L

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

Data File : C:\HPCHEM\2\DATA\042202\5G12947.D Vial: 2
Acq On : 22 Apr 2002 14:04 Operator: CBN
Sample : WG116507-02 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\042202\5G12947.D Vial: 2
Acq On : 22 Apr 2002 14:04 Operator: CBN
Sample : WG116507-02 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	272138	15.3517 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 51.17%#			
10) S BFB	16.17	723215	15.1363 ug/L
Spiked Amount 30.000 Recovery = 50.45%			
14) S BCB	21.95	711170	15.1885 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 50.63%			
Target Compounds			
1) TM MTBE	2.24	108182	10.3351 ug/L
2) TM Benzene	3.76	579615	10.3338 ug/L
4) TM Toluene	7.80	524199	10.2557 ug/L
5) TM Chlorobenzene	12.42	551031	10.1841 ug/L
6) TM Ethylbenzene	13.48	453901	10.2648 ug/L
7) TM m-,p-Xylene	13.97	1088481	20.5783 ug/L
8) TM Styrene	14.84	565358	10.1948 ug/L
9) TM o-Xylene	15.06	537265	10.4193 ug/L
11) TM 1,3-Dichlorobenzene	19.57	442610	9.4051 ug/L
12) TM 1,4-Dichlorobenzene	19.74	498740	10.5978 ug/L
13) TM 1,2-Dichlorobenzene	20.40	386329	10.1969 ug/L

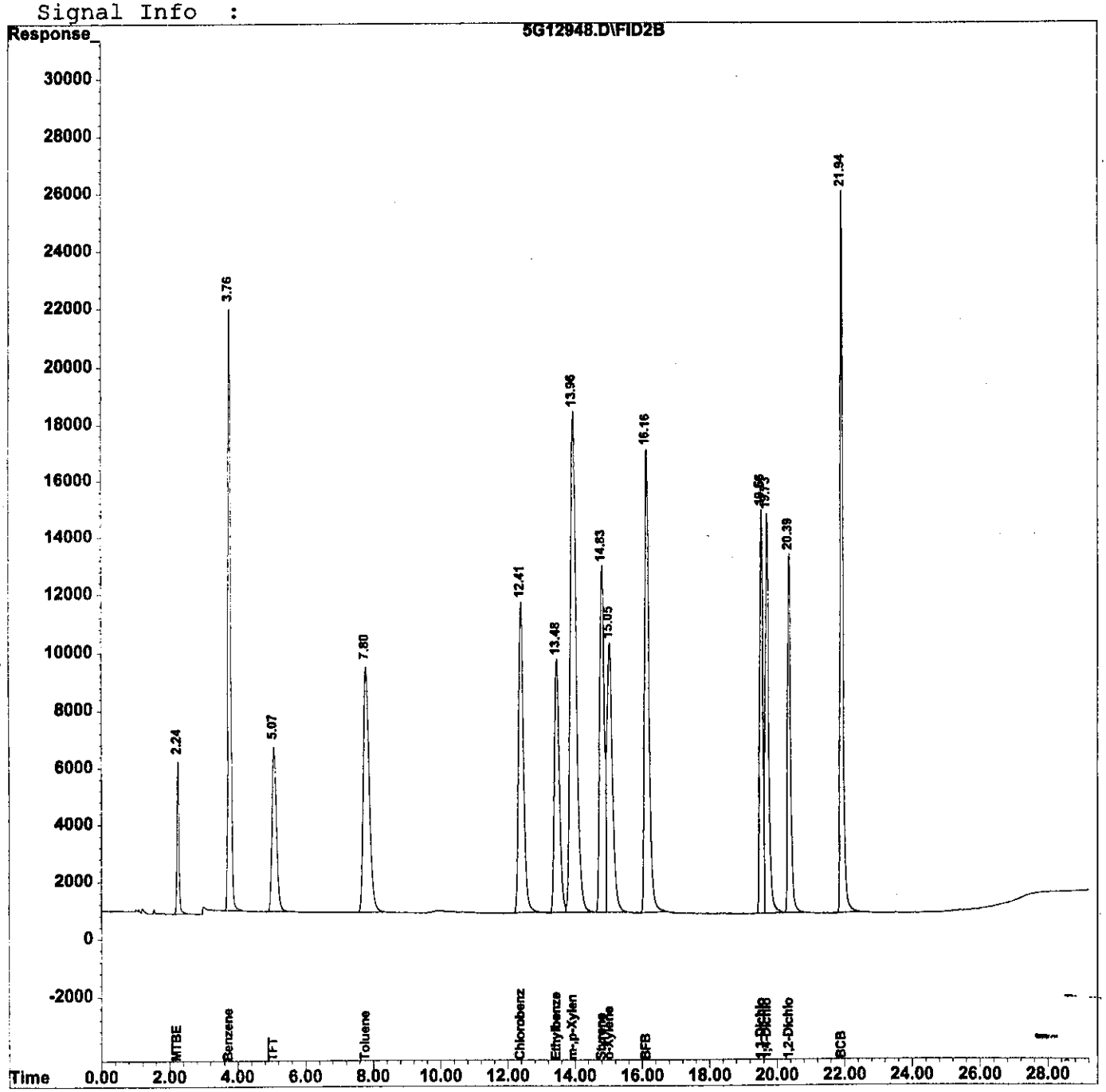
101

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

Data File : C:\HPCHEM\2\DATA\042202\5G12948.D Vial: 3
Acq On : 22 Apr 2002 14:39 Operator: CBN
Sample : WG116507-03 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



102

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12948.D Vial: 3
Acq On : 22 Apr 2002 14:39 Operator: CBN
Sample : WG116507-03 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	537047	30.2956 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.99%			
10) S BFB	16.16	1437037	30.0761 ug/L
Spiked Amount 30.000 Recovery = 100.25%			
14) S BCB	21.94	1406625	30.0414 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 100.14%			
Target Compounds			
1) TM MTBE	2.24	215108	20.5503 ug/L
2) TM Benzene	3.76	1150225	20.5070 ug/L
4) TM Toluene	7.80	1049846	20.5397 ug/L
5) TM Chlorobenzene	12.41	1106539	20.4509 ug/L
6) TM Ethylbenzene	13.48	906551	20.5014 ug/L
7) TM m-,p-Xylene	13.97	2170128	41.0274 ug/L
8) TM Styrene	14.83	1145612	20.6582 ug/L
9) TM o-Xylene	15.05	1057926	20.5165 ug/L
11) TM 1,3-Dichlorobenzene	19.57	890328	18.9188 ug/L
12) TM 1,4-Dichlorobenzene	19.73	990896	21.0558 ug/L
13) TM 1,2-Dichlorobenzene	20.39	779720	20.5803 ug/L

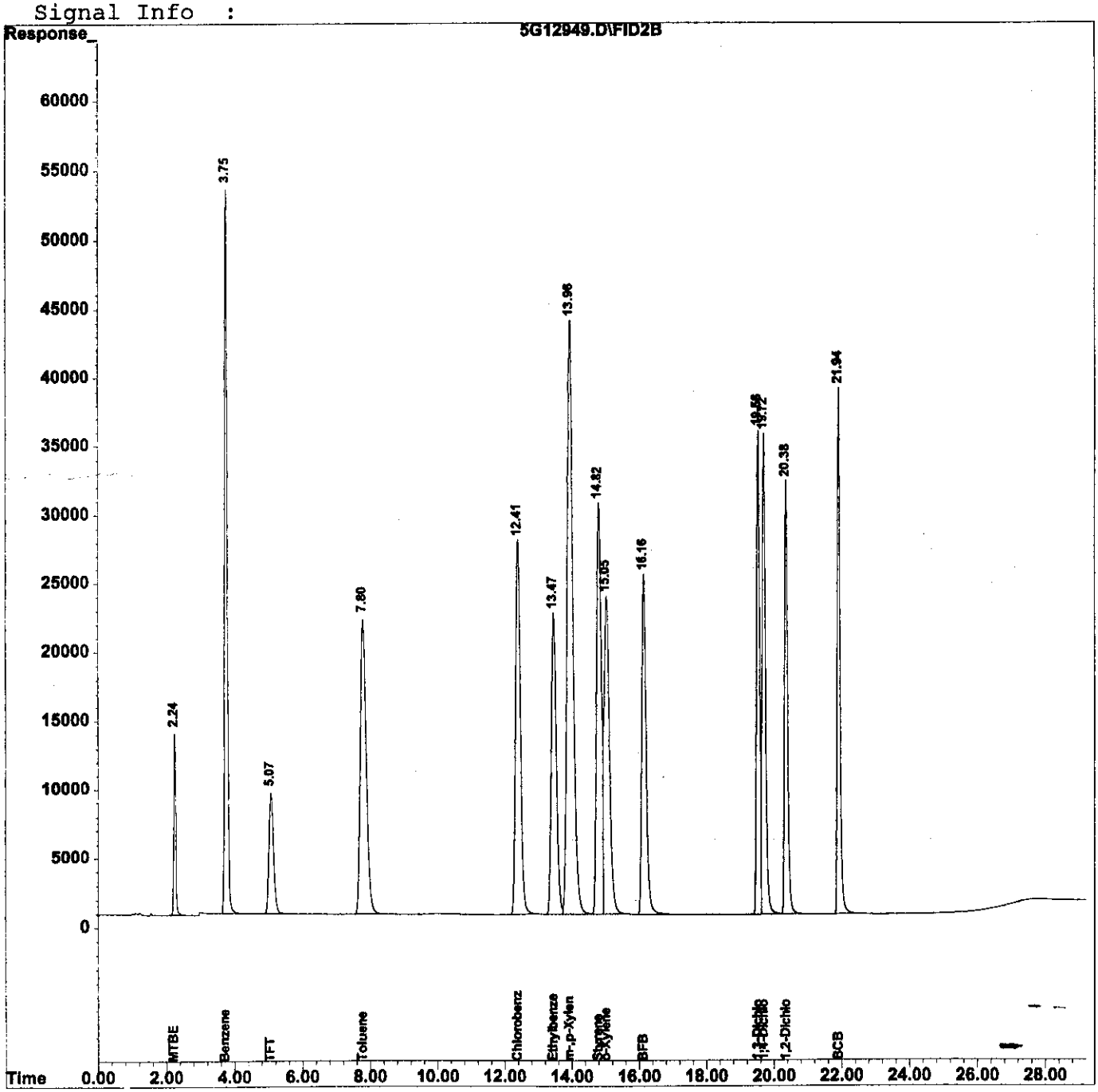
103

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

Data File : C:\HPCHEM\2\DATA\042202\5G12949.D Vial: 4
Acq On : 22 Apr 2002 15:14 Operator: CBN
Sample : WG116507-04 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



104

Data File : C:\HPCHEM\2\DATA\042202\5G12949.D Vial: 4
Acq On : 22 Apr 2002 15:14 Operator: CBN
Sample : WG116507-04 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	807512	45.5529 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	151.84%#
10) S BFB	16.16	2192778	45.8931 ug/L
Spiked Amount 30.000		Recovery =	152.98%
14) S BCB	21.94	2125866	45.4023 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	151.34%#
Target Compounds			
1) TM MTBE	2.24	523680	50.0297 ug/L
2) TM Benzene	3.76	2843877	50.7025 ug/L
4) TM Toluene	7.80	2608433	51.0328 ug/L
5) TM Chlorobenzene	12.41	2731610	50.4852 ug/L
6) TM Ethylbenzene	13.47	2242060	50.7035 ug/L
7) TM m-,p-Xylene	13.96	5356662	101.2705 ug/L
8) TM Styrene	14.82	2897265	52.2449 ug/L
9) TM o-Xylene	15.05	2583852	50.1091 ug/L
11) TM 1,3-Dichlorobenzene	19.56	2229246	47.3698 ug/L
12) TM 1,4-Dichlorobenzene	19.73	2418650	51.3944 ug/L
13) TM 1,2-Dichlorobenzene	20.38	1932782	51.0148 ug/L

105

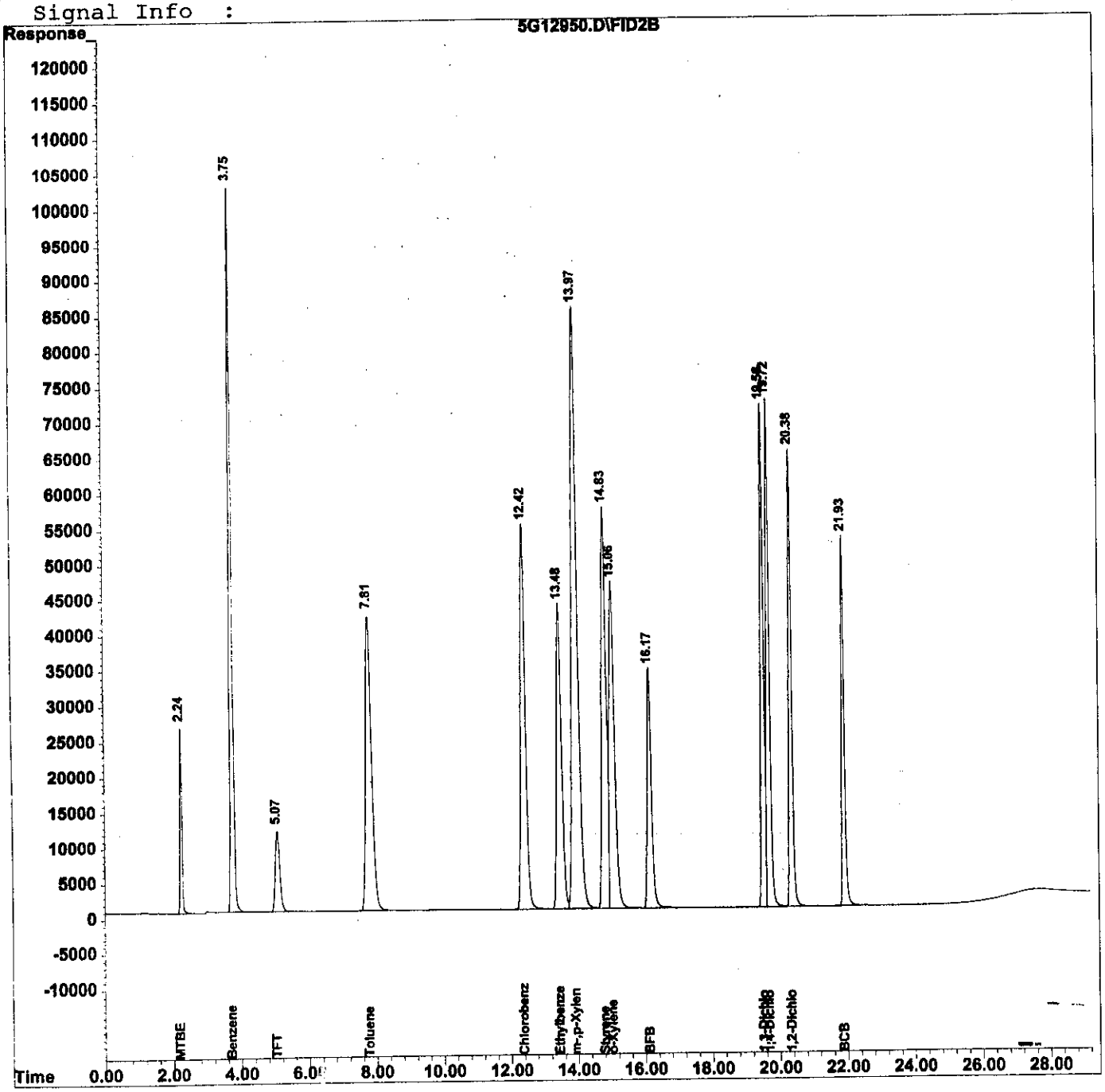
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\042202\5G12950.D
Acq On : 22 Apr 2002 15:48
Sample : WG116507-05 STD5 100PPB 5ML
Misc : 1,1 S-(93-17),S-92-(36,44)
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Vial: 5
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



106

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12950.D Vial: 5
Acq On : 22 Apr 2002 15:48 Operator: CBN
Sample : WG116507-05 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	1052975	59.3998 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	198.00%#
10) S BFB	16.17	2925355	61.2254 ug/L
Spiked Amount 30.000		Recovery =	204.08%
14) S BCB	21.94	2845744	60.7768 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	202.59%#
Target Compounds			
1) TM MTBE	2.24	1036822	99.0526 ug/L
2) TM Benzene	3.75	5501929	98.0920 ug/L
4) TM Toluene	7.81	5051424	98.8287 ug/L
5) TM Chlorobenzene	12.42	5426734	100.2960 ug/L
6) TM Ethylbenzene	13.49	4394325	99.3763 ug/L
7) TM m-,p-Xylene	13.97	10403552	196.6845 ug/L
8) TM Styrene	14.84	5341161	96.3145 ug/L
9) TM o-Xylene	15.06	5004098	97.0453 ug/L
11) TM 1,3-Dichlorobenzene	19.56	4470416	94.9929 ug/L
12) TM 1,4-Dichlorobenzene	19.72	4785322	101.6844 ug/L
13) TM 1,2-Dichlorobenzene	20.38	3869496	102.1334 ug/L

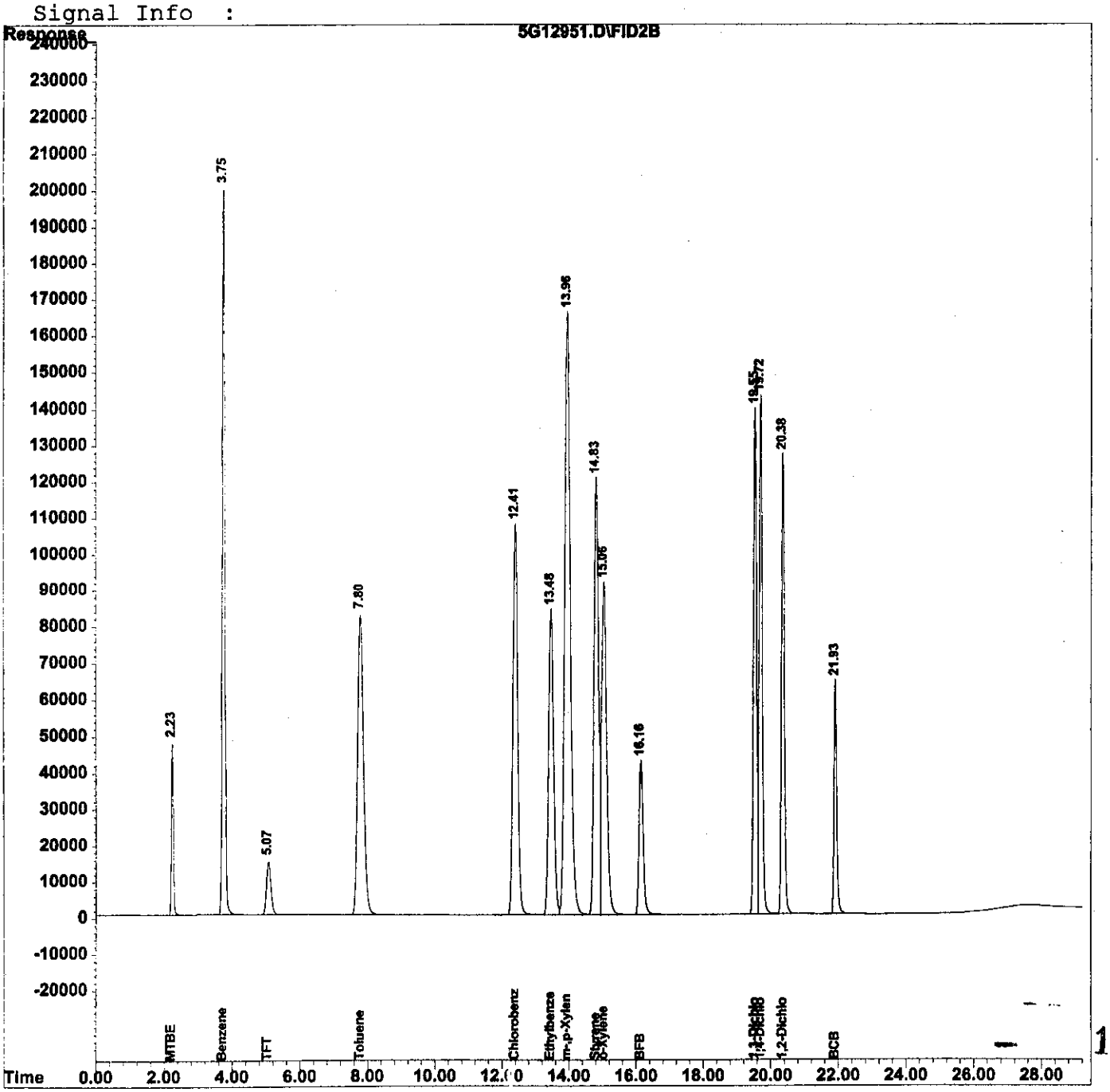
107

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

Data File : C:\HPCHEM\2\DATA\042202\5G12951.D Vial: 6
Acq On : 22 Apr 2002 16:23 Operator: CBN
Sample : WG116507-06 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



108

Data File : C:\HPCHEM\2\DATA\042202\5G12951.D Vial: 6
Acq On : 22 Apr 2002 16:23 Operator: CBN
Sample : WG116507-06 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	1333832	75.2433 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 250.81%#			
10) S BFB	16.16	3619677	75.7570 ug/L
Spiked Amount 30.000 Recovery = 252.52%			
14) S BCB	21.94	3466056	74.0249 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 246.75%#			
Target Compounds			
1) TM MTBE	2.24	1862797	177.9620 ug/L
2) TM Benzene	3.75	10728979	191.2832 ug/L
4) TM Toluene	7.80	9901450	193.7172 ug/L
5) TM Chlorobenzene	12.41	10606672	196.0308 ug/L
6) TM Ethylbenzene	13.48	8552369	193.4091 ug/L
7) TM m-,p-Xylene	13.97	20020076	378.4899 ug/L
8) TM Styrene	14.83	11339575	204.4809 ug/L
9) TM o-Xylene	15.06	9611978	186.4066 ug/L
11) TM 1,3-Dichlorobenzene	19.55	8798263	186.9563 ug/L
12) TM 1,4-Dichlorobenzene	19.72	9220416	195.9268 ug/L
13) TM 1,2-Dichlorobenzene	20.38	7443401	196.4647 ug/L

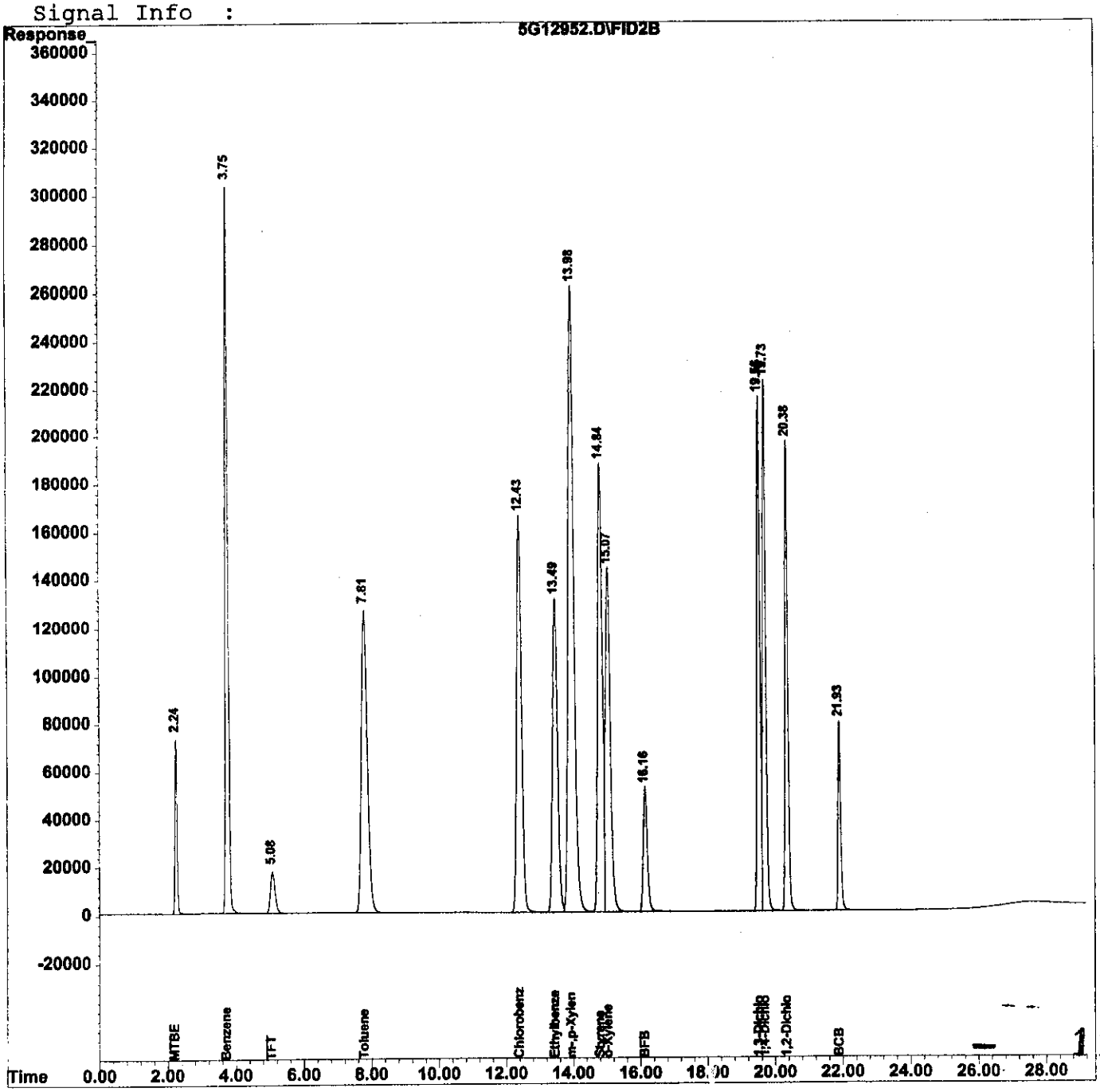
109

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

Data File : C:\HPCHEM\2\DATA\042202\5G12952.D Vial: 7
Acq On : 22 Apr 2002 16:58 Operator: CBN
Sample : WG116507-07 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



110

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\042202\5G12952.D Vial: 7
Acq On : 22 Apr 2002 16:58 Operator: CBN
Sample : WG116507-07 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-(93-17),S-92-(36,44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Mon Apr 22 19:15:15 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	1590258	89.7086 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 299.03%#			
10) S BFB	16.17	4333947	90.7061 ug/L
Spiked Amount 30.000 Recovery = 302.35%			
14) S BCB	21.93	4198503	89.6678 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 298.89%#			
Target Compounds			
1) TM MTBE	2.24	2935664	280.4582 ug/L
2) TM Benzene	3.75	16585339	295.6942 ug/L
4) TM Toluene	7.81	15528746	303.8126 ug/L
5) TM Chlorobenzene	12.43	16406053	303.2140 ug/L
6) TM Ethylbenzene	13.49	13415617	303.3899 ug/L
7) TM m-,p-Xylene	13.98	31047355	586.9664 ug/L
8) TM Styrene	14.84	17507932	315.7119 ug/L
9) TM o-Xylene	15.07	14625810	283.6407 ug/L
11) TM 1,3-Dichlorobenzene	19.56	13510483	287.0874 ug/L
12) TM 1,4-Dichlorobenzene	19.73	14010936	297.7217 ug/L
13) TM 1,2-Dichlorobenzene	20.38	11386255	300.5344 ug/L

111

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D
Acq On : 22 Apr 2002 18:42
Sample : WG116507-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-92-44
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.052 E3	-5.6	103	0.00
2	TM	Benzene	56.089	59.558 E3	-6.2	104	0.00
3	S	TFT	17.727	17.906 E3	-1.0	100	0.00
4	TM	Toluene	51.113	54.406 E3	-6.4	104	0.00
5	TM	Chlorobenzene	54.107	56.529 E3	-4.5	102	0.00
6	TM	Ethylbenzene	44.219	47.600 E3	-7.6	105	0.00
7	TM	m-,p-Xylene	52.895	55.632 E3	-5.2	103	0.00
8	TM	Styrene	55.455	58.150 E3	-4.9	102	0.00
9	TM	o-Xylene	51.565	53.613 E3	-4.0	101	-0.01
10	S	BFB	47.780	46.240 E3	3.2	97	-0.01
11	TM	1,3-Dichlorobenzene	43.477	46.342 E3	-6.6	104	-0.01
12	TM	1,4-Dichlorobenzene	47.061	50.837 E3	-8.0	103	-0.01
13	TM	1,2-Dichlorobenzene	37.887	40.945 E3	-8.1	105	0.00
14	S	BCB	46.823	46.651 E3	0.4	99	0.00

112

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:19:26 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.117	-5.6	103	0.00
2	TM	Benzene	20.000	21.237	-6.2	104	0.00
3	S	TFT	30.000	30.303	-1.0	100	0.00
4	TM	Toluene	20.000	21.288	-6.4	104	0.00
5	TM	Chlorobenzene	20.000	20.895	-4.5	102	0.00
6	TM	Ethylbenzene	20.000	21.529	-7.6	105	0.00
7	TM	m-,p-Xylene	40.000	42.070	-5.2	103	0.00
8	TM	Styrene	20.000	20.972	-4.9	102	0.00
9	TM	o-Xylene	20.000	20.795	-4.0	101	-0.01
10	S	BFB	30.000	29.033	3.2	97	-0.01
11	TM	1,3-Dichlorobenzene	20.000	21.318	-6.6	104	-0.01
12	TM	1,4-Dichlorobenzene	20.000	21.605	-8.0	103	-0.01
13	TM	1,2-Dichlorobenzene	20.000	21.614	-8.1	105	0.00
14	S	BCB	30.000	29.890	0.4	99	0.00

113

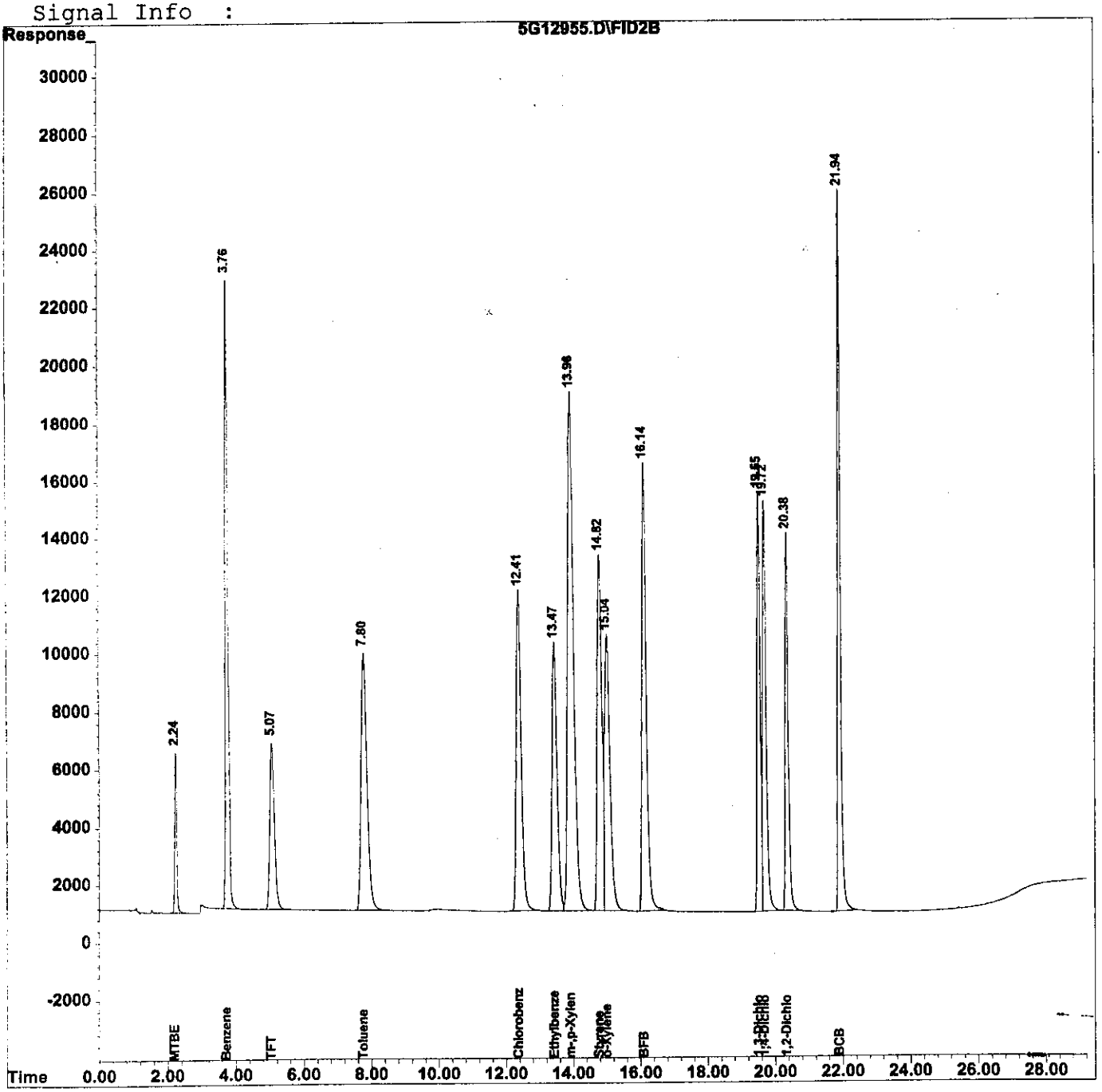
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12955.D 602STY.M Tue Apr 23 13:21:09 2002 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D Vial: 10
Acq On : 22 Apr 2002 18:42 Operator: CBN
Sample : WG116507-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-92-44 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 23 13:20 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



114

Data File : C:\HPCHEM\2\DATA\042202\5G12955.D
Acq On : 22 Apr 2002 18:42
Sample : WG116507-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-92-44
IntFile : autoint1.e
Quant Time: Apr 23 13:20 2002 Quant Results File: 602STY.RES

Vial: 10
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	537186	30.3034 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	101.01%
10) S BFB	16.15	1387204	29.0331 ug/L
Spiked Amount 30.000		Recovery =	96.78%
14) S BCB	21.94	1399522	29.8897 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	99.63%
Target Compounds			
1) TM MTBE	2.24	221045	21.1175 ug/L
2) TM Benzene	3.76	1191168	21.2369 ug/L
4) TM Toluene	7.80	1088112	21.2884 ug/L
5) TM Chlorobenzene	12.41	1130584	20.8953 ug/L
6) TM Ethylbenzene	13.48	952001	21.5292 ug/L
7) TM m-,p-Xylene	13.96	2225281	42.0701 ug/L
8) TM Styrene	14.82	1162996	20.9717 ug/L
9) TM o-Xylene	15.04	1072269	20.7947 ug/L
11) TM 1,3-Dichlorobenzene	19.55	926849	21.3180 ug/L
12) TM 1,4-Dichlorobenzene	19.72	1016744	21.6050 ug/L
13) TM 1,2-Dichlorobenzene	20.38	818900	21.6144 ug/L

115

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

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 5/13/02
Last Calibration: Mon May 13 17:42:47 2002

Calibration Files

Compound	1 11G13543.D	10 11G13535.D	20 11G13536.D	50 11G13537.D	100 11G13538.D	200 11G13539.D	300 11G13540.D	Avg	%RSD
MTBE	151554.8	140206.7	142304.1	131719.4	139307.7	139893.6	145658.5	141521.0	4.315
Benzene	308432.3	327543.0	338058.6	309068.0	334187.9	330720.7	319883.7	323985.0	3.655
TFT	96905.0	108487.8	108572.4	114188.8	110044.2	110044.5	112109.3	108622.0	5.105
Toluene	317868.6	327243.3	327841.3	299815.6	330114.8	329020.1	322830.9	322105.0	3.321
Chlorobenzene	311353.7	320836.8	330032.4	310333.5	344502.2	345762.3	342705.3	329361.0	4.697
Ethylbenzene	286492.3	283547.4	286508.0	264017.2	290069.6	287919.3	284028.3	283226.0	3.092
m-,p-Xylene	370425.0	363885.4	359151.2	325238.6	353382.4	347341.0	339735.0	351308.0	4.377
o-Xylene	301874.5	314474.8	312039.3	284563.4	311270.0	306114.6	300633.3	304424.0	3.350
BFB	273090.9	300613.3	311481.5	334655.2	320124.7	319698.5	330096.3	312823.0	6.661
1,3-Dichlorobenzene	300154.6	283326.7	294810.4	282354.3	316749.3	317934.0	308430.0	300537.0	4.874
1,4-Dichlorobenzene	310897.1	309364.8	324478.1	301859.4	331106.4	327282.2	322582.1	318224.0	3.409
1,2-Dichlorobenzene	253900.0	285413.5	289382.6	263327.5	283777.1	277307.0	267899.8	274430.0	4.768
BCB	271385.6	284245.0	306947.3	331790.0	319950.6	320559.9	329621.0	309214.0	7.503

Mon May 13 18:19:57 2002

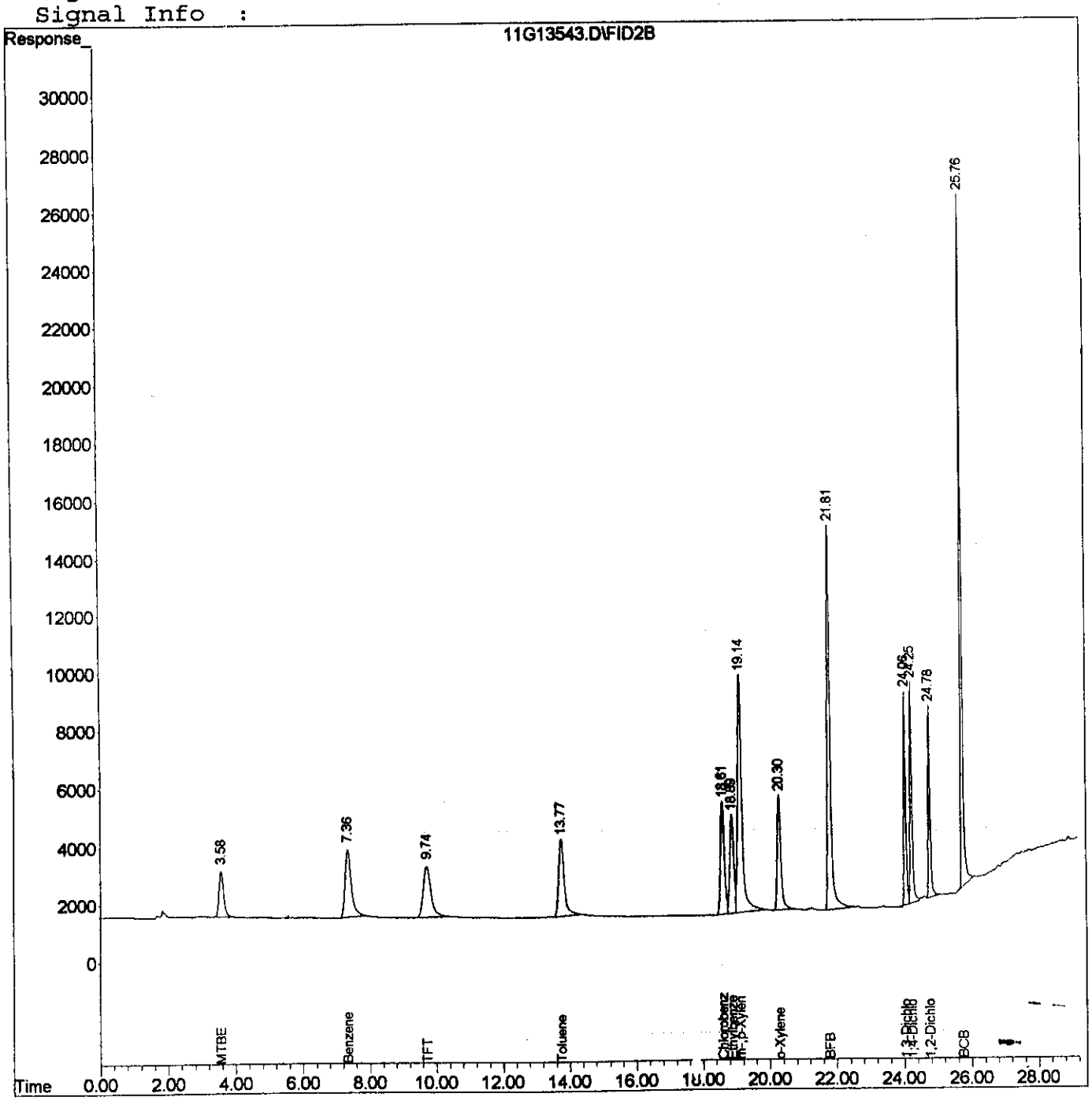
116

Data File : C:\HPCHEM\1\DATA\051302\11G13543.D
Acq On : 13 May 2002 5:11 pm
Sample : WG117338-01 8021 STD 1 1PPB 5ML
Misc : 1,1 S-(94-01,92-44)
IntFile : autoint1.e
Quant Time: May 13 17:40 2002 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



117

Data File : C:\HPCHEM\1\DATA\051302\11G13543.D Vial: 10
Acq On : 13 May 2002 5:11 pm Operator: CBN
Sample : WG117338-01 8021 STD 1 1PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,92-44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 17:40 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.74	290715	2.6068 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	8.69%#
9) S BFB	21.81	819273	2.5730 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	8.58%#
13) S BCB	25.76	814157	2.5226 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery =	8.41%#
Target Compounds			
1) TM MTBE	3.58	151555	1.1208 UG/L
2) TM Benzene	7.37	308432	0.8882 UG/L
4) TM Toluene	13.77	317869	0.8975 UG/L
5) TM Chlorobenzene	18.61	311354	0.8266 UG/L
6) TM Ethylbenzene	18.89	286492	0.8885 UG/L
7) TM m-,p-Xylene	19.14	740850	1.8562 UG/L
8) TM o-Xylene	20.31	301874	0.8487 UG/L
10) T 1,3-Dichlorobenzene	24.06	300155	0.8480 UG/L
11) T 1,4-Dichlorobenzene	24.25	310897	0.8169 UG/L
12) T 1,2-Dichlorobenzene	24.78	253900	0.7689 UG/L

118

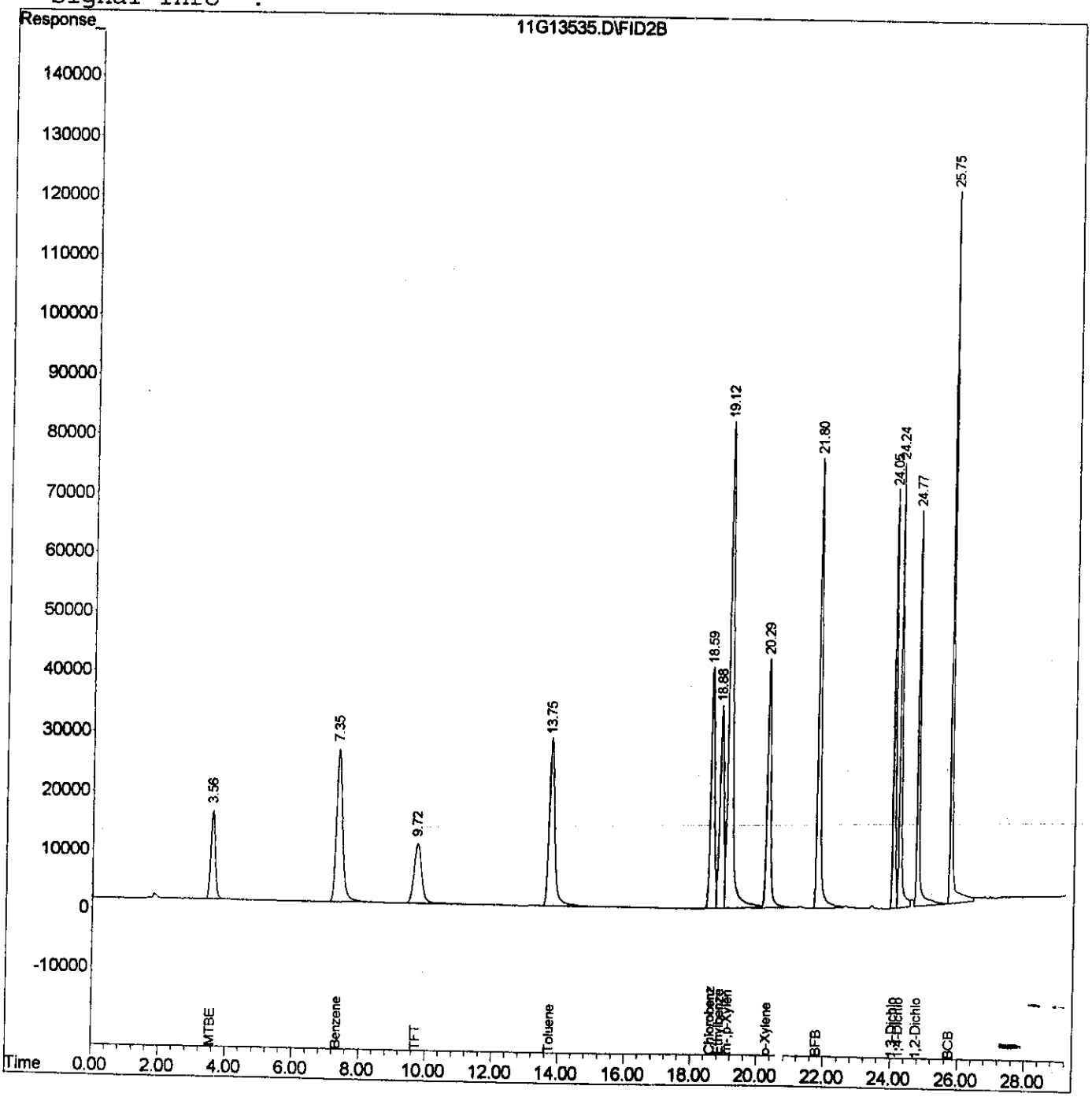
(6) RT Delta > 1/2 Window (m)=manual int

Data File : C:\HPCHEM\1\DATA\051302\11G13535.D
Acq On : 13 May 2002 12:23 pm
Sample : WG117338-02 8021 STD 2 10PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 12:52 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



119

11G13535.D 8021W.M

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13535.D Vial: 2
Acq On : 13 May 2002 12:23 pm Operator: CBN
Sample : WG117338-02 8021 STD 2 10PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 12:52 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

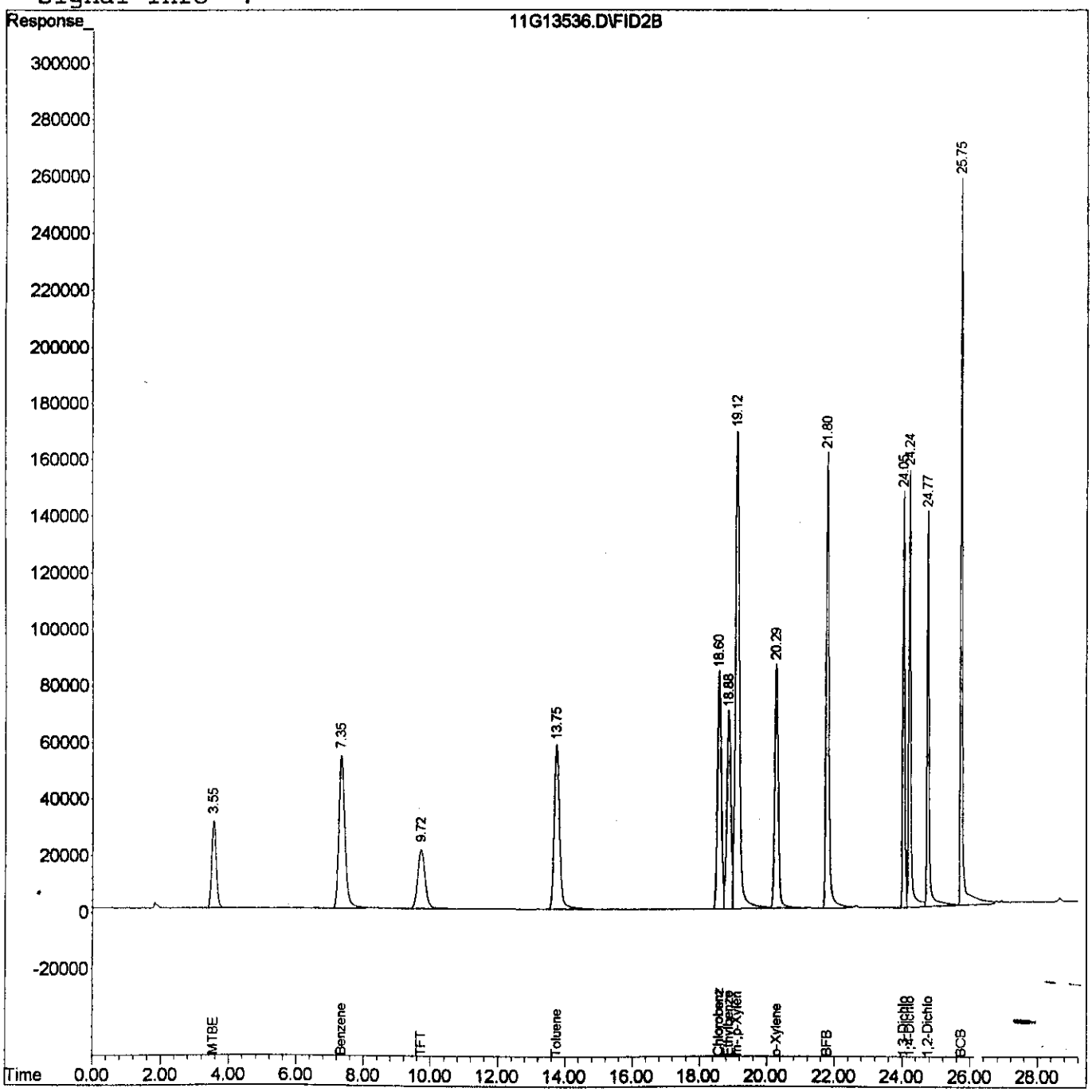
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	1627317	14.5922 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 48.64%#
9) S BFB	21.80	4509200	14.1618 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 47.21%#
13) S BCB	25.75	4263676	13.2107 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 44.04%
Target Compounds			
1) TM MTBE	3.56	1402067	10.3684 UG/L
2) TM Benzene	7.35	3275430	9.4323 UG/L
4) TM Toluene	13.75	3272433	9.2394 UG/L
5) TM Chlorobenzene	18.60	3208368	8.5176 UG/L
6) TM Ethylbenzene	18.88	2835474	8.7934 UG/L
7) TM m-,p-Xylene	19.12	7277709	18.2347 UG/L
8) TM o-Xylene	20.29	3144748	8.8417 UG/L
10) T 1,3-Dichlorobenzene	24.06	2833267	8.0050 UG/L
11) T 1,4-Dichlorobenzene	24.24	3093648	8.1288 UG/L
12) T 1,2-Dichlorobenzene	24.77	2854135	8.6437 UG/L

120

Data File : C:\HPCHEM\1\DATA\051302\11G13536.D Vial: 3
Acq On : 13 May 2002 12:58 pm Operator: CBN
Sample : WG117338-03 8021 STD 3 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 13:27 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



121

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13536.D Vial: 3
Acq On : 13 May 2002 12:58 pm Operator: CBN
Sample : WG117338-03 8021 STD 3 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 13:27 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

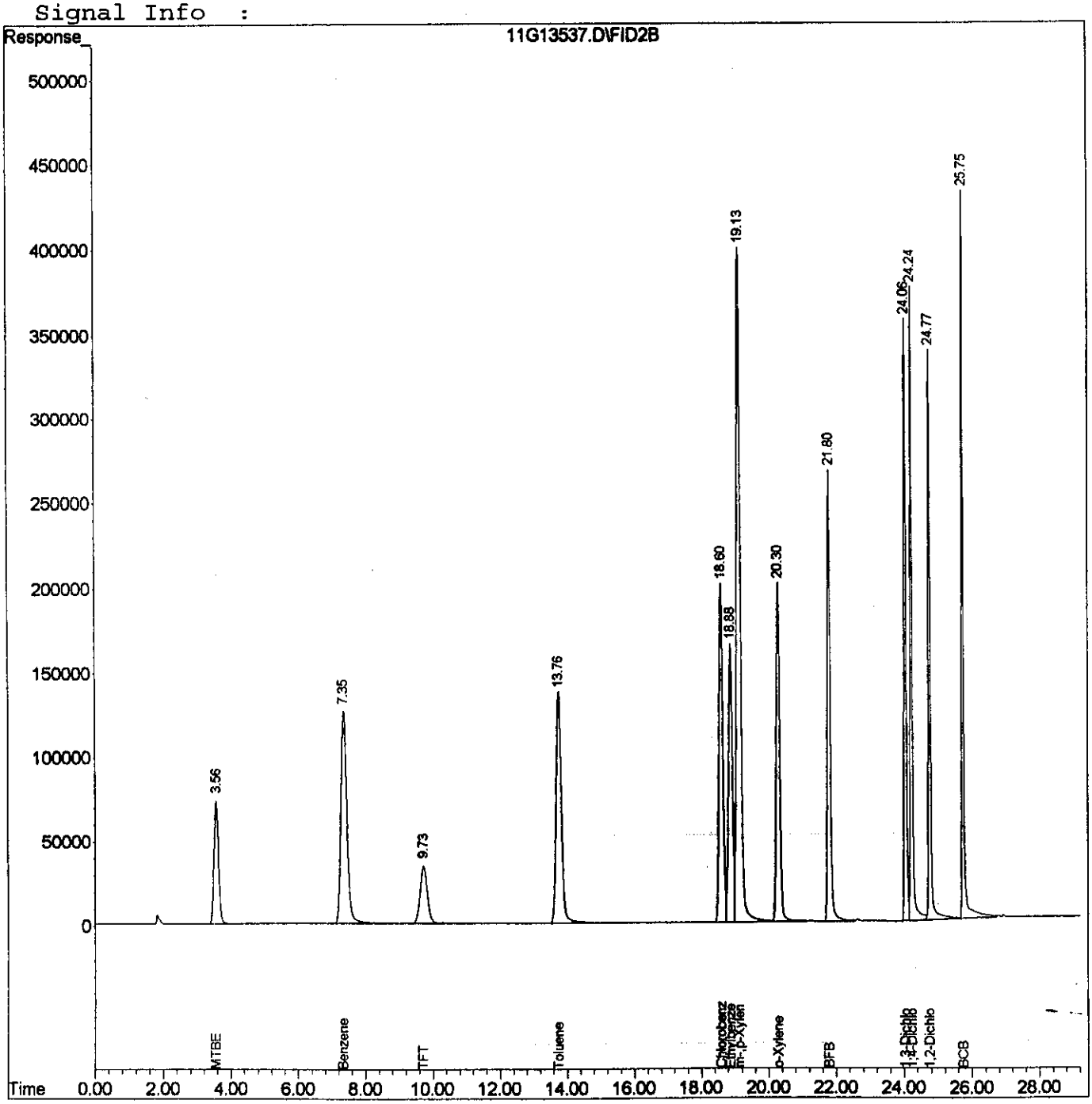
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	3257171	29.2071 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 97.36%
9) S BFB	21.80	9344446	29.3475 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 97.82%
13) S BCB	25.75	9208420	28.5316 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 95.11%
Target Compounds			
1) TM MTBE	3.56	2846083	21.0471 UG/L
2) TM Benzene	7.35	6761172	19.4702 UG/L
4) TM Toluene	13.75	6556825	18.5126 UG/L
5) TM Chlorobenzene	18.60	6600647	17.5234 UG/L
6) TM Ethylbenzene	18.88	5730160	17.7705 UG/L
7) TM m-,p-Xylene	19.13	14366047	35.9949 UG/L
8) TM o-Xylene	20.29	6240785	17.5465 UG/L
10) T 1,3-Dichlorobenzene	24.06	5896208	16.6589 UG/L
11) T 1,4-Dichlorobenzene	24.24	6489562	17.0519 UG/L
12) T 1,2-Dichlorobenzene	24.77	5787652	17.5277 UG/L

122

Data File : C:\HPCHEM\1\DATA\051302\11G13537.D Vial: 4
Acq On : 13 May 2002 1:33 pm Operator: CBN
Sample : WG117338-04 8021 STD 4 50PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 14:02 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



123

```
Data File : C:\HPCHEM\1\DATA\051302\11G13537.D          Vial: 4
Acq On    : 13 May 2002   1:33 pm                    Operator: CBN
Sample    : WG117338-04 8021 STD 4 50PPB 5ML         Inst    : HP11
Misc      : 1,1 S-(94-01,93-49)                      Multiplr: 1.00
IntFile   : autoint1.e
Quant Time: May 13 14:02 2002  Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title        : Method 8021B- WATER 5/08/02
Last Update  : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.73	5138497	46.0769 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 153.59%#
9) S BFB			21.81	15059484	47.2964 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 157.65%#
13) S BCB			25.75	14930551	46.2612 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 154.20%#
Target Compounds					
1) TM MTBE			3.56	6585968	48.7039 UG/L
2) TM Benzene			7.36	15453398	44.5014 UG/L
4) TM Toluene			13.76	14990780	42.3251 UG/L
5) TM Chlorobenzene			18.60	15516675	41.1937 UG/L
6) TM Ethylbenzene			18.89	13200860	40.9387 UG/L
7) TM m-,p-Xylene			19.13	32523856	81.4904 UG/L
8) TM o-Xylene			20.30	14228168	40.0038 UG/L
10) T 1,3-Dichlorobenzene			24.06	14117714	39.8876 UG/L
11) T 1,4-Dichlorobenzene			24.24	15092969	39.6580 UG/L
12) T 1,2-Dichlorobenzene			24.77	13166373	39.8740 UG/L

124

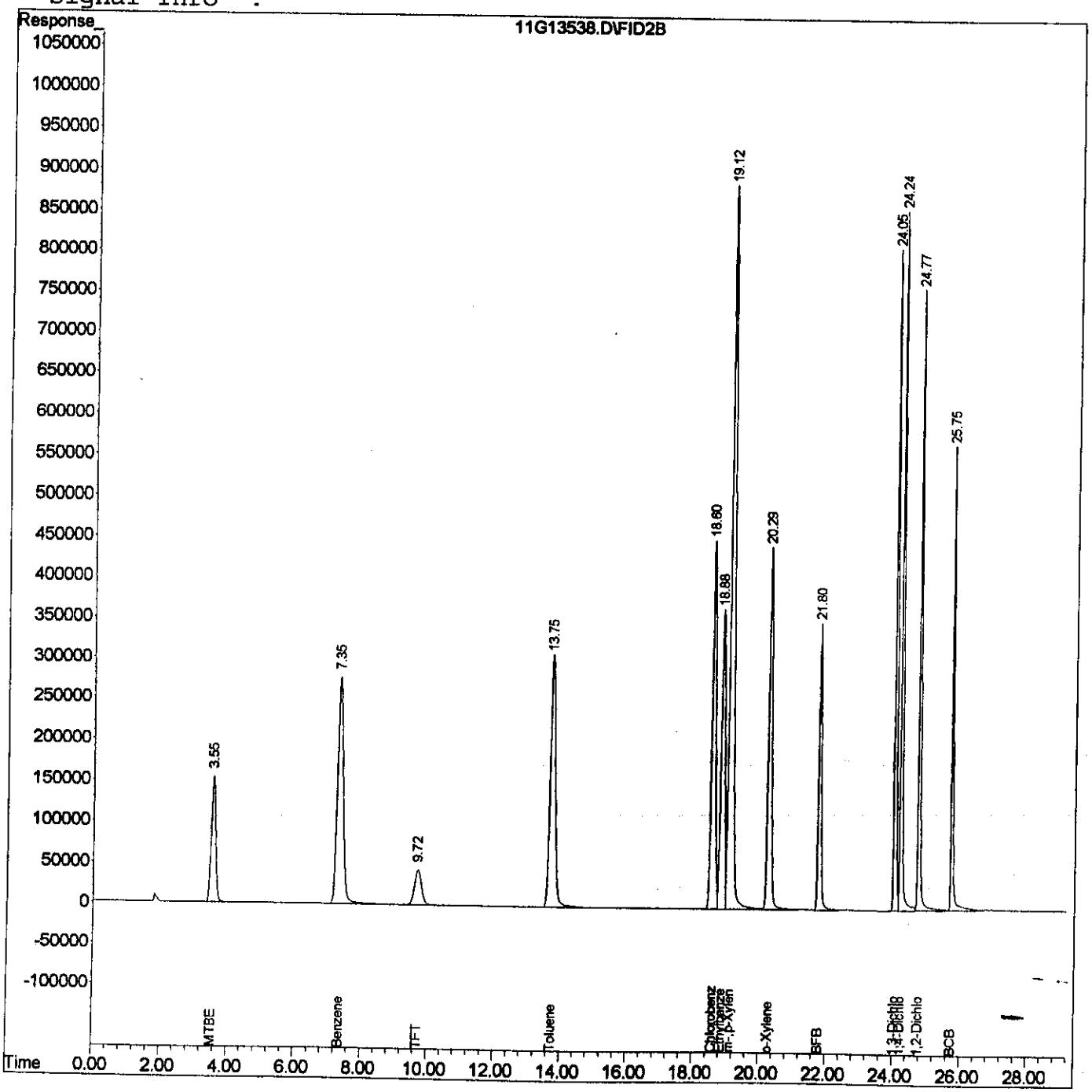
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13538.D
Acq On : 13 May 2002 2:07 pm
Sample : WG117338-05 8021 STD 5 100PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 14:37 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



125

Data File : C:\HPCHEM\1\DATA\051302\11G13538.D Vial: 5
Acq On : 13 May 2002 2:07 pm Operator: CBN
Sample : WG117338-05 8021 STD 5 100PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 14:37 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.72	6602653	59.2060 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 197.35%#
9) S BFB			21.80	19207480	60.3238 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 201.08%#
13) S BCB			25.75	19197037	59.4806 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 198.27%#
Target Compounds					
1) TM MTBE			3.56	13930766	103.0194 UG/L
2) TM Benzene			7.35	33418790	96.2365 UG/L
4) TM Toluene			13.75	33011484	93.2048 UG/L
5) TM Chlorobenzene			18.60	34450221	91.4586 UG/L
6) TM Ethylbenzene			18.88	29006956	89.9569 UG/L
7) TM m-,p-Xylene			19.12	70676483	177.0840 UG/L
8) TM o-Xylene			20.29	31127004	87.5163 UG/L
10) T 1,3-Dichlorobenzene			24.05	31674928	89.4930 UG/L
11) T 1,4-Dichlorobenzene			24.24	33110643	87.0010 UG/L
12) T 1,2-Dichlorobenzene			24.77	28377708	85.9411 UG/L

126

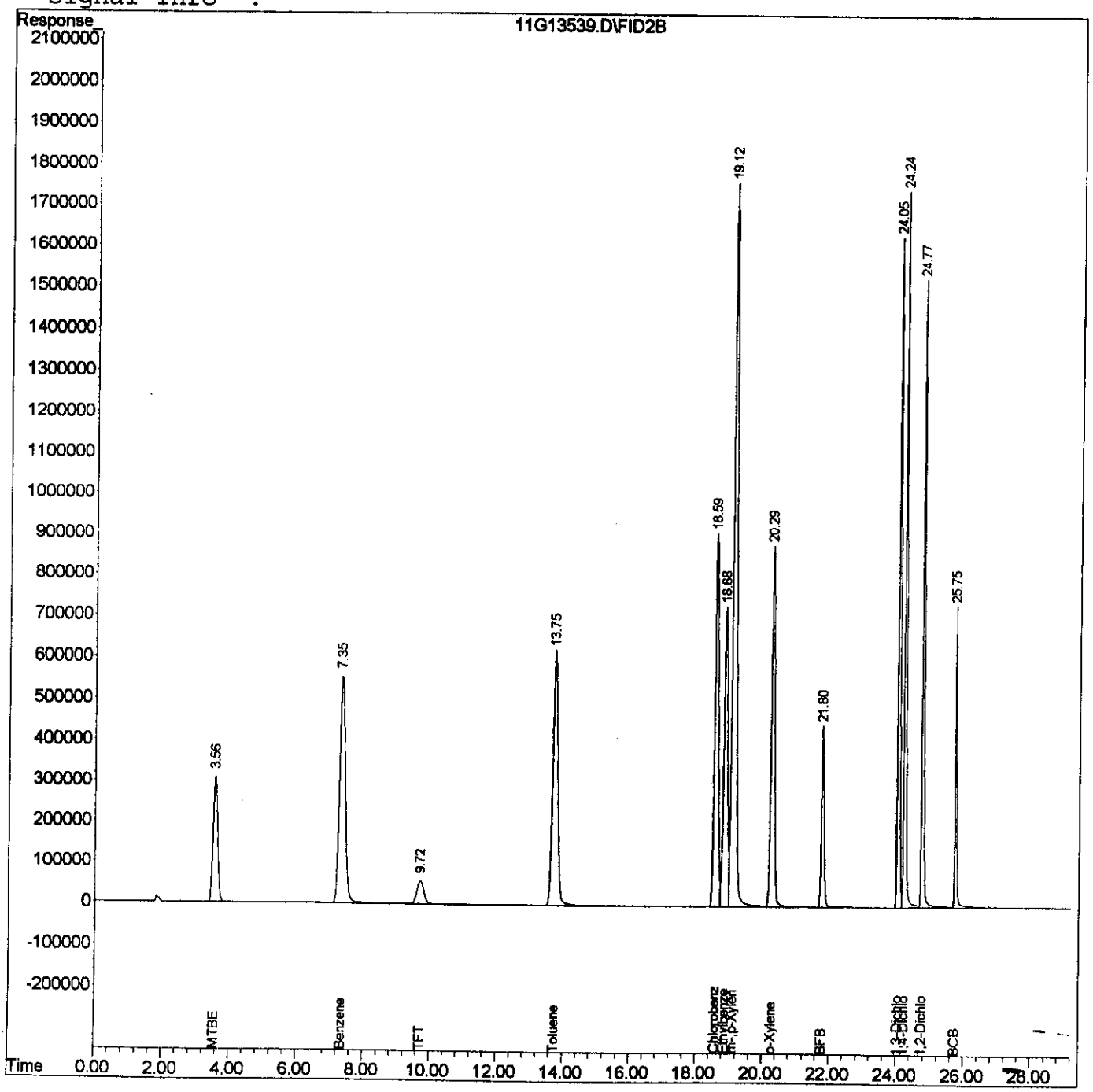
(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\1\DATA\051302\11G13539.D
Acq On : 13 May 2002 2:42 pm
Sample : WG117338-06 8021 STD 6 200PPB 5ML
Misc : 1,1 S-(94-01,93-49)
IntFile : autoint1.e
Quant Time: May 13 15:12 2002 Quant Results File: 8021W.RES

Vial: 6
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



127

Data File : C:\HPCHEM\1\DATA\051302\11G13539.D Vial: 6
Acq On : 13 May 2002 2:42 pm Operator: CBN
Sample : WG117338-06 8021 STD 6 200PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,93-49) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 15:12 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	8253341	74.0077 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 246.69%#
9) S BFB	21.80	23977388	75.3043 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 251.01%#
13) S BCB	25.75	24041990	74.4923 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 248.31%#
Target Compounds			
1) TM MTBE	3.56	27978725	206.9054 UG/L
2) TM Benzene	7.35	66144142	190.4762 UG/L
4) TM Toluene	13.75	65804025	185.7915 UG/L
5) TM Chlorobenzene	18.59	69152463	183.5862 UG/L
6) TM Ethylbenzene	18.88	57583861	178.5801 UG/L
7) TM m-,p-Xylene	19.12	138936411	348.1131 UG/L
8) TM o-Xylene	20.29	61222910	172.1336 UG/L
10) T 1,3-Dichlorobenzene	24.05	63586793	179.6554 UG/L
11) T 1,4-Dichlorobenzene	24.24	65456433	171.9922 UG/L
12) T 1,2-Dichlorobenzene	24.77	55461402	167.9633 UG/L

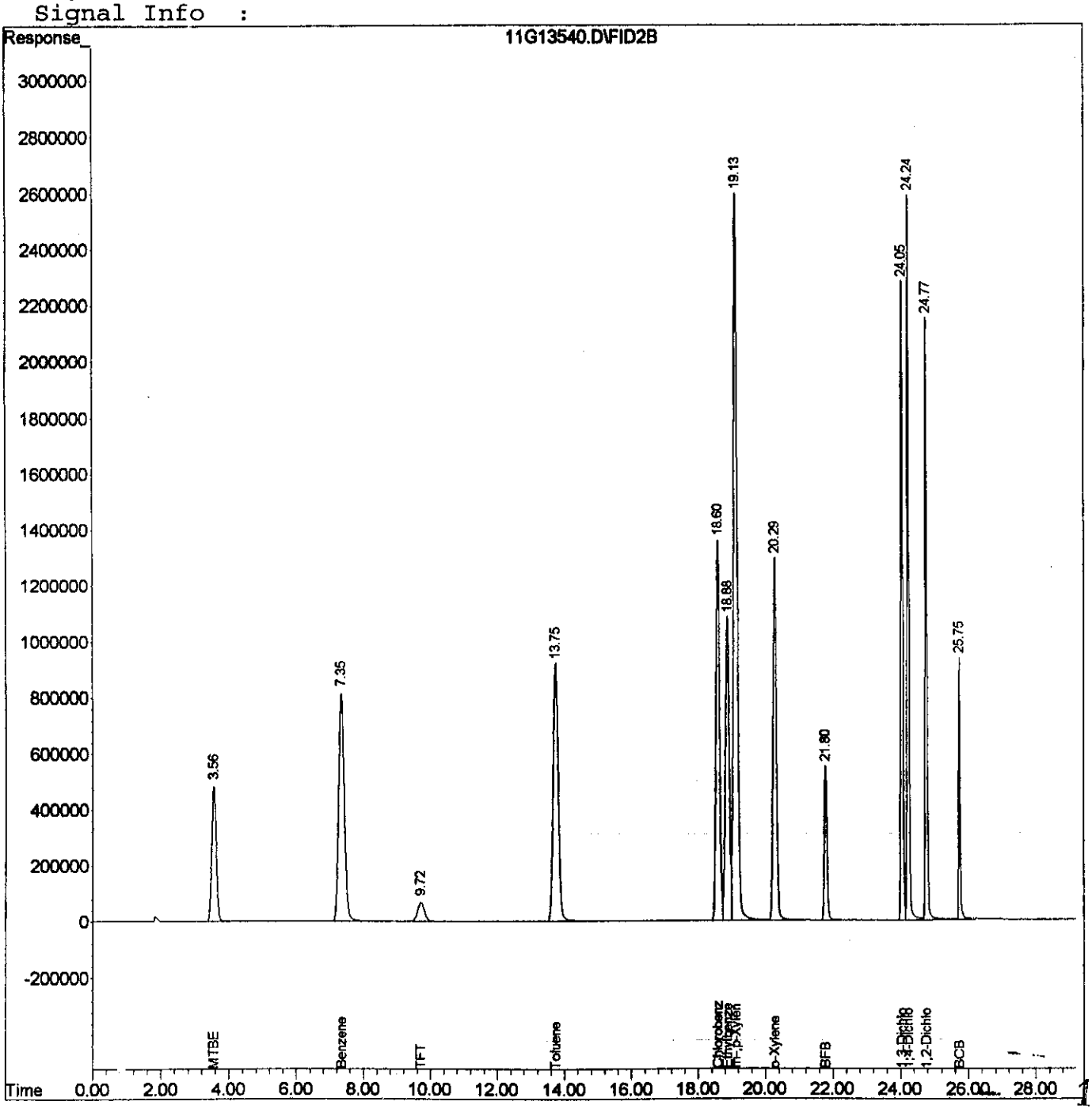
128

(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\1\DATA\051302\11G13540.D Vial: 7
Acq On : 13 May 2002 3:17 pm Operator: CBN
Sample : WG117338-07 8021 STD 7 300PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,92-44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 15:47 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



129

Data File : C:\HPCHEM\1\DATA\051302\11G13540.D Vial: 7
Acq On : 13 May 2002 3:17 pm Operator: CBN
Sample : WG117338-07 8021 STD 7 300PPB 5ML Inst : HP11
Misc : 1,1 S-(94-01,92-44) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 13 15:47 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/08/02
Last Update : Wed May 08 15:41:35 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.73	10089835	90.4756 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 301.59%#
9) S BFB	21.80	29708663	93.3042 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 311.01%#
13) S BCB	25.75	29665891	91.9176 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 306.39%#
Target Compounds			
1) TM MTBE	3.56	43697556	323.1477 UG/L
2) TM Benzene	7.36	95965113	276.3520 UG/L
4) TM Toluene	13.75	96849261	273.4449 UG/L
5) TM Chlorobenzene	18.60	102811588	272.9446 UG/L
6) TM Ethylbenzene	18.88	85208496	264.2501 UG/L
7) TM m-,p-Xylene	19.13	203840990	510.7352 UG/L
8) TM o-Xylene	20.29	90189977	253.5771 UG/L
10) T 1,3-Dichlorobenzene	24.06	92528991	261.4275 UG/L
11) T 1,4-Dichlorobenzene	24.24	96774635	254.2834 UG/L
12) T 1,2-Dichlorobenzene	24.77	80369936	243.3980 UG/L

130

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e

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

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	141.521	147.371	E3	-4.1	104	0.01
2	TM	Benzene	323.985	309.186	E3	4.6	91	0.02
3	S	TFT	108.622	111.350	E3	-2.5	103	0.02
4	TM	Toluene	322.105	331.935	E3	-3.1	101	0.02
5	TM	Chlorobenzene	329.361	326.842	E3	0.8	99	0.01
6	TM	Ethylbenzene	283.226	296.198	E3	-4.6	103	0.01
7	TM	m-,p-Xylene	351.308	358.489	E3	-2.0	100	0.00
8	TM	o-Xylene	304.424	310.084	E3	-1.9	99	0.00
9	S	BFB	312.823	312.169	E3	0.2	100	0.00
10	T	1,3-Dichlorobenzene	300.537	290.478	E3	3.3	99	0.00
11	T	1,4-Dichlorobenzene	318.224	315.630	E3	0.8	97	0.00
12	T	1,2-Dichlorobenzene	274.430	288.099	E3	-5.0	100	0.00
13	S	BCB	309.214	310.874	E3	-0.5	101	0.00

131

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13544.D 8021W.M Mon May 13 18:21:21 2002

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e

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

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.827	-4.1	104	0.01
2	TM	Benzene	20.000	19.086	4.6	91	0.02
3	S	TFT	30.000	30.753	-2.5	103	0.02
4	TM	Toluene	20.000	20.610	-3.0	101	0.02
5	TM	Chlorobenzene	20.000	19.847	0.8	99	0.01
6	TM	Ethylbenzene	20.000	20.916	-4.6	103	0.01
7	TM	m-,p-Xylene	40.000	40.818	-2.0	100	0.00
8	TM	o-Xylene	20.000	20.372	-1.9	99	0.00
9	S	BFB	30.000	29.937	0.2	100	0.00
10	T	1,3-Dichlorobenzene	20.000	19.331	3.3	99	0.00
11	T	1,4-Dichlorobenzene	20.000	19.837	0.8	97	0.00
12	T	1,2-Dichlorobenzene	20.000	20.996	-5.0	100	0.00
13	S	BCB	30.000	30.161	-0.5	101	0.00

132

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

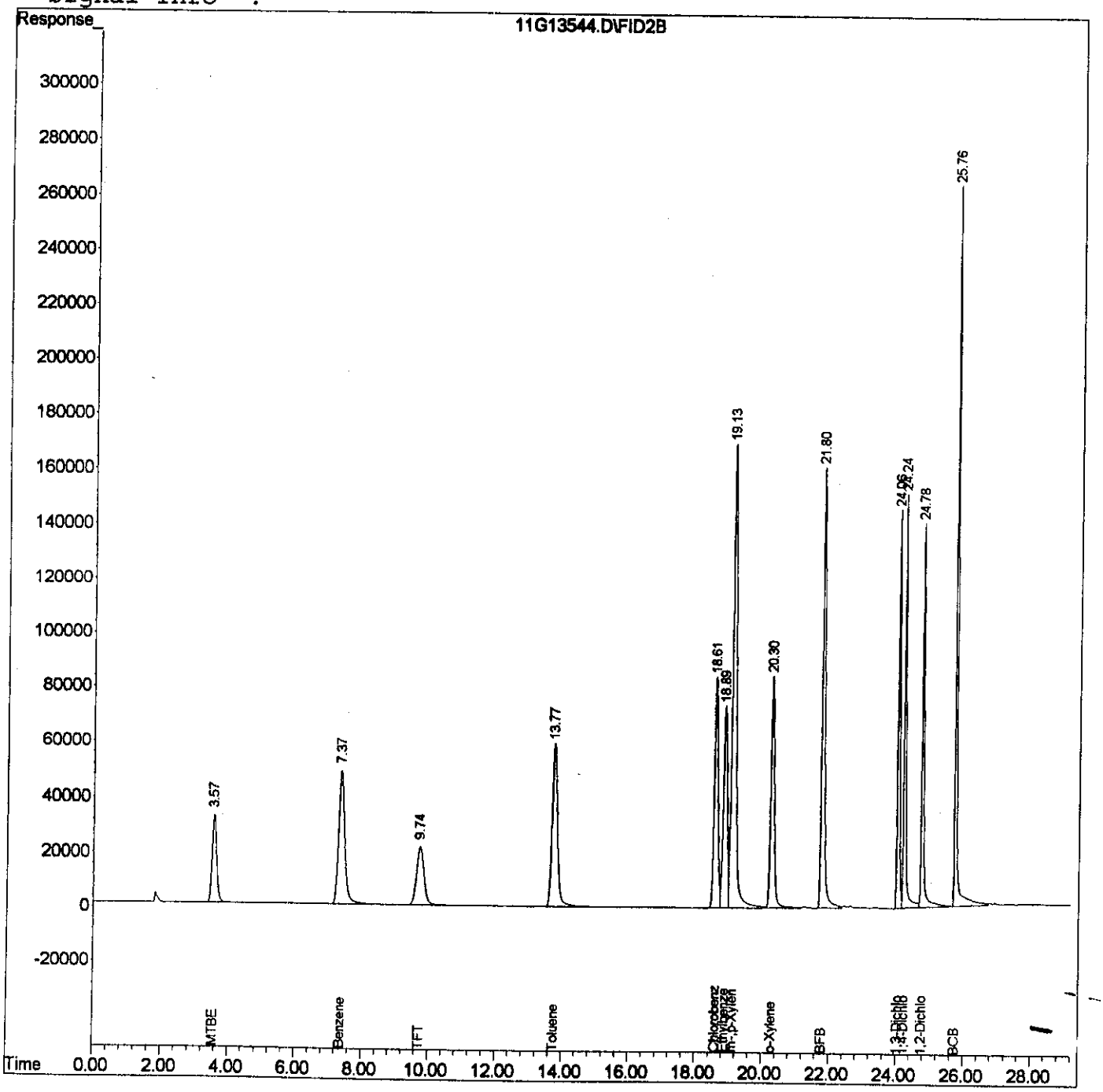
Integration Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e
Quant Time: May 13 18:28 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



133

Data File : C:\HPCHEM\1\DATA\051302\11G13544.D
Acq On : 13 May 2002 17:59
Sample : WG117338-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(92-47,93-50)
IntFile : autoint1.e
Quant Time: May 13 18:28 2002 Quant Results File: 8021W.RES

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

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	3340486	30.7534 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 102.51%
9) S BFB			21.81	9365082	29.9373 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 99.79%
13) S BCB			25.76	9326225	30.1610 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 100.54%
Target Compounds					
1) TM MTBE			3.57	2947419	20.8268 UG/L
2) TM Benzene			7.37	6183728	19.0865 UG/L
4) TM Toluene			13.77	6638700	20.6104 UG/L
5) TM Chlorobenzene			18.61	6536836	19.8470 UG/L
6) TM Ethylbenzene			18.89	5923954	20.9160 UG/L
7) TM m-,p-Xylene			19.14	14339562	40.8176 UG/L
8) TM o-Xylene			20.30	6201687	20.3719 UG/L
10) T 1,3-Dichlorobenzene			24.06	5809558	19.3306 UG/L
11) T 1,4-Dichlorobenzene			24.24	6312608	19.8370 UG/L
12) T 1,2-Dichlorobenzene			24.78	5761972	20.9962 UG/L

134

(f)=RT Delta > 1/2 Window

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	141.521	128.370	E3	9.3	90	0.00
2	TM	Benzene	323.985	287.362	E3	11.3	85	0.00
3	S	TFT	108.622	98.354	E3	9.5	91	0.00
4	TM	Toluene	322.105	361.933	E3	-12.4	110	0.00
5	TM	Chlorobenzene	329.361	309.610	E3	6.0	94	0.00
6	TM	Ethylbenzene	283.226	282.106	E3	0.4	98	0.00
7	TM	m-,p-Xylene	351.308	342.875	E3	2.4	95	0.00
8	TM	o-Xylene	304.424	299.581	E3	1.6	96	0.00
9	S	BFB	312.823	273.294	E3	12.6	88	0.00
10	T	1,3-Dichlorobenzene	300.537	279.833	E3	6.9	95	0.00
11	T	1,4-Dichlorobenzene	318.224	298.811	E3	6.1	92	0.00
12	T	1,2-Dichlorobenzene	274.430	263.000	E3	4.2	91	0.00
13	S	BCB	309.214	259.375	E3	16.1#	85	0.00

135

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13737.D 8021W.M Mon Jun 10 10:29:19 2002 Page 1

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.141	9.3	90	0.00
2	TM	Benzene	20.000	17.739	11.3	85	0.00
3	S	TFT	30.000	27.164	9.5	91	0.00
4	TM	Toluene	20.000	22.473	-12.4	110	0.00
5	TM	Chlorobenzene	20.000	18.801	6.0	94	0.00
6	TM	Ethylbenzene	20.000	19.921	0.4	98	0.00
7	TM	m-,p-Xylene	40.000	39.040	2.4	95	0.00
8	TM	o-Xylene	20.000	19.682	1.6	96	0.00
9	S	BFB	30.000	26.209	12.6	88	0.00
10	T	1,3-Dichlorobenzene	20.000	18.622	6.9	95	0.00
11	T	1,4-Dichlorobenzene	20.000	18.780	6.1	92	0.00
12	T	1,2-Dichlorobenzene	20.000	19.167	4.2	91	0.00
13	S	BCB	30.000	25.165	16.1#	85	0.00

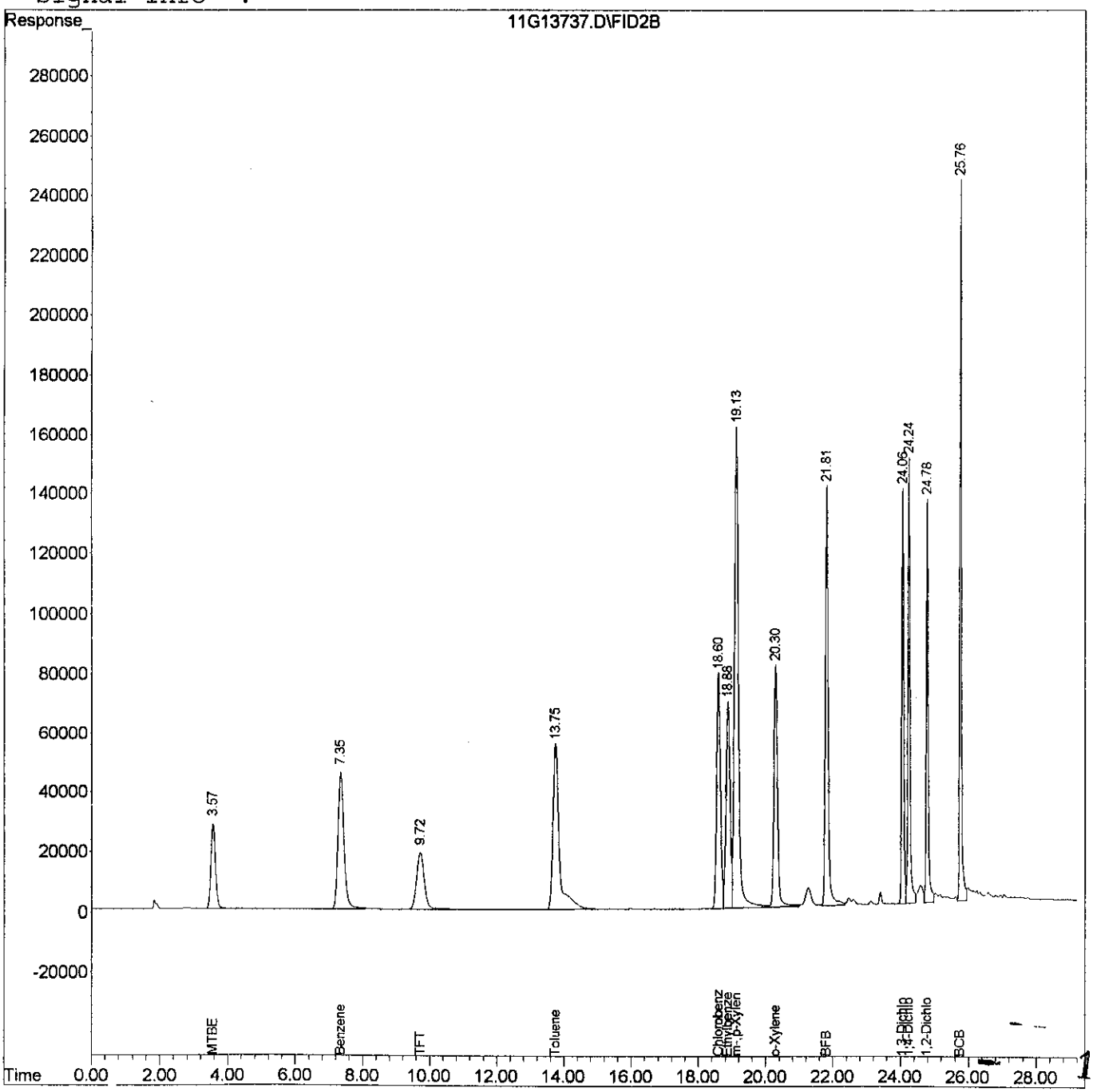
136

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13737.D 8021W.M Mon Jun 10 10:29:20 2002 Page 1

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 am Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 9:49 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



137

Data File : C:\HPCHEM\1\DATA\061002\11G13737.D Vial: 1
Acq On : 10 Jun 2002 9:19 am Operator: CSH
Sample : WG119487-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 9:49 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	2950619	27.1642 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 90.55%
9) S BFB	21.81	8198832	26.2092 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 87.36%
13) S BCB	25.76	7781244	25.1646 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 83.88%
Target Compounds			
1) TM MTBE	3.57	2567397	18.1415 UG/L
2) TM Benzene	7.35	5747245	17.7392 UG/L
4) TM Toluene	13.75	7238661	22.4730 UG/L
5) TM Chlorobenzene	18.60	6192209	18.8007 UG/L
6) TM Ethylbenzene	18.88	5642113	19.9209 UG/L
7) TM m-,p-Xylene	19.13	13715010	39.0398 UG/L
8) TM o-Xylene	20.30	5991622	19.6818 UG/L
10) T 1,3-Dichlorobenzene	24.06	5596667	18.6222 UG/L
11) T 1,4-Dichlorobenzene	24.24	5976227	18.7799 UG/L
12) T 1,2-Dichlorobenzene	24.78	5259996	19.1670 UG/L

138

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

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 16:05 Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	141.521	100.872 E3	28.7#	71	0.00
2	TM	Benzene	323.985	287.807 E3	11.2	85	0.00
3	S	TFT	108.622	109.878 E3	-1.2	101	-0.02
4	TM	Toluene	322.105	302.284 E3	6.2	92	-0.01
5	TM	Chlorobenzene	329.361	303.038 E3	8.0	92	-0.01
6	TM	Ethylbenzene	283.226	271.861 E3	4.0	95	-0.01
7	TM	m-,p-Xylene	351.308	330.865 E3	5.8	92	-0.01
8	TM	o-Xylene	304.424	286.779 E3	5.8	92	-0.01
9	S	BFB	312.823	297.075 E3	5.0	95	-0.01
10	T	1,3-Dichlorobenzene	300.537	269.569 E3	10.3	91	0.00
11	T	1,4-Dichlorobenzene	318.224	297.686 E3	6.5	92	0.00
12	T	1,2-Dichlorobenzene	274.430	269.932 E3	1.6	93	0.00
13	S	BCB	309.214	308.252 E3	0.3	100	0.00

AVE = 7.28

139

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G13748.D 8021W.M Tue Jun 11 06:42:45 2002 Page 1

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 16:05 Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration

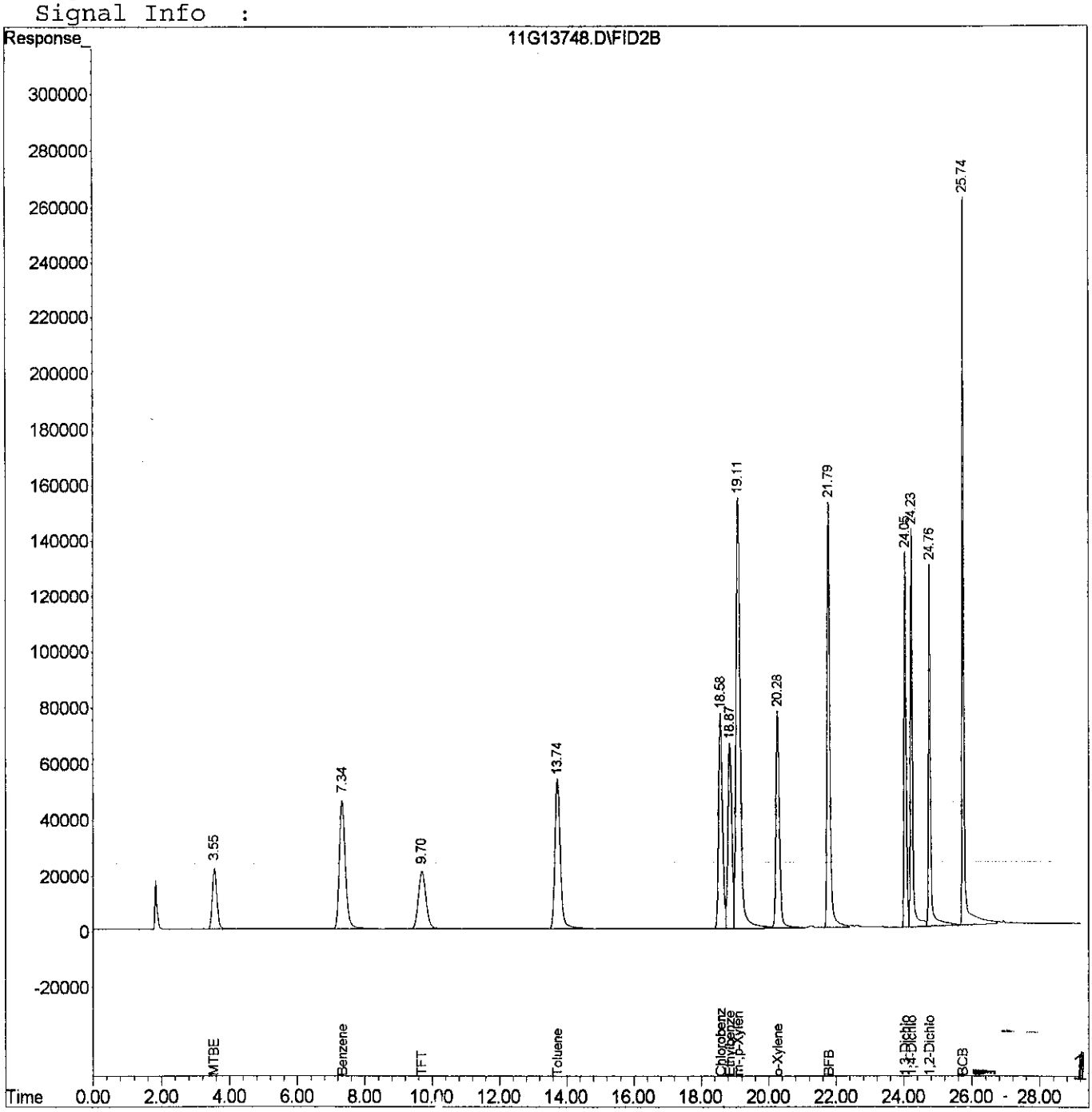
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	14.255	28.7#	71	0.00
2	TM	Benzene	20.000	17.767	11.2	85	0.00
3	S	TFT	30.000	30.347	-1.2	101	-0.02
4	TM	Toluene	20.000	18.769	6.2	92	-0.01
5	TM	Chlorobenzene	20.000	18.402	8.0	92	-0.01
6	TM	Ethylbenzene	20.000	19.197	4.0	95	-0.01
7	TM	m-,p-Xylene	40.000	37.672	5.8	92	-0.01
8	TM	o-Xylene	20.000	18.841	5.8	92	-0.01
9	S	BFB	30.000	28.490	5.0	95	-0.01
10	T	1,3-Dichlorobenzene	20.000	17.939	10.3	91	0.00
11	T	1,4-Dichlorobenzene	20.000	18.709	6.5	92	0.00
12	T	1,2-Dichlorobenzene	20.000	19.672	1.6	93	0.00
13	S	BCB	30.000	29.907	0.3	100	0.00

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 4:05 pm Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 16:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



141

Data File : C:\HPCHEM\1\DATA\061002\11G13748.D Vial: 9
Acq On : 10 Jun 2002 4:05 pm Operator: CSH
Sample : WG119487-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 16:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.71	3296334	30.3469 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 101.16%
9) S BFB	21.79	8912240	28.4897 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 94.97%
13) S BCB	25.74	9247558	29.9066 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 99.69%
Target Compounds			
1) TM MTBE	3.56	2017447	14.2555 UG/L
2) TM Benzene	7.34	5756144	17.7667 UG/L
4) TM Toluene	13.74	6045676	18.7693 UG/L
5) TM Chlorobenzene	18.58	6060759	18.4016 UG/L
6) TM Ethylbenzene	18.87	5437220	19.1975 UG/L
7) TM m-,p-Xylene	19.11	13234600	37.6723 UG/L
8) TM o-Xylene	20.28	5735574	18.8407 UG/L
10) T 1,3-Dichlorobenzene	24.05	5391388	17.9392 UG/L
11) T 1,4-Dichlorobenzene	24.23	5953724	18.7092 UG/L
12) T 1,2-Dichlorobenzene	24.77	5398647	19.6722 UG/L

142

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

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	10.569 E3	-1.0	98	-0.02
2	TM	Benzene	56.089	58.511 E3	-4.3	102	-0.03
3	S	TFT	17.727	17.840 E3	-0.6	100	-0.05
4	TM	Toluene	51.113	56.051 E3	-9.7	107	-0.07
5	TM	Chlorobenzene	54.107	56.505 E3	-4.4	102	-0.06
6	TM	Ethylbenzene	44.219	47.938 E3	-8.4	106	-0.06
7	TM	m-,p-Xylene	52.895	57.204 E3	-8.1	105	-0.06
8	TM	Styrene	55.455	48.883 E3	11.9	85	0.17
9	TM	o-Xylene	51.565	48.883 E3	5.2	92	-0.05
10	S	BFB	47.780	47.182 E3	1.3	98	-0.06
11	TM	1,3-Dichlorobenzene	43.477	47.040 E3	-8.2	106	-0.05
12	TM	1,4-Dichlorobenzene	47.061	50.512 E3	-7.3	102	-0.05
13	TM	1,2-Dichlorobenzene	37.887	40.653 E3	-7.3	104	-0.04
14	S	BCB	46.823	44.106 E3	5.8	94	-0.04

143

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13707.D 602STY.M Tue Jun 11 07:19:33 2002 Page 1

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.194	-1.0	98	-0.02
2	TM	Benzene	20.000	20.863	-4.3	102	-0.03
3	S	TFT	30.000	30.191	-0.6	100	-0.05
4	TM	Toluene	20.000	21.932	-9.7	107	-0.07
5	TM	Chlorobenzene	20.000	20.886	-4.4	102	-0.06
6	TM	Ethylbenzene	20.000	21.682	-8.4	106	-0.06
7	TM	m-,p-Xylene	40.000	43.259	-8.1	105	-0.06
8	TM	Styrene	20.000	17.629	11.9	85	0.17
9	TM	o-Xylene	20.000	18.960	5.2	92	-0.05
10	S	BFB	30.000	29.624	1.3	98	-0.06
11	TM	1,3-Dichlorobenzene	20.000	21.639	-8.2	106	-0.05
12	TM	1,4-Dichlorobenzene	20.000	21.467	-7.3	102	-0.05
13	TM	1,2-Dichlorobenzene	20.000	21.460	-7.3	104	-0.04
14	S	BCB	30.000	28.259	5.8	94	-0.04

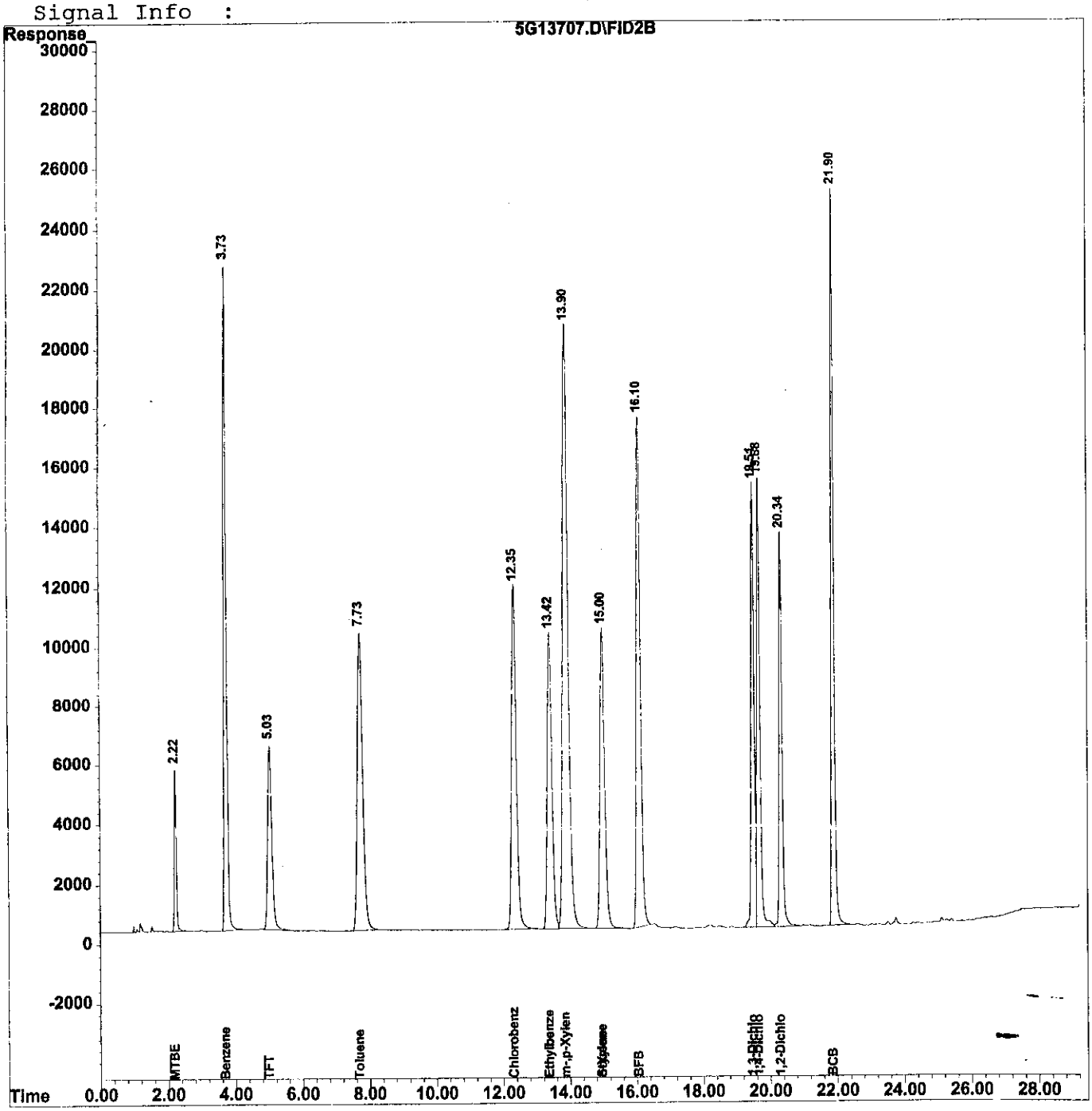
144

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13707.D 602STY.M Tue Jun 11 07:19:35 2002 Page 1

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 7:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



145

Data File : C:\HPCHEM\2\DATA\061102\5G13707.D Vial: 1
Acq On : 11 Jun 2002 6:48 Operator: CBN
Sample : WG119545-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 7:18 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	535202	30.1915 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.64%			
10) S BFB	16.10	1415449	29.6243 ug/L
Spiked Amount 30.000 Recovery = 98.75%			
14) S BCB	21.91	1323184	28.2594 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 94.20%			
Target Compounds			
1) TM MTBE	2.22	211377	20.1938 ug/L
2) TM Benzene	3.73	1170219	20.8634 ug/L
4) TM Toluene	7.73	1121015	21.9321 ug/L
5) TM Chlorobenzene	12.35	1130106	20.8864 ug/L
6) TM Ethylbenzene	13.42	958757	21.6820 ug/L
7) TM m-,p-Xylene	13.90	2288168	43.2590 ug/L
8) TM Styrene	15.00	977651	17.6295 ug/L
9) TM o-Xylene	15.00	977651	18.9597 ug/L
11) TM 1,3-Dichlorobenzene	19.51	940791	21.6387 ug/L
12) TM 1,4-Dichlorobenzene	19.68	1010244	21.4669 ug/L
13) TM 1,2-Dichlorobenzene	20.35	813058	21.4603 ug/L

146

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

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	10.467	11.141 E3	-6.4	104	-0.02
2	TM	Benzene	56.089	55.042 E3	1.9	96	-0.03
3	S	TFT	17.727	18.660 E3	-5.3	104	-0.04
4	TM	Toluene	51.113	50.360 E3	1.5	96	-0.06
5	TM	Chlorobenzene	54.107	53.834 E3	0.5	97	-0.03
6	TM	Ethylbenzene	44.219	43.382 E3	1.9	96	-0.03
7	TM	m-,p-Xylene	52.895	51.013 E3	3.6	94	-0.03
8	TM	Styrene	55.455	44.410 E3	19.9#	78	0.20
9	TM	o-Xylene	51.565	44.410 E3	13.9	84	-0.02
10	S	BFB	47.780	49.404 E3	-3.4	103	-0.04
11	TM	1,3-Dichlorobenzene	43.477	43.680 E3	-0.5	98	-0.04
12	TM	1,4-Dichlorobenzene	47.061	48.317 E3	-2.7	98	-0.03
13	TM	1,2-Dichlorobenzene	37.887	39.280 E3	-3.7	101	-0.03
14	S	BCB	46.823	46.132 E3	1.5	98	-0.03

147

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13715.D 602STY.M Tue Jun 11 14:30:00 2002 Page 1

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.287	-6.4	104	-0.02
2	TM	Benzene	20.000	19.626	1.9	96	-0.03
3	S	TFT	30.000	31.578	-5.3	104	-0.04
4	TM	Toluene	20.000	19.706	1.5	96	-0.06
5	TM	Chlorobenzene	20.000	19.899	0.5	97	-0.03
6	TM	Ethylbenzene	20.000	19.622	1.9	96	-0.03
7	TM	m-,p-Xylene	40.000	38.577	3.6	94	-0.03
8	TM	Styrene	20.000	16.016	19.9#	78	0.20
9	TM	o-Xylene	20.000	17.225	13.9	84	-0.02
10	S	BFB	30.000	31.020	-3.4	103	-0.04
11	TM	1,3-Dichlorobenzene	20.000	20.093	-0.5	98	-0.04
12	TM	1,4-Dichlorobenzene	20.000	20.534	-2.7	98	-0.03
13	TM	1,2-Dichlorobenzene	20.000	20.736	-3.7	101	-0.03
14	S	BCB	30.000	29.557	1.5	98	-0.03

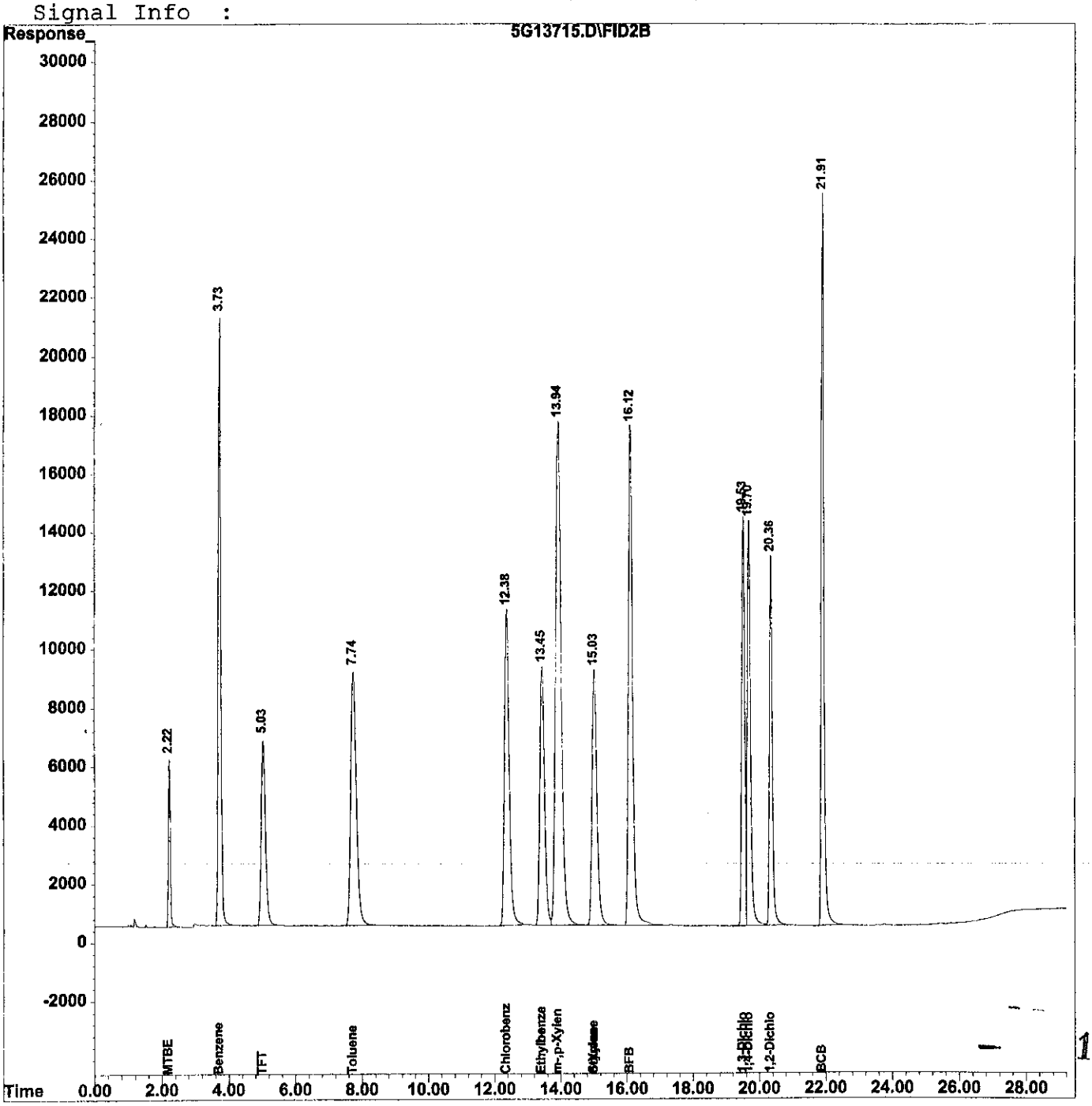
148

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G13715.D 602STY.M Tue Jun 11 14:29:58 2002 Page 1

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 12:25 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



149

Data File : C:\HPCHEM\2\DATA\061102\5G13715.D Vial: 6
Acq On : 11 Jun 2002 11:56 Operator: CBN
Sample : WG119545-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 12:25 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	559787	31.5784 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 105.26%			
10) S BFB	16.12	1482121	31.0196 ug/L
Spiked Amount 30.000 Recovery = 103.40%			
14) S BCB	21.92	1383966	29.5575 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.53%			
Target Compounds			
1) TM MTBE	2.22	222820	21.2870 ug/L
2) TM Benzene	3.73	1100837	19.6264 ug/L
4) TM Toluene	7.74	1007208	19.7055 ug/L
5) TM Chlorobenzene	12.38	1076679	19.8990 ug/L
6) TM Ethylbenzene	13.45	867646	19.6215 ug/L
7) TM m-,p-Xylene	13.94	2040509	38.5769 ug/L
8) TM Styrene	15.03	888191	16.0163 ug/L
9) TM o-Xylene	15.03	888191	17.2248 ug/L
11) TM 1,3-Dichlorobenzene	19.53	873597	20.0932 ug/L
12) TM 1,4-Dichlorobenzene	19.70	966331	20.5338 ug/L
13) TM 1,2-Dichlorobenzene	20.36	785608	20.7357 ug/L

150

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 10-Jun-02
Filename: 11G13737
Sub Directory: 061002
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.567	3.539	3.595
benzene	7.353	7.300	7.406
1,1,1-trifluorotoluene (SS)	9.720	9.647	9.793
toluene	13.751	13.686	13.816
chlorobenzene	18.601	18.545	18.657
ethylbenzene	18.884	18.833	18.935
m+p-xylene	19.131	19.080	19.182
o-xylene	20.299	20.255	20.343
bromofluorobenzene (SS)	21.808	21.768	21.848
1,3-dichlorobenzene	24.063	24.035	24.091
1,4-dichlorobenzene	24.245	24.219	24.271
1,2-dichlorobenzene	24.780	24.757	24.803
bromochlorobenzene (SS)	25.759	25.739	25.779

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G13230 **DATE #1:** 1/18/2002
CONT STD #2: 11G13241 **DATE #2:** 1/18/2002
CONT STD #3: 11G13257 **DATE #3:** 1/18/2002

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.578	3.594	3.578	3.583	0.009	0.028
benzene	7.453	7.483	7.452	7.463	0.018	0.053
1,1,1-trifluorotoluene (SS)	9.870	9.914	9.874	9.886	0.024	0.073
toluene	13.910	13.948	13.911	13.923	0.022	0.065
chlorobenzene	18.755	18.786	18.753	18.765	0.019	0.056
ethylbenzene	19.037	19.064	19.033	19.045	0.017	0.051
m+p-xylene	19.282	19.309	19.278	19.290	0.017	0.051
o-xylene	20.439	20.462	20.435	20.445	0.015	0.044
bromofluorobenzene (SS)	21.936	21.958	21.934	21.943	0.013	0.040
1,3-dichlorobenzene	24.164	24.178	24.160	24.167	0.009	0.028
1,4-dichlorobenzene	24.345	24.357	24.340	24.347	0.009	0.026
1,2-dichlorobenzene	24.875	24.885	24.870	24.877	0.008	0.023
bromochlorobenzene (SS)	25.848	25.854	25.841	25.848	0.007	0.020

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 11-Jun-02
Filename: 5G13707
Sub Directory: 061102
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.224	**2.201**	**2.247**
benzene	3.726	**3.696**	**3.756**
1,1,1-trifluorotoluene (SS)	5.028	**4.984**	**5.072**
toluene	7.730	**7.662**	**7.798**
chlorobenzene	12.347	**12.270**	**12.424**
ethylbenzene	13.418	**13.332**	**13.504**
m+p-xylene	13.903	**13.800**	**14.006**
o-xylene	14.999	**14.896**	**15.102**
bromofluorobenzene (SS)	16.097	**16.011**	**16.183**
1,3-dichlorobenzene	19.513	**19.448**	**19.578**
1,4-dichlorobenzene	19.682	**19.618**	**19.746**
1,2-dichlorobenzene	20.346	**20.289**	**20.403**
bromochlorobenzene (SS)	21.907	**21.854**	**21.960**

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

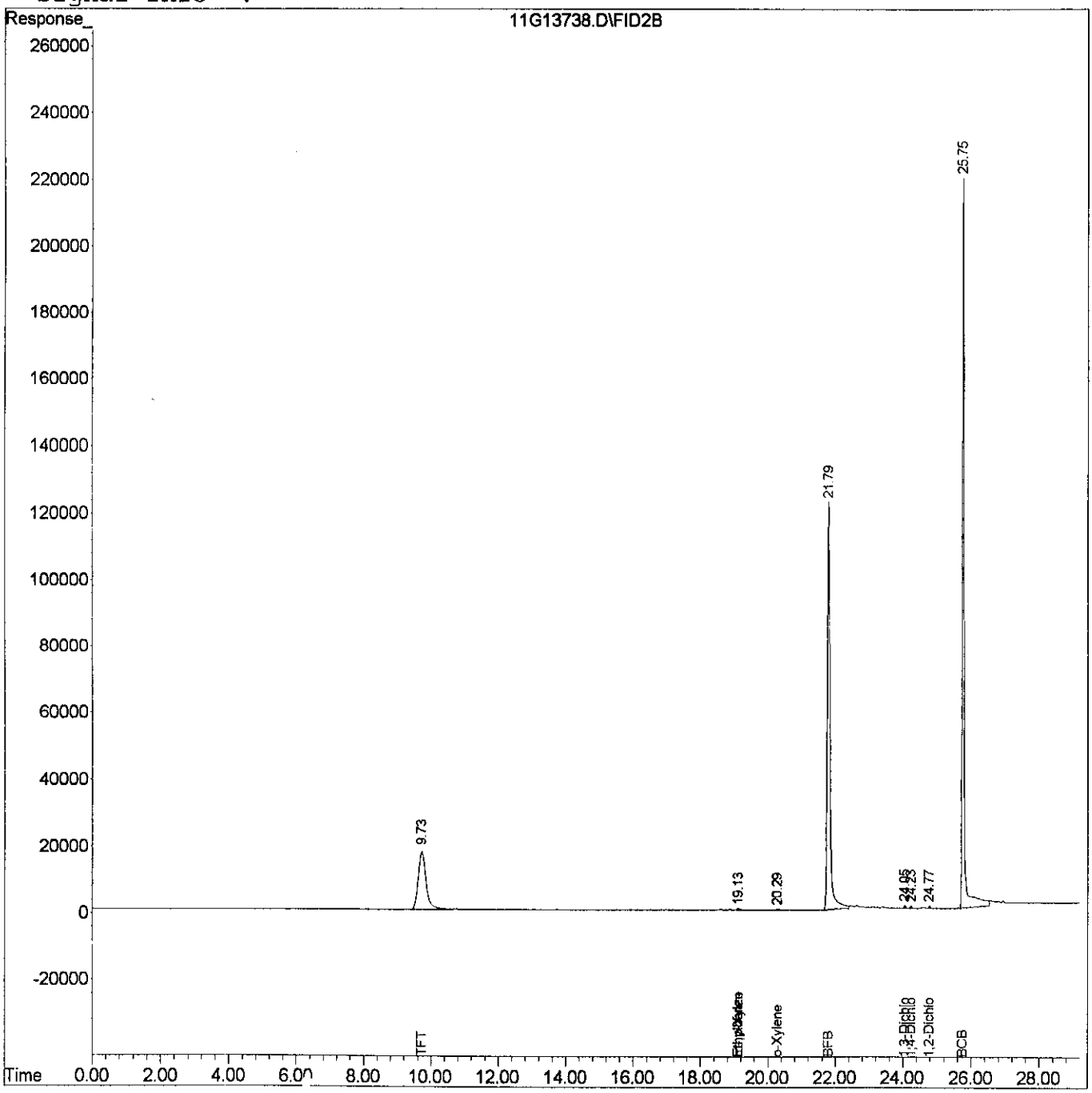
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683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

2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\061002\11G13738.D Vial: 2
Acq On : 10 Jun 2002 10:09 am Operator: CSH
Sample : WG119488-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 10:38 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\061002\11G13738.D Vial: 2
Acq On : 10 Jun 2002 10:09 am Operator: CSH
Sample : WG119488-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-93-50 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 10:38 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	2842386	26.1678 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 87.23%
9) S BFB	21.80	7294112	23.3171 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 77.72%
13) S BCB	25.75	7844372	25.3687 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 84.56%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	19.12	44537	0.1572 UG/L
7) TM m-,p-Xylene	19.12	44537	0.1268 UG/L
8) TM o-Xylene	20.29	15231	0.0500 UG/L
10) T 1,3-Dichlorobenzene	24.05	32201	0.1071 UG/L
11) T 1,4-Dichlorobenzene	24.24	29912	0.0940 UG/L
12) T 1,2-Dichlorobenzene	24.77	27485	0.1002 UG/L

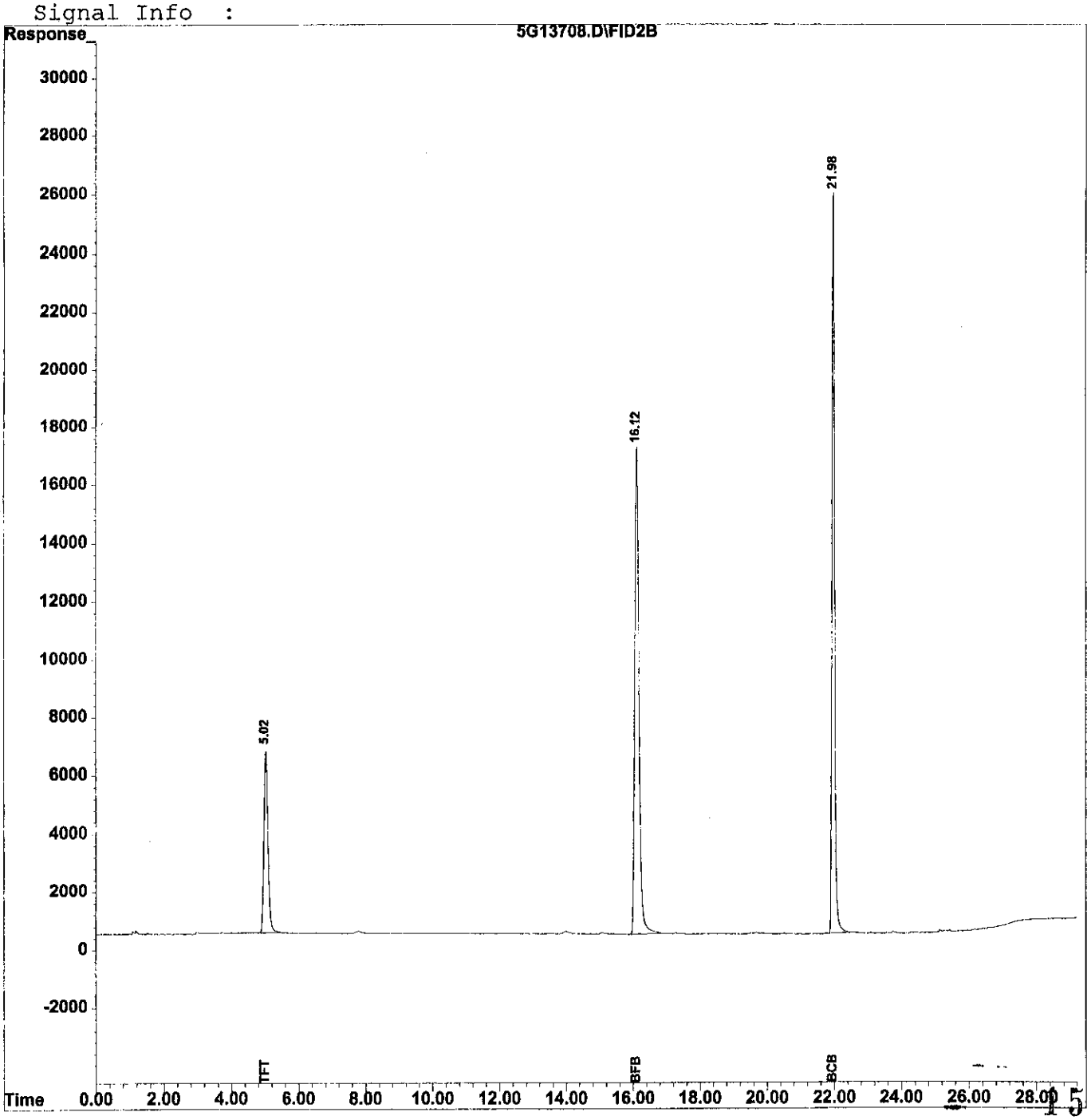
155

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

Data File : C:\HPCHEM\2\DATA\061102\5G13708.D Vial: 2
Acq On : 11 Jun 2002 7:32 Operator: CBN
Sample : WG119546-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:01 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



156

Data File : C:\HPCHEM\2\DATA\061102\5G13708.D Vial: 2
Acq On : 11 Jun 2002 7:32 Operator: CBN
Sample : WG119546-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-93-47 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:01 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	527025	29.7302 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.10%
10) S BFB	16.12	1468790	30.7406 ug/L
Spiked Amount 30.000		Recovery =	102.47%
14) S BCB	21.98	1365522	29.1636 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	97.21%
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	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 Styrene	0.00	0	N.D. ug/L
9) TM o-Xylene	0.00	0	N.D. ug/L
11) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
13) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

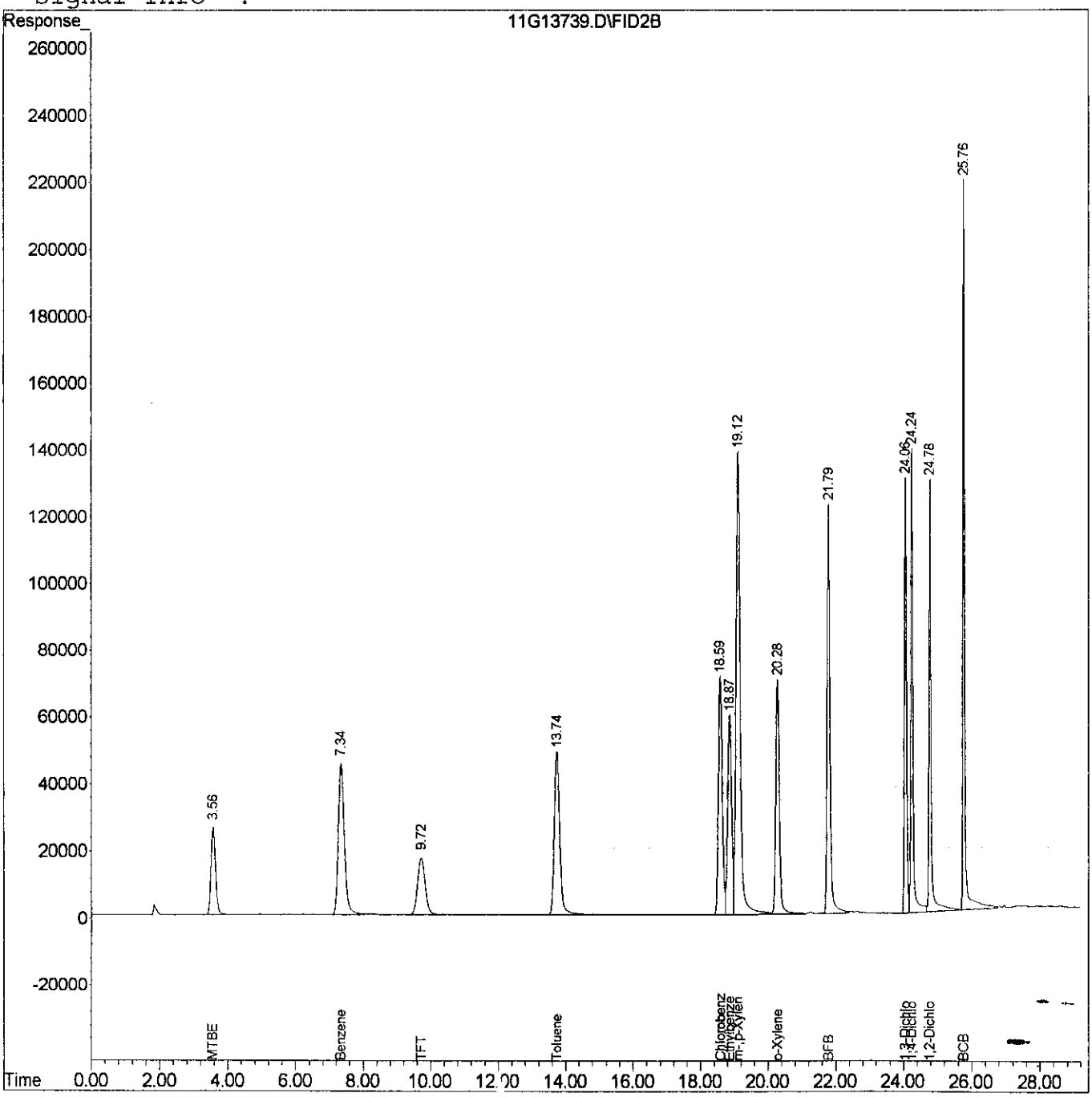
157

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

Data File : C:\HPCHEM\1\DATA\061002\11G13739.D Vial: 3
Acq On : 10 Jun 2002 10:43 am Operator: CSH
Sample : WG119488-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 11:12 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



158

Data File : C:\HPCHEM\1\DATA\061002\11G13739.D Vial: 3
Acq On : 10 Jun 2002 10:43 am Operator: CSH
Sample : WG119488-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-(94-04,93-50) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 10 11:12 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 5/13/02
Last Update : Mon May 13 17:42:47 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.72	2654506	24.4381 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 81.46%
9) S BFB			21.79	7120496	22.7621 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 75.87%
13) S BCB			25.76	7732958	25.0084 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 83.36%
Target Compounds					
1) TM MTBE			3.56	2362627	16.6946 UG/L
2) TM Benzene			7.34	5568758	17.1883 UG/L
4) TM Toluene			13.74	5467034	16.9728 UG/L
5) TM Chlorobenzene			18.59	5599243	17.0003 UG/L
6) TM Ethylbenzene			18.87	4861098	17.1633 UG/L
7) TM m-,p-Xylene			19.12	11908436	33.8974 UG/L
8) TM o-Xylene			20.29	5186293	17.0364 UG/L
10) T 1,3-Dichlorobenzene			24.06	5219614	17.3676 UG/L
11) T 1,4-Dichlorobenzene			24.24	5789337	18.1926 UG/L
12) T 1,2-Dichlorobenzene			24.78	5372640	19.5775 UG/L

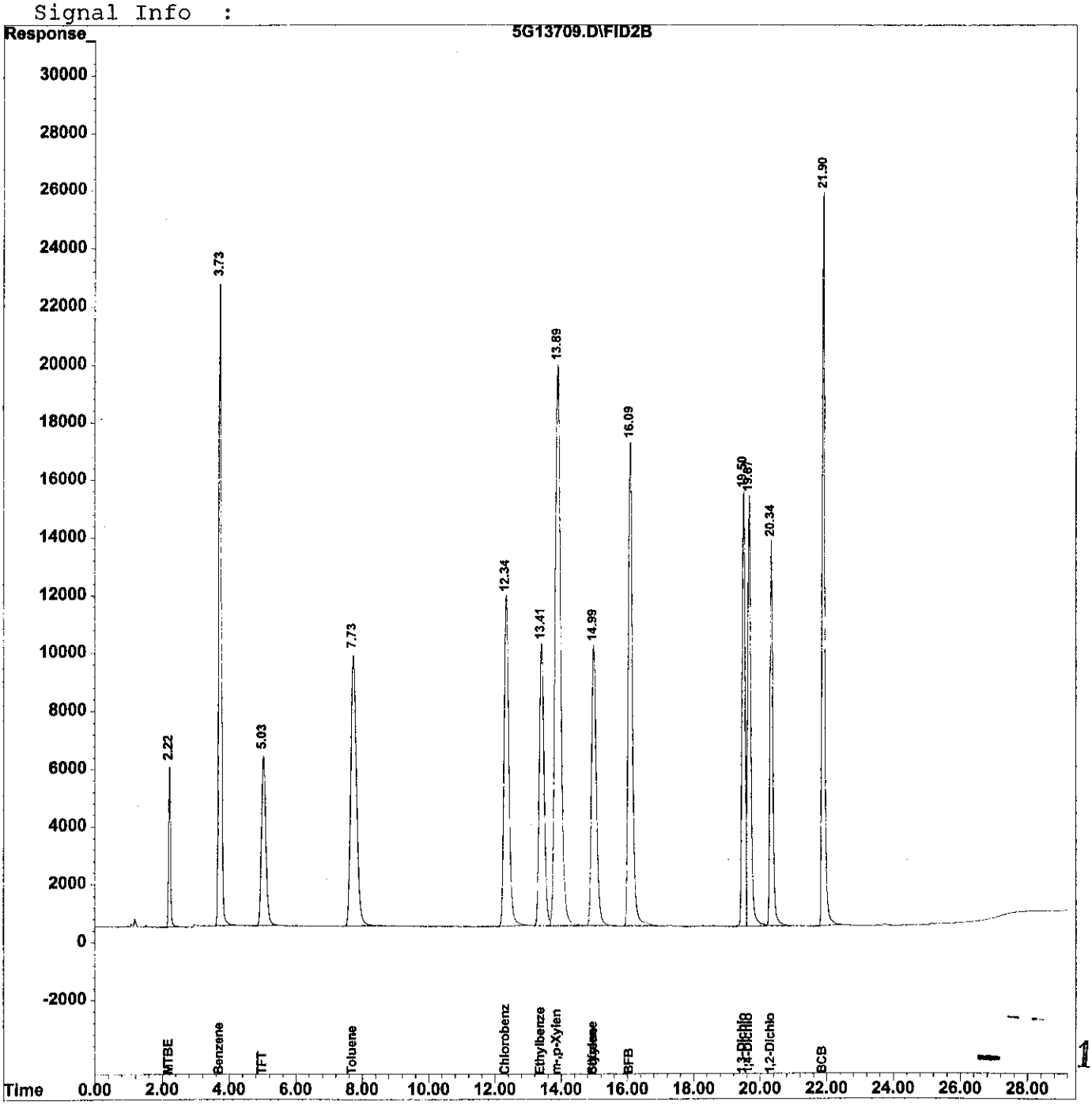
159

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

Data File : C:\HPCHEM\2\DATA\061102\5G13709.D Vial: 3
Acq On : 11 Jun 2002 8:07 Operator: CBN
Sample : WG119546-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:36 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Multiple Level Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :



160

Data File : C:\HPCHEM\2\DATA\061102\5G13709.D Vial: 3
Acq On : 11 Jun 2002 8:07 Operator: CBN
Sample : WG119546-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(94-04,93-47) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 11 8:36 2002 Quant Results File: 602STY.RES

Quant Method : C:\HPCHEM\2\METHODS\602STY.M (Chemstation Integrator)
Title : METHOD 602 - Water - 4/22/02
Last Update : Tue Apr 23 13:18:58 2002
Response via : Initial Calibration
DataAcq Meth : 602STY.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.03	541584	30.5515 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 101.84%			
10) S BFB	16.09	1455428	30.4610 ug/L
Spiked Amount 30.000 Recovery = 101.54%			
14) S BCB	21.90	1369343	29.2452 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 97.48%			
Target Compounds			
1) TM MTBE	2.22	218964	20.9187 ug/L
2) TM Benzene	3.73	1213294	21.6314 ug/L
4) TM Toluene	7.73	1115761	21.8293 ug/L
5) TM Chlorobenzene	12.34	1148945	21.2346 ug/L
6) TM Ethylbenzene	13.41	966111	21.8483 ug/L
7) TM m-,p-Xylene	13.90	2274802	43.0063 ug/L
8) TM Styrene	14.99	972230	17.5317 ug/L
9) TM o-Xylene	14.99	972230	18.8546 ug/L
11) TM 1,3-Dichlorobenzene	19.51	941288	21.6502 ug/L
12) TM 1,4-Dichlorobenzene	19.68	1025928	21.8002 ug/L
13) TM 1,2-Dichlorobenzene	20.34	823108	21.7255 ug/L

161

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

Directory: c:\hpchem\2\data\042202

Analyst; CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12946.d	1.	WG116507-01 STD1 1PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
2	2	5g12947.d	1.	WG116507-02 STD2 10PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::0
3	3	5g12948.d	1.	WG116507-03 STD3 20PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::3
4	4	5g12949.d	1.	WG116507-04 STD4 50PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::1
5	5	5g12950.d	1.	WG116507-05 STD5 100PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::4
6	6	5g12951.d	1.	WG116507-06 STD6 200PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::2
7	7	5g12952.d	1.	WG116507-07 STD7 300PPB 5ML✓	1,1 S-(93-17),S-92-(36,44)	22 Apr 102 12::5
8	8	5g12953.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::3
9	9	5g12954.d	1.	RINSE	1,1 S-92-44	22 Apr 102 12::0
10	10	5g12955.d	1.	WG116507-08 ALT SOURCE 20PPB 5ML✓	1,1 S-92-44	22 Apr 102 12::4

162

Directory: C:\HPCHEM\1\DATA\051302

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13534.d	1.	WG117338-01 8021 STD 1 1PPB..RR	1,1 S-(94-01,93-49)	13 May 2002 11:4
2	2	11g13535.d	1.	WG117338-02 8021 STD 2 10PP.✓	1,1 S-(94-01,93-49)	13 May 2002 12:2
3	3	11g13536.d	1.	WG117338-03 8021 STD 3 20PP..✓	1,1 S-(94-01,93-49)	13 May 2002 12:5
4	4	11g13537.d	1.	WG117338-04 8021 STD 4 50PP..✓	1,1 S-(94-01,93-49)	13 May 2002 13:3
5	5	11g13538.d	1.	WG117338-05 8021 STD 5 100P...✓	1,1 S-(94-01,93-49)	13 May 2002 14:0
6	6	11g13539.d	1.	WG117338-06 8021 STD 6 200P...✓	1,1 S-(94-01,93-49)	13 May 2002 14:4
7	7	11g13540.d	1.	WG117338-07 8021 STD 7 300P...✓	1,1 S-(94-01,92-44)	13 May 2002 15:1
8	8	11g13541.d	1.	RINSE 5ML RR	1,1 S-93-50	13 May 2002 15:5
9	9	11g13542.d	1.	RINSE 5ML✓	1,1 S-93-50	13 May 2002 16:2
10	10	11g13543.d	1.	WG117338-01 8021 STD 1 1PPB..✓	1,1 S-(94-01,92-44)	13 May 2002 17:1
11	11	11g13544.d	1.	WG117338-08 ALT SOURCE 20PP..✓	1,1 S-(92-47,93-50)	13 May 2002 17:5

WG 119488

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13737.d	1.	WG119487-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)	10 Jun 2002 09:19
2	2	11g13738.d	1.	WG119488-01 WATER BLANK 5ML ✓	1,1 S-93-50	10 Jun 2002 10:09
3	3	11g13739.d	1.	WG119488-02 WATER LCS 20PPB... ✓	1,1 S-(94-04,93-50)	10 Jun 2002 10:43
4	1	11g13740.d	1. DUR	L0206140-05 B 5ML ✓ RR @ 5x (MTBE)	1,1 S-93-50 pH<2	10 Jun 2002 11:29
5	2	11g13741.d	50.	WG119488-03 L0206140-12 B 5... ✓	1,50 S-93-50	10 Jun 2002 12:04
6	3	11g13742.d	50.	WG119488-04 L0206140-12 MS ... ✓	1,50 S-(94-04,93-50)	10 Jun 2002 12:38
7	4	11g13743.d	50.	WG119488-05 L0206140-12 MSD... ✓	1,50 S-(94-04,93-50)	10 Jun 2002 13:13
8	5	11g13744.d	1.	L0206140-14 B 5ML ✓	1,1 S-93-50	10 Jun 2002 13:47
9	6	11g13745.d	1.	L0206164-01 A 5ML ✓	1,1 S-93-50	10 Jun 2002 14:22
10	7	11g13746.d	1.	L0206164-02 A 5ML ✓	1,1 S-93-50	10 Jun 2002 14:56
11	8	11g13747.d	1.	L0206164-03 A 5ML ✓	1,1 S-93-50	10 Jun 2002 15:30
12	9	11g13748.d	1.	WG119487-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-50)	10 Jun 2002 16:05
13	10	11g13749.d	1.	L0206164-04 A 5ML RR CCV	1,1 S-93-50 pH<2	10 Jun 2002 16:39
14	11	11g13750.d	5.	L0206140-05 A 5ML 5X	1,5 S-93-50	10 Jun 2002 17:14

164

Line	Vial	FileName	Multiplier	SampleName	Misc Info		Injected
1	1	5g13707.d	1.	WG119545-01 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::4
2	2	5g13708.d	1.	WG119546-01 WATER BLANK 5ML ✓	1,1 S-93-47		11 Jun 102 12::3
3	3	5g13709.d	1.	WG119546-02 WATER LCS 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::0
4	1	5g13710.d	1.	L0206164-04 B 5ML ✓	1,1 S-93-47	PH<2	11 Jun 102 12::5
5	2	5g13711.d	10.	WG119546-03 L0206140-05 A 5ML 10X	1,10 S-93-47 RR @ 50X		11 Jun 102 12::2
6	3	5g13712.d	50.	WG119546-03 L0206140-05 A 5ML 50X	1,50 S-93-47 ✓		11 Jun 102 13::1
7	4	5g13713.d	50.	WG119546-05 L0206140-04 MS A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::4
8	5	5g13714.d	50.	WG119546-05 L0206140-05 MSD A 5ML 50X ✓	1,50 S-(94-04,93-47)		11 Jun 102 13::2
9	6	5g13715.d	1.	WG119545-02 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 13::5
10	1	5g13716.d	1.	L0206190-01 A 5ML HIGH SSS	1,1 S-93-47	PH<2	11 Jun 102 12::4
11	2	5g13717.d	1.	L0206190-02 A 5ML ✓ RR @ 5X HIGH SSS	1,1 S-93-47		11 Jun 102 12::2
12	3	5g13718.d	1.	L0206190-03 A 5ML RR @ 100X	1,1 S-93-47		11 Jun 102 12::5
13	4	5g13719.d	1.	L0206190-04 A 5ML RR @ 10	1,1 S-93-47		11 Jun 102 12::3
14	5	5g13720.d	1.	L0206191-01 A 5ML	1,1 S-93-47		11 Jun 102 12::0
15	6	5g13721.d	1.	L0206191-02 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::4
16	7	5g13722.d	1.	L0206191-03 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::1
17	8	5g13723.d	1.	L0206191-04 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::5
18	9	5g13724.d	1.	L0206191-05 A 5ML ✓	1,1 S-93-47		11 Jun 102 12::2
19	10	5g13725.d	50.	L0206191-06 A 5ML 50X RR @ 10X	1,50 S-93-47		11 Jun 102 12::0
20	11	5g13726.d	1.	WG119545-03 8021 STD 20PPB 5ML ✓	1,1 S-(94-04,93-47)		11 Jun 102 12::3

REANALYSIS	FILE #
L0206190-01	
-02	
-03	
-04	
L0206191-0~~4~~1	CBN 6/12/02
-06	

165

2.2 Semivolatiles Data

2.2.6 Method 8011

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0206164

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

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

SAMPLES

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

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

Analyst: CLK REVIEWED: _____ DATE: 6/14/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0206164

A. QC Summary

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

B. Sample Data

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

C. Standards Data

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

D. Raw QC Data

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

Checked By: CUK Date: 6/13/02

2.2.6.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 2G20443
Date Analyzed: 06/12/02
Time Analyzed: 15:28
Analyst: CLK

Work Group: WG119767
Blank Sample ID: WG119551-02
Instrument ID: HP2
Method: 8015 MOD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119551-03	2G20444	06/12/02 15:44	01
062-CEF46-21I-Q2-02-17	L0206164-01	2G20464	06/12/02 20:49	01
062-CEF46-24D-Q2-02-17	L0206164-02	2G20465	06/12/02 21:05	01
062-CEF46-25I-Q2-02-17	L0206164-03	2G20466	06/12/02 21:20	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Instrument ID: HP2
File ID: 2G20443
Workgroup (AAB#): WG119767
Contract #:

Run Date: 06/12/2002
Run Time: 15:28
Analyst: CLK

Sample ID: WG119551-02
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-12-JUN-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	64.0	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/13/2002 17:20

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Instrument ID: HP2
File ID: 2G20444
Workgroup (AAB#): WG119767
Contract #:

Run Date: 06/12/2002
Run Time: 15:44
Analyst: CLK

Sample ID: WG119551-03
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-12-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2750	80.9	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	96.2	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/12/2002
Version 1.3
Report generated 06/13/2002 17:20

173

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

Login Number: L0206164

AAB#: WG119767

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-21I-Q2-02-17	06/07/02	06/08/02	06/11/02	7	4.05	06/12/02	7	1.42	
062-CEF46-24D-Q2-02-17	06/07/02	06/08/02	06/11/02	7	4.11	06/12/02	7	1.43	
062-CEF46-25I-Q2-02-17	06/07/02	06/08/02	06/11/02	7	4.08	06/12/02	7	1.44	

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

SURROGATE STANDARDS

Login Number: L0206164
Instrument Id: HP2
Workgroup (AAB#): WG119767

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206164-01	1.00	01	53.4
L0206164-02	1.00	01	81.4
L0206164-03	1.00	01	75.2
WG119551-02	1.00	01	64.0
WG119551-03	1.00	01	96.2

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002

Calibration Files

5	=2G20441.D	50	=2G20440.D	100	=2G20439.D
200	=2G20438.D	400	=2G20437.D	600	=2G20436.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.497	3.019	3.156	3.109	3.094	3.053	2.988	E4	8.20
2)	s	O-Terphenyl	3.304	2.925	2.991	2.944	2.808	2.823	2.966	E4	6.08
3)	s	n-Nonatriacontane							0.000	0	-1.00

176

(#) = Out of Range

Login Number: L0206164
File ID: 2G20442
ALT ID: WG119761-07
Units: mg/L

Instrument ID: HP2
Run Date: 06/12/2002
Run Time: 15:13
Analyst: CLK
Cal ID: HP2 - 12-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	2950	25900	13.2	

Login Number: L0206164
File ID: 2G20453
CCV ID: WG119761-08
Units: mg/L

Instrument ID: HP2
Run Date: 06/12/2002
Run Time: 18:01
Analyst: CLK
Cal ID: HP2 - 12-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3580	31500	5.3	

* Exceeds %D Limit

KEMRON FORMS - Modified 05/21/2002
Version 1.2
Report generated 06/13/2002 17:20

Login Number: L0206164
File ID: 2G20463
CCV ID: WG119761-09
Units: mg/L

Instrument ID: HP2
Run Date: 06/12/2002
Run Time: 20:33
Analyst: CLK
Cal ID: HP2 - 12-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3630	31900	6.8	

* Exceeds %D Limit

Login Number: L0206164
File ID: 2G20468
CCV ID: WG119761-10
Units: mg/L

Instrument ID: HP2
Run Date: 06/12/2002
Run Time: 21:51
Analyst: CLK
Cal ID: HP2 - 12-JUN-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3630	31900	6.8	

* Exceeds %D Limit

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g20420.d	1.	NA CH2CL2	1,1	12 Jun 102 12::1
2	2	2g20421.d	1.	✓ WIN DEF STD	1,1 SOS 60-20	12 Jun 102 12::2
3	3	2g20422.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::4
4	4	2g20423.d	1.	✓ 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::2
5	5	2g20424.d	1.	RR WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::4
6	6	2g20425.d	1.	WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::5
7	7	2g20426.d	1.	L0206140-02 WATER PRO	1,1	12 Jun 102 13::1
8	8	2g20427.d	1.	L0206140-03 WATER PRO	1,1	12 Jun 102 13::2
9	9	2g20428.d	1.	L0206140-04 WATER PRO	1,1	12 Jun 102 13::4
10	10	2g20429.d	1.	L0206140-05 WATER PRO	1,1	12 Jun 102 13::5
11	11	2g20430.d	1.	L0206140-06 WATER PRO	1,1	12 Jun 102 13::1
12	12	2g20431.d	1.	L0206140-10 WATER PRO	1,1	12 Jun 102 13::3
13	13	2g20432.d	1.	L0206140-11 WATER PRO	1,1	12 Jun 102 13::4
14	1	2g20433.d	1.	NA CH2CL2	1,1	12 Jun 102 13::0
15	4	2g20434.d	1.	CC 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 13::1
16	1	2g20435.d	1.	NA CH2CL2	1,1	12 Jun 102 12::2
17	14	2g20436.d	1.	✓ WG119761-06 600ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
18	15	2g20437.d	1.	WG119761-05 400ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
19	16	2g20438.d	1.	WG119761-04 200ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::1
20	17	2g20439.d	1.	WG119761-03 100ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::2
21	18	2g20440.d	1.	WG119761-02 50ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
22	19	2g20441.d	1.	WG119761-01 5ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
23	20	2g20442.d	1.	WG119761-07 200ppm PRO ALT SOURCE STD	1,1 SOS 59-1	12 Jun 102 12::1
24	5	2g20443.d	1.	WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::2
25	6	2g20444.d	1.	WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::4
26	7	2g20445.d	1.	L0206140-02 WATER PRO	1,1	12 Jun 102 12::5
27	8	2g20446.d	1.	L0206140-03 WATER PRO	1,1	12 Jun 102 12::1
28	9	2g20447.d	1.	L0206140-04 WATER PRO	1,1	12 Jun 102 12::2
29	10	2g20448.d	1.	L0206140-05 WATER PRO	1,1	12 Jun 102 12::4
30	11	2g20449.d	1.	L0206140-06 WATER PRO	1,1	12 Jun 102 12::0
31	12	2g20450.d	1.	L0206140-10 WATER PRO	1,1	12 Jun 102 12::1
32	13	2g20451.d	1.	RE L0206140-11 WATER PRO	1,1	12 Jun 102 12::3
33	1	2g20452.d	1.	NA CH2CL2	1,1	12 Jun 102 12::4
34	16	2g20453.d	1.	✓ WG119761-08 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::0
35	21	2g20454.d	1.	✓ L0206140-08 WATER PRO	1,1	12 Jun 102 12::1
36	22	2g20455.d	1.	✓ L0206140-09 WATER PRO	1,1	12 Jun 102 12::3
37	23	2g20456.d	1.	RR10 L0206140-12 WATER PRO	1,1	12 Jun 102 12::4
38	24	2g20457.d	1.	✓ L0206140-13 WATER PRO	1,1	12 Jun 102 12::0
39	25	2g20458.d	1.	✓ WG119551-01 L0206140-07 WATER PRO	1,1	12 Jun 102 12::1
40	26	2g20459.d	1.	✓ WG119551-04 L0206140-17 WATER PRO MS	1,1	12 Jun 102 12::3
41	27	2g20460.d	1.	✓ WG119551-05 L0206140-18 WATER PRO MSD	1,1	12 Jun 102 12::4
42	28	2g20461.d	1.	RR10 L0206140-01 WATER PRO	1,1	12 Jun 102 12::0
43	1	2g20462.d	1.	NA CH2CL2	1,1	12 Jun 102 12::1
44	16	2g20463.d	1.	✓ WG119761-09 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::3
45	29	2g20464.d	1.	✓ L0206164-01 WATER PRO	1,1	12 Jun 102 12::4
46	30	2g20465.d	1.	✓ L0206164-02 WATER PRO	1,1	12 Jun 102 12::0
47	31	2g20466.d	1.	✓ L0206164-03 WATER PRO	1,1	12 Jun 102 12::2
48	1	2g20467.d	1.	NA CH2CL2	1,1	12 Jun 102 12::3
49	16	2g20468.d	1.	✓ WG119761-10 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::5

CLK 6/13/02 ZRK 6/13/02

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/12/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061202
Analyst Initials CLK

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

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

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

Daily Check
☒ Gases >500 psi

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

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0206140-11 WATER PRO, o-terphenyl low, Needs RE
" -12 " " , Needs 10X
" -01 " " , Needs 10X

Reviewed By: RDC 6/13/02

182

Parameter: FLA-PRO-H SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF GSC REK TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 10:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: REK/CAF Witness: —
Surrogate #: ESS0040-18 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-07 Spike #: B = —

Extraction Work Group WG 119551
Analytical Work Group WG 119767
Extract Relinquished By: CAF
Extract Received By & Date: RDC 6/11/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓			1 L	1 mL		1 mL	T				WG 119551-1
2	LCS		✓					1 mL		T				WG 119551-6
6/14 3	06-140-01	FLA-PRO	✓							C	✓			X
4	-02		✓							T	✓			X
5	-03		✓							T	✓			X
6	-04		✓							T				
7	-05		✓							T				
8	-06		✓							T				
9	-07		✓							T				WG 119551-0
10	-08		✓							T				
11	-09		✓							T				
12	-10		✓			920 mL				T				
13	-11		✓			960 mL				T				
14	-12		✓			940 mL				C				
15	-13		✓			1 L				T				
16	-17 MS		✓					1 mL		C				WG 119551-0
17	-18 MSD		✓							C				WG 119551-0
6/17 18	06-164-01		✓							T				
19	-02		✓							T				
20	-03		✓			965 mL				T				
21														
22														
23														
24														

CAF 6-11-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER 2084
Florisil Lot #: —
Silica Gel Lot #: V32355
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: Richard Seager Date: 6/11/02

Extraction Notes For Volume # 185 Page # 167

General Comments: MS, MSD of 06-140-87
* Emulsions

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

2.2.6.2 Sample Data

Data File : C:\HPCHEM\1\DATA\061202\2G20464.D

Acq On : 12 Jun 2002 20:49 Operator: CLK
Sample : L0206164-01 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	316458	10.670 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 53.35%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	1895061	63.423 ppb

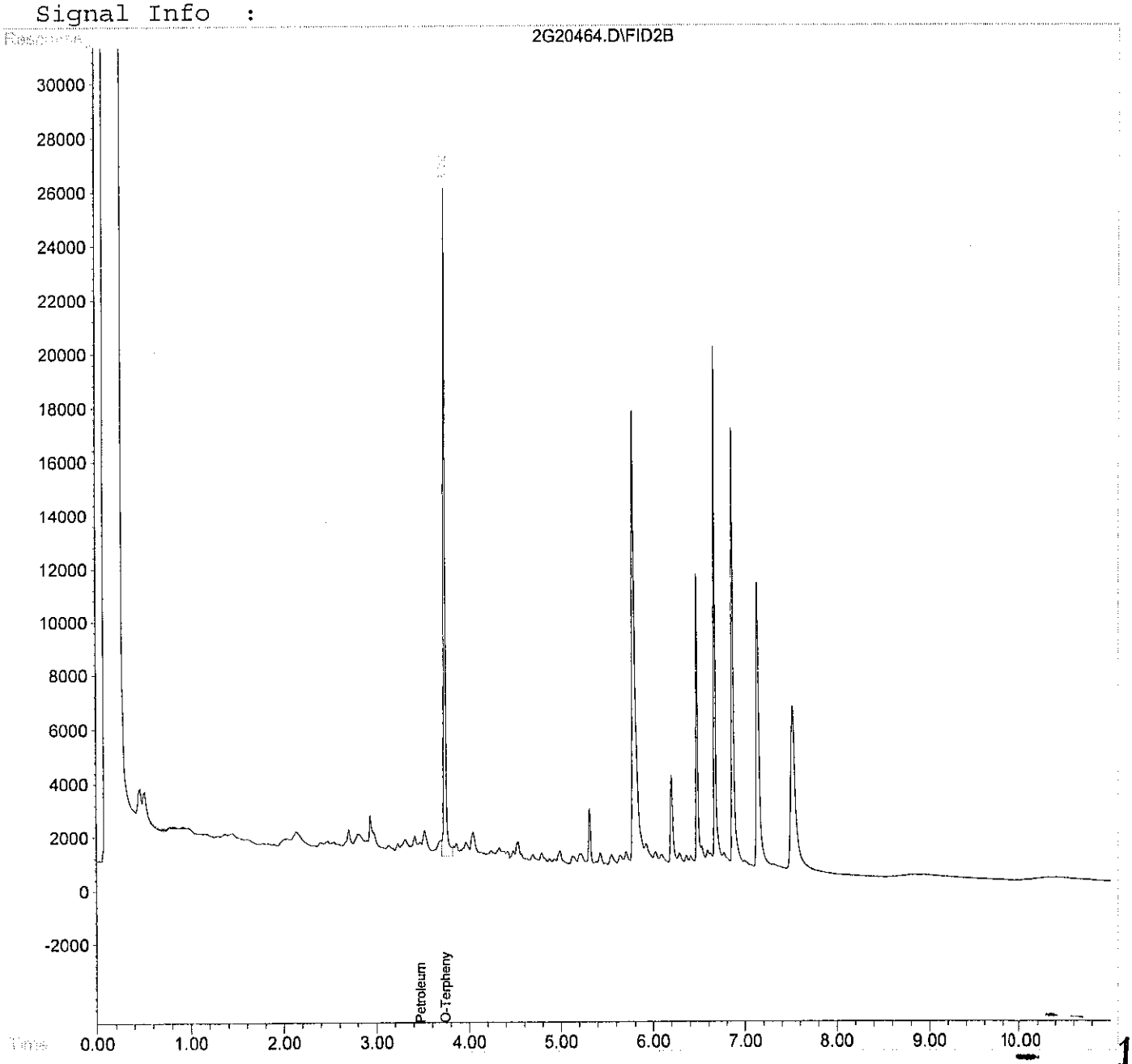
186

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

Acq On : 12 Jun 2002 20:49 Operator: CLK
Sample : L0206164-01 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



187

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

Acq On : 12 Jun 2002 21:05 Operator: CLK
Sample : L0206164-02 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:07 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	482875	16.281 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	81.41%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
~~1)~~ H Petroleum Range	3.48	2721044	~~91.067~~ ppb

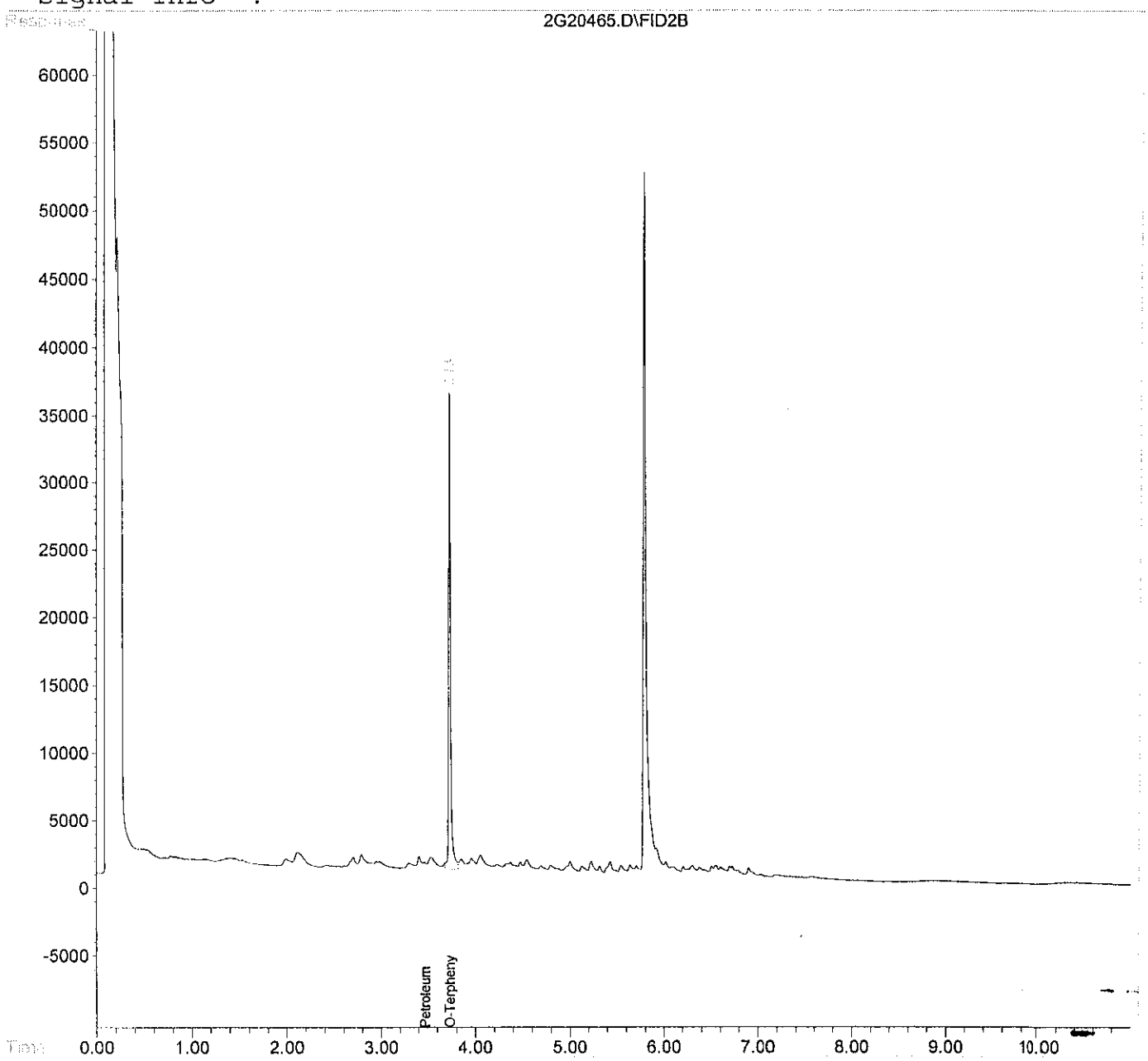
188

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20465.D FLASHPRO.M Thu Jun 13 10:07:18 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20465.D Vial: 30
Acq On : 12 Jun 2002 21:05 Operator: CLK
Sample : L0206164-02 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:07 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



189

Acq On : 12 Jun 2002 21:20 Operator: CLK
Sample : L0206164-03 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:07 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:07:44 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.63	445830	15.032 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	75.16%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2934004	98.194 ppb

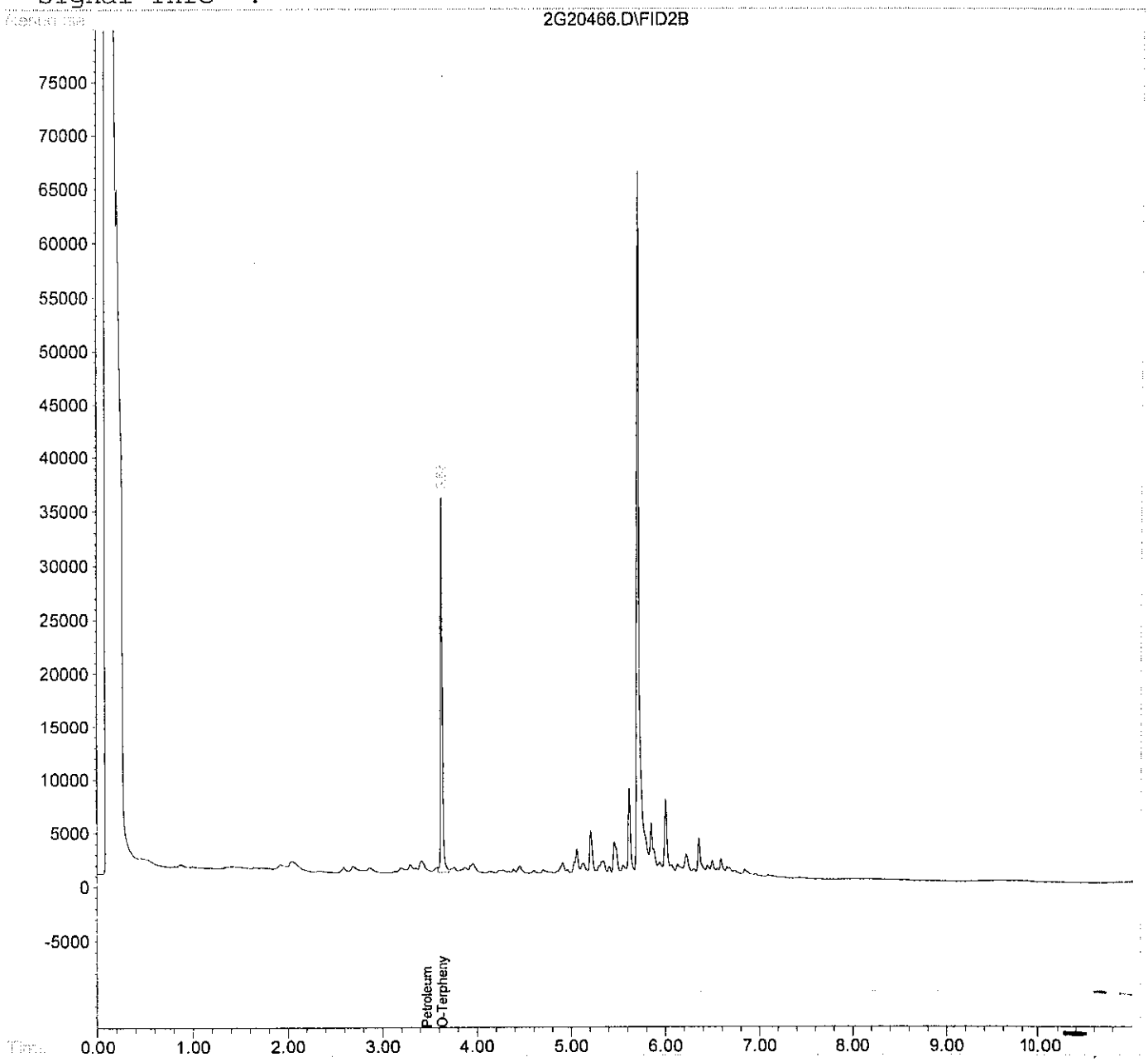
190

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20466.D FLASHPRO.M Thu Jun 13 10:08:02 2002 HP2 Page 1

Acq On : 12 Jun 2002 21:20 Operator: CLK
Sample : L0206164-03 WATER PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:07 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:07:44 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



191

2G20466.D FLASHPRO.M Thu Jun 13 10:08:02 2002 HP2 Page 2

2.2.6.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002

Calibration Files

5	=2G20441.D	50	=2G20440.D	100	=2G20439.D
200	=2G20438.D	400	=2G20437.D	600	=2G20436.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.497	3.019	3.156	3.109	3.094	3.053	2.988	E4	8.20
2)	s	O-Terphenyl	3.304	2.925	2.991	2.944	2.808	2.823	2.966	E4	6.08
3)	s	n-Nonatriacontane							0.000	0	-1.00

193

(#) = Out of Range

Acq On : 12 Jun 2002 13:42 Operator: CLK
Sample : WG119761-06 600ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	16940805	571.174 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2855.87%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	311375470	10420.980 ppb

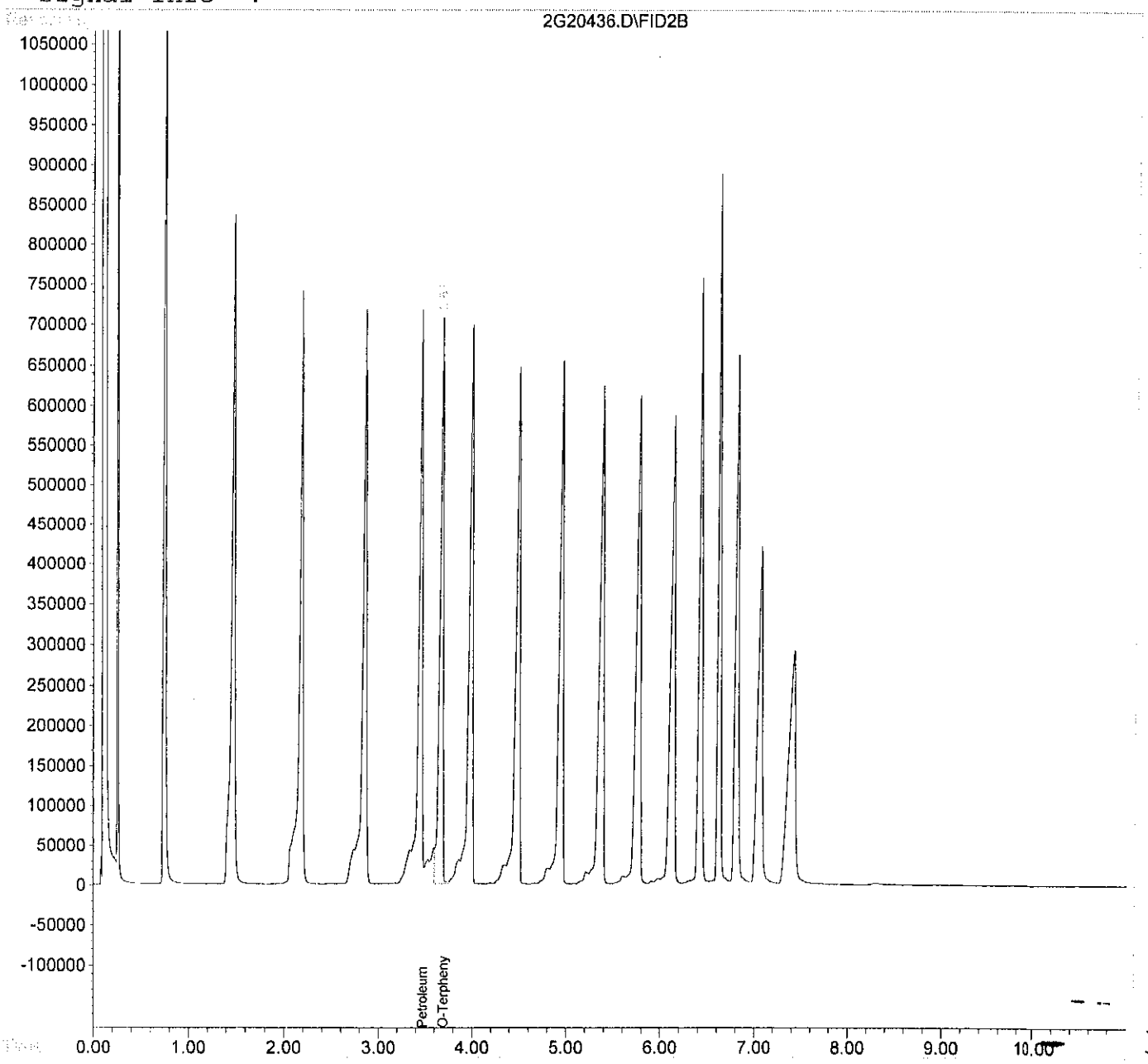
194

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20436.D FLASHPRO.M Thu Jun 13 09:47:26 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20436.D Vial: 14
Acq On : 12 Jun 2002 13:42 Operator: CLK
Sample : WG119761-06 600ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



195

Data File : C:\HPCHEM\1\DATA\061202\2G20437.D Vial: 15
Acq On : 12 Jun 2002 13:57 Operator: CLK
Sample : WG119761-05 400ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	11231208	378.670 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1893.35%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	210386963	7041.140 ppb

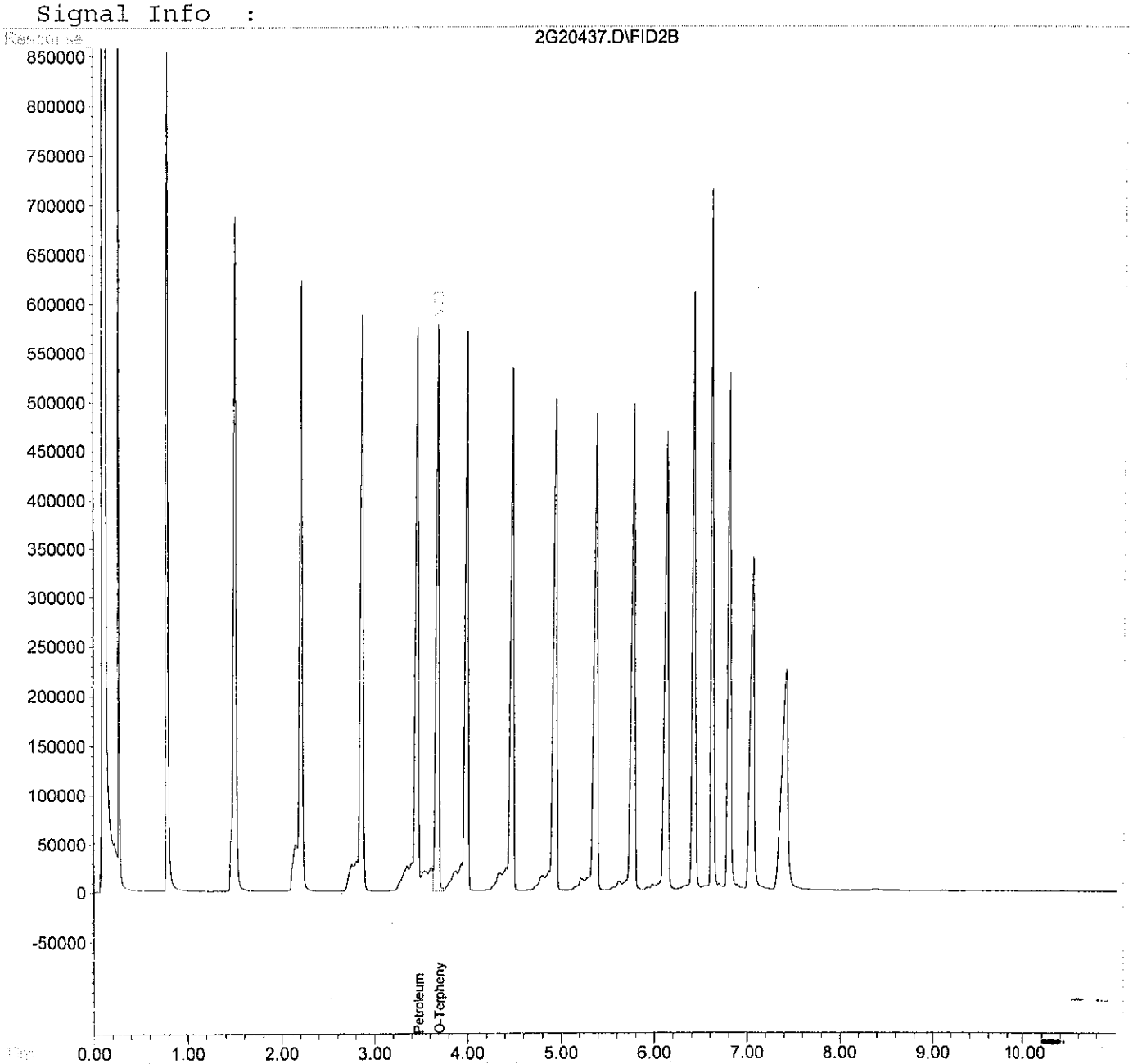
196

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20437.D FLASHPRO.M Thu Jun 13 09:47:45 2002 HP2 Page 1

Acq On : 12 Jun 2002 13:57 Operator: CLK
Sample : WG119761-05 400ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



197

Data File : C:\HPCHEM\1\DATA\061202\2G20438.D Vial: 16
Acq On : 12 Jun 2002 14:12 Operator: CLK
Sample : WG119761-04 200ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	5887177	198.491 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 992.46%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	105716877	3538.087 ppb

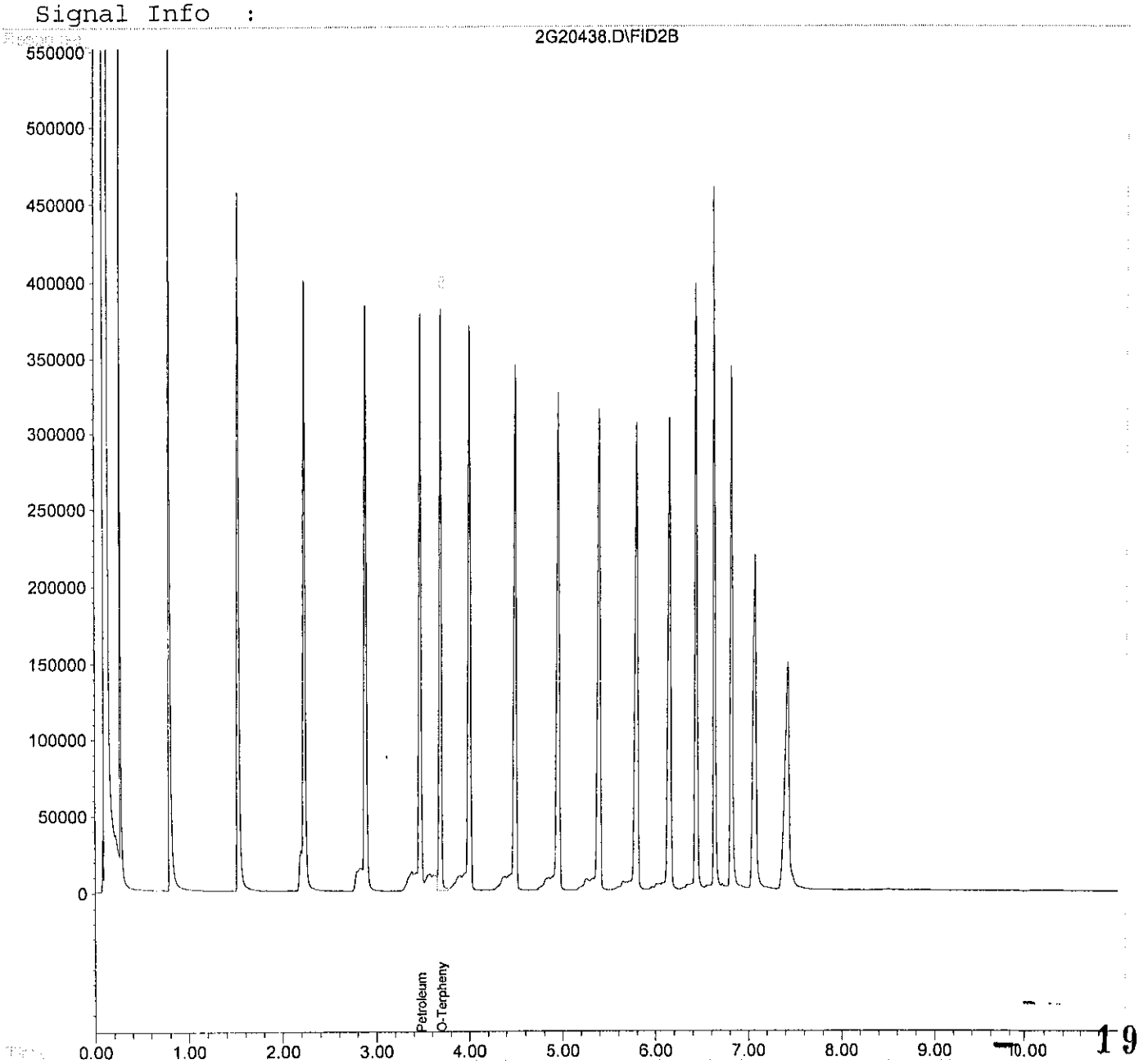
198

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20438.D FLASHPRO.M Thu Jun 13 09:48:08 2002 HP2 Page 1

Acq On : 12 Jun 2002 14:12 Operator: CLK
Sample : WG119761-04 200ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



199

Data File : C:\HPCHEM\1\DATA\061202\2G20439.D Vial: 17
Acq On : 12 Jun 2002 14:28 Operator: CLK
Sample : WG119761-03 100ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	2991381	100.857 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 504.29%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	53651248	1795.577 ppb

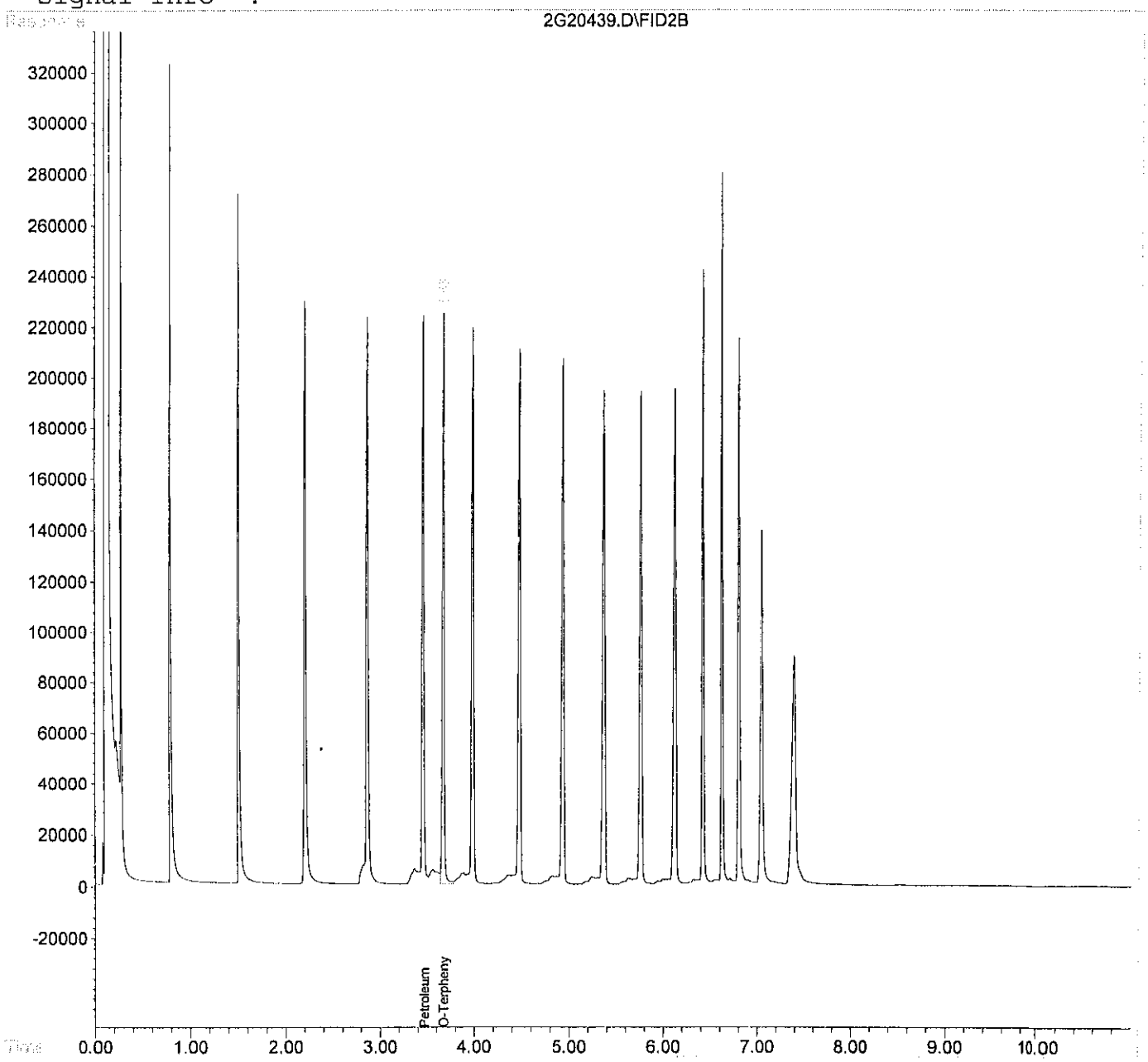
200

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20439.D FLASHPRO.M Thu Jun 13 09:48:29 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20439.D Vial: 17
Acq On : 12 Jun 2002 14:28 Operator: CLK
Sample : WG119761-03 100ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Jun 2002 14:43 Operator: CLK
Sample : WG119761-02 50ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	1462593	49.313 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 246.57%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	25658574	858.730 ppb

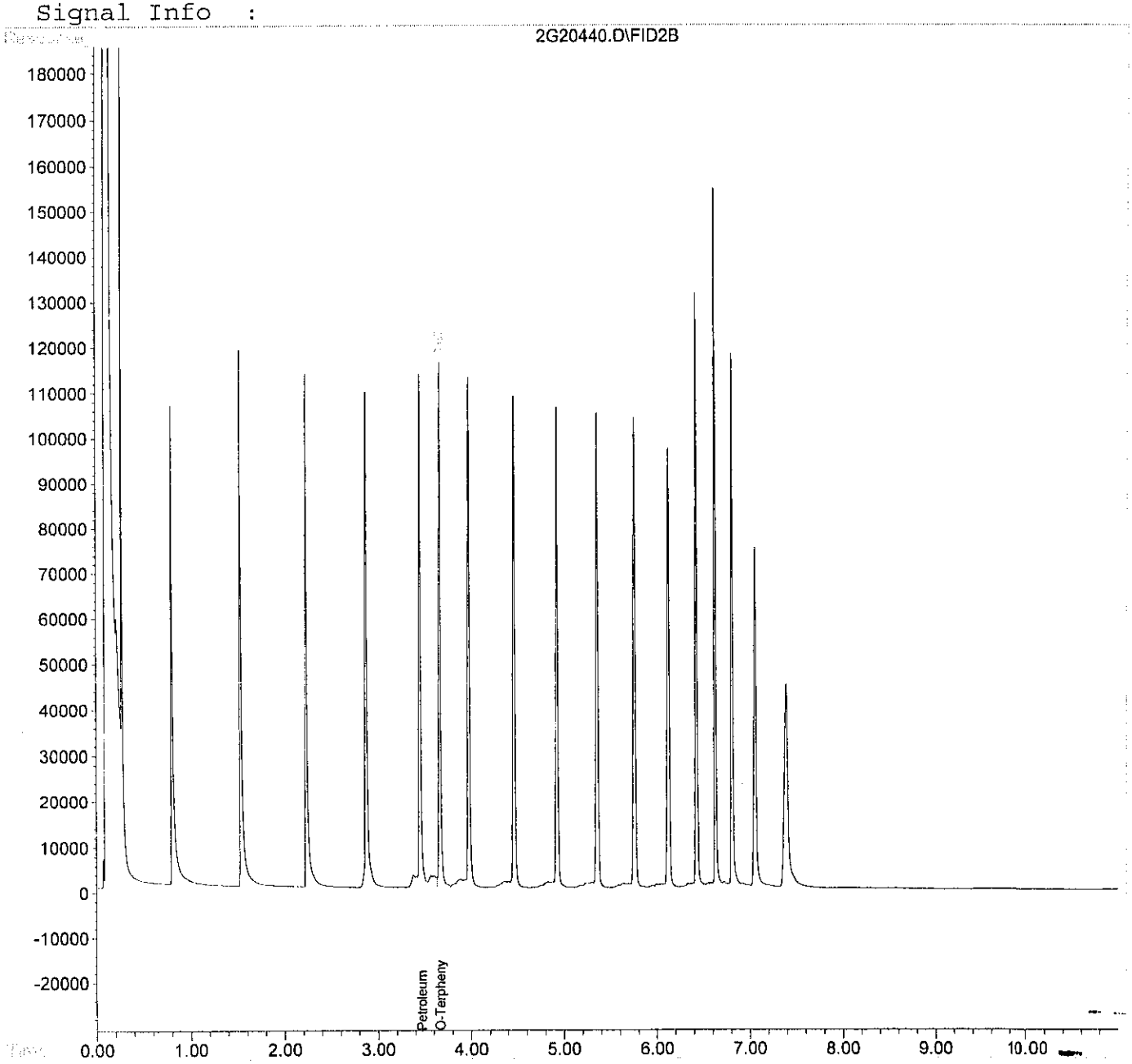
202

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20440.D FLASHPRO.M Thu Jun 13 09:48:49 2002 HP2 Page 1

Acq On : 12 Jun 2002 14:43 Operator: CLK
Sample : WG119761-02 50ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



203

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

Acq On : 12 Jun 2002 14:58 Operator: CLK
Sample : WG119761-01 5ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	165218	5.570 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	27.85%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2122659	71.040 ppb

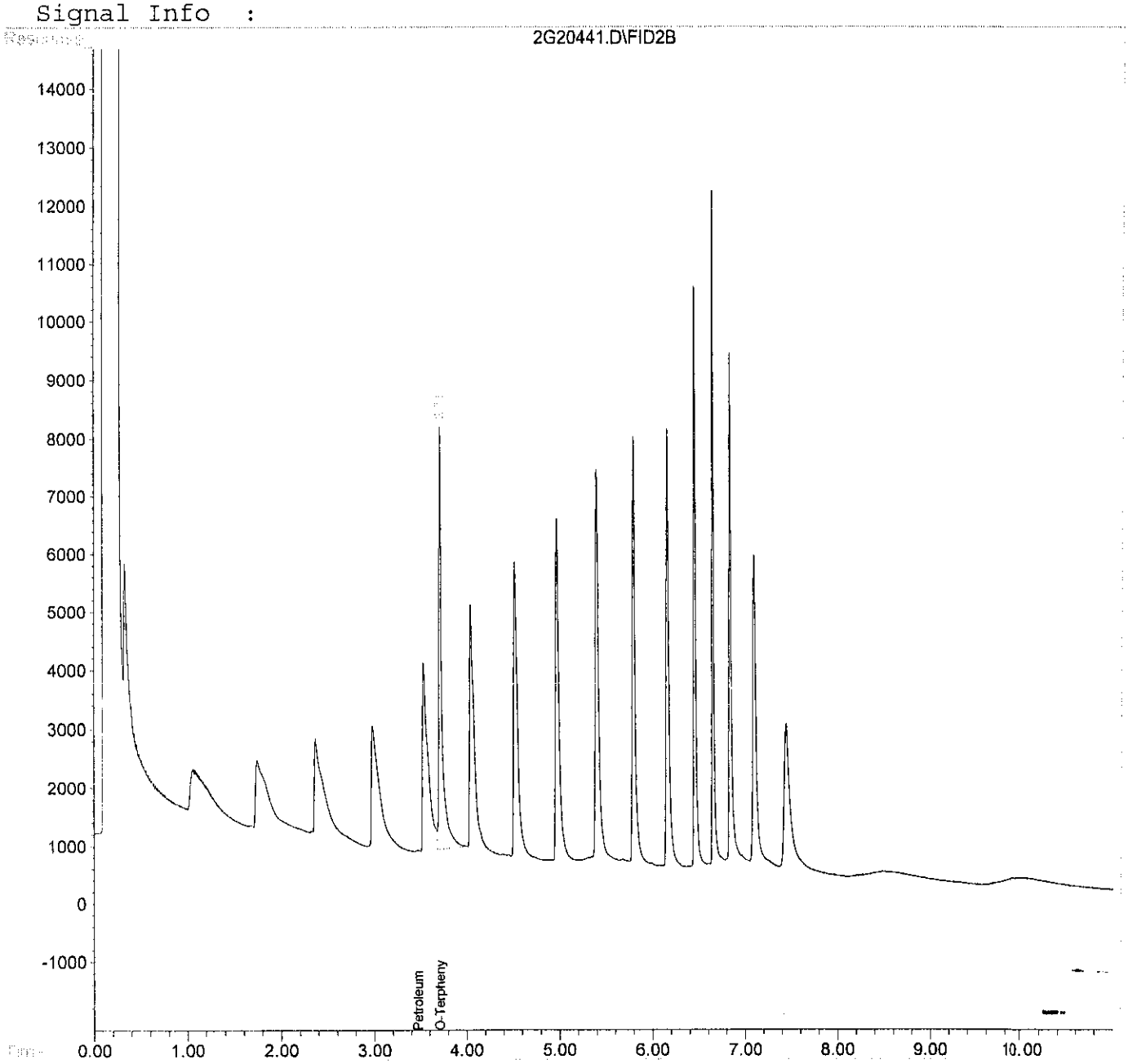
204

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20441.D FLASHPRO.M Thu Jun 13 09:49:09 2002 HP2 Page 1

Acq On : 12 Jun 2002 14:58 Operator: CLK
Sample : WG119761-01 5ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:46:17 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



205

2G20441.D FLASHPRO.M Thu Jun 13 09:49:10 2002 HP2 Page 2

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2951.497	13.2	83	0.00
2	s	O-Terphenyl	200.000	1.081	99.5#	1	0.01

206

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20442.D FLASHPRO.M Thu Jun 13 09:52:22 2002 HP2 Page 1

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

207

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20442.D FLASHPRO.M Thu Jun 13 09:52:23 2002 HP2 Page 2

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

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:52 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.72	32064	1.081 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	5.41%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	88189777	2951.497 ppb

208

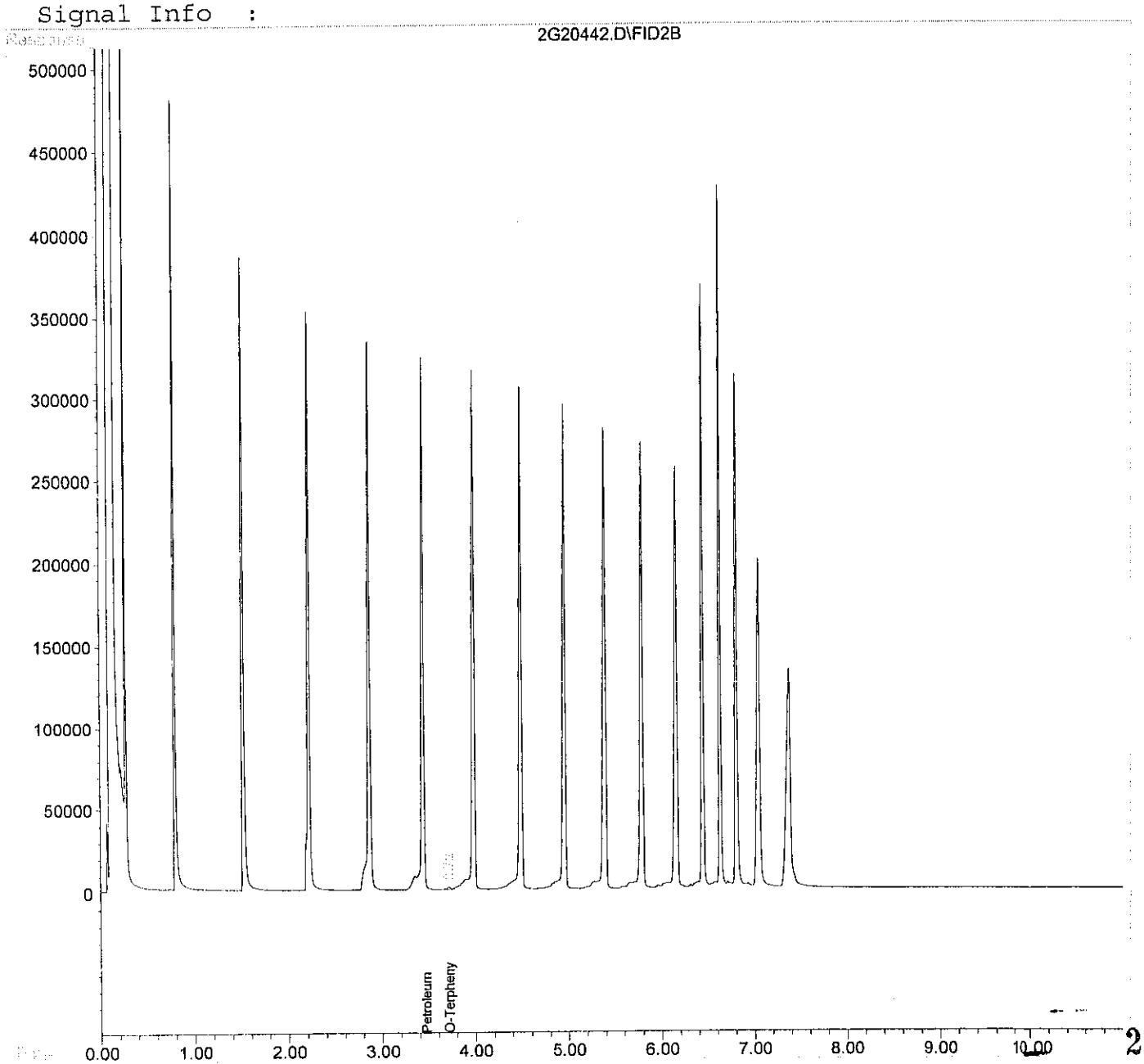
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Acq On : 12 Jun 2002 15:13 Operator: CLK
Sample : WG119761-07 200ppm PRO ALT SOURCE STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:52 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



209

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D Vial: 16
Acq On : 12 Jun 2002 18:01 Operator: CLK
Sample : WG119761-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3583.541	-5.4	101	0.00
2	s	O-Terphenyl	200.000	195.132	2.4	98	0.00

210

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20453.D FLASHPRO.M Thu Jun 13 09:57:42 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D Vial: 10
Acq On : 12 Jun 2002 18:01 Operator: CLK
Sample : WG119761-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

211

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20453.D FLASHPRO.M Thu Jun 13 09:57:43 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D Vial: 53
Acq On : 12 Jun 2002 18:01 Operator: CLK
Sample : WG119761-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:57 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:57:25 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.60	5787538	195.132 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	975.66%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	107075018	3583.541 ppb

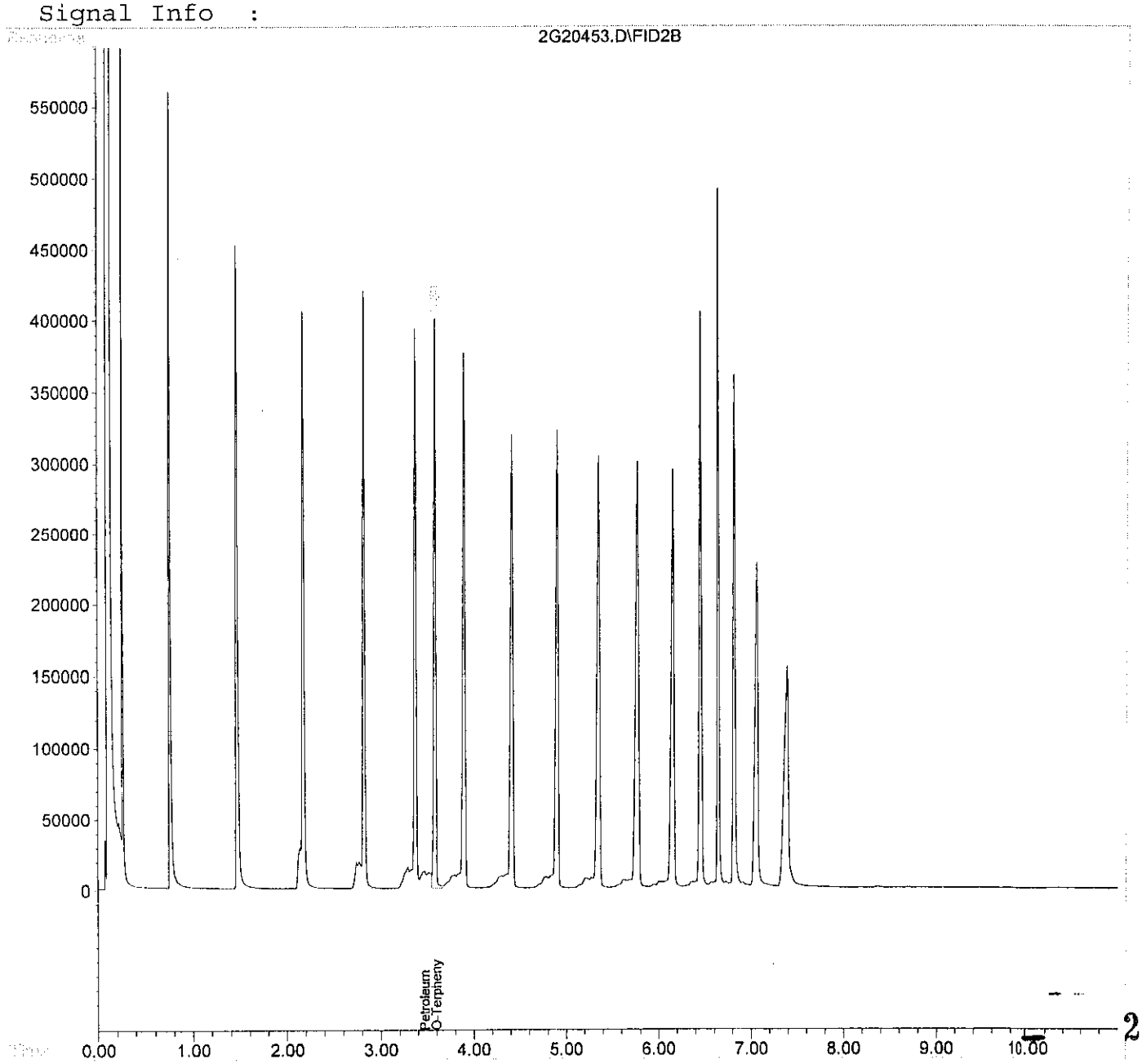
212

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20453.D FLASHPRO.M Thu Jun 13 09:57:51 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20453.D Vial: 16
Acq On : 12 Jun 2002 18:01 Operator: CLK
Sample : WG119761-08 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:57 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:57:25 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



213

Data File : C:\HPCHEM\1\DATA\061202\2G20463.D
Acq On : 12 Jun 2002 20:33
Sample : WG119761-09 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3625.443	-6.6	102	0.00
2	s	O-Terphenyl	200.000	206.019	-3.0	104	0.00

214

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20463.D FLASHPRO.M Thu Jun 13 10:06:16 2002 HP2 Page 1

Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

215

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

Data File : C:\HPCHEM\1\DATA\061202\2G20463.D Vial: 20
Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	6110445	206.019 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1030.10%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	108327060	3625.443 ppb

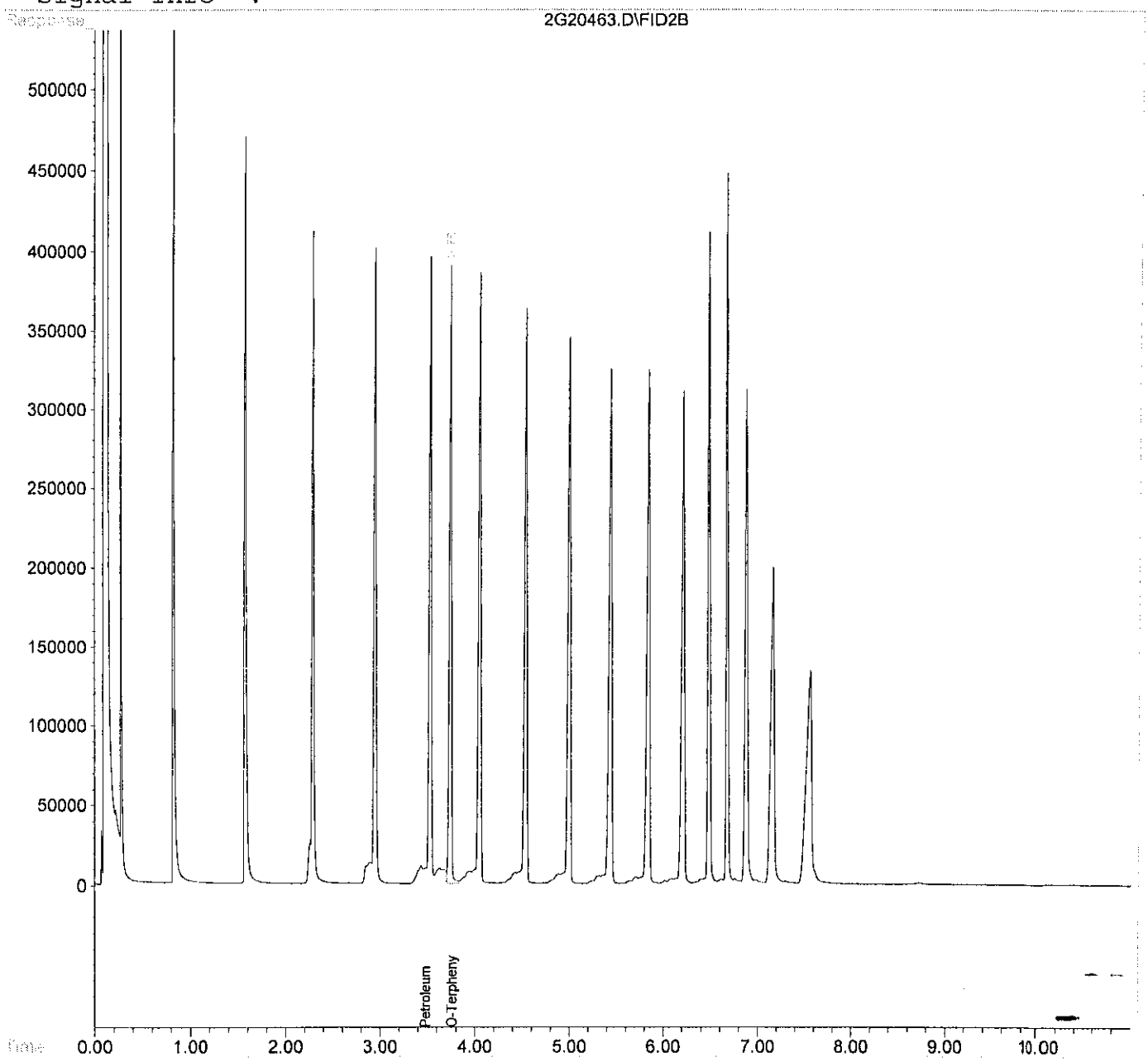
216

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20463.D FLASHPRO.M Thu Jun 13 10:06:23 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20463.D Vial: 10
Acq On : 12 Jun 2002 20:33 Operator: CLK
Sample : WG119761-09 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:05:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



217

Acq On : 12 Jun 2002 21:51 Operator: CLK
Sample : WG119761-10 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3632.591	-6.8	103	0.00
2	s	O-Terphenyl	200.000	205.172	-2.6	103	0.00

218

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20468.D FLASHPRO.M Thu Jun 13 10:09:01 2002 HP2 Page 1

Data File : C:\HPCHEM\1\DATA\061202\2G20468.D Vial: 10
Acq On : 12 Jun 2002 21:51 Operator: CLK
Sample : WG119761-10 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:59 2002
Response via : Multiple Level Calibration

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

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

219

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G20468.D FLASHPRO.M Thu Jun 13 10:09:01 2002 HP2 Page 2

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

Acq On : 12 Jun 2002 21:51 Operator: CLK
Sample : WG119761-10 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:08 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:08:45 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.75	6085325	205.172 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1025.86%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	108540645	3632.591 ppb

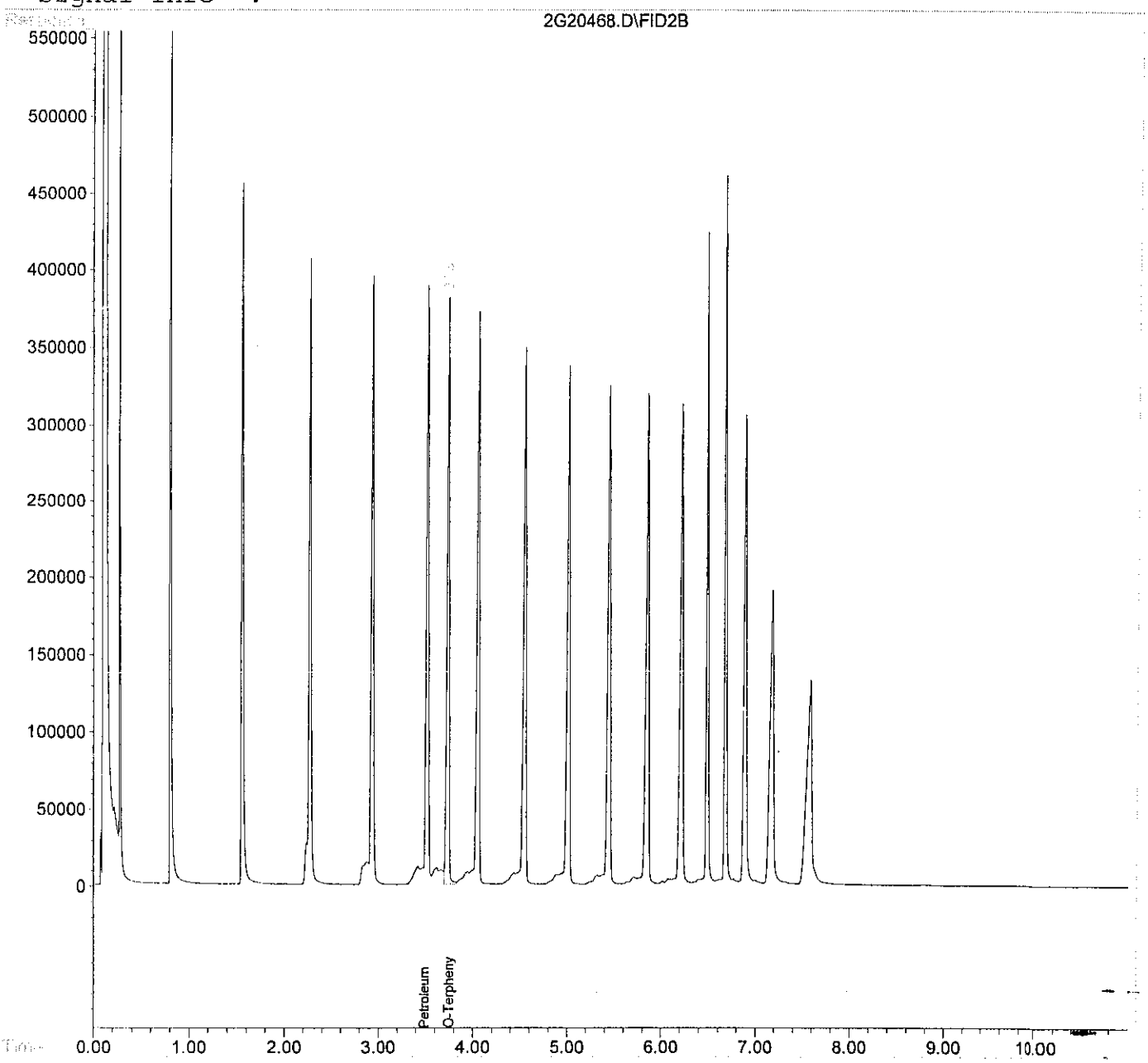
220

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

Acq On : 12 Jun 2002 21:51 Operator: CLK
Sample : WG119761-10 200ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 10:08 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 10:08:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



221

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-2

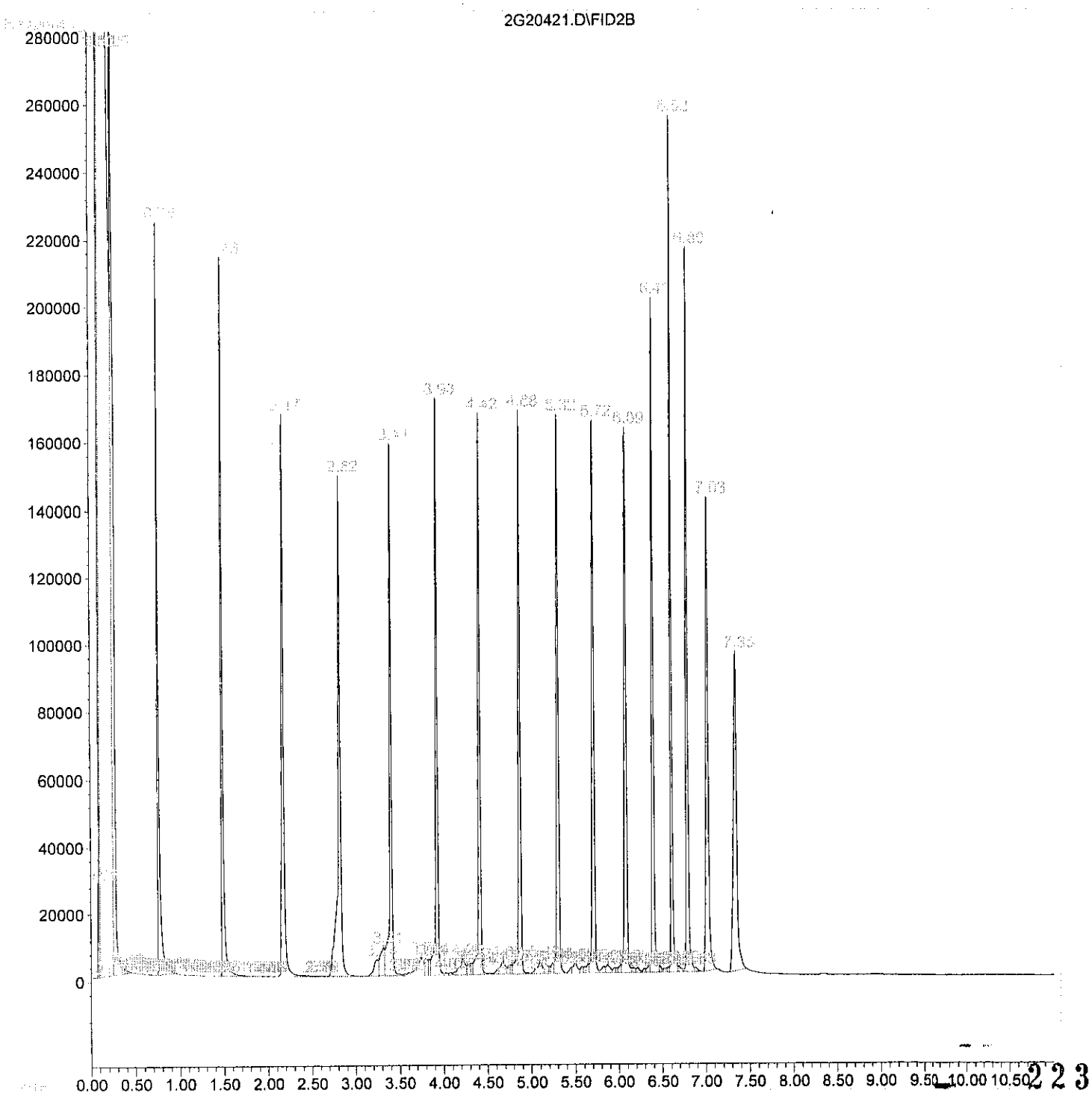
GC Column: RTX-5

	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

222

File : C:\HPCHEM\1\DATA\061202\2G20421.D
Operator : CLK
Acquired : 12 Jun 2002 8:27 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: WIN DEF STD
Misc Info : 1,1 SOS 60-20
Vial Number: 2



223

2.2.6.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\061202\2G20443.D
Acq On : 12 Jun 2002 15:28 Operator: CLK
Sample : WG119551-02 BLK 6/11 V185P167 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.70	379330	12.789 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	63.94%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	3360374	112.464 ppb

225

(f)=RT Delta > 1/2 Window (m)=manual int.
2G20443.D FLASHPRO.M Thu Jun 13 09:53:35 2002 HP2 Page 1

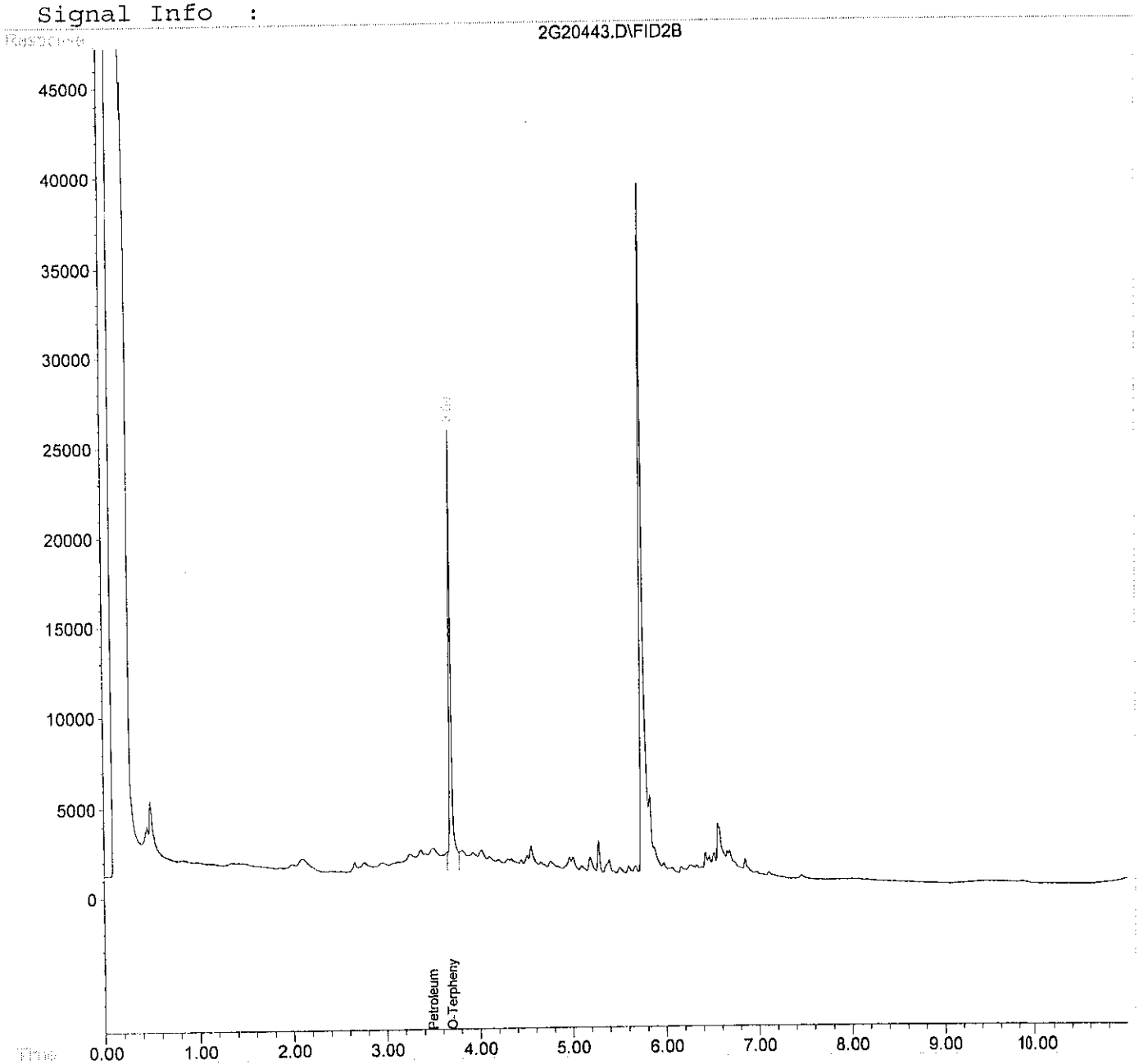
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 12 Jun 2002 15:28
Sample : WG119551-02 BLK 6/11 V185P167
Misc : 1,1
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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

Acq On : 12 Jun 2002 15:44 Operator: CLK
Sample : WG119551-03 LCS 6/11 V185P167 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	570364	19.230 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	96.15%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	82237461	2752.288 ppb

227

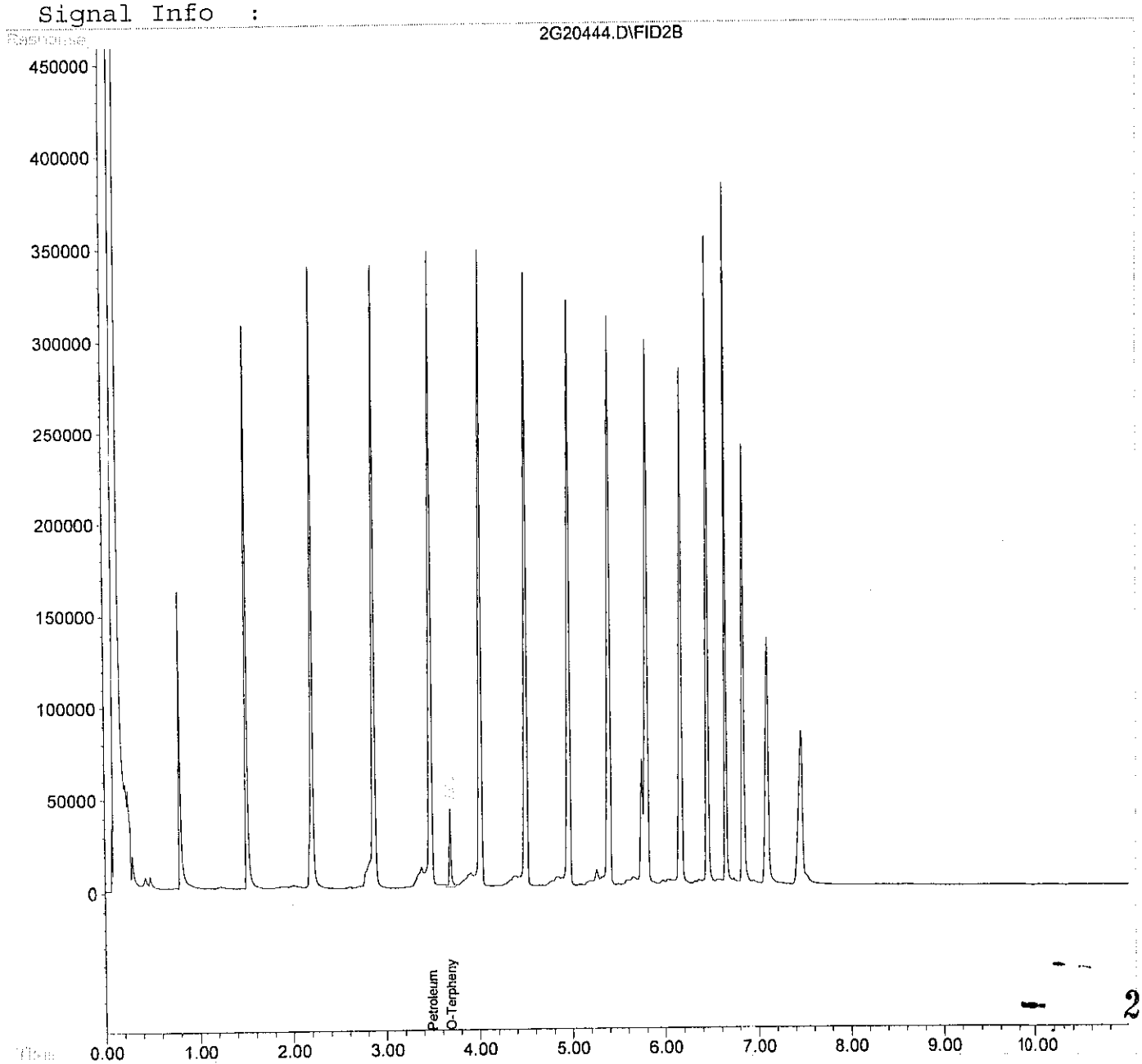
(f)=RT Delta > 1/2 Window (m)=manual int.
2G20444.D FLASHPRO.M Thu Jun 13 09:53:54 2002 HP2 Page 1

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

Acq On : 12 Jun 2002 15:44 Operator: CLK
Sample : WG119551-03 LCS 6/11 V185P167 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jun 13 9:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 06/12/02
Last Update : Thu Jun 13 09:49:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



228

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	2g20420.d	1.	NA	CH2CL2	1,1	12 Jun 102 12::1
2	2	2g20421.d	1.	✓	WIN DEF STD	1,1 SOS 60-20	12 Jun 102 12::2
3	3	2g20422.d	1.	CC	200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::4
4	4	2g20423.d	1.	✓	200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::2
5	5	2g20424.d	1.	RR	WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::4
6	6	2g20425.d	1.		WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::5
7	7	2g20426.d	1.		L0206140-02 WATER PRO	1,1	12 Jun 102 13::1
8	8	2g20427.d	1.		L0206140-03 WATER PRO	1,1	12 Jun 102 13::2
9	9	2g20428.d	1.		L0206140-04 WATER PRO	1,1	12 Jun 102 13::4
10	10	2g20429.d	1.		L0206140-05 WATER PRO	1,1	12 Jun 102 13::5
11	11	2g20430.d	1.		L0206140-06 WATER PRO	1,1	12 Jun 102 13::1
12	12	2g20431.d	1.		L0206140-10 WATER PRO	1,1	12 Jun 102 13::3
13	13	2g20432.d	1.		L0206140-11 WATER PRO	1,1	12 Jun 102 13::4
14	1	2g20433.d	1.	NA	CH2CL2	1,1	12 Jun 102 13::0
15	4	2g20434.d	1.	CC	200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 13::1
16	1	2g20435.d	1.	NA	CH2CL2	1,1	12 Jun 102 12::2
17	14	2g20436.d	1.	✓	WG119761-06 600ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
18	15	2g20437.d	1.		WG119761-05 400ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
19	16	2g20438.d	1.		WG119761-04 200ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::1
20	17	2g20439.d	1.		WG119761-03 100ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::2
21	18	2g20440.d	1.		WG119761-02 50ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::4
22	19	2g20441.d	1.		WG119761-01 5ppm PRO STD	1,1 SOS 59-6	12 Jun 102 12::5
23	20	2g20442.d	1.		WG119761-07 200ppm PRO ALT SOURCE STD	1,1 SOS 59-1	12 Jun 102 12::1
24	5	2g20443.d	1.		WG119551-02 BLK 6/11 V185P167	1,1	12 Jun 102 12::2
25	6	2g20444.d	1.		WG119551-03 LCS 6/11 V185P167	1,1	12 Jun 102 12::4
26	7	2g20445.d	1.		L0206140-02 WATER PRO	1,1	12 Jun 102 12::5
27	8	2g20446.d	1.		L0206140-03 WATER PRO	1,1	12 Jun 102 12::1
28	9	2g20447.d	1.		L0206140-04 WATER PRO	1,1	12 Jun 102 12::2
29	10	2g20448.d	1.		L0206140-05 WATER PRO	1,1	12 Jun 102 12::4
30	11	2g20449.d	1.		L0206140-06 WATER PRO	1,1	12 Jun 102 12::0
31	12	2g20450.d	1.		L0206140-10 WATER PRO	1,1	12 Jun 102 12::1
32	13	2g20451.d	1.	RE	L0206140-11 WATER PRO	1,1	12 Jun 102 12::3
33	1	2g20452.d	1.	NA	CH2CL2	1,1	12 Jun 102 12::4
34	16	2g20453.d	1.	✓	WG119761-08 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::0
35	21	2g20454.d	1.	✓	L0206140-08 WATER PRO	1,1	12 Jun 102 12::1
36	22	2g20455.d	1.	✓	L0206140-09 WATER PRO	1,1	12 Jun 102 12::3
37	23	2g20456.d	1.	RR10	L0206140-12 WATER PRO	1,1	12 Jun 102 12::4
38	24	2g20457.d	1.	✓	L0206140-13 WATER PRO	1,1	12 Jun 102 12::0
39	25	2g20458.d	1.	✓	WG119551-01 L0206140-07 WATER PRO	1,1	12 Jun 102 12::1
40	26	2g20459.d	1.	✓	WG119551-04 L0206140-17 WATER PRO MS	1,1	12 Jun 102 12::3
41	27	2g20460.d	1.	✓	WG119551-05 L0206140-18 WATER PRO MSD	1,1	12 Jun 102 12::4
42	28	2g20461.d	1.	RR10	L0206140-01 WATER PRO	1,1	12 Jun 102 12::0
43	1	2g20462.d	1.	NA	CH2CL2	1,1	12 Jun 102 12::1
44	16	2g20463.d	1.	✓	WG119761-09 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::3
45	29	2g20464.d	1.	✓	L0206164-01 WATER PRO	1,1	12 Jun 102 12::4
46	30	2g20465.d	1.	✓	L0206164-02 WATER PRO	1,1	12 Jun 102 12::0
47	31	2g20466.d	1.	✓	L0206164-03 WATER PRO	1,1	12 Jun 102 12::2
48	1	2g20467.d	1.	NA	CH2CL2	1,1	12 Jun 102 12::3
49	16	2g20468.d	1.	✓	WG119761-10 200ppm PRO CCV	1,1 SOS 59-6	12 Jun 102 12::5

CLK 6/13/02 RAC 6/13/02 — 229

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 6/12/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 061202
Analyst Initials CLK

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

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

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

Daily Check

- [x] Gases >500 psi

Preventative Maintenance

- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0206140-11 WATER PRO, o-terphenyl low, Needs RE
" -12 " " , Needs 10X
" -01 " " , Needs 10X

Reviewed By: RDC 6/13/02

Parameter: FLA-PRO-HS SOP #: EXPRO Revision #: 3
Extraction Analyst(s): CAF GSC REK TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 10:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: REK/CAF Witness: —
Surrogate #: ESS0040-18 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-07 Spike #: B = —

Extraction Work Group WG 119551
Analytical Work Group WG 119767
Extract Relinquished By: CAF
Extract Received By & Date: RDC 6/11/02

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓			1 L	1 mL		1 mL	T				WG 119551-02
2	LCS		✓					1 mL		T				WG 119551-03
6/14 3	06-146-01	FLA-PRO	✓							C	✓			*
4	-02		✓							T	✓			*
5	-03		✓							T	✓			*
6	-04		✓							T				
7	-05		✓							T				
8	-06		✓							T				
9	-07		✓							T				WG 119551-01
10	-08		✓							T				
11	-09		✓							T				
12	-10		✓			920 mL				T				
13	-11		✓			960 mL				T				
14	-12		✓			940 mL				C				
15	-13		✓			1 L				T				
16	-17 MS		✓					1 mL		C				WG 119551-04
17	-18 MSD		✓							C				WG 119551-05
6/17 18	06-164-01		✓							T				
19	-02		✓							T				
20	-03		✓			965 mL				T				
21														
22														
23														
24														

CAF 6-11-02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #:
Acid: 1:1 HCl Lot #: ER 2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: Helen A. Seager Date: 6/11/02

Extraction Notes For Volume # 185 Page # 167

General Comments: MS, MSD of 06-140-07
* Emulsions

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Date: 6/12/02
Analyst: CLK
Method: 8015 PRO
Instrument: HP2
Work Group: WG119767

06-140 6/14 —
06-164 6/17 —

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	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	NA
Check Sample Histories	NA
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 6/13/02

Secondary Reviewer Initials & Date Checked [illegible] 6/12/02

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

Supervisory Review Initials & Date Checked [illegible] 6/12/02

Comments: 06-140-11 Needs RE

✓ - Checked & OK
NA - Not Applicable

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.: L0206164

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

BATCH QA/QC

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

SAMPLES

Surrogates: Sample fractions 01 and 02 yielded % recoveries for d14-p-terphenyl that were below acceptable limits. Theses samples were re-extracted outside of extraction holding time. Sample fraction 01 confirmed sample matrix effects. Sample fraction 02 yielded a % recovery for the surrogate that was within limits. Both analyses have been reported.
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: 6/27/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number_____

A. QC Summary

___Method Blank Summary
___Method Blank Results
___Laboratory Control Sample (LCS)
___Matrix Spike/Matrix Spike Duplicate (MS/MSD)
___Holding Time Summary
___Surrogate Recovery Summary
___Initial Calibration Summary
___Initial Calibration Verification (ICV) Form (Second Source)
___Continuing Calibration Verification (CCV)
___Instrument Run Log
___Extraction Bench Sheet

B. Sample Data

___Target compound and surrogate results summary (See Summary Report)
___Chromatograms and quantitation report

C. Standards Data

___Initial calibration (ICAL) summary form
___Chromatograms and quantitation report for ICAL standards
___Initial calibration verification (ICV/second source) summary forms
___Initial calibration verification (ICV/second source) quantitation reports and chromatograms
___Continuing Calibration Verification (CCV) summary forms
___Continuing Calibration Verification (CCV) quantitation reports and chromatograms
___Retention Time Window Summary

D. Raw QC Data

___Method blank chromatogram and quantitation report
___LCS chromatogram and quantitation report
___MS/MSD chromatogram and quantitation report
___Instrument Run Log
___Extraction Bench Sheet
___Daily Checklist
___Example Calculations

Checked By: _____ Date: _____

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 4L003152.F
Date Analyzed: 06/15/02
Time Analyzed: 07:15
Analyst: RDC

Work Group: WG119924
Blank Sample ID: WG119548-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119548-03	4L003153.F	06/15/02 08:12	CF01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 4L003152.R
Date Analyzed: 06/15/02
Time Analyzed: 07:15
Analyst: RDC

Work Group: WG119924
Blank Sample ID: WG119548-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG119548-03	4L003153.R	06/15/02 08:12	01
062-CEF46-21I-Q2-02-17	L0206164-01	4L003170.R	06/16/02 00:15	01
062-CEF46-24D-Q2-02-17	L0206164-02	4L003171.R	06/16/02 01:12	01
062-CEF46-25I-Q2-02-17	L0206164-03	4L003172.R	06/16/02 02:08	01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 4L003192.R
Date Analyzed: 06/20/02
Time Analyzed: 00:36
Analyst: RDC

Work Group: WG120172
Blank Sample ID: WG120073-01
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120073-02	4L003193.R	06/20/02 01:33	01
LCS2	WG120073-03	4L003194.R	06/20/02 02:29	01
062-CEF46-24D-Q2-02-17	L0206164-02	4L003198.R	06/20/02 06:16	06
062-CEF46-24D-Q2-02-17	L0206164-02	4L003198.R	06/20/02 06:16	RE01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Instrument ID: HPLC4
File ID: 4L003192.R
Workgroup (AAB#): WG120172
Contract #:

Run Date: 06/20/2002
Run Time: 00:36
Analyst: RDC

Sample ID: WG120073-01
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	56.3	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 05/09/2002
Version 1.2
Report generated 06/20/2002 10:49

242

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Instrument ID: HPLC4
File ID: 4L003192.F
Workgroup (AAB#): WG120172
Contract #:

Run Date: 06/20/2002
Run Time: 00:36
Analyst: RDC

Sample ID: WG120073-01
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	56.4	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Instrument ID: HPLC4
File ID: 4L003193.R
Workgroup (AAB#): WG120172
Contract #:

Run Date: 06/20/2002
Run Time: 01:33
Analyst: RDC

Sample ID: WG120073-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	28.9	57.8	25 - 78	
Acenaphthylene	50	28.4	56.8	25 - 77	
Anthracene	50	42.1	84.1	47 - 101	
Benzo(a)anthracene	5	4.38	87.7	50 - 115	
Benzo[a]pyrene	5	3.16	63.2	29 - 113	
Benzo(b)Fluoranthene	5	3.48	69.6	41 - 110	
Benzo[ghi]perylene	5	2.14	42.8	11 - 84	
Benzo[k]fluoranthene	2.5	1.44	57.5	25 - 107	
Chrysene	5	3.75	75.0	39 - 120	
Dibenz(a,h)Anthracene	5	2.02	40.5	10 - 92	
Fluoranthene	5	4.59	91.8	55 - 104	
Fluorene	50	32.2	64.4	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.29	45.8	16 - 98	
Naphthalene	50	25.9	51.9	25 - 68	
2-Methylnaphthalene	50	26.4	52.9	26 - 72	
1-Methylnaphthalene	50	26.2	52.5	26 - 71	
Phenanthrene	50	38.6	77.2	39 - 95	
Pyrene	5	4.61	92.1	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	69.4	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/20/2002 10:49

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Instrument ID: HPLC4
File ID: 4L003193.F
Workgroup (AAB#): WG120172
Contract #:

Run Date: 06/20/2002
Run Time: 01:33
Analyst: RDC

Sample ID: WG120073-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-19-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	28.8	57.6	25 - 78	
Acenaphthylene	50		0	25 - 77	*
Anthracene	50	41.0	82.1	47 - 101	
Benzo(a)anthracene	5	4.31	86.3	50 - 115	
Benzo[a]pyrene	5	3.09	61.8	29 - 113	
Benzo(b)Fluoranthene	5	3.45	69.0	41 - 110	
Benzo[ghi]perylene	5	2.02	40.4	11 - 84	
Benzo[k]fluoranthene	2.5	1.43	57.2	25 - 107	
Chrysene	5	3.74	74.9	39 - 120	
Dibenz(a,h)Anthracene	5	1.97	39.5	10 - 92	
Fluoranthene	5	4.70	94.0	55 - 104	
Fluorene	50	32.4	64.8	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.27	45.5	16 - 98	
Naphthalene	50	24.7	49.4	25 - 68	
2-Methylnaphthalene	50	25.9	51.9	26 - 72	
1-Methylnaphthalene	50	26.0	52.0	26 - 71	
Phenanthrene	50	38.0	75.9	39 - 95	
Pyrene	5	4.58	91.6	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	69.4	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/20/2002 10:49

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206164 Worknum: WG120172 Method: 8310
Instrument ID: HPLC4 Cal ID: HPLC4-19-JUN-2002 Matrix: Water
Analyst: RDC Contract #: Units: ug/L
Sample ID: WG120073-02 LCS File ID: 4L003193.R Run Date: 06/20/2002 01:33
Sample ID: WG120073-03 LCS2 File ID: 4L003194.R Run Date: 06/20/2002 02:29

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	50.0	28.9	57.8	50.0	24.4	48.8	17	25 - 78	50	
Acenaphthylene	50.0	28.4	56.8	50.0	23.9	47.8	17.2	25 - 77	50	
Anthracene	50.0	42.1	84.1	50.0	39.5	78.9	6.38	47 - 101	50	
Benzo(a)anthracene	5.00	4.38	87.7	5.00	3.96	79.2	10.1	50 - 115	50	
Benzo[a]pyrene	5.00	3.16	63.2	5.00	2.79	55.7	12.6	29 - 113	50	
Benzo(b)Fluoranthene	5.00	3.48	69.6	5.00	3.14	62.8	10.4	41 - 110	50	
Benzo[ghi]perylene	5.00	2.14	42.8	5.00	1.76	35.2	19.7	11 - 84	50	
Benzo[k]fluoranthene	2.50	1.44	57.5	2.50	1.25	50.2	13.5	25 - 107	50	
Chrysene	5.00	3.75	75.0	5.00	3.22	64.3	15.3	39 - 120	50	
Dibenz(a,h)Anthracene	5.00	2.02	40.5	5.00	1.65	33.0	20.1	10 - 92	50	
Fluoranthene	5.00	4.59	91.8	5.00	4.12	82.3	10.8	55 - 104	50	
Fluorene	50.0	32.2	64.4	50.0	28.1	56.2	13.6	29 - 84	50	
Indeno(1,2,3-cd)pyrene	5.00	2.29	45.8	5.00	1.99	39.8	14.1	16 - 98	50	
Naphthalene	50.0	25.9	51.9	50.0	22.2	44.5	15.4	25 - 68	50	
2-Methylnaphthalene	50.0	26.4	52.9	50.0	22.8	45.6	14.8	26 - 72	50	
1-Methylnaphthalene	50.0	26.2	52.5	50.0	22.4	44.8	15.8	26 - 71	50	
Phenanthrene	50.0	38.6	77.2	50.0	34.1	68.3	12.2	39 - 95	50	
Pyrene	5.00	4.61	92.1	5.00	4.14	82.7	10.8	56 - 104	50	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	69.4	58.0	40 - 132	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 06/14/2002
Version 1.2
Report generated 06/20/2002 10:49

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0206164 Worknum: WG120172 Method: 8310
Instrument ID: HPLC4 Cal ID: HPLC4-19-JUN-2002 Matrix: Water
Analyst: RDC Contract #: Units: ug/L
Sample ID: WG120073-02 LCS File ID: 4L003193.F Run Date: 06/20/2002 01:33
Sample ID: WG120073-03 LCS2 File ID: 4L003194.F Run Date: 06/20/2002 02:29

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	50.0	28.8	57.6	50.0	24.3	48.6	17.1	25 - 78	50	
Acenaphthylene	50.0			50.0				25 - 77	50	*
Anthracene	50.0	41.0	82.1	50.0	39.0	77.9	5.22	47 - 101	50	
Benzo(a)anthracene	5.00	4.31	86.3	5.00	3.90	78.1	9.93	50 - 115	50	
Benzo[a]pyrene	5.00	3.09	61.8	5.00	2.73	54.6	12.4	29 - 113	50	
Benzo(b)Fluoranthene	5.00	3.45	69.0	5.00	3.12	62.4	10.1	41 - 110	50	
Benzo[ghi]perylene	5.00	2.02	40.4	5.00	1.68	33.7	18.2	11 - 84	50	
Benzo[k]fluoranthene	2.50	1.43	57.2	2.50	1.25	50.0	13.4	25 - 107	50	
Chrysene	5.00	3.74	74.9	5.00	3.22	64.3	15.1	39 - 120	50	
Dibenz(a,h)Anthracene	5.00	1.97	39.5	5.00	1.64	32.7	18.8	10 - 92	50	
Fluoranthene	5.00	4.70	94.0	5.00	4.22	84.5	10.7	55 - 104	50	
Fluorene	50.0	32.4	64.8	50.0	28.3	56.5	13.6	29 - 84	50	
Indeno(1,2,3-cd)pyrene	5.00	2.27	45.5	5.00	1.96	39.3	14.6	16 - 98	50	
Naphthalene	50.0	24.7	49.4	50.0	21.2	42.4	15.3	25 - 68	50	
2-Methylnaphthalene	50.0	25.9	51.9	50.0	22.4	44.8	14.6	26 - 72	50	
1-Methylnaphthalene	50.0	26.0	52.0	50.0	22.2	44.3	15.9	26 - 71	50	
Phenanthrene	50.0	38.0	75.9	50.0	33.7	67.3	12	39 - 95	50	
Pyrene	5.00	4.58	91.6	5.00	4.12	82.4	10.5	56 - 104	50	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	69.4	56.7	-	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 06/14/2002
Version 1.2
Report generated 06/20/2002 10:48

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG119924

Login Number: L0206164

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-21I-Q2-02-17	06/07/02	06/08/02	06/11/02	7	3.97	06/16/02	40	4.65	
062-CEF46-24D-Q2-02-17	06/07/02	06/08/02	06/11/02	7	4.03	06/16/02	40	4.69	
062-CEF46-25I-Q2-02-17	06/07/02	06/08/02	06/11/02	7	4.00	06/16/02	40	4.72	

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

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG120172

Login Number: L0206164

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-24D-Q2-02-17	06/07/02	06/08/02	06/18/02	7	11.3	06/20/02	40	1.67	*EXT

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206164
Instrument Id: HPLC4
Workgroup (AAB#): WG119924

Method: 8310
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206164-01	1.00	01	32.4
L0206164-02	1.00	01	39.0
L0206164-03	1.00	01	41.5
WG119548-02	1.00	01	81.0
WG119548-02	1.00	CF01	81.7
WG119548-03	1.00	01	63.8
WG119548-03	1.00	CF01	63.3

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0206164
Instrument Id: HPLC4
Workgroup (AAB#): WG120172

Method: 8310
Matrix: WATER

Sample Number	Dilution	Tag	1
L0206164-02	1.00	06	41.5
L0206164-02	1.00	RE01	41.5
WG120073-01	1.00	01	56.3
WG120073-01	1.00	CF01	56.4
WG120073-02	1.00	01	69.4
WG120073-02	1.00	CF01	69.4
WG120073-03	1.00	01	58.0
WG120073-03	1.00	CF01	56.7

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Friday, June 14, 2002 9:14:03 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 : Included
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
9.335	2	1	1.00000	118.44469	8.44276e-3			Naphthalene #1
		2	5.00000	598.90387	8.34859e-3			
		3	10.00000	1219.35925	8.20103e-3			
		4	20.00000	2498.67944	8.00423e-3			
		5	50.00000	6195.70996	8.07010e-3			
		6	100.00000	1.19505e4	8.36782e-3			
9.353	1	1	1.00000	35.70203	2.80096e-2			Naphthalene #1
		2	5.00000	178.95563	2.79399e-2			
		3	10.00000	371.85556	2.68922e-2			
		4	20.00000	754.54517	2.65060e-2			
		5	50.00000	1885.17432	2.65227e-2			
		6	100.00000	3817.44727	2.61955e-2			
10.959	2	1	1.00000	32.34379	3.09178e-2			Acenaphthylene #2
		2	5.00000	157.19412	3.18078e-2			
		3	10.00000	325.59451	3.07130e-2			
		4	20.00000	658.50293	3.03719e-2			
		5	50.00000	1639.64368	3.04944e-2			
		6	100.00000	3321.14795	3.01101e-2			
11.906	2	1	1.00000	73.52287	1.36012e-2			1-Methylnaphthalene #3

Rettime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Sig	Name
		2	5.00000	365.23682	1.36897e-2			
		3	10.00000	757.97943	1.31930e-2			
		4	20.00000	1536.99390	1.30124e-2			
		5	50.00000	3823.69092	1.30764e-2			
		6	100.00000	7652.24854	1.30681e-2			
11.924	1	1	1.00000	41.21246	2.42645e-2			1-Methylnaphthalene #3
		2	5.00000	205.97406	2.42749e-2			
		3	10.00000	427.16837	2.34100e-2			
		4	20.00000	865.41754	2.31102e-2			
		5	50.00000	2162.71216	2.31191e-2			
		6	100.00000	4362.68555	2.29217e-2			
12.479	2	1	1.00000	85.92275	1.16384e-2			2-Methylnaphthalene #4
		2	5.00000	427.72684	1.16897e-2			
		3	10.00000	887.82635	1.12635e-2			
		4	20.00000	1791.84399	1.11617e-2			
		5	50.00000	4440.55420	1.12599e-2			
		6	100.00000	8770.67480	1.14016e-2			
12.497	1	1	1.00000	53.61522	1.86514e-2			2-Methylnaphthalene #4
		2	5.00000	267.76404	1.86732e-2			
		3	10.00000	555.40234	1.80050e-2			
		4	20.00000	1125.70947	1.77666e-2			
		5	50.00000	2815.32397	1.77599e-2			
		6	100.00000	5651.09082	1.76957e-2			
12.956	2	1	1.00000	45.75132	2.18573e-2			Acenaphthene #5
		2	5.00000	230.37761	2.17035e-2			
		3	10.00000	479.64664	2.08487e-2			
		4	20.00000	968.64014	2.06475e-2			
		5	50.00000	2413.63843	2.07156e-2			
		6	100.00000	4859.52686	2.05781e-2			
12.974	1	1	1.00000	68.11809	1.46804e-2			Acenaphthene #5
		2	5.00000	339.83661	1.47130e-2			
		3	10.00000	704.82605	1.41879e-2			
		4	20.00000	1426.86951	1.40167e-2			
		5	50.00000	3551.90137	1.40770e-2			
		6	100.00000	7092.07813	1.41002e-2			
13.606	2	1	1.00000	52.41635	1.90780e-2			Fluorene #6
		2	5.00000	267.85175	1.86670e-2			
		3	10.00000	555.59216	1.79988e-2			
		4	20.00000	1125.01990	1.77775e-2			
		5	50.00000	2806.76538	1.78141e-2			
		6	100.00000	5664.78320	1.76529e-2			
13.625	1	1	1.00000	147.37762	6.78529e-3			Fluorene #6
		2	5.00000	732.50269	6.82591e-3			
		3	10.00000	1519.64282	6.58049e-3			
		4	20.00000	3071.66968	6.51112e-3			
		5	50.00000	7586.48193	6.59067e-3			
		6	100.00000	1.50207e4	6.65746e-3			
14.988	2	1	1.00000	59.16147	1.69029e-2			Phenanthrene #7
		2	5.00000	271.73749	1.84001e-2			
		3	10.00000	563.78528	1.77372e-2			
		4	20.00000	1137.39648	1.75840e-2			
		5	50.00000	2834.24902	1.76414e-2			
		6	100.00000	5720.03760	1.74824e-2			
15.006	1	1	1.00000	5.49246	1.82068e-1			Phenanthrene #7
		2	5.00000	27.09999	1.84502e-1			
		3	10.00000	56.03428	1.78462e-1			

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref Sig	Name
		4	20.00000	113.91219	1.75574e-1		
		5	50.00000	286.42151	1.74568e-1		
		6	100.00000	583.99371	1.71235e-1		
16.387	2	1	1.00000	93.73675	1.06682e-2		Anthracene #8
		2	5.00000	479.37994	1.04301e-2		
		3	10.00000	1007.09772	9.92952e-3		
		4	20.00000	2016.31750	9.91907e-3		
		5	50.00000	4994.17480	1.00117e-2		
		6	100.00000	9770.11133	1.02353e-2		
16.405	1	1	1.00000	3.27440	3.05399e-1		Anthracene #8
		2	5.00000	15.91612	3.14147e-1		
		3	10.00000	32.93192	3.03657e-1		
		4	20.00000	66.59662	3.00316e-1		
		5	50.00000	165.24231	3.02586e-1		
		6	100.00000	330.63736	3.02446e-1		
17.762	2	1	1.00000e-1	2.86666	3.48838e-2		Fluoranthene #9
		2	5.00000e-1	21.47706	2.32806e-2		
		3	1.00000	44.35479	2.25455e-2		
		4	2.00000	90.19173	2.21750e-2		
		5	5.00000	225.76083	2.21473e-2		
		6	10.00000	458.29434	2.18200e-2		
17.779	1	1	1.00000e-1	3.76502	2.65603e-2		Fluoranthene #9
		2	5.00000e-1	18.56896	2.69267e-2		
		3	1.00000	38.54884	2.59411e-2		
		4	2.00000	77.44264	2.58256e-2		
		5	5.00000	194.82120	2.56646e-2		
		6	10.00000	394.78314	2.53304e-2		
18.761	2	1	1.00000e-1	5.78315	1.72916e-2		Pyrene #10
		2	5.00000e-1	30.90943	1.61763e-2		
		3	1.00000	67.05128	1.49140e-2		
		4	2.00000	137.28792	1.45679e-2		
		5	5.00000	342.14008	1.46139e-2		
		6	10.00000	696.78912	1.43515e-2		
18.779	1	1	1.00000e-1	2.23349	4.47730e-2		Pyrene #10
		2	5.00000e-1	11.37372	4.39610e-2		
		3	1.00000	23.43897	4.26640e-2		
		4	2.00000	48.14644	4.15399e-2		
		5	5.00000	120.60387	4.14580e-2		
21.086	2	1	1.00000	14.27733	7.00411e-2		p-Terphenyl d14 #11*
		2	5.00000	72.29396	6.91621e-2		
		3	10.00000	150.04201	6.66480e-2		
		4	20.00000	302.29453	6.61606e-2		
		5	50.00000	765.97974	6.52759e-2		
		6	100.00000	1538.62390	6.49931e-2		
21.105	1	1	1.00000	3.43824	2.90847e-1		p-Terphenyl d14 #11*
		2	5.00000	15.96525	3.13180e-1		
		3	10.00000	33.36931	2.99677e-1		
		4	20.00000	66.93617	2.98792e-1		
		5	50.00000	168.95605	2.95935e-1		
		6	100.00000	342.27563	2.92162e-1		
22.401	2	1	1.00000e-1	4.17491	2.39526e-2		Benzo(a)anthracene #12
		2	5.00000e-1	21.50113	2.32546e-2		
		3	1.00000	43.38402	2.30500e-2		
		4	2.00000	88.38959	2.26271e-2		
		5	5.00000	220.76303	2.26487e-2		
		6	10.00000	449.91843	2.22263e-2		

254

[min]	Sig		[ug/L]			
22.418	1	1	1.00000e-1	11.68998	8.55433e-3	Benzo(a)anthracene #12
		2	5.00000e-1	57.25381	8.73304e-3	
		3	1.00000	119.10960	8.39563e-3	
		4	2.00000	240.75162	8.30732e-3	
		5	5.00000	603.67468	8.28261e-3	
		6	10.00000	1230.57483	8.12628e-3	
23.266	2	1	1.00000e-1	7.56785	1.32138e-2	Chrysene #13
		2	5.00000e-1	30.82063	1.62229e-2	
		3	1.00000	63.84754	1.56623e-2	
		4	2.00000	129.65228	1.54259e-2	
		5	5.00000	324.23495	1.54209e-2	
		6	10.00000	658.83282	1.51784e-2	
23.280	1	1	1.00000e-1	2.35546	4.24546e-2	Chrysene #13
		2	5.00000e-1	11.91314	4.19705e-2	
		3	1.00000	24.15862	4.13931e-2	
		4	2.00000	49.60668	4.03171e-2	
		5	5.00000	123.50459	4.04843e-2	
		6	10.00000	251.15788	3.98156e-2	
25.984	2	1	1.00000e-1	4.71679	2.12008e-2	Benzo(b)fluoranthene #
		2	5.00000e-1	22.19203	2.25306e-2	
		3	1.00000	43.42394	2.30288e-2	
		4	2.00000	94.69703	2.11200e-2	
		5	5.00000	236.61021	2.11318e-2	
		6	10.00000	480.16330	2.08262e-2	
26.003	1	1	1.00000e-1	5.60739	1.78336e-2	Benzo(b)fluoranthene #
		2	5.00000e-1	27.48360	1.81927e-2	
		3	1.00000	57.64073	1.73488e-2	
		4	2.00000	116.12308	1.72231e-2	
		5	5.00000	291.03116	1.71803e-2	
		6	10.00000	592.02631	1.68911e-2	
27.418	2	1	5.00000e-2	2.02281	2.47181e-2	Benzo(k)fluoranthene #
		2	2.50000e-1	10.12679	2.46870e-2	
		3	5.00000e-1	21.38502	2.33809e-2	
		4	1.00000	43.30220	2.30935e-2	
		5	2.50000	108.54563	2.30318e-2	
		6	5.00000	220.91960	2.26327e-2	
27.438	1	1	5.00000e-2	16.96901	2.94655e-3	Benzo(k)fluoranthene #
		2	2.50000e-1	83.42035	2.99687e-3	
		3	5.00000e-1	173.46057	2.88250e-3	
		4	1.00000	351.66119	2.84365e-3	
		5	2.50000	879.42432	2.84277e-3	
		6	5.00000	1779.80371	2.80930e-3	
28.535	2	1	1.00000e-1	3.59195	2.78400e-2	Benzo(a)pyrene #16
		2	5.00000e-1	16.33183	3.06151e-2	
		3	1.00000	36.80410	2.71709e-2	
		4	2.00000	74.00938	2.70236e-2	
		5	5.00000	188.39293	2.65403e-2	
		6	10.00000	385.66537	2.59292e-2	
28.553	1	1	1.00000e-1	19.68503	5.08000e-3	Benzo(a)pyrene #16
		2	5.00000e-1	97.54757	5.12570e-3	
		3	1.00000	203.09286	4.92386e-3	
		4	2.00000	412.69138	4.84624e-3	
		5	5.00000	1041.60461	4.80029e-3	
		6	10.00000	2128.17065	4.69887e-3	
30.399	2	1	1.00000e-1	8.17798e-1	1.22280e-1	Dibenz(a,h)anthracene
		2	5.00000e-1	4.54521	1.10006e-1	

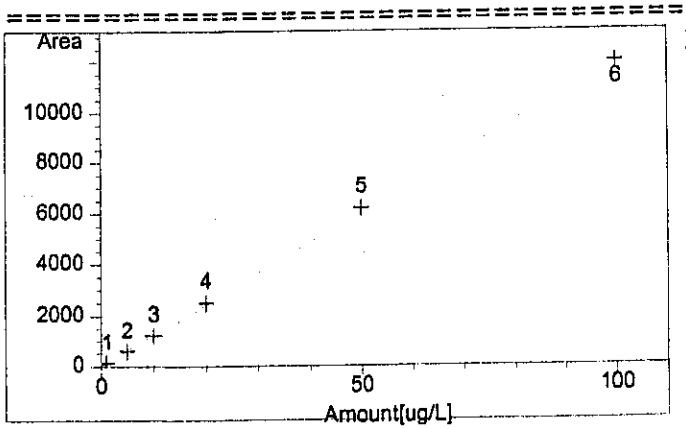
255

RetTime [min]	Sig	Lvl		Amount [ug/L]	Area	Amt/Area	Ref	Cap	Name
			3	1.00000	10.34522	9.66630e-2			
			4	2.00000	20.79541	9.61751e-2			
			5	5.00000	53.20811	9.39706e-2			
			6	10.00000	106.05376	9.42918e-2			
30.418		1	1	1.00000e-1	2.33135	4.28935e-2			Dibenz(a,h)anthracene
			2	5.00000e-1	11.57100	4.32115e-2			
			3	1.00000	23.94359	4.17648e-2			
			4	2.00000	48.37633	4.13425e-2			
			5	5.00000	122.52839	4.08069e-2			
			6	10.00000	250.75458	3.98796e-2			
31.206		2	1	1.00000e-1	3.35385	2.98165e-2			Benzo(g,h,i)perylene #
			2	5.00000e-1	8.93342	5.59696e-2			
			3	1.00000	21.12121	4.73458e-2			
			4	2.00000	37.91122	5.27548e-2			
			5	5.00000	92.63392	5.39759e-2			
			6	10.00000	187.07765	5.34537e-2			
31.227		1	1	1.00000e-1	3.26803	3.05995e-2			Benzo(g,h,i)perylene #
			2	5.00000e-1	16.23036	3.08065e-2			
			3	1.00000	33.76281	2.96184e-2			
			4	2.00000	68.38602	2.92457e-2			
			5	5.00000	173.07938	2.88885e-2			
			6	10.00000	354.98242	2.81704e-2			
32.159		2	1	1.00000e-1	3.43245	2.91337e-2			Indeno(1,2,3-cd)pyrene
			2	5.00000e-1	20.74642	2.41005e-2			
			3	1.00000	45.65535	2.19032e-2			
			4	2.00000	93.60317	2.13668e-2			
			5	5.00000	237.44170	2.10578e-2			
			6	10.00000	485.43732	2.06000e-2			
32.172		1	1	1.00000e-1	6.85877	1.45799e-2			Indeno(1,2,3-cd)pyrene
			2	5.00000e-1	32.92362	1.51867e-2			
			3	1.00000	69.03428	1.44856e-2			
			4	2.00000	140.00281	1.42854e-2			
			5	5.00000	351.97876	1.42054e-2			
			6	10.00000	715.64252	1.39735e-2			

Peak Sum Table

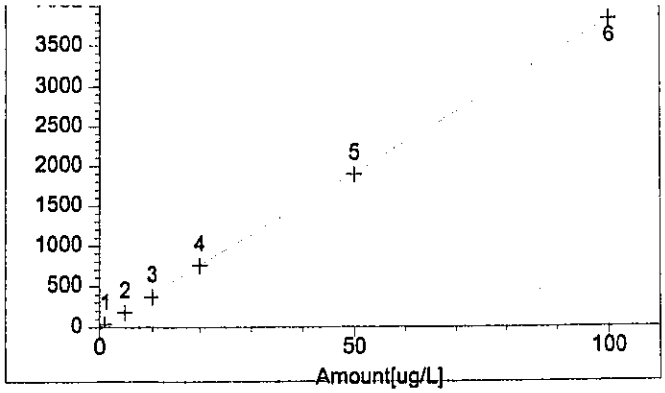
No Entries in table

Calibration Curves

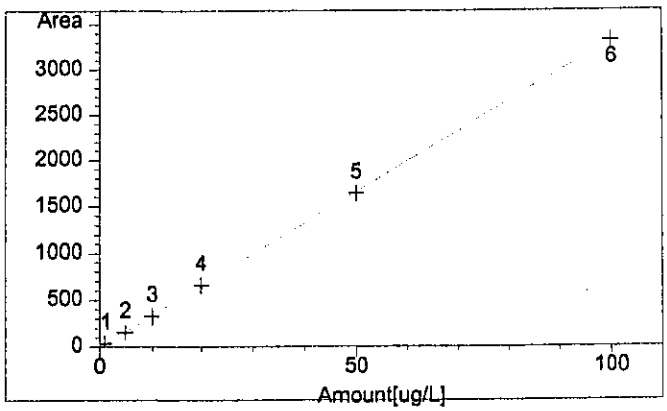


Naphthalene #1 at exp. RT: 9.335
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 90.64647
Formula: y = mx + b
m: 120.00596
b: 37.21961
x: Amount [ug/L]
y: Area

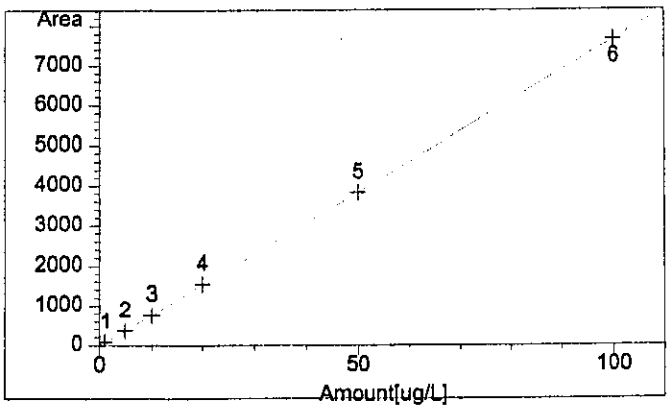
256



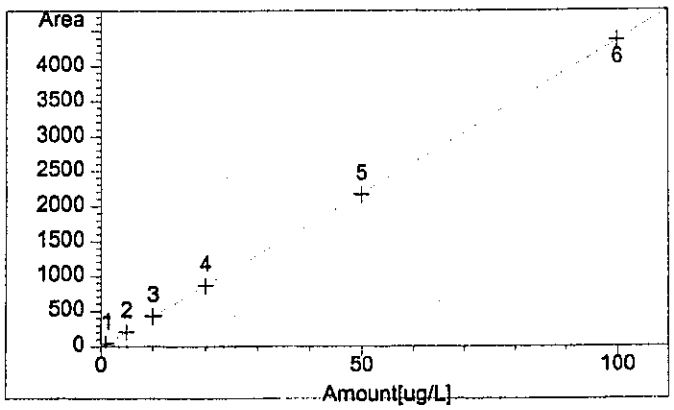
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 9.16561
Formula: y = mx + b
m: 38.17339
b: -8.08139
x: Amount [ug/L]
y: Area



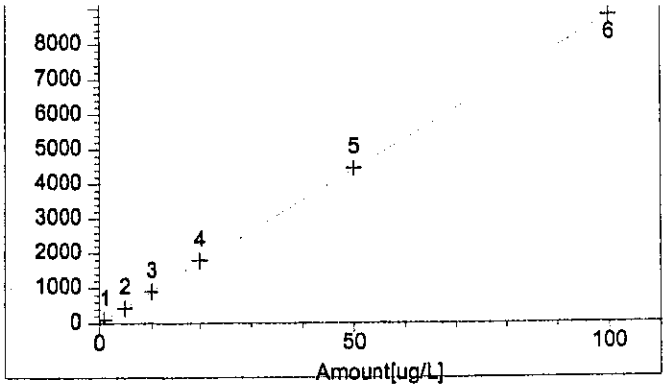
Acenaphthylene #2 at exp. RT: 10.959
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 8.09380
Formula: y = mx + b
m: 33.19524
b: -5.69815
x: Amount [ug/L]
y: Area



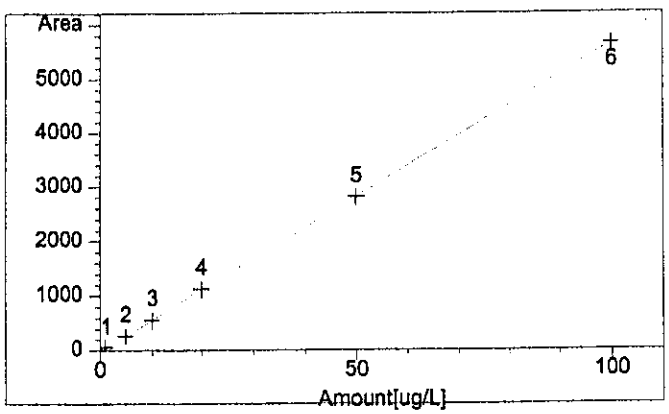
1-Methylnaphthalene #3 at exp. RT: 11.906
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 1.00000
Residual Std. Dev.: 7.81901
Formula: y = mx + b
m: 76.58082
b: -4.90862
x: Amount [ug/L]
y: Area



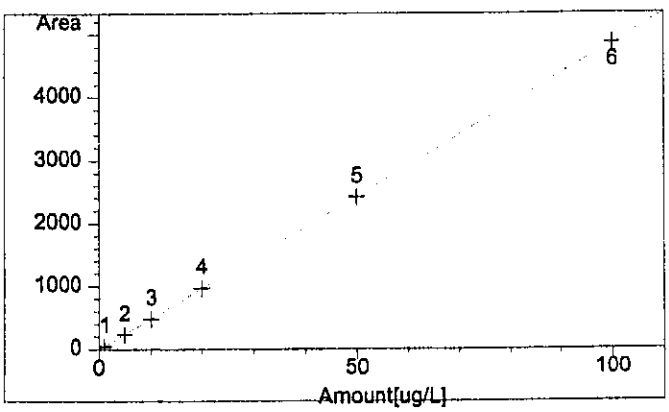
1-Methylnaphthalene #3 at exp. RT: 11.924
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 7.54227
Formula: y = mx + b
m: 43.63739
b: -7.34061
x: Amount [ug/L]
y: Area



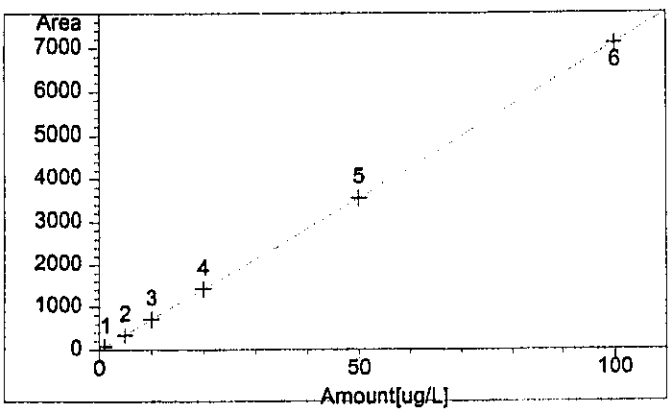
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 25.91757
Formula: y = mx + b
m: 87.84855
b: 9.24548
x: Amount [ug/L]
y: Area



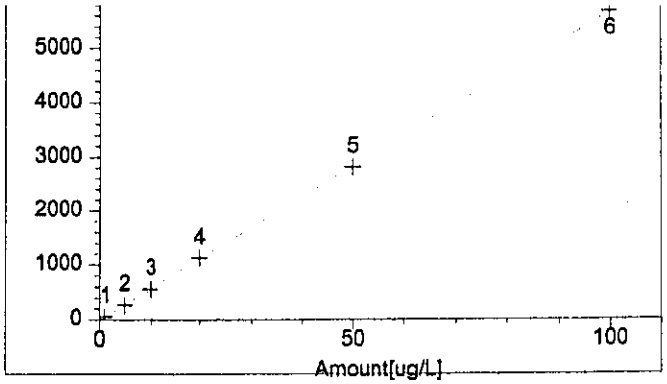
2-Methylnaphthalene #4 at exp. RT: 12.497
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.96731
Formula: y = mx + b
m: 56.55348
b: -7.14867
x: Amount [ug/L]
y: Area



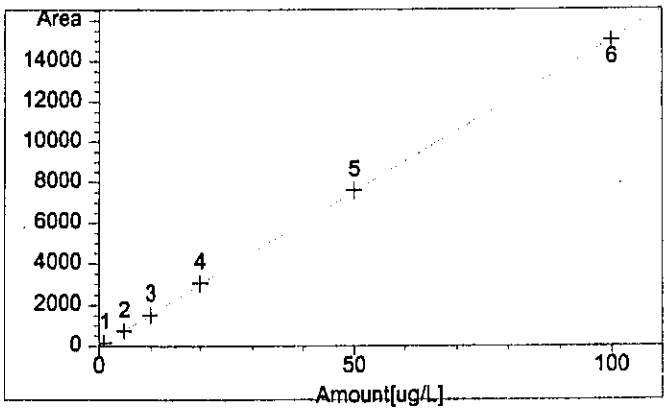
Acenaphthene #5 at exp. RT: 12.956
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 6.84725
Formula: y = mx + b
m: 48.60673
b: -6.18160
x: Amount [ug/L]
y: Area



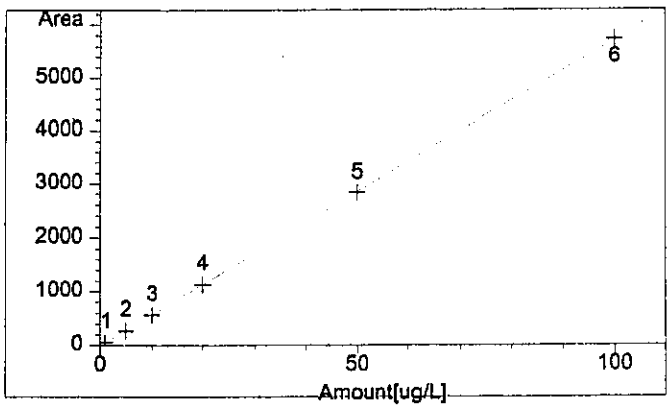
Acenaphthene #5 at exp. RT: 12.974
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 7.82229
Formula: y = mx + b
m: 70.98815
b: -2.88099
x: Amount [ug/L]
y: Area



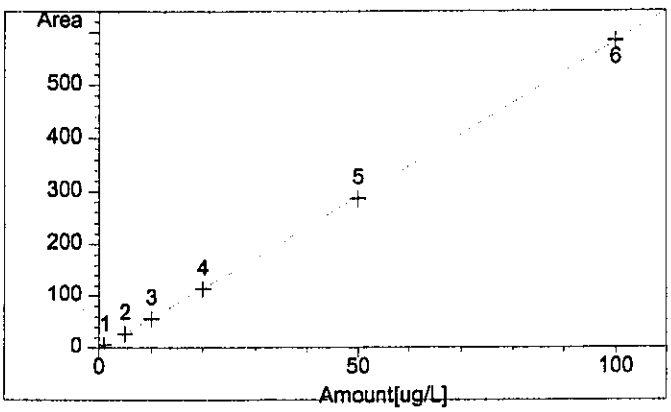
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.05830
Formula: y = mx + b
m: 56.65678
b: -9.39024
x: Amount [ug/L]
y: Area



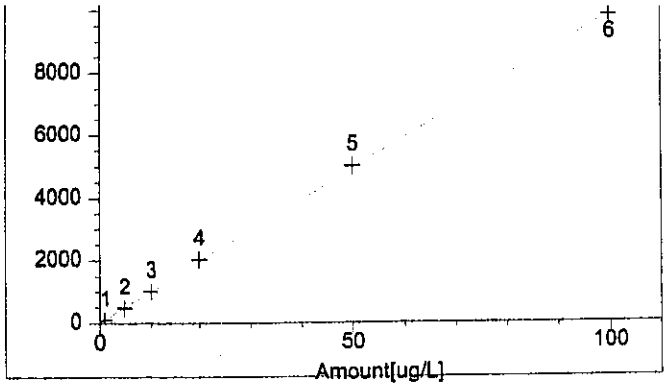
Fluorene #6 at exp. RT: 13.625
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 39.83191
Formula: y = mx + b
m: 150.39549
b: 14.97901
x: Amount [ug/L]
y: Area



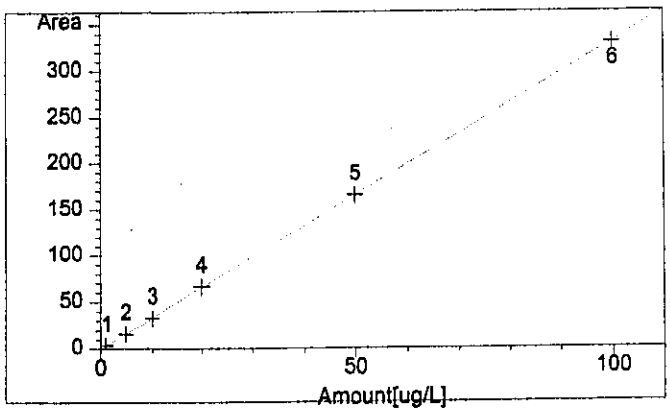
Phenanthrene #7 at exp. RT: 14.988
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.76481
Formula: y = mx + b
m: 57.17977
b: -7.01003
x: Amount [ug/L]
y: Area



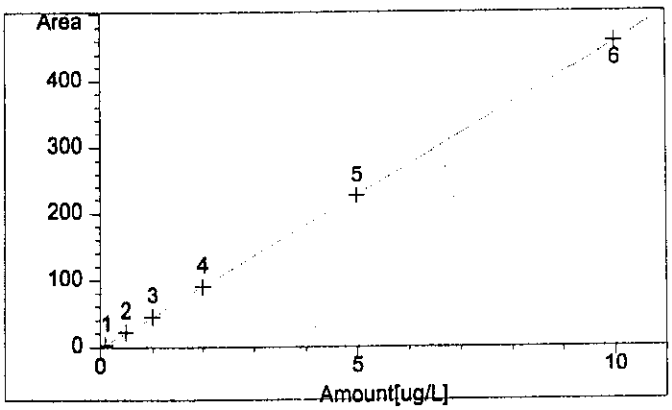
Phenanthrene #7 at exp. RT: 15.006
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 2.20575
Formula: y = mx + b
m: 5.83768
b: -1.83622
x: Amount [ug/L]
y: Area



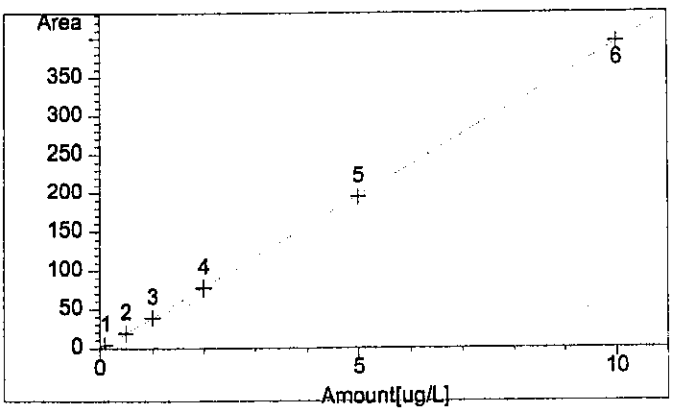
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 47.43795
Formula: y = mx + b
m: 97.94194
b: 20.51670
x: Amount [ug/L]
y: Area



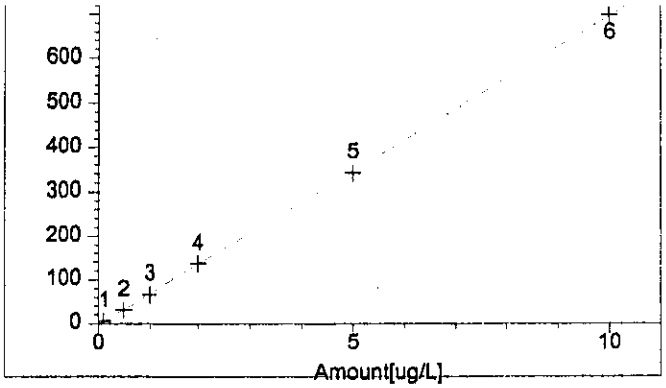
Anthracene #8 at exp. RT: 16.405
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 0.34234
Formula: y = mx + b
m: 3.30779
b: -9.27632e-2
x: Amount [ug/L]
y: Area



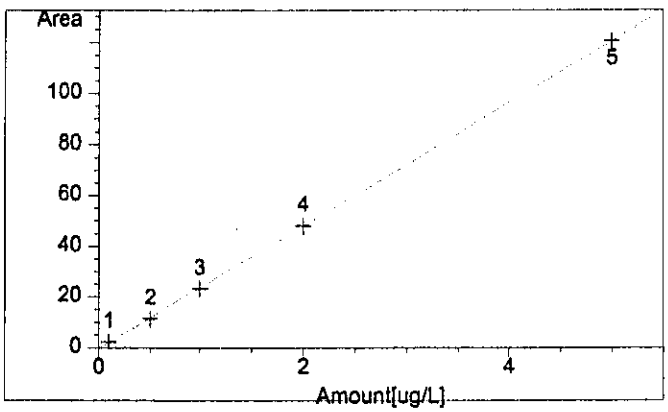
Fluoranthene #9 at exp. RT: 17.762
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 1.25331
Formula: y = mx + b
m: 45.86610
b: -1.45201
x: Amount [ug/L]
y: Area



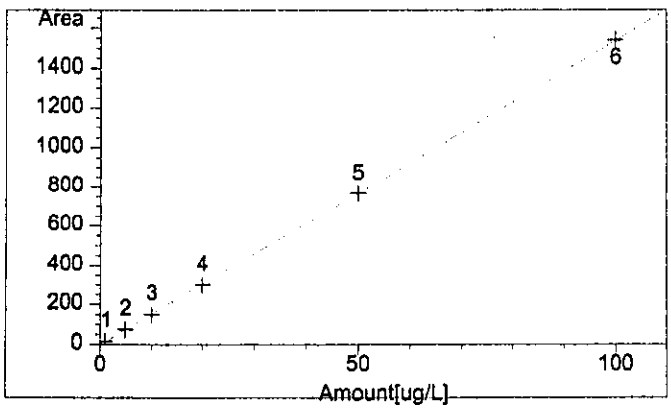
Fluoranthene #9 at exp. RT: 17.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.03650
Formula: y = mx + b
m: 39.47219
b: -8.93275e-1
x: Amount [ug/L]
y: Area



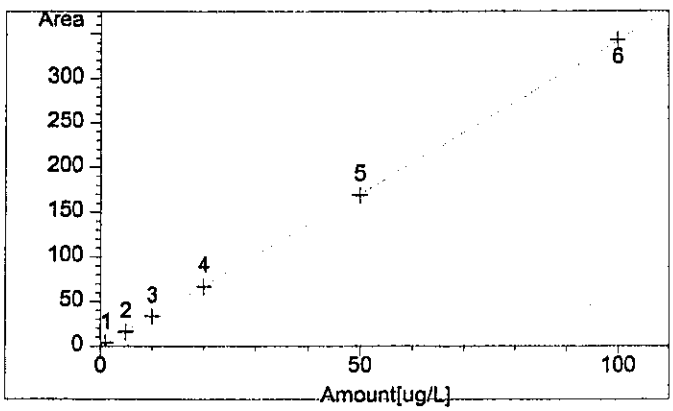
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.45753
Formula: y = mx + b
m: 69.71068
b: -2.37968
x: Amount [ug/L]
y: Area



Pyrene #10 at exp. RT: 18.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.33832
Formula: y = mx + b
m: 24.18326
b: -3.63256e-1
x: Amount [ug/L]
y: Area

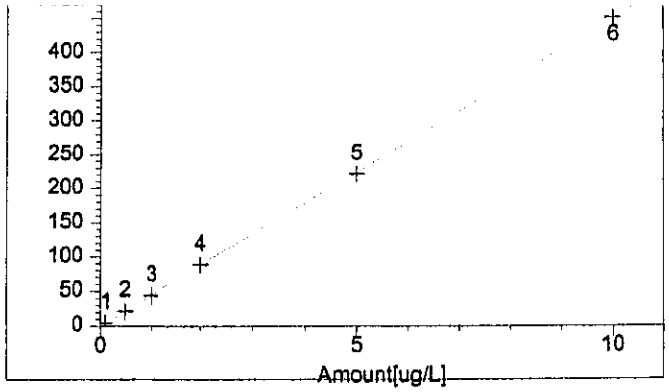


p-Terphenyl d14 #11* at exp. RT: 21.086
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.33106
Formula: y = mx + b
m: 15.40471
b: -3.10922
x: Amount [ug/L]
y: Area

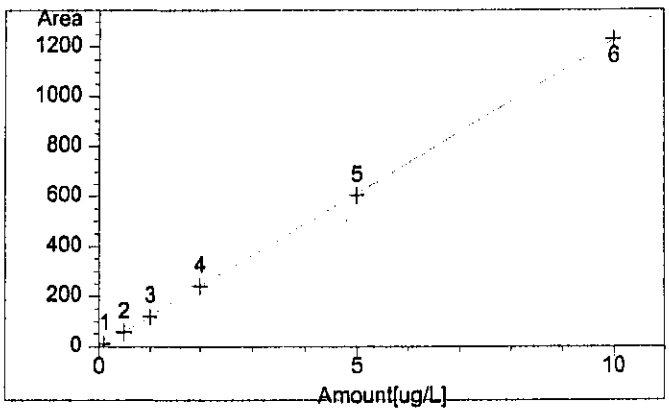


p-Terphenyl d14 #11* at exp. RT: 21.105
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.94806
Formula: y = mx + b
m: 3.42244
b: -8.04824e-1
x: Amount [ug/L]
y: Area

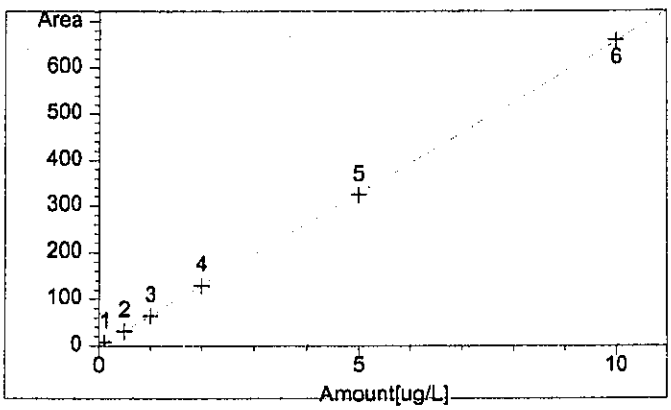
261



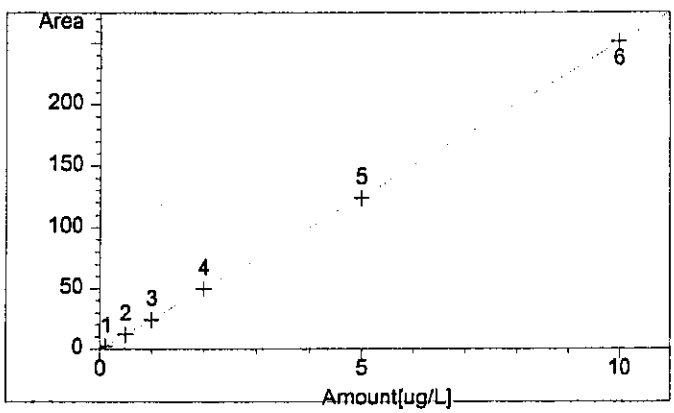
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 1.60319
Formula: y = mx + b
m: 44.95295
b: -1.14196
x: Amount [ug/L]
y: Area



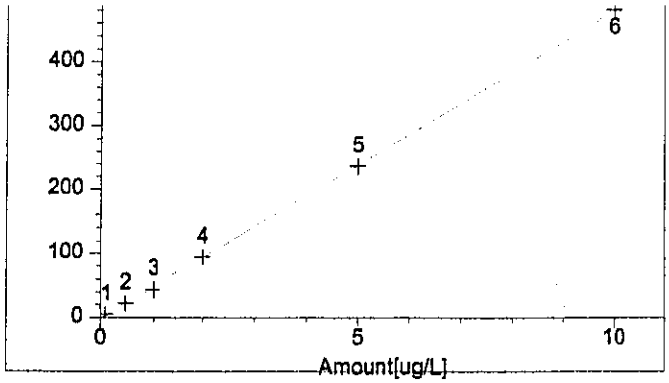
Benzo(a)anthracene #12 at exp. RT: 22.418
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 4.52026
Formula: y = mx + b
m: 122.97900
b: -3.47928
x: Amount [ug/L]
y: Area



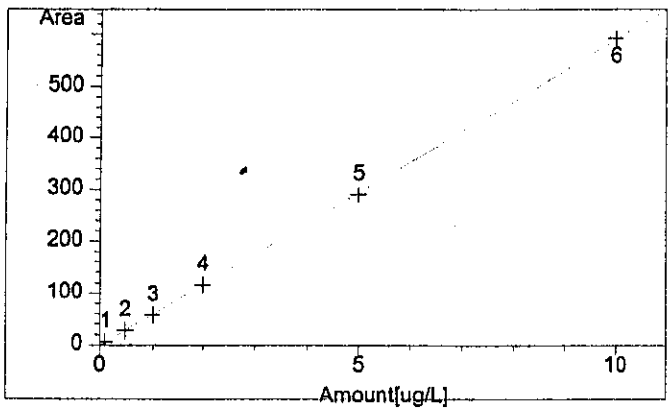
Chrysene #13 at exp. RT: 23.266
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.23172
Formula: y = mx + b
m: 65.81764
b: -1.32173
x: Amount [ug/L]
y: Area



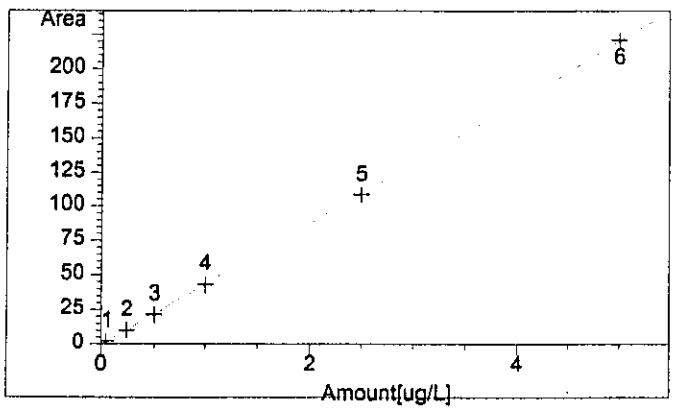
Chrysene #13 at exp. RT: 23.280
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 0.79966
Formula: y = mx + b
m: 25.10251
b: -6.01486e-1
x: Amount [ug/L]
y: Area



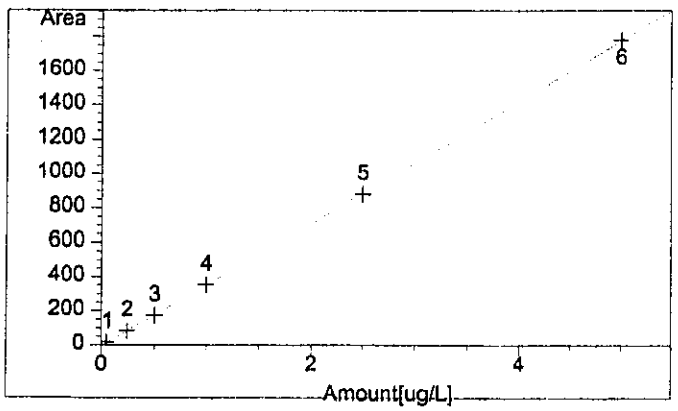
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.98687
Formula: y = mx + b
m: 48.07187
b: -1.76192
x: Amount [ug/L]
y: Area



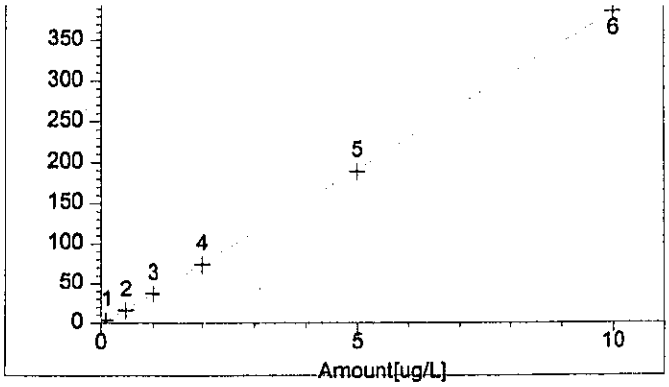
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.94362
Formula: y = mx + b
m: 59.17522
b: -1.53526
x: Amount [ug/L]
y: Area



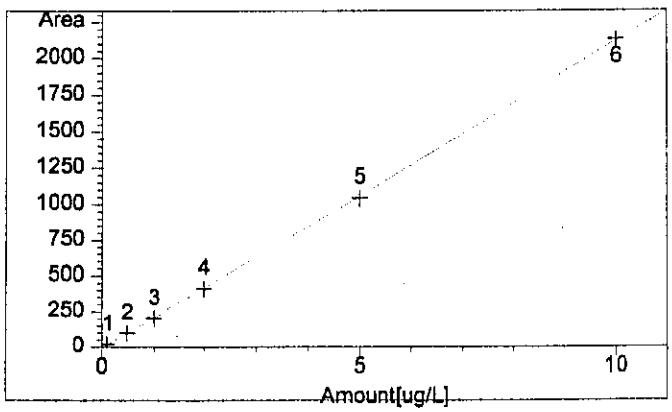
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 0.74646
Formula: y = mx + b
m: 44.17713
b: -6.49330e-1
x: Amount [ug/L]
y: Area



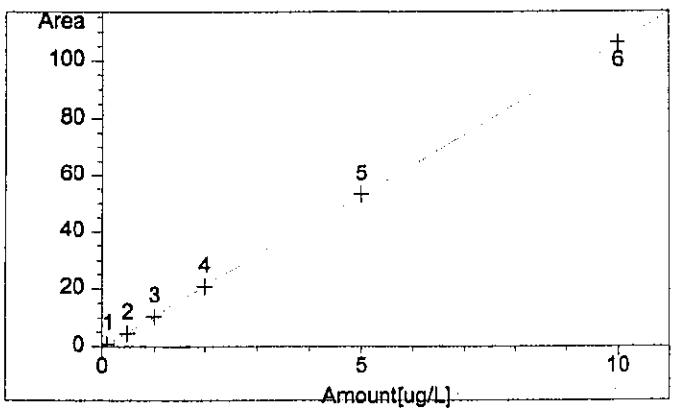
Benzo(k)fluoranthene #15 at exp. RT: 27.4
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 4.14920
Formula: y = mx + b
m: 355.95834
b: -3.66763
x: Amount [ug/L]
y: Area



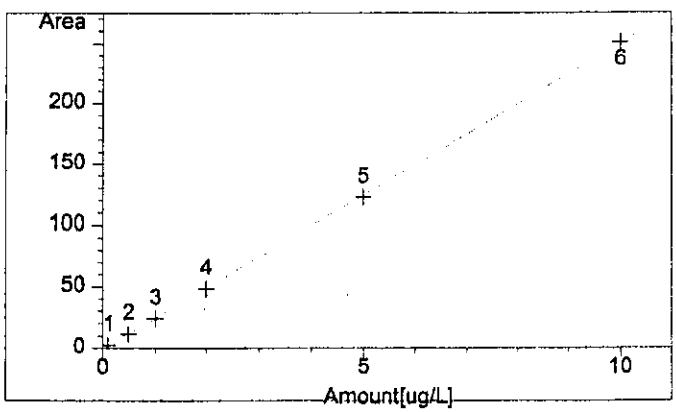
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 1.94176
Formula: y = mx + b
m: 38.58652
b: -1.84481
x: Amount [ug/L]
y: Area



Benzo(a)pyrene #16 at exp. RT: 28.553
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.01693
Formula: y = mx + b
m: 212.75704
b: -7.78412
x: Amount [ug/L]
y: Area

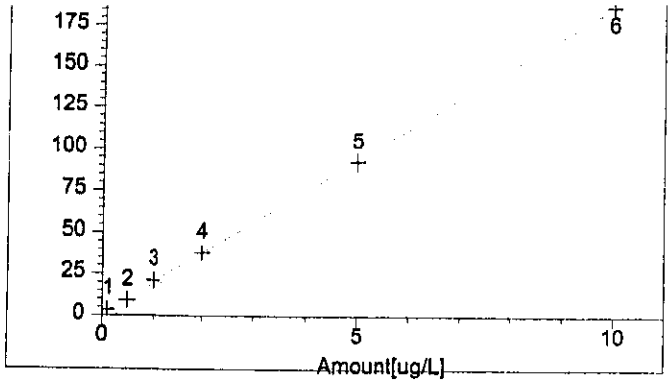


Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 0.29835
Formula: y = mx + b
m: 10.64723
b: -3.24711e-1
x: Amount [ug/L]
y: Area

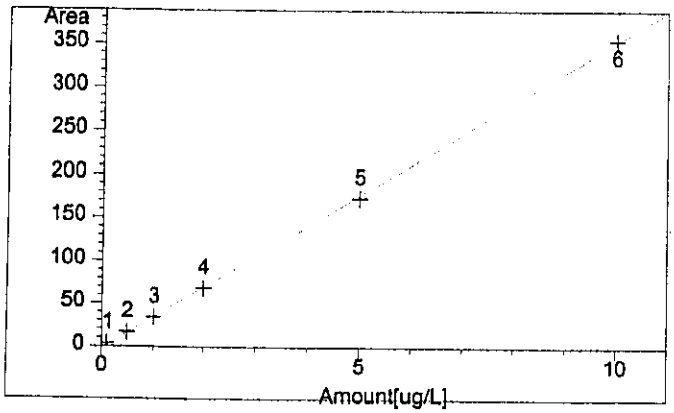


Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.15752
Formula: y = mx + b
m: 25.06189
b: -9.49414e-1
x: Amount [ug/L]
y: Area

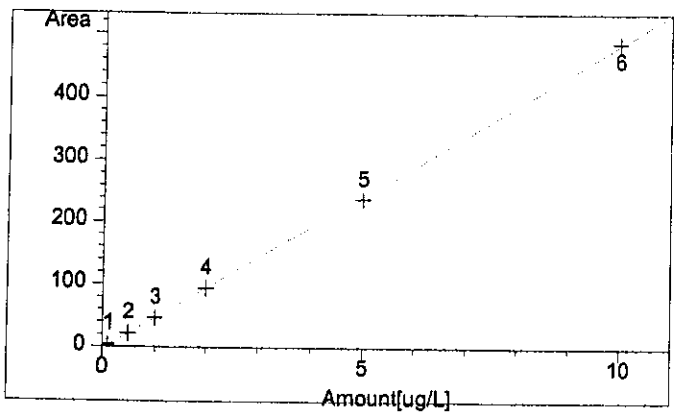
264



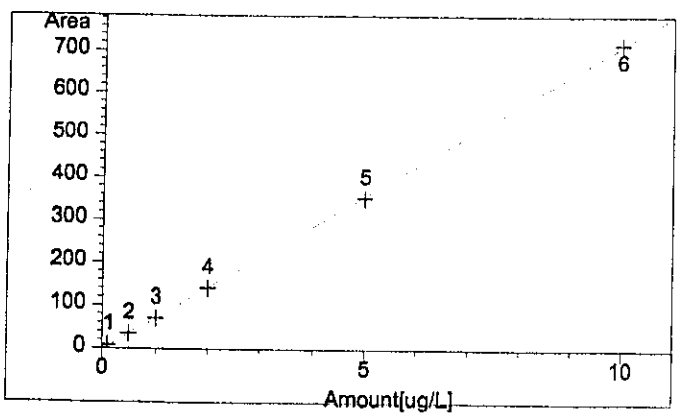
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 1.17004
Formula: y = mx + b
m: 18.59234
b: 7.44819e-1
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 1.77276
Formula: y = mx + b
m: 35.47662
b: -1.45086
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: 0.99994
Residual Std. Dev.: 2.14429
Formula: y = mx + b
m: 48.61738
b: -2.56671
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: 0.99997
Residual Std. Dev.: 2.36150
Formula: y = mx + b
m: 71.55789
b: -2.07657
x: Amount [ug/L]
y: Area

==========

==========

Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 6/20/2002 8:52:08 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 : Included
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
9.370	2	1	1.00000	121.88613	8.20438e-3			Naphthalene #1
		2	5.00000	604.13025	8.27636e-3			
		3	10.00000	1256.01123	7.96171e-3			
		4	20.00000	2522.50317	7.92863e-3			
		5	50.00000	6248.73438	8.00162e-3			
		6	100.00000	1.21595e4	8.22402e-3			
9.388	1	1	1.00000	35.50560	2.81646e-2			Naphthalene #1
		2	5.00000	180.32388	2.77279e-2			
		3	10.00000	372.80032	2.68240e-2			
		4	20.00000	753.95251	2.65269e-2			
		5	50.00000	1881.29065	2.65775e-2			
		6	100.00000	3818.87573	2.61857e-2			
10.995	2	1	1.00000	31.70620	3.15396e-2			Acenaphthylene #2
		2	5.00000	161.28902	3.10003e-2			
		3	10.00000	327.28607	3.05543e-2			
		4	20.00000	658.61700	3.03667e-2			
		5	50.00000	1646.95264	3.03591e-2			
		6	100.00000	3352.51904	2.98283e-2			
11.942	2	1	1.00000	72.22427	1.38458e-2			1-Methylnaphthalene #3

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	369.24078	1.35413e-2			
		3	10.00000	764.27496	1.30843e-2			
		4	20.00000	1542.24731	1.29681e-2			
		5	50.00000	3853.44678	1.29754e-2			
		6	100.00000	7760.07324	1.28865e-2			
11.959	1	1	1.00000	40.92273	2.44363e-2			1-Methylnaphthalene #3
		2	5.00000	206.59302	2.42022e-2			
		3	10.00000	427.56720	2.33881e-2			
		4	20.00000	858.01282	2.33097e-2			
		5	50.00000	2153.76392	2.32152e-2			
		6	100.00000	4358.92773	2.29414e-2			
12.516	2	1	1.00000	85.91975	1.16388e-2			2-Methylnaphthalene #4
		2	5.00000	431.87616	1.15774e-2			
		3	10.00000	893.57037	1.11911e-2			
		4	20.00000	1796.91260	1.11302e-2			
		5	50.00000	4472.15283	1.11803e-2			
		6	100.00000	8891.12988	1.12472e-2			
12.534	1	1	1.00000	53.13324	1.88206e-2			2-Methylnaphthalene #4
		2	5.00000	268.34698	1.86326e-2			
		3	10.00000	555.46735	1.80029e-2			
		4	20.00000	1119.16992	1.78704e-2			
		5	50.00000	2790.36157	1.79188e-2			
		6	100.00000	5631.00635	1.77588e-2			
12.994	2	1	1.00000	46.04076	2.17199e-2			Acenaphthene #5
		2	5.00000	232.43697	2.15112e-2			
		3	10.00000	481.32138	2.07761e-2			
		4	20.00000	969.13959	2.06369e-2			
		5	50.00000	2425.16016	2.06172e-2			
		6	100.00000	4910.46826	2.03647e-2			
13.012	1	1	1.00000	67.65919	1.47800e-2			Acenaphthene #5
		2	5.00000	339.82239	1.47136e-2			
		3	10.00000	703.58374	1.42129e-2			
		4	20.00000	1418.85522	1.40959e-2			
		5	50.00000	3535.51440	1.41422e-2			
		6	100.00000	7085.17041	1.41140e-2			
13.645	2	1	1.00000	52.90672	1.89012e-2			Fluorene #6
		2	5.00000	269.75366	1.85354e-2			
		3	10.00000	559.61633	1.78694e-2			
		4	20.00000	1129.35339	1.77092e-2			
		5	50.00000	2832.44678	1.76526e-2			
		6	100.00000	5749.89111	1.73916e-2			
13.663	1	1	1.00000	146.98784	6.80328e-3			Fluorene #6
		2	5.00000	734.63800	6.80607e-3			
		3	10.00000	1519.39380	6.58157e-3			
		4	20.00000	3055.26025	6.54609e-3			
		5	50.00000	7607.03076	6.57287e-3			
		6	100.00000	1.51592e4	6.59665e-3			
15.028	2	1	1.00000	59.91370	1.66907e-2			Phenanthrene #7
		2	5.00000	277.70538	1.80047e-2			
		3	10.00000	576.95782	1.73323e-2			
		4	20.00000	1164.06238	1.71812e-2			
		5	50.00000	2921.47241	1.71147e-2			
		6	100.00000	5932.12939	1.68574e-2			
15.046	1	1	1.00000	6.79399	1.47189e-1			Phenanthrene #7
		2	5.00000	27.54959	1.81491e-1			
		3	10.00000	57.20443	1.74812e-1			

267

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.53256	1.76161e-1			
		5	50.00000	286.03766	1.74802e-1			
		6	100.00000	586.44727	1.70518e-1			
16.431	2	1	1.00000	96.05915	1.04103e-2			Anthracene #8
		2	5.00000	483.02975	1.03513e-2			
		3	10.00000	1002.81183	9.97196e-3			
		4	20.00000	2019.75476	9.90219e-3			
		5	50.00000	5037.00098	9.92654e-3			
		6	100.00000	9947.86328	1.00524e-2			
16.450	1	1	1.00000	3.26255	3.06509e-1			Anthracene #8
		2	5.00000	15.88479	3.14767e-1			
		3	10.00000	32.94457	3.03540e-1			
		4	20.00000	66.23384	3.01960e-1			
		5	50.00000	165.22198	3.02623e-1			
		6	100.00000	335.92169	2.97688e-1			
17.806	2	1	1.00000e-1	4.17519	2.39510e-2			Fluoranthene #9
		2	5.00000e-1	21.38802	2.33776e-2			
		3	1.00000	44.70066	2.23710e-2			
		4	2.00000	90.59781	2.20756e-2			
		5	5.00000	227.65421	2.19631e-2			
		6	10.00000	464.57758	2.15249e-2			
17.824	1	1	1.00000e-1	3.92421	2.54828e-2			Fluoranthene #9
		2	5.00000e-1	18.78860	2.66119e-2			
		3	1.00000	38.41879	2.60289e-2			
		4	2.00000	78.11402	2.56036e-2			
		5	5.00000	195.60518	2.55617e-2			
		6	10.00000	397.42139	2.51622e-2			
18.809	2	1	1.00000e-1	6.27601	1.59337e-2			Pyrene #10
		2	5.00000e-1	30.01324	1.66593e-2			
		3	1.00000	67.82222	1.47444e-2			
		4	2.00000	137.22350	1.45748e-2			
		5	5.00000	345.94687	1.44531e-2			
		6	10.00000	706.87067	1.41469e-2			
18.828	1	1	1.00000e-1	2.23386	4.47655e-2			Pyrene #10
		2	5.00000e-1	11.53121	4.33606e-2			
		3	1.00000	23.72331	4.21526e-2			
		4	2.00000	47.68803	4.19392e-2			
		5	5.00000	120.33789	4.15497e-2			
21.150	2	1	1.00000	14.27093	7.00725e-2			p-Terphenyl d14 #11*
		2	5.00000	72.39475	6.90658e-2			
		3	10.00000	150.41772	6.64815e-2			
		4	20.00000	304.47540	6.56868e-2			
		5	50.00000	771.85547	6.47790e-2			
		6	100.00000	1553.84106	6.43566e-2			
21.166	1	1	1.00000	3.57698	2.79566e-1			p-Terphenyl d14 #11*
		2	5.00000	16.05081	3.11511e-1			
		3	10.00000	33.17809	3.01404e-1			
		4	20.00000	67.05980	2.98241e-1			
		5	50.00000	170.11554	2.93918e-1			
		6	100.00000	343.67426	2.90973e-1			
22.466	2	1	1.00000e-1	4.39682	2.27437e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.07132	2.37289e-2			
		3	1.00000	43.86306	2.27982e-2			
		4	2.00000	88.71733	2.25435e-2			
		5	5.00000	223.22693	2.23987e-2			
		6	10.00000	457.02676	2.18806e-2			

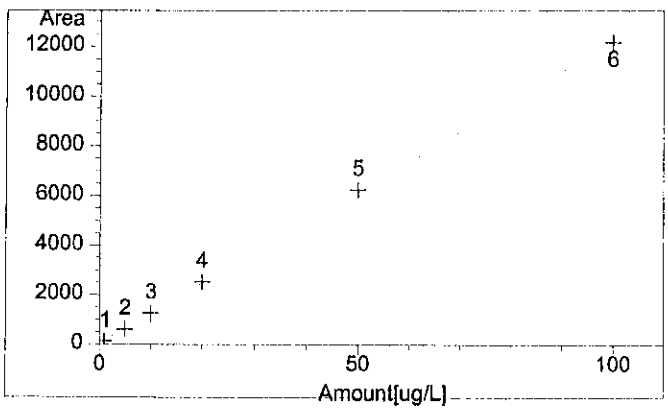
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.485	1	1	1.00000e-1	11.92573	8.38523e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.40008	8.71079e-3			
		3	1.00000	118.62704	8.42978e-3			
		4	2.00000	240.55975	8.31394e-3			
		5	5.00000	604.25543	8.27465e-3			
		6	10.00000	1235.15466	8.09615e-3			
23.337	2	1	1.00000e-1	6.15006	1.62600e-2			Chrysene #13
		2	5.00000e-1	30.91224	1.61748e-2			
		3	1.00000	64.16498	1.55848e-2			
		4	2.00000	130.01958	1.53823e-2			
		5	5.00000	327.80472	1.52530e-2			
		6	10.00000	668.69543	1.49545e-2			
23.357	1	1	1.00000e-1	2.37958	4.20241e-2			Chrysene #13
		2	5.00000e-1	11.79001	4.24088e-2			
		3	1.00000	24.51306	4.07946e-2			
		4	2.00000	49.27580	4.05879e-2			
		5	5.00000	123.19585	4.05858e-2			
		6	10.00000	252.46683	3.96092e-2			
26.064	2	1	1.00000e-1	4.57150	2.18747e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.64764	2.20774e-2			
		3	1.00000	46.88808	2.13274e-2			
		4	2.00000	95.03743	2.10443e-2			
		5	5.00000	238.78767	2.09391e-2			
		6	10.00000	487.47803	2.05137e-2			
26.079	1	1	1.00000e-1	5.48437	1.82336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.72870	1.80319e-2			
		3	1.00000	57.64222	1.73484e-2			
		4	2.00000	116.48901	1.71690e-2			
		5	5.00000	292.99271	1.70653e-2			
		6	10.00000	595.50562	1.67925e-2			
27.495	2	1	5.00000e-2	2.19067	2.28241e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.30655	2.42564e-2			
		3	5.00000e-1	21.77243	2.29648e-2			
		4	1.00000	43.78368	2.28396e-2			
		5	2.50000	109.96069	2.27354e-2			
		6	5.00000	224.33841	2.22878e-2			
27.510	1	1	5.00000e-2	16.92470	2.95426e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.46227	2.99537e-3			
		3	5.00000e-1	174.54939	2.86452e-3			
		4	1.00000	351.08521	2.84831e-3			
		5	2.50000	882.24713	2.83367e-3			
		6	5.00000	1792.05200	2.79010e-3			
28.596	2	1	1.00000e-1	3.90243	2.56251e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.74469	2.98602e-2			
		3	1.00000	36.86427	2.71265e-2			
		4	2.00000	74.65511	2.67899e-2			
		5	5.00000	189.32166	2.64101e-2			
		6	10.00000	390.50266	2.56080e-2			
28.614	1	1	1.00000e-1	19.55420	5.11399e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.80115	5.11241e-3			
		3	1.00000	203.63187	4.91082e-3			
		4	2.00000	413.85422	4.83262e-3			
		5	5.00000	1045.54724	4.78218e-3			
		6	10.00000	2137.81030	4.67768e-3			
30.454	2	1	1.00000e-1	1.00112	9.98882e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	5.15278	9.70350e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	11.97529	8.35053e-2			
		4	2.00000	21.19111	9.43792e-2			
		5	5.00000	52.23464	9.57219e-2			
		6	10.00000	107.04004	9.34230e-2			
30.474	1	1	1.00000e-1	2.22269	4.49905e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.53541	4.33448e-2			
		3	1.00000	23.79175	4.20314e-2			
		4	2.00000	48.37757	4.13415e-2			
		5	5.00000	122.97315	4.06593e-2			
		6	10.00000	251.97131	3.96871e-2			
31.264	2	1	1.00000e-1	2.34328	4.26753e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	9.25292	5.40370e-2			
		3	1.00000	18.48934	5.40852e-2			
		4	2.00000	36.61276	5.46258e-2			
		5	5.00000	92.88844	5.38280e-2			
		6	10.00000	190.01508	5.26274e-2			
31.287	1	1	1.00000e-1	3.18651	3.13823e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.16728	3.09267e-2			
		3	1.00000	33.82579	2.95632e-2			
		4	2.00000	68.83204	2.90562e-2			
		5	5.00000	174.47961	2.86566e-2			
		6	10.00000	358.59521	2.78866e-2			
32.225	2	1	1.00000e-1	3.42590	2.91894e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.58914	2.31598e-2			
		3	1.00000	46.04763	2.17166e-2			
		4	2.00000	94.45714	2.11736e-2			
		5	5.00000	240.26486	2.08104e-2			
		6	10.00000	492.90811	2.02878e-2			
32.233	1	1	1.00000e-1	6.77440	1.47614e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	33.25379	1.50359e-2			
		3	1.00000	68.94070	1.45052e-2			
		4	2.00000	139.75822	1.43104e-2			
		5	5.00000	351.40439	1.42286e-2			
		6	10.00000	717.39240	1.39394e-2			

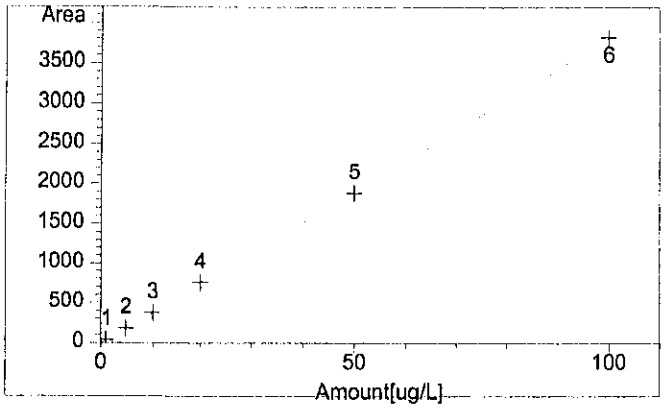
Peak Sum Table

No Entries in table

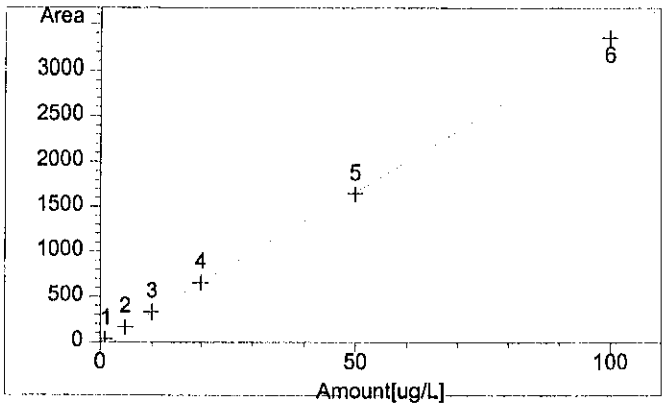
Calibration Curves



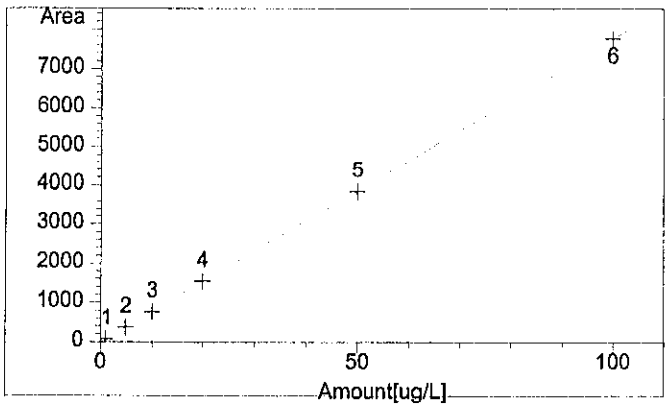
Naphthalene #1 at exp. RT: 9.370
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 70.57790
Formula: y = mx + b
m: 121.93837
b: 33.17626
x: Amount [ug/L]
y: Area



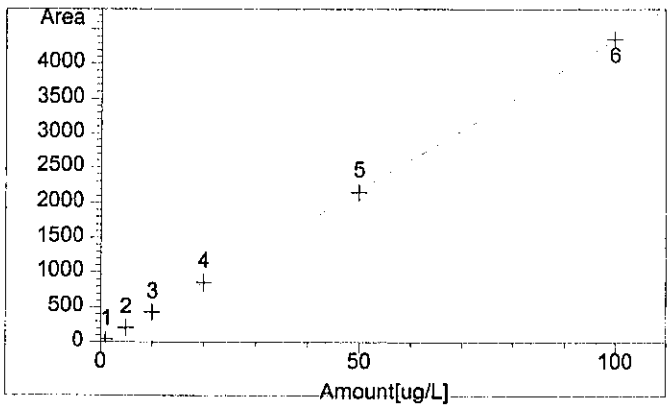
Naphthalene #1 at exp. RT: 9.388
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.65995
Formula: y = mx + b
m: 38.17062
b: -8.14096
x: Amount [ug/L]
y: Area



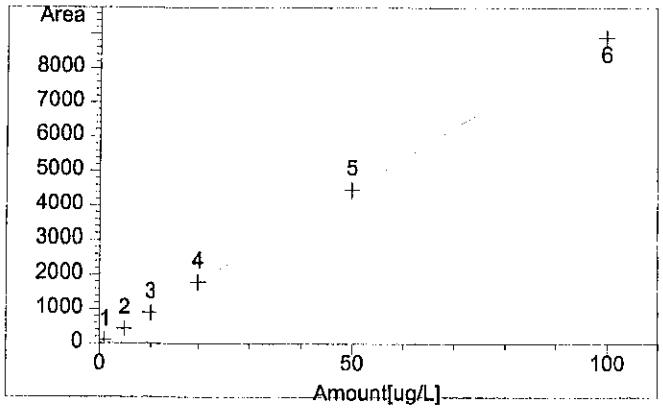
Acenaphthylene #2 at exp. RT: 10.995
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 11.19977
Formula: y = mx + b
m: 33.48891
b: -7.22387
x: Amount [ug/L]
y: Area



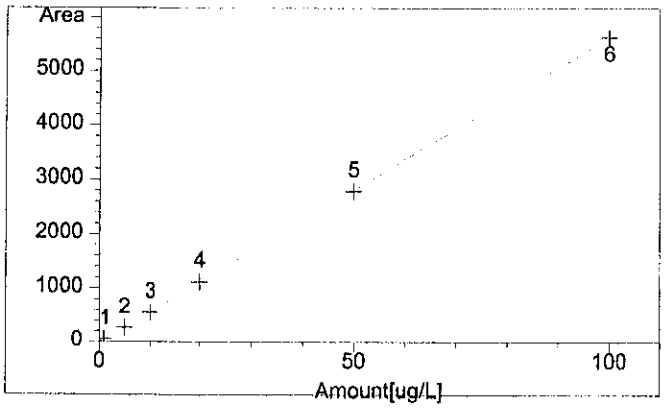
1-Methylnaphthalene #3 at exp. RT: 11.942
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.69411
Formula: y = mx + b
m: 77.62274
b: -10.90308
x: Amount [ug/L]
y: Area



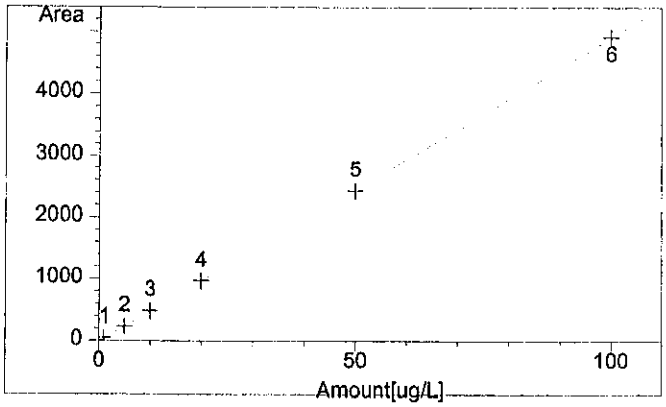
1-Methylnaphthalene #3 at exp. RT: 11.959
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.09079
Formula: y = mx + b
m: 43.58179
b: -8.63216
x: Amount [ug/L]
y: Area



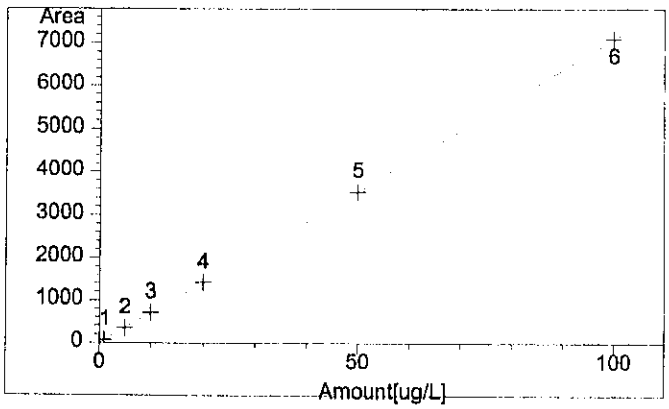
2-Methylnaphthalene #4 at exp. RT: 12.516
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 14.18056
Formula: y = mx + b
m: 89.00733
b: 2.31405
x: Amount [ug/L]
y: Area



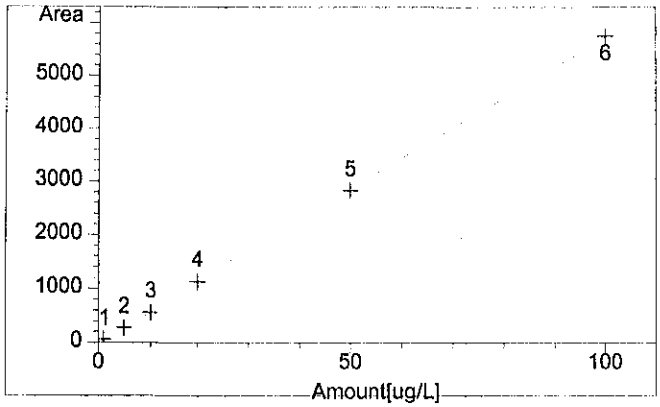
2-Methylnaphthalene #4 at exp. RT: 12.534
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 9.72550
Formula: y = mx + b
m: 56.30384
b: -7.86135
x: Amount [ug/L]
y: Area



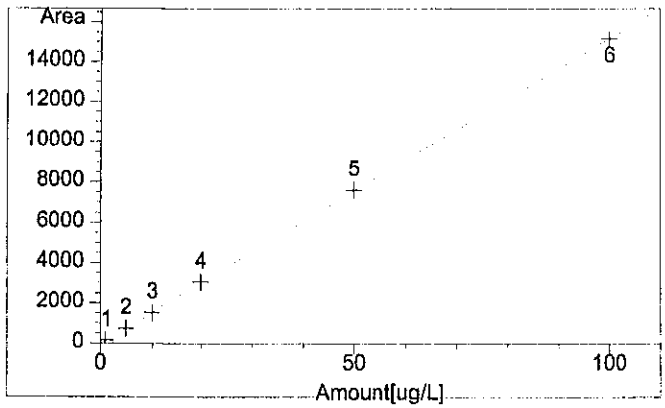
Acenaphthene #5 at exp. RT: 12.994
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 11.55898
Formula: y = mx + b
m: 49.09260
b: -9.52241
x: Amount [ug/L]
y: Area



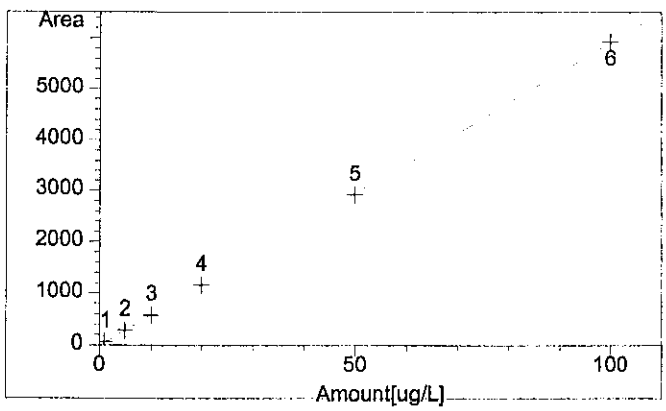
Acenaphthene #5 at exp. RT: 13.012
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.91307
Formula: y = mx + b
m: 70.88847
b: -4.94990
x: Amount [ug/L]
y: Area



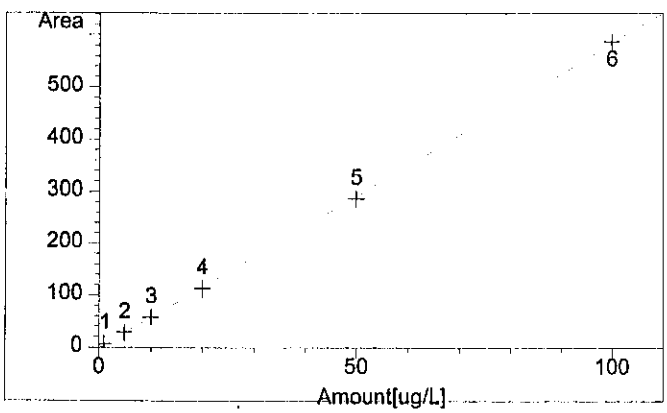
Fluorene #6 at exp. RT: 13.645
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 16.43131
Formula: y = mx + b
m: 57.48589
b: -14.05816
x: Amount [ug/L]
y: Area



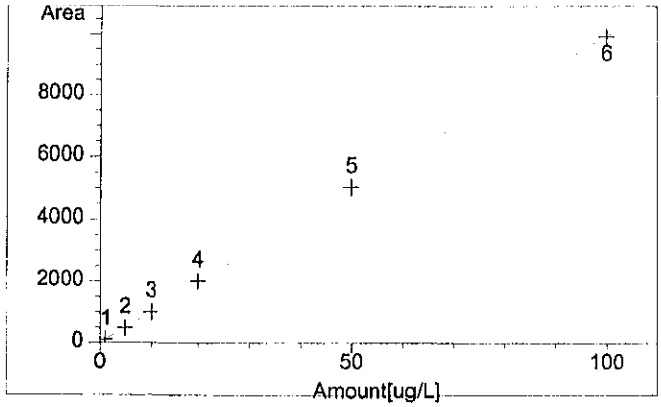
Fluorene #6 at exp. RT: 13.663
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 18.11896
Formula: y = mx + b
m: 151.72220
b: 3.12530e-1
x: Amount [ug/L]
y: Area



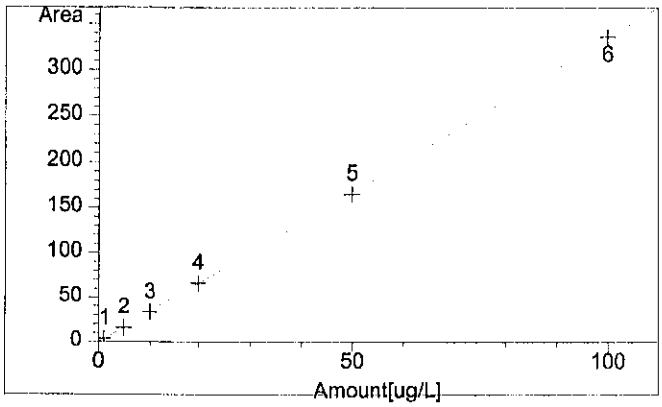
Phenanthrene #7 at exp. RT: 15.028
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 18.06229
Formula: y = mx + b
m: 59.29212
b: -13.72762
x: Amount [ug/L]
y: Area



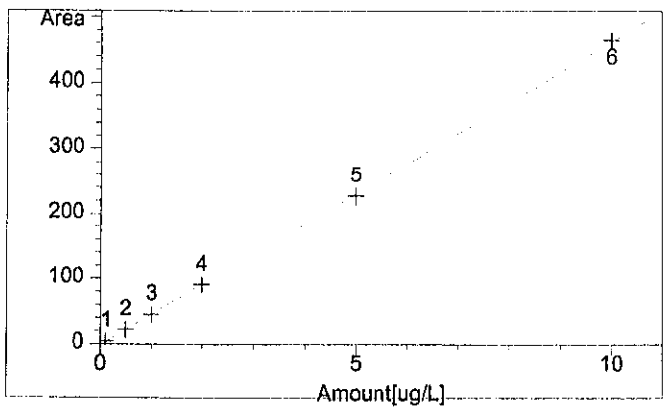
Phenanthrene #7 at exp. RT: 15.046
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 3.01563
Formula: y = mx + b
m: 5.85144
b: -1.54327
x: Amount [ug/L]
y: Area



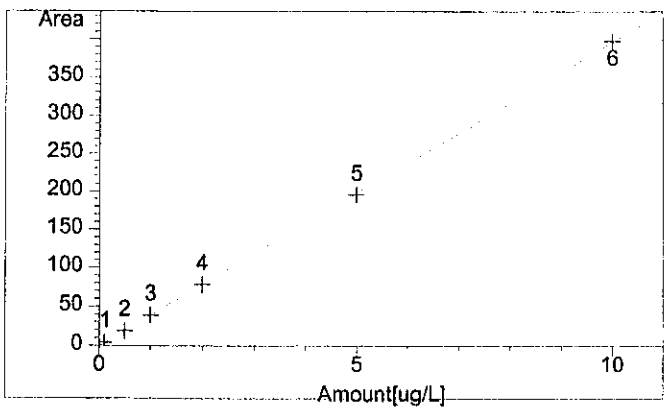
Anthracene #8 at exp. RT: 16.431
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 27.85848
Formula: y = mx + b
m: 99.66958
b: 6.85395
x: Amount[ug/L]
y: Area



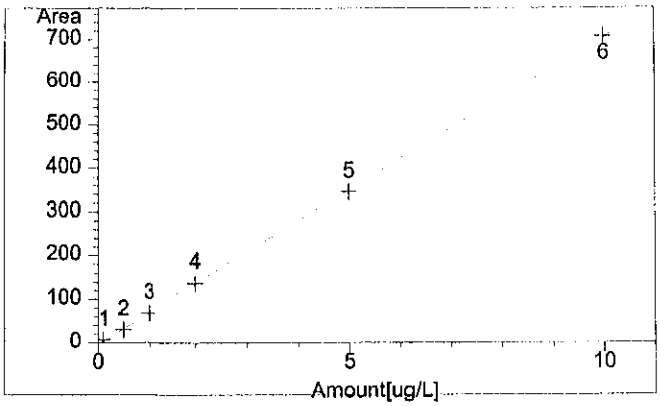
Anthracene #8 at exp. RT: 16.450
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.04930
Formula: y = mx + b
m: 3.35612
b: -6.81187e-1
x: Amount[ug/L]
y: Area



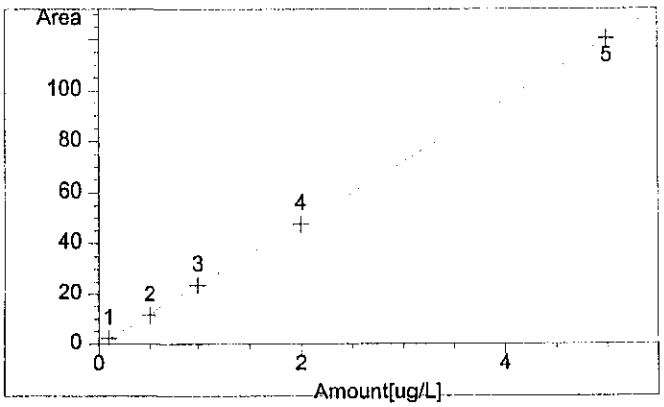
Fluoranthene #9 at exp. RT: 17.806
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.79879
Formula: y = mx + b
m: 46.44231
b: -1.53335
x: Amount[ug/L]
y: Area



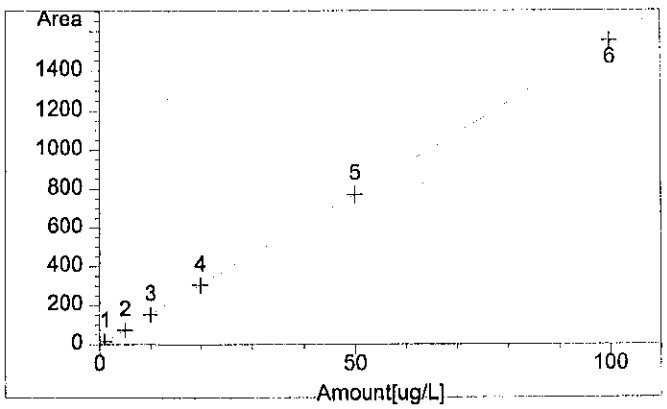
Fluoranthene #9 at exp. RT: 17.824
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.22857
Formula: y = mx + b
m: 39.72087
b: -9.33708e-1
x: Amount[ug/L]
y: Area



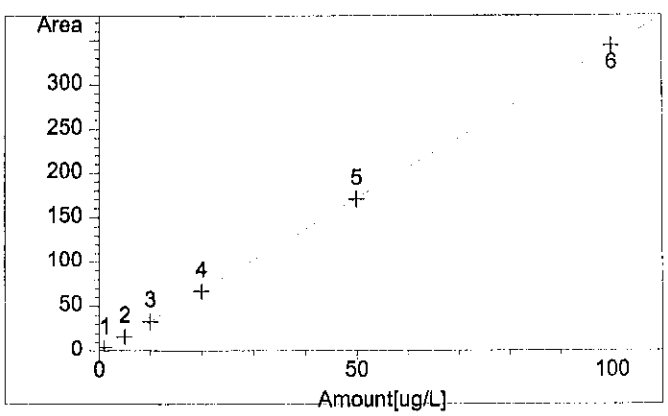
Pyrene #10 at exp. RT: 18.809
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 3.15034
Formula: y = mx + b
m: 70.72982
b: -3.06030
x: Amount [ug/L]
y: Area



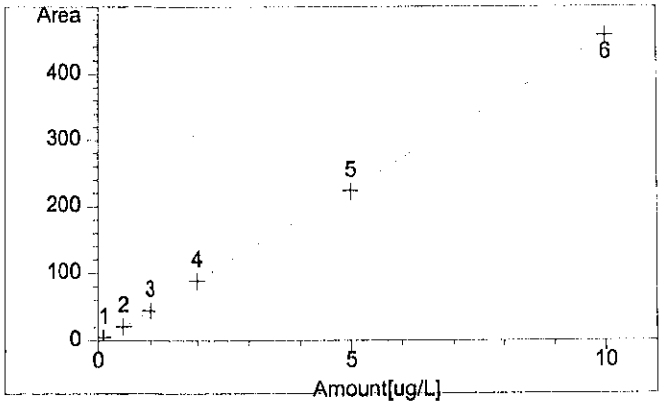
Pyrene #10 at exp. RT: 18.828
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.23587
Formula: y = mx + b
m: 24.10078
b: -2.92066e-1
x: Amount [ug/L]
y: Area



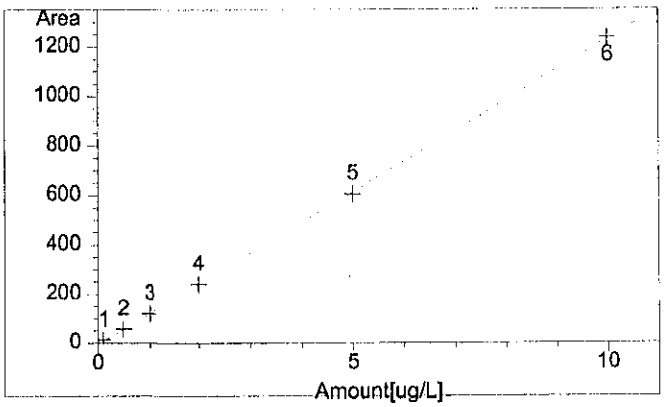
p-Terphenyl d14 #11* at exp. RT: 21.150
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.89474
Formula: y = mx + b
m: 15.55717
b: -3.76840
x: Amount [ug/L]
y: Area



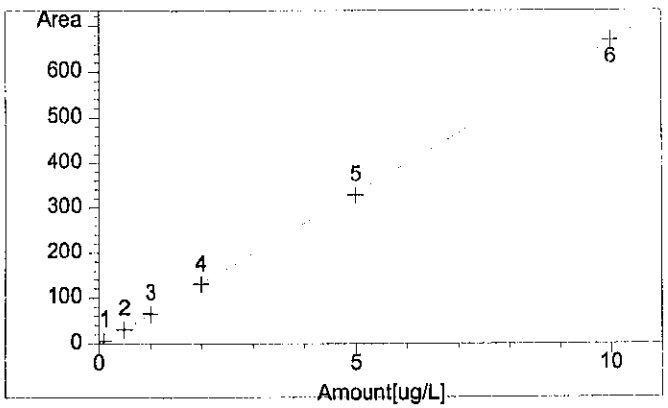
p-Terphenyl d14 #11* at exp. RT: 21.166
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.89731
Formula: y = mx + b
m: 3.43813
b: -8.33877e-1
x: Amount [ug/L]
y: Area



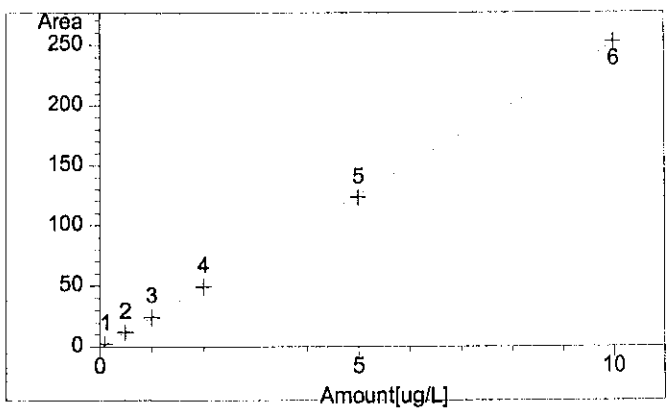
Benzo(a)anthracene #12 at exp. RT: 22.466
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.08992
Formula: y = mx + b
m: 45.66201
b: -1.57303
x: Amount [ug/L]
y: Area



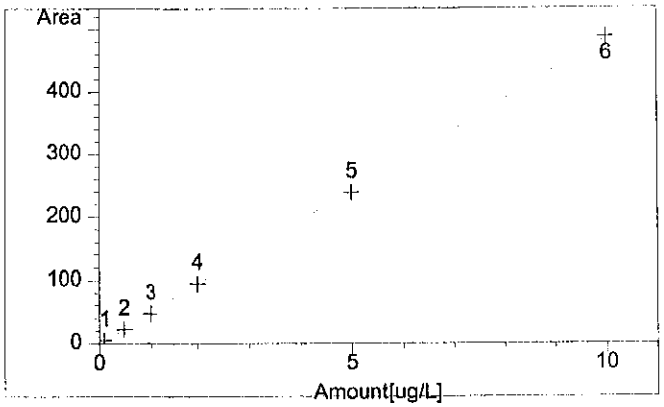
Benzo(a)anthracene #12 at exp. RT: 22.485
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 5.24449
Formula: y = mx + b
m: 123.41194
b: -3.93419
x: Amount [ug/L]
y: Area



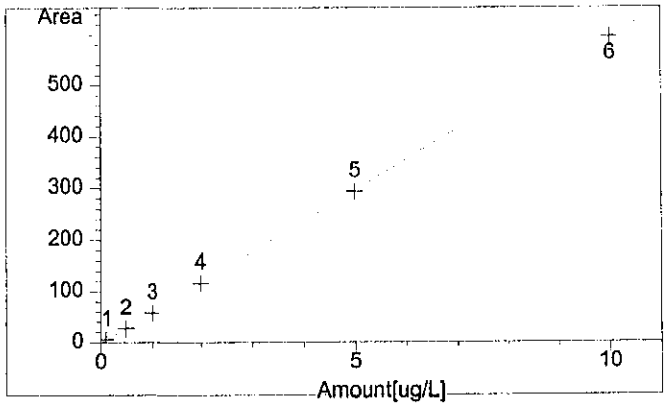
Chrysene #13 at exp. RT: 23.337
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 2.60337
Formula: y = mx + b
m: 66.84989
b: -2.23727
x: Amount [ug/L]
y: Area



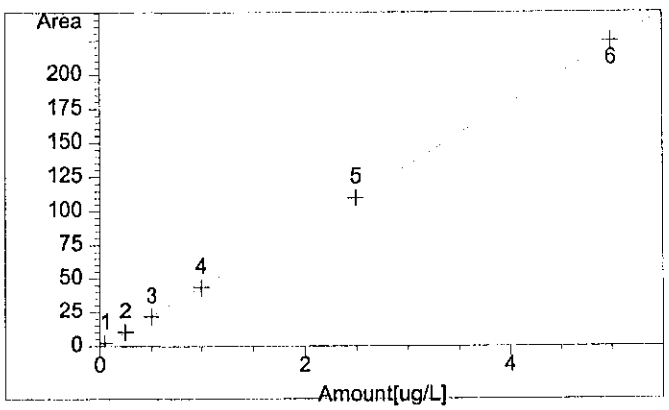
Chrysene #13 at exp. RT: 23.357
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.16361
Formula: y = mx + b
m: 25.21041
b: -7.56072e-1
x: Amount [ug/L]
y: Area



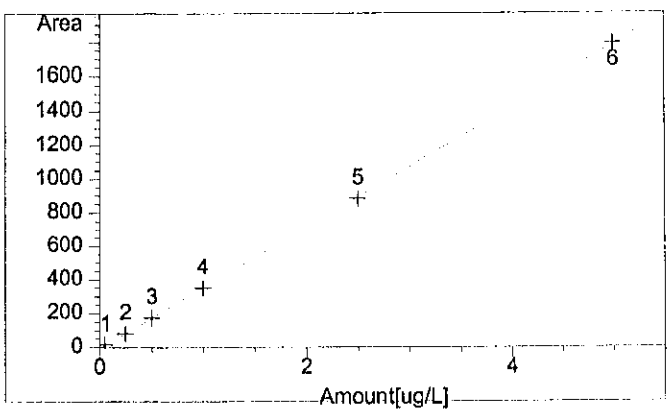
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.93804
Formula: y = mx + b
m: 48.71807
b: -1.53510
x: Amount[ug/L]
y: Area



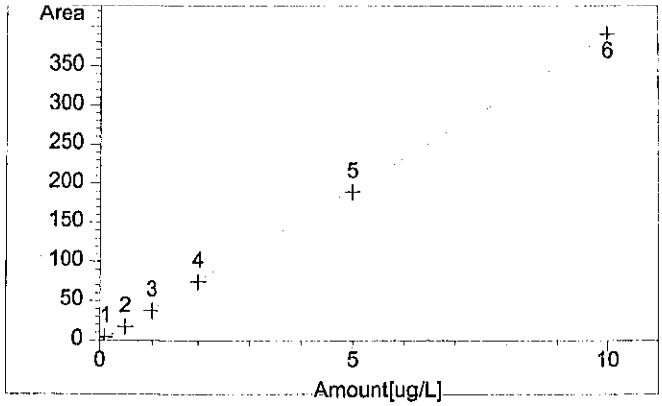
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.87852
Formula: y = mx + b
m: 59.54246
b: -1.66387
x: Amount[ug/L]
y: Area



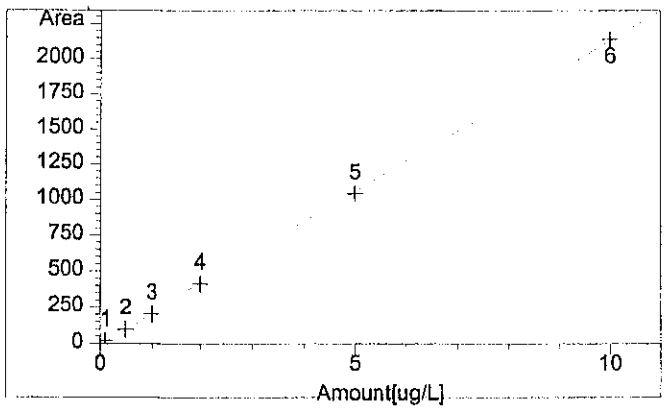
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 0.87725
Formula: y = mx + b
m: 44.83633
b: -6.60775e-1
x: Amount[ug/L]
y: Area



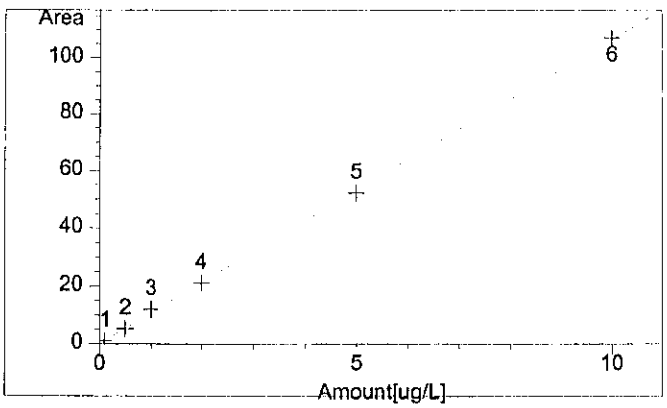
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 5.46079
Formula: y = mx + b
m: 358.31240
b: -4.56924
x: Amount[ug/L]
y: Area



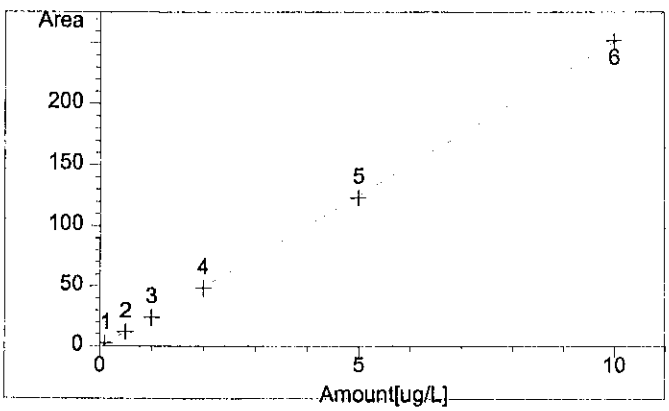
Benzo(a)pyrene #16 at exp. RT: 28.596
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 2.45350
Formula: y = mx + b
m: 39.02551
b: -1.98338
x: Amount[ug/L]
y: Area



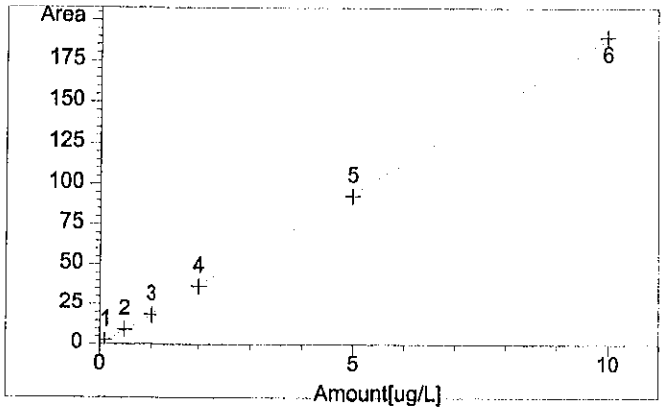
Benzo(a)pyrene #16 at exp. RT: 28.614
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.37532
Formula: y = mx + b
m: 213.72380
b: -8.15195
x: Amount[ug/L]
y: Area



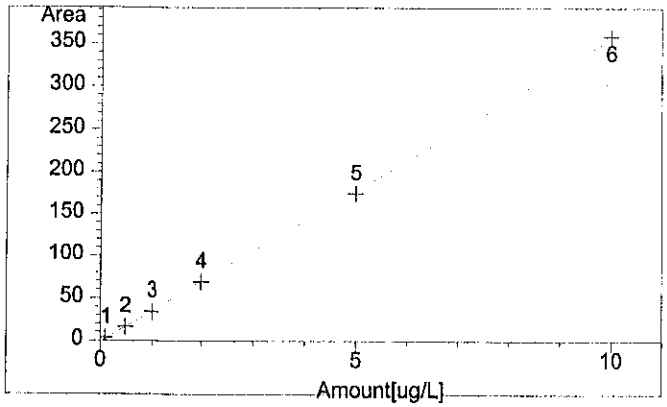
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 0.78590
Formula: y = mx + b
m: 10.64996
b: 7.22431e-2
x: Amount[ug/L]
y: Area



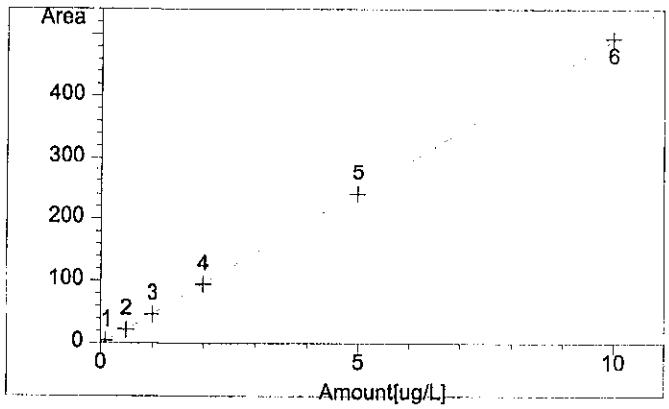
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.23730
Formula: y = mx + b
m: 25.19279
b: -1.10201
x: Amount[ug/L]
y: Area



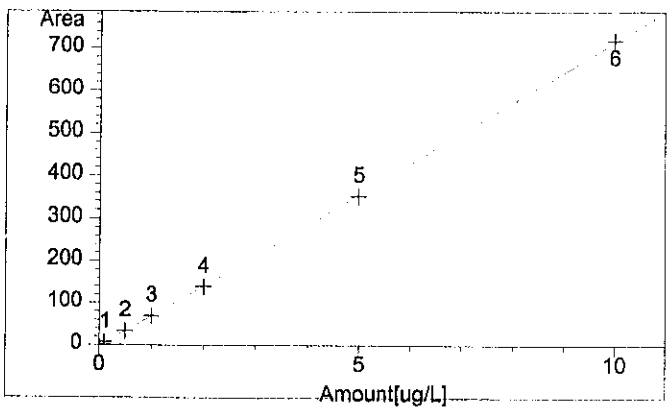
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 0.96678
Formula: y = mx + b
m: 18.95449
b: -4.21667e-1
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 1.93390
Formula: y = mx + b
m: 35.84471
b: -1.66074
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: 0.99992
Residual Std. Dev.: 2.46375
Formula: y = mx + b
m: 49.34055
b: -2.72022
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: 0.99995
Residual Std. Dev.: 2.87271
Formula: y = mx + b
m: 71.69796
b: -2.29402
x: Amount [ug/L]
y: Area

==========

279 27

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061302\4L003130.D Sample Name: WG119840-08 ALT
HPLC4 6/14/2002 9:20:03 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/14/2002 4:41:30 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.353	20.0	19.636	-1.8
1-Methylnaphthalene #3	11.923	20.0	19.634	-1.8
2-Methylnaphthalene #4	12.497	20.0	19.240	-3.8
Acenaphthene #5	12.975	20.0	20.191	1.0
Fluorene #6	13.626	20.0	20.156	0.8
Phenanthrene #7	15.007	20.0	19.424	-2.9
Anthracene #8	16.402	20.0	20.494	2.5
Fluoranthene #9	17.774	2.0	2.011	0.5
Pyrene #10	18.774	2.0	1.908	-4.6
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.416	2.0	1.861	-7.0
Chrysene #13	23.280	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.001	2.0	1.981	-0.9
Benzo(k)fluoranthene #15	27.443	1.0	0.888	-11.2
Benzo(a)pyrene #16	28.560	2.0	2.072	3.6
Dibenz(a,h)anthracene #1	30.417	2.0	2.178	8.9
Benzo(g,h,i)perylene #18	31.225	2.0	2.014	0.7
Indeno(1,2,3-cd)pyrene #	32.171	2.0	1.909	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	20.298	1.5
Acenaphthylene #2	10.959	20.0	19.150	-4.3
1-Methylnaphthalene #3	11.907	20.0	19.874	-0.6
2-Methylnaphthalene #4	12.480	20.0	19.624	-1.9
Acenaphthene #5	12.958	20.0	20.239	1.2
Fluorene #6	13.609	20.0	19.969	-0.2
Phenanthrene #7	14.989	20.0	19.480	-2.6
Anthracene #8	16.385	20.0	20.776	3.9
Fluoranthene #9	17.755	2.0	1.981	-0.9
Pyrene #10	18.756	2.0	1.911	-4.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.399	2.0	1.903	-4.8
Chrysene #13	23.263	2.0	1.940	-3.0
Benzo(b)fluoranthene #14	25.983	2.0	2.137	6.9
Benzo(k)fluoranthene #15	27.425	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.542	2.0	2.012	0.6
Dibenz(a,h)anthracene #1	30.400	2.0	2.132	6.6
Benzo(g,h,i)perylene #18	31.205	2.0	2.022	1.1
Indeno(1,2,3-cd)pyrene #	32.151	2.0	1.915	-4.2

= Failed 15.0% Criteria

280

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003191.D Sample Name: WG120164-08 ALT
HPLC4 6/20/2002 9:17:38 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/19/2002 11:39:56 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.387	20.0	19.539	-2.3
1-Methylnaphthalene #3	11.957	20.0	19.522	-2.4
2-Methylnaphthalene #4	12.532	20.0	19.193	-4.0
Acenaphthene #5	13.010	20.0	20.092	0.5
Fluorene #6	13.663	20.0	19.978	-0.1
Phenanthrene #7	15.046	20.0	19.187	-4.1
Anthracene #8	16.447	20.0	20.188	0.9
Fluoranthene #9	17.820	2.0	1.994	-0.3
Pyrene #10	18.822	2.0	1.884	-5.8
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.478	2.0	1.838	-8.1
Chrysene #13	23.345	2.0	1.912	-4.4
Benzo(b)fluoranthene #14	26.064	2.0	1.959	-2.0
Benzo(k)fluoranthene #15	27.495	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.603	2.0	2.046	2.3
Dibenz(a,h)anthracene #1	30.467	2.0	2.145	7.3
Benzo(g,h,i)perylene #18	31.284	2.0	1.972	-1.4
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.897	-5.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.372	20.0	20.073	0.4
Acenaphthylene #2	10.995	20.0	19.000	-5.0
1-Methylnaphthalene #3	11.942	20.0	19.740	-1.3
2-Methylnaphthalene #4	12.517	20.0	19.492	-2.5
Acenaphthene #5	12.996	20.0	20.090	0.4
Fluorene #6	13.647	20.0	19.779	-1.1
Phenanthrene #7	15.030	20.0	18.845	-5.8
Anthracene #8	16.432	20.0	20.458	2.3
Fluoranthene #9	17.804	2.0	1.944	-2.8
Pyrene #10	18.806	2.0	1.915	-4.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.462	2.0	1.853	-7.4
Chrysene #13	23.330	2.0	1.921	-4.0
Benzo(b)fluoranthene #14	26.048	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.480	1.0	0.880	-12.0
Benzo(a)pyrene #16	28.587	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.451	2.0	2.159	7.9
Benzo(g,h,i)perylene #18	31.267	2.0	1.941	-2.9
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.894	-5.3

= Failed 15.0% Criteria

281

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003151.D Sample Name: WG119863-03 CCV
HPLC4 6/17/2002 9:41:54 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/15/2002 6:19:19 AM Seq. Line : 21

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.363	20.0	20.160	0.8
1-Methylnaphthalene #3	11.936	20.0	20.132	0.7
2-Methylnaphthalene #4	12.511	20.0	20.073	0.4
Acenaphthene #5	12.989	20.0	20.190	0.9
Fluorene #6	13.642	20.0	20.320	1.6
Phenanthrene #7	15.026	20.0	19.811	-0.9
Anthracene #8	16.431	20.0	20.190	0.9
Fluoranthene #9	17.808	2.0	2.000	0.0
Pyrene #10	18.810	2.0	1.994	-0.3
p-Terphenyl d14 #11*	21.143	20.0	20.082	0.4
Benzo(a)anthracene #12	22.462	2.0	1.995	-0.3
Chrysene #13	23.331	2.0	1.987	-0.7
Benzo(b)fluoranthene #14	26.052	2.0	2.030	1.5
Benzo(k)fluoranthene #15	27.485	1.0	1.003	0.3
Benzo(a)pyrene #16	28.596	2.0	2.068	3.4
Dibenz(a,h)anthracene #1	30.466	2.0	1.978	-1.1
Benzo(g,h,i)perylene #18	31.276	2.0	2.035	1.8
Indeno(1,2,3-cd)pyrene #	32.232	2.0	1.990	-0.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.767	3.8
Acenaphthylene #2	10.969	20.0	20.177	0.9
1-Methylnaphthalene #3	11.916	20.0	20.315	1.6
2-Methylnaphthalene #4	12.491	20.0	20.472	2.4
Acenaphthene #5	12.968	20.0	20.190	0.9
Fluorene #6	13.621	20.0	20.183	0.9
Phenanthrene #7	15.005	20.0	20.146	0.7
Anthracene #8	16.410	20.0	20.536	2.7
Fluoranthene #9	17.786	2.0	2.010	0.5
Pyrene #10	18.788	2.0	2.000	0.0
p-Terphenyl d14 #11*	21.123	20.0	20.014	0.1
Benzo(a)anthracene #12	22.441	2.0	2.002	0.1
Chrysene #13	23.311	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.030	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.464	1.0	1.010	1.0
Benzo(a)pyrene #16	28.575	2.0	2.075	3.7
Dibenz(a,h)anthracene #1	30.445	2.0	2.003	0.2
Benzo(g,h,i)perylene #18	31.254	2.0	2.062	3.1
Indeno(1,2,3-cd)pyrene #	32.211	2.0	2.003	0.1

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003162.D Sample Name: WG119863-04 CCV
HPLC4 6/17/2002 10:49:22 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========
Injection Date : 6/15/2002 4:42:25 PM Seq. Line : 32

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.371	20.0	19.972	-0.1
1-Methylnaphthalene #3	11.943	20.0	20.000	0.0
2-Methylnaphthalene #4	12.515	20.0	19.954	-0.2
Acenaphthene #5	12.992	20.0	20.111	0.6
Fluorene #6	13.642	20.0	20.319	1.6
Phenanthrene #7	15.024	20.0	19.854	-0.7
Anthracene #8	16.425	20.0	20.159	0.8
Fluoranthene #9	17.799	2.0	2.002	0.1
Pyrene #10	18.802	2.0	1.981	-1.0
p-Terphenyl d14 #11*	21.127	20.0	20.069	0.3
Benzo(a)anthracene #12	22.444	2.0	1.983	-0.8
Chrysene #13	23.312	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.030	2.0	1.999	-0.1
Benzo(k)fluoranthene #15	27.457	1.0	1.001	0.1
Benzo(a)pyrene #16	28.564	2.0	2.064	3.2
Dibenz(a,h)anthracene #1	30.425	2.0	1.977	-1.1
Benzo(g,h,i)perylene #18	31.239	2.0	2.019	1.0
Indeno(1,2,3-cd)pyrene #	32.197	2.0	1.982	-0.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.354	20.0	20.869	4.3
Acenaphthylene #2	10.979	20.0	20.193	1.0
1-Methylnaphthalene #3	11.927	20.0	20.382	1.9
2-Methylnaphthalene #4	12.499	20.0	20.526	2.6
Acenaphthene #5	12.976	20.0	20.252	1.3
Fluorene #6	13.626	20.0	20.257	1.3
Phenanthrene #7	15.007	20.0	20.225	1.1
Anthracene #8	16.408	20.0	20.540	2.7
Fluoranthene #9	17.781	2.0	2.020	1.0
Pyrene #10	18.784	2.0	2.014	0.7
p-Terphenyl d14 #11*	21.112	20.0	20.082	0.4
Benzo(a)anthracene #12	22.428	2.0	2.017	0.8
Chrysene #13	23.296	2.0	2.009	0.5
Benzo(b)fluoranthene #14	26.012	2.0	2.039	1.9
Benzo(k)fluoranthene #15	27.440	1.0	1.020	2.0
Benzo(a)pyrene #16	28.547	2.0	2.069	3.4
Dibenz(a,h)anthracene #1	30.409	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.221	2.0	2.000	0.0
Indeno(1,2,3-cd)pyrene #	32.178	2.0	1.999	0.0

= Failed 15.0% Criteria

283

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003173.D Sample Name: WG119863-05 CCV
HPLC4 6/17/2002 10:55:46 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/16/2002 3:05:26 AM Seq. Line : 43

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.377	20.0	20.123	0.6
1-Methylnaphthalene #3	11.947	20.0	20.159	0.8
2-Methylnaphthalene #4	12.522	20.0	20.117	0.6
Acenaphthene #5	13.001	20.0	20.225	1.1
Fluorene #6	13.653	20.0	20.407	2.0
Phenanthrene #7	15.035	20.0	19.940	-0.3
Anthracene #8	16.437	20.0	20.322	1.6
Fluoranthene #9	17.810	2.0	2.023	1.1
Pyrene #10	18.815	2.0	2.011	0.6
p-Terphenyl d14 #11*	21.145	20.0	19.902	-0.5
Benzo(a)anthracene #12	22.462	2.0	1.998	-0.1
Chrysene #13	23.331	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.051	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.485	1.0	1.005	0.5
Benzo(a)pyrene #16	28.592	2.0	2.080	4.0
Dibenz(a,h)anthracene #1	30.455	2.0	1.985	-0.7
Benzo(g,h,i)perylene #18	31.269	2.0	2.020	1.0
Indeno(1,2,3-cd)pyrene #	32.233	2.0	1.985	-0.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.361	20.0	20.956	4.8
Acenaphthylene #2	10.984	20.0	20.269	1.3
1-Methylnaphthalene #3	11.930	20.0	20.465	2.3
2-Methylnaphthalene #4	12.506	20.0	20.599	3.0
Acenaphthene #5	12.984	20.0	20.320	1.6
Fluorene #6	13.636	20.0	20.339	1.7
Phenanthrene #7	15.018	20.0	20.296	1.5
Anthracene #8	16.420	20.0	20.581	2.9
Fluoranthene #9	17.793	2.0	2.030	1.5
Pyrene #10	18.797	2.0	2.022	1.1
p-Terphenyl d14 #11*	21.129	20.0	20.160	0.8
Benzo(a)anthracene #12	22.445	2.0	2.021	1.1
Chrysene #13	23.314	2.0	2.016	0.8
Benzo(b)fluoranthene #14	26.034	2.0	2.045	2.3
Benzo(k)fluoranthene #15	27.468	1.0	1.021	2.1
Benzo(a)pyrene #16	28.574	2.0	2.077	3.8
Dibenz(a,h)anthracene #1	30.437	2.0	2.027	1.4
Benzo(g,h,i)perylene #18	31.251	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.215	2.0	2.009	0.4

= Failed 15.0% Criteria

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003199.D Sample Name: WG120174-01 CCV
HPLC4 6/20/2002 8:59:19 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/20/2002 7:13:04 AM Seq. Line : 17

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	19.848	-0.8
1-Methylnaphthalene #3	11.986	20.0	19.913	-0.4
2-Methylnaphthalene #4	12.560	20.0	19.906	-0.5
Acenaphthene #5	13.037	20.0	19.962	-0.2
Fluorene #6	13.690	20.0	20.054	0.3
Phenanthrene #7	15.074	20.0	19.668	-1.7
Anthracene #8	16.477	20.0	19.795	-1.0
Fluoranthene #9	17.852	2.0	1.982	-0.9
Pyrene #10	18.855	2.0	1.967	-1.7
p-Terphenyl d14 #11*	21.190	20.0	19.752	-1.2
Benzo(a)anthracene #12	22.505	2.0	1.959	-2.1
Chrysene #13	23.373	2.0	1.958	-2.1
Benzo(b)fluoranthene #14	26.088	2.0	1.977	-1.2
Benzo(k)fluoranthene #15	27.515	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.620	2.0	1.977	-1.1
Dibenz(a,h)anthracene #1	30.479	2.0	1.949	-2.6
Benzo(g,h,i)perylene #18	31.291	2.0	1.948	-2.6
Indeno(1,2,3-cd)pyrene #	32.240	2.0	1.964	-1.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.393	20.0	20.469	2.3
Acenaphthylene #2	11.020	20.0	19.908	-0.5
1-Methylnaphthalene #3	11.966	20.0	20.053	0.3
2-Methylnaphthalene #4	12.540	20.0	20.207	1.0
Acenaphthene #5	13.017	20.0	19.966	-0.2
Fluorene #6	13.670	20.0	19.911	-0.4
Phenanthrene #7	15.054	20.0	19.877	-0.6
Anthracene #8	16.457	20.0	20.104	0.5
Fluoranthene #9	17.831	2.0	1.976	-1.2
Pyrene #10	18.834	2.0	1.980	-1.0
p-Terphenyl d14 #11*	21.171	20.0	19.823	-0.9
Benzo(a)anthracene #12	22.485	2.0	1.974	-1.3
Chrysene #13	23.353	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.067	2.0	1.988	-0.6
Benzo(k)fluoranthene #15	27.495	1.0	0.992	-0.8
Benzo(a)pyrene #16	28.599	2.0	1.983	-0.8
Dibenz(a,h)anthracene #1	30.458	2.0	2.125	6.3
Benzo(g,h,i)perylene #18	31.270	2.0	1.993	-0.4
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.968	-1.6

= Failed 15.0% Criteria

285

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119840-01 STD6	8310	1	Sample		
3	3	WG119840-02 STD6	8310	1	Sample		
4	4	WG119840-03 STD5	8310	1	Sample		
5	5	WG119840-04 STD4	8310	1	Sample		
6	6	WG119840-05 STD3	8310	1	Sample		
7	7	WG119840-06 STD2	8310	1	Sample		
8	8	WG119840-07 STD1	8310	1	Sample		
9	9	WG119840-08 ALT	8310	1	Sample		

RDC 6/14/02 286

							RD 6/14/02
No	1	1	8310	4L003122	01:01		accn blk
No	2	2	8310	4L003123	02:01	SOS 58-26	WG119840-01 ST
No	3	3	8310	4L003124	03:01	SOS 59-38	WG119840-02 ST
No	4	4	8310	4L003125	04:01	DIL'N of SOS 58-26	WG119840-03 ST
No	5	5	8310	4L003126	05:01	& 59-38	WG119840-04 ST
No	6	6	8310	4L003127	06:01		WG119840-05 ST
No	7	7	8310	4L003128	07:01		WG119840-06 ST
No	8	8	8310	4L003129	08:01		WG119840-07 ST
No	9	9	8310	4L003130	09:01	SOS 60-26/60-27	WG119840-08 AL

RRC
6/14/02

RD 6/14/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 13, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061302
Analyst Initials RCC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Re-installed LC-PAH column for 8310 ~~/16~~ [illegible] / 610 analysis

Action Taken: recalibration

Comments

Reviewed By: [illegible] 6/14/02

288

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003131	01:01 ✓		accn blk
No	2	2	8310	4L003132	02:01 ✓	SOS 59-38/58-26	WG119863-01 CC
No	3	3	8310	4L003133	03:01 ✓		WG119312-02 WB
No	4	4	8310	4L003134	04:01 ✓		WG119312-03 WL
No	5	5	8310	4L003135	05:01 ✓		L0206078-05 61
No	6	6	8310	4L003136	06:01 ✓		L0206078-07 61
No	7	7	8310	4L003137	07:01 ✓		L0206078-09 61
No	8	8	8310	4L003138	08:01 ✓		L0206078-12 61
No	9	9	8310	4L003139	09:01 ✓		L0206078-15 61
No	10	10	8310	4L003140	10:01 ✓		L0206078-18 61
No	11	11	8310	4L003141	11:01 ✓	SOS 59-38/58-26	WG119863-02 CC
No	12	12	8310	4L003142	12:01 ✓		L0206102-01 83
No	13	13	8310	4L003143	13:01 ✓		L0206102-02 83
No	14	14	8310	4L003144	14:01 ✓		L0206102-03 83
No	15	15	8310	4L003145	15:01 ✓		WG119312-01 WR
No	16	16	8310	4L003146	16:01 ✓		WG119312-04 WM
No	17	17	8310	4L003147	17:01 ✓		WG119312-05 WM
No	18	18	8310	4L003148	18:01 ✓	accn. NC	L0206102-07 83
No	19	19	8310	4L003149	19:01 ✓		L0206102-08 83
No	20	20	8310	4L003150	20:01 ✓		L0206102-09 83
No	21	21	8310	4L003151	21:01 ✓	SOS 59-38/58-26	WG119863-03 CC
No	22	22	8310	4L003152	22:01 ✓		WG119548-02 WB
No	23	23	8310	4L003153	23:01 ✓		WG119548-03 WL
No	24	24	8310	4L003154	24:01	RR 10X, Accn. NC	L0206140-01 83
No	25	25	8310	4L003155	25:01 ✓		L0206140-02 83
No	26	26	8310	4L003156	26:01 ✓		L0206140-03 83
No	27	27	8310	4L003157	27:01 ✓		L0206140-04 83
No	28	28	8310	4L003158	28:01 ✓		L0206140-05 83
No	29	29	8310	4L003159	29:01 ✓		L0206140-06 83
No	30	30	8310	4L003160	30:01 ✓		WG119548-01 WR
No	31	31	8310	4L003161	31:01 ✓		L0206140-08 83
No	32	21	8310	4L003162	32:01 ✓	SOS 59-38/58-26	WG119863-04 CC
No	33	32	8310	4L003163	33:01 ✓		L0206140-09 83
No	34	33	8310	4L003164	34:01 ✓		L0206140-10 83
No	35	34	8310	4L003165	35:01	RE Needed low surr.	L0206140-11 83
No	36	35	8310	4L003166 Accn. NC	36:01	RR 10X, RE low surr.	L0206140-12 83
No	37	36	8310	4L003167	37:01 ✓		L0206140-13 83
No	38	37	8310	4L003168	38:01 ✓	low surr	WG119548-0 WMS
No	39	38	8310	4L003169	39:01 ✓		WG119548-05 WM
No	40	39	8310	4L003170	40:01	RE low surr.	L0206164-01 83
No	41	40	8310	4L003171	41:01	RE low surr.	L0206164-02 83
No	42	41	8310	4L003172	42:01 ✓		L0206164-03 83
No	43	21	8310	4L003173	43:01 ✓		WG119863-05 CC

RDL 6/17/02

6/18/02

6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119863-01 CCV	8310	1	Sample		
3	3	WG119312-02 WBLK	8310	1	Sample		
4	4	WG119312-03 WLCS	8310	1	Sample		
5	5	L0206078-05 610W	8310	1	Sample		
6	6	L0206078-07 610W	8310	1	Sample		
7	7	L0206078-09 610W	8310	1	Sample		
8	8	L0206078-12 610W	8310	1	Sample		
9	9	L0206078-15 610W	8310	1	Sample		
10	10	L0206078-18 610W	8310	1	Sample		
11	11	WG119863-02 CCV	8310	1	Sample		
12	12	L0206102-01 831W	8310	1	Sample		
13	13	L0206102-02 831W	8310	1	Sample		
14	14	L0206102-03 831W	8310	1	Sample		
15	15	WG119312-01 WREF	8310	1	Sample		
16	16	WG119312-04 WMS	8310	1	Sample		
17	17	WG119312-05 WMSD	8310	1	Sample		
18	18	L0206102-07 831W	8310	1	Sample		
19	19	L0206102-08 831W	8310	1	Sample		
20	20	L0206102-09 831W	8310	1	Sample		
21	21	WG119863-03 CCV	8310	1	Sample		
22	22	WG119548-02 WBLK	8310	1	Sample		
23	23	WG119548-03 WLCS	8310	1	Sample		
24	24	L0206140-01 831W	8310	1	Sample		
25	25	L0206140-02 831W	8310	1	Sample		
26	26	L0206140-03 831W	8310	1	Sample		
27	27	L0206140-04 831W	8310	1	Sample		
28	28	L0206140-05 831W	8310	1	Sample		
29	29	L0206140-06 831W	8310	1	Sample		
30	30	WG119548-01 WREF	8310	1	Sample		
31	31	L0206140-08 831W	8310	1	Sample		
32	21	WG119863-04 CCV	8310	1	Sample		
33	32	L0206140-09 831W	8310	1	Sample		
34	33	L0206140-10 831W	8310	1	Sample		
35	34	L0206140-11 831W	8310	1	Sample		
36	35	L0206140-12 831W	8310	1	Sample		
37	36	L0206140-13 831W	8310	1	Sample		
38	37	WG119548-0 WMS	8310	1	Sample		
39	38	WG119548-05 WMSD	8310	1	Sample		
40	39	L0206164-01 831W	8310	1	Sample		
41	40	L0206164-02 831W	8310	1	Sample		
42	41	L0206164-03 831W	8310	1	Sample		
43	21	WG119863-05 CCV	8310	1	Sample		

290

tzwc 6/14/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061402
Analyst Initials RJC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0206140-11 & 12 need RE-EXT for low surr.
L0206164-01 & 02 ↓ ↓ ↓ ↓ ↓ } submitted for reext.

L0206140-01 & 12 need 10x dilN.
Acenaphthylene not confirming by DAD

Reviewed By: DR 6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120164-01 STD6	8310	1	Sample		
3	3	WG120164-02 STD6	8310	1	Sample		
4	4	WG120164-03 STD5	8310	1	Sample		
5	5	WG120164-04 STD4	8310	1	Sample		
6	6	WG120164-05 STD3	8310	1	Sample		
7	7	WG120164-06 STD2	8310	1	Sample		
8	8	WG120164-07 STD1	8310	1	Sample		
9	9	WG120164-08 ALT	8310	1	Sample		
10	10	WG120073-01 WBLK	8310	1	Sample		
11	11	WG120073-02 WLCS	8310	1	Sample		
12	12	WG120073-03 WLCS	8310	1	Sample		
13	13	L0206140-11 REEX	8310	1	Sample		
14	14	L0206140-12 REEX	8310	1	Sample		
15	15	L0206146-01 REEX	8310	1	Sample		
16	16	L0206146-02 REEX	8310	1	Sample		
17	17	WG120174-01 CCV	8310	1	Sample		

292

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003183	01:01 ✓		accn blk
No	2	2	8310	4L003184	02:01 ✓	SOS 58-24	WG120164-01 ST
No	3	3	8310	4L003185	03:01 ✓	SOS 59-38	WG120164-02 ST
No	4	4	8310	4L003186	04:01 ✓	DIL'N of SOS 58-26/ 59-38	WG120164-03 ST
No	5	5	8310	4L003187	05:01 ✓		WG120164-04 ST
No	6	6	8310	4L003188	06:01 ✓		WG120164-05 ST
No	7	7	8310	4L003189	07:01 ✓		WG120164-06 ST
No	8	8	8310	4L003190	08:01 ✓		WG120164-07 ST
No	9	9	8310	4L003191	09:01 ✓	SOS 60-26/60-27 DIL'N	WG120164-08 AL
No	10	10	8310	4L003192	10:01 ✓		WG120073-01 WB
No	11	11	8310	4L003193	11:01 ✓		WG120073-02 WL
No	12	12	8310	4L003194	12:01 ✓		WG120073-03 WL
No	13	13	8310	4L003195	13:01	SURR. LOW	L0206140-11 RE
No	14	14	8310	4L003196	14:01	SURR. LOW	L0206140-12 RE
No	15	15	8310	4L003197	15:01	SURR. LOW	L0206146-01 RE
No	16	16	8310	4L003198	16:01 ✓		L0206146-02 RE
No	17	17	8310	4L003199	17:01 ✓	SOS 58-26/59-38 DIL'N.	WG120174-01 CC

RDC 6/20/02

6/20/02

293

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061902
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Column re-installed

Action Taken: re-calibration

Comments

Re-extracts of L0206140-11 & 12 and L0206164-01 confirm the low % recovery of surrogate.

L0206164-02 surr. recovery was within limits & will be reported out of holding time.

RDC

Reviewed By: DR 6/20/02

Parameter: 8310 SOP #: EXHPLC Revision #: 6
Extraction Analyst(s): CAF GSG TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 08:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: KEK/CAF Witness: —
Surrogate #: ESS0040-50 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-01 Spike #: B = —

Extraction Work Group WG 119548
Analytical Work Group WG 119924
Extract Relinquished By: CAF
Extract Received By & Date: CAF 6/11/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100ul		1mL	T				WG 119548-02
2	LCS			✓		↓	↓	500ul	↓	C				WG 119548-03
3	06-140-01	8310		✓		↓	↓	↓	↓	C				
4	-02	↓		✓		950mL	↓	↓	↓	T				
5	-03	↓		✓		1L	↓	↓	↓	T				*
6	-04	↓		✓		965mL	↓	↓	↓	T				*
7	-05	↓		✓		1L	↓	↓	↓	T				*
8	-06	↓		✓		965mL	↓	↓	↓	T				
9	-07	↓		✓		940mL	↓	↓	↓	C				WG 119548-01
10	-08	↓		✓		↓	↓	↓	↓	T				
11	-09	↓		✓		1L	↓	↓	↓	T				
12	-10	↓		✓		965mL	↓	↓	↓	T				*
13	-11	↓		✓		940mL	↓	↓	↓	T				
14	-12	↓		✓		960mL	↓	↓	↓	C				CAF 6-11-02
15	-13	↓		✓		930mL	↓	↓	↓	T				~~WG 119548-01~~
16	-17MS	↓		✓		950mL	↓	500ul	↓	C				WG 119548-04
17	-18MSD	↓		✓		965mL	↓	↓	↓	C				WG 119548-05
18	06-164-01	↓		✓		↓	↓	↓	↓	T				*
19	-02	↓		✓		910mL	↓	↓	↓	T				*
20	-03	↓		✓		950mL	↓	↓	↓	C				*
21														
22						CAF 6-11-02								
23														
24														

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: 2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: 6/14/02

Extraction Notes For Volume # 185 Page # 165

General Comments: * pH Adj. c̄ NaOH
MS, MSD of 06-140-07

Extraction Anomalies: * pH Adj c̄ NaOH

Concentration Anomalies: * precipitate in concentration
Stage SX 06-164-01, 06-164-03

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): DP TV/KD Analyst(s): CAF
Date/Time Extracted: 06/18/02 @ 1410 Date TV/KD: 06/18/02
Spike/Surrogate Analyst: DP Witness: CEB
Surrogate #: ES00040-50 Earliest Hold Date: OUT
Spike #: A = ES00041-01 Spike #: B = —

Extraction Work Group WG 120073
Analytical Work Group WG 120172

Extract Relinquished By: CAF
Extract Received By & Date: ZHC 6/18/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100 µL		1mL	T				WG 120073-01
2	LCS			✓		1		500 µL		T				WG 1 -02
3	06-140-11	8310		✓		960 mL				T				Re-ext. out of hold ⊗
4	1 -12			✓		1				6/18 PC				⊗
5	06-164-01			✓		970 mL				Q T				⊗
6	1 -02			✓		950 mL				T				⊗
7	LCS DUP			✓		1L		500 µL		T				WG 120073-03
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 06/18/02

Methylene Chloride Lot #: 412015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: ER2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 6-18-02

Extraction Notes For Volume # 186 Page # 047

General Comments: x LCS Dup is out of order on the bench sheet.

Extraction Anomalies: ⊗ Sample required pH adjustment prior to extraction to achieve a neutral (5-9) pH.

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

2.2.7.2 Sample Data

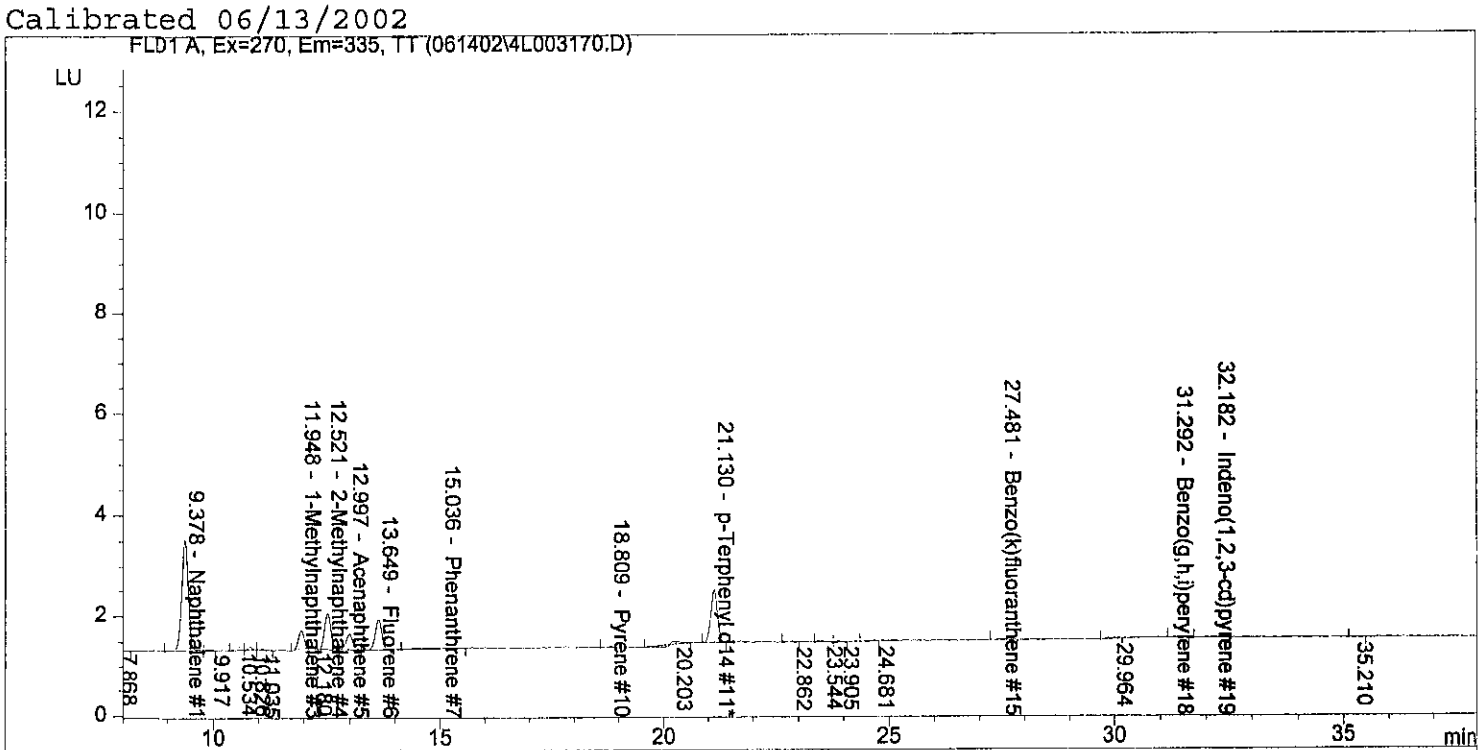
1,1

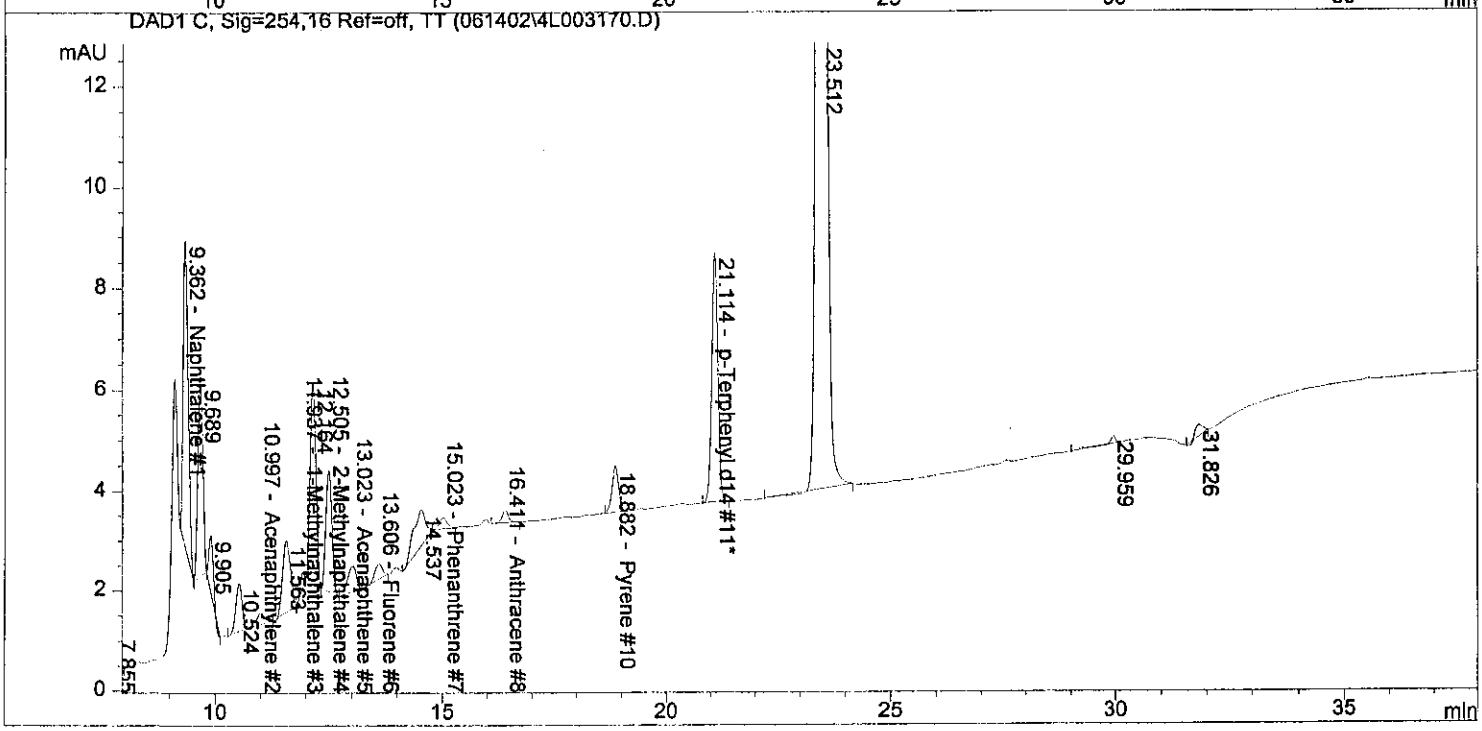
==========

Injection Date	: 6/16/2002 12:15:28 AM	Seq. Line	: 40
Sample Name	: L0206164-01 831W	Vial	: 39
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





300

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	BB	22.65222	3.55420e-2	8.05106e-1		Naphthalene #1
11.948	BB	3.29381	7.39872e-2	2.43700e-1		1-Methylnaphthalene #3
12.521	BB	6.88901	3.60313e-2	2.48220e-1		2-Methylnaphthalene #4
12.997	BB	3.15446	2.69525e-2	8.50206e-2		Acenaphthene #5
13.649	BB	6.07280	0.00000	0.00000		Fluorene #6
15.036	BB	1.16349	4.41647e-1	5.13854e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.779		-	-	-		Fluoranthene #9
18.809	PBA	1.72602e-1	1.28378e-1	2.21582e-2		Pyrene #10
21.130	BB	10.60092	3.14372e-1	3.33263		p-Terphenyl d14 #11*
22.418		-	-	-		Benzo(a)anthracene #12
23.280		-	-	- 33.3%		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.481	BBA	2.03124e-1	5.35346e-2	1.08742e-2		Benzo(k)fluoranthene #15
28.553		-	-	-		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.292	BBA	2.97977e-1	1.65434e-1	4.92956e-2		Benzo(g,h,i)perylene #18
32.182	BB	2.43696e-1	1.33055e-1	3.24251e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				5.34329		

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	47.96383	1.86663e-3	8.95307e-2		Naphthalene #1
10.997	BB	2.92943	8.87216e-2	2.59904e-1		Acenaphthylene #2
11.937	BB	1.63891	5.21678e-2	8.54983e-2		1-Methylnaphthalene #3
12.505	BB	22.53705	6.71343e-3	1.51301e-1		2-Methylnaphthalene #4
13.023	BB	6.74860	3.94181e-2	2.66017e-1		Acenaphthene #5
13.606	BB	3.71016	6.23218e-2	2.31224e-1		Fluorene #6
15.023	BB	2.55913	6.53941e-2	1.67352e-1		Phenanthrene #7
16.411	BBA	2.68968	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.882	BBA	10.18223	1.76976e-2	1.80201e-1		Pyrene #10
21.114	BBA	46.74763	6.92328e-2	3.23647	*	p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	- 32.4%		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.66750

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

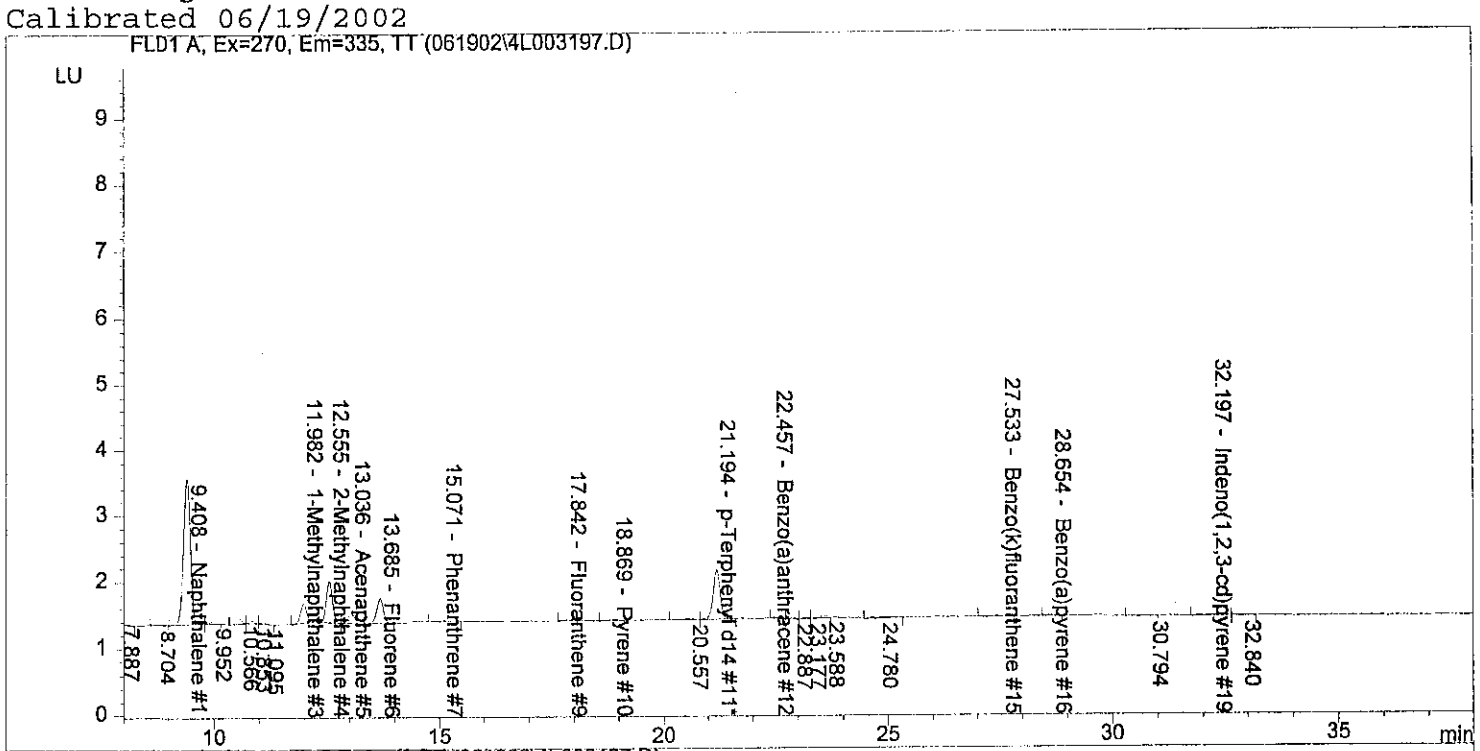
RDC 6/20/02 RDC 6/20/02

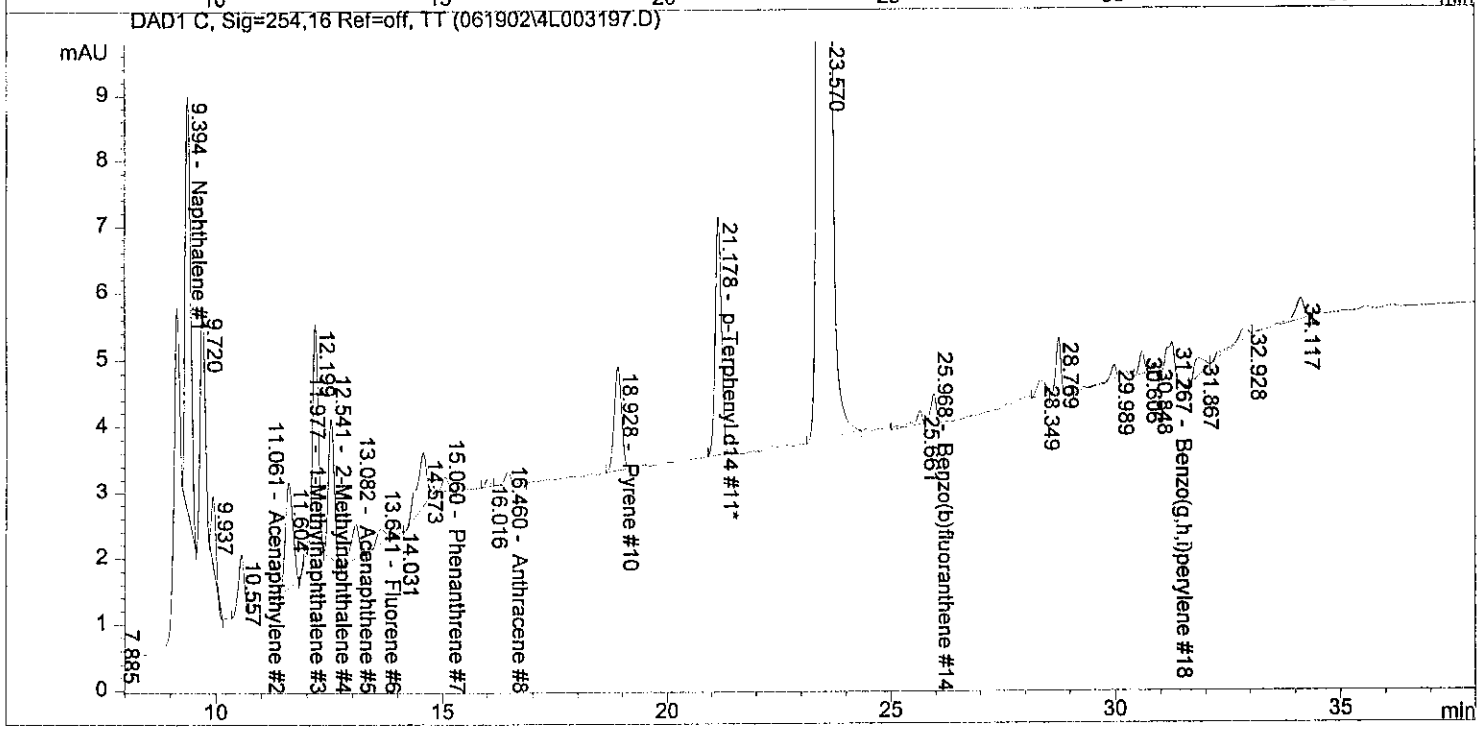
==========

Injection Date : 6/20/2002 5:19:47 AM
Sample Name : L0206146-01 REEX 64
Acq. Operator : RDC

Seq. Line : 15
Vial : 15
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





6/20/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.408	BB	22.82187	3.55435e-2	8.11169e-1		Naphthalene #1
11.982	BB	3.19874	8.48661e-2	2.71464e-1		1-Methylnaphthalene #3
12.555	BB	5.97444	4.11310e-2	2.45734e-1		2-Methylnaphthalene #4
13.036	BB	1.64818	5.64726e-2	9.30768e-2		Acenaphthene #5
13.685	BB	3.96698	6.07174e-3	2.40864e-2		Fluorene #6
15.071	BBA	2.89863e-1	1.08078	3.13278e-1		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.842	BBA	2.23036e-1	1.30570e-1	2.91218e-2		Fluoranthene #9
18.869	PB	2.02239e-1	1.01414e-1	2.05099e-2		Pyrene #10
21.194	BB	7.92870	3.21445e-1	2.54864		p-Terphenyl d14 #11*
22.457	BB	2.39567e-1	1.41170e-1	3.38197e-2		Benzo(a)anthracene #12
23.357		-	-	-		Chrysene #13
26.079		-	-	-		Benzo(b)fluoranthene #14
27.533	BBA	4.00502e-1	3.46311e-2	1.38699e-2		Benzo(k)fluoranthene #15
28.654	BBA	2.31731e-1	1.69277e-1	3.92267e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.197	BB	3.00393e-1	1.20460e-1	3.61853e-2		Indeno(1,2,3-cd)pyrene #1

25.5% *

Totals : 4.48019

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BB	50.03461	2.76315e-3	1.38253e-1	LMDL	Naphthalene #1
11.061	BB	2.18810	1.28444e-1	2.81047e-1		Acenaphthylene #2
11.977	BB	8.57362e-1	1.76714e-1	1.51508e-1		1-Methylnaphthalene #3
12.541	BB	19.33769	9.89059e-3	1.91261e-1		2-Methylnaphthalene #4
13.082	BB	6.32702	5.10268e-2	3.22847e-1		Acenaphthene #5
13.641	BB	2.95655	1.00110e-1	2.95981e-1		Fluorene #6
15.060	BB	2.46194	1.10908e-1	2.73047e-1		Phenanthrene #7
16.460	BBA	2.33976	0.00000	0.00000		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.928	BBA	17.23073	1.66494e-2	2.86881e-1	NC	Pyrene #10
21.178	BBA	34.15862	7.13703e-2	2.43791		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
25.968	BBA	3.70797	2.90241e-2	1.07621e-1	NC	Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

24.4% *

304

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.267	BB	6.91907	5.59732e-2	3.87282e-1	NV	Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.87364

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========
*** End of Report ***

1,1

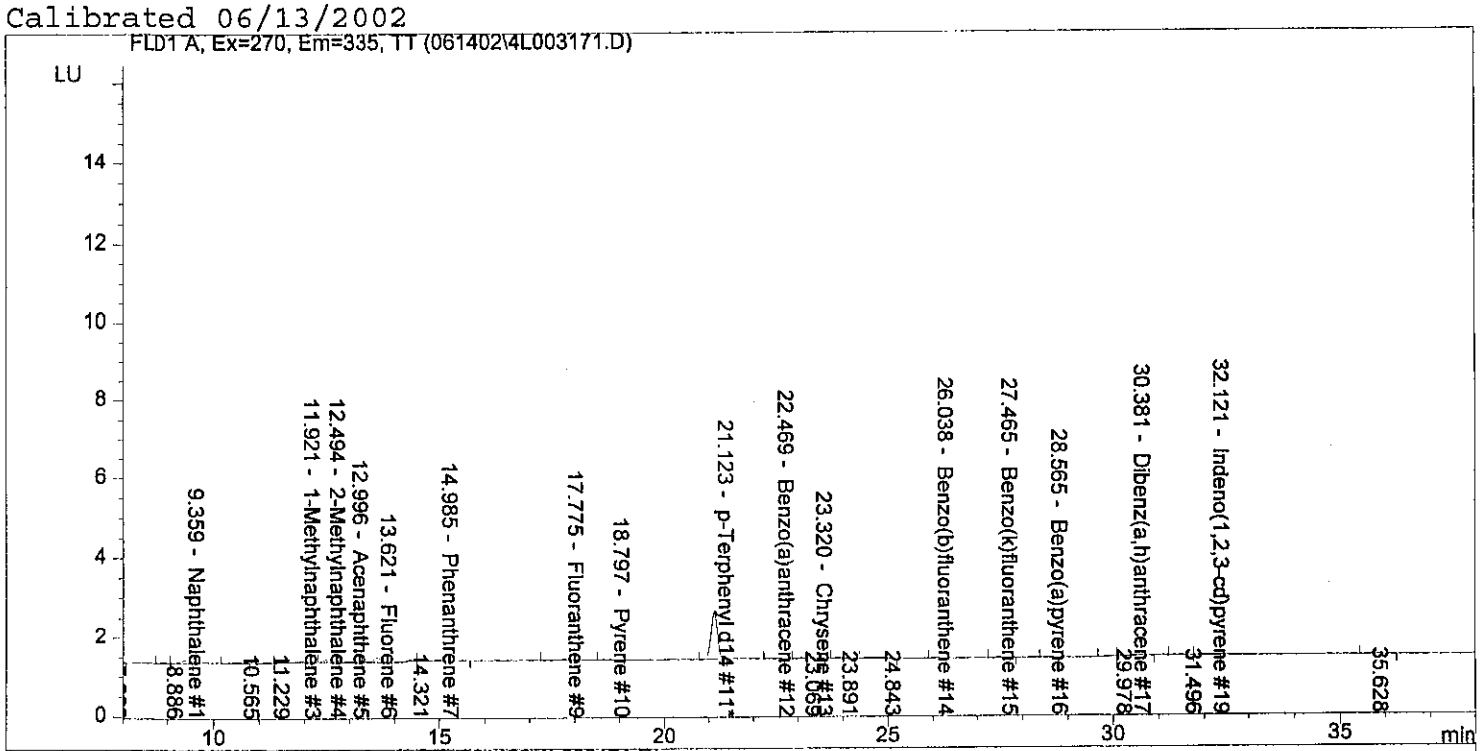
==========

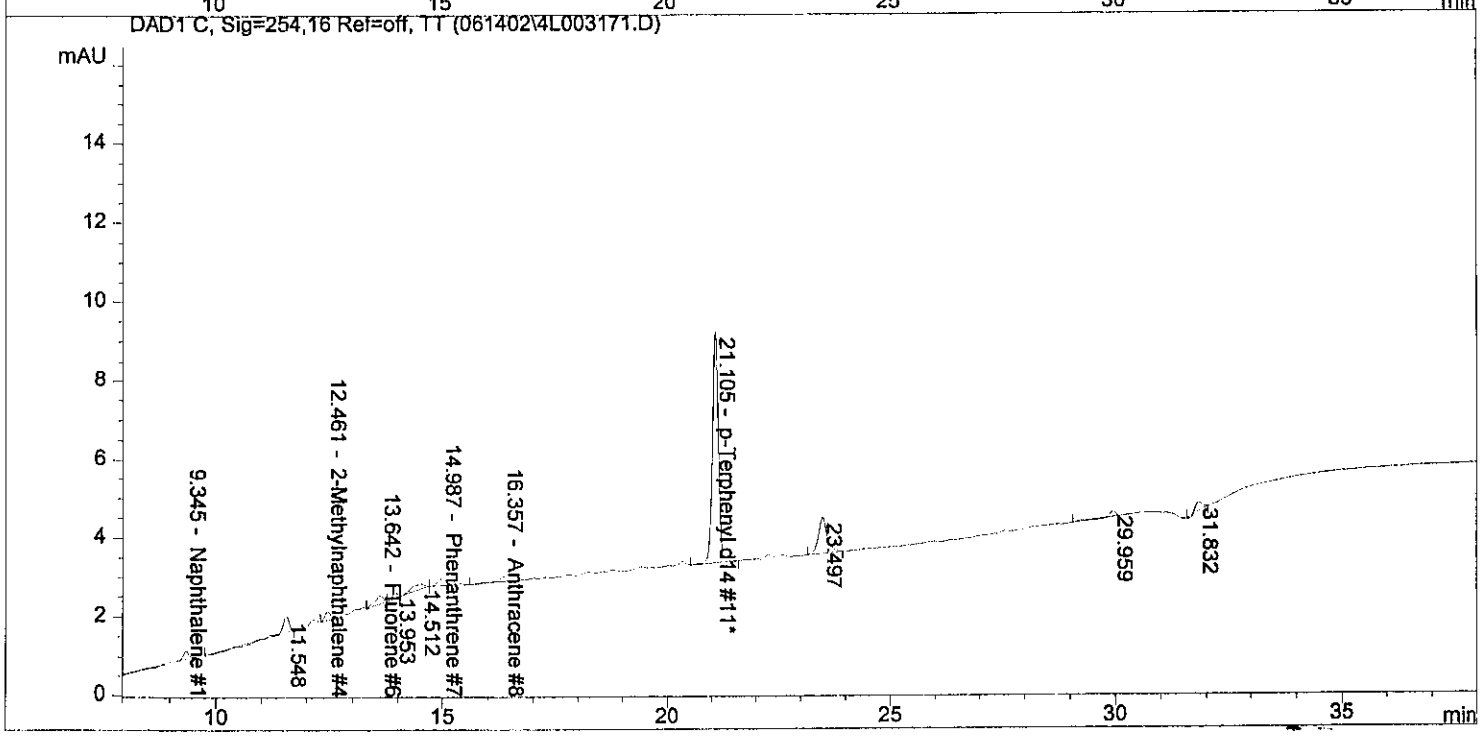
Injection Date : 6/16/2002 1:12:07 AM
Sample Name : L0206164-02 831W
Acq. Operator : RDC

Seq. Line : 41
Vial : 40
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





306

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.359	BB	7.22990e-1	3.19011e-1	2.30642e-1		Naphthalene #1
11.921	BB	2.80163e-1	6.23347e-1	1.74639e-1		1-Methylnaphthalene #3
12.494	BB	1.08823	1.33839e-1	1.45648e-1		2-Methylnaphthalene #4
12.996	BB	2.98754e-1	1.49931e-1	4.47926e-2		Acenaphthene #5
13.621	BB	1.53547	0.00000	0.00000		Fluorene #6
14.985	BBA	4.43608e-1	8.80364e-1	3.90537e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.775	BBA	6.01924e-1	6.29312e-2	3.78798e-2		Fluoranthene #9
18.797	PBA	2.14339e-1	1.11432e-1	2.38841e-2		Pyrene #10
21.123	BB	12.49502	3.11009e-1	3.88607		p-Terphenyl d14 #11*
22.469	BB	2.47616e-1	1.22387e-1	3.03051e-2		Benzo(a)anthracene #12
23.320	BB	2.38570e-1	1.40273e-1	3.34650e-2		Chrysene #13
26.038	BBA	2.02961e-1	1.44728e-1	2.93741e-2		Benzo(b)fluoranthene #14
27.465	BBA	4.07882e-1	2.80704e-2	1.14494e-2		Benzo(k)fluoranthene #15
28.565	BBA	1.99074e-1	1.88486e-1	3.75226e-2		Benzo(a)pyrene #16
30.381	BB	3.70222e-1	1.42226e-1	5.26551e-2		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.121	BB	2.70296e-1	1.21337e-1	3.27968e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 5.16166

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
9.345	BB	2.99256	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.461	BB	2.17678	0.00000	0.00000		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.642	BB	2.76233	7.76499e-2	2.14494e-1	CMDL	Fluorene #6
14.987	BB	2.21629	7.28046e-2	1.61356e-1		Phenanthrene #7
16.357	BB	1.87441	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.105	BBA	56.96419	6.84584e-2	3.89968		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-	39.0%*	Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

307

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.27553

Results obtained with enhanced integrator!
6 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (2-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

1,1

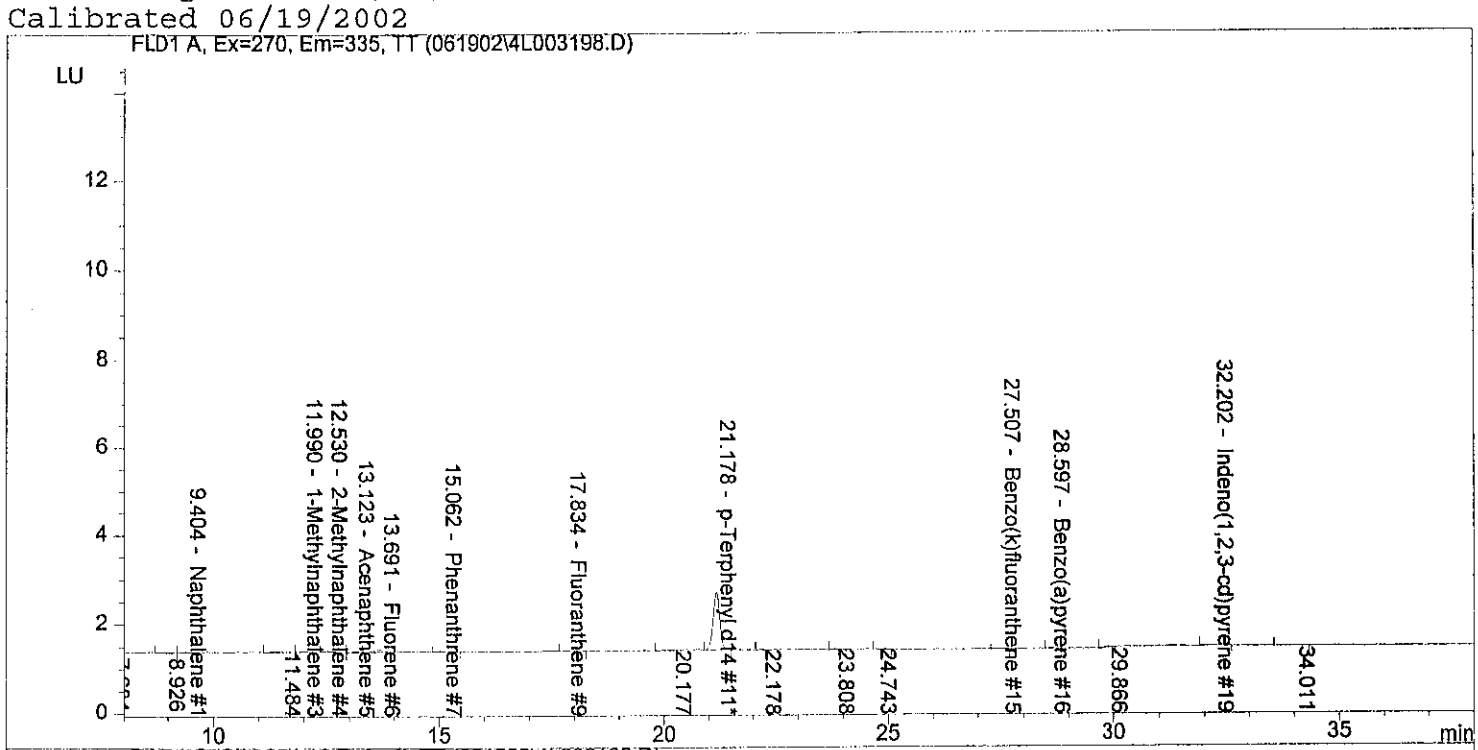
RDC 6/20/02

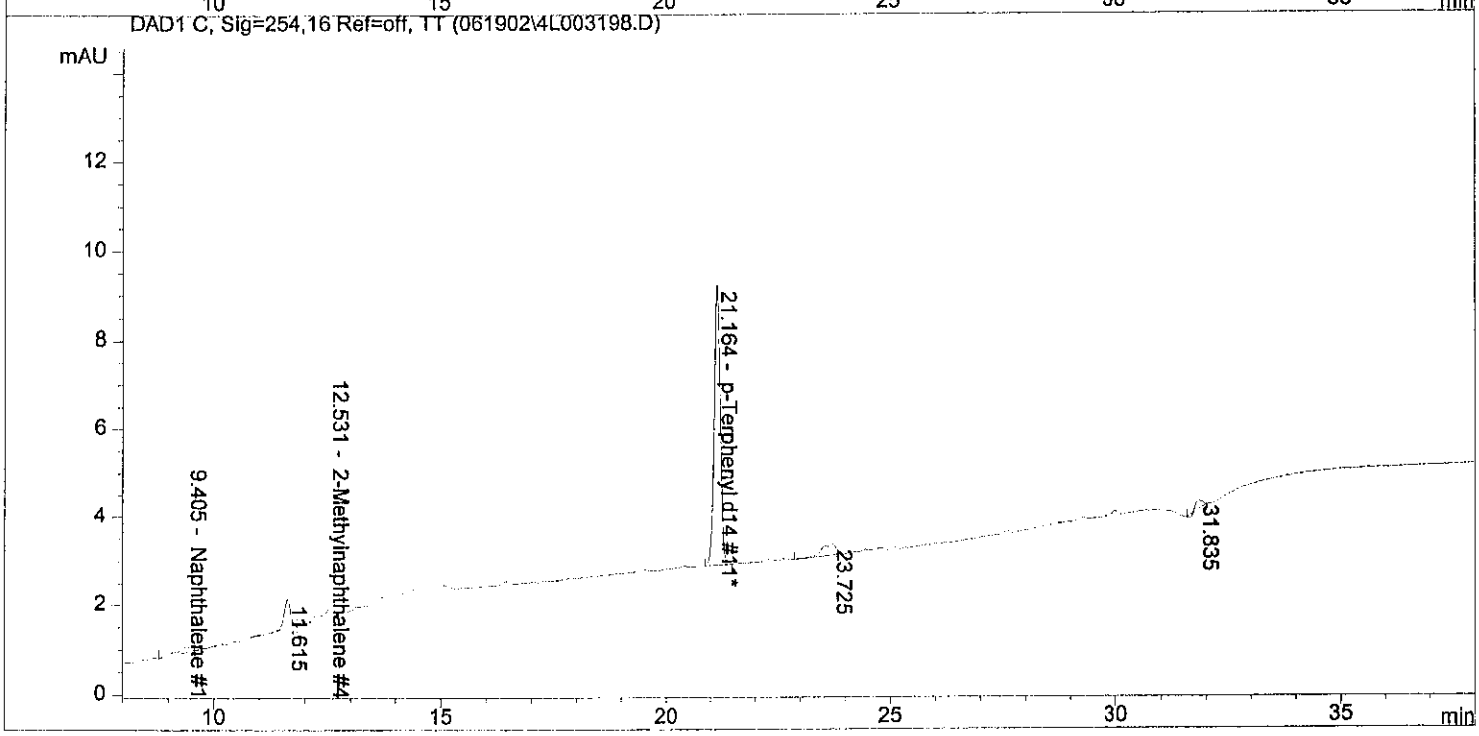
==========

Injection Date : 6/20/2002 6:16:26 AM
Sample Name : L0206146-02 REEX
Acq. Operator : RDC

Seq. Line : 16
Vial : 16
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





309

External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.404	BB	3.97443e-1	5.62824e-1	2.23690e-1		Naphthalene #1
11.990	BB	1.52600e-1	1.32090	2.01569e-1		1-Methylnaphthalene #3
12.530	BB	5.72767e-1	2.61532e-1	1.49797e-1		2-Methylnaphthalene #4
13.123	BB	1.69597e-1	4.25827e-1	7.22190e-2		Acenaphthene #5
13.691	BB	8.91145e-1	4.27949e-3	3.81365e-3		Fluorene #6
15.062	BBA	2.13391e-1	1.40685	3.00209e-1		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.834	BBA	2.08592e-1	1.37868e-1	2.87582e-2		Fluoranthene #9
18.828		-	-	-		Pyrene #10
21.178	BB	13.39733	3.08959e-1	4.13923		p-Terphenyl d14 #11*
22.485		-	-	-		Benzo(a)anthracene #12
23.357		-	-	-		Chrysene #13
26.079		-	-	-		Benzo(b)fluoranthene #14
27.507	BB	2.40942e-1	5.57170e-2	1.34245e-2		Benzo(k)fluoranthene #15
28.597	BBA	1.73265e-1	2.24819e-1	3.89531e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.202	PB	1.90963e-1	1.81496e-1	3.46590e-2		Indeno(1,2,3-cd)pyrene #1

41.4%

Totals : 5.20632

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	PB	2.83398	0.00000	0.00000		Naphthalene #1
10.995		-	-	-		Acenaphthylene #2
11.942		-	-	-		1-Methylnaphthalene #3
12.531	BB	2.95884	2.44835e-3	7.24426e-3		2-Methylnaphthalene #4
12.994		-	-	-		Acenaphthene #5
13.645		-	-	-		Fluorene #6
15.028		-	-	-		Phenanthrene #7
16.431		-	-	-		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.809		-	-	-		Pyrene #10
21.164	BB	60.72279	6.82681e-2	4.14543		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

41.5%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264		-	-	-		Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.15268

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene

==========

*** End of Report ***

1,1

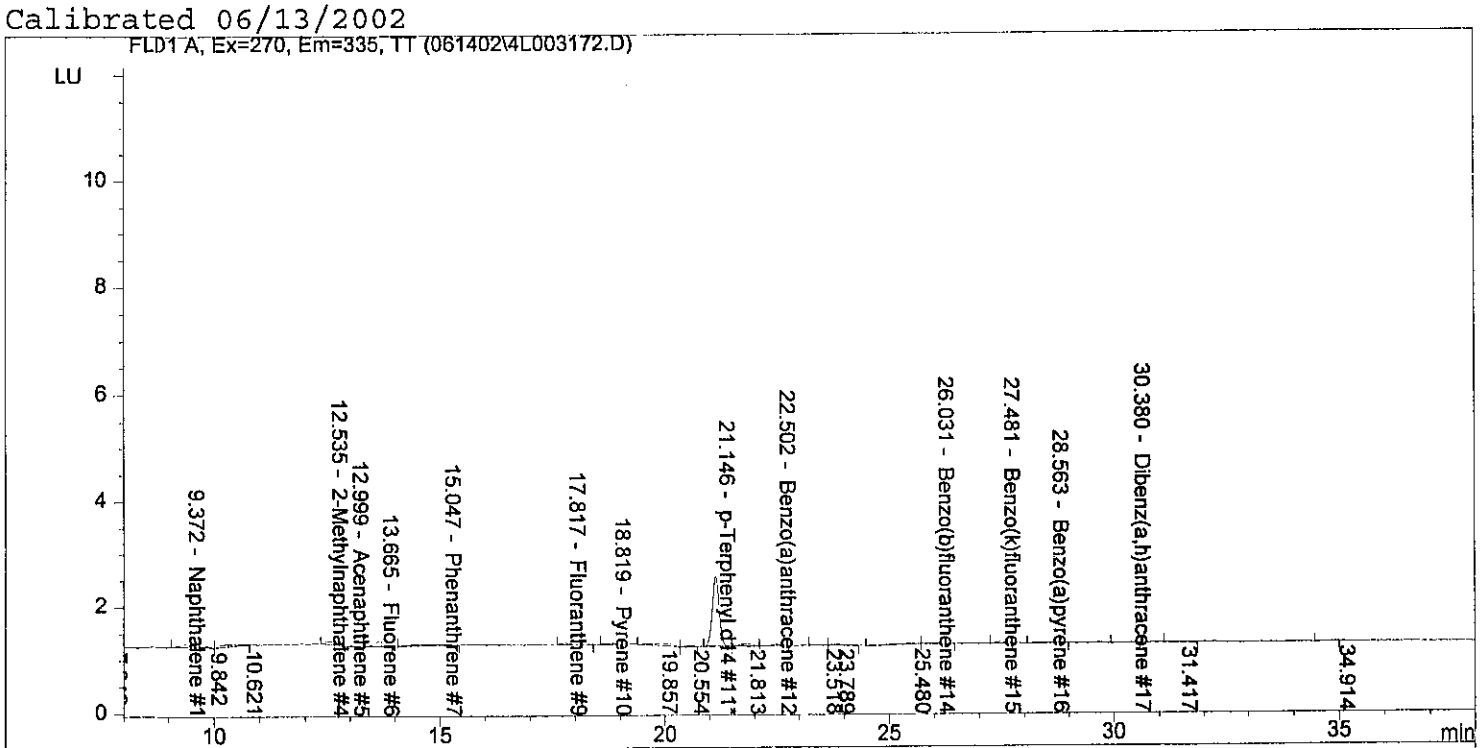
==========

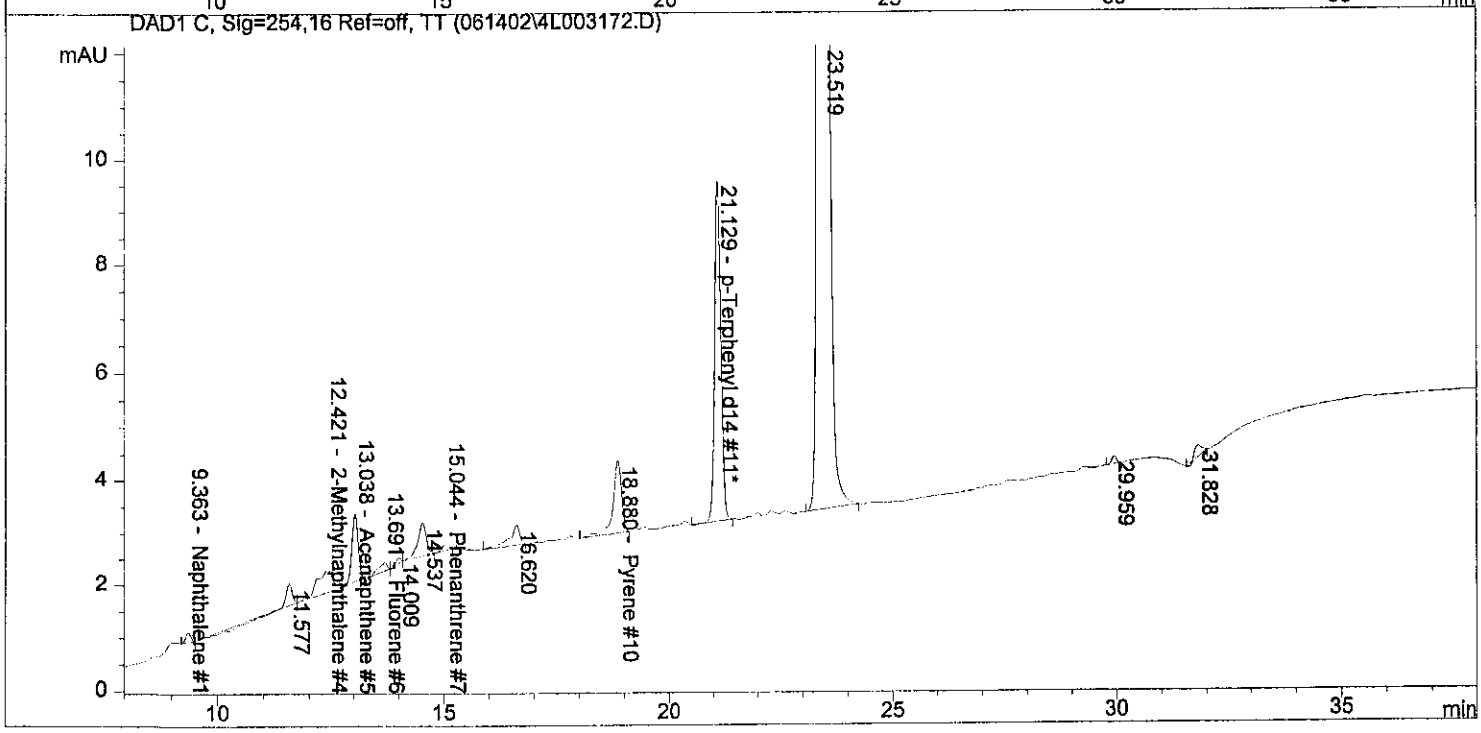
Injection Date : 6/16/2002 2:08:49 AM
Sample Name : L0206164-03 831W
Acq. Operator : RDC

Seq. Line : 42
Vial : 41
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002





312

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.372	BB	7.78646e-1	2.98081e-1	2.32100e-1		Naphthalene #1
11.924		-	-	-		1-Methylnaphthalene #3
12.535	BB	1.24880	1.18904e-1	1.48487e-1		2-Methylnaphthalene #4
12.999	BB	1.85047e-1	2.33405e-1	4.31909e-2		Acenaphthene #5
13.665	BBA	1.38528	0.00000	0.00000		Fluorene #6
15.047	BB	9.99834e-1	4.85899e-1	4.85819e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.817	BBA	6.04508e-1	6.27705e-2	3.79453e-2		Fluoranthene #9
18.819	BBA	3.31515e-1	8.66610e-2	2.87294e-2		Pyrene #10
21.146	BB	13.58272	3.09502e-1	4.20388		p-Terphenyl d14 #11*
22.502	BB	3.34910e-1	9.26069e-2	3.10149e-2		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.031	BBA	2.34037e-1	1.27755e-1	2.98993e-2		Benzo(b)fluoranthene #14
27.481	PB	3.91015e-1	2.91601e-2	1.14020e-2		Benzo(k)fluoranthene #15
28.563	BB	3.84021e-1	9.99733e-2	3.83919e-2		Benzo(a)pyrene #16
30.380	PB	1.79099e-1	2.51420e-1	4.50290e-2		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.33589

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	1.45182	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.421	BB	10.61955	1.47288e-3	1.56413e-2		2-Methylnaphthalene #4
13.038	BB	12.47556	3.07673e-2	3.83839e-1		Acenaphthene #5
13.691	BB	2.23243	9.18916e-2	2.05142e-1		Fluorene #6
15.044	BB	1.32512	1.10006e-1	1.45771e-1		Phenanthrene #7
16.387		-	-	-		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.880	BB	18.97723	1.61438e-2	3.06365e-1		Pyrene #10
21.129	BBA	60.83138	6.82332e-2	4.15072		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.20748

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)

==========

*** End of Report ***

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8310

Column: LC-PAH

	STD #1	STD #2	STD #3
Date Run	10/30/2001	10/31/2001	11/2/2001
File #	4L002247	4L002275	4L002311
Time	0:54	3:51	14:47

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Naphthalene (FLD)	9.337	9.362	9.352	0.038
1-Methylnaphthalene (FLD)	11.935	11.941	11.940	0.010
2-Methylnaphthalene (FLD)	12.517	12.523	12.521	0.009
Acenaphthene (FLD)	13.001	13.006	13.005	0.008
Fluorene (FLD)	13.664	13.667	13.669	0.008
Phenanthrene (FLD)	15.062	15.066	15.071	0.014
Anthracene (FLD)	16.475	16.483	16.493	0.027
Fluoranthene (FLD)	17.860	17.869	17.883	0.035
Pyrene (FLD)	18.868	18.881	18.897	0.044
p-Terphenyl-d14 (FLD)	21.217	21.244	21.262	0.068
Benzo(a)anthracene (FLD)	22.535	22.572	22.587	0.080
Chrysene (FLD)	23.401	23.449	23.467	0.102
Benzo(b)fluoranthene (FLD)	26.119	26.182	26.204	0.132
Benzo(k)fluoranthene (FLD)	27.554	27.629	27.650	0.151
Benzo(a)pyrene (FLD)	28.666	28.739	28.758	0.146
Dibenz(a,h)anthracene (FLD)	30.532	30.615	30.635	0.164
Benzo(g,h,i)perylene (FLD)	31.340	31.420	31.445	0.165
Indeno(1,2,3-cd)pyrene (FLD)	32.285	32.355	32.382	0.150
Naphthalene (VWD)	9.318	9.341	9.330	0.035
Acenaphthylene (VWD)	10.959	10.965	10.968	0.014
1-Methylnaphthalene (VWD)	11.916	11.920	11.922	0.009
2-Methylnaphthalene (VWD)	12.498	12.502	12.502	0.007
Acenaphthene (VWD)	12.982	12.986	12.986	0.007
Fluorene (VWD)	13.644	13.646	13.649	0.008
Phenanthrene (VWD)	15.042	15.045	15.052	0.015
Anthracene (VWD)	16.456	16.462	16.474	0.027
Fluoranthene (VWD)	17.840	17.848	17.863	0.035
Pyrene (VWD)	18.848	18.859	18.876	0.042
p-Terphenyl-d14 (VWD)	21.198	21.223	21.243	0.068
Benzo(a)anthracene (VWD)	22.516	22.551	22.568	0.080
Chrysene (VWD)	23.382	23.428	23.448	0.102
Benzo(b)fluoranthene (VWD)	26.099	26.160	26.184	0.131
Benzo(k)fluoranthene (VWD)	27.535	27.609	27.632	0.152
Benzo(a)pyrene (VWD)	28.646	28.717	28.738	0.145
Dibenz(a,h)anthracene (VWD)	30.513	30.595	30.617	0.164
Benzo(g,h,i)perylene (VWD)	31.320	31.398	31.426	0.165
Indeno(1,2,3-cd)pyrene (VWD)	32.266	32.338	32.367	0.156

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Friday, June 14, 2002 9:14:03 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 : Included
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
9.335	2	1	1.00000	118.44469	8.44276e-3			Naphthalene #1
		2	5.00000	598.90387	8.34859e-3			
		3	10.00000	1219.35925	8.20103e-3			
		4	20.00000	2498.67944	8.00423e-3			
		5	50.00000	6195.70996	8.07010e-3			
		6	100.00000	1.19505e4	8.36782e-3			
9.353	1	1	1.00000	35.70203	2.80096e-2			Naphthalene #1
		2	5.00000	178.95563	2.79399e-2			
		3	10.00000	371.85556	2.68922e-2			
		4	20.00000	754.54517	2.65060e-2			
		5	50.00000	1885.17432	2.65227e-2			
		6	100.00000	3817.44727	2.61955e-2			
10.959	2	1	1.00000	32.34379	3.09178e-2			Acenaphthylene #2
		2	5.00000	157.19412	3.18078e-2			
		3	10.00000	325.59451	3.07130e-2			
		4	20.00000	658.50293	3.03719e-2			
		5	50.00000	1639.64368	3.04944e-2			
		6	100.00000	3321.14795	3.01101e-2			
11.906	2	1	1.00000	73.52287	1.36012e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.23682	1.36897e-2			
		3	10.00000	757.97943	1.31930e-2			
		4	20.00000	1536.99390	1.30124e-2			
		5	50.00000	3823.69092	1.30764e-2			
		6	100.00000	7652.24854	1.30681e-2			
11.924	1	1	1.00000	41.21246	2.42645e-2			1-Methylnaphthalene #3
		2	5.00000	205.97406	2.42749e-2			
		3	10.00000	427.16837	2.34100e-2			
		4	20.00000	865.41754	2.31102e-2			
		5	50.00000	2162.71216	2.31191e-2			
		6	100.00000	4362.68555	2.29217e-2			
12.479	2	1	1.00000	85.92275	1.16384e-2			2-Methylnaphthalene #4
		2	5.00000	427.72684	1.16897e-2			
		3	10.00000	887.82635	1.12635e-2			
		4	20.00000	1791.84399	1.11617e-2			
		5	50.00000	4440.55420	1.12599e-2			
		6	100.00000	8770.67480	1.14016e-2			
12.497	1	1	1.00000	53.61522	1.86514e-2			2-Methylnaphthalene #4
		2	5.00000	267.76404	1.86732e-2			
		3	10.00000	555.40234	1.80050e-2			
		4	20.00000	1125.70947	1.77666e-2			
		5	50.00000	2815.32397	1.77599e-2			
		6	100.00000	5651.09082	1.76957e-2			
12.956	2	1	1.00000	45.75132	2.18573e-2			Acenaphthene #5
		2	5.00000	230.37761	2.17035e-2			
		3	10.00000	479.64664	2.08487e-2			
		4	20.00000	968.64014	2.06475e-2			
		5	50.00000	2413.63843	2.07156e-2			
		6	100.00000	4859.52686	2.05781e-2			
12.974	1	1	1.00000	68.11809	1.46804e-2			Acenaphthene #5
		2	5.00000	339.83661	1.47130e-2			
		3	10.00000	704.82605	1.41879e-2			
		4	20.00000	1426.86951	1.40167e-2			
		5	50.00000	3551.90137	1.40770e-2			
		6	100.00000	7092.07813	1.41002e-2			
13.606	2	1	1.00000	52.41635	1.90780e-2			Fluorene #6
		2	5.00000	267.85175	1.86670e-2			
		3	10.00000	555.59216	1.79988e-2			
		4	20.00000	1125.01990	1.77775e-2			
		5	50.00000	2806.76538	1.78141e-2			
		6	100.00000	5664.78320	1.76529e-2			
13.625	1	1	1.00000	147.37762	6.78529e-3			Fluorene #6
		2	5.00000	732.50269	6.82591e-3			
		3	10.00000	1519.64282	6.58049e-3			
		4	20.00000	3071.66968	6.51112e-3			
		5	50.00000	7586.48193	6.59067e-3			
		6	100.00000	1.50207e4	6.65746e-3			
14.988	2	1	1.00000	59.16147	1.69029e-2			Phenanthrene #7
		2	5.00000	271.73749	1.84001e-2			
		3	10.00000	563.78528	1.77372e-2			
		4	20.00000	1137.39648	1.75840e-2			
		5	50.00000	2834.24902	1.76414e-2			
		6	100.00000	5720.03760	1.74824e-2			
15.006	1	1	1.00000	5.49246	1.82068e-1			Phenanthrene #7
		2	5.00000	27.09999	1.84502e-1			
		3	10.00000	56.03428	1.78462e-1			

317

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.91219	1.75574e-1			
		5	50.00000	286.42151	1.74568e-1			
		6	100.00000	583.99371	1.71235e-1			
16.387	2	1	1.00000	93.73675	1.06682e-2			Anthracene #8
		2	5.00000	479.37994	1.04301e-2			
		3	10.00000	1007.09772	9.92952e-3			
		4	20.00000	2016.31750	9.91907e-3			
		5	50.00000	4994.17480	1.00117e-2			
		6	100.00000	9770.11133	1.02353e-2			
16.405	1	1	1.00000	3.27440	3.05399e-1			Anthracene #8
		2	5.00000	15.91612	3.14147e-1			
		3	10.00000	32.93192	3.03657e-1			
		4	20.00000	66.59662	3.00316e-1			
		5	50.00000	165.24231	3.02586e-1			
		6	100.00000	330.63736	3.02446e-1			
17.762	2	1	1.00000e-1	2.86666	3.48838e-2			Fluoranthene #9
		2	5.00000e-1	21.47706	2.32806e-2			
		3	1.00000	44.35479	2.25455e-2			
		4	2.00000	90.19173	2.21750e-2			
		5	5.00000	225.76083	2.21473e-2			
		6	10.00000	458.29434	2.18200e-2			
17.779	1	1	1.00000e-1	3.76502	2.65603e-2			Fluoranthene #9
		2	5.00000e-1	18.56896	2.69267e-2			
		3	1.00000	38.54884	2.59411e-2			
		4	2.00000	77.44264	2.58256e-2			
		5	5.00000	194.82120	2.56646e-2			
		6	10.00000	394.78314	2.53304e-2			
18.761	2	1	1.00000e-1	5.78315	1.72916e-2			Pyrene #10
		2	5.00000e-1	30.90943	1.61763e-2			
		3	1.00000	67.05128	1.49140e-2			
		4	2.00000	137.28792	1.45679e-2			
		5	5.00000	342.14008	1.46139e-2			
		6	10.00000	696.78912	1.43515e-2			
18.779	1	1	1.00000e-1	2.23349	4.47730e-2			Pyrene #10
		2	5.00000e-1	11.37372	4.39610e-2			
		3	1.00000	23.43897	4.26640e-2			
		4	2.00000	48.14644	4.15399e-2			
		5	5.00000	120.60387	4.14580e-2			
21.086	2	1	1.00000	14.27733	7.00411e-2			p-Terphenyl d14 #11*
		2	5.00000	72.29396	6.91621e-2			
		3	10.00000	150.04201	6.66480e-2			
		4	20.00000	302.29453	6.61606e-2			
		5	50.00000	765.97974	6.52759e-2			
		6	100.00000	1538.62390	6.49931e-2			
21.105	1	1	1.00000	3.43824	2.90847e-1			p-Terphenyl d14 #11*
		2	5.00000	15.96525	3.13180e-1			
		3	10.00000	33.36931	2.99677e-1			
		4	20.00000	66.93617	2.98792e-1			
		5	50.00000	168.95605	2.95935e-1			
		6	100.00000	342.27563	2.92162e-1			
22.401	2	1	1.00000e-1	4.17491	2.39526e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.50113	2.32546e-2			
		3	1.00000	43.38402	2.30500e-2			
		4	2.00000	88.38959	2.26271e-2			
		5	5.00000	220.76303	2.26487e-2			
		6	10.00000	449.91843	2.22263e-2			

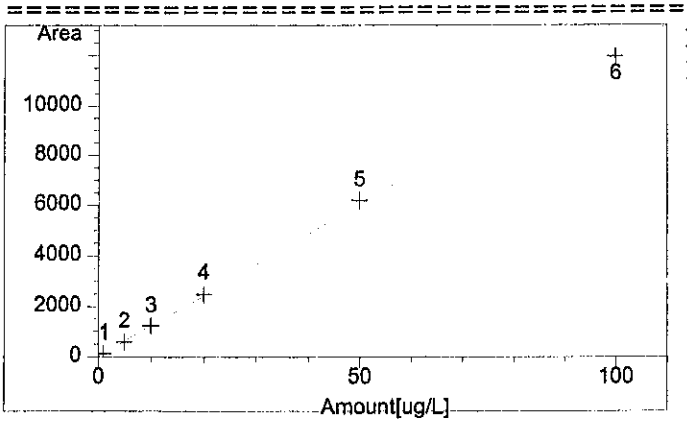
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.418	1	1	1.00000e-1	11.68998	8.55433e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.25381	8.73304e-3			
		3	1.00000	119.10960	8.39563e-3			
		4	2.00000	240.75162	8.30732e-3			
		5	5.00000	603.67468	8.28261e-3			
		6	10.00000	1230.57483	8.12628e-3			
23.266	2	1	1.00000e-1	7.56785	1.32138e-2			Chrysene #13
		2	5.00000e-1	30.82063	1.62229e-2			
		3	1.00000	63.84754	1.56623e-2			
		4	2.00000	129.65228	1.54259e-2			
		5	5.00000	324.23495	1.54209e-2			
		6	10.00000	658.83282	1.51784e-2			
23.280	1	1	1.00000e-1	2.35546	4.24546e-2			Chrysene #13
		2	5.00000e-1	11.91314	4.19705e-2			
		3	1.00000	24.15862	4.13931e-2			
		4	2.00000	49.60668	4.03171e-2			
		5	5.00000	123.50459	4.04843e-2			
		6	10.00000	251.15788	3.98156e-2			
25.984	2	1	1.00000e-1	4.71679	2.12008e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.19203	2.25306e-2			
		3	1.00000	43.42394	2.30288e-2			
		4	2.00000	94.69703	2.11200e-2			
		5	5.00000	236.61021	2.11318e-2			
		6	10.00000	480.16330	2.08262e-2			
26.003	1	1	1.00000e-1	5.60739	1.78336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.48360	1.81927e-2			
		3	1.00000	57.64073	1.73488e-2			
		4	2.00000	116.12308	1.72231e-2			
		5	5.00000	291.03116	1.71803e-2			
		6	10.00000	592.02631	1.68911e-2			
27.418	2	1	5.00000e-2	2.02281	2.47181e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.12679	2.46870e-2			
		3	5.00000e-1	21.38502	2.33809e-2			
		4	1.00000	43.30220	2.30935e-2			
		5	2.50000	108.54563	2.30318e-2			
		6	5.00000	220.91960	2.26327e-2			
27.438	1	1	5.00000e-2	16.96901	2.94655e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.42035	2.99687e-3			
		3	5.00000e-1	173.46057	2.88250e-3			
		4	1.00000	351.66119	2.84365e-3			
		5	2.50000	879.42432	2.84277e-3			
		6	5.00000	1779.80371	2.80930e-3			
28.535	2	1	1.00000e-1	3.59195	2.78400e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.33183	3.06151e-2			
		3	1.00000	36.80410	2.71709e-2			
		4	2.00000	74.00938	2.70236e-2			
		5	5.00000	188.39293	2.65403e-2			
		6	10.00000	385.66537	2.59292e-2			
28.553	1	1	1.00000e-1	19.68503	5.08000e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.54757	5.12570e-3			
		3	1.00000	203.09286	4.92386e-3			
		4	2.00000	412.69138	4.84624e-3			
		5	5.00000	1041.60461	4.80029e-3			
		6	10.00000	2128.17065	4.69887e-3			
30.399	2	1	1.00000e-1	8.17798e-1	1.22280e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.54521	1.10006e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.34522	9.66630e-2			
		4	2.00000	20.79541	9.61751e-2			
		5	5.00000	53.20811	9.39706e-2			
		6	10.00000	106.05376	9.42918e-2			
30.418	1	1	1.00000e-1	2.33135	4.28935e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.57100	4.32115e-2			
		3	1.00000	23.94359	4.17648e-2			
		4	2.00000	48.37633	4.13425e-2			
		5	5.00000	122.52839	4.08069e-2			
		6	10.00000	250.75458	3.98796e-2			
31.206	2	1	1.00000e-1	3.35385	2.98165e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.93342	5.59696e-2			
		3	1.00000	21.12121	4.73458e-2			
		4	2.00000	37.91122	5.27548e-2			
		5	5.00000	92.63392	5.39759e-2			
		6	10.00000	187.07765	5.34537e-2			
31.227	1	1	1.00000e-1	3.26803	3.05995e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.23036	3.08065e-2			
		3	1.00000	33.76281	2.96184e-2			
		4	2.00000	68.38602	2.92457e-2			
		5	5.00000	173.07938	2.88885e-2			
		6	10.00000	354.98242	2.81704e-2			
32.159	2	1	1.00000e-1	3.43245	2.91337e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.74642	2.41005e-2			
		3	1.00000	45.65535	2.19032e-2			
		4	2.00000	93.60317	2.13668e-2			
		5	5.00000	237.44170	2.10578e-2			
		6	10.00000	485.43732	2.06000e-2			
32.172	1	1	1.00000e-1	6.85877	1.45799e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.92362	1.51867e-2			
		3	1.00000	69.03428	1.44856e-2			
		4	2.00000	140.00281	1.42854e-2			
		5	5.00000	351.97876	1.42054e-2			
		6	10.00000	715.64252	1.39735e-2			

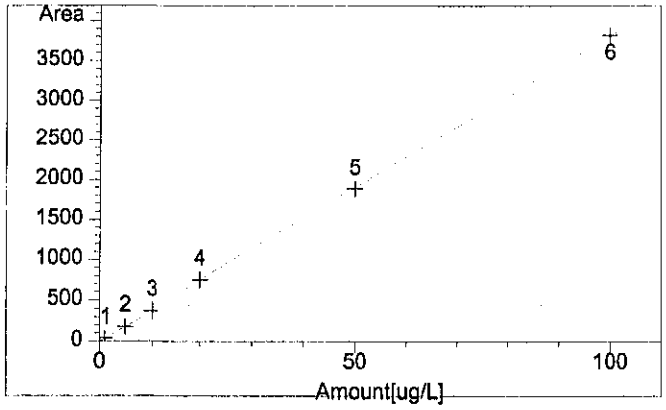
Peak Sum Table

No Entries in table

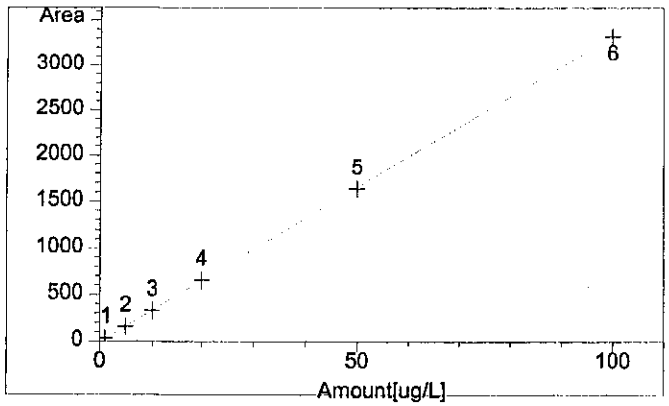
Calibration Curves



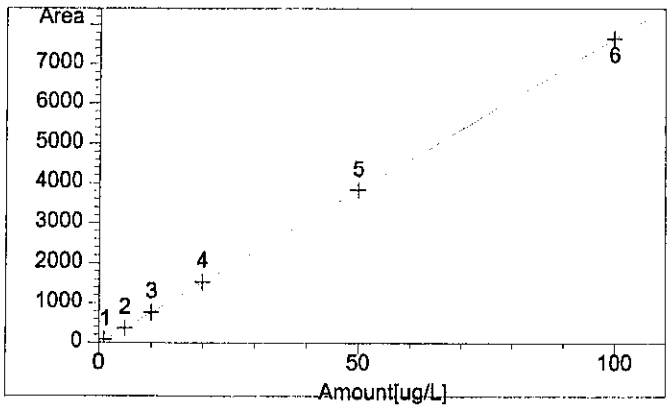
Naphthalene #1 at exp. RT: 9.335
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 90.64647
Formula: y = mx + b
m: 120.00596
b: 37.21961
x: Amount [ug/L]
y: Area



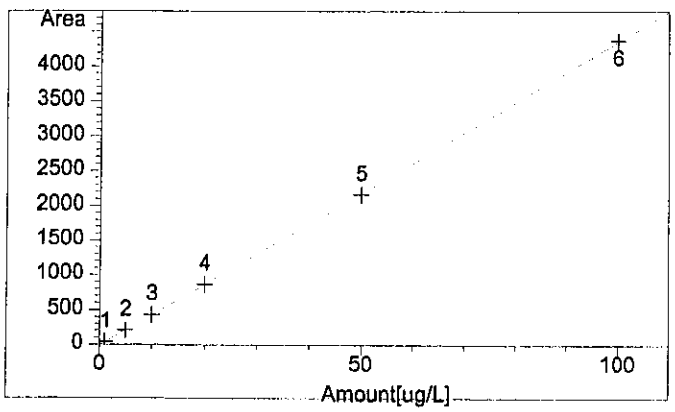
Naphthalene #1 at exp. RT: 9.353
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 9.16561
Formula: y = mx + b
m: 38.17339
b: -8.08139
x: Amount[ug/L]
y: Area



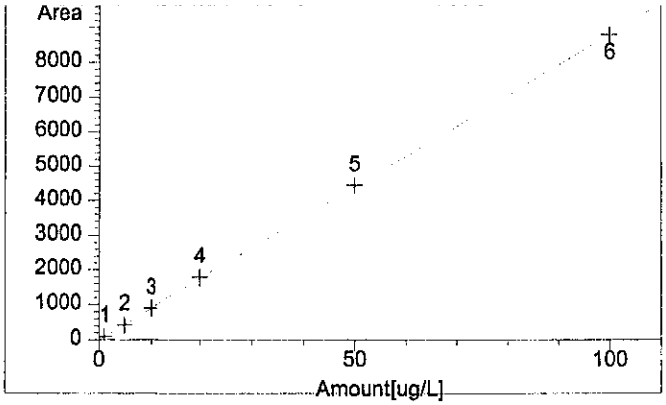
Acenaphthylene #2 at exp. RT: 10.959
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 8.09380
Formula: y = mx + b
m: 33.19524
b: -5.69815
x: Amount[ug/L]
y: Area



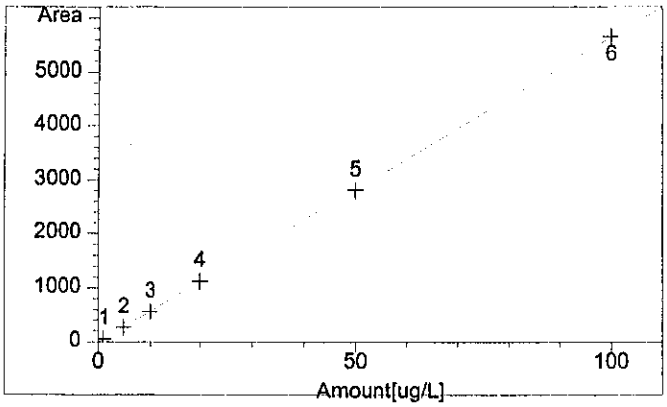
1-Methylnaphthalene #3 at exp. RT: 11.906
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 1.00000
Residual Std. Dev.: 7.81901
Formula: y = mx + b
m: 76.58082
b: -4.90862
x: Amount[ug/L]
y: Area



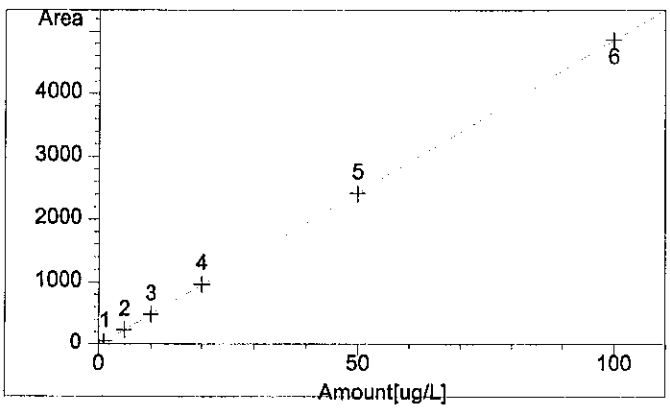
1-Methylnaphthalene #3 at exp. RT: 11.924
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 7.54227
Formula: y = mx + b
m: 43.63739
b: -7.34061
x: Amount[ug/L]
y: Area



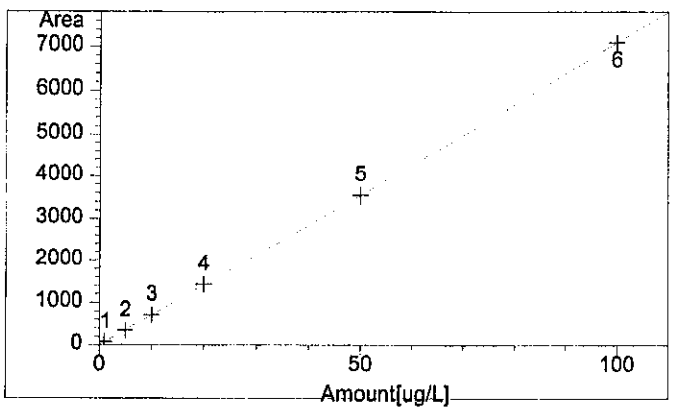
2-Methylnaphthalene #4 at exp. RT: 12.479
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 25.91757
Formula: y = mx + b
m: 87.84855
b: 9.24548
x: Amount[ug/L]
y: Area



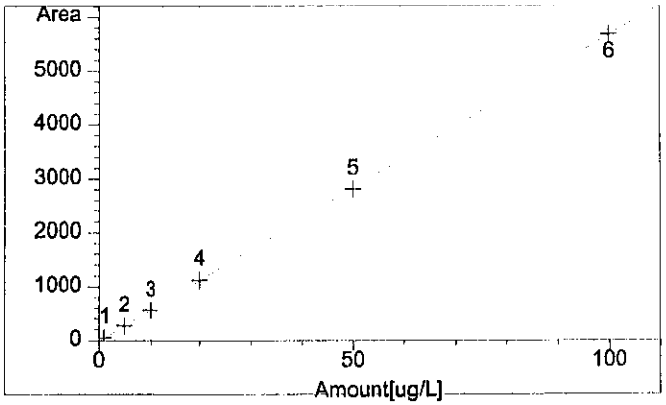
2-Methylnaphthalene #4 at exp. RT: 12.497
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.96731
Formula: y = mx + b
m: 56.55348
b: -7.14867
x: Amount[ug/L]
y: Area



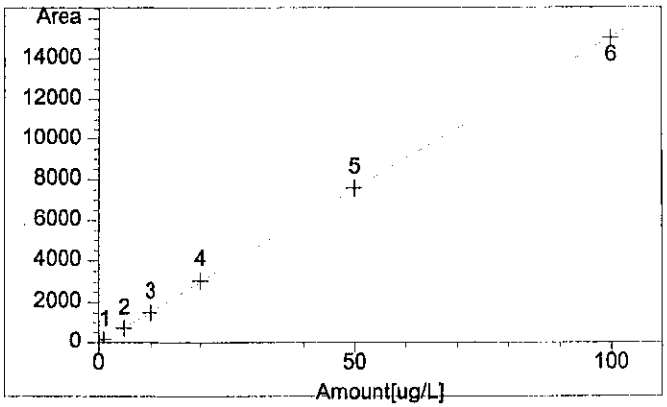
Acenaphthene #5 at exp. RT: 12.956
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 6.84725
Formula: y = mx + b
m: 48.60673
b: -6.18160
x: Amount[ug/L]
y: Area



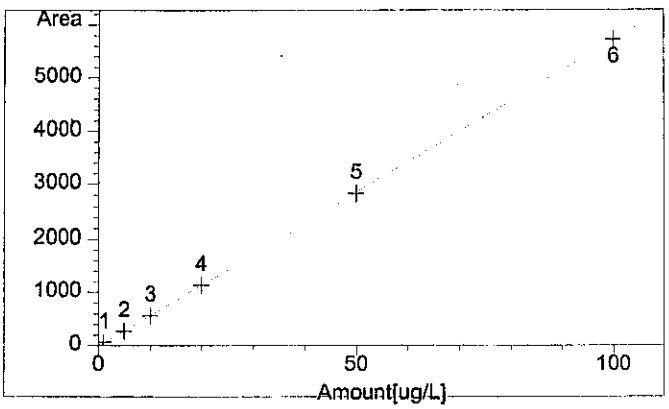
Acenaphthene #5 at exp. RT: 12.974
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 7.82229
Formula: y = mx + b
m: 70.98815
b: -2.88099
x: Amount[ug/L]
y: Area



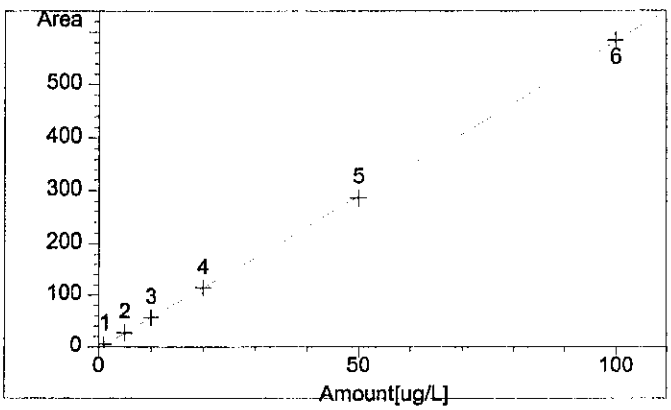
Fluorene #6 at exp. RT: 13.606
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.05830
Formula: y = mx + b
m: 56.65678
b: -9.39024
x: Amount [ug/L]
y: Area



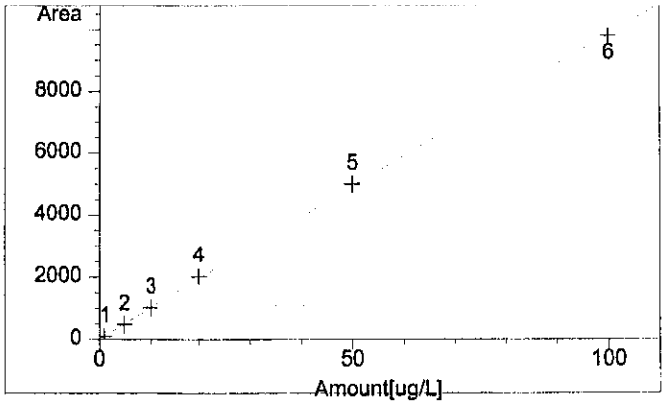
Fluorene #6 at exp. RT: 13.625
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 39.83191
Formula: y = mx + b
m: 150.39549
b: 14.97901
x: Amount [ug/L]
y: Area



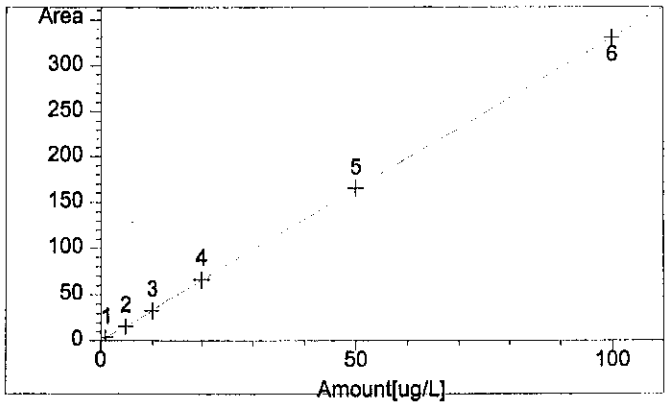
Phenanthrene #7 at exp. RT: 14.988
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.76481
Formula: y = mx + b
m: 57.17977
b: -7.01003
x: Amount [ug/L]
y: Area



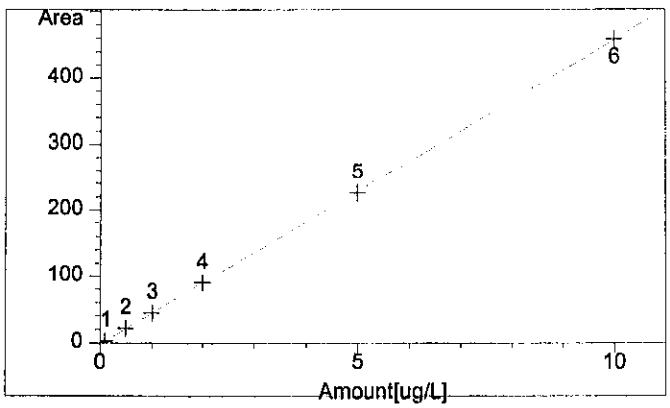
Phenanthrene #7 at exp. RT: 15.006
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 2.20575
Formula: y = mx + b
m: 5.83768
b: -1.83622
x: Amount [ug/L]
y: Area



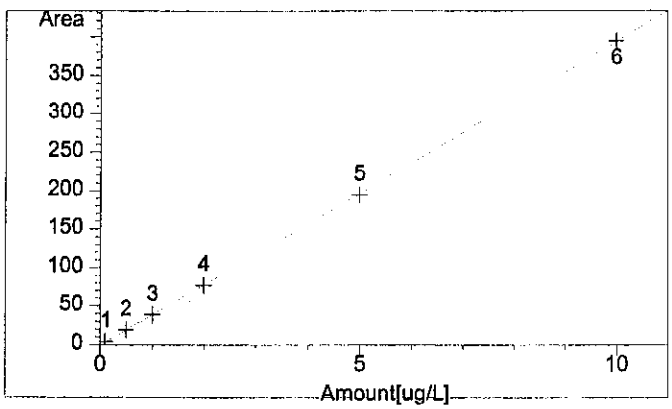
Anthracene #8 at exp. RT: 16.387
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 47.43795
Formula: y = mx + b
m: 97.94194
b: 20.51670
x: Amount [ug/L]
y: Area



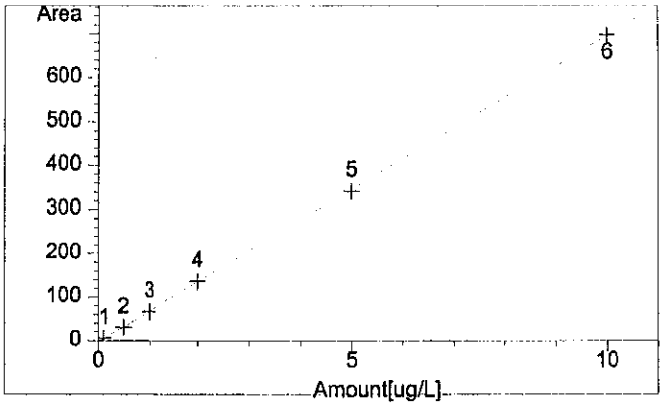
Anthracene #8 at exp. RT: 16.405
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 0.34234
Formula: y = mx + b
m: 3.30779
b: -9.27632e-2
x: Amount [ug/L]
y: Area



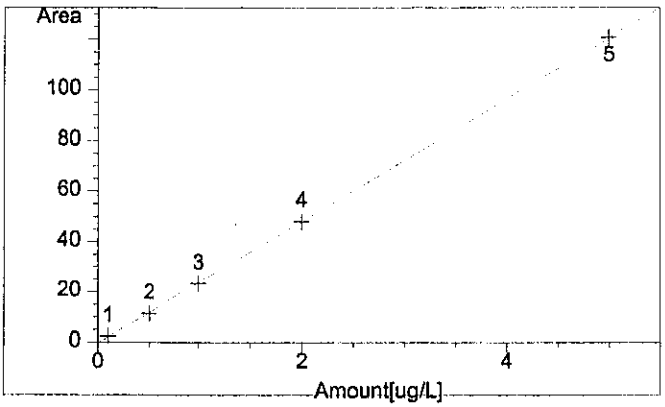
Fluoranthene #9 at exp. RT: 17.762
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 1.25331
Formula: y = mx + b
m: 45.86610
b: -1.45201
x: Amount [ug/L]
y: Area



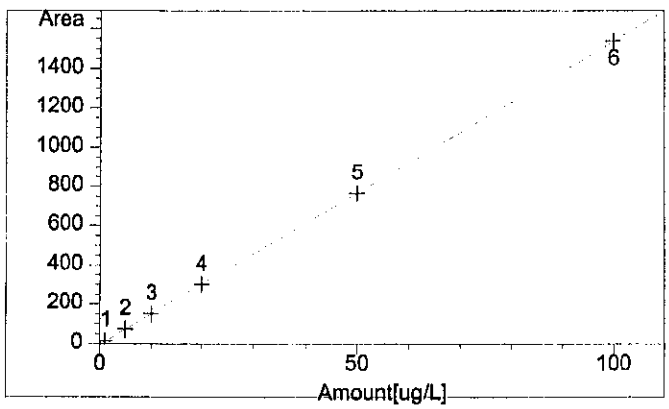
Fluoranthene #9 at exp. RT: 17.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.03650
Formula: y = mx + b
m: 39.47219
b: -8.93275e-1
x: Amount [ug/L]
y: Area



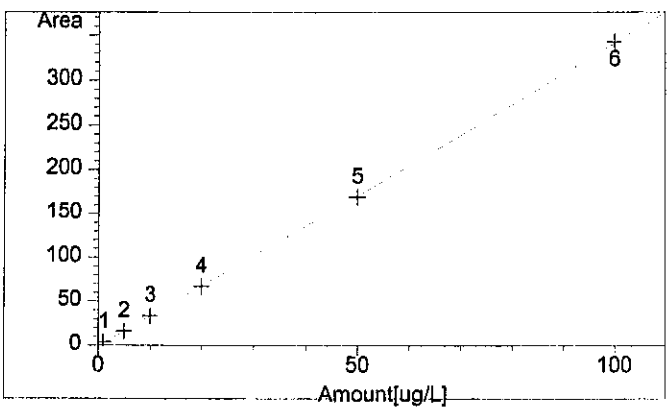
Pyrene #10 at exp. RT: 18.761
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.45753
Formula: y = mx + b
m: 69.71068
b: -2.37968
x: Amount[ug/L]
y: Area



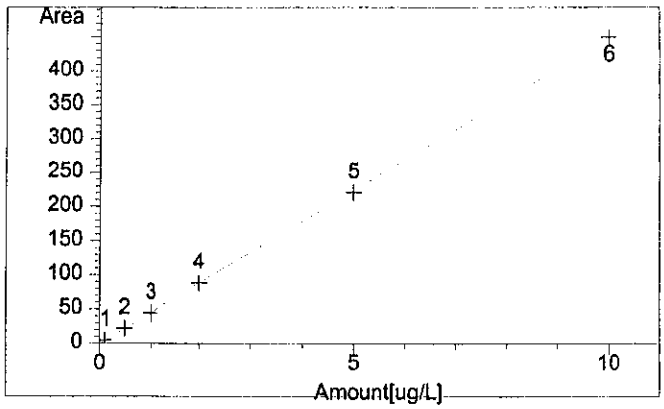
Pyrene #10 at exp. RT: 18.779
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.33832
Formula: y = mx + b
m: 24.18326
b: -3.63256e-1
x: Amount[ug/L]
y: Area



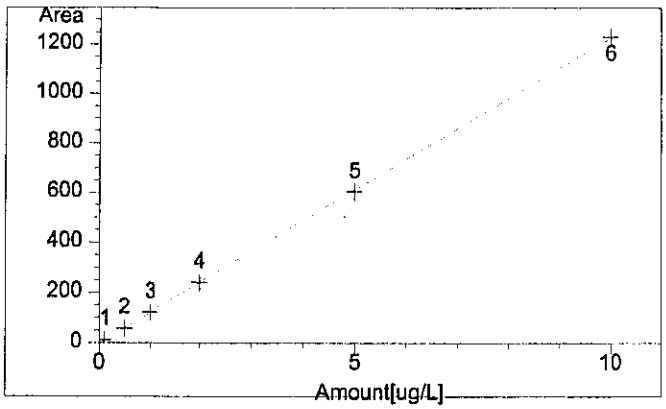
p-Terphenyl d14 #11* at exp. RT: 21.086
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.33106
Formula: y = mx + b
m: 15.40471
b: -3.10922
x: Amount[ug/L]
y: Area



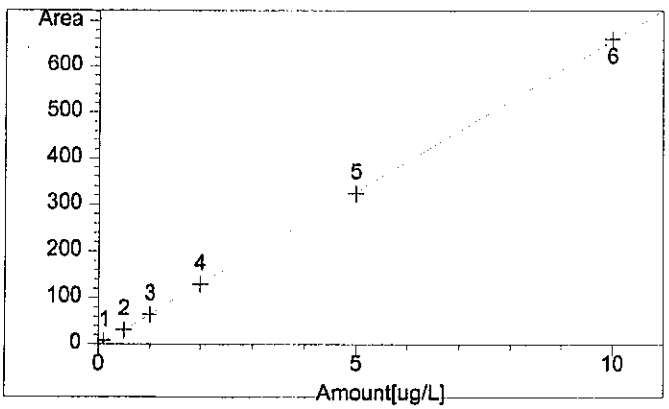
p-Terphenyl d14 #11* at exp. RT: 21.105
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.94806
Formula: y = mx + b
m: 3.42244
b: -8.04824e-1
x: Amount[ug/L]
y: Area



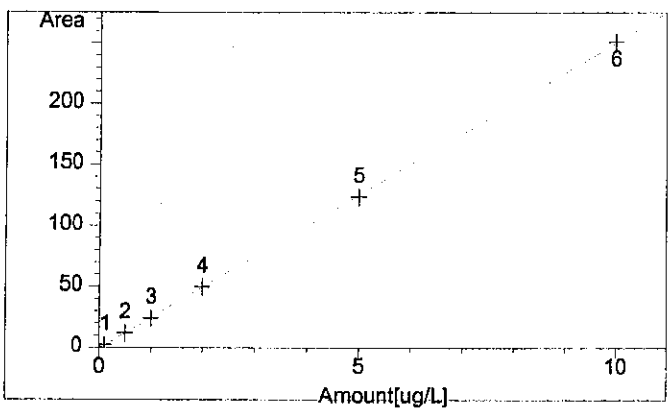
Benzo(a)anthracene #12 at exp. RT: 22.401
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 1.60319
Formula: y = mx + b
m: 44.95295
b: -1.14196
x: Amount [ug/L]
y: Area



Benzo(a)anthracene #12 at exp. RT: 22.418
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 4.52026
Formula: y = mx + b
m: 122.97900
b: -3.47928
x: Amount [ug/L]
y: Area

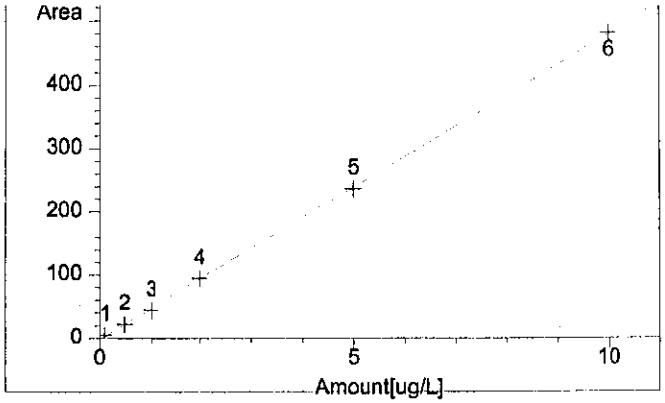


Chrysene #13 at exp. RT: 23.266
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 2.23172
Formula: y = mx + b
m: 65.81764
b: -1.32173
x: Amount [ug/L]
y: Area

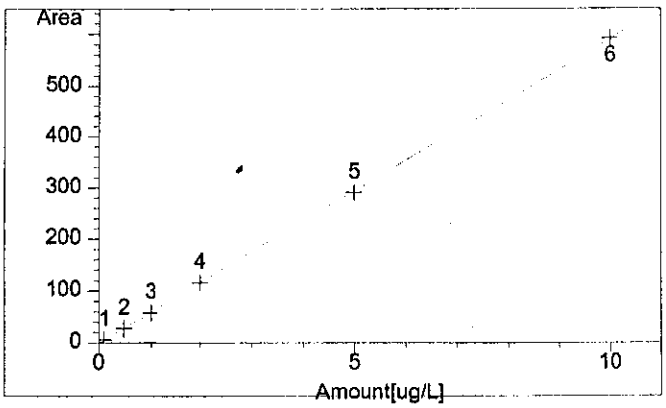


Chrysene #13 at exp. RT: 23.280
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 0.79966
Formula: y = mx + b
m: 25.10251
b: -6.01486e-1
x: Amount [ug/L]
y: Area

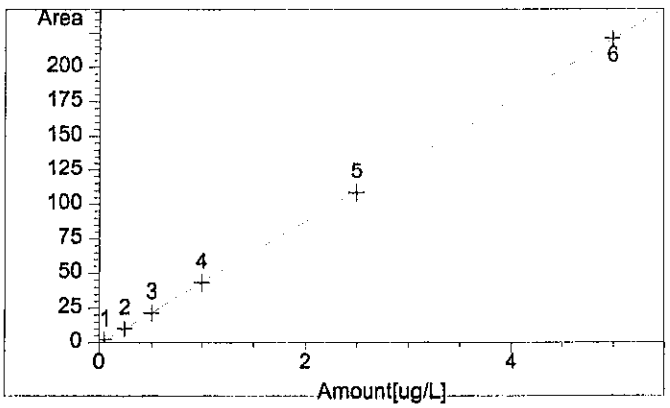
326



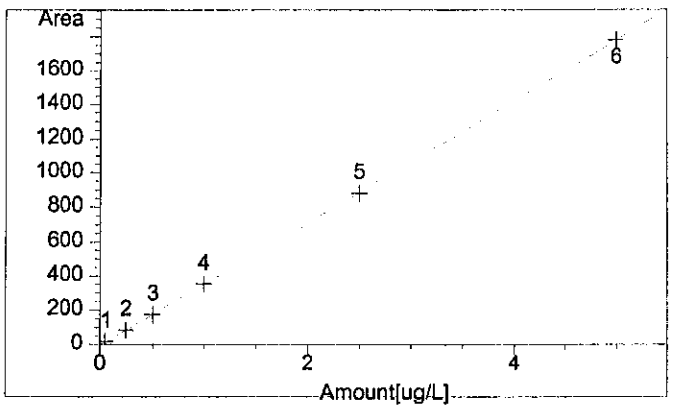
Benzo(b)fluoranthene #14 at exp. RT: 25.9
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.98687
Formula: y = mx + b
m: 48.07187
b: -1.76192
x: Amount[ug/L]
y: Area



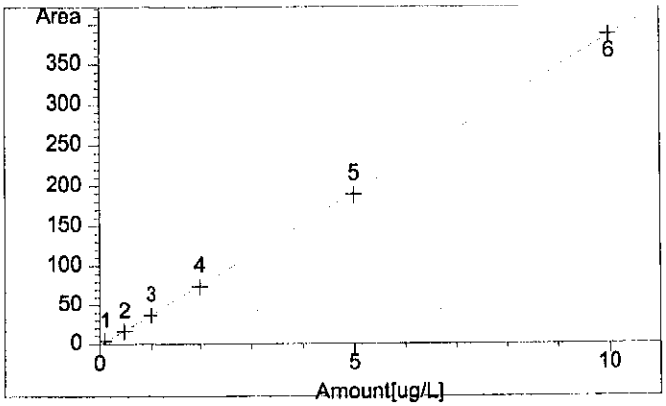
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.94362
Formula: y = mx + b
m: 59.17522
b: -1.53526
x: Amount[ug/L]
y: Area



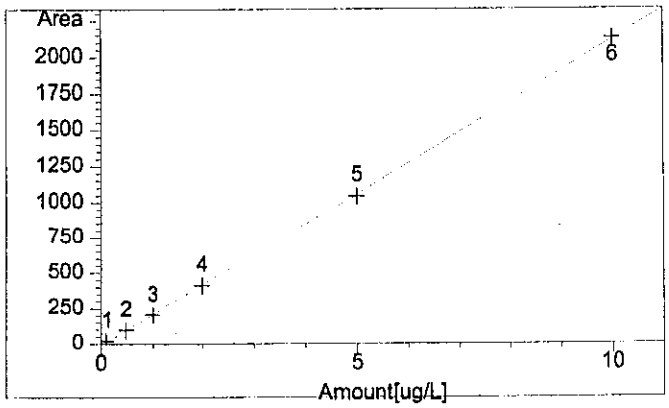
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 0.74646
Formula: y = mx + b
m: 44.17713
b: -6.49330e-1
x: Amount[ug/L]
y: Area



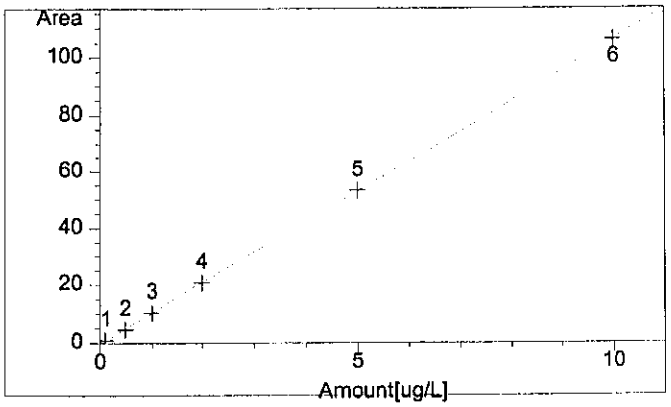
Benzo(k)fluoranthene #15 at exp. RT: 27.4
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 4.14920
Formula: y = mx + b
m: 355.95834
b: -3.66763
x: Amount[ug/L]
y: Area



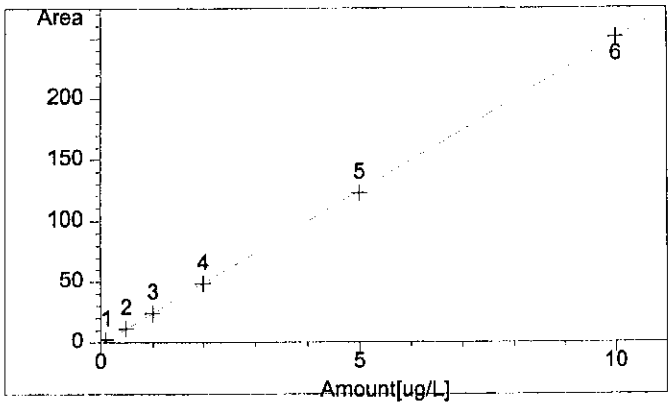
Benzo(a)pyrene #16 at exp. RT: 28.535
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 1.94176
Formula: y = mx + b
m: 38.58652
b: -1.84481
x: Amount [ug/L]
y: Area



Benzo(a)pyrene #16 at exp. RT: 28.553
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.01693
Formula: y = mx + b
m: 212.75704
b: -7.78412
x: Amount [ug/L]
y: Area

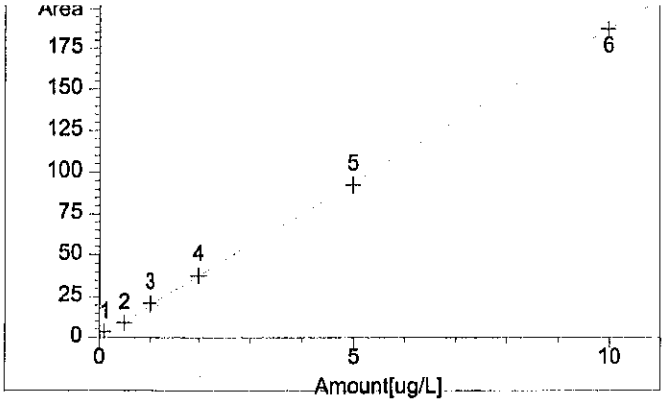


Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 0.29835
Formula: y = mx + b
m: 10.64723
b: -3.24711e-1
x: Amount [ug/L]
y: Area

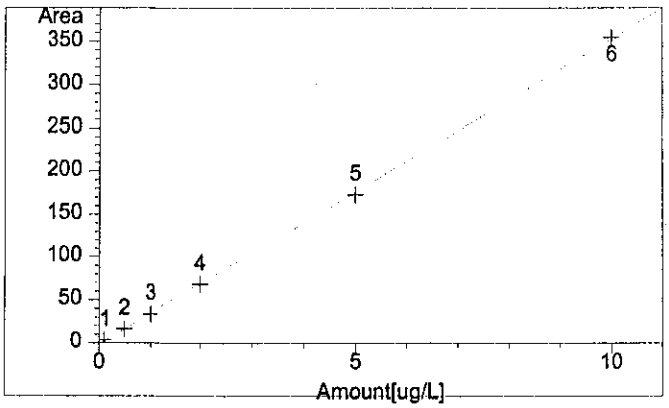


Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.15752
Formula: y = mx + b
m: 25.06189
b: -9.49414e-1
x: Amount [ug/L]
y: Area

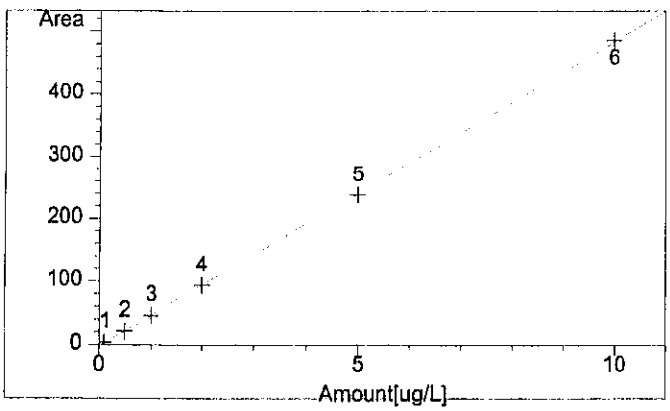
328



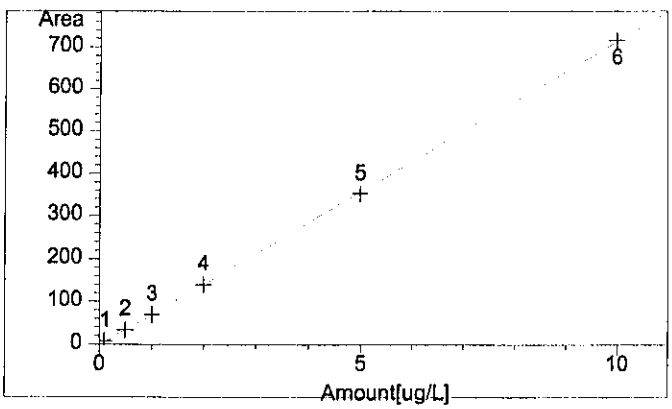
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 1.17004
Formula: y = mx + b
m: 18.59234
b: 7.44819e-1
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 1.77276
Formula: y = mx + b
m: 35.47662
b: -1.45086
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: 0.99994
Residual Std. Dev.: 2.14429
Formula: y = mx + b
m: 48.61738
b: -2.56671
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: 0.99997
Residual Std. Dev.: 2.36150
Formula: y = mx + b
m: 71.55789
b: -2.07657
x: Amount[ug/L]
y: Area

==========

1,1 SOS58-26 LEVEL 6 SURROGATE @ 100 ppm

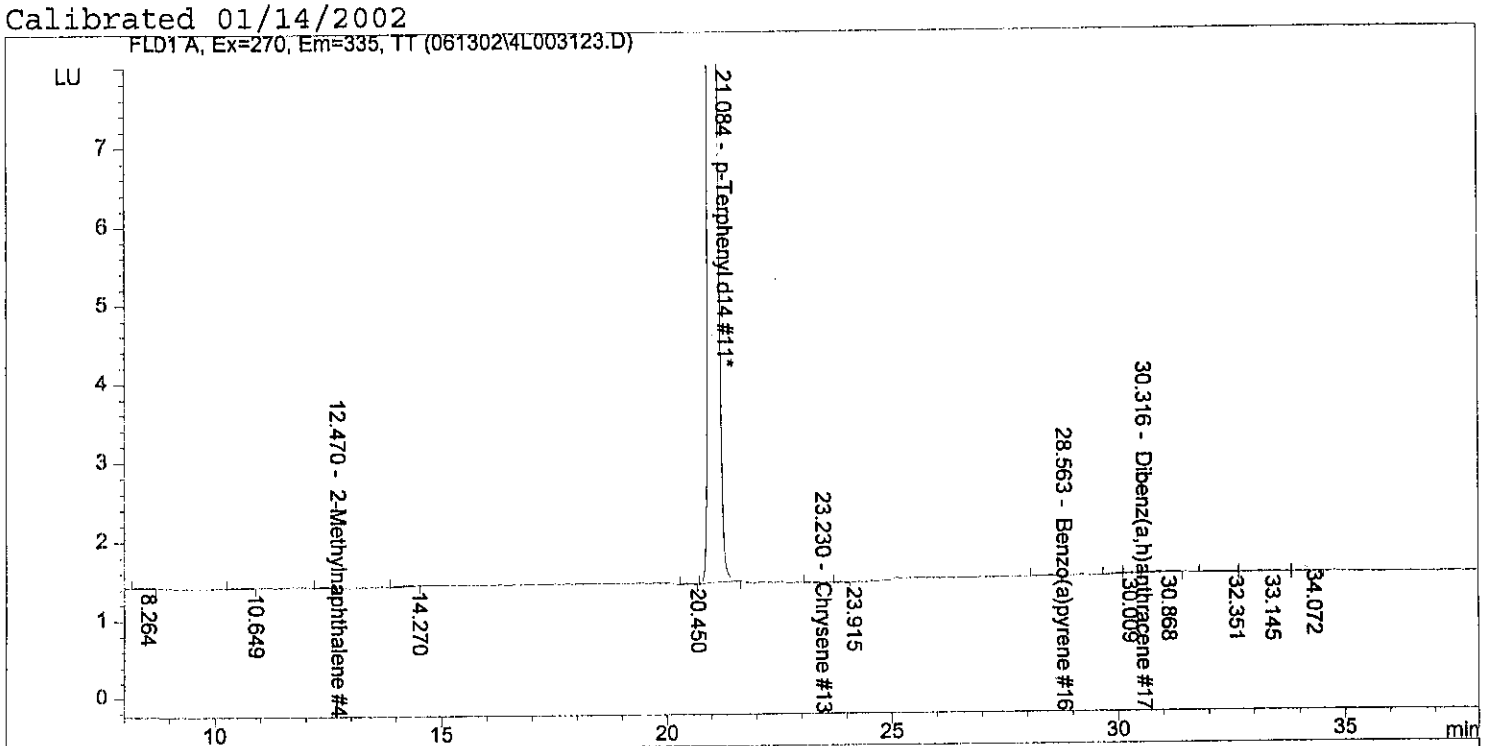
==========

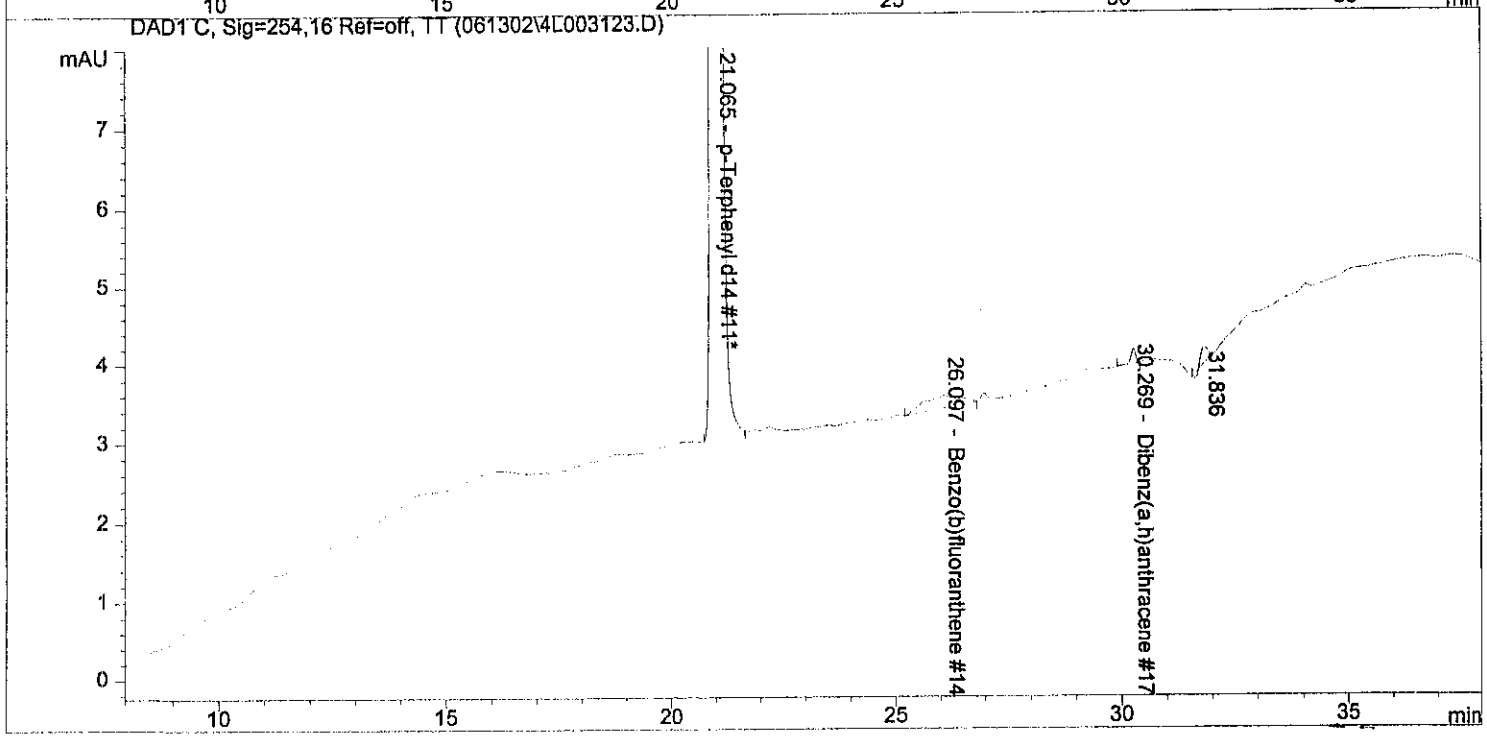
Injection Date : 6/13/2002 10:05:00 PM
Sample Name : WG119840-01 STD6
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:03:08 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:02:42 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
9.342		-	-	-		Naphthalene #1
11.908		-	-	-		1-Methylnaphthalene #3
12.470	BBA	1.78080e-1	1.76307e-2	3.13969e-3		2-Methylnaphthalene #4
12.960		-	-	-		Acenaphthene #5
13.611		-	-	-		Fluorene #6
14.992		-	-	-		Phenanthrene #7
16.391		-	-	-		Anthracene #8
17.765		-	-	-		Fluoranthene #9
18.766		-	-	-		Pyrene #10
21.084	BBA	342.27563	2.91938e-1	99.92331		p-Terphenyl d14 #11*
22.412		-	-	-		Benzo(a)anthracene #12
23.230	BB	1.49638e-1	3.98605e-2	5.96463e-3		Chrysene #13
25.992		-	-	-		Benzo(b)fluoranthene #14
27.434		-	-	-		Benzo(k)fluoranthene #15
28.563	BBA	2.31745e-1	4.72512e-3	1.09502e-3		Benzo(a)pyrene #16
30.316	BB	2.11069e-1	4.00249e-2	8.44802e-3		Dibenz(a,h)anthracene #17
31.216		-	-	-		Benzo(g,h,i)perylene #18
32.167		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 99.94195

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
9.322		-	-	-		Naphthalene #1
10.943		-	-	-		Acenaphthylene #2
11.889		-	-	-		1-Methylnaphthalene #3
12.462		-	-	-		2-Methylnaphthalene #4
12.940		-	-	-		Acenaphthene #5
13.590		-	-	-		Fluorene #6
14.972		-	-	-		Phenanthrene #7
16.371		-	-	-		Anthracene #8
17.745		-	-	-		Fluoranthene #9
18.745		-	-	-		Pyrene #10
21.065	PBA	1538.62390	6.50759e-2	100.12728		p-Terphenyl d14 #11*
22.392		-	-	-		Benzo(a)anthracene #12
23.257		-	-	-		Chrysene #13
26.097	PB	8.94292	2.09236e-2	1.87118e-1		Benzo(b)fluoranthene #14
27.413		-	-	-		Benzo(k)fluoranthene #15
28.530		-	-	-		Benzo(a)pyrene #16
30.269	BBA	1.42871	9.44938e-2	1.35004e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.195		-	-	-		Benzo(g,h,i)perylene #18
32.144		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.44940

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 SOS59-38 LEVEL 6 STD @ 100/10/5 ppm

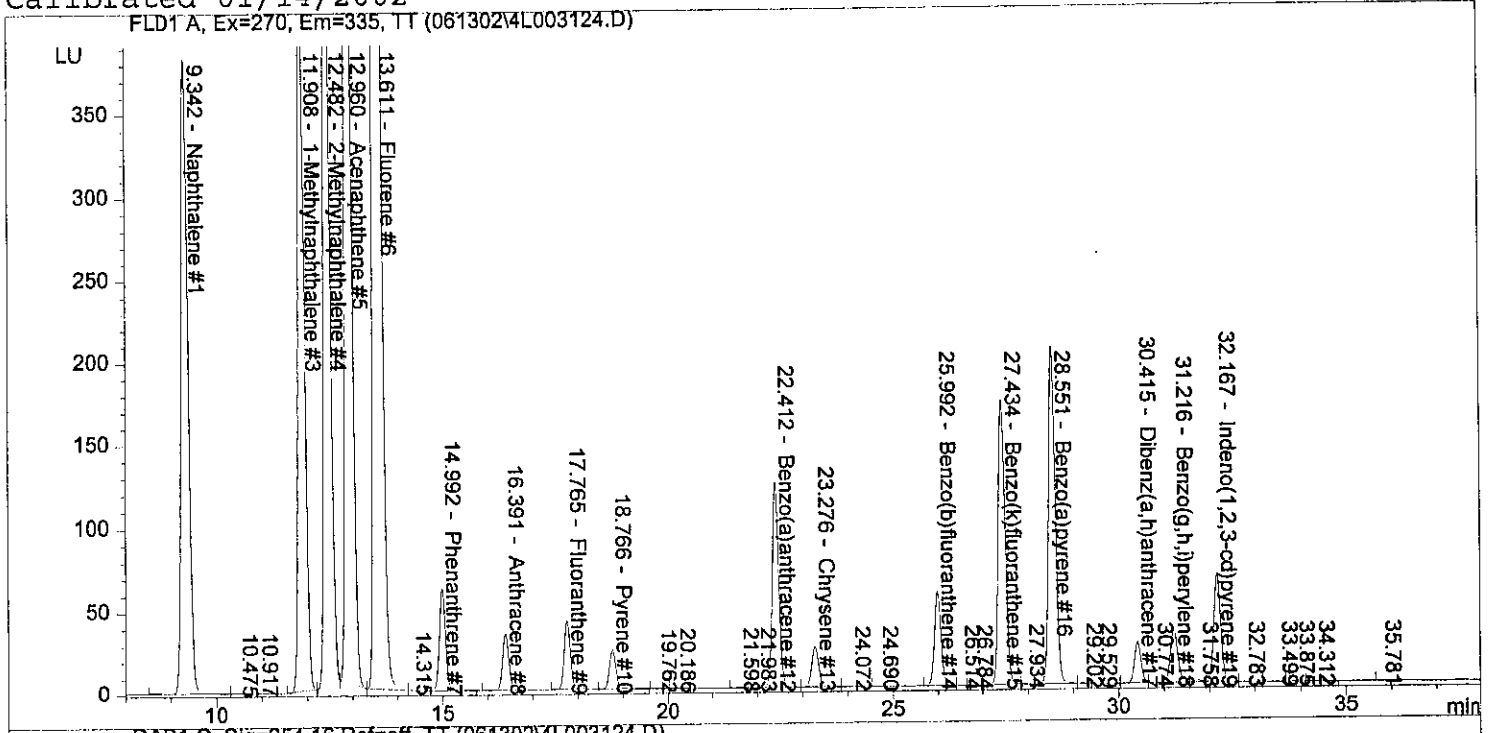
==========

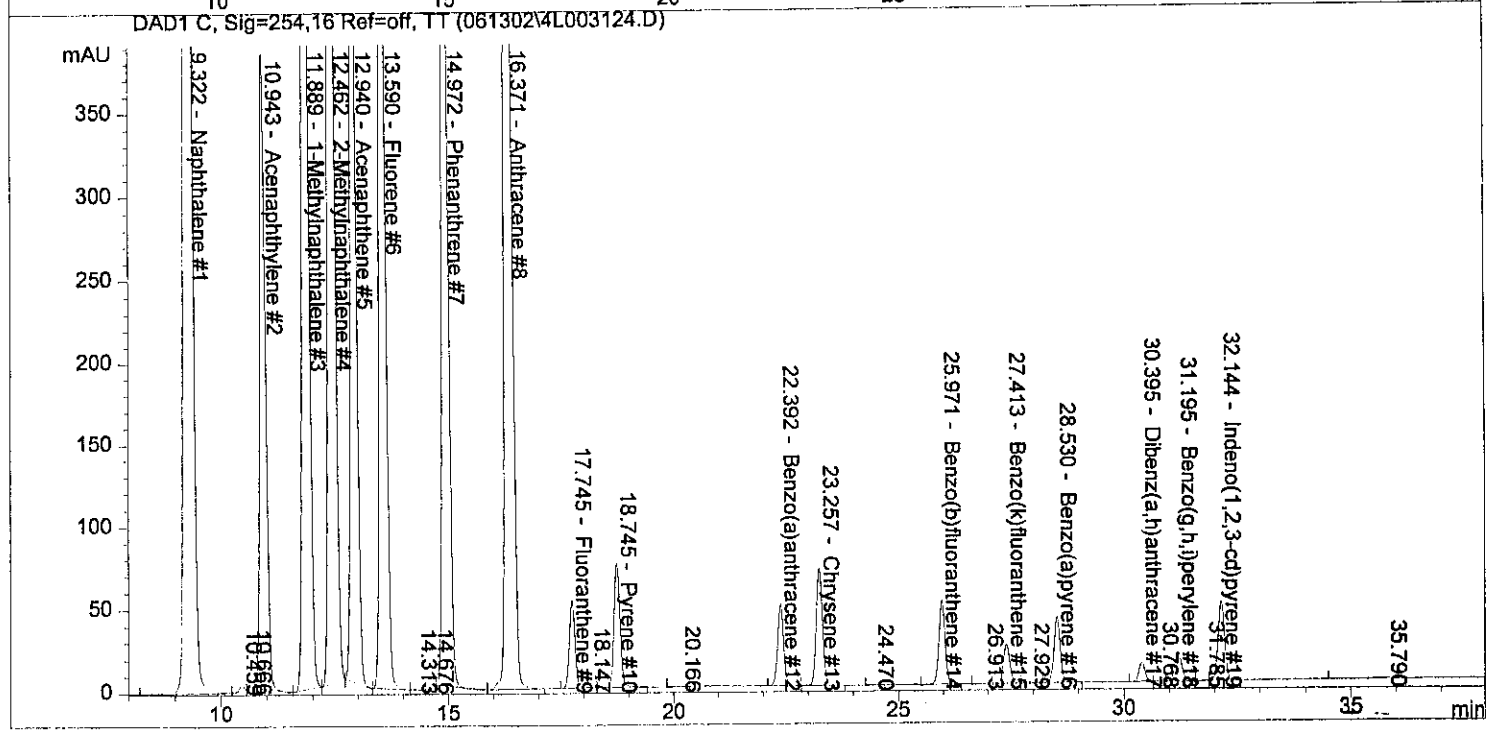
Injection Date : 6/13/2002 11:01:38 PM
Sample Name : WG119840-02 STD6
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:02:46 AM by RDC
(modified after loading)

Calibrated 01/14/2002





333

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:02:42 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
9.342	BB	3817.44727	2.61760e-2	99.92567		Naphthalene #1
11.908	BB	4362.68555	2.28929e-2	99.87447		1-Methylnaphthalene #3
12.482	BB	5651.09082	1.76307e-2	99.63297		2-Methylnaphthalene #4
12.960	BB	7092.07813	1.40500e-2	99.64367		Acenaphthene #5
13.611	BB	1.50207e4	6.62709e-3	99.54381		Fluorene #6
14.992	BBA	583.99371	1.71696e-1	100.26935		Phenanthrene #7
16.391	PB	330.63736	3.03302e-1	100.28311		Anthracene #8
17.765	BB	394.78314	2.51141e-2	9.91464		Fluoranthene #9
18.766	BBA	245.93037	4.06594e-2	9.99938		Pyrene #10
21.084		-	-	-		p-Terphenyl d14 #11*
22.412	BB	1230.57483	8.13570e-3	10.01159		Benzo(a)anthracene #12
23.276	BB	251.15788	3.98605e-2	10.01128		Chrysene #13
25.992	BB	592.02631	1.69028e-2	10.00692		Benzo(b)fluoranthene #14
27.434	BB	1779.80371	2.81213e-3	5.00504		Benzo(k)fluoranthene #15
28.551	BB	2128.17065	4.72512e-3	10.05586		Benzo(a)pyrene #16
30.415	BB	250.75458	4.00249e-2	10.03642		Dibenz(a,h)anthracene #17
31.216	BB	354.98242	2.81184e-2	9.98154		Benzo(g,h,i)perylene #18
32.167	BB	715.64252	1.39865e-2	10.00935		Indeno(1,2,3-cd)pyrene #1
Totals :				794.20506		

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
9.322	BB	1.19505e4	8.30314e-3	99.22712		Naphthalene #1
10.943	BB	3321.14795	3.02035e-2	100.31018		Acenaphthylene #2
11.889	BB	7652.24854	1.30763e-2	100.06281		1-Methylnaphthalene #3
12.462	BB	8770.67480	1.13600e-2	99.63456		2-Methylnaphthalene #4
12.940	BB	4859.52686	2.05944e-2	100.07911		Acenaphthene #5
13.590	BB	5664.78320	1.77273e-2	100.42143		Fluorene #6
14.972	BB	5720.03760	1.75290e-2	100.26666		Phenanthrene #7
16.371	BBA	9770.11133	1.02038e-2	99.69273		Anthracene #8
17.745	PB	458.29434	2.19487e-2	10.05898		Fluoranthene #9
18.745	BBA	696.78912	1.44782e-2	10.08825		Pyrene #10
21.065		-	-	-		p-Terphenyl d14 #11*
22.392	BB	449.91843	2.23535e-2	10.05727		Benzo(a)anthracene #12
23.257	BBA	658.83282	1.52615e-2	10.05477		Chrysene #13
25.971	BBA	480.16330	2.09236e-2	10.04676		Benzo(b)fluoranthene #14
27.413	BB	220.91960	2.27584e-2	5.02779		Benzo(k)fluoranthene #15
28.530	BB	385.66537	2.62367e-2	10.11860		Benzo(a)pyrene #16
30.395	PB	106.05376	9.44938e-2	10.02142		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.195	BB	187.07765	5.37764e-2	10.06036		Benzo(g,h,i)perylene #18
32.144	BB	485.43732	2.07205e-2	10.05852		Indeno(1,2,3-cd)pyrene #1

Totals : 895.28732

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 5 STD @ 50/50/2.5 ppm

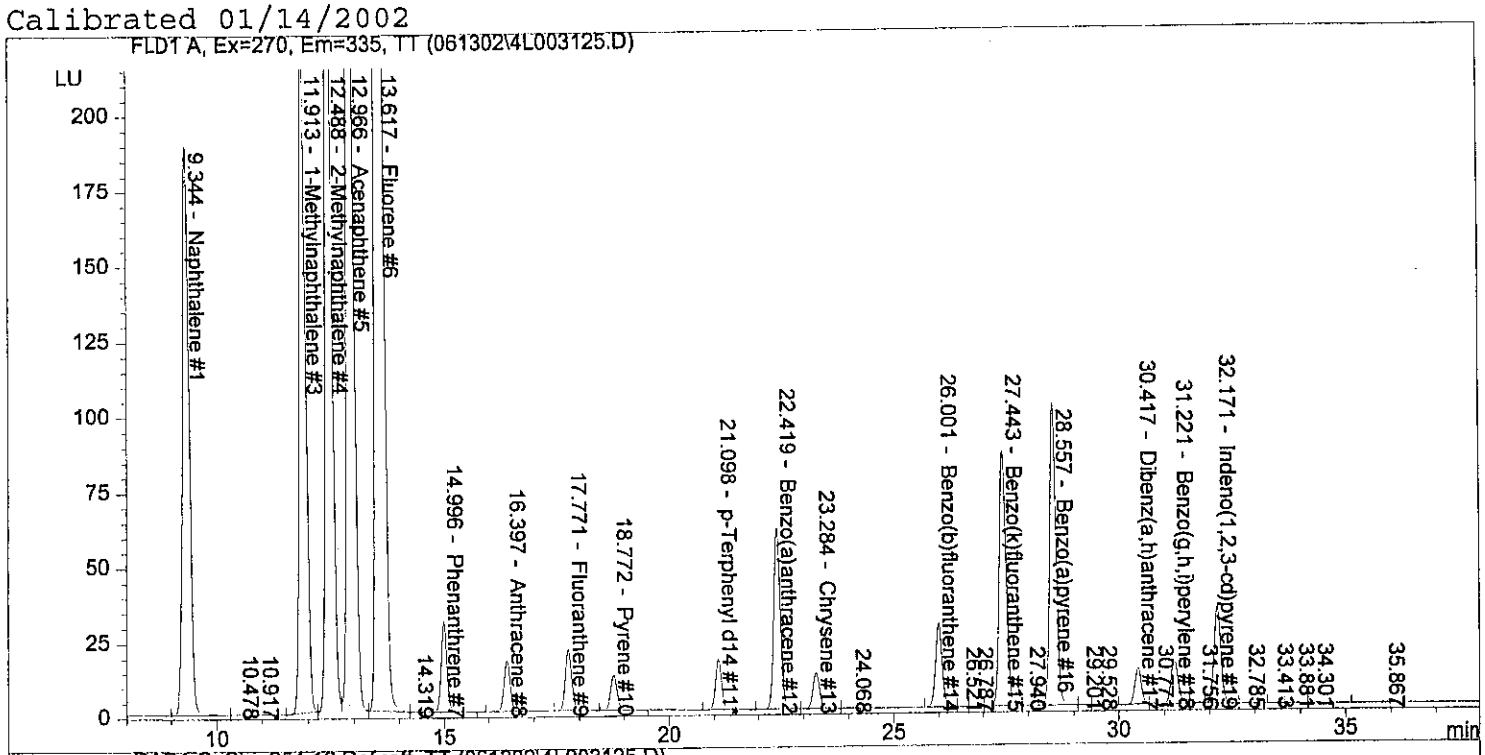
==========

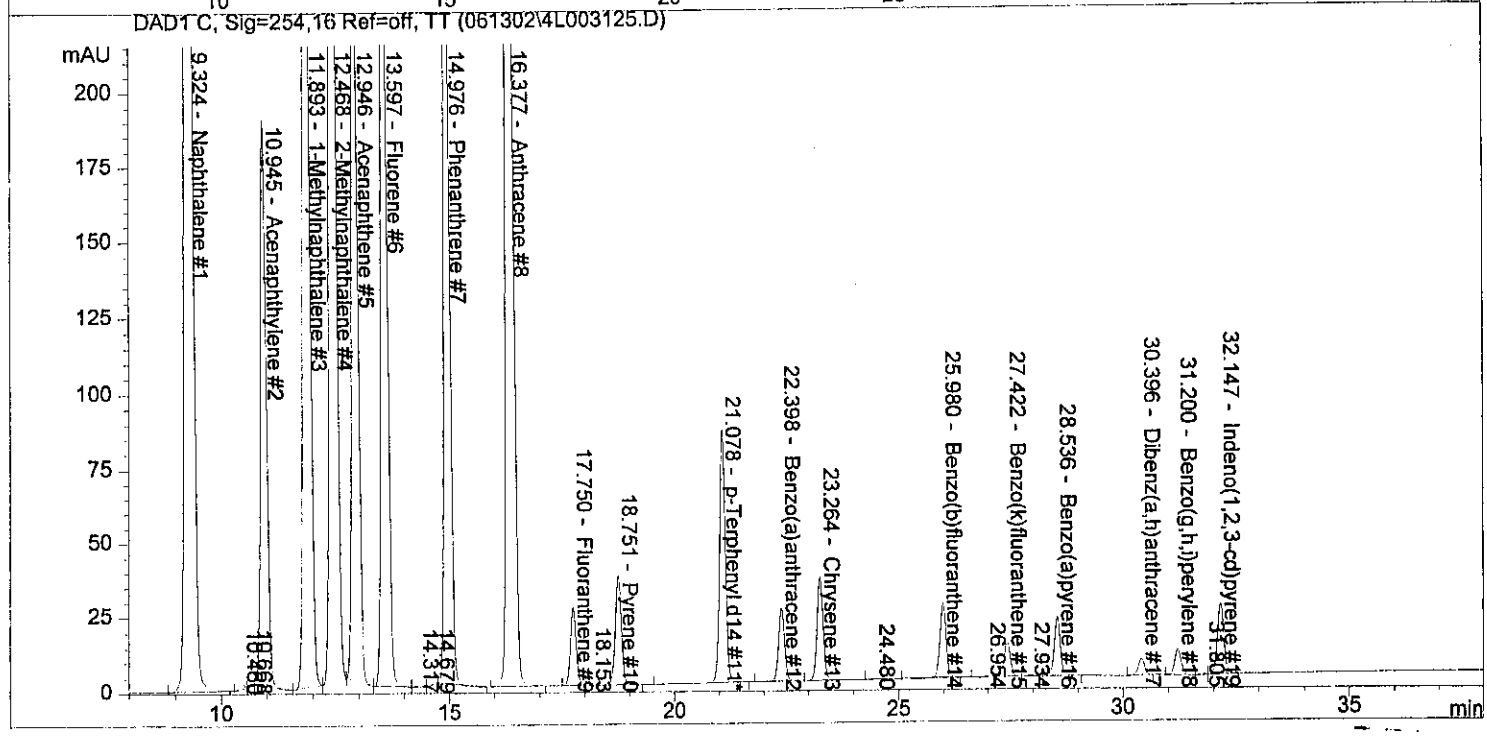
Injection Date : 6/13/2002 11:58:14 PM
Sample Name : WG119840-03 STD5
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:03:45 AM by RDC
(modified after loading)

Calibrated 01/14/2002





336

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:03:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.344	BB	1885.17432	2.62620e-2	49.50850		Naphthalene #1
11.913	BB	2162.71216	2.29604e-2	49.65673		1-Methylnaphthalene #3
12.488	BB	2815.32397	1.76997e-2	49.83046		2-Methylnaphthalene #4
12.966	BB	3551.90137	1.40873e-2	50.03685		Acenaphthene #5
13.617	BB	7586.48193	6.63786e-3	50.35801		Fluorene #6
14.996	BBA	286.42151	1.72041e-1	49.27616		Phenanthrene #7
16.397	PB	165.24231	3.02535e-1	49.99152		Anthracene #8
17.771	PB	194.82120	2.53682e-2	4.94227		Fluoranthene #9
18.772	BBA	120.60387	4.14587e-2	5.00008		Pyrene #10
21.098	BB	168.95605	2.93088e-1	49.51891		p-Terphenyl d14 #11*
22.419	BB	603.67468	8.16153e-3	4.92691		Benzo(a)anthracene #12
23.284	BB	123.50459	3.99703e-2	4.93651		Chrysene #13
26.001	BB	291.03116	1.69547e-2	4.93435		Benzo(b)fluoranthene #14
27.443	BB	879.42432	2.81705e-3	2.47738		Benzo(k)fluoranthene #15
28.557	BB	1041.60461	4.72555e-3	4.92215		Benzo(a)pyrene #16
30.417	BB	122.52839	4.01053e-2	4.91403		Dibenz(a,h)anthracene #17
31.221	BB	173.07938	2.83215e-2	4.90187		Benzo(g,h,i)perylene #18
32.171	BB	351.97876	1.40258e-2	4.93679		Indeno(1,2,3-cd)pyrene #1

Totals : 445.06949

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
9.324	BBA	6195.70996	8.29589e-3	51.39892		Naphthalene #1
10.945	BB	1639.64368	3.02076e-2	49.52967		Acenaphthylene #2
11.893	BB	3823.69092	1.30729e-2	49.98657		1-Methylnaphthalene #3
12.468	BB	4440.55420	1.13665e-2	50.47341		2-Methylnaphthalene #4
12.946	BB	2413.63843	2.06106e-2	49.74644		Acenaphthene #5
13.597	BB	2806.76538	1.77008e-2	49.68200		Fluorene #6
14.976	BBA	2834.24902	1.75238e-2	49.66678		Phenanthrene #7
16.377	BBA	4994.17480	1.01861e-2	50.87104		Anthracene #8
17.750	PB	225.76083	2.19135e-2	4.94721		Fluoranthene #9
18.751	BBA	342.14008	1.44277e-2	4.93629		Pyrene #10
21.078	PBA	765.97974	6.51146e-2	49.87647		p-Terphenyl d14 #11*
22.398	BBA	220.76303	2.23358e-2	4.93093		Benzo(a)anthracene #12
23.264	BBA	324.23495	1.52455e-2	4.94313		Chrysene #13
25.980	PBA	236.61021	2.09101e-2	4.94754		Benzo(b)fluoranthene #14
27.422	BB	108.54563	2.27278e-2	2.46701		Benzo(k)fluoranthene #15
28.536	BBA	188.39293	2.61148e-2	4.91985		Benzo(a)pyrene #16
30.396	PB	53.20811	9.42831e-2	5.01662		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.200	BB	92.63392	5.36167e-2	4.96672		Benzo(g,h,i)perylene #18
32.147	BBA	237.44170	2.07228e-2	4.92046		Indeno(1,2,3-cd)pyrene #1

Totals : 498.22705

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

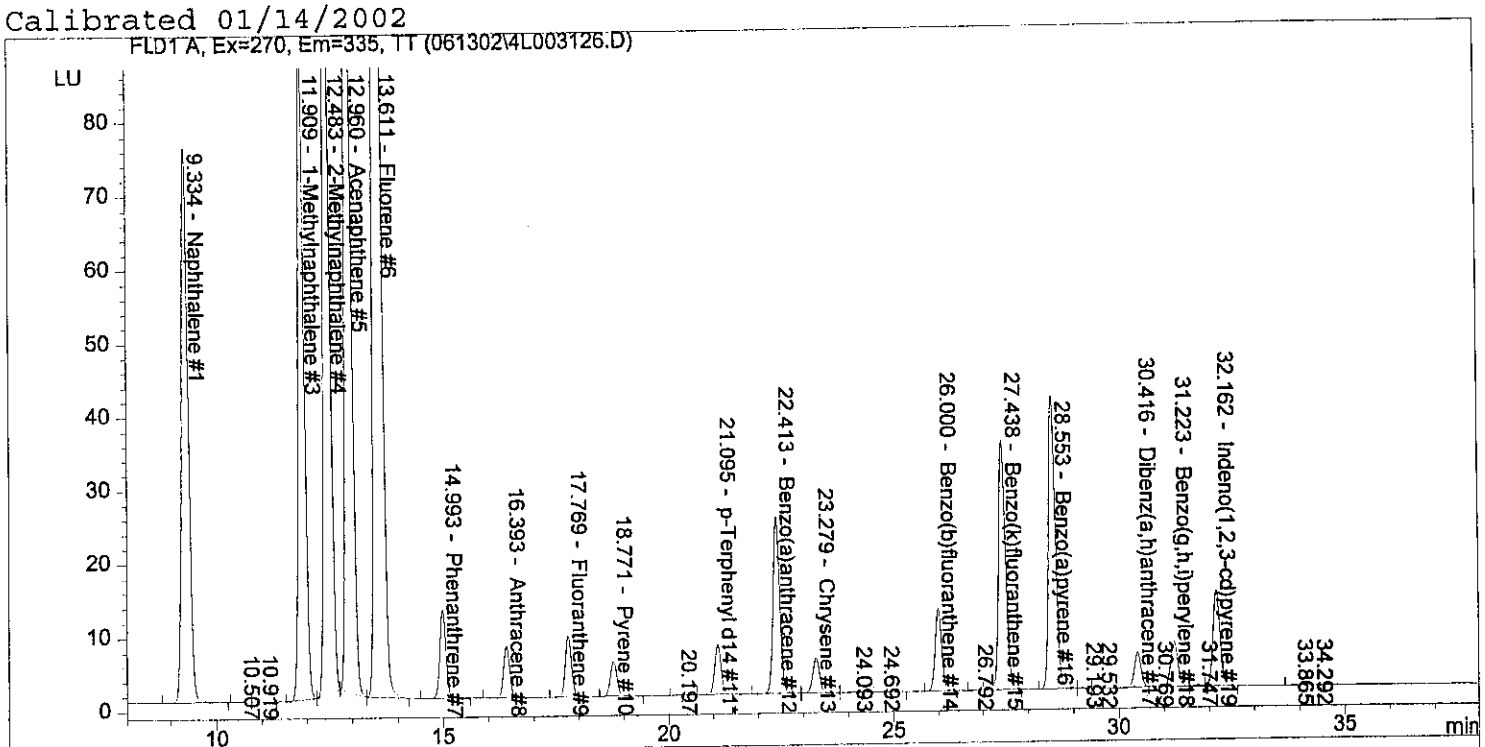
==========

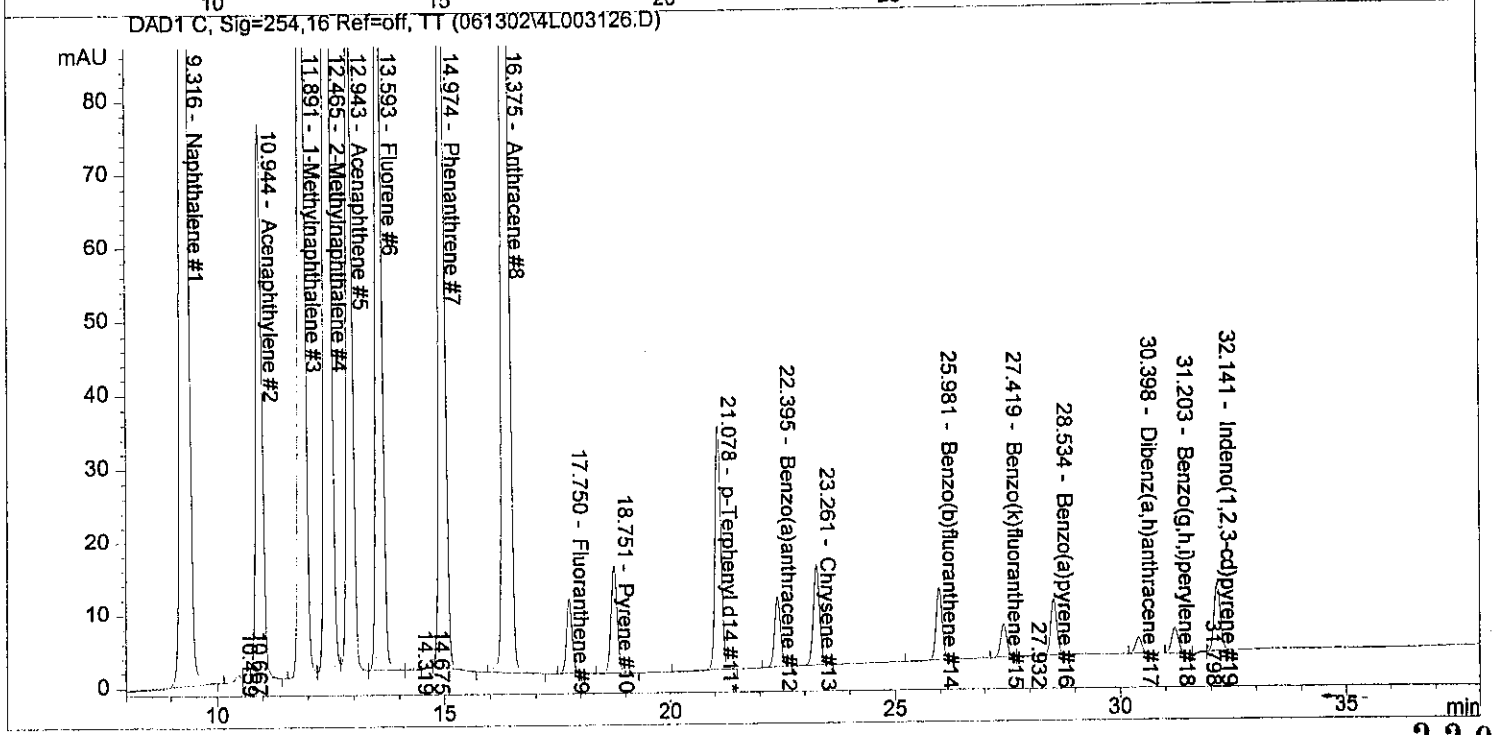
Injection Date : 6/14/2002 12:54:55 AM
Sample Name : WG119840-04 STD4
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:04:24 AM by RDC
(modified after loading)

Calibrated 01/14/2002





339

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:04:18 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
9.334	BBA	754.54517	2.62729e-2	19.82412		Naphthalene #1
11.909	BB	865.41754	2.29694e-2	19.87815		1-Methylnaphthalene #3
12.483	BB	1125.70947	1.77112e-2	19.93764		2-Methylnaphthalene #4
12.960	BB	1426.86951	1.40935e-2	20.10956		Acenaphthene #5
13.611	BB	3071.66968	6.63912e-3	20.39317		Fluorene #6
14.993	BBA	113.91219	1.72066e-1	19.60039		Phenanthrene #7
16.393	PBA	66.59662	3.02478e-1	20.14398		Anthracene #8
17.769	BB	77.44264	2.54072e-2	1.96760		Fluoranthene #9
18.771	BBA	48.14644	4.15143e-2	1.99876		Pyrene #10
21.095	BB	66.93617	2.93177e-1	19.62415		p-Terphenyl d14 #11*
22.413	BB	240.75162	8.16425e-3	1.96556		Benzo(a)anthracene #12
23.279	BB	49.60668	3.99715e-2	1.98285		Chrysene #13
26.000	BB	116.12308	1.69606e-2	1.96952		Benzo(b)fluoranthene #14
27.438	BB	351.66119	2.81749e-3	9.90801e-1		Benzo(k)fluoranthene #15
28.553	BB	412.69138	4.72525e-3	1.95007		Benzo(a)pyrene #16
30.416	BB	48.37633	4.01211e-2	1.94091		Dibenz(a,h)anthracene #17
31.223	BB	68.38602	2.83478e-2	1.93860		Benzo(g,h,i)perylene #18
32.162	BB	140.00281	1.40312e-2	1.96440		Indeno(1,2,3-cd)pyrene #1
Totals :				178.18024		

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
9.316	BBA	2498.67944	8.29533e-3	20.72737		Naphthalene #1
10.944	BBA	658.50293	3.02016e-2	19.88782		Acenaphthylene #2
11.891	PB	1536.99390	1.30705e-2	20.08927		1-Methylnaphthalene #3
12.465	BB	1791.84399	1.13662e-2	20.36648		2-Methylnaphthalene #4
12.943	BB	968.64014	2.06106e-2	19.96428		Acenaphthene #5
13.593	BB	1125.01990	1.76942e-2	19.90638		Fluorene #6
14.974	BBA	1137.39648	1.75204e-2	19.92767		Phenanthrene #7
16.375	BBA	2016.31750	1.01817e-2	20.52949		Anthracene #8
17.750	PB	90.19173	2.19034e-2	1.97551		Fluoranthene #9
18.751	BBA	137.28792	1.44175e-2	1.97935		Pyrene #10
21.078	PBA	302.29453	6.51086e-2	19.68196		p-Terphenyl d14 #11*
22.395	PBA	88.38959	2.23283e-2	1.97359		Benzo(a)anthracene #12
23.261	BBA	129.65228	1.52393e-2	1.97581		Chrysene #13
25.981	PBA	94.69703	2.09016e-2	1.97932		Benzo(b)fluoranthene #14
27.419	BB	43.30220	2.27256e-2	9.84067e-1		Benzo(k)fluoranthene #15
28.534	BB	74.00938	2.60983e-2	1.93152		Benzo(a)pyrene #16
30.398	PBA	20.79541	9.43053e-2	1.96112		Dibenz(a,h)anthracene #17

340

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.203	BB	37.91122	5.35429e-2	2.02988		Benzo(g,h,i)perylene #18
32.141	BBA	93.60317	2.07224e-2	1.93968		Indeno(1,2,3-cd)pyrene #1

Totals : 199.81055

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 3 STD @ 10/1/.5 ppm

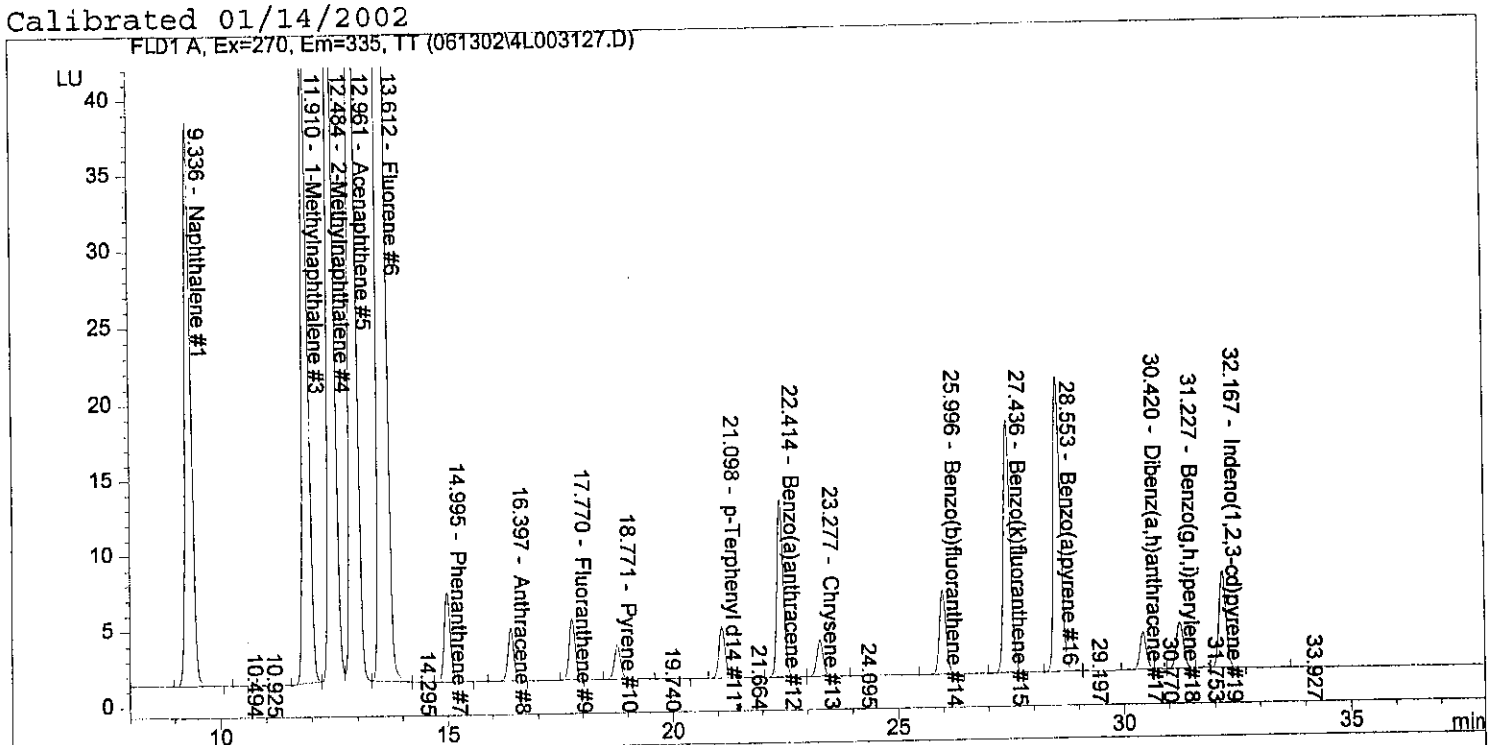
==========

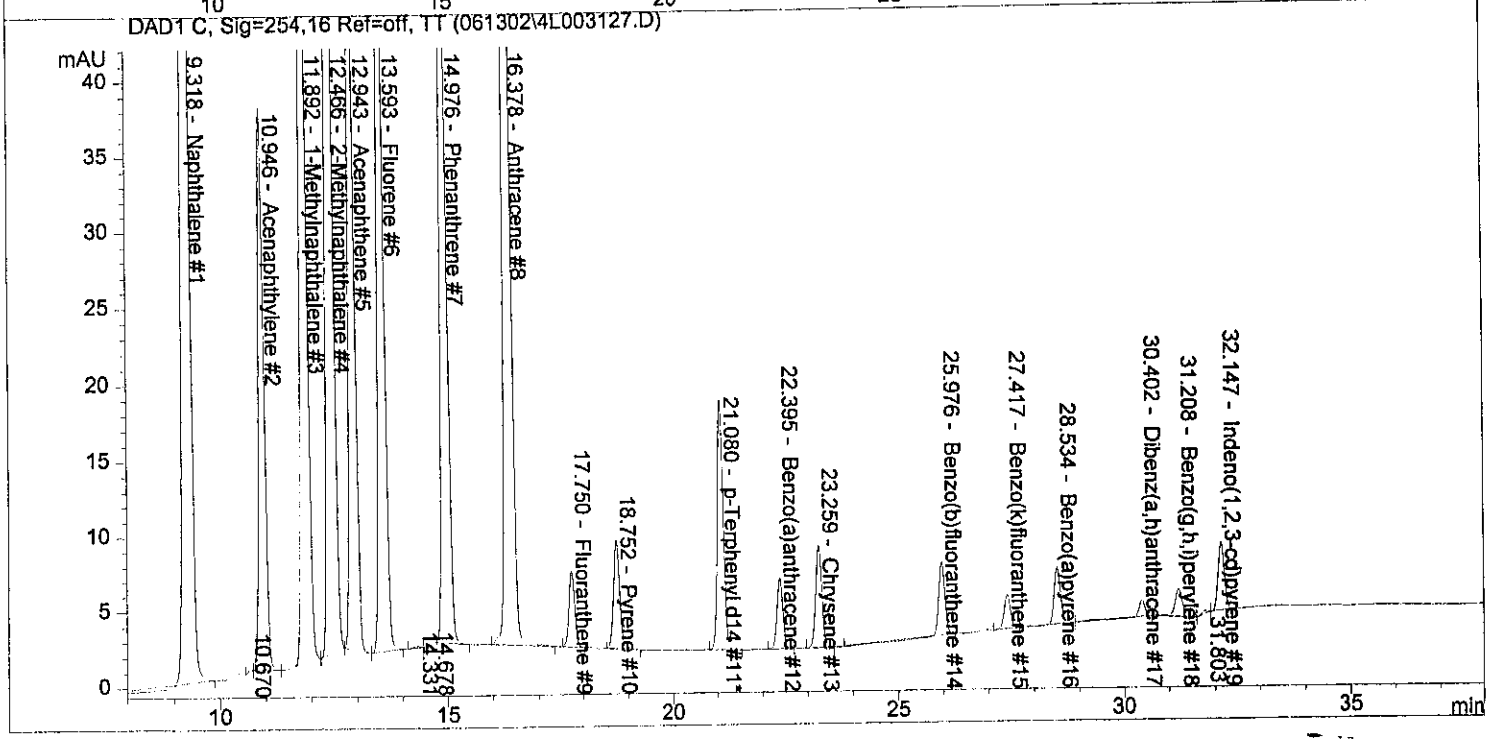
Injection Date : 6/14/2002 1:51:31 AM
Sample Name : WG119840-05 STD3
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:05:00 AM by RDC
(modified after loading)

Calibrated 01/14/2002





342

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:04:56 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
9.336	BBA	371.85556	2.62768e-2	9.77118		Naphthalene #1
11.910	BB	427.16837	2.29725e-2	9.81312		1-Methylnaphthalene #3
12.484	BB	555.40234	1.77148e-2	9.83887		2-Methylnaphthalene #4
12.961	BB	704.82605	1.40956e-2	9.93493		Acenaphthene #5
13.612	BB	1519.64282	6.63998e-3	10.09040		Fluorene #6
14.995	BBA	56.03428	1.72084e-1	9.64260		Phenanthrene #7
16.397	BBA	32.93192	3.02467e-1	9.96081		Anthracene #8
17.770	PB	38.54884	2.54172e-2	9.79803e-1		Fluoranthene #9
18.771	BBA	23.43897	4.15409e-2	9.73675e-1		Pyrene #10
21.098	BB	33.36931	2.93182e-1	9.78328		p-Terphenyl d14 #11*
22.414	BB	119.10960	8.16492e-3	9.72520e-1		Benzo(a)anthracene #12
23.277	BBA	24.15862	3.99772e-2	9.65794e-1		Chrysene #13
25.996	BBA	57.64073	1.69625e-2	9.77732e-1		Benzo(b)fluoranthene #14
27.436	BB	173.46057	2.81775e-3	4.88769e-1		Benzo(k)fluoranthene #15
28.553	BB	203.09286	4.72524e-3	9.59662e-1		Benzo(a)pyrene #16
30.420	BB	23.94359	4.01220e-2	9.60663e-1		Dibenz(a,h)anthracene #17
31.227	BB	33.76281	2.83539e-2	9.57306e-1		Benzo(g,h,i)perylene #18
32.167	BB	69.03428	1.40332e-2	9.68772e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				88.03988		

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
9.318	BBA	1219.35925	8.29679e-3	10.11677		Naphthalene #1
10.946	BB	325.59451	3.02017e-2	9.83350		Acenaphthylene #2
11.892	BB	757.97943	1.30709e-2	9.90750		1-Methylnaphthalene #3
12.466	BB	887.82635	1.13668e-2	10.09178		2-Methylnaphthalene #4
12.943	BB	479.64664	2.06118e-2	9.88638		Acenaphthene #5
13.593	BBA	555.59216	1.76936e-2	9.83044		Fluorene #6
14.976	BBA	563.78528	1.75204e-2	9.87776		Phenanthrene #7
16.378	BBA	1007.09772	1.01805e-2	10.25275		Anthracene #8
17.750	BBA	44.35479	2.19032e-2	9.71513e-1		Fluoranthene #9
18.752	BBA	67.05128	1.44166e-2	9.66649e-1		Pyrene #10
21.080	BBA	150.04201	6.51073e-2	9.76883		p-Terphenyl d14 #11*
22.395	BBA	43.38402	2.23286e-2	9.68704e-1		Benzo(a)anthracene #12
23.259	BBA	63.84754	1.52388e-2	9.72957e-1		Chrysene #13
25.976	PBA	43.42394	2.09127e-2	9.08112e-1		Benzo(b)fluoranthene #14
27.417	BB	21.38502	2.27323e-2	4.86132e-1		Benzo(k)fluoranthene #15
28.534	BB	36.80410	2.60959e-2	9.60435e-1		Benzo(a)pyrene #16
30.402	BB	10.34522	9.43221e-2	9.75783e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.208	BB	21.12121	5.34825e-2	1.12962		Benzo(g,h,i)perylene #18
32.147	BB	45.65535	2.07246e-2	9.46189e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.85178

Results obtained with enhanced integrator!

*** End of Report ***

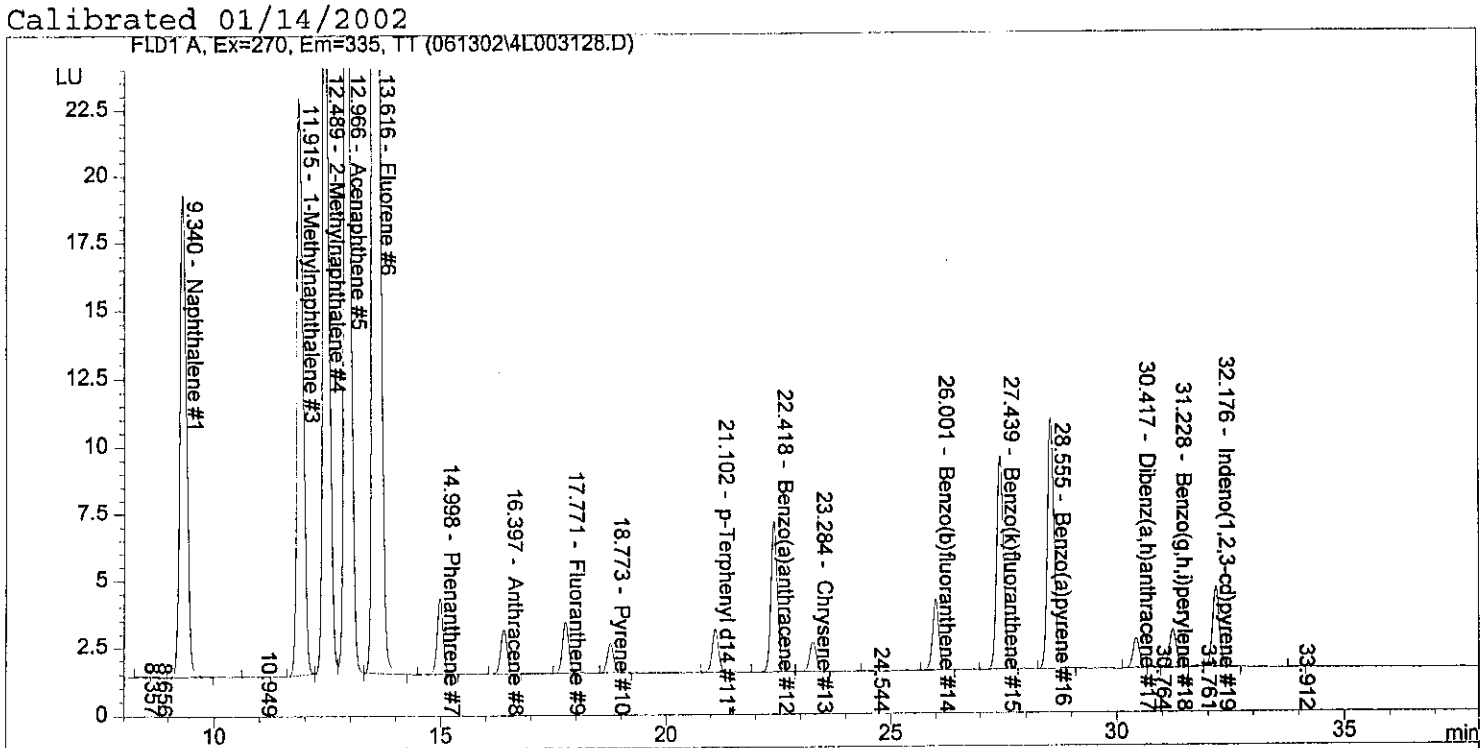
1,1 SOS59-38/58-26 LEVEL 2 STD @ 5/.5 /.25 ppm

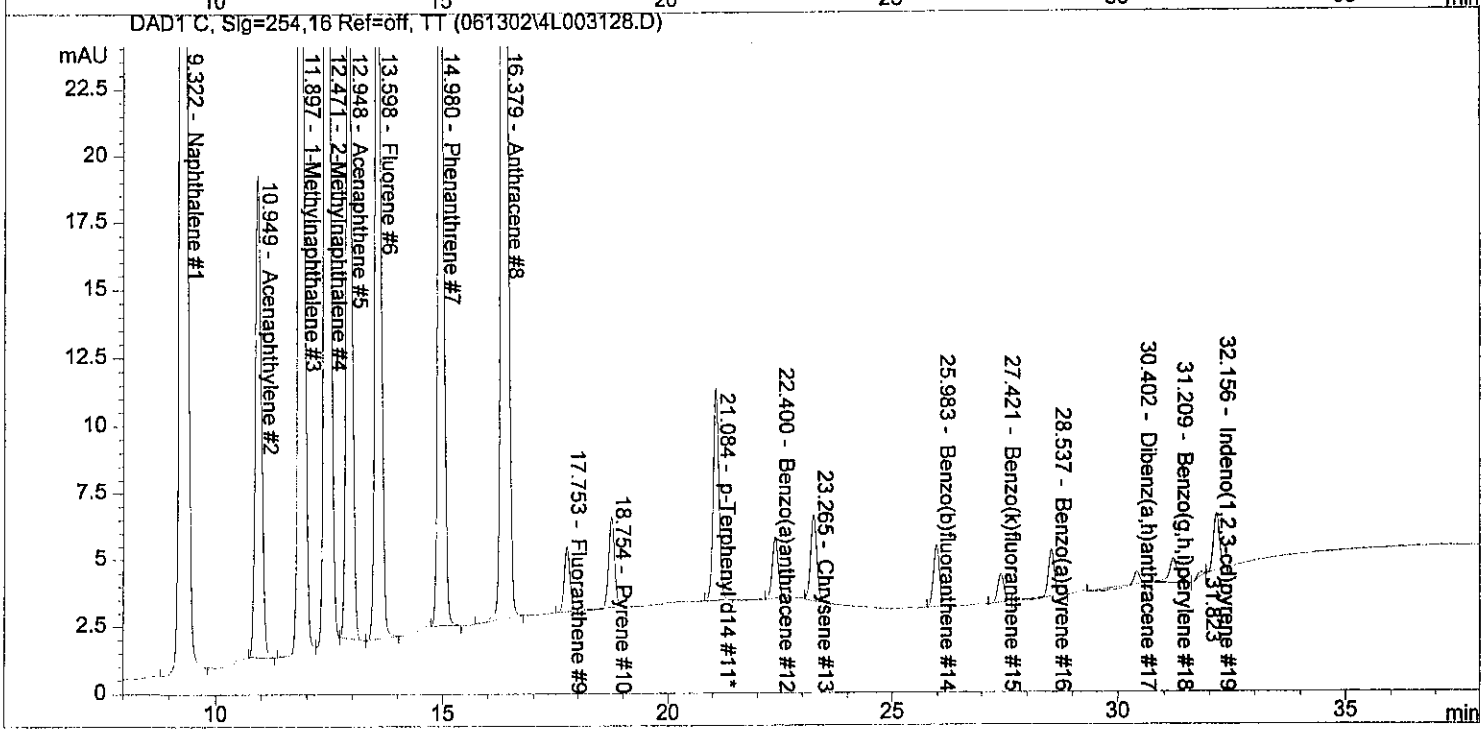
==========

Injection Date	: 6/14/2002 2:48:12 AM	Seq. Line :	7
Sample Name	: WG119840-06 STD2	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:05:37 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:05:33 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
9.340	BBA	178.95563	2.62757e-2	4.70218		Naphthalene #1
11.915	BB	205.97406	2.29713e-2	4.73149		1-Methylnaphthalene #3
12.489	BB	267.76404	1.77143e-2	4.74326		2-Methylnaphthalene #4
12.966	BB	339.83661	1.40950e-2	4.79001		Acenaphthene #5
13.616	BB	732.50269	6.63969e-3	4.86359		Fluorene #6
14.998	BBA	27.09999	1.72074e-1	4.66322		Phenanthrene #7
16.397	BBA	15.91612	3.02439e-1	4.81365		Anthracene #8
17.771	BB	18.56896	2.54164e-2	4.71956e-1		Fluoranthene #9
18.773	BBA	11.37372	4.15286e-2	4.72334e-1		Pyrene #10
21.102	BB	15.96525	2.93173e-1	4.68058		p-Terphenyl d14 #11*
22.418	BB	57.25381	8.16445e-3	4.67446e-1		Benzo(a)anthracene #12
23.284	BB	11.91314	3.99732e-2	4.76206e-1		Chrysene #13
26.001	BBA	27.48360	1.69618e-2	4.66172e-1		Benzo(b)fluoranthene #14
27.439	BBA	83.42035	2.81761e-3	2.35046e-1		Benzo(k)fluoranthene #15
28.555	PB	97.54757	4.72489e-3	4.60902e-1		Benzo(a)pyrene #16
30.417	PB	11.57100	4.01183e-2	4.64209e-1		Dibenz(a,h)anthracene #17
31.228	BB	16.23036	2.83529e-2	4.60178e-1		Benzo(g,h,i)perylene #18
32.176	BB	32.92362	1.40329e-2	4.62012e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 42.42445

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
9.322	BBA	598.90387	8.29620e-3	4.96863		Naphthalene #1
10.949	BBA	157.19412	3.01994e-2	4.74717		Acenaphthylene #2
11.897	PB	365.23682	1.30701e-2	4.77368		1-Methylnaphthalene #3
12.471	BB	427.72684	1.13662e-2	4.86161		2-Methylnaphthalene #4
12.948	BB	230.37761	2.06107e-2	4.74825		Acenaphthene #5
13.598	BBA	267.85175	1.76921e-2	4.73885		Fluorene #6
14.980	BBA	271.73749	1.75192e-2	4.76062		Phenanthrene #7
16.379	PBA	479.37994	1.01797e-2	4.87993		Anthracene #8
17.753	PBA	21.47706	2.19011e-2	4.70372e-1		Fluoranthene #9
18.754	BBA	30.90943	1.44152e-2	4.45567e-1		Pyrene #10
21.084	BBA	72.29396	6.51030e-2	4.70655		p-Terphenyl d14 #11*
22.400	BBA	21.50113	2.23264e-2	4.80043e-1		Benzo(a)anthracene #12
23.265	BBA	30.82063	1.52375e-2	4.69628e-1		Chrysene #13
25.983	BBA	22.19203	2.09116e-2	4.64071e-1		Benzo(b)fluoranthene #14
27.421	BB	10.12679	2.27316e-2	2.30198e-1		Benzo(k)fluoranthene #15
28.537	BB	16.55305	2.60937e-2	4.31930e-1		Benzo(a)pyrene #16
30.402	BB	1.24579	9.44447e-2	1.17658e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.209	BB	12.63941	5.34416e-2	6.75471e-1		Benzo(g,h,i)perylene #18
32.156	BB	20.74642	2.07249e-2	4.29967e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 47.40020

Results obtained with enhanced integrator!

*** End of Report ***

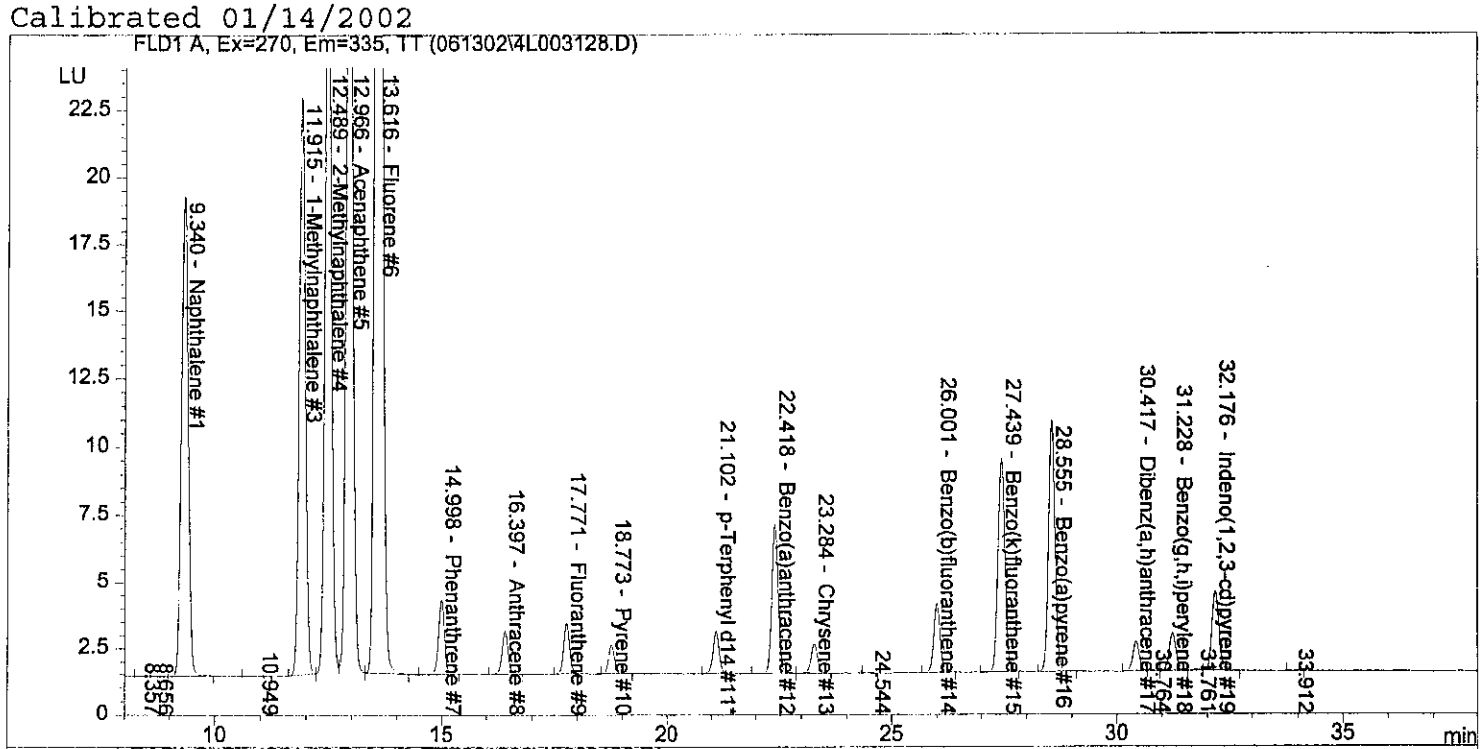
1,1 SOS59-38/58-26 LEVEL 2 STD @ 5/.5 /.25 ppm

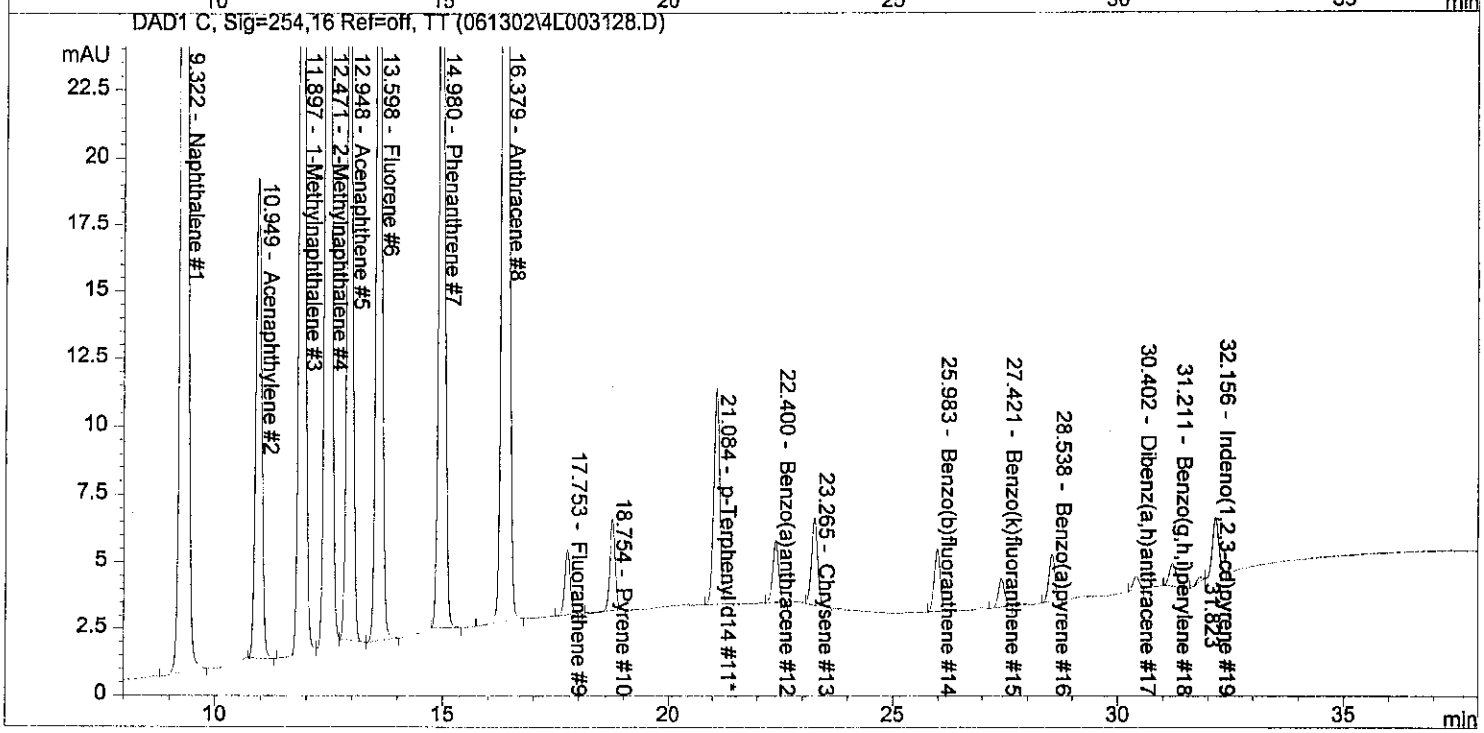
==========

Injection Date	: 6/14/2002 2:48:12 AM	Seq. Line :	7
Sample Name	: WG119840-06 STD2	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:09:18 AM by RDC
(modified after loading)

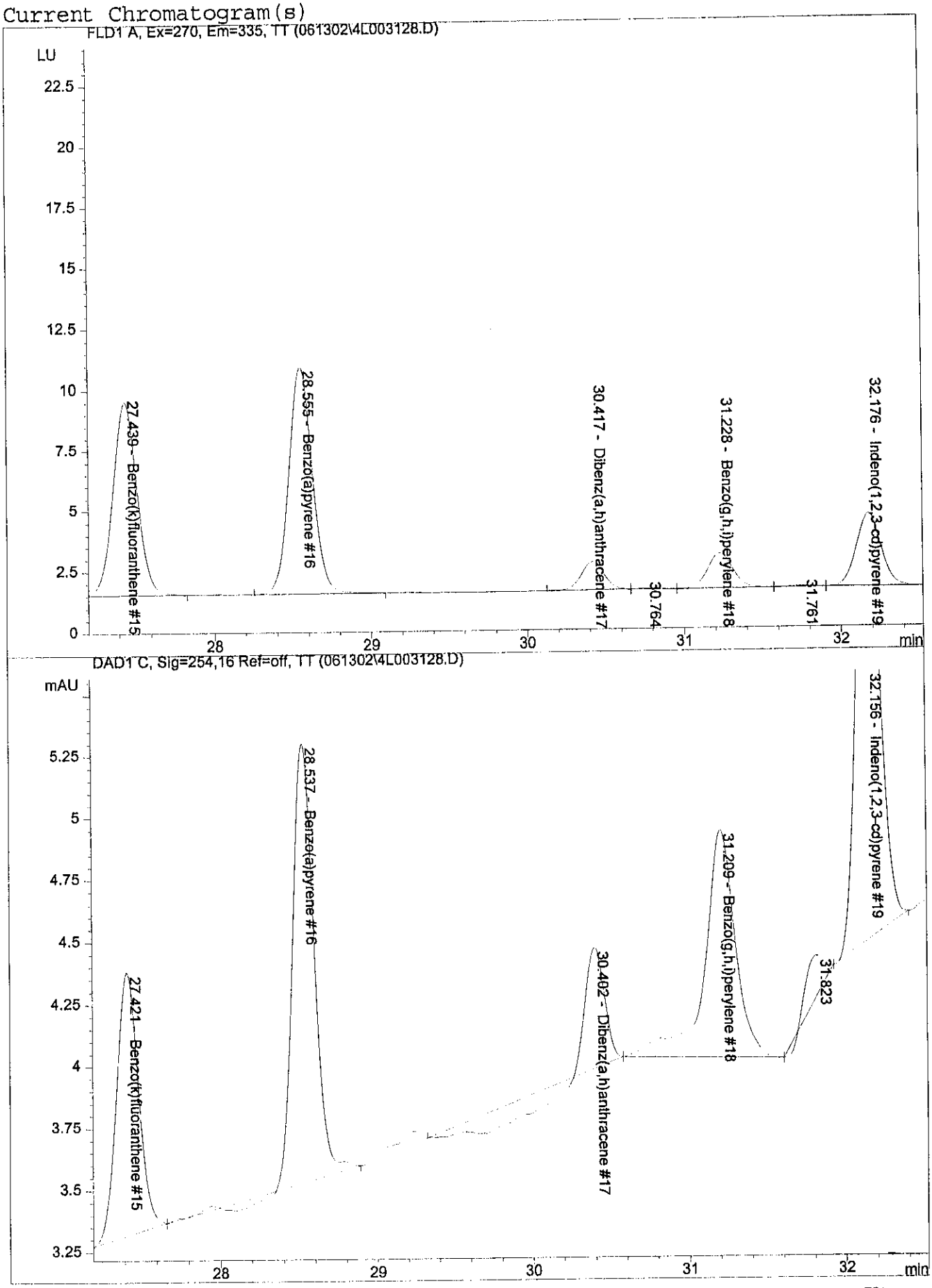
Calibrated 01/14/2002





348

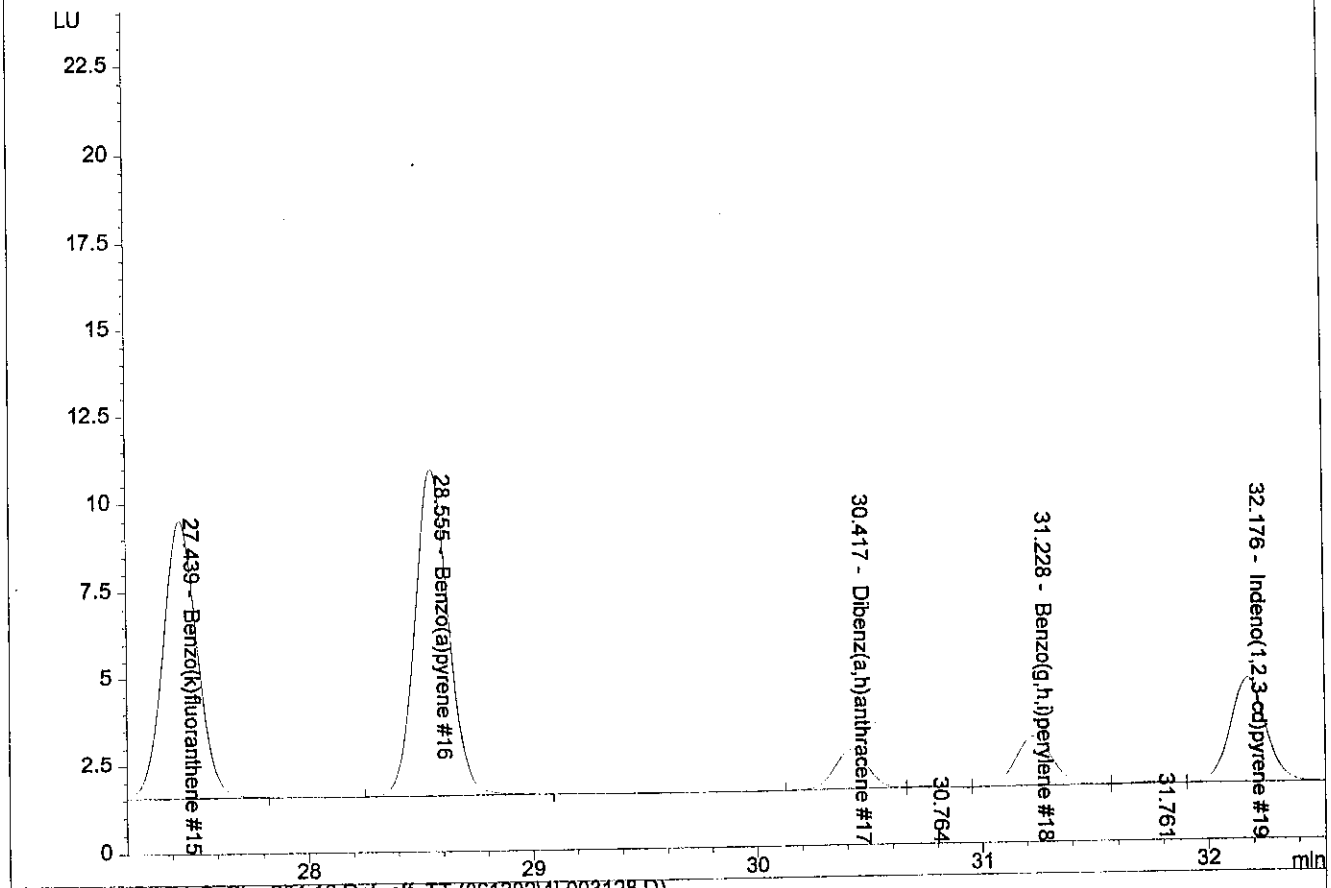
Current Chromatogram(s)



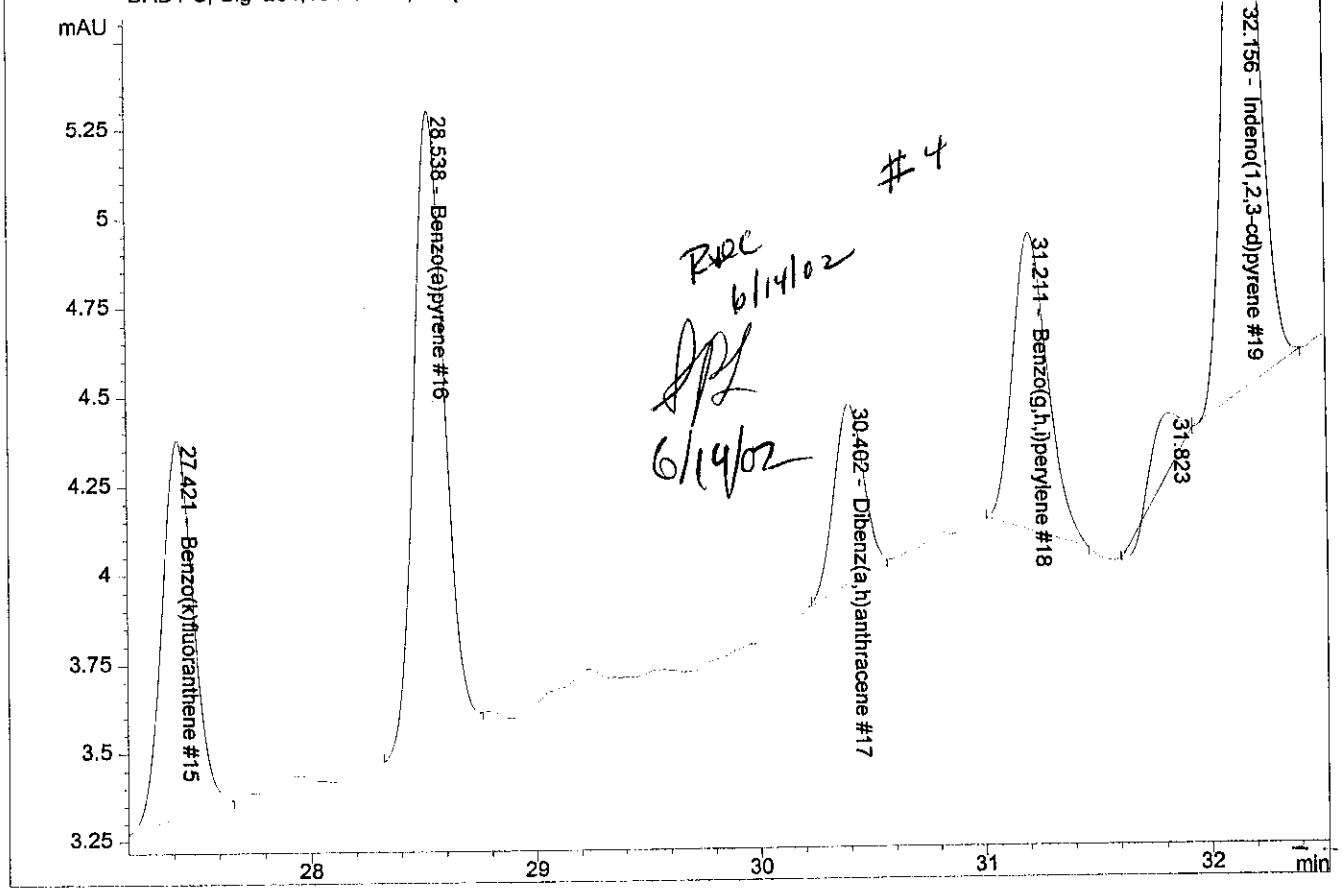
349

Current Chromatogram(s)

FLD1 A, Ex=270, Em=335, TT (061302\4L003128.D)



DAD1 C, Sig=254,16 Ref=off, TT (061302\4L003128.D)



#4

RDC 6/14/02

6/14/02

350

HPLC4 6/14/2002 9:08:47 AM RDC

Page 1 of 1

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:09:13 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
9.340	BBA	178.95563	2.62757e-2	4.70218		Naphthalene #1
11.915	BB	205.97406	2.29713e-2	4.73149		1-Methylnaphthalene #3
12.489	BB	267.76404	1.77143e-2	4.74326		2-Methylnaphthalene #4
12.966	BB	339.83661	1.40950e-2	4.79001		Acenaphthene #5
13.616	BB	732.50269	6.63969e-3	4.86359		Fluorene #6
14.998	BBA	27.09999	1.72074e-1	4.66322		Phenanthrene #7
16.397	BBA	15.91612	3.02439e-1	4.81365		Anthracene #8
17.771	BB	18.56896	2.54164e-2	4.71956e-1		Fluoranthene #9
18.773	BBA	11.37372	4.15286e-2	4.72334e-1		Pyrene #10
21.102	BB	15.96525	2.93173e-1	4.68058		p-Terphenyl d14 #11*
22.418	BB	57.25381	8.16445e-3	4.67446e-1		Benzo(a)anthracene #12
23.284	BB	11.91314	3.99732e-2	4.76206e-1		Chrysene #13
26.001	BBA	27.48360	1.69618e-2	4.66172e-1		Benzo(b)fluoranthene #14
27.439	BBA	83.42035	2.81761e-3	2.35046e-1		Benzo(k)fluoranthene #15
28.555	PB	97.54757	4.72489e-3	4.60902e-1		Benzo(a)pyrene #16
30.417	PB	11.57100	4.01183e-2	4.64209e-1		Dibenz(a,h)anthracene #17
31.228	BB	16.23036	2.83529e-2	4.60178e-1		Benzo(g,h,i)perylene #18
32.176	BB	32.92362	1.40329e-2	4.62012e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 42.42445

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
9.322	BBA	598.90387	8.29620e-3	4.96863		Naphthalene #1
10.949	BBA	157.19412	3.01994e-2	4.74717		Acenaphthylene #2
11.897	PB	365.23682	1.30701e-2	4.77368		1-Methylnaphthalene #3
12.471	BB	427.72684	1.13662e-2	4.86161		2-Methylnaphthalene #4
12.948	BB	230.37761	2.06107e-2	4.74825		Acenaphthene #5
13.598	BBA	267.85175	1.76921e-2	4.73885		Fluorene #6
14.980	BBA	271.73749	1.75192e-2	4.76062		Phenanthrene #7
16.379	PBA	479.37994	1.01797e-2	4.87993		Anthracene #8
17.753	PBA	21.47706	2.19011e-2	4.70372e-1		Fluoranthene #9
18.754	BBA	30.90943	1.44152e-2	4.45567e-1		Pyrene #10
21.084	BBA	72.29396	6.51030e-2	4.70655		p-Terphenyl d14 #11*
22.400	BBA	21.50113	2.23264e-2	4.80043e-1		Benzo(a)anthracene #12
23.265	BBA	30.82063	1.52375e-2	4.69628e-1		Chrysene #13
25.983	BBA	22.19203	2.09116e-2	4.64071e-1		Benzo(b)fluoranthene #14
27.421	BB	10.12679	2.27316e-2	2.30198e-1		Benzo(k)fluoranthene #15
28.538	MM	16.33183	2.60943e-2	4.26167e-1		Benzo(a)pyrene #16
30.402	MM	4.54521	9.43319e-2	4.28758e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.211	MM	8.93342	5.34823e-2	4.77779e-1		Benzo(g,h,i)perylene #18
32.156	BB	20.74642	2.07249e-2	4.29967e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				47.50785		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 1 STD @ 1/.1/.05 ppm

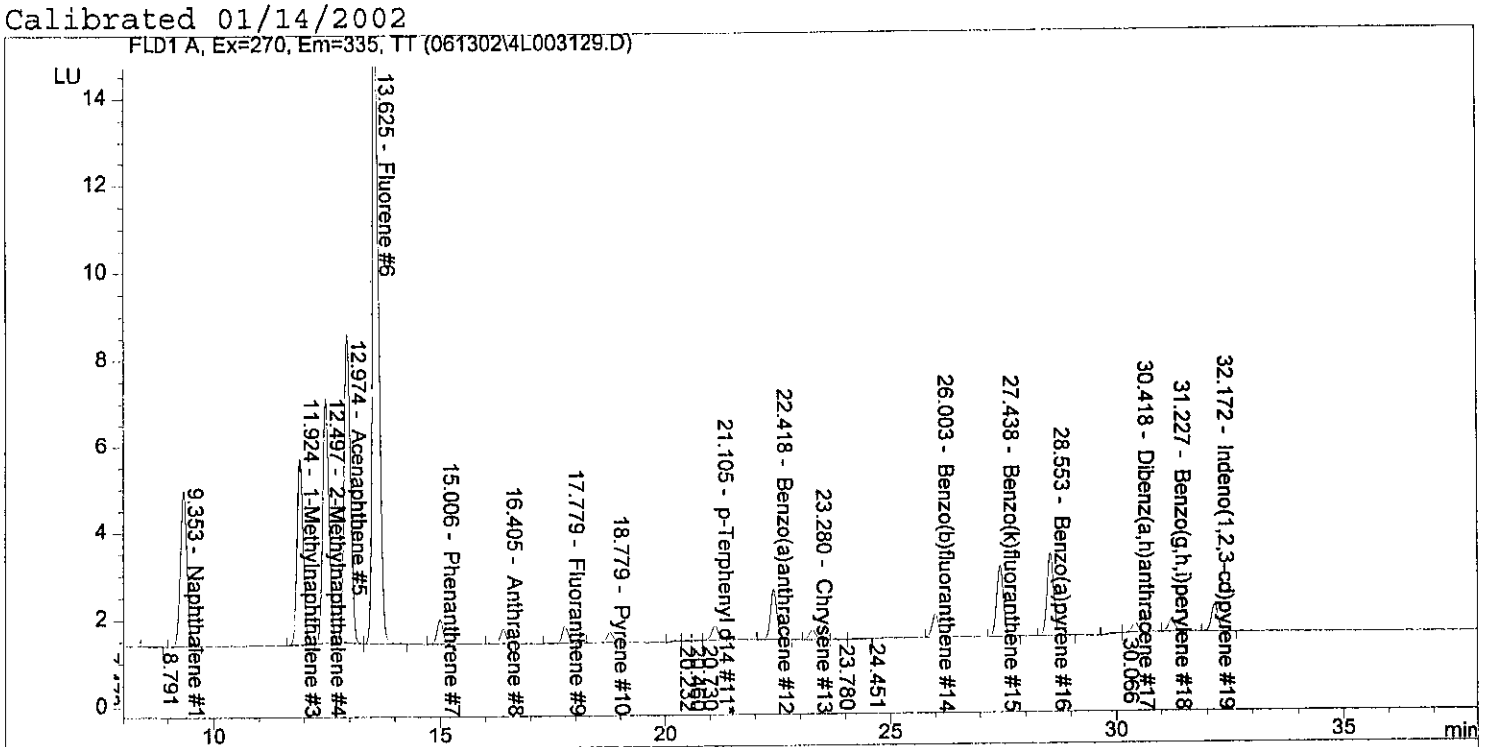
==========

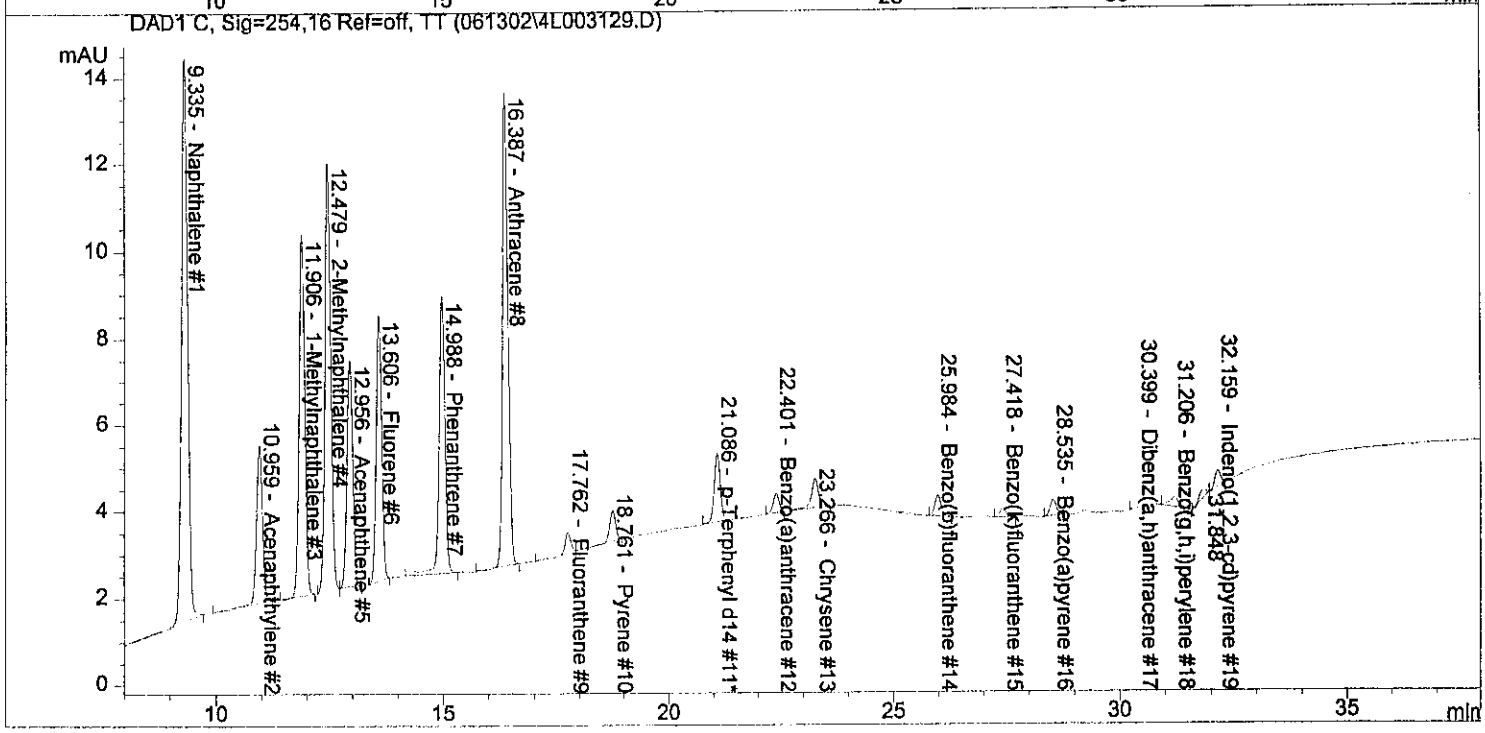
Injection Date : 6/14/2002 3:44:52 AM
Sample Name : WG119840-07 STD1
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

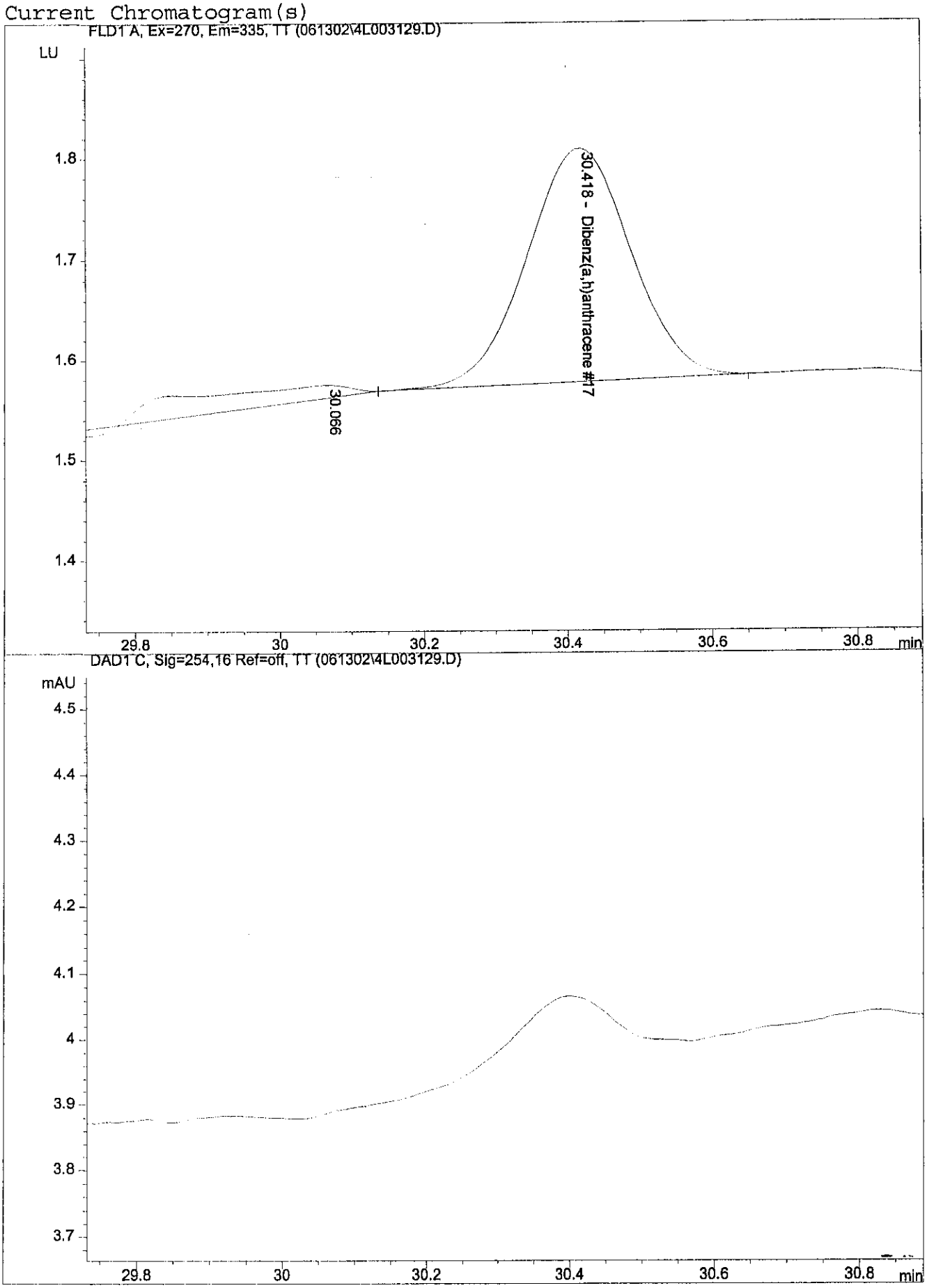
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:11:05 AM by RDC
(modified after loading)

Calibrated 01/14/2002



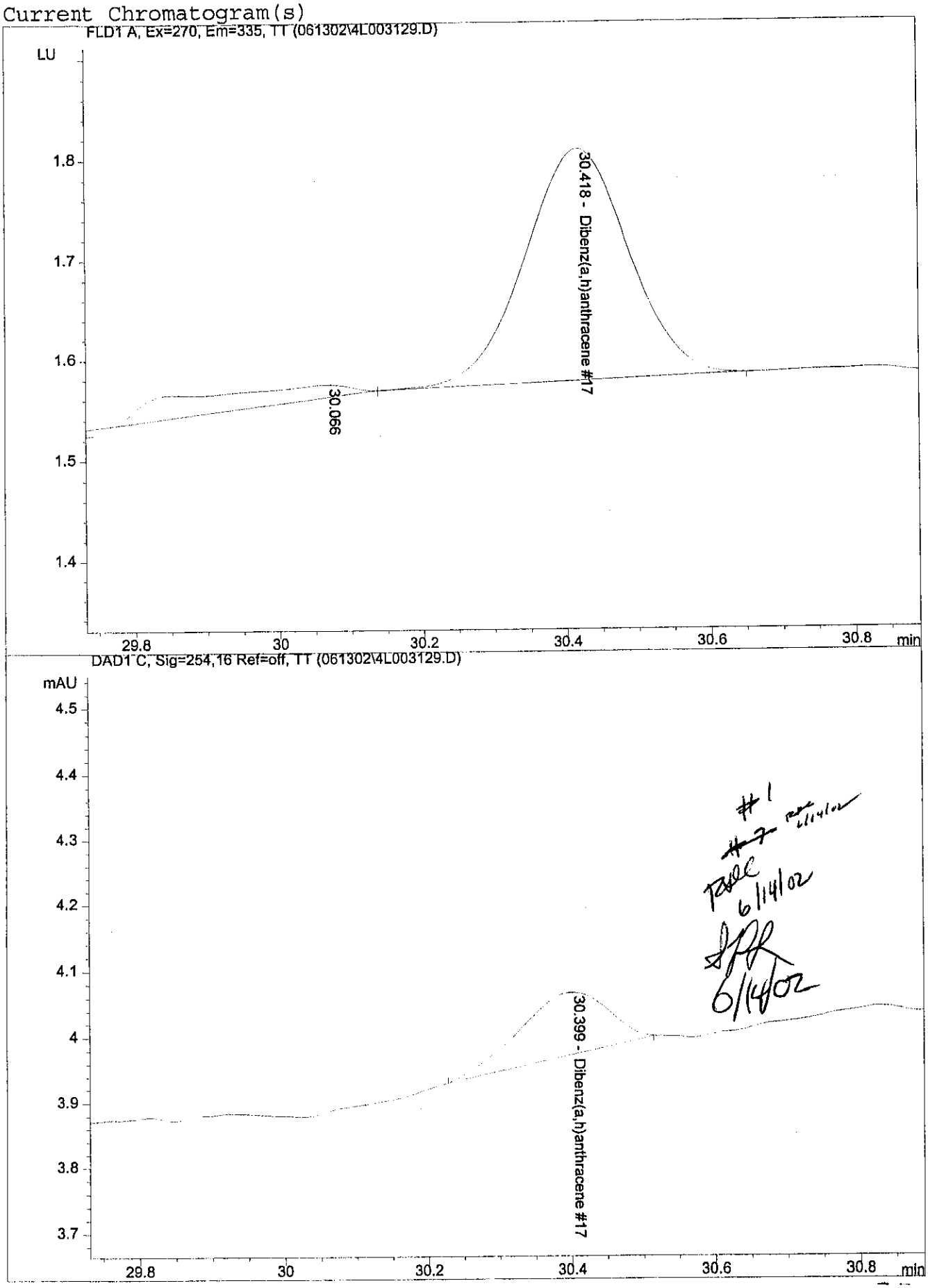


Current Chromatogram(s)



354

Current Chromatogram(s)



355

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:10:59 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.353	BBA	35.70203	2.62757e-2	9.38096e-1		Naphthalene #1
11.924	BB	41.21246	2.29713e-2	9.46704e-1		1-Methylnaphthalene #3
12.497	BB	53.61522	1.77144e-2	9.49759e-1		2-Methylnaphthalene #4
12.974	BB	68.11809	1.40950e-2	9.60126e-1		Acenaphthene #5
13.625	BB	147.37762	6.63969e-3	9.78542e-1		Fluorene #6
15.006	BBA	5.49246	1.72074e-1	9.45109e-1		Phenanthrene #7
16.405	BBA	3.27440	3.02438e-1	9.90305e-1		Anthracene #8
17.779	PBA	3.76502	2.54164e-2	9.56934e-2		Fluoranthene #9
18.779	PBA	2.23349	4.15282e-2	9.27527e-2		Pyrene #10
21.105	BB	3.43824	2.93173e-1	1.00800		p-Terphenyl d14 #11*
22.418	BBA	11.68998	8.16445e-3	9.54423e-2		Benzo(a)anthracene #12
23.280	PBA	2.35546	3.99734e-2	9.41556e-2		Chrysene #13
26.003	BBA	5.60739	1.69618e-2	9.51115e-2		Benzo(b)fluoranthene #14
27.438	PBA	16.96901	2.81761e-3	4.78120e-2		Benzo(k)fluoranthene #15
28.553	BBA	19.68503	4.72488e-3	9.30094e-2		Benzo(a)pyrene #16
30.418	BBA	2.33135	4.01182e-2	9.35298e-2		Dibenz(a,h)anthracene #17
31.227	BBA	3.26803	2.83532e-2	9.26588e-2		Benzo(g,h,i)perylene #18
32.172	BB	6.85877	1.40328e-2	9.62480e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.61305

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
9.335	PBA	118.44469	8.29618e-3	9.82638e-1		Naphthalene #1
10.959	BBA	32.34379	3.01988e-2	9.76744e-1		Acenaphthylene #2
11.906	PBA	73.52287	1.30701e-2	9.60949e-1		1-Methylnaphthalene #3
12.479	BB	85.92275	1.13661e-2	9.76611e-1		2-Methylnaphthalene #4
12.956	BBA	45.75132	2.06107e-2	9.42967e-1		Acenaphthene #5
13.606	PBA	52.41635	1.76920e-2	9.27351e-1		Fluorene #6
14.988	BBA	59.16147	1.75194e-2	1.03647		Phenanthrene #7
16.387	PBA	93.73675	1.01797e-2	9.54210e-1		Anthracene #8
17.762	PB	2.86666	2.19016e-2	6.27845e-2		Fluoranthene #9
18.761	BB	5.78315	1.44153e-2	8.33657e-2		Pyrene #10
21.086	BBA	14.27733	6.51028e-2	9.29495e-1		p-Terphenyl d14 #11*
22.401	BBA	4.17491	2.23265e-2	9.32110e-2		Benzo(a)anthracene #12
23.266	BBA	7.56785	1.52372e-2	1.15313e-1		Chrysene #13
25.984	BBA	4.71679	2.09116e-2	9.86358e-2		Benzo(b)fluoranthene #14
27.418	PBA	2.02281	2.27316e-2	4.59816e-2		Benzo(k)fluoranthene #15
28.535	PBA	3.59195	2.60939e-2	9.37281e-2		Benzo(a)pyrene #16
30.399	MM	8.17798e-1	9.43319e-2	7.71445e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206	BBA	3.35385	5.34797e-2	1.79363e-1		Benzo(g,h,i)perylene #18
32.159	BB	3.43245	2.07250e-2	7.11377e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.60810

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061302\4L003130.D Sample Name: WG119840-08 ALT
HPLC4 6/14/2002 9:20:03 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/14/2002 4:41:30 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.353	20.0	19.636	-1.8
1-Methylnaphthalene #3	11.923	20.0	19.634	-1.8
2-Methylnaphthalene #4	12.497	20.0	19.240	-3.8
Acenaphthene #5	12.975	20.0	20.191	1.0
Fluorene #6	13.626	20.0	20.156	0.8
Phenanthrene #7	15.007	20.0	19.424	-2.9
Anthracene #8	16.402	20.0	20.494	2.5
Fluoranthene #9	17.774	2.0	2.011	0.5
Pyrene #10	18.774	2.0	1.908	-4.6
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.416	2.0	1.861	-7.0
Chrysene #13	23.280	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.001	2.0	1.981	-0.9
Benzo(k)fluoranthene #15	27.443	1.0	0.888	-11.2
Benzo(a)pyrene #16	28.560	2.0	2.072	3.6
Dibenz(a,h)anthracene #1	30.417	2.0	2.178	8.9
Benzo(g,h,i)perylene #18	31.225	2.0	2.014	0.7
Indeno(1,2,3-cd)pyrene #	32.171	2.0	1.909	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	20.298	1.5
Acenaphthylene #2	10.959	20.0	19.150	-4.3
1-Methylnaphthalene #3	11.907	20.0	19.874	-0.6
2-Methylnaphthalene #4	12.480	20.0	19.624	-1.9
Acenaphthene #5	12.958	20.0	20.239	1.2
Fluorene #6	13.609	20.0	19.969	-0.2
Phenanthrene #7	14.989	20.0	19.480	-2.6
Anthracene #8	16.385	20.0	20.776	3.9
Fluoranthene #9	17.755	2.0	1.981	-0.9
Pyrene #10	18.756	2.0	1.911	-4.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.399	2.0	1.903	-4.8
Chrysene #13	23.263	2.0	1.940	-3.0
Benzo(b)fluoranthene #14	25.983	2.0	2.137	6.9
Benzo(k)fluoranthene #15	27.425	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.542	2.0	2.012	0.6
Dibenz(a,h)anthracene #1	30.400	2.0	2.132	6.6
Benzo(g,h,i)perylene #18	31.205	2.0	2.022	1.1
Indeno(1,2,3-cd)pyrene #	32.151	2.0	1.915	-4.2

= Failed 15.0% Criteria

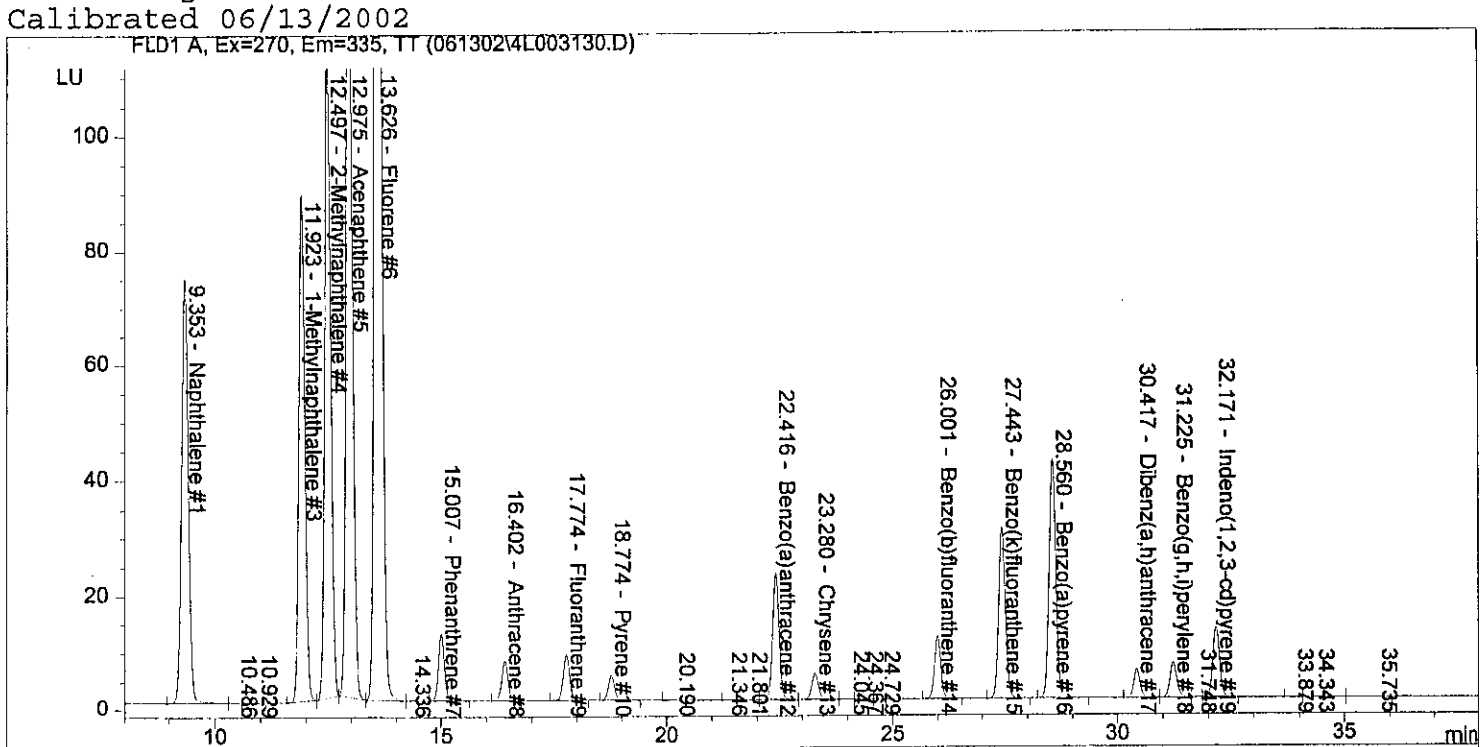
1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

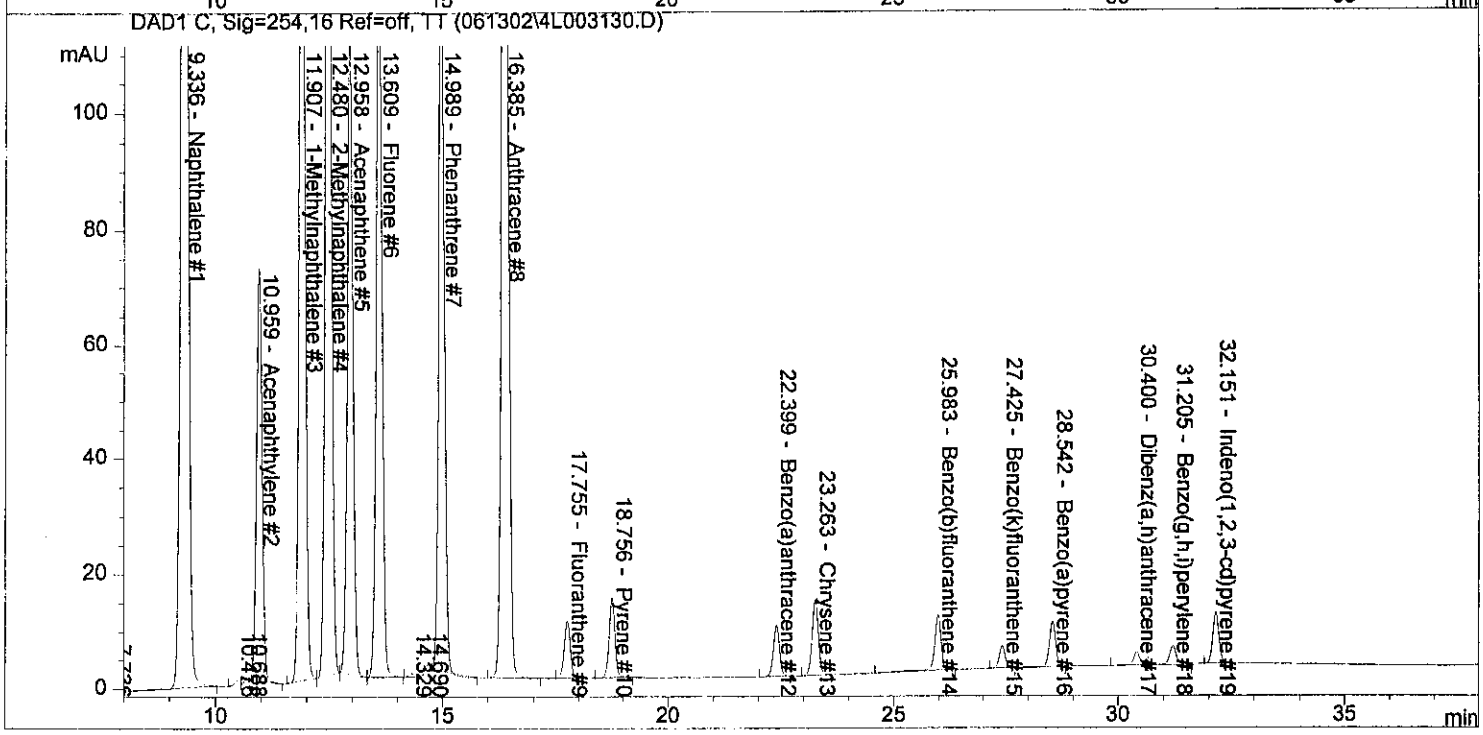
==========

Injection Date : 6/14/2002 4:41:30 AM
Sample Name : WG119840-08 ALT
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:15:22 AM by RDC
Calibrated 06/13/2002





359

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.353	BBA	741.47394	2.64818e-2	19.63555		Naphthalene #1
11.923	PB	849.44037	2.31142e-2	19.63410		1-Methylnaphthalene #3
12.497	BB	1080.91748	1.77993e-2	19.23960		2-Methylnaphthalene #4
12.975	BB	1430.41858	1.41152e-2	20.19069		Acenaphthene #5
13.626	BB	3046.35132	6.61644e-3	20.15601		Fluorene #6
15.007	BBA	111.55358	1.74121e-1	19.42379		Phenanthrene #7
16.402	PBA	67.69711	3.02731e-1	20.49403		Anthracene #8
17.774	BBA	78.48293	2.56226e-2	2.01094		Fluoranthene #9
18.774	BBA	45.76949	4.16791e-2	1.90763		Pyrene #10
21.105		-	-	-		p-Terphenyl d14 #11*
22.416	BB	225.32762	8.25703e-3	1.86054		Benzo(a)anthracene #12
23.280	BB	48.14102	4.03344e-2	1.94174		Chrysene #13
26.001	BBA	115.71564	1.71232e-2	1.98142		Benzo(b)fluoranthene #14
27.443	PBA	312.50757	2.84229e-3	8.88237e-1		Benzo(k)fluoranthene #15
28.560	BBA	433.13422	4.78467e-3	2.07240		Benzo(a)pyrene #16
30.417	PB	53.64731	4.06074e-2	2.17848		Dibenz(a,h)anthracene #17
31.225	BB	70.01231	2.87717e-2	2.01437		Benzo(g,h,i)perylene #18
32.171	BB	134.54210	1.41904e-2	1.90920		Indeno(1,2,3-cd)pyrene #1

Totals : 157.53873

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	BBA	2473.13794	8.20751e-3	20.29831		Naphthalene #1
10.959	BBA	629.97772	3.03973e-2	19.14961		Acenaphthylene #2
11.907	PB	1517.02673	1.31004e-2	19.87358		1-Methylnaphthalene #3
12.480	BB	1733.14465	1.13225e-2	19.62354		2-Methylnaphthalene #4
12.958	BB	977.54700	2.07034e-2	20.23853		Acenaphthene #5
13.609	BBA	1121.97900	1.77979e-2	19.96882		Fluorene #6
14.989	BBA	1106.84570	1.75995e-2	19.47989		Phenanthrene #7
16.385	BBA	2055.34277	1.01082e-2	20.77584		Anthracene #8
17.755	BB	89.41918	2.21566e-2	1.98123		Fluoranthene #9
18.756	BBA	130.87094	1.46058e-2	1.91148		Pyrene #10
21.086		-	-	-		p-Terphenyl d14 #11*
22.399	BBA	84.40978	2.25464e-2	1.90314		Benzo(a)anthracene #12
23.263	PBA	126.38636	1.53524e-2	1.94033		Chrysene #13
25.983	BBA	100.98494	2.11651e-2	2.13736		Benzo(b)fluoranthene #14
27.425	BB	38.33561	2.30196e-2	8.82469e-1		Benzo(k)fluoranthene #15
28.542	BB	75.80901	2.65464e-2	2.01246		Benzo(a)pyrene #16
30.400	PB	22.37718	9.52840e-2	2.13219		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.205	BB	38.34106	5.27407e-2	2.02214		Benzo(g,h,i)perylene #18
32.151	BBA	90.54501	2.11518e-2	1.91519		Indeno(1,2,3-cd)pyrene #1

Totals : 178.24611

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

2.2.7.3 Standards Data

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : 6/20/2002 8:52:08 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 : Included
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
9.370	2	1	1.00000	121.88613	8.20438e-3			Naphthalene #1
		2	5.00000	604.13025	8.27636e-3			
		3	10.00000	1256.01123	7.96171e-3			
		4	20.00000	2522.50317	7.92863e-3			
		5	50.00000	6248.73438	8.00162e-3			
		6	100.00000	1.21595e4	8.22402e-3			
9.388	1	1	1.00000	35.50560	2.81646e-2			Naphthalene #1
		2	5.00000	180.32388	2.77279e-2			
		3	10.00000	372.80032	2.68240e-2			
		4	20.00000	753.95251	2.65269e-2			
		5	50.00000	1881.29065	2.65775e-2			
		6	100.00000	3818.87573	2.61857e-2			
10.995	2	1	1.00000	31.70620	3.15396e-2			Acenaphthylene #2
		2	5.00000	161.28902	3.10003e-2			
		3	10.00000	327.28607	3.05543e-2			
		4	20.00000	658.61700	3.03667e-2			
		5	50.00000	1646.95264	3.03591e-2			
		6	100.00000	3352.51904	2.98283e-2			
11.942	2	1	1.00000	72.22427	1.38458e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	369.24078	1.35413e-2			
		3	10.00000	764.27496	1.30843e-2			
		4	20.00000	1542.24731	1.29681e-2			
		5	50.00000	3853.44678	1.29754e-2			
		6	100.00000	7760.07324	1.28865e-2			
11.959	1	1	1.00000	40.92273	2.44363e-2			1-Methylnaphthalene #3
		2	5.00000	206.59302	2.42022e-2			
		3	10.00000	427.56720	2.33881e-2			
		4	20.00000	858.01282	2.33097e-2			
		5	50.00000	2153.76392	2.32152e-2			
		6	100.00000	4358.92773	2.29414e-2			
12.516	2	1	1.00000	85.91975	1.16388e-2			2-Methylnaphthalene #4
		2	5.00000	431.87616	1.15774e-2			
		3	10.00000	893.57037	1.11911e-2			
		4	20.00000	1796.91260	1.11302e-2			
		5	50.00000	4472.15283	1.11803e-2			
		6	100.00000	8891.12988	1.12472e-2			
12.534	1	1	1.00000	53.13324	1.88206e-2			2-Methylnaphthalene #4
		2	5.00000	268.34698	1.86326e-2			
		3	10.00000	555.46735	1.80029e-2			
		4	20.00000	1119.16992	1.78704e-2			
		5	50.00000	2790.36157	1.79188e-2			
		6	100.00000	5631.00635	1.77588e-2			
12.994	2	1	1.00000	46.04076	2.17199e-2			Acenaphthene #5
		2	5.00000	232.43697	2.15112e-2			
		3	10.00000	481.32138	2.07761e-2			
		4	20.00000	969.13959	2.06369e-2			
		5	50.00000	2425.16016	2.06172e-2			
		6	100.00000	4910.46826	2.03647e-2			
13.012	1	1	1.00000	67.65919	1.47800e-2			Acenaphthene #5
		2	5.00000	339.82239	1.47136e-2			
		3	10.00000	703.58374	1.42129e-2			
		4	20.00000	1418.85522	1.40959e-2			
		5	50.00000	3535.51440	1.41422e-2			
		6	100.00000	7085.17041	1.41140e-2			
13.645	2	1	1.00000	52.90672	1.89012e-2			Fluorene #6
		2	5.00000	269.75366	1.85354e-2			
		3	10.00000	559.61633	1.78694e-2			
		4	20.00000	1129.35339	1.77092e-2			
		5	50.00000	2832.44678	1.76526e-2			
		6	100.00000	5749.89111	1.73916e-2			
13.663	1	1	1.00000	146.98784	6.80328e-3			Fluorene #6
		2	5.00000	734.63800	6.80607e-3			
		3	10.00000	1519.39380	6.58157e-3			
		4	20.00000	3055.26025	6.54609e-3			
		5	50.00000	7607.03076	6.57287e-3			
		6	100.00000	1.51592e4	6.59665e-3			
15.028	2	1	1.00000	59.91370	1.66907e-2			Phenanthrene #7
		2	5.00000	277.70538	1.80047e-2			
		3	10.00000	576.95782	1.73323e-2			
		4	20.00000	1164.06238	1.71812e-2			
		5	50.00000	2921.47241	1.71147e-2			
		6	100.00000	5932.12939	1.68574e-2			
15.046	1	1	1.00000	6.79399	1.47189e-1			Phenanthrene #7
		2	5.00000	27.54959	1.81491e-1			
		3	10.00000	57.20443	1.74812e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	113.53256	1.76161e-1			
		5	50.00000	286.03766	1.74802e-1			
		6	100.00000	586.44727	1.70518e-1			
16.431	2	1	1.00000	96.05915	1.04103e-2			Anthracene #8
		2	5.00000	483.02975	1.03513e-2			
		3	10.00000	1002.81183	9.97196e-3			
		4	20.00000	2019.75476	9.90219e-3			
		5	50.00000	5037.00098	9.92654e-3			
		6	100.00000	9947.86328	1.00524e-2			
16.450	1	1	1.00000	3.26255	3.06509e-1			Anthracene #8
		2	5.00000	15.88479	3.14767e-1			
		3	10.00000	32.94457	3.03540e-1			
		4	20.00000	66.23384	3.01960e-1			
		5	50.00000	165.22198	3.02623e-1			
		6	100.00000	335.92169	2.97688e-1			
17.806	2	1	1.00000e-1	4.17519	2.39510e-2			Fluoranthene #9
		2	5.00000e-1	21.38802	2.33776e-2			
		3	1.00000	44.70066	2.23710e-2			
		4	2.00000	90.59781	2.20756e-2			
		5	5.00000	227.65421	2.19631e-2			
		6	10.00000	464.57758	2.15249e-2			
17.824	1	1	1.00000e-1	3.92421	2.54828e-2			Fluoranthene #9
		2	5.00000e-1	18.78860	2.66119e-2			
		3	1.00000	38.41879	2.60289e-2			
		4	2.00000	78.11402	2.56036e-2			
		5	5.00000	195.60518	2.55617e-2			
		6	10.00000	397.42139	2.51622e-2			
18.809	2	1	1.00000e-1	6.27601	1.59337e-2			Pyrene #10
		2	5.00000e-1	30.01324	1.66593e-2			
		3	1.00000	67.82222	1.47444e-2			
		4	2.00000	137.22350	1.45748e-2			
		5	5.00000	345.94687	1.44531e-2			
		6	10.00000	706.87067	1.41469e-2			
18.828	1	1	1.00000e-1	2.23386	4.47655e-2			Pyrene #10
		2	5.00000e-1	11.53121	4.33606e-2			
		3	1.00000	23.72331	4.21526e-2			
		4	2.00000	47.68803	4.19392e-2			
		5	5.00000	120.33789	4.15497e-2			
21.150	2	1	1.00000	14.27093	7.00725e-2			p-Terphenyl d14 #11*
		2	5.00000	72.39475	6.90658e-2			
		3	10.00000	150.41772	6.64815e-2			
		4	20.00000	304.47540	6.56868e-2			
		5	50.00000	771.85547	6.47790e-2			
		6	100.00000	1553.84106	6.43566e-2			
21.166	1	1	1.00000	3.57698	2.79566e-1			p-Terphenyl d14 #11*
		2	5.00000	16.05081	3.11511e-1			
		3	10.00000	33.17809	3.01404e-1			
		4	20.00000	67.05980	2.98241e-1			
		5	50.00000	170.11554	2.93918e-1			
		6	100.00000	343.67426	2.90973e-1			
22.466	2	1	1.00000e-1	4.39682	2.27437e-2			Benzo(a)anthracene #12
		2	5.00000e-1	21.07132	2.37289e-2			
		3	1.00000	43.86306	2.27982e-2			
		4	2.00000	88.71733	2.25435e-2			
		5	5.00000	223.22693	2.23987e-2			
		6	10.00000	457.02676	2.18806e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.485	1	1	1.00000e-1	11.92573	8.38523e-3			Benzo(a)anthracene #12
		2	5.00000e-1	57.40008	8.71079e-3			
		3	1.00000	118.62704	8.42978e-3			
		4	2.00000	240.55975	8.31394e-3			
		5	5.00000	604.25543	8.27465e-3			
		6	10.00000	1235.15466	8.09615e-3			
23.337	2	1	1.00000e-1	6.15006	1.62600e-2			Chrysene #13
		2	5.00000e-1	30.91224	1.61748e-2			
		3	1.00000	64.16498	1.55848e-2			
		4	2.00000	130.01958	1.53823e-2			
		5	5.00000	327.80472	1.52530e-2			
		6	10.00000	668.69543	1.49545e-2			
23.357	1	1	1.00000e-1	2.37958	4.20241e-2			Chrysene #13
		2	5.00000e-1	11.79001	4.24088e-2			
		3	1.00000	24.51306	4.07946e-2			
		4	2.00000	49.27580	4.05879e-2			
		5	5.00000	123.19585	4.05858e-2			
		6	10.00000	252.46683	3.96092e-2			
26.064	2	1	1.00000e-1	4.57150	2.18747e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.64764	2.20774e-2			
		3	1.00000	46.88808	2.13274e-2			
		4	2.00000	95.03743	2.10443e-2			
		5	5.00000	238.78767	2.09391e-2			
		6	10.00000	487.47803	2.05137e-2			
26.079	1	1	1.00000e-1	5.48437	1.82336e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.72870	1.80319e-2			
		3	1.00000	57.64222	1.73484e-2			
		4	2.00000	116.48901	1.71690e-2			
		5	5.00000	292.99271	1.70653e-2			
		6	10.00000	595.50562	1.67925e-2			
27.495	2	1	5.00000e-2	2.19067	2.28241e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.30655	2.42564e-2			
		3	5.00000e-1	21.77243	2.29648e-2			
		4	1.00000	43.78368	2.28396e-2			
		5	2.50000	109.96069	2.27354e-2			
		6	5.00000	224.33841	2.22878e-2			
27.510	1	1	5.00000e-2	16.92470	2.95426e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.46227	2.99537e-3			
		3	5.00000e-1	174.54939	2.86452e-3			
		4	1.00000	351.08521	2.84831e-3			
		5	2.50000	882.24713	2.83367e-3			
		6	5.00000	1792.05200	2.79010e-3			
28.596	2	1	1.00000e-1	3.90243	2.56251e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.74469	2.98602e-2			
		3	1.00000	36.86427	2.71265e-2			
		4	2.00000	74.65511	2.67899e-2			
		5	5.00000	189.32166	2.64101e-2			
		6	10.00000	390.50266	2.56080e-2			
28.614	1	1	1.00000e-1	19.55420	5.11399e-3			Benzo(a)pyrene #16
		2	5.00000e-1	97.80115	5.11241e-3			
		3	1.00000	203.63187	4.91082e-3			
		4	2.00000	413.85422	4.83262e-3			
		5	5.00000	1045.54724	4.78218e-3			
		6	10.00000	2137.81030	4.67768e-3			
30.454	2	1	1.00000e-1	1.00112	9.98882e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	5.15278	9.70350e-2			

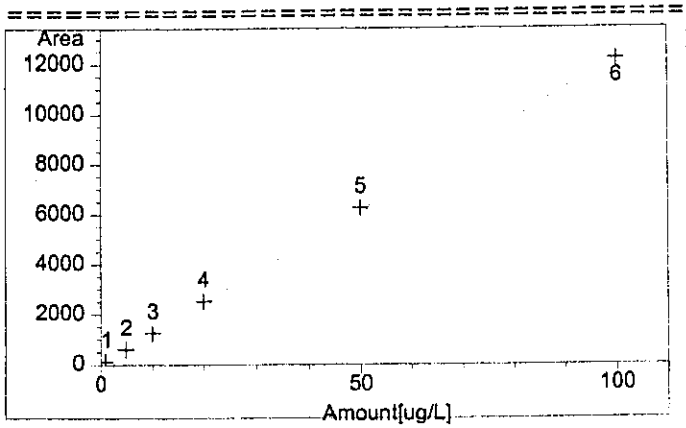
366

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	11.97529	8.35053e-2			
		4	2.00000	21.19111	9.43792e-2			
		5	5.00000	52.23464	9.57219e-2			
		6	10.00000	107.04004	9.34230e-2			
30.474	1	1	1.00000e-1	2.22269	4.49905e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.53541	4.33448e-2			
		3	1.00000	23.79175	4.20314e-2			
		4	2.00000	48.37757	4.13415e-2			
		5	5.00000	122.97315	4.06593e-2			
		6	10.00000	251.97131	3.96871e-2			
31.264	2	1	1.00000e-1	2.34328	4.26753e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	9.25292	5.40370e-2			
		3	1.00000	18.48934	5.40852e-2			
		4	2.00000	36.61276	5.46258e-2			
		5	5.00000	92.88844	5.38280e-2			
		6	10.00000	190.01508	5.26274e-2			
31.287	1	1	1.00000e-1	3.18651	3.13823e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	16.16728	3.09267e-2			
		3	1.00000	33.82579	2.95632e-2			
		4	2.00000	68.83204	2.90562e-2			
		5	5.00000	174.47961	2.86566e-2			
		6	10.00000	358.59521	2.78866e-2			
32.225	2	1	1.00000e-1	3.42590	2.91894e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.58914	2.31598e-2			
		3	1.00000	46.04763	2.17166e-2			
		4	2.00000	94.45714	2.11736e-2			
		5	5.00000	240.26486	2.08104e-2			
		6	10.00000	492.90811	2.02878e-2			
32.233	1	1	1.00000e-1	6.77440	1.47614e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	33.25379	1.50359e-2			
		3	1.00000	68.94070	1.45052e-2			
		4	2.00000	139.75822	1.43104e-2			
		5	5.00000	351.40439	1.42286e-2			
		6	10.00000	717.39240	1.39394e-2			

Peak Sum Table

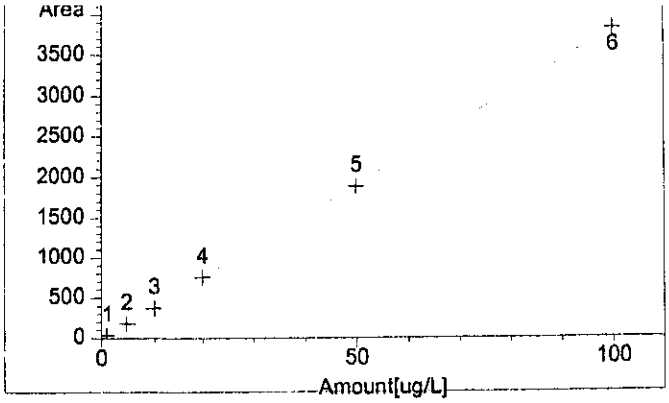
No Entries in table

Calibration Curves

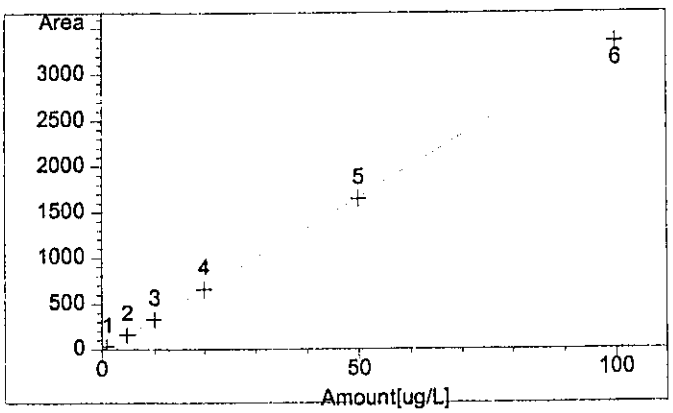


Naphthalene #1 at exp. RT: 9.370
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 70.57790
Formula: y = mx + b
m: 121.93837
b: 33.17626
x: Amount [ug/L]
y: Area

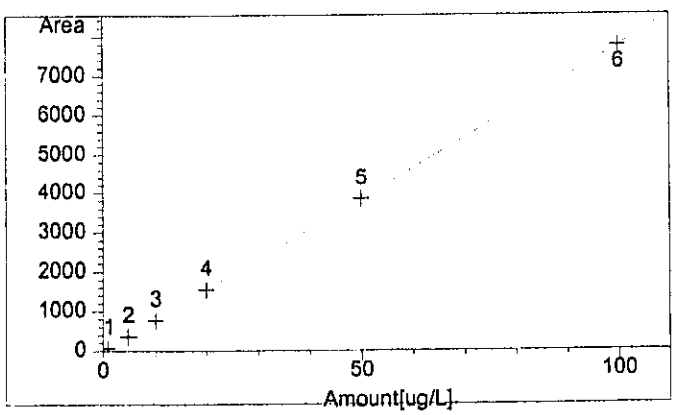
367



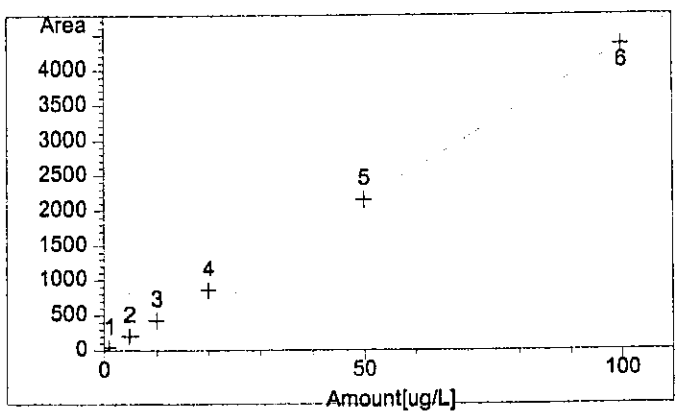
Naphthalene #1 at exp. RT: 9.588
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.65995
Formula: y = mx + b
m: 38.17062
b: -8.14096
x: Amount [ug/L]
y: Area



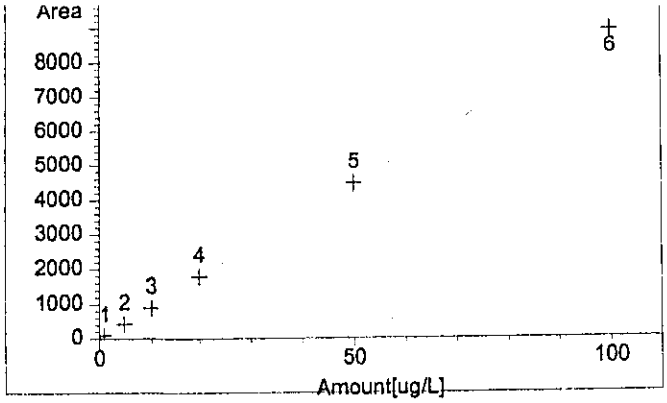
Acenaphthylene #2 at exp. RT: 10.995
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 11.19977
Formula: y = mx + b
m: 33.48891
b: -7.22387
x: Amount [ug/L]
y: Area



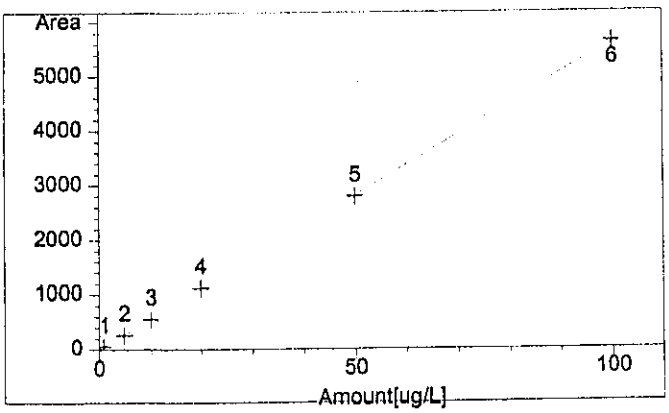
1-Methylnaphthalene #3 at exp. RT: 11.942
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 10.69411
Formula: y = mx + b
m: 77.62274
b: -10.90308
x: Amount [ug/L]
y: Area



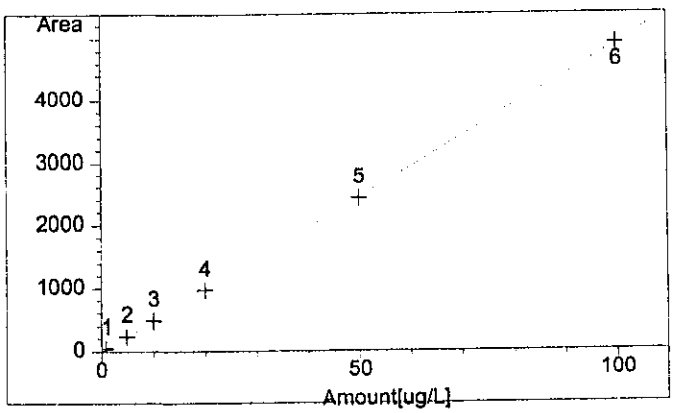
1-Methylnaphthalene #3 at exp. RT: 11.959
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 10.09079
Formula: y = mx + b
m: 43.58179
b: -8.63216
x: Amount [ug/L]
y: Area



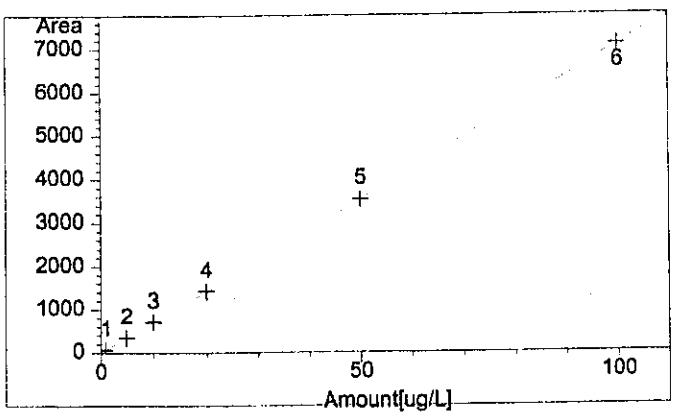
2-Methylnaphthalene #4 at exp. RT: 12.534
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 14.18056
Formula: y = mx + b
m: 89.00733
b: 2.31405
x: Amount [ug/L]
y: Area



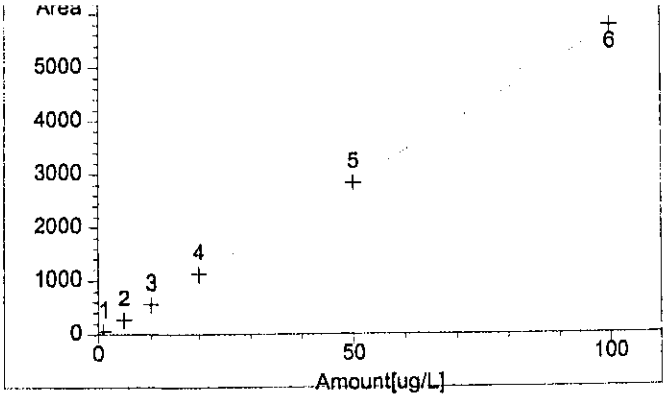
2-Methylnaphthalene #4 at exp. RT: 12.534
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 9.72550
Formula: y = mx + b
m: 56.30384
b: -7.86135
x: Amount [ug/L]
y: Area



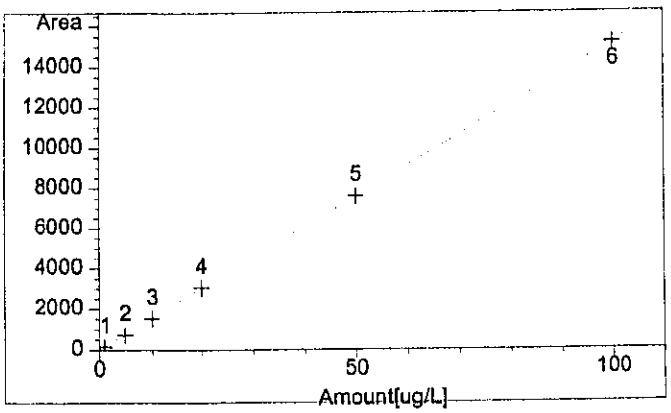
Acenaphthene #5 at exp. RT: 12.994
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 11.55898
Formula: y = mx + b
m: 49.09260
b: -9.52241
x: Amount [ug/L]
y: Area



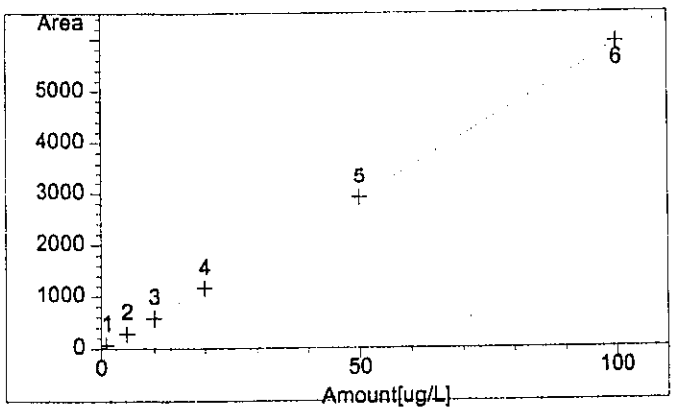
Acenaphthene #5 at exp. RT: 13.012
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 5.91307
Formula: y = mx + b
m: 70.88847
b: -4.94990
x: Amount [ug/L]
y: Area



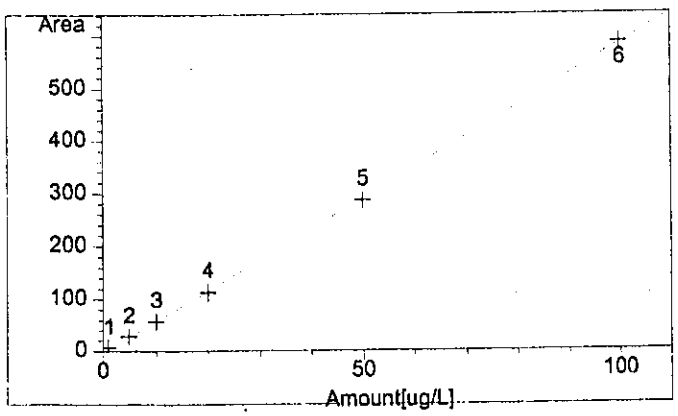
Fluorene #6 at exp. RT: 13.663
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 16.43131
Formula: y = mx + b
m: 57.48589
b: -14.05816
x: Amount [ug/L]
y: Area



Fluorene #6 at exp. RT: 13.663
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 18.11896
Formula: y = mx + b
m: 151.72220
b: 3.12530e-1
x: Amount [ug/L]
y: Area

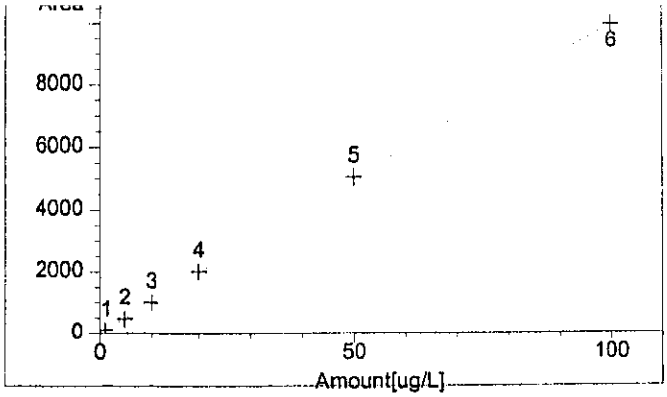


Phenanthrene #7 at exp. RT: 15.028
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 18.06229
Formula: y = mx + b
m: 59.29212
b: -13.72762
x: Amount [ug/L]
y: Area

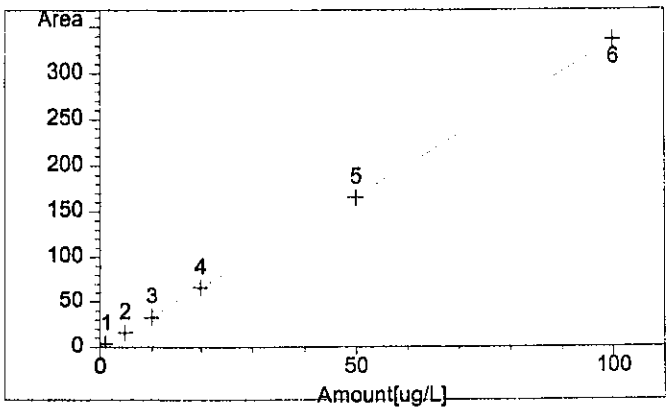


Phenanthrene #7 at exp. RT: 15.046
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 3.01563
Formula: y = mx + b
m: 5.85144
b: -1.54327
x: Amount [ug/L]
y: Area

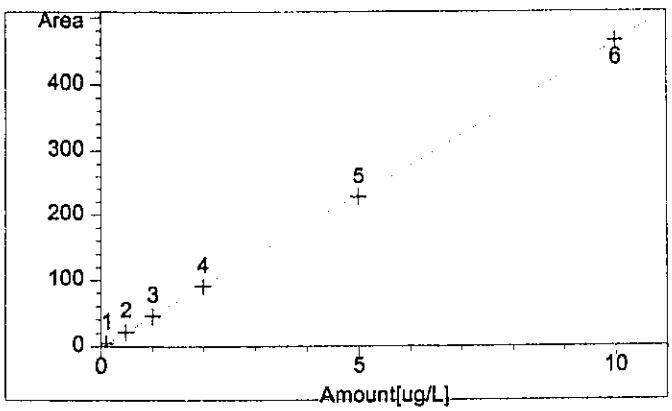
370



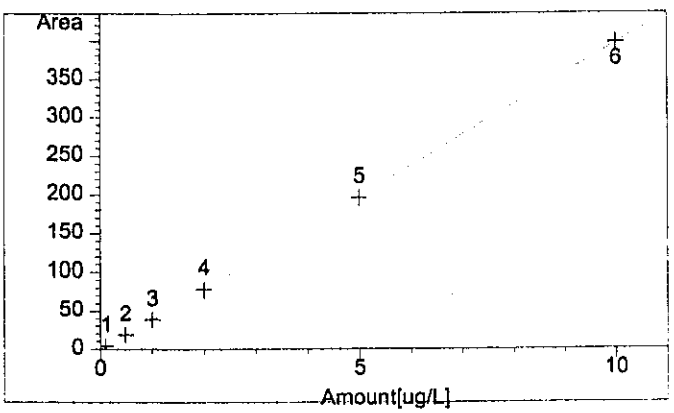
Anthracene #8 at exp. RT: 16.151
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 27.85848
Formula: y = mx + b
m: 99.66958
b: 6.85395
x: Amount[ug/L]
y: Area



Anthracene #8 at exp. RT: 16.450
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.04930
Formula: y = mx + b
m: 3.35612
b: -6.81187e-1
x: Amount[ug/L]
y: Area

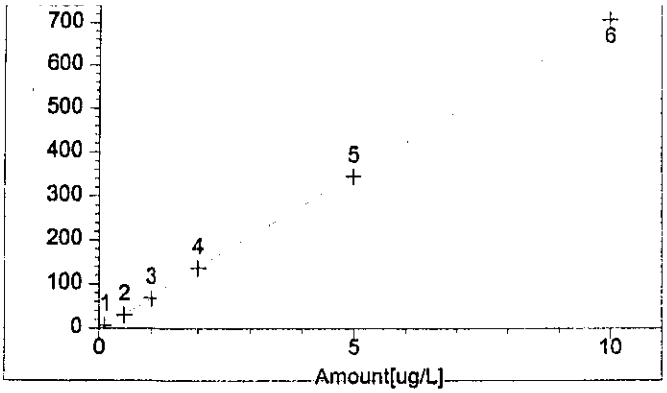


Fluoranthene #9 at exp. RT: 17.806
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.79879
Formula: y = mx + b
m: 46.44231
b: -1.53335
x: Amount[ug/L]
y: Area

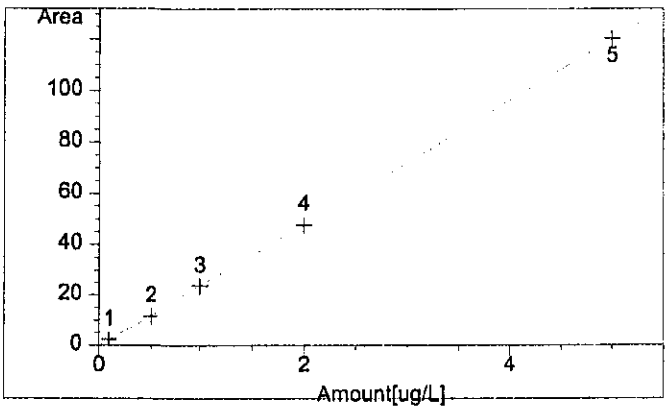


Fluoranthene #9 at exp. RT: 17.824
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.22857
Formula: y = mx + b
m: 39.72087
b: -9.33708e-1
x: Amount[ug/L]
y: Area

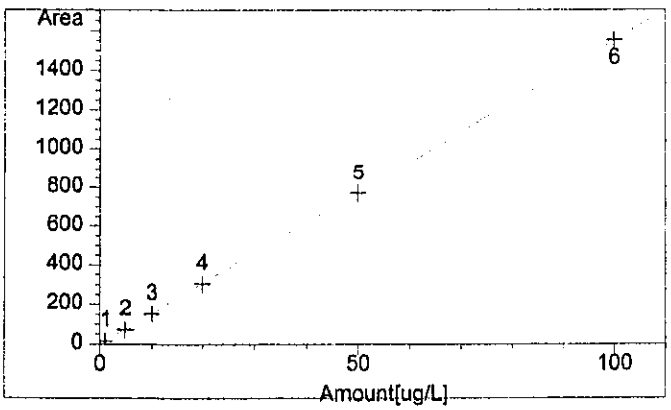
371



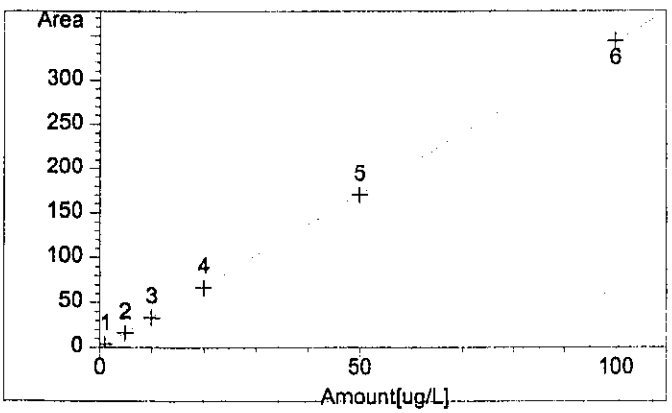
Pyrene #10 at exp. RT: 18.809
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 3.15034
Formula: y = mx + b
m: 70.72982
b: -3.06030
x: Amount [ug/L]
y: Area



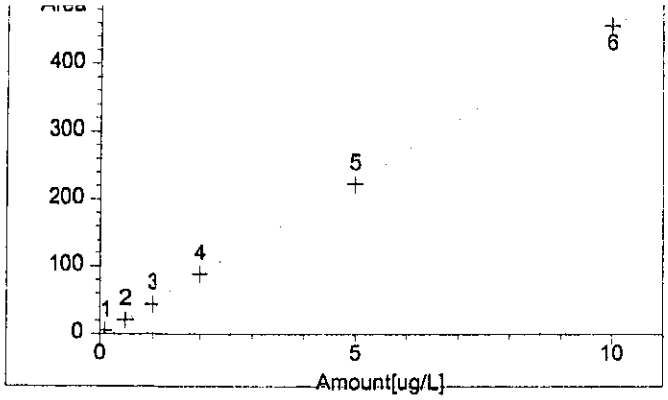
Pyrene #10 at exp. RT: 18.828
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.23587
Formula: y = mx + b
m: 24.10078
b: -2.92066e-1
x: Amount [ug/L]
y: Area



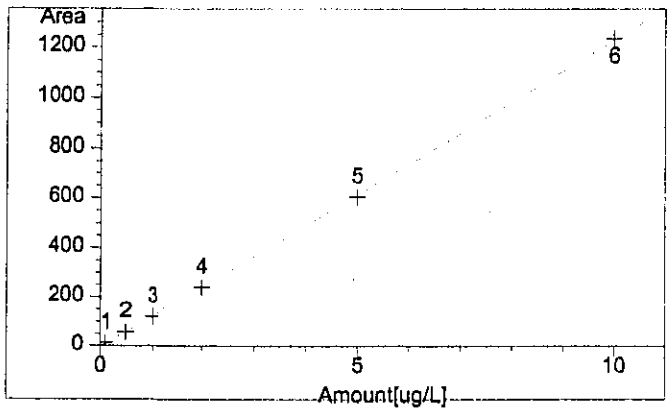
p-Terphenyl d14 #11* at exp. RT: 21.150
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 2.89474
Formula: y = mx + b
m: 15.55717
b: -3.76840
x: Amount [ug/L]
y: Area



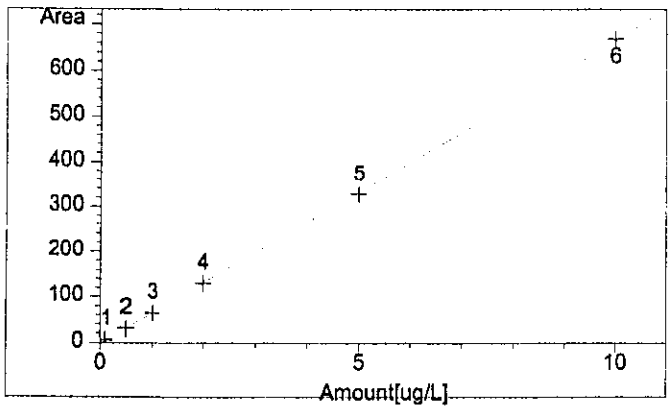
p-Terphenyl d14 #11* at exp. RT: 21.166
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 0.89731
Formula: y = mx + b
m: 3.43813
b: -8.33877e-1
x: Amount [ug/L]
y: Area



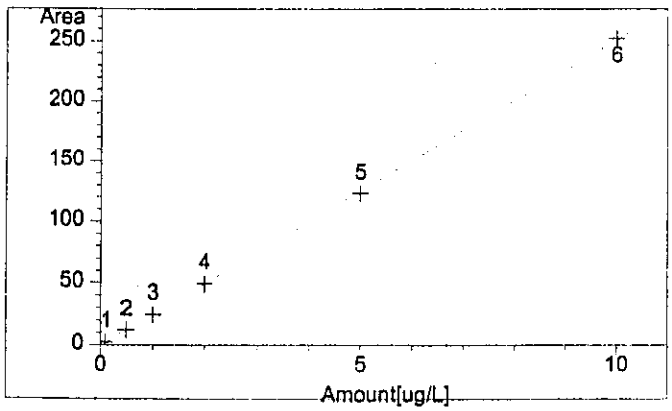
Benzo(a)anthracene #12 at exp. RT: 22.466
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.08992
Formula: y = mx + b
m: 45.66201
b: -1.57303
x: Amount [ug/L]
y: Area



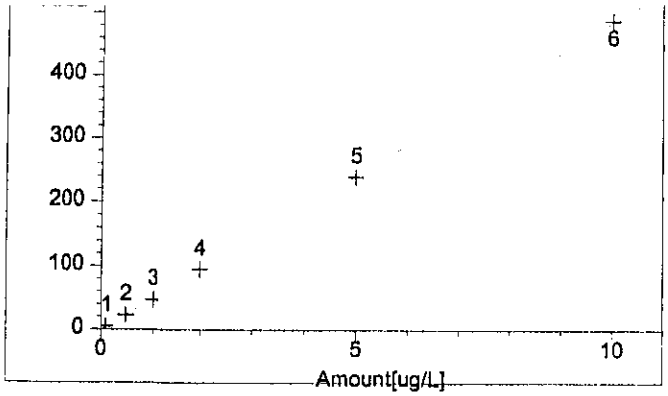
Benzo(a)anthracene #12 at exp. RT: 22.485
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 5.24449
Formula: y = mx + b
m: 123.41194
b: -3.93419
x: Amount [ug/L]
y: Area



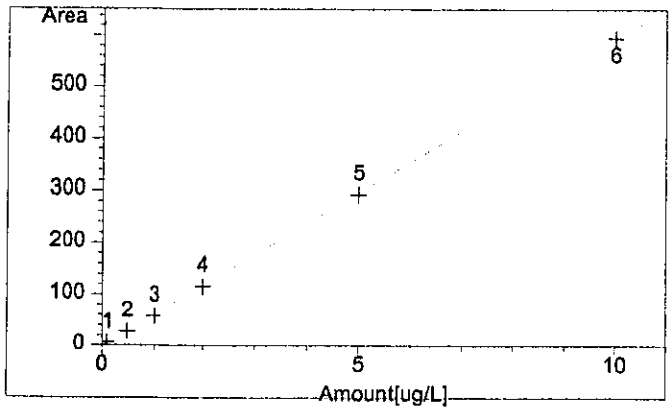
Chrysene #13 at exp. RT: 23.337
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 2.60337
Formula: y = mx + b
m: 66.84989
b: -2.23727
x: Amount [ug/L]
y: Area



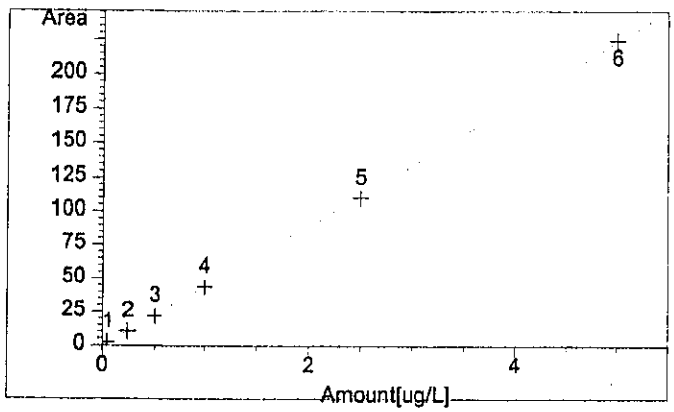
Chrysene #13 at exp. RT: 23.357
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.16361
Formula: y = mx + b
m: 25.21041
b: -7.56072e-1
x: Amount [ug/L]
y: Area



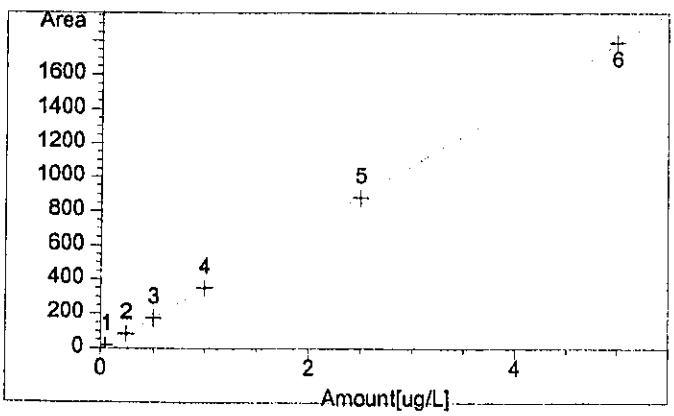
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.93804
Formula: y = mx + b
m: 48.71807
b: -1.53510
x: Amount [ug/L]
y: Area



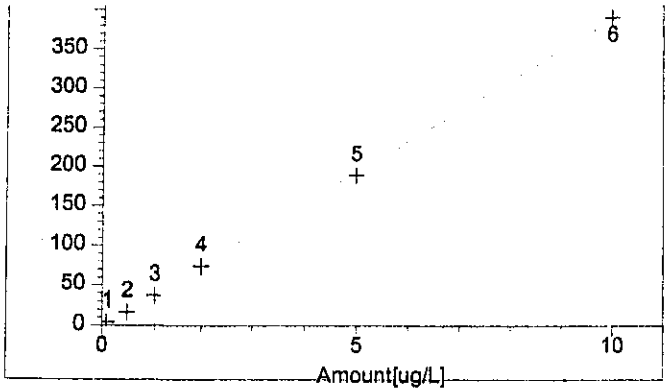
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.87852
Formula: y = mx + b
m: 59.54246
b: -1.66387
x: Amount [ug/L]
y: Area



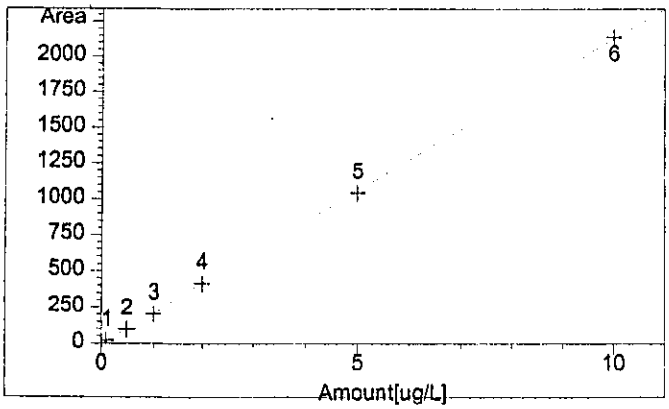
Benzo(k)fluoranthene #15 at exp. RT: 27.4
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 0.87725
Formula: y = mx + b
m: 44.83633
b: -6.60775e-1
x: Amount [ug/L]
y: Area



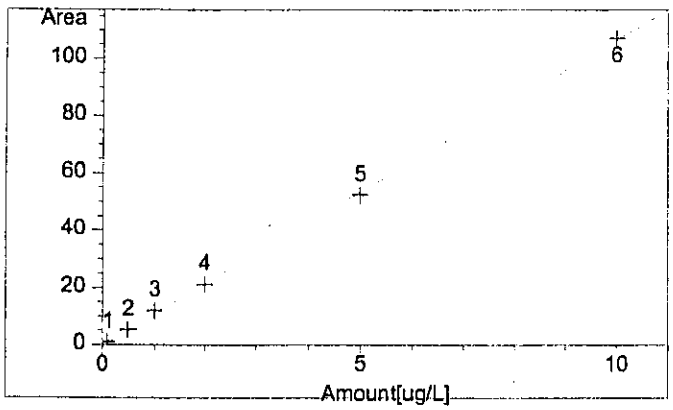
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 5.46079
Formula: y = mx + b
m: 358.31240
b: -4.56924
x: Amount [ug/L]
y: Area



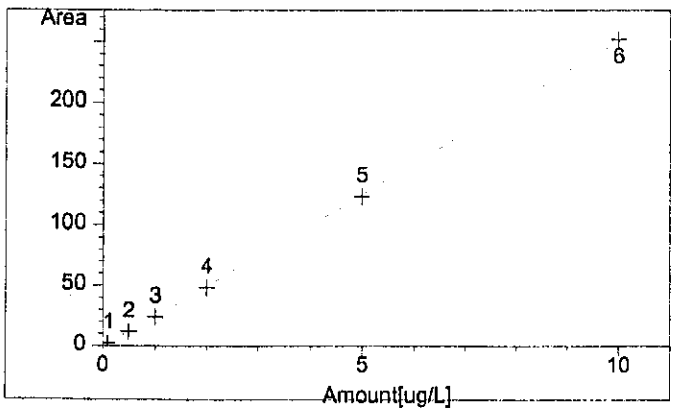
Benzo(a)pyrene #16 at exp. RT: 28.590
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 2.45350
Formula: y = mx + b
m: 39.02551
b: -1.98338
x: Amount[ug/L]
y: Area



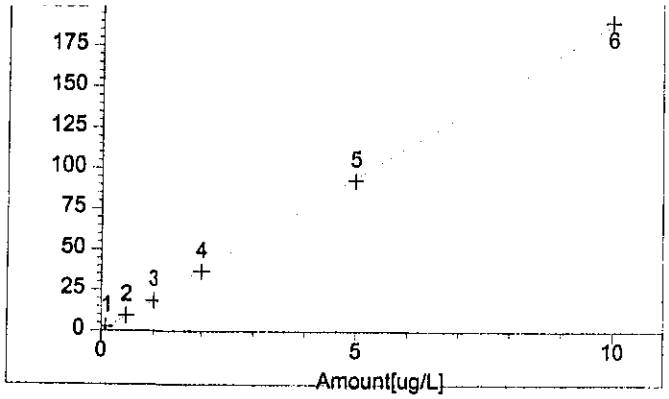
Benzo(a)pyrene #16 at exp. RT: 28.614
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 9.37532
Formula: y = mx + b
m: 213.72380
b: -8.15195
x: Amount[ug/L]
y: Area



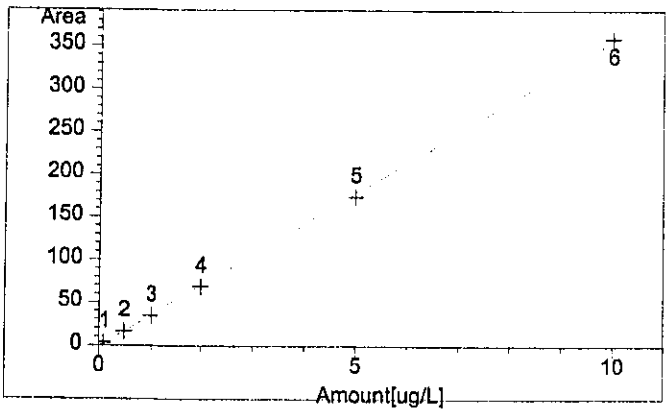
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 0.78590
Formula: y = mx + b
m: 10.64996
b: 7.22431e-2
x: Amount[ug/L]
y: Area



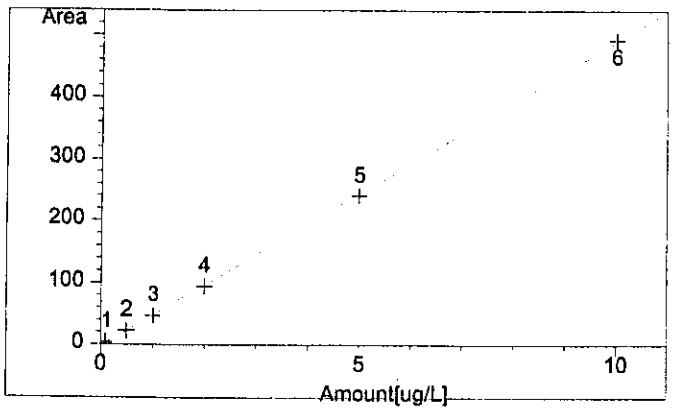
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 1.23730
Formula: y = mx + b
m: 25.19279
b: -1.10201
x: Amount[ug/L]
y: Area



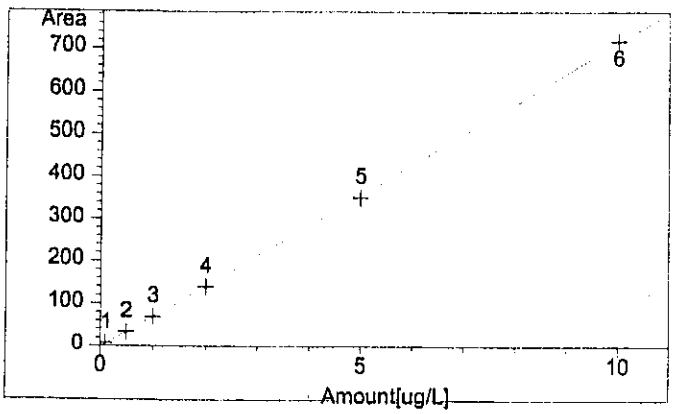
Benzo(g,h,i)perylene #18 at exp. RT: 31.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 0.96678
Formula: y = mx + b
m: 18.95449
b: -4.21667e-1
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 1.93390
Formula: y = mx + b
m: 35.84471
b: -1.66074
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: 0.99992
Residual Std. Dev.: 2.46375
Formula: y = mx + b
m: 49.34055
b: -2.72022
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: 0.99995
Residual Std. Dev.: 2.87271
Formula: y = mx + b
m: 71.69796
b: -2.29402
x: Amount[ug/L]
y: Area

==========

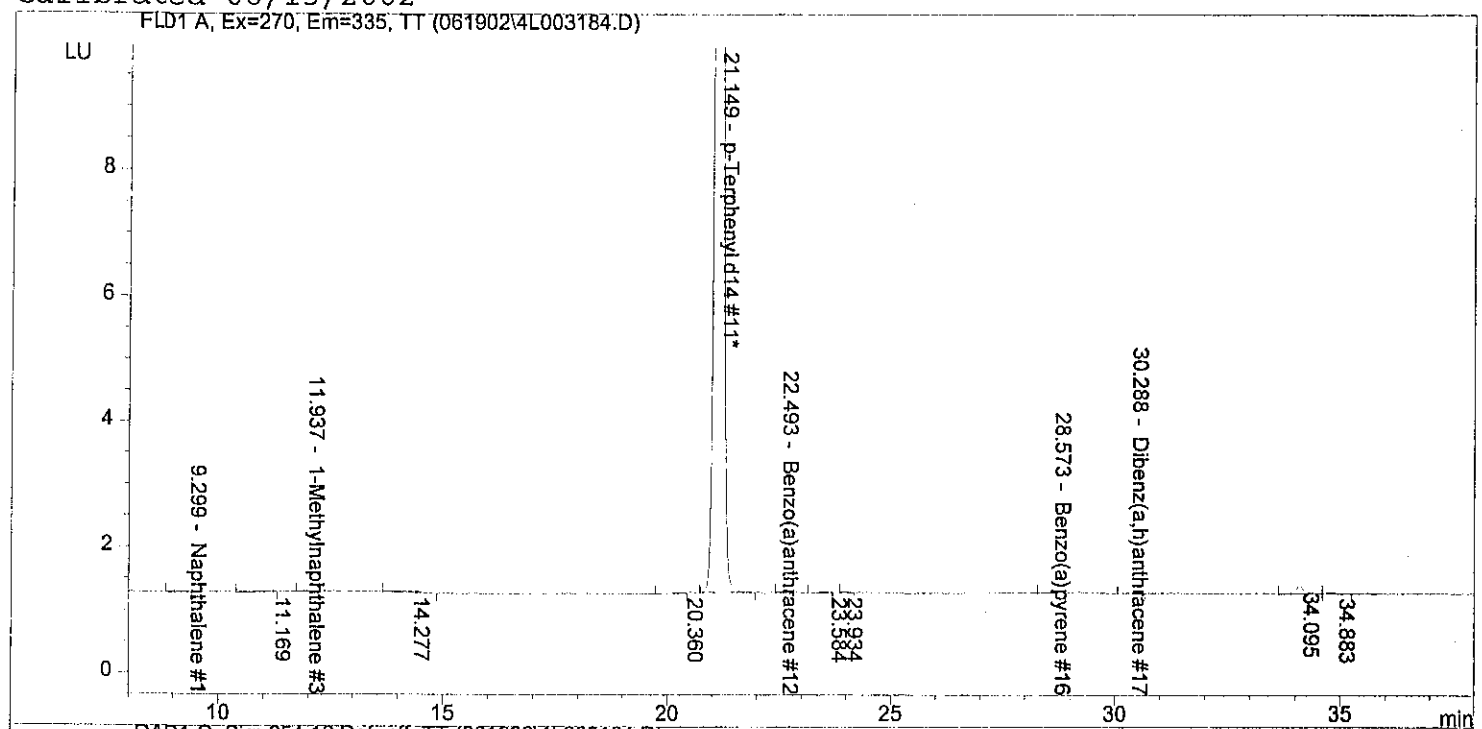
1,1 SOS58-26 LEVEL 6 SURROGATE @ 100 ppm

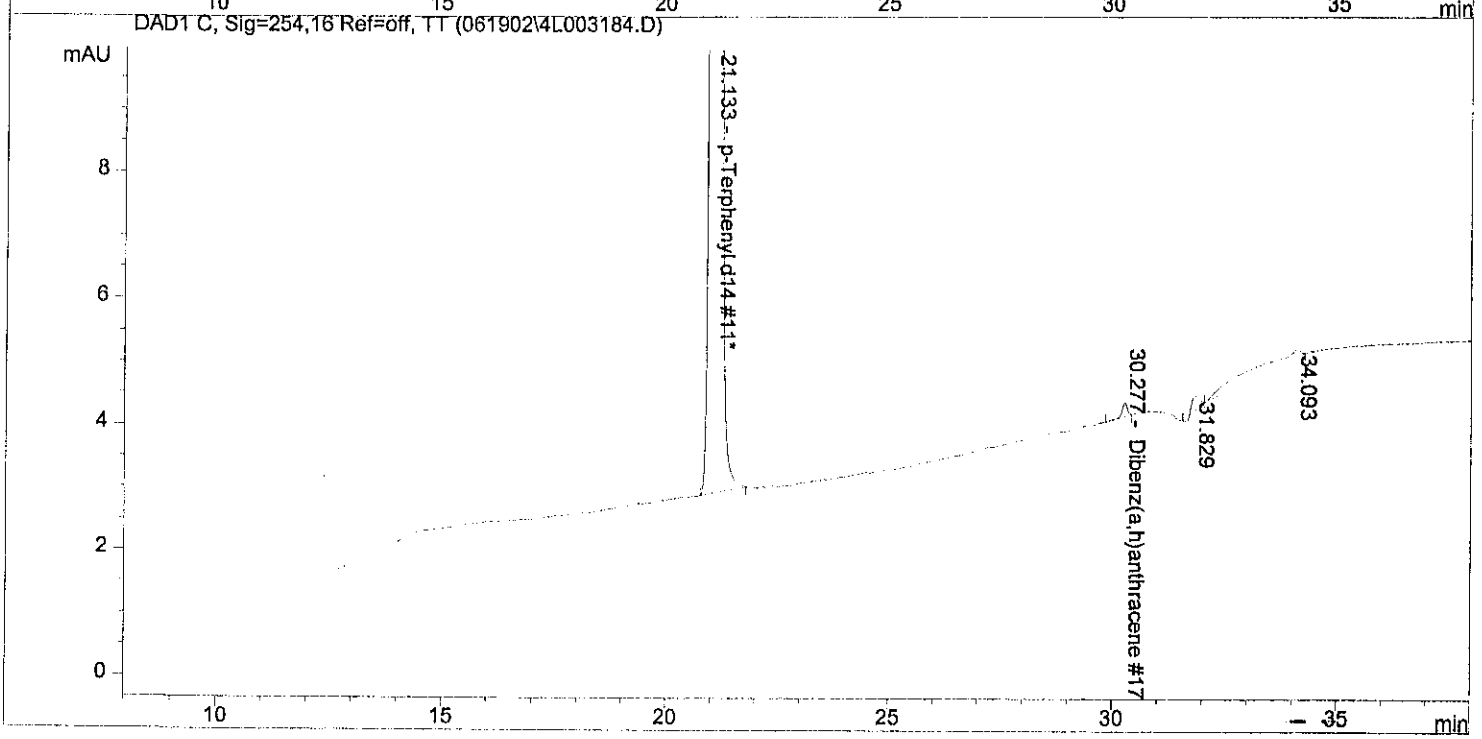
==========

Injection Date	: 6/19/2002 5:03:30 PM	Seq. Line :	2
Sample Name	: WG120164-01 STD6	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:42:11 AM by RDC
(modified after loading)

Calibrated 06/13/2002





377

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:42:06 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
9.299	BB	2.77743e-1	0.00000	0.00000		Naphthalene #1
11.937	BB	1.78093e-1	0.00000	0.00000		1-Methylnaphthalene #3
12.497		-	-	-		2-Methylnaphthalene #4
12.974		-	-	-		Acenaphthene #5
13.625		-	-	-		Fluorene #6
15.006		-	-	-		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.779		-	-	-		Fluoranthene #9
18.779		-	-	-		Pyrene #10
21.149	BBA	343.67426	2.91907e-1	100.32083		p-Terphenyl d14 #11*
22.493	BB	2.04240e-1	0.00000	0.00000		Benzo(a)anthracene #12
23.280		-	-	-		Chrysene #13
26.003		-	-	-		Benzo(b)fluoranthene #14
27.438		-	-	-		Benzo(k)fluoranthene #15
28.573	PBA	1.70233e-1	0.00000	0.00000		Benzo(a)pyrene #16
30.288	PB	3.06192e-1	0.00000	0.00000		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.172		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				100.32083		

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
9.335		-	-	-		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.906		-	-	-		1-Methylnaphthalene #3
12.479		-	-	-		2-Methylnaphthalene #4
12.956		-	-	-		Acenaphthene #5
13.606		-	-	-		Fluorene #6
14.988		-	-	-		Phenanthrene #7
16.387		-	-	-		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.133	PBA	1553.84106	6.45287e-2	100.26737		p-Terphenyl d14 #11*
22.401		-	-	-		Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.277	PBA	1.63578	0.00000	0.00000		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.26737

Results obtained with enhanced integrator!
7 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (1-Methylnaph
Warning : Negative results set to zero (cal. curve intercept), (Benzo(a)anth
Warning : Negative results set to zero (cal. curve intercept), (Benzo(a)pyre
Warning : Negative results set to zero (cal. curve intercept), (Dibenz(a,h)a
Warning : Negative results set to zero (cal. curve intercept), (Dibenz(a,h)a

==========

*** End of Report ***

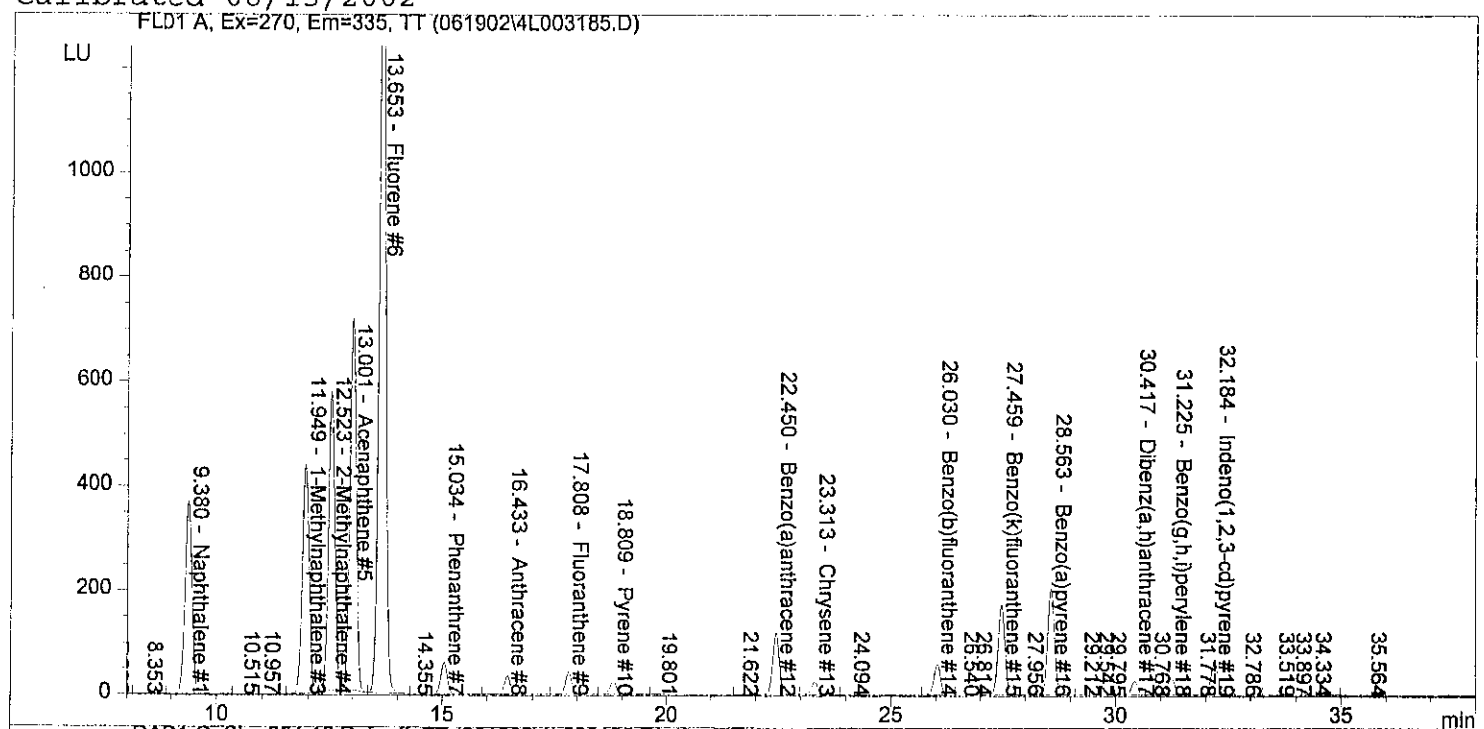
1,1 SOS59-38 LEVEL 6 STD @ 100/10/5 ppm

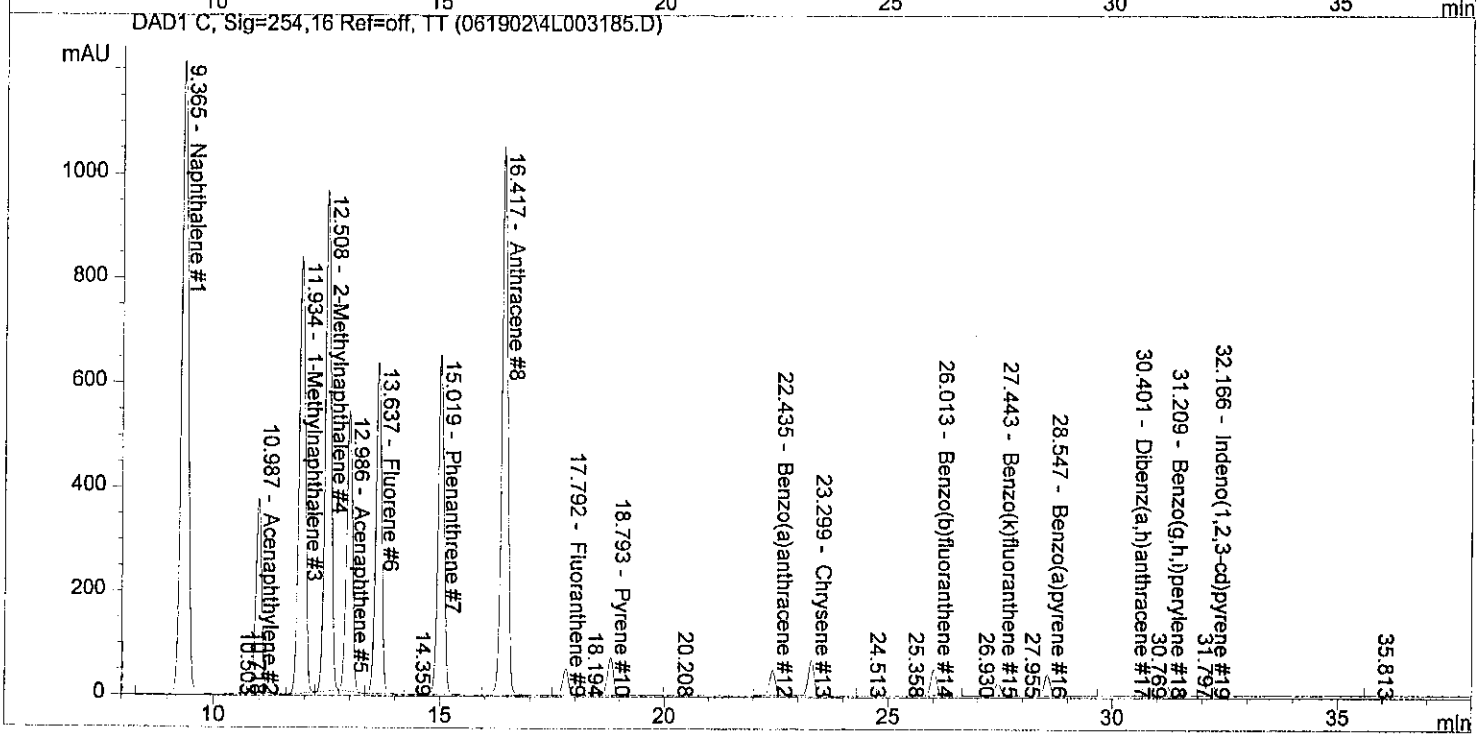
==========

Injection Date	: 6/19/2002 6:00:05 PM	Seq. Line :	3
Sample Name	: WG120164-02 STD6	Vial :	3
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:42:54 AM by RDC
(modified after loading)

Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:42:48 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	3818.87573	2.62437e-2	100.22159		Naphthalene #1
11.949	BB	4358.92773	2.29707e-2	100.12780		1-Methylnaphthalene #3
12.523	BB	5631.00635	1.77559e-2	99.98355		2-Methylnaphthalene #4
13.001	BB	7085.17041	1.41037e-2	99.92711		Acenaphthene #5
13.653	BB	1.51592e4	6.59341e-3	99.95082		Fluorene #6
15.034	BBA	586.44727	1.71254e-1	100.43156		Phenanthrene #7
16.433	BB	335.92169	2.98537e-1	100.28501		Anthracene #8
17.808	BB	397.42139	2.52545e-2	10.03667		Fluoranthene #9
18.809	BBA	245.56323	4.14121e-2	10.16929		Pyrene #10
21.149		-	-	-		p-Terphenyl d14 #11*
22.450	BB	1235.15466	8.12984e-3	10.04161		Benzo(a)anthracene #12
23.313	BB	252.46683	3.97636e-2	10.03898		Chrysene #13
26.030	BB	595.50562	1.68622e-2	10.04154		Benzo(b)fluoranthene #14
27.459	BB	1792.05200	2.79946e-3	5.01678		Benzo(k)fluoranthene #15
28.563	BB	2137.81030	4.70006e-3	10.04783		Benzo(a)pyrene #16
30.417	BB	251.97131	3.98946e-2	10.05230		Dibenz(a,h)anthracene #17
31.225	BB	358.59521	2.80699e-2	10.06575		Benzo(g,h,i)perylene #18
32.184	BB	717.39240	1.39874e-2	10.03448		Indeno(1,2,3-cd)pyrene #1

Totals : 796.47265

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	1.21595e4	8.19195e-3	99.61008		Naphthalene #1
10.987	BB	3352.51904	2.99467e-2	100.39688		Acenaphthylene #2
11.934	BB	7760.07324	1.29190e-2	100.25243		1-Methylnaphthalene #3
12.508	BB	8891.12988	1.12465e-2	99.99414		2-Methylnaphthalene #4
12.986	BB	4910.46826	2.04258e-2	100.30002		Acenaphthene #5
13.637	BB	5749.89111	1.74664e-2	100.42973		Fluorene #6
15.019	BBA	5932.12939	1.69982e-2	100.83579		Phenanthrene #7
16.417	BBA	9947.86328	1.00415e-2	99.89152		Anthracene #8
17.792	PB	464.57758	2.16306e-2	10.04910		Fluoranthene #9
18.793	BBA	706.87067	1.42266e-2	10.05634		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.435	BB	457.02676	2.20189e-2	10.06322		Benzo(a)anthracene #12
23.299	BBA	668.69543	1.50409e-2	10.05776		Chrysene #13
26.013	BBA	487.47803	2.06231e-2	10.05330		Benzo(b)fluoranthene #14
27.443	BB	224.33841	2.24204e-2	5.02976		Benzo(k)fluoranthene #15
28.547	BB	390.50266	2.57763e-2	10.06572		Benzo(a)pyrene #16
30.401	BB	107.04004	9.35045e-2	10.00873		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.209	BB	190.01508	5.28975e-2	10.05133		Benzo(g,h,i)perylene #18
32.166	BBA	492.90811	2.04215e-2	10.06594		Indeno(1,2,3-cd)pyrene #1

Totals : 897.21179

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 5 STD @ 50/50/2.5 ppm

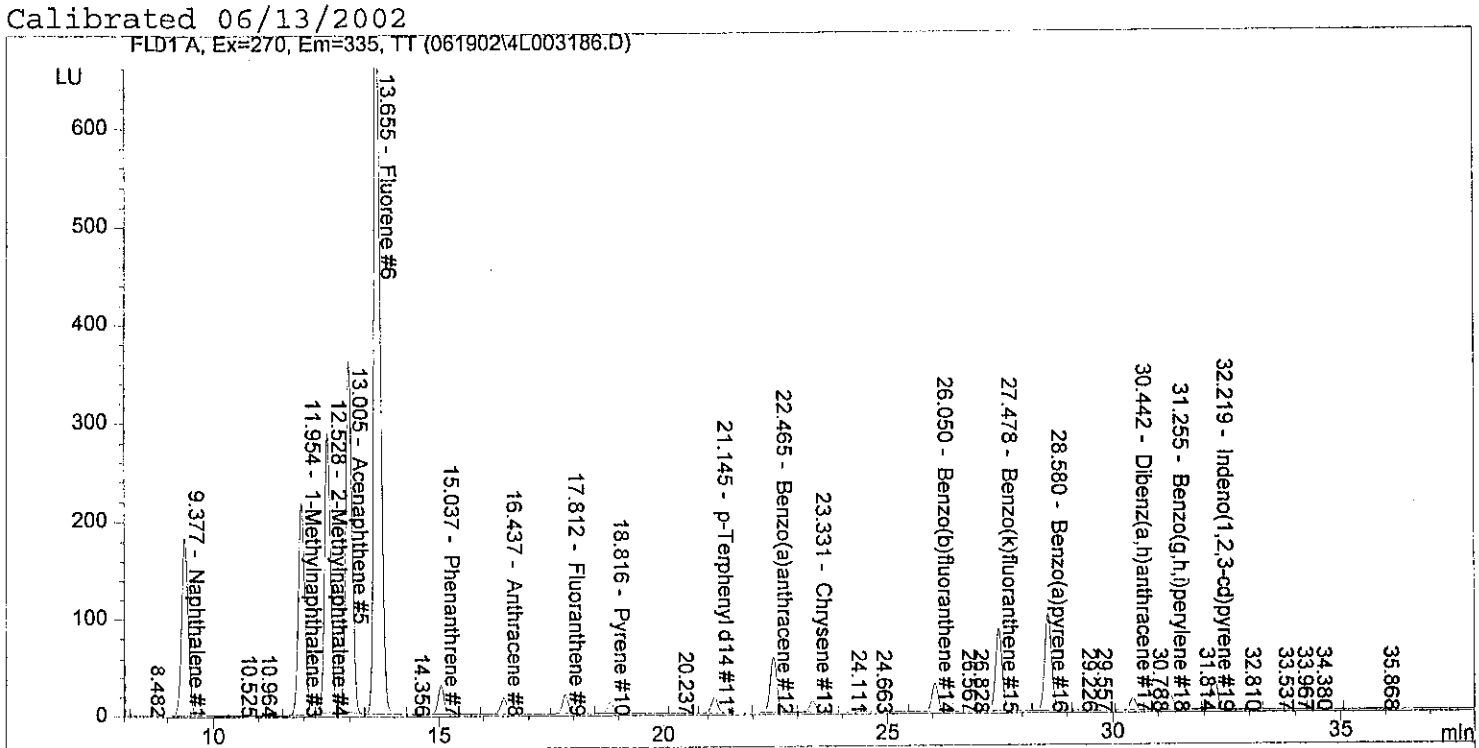
==========

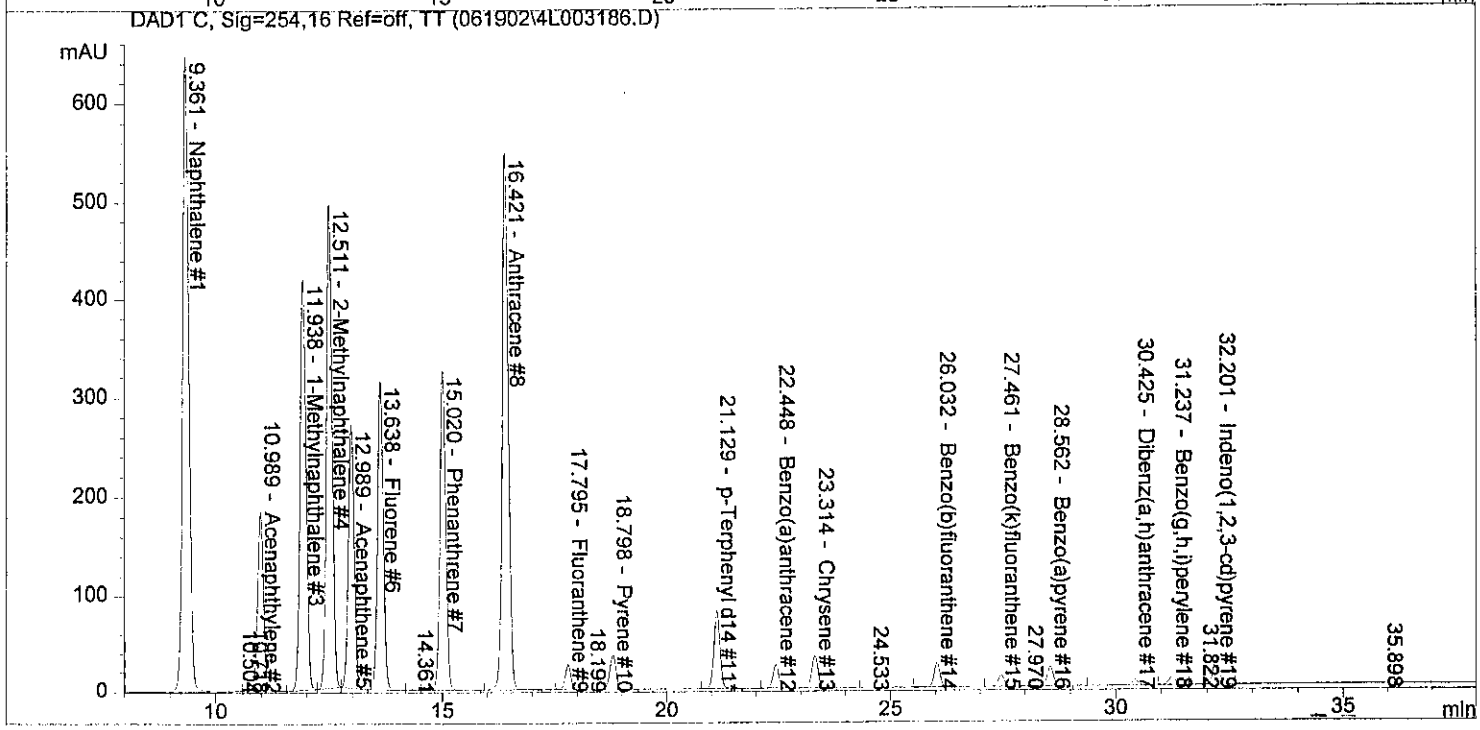
Injection Date : 6/19/2002 6:56:44 PM
Sample Name : WG120164-03 STD5
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:43:28 AM by RDC
(modified after loading)

Calibrated 06/13/2002





383

==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:43:25 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	1881.29065	2.63131e-2	49.50264		Naphthalene #1
11.954	BB	2153.76392	2.30283e-2	49.59744		1-Methylnaphthalene #3
12.528	BB	2790.36157	1.78058e-2	49.68456		2-Methylnaphthalene #4
13.005	BB	3535.51440	1.41219e-2	49.92802		Acenaphthene #5
13.655	BB	7607.03076	6.58907e-3	50.12324		Fluorene #6
15.037	BBA	286.03766	1.71937e-1	49.18044		Phenanthrene #7
16.437	PB	165.22198	2.99107e-1	49.41899		Anthracene #8
17.812	PB	195.60518	2.53087e-2	4.95052		Fluoranthene #9
18.816	BBA	120.33789	4.15558e-2	5.00074		Pyrene #10
21.145	BBA	170.11554	2.92305e-1	49.72557		p-Terphenyl d14 #11*
22.465	BB	604.25543	8.15514e-3	4.92779		Benzo(a)anthracene #12
23.331	BBA	123.19585	3.99046e-2	4.91608		Chrysene #13
26.050	PB	292.99271	1.68934e-2	4.94964		Benzo(b)fluoranthene #14
27.478	BB	882.24713	2.80542e-3	2.47507		Benzo(k)fluoranthene #15
28.580	BB	1045.54724	4.71635e-3	4.93116		Benzo(a)pyrene #16
30.442	BB	122.97315	4.00415e-2	4.92403		Dibenz(a,h)anthracene #17
31.255	BB	174.47961	2.81717e-2	4.91540		Benzo(g,h,i)perylene #18
32.219	BB	351.40439	1.40377e-2	4.93292		Indeno(1,2,3-cd)pyrene #1

Totals : 444.08425

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	BBA	6248.73438	8.16646e-3	51.03002		Naphthalene #1
10.989	BB	1646.95264	3.00001e-2	49.40870		Acenaphthylene #2
11.938	BB	3853.44678	1.29242e-2	49.80286		1-Methylnaphthalene #3
12.511	BB	4472.15283	1.12330e-2	50.23561		2-Methylnaphthalene #4
12.989	BB	2425.16016	2.04531e-2	49.60203		Acenaphthene #5
13.638	BB	2832.44678	1.74887e-2	49.53595		Fluorene #6
15.020	BBA	2921.47241	1.69744e-2	49.59022		Phenanthrene #7
16.421	BBA	5037.00098	1.00204e-2	50.47291		Anthracene #8
17.795	PB	227.65421	2.16931e-2	4.93852		Fluoranthene #9
18.798	BBA	345.94687	1.42645e-2	4.93476		Pyrene #10
21.129	BBA	771.85547	6.46190e-2	49.87651		p-Terphenyl d14 #11*
22.448	PBA	223.22693	2.20610e-2	4.92460		Benzo(a)anthracene #12
23.314	BBA	327.80472	1.50602e-2	4.93681		Chrysene #13
26.032	BBA	238.78767	2.06928e-2	4.94118		Benzo(b)fluoranthene #14
27.461	BB	109.96069	2.24624e-2	2.46999		Benzo(k)fluoranthene #15
28.562	BB	189.32166	2.59120e-2	4.90571		Benzo(a)pyrene #16
30.425	BB	52.23464	9.42516e-2	4.92320		Dibenz(a,h)anthracene #17

384

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.237	BB	92.88844	5.27344e-2	4.89842		Benzo(g,h,i)perylene #18
32.201	BBA	240.26486	2.05147e-2	4.92897		Indeno(1,2,3-cd)pyrene #1

Totals : 496.35698

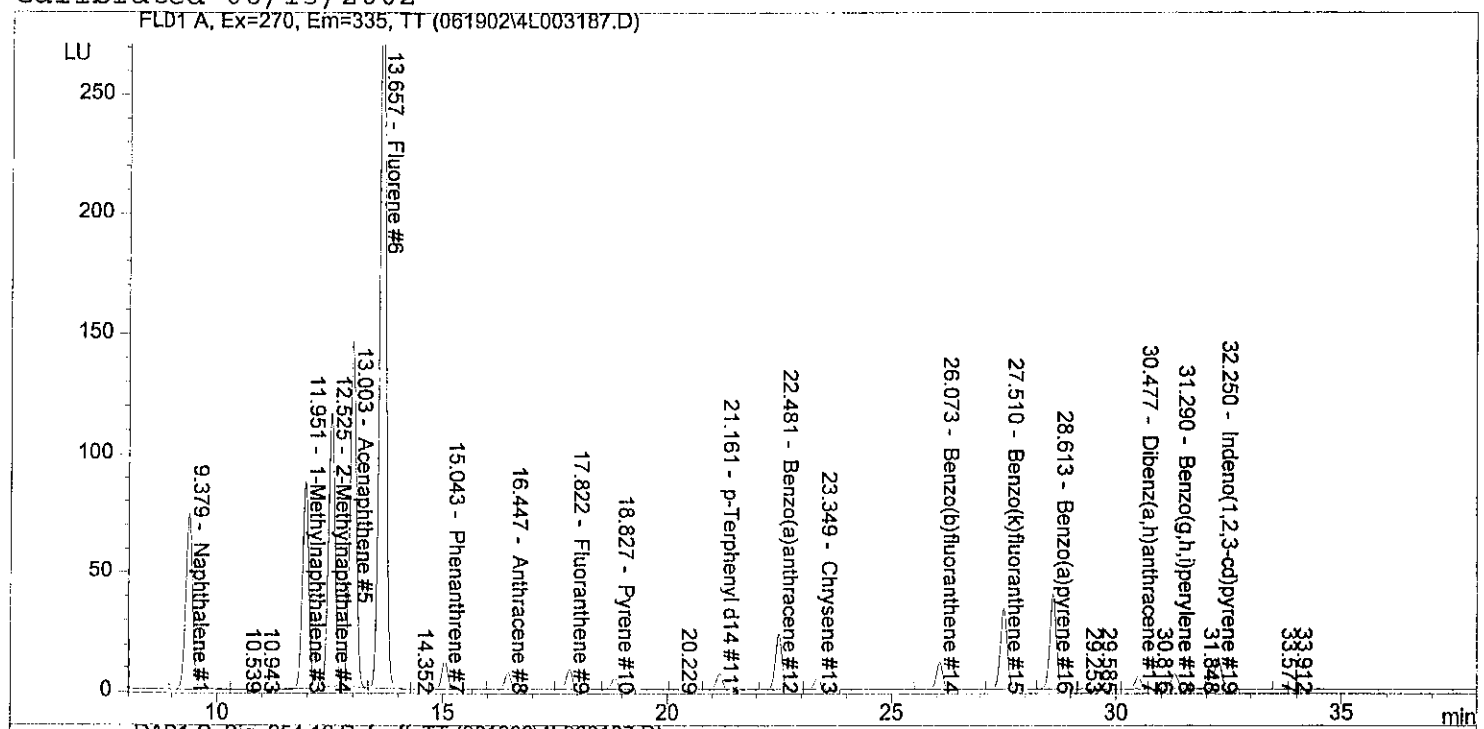
Results obtained with enhanced integrator!

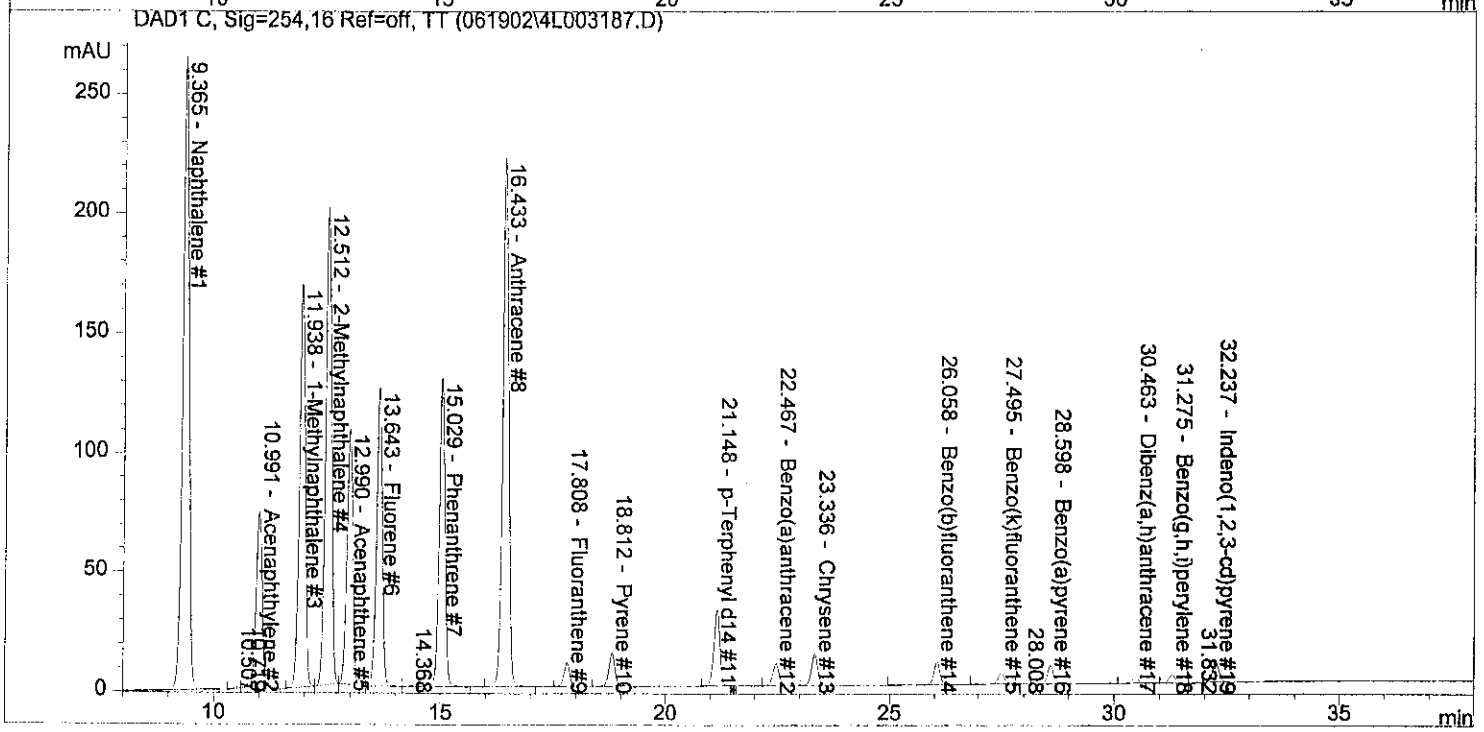
*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

Injection Date	: 6/19/2002 7:53:21 PM	Seq. Line :	5
Sample Name	: WG120164-04 STD4	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:44:13 AM by RDC
(modified after loading)
Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:44:09 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
9.379	BB	753.95251	2.64927e-2	19.97423		Naphthalene #1
11.951	BB	858.01282	2.31793e-2	19.88811		1-Methylnaphthalene #3
12.525	BB	1119.16992	1.78859e-2	20.01739		2-Methylnaphthalene #4
13.003	BB	1418.85522	1.41532e-2	20.08132		Acenaphthene #5
13.657	BB	3055.26025	6.59083e-3	20.13672		Fluorene #6
15.043	BBA	113.53256	1.73929e-1	19.74655		Phenanthrene #7
16.447	PBA	66.23384	3.01005e-1	19.93674		Anthracene #8
17.822	PB	78.11402	2.54898e-2	1.99111		Fluoranthene #9
18.827	BBA	47.68803	4.18033e-2	1.99352		Pyrene #10
21.161	BB	67.05980	2.94501e-1	19.74918		p-Terphenyl d14 #11*
22.481	BB	240.55975	8.23501e-3	1.98101		Benzo(a)anthracene #12
23.349	BB	49.27580	4.03067e-2	1.98615		Chrysene #13
26.073	PB	116.48901	1.70374e-2	1.98467		Benzo(b)fluoranthene #14
27.510	BB	351.08521	2.82853e-3	9.93056e-1		Benzo(k)fluoranthene #15
28.613	BB	413.85422	4.77227e-3	1.97503		Benzo(a)pyrene #16
30.477	BB	48.37757	4.05591e-2	1.96215		Dibenz(a,h)anthracene #17
31.290	BB	68.83204	2.85657e-2	1.96623		Benzo(g,h,i)perylene #18
32.250	BB	139.75822	1.41788e-2	1.98160		Indeno(1,2,3-cd)pyrene #1

Totals : 178.34476

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	BBA	2522.50317	8.11604e-3	20.47273		Naphthalene #1
10.991	BBA	658.61700	3.02252e-2	19.90686		Acenaphthylene #2
11.938	PB	1542.24731	1.29857e-2	20.02717		1-Methylnaphthalene #3
12.512	BB	1796.91260	1.12303e-2	20.17988		2-Methylnaphthalene #4
12.990	BB	969.13959	2.05833e-2	19.94806		Acenaphthene #5
13.643	BB	1129.35339	1.76278e-2	19.90797		Fluorene #6
15.029	BBA	1164.06238	1.71101e-2	19.91720		Phenanthrene #7
16.433	BBA	2019.75476	1.00006e-2	20.19869		Anthracene #8
17.808	PB	90.59781	2.19570e-2	1.98925		Fluoranthene #9
18.812	BBA	137.22350	1.44595e-2	1.98419		Pyrene #10
21.148	PBA	304.47540	6.50902e-2	19.81837		p-Terphenyl d14 #11*
22.467	BBA	88.71733	2.22988e-2	1.97829		Benzo(a)anthracene #12
23.336	BBA	130.01958	1.51969e-2	1.97589		Chrysene #13
26.058	BBA	95.03743	2.09855e-2	1.99441		Benzo(b)fluoranthene #14
27.495	PBA	43.78368	2.26996e-2	9.93871e-1		Benzo(k)fluoranthene #15
28.598	BBA	74.65511	2.63487e-2	1.96706		Benzo(a)pyrene #16
30.463	BB	21.19111	9.52662e-2	2.01880		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.275	BB	36.61276	5.26000e-2	1.92583		Benzo(g,h,i)perylene #18
32.237	BB	94.45714	2.08931e-2	1.97350		Indeno(1,2,3-cd)pyrene #1

Totals : 199.17802

Results obtained with enhanced integrator!

*** End of Report ***

388

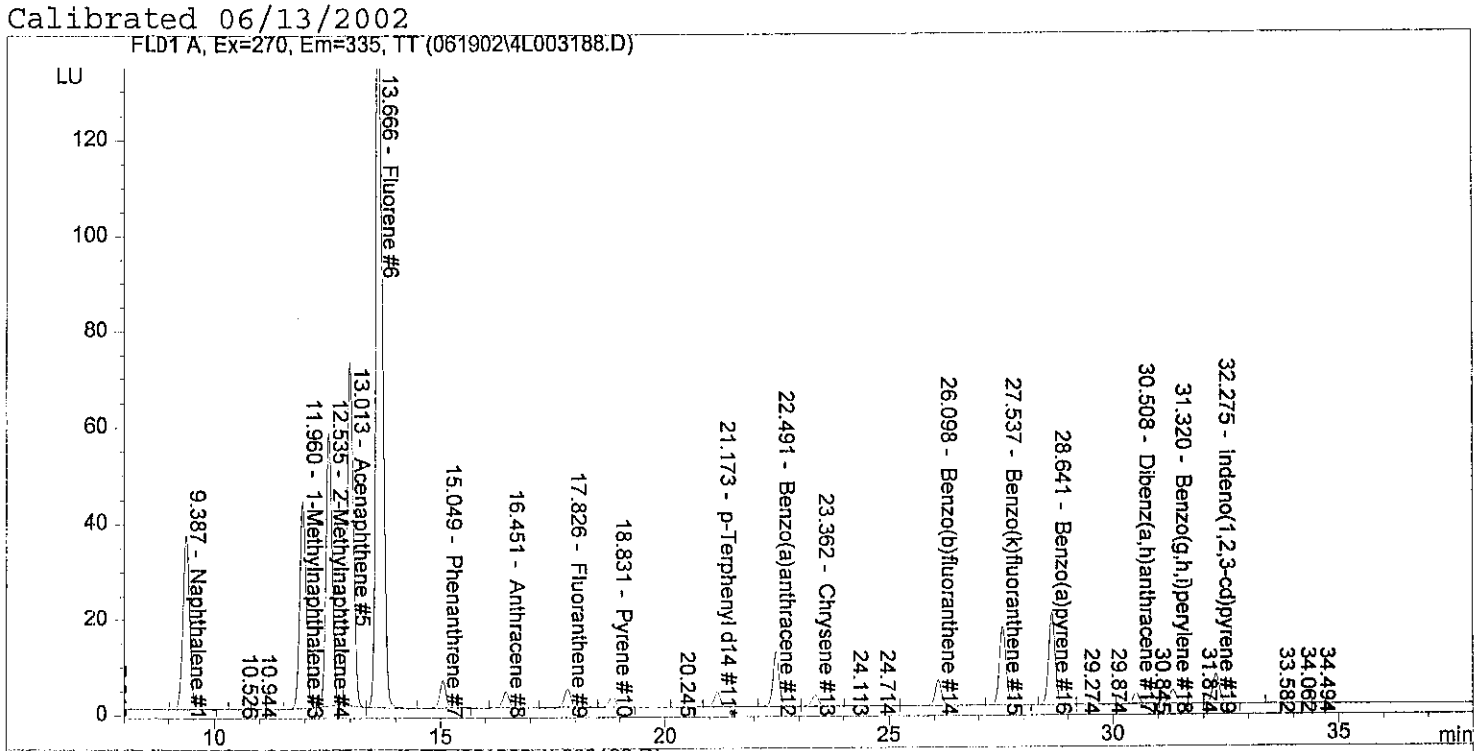
1,1 SOS59-38/58-26 LEVEL 3 STD @ 10/1/.5 ppm

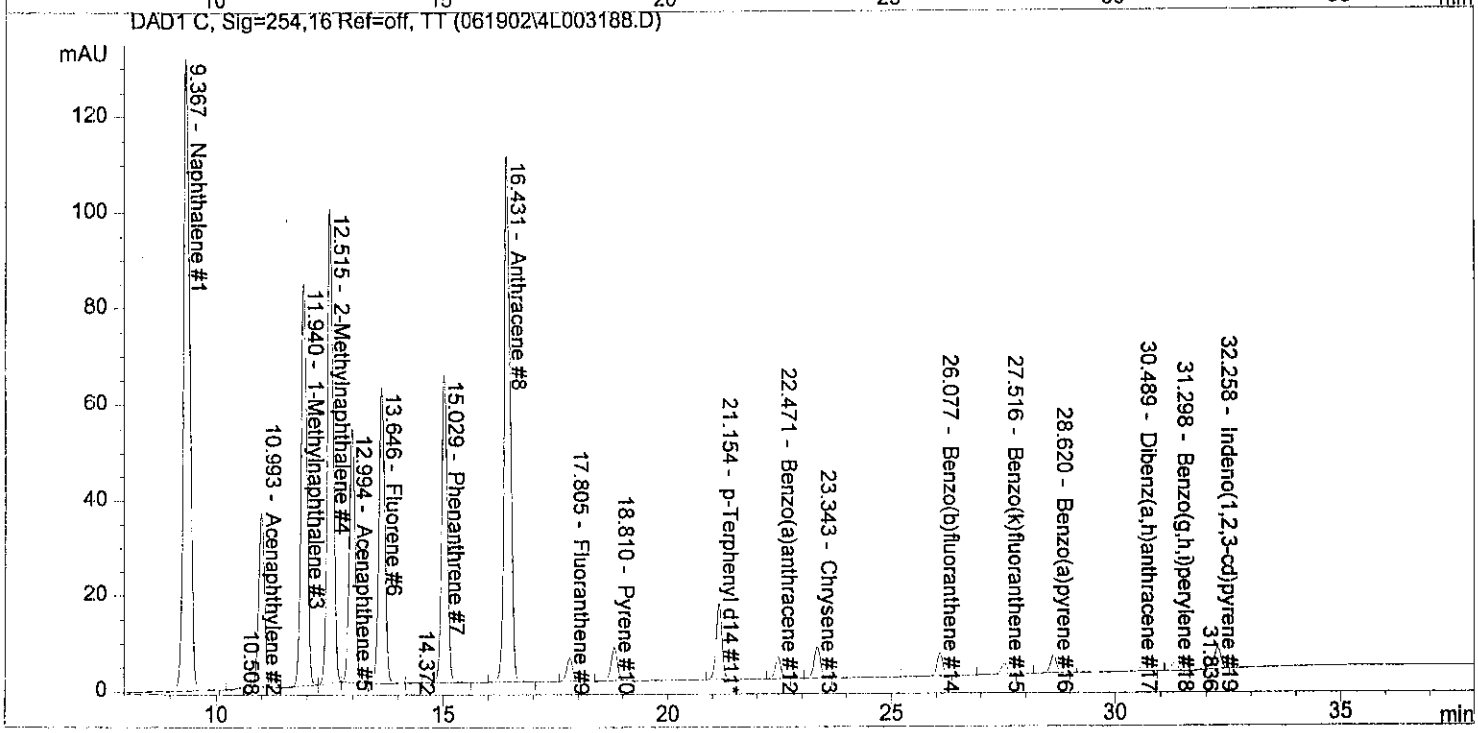
==========

Injection Date	: 6/19/2002 8:49:59 PM	Seq. Line :	6
Sample Name	: WG120164-05 STD3	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:44:50 AM by RDC
(modified after loading)

Calibrated 06/13/2002





389

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:44:47 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
9.387	BB	372.80032	2.67856e-2	9.98566		Naphthalene #1
11.960	BB	427.56720	2.34118e-2	10.01011		1-Methylnaphthalene #3
12.535	BB	555.46735	1.80126e-2	10.00542		2-Methylnaphthalene #4
13.013	BB	703.58374	1.42041e-2	9.99375		Acenaphthene #5
13.666	BB	1519.39380	6.59104e-3	10.01438		Fluorene #6
15.049	BBA	57.20443	1.76518e-1	10.09759		Phenanthrene #7
16.451	BBA	32.94457	3.04050e-1	10.01681		Anthracene #8
17.826	PB	38.41879	2.58349e-2	9.92545e-1		Fluoranthene #9
18.831	BBA	23.72331	4.20555e-2	9.97697e-1		Pyrene #10
21.173	BB	33.17809	2.98544e-1	9.90512		p-Terphenyl d14 #11*
22.491	BB	118.62704	8.37669e-3	9.93702e-1		Benzo(a)anthracene #12
23.362	BB	24.51306	4.08600e-2	1.00160		Chrysene #13
26.098	BB	57.64222	1.72859e-2	9.96397e-1		Benzo(b)fluoranthene #14
27.537	PBA	174.54939	2.86391e-3	4.99893e-1		Benzo(k)fluoranthene #15
28.641	BB	203.63187	4.86675e-3	9.91025e-1		Benzo(a)pyrene #16
30.508	BB	23.79175	4.14859e-2	9.87021e-1		Dibenz(a,h)anthracene #17
31.320	BB	33.82579	2.92449e-2	9.89233e-1		Benzo(g,h,i)perylene #18
32.275	BBA	68.94070	1.44207e-2	9.94171e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 89.47213

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	PBA	1256.01123	7.99501e-3	10.04182		Naphthalene #1
10.993	BB	327.28607	3.05782e-2	10.00783		Acenaphthylene #2
11.940	BB	764.27496	1.30750e-2	9.99287		1-Methylnaphthalene #3
12.515	BB	893.57037	1.12157e-2	10.02200		2-Methylnaphthalene #4
12.994	BB	481.32138	2.07914e-2	10.00732		Acenaphthene #5
13.646	BB	559.61633	1.78466e-2	9.98725		Fluorene #6
15.029	BBA	576.95782	1.73039e-2	9.98360		Phenanthrene #7
16.431	BBA	1002.81183	9.97595e-3	10.00400		Anthracene #8
17.805	BBA	44.70066	2.23857e-2	1.00066		Fluoranthene #9
18.810	BBA	67.82222	1.47614e-2	1.00115		Pyrene #10
21.154	BBA	150.41772	6.58969e-2	9.91207		p-Terphenyl d14 #11*
22.471	BBA	43.86306	2.26669e-2	9.94240e-1		Benzo(a)anthracene #12
23.343	BBA	64.16498	1.54198e-2	9.89412e-1		Chrysene #13
26.077	BBA	46.88808	2.12232e-2	9.95115e-1		Benzo(b)fluoranthene #14
27.516	PBA	21.77243	2.30482e-2	5.01816e-1		Benzo(k)fluoranthene #15
28.620	BBA	36.86427	2.70988e-2	9.98976e-1		Benzo(a)pyrene #16
30.489	BBA	11.97529	9.44798e-2	1.13142		Dibenz(a,h)anthracene #17

390

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.298	BB	18.48934	5.35680e-2	9.90436e-1		Benzo(g,h,i)perylene #18
32.258	BBA	46.04763	2.15335e-2	9.91566e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 99.55356

Results obtained with enhanced integrator!

*** End of Report ***

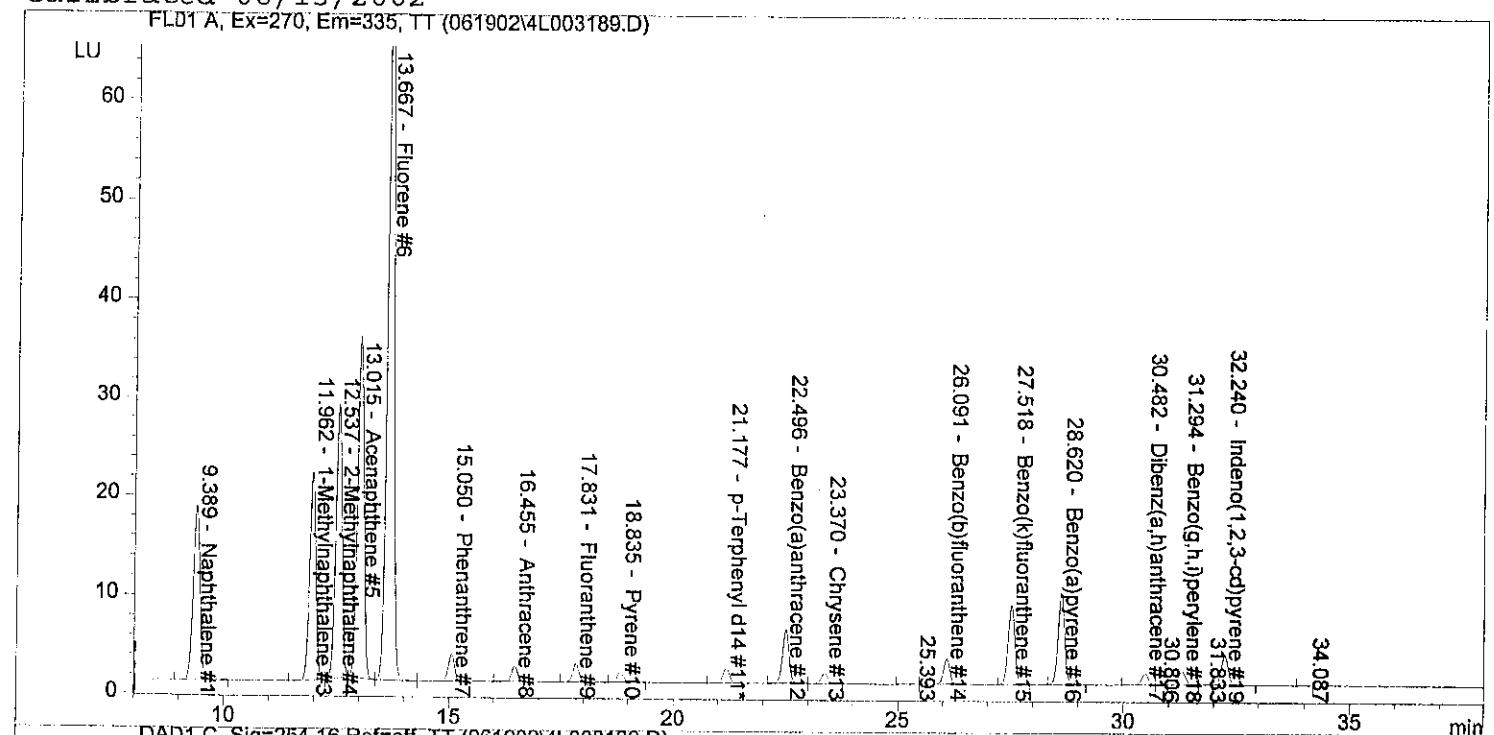
1,1 SOS59-38/58-26 LEVEL 2 STD @ 5/.5 /.25 ppm

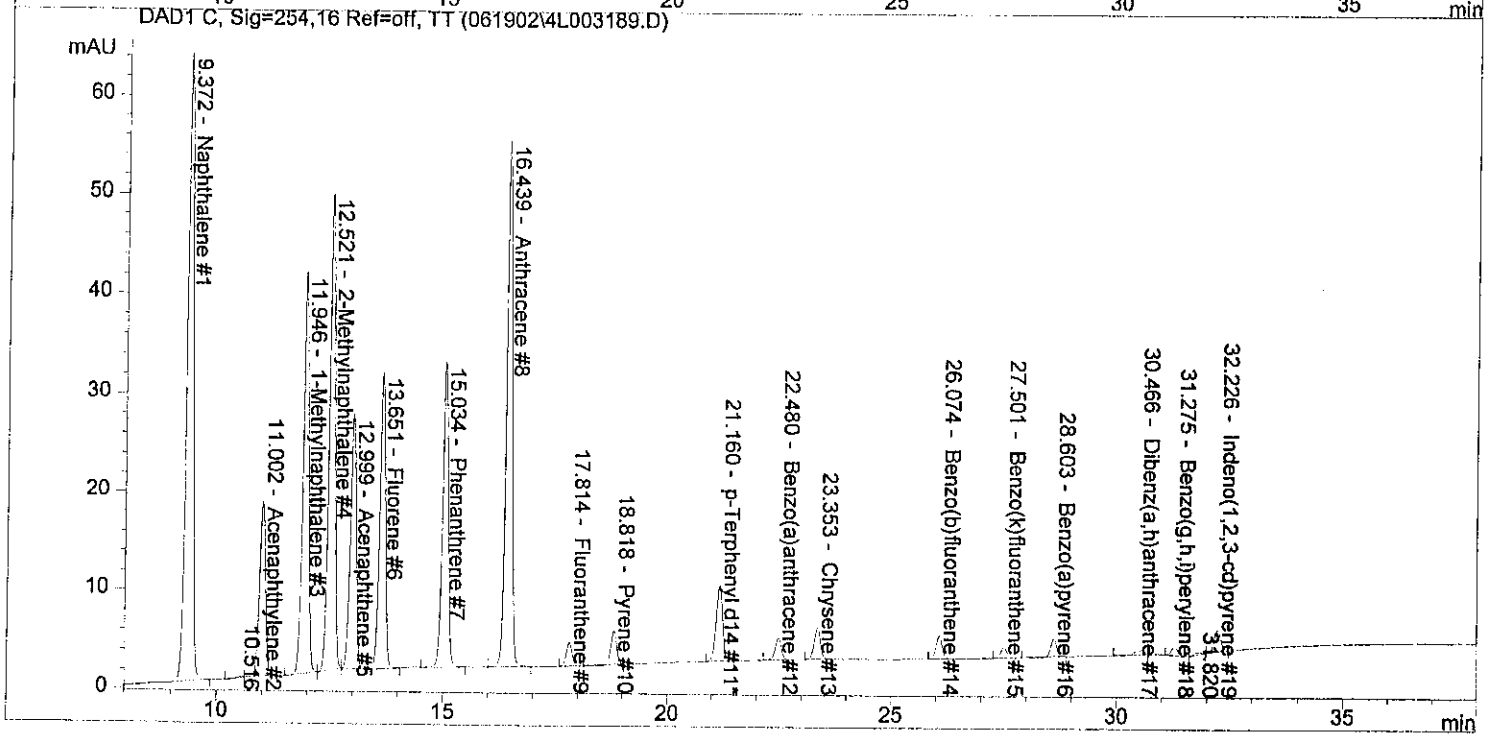
==========

Injection Date	: 6/19/2002 9:46:37 PM	Seq. Line	: 7
Sample Name	: WG120164-06 STD2	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:45:23 AM by RDC
(modified after loading)

Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:45:20 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
9.389	BBA	180.32388	2.73749e-2	4.93634		Naphthalene #1
11.962	BB	206.59302	2.38973e-2	4.93702		1-Methylnaphthalene #3
12.537	BB	268.34698	1.82743e-2	4.90387		2-Methylnaphthalene #4
13.015	BB	339.82239	1.43081e-2	4.86222		Acenaphthene #5
13.667	BB	734.63800	6.58745e-3	4.83939		Fluorene #6
15.050	BBA	27.54959	1.82175e-1	5.01885		Phenanthrene #7
16.455	PBA	15.88479	3.10694e-1	4.93531		Anthracene #8
17.831	PB	18.78860	2.64718e-2	4.97369e-1		Fluoranthene #9
18.835	BBA	11.53121	4.25437e-2	4.90580e-1		Pyrene #10
21.177	BBA	16.05081	3.06498e-1	4.91953		p-Terphenyl d14 #11*
22.496	BB	57.40008	8.66535e-3	4.97392e-1		Benzo(a)anthracene #12
23.370	BB	11.79001	4.22270e-2	4.97857e-1		Chrysene #13
26.091	BBA	27.72870	1.77868e-2	4.93204e-1		Benzo(b)fluoranthene #14
27.518	PBA	83.46227	2.94334e-3	2.45658e-1		Benzo(k)fluoranthene #15
28.620	PB	97.80115	5.06761e-3	4.95618e-1		Benzo(a)pyrene #16
30.482	BB	11.53541	4.34070e-2	5.00718e-1		Dibenz(a,h)anthracene #17
31.294	BB	16.16728	3.07342e-2	4.96888e-1		Benzo(g,h,i)perylene #18
32.240	BBA	33.25379	1.49021e-2	4.95551e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				44.06336		

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
9.372	PBA	604.13025	7.76042e-3	4.68830		Naphthalene #1
11.002	BBA	161.28902	3.11731e-2	5.02788		Acenaphthylene #2
11.946	PB	369.24078	1.32537e-2	4.89379		1-Methylnaphthalene #3
12.521	BB	431.87616	1.11748e-2	4.82614		2-Methylnaphthalene #4
12.999	BB	232.43697	2.12095e-2	4.92988		Acenaphthene #5
13.651	BBA	269.75366	1.83088e-2	4.93887		Fluorene #6
15.034	BBA	277.70538	1.77090e-2	4.91789		Phenanthrene #7
16.439	PBA	483.02975	9.90100e-3	4.78248		Anthracene #8
17.814	BBA	21.38802	2.33539e-2	4.99493e-1		Fluoranthene #9
18.818	BBA	30.01324	1.56292e-2	4.69082e-1		Pyrene #10
21.160	PBA	72.39475	6.76238e-2	4.89561		p-Terphenyl d14 #11*
22.480	BBA	21.07132	2.35836e-2	4.96939e-1		Benzo(a)anthracene #12
23.353	BBA	30.91224	1.58965e-2	4.91397e-1		Chrysene #13
26.074	BBA	22.64764	2.18898e-2	4.95751e-1		Benzo(b)fluoranthene #14
27.501	BBA	10.30655	2.38100e-2	2.45399e-1		Benzo(k)fluoranthene #15
28.603	BBA	16.74469	2.87600e-2	4.81577e-1		Benzo(a)pyrene #16
30.466	BBA	5.15278	9.32878e-2	4.80691e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.275	BB	9.25292	5.39457e-2	4.99155e-1		Benzo(g,h,i)perylene #18
32.226	BB	21.58914	2.28197e-2	4.92657e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				48.55298		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS59-38/58-26 LEVEL 1 STD @ 1/.1/.05 ppm

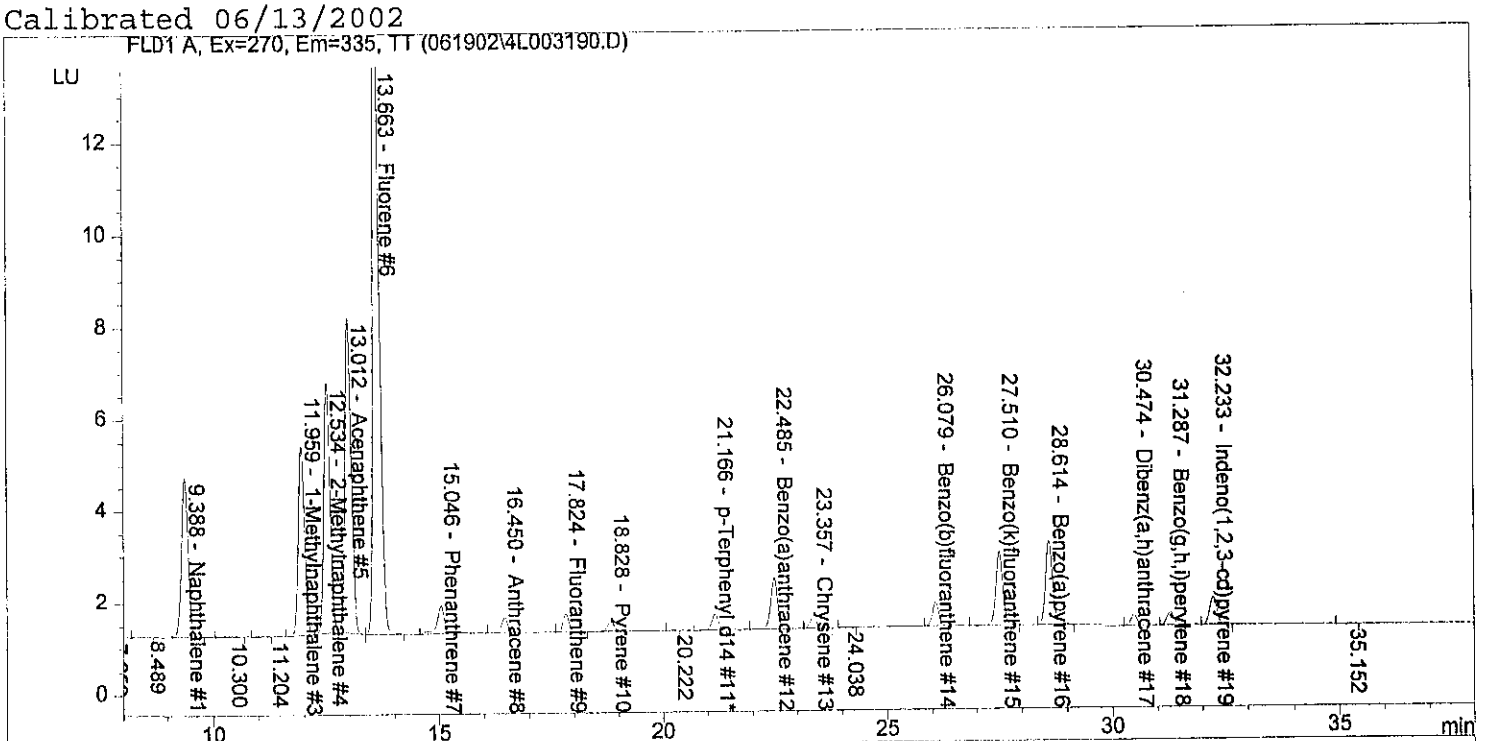
==========

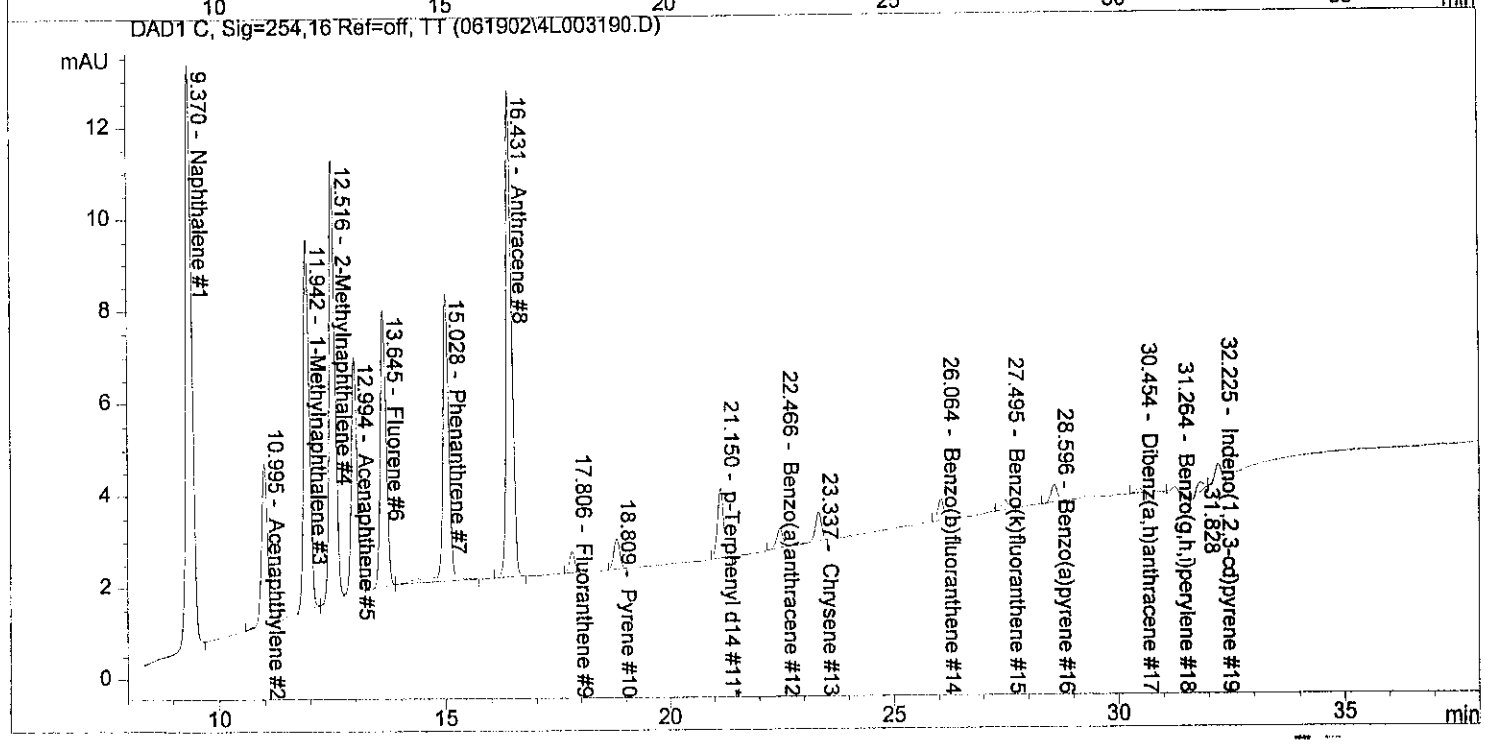
Injection Date : 6/19/2002 10:43:19 PM
Sample Name : WG120164-07 STD1
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:50:59 AM by RDC
(modified after loading)

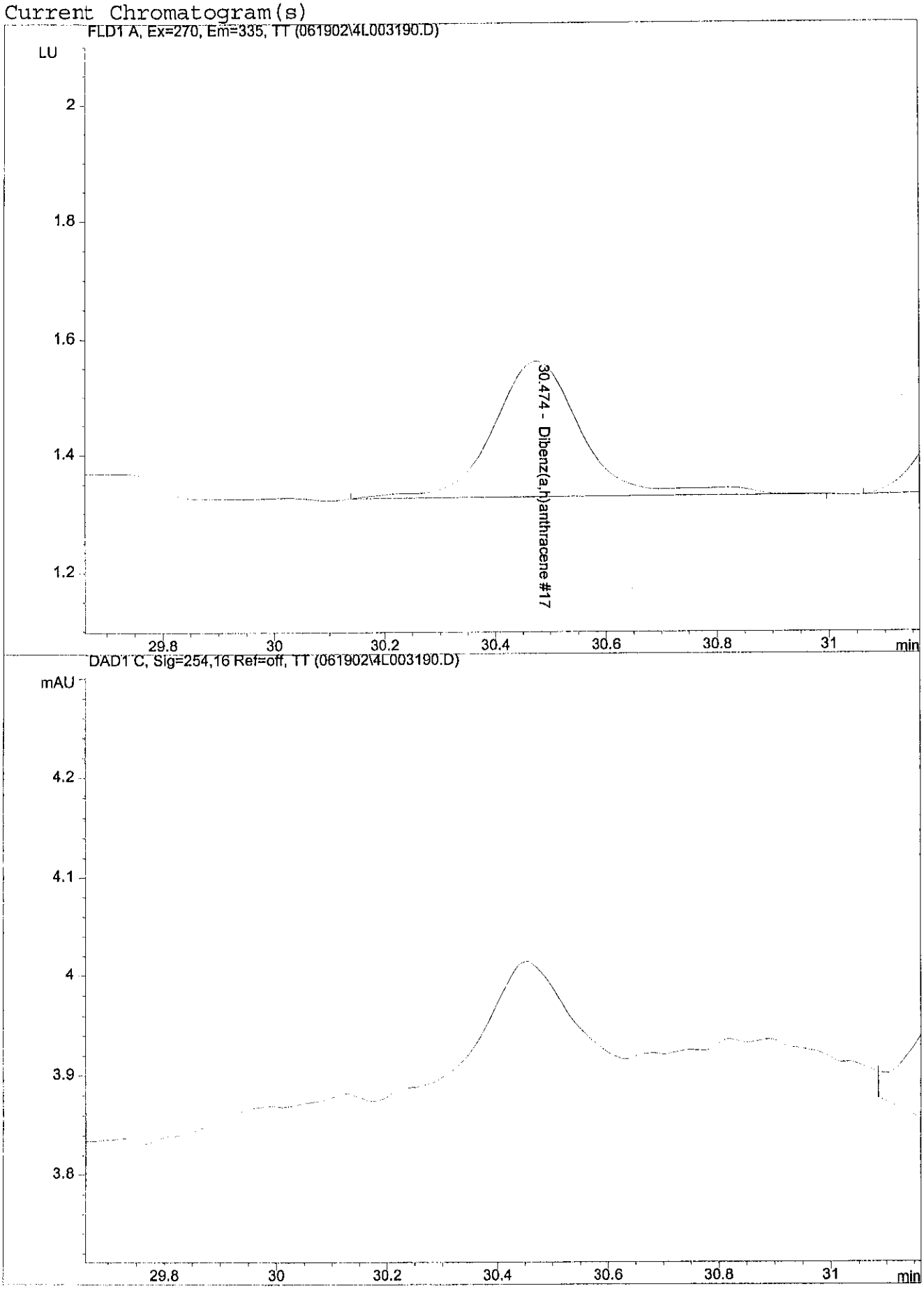
Calibrated 06/13/2002





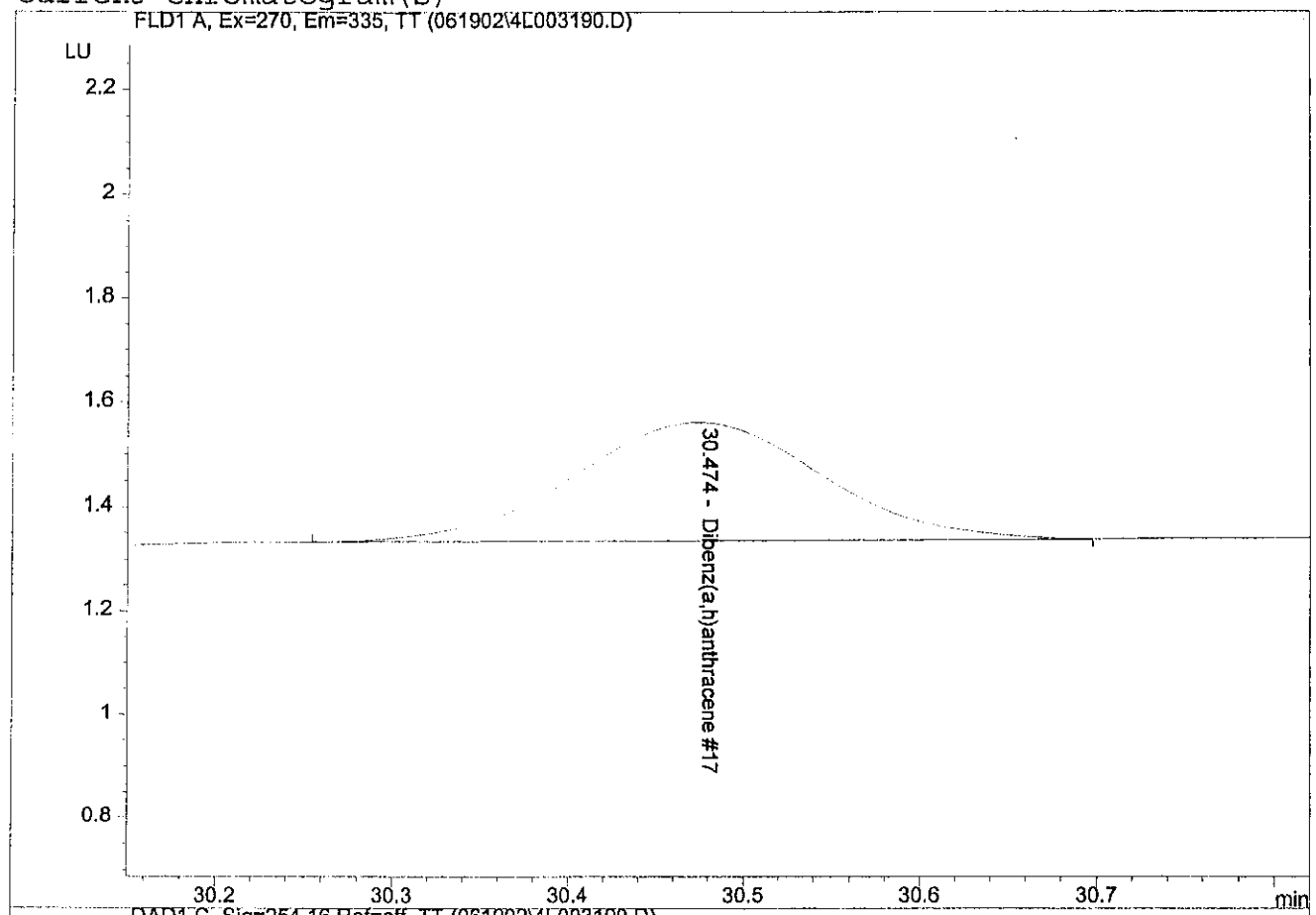
395

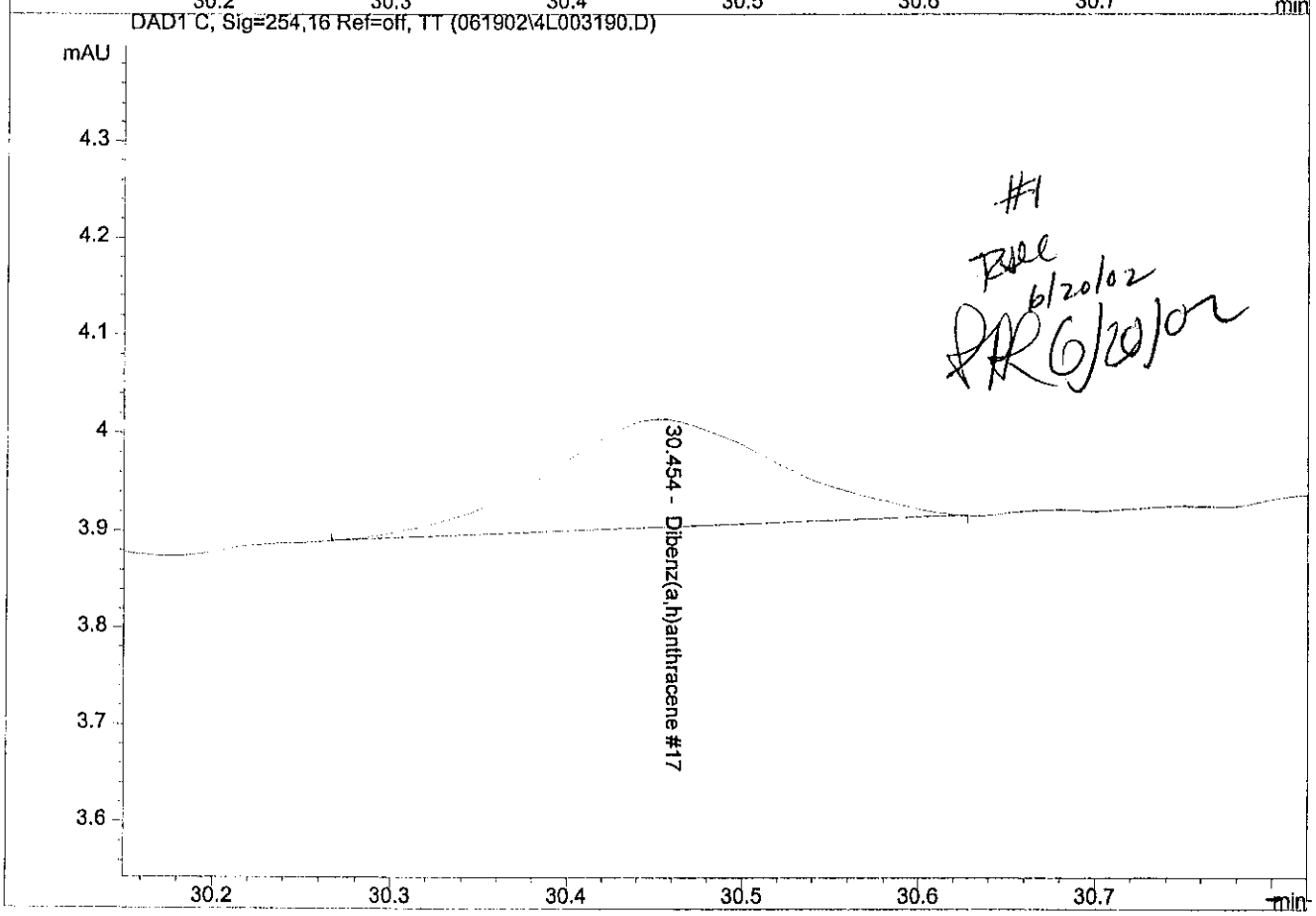
Current Chromatogram(s)



396

Current Chromatogram(s)





#1
RWC 6/20/02
PAR 6/20/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, June 20, 2002 8:50:56 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
9.388	BBA	35.50560	3.22050e-2	1.14346		Naphthalene #1
11.959	BB	40.92273	2.77854e-2	1.13705		1-Methylnaphthalene #3
12.534	BB	53.13324	2.03886e-2	1.08331		2-Methylnaphthalene #4
13.012	BB	67.65919	1.51387e-2	1.02427		Acenaphthene #5
13.663	BB	146.98784	6.57698e-3	9.66736e-1		Fluorene #6
15.046	BBA	6.79399	2.09718e-1	1.42482		Phenanthrene #7
16.450	BBA	3.26255	3.60175e-1	1.17509		Anthracene #8
17.824	BBA	3.92421	3.11659e-2	1.22302e-1		Fluoranthene #9
18.828	BBA	2.23386	4.69174e-2	1.04807e-1		Pyrene #10
21.166	BB	3.57698	3.58661e-1	1.28292		p-Terphenyl d14 #11*
22.485	BB	11.92573	1.07760e-2	1.28512e-1		Benzo(a)anthracene #12
23.357	BB	2.37958	5.22694e-2	1.24379e-1		Chrysene #13
26.079	BBA	5.48437	2.18900e-2	1.20053e-1		Benzo(b)fluoranthene #14
27.510	PBA	16.92470	3.54432e-3	5.99866e-2		Benzo(k)fluoranthene #15
28.614	BBA	19.55420	6.62954e-3	1.29635e-1		Benzo(a)pyrene #16
30.474	MM	2.22269	5.93741e-2	1.31970e-1		Dibenz(a,h)anthracene #17
31.287	PBA	3.18651	4.24380e-2	1.35229e-1		Benzo(g,h,i)perylene #18
32.233	BB	6.77440	1.86704e-2	1.26481e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				10.42102		

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
9.370	PBA	121.88613	5.96867e-3	7.27498e-1		Naphthalene #1
10.995	BB	31.70620	3.66640e-2	1.16248		Acenaphthylene #2
11.942	BB	72.22427	1.48276e-2	1.07092		1-Methylnaphthalene #3
12.516	BB	85.91975	1.09324e-2	9.39313e-1		2-Methylnaphthalene #4
12.994	BB	46.04076	2.45826e-2	1.13180		Acenaphthene #5
13.645	BB	52.90672	2.20179e-2	1.16489		Fluorene #6
15.028	BBA	59.91370	2.07300e-2	1.24201		Phenanthrene #7
16.431	BBA	96.05915	9.31727e-3	8.95009e-1		Anthracene #8
17.806	BBA	4.17519	2.94398e-2	1.22917e-1		Fluoranthene #9
18.809	BBA	6.27601	2.10324e-2	1.32000e-1		Pyrene #10
21.150	BBA	14.27093	8.12526e-2	1.15955		p-Terphenyl d14 #11*
22.466	PBA	4.39682	2.97351e-2	1.30740e-1		Benzo(a)anthracene #12
23.337	BBA	6.15006	2.04006e-2	1.25465e-1		Chrysene #13
26.064	BBA	4.57150	2.74189e-2	1.25346e-1		Benzo(b)fluoranthene #14
27.495	BB	2.19067	2.90307e-2	6.35967e-2		Benzo(k)fluoranthene #15
28.596	BB	3.90243	3.86476e-2	1.50819e-1		Benzo(a)pyrene #16
30.454	MM	1.00112	8.71212e-2	8.72187e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.264	BBA	2.34328	6.22516e-2	1.45873e-1		Benzo(g,h,i)perylene #18
32.225	BB	3.42590	3.63599e-2	1.24565e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				10.70201		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003191.D Sample Name: WG120164-08 ALT
HPLC4 6/20/2002 9:17:38 AM RDC

1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

==========

Injection Date : 6/19/2002 11:39:56 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.387	20.0	19.539	-2.3
1-Methylnaphthalene #3	11.957	20.0	19.522	-2.4
2-Methylnaphthalene #4	12.532	20.0	19.193	-4.0
Acenaphthene #5	13.010	20.0	20.092	0.5
Fluorene #6	13.663	20.0	19.978	-0.1
Phenanthrene #7	15.046	20.0	19.187	-4.1
Anthracene #8	16.447	20.0	20.188	0.9
Fluoranthene #9	17.820	2.0	1.994	-0.3
Pyrene #10	18.822	2.0	1.884	-5.8
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.478	2.0	1.838	-8.1
Chrysene #13	23.345	2.0	1.912	-4.4
Benzo(b)fluoranthene #14	26.064	2.0	1.959	-2.0
Benzo(k)fluoranthene #15	27.495	1.0	0.882	-11.8
Benzo(a)pyrene #16	28.603	2.0	2.046	2.3
Dibenz(a,h)anthracene #1	30.467	2.0	2.145	7.3
Benzo(g,h,i)perylene #18	31.284	2.0	1.972	-1.4
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.897	-5.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.372	20.0	20.073	0.4
Acenaphthylene #2	10.995	20.0	19.000	-5.0
1-Methylnaphthalene #3	11.942	20.0	19.740	-1.3
2-Methylnaphthalene #4	12.517	20.0	19.492	-2.5
Acenaphthene #5	12.996	20.0	20.090	0.4
Fluorene #6	13.647	20.0	19.779	-1.1
Phenanthrene #7	15.030	20.0	18.845	-5.8
Anthracene #8	16.432	20.0	20.458	2.3
Fluoranthene #9	17.804	2.0	1.944	-2.8
Pyrene #10	18.806	2.0	1.915	-4.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.462	2.0	1.853	-7.4
Chrysene #13	23.330	2.0	1.921	-4.0
Benzo(b)fluoranthene #14	26.048	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.480	1.0	0.880	-12.0
Benzo(a)pyrene #16	28.587	2.0	2.026	1.3
Dibenz(a,h)anthracene #1	30.451	2.0	2.159	7.9
Benzo(g,h,i)perylene #18	31.267	2.0	1.941	-2.9
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.894	-5.3

= Failed 15.0% Criteria

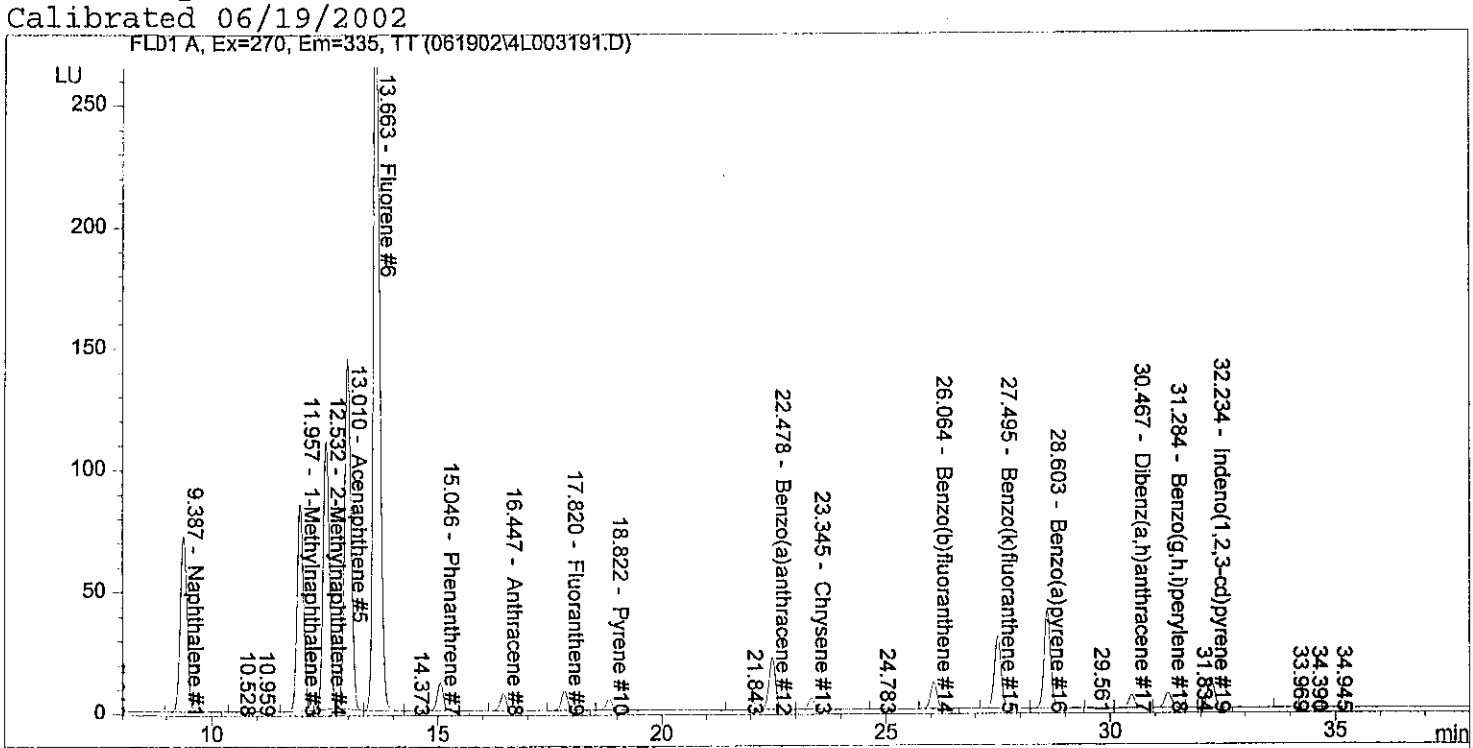
1,1 SOS0060-26/60-27 LEVEL 4 ALT STD @ 20 ppm

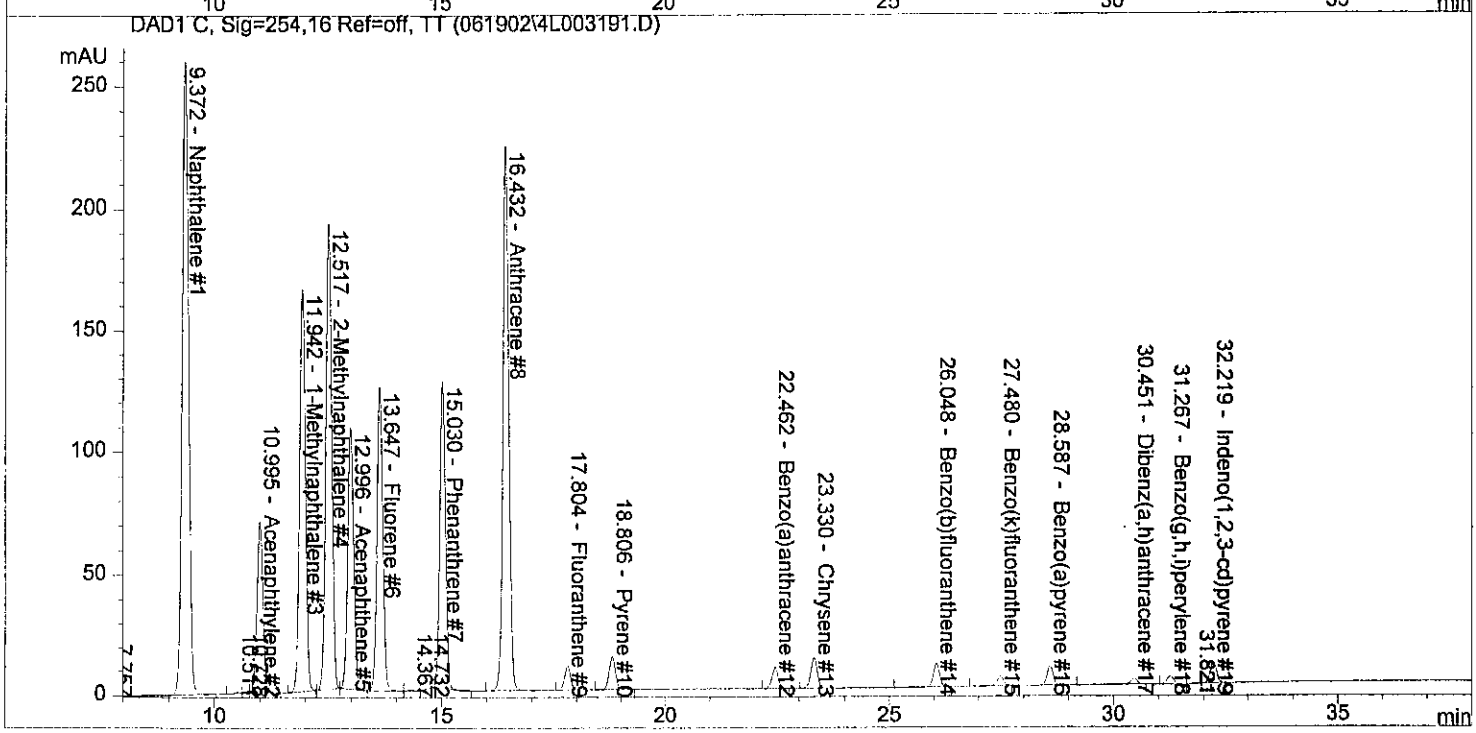
==========

Injection Date : 6/19/2002 11:39:56 PM
Sample Name : WG120164-08 ALT
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.387	BBA	737.66528	2.64873e-2	19.53875		Naphthalene #1
11.957	BB	842.18378	2.31805e-2	19.52228		1-Methylnaphthalene #3
12.532	BB	1072.79504	1.78909e-2	19.19330		2-Methylnaphthalene #4
13.010	BB	1419.36682	1.41559e-2	20.09236		Acenaphthene #5
13.663	BB	3031.48169	6.59031e-3	19.97841		Fluorene #6
15.046	BBA	110.72682	1.73280e-1	19.18674		Phenanthrene #7
16.447	PBA	67.07290	3.00989e-1	20.18824		Anthracene #8
17.820	BBA	78.28062	2.54760e-2	1.99427		Fluoranthene #9
18.822	BBA	45.12201	4.17610e-2	1.88434		Pyrene #10
21.166		-	-	-		p-Terphenyl d14 #11*
22.478	BB	222.92839	8.24594e-3	1.83825		Benzo(a)anthracene #12
23.345	BB	47.43394	4.02984e-2	1.91151		Chrysene #13
26.064	BBA	114.99720	1.70377e-2	1.95929		Benzo(b)fluoranthene #14
27.495	BB	311.48776	2.83180e-3	8.82071e-1		Benzo(k)fluoranthene #15
28.603	BBA	429.06128	4.76783e-3	2.04569		Benzo(a)pyrene #16
30.467	BB	52.93916	4.05202e-2	2.14510		Dibenz(a,h)anthracene #17
31.284	BB	69.01328	2.85695e-2	1.97167		Benzo(g,h,i)perylene #18
32.234	BB	133.70982	1.41867e-2	1.89690		Indeno(1,2,3-cd)pyrene #1
Totals :				156.22920		

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
9.372	BBA	2480.78638	8.09119e-3	20.07252		Naphthalene #1
10.995	BBA	629.07135	3.02035e-2	19.00018		Acenaphthylene #2
11.942	PB	1521.38184	1.29751e-2	19.74016		1-Methylnaphthalene #3
12.517	BB	1737.28711	1.12201e-2	19.49247		2-Methylnaphthalene #4
12.996	BB	976.73950	2.05683e-2	20.08983		Acenaphthene #5
13.647	BB	1122.93054	1.76134e-2	19.77857		Fluorene #6
15.030	BBA	1103.63745	1.70754e-2	18.84509		Phenanthrene #7
16.432	PBA	2045.92957	9.99954e-3	20.45835		Anthracene #8
17.804	PB	88.76682	2.19040e-2	1.94435		Fluoranthene #9
18.806	BBA	132.37604	1.44652e-2	1.91484		Pyrene #10
21.150		-	-	-		p-Terphenyl d14 #11*
22.462	BBA	83.02850	2.23150e-2	1.85278		Benzo(a)anthracene #12
23.330	BBA	126.16646	1.52241e-2	1.92078		Chrysene #13
26.048	PBA	94.24934	2.08606e-2	1.96610		Benzo(b)fluoranthene #14
27.480	PBA	38.80268	2.26831e-2	8.80167e-1		Benzo(k)fluoranthene #15
28.587	BBA	77.06660	2.62837e-2	2.02560		Benzo(a)pyrene #16
30.451	BBA	23.06487	9.36030e-2	2.15894		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.267	BB	36.37280	5.33696e-2	1.94120		Benzo(g,h,i)perylene #18
32.219	BB	90.73181	2.08749e-2	1.89402		Indeno(1,2,3-cd)pyrene #1

Totals : 175.97593

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003151.D Sample Name: WG119863-03 CCV
HPLC4 6/17/2002 9:41:54 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/15/2002 6:19:19 AM Seq. Line : 21

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.363	20.0	20.160	0.8
1-Methylnaphthalene #3	11.936	20.0	20.132	0.7
2-Methylnaphthalene #4	12.511	20.0	20.073	0.4
Acenaphthene #5	12.989	20.0	20.190	0.9
Fluorene #6	13.642	20.0	20.320	1.6
Phenanthrene #7	15.026	20.0	19.811	-0.9
Anthracene #8	16.431	20.0	20.190	0.9
Fluoranthene #9	17.808	2.0	2.000	0.0
Pyrene #10	18.810	2.0	1.994	-0.3
p-Terphenyl d14 #11*	21.143	20.0	20.082	0.4
Benzo(a)anthracene #12	22.462	2.0	1.995	-0.3
Chrysene #13	23.331	2.0	1.987	-0.7
Benzo(b)fluoranthene #14	26.052	2.0	2.030	1.5
Benzo(k)fluoranthene #15	27.485	1.0	1.003	0.3
Benzo(a)pyrene #16	28.596	2.0	2.068	3.4
Dibenz(a,h)anthracene #1	30.466	2.0	1.978	-1.1
Benzo(g,h,i)perylene #18	31.276	2.0	2.035	1.8
Indeno(1,2,3-cd)pyrene #	32.232	2.0	1.990	-0.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.767	3.8
Acenaphthylene #2	10.969	20.0	20.177	0.9
1-Methylnaphthalene #3	11.916	20.0	20.315	1.6
2-Methylnaphthalene #4	12.491	20.0	20.472	2.4
Acenaphthene #5	12.968	20.0	20.190	0.9
Fluorene #6	13.621	20.0	20.183	0.9
Phenanthrene #7	15.005	20.0	20.146	0.7
Anthracene #8	16.410	20.0	20.536	2.7
Fluoranthene #9	17.786	2.0	2.010	0.5
Pyrene #10	18.788	2.0	2.000	0.0
p-Terphenyl d14 #11*	21.123	20.0	20.014	0.1
Benzo(a)anthracene #12	22.441	2.0	2.002	0.1
Chrysene #13	23.311	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.030	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.464	1.0	1.010	1.0
Benzo(a)pyrene #16	28.575	2.0	2.075	3.7
Dibenz(a,h)anthracene #1	30.445	2.0	2.003	0.2
Benzo(g,h,i)perylene #18	31.254	2.0	2.062	3.1
Indeno(1,2,3-cd)pyrene #	32.211	2.0	2.003	0.1

= Failed 15.0% Criteria

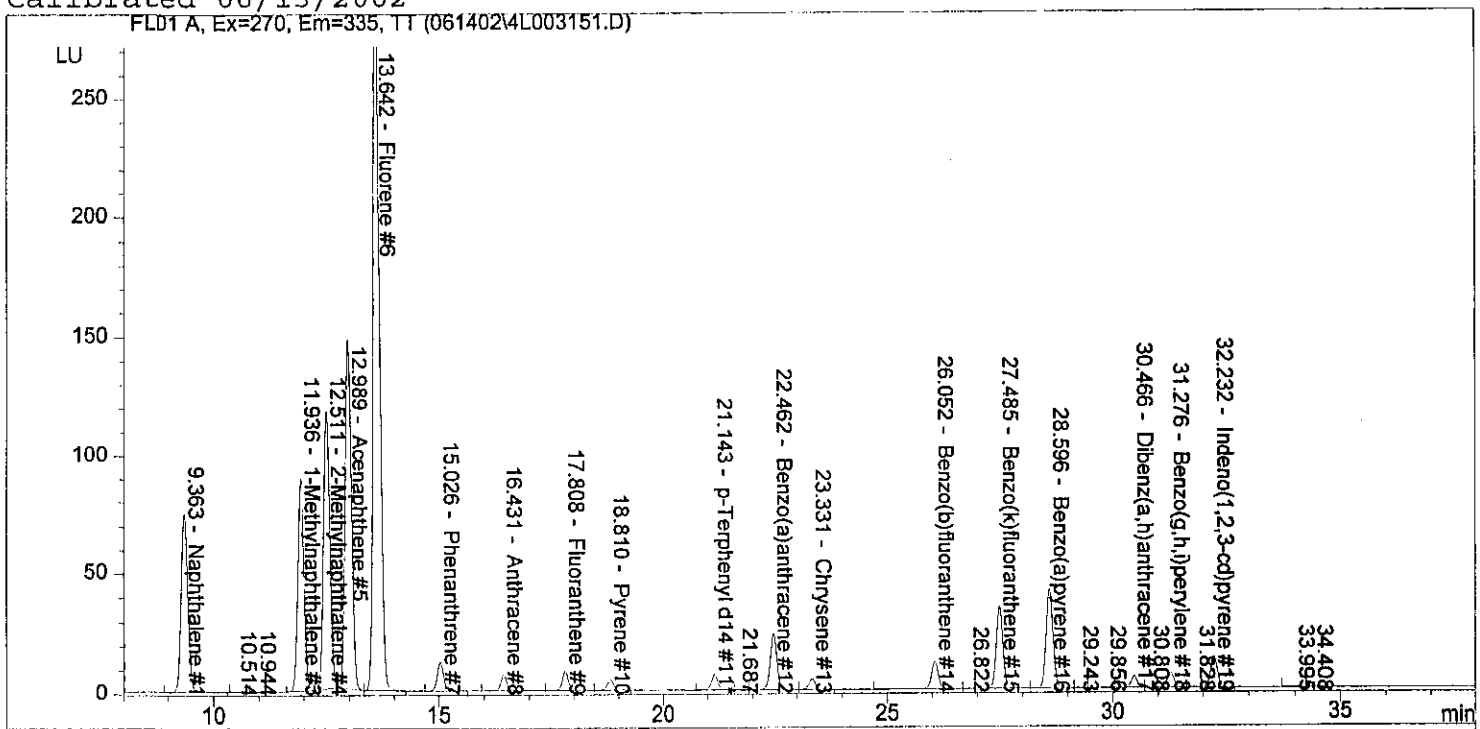
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

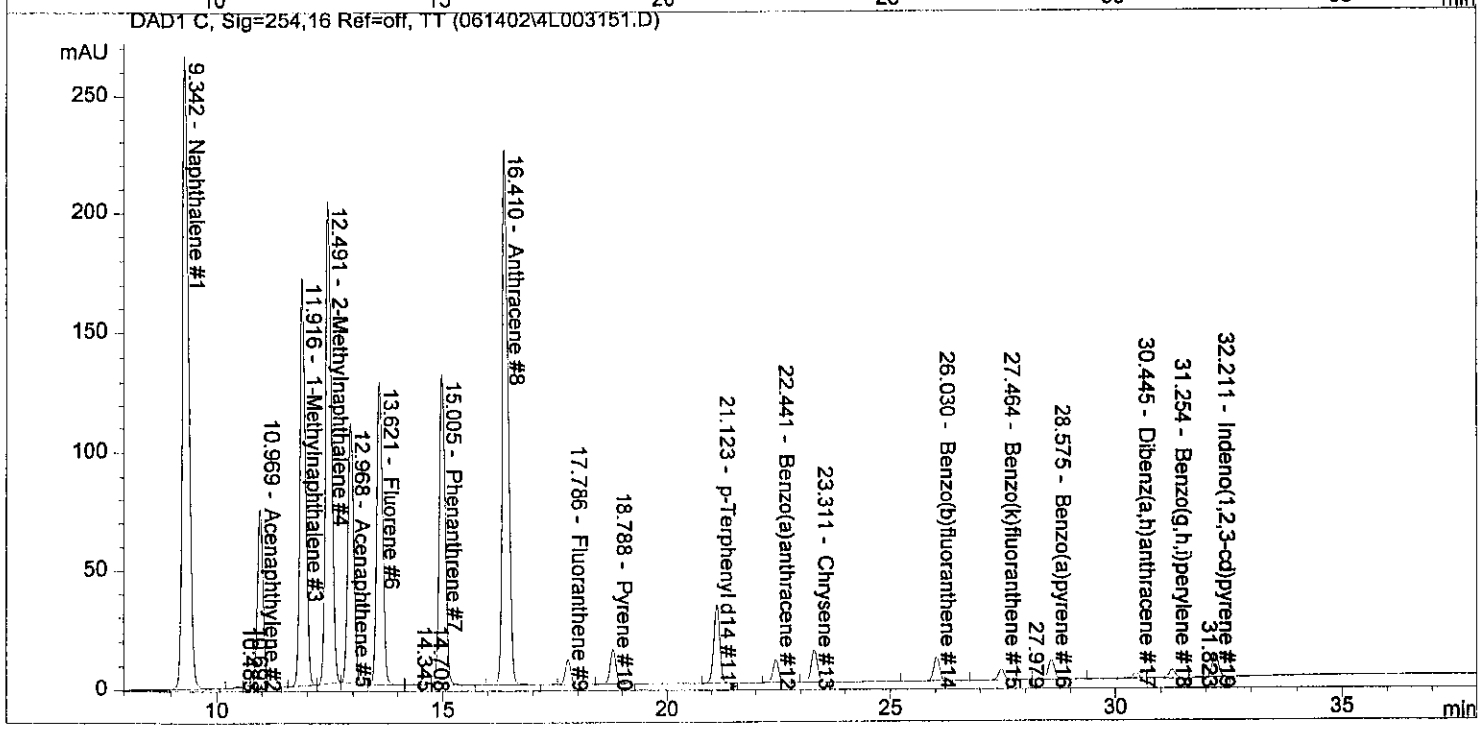
==========

Injection Date : 6/15/2002 6:19:19 AM
Sample Name : WG119863-03 CCV
Acq. Operator : RDC

Seq. Line : 21
Vial : 21
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





405

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.363	BBA	761.49371	2.64743e-2	20.15999		Naphthalene #1
11.936	PB	871.14648	2.31092e-2	20.13152		1-Methylnaphthalene #3
12.511	BB	1128.03711	1.77944e-2	20.07279		2-Methylnaphthalene #4
12.989	BB	1430.34351	1.41152e-2	20.18963		Acenaphthene #5
13.642	BB	3070.94263	6.61670e-3	20.31952		Fluorene #6
15.026	BBA	113.81528	1.74065e-1	19.81122		Phenanthrene #7
16.431	PBA	66.69012	3.02738e-1	20.18961		Anthracene #8
17.808	PB	78.03944	2.56243e-2	1.99970		Fluoranthene #9
18.810	BBA	47.85608	4.16648e-2	1.99391		Pyrene #10
21.143	BB	67.92536	2.95651e-1	20.08220		p-Terphenyl d14 #11*
22.462	BB	241.81070	8.24847e-3	1.99457		Benzo(a)anthracene #12
23.331	BB	49.27583	4.03229e-2	1.98695		Chrysene #13
26.052	BB	118.58526	1.71177e-2	2.02991		Benzo(b)fluoranthene #14
27.485	BB	353.23618	2.83849e-3	1.00266		Benzo(k)fluoranthene #15
28.596	BB	432.28293	4.78483e-3	2.06840		Benzo(a)pyrene #16
30.466	BB	48.61948	4.06804e-2	1.97786		Dibenz(a,h)anthracene #17
31.276	BB	70.74438	2.87657e-2	2.03501		Benzo(g,h,i)perylene #18
32.232	BB	140.31125	1.41815e-2	1.98983		Indeno(1,2,3-cd)pyrene #1

Totals : 180.03527

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
9.342	BBA	2529.32812	8.21030e-3	20.76654		Naphthalene #1
10.969	BBA	664.08209	3.03833e-2	20.17700		Acenaphthylene #2
11.916	PB	1550.81189	1.30994e-2	20.31475		1-Methylnaphthalene #3
12.491	BB	1807.66809	1.13250e-2	20.47185		2-Methylnaphthalene #4
12.968	BB	975.17664	2.07037e-2	20.18976		Acenaphthene #5
13.621	BB	1134.11658	1.77963e-2	20.18305		Fluorene #6
15.005	BBA	1144.90674	1.75958e-2	20.14553		Phenanthrene #7
16.410	BBA	2031.84607	1.01070e-2	20.53594		Anthracene #8
17.786	PB	90.73675	2.21515e-2	2.00995		Fluoranthene #9
18.788	BBA	137.06593	1.45941e-2	2.00035		Pyrene #10
21.123	PBA	305.20706	6.55765e-2	20.01442		p-Terphenyl d14 #11*
22.441	BBA	88.83590	2.25314e-2	2.00160		Benzo(a)anthracene #12
23.311	BBA	130.18159	1.53478e-2	1.99800		Chrysene #13
26.030	BBA	95.50357	2.11860e-2	2.02333		Benzo(b)fluoranthene #14
27.464	PBA	43.96133	2.29705e-2	1.00981		Benzo(k)fluoranthene #15
28.575	BBA	78.21353	2.65271e-2	2.07477		Benzo(a)pyrene #16
30.445	BB	21.00448	9.53731e-2	2.00326		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.254	BB	39.08805	5.27607e-2	2.06231		Benzo(g,h,i)perylene #18
32.211	BB	94.80490	2.11256e-2	2.00281		Indeno(1,2,3-cd)pyrene #1
Totals :				201.98505		

Results obtained with enhanced integrator!

*** End of Report ***

407

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003162.D Sample Name: WG119863-04 CCV
HPLC4 6/17/2002 10:49:22 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/15/2002 4:42:25 PM Seq. Line : 32

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.371	20.0	19.972	-0.1
1-Methylnaphthalene #3	11.943	20.0	20.000	0.0
2-Methylnaphthalene #4	12.515	20.0	19.954	-0.2
Acenaphthene #5	12.992	20.0	20.111	0.6
Fluorene #6	13.642	20.0	20.319	1.6
Phenanthrene #7	15.024	20.0	19.854	-0.7
Anthracene #8	16.425	20.0	20.159	0.8
Fluoranthene #9	17.799	2.0	2.002	0.1
Pyrene #10	18.802	2.0	1.981	-1.0
p-Terphenyl d14 #11*	21.127	20.0	20.069	0.3
Benzo(a)anthracene #12	22.444	2.0	1.983	-0.8
Chrysene #13	23.312	2.0	1.986	-0.7
Benzo(b)fluoranthene #14	26.030	2.0	1.999	-0.1
Benzo(k)fluoranthene #15	27.457	1.0	1.001	0.1
Benzo(a)pyrene #16	28.564	2.0	2.064	3.2
Dibenz(a,h)anthracene #1	30.425	2.0	1.977	-1.1
Benzo(g,h,i)perylene #18	31.239	2.0	2.019	1.0
Indeno(1,2,3-cd)pyrene #	32.197	2.0	1.982	-0.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.354	20.0	20.869	4.3
Acenaphthylene #2	10.979	20.0	20.193	1.0
1-Methylnaphthalene #3	11.927	20.0	20.382	1.9
2-Methylnaphthalene #4	12.499	20.0	20.526	2.6
Acenaphthene #5	12.976	20.0	20.252	1.3
Fluorene #6	13.626	20.0	20.257	1.3
Phenanthrene #7	15.007	20.0	20.225	1.1
Anthracene #8	16.408	20.0	20.540	2.7
Fluoranthene #9	17.781	2.0	2.020	1.0
Pyrene #10	18.784	2.0	2.014	0.7
p-Terphenyl d14 #11*	21.112	20.0	20.082	0.4
Benzo(a)anthracene #12	22.428	2.0	2.017	0.8
Chrysene #13	23.296	2.0	2.009	0.5
Benzo(b)fluoranthene #14	26.012	2.0	2.039	1.9
Benzo(k)fluoranthene #15	27.440	1.0	1.020	2.0
Benzo(a)pyrene #16	28.547	2.0	2.069	3.4
Dibenz(a,h)anthracene #1	30.409	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.221	2.0	2.000	0.0
Indeno(1,2,3-cd)pyrene #	32.178	2.0	1.999	0.0

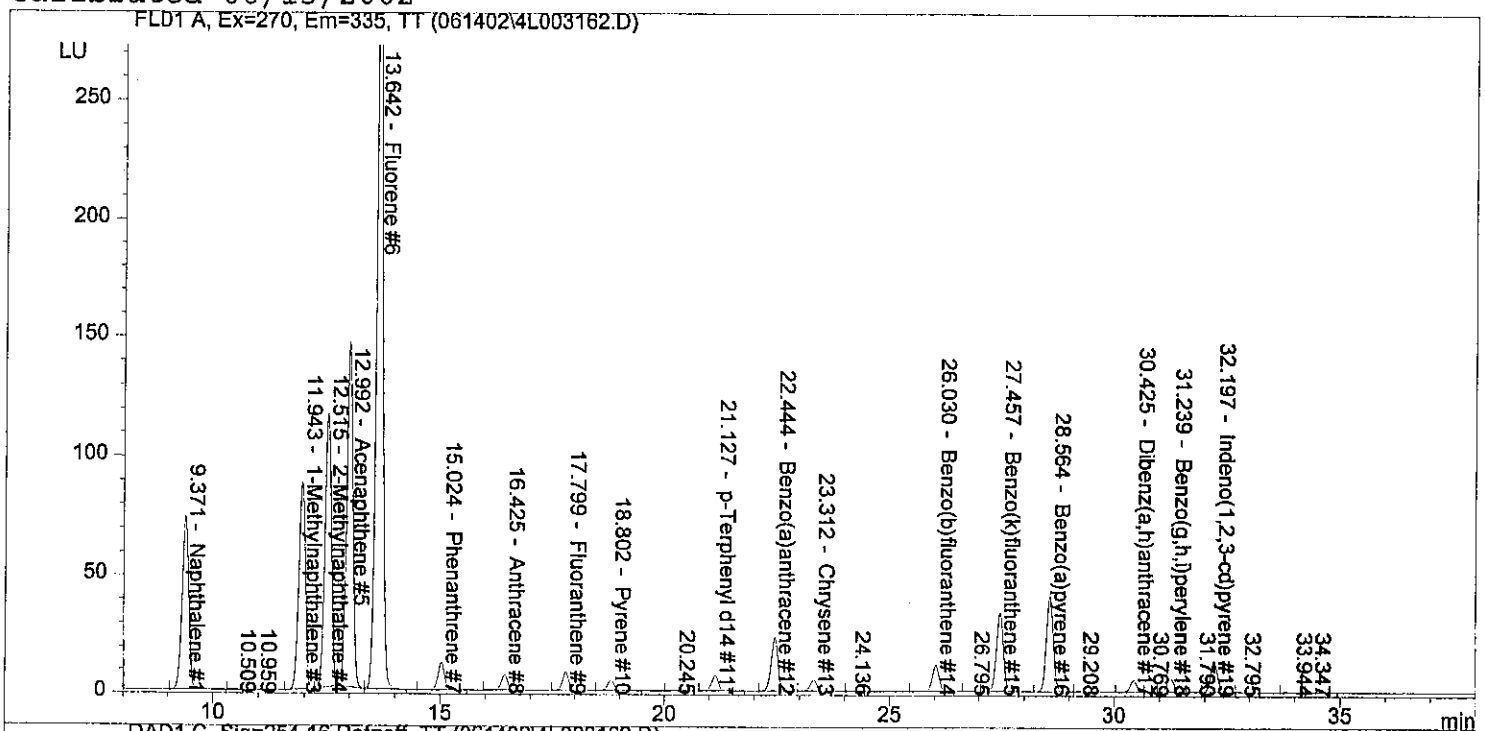
= Failed 15.0% Criteria

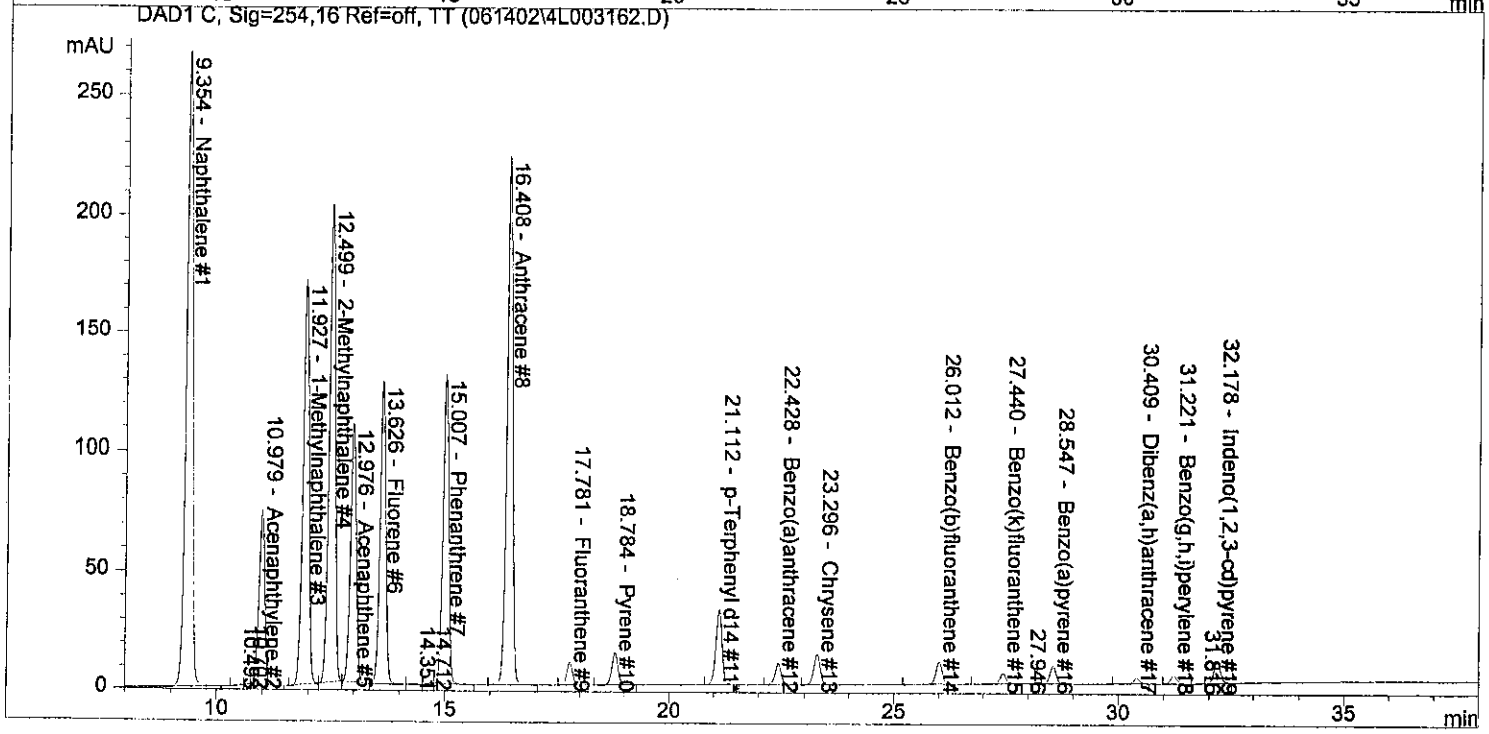
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date	: 6/15/2002 4:42:25 PM	Seq. Line :	32
Sample Name	: WG119863-04 CCV	Vial :	21
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)
Calibrated 06/13/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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	PBA	754.33313	2.64769e-2	19.97241		Naphthalene #1
11.943	BB	865.41675	2.31105e-2	20.00022		1-Methylnaphthalene #3
12.515	BB	1121.32532	1.77951e-2	19.95410		2-Methylnaphthalene #4
12.992	BB	1424.75830	1.41153e-2	20.11095		Acenaphthene #5
13.642	BB	3070.89819	6.61670e-3	20.31922		Fluorene #6
15.024	BBA	114.06263	1.74059e-1	19.85360		Phenanthrene #7
16.425	PBA	66.59044	3.02738e-1	20.15947		Anthracene #8
17.799	PB	78.12949	2.56239e-2	2.00199		Fluoranthene #9
18.802	BBA	47.54172	4.16669e-2	1.98091		Pyrene #10
21.127	BB	67.88014	2.95653e-1	20.06899		p-Terphenyl d14 #11*
22.444	BB	240.44403	8.24913e-3	1.98345		Benzo(a)anthracene #12
23.312	BB	49.24593	4.03232e-2	1.98575		Chrysene #13
26.030	BBA	116.73699	1.71212e-2	1.99868		Benzo(b)fluoranthene #14
27.457	BB	352.71536	2.83853e-3	1.00119		Benzo(k)fluoranthene #15
28.564	BB	431.26700	4.78503e-3	2.06363		Benzo(a)pyrene #16
30.425	BB	48.60230	4.06807e-2	1.97717		Dibenz(a,h)anthracene #17
31.239	BB	70.18008	2.87703e-2	2.01910		Benzo(g,h,i)perylene #18
32.197	BB	139.72926	1.41824e-2	1.98169		Indeno(1,2,3-cd)pyrene #1

Totals : 179.43254

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
9.354	BBA	2541.63354	8.21089e-3	20.86908		Naphthalene #1
10.979	BBA	664.61700	3.03831e-2	20.19311		Acenaphthylene #2
11.927	PB	1555.92419	1.30993e-2	20.38151		1-Methylnaphthalene #3
12.499	BB	1812.41431	1.13252e-2	20.52588		2-Methylnaphthalene #4
12.976	BB	978.18439	2.07033e-2	20.25164		Acenaphthene #5
13.626	BB	1138.32654	1.77957e-2	20.25736		Fluorene #6
15.007	BBA	1149.43030	1.75954e-2	20.22464		Phenanthrene #7
16.408	PBA	2032.25513	1.01071e-2	20.54011		Anthracene #8
17.781	PB	91.19827	2.21497e-2	2.02002		Fluoranthene #9
18.784	BBA	137.99599	1.45924e-2	2.01369		Pyrene #10
21.112	PBA	306.25113	6.55743e-2	20.08219		p-Terphenyl d14 #11*
22.428	BBA	89.51380	2.25293e-2	2.01668		Benzo(a)anthracene #12
23.296	BBA	130.92561	1.53469e-2	2.00930		Chrysene #13
26.012	PBA	96.23603	2.11830e-2	2.03857		Benzo(b)fluoranthene #14
27.440	PBA	44.41175	2.29671e-2	1.02001		Benzo(k)fluoranthene #15
28.547	BBA	77.97203	2.65290e-2	2.06852		Benzo(a)pyrene #16
30.409	PBA	21.43666	9.53438e-2	2.04385		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.221	BB	37.93303	5.27295e-2	2.00019		Benzo(g,h,i)perylene #18
32.178	BB	94.62574	2.11267e-2	1.99913		Indeno(1,2,3-cd)pyrene #1

Totals : 202.55548

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061402\4L003173.D Sample Name: WG119863-05 CCV
HPLC4 6/17/2002 10:55:46 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/16/2002 3:05:26 AM Seq. Line : 43

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.377	20.0	20.123	0.6
1-Methylnaphthalene #3	11.947	20.0	20.159	0.8
2-Methylnaphthalene #4	12.522	20.0	20.117	0.6
Acenaphthene #5	13.001	20.0	20.225	1.1
Fluorene #6	13.653	20.0	20.407	2.0
Phenanthrene #7	15.035	20.0	19.940	-0.3
Anthracene #8	16.437	20.0	20.322	1.6
Fluoranthene #9	17.810	2.0	2.023	1.1
Pyrene #10	18.815	2.0	2.011	0.6
p-Terphenyl d14 #11*	21.145	20.0	19.902	-0.5
Benzo(a)anthracene #12	22.462	2.0	1.998	-0.1
Chrysene #13	23.331	2.0	1.998	-0.1
Benzo(b)fluoranthene #14	26.051	2.0	2.023	1.2
Benzo(k)fluoranthene #15	27.485	1.0	1.005	0.5
Benzo(a)pyrene #16	28.592	2.0	2.080	4.0
Dibenz(a,h)anthracene #1	30.455	2.0	1.985	-0.7
Benzo(g,h,i)perylene #18	31.269	2.0	2.020	1.0
Indeno(1,2,3-cd)pyrene #	32.233	2.0	1.985	-0.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.361	20.0	20.956	4.8
Acenaphthylene #2	10.984	20.0	20.269	1.3
1-Methylnaphthalene #3	11.930	20.0	20.465	2.3
2-Methylnaphthalene #4	12.506	20.0	20.599	3.0
Acenaphthene #5	12.984	20.0	20.320	1.6
Fluorene #6	13.636	20.0	20.339	1.7
Phenanthrene #7	15.018	20.0	20.296	1.5
Anthracene #8	16.420	20.0	20.581	2.9
Fluoranthene #9	17.793	2.0	2.030	1.5
Pyrene #10	18.797	2.0	2.022	1.1
p-Terphenyl d14 #11*	21.129	20.0	20.160	0.8
Benzo(a)anthracene #12	22.445	2.0	2.021	1.1
Chrysene #13	23.314	2.0	2.016	0.8
Benzo(b)fluoranthene #14	26.034	2.0	2.045	2.3
Benzo(k)fluoranthene #15	27.468	1.0	1.021	2.1
Benzo(a)pyrene #16	28.574	2.0	2.077	3.8
Dibenz(a,h)anthracene #1	30.437	2.0	2.027	1.4
Benzo(g,h,i)perylene #18	31.251	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.215	2.0	2.009	0.4

= Failed 15.0% Criteria

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

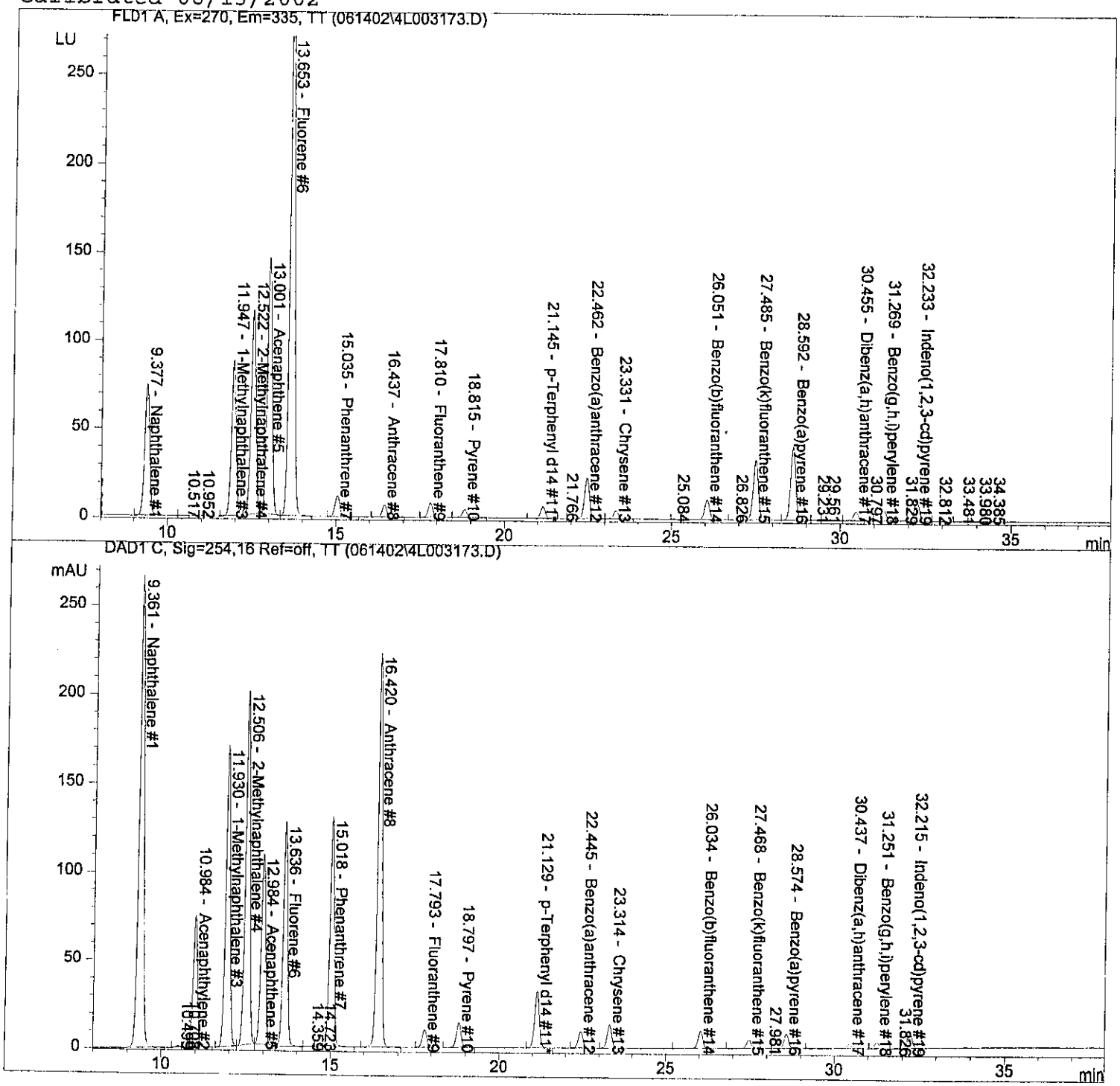
==========

Injection Date : 6/16/2002 3:05:26 AM
Sample Name : WG119863-05 CCV
Acq. Operator : RDC

Seq. Line : 43
Vial : 21
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/17/2002 10:47:35 AM by RDC
(modified after loading)

Calibrated 06/13/2002



413

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Friday, June 14, 2002 9:14:03 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	PB	760.07599	2.64748e-2	20.12285		Naphthalene #1
11.947	BB	872.35144	2.31090e-2	20.15914		1-Methylnaphthalene #3
12.522	BB	1130.55090	1.77942e-2	20.11724		2-Methylnaphthalene #4
13.001	BB	1432.81921	1.41152e-2	20.22450		Acenaphthene #5
13.653	BB	3084.15723	6.61684e-3	20.40738		Fluorene #6
15.035	BBA	114.56673	1.74047e-1	19.93995		Phenanthrene #7
16.437	BBA	67.12714	3.02735e-1	20.32172		Anthracene #8
17.810	PB	78.95570	2.56209e-2	2.02292		Fluoranthene #9
18.815	BBA	48.27294	4.16621e-2	2.01115		Pyrene #10
21.145	BB	67.30986	2.95683e-1	19.90236		p-Terphenyl d14 #11*
22.462	BB	242.25102	8.24826e-3	1.99815		Benzo(a)anthracene #12
23.331	BBA	49.55540	4.03202e-2	1.99808		Chrysene #13
26.051	BB	118.20010	1.71185e-2	2.02340		Benzo(b)fluoranthene #14
27.485	BB	354.00174	2.83842e-3	1.00481		Benzo(k)fluoranthene #15
28.592	BB	434.64508	4.78437e-3	2.07950		Benzo(a)pyrene #16
30.455	BB	48.79999	4.06775e-2	1.98506		Dibenz(a,h)anthracene #17
31.269	BB	70.22708	2.87699e-2	2.02043		Benzo(g,h,i)perylene #18
32.233	BB	139.95387	1.41820e-2	1.98483		Indeno(1,2,3-cd)pyrene #1
Totals :				180.32347		

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	BBA	2552.01440	8.21139e-3	20.95558		Naphthalene #1
10.984	BBA	667.12219	3.03821e-2	20.26858		Acenaphthylene #2
11.930	PB	1562.34827	1.30991e-2	20.46540		1-Methylnaphthalene #3
12.506	BB	1818.83691	1.13254e-2	20.59899		2-Methylnaphthalene #4
12.984	BB	981.48633	2.07029e-2	20.31957		Acenaphthene #5
13.636	BBA	1142.95972	1.77951e-2	20.33914		Fluorene #6
15.018	BBA	1153.50989	1.75950e-2	20.29599		Phenanthrene #7
16.420	PBA	2036.28638	1.01073e-2	20.58127		Anthracene #8
17.793	PB	91.66614	2.21480e-2	2.03022		Fluoranthene #9
18.797	BBA	138.54767	1.45914e-2	2.02160		Pyrene #10
21.129	PBA	307.45343	6.55717e-2	20.16024		p-Terphenyl d14 #11*
22.445	BBA	89.71758	2.25286e-2	2.02121		Benzo(a)anthracene #12
23.314	BBA	131.38145	1.53463e-2	2.01623		Chrysene #13
26.034	PBA	96.56528	2.11817e-2	2.04542		Benzo(b)fluoranthene #14
27.468	PBA	44.45292	2.29668e-2	1.02094		Benzo(k)fluoranthene #15
28.574	BBA	78.28257	2.65265e-2	2.07656		Benzo(a)pyrene #16
30.437	BBA	21.26134	9.53555e-2	2.02739		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.251	BBA	37.63296	5.27211e-2	1.98405		Benzo(g,h,i)perylene #18
32.215	BB	95.08902	2.11240e-2	2.00866		Indeno(1,2,3-cd)pyrene #1

Totals : 203.23704

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\061902\4L003199.D Sample Name: WG120174-01 CCV
HPLC4 6/20/2002 8:59:19 AM RDC

1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date : 6/20/2002 7:13:04 AM Seq. Line : 17

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	19.848	-0.8
1-Methylnaphthalene #3	11.986	20.0	19.913	-0.4
2-Methylnaphthalene #4	12.560	20.0	19.906	-0.5
Acenaphthene #5	13.037	20.0	19.962	-0.2
Fluorene #6	13.690	20.0	20.054	0.3
Phenanthrene #7	15.074	20.0	19.668	-1.7
Anthracene #8	16.477	20.0	19.795	-1.0
Fluoranthene #9	17.852	2.0	1.982	-0.9
Pyrene #10	18.855	2.0	1.967	-1.7
p-Terphenyl d14 #11*	21.190	20.0	19.752	-1.2
Benzo(a)anthracene #12	22.505	2.0	1.959	-2.1
Chrysene #13	23.373	2.0	1.958	-2.1
Benzo(b)fluoranthene #14	26.088	2.0	1.977	-1.2
Benzo(k)fluoranthene #15	27.515	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.620	2.0	1.977	-1.1
Dibenz(a,h)anthracene #1	30.479	2.0	1.949	-2.6
Benzo(g,h,i)perylene #18	31.291	2.0	1.948	-2.6
Indeno(1,2,3-cd)pyrene #	32.240	2.0	1.964	-1.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.393	20.0	20.469	2.3
Acenaphthylene #2	11.020	20.0	19.908	-0.5
1-Methylnaphthalene #3	11.966	20.0	20.053	0.3
2-Methylnaphthalene #4	12.540	20.0	20.207	1.0
Acenaphthene #5	13.017	20.0	19.966	-0.2
Fluorene #6	13.670	20.0	19.911	-0.4
Phenanthrene #7	15.054	20.0	19.877	-0.6
Anthracene #8	16.457	20.0	20.104	0.5
Fluoranthene #9	17.831	2.0	1.976	-1.2
Pyrene #10	18.834	2.0	1.980	-1.0
p-Terphenyl d14 #11*	21.171	20.0	19.823	-0.9
Benzo(a)anthracene #12	22.485	2.0	1.974	-1.3
Chrysene #13	23.353	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.067	2.0	1.988	-0.6
Benzo(k)fluoranthene #15	27.495	1.0	0.992	-0.8
Benzo(a)pyrene #16	28.599	2.0	1.983	-0.8
Dibenz(a,h)anthracene #1	30.458	2.0	2.125	6.3
Benzo(g,h,i)perylene #18	31.270	2.0	1.993	-0.4
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.968	-1.6

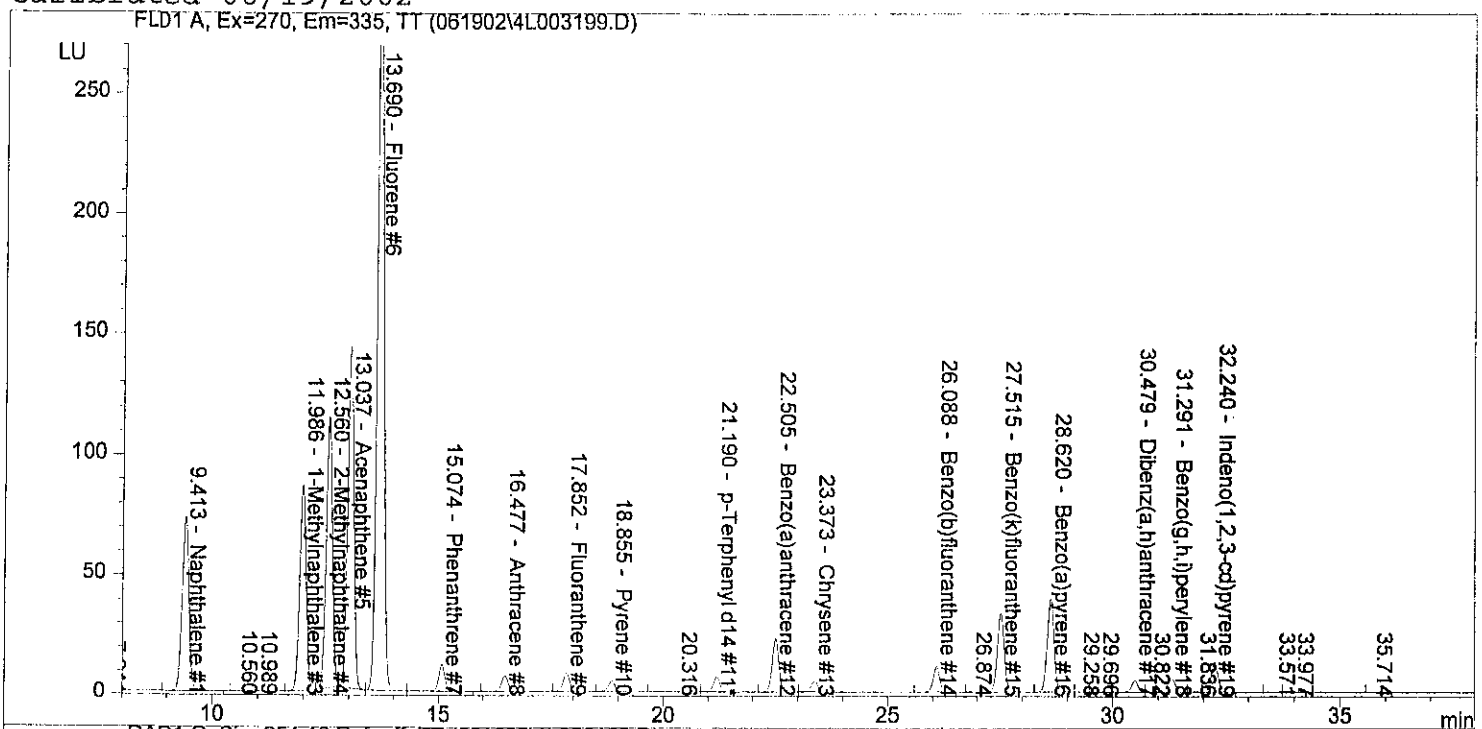
= Failed 15.0% Criteria

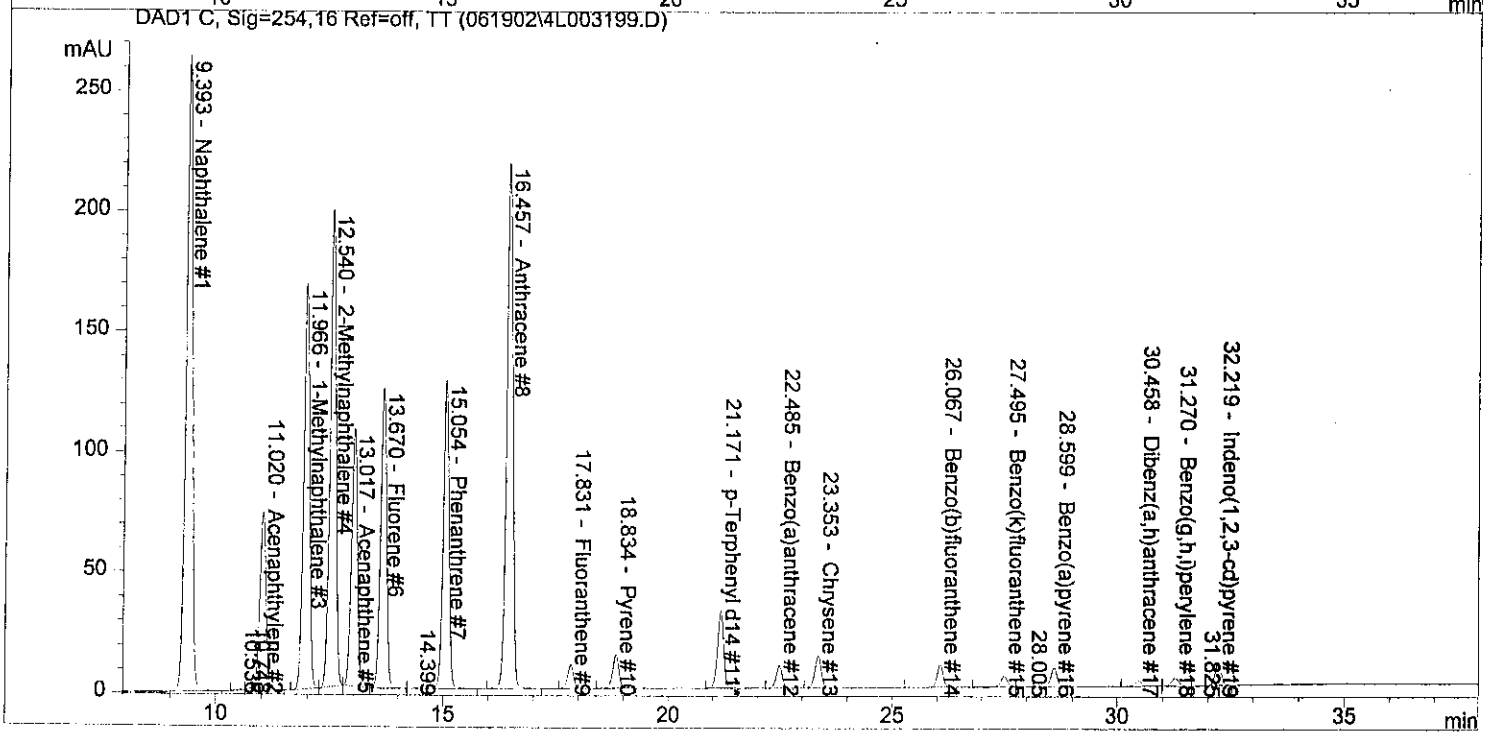
1,1 SOS59-38/58-26 LEVEL 4 STD @ 20/2/1 ppm

==========

Injection Date	: 6/20/2002 7:13:04 AM	Seq. Line	: 17
Sample Name	: WG120174-01 CCV	Vial	: 17
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.413	BB	749.48706	2.64827e-2	19.84846		Naphthalene #1
11.986	BB	859.22571	2.31759e-2	19.91331		1-Methylnaphthalene #3
12.560	BB	1112.94543	1.78862e-2	19.90640		2-Methylnaphthalene #4
13.037	BB	1410.12061	1.41562e-2	19.96193		Acenaphthene #5
13.690	BB	3042.93872	6.59032e-3	20.05393		Fluorene #6
15.074	BBA	113.54522	1.73221e-1	19.66839		Phenanthrene #7
16.477	PBA	65.75275	3.01050e-1	19.79488		Anthracene #8
17.852	PB	77.77711	2.54779e-2	1.98160		Fluoranthene #9
18.855	BB	47.11324	4.17497e-2	1.96696		Pyrene #10
21.190	BB	67.07735	2.94471e-1	19.75236		p-Terphenyl d14 #11*
22.505	BB	237.79007	8.23701e-3	1.95868		Benzo(a)anthracene #12
23.373	BBA	48.61469	4.02831e-2	1.95835		Chrysene #13
26.088	PB	116.02925	1.70356e-2	1.97663		Benzo(b)fluoranthene #14
27.515	BB	349.76276	2.82732e-3	9.88891e-1		Benzo(k)fluoranthene #15
28.620	BB	414.43826	4.77097e-3	1.97727		Benzo(a)pyrene #16
30.479	BB	47.99523	4.06053e-2	1.94886		Dibenz(a,h)anthracene #17
31.291	BB	68.17415	2.85777e-2	1.94826		Benzo(g,h,i)perylene #18
32.240	BB	138.50458	1.41784e-2	1.96377		Indeno(1,2,3-cd)pyrene #1

Totals : 177.56894

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
9.393	BBA	2529.08740	8.09329e-3	20.46863		Naphthalene #1
11.020	BBA	659.47870	3.01877e-2	19.90816		Acenaphthylene #2
11.966	PB	1545.66589	1.29737e-2	20.05300		1-Methylnaphthalene #3
12.540	BB	1800.87952	1.12206e-2	20.20694		2-Methylnaphthalene #4
13.017	BB	970.68304	2.05695e-2	19.96646		Acenaphthene #5
13.670	BB	1130.51941	1.76119e-2	19.91058		Fluorene #6
15.054	BBA	1164.82104	1.70644e-2	19.87699		Phenanthrene #7
16.457	PBA	2010.60986	9.99895e-3	20.10399		Anthracene #8
17.831	PB	90.21717	2.18981e-2	1.97558		Fluoranthene #9
18.834	BBA	136.96854	1.44542e-2	1.97977		Pyrene #10
21.171	PBA	304.61673	6.50742e-2	19.82270		p-Terphenyl d14 #11*
22.485	PBA	88.54465	2.22891e-2	1.97358		Benzo(a)anthracene #12
23.353	BBA	129.57343	1.52172e-2	1.97174		Chrysene #13
26.067	BBA	95.32658	2.08568e-2	1.98821		Benzo(b)fluoranthene #14
27.495	PB	43.80433	2.26398e-2	9.91720e-1		Benzo(k)fluoranthene #15
28.599	BB	75.41525	2.62982e-2	1.98328		Benzo(a)pyrene #16
30.458	BB	22.70441	9.35983e-2	2.12509		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.270	BB	37.34850	5.33536e-2	1.99268		Benzo(g,h,i)perylene #18
32.219	BB	94.39774	2.08513e-2	1.96832		Indeno(1,2,3-cd)pyrene #1

Totals : 199.26742

Results obtained with enhanced integrator!

*** End of Report ***

2.2.7.4 Raw QC Data

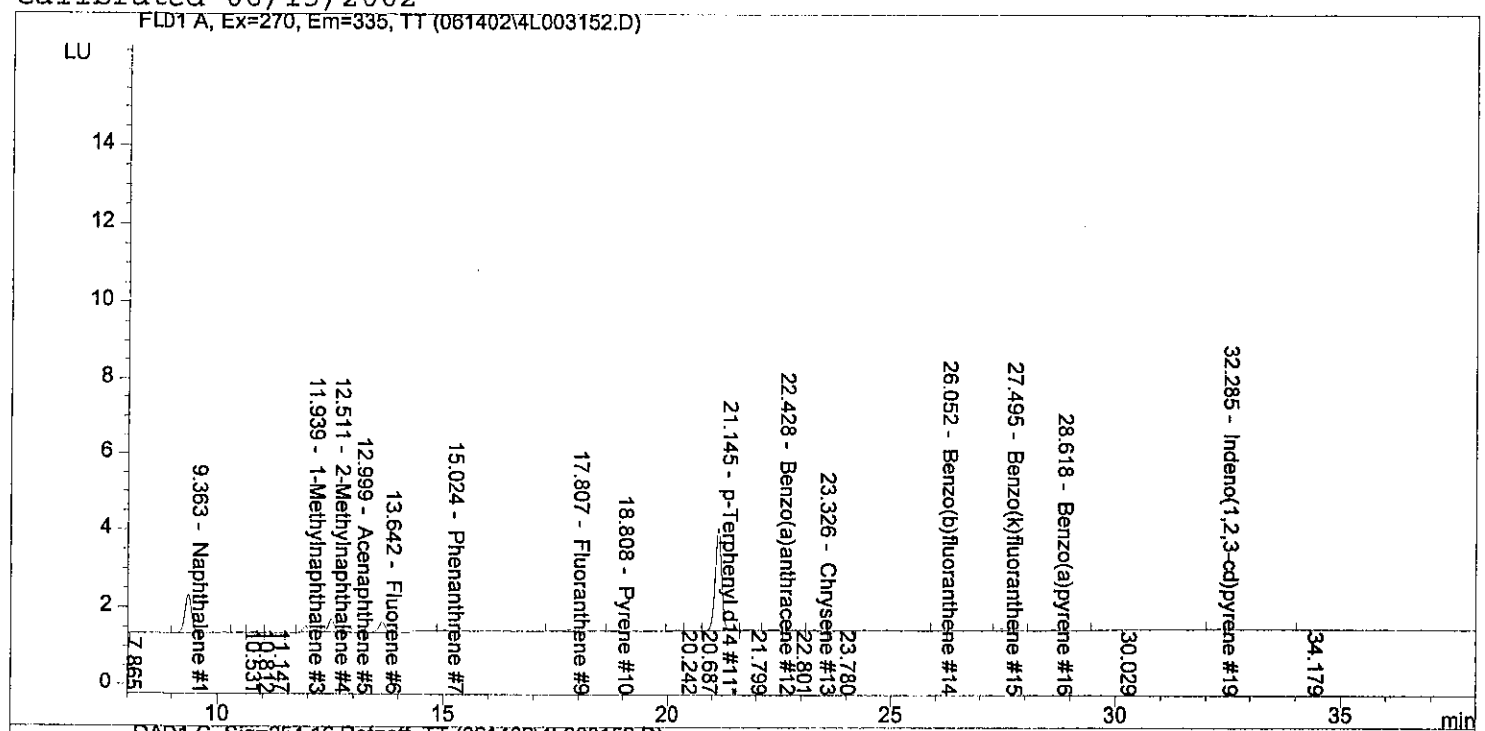
1,1 V185P165 BLK 061102 0845

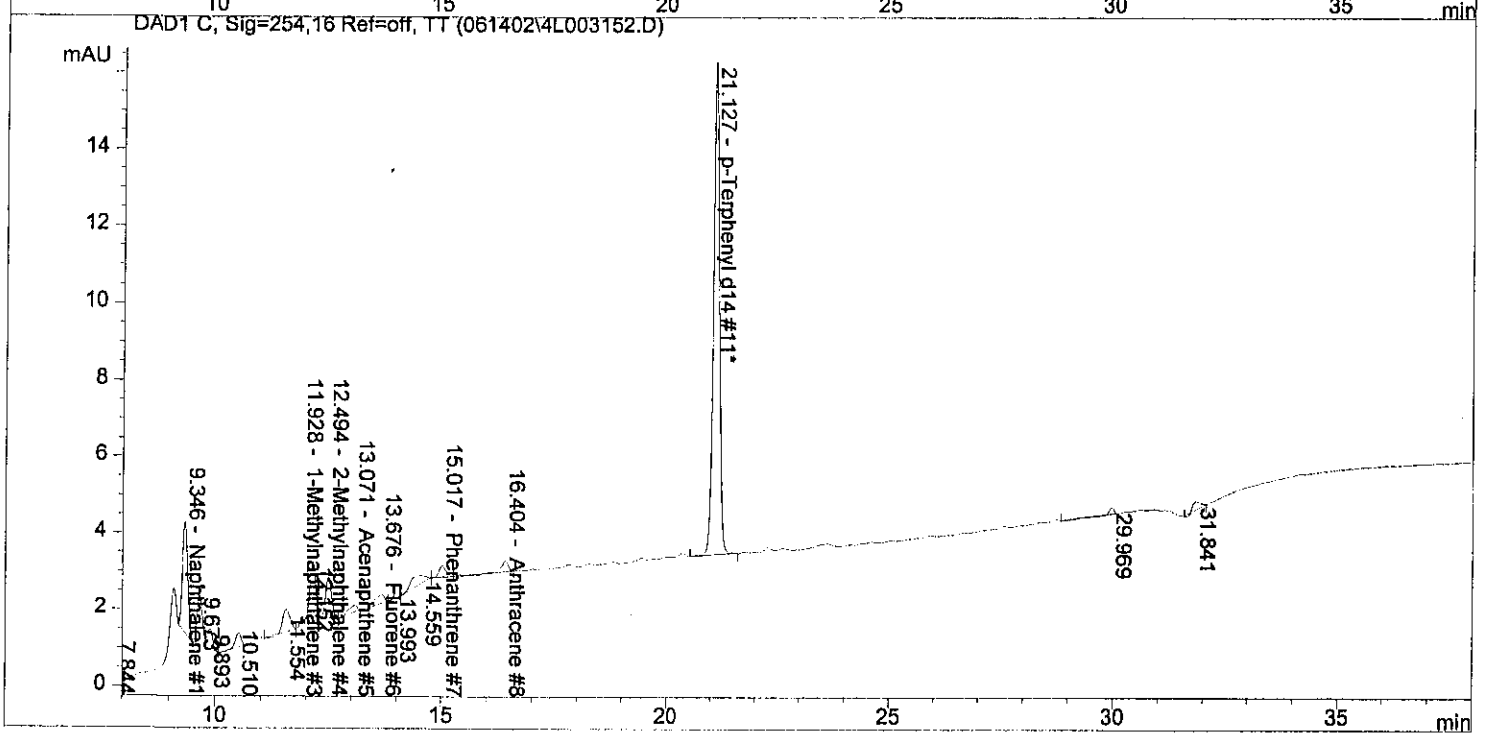
==========

Injection Date : 6/15/2002 7:15:53 AM
Sample Name : WG119548-02 WBLK
Acq. Operator : RDC

Seq. Line : 22
Vial : 22
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





421

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.363	BBA	10.20258	4.69461e-2	4.78972e-1		Naphthalene #1
11.939	BB	1.43333	1.40278e-1	2.01065e-1		1-Methylnaphthalene #3
12.511	BB	3.60506	5.27458e-2	1.90152e-1		2-Methylnaphthalene #4
12.999	BB	1.08175	5.16038e-2	5.58226e-2		Acenaphthene #5
13.642	BB	3.05338	0.00000	0.00000		Fluorene #6
15.024	BB	2.33196e-1	1.52015	3.54493e-1		Phenanthrene #7
16.405		-	-	-		Anthracene #8
17.807	BB	6.95659e-1	5.78653e-2	4.02545e-2		Fluoranthene #9
18.808	BB	2.99152e-1	9.15627e-2	2.73912e-2		Pyrene #10
21.145	BB	27.14438	3.00852e-1	8.16645	81.7%	p-Terphenyl d14 #11*
22.428	BB	3.21221e-1	9.62068e-2	3.09036e-2		Benzo(a)anthracene #12
23.326	BB	2.96861e-1	1.20552e-1	3.57871e-2		Chrysene #13
26.052	PBA	1.50017e-1	1.89841e-1	2.84795e-2		Benzo(b)fluoranthene #14
27.495	BB	6.00783e-1	1.99595e-2	1.19913e-2		Benzo(k)fluoranthene #15
28.618	BBA	3.69957e-1	1.03595e-1	3.83258e-2		Benzo(a)pyrene #16
30.418		-	-	-		Dibenz(a,h)anthracene #17
31.227		-	-	-		Benzo(g,h,i)perylene #18
32.285	PB	1.52092e-1	2.04777e-1	3.11449e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.69123

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	23.04501	0.00000	0.00000		Naphthalene #1
10.959		-	-	-		Acenaphthylene #2
11.928	BB	8.08226e-1	9.23642e-2	7.46512e-2	max	1-Methylnaphthalene #3
12.494	BB	9.79359	6.37070e-4	6.23920e-3		2-Methylnaphthalene #4
13.071	BB	2.43931	7.27092e-2	1.77360e-1		Acenaphthene #5
13.676	BB	3.72138	6.21871e-2	2.31422e-1		Fluorene #6
15.017	BB	3.21280	5.56474e-2	1.78784e-1		Phenanthrene #7
16.404	BB	3.53260	0.00000	0.00000		Anthracene #8
17.762		-	-	-		Fluoranthene #9
18.761		-	-	-		Pyrene #10
21.127	BBA	121.63887	6.65745e-2	8.09805		p-Terphenyl d14 #11*
22.401		-	-	-	81.0%	Benzo(a)anthracene #12
23.266		-	-	-		Chrysene #13
25.984		-	-	-		Benzo(b)fluoranthene #14
27.418		-	-	-		Benzo(k)fluoranthene #15
28.535		-	-	-		Benzo(a)pyrene #16
30.399		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.206		-	-	-		Benzo(g,h,i)perylene #18
32.159		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.76651

Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Fluorene #6)
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

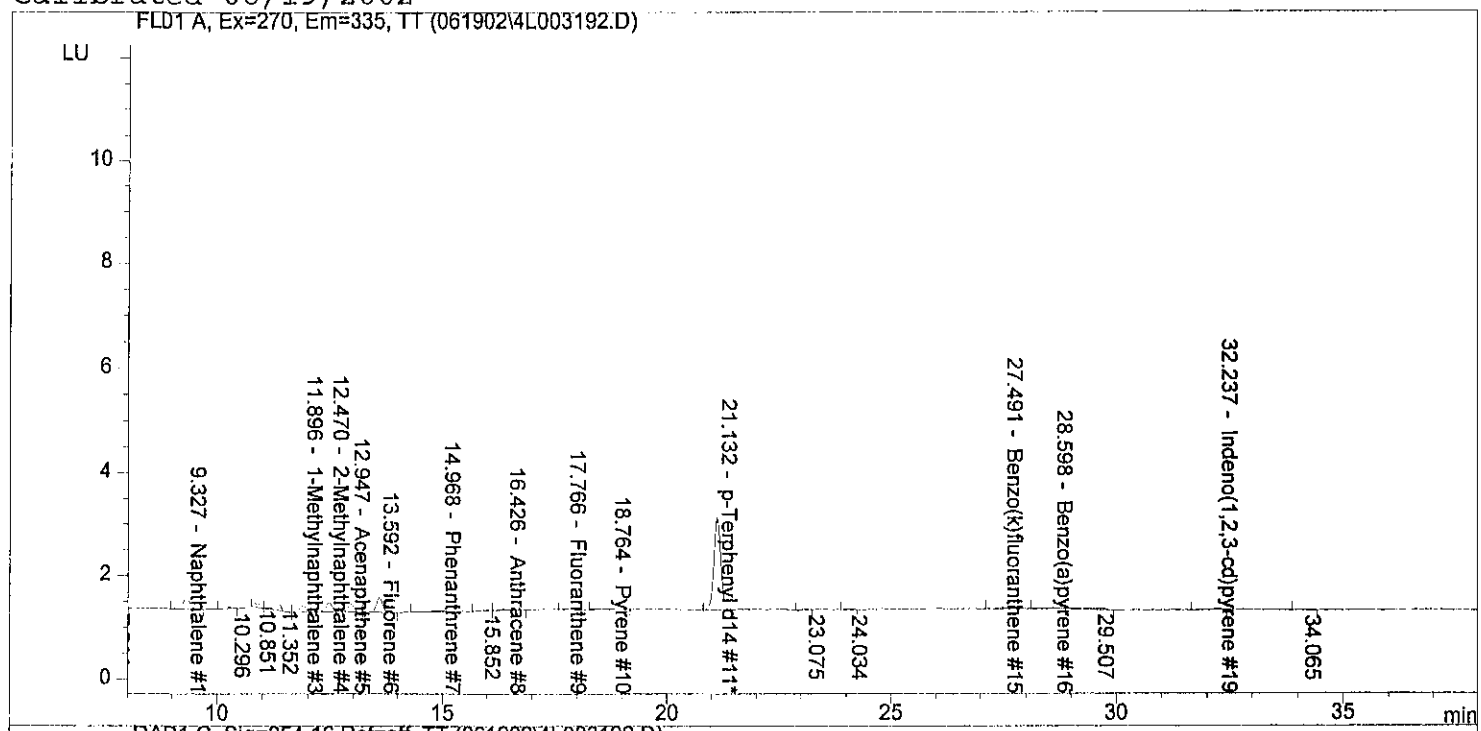
1,1 V186P47 BLK 061802 @ 1410

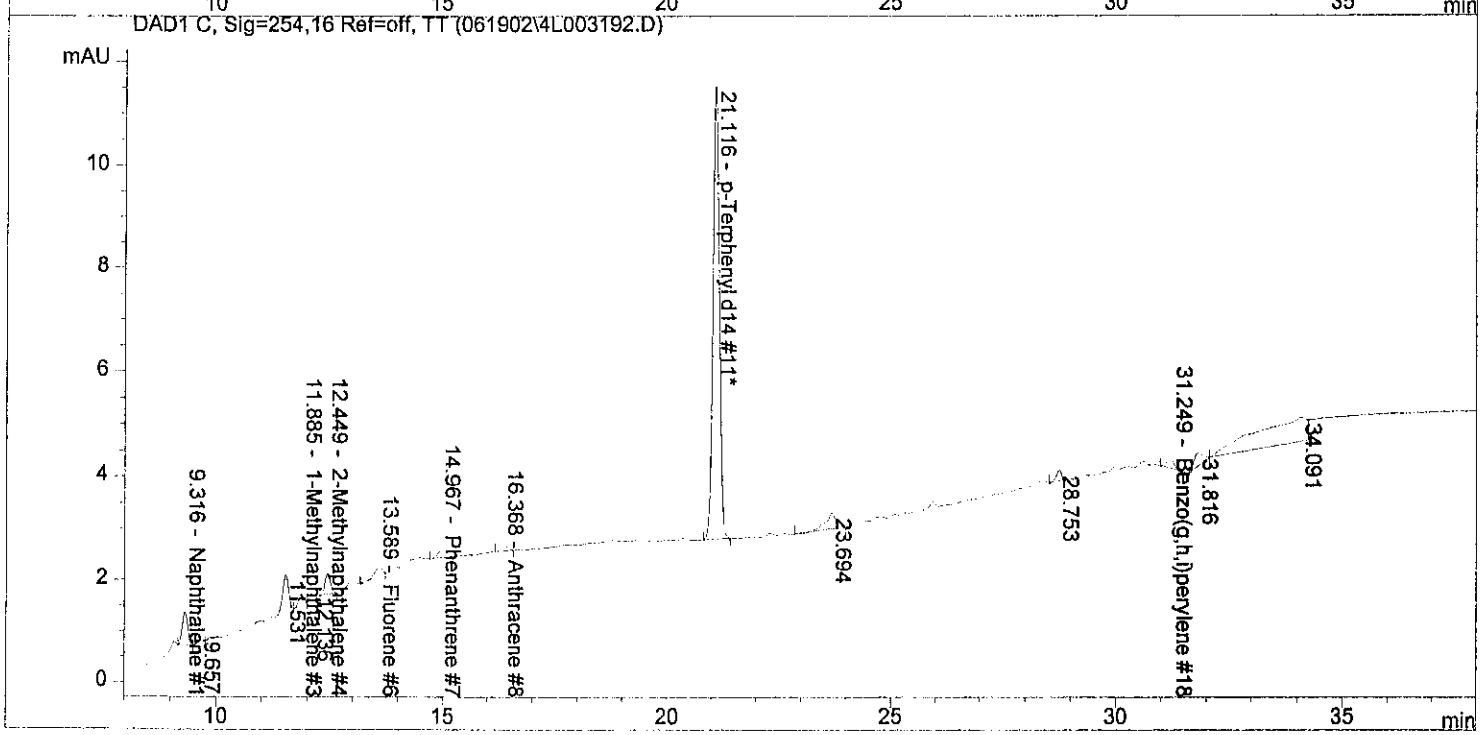
==========

Injection Date : 6/20/2002 12:36:36 AM
Sample Name : WG120073-01 WBLK
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.327	BB	2.65012	1.06677e-1	2.82706e-1		Naphthalene #1
11.896	BB	1.19375	1.88866e-1	2.25459e-1		1-Methylnaphthalene #3
12.470	BB	1.90442	9.10764e-2	1.73448e-1		2-Methylnaphthalene #4
12.947	BB	1.39585	6.41310e-2	8.95174e-2		Acenaphthene #5
13.592	BB	3.02192	5.90935e-3	1.78576e-2		Fluorene #6
14.968	BB	4.44081e-1	7.64801e-1	3.39634e-1		Phenanthrene #7
16.426	BBA	3.74135e-1	8.40465e-1	3.14448e-1		Anthracene #8
17.766	PBA	1.71050e-1	1.62601e-1	2.78130e-2		Fluoranthene #9
18.764	PB	2.39148e-1	9.21662e-2	2.20413e-2		Pyrene #10
21.132	BB	18.57417	3.03913e-1	5.64494		p-Terphenyl d14 #11*
22.485		-	-	-		Benzo(a)anthracene #12
23.357		-	-	-		Chrysene #13
26.079		-	-	-		Benzo(b)fluoranthene #14
27.491	BBA	4.31548e-1	3.23405e-2	1.39565e-2		Benzo(k)fluoranthene #15
28.598	BB	4.44311e-1	9.05253e-2	4.02214e-2		Benzo(a)pyrene #16
30.474		-	-	-		Dibenz(a,h)anthracene #17
31.287		-	-	-		Benzo(g,h,i)perylene #18
32.237	BB	2.82011e-1	1.27403e-1	3.59289e-2		Indeno(1,2,3-cd)pyrene #1

56.4%

Totals : 7.22797

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
9.316	BB	5.43327	0.00000	0.00000		Naphthalene #1
10.995		-	-	-		Acenaphthylene #2
11.885	BB	1.36294	1.15941e-1	1.58021e-1		1-Methylnaphthalene #3
12.449	BB	3.51171	3.83170e-3	1.34558e-2		2-Methylnaphthalene #4
12.994		-	-	-		Acenaphthene #5
13.589	BB	1.72606	1.59077e-1	2.74576e-1		Fluorene #6
14.967	BB	1.88901	1.39430e-1	2.63385e-1		Phenanthrene #7
16.368	BBA	1.33014	0.00000	0.00000		Anthracene #8
17.806		-	-	-		Fluoranthene #9
18.809		-	-	-		Pyrene #10
21.116	BBA	83.76583	6.71708e-2	5.62662		p-Terphenyl d14 #11*
22.466		-	-	-		Benzo(a)anthracene #12
23.337		-	-	-		Chrysene #13
26.064		-	-	-		Benzo(b)fluoranthene #14
27.495		-	-	-		Benzo(k)fluoranthene #15
28.596		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

2 mol

56.3%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.249	BB	1.73877	6.55522e-2	1.13980e-1	NC	Benzo(g,h,i)perylene #18
32.225		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.45003

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed
Warning : Negative results set to zero (cal. curve intercept), (Naphthalene
Warning : Negative results set to zero (cal. curve intercept), (Anthracene #

==========

*** End of Report ***

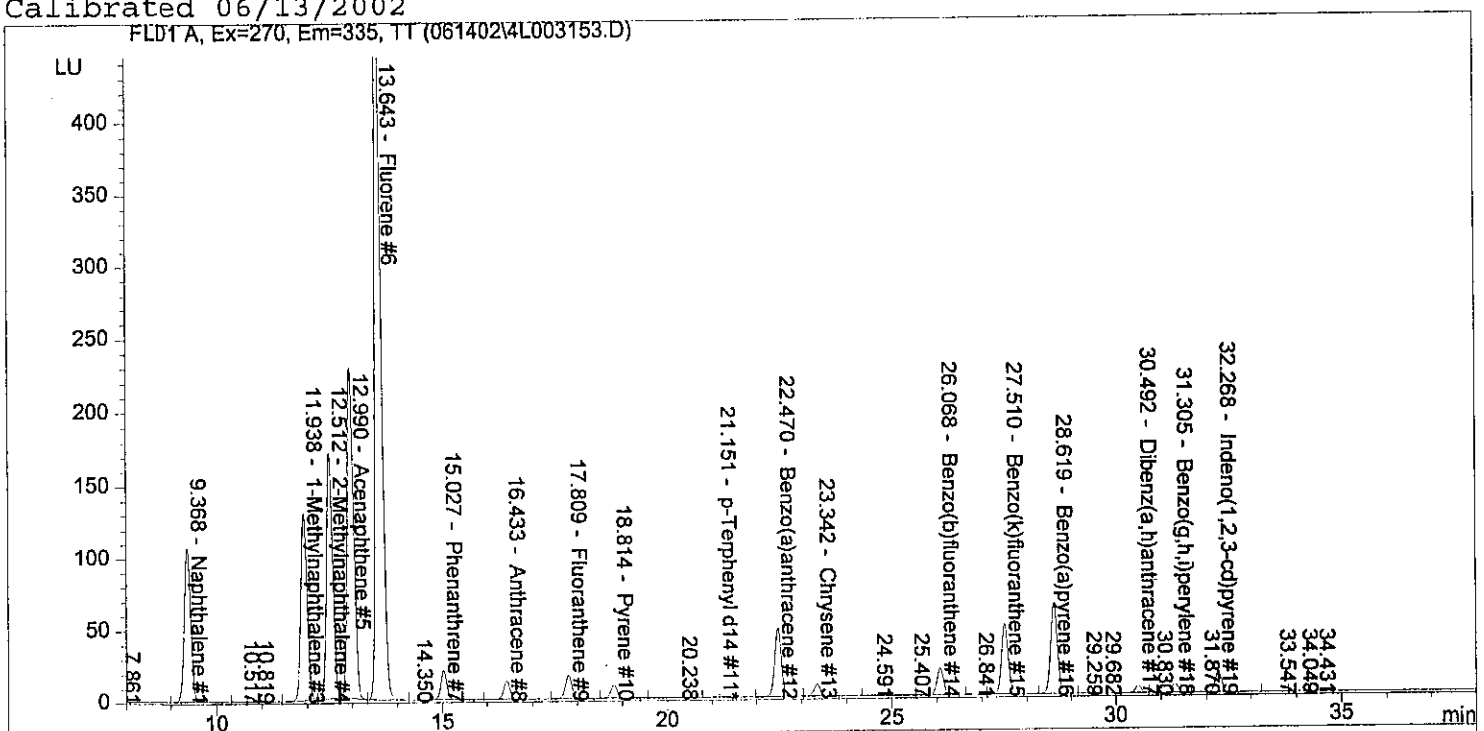
1,1 V185P165 BLK 061102 0845

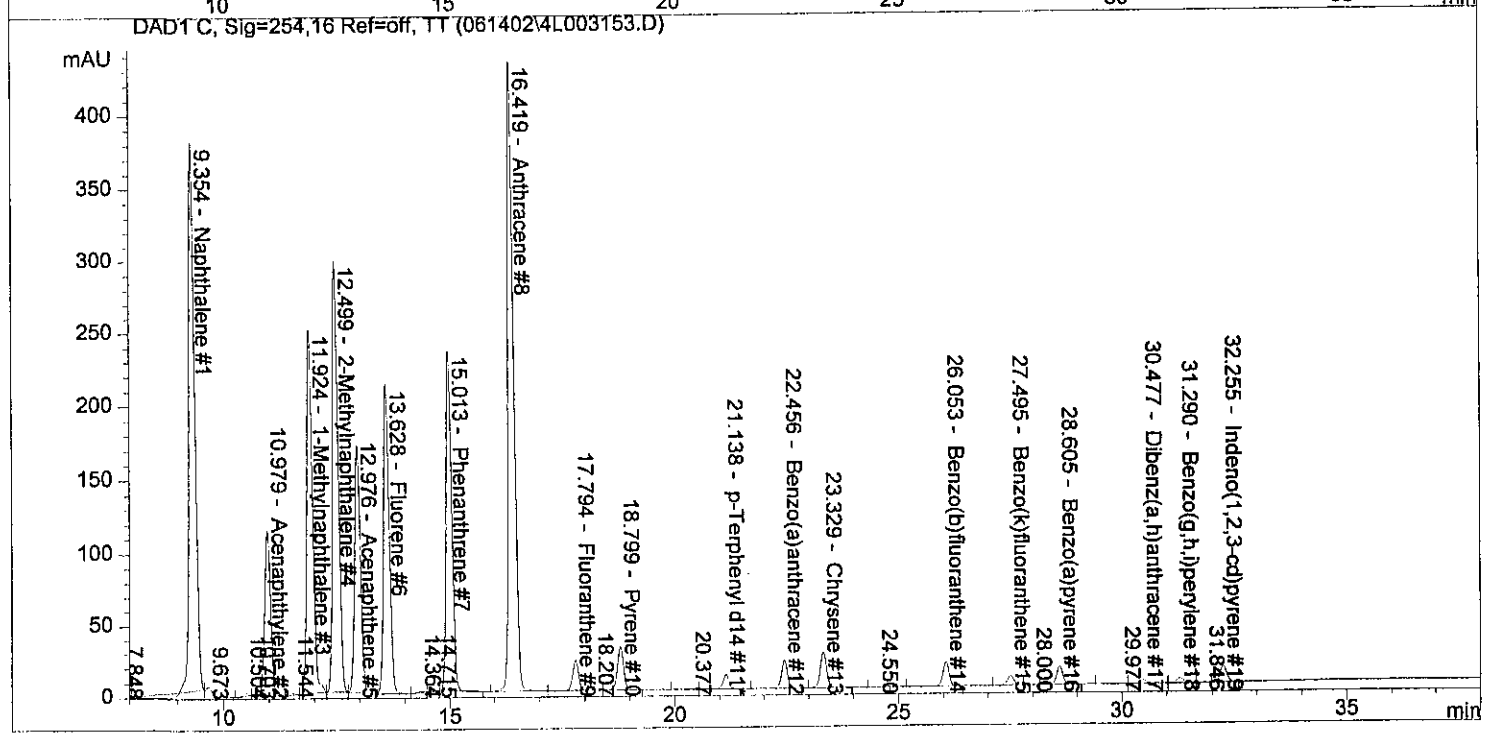
==========

Injection Date : 6/15/2002 8:12:32 AM
Sample Name : WG119548-03 WLCS
Acq. Operator : RDC

Seq. Line : 23
Vial : 23
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/14/2002 9:21:05 AM by RDC
Calibrated 06/13/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Friday, June 14, 2002 9:14:03 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
9.368	BB	1088.20251	2.63908e-2	28.71854		Naphthalene #1
11.938	BB	1275.95007	2.30480e-2	29.40805		1-Methylnaphthalene #3
12.512	BB	1655.00964	1.77588e-2	29.39091		2-Methylnaphthalene #4
12.990	BB	2224.35815	1.41051e-2	31.37480		Acenaphthene #5
13.643	BB	5089.01563	6.62956e-3	33.73796		Fluorene #6
15.027	BBA	204.01131	1.72843e-1	35.26190		Phenanthrene #7
16.433	PBA	129.25926	3.02534e-1	39.10533		Anthracene #8
17.809	BBA	166.26759	2.54704e-2	4.23490		Fluoranthene #9
18.814	BBA	99.85730	4.15013e-2	4.14421		Pyrene #10
21.151	BB	20.85701	3.03464e-1	6.32935 63.3%		p-Terphenyl d14 #11*
22.470	BB	492.38809	8.18893e-3	4.03213		Benzo(a)anthracene #12
23.342	BB	89.93190	4.01031e-2	3.60655		Chrysene #13
26.068	BBA	200.11156	1.70286e-2	3.40762		Benzo(b)fluoranthene #14
27.510	BB	511.30966	2.82947e-3	1.44673		Benzo(k)fluoranthene #15
28.619	BB	672.00470	4.75464e-3	3.19514		Benzo(a)pyrene #16
30.492	BB	48.80359	4.06775e-2	1.98521		Dibenz(a,h)anthracene #17
31.305	BB	71.59914	2.87588e-2	2.05910		Benzo(g,h,i)perylene #18
32.268	BB	165.11749	1.41504e-2	2.33649		Indeno(1,2,3-cd)pyrene #1

Totals : 263.77492

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
9.354	BB	3448.43335	8.24298e-3	28.42537		Naphthalene #1
10.979	BB	1029.36609	3.02916e-2	31.18111		Acenaphthylene #2
11.924	BB	2289.27759	1.30861e-2	29.95771		1-Methylnaphthalene #3
12.499	BB	2648.65039	1.13435e-2	30.04495		2-Methylnaphthalene #4
12.976	BB	1528.85889	2.06565e-2	31.58082		Acenaphthene #5
13.628	BB	1896.93823	1.77375e-2	33.64696		Fluorene #6
15.013	BBA	2049.33838	1.75485e-2	35.96286		Phenanthrene #7
16.419	BB	3936.11523	1.01569e-2	39.97877		Anthracene #8
17.794	BB	188.16165	2.19708e-2	4.13407		Fluoranthene #9
18.799	BBA	286.45572	1.44642e-2	4.14334		Pyrene #10
21.138	BBA	95.22154	6.70349e-2	6.38316 63.8%		p-Terphenyl d14 #11*
22.456	PBA	184.76534	2.23830e-2	4.13560		Benzo(a)anthracene #12
23.329	BBA	244.60028	1.52756e-2	3.73641		Chrysene #13
26.053	BBA	163.93582	2.10258e-2	3.44688		Benzo(b)fluoranthene #14
27.495	BB	63.77553	2.28666e-2	1.45833		Benzo(k)fluoranthene #15
28.605	BBA	122.34278	2.63066e-2	3.21842		Benzo(a)pyrene #16
30.477	BB	22.80592	9.52584e-2	2.17246		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.290	BB	38.83859	5.27541e-2	2.04890		Benzo(g,h,i)perylene #18
32.255	BB	114.09921	2.10315e-2	2.39967		Indeno(1,2,3-cd)pyrene #1

Totals : 298.05580

Results obtained with enhanced integrator!

*** End of Report ***

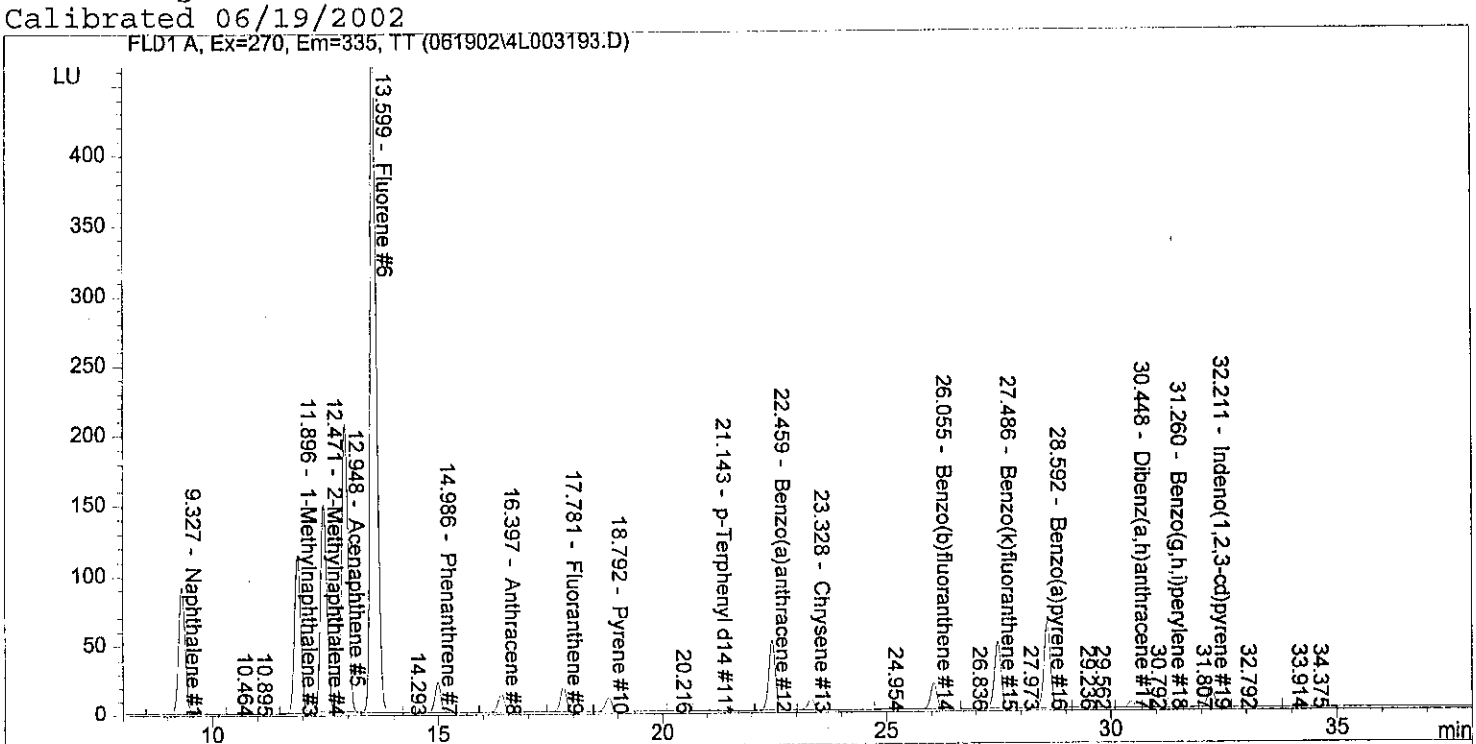
1,1 V186P47 LCS 061802 @ 1410

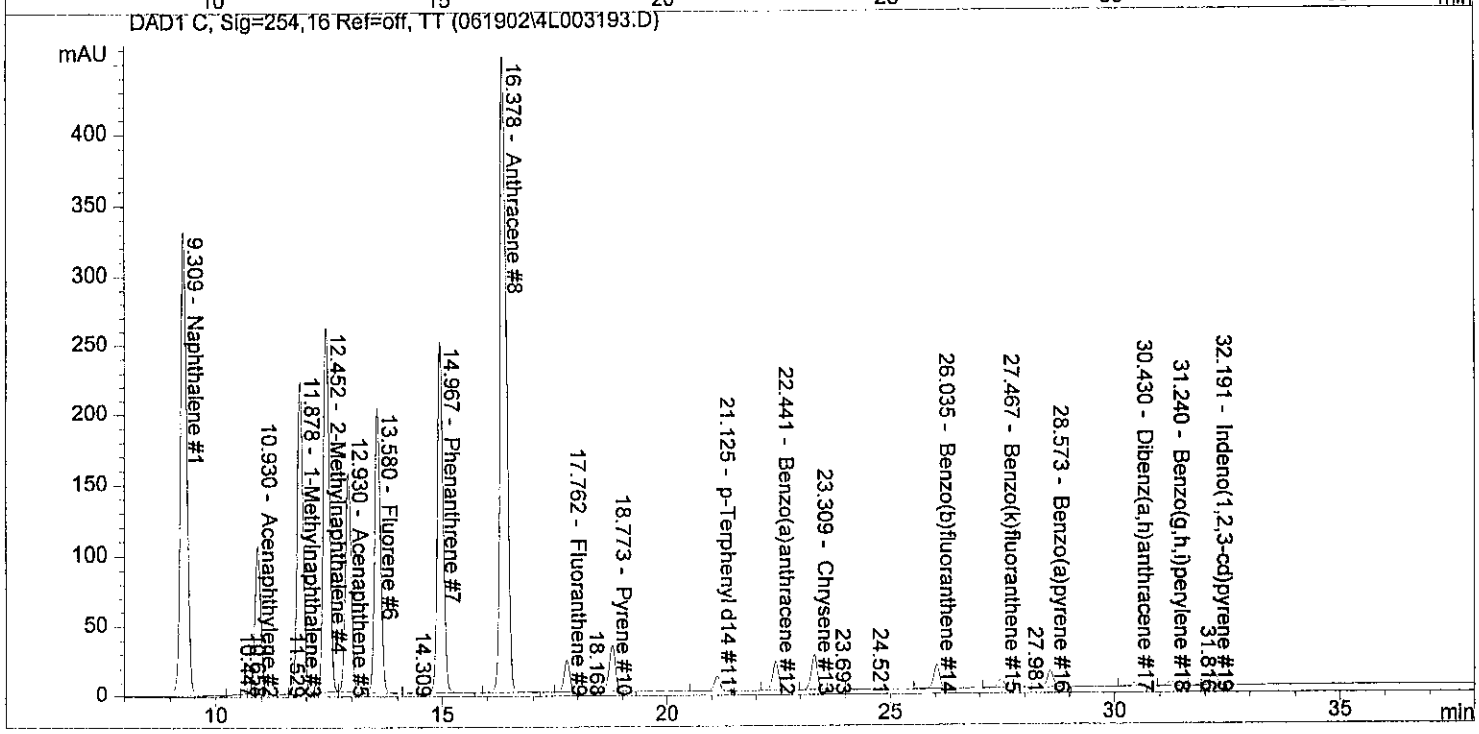
==========

Injection Date : 6/20/2002 1:33:13 AM
Sample Name : WG120073-02 WLCS
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.327	BBA	935.42493	2.64262e-2	24.71969		Naphthalene #1
11.896	BB	1124.34448	2.31215e-2	25.99656		1-Methylnaphthalene #3
12.471	BB	1452.07715	1.78569e-2	25.92964		2-Methylnaphthalene #4
12.948	BB	2036.65710	1.41410e-2	28.80027		Acenaphthene #5
13.599	BB	4912.77393	6.59057e-3	32.37800		Fluorene #6
14.986	BBA	220.59528	1.72094e-1	37.96304		Phenanthrene #7
16.397	PBA	137.07370	2.99444e-1	41.04591		Anthracene #8
17.781	PB	185.78419	2.53022e-2	4.70075		Fluoranthene #9
18.792	BBA	110.06080	4.16025e-2	4.57881		Pyrene #10
21.143	BBA	23.03270	3.01386e-1	6.94173	69.4%	p-Terphenyl d14 #11*
22.459	PB	528.36932	8.16328e-3	4.31323		Benzo(a)anthracene #12
23.328	BB	93.61204	3.99865e-2	3.74322		Chrysene #13
26.055	BBA	203.83879	1.69318e-2	3.45136		Benzo(b)fluoranthene #14
27.486	BB	508.07745	2.81596e-3	1.43073		Benzo(k)fluoranthene #15
28.592	BB	652.53778	4.73739e-3	3.09133		Benzo(a)pyrene #16
30.448	BB	48.61209	4.05937e-2	1.97335		Dibenz(a,h)anthracene #17
31.260	BB	70.71571	2.85533e-2	2.01917		Benzo(g,h,i)perylene #18
32.211	BB	160.65709	1.41466e-2	2.27274		Indeno(1,2,3-cd)pyrene #1

Totals : 255.34952

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
9.309	BBA	3196.87036	8.11576e-3	25.94502		Naphthalene #1
10.930	BB	944.55377	3.00890e-2	28.42068		Acenaphthylene #2
11.878	BB	2025.07642	1.29522e-2	26.22916		1-Methylnaphthalene #3
12.452	BB	2354.57642	1.12240e-2	26.42774		2-Methylnaphthalene #4
12.930	BB	1409.84192	2.05072e-2	28.91198		Acenaphthene #5
13.580	BB	1837.24695	1.75287e-2	32.20451		Fluorene #6
14.967	BBA	2274.50708	1.69674e-2	38.59256		Phenanthrene #7
16.378	PBA	4199.32324	1.00168e-2	42.06368		Anthracene #8
17.762	PB	211.52150	2.16882e-2	4.58752		Fluoranthene #9
18.773	BBA	322.76715	1.42724e-2	4.60665		Pyrene #10
21.125	BBA	104.25984	6.66024e-2	6.94395	69.4%	p-Terphenyl d14 #11*
22.441	PBA	198.62534	2.20735e-2	4.38435		Benzo(a)anthracene #12
23.309	PB	248.34311	1.50936e-2	3.74840		Chrysene #13
26.035	BB	168.11125	2.07137e-2	3.48221		Benzo(b)fluoranthene #14
27.467	BB	63.79777	2.25343e-2	1.43764		Benzo(k)fluoranthene #15
28.573	BB	121.40891	2.60429e-2	3.16184		Benzo(a)pyrene #16
30.430	BB	21.61476	9.35832e-2	2.02278		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.240	BB	40.17577	5.33117e-2	2.14184		Benzo(g,h,i)perylene #18
32.191	BB	110.32629	2.07670e-2	2.29115		Indeno(1,2,3-cd)pyrene #1

Totals : 287.60366

Results obtained with enhanced integrator!

*** End of Report ***

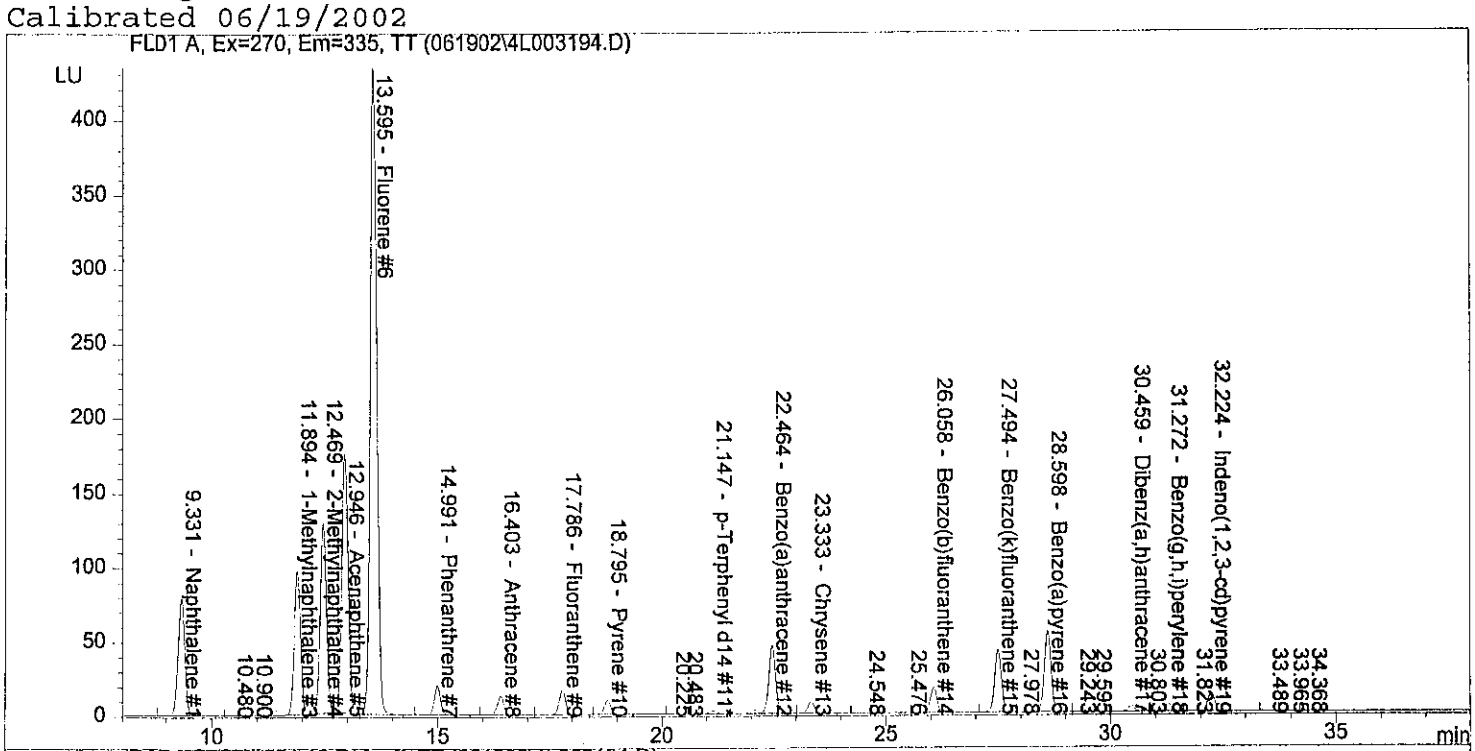
432

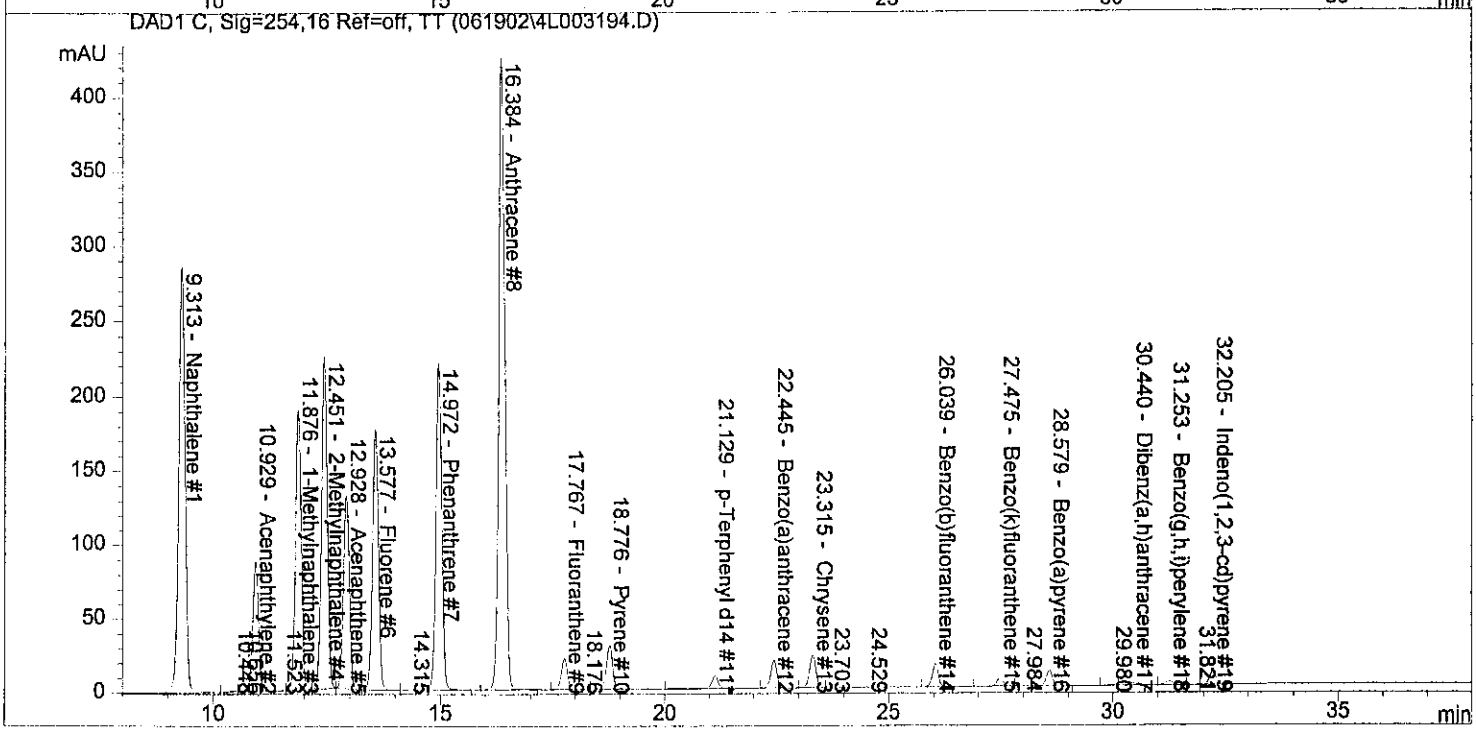
==========

Injection Date : 6/20/2002 2:29:50 AM
Sample Name : WG120073-03 WLCS
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 6/20/2002 8:52:22 AM by RDC
Calibrated 06/19/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 6/20/2002 8:52:08 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
9.331	BB	801.23694	2.64643e-2	21.20421		Naphthalene #1
11.894	BB	957.50305	2.31522e-2	22.16832		1-Methylnaphthalene #3
12.469	BB	1252.51636	1.78723e-2	22.38529		2-Methylnaphthalene #4
12.946	BB	1715.94397	1.41474e-2	24.27608		Acenaphthene #5
13.595	BB	4288.15039	6.59051e-3	28.26111		Fluorene #6
14.991	BBA	195.37445	1.72248e-1	33.65285		Phenanthrene #7
16.403	PB	130.06868	2.99524e-1	38.95868		Anthracene #8
17.786	BBA	166.82796	2.53166e-2	4.22351		Fluoranthene #9
18.795	BBA	99.00043	4.16148e-2	4.11989		Pyrene #10
21.147	BB	18.66735	3.03848e-1	5.67204	56.7%	p-Terphenyl d14 #11*
22.464	BB	477.98218	8.16964e-3	3.90494		Benzo(a)anthracene #12
23.333	BB	80.35316	4.00394e-2	3.21729		Chrysene #13
26.058	BBA	184.14188	1.69465e-2	3.12056		Benzo(b)fluoranthene #14
27.494	BB	443.68930	2.81960e-3	1.25103		Benzo(k)fluoranthene #15
28.598	BB	575.62018	4.74520e-3	2.73143		Benzo(a)pyrene #16
30.459	BB	40.09786	4.07848e-2	1.63538		Dibenz(a,h)anthracene #17
31.272	BB	58.65079	2.86881e-2	1.68258		Benzo(g,h,i)perylene #18
32.224	BB	138.47348	1.41785e-2	1.96334		Indeno(1,2,3-cd)pyrene #1

Totals : 224.42853

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
9.313	BB	2745.27979	8.10176e-3	22.24159		Naphthalene #1
10.929	BB	793.56989	3.01325e-2	23.91221		Acenaphthylene #2
11.876	BB	1726.29395	1.29642e-2	22.38000		1-Methylnaphthalene #3
12.451	BB	2031.06799	1.12222e-2	22.79311		2-Methylnaphthalene #4
12.928	BB	1187.43079	2.05330e-2	24.38154		Acenaphthene #5
13.577	BB	1601.60669	1.75483e-2	28.10542		Fluorene #6
14.972	BBA	2010.16394	1.69808e-2	34.13424		Phenanthrene #7
16.384	PBA	3939.98828	1.00157e-2	39.46173		Anthracene #8
17.767	PB	189.62018	2.17062e-2	4.11594		Fluoranthene #9
18.776	BBA	289.45502	1.42878e-2	4.13567		Pyrene #10
21.129	BBA	86.41685	6.70821e-2	5.79702	58.0%	p-Terphenyl d14 #11*
22.445	BBA	179.30223	2.20922e-2	3.96118		Benzo(a)anthracene #12
23.315	PB	212.72226	1.51162e-2	3.21556		Chrysene #13
26.039	BBA	151.37845	2.07344e-2	3.13874		Benzo(b)fluoranthene #14
27.475	BBA	55.60232	2.25684e-2	1.25486		Benzo(k)fluoranthene #15
28.579	BBA	106.75813	2.61003e-2	2.78642		Benzo(a)pyrene #16
30.440	BB	17.67043	9.35132e-2	1.65242		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.253	BB	32.89240	5.34343e-2	1.75758		Benzo(g,h,i)perylene #18
32.205	BB	95.39568	2.08452e-2	1.98854		Indeno(1,2,3-cd)pyrene #1

Totals : 251.21377

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119840-01 STD6	8310	1	Sample		
3	3	WG119840-02 STD6	8310	1	Sample		
4	4	WG119840-03 STD5	8310	1	Sample		
5	5	WG119840-04 STD4	8310	1	Sample		
6	6	WG119840-05 STD3	8310	1	Sample		
7	7	WG119840-06 STD2	8310	1	Sample		
8	8	WG119840-07 STD1	8310	1	Sample		
9	9	WG119840-08 ALT	8310	1	Sample		

RDC- 6/14/02 436

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
							TRD 6/14/02
No	1	1	8310	4L003122	01:01		accn blk
No	2	2	8310	4L003123	02:01	SOS 58-26	WG119840-01 ST
No	3	3	8310	4L003124	03:01	SOS 59-38	WG119840-02 ST
No	4	4	8310	4L003125	04:01	DIL'N of SOS 58-26	WG119840-03 ST
No	5	5	8310	4L003126	05:01	& 59-38	WG119840-04 ST
No	6	6	8310	4L003127	06:01		WG119840-05 ST
No	7	7	8310	4L003128	07:01		WG119840-06 ST
No	8	8	8310	4L003129	08:01		WG119840-07 ST
No	9	9	8310	4L003130	09:01	SOS 60-26/60-27	WG119840-08 AL

TRC
6/14/02

rdc 6/14/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 13, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061302
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Re-installed LC-PAH column for 8310 ~~HPLC~~ / 610 analysis

Action Taken: recalibration

Comments

Reviewed By: [illegible] 6/14/02

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L003131	01:01 ✓		accn blk
No	2	2	8310	4L003132	02:01 ✓	SOS 59-38/58-26	WG119863-01 CC
No	3	3	8310	4L003133	03:01 ✓		WG119312-02 WB
No	4	4	8310	4L003134	04:01 ✓		WG119312-03 WL
No	5	5	8310	4L003135	05:01 ✓		L0206078-05 61
No	6	6	8310	4L003136	06:01 ✓		L0206078-07 61
No	7	7	8310	4L003137	07:01 ✓		L0206078-09 61
No	8	8	8310	4L003138	08:01 ✓		L0206078-12 61
No	9	9	8310	4L003139	09:01 ✓		L0206078-15 61
No	10	10	8310	4L003140	10:01 ✓		L0206078-18 61
No	11	11	8310	4L003141	11:01 ✓	SOS 59-38/58-26	WG119863-02 CC
No	12	12	8310	4L003142	12:01 ✓		L0206102-01 83
No	13	13	8310	4L003143	13:01 ✓		L0206102-02 83
No	14	14	8310	4L003144	14:01 ✓		L0206102-03 83
No	15	15	8310	4L003145	15:01 ✓		WG119312-01 WR
No	16	16	8310	4L003146	16:01 ✓		WG119312-04 WM
No	17	17	8310	4L003147	17:01 ✓		WG119312-05 WM
No	18	18	8310	4L003148	18:01 ✓	accn. NC	L0206102-07 83
No	19	19	8310	4L003149	19:01 ✓		L0206102-08 83
No	20	20	8310	4L003150	20:01 ✓		L0206102-09 83
No	21	21	8310	4L003151	21:01 ✓	SOS 59-38/58-26	WG119863-03 CC
No	22	22	8310	4L003152	22:01 ✓		WG119548-02 WB
No	23	23	8310	4L003153	23:01 ✓		WG119548-03 WL
No	24	24	8310	4L003154	24:01	RR 10X, Accn. NC	L0206140-01 83
No	25	25	8310	4L003155	25:01 ✓		L0206140-02 83
No	26	26	8310	4L003156	26:01 ✓		L0206140-03 83
No	27	27	8310	4L003157	27:01 ✓		L0206140-04 83
No	28	28	8310	4L003158	28:01 ✓		L0206140-05 83
No	29	29	8310	4L003159	29:01 ✓		L0206140-06 83
No	30	30	8310	4L003160	30:01 ✓		WG119548-01 WR
No	31	31	8310	4L003161	31:01 ✓		L0206140-08 83
No	32	21	8310	4L003162	32:01 ✓	SOS 59-38/58-26	WG119863-04 CC
No	33	32	8310	4L003163	33:01 ✓		L0206140-09 83
No	34	33	8310	4L003164	34:01 ✓		L0206140-10 83
No	35	34	8310	4L003165	35:01	RE Needed low surr.	L0206140-11 83
No	36	35	8310	4L003166 Accn. NC	36:01	RR 10X, RE low surr.	L0206140-12 83
No	37	36	8310	4L003167	37:01 ✓		L0206140-13 83
No	38	37	8310	4L003168	38:01 ✓	low surr	WG119548-0 WMS
No	39	38	8310	4L003169	39:01 ✓		WG119548-05 WM
No	40	39	8310	4L003170	40:01	RE low surr.	L0206164-01 83
No	41	40	8310	4L003171	41:01	RE low surr.	L0206164-02 83
No	42	41	8310	4L003172	42:01 ✓		L0206164-03 83
No	43	21	8310	4L003173	43:01 ✓		WG119863-05 CC

RDL 6/17/02

6/18/02

6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG119863-01 CCV	8310	1	Sample		
3	3	WG119312-02 WBLK	8310	1	Sample		
4	4	WG119312-03 WLCS	8310	1	Sample		
5	5	L0206078-05 610W	8310	1	Sample		
6	6	L0206078-07 610W	8310	1	Sample		
7	7	L0206078-09 610W	8310	1	Sample		
8	8	L0206078-12 610W	8310	1	Sample		
9	9	L0206078-15 610W	8310	1	Sample		
10	10	L0206078-18 610W	8310	1	Sample		
11	11	WG119863-02 CCV	8310	1	Sample		
12	12	L0206102-01 831W	8310	1	Sample		
13	13	L0206102-02 831W	8310	1	Sample		
14	14	L0206102-03 831W	8310	1	Sample		
15	15	WG119312-01 WREF	8310	1	Sample		
16	16	WG119312-04 WMS	8310	1	Sample		
17	17	WG119312-05 WMSD	8310	1	Sample		
18	18	L0206102-07 831W	8310	1	Sample		
19	19	L0206102-08 831W	8310	1	Sample		
20	20	L0206102-09 831W	8310	1	Sample		
21	21	WG119863-03 CCV	8310	1	Sample		
22	22	WG119548-02 WBLK	8310	1	Sample		
23	23	WG119548-03 WLCS	8310	1	Sample		
24	24	L0206140-01 831W	8310	1	Sample		
25	25	L0206140-02 831W	8310	1	Sample		
26	26	L0206140-03 831W	8310	1	Sample		
27	27	L0206140-04 831W	8310	1	Sample		
28	28	L0206140-05 831W	8310	1	Sample		
29	29	L0206140-06 831W	8310	1	Sample		
30	30	WG119548-01 WREF	8310	1	Sample		
31	31	L0206140-08 831W	8310	1	Sample		
32	21	WG119863-04 CCV	8310	1	Sample		
33	32	L0206140-09 831W	8310	1	Sample		
34	33	L0206140-10 831W	8310	1	Sample		
35	34	L0206140-11 831W	8310	1	Sample		
36	35	L0206140-12 831W	8310	1	Sample		
37	36	L0206140-13 831W	8310	1	Sample		
38	37	WG119548-0 WMS	8310	1	Sample		
39	38	WG119548-05 WMSD	8310	1	Sample		
40	39	L0206164-01 831W	8310	1	Sample		
41	40	L0206164-02 831W	8310	1	Sample		
42	41	L0206164-03 831W	8310	1	Sample		
43	21	WG119863-05 CCV	8310	1	Sample		

kwc 6/14/02

440

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 14, 2002 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 061402
Analyst Initials RBC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0206140-11 & 12 need RE-EXT for low surr.
L0206164-01 & 02 ↓ ↓ ↓ ↓ ↓ } submitted for reext.

L0206140-01 & 12 need 10x dilN.
Acenaphthylene not confirming by DAD

Reviewed By: RR 6/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG120164-01 STD6	8310	1	Sample		
3	3	WG120164-02 STD6	8310	1	Sample		
4	4	WG120164-03 STD5	8310	1	Sample		
5	5	WG120164-04 STD4	8310	1	Sample		
6	6	WG120164-05 STD3	8310	1	Sample		
7	7	WG120164-06 STD2	8310	1	Sample		
8	8	WG120164-07 STD1	8310	1	Sample		
9	9	WG120164-08 ALT	8310	1	Sample		
10	10	WG120073-01 WBLK	8310	1	Sample		
11	11	WG120073-02 WLCS	8310	1	Sample		
12	12	WG120073-03 WLCS	8310	1	Sample		
13	13	L0206140-11 REEX	8310	1	Sample		
14	14	L0206140-12 REEX	8310	1	Sample		
15	15	L0206146-01 REEX	8310	1	Sample		
16	16	L0206146-02 REEX	8310	1	Sample		
17	17	WG120174-01 CCV	8310	1	Sample		

Set	Run	Vial	Method	Datafile	Seqfable	Calib:Rf:Rt	Sample Name
No	1	1	8310	4L003183	01:01 ✓		accn blk
No	2	2	8310	4L003184	02:01 ✓	SOS 58-26	WG120164-01 ST
No	3	3	8310	4L003185	03:01 ✓	SOS 59-38	WG120164-02 ST
No	4	4	8310	4L003186	04:01 ✓	DIL'N of SOS 58-26/ 59-38	WG120164-03 ST
No	5	5	8310	4L003187	05:01 ✓		WG120164-04 ST
No	6	6	8310	4L003188	06:01 ✓		WG120164-05 ST
No	7	7	8310	4L003189	07:01 ✓		WG120164-06 ST
No	8	8	8310	4L003190	08:01 ✓		WG120164-07 ST
No	9	9	8310	4L003191	09:01 ✓	SOS 60-26/60-27 DIL'N	WG120164-08 AL
No	10	10	8310	4L003192	10:01 ✓		WG120073-01 WB
No	11	11	8310	4L003193	11:01 ✓		WG120073-02 WL
No	12	12	8310	4L003194	12:01 ✓		WG120073-03 WL
No	13	13	8310	4L003195	13:01	SURR. LOW	L0206140-11 RE
No	14	14	8310	4L003196	14:01	SURR. LOW	L0206140-12 RE
No	15	15	8310	4L003197	15:01	SURR. LOW	L0206146-01 RE
No	16	16	8310	4L003198	16:01 ✓		L0206146-02 RE
No	17	17	8310	4L003199	17:01 ✓	SOS 58-26/59-38 DIL'N.	WG120174-01 CC

RAC
6/20/02

6/20/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 061902
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: Column re-installed

Action Taken: re-calibration

Comments

Re-extracts of L0206140-11 & 12 and L0206164-01 confirm the low % recovery of surrogate.

L0206164-02 surr. recovery was within limits & will be reported out of holding time.

RDC

Reviewed By: DAR 6/20/02

Parameter: 8310 SOP #: EX HPLC Revision #: 6
Extraction Analyst(s): CAF GSG ~~JGK~~ TV/KD Analyst(s): CAF
Date/Time Extracted: 6-11-02 @ 08:45 Date TV/KD: 6-11-02
Spike/Surrogate Analyst: REK/CAF Witness: —
Surrogate #: ESS0040-50 Earliest Hold Date: 6-13-02
Spike #: A = ESS0041-01 Spike #: B = —

Extraction Work Group WG 119548
Analytical Work Group WG 119924
Extract Relinquished By: CAF
Extract Received By & Date: CAF 6/11/02

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100ul		1mL	T				WG 119548-02
2	LCS			✓				500ul		C				WG 119548-03
3	06-140-01	8310		✓						C				
4	-02			✓		950mL				T				
5	-03			✓		1L				T				*
6	-04			✓		965mL				T				*
7	-05			✓		1L				T				*
8	-06			✓		965mL				T				
9	-07			✓		940mL				C				WG 119548-01
10	-08			✓						T				
11	-09			✓		1L				T				
12	-10			✓		965mL				T				*
13	-11			✓		940mL				T				
14	-12			✓		960mL				C				CAF 6-11-02
15	-13			✓		930mL				T				~~WG 119548-01~~
16	-17MS			✓		950mL		500ul		C				WG 119548-04
17	-18MSD			✓		965mL				C				WG 119548-05
18	06-164-01			✓						T				*
19	-02			✓		910mL				T				*
20	-03			✓		950mL				C				*
21														
22						CAF 6-11-02								
23														
24														

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: 2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2152

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: 6/14/02

445

Extraction Notes For Volume # 185 Page # 165

General Comments: * pH Adj. c̄ NaOH
MS, MSD of 06-140-07

Extraction Anomalies: * pH Adj c̄ NaOH

Concentration Anomalies: * precipitate in concentration
Stage SX 06-164-01, 06-164-03

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310 - H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): DP TV/KD Analyst(s): CAF
Date/Time Extracted: 06/18/02 @ 1410 Date TV/KD: 06/18/02
Spike/Surrogate Analyst: DP Witness: CEB
Surrogate #: CSS0040 50 Earliest Hold Date: OUT
Spike #: A = ESS0041-01 Spike #: B = —

Extraction Work Group WG 120073
Analytical Work Group WG 120172

Extract Relinquished By: CAF
Extract Received By & Date: [illegible] 6/18/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100 µL		1mL	T				WG 120073-01
2	LCS			✓		1		500 µL		T				WG 1 -02
3	06-140-11	8310		✓		960 mL				T				Reext. out of hold ⊗
4	1 -12			✓		1				TC				⊗
5	06-164-01			✓		970 mL				OT				⊗
6	1 -02			✓		950 mL				T				⊗
7	LCS DUP*			✓		1L		500 µL		T				WG 120073-03
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 06/18/02

Methylene Chloride Lot #: H2015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: H1264
Reagent: Fortified Lot #: ER2183
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2152

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: 6-18-02

Extraction Notes For Volume # 186 Page # 047

General Comments: x LCS Dup is out of order on the bench sheet.

Extraction Anomalies: (*) Sample required pH adjustment prior to extraction to achieve a neutral (5-9) pH.

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

RDC 6/14/02 13

Semi-Volatile 8310 Checklist

Run Date: ~~14~~-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	NA
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	NA
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
8310 re-calibration

Primary Reviewer: RDC 6/14/02

Secondary Reviewer: 6/14/02

Supervisor Review: 6/14/02

√ = Checked & OK
NA = Not Applicable

449

Semi-Volatile 8310 Checklist

Run Date: 14-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG119449 06-078	6/13/2002	a1
↓ 06-102	↓	
WG119924 06-140	6/14/02	
↓ 06-164	6/17/02	

		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	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	√

	Supervisor
Case Narrative:	✓
Corrective Action:	✓
Results Reporting/Data Qualifiers:	✓
Client Data Package Assembly:	✓
Check for Completeness:	✓
Check for compliance with method and project requirements:	✓
Check the reasonableness of results:	✓

Comments:

LEVEL X

REEXT REQUESTED FOR
06-140-11 & 12
06-164-01 & 02
due to low surr. recovery

06-140-01 & 12 need 10x dil.

06-102-07
↓ -08
06-140-01
↓ -12
} Acenaphthene CONF. VIA DAD

06-140-~~0~~ -17 MS yielded
% rec. < adv. limit
for 8 analytes & surr.

06-140 17, 18 MS/MSD
% RPD was high for
10 analytes

Primary Reviewer: RDC 6/17/02

Secondary Reviewer: [signature] 6/17/02

Supervisor Review: [signature] 6/17/02

√ = Checked & OK

NA = Not Applicable

Resubmitted 6/17/02 for 06-102
06-140
06-164
↓

450

Semi-Volatile 8310 Checklist

Run Date: 19-Jun-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG120172 06-140	6/14/2002	
WG120172 06-164	6/17/2002	

		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	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	✓
Corrective Action:	✓
Results Reporting/Data Qualifiers:	✓
Client Data Package Assembly:	✓
Check for Completeness:	✓
Check for compliance with method and project requirements:	✓
Check the reasonableness of results:	✓

Comments:

Samples were re-extracted out of holding time. Three samples confirmed the previous low surr. recovery results. L0206164-02 surrogate recovery met the acceptance criteria. This sample will be reported.

Recalibration following re-installation of the LC-PAH column is included.

Primary Reviewer: RDC 6/20/02

Secondary Reviewer: PR 6/20/02

Supervisor Review: PR 6/20/02

√ = Checked & OK

NA = Not Applicable

451

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

2.4.5 Common Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0206164

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: Due to instrument calibration problems resulting from samples containing high levels of iron, samples were re-analyzed out of holding time for PO4-P. All holding times were met for other analytes.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : Continuing calibration for PO4-P failed low for the initial analysis of these samples. All samples were re-analyzed out of holding time for PO4-P.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS analyzed on 08-Jun-2002 yielded a percent recovery for PO4-P which was below the advisory limit. All samples were re-analyzed out of holding time for PO4-P with an LCS which met all acceptance criteria.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

All sample fractions were re-analyzed, out of holding time, at a 100X dilution in order to allow for analysis of PO4-P without fouling the ion chromatography column. 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: 7/1/02

Rev. 7/14/00

ANIONS (9056)

Login Number L0206164

A. **QC Summary**

✓ Method Blank Summary
✓ Method Blank Results
✓ Laboratory Control Sample (LCS)
NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
✓ Sample Duplicate
✓ Holding Time Summary
✓ Initial Calibration Summary
✓ Initial Calibration Verification (ICV) Form (Second Source)
✓ Continuing Calibration Verification (CCV)
✓ Instrument Run Log

B. **Sample Data**

✓ Target analyte results summary (See Summary Report)
✓ Chromatograms and quantitation report

C. **Standards Data**

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

D. **Raw QC Data**

✓ Method blank chromatogram and quantitation report
✓ LCS chromatogram and quantitation report
NA MS/MSD chromatogram and quantitation report
✓ Duplicate chromatogram and quantitation report
✓ Instrument Run Log
✓ Daily Checklist
✓ Example Calculations

Checked By: dlh Date: 6/28/02

2.4.5.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 060802.11
Date Analyzed: 06/08/02
Time Analyzed: 13:53
Analyst: JWR

Work Group: WG120130
Blank Sample ID: WG120130-01
Instrument ID: IC2
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120130-02	060802.12	06/08/02 14:05	01
062-CEF46-21I-Q2-02-17	L0206164-01	060802.13	06/08/02 14:16	01
DUP	WG120130-04	060802.14	06/08/02 14:28	01
062-CEF46-24D-Q2-02-17	L0206164-02	060802.15	06/08/02 14:39	01
062-CEF46-25I-Q2-02-17	L0206164-03	060802.16	06/08/02 14:51	01

METHOD BLANK SUMMARY

Login Number: L0206164
Blank File ID: 061902.37
Date Analyzed: 06/19/02
Time Analyzed: 21:44
Analyst: RDC

Work Group: WG120162
Blank Sample ID: WG120162-01
Instrument ID: IC1
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG120162-02	061902.38	06/19/02 21:55	01
062-CEF46-21I-Q2-02-17	L0206164-01	061902.39	06/19/02 22:07	DL01
DUP	WG120162-04	061902.40	06/19/02 22:18	DL01
062-CEF46-24D-Q2-02-17	L0206164-02	061902.41	06/19/02 22:30	DL01
062-CEF46-25I-Q2-02-17	L0206164-03	061902.44	06/19/02 23:04	DL01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Run Date: 06/08/2002
Sample ID: WG120130-01
Instrument ID: IC2
Run Time: 13:53
Method: 9056
File ID: 060802.11
Analyst: JWR
Matrix: Water
Workgroup (AAB#): WG120130
Units: mg/L
Contract #:
Cal ID: IC2-21-MAY-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 06/26/2002
Version 1.2
Report generated 06/28/2002 08:51

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0206164
Instrument ID: IC1
File ID: 061902.37
Workgroup (AAB#): WG120162
Contract #:

Run Date: 06/19/2002
Run Time: 21:44
Analyst: RDC

Sample ID: WG120162-01
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC1-18-JUN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 06/26/2002
Version 1.2
Report generated 06/28/2002 08:51

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Instrument ID: IC2
File ID: 060802.12
Workgroup (AAB#): WG120130
Contract #:

Run Date: 06/08/2002
Run Time: 14:05
Analyst: JWR

Sample ID: WG120130-02
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-21-MAY-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	4.26	105	90 - 110	
Nitrite	3.65	3.76	103	90 - 110	
Phosphate	9.78	5.93	60.6	90 - 110	*

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/28/2002 08:51

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0206164
Instrument ID: IC1
File ID: 061902.38
Workgroup (AAB#): WG120162
Contract #:

Run Date: 06/19/2002
Run Time: 21:55
Analyst: RDC

Sample ID: WG120162-02
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC1-18-JUN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	4.05	99.6	90 - 110	
Nitrite	3.65	3.68	101	90 - 110	
Phosphate	9.78	9.58	98.0	90 - 110	

KEMRON FORMS - Modified 06/19/2002
Version 1.3
Report generated 06/28/2002 08:51

KEMRON ENVIRONMENTAL SERVICES
DUPLICATE REPORT

Sample Login ID: L0206164-01
Instrument ID: IC2
Sample ID: WG120130-03 File ID: 060802.13 Dil: 1
Duplicate ID: WG120130-04 File ID: 060802.14 Dil: 1

Worknum: WG120130
Method: 9056
Matrix: Water
Units: mg/L

Analyte	Sample	Duplicate	RPD	RPD Limit	Q
Nitrate	ND	ND	0	20	
Nitrite	0.149	0.155	4.41	20	
Phosphate	0.296	ND	200	20	#

KEMRON FORMS - Modified 06/14/2002
Version 1.1
Report generated 06/28/2002 08:51

KEMRON ENVIRONMENTAL SERVICES
DUPLICATE REPORT

Sample Login ID: L0206164-01
Instrument ID: IC1
Sample ID: WG120162-03 File ID: 061902.39 Dil: 1
Duplicate ID: WG120162-04 File ID: 061902.40 Dil: 1

Worknum: WG120162
Method: 9056
Matrix: Water
Units: mg/L

Analyte	Sample	Duplicate	RPD	RPD Limit	Q
Nitrate	ND	ND	0	20	
Nitrite	ND	ND	0	20	
Phosphate	ND	ND	0	20	

KEMRON FORMS - Modified 06/14/2002
Version 1.1
Report generated 06/28/2002 08:51

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056

AAB#: WG120130

Login Number: L0206164

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-21I-Q2-02-17	06/07/02	06/08/02	06/08/02	2	1.20	06/08/02	2	1.20	
062-CEF46-24D-Q2-02-17	06/07/02	06/08/02	06/08/02	2	1.28	06/08/02	2	1.28	
062-CEF46-25I-Q2-02-17	06/07/02	06/08/02	06/08/02	2	1.25	06/08/02	2	1.25	

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

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056

AAB#: WG120162

Login Number: L0206164

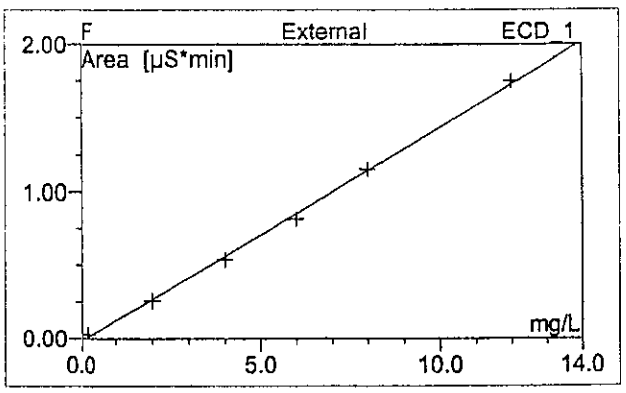
Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	
062-CEF46-21I-Q2-02-17	06/07/02	06/08/02	06/19/02	2	12.5	06/19/02	2	12.5	*ANAL
062-CEF46-24D-Q2-02-17	06/07/02	06/08/02	06/19/02	2	12.6	06/19/02	2	12.6	*ANAL
062-CEF46-25I-Q2-02-17	06/07/02	06/08/02	06/19/02	2	12.6	06/19/02	2	12.6	*ANAL

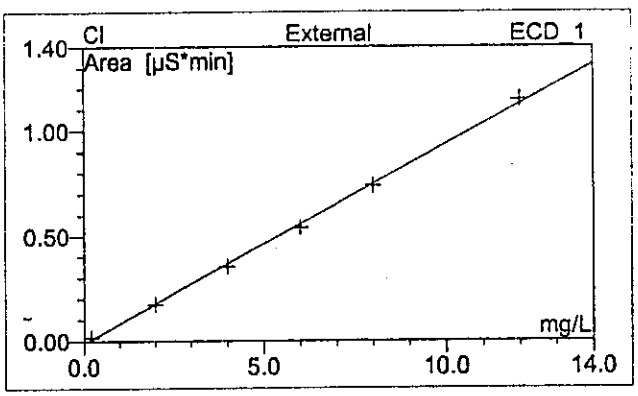
* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

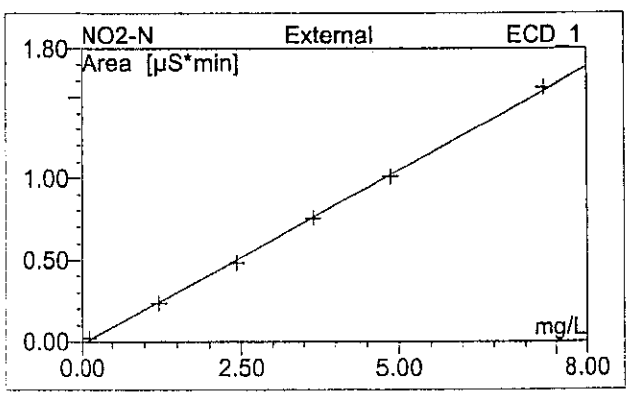
6 ANION STD #6

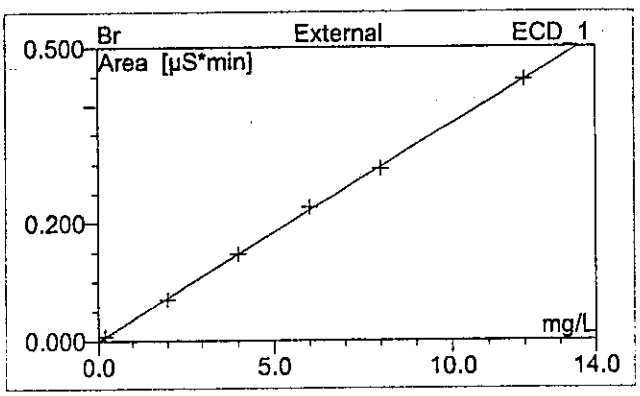
1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







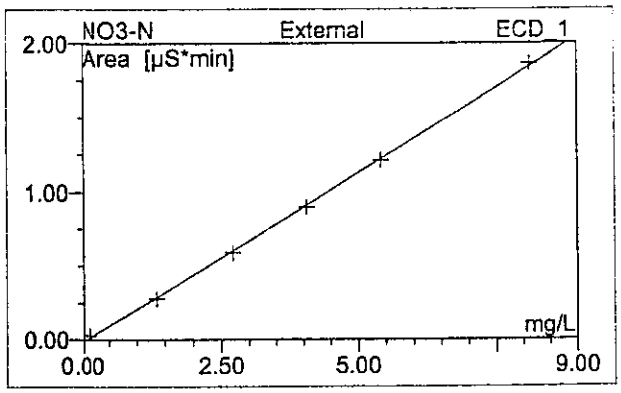


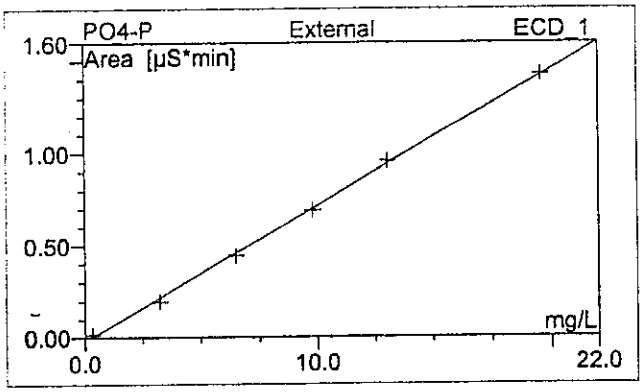
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

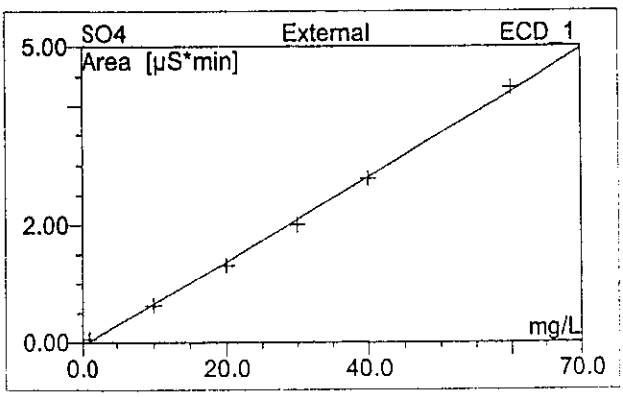
6 ANION STD #6

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





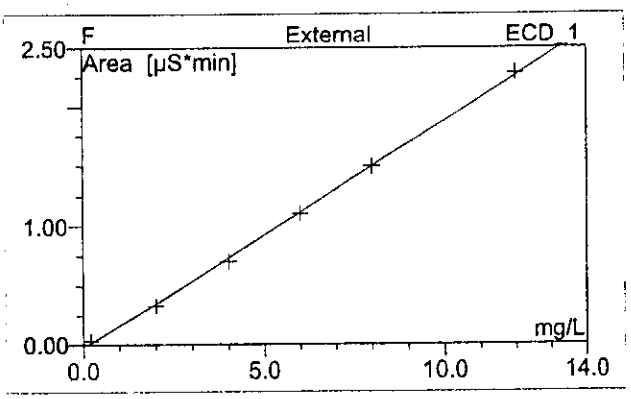


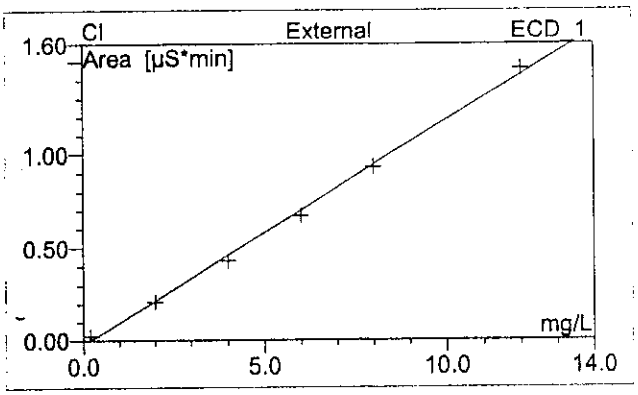
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

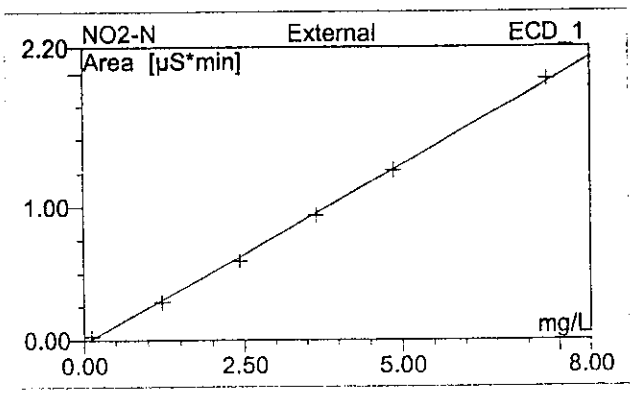
6 Anion std. #6

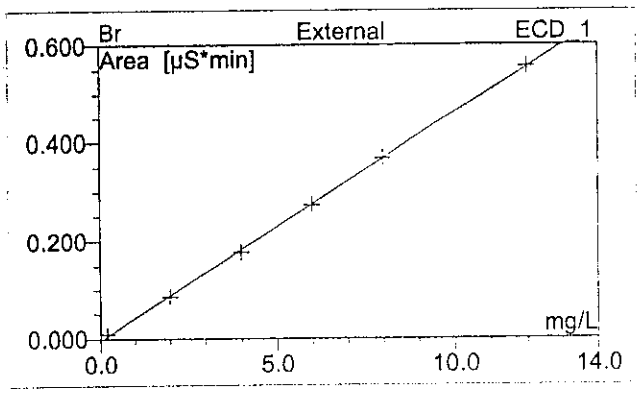
1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







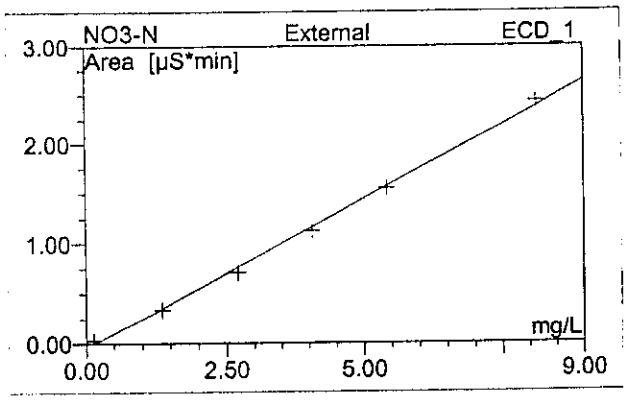


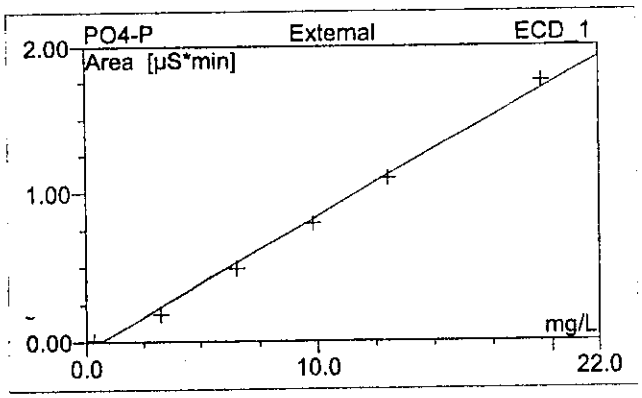
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

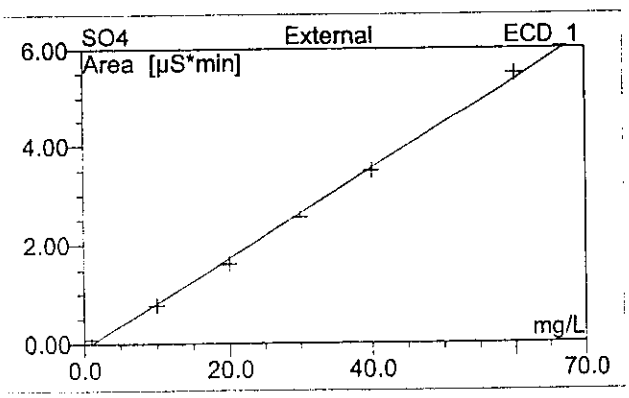
6 Anion std. #6

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*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	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

8 ANION ALT STD

1,1 RDC ANION ALT STD SOS0059-44

Sample Name:	**ANION ALT STD**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**5/21/2002 18:41**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8089	-3.19	PASS
Cl	6	5.9068	-1.55	PASS
NO2-N	3.65	3.6652	0.42	PASS
Br	6	6.3346	5.58	PASS
NO3-N	4.07	4.1408	1.74	PASS
PO4-P	9.78	9.8359	0.57	PASS
SO4	30	29.3113	-2.30	PASS

8 Alt anion std.

1,1 RDC SOS0060-31

Sample Name:	**Alt anion std.**	*Injection Volume:*	
Vial Number:	**8**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/18/2002 18:09**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

Alt anion std.	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8684	-2.19	PASS
Cl	6	5.8510	-2.48	PASS
NO2-N	3.65	3.5135	-3.74	PASS
Br	6	5.8699	-2.17	PASS
NO3-N	4.07	3.9347	-3.33	PASS
PO4-P	9.78	9.2540	-5.38	PASS
SO4	30	28.6141	-4.62	PASS

10 WG120132-01 CCV

1,1 JWR SOS0059-46 06/08/02

Sample Name:	**WG120132-01 CCV**	*Injection Volume:*	
Vial Number:	**41**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/8/2002 13:42**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120132-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.4221	7.04	PASS
Cl	6	6.1175	1.96	PASS
NO2-N	3.65	3.7504	2.75	PASS
Br	6	6.3270	5.45	PASS
NO3-N	4.07	4.2348	4.05	PASS
PO4-P	9.78	5.9468	-39.19	FAIL
SO4	30	31.5409	5.14	PASS

21 WG120132-02 CCV

1,1 JWR SOS0059-46 06/08/02

Sample Name:	**WG120132-02 CCV**	*Injection Volume:*	
Vial Number:	**44**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/8/2002 15:48**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120132-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.4265	7.11	PASS
Cl	6	6.2760	4.60	PASS
NO2-N	3.65	3.8710	6.05	PASS
Br	6	6.3389	5.65	PASS
NO3-N	4.07	4.2323	3.99	PASS
PO4-P	9.78	6.9057	-29.39	FAIL
SO4	30	31.4117	4.71	PASS

36 WG120161-04 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-04 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 21:32**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9777	-0.37	PASS
Cl	6	5.8535	-2.44	PASS
NO2-N	3.65	3.6223	-0.76	PASS
Br	6	6.0524	0.87	PASS
NO3-N	4.07	4.0148	-1.36	PASS
PO4-P	9.78	9.1814	-6.12	PASS
SO4	30	29.1620	-2.79	PASS

476

45 WG120161-05 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-05 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 23:16**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-05 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8986	-1.69	PASS
Cl	6	5.7835	-3.61	PASS
NO2-N	3.65	3.5793	-1.94	PASS
Br	6	5.9443	-0.93	PASS
NO3-N	4.07	3.9294	-3.46	PASS
PO4-P	9.78	9.3656	-4.24	PASS
SO4	30	28.8273	-3.91	PASS

477

Sequence: 060602 IC2
Operator: Analyst

Printed: 6/19/2002 12:54:44

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 37

Created: 6/8/2002 13:28:00 by Analyst
Last Update: 6/19/2002 12:43:17 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	5/21/2002 17:13:47
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	5/21/2002 17:25:17
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	5/21/2002 17:36:47
4	ANION STD #4	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:48:17
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:59:47
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	5/21/2002 18:11:17
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	5/21/2002 18:30:18
8	ANION ALT STD	Unknown	36	25.0	9056	9056	Finished	5/21/2002 18:41:48
9	ELUENT BLANK	Unknown	44	25.0	9056	9056	Finished	6/8/2002 13:30:53
10	WG120132-01 CCV	Unknown	41	25.0	9056	9056	Finished	6/8/2002 13:42:23
11	WG120130-01 ANION BLANK	Unknown	43	25.0	9056	9056	Finished	6/8/2002 13:53:53
12	WG120130-02 ANION LCS	Unknown	43	25.0	9056	9056	Finished	6/8/2002 14:05:23
13	WG120130-03 L0206164-01 REF	Unknown	44	25.0	9056	9056	Finished	6/8/2002 14:16:54
14	WG120130-04 L0206164-01 DUP	Unknown	44	25.0	9056	9056	Finished	6/8/2002 14:28:24
15	L0206164-02	Unknown	45	25.0	9056	9056	Finished	6/8/2002 14:39:53
16	L0206164-03	Unknown	44	25.0	9056	9056	Finished	6/8/2002 14:51:23
17	QC-MRL	Unknown	44	25.0	9056	9056	Finished	6/8/2002 15:02:53
18	L0205665-01 RR@1/5CL	Unknown	43	25.0	9056	9056	Finished	6/8/2002 15:14:23
19	L0205665-03 RR@1/4CL	Unknown	44	25.0	9056	9056	Finished	6/8/2002 15:25:54
20	L0205665-05 RR@1/2CL	Unknown	43	25.0	9056	9056	Finished	6/8/2002 15:37:24
21	WG120132-02 CCV	Unknown	44	25.0	9056	9056	Finished	6/8/2002 15:48:53
22	L0205665-07 RR@1/2CL	Unknown	45	25.0	9056	9056	Finished	6/8/2002 16:00:24
23	L0205665-09 RR@1/2CL	Unknown	46	25.0	9056	9056	Finished	6/8/2002 16:11:54
24	L0205665-11 RR@1/100CL	Unknown	46	25.0	9056	9056	Finished	6/8/2002 16:23:24
25	L0205665-11 RR@1/1000CL	Unknown	47	25.0	9056	9056	Finished	6/8/2002 16:34:54
26	L0206006-01 RR@1/4CL	Unknown	45	25.0	9056	9056	Finished	6/8/2002 16:51:12
27	L0206006-02 RR@1/4CL	Unknown	46	25.0	9056	9056	Finished	6/8/2002 17:02:42
28	QC-MRL	Unknown	47	25.0	9056	9056	Finished	6/8/2002 17:14:12
29	L0206127-01	Unknown	47	25.0	9056	9056	Finished	6/8/2002 17:25:42
30	WG120130-05 L0206127-03 REF	Unknown	48	25.0	9056	9056	Finished	6/8/2002 17:37:12
31	WG120130-06 L0206127-03 MS	Unknown	48	25.0	9056	9056	Finished	6/8/2002 17:48:42
32	WG120132-03 CCV	Unknown	46	25.0	9056	9056	Finished	6/8/2002 18:00:12
33	WG120130-07 L0206127-03 MSD	Unknown	47	25.0	9056	9056	Finished	6/8/2002 18:11:42
34	L0206127-01 RR@1/10CL	Unknown	56	25.0	9056	9056	Finished	6/8/2002 18:23:12
35	L0206127-03 RR@1/10CL	Unknown	57	25.0	9056	9056	Finished	6/8/2002 18:34:41
36	WG120132-04 CCV	Unknown	57	25.0	9056	9056	Finished	6/8/2002 18:46:11
37	END	Unknown	41	25.0	DX-320 OFF	9056	Finished	6/8/2002 18:57:41

478

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 060802 IC2
Operator: Analyst
Printed: 6/19/2002 12:54:44

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 37

Created: 6/8/2002 13:28:00 by Analyst
Last Update: 6/19/2002 12:43:17 by Analyst

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
2	ANION STD #2	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
3	ANION STD #3	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
4	ANION STD #4	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
5	ANION STD #5	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
6	ANION STD #6	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
7	ELUENT BLANK	1.0000		1,1 RDC ✓
8	ANION ALT STD	1.0000		1,1 RDC ANION ALT STD SOS0059-44 ✓
9	ELUENT BLANK	1.0000		1,1 JWR ✓
10	WG120132-01 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 CC PO4-P low
11	WG120130-01 ANION BLANK	1.0000		1,1 JWR 06/08/02 ✓
12	WG120130-02 ANION LCS	1.0000		1,1 JWR SOS0059-46 06/08/02 ✓
13	WG120130-03 L0206164-01 REF	1.0000		1,1 JWR REF for DUP RR (PO4)
14	WG120130-04 L0206164-01 DUP	1.0000		1,1 JWR DUP of L0206164-01 ✓
15	L0206164-02	1.0000		1,1 JWR RR PO4
16	L0206164-03	1.0000		1,1 JWR RR PO4
17	QC-MRL	1.0000		1,1 JWR SOS0059-46 06/08/02 ✓
18	L0205665-01 RR@1/5CL	1.0000		1,5 JWR ✓
19	L0205665-03 RR@1/4CL	1.0000		1,4 JWR ✓
20	L0205665-05 RR@1/2CL	1.0000		1,2 JWR ✓ Not Needed
21	WG120132-02 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 CC PO4-P low
22	L0205665-07 RR@1/2CL	1.0000		1,2 JWR ✓ Not Needed
23	L0205665-09 RR@1/2CL	1.0000		1,2 JWR ✓
24	L0205665-11 RR@1/100CL	1.0000		1,100 JWR ✓ RR 1000
25	L0205665-11 RR@1/1000CL	1.0000		1,1000 JWR ✓
26	L0206006-01 RR@1/4CL	1.0000		1,4 JWR ✓
27	L0206006-02 RR@1/4CL	1.0000		1,4 JWR ✓
28	QC-MRL	1.0000		1,1 JWR SOS0059-46 06/08/02 ✓
29	L0206127-01	1.0000		1,1 JWR ✓ RR 10
30	WG120130-05 L0206127-03 REF	1.0000		1,1 JWR REF for MS/MSD ✓ RR 10
31	WG120130-06 L0206127-03 MS	1.0000		1,1 JWR MS of L0206127-03 ✓
32	WG120132-03 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 CC PO4-P low
33	WG120130-07 L0206127-03 MSD	1.0000		1,1 JWR MSD of L0206127-03 ✓
34	L0206127-01 RR@1/10CL	1.0000		1,10 JWR ✓
35	L0206127-03 RR@1/10CL	1.0000		1,10 JWR ✓
36	WG120132-04 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 CC PO4-P low
37	END	1.0000		1,1 JWR

RDC
6/19/02
6/19/02

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

479

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time June 8, 2002 Instrument ID IC 2 Column ID AS4A-SC AG4A-SC Data Subdirectory 060802
Analyst Initials JWZ SOP # IC01 Rev. # 1 9056 SOP # IC02 Rev. # 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1280 psi
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

PO4-P failed low on all CCVs. Column was fouled with metals (Fe).
L0206164-01, 02, 03 need reanalysis for PO4-P

Reviewed By: [signature] 6/19/02

Sequence: [illegible]
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	Anion std. #1	Standard	1	25.0	9056	9056	Finished	6/18/2002 15:41:21
2	Anion std. #2	Standard	2	25.0	9056	9056	Finished	6/18/2002 15:52:52
3	Anion std. #3	Standard	3	25.0	9056	9056	Finished	6/18/2002 16:04:23
4	Anion std. #4	Standard	4	25.0	9056	9056	Finished	6/18/2002 16:15:53
5	Anion std. #5	Standard	5	25.0	9056	9056	Finished	6/18/2002 16:27:24
6	Anion std. #6	Standard	6	25.0	9056	9056	Finished	6/18/2002 16:38:55
7	eluent blank	Unknown	9	25.0	9056	9056	Finished	6/18/2002 16:52:46
8	Alt anion std.	Unknown	8	25.0	9056	9056	Finished	6/18/2002 18:09:19
9	DI H2O	Unknown	12	25.0	9056	9056	Finished	6/19/2002 16:21:25
10	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:32:56
11	WG120161-01 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:44:26
12	WG120157-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 16:55:57
13	WG120157-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 17:07:28
14	WG120157-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 17:19:36
15	WG120157-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 17:31:07
16	L0206334-06 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:42:37
17	L0206334-07 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:54:08
18	L0206334-08 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:05:39
19	WG120161-02 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:17:09
20	WG120157-05 REF for MS/MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:28:40
21	WG120157-06 MS	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:40:10
22	WG120157-07 MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:51:41
23	L0206140-01 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:03:11
24	L0206140-02 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:14:42
25	L0206140-06 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:26:13
26	L0206140-08 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:37:43
27	L0206140-09 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:49:13
28	L0206140-10 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:00:44
29	L0206140-12 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:12:14
30	WG120161-03 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 20:23:45
31	L0206140-13 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:35:16
32	L0206140-03 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:46:47
33	L0206140-04 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:58:18
34	L0206140-05 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:09:48
35	L0206140-11 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:21:19
36	WG120161-04 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 21:32:50
37	WG120162-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 21:44:20
38	WG120162-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 21:55:51
39	WG120162-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:07:21
40	WG120162-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 22:18:52
41	WG120162-05 REF for MS/MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:30:23
42	WG120162-06 MS	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:41:53

Sequence: [illegible]
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
1	Anion std. #1	1.0000	1.0000	1.0000		
2	Anion std. #2	1.0000	1.0000	1.0000		
3	Anion std. #3	1.0000	1.0000	1.0000		
4	Anion std. #4	1.0000	1.0000	1.0000		
5	Anion std. #5	1.0000	1.0000	1.0000		
6	Anion std. #6	1.0000	1.0000	1.0000		
7	eluent blank	1.0000	1.0000	1.0000		
8	Alt anion std.	1.0000	1.0000	1.0000		
9	DI H2O	1.0000	1.0000	1.0000		
10	ELUENT BLANK	1.0000	1.0000	1.0000		
11	WG120161-01 CCV	1.0000	1.0000	1.0000		
12	WG120157-01 ANION BLANK	1.0000	1.0000	1.0000		
13	WG120157-02 ANION LCS	1.0000	1.0000	1.0000		
14	WG120157-03 REF for DUP	1.0000	1.0000	1.0000		
15	WG120157-04 DUP	1.0000	1.0000	1.0000		
16	L0206334-06 9056W	1.0000	1.0000	1.0000		
17	L0206334-07 9056W	1.0000	1.0000	1.0000		
18	L0206334-08 9056W	1.0000	1.0000	1.0000		
19	WG120161-02 CCV	1.0000	1.0000	1.0000		
20	WG120157-05 REF for MS/MSD	1.0000	1.0000	1.0000		
21	WG120157-06 MS	1.0000	1.0000	1.0000		
22	WG120157-07 MSD	1.0000	1.0000	1.0000		
23	L0206140-01 9056W RR	1.0000	1.0000	1.0000		
24	L0206140-02 9056W RR	1.0000	1.0000	1.0000		
25	L0206140-06 9056W RR	1.0000	1.0000	1.0000		
26	L0206140-08 9056W RR	1.0000	1.0000	1.0000		
27	L0206140-09 9056W RR	1.0000	1.0000	1.0000		
28	L0206140-10 9056W RR	1.0000	1.0000	1.0000		
29	L0206140-12 9056W RR	1.0000	1.0000	1.0000		
30	WG120161-03 CCV	1.0000	1.0000	1.0000		
31	L0206140-13 9056W RR	1.0000	1.0000	1.0000		
32	L0206140-03 @ 100X	1.0000	1.0000	1.0000		
33	L0206140-04 @ 100X	1.0000	1.0000	1.0000		
34	L0206140-05 @ 100X	1.0000	1.0000	1.0000		
35	L0206140-11 @ 100X	1.0000	1.0000	1.0000		
36	WG120161-04 CCV	1.0000	1.0000	1.0000		
37	WG120162-01 ANION BLANK	1.0000	1.0000	1.0000		
38	WG120162-02 ANION LCS	1.0000	1.0000	1.0000		
39	WG120162-03 REF for DUP	1.0000	1.0000	1.0000		
40	WG120162-04 DUP	1.0000	1.0000	1.0000		
41	WG120162-05 REF for MS/MSD	1.0000	1.0000	1.0000		
42	WG120162-06 MS	1.0000	1.0000	1.0000		

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 061902 IC1
Operator: Analyst
Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
1	Anion std. #1	1,1 RDC SOS0060-25
2	Anion std. #2	1,1 RDC SOS0060-25
3	Anion std. #3	1,1 RDC SOS0060-25
4	Anion std. #4	1,1 RDC SOS0060-25
5	Anion std. #5	1,1 RDC SOS0060-25
6	Anion std. #6	1,1 RDC SOS0060-25
7	eluent blank	1,1 RDC
8	Alt anion std.	1,1 RDC SOS0060-31
9	DI H2O	1,1 RDC
10	ELUENT BLANK	1,1 RDC
11	WG120161-01 CCV	1,1 RDC SOS0060-25
12	WG120157-01 ANION BLANK	1,1 RDC
13	WG120157-02 ANION LCS	1,1 RDC SOS0060-25
14	WG120157-03 REF for DUP	1,1 RDC L0206334-05 REF
15	WG120157-04 DUP	1,1 RDC L0206334-05 DUP
16	L0206334-06 9056W	1,1 RDC
17	L0206334-07 9056W	1,1 RDC
18	L0206334-08 9056W	1,1 RDC
19	WG120161-02 CCV	1,1 RDC SOS0060-25
20	WG120157-05 REF for MS/MSD	1,1 RDC L0206140-07 REF (RR)
21	WG120157-06 MS	1,1 RDC L0206140-17 MS(RR)
22	WG120157-07 MSD	1,1 RDC L0206140-18 MSD (RR)
23	L0206140-01 9056W RR	1,1 RDC
24	L0206140-02 9056W RR	1,1 RDC
25	L0206140-06 9056W RR	1,1 RDC
26	L0206140-08 9056W RR	1,1 RDC
27	L0206140-09 9056W RR	1,1 RDC
28	L0206140-10 9056W RR	1,1 RDC
29	L0206140-12 9056W RR	1,1 RDC
30	WG120161-03 CCV	1,1 RDC SOS0060-25
31	L0206140-13 9056W RR	1,1 RDC
32	L0206140-03 @ 100X	1,100 RDC
33	L0206140-04 @ 100X	1,100 RDC
34	L0206140-05 @ 100X	1,100 RDC
35	L0206140-11 @ 100X	1,100 RDC
36	WG120161-04 CCV	1,1 RDC SOS0060-25
37	WG120162-01 ANION BLANK	1,1 RDC
38	WG120162-02 ANION LCS	1,1 RDC SOS0060-25
39	WG120162-03 REF for DUP	1,100 RDC L0206164-01 REF 100X
40	WG120162-04 DUP	1,100 RDC L0206164-01 DUP 100X
41	WG120162-05 REF for MS/MSD	1,100 RDC L0206164-02 REF 100X
42	WG120162-06 MS	1,100 RDC L0206164-02 MS 100X

Sequence: 061902 IC1
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	WG120162-07 MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:53:24
44	L0206164-03 @ 100X	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:04:55
45	WG120161-05 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:16:25
46	end	Unknown	13	25.0	System Off	9056	Finished	6/19/2002 23:27:56

Sequence: 061902 IC1
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
43	WG120162-07 MSD	1.0000	1.0000	1.0000		
44	L0206164-03 @ 100X	1.0000	1.0000	1.0000		
45	WG120161-05 CCV	1.0000	1.0000	1.0000		
46	end	1.0000	1.0000	1.0000		

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 061902 IC1
Operator: Analyst

Printed: 6/20/2002 15:34:50

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
43	WG120162-07 MSD	1,100 RDC L0206164-02 MSD 100X
44	L0206164-03 @ 100X	1,100 RDC
45	WG120161-05 CCV	1,1 RDC SOS0060-25
46	end	1,1 RDC

RDC 6/20/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time June 19 2002 Instrument ID IC1 Column ID AG4A-SC AS4A-SC Data Subdirectory 061902
Analyst Initials RRC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ___ ___ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1129 psi
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0206140 & L0206164 SDGs are RR
out of holding time for PO_4-P

06-140-03, 04, 05, & 11
06-164-01, 02, & 03
> RR was @ 100x dil'n. due to the extreme amt of Fe RRC 6/20/02

Reviewed By: _____

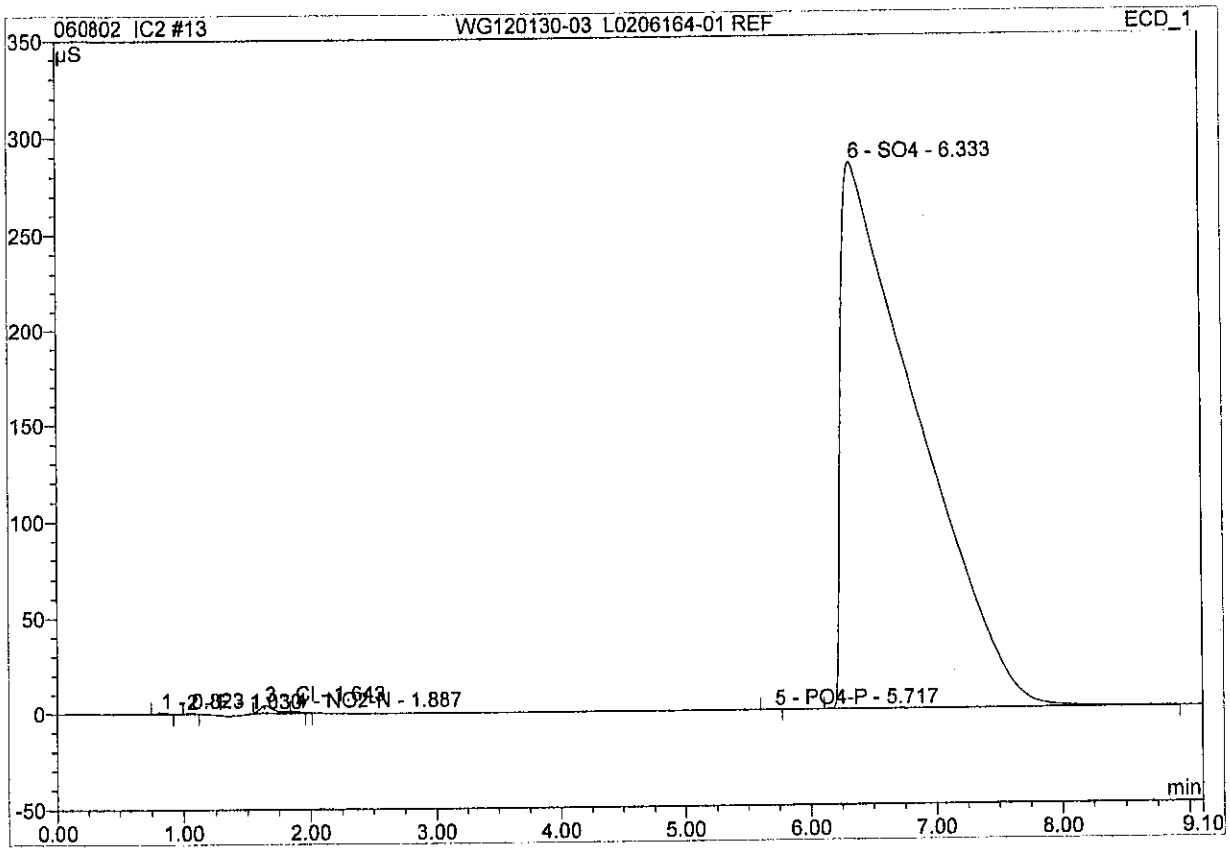
487

2.4.5.2 Sample Data

13 WG120130-03 L0206164-01 REF

1,1 JWR REF for DUP

Sample Name:	**WG120130-03 L0206164-01 REF**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 14:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

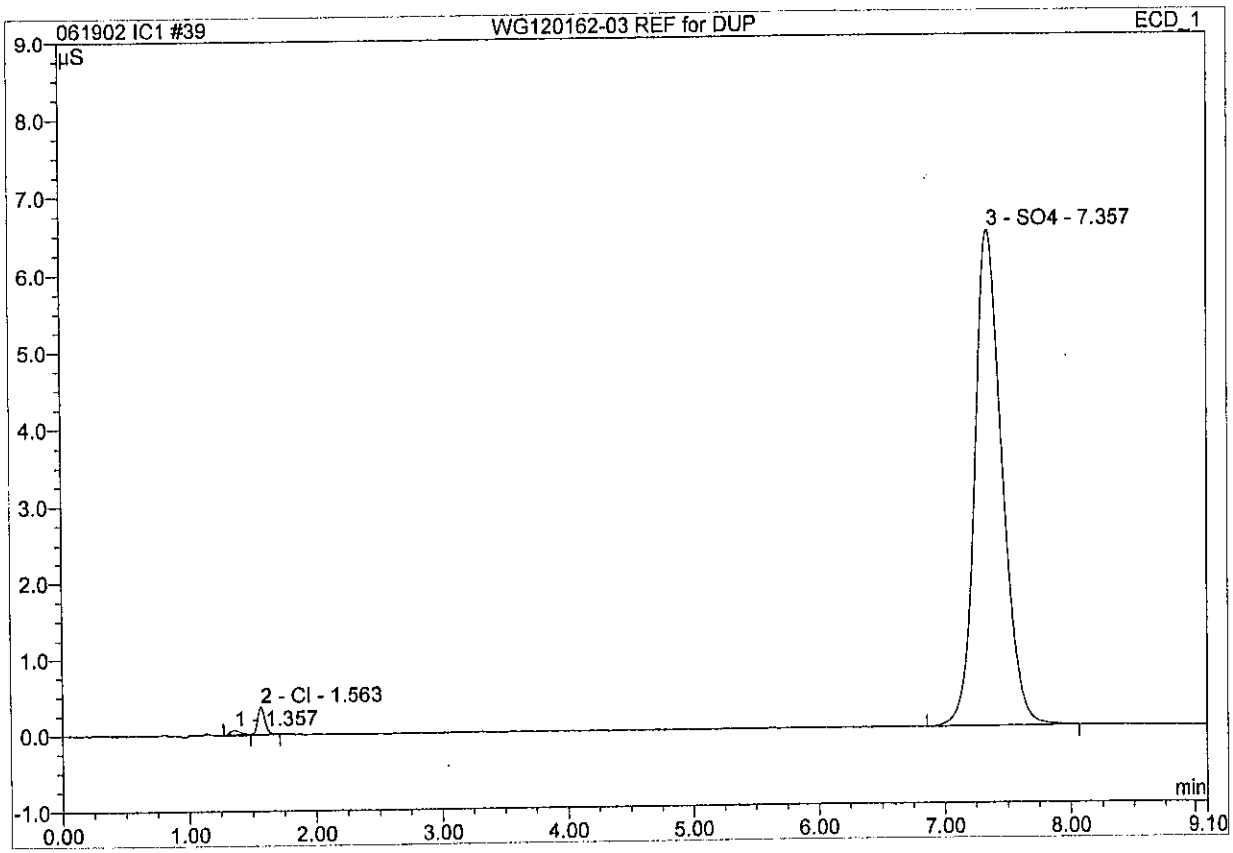


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.757	0.054	0.03	n.a.	BM
2	1.03	F	0.187	0.012	0.01	0.237	BM
3	1.64	Cl	4.075	0.627	0.31	6.733	BM
4	1.89	NO2-N	0.191	0.016	0.01	F 0.149 ✓	Rd
5	5.72	PO4-P	0.013	0.002	0.00	F 0.296 ✓	BMB (A)
6	6.33	SO4	284.845	200.457	99.65	2800.344	BMB
Total:			290.067	201.168	100.00	2807.759	

39 WG120162-03 REF for DUP

1,100 RDC L0206164-01 REF 100X

Sample Name:	**WG120162-03 REF for DUP**	*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:	**6/19/2002 22:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



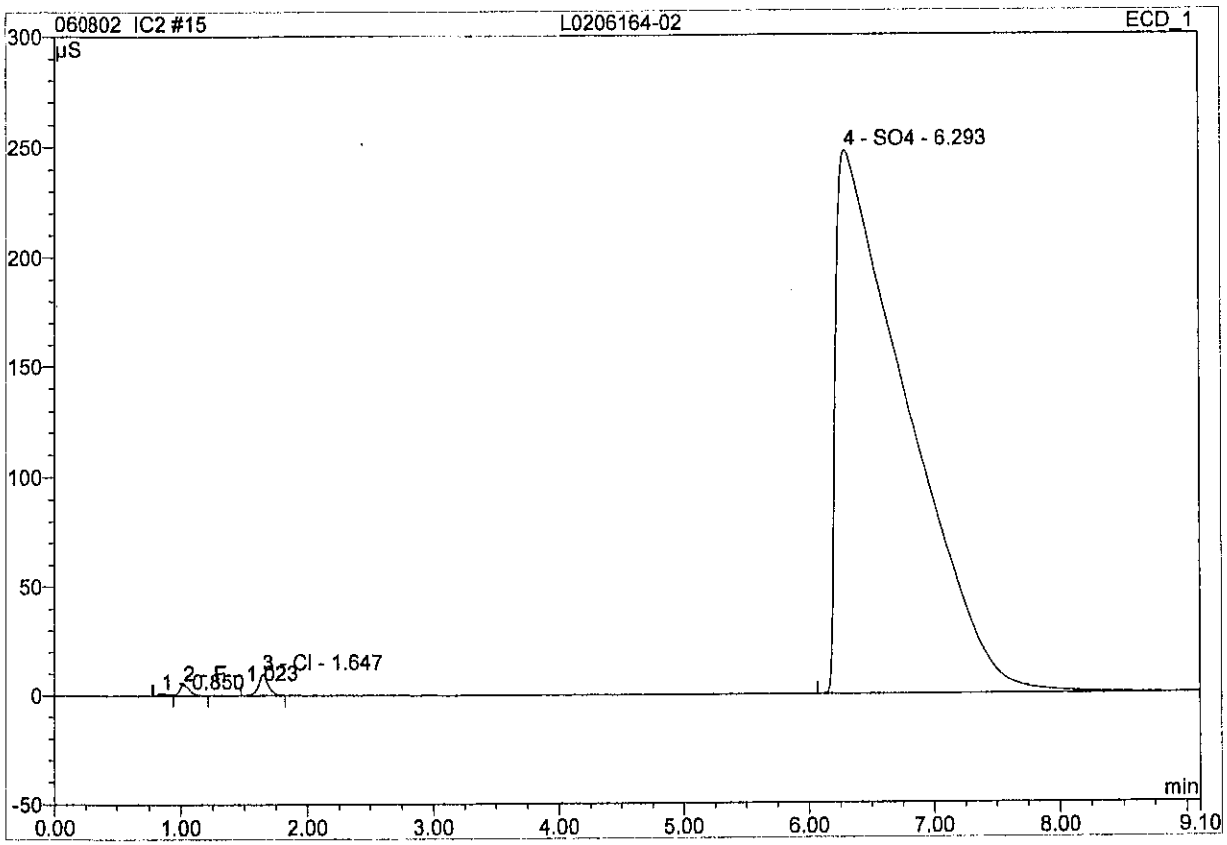
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.36	n.a.	0.059	0.005	0.32	n.a.	Ru
2	1.56	Cl	0.363	0.025	1.52	0.405	BMB
3	7.36	SO4	6.459	1.614	98.16	18.764	BMB
Total:			6.880	1.644	100.00	19.169	

X100

15 L0206164-02

1,1 JWR

Sample Name:	**L0206164-02**	*Injection Volume:*	**25.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



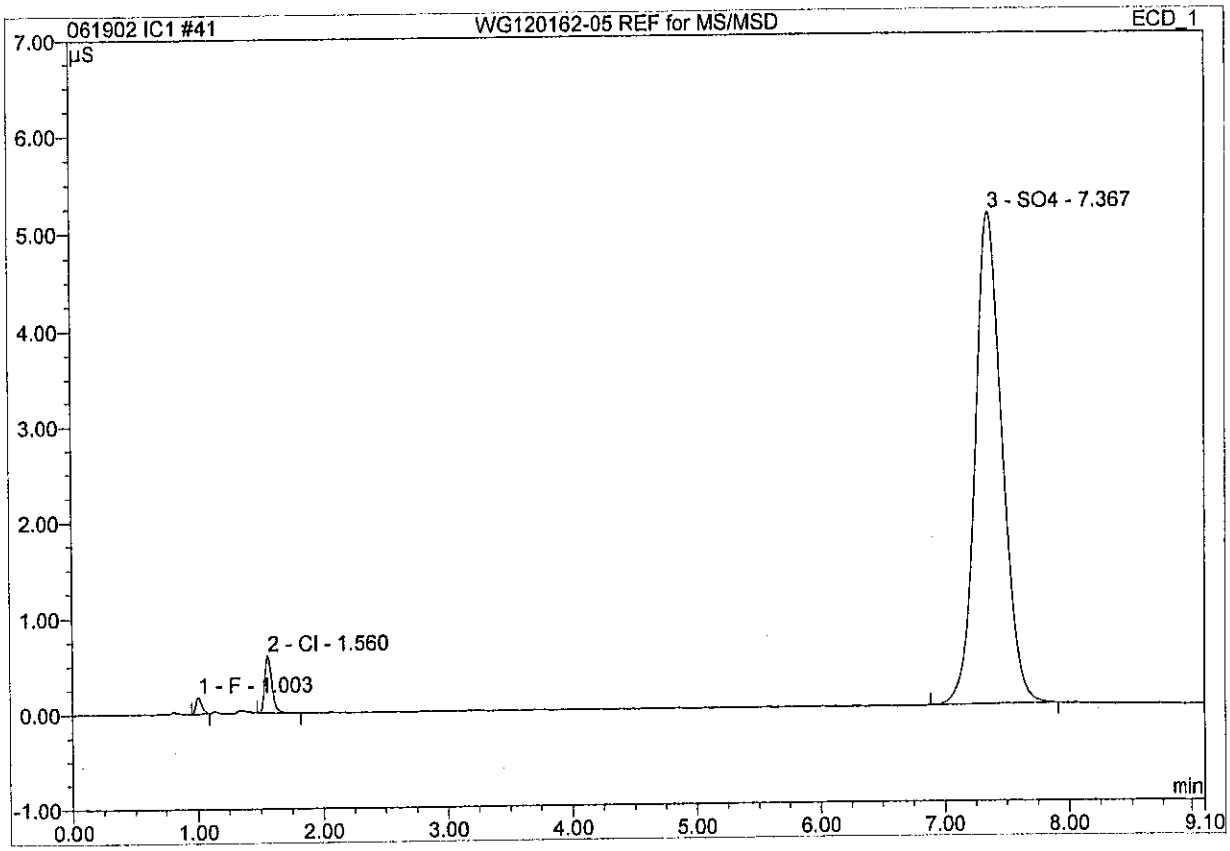
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.85	n.a.	0.829	0.065	0.04	n.a.	Ru
2	1.02	F	4.948	0.492	0.30	3.531	BMB
3	1.65	Cl	9.801	0.898	0.55	9.592	BMB
4	6.29	SO4	247.769	162.744	99.11	2273.653	BMB
Total:			263.347	164.199	100.00	2286.775	

PO4 (A)

41 WG120162-05 REF for MS/MSD

1,100 RDC L0206164-02 REF 100X

Sample Name:	**WG120162-05 REF for MS/MSD**	*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:	**6/19/2002 22:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

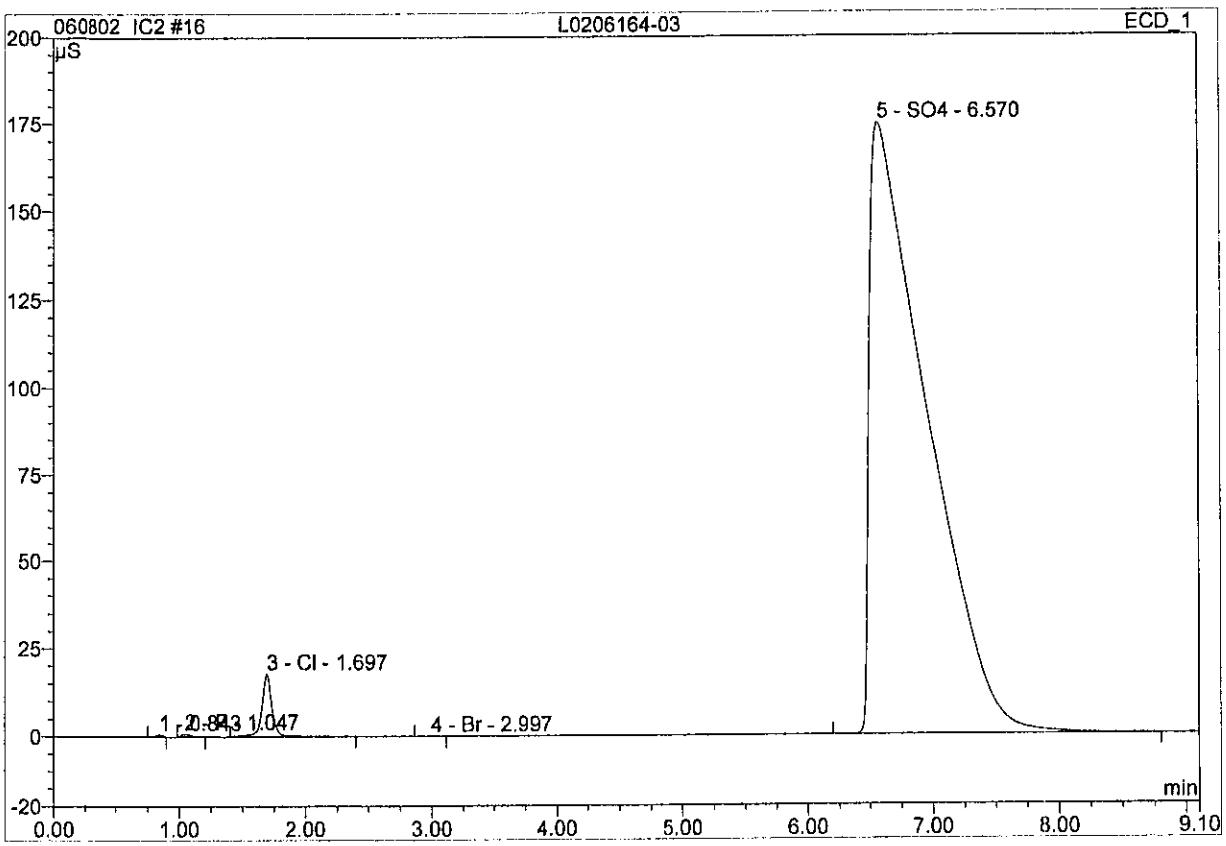


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.00	F	0.170	0.009	0.71	0.193 mDL	BMB
2	1.56	Cl	0.597	0.039	2.97	0.524	BMB
3	7.37	SO4	5.122	1.277	96.32	15.069	BMB
Total:			5.889	1.326	100.00	15.786	

16 L0206164-03

1,1 JWR

Sample Name:	**L0206164-03**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 14:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



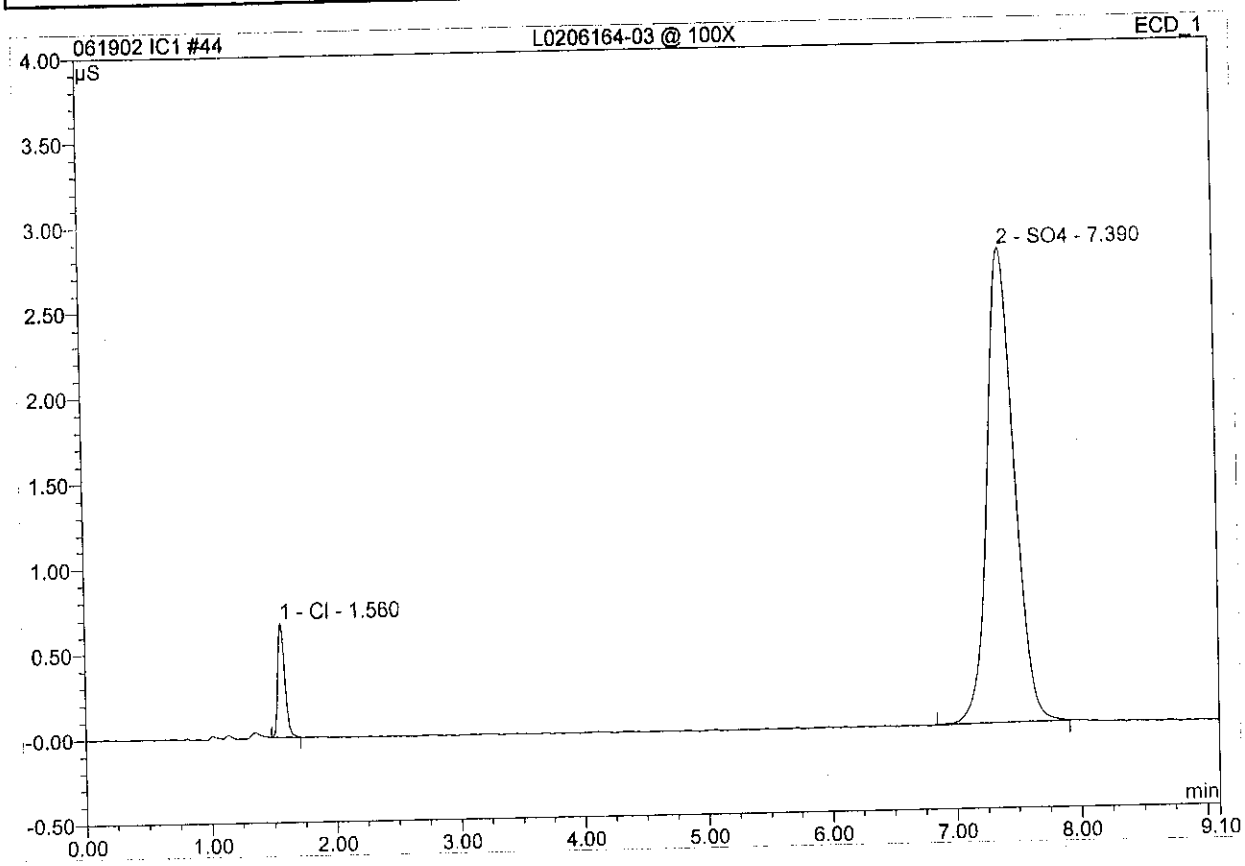
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.84	n.a.	0.588	0.032	0.03	n.a.	BM
2	1.05	F	0.777	0.066	0.07	0.602	BMB
3	1.70	Cl	17.808	1.672	1.79	17.749	BMB
4	3.00	Br	0.047	0.005	0.01	0.161	BMB
5	6.57	SO4	174.594	91.698	98.10	1281.453	BMB
Total:			193.814	93.473	100.00	1299.966	

pDu (A)

44 L0206164-03 @ 100X

1,100 RDC

Sample Name:	**L0206164-03 @ 100X**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 23:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.56	Cl	0.669	0.044	5.86	0.559	BMB
2	7.39	SO4	2.783	0.700	94.14	8.730	BMB
Total:			3.452	0.744	100.00	9.289	

X 100

2.4.5.3 Standards Data

100ml Total	1/10 #2	2 ML STD	4 ML STD	CCV 6 ML STD	8 ML STD	12 ML STD	CCV 3ML ALT STD
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
CHLORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRITE-N **	0.1218	1.2178	2.4356	3.6534	4.8714	7.3070	3.6534
BROMIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRATE-N **	0.1355	1.3554	2.7108	4.0662	5.4216	8.1322	4.0662
PHOSPHATE-P *	0.3261	3.2614	6.5228	9.7842	13.0456	19.5682	9.7842
SULFATE	1.0000	10.0000	20.0000	30.0000	40.0000	60.0000	30.0000

* as phosphorous ** as nitrogen

NO2 -N $\frac{14.0067}{46.0055}$ = % 30.446 nitrogen

NO3-N $\frac{14.0067}{62.0049}$ = % 22.590 nitrogen

PO4-P $\frac{30.97376}{94.97136}$ = % 32.614 phosphorous

ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
CHLORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRITE	0.400	4.000	8.000	12.000	16.000	24.000	12.000
BROMIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRATE	0.600	6.000	12.000	18.000	24.000	36.000	18.000
PHOSPHATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000
SULFATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000

Note: Calibration standard amounts are as indicated. To convert to calibration levels for extracted soils multiply amounts by 10 (nominal extraction is 1 part soil extracted into 10 parts water).

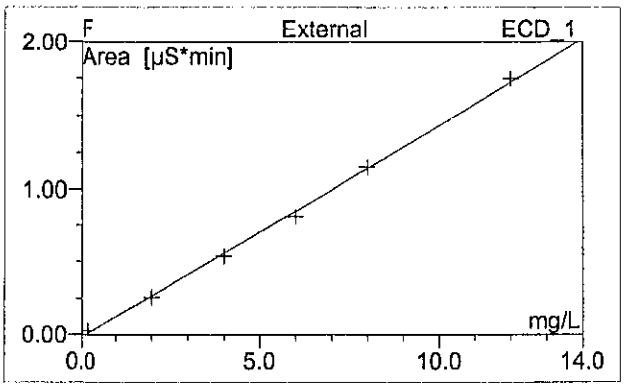
Primary Intermediate Std. Conc Br, Cl, and F are at 100 mg/L
NO2 is at 200 mg/L
NO3 is at 300 mg/L
PO4 and SO4 are at 500 mg/L

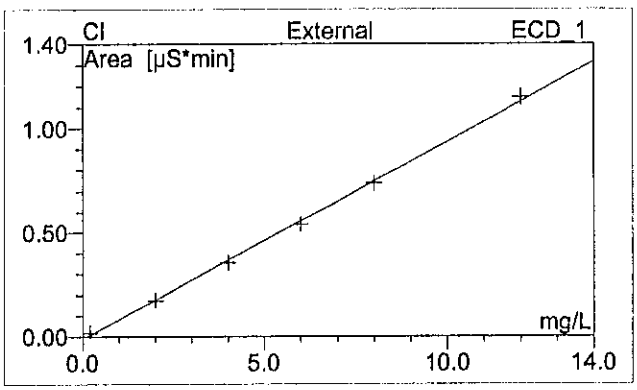
Alternate intermediate standard concentrations are twice the amount of the primary standard.

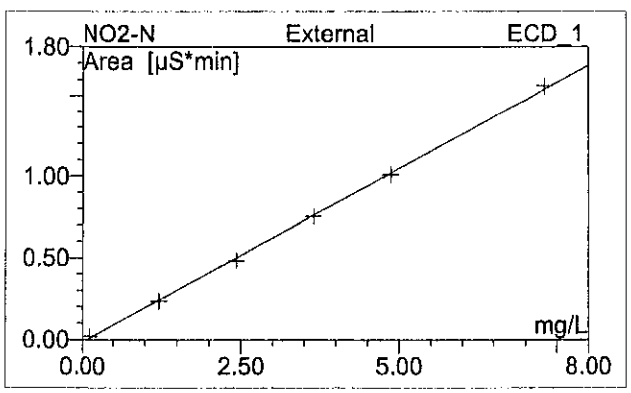
6 ANION STD #6

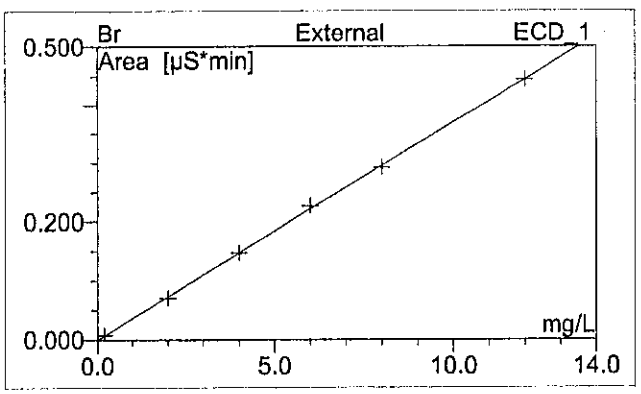
1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







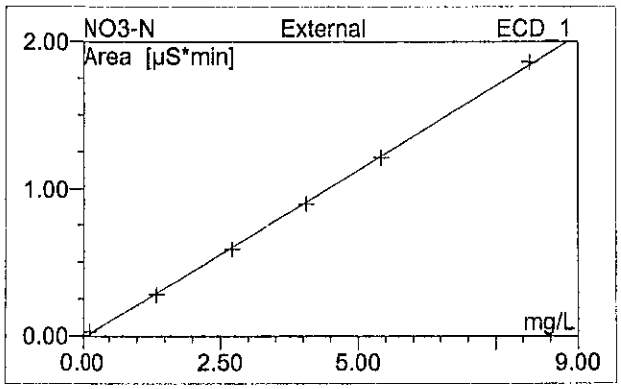


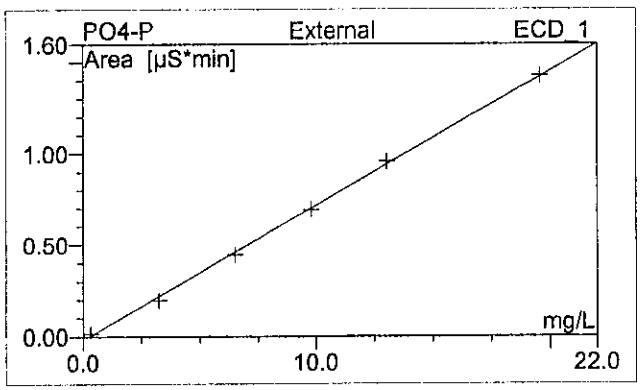
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

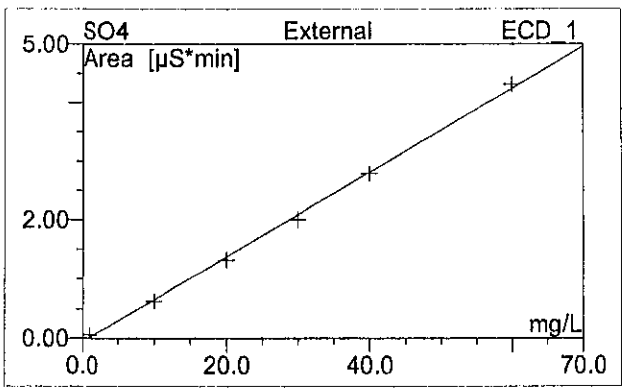
6 ANION STD #6

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





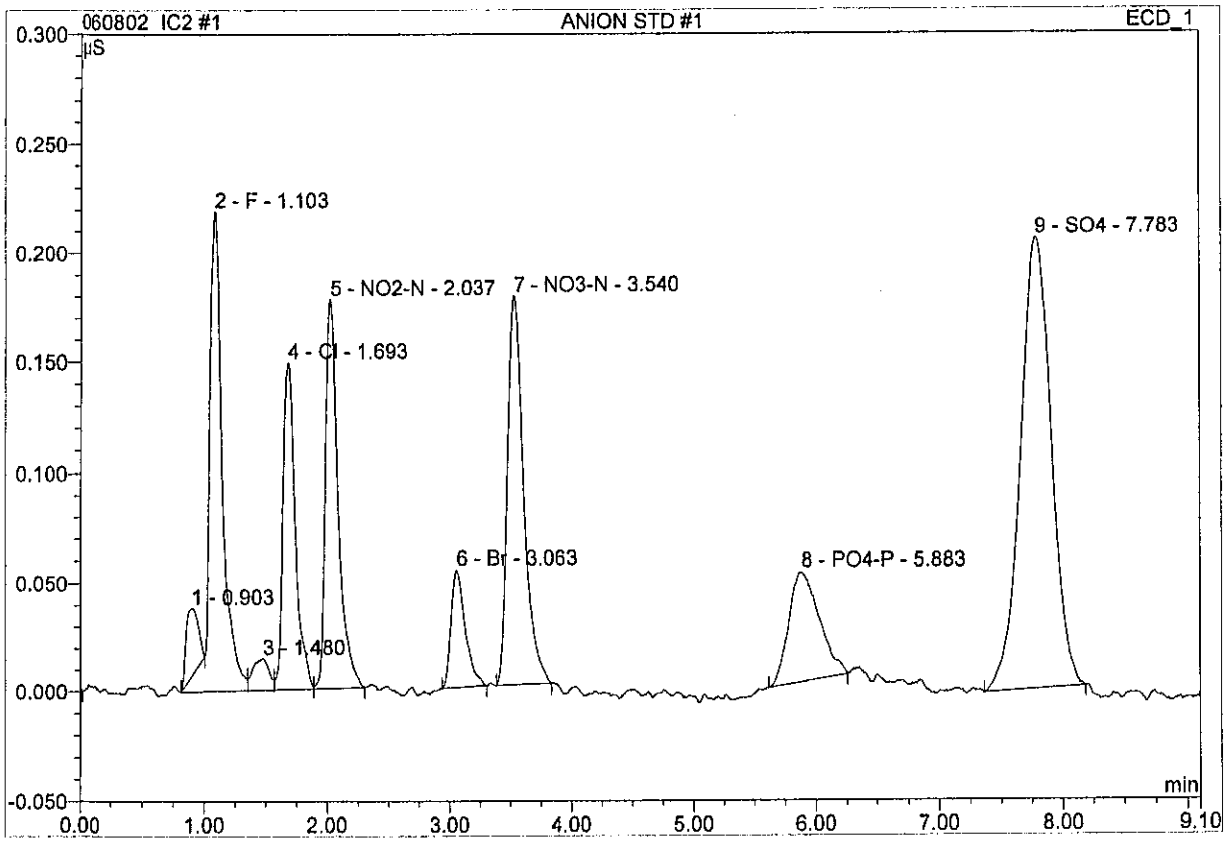


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.11	F	0LOff	6	99.9254	-0.0220	0.1457	0.0000
3	1.45	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.71	Cl	0LOff	6	99.9378	-0.0123	0.0949	0.0000
5	2.05	NO2-N	0LOff	6	99.9668	-0.0159	0.2129	0.0000
6	3.06	Br	0LOff	6	99.9829	-0.0006	0.0370	0.0000
7	3.46	NO3-N	0LOff	6	99.9712	-0.0182	0.2288	0.0000
8	5.78	PO4-P	0LOff	6	99.9603	-0.0203	0.0737	0.0000
9	7.70	SO4	0LOff	6	99.9246	-0.0599	0.0716	0.0000
Average:					99.9527	-0.0213	0.1235	0.0000

1 ANION STD #1

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

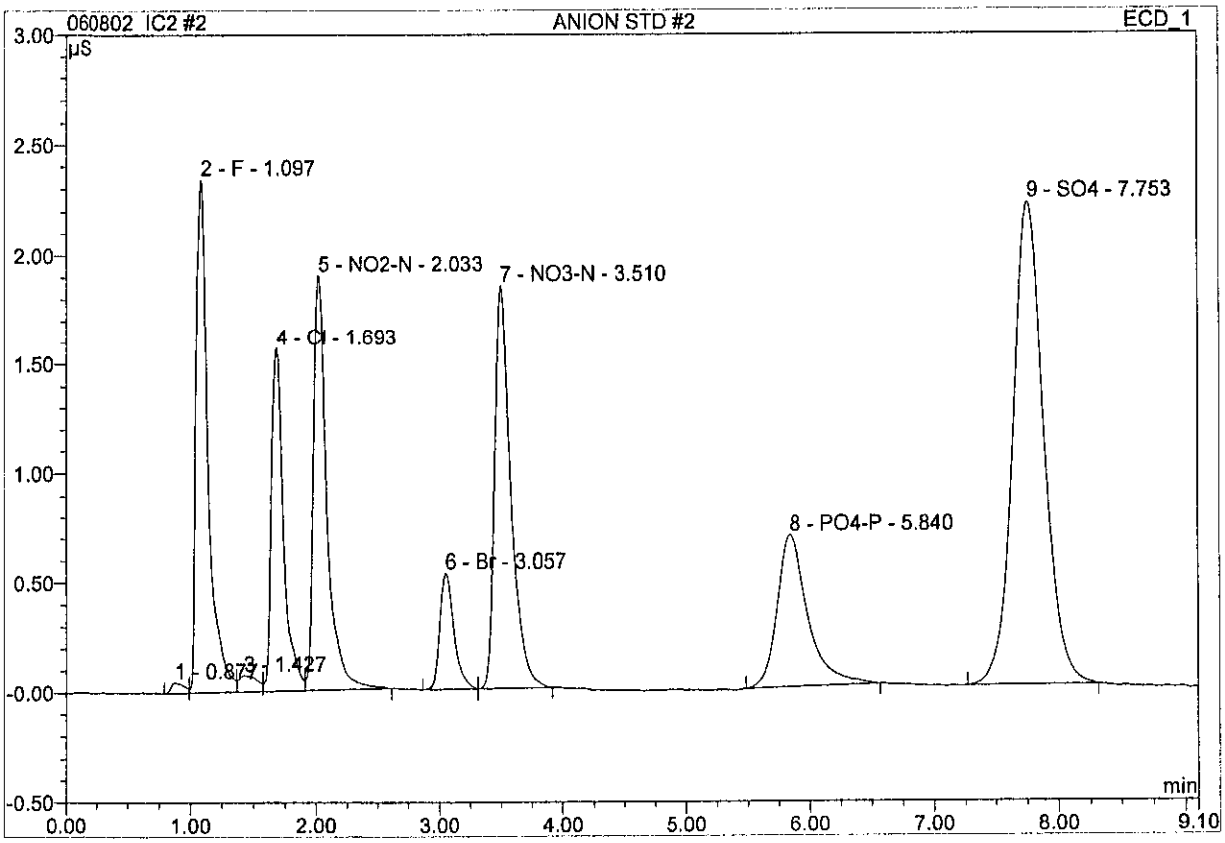


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.031	0.004	1.99	n.a.	Ru
2	1.10	F	0.219	0.027	15.07	0.338	BM
3	1.48	n.a.	0.015	0.002	1.24	n.a.	M
4	1.69	Cl	0.149	0.017	9.60	0.312	M
5	2.04	NO2-N	0.177	0.022	11.98	0.176	MB
6	3.06	Br	0.054	0.007	4.07	0.215	BMB
7	3.54	NO3-N	0.177	0.027	14.93	0.197	BMB
8	5.88	PO4-P	0.050	0.015	8.08	0.473	BMB
9	7.78	SO4	0.206	0.060	33.03	1.667	BMB
Total:			1.078	0.180	100.00	3.379	

2 ANION STD #2

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

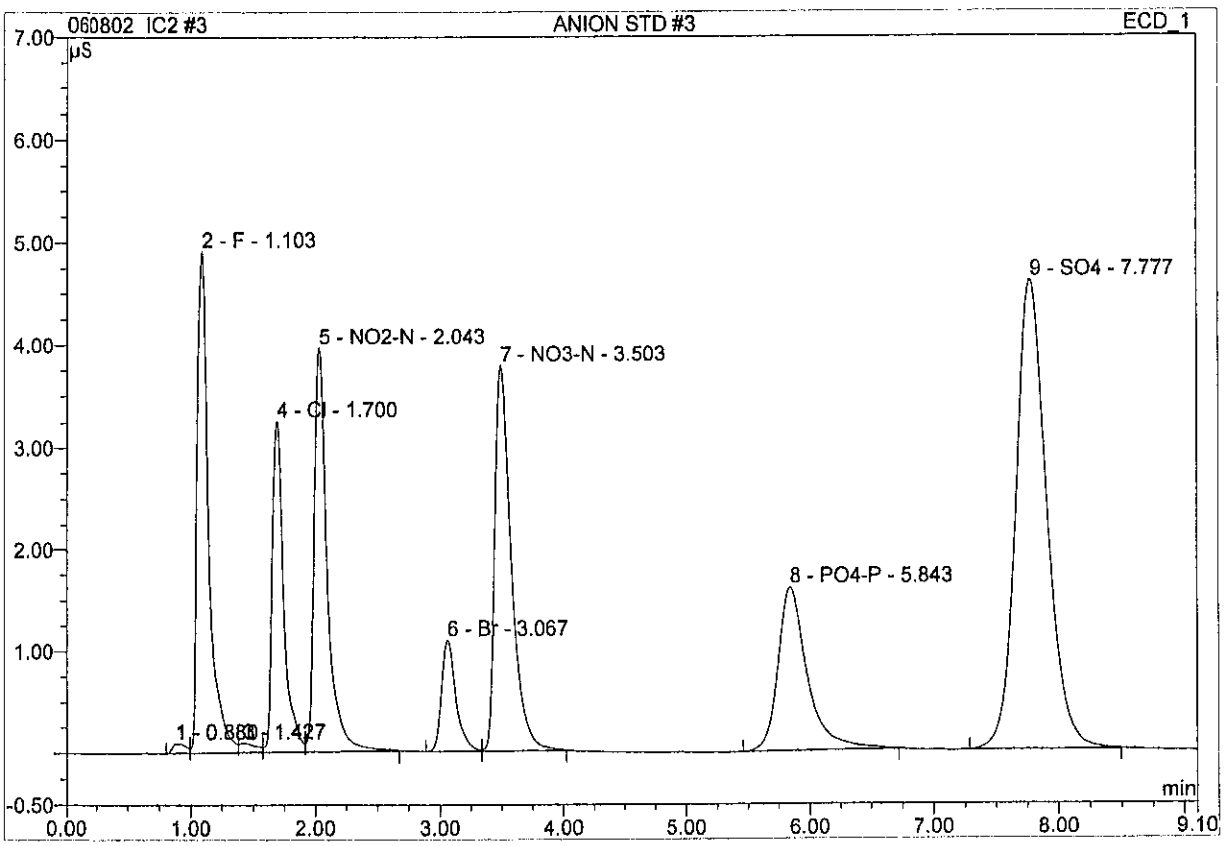


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.048	0.006	0.32	n.a.	BM
2	1.10	F	2.339	0.258	13.84	1.922	M
3	1.43	n.a.	0.073	0.013	0.67	n.a.	M
4	1.69	Cl	1.563	0.175	9.38	1.972	M
5	2.03	NO2-N	1.894	0.235	12.63	1.180	MB
6	3.06	Br	0.527	0.071	3.79	1.922	BM
7	3.51	NO3-N	1.842	0.279	15.00	1.301	MB
8	5.84	PO4-P	0.692	0.196	10.54	2.941	BMB
9	7.75	SO4	2.205	0.630	33.82	9.638	BMB
Total:			11.182	1.863	100.00	20.875	

3 ANION STD #3

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

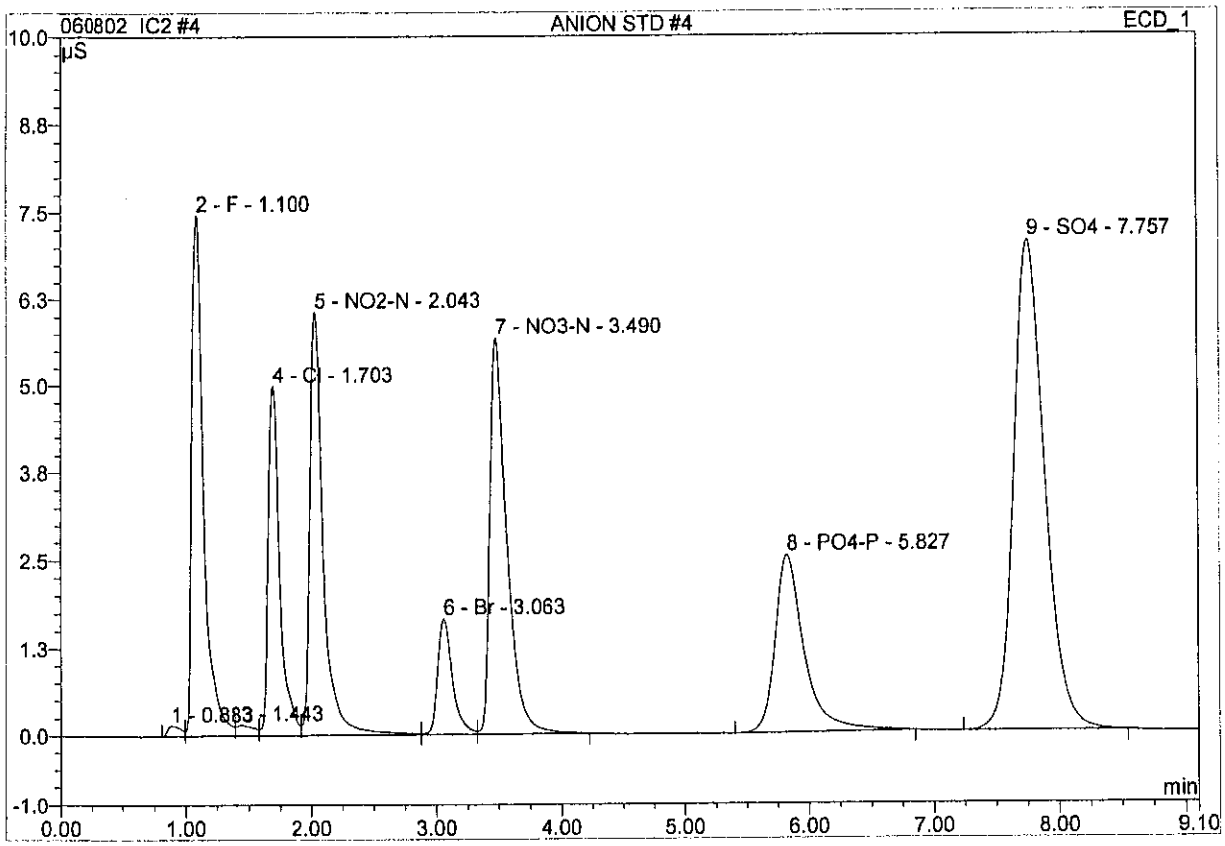


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.094	0.012	0.31	n.a.	BM
2	1.10	F	4.912	0.537	13.77	3.836	M
3	1.43	n.a.	0.092	0.014	0.37	n.a.	M
4	1.70	Cl	3.254	0.355	9.11	3.872	M
5	2.04	NO2-N	3.956	0.484	12.42	2.350	MB
6	3.07	Br	1.095	0.148	3.79	4.002	BM
7	3.50	NO3-N	3.775	0.586	15.03	2.641	MB
8	5.84	PO4-P	1.602	0.443	11.36	6.282	BMB
9	7.78	SO4	4.598	1.320	33.85	19.266	BMB
Total:			23.380	3.899	100.00	42.249	

4 ANION STD #4

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #4**	*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:	**5/21/2002 17:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

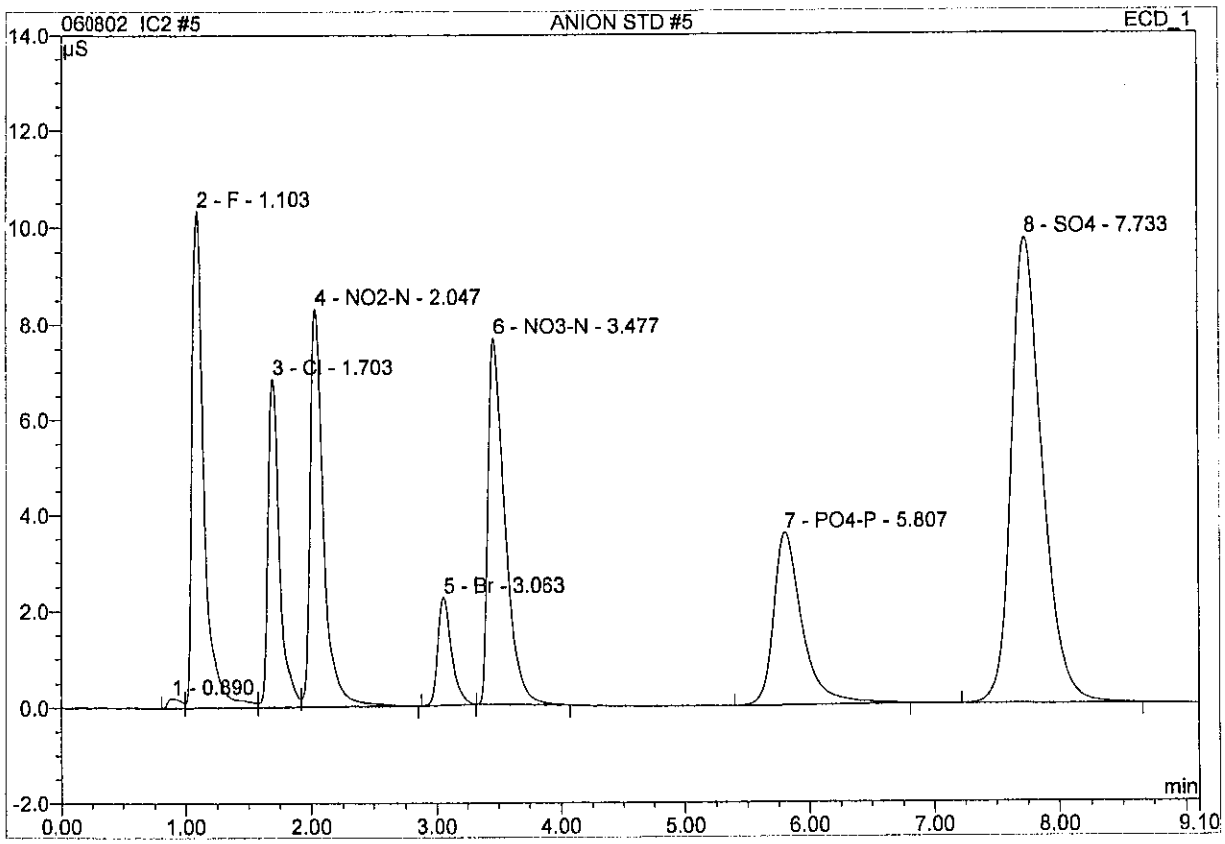


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.142	0.018	0.30	n.a.	BM
2	1.10	F	7.465	0.814	13.64	5.737	M
3	1.44	n.a.	0.148	0.024	0.40	n.a.	M
4	1.70	Cl	4.985	0.539	9.03	5.812	M
5	2.04	NO2-N	6.061	0.753	12.63	3.614	M
6	3.06	Br	1.660	0.226	3.79	6.127	M
7	3.49	NO3-N	5.673	0.898	15.05	4.005	MB
8	5.83	PO4-P	2.536	0.693	11.61	9.675	BMB
9	7.76	SO4	7.031	2.003	33.56	28.804	BMB
Total:			35.700	5.968	100.00	63.774	

5 ANION STD #5

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 17:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

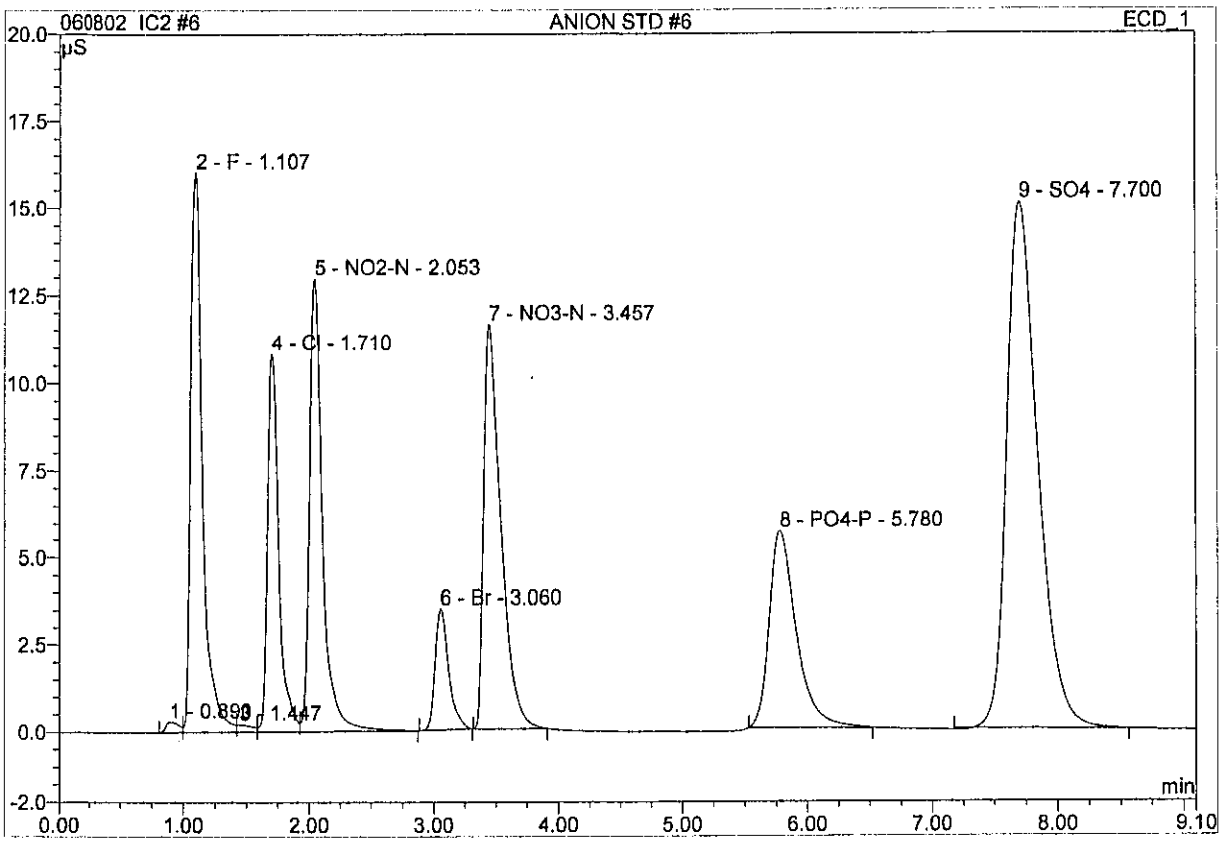


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.194	0.024	0.30	n.a.	BM
2	1.10	F	10.342	1.152	14.12	8.059	M
3	1.70	Cl	6.851	0.736	9.02	7.889	M
4	2.05	NO2-N	8.312	1.008	12.36	4.811	MB
5	3.06	Br	2.237	0.292	3.58	7.906	BMB
6	3.48	NO3-N	7.654	1.210	14.83	5.369	BMB
7	5.81	PO4-P	3.586	0.955	11.70	13.232	BMB
8	7.73	SO4	9.708	2.782	34.09	39.690	BMB
Total:			48.884	8.161	100.00	86.958	

6 ANION STD #6

1,1 RDC ANION STD SOS0059-46

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

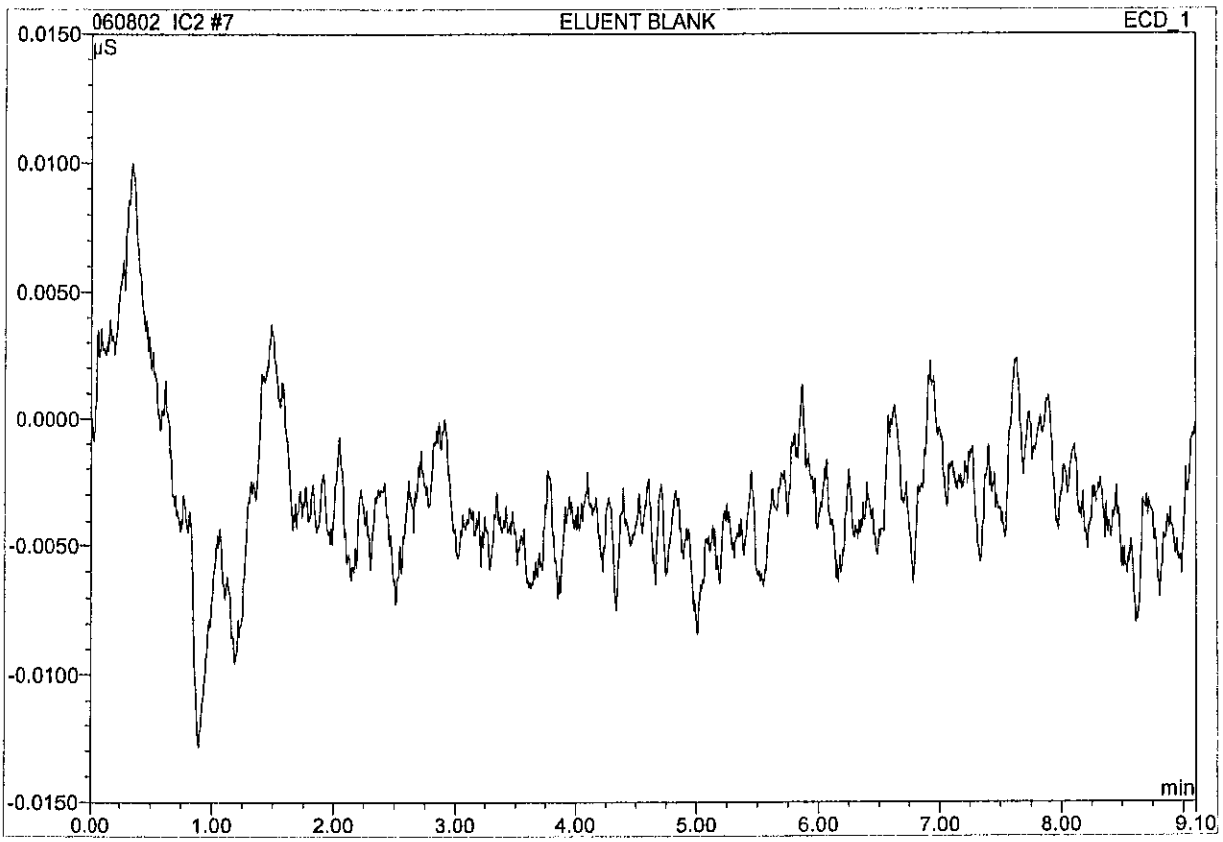


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.291	0.037	0.29	n.a.	BM
2	1.11	F	16.013	1.749	13.92	12.158	M
3	1.45	n.a.	0.209	0.029	0.23	n.a.	M
4	1.71	Cl	10.807	1.147	9.12	12.214	M
5	2.05	NO2-N	12.949	1.559	12.40	7.400	MB
6	3.06	Br	3.465	0.444	3.53	12.011	BMB
7	3.46	NO3-N	11.570	1.865	14.83	8.229	BM
8	5.78	PO4-P	5.651	1.427	11.35	19.630	BM
9	7.70	SO4	15.063	4.315	34.32	61.098	MB
Total:			76.018	12.572	100.00	132.740	

7 ELUENT BLANK

1,1 RDC

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:	**5/21/2002 18:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

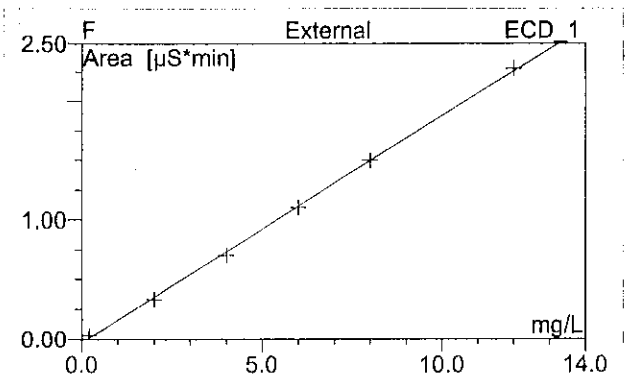


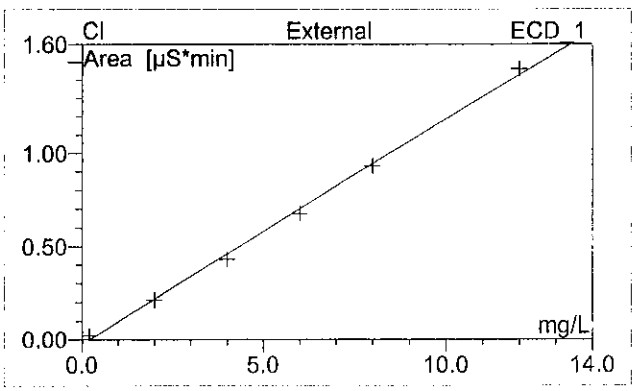
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

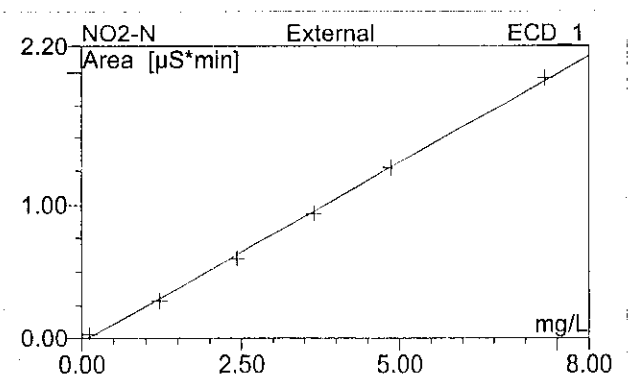
6 Anion std. #6

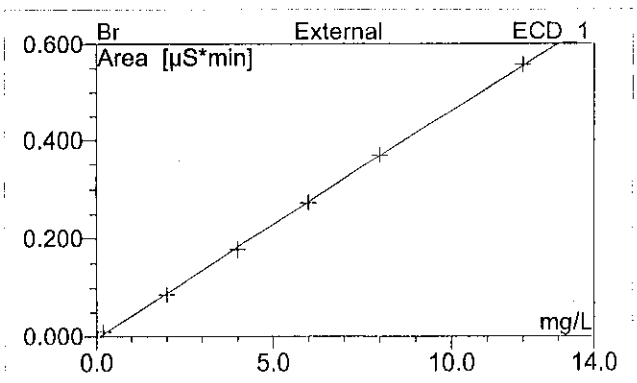
1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







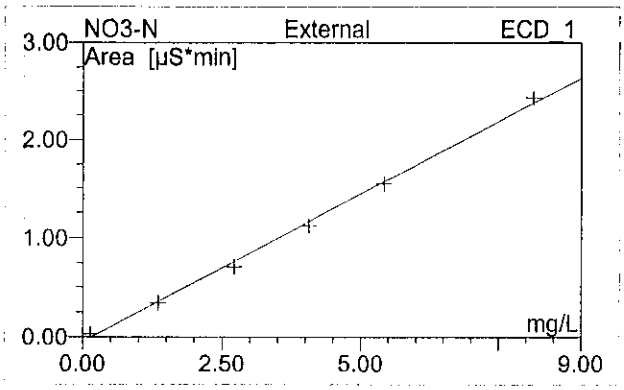


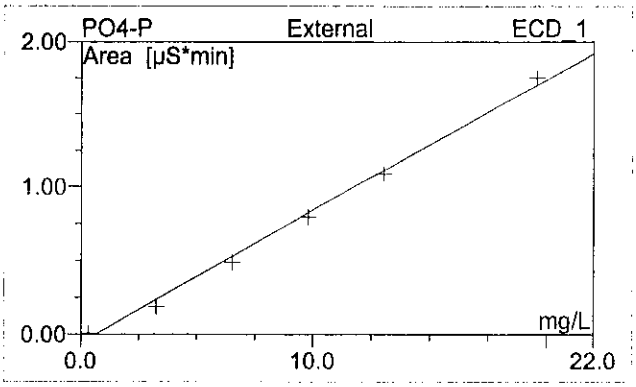
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

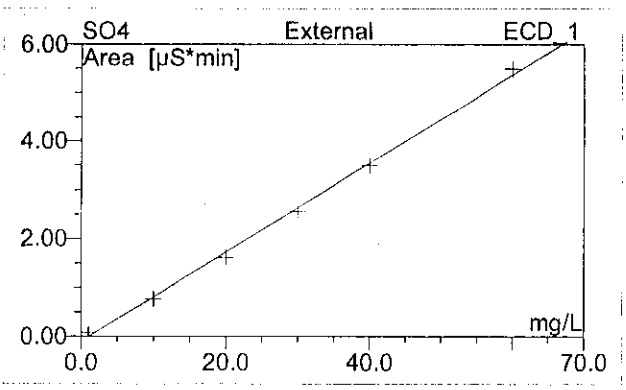
6 Anion std. #6

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





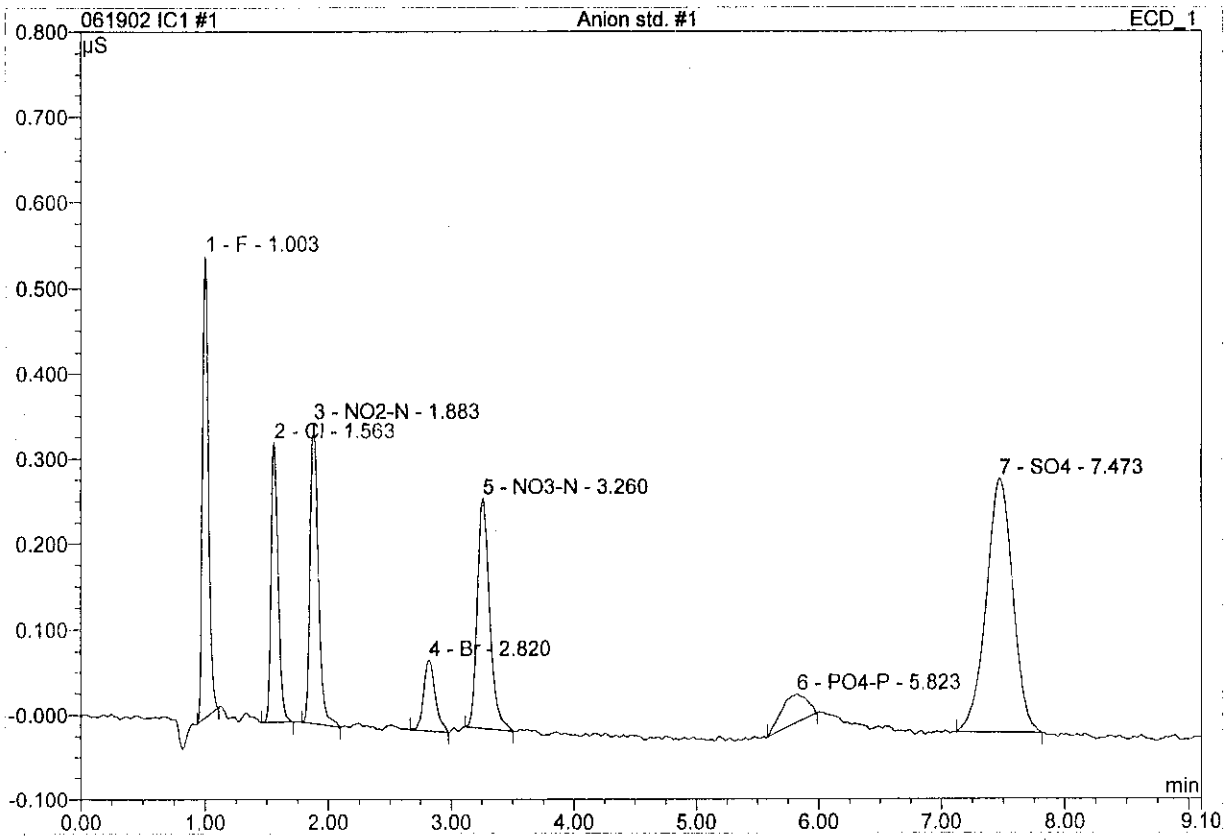


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.01	F	0LOff	6	99.9666	-0.0275	0.1907	0.0000
3	1.58	Cl	0LOff	6	99.8775	-0.0240	0.1211	0.0000
4	1.90	NO2-N	0LOff	6	99.9544	-0.0254	0.2681	0.0000
5	2.81	Br	0LOff	6	99.9852	-0.0036	0.0465	0.0000
6	3.16	NO3-N	0LOff	6	99.8828	-0.0440	0.2976	0.0000
7	5.57	PO4-P	0LOff	6	99.8094	-0.0560	0.0898	0.0000
8	7.31	SO4	0LOff	6	99.8953	-0.0945	0.0910	0.0000
Average:					99.9102	-0.0393	0.1578	0.0000

1 Anion std. #1

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 15:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

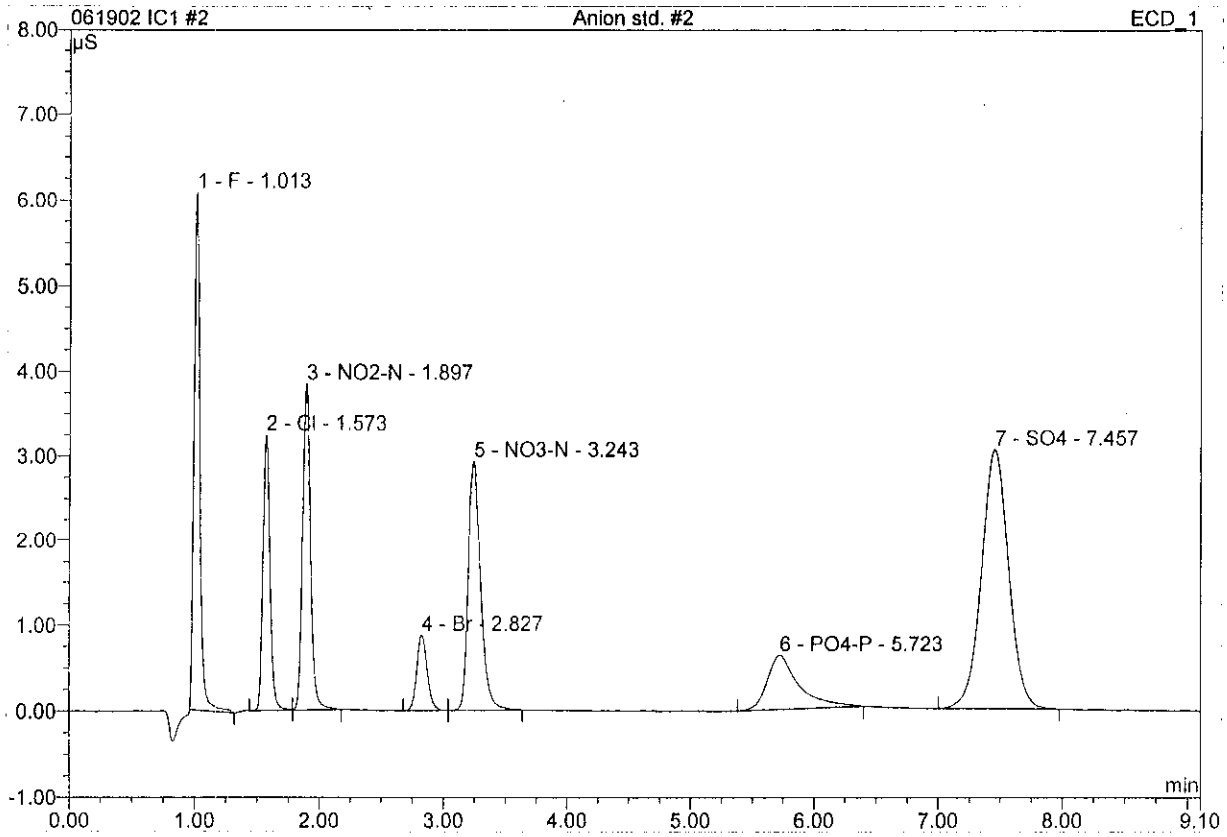


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.00	F	0.541	0.030	14.93	0.303	BMB
2	1.56	Cl	0.328	0.022	10.70	0.378	BMB
3	1.88	NO2-N	0.352	0.027	13.38	0.196	BMB
4	2.82	Br	0.084	0.009	4.53	0.275	BMB
5	3.26	NO3-N	0.270	0.032	15.79	0.255	BMB
6	5.82	PO4-P	0.033	0.008	4.06	0.715	BMB
7	7.47	SO4	0.297	0.074	36.60	1.855	BMB
Total:			1.905	0.203	100.00	3.978	

2 Anion std. #2

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 15:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

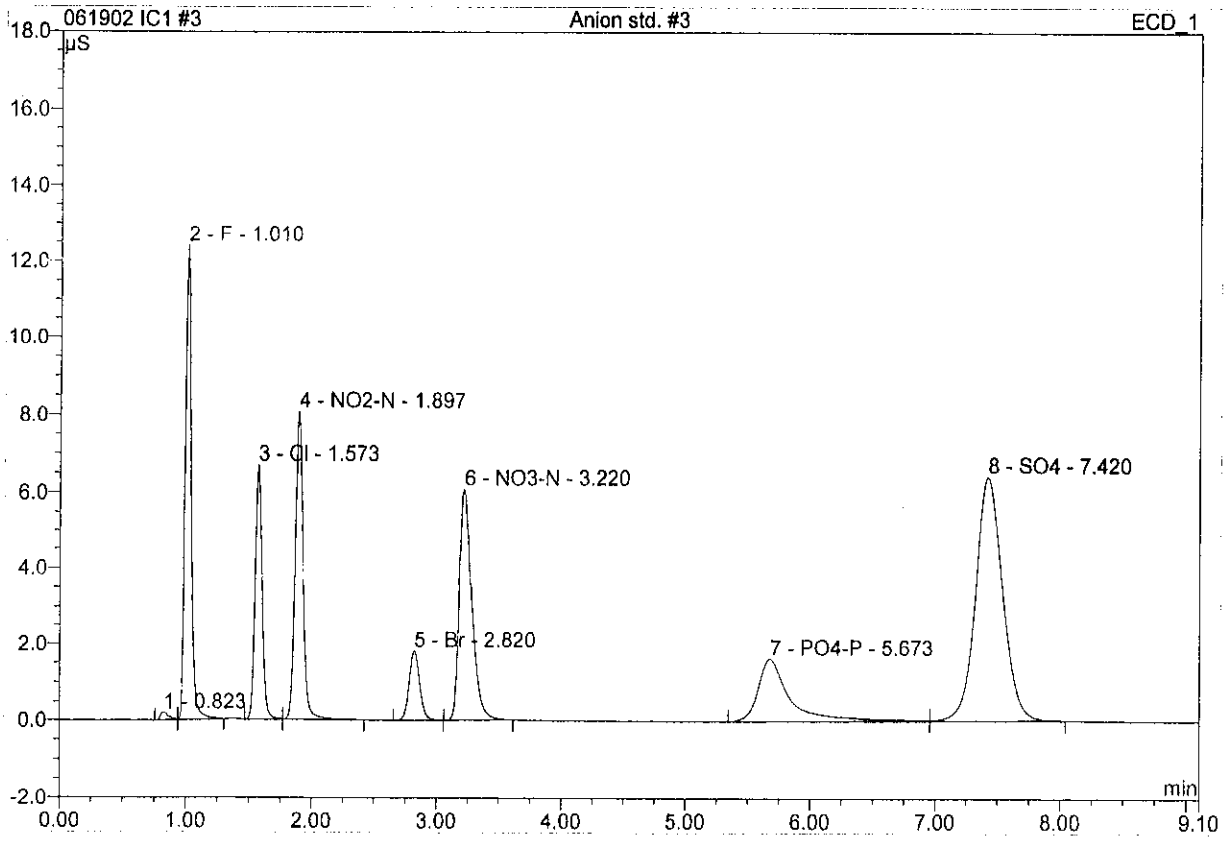


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.01	F	6.078	0.333	15.04	1.891	BMB
2	1.57	Cl	3.251	0.211	9.53	1.942	BM
3	1.90	NO2-N	3.843	0.284	12.83	1.154	MB
4	2.83	Br	0.878	0.086	3.90	1.934	BM
5	3.24	NO3-N	2.928	0.341	15.41	1.295	MB
6	5.72	PO4-P	0.625	0.188	8.48	2.715	BMB
7	7.46	SO4	3.052	0.771	34.81	9.508	BMB
Total:			20.655	2.215	100.00	20.439	

3 Anion std. #3

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

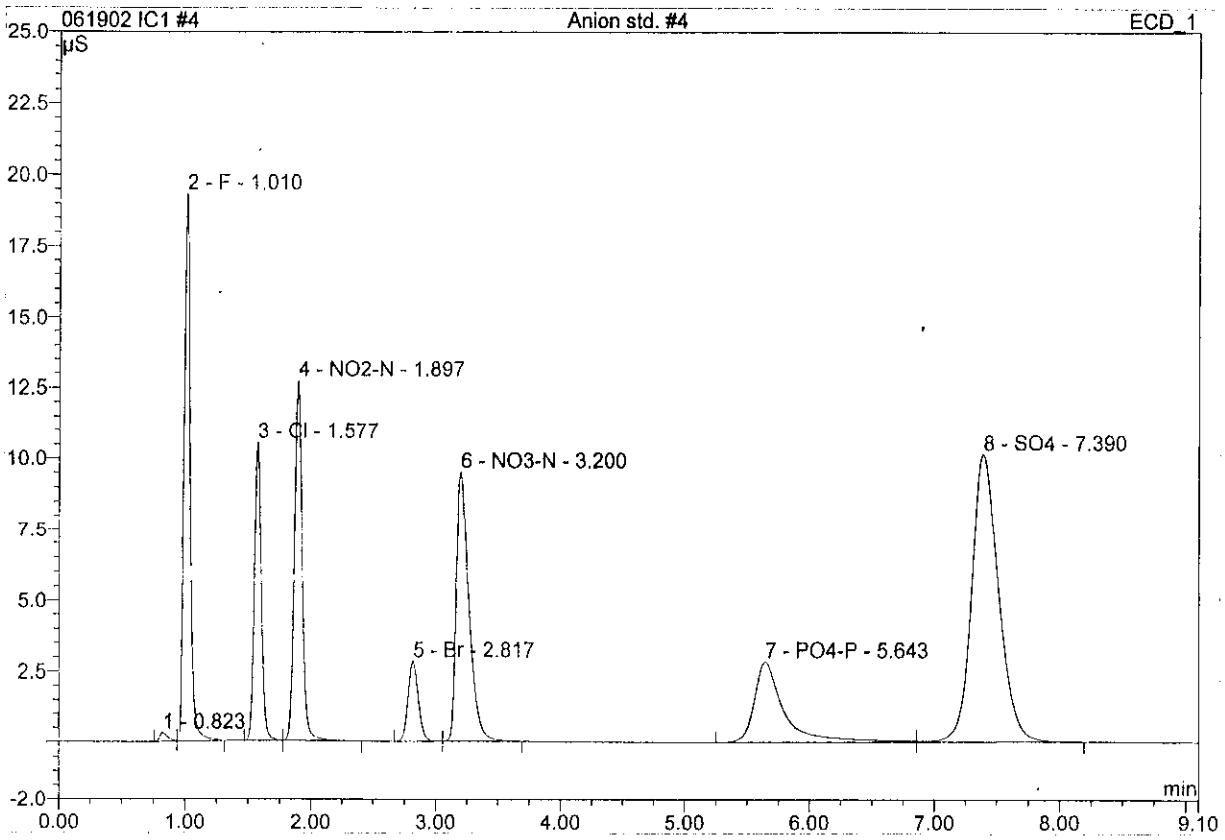


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.199	0.015	0.31	n.a.	BM
2	1.01	F	12.401	0.701	14.81	3.820	MB
3	1.57	Cl	6.665	0.429	9.06	3.740	BM
4	1.90	NO2-N	8.054	0.599	12.65	2.329	MB
5	2.82	Br	1.806	0.177	3.73	3.879	BMB
6	3.22	NO3-N	6.061	0.710	14.99	2.532	BMB
7	5.67	PO4-P	1.618	0.489	10.33	6.067	BM
8	7.42	SO4	6.395	1.614	34.11	18.772	MB
Total:			43.200	4.733	100.00	41.138	

4 Anion std. #4

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

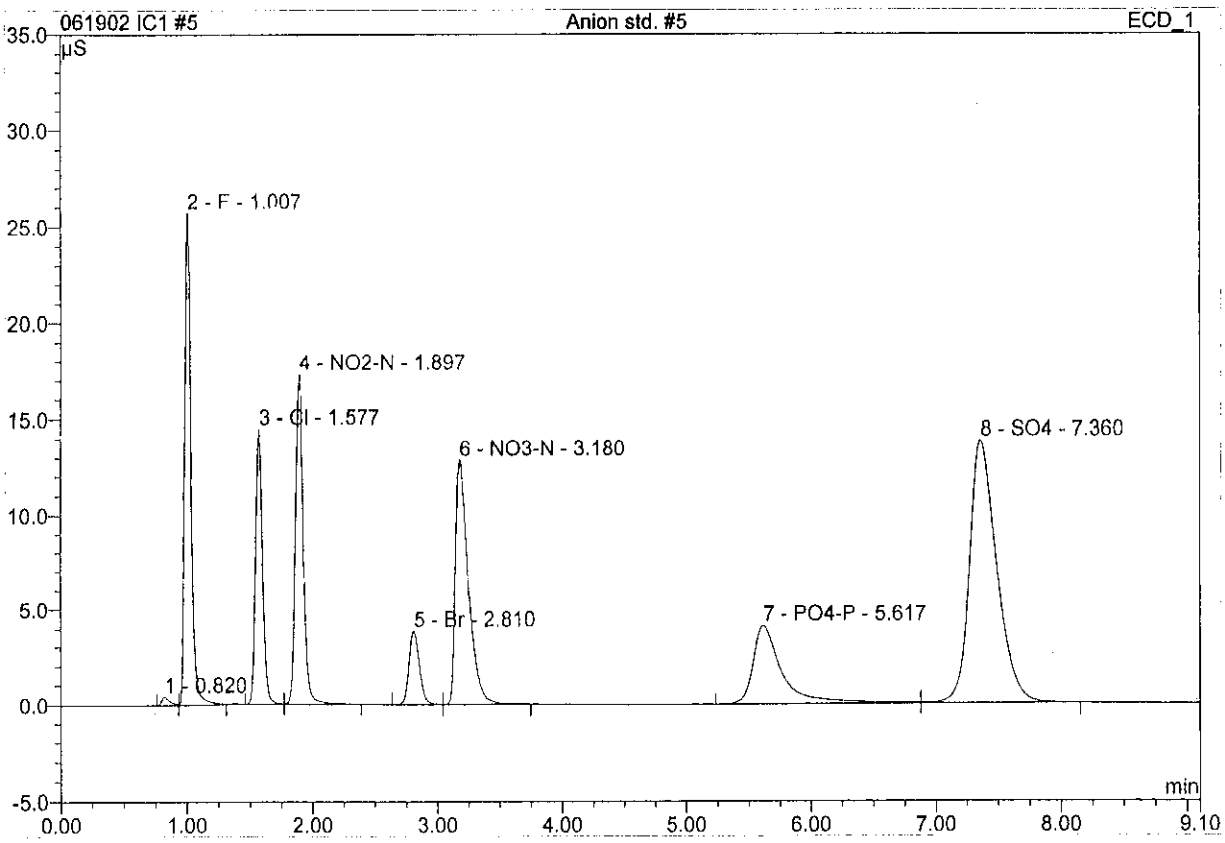


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.313	0.023	0.31	n.a.	BM
2	1.01	F	19.323	1.104	14.75	5.935	MB
3	1.58	Cl	10.535	0.675	9.02	5.775	BM
4	1.90	NO2-N	12.703	0.935	12.49	3.582	MB
5	2.82	Br	2.824	0.273	3.65	5.961	BM
6	3.20	NO3-N	9.486	1.124	15.02	3.925	MB
7	5.64	PO4-P	2.831	0.794	10.61	9.469	BM
8	7.39	SO4	10.115	2.555	34.13	29.103	MB
Total:			68.131	7.485	100.00	63.750	

5 Anion std. #5

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

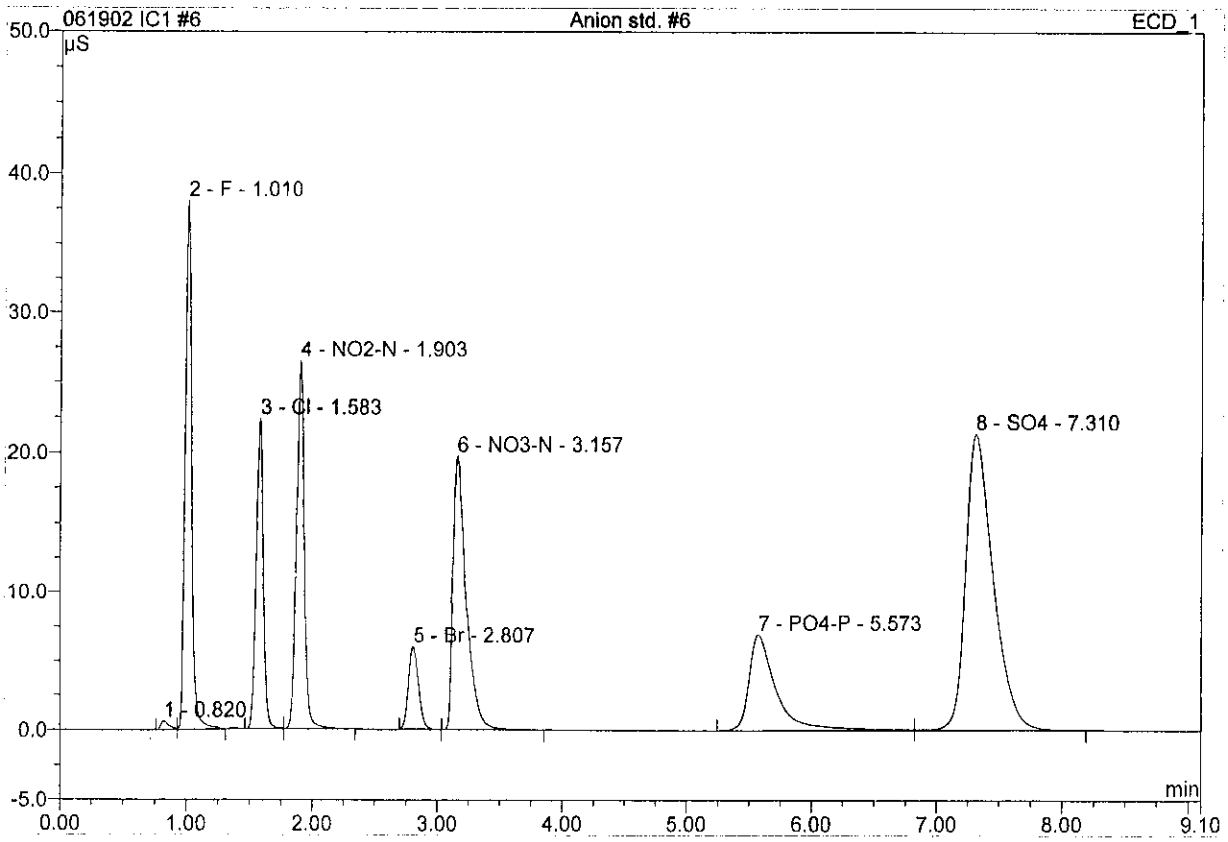


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.422	0.032	0.31	n.a.	BM
2	1.01	F	25.736	1.497	14.63	7.993	MB
3	1.58	Cl	14.466	0.930	9.09	7.882	BM
4	1.90	NO2-N	17.301	1.274	12.46	4.849	MB
5	2.81	Br	3.843	0.369	3.61	8.016	BM
6	3.18	NO3-N	12.871	1.547	15.12	5.345	MB
7	5.62	PO4-P	4.112	1.092	10.67	12.778	BM
8	7.36	SO4	13.824	3.491	34.12	39.394	MB
Total:			92.575	10.232	100.00	86.255	

6 Anion std. #6

1,1 RDC SOS0060-25

Sample Name:	**Anion std. #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/18/2002 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

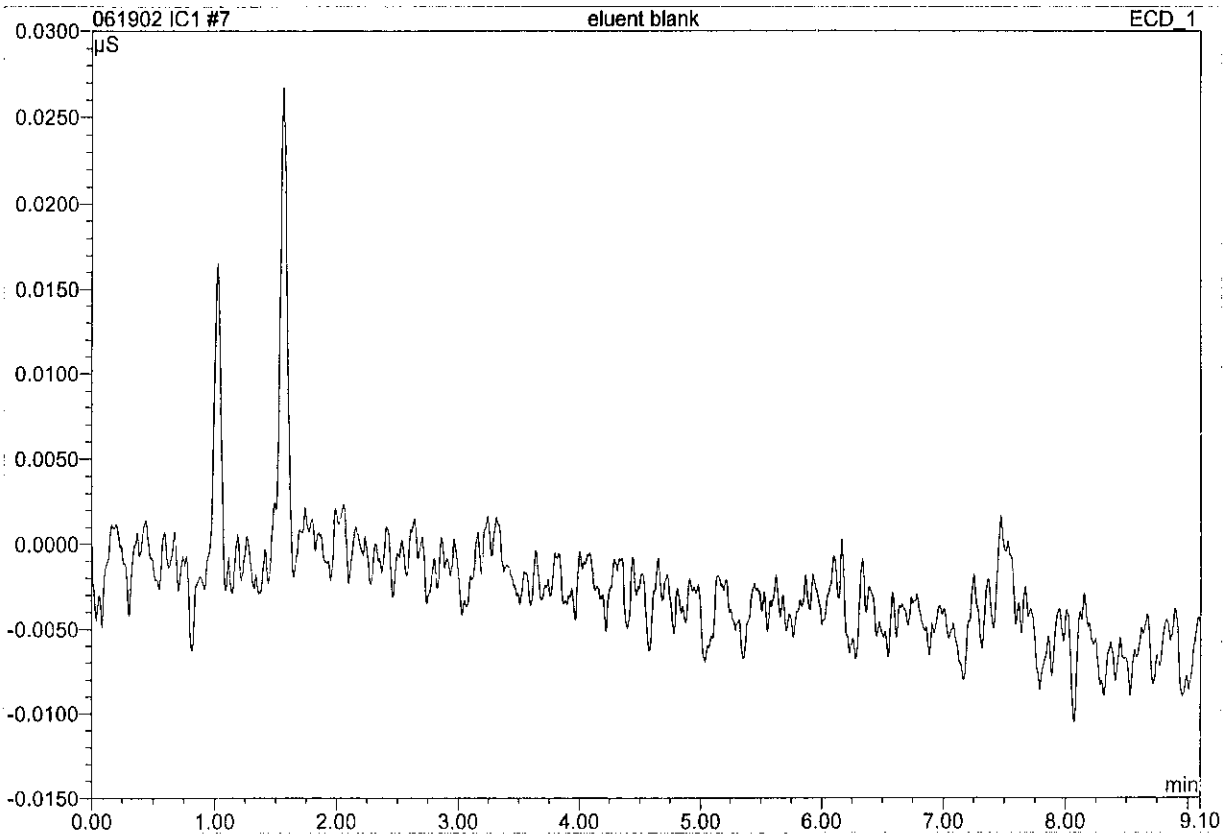


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.631	0.048	0.30	n.a.	BM
2	1.01	F	38.063	2.282	14.28	12.114	MB
3	1.58	Cl	22.319	1.463	9.16	12.285	BM
4	1.90	NO2-N	26.446	1.959	12.26	7.403	MB
5	2.81	Br	5.997	0.557	3.48	12.060	BMB
6	3.16	NO3-N	19.698	2.433	15.22	8.321	BMB
7	5.57	PO4-P	6.959	1.753	10.97	20.141	BM
8	7.31	SO4	21.318	5.488	34.34	61.330	MB
Total:			141.431	15.983	100.00	133.653	

7 eluent blank

1,1 RDC

Sample Name:	**eluent blank**	*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:	**6/18/2002 16:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

8 ANION ALT STD

1,1 RDC ANION ALT STD SOS0059-44

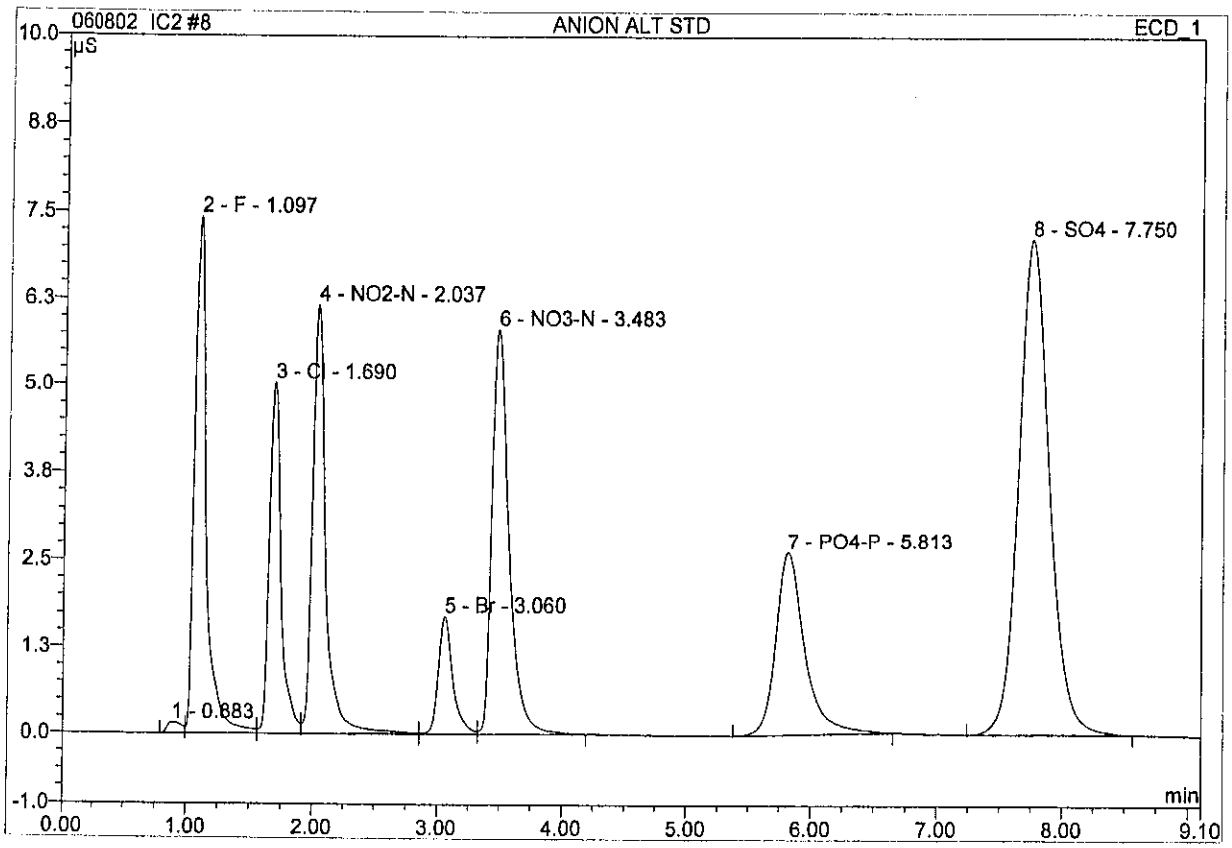
Sample Name:	**ANION ALT STD**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**5/21/2002 18:41**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8089	-3.19	PASS
Cl	6	5.9068	-1.55	PASS
NO2-N	3.65	3.6652	0.42	PASS
Br	6	6.3346	5.58	PASS
NO3-N	4.07	4.1408	1.74	PASS
PO4-P	9.78	9.8359	0.57	PASS
SO4	30	29.3113	-2.30	PASS

8 ANION ALT STD

1,1 RDC ANION ALT STD SOS0059-44

Sample Name:	**ANION ALT STD**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/21/2002 18:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.154	0.020	0.33	n.a.	BM
2	1.10	F	7.438	0.824	13.59	5.809	M
3	1.69	Cl	5.032	0.548	9.04	5.907	M
4	2.04	NO2-N	6.164	0.764	12.60	3.665	M
5	3.06	Br	1.704	0.234	3.86	6.335	M
6	3.48	NO3-N	5.819	0.929	15.32	4.141	MB
7	5.81	PO4-P	2.622	0.705	11.62	9.836	BMB
8	7.75	SO4	7.115	2.039	33.62	29.311	BMB
Total:			36.049	6.064	100.00	65.003	

8 Alt anion std.

1,1 RDC SOS0060-31

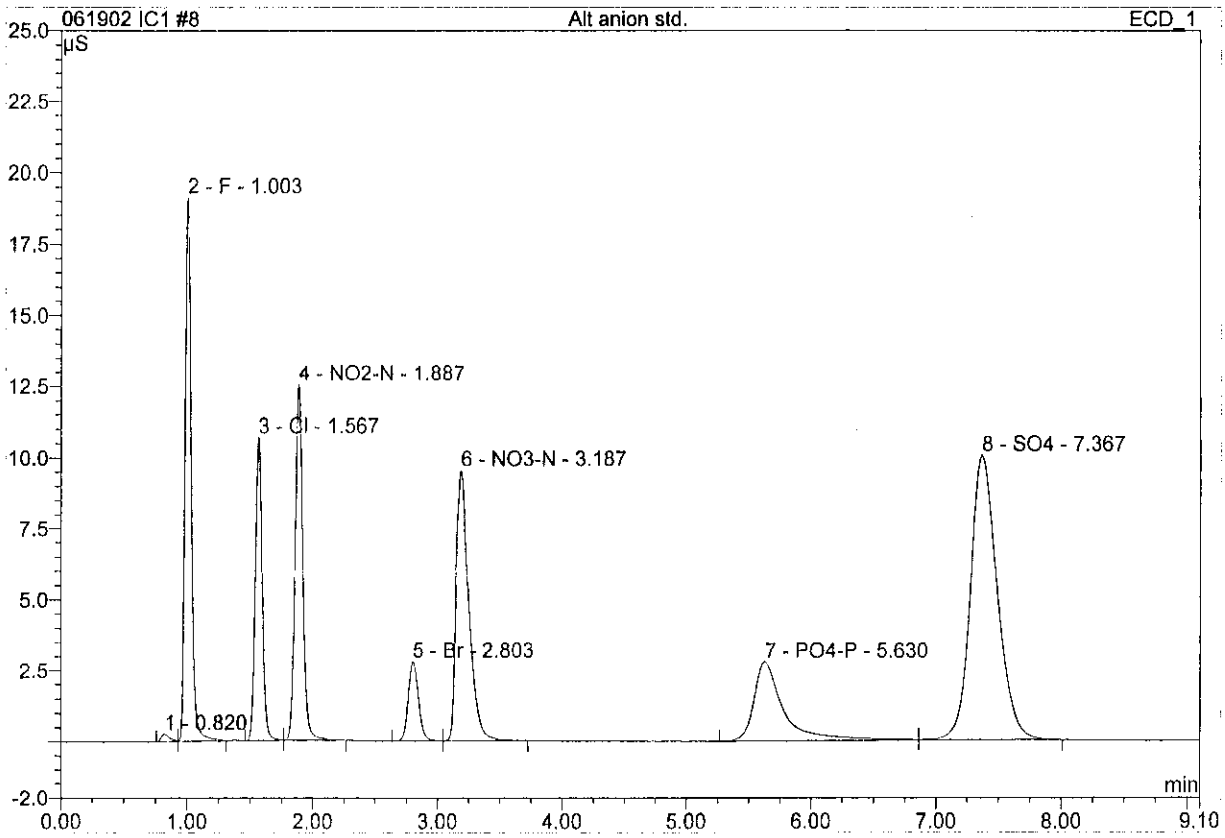
Sample Name:	**Alt anion std.**		*Injection Volume:*
Vial Number:	**8**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/18/2002 18:09**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

Alt anion std.	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8684	-2.19	PASS
Cl	6	5.8510	-2.48	PASS
NO2-N	3.65	3.5135	-3.74	PASS
Br	6	5.8699	-2.17	PASS
NO3-N	4.07	3.9347	-3.33	PASS
PO4-P	9.78	9.2540	-5.38	PASS
SO4	30	28.6141	-4.62	PASS

8 Alt anion std.

1,1 RDC SOS0060-31

Sample Name:	**Alt anion std.**	*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:	**6/18/2002 18:09**	*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 mg/L	Type
1	0.82	n.a.	0.269	0.021	0.28	n.a.	BM
2	1.00	F	19.142	1.092	14.76	5.868	MB
3	1.57	Cl	10.693	0.684	9.25	5.851	BM
4	1.89	NO2-N	12.521	0.917	12.39	3.514	MB
5	2.80	Br	2.790	0.269	3.64	5.870	BM
6	3.19	NO3-N	9.529	1.127	15.24	3.935	MB
7	5.63	PO4-P	2.788	0.775	10.48	9.254	BM
8	7.37	SO4	10.027	2.510	33.94	28.614	MB
Total:			67.757	7.395	100.00	62.906	

10 WG120132-01 CCV

1,1 JWR SOS0059-46 06/08/02

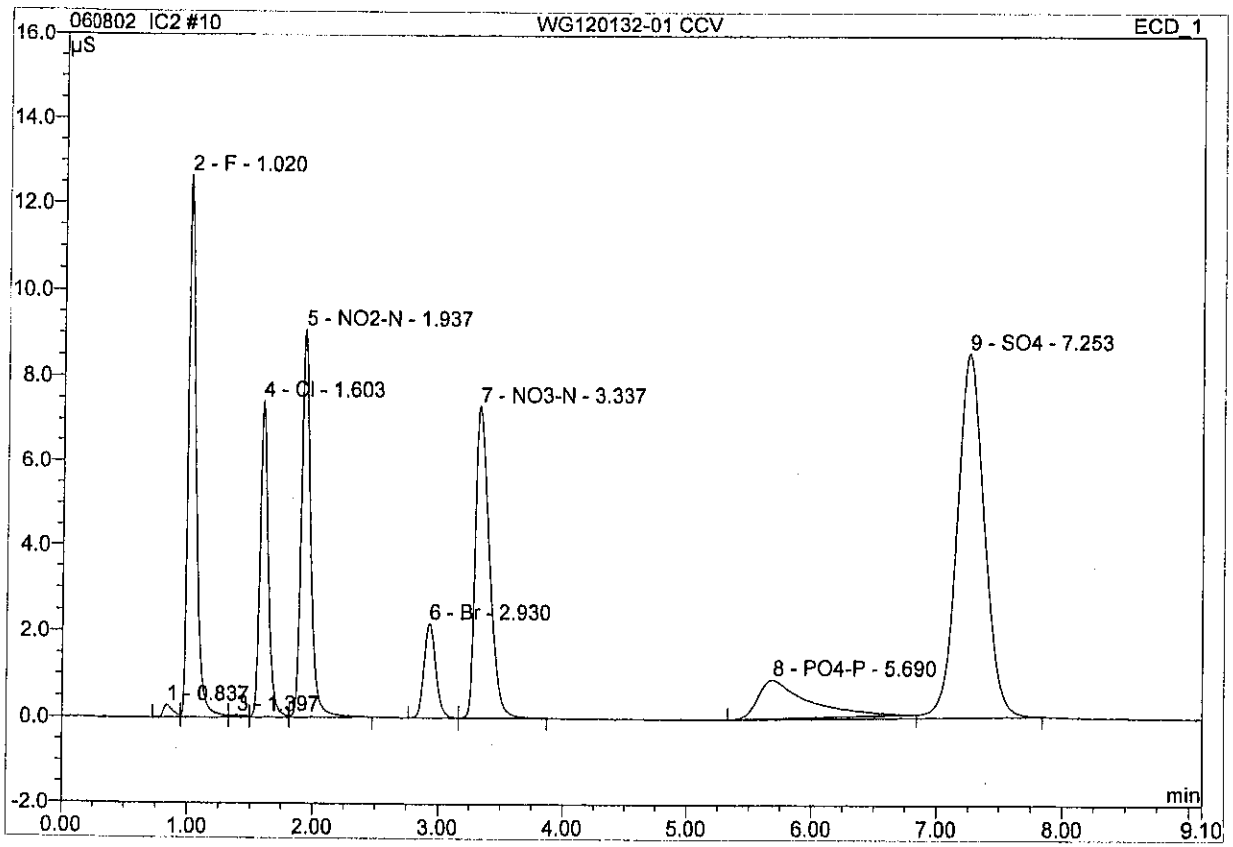
Sample Name:	**WG120132-01 CCV**		*Injection Volume:*
Vial Number:	**41**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/8/2002 13:42**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

WG120132-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.4221	7.04	PASS
Cl	6	6.1175	1.96	PASS
NO2-N	3.65	3.7504	2.75	PASS
Br	6	6.3270	5.45	PASS
NO3-N	4.07	4.2348	4.05	PASS
PO4-P	9.78	5.9468	-39.19	FAIL
SO4	30	31.5409	5.14	PASS

10 WG120132-01 CCV

1,1 JWR SOS0059-46 06/08/02

Sample Name:	**WG120132-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 13:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.84	n.a.	0.286	0.025	0.41	n.a.	BM
2	1.02	F	12.662	0.914	14.99	6.422	M
3	1.40	n.a.	0.051	0.007	0.11	n.a.	M
4	1.60	Cl	7.430	0.568	9.32	6.118	M
5	1.94	NO2-N	9.088	0.782	12.83	3.750	MB
6	2.93	Br	2.180	0.234	3.83	6.327	BM
7	3.34	NO3-N	7.316	0.951	15.59	4.235	MB
8	5.69	PO4-P	0.900	0.418	6.86	5.947	Ru
9	7.25	SO4	8.528	2.199	36.06	31.541	BMB
Total:			48.440	6.098	100.00	64.340	

21 WG120132-02 CCV

1,1 JWR SOS0059-46 06/08/02

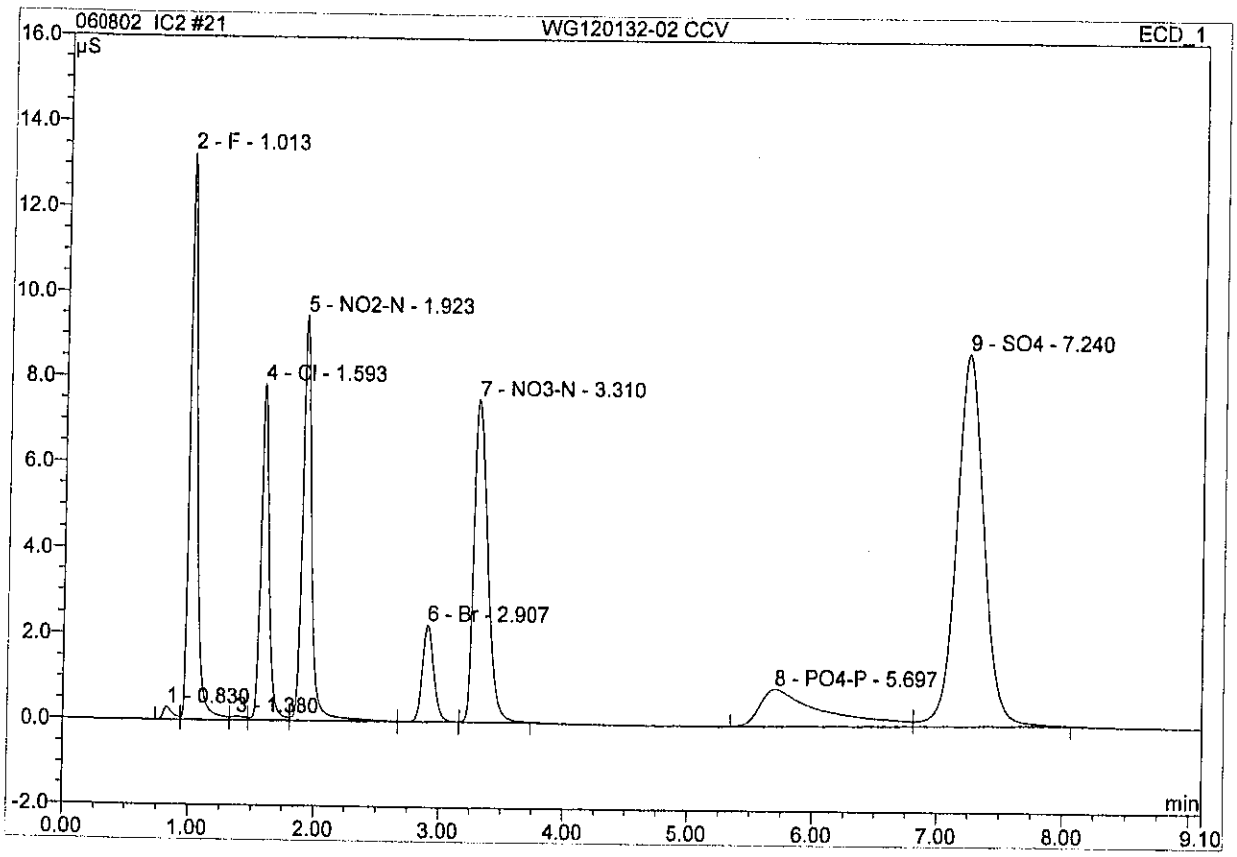
Sample Name:	**WG120132-02 CCV**		*Injection Volume:*
Vial Number:	**44**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**6/8/2002 15:48**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

WG120132-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.4265	7.11	PASS
Cl	6	6.2760	4.60	PASS
NO2-N	3.65	3.8710	6.05	PASS
Br	6	6.3389	5.65	PASS
NO3-N	4.07	4.2323	3.99	PASS
PO4-P	9.78	6.9057	-29.39	FAIL
SO4	30	31.4117	4.71	PASS

21 WG120132-02 CCV

1,1 JWR SOS0059-46 06/08/02

Sample Name:	**WG120132-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 15:48**	*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 mg/L	Type
1	0.83	n.a.	0.294	0.025	0.40	n.a.	BM
2	1.01	F	13.274	0.914	14.74	6.426	M
3	1.38	n.a.	0.078	0.010	0.16	n.a.	M
4	1.59	Cl	7.849	0.583	9.40	6.276	M
5	1.92	NO2-N	9.480	0.808	13.03	3.871	M
6	2.91	Br	2.248	0.234	3.77	6.339	MB
7	3.31	NO3-N	7.513	0.950	15.32	4.232	BMB
8	5.70	PO4-P	0.862	0.489	7.88	6.906	BM
9	7.24	SO4	8.669	2.189	35.30	31.412	MB
Total:			50.266	6.203	100.00	65.462	

36 WG120161-04 CCV

1,1 RDC SOS0060-25

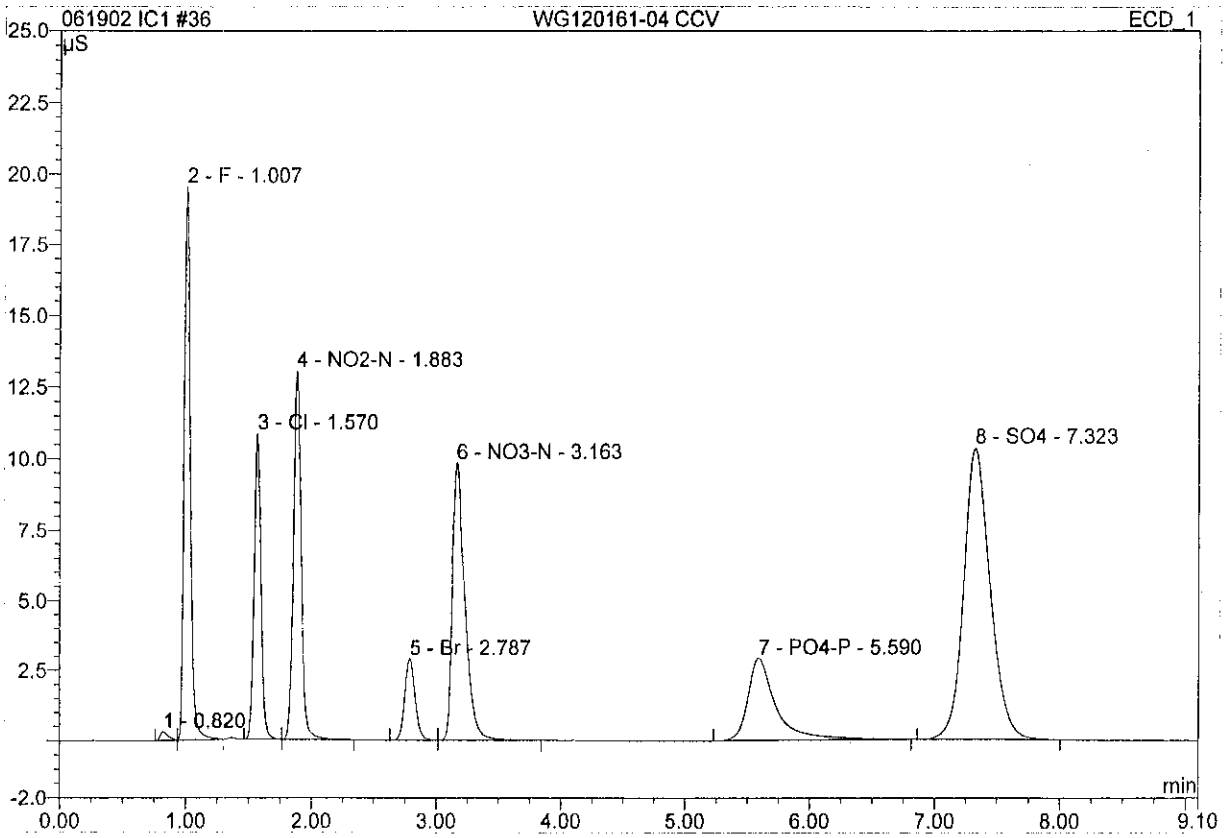
Sample Name:	**WG120161-04 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 21:32**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9777	-0.37	PASS
Cl	6	5.8535	-2.44	PASS
NO2-N	3.65	3.6223	-0.76	PASS
Br	6	6.0524	0.87	PASS
NO3-N	4.07	4.0148	-1.36	PASS
PO4-P	9.78	9.1814	-6.12	PASS
SO4	30	29.1620	-2.79	PASS

36 WG120161-04 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-04 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 21:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.302	0.023	0.30	n.a.	BM
2	1.01	F	19.532	1.112	14.79	5.978	MB
3	1.57	Cl	10.826	0.685	9.10	5.853	BM
4	1.88	NO2-N	13.019	0.946	12.57	3.622	MB
5	2.79	Br	2.900	0.278	3.69	6.052	BM
6	3.16	NO3-N	9.814	1.151	15.30	4.015	MB
7	5.59	PO4-P	2.928	0.769	10.22	9.181	BMB
8	7.32	SO4	10.320	2.560	34.03	29.162	BMB
Total:			69.641	7.523	100.00	63.864	

45 WG120161-05 CCV

1,1 RDC SOS0060-25

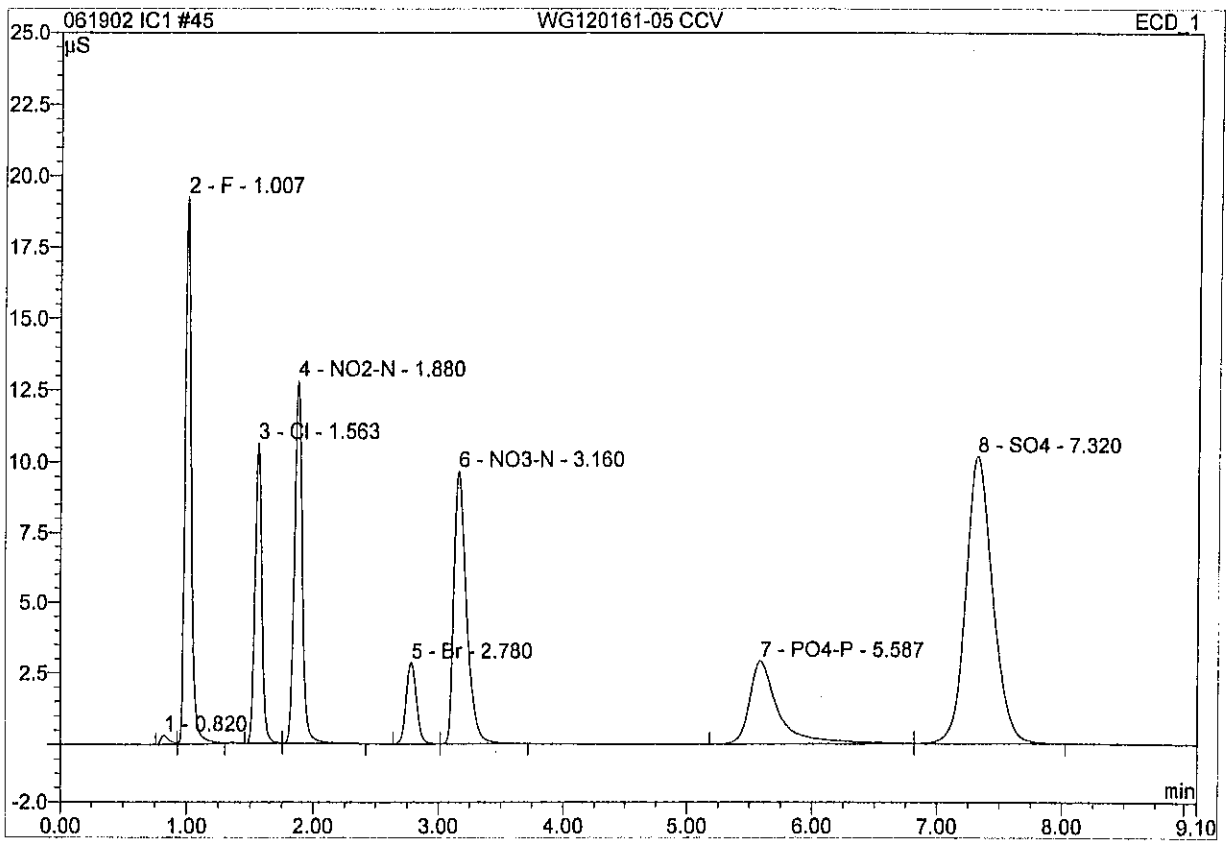
Sample Name:	**WG120161-05 CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**6/19/2002 23:16**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG120161-05 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8986	-1.69	PASS
Cl	6	5.7835	-3.61	PASS
NO2-N	3.65	3.5793	-1.94	PASS
Br	6	5.9443	-0.93	PASS
NO3-N	4.07	3.9294	-3.46	PASS
PO4-P	9.78	9.3656	-4.24	PASS
SO4	30	28.8273	-3.91	PASS

45 WG120161-05 CCV

1,1 RDC SOS0060-25

Sample Name:	**WG120161-05 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/19/2002 23:16**	*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 mg/L	Type
1	0.82	n.a.	0.313	0.023	0.31	n.a.	BM
2	1.01	F	19.250	1.097	14.74	5.899	MB
3	1.56	Cl	10.630	0.676	9.08	5.783	BM
4	1.88	NO2-N	12.795	0.934	12.55	3.579	MB
5	2.78	Br	2.849	0.273	3.66	5.944	BM
6	3.16	NO3-N	9.645	1.125	15.12	3.929	MB
7	5.59	PO4-P	2.908	0.785	10.55	9.366	BM
8	7.32	SO4	10.140	2.530	33.98	28.827	MB
Total:			68.531	7.444	100.00	63.328	

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: IC2

IC Column: AG4A-SC/AS4A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	10/30/2001	11/1/2001	11/2/2001
File #	IC2_019	IC2_022	IC2_012
Time	15:32	11:59	7:55

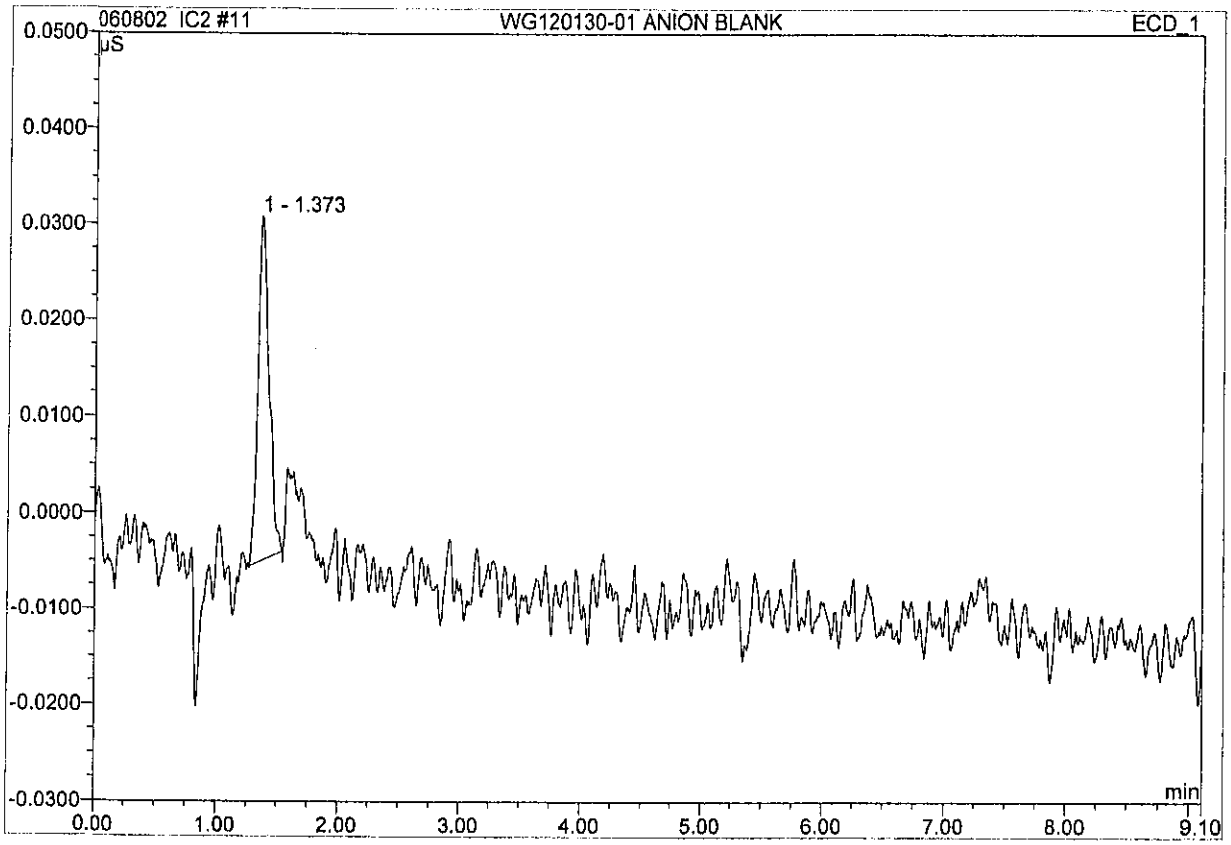
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	1.07	1.07	1.08	0.017
Cl	1.69	1.69	1.70	0.017
NO2-N	2.05	2.04	2.06	0.030
Br	3.12	3.11	3.16	0.079
NO3-N	3.55	3.53	3.58	0.075
PO4-P	5.85	5.83	5.76	0.142
SO4	7.59	7.58	7.51	0.131

2.4.5.4 Raw QC Data

11 WG120130-01 ANION BLANK

1,1 JWR 06/08/02

Sample Name:	**WG120130-01 ANION BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 13:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

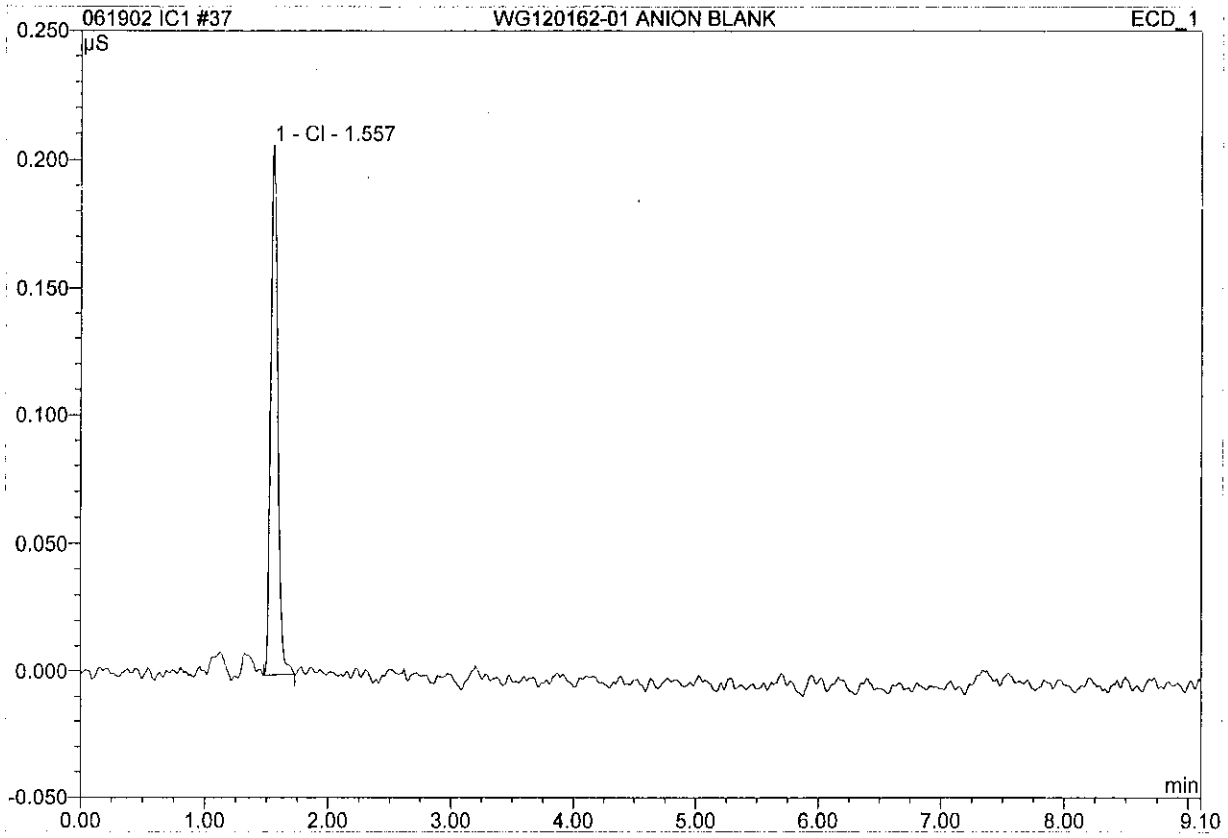


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.37	n.a.	0.036	0.004	100.00	n.a.	BMB
Total:			0.036	0.004	100.00	0.000	

37 WG120162-01 ANION BLANK

1,1 RDC

Sample Name:	**WG120162-01 ANION BLANK**	*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:	**6/19/2002 21:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

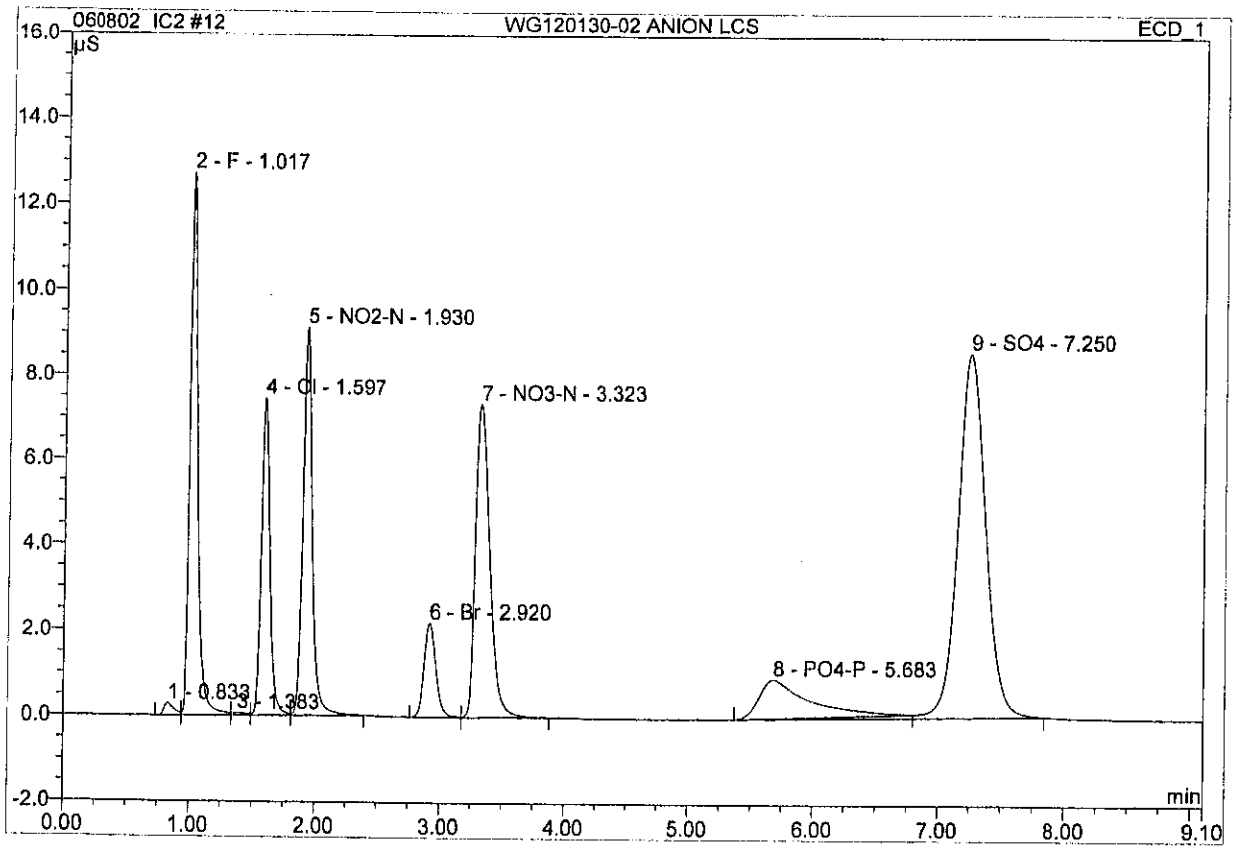


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.56	Cl	0.207	0.014	100.00	0.313	BMB
Total:			0.207	0.014	100.00	0.313	

12 WG120130-02 ANION LCS

1,1 JWR SOS0059-46 06/08/02

Sample Name:	**WG120130-02 ANION LCS**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 14:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

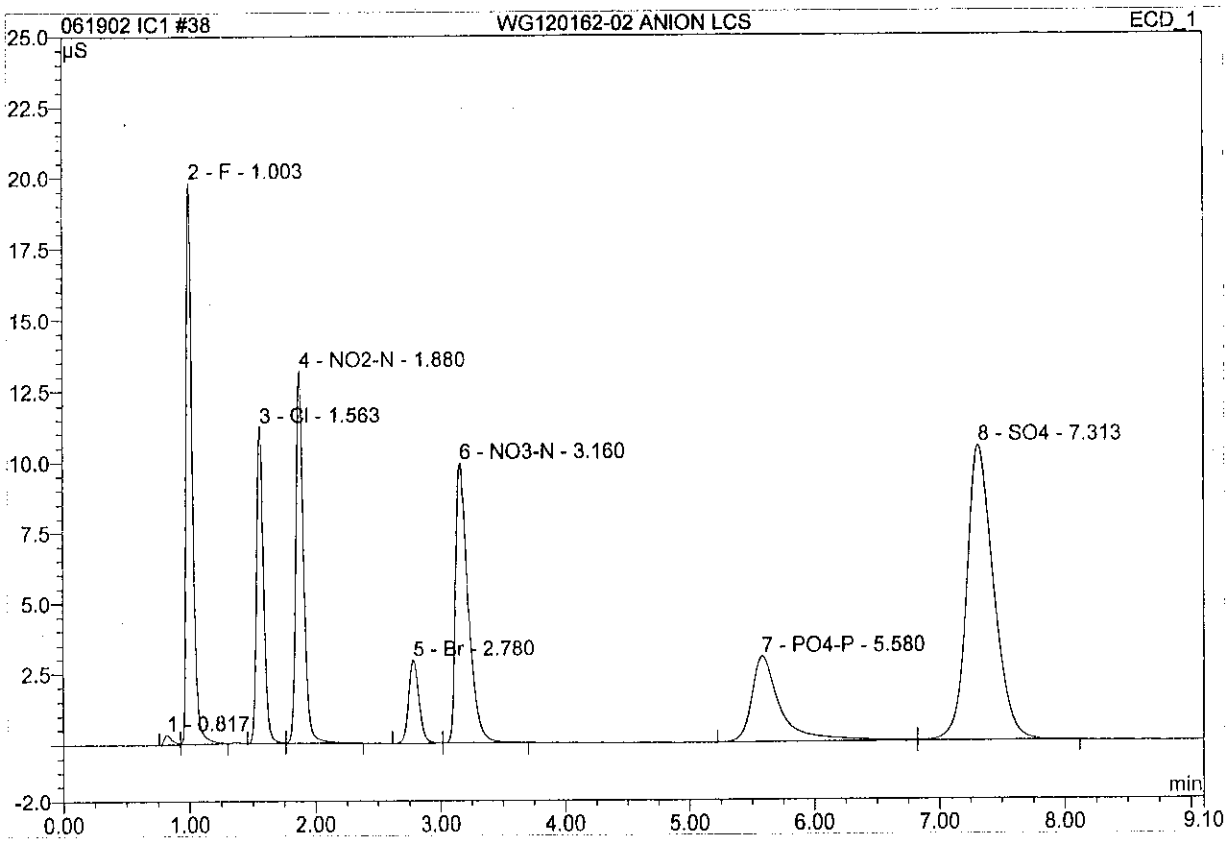


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.83	n.a.	0.285	0.025	0.41	n.a.	BM
2	1.02	F	12.728	0.919	15.00	6.456	M
3	1.38	n.a.	0.058	0.007	0.12	n.a.	M
4	1.60	Cl	7.457	0.569	9.29	6.129	M
5	1.93	NO2-N	9.130	0.784	12.81	3.759	MB
6	2.92	Br	2.193	0.235	3.83	6.360	BM
7	3.32	NO3-N	7.349	0.956	15.62	4.260	MB
8	5.68	PO4-P	0.894	0.417	6.81	5.933	Ru
9	7.25	SO4	8.547	2.212	36.11	31.722	BMB
Total:			48.643	6.125	100.00	64.619	

38 WG120162-02 ANION LCS

1,1 RDC SOS0060-25

Sample Name:	**WG120162-02 ANION LCS**	*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:	**6/19/2002 21:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

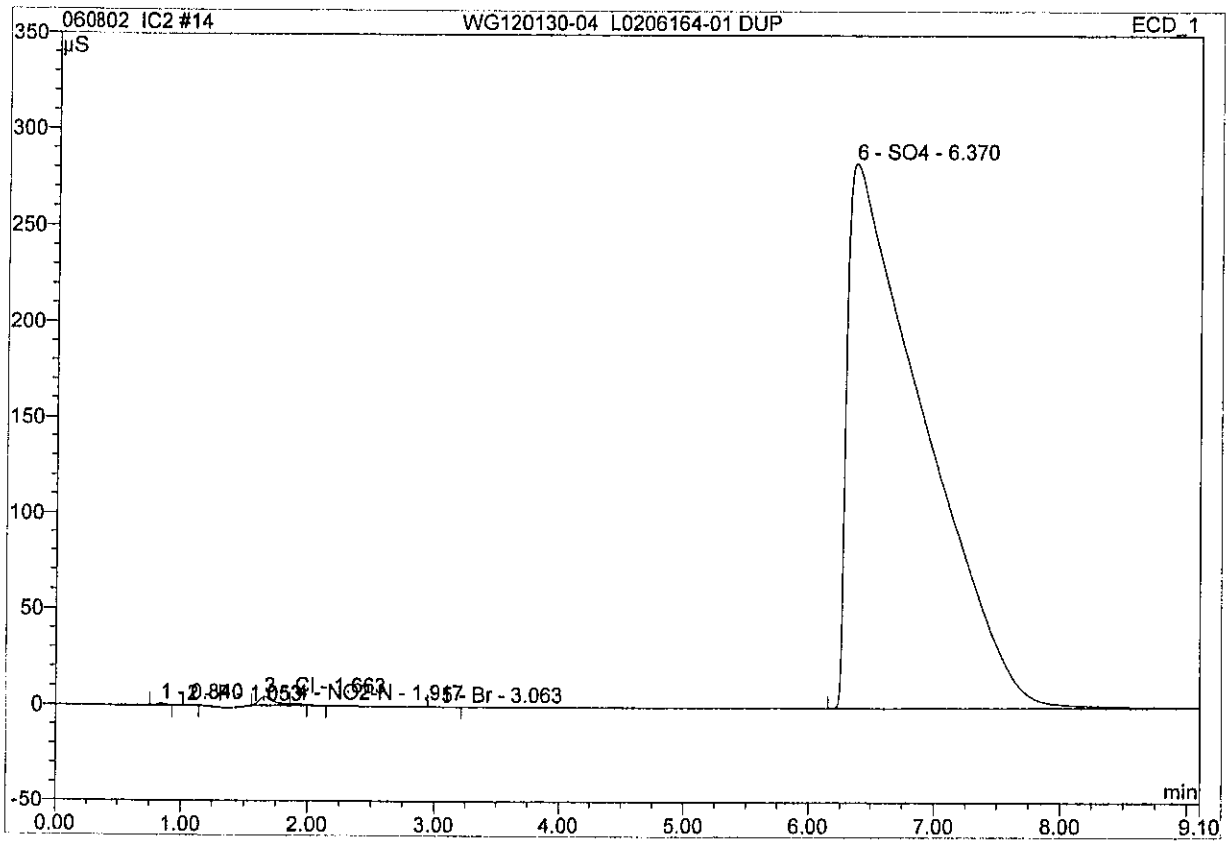


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.82	n.a.	0.325	0.024	0.32	n.a.	BM
2	1.00	F	19.804	1.130	14.70	6.071	MB
3	1.56	Cl	11.222	0.714	9.29	6.096	BM
4	1.88	NO2-N	13.146	0.961	12.50	3.679	MB
5	2.78	Br	2.927	0.281	3.65	6.121	BM
6	3.16	NO3-N	9.911	1.161	15.10	4.048	MB
7	5.58	PO4-P	3.008	0.805	10.47	9.584	BM
8	7.31	SO4	10.451	2.613	33.98	29.744	MB
Total:			70.795	7.689	100.00	65.343	

14 WG120130-04 L0206164-01 DUP

1,1 JWR DUP of L0206164-01

Sample Name:	**WG120130-04 L0206164-01 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**6/8/2002 14:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

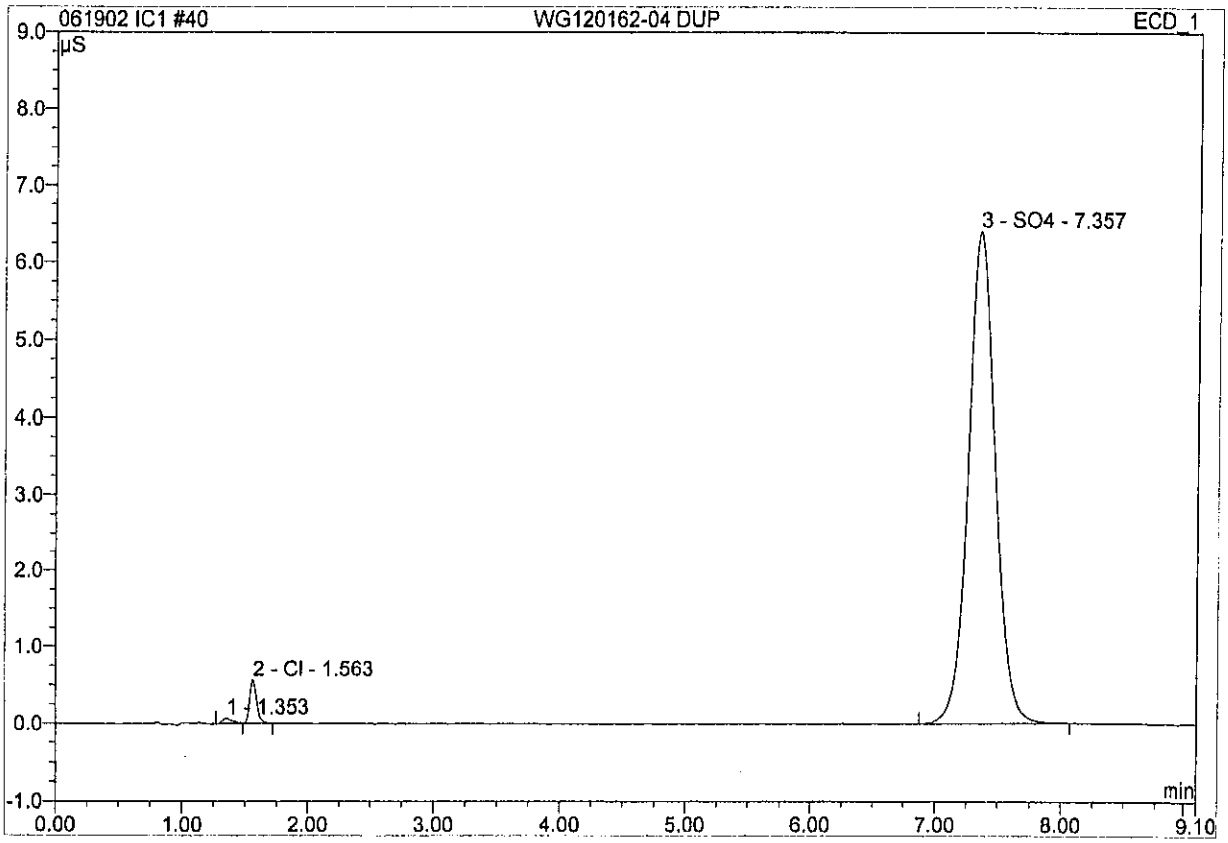


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.84	n.a.	0.807	0.057	0.03	n.a.	BM
2	1.05	F	0.164	0.011	0.01	0.229	BM
3	1.66	Cl	4.252	0.713	0.36	7.640	BMB
4	1.92	NO2-N	0.230	0.017	0.01	0.155	Rd
5	3.06	Br	0.034	0.004	0.00	0.135	BMB
6	6.37	SO4	283.251	199.233	99.60	2783.244	BMB
Total:			288.736	200.035	100.00	2791.403	

40 WG120162-04 DUP

1,100 RDC L0206164-01 DUP 100X

Sample Name:	**WG120162-04 DUP**	*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:	**6/19/2002 22:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.35	n.a.	0.061	0.005	0.33	n.a.	Ru
2	1.56	Cl	0.558	0.038	2.31	0.511	BMB
3	7.36	SO4	6.400	1.595	97.37	18.558	BMB
Total:			7.019	1.638	100.00	19.068	

X100

Sequence: 060802 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 37

Created: 6/8/2002 13:28:00 by Analyst
Last Update: 6/19/2002 12:43:17 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	5/21/2002 17:13:47
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	5/21/2002 17:25:17
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	5/21/2002 17:36:47
4	ANION STD #4	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:48:17
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	5/21/2002 17:59:47
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	5/21/2002 18:11:17
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	5/21/2002 18:30:18
8	ANION ALT STD	Unknown	36	25.0	9056	9056	Finished	5/21/2002 18:41:48
9	ELUENT BLANK	Unknown	44	25.0	9056	9056	Finished	6/8/2002 13:30:53
10	WG120132-01 CCV √	Unknown	41	25.0	9056	9056	Finished	6/8/2002 13:42:23
11	WG120130-01 ANION BLANK	Unknown	43	25.0	9056	9056	Finished	6/8/2002 13:53:53
12	WG120130-02 ANION LCS	Unknown	43	25.0	9056	9056	Finished	6/8/2002 14:05:23
13	WG120130-03 L0206164-01 REF	Unknown	44	25.0	9056	9056	Finished	6/8/2002 14:16:54
14	WG120130-04 L0206164-01 DUP	Unknown	44	25.0	9056	9056	Finished	6/8/2002 14:28:24
15	L0206164-02	Unknown	45	25.0	9056	9056	Finished	6/8/2002 14:39:53
16	L0206164-03	Unknown	44	25.0	9056	9056	Finished	6/8/2002 14:51:23
17	QC-MRL	Unknown	44	25.0	9056	9056	Finished	6/8/2002 15:02:53
18	L0205665-01 RR@1/5CL	Unknown	43	25.0	9056	9056	Finished	6/8/2002 15:14:23
19	L0205665-03 RR@1/4CL	Unknown	44	25.0	9056	9056	Finished	6/8/2002 15:25:54
20	L0205665-05 RR@1/2CL	Unknown	43	25.0	9056	9056	Finished	6/8/2002 15:37:24
21	WG120132-02 CCV √	Unknown	44	25.0	9056	9056	Finished	6/8/2002 15:48:53
22	L0205665-07 RR@1/2CL	Unknown	45	25.0	9056	9056	Finished	6/8/2002 16:00:24
23	L0205665-09 RR@1/2CL	Unknown	46	25.0	9056	9056	Finished	6/8/2002 16:11:54
24	L0205665-11 RR@1/100CL	Unknown	46	25.0	9056	9056	Finished	6/8/2002 16:23:24
25	L0205665-11 RR@1/1000CL	Unknown	47	25.0	9056	9056	Finished	6/8/2002 16:34:54
26	L0206006-01 RR@1/4CL	Unknown	45	25.0	9056	9056	Finished	6/8/2002 16:51:12
27	L0206006-02 RR@1/4CL	Unknown	46	25.0	9056	9056	Finished	6/8/2002 17:02:42
28	QC-MRL	Unknown	47	25.0	9056	9056	Finished	6/8/2002 17:14:12
29	L0206127-01	Unknown	47	25.0	9056	9056	Finished	6/8/2002 17:25:42
30	WG120130-05 L0206127-03 REF	Unknown	48	25.0	9056	9056	Finished	6/8/2002 17:37:12
31	WG120130-06 L0206127-03 MS	Unknown	48	25.0	9056	9056	Finished	6/8/2002 17:48:42
32	WG120132-03 CCV	Unknown	46	25.0	9056	9056	Finished	6/8/2002 18:00:12
33	WG120130-07 L0206127-03 MSD	Unknown	47	25.0	9056	9056	Finished	6/8/2002 18:11:42
34	L0206127-01 RR@1/10CL	Unknown	56	25.0	9056	9056	Finished	6/8/2002 18:23:12
35	L0206127-03 RR@1/10CL	Unknown	57	25.0	9056	9056	Finished	6/8/2002 18:34:41
36	WG120132-04 CCV	Unknown	57	25.0	9056	9056	Finished	6/8/2002 18:46:11
37	END	Unknown	41	25.0	DX-320 OFF	9056	Finished	6/8/2002 18:57:41

Sequence: 060802 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 37

Created: 6/8/2002 13:28:00 by Analyst
Last Update: 6/19/2002 12:43:17 by Analyst

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
2	ANION STD #2	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
3	ANION STD #3	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
4	ANION STD #4	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
5	ANION STD #5	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
6	ANION STD #6	1.0000		1,1 RDC ANION STD SOS0059-46 ✓
7	ELUENT BLANK	1.0000		1,1 RDC ✓
8	ANION ALT STD	1.0000		1,1 RDC ANION ALT STD SOS0059-44 ✓
9	ELUENT BLANK	1.0000		1,1 JWR ✓
10	WG120132-01 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 cc PO4-P low
11	WG120130-01 ANION BLANK	1.0000		1,1 JWR 06/08/02 ✓
12	WG120130-02 ANION LCS	1.0000		1,1 JWR SOS0059-46 06/08/02 ✓
13	WG120130-03 L0206164-01 REF	1.0000		1,1 JWR REF for DUP RR (PO4)
14	WG120130-04 L0206164-01 DUP	1.0000		1,1 JWR DUP of L0206164-01 ✓
15	L0206164-02	1.0000		1,1 JWR RR PO4
16	L0206164-03	1.0000		1,1 JWR RR PO4
17	QC-MRL	1.0000		1,1 JWR SOS0059-46 06/08/02 ✓
18	L0205665-01 RR@1/5CL	1.0000		1,5 JWR ✓
19	L0205665-03 RR@1/4CL	1.0000		1,4 JWR ✓
20	L0205665-05 RR@1/2CL	1.0000		1,2 JWR ✓ Not needed
21	WG120132-02 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 cc PO4-P low
22	L0205665-07 RR@1/2CL	1.0000		1,2 JWR ✓ Not Needed
23	L0205665-09 RR@1/2CL	1.0000		1,2 JWR ✓
24	L0205665-11 RR@1/100CL	1.0000		1,100 JWR ✓ RR 1000
25	L0205665-11 RR@1/1000CL	1.0000		1,1000 JWR ✓
26	L0206006-01 RR@1/4CL	1.0000		1,4 JWR ✓
27	L0206006-02 RR@1/4CL	1.0000		1,4 JWR ✓
28	QC-MRL	1.0000		1,1 JWR SOS0059-46 06/08/02 ✓
29	L0206127-01	1.0000		1,1 JWR ✓ RR 10
30	WG120130-05 L0206127-03 REF	1.0000		1,1 JWR REF for MS/MSD ✓ RR 10
31	WG120130-06 L0206127-03 MS	1.0000		1,1 JWR MS of L0206127-03 ✓
32	WG120132-03 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 cc PO4-P low
33	WG120130-07 L0206127-03 MSD	1.0000		1,1 JWR MSD of L0206127-03 ✓
34	L0206127-01 RR@1/10CL	1.0000		1,10 JWR ✓
35	L0206127-03 RR@1/10CL	1.0000		1,10 JWR ✓
36	WG120132-04 CCV	1.0000		1,1 JWR SOS0059-46 06/08/02 cc PO4-P low
37	END	1.0000		1,1 JWR

RLC 6/19/02
6/19/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time June 8, 2002 **Instrument ID** IC 2 **Column ID** AG4A-SC / AS4A-SC **Data Subdirectory** 060802
Analyst Initials JWZ **SOP # IC01 Rev. #** 2 / 9056 **SOP # IC02 Rev. #** ___ / 314.0

Daily Check
- [x] Mobile phase reservoir
- [x] System pressure 1280 psi
- [x] Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

PO4-P failed low on all CCVs. Column was fouled with metals (Fe).
L0206164-01, 02, 03 need reanalysis for PO4-P

Reviewed By: [signature] 6/19/02

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	Anion std. #1	Standard	1	25.0	9056	9056	Finished	6/18/2002 15:41:21
2	Anion std. #2	Standard	2	25.0	9056	9056	Finished	6/18/2002 15:52:52
3	Anion std. #3	Standard	3	25.0	9056	9056	Finished	6/18/2002 16:04:23
4	Anion std. #4	Standard	4	25.0	9056	9056	Finished	6/18/2002 16:15:53
5	Anion std. #5	Standard	5	25.0	9056	9056	Finished	6/18/2002 16:27:24
6	Anion std. #6	Standard	6	25.0	9056	9056	Finished	6/18/2002 16:38:55
7	eluent blank	Unknown	9	25.0	9056	9056	Finished	6/18/2002 16:52:46
8	Alt anion std.	Unknown	8	25.0	9056	9056	Finished	6/18/2002 18:09:19
9	DI H2O	Unknown	12	25.0	9056	9056	Finished	6/19/2002 16:21:25
10	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:32:56
11	WG120161-01 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 16:44:26
12	WG120157-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 16:55:57
13	WG120157-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 17:07:28
14	WG120157-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 17:19:36
15	WG120157-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 17:31:07
16	L0206334-06 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:42:37
17	L0206334-07 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 17:54:08
18	L0206334-08 9056W	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:05:39
19	WG120161-02 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 18:17:09
20	WG120157-05 REF for MS/MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:28:40
21	WG120157-06 MS	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:40:10
22	WG120157-07 MSD	Unknown	16	25.0	9056	9056	Finished	6/19/2002 18:51:41
23	L0206140-01 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:03:11
24	L0206140-02 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:14:42
25	L0206140-06 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:26:13
26	L0206140-08 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:37:43
27	L0206140-09 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 19:49:13
28	L0206140-10 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:00:44
29	L0206140-12 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:12:14
30	WG120161-03 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 20:23:45
31	L0206140-13 9056W RR	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:35:16
32	L0206140-03 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:46:47
33	L0206140-04 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 20:58:18
34	L0206140-05 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:09:48
35	L0206140-11 @ 100X	Unknown	11	25.0	9056	9056	Finished	6/19/2002 21:21:19
36	WG120161-04 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 21:32:50
37	WG120162-01 ANION BLANK	Unknown	14	25.0	9056	9056	Finished	6/19/2002 21:44:20
38	WG120162-02 ANION LCS	Unknown	10	25.0	9056	9056	Finished	6/19/2002 21:55:51
39	WG120162-03 REF for DUP	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:07:21
40	WG120162-04 DUP	Unknown	12	25.0	9056	9056	Finished	6/19/2002 22:18:52
41	WG120162-05 REF for MS/MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:30:23
42	WG120162-06 MS	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:41:53

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
1	Anion std. #1	1.0000	1.0000	1.0000		
2	Anion std. #2	1.0000	1.0000	1.0000		
3	Anion std. #3	1.0000	1.0000	1.0000		
4	Anion std. #4	1.0000	1.0000	1.0000		
5	Anion std. #5	1.0000	1.0000	1.0000		
6	Anion std. #6	1.0000	1.0000	1.0000		
7	eluent blank	1.0000	1.0000	1.0000		
8	Alt anion std.	1.0000	1.0000	1.0000		
9	DI H2O	1.0000	1.0000	1.0000		
10	ELUENT BLANK	1.0000	1.0000	1.0000		
11	WG120161-01 CCV	1.0000	1.0000	1.0000		
12	WG120157-01 ANION BLANK	1.0000	1.0000	1.0000		
13	WG120157-02 ANION LCS	1.0000	1.0000	1.0000		
14	WG120157-03 REF for DUP	1.0000	1.0000	1.0000		
15	WG120157-04 DUP	1.0000	1.0000	1.0000		
16	L0206334-06 9056W	1.0000	1.0000	1.0000		
17	L0206334-07 9056W	1.0000	1.0000	1.0000		
18	L0206334-08 9056W	1.0000	1.0000	1.0000		
19	WG120161-02 CCV	1.0000	1.0000	1.0000		
20	WG120157-05 REF for MS/MSD	1.0000	1.0000	1.0000		
21	WG120157-06 MS	1.0000	1.0000	1.0000		
22	WG120157-07 MSD	1.0000	1.0000	1.0000		
23	L0206140-01 9056W RR	1.0000	1.0000	1.0000		
24	L0206140-02 9056W RR	1.0000	1.0000	1.0000		
25	L0206140-06 9056W RR	1.0000	1.0000	1.0000		
26	L0206140-08 9056W RR	1.0000	1.0000	1.0000		
27	L0206140-09 9056W RR	1.0000	1.0000	1.0000		
28	L0206140-10 9056W RR	1.0000	1.0000	1.0000		
29	L0206140-12 9056W RR	1.0000	1.0000	1.0000		
30	WG120161-03 CCV	1.0000	1.0000	1.0000		
31	L0206140-13 9056W RR	1.0000	1.0000	1.0000		
32	L0206140-03 @ 100X	1.0000	1.0000	1.0000		
33	L0206140-04 @ 100X	1.0000	1.0000	1.0000		
34	L0206140-05 @ 100X	1.0000	1.0000	1.0000		
35	L0206140-11 @ 100X	1.0000	1.0000	1.0000		
36	WG120161-04 CCV	1.0000	1.0000	1.0000		
37	WG120162-01 ANION BLANK	1.0000	1.0000	1.0000		
38	WG120162-02 ANION LCS	1.0000	1.0000	1.0000		
39	WG120162-03 REF for DUP	1.0000	1.0000	1.0000		
40	WG120162-04 DUP	1.0000	1.0000	1.0000		
41	WG120162-05 REF for MS/MSD	1.0000	1.0000	1.0000		
42	WG120162-06 MS	1.0000	1.0000	1.0000		

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
1	Anion std. #1	1,1 RDC SOS0060-25
2	Anion std. #2	1,1 RDC SOS0060-25
3	Anion std. #3	1,1 RDC SOS0060-25
4	Anion std. #4	1,1 RDC SOS0060-25
5	Anion std. #5	1,1 RDC SOS0060-25
6	Anion std. #6	1,1 RDC SOS0060-25
7	eluent blank	1,1 RDC
8	Alt anion std.	1,1 RDC SOS0060-31
9	DI H2O	1,1 RDC
10	ELUENT BLANK	1,1 RDC
11	WG120161-01 CCV	1,1 RDC SOS0060-25
12	WG120157-01 ANION BLANK	1,1 RDC
13	WG120157-02 ANION LCS	1,1 RDC SOS0060-25
14	WG120157-03 REF for DUP	1,1 RDC L0206334-05 REF
15	WG120157-04 DUP	1,1 RDC L0206334-05 DUP
16	L0206334-06 9056W	1,1 RDC
17	L0206334-07 9056W	1,1 RDC
18	L0206334-08 9056W	1,1 RDC
19	WG120161-02 CCV	1,1 RDC SOS0060-25
20	WG120157-05 REF for MS/MSD	1,1 RDC L0206140-07 REF (RR)
21	WG120157-06 MS	1,1 RDC L0206140-17 MS(RR)
22	WG120157-07 MSD	1,1 RDC L0206140-18 MSD (RR)
23	L0206140-01 9056W RR	1,1 RDC
24	L0206140-02 9056W RR	1,1 RDC
25	L0206140-06 9056W RR	1,1 RDC
26	L0206140-08 9056W RR	1,1 RDC
27	L0206140-09 9056W RR	1,1 RDC
28	L0206140-10 9056W RR	1,1 RDC
29	L0206140-12 9056W RR	1,1 RDC
30	WG120161-03 CCV	1,1 RDC SOS0060-25
31	L0206140-13 9056W RR	1,1 RDC
32	L0206140-03 @ 100X	1,100 RDC
33	L0206140-04 @ 100X	1,100 RDC
34	L0206140-05 @ 100X	1,100 RDC
35	L0206140-11 @ 100X	1,100 RDC
36	WG120161-04 CCV	1,1 RDC SOS0060-25
37	WG120162-01 ANION BLANK	1,1 RDC
38	WG120162-02 ANION LCS	1,1 RDC SOS0060-25
39	WG120162-03 REF for DUP	1,100 RDC L0206164-01 REF 100X
40	WG120162-04 DUP	1,100 RDC L0206164-01 DUP 100X
41	WG120162-05 REF for MS/MSD	1,100 RDC L0206164-02 REF 100X
42	WG120162-06 MS	1,100 RDC L0206164-02 MS 100X

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	WG120162-07 MSD	Unknown	11	25.0	9056	9056	Finished	6/19/2002 22:53:24
44	L0206164-03 @ 100X	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:04:55
45	WG120161-05 CCV	Unknown	13	25.0	9056	9056	Finished	6/19/2002 23:16:25
46	end	Unknown	13	25.0	System Off	9056	Finished	6/19/2002 23:27:56

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46

Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID
43	WG120162-07 MSD	1.0000	1.0000	1.0000		
44	L0206164-03 @ 100X	1.0000	1.0000	1.0000		
45	WG120161-05 CCV	1.0000	1.0000	1.0000		
46	end	1.0000	1.0000	1.0000		

Title:
Datasource: IC DELL_local
Location: DX-500\DX-500 Sequence Files
Timebase: DX-500
#Samples: 46
Created: 6/19/2002 14:52:43 by Analyst
Last Update: 6/19/2002 17:19:36 by <CmServer>

No.	Name	Comment
43	WG120162-07 MSD	1,100 RDC L0206164-02 MSD 100X
44	L0206164-03 @ 100X	1,100 RDC
45	WG120161-05 CCV	1,1 RDC SOS0060-25
46	end	1,1 RDC

AP C 6/20/02

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time June 19, 2002 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 061902
Analyst Initials RDC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1129 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0206140 & L0206164 SDGs are RR out of holding time for PO_4-P

06-140-03, 04, 05, & 4
06-164-01, 02, & 03
> RR was @ 100x dil'n. due to the extreme amt. of Fe

RDC 6/20/02

Reviewed By: ____

Semi-Volatile 9056 Checklist

Run Date: 6/8/2002

Analyst: JWR

Instrument: IC2

	Workorders:	Due Date:	Priority:
(dil'n.)	WG120130 05-665	6/14/2002	
(dil'n.)	WG120130 06-006	6/17/2002	
	WG120130 06-127	6/17/2002	
	WG120130 06-164	6/17/2002	

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	
Data Package:	Level 2	
	Level 3	
	Level 4	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

All CCVs failed low for PO4-P. This calibration failure can be attributed to metals (Fe) contamination from particular sample fractions.

LCS recovered below advisory limit for PO4-P

L0206164-01, 02, & 03 will be re-analyzed out of holding time for PO4-P.

L0205665-01, 03, & 11
L0206006-01 & 02
Cl "F" flagged.
Dil'n. was required but high RDL resulted in values <RL.

Primary Reviewer: RJEC 6/19/02

Secondary Reviewer: 6/19/02

Supervisor Review: 6/19/02

Semi-Volatile 9056 Checklist

Run Date: 6/19/2002

Analyst: RDC

Instrument: IC1

Workorders:	Due Date:	Priority:
WG120157 06-140	6/14/2002	
WG120157 06-334	6/26/2002	A2
WG120162 06-164	6/17/2002	

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	
Data Package:	Level 2	
	Level 3	
	Level 4	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Π = Checked & OK

NA = Not Applicable

Comments:

L0206334-08 needs re-analyzed @ 2X.

L0206140 & L0206164 SDGs are RR out of holding time for PO4-P. Several samples known to be high in iron were analyzed at 100X. Previously analysis of these samples fouled the column and resulted in low recovery of PO4-P standards.

Non client MS/MSD yielded high recoveries for SO4.

Primary Reviewer: RDC 6/20/02

Secondary Reviewer: 6/24/02

Supervisor Review: 6/24/02

Example 9056 Calculations

1.0 Software determines Linear Regression and area counts by the following calculation through operator entered concentrations:

Where: area=slope(concentration)+offset

area in uS/min. of the compound being measured in the standard
slope(concentration)+offset = Concentration of the compound being measured (mg/ml).

2.0 Calculating the concentration of an anion in water using (area-(offset)/slope:

amt=(area-(offset)/slope

Area of the compound being measured in uS/min.
Offset = axis of chromatogram corresponding to calibration table
Slope = the ascending calib.curve where amt/area=slope (linear regression).

Where: amt = area 0.382-(offset -0.0113)/slope 0.0622

0.382-(-0.0113)/0.0622= 6.323