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"FIRST QUARTER 2002 OPERATIONS AND MAINTENANCE STATUS REPORT FOR NUTRIENT INJECTION SYSTEM AT BUILDING 46 FORMER TANKS 46R, 46D, 46SUL AND 46UL NAS CECIL FIELD FL"

7/1/2002

CH2MHILL CONSTRUCTORS INC

First Quarter 2002 Operations and Maintenance Status Report

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

January 1, 2002 – March 31, 2002

Naval Air Station Cecil Field Jacksonville, Florida

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

Submitted to:

U.S. Naval Facilities Engineering Command Southern Division

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Acronym List

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

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) has been contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (Southern Division, NAVFAC), to provide Operation and Maintenance (O&M) services at Building 46, NAS Cecil Field, Jacksonville, Florida, under the Remedial Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002 and subsequently 0062. The purpose of this First Quarter 2002 O&M Report is to provide a summary of activities performed at the site during the period of January 1, 2002, to March 31, 2002.

1.1 Objective

The objective of the remedial action at the Building 46 site is to reduce the concentrations of petroleum-related contaminants in the groundwater and unsaturated soils to target levels specified by Florida Administrative Code (FAC) 62-777. Nutrient injection using the PHOSter nutrient injection system is the technology used 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 as 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 their contents are unknown. They were located just south of Building 46 (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.

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. Towards the end of cleanup operations, when contaminant concentrations have been reduced to the point where insufficient food (contaminant) is available to sustain an effective microorganism population, propane will also be injected as a carbon source (TtNUS June 2000).

The Building 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 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

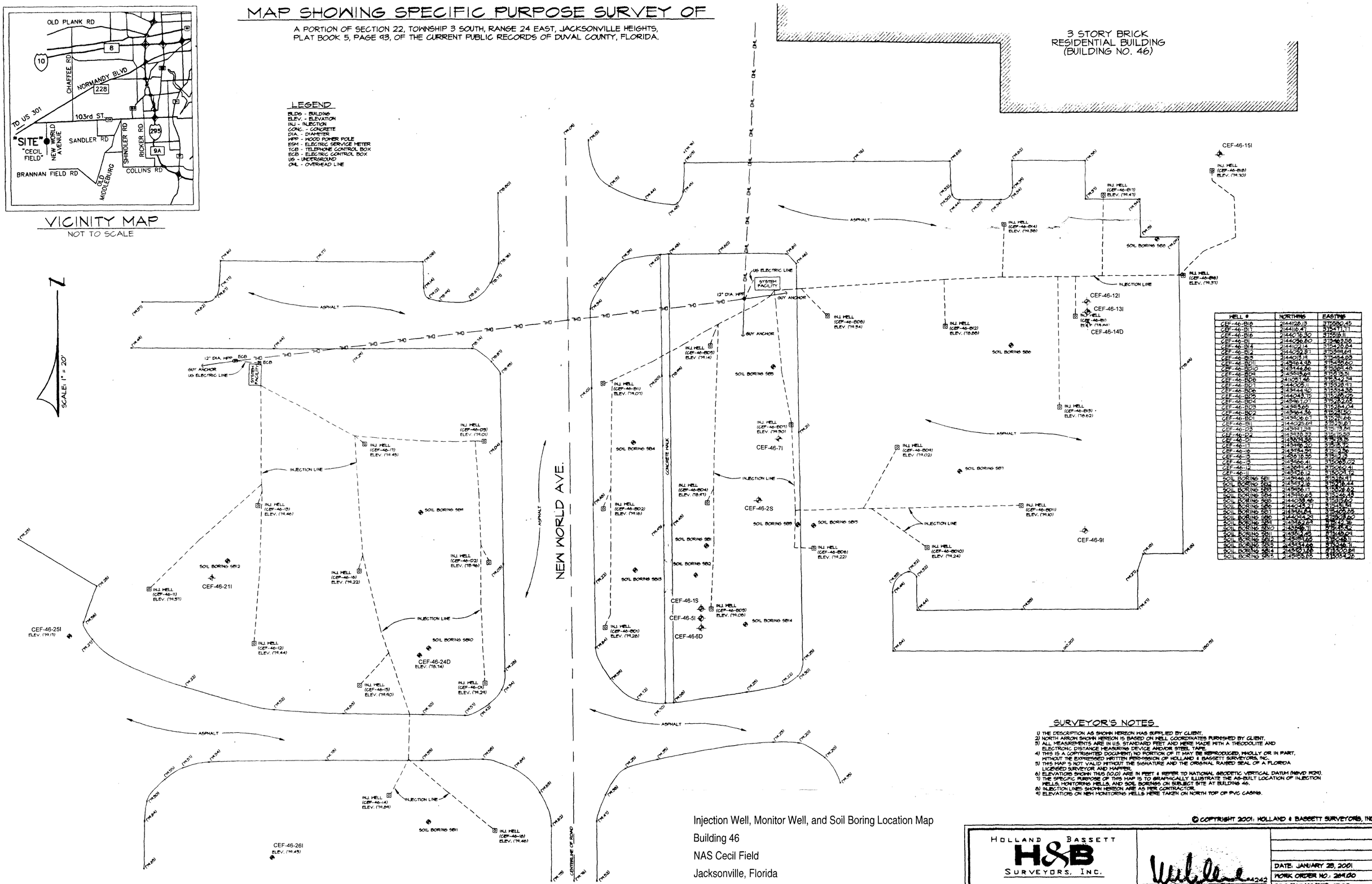
A PORTION OF SECTION 22, TOWNSHIP 3 SOUTH, RANGE 24 EAST, JACKSONVILLE HEIGHTS, PLAT BOOK 5, PAGE 93, OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA.

VICINITY MAP

NOT TO SCALE

LEGEND

BLDG - BUILDING
ELEV. - ELEVATION
INJ - INJECTION
CONC. - CONCRETE
DIA. - DIAMETER
WPP - 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-B18	2144128.13	375580.45
CEF-46-B17	2144116.47	375477.17
CEF-46-B16	2144016.30	375518.11
CEF-46-B1	2144298.80	375463.56
CEF-46-B14	2144129.14	375428.84
CEF-46-B12	2144092.57	375348.64
CEF-46-B13	2144013.19	375454.83
CEF-46-B21	2143964.36	375490.60
CEF-46-B10	2143944.86	375391.46
CEF-46-B24	2143918.49	375418.51
CEF-46-B28	2143857.46	375342.54
CEF-46-B31	2144005.11	375328.47
CEF-46-B06	2143944.90	375332.36
CEF-46-B25	2144043.75	375286.02
CEF-46-B04	2143967.07	375282.08
CEF-46-B23	2143915.65	375284.04
CEF-46-B02	2143964.36	375241.50
CEF-46-B01	2143906.67	375231.66
CEF-46-B11	2144022.09	375231.87
CEF-46-D3	2143947.38	375175.84
CEF-46-D2	2143938.93	375175.53
CEF-46-D7	2143978.36	375119.76
CEF-46-17	2143988.40	375116.46
CEF-46-16	2143984.93	375112.56
CEF-46-13	2143978.55	375112.13
CEF-46-13	2143966.41	375063.02
CEF-46-12	2143949.45	375020.41
CEF-46-11	2143926.12	375021.12
SOIL BORING 581	2143946.16	375261.47
SOIL BORING 582	2143939.16	375218.44
SOIL BORING 583	2143956.13	375182.22
SOIL BORING 584	2143966.65	375149.48
SOIL BORING 585	2144028.46	375310.62
SOIL BORING 586	2144047.47	375415.81
SOIL BORING 587	2143981.24	375425.02
SOIL BORING 588	2144014.24	375508.80
SOIL BORING 589	2143962.69	375529.36
SOIL BORING 590	2143958.71	375582.62
SOIL BORING 591	2143914.49	375145.04
SOIL BORING 592	2143884.42	375048.11
SOIL BORING 593	2143911.48	375038.11
SOIL BORING 594	2143902.28	375040.84
SOIL BORING 595	2143936.83	375054.32

SURVEYOR'S NOTES

1) THE DESCRIPTION AS SHOWN HEREON WAS SUPPLIED BY CLIENT.
2) NORTH ARROW SHOWN HEREON IS BASED ON WELL COORDINATES FURNISHED BY CLIENT.
3) ALL MEASUREMENTS ARE IN U.S. STANDARD FEET AND WERE MADE WITH A THEODOLITE AND ELECTRONIC DISTANCE MEASURING DEVICE AND/OR STEEL TAPE.
4) THIS IS A COPYRIGHTED DOCUMENT, NO PORTION OF IT MAY BE REPRODUCED, WHOLLY OR IN PART, WITHOUT THE EXPRESSED WRITTEN PERMISSION OF HOLLAND & BASSETT SURVEYORS, INC.
5) THIS MAP IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
6) ELEVATIONS SHOWN THUS (10.0) ARE IN FEET & REFER TO NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
7) THE SPECIFIC PURPOSE OF THIS MAP IS TO GRAPHICALLY ILLUSTRATE THE AS-BUILT LOCATION OF INJECTION WELLS, MONITORING WELLS, AND SOIL BORINGS ON SUBJECT SITE AT BUILDING 46.
8) INJECTION LINES SHOWN HEREON ARE AS PER CONTRACTOR.
9) ELEVATIONS ON NEW MONITORING WELLS WERE TAKEN ON NORTH TOP OF PVC CASING.

Injection Well, Monitor Well, and Soil Boring Location Map
Building 46
NAS Cecil Field
Jacksonville, Florida

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CHARLES R. BASSETT, JR.
FL REGISTRATION NO. 4841

DATE: JANUARY 28, 2001
WORK ORDER NO.: 264.00
PROJECT NUMBER: 17100
SHEET 1 OF 1
DRAWING NO.: D-17100

2.0 System Performance Monitoring

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

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

2.1 Operational Efficiencies

2.1.1 Nutrient Injection System (West System)

	Period	To Date
Hours of Possible Operation:	2,160	10,512
Hours of Actual Operation:	2,060	9,002
Percent Hours of Operation:	95.4	85.6

2.1.2 Nutrient Injection System (East System)

	Period	To Date
Hours of Possible Operation:	2,160	10,512
Hours of Actual Operation:	2,060	8462
Percent Hours of Operation:	95.4	80.5

2.2 Summary of Maintenance and System Downtime

2.2.1 Nutrient Injection System - West

During the period of January 1, 2002, to March 31, 2002, the west nutrient injection system ran a total of 85.8 days out of a possible 90 days, experiencing 100 hours of down time. The system down time was the result of manually shutting down the system from March 15, 2002, to March 19, 2002, to perform the first quarter 2002 groundwater sampling event and data collection.

2.2.2 Nutrient Injection System - East

During the period of January 1, 2002, to March 31, 2002, the east nutrient injection system ran a total of 85.8 days out of a possible 90 days, experiencing 100 hours of down time. The

system down time was the result of manually shutting down the system from March 15, 2002, to March 19, 2002, to perform the first 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 first quarter of 2002, the injection pressure at the compressors averaged 43.3 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 12.0 actual cubic feet per minute (acfm) for Leg #1 and 7.0 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 1.07 actual cubic feet per hour (acfh), which is 0.09 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 first quarter of 2002 could not be quantified due to excessive condensation buildup in the TEP reservoir tank; however, the TEP injection mass for January 2002 was 1.78 pounds. The design injection mass is 99 pounds per year. The data for the injection wells and injection system are tabulated on 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 first year of operation, the injection pressure at the compressors averaged 44.0 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 19.7 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 1.83 acfh, which is 0.08 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 first quarter of 2002 totaled 3.57 pounds, compared to the design injection mass of 171 pounds per year. The data for the injection wells and injection system are provided on 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
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

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
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
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

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
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
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

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
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

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
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
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

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
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

NA = Not Available

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	NA

NA = Not Available
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI1	01/19/2001	100	1.5
(Leg #2)	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
CEF-46-BI2	01/19/2001	100	1.75
(Leg #1)	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI3	01/19/2001	100	1.75
(Leg #1)	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
CEF-46-BI4	01/19/2001	100	1.75
(Leg #1)	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI5	01/19/2001	100	1.75
(Leg #1)	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
CEF-46-BI6	01/19/2001	100	1.75
(Leg #1)	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI7	01/19/2001	100	1.75
(Leg #1)	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
CEF-46-BI8	01/19/2001	100	1.75
(Leg #1)	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD1	01/19/2001	100	1.5
(Leg #2)	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
CEF-46-BD2	01/19/2001	100	1.5
(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	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD3	01/19/2001	100	1.5
(Leg #2)	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
CEF-46-BD4	01/19/2001	100	1.5
(Leg #2)	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD5	01/19/2001	100	1.5
(Leg #2)	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
CEF-46-BD6	01/19/2001	100	1.5
(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	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD7	01/19/2001	100	1.5
(Leg #2)	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
CEF-46-BD8	01/19/2001	100	1.5
(Leg #2)	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

TABLE 2-3
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD9	01/19/2001	100	1.75
(Leg #1)	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
CEF-46-BD10	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	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

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

NA = Not Available
* = opened for pressure relief

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

NA = Not Available
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour

2.4 Water Level Measurements

Depth to water measurements were recorded at selected monitoring wells on a quarterly basis during the monitoring period. Depth to water measurements for the first quarter 2002 were recorded on March 19, 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 & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-1S	14.24	12/21/2000	79.08	no product	4.94	74.14
		01/25/2001		no product	6.46	72.62
		02/01/2001		no product	5.46	73.62
		02/08/2001		no product	5.32	73.76
		02/15/2001		no product	5.55	73.53
		02/22/2001		no product	6.00	73.08
		03/08/2001		no product	6.04	73.04
		03/21/2001		no product	4.90	74.18
		04/03/2001		NM	NM	NM
		04/18/2001		no product	5.30	73.78
		05/02/2001		no product	5.71	73.37
		06/29/2001		no product	5.47	73.61
		07/25/2001		no product	3.90	75.18
		08/20/2001		no product	3.74	75.34
		09/18/2001		no product	1.65	77.43
		10/24/2001		no product	3.69	75.39
		11/15/2001		no product	4.10	74.98
		12/17/2001		no product	4.02	75.06
		03/19/2002		no product	4.44	74.64
CEF-46-2S	13.88	12/21/2000	79.08	no product	5.02	74.06
		01/25/2001		no product	5.10	73.98
		02/01/2001		no product	5.60	73.48
		02/08/2001		no product	5.69	73.39
		02/15/2001		no product	5.67	73.41
		02/22/2001		no product	6.07	73.01
		03/08/2001		no product	6.14	72.94
		03/21/2001		no product	5.00	74.08
		04/03/2001		NM	NM	NM
		04/18/2001		no product	5.41	73.67
		05/02/2001		no product	5.78	73.30

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		06/29/2001		no product	6.18	72.90
		07/25/2001		no product	4.11	74.97
		08/20/2001		no product	3.19	75.89
		09/18/2001		no product	1.55	77.53
		10/24/2001		no product	3.88	75.20
		11/15/2001		no product	3.95	75.13
		12/17/2001		no product	4.26	74.82
		03/19/2002		no product	4.61	74.47
CEF-46-5I	49.65	12/21/2000	79.18	no product	5.81	73.37
		01/25/2001		no product	5.12	74.06
		02/01/2001		no product	9.21	69.97
		02/08/2001		no product	8.17	71.01
		02/15/2001		no product	7.07	72.11
		02/22/2001		no product	8.35	70.83
		03/08/2001		no product	8.26	70.92
		03/21/2001		no product	5.96	73.22
		04/03/2001		NM	NM	NM
		04/18/2001		no product	6.93	72.25
		05/02/2001		no product	7.04	72.14
		06/29/2001		no product	7.45	71.73
		07/25/2001		NM	flowing	NM
		08/21/2001		no product	4.27	74.91
		09/18/2001		no product	3.16	76.02
		10/23/2001		no product	5.80	73.38
		11/15/2001		no product	6.50	72.68
		12/18/2001		no product	6.61	72.57
		03/19/2002		no product	5.08	74.10
CEF-46-6D	79.82	12/21/2000	79.17	no product	7.40	71.77
		01/25/2001		NM	NM	NM
		02/01/2001		NM	NM	NM

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		02/08/2001		no product	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 product	8.15	71.02
		09/18/2001		no product	4.75	74.42
		10/23/2001		no product	flowing	NM
		11/15/2001		no product	8.20	70.97
		12/18/2001		no product	9.75	69.42
		03/19/2002		no product	8.85	70.32
CEF-46-7I	29.68	12/21/2000	79.02	no product	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 product	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 product	3.70	75.32

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		09/18/2001		no product	1.85	77.17
		10/24/2001		no product	4.76	74.26
		11/15/2001		no product	4.52	74.50
		12/18/2001		no product	3.88	75.14
		03/19/2002		no product	5.09	73.93
CEF-46-9I	48.81	12/21/2000	79.05	no product	5.67	73.38
		01/25/2001		no product	5.91	73.14
		02/01/2001		no product	7.37	71.68
		02/08/2001		no product	6.53	72.52
		02/15/2001		no product	6.03	73.02
		02/22/2001		no product	7.51	71.54
		03/08/2001		no product	6.61	72.44
		03/21/2001		no product	5.70	73.35
		04/03/2001		NM	NM	NM
		04/18/2001		no product	6.30	72.75
		05/02/2001		no product	6.52	72.53
		06/29/2001		no product	6.11	72.94
		07/25/2001		no product	4.61	74.44
		08/20/2001		no product	3.74	75.31
		09/18/2001		no product	1.93	77.12
		10/23/2001		no product	4.72	74.33
		11/15/2001		no product	4.69	74.36
		12/18/2001		no product	5.42	73.63
		03/19/2002		no product	5.20	73.85
CEF-46-12I	29.61	12/21/2000	78.73	no product	5.23	73.50
		01/25/2001		no product	6.44	72.29
		02/01/2001		no product	6.50	72.23
		02/08/2001		no product	6.71	72.02
		02/15/2001		no product	5.66	73.07
		02/22/2001		no product	6.73	72.00

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		03/08/2001		no product	8.24	70.49
		03/21/2001		no product	5.20	73.53
		04/03/2001		NM	NM	NM
		04/18/2001		no product	5.75	72.98
		05/02/2001		no product	5.97	72.76
		06/29/2001		no product	5.59	73.14
		07/25/2001		no product	4.14	74.59
		08/20/2001		no product	3.20	75.53
		09/17/2001		no product	1.59	77.14
		10/23/2001		no product	4.20	74.53
		11/15/2001		no product	4.10	74.63
		12/18/2001		no product	4.85	73.88
		03/18/2002		no product	4.70	74.03
CEF-46-13I	39.56	12/21/2000	78.87	no product	5.43	73.44
		01/25/2001		no product	5.86	73.01
		02/01/2001		no product	7.06	71.81
		02/08/2001		no product	6.39	72.48
		02/15/2001		no product	5.77	73.10
		02/22/2001		no product	7.15	71.72
		03/08/2001		no product	6.37	72.50
		03/21/2001		no product	5.40	73.47
		04/03/2001		NM	NM	NM
		04/18/2001		no product	6.07	72.80
		05/02/2001		no product	6.23	72.64
		06/29/2001		no product	5.87	73.00
		07/25/2001		no product	4.35	74.52
		08/20/2001		no product	3.44	75.43
		09/17/2001		no product	1.75	77.12
		10/23/2001		no product	4.52	74.35
		11/15/2001		no product	4.37	74.50

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		12/18/2001		no product	5.18	73.69
		03/19/2002		no product	4.95	73.92
CEF-46-14D	78.79	12/21/2000	78.88	no product	6.86	72.02
		01/25/2001		no product	4.65	74.23
		02/01/2001		no product	11.45	67.43
		02/08/2001		no product	8.84	70.04
		02/15/2001		no product	7.76	71.12
		02/22/2001		no product	8.74	70.14
		03/08/2001		no product	7.84	71.04
		03/21/2001		no product	6.96	71.92
		04/03/2001		NM	NM	NM
		04/18/2001		no product	7.93	70.95
		05/02/2001		no product	7.74	71.14
		06/29/2001		no product	7.36	71.52
		07/25/2001		no product	5.47	73.41
		08/20/2001		no product	5.35	73.53
		09/17/2001		no product	3.29	75.59
		10/23/2001		no product	7.40	71.48
		11/15/2001		no product	8.32	70.56
		12/18/2001		no product	7.01	71.87
		03/19/2002		no product	7.21	71.67
CEF-46-15I	29.77	12/21/2000	79.75	no product	6.33	73.42
		01/25/2001		no product	6.99	72.76
		02/01/2001		no product	7.45	72.30
		02/08/2001		no product	7.35	72.40
		02/15/2001		no product	6.75	73.00
		02/22/2001		no product	7.75	72.00
		03/08/2001		no product	7.23	72.52
		03/21/2001		no product	6.16	73.59
		04/03/2001		NM	NM	NM

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		04/18/2001		no product	6.95	72.80
		05/02/2001		no product	7.21	72.54
		06/29/2001		no product	7.15	72.60
		07/25/2001		no product	5.75	74.00
		08/20/2001		no product	4.21	75.54
		09/17/2001		no product	2.70	77.05
		10/23/2001		no product	5.29	74.46
		11/15/2001		no product	5.15	74.60
		12/18/2001		no product	5.87	73.88
		03/18/2002		no product	5.90	73.85
CEF-46-21I	29.70	12/21/2000	79.33	no product	6.02	73.31
		01/25/2001		no product	1.50	77.83
		02/01/2001		no product	7.90	71.43
		02/08/2001		no product	8.15	71.18
		02/15/2001		no product	5.02	74.31
		02/22/2001		no product	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 product	4.15	75.18
		09/18/2001		no product	2.15	77.18
		10/24/2001		no product	5.16	74.17
		11/16/2001		no product	5.25	74.08
		12/18/2001		no product	6.03	73.30
		03/19/2002		no product	5.74	73.59
CEF-46-24D	90.45	12/21/2000	78.74	no product	7.30	71.44

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		01/25/2001		no product	8.20	70.54
		02/01/2001		no product	11.45	67.29
		02/08/2001		no product	10.87	67.87
		02/15/2001		no product	8.91	69.83
		02/22/2001		no product	9.39	69.35
		03/08/2001		no product	9.40	69.34
		03/21/2001		no product	7.25	71.49
		04/03/2001		NM	NM	NM
		04/18/2001		no product	8.15	70.59
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		no product	5.93	72.81
		08/21/2001		no product	5.82	72.92
		09/18/2001		no product	3.40	75.34
		10/24/2001		no product	7.35	71.39
		11/16/2001		no product	6.50	72.24
		12/18/2001		no product	7.24	71.50
		03/19/2002		no product	6.71	72.03
CEF-46-25I	50.45	12/21/2000	79.17	no product	6.25	72.92
		01/25/2001		no product	5.55	73.62
		02/01/2001		no product	8.26	70.91
		02/08/2001		no product	7.87	71.30
		02/15/2001		no product	9.05	70.12
		02/22/2001		no product	8.56	70.61
		03/08/2001		no product	8.70	70.47
		03/21/2001		no product	6.00	73.17
		04/03/2001		NM	NM	NM
		04/18/2001		no product	7.19	71.98
		05/02/2001		no product	7.04	72.13
		06/29/2001		no product	6.90	72.27

TABLE 2-5
Groundwater Monitoring Well - Water Level & Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
		07/25/2001		no product	4.86	74.31
		08/21/2001		no product	3.92	75.25
		09/18/2001		no product	1.92	77.25
		10/24/2001		no product	4.82	74.35
		11/16/2001		no product	4.84	74.33
		12/18/2001		no product	5.61	73.56
		03/19/2002		no product	5.43	73.74
CEF-46-26I	47.76	12/21/2000	79.43	no product	7.09	72.34
		01/25/2001		no product	5.89	73.54
		02/01/2001		no product	9.45	69.98
		02/08/2001		no product	8.12	71.31
		02/15/2001		no product	8.77	70.66
		02/22/2001		no product	8.73	70.70
		03/08/2001		no product	8.47	70.96
		03/21/2001		no product	6.40	73.03
		04/03/2001		NM	NM	NM
		04/18/2001		no product	7.40	72.03
		05/02/2001		no product	7.32	72.11
		06/29/2001		NM	NM	NM
		07/25/2001		no product	5.21	74.22
		08/21/2001		no product	4.27	75.16
		09/18/2001		no product	2.21	77.22
		10/24/2001		no product	5.16	74.27
		11/16/2001		no product	5.21	74.22
		12/18/2001		no product	6.02	73.41
		03/19/2002		no product	5.84	73.59

bls = below land surface
NM = Not Measured
Elevation is referenced to National Geodetic Vertical Datum 1929 (NGVD 1929)
Depth to product measured from top of casing
Depth to water measured from top of casing

3.0 Summary of Sampling and Laboratory Analytical Results

3.1 Soil Monitoring

Soil screening and sampling was conducted on March 7, 2002, during the monitoring period. Three soil borings, labeled as 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 2 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 below. The water table was encountered at 5 feet bls.

Date	Soil Boring No.	Depth (feet bls)	OVA/FID Unfiltered	OVA/FID Filtered	OVA/FID Net
3/7/02	SB-1	2	47,000	13	46,987
3/7/02	SB-1	4	16,000	27	15,983
3/7/02	SB-2	2	36,000	5	35,995
3/7/02	SB-2	4	38,000	19	37,981
3/7/02	SB-14	2	715	10	705
3/7/02	SB-14	4	2,000	52	1,948

The laboratory soil samples were analyzed for BTEX and MTBE by United States Environmental Protection Agency (EPA) Method 8021B, naphthalene and polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8310, and TRPH by Florida Petroleum Residual Organic (FL PRO) Method. The results indicated that BTEX, MTBE, naphthalene, and TRPH levels have decreased from the baseline soil sampling event conducted on January 4, 2001; however, BTEX, naphthalene, and TRPH levels still exceed the Leachability and / or Direct Exposure Residential Soil Cleanup Target Levels (SCTLs) per Chapter 62-777 FAC. 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 on Table 3-1.

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-46-26I0) were sampled quarterly during the monitoring period. The samples were analyzed for BTEX and MTBE by EPA Method 8021B, naphthalene and PAHs by EPA Method 8310, TRPH by FL PRO Method, and nitrate, nitrite,

and phosphate by EPA Method 300.0. Seven of the 14 wells had contaminant concentrations above the Groundwater Cleanup Target Levels (GCTLs) per Chapter 62-777 FAC during the baseline sampling event conducted December 20, 2000. At the end of the first quarter of 2002, the results of the groundwater treatment are as follows:

- One of the seven monitoring wells that exceeded the GCTLs during the baseline event, CEF-46-6D, had been below the GCTLs for all contaminants of concern until the first quarter of 2002, when xylenes increased above the GCTL.
- The six monitoring wells that exceeded the GCTLs during the baseline event continue to have contaminant concentrations above 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 experienced an 89 percent decrease in benzene, and 55 percent decrease in BTEX, but naphthalenes and TRPH increased during the period and are above the baseline concentrations. CEF-46-2S experienced a 99 percent decrease in benzene, 99 percent decrease in BTEX, and 99 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 93 percent decrease in benzene, 95 percent decrease in BTEX, 96 percent decrease in naphthalene, and 92 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. The concentrations in this well have increased above the baseline concentrations and have now decreased to concentrations 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 on Table 3-2.

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 3-3.

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.
- Ferrous iron values have increased in monitoring wells CEF-46-5I, CEF-46-7I, and CEF-46-26I. An increase in ferrous iron may indicate anaerobic activity and a depletion of oxygen, nitrite, and manganese.
- 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 3-1
Soil Analytical Results

Soil Boring Number	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	TRPH (mg/kg)
SB-1	01/04/2001	<0.9	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
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
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
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
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
Direct Exposure Residential [1]		1.1	1100	380	5900	n/a	3200	40	1100	1900	2200	2000	18000	2900	2200	1.4	140	1.4	15	0.1	1.5	0.1	2300	340
Leachability from GW Criteria [1]		0.0007	0.6	0.5	0.2	n/a	0.2	1.7	27	2.1	160	250	2500	1200	880	3.2	77	10	25	8	28	30	32000	340

All values reported in mg/kg
[1] Ch 62-777 F.A.C Soil cleanup Target Level (SCTLs) reported in mg/kg
Shaded values indicate the compounds that exceed the SCTLs

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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
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

TABLE 3-2
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	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)
	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
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
NS = Not Sampled
1 = Ch 62-777 F.A.C Groundwater Cleanup Target Levels (GCTLs) reported in ug/L
NA = Not Analyzed
Shaded values indicate the compounds that exceed the GCTLs

TABLE 3-3
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
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

TABLE 3-3
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)
	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
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

TABLE 3-3
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
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

TABLE 3-3
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)
	03/19/2002	2.69	2.650	1.81	26.0	>1000	20	4.0	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
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

TABLE 3-3
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)
	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
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

TABLE 3-3
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-46-14D	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
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

TABLE 3-3
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)
	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
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

TABLE 3-3
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-46-24D	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
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

TABLE 3-3
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)
	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
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

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

4.0 Conclusions and Recommendations

The soil screening results in the soil contamination area indicated that BTEX, MTBE, naphthalene, and TRPH levels have decreased from the baseline soil sampling event, but BTEX, and TRPH levels still exceed the SCTLs.

Seven of the 14 groundwater monitoring wells at the site exhibited groundwater contaminant concentrations greater than the GCTLs during the baseline sampling event. At the end of the first quarter of 2002, these monitoring wells continued to exhibit contaminant concentrations greater than the GCTLs. These seven wells are: CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-6D, CEF-46-7I, CEF-46-13I, and CEF-46-26I. The contaminant concentrations in five of these wells (CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, and CEF-46-13I) decreased from the baseline sampling event. Monitoring well CEF-46-6D had been below the GCTLs for all contaminants of concern until the first quarter of 2002, when xylenes increased above the GCTL. The contaminant concentrations in monitoring well CEF-46-26I increased above the baseline sampling event concentrations. LNAPL was not noted in any monitoring well during the monitoring period.

It is recommended to continue to operate the nutrient injection system, to increase the air flow rate and TEP injection rate to achieve the design specifications, and to re-balance the injection rates to maximize injection in the area of CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, CEF-46-13I, and CEF-46-26I. All 14 groundwater monitoring wells will continue to be sampled during the next quarter on a quarterly basis. Soil sampling will continue to be conducted quarterly during the next annual 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

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

Priester and Associates, September 2000. PHA-ER Remediation System Design Specifications, Building 46 Site, Remedial Action Plan Addendum.

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

Appendix A

Laboratory Analytical Reports for Soil Samples

KEMRON REPORT L0203154

PREPARED FOR CH2M HILL CONSTRUCTORS, INC.

WORK ID : NAS CECIL FIELD / BUILDING 46

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0203154

CHAIN OF CUSTODY:

The chain of custody number was 163151-031.

SHIPMENT CONDITIONS:

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

SAMPLE MANAGEMENT:

All samples received were intact.

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

REVIEWED Stephanie L Tepe DATE: 3/8/02

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203154

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: The average % drift options was used for CCV's WG114205-01 (3/8/02, HP-11) and WG114263-04 (3/11/02, HP-5). 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: Sample 03 yielded a surrogate recovery result outside acceptance limits. Reanalysis confirmed the 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: 3/14/02

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203154

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 01 was chosen internally for MS/MSD analysis.

SAMPLES

Samples: Samples 01 and 02 required dilution analysis. All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

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

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

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203154

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the water fraction yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit.
Matrix Spikes:. The MS/MSD were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fractions 01 and 02 yielded a percent recovery for o-terphenyl by the fluorescence detector which was above the advisory limit. All acceptance criteria were met for the surrogate by UV detection.
Samples: Sample fractions 01, 02, and 03 were re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

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

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

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114322**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q1-02	L0203154-01
062-CEF46-SB2-S-Q1-02	L0203154-02

Comments:

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

Suffix Matches parent to QC

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

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114322

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 11-MAR-02 19:45

Concentration Units: ug/kg File ID: 5G12501

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	583	1200	3000	988	
Ethylbenzene	583	1200	67000	988	
Methyl tert-butyl ether	583	1200	583	988	ND
Toluene	583	1200	7100	988	
Xylenes, Total	583	3500	200000	988	

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114322

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HP5 20-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 11-MAR-02 20:19

Concentration Units: ug/kg File ID: 5G12502

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	525	1000	1700	917	
Ethylbenzene	525	1000	38000	917	
Methyl tert-butyl ether	525	1000	525	917	ND
Toluene	525	1000	24000	917	
Xylenes, Total	525	3100	430000	917	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	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 : **8021**

AAB # : **WG114206**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB14-S-Q1-02	L0203154-03

Comments:

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

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HP11 25-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 08-MAR-02 13:55

Concentration Units: ug/kg File ID: 11G13724

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.537	1.1	54.0	.92	
Ethylbenzene	0.537	1.1	45.0	.92	
Methyl tert-butyl ether	0.537	1.1	2.10	.92	
Toluene	0.537	1.1	0.537	.92	ND
Xylenes, Total	0.537	3.2	32.0	.92	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	534	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 : 8021 Preparatory Method: 8021B AAB # : WG114206

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HP11 25-FEB-2002

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 08-MAR-02 15:23

Concentration Units: ug/kg File ID: 11G13726

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.532	1.1	37.0	.91	
Ethylbenzene	0.532	1.1	24.0	.91	
Methyl tert-butyl ether	0.532	1.1	1.30	.91	
Toluene	0.532	1.1	0.532>	.91	ND
Xylenes, Total	0.532	3.2	17.0	.91	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	316	47 - 121	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114272**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-EQB-W-Q1-02	L0203154-04
062-CEF46-TB-W-Q1-02	L0203154-05

Comments:

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

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114272

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-EQB-W-Q1-02 Lab Sample ID: L0203154-04 Matrix: Water

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

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 08-MAR-02 15:06

Concentration Units: ug/L File ID: 5G12476

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	104	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114272

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-TB-W-Q1-02 Lab Sample ID: L0203154-05 Matrix: Water

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

Date Received: 08-MAR-02 Date Extracted: Date Analyzed: 08-MAR-02 15:40

Concentration Units: ug/L File ID: 5G12477

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	104	70 - 130	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG114337**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q1-02	L0203154-01
062-CEF46-SB2-S-Q1-02	L0203154-02
062-CEF46-SB14-S-Q1-02	L0203154-03

Comments:

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

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HP2 25-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 11-MAR-02 Date Analyzed: 13-MAR-02 17:24

Concentration Units: ug/kg File ID: 2G19312

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	58800	120000	1700000	10	

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HP2 25-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 11-MAR-02 Date Analyzed: 13-MAR-02 17:40

Concentration Units: ug/kg File ID: 2G19313

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	57100	110000	2300000	10	

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-01-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HP2 25-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 11-MAR-02 Date Analyzed: 12-MAR-02 18:46

Concentration Units: ug/kg File ID: 2G19300

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5830	12000	120000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	73.4	43 - 136	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG114336**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-EQB-W-Q1-02	L0203154-04

Comments:

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

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-EQB-W-Q1-02 Lab Sample ID: L0203154-04 Matrix: Water

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

Date Received: 08-MAR-02 Date Extracted: 11-MAR-02 Date Analyzed: 12-MAR-02 15:37

Concentration Units: ug/L File ID: 2G19288

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

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	63.5	49 – 174	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 01:39

Concentration Units: % Recovery File ID: 4L002881.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	148	50 - 150	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 01:39

Concentration Units: ug/kg File ID: 4L002881.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.17	190	3800	1	I
2-Methylnaphthalene	5.37	190	15000	1	I
Acenaphthene	65.9	190	65.9	1	ND
Acenaphthylene	52.9	190	52.9	1	ND
Anthracene	48.2	190	48.2	1	ND
Benzo(a)anthracene	4.47	19	23.0	1	P
Benzo(a)pyrene	3.41	19	5.30	1	J
Benzo(b)fluoranthene	5.65	19	5.65	1	ND
Benzo(g,h,i)perylene	4.23	19	4.23	1	ND
Benzo(k)fluoranthene	2.35	19	2.35	1	ND
Chrysene	4.47	19	260	1	P
Dibenzo(a,h)anthracene	5.29	19	5.29	1	ND
Fluoranthene	4.35	19	57.0	1	P
Fluorene	67.0	190	67.0	1	ND
Indeno(1,2,3-cd)pyrene	3.77	19	3.77	1	ND
Naphthalene	74.1	190	11000	1	I
Phenanthrene	55.3	190	270	1	P
Pyrene	4.35	19	5.70	1	J

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 01:39

Concentration Units: % Recovery File ID: 4L002881.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	523	50 - 150	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 01:39

Concentration Units: ug/kg File ID:4L002881.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.18	200	8360	1	I
2-Methylnaphthalene	5.38	200	15400	1	I
Acenaphthene	65.9	190	65.9	1	ND
Acenaphthylene	53.1	190	53.1	1	ND
Anthracene	48.2	190	48.2	1	ND
Benzo(a)anthracene	4.47	19	7.60	1	P
Benzo(a)pyrene	3.41	19	5.30	1	J
Benzo(b)fluoranthene	5.65	19	5.65	1	ND
Benzo(g,h,i)perylene	4.23	19	4.23	1	ND
Benzo(k)fluoranthene	2.35	19	2.35	1	ND
Chrysene	4.47	19	120	1	P
Dibenzo(a,h)anthracene	5.29	19	5.29	1	ND
Fluoranthene	4.35	19	25.0	1	P
Fluorene	67.0	190	67.0	1	ND
Indeno(1,2,3-cd)pyrene	3.76	19	3.76	1	ND
Naphthalene	74.1	190	21000	1	I
Phenanthrene	55.3	190	170	1	J
Pyrene	4.35	19	6.90	1	J

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG114391**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q1-02	L0203154-01
062-CEF46-SB2-S-Q1-02	L0203154-02
062-CEF46-SB14-S-Q1-02	L0203154-03

Comments:

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

Suffix Matches parent to QC

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Signature: _____

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 16:47

Concentration Units: % Recovery File ID: 4L002890.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		50 - 150	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 16:47

Concentration Units: ug/kg File ID:4L002890.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	61.7	1900	9200	10	
2-Methylnaphthalene	53.7	1900	26000	10	
Acenaphthene	659	1900	659	10	ND
Acenaphthylene	529	1900	529	10	ND
Anthracene	482	1900	482	10	ND
Benzo(a)anthracene	44.7	190	44.7	10	ND
Benzo(a)pyrene	3.42	19	3.42	1	ND
Benzo(b)fluoranthene	56.5	190	56.5	10	ND
Benzo(g,h,i)perylene	4.25	19	4.25	1	ND
Benzo(k)fluoranthene	23.5	190	23.5	10	ND
Chrysene	44.7	190	44.7	10	ND
Dibenzo(a,h)anthracene	5.31	19	5.31	1	ND
Fluoranthene	43.5	190	43.5	10	ND
Fluorene	670	1900	670	10	ND
Indeno(1,2,3-cd)pyrene	3.77	19	3.77	1	ND
Naphthalene	741	1900	23000	10	
Phenanthrene	553	1900	553	10	ND
Pyrene	43.5	190	43.5	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\3550B AAB # : WQ114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 16:47

Concentration Units: % Recovery File ID: 4L002890.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 02:35

Concentration Units: ug/kg File ID: 4L002882.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.00	190	11900	1	I
2-Methylnaphthalene	5.22	190	15400	1	I
Acenaphthene	63.9	190	63.9	1	ND
Acenaphthylene	51.5	190	51.5	1	ND
Anthracene	46.8	190	46.8	1	ND
Benzo(a)anthracene	4.34	19	19.0	1	P
Benzo(a)pyrene	3.31	19	25.0	1	
Benzo(b)fluoranthene	5.48	19	15.0	1	J
Benzo(g,h,i)perylene	4.11	19	22.0	1	P
Benzo(k)fluoranthene	2.28	19	15.0	1	J
Chrysene	4.34	19	4.34	1	ND
Dibenzo(a,h)anthracene	5.14	19	5.14	1	ND
Fluoranthene	4.22	19	54.0	1	P
Fluorene	65.0	190	65.0	1	ND
Indeno(1,2,3-cd)pyrene	3.65	19	6.70	1	J
Naphthalene	71.9	190	21000	1	I
Phenanthrene	53.6	190	280	1	P
Pyrene	4.22	19	11.0	1	J

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 02:35

Concentration Units: % Recovery File ID: 4L002882.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	874	50 - 150	*

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-01-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 02:35

Concentration Units: ug/kg File ID: 4L002882.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	5.98	190	4200	1	I
2-Methylnaphthalene	5.21	190	14000	1	I
Acenaphthene	63.9	190	63.9	1	ND
Acenaphthylene	51.4	190	51.4	1	ND
Anthracene	46.8	190	46.8	1	ND
Benzo(a)anthracene	4.34	19	49.0	1	P
Benzo(a)pyrene	3.31	19	26.0	1	
Benzo(b)fluoranthene	5.48	19	27.0	1	P
Benzo(g,h,i)perylene	4.11	19	15.0	1	J
Benzo(k)fluoranthene	2.28	19	51.0	1	P
Chrysene	4.35	19	4.35	1	ND
Dibenzo(a,h)anthracene	5.14	19	5.14	1	ND
Fluoranthene	4.22	19	85.0	1	P
Fluorene	65.0	190	65.0	1	ND
Indeno(1,2,3-cd)pyrene	3.65	19	51.0	1	P
Naphthalene	71.9	190	12000	1	I
Phenanthrene	53.6	190	470	1	P
Pyrene	4.22	19	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 # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 02:35

Concentration Units: % Recovery File ID: 4L002882.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	118	50 - 150	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 17:43

Concentration Units: ug/kg File ID: 4L002891.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	60.0	1900	11800	10	
2-Methylnaphthalene	52.2	1900	23300	10	
Acenaphthene	639	1900	639	10	ND
Acenaphthylene	51.5	190	51.5	1	ND
Anthracene	468	1900	468	10	ND
Benzo(a)anthracene	43.4	190	43.4	10	ND
Benzo(a)pyrene	33.1	190	33.1	10	ND
Benzo(b)fluoranthene	54.8	190	54.8	10	ND
Benzo(g,h,i)perylene	41.1	190	41.1	10	ND
Benzo(k)fluoranthene	22.8	190	22.8	10	ND
Chrysene	43.4	190	43.4	10	ND
Dibenzo(a,h)anthracene	51.4	190	51.4	10	ND
Fluoranthene	42.2	190	42.2	10	ND
Fluorene	650	1900	650	10	ND
Indeno(1,2,3-cd)pyrene	36.5	190	36.5	10	ND
Naphthalene	719	1900	23000	10	
Phenanthrene	536	1900	536	10	ND
Pyrene	42.2	190	42.2	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 17:43

Concentration Units: % Recovery File ID: 4L002891.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 17:43

Concentration Units: ug/kg File ID: 4L002891.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	59.8	1900	11000	10	
2-Methylnaphthalene	52.1	1900	28000	10	
Acenaphthene	639	1900	639	10	ND
Acenaphthylene	514	1900	514	10	ND
Anthracene	468	1900	468	10	ND
Benzo(a)anthracene	43.4	190	43.4	10	ND
Benzo(a)pyrene	33.1	190	33.1	10	ND
Benzo(b)fluoranthene	54.8	190	54.8	10	ND
Benzo(g,h,i)perylene	41.1	190	41.1	10	ND
Benzo(k)fluoranthene	22.8	190	22.8	10	ND
Chrysene	4.35	19	4.35	1	ND
Dibenzo(a,h)anthracene	5.15	19	5.15	1	ND
Fluoranthene	42.2	190	42.2	10	ND
Fluorene	650	1900	650	10	ND
Indeno(1,2,3-cd)pyrene	36.5	190	36.5	10	ND
Naphthalene	719	1900	24000	10	
Phenanthrene	536	1900	536	10	ND
Pyrene	42.2	190	42.2	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 17:43

Concentration Units: % Recovery File ID: 4L002891.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 03:32

Concentration Units: ug/kg File ID:4L002883.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.13	190	294	1	
2-Methylnaphthalene	5.33	190	581	1	
Acenaphthene	65.3	190	65.3	1	ND
Acenaphthylene	52.6	190	52.6	1	ND
Anthracene	47.8	190	47.8	1	ND
Benzo(a)anthracene	4.43	19	4.43	1	ND
Benzo(a)pyrene	3.38	19	3.38	1	ND
Benzo(b)fluoranthene	5.60	19	5.60	1	ND
Benzo(g,h,i)perylene	4.20	19	4.20	1	ND
Benzo(k)fluoranthene	2.33	19	2.33	1	ND
Chrysene	4.43	19	530	1	I
Dibenzo(a,h)anthracene	5.25	19	5.25	1	ND
Fluoranthene	4.31	19	5.10	1	J
Fluorene	66.5	190	66.5	1	ND
Indeno(1,2,3-cd)pyrene	3.73	19	3.73	1	ND
Naphthalene	73.5	190	520	1	
Phenanthrene	54.8	190	54.8	1	ND
Pyrene	4.31	19	4.31	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 03:32

Concentration Units: % Recovery File ID: 4L002883.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	122	50 - 150	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 03:32

Concentration Units: ug/kg File ID: 4L002883.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.11	190	270	1	
2-Methylnaphthalene	5.32	190	610	1	
Acenaphthene	65.3	190	65.3	1	ND
Acenaphthylene	52.5	190	52.5	1	ND
Anthracene	47.8	190	47.8	1	ND
Benzo(a)anthracene	4.43	19	4.43	1	ND
Benzo(a)pyrene	3.38	19	3.38	1	ND
Benzo(b)fluoranthene	5.60	19	5.60	1	ND
Benzo(g,h,i)perylene	4.20	19	4.20	1	ND
Benzo(k)fluoranthene	2.34	19	2.34	1	ND
Chrysene	4.43	19	1300	1	I
Dibenzo(a,h)anthracene	5.25	19	5.25	1	ND
Fluoranthene	4.31	19	11.0	1	J
Fluorene	66.5	190	66.5	1	ND
Indeno(1,2,3-cd)pyrene	3.73	19	3.73	1	ND
Naphthalene	73.5	190	560	1	
Phenanthrene	54.8	190	54.8	1	ND
Pyrene	4.31	19	4.31	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 13-MAR-02 03:32

Concentration Units: % Recovery File ID: 4L002883.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	87.3	50 - 150	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-01-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 18-MAR-02 15:28

Concentration Units: ug/kg File ID: 4L002895.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	61.1	1900	290	10	J
2-Methylnaphthalene	53.2	1900	580	10	J
Acenaphthene	653	1900	653	10	ND
Acenaphthylene	52.6	190	52.6	1	ND
Anthracene	478	1900	478	10	ND
Benzo(a)anthracene	44.3	190	44.3	10	ND
Benzo(a)pyrene	33.8	190	33.8	10	ND
Benzo(b)fluoranthene	56.0	190	56.0	10	ND
Benzo(g,h,i)perylene	42.0	190	42.0	10	ND
Benzo(k)fluoranthene	23.3	190	23.3	10	ND
Chrysene	44.3	190	520	10	P
Dibenzo(a,h)anthracene	52.5	190	52.5	10	ND
Fluoranthene	43.1	190	43.1	10	ND
Fluorene	665	1900	665	10	ND
Indeno(1,2,3-cd)pyrene	37.3	190	37.3	10	ND
Naphthalene	735	1900	520	10	J
Phenanthrene	548	1900	548	10	ND
Pyrene	43.1	190	43.1	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 18-MAR-02 15:28

Concentration Units: % Recovery File ID: 4L002895.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-01-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 18-MAR-02

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 18-MAR-02 15:28

Concentration Units: ug/kg File ID: 4L002895.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	61.1	1900	260	10	J
2-Methylnaphthalene	53.2	1900	580	10	J
Acenaphthene	653	1900	653	10	ND
Acenaphthylene	52.6	190	52.6	1	ND
Anthracene	478	1900	478	10	ND
Benzo(a)anthracene	4.44	19	4.44	1	ND
Benzo(a)pyrene	3.39	19	3.39	1	ND
Benzo(b)fluoranthene	5.61	19	5.61	1	ND
Benzo(g,h,i)perylene	4.21	19	4.21	1	ND
Benzo(k)fluoranthene	2.34	19	2.34	1	ND
Chrysene	44.3	190	1200	10	P
Dibenzo(a,h)anthracene	5.26	19	5.26	1	ND
Fluoranthene	43.1	190	43.1	10	ND
Fluorene	665	1900	665	10	ND
Indeno(1,2,3-cd)pyrene	3.74	19	3.74	1	ND
Naphthalene	735	1900	530	10	J
Phenanthrene	548	1900	548	10	ND
Pyrene	4.32	19	4.32	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\3550B AAB # : WG114391

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-Q1-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: HPLC4 18-MAR-02

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 18-MAR-02 15:28

Concentration Units: % Recovery File ID: 4L002895.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

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

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

AAB # : **WG114464**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-EQB-W-Q1-02	L0203154-04

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: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-EQB-W-01-02 Lab Sample ID: L0203154-04 Matrix: Water

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

Date Received: 08-MAR-02 Date Extracted: 12-MAR-02 Date Analyzed: 12-MAR-02 20:56

Concentration Units: ug/L File ID: 4L002876.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.317	1.1	0.317	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	0.621	1.1	0.621	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.399	1.1	0.399	1	ND
Phenanthrene	0.319	1.1	0.319	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	94.1	40 - 132	

Internal Std	Qualifier

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **221690**

AAB # : **WG114324**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-SB1-S-Q1-02	L0203154-01
062-CEF46-SB2-S-Q1-02	L0203154-02
062-CEF46-SB14-S-Q1-02	L0203154-03

Comments:

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

Suffix Matches parent to QC

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

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-MAR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB1-S-Q1-02 Lab Sample ID: L0203154-01 Matrix: Soil

% Solids: 84.8 Initial Calibration ID: OVEN 11-MAR-02

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

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	85.0	1	

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB2-S-Q1-02 Lab Sample ID: L0203154-02 Matrix: Soil

% Solids: 87.4 Initial Calibration ID: OVEN 11-MAR-02

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

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	87.0	1	

Comments:

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

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

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

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-SB14-S-01-02 Lab Sample ID: L0203154-03 Matrix: Soil

% Solids: 85.6 Initial Calibration ID: OVEN 11-MAR-02

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

Concentration Units: weight % File ID:

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	86.0	1	

Comments:

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

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

01/28/2002

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

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

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

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

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

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

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

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

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

CHAIN-OF-CUSTODY RECORD

COC NUMBER
163151-031

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-Q1-02	Soil Boring 1 @ 2' bls.	S	03/07/02	14:10	III/C	14	3	1	1						Grab	OVA : 46,987 ppm	
2	062-CEF46-SB2-S-Q1-02	Soil Boring 2 @ 4' bls.	S	03/07/02	13:55	III/C	14	3	1	1						Grab	OVA : 37,981 ppm	
3	062-CEF46-SB14-S-Q1-02	Soil Boring 14 @ 4' bls.	S	03/07/02	13:30	III/C	14	3	1	1						Grab	OVA : 1,948 ppm	
4	062-CEF46-EQB-W-Q1-02	Equipment Blank	W	03/07/02	14:25	III/C	14	2	2	2						Grab		
5	062-CEF46-TB-W-Q1-02	Trip Blank	W	–	–	III/C	14	2									Prepared by Lab	
6		Temperature Blank	W	–	–						1							
7																		
8																		
9																		
10																		

C/C Dealed to contact
Cooler Temp 0 [illegible]

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 7917 9084 2640.

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

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: L0203154 **Client:** CCI **# of Samples:** 5 **Due Date:** 3/15 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-3	8021	analysis	gg 3/8/02 @ 1110	login	VOA/org 3	BLG				
04,05	8021	analysis	CSH 3/8/02 @ 1153	V-i	ORG 3	JKW				
04 A	FLA-PRO	EXT	PLK 3/11/02 @ 0700	walkin	ELAB	CEB	04-12-02 DCL 0700	Crusher	RWC	Disposal
1-3A	PRO	EXT	CEB 3/11/02 @ 1401	WALKIN	ELAB	BLG	CEB 3/11/02 @ 1425	WALKIN	BLG	STORAGE
1-3A	PCT-S	test	TMM 3/11/02 @ 1570	walk in	wet	BLG	TMM 3/11/02 @ 1650	walk in	JKW	Hold
1-3A	8310	EXT	PLK 3/12/02 @ 0643	walkin	ELAB	CEB	CEB 3/12/02 @ 0835	WALKIN	BLG	HOLD
04A	8310	EXT	CEB 3/12/02 @ 1252	WALKIN	ELAB	BLG	03-13-02 DCL 0700	Crusher	[illegible]	disposal

report sent 3/~~12~~21 MR

KEMRON Environmental Services

SAMPLES RECEIPT FORM

Marietta Laboratory

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

COOLER ID: KL946	COOLER ID:	COOLER ID:
INDEX # : 79179054 2640	INDEX # :	INDEX # :
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (C) (D) 0 °C	TEMP : (C) (D) °C	TEMP : (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS Encores Bldg 46	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 01/14/01

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COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 1

PROJECT: NAS Cecil Field/Building 46 LIMS# L 0203154

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 3/8/02 C-of-C Number: 163157
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 - 791790842640
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 1 - front, seal date: 3/7/02 seal name: Custody Seal
3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp 0 °C ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: JKW (date) 3/8/02

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

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

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203154

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: The average % drift options was used for CCV's WG114205-01 (3/8/02, HP-11) and WG114263-04 (3/11/02, HP-5). 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: Sample 03 yielded a surrogate recovery result outside acceptance limits. Reanalysis confirmed the 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: 3/14/02

Rev. 6/00

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BETX-GC DATA (8021)

Login Number: L0203154

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

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

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

C. Standards Data

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

✓ Chromatograms and quantitation reports for standards

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

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

D. Raw QC Data

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

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

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

✓ Instrument runlogs (chronological)

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

✓ 5035 logs (if applicable) (chronological)

Checked By: [signature] **Date:** 3/14/02

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0203154
Blank File ID: 5G12466
Date Analyzed: 03/08/02
Time Analyzed: 09:01
Analyst: CBN

Work Group: WG114272
Blank Sample ID: WG114272-01
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	WG114272-02	5G12467	03/08/02 09:35	
062-CEF46-EQB-W-Q1-02	L0203154-04	5G12476	03/08/02 15:06	
062-CEF46-TB-W-Q1-02	L0203154-05	5G12477	03/08/02 15:40	

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203154
Run Date: 03/08/2002
Sample ID: WG114272-01
Instrument ID: HP5
Run Time: 09:01
Method: 8021B
File ID: 5G12466
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG114272
Units: ug/L
Contract #:
Cal ID: HP5-20-FEB-2002

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

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

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203154
Instrument ID: HP5
File ID: 5G12467
Workgroup (AAB#): WG114272
Contract #:

Run Date: 03/08/2002
Run Time: 09:35
Analyst: CBN

Sample ID: WG114272-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-20-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.0	90.0	34 - 150	
Benzene	20	21.0	105	79 - 120	
Toluene	20	21.5	108	80 - 120	
Ethylbenzene	20	21.8	109	80 - 120	
Total xylenes	60	63.0	105	78 - 120	

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

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114272

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-Q1-02	07-MAR-02	08-MAR-02	08-MAR-02	14	1.03	08-MAR-02	14	1.03	
062-CEF46-TB-W-Q1-02	07-MAR-02	08-MAR-02	08-MAR-02	14	1.65	08-MAR-02	14	1.65	

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

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0203154
Instrument Id: HP5
Workgroup (AAB#): WG114272

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203154-04	1.00		104
L0203154-05	1.00		104
WG114272-01	1.00		102
WG114272-02	1.00		101

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/13/2002 14:18

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

Calibration Files

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

Fri Feb 22 12:57:25 2002

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

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

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

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

Login Number: L0203154
File ID: 5G12465
CCV ID: WG114158-01
Units: ug/L

Instrument ID: HP5
Run Date: 03/08/2002
Run Time: 08:17
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.2	41900	6.0	
1,4-Dichlorobenzene		20	21.2	51800	6.0	
1,3-Dichlorobenzene		20	21.0	47700	5.0	
o-Xylene		20	21.0	49300	5.0	
m-,p-Xylene		40	42.7	57900	6.8	
Ethylbenzene		20	22.0	49600	10.0	
Chlorobenzene		20	21.3	59200	6.5	
Toluene		20	21.6	56700	8.0	
Benzene		20	21.0	61400	5.0	
MTBE		20	19.7	10900	1.5	

* Exceeds %D Limit

Login Number: L0203154
File ID: 5G12478
CCV ID: WG114158-02
Units: ug/L

Instrument ID: HP5
Run Date: 03/08/2002
Run Time: 16:15
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.8	41000	4.0	
1,4-Dichlorobenzene		20	20.3	49500	1.5	
1,3-Dichlorobenzene		20	20.6	46700	3.0	
o-Xylene		20	20.3	47600	1.5	
m-,p-Xylene		40	40.6	55000	1.5	
Ethylbenzene		20	21.0	47100	5.0	
Chlorobenzene		20	21.2	58800	6.0	
Toluene		20	20.7	54300	3.5	
Benzene		20	20.6	60200	3.0	
MTBE		20	20.0	11100	0.0	

* Exceeds %D Limit

KEMRON FORMS - Modified 01/15/2001
Version 1.1
Report generated 03/13/2002 14:18

Injection Log

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

WG113234
⊥ 278

ANALYST: CBN

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

Directory: c:\hpchem\2\data\030802

WG114159

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12465.d	1.	WG114158-01 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	8 Mar 102 12::1
2	2	5g12466.d	1.	WG114159-01 WATER BLANK 5ML ✓	1,1 S-91-01	8 Mar 102 12::0
3	3	5g12467.d	1.	WG114159-02 WATER LCS 20PPB 5ML ✓	1,1 S-(90-28,91-01)	8 Mar 102 12::3
4	1	5g12468.d	1.	WG114159-03 L0203133-04 A 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 13::1
5	2	5g12469.d	1.	L0203102-01 A 5ML pH=6 ✓	1,1 S-91-01 EXT: 3/7/02@1430	8 Mar 102 13::0
6	3	5g12470.d	1.	L0203102-02 A 5ML pH=6 ✓	1,1 S-91-01 EXT: 3/7/02@1430	8 Mar 102 13::3
7	4	5g12471.d	1.	WG114159-04 L0203133-04 MS B 5ML pH<2 ✓	1,1 S-(90-28,91-01)	8 Mar 102 13::1
8	5	5g12472.d	1.	WG114159-05 L0203133-04 MSD B 5ML pH<2 ✓	1,1 S-(90-28,91-01)	8 Mar 102 13::4
9	6	5g12473.d	1.	L0203152-01 B 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 12::2
10	7	5g12474.d	1.	RINSE ✓	1,1 S-91-01	8 Mar 102 12::5
11	8	5g12475.d	1.	RINSE ✓	1,1 S-91-01	8 Mar 102 12::3
12	9	5g12476.d	1.	L0203154-04 A 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 12::0
13	10	5g12477.d	1.	L0203154-05 A 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 12::4
14	11	5g12478.d	1.	WG114158-02 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	8 Mar 102 12::1
15	12	5g12479.d	1.	L0203155-02 A 5ML pH<2 RR INST MALFUNCT	1,1 S-91-01	8 Mar 102 12::5
16	13	5g12480.d	1.	L0203155-03 A 5ML pH<2 ⊥	1,1 S-91-01	8 Mar 102 12::2

METHOD BLANK SUMMARY

Login Number: L0203154
Blank File ID: 11G13722
Date Analyzed: 03/08/02
Time Analyzed: 12:35
Analyst: CBN

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

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114206-02	11G13723	03/08/02 13:09	
062-CEF46-SB14-S-Q1-02	L0203154-03	11G13724	03/08/02 13:55	
062-CEF46-SB14-S-Q1-02	L0203154-03	11G13726	03/08/02 15:23	A1

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203154
Instrument ID: HP11
File ID: 11G13722
Workgroup (AAB#): WG114206
Contract #:

Run Date: 03/08/2002
Run Time: 12:35
Analyst: CBN

Sample ID: WG114206-01
Method: 8021B
Matrix: Solid
Units: ug/kg
Cal ID: HP11-25-FEB-2002

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

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

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203154
Instrument ID: HP11
File ID: 11G13723
Workgroup (AAB#): WG114206
Contract #:

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

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

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

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

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114206

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-SB14-S-Q1-02	07-MAR-02	08-MAR-02	08-MAR-02	14	1.02	08-MAR-02	14	1.02	
062-CEF46-SB14-S-Q1-02	07-MAR-02	08-MAR-02	08-MAR-02	14	1.08	08-MAR-02	14	1.08	

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

SURROGATE STANDARDS

Login Number: L0203154
Instrument Id: HP11
Workgroup (AAB#): WG114206

Method: 8021
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0203154-03	0.910	A1	316
L0203154-03	0.920		534
WG114206-01	1.00		88.9
WG114206-02	1.00		95.0

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/13/2002 14:18

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

Calibration Files

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

Mon Feb 25 21:49:55 2002

Login Number: L0203154
File ID: 11G13619
ALT ID: WG113445-08
Units: ug/kg

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

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

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0203154
File ID: 11G13721
CCV ID: WG114205-01
Units: ug/kg

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

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

* Exceeds %D Limit

KEMRON FORMS - Modified 01/15/2001
Version 1.1
Report generated 03/13/2002 14:18

Login Number: L0203154
File ID: 11G13728
CCV ID: WG114205-02
Units: ug/kg

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

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

* Exceeds %D Limit

KEMRON FORMS - Modified 01/15/2001
Version 1.1
Report generated 03/13/2002 14:18

Injection Log

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

WG113445 – 446, 557

ANALYST: CSI

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

ANALYST: CBN

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

METHOD BLANK SUMMARY

Login Number: L0203154
Blank File ID: 5G12499
Date Analyzed: 03/11/02
Time Analyzed: 18:35
Analyst: CBN

Work Group: WG114322
Blank Sample ID: WG114322-01
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	WG114322-02	5G12500	03/11/02 19:10	
062-CEF46-SB1-S-Q1-02	L0203154-01	5G12501	03/11/02 19:45	
062-CEF46-SB2-S-Q1-02	L0203154-02	5G12502	03/11/02 20:19	

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203154
Run Date: 03/11/2002
Sample ID: WG114322-01
Instrument ID: HP5
Run Time: 18:35
Method: 8021B
File ID: 5G12499
Analyst: CBN
Matrix: Solid
Workgroup (AAB#): WG114322
Units: ug/kg
Contract #:
Cal ID: HP5-20-FEB-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	99.5	47 - 121	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203154 Run Date: 03/11/2002 Sample ID: WG114322-02
Instrument ID: HP5 Run Time: 19:10 Method: 8021B
File ID: 5G12500 Analyst: CBN Matrix: Solid
Workgroup (AAB#): WG114322 Units: ug/kg
Contract #: Cal ID: HP5-20-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	2000	1910	95.6	64 - 123	
Benzene	2000	2060	103	77 - 120	
Toluene	2000	2120	106	75 - 120	
Ethylbenzene	2000	2170	109	79 - 122	
Total xylenes	6000	6280	105	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	98.9	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/13/2002 14:18

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114322

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-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.23	11-MAR-02	14	4.23	
062-CEF46-SB2-S-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.27	11-MAR-02	14	4.27	

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

SURROGATE STANDARDS

Login Number: L0203154
Instrument Id: HP5
Workgroup (AAB#): WG114322

Method: 8021
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0203154-01	988		121
L0203154-02	917		104
WG114322-01	100		99.5
WG114322-02	100		98.9

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/13/2002 14:18

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

Calibration Files

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

Fri Feb 22 12:57:25 2002

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

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

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

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

Login Number: L0203154
File ID: 5G12498
CCV ID: WG114263-03
Units: ug/L

Instrument ID: HP5
Run Date: 03/11/2002
Run Time: 18:00
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.8	39200	1.0	
1,4-Dichlorobenzene		20	19.0	46400	5.0	
1,3-Dichlorobenzene		20	18.6	42200	7.0	
o-Xylene		20	18.0	42200	10.0	
m-,p-Xylene		40	35.7	48200	10.8	
Ethylbenzene		20	18.5	41200	7.5	
Chlorobenzene		20	18.7	51900	6.5	
Toluene		20	18.5	48100	7.5	
Benzene		20	18.0	52600	10.0	
MTBE		20	18.8	10400	6.0	

* Exceeds %D Limit

Login Number: L0203154
File ID: 5G12505
CCV ID: WG114263-04
Units: ug/L

Instrument ID: HP5
Run Date: 03/11/2002
Run Time: 22:07
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.9	37300	5.5	
1,4-Dichlorobenzene		20	18.1	44100	9.5	
1,3-Dichlorobenzene		20	19.5	44100	2.5	
o-Xylene		20	17.0	39800	15.0	
m-,p-Xylene		40	33.1	44600	17.3	*
Ethylbenzene		20	17.2	37900	14.0	
Chlorobenzene		20	17.7	49100	11.5	
Toluene		20	17.3	44800	13.5	
Benzene		20	16.9	49300	15.5	*
MTBE		20	18.9	10500	5.5	

* Exceeds %D Limit

KEMRON FORMS - Modified 01/15/2001
Version 1.1
Report generated 03/13/2002 14:18

Injection Log

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

WG113234
1 278

ANALYST: CBN

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

Injection Log

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

WG114264
⊥ 322

ANALYST: CBN

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

REANALYSIS	FILE #
L0203165-05	
⊥	-06
	-07

VOA - GC

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

Instrument: HP5 **Work Group:** WG 114159
1272

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

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

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

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

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

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

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

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

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

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

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

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

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

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

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

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

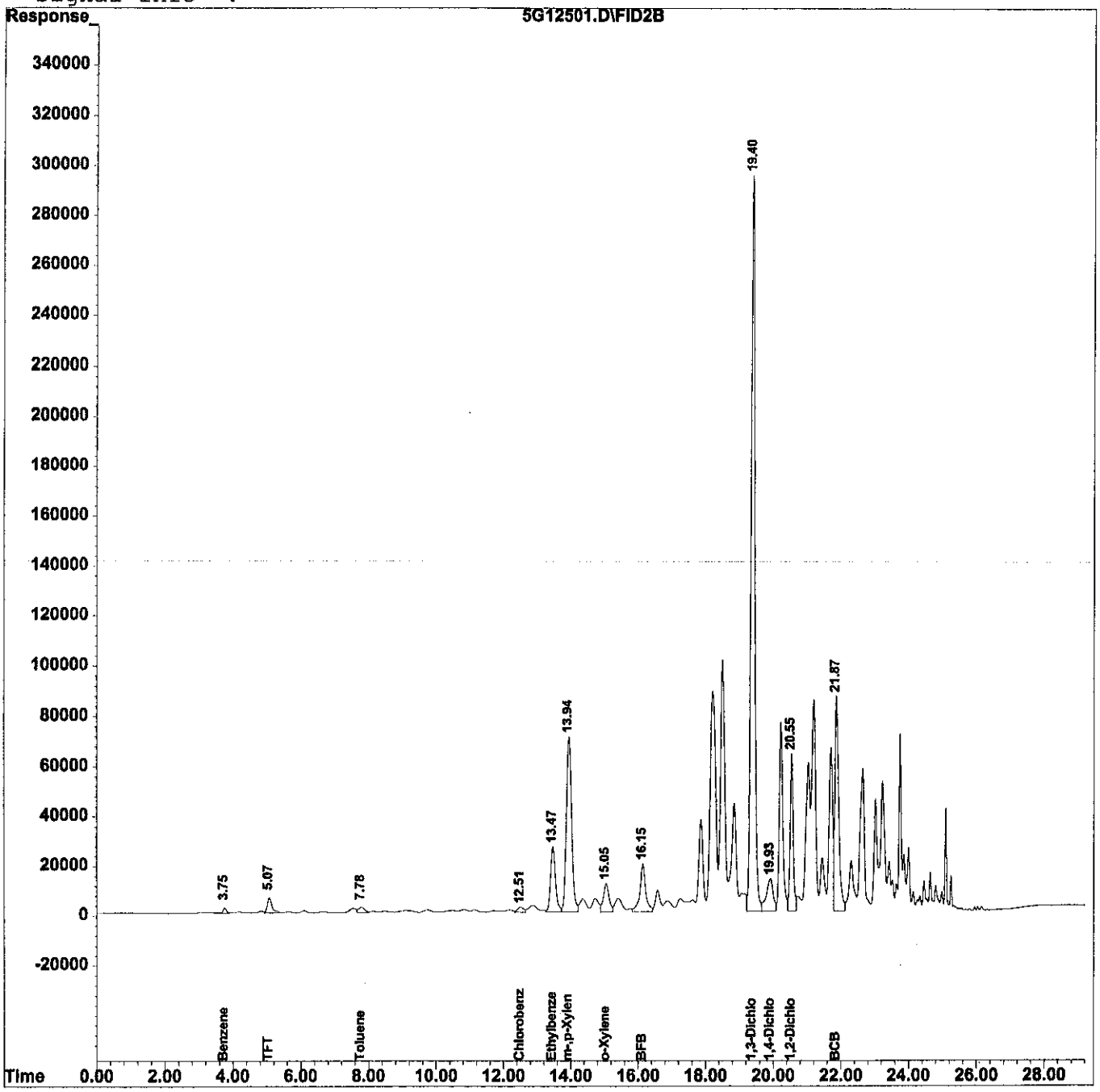
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\031102\5G12501.D Vial: 9
Acq On : 11 Mar 2002 19:45 Operator: CBN
Sample : L0203154-01 C 5.06G/10ML 988X Inst : HP5
Misc : 7,988 S-91-01 Multiplr: 988.00
IntFile : autoint1.e
Quant Time: Mar 11 20:14 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\031102\5G12501.D Vial: 9
Acq On : 11 Mar 2002 19:45 Operator: CBN
Sample : L0203154-01 C 5.06G/10ML 988X Inst : HP5
Misc : 7,988 S-91-01 Multiplr: 988.00
IntFile : autoint1.e
Quant Time: Mar 11 20:14 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

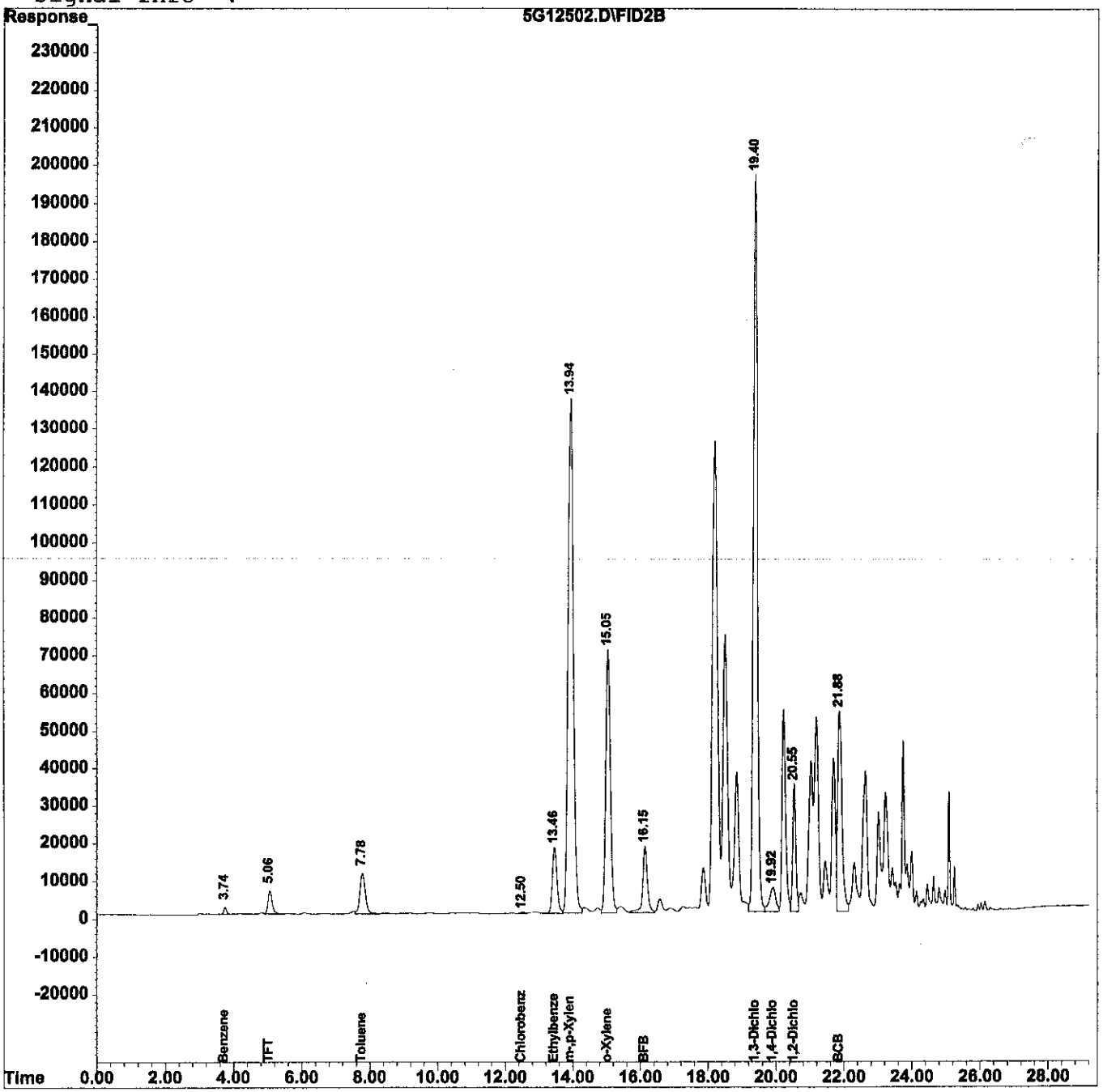
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	612291	36.2608 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 120.87%			
9) S BFB	16.15	2281073	47.2685 ug/L
Spiked Amount 30.000 Recovery = 157.56%			
13) S BCB	21.88	6899014	147.2617 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 490.87%#			
Target Compounds			
1) TM MTBE	0.00	0	~~N.D. ug/L~~
2) TM Benzene	3.75	151370	2558.0441 ug/L
4) TM Toluene	7.79	278821	6055.2568 ug/L
5) TM Chlorobenzene	12.51	256796	~~4573.4756 ug/L~~
6) TM Ethylbenzene	13.47	2690804	56870.3496 ug/L
7) TM m-,p-Xylene	13.94	7771833	140139.3786 ug/L
8) TM o-Xylene	15.06	1340144	28229.4615 ug/L
10) TM 1,3-Dichlorobenzene	19.40	22991647	500612.3754 ug/L
11) TM 1,4-Dichlorobenzene	19.93	1853573	37515.1308 ug/L
12) TM 1,2-Dichlorobenzene	20.55	3978264	99546.4016 ug/L

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

Data File : C:\HPCHEM\2\DATA\031102\5G12502.D Vial: 10
Acq On : 11 Mar 2002 20:19 Operator: CBN
Sample : L0203154-02 C 5.45G/10ML 917X Inst : HP5
Misc : 7,917 S-91-01 Multiplr: 917.00
IntFile : autoint1.e
Quant Time: Mar 11 20:49 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\031102\5G12502.D Vial: 10
Acq On : 11 Mar 2002 20:19 Operator: CBN
Sample : L0203154-02 C 5.45G/10ML 917X Inst : HP5
Misc : 7,917 S-91-01 Multiplr: 917.00
IntFile : autoint1.e
Quant Time: Mar 11 20:49 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.06	528013	31.2697 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.23%			
9) S BFB	16.15	1705533	35.3421 ug/L
Spiked Amount 30.000 Recovery = 117.81%			
13) S BCB	21.89	4814269	102.7622 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 342.54%#			
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.75 ✓	96878	1519.5274 ug/L
4) TM Toluene	7.78 ✓	1230233	21373.1181 ug/L
5) TM Chlorobenzene	12.51	35459	~~586.1391 ug/L~~
6) TM Ethylbenzene	13.47 ✓	1681957	33443.7510 ug/L
7) TM m-,p-Xylene	13.94 ✓	14856138	248074.7058 ug/L
8) TM o-Xylene	15.05 ✓	6701319	131015.8250 ug/L
10) TM 1,3-Dichlorobenzene	19.40	16019076	~~323728.8059 ug/L~~
11) TM 1,4-Dichlorobenzene	19.93	854380	~~16049.4560 ug/L~~
12) TM 1,2-Dichlorobenzene	20.55	2128917	~~49442.7952 ug/L~~

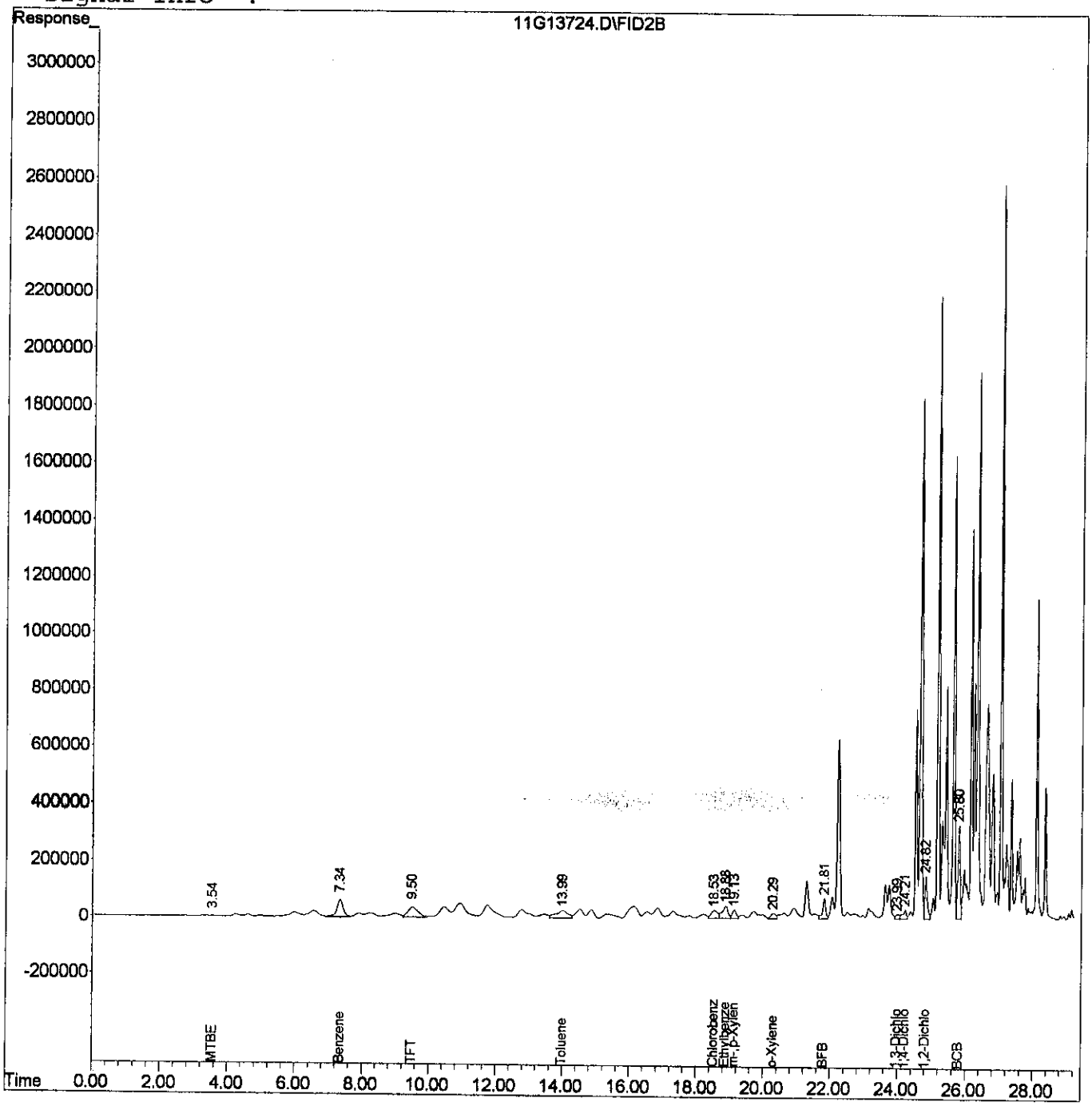
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\030802\11G13724.D
Acq On : 8 Mar 2002 1:55 pm
Sample : L0203154-03 A 5.41G 0.92X
Misc : 7,0.92 S-91-29
IntFile : AUTOINT1.E
Quant Time: Mar 8 14:24 2002 Quant Results File: 8021S.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 0.92

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13724.D Vial: 1
Acq On : 8 Mar 2002 1:55 pm Operator: CBN
Sample : L0203154-03 A 5.41G 0.92X Inst : HP11
Misc : 7,0.92 S-91-29 Multiplr: 0.92
IntFile : AUTOINT1.E
Quant Time: Mar 8 14:24 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 :

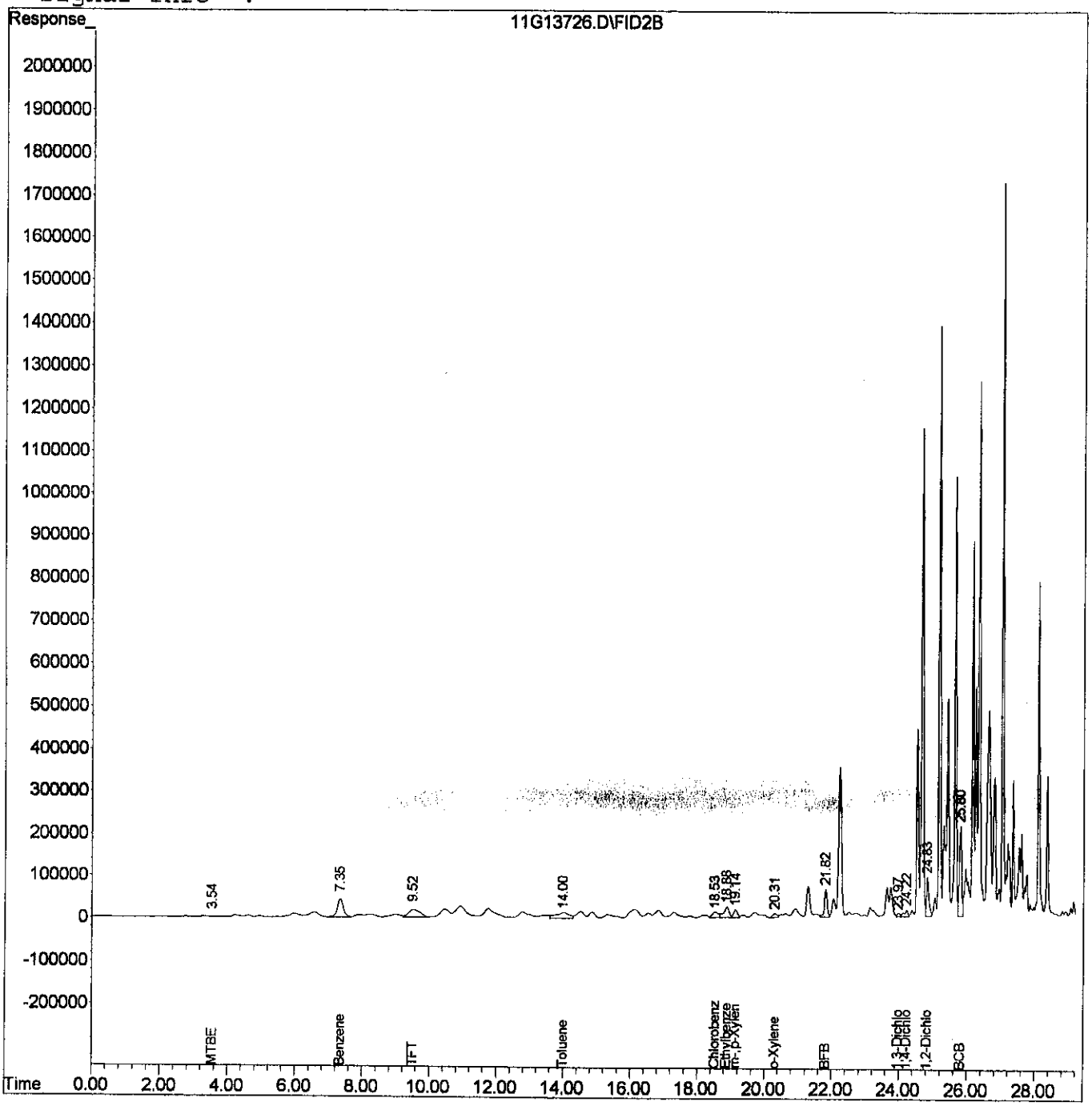
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.51	7812477	160.0919 UG/KG *
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 533.64%#
9) S BFB			21.81	4911358	36.7316 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 122.44%
13) S BCB			25.80	14508820	106.1933 UG/KG
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 353.98%#
Target Compounds					
1) TM MTBE			3.54	139010	1.7958 UG/KG
2) TM Benzene			7.34	7987449	46.2330 UG/KG
4) TM Toluene			14.00	6840584	~~42.0804 UG/KG~~
5) TM Chlorobenzene			18.53	3981222	~~24.1798 UG/KG~~
6) TM Ethylbenzene			18.88	5584202	38.4266 UG/KG
7) TM m-,p-Xylene			19.13	2662004	14.9871 UG/KG
8) TM o-Xylene			20.30	1897985	12.3426 UG/KG
10) TM 1,3-Dichlorobenzene			23.99	1189446	8~~.1633 UG/KG~~
11) TM 1,4-Dichlorobenzene			24.21	2665071	17~~.8090 UG/KG~~
12) TM 1,2-Dichlorobenzene			24.83	7780965	5~~6.2844 UG/~~KG

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

Data File : C:\HPCHEM\1\DATA\030802\11G13726.D Vial: 3
Acq On : 8 Mar 2002 3:23 pm Operator: CBN
Sample : L0203154-03 B 5.50G 0.91X Inst : HP11
Misc : 7,0.91 S-91-29 Multiplr: 0.91
IntFile : AUTOINT1.E
Quant Time: Mar 8 15:53 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13726.D Vial: 3
Acq On : 8 Mar 2002 3:23 pm Operator: CBN
Sample : L0203154-03 B 5.50G 0.91X Inst : HP11
Misc : 7,0.91 S-91-29 Multiplr: 0.91
IntFile : AUTOINT1.E
Quant Time: Mar 8 15:53 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 :

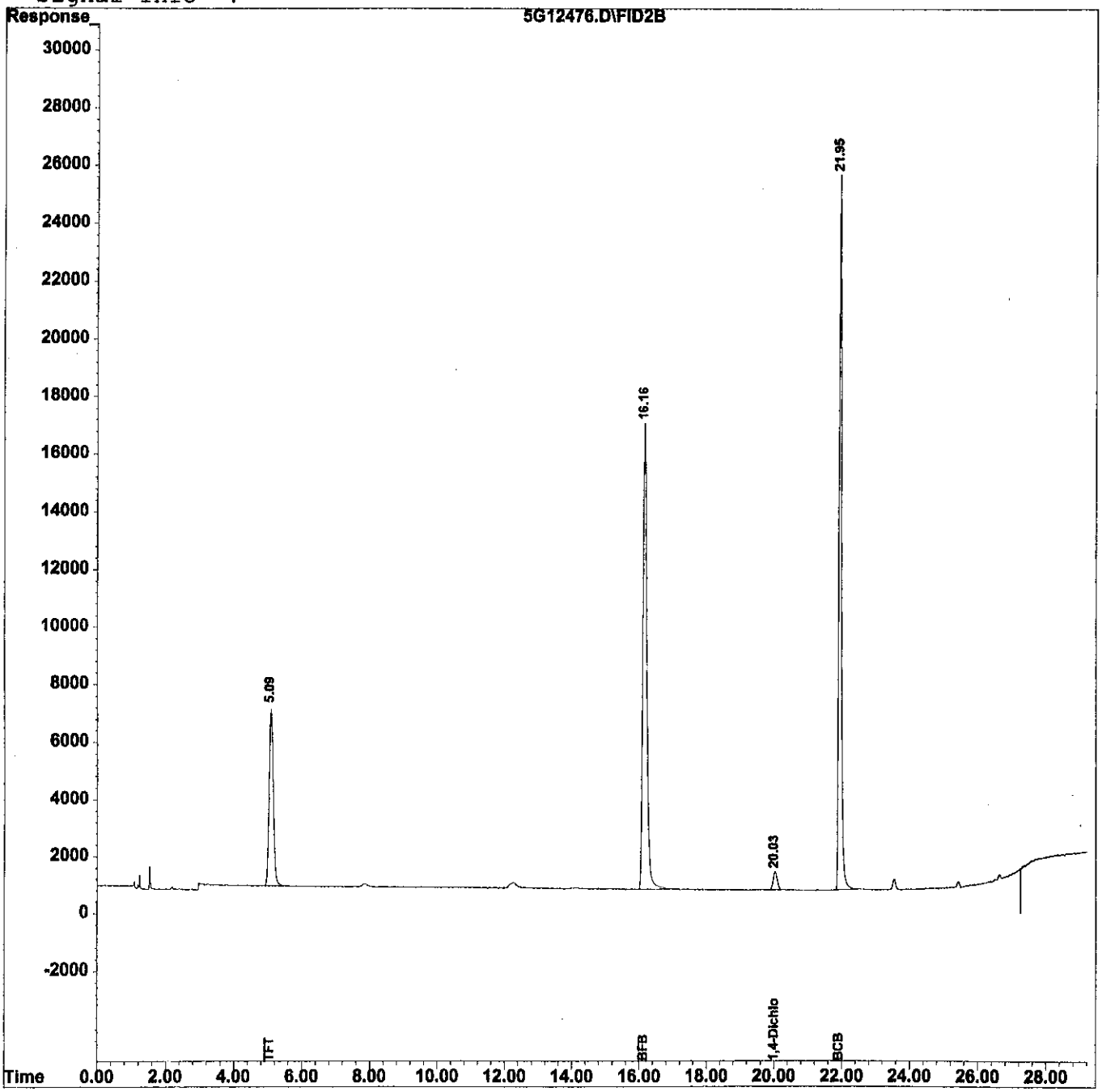
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.52	4622109	94.7154 UG/KG *
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 315.72%#
9) S BFB	21.82	3880539	29.0222 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 96.74%
13) S BCB	25.79	10341661	75.6929 UG/KG
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 252.31%#
Target Compounds			
1) TM MTBE	3.54	86343	1.1033 UG/KG
2) TM Benzene	7.34	5494995	31.4604 UG/KG
4) TM Toluene	14.01	3505066	~~21.3273 UG/KG~~
5) TM Chlorobenzene	18.53	1788637	~~10.7451 UG/KG~~
6) TM Ethylbenzene	18.89	2965325	20.1835 UG/KG
7) TM m-,p-Xylene	19.14	1606658	8.9472 UG/KG
8) TM o-Xylene	20.31	874629	5.6259 UG/KG
10) TM 1,3-Dichlorobenzene	23.99	501726	~~3.4060 UG/KG~~
11) TM 1,4-Dichlorobenzene	24.22	1282404	~~8.4764 UG/KG~~
12) TM 1,2-Dichlorobenzene	24.83	4748800	~~33.9776 UG/KG~~

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

Data File : C:\HPCHEM\2\DATA\030802\5G12476.D Vial: 9
Acq On : 8 Mar 2002 15:06 Operator: CBN
Sample : L0203154-04 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 15:35 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030802\5G12476.D Vial: 9
Acq On : 8 Mar 2002 15:06 Operator: CBN
Sample : L0203154-04 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autointl.e
Quant Time: Mar 8 15:35 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

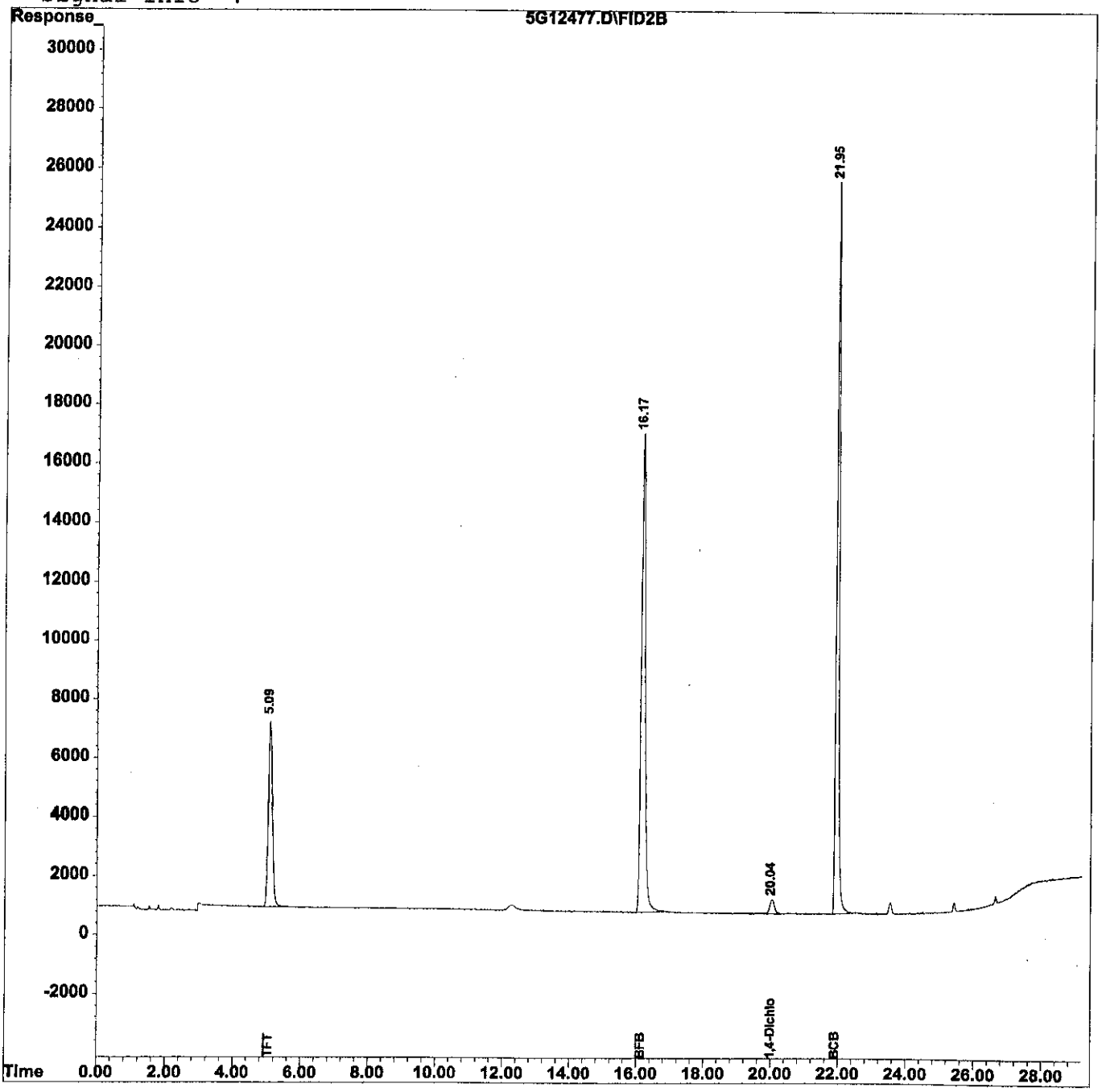
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	525852	31.1417 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.81%
9) S BFB	16.17	1356304	28.1054 ug/L
Spiked Amount 30.000		Recovery =	93.68%
13) S BCB	21.95	1321575	28.2095 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	94.03%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	20.04	54517	1.1168 ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\030802\5G12477.D Vial: 10
Acq On : 8 Mar 2002 15:40 Operator: CBN
Sample : L0203154-05 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 16:10 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030802\5G12477.D Vial: 10
Acq On : 8 Mar 2002 15:40 Operator: CBN
Sample : L0203154-05 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 16:10 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	528049	31.2719 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	104.24%
9) S BFB	16.18	1346442	27.9010 ug/L
Spiked Amount 30.000		Recovery =	93.00%
13) S BCB	21.95	1337238	28.5438 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	95.15%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	20.04	47385	0.9707 ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

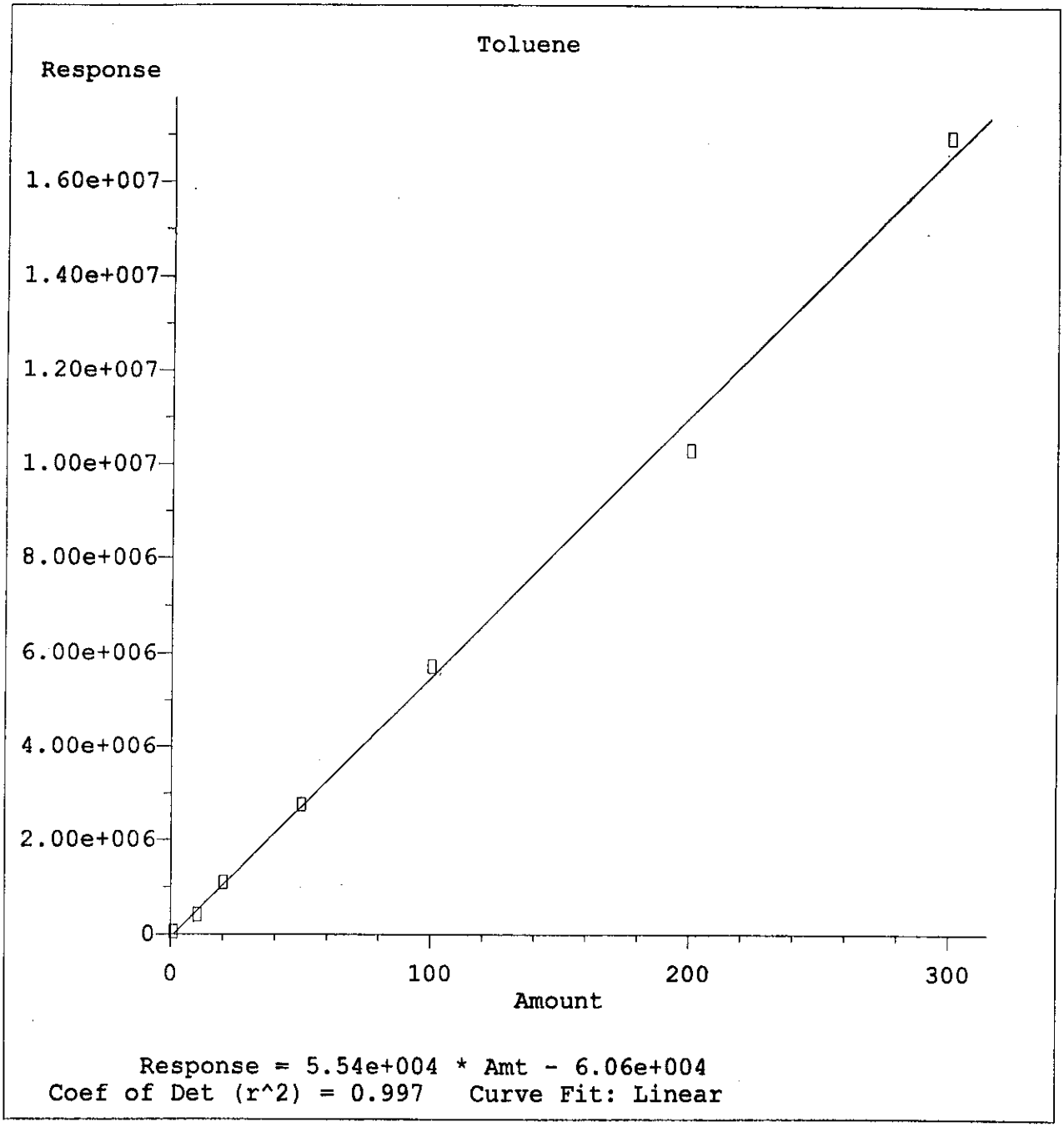
2.1.3.3 Standards Data

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

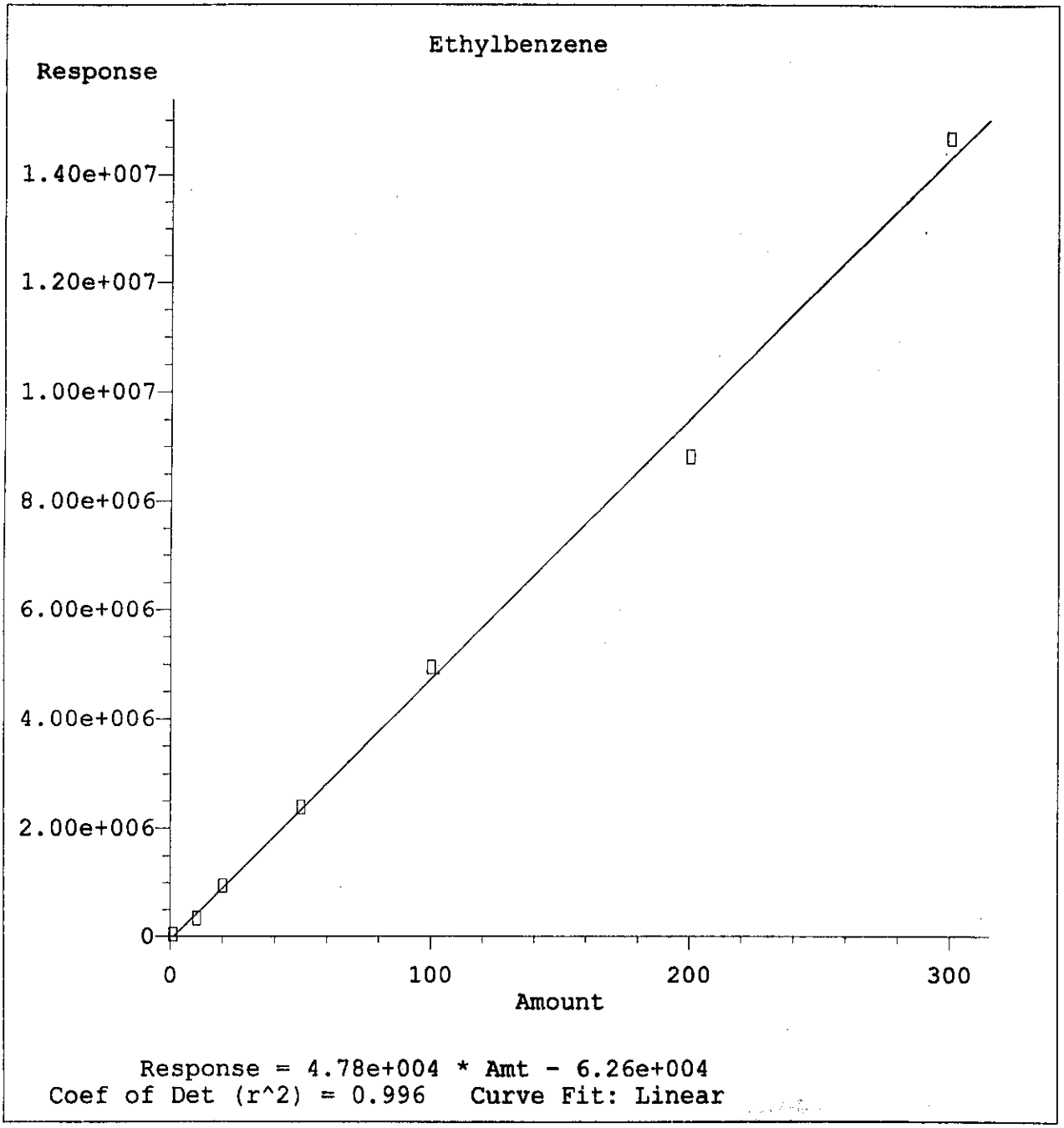
Calibration Files

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

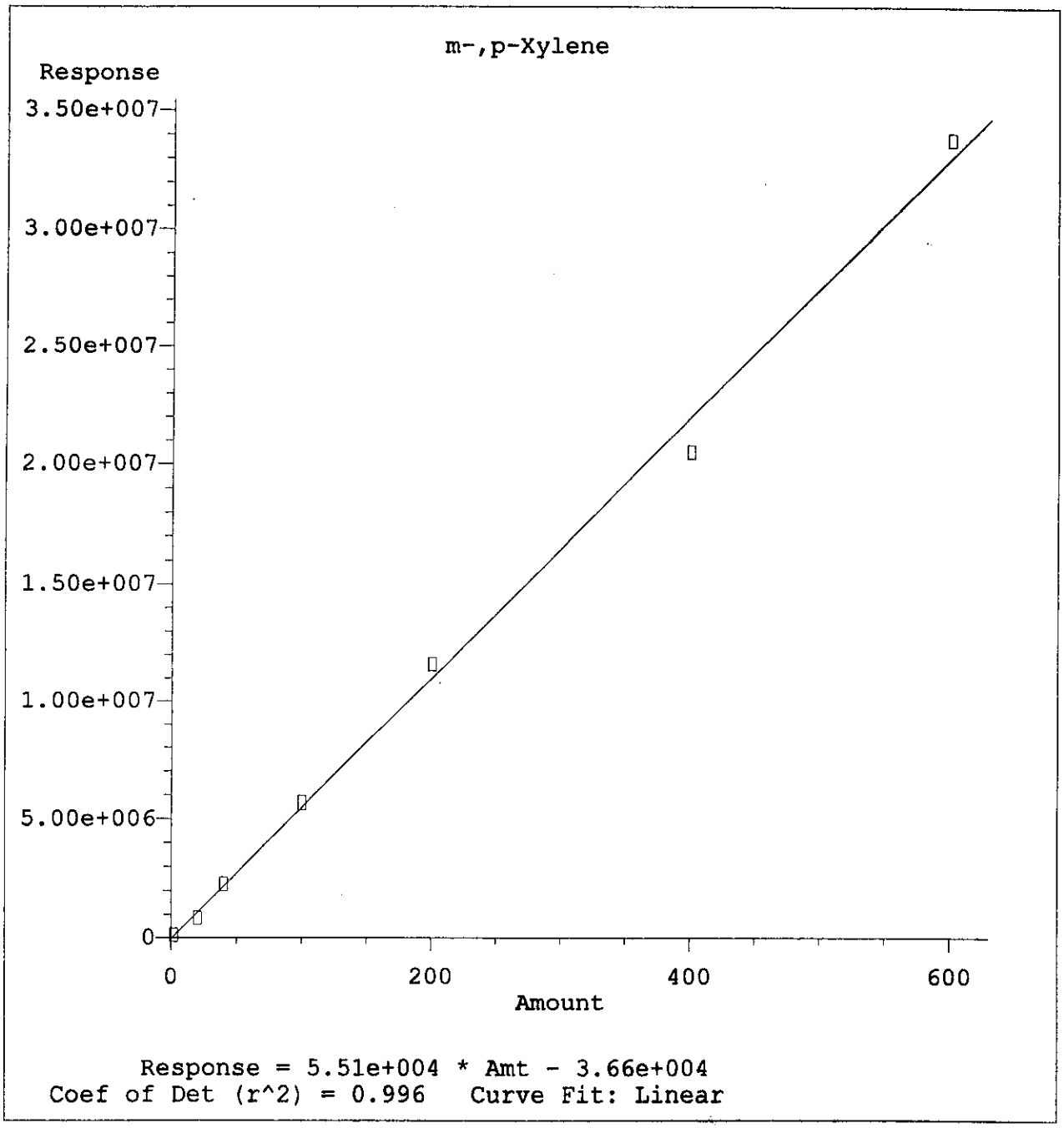
Fri Feb 22 12:57:25 2002



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



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



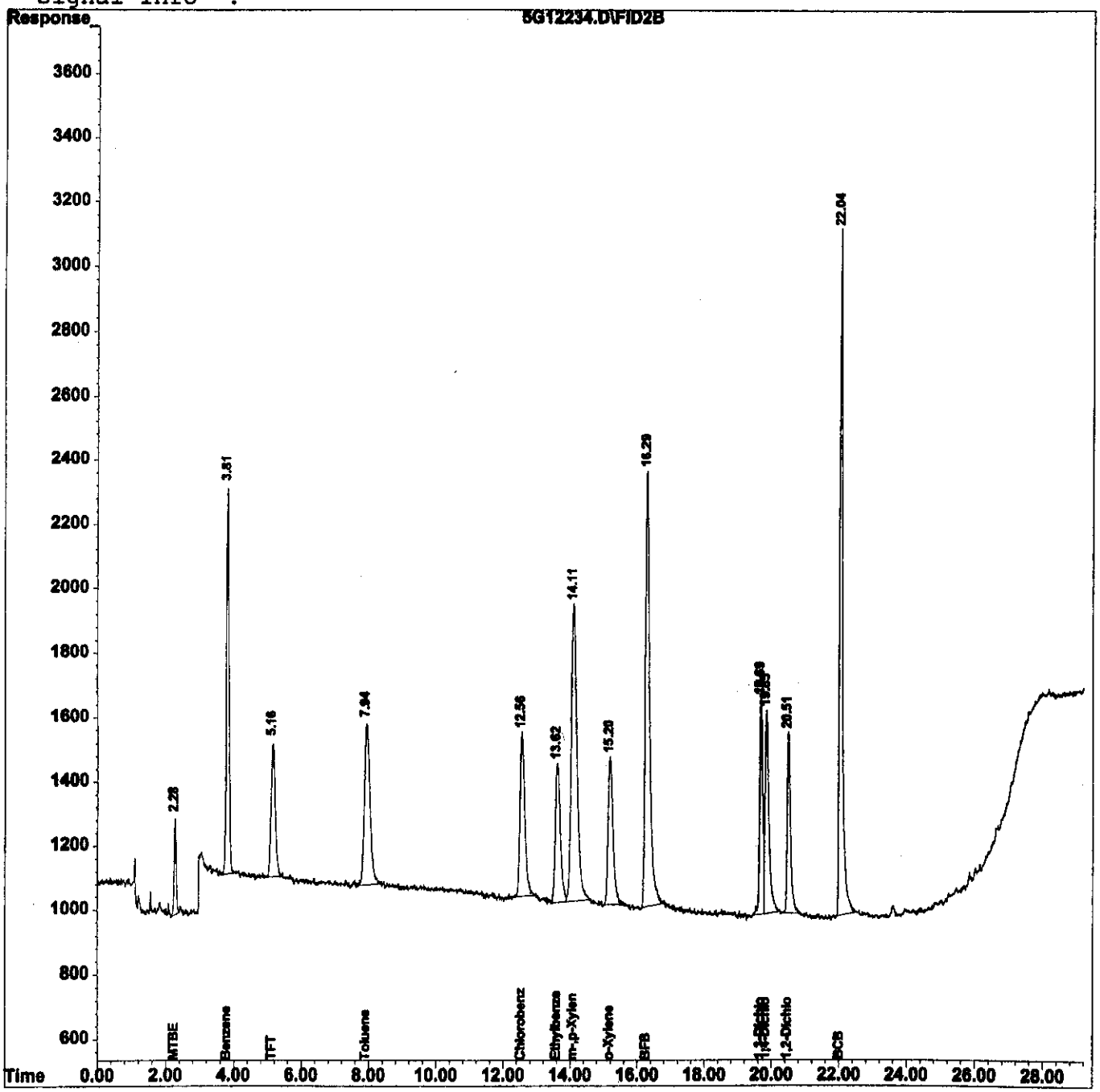
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002

Quantitation Report

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

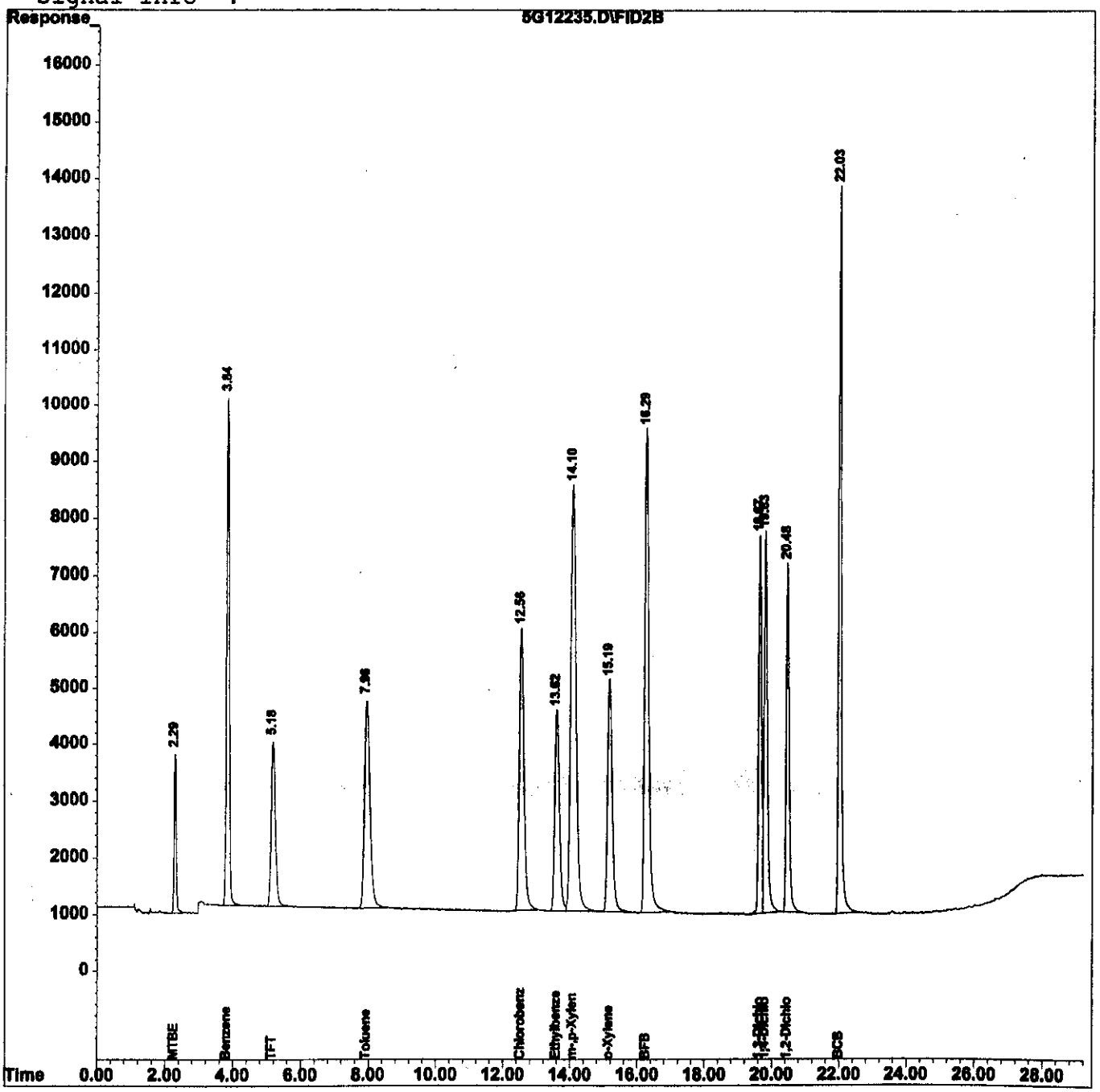
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

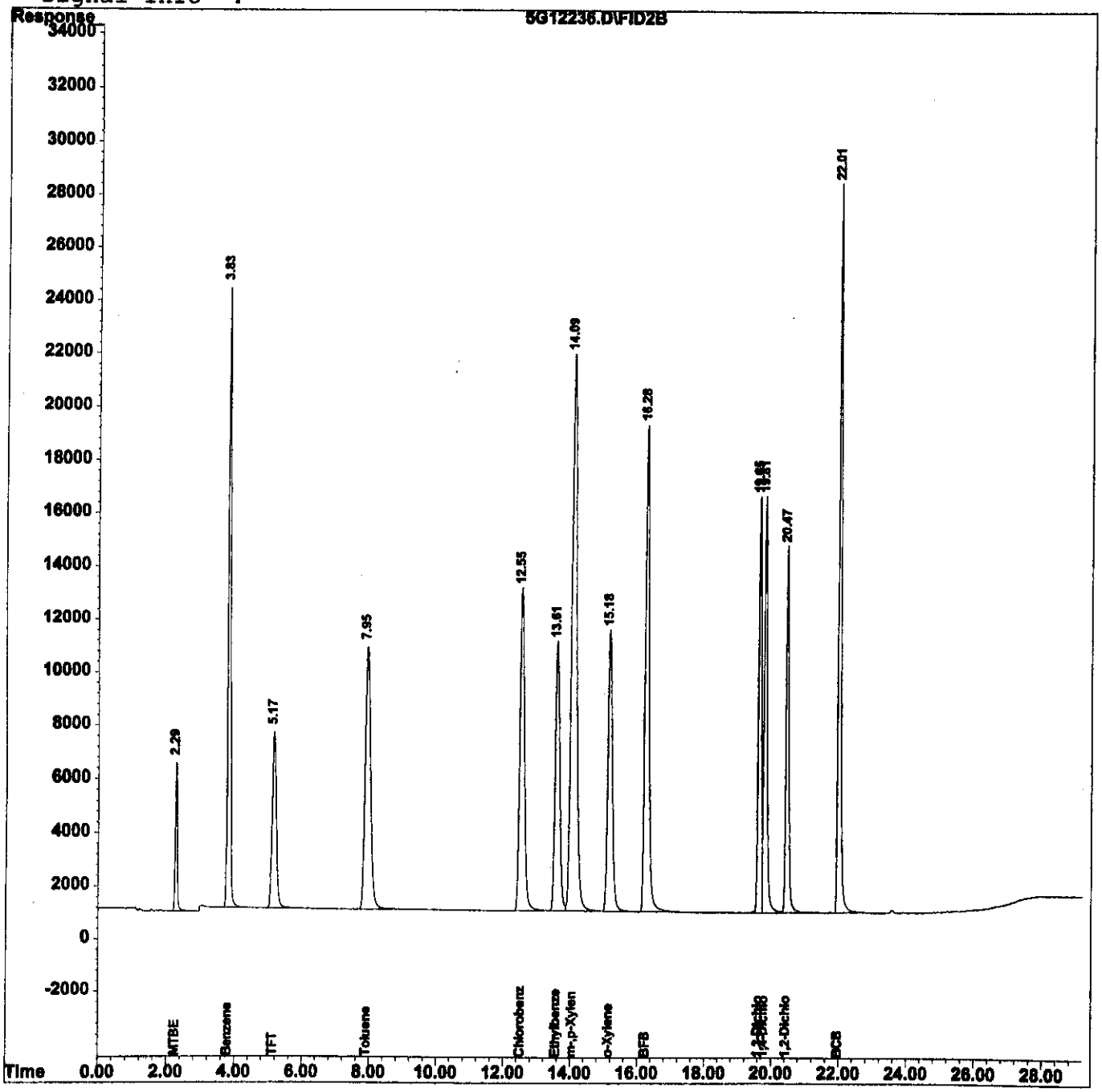
Quantitation Report

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

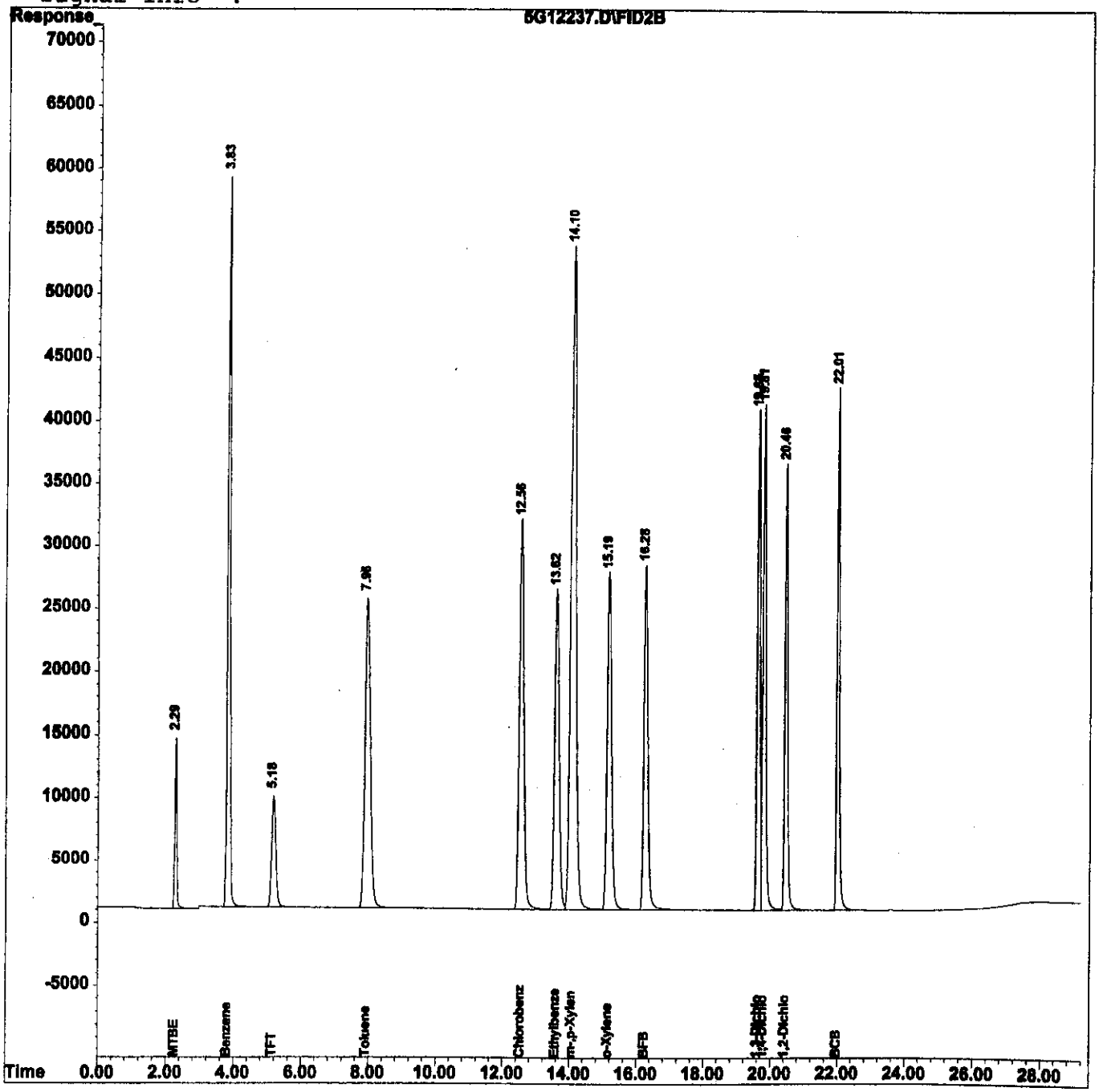
Quantitation Report

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

Vial: 6
Operator: CBN
Inst : HP5
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

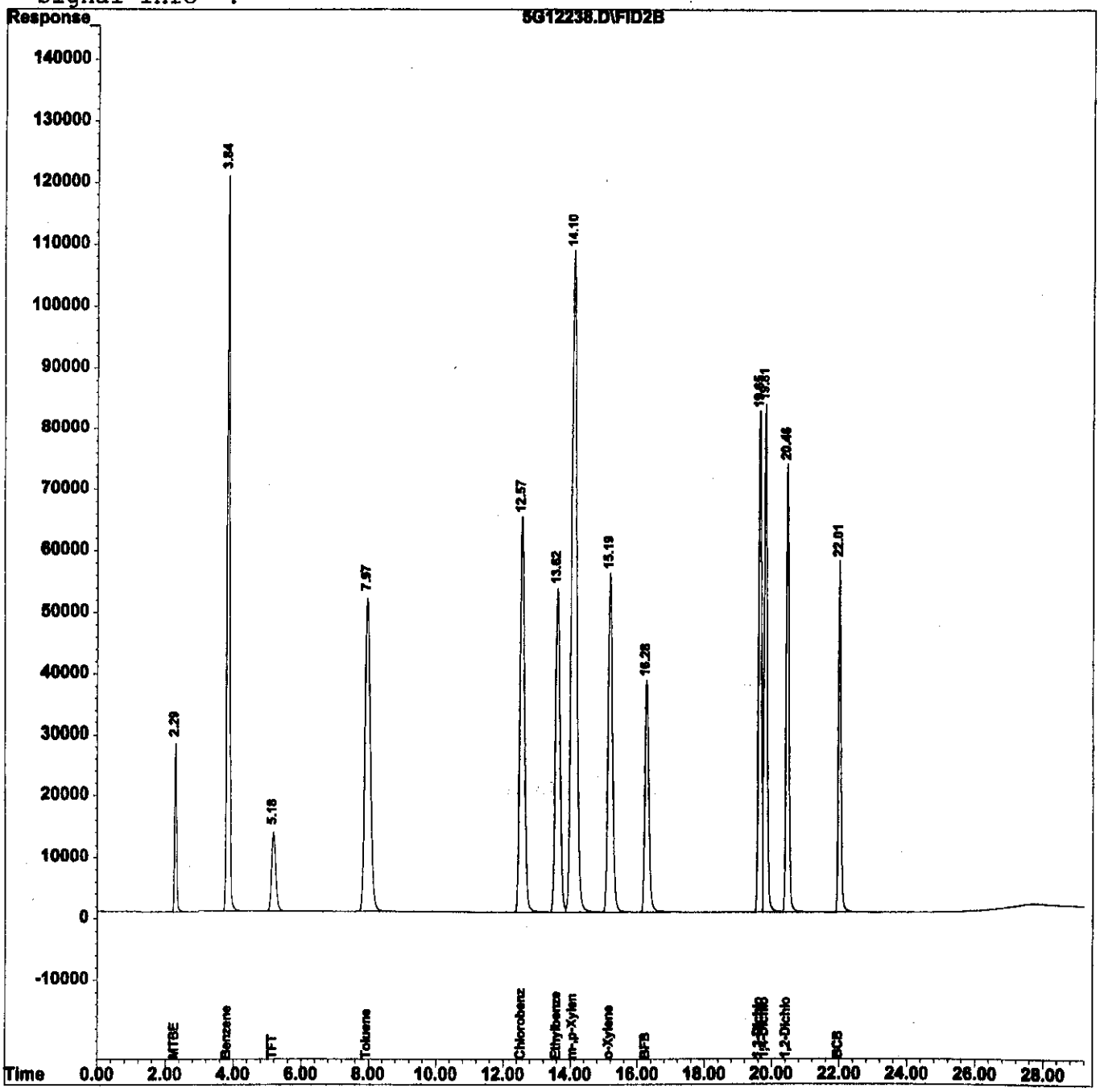
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

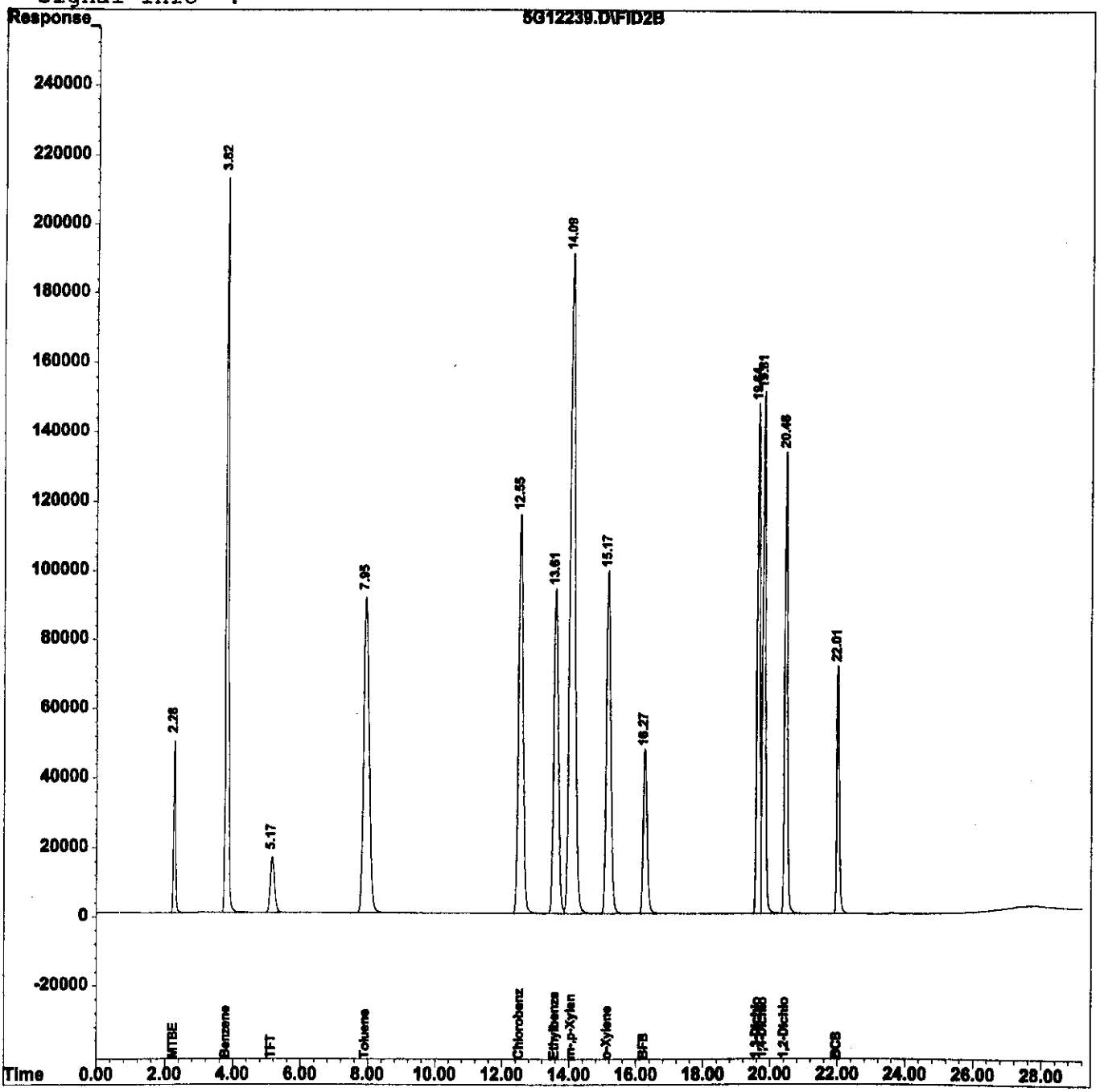
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

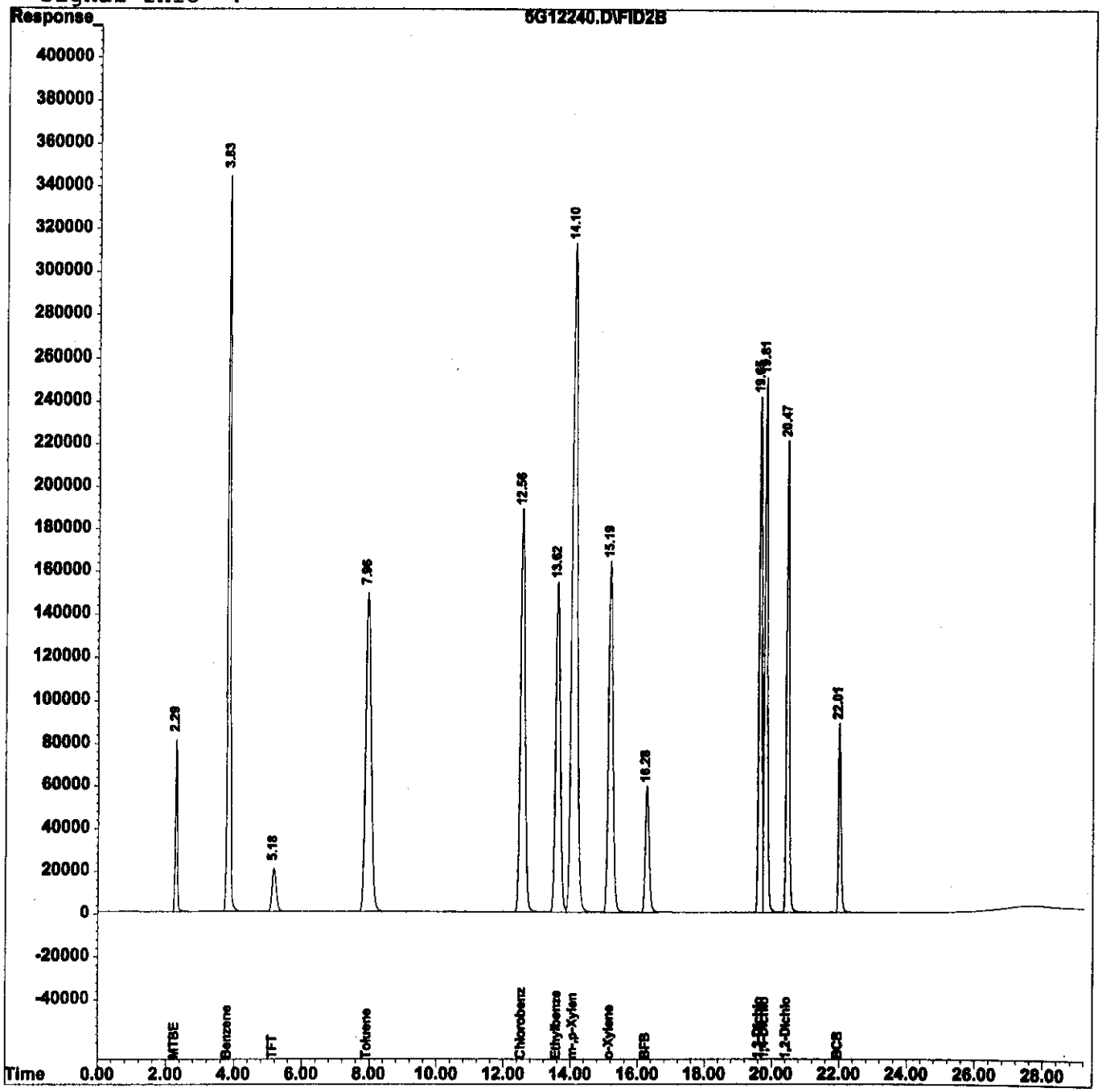
Quantitation Report

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

Evaluate Continuing Calibration Report

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

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

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

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

Evaluate Continuing Calibration Report

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

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

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

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

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

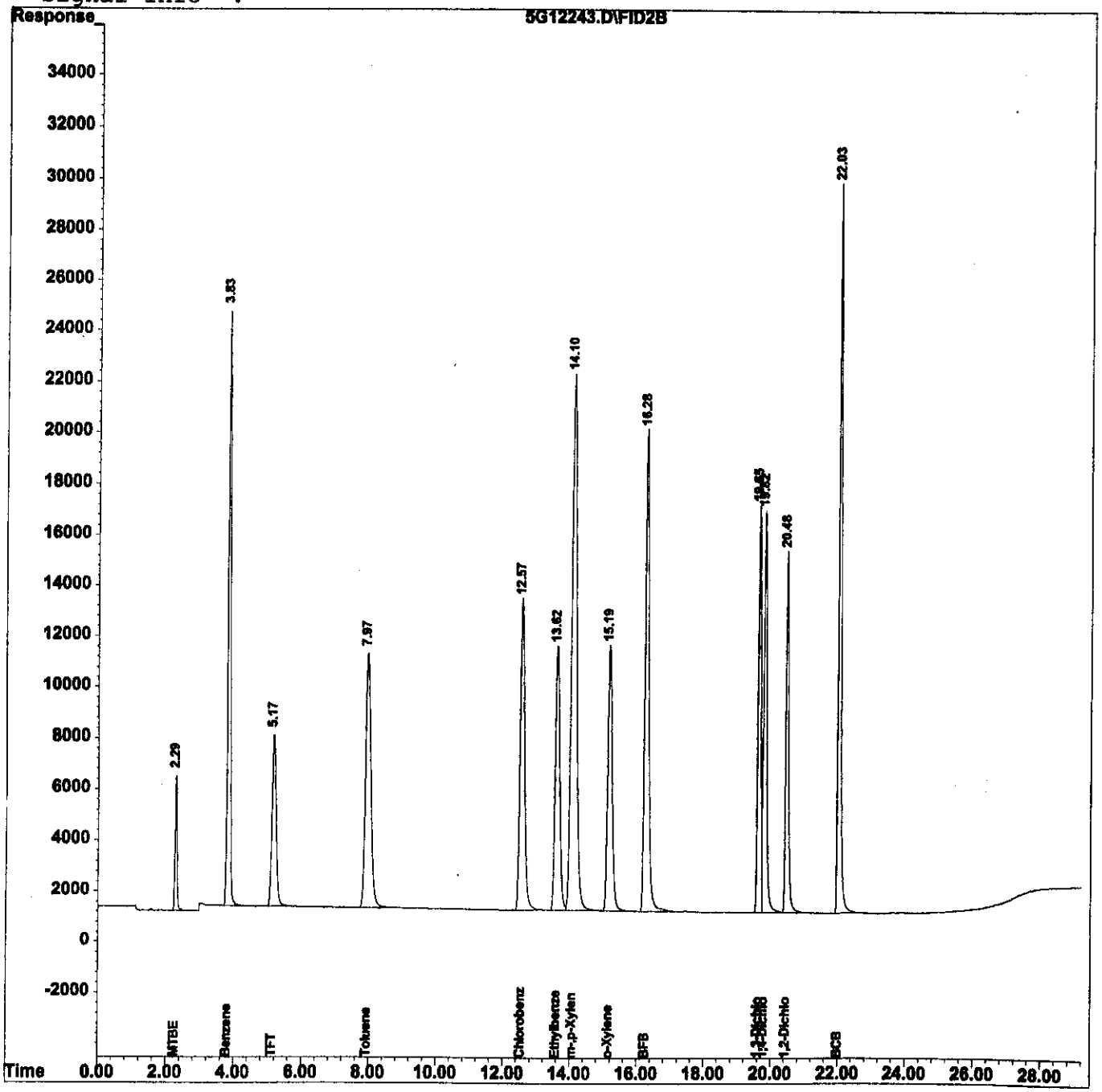
Quantitation Report

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

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :



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

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

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

Calibration Files

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

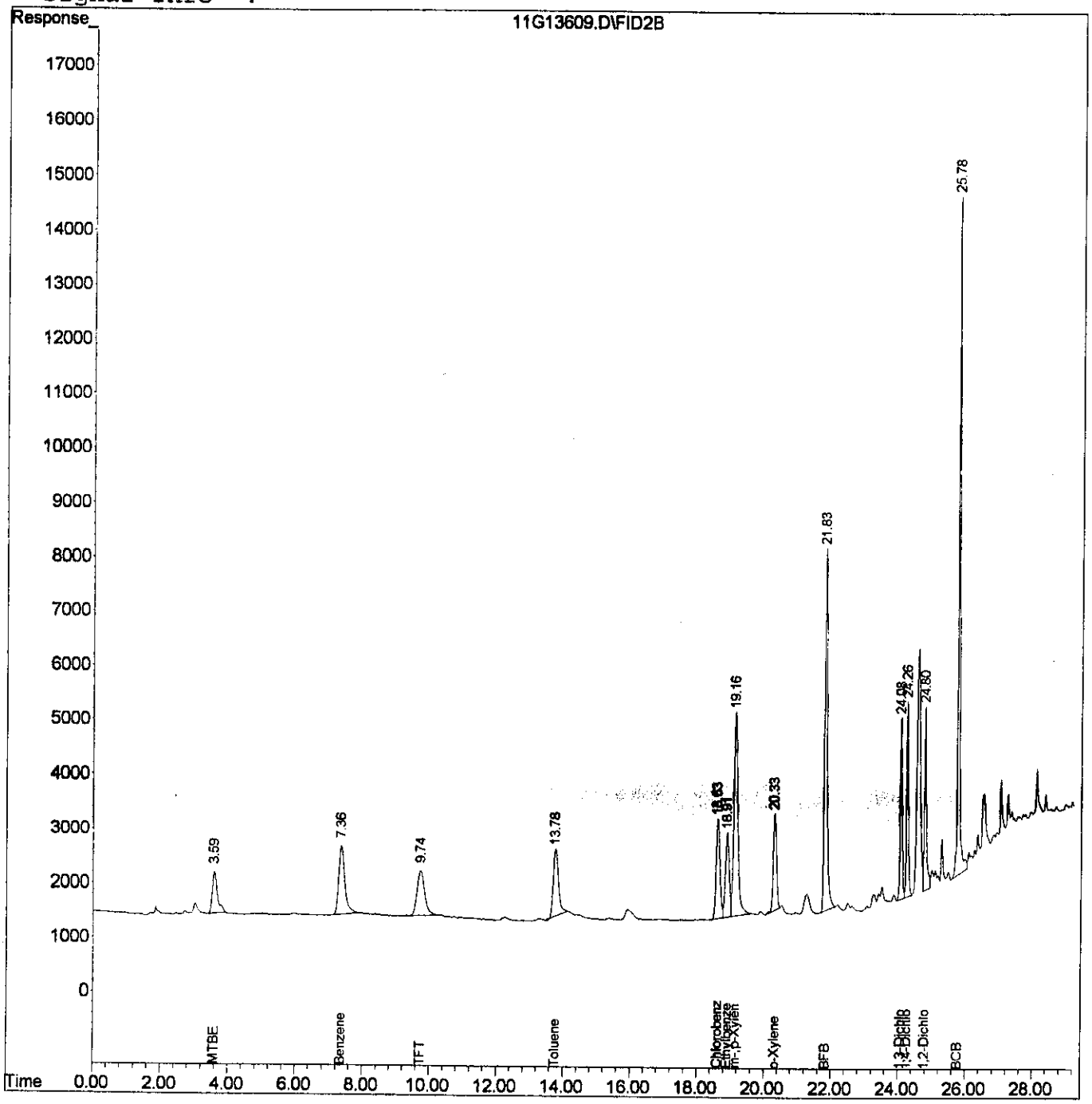
Mon Feb 25 21:49:55 2002

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

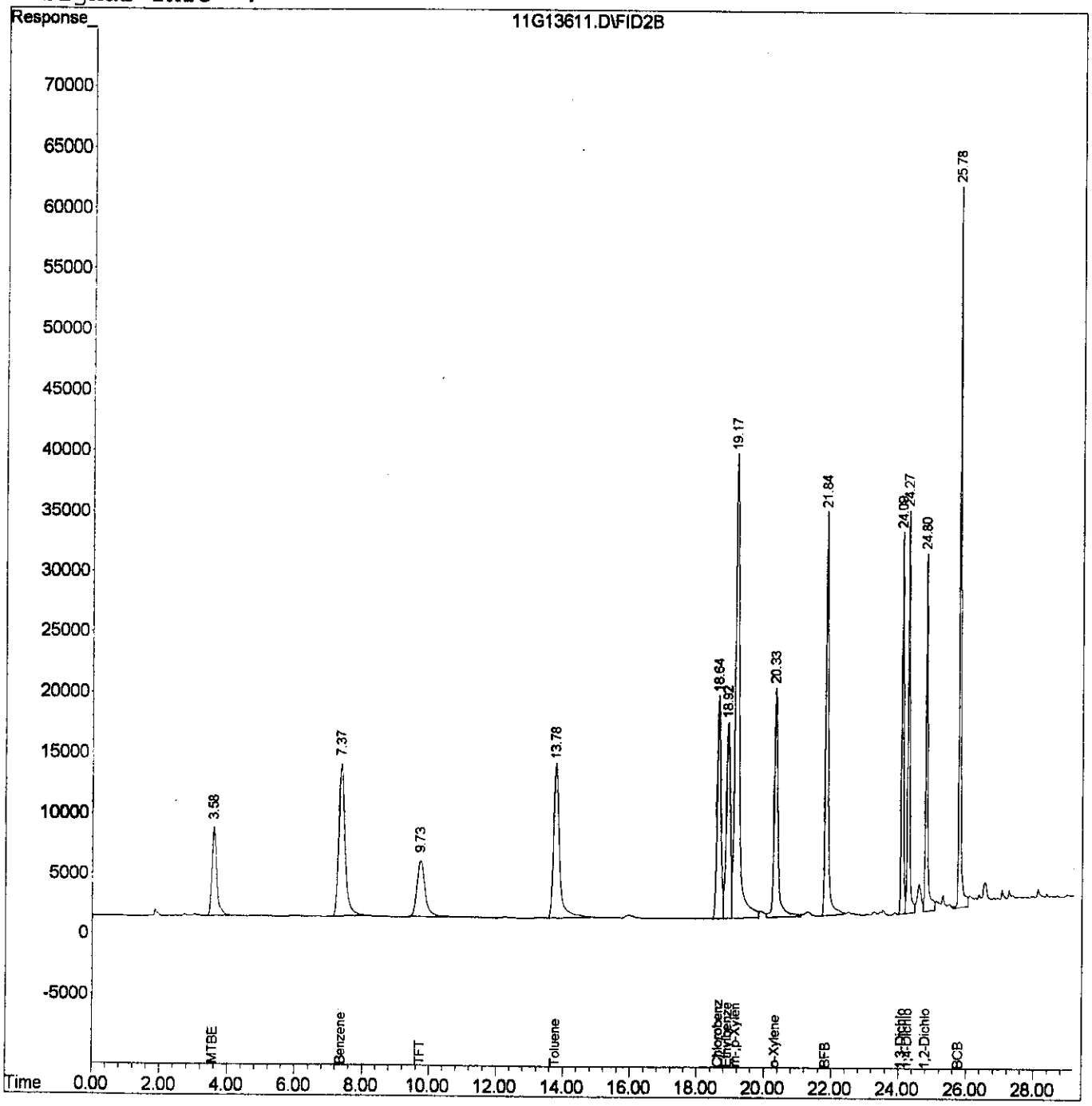
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.73	130321	2.2630 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery =	7.54%#
9) S BFB	21.83	379513	2.3226 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery =	7.74%#
13) S BCB	25.78	429462	2.7619 UG/KG
Spiked Amount 30.0000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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

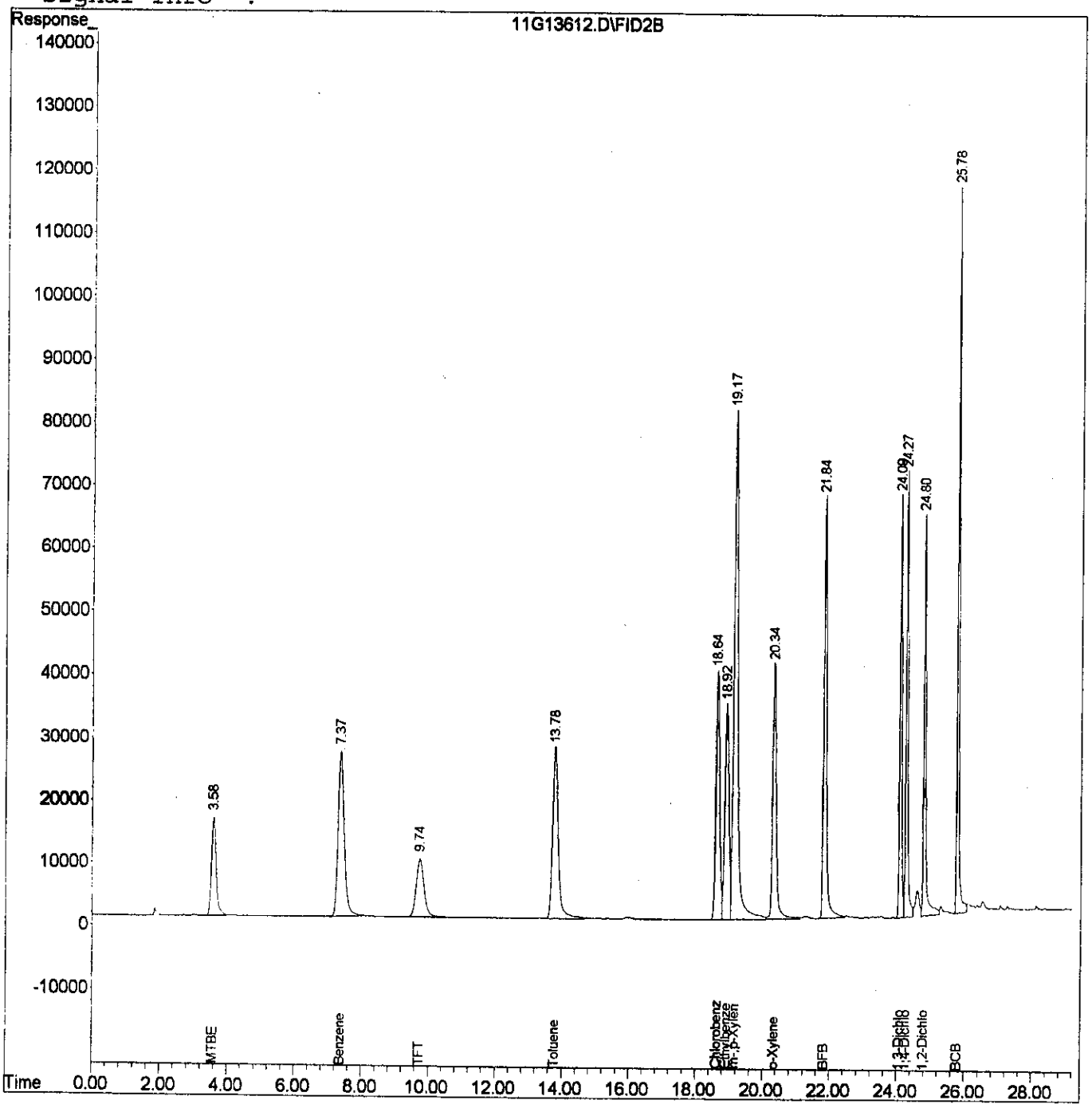
(f)=RT Delta > 1/2 Window (m)=manual int.

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

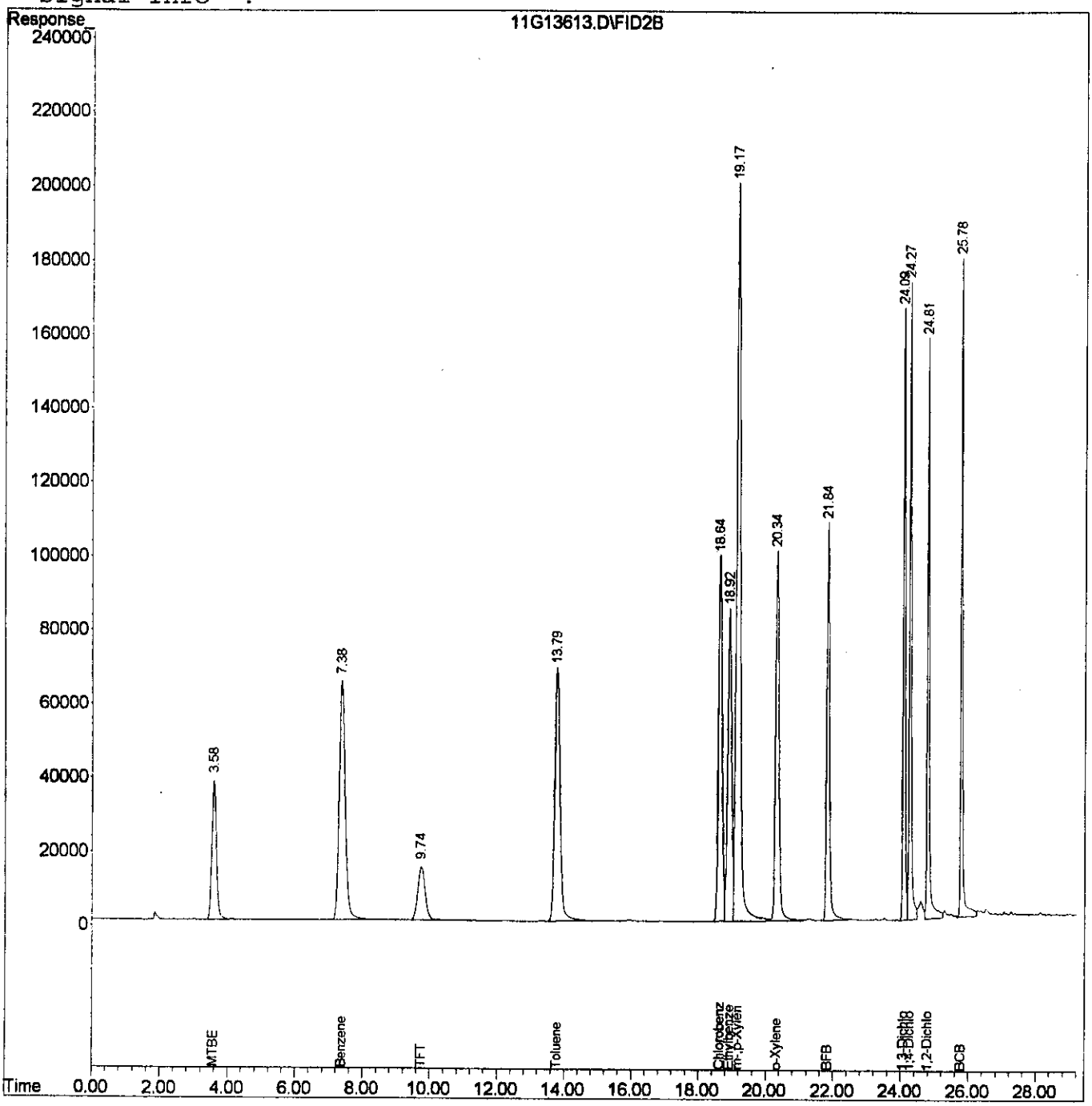
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.74	1501065	26.0658 UG/KG
Spiked Amount	30.0000	Range	47 - 121	Recovery	= 86.89%
9) S BFB			21.84	3902222	23.8814 UG/KG
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 79.60%
13) S BCB			25.78	3760296	24.1828 UG/KG
Spiked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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

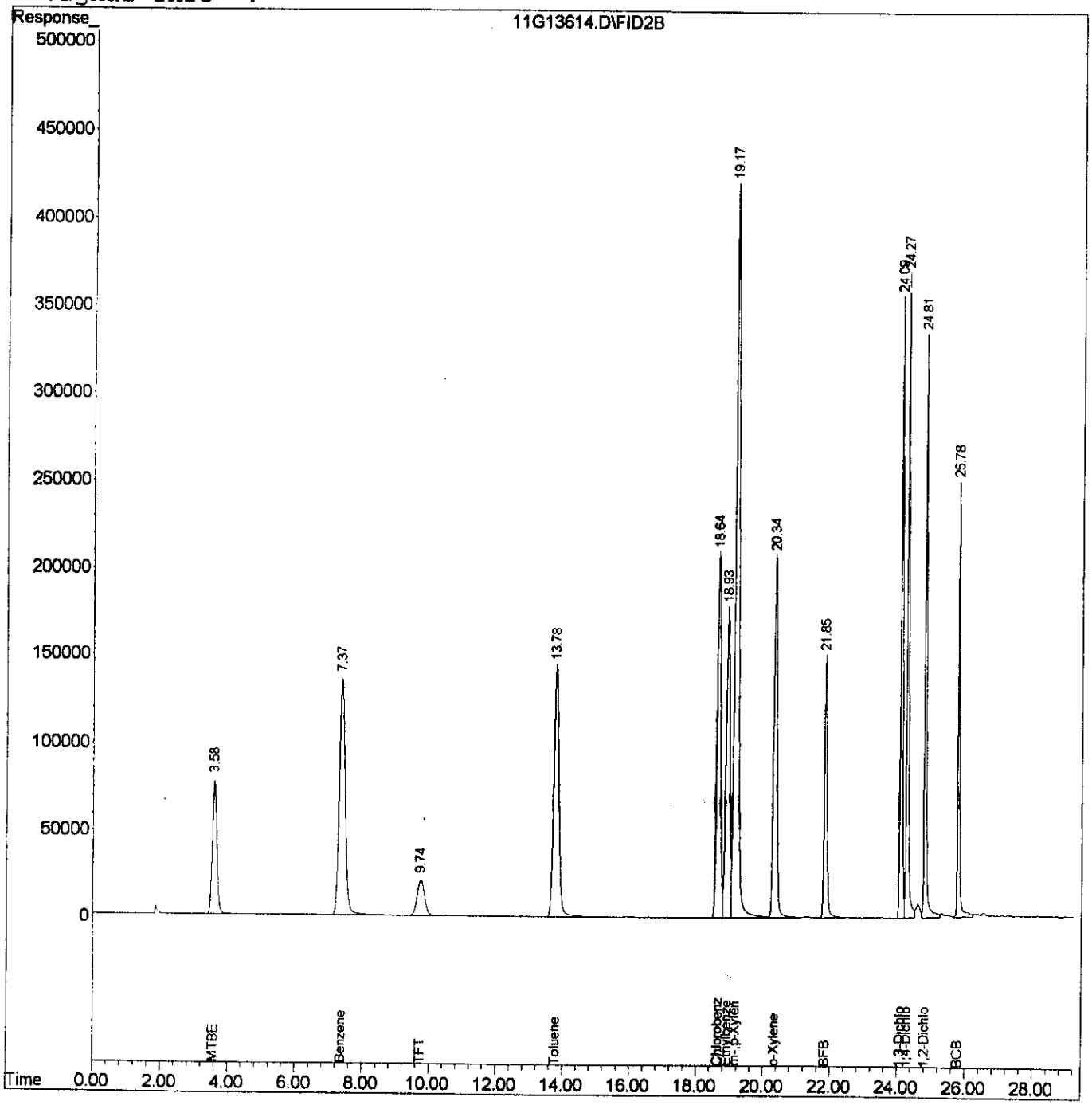
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.74	2263917	39.3126 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 131.04%#
9) S BFB	21.85	6095946	37.3069 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 124.36%
13) S BCB	25.78	5982794	38.4759 UG/KG
Spiked Amount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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

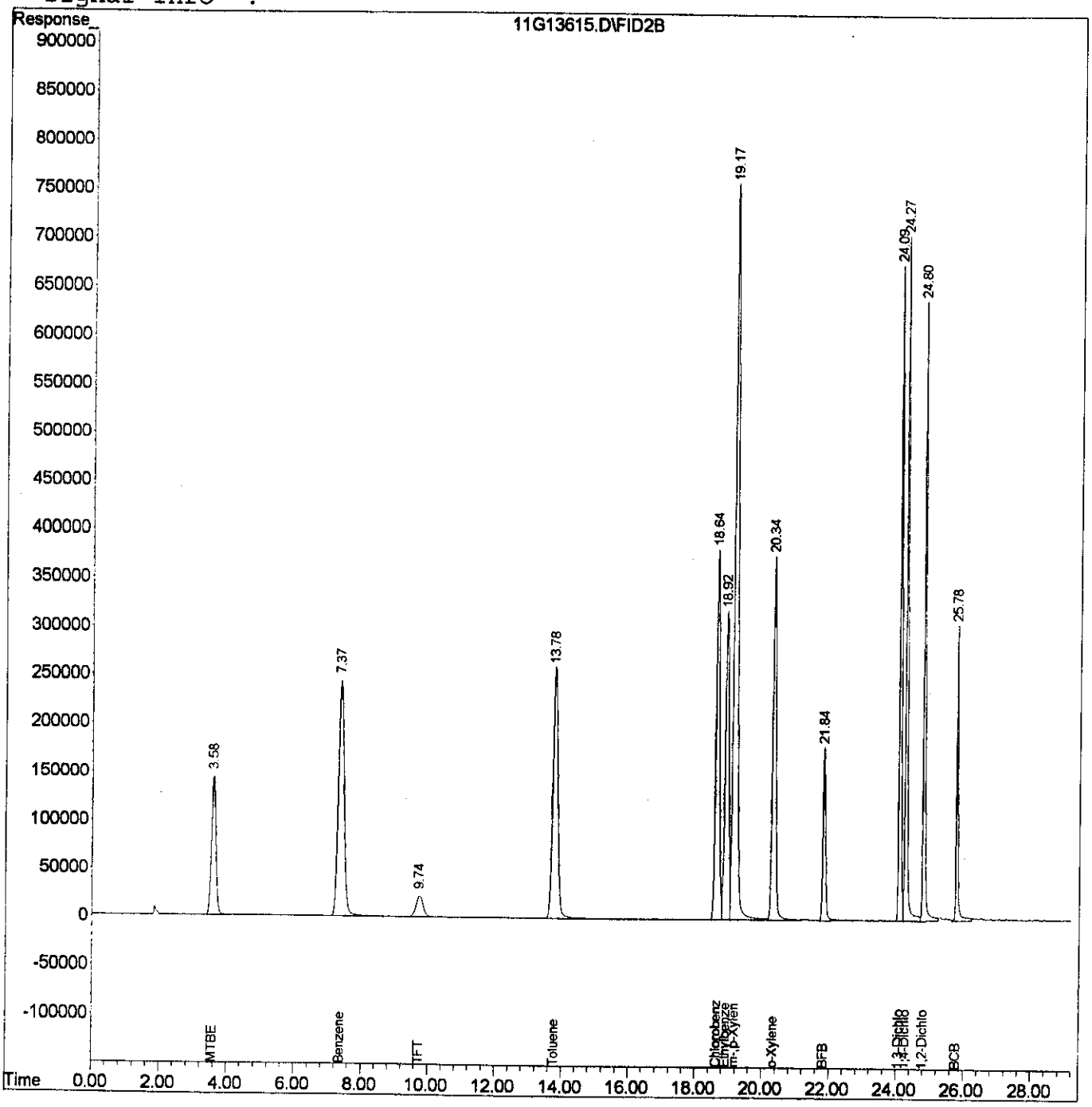
(f)=RT Delta > 1/2 Window (m)=manual int.

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

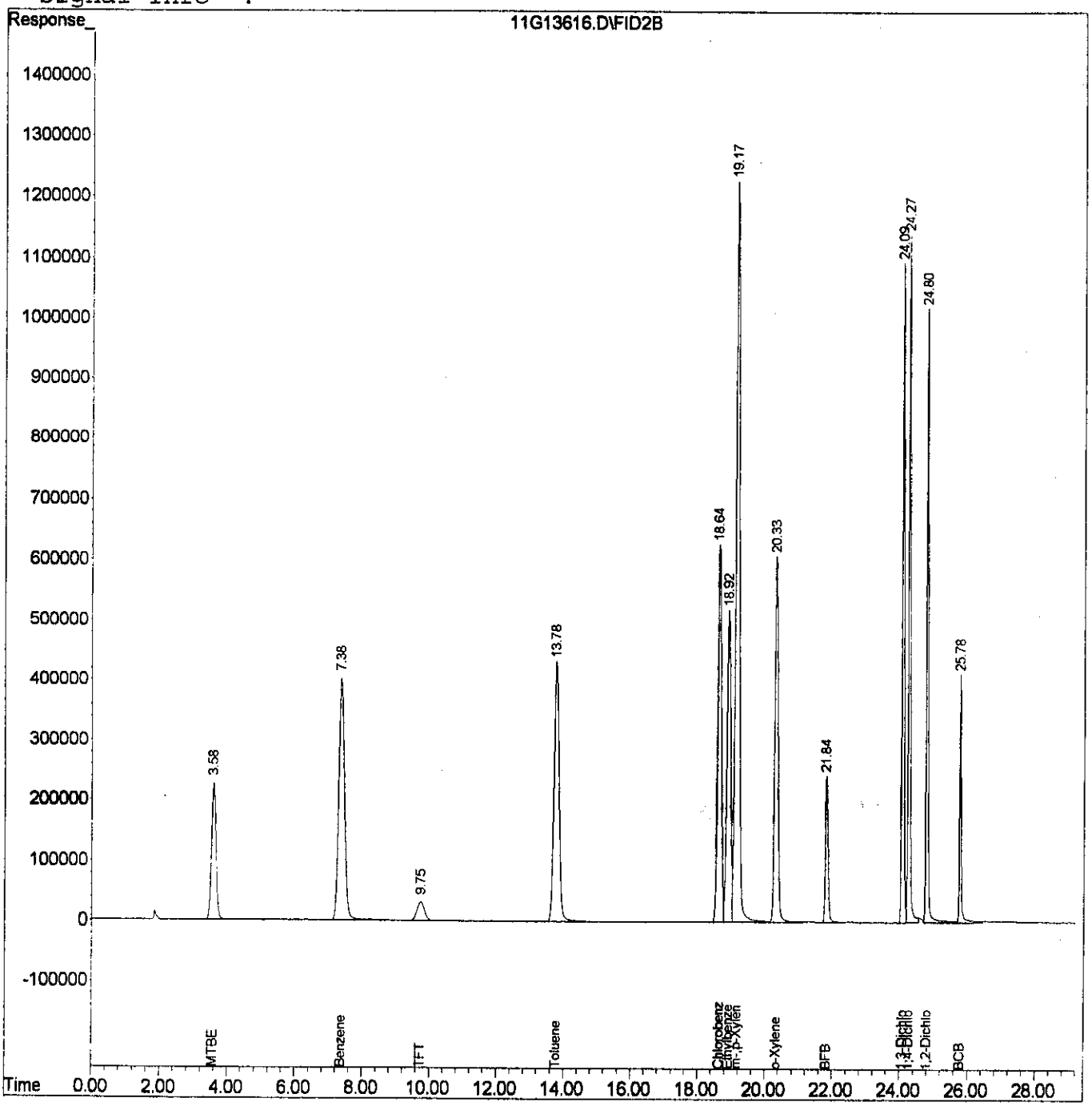
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.74	3181319	55.2432 UG/KG
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 184.14%#
9) S BFB	21.84	9748090	59.6579 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 198.86%#
13) S BCB	25.78	10186149	65.5080 UG/KG
Spiked Amount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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

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

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

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

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

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

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

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

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

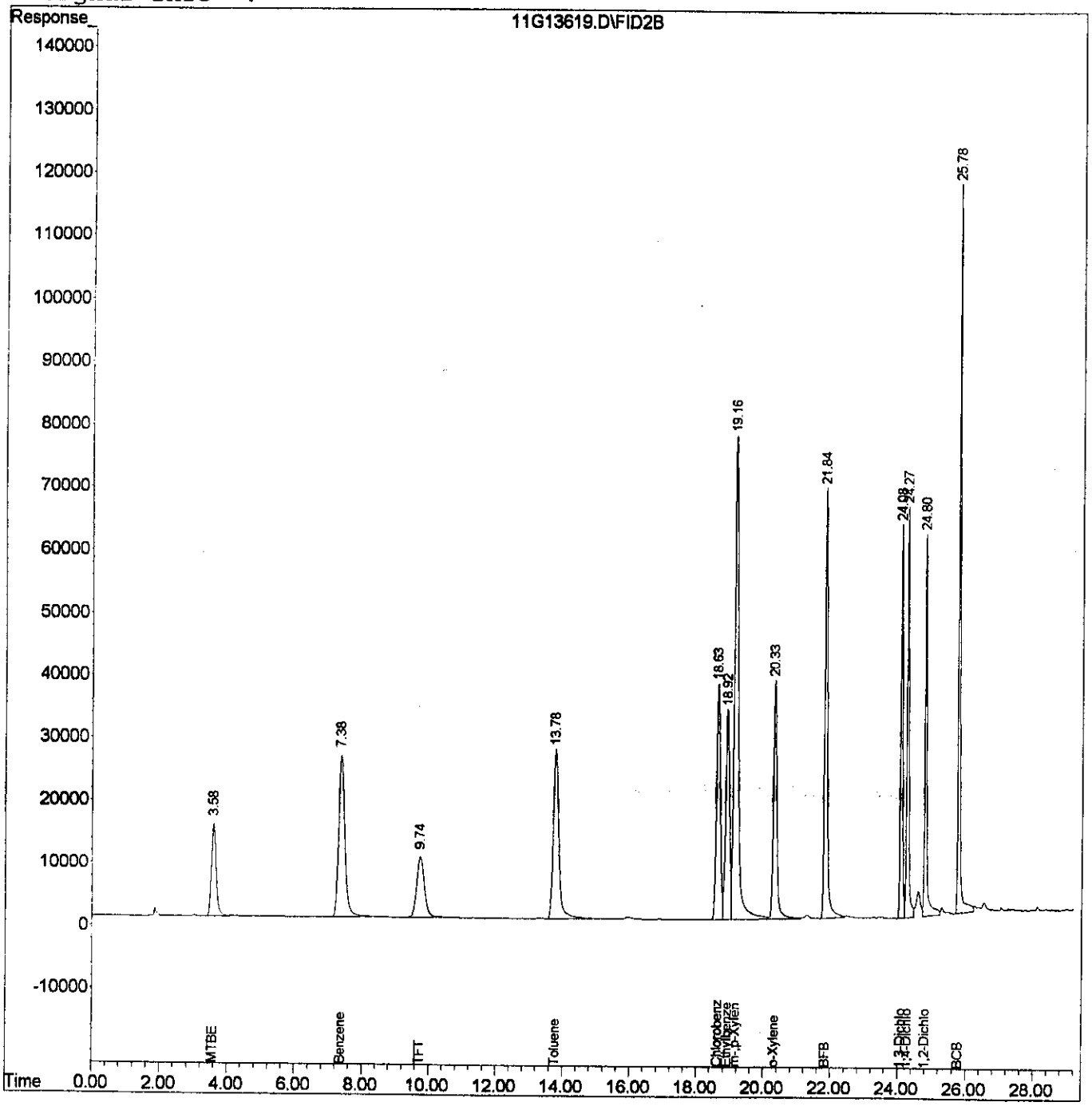
		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	71.216	69.689	E3	2.1	92	0.00
2	TM	Benzene	158.944	162.686	E3	-2.4	98	0.00
3	S	TFT	48.800	51.560	E3	-5.7	103	0.00
4	TM	Toluene	149.555	157.114	E3	-5.1	97	0.00
5	TM	Chlorobenzene	151.479	147.430	E3	2.7	94	0.00
6	TM	Ethylbenzene	133.696	135.877	E3	-1.6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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

Data File : C:\HPCHEM\2\DATA\030802\5G12465.D Vial: 1
Acq On : 8 Mar 2002 8:17 Operator: CBN
Sample : WG114158-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.916 E3	1.5	97	-0.04
2	TM	Benzene	58.464	61.381 E3	-5.0	102	-0.07
3	S	TFT	16.886	17.199 E3	-1.9	92	-0.09
4	TM	Toluene	53.514	56.717 E3	-6.0	103	-0.13
5	TM	Chlorobenzene	55.475	59.192 E3	-6.7	103	-0.11
6	TM	Ethylbenzene	45.133	49.582 E3	-9.9	105	-0.11
7	TM	m-,p-Xylene	53.679	57.896 E3	-7.9	102	-0.10
8	TM	o-Xylene	46.904	49.279 E3	-5.1	101	-0.10
9	S	BFB	48.258	44.351 E3	8.1	88	-0.10
10	TM	1,3-Dichlorobenzene	45.376	47.716 E3	-5.2	102	-0.08
11	TM	1,4-Dichlorobenzene	48.816	51.818 E3	-6.1	102	-0.07
12	TM	1,2-Dichlorobenzene	39.484	41.859 E3	-6.0	103	-0.07
13	S	BCB	46.849	44.343 E3	5.3	92	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12465.D 8021W.M Fri Mar 08 08:48:05 2002 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\030802\5G12465.D Vial: 1
Acq On : 8 Mar 2002 8:17 Operator: CBN
Sample : WG114158-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

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

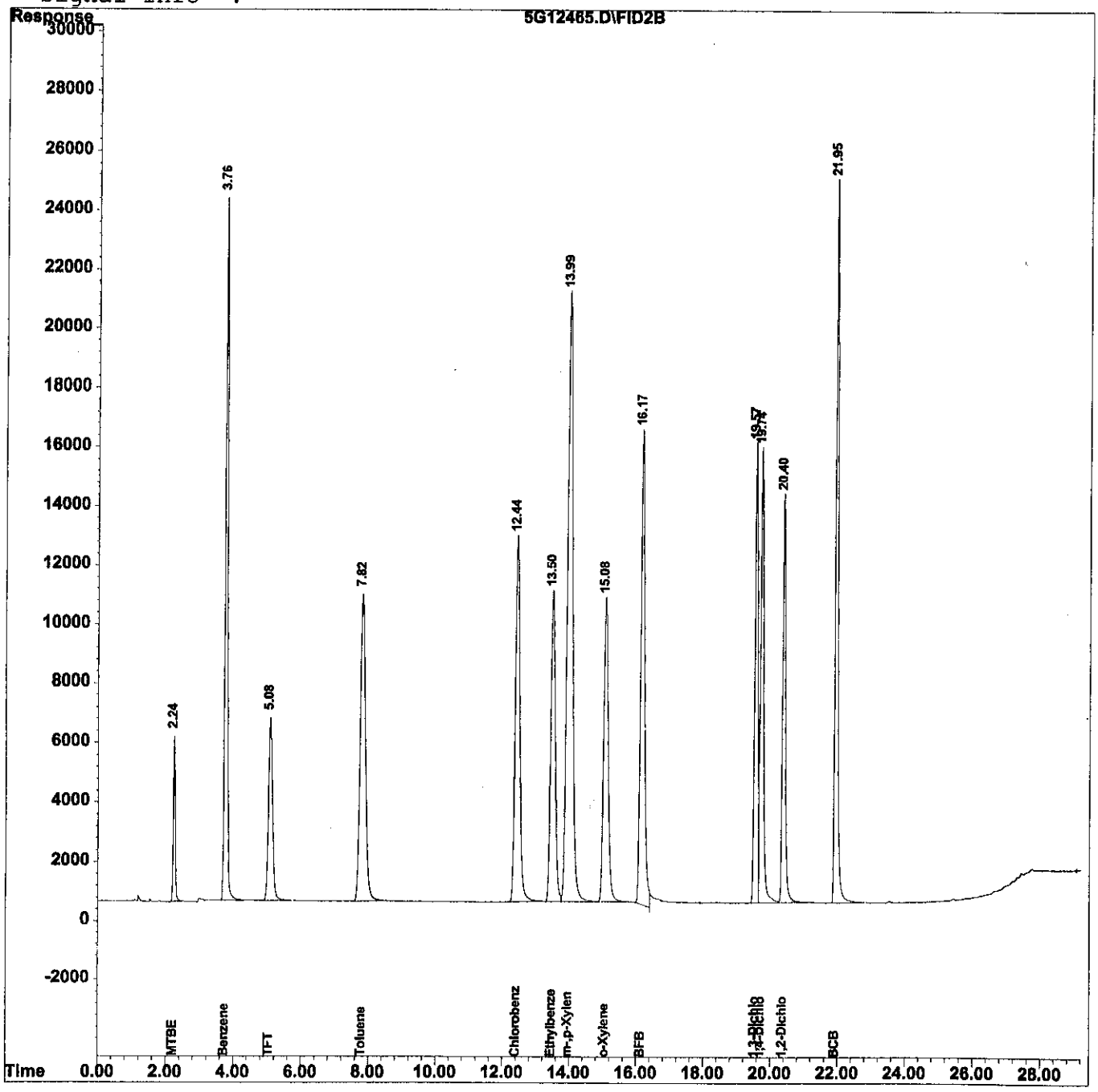
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.700	1.5	97	-0.04
2	TM	Benzene	20.000	20.998	-5.0	102	-0.07
3	S	TFT	30.000	30.557	-1.9	92	-0.09
4	TM	Toluene	20.000	21.576	-7.9	103	-0.13
5	TM	Chlorobenzene	20.000	21.340	-6.7	103	-0.11
6	TM	Ethylbenzene	20.000	22.040	-10.2	105	-0.11
7	TM	m-,p-Xylene	40.000	42.733	-6.8	102	-0.10
8	TM	o-Xylene	20.000	21.013	-5.1	101	-0.10
9	S	BFB	30.000	27.571	8.1	88	-0.10
10	TM	1,3-Dichlorobenzene	20.000	21.031	-5.2	102	-0.08
11	TM	1,4-Dichlorobenzene	20.000	21.230	-6.2	102	-0.07
12	TM	1,2-Dichlorobenzene	20.000	21.203	-6.0	103	-0.07
13	S	BCB	30.000	28.395	5.4	92	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12465.D 8021W.M Fri Mar 08 08:48:03 2002 Page 1

Data File : C:\HPCHEM\2\DATA\030802\5G12465.D Vial: 1
Acq On : 8 Mar 2002 8:17 Operator: CBN
Sample : WG114158-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 8:46 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030802\5G12465.D Vial: 1
Acq On : 8 Mar 2002 8:17 Operator: CBN
Sample : WG114158-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 8:46 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	515978	30.5570 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 101.86%			
9) S BFB	16.17	1330529	27.5713 ug/L
Spiked Amount 30.000 Recovery = 91.90%			
13) S BCB	21.95	1330281	28.3953 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 94.65%			
Target Compounds			
1) TM MTBE	2.24	218314	19.7003 ug/L
2) TM Benzene	3.76	1227625	20.9980 ug/L
4) TM Toluene	7.82	1134332	21.5760 ug/L
5) TM Chlorobenzene	12.44	1183831	21.3398 ug/L
6) TM Ethylbenzene	13.50	991645	22.0396 ug/L
7) TM m-,p-Xylene	13.99	2315860	42.7332 ug/L
8) TM o-Xylene	15.08	985582	21.0129 ug/L
10) TM 1,3-Dichlorobenzene	19.57	954311	21.0312 ug/L
11) TM 1,4-Dichlorobenzene	19.74	1036364	21.2301 ug/L
12) TM 1,2-Dichlorobenzene	20.40	837173	21.2027 ug/L

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

Data File : C:\HPCHEM\2\DATA\030802\5G12478.D Vial: 11
Acq On : 8 Mar 2002 16:15 Operator: CBN
Sample : WG114158-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	11.098 E3	-0.1	99	-0.02
2	TM	Benzene	58.464	60.164 E3	-2.9	100	-0.03
3	S	TFT	16.886	17.411 E3	-3.1	93	-0.05
4	TM	Toluene	53.514	54.345 E3	-1.6	99	-0.09
5	TM	Chlorobenzene	55.475	58.800 E3	-6.0	102	-0.08
6	TM	Ethylbenzene	45.133	47.107 E3	-4.4	100	-0.09
7	TM	m-,p-Xylene	53.679	54.964 E3	-2.4	97	-0.08
8	TM	o-Xylene	46.904	47.602 E3	-1.5	97	-0.09
9	S	BFB	48.258	45.235 E3	6.3	90	-0.09
10	TM	1,3-Dichlorobenzene	45.376	46.654 E3	-2.8	100	-0.08
11	TM	1,4-Dichlorobenzene	48.816	49.501 E3	-1.4	98	-0.07
12	TM	1,2-Dichlorobenzene	39.484	41.045 E3	-4.0	101	-0.07
13	S	BCB	46.849	44.843 E3	4.3	93	-0.06

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

Data File : C:\HPCHEM\2\DATA\030802\5G12478.D Vial: 11
Acq On : 8 Mar 2002 16:15 Operator: CBN
Sample : WG114158-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

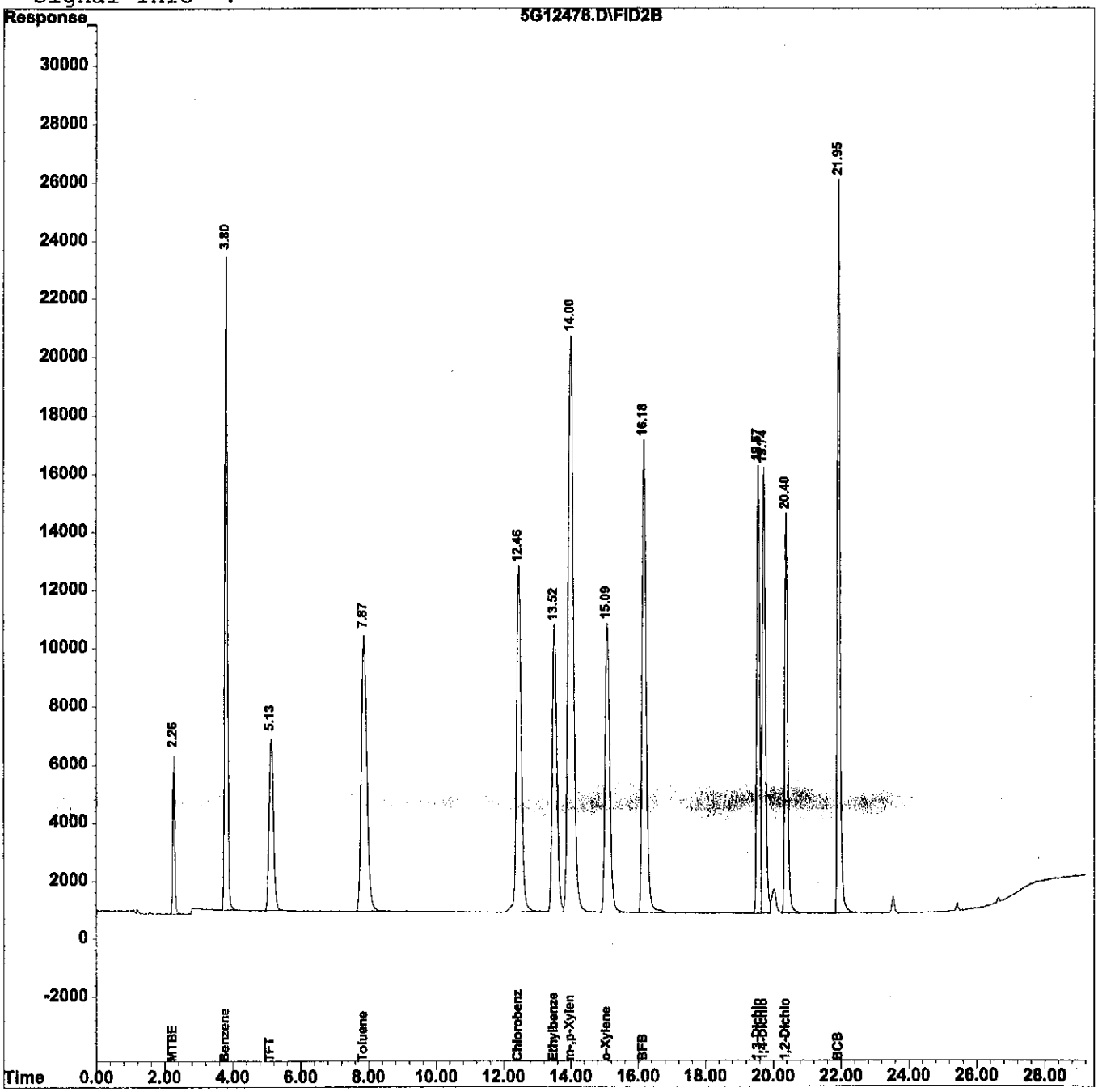
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.029	-0.1	99	-0.02
2	TM	Benzene	20.000	20.582	-2.9	100	-0.03
3	S	TFT	30.000	30.933	-3.1	93	-0.05
4	TM	Toluene	20.000	20.720	-3.6	99	-0.09
5	TM	Chlorobenzene	20.000	21.199	-6.0	102	-0.08
6	TM	Ethylbenzene	20.000	21.005	-5.0	100	-0.09
7	TM	m-,p-Xylene	40.000	40.602	-1.5	97	-0.08
8	TM	o-Xylene	20.000	20.298	-1.5	97	-0.09
9	S	BFB	30.000	28.121	6.3	90	-0.09
10	TM	1,3-Dichlorobenzene	20.000	20.563	-2.8	100	-0.08
11	TM	1,4-Dichlorobenzene	20.000	20.281	-1.4	98	-0.07
12	TM	1,2-Dichlorobenzene	20.000	20.791	-4.0	101	-0.07
13	S	BCB	30.000	28.716	4.3	93	-0.06

Data File : C:\HPCHEM\2\DATA\030802\5G12478.D Vial: 11
Acq On : 8 Mar 2002 16:15 Operator: CBN
Sample : WG114158-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 16:44 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030802\5G12478.D Vial: 11
Acq On : 8 Mar 2002 16:15 Operator: CBN
Sample : WG114158-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 16:44 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.13	522334	30.9334 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 103.11%			
9) S BFB	16.19	1357063	28.1211 ug/L
Spiked Amount 30.000 Recovery = 93.74%			
13) S BCB	21.95	1345283	28.7155 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 95.72%			
Target Compounds			
1) TM MTBE	2.26	221956	20.0289 ug/L
2) TM Benzene	3.80	1203278	20.5815 ug/L
4) TM Toluene	7.87	1086908	20.7198 ug/L
5) TM Chlorobenzene	12.46	1176009	21.1988 ug/L
6) TM Ethylbenzene	13.52	942135	21.0046 ug/L
7) TM m-,p-Xylene	14.00	2198556	40.6024 ug/L
8) TM o-Xylene	15.09	952036	20.2977 ug/L
10) TM 1,3-Dichlorobenzene	19.57	933086	20.5635 ug/L
11) TM 1,4-Dichlorobenzene	19.74	990021	20.2808 ug/L
12) TM 1,2-Dichlorobenzene	20.40	820905	20.7906 ug/L

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

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

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

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

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

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

AVE = 6.16

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

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

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

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

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

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

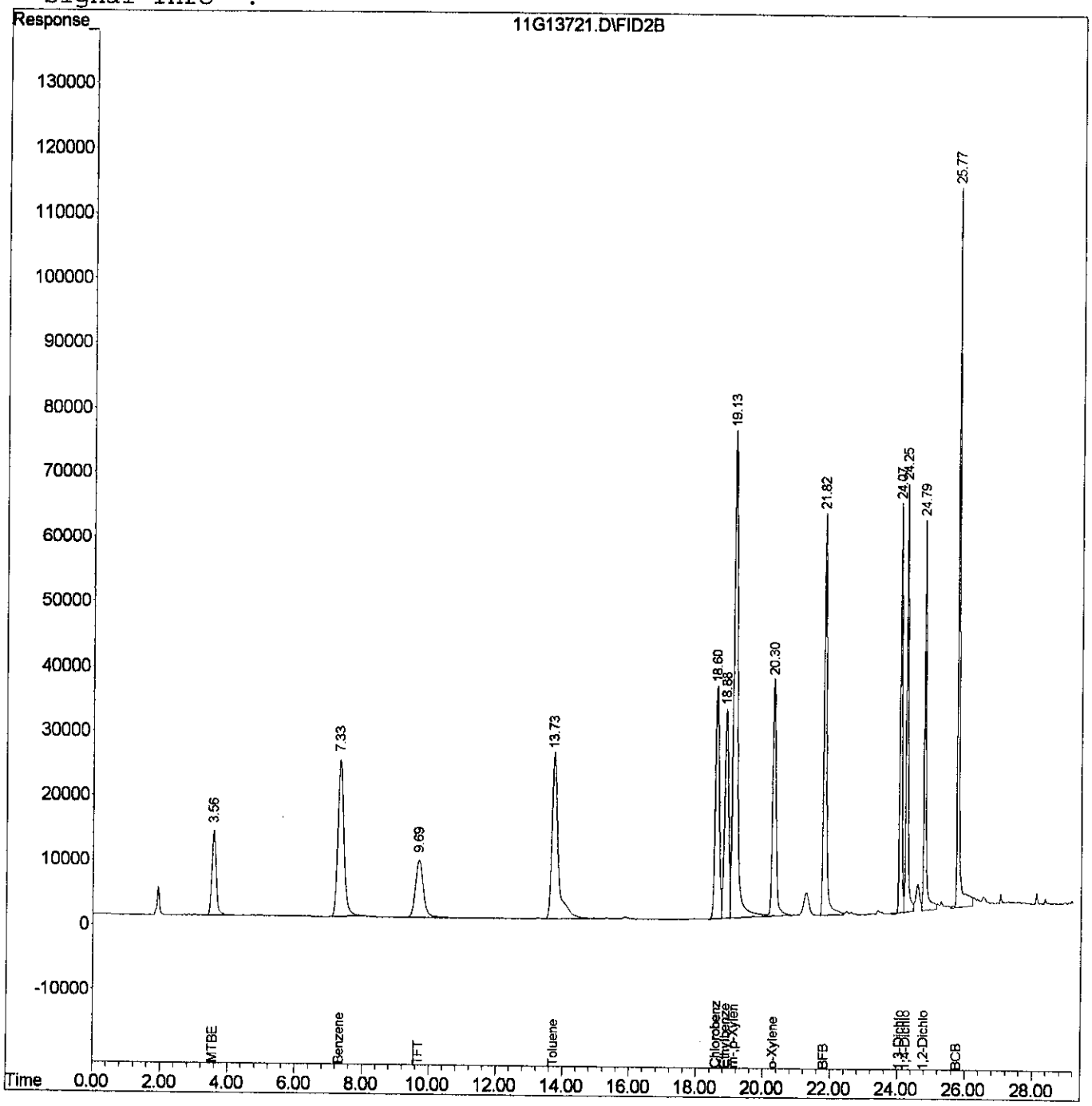
(#) = Out of Range SPCC's out = 0 CCC's out = 0

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13721.D Vial: 1
Acq On : 8 Mar 2002 11:47 am Operator: CBN
Sample : WG114205-01 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(90-28,91-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 8 12:17 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

Data File : C:\HPCHEM\1\DATA\030802\11G13728.D Vial: 4
Acq On : 8 Mar 2002 16:32 Operator: CBN
Sample : WG114205-02 8021 STD 20PPB 5G Inst : HP11
Misc : 7,1 S-(90-28,91-29) Multiplr: 1.00
IntFile : AUTOINT1.E

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

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

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

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

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

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

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

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

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

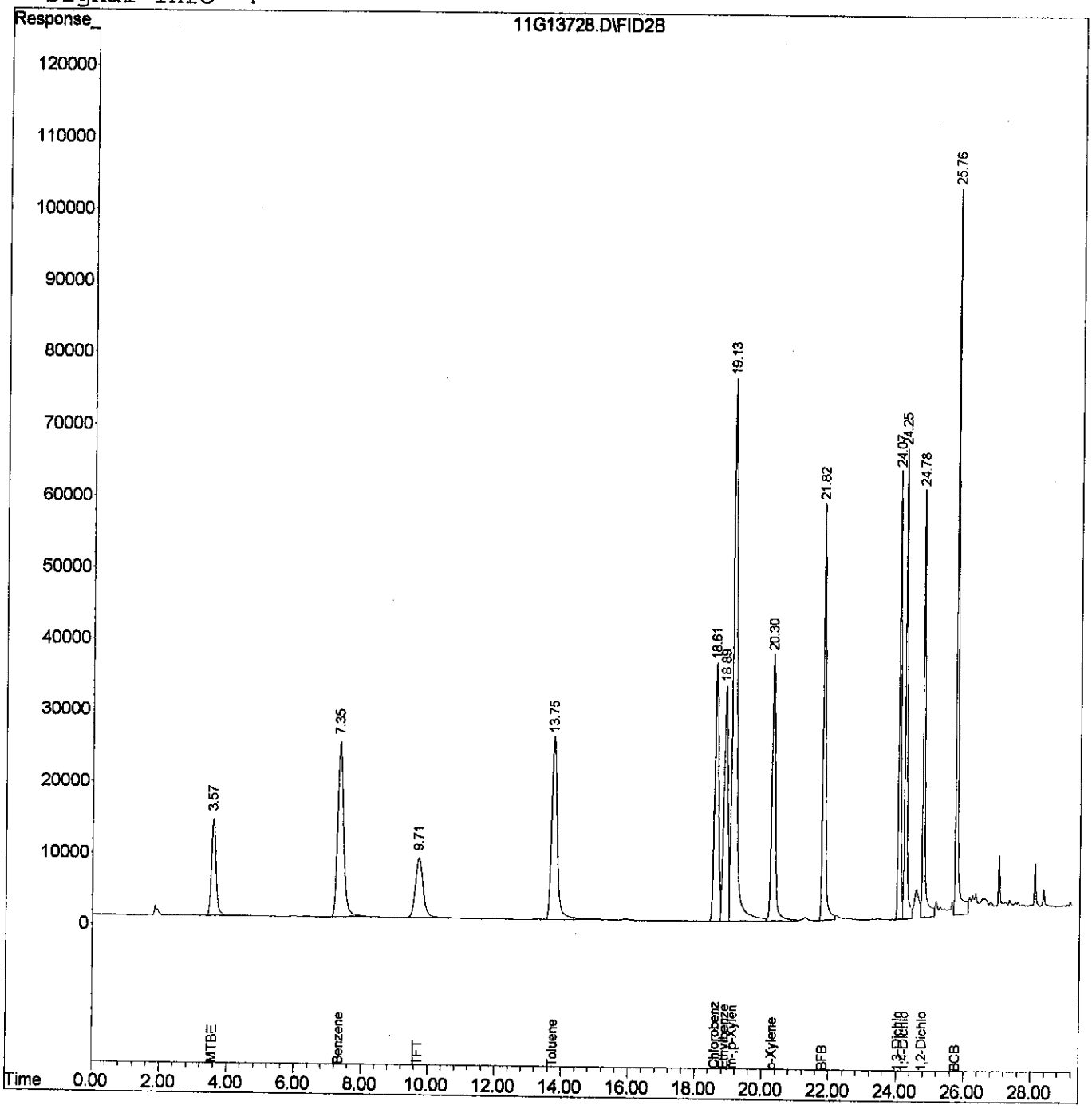
(#) = Out of Range SPCC's out = 0 CCC's out = 0

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

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

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

Data File : C:\HPCHEM\2\DATA\031102\5G12498.D Vial: 6
Acq On : 11 Mar 2002 18:00 Operator: CBN
Sample : WG114263-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.434 E3	5.8	93	-0.04
2	TM	Benzene	58.464	52.593 E3	10.0	87	-0.06
3	S	TFT	16.886	16.939 E3	-0.3	91	-0.08
4	TM	Toluene	53.514	48.086 E3	10.1	87	-0.13
5	TM	Chlorobenzene	55.475	51.925 E3	6.4	90	-0.11
6	TM	Ethylbenzene	45.133	41.223 E3	8.7	87	-0.11
7	TM	m-,p-Xylene	53.679	48.237 E3	10.1	85	-0.10
8	TM	o-Xylene	46.904	42.209 E3	10.0	86	-0.10
9	S	BFB	48.258	45.698 E3	5.3	91	-0.10
10	TM	1,3-Dichlorobenzene	45.376	42.180 E3	7.0	90	-0.07
11	TM	1,4-Dichlorobenzene	48.816	46.365 E3	5.0	92	-0.07
12	TM	1,2-Dichlorobenzene	39.484	39.170 E3	0.8	96	-0.07
13	S	BCB	46.849	46.408 E3	0.9	97	-0.05

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\031102\5G12498.D Vial: 6
Acq On : 11 Mar 2002 18:00 Operator: CBN
Sample : WG114263-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

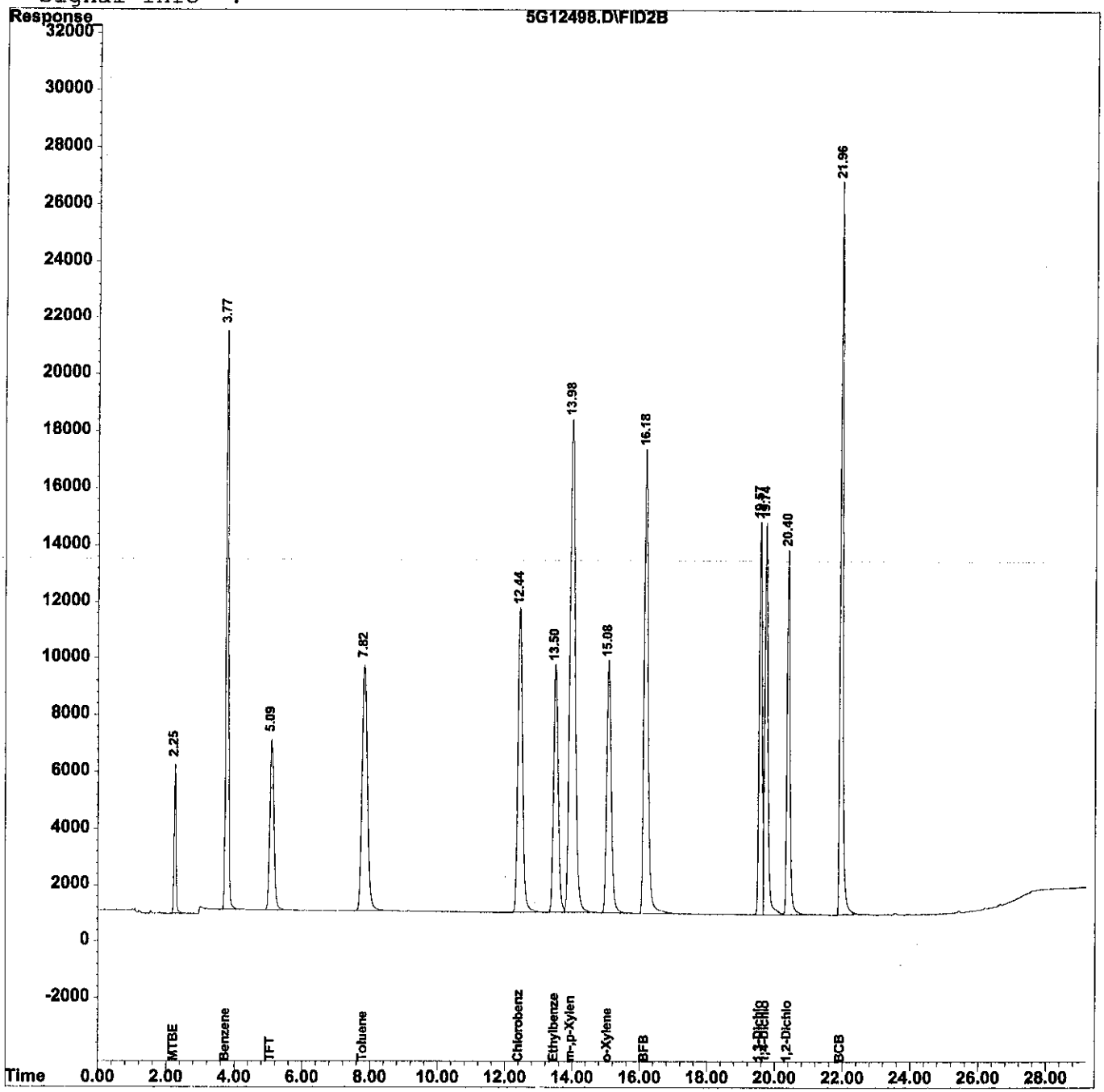
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.831	5.8	93	-0.04
2	TM	Benzene	20.000	17.992	10.0	87	-0.06
3	S	TFT	30.000	30.094	-0.3	91	-0.08
4	TM	Toluene	20.000	18.459	7.7	87	-0.13
5	TM	Chlorobenzene	20.000	18.720	6.4	90	-0.11
6	TM	Ethylbenzene	20.000	18.545	7.3	87	-0.11
7	TM	m-,p-Xylene	40.000	35.714	10.7	85	-0.10
8	TM	o-Xylene	20.000	17.998	10.0	86	-0.10
9	S	BFB	30.000	28.408	5.3	91	-0.10
10	TM	1,3-Dichlorobenzene	20.000	18.591	7.0	90	-0.07
11	TM	1,4-Dichlorobenzene	20.000	18.996	5.0	92	-0.07
12	TM	1,2-Dichlorobenzene	20.000	19.841	0.8	96	-0.07
13	S	BCB	30.000	29.718	0.9	97	-0.05

Data File : C:\HPCHEM\2\DATA\031102\5G12498.D Vial: 6
Acq On : 11 Mar 2002 18:00 Operator: CBN
Sample : WG114263-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 18:29 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12498.D Vial: 6
Acq On : 11 Mar 2002 18:00 Operator: CBN
Sample : WG114263-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 18:29 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	508168	30.0945 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.32%			
9) S BFB	16.18	1370930	28.4084 ug/L
Spiked Amount 30.000 Recovery = 94.69%			
13) S BCB	21.96	1392242	29.7179 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 99.06%			
Target Compounds			
1) TM MTBE	2.25	208680	18.8309 ug/L
2) TM Benzene	3.77	1051867	17.9917 ug/L
4) TM Toluene	7.83	961714	18.4592 ug/L
5) TM Chlorobenzene	12.44	1038495	18.7200 ug/L
6) TM Ethylbenzene	13.50	824460	18.5446 ug/L
7) TM m-,p-Xylene	13.99	1929465	35.7143 ug/L
8) TM o-Xylene	15.08	844170	17.9980 ug/L
10) TM 1,3-Dichlorobenzene	19.58	843599	18.5913 ug/L
11) TM 1,4-Dichlorobenzene	19.74	927302	18.9960 ug/L
12) TM 1,2-Dichlorobenzene	20.40	783398	19.8407 ug/L

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\031102\5G12505.D Vial: 13
Acq On : 11 Mar 2002 22:07 Operator: CBN
Sample : WG114263-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.940	5.3	93	-0.05
2	TM	Benzene	20.000	16.850	15.7#	82	-0.08
3	S	TFT	30.000	29.940	0.2	90	-0.11
4	TM	Toluene	20.000	17.286	13.6	82	-0.16
5	TM	Chlorobenzene	20.000	17.714	11.4	85	-0.14
6	TM	Ethylbenzene	20.000	17.152	14.2	80	-0.14
7	TM	m-,p-Xylene	40.000	33.054	17.4#	78	-0.13
8	TM	o-Xylene	20.000	16.967	15.2#	81	-0.13
9	S	BFB	30.000	28.133	6.2	90	-0.13
10	TM	1,3-Dichlorobenzene	20.000	19.456	2.7	95	0.07
11	TM	1,4-Dichlorobenzene	20.000	18.085	9.6	87	-0.09
12	TM	1,2-Dichlorobenzene	20.000	18.904	5.5	92	-0.09
13	S	BCB	30.000	29.170	2.8	95	-0.08

AVE = 9.22

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\031102\5G12505.D Vial: 13
Acq On : 11 Mar 2002 22:07 Operator: CBN
Sample : WG114263-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e

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

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

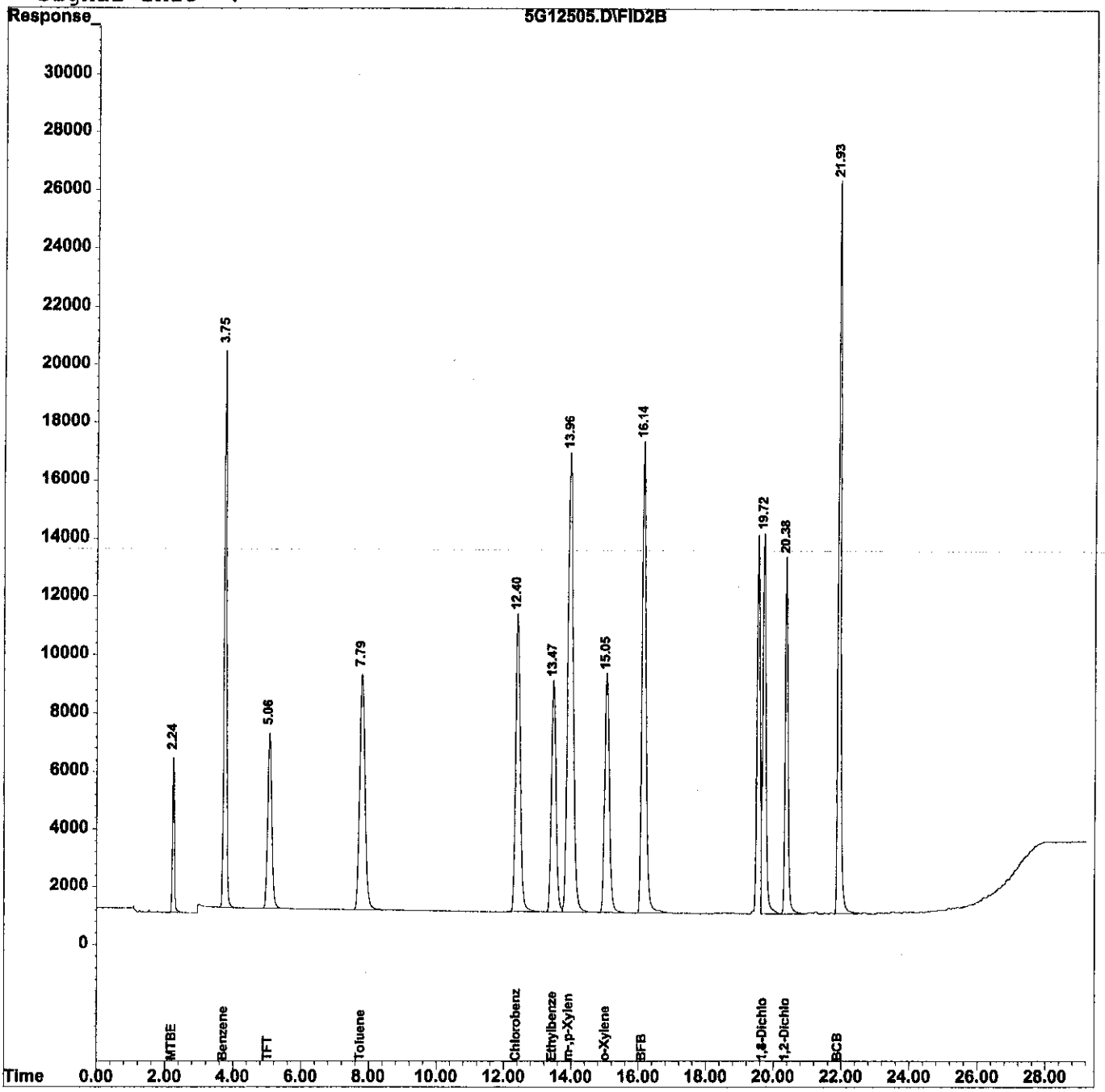
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.495 E3	5.3	93	-0.05
2	TM	Benzene	58.464	49.256 E3	15.7#	82	-0.08
3	S	TFT	16.886	16.852 E3	0.2	90	-0.11
4	TM	Toluene	53.514	44.838 E3	16.2#	82	-0.16
5	TM	Chlorobenzene	55.475	49.133 E3	11.4	85	-0.14
6	TM	Ethylbenzene	45.133	37.891 E3	16.0#	80	-0.14
7	TM	m-,p-Xylene	53.679	44.575 E3	17.0#	78	-0.13
8	TM	o-Xylene	46.904	39.790 E3	15.2#	81	-0.13
9	S	BFB	48.258	45.254 E3	6.2	90	-0.13
10	TM	1,3-Dichlorobenzene	45.376	44.141 E3	2.7	95	0.07
11	TM	1,4-Dichlorobenzene	48.816	44.141 E3	9.6	87	-0.09
12	TM	1,2-Dichlorobenzene	39.484	37.321 E3	5.5	92	-0.09
13	S	BCB	46.849	45.552 E3	2.8	95	-0.08

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

Data File : C:\HPCHEM\2\DATA\031102\5G12505.D Vial: 13
Acq On : 11 Mar 2002 22:07 Operator: CBN
Sample : WG114263-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 22:37 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\031102\5G12505.D Vial: 13
Acq On : 11 Mar 2002 22:07 Operator: CBN
Sample : WG114263-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 22:37 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.06	505552	29.9396 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.80%
9) S BFB	16.15	1357625	28.1327 ug/L
Spiked Amount 30.000		Recovery =	93.78%
13) S BCB	21.94	1366574	29.1700 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	97.23%
Target Compounds			
1) TM MTBE	2.24	209894	18.9405 ug/L
2) TM Benzene	3.75	985125	16.8501 ug/L
4) TM Toluene	7.79	896760	17.2864 ug/L
5) TM Chlorobenzene	12.41	982670	17.7137 ug/L
6) TM Ethylbenzene	13.47	757827	17.1516 ug/L
7) TM m-,p-Xylene	13.96	1783006	33.0539 ug/L
8) TM o-Xylene	15.05	795808	16.9669 ug/L
10) TM 1,3-Dichlorobenzene	19.72	882827	19.4558 ug/L
11) TM 1,4-Dichlorobenzene	19.72	882827	18.0849 ug/L
12) TM 1,2-Dichlorobenzene	20.38	746416	18.9041 ug/L

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 8-Mar-02
Filename: 5G12465
Sub Directory: 030802
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.244	**2.221**	**2.267**
benzene	3.761	**3.731**	**3.791**
1,1,1-trifluorotoluene (SS)	5.084	**5.040**	**5.128**
toluene	7.819	**7.751**	**7.887**
chlorobenzene	12.437	**12.360**	**12.514**
ethylbenzene	13.503	**13.417**	**13.589**
m+p-xylene	13.992	**13.889**	**14.095**
o-xylene	15.084	**14.981**	**15.187**
bromofluorobenzene (SS)	16.175	**16.089**	**16.261**
1,3-dichlorobenzene	19.571	**19.506**	**19.636**
1,4-dichlorobenzene	19.738	**19.674**	**19.802**
1,2-dichlorobenzene	20.398	**20.341**	**20.455**
bromochlorobenzene (SS)	21.953	**21.900**	**22.006**

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

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

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

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

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

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

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

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

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

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

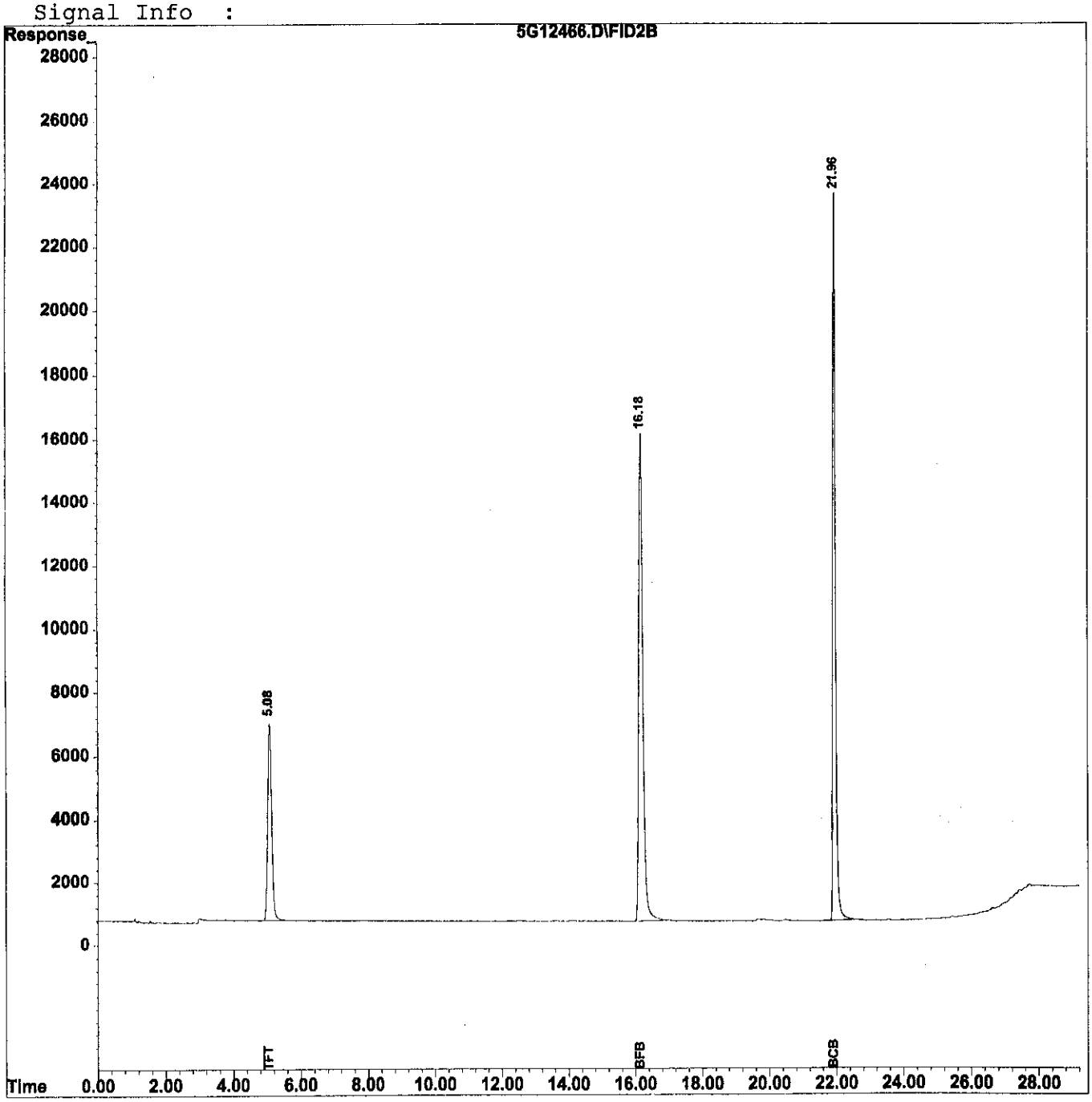
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683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

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\030802\5G12466.D Vial: 2
Acq On : 8 Mar 2002 9:01 Operator: CBN
Sample : WG114159-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 9:30 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030802\5G12466.D Vial: 2
Acq On : 8 Mar 2002 9:01 Operator: CBN
Sample : WG114159-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-01 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 9:30 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

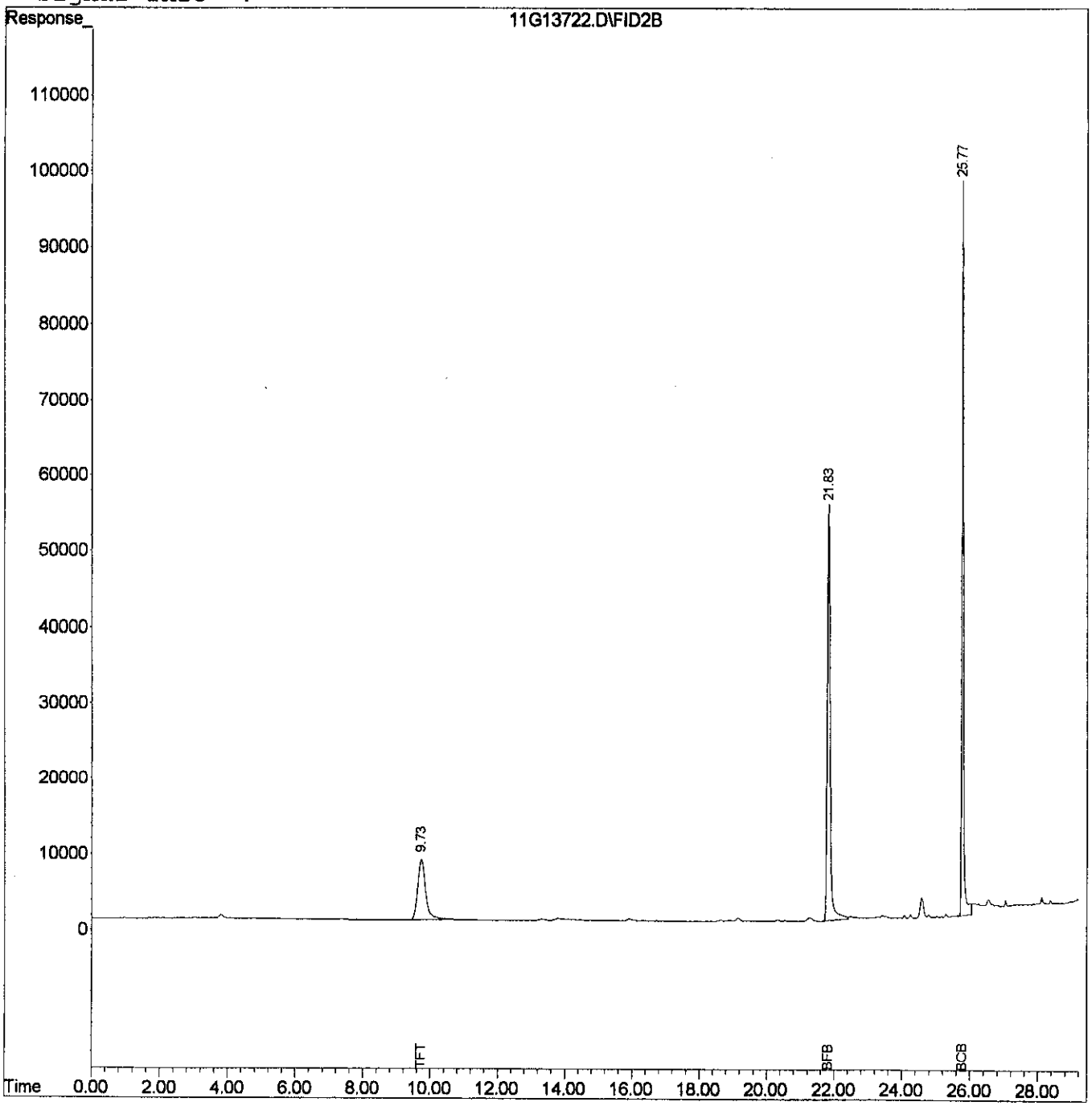
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	514211	30.4524 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	101.51%
9) S BFB	16.18	1321382	27.3817 ug/L
Spiked Amount 30.000		Recovery =	91.27%
13) S BCB	21.96	1256292	26.8160 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	89.39%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\1\DATA\030802\11G13722.D Vial: 2
Acq On : 8 Mar 2002 12:35 pm Operator: CBN
Sample : WG114206-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-91-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 8 13:04 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\030802\11G13722.D Vial: 2
Acq On : 8 Mar 2002 12:35 pm Operator: CBN
Sample : WG114206-01 SOIL BLANK 5G Inst : HP11
Misc : 7,1 S-91-29 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 8 13:04 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 :

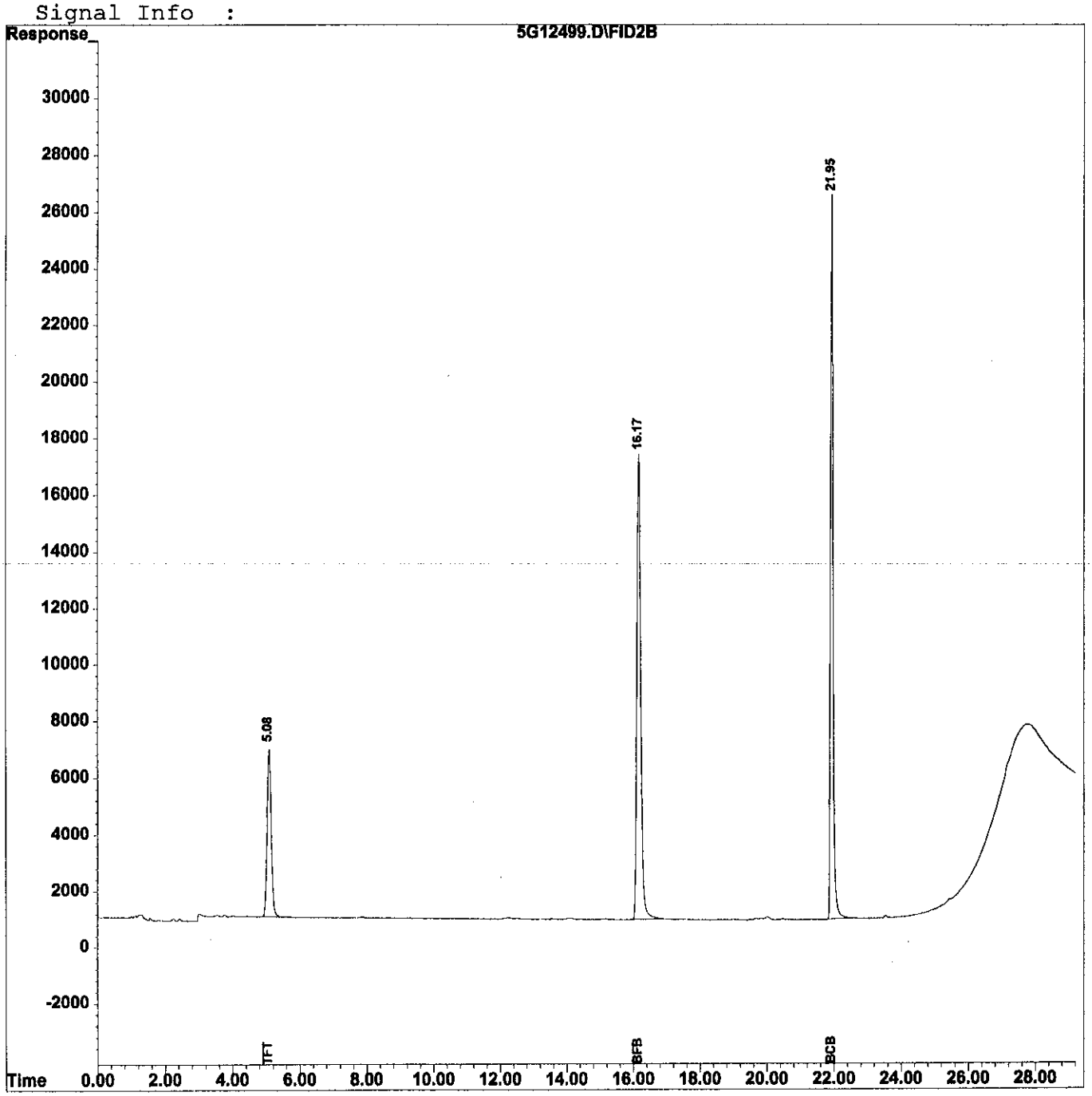
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.73	1300791	26.6556 UG/KG ✓
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 88.85%
9) S BFB	21.83	3178584	23.7723 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 79.24%
13) S BCB	25.77	3133548	22.9351 UG/KG
Spiked Amount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

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

Data File : C:\HPCHEM\2\DATA\031102\5G12499.D Vial: 7
Acq On : 11 Mar 2002 18:35 Operator: CBN
Sample : WG114322-01 EXT BLANK 03/11/02 5G/10ML 1 Inst : HP5
Misc : 7,100 S-91-01 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Mar 11 19:04 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12499.D Vial: 7
Acq On : 11 Mar 2002 18:35 Operator: CBN
Sample : WG114322-01 EXT BLANK 03/11/02 5G/10ML 1 Inst : HP5
Misc : 7,100 S-91-01 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Mar 11 19:04 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

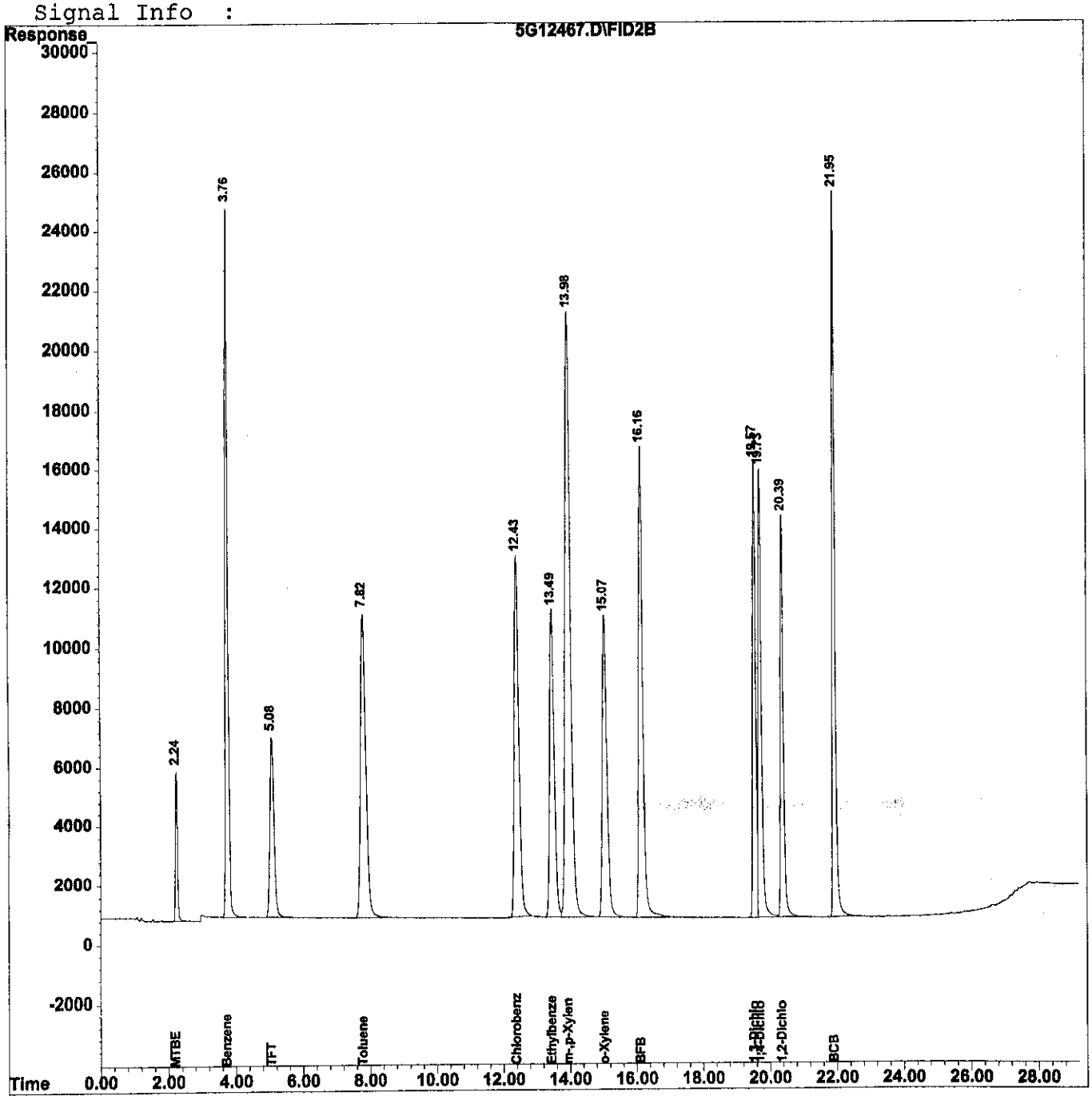
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	504206	29.8599 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.53%
9) S BFB	16.17	1353879	28.0551 ug/L
Spiked Amount 30.000		Recovery =	93.52%
13) S BCB	21.95	1351422	28.8465 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	96.16%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\030802\5G12467.D Vial: 3
Acq On : 8 Mar 2002 9:35 Operator: CBN
Sample : WG114159-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 10:05 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030802\5G12467.D Vial: 3
Acq On : 8 Mar 2002 9:35 Operator: CBN
Sample : WG114159-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(90-28,91-01) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 8 10:05 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

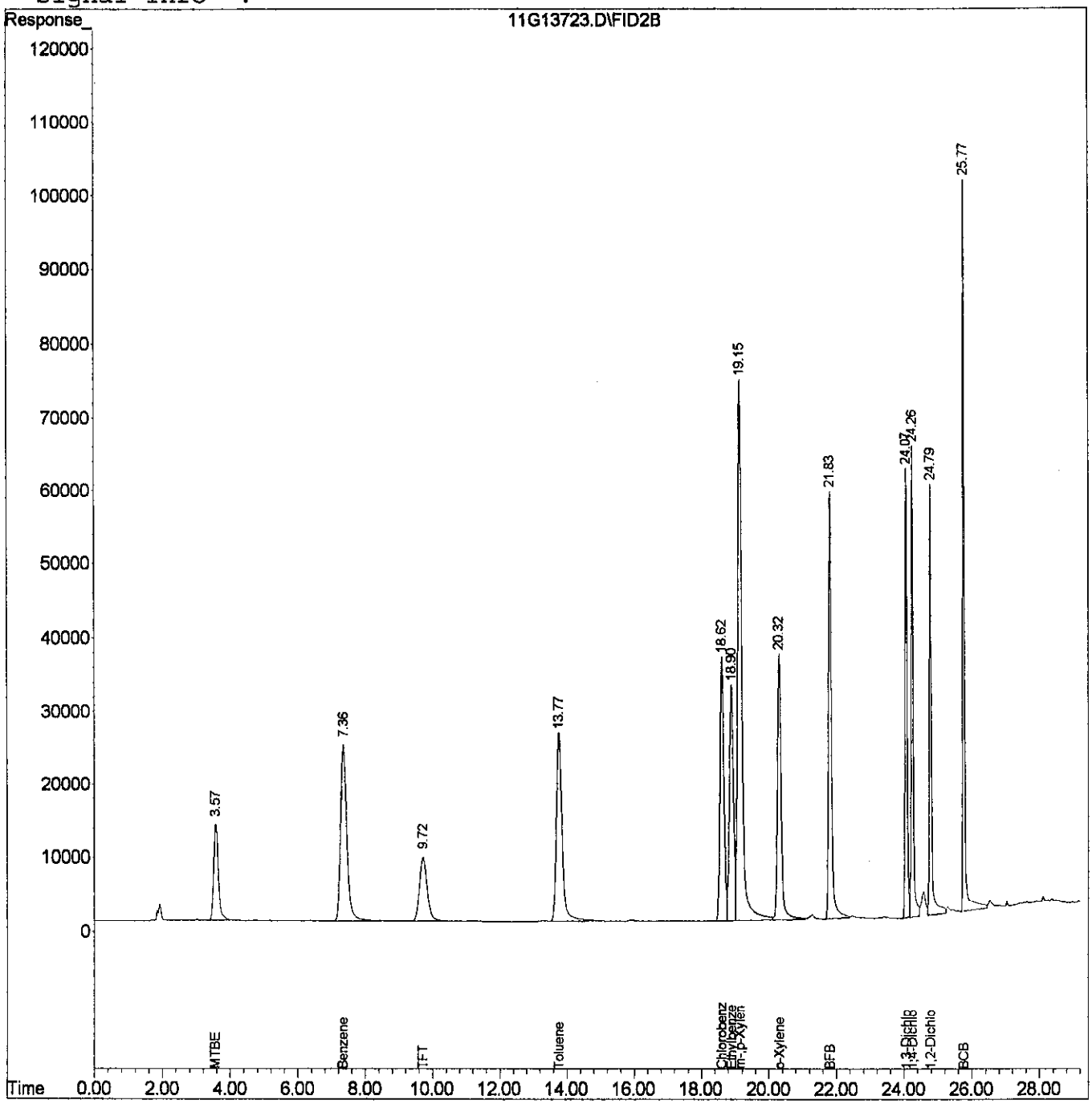
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	513071	30.3848 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	101.28%
9) S BFB	16.17	1341032	27.7889 ug/L
Spiked Amount 30.000		Recovery =	92.63%
13) S BCB	21.95	1323247	28.2452 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	94.15%
Target Compounds			
1) TM MTBE	2.24	199511	18.0035 ug/L
2) TM Benzene	3.76	1228057	21.0054 ug/L
4) TM Toluene	7.82	1131264	21.5207 ug/L
5) TM Chlorobenzene	12.43	1148482	20.7026 ug/L
6) TM Ethylbenzene	13.49	980209	21.8006 ug/L
7) TM m-,p-Xylene	13.98	2284334	42.1605 ug/L
8) TM o-Xylene	15.07	976926	20.8284 ug/L
10) TM 1,3-Dichlorobenzene	19.57	945027	20.8266 ug/L
11) TM 1,4-Dichlorobenzene	19.74	1014246	20.7770 ug/L
12) TM 1,2-Dichlorobenzene	20.40	818382	20.7268 ug/L

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

Data File : C:\HPCHEM\1\DATA\030802\11G13723.D Vial: 3
Acq On : 8 Mar 2002 1:09 pm Operator: CBN
Sample : WG114206-02 SOIL LCS 20PPB 5G Inst : HP11
Misc : 7,1 S-(90-28,91-29) Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 8 13:39 2002 Quant Results File: 8021S.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

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

Volume Inj. :
Signal Phase :
Signal Info :

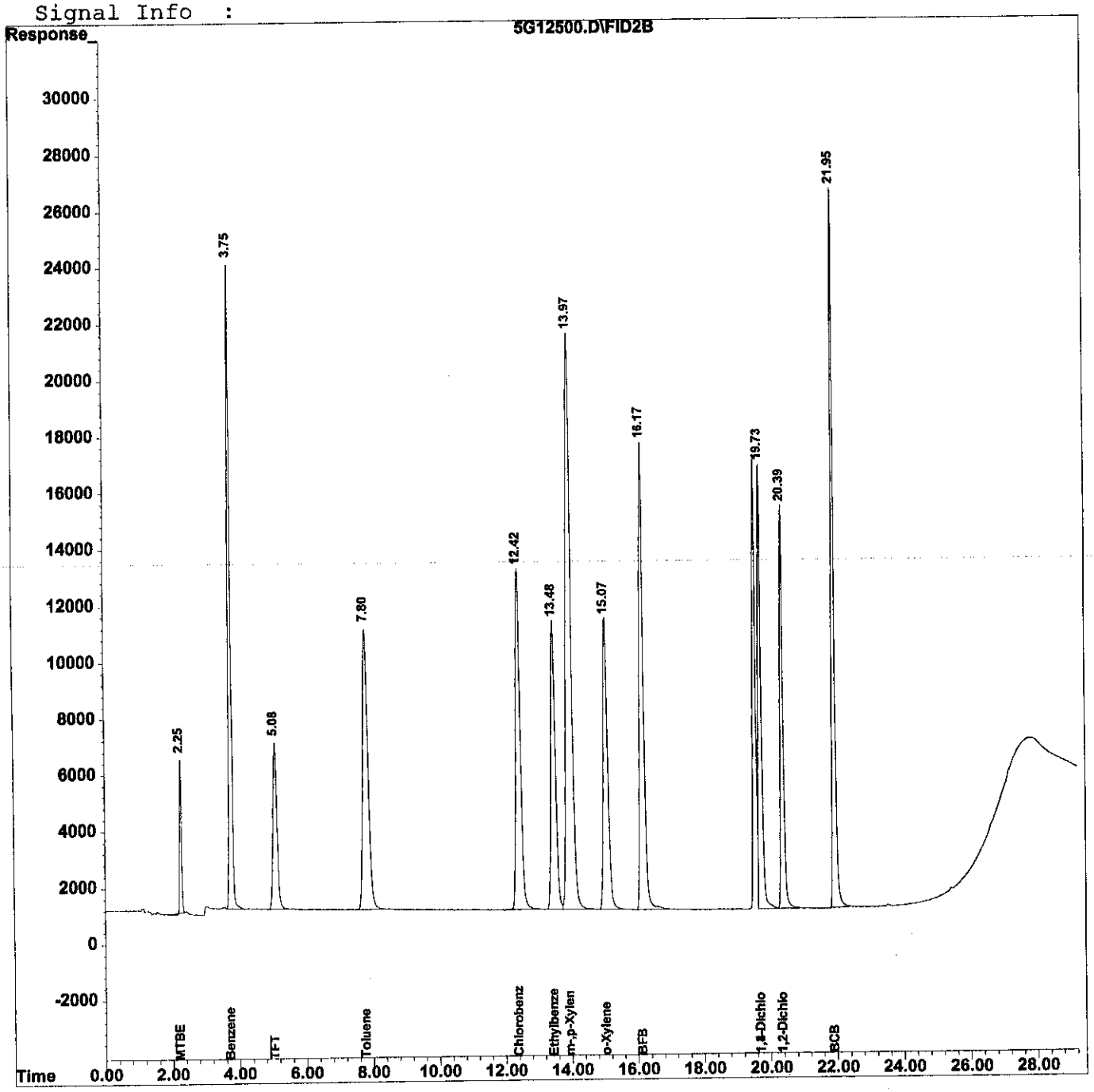
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.72	1390299	28.4897 UG/KG ✓
Spiked Amount 30.0000	Range 47 - 121	Recovery	= 94.97%
9) S BFB	21.83	3377252	25.2581 UG/KG
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 84.19%
13) S BCB	25.77	3393513	24.8379 UG/KG
Spiked Amount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

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

Data File : C:\HPCHEM\2\DATA\031102\5G12500.D Vial: 8
Acq On : 11 Mar 2002 19:10 Operator: CBN
Sample : WG114322-02 EXT LCS 5G/10ML 100X Inst : HP5
Misc : 7,100 S-(90-28,91-01) Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Mar 11 19:39 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031102\5G12500.D Vial: 8
Acq On : 11 Mar 2002 19:10 Operator: CBN
Sample : WG114322-02 EXT LCS 5G/10ML 100X Inst : HP5
Misc : 7,100 S-(90-28,91-01) Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Mar 11 19:39 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	501144	29.6785 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.93%
9) S BFB	16.17	1370506	28.3997 ug/L
Spiked Amount 30.000		Recovery =	94.67%
13) S BCB	21.95	1366292	29.1640 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	97.21%
Target Compounds			
1) TM MTBE	2.25	211797	1911.2165 ug/L
2) TM Benzene	3.75	1204780	2060.7228 ug/L
4) TM Toluene	7.81	1114965	2122.6355 ug/L
5) TM Chlorobenzene	12.43	1175419	2118.8173 ug/L
6) TM Ethylbenzene	13.49	975973	2171.2022 ug/L
7) TM m-,p-Xylene	13.97	2268885	4187.9893 ug/L
8) TM o-Xylene	15.07	981886	2093.4138 ug/L
10) TM 1,3-Dichlorobenzene	19.73	1032546	2275.5380 ug/L
11) TM 1,4-Dichlorobenzene	19.73	1032546	2115.1904 ug/L
12) TM 1,2-Dichlorobenzene	20.39	848391	2148.6767 ug/L

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

Injection Log

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

WG113234
⊥ 278

ANALYST: CBN

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

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

WG113445
446
557

ANALYST: CSF

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13597.d	1.	WG113445-01 8021 STD 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 08:32
2	2	11g13598.d	1.	WG113446-01 SOIL BLANK 5G	7,1 S-90-14	25 Feb 2002 09:24
3	3	11g13599.d	1.	WG113446-02 SOIL LCS 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 09:58
4	1	11g13600.d	1.	L0202375-02 5G	7,1 S-90-14	25 Feb 2002 10:57
5	2	11g13601.d	1.	L0202375-03 5G	7,1 S-90-14	25 Feb 2002 11:32
6	3	11g13602.d	1.	L0202375-04 5G	7,1 S-90-14	25 Feb 2002 12:07
7	4	11g13603.d	1.	L0202375-05 5G	7,1 S-90-14	25 Feb 2002 12:42
8	5	11g13604.d	1.	WG113446-03 L0202375-06 5G	7,1 S-90-14	25 Feb 2002 13:17
9	6	11g13605.d	1.	WG113446-04 L0202375-06 MS 5G	7,1 S-90-(28,14)	25 Feb 2002 13:51
10	7	11g13606.d	1.	WG113446-05 L0202375-06 MSD 5G	7,1 S-90-(28,14)	25 Feb 2002 14:26
11	8	11g13607.d	1.	L0202375-08 5G	7,1 S-90-14	25 Feb 2002 15:01
12	9	11g13608.d	1.	WG113445-02 8021 STD 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 15:36
13	1	11g13609.d	1.	WG113445-01 8021 STD 1 1PPB 5G	7,1 S-89-49, S-90-14	25 Feb 2002 16:48
14	2	11g13610.d	1.	WG113445-01 8021 STD 1 1PPB 5G	7,1 S-89-49, S-90-14	25 Feb 2002 17:22
15	3	11g13611.d	1.	WG113445-02 8021 STD 2 10PP...	7,1 S-89-49, S-90-14	25 Feb 2002 17:57
16	4	11g13612.d	1.	WG113445-03 8021 STD 3 20PP...	7,1 S-89-49, S-90-14	25 Feb 2002 18:32
17	5	11g13613.d	1.	WG113445-04 8021 STD 4 50PP...	7,1 S-89-49, S-90-14	25 Feb 2002 19:07
18	6	11g13614.d	1.	WG113445-05 8021 STD 5 100P...	7,1 S-89-49, S-90-14	25 Feb 2002 19:42
19	7	11g13615.d	1.	WG113445-06 8021 STD 6 200P...	7,1 S-89-49, S-90-14	25 Feb 2002 20:17
20	8	11g13616.d	1.	WG113445-07 8021 STD 7 300P...	7,1 S-89-49, S-90-14	25 Feb 2002 20:51
21	9	11g13617.d	1.	RINSE 5G	7,1 S-90-14	25 Feb 2002 21:26
22	10	11g13618.d	1.	RINSE 5G	7,1 S-90-14	25 Feb 2002 22:01
23	11	11g13619.d	1.	WG113445-08 8021 ALT SOURCE 5G	7,1 S-90-(28,14)	25 Feb 2002 22:36
24	1	11g13620.d	1.	WG113446-01 SOIL BLANK 5G	7,1 S-90-14	25 Feb 2002 23:20
25	2	11g13621.d	1.	WG113446-02 SOIL LCS 20PPB 5G	7,1 S-90-(28,14)	25 Feb 2002 23:55
2[illegible]	3	11g13622.d	1.	L0202375-02 5G	7,1 S-90-14	26 Feb 2002 00:30
2[illegible]	4	11g13623.d	1.	L0202375-03 5G	7,1 S-90-14	26 Feb 2002 01:05
28	5	11g13624.d	1.	L0202375-04 5G	7,1 S-90-14	26 Feb 2002 01:39
29	6	11g13625.d	1.	L0202375-05 5G	7,1 S-90-14	26 Feb 2002 02:14
30	7	11g13626.d	1.	WG113446-03 L0202375-06 5G	7,1 S-90-14	26 Feb 2002 02:49
31	8	11g13627.d	1.	WG113446-04 L0202375-06 MS 5G	7,1 S-90-(28,14)	26 Feb 2002 03:24
32	9	11g13628.d	1.	WG113446-05 L0202375-06 MSD 5G	7,1 S-90-(28,14)	26 Feb 2002 03:58
33	10	11g13629.d	1.	L0202375-08 5G	7,1 S-90-14	26 Feb 2002 04:33
34	11	11g13630.d	1.	WG113445-09 8021 STD 20PPB 5G✓	7,1 S-90-(28,14)	26 Feb 2002 05:08
35	12	11g13631.d	1.	L0202375-09 5G	7,1 S-90-14	26 Feb 2002 05:43
36	13	11g13632.d	1.	L0202375-10 5G	7,1 S-90-14	26 Feb 2002 06:17
37	14	11g13633.d	1.	L0202375-11 5G	7,1 S-90-14	26 Feb 2002 06:52
38	15	11g13634.d	1.	L0202375-12 5G	7,1 S-90-14	26 Feb 2002 07:27
39	16	11g13635.d	1.	L0202375-13 5G	7,1 S-90-14	26 Feb 2002 08:02
40	17	11g13636.d	1.	L0202375-18 5G	7,1 S-90-14	26 Feb 2002 08:37
41	18	11g13637.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 09:12
42	19	11g13638.d	1.	L0202375-19 5G	7,1 S-90-14	26 Feb 2002 09:47
43	**20**	**11g13639.d**	**1.**	**RINSE 5G**	**7,1 S-90-14**	**26 Feb 2002 10:22**
44	**21**	**11g13640.d**	**1.**	**L0202375-17 5X 1G**	**7,5 S-90-14**	**26 Feb 2002 10:56**
45	22	11g13641.d	1.	RINSE 5G	7,1 S-90-14	26 Feb 2002 11:31
46	23	11g13642.d	1.	L0202375-02 5G	7,1,RE S-90-14	26 Feb 2002 12:06
47	24	11g13643.d	1.	L0202375-05 5G	7,1,RE S-90-14	26 Feb 2002 12:41
48	25	11g13644.d	1.	WG113445-10 8021 STD 20PPB 5G✓	7,1 S-90-(28,14)	26 Feb 2002 13:30
49	1	11g13645.d	1.	WG113557-01 SOIL BLANK 5G ✓	7,1 S-90-14	26 Feb 2002 14:14
50	2	11g13646.d	1.	WG113557-02 SOIL LCS 20PPB 5G✓	7,1 S-90-14	26 Feb 2002 14:49
51	3	11g13647.d	1.	L0202390-05 5G✓	7,1 S-90-14	26 Feb 2002 15:48
5[illegible]	4	11g13648.d	1.	L0202390-06 5G ✓	7,1 S-90-14	26 Feb 2002 16:23
53	5	11g13649.d	1.	WG113557-03 L0202390-07 5G✓	7,1 S-90-14	26 Feb 2002 16:58
54	6	11g13650.d	1.	WG113557-04 L0202390-07 MS 5G✓	7,1 S-90-(28,14)	26 Feb 2002 17:33
55	7	11g13651.d	1.	WG113557-05 L0202390-07 MSD 5G✓	7,1 S-90-(28,14)	26 Feb 2002 18:08

Directory: c:\hpchem\2\data\030802

WG114159

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12465.d	1.	WG114158-01 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	8 Mar 102 12::1
2	2	5g12466.d	1.	WG114159-01 WATER BLANK 5ML ✓	1,1 S-91-01	8 Mar 102 12::0
3	3	5g12467.d	1.	WG114159-02 WATER LCS 20PPB 5ML ✓	1,1 S-(90-28,91-01)	8 Mar 102 12::3
4	1	5g12468.d	1.	WG114159-03 L0203133-04 A 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 13::1
5	2	5g12469.d	1.	L0203102-01 A 5ML pH=6 ✓	1,1 S-91-01 EXT: 3/7/02@1430	8 Mar 102 13::0
6	3	5g12470.d	1.	L0203102-02 A 5ML pH=6 ✓	1,1 S-91-01 EXT: 3/7/02@1430	8 Mar 102 13::3
7	4	5g12471.d	1.	WG114159-04 L0203133-04 MS B 5ML pH<2 ✓	1,1 S-(90-28,91-01)	8 Mar 102 13::1
8	5	5g12472.d	1.	WG114159-05 L0203133-04 MSD B 5ML pH<2 ✓	1,1 S-(90-28,91-01)	8 Mar 102 13::4
9	6	5g12473.d	1.	L0203152-01 B 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 12::2
10	7	5g12474.d	1.	RINSE ✓	1,1 S-91-01	8 Mar 102 12::5
11	8	5g12475.d	1.	RINSE ✓	1,1 S-91-01	8 Mar 102 12::3
12	9	5g12476.d	1.	L0203154-04 A 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 12::0
13	10	5g12477.d	1.	L0203154-05 A 5ML pH<2 ✓	1,1 S-91-01	8 Mar 102 12::4
14	11	5g12478.d	1.	WG114158-02 8021 STD 20PPB 5ML ✓	1,1 S-(90-28,91-01)	8 Mar 102 12::1
15	12	5g12479.d	1.	L0203155-02 A 5ML pH<2 RR INST MALFUNCT	1,1 S-91-01	8 Mar 102 12::5
16	13	5g12480.d	1.	L0203155-03 A 5ML pH<2 ⊥	1,1 S-91-01	8 Mar 102 12::2

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

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

WG114264
⊥ 322

ANALYST: CBN

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

REANALYSIS FILE #

L0203165-05
⊥ -06
-07

Method 5035 Preservation and Extraction Log
VOA Laboratory

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

Comments:

Supervisor Review: _____

* = improperly sealed cap

EF = sample effervesced

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203154

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 01 was chosen internally for MS/MSD analysis.

SAMPLES

Samples: Samples 01 and 02 required dilution analysis. All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

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

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

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0203154

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 (If applicable)

D. Raw QC Data

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

Checked By: CLK Date: 3/19/02

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203154
Blank File ID: 2G19281
Date Analyzed: 03/12/02
Time Analyzed: 13:45
Analyst: CLK

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

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114271-02	2G19282	03/12/02 14:01	01
LCS2	WG114271-03	2G19283	03/12/02 14:16	01
062-CEF46-EQB-W-Q1-02	L0203154-04	2G19288	03/12/02 15:37	01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/19/2002 13:12

METHOD BLANK SUMMARY

Login Number: L0203154
Blank File ID: 2G19284
Date Analyzed: 03/12/02
Time Analyzed: 14:32
Analyst: CLK

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

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114312-03	2G19285	03/12/02 14:47	01
062-CEF46-SB1-S-Q1-02	L0203154-01	2G19293	03/12/02 16:59	01
062-CEF46-SB2-S-Q1-02	L0203154-02	2G19299	03/12/02 18:31	01
062-CEF46-SB14-S-Q1-02	L0203154-03	2G19300	03/12/02 18:46	01
062-CEF46-SB1-S-Q1-02	L0203154-01	2G19312	03/13/02 17:24	DL01
062-CEF46-SB2-S-Q1-02	L0203154-02	2G19313	03/13/02 17:40	DL01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/19/2002 13:12

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203154
Run Date: 03/12/2002
Sample ID: WG114271-01
Instrument ID: HP2
Run Time: 13:45
Method: 8015 MOD
File ID: 2G19281
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG114336
Units: ug/L
Contract #:
Cal ID: HP2-25-JAN-2002

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

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

* Analyte detected above RDL

ND Not detected at or above the reporting limit

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

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203154
Run Date: 03/12/2002
Sample ID: WG114312-02
Instrument ID: HP2
Run Time: 14:32
Method: 8015 MOD
File ID: 2G19284
Analyst: CLK
Matrix: Solid
Workgroup (AAB#): WG114337
Units: ug/kg
Contract #:
Cal ID: HP2-25-JAN-2002

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

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

* Analyte detected above RDL

ND Not detected at or above the reporting limit

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

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203154
Instrument ID: HP2
File ID: 2G19282
Workgroup (AAB#): WG114336
Contract #:

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

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

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

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

* Analyte outside control limits

NS Analyte not spiked

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

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0203154 Worknum: WG114336 Method: 8015 MOD
Instrument ID: HP2 Cal ID: HP2-25-JAN-2002 Matrix: Water
Analyst: CLK Contract #: Units: ug/L
Sample ID: WG114271-02 LCS File ID: 2G19282 Run Date: 03/12/2002 14:01
Sample ID: WG114271-03 LCS2 File ID: 2G19283 Run Date: 03/12/2002 14:16

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

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

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 02/27/2002
Version 1.2
Report generated 03/19/2002 13:30

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203154
Instrument ID: HP2
File ID: 2G19285
Workgroup (AAB#): WG114337
Contract #:

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

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

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

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

* Analyte outside control limits

NS Analyte not spiked

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

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG114336

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-EQB-W-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	7	3.71	12-MAR-02	7	1.34	

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

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/19/2002 14:28

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG114337

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-SB1-S-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.02	13-MAR-02	40	2.12	
062-CEF46-SB14-S-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.05	12-MAR-02	40	1.17	
062-CEF46-SB2-S-Q1-02	07-MAR-02	08-MAR-02	11-MAR-02	14	4.03	13-MAR-02	40	2.13	

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

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/19/2002 14:28

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number: L0203154

Instrument Id: HP2

Workgroup (AAB#): WG114337

Method: FLA-PRO

Matrix: SOLID

Sample Number	Dilution	Tag	1
L0203154-01	10.0	DL01	DL
L0203154-02	10.0	DL01	DL
L0203154-03	1.00	01	73.4
WG114312-02	1.00	01	87.1
WG114312-03	1.00	01	78.8

Surrogates	Surrogate Limits		
1 - o-Terphenyl	43	-	136

Underline = Result out of surrogate limits

DL = surrogate diluted out

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

SURROGATE STANDARDS

Login Number: L0203154
Instrument Id: HP2
Workgroup (AAB#): WG114336

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203154-04	1.00	01	63.5
WG114271-01	1.00	01	68.4
WG114271-02	1.00	01	76.0
WG114271-03	1.00	01	76.9

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/19/2002 13:16

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

Calibration Files

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

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

(#) = Out of Range

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

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

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

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

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

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

Operator: CLR/RDC

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

Inst : HP2
Multiplr: 1.00

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

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

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

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

Sample : WG114393-02 PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Inst : HP2
Multiplr: 1.00

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

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

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

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

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

Operator: CLR/RDC
Inst : HP2
Multiplr: 1.00

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

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

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

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

Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

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

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

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

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

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

Sample : WG114536-01 3400ppm PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 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	3201.816	5.8	103	0.00
2	s	O-Terphenyl	66.700	68.335	-2.5	115	0.03

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

Sample : WG114536-02 3400ppm PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLR/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 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	3056.383	10.1	99	0.00
2	s	O-Terphenyl	66.700	65.564	1.7	110	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19316.D FLASHPRO.M Thu Mar 14 12:14:57 2002 HP2 Page 1

	1	2g18085.d	1.		mecl2	1,1	25 Jan 102 12::2
	1	2g18086.d	1.		WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
	2	2g18087.d	1.	✓	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::4
	3	2g18088.d	1.		WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::5
	4	2g18089.d	1.		WG111856-06 DRO @10000ppm	1,1 NS14-29	25 Jan 102 13::1
	5	2g18090.d	1.		WG111856-05 DRO @5000ppm	1,1 NS14-29	25 Jan 102 13::2
	6	2g18091.d	1.		WG111856-04 DRO @2500ppm	1,1 NS14-29	25 Jan 102 13::3
	7	2g18092.d	1.		WG111856-03 DRO @1000ppm	1,1 NS14-29	25 Jan 102 13::4
	8	2g18093.d	1.		WG111856-02 DRO @500ppm	1,1 NS14-29	25 Jan 102 13::5
0	9	2g18094.d	1.		WG111856-01 DRO @100ppm	1,1 NS14-29	25 Jan 102 13::0
1	10	2g18095.d	1.		WG111856-07 ALT 1000ppm	1,1 SOS55-36	25 Jan 102 13::2
2	11	2g18096.d	1.		WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 13::4
3	12	2g18097.d	1.	✓	WG111819-01 DRO water BLK	1,1 V179-P87	25 Jan 102 13::0
4	13	2g18098.d	1.		WG111819-02 DRO water LCS	1,1 V179-P87	25 Jan 102 13::1
5	14	2g18099.d	1.		WG111819-03 DRO water LCS2	1,1 V179-P87	25 Jan 102 13::2
6	15	2g18100.d	1.		L0201336-42 DRO water	1,1 water	25 Jan 102 13::3
7	16	2g18101.d	1.		L0201336-43 DRO water	1,1 water	25 Jan 102 13::4
8	17	2g18102.d	1.04		L0201381-01 DRO water	1,1 water	25 Jan 102 13::5
9	18	2g18103.d	1.25		L0201331-05 DRO water	1,1 water	25 Jan 102 12::0
0	19	2g18104.d	1.2		mecl2	1,1 water	25 Jan 102 12::1
1	20	2g18105.d	1.	✓	WG111856-08 DRO CCV	1,1 water	25 Jan 102 12::3
2	1	2g18106.d	1.		MECL2	1,1 water	25 Jan 102 12::1
3	2	2g18107.d	1.		WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
4	3	2g18108.d	1.	✓	WG111957-01 PRO CCV	1,1 SOS58-05	25 Jan 102 12::4
5	4	2g18109.d	1.		WG111901-01 PRO @600ppm	1,1 SOS58-05	25 Jan 102 12::0
6	5	2g18110.d	1.		WG111957-05 PRO @400ppm	1,1 SOS58-05	25 Jan 102 12::1
7	6	2g18111.d	1.		WG111957-03 PRO @100ppm	1,1 SOS58-05	25 Jan 102 12::3
8	7	2g18112.d	1.		WG111957-02 PRO @50ppm	1,1 SOS58-05	25 Jan 102 12::4
9	8	2g18113.d	1.		WG111957-01 PRO @5ppm	1,1 SOS58-05	25 Jan 102 12::0
0	9	2g18114.d	1.	✓	WG111957-07 ALT @200ppm	1,1 SOS58-05	25 Jan 102 12::1
1	10	2g18115.d	1.		WG111907-01 PRO water BLK	1,1 V179-P99	25 Jan 102 12::3
2	11	2g18116.d	1.		WG111907-02 PRO water LCS	1,1 V179-P99	25 Jan 102 12::5
3	12	2g18117.d	1.		WG111907-03 PRO water LCS2	1,1 V179-P99	25 Jan 102 12::0
4	13	2g18118.d	1.		L0201405-04 PRO water	1,1 water	25 Jan 102 12::2
5	14	2g18119.d	1.05		L0201408-10 PRO water	1,1 water	25 Jan 102 12::3
6	15	2g18120.d	1.		mecl2	1,1 water	25 Jan 102 12::5
7	1	2g18121.d	1.	✓	WG111957-08 PRO CCV	1,1 SOS58-05	25 Jan 102 12::0
8	16	2g18122.d	40.		WG111873-02 PRO soil BLK	7,1 soil V179-P97	25 Jan 102 12::2
9	17	2g18123.d	40.		WG111873-03 PRO soil LCS	7,1 V179-P97	25 Jan 102 12::3
0	18	2g18124.d	40.		L0201408-01 PRO soil	7,1 soil	25 Jan 102 12::5
1	19	2g18125.d	40.		L0201408-03 PRO soil	7,1 soil	25 Jan 102 12::0
2	20	2g18126.d	40.		L0201408-05 PRO soil	7,1 soil	25 Jan 102 12::2
3	21	2g18127.d	40.		WG111873-01 Ref PRO soil	7,1 l0201408-06 ref	25 Jan 102 12::3
4	22	2g18128.d	40.		WG111873-04 MS PRO soil	7,1 l0201408-07 MS	25 Jan 102 12::5
5	23	2g18129.d	40.		WG111873-05 MSD PRO soil	7,1 l0201408-08 MSD	25 Jan 102 12::1
6	24	2g18130.d	40.		mecl2	7,1 l0201408-08 MSD	25 Jan 102 12::2
7	24	2g18131.d	40.		mecl2	7,1 l0201408-08 MSD	25 Jan 102 12::4
8	1	2g18132.d	1.	✓	WG111957-09 PRO CCV	1,1 SOS58-05	25 Jan 102 12::5
9	25	2g18133.d	400.	PR	L0201408-02 10X PRO soil	7,10 soil	25 Jan 102 12::1
0	26	2g18134.d	400.	PR	L0201408-04 10X PRO soil	7,10 soil	25 Jan 102 12::2
1	27	2g18135.d	40.	✓	L0201408-09 PRO soil	7,1 soil	25 Jan 102 12::4
2	28	2g18136.d	800.		L0201404-01 20x PRO soil	7,20 soil	25 Jan 102 13::0
3	29	2g18137.d	800.		L0201404-02 20x PRO soil	7,20 soil	25 Jan 102 13::1
4	30	2g18138.d	800.		L0201405-01 20x PRO soil	7,20 soil	25 Jan 102 13::3
5	31	2g18139.d	2000.		L0201405-02 50x PRO soil	7,50 soil	25 Jan 102 13::4

6	32	2g18140.d	1.	mecl2	1,1	25 Jan 102 13::0
7	32	2g18141.d	1.	mecl2	1,1	25 Jan 102 13::2
8	2	2g18142.d	1.	WG111957-10 PRO CCV	1,1 SOS58-05	25 Jan 102 13::3
9	3	2g18143.d	40.	WG111941-02 PRO soil BLK	7,1 V179-P109	25 Jan 102 13::5
0	4	2g18144.d	40.	WG111941-03 PRO soil LCS	7,1 V179-P109	26 Jan 102 13::0
1	5	2g18145.d	2000.	WG111941-01 REF 50X PRO soil	7,1 I0201438-01 ref	26 Jan 102 13::2
2	6	2g18146.d	2000.	I0201439-01 50X PRO soil	7,1 I0201438-01 ref	26 Jan 102 13::4
3	7	2g18147.d	400.	WG111941-04 MS 10x	7,10 I0201438-01 MS	26 Jan 102 13::5
4	8	2g18148.d	400.	WG111941-05 MSD 10x	7,10 I0201438-01 MSD	26 Jan 102 12::1
5	32	2g18149.d	1.	mecl2	1,1	26 Jan 102 12::2
6	32	2g18150.d	1.	mecl2	1,1	26 Jan 102 12::4
7	2	2g18151.d	1.	WG111957-11 PRO CCV	1,1	26 Jan 102 12::0

HV 1/28/02

Analysis Date/Time Jan. 25 02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 012502
Analyst Initials HV

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

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

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

Daily Check
- ☑ Gases >500 psi

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

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

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

Reviewed by [illegible]

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

CLK 3/13/02
RRC 3/13/02

Analysis Date/Time 5/14/02 Instrument ID HP7 Column ID RTX-5 Data Subdirectory 031202
Analyst Initials CLK/RDC

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

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

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

Daily Check

☒ Gases >500 psi

Preventative Maintenance

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

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

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

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

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

Reviewed By: RRC 3/13/02

	1	2g19303.d	1.	✓	mecl2	1,1	13 Mar 102 13::3
	2	2g19304.d	1.	✓	win def std	1,1 NS14-41	13 Mar 102 13::4
	3	2g19305.d	1.	✓	3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::0
	4	2g19306.d	10.		L0203154-01 PRO REF 10X	7,10 SOIL	13 Mar 102 12::5
	5	2g19307.d	10.		L0203154-02 PRO 10X	7,10 SOIL	13 Mar 102 12::0
	3	2g19308.d	1.		3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::3
	1	2g19309.d	1.	✓	mecl2	1,1	13 Mar 102 12::3
	1	2g19310.d	1.		mecl2	1,1	13 Mar 102 12::5
	3	2g19311.d	1.		WG114536-01 3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::0
0	4	2g19312.d	10.		L0203154-01 PRO REF 10X	7,10 SOIL	13 Mar 102 12::2
1	5	2g19313.d	10.		L0203154-02 PRO 10X	7,10 SOIL	13 Mar 102 12::4
2	1	2g19314.d	1.		mecl2	1,1	13 Mar 102 12::0
3	1	2g19315.d	1.		mecl2	1,1	13 Mar 102 12::1
4	3	2g19316.d	1.		WG114536-02 3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::3

CLK
3/14/02
3/14/02

Analysis Date/Time 3/11/02 Instrument ID TIF Column ID KIX-2 Data Subdirectory 031302
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 Air

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0203154-01 PRO REF 10X, Dilution Good (2g19312)

L0203154-02 PRO 10X, Dilution Good (2g19313)

Reviewed By: RDC 3/14/02

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Extraction Analyst(s): REK TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 0730 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: REK Witness: CEB
Surrogate #: ESSC070-18 Earliest Hold Date: 03/11/02
Spike #: A = ESSC070-19 Spike #: B = ——

Analytical Work Group WG 114336

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

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

13
15
3/15

DP 03/11/02

Methylene Chloride Lot #: 412015
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: 1:1 HCL Lot #: EC2034
Florisil Lot #: ——
Silica Gel Lot #: V32555
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: CC2085

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

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

Extraction Notes For Volume # 151 Page # 137

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 @ 1435 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: DP Witness: CAH
Surrogate #: ESS0040-18 Earliest Hold Date: 03/21/02
Spike #: A = ESS0040-19 Spike #: B = ——

Analytical Work Group WG 14337

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

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

DP 03/11/02

Methylene Chloride Lot #: 42015
Hexane Lot #: ——
Ether Lot #: ——
Methanol Lot #: ——
Solvent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Reagent: —— Lot #: ——
Acid: —— Lot #: ——
Florisil Lot #: ——
Silica Gel Lot #: V32555
IR Analyst / Date / Time: ——
Dried Na_2SO_4 Lot #: CR 2095

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

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

Extraction Notes For Volume # 181 Page # 177

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

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2.2.5.2 Sample Data

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

Acq On : 12 Mar 2002 16:59 Operator: CLK/RDC
Sample : WG114312-01 L0203154-01 REF Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:01 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

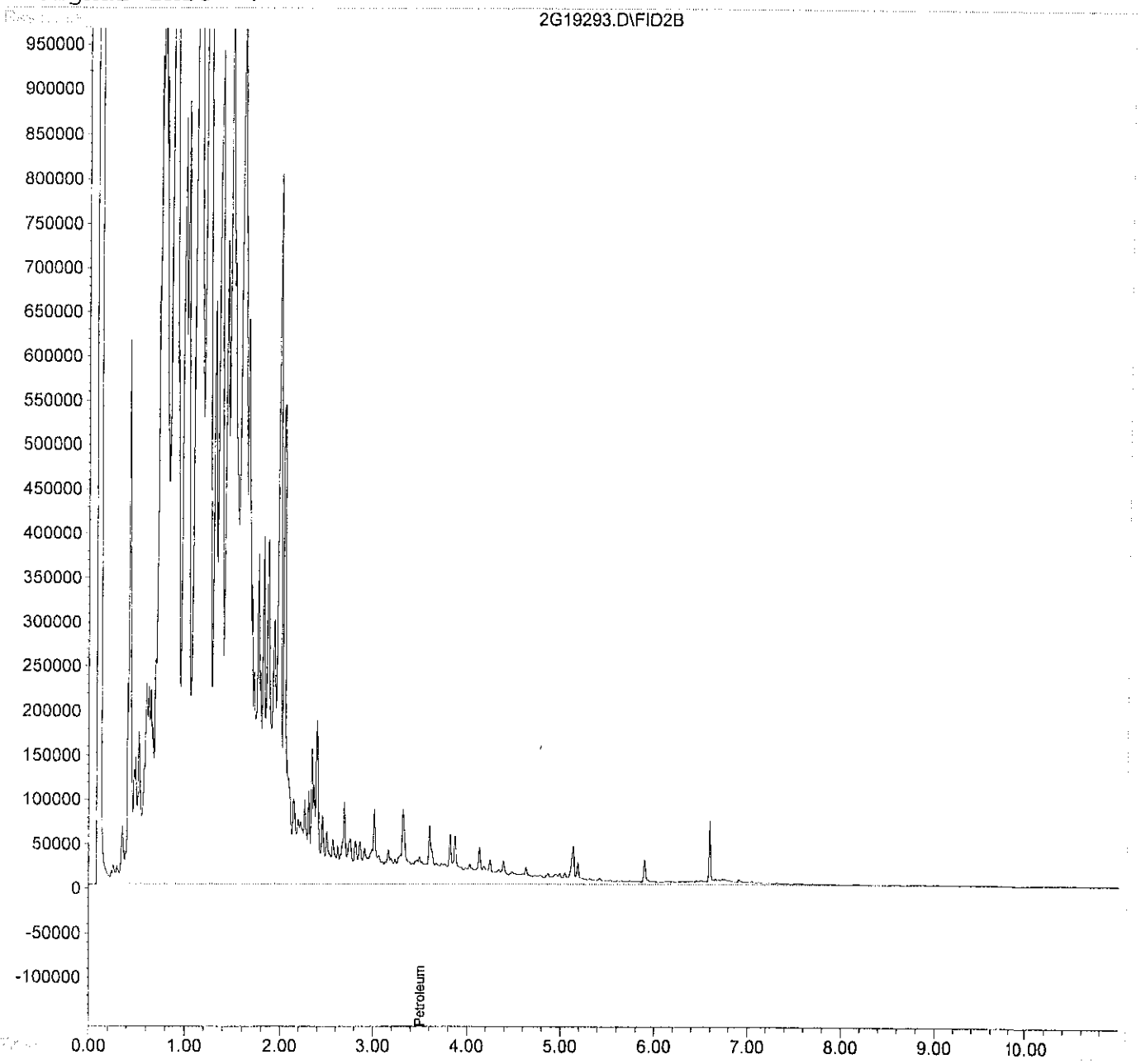
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	398826	17.908 ppb m
Spiked Amount 20.000 Range 43 - 136 Recovery = 89.54%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	590336802	33112.898 ppb 10X

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19293.D FLASHPRO.M Wed Mar 13 11:01:37 2002 HP2 Page 1

Acq On : 12 Mar 2002 16:59
Sample : WG114312-01 L0203154-01 REF
Misc : 7,1 SOIL
IntFile : PETRO.E
Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00
Quant Time: Mar 13 11:01 2002 Quant Results File: FLASHPRO.RES

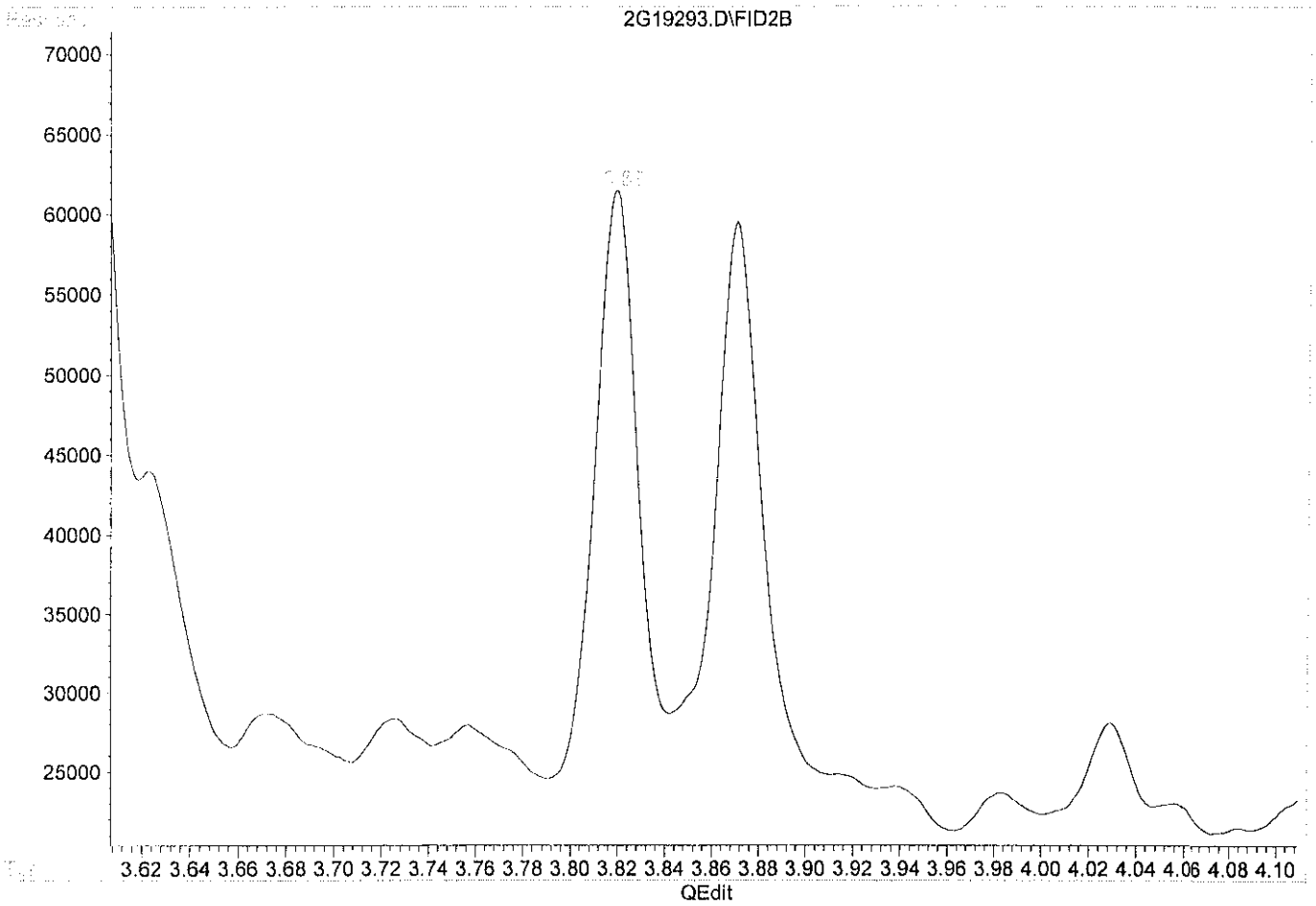
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 16:59 Operator: CLK/RDC
Sample : WG114312-01 L0203154-01 REF Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

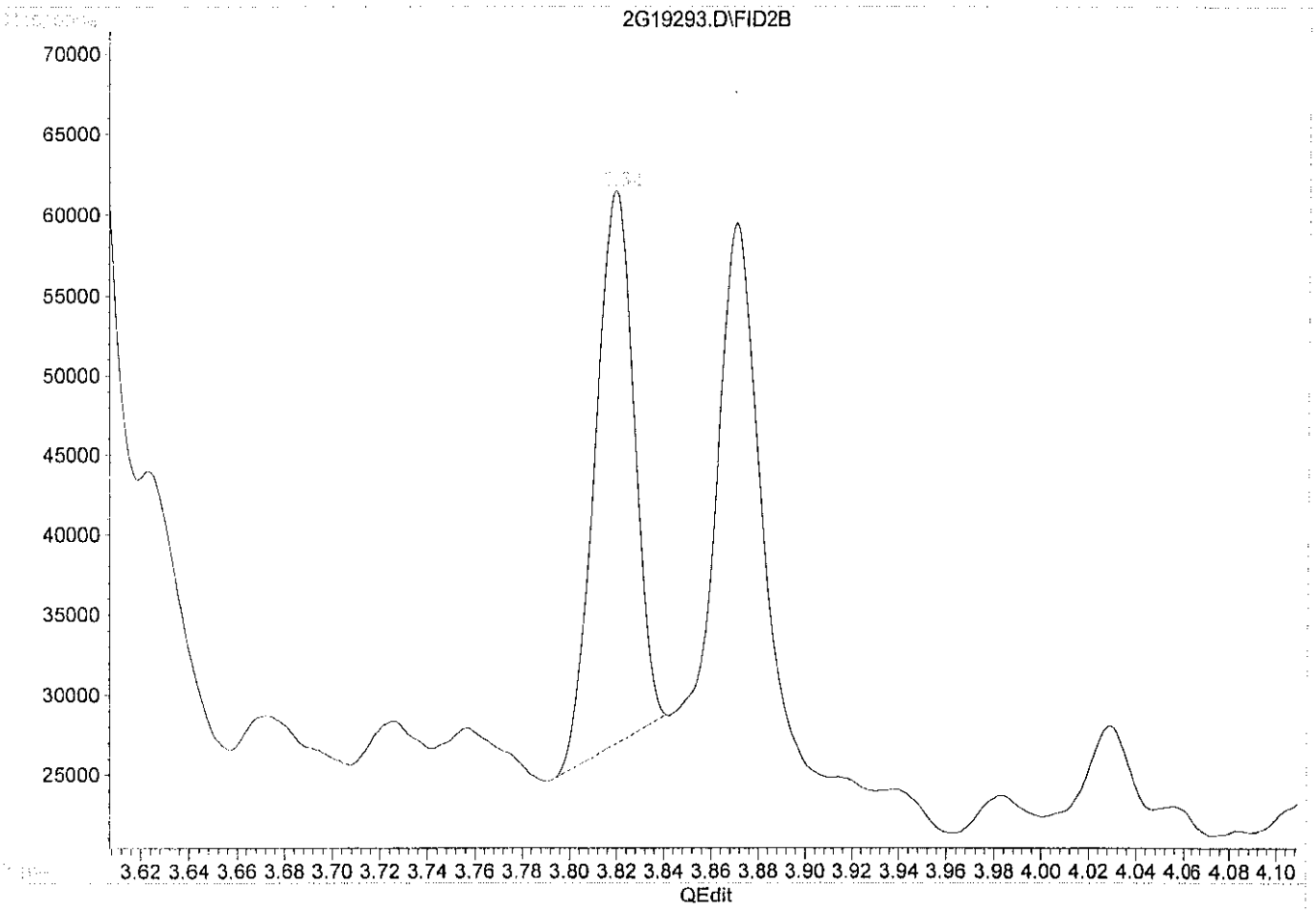
3.82min 48.094ppb

response 1071080

(+) = Expected Retention Time
2G19293.D FLASHPRO.M Wed Mar 13 11:01:16 2002 HP2

Acq On : 12 Mar 2002 16:59 Operator: CLK/RDC
Sample : WG114312-01 L0203154-01 REF Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.82min 17.908ppb m

response 398826

CLK 3/14/02

3/14/02

(+) = Expected Retention Time
2G19293.D FLASHPRO.M Wed Mar 13 11:01:31 2002 HP2

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Acq On : 13 Mar 2002 17:24 Operator: CLK/RDC
Sample : L0203154-01 PRO REF 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:14 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

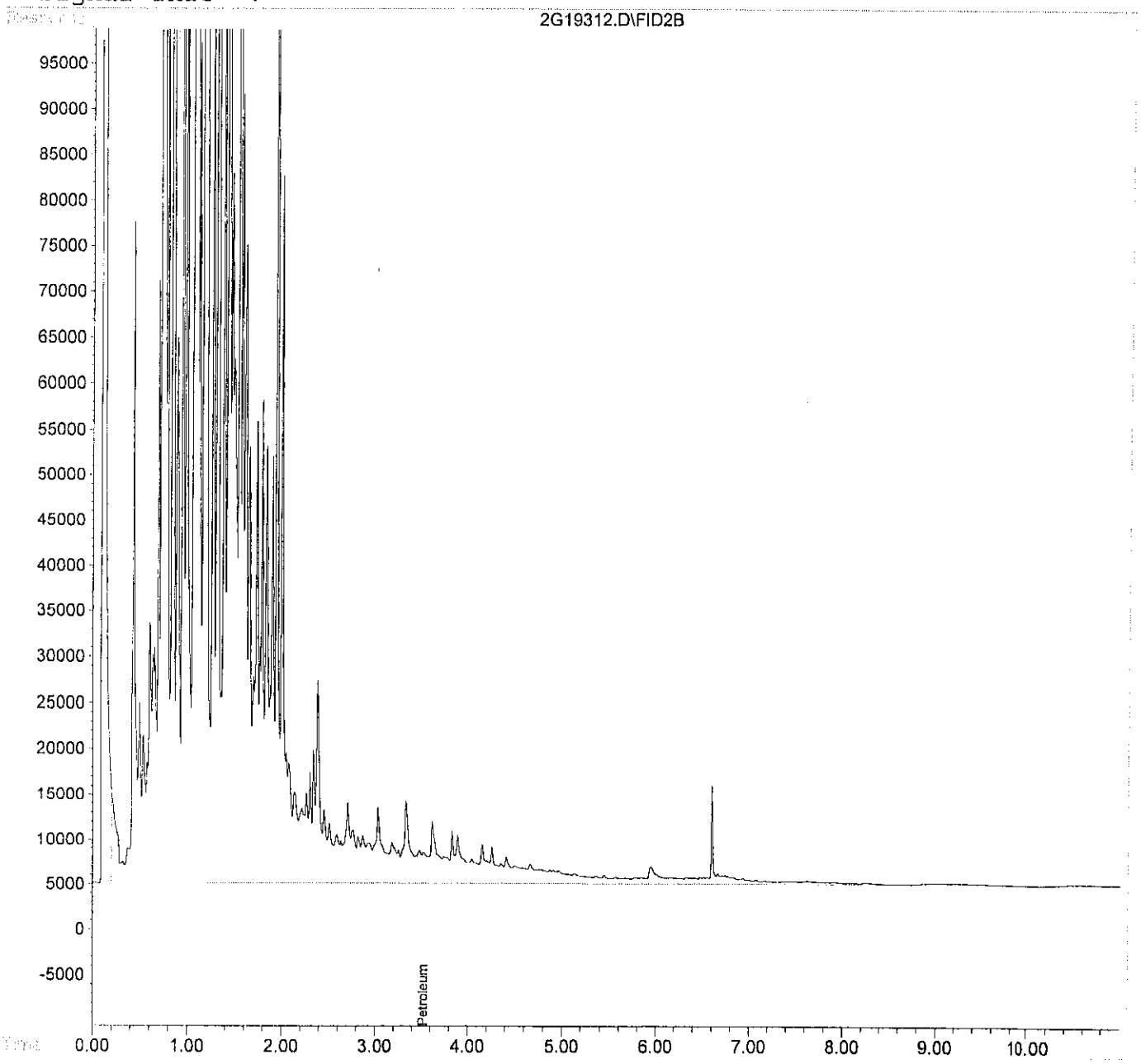
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	33209	14.911 ppb m
Spiked Amount 20.000 Range 43 - 136 Recovery = 74.55%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	66140823	3709.940 ppb ✓

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

Acq On : 13 Mar 2002 17:24 Operator: CLK/RDC
Sample : L0203154-01 PRO REF 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:14 2002 Quant Results File: FLASHPRO.RES

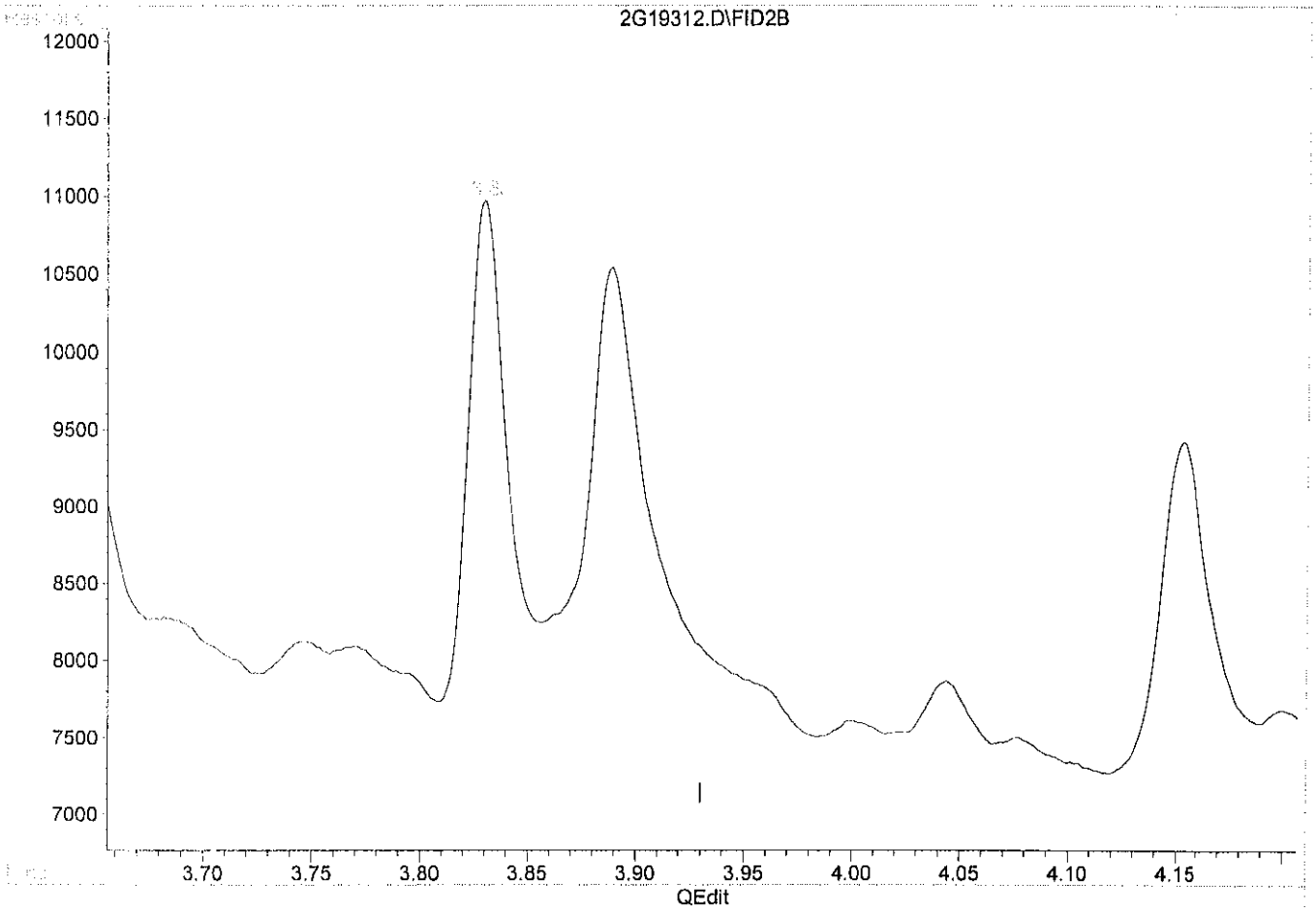
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Mar 2002 17:24 Operator: CLK/RDC
Sample : L0203154-01 PRO REF 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:13 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

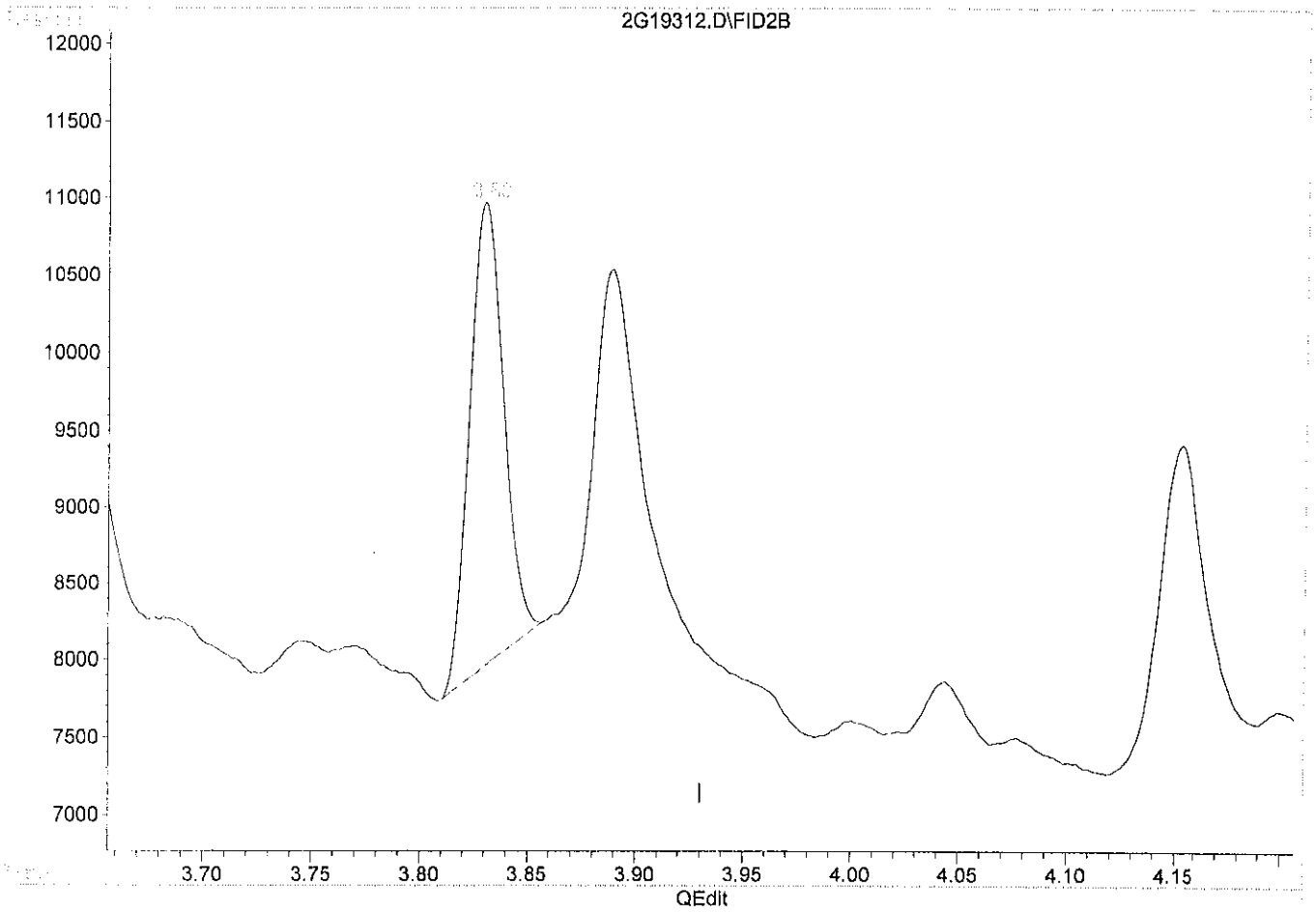
3.83min 44.773ppb

response 99713

(+) = Expected Retention Time
2G19312.D FLASHPRO.M Thu Mar 14 10:14:24 2002 HP2

Acq On : 13 Mar 2002 17:24 Operator: CLK/RDC
Sample : L0203154-01 PRO REF 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:13 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.83min 14.911ppb m

response 33209

CLK 3/14/02
3/15/02

(+) = Expected Retention Time
2G19312.D FLASHPRO.M Thu Mar 14 10:14:39 2002 HP2

Acq On : 12 Mar 2002 18:31 Operator: CLK/RDC
Sample : L0203154-02 PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:07 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

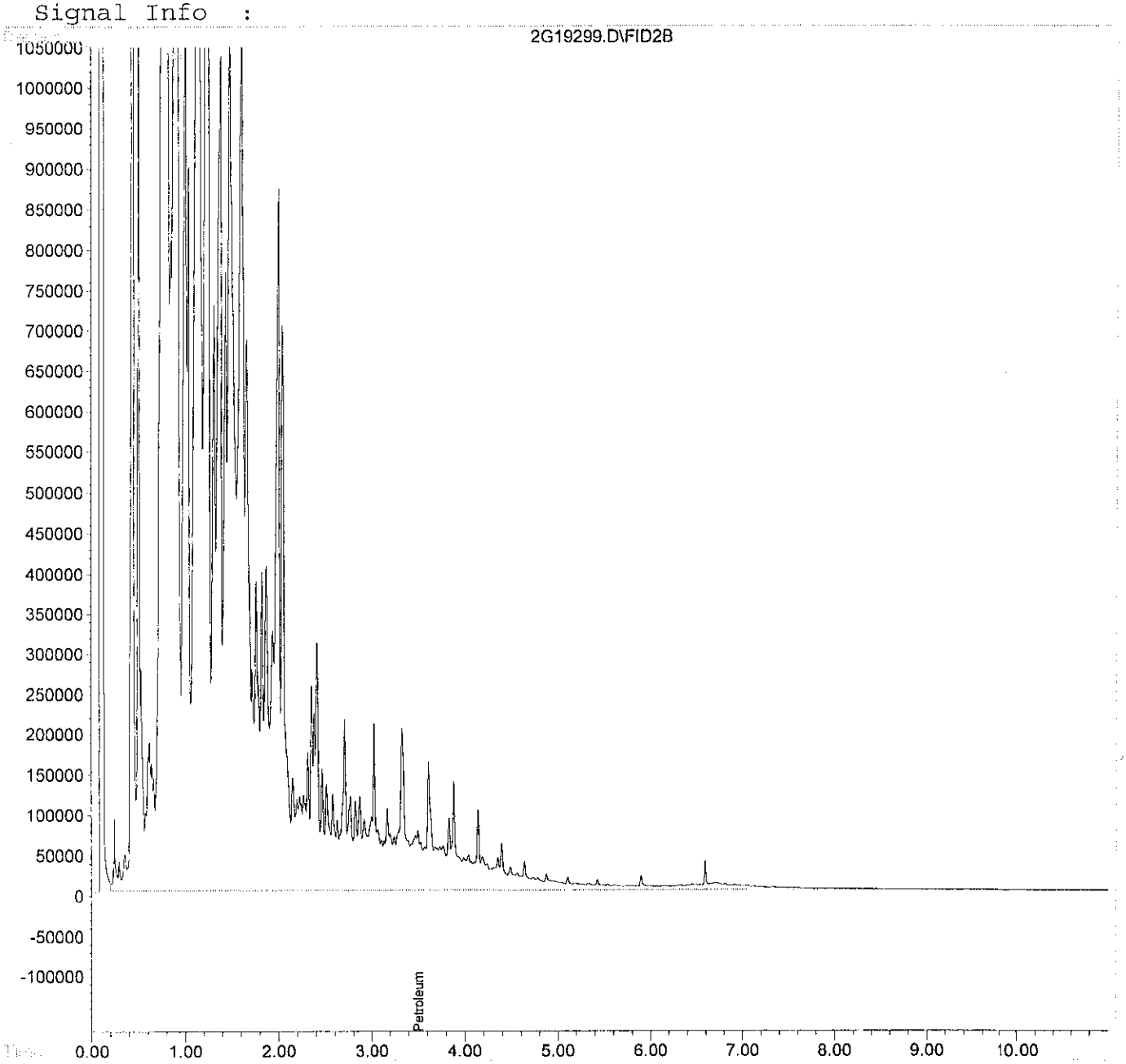
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.83	515950	23.167	ppb	m
Spiked Amount 20.000 Range 43 - 136 Recovery = 115.84%					
3) s n-Nonatriacontane	0.00	0	N.D.	ppm	
Spiked Amount 800.000 Recovery = 0.00%					
Target Compounds					
1) H Petroleum Range	3.51	775811210	43516.443	ppb	10X

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19299.D FLASHPRO.M Wed Mar 13 11:07:16 2002 HP2 Page 1

Acq On : 12 Mar 2002 18:31 Operator: CLK/RDC
Sample : L0203154-02 PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:07 2002 Quant Results File: FLASHPRO.RES

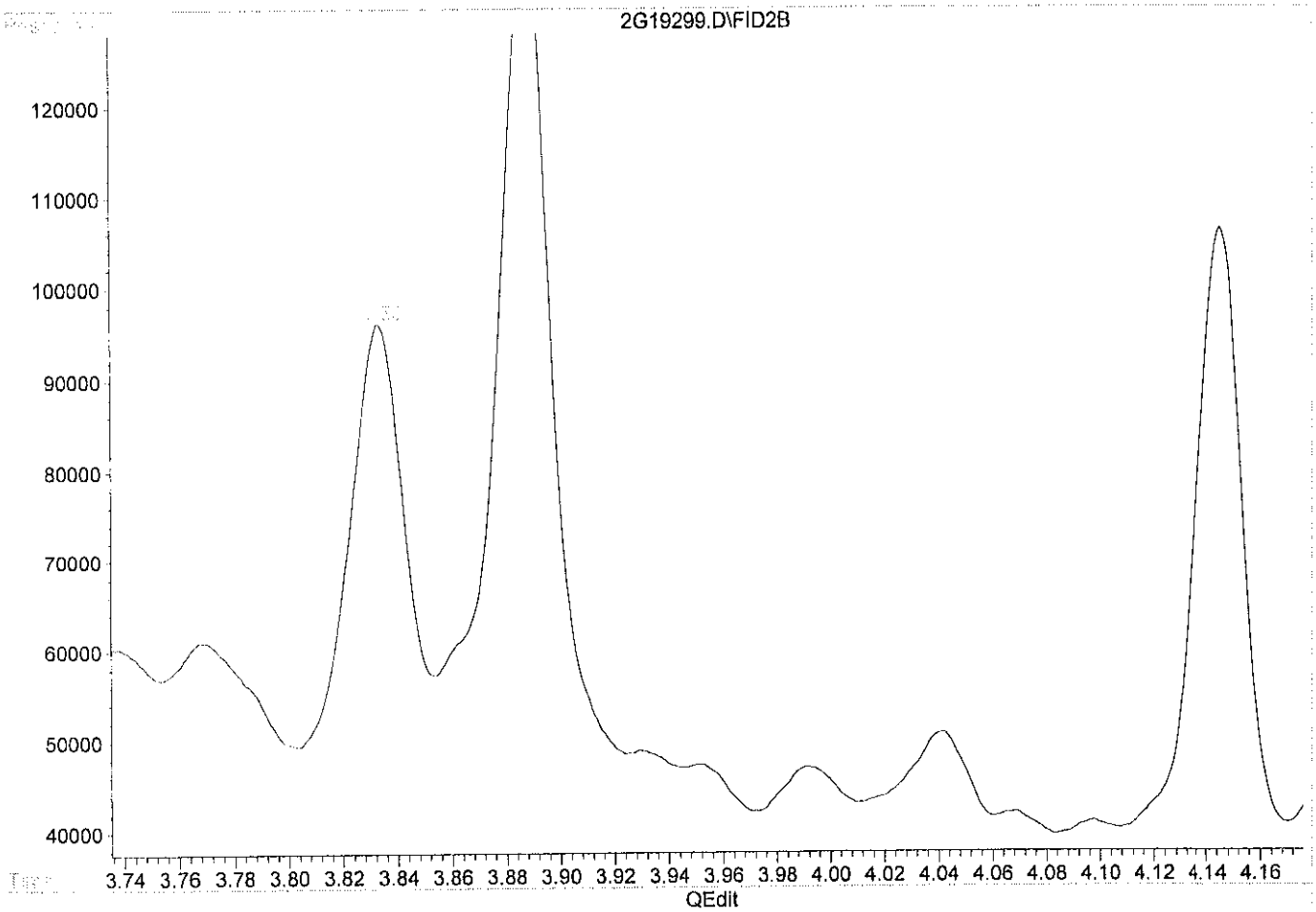
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 18:31 Operator: CLK/RDC
Sample : L0203154-02 PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.83min 87.609ppb

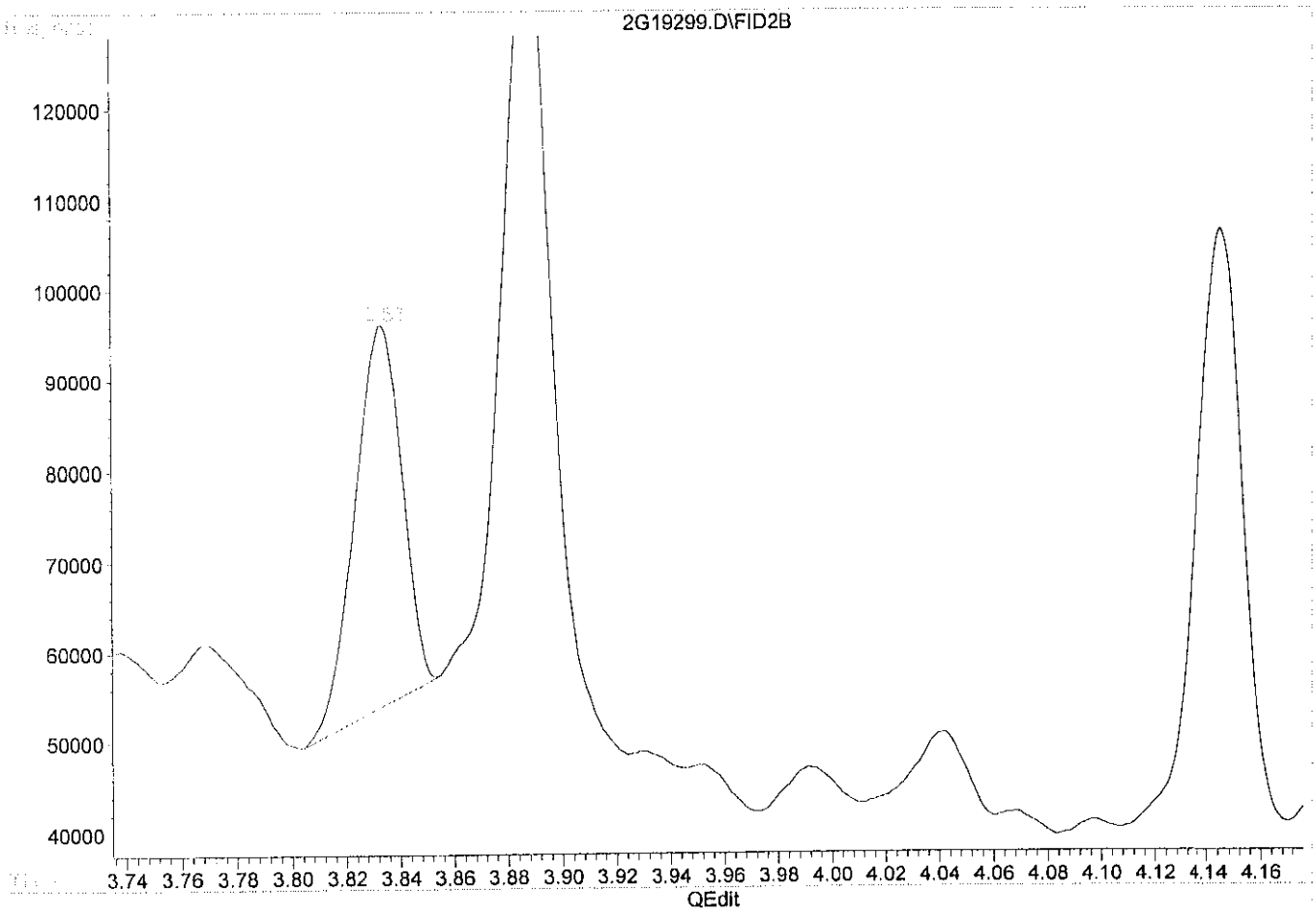
response 1951124

(+) = Expected Retention Time
2G19299.D FLASHPRO.M Wed Mar 13 11:06:59 2002 HP2

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

Acq On : 12 Mar 2002 18:31 Operator: CLK/RDC
Sample : L0203154-02 PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.83min 23.167ppb m

response 515950

CLK 3/14/02

3/14/02

(+) = Expected Retention Time

2G19299.D FLASHPRO.M Wed Mar 13 11:07:10 2002 HP2

Acq On : 13 Mar 2002 17:40 Operator: CLK/RDC
Sample : L0203154-02 PRO 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:15 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

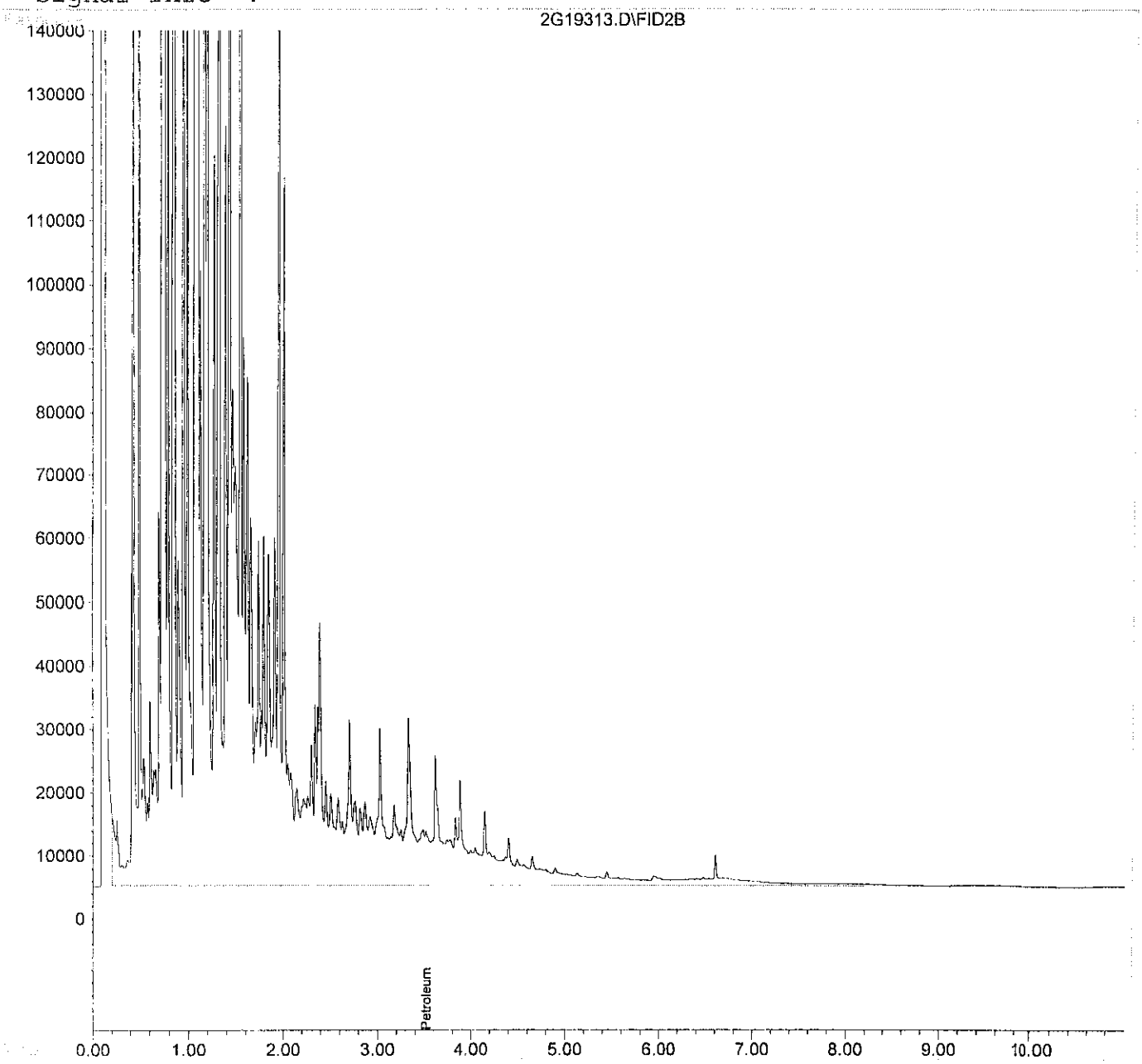
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	47442	21.303 ppb m
Spiked Amount 20.000 Range 43 - 136 Recovery = 106.52%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	90898143	5098.617 ppb ✓

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19313.D FLASHPRO.M Thu Mar 14 10:15:58 2002 HP2 Page 1

Acq On : 13 Mar 2002 17:40 Operator: CLK/RDC
Sample : L0203154-02 PRO 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:15 2002 Quant Results File: FLASHPRO.RES

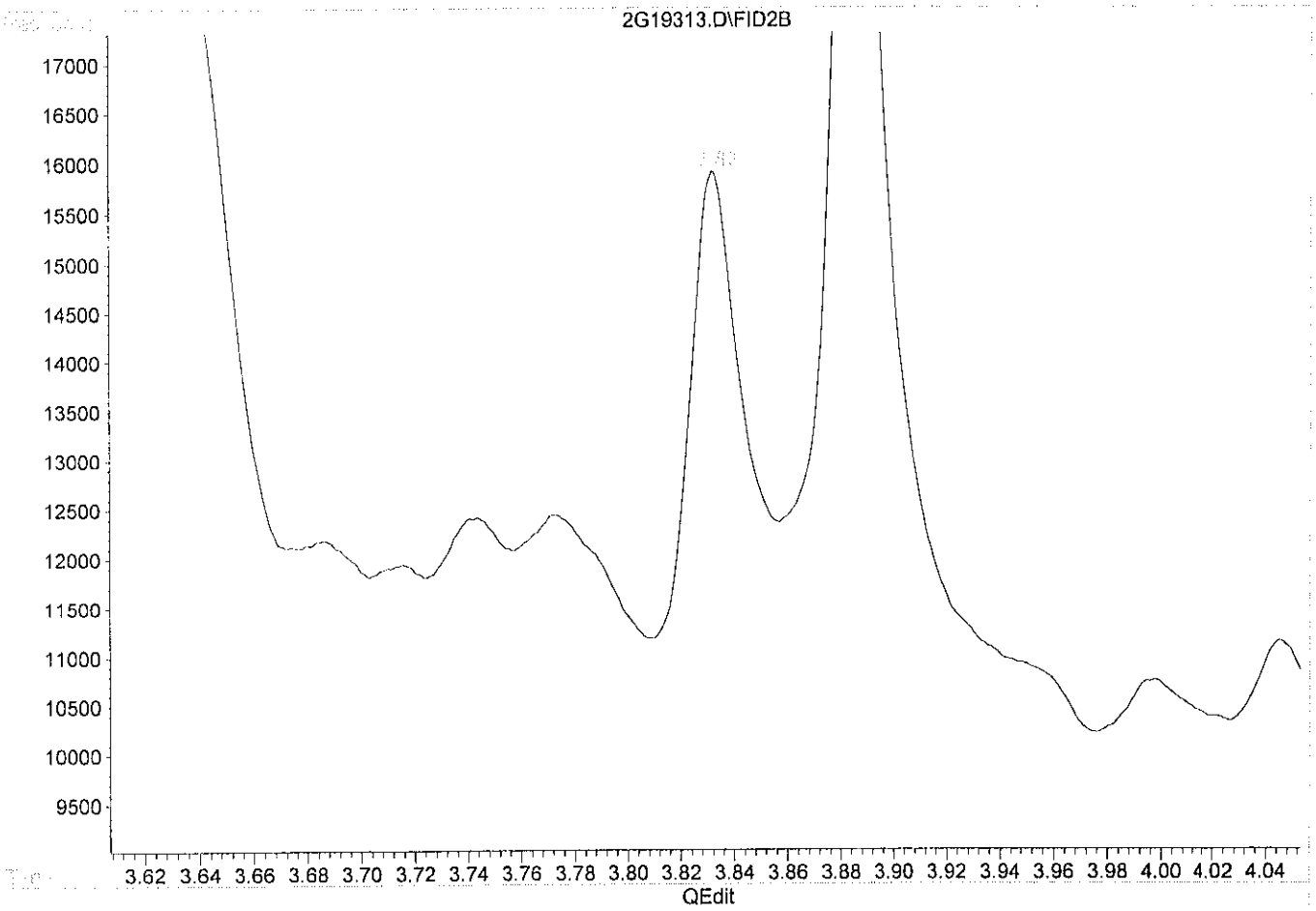
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Mar 2002 17:40 Operator: CLK/RDC
Sample : L0203154-02 PRO 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:15 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

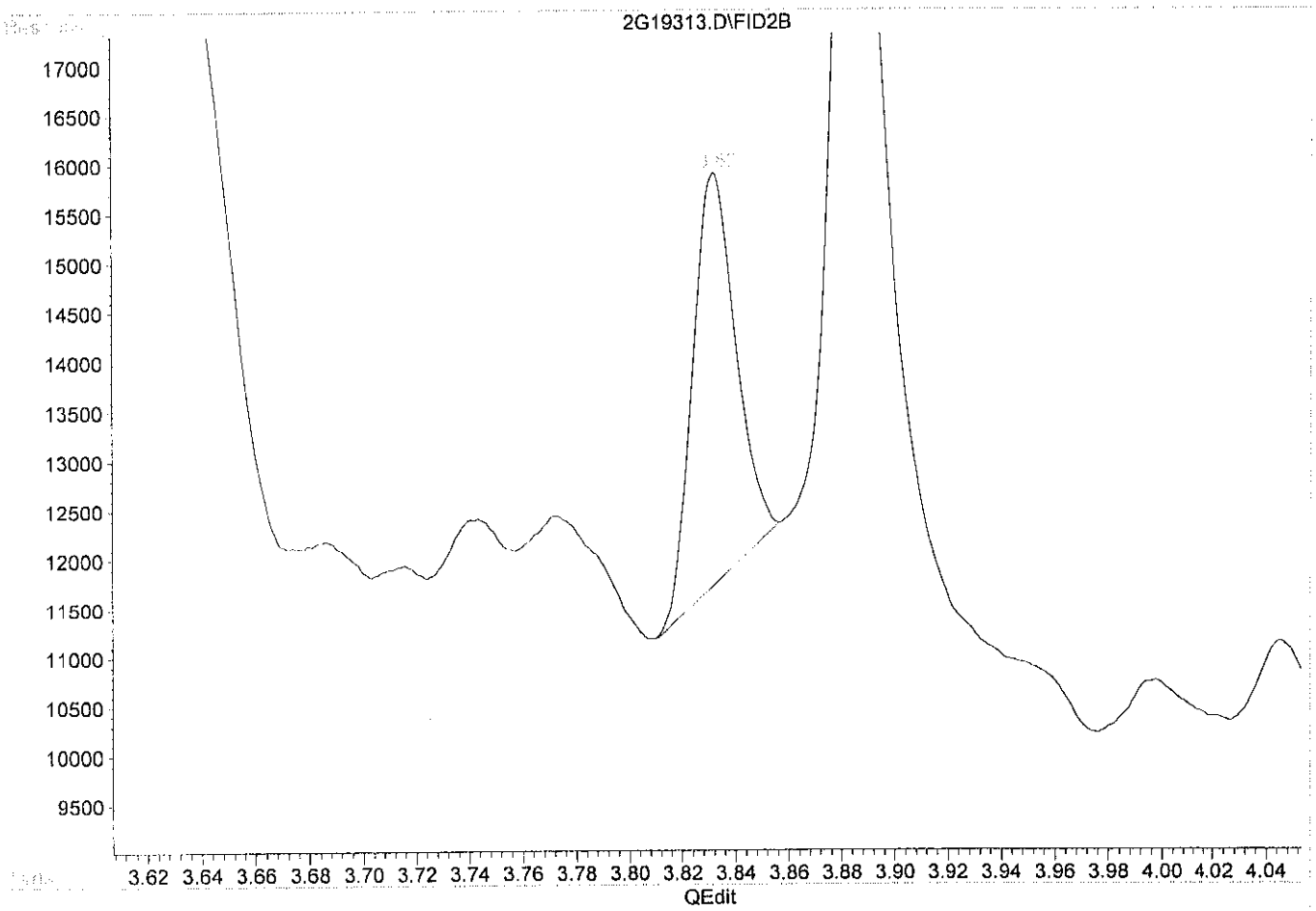
3.83min 106.981ppb

response 238256

(+) = Expected Retention Time
2G19313.D FLASHPRO.M Thu Mar 14 10:15:22 2002 HP2

Acq On : 13 Mar 2002 17:40 Operator: CLK/RDC
Sample : L0203154-02 PRO 10X Inst : HP2
Misc : 7,10 SOIL Multiplr: 10.00
IntFile : PETRO.E
Quant Time: Mar 14 10:15 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.83min 21.303ppb m

response 47442

CLK 3/14/02

RK 3/14/02

(+) = Expected Retention Time
2G19313.D FLASHPRO.M Thu Mar 14 10:15:47 2002 HP2

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

Acq On : 12 Mar 2002 18:46
Sample : L0203154-03 PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Mar 13 11:07 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.83	327111	14.688	ppb	m
Spiked Amount 20.000 Range 43 - 136 Recovery = 73.44%					
3) s n-Nonatriacontane	0.00	0	N.D.	ppm	
Spiked Amount 800.000 Recovery = 0.00%					
Target Compounds					
1) H Petroleum Range	3.51	46228131	2593.007	ppb	

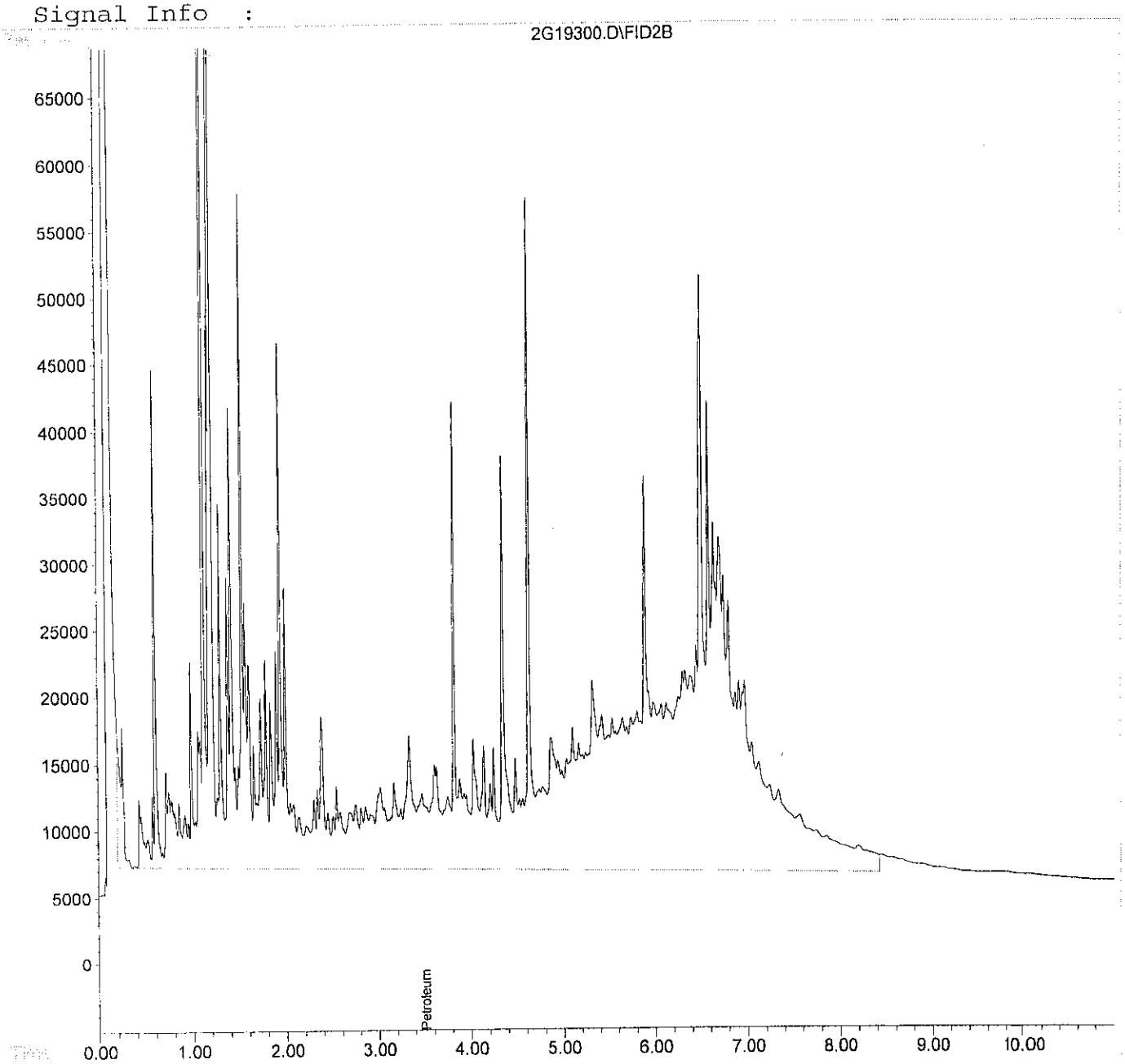
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 12 Mar 2002 18:46
Sample : L0203154-03 PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Mar 13 11:07 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

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

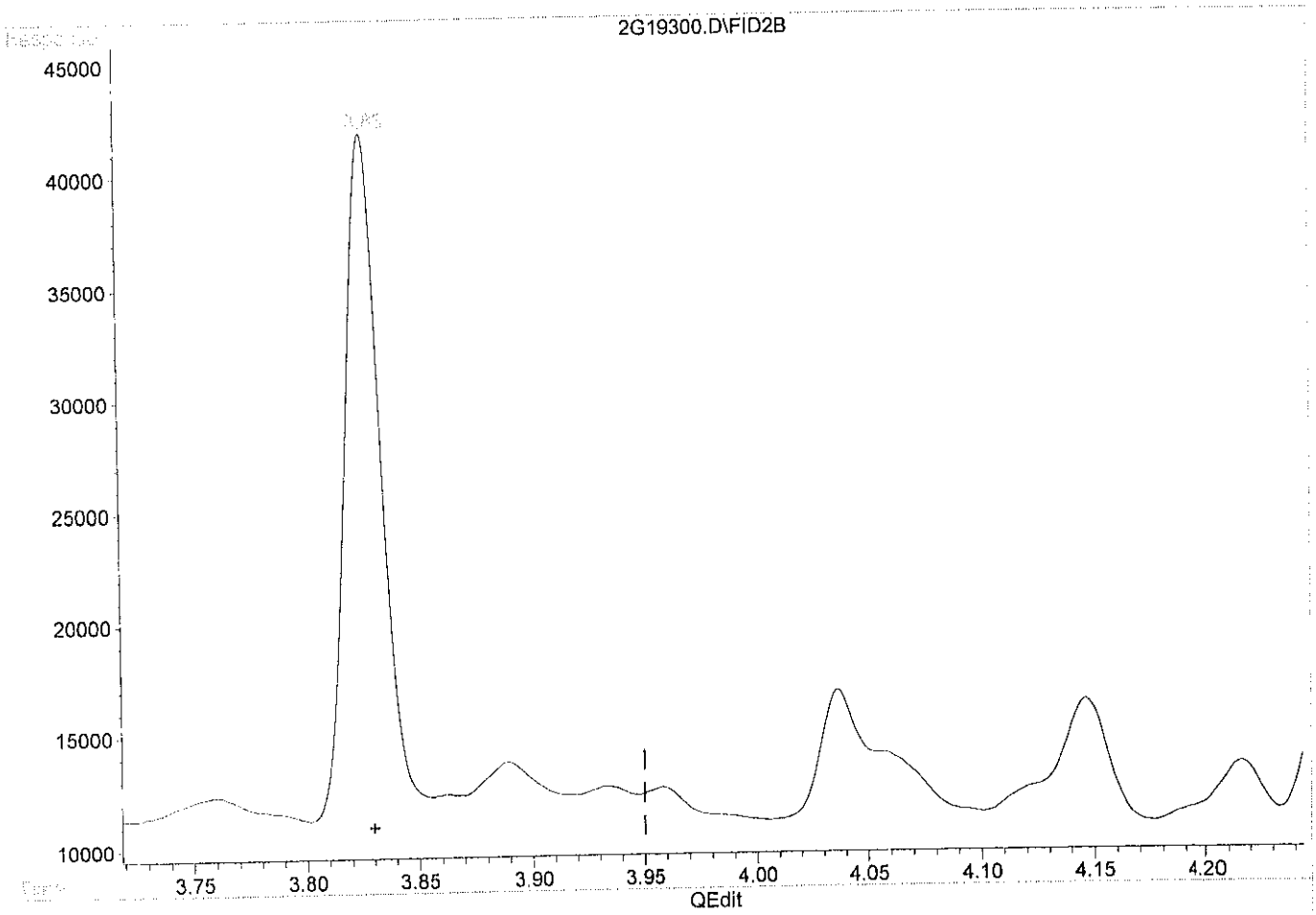
Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 12 Mar 2002 18:46
Sample : L0203154-03 PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

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



(2) O-Terphenyl (s)

3.83min 23.490ppb

response 523150

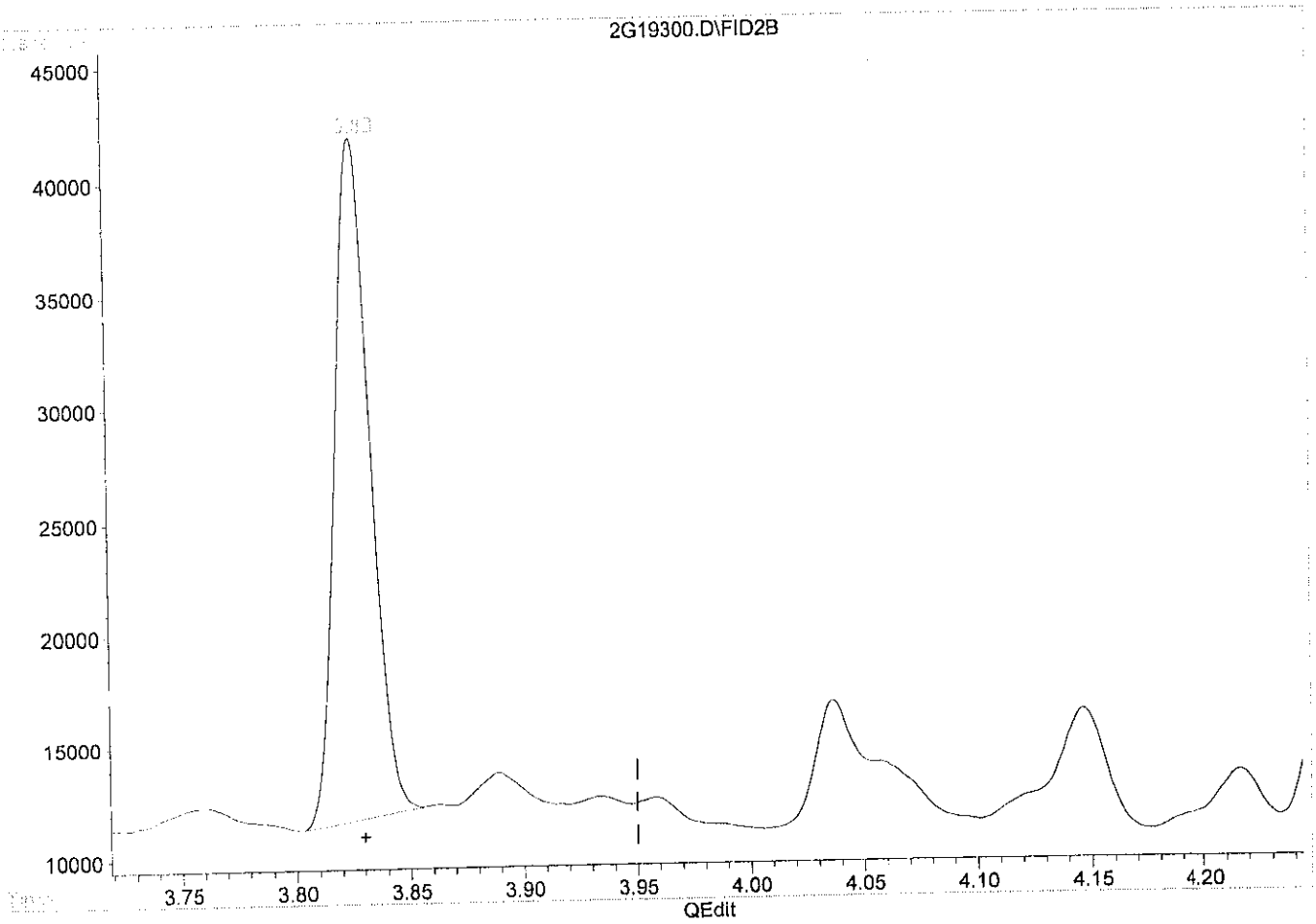
(+) = Expected Retention Time

2G19300.D FLASHPRO.M Wed Mar 13 11:07:36 2002 HP2

Data File : C:\HPCHEM\1\[illegible]
Acq On : 12 Mar 2002 18:46
Sample : L0203154-03 PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

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



(2) O-Terphenyl (s)

3.83min 14.688ppb m

response 327111

CLK 3/14/02

3/14/02

(+) = Expected Retention Time

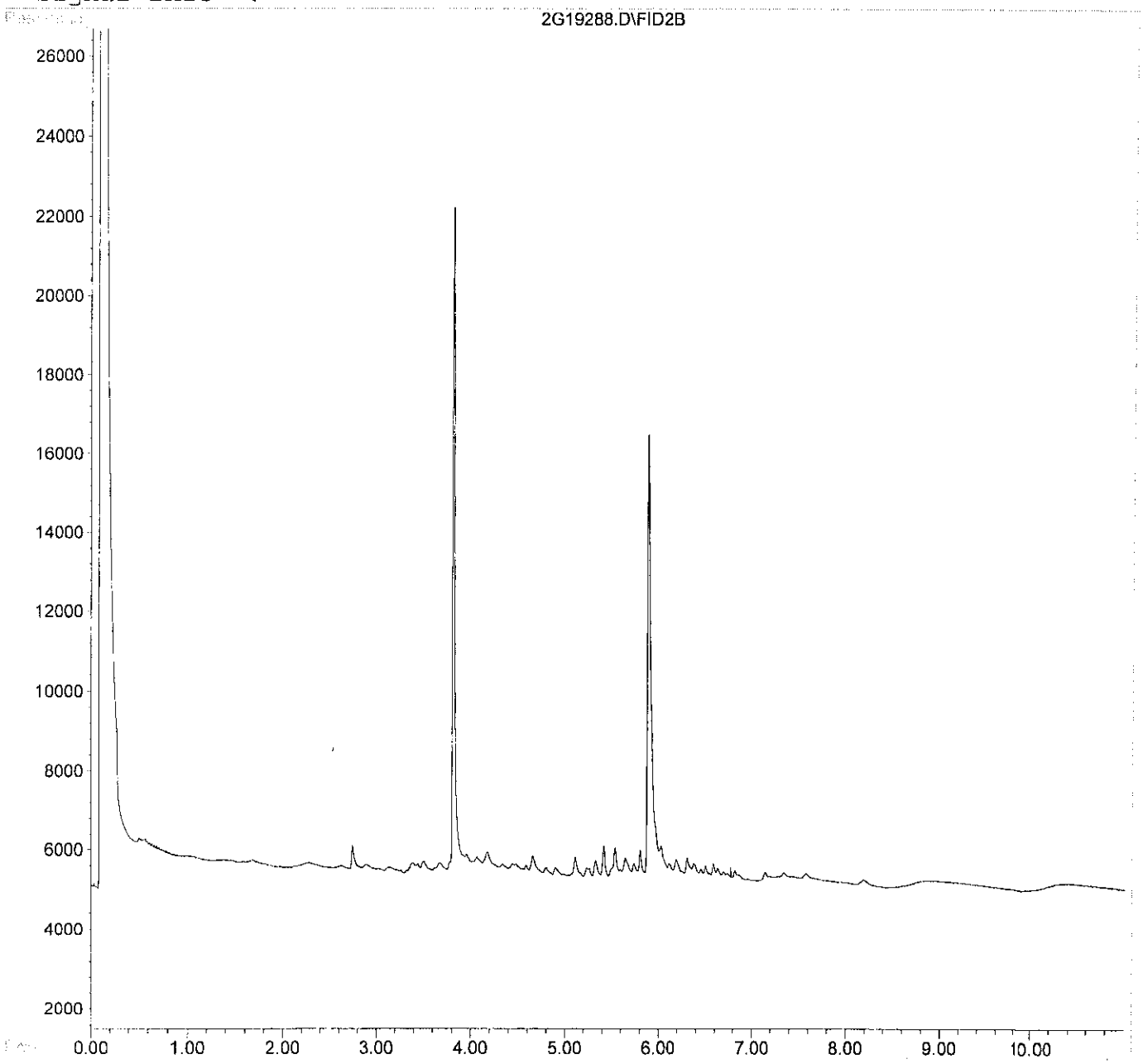
2G19300.D FLASHPRO.M Wed Mar 13 11:07:49 2002 HP2

```
Acq On     : 12 Mar 2002  15:37                          Operator: CLK/RDC
Sample     : L0203154-04 PRO                             Inst    : HP2
Misc       : 1,1                                         Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 13 10:50 2002  Quant Results File: FLASHPRO.RES

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

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.81         282511   12.685 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =    63.43%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.51         855242    <MDL  ppb
```

Acq On : 12 Mar 2002 15:37 Operator: CLK/RDC
Sample : L0203154-04 PRO Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

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

Calibration Files

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

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

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\012502\2G18109.D Vial: 4
Acq On : 25 Jan 2002 15:01 Operator: HV
Sample : WG111901-01 PRO @600ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 26 11:04 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

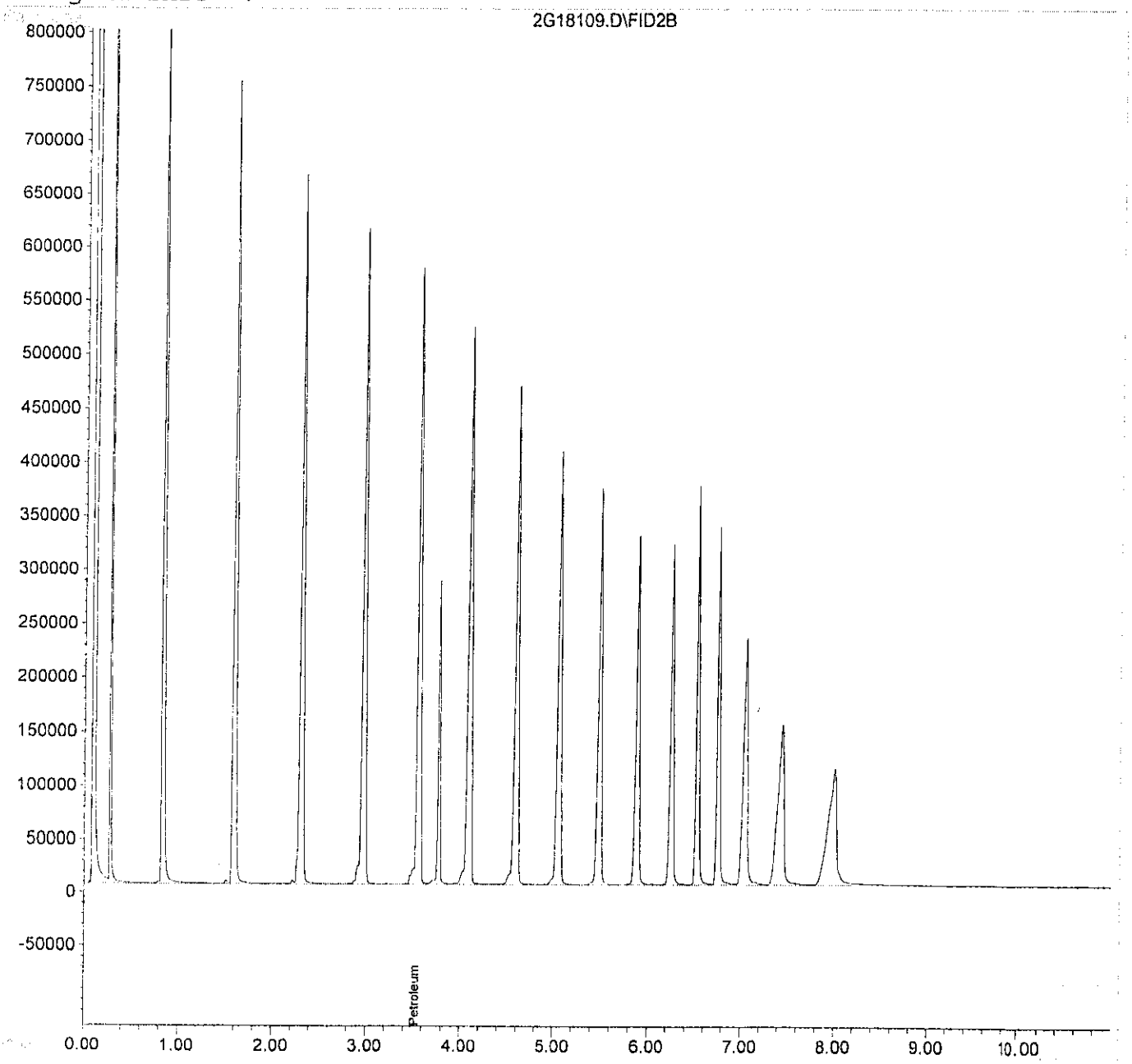
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	4179263	187.657 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 938.29%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	172700859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

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

Data File : C:\HPCHEM\1\DATA\012502\2G18109.D Vial: 4
Acq On : 25 Jan 2002 15:01 Operator: HV
Sample : WG111901-01 PRO @600ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 26 11:04 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18110.D Vial: 5
Acq On : 25 Jan 2002 15:16 Operator: HV
Sample : WG111957-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

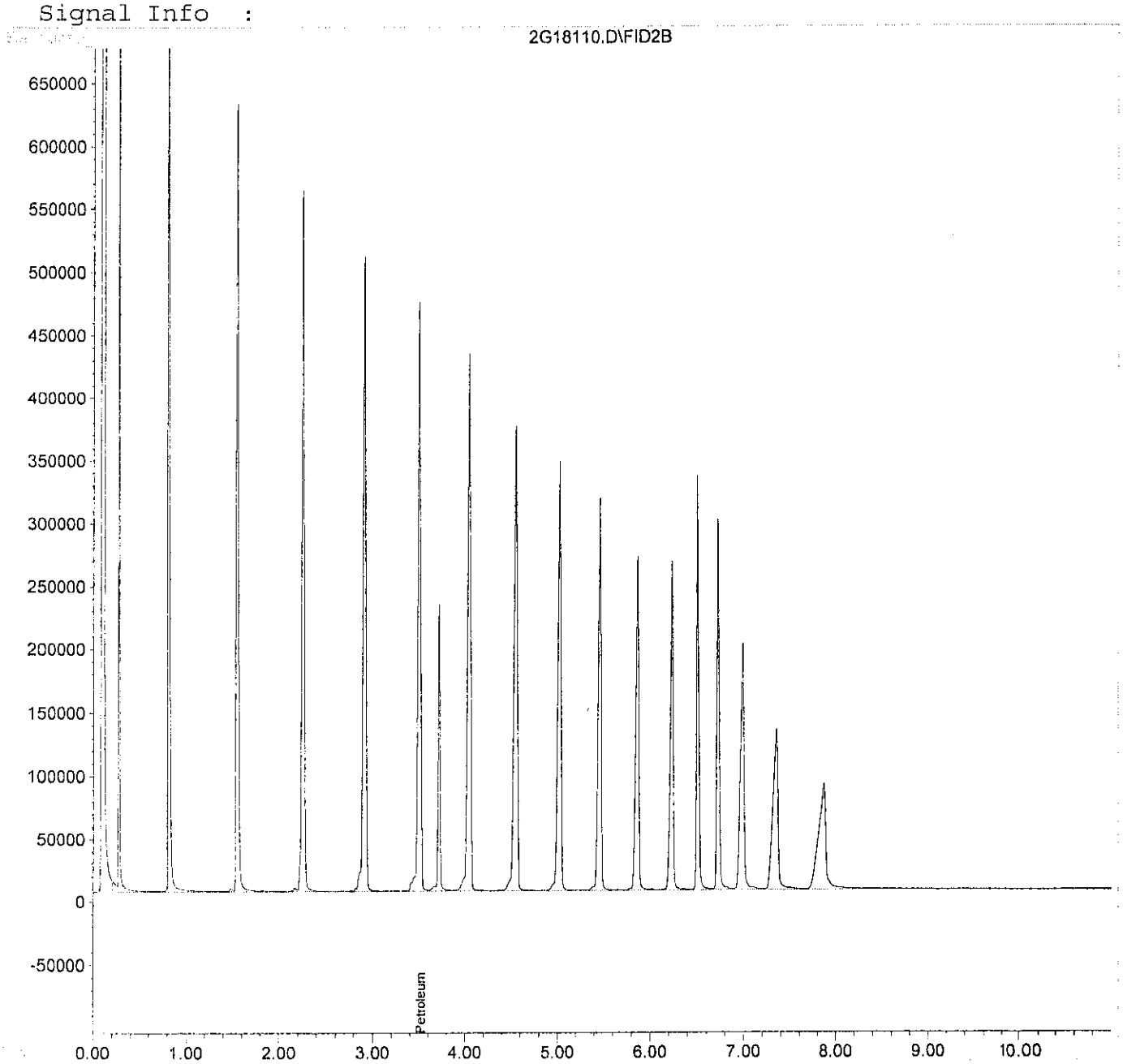
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	3146098	126.022 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 630.11%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	126857504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

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

Data File : C:\HPCHEM\1\DATA\012502\2G18110.D Vial: 5
Acq On : 25 Jan 2002 15:16 Operator: HV
Sample : WG111957-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

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

Volume Inj. :
Signal Phase :
Signal Info :

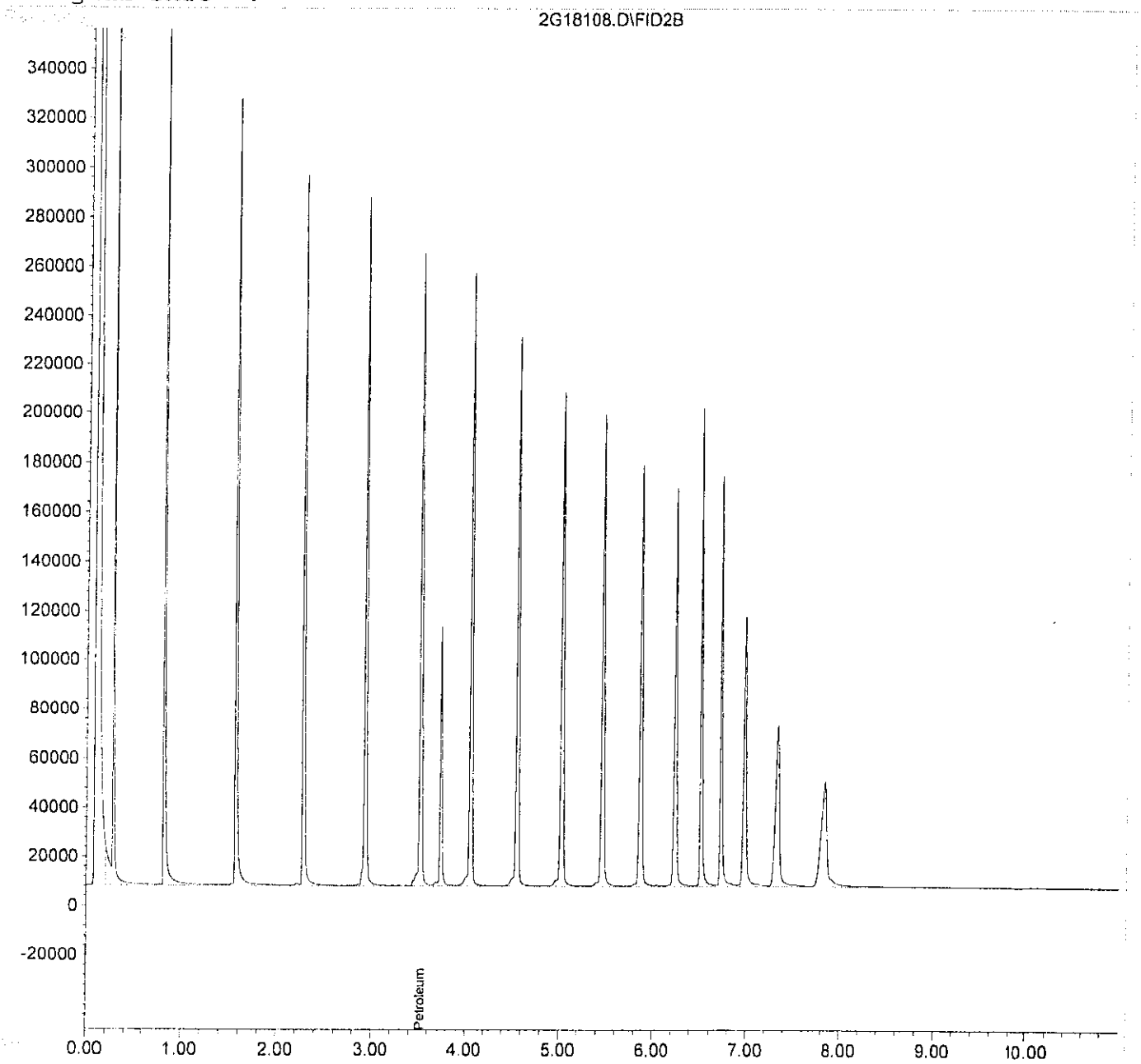
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.75	1326044	53.117 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	265.59%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	55272132	3086.344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

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

Data File : C:\HPCHEM\1\DATA\012502\2G18108.D Vial: 3
Acq On : 25 Jan 2002 14:45 Operator: HV
Sample : WG111957-01 PRO CCV Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:07 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



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

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

Volume Inj. :
Signal Phase :
Signal Info :

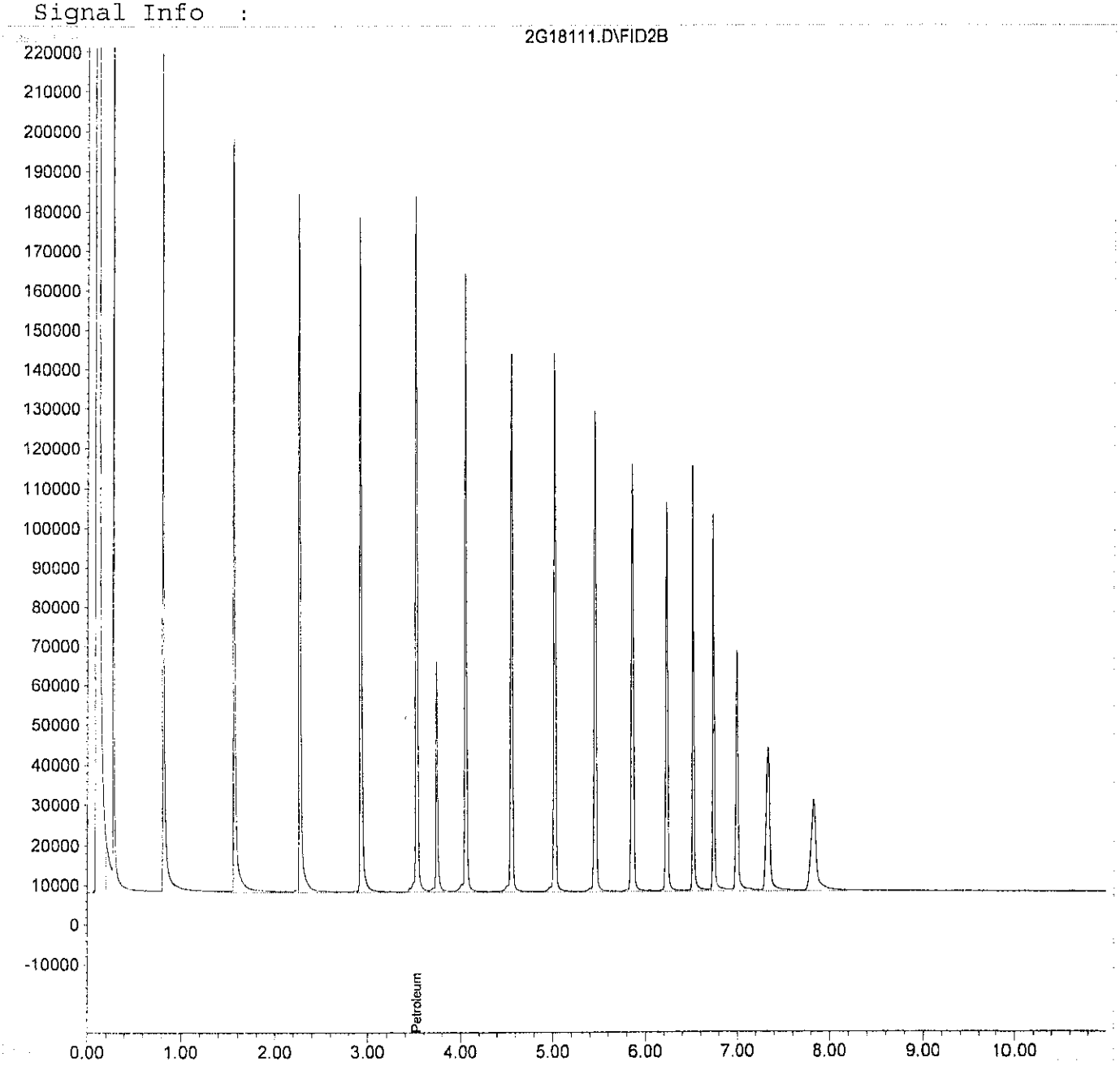
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	730745	32.812 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	164.06%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	29645395	1662.856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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18112.D Vial: 7
Acq On : 25 Jan 2002 15:46 Operator: HV
Sample : WG111957-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:08 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

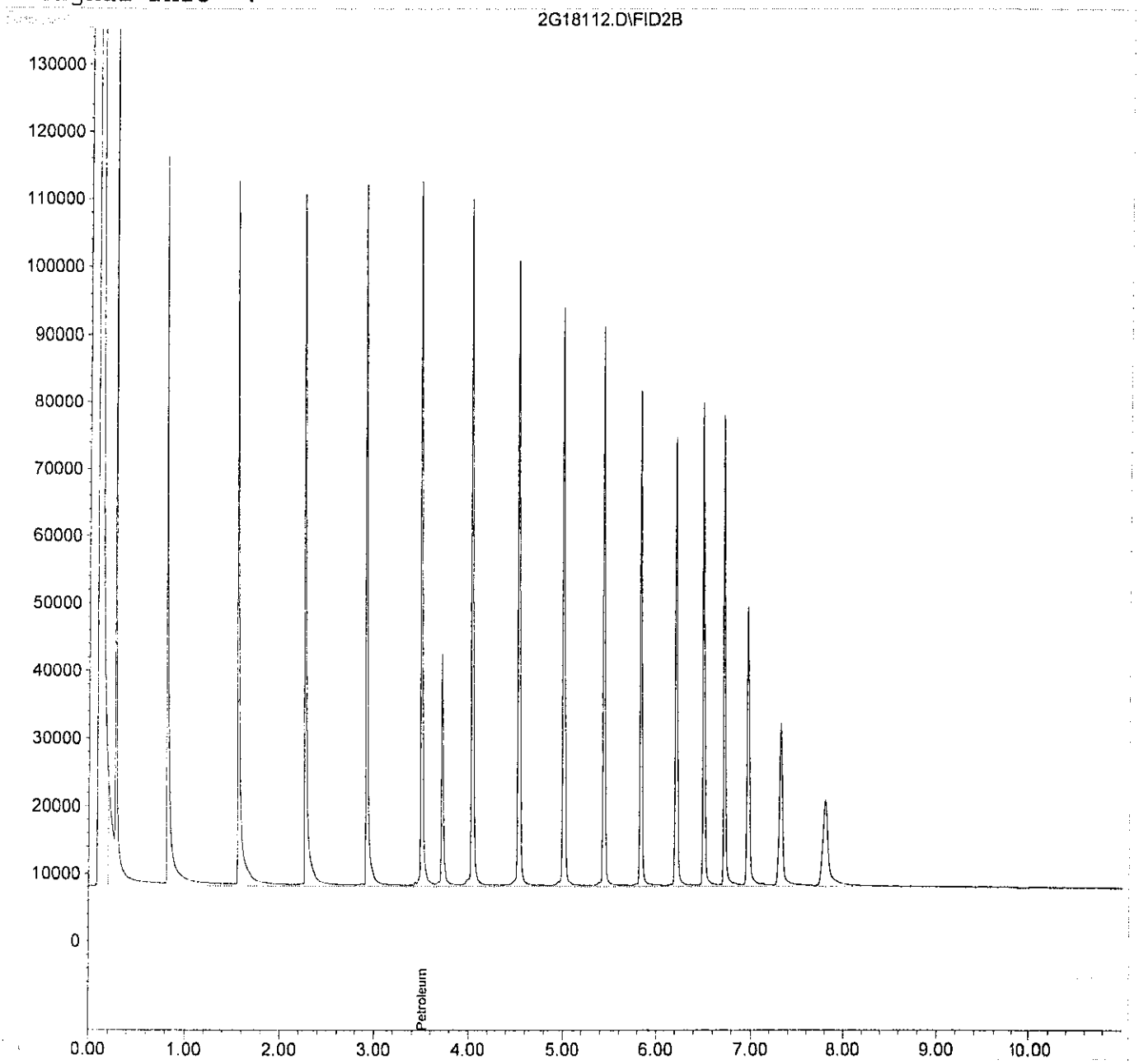
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	451413	18.082 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	90.41%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	18509473	1033.552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

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

Data File : C:\HPCHEM\1\DATA\012502\2G18112.D Vial: 7
Acq On : 25 Jan 2002 15:46 Operator: HV
Sample : WG111957-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:08 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\012502\2G18113.D Vial: 8
Acq On : 25 Jan 2002 16:02 Operator: HV
Sample : WG111957-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:15 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

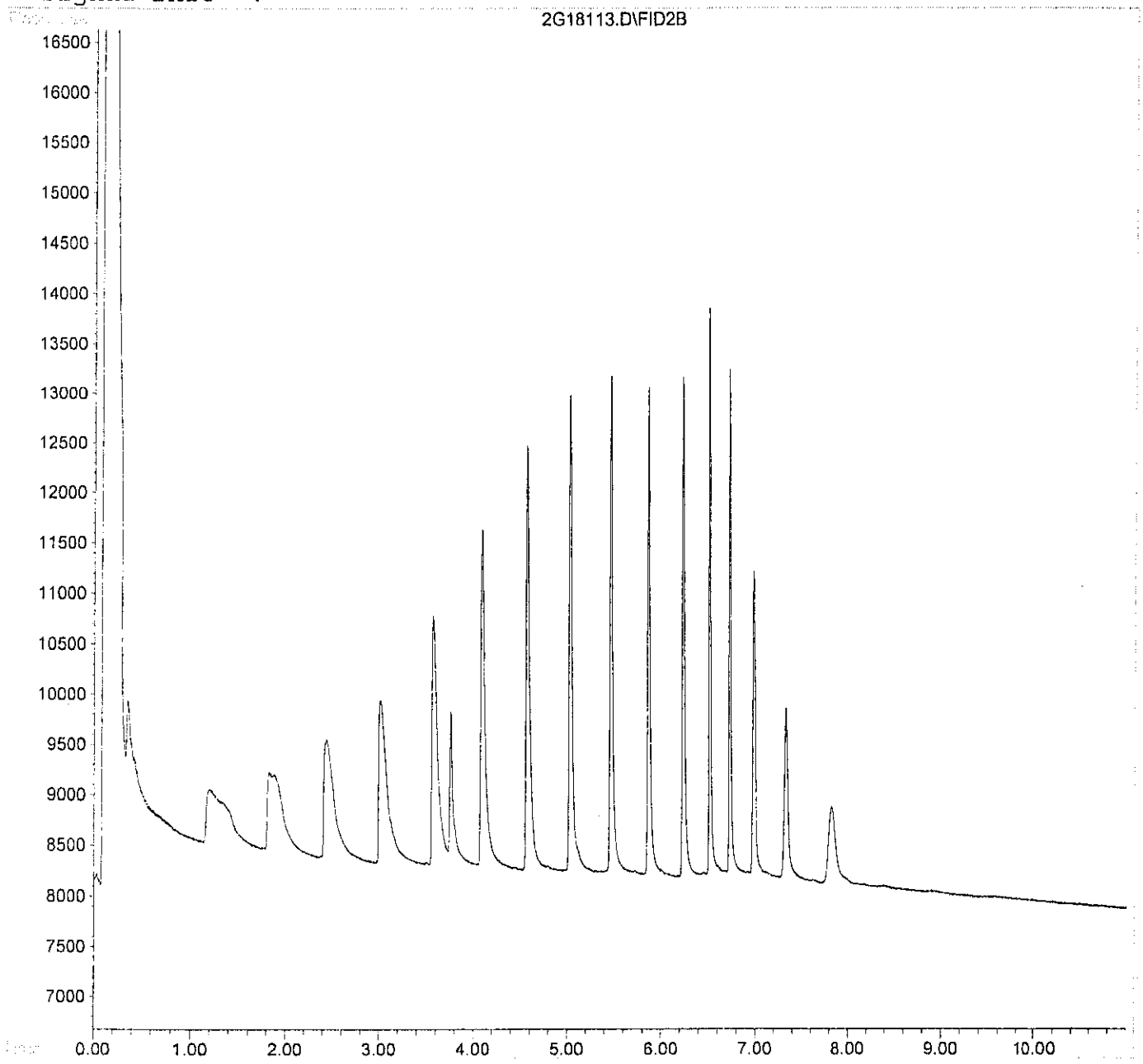
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	33527	1.343 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 6.72%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	1352368	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\012502\2G18113.D Vial: 8
Acq On : 25 Jan 2002 16:02 Operator: HV
Sample : WG111957-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 25 16:15 2002 Quant Results File: FLASHPRO.RES

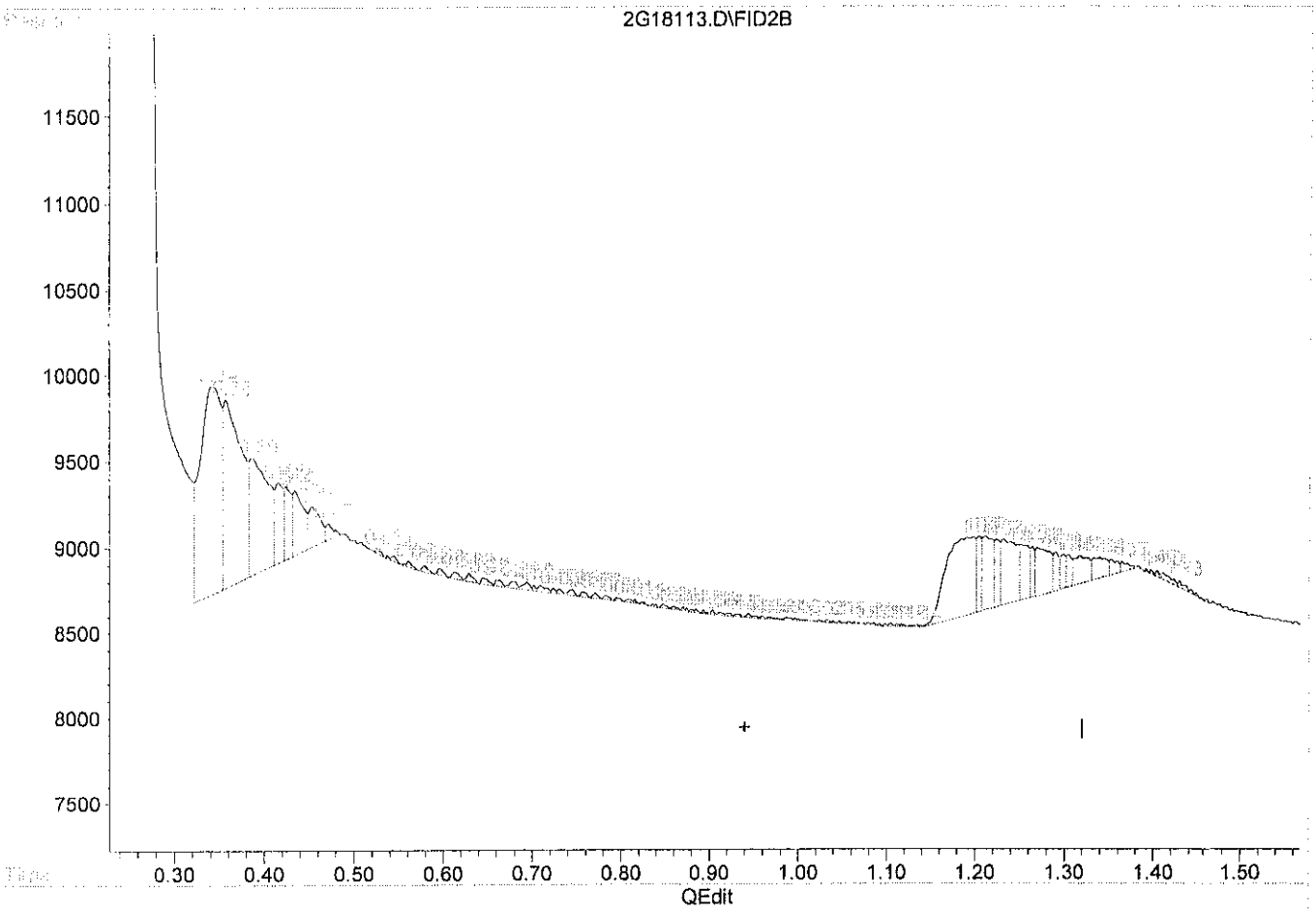
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/24/02
Last Update : Fri Jan 25 16:14:57 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Jan 2002 16:02 Operator: HV
Sample : WG111957-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 28 12:41 2002 Quant Results File: PROSPE.RES

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



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

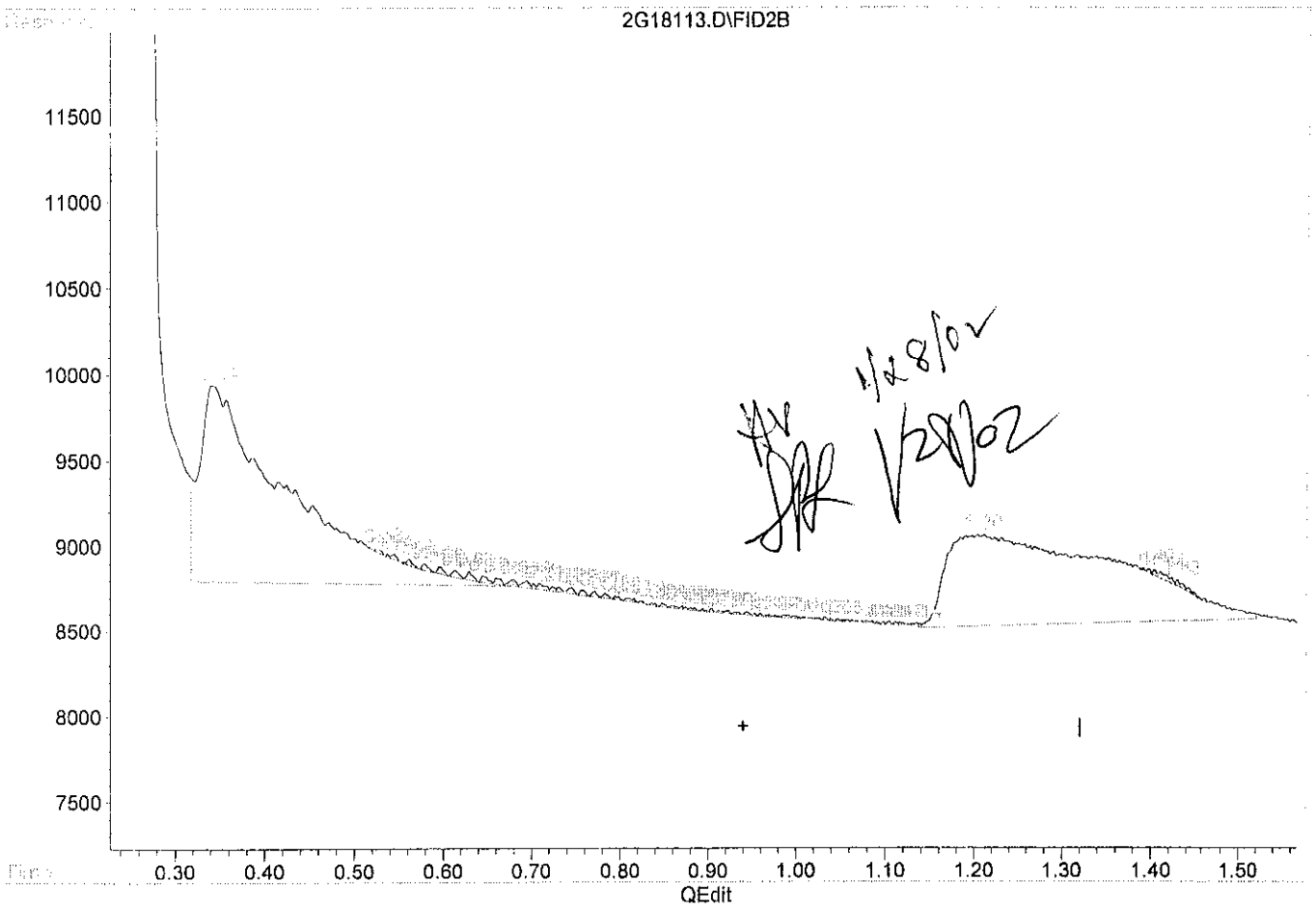
0.94min 2.137ppb m

response 91945

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

Acq On : 25 Jan 2002 16:02 Operator: HV
Sample : WG111957-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 28 12:41 2002 Quant Results File: PROSPE.RES

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



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

0.94min 3.659ppb m

response 157438

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

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

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

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

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

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

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

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

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

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

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

```
Data File : C:\HPCHEM\1\DATA\012502\2G18114.D              Vial: 9
Acq On    : 25 Jan 2002  16:18                          Operator: HV
Sample    : WG111957-07 ALT @200ppm                     Inst    : hp2
Misc      : 1,1 SOS58-05                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jan 25 16:30 2002  Quant Results File: FLASHPRO.RES

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

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                    3.76             19    0.001 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =    0.01%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

   Target Compounds
 1) H   Petroleum Range                3.51       52812161 2962.315 ppb
```

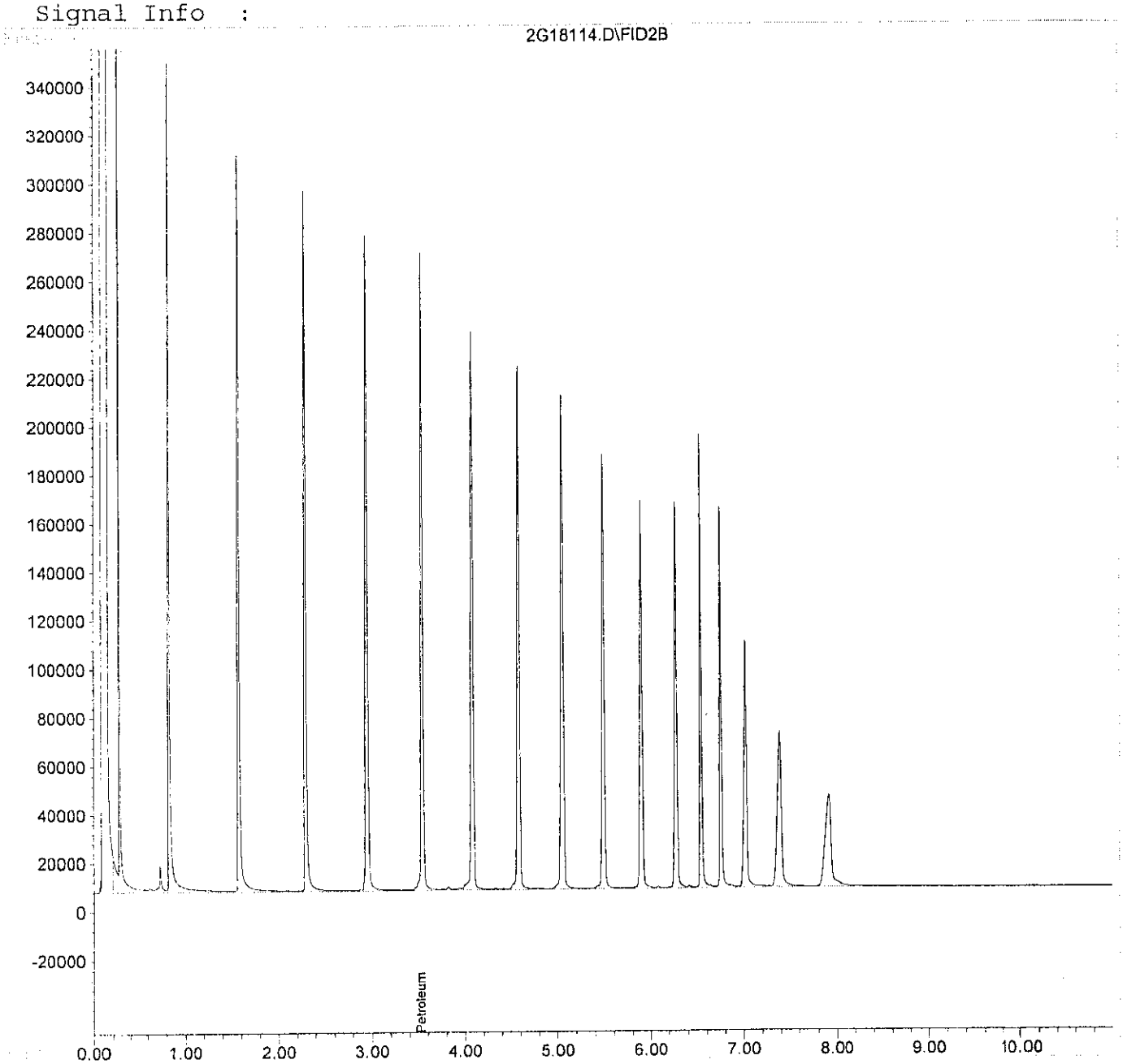
(f)=RT Delta > 1/2 Window (m)=manual int.

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 12:12 Operator: CLK/RDC
Sample : WG114393-01 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

Acq On : 12 Mar 2002 12:12 Operator: CLK/RDC
Sample : WG114393-01 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

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

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

Volume Inj. :
Signal Phase :
Signal Info :

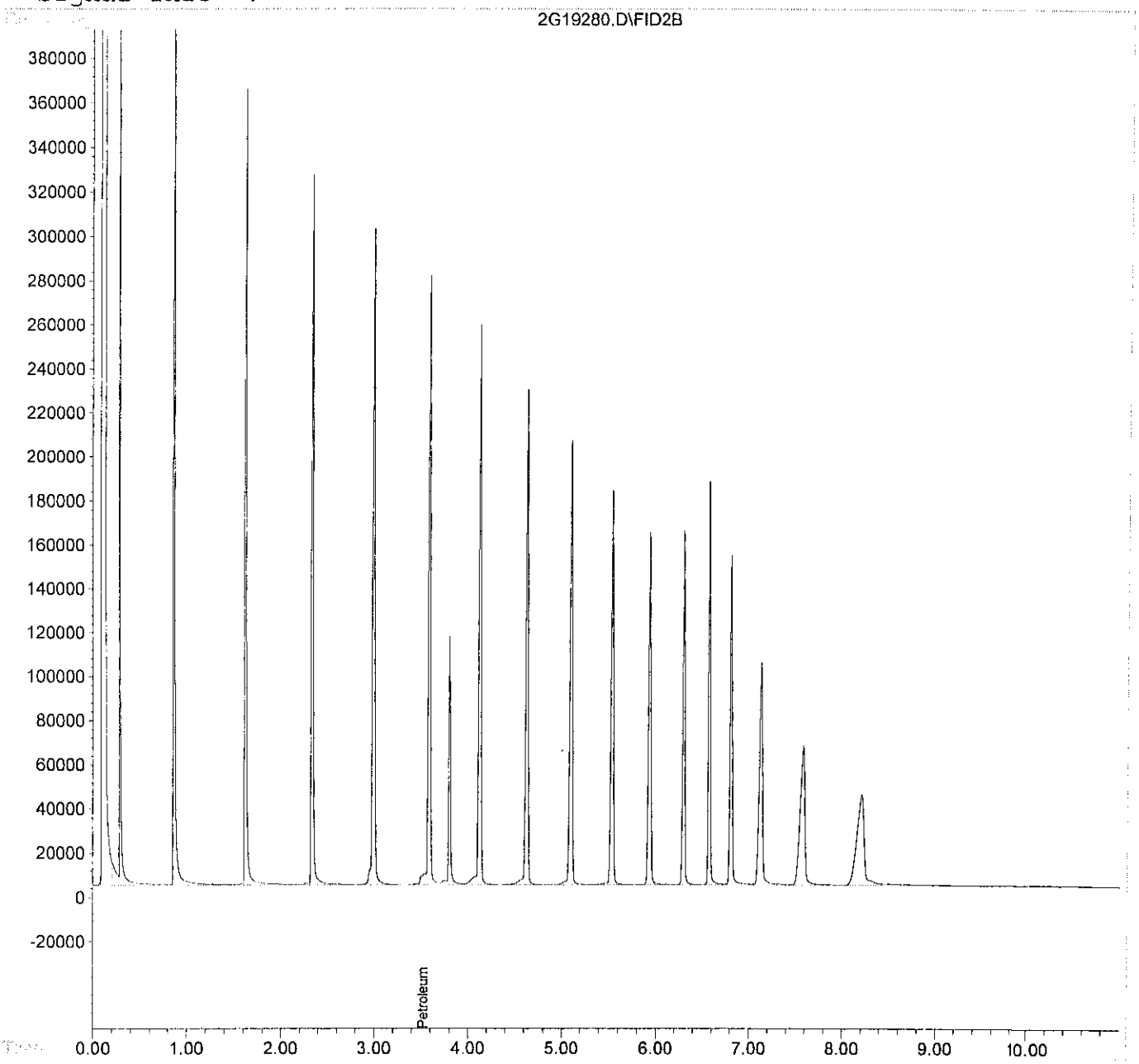
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	1404123	63.048 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	315.24%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	57715719	3237.363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

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19280.D FLASHPRO.M Wed Mar 13 10:47:36 2002 HP2 Page 1

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

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 15:18 Operator: CLK/RDC
Sample : WG114393-02 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

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

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

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

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

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

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

Acq On : 12 Mar 2002 15:18 Operator: CLK/RDC
Sample : WG114393-02 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:45 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

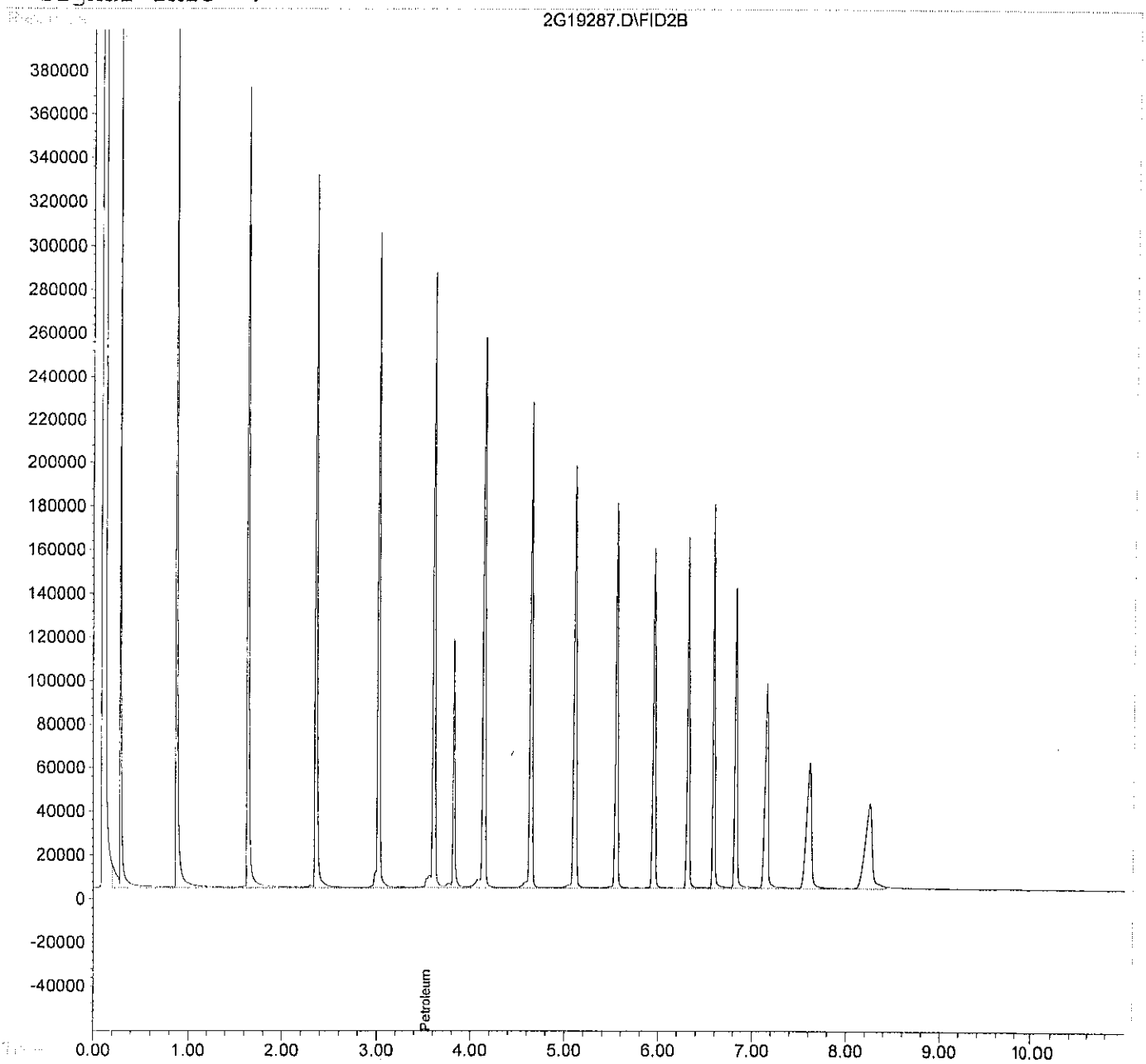
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	1365937	61.333 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	306.67%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.51	56869487	3189.897 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19287.D FLASHPRO.M Wed Mar 13 10:45:55 2002 HP2 Page 1

Acq On : 12 Mar 2002 15:18 Operator: CLK/RDC
Sample : WG114393-02 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:45 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:46 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

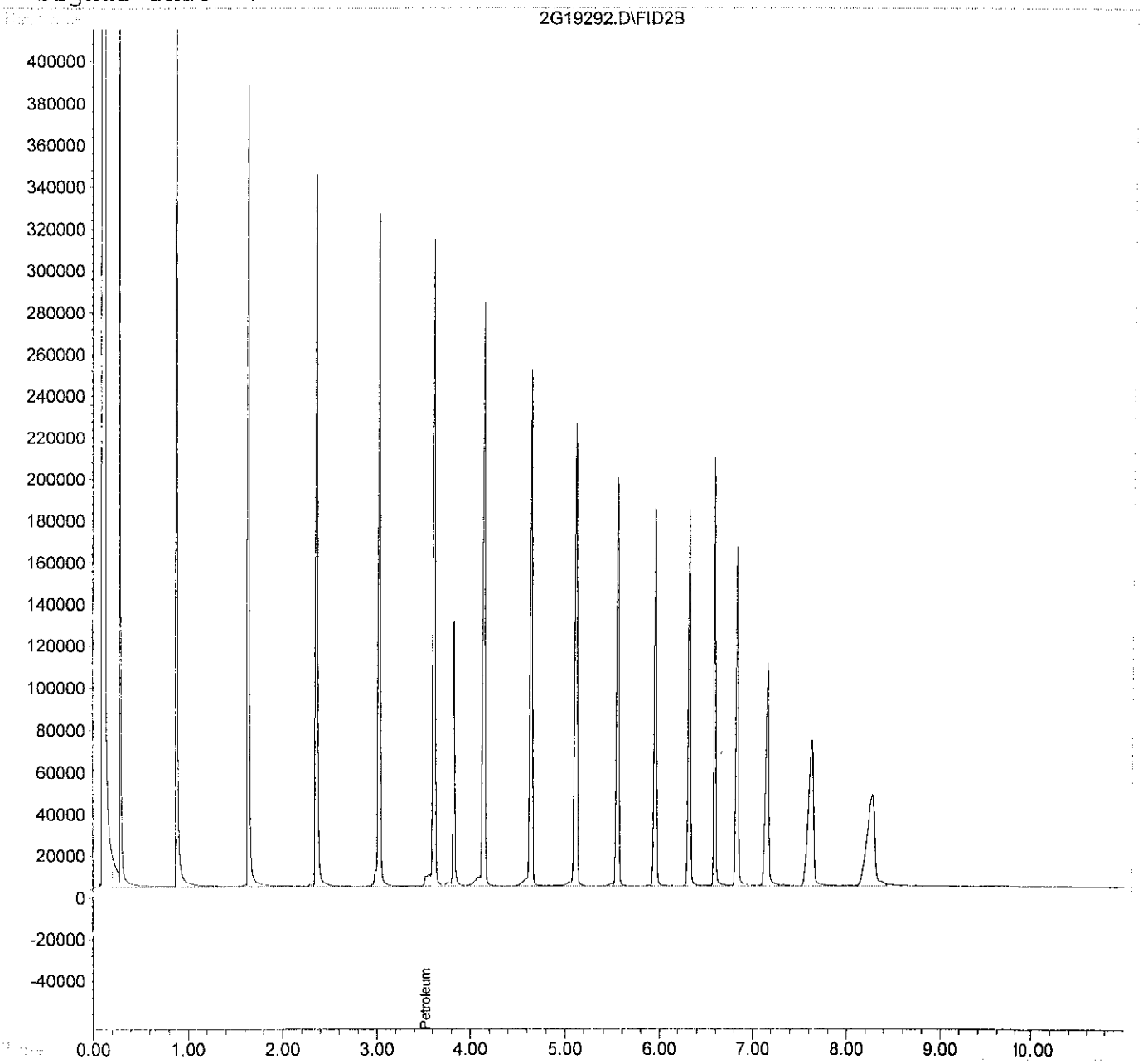
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	1546416	69.437 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	347.19%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.51	64264004	3604.667 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19292.D FLASHPRO.M Wed Mar 13 10:46:41 2002 HP2 Page 1

Acq On : 12 Mar 2002 16:38 Operator: CLK/RDC
Sample : WG114393-03 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:46 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 18:00 Operator: CLK/RDC
Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

Acq On : 12 Mar 2002 18:00 Operator: CLK/RDC
Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

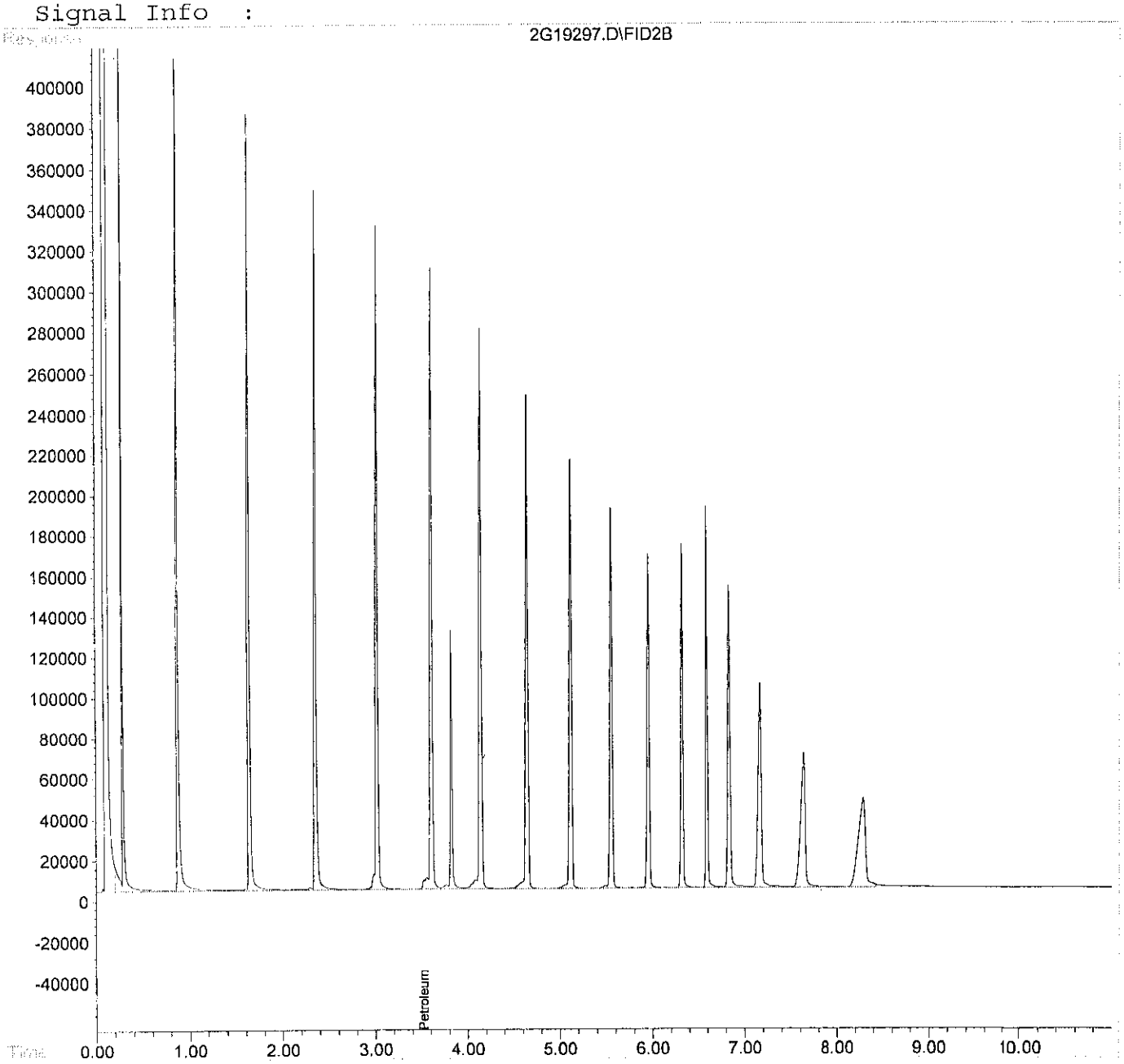
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Acq On     : 12 Mar 2002  18:00                          Operator: CLK/RDC
Sample     : WG114393-04 PRO CCV                         Inst    : HP2
Misc       : 1,1 SOS 58-05                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 13 10:48 2002  Quant Results File: FLASHPRO.RES

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

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.83        1564807   70.263 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  351.32%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.51       61851075 3469.322 ppb
```

Acq On : 12 Mar 2002 18:00 Operator: CLK/RDC
Sample : WG114393-04 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 19:17 Operator: CLK/RDC
Sample : WG114393-05 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

Acq On : 12 Mar 2002 19:17 Operator: CLK/RDC
Sample : WG114393-05 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

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

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

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

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

Acq On : 12 Mar 2002 19:17 Operator: CLK/RDC
Sample : WG114393-05 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

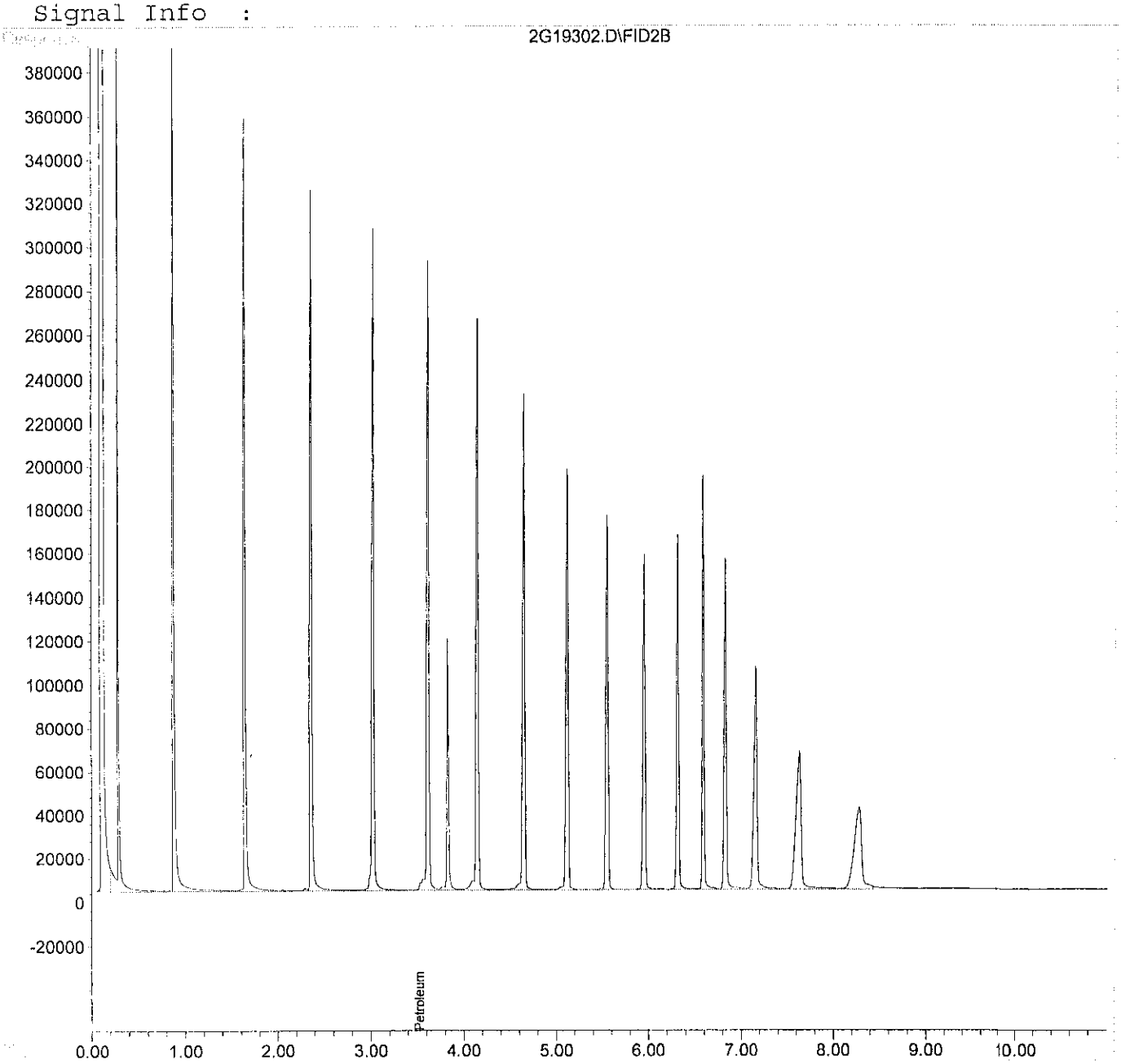
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	1403507	63.020 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 315.10%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	57275789	3212.687 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19302.D FLASHPRO.M Wed Mar 13 10:48:55 2002 HP2 Page 1

Acq On : 12 Mar 2002 19:17 Operator: CLK/RDC
Sample : WG114393-05 PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:48 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Mar 2002 17:09 Operator: CLK/RDC
Sample : WG114536-01 3400ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 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	3201.816	5.8	103	0.00
2	s	O-Terphenyl	66.700	68.335	-2.5	115	0.03

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

Acq On : 13 Mar 2002 17:09 Operator: CLK/RDC
Sample : WG114536-01 3400ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Multiple Level Calibration

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

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

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

Acq On : 13 Mar 2002 17:09 Operator: CLK/RDC
Sample : WG114536-01 3400ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 14 10:13 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 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	3.84	1521878	68.335 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 341.68%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	57081982	3201.816 ppb

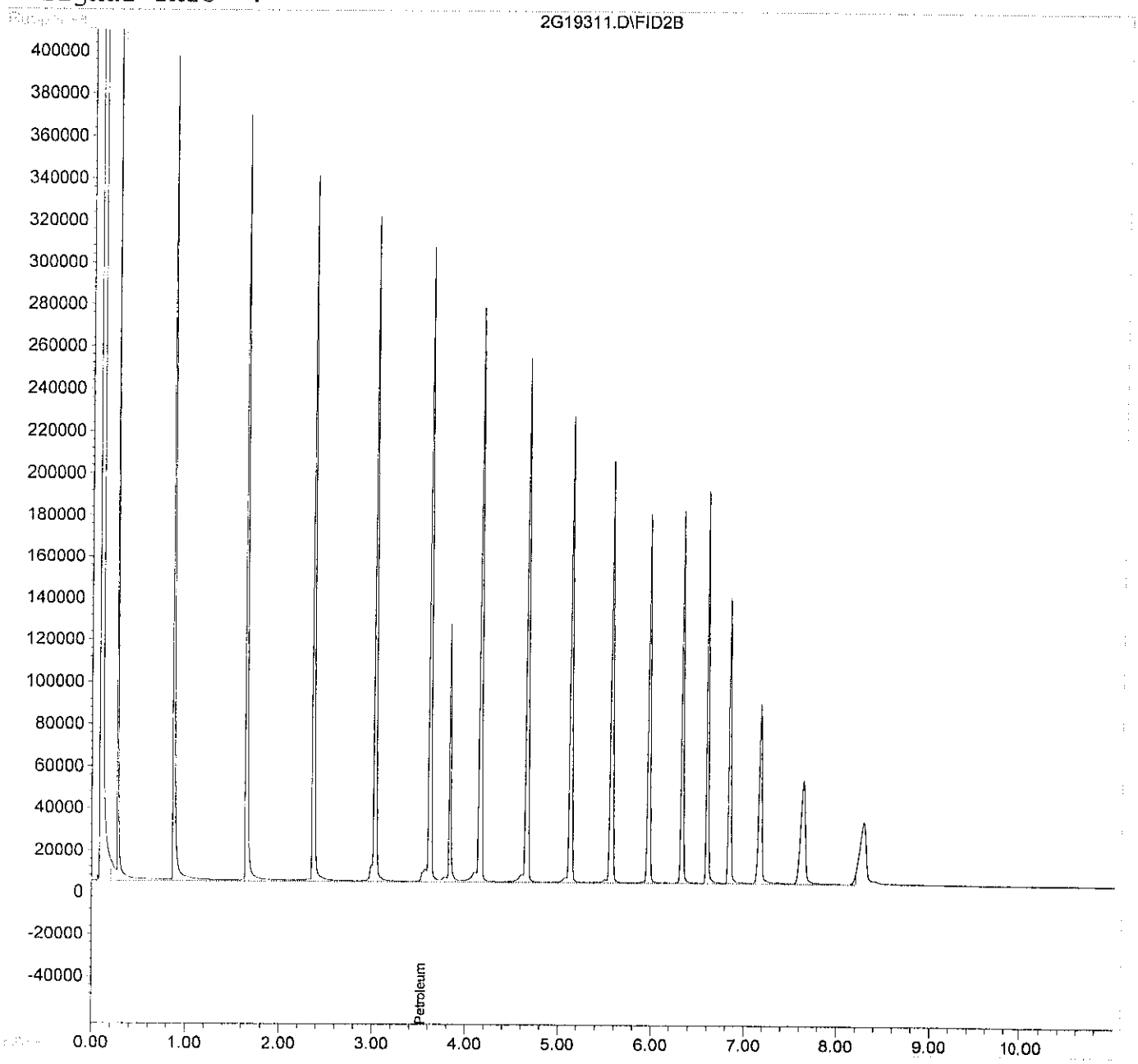
(f)=RT Delta > 1/2 Window (m)=manual int.
2G19311.D FLASHPRO.M Thu Mar 14 12:10:50 2002 HP2 Page 1

Acq On : 13 Mar 2002 17:09
Sample : WG114536-01 3400ppm PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E
Quant Time: Mar 14 10:13 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Mar 2002 18:31
Sample : WG114536-02 3400ppm PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 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	3056.383	10.1	99	0.00
2	s	O-Terphenyl	66.700	65.564	1.7	110	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19316.D FLASHPRO.M Thu Mar 14 12:14:57 2002 HP2 Page 1

Acq On : 13 Mar 2002 18:31
Sample : WG114536-02 3400ppm PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Multiple Level Calibration

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

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

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

Acq On : 13 Mar 2002 18:31 Operator: CLK/RDC
Sample : WG114536-02 3400ppm PRO CCV Inst : HP2
Misc : 1,1 SOS 58-05 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 14 10:16 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 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	3.82	1460161	65.564 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	327.82%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.51	54489196	3056.383 ppb

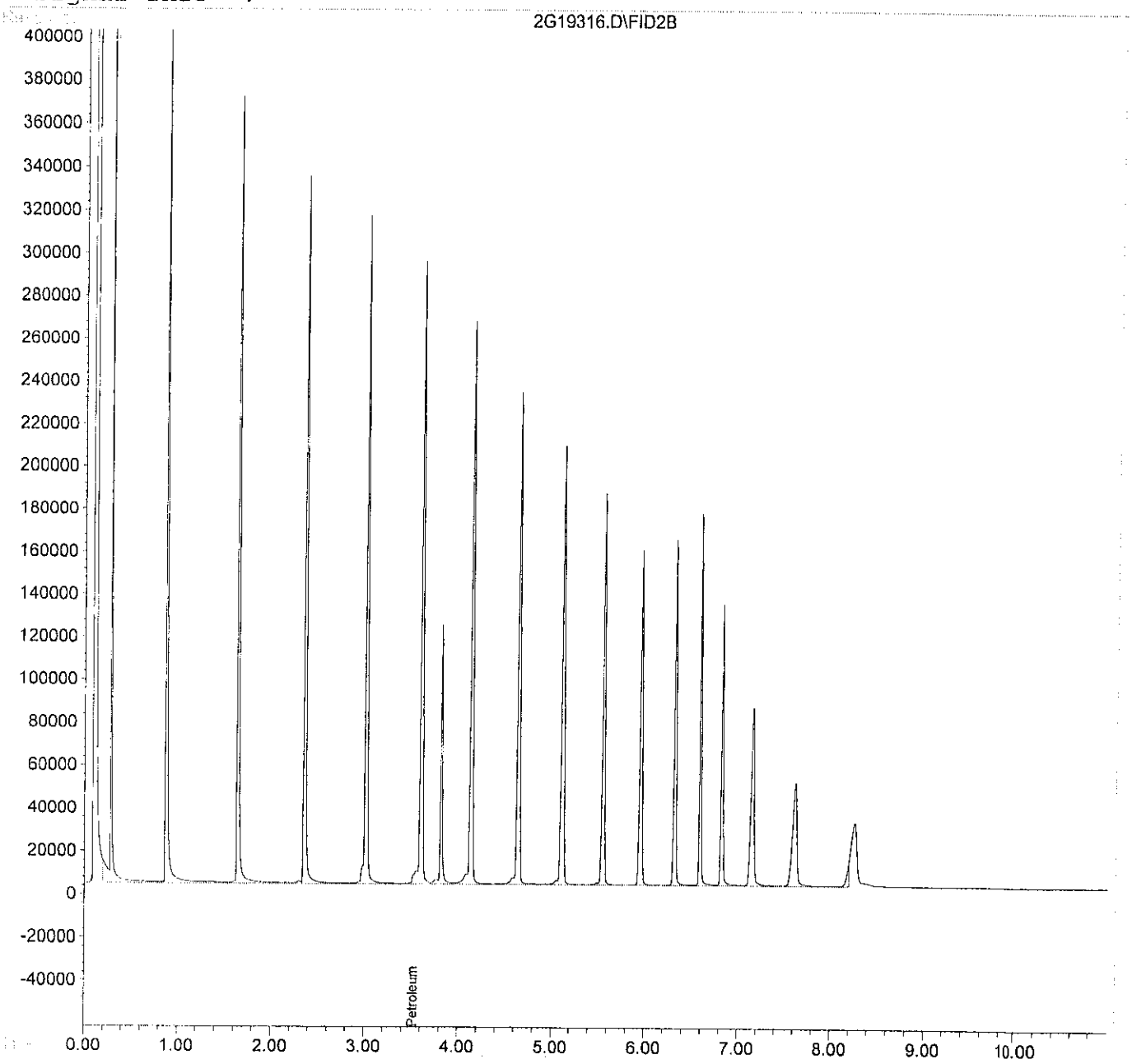
(f)=RT Delta > 1/2 Window (m)=manual int.
2G19316.D FLASHPRO.M Thu Mar 14 12:11:24 2002 HP2 Page 1

Acq On : 13 Mar 2002 18:31
Sample : WG114536-02 3400ppm PRO CCV
Misc : 1,1 SOS 58-05
IntFile : PETRO.E
Quant Time: Mar 14 10:16 2002 Quant Results File: FLASHPRO.RES

Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Wed Mar 13 09:46:45 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

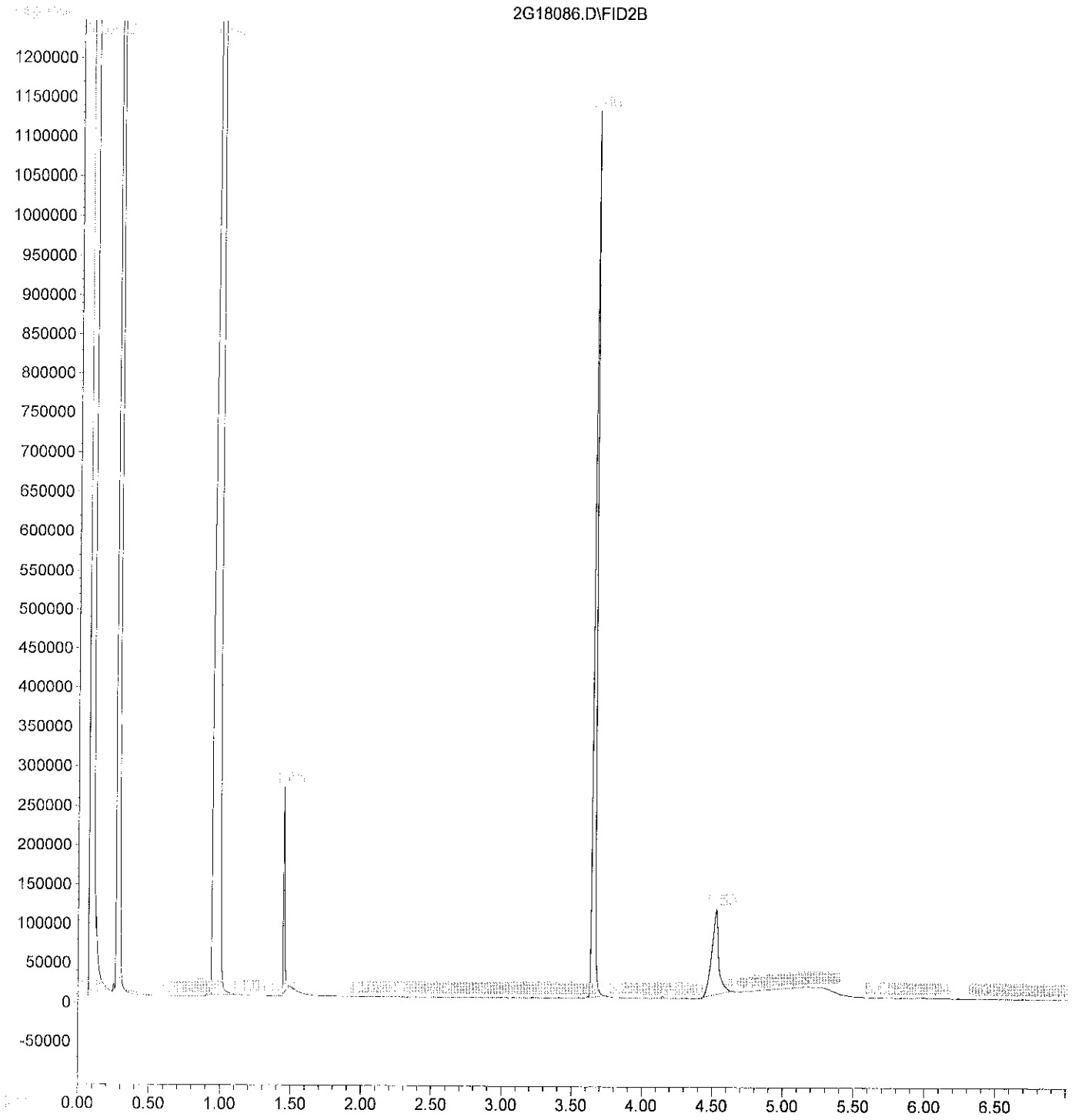
Instrument ID: HP-2

GC Column: RTX-5

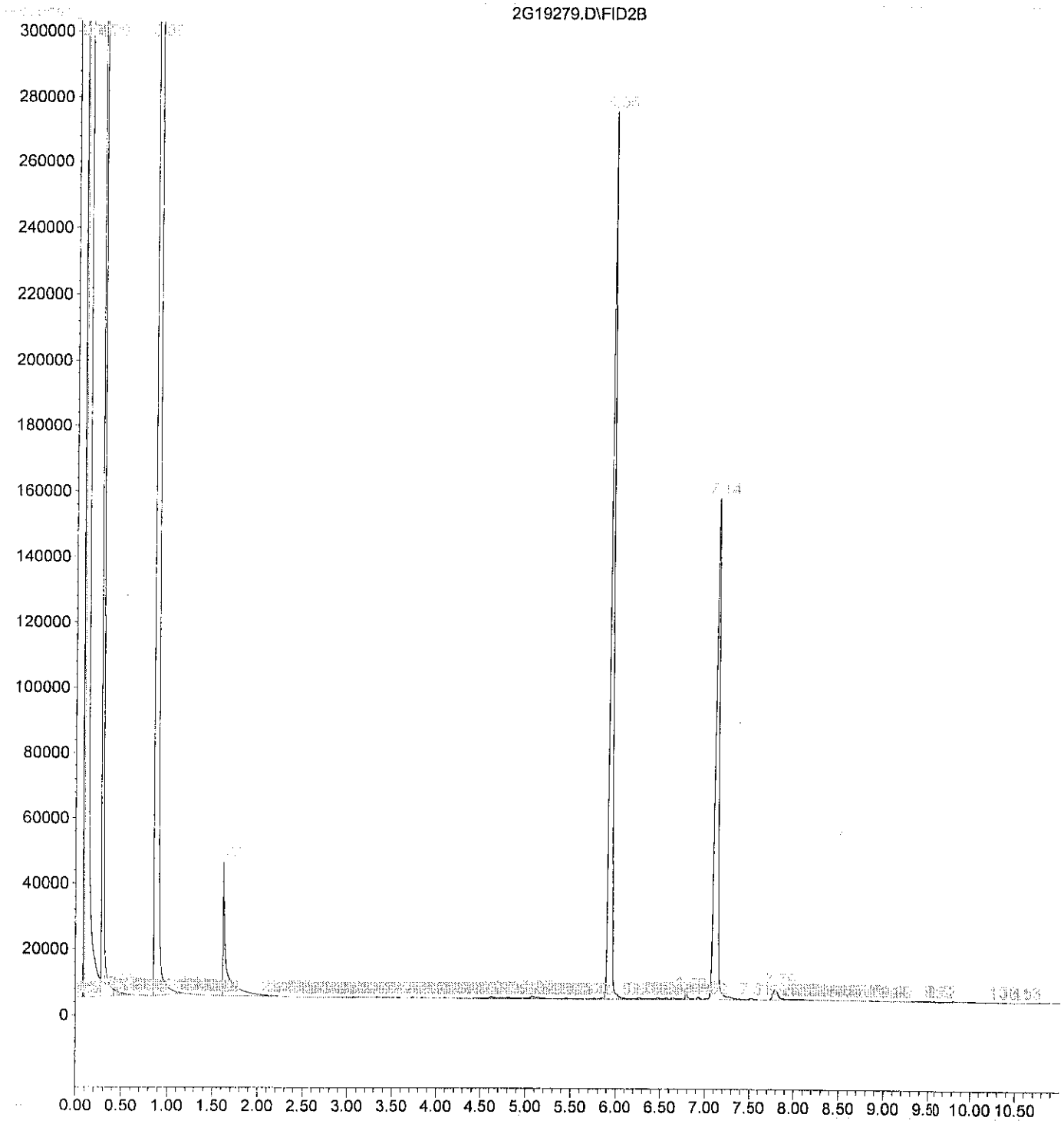
	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

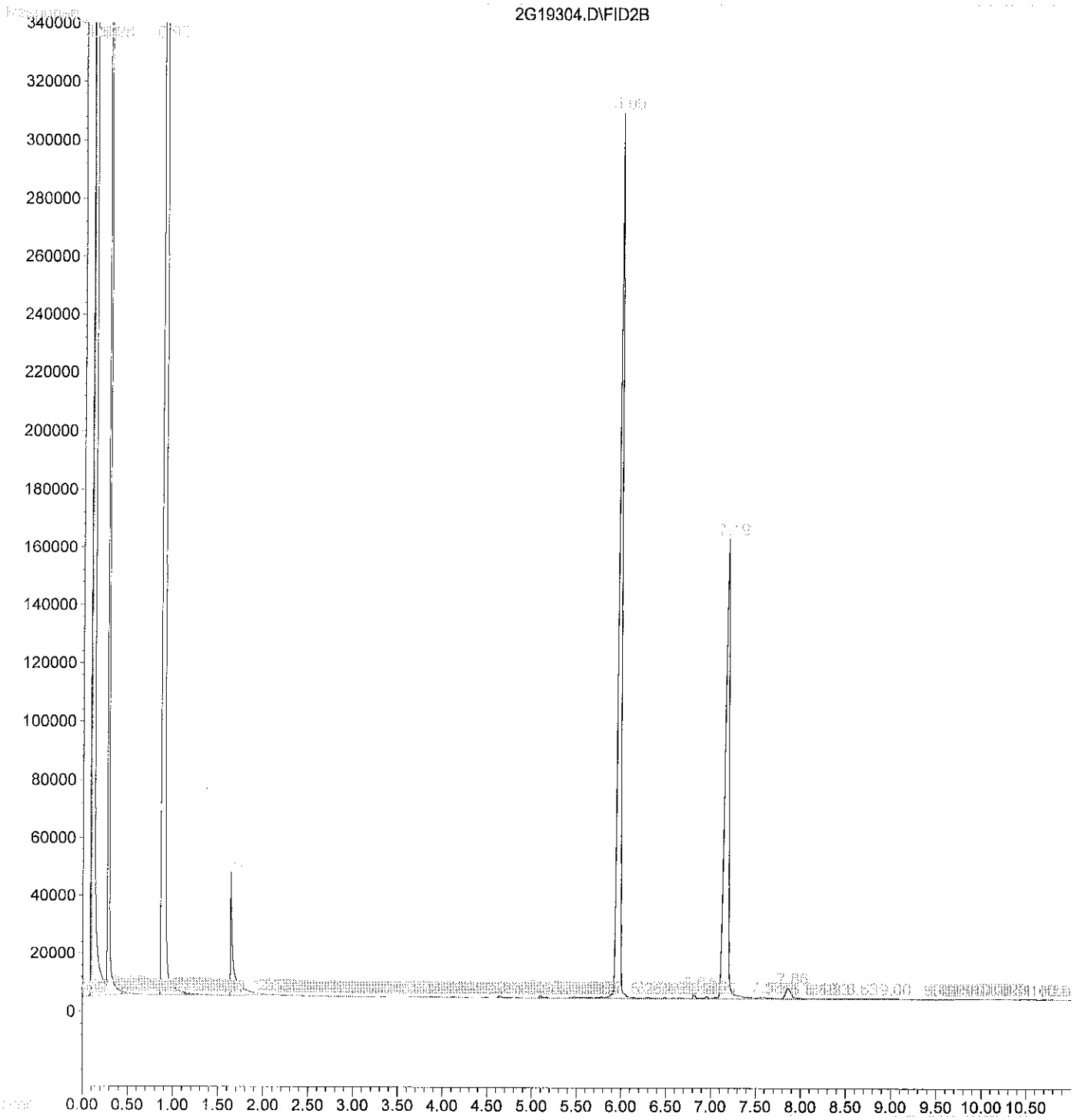
File : K:\ORGANICS\SEMIVOA\HP2\DATA\012502\2G18086.D
Operator : HV
Acquired : 25 Jan 2002 9:34 using AcqMethod FLASHDRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : 1,1 NS14-41
Vial Number: 1



File : C:\HPCHEM\1\DATA\031202\2G19279.D
Operator : CLK/RDC
Acquired : 12 Mar 2002 11:56 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: win def std
Misc Info : 1,1 NS14-41
Vial Number: 2



File : K:\ORGANICS\SEMIVOA\HP2\DATA\031302\2G19304.D
Operator : CLK/RDC
Acquired : 13 Mar 2002 12:47 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: win def std
Misc Info : 1,1 NS14-41
Vial Number: 2



2.2.5.4 Raw QC Data

Acq On : 12 Mar 2002 13:45 Operator: CLK/RDC
Sample : WG114271-01 BLK 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

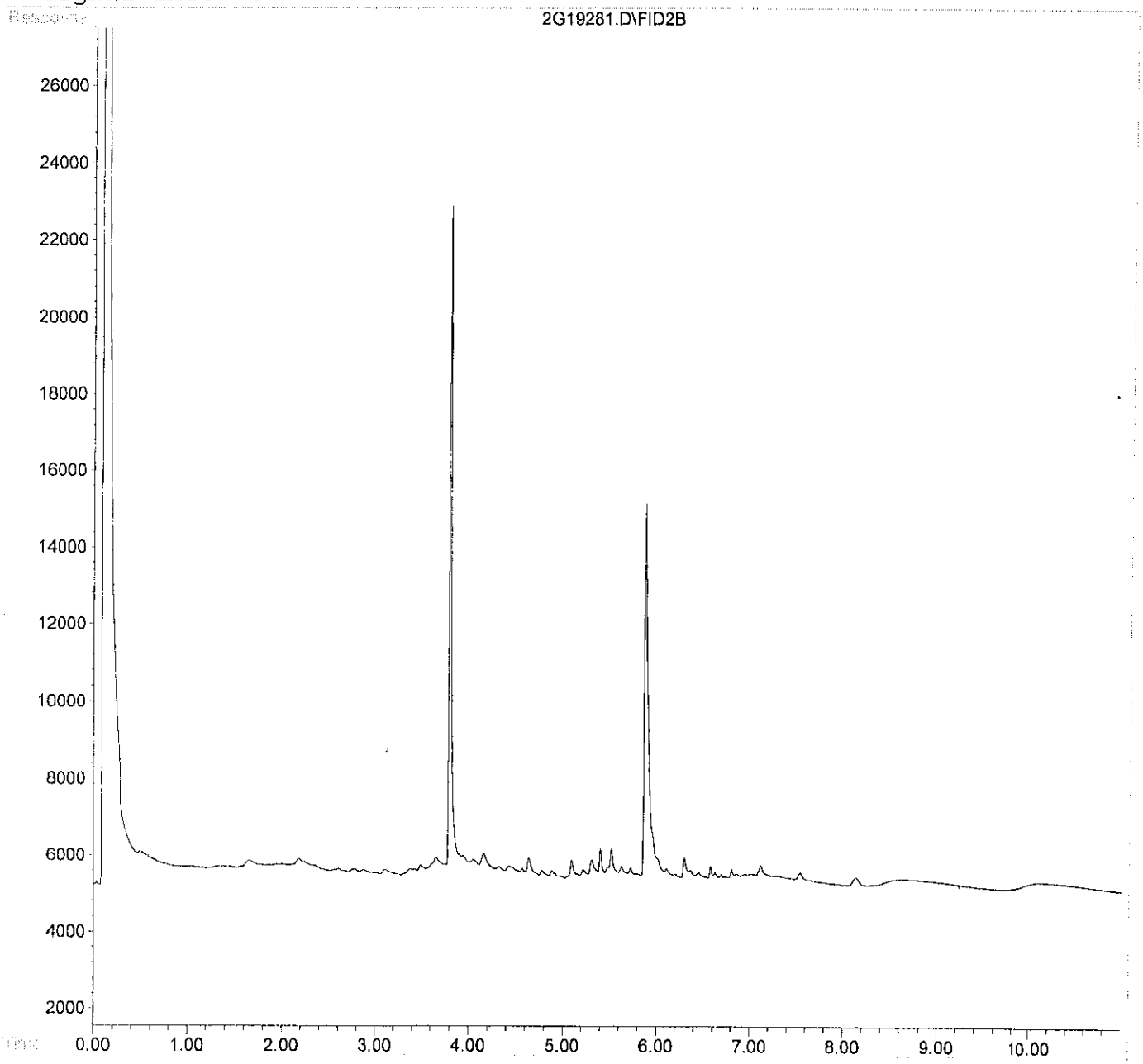
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	304584	13.676 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 68.38%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	960036	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19281.D FLASHPRO.M Wed Mar 13 14:37:04 2002 HP2 Page 1

Acq On : 12 Mar 2002 13:45 Operator: CLK/RDC
Sample : WG114271-01 BLK 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



2G19281.D FLASHPRO.M Wed Mar 13 14:37:04 2002 HP2 Page 2

Acq On : 12 Mar 2002 14:32 Operator: CLK/RDC
Sample : WG114312-02 BLK 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

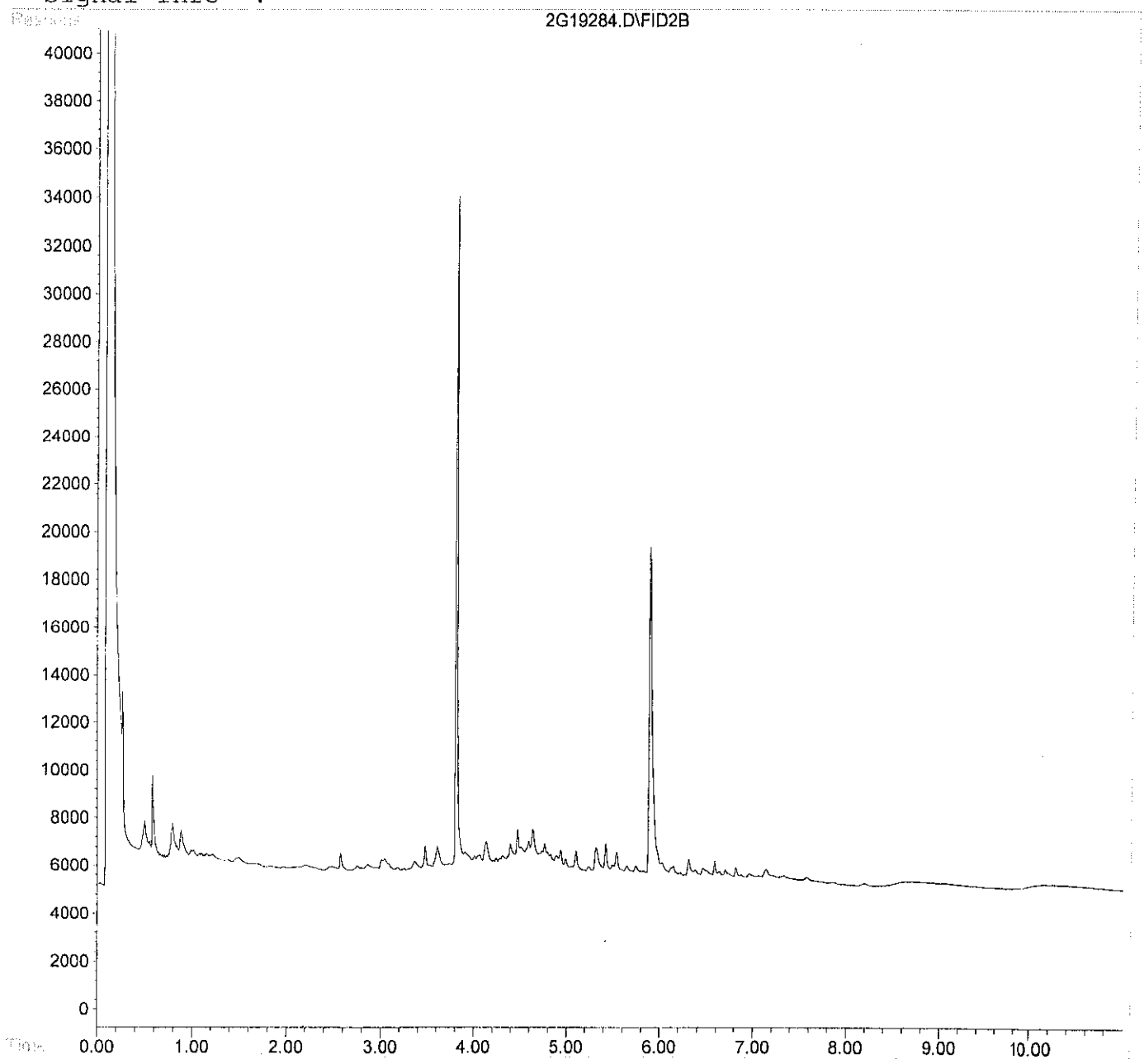
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	387993	17.422 ppb
Spiked Amount 20.000 Range 43 - 136 Recovery = 87.11%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	2077526	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19284.D FLASHPRO.M Wed Mar 13 10:50:33 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:32 Operator: CLK/RDC
Sample : WG114312-02 BLK 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 14:01 Operator: CLK/RDC
Sample : WG114271-02 LCS 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

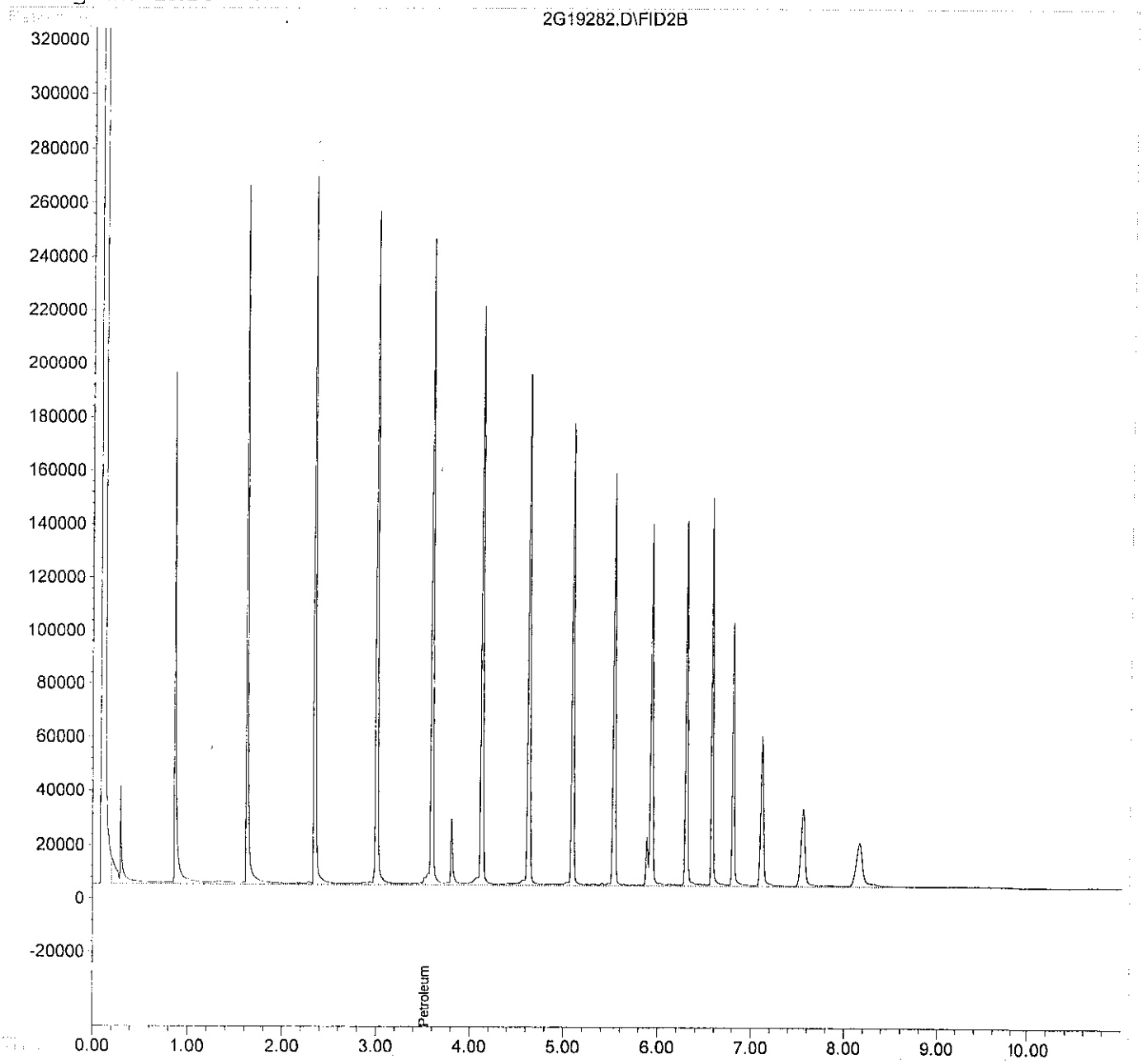
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	338579	15.203 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 76.02%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	38031186	2133.228 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19282.D FLASHPRO.M Wed Mar 13 10:50:23 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:01 Operator: CLK/RDC
Sample : WG114271-02 LCS 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

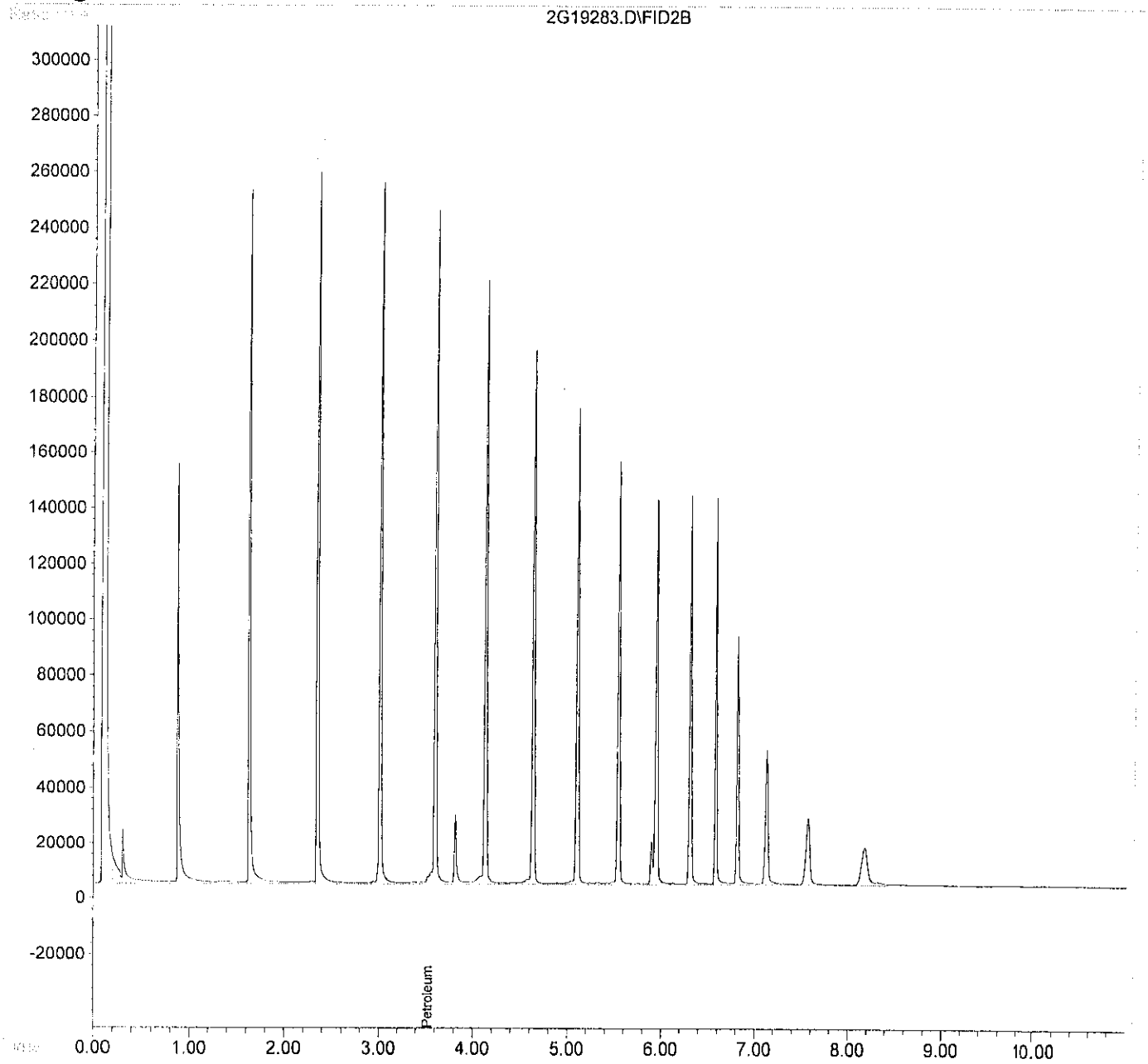


```
Acq On     : 12 Mar 2002  14:16                          Operator: CLK/RDC
Sample     : WG114271-03 LCS DUP 3/11 V181P137           Inst    : HP2
Misc       : 1,1                                         Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 13 10:50 2002  Quant Results File: FLASHPRO.RES

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

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.81         342465   15.377 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =    76.89%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.51       36540357 2049.605 ppb
```

Acq On : 12 Mar 2002 14:16 Operator: CLK/RDC
Sample : WG114271-03 LCS DUP 3/11 V181P137 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 14:47 Operator: CLK/RDC
Sample : WG114312-03 LCS 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

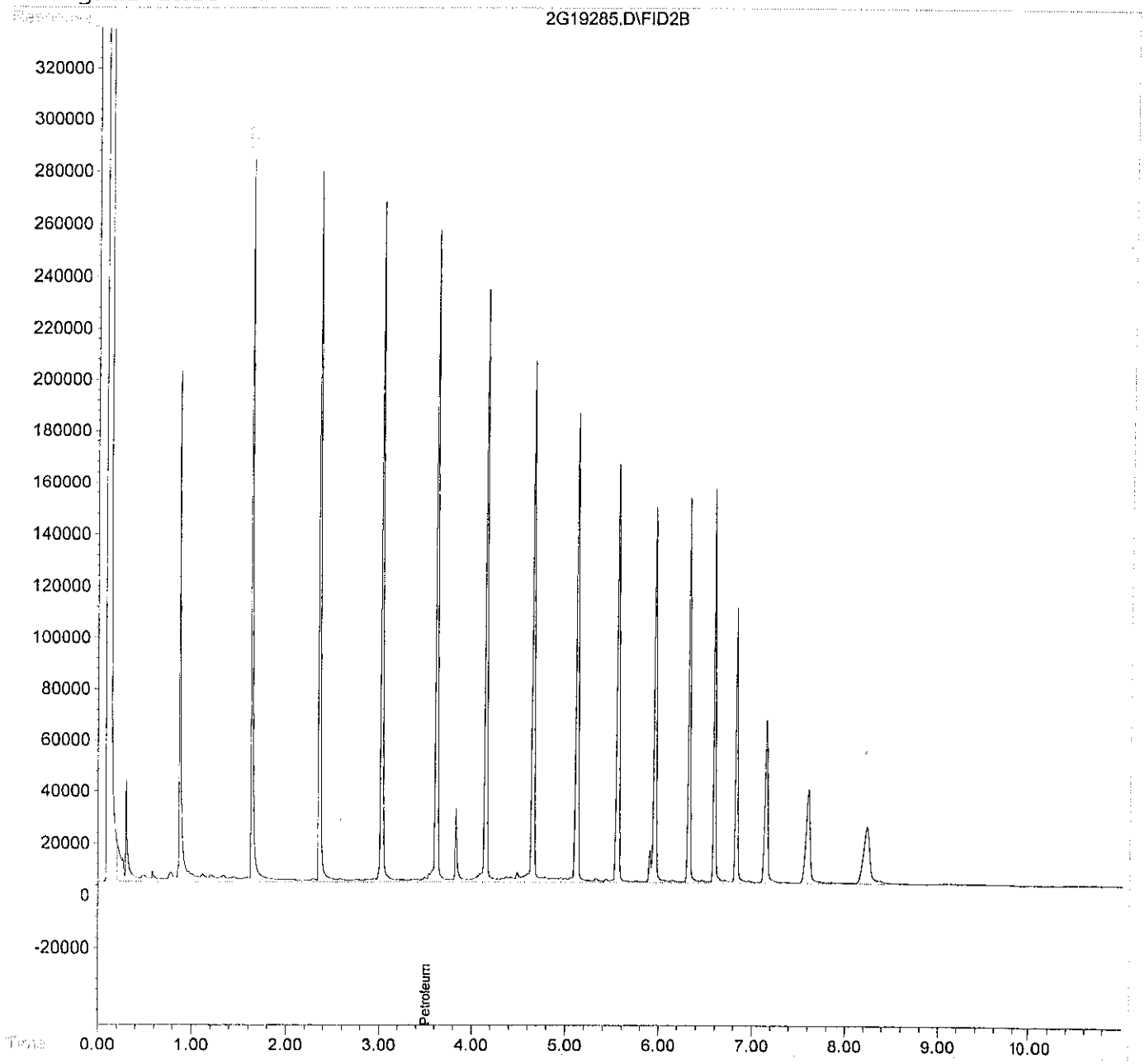
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	350978	15.760 ppb
Spiked Amount 20.000 Range 43 - 136 Recovery = 78.80%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	42055959	2358.983 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19285.D FLASHPRO.M Wed Mar 13 10:50:37 2002 HP2 Page 1

Acq On : 12 Mar 2002 14:47 Operator: CLK/RDC
Sample : WG114312-03 LCS 3/11 V181P149 Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



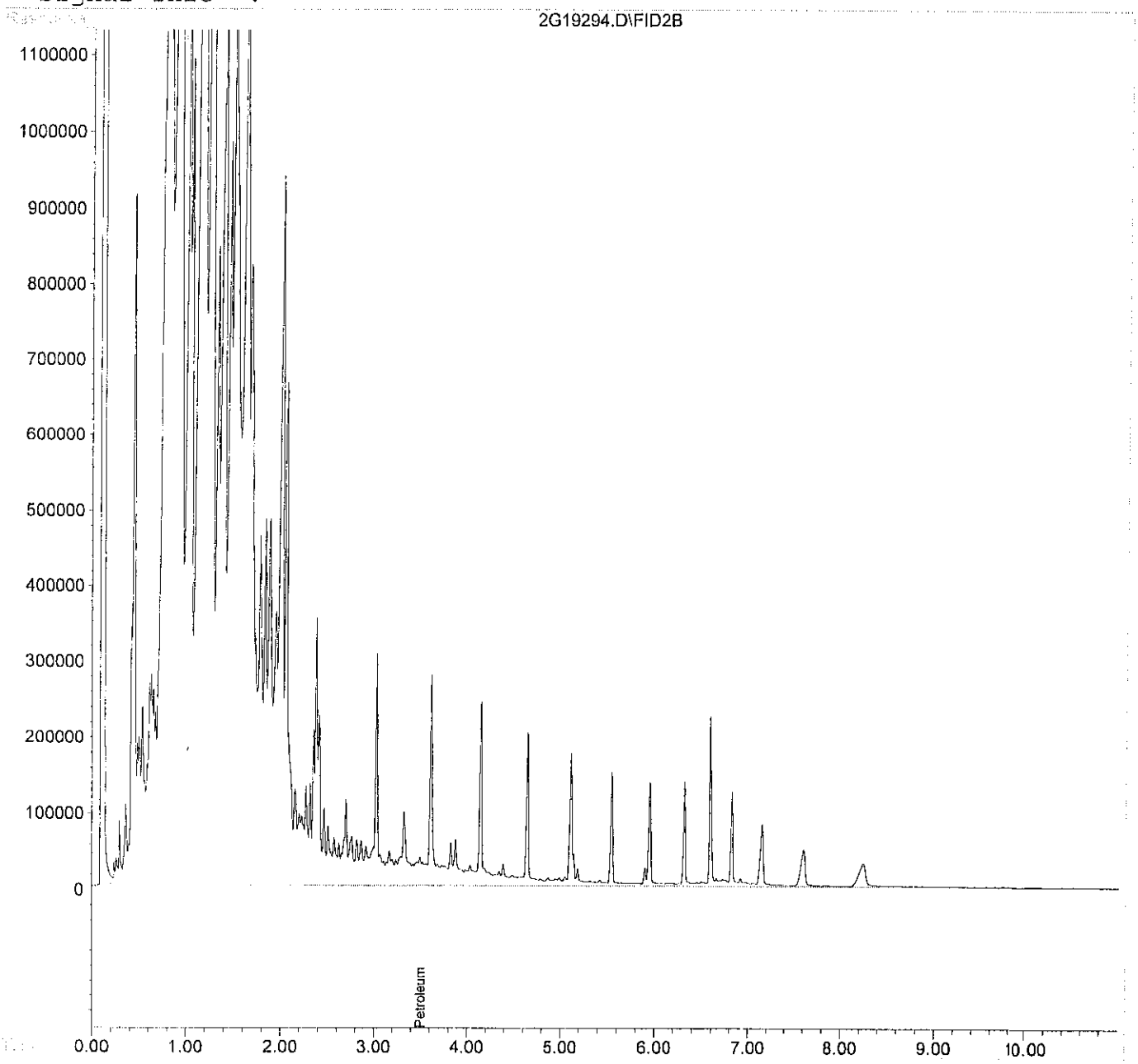
2G19285.D FLASHPRO.M Wed Mar 13 10:50:37 2002 HP2 Page 2

```
Acq On     : 12 Mar 2002  17:14                          Operator: CLK/RDC
Sample     : WG114312-04 L0203154-01 MS PRO              Inst    : HP2
Misc       : 7,1 SOIL                                    Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 13 11:02 2002  Quant Results File: FLASHPRO.RES

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

Volume Inj.  :
Signal Phase :
Signal Info  :

      Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                     3.82         380116   17.068 ppb  m
Spiked Amount      20.000   Range  43 - 136    Recovery    =    85.34%
 3) s   n-Nonatriacontane               0.00              0    N.D.  ppm
Spiked Amount    800.000                     Recovery       =    0.00%

   Target Compounds
 1) H   Petroleum Range                 3.51      837049255 46951.379 ppb
```

Acq On : 12 Mar 2002 17:14 Operator: CLK/RDC
Sample : WG114312-04 L0203154-01 MS PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:02 2002 Quant Results File: FLASHPRO.RES

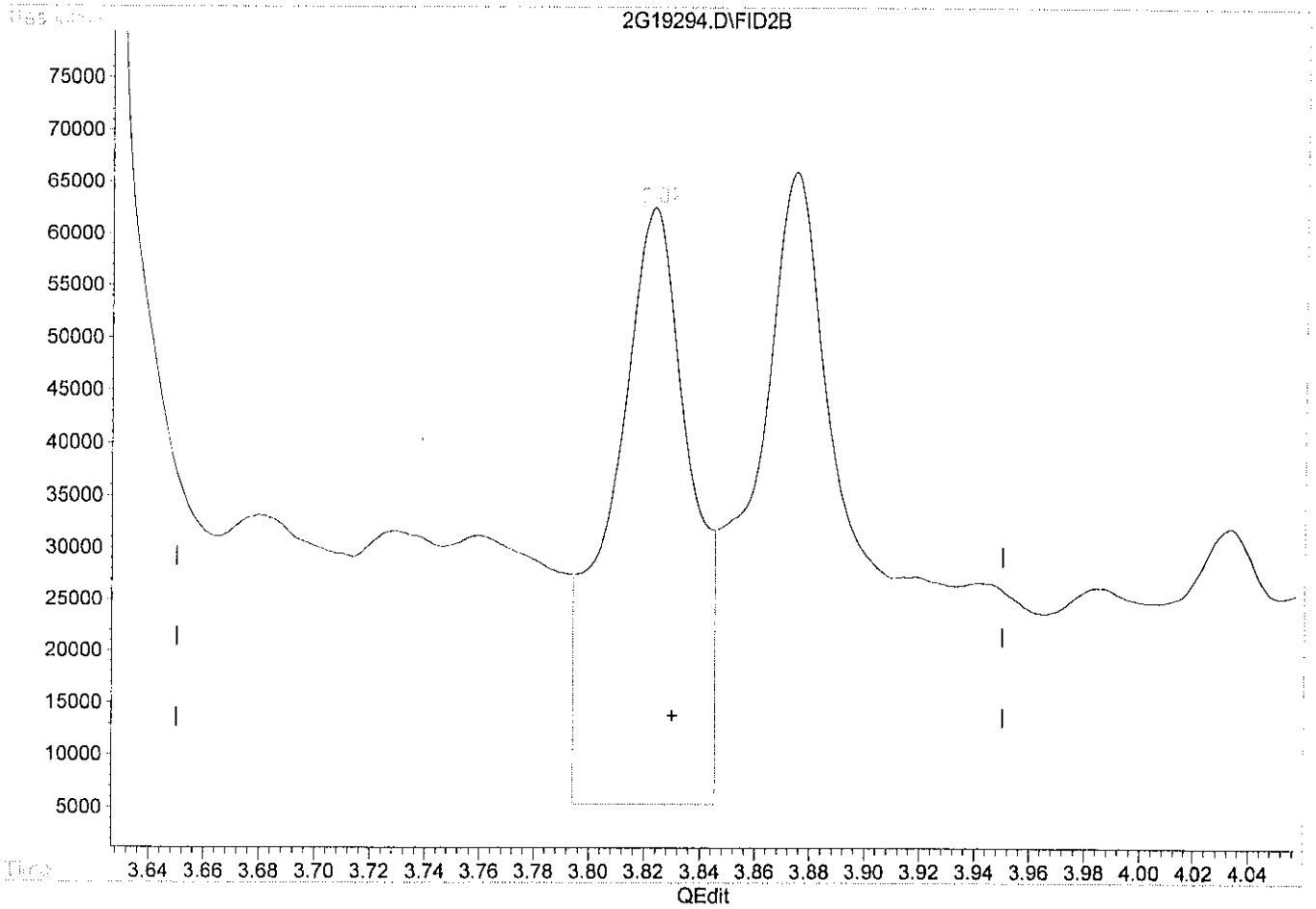
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 17:14
Sample : WG114312-04 L0203154-01 MS PRO
Misc : 7,1 SOIL
IntFile : PETRO.E
Operator: CLK/RDC
Inst : HP2
Multiplr: 1.00
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.82min 50.507ppb

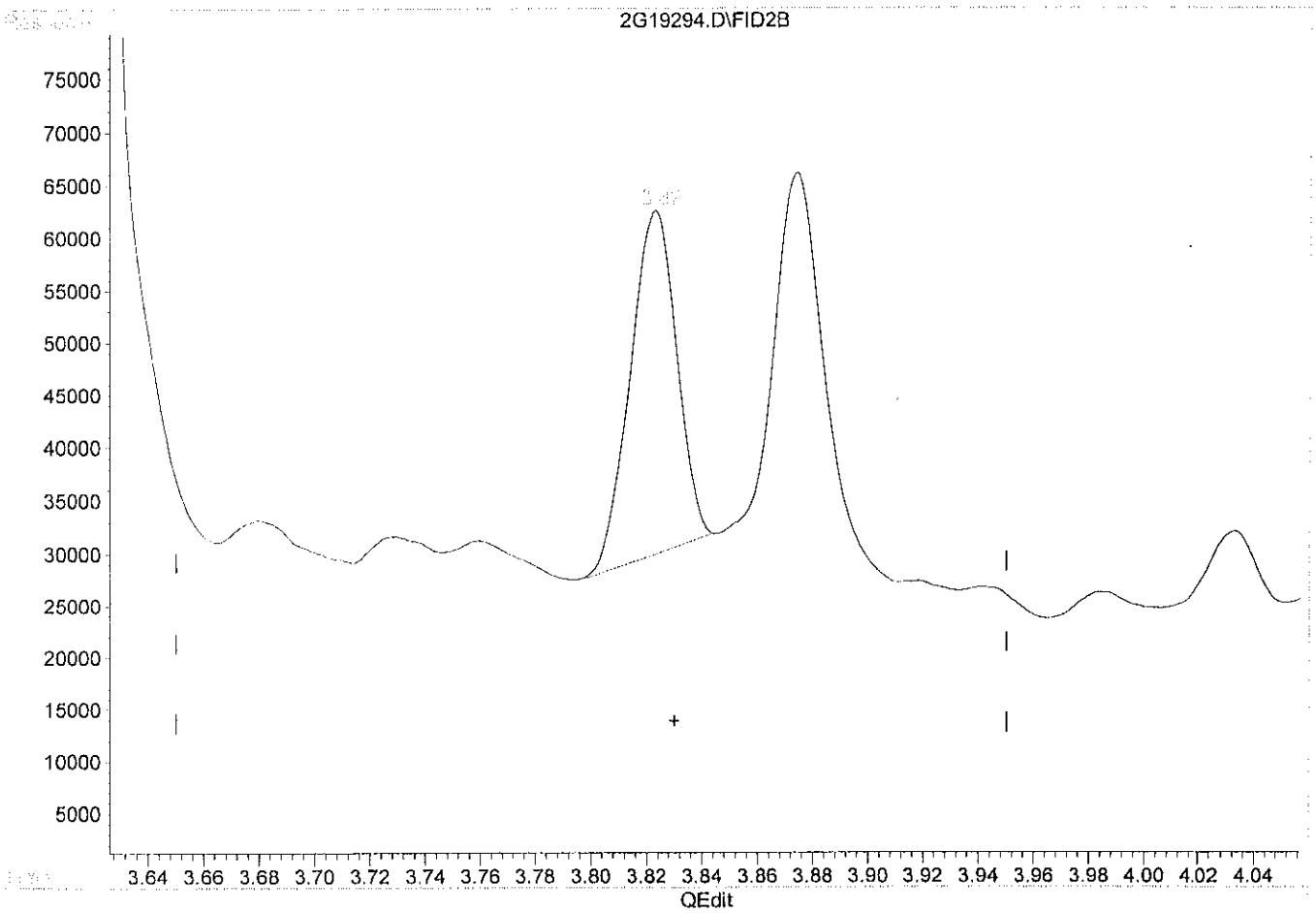
response 1124834

(+) = Expected Retention Time

2G19294.D FLASHPRO.M Wed Mar 13 11:01:54 2002 HP2

Acq On : 12 Mar 2002 17:14 Operator: CLK/RDC
Sample : WG114312-04 L0203154-01 MS PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:50 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.82min 17.068ppb m

response 380116

CLK 3/14/02

3/14/02

(+) = Expected Retention Time
2G19294.D FLASHPRO.M Wed Mar 13 11:02:05 2002 HP2

Acq On : 12 Mar 2002 17:29 Operator: CLK/RDC
Sample : WG114312-05 L0203154-01 MSD PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:02 2002 Quant Results File: FLASHPRO.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

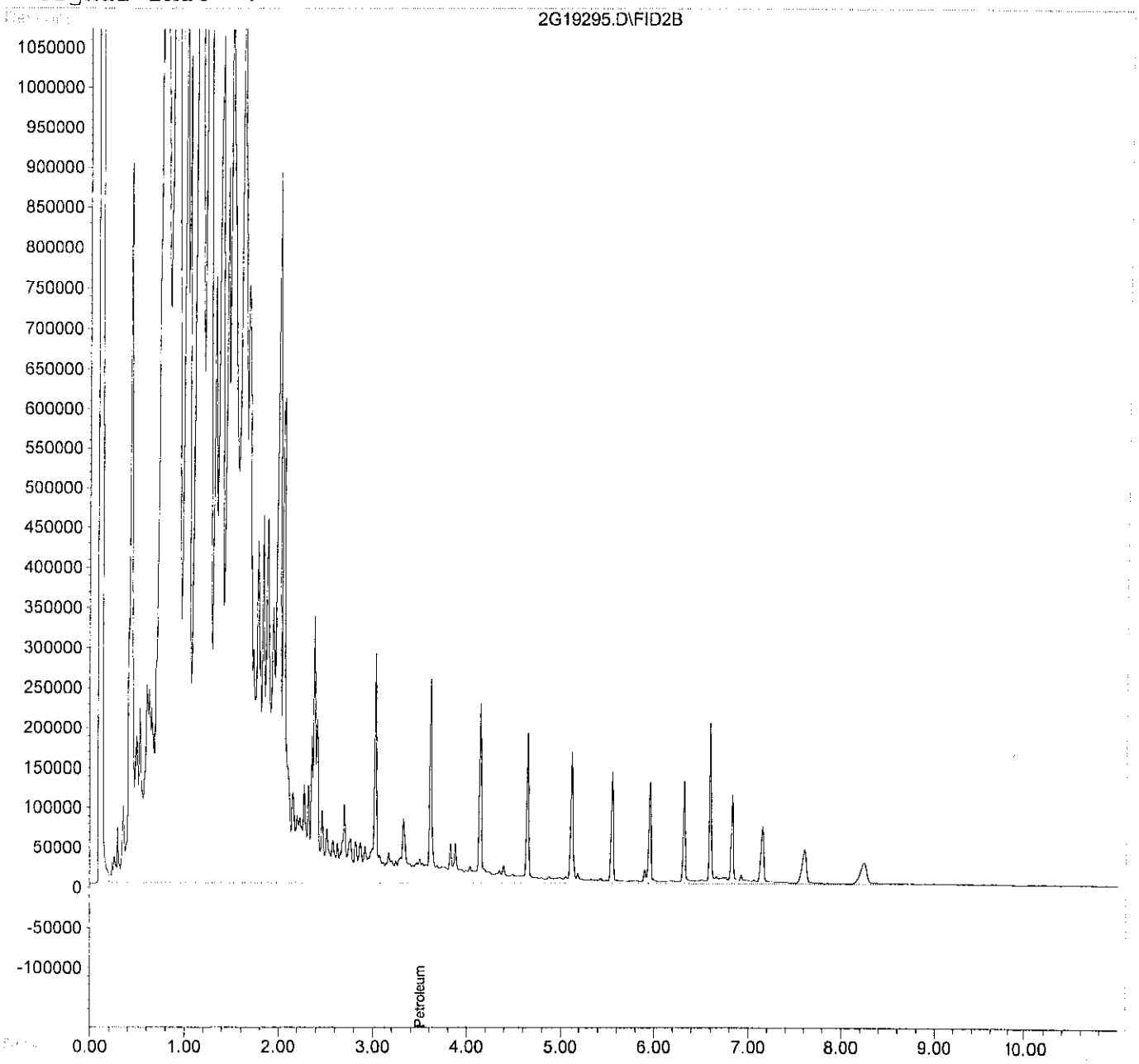
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	338821	15.214 ppb m
Spiked Amount 20.000 Range 43 - 136 Recovery = 76.07%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 800.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.51	754848999	42340.640 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19295.D FLASHPRO.M Wed Mar 13 11:02:48 2002 HP2 Page 1

Acq On : 12 Mar 2002 17:29 Operator: CLK/RDC
Sample : WG114312-05 L0203154-01 MSD PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 11:02 2002 Quant Results File: FLASHPRO.RES

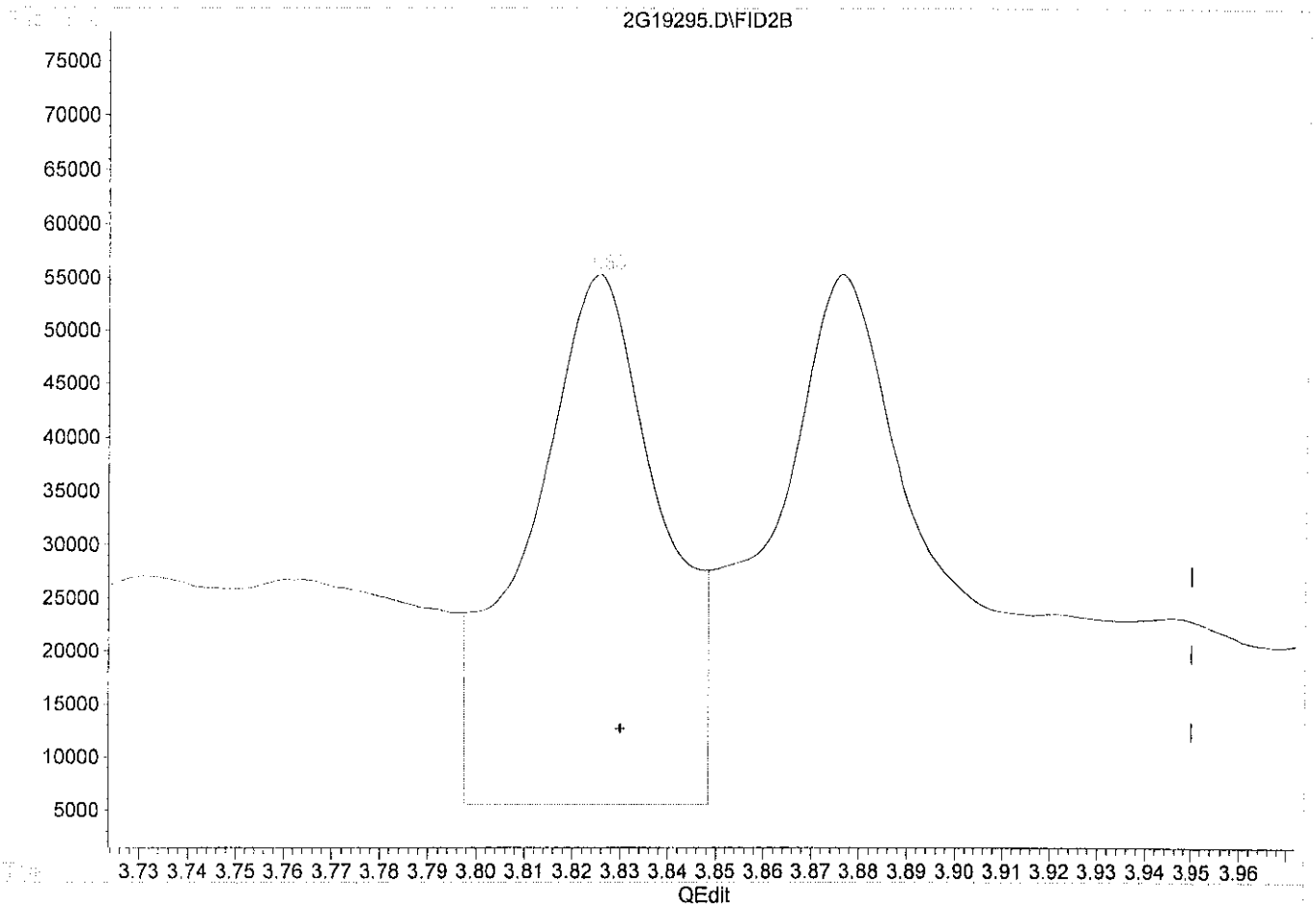
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/25/02
Last Update : Sat Jan 26 11:30:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 12 Mar 2002 17:29 Operator: CLK/RDC
Sample : WG114312-05 L0203154-01 MSD PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

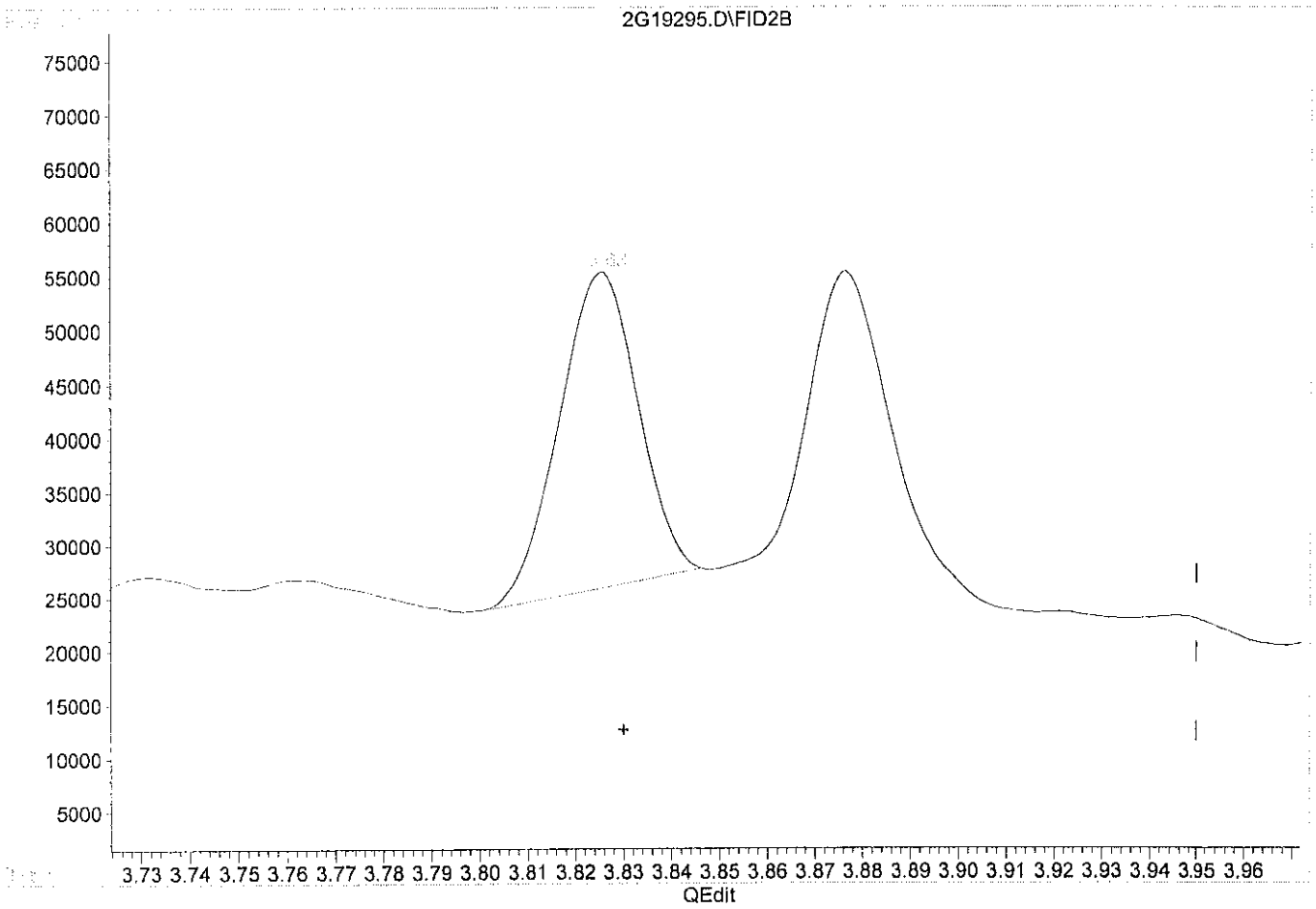
3.83min 42.827ppb

response 953798

(+) = Expected Retention Time
2G19295.D FLASHPRO.M Wed Mar 13 11:02:25 2002 HP2

Acq On : 12 Mar 2002 17:29 Operator: CLK/RDC
Sample : WG114312-05 L0203154-01 MSD PRO Inst : HP2
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 13 10:51 2002 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.83min 15.214ppb m

response 338821

CLK 3/14/02

3/14/02

(+) = Expected Retention Time

2G19295.D FLASHPRO.M Wed Mar 13 11:02:42 2002 HP2

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g18085.d	1.	mecl2	1,1	25 Jan 102 12::2
2	1	2g18086.d	1.	WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
3	2	2g18087.d	1.	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::4
4	3	2g18088.d	1.	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 12::5
5	4	2g18089.d	1.	WG111856-06 DRO @10000ppm	1,1 NS14-29	25 Jan 102 13::1
6	5	2g18090.d	1.	WG111856-05 DRO @5000ppm	1,1 NS14-29	25 Jan 102 13::2
7	6	2g18091.d	1.	WG111856-04 DRO @2500ppm	1,1 NS14-29	25 Jan 102 13::3
8	7	2g18092.d	1.	WG111856-03 DRO @1000ppm	1,1 NS14-29	25 Jan 102 13::4
9	8	2g18093.d	1.	WG111856-02 DRO @500ppm	1,1 NS14-29	25 Jan 102 13::5
10	9	2g18094.d	1.	WG111856-01 DRO @100ppm	1,1 NS14-29	25 Jan 102 13::0
11	10	2g18095.d	1.	WG111856-07 ALT 1000ppm	1,1 SOS55-36	25 Jan 102 13::2
12	11	2g18096.d	1.	WG111856-07 ALT @1000ppm	1,1 SOS55-36	25 Jan 102 13::4
13	12	2g18097.d	1.	WG111819-01 DRO water BLK	1,1 V179-P87	25 Jan 102 13::0
14	13	2g18098.d	1.	WG111819-02 DRO water LCS	1,1 V179-P87	25 Jan 102 13::1
15	14	2g18099.d	1.	WG111819-03 DRO water LCS2	1,1 V179-P87	25 Jan 102 13::2
16	15	2g18100.d	1.	L0201336-42 DRO water	1,1 water	25 Jan 102 13::3
17	16	2g18101.d	1.	L0201336-43 DRO water	1,1 water	25 Jan 102 13::4
18	17	2g18102.d	1.04	L0201381-01 DRO water	1,1 water	25 Jan 102 13::5
19	18	2g18103.d	1.25	L0201331-05 DRO water	1,1 water	25 Jan 102 12::0
20	19	2g18104.d	1.2	mecl2	1,1 water	25 Jan 102 12::1
21	20	2g18105.d	1.	WG111856-08 DRO CCV	1,1 water	25 Jan 102 12::3
22	1	2g18106.d	1.	MECL2	1,1 water	25 Jan 102 12::1
23	2	2g18107.d	1.	WIN DEF STD	1,1 NS14-41	25 Jan 102 12::3
24	3	2g18108.d	1.	WG111957-01 PRO CCV	1,1 SOS58-05	25 Jan 102 12::4
25	4	2g18109.d	1.	WG111901-01 PRO @600ppm	1,1 SOS58-05	25 Jan 102 12::0
26	5	2g18110.d	1.	WG111957-05 PRO @400ppm	1,1 SOS58-05	25 Jan 102 12::1
27	6	2g18111.d	1.	WG111957-03 PRO @100ppm	1,1 SOS58-05	25 Jan 102 12::3
28	7	2g18112.d	1.	WG111957-02 PRO @50ppm	1,1 SOS58-05	25 Jan 102 12::4
29	8	2g18113.d	1.	WG111957-01 PRO @5ppm	1,1 SOS58-05	25 Jan 102 12::0
30	9	2g18114.d	1.	WG111957-07 ALT @200ppm	1,1 SOS58-05	25 Jan 102 12::1
31	10	2g18115.d	1.	WG111907-01 PRO water BLK	1,1 V179-P99	25 Jan 102 12::3
32	11	2g18116.d	1.	WG111907-02 PRO water LCS	1,1 V179-P99	25 Jan 102 12::5
33	12	2g18117.d	1.	WG111907-03 PRO water LCS2	1,1 V179-P99	25 Jan 102 12::0
34	13	2g18118.d	1.	L0201405-04 PRO water	1,1 water	25 Jan 102 12::2
35	14	2g18119.d	1.05	L0201408-10 PRO water	1,1 water	25 Jan 102 12::3
36	15	2g18120.d	1.	mecl2	1,1 water	25 Jan 102 12::5
37	1	2g18121.d	1.	WG111957-08 PRO CCV	1,1 SOS58-05	25 Jan 102 12::0
38	16	2g18122.d	40.	WG111873-02 PRO soil BLK	7,1 soil V179-P97	25 Jan 102 12::2
39	17	2g18123.d	40.	WG111873-03 PRO soil LCS	7,1 V179-P97	25 Jan 102 12::3
40	18	2g18124.d	40.	L0201408-01 PRO soil	7,1 soil	25 Jan 102 12::5
41	19	2g18125.d	40.	L0201408-03 PRO soil	7,1 soil	25 Jan 102 12::0
42	20	2g18126.d	40.	L0201408-05 PRO soil	7,1 soil	25 Jan 102 12::2
43	21	2g18127.d	40.	WG111873-01 Ref PRO soil	7,1 l0201408-06 ref	25 Jan 102 12::3
44	22	2g18128.d	40.	WG111873-04 MS PRO soil	7,1 l0201408-07 MS	25 Jan 102 12::5
45	23	2g18129.d	40.	WG111873-05 MSD PRO soil	7,1 l0201408-08 MSD	25 Jan 102 12::1
46	24	2g18130.d	40.	mecl2	7,1 l0201408-08 MSD	25 Jan 102 12::2
47	24	2g18131.d	40.	mecl2	7,1 l0201408-08 MSD	25 Jan 102 12::4
48	1	2g18132.d	1.	WG111957-09 PRO CCV	1,1 SOS58-05	25 Jan 102 12::5
49	25	2g18133.d	400.	L0201408-02 10X PRO soil	7,10 soil	25 Jan 102 12::1
50	26	2g18134.d	400.	L0201408-04 10X PRO soil	7,10 soil	25 Jan 102 12::2
51	27	2g18135.d	40.	L0201408-09 PRO soil	7,1 soil	25 Jan 102 12::4
52	28	2g18136.d	800.	L0201404-01 20x PRO soil	7,20 soil	25 Jan 102 13::0
53	29	2g18137.d	800.	L0201404-02 20x PRO soil	7,20 soil	25 Jan 102 13::1
54	30	2g18138.d	800.	L0201405-01 20x PRO soil	7,20 soil	25 Jan 102 13::3
55	31	2g18139.d	2000.	L0201405-02 50x PRO soil	7,50 soil	25 Jan 102 13::4

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

HV 1/28/02

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Jan. 25 02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 012502
Analyst Initials HV

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

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

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

Daily Check
- ☑ Gases >500 psi

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

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g 18133 and 2g 18134 - RR. require to run straight.

Reviewed By [illegible]

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ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g19278.d	1.	✓ mecl2	1,1	12 Mar 102 13::4
	2	2g19279.d	1.	✓ win def std	1,1 NS14-41	12 Mar 102 13::5
	3	2g19280.d	1.	WG114393-01 PRO CCV	1,1 SOS 58-05	12 Mar 102 13::1
	4	2g19281.d	1.	WG114271-01 BLK 3/11 V181P137	1,1	12 Mar 102 12::4
	5	2g19282.d	1.	WG114271-02 LCS 3/11 V181P137	1,1	12 Mar 102 12::0
	6	2g19283.d	1.	WG114271-03 LCS DUP 3/11 V181P137	1,1	12 Mar 102 12::1
	7	2g19284.d	1.	WG114312-02 BLK 3/11 V181P149	7,1 SOIL	12 Mar 102 12::3
	8	2g19285.d	1.	WG114312-03 LCS 3/11 V181P149	7,1 SOIL	12 Mar 102 12::4
	9	2g19286.d	1.	MECL2	1,1	12 Mar 102 12::0
0	10	2g19287.d	1.	WG114393-02 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::1
1	11	2g19288.d	1.	L0203154-04 PRO	1,1	12 Mar 102 12::3
2	12	2g19289.d	1.	L0203155-02 PRO	1,1	12 Mar 102 12::5
13	13	2g19290.d	1.	L0203049-01 PRO	2,1	12 Mar 102 12::0
14	14	2g19291.d	1.	MECL2	1,1	12 Mar 102 12::2
15	15	2g19292.d	1.	WG114393-03 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::3
16	16	2g19293.d	1.	PR10 WG114312-01 L0203154-01 REF	7,1 SOIL	12 Mar 102 12::5
17	17	2g19294.d	1.	WG114312-04 L0203154-01 MS PRO	7,1 SOIL	12 Mar 102 12::1
18	18	2g19295.d	1.	WG114312-05 L0203154-01 MSD PRO	7,1 SOIL	12 Mar 102 12::2
19	19	2g19296.d	1.	MECL2	1,1	12 Mar 102 12::4
20	20	2g19297.d	1.	WG114393-04 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::0
21	21	2g19298.d	1.	L0203155-01 PRO	7,1 SOIL	12 Mar 102 12::1
22	22	2g19299.d	1.	PR10 L0203154-02 PRO	7,1 SOIL	12 Mar 102 12::3
23	23	2g19300.d	1.	✓ L0203154-03 PRO	7,1 SOIL	12 Mar 102 12::4
24	19	2g19301.d	1.	MECL2	1,1	12 Mar 102 12::0
25	20	2g19302.d	1.	WG114393-05 PRO CCV	1,1 SOS 58-05	12 Mar 102 12::1

CLK 3/13/02
RPC 3/13/02

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

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

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

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

Daily Check

☒ Gases >500 psi

Preventative Maintenance

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

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

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

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

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

Reviewed By: RDC 3/13/02

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Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g19303.d	1.	✓ mecl2	1,1	13 Mar 102 13::3
2	2	2g19304.d	1.	✓ win def std	1,1 NS14-41	13 Mar 102 13::4
3	3	2g19305.d	1.	✓ 3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::0
4	4	2g19306.d	10.	L0203154-01 PRO REF 10X	7,10 SOIL	13 Mar 102 12::5
5	5	2g19307.d	10.	L0203154-02 PRO 10X	7,10 SOIL	13 Mar 102 12::0
6	3	2g19308.d	1.	3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::3
7	1	2g19309.d	1.	✓ mecl2	1,1	13 Mar 102 12::3
8	1	2g19310.d	1.	mecl2	1,1	13 Mar 102 12::5
9	3	2g19311.d	1.	WG114536-01 3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::0
10	4	2g19312.d	10.	L0203154-01 PRO REF 10X	7,10 SOIL	13 Mar 102 12::2
11	5	2g19313.d	10.	L0203154-02 PRO 10X	7,10 SOIL	13 Mar 102 12::4
12	1	2g19314.d	1.	mecl2	1,1	13 Mar 102 12::0
13	1	2g19315.d	1.	mecl2	1,1	13 Mar 102 12::1
14	3	2g19316.d	1.	WG114536-02 3400ppm PRO CCV	1,1 SOS 58-05	13 Mar 102 12::3

CLK
3/14/02
DOC 3/14/02

Analysis Date/Time 3/13/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 031302
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
- [ ] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [x] Change gases Air

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0203154-01 PRO REF 10X, Dilution Good (2g19312)

L0203154-02 PRO 10X, Dilution Good (2g19313)

Reviewed By: ROC 3/14/02

Parameter: FLA-PRO H_2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): REK TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 0830 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: REK Witness: CES
Surrogate #: ES5000-10-18 Earliest Hold Date: 03/11/02
Spike #: A = ES5000-10-19 Spike #: B = —

Extraction Work Group WG 114271
Analytical Work Group WG 114336

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

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

DP 03/11/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: EK2034
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CK2085

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

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

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Extraction Notes For Volume # 151 Page # 137

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: PRO-S SOP #: EXPRO Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 03/11/02 @ 1435 Date TV/KD: 03/11/02
Spike/Surrogate Analyst: DP Witness: CAH
Surrogate #: ESS00040-18 Earliest Hold Date: 03/21/02
Spike #: A = ESS00040-19 Spike #: B = —

Extraction Work Group WG 114312
Analytical Work Group WG 14337

Extract Relinquished By: DP
Extract Received By & Date: [illegible] 03/11/02

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

DP 03/11/02

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

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

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

Extraction Notes For Volume # 181 Page # 149

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Method: 80m - EPA PRO 8081 - 01404 - specified level 4
Instrument: HP2
Work Group: WG 11943

01405 - " "
01408 - " "

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

Primary Reviewer Initials & Date Checked HY 1/28/01

Secondary Reviewer Initials & Date Checked SPR 1/28/02

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

Supervisory Review Initials & Date Checked SPR 1/28/02

Comments: Several samples analyzed at dilutions and quantified for special range "PRO"

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

343

Analyst: CLK / RDC
Method: 8015 - PRO
Instrument: HP2
Work Group: W6114336, W6114337

03-154 3/15
03-155 3/15
03-049 3/13 A1

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	NA
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	✓
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 3/13/02

Secondary Reviewer Initials & Date Checked DPR 3/14/02

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

Supervisory Review Initials & Date Checked DPR 3/14/03

Comments:

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

Analyst: CLK
Method: 8015 PRO
Instrument: HP2
Work Group: W6 114337

03-154 3/15 – (Dilutions)

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	NA
Average RF	↓
Linear Reg or Higher Order Curve	↓
Second Source Standard % Difference	NA
Check Standards	✓
Project / Client Specific Requirements	NA
Special Standards	↓
Blanks	↓
TCL's	↓
Surrogates	↓
LCS (Laboratory Control Sample)	↓
Recoveries	↓
Surrogates	↓
MS / MSD / Duplicates	↓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Check Sample Histories	✓
Ending Check Standards	✓
Excel Spreadsheets	NA
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 3/14/02

Secondary Reviewer Initials & Date Checked PHR 3/15/02

- 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 PHR 3/15/02

Comments:

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

345

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.: L0203154

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the water fraction yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit.
Matrix Spikes:. The MS/MSD were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fractions 01 and 02 yielded a percent recovery for o-terphenyl by the fluorescence detector which was above the advisory limit. All acceptance criteria were met for the surrogate by UV detection.
Samples: Sample fractions 01, 02, and 03 were re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

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

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

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number L0203154

A. QC Summary

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

B. Sample Data

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

C. Standards Data

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

D. Raw QC Data

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

Checked By: RDC Date: 3/20/02

2.2.7.1 QC Summary

Marietta, OH

Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG114464	**PREP WORK GRP :** WG114382	**RUN DATE :** 03/12/02	**SAMP ID :** NA	-05
METHOD : 8310	**EXT DATE :** 12-Mar-02	**BLK FLNM :** 4L002873	**SMPL FLNM :** NA	
INSTRUMENT : HPLC4	**EXT BENCH SHEET :** V181P165	**LCS FLNM :** 4L002874	**MS FLNM :** NA	
ANALYST : RDC		**LCS2 FLNM :** 4L002875	**MSD FLNM :** NA	

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	LCS RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	28.1	24.0	NA	50.0	NA	NA	ND	56.2	48.0	26	68	NA	NA	NA	25	68	15.79	50					
ACENAPTHYLENE	1	ND	50	31.0	25.9	NA	50.0	NA	NA	ND	62.0	51.9	25	77	NA	NA	NA	25	77	17.8	50					
1-METHYLNAPHTHALENE	1	ND	50	28.8	24.0	NA	50.0	NA	NA	ND	57.6	48.0	26	71	NA	NA	NA	26	71	18.1	50					
2-METHYLNAPHTHALENE	1	ND	50	29.0	24.3	NA	50.0	NA	NA	ND	57.9	48.6	26	72	NA	NA	NA	26	72	17.46	50					
ACENAPHTHENE	1	ND	50	30.5	25.6	NA	50.0	NA	NA	ND	61.0	51.2	25	78	NA	NA	NA	25	78	17.5	50					
FLUORENE	1	ND	50	32.7	29.1	NA	50.0	NA	NA	ND	65.3	58.2	29	84	NA	NA	NA	29	84	11.50	50					
PHENANTHRENE	1	ND	50	38.9	36.6	NA	50.0	NA	NA	ND	77.8	73.2	39	95	NA	NA	NA	39	95	6.09	50					
ANTHRACENE	1	ND	50	44.3	41.7	NA	50.0	NA	NA	ND	88.6	83.4	47	101	NA	NA	NA	47	101	6.06	50					
FLUORANTHENE	0.2	ND	5	4.54	4.51	NA	5.00	NA	NA	ND	90.8	90.2	55	104	NA	NA	NA	55	104	0.66	50					
PYRENE	0.2	ND	5	4.60	4.59	NA	5.00	NA	NA	ND	92.0	91.8	56	104	NA	NA	NA	56	104	0.22	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.82	4.94	NA	5.00	NA	NA	ND	96.4	98.8	50	115	NA	NA	NA	50	115	2.46	50					
CHRYSENE	0.2	ND	5	4.72	4.91	NA	5.00	NA	NA	ND	94.4	98.2	39	120	NA	NA	NA	39	120	3.95	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	4.66	4.88	NA	5.00	NA	NA	ND	93.2	97.6	41	110	NA	NA	NA	41	110	4.8	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	2.31	2.44	NA	2.50	NA	NA	ND	92.4	97.6	25	107	NA	NA	NA	25	107	5.5	50					
BENZO[a]PYRENE	0.2	ND	5	4.70	4.91	NA	5.00	NA	NA	ND	94.0	98.2	29	113	NA	NA	NA	29	113	4.4	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	4.25	4.66	NA	5.00	NA	NA	ND	85.1	93.2	10	92	NA	NA	NA	10	92	9.1	50			H		
BENZO[g,h,i]PERYLENE	0.2	ND	5	4.40	4.78	NA	5.00	NA	NA	ND	87.9	95.6	11	84	NA	NA	NA	11	84	8.4	50		H	H		
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	4.32	4.71	NA	5.00	NA	NA	ND	86.4	94.2	16	98	NA	NA	NA	16	98	8.6	50					
SURROGATE																										
p-TERPHENYL-d14		9.50	10	9.91	9.96	NA	10.0	NA	NA	95.0	99.1	99.6	40	132	NA	NA	NA	40	132							

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

8310

Marietta, OH
Semi-Volatiles Quality Control Summary, Soils

ANAL WORK GRP : WG114691
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG114347
EXT DATE : 3/12/2002
EXT BENCH SHEET : V181P151

RUN DATE : 03/12/02
BLK FLNM : 4L002871
LCS FLNM : 4L002872
LCS2 FLNM : NA

SAMP ID : L0203155 -01
SMPL FLNM : 4L002884
MS FLNM : 4L002885
MSD FLNM : 4L002886

ANALYTE	CONCENTRATION, µg/Kg									% RECOVERY															
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	165	ND	1667	794	NA	ND	1667	812	1096	ND	47.6	#####	22	85	NA	48.7	65.7	22	85	30	50			##		
ACENAPTHYLENE	165	ND	1667	792	NA	ND	1667	999	1286	ND	47.5	#####	26	94	NA	59.9	77.1	26	94	25	50			##		
1-METHYLNAPHTHALENE	165	ND	1667	764	NA	ND	1667	866	1134	ND	45.8	#####	26	94	NA	51.9	68.0	26	94	26.8	50			##		
2-METHYLNAPHTHALENE	165	ND	1667	784	NA	ND	1667	867	1126	ND	47.0	#####	26	94	NA	52.0	67.5	26	94	26.0	50			##		
ACENAPHTHENE	165	ND	1667	799	NA	ND	1667	1020	1238	ND	47.9	#####	24	100	NA	61.2	74.3	24	100	19	50			##		
FLUORENE	165	ND	1667	887	NA	ND	1667	1120	1326	ND	53.2	#####	28	98	NA	67.2	79.5	28	98	17	50			##		
PHENANTHRENE	165	ND	1667	1010	NA	ND	1667	1310	1513	ND	60.6	#####	38	102	NA	78.6	90.8	38	102	14	50			##		
ANTHRACENE	165	ND	1667	1130	NA	ND	1667	1280	1488	ND	67.8	#####	40	92	NA	76.8	89.3	40	92	15	50			##		
FLUORANTHENE	16.5	ND	167	122	NA	12.1	167	141	169	ND	73.1	#####	54	105	NA	77.2	94	54	105	18	50			##		
PYRENE	16.5	ND	167	124	NA	8.60	167	131	156	ND	74.3	#####	50	108	NA	73.3	88.3	50	108	17	50			##		
BENZO[a]ANTHRANCENE	16.5	ND	167	133	NA	ND	167	108	122	ND	79.6	#####	60	107	NA	64.7	73.1	60	107	12	50			##		
CHRYSENE	16.5	ND	167	134	NA	42.9	167	148	173	ND	80.2	#####	60	104	NA	62.9	77.9	60	104	16	50			##		
BENZO[b]FLUORANTHENE	16.5	ND	167	135	NA	16.2	167	113	140	ND	80.8	#####	61	108	NA	58.0	74.1	61	108	21	50			##	L	
BENZO[k]FLUORANTHENE	16.5	ND	83.5	68.3	NA	8.90	83.5	125	146	ND	81.8	#####	59	112	NA	139	164	59	112	15	50			##	H	H
BENZO[a]PYRENE	16.5	ND	167	121	NA	21.9	167	159	220	ND	72.5	#####	51	101	NA	82.1	119	51	101	32	50			##		H
DIBENZO[a,h]ANTHRANCENE	16.5	ND	167	135	NA	60.5	167	151	195	ND	80.8	#####	58	113	NA	54.2	80.5	58	113	25	50			##	L	
BENZO[g,h,i]PERYLENE	16.5	ND	167	139	NA	26.8	167	161	193	ND	83.2	#####	53	118	NA	80.4	99.5	53	118	18	50			##		
INDENO[1,2,3-cd]PYRENE	16.5	ND	167	135	NA	29.4	167	209	303	ND	80.8	#####	58	105	NA	108	164	58	105	37	50			##	H	H
SURROGATE																										
p-TERPHENYL-d14		247	333	270	NA	404	333	416	557	74.3	81.1	NA	50	150	121	125	167	50	150							H

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

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

8310

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310 AAB#: WG114391

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-SB1-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.78	13-MAR-02	40	0.694	
062-CEF46-SB1-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.78	13-MAR-02	40	1.32	
062-CEF46-SB14-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.81	13-MAR-02	40	0.772	
062-CEF46-SB14-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.81	18-MAR-02	40	6.27	
062-CEF46-SB2-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.80	13-MAR-02	40	0.733	
062-CEF46-SB2-S-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	14	4.80	13-MAR-02	40	1.36	

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

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/20/2002 12:09

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG114464

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-EQB-W-Q1-02	07-MAR-02	08-MAR-02	12-MAR-02	7	4.94	12-MAR-02	40	0.331	

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/20/2002 12:09

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number: L0203154

Instrument Id: HPLC4

Workgroup (AAB#): WG114464

Method: 8310

Matrix: WATER

Sample Number	Dilution	Tag	1
L0203154-04	1.00	01	94.1
WG114387-01	1.00	01	95.0
WG114387-01	1.00	CF01	96.0
WG114387-02	1.00	01	99.1
WG114387-02	1.00	CF01	98.5
WG114387-03	1.00	01	99.6
WG114387-03	1.00	CF01	98.6

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/20/2002 12:09

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0203154
Instrument Id: HPLC4
Workgroup (AAB#): WG114391

Method: 8310
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0203154-01	1.00	01	148
L0203154-01	1.00	CF01	523
L0203154-01	10.0	CFDL01	DL
L0203154-01	10.0	DL01	DL
L0203154-02	1.00	01	118
L0203154-02	1.00	CF01	874
L0203154-02	10.0	CFDL01	DL
L0203154-02	10.0	DL01	DL
L0203154-03	1.00	01	87.3
L0203154-03	1.00	CF01	122
L0203154-03	10.0	CFDL01	DL
L0203154-03	10.0	DL01	DL
WG114347-02	1.00	01	74.3
WG114347-02	1.00	CF01	76.0
WG114347-03	1.00	01	81.1
WG114347-03	1.00	CF01	81.5

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	50	-	150

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/20/2002 12:09

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

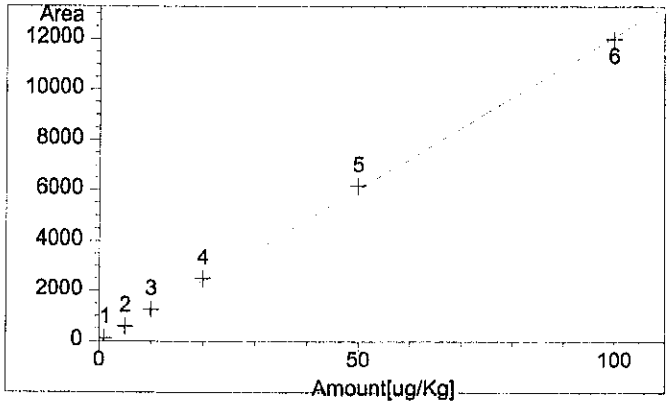
RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

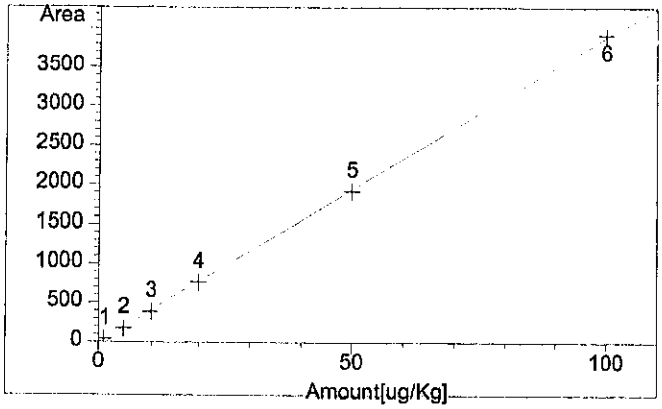
Peak Sum Table

No Entries in table

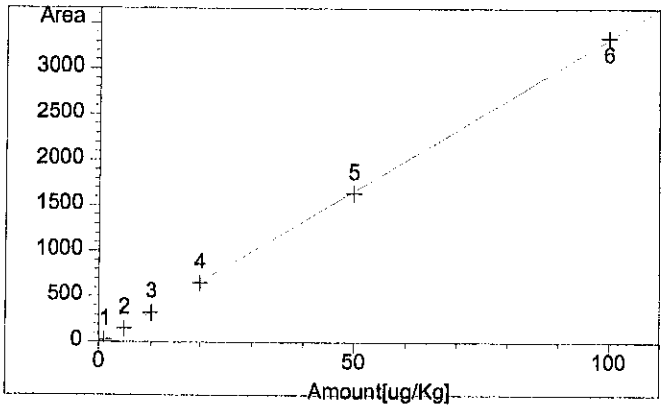
Calibration Curves



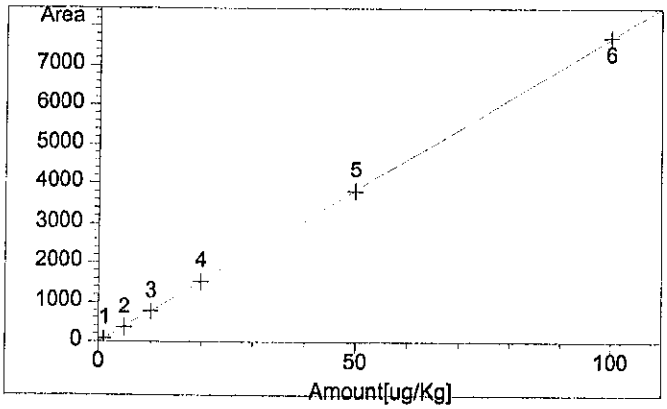
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount[ug/Kg]
y: Area



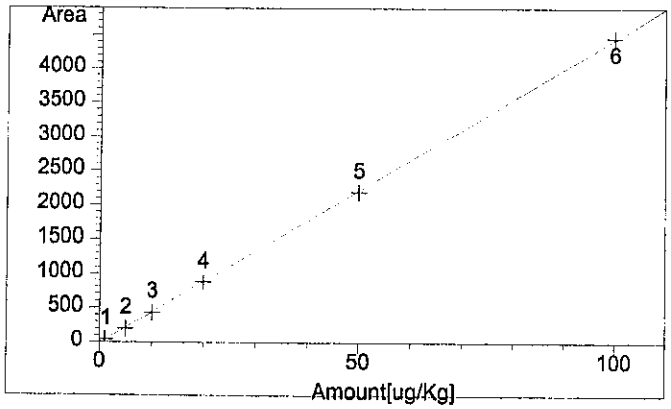
Naphthalene #1 at exp. RT: 9.250
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



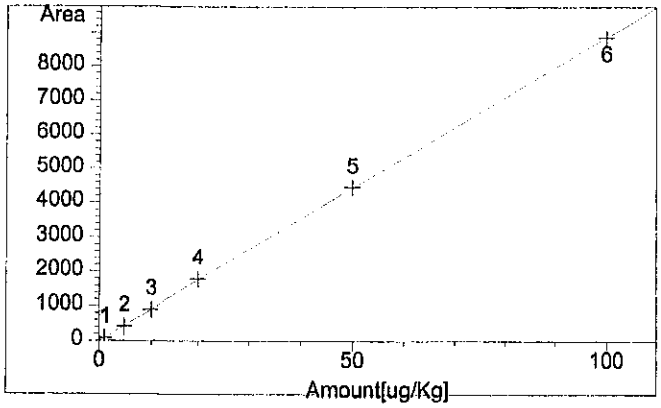
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



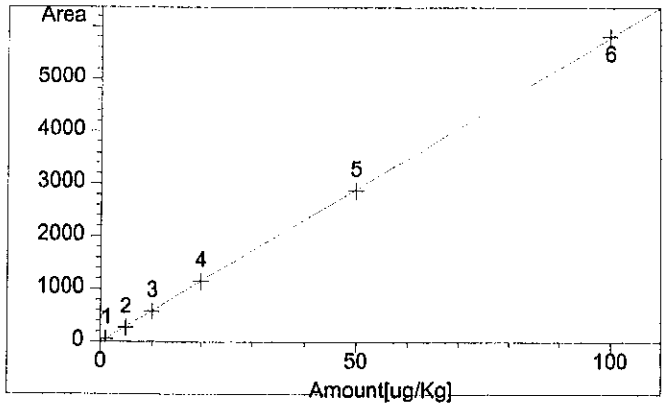
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



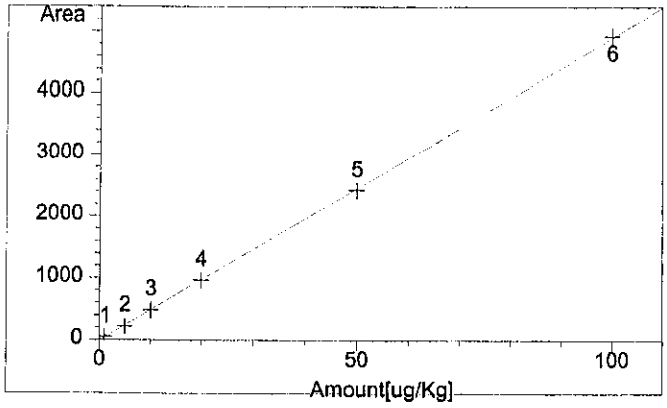
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



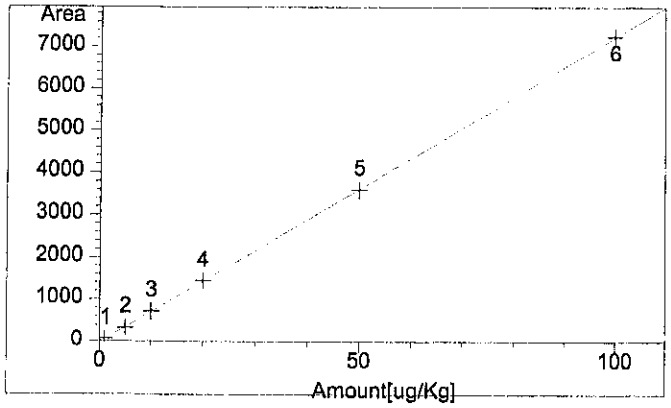
2-Methylnaphthalene #4 at exp. RT: 12.413
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount [ug/Kg]
y: Area



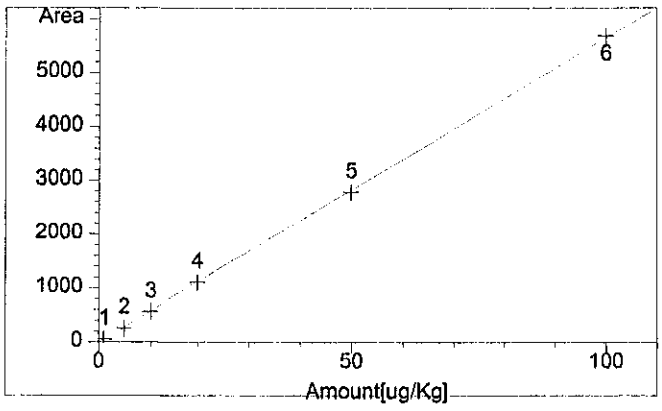
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount [ug/Kg]
y: Area



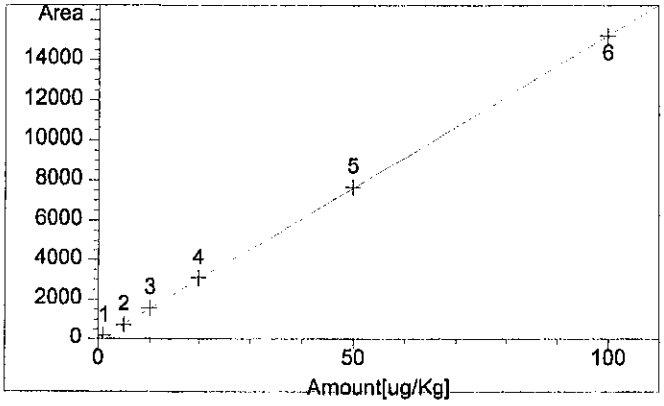
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount [ug/Kg]
y: Area



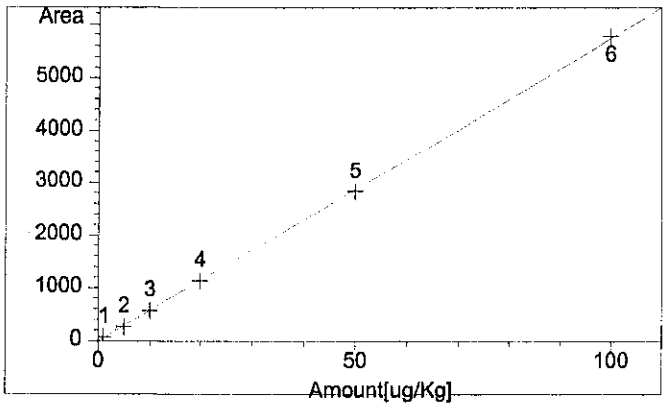
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount [ug/Kg]
y: Area



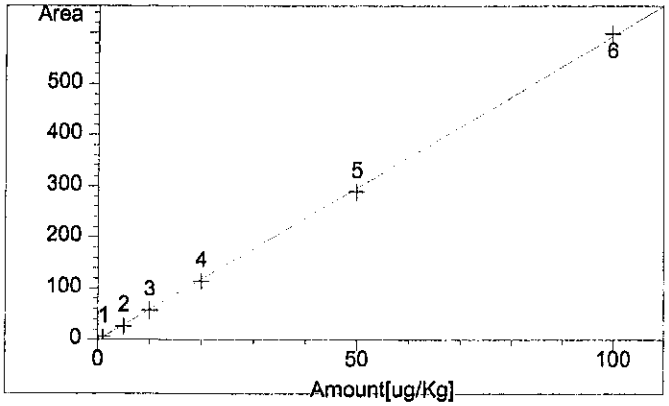
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



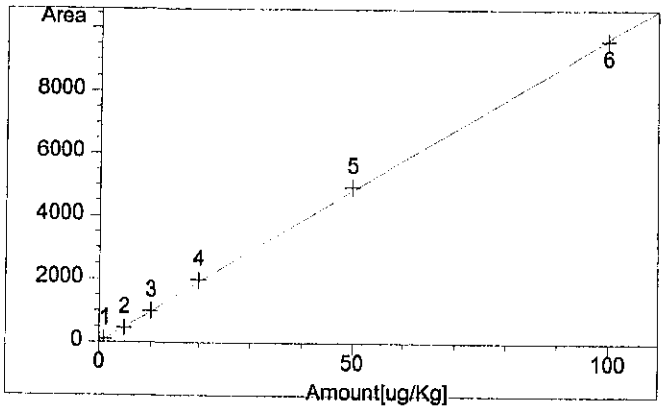
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



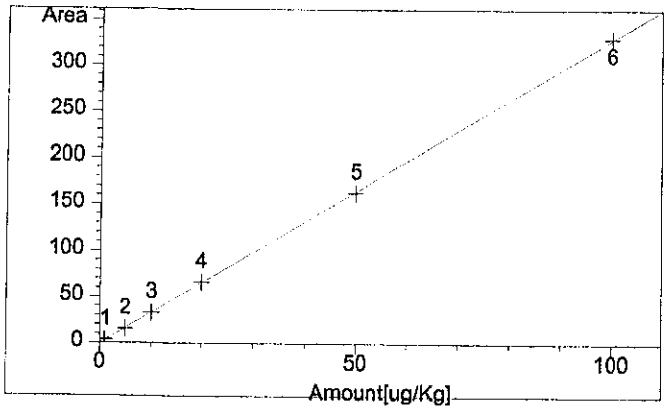
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



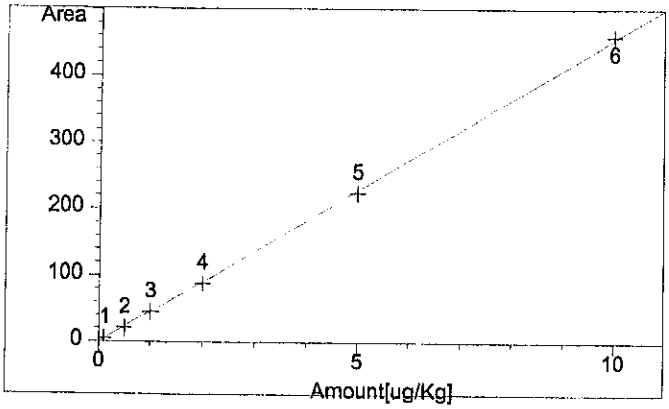
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



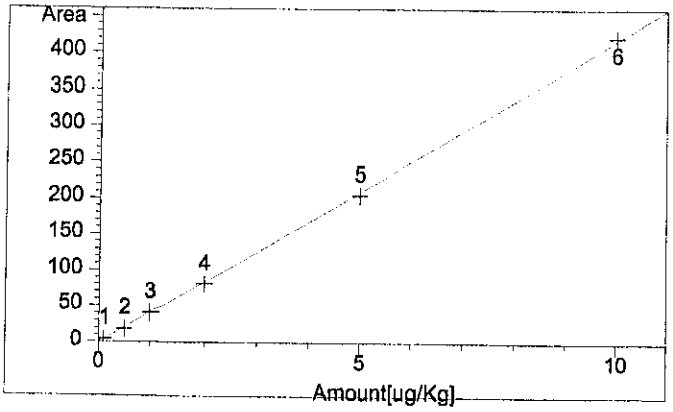
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



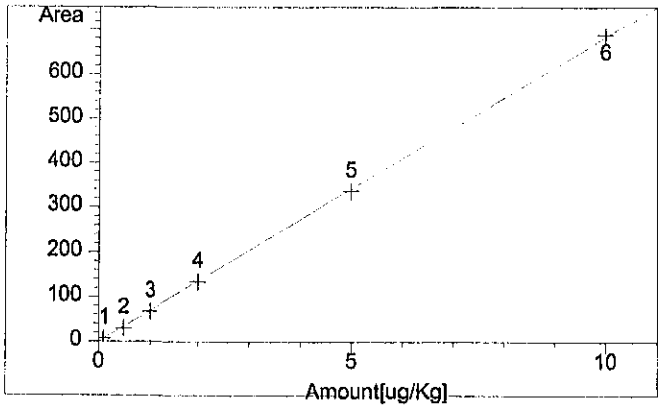
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



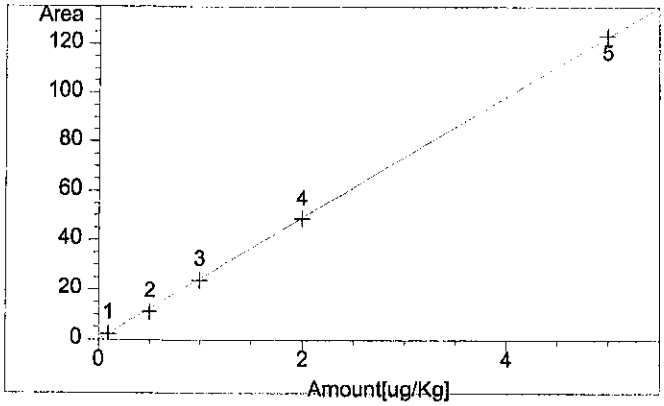
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



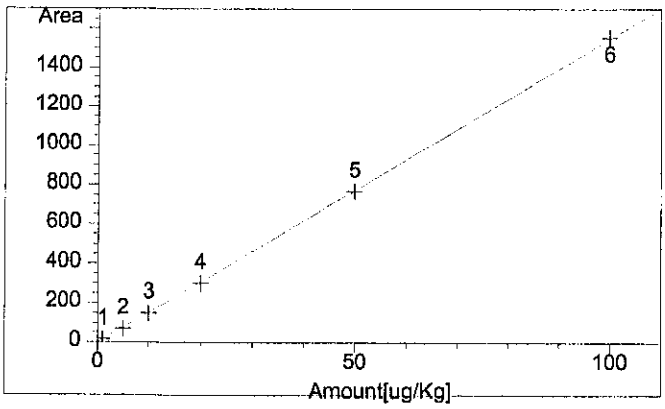
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



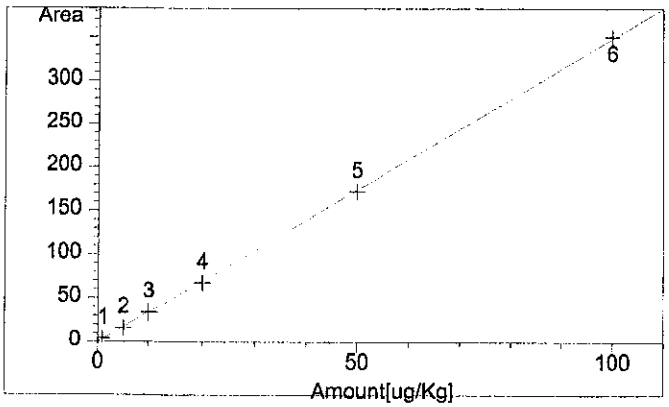
Pyrene #10 at exp. RT: 18.769
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



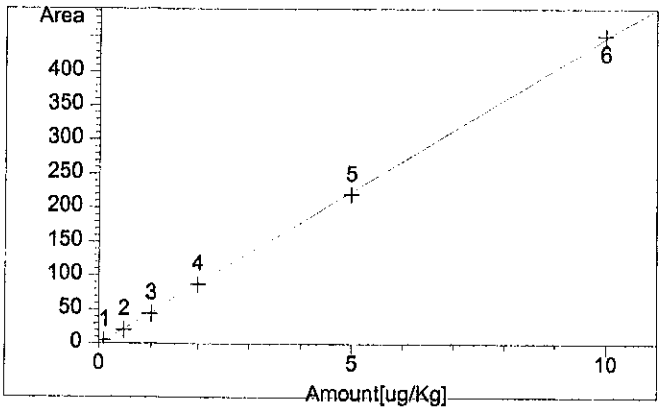
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



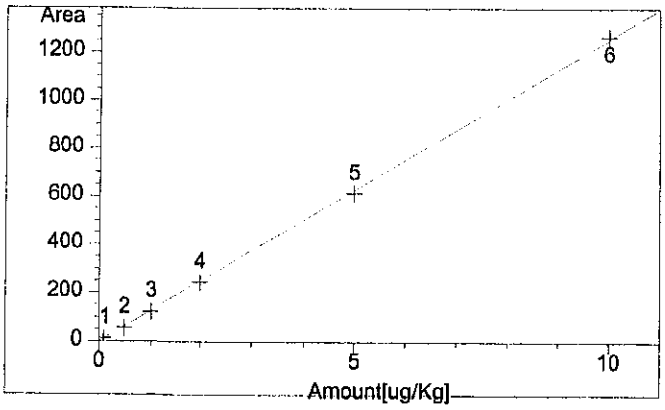
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



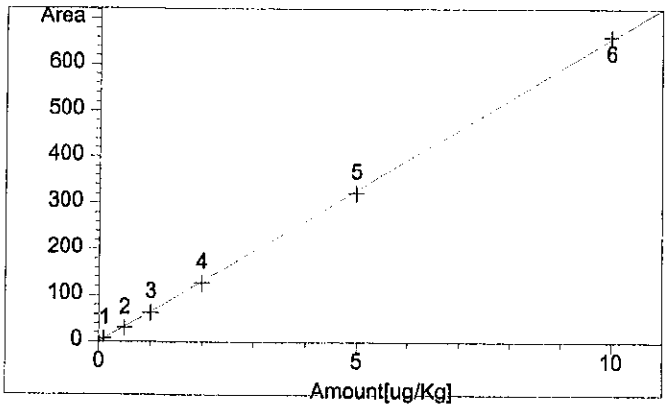
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



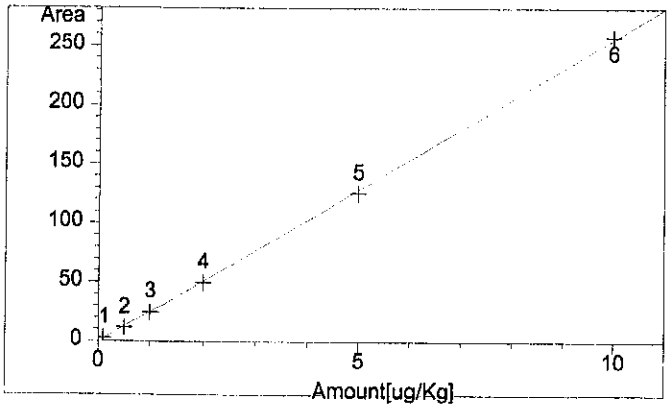
Benzo(a)anthracene #12 at exp. RT: 22.460
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



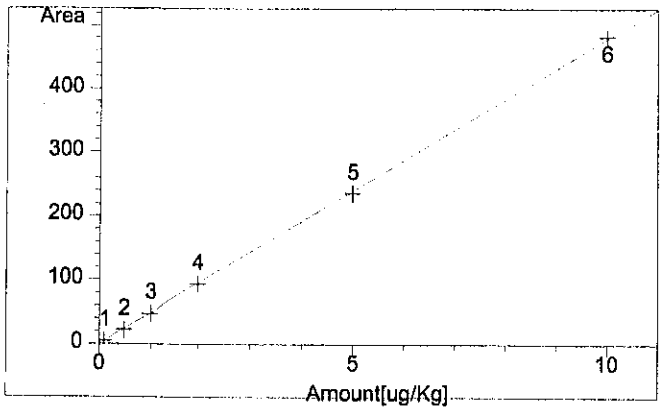
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



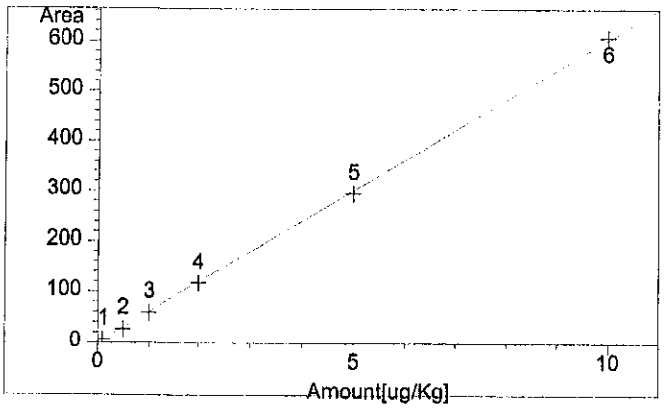
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



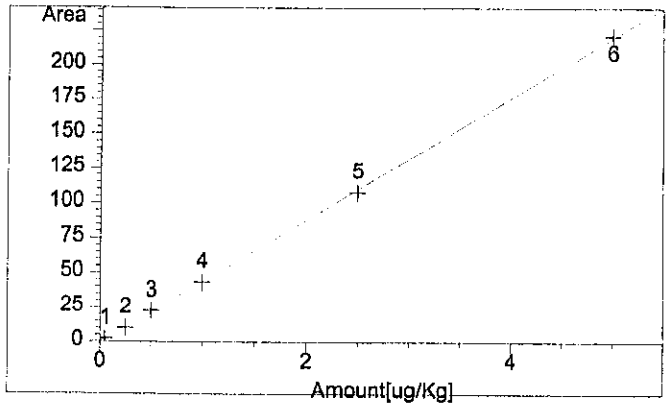
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



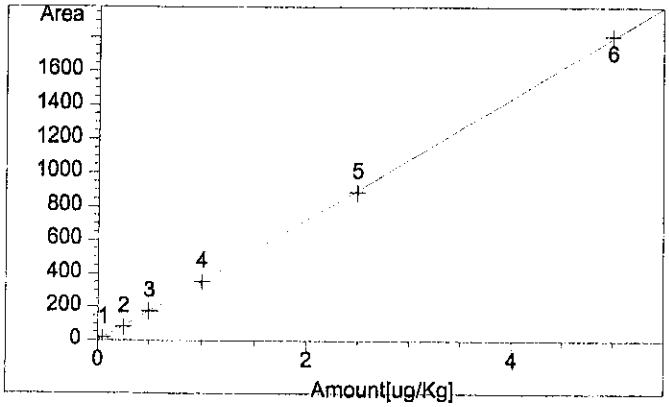
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



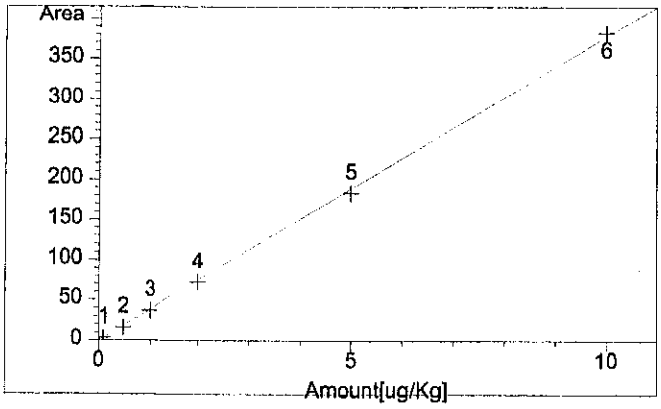
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



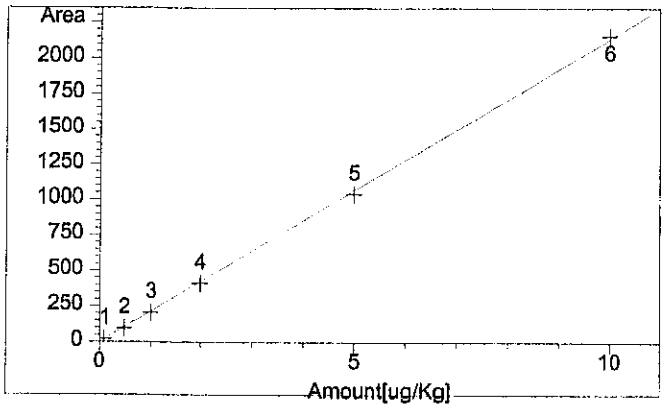
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



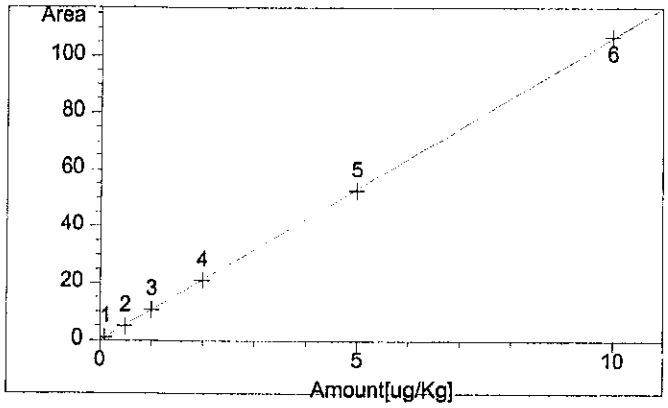
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



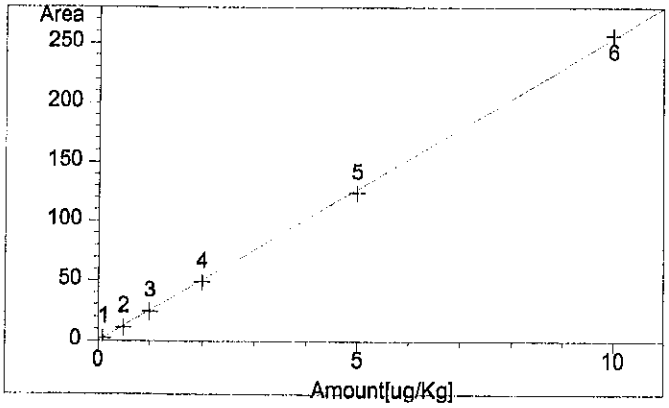
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount [ug/Kg]
y: Area



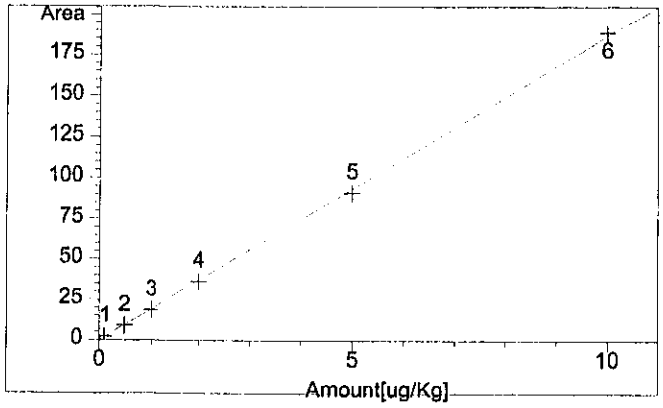
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount [ug/Kg]
y: Area



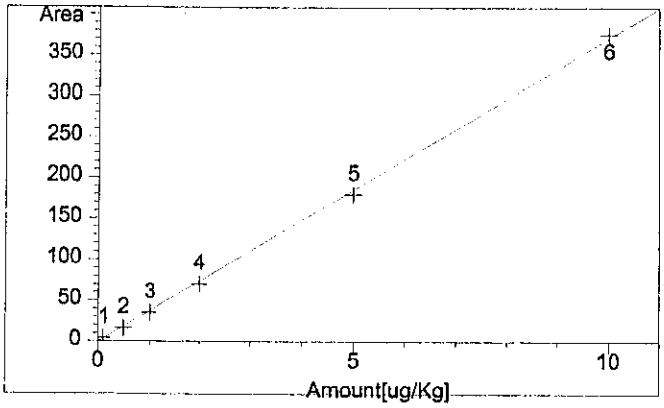
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount [ug/Kg]
y: Area



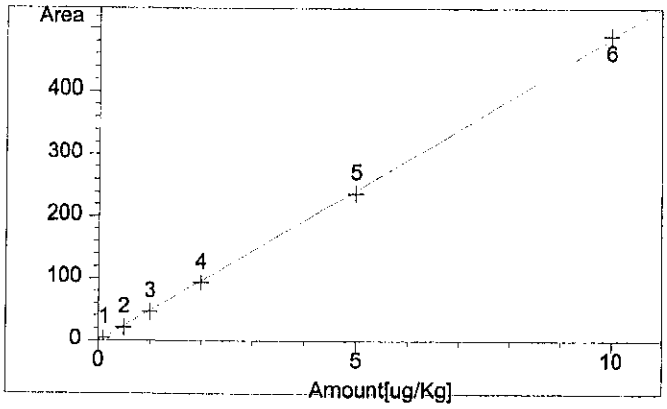
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount [ug/Kg]
y: Area



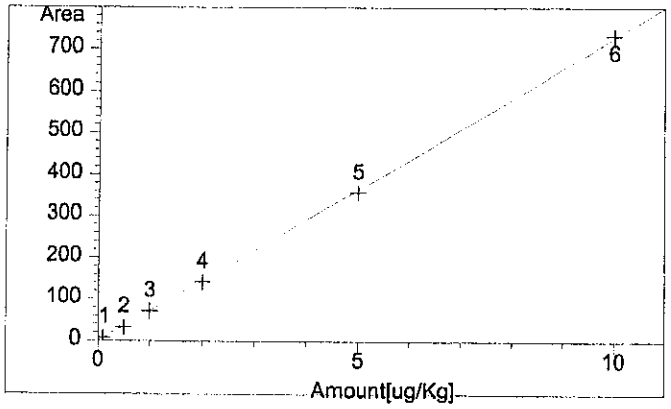
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

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Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\031202\4L002870.D Sample Name: WG114392-01 CCV
HPLC4 3/13/2002 11:18:41 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/12/2002 3:16:25 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	19.406	-3.0
1-Methylnaphthalene #3	12.006	20.0	19.550	-2.3
2-Methylnaphthalene #4	12.580	20.0	19.421	-2.9
Acenaphthene #5	13.059	20.0	19.708	-1.5
Fluorene #6	13.713	20.0	20.300	1.5
Phenanthrene #7	15.097	20.0	19.149	-4.3
Anthracene #8	16.495	20.0	20.262	1.3
Fluoranthene #9	17.871	2.0	1.945	-2.8
Pyrene #10	18.871	2.0	1.928	-3.6
p-Terphenyl d14 #11*	21.205	20.0	19.012	-4.9
Benzo(a)anthracene #12	22.519	2.0	1.932	-3.4
Chrysene #13	23.379	2.0	1.948	-2.6
Benzo(b)fluoranthene #14	26.093	2.0	1.927	-3.7
Benzo(k)fluoranthene #15	27.517	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.616	2.0	1.952	-2.4
Dibenz(a,h)anthracene #1	30.465	2.0	1.930	-3.5
Benzo(g,h,i)perylene #18	31.285	2.0	1.908	-4.6
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.926	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	20.729	3.6
Acenaphthylene #2	11.041	20.0	20.068	0.3
1-Methylnaphthalene #3	11.990	20.0	20.039	0.2
2-Methylnaphthalene #4	12.564	20.0	20.275	1.4
Acenaphthene #5	13.044	20.0	19.776	-1.1
Fluorene #6	13.697	20.0	19.811	-0.9
Phenanthrene #7	15.081	20.0	20.132	0.7
Anthracene #8	16.479	20.0	20.976	4.9
Fluoranthene #9	17.854	2.0	1.960	-2.0
Pyrene #10	18.854	2.0	1.987	-0.6
p-Terphenyl d14 #11*	21.190	20.0	19.068	-4.7
Benzo(a)anthracene #12	22.503	2.0	1.958	-2.1
Chrysene #13	23.363	2.0	1.956	-2.2
Benzo(b)fluoranthene #14	26.076	2.0	1.953	-2.4
Benzo(k)fluoranthene #15	27.500	1.0	0.987	-1.3
Benzo(a)pyrene #16	28.599	2.0	1.980	-1.0
Dibenz(a,h)anthracene #1	30.448	2.0	1.948	-2.6
Benzo(g,h,i)perylene #18	31.267	2.0	1.992	-0.4
Indeno(1,2,3-cd)pyrene #	32.204	2.0	1.937	-3.2

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\031202\4L002878.D Sample Name: WG114392-02 CCV
HPLC4 3/13/2002 11:27:25 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/12/2002 10:49:14 PM Seq. Line : 10

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.420	20.0	19.608	-2.0
1-Methylnaphthalene #3	11.993	20.0	19.762	-1.2
2-Methylnaphthalene #4	12.567	20.0	19.612	-1.9
Acenaphthene #5	13.045	20.0	19.859	-0.7
Fluorene #6	13.701	20.0	20.246	1.2
Phenanthrene #7	15.086	20.0	19.387	-3.1
Anthracene #8	16.489	20.0	20.065	0.3
Fluoranthene #9	17.867	2.0	1.857	-7.2
Pyrene #10	18.870	2.0	1.948	-2.6
p-Terphenyl d14 #11*	21.200	20.0	19.002	-5.0
Benzo(a)anthracene #12	22.515	2.0	1.938	-3.1
Chrysene #13	23.375	2.0	1.953	-2.3
Benzo(b)fluoranthene #14	26.080	2.0	1.928	-3.6
Benzo(k)fluoranthene #15	27.507	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.609	2.0	1.989	-0.5
Dibenz(a,h)anthracene #1	30.460	2.0	1.933	-3.4
Benzo(g,h,i)perylene #18	31.274	2.0	1.953	-2.3
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.934	-3.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.400	20.0	20.718	3.6
Acenaphthylene #2	11.027	20.0	20.024	0.1
1-Methylnaphthalene #3	11.974	20.0	20.004	0.0
2-Methylnaphthalene #4	12.548	20.0	20.248	1.2
Acenaphthene #5	13.025	20.0	19.760	-1.2
Fluorene #6	13.680	20.0	19.763	-1.2
Phenanthrene #7	15.066	20.0	20.102	0.5
Anthracene #8	16.469	20.0	20.885	4.4
Fluoranthene #9	17.846	2.0	1.958	-2.1
Pyrene #10	18.849	2.0	1.963	-1.9
p-Terphenyl d14 #11*	21.180	20.0	19.124	-4.4
Benzo(a)anthracene #12	22.495	2.0	1.946	-2.7
Chrysene #13	23.356	2.0	1.949	-2.5
Benzo(b)fluoranthene #14	26.059	2.0	1.947	-2.7
Benzo(k)fluoranthene #15	27.486	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.588	2.0	1.995	-0.2
Dibenz(a,h)anthracene #1	30.439	2.0	1.953	-2.3
Benzo(g,h,i)perylene #18	31.252	2.0	2.108	5.4
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.924	-3.8

= Failed 15.0% Criteria

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Data File C:\HPCHEM\2\DATA\031202\4L002887.D Sample Name: WG114392-03 CCV
HPLC4 3/13/2002 12:40:57 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/13/2002 7:18:58 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.412	20.0	19.431	-2.8
1-Methylnaphthalene #3	11.986	20.0	19.592	-2.0
2-Methylnaphthalene #4	12.561	20.0	19.542	-2.3
Acenaphthene #5	13.041	20.0	19.833	-0.8
Fluorene #6	13.696	20.0	20.394	2.0
Phenanthrene #7	15.082	20.0	19.234	-3.8
Anthracene #8	16.483	20.0	20.229	1.1
Fluoranthene #9	17.862	2.0	1.838	-8.1
Pyrene #10	18.867	2.0	1.899	-5.0
p-Terphenyl d14 #11*	21.203	20.0	18.886	-5.6
Benzo(a)anthracene #12	22.521	2.0	1.919	-4.0
Chrysene #13	23.384	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.093	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.514	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.610	2.0	1.955	-2.2
Dibenz(a,h)anthracene #1	30.443	2.0	1.911	-4.4
Benzo(g,h,i)perylene #18	31.254	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.194	2.0	1.895	-5.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.392	20.0	20.844	4.2
Acenaphthylene #2	11.018	20.0	20.116	0.6
1-Methylnaphthalene #3	11.966	20.0	20.107	0.5
2-Methylnaphthalene #4	12.541	20.0	20.346	1.7
Acenaphthene #5	13.021	20.0	19.866	-0.7
Fluorene #6	13.676	20.0	19.868	-0.7
Phenanthrene #7	15.062	20.0	20.191	1.0
Anthracene #8	16.462	20.0	20.959	4.8
Fluoranthene #9	17.841	2.0	1.967	-1.7
Pyrene #10	18.846	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.183	20.0	19.300	-3.5
Benzo(a)anthracene #12	22.501	2.0	1.967	-1.6
Chrysene #13	23.364	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	26.072	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.494	1.0	0.926	-7.4
Benzo(a)pyrene #16	28.589	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.423	2.0	1.837	-8.2
Benzo(g,h,i)perylene #18	31.232	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.170	2.0	1.956	-2.2

= Failed 15.0% Criteria

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Data File C:\HPCHEM\2\DATA\031302\4L002889.D Sample Name: WG114485-01 CCV
HPLC4 3/14/2002 9:28:29 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/13/2002 3:50:27 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.414	20.0	19.463	-2.7
1-Methylnaphthalene #3	11.989	20.0	19.555	-2.2
2-Methylnaphthalene #4	12.563	20.0	19.498	-2.5
Acenaphthene #5	13.042	20.0	19.775	-1.1
Fluorene #6	13.696	20.0	20.347	1.7
Phenanthrene #7	15.082	20.0	19.079	-4.6
Anthracene #8	16.485	20.0	20.228	1.1
Fluoranthene #9	17.865	2.0	1.855	-7.2
Pyrene #10	18.866	2.0	1.908	-4.6
p-Terphenyl d14 #11*	21.199	20.0	19.121	-4.4
Benzo(a)anthracene #12	22.521	2.0	1.929	-3.5
Chrysene #13	23.387	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.103	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.524	1.0	0.984	-1.6
Benzo(a)pyrene #16	28.630	2.0	2.014	0.7
Dibenz(a,h)anthracene #1	30.492	2.0	1.728	-13.6
Benzo(g,h,i)perylene #18	31.305	2.0	1.954	-2.3
Indeno(1,2,3-cd)pyrene #	32.245	2.0	1.961	-1.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.397	20.0	20.833	4.2
Acenaphthylene #2	11.027	20.0	20.202	1.0
1-Methylnaphthalene #3	11.973	20.0	20.125	0.6
2-Methylnaphthalene #4	12.547	20.0	20.392	2.0
Acenaphthene #5	13.026	20.0	19.904	-0.5
Fluorene #6	13.680	20.0	19.904	-0.5
Phenanthrene #7	15.066	20.0	20.281	1.4
Anthracene #8	16.468	20.0	21.061	5.3
Fluoranthene #9	17.847	2.0	1.976	-1.2
Pyrene #10	18.849	2.0	1.984	-0.8
p-Terphenyl d14 #11*	21.183	20.0	19.264	-3.7
Benzo(a)anthracene #12	22.504	2.0	1.977	-1.2
Chrysene #13	23.371	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.085	2.0	1.965	-1.8
Benzo(k)fluoranthene #15	27.507	1.0	0.967	-3.3
Benzo(a)pyrene #16	28.612	2.0	2.037	1.9
Dibenz(a,h)anthracene #1	30.474	2.0	2.018	0.9
Benzo(g,h,i)perylene #18	31.287	2.0	2.289	14.4
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.955	-2.3

= Failed 15.0% Criteria

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Data File C:\HPCHEM\2\DATA\031302\4L002892.D Sample Name: WG114485-02 CCV
HPLC4 3/14/2002 9:30:22 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/13/2002 6:40:16 PM Seq. Line : 5

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.415	20.0	19.297	-3.5
1-Methylnaphthalene #3	11.988	20.0	19.452	-2.7
2-Methylnaphthalene #4	12.564	20.0	19.379	-3.1
Acenaphthene #5	13.044	20.0	19.666	-1.7
Fluorene #6	13.700	20.0	20.232	1.2
Phenanthrene #7	15.088	20.0	18.929	-5.4
Anthracene #8	16.491	20.0	20.121	0.6
Fluoranthene #9	17.870	2.0	1.860	-7.0
Pyrene #10	18.874	2.0	1.890	-5.5
p-Terphenyl d14 #11*	21.214	20.0	18.998	-5.0
Benzo(a)anthracene #12	22.534	2.0	1.917	-4.1
Chrysene #13	23.401	2.0	1.938	-3.1
Benzo(b)fluoranthene #14	26.120	2.0	1.930	-3.5
Benzo(k)fluoranthene #15	27.548	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.654	2.0	1.997	-0.2
Dibenz(a,h)anthracene #1	30.513	2.0	1.810	-9.5
Benzo(g,h,i)perylene #18	31.325	2.0	1.917	-4.2
Indeno(1,2,3-cd)pyrene #	32.265	2.0	1.950	-2.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.397	20.0	20.808	4.0
Acenaphthylene #2	11.025	20.0	20.172	0.9
1-Methylnaphthalene #3	11.971	20.0	20.114	0.6
2-Methylnaphthalene #4	12.546	20.0	20.344	1.7
Acenaphthene #5	13.026	20.0	19.843	-0.8
Fluorene #6	13.681	20.0	19.852	-0.7
Phenanthrene #7	15.070	20.0	20.217	1.1
Anthracene #8	16.472	20.0	20.957	4.8
Fluoranthene #9	17.851	2.0	1.971	-1.5
Pyrene #10	18.855	2.0	1.979	-1.0
p-Terphenyl d14 #11*	21.196	20.0	19.151	-4.2
Benzo(a)anthracene #12	22.515	2.0	1.970	-1.5
Chrysene #13	23.382	2.0	1.969	-1.6
Benzo(b)fluoranthene #14	26.101	2.0	1.949	-2.5
Benzo(k)fluoranthene #15	27.529	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.634	2.0	2.038	1.9
Dibenz(a,h)anthracene #1	30.494	2.0	1.953	-2.4
Benzo(g,h,i)perylene #18	31.304	2.0	2.177	8.8
Indeno(1,2,3-cd)pyrene #	32.244	2.0	1.955	-2.3

= Failed 15.0% Criteria

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Data File C:\HPCHEM\2\DATA\031802\4L002894.D Sample Name: WG114669-01 CCV
HPLC4 3/18/2002 4:40:45 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/18/2002 2:13:13 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.423	20.0	19.526	-2.4
1-Methylnaphthalene #3	11.997	20.0	19.625	-1.9
2-Methylnaphthalene #4	12.572	20.0	19.293	-3.5
Acenaphthene #5	13.049	20.0	19.568	-2.2
Fluorene #6	13.702	20.0	20.188	0.9
Phenanthrene #7	15.086	20.0	19.478	-2.6
Anthracene #8	16.482	20.0	19.743	-1.3
Fluoranthene #9	17.856	2.0	1.921	-3.9
Pyrene #10	18.856	2.0	1.971	-1.5
p-Terphenyl d14 #11*	21.178	20.0	19.000	-5.0
Benzo(a)anthracene #12	22.494	2.0	1.936	-3.2
Chrysene #13	23.351	2.0	1.955	-2.3
Benzo(b)fluoranthene #14	26.063	2.0	1.923	-3.9
Benzo(k)fluoranthene #15	27.487	1.0	0.977	-2.3
Benzo(a)pyrene #16	28.592	2.0	1.950	-2.5
Dibenz(a,h)anthracene #1	30.436	2.0	1.918	-4.1
Benzo(g,h,i)perylene #18	31.253	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.191	2.0	1.929	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.408	20.0	20.588	2.9
Acenaphthylene #2	11.036	20.0	19.837	-0.8
1-Methylnaphthalene #3	11.981	20.0	19.853	-0.7
2-Methylnaphthalene #4	12.556	20.0	19.995	0.0
Acenaphthene #5	13.033	20.0	19.416	-2.9
Fluorene #6	13.686	20.0	19.613	-1.9
Phenanthrene #7	15.070	20.0	19.949	-0.3
Anthracene #8	16.466	20.0	20.440	2.2
Fluoranthene #9	17.839	2.0	1.938	-3.1
Pyrene #10	18.839	2.0	1.941	-3.0
p-Terphenyl d14 #11*	21.163	20.0	19.102	-4.5
Benzo(a)anthracene #12	22.479	2.0	1.939	-3.1
Chrysene #13	23.336	2.0	1.940	-3.0
Benzo(b)fluoranthene #14	26.046	2.0	1.950	-2.5
Benzo(k)fluoranthene #15	27.471	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.576	2.0	1.961	-2.0
Dibenz(a,h)anthracene #1	30.421	2.0	1.833	-8.3
Benzo(g,h,i)perylene #18	31.237	2.0	2.136	6.8
Indeno(1,2,3-cd)pyrene #	32.172	2.0	1.908	-4.6

= Failed 15.0% Criteria

==========

Data File C:\HPCHEM\2\DATA\031802\4L002896.D Sample Name: WG114669-02 CCV
HPLC4 3/18/2002 5:23:42 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/18/2002 4:25:23 PM Seq. Line : 4

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	19.172	-4.1
1-Methylnaphthalene #3	12.003	20.0	19.308	-3.5
2-Methylnaphthalene #4	12.575	20.0	19.071	-4.6
Acenaphthene #5	13.054	20.0	19.388	-3.1
Fluorene #6	13.705	20.0	20.061	0.3
Phenanthrene #7	15.085	20.0	18.996	-5.0
Anthracene #8	16.479	20.0	19.691	-1.5
Fluoranthene #9	17.850	2.0	1.904	-4.8
Pyrene #10	18.848	2.0	1.916	-4.2
p-Terphenyl d14 #11*	21.165	20.0	19.069	-4.7
Benzo(a)anthracene #12	22.478	2.0	1.901	-4.9
Chrysene #13	23.334	2.0	1.927	-3.7
Benzo(b)fluoranthene #14	26.041	2.0	1.908	-4.6
Benzo(k)fluoranthene #15	27.458	1.0	0.971	-2.9
Benzo(a)pyrene #16	28.561	2.0	1.917	-4.2
Dibenz(a,h)anthracene #1	30.400	2.0	1.895	-5.3
Benzo(g,h,i)perylene #18	31.216	2.0	1.869	-6.5
Indeno(1,2,3-cd)pyrene #	32.154	2.0	1.924	-3.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.417	20.0	20.537	2.7
Acenaphthylene #2	11.041	20.0	19.839	-0.8
1-Methylnaphthalene #3	11.989	20.0	19.814	-0.9
2-Methylnaphthalene #4	12.561	20.0	20.004	0.0
Acenaphthene #5	13.040	20.0	19.467	-2.7
Fluorene #6	13.690	20.0	19.609	-2.0
Phenanthrene #7	15.071	20.0	19.928	-0.4
Anthracene #8	16.465	20.0	20.410	2.0
Fluoranthene #9	17.835	2.0	1.940	-3.0
Pyrene #10	18.833	2.0	1.936	-3.2
p-Terphenyl d14 #11*	21.151	20.0	19.100	-4.5
Benzo(a)anthracene #12	22.463	2.0	1.939	-3.1
Chrysene #13	23.320	2.0	1.943	-2.9
Benzo(b)fluoranthene #14	26.025	2.0	1.939	-3.0
Benzo(k)fluoranthene #15	27.443	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.546	2.0	1.943	-2.9
Dibenz(a,h)anthracene #1	30.385	2.0	1.877	-6.2
Benzo(g,h,i)perylene #18	31.201	2.0	2.131	6.5
Indeno(1,2,3-cd)pyrene #	32.134	2.0	2.033	1.7

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	cc 02:01	S0556-19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	S0556-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	S0556-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	Dil'n. of S0556-19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01		WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	✓ 12:01	Dil'n. of S0557-27/ S0557-28	WG111292-08 AL

RDRC
1/16/02

1/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials BDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ___

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114392-01 CCV	8310	1	Sample		
3	3	WG114347-02 SBLK	8310	1	Sample		
4	4	WG114347-03 SLCS	8310	1	Sample		
5	5	WG114387-01 WBLK	8310	1	Sample		
6	6	WG114387-02 WLCS	8310	1	Sample		
7	7	WG114387-03 WLCS	8310	1	Sample		
8	8	L0203154-04 831W	8310	1	Sample		
9	9	L0203155-02 831W	8310	1	Sample		
10	10	WG114392-02 CCV	8310	1	Sample		
11	11	L0203184-01 610W	8310	1	Sample		
12	12	L0203190-01 610W	8310	1	Sample		
13	13	L0203154-01 831S	8310	1	Sample		
14	14	L0203154-02 831S	8310	1	Sample		
15	15	L0203154-03 831S	8310	1	Sample		
16	16	WG114347-01 SREF	8310	1	Sample		
17	17	WG114347-04 SMS	8310	1	Sample		
18	18	WG114347-05 SMSD	8310	1	Sample		
19	10	WG114392-03 CCV	8310	1	Sample		

DPC 3/13/02

HPLC4 3/12/2002 3:50:19 PM RDC

---	---	---	---	Datafile	Seqfable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002869	01:01		accn blk
No	2	2	8310	4L002870	02:01	SOS 58-26/56-20	WG114392-01 CC
No	3	3	8310	4L002871	03:01		WG114347-02 SE
No	4	4	8310	4L002872	04:01		WG114347-03 SI
No	5	5	8310	4L002873	05:01		WG114387-01 WE
No	6	6	8310	4L002874	06:01		WG114387-02 WL
No	7	7	8310	4L002875	07:01		WG114387-03 WL
No	8	8	8310	4L002876	08:01		L0203154-04 83
No	9	9	8310	4L002877	09:01		L0203155-02 83
No	10	10	8310	4L002878	10:01	SOS 58-26/56-20	WG114392-02 CC
No	11	11	8310	4L002879	11:01		L0203184-01 61
No	12	12	8310	4L002880	12:01		L0203190-01 61
No	13	13	8310	4L002881	13:01 R.210		L0203154-01 83
No	14	14	8310	4L002882	14:01		L0203154-02 83
No	15	15	8310	4L002883	15:01		L0203154-03 83
No	16	16	8310	4L002884	16:01		WG114347-01 SR
No	17	17	8310	4L002885	17:01		WG114347-04 SM
No	18	18	8310	4L002886	18:01		WG114347-05 SM
No	19	10	8310	4L002887	19:01 SOS 58-26/56-20		WG114392-03 CC

Rec 3/15/92

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 12, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 031202
Analyst Initials EKC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: [signature] 3/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114485-01 CCV	8310	1	Sample		
3	3	L0203154-01 831S	8310	1	Sample		
4	4	L0203154-02 831S	8310	1	Sample		
5	2	WG114485-02 CCV	8310	1	Sample		

RDC
3/14/02

					DIL'N			
No	1	1	8310	4L002888	NA	01:01 ✓		accn blk
No	2	2	8310	4L002889	↓	02:01 ✓	SOS 58-26/56-20	WG114485-01 CC
No	3	3	8310	4L002890	10	03:01 ✓		L0203154-01 83
No	4	4	8310	4L002891	10	04:01 ✓		L0203154-02 83
No	5	2	8310	4L002892	NA	05:01 ✓	SOS58-26/56-20	WG114485-02 CC

RQC
3/18/02

3/19/02

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time March 13, 2002 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 031302
Analyst Initials DLC **SOP # HPLC01 Rev. #** 3 6 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: [signature] 3/19/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114669-01 CCV	8310	1	Sample		
3	3	L0203154-03 831S	8310	1	Sample		
4	2	WG114669-02 CCV	8310	1	Sample		

RDC 3/18/02

No	1	1	8310	4L002893	DIW NA	01:01 ✓		accn blk
No	2	2	8310	4L002894	NA	02:01 ✓	SOS 58-26/56-20	WG114669-01 CC
No	3	3	8310	4L002895	10	03:01 ✓		L0203154-03 83
No	4	2	8310	4L002896	NA	04:01 ✓	SOS 58-26/56-20	WG114669-02 CC

BWC 3/18/02

3/19/02

HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2002 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 031802
Analyst Initials CDC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: JPR 3/19/02

Parameter: [illegible] SOP #: [illegible] Revision #: 6

Extraction Analyst(s): RSK TV/KD Analyst(s): DP

Date/Time Extracted: 3/12/02 @ 1300 Date TV/KD: 3/12/02

Spike/Surrogate Analyst: RSK Witness: DP

Surrogate #: ESS0039-27 Earliest Hold Date: 3/14

Spike #: A = ESS0040-34 Spike #: B = –

Extraction Work Group WG 114387

Analytical Work Group WG 114464

Extract Relinquished By: DP

Extract Received By & Date: EC 3/12/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100ul		1ML					WG 114387-01
2	LCS			✓		↓	↓	500ul						WG ↓ -02
3	LCS Dup			✓		↓	↓	↓						↓ -03
4	03-154-04	8310		✓		900 mL	↓							
5	03-155-02	↓		✓		950 mL	↓							
6	03-184-01	610		✓		910 mL	↓						✓	
7	03-190-01	↓		✓		930 mL	↓							
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

RSK 3/12/02

Methylene Chloride Lot #: 42015

Hexane Lot #: –

Ether Lot #: –

Methanol Lot #: –

Solvent: CH3CN Lot #: 41264

Reagent: – Lot #: –

Reagent: – Lot #: –

Reagent: – Lot #: –

Acid: – Lot #: –

Florisil Lot #: –

Silica Gel Lot #: –

IR Analyst / Date / Time: –

Dried Na_2SO_4 Lot #: EL2095

Color Code

T = Transparent

C = Colored

O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

Peer Reviewed By: [signature] Date: 03/12/02

Extraction Notes For Volume # 181 Page # 165

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-S SOP #: CXHPLC2 Revision #: 6
Extraction Analyst(s): CAF TV/KD Analyst(s): DP
Date/Time Extracted: 03/12/02 @ 0900 Date TV/KD: 03/12/02
Spike/Surrogate Analyst: CAF Witness: DP
Surrogate #: ESS0039-27 Earliest Hold Date: 03/21/02
Spike #: A = ESS0039-37 Spike #: B = —

Extraction Work Group WG 114347
Analytical Work Group WG 114341

Extract Relinquished By: DP
Extract Received By & Date: ECZ 3/12/02

	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					30.03 g	100 µL		1 mL	T				WG 114347-02
2	LCS					.05 g		500 µL		C				WG ⊥ -03
3	03-154-01	8310				.08 g				O				
4	⊥ -02					.08 g				O				
5	⊥ -03					.06 g				O				
6	03-155-01					.01 g				O				WG 114347-01
7	⊥ -01MS					.00 g		500 µL		O				⊥ -04
8	⊥ -01MSD	⊥				.09 g	⊥	⊥	⊥	O				⊥ -05
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/12/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR 2095

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

Peer Reviewed By: Cheryl Flowers Date: 3-12-02

Extraction Notes For Volume # 181 Page # 151

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

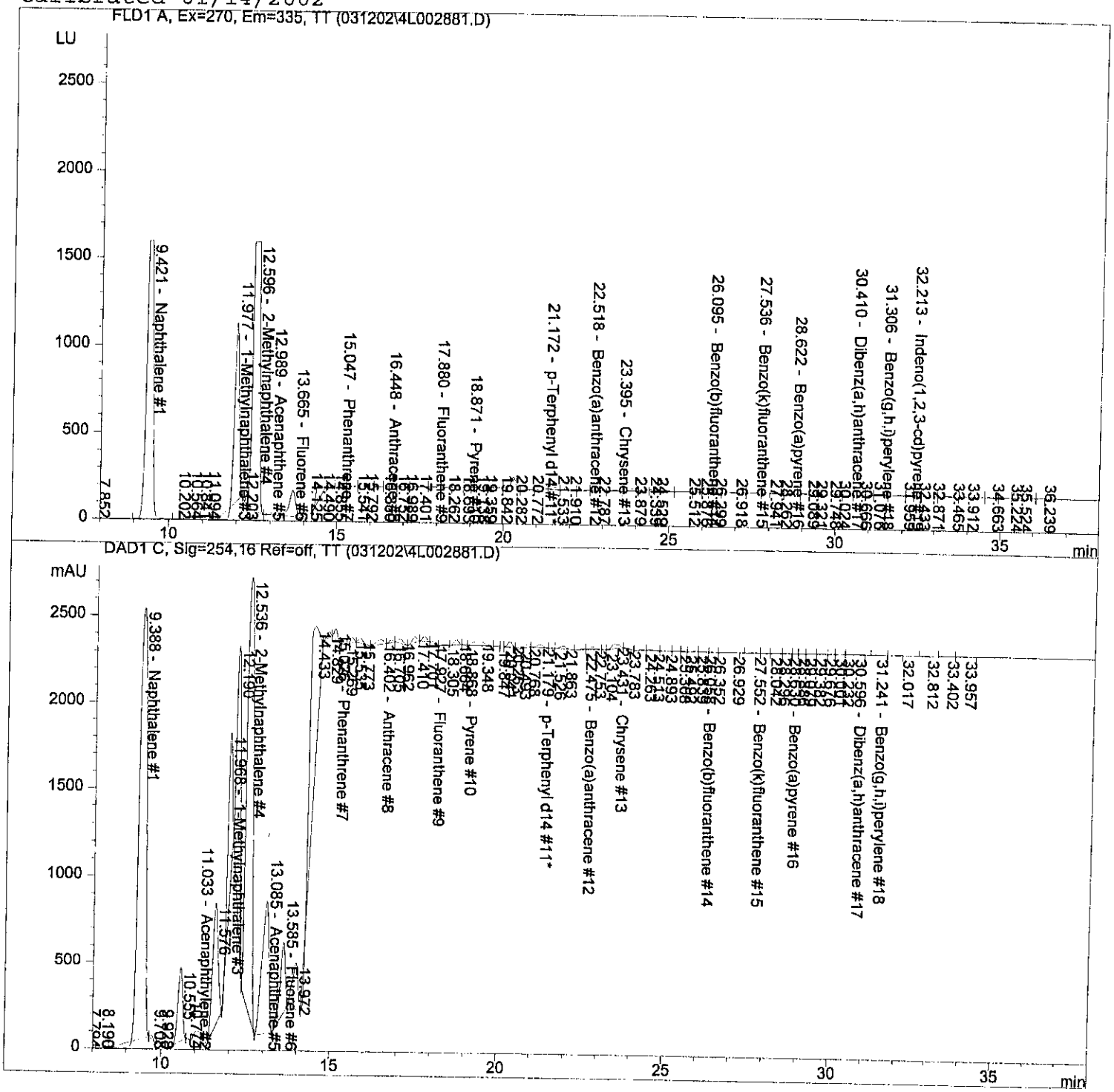
2.2.7.2 Sample Data

Injection Date : 3/13/2002 1:39:08 AM
Sample Name : L0203154-01 831S
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 12:12:51 PM RDC

Page 1 of 3

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.421	BB	2.08217e4	2.57003e-2	535.12249	F	Naphthalene #1
11.977	BB	9469.76367	2.24893e-2	212.96852	I	1-Methylnaphthalene #3
12.596	BB	2.26487e4	1.72691e-2	391.12336	I	2-Methylnaphthalene #4
12.989	BB	160.46509	1.38228e-2	2.21807	RT	Acenaphthene #5
13.665	BB	2167.72681	6.56879e-3	14.23934	NC	Fluorene #6
15.047	BB	25.74094	1.68488e-1	4.33703	F	Phenanthrene #7
16.448	BB	4.68110e-1	3.03714e-1	1.42172e-1	cmol	Anthracene #8
17.880	BB	26.99836	2.38671e-2	6.44372e-1	P	Fluoranthene #9
18.871	BB	4.33759	4.06594e-2	1.76364e-1	F	Pyrene #10
21.172	BB	182.69830	2.86511e-1	52.34516	5230%	p-Terphenyl d14 #11*
22.518	BB	24.18120	7.96557e-3	1.92617e-1	P	Benzo(a)anthracene #12
23.395	BB	77.43154	3.90144e-2	3.02095	P	Chrysene #13
26.095	BB	2.83856	1.65598e-2	4.70059e-2	cmol	Benzo(b)fluoranthene #14
27.536	BB	23.72146	2.77566e-3	6.58428e-2		Benzo(k)fluoranthene #15
28.622	BB	28.65910	4.67660e-3	1.34027e-1	F	Benzo(a)pyrene #16
30.410	BB	1.98441	3.93196e-2	7.80264e-2	cmol	Dibenz(a,h)anthracene #17
31.306	BB	5.66339	2.69466e-2	1.52609e-1		Benzo(g,h,i)perylene #18
32.213	BB	9.63975e-1	1.37440e-2	1.32489e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 1217.02121

Results obtained with enhanced integrator!

?? @ 10X

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.388	BB	3.51365e4	8.27651e-3	290.80789	I	Naphthalene #1
11.033	BB	1059.05066	3.00095e-2	31.78158	NC	Acenaphthylene #2
11.968	BB	7517.74170	1.29932e-2	97.67977	I	1-Methylnaphthalene #3
12.536	BB	3.29476e4	1.12713e-2	371.36057	I	2-Methylnaphthalene #4
13.085	BB	1.07609e4	2.03841e-2	219.35122	NC	Acenaphthene #5
13.585	BB	4445.25342	1.76946e-2	78.65691	RT	Fluorene #6
15.026	BB	401.33548	1.74291e-2	6.99491	V	Phenanthrene #7
16.402	BB	398.35257	1.03455e-2	4.12115	NC	Anthracene #8
17.927	BB	65.95998	2.18958e-2	1.44425	P	Fluoranthene #9
18.868	BB	9.95659	1.46349e-2	1.45713e-1	F	Pyrene #10
21.179	BB	228.75523	6.45989e-2	14.77734	148%	p-Terphenyl d14 #11*
22.475	BB	26.39873	2.22878e-2	5.88371e-1	P	Benzo(a)anthracene #12
23.431	BB	440.52737	1.52051e-2	6.69828	P	Chrysene #13
26.058	BB	10.50332	2.08462e-2	2.18954e-1	NC	Benzo(b)fluoranthene #14
27.552	BB	22.84466	2.27217e-2	5.19069e-1	NC	Benzo(k)fluoranthene #15
28.630	BB	5.15906	2.64267e-2	1.36337e-1	P	Benzo(a)pyrene #16
30.596	BB	6.67506	9.39100e-2	6.26854e-1	NC	Dibenz(a,h)anthracene #17

x33.3

31.241	BB	5.38946e-1	5.34666e-2	2.88156e-2	UNDL	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 1125.93799

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 ***

:PLC4 3/13/2002 12:12:51 PM RDC

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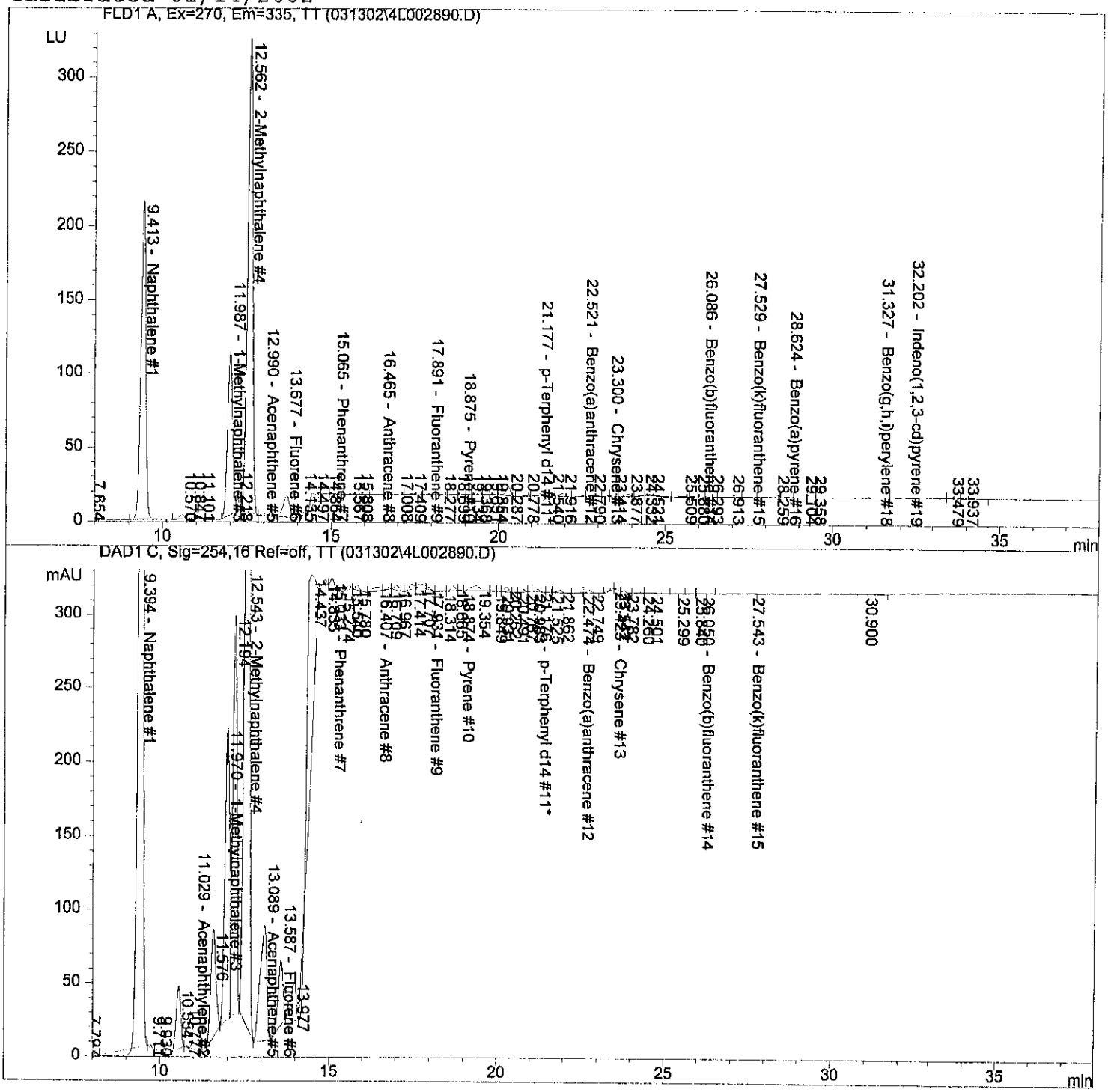
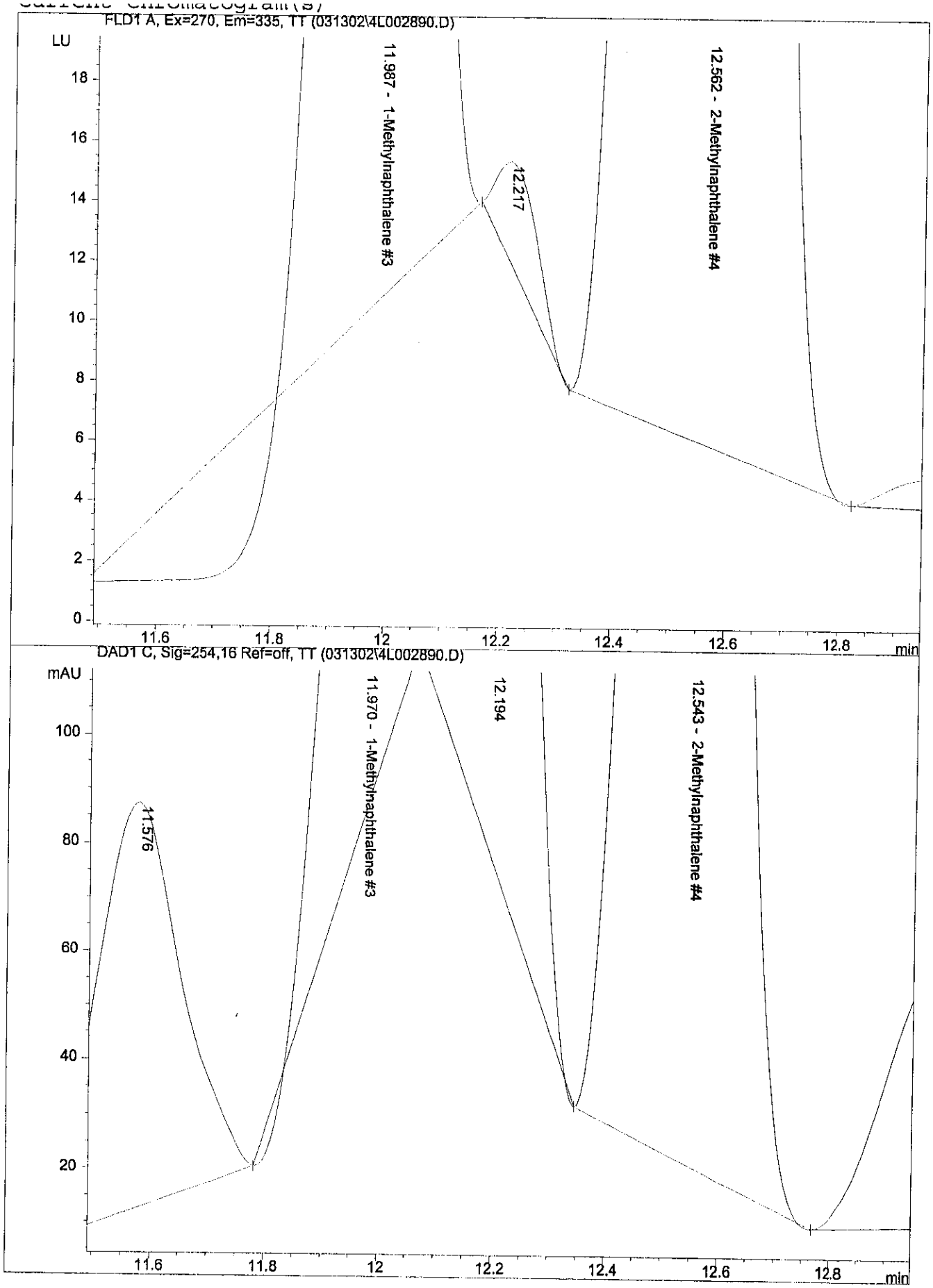
Injection Date : 3/13/2002 4:47:03 PM
Sample Name : L0203154-01 831S
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 11:03:23 AM by RDC
(modified after loading)

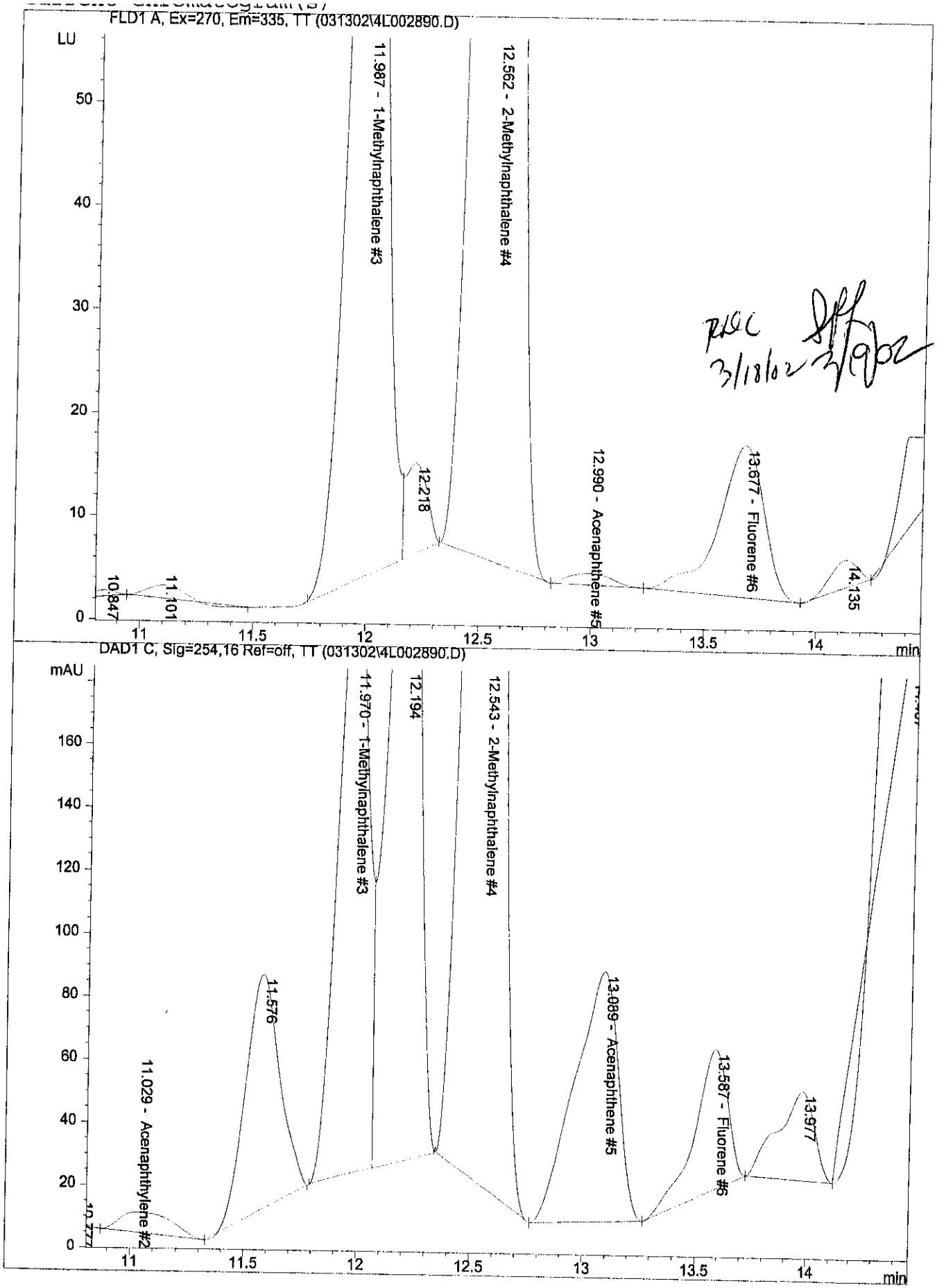
Calibrated 01/14/2002





HPLC4 3/18/2002 4:47:58 PM RDC

Page 1 of 1



HPLC4 3/18/2002 4:48:41 PM RDC

Page 1 of 1

External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.413	PB	2267.85400	2.57003e-2	58.28447	C	Naphthalene #1
11.987	FM	1134.63184	2.24893e-2	25.51710	C	1-Methylnaphthalene #3
12.562	BB	3218.09985	1.72691e-2	55.57380	C	2-Methylnaphthalene #4
12.990	BB	14.36537	1.38228e-2	1.98569e-1		Acenaphthene #5
13.677	BB	205.41316	6.56879e-3	1.34932		Fluorene #6
15.065	BB	2.21858	1.68488e-1	3.73804e-1		Phenanthrene #7
16.465	BB	8.30518e-1	3.03714e-1	2.52240e-1		Anthracene #8
17.891	BB	2.73599	2.38671e-2	6.53001e-2		Fluoranthene #9
18.875	BB	5.05380e-1	4.06594e-2	2.05484e-2		Pyrene #10
21.177	BB	17.78895	2.86511e-1	5.09674	DL	p-Terphenyl d14 #11*
22.521	BB	2.68649	7.96557e-3	2.13995e-2		Benzo(a)anthracene #12
23.300	BB	5.09194e-1	3.90144e-2	1.98659e-2		Chrysene #13
26.086	BB	3.01061e-1	1.65598e-2	4.98550e-3		Benzo(b)fluoranthene #14
27.529	BB	2.34792	2.77566e-3	6.51703e-3		Benzo(k)fluoranthene #15
28.624	BB	2.70349	4.67660e-3	1.26431e-2		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.327	BB	14.35467	2.69466e-2	3.86810e-1		Benzo(g,h,i)perylene #18
32.202	BB	18.03378	1.37440e-2	2.47857e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 147.43196

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

X333

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BB	7191.67871	8.27651e-3	59.52201		Naphthalene #1
11.029	BB	102.64999	3.00095e-2	3.08047		Acenaphthylene #2
11.970	MF	1805.06970	1.29932e-2	23.45369		1-Methylnaphthalene #3
12.543	BB	5917.44580	1.12713e-2	66.69704		2-Methylnaphthalene #4
13.089	BB	1063.60840	2.03841e-2	21.68073		Acenaphthene #5
13.587	BB	454.21481	1.76946e-2	8.03714		Fluorene #6
15.033	BB	41.66019	1.74291e-2	7.26099e-1		Phenanthrene #7
16.407	BB	41.12146	1.03455e-2	4.25422e-1		Anthracene #8
17.931	BB	7.58412	2.18958e-2	1.66060e-1		Fluoranthene #9
18.874	BB	1.54002	1.46349e-2	2.25379e-2	DL	Pyrene #10
21.176	BB	15.36272	6.45989e-2	9.92415e-1		p-Terphenyl d14 #11*
22.474	BB	3.13298	2.22878e-2	6.98273e-2		Benzo(a)anthracene #12
23.423	BB	5.27866	1.52051e-2	8.02628e-2		Chrysene #13
26.050	BB	1.29765	2.08462e-2	2.70511e-2		Benzo(b)fluoranthene #14
27.543	BB	5.28085	2.27217e-2	1.19990e-1		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 185.10075

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 ***

Misc : 7,10 SOIL AT 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 12:02:29 2002 Quant Results File: PAHLOW.RES

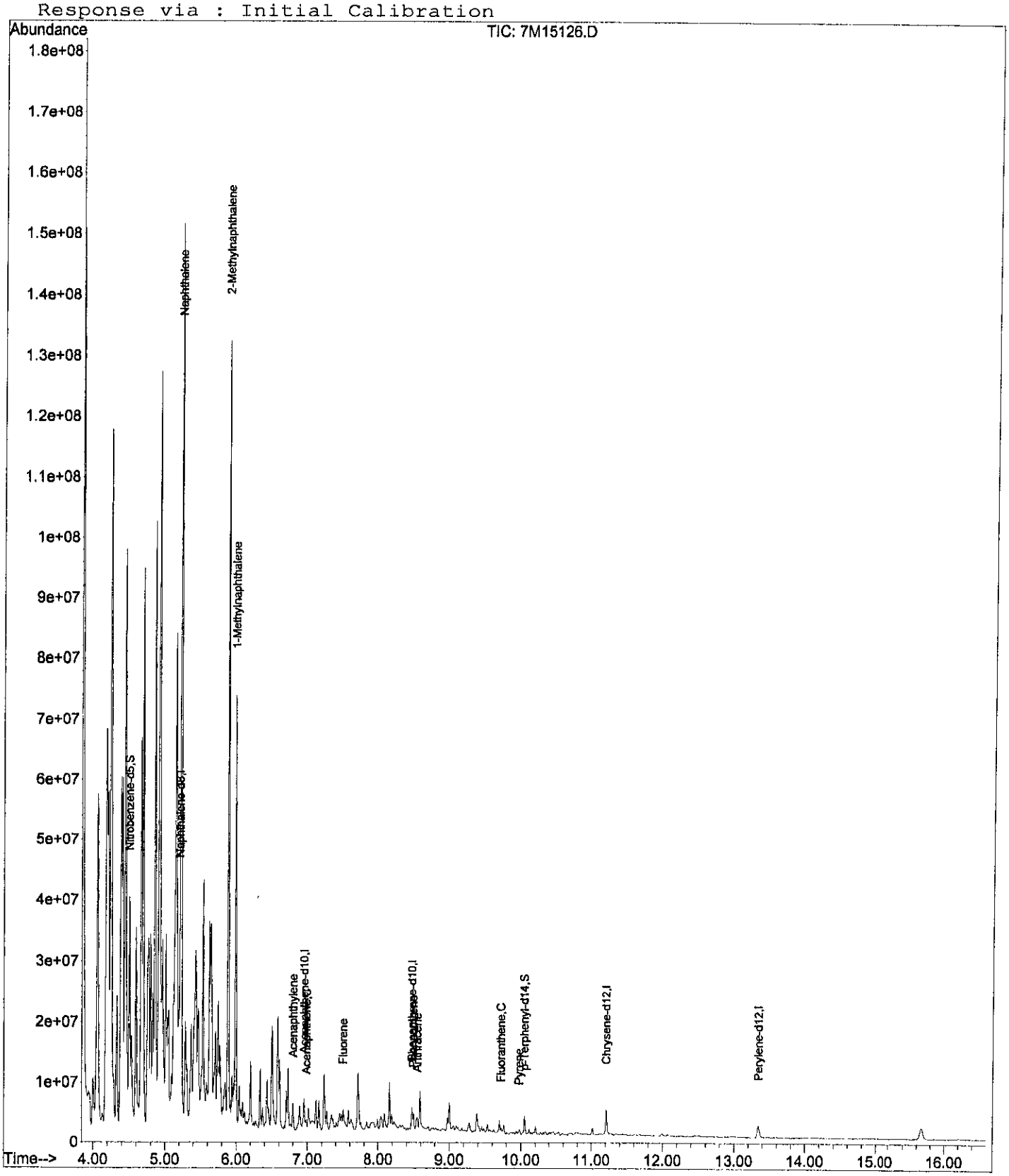
Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 08 10:14:57 2002
Response via : Initial Calibration
DataAcq Meth : PAHL

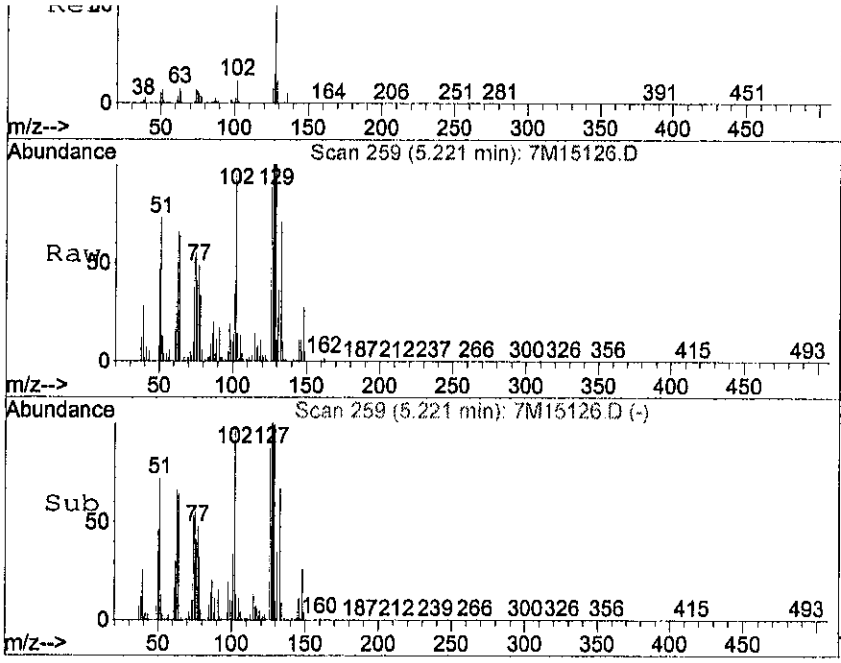
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.20	136	1139294	1.00	ug/ml	0.00
6) Acenaphthene-d10	6.95	164	707469	1.00	ug/ml	0.00
11) Phenanthrene-d10	8.47	188	1351154	1.00	ug/ml	0.00
15) Chrysene-d12	11.22	240	1833664	1.00	ug/ml	0.00
20) Perylene-d12	13.34	264	1271434	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.51	82	71588	0.1699	ug/ml	-0.02
Spiked Amount 2.500	Range 23 - 120		Recovery	=	6.80%#	
7) 2-Fluorobiphenyl	6.22	172	4624	0.0044	ug/ml	0.00
Spiked Amount 2.500	Range 30 - 115		Recovery	=	0.00%#	
17) p-Terphenyl-d14	10.05	244	1019408	0.5562	ug/ml	0.00
Spiked Amount 2.500	Range 18 - 137		Recovery	=	22.40%	
Target Compounds						Qvalue
3) Naphthalene	5.22	128	22961451	17.9675	ug/ml#	10
4) 2-Methylnaphthalene	5.88	142	17062476	19.8791	ug/ml#	73
5) 1-Methylnaphthalene	5.99	142	11988527	14.0361	ug/ml#	58
8) Acenaphthylene	6.79	152	130296	~~0.1045~~	ug/ml#	1
9) Acenaphthene	6.98	154	176540	~~0.2093~~	ug/ml#	79
10) Fluorene	7.50	166	710831	0.6926	ug/ml	98
12) Phenanthrene	8.50	178	869903	0.5749	ug/ml#	96
13) Anthracene	8.55	178	376600	0.2505	ug/ml#	1
14) Fluoranthene	9.72	202	149663	0.0808	ug/ml#	77
16) Pyrene	9.97	202	200548	0.1313	ug/ml#	81

(#) = qualifier out of range (m) = manual integration
7M15126.D PAHLOW.M Fri Mar 15 12:02:47 2002 HPMS7 Page 1

Misc : 7,10 SOIL AT 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 12:02 2002 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 08 10:14:57 2002
Response via : Initial Calibration

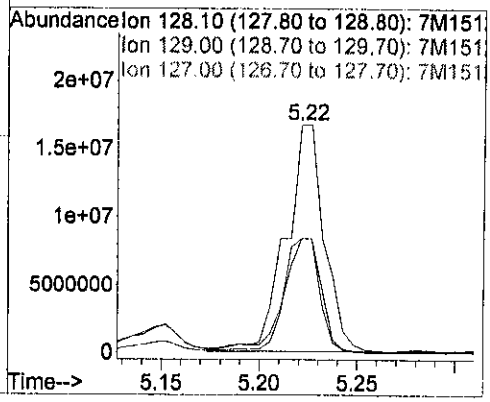


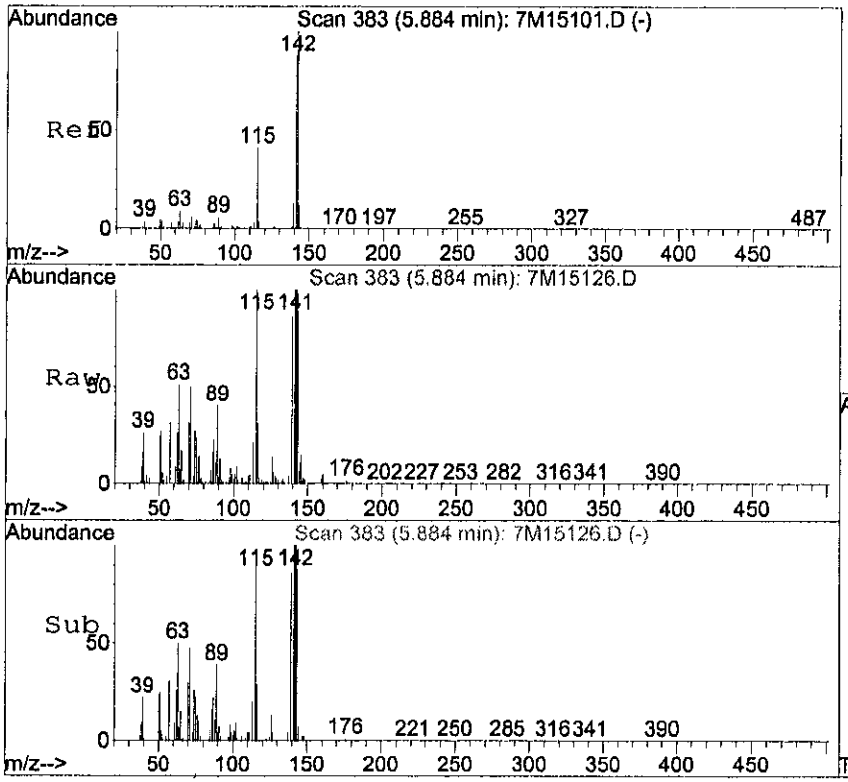


Delta R.T. 0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:128 Resp:22961451

Ion	Ratio	Lower	Upper
128	100		
129	48.3	9.0	13.4#
127	48.7	11.4	17.2#

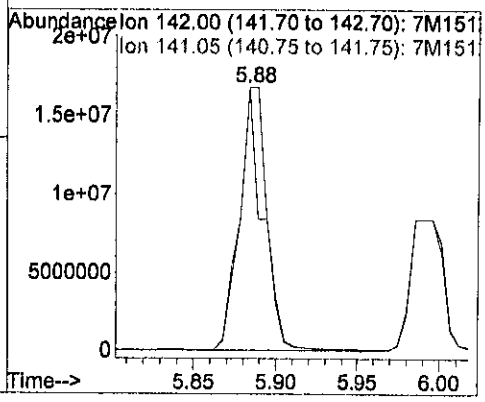


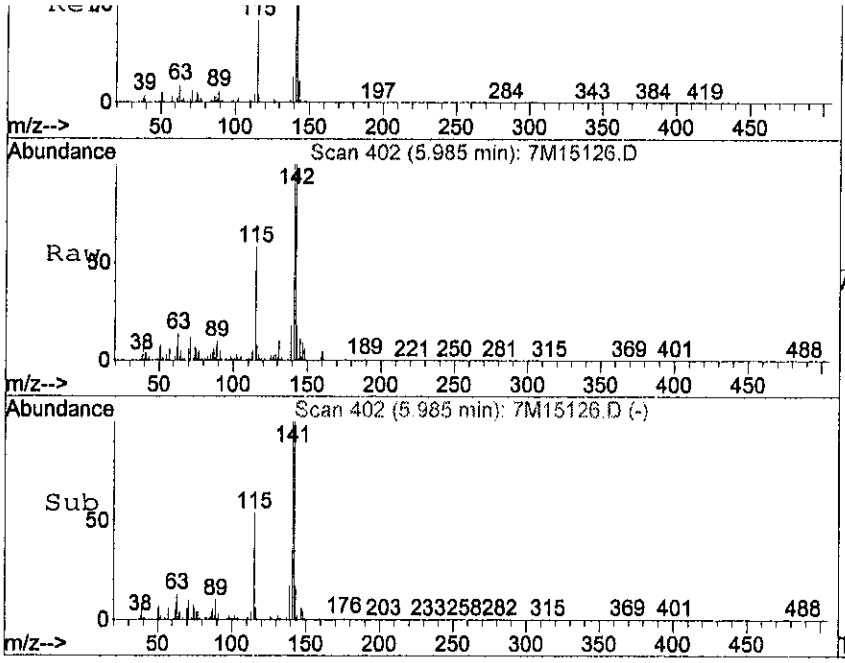


#4
2-Methylnaphthalene
Concen: 19.88 ug/ml
RT: 5.88 min Scan# 383
Delta R.T. -0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:142 Resp:17062476

Ion	Ratio	Lower	Upper
142	100		
141	112.8	70.1	105.1#

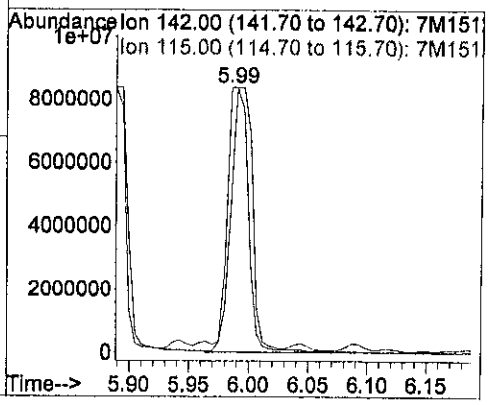


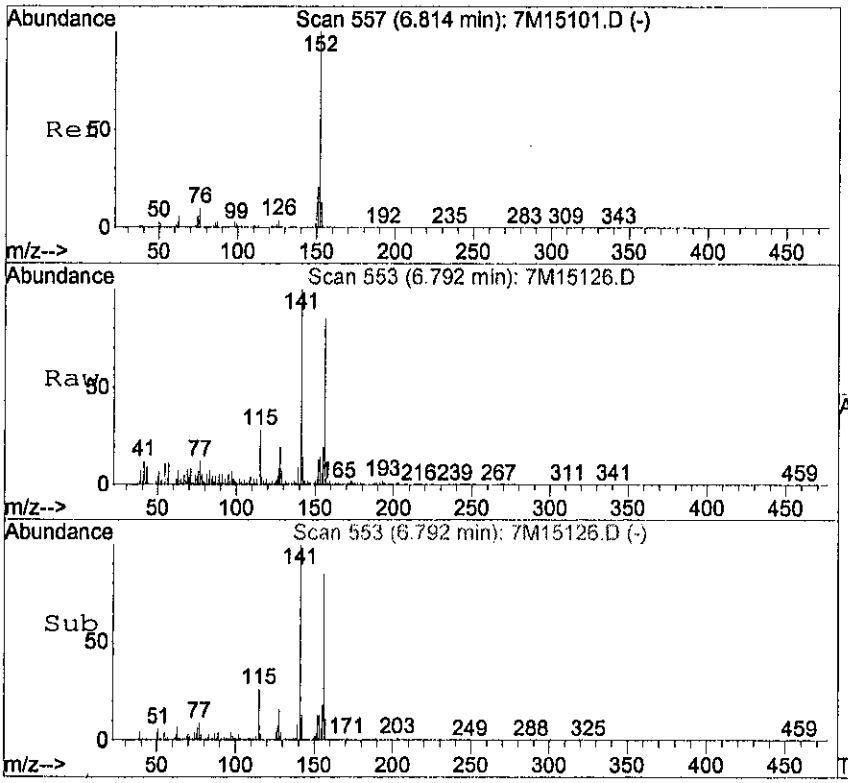


Delta R.T. -0.01 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:142 Resp:11988527

Ion	Ratio	Lower	Upper
142	100		
115	70.4	34.7	52.1#

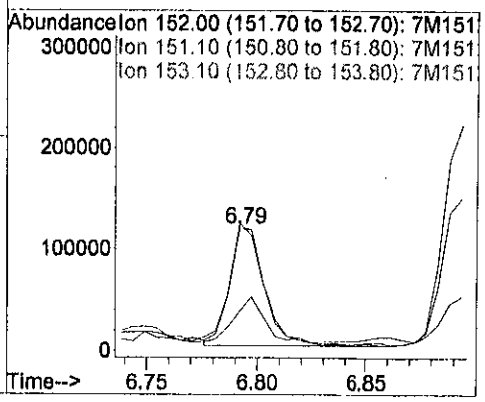


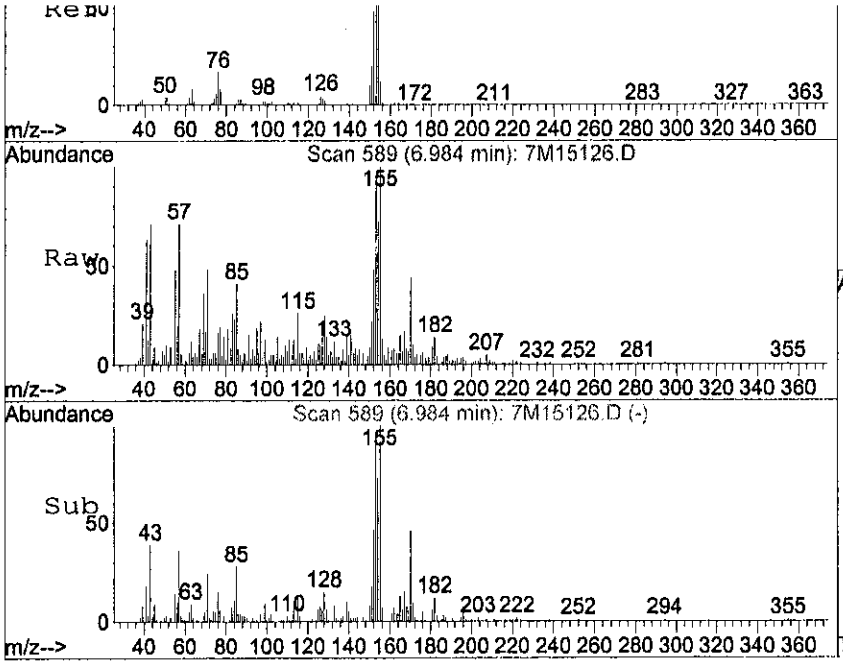


#8
Acenaphthylene
Concen: 0.10 ug/ml
RT: 6.79 min Scan# 553
Delta R.T. -0.02 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:152 Resp: 130296

Ion	Ratio	Lower	Upper
152	100		
151	32.6	16.6	25.0#
153	102.7	10.2	15.2#

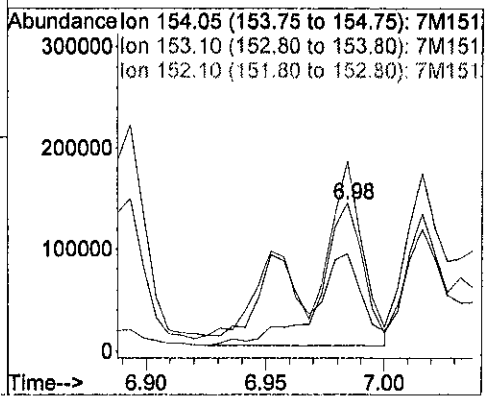


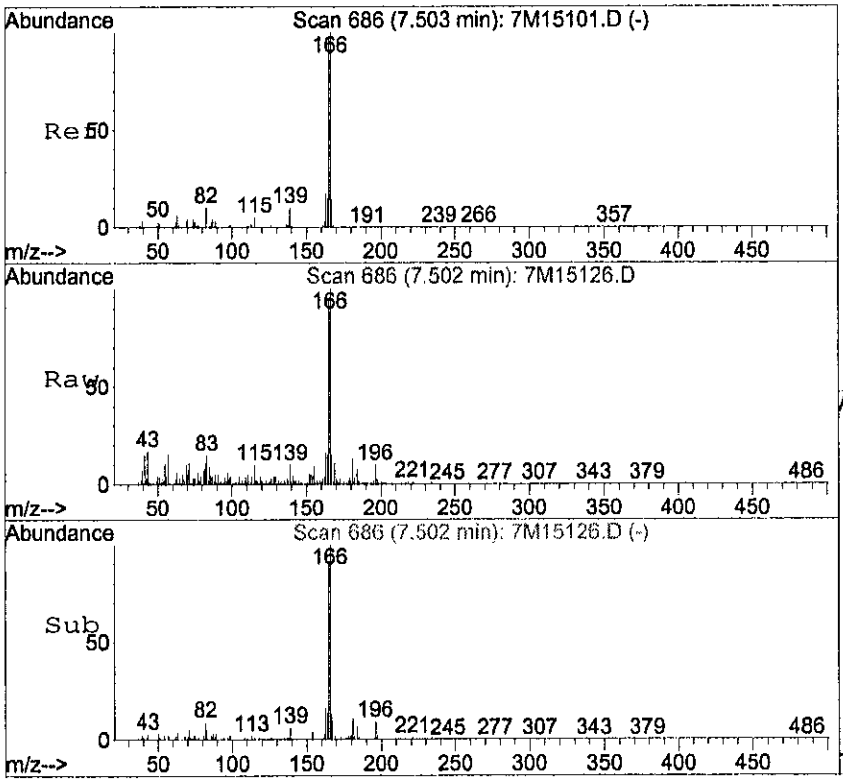


Delta R.T. -0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:154 Resp: 176540

Ion	Ratio	Lower	Upper
154	100		
153	83.6	87.0	130.6#
152	40.6	41.3	61.9#

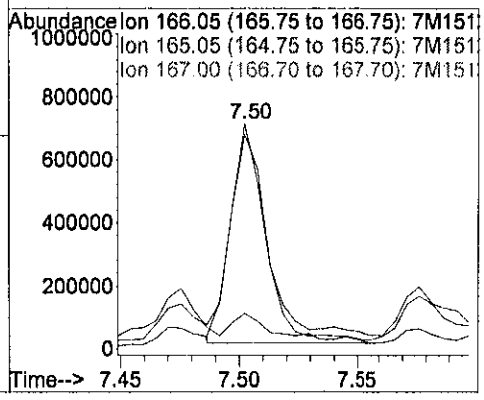


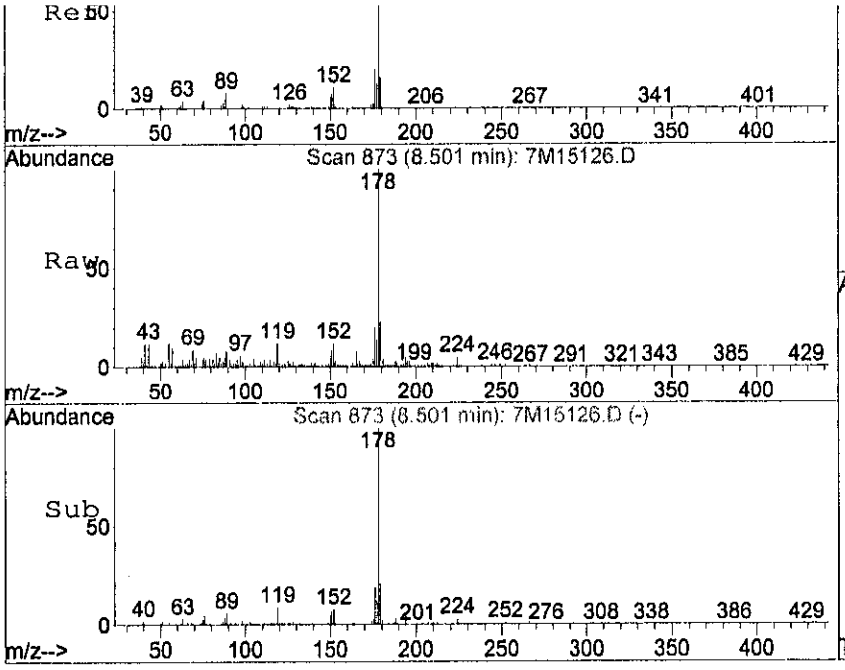


#10
Fluorene
Concen: 0.69 ug/ml
RT: 7.50 min Scan# 686
Delta R.T. -0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:166 Resp: 710831

Ion	Ratio	Lower	Upper
166	100		
165	96.4	75.8	113.6
167	12.9	11.1	16.7

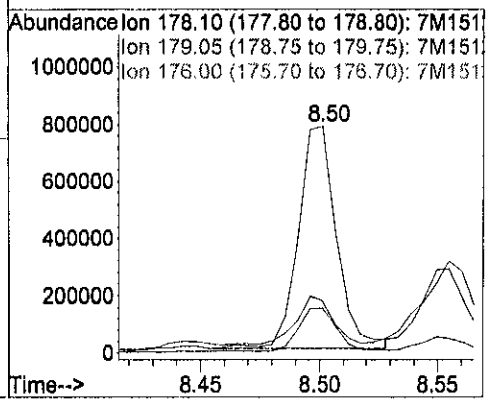


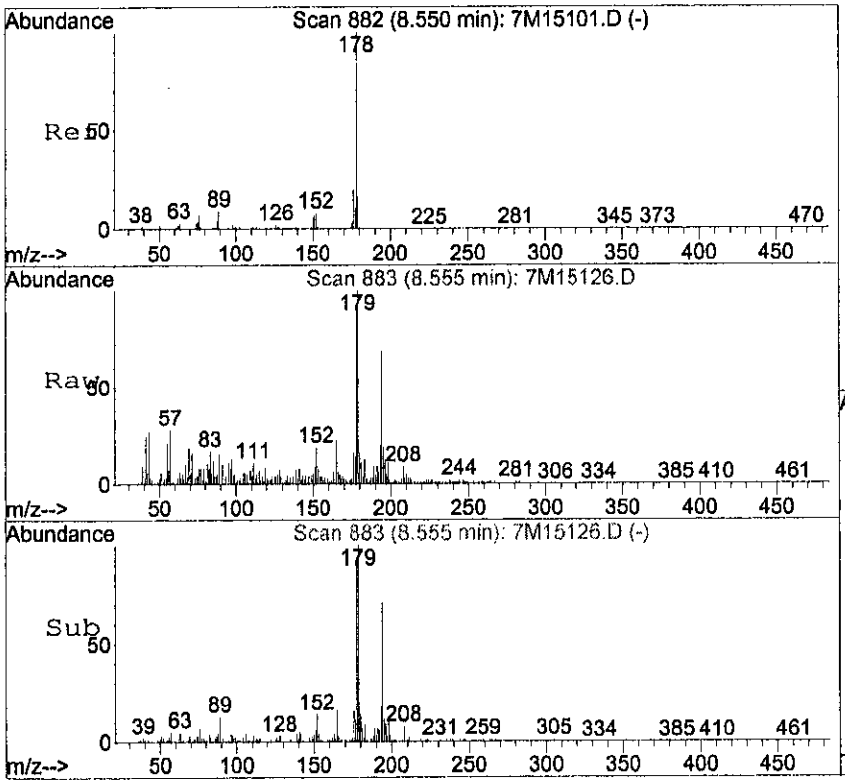


Delta R.T. 0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:178 Resp: 869903

Ion	Ratio	Lower	Upper
178	100		
179	20.1	13.1	19.7#
176	19.6	15.8	23.8

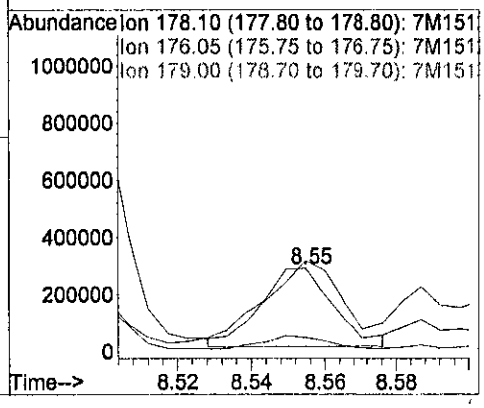


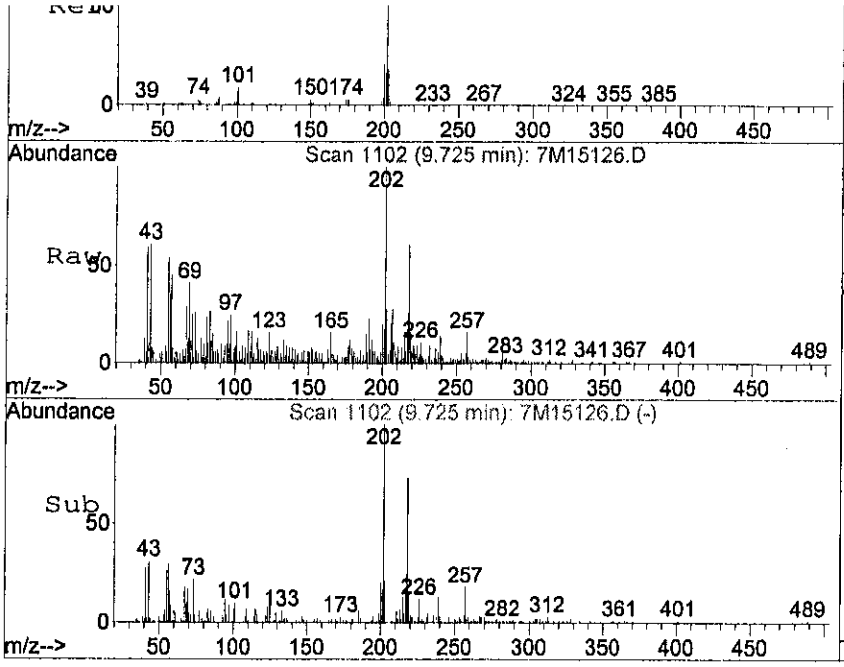


#13
Anthracene
Concen: 0.25 ug/ml
RT: 8.55 min Scan# 883
Delta R.T. 0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:178 Resp: 376600

Ion	Ratio	Lower	Upper
178	100		
176	19.4	15.1	22.7
179	117.5	12.4	18.6#

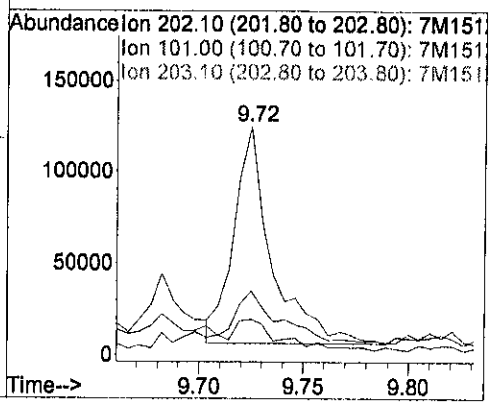


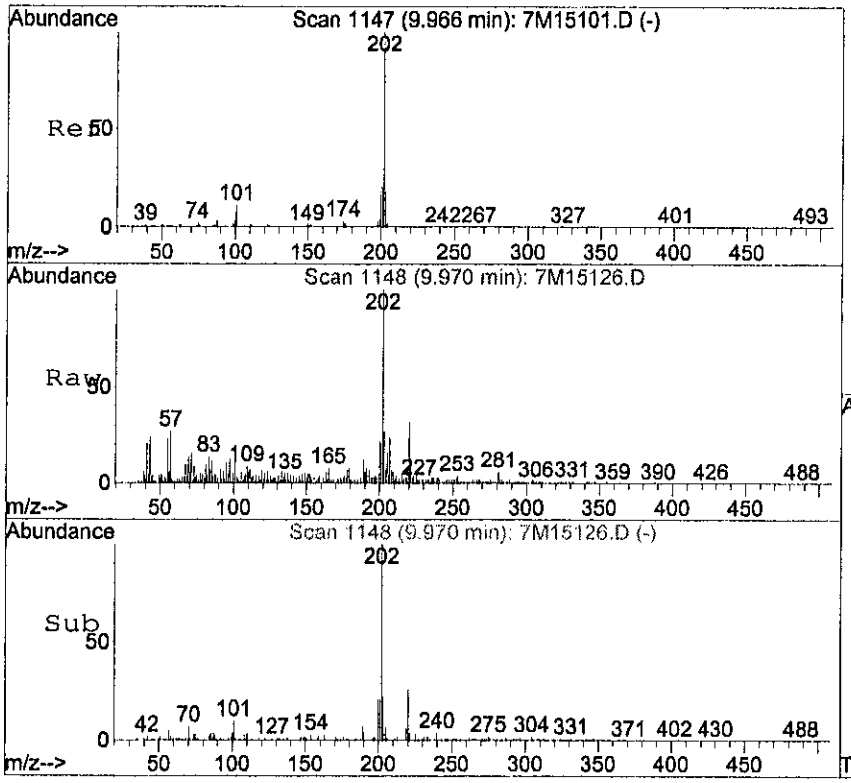


Delta R.T. 0.00 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:202 Resp: 149663

Ion	Ratio	Lower	Upper
202	100		
101	16.8	7.2	10.8#
203	28.4	14.2	21.2#

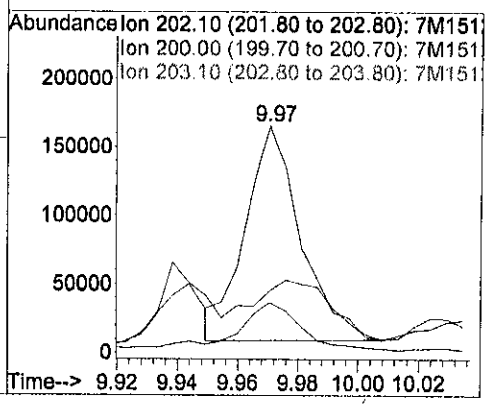




#16
Pyrene
Concen: 0.13 ug/ml
RT: 9.97 min Scan# 1148
Delta R.T. 0.01 min
Lab File: 7M15126.D
Acq: 15 Mar 2002 11:45

Tgt Ion:202 Resp: 200548

Ion	Ratio	Lower	Upper
202	100		
200	25.7	17.2	25.8
203	32.1	14.8	22.2#



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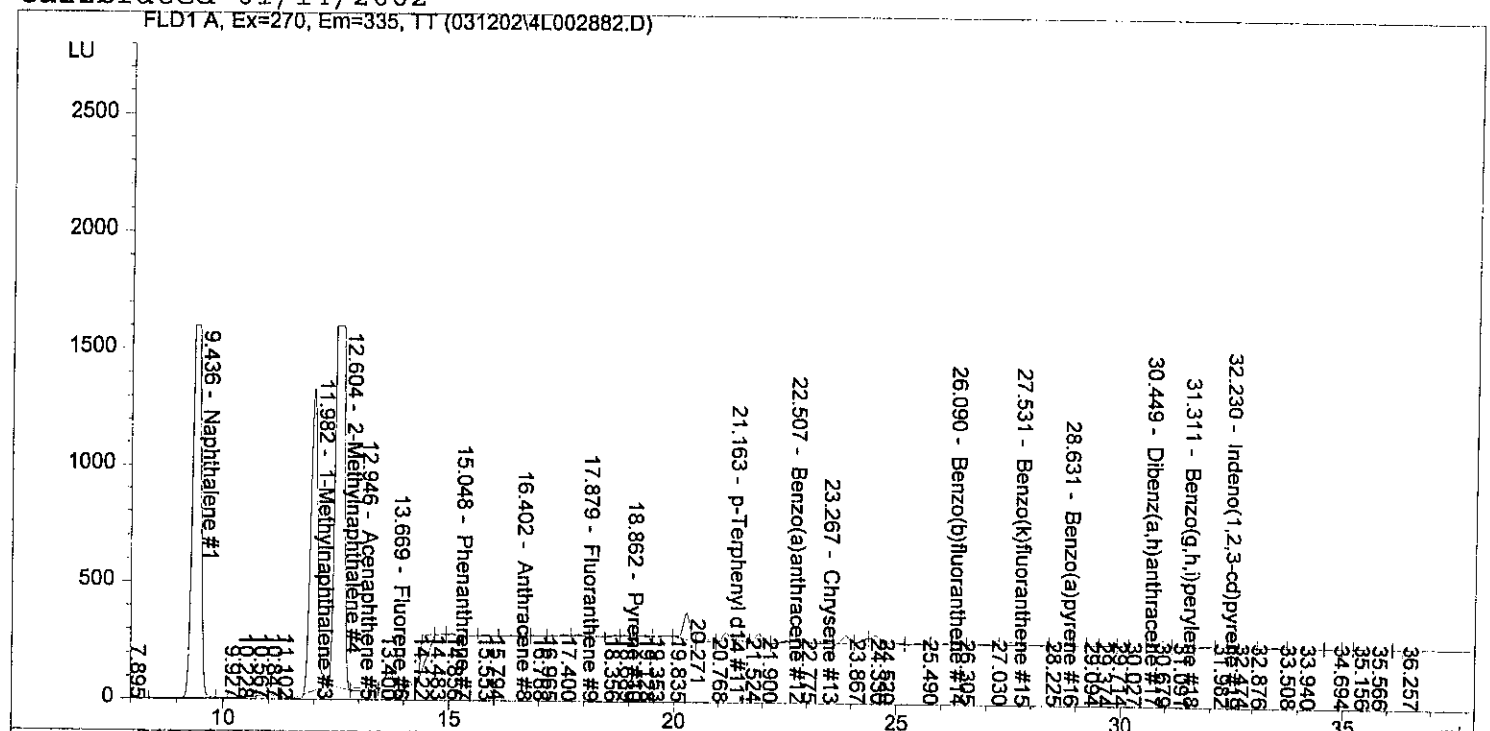
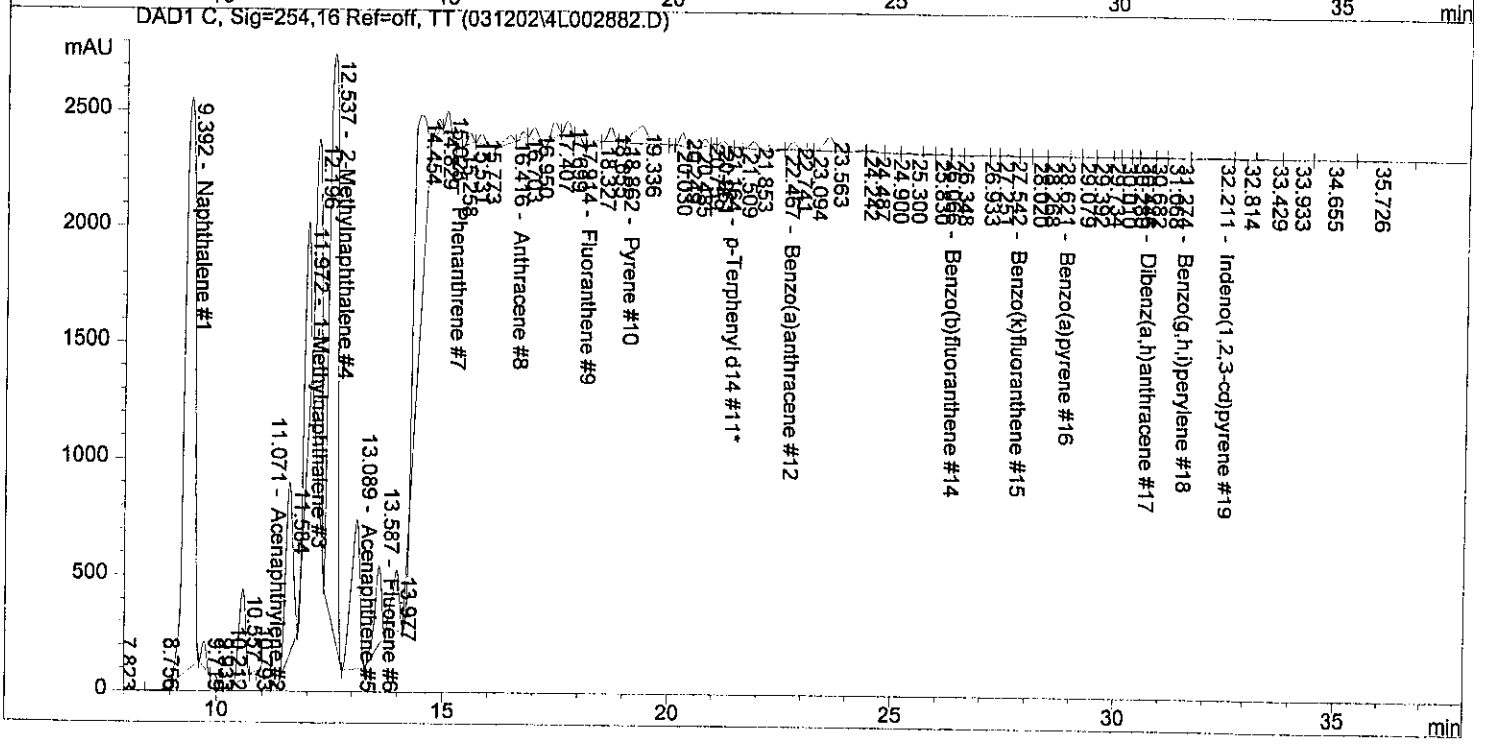
Injection Date : 3/13/2002 2:35:45 AM
Sample Name : L0203154-02 831S
Acq. Operator : RDC

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 : 3/13/2002 12:13:18 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.436	BB	2.09782e4	2.57003e-2	539.14644	C	Naphthalene #1
11.982	BB	1.38583e4	2.24893e-2	311.66442	C	1-Methylnaphthalene #3
12.604	BB	2.34056e4	1.72691e-2	404.19414	C	2-Methylnaphthalene #4
12.946	BB	199.22281	1.38228e-2	2.75381	RT	Acenaphthene #5
13.669	BB	1351.03613	6.56879e-3	8.87467		Fluorene #6
15.048	BB	43.86219	1.68488e-1	7.39024	P	Phenanthrene #7
16.402	BB	11.24766	3.03714e-1	3.41607	RT	Anthracene #8
17.879	BB	59.68689	2.38671e-2	1.42455	P	Fluoranthene #9
18.862	BB	7.27894	4.06594e-2	2.95957e-1	F	Pyrene #10
21.163	BB	305.13702	2.86511e-1	87.42526	274%	p-Terphenyl d14 #11*
22.507	BB	62.19860	7.96557e-3	4.95447e-1	P	Benzo(a)anthracene #12
23.267	BB	90.12528	3.90144e-2	3.51619	NC	Chrysene #13
26.090	BB	23.83497	1.65598e-2	3.94701e-1	F	Benzo(b)fluoranthene #14
27.531	BB	138.97340	2.77566e-3	3.85744e-1	F	Benzo(k)fluoranthene #15
28.631	BB	140.13281	4.67660e-3	6.55345e-1	C	Benzo(a)pyrene #16
30.449	BB	10.30515	3.93196e-2	4.05195e-1	NC	Dibenz(a,h)anthracene #17
31.311	BB	21.38701	2.69466e-2	5.76308e-1	P	Benzo(g,h,i)perylene #18
32.230	BB	12.80025	1.37440e-2	1.75927e-1	F	Indeno(1,2,3-cd)pyrene #1

Totals : 1373.19043

Results obtained with enhanced integrator!

R2@ 10X

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.392	BB	3.66294e4	8.27651e-3	303.16334	I	Naphthalene #1
11.071	BB	1279.74500	3.00095e-2	38.40451	NC	Acenaphthylene #2
11.972	BB	8532.67773	1.29932e-2	110.86707	I	1-Methylnaphthalene #3
12.537	BB	3.28807e4	1.12713e-2	370.60703	I	2-Methylnaphthalene #4
13.089	BB	8605.89844	2.03841e-2	175.42371	NC	Acenaphthene #5
13.587	BB	3587.23999	1.76946e-2	63.47472	RT	Fluorene #6
15.025	BB	707.99817	1.74291e-2	12.33977	P	Phenanthrene #7
16.416	BB	496.04294	1.03455e-2	5.13181	NC	Anthracene #8
17.914	BB	101.99598	2.18958e-2	2.23328	P	Fluoranthene #9
18.862	BB	22.31203	1.46349e-2	3.26533e-1	F	Pyrene #10
21.164	BB	181.95998	6.45989e-2	11.75442	118%	p-Terphenyl d14 #11*
22.467	BB	58.28799	2.22878e-2	1.29911	P	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.066	BB	34.52215	2.08462e-2	7.19656e-1	P	Benzo(b)fluoranthene #14
27.542	BB	59.19403	2.27217e-2	1.34499	P	Benzo(k)fluoranthene #15
28.621	BB	25.73013	2.64267e-2	6.79961e-1	✓	Benzo(a)pyrene #16
30.446	BB	5.79043e-1	9.39100e-2	5.43779e-2	LMDL	Dibenz(a,h)anthracene #17

X33.3

[min]		[mAU*s]		[ug/L]		
31.274	BB	7.26711	5.34666e-2	3.88548e-1	F	Benzo(g,h,i)perylene #18
32.211	BB	65.58827	2.06198e-2	1.35242	P	Indeno(1,2,3-cd)pyrene #1

Totals : 1099.56523

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

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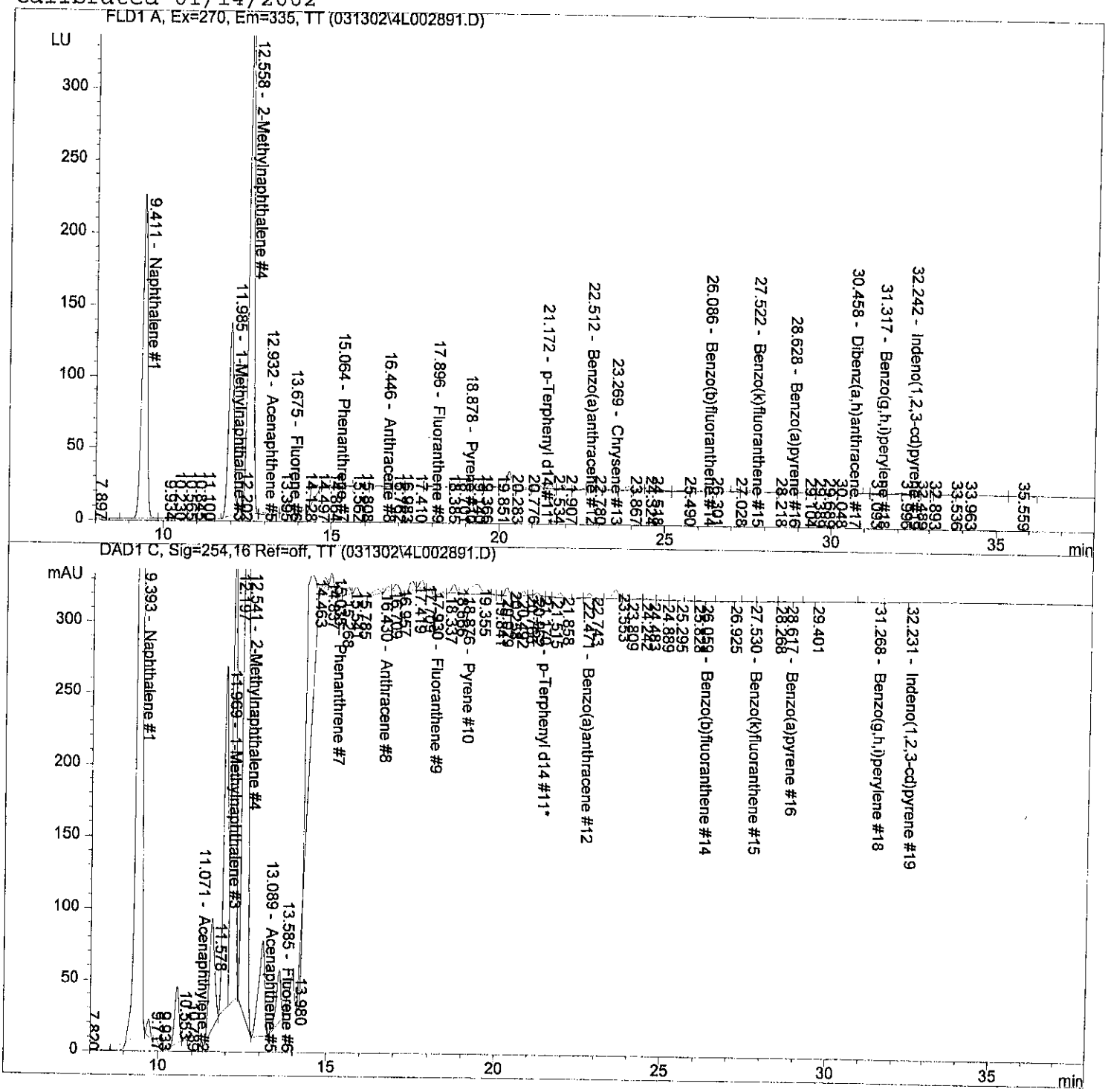
Injection Date : 3/13/2002 5:43:39 PM
Sample Name : L0203154-02 831S
Acq. Operator : RDC

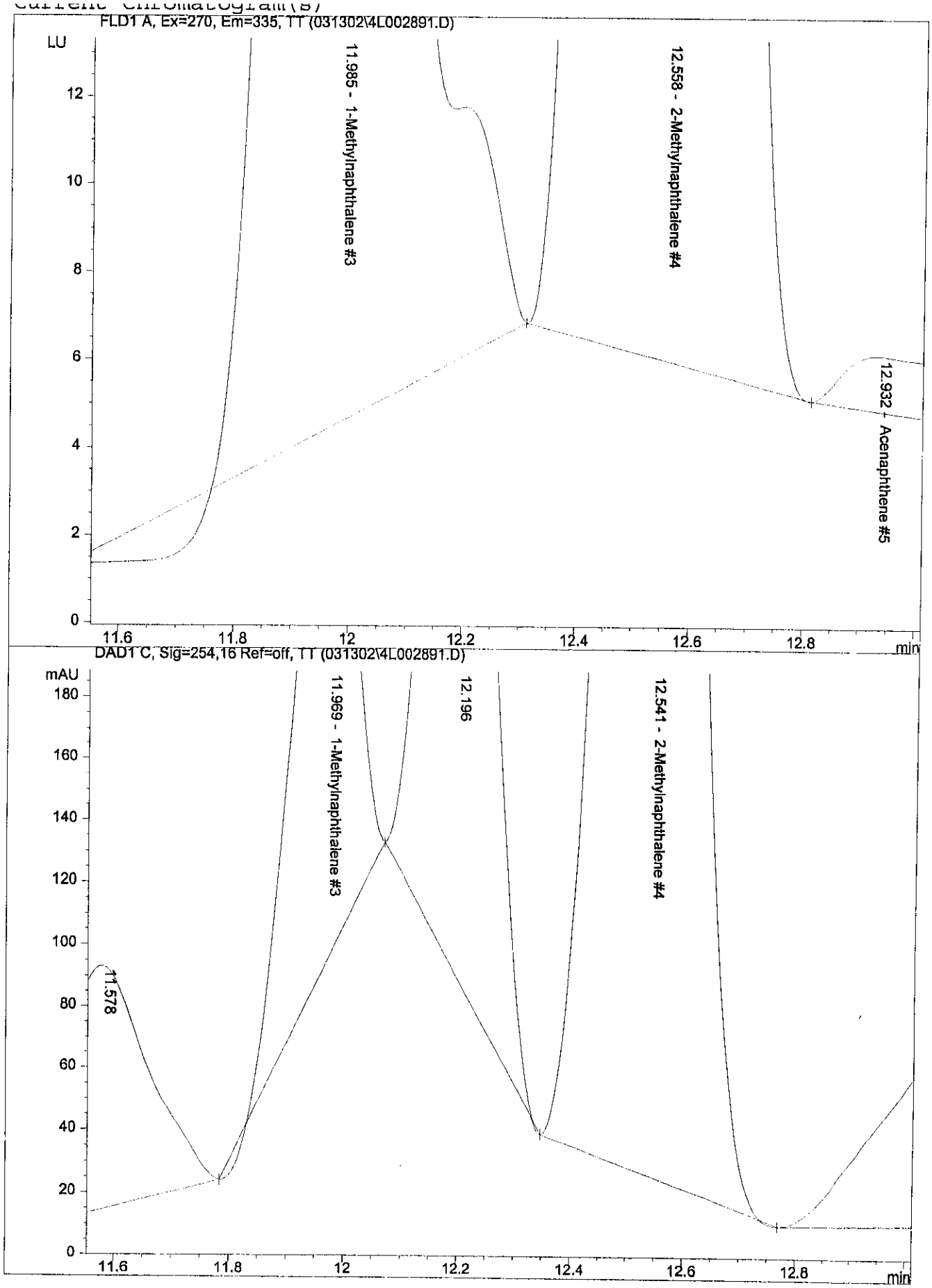
Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 11:03:23 AM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/18/2002 4:55:32 PM RDC

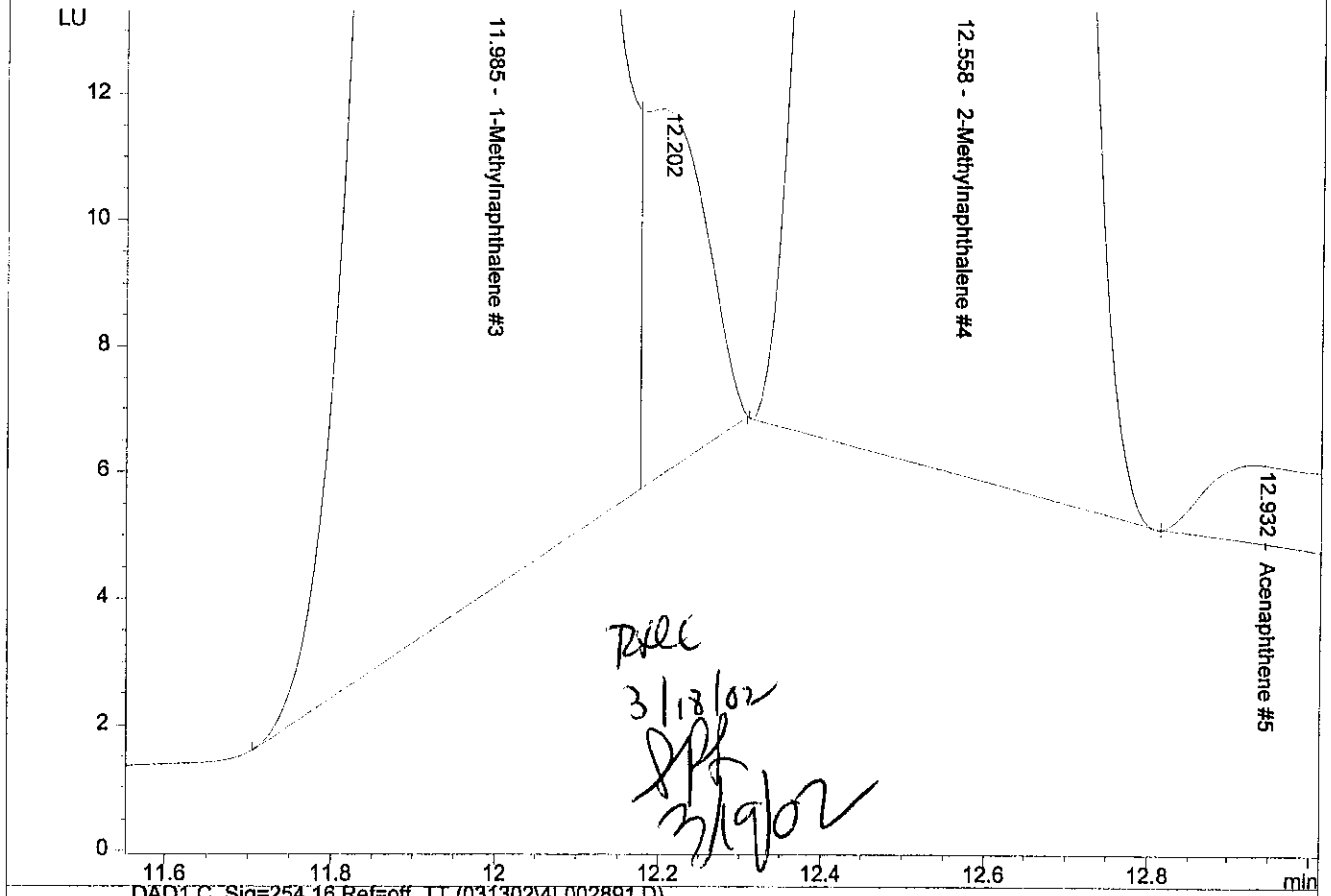


HPLC4 3/18/2002 4:55:02 PM RDC

Page 1 of 1

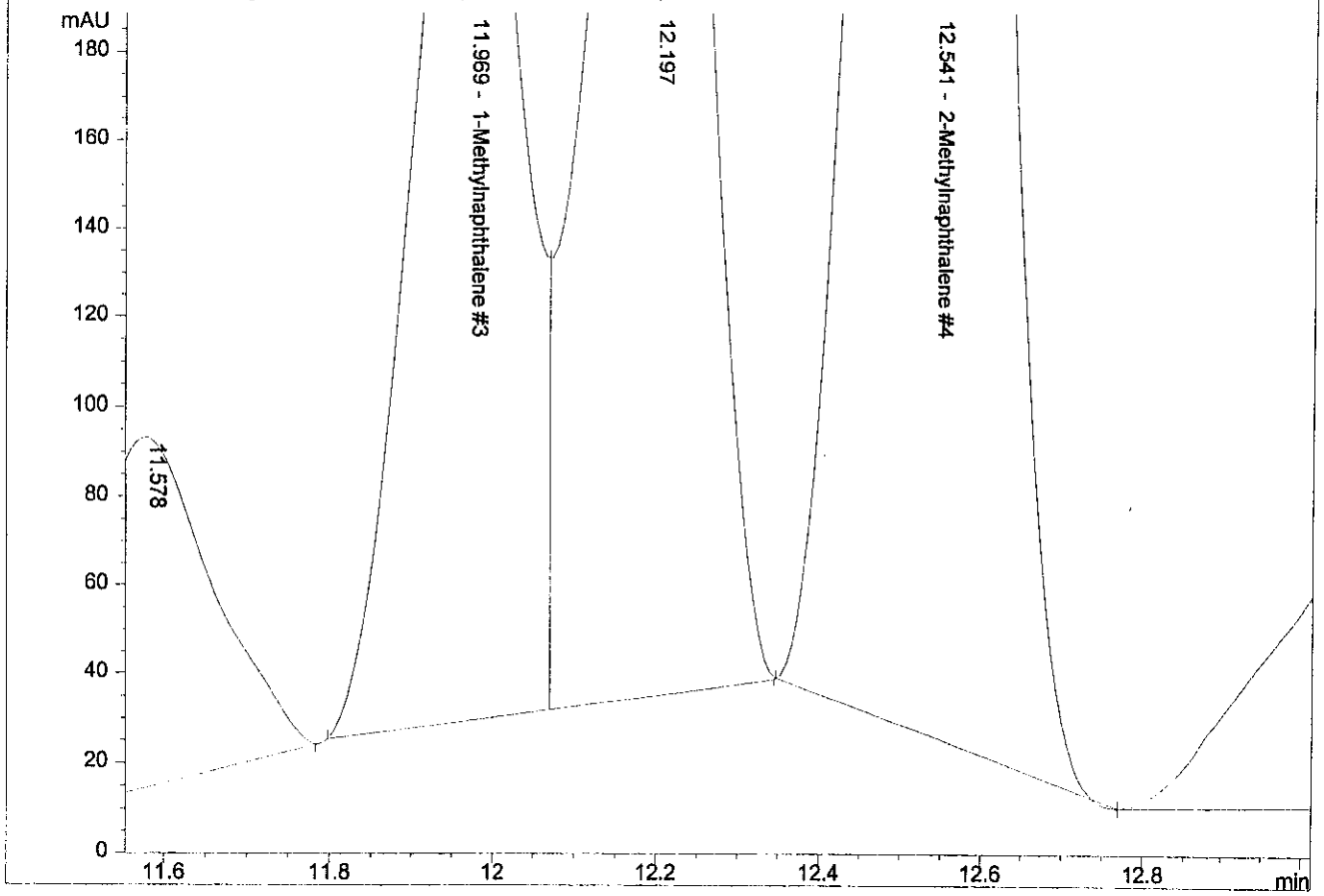
Current Chromatogram(s)

FLD1 A, Ex=270, Em=335, TT (031302\4L002891.D)



RDC
3/18/02
3/19/02

DAD1 C, Sig=254,16 Ref=off, TT (031302\4L002891.D)



HPLC4 3/18/2002 4:55:28 PM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.411	BB	2344.71558	2.57003e-2	60.25984		Naphthalene #1
11.985	MF	1372.04150	2.24893e-2	30.85628		1-Methylnaphthalene #3
12.558	BB	3542.16870	1.72691e-2	61.17019		2-Methylnaphthalene #4
12.932	BB	18.43950	1.38228e-2	2.54885e-1		Acenaphthene #5
13.675	BB	127.77722	6.56879e-3	8.39342e-1		Fluorene #6
15.064	BB	4.38586	1.68488e-1	7.38962e-1		Phenanthrene #7
16.446	BB	1.15099	3.03714e-1	3.49572e-1		Anthracene #8
17.896	BB	5.92301	2.38671e-2	1.41365e-1		Fluoranthene #9
18.878	BB	9.02053e-1	4.06594e-2	3.66769e-2		Pyrene #10
21.172	BB	29.53425	2.86511e-1	8.46190	DV	p-Terphenyl d14 #11*
22.512	BB	6.59568	7.96557e-3	5.25383e-2		Benzo(a)anthracene #12
23.269	BB	8.80461	3.90144e-2	3.43507e-1		Chrysene #13
26.086	BB	2.46569	1.65598e-2	4.08313e-2		Benzo(b)fluoranthene #14
27.522	BB	13.27700	2.77566e-3	3.68525e-2		Benzo(k)fluoranthene #15
28.628	BB	13.32354	4.67660e-3	6.23089e-2		Benzo(a)pyrene #16
30.458	BB	9.99323e-1	3.93196e-2	3.92930e-2		Dibenz(a,h)anthracene #17
31.317	BB	2.43477	2.69466e-2	6.56087e-2		Benzo(g,h,i)perylene #18
32.242	BB	1.27808	1.37440e-2	1.75660e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 163.76751

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
9.393	PB	7575.14893	8.27651e-3	62.69581		Naphthalene #1
11.071	BB	125.51406	3.00095e-2	3.76661		Acenaphthylene #2
11.969	MF	2158.66553	1.29932e-2	28.04804		1-Methylnaphthalene #3
12.541	BB	6426.29834	1.12713e-2	72.43245		2-Methylnaphthalene #4
13.089	BB	858.01233	2.03841e-2	17.48983		Acenaphthene #5
13.585	BB	374.72147	1.76946e-2	6.63054		Fluorene #6
15.035	BB	75.32954	1.74291e-2	1.31293		Phenanthrene #7
16.430	BB	51.23379	1.03455e-2	5.30039e-1		Anthracene #8
17.930	BB	14.07971	2.18958e-2	3.08286e-1		Fluoranthene #9
18.876	BB	3.95055	1.46349e-2	5.78157e-2		Pyrene #10
21.170	BB	18.96662	6.45989e-2	1.22522	DV	p-Terphenyl d14 #11*
22.471	BB	6.74878	2.22878e-2	1.50416e-1		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.059	BB	3.70563	2.08462e-2	7.72484e-2		Benzo(b)fluoranthene #14
27.530	BB	5.84772	2.27217e-2	1.32870e-1		Benzo(k)fluoranthene #15
28.617	BB	2.52254	2.64267e-2	6.66623e-2		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.268	BB	4.66664	5.34666e-2	2.49509e-1		Benzo(g,h,i)perylene #18
32.231	BB	8.22678	2.06198e-2	1.69635e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 195.34391

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Acq On : 15 Mar 2002 11:18 Operator: RDC
Sample : L0203154-02 8310 CONF. @ 10X Inst : HPMS7
Misc : 7,10 SOIL AT 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 11:51:23 2002 Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 08 10:14:57 2002
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.20	136	1147811	1.00	ug/ml	0.00
6) Acenaphthene-d10	6.95	164	779170	1.00	ug/ml	0.00
11) Phenanthrene-d10	8.48	188	1479371	1.00	ug/ml	0.00
15) Chrysene-d12	11.22	240	1511548	1.00	ug/ml	0.00
20) Perylene-d12	13.35	264	1065557	1.00	ug/ml	0.01

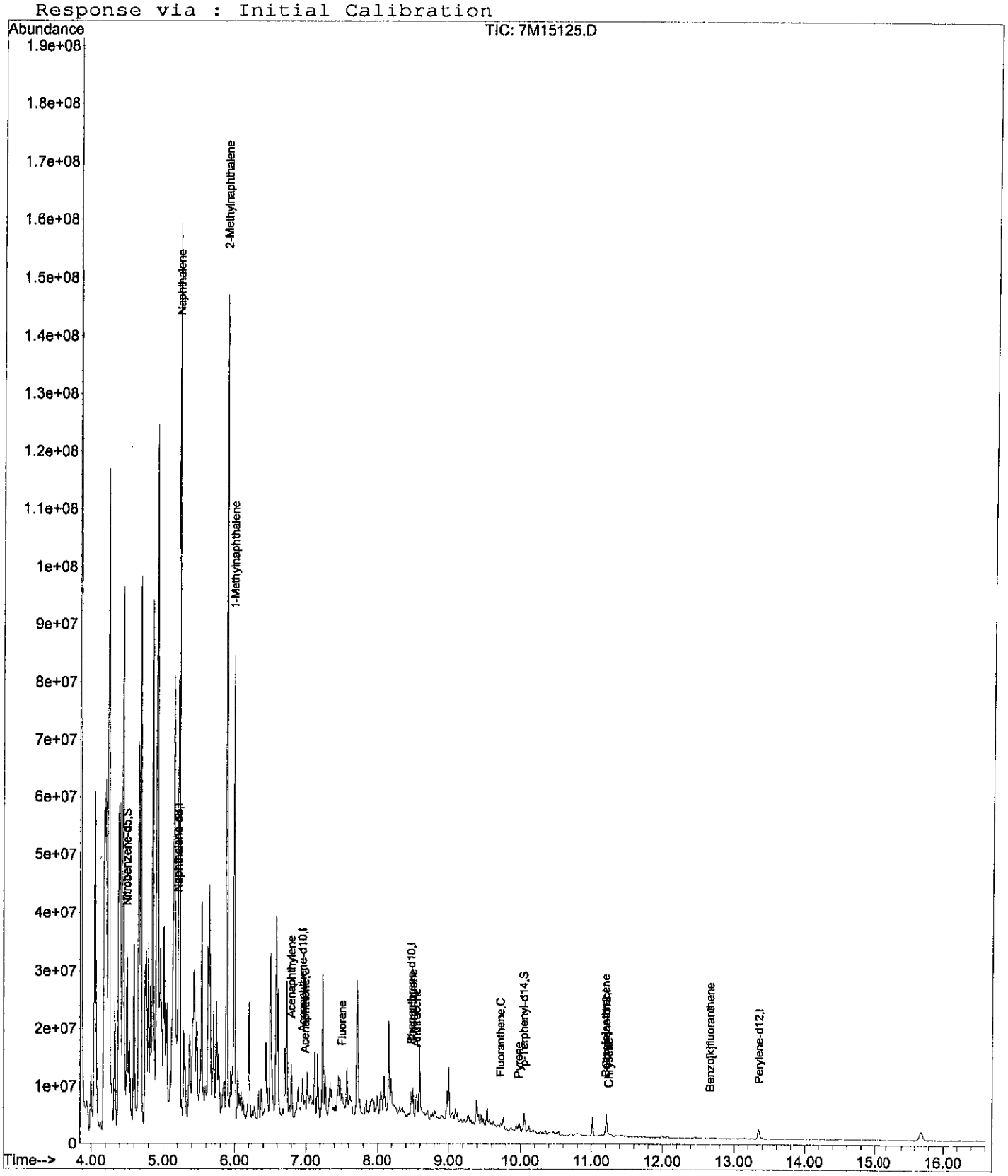
System Monitoring Compounds						
2) Nitrobenzene-d5	4.50	82	33865	0.0798	ug/ml	-0.03
Spiked Amount 2.500	Range 23 - 120		Recovery	=	3.20%#	
7) 2-Fluorobiphenyl	6.20	172	32685	0.0282	ug/ml	-0.03
Spiked Amount 2.500	Range 30 - 115		Recovery	=	1.20%#	28.8%
17) p-Terphenyl-d14	10.05	244	1087937	0.7201	ug/ml	0.00
Spiked Amount 2.500	Range 18 - 137		Recovery	=	28.80%	X10

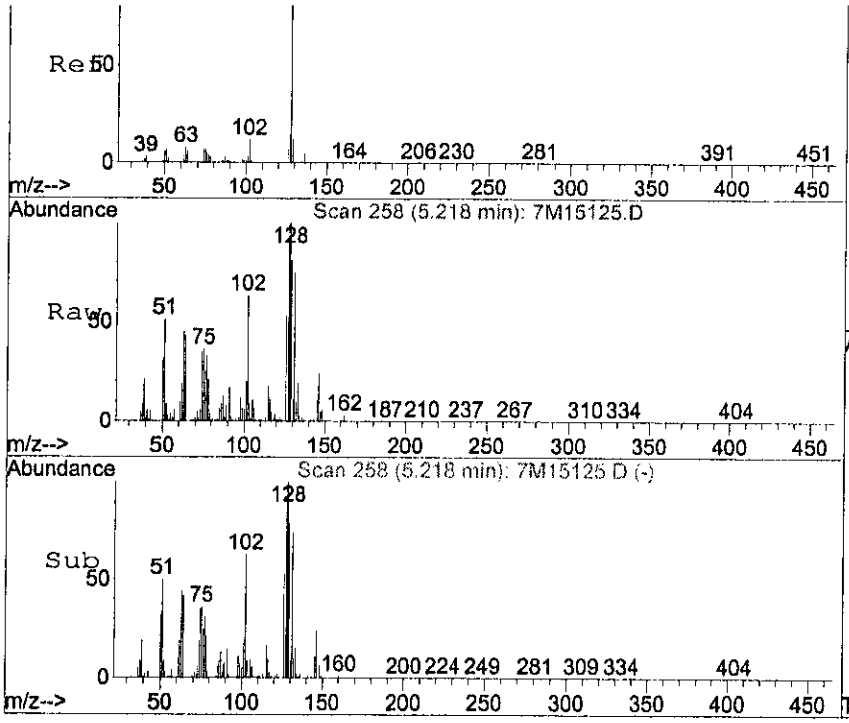
Target Compounds						Qvalue	
3) Naphthalene	5.22	128	25464679	19.7784	ug/ml#	22	
4) 2-Methylnaphthalene	5.89	142	17548513	20.2937	ug/ml#	57	
5) 1-Methylnaphthalene	5.99	142	12789322	14.8626	ug/ml#	52	
8) Acenaphthylene	6.80	152	255619	~~0.1861~~	ug/ml#	1	NC
9) Acenaphthene	6.99	154	346540	~~0.3730~~	ug/ml#	76	
10) Fluorene	7.50	166	674450	0.5967	ug/ml#	92	
12) Phenanthrene	8.50	178	1675276	1.0112	ug/ml#	90	
13) Anthracene	8.56	178	662364	0.4023	ug/ml#	1	
14) Fluoranthene	9.73	202	293617	0.1448	ug/ml#	90	
16) Pyrene	9.97	202	404442	0.2406	ug/ml#	77	
18) Benzo[a]anthracene	11.20	228	182548	0.1056	ug/ml#	56	
19) Chrysene	11.25	228	159841	0.0965	ug/ml#	60	
22) Benzo[k]fluoranthene	12.67	252	180954	0.0960	ug/ml#	89	

(#) = qualifier out of range (m) = manual integration
7M15125.D PAHLOW.M Fri Mar 15 11:52:45 2002 HPMS7 Page 1

Acq On : 15 Mar 2002 11:18 Operator: RDC
Sample : L0203154-02 8310 CONF. @ 10X Inst : HPMS7
Misc : 7,10 SOIL AT 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 11:51 2002 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 08 10:14:57 2002
Response via : Initial Calibration

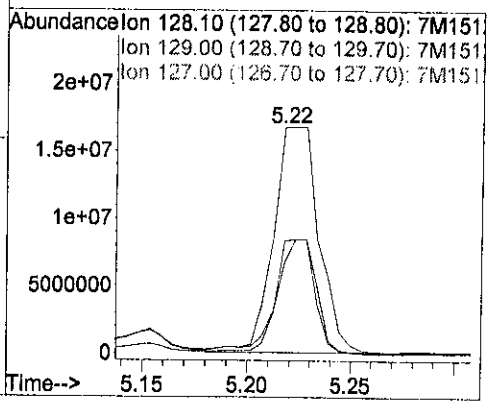


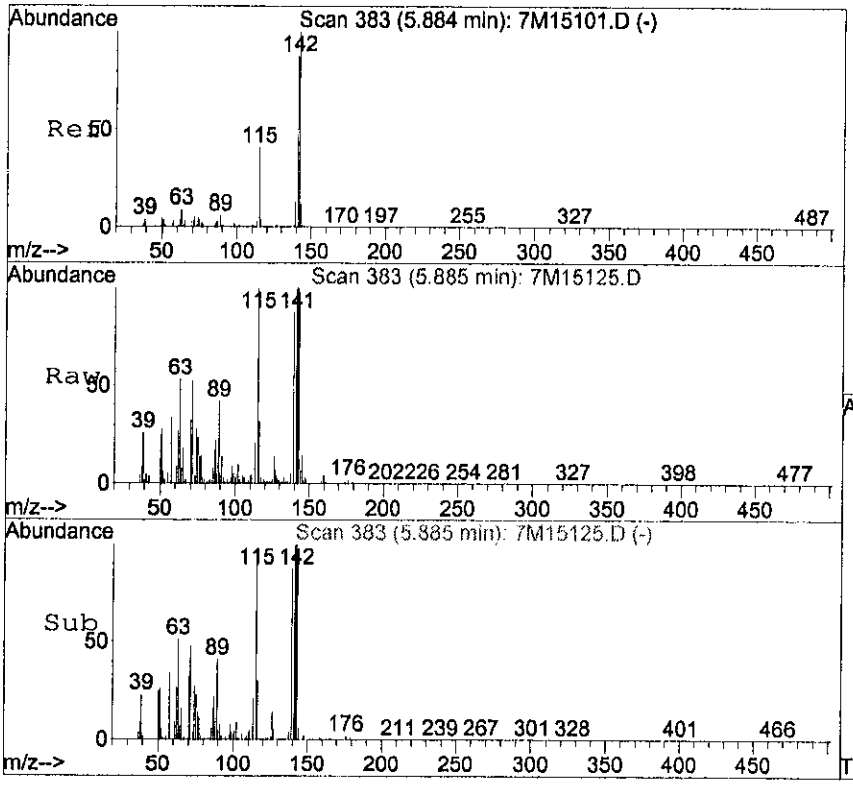


Concen: 19.78 ug/ml
RT: 5.22 min Scan# 258
Delta R.T. 0.00 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:128 Resp:25464679

Ion	Ratio	Lower	Upper
128	100		
129	43.1	9.0	13.4#
127	44.8	11.4	17.2#

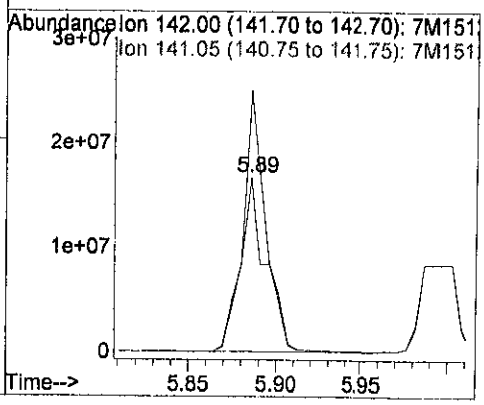


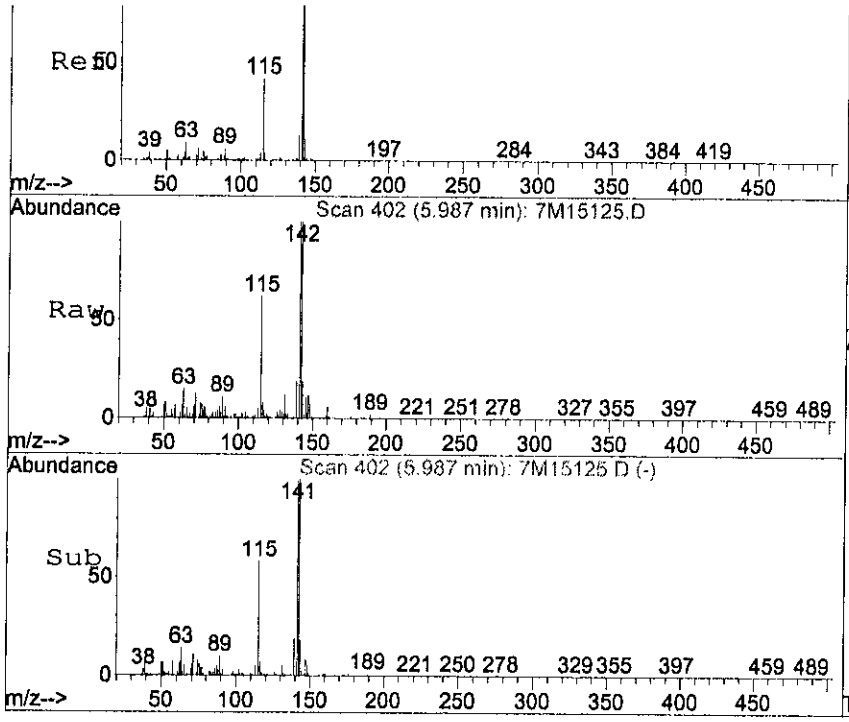


#4
2-Methylnaphthalene
Concen: 20.29 ug/ml
RT: 5.89 min Scan# 383
Delta R.T. 0.00 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:142 Resp:17548513

Ion	Ratio	Lower	Upper
142	100		
141	127.8	70.1	105.1#

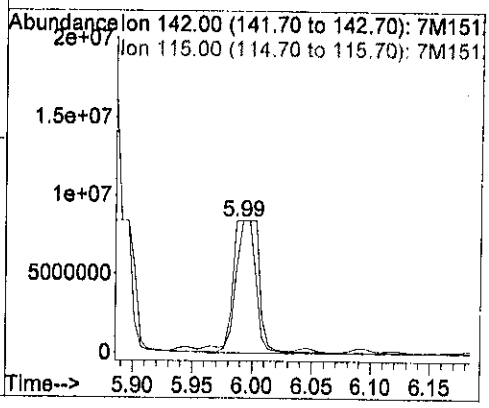


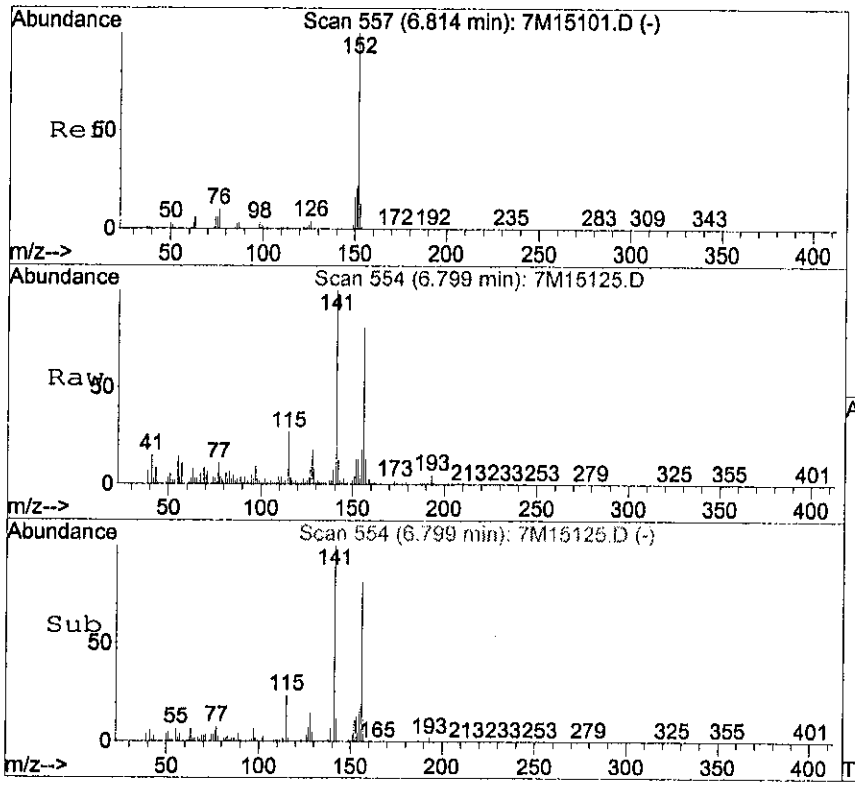


Concen: 14.86 ug/ml
RT: 5.99 min Scan# 402
Delta R.T. -0.00 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:142 Resp:12789322

Ion	Ratio	Lower	Upper
142	100		
115	74.2	34.7	52.1#

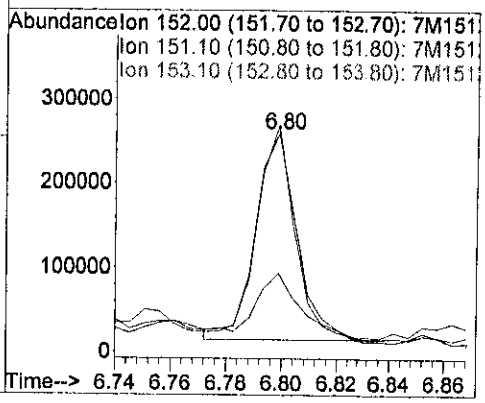


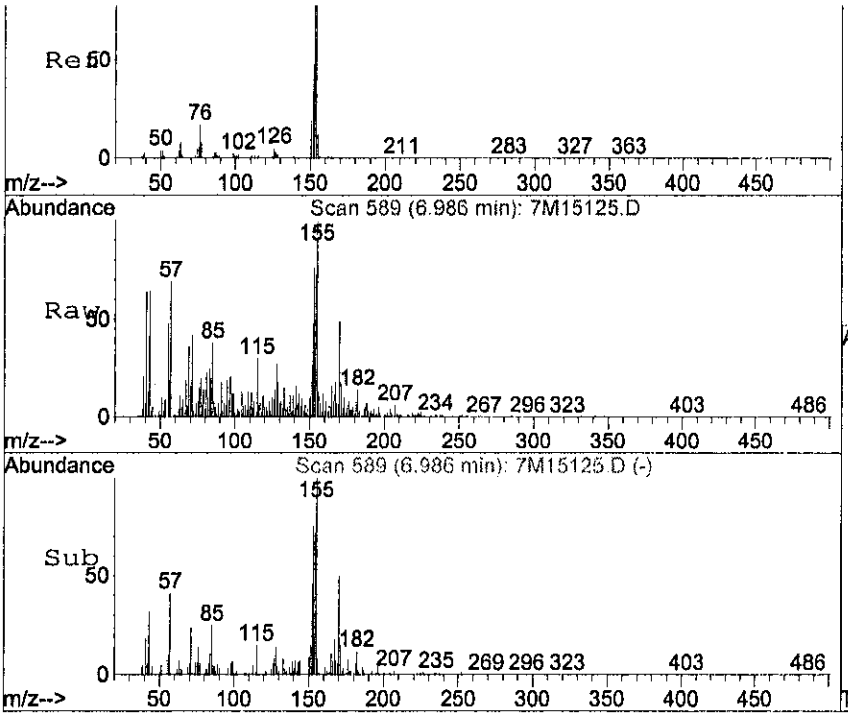


#8
Acenaphthylene
Concen: 0.19 ug/ml
RT: 6.80 min Scan# 554
Delta R.T. -0.02 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:152 Resp: 255619

Ion	Ratio	Lower	Upper
152	100		
151	33.3	16.6	25.0#
153	100.8	10.2	15.2#

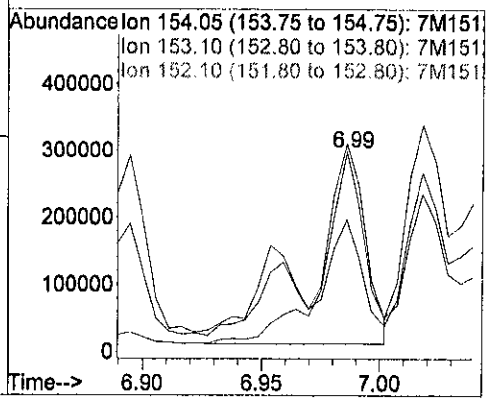


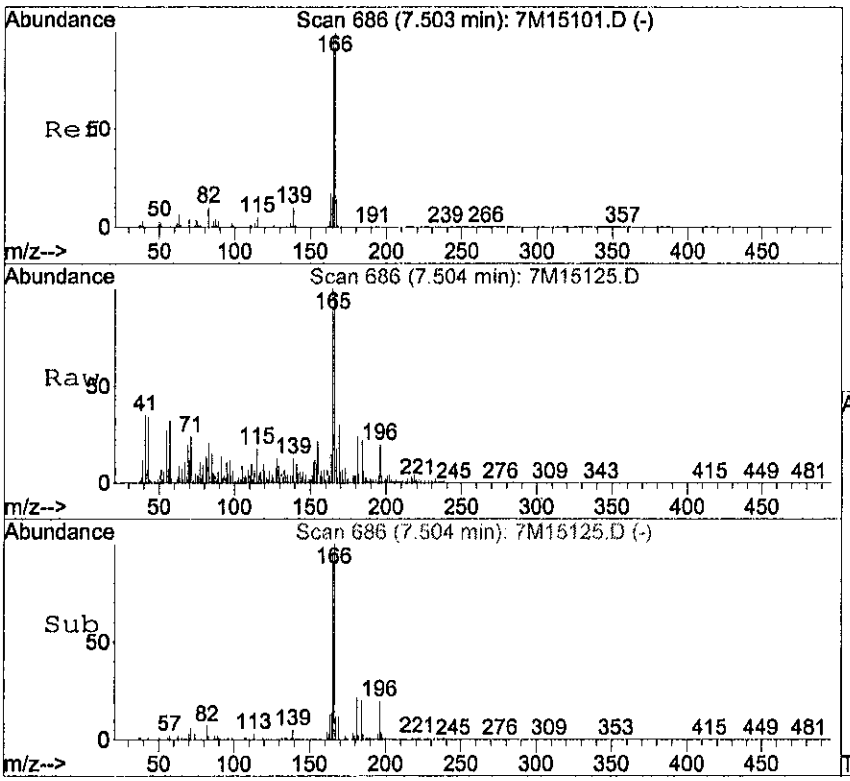


Concen: 0.37 ug/ml
RT: 6.99 min Scan# 589
Delta R.T. 0.00 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:154 Resp: 346540

Ion	Ratio	Lower	Upper
154	100		
153	79.2	87.0	130.6#
152	40.4	41.3	61.9#

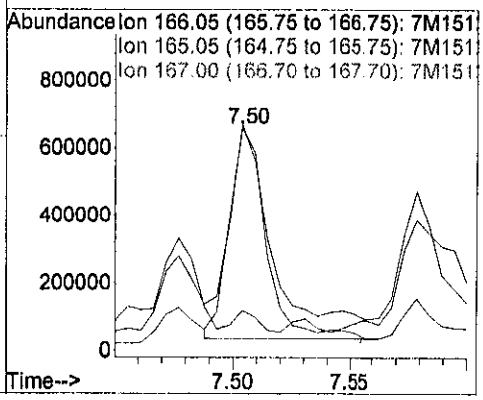


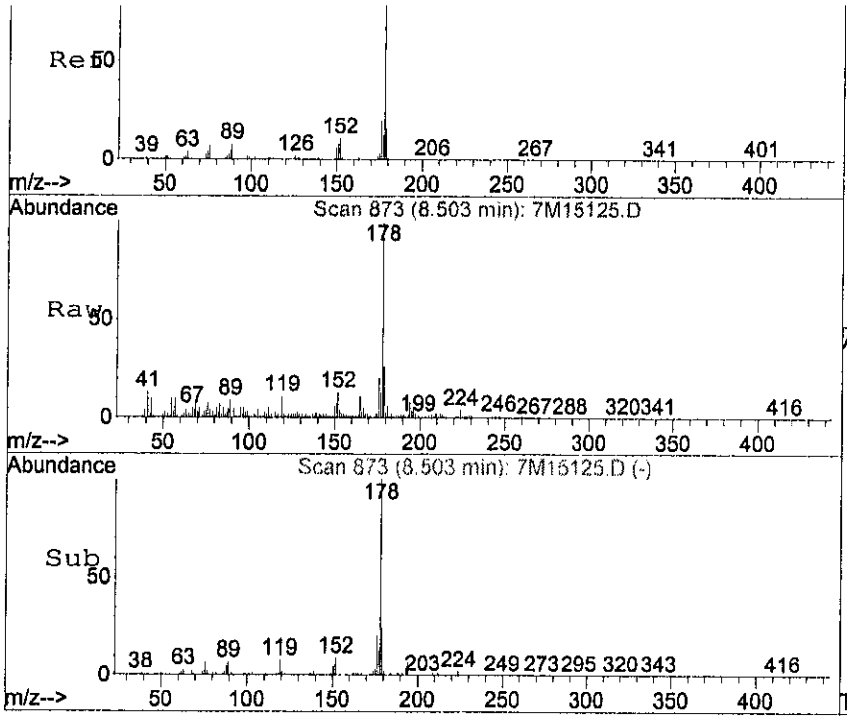


#10
Fluorene
Concen: 0.60 ug/ml
RT: 7.50 min Scan# 686
Delta R.T. 0.00 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:166 Resp: 674450

Ion	Ratio	Lower	Upper
166	100		
165	88.2	75.8	113.6
167	5.5	11.1	16.7#

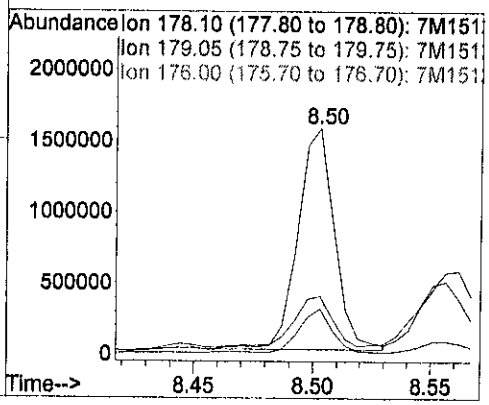


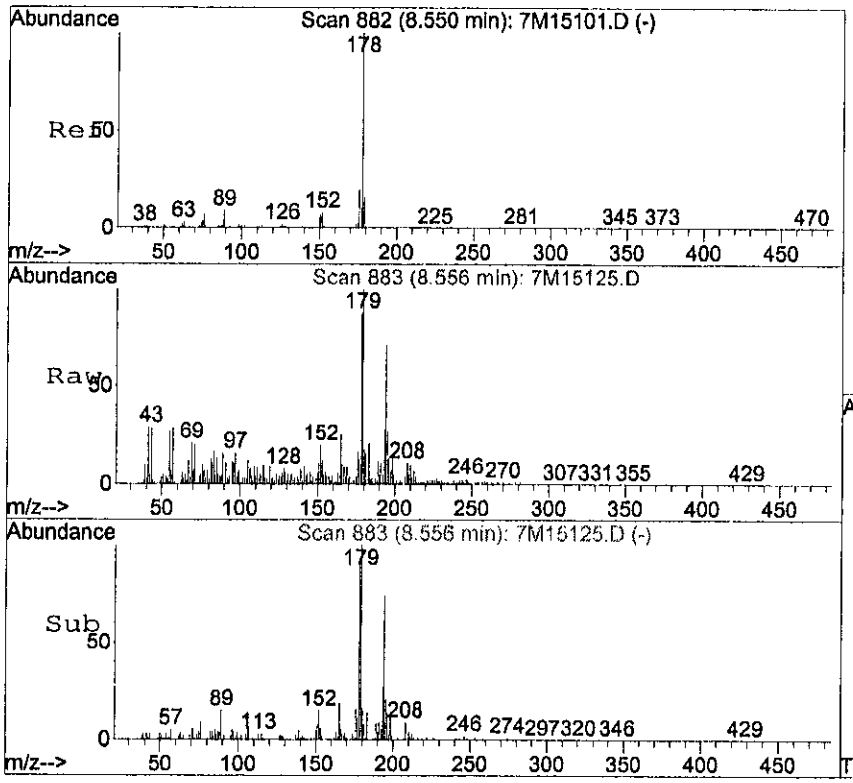


Concen: 1.01 ug/ml
RT: 8.50 min Scan# 873
Delta R.T. 0.01 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:178 Resp: 1675276

Ion	Ratio	Lower	Upper
178	100		
179	23.5	13.1	19.7#
176	17.7	15.8	23.8

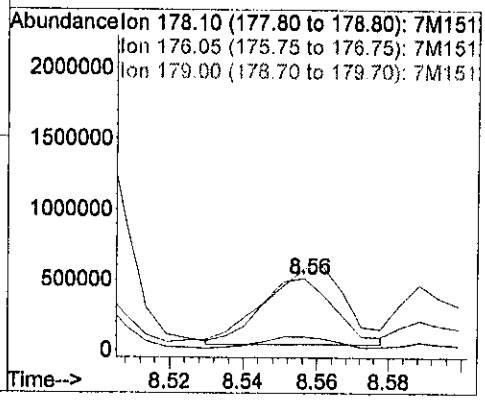


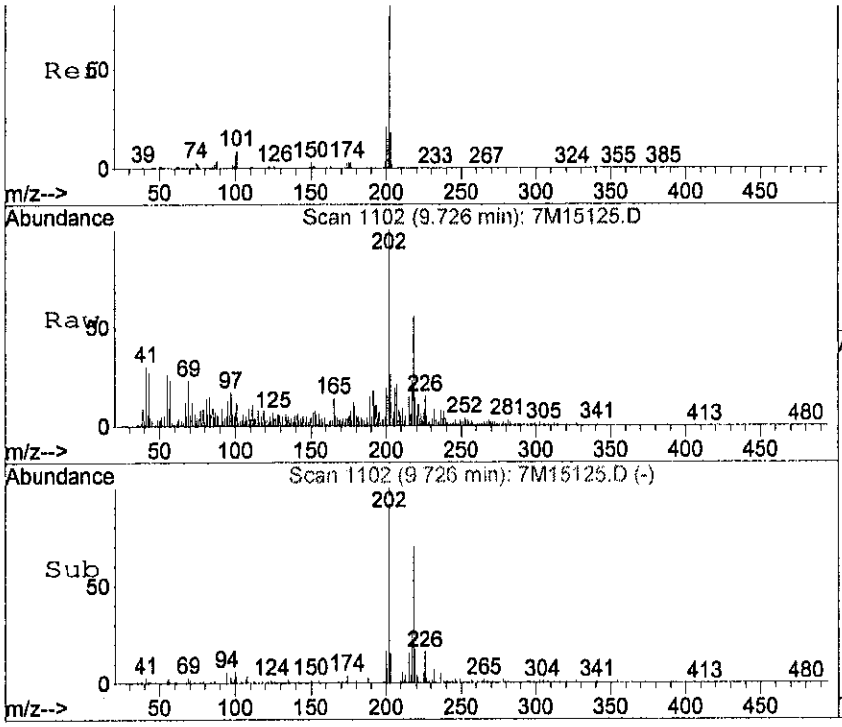


#13
Anthracene
Concen: 0.40 ug/ml
RT: 8.56 min Scan# 883
Delta R.T. 0.01 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:178 Resp: 662364

Ion	Ratio	Lower	Upper
178	100		
176	19.9	15.1	22.7
179	130.9	12.4	18.6#

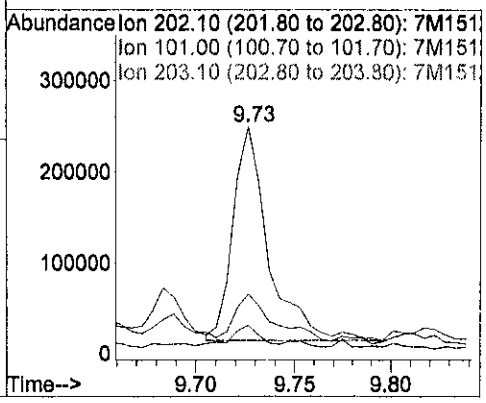


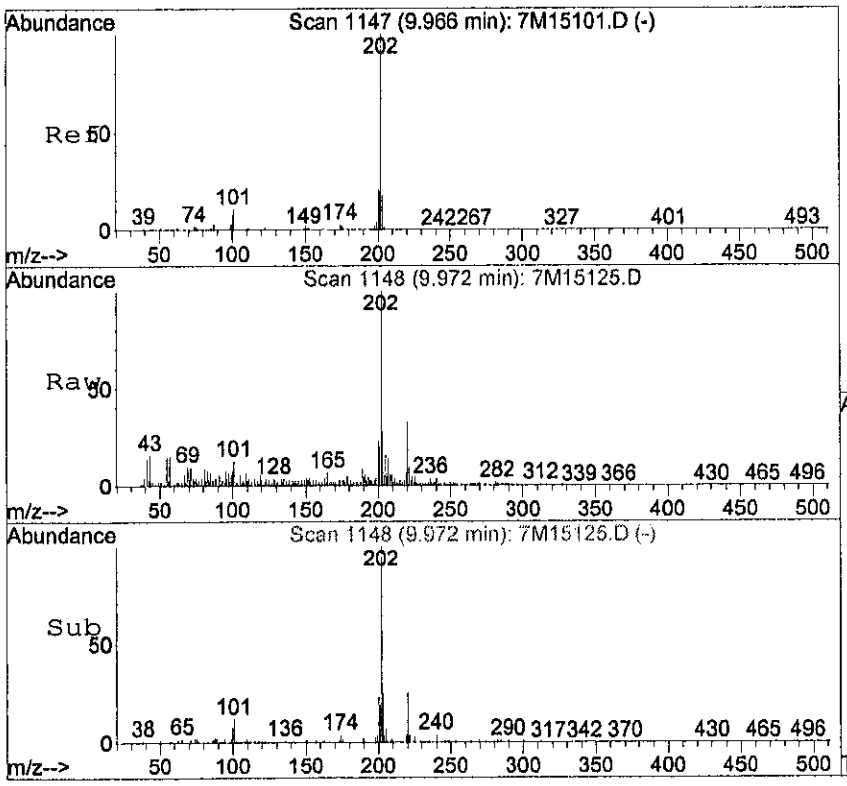


Concen: 0.14 ug/ml
RT: 9.73 min Scan# 1102
Delta R.T. 0.01 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:202 Resp: 293617

Ion	Ratio	Lower	Upper
202	100		
101	7.6	7.2	10.8
203	23.4	14.2	21.2#

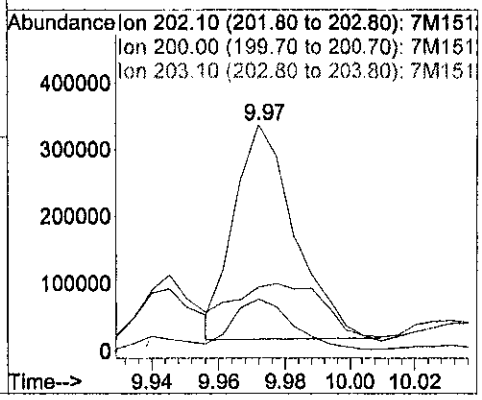


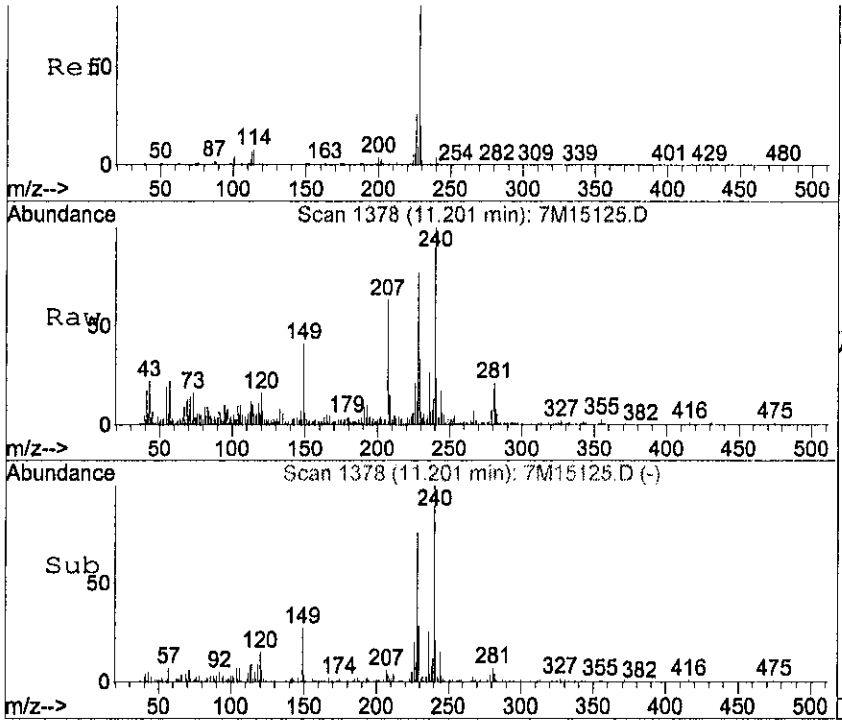


#16
Pyrene
Concen: 0.24 ug/ml
RT: 9.97 min Scan# 1148
Delta R.T. 0.01 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:202 Resp: 404442

Ion	Ratio	Lower	Upper
202	100		
200	22.0	17.2	25.8
203	40.5	14.8	22.2#

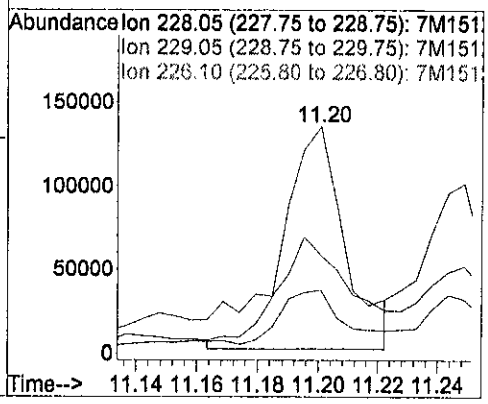


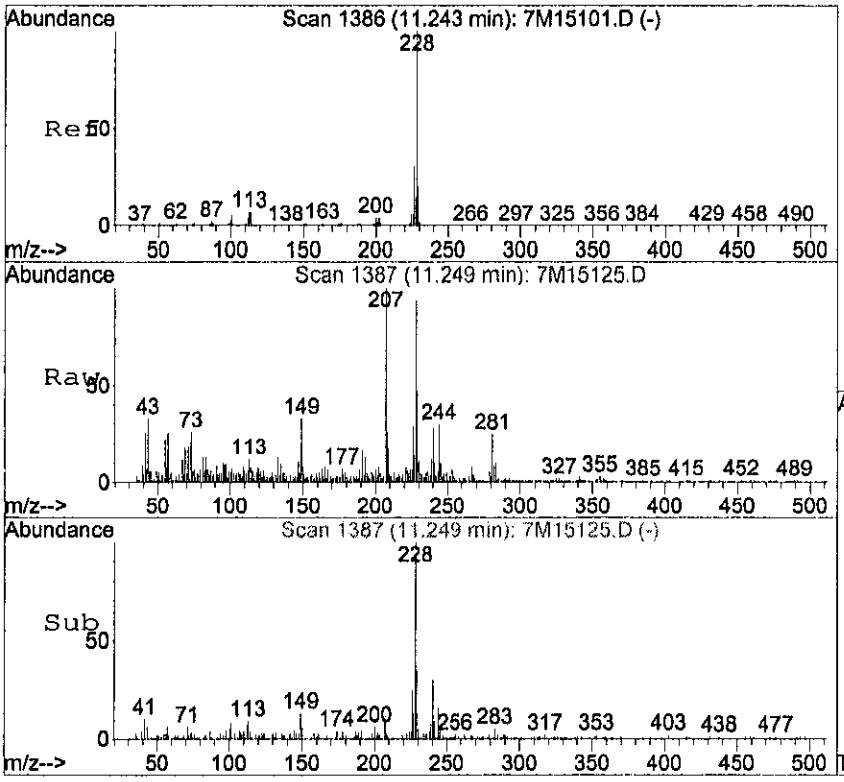


Concen: 0.11 ug/ml
RT: 11.20 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:228 Resp: 182548

Ion	Ratio	Lower	Upper
228	100		
229	65.8	16.2	24.2#
226	28.2	21.4	32.0

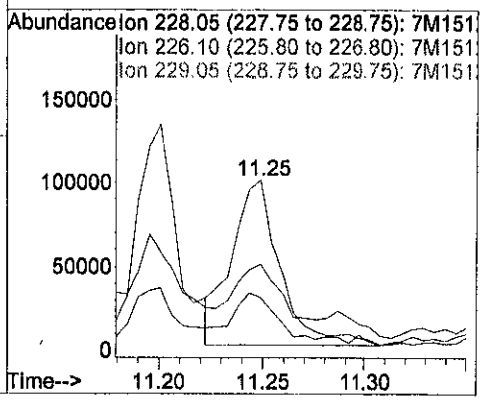


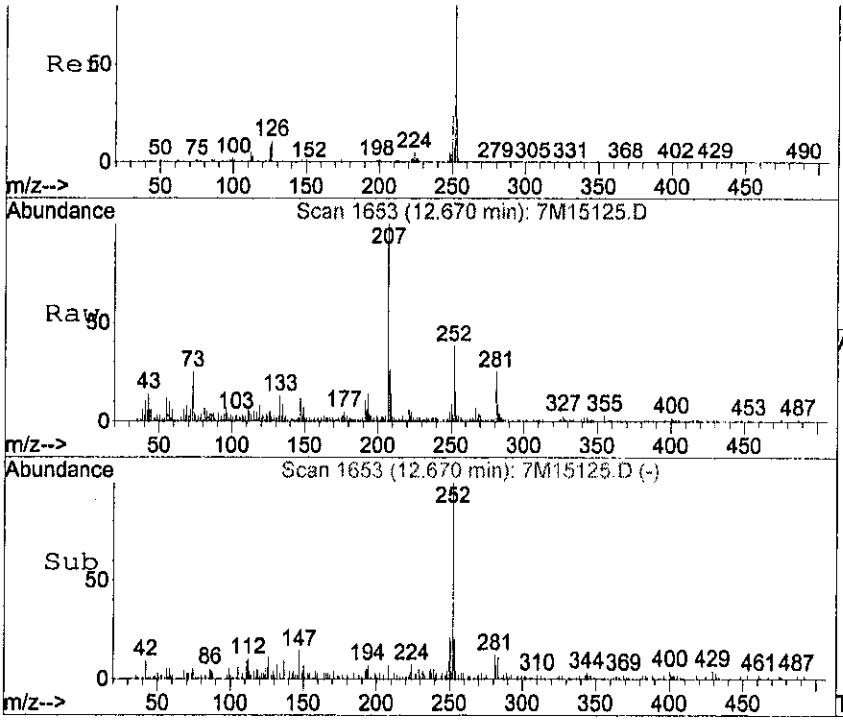


#19
Chrysene
Concen: 0.10 ug/ml
RT: 11.25 min Scan# 1387
Delta R.T. 0.01 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:228 Resp: 159841

Ion	Ratio	Lower	Upper
228	100		
226	35.5	23.6	35.4#
229	58.4	16.2	24.4#

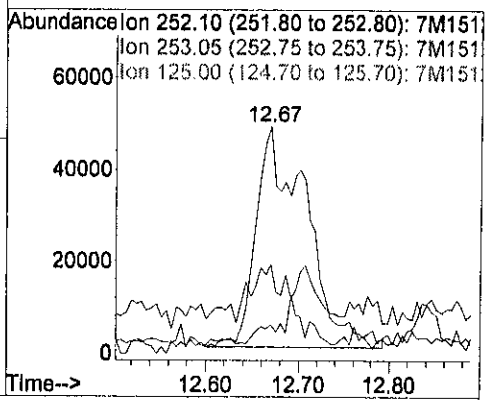




Concen: 0.10 ug/ml
RT: 12.67 min Scan# 1653
Delta R.T. -0.03 min
Lab File: 7M15125.D
Acq: 15 Mar 2002 11:18

Tgt Ion:252 Resp: 180954

Ion	Ratio	Lower	Upper
252	100		
253	16.1	17.1	25.7#
125	3.0	5.6	8.4#



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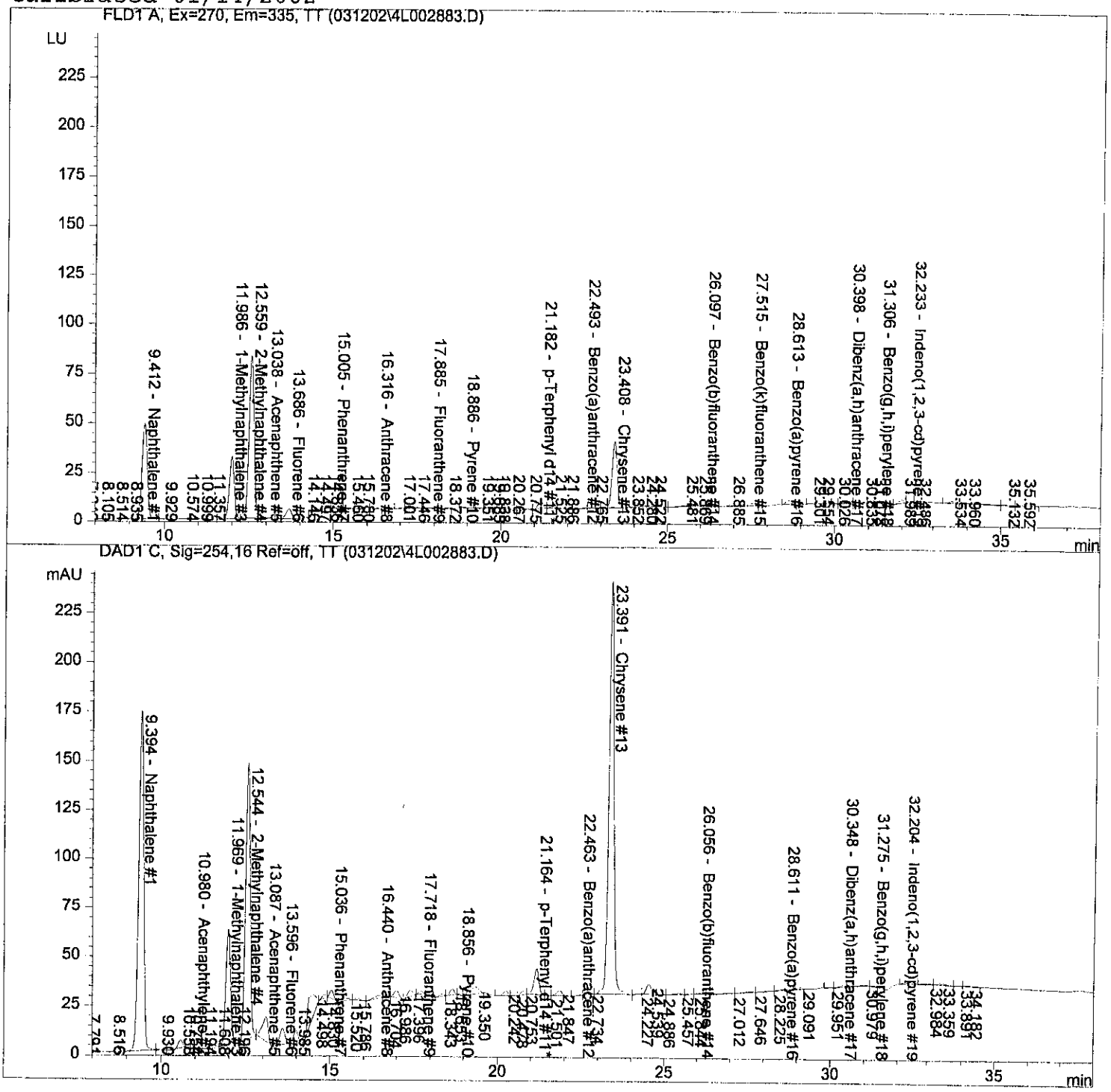
Injection Date : 3/13/2002 3:32:23 AM
Sample Name : L0203154-03 831S
Acq. Operator : RDC

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 : 3/13/2002 12:14:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 12:22:25 PM RDC

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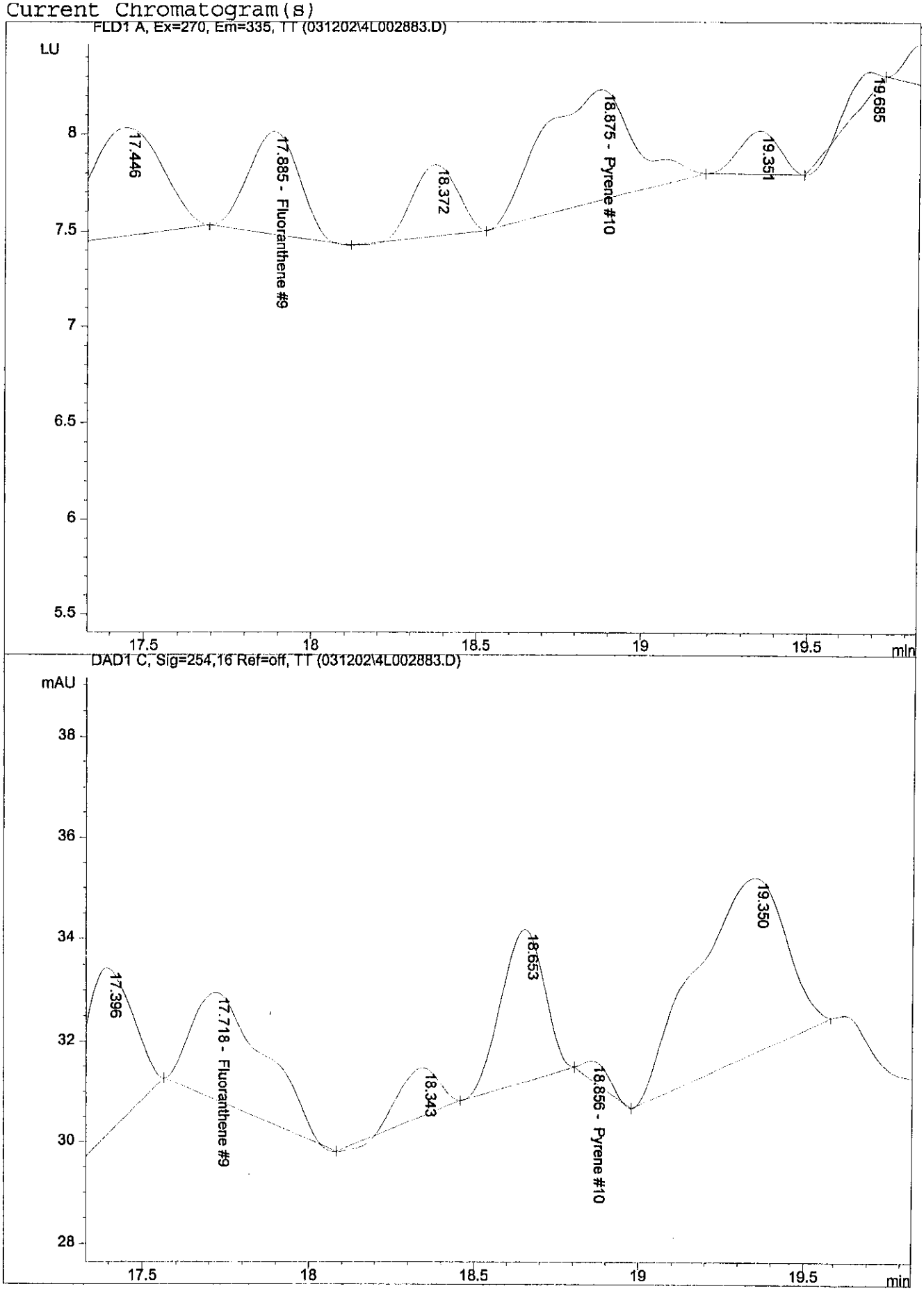
Current Chromatogram(s)



HPLC4 3/13/2002 12:17:42 PM RDC

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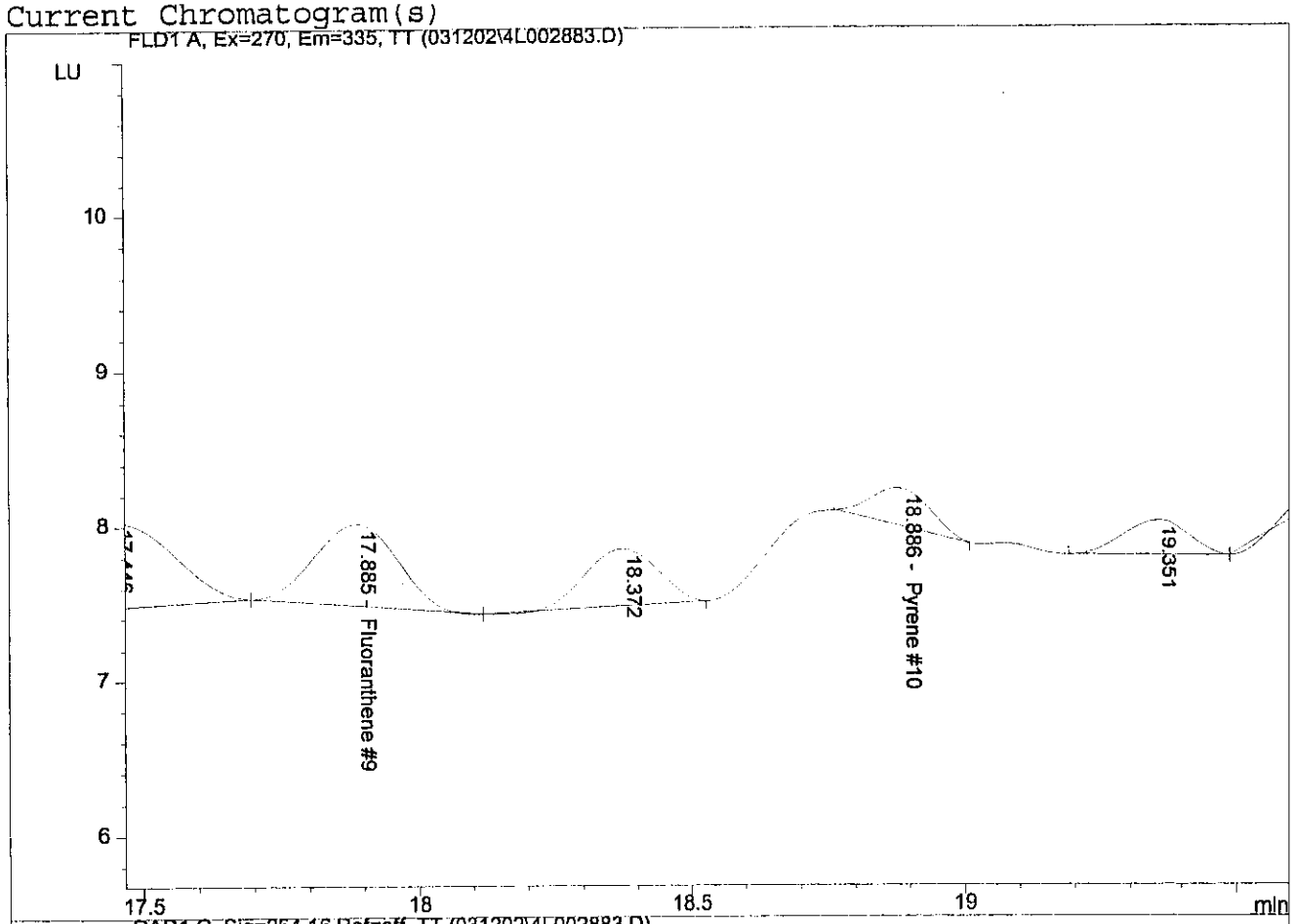
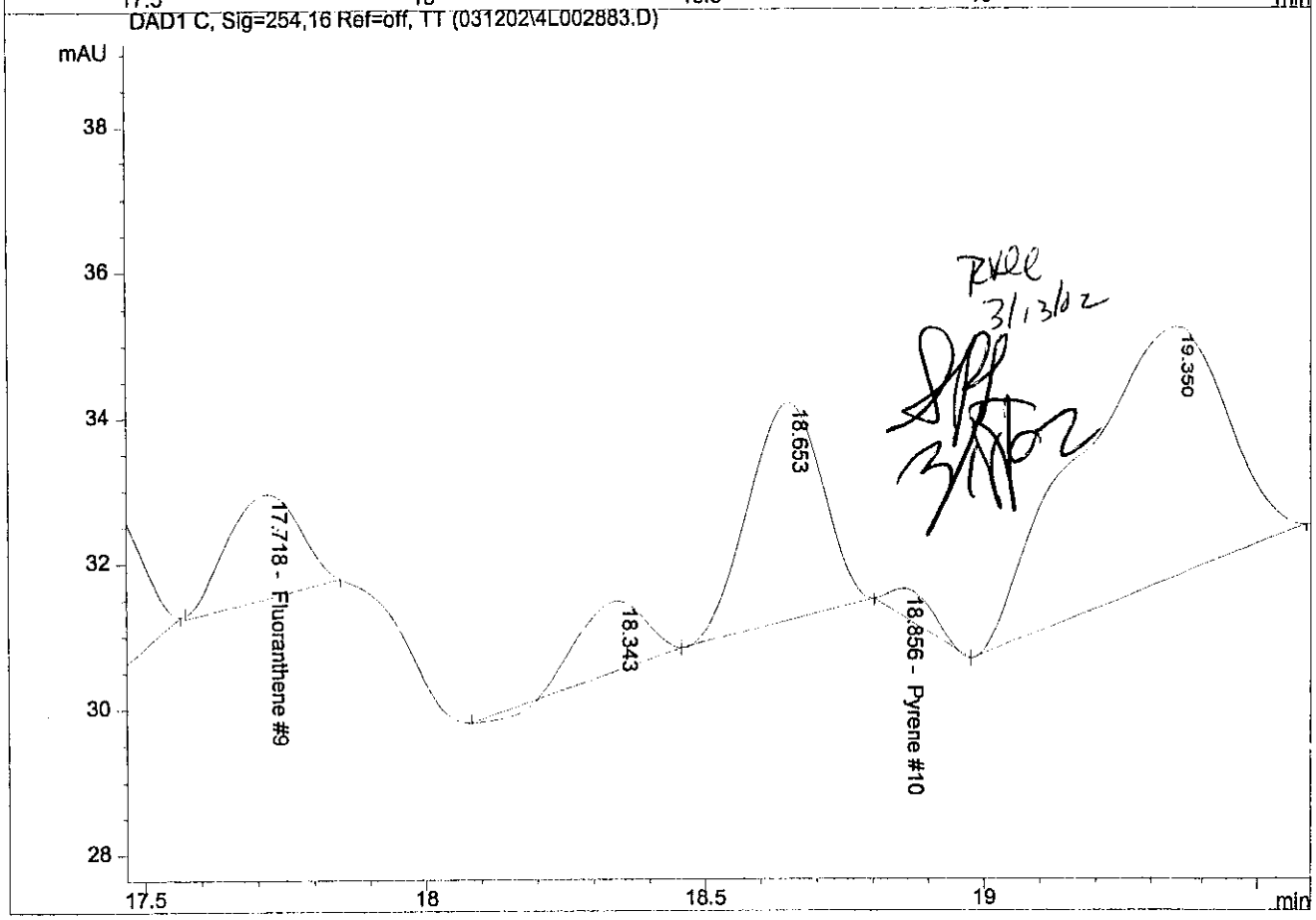
Current Chromatogram(s)





HPLC4 3/13/2002 12:19:08 PM RDC

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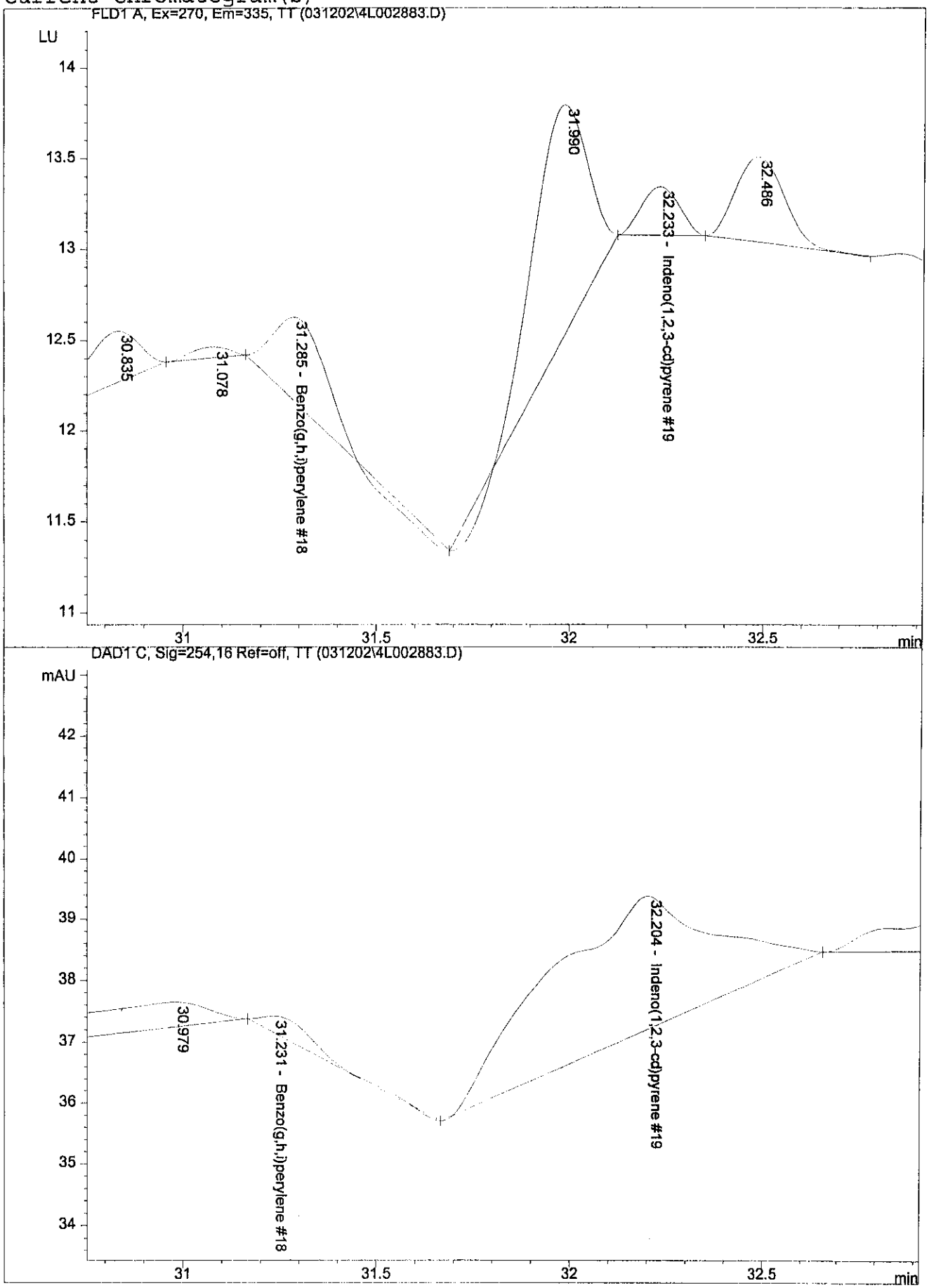
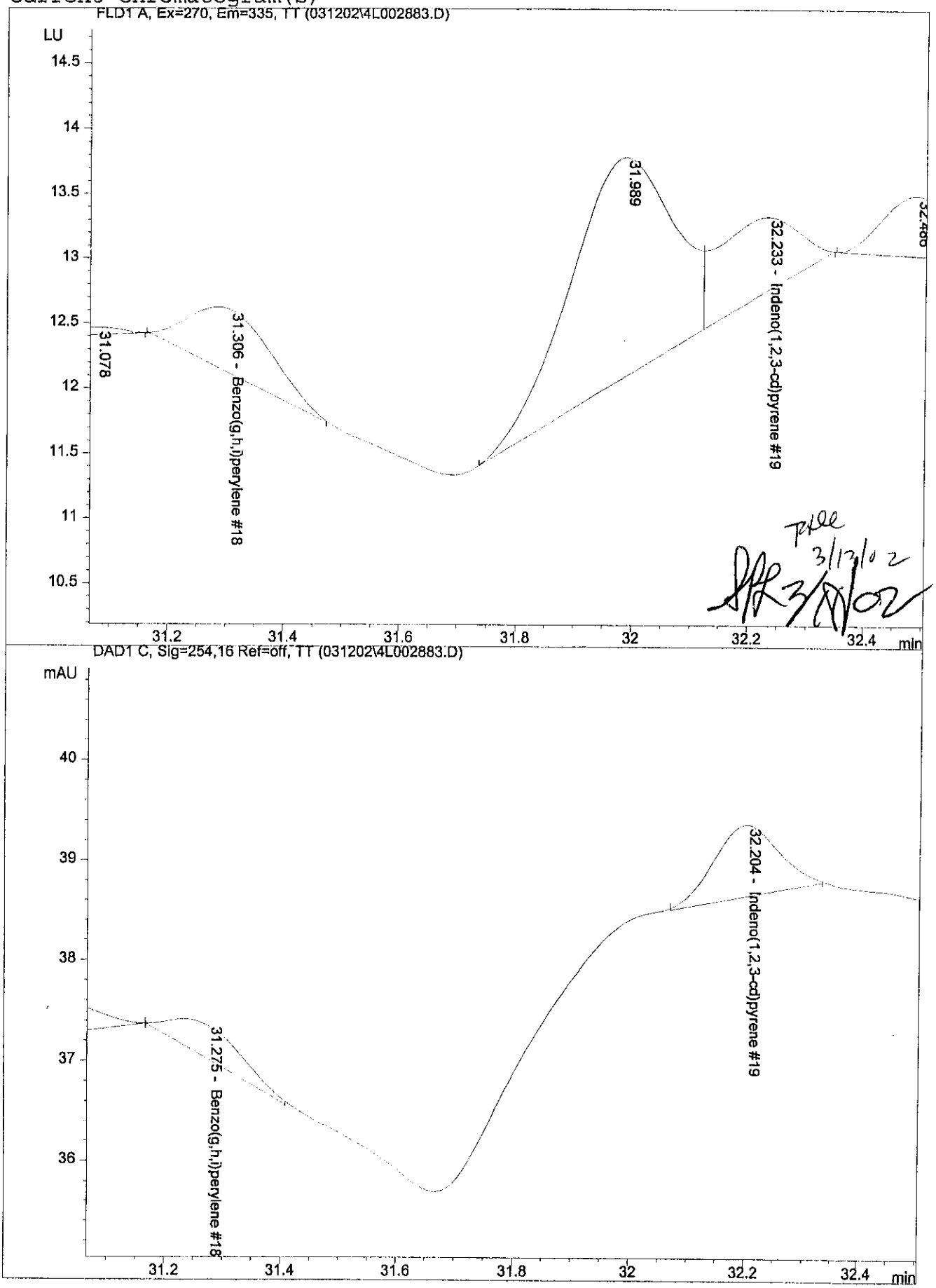
Current Chromatogram(s)



HPLC4 3/13/2002 12:20:42 PM RDC

Page 1 of 1

Current Chromatogram(s)



HPLC4 3/13/2002 12:22:23 PM RDC

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External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.412	BB	517.44403	2.57003e-2	13.29845		Naphthalene #1
11.986	BB	335.69708	2.24893e-2	7.54960		1-Methylnaphthalene #3
12.559	BB	865.31476	1.72691e-2	14.94324		2-Methylnaphthalene #4
13.038	BB	8.72842	1.38228e-2	1.20651e-1		Acenaphthene #5
13.686	BB	63.37093	6.56879e-3	4.16270e-1		Fluorene #6
15.005	BB	1.35940	1.68488e-1	2.29042e-1		Phenanthrene #7
16.316	BB	1.97954	3.03714e-1	6.01214e-1		Anthracene #8
17.885	BB	5.55131	2.38671e-2	1.32494e-1	F	Fluoranthene #9
18.886	MM	1.83361	4.06594e-2	7.45534e-2		Pyrene #10
21.182	BB	42.50610	2.86511e-1	12.17848	122%	p-Terphenyl d14 #11*
22.493	BB	3.03876	7.96557e-3	2.42055e-2		Benzo(a)anthracene #12
23.408	BB	352.46646	3.90144e-2	13.75128	P	Chrysene #13
26.097	BB	4.43530	1.65598e-2	7.34476e-2		Benzo(b)fluoranthene #14
27.515	BB	14.52727	2.77566e-3	4.03228e-2		Benzo(k)fluoranthene #15
28.613	BB	19.90065	4.67660e-3	9.30674e-2		Benzo(a)pyrene #16
30.398	BB	4.43486	3.93196e-2	1.74377e-1		Dibenz(a,h)anthracene #17
31.306	MM	4.84956	2.69466e-2	1.30679e-1		Benzo(g,h,i)perylene #18
32.233	FM	5.75643	1.37440e-2	7.91167e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 63.91050

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

X3.3 RQ 10X for chrysene

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BB	1738.37842	8.27651e-3	14.38771		Naphthalene #1
10.980	BB	7.18605	3.00095e-2	2.15650e-1		Acenaphthylene #2
11.969	BB	533.43799	1.29932e-2	6.93108		1-Methylnaphthalene #3
12.544	BB	1382.03223	1.12713e-2	15.57724		2-Methylnaphthalene #4
13.087	BB	150.43253	2.03841e-2	3.06644		Acenaphthene #5
13.596	BB	101.06949	1.76946e-2	1.78838		Fluorene #6
15.036	BB	31.61833	1.74291e-2	5.51079e-1		Phenanthrene #7
16.440	BB	18.90826	1.03455e-2	1.95615e-1		Anthracene #8
17.718	MM	12.93272	2.18958e-2	2.83172e-1	F	Fluoranthene #9
18.856	BB	2.13567	1.46349e-2	3.12553e-2		Pyrene #10
21.164	BB	135.19748	6.45989e-2	8.73361	97.3%	p-Terphenyl d14 #11*
22.463	BB	3.64661	2.22878e-2	8.12750e-2		Benzo(a)anthracene #12
23.391	BB	2155.73682	1.52051e-2	32.77829	I P	Chrysene #13
26.056	BB	4.79270	2.08462e-2	9.99095e-2		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.611	BB	1.91648	2.64267e-2	5.06463e-2		Benzo(a)pyrene #16
30.348	BB	6.97738	9.39100e-2	6.55245e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.275	MF	2.85336	5.34666e-2	1.52560e-1		Benzo(g,h,i)perylene #18
32.204	MM	5.62480	2.06198e-2	1.15982e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 85.69514

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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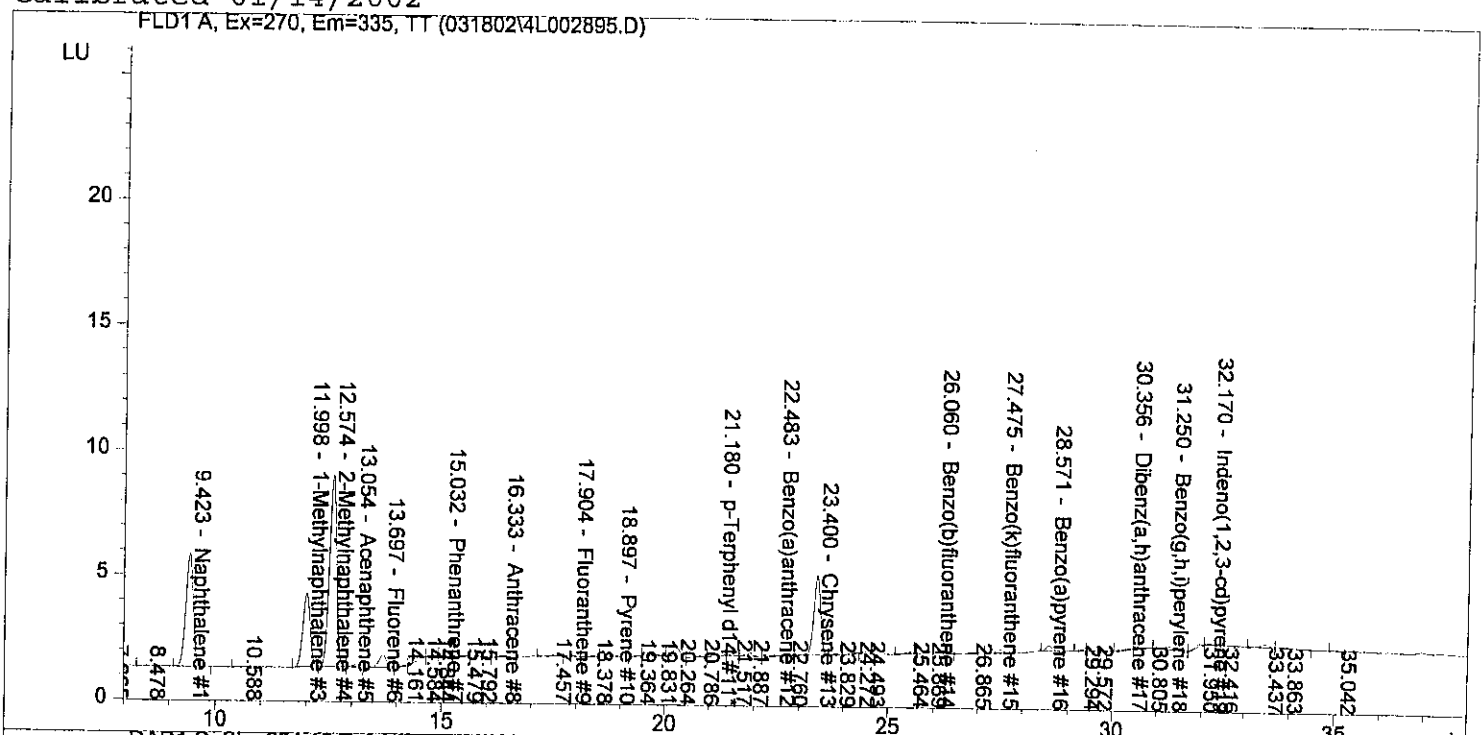
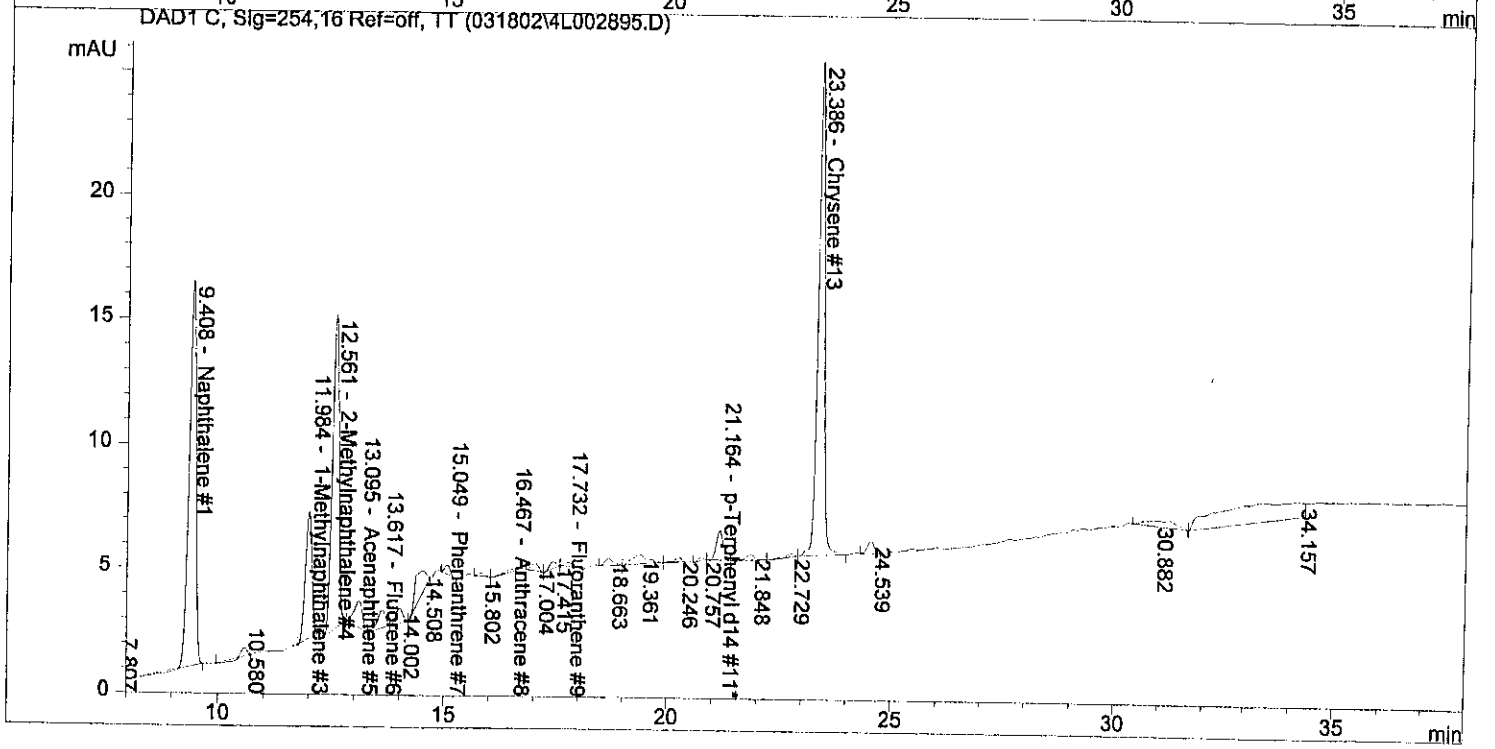
Injection Date : 3/18/2002 3:28:44 PM
Sample Name : L0203154-03 831S
Acq. Operator : RDC

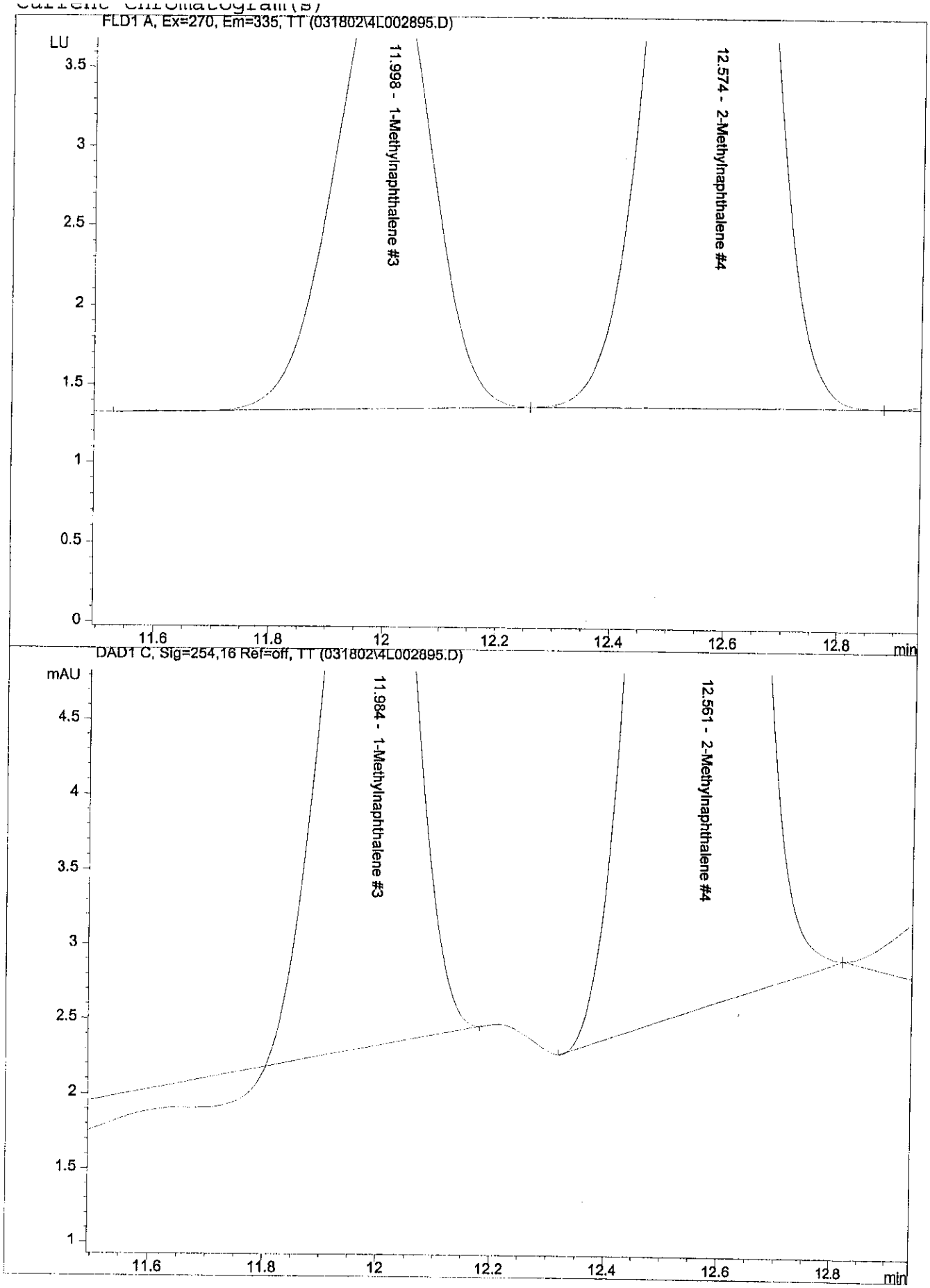
Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 11:03:23 AM by RDC
(modified after loading)

Calibrated 01/14/2002







HPLC4 3/18/2002 5:16:21 PM RDC

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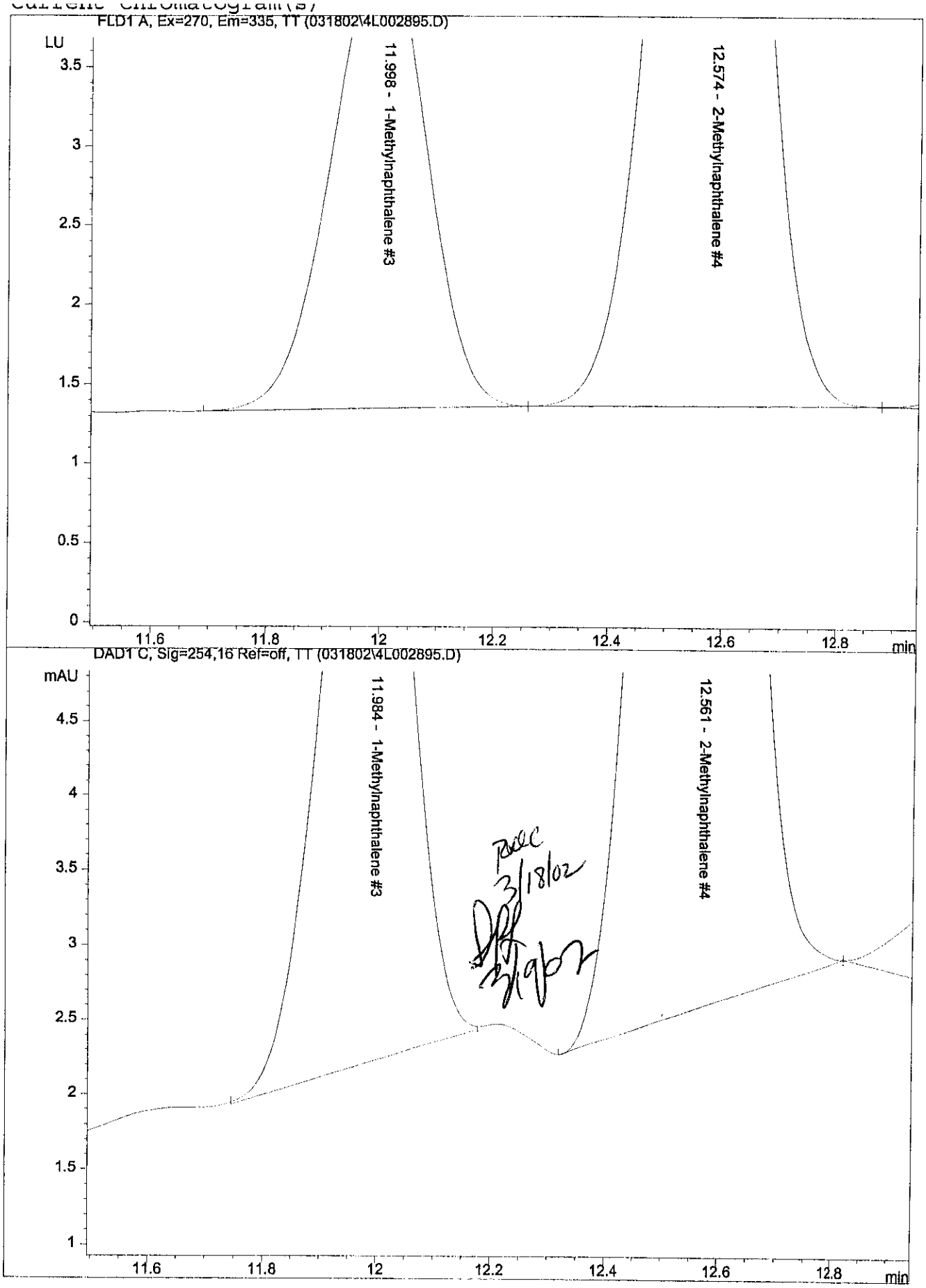

HPLC4 3/18/2002 5:16:43 PM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.423	BBA	52.42316	2.57003e-2	1.34729	C	Naphthalene #1
11.998	FM	33.63009	2.24893e-2	7.56318e-1	C	1-Methylnaphthalene #3
12.574	BB	86.26506	1.72691e-2	1.48972	C	2-Methylnaphthalene #4
13.054	BB	8.26976e-1	1.38228e-2	1.14311e-2		Acenaphthene #5
13.697	BB	6.20633	6.56879e-3	4.07680e-2		Fluorene #6
15.032	BB	1.89529e-1	1.68488e-1	3.19333e-2		Phenanthrene #7
16.333	BBA	4.31686e-1	3.03714e-1	1.31109e-1		Anthracene #8
17.904	BB	5.47038e-1	2.38671e-2	1.30562e-2		Fluoranthene #9
18.897	BB	1.17058	4.06594e-2	4.75952e-2		Pyrene #10
21.180	BB	4.11103	2.86511e-1	1.17786		p-Terphenyl d14 #11*
22.483	BB	4.07728e-1	7.96557e-3	3.24779e-3		Benzo(a)anthracene #12
23.400	BB	34.50103	3.90144e-2	1.34604	C	Chrysene #13
26.060	BB	1.74467e-1	1.65598e-2	2.88912e-3		Benzo(b)fluoranthene #14
27.475	BB	1.56403	2.77566e-3	4.34122e-3		Benzo(k)fluoranthene #15
28.571	BB	1.99998	4.67660e-3	9.35312e-3		Benzo(a)pyrene #16
30.356	BB	3.51851e-1	3.93196e-2	1.38346e-2		Dibenz(a,h)anthracene #17
31.250	BB	2.07005	2.69466e-2	5.57808e-2		Benzo(g,h,i)perylene #18
32.170	BB	2.41137e-1	1.37440e-2	3.31420e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 6.48588

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
9.408	BB	163.65923	8.27651e-3	1.35453		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.984	MM	52.37115	1.29932e-2	6.80470e-1		1-Methylnaphthalene #3
12.561	BB	133.18813	1.12713e-2	1.50120		2-Methylnaphthalene #4
13.095	BB	14.02640	2.03841e-2	2.85916e-1		Acenaphthene #5
13.617	BB	8.98612	1.76946e-2	1.59006e-1		Fluorene #6
15.049	BB	3.03873	1.74291e-2	5.29622e-2		Phenanthrene #7
16.467	BB	1.27827	1.03455e-2	1.32243e-2		Anthracene #8
17.732	BB	2.94159	2.18958e-2	6.44084e-2		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.164	BB	12.67685	6.45989e-2	8.18911e-1	DL	p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.386	BBA	209.26277	1.52051e-2	3.18187		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.268	-	-	-		Benzo(g,h,i)perylene #18
32.209	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.11249

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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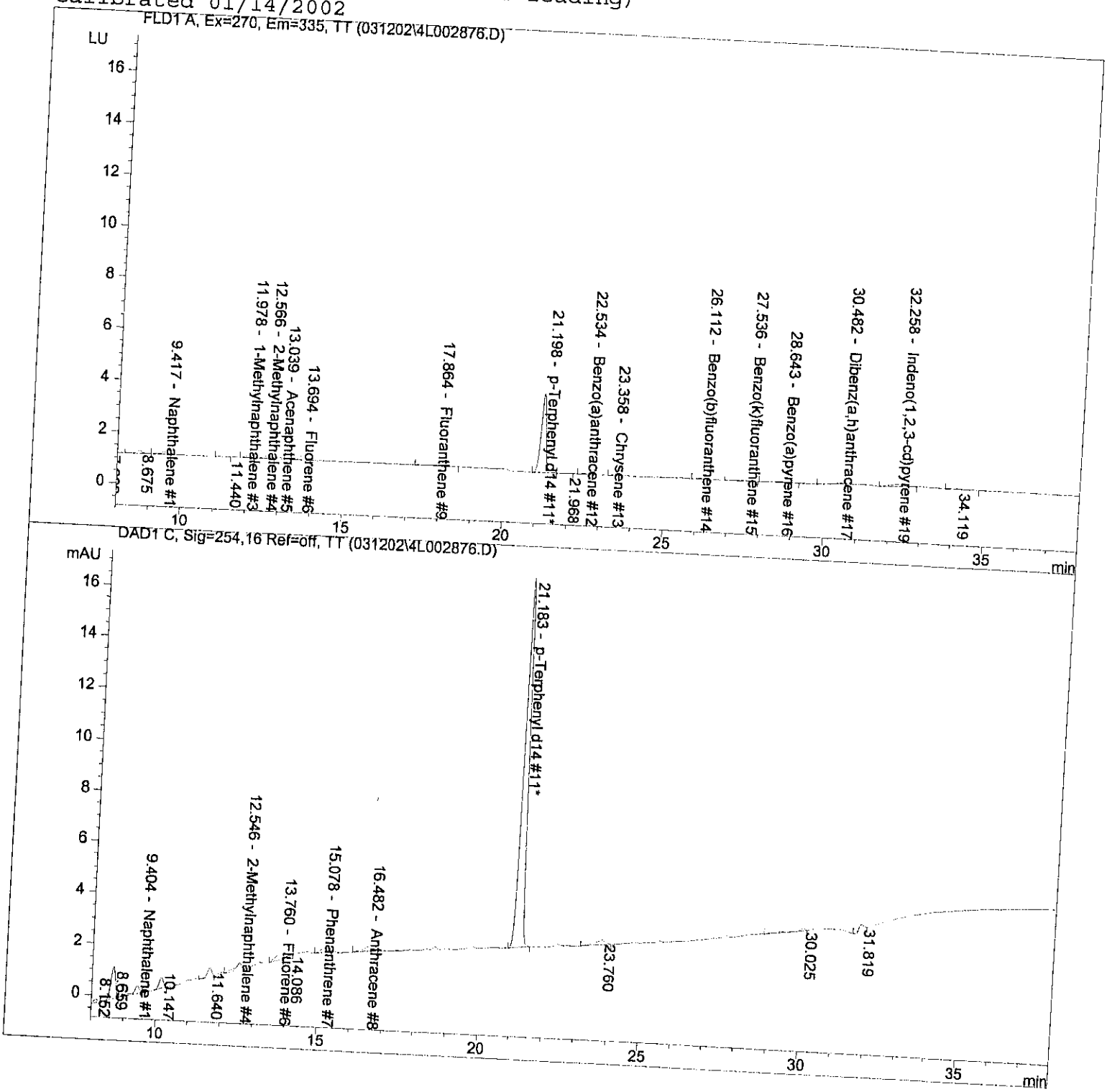
*** End of Report ***

Injection Date : 3/12/2002 8:56:00 PM
Sample Name : L0203154-04 831W
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 : 3/13/2002 11:21:59 AM by RDC
(modified after loading)
Calibrated 01/14/2002



PLC4 3/13/2002 11:23:19 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.417	BB	9.68489e-1	2.57003e-2	2.48904e-2		Naphthalene #1
11.978	BB	5.62630e-1	2.24893e-2	1.26532e-2		1-Methylnaphthalene #3
12.566	BB	1.16083	1.72691e-2	2.00465e-2		2-Methylnaphthalene #4
13.039	BB	8.69583e-1	1.38228e-2	1.20201e-2		Acenaphthene #5
13.694	BB	1.81212	6.56879e-3	1.19035e-2		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.864	BBA	5.24218e-1	2.38671e-2	1.25116e-2		Fluoranthene #9
18.848		-	-	-		Pyrene #10
21.198	BB	33.22986	2.86511e-1	9.52074		p-Terphenyl d14 #11*
22.534	BB	2.43780e-1	7.96557e-3	1.94185e-3		Benzo(a)anthracene #12
23.358	BB	1.75750e-1	3.90144e-2	6.85679e-3		Chrysene #13
26.112	BBA	3.03515e-1	1.65598e-2	5.02614e-3		Benzo(b)fluoranthene #14
27.536	BBA	7.44460e-1	2.77566e-3	2.06637e-3		Benzo(k)fluoranthene #15
28.643	BBA	7.50973e-1	4.67660e-3	3.51200e-3		Benzo(a)pyrene #16
30.482	PBA	4.08408e-1	3.93196e-2	1.60585e-2		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.258	BB	2.72281	1.37440e-2	3.74225e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				9.68765		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.404	BB	3.59861	8.27651e-3	2.97839e-2		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.546	BB	3.92362	1.12713e-2	4.42241e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.760	BB	2.74150	1.76946e-2	4.85097e-2		Fluorene #6
15.078	BB	1.69377	1.74291e-2	2.95208e-2		Phenanthrene #7
16.482	BBA	3.01432	1.03455e-2	3.11846e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.183	PBA	145.73802	6.45989e-2	9.41452		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				9.59774		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.3 Standards Data

==========

Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

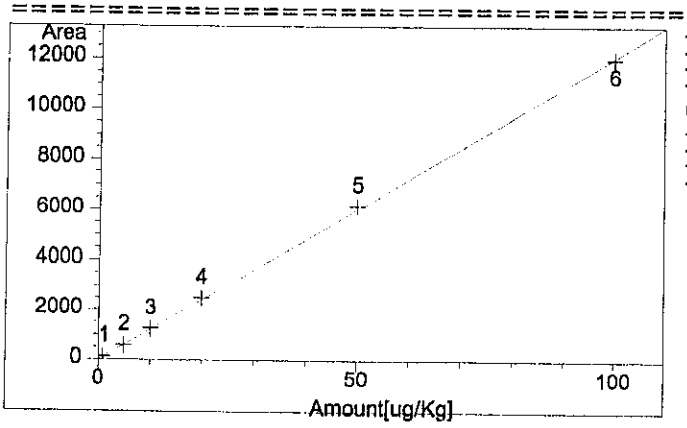
RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

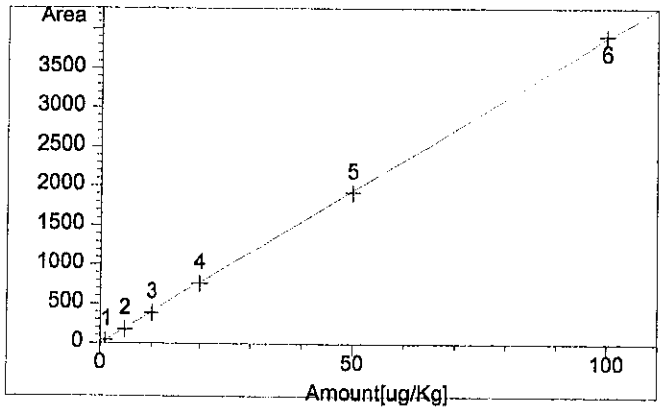
Peak Sum Table

No Entries in table

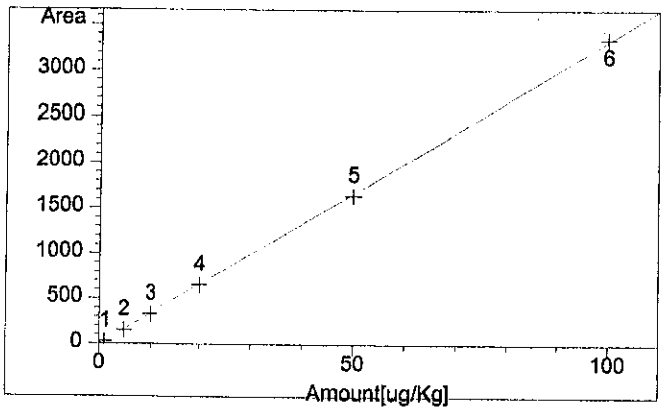
Calibration Curves



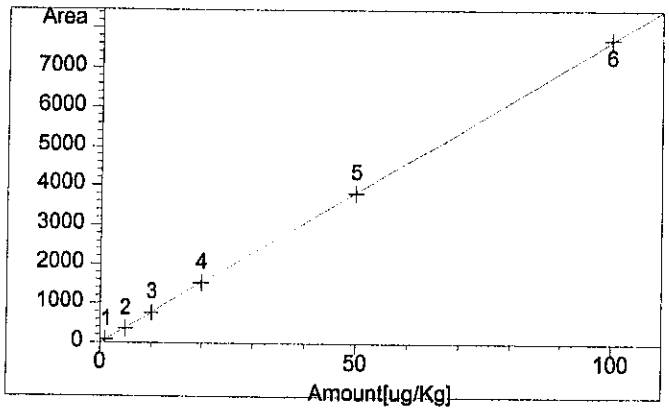
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount [ug/Kg]
y: Area



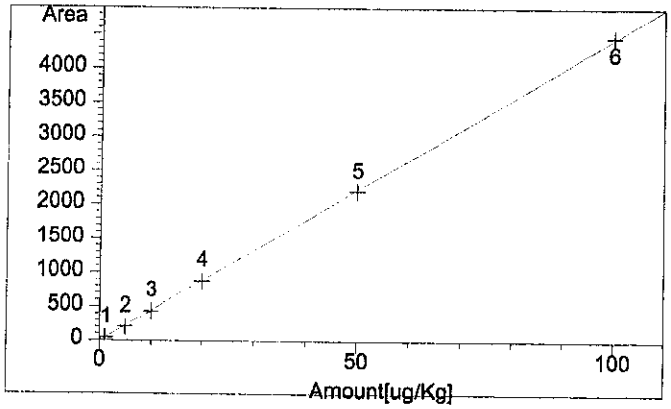
Naphthalene #1 at exp. RT: 9.250
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



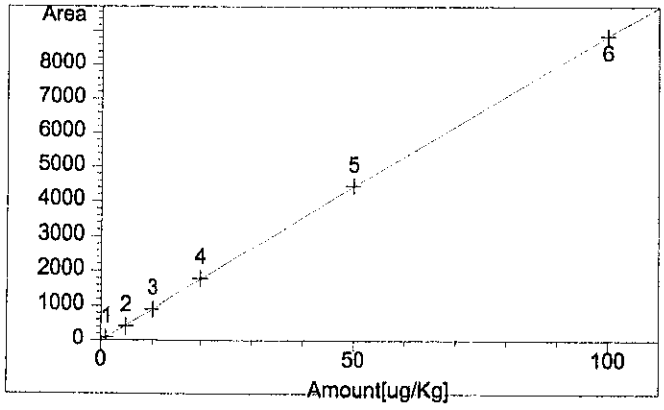
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



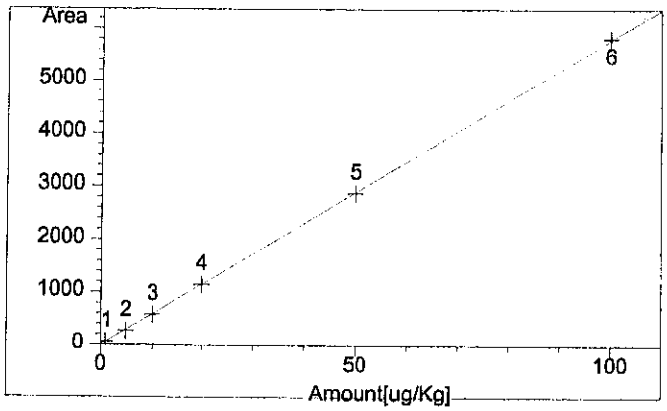
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



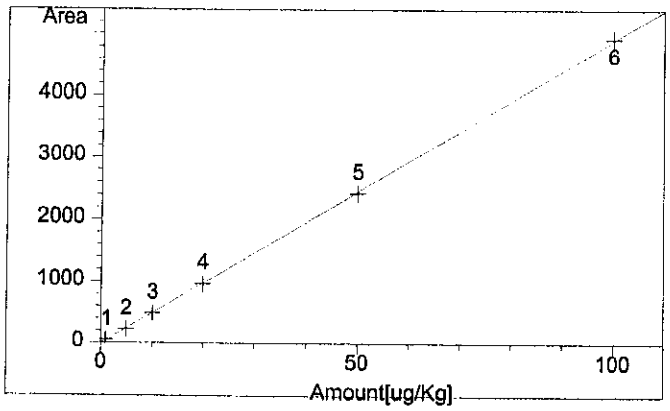
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



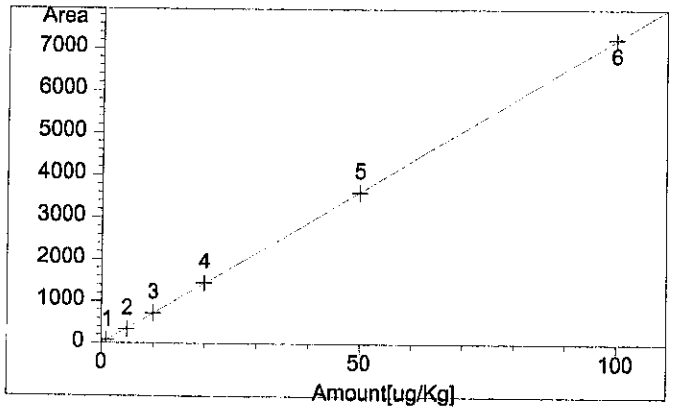
2-Methylnaphthalene #4 at exp. RT: 12.413
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount [ug/Kg]
y: Area



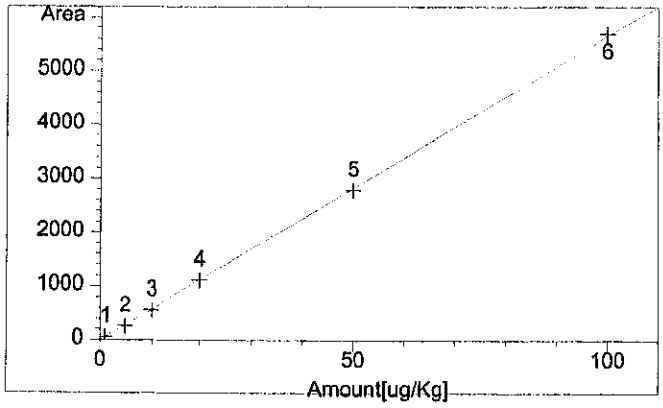
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount [ug/Kg]
y: Area



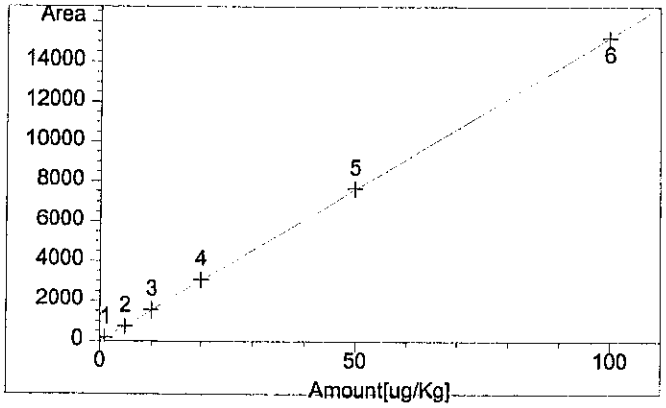
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount [ug/Kg]
y: Area



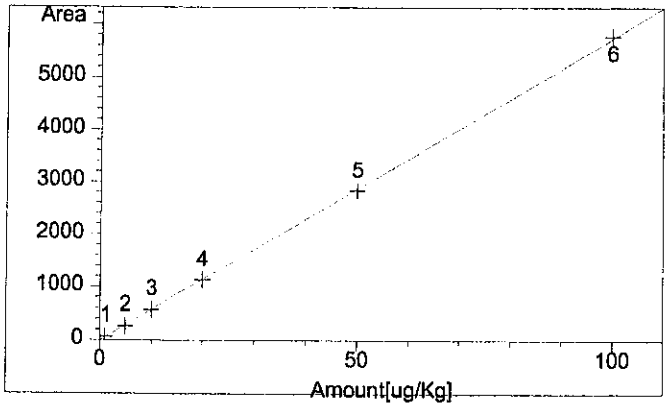
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount [ug/Kg]
y: Area



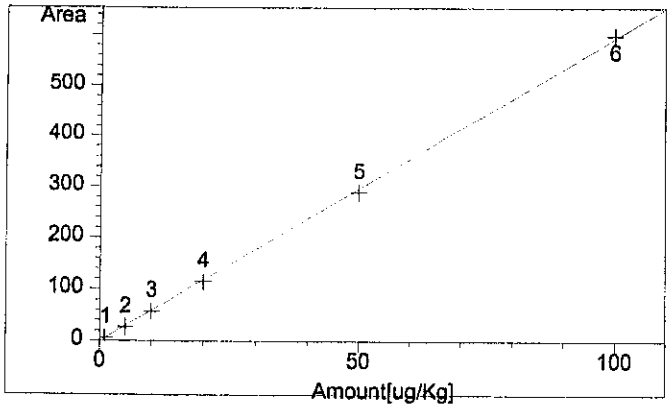
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



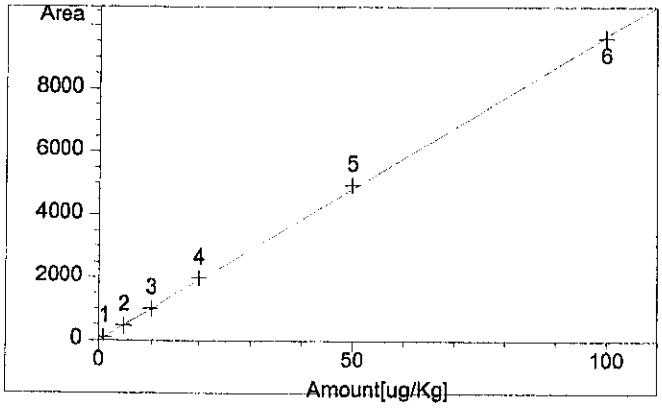
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



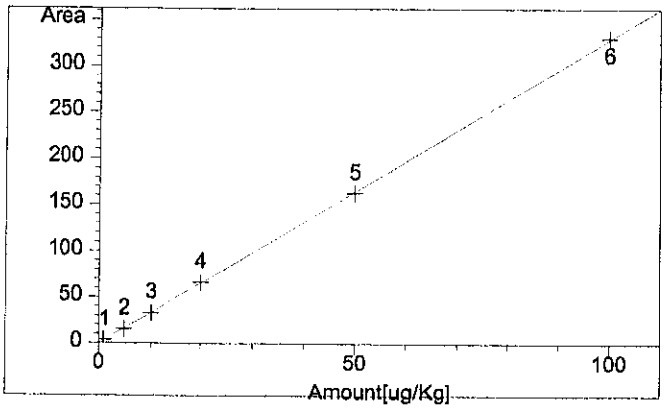
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



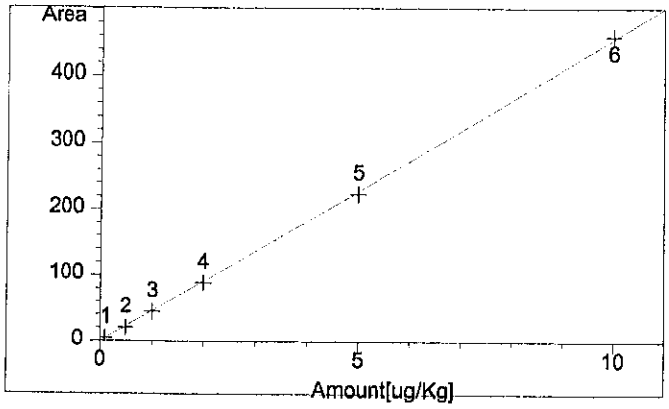
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



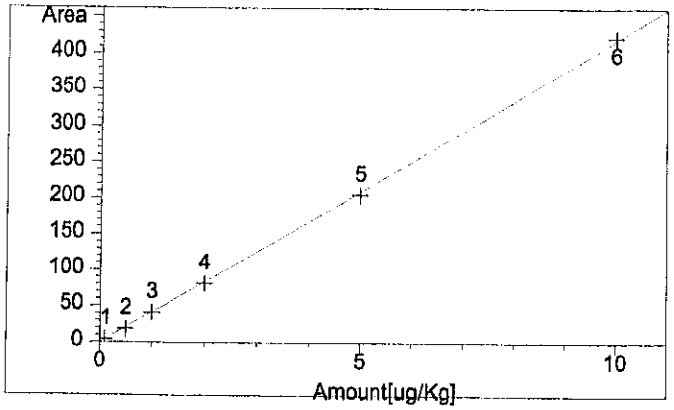
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



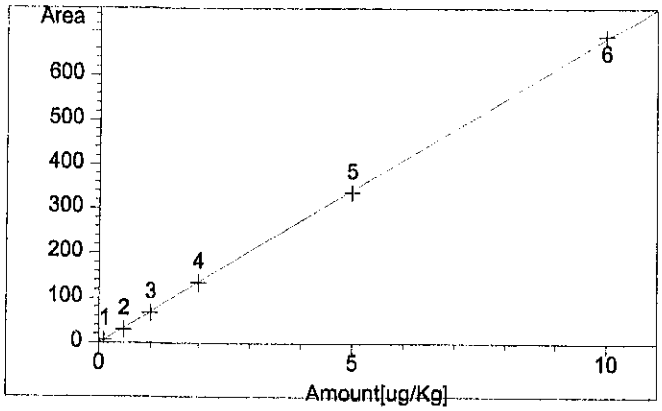
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



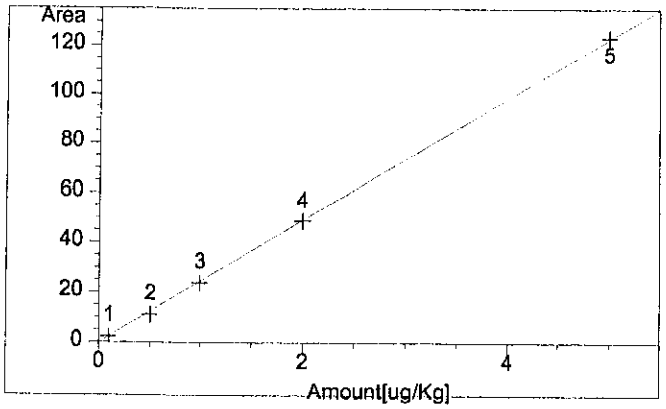
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



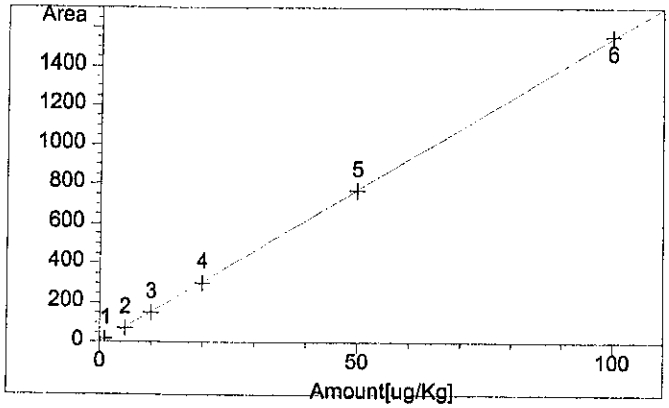
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



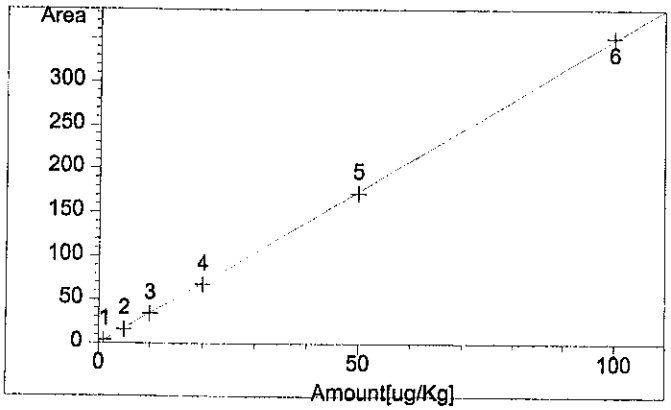
Pyrene #10 at exp. RT: 18.769
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



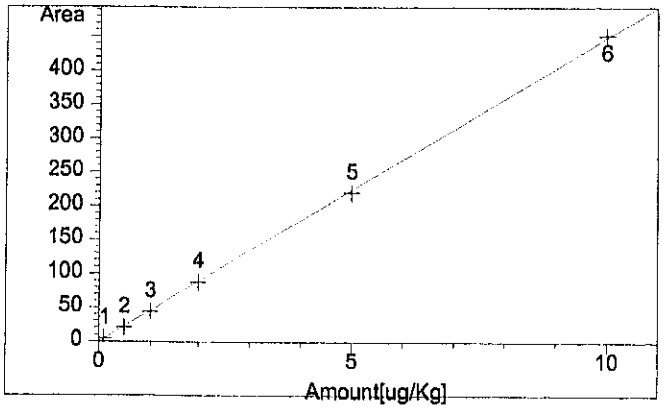
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



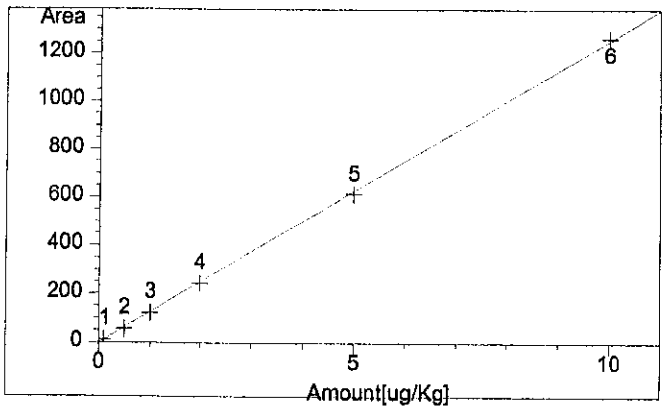
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



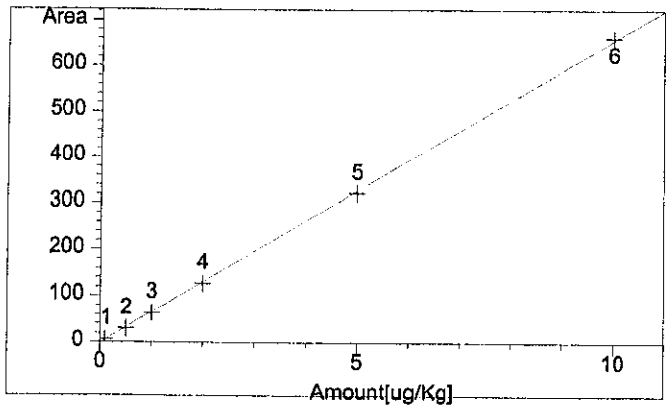
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



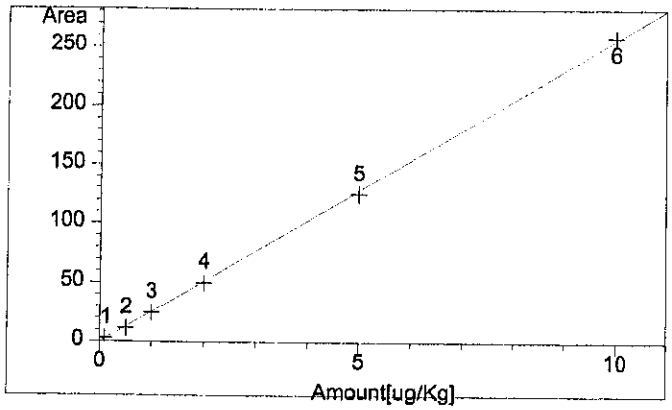
Benzo(a)anthracene #12 at exp. RT: 22.460
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



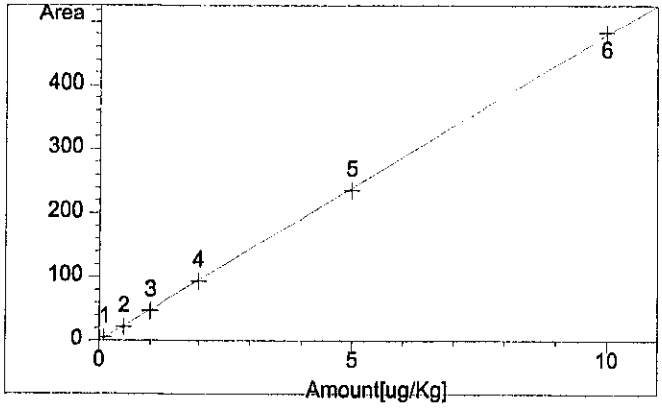
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



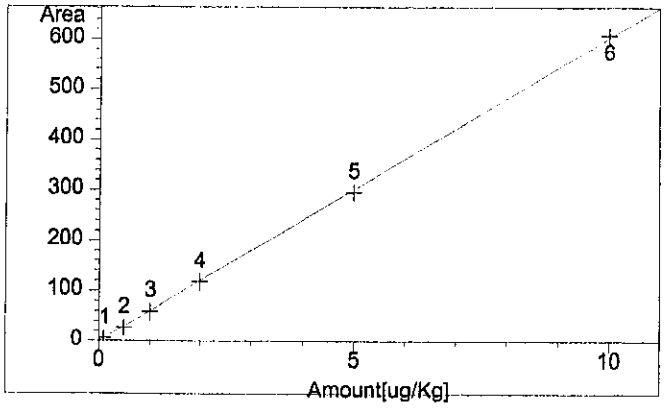
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



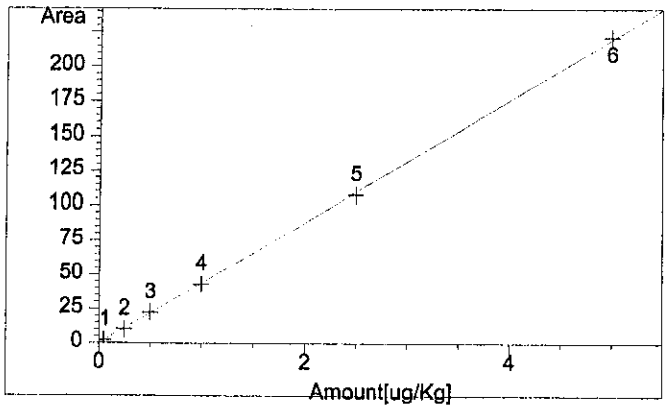
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



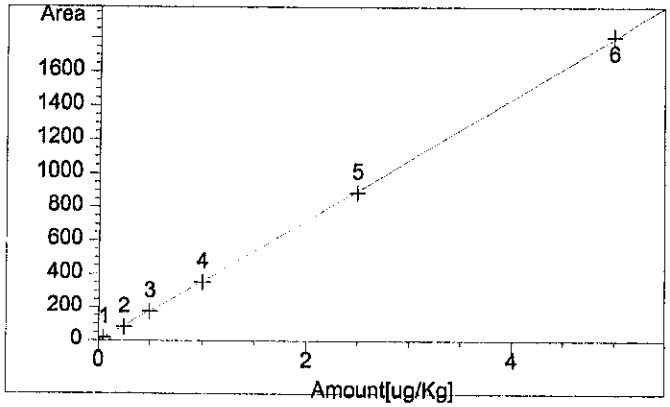
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



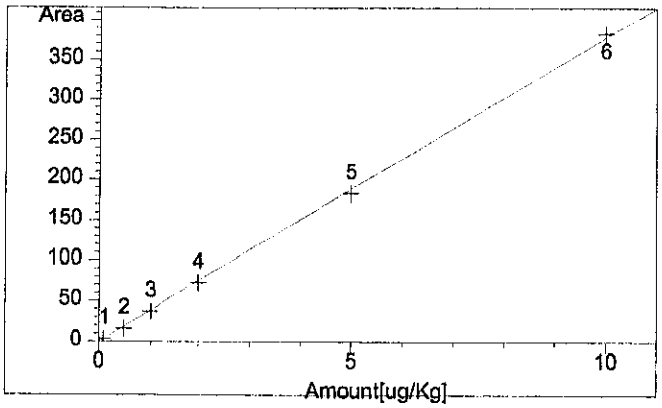
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



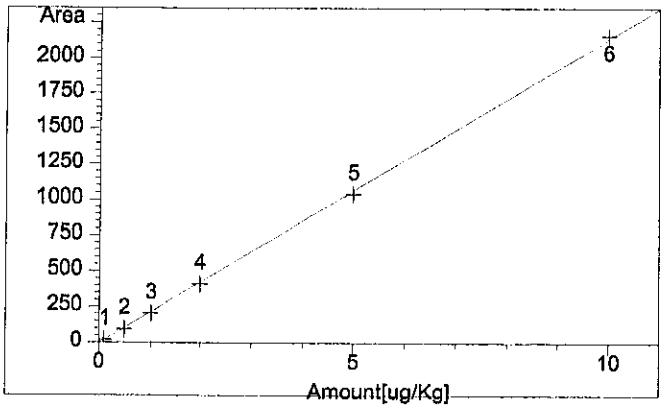
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



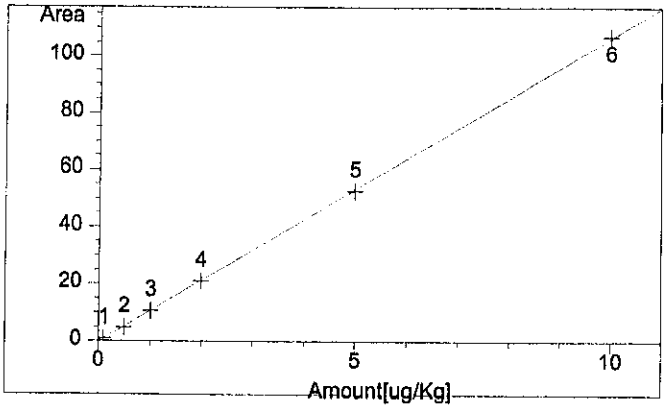
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



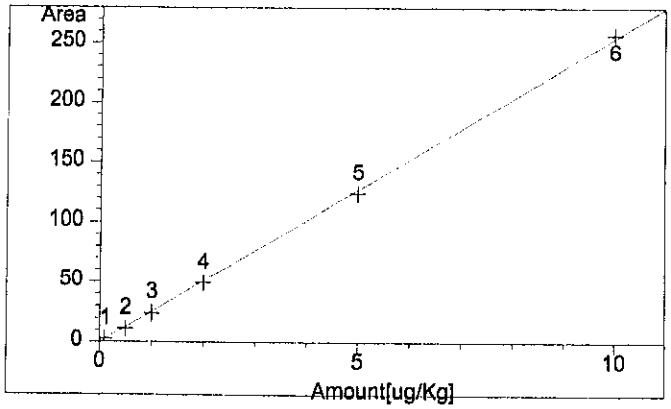
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount [ug/Kg]
y: Area



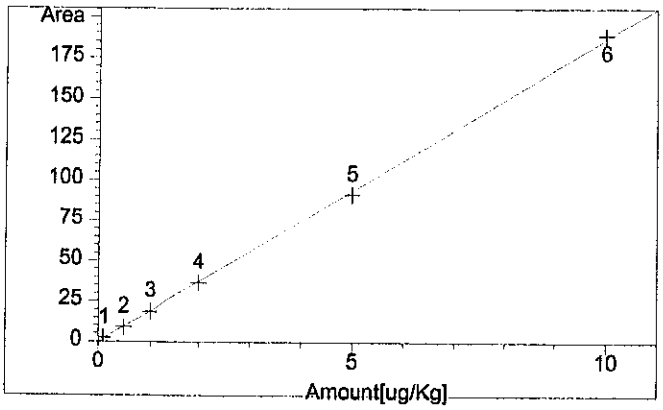
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount [ug/Kg]
y: Area



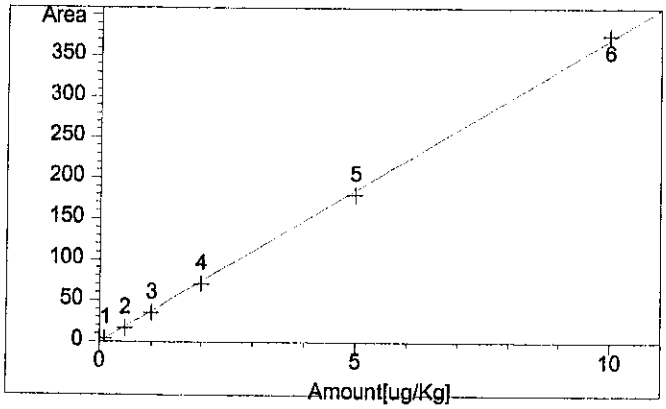
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount [ug/Kg]
y: Area



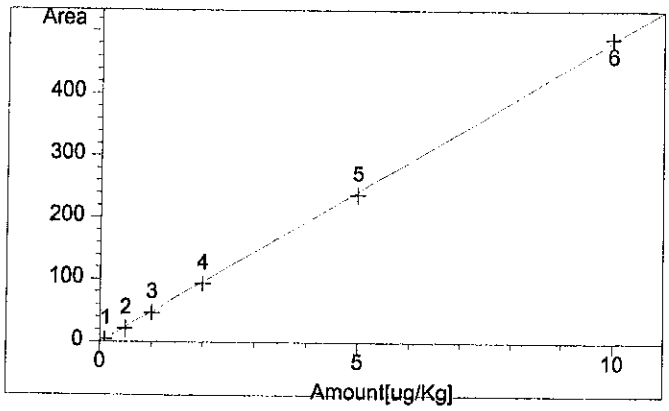
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount [ug/Kg]
y: Area



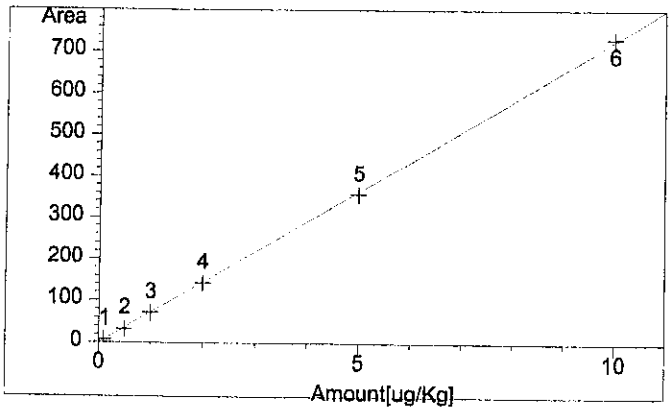
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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1,1 SOS56-19 SURROGATE LVL 6 100 ppm

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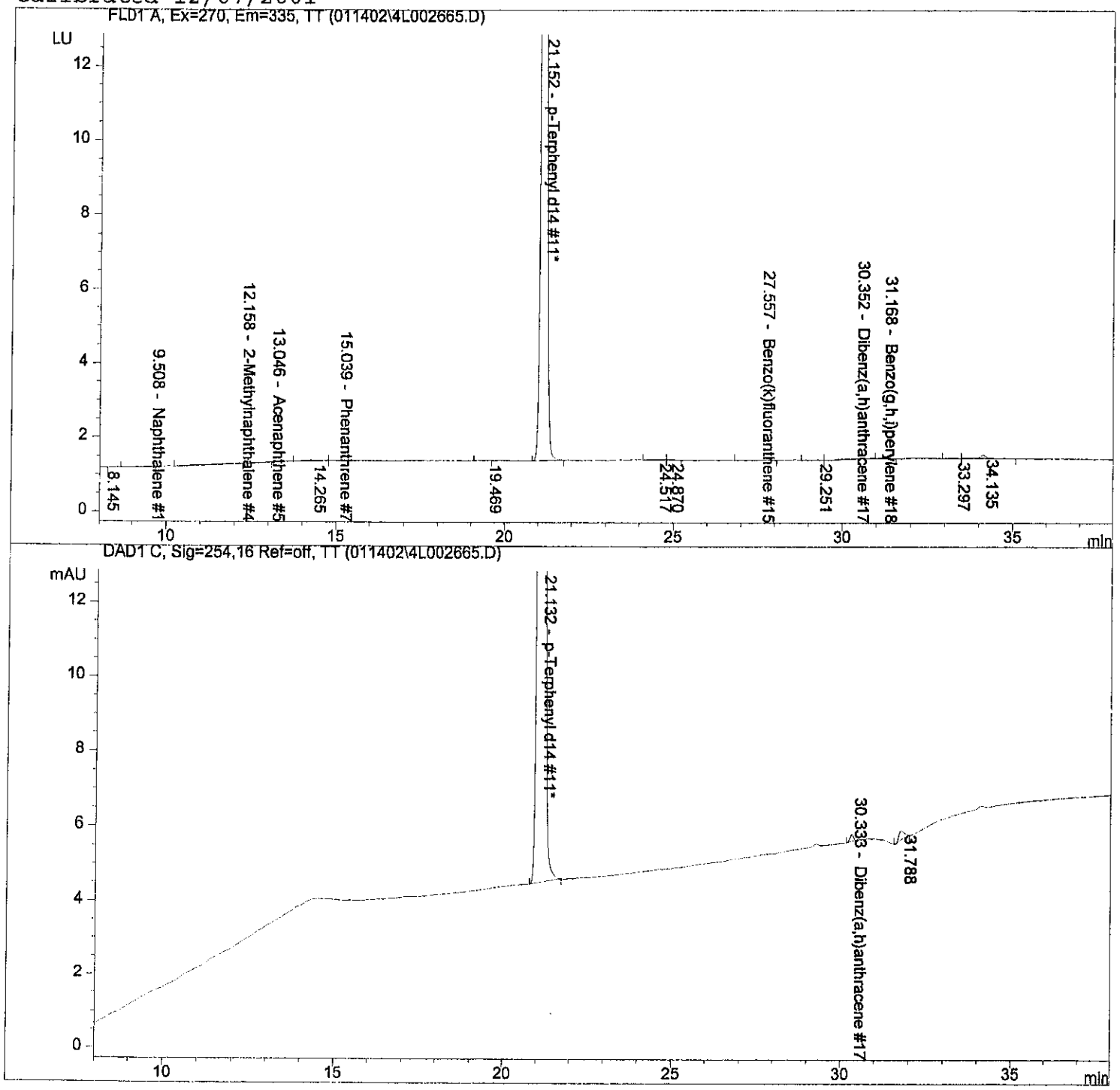
Injection Date	: 1/14/2002 4:49:46 PM	Seq. Line :	5
Sample Name	: WG111292-01 STD6	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:55:14 AM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:54:56 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.508	BB	4.34759e-1	1.16481e-1	5.06410e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.158	BB	1.07918	7.75522e-2	8.36927e-2		2-Methylnaphthalene #4
13.046	BB	1.89278e-1	6.17121e-2	1.16807e-2		Acenaphthene #5
13.592		-	-	-		Fluorene #6
15.039	BB	1.66581e-1	7.68372e-1	1.27997e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.152	BB	350.72665	2.88863e-1	101.31209		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.557	BB	2.49311e-1	1.22777e-2	3.06097e-3		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.352	BB	3.07933e-1	1.82908e-1	5.63234e-2		Dibenz(a,h)anthracene #17
31.168	BB	1.72865e-1	1.36072e-1	2.35222e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 101.66901

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.574		-	-	-		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.132	PBA	1553.40210	6.46122e-2	100.36876		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.333	PBA	1.41009	3.91388e-1	5.51892e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.92065

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

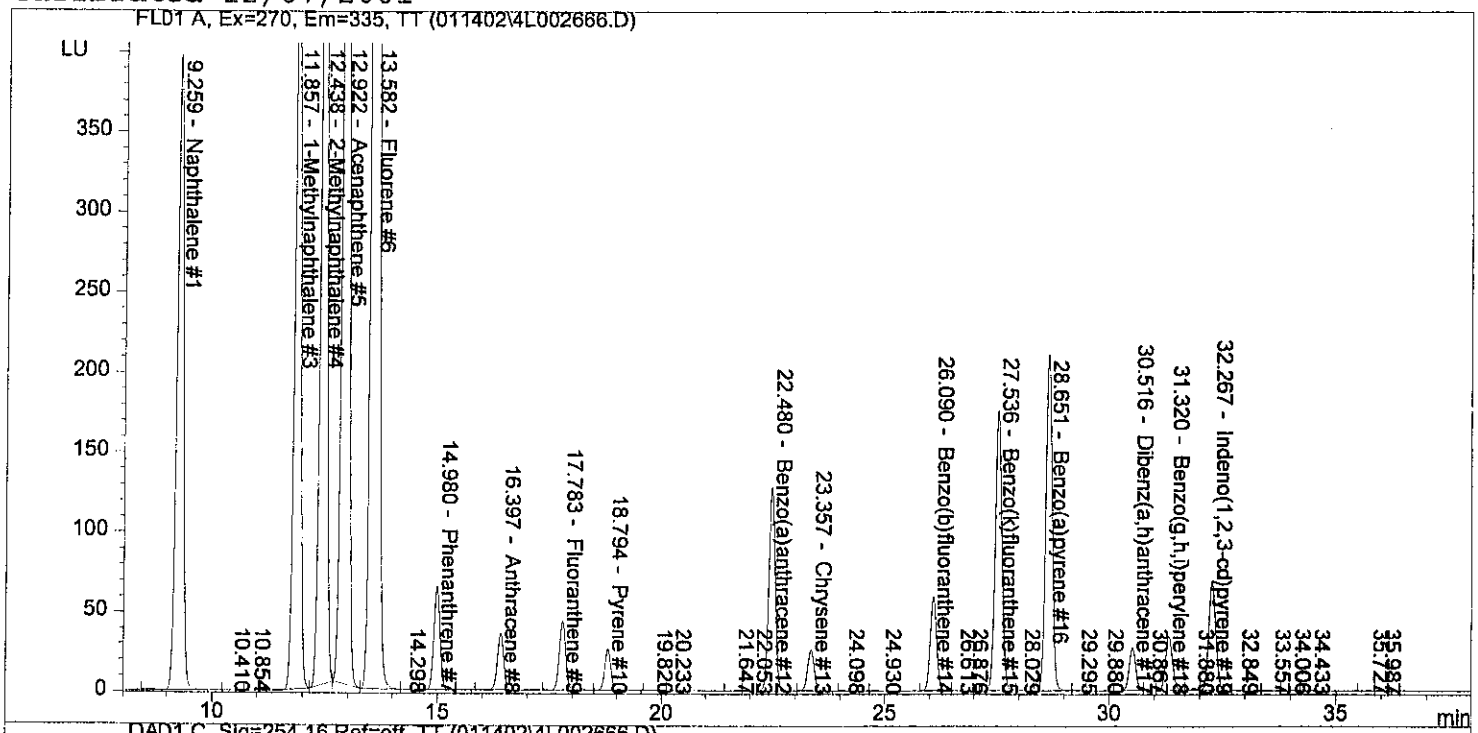
1,1 SOS56-20 8310 MIX LVL 6 100/10/1 ppm

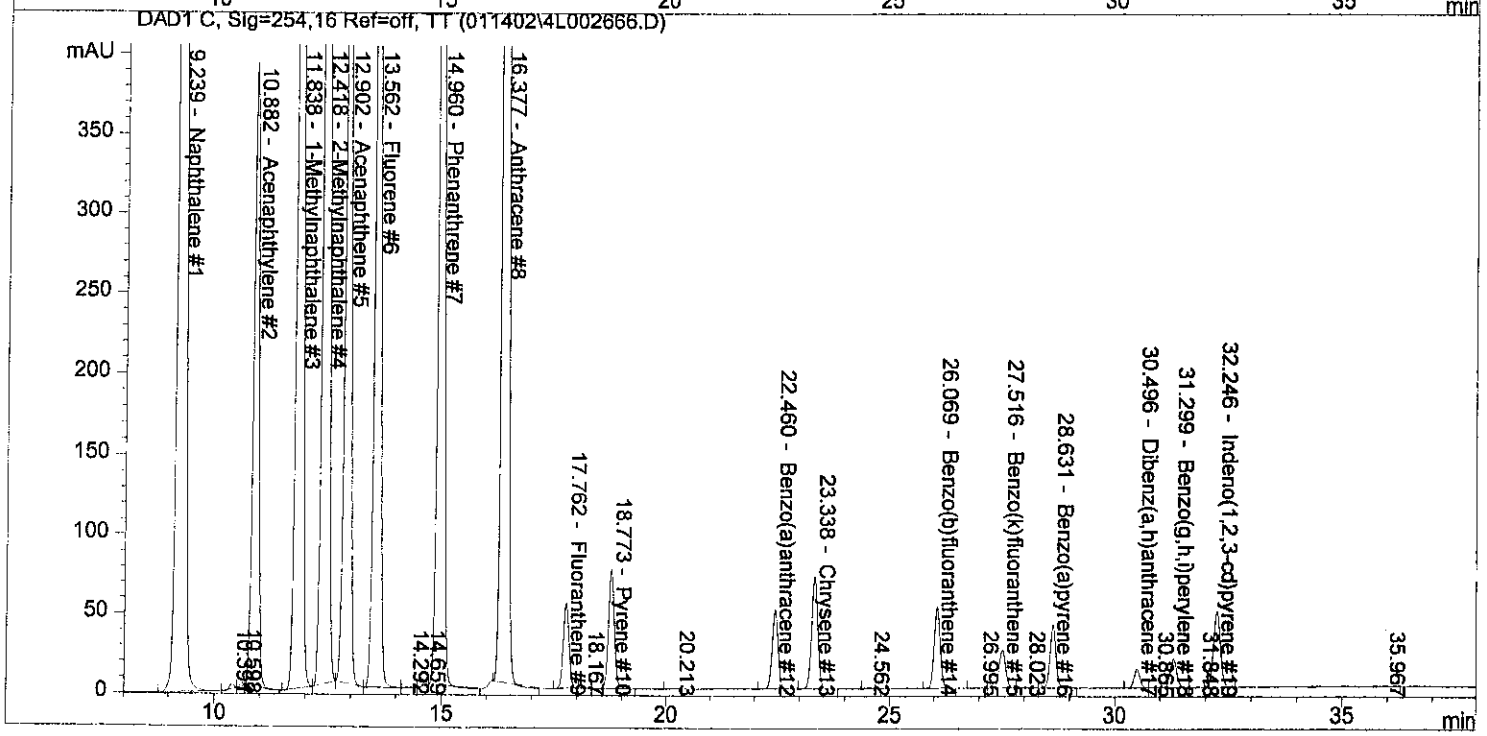
==========

Injection Date	: 1/14/2002 5:46:24 PM	Seq. Line :	6
Sample Name	: WG111292-02 STD6	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:15 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.259	BB	3909.56982	2.59098e-2	101.29633		Naphthalene #1
11.857	BB	4464.79199	2.26593e-2	101.16897		1-Methylnaphthalene #3
12.438	BB	5805.80029	1.74043e-2	101.04580		2-Methylnaphthalene #4
12.922	BB	7244.47559	1.39240e-2	100.87222		Acenaphthene #5
13.582	BB	1.51952e4	6.58360e-3	100.03904		Fluorene #6
14.980	BBA	598.44012	1.69653e-1	101.52739		Phenanthrene #7
16.397	PB	330.05484	3.06735e-1	101.23935		Anthracene #8
17.783	BB	421.88382	2.42042e-2	10.21136		Fluoranthene #9
18.794	BBA	256.38925	4.52106e-2	11.59150		Pyrene #10
21.152		-	-	-		p-Terphenyl d14 #11*
22.480	BB	1264.77136	8.05530e-3	10.18811		Benzo(a)anthracene #12
23.357	BB	258.24448	3.94803e-2	10.19558		Chrysene #13
26.090	BB	607.99158	1.66154e-2	10.10204		Benzo(b)fluoranthene #14
27.536	BB	1810.23218	2.78279e-3	5.03750		Benzo(k)fluoranthene #15
28.651	BB	2156.77197	4.79942e-3	10.35126		Benzo(a)pyrene #16
30.516	BB	256.59177	3.97741e-2	10.20569		Dibenz(a,h)anthracene #17
31.320	BB	375.12704	2.76747e-2	10.38153		Benzo(g,h,i)perylene #18
32.267	BB	732.07330	1.37649e-2	10.07693		Indeno(1,2,3-cd)pyrene #1
Totals :				805.53062		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.239	BB	1.20010e4	8.25558e-3	99.07545		Naphthalene #1
10.882	BBA	3349.02344	2.99703e-2	100.37122		Acenaphthylene #2
11.838	PB	7715.90479	1.29630e-2	100.02135		1-Methylnaphthalene #3
12.418	BB	8860.92187	1.12528e-2	99.71030		2-Methylnaphthalene #4
12.902	BB	4924.77783	2.03626e-2	100.28115		Acenaphthene #5
13.562	BB	5678.37842	1.76507e-2	100.22728		Fluorene #6
14.960	BBA	5762.64355	1.73998e-2	100.26891		Phenanthrene #7
16.377	BBA	9595.33398	1.04250e-2	100.03098		Anthracene #8
17.762	PB	459.72919	2.18384e-2	10.03975		Fluoranthene #9
18.773	BBA	687.15900	1.45933e-2	10.02794		Pyrene #10
21.132		-	-	-		p-Terphenyl d14 #11*
22.460	BBA	451.63605	2.22799e-2	10.06240		Benzo(a)anthracene #12
23.338	BBA	661.99542	1.51643e-2	10.03871		Chrysene #13
26.069	BBA	482.47552	2.08014e-2	10.03615		Benzo(b)fluoranthene #14
27.516	BB	221.38257	2.26525e-2	5.01487		Benzo(k)fluoranthene #15
28.631	BB	382.09714	2.68748e-2	10.26877		Benzo(a)pyrene #16
30.496	PB	106.91074	9.38593e-2	10.03457		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.299	BB	188.48102	5.43668e-2	10.24712		Benzo(g,h,i)perylene #18
32.246	BB	488.50769	2.05620e-2	10.04469		Indeno(1,2,3-cd)pyrene #1

Totals : 895.80161

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 5 50/5/2.5 ppm

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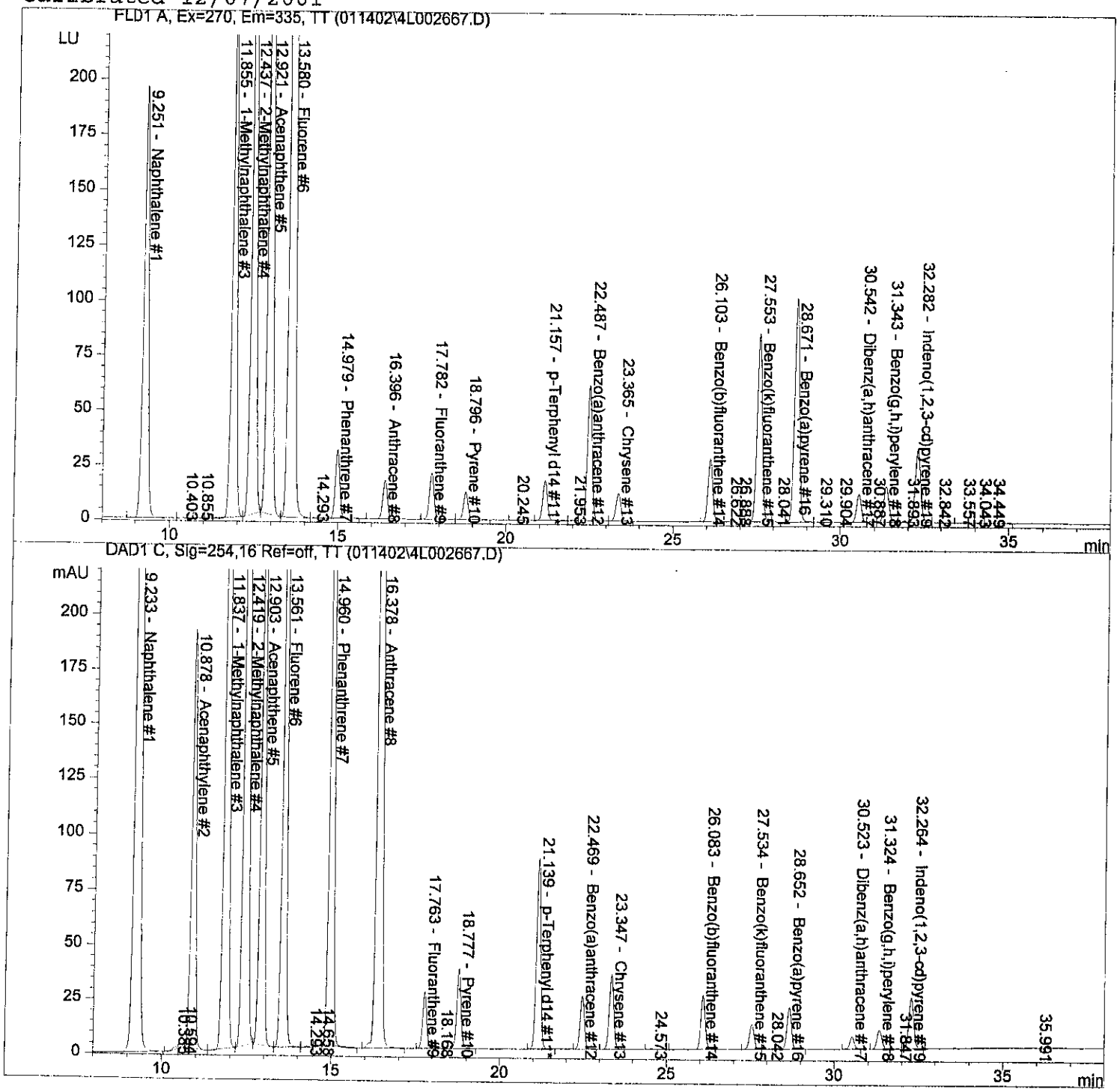
Injection Date : 1/14/2002 6:43:01 PM
Sample Name : WG111292-03 STD5
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:54 AM by RDC
(modified after loading)

Calibrated 12/07/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	PB	1917.75940	2.57391e-2	49.36141		Naphthalene #1
11.855	BB	2196.17188	2.25224e-2	49.46298		1-Methylnaphthalene #3
12.437	BB	2872.90649	1.72938e-2	49.68347		2-Methylnaphthalene #4
12.921	BB	3601.05908	1.38425e-2	49.84749		Acenaphthene #5
13.580	BB	7650.25977	6.57169e-3	50.27517		Fluorene #6
14.979	BBA	289.46243	1.68729e-1	48.84075		Phenanthrene #7
16.396	PB	163.06247	3.04476e-1	49.64867		Anthracene #8
17.782	PB	205.21196	2.39096e-2	4.90655		Fluoranthene #9
18.796	BBA	123.47372	4.13417e-2	5.10461		Pyrene #10
21.157	BB	172.45569	2.86901e-1	49.47773		p-Terphenyl d14 #11*
22.487	BB	613.80975	7.98167e-3	4.89922		Benzo(a)anthracene #12
23.365	BBA	125.29953	3.90970e-2	4.89883		Chrysene #13
26.103	BB	295.74701	1.65676e-2	4.89983		Benzo(b)fluoranthene #14
27.553	BB	887.50769	2.77706e-3	2.46466		Benzo(k)fluoranthene #15
28.671	BB	1042.10840	4.69783e-3	4.89565		Benzo(a)pyrene #16
30.542	BB	123.83313	3.94476e-2	4.88492		Dibenz(a,h)anthracene #17
31.343	BB	179.72395	2.70688e-2	4.86491		Benzo(g,h,i)perylene #18
32.282	BB	357.19571	1.37309e-2	4.90463		Indeno(1,2,3-cd)pyrene #1
Totals :				443.32149		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	6168.26709	8.27438e-3	51.03859		Naphthalene #1
10.878	BB	1640.81848	3.00057e-2	49.23384		Acenaphthylene #2
11.837	BB	3818.50562	1.29899e-2	49.60194		1-Methylnaphthalene #3
12.419	BB	4453.67236	1.12699e-2	50.19243		2-Methylnaphthalene #4
12.903	BB	2423.54761	2.03840e-2	49.40167		Acenaphthene #5
13.561	BB	2784.74756	1.76899e-2	49.26182		Fluorene #6
14.960	BBA	2829.81055	1.74269e-2	49.31471		Phenanthrene #7
16.378	BBA	4949.62500	1.03683e-2	51.31903		Anthracene #8
17.763	PB	223.85286	2.18887e-2	4.89985		Fluoranthene #9
18.777	BBA	335.84097	1.46312e-2	4.91376		Pyrene #10
21.139	PBA	768.36145	6.46010e-2	49.63695		p-Terphenyl d14 #11*
22.469	BBA	219.83919	2.22917e-2	4.90059		Benzo(a)anthracene #12
23.347	BBA	322.44791	1.52017e-2	4.90177		Chrysene #13
26.083	PBA	235.80293	2.08378e-2	4.91361		Benzo(b)fluoranthene #14
27.534	BB	107.77484	2.27191e-2	2.44855		Benzo(k)fluoranthene #15
28.652	BBA	183.75787	2.65103e-2	4.87147		Benzo(a)pyrene #16
30.523	PB	52.59206	9.36520e-2	4.92535		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.324	BB	91.19056	5.36419e-2	4.89163		Benzo(g,h,i)perylene #18
32.264	BBA	237.57994	2.05885e-2	4.89142		Indeno(1,2,3-cd)pyrene #1

Totals : 495.55898

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

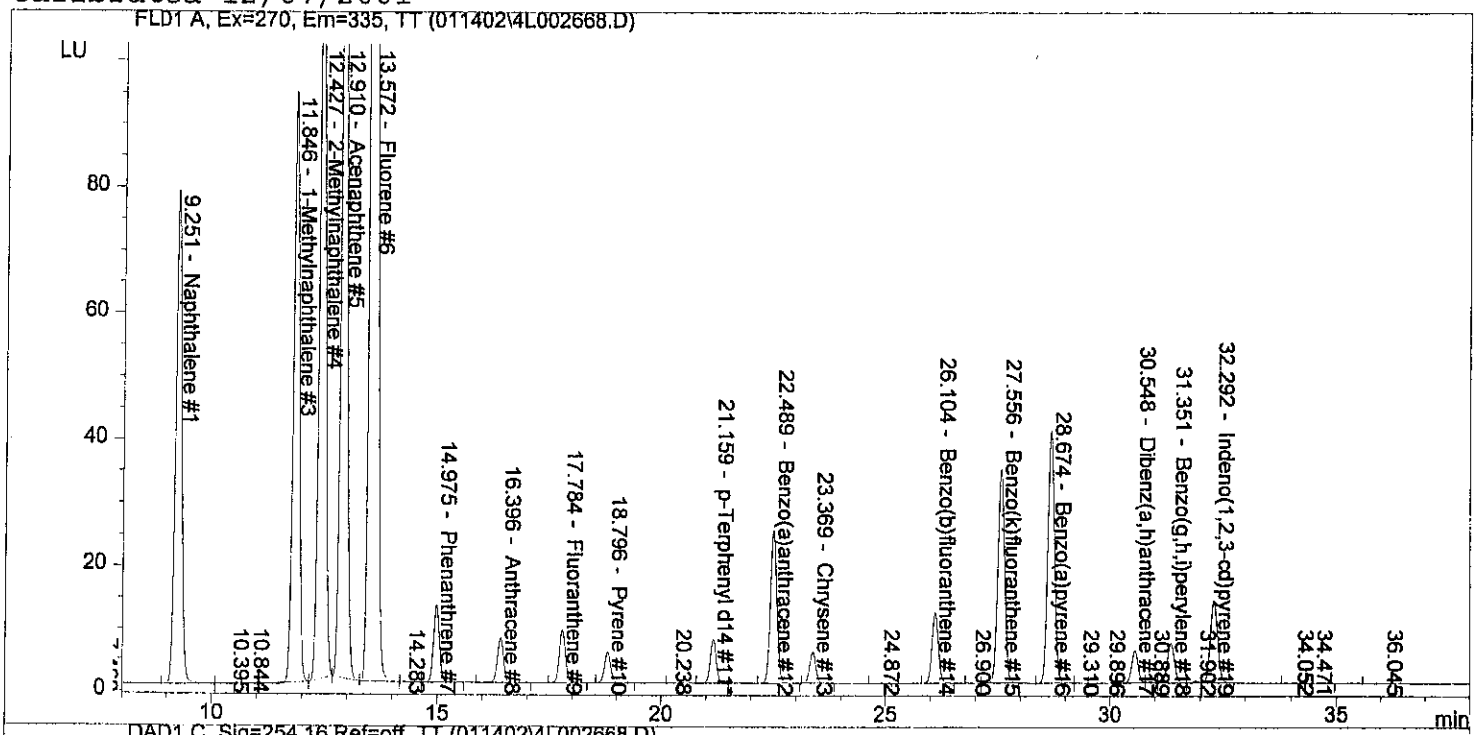
1,1 SOS56-19/56-20 8310 LVL 4 20/2/1 ppm (CCV)

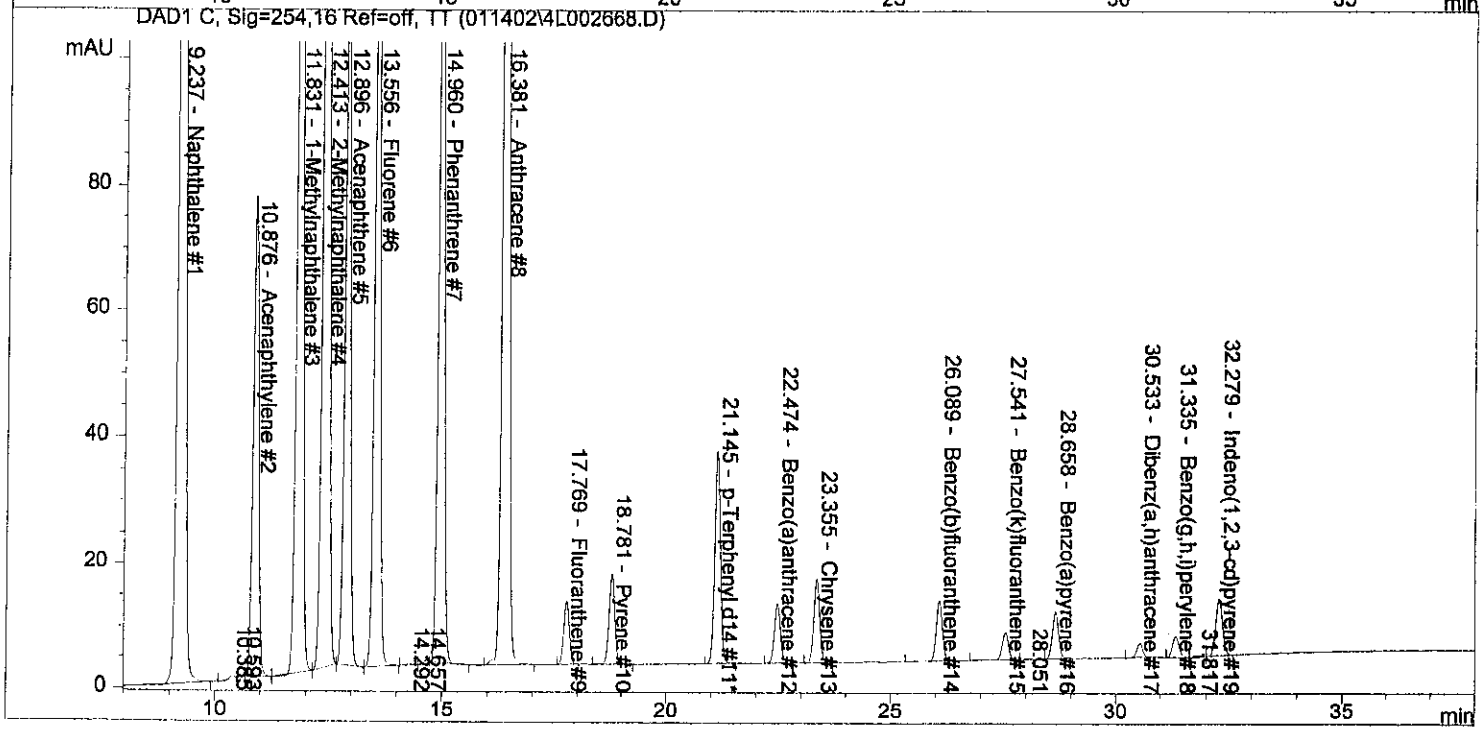
==========

Injection Date	: 1/14/2002 7:39:37 PM	Seq. Line	: 8
Sample Name	: WG111292-04 STD4	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:57:31 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:26 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	BB	764.84155	2.57113e-2	19.66506		Naphthalene #1
11.846	BB	876.57288	2.24980e-2	19.72111		1-Methylnaphthalene #3
12.427	BB	1149.51221	1.72762e-2	19.85915		2-Methylnaphthalene #4
12.910	BB	1447.01648	1.38282e-2	20.00960		Acenaphthene #5
13.572	BB	3090.21484	6.56989e-3	20.30237		Fluorene #6
14.975	BBA	114.46365	1.68568e-1	19.29489		Phenanthrene #7
16.396	PB	66.19009	3.03909e-1	20.11577		Anthracene #8
17.784	BBA	81.38047	2.38718e-2	1.94270		Fluoranthene #9
18.796	BBA	48.63459	4.08244e-2	1.98548		Pyrene #10
21.159	BB	67.61504	2.86614e-1	19.37940		p-Terphenyl d14 #11*
22.489	BBA	243.40866	7.97013e-3	1.94000		Benzo(a)anthracene #12
23.369	BB	49.65573	3.90341e-2	1.93827		Chrysene #13
26.104	BB	117.46639	1.65629e-2	1.94559		Benzo(b)fluoranthene #14
27.556	BB	353.46982	2.77623e-3	9.81314e-1		Benzo(k)fluoranthene #15
28.674	BB	411.81049	4.68187e-3	1.92804		Benzo(a)pyrene #16
30.548	BB	49.01668	3.93610e-2	1.92935		Dibenz(a,h)anthracene #17
31.351	BB	70.52281	2.69711e-2	1.90208		Benzo(g,h,i)perylene #18
32.292	BB	141.77130	1.37318e-2	1.94677		Indeno(1,2,3-cd)pyrene #1

Totals : 176.78695

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.237	BBA	2493.37891	8.27672e-3	20.63700		Naphthalene #1
10.876	BB	654.20630	3.00100e-2	19.63274		Acenaphthylene #2
11.831	BB	1527.97900	1.29933e-2	19.85351		1-Methylnaphthalene #3
12.413	BB	1790.56641	1.12718e-2	20.18291		2-Methylnaphthalene #4
12.896	BB	968.73480	2.03858e-2	19.74842		Acenaphthene #5
13.556	BBA	1111.38098	1.76946e-2	19.66540		Fluorene #6
14.960	BBA	1130.27087	1.74304e-2	19.70112		Phenanthrene #7
16.381	PBA	1988.68909	1.03512e-2	20.58537		Anthracene #8
17.769	PB	88.82484	2.18962e-2	1.94493		Fluoranthene #9
18.781	BBA	134.09285	1.46350e-2	1.96245		Pyrene #10
21.145	PBA	301.36755	6.46036e-2	19.46943		p-Terphenyl d14 #11*
22.474	BBA	87.40981	2.22922e-2	1.94856		Benzo(a)anthracene #12
23.355	BBA	127.90170	1.52055e-2	1.94481		Chrysene #13
26.089	BBA	93.43871	2.08450e-2	1.94773		Benzo(b)fluoranthene #14
27.541	BBA	43.15946	2.27263e-2	9.80857e-1		Benzo(k)fluoranthene #15
28.658	BBA	72.43052	2.64554e-2	1.91618		Benzo(a)pyrene #16
30.533	PBA	20.95795	9.37185e-2	1.96415		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.335	BB	36.23856	5.34889e-2	1.93836		Benzo(g,h,i)perylene #18
32.279	BBA	93.53850	2.06233e-2	1.92908		Indeno(1,2,3-cd)pyrene #1

Totals : 197.95301

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

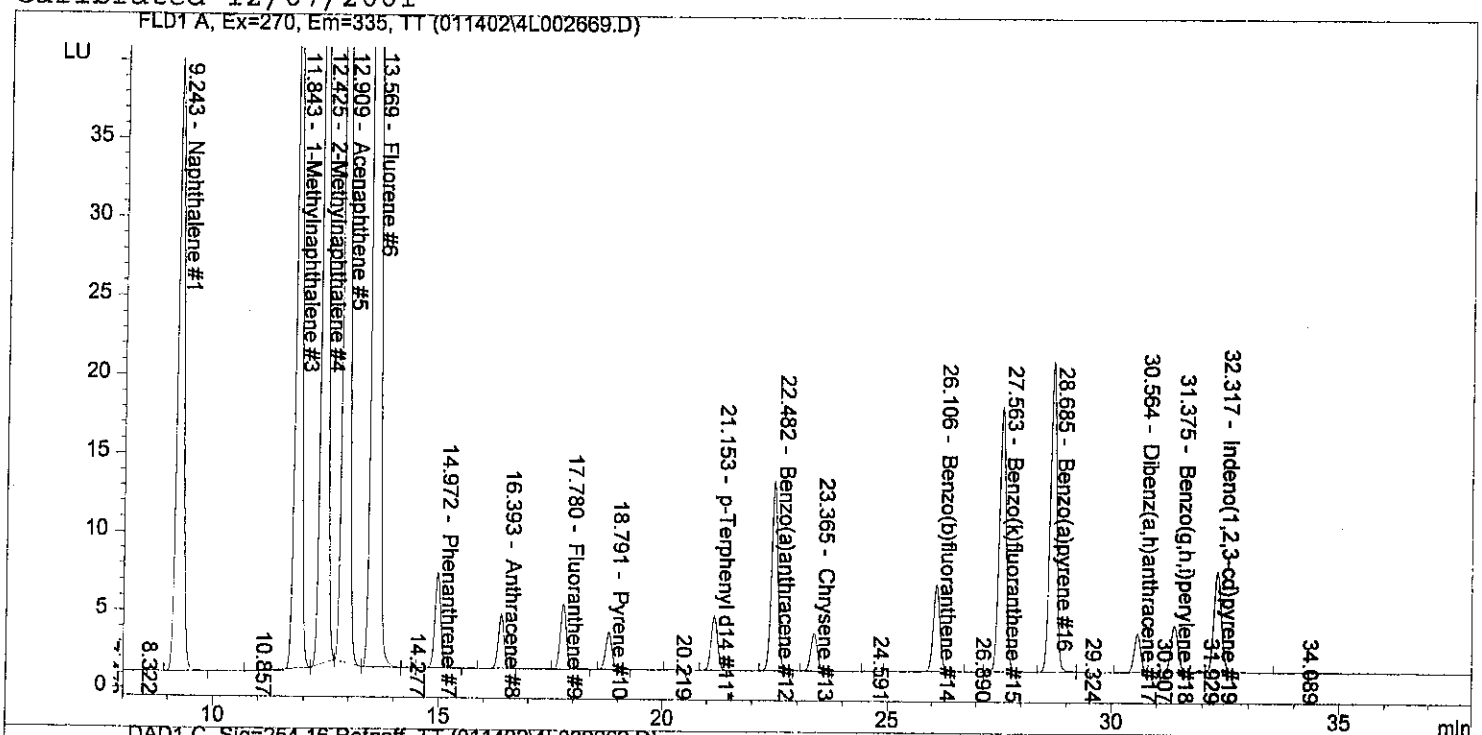
1,1 SOS56-19/56-20 8310 LVL 3 10/1/.5 ppm

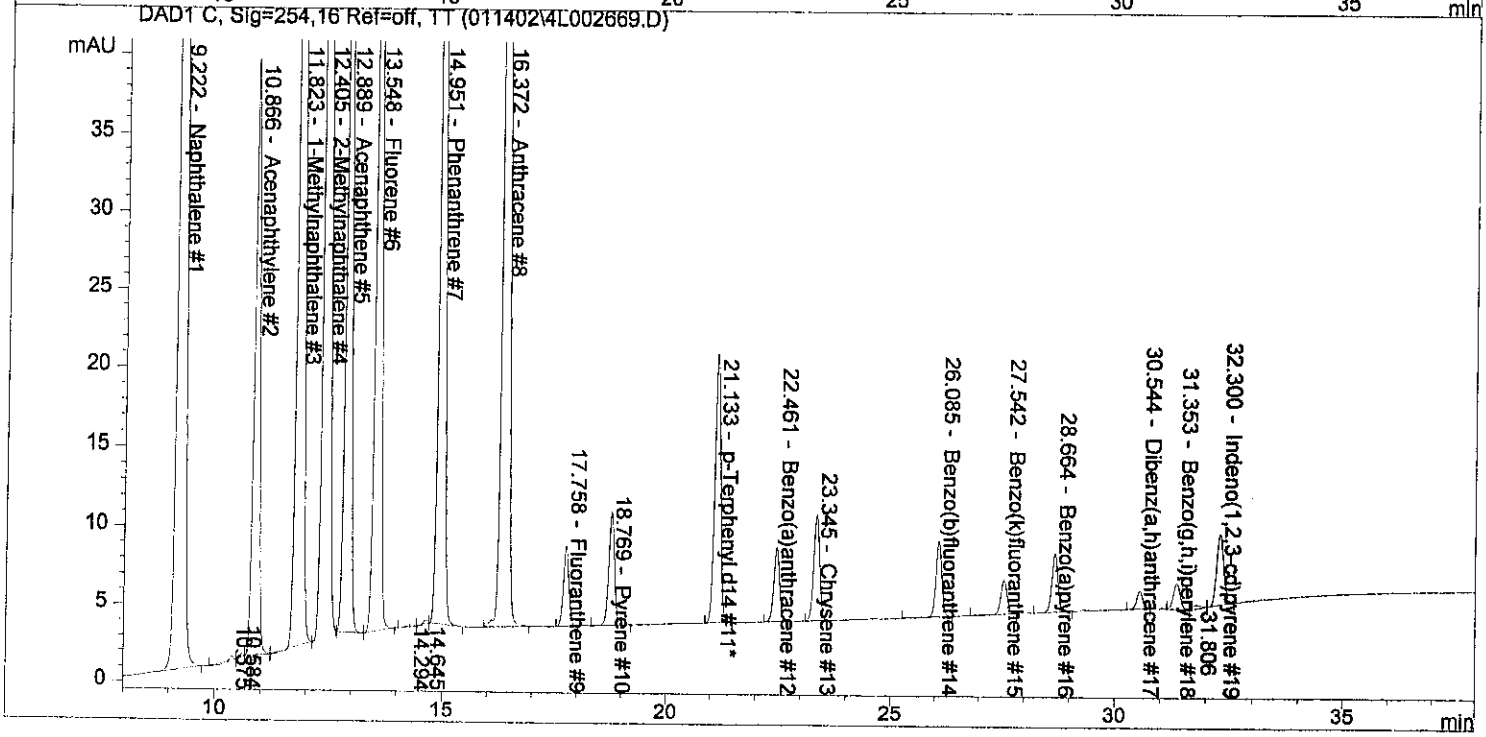
==========

Injection Date	: 1/14/2002 8:36:14 PM	Seq. Line	: 9
Sample Name	: WG111292-05 STD3	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:04 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:59 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.243	BBA	379.16129	2.57002e-2	9.74453		Naphthalene #1
11.843	BB	434.69620	2.24890e-2	9.77589		1-Methylnaphthalene #3
12.425	BB	570.62238	1.72690e-2	9.85408		2-Methylnaphthalene #4
12.909	BB	718.57635	1.38226e-2	9.93260		Acenaphthene #5
13.569	BB	1545.26501	6.56835e-3	10.14984		Fluorene #6
14.972	BBA	56.83334	1.68487e-1	9.57567		Phenanthrene #7
16.393	BB	32.77779	3.03723e-1	9.95538		Anthracene #8
17.780	BBA	40.55882	2.38651e-2	9.67941e-1		Fluoranthene #9
18.791	BBA	23.90537	4.06767e-2	9.72391e-1		Pyrene #10
21.153	BB	33.44160	2.86510e-1	9.58136		p-Terphenyl d14 #11*
22.482	BB	120.40920	7.96570e-3	9.59144e-1		Benzo(a)anthracene #12
23.365	BB	24.62586	3.90135e-2	9.60740e-1		Chrysene #13
26.106	BB	58.49529	1.65575e-2	9.68536e-1		Benzo(b)fluoranthene #14
27.563	BB	175.63820	2.77551e-3	4.87486e-1		Benzo(k)fluoranthene #15
28.685	BB	203.03578	4.67719e-3	9.49638e-1		Benzo(a)pyrene #16
30.564	BB	24.01385	3.93187e-2	9.44192e-1		Dibenz(a,h)anthracene #17
31.375	BB	34.73734	2.69479e-2	9.36098e-1		Benzo(g,h,i)perylene #18
32.317	BB	70.38887	1.37428e-2	9.67338e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 87.68286

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.222	PBA	1246.98584	8.27572e-3	10.31971		Naphthalene #1
10.866	BB	325.75351	3.00062e-2	9.77463		Acenaphthylene #2
11.823	BB	761.30933	1.29920e-2	9.89092		1-Methylnaphthalene #3
12.405	BB	894.14850	1.12702e-2	10.07728		2-Methylnaphthalene #4
12.889	BB	483.23654	2.03825e-2	9.84955		Acenaphthene #5
13.548	BBA	552.99121	1.76927e-2	9.78392		Fluorene #6
14.951	BBA	563.78040	1.74279e-2	9.82554		Phenanthrene #7
16.372	PBA	992.23688	1.03457e-2	10.26534		Anthracene #8
17.758	PB	44.30089	2.18935e-2	9.69901e-1		Fluoranthene #9
18.769	BBA	66.46920	1.46332e-2	9.72658e-1		Pyrene #10
21.133	BBA	149.64757	6.45954e-2	9.66654		p-Terphenyl d14 #11*
22.461	BBA	43.45026	2.22870e-2	9.68375e-1		Benzo(a)anthracene #12
23.345	BBA	63.55274	1.52040e-2	9.66253e-1		Chrysene #13
26.085	PBA	46.72572	2.08440e-2	9.73952e-1		Benzo(b)fluoranthene #14
27.542	BBA	22.23862	2.27170e-2	5.05194e-1		Benzo(k)fluoranthene #15
28.664	BBA	36.33923	2.64282e-2	9.60381e-1		Benzo(a)pyrene #16
30.544	PBA	10.59134	9.39051e-2	9.94581e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.353	BB	18.37240	5.34686e-2	9.82347e-1		Benzo(g,h,i)perylene #18
32.300	BBA	46.32841	2.06171e-2	9.55155e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.70222

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

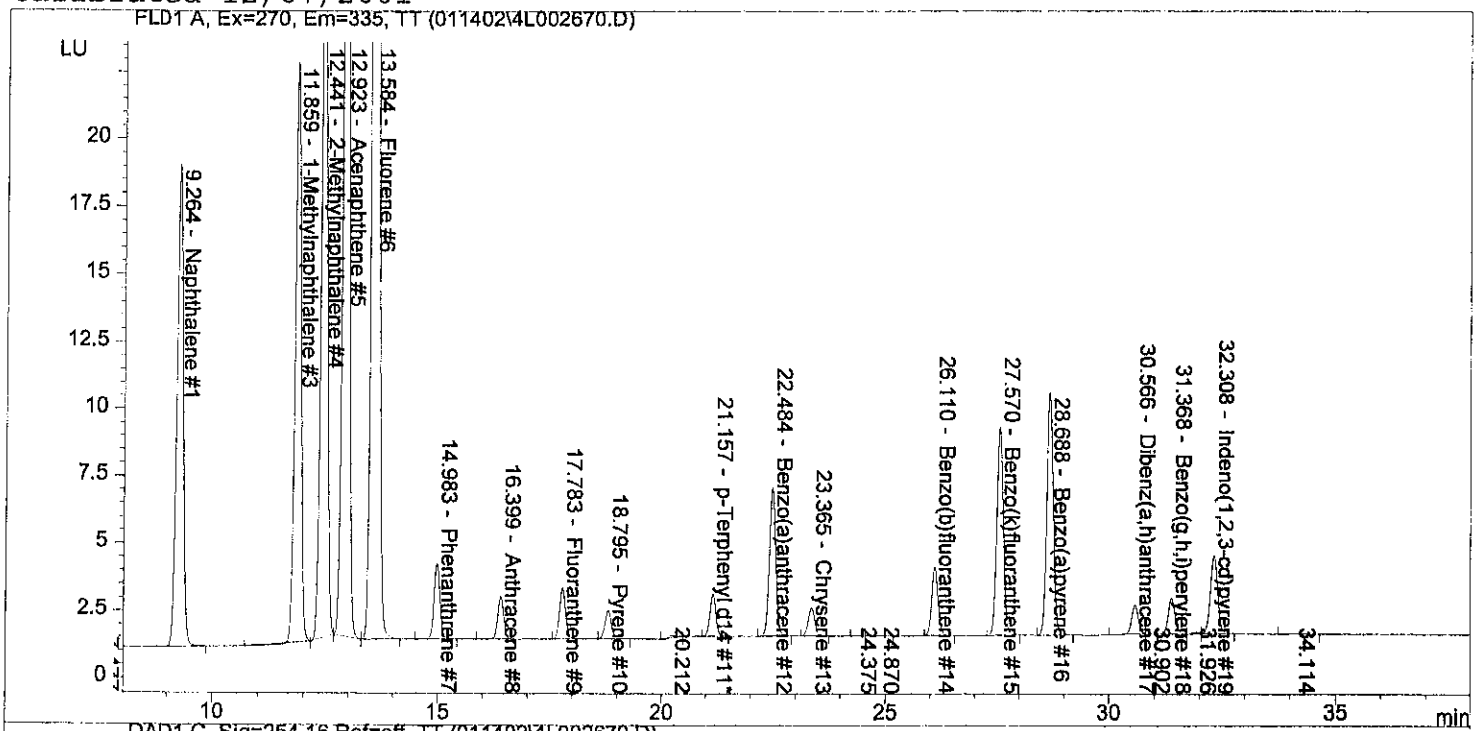
1,1 SOS56-19/56-20 8310 LVL 2 5/.5/.25 ppm

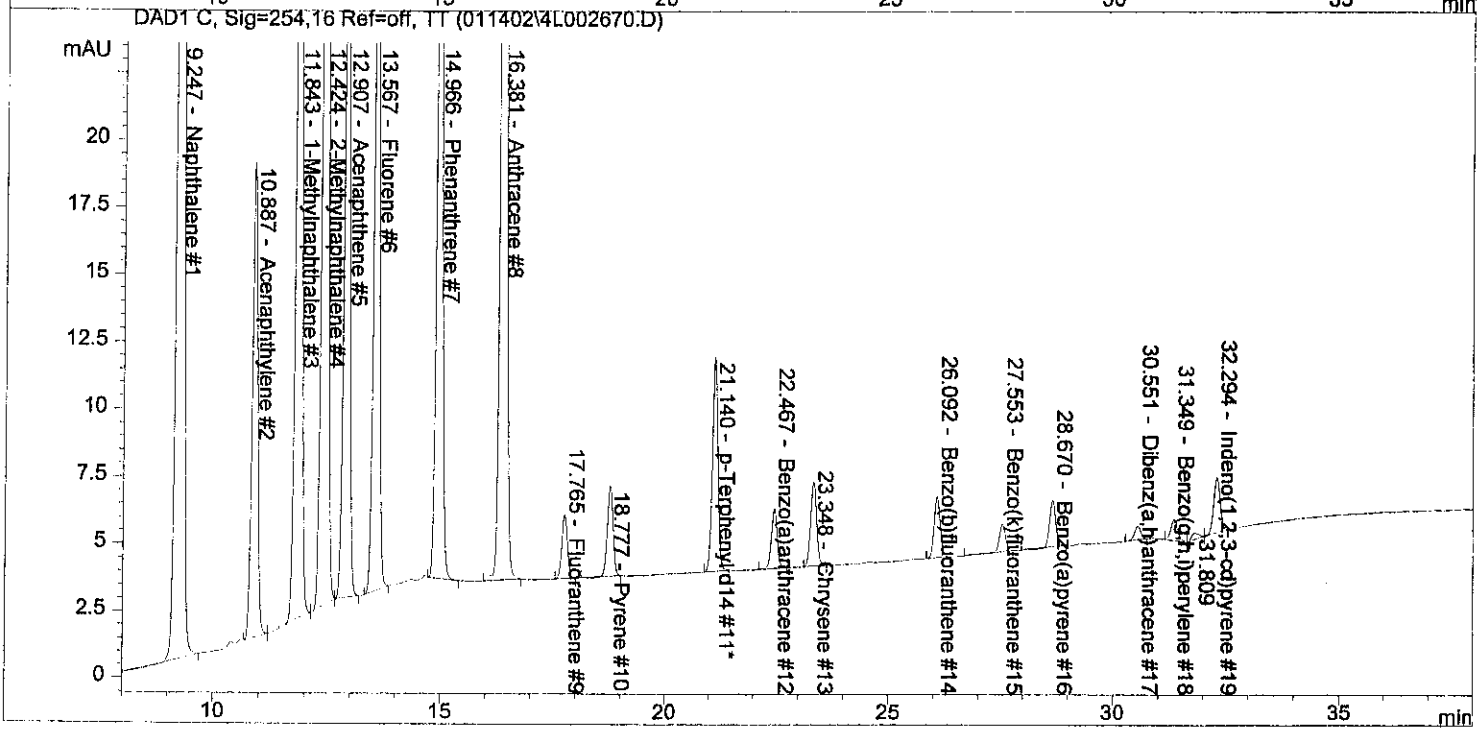
==========

Injection Date	: 1/14/2002 9:32:51 PM	Seq. Line	: 10
Sample Name	: WG111292-06 STD2	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:46 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Tuesday, January 15, 2002 8:58:38 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.264	BBA	174.72874	2.57004e-2	4.49059		Naphthalene #1
11.859	BB	200.14003	2.24894e-2	4.50103		1-Methylnaphthalene #3
12.441	BB	263.61240	1.72692e-2	4.55237		2-Methylnaphthalene #4
12.923	BB	332.58978	1.38228e-2	4.59733		Acenaphthene #5
13.584	BB	715.49780	6.56880e-3	4.69996		Fluorene #6
14.983	BBA	26.26655	1.68488e-1	4.42559		Phenanthrene #7
16.399	PBA	15.12442	3.03717e-1	4.59355		Anthracene #8
17.783	PBA	18.24046	2.38673e-2	4.35351e-1		Fluoranthene #9
18.795	PBA	10.94241	4.06617e-2	4.44937e-1		Pyrene #10
21.157	BB	15.68857	2.86514e-1	4.49500		p-Terphenyl d14 #11*
22.484	BBA	55.43239	7.96561e-3	4.41553e-1		Benzo(a)anthracene #12
23.365	BBA	11.26101	3.90146e-2	4.39344e-1		Chrysene #13
26.110	BBA	26.85213	1.65597e-2	4.44664e-1		Benzo(b)fluoranthene #14
27.570	PBA	81.11520	2.77567e-3	2.25149e-1		Benzo(k)fluoranthene #15
28.688	PB	93.51391	4.67664e-3	4.37331e-1		Benzo(a)pyrene #16
30.566	BB	10.98461	3.93199e-2	4.31913e-1		Dibenz(a,h)anthracene #17
31.368	BB	15.91699	2.69467e-2	4.28911e-1		Benzo(g,h,i)perylene #18
32.308	BBA	32.46655	1.37441e-2	4.46224e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				40.53080		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	PBA	576.60266	8.27651e-3	4.77226		Naphthalene #1
10.887	BB	150.79996	3.00090e-2	4.52535		Acenaphthylene #2
11.843	BB	352.56210	1.29932e-2	4.58091		1-Methylnaphthalene #3
12.424	BB	414.06625	1.12713e-2	4.66705		2-Methylnaphthalene #4
12.907	BBA	223.83940	2.03841e-2	4.56277		Acenaphthene #5
13.567	PBA	254.83487	1.76945e-2	4.50919		Fluorene #6
14.966	BBA	261.27347	1.74294e-2	4.55384		Phenanthrene #7
16.381	PBA	458.90207	1.03455e-2	4.74759		Anthracene #8
17.765	BBA	20.33956	2.18957e-2	4.45349e-1		Fluoranthene #9
18.777	BBA	29.23632	1.46348e-2	4.27869e-1		Pyrene #10
21.140	BBA	69.63579	6.45989e-2	4.49840		p-Terphenyl d14 #11*
22.467	BBA	20.37423	2.22879e-2	4.54100e-1		Benzo(a)anthracene #12
23.348	BBA	29.37774	1.52052e-2	4.46693e-1		Chrysene #13
26.092	BBA	21.54782	2.08463e-2	4.49192e-1		Benzo(b)fluoranthene #14
27.553	PBA	9.94531	2.27216e-2	2.25973e-1		Benzo(k)fluoranthene #15
28.670	BBA	15.71871	2.64268e-2	4.15396e-1		Benzo(a)pyrene #16
30.551	PBA	4.83241	9.39112e-2	4.53817e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.349	BB	8.91349	5.34670e-2	4.76577e-1		Benzo(g,h,i)perylene #18
32.294	BB	20.89905	2.06199e-2	4.30937e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 45.64325

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

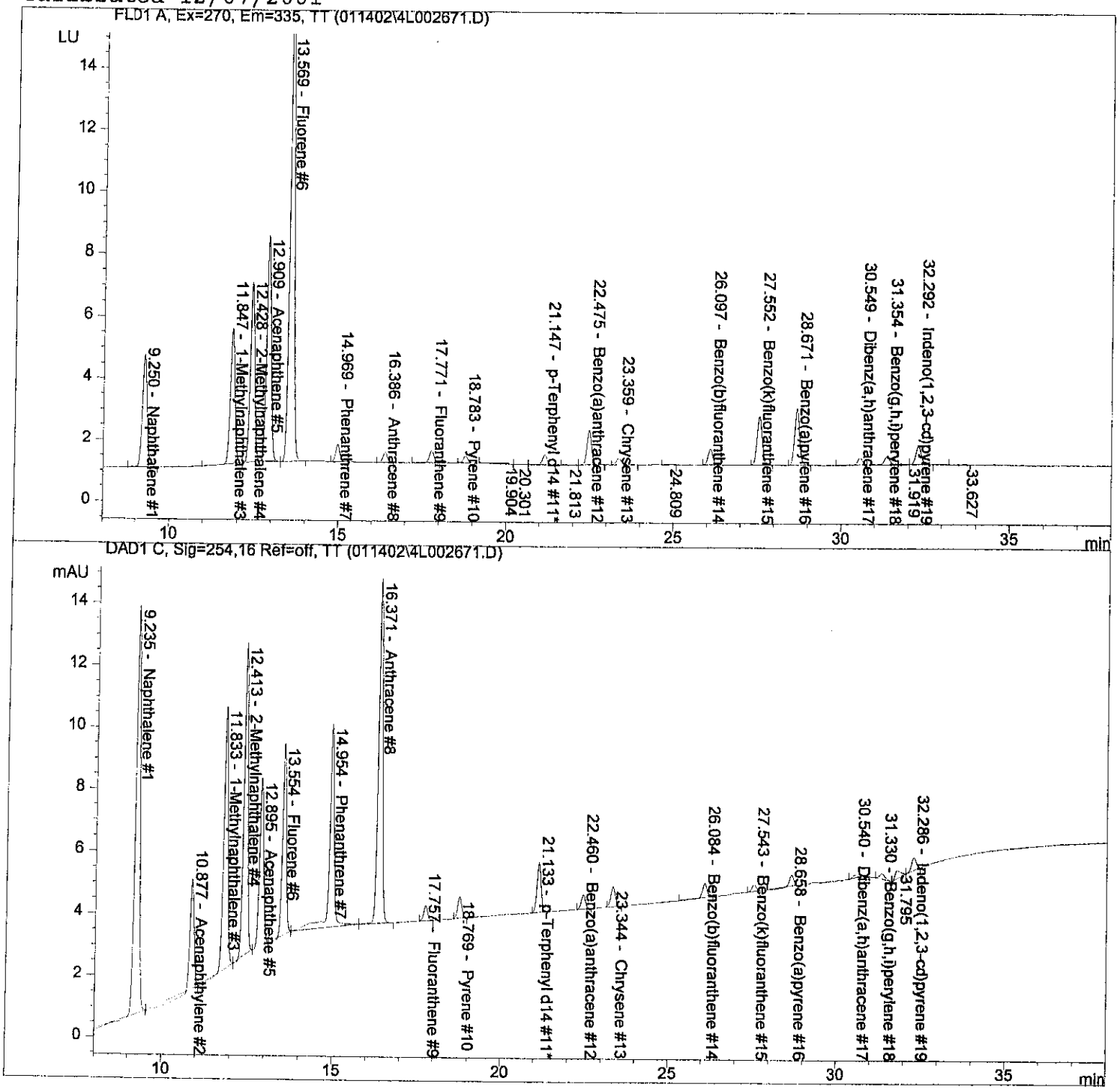
1,1 SOS56-19/56-20 8310 LVL 1 1/.1/.05 ppm

==========

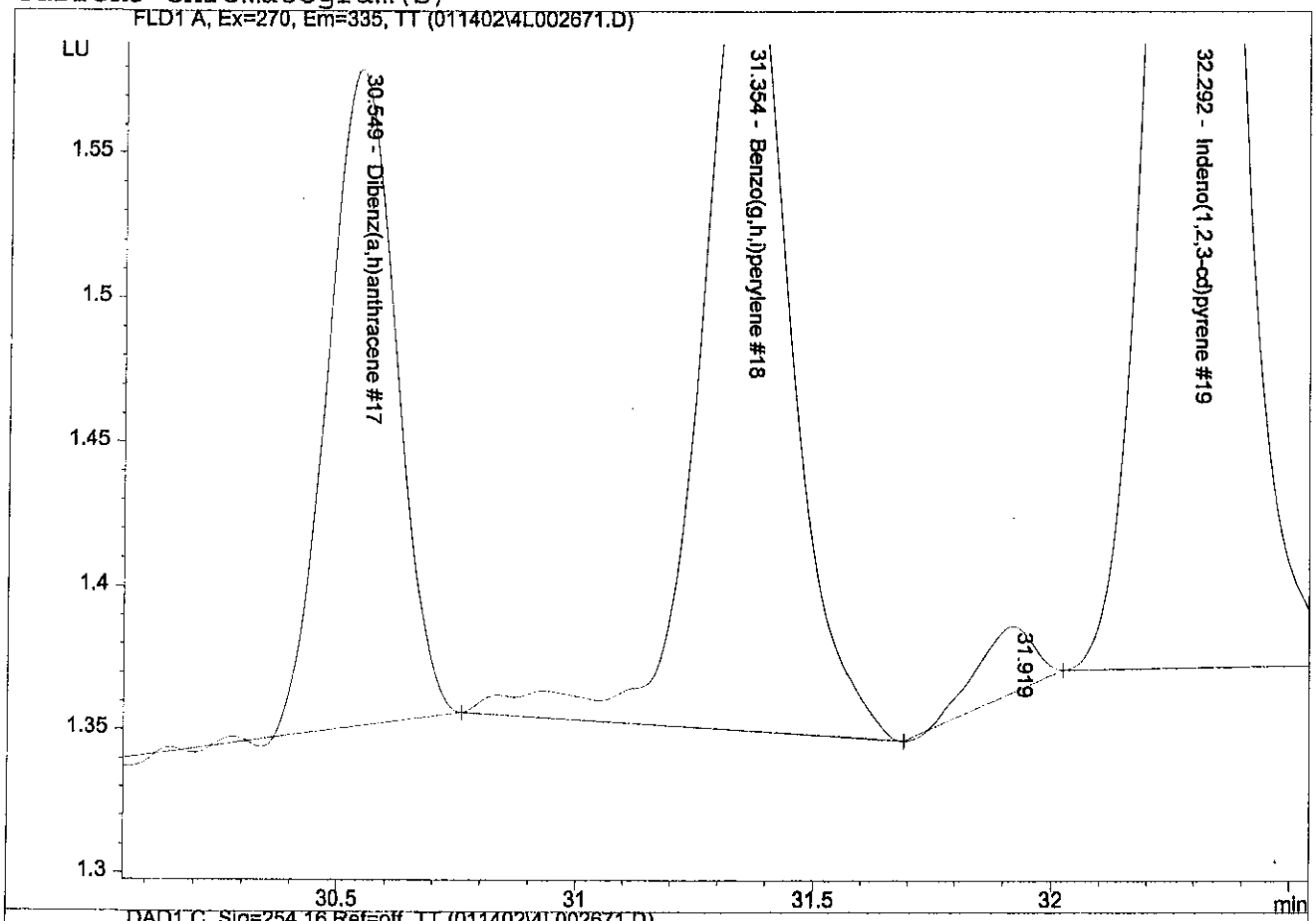
Injection Date	: 1/14/2002 10:29:31 PM	Seq. Line	: 11
Sample Name	: WG111292-07 STD1	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

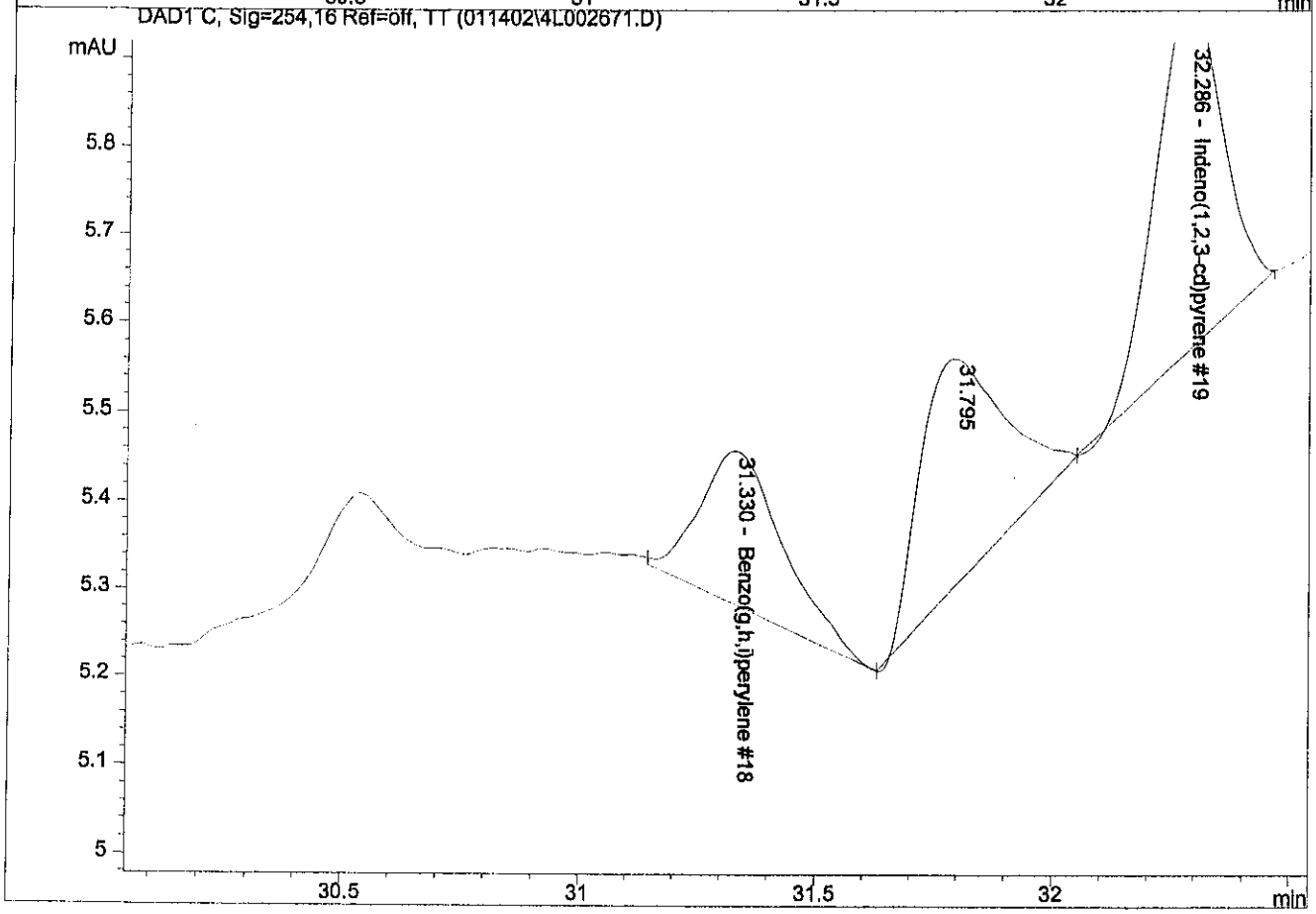
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:02:17 AM by RDC
(modified after loading)

Calibrated 12/07/2001

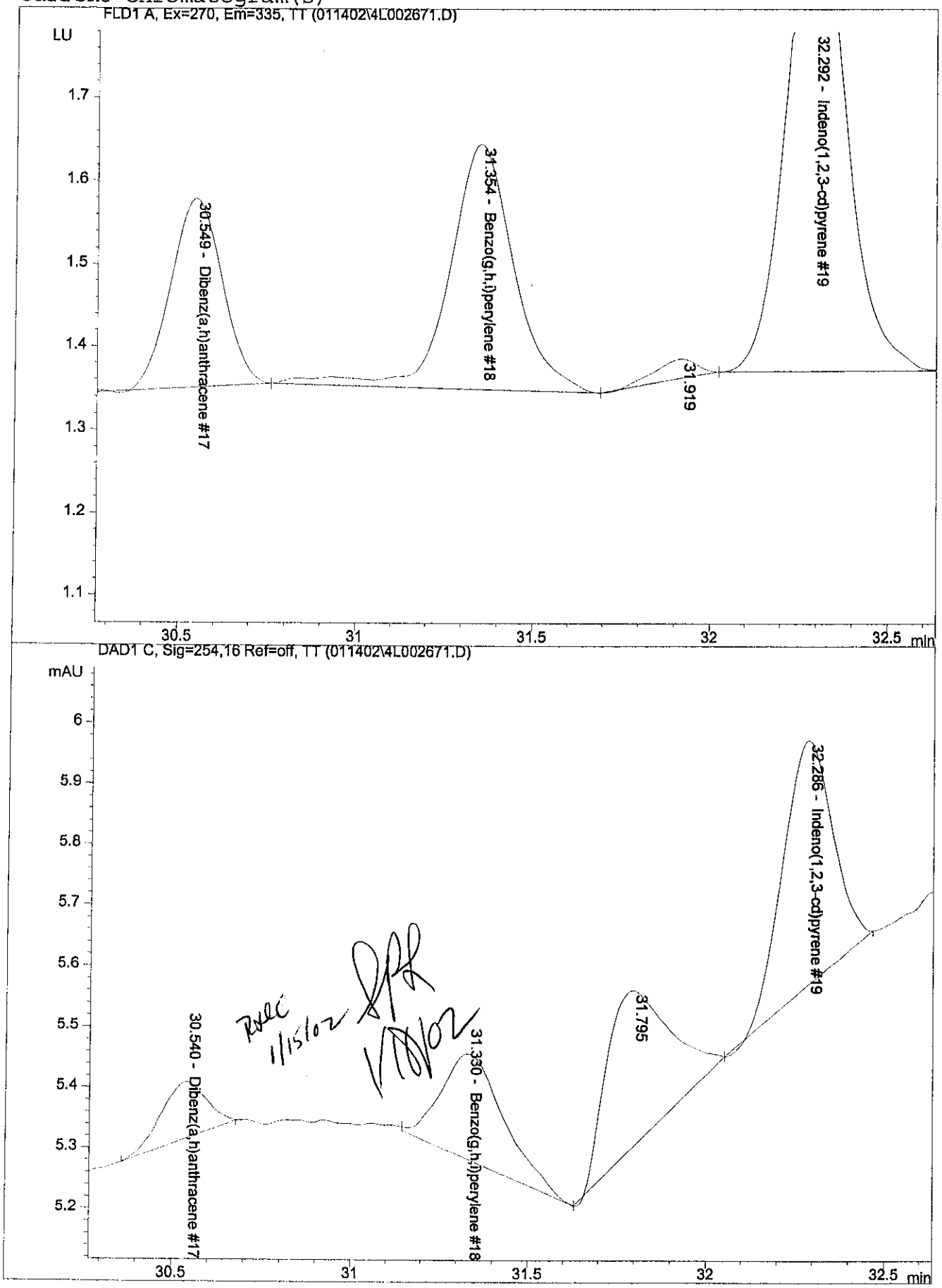


Current Chromatogram(s)





Current Chromatogram(s)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:02:14 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.250	PBA	35.78353	2.57003e-2	9.19647e-1		Naphthalene #1
11.847	BB	41.42604	2.24893e-2	9.31643e-1		1-Methylnaphthalene #3
12.428	BB	53.86543	1.72691e-2	9.30209e-1		2-Methylnaphthalene #4
12.909	BB	67.89028	1.38228e-2	9.38432e-1		Acenaphthene #5
13.569	BBA	146.82553	6.56879e-3	9.64466e-1		Fluorene #6
14.969	PBA	5.24433	1.68488e-1	8.83605e-1		Phenanthrene #7
16.386	BBA	3.17308	3.03714e-1	9.63711e-1		Anthracene #8
17.771	PBA	3.88309	2.38671e-2	9.26781e-2		Fluoranthene #9
18.783	PBA	2.17142	4.06594e-2	8.82885e-2		Pyrene #10
21.147	BB	3.53695	2.86511e-1	1.01338		p-Terphenyl d14 #11*
22.475	BBA	11.70344	7.96557e-3	9.32246e-2		Benzo(a)anthracene #12
23.359	PBA	2.53400	3.90144e-2	9.88624e-2		Chrysene #13
26.097	BBA	5.50489	1.65598e-2	9.11596e-2		Benzo(b)fluoranthene #14
27.552	BBA	16.52934	2.77566e-3	4.58799e-2		Benzo(k)fluoranthene #15
28.671	BBA	19.03635	4.67660e-3	8.90254e-2		Benzo(a)pyrene #16
30.549	PB	2.25618	3.93196e-2	8.87121e-2		Dibenz(a,h)anthracene #17
31.354	BB	3.69533	2.69466e-2	9.95766e-2		Benzo(g,h,i)perylene #18
32.292	BBA	6.81821	1.37440e-2	9.37098e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				8.42621		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.235	PB	114.71877	8.27651e-3	9.49471e-1		Naphthalene #1
10.877	BB	23.62006	3.00095e-2	7.08826e-1		Acenaphthylene #2
11.833	BB	70.63459	1.29932e-2	9.17772e-1		1-Methylnaphthalene #3
12.413	BB	84.19754	1.12713e-2	9.49012e-1		2-Methylnaphthalene #4
12.895	BB	45.25933	2.03841e-2	9.22572e-1		Acenaphthene #5
13.554	BB	50.57839	1.76946e-2	8.94964e-1		Fluorene #6
14.954	BB	66.64948	1.74291e-2	1.16164		Phenanthrene #7
16.371	BBA	94.15485	1.03455e-2	9.74078e-1		Anthracene #8
17.757	BBA	4.13764	2.18958e-2	9.05969e-2		Fluoranthene #9
18.769	BBA	6.03502	1.46349e-2	8.83217e-2		Pyrene #10
21.133	BBA	13.90859	6.45989e-2	8.98480e-1		p-Terphenyl d14 #11*
22.460	BBA	4.29036	2.22878e-2	9.56229e-2		Benzo(a)anthracene #12
23.344	BBA	5.99650	1.52051e-2	9.11777e-2		Chrysene #13
26.084	BBA	4.71873	2.08462e-2	9.83676e-2		Benzo(b)fluoranthene #14
27.543	PBA	1.94087	2.27217e-2	4.40999e-2		Benzo(k)fluoranthene #15
28.658	BBA	2.93301	2.64267e-2	7.75095e-2		Benzo(a)pyrene #16
30.540	MM	8.22757e-1	9.39100e-2	7.72651e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.330	BB	2.16289	5.34666e-2	1.15642e-1		Benzo(g,h,i)perylene #18
32.286	BB	3.89559	2.06198e-2	8.03264e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.23574

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

==========

Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

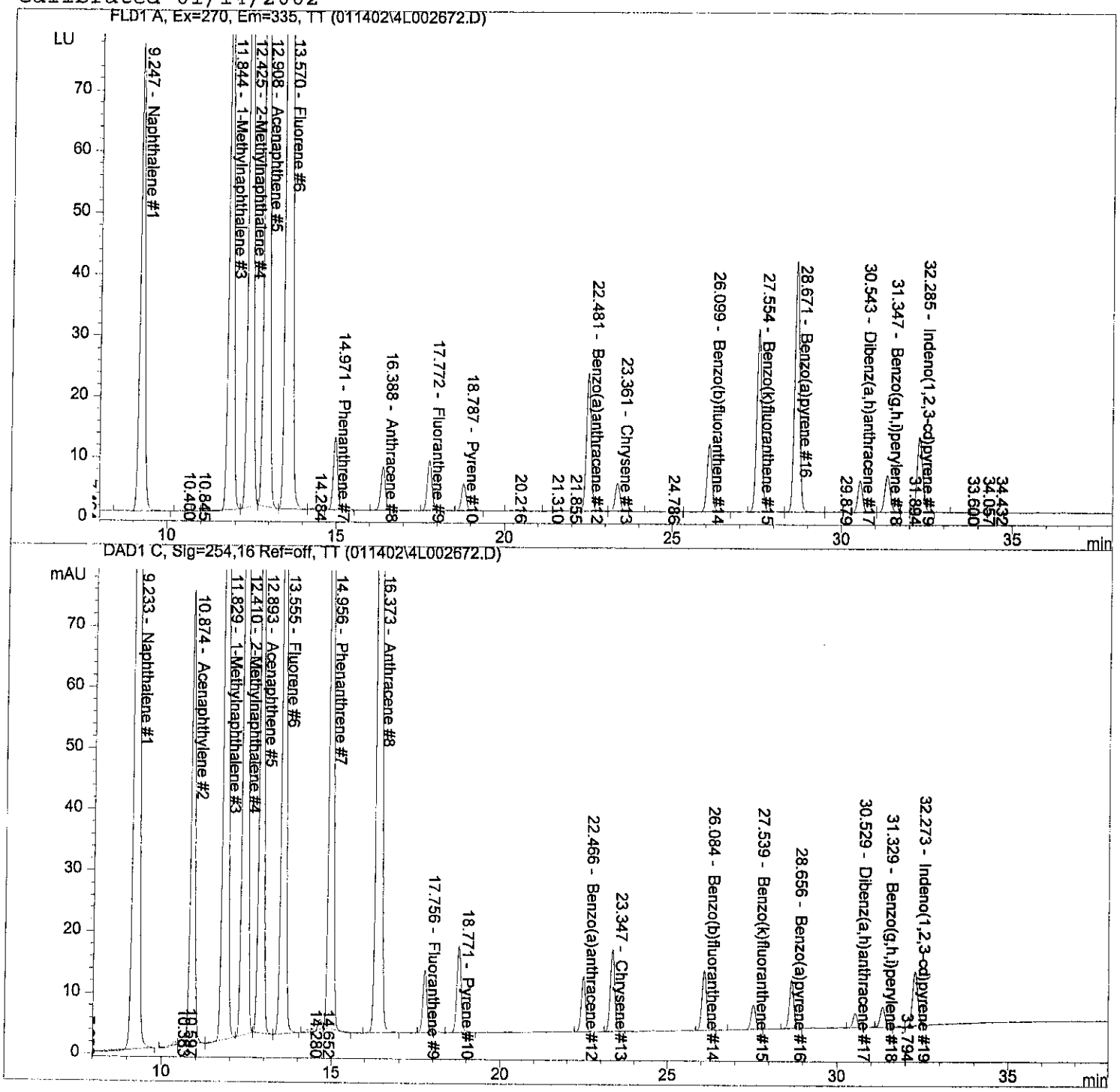
1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

==========

Injection Date	: 1/14/2002 11:26:07 PM	Seq. Line	: 12
Sample Name	: WG111292-08 ALT	Vial	: 12
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:05:41 AM by RDC
(modified after loading)

Calibrated 01/14/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:05:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	BBA	748.52362	2.57003e-2	19.23726		Naphthalene #1
11.844	BB	877.28461	2.24893e-2	19.72953		1-Methylnaphthalene #3
12.425	BB	1090.29724	1.72691e-2	18.82849		2-Methylnaphthalene #4
12.908	BB	1448.90186	1.38228e-2	20.02785		Acenaphthene #5
13.570	BB	3083.72266	6.56879e-3	20.25632		Fluorene #6
14.971	BBA	111.55298	1.68488e-1	18.79530		Phenanthrene #7
16.388	PBA	66.76292	3.03714e-1	20.27686		Anthracene #8
17.772	PBA	79.23566	2.38671e-2	1.89112		Fluoranthene #9
18.787	BBA	45.12247	4.06594e-2	1.83465		Pyrene #10
21.147		-	-	-		p-Terphenyl d14 #11*
22.481	BB	226.27448	7.96557e-3	1.80241		Benzo(a)anthracene #12
23.361	BB	47.86744	3.90144e-2	1.86752		Chrysene #13
26.099	BBA	116.86459	1.65598e-2	1.93525		Benzo(b)fluoranthene #14
27.554	PB	314.46066	2.77566e-3	8.72837e-1		Benzo(k)fluoranthene #15
28.671	BB	423.19098	4.67660e-3	1.97909		Benzo(a)pyrene #16
30.543	BB	53.38907	3.93196e-2	2.09924		Dibenz(a,h)anthracene #17
31.347	BB	69.61732	2.69466e-2	1.87595		Benzo(g,h,i)perylene #18
32.285	BBA	136.55934	1.37440e-2	1.87688		Indeno(1,2,3-cd)pyrene #1

Totals : 155.18656

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	2468.22412	8.27651e-3	20.42828		Naphthalene #1
10.874	BB	630.04449	3.00095e-2	18.90732		Acenaphthylene #2
11.829	BB	1556.25403	1.29932e-2	20.22077		1-Methylnaphthalene #3
12.410	BB	1724.90198	1.12713e-2	19.44181		2-Methylnaphthalene #4
12.893	BB	983.60773	2.03841e-2	20.04998		Acenaphthene #5
13.555	BBA	1113.45837	1.76946e-2	19.70218		Fluorene #6
14.956	BBA	1113.83740	1.74291e-2	19.41317		Phenanthrene #7
16.373	PBA	2030.43079	1.03455e-2	21.00580		Anthracene #8
17.756	BB	88.16366	2.18958e-2	1.93041		Fluoranthene #9
18.771	BBA	129.84206	1.46349e-2	1.90022		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.466	BBA	82.83583	2.22878e-2	1.84623		Benzo(a)anthracene #12
23.347	BBA	125.89037	1.52051e-2	1.91418		Chrysene #13
26.084	BBA	93.34034	2.08462e-2	1.94579		Benzo(b)fluoranthene #14
27.539	BBA	38.95745	2.27217e-2	8.85179e-1		Benzo(k)fluoranthene #15
28.656	PBA	75.30036	2.64267e-2	1.98994		Benzo(a)pyrene #16
30.529	PBA	22.13976	9.39100e-2	2.07914		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.329	BB	36.24539	5.34666e-2	1.93792		Benzo(g,h,i)perylene #18
32.273	BB	90.78680	2.06198e-2	1.87201		Indeno(1,2,3-cd)pyrene #1

Totals : 177.47035

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\031202\4L002870.D Sample Name: WG114392-01 CCV
HPLC4 3/13/2002 11:18:41 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/12/2002 3:16:25 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	19.406	-3.0
1-Methylnaphthalene #3	12.006	20.0	19.550	-2.3
2-Methylnaphthalene #4	12.580	20.0	19.421	-2.9
Acenaphthene #5	13.059	20.0	19.708	-1.5
Fluorene #6	13.713	20.0	20.300	1.5
Phenanthrene #7	15.097	20.0	19.149	-4.3
Anthracene #8	16.495	20.0	20.262	1.3
Fluoranthene #9	17.871	2.0	1.945	-2.8
Pyrene #10	18.871	2.0	1.928	-3.6
p-Terphenyl d14 #11*	21.205	20.0	19.012	-4.9
Benzo(a)anthracene #12	22.519	2.0	1.932	-3.4
Chrysene #13	23.379	2.0	1.948	-2.6
Benzo(b)fluoranthene #14	26.093	2.0	1.927	-3.7
Benzo(k)fluoranthene #15	27.517	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.616	2.0	1.952	-2.4
Dibenz(a,h)anthracene #1	30.465	2.0	1.930	-3.5
Benzo(g,h,i)perylene #18	31.285	2.0	1.908	-4.6
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.926	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.413	20.0	20.729	3.6
Acenaphthylene #2	11.041	20.0	20.068	0.3
1-Methylnaphthalene #3	11.990	20.0	20.039	0.2
2-Methylnaphthalene #4	12.564	20.0	20.275	1.4
Acenaphthene #5	13.044	20.0	19.776	-1.1
Fluorene #6	13.697	20.0	19.811	-0.9
Phenanthrene #7	15.081	20.0	20.132	0.7
Anthracene #8	16.479	20.0	20.976	4.9
Fluoranthene #9	17.854	2.0	1.960	-2.0
Pyrene #10	18.854	2.0	1.987	-0.6
p-Terphenyl d14 #11*	21.190	20.0	19.068	-4.7
Benzo(a)anthracene #12	22.503	2.0	1.958	-2.1
Chrysene #13	23.363	2.0	1.956	-2.2
Benzo(b)fluoranthene #14	26.076	2.0	1.953	-2.4
Benzo(k)fluoranthene #15	27.500	1.0	0.987	-1.3
Benzo(a)pyrene #16	28.599	2.0	1.980	-1.0
Dibenz(a,h)anthracene #1	30.448	2.0	1.948	-2.6
Benzo(g,h,i)perylene #18	31.267	2.0	1.992	-0.4
Indeno(1,2,3-cd)pyrene #	32.204	2.0	1.937	-3.2

= Failed 15.0% Criteria

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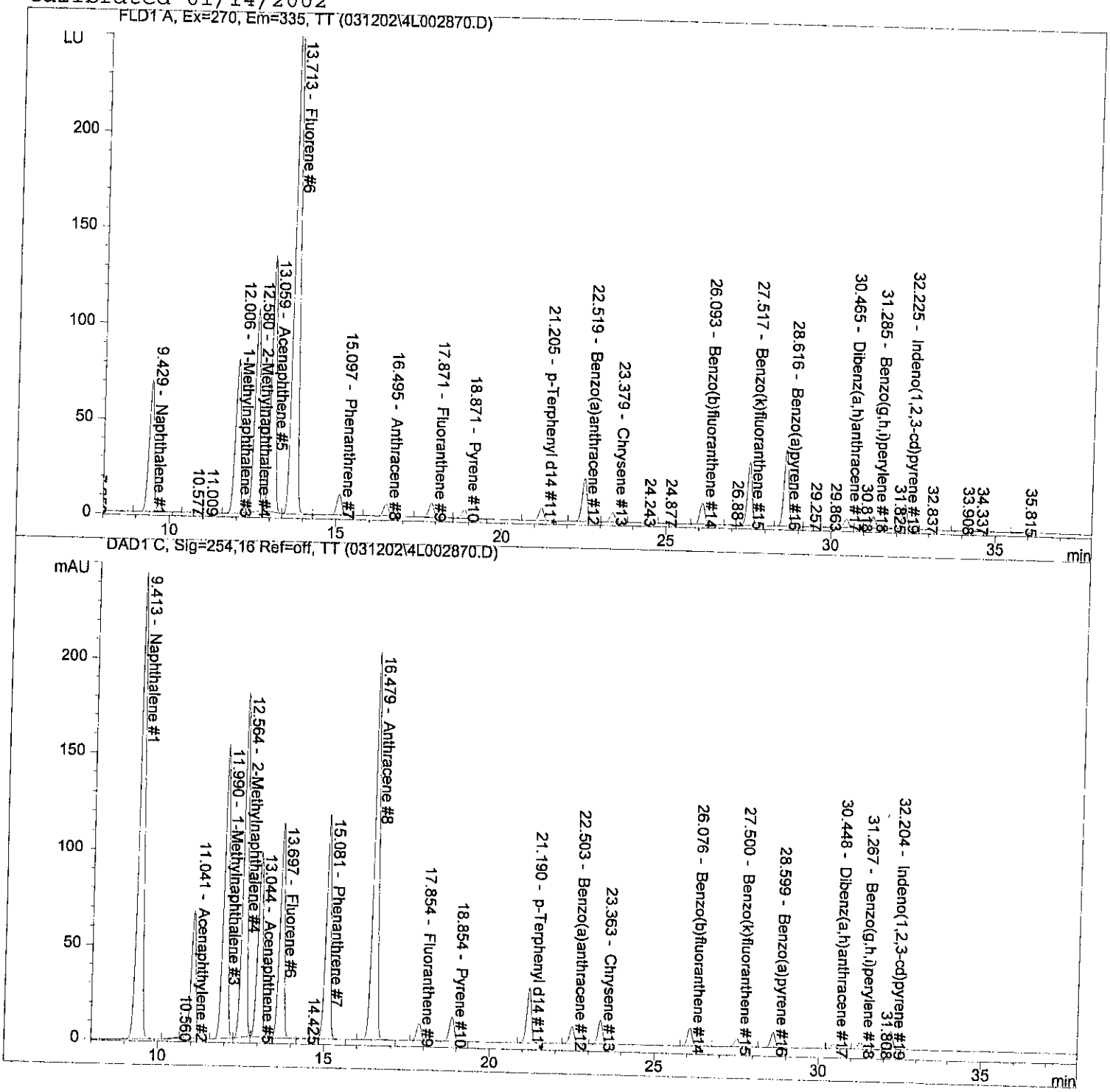
Injection Date : 3/12/2002 3:16:25 PM
Sample Name : WG114392-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

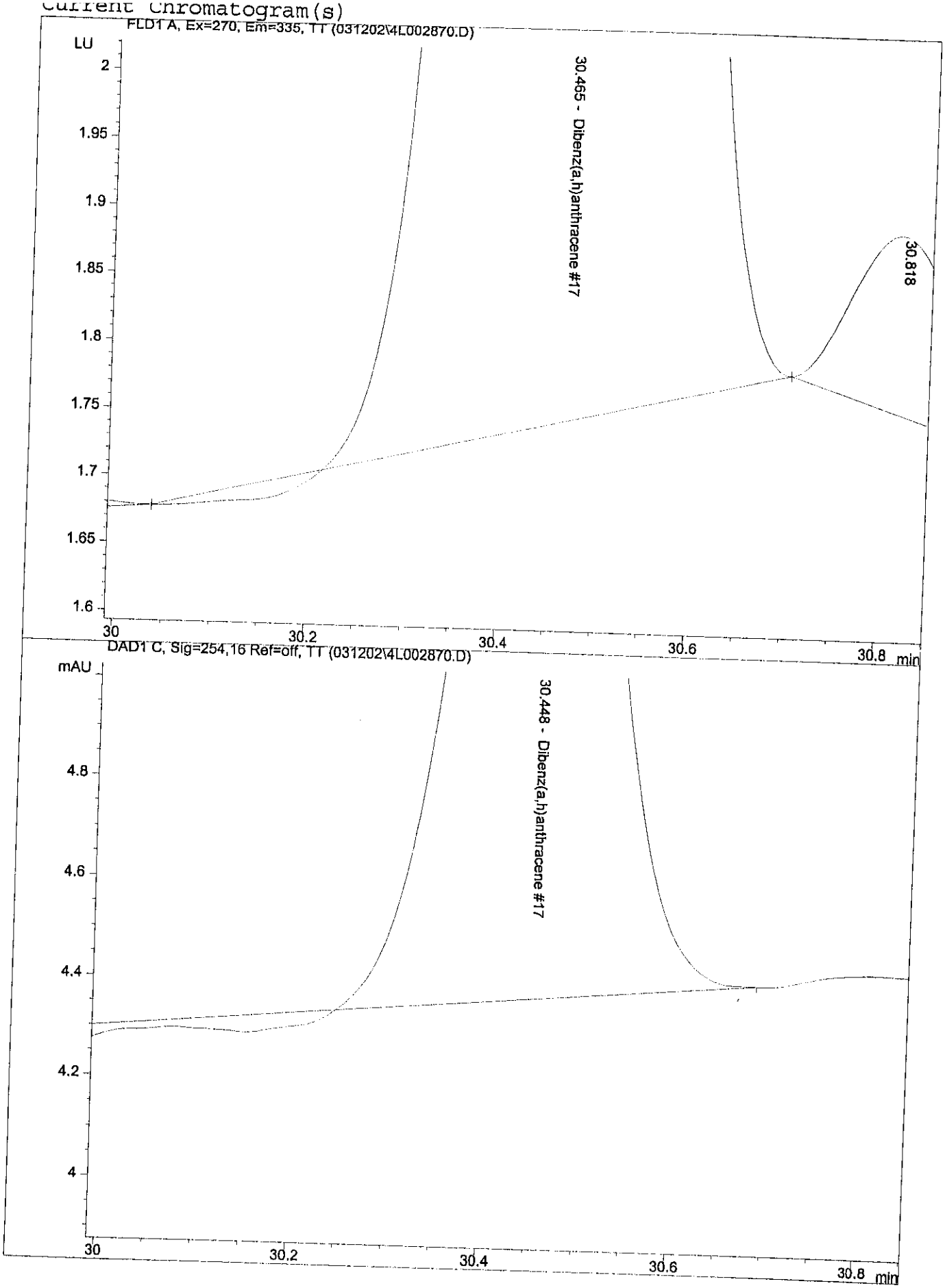
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/9/2002 3:28:04 PM by RDC
(modified after loading)

Calibrated 01/14/2002

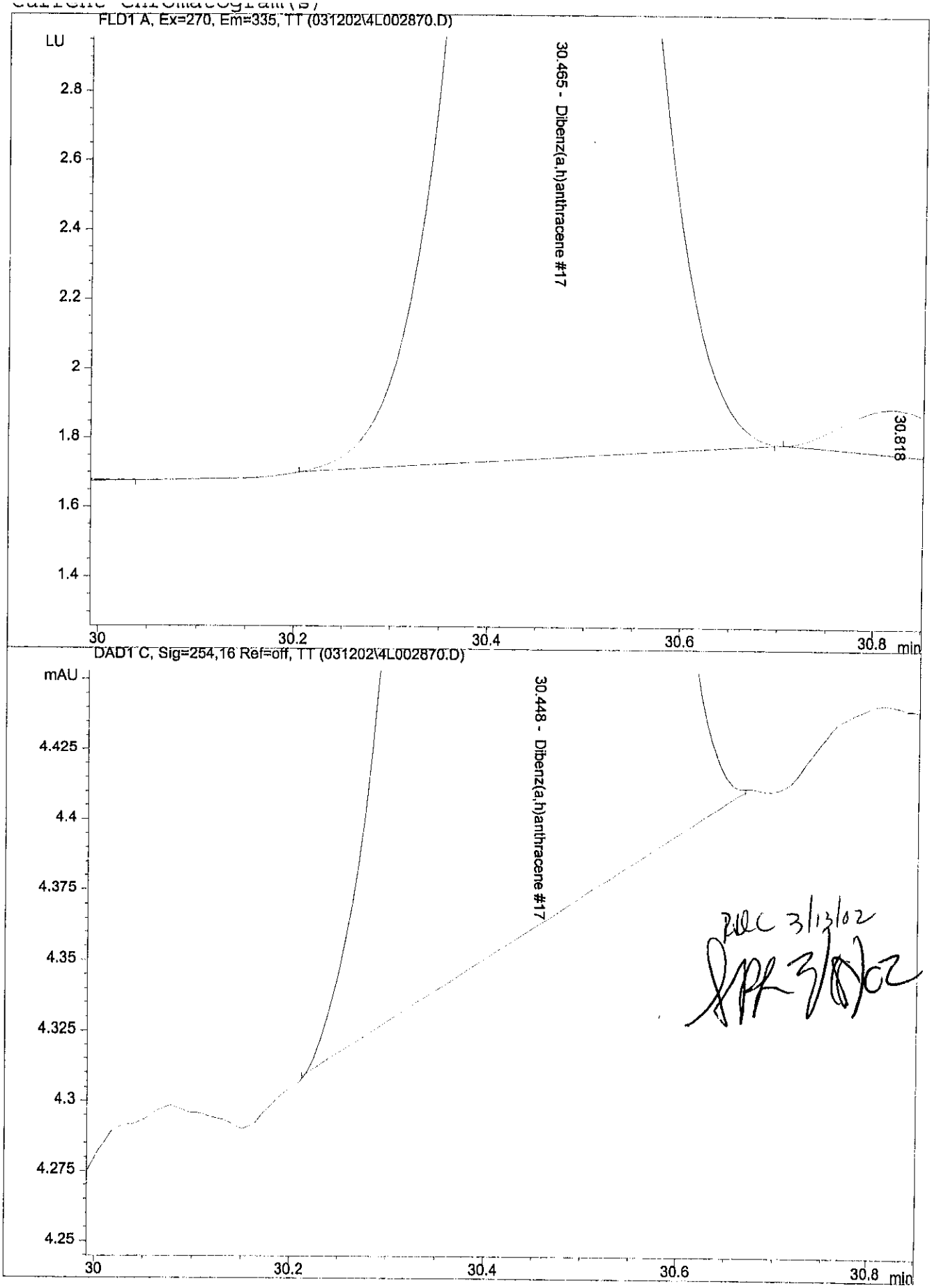


HPLC4 3/13/2002 11:18:38 AM RDC

Current Chromatogram(s)



IPLC4 3/13/2002 11:17:58 AM RDC



HPLC4 3/13/2002 11:18:35 AM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.429	BB	755.10742	2.57003e-2	19.40647		Naphthalene #1
12.006	PB	869.30054	2.24893e-2	19.54998		1-Methylnaphthalene #3
12.580	BB	1124.60522	1.72691e-2	19.42096		2-Methylnaphthalene #4
13.059	BB	1425.79578	1.38228e-2	19.70846		Acenaphthene #5
13.713	BB	3090.41699	6.56879e-3	20.30029		Fluorene #6
15.097	BB	113.65086	1.68488e-1	19.14876		Phenanthrene #7
16.495	BBA	66.71284	3.03714e-1	20.26165		Anthracene #8
17.871	BB	81.49278	2.38671e-2	1.94499		Fluoranthene #9
18.871	BBA	47.43010	4.06594e-2	1.92848		Pyrene #10
21.205	BBA	66.35616	2.86511e-1	19.01180		p-Terphenyl d14 #11*
22.519	BB	242.55098	7.96557e-3	1.93206		Benzo(a)anthracene #12
23.379	BB	49.92602	3.90144e-2	1.94784		Chrysene #13
26.093	BB	116.35133	1.65598e-2	1.92675		Benzo(b)fluoranthene #14
27.517	BB	353.03226	2.77566e-3	9.79899e-1		Benzo(k)fluoranthene #15
28.616	BB	417.46262	4.67660e-3	1.95230		Benzo(a)pyrene #16
30.465	MM	49.08820	3.93196e-2	1.93013		Dibenz(a,h)anthracene #17
31.285	BB	70.80674	2.69466e-2	1.90800		Benzo(g,h,i)perylene #18
32.225	BB	140.16261	1.37440e-2	1.92640		Indeno(1,2,3-cd)pyrene #1

Totals : 175.18523

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.413	BBA	2504.56689	8.27651e-3	20.72908		Naphthalene #1
11.041	BBA	668.73120	3.00095e-2	20.06829		Acenaphthylene #2
11.990	PB	1542.26904	1.29932e-2	20.03906		1-Methylnaphthalene #3
12.564	BB	1798.80847	1.12713e-2	20.27483		2-Methylnaphthalene #4
13.044	BB	970.17285	2.03841e-2	19.77613		Acenaphthene #5
13.697	BB	1119.59497	1.76946e-2	19.81077		Fluorene #6
15.081	BBA	1155.08667	1.74291e-2	20.13211		Phenanthrene #7
16.479	PBA	2027.56604	1.03455e-2	20.97616		Anthracene #8
17.854	PB	89.50068	2.18958e-2	1.95969		Fluoranthene #9
18.854	BBA	135.78305	1.46349e-2	1.98716		Pyrene #10
21.190	PBA	295.18155	6.45989e-2	19.06841		p-Terphenyl d14 #11*
22.503	PBA	87.86678	2.22878e-2	1.95836		Benzo(a)anthracene #12
23.363	BBA	128.62001	1.52051e-2	1.95569		Chrysene #13
26.076	PBA	93.68447	2.08462e-2	1.95297		Benzo(b)fluoranthene #14
27.500	PB	43.42632	2.27217e-2	9.86719e-1		Benzo(k)fluoranthene #15
28.599	BB	74.94292	2.64267e-2	1.98049		Benzo(a)pyrene #16
30.448	MM	20.74457	9.39100e-2	1.94812		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.267	BB	37.25736	5.34666e-2	1.99203		Benzo(g,h,i)perylene #18
32.204	BB	93.91698	2.06198e-2	1.93655		Indeno(1,2,3-cd)pyrene #1

Totals : 199.53261

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\031202\4L002878.D Sample Name: WG114392-02 CCV
HPLC4 3/13/2002 11:27:25 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/12/2002 10:49:14 PM Seq. Line : 10

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.420	20.0	19.608	-2.0
1-Methylnaphthalene #3	11.993	20.0	19.762	-1.2
2-Methylnaphthalene #4	12.567	20.0	19.612	-1.9
Acenaphthene #5	13.045	20.0	19.859	-0.7
Fluorene #6	13.701	20.0	20.246	1.2
Phenanthrene #7	15.086	20.0	19.387	-3.1
Anthracene #8	16.489	20.0	20.065	0.3
Fluoranthene #9	17.867	2.0	1.857	-7.2
Pyrene #10	18.870	2.0	1.948	-2.6
p-Terphenyl d14 #11*	21.200	20.0	19.002	-5.0
Benzo(a)anthracene #12	22.515	2.0	1.938	-3.1
Chrysene #13	23.375	2.0	1.953	-2.3
Benzo(b)fluoranthene #14	26.080	2.0	1.928	-3.6
Benzo(k)fluoranthene #15	27.507	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.609	2.0	1.989	-0.5
Dibenz(a,h)anthracene #1	30.460	2.0	1.933	-3.4
Benzo(g,h,i)perylene #18	31.274	2.0	1.953	-2.3
Indeno(1,2,3-cd)pyrene #	32.219	2.0	1.934	-3.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

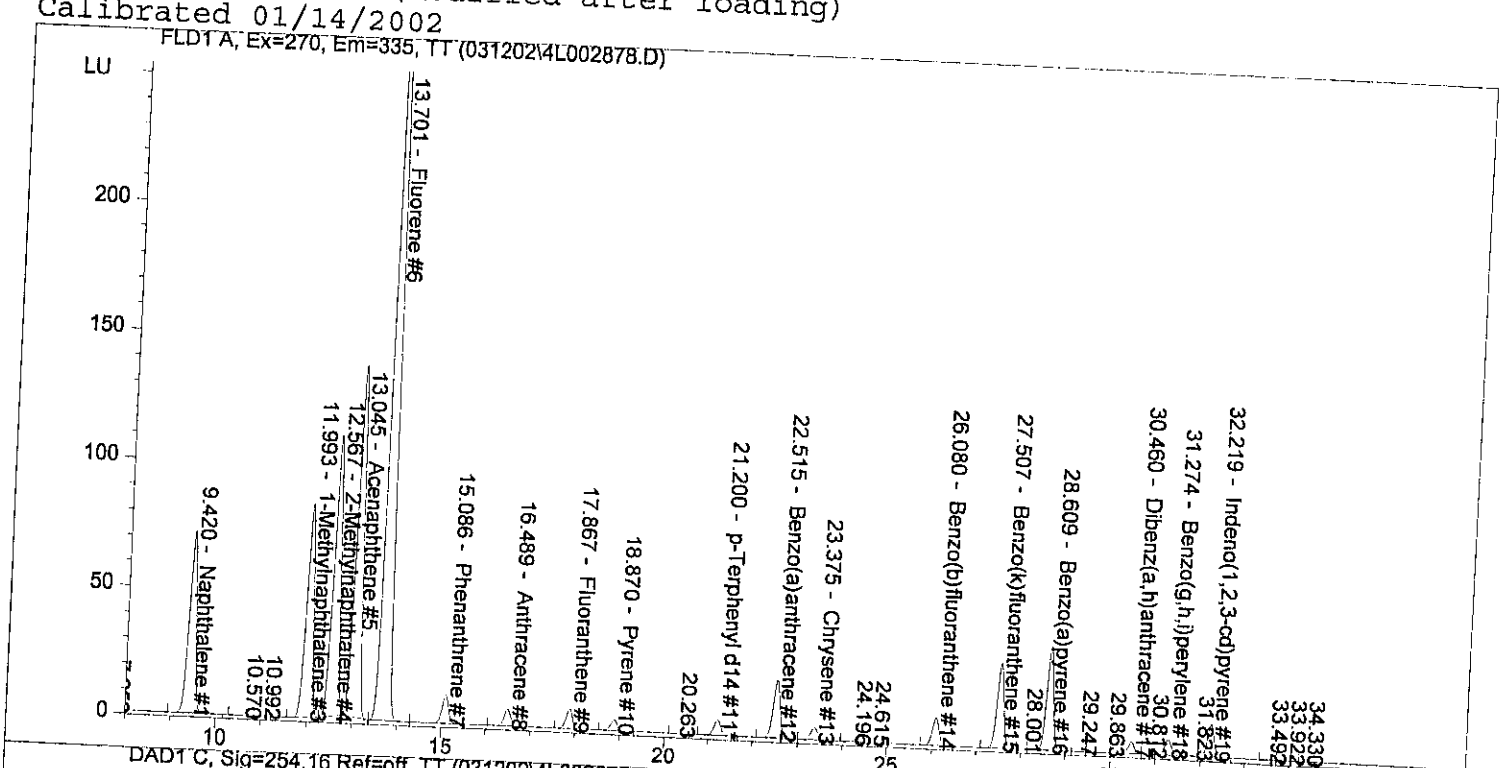
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.400	20.0	20.718	3.6
Acenaphthylene #2	11.027	20.0	20.024	0.1
1-Methylnaphthalene #3	11.974	20.0	20.004	0.0
2-Methylnaphthalene #4	12.548	20.0	20.248	1.2
Acenaphthene #5	13.025	20.0	19.760	-1.2
Fluorene #6	13.680	20.0	19.763	-1.2
Phenanthrene #7	15.066	20.0	20.102	0.5
Anthracene #8	16.469	20.0	20.885	4.4
Fluoranthene #9	17.846	2.0	1.958	-2.1
Pyrene #10	18.849	2.0	1.963	-1.9
p-Terphenyl d14 #11*	21.180	20.0	19.124	-4.4
Benzo(a)anthracene #12	22.495	2.0	1.946	-2.7
Chrysene #13	23.356	2.0	1.949	-2.5
Benzo(b)fluoranthene #14	26.059	2.0	1.947	-2.7
Benzo(k)fluoranthene #15	27.486	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.588	2.0	1.995	-0.2
Dibenz(a,h)anthracene #1	30.439	2.0	1.953	-2.3
Benzo(g,h,i)perylene #18	31.252	2.0	2.108	5.4
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.924	-3.8

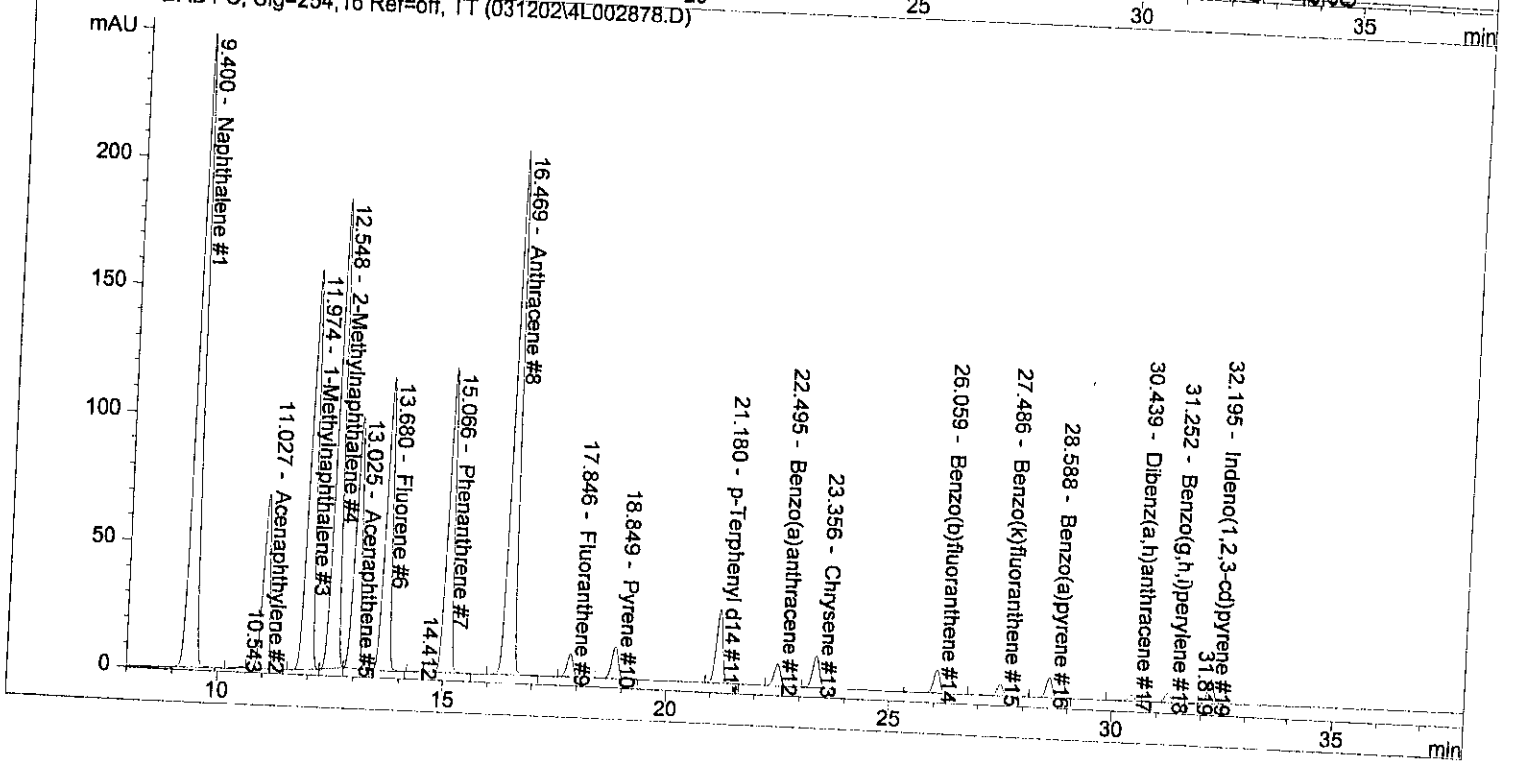
= Failed 15.0% Criteria

Injection Date : 3/12/2002 10:49:14 PM
Sample Name : WG114392-02 CCV
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)
Calibrated 01/14/2002





PLC4 3/13/2002 11:27:23 AM RDC

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.420	BBA	762.96191	2.57003e-2	19.60833		Naphthalene #1
11.993	BB	878.74963	2.24893e-2	19.76248		1-Methylnaphthalene #3
12.567	BB	1135.69409	1.72691e-2	19.61245		2-Methylnaphthalene #4
13.045	BB	1436.72180	1.38228e-2	19.85949		Acenaphthene #5
13.701	BB	3082.14233	6.56879e-3	20.24594		Fluorene #6
15.086	BBA	115.06276	1.68488e-1	19.38665		Phenanthrene #7
16.489	BBA	66.06631	3.03714e-1	20.06529		Anthracene #8
17.867	PB	77.79558	2.38671e-2	1.85675		Fluoranthene #9
18.870	BBA	47.90224	4.06594e-2	1.94768		Pyrene #10
21.200	BBA	66.32146	2.86511e-1	19.00186		p-Terphenyl d14 #11*
22.515	PB	243.32472	7.96557e-3	1.93822		Benzo(a)anthracene #12
23.375	BB	50.06923	3.90144e-2	1.95342		Chrysene #13
26.080	BB	116.42439	1.65598e-2	1.92796		Benzo(b)fluoranthene #14
27.507	BB	352.97989	2.77566e-3	9.79754e-1		Benzo(k)fluoranthene #15
28.609	BB	425.37991	4.67660e-3	1.98933		Benzo(a)pyrene #16
30.460	BB	49.15282	3.93196e-2	1.93267		Dibenz(a,h)anthracene #17
31.274	BB	72.48253	2.69466e-2	1.95316		Benzo(g,h,i)perylene #18
32.219	BB	140.68425	1.37440e-2	1.93357		Indeno(1,2,3-cd)pyrene #1
Totals :				175.95501		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.400	BBA	2503.18848	8.27651e-3	20.71767		Naphthalene #1
11.027	BBA	667.23987	3.00095e-2	20.02353		Acenaphthylene #2
11.974	PB	1539.56030	1.29932e-2	20.00387		1-Methylnaphthalene #3
12.548	BB	1796.45471	1.12713e-2	20.24830		2-Methylnaphthalene #4
13.025	BB	969.37793	2.03841e-2	19.75992		Acenaphthene #5
13.680	BBA	1116.90369	1.76946e-2	19.76314		Fluorene #6
15.066	BBA	1153.38562	1.74291e-2	20.10246		Phenanthrene #7
16.469	PBA	2018.73853	1.03455e-2	20.88484		Anthracene #8
17.846	BB	89.42406	2.18958e-2	1.95801		Fluoranthene #9
18.849	BBA	134.13177	1.46349e-2	1.96300		Pyrene #10
21.180	BBA	296.04486	6.45989e-2	19.12418		p-Terphenyl d14 #11*
22.495	BBA	87.32359	2.22878e-2	1.94625		Benzo(a)anthracene #12
23.356	BBA	128.21199	1.52051e-2	1.94948		Chrysene #13
26.059	PBA	93.38898	2.08462e-2	1.94681		Benzo(b)fluoranthene #14
27.486	PB	43.10075	2.27217e-2	9.79322e-1		Benzo(k)fluoranthene #15
28.588	BB	75.49494	2.64267e-2	1.99508		Benzo(a)pyrene #16
30.439	PB	20.79709	9.39100e-2	1.95305		Dibenz(a,h)anthracene #17

31.252	BB	39.42996	5.34666e-2	2.10819	Benzo(g,h,i)perylene #18
32.195	BB	93.31442	2.06198e-2	1.92413	Indeno(1,2,3-cd)pyrene #1
Totals :				199.35124	

Results obtained with enhanced integrator!

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\031202\4L002887.D Sample Name: WG114392-03 CCV
HPLC4 3/13/2002 12:40:57 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/13/2002 7:18:58 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.412	20.0	19.431	-2.8
1-Methylnaphthalene #3	11.986	20.0	19.592	-2.0
2-Methylnaphthalene #4	12.561	20.0	19.542	-2.3
Acenaphthene #5	13.041	20.0	19.833	-0.8
Fluorene #6	13.696	20.0	20.394	2.0
Phenanthrene #7	15.082	20.0	19.234	-3.8
Anthracene #8	16.483	20.0	20.229	1.1
Fluoranthene #9	17.862	2.0	1.838	-8.1
Pyrene #10	18.867	2.0	1.899	-5.0
p-Terphenyl d14 #11*	21.203	20.0	18.886	-5.6
Benzo(a)anthracene #12	22.521	2.0	1.919	-4.0
Chrysene #13	23.384	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.093	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.514	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.610	2.0	1.955	-2.2
Dibenz(a,h)anthracene #1	30.443	2.0	1.911	-4.4
Benzo(g,h,i)perylene #18	31.254	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.194	2.0	1.895	-5.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.392	20.0	20.844	4.2
Acenaphthylene #2	11.018	20.0	20.116	0.6
1-Methylnaphthalene #3	11.966	20.0	20.107	0.5
2-Methylnaphthalene #4	12.541	20.0	20.346	1.7
Acenaphthene #5	13.021	20.0	19.866	-0.7
Fluorene #6	13.676	20.0	19.868	-0.7
Phenanthrene #7	15.062	20.0	20.191	1.0
Anthracene #8	16.462	20.0	20.959	4.8
Fluoranthene #9	17.841	2.0	1.967	-1.7
Pyrene #10	18.846	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.183	20.0	19.300	-3.5
Benzo(a)anthracene #12	22.501	2.0	1.967	-1.6
Chrysene #13	23.364	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	26.072	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.494	1.0	0.926	-7.4
Benzo(a)pyrene #16	28.589	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.423	2.0	1.837	-8.2
Benzo(g,h,i)perylene #18	31.232	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.170	2.0	1.956	-2.2

= Failed 15.0% Criteria

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Data File C:\HPCHEM\2\DATA\031202\4L002887.D Sample Name: WG114392-03 CCV
HPLC4 3/13/2002 12:40:57 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/13/2002 7:18:58 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.412	20.0	19.431	-2.8
1-Methylnaphthalene #3	11.986	20.0	19.592	-2.0
2-Methylnaphthalene #4	12.561	20.0	19.542	-2.3
Acenaphthene #5	13.041	20.0	19.833	-0.8
Fluorene #6	13.696	20.0	20.394	2.0
Phenanthrene #7	15.082	20.0	19.234	-3.8
Anthracene #8	16.483	20.0	20.229	1.1
Fluoranthene #9	17.862	2.0	1.838	-8.1
Pyrene #10	18.867	2.0	1.899	-5.0
p-Terphenyl d14 #11*	21.203	20.0	18.886	-5.6
Benzo(a)anthracene #12	22.521	2.0	1.919	-4.0
Chrysene #13	23.384	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.093	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.514	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.610	2.0	1.955	-2.2
Dibenz(a,h)anthracene #1	30.443	2.0	1.911	-4.4
Benzo(g,h,i)perylene #18	31.254	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.194	2.0	1.895	-5.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.392	20.0	20.844	4.2
Acenaphthylene #2	11.018	20.0	20.116	0.6
1-Methylnaphthalene #3	11.966	20.0	20.107	0.5
2-Methylnaphthalene #4	12.541	20.0	20.346	1.7
Acenaphthene #5	13.021	20.0	19.866	-0.7
Fluorene #6	13.676	20.0	19.868	-0.7
Phenanthrene #7	15.062	20.0	20.191	1.0
Anthracene #8	16.462	20.0	20.959	4.8
Fluoranthene #9	17.841	2.0	1.967	-1.7
Pyrene #10	18.846	2.0	1.972	-1.4
p-Terphenyl d14 #11*	21.183	20.0	19.300	-3.5
Benzo(a)anthracene #12	22.501	2.0	1.967	-1.6
Chrysene #13	23.364	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	26.072	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.494	1.0	0.926	-7.4
Benzo(a)pyrene #16	28.589	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.423	2.0	1.837	-8.2
Benzo(g,h,i)perylene #18	31.232	2.0	2.024	1.2
Indeno(1,2,3-cd)pyrene #	32.170	2.0	1.956	-2.2

= Failed 15.0% Criteria

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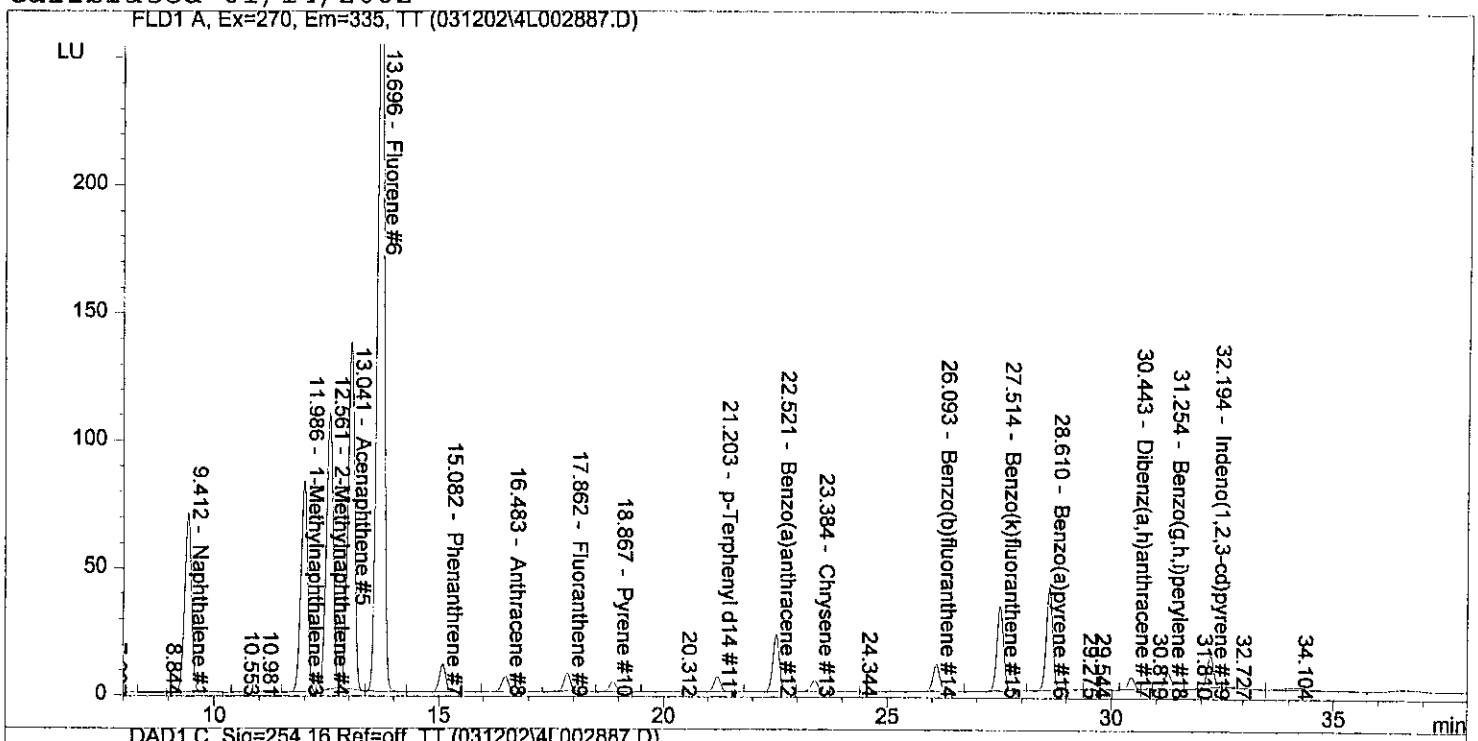
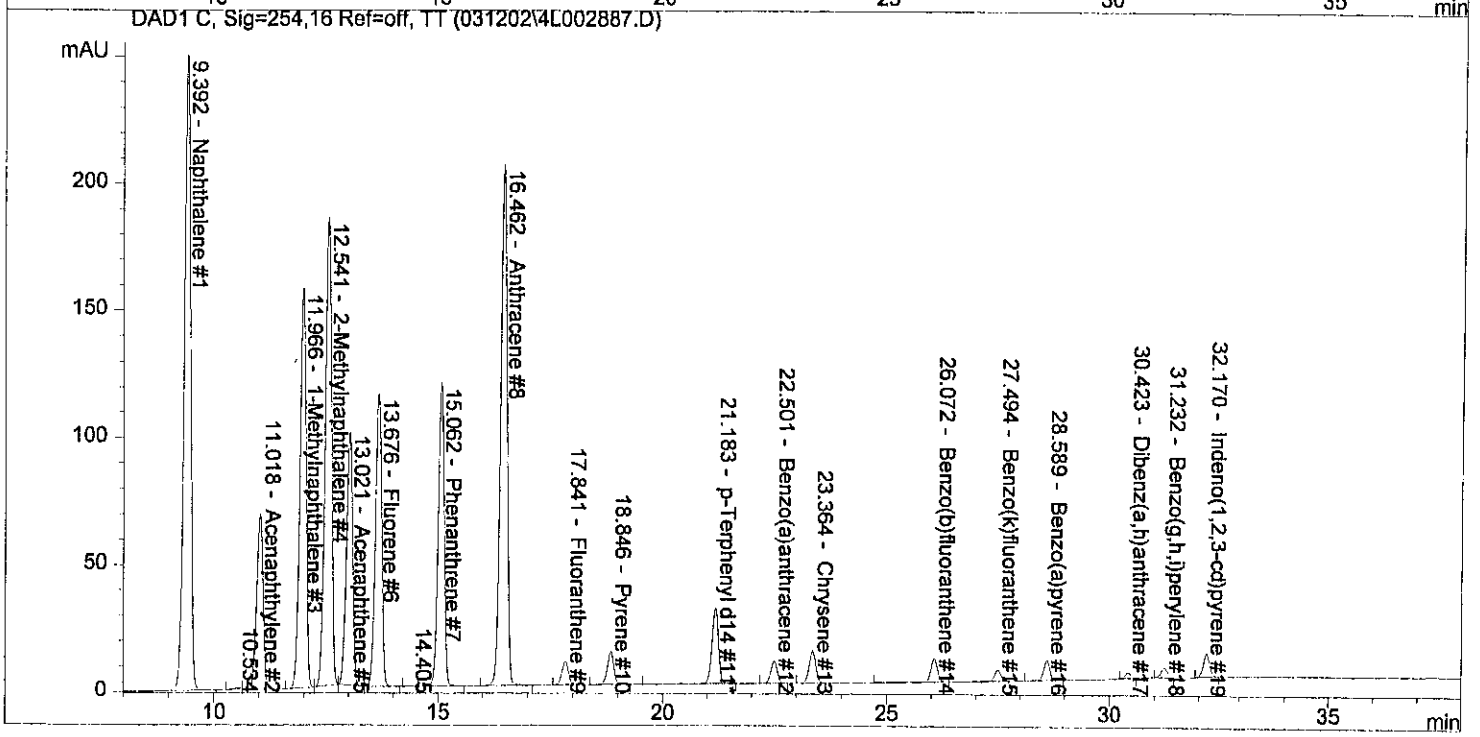
Injection Date	: 3/13/2002 7:18:58 AM	Seq. Line	: 19
Sample Name	: WG114392-03 CCV	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

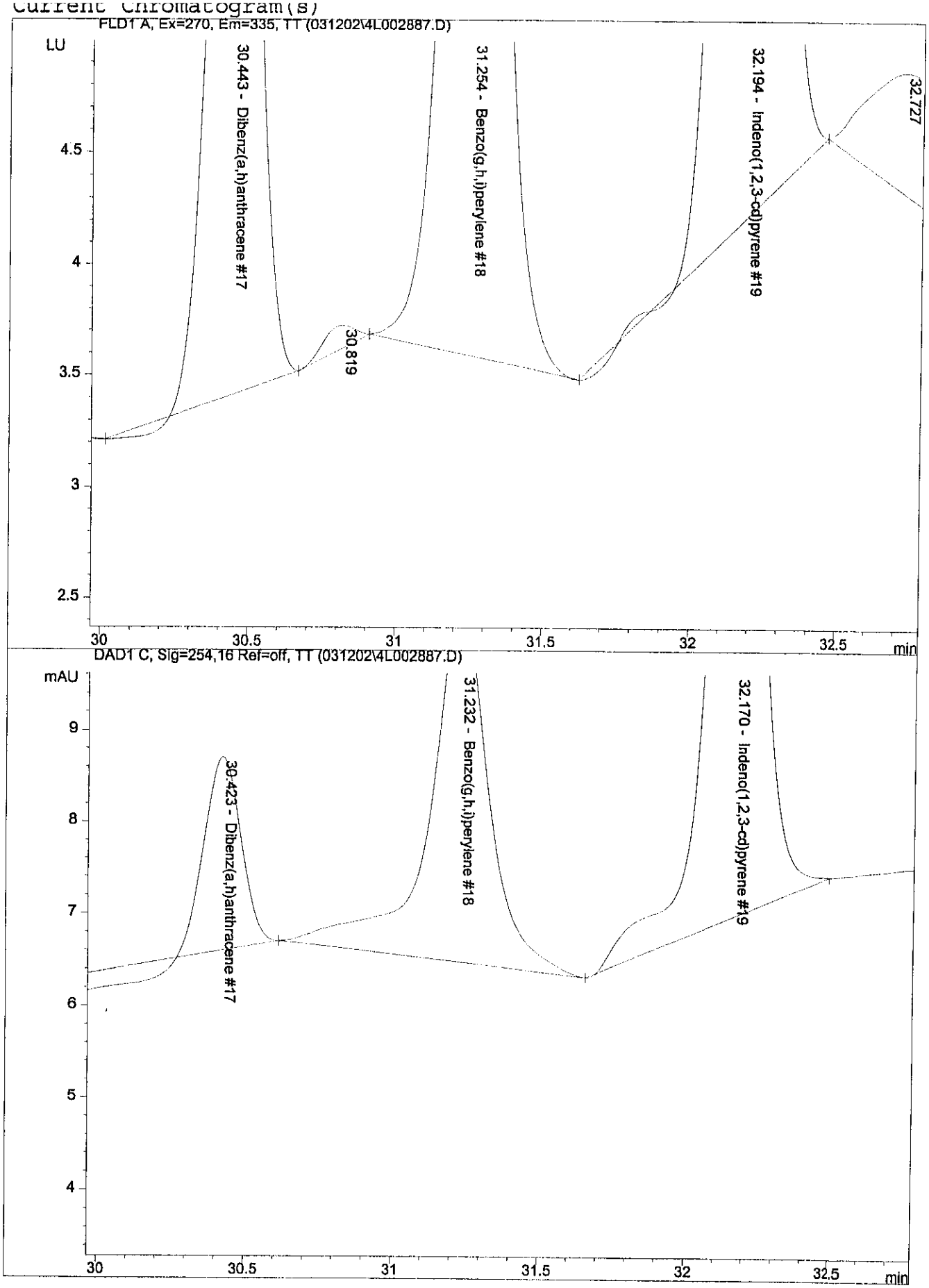
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 12:38:35 PM by RDC
(modified after loading)

Calibrated 01/14/2002





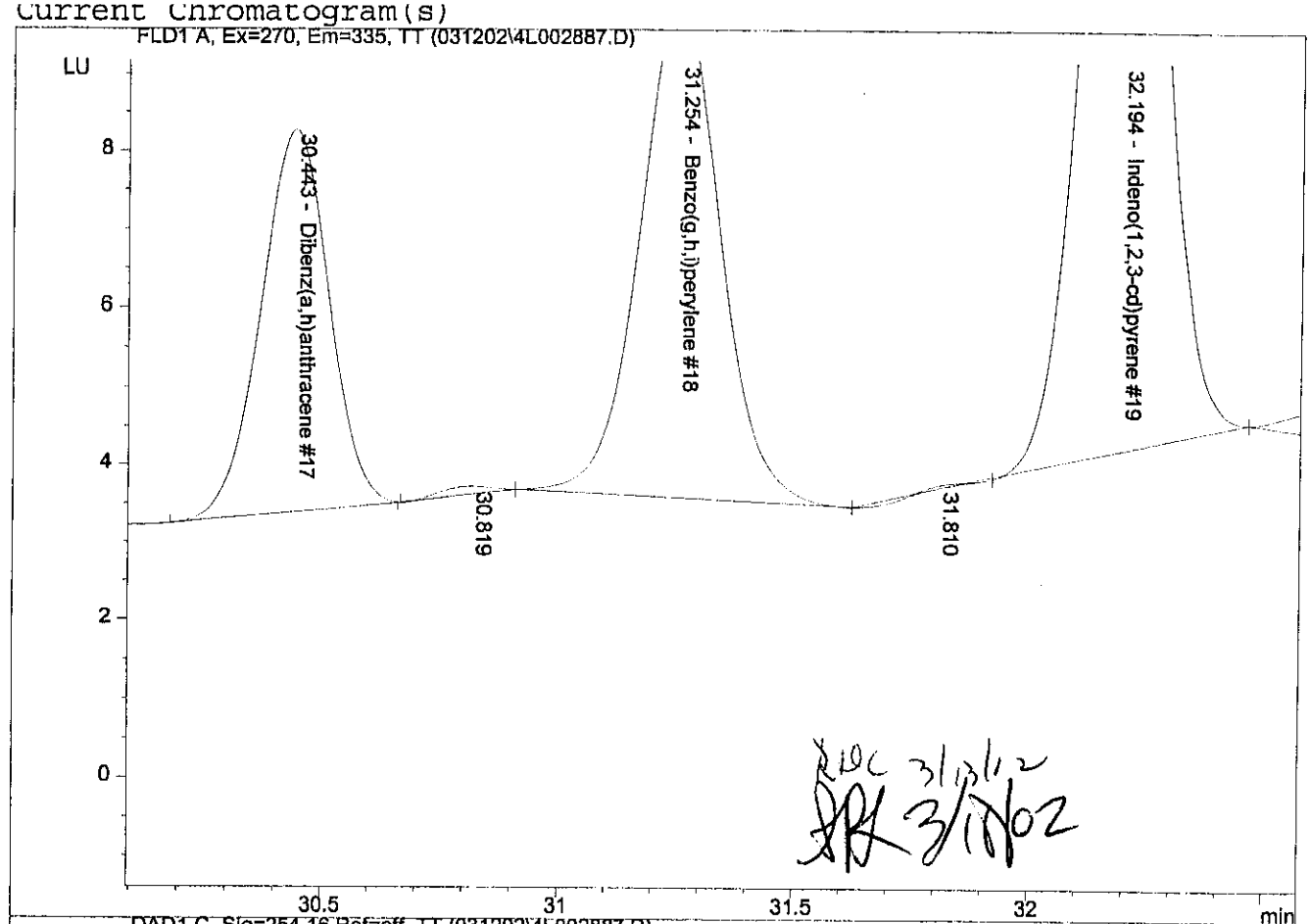
Current Chromatogram(s)



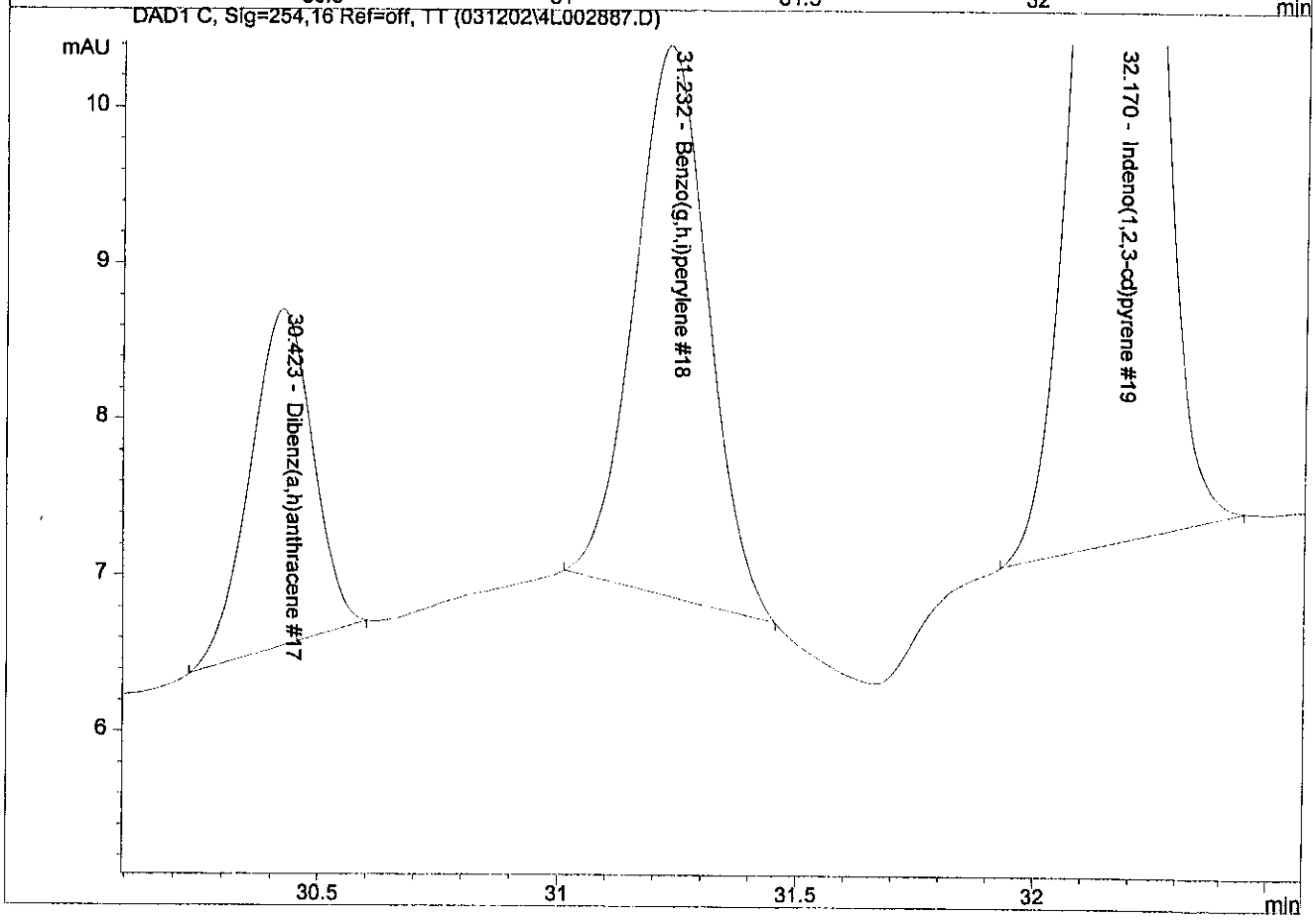
HPLC4 3/13/2002 12:39:13 PM RDC

Page 1 of 1

Current Chromatogram(s)



RDC 3/13/02
RK 3/18/02



HPLC4 3/13/2002 12:40:51 PM RDC

Page 1 of 1

External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.412	BBA	756.04407	2.57003e-2	19.43054		Naphthalene #1
11.986	BB	871.16547	2.24893e-2	19.59192		1-Methylnaphthalene #3
12.561	BB	1131.63123	1.72691e-2	19.54229		2-Methylnaphthalene #4
13.041	BB	1434.79846	1.38228e-2	19.83290		Acenaphthene #5
13.696	BB	3104.69897	6.56879e-3	20.39411		Fluorene #6
15.082	BBA	114.15528	1.68488e-1	19.23375		Phenanthrene #7
16.483	PB	66.60610	3.03714e-1	20.22923		Anthracene #8
17.862	PB	77.02477	2.38671e-2	1.83836		Fluoranthene #9
18.867	BB	46.71184	4.06594e-2	1.89927		Pyrene #10
21.203	BB	65.91594	2.86511e-1	18.88567		p-Terphenyl d14 #11*
22.521	BB	240.96593	7.96557e-3	1.91943		Benzo(a)anthracene #12
23.384	BB	49.42521	3.90144e-2	1.92830		Chrysene #13
26.093	BB	115.80897	1.65598e-2	1.91777		Benzo(b)fluoranthene #14
27.514	BB	351.11832	2.77566e-3	9.74587e-1		Benzo(k)fluoranthene #15
28.610	BB	418.10858	4.67660e-3	1.95533		Benzo(a)pyrene #16
30.443	MM	48.60950	3.93196e-2	1.91131		Dibenz(a,h)anthracene #17
31.254	BB	75.67158	2.69466e-2	2.03909		Benzo(g,h,i)perylene #18
32.194	FM	137.84447	1.37440e-2	1.89454		Indeno(1,2,3-cd)pyrene #1

Totals : 175.41840

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.392	BBA	2518.47437	8.27651e-3	20.84418		Naphthalene #1
11.018	BBA	670.31409	3.00095e-2	20.11579		Acenaphthylene #2
11.966	PB	1547.49414	1.29932e-2	20.10695		1-Methylnaphthalene #3
12.541	BB	1805.14343	1.12713e-2	20.34623		2-Methylnaphthalene #4
13.021	BB	974.59479	2.03841e-2	19.86626		Acenaphthene #5
13.676	BBA	1122.84534	1.76946e-2	19.86828		Fluorene #6
15.062	BBA	1158.43970	1.74291e-2	20.19055		Phenanthrene #7
16.462	PBA	2025.87671	1.03455e-2	20.95869		Anthracene #8
17.841	PB	89.82968	2.18958e-2	1.96689		Fluoranthene #9
18.846	BBA	134.75768	1.46349e-2	1.97216		Pyrene #10
21.183	BBA	298.77328	6.45989e-2	19.30044		p-Terphenyl d14 #11*
22.501	PBA	88.26891	2.22878e-2	1.96732		Benzo(a)anthracene #12
23.364	BBA	128.81825	1.52051e-2	1.95870		Chrysene #13
26.072	BB	93.37017	2.08462e-2	1.94641		Benzo(b)fluoranthene #14
27.494	BB	40.77384	2.27217e-2	9.26450e-1		Benzo(k)fluoranthene #15
28.589	BB	75.30234	2.64267e-2	1.98999		Benzo(a)pyrene #16
30.423	MM	19.55744	9.39100e-2	1.83664		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.232	MM	37.86080	5.34666e-2	2.02429		Benzo(g,h,i)perylene #18
32.170	MM	94.85961	2.06198e-2	1.95599		Indeno(1,2,3-cd)pyrene #1

Totals : 200.14221

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\031302\4L002889.D Sample Name: WG114485-01 CCV
HPLC4 3/14/2002 9:28:29 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/13/2002 3:50:27 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.414	20.0	19.463	-2.7
1-Methylnaphthalene #3	11.989	20.0	19.555	-2.2
2-Methylnaphthalene #4	12.563	20.0	19.498	-2.5
Acenaphthene #5	13.042	20.0	19.775	-1.1
Fluorene #6	13.696	20.0	20.347	1.7
Phenanthrene #7	15.082	20.0	19.079	-4.6
Anthracene #8	16.485	20.0	20.228	1.1
Fluoranthene #9	17.865	2.0	1.855	-7.2
Pyrene #10	18.866	2.0	1.908	-4.6
p-Terphenyl d14 #11*	21.199	20.0	19.121	-4.4
Benzo(a)anthracene #12	22.521	2.0	1.929	-3.5
Chrysene #13	23.387	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.103	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.524	1.0	0.984	-1.6
Benzo(a)pyrene #16	28.630	2.0	2.014	0.7
Dibenz(a,h)anthracene #1	30.492	2.0	1.728	-13.6
Benzo(g,h,i)perylene #18	31.305	2.0	1.954	-2.3
Indeno(1,2,3-cd)pyrene #	32.245	2.0	1.961	-1.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.397	20.0	20.833	4.2
Acenaphthylene #2	11.027	20.0	20.202	1.0
1-Methylnaphthalene #3	11.973	20.0	20.125	0.6
2-Methylnaphthalene #4	12.547	20.0	20.392	2.0
Acenaphthene #5	13.026	20.0	19.904	-0.5
Fluorene #6	13.680	20.0	19.904	-0.5
Phenanthrene #7	15.066	20.0	20.281	1.4
Anthracene #8	16.468	20.0	21.061	5.3
Fluoranthene #9	17.847	2.0	1.976	-1.2
Pyrene #10	18.849	2.0	1.984	-0.8
p-Terphenyl d14 #11*	21.183	20.0	19.264	-3.7
Benzo(a)anthracene #12	22.504	2.0	1.977	-1.2
Chrysene #13	23.371	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.085	2.0	1.965	-1.8
Benzo(k)fluoranthene #15	27.507	1.0	0.967	-3.3
Benzo(a)pyrene #16	28.612	2.0	2.037	1.9
Dibenz(a,h)anthracene #1	30.474	2.0	2.018	0.9
Benzo(g,h,i)perylene #18	31.287	2.0	2.289	14.4
Indeno(1,2,3-cd)pyrene #	32.225	2.0	1.955	-2.3

= Failed 15.0% Criteria

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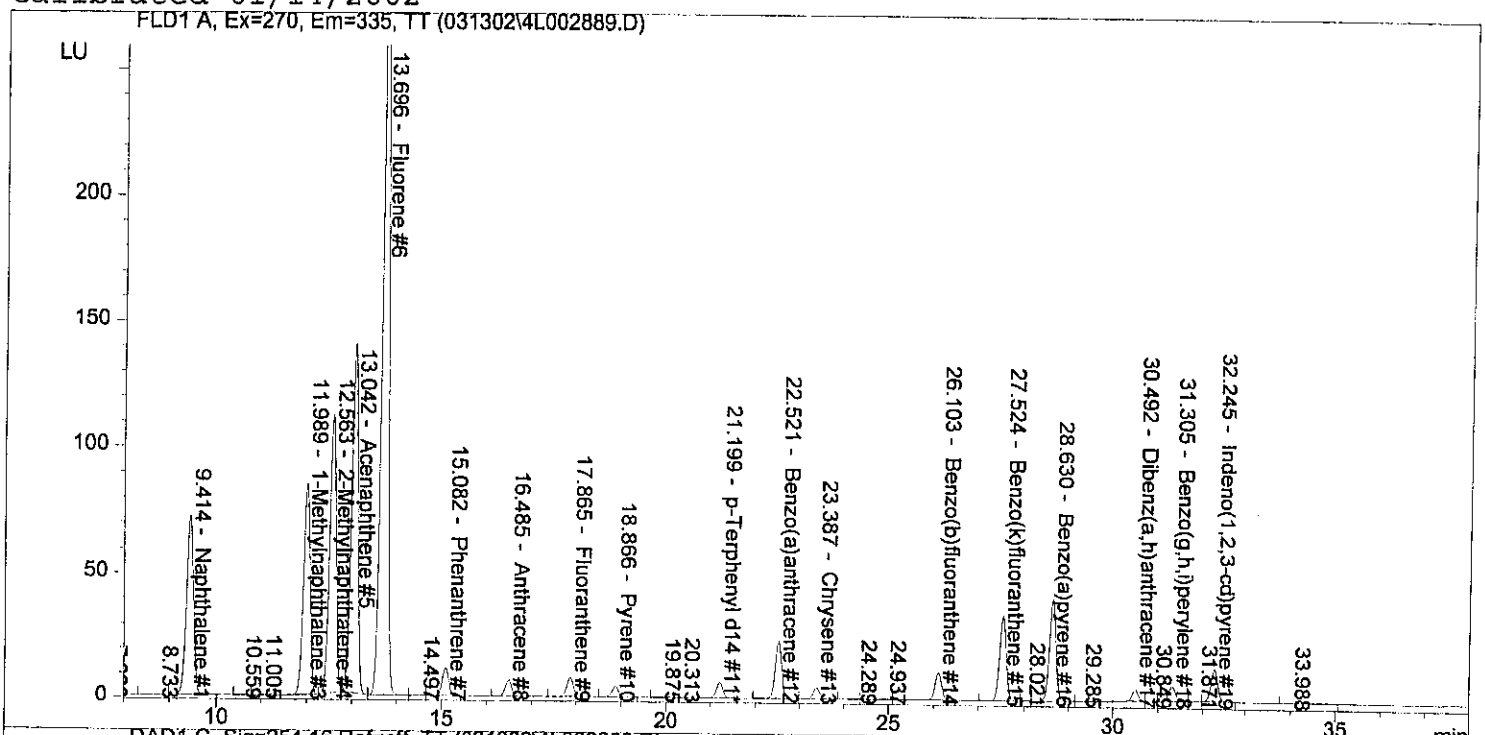
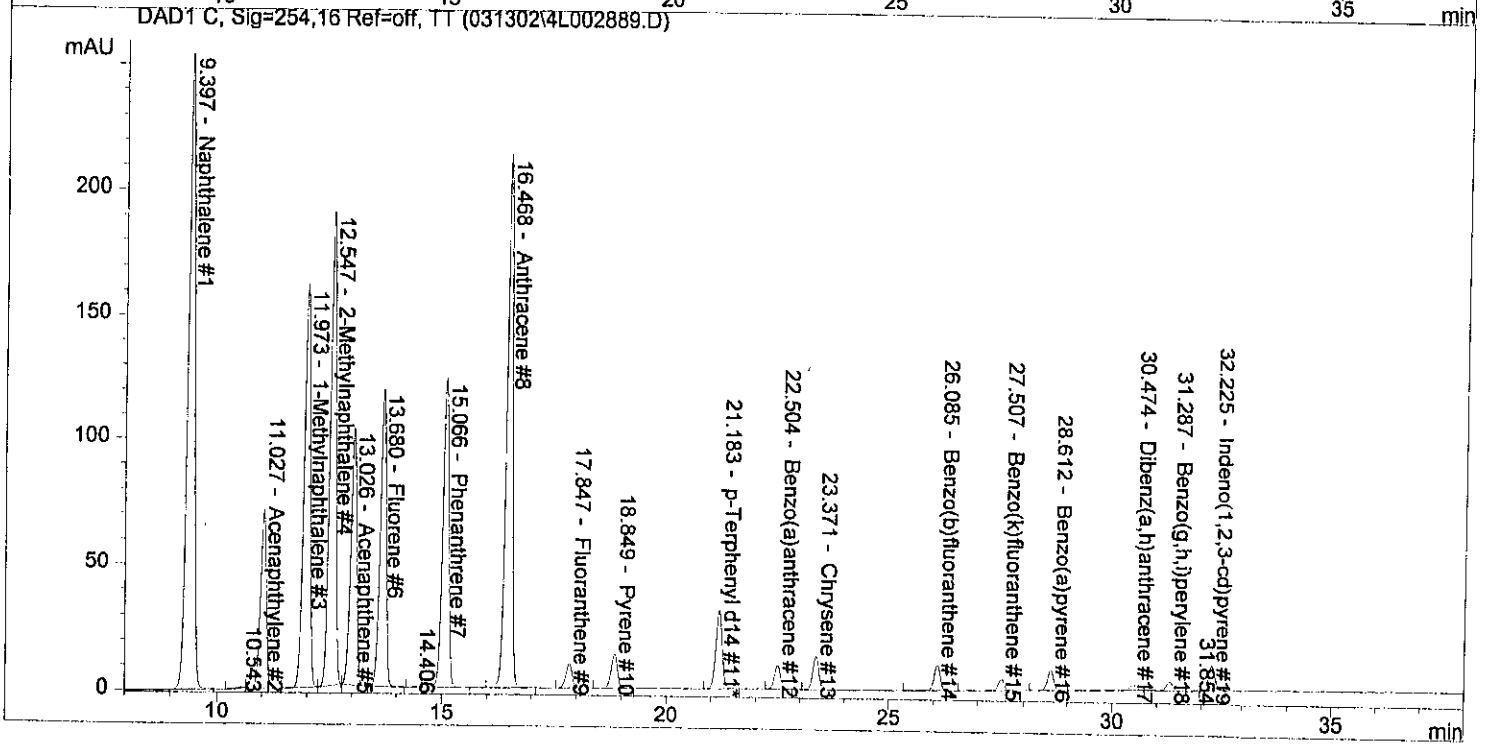
Injection Date	: 3/13/2002 3:50:27 PM	Seq. Line	: 2
Sample Name	: WG114485-01 CCV	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 12:38:35 PM by RDC
(modified after loading)

Calibrated 01/14/2002





Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.414	BB	757.31628	2.57003e-2	19.46324		Naphthalene #1
11.989	BB	869.52960	2.24893e-2	19.55513		1-Methylnaphthalene #3
12.563	BB	1129.05811	1.72691e-2	19.49786		2-Methylnaphthalene #4
13.042	BB	1430.63062	1.38228e-2	19.77529		Acenaphthene #5
13.696	BB	3097.45435	6.56879e-3	20.34652		Fluorene #6
15.082	BBA	113.23470	1.68488e-1	19.07864		Phenanthrene #7
16.485	BBA	66.60257	3.03714e-1	20.22816		Anthracene #8
17.865	PB	77.73190	2.38671e-2	1.85523		Fluoranthene #9
18.866	BBA	46.92213	4.06594e-2	1.90783		Pyrene #10
21.199	BB	66.73573	2.86511e-1	19.12055		p-Terphenyl d14 #11*
22.521	BB	242.17229	7.96557e-3	1.92904		Benzo(a)anthracene #12
23.387	BBA	49.42800	3.90144e-2	1.92841		Chrysene #13
26.103	BB	116.95866	1.65598e-2	1.93681		Benzo(b)fluoranthene #14
27.524	BB	354.38550	2.77566e-3	9.83655e-1		Benzo(k)fluoranthene #15
28.630	BB	430.56940	4.67660e-3	2.01360		Benzo(a)pyrene #16
30.492	BB	43.95336	3.93196e-2	1.72823		Dibenz(a,h)anthracene #17
31.305	BB	72.51139	2.69466e-2	1.95394		Benzo(g,h,i)perylene #18
32.245	BB	142.70857	1.37440e-2	1.96139		Indeno(1,2,3-cd)pyrene #1
Totals :				175.26352		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.397	BBA	2517.17017	8.27651e-3	20.83339		Naphthalene #1
11.027	BB	673.17059	3.00095e-2	20.20151		Acenaphthylene #2
11.973	BB	1548.85754	1.29932e-2	20.12467		1-Methylnaphthalene #3
12.547	BB	1809.19556	1.12713e-2	20.39191		2-Methylnaphthalene #4
13.026	BB	976.42529	2.03841e-2	19.90358		Acenaphthene #5
13.680	BBA	1124.87244	1.76946e-2	19.90415		Fluorene #6
15.066	BBA	1163.61145	1.74291e-2	20.28069		Phenanthrene #7
16.468	PBA	2035.76697	1.03455e-2	21.06101		Anthracene #8
17.847	PB	90.25475	2.18958e-2	1.97620		Fluoranthene #9
18.849	BBA	135.55908	1.46349e-2	1.98389		Pyrene #10
21.183	BBA	298.21033	6.45989e-2	19.26407		p-Terphenyl d14 #11*
22.504	BBA	88.69321	2.22878e-2	1.97678		Benzo(a)anthracene #12
23.371	BBA	129.67499	1.52051e-2	1.97173		Chrysene #13
26.085	PBA	94.25087	2.08462e-2	1.96477		Benzo(b)fluoranthene #14
27.507	PB	42.56050	2.27217e-2	9.67046e-1		Benzo(k)fluoranthene #15
28.612	BB	77.09486	2.64267e-2	2.03736		Benzo(a)pyrene #16
30.474	BB	21.49389	9.39100e-2	2.01849		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.287	BB	42.81067	5.34666e-2	2.28894		Benzo(g,h,i)perylene #18
32.225	BB	94.79675	2.06198e-2	1.95469		Indeno(1,2,3-cd)pyrene #1

Totals : 201.10486

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\031302\4L002892.D Sample Name: WG114485-02 CCV
HPLC4 3/14/2002 9:30:22 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

Injection Date : 3/13/2002 6:40:16 PM Seq. Line : 5

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.415	20.0	19.297	-3.5
1-Methylnaphthalene #3	11.988	20.0	19.452	-2.7
2-Methylnaphthalene #4	12.564	20.0	19.379	-3.1
Acenaphthene #5	13.044	20.0	19.666	-1.7
Fluorene #6	13.700	20.0	20.232	1.2
Phenanthrene #7	15.088	20.0	18.929	-5.4
Anthracene #8	16.491	20.0	20.121	0.6
Fluoranthene #9	17.870	2.0	1.860	-7.0
Pyrene #10	18.874	2.0	1.890	-5.5
p-Terphenyl d14 #11*	21.214	20.0	18.998	-5.0
Benzo(a)anthracene #12	22.534	2.0	1.917	-4.1
Chrysene #13	23.401	2.0	1.938	-3.1
Benzo(b)fluoranthene #14	26.120	2.0	1.930	-3.5
Benzo(k)fluoranthene #15	27.548	1.0	0.980	-2.0
Benzo(a)pyrene #16	28.654	2.0	1.997	-0.2
Dibenz(a,h)anthracene #1	30.513	2.0	1.810	-9.5
Benzo(g,h,i)perylene #18	31.325	2.0	1.917	-4.2
Indeno(1,2,3-cd)pyrene #	32.265	2.0	1.950	-2.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.397	20.0	20.808	4.0
Acenaphthylene #2	11.025	20.0	20.172	0.9
1-Methylnaphthalene #3	11.971	20.0	20.114	0.6
2-Methylnaphthalene #4	12.546	20.0	20.344	1.7
Acenaphthene #5	13.026	20.0	19.843	-0.8
Fluorene #6	13.681	20.0	19.852	-0.7
Phenanthrene #7	15.070	20.0	20.217	1.1
Anthracene #8	16.472	20.0	20.957	4.8
Fluoranthene #9	17.851	2.0	1.971	-1.5
Pyrene #10	18.855	2.0	1.979	-1.0
p-Terphenyl d14 #11*	21.196	20.0	19.151	-4.2
Benzo(a)anthracene #12	22.515	2.0	1.970	-1.5
Chrysene #13	23.382	2.0	1.969	-1.6
Benzo(b)fluoranthene #14	26.101	2.0	1.949	-2.5
Benzo(k)fluoranthene #15	27.529	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.634	2.0	2.038	1.9
Dibenz(a,h)anthracene #1	30.494	2.0	1.953	-2.4
Benzo(g,h,i)perylene #18	31.304	2.0	2.177	8.8
Indeno(1,2,3-cd)pyrene #	32.244	2.0	1.955	-2.3

= Failed 15.0% Criteria

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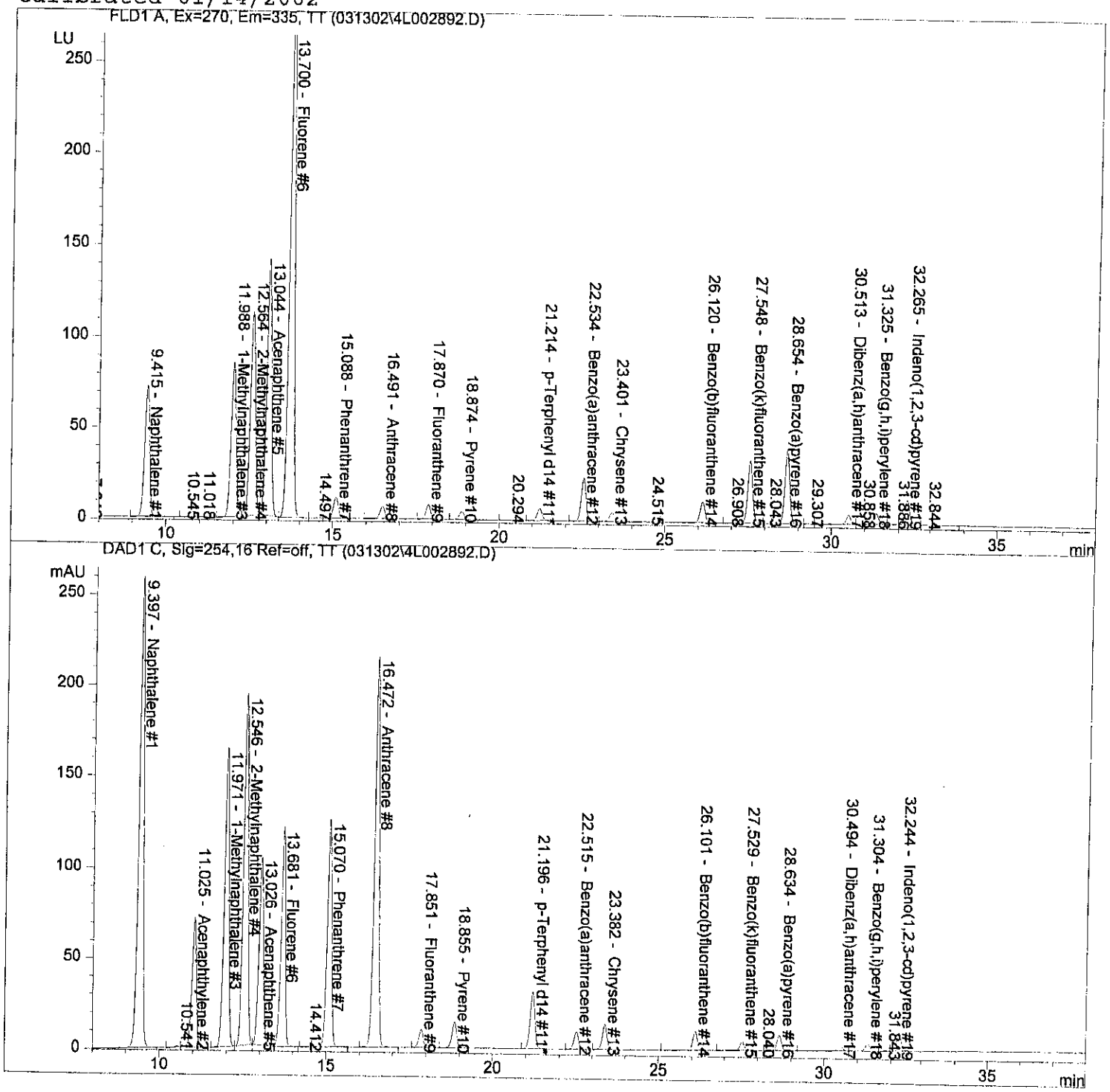
Injection Date : 3/13/2002 6:40:16 PM
Sample Name : WG114485-02 CCV
Acq. Operator : RDC

Seq. Line : 5
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 12:38:35 PM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/14/2002 9:30:20 AM RDC

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.415	BBA	750.85577	2.57003e-2	19.29720		Naphthalene #1
11.988	PB	864.93512	2.24893e-2	19.45180		1-Methylnaphthalene #3
12.564	BB	1122.19141	1.72691e-2	19.37927		2-Methylnaphthalene #4
13.044	BB	1422.69043	1.38228e-2	19.66554		Acenaphthene #5
13.700	BB	3080.04858	6.56879e-3	20.23219		Fluorene #6
15.088	BBA	112.34489	1.68488e-1	18.92872		Phenanthrene #7
16.491	PB	66.25022	3.03714e-1	20.12114		Anthracene #8
17.870	PB	77.94102	2.38671e-2	1.86022		Fluoranthene #9
18.874	BBA	46.47231	4.06594e-2	1.88954		Pyrene #10
21.214	BB	66.30696	2.86511e-1	18.99771		p-Terphenyl d14 #11*
22.534	BB	240.72049	7.96557e-3	1.91748		Benzo(a)anthracene #12
23.401	BB	49.67649	3.90144e-2	1.93810		Chrysene #13
26.120	BB	116.56218	1.65598e-2	1.93024		Benzo(b)fluoranthene #14
27.548	BB	353.21609	2.77566e-3	9.80409e-1		Benzo(k)fluoranthene #15
28.654	BB	426.94034	4.67660e-3	1.99663		Benzo(a)pyrene #16
30.513	BB	46.04180	3.93196e-2	1.81035		Dibenz(a,h)anthracene #17
31.325	BB	71.13290	2.69466e-2	1.91679		Benzo(g,h,i)perylene #18
32.265	BB	141.90251	1.37440e-2	1.95031		Indeno(1,2,3-cd)pyrene #1
Totals :				174.26364		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.397	BBA	2514.12964	8.27651e-3	20.80822		Naphthalene #1
11.025	BBA	672.20178	3.00095e-2	20.17244		Acenaphthylene #2
11.971	PB	1548.03235	1.29932e-2	20.11394		1-Methylnaphthalene #3
12.546	BB	1804.98901	1.12713e-2	20.34449		2-Methylnaphthalene #4
13.026	BB	973.47729	2.03841e-2	19.84348		Acenaphthene #5
13.681	BBA	1121.93970	1.76946e-2	19.85226		Fluorene #6
15.070	BBA	1159.93555	1.74291e-2	20.21662		Phenanthrene #7
16.472	PBA	2025.68933	1.03455e-2	20.95675		Anthracene #8
17.851	PB	89.99496	2.18958e-2	1.97051		Fluoranthene #9
18.855	BBA	135.24352	1.46349e-2	1.97927		Pyrene #10
21.196	PBA	296.45349	6.45989e-2	19.15058		p-Terphenyl d14 #11*
22.515	PBA	88.37376	2.22878e-2	1.96966		Benzo(a)anthracene #12
23.382	BBA	129.47650	1.52051e-2	1.96871		Chrysene #13
26.101	PBA	93.50208	2.08462e-2	1.94916		Benzo(b)fluoranthene #14
27.529	PBA	43.20845	2.27217e-2	9.81769e-1		Benzo(k)fluoranthene #15
28.634	BBA	77.12122	2.64267e-2	2.03806		Benzo(a)pyrene #16
30.494	BB	20.79200	9.39100e-2	1.95258		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.304	BB	40.71490	5.34666e-2	2.17689		Benzo(g,h,i)perylene #18
32.244	BB	94.81149	2.06198e-2	1.95500		Indeno(1,2,3-cd)pyrene #1

Totals : 200.40038

Results obtained with enhanced integrator!

*** End of Report ***

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Data File C:\HPCHEM\2\DATA\031802\4L002894.D Sample Name: WG114669-01 CCV
HPLC4 3/18/2002 4:40:45 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/18/2002 2:13:13 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.423	20.0	19.526	-2.4
1-Methylnaphthalene #3	11.997	20.0	19.625	-1.9
2-Methylnaphthalene #4	12.572	20.0	19.293	-3.5
Acenaphthene #5	13.049	20.0	19.568	-2.2
Fluorene #6	13.702	20.0	20.188	0.9
Phenanthrene #7	15.086	20.0	19.478	-2.6
Anthracene #8	16.482	20.0	19.743	-1.3
Fluoranthene #9	17.856	2.0	1.921	-3.9
Pyrene #10	18.856	2.0	1.971	-1.5
p-Terphenyl d14 #11*	21.178	20.0	19.000	-5.0
Benzo(a)anthracene #12	22.494	2.0	1.936	-3.2
Chrysene #13	23.351	2.0	1.955	-2.3
Benzo(b)fluoranthene #14	26.063	2.0	1.923	-3.9
Benzo(k)fluoranthene #15	27.487	1.0	0.977	-2.3
Benzo(a)pyrene #16	28.592	2.0	1.950	-2.5
Dibenz(a,h)anthracene #1	30.436	2.0	1.918	-4.1
Benzo(g,h,i)perylene #18	31.253	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.191	2.0	1.929	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.408	20.0	20.588	2.9
Acenaphthylene #2	11.036	20.0	19.837	-0.8
1-Methylnaphthalene #3	11.981	20.0	19.853	-0.7
2-Methylnaphthalene #4	12.556	20.0	19.995	0.0
Acenaphthene #5	13.033	20.0	19.416	-2.9
Fluorene #6	13.686	20.0	19.613	-1.9
Phenanthrene #7	15.070	20.0	19.949	-0.3
Anthracene #8	16.466	20.0	20.440	2.2
Fluoranthene #9	17.839	2.0	1.938	-3.1
Pyrene #10	18.839	2.0	1.941	-3.0
p-Terphenyl d14 #11*	21.163	20.0	19.102	-4.5
Benzo(a)anthracene #12	22.479	2.0	1.939	-3.1
Chrysene #13	23.336	2.0	1.940	-3.0
Benzo(b)fluoranthene #14	26.046	2.0	1.950	-2.5
Benzo(k)fluoranthene #15	27.471	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.576	2.0	1.961	-2.0
Dibenz(a,h)anthracene #1	30.421	2.0	1.833	-8.3
Benzo(g,h,i)perylene #18	31.237	2.0	2.136	6.8
Indeno(1,2,3-cd)pyrene #	32.172	2.0	1.908	-4.6

= Failed 15.0% Criteria

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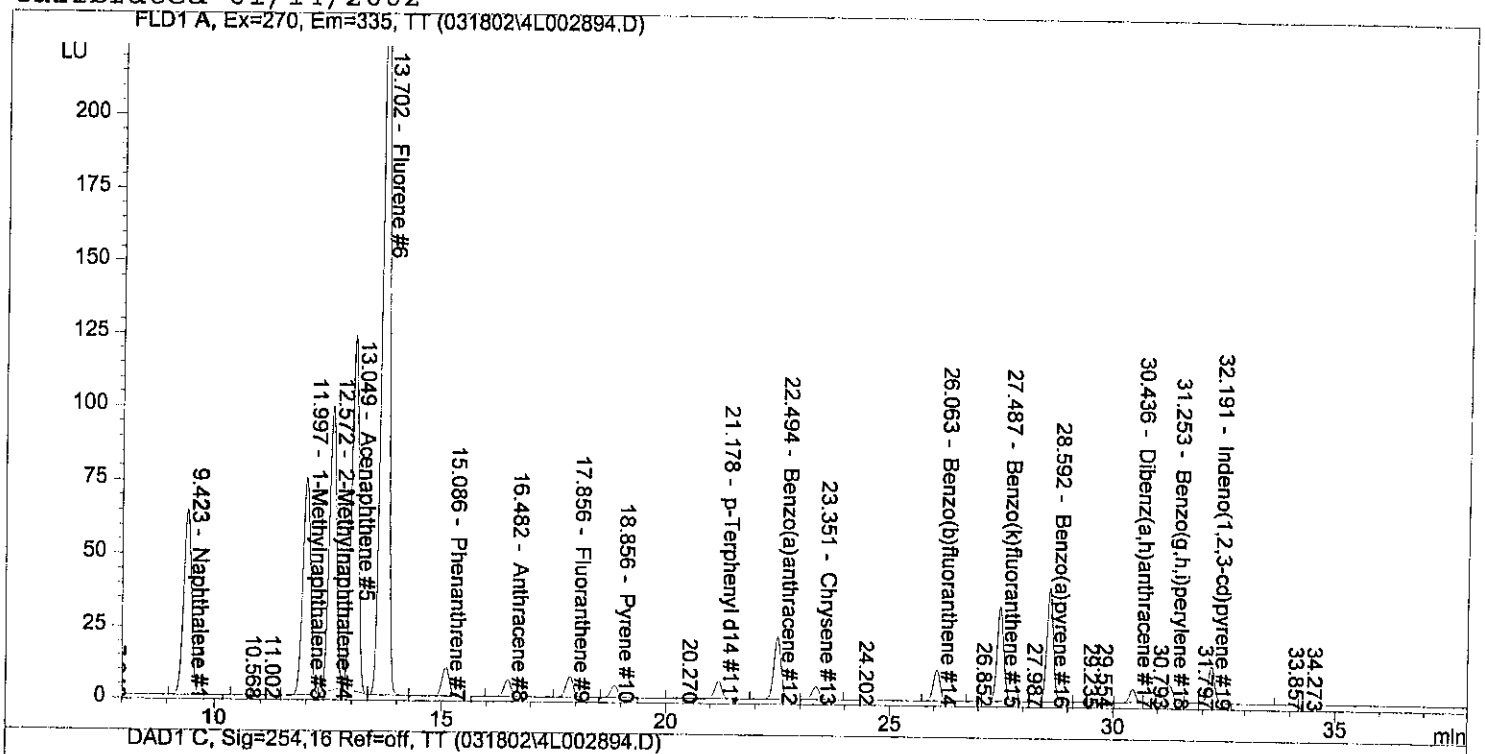
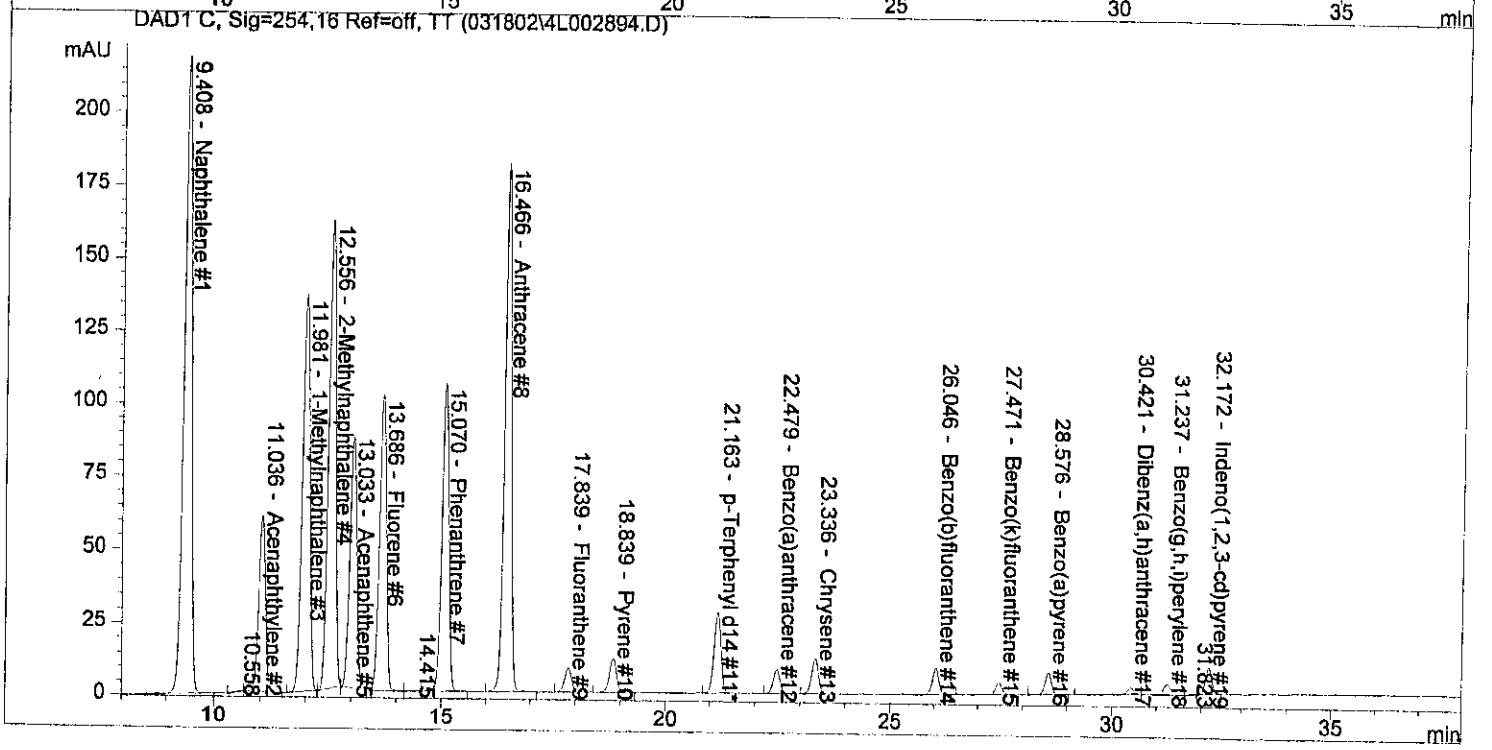
Injection Date : 3/18/2002 2:13:13 PM
Sample Name : WG114669-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 11:03:23 AM by RDC
(modified after loading)

Calibrated 01/14/2002





Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.423	BBA	759.77466	2.57003e-2	19.52642		Naphthalene #1
11.997	BB	872.61462	2.24893e-2	19.62451		1-Methylnaphthalene #3
12.572	BB	1117.17407	1.72691e-2	19.29263		2-Methylnaphthalene #4
13.049	BB	1415.62891	1.38228e-2	19.56793		Acenaphthene #5
13.702	BB	3073.28027	6.56879e-3	20.18773		Fluorene #6
15.086	BBA	115.60762	1.68488e-1	19.47845		Phenanthrene #7
16.482	BBA	65.00645	3.03714e-1	19.74339		Anthracene #8
17.856	PBA	80.49699	2.38671e-2	1.92123		Fluoranthene #9
18.856	BBA	48.46614	4.06594e-2	1.97060		Pyrene #10
21.178	BB	66.31610	2.86511e-1	19.00032		p-Terphenyl d14 #11*
22.494	BB	243.10541	7.96557e-3	1.93647		Benzo(a)anthracene #12
23.351	BB	50.09955	3.90144e-2	1.95461		Chrysene #13
26.063	BB	116.10439	1.65598e-2	1.92266		Benzo(b)fluoranthene #14
27.487	BB	351.91708	2.77566e-3	9.76804e-1		Benzo(k)fluoranthene #15
28.592	BB	416.96344	4.67660e-3	1.94997		Benzo(a)pyrene #16
30.436	BB	48.78207	3.93196e-2	1.91809		Dibenz(a,h)anthracene #17
31.253	BB	69.63602	2.69466e-2	1.87646		Benzo(g,h,i)perylene #18
32.191	BB	140.34393	1.37440e-2	1.92889		Indeno(1,2,3-cd)pyrene #1

Totals : 174.77717

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
9.408	BBA	2487.53516	8.27651e-3	20.58811		Naphthalene #1
11.036	BBA	661.02203	3.00095e-2	19.83694		Acenaphthylene #2
11.981	PB	1527.97876	1.29932e-2	19.85338		1-Methylnaphthalene #3
12.556	BB	1773.96069	1.12713e-2	19.99476		2-Methylnaphthalene #4
13.033	BB	952.49860	2.03841e-2	19.41585		Acenaphthene #5
13.686	BB	1108.44312	1.76946e-2	19.61344		Fluorene #6
15.070	BBA	1144.58691	1.74291e-2	19.94911		Phenanthrene #7
16.466	BBA	1975.74951	1.03455e-2	20.44010		Anthracene #8
17.839	BB	88.52865	2.18958e-2	1.93840		Fluoranthene #9
18.839	BBA	132.62001	1.46349e-2	1.94087		Pyrene #10
21.163	PBA	295.70294	6.45989e-2	19.10209		p-Terphenyl d14 #11*
22.479	BBA	86.99107	2.22878e-2	1.93884		Benzo(a)anthracene #12
23.336	BBA	127.58619	1.52051e-2	1.93997		Chrysene #13
26.046	BBA	93.52995	2.08462e-2	1.94974		Benzo(b)fluoranthene #14
27.471	BBA	43.26317	2.27217e-2	9.83012e-1		Benzo(k)fluoranthene #15
28.576	BBA	74.18663	2.64267e-2	1.96050		Benzo(a)pyrene #16
30.421	BB	19.51975	9.39100e-2	1.83310		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.237	BB	39.95448	5.34666e-2	2.13623		Benzo(g,h,i)perylene #18
32.172	BB	92.54963	2.06198e-2	1.90836		Indeno(1,2,3-cd)pyrene #1

Totals : 197.32283

Results obtained with enhanced integrator!

*** End of Report ***

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Data File C:\HPCHEM\2\DATA\031802\4L002896.D Sample Name: WG114669-02 CCV
HPLC4 3/18/2002 5:23:42 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/18/2002 4:25:23 PM Seq. Line : 4

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	19.172	-4.1
1-Methylnaphthalene #3	12.003	20.0	19.308	-3.5
2-Methylnaphthalene #4	12.575	20.0	19.071	-4.6
Acenaphthene #5	13.054	20.0	19.388	-3.1
Fluorene #6	13.705	20.0	20.061	0.3
Phenanthrene #7	15.085	20.0	18.996	-5.0
Anthracene #8	16.479	20.0	19.691	-1.5
Fluoranthene #9	17.850	2.0	1.904	-4.8
Pyrene #10	18.848	2.0	1.916	-4.2
p-Terphenyl d14 #11*	21.165	20.0	19.069	-4.7
Benzo(a)anthracene #12	22.478	2.0	1.901	-4.9
Chrysene #13	23.334	2.0	1.927	-3.7
Benzo(b)fluoranthene #14	26.041	2.0	1.908	-4.6
Benzo(k)fluoranthene #15	27.458	1.0	0.971	-2.9
Benzo(a)pyrene #16	28.561	2.0	1.917	-4.2
Dibenz(a,h)anthracene #1	30.400	2.0	1.895	-5.3
Benzo(g,h,i)perylene #18	31.216	2.0	1.869	-6.5
Indeno(1,2,3-cd)pyrene #	32.154	2.0	1.924	-3.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.417	20.0	20.537	2.7
Acenaphthylene #2	11.041	20.0	19.839	-0.8
1-Methylnaphthalene #3	11.989	20.0	19.814	-0.9
2-Methylnaphthalene #4	12.561	20.0	20.004	0.0
Acenaphthene #5	13.040	20.0	19.467	-2.7
Fluorene #6	13.690	20.0	19.609	-2.0
Phenanthrene #7	15.071	20.0	19.928	-0.4
Anthracene #8	16.465	20.0	20.410	2.0
Fluoranthene #9	17.835	2.0	1.940	-3.0
Pyrene #10	18.833	2.0	1.936	-3.2
p-Terphenyl d14 #11*	21.151	20.0	19.100	-4.5
Benzo(a)anthracene #12	22.463	2.0	1.939	-3.1
Chrysene #13	23.320	2.0	1.943	-2.9
Benzo(b)fluoranthene #14	26.025	2.0	1.939	-3.0
Benzo(k)fluoranthene #15	27.443	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.546	2.0	1.943	-2.9
Dibenz(a,h)anthracene #1	30.385	2.0	1.877	-6.2
Benzo(g,h,i)perylene #18	31.201	2.0	2.131	6.5
Indeno(1,2,3-cd)pyrene #	32.134	2.0	2.033	1.7

= Failed 15.0% Criteria

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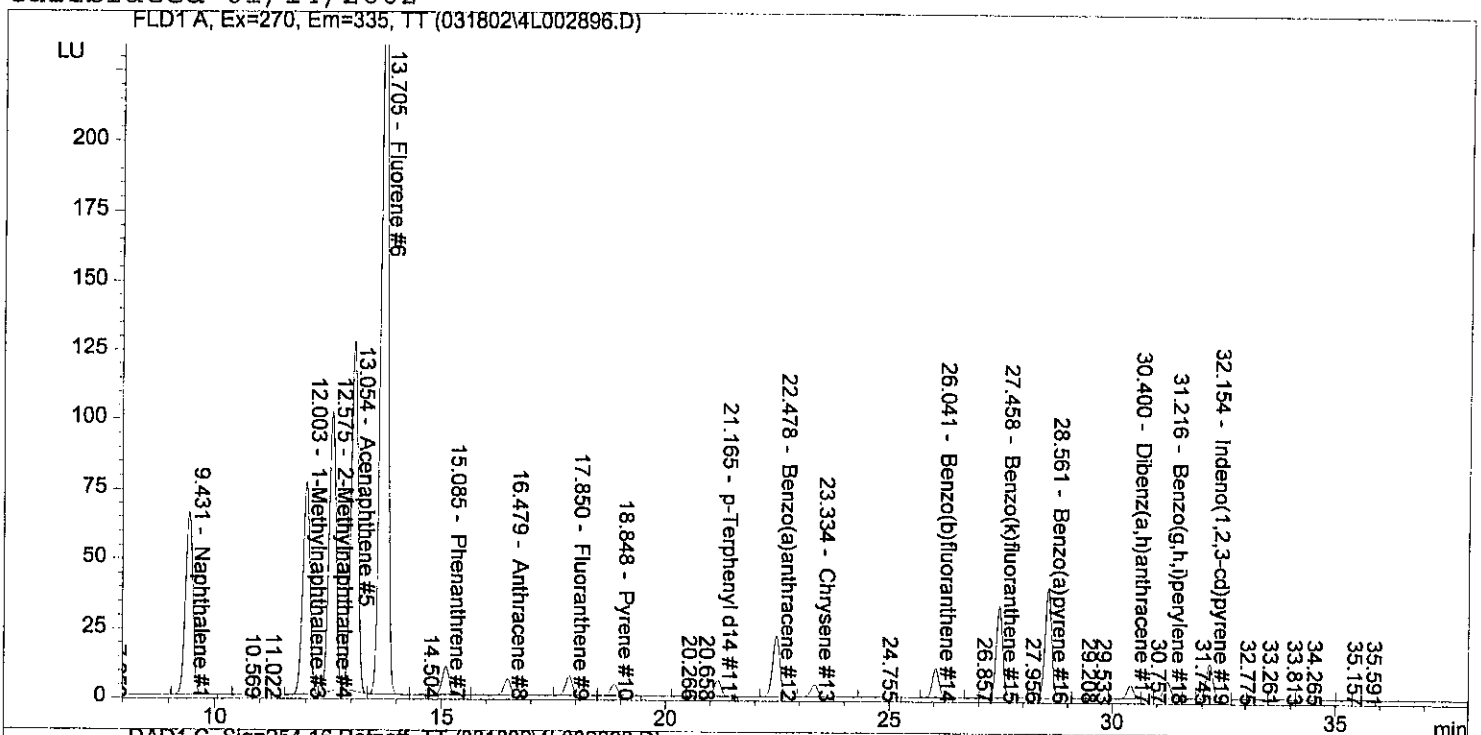
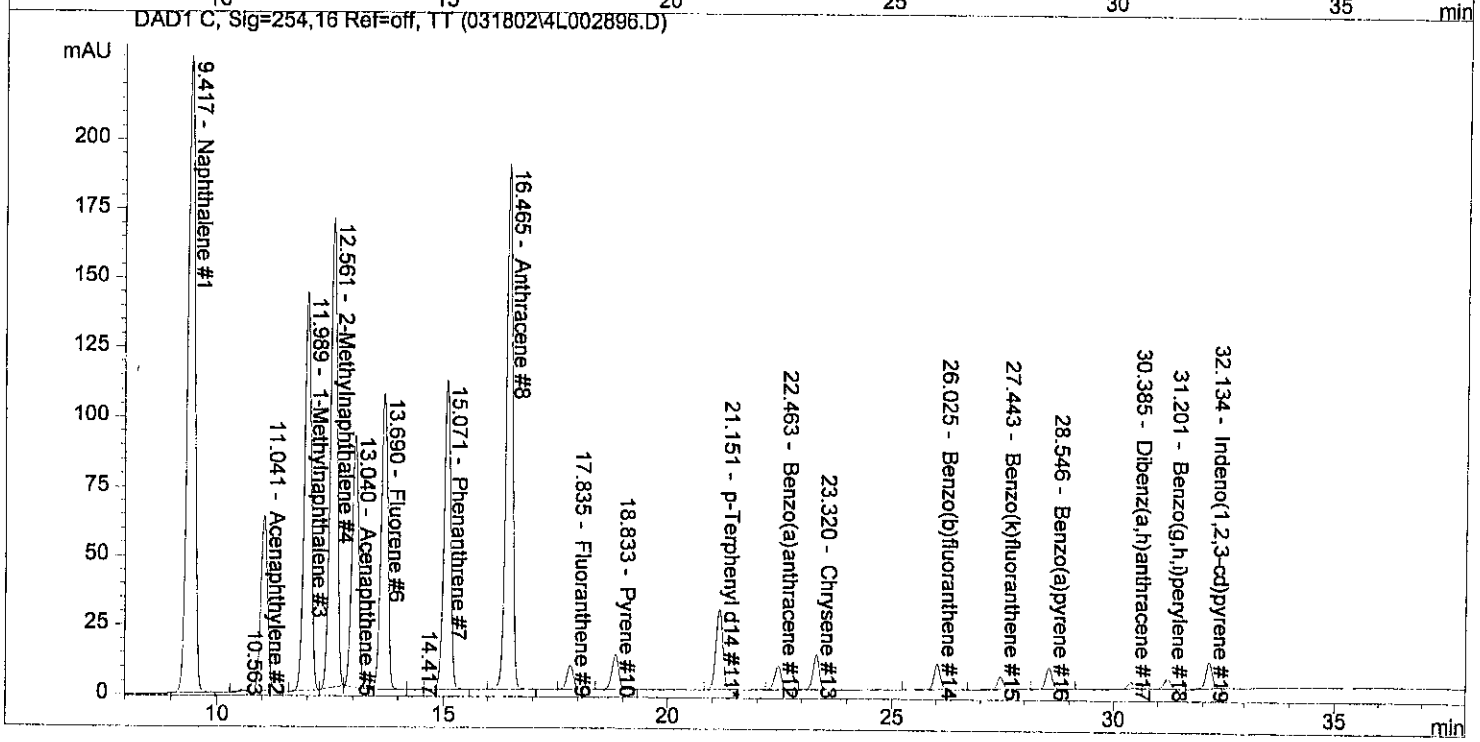
Injection Date : 3/18/2002 4:25:23 PM
Sample Name : WG114669-02 CCV
Acq. Operator : RDC

Seq. Line : 4
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BBA	745.96570	2.57003e-2	19.17152		Naphthalene #1
12.003	BB	858.53265	2.24893e-2	19.30781		1-Methylnaphthalene #3
12.575	BB	1104.35071	1.72691e-2	19.07118		2-Methylnaphthalene #4
13.054	BB	1402.62744	1.38228e-2	19.38821		Acenaphthene #5
13.705	BB	3053.91113	6.56879e-3	20.06050		Fluorene #6
15.085	BB	112.74257	1.68488e-1	18.99573		Phenanthrene #7
16.479	BB	64.83348	3.03714e-1	19.69086		Anthracene #8
17.850	BB	79.76730	2.38671e-2	1.90381		Fluoranthene #9
18.848	BBA	47.13303	4.06594e-2	1.91640		Pyrene #10
21.165	BBA	66.55524	2.86511e-1	19.06884		p-Terphenyl d14 #11*
22.478	BB	238.68402	7.96557e-3	1.90125		Benzo(a)anthracene #12
23.334	BB	49.37966	3.90144e-2	1.92652		Chrysene #13
26.041	BB	115.24036	1.65598e-2	1.90835		Benzo(b)fluoranthene #14
27.458	BB	349.65985	2.77566e-3	9.70539e-1		Benzo(k)fluoranthene #15
28.561	BB	409.88229	4.67660e-3	1.91685		Benzo(a)pyrene #16
30.400	BB	48.18691	3.93196e-2	1.89469		Dibenz(a,h)anthracene #17
31.216	BB	69.36741	2.69466e-2	1.86922		Benzo(g,h,i)perylene #18
32.154	BB	140.01328	1.37440e-2	1.92435		Indeno(1,2,3-cd)pyrene #1

Totals : 172.88664

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
9.417	BBA	2481.39917	8.27651e-3	20.53733		Naphthalene #1
11.041	BBA	661.08966	3.00095e-2	19.83897		Acenaphthylene #2
11.989	PB	1524.98132	1.29932e-2	19.81444		1-Methylnaphthalene #3
12.561	BB	1774.75830	1.12713e-2	20.00375		2-Methylnaphthalene #4
13.040	BB	954.99640	2.03841e-2	19.46677		Acenaphthene #5
13.690	BBA	1108.18164	1.76946e-2	19.60881		Fluorene #6
15.071	BBA	1143.40308	1.74291e-2	19.92848		Phenanthrene #7
16.465	PBA	1972.82104	1.03455e-2	20.40980		Anthracene #8
17.835	BB	88.59441	2.18958e-2	1.93984		Fluoranthene #9
18.833	BBA	132.27672	1.46349e-2	1.93585		Pyrene #10
21.151	BBA	295.67682	6.45989e-2	19.10041		p-Terphenyl d14 #11*
22.463	BBA	86.98635	2.22878e-2	1.93874		Benzo(a)anthracene #12
23.320	BBA	127.77898	1.52051e-2	1.94290		Chrysene #13
26.025	PBA	93.01945	2.08462e-2	1.93910		Benzo(b)fluoranthene #14
27.443	PBA	42.41821	2.27217e-2	9.63813e-1		Benzo(k)fluoranthene #15
28.546	BBA	73.52272	2.64267e-2	1.94296		Benzo(a)pyrene #16
30.385	BB	19.98633	9.39100e-2	1.87692		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.201	BB	39.85518	5.34666e-2	2.13092		Benzo(g,h,i)perylene #18
32.134	BB	98.59602	2.06198e-2	2.03303		Indeno(1,2,3-cd)pyrene #1

Totals : 197.35283

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

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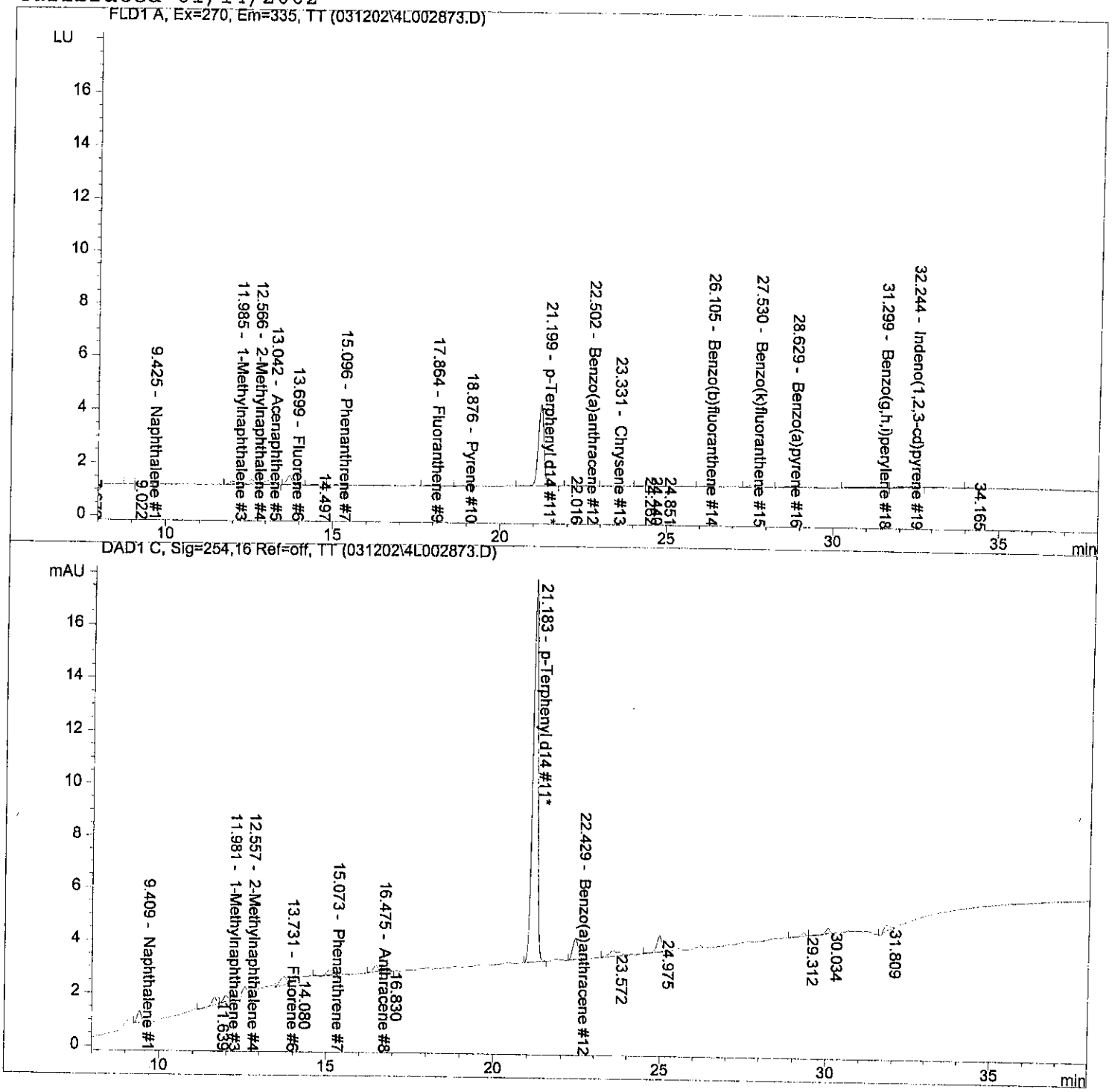
Injection Date : 3/12/2002 6:06:11 PM
Sample Name : WG114387-01 WBLK
Acq. Operator : RDC

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 : 3/13/2002 11:21:59 AM by RDC
(modified after loading)
Calibrated 01/14/2002



HPLC4 3/13/2002 11:22:08 AM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.425	BBA	1.56744	2.57003e-2	4.02836e-2		Naphthalene #1
11.985	BB	1.31318	2.24893e-2	2.95326e-2		1-Methylnaphthalene #3
12.566	BB	1.99475	1.72691e-2	3.44476e-2		2-Methylnaphthalene #4
13.042	BBA	1.69261	1.38228e-2	2.33965e-2		Acenaphthene #5
13.699	BBA	3.73761	6.56879e-3	2.45516e-2		Fluorene #6
15.096	BB	2.79785e-1	1.68488e-1	4.71403e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.864	BBA	5.01522e-1	2.38671e-2	1.19699e-2		Fluoranthene #9
18.876	PBA	2.45992e-1	4.06594e-2	1.00019e-2		Pyrene #10
21.199	BBA	33.50660	2.86511e-1	9.60002	96.0%	p-Terphenyl d14 #11*
22.502	BB	4.15914e-1	7.96557e-3	3.31299e-3		Benzo(a)anthracene #12
23.331	BB	2.97052e-1	3.90144e-2	1.15893e-2		Chrysene #13
26.105	BBA	2.63912e-1	1.65598e-2	4.37031e-3		Benzo(b)fluoranthene #14
27.530	BBA	9.03413e-1	2.77566e-3	2.50757e-3		Benzo(k)fluoranthene #15
28.629	BB	5.94681e-1	4.67660e-3	2.78109e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.299	BB	2.22321	2.69466e-2	5.99079e-2		Benzo(g,h,i)perylene #18
32.244	BB	1.95276	1.37440e-2	2.68388e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.93266

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.409	BB	3.93190	8.27651e-3	3.25424e-2		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.981	BB	1.91479	1.29932e-2	2.48793e-2		1-Methylnaphthalene #3
12.557	BB	4.15086	1.12713e-2	4.67854e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.731	BB	4.05903	1.76946e-2	7.18229e-2		Fluorene #6
15.073	BBA	2.18580	1.74291e-2	3.80966e-2		Phenanthrene #7
16.475	BB	2.65441	1.03455e-2	2.74612e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.183	BBA	147.11809	6.45989e-2	9.50367	95.0%	p-Terphenyl d14 #11*
22.429	PBA	7.72486	2.22878e-2	1.72171e-1	NC	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

PLC4 3/13/2002 11:22:08 AM RDC

[min]		[mAU*s]		[ug/L]		
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				9.91743		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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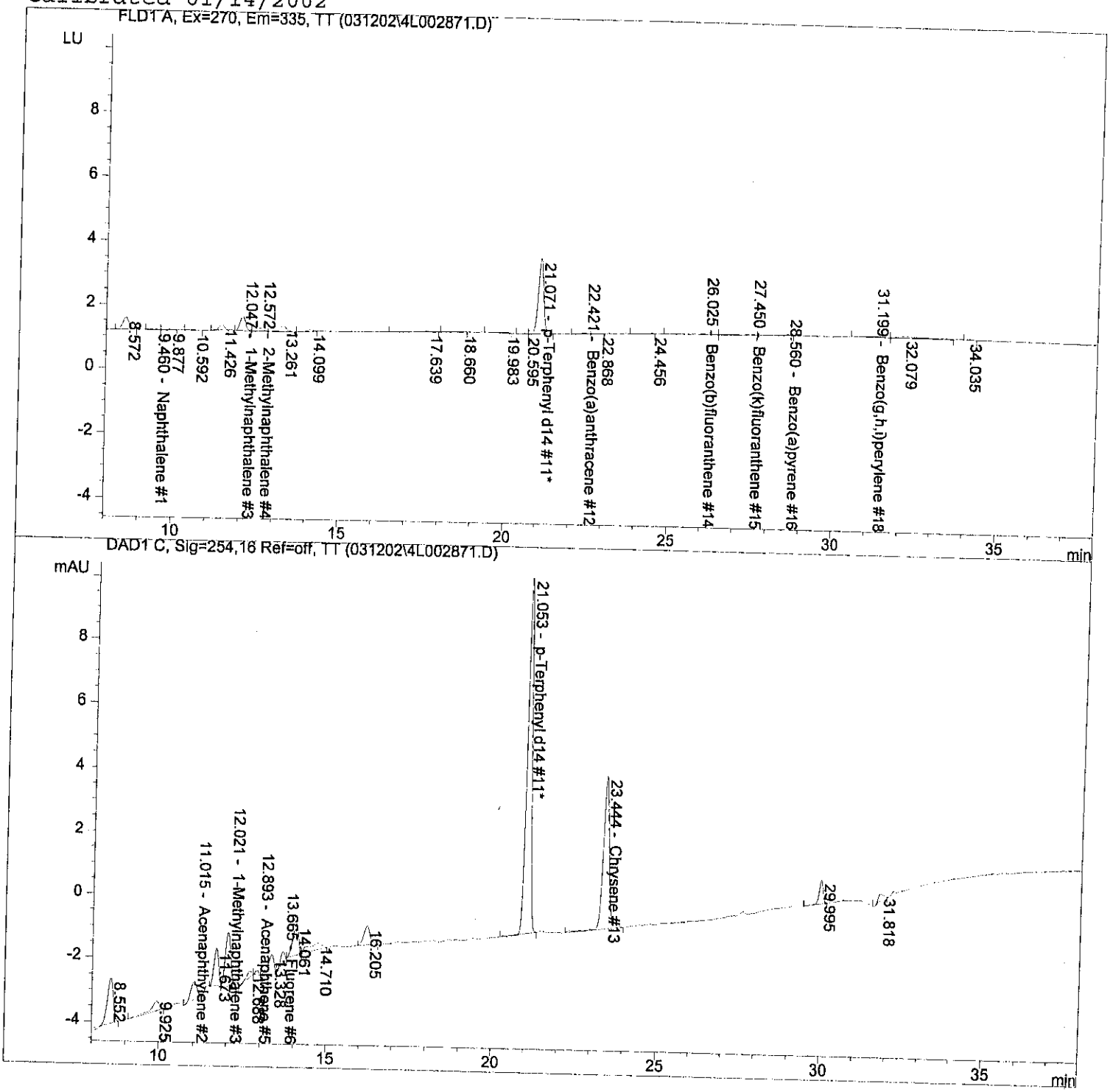
Injection Date : 3/12/2002 4:13:01 PM
Sample Name : WG114347-02 SBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/9/2002 3:28:04 PM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 11:20:47 AM RDC

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	3/9/2002 1:33:04 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.460	BB	1.82447e-1	2.57003e-2	4.68893e-3		Naphthalene #1
12.047	BB	5.36383	2.24893e-2	1.20629e-1		1-Methylnaphthalene #3
12.572	BB	1.17064	1.72691e-2	2.02159e-2		2-Methylnaphthalene #4
13.027		-	-	-		Acenaphthene #5
13.681		-	-	-		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.846		-	-	-		Fluoranthene #9
18.848		-	-	-		Pyrene #10
21.071	BB	26.54337	2.86511e-1	7.60498		p-Terphenyl d14 #11*
22.421	PB	2.24855e-1	7.96557e-3	1.79110e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.025	BB	7.29737e-1	1.65598e-2	1.20843e-2		Benzo(b)fluoranthene #14
27.450	BB	5.29984e-1	2.77566e-3	1.47106e-3		Benzo(k)fluoranthene #15
28.560	BB	3.74254e-1	4.67660e-3	1.75024e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.199	BB	1.05345	2.69466e-2	2.83868e-2		Benzo(g,h,i)perylene #18
32.280		-	-	-		Indeno(1,2,3-cd)pyrene #1

76.0%

Totals : 7.79600

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
9.384		-	-	-		Naphthalene #1
11.015	BB	6.99919	3.00095e-2	2.10042e-1	<ma	Acenaphthylene #2
12.021	BB	19.23196	1.29932e-2	2.49885e-1		1-Methylnaphthalene #3
12.533		-	-	-		2-Methylnaphthalene #4
12.893	BB	9.21903e-1	2.03841e-2	1.87922e-2		Acenaphthene #5
13.665	BB	2.80709	1.76946e-2	4.96702e-2		Fluorene #6
15.050		-	-	-		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.053	PB	115.01104	6.45989e-2	7.42959		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.444	PBA	62.66597	1.52051e-2	9.52845e-1	μC	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

74.3%

		[mAU s]		[ug/L]		
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				8.91083		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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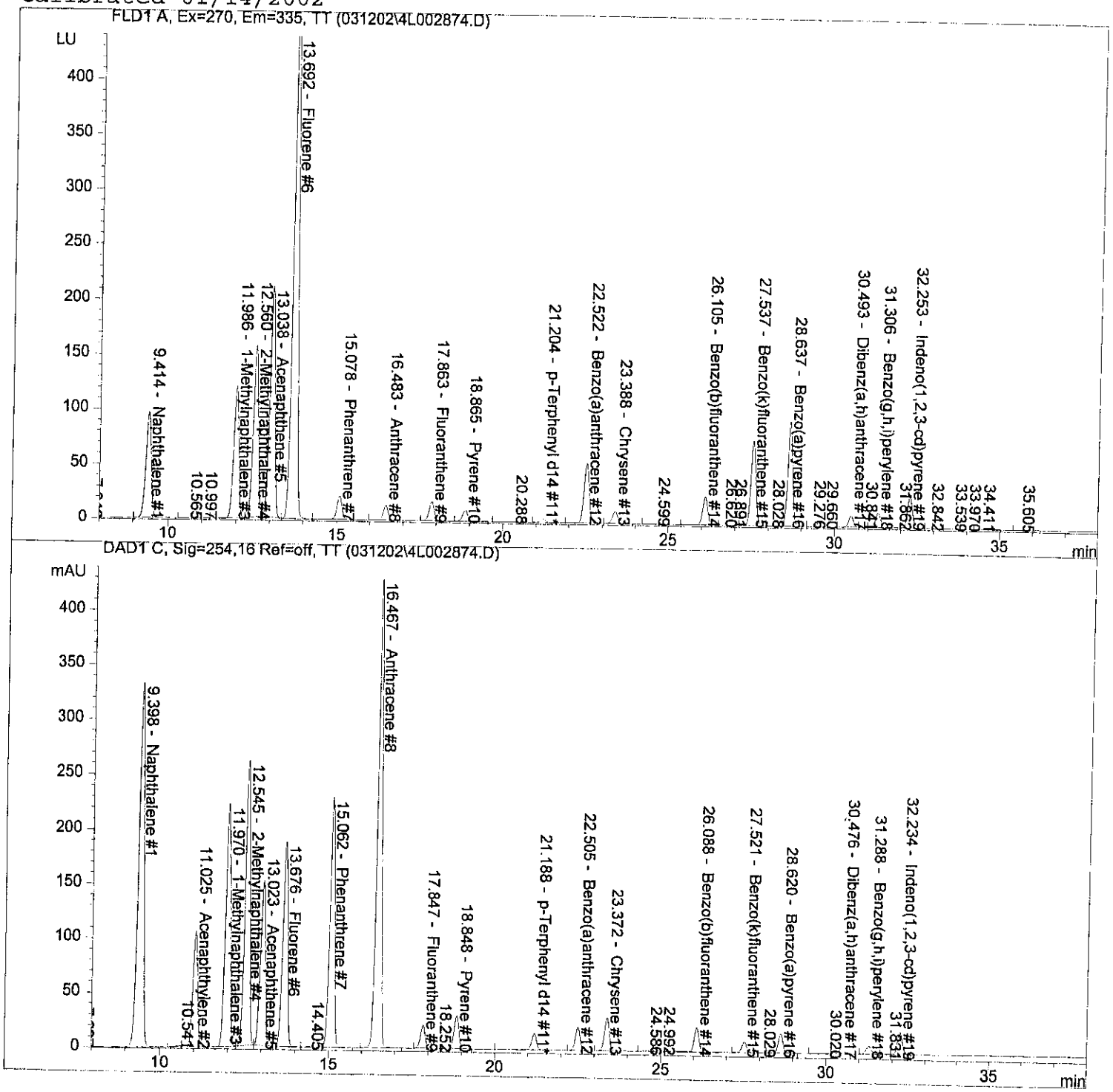
Injection Date : 3/12/2002 7:02:49 PM
Sample Name : WG114387-02 WLCS
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 11:22:43 AM RDC

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	3/9/2002 1:33:04 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.414	BBA	1039.92444	2.57003e-2	26.72634		Naphthalene #1
11.986	BB	1269.70605	2.24893e-2	28.55482		1-Methylnaphthalene #3
12.560	BB	1633.70447	1.72691e-2	28.21266		2-Methylnaphthalene #4
13.038	BB	2226.49121	1.38228e-2	30.77630		Acenaphthene #5
13.692	BB	5064.88623	6.56879e-3	33.27016		Fluorene #6
15.078	BB	223.97464	1.68488e-1	37.73695		Phenanthrene #7
16.483	BBA	140.47935	3.03714e-1	42.66560		Anthracene #8
17.863	PBA	185.65201	2.38671e-2	4.43097		Fluoranthene #9
18.865	BBA	117.11092	4.06594e-2	4.76166		Pyrene #10
21.204	BB	34.38607	2.86511e-1	9.85201	98%	p-Terphenyl d14 #11*
22.522	BB	594.56757	7.96557e-3	4.73607		Benzo(a)anthracene #12
23.388	BBA	121.99474	3.90144e-2	4.75956		Chrysene #13
26.105	PB	278.89572	1.65598e-2	4.61845		Benzo(b)fluoranthene #14
27.537	BB	824.51117	2.77566e-3	2.28857		Benzo(k)fluoranthene #15
28.637	BB	1005.96796	4.67660e-3	4.70451		Benzo(a)pyrene #16
30.493	BB	108.99740	3.93196e-2	4.28574		Dibenz(a,h)anthracene #17
31.306	BB	164.16704	2.69466e-2	4.42375		Benzo(g,h,i)perylene #18
32.253	BB	312.23349	1.37440e-2	4.29135		Indeno(1,2,3-cd)pyrene #1
Totals :				281.09546		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.398	BBA	3397.44873	8.27651e-3	28.11902		Naphthalene #1
11.025	BB	1033.35449	3.00095e-2	31.01045		Acenaphthylene #2
11.970	BB	2215.27588	1.29932e-2	28.78359		1-Methylnaphthalene #3
12.545	BB	2568.64429	1.12713e-2	28.95185		2-Methylnaphthalene #4
13.023	BB	1497.49719	2.03841e-2	30.52517		Acenaphthene #5
13.676	BB	1845.47668	1.76946e-2	32.65494		Fluorene #6
15.062	BBA	2232.51050	1.74291e-2	38.91063		Phenanthrene #7
16.467	BBA	4279.07812	1.03455e-2	44.26916		Anthracene #8
17.847	PB	207.48589	2.18958e-2	4.54307		Fluoranthene #9
18.848	BBA	314.44577	1.46349e-2	4.60187		Pyrene #10
21.188	PBA	153.45694	6.45989e-2	9.91315	99%	p-Terphenyl d14 #11*
22.505	BBA	216.08145	2.22878e-2	4.81599		Benzo(a)anthracene #12
23.372	BBA	310.72250	1.52051e-2	4.72458		Chrysene #13
26.088	BBA	223.57347	2.08462e-2	4.66066		Benzo(b)fluoranthene #14
27.521	BB	101.86652	2.27217e-2	2.31458		Benzo(k)fluoranthene #15
28.620	BB	177.78665	2.64267e-2	4.69831		Benzo(a)pyrene #16
30.476	BB	45.30573	9.39100e-2	4.25466		Dibenz(a,h)anthracene #17

				[ug/L]		
31.288	BB	82.20658	5.34666e-2	4.39531		Benzo(g,h,i)perylene #18
32.234	BB	209.57497	2.06198e-2	4.32140		Indeno(1,2,3-cd)pyrene #1
Totals :				316.46838		

Results obtained with enhanced integrator!

*** End of Report ***

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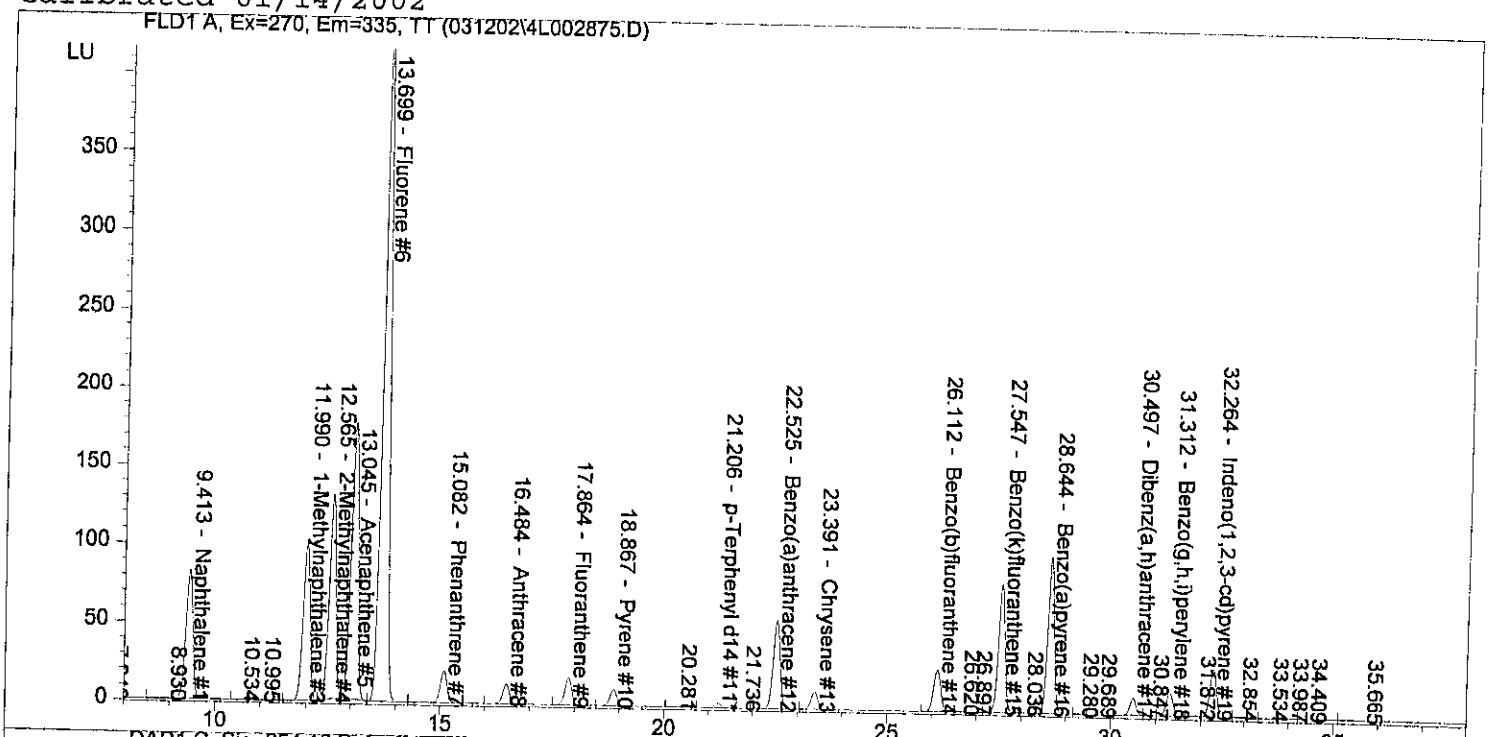
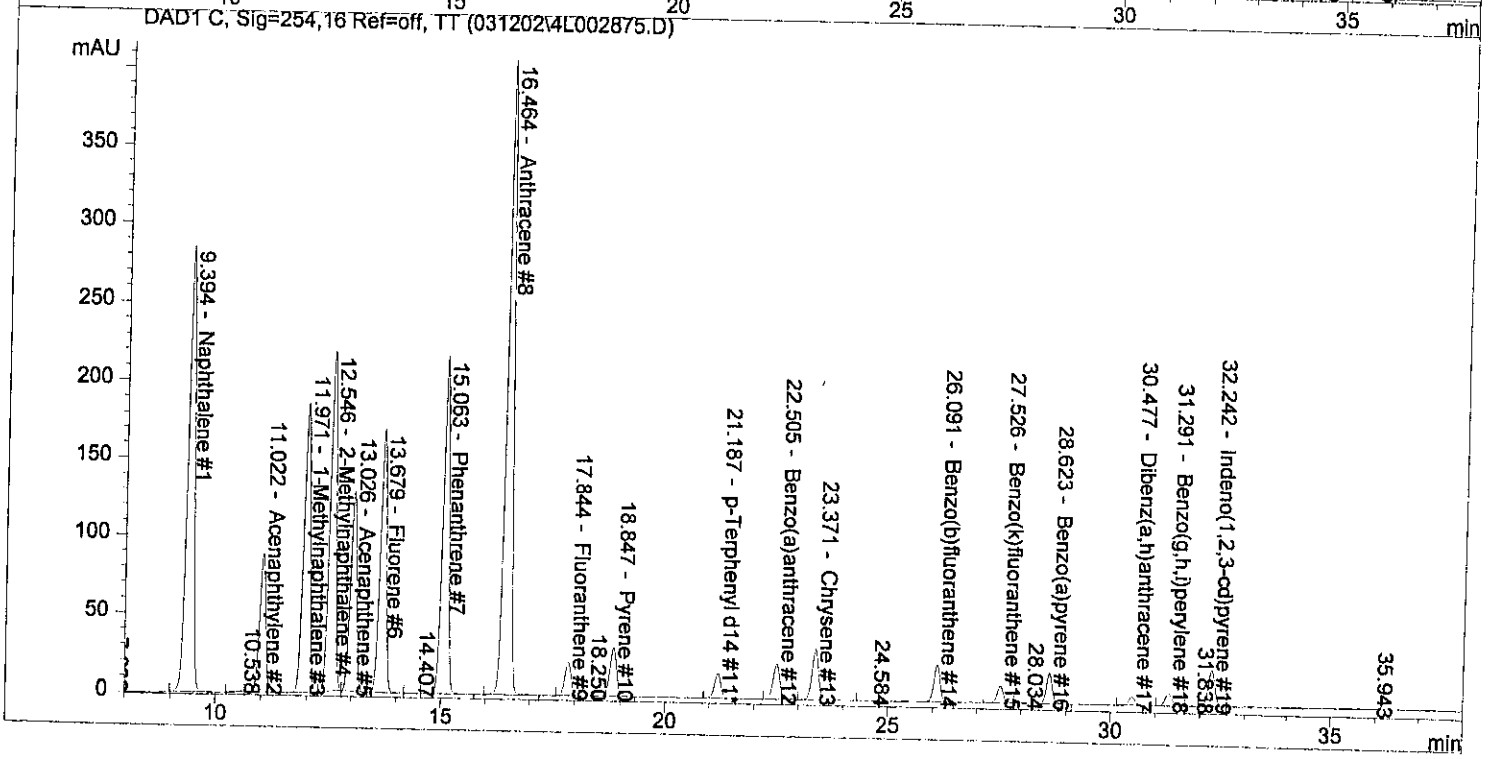
Injection Date : 3/12/2002 7:59:25 PM
Sample Name : WG114387-03 WLCS
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:59 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	3/9/2002 1:33:04 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.413	BBA	883.38129	2.57003e-2	22.70314		Naphthalene #1
11.990	BB	1059.22009	2.24893e-2	23.82114		1-Methylnaphthalene #3
12.565	BB	1367.34814	1.72691e-2	23.61292		2-Methylnaphthalene #4
13.045	BB	1865.85657	1.38228e-2	25.79133		Acenaphthene #5
13.699	BB	4513.41553	6.56879e-3	29.64767		Fluorene #6
15.082	BBA	212.35812	1.68488e-1	35.77972		Phenanthrene #7
16.484	PBA	132.38120	3.03714e-1	40.20607		Anthracene #8
17.864	PB	184.44533	2.38671e-2	4.40217		Fluoranthene #9
18.867	BBA	115.97721	4.06594e-2	4.71556		Pyrene #10
21.206	BBA	34.40644	2.86511e-1	9.85784	98.6%	p-Terphenyl d14 #11*
22.525	BB	612.61768	7.96557e-3	4.87985		Benzo(a)anthracene #12
23.391	BB	126.18076	3.90144e-2	4.92287		Chrysene #13
26.112	BB	293.40518	1.65598e-2	4.85872		Benzo(b)fluoranthene #14
27.547	BB	876.66565	2.77566e-3	2.43333		Benzo(k)fluoranthene #15
28.644	BB	1050.46814	4.67660e-3	4.91262		Benzo(a)pyrene #16
30.497	BB	119.52959	3.93196e-2	4.69986		Dibenz(a,h)anthracene #17
31.312	BB	178.25044	2.69466e-2	4.80325		Benzo(g,h,i)perylene #18
32.264	BB	340.19751	1.37440e-2	4.67569		Indeno(1,2,3-cd)pyrene #1
Totals :				256.72374		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BBA	2898.22754	8.27651e-3	23.98721		Naphthalene #1
11.022	BB	864.69995	3.00095e-2	25.94921		Acenaphthylene #2
11.971	BB	1848.13281	1.29932e-2	24.01322		1-Methylnaphthalene #3
12.546	BB	2154.99023	1.12713e-2	24.28945		2-Methylnaphthalene #4
13.026	BB	1257.83203	2.03841e-2	25.63981		Acenaphthene #5
13.679	BB	1643.92749	1.76946e-2	29.08861		Fluorene #6
15.063	BBA	2101.81689	1.74291e-2	36.63276		Phenanthrene #7
16.464	BBA	4029.91650	1.03455e-2	41.69146		Anthracene #8
17.844	BB	205.78946	2.18958e-2	4.50592		Fluoranthene #9
18.847	BBA	313.59424	1.46349e-2	4.58940		Pyrene #10
21.187	PBA	154.25529	6.45989e-2	9.96473	99.6%	p-Terphenyl d14 #11*
22.505	BBA	221.50462	2.22878e-2	4.93686		Benzo(a)anthracene #12
23.371	PBA	323.18375	1.52051e-2	4.91405		Chrysene #13
26.091	PBA	234.26752	2.08462e-2	4.88359		Benzo(b)fluoranthene #14
27.526	BB	107.32922	2.27217e-2	2.43870		Benzo(k)fluoranthene #15
28.623	BB	185.74564	2.64267e-2	4.90864		Benzo(a)pyrene #16
30.477	BB	49.64434	9.39100e-2	4.66210		Dibenz(a,h)anthracene #17

				[ug/L]		
31.291	BB	89.32413	5.34666e-2	4.77586		Benzo(g,h,i)perylene #18
32.242	BB	228.21756	2.06198e-2	4.70581		Indeno(1,2,3-cd)pyrene #1
Totals :				286.57739		

Results obtained with enhanced integrator!

*** End of Report ***

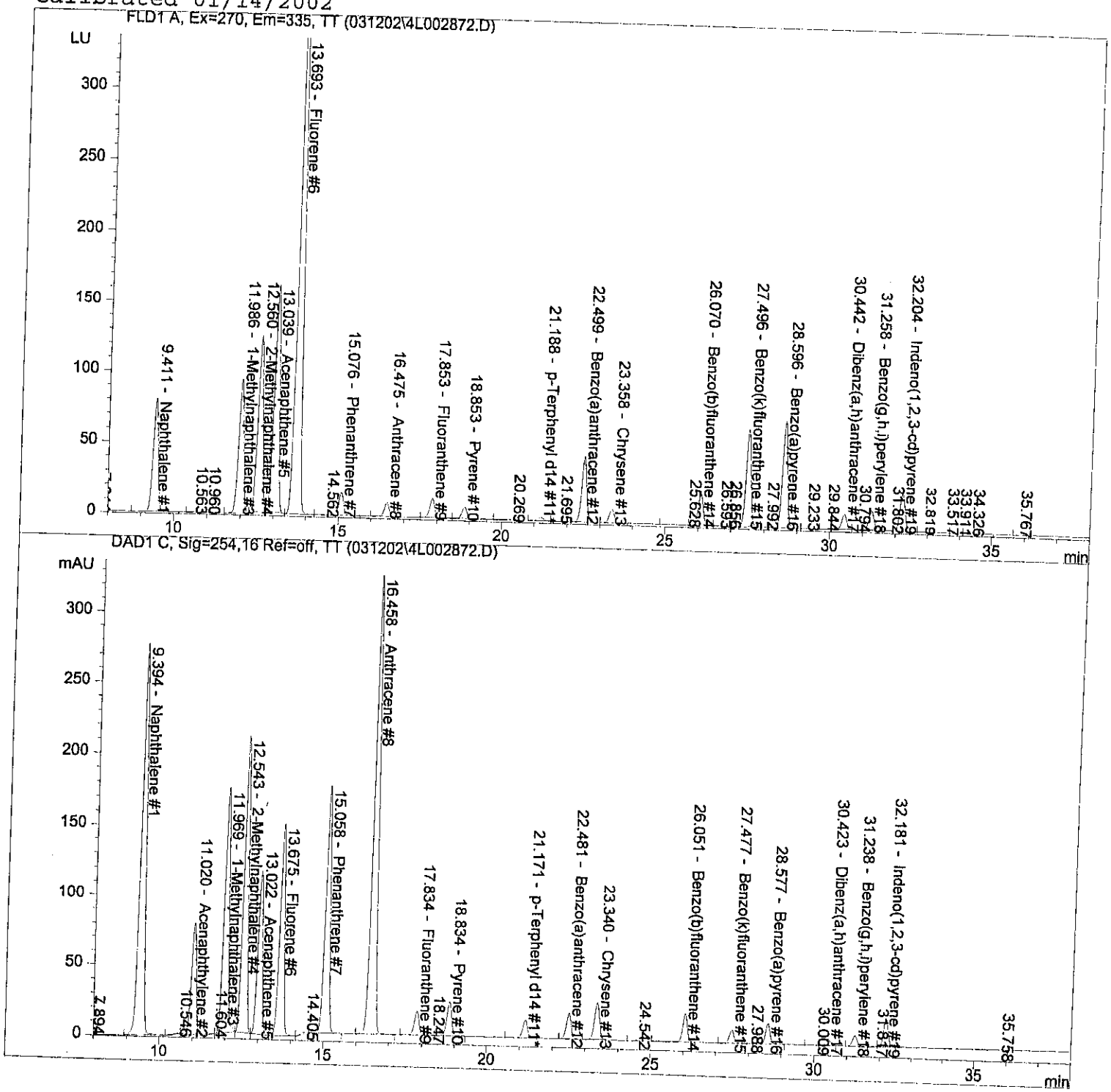
==========

Injection Date : 3/12/2002 5:09:36 PM
Sample Name : WG114347-03 SLCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/13/2002 11:21:20 AM by RDC
(modified after loading)

Calibrated 01/14/2002



HPLC4 3/13/2002 11:21:32 AM RDC

==========

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.411	BB	866.71075	2.57003e-2	22.27470		Naphthalene #1
11.986	BB	1009.48029	2.24893e-2	22.70252		1-Methylnaphthalene #3
12.560	BB	1317.09167	1.72691e-2	22.74503		2-Methylnaphthalene #4
13.039	BB	1722.08313	1.38228e-2	23.80398		Acenaphthene #5
13.693	BB	4125.39893	6.56879e-3	27.09887		Fluorene #6
15.076	BBA	172.89401	1.68488e-1	29.13050		Phenanthrene #7
16.475	BB	106.98254	3.03714e-1	32.49214		Anthracene #8
17.853	BB	148.23669	2.38671e-2	3.53798		Fluoranthene #9
18.853	BBA	93.37865	4.06594e-2	3.79672		Pyrene #10
21.188	BB	28.44729	2.86511e-1	8.15048	81.5%	p-Terphenyl d14 #11*
22.499	BB	498.54871	7.96557e-3	3.97123		Benzo(a)anthracene #12
23.358	BB	105.06821	3.90144e-2	4.09918		Chrysene #13
26.070	BB	245.19652	1.65598e-2	4.06040		Benzo(b)fluoranthene #14
27.496	BB	737.11145	2.77566e-3	2.04597		Benzo(k)fluoranthene #15
28.596	BB	789.09906	4.67660e-3	3.69030		Benzo(a)pyrene #16
30.442	BB	104.84826	3.93196e-2	4.12260		Dibenz(a,h)anthracene #17
31.258	BB	159.72047	2.69466e-2	4.30393		Benzo(g,h,i)perylene #18
32.204	BB	292.53354	1.37440e-2	4.02059		Indeno(1,2,3-cd)pyrene #1

Totals : 226.04711

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.394	BBA	2880.14209	8.27651e-3	23.83753		Naphthalene #1
11.020	BB	792.90826	3.00095e-2	23.79478		Acenaphthylene #2
11.969	BB	1765.60571	1.29932e-2	22.94093		1-Methylnaphthalene #3
12.543	BB	2087.60547	1.12713e-2	23.52993		2-Methylnaphthalene #4
13.022	BB	1177.12158	2.03841e-2	23.99459		Acenaphthene #5
13.675	BB	1504.52808	1.76946e-2	26.62200		Fluorene #6
15.058	BBA	1734.34851	1.74291e-2	30.22812		Phenanthrene #7
16.458	PBA	3272.76831	1.03455e-2	33.85839		Anthracene #8
17.834	BB	166.34109	2.18958e-2	3.64217		Fluoranthene #9
18.834	BBA	253.52606	1.46349e-2	3.71032		Pyrene #10
21.171	BBA	125.51071	6.45989e-2	8.10786	81.1%	p-Terphenyl d14 #11*
22.481	BBA	179.01579	2.22878e-2	3.98988		Benzo(a)anthracene #12
23.340	BB	265.39063	1.52051e-2	4.03530		Chrysene #13
26.051	BBA	194.87070	2.08462e-2	4.06231		Benzo(b)fluoranthene #14
27.477	BB	90.24921	2.27217e-2	2.05061		Benzo(k)fluoranthene #15
28.577	BBA	137.55101	2.64267e-2	3.63501		Benzo(a)pyrene #16
30.423	BB	43.14580	9.39100e-2	4.05182		Dibenz(a,h)anthracene #17

				ug/ml		
31.238	BB	77.84627	5.34666e-2	4.16218		Benzo(g,h,i)perylene #18
32.181	BBA	196.17799	2.06198e-2	4.04516		Indeno(1,2,3-cd)pyrene #1
Totals :				254.29889		

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	cc 02:01	S0556-19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	S0556-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	S0556-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	Dil'n. of S0556-19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01		WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	✓ 12:01	Dil'n. of S0557-27/ S0557-28	WG111292-08 AL

RQC
1/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114392-01 CCV	8310	1	Sample		
3	3	WG114347-02 SBLK	8310	1	Sample		
4	4	WG114347-03 SLCS	8310	1	Sample		
5	5	WG114387-01 WBLK	8310	1	Sample		
6	6	WG114387-02 WLCS	8310	1	Sample		
7	7	WG114387-03 WLCS	8310	1	Sample		
8	8	L0203154-04 831W	8310	1	Sample		
9	9	L0203155-02 831W	8310	1	Sample		
10	10	WG114392-02 CCV	8310	1	Sample		
11	11	L0203184-01 610W	8310	1	Sample		
12	12	L0203190-01 610W	8310	1	Sample		
13	13	L0203154-01 831S	8310	1	Sample		
14	14	L0203154-02 831S	8310	1	Sample		
15	15	L0203154-03 831S	8310	1	Sample		
16	16	WG114347-01 SREF	8310	1	Sample		
17	17	WG114347-04 SMS	8310	1	Sample		
18	18	WG114347-05 SMSD	8310	1	Sample		
19	10	WG114392-03 CCV	8310	1	Sample		

RDC 3/13/02

HPLC4 3/12/2002 3:50:19 PM RDC

							Sample Name
No	1	1	8310	4L002869	01:01		accn blk
No	2	2	8310	4L002870	02:01	SOS 58-26/56-20	WG114392-01 CC
No	3	3	8310	4L002871	03:01		WG114347-02 SB
No	4	4	8310	4L002872	04:01		WG114347-03 SL
No	5	5	8310	4L002873	05:01		WG114387-01 WB
No	6	6	8310	4L002874	06:01		WG114387-02 WL
No	7	7	8310	4L002875	07:01		WG114387-03 WL
No	8	8	8310	4L002876	08:01		L0203154-04 83
No	9	9	8310	4L002877	09:01		L0203155-02 83
No	10	10	8310	4L002878	10:01	SOS 58-26/56-20	WG114392-02 CC
No	11	11	8310	4L002879	11:01		L0203184-01 61
No	12	12	8310	4L002880	12:01		L0203190-01 61
No	13	13	8310	4L002881	13:01	2210	L0203154-01 83
No	14	14	8310	4L002882	14:01		L0203154-02 83
No	15	15	8310	4L002883	15:01		L0203154-03 83
No	16	16	8310	4L002884	16:01		WG114347-01 SR
No	17	17	8310	4L002885	17:01		WG114347-04 SM
No	18	18	8310	4L002886	18:01		WG114347-05 SM
No	19	10	8310	4L002887	19:01	SOS 58-26/56-20	WG114392-03 CC

Rec 3/15/02

SPK 3/18/02

HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 12, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 031202
Analyst Initials [illegible] SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: [illegible] 3/18/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114485-01 CCV	8310	1	Sample		
3	3	L0203154-01 831S	8310	1	Sample		
4	4	L0203154-02 831S	8310	1	Sample		
5	2	WG114485-02 CCV	8310	1	Sample		

RDC 3/14/02

					DIL'N			
No	1	1	8310	4L002888	NA	01:01 ✓		accn blk
No	2	2	8310	4L002889	↓	02:01 ✓	SOS 58-26/56-20	WG114485-01 CC
No	3	3	8310	4L002890	10	03:01 ✓		L0203154-01 83
No	4	4	8310	4L002891	10	04:01 ✓		L0203154-02 83
No	5	2	8310	4L002892	NA	05:01 ✓	SOS 58-26/56-20	WG114485-02 CC

RQC
3/18/02

3/19/02

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time March 3, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 03/302
Analyst Initials PLC SOP # HPLC01 Rev. # 3 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: 3/19/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114669-01 CCV	8310	1	Sample		
3	3	L0203154-03 831S	8310	1	Sample		
4	2	WG114669-02 CCV	8310	1	Sample		

RDC 3/18/02

					DILU			
No	1	1	8310	4L002893	NA	01:01 ✓		accn blk
No	2	2	8310	4L002894	NA	02:01 ✓	SOS 58-26/56-20	WG114669-01 CC
No	3	3	8310	4L002895	10	03:01 ✓		L0203154-03 83
No	4	2	8310	4L002896	NA	04:01 ✓	SOS 58-26/56-20	WG114669-02 CC

RMC 3/18/02

3/19/02

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 031802
Analyst Initials CDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 115 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: SFR 3/19/02

Parameter: [illegible] SOP #: [illegible] Extraction #: [illegible]

Extraction Analyst(s): RCK TV/KD Analyst(s): DP

Date/Time Extracted: 3/12/02 @ 1300 Date TV/KD: 3/12/02

Spike/Surrogate Analyst: RCK Witness: DP

Surrogate #: ES00039-27 Earliest Hold Date: 3/14

Spike #: A = ES00040-34 Spike #: B = –

Analytical Work Group WG 114464

Extract Relinquished By: DP

Extract Received By & Date: EC 3/12/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1L	100µl		1mL					WG 114397-01
2	LCS			✓		⊥	⊥	500µl						WG ⊥ -02
3	LCS Dup			✓		⊥		⊥						⊥ -03
4	03-154-04	8310		✓		900 mL								
5	03-155-02	⊥		✓		950 mL								
6	03-184-01	610		✓		910 mL							✓	
7	03-190-01	⊥		✓		930 mL	⊥							
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

RCK 3/12/02

Methylene Chloride Lot #: 42015

Hexane Lot #: –

Ether Lot #: –

Methanol Lot #: –

Solvent: CH3CN Lot #: 41264

Reagent: – Lot #: –

Reagent: – Lot #: –

Reagent: – Lot #: –

Acid: – Lot #: –

Florisil Lot #: –

Silica Gel Lot #: –

IR Analyst / Date / Time: –

Dried Na_2SO_4 Lot #: EL2095

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

Peer Reviewed By: [signature] Date: 03/12/02

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Extraction Notes For Volume # 181 Page # 160

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-S SOP #: EXHPLC2 Revision #: 6
Extraction Analyst(s): CAF TV/KD Analyst(s): DP
Date/Time Extracted: 03/12/02 @ 0900 Date TV/KD: 03/12/02
Spike/Surrogate Analyst: CAF Witness: DP
Surrogate #: ESS0039-27 Earliest Hold Date: 03/21/02
Spike #: A = ESS0039-37 Spike #: B = —

Extraction Work Group WG 114347
Analytical Work Group WG 114341

Extract Relinquished By: DP
Extract Received By & Date: EC 3/12/02

	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					30.03 g	100 µL		1 mL	T				WG 114347-02
2	LCS					.05 g		500 µL		C				WG ⊥ -03
3	03-154-01	8310				.08 g				O				
4	⊥ -02					.08 g				O				
5	⊥ -03					.06 g				O				
6	03-155-01					.01 g				O				WG 114347-01
7	⊥ -01MS					.00 g		500 µL		O				⊥ -04
8	⊥ -01MSD	⊥				⊥ .03 g	⊥	⊥	⊥	O				⊥ -05
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/12/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR 2095

Color Code
T = Transparent
C = Colored
O = Opaque

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

* Accelerated Solvent Extractor (ASE)

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

Peer Reviewed By: Cheryl Flowers Date: 3-12-02

Extraction Notes For Volume # 181 Page # 151

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

Semi-Volatile 8310 Checklist

Workorders: Due Date: Priority:

Run Date: 14-Jan-02

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	✓
Corrective Action:	✓
Results Reporting/Data Qualifiers:	✓
Client Data Package Assembly:	✓
Check for Completeness:	✓
Check for compliance with method and project requirements:	✓
Check the reasonableness of results:	✓

Comments:
Re-calibration

Primary Reviewer: RDC 1/18/02

Secondary Reviewer: 1/18/02

Supervisor Review: 1/18/02

√ = Checked & OK
NA = Not Applicable

Run Date: 12-Mar-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG114464 03-154	3/15/2002	
WG114464 03-155	3/15/2002	
WG114464 03-184	3/18/2002	A1
WG114464 03-190	3/19/2002	A1
WG114391	03-154	3/15
↓	03-155	↓

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

8310 WATER LCS WG114464 YIELDED PERCENT RECOVERY FOR BENZO(g,h,i)PERYLENE WHICH WAS ABOVE ADVISORY LIMIT.

L0203154-01 THROUGH 03 REQUIRE DIL'N.

Non-client requested MS/MSD for L0203155-01 yielded percent recoveries outside of advisory limits.

L0203154 SDG had significant SMI.

L0203155-01 MSD had high surr. recovery

L0203154-01 and 02 yielded high percent recovery for the surrogate by FLD.

Primary Reviewer: RDC 3/18/02

Secondary Reviewer: 3/18/02

Supervisor Review: 3/18/02

√ = Checked & OK

NA = Not Applicable

Run Date: 03/13/02 & 03/18/02 (dil'n.)

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG114391 03-154	3/15/2002	

		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	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 L0203154-01,02, & 03...

Primary Reviewer: RDC 3/18/02

Secondary Reviewer: [illegible] 3/19/02

Supervisor Review: [illegible] 3/19/02

√
NA

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:

	Example:
As = Area of the compound being measured in the standard	10000
Cs = Concentration of the compound being measured (ug/ml).	100
CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:

	Example:
Ax = Area of the compound being measured	10000
Vf = Final volume of sample extract (mL). (prep log)	1
D = Dilution factor for sample as a multiplier (10X = 10).	1
CF = Calibration factor from ICAL calculated above.	**0.01**
Vi = Initial volume of sample (mL). (prep log)	1000
1000 = conversion to ppb	
C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:

	Example:
Ax = Area of the compound being measured	10000
Vf = Final volume of sample extract (mL).	1
D = Dilution factor for sample as a multiplier (10X = 10).	1
CF = Calibration factor from ICAL calculated above.	0.01
Wi = Initial weight of sample (g).	30
C (ug/kg)	**3.333333**

2.4 General Chemistry Data

PERCENT SOLIDS DATA

Login Number: L0203154

✓ **Analysis benchsheet**

✓ **Calculation spreadsheet**

Example calculation:

[(WT3 - WT1)/(WT2 - WT1)] * 100 = % solids

100 - (% solids) = % moisture

where: WT1 = Weight (grams) of empty container
WT2 = Weight (grams) of container and wet sample
WT3 = Weight (grams) of container and dry sample
100 = factor to get units as percent weight

Checked By: dlh Date: 3/14/02

PERCENT SOLIDS

Workgroup: 114252 Approval:
ADT (on): Tmm 3/8/02 @ 1620 ADT (off): Tmm 3/11/02 @

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
03-107-21	1.26	23.02	18.37		
22	1.28	26.15	20.92		
03-045-01	1.28	29.49	28.24		
02	1.27	23.44	18.93		
03-079-01	1.27	30.32	24.66		
02	1.28	28.84	21.49		
03	1.28	18.08	14.84		
04	1.27	29.16	23.33		
05	1.26	24.45	20.13		
06	1.28	21.80	18.45		
07	1.23	26.24	21.79		
08	1.26	23.17	18.48		
09	1.25	27.54	22.55		
10	1.26	27.10	22.73		
02-441-01	1.27	16.90	11.24		
03-118-01	1.26	28.64	25.30		
02	1.26	29.39	25.72		
Duplicate 03-079-08	1.27	23.19	18.58		

Workgroup: 114324 Approval: MM 3/12/02
ADT (on): Tmm 3/11/02 @ 1525 ADT (off): Tmm 3/12/02 @ 0930

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
03-059-01	1.26	15.47	13.36		
02	1.28	31.71	28.36		
03-088-01	1.26	22.55	4.38		
03-133-01	1.23	20.80	16.66		
02	1.23	26.43	20.88		
03	1.27	20.65	16.51		
03-154-01	1.26	28.12	24.04		
02	1.28	36.80	32.34		
03	1.27	32.58	28.06		
03-155-01	1.27	31.31	26.33		
03-176-01	1.26	25.55	21.17		
02	1.26	25.71	20.02		
03	1.26	32.36	25.33		
04	1.27	21.94	17.03		
05	1.31	18.02	14.03		
06	1.27	19.97	15.80		
07	1.27	26.22	18.67		
~~Tmm 3/8~~					
Duplicate 03-176-04	1.26	21.67	17.03		

KEMRON ENVIRONMENTAL SERVICES
PERCENT SOLID REPORT

Workgroup (AAB#): WG114324
Method: D2216-90

Run Date: 03/11/2002
Run Time: 15:25
Analyst: TMM

SAMPLE NUMBER	Pan WT.	Int WT.	Fnl WT.	% Solid	UNITS
L0203059-01	1.260	15.47	13.36	85.15	%
L0203059-02	1.280	31.71	28.36	88.99	%
L0203088-01	1.260	22.55	4.380	14.65	%
L0203133-01	1.230	20.80	16.66	78.85	%
L0203133-02	1.230	26.43	20.88	77.98	%
L0203133-03	1.270	20.65	16.51	78.64	%
L0203154-01	1.260	28.12	24.04	84.81	%
L0203154-02	1.280	36.80	32.34	87.44	%
L0203154-03	1.270	32.58	28.06	85.56	%
L0203155-01	1.270	31.31	26.33	83.42	%
L0203176-01	1.260	25.55	21.17	81.97	%
L0203176-02	1.260	25.71	20.02	76.73	%
L0203176-03	1.260	32.36	25.33	77.40	%
L0203176-04	1.270	21.94	17.03	76.25	%
L0203176-05	1.310	18.02	14.03	76.12	%
L0203176-06	1.270	19.97	15.80	77.70	%
L0203176-07	1.270	26.22	18.67	69.74	%
WG114324-01	1.270	21.94	17.03	76.25	%
WG114324-02	1.260	21.67	17.03	77.27	%

Appendix B

Laboratory Analytical Reports for Groundwater Samples

KEMRON REPORT L0203326

PREPARED FOR CCI

WORK ID: NAS CECIL FIELD/BUILDING 46

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0203326

CHAIN OF CUSTODY:

The chain of custody number was 163151-035.

SHIPMENT CONDITIONS:

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

SAMPLE MANAGEMENT:

All samples received were intact.

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

REVIEWED: Stephanie Lepe DATE: 3/20/02

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203326

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: Average % drifts used for CCV WG114704-03 (HP5, 3/19/02). All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: MS/MSD results were 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: 3/25/02

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203326

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 was not associated with this sample delivery group.
SAMPLES

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

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

Analyst: CLK REVIEWED: _____ DATE: 3/28/02

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203326

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

BATCH QA/QC

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

SAMPLES

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

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

Analyst: RDC REVIEWED: _____ DATE: 4/2/02

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0203326

METHOD

Analysis: SW-846 9056 / 300

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met. All method 300 acceptance criteria were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

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

SAMPLES

All acceptance criteria were met.

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

Analyst: RDC REVIEWED Stephanie Klepe DATE: 4/3/02

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG114705**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-12I-Q4-01-11	L0203326-01
062-CEF46-15I-Q4-01-11	L0203326-02
062-46TB1-Q4-01-11	L0203326-03

Comments:

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

Suffix Matches parent to QC

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

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **03-APR-02**

Title: **Laboratory Director**

8

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114705

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q4-01-11 Lab Sample ID: L0203326-01 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 18:51

Concentration Units: ug/L File ID: 5G12638

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	5.80	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	109	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 : 8021 Preparatory Method: 8021B AAB # : WG114705

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q4-01-11 Lab Sample ID: L0203326-02 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 19:26

Concentration Units: ug/L File ID: 5G12639

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

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114705

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46TB1-Q4-01-11 Lab Sample ID: L0203326-03 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 20:01

Concentration Units: ug/L File ID: 5G12640

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	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 PACKAGE

Analytical Method : 8015

AAB # : WG115175

Lab Name : Kemron Environmental Services

Contract # : Colleen Kurtz

Base/Command : NAS Cecil Field Jacksonville (

Prime Contractor : CCI

Field sample ID	Lab Sample ID
062-CEF46-12I-Q4-01-11	L0203326-01
062-CEF46-15I-Q4-01-11	L0203326-02

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: 03-APR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q4-01-11 Lab Sample ID: L0203326-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 21:29

Concentration Units: ug/L File ID: 2G19589

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	269	540	269	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	128	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115175

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q4-01-11 Lab Sample ID: L0203326-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 26-MAR-02 21:44

Concentration Units: ug/L File ID: 2G19590

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	114	49 – 174	

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG114811**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-12I-Q4-01-11	L0203326-01
062-CEF46-15I-Q4-01-11	L0203326-02

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: **03-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q4-01-11 Lab Sample ID: L0203326-01 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 19:33

Concentration Units: ug/L File ID: 4L002903.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	0.415	1.0	0.415	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	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q4-01-11 Lab Sample ID: L0203326-01 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 19:33

Concentration Units: % Recovery File ID: 4L002903.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	49.3	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 # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-Q4-01-11 Lab Sample ID: L0203326-02 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 20:30

Concentration Units: ug/L File ID:4L002904.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114811

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-04-01-11 Lab Sample ID: L0203326-02 Matrix: Water

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

Date Received: 19-MAR-02 Date Extracted: 19-MAR-02 Date Analyzed: 20-MAR-02 20:30

Concentration Units: % Recovery File ID: 4L002904.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	104	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 : 9056

Lab Name : Kemron Environmental Services

Base/Command : NAS Cecil Field Jacksonville (

AAB # : WG114742

Contract # : Colleen Kurtz

Prime Contractor : CCI

Field sample ID	Lab Sample ID
062-CEF46-12I-Q4-01-11	L0203326-01
062-CEF46-15I-Q4-01-11	L0203326-02

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: 03-APR-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-12I-Q4-01-11 Lab Sample ID: L0203326-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 13:47

Concentration Units: mg/L File ID: 031902.15

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	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114742

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-15I-04-01-11 Lab Sample ID: L0203326-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 07-MAR-2002

Date Received: 19-MAR-02 Date Extracted: Date Analyzed: 19-MAR-02 13:58

Concentration Units: mg/L File ID: 031902.16

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.170	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

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

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

01/28/2002

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

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

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

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

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

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

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

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

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
163151-035

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~~ ~~TYPE~~ 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-CEF46-12I-Q4-01-11	CEF-46-12I	W	03/18/02	15:10	III/C	14	2	2	2	1				Grab		
2	062-CEF46-15I-Q4-01-11	CEF-46-15I	W	03/18/02	14:35	III/C	14	2	2	2	1				Grab		
3	062-46TB1-Q4-01-11	Trip Blank	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
4	NA	Temperature Blank	W	NA	NA	III/C	14					1			Grab	Prepared by Lab	
5																	
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 # 7903 4730 6103. (1 Cooler)

C/C created
Sb w/ntact
Cooler Temp 1 (DLG)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/18/02	17:00	Federal Express Track # 7903 4730 6103. (1 Cooler)	3/18/02	17:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory Brenda Gregory	3/19/02	1030

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

Form CCI001, Rev 02/00

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KEMRON Internal Laboratory Chain of Custody

Work Order: L0203326 **Client:** CCI **# of Samples:** 3 **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	BTEX	ANAL	CBW 3/19/02 @ 1250	V-1	ORG-3	BLG				
1,2A	PRO	EXT	CBB 3/19/02 @ 1252	WALKIN	ELAB	BLG	OB-19-02 @ 1300	Crusher	BLG	Disposal
01A, 02A	9056	ANALYSIS	RWC 3/19/02 @ 1320	LOGIN	SV	BLG	RWC 3/27/02 @ 1535	Archive	DJ	Archive
1,2A	8310 PRO 3/19/02	EXT	CBB 3/19/02 @ 1439	WALKIN	ELAB	BLG	OB-19-02 @ 1300	Crusher	BLG	disposal

Report sent 4/3/02

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

CLIENT: CCI BRG / Other _____	DATE: 3/19/02	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL850	COOLER ID: KL153	COOLER ID: KL973
INDEX # : 79179714 2417	INDEX # : 79034730 6103	INDEX # : 79179714 2391
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) C °C	TEMP : (C) (D) 1 °C	TEMP : (C) (D) 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 1135 (MS/MSD)	LOG-IN COMMENTS 1435	LOG-IN COMMENTS 1245
	1510 (QC 035)	VOS
	(D.46)	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

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CRF#4

Sample Receipt Form #2

Client: CCI Project: _____

Date Received: 3/19/02

_____Cooler temperature > than 6 degrees Celcius

Reason _____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody

CE46-12I-Q4 ~ bottles Q1

CE46-15I-Q4 ~ "

NO Id on Trips except "Trip Blank"

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

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:

Was client notified regarding information: YES NO

Name of person contacted: Colleen Kurtz Company: CCI

TSR: D. Torres Date: 3/19/02

Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 4

PROJECT: NAS Cecil Field/Bldg. 44 LIMS# L0203326

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 3/19/02 C-of-C Number: 163151
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO
   If YES, enter carrier name & air bill number here: Fed Ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 1 - front, seal date: 3/18/02 seal name: Custody Seal
3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES ~~NO~~
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CRF #3 ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BLG (date) 3/19/02

B. **LOG-IN PHASE:** Date samples were logged-in: 3/19/02
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: Divider; baggies
12. Were all bottles sealed in separate plastic bags? ..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition? ..... 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: L0203326

METHOD

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

HOLDING TIMES

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

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

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

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: Average % drifts used for CCV WG114704-03 (HP5, 3/19/02). All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: MS/MSD results were not associated with this SDG.

SAMPLES

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

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

Analyst: CBN REVIEWED: _____ DATE: 3/25/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0203326

A. QC Summary

na Batch QC Summary Form

B. Sample Data

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

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

C. Standards Data

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

✓ Chromatograms and quantitation reports for standards

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

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

D. Raw QC Data

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

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

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

✓ Instrument runlogs (chronological)

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

na 5035 logs (if applicable) (chronological)

Checked By: CWinters **Date:** 03/21/02

2.1.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203326
Blank File ID: 5G12620
Date Analyzed: 03/19/02
Time Analyzed: 07:47
Analyst: CBN

Work Group: WG114705
Blank Sample ID: WG114705-01
Instrument ID: HP5
Method: 8021B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114705-02	5G12621	03/19/02 08:33	
062-CEF46-12I-Q1-01-11	L0203326-01	5G12638	03/19/02 18:51	
062-CEF46-15I-Q1-01-11	L0203326-02	5G12639	03/19/02 19:26	
062-46TB1-Q1-01-11	L0203326-03	5G12640	03/19/02 20:01	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203326
Run Date: 03/19/2002
Sample ID: WG114705-01
Instrument ID: HP5
Run Time: 07:47
Method: 8021B
File ID: 5G12620
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG114705
Units: ug/L
Contract #:
Cal ID: HP5-20-FEB-2002

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

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	112	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203326
Run Date: 03/19/2002
Sample ID: WG114705-02
Instrument ID: HP5
Run Time: 08:33
Method: 8021B
File ID: 5G12621
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG114705
Units: ug/L
Contract #:
Cal ID: HP5-20-FEB-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.9	94.4	41 - 161	
Benzene	20	20.4	102	80 - 122	
Toluene	20	21.0	105	80 - 124	
Ethylbenzene	20	21.4	107	80 - 125	
Total xylenes	60	61.7	103	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	112	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114705

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46TB1-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	14	1.83	19-MAR-02	14	1.83	
062-CEF46-12I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	14	1.15	19-MAR-02	14	1.15	
062-CEF46-15I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	14	1.20	19-MAR-02	14	1.20	

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

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number: L0203326

Instrument Id: HP5

Workgroup (AAB#): WG114705

Method: 8021

Matrix: WATER

Sample Number	Dilution	Tag	1
L0203326-01	1.00		109
L0203326-02	1.00		110
L0203326-03	1.00		111
WG114705-01	1.00		112
WG114705-02	1.00		112

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated

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

Calibration Files

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

Fri Feb 22 12:57:25 2002

Login Number: L0203326
File ID: 5G12243
ALT ID: WG113244-08
Units: ug/L

Instrument ID: HP5
Run Date: 02/20/2002
Run Time: 14:36
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.4	42300	7.0	
1,4-Dichlorobenzene		20	21.1	51500	5.5	
1,3-Dichlorobenzene		20	21.0	47700	5.0	
o-Xylene		20	20.5	48000	2.5	
m-,p-Xylene		40	41.8	56600	4.5	
Ethylbenzene		20	21.5	48200	7.5	
Chlorobenzene		20	20.7	57500	3.5	
Toluene		20	21.2	55600	6.0	
Benzene		20	20.6	60300	3.0	
MTBE		20	18.9	10500	5.5	

Login Number: L0203326
File ID: 5G12619
CCV ID: WG114704-01
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 07:03
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.8	41100	4.0	
1,4-Dichlorobenzene		20	20.4	49800	2.0	
1,3-Dichlorobenzene		20	20.7	47000	3.5	
o-Xylene		20	20.8	48700	4.0	
m-,p-Xylene		40	42.4	57500	6.0	
Ethylbenzene		20	22.0	49400	10.0	
Chlorobenzene		20	21.9	60800	9.5	
Toluene		20	21.3	55900	6.5	
Benzene		20	20.8	60700	4.0	
MTBE		20	19.8	11000	1.0	

* Exceeds %D Limit

Login Number: L0203326
File ID: 5G12630
CCV ID: WG114704-02
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 13:56
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.6	40600	3.0	
1,4-Dichlorobenzene		20	20.4	49800	2.0	
1,3-Dichlorobenzene		20	20.4	46200	2.0	
o-Xylene		20	20.2	47300	1.0	
m-,p-Xylene		40	40.8	55300	2.0	
Ethylbenzene		20	21.1	47400	5.5	
Chlorobenzene		20	20.1	55900	0.5	
Toluene		20	20.7	54400	3.5	
Benzene		20	20.2	58900	1.0	
MTBE		20	17.8	9840	11.0	

* Exceeds %D Limit

Login Number: L0203326
File ID: 5G12641
CCV ID: WG114704-03
Units: ug/L

Instrument ID: HP5
Run Date: 03/19/2002
Run Time: 20:35
Analyst: CBN
Cal ID: HP5 - 20-FEB-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.8	37100	6.0	
1,4-Dichlorobenzene		20	18.6	45300	7.0	
1,3-Dichlorobenzene		20	18.1	41100	9.5	
o-Xylene		20	17.7	41500	11.5	
m-,p-Xylene		40	35.1	47400	12.3	
Ethylbenzene		20	18.2	40500	9.0	
Chlorobenzene		20	18.3	50700	8.5	
Toluene		20	18.1	47200	9.5	
Benzene		20	17.7	51800	11.5	
MTBE		20	17.0	9410	15.0	

* Exceeds %D Limit

Injection Log

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

WG113234
1 278

ANALYST: CBN

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

Injection Log

WG114705

Directory: c:\hpchem\2\data\031902

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12619.d	1.	WG114704-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::0
2	2	5g12620.d	1.	WG114705-01 WATER BLANK 5ML ✓	1,1 S-91-31	19 Mar 102 12::4
3	3	5g12621.d	1.	WG114705-02 WATER LCS 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
4	1	5g12622.d	100.	WG114705-03 L0203296-04 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 12::1
5	2	5g12623.d	100.	WG114705-04 L0203296-04 MS A 5ML pH<2 1 ✓	1,100 S-91-(30,31)	19 Mar 102 12::5
6	3	5g12624.d	100.	WG114705-05 L0203296-04 MSD A 5ML pH<2 ✓	1,100 S-91-(30,31)	19 Mar 102 13::2
7	4	5g12625.d	100.	L0203296-05 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::0
8	5	5g12626.d	100.	L0203296-06 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::3
9	6	5g12627.d	100.	L0203296-07 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::1
10	7	5g12628.d	100.	L0203296-08 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::4
11	8	5g12629.d	1.	L0203296-09 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
12	9	5g12630.d	1.	WG114704-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::5
13	1	5g12631.d	1.	L0203296-10 B 5ML pH<2 HIGH SSS ✓	1,1 S-91-31	19 Mar 102 12::4
14	2	5g12632.d	1.	L0203296-10 B 5ML pH<2 CONF 5ML	1,1,RE S-91-31	19 Mar 102 12::2
15	3	5g12633.d	1.	L0203297-01 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
16	4	5g12634.d	1.	L0203321-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::3
17	5	5g12635.d	1.	L0203321-04 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
18	6	5g12636.d	1.	L0203321-05 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
19	7	5g12637.d	1.	L0203321-06 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
20	8	5g12638.d	1.	L0203326-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
21	9	5g12639.d	1.	L0203326-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
22	10	5g12640.d	1.	L0203326-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
23	11	5g12641.d	1.	WG114704-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
24	12	5g12642.d	1.	L0203327-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
25	13	5g12643.d	1.	L0203327-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
26	14	5g12644.d	1.	L0203327-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 13::2
27	15	5g12645.d	1.	WG114704-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 13::5

REANALYSIS	FILE #
L0203296-10	5G12632

VOA - GC

Date: 3/19/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 114705

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

Primary Reviewers Initials & Date Checked: CBN 3/20/02

Secondary Reviewers Initials & Date Checked: GJS 3/20/02

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

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

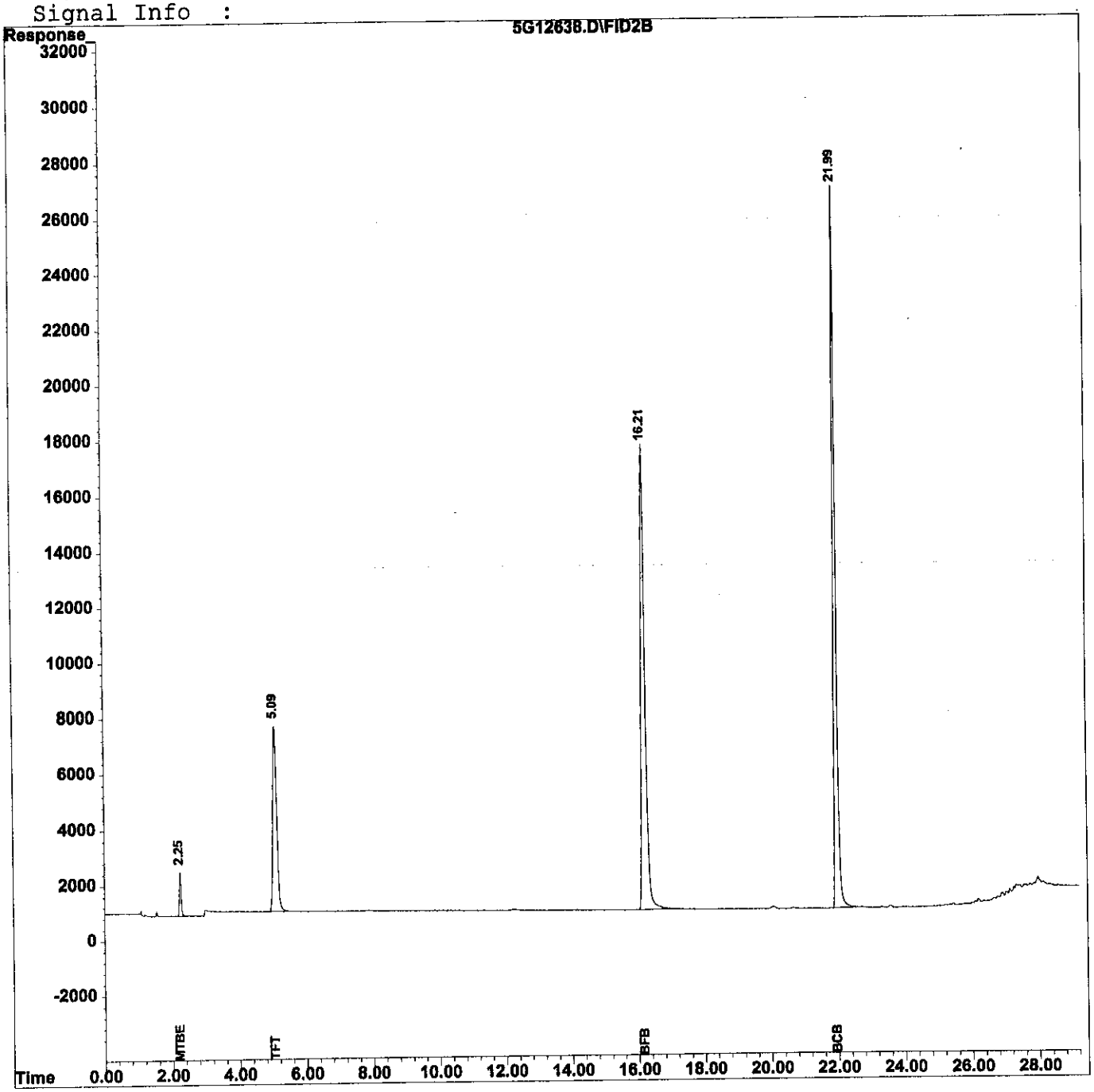
2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\031902\5G12638.D
Acq On : 19 Mar 2002 18:51
Sample : L0203326-01 A 5ML pH<2
Misc : 1,1 S-91-31
IntFile : autoint1.e
Quant Time: Mar 19 19:20 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP5
Multiplr: 1.00

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12638.D Vial: 8
Acq On : 19 Mar 2002 18:51 Operator: CBN
Sample : L0203326-01 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 19:20 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

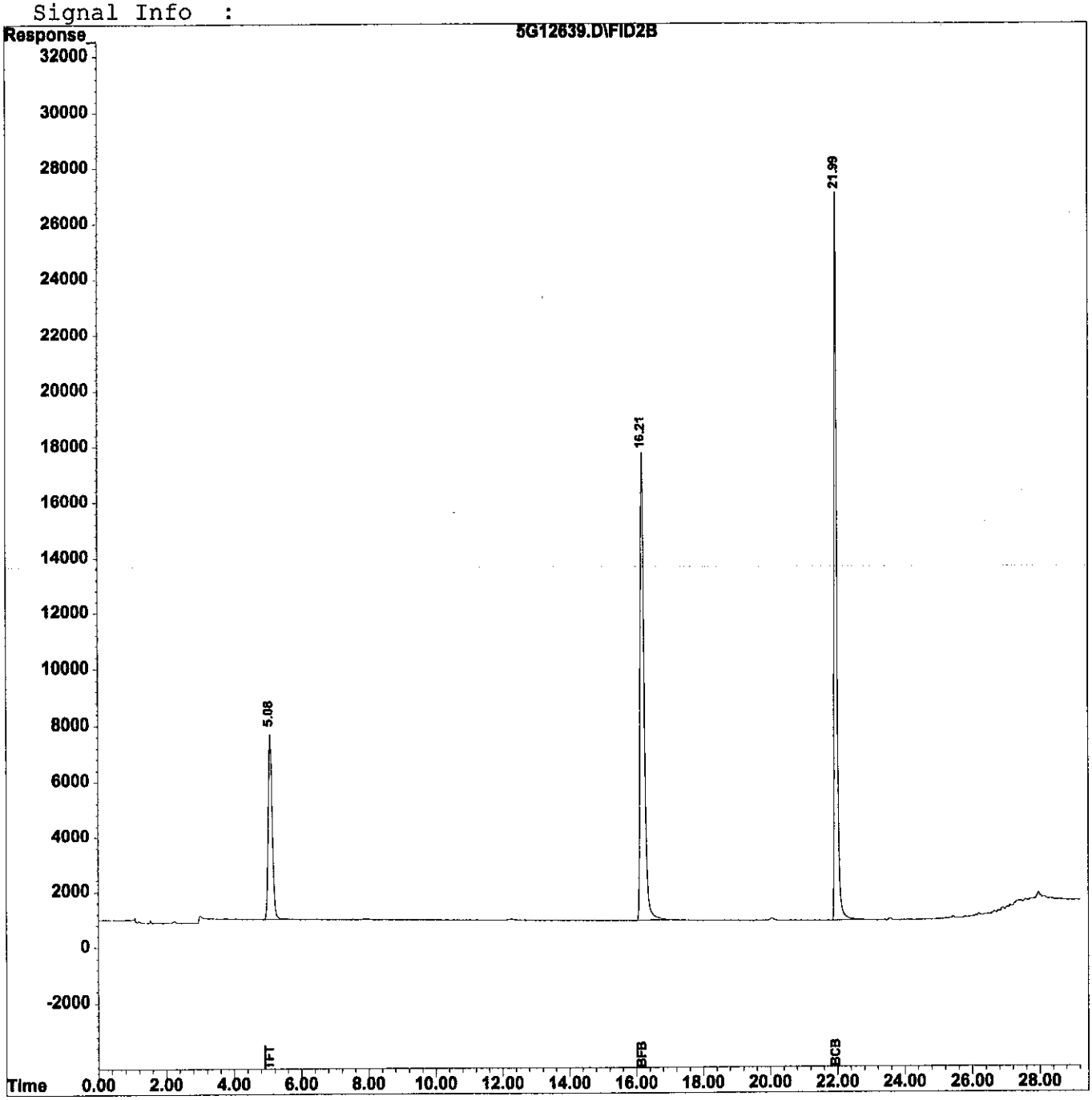
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	553238	32.7636 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery	= 109.21%
9) S BFB	16.21	1396662	28.9417 ug/L
Spiked Amount 30.000		Recovery	= 96.47%
13) S BCB	21.99	1380334	29.4637 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 98.21%
Target Compounds			
1) TM MTBE	2.25✓	64091	5.7834 ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\031902\5G12639.D Vial: 9
Acq On : 19 Mar 2002 19:26 Operator: CBN
Sample : L0203326-02 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 19:55 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12639.D Vial: 9
Acq On : 19 Mar 2002 19:26 Operator: CBN
Sample : L0203326-02 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 19:55 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

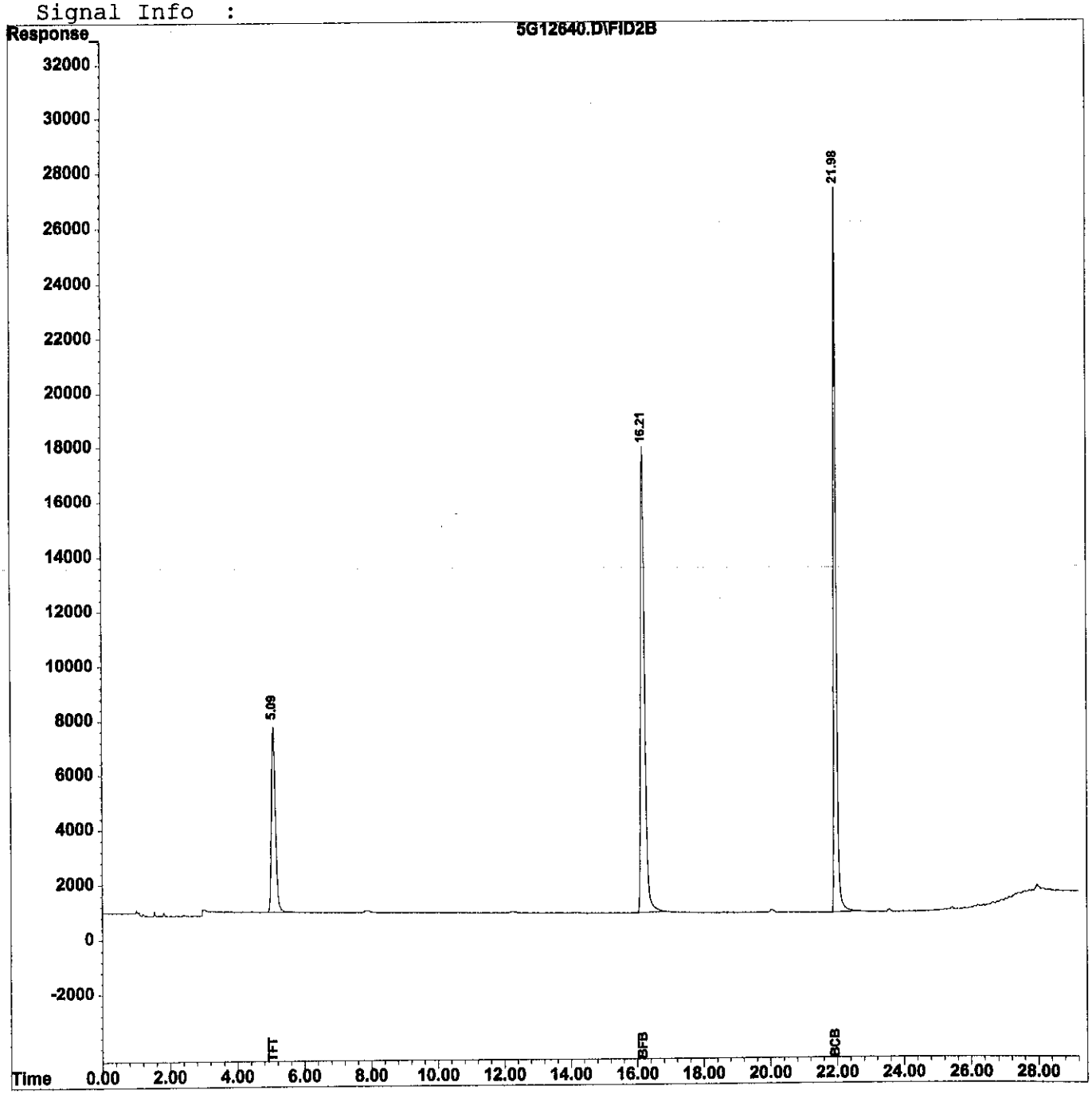
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.09	558894	33.0985 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	110.33%
9) S BFB	16.21	1403486	29.0831 ug/L
Spiked Amount 30.000		Recovery =	96.94%
13) S BCB	21.99	1393302	29.7405 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	99.14%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

Data File : C:\HPCHEM\2\DATA\031902\5G12640.D Vial: 10
Acq On : 19 Mar 2002 20:01 Operator: CBN
Sample : L0203326-03 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 20:30 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12640.D Vial: 10
Acq On : 19 Mar 2002 20:01 Operator: CBN
Sample : L0203326-03 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 20:30 2002 Quant Results File: 8021W.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.10	561467	33.2509 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	110.84%
9) S BFB	16.21	1405722	29.1294 ug/L
Spiked Amount 30.000		Recovery =	97.10%
13) S BCB	21.98	1410178	30.1007 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	100.34%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

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

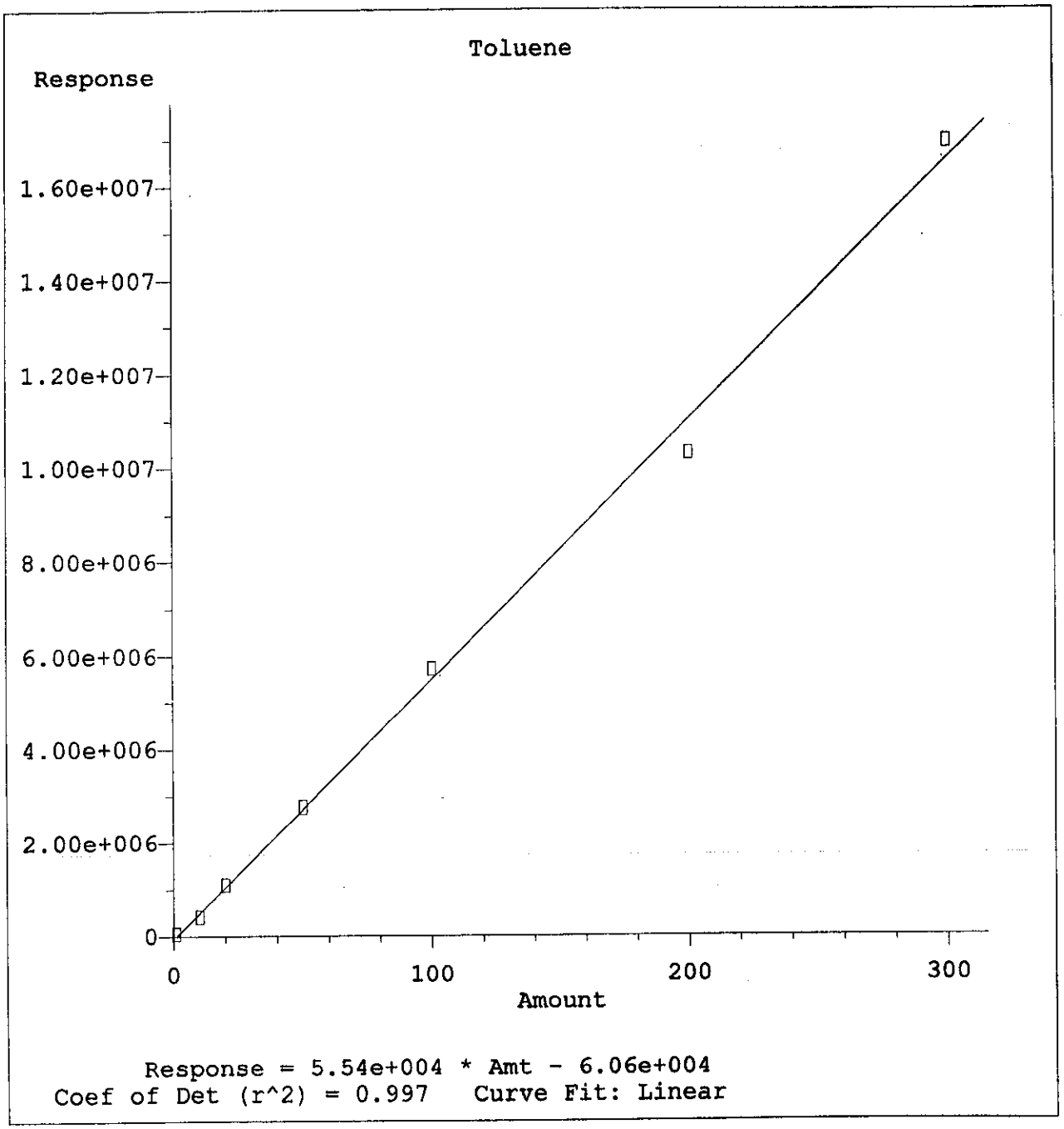
2.1.3.3 Standards Data

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

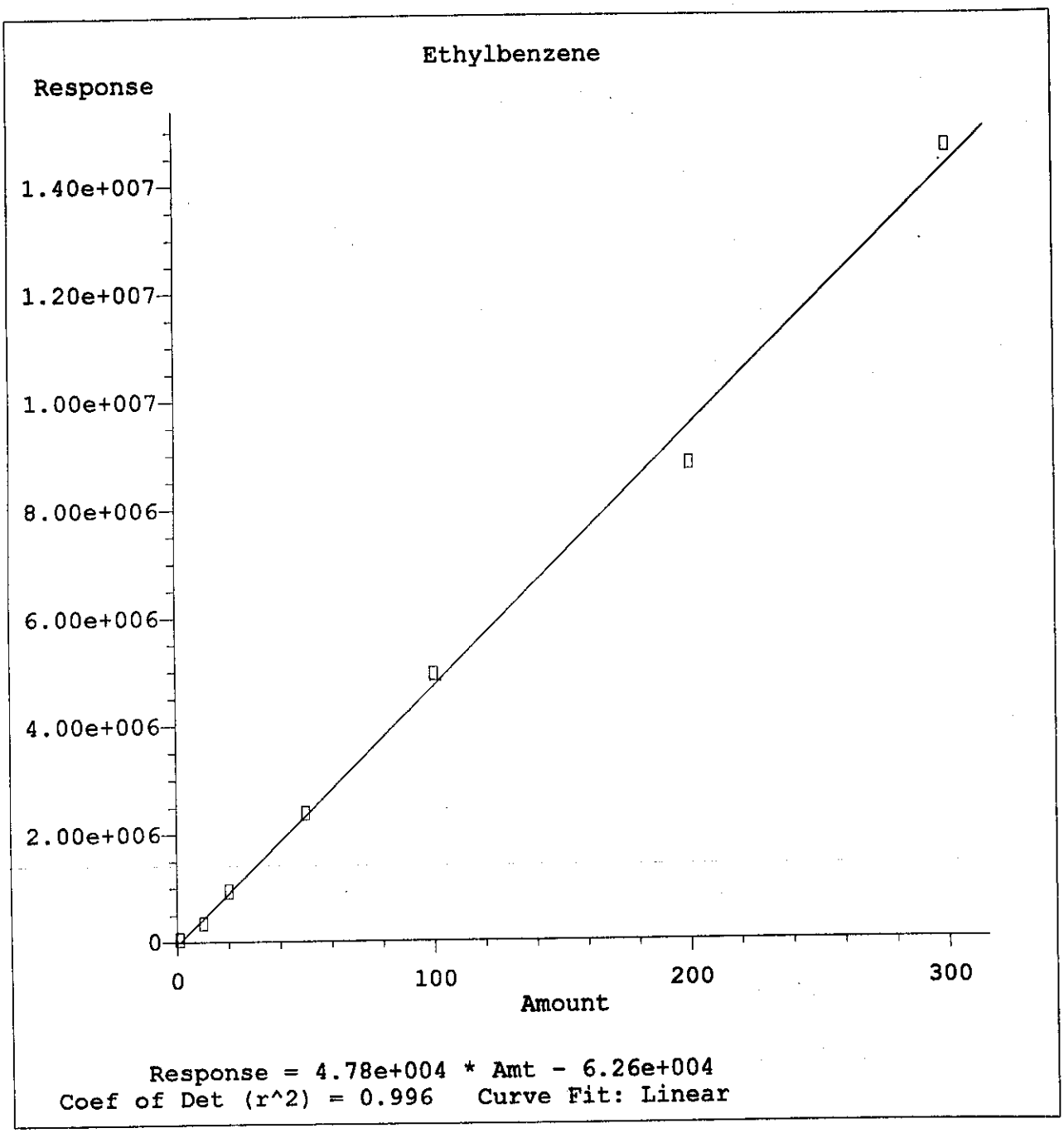
Calibration Files

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

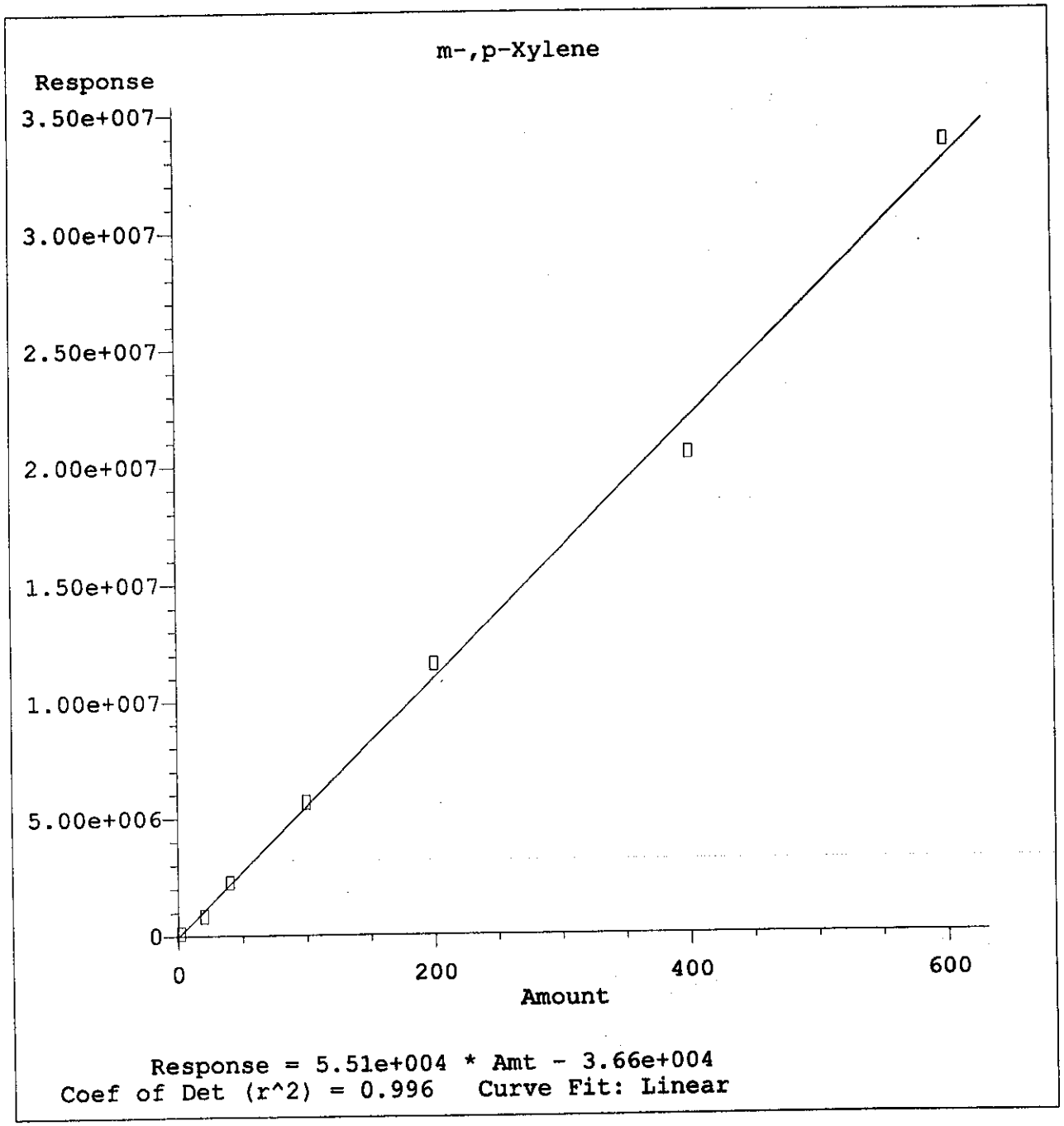
Fri Feb 22 12:57:25 2002



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



Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002



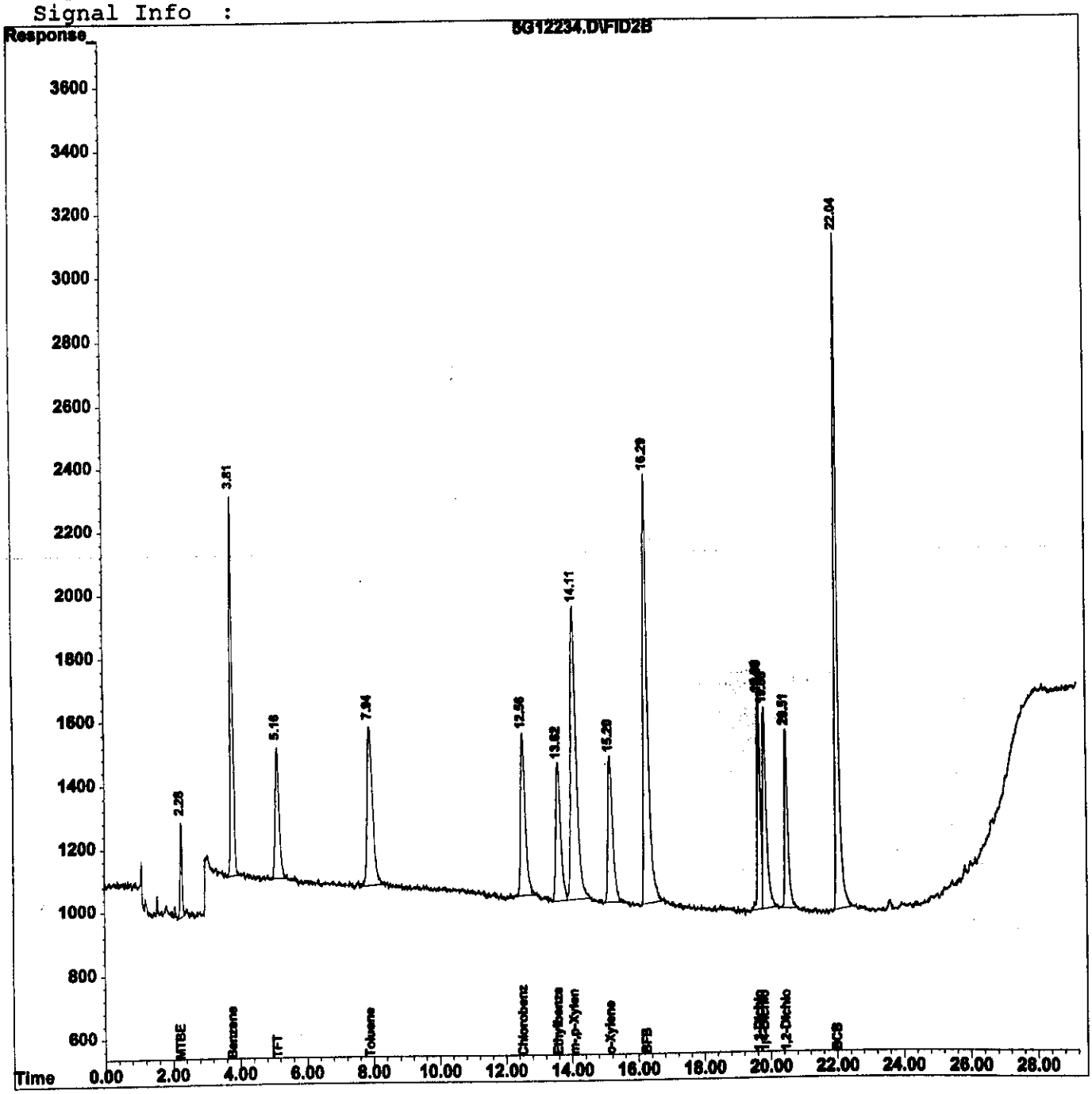
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Thu Feb 21 07:37:12 2002

Data File : C:\HPCHEM\2\DATA\022002\5G12234.D
Acq On : 20 Feb 2002 9:22
Sample : WG113244-01 STD 1 1PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 9:51 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12234.D
Acq On : 20 Feb 2002 9:22
Sample : WG113244-01 STD 1 1PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 9:51 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

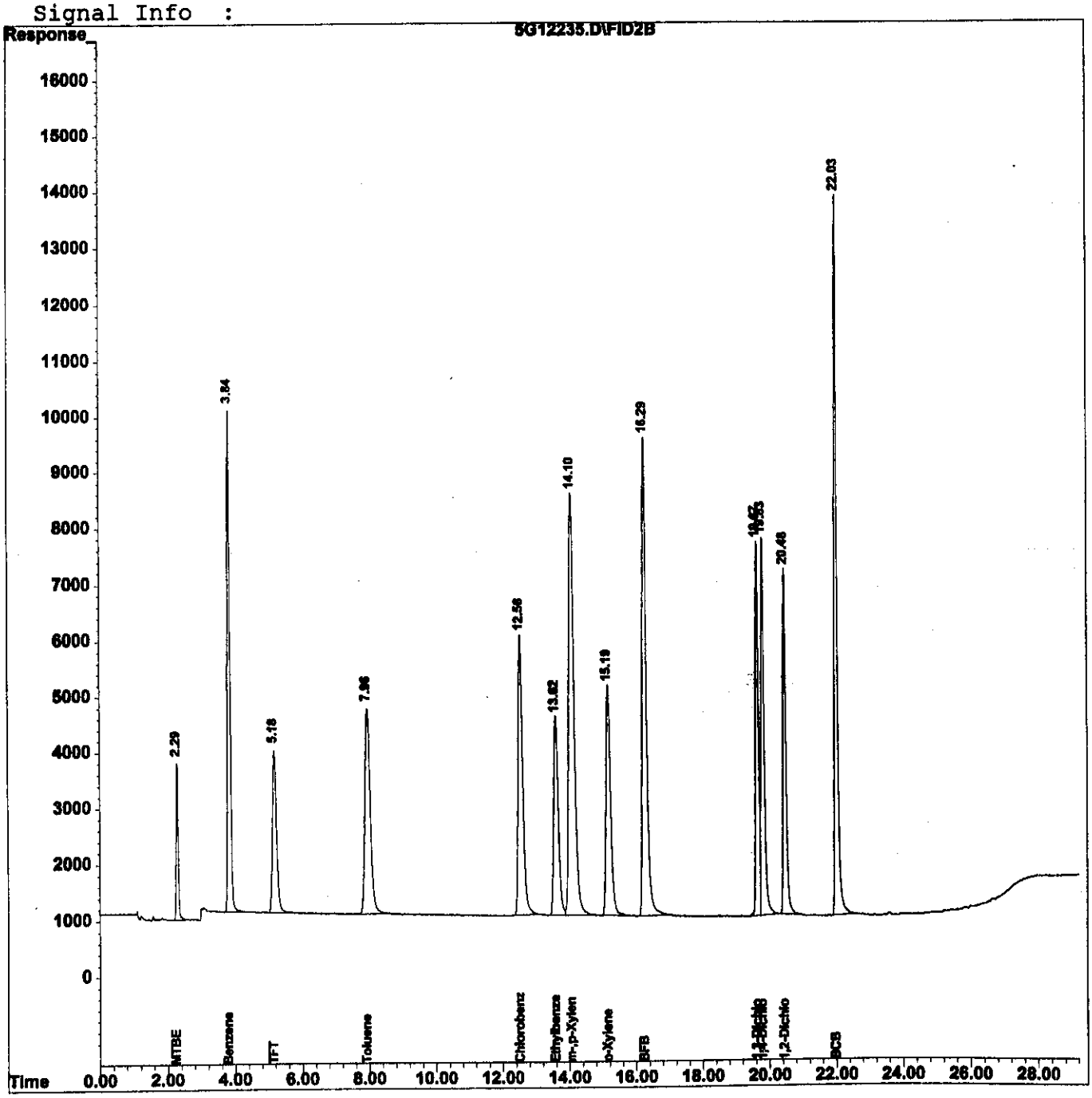
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.16	35028	1.7272 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	5.76%#
9) S BFB	16.29	122422	2.2088 ug/L
Spiked Amount 30.000		Recovery =	7.36%
13) S BCB	22.04	127209	2.3923 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	7.97%#
Target Compounds			
1) TM MTBE	2.28	12539	1.0376 ug/L
2) TM Benzene	3.82	62790	0.8887 ug/L
4) TM Toluene	7.94	57450	0.5403 ug/L
5) TM Chlorobenzene	12.56	51108	0.7568 ug/L
6) TM Ethylbenzene	13.62	44734	0.8046 ug/L
7) TM m-,p-Xylene	14.11	109754	1.6329 ug/L
8) TM o-Xylene	15.20	46025	0.7916 ug/L
10) TM 1,3-Dichlorobenzene	19.69	43022	0.7747 ug/L
11) TM 1,4-Dichlorobenzene	19.86	50594	0.8634 ug/L
12) TM 1,2-Dichlorobenzene	20.51	38039	0.7869 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12235.D Vial: 4
Acq On : 20 Feb 2002 9:56 Operator: CBN
Sample : WG113244-02 STD 2 10PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 10:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12235.D Vial: 4
Acq On : 20 Feb 2002 9:56 Operator: CBN
Sample : WG113244-02 STD 2 10PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 10:26 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	249705	12.3125 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	41.04%#
9) S BFB	16.29	720604	13.0018 ug/L
Spiked Amount 30.000		Recovery =	43.34%
13) S BCB	22.03	693148	13.0351 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	43.45%
Target Compounds			
1) TM MTBE	2.29	111969	9.2658 ug/L
2) TM Benzene	3.84	470155	6.6547 ug/L
4) TM Toluene	7.96	418309	6.3797 ug/L
5) TM Chlorobenzene	12.56	477966	7.0781 ug/L
6) TM Ethylbenzene	13.62	338229	6.0834 ug/L
7) TM m-,p-Xylene	14.10	838328	12.4722 ug/L
8) TM o-Xylene	15.19	388033	6.6739 ug/L
10) TM 1,3-Dichlorobenzene	19.67	397734	7.1620 ug/L
11) TM 1,4-Dichlorobenzene	19.83	451107	7.6985 ug/L
12) TM 1,2-Dichlorobenzene	20.49	369429	7.6418 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

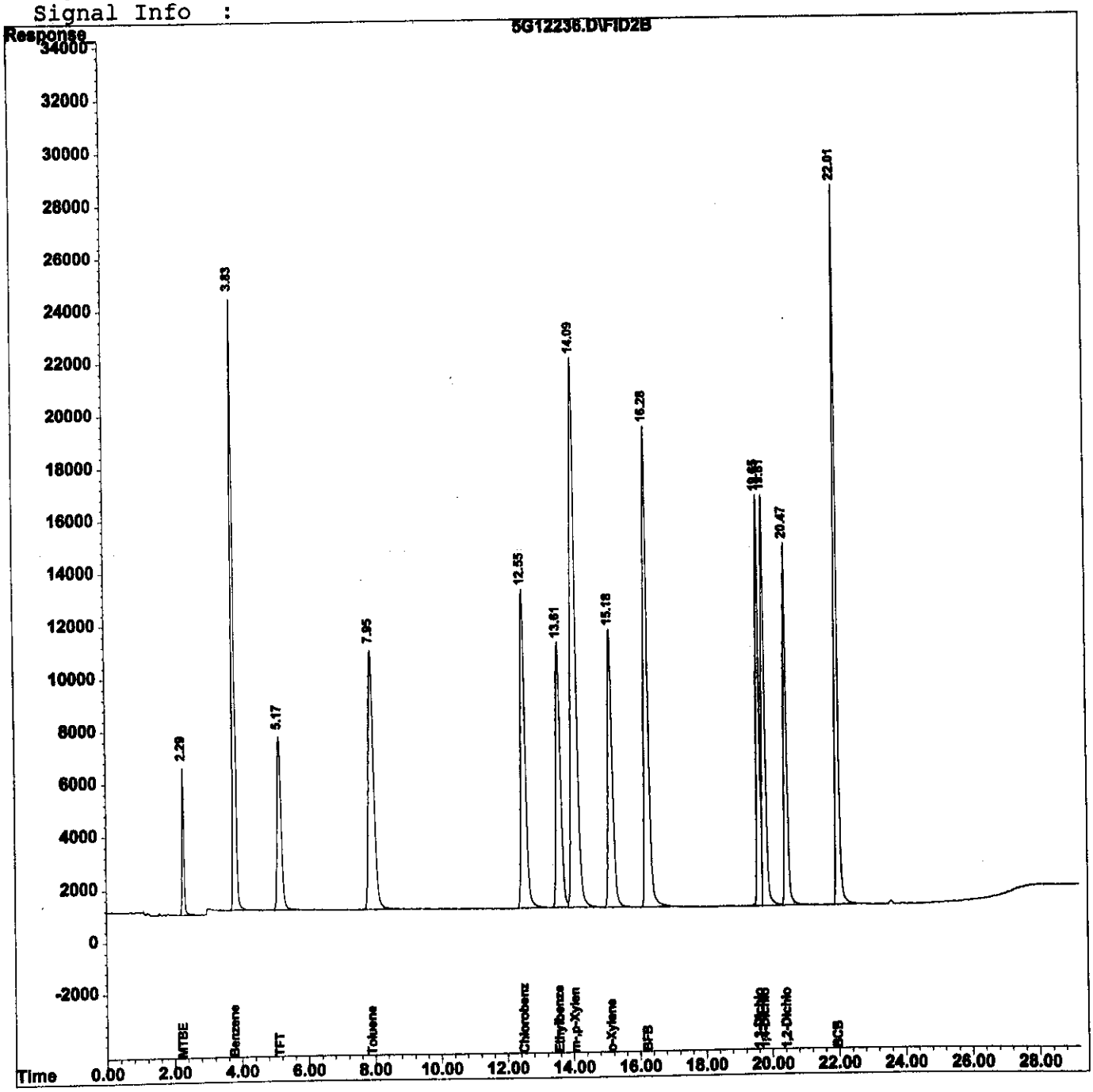
Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12236.D
Acq On : 20 Feb 2002 10:31
Sample : WG113244-03 STD 3 20PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 11:01 2002 Quant Results File: 8021W.RES

Vial: 5
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12236.D Vial: 5
Acq On : 20 Feb 2002 10:31 Operator: CBN
Sample : WG113244-03 STD 3 20PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 11:01 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	560731	27.6487 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	92.16%
9) S BFB	16.28	1503911	27.1350 ug/L
Spiked Amount 30.000		Recovery =	90.45%
13) S BCB	22.01	1441673	27.1117 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	90.37%
Target Compounds			
1) TM MTBE	2.29	224863	18.6081 ug/L
2) TM Benzene	3.83	1206208	17.0729 ug/L
4) TM Toluene	7.95	1099846	17.4083 ug/L
5) TM Chlorobenzene	12.55	1152961	17.0740 ug/L
6) TM Ethylbenzene	13.61	943942	16.9778 ug/L
7) TM m-,p-Xylene	14.09	2272425	33.8079 ug/L
8) TM o-Xylene	15.18	978240	16.8250 ug/L
10) TM 1,3-Dichlorobenzene	19.65	932272	16.7874 ug/L
11) TM 1,4-Dichlorobenzene	19.81	1011845	17.2680 ug/L
12) TM 1,2-Dichlorobenzene	20.47	814893	16.8565 ug/L

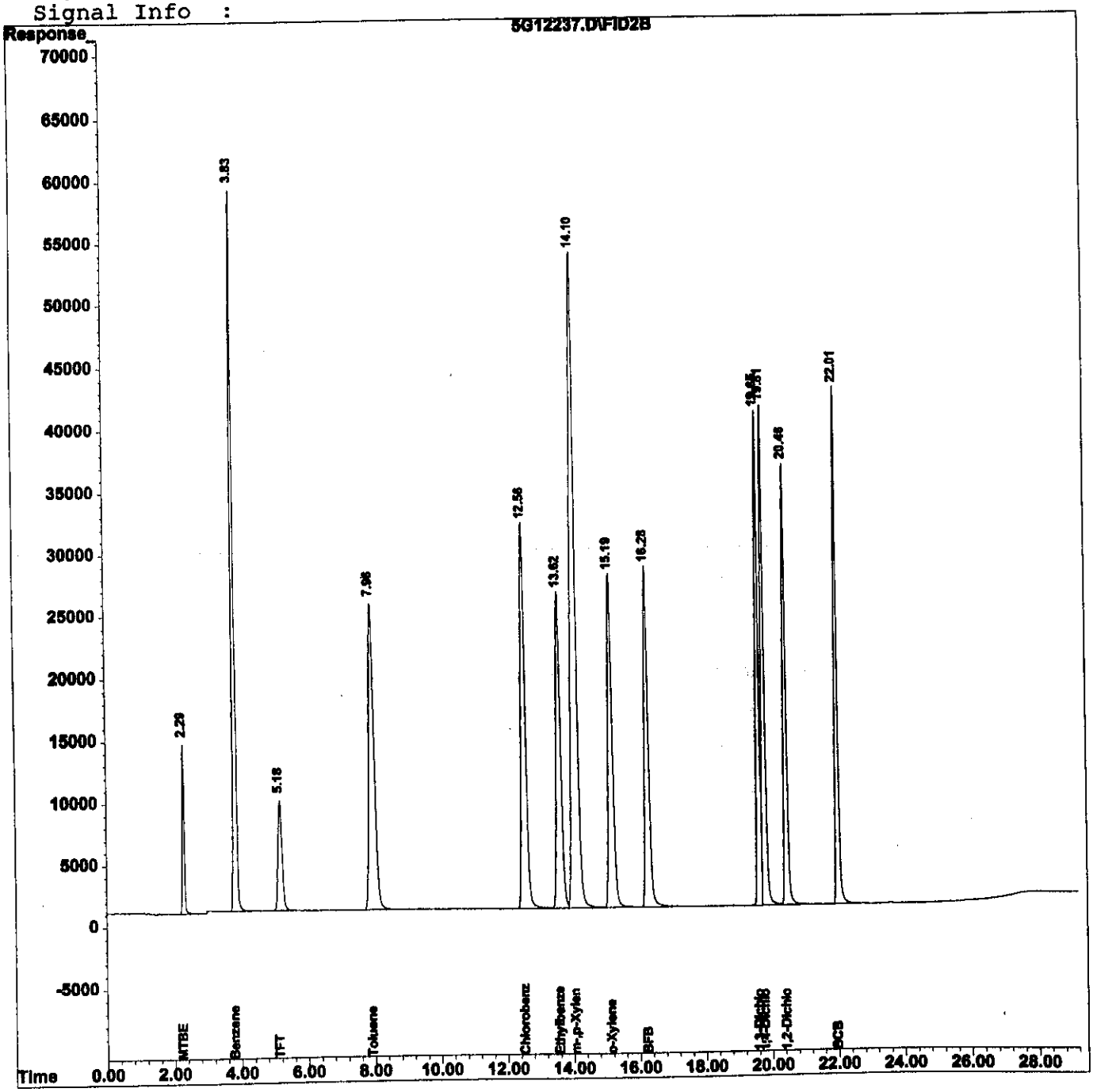
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12237.D
Acq On : 20 Feb 2002 11:06
Sample : WG113244-04 STD 4 50PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 11:36 2002 Quant Results File: 8021W.RES

Vial: 6
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12237.D
Acq On : 20 Feb 2002 11:06
Sample : WG113244-04 STD 4 50PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 11:36 2002 Quant Results File: 8021W.RES

Vial: 6
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	761904	37.5682 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 125.23%	
9) S BFB	16.28	2241826	40.4492 ug/L
Spiked Amount 30.000		Recovery = 134.83%	
13) S BCB	22.01	2167623	40.7637 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 135.88%	
Target Compounds			
1) TM MTBE	2.29	552063	45.6849 ug/L
2) TM Benzene	3.83	3019710	42.7415 ug/L
4) TM Toluene	7.96	2761241	44.2929 ug/L
5) TM Chlorobenzene	12.56	2935110	43.4655 ug/L
6) TM Ethylbenzene	13.62	2389091	42.9704 ug/L
7) TM m-,p-Xylene	14.10	5670815	84.3672 ug/L
8) TM o-Xylene	15.19	2461732	42.3400 ug/L
10) TM 1,3-Dichlorobenzene	19.65	2365072	42.5879 ug/L
11) TM 1,4-Dichlorobenzene	19.81	2513676	42.8981 ug/L
12) TM 1,2-Dichlorobenzene	20.47	2046461	42.3321 ug/L

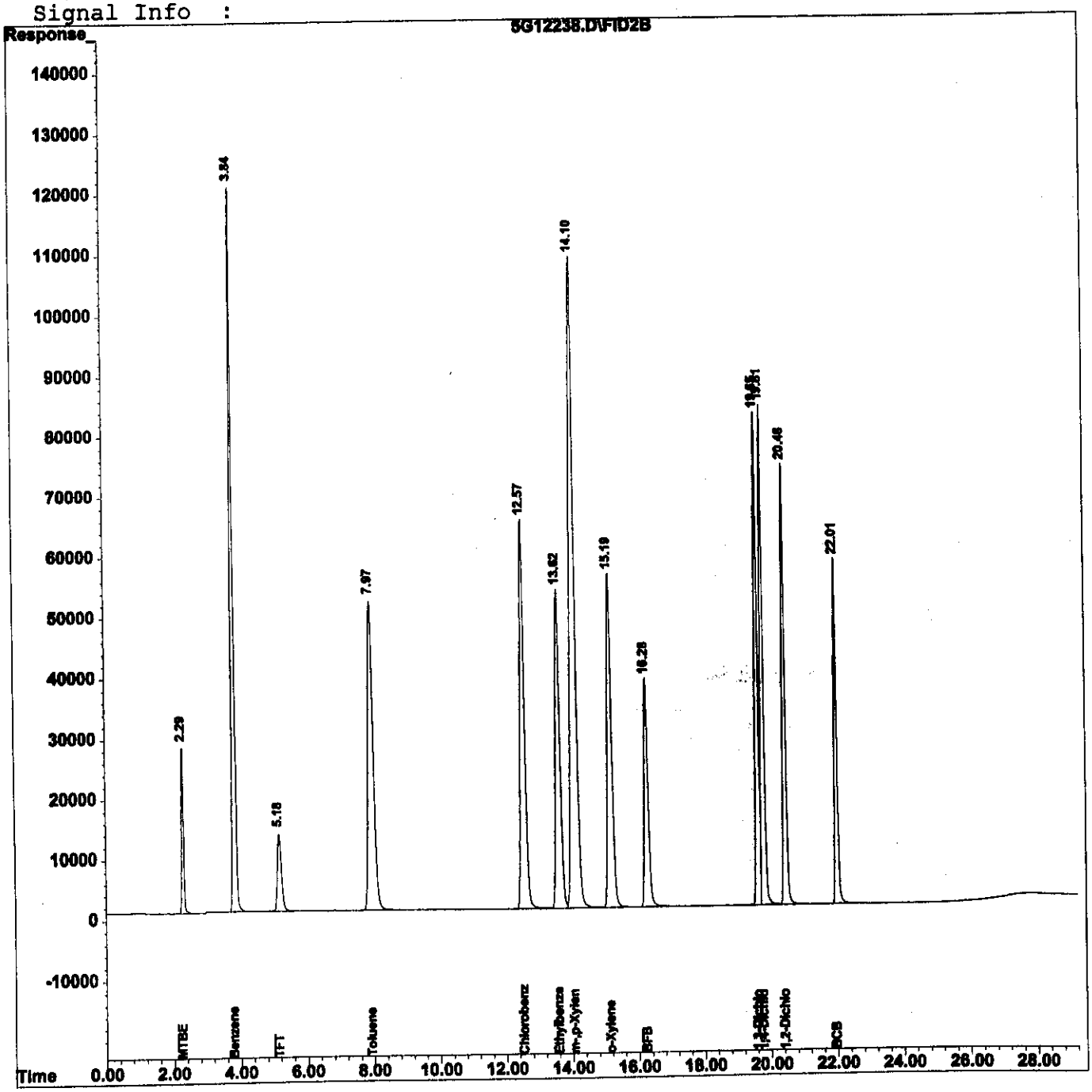
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\022002\5G12238.D
Acq On : 20 Feb 2002 11:41
Sample : WG113244-05 STD 5 100PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 12:11 2002 Quant Results File: 8021W.RES

Vial: 7
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12238.D Vial: 7
Acq On : 20 Feb 2002 11:41 Operator: CBN
Sample : WG113244-05 STD 5 100PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:11 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	1098499	54.1651 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 180.55%#	
9) S BFB	16.28	3072712	55.4408 ug/L
Spiked Amount 30.000		Recovery = 184.80%	
13) S BCB	22.01	2949339	55.4644 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 184.88%#	
Target Compounds			
1) TM MTBE	2.30	1093368	90.4797 ug/L
2) TM Benzene	3.84	6224890	88.1083 ug/L
4) TM Toluene	7.97	5715001	92.0904 ug/L
5) TM Chlorobenzene	12.57	6028224	89.2708 ug/L
6) TM Ethylbenzene	13.63	4945071	88.9425 ug/L
7) TM m-,p-Xylene	14.10	11596782	172.5304 ug/L
8) TM o-Xylene	15.19	5042657	86.7301 ug/L
10) TM 1,3-Dichlorobenzene	19.65	4869541	87.6859 ug/L
11) TM 1,4-Dichlorobenzene	19.81	5062615	86.3979 ug/L
12) TM 1,2-Dichlorobenzene	20.47	4146180	85.7659 ug/L

(#)=RT Delta > 1/2 Window (m)=manual int.

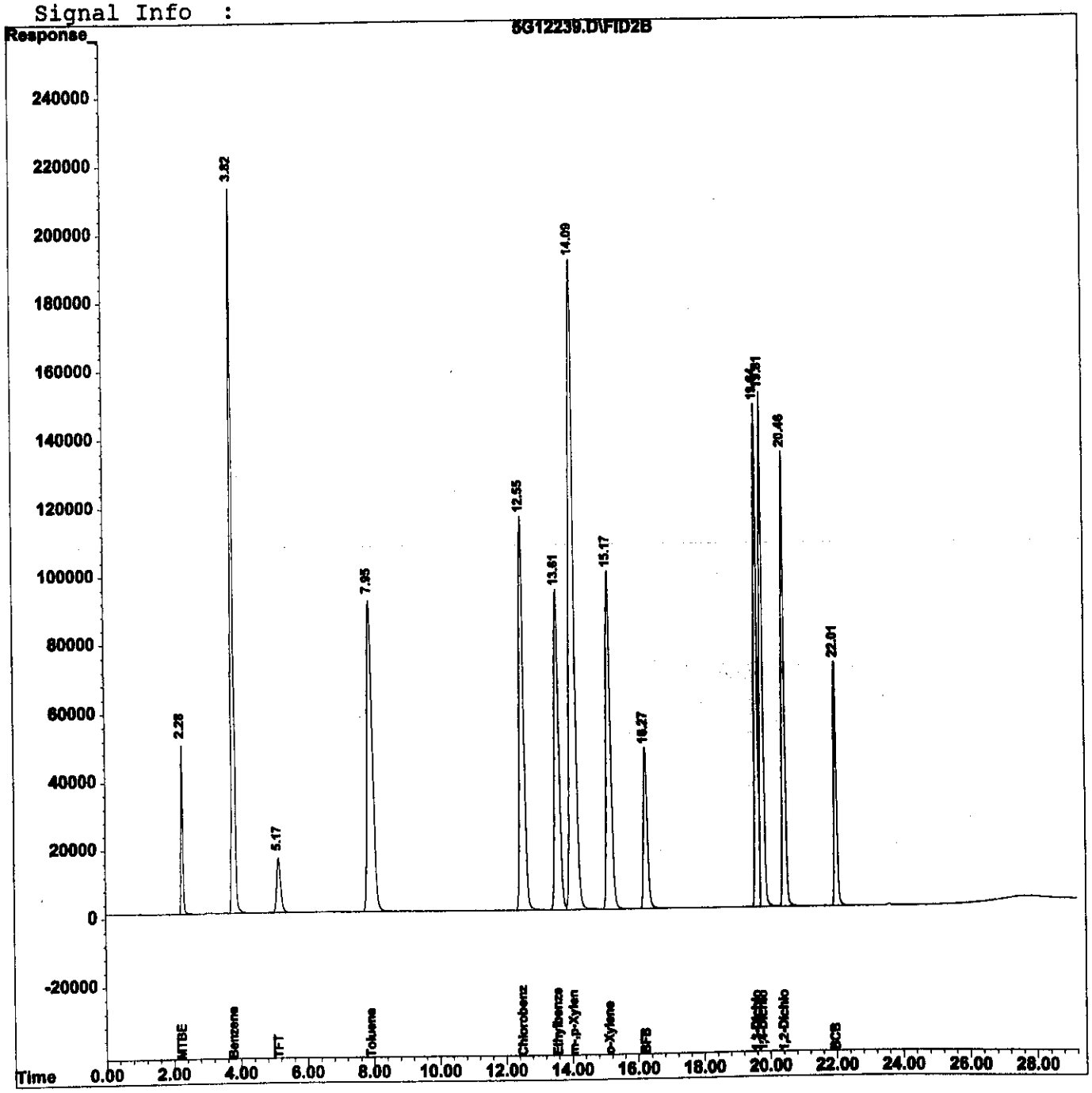
Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12239.D
Acq On : 20 Feb 2002 12:16
Sample : WG113244-06 STD 6 200PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 12:46 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12239.D Vial: 8
Acq On : 20 Feb 2002 12:16 Operator: CBN
Sample : WG113244-06 STD 6 200PPB 5ML Inst : HP5
Misc : 1,1 S-89-49,90-39 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 20 12:46 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	1382390	68.1633 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	227.21%#
9) S BFB	16.27	3817049	68.8708 ug/L
Spiked Amount 30.000		Recovery =	229.57%
13) S BCB	22.01	3668255	68.9841 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	229.95%#
Target Compounds			
1) TM MTBE	2.28	1969024	162.9429 ug/L
2) TM Benzene	3.82	11138432	157.6555 ug/L
4) TM Toluene	7.95	10291481	166.1468 ug/L
5) TM Chlorobenzene	12.55	10772563	159.5289 ug/L
6) TM Ethylbenzene	13.61	8813177	158.5146 ug/L
7) TM m-,p-Xylene	14.09	20478493	304.6675 ug/L
8) TM o-Xylene	15.17	9027759	155.2710 ug/L
10) TM 1,3-Dichlorobenzene	19.64	8792415	158.3251 ug/L
11) TM 1,4-Dichlorobenzene	19.81	9060458	154.6246 ug/L
12) TM 1,2-Dichlorobenzene	20.46	7490401	154.9428 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

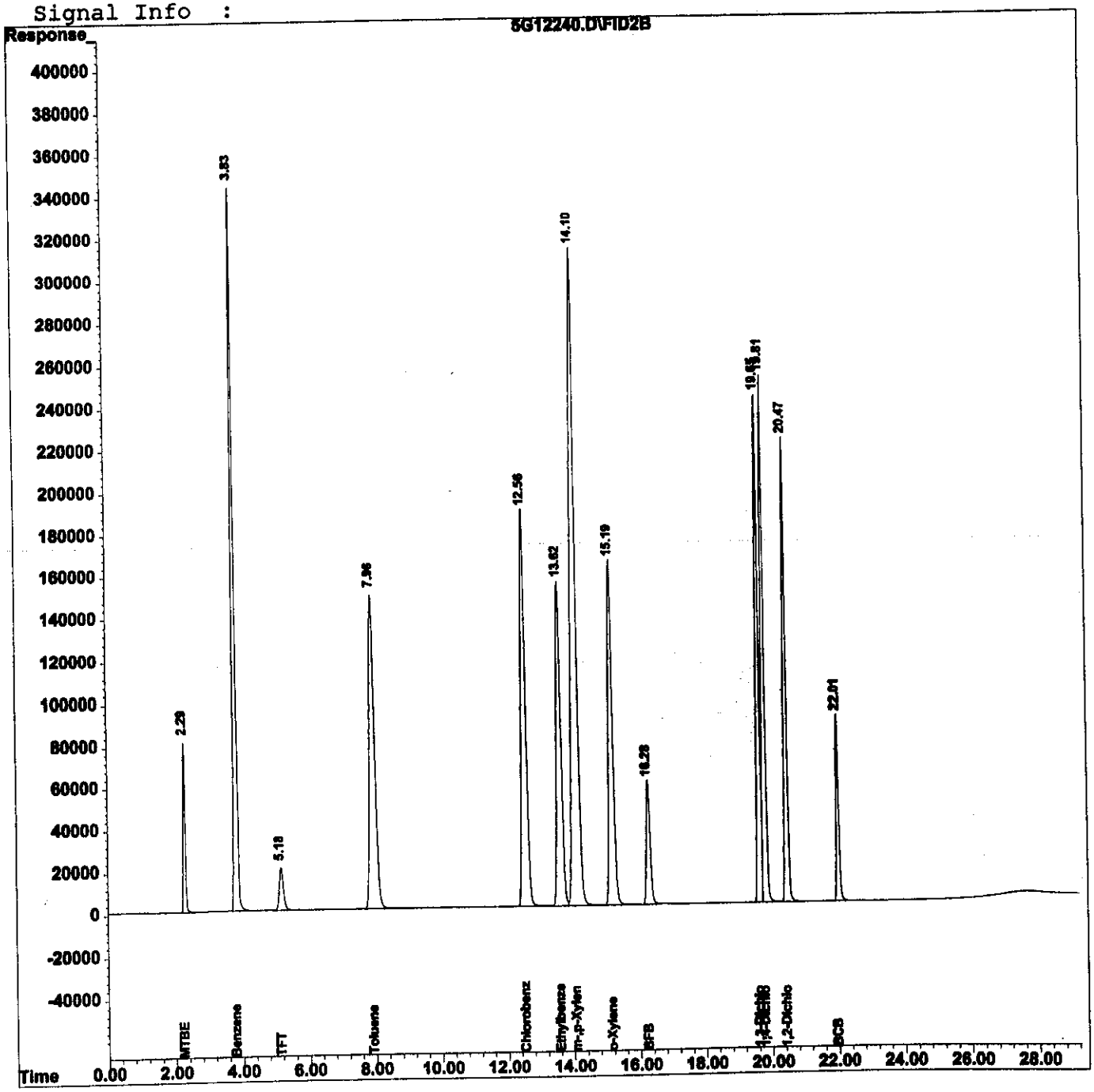
Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12240.D
Acq On : 20 Feb 2002 12:51
Sample : WG113244-07 STD 7 300PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 13:20 2002 Quant Results File: 8021W.RES

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\022002\5G12240.D
Acq On : 20 Feb 2002 12:51
Sample : WG113244-07 STD 7 300PPB 5ML
Misc : 1,1 S-89-49,90-39
IntFile : autoint1.e
Quant Time: Feb 20 13:20 2002 Quant Results File: 8021W.RES

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/01/02
Last Update : Tue Feb 05 08:48:34 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	1751495	86.3632 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	287.88%#
9) S BFB	16.28	4690280	84.6265 ug/L
Spiked Amount 30.000		Recovery =	282.09%
13) S BCB	22.01	4503678	84.6948 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	282.32%#
Target Compounds			
1) TM MTBE	2.29	3231974	267.4560 ug/L
2) TM Benzene	3.83	18238806	258.1555 ug/L
4) TM Toluene	7.96	16948059	273.8631 ug/L
5) TM Chlorobenzene	12.56	17678148	261.7924 ug/L
6) TM Ethylbenzene	13.62	14662906	263.7283 ug/L
7) TM m-,p-Xylene	14.11	33755949	502.2021 ug/L
8) TM o-Xylene	15.19	14935504	256.8799 ug/L
10) TM 1,3-Dichlorobenzene	19.65	14478942	260.7224 ug/L
11) TM 1,4-Dichlorobenzene	19.82	14763448	251.9511 ug/L
12) TM 1,2-Dichlorobenzene	20.47	12246215	253.3193 ug/L

(m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.463 E3	5.6	93	0.00
2	TM	Benzene	58.464	60.318 E3	-3.2	100	0.00
3	S	TFT	16.886	19.013 E3	-12.6	102	0.00
4	TM	Toluene	53.514	55.634 E3	-4.0	101	0.01
5	TM	Chlorobenzene	55.475	57.505 E3	-3.7	100	0.02
6	TM	Ethylbenzene	45.133	48.198 E3	-6.8	102	0.02
7	TM	m-,p-Xylene	53.679	56.581 E3	-5.4	100	0.01
8	TM	o-Xylene	46.904	48.014 E3	-2.4	98	0.00
9	S	BFB	48.258	51.695 E3	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	45.376	47.659 E3	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	48.816	51.504 E3	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	39.484	42.318 E3	-7.2	104	0.02
13	S	BCB	46.849	50.081 E3	-6.9	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D
Acq On : 20 Feb 2002 14:36
Sample : WG113244-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-90-(28,39)
IntFile : autoint1.e

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.883	5.6	93	0.00
2	TM	Benzene	20.000	20.634	-3.2	100	0.00
3	S	TFT	30.000	33.780	-12.6	102	0.00
4	TM	Toluene	20.000	21.185	-5.9	101	0.01
5	TM	Chlorobenzene	20.000	20.732	-3.7	100	0.02
6	TM	Ethylbenzene	20.000	21.461	-7.3	102	0.02
7	TM	m-,p-Xylene	40.000	41.777	-4.4	100	0.01
8	TM	o-Xylene	20.000	20.473	-2.4	98	0.00
9	S	BFB	30.000	32.137	-7.1	103	0.00
10	TM	1,3-Dichlorobenzene	20.000	21.006	-5.0	102	0.00
11	TM	1,4-Dichlorobenzene	20.000	21.101	-5.5	102	0.00
12	TM	1,2-Dichlorobenzene	20.000	21.435	-7.2	104	0.02
13	S	BCB	30.000	32.070	-6.9	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12243.D 8021W.M Thu Feb 21 07:53:32 2002 Page 1

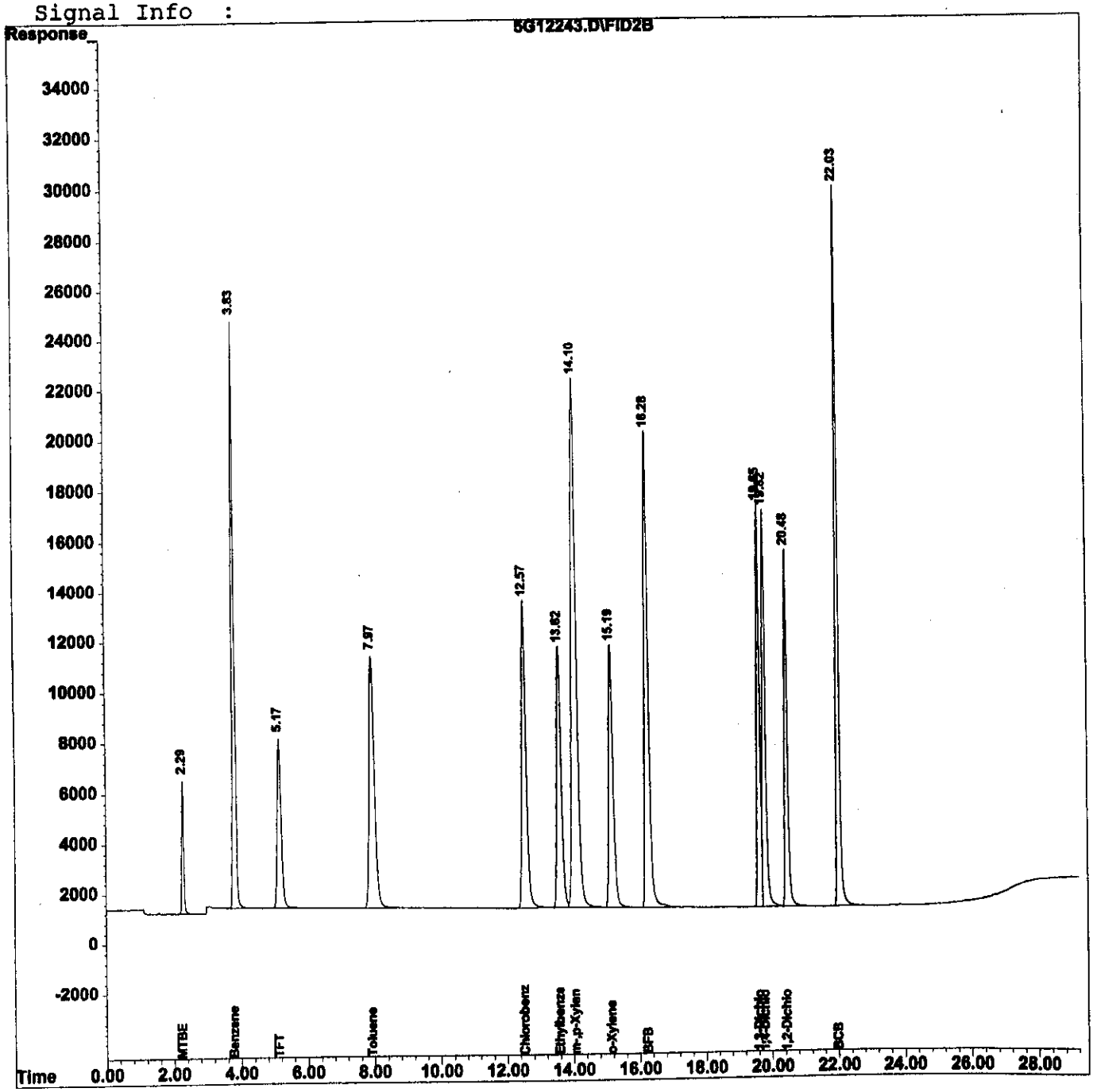
Quantitation Report

Data File : C:\HPCHEM\2\DATA\022002\5G12243.D
Acq On : 20 Feb 2002 14:36
Sample : WG113244-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-90-(28,39)
IntFile : autoint1.e
Quant Time: Feb 21 7:53 2002 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\022002\5G12243.D Vial: 12
Acq On : 20 Feb 2002 14:36 Operator: CBN
Sample : WG113244-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-90-(28,39) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Feb 21 7:53 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	570396	33.7797 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 112.60%	
9) S BFB	16.28	1550865	32.1371 ug/L
Spiked Amount 30.000		Recovery = 107.12%	
13) S BCB	22.04	1502441	32.0701 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 106.90%	
Target Compounds			
1) TM MTBE	2.29	209259	18.8832 ug/L
2) TM Benzene	3.83	1206355	20.6342 ug/L
4) TM Toluene	7.97	1112678	21.1851 ug/L
5) TM Chlorobenzene	12.57	1150106	20.7319 ug/L
6) TM Ethylbenzene	13.63	963955	21.4608 ug/L
7) TM m-,p-Xylene	14.10	2263226	41.7771 ug/L
8) TM o-Xylene	15.19	960278	20.4735 ug/L
10) TM 1,3-Dichlorobenzene	19.66	953171	21.0061 ug/L
11) TM 1,4-Dichlorobenzene	19.82	1030076	21.1013 ug/L
12) TM 1,2-Dichlorobenzene	20.48	846365	21.4355 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D
Acq On : 19 Mar 2002 7:03
Sample : WG114704-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	10.998 E3	0.8	98	-0.05
2	TM	Benzene	58.464	60.679 E3	-3.8	101	-0.07
3	S	TFT	16.886	18.895 E3	-11.9	101	-0.10
4	TM	Toluene	53.514	55.850 E3	-4.4	102	-0.14
5	TM	Chlorobenzene	55.475	60.783 E3	-9.6	105	-0.12
6	TM	Ethylbenzene	45.133	49.401 E3	-9.5	105	-0.11
7	TM	m-,p-Xylene	53.679	57.485 E3	-7.1	101	-0.10
8	TM	o-Xylene	46.904	48.736 E3	-3.9	100	-0.09
9	S	BFB	48.258	47.886 E3	0.8	96	-0.10
10	TM	1,3-Dichlorobenzene	45.376	47.046 E3	-3.7	101	-0.07
11	TM	1,4-Dichlorobenzene	48.816	49.785 E3	-2.0	98	-0.07
12	TM	1,2-Dichlorobenzene	39.484	41.104 E3	-4.1	101	-0.06
13	S	BCB	46.849	46.399 E3	1.0	97	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12619.D 8021W.M Tue Mar 19 09:53:37 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D
Acq On : 19 Mar 2002 7:03
Sample : WG114704-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.849	0.8	98	-0.05
2	TM	Benzene	20.000	20.758	-3.8	101	-0.07
3	S	TFT	30.000	33.570	-11.9	101	-0.10
4	TM	Toluene	20.000	21.263	-6.3	102	-0.14
5	TM	Chlorobenzene	20.000	21.914	-9.6	105	-0.12
6	TM	Ethylbenzene	20.000	21.964	-9.8	105	-0.11
7	TM	m-,p-Xylene	40.000	42.434	-6.1	101	-0.10
8	TM	o-Xylene	20.000	20.781	-3.9	100	-0.09
9	S	BFB	30.000	29.769	0.8	96	-0.10
10	TM	1,3-Dichlorobenzene	20.000	20.736	-3.7	101	-0.07
11	TM	1,4-Dichlorobenzene	20.000	20.397	-2.0	98	-0.07
12	TM	1,2-Dichlorobenzene	20.000	20.820	-4.1	101	-0.06
13	S	BCB	30.000	29.712	1.0	97	-0.06

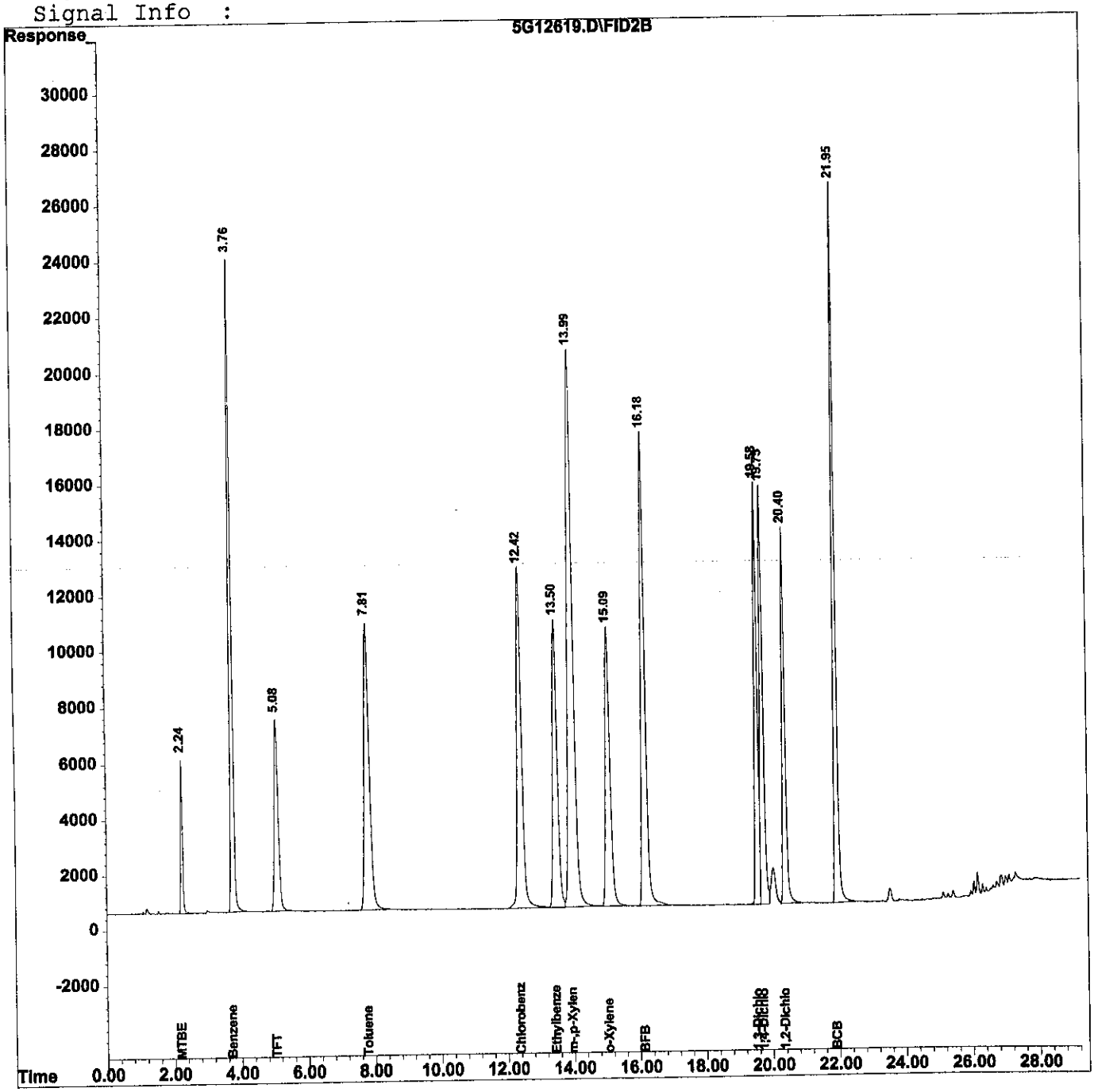
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12619.D 8021W.M Tue Mar 19 09:53:34 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12619.D
Acq On : 19 Mar 2002 7:03
Sample : WG114704-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 7:32 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12619.D Vial: 1
Acq On : 19 Mar 2002 7:03 Operator: CBN
Sample : WG114704-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 7:32 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	566861	33.5704 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 111.90%			
9) S BFB	16.18	1436572	29.7687 ug/L
Spiked Amount 30.000 Recovery = 99.23%			
13) S BCB	21.96	1391984	29.7124 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 99.04%			
Target Compounds			
1) TM MTBE	2.24	219962	19.8490 ug/L
2) TM Benzene	3.76	1213585	20.7578 ug/L
4) TM Toluene	7.81	1117006	21.2632 ug/L
5) TM Chlorobenzene	12.42	1215665	21.9137 ug/L
6) TM Ethylbenzene	13.50	988019	21.9638 ug/L
7) TM m-,p-Xylene	13.99	2299390	42.4340 ug/L
8) TM o-Xylene	15.09	974721	20.7814 ug/L
10) TM 1,3-Dichlorobenzene	19.58	940915	20.7360 ug/L
11) TM 1,4-Dichlorobenzene	19.75	995704	20.3972 ug/L
12) TM 1,2-Dichlorobenzene	20.40	822079	20.8204 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12630.D
Acq On : 19 Mar 2002 13:56
Sample : WG114704-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.841 E3	11.2	88	-0.03
2	TM	Benzene	58.464	58.906 E3	-0.8	98	-0.05
3	S	TFT	16.886	18.881 E3	-11.8	101	-0.07
4	TM	Toluene	53.514	54.371 E3	-1.6	99	-0.10
5	TM	Chlorobenzene	55.475	55.878 E3	-0.7	97	-0.08
6	TM	Ethylbenzene	45.133	47.446 E3	-5.1	101	-0.07
7	TM	m-,p-Xylene	53.679	55.261 E3	-2.9	97	-0.07
8	TM	o-Xylene	46.904	47.333 E3	-0.9	97	-0.06
9	S	BFB	48.258	47.582 E3	1.4	95	-0.06
10	TM	1,3-Dichlorobenzene	45.376	46.176 E3	-1.8	99	-0.03
11	TM	1,4-Dichlorobenzene	48.816	49.798 E3	-2.0	98	-0.03
12	TM	1,2-Dichlorobenzene	39.484	40.589 E3	-2.8	100	-0.02
13	S	BCB	46.849	47.255 E3	-0.9	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12630.D 8021W.M Tue Mar 19 14:30:55 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12630.D
Acq On : 19 Mar 2002 13:56
Sample : WG114704-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

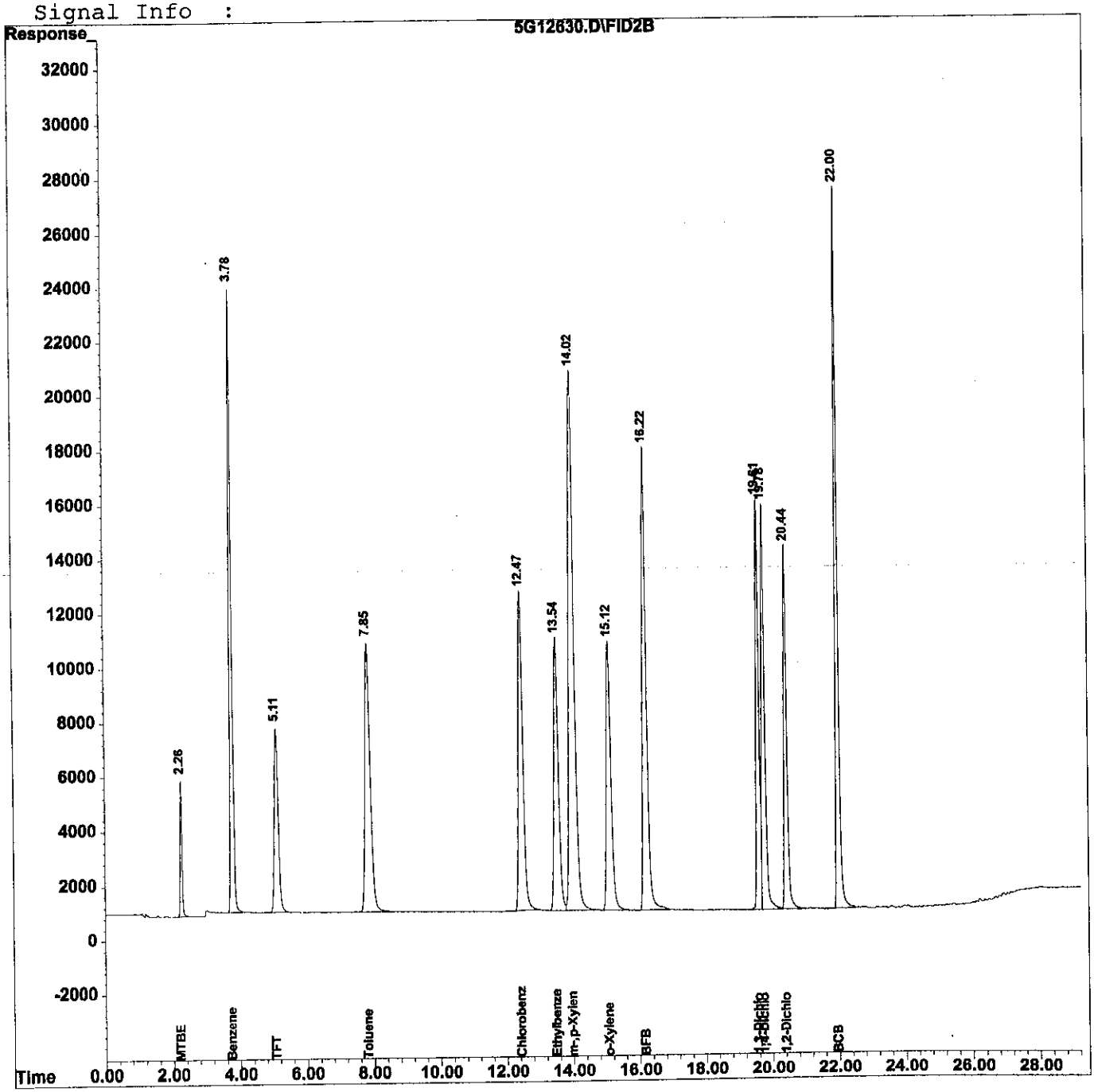
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.761	11.2	88	-0.03
2	TM	Benzene	20.000	20.151	-0.8	98	-0.05
3	S	TFT	30.000	33.545	-11.8	101	-0.07
4	TM	Toluene	20.000	20.729	-3.6	99	-0.10
5	TM	Chlorobenzene	20.000	20.145	-0.7	97	-0.08
6	TM	Ethylbenzene	20.000	21.146	-5.7	101	-0.07
7	TM	m-,p-Xylene	40.000	40.818	-2.0	97	-0.07
8	TM	o-Xylene	20.000	20.183	-0.9	97	-0.06
9	S	BFB	30.000	29.580	1.4	95	-0.06
10	TM	1,3-Dichlorobenzene	20.000	20.353	-1.8	99	-0.03
11	TM	1,4-Dichlorobenzene	20.000	20.402	-2.0	98	-0.03
12	TM	1,2-Dichlorobenzene	20.000	20.560	-2.8	100	-0.02
13	S	BCB	30.000	30.260	-0.9	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12630.D 8021W.M Tue Mar 19 14:30:57 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12630.D Vial: 9
Acq On : 19 Mar 2002 13:56 Operator: CBN
Sample : WG114704-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 14:25 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12630.D Vial: 9
Acq On : 19 Mar 2002 13:56 Operator: CBN
Sample : WG114704-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 14:25 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.11	566425	33.5445 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.82%
9) S BFB	16.22	1427472	29.5801 ug/L
Spiked Amount 30.000		Recovery =	98.60%
13) S BCB	22.00	1417650	30.2602 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	100.87%
Target Compounds			
1) TM MTBE	2.26	196823	17.7609 ug/L
2) TM Benzene	3.78	1178123	20.1513 ug/L
4) TM Toluene	7.85	1087422	20.7290 ug/L
5) TM Chlorobenzene	12.47	1117561	20.1452 ug/L
6) TM Ethylbenzene	13.54	948919	21.1464 ug/L
7) TM m-,p-Xylene	14.02	2210453	40.8185 ug/L
8) TM o-Xylene	15.12	946655	20.1830 ug/L
10) TM 1,3-Dichlorobenzene	19.61	923526	20.3528 ug/L
11) TM 1,4-Dichlorobenzene	19.78	995951	20.4022 ug/L
12) TM 1,2-Dichlorobenzene	20.45	811789	20.5598 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12641.D Vial: 11
Acq On : 19 Mar 2002 20:35 Operator: CBN
Sample : WG114704-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.411 E3	15.1#	84	-0.04
2	TM	Benzene	58.464	51.835 E3	11.3	86	-0.07
3	S	TFT	16.886	18.700 E3	-10.7	100	-0.09
4	TM	Toluene	53.514	47.155 E3	11.9	86	-0.13
5	TM	Chlorobenzene	55.475	50.695 E3	8.6	88	-0.10
6	TM	Ethylbenzene	45.133	40.454 E3	10.4	86	-0.09
7	TM	m-,p-Xylene	53.679	47.369 E3	11.8	83	-0.09
8	TM	o-Xylene	46.904	41.514 E3	11.5	85	-0.09
9	S	BFB	48.258	47.364 E3	1.9	94	-0.08
10	TM	1,3-Dichlorobenzene	45.376	41.073 E3	9.5	88	-0.05
11	TM	1,4-Dichlorobenzene	48.816	45.284 E3	7.2	90	-0.05
12	TM	1,2-Dichlorobenzene	39.484	37.086 E3	6.1	91	-0.04
13	S	BCB	46.849	46.586 E3	0.6	97	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12641.D 8021W.M Wed Mar 20 07:03:51 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12641.D
Acq On : 19 Mar 2002 20:35
Sample : WG114704-03 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	16.984	15.1#	84	-0.04
2	TM	Benzene	20.000	17.732	11.3	86	-0.07
3	S	TFT	30.000	33.223	-10.7	100	-0.09
4	TM	Toluene	20.000	18.123	9.4	86	-0.13
5	TM	Chlorobenzene	20.000	18.277	8.6	88	-0.10
6	TM	Ethylbenzene	20.000	18.223	8.9	86	-0.09
7	TM	m-,p-Xylene	40.000	35.084	12.3	83	-0.09
8	TM	o-Xylene	20.000	17.702	11.5	85	-0.09
9	S	BFB	30.000	29.444	1.9	94	-0.08
10	TM	1,3-Dichlorobenzene	20.000	18.103	9.5	88	-0.05
11	TM	1,4-Dichlorobenzene	20.000	18.553	7.2	90	-0.05
12	TM	1,2-Dichlorobenzene	20.000	18.785	6.1	91	-0.04
13	S	BCB	30.000	29.832	0.6	97	-0.03

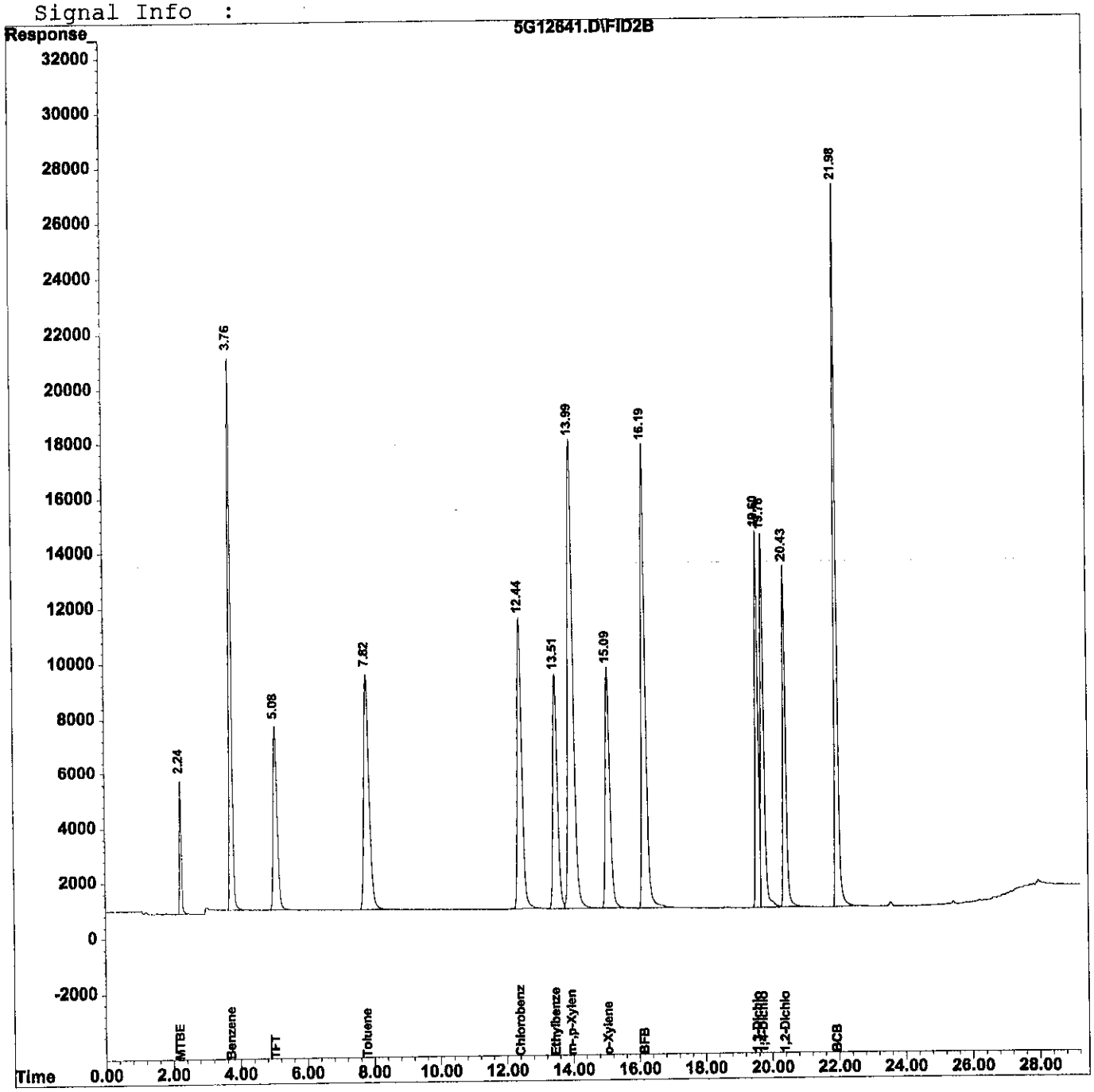
AVE = 8.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12641.D 8021W.M Wed Mar 20 07:03:49 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12641.D Vial: 11
Acq On : 19 Mar 2002 20:35 Operator: CBN
Sample : WG114704-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 21:05 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12641.D Vial: 11
Acq On : 19 Mar 2002 20:35 Operator: CBN
Sample : WG114704-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 21:05 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	561000	33.2232 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	110.74%
9) S BFB	16.20	1420919	29.4443 ug/L
Spiked Amount 30.000		Recovery =	98.15%
13) S BCB	21.98	1397582	29.8318 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	99.44%
Target Compounds			
1) TM MTBE	2.25	188212	16.9839 ug/L
2) TM Benzene	3.76	1036706	17.7324 ug/L
4) TM Toluene	7.82	943099	18.1231 ug/L
5) TM Chlorobenzene	12.44	1013895	18.2765 ug/L
6) TM Ethylbenzene	13.52	809088	18.2232 ug/L
7) TM m-,p-Xylene	14.00	1894779	35.0842 ug/L
8) TM o-Xylene	15.09	830274	17.7017 ug/L
10) TM 1,3-Dichlorobenzene	19.60	821461	18.1035 ug/L
11) TM 1,4-Dichlorobenzene	19.77	905689	18.5532 ug/L
12) TM 1,2-Dichlorobenzene	20.43	741712	18.7850 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12645.D Vial: 15
Acq On : 19 Mar 2002 22:54 Operator: CBN
Sample : WG114704-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	11.082	9.566 E3	13.7	85	-0.05
2	TM	Benzene	58.464	55.702 E3	4.7	92	-0.08
3	S	TFT	16.886	18.505 E3	-9.6	99	-0.10
4	TM	Toluene	53.514	51.284 E3	4.2	93	-0.14
5	TM	Chlorobenzene	55.475	53.934 E3	2.8	94	-0.11
6	TM	Ethylbenzene	45.133	44.605 E3	1.2	95	-0.10
7	TM	m-,p-Xylene	53.679	52.044 E3	3.0	92	-0.09
8	TM	o-Xylene	46.904	44.815 E3	4.5	92	-0.08
9	S	BFB	48.258	47.026 E3	2.6	94	-0.08
10	TM	1,3-Dichlorobenzene	45.376	43.575 E3	4.0	93	-0.04
11	TM	1,4-Dichlorobenzene	48.816	47.476 E3	2.7	94	-0.04
12	TM	1,2-Dichlorobenzene	39.484	38.565 E3	2.3	95	-0.03
13	S	BCB	46.849	46.302 E3	1.2	96	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12645.D 8021W.M Wed Mar 20 07:04:00 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12645.D
Acq On : 19 Mar 2002 22:54
Sample : WG114704-04 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e

Vial: 15
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Wed Feb 20 13:38:18 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.264	13.7	85	-0.05
2	TM	Benzene	20.000	19.055	4.7	92	-0.08
3	S	TFT	30.000	32.876	-9.6	99	-0.10
4	TM	Toluene	20.000	19.614	1.9	93	-0.14
5	TM	Chlorobenzene	20.000	19.444	2.8	94	-0.11
6	TM	Ethylbenzene	20.000	19.959	0.2	95	-0.10
7	TM	m-,p-Xylene	40.000	38.481	3.8	92	-0.09
8	TM	o-Xylene	20.000	19.109	4.5	92	-0.08
9	S	BFB	30.000	29.234	2.6	94	-0.08
10	TM	1,3-Dichlorobenzene	20.000	19.206	4.0	93	-0.04
11	TM	1,4-Dichlorobenzene	20.000	19.451	2.7	94	-0.04
12	TM	1,2-Dichlorobenzene	20.000	19.534	2.3	95	-0.03
13	S	BCB	30.000	29.650	1.2	96	-0.02

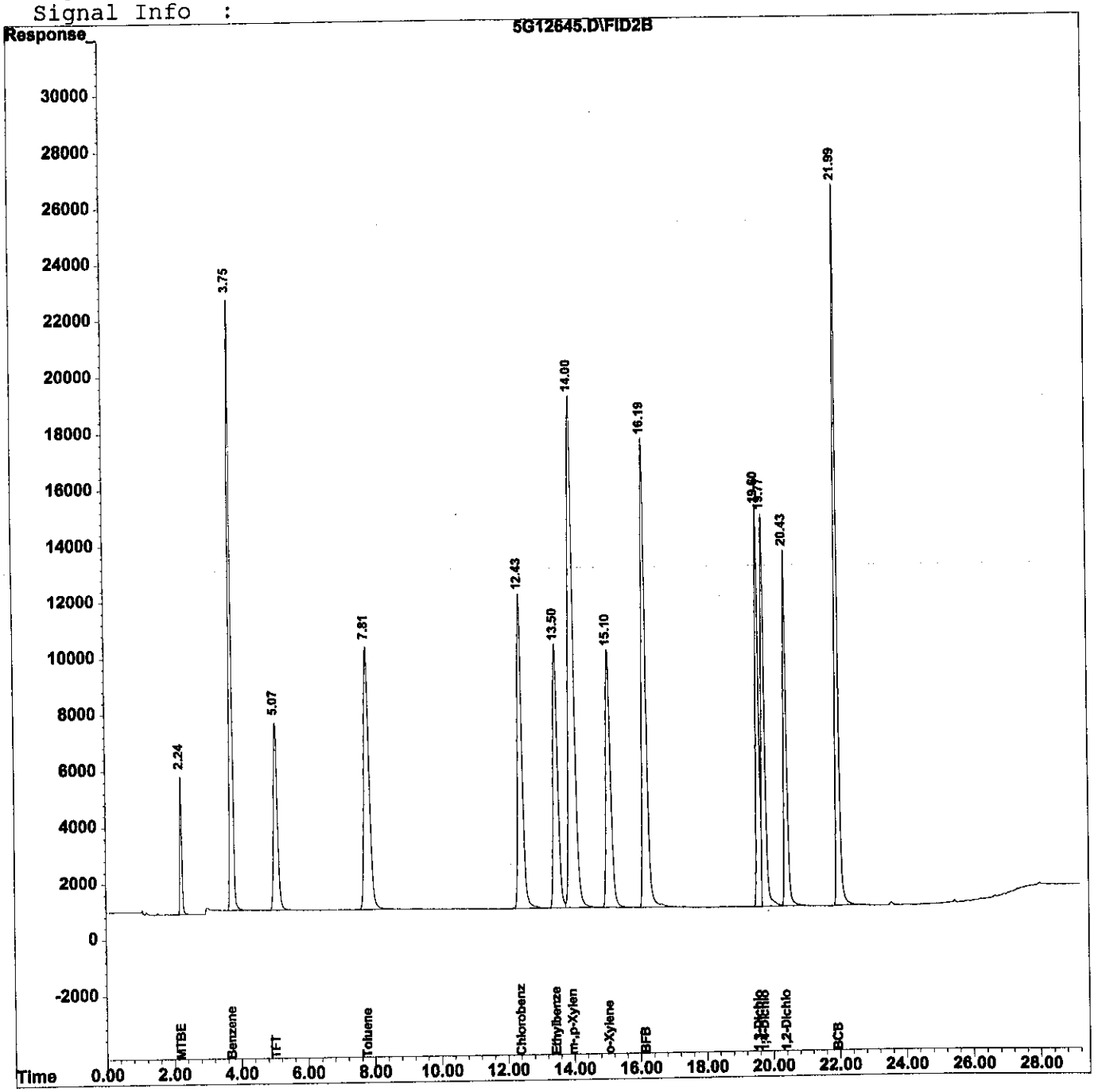
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G12645.D 8021W.M Wed Mar 20 07:04:02 2002 Page 1

Data File : C:\HPCHEM\2\DATA\031902\5G12645.D
Acq On : 19 Mar 2002 22:54
Sample : WG114704-04 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,31)
IntFile : autoint1.e
Quant Time: Mar 19 23:24 2002 Quant Results File: 8021W.RES

Vial: 15
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12645.D Vial: 15
Acq On : 19 Mar 2002 22:54 Operator: CBN
Sample : WG114704-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 23:24 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	555143	32.8764 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.59%
9) S BFB	16.20	1410784	29.2343 ug/L
Spiked Amount 30.000		Recovery =	97.45%
13) S BCB	21.99	1389049	29.6497 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	98.83%
Target Compounds			
1) TM MTBE	2.24	191316	17.2640 ug/L
2) TM Benzene	3.75	1114039	19.0552 ug/L
4) TM Toluene	7.81	1025678	19.6142 ug/L
5) TM Chlorobenzene	12.44	1078671	19.4442 ug/L
6) TM Ethylbenzene	13.51	892098	19.9586 ug/L
7) TM m-,p-Xylene	14.00	2081780	38.4811 ug/L
8) TM o-Xylene	15.10	896294	19.1093 ug/L
10) TM 1,3-Dichlorobenzene	19.60	871492	19.2060 ug/L
11) TM 1,4-Dichlorobenzene	19.77	949511	19.4509 ug/L
12) TM 1,2-Dichlorobenzene	20.43	771300	19.5343 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 19-Mar-02
Filename: 5G12619
Sub Directory: 031902
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.241	**2.218**	**2.264**
benzene	3.759	**3.729**	**3.789**
1,1,1-trifluorotoluene (SS)	5.079	**5.035**	**5.123**
toluene	7.814	**7.746**	**7.882**
chlorobenzene	12.423	**12.346**	**12.500**
ethylbenzene	13.497	**13.411**	**13.583**
m+p-xylene	13.991	**13.888**	**14.094**
o-xylene	15.088	**14.985**	**15.191**
bromofluorobenzene (SS)	16.180	**16.094**	**16.266**
1,3-dichlorobenzene	19.577	**19.512**	**19.642**
1,4-dichlorobenzene	19.745	**19.681**	**19.809**
1,2-dichlorobenzene	20.403	**20.346**	**20.460**
bromochlorobenzene (SS)	21.956	**21.903**	**22.009**

INSTRUMENT:	HP5	**MATRIX:**	WATER
CONT STD #1:	5G11797	**DATE #1:**	9-Jan-02
CONT STD #2:	5G11808	**DATE #2:**	10-Jan-02
CONT STD #3:	5G11824	**DATE #3:**	10-Jan-02

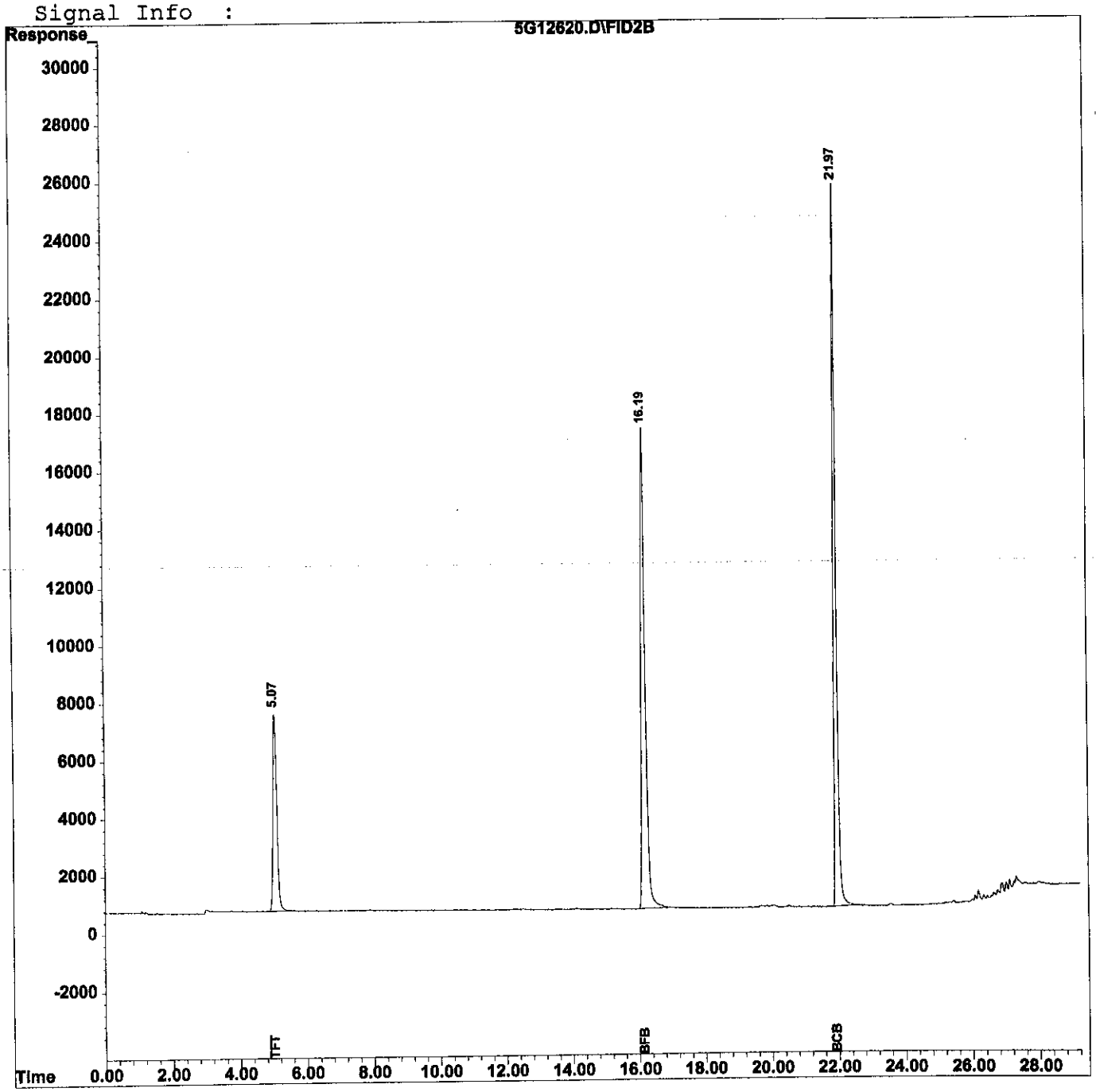
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.319	2.304	2.312	2.312	0.008	**0.023**
benzene	3.883	3.863	3.875	3.874	0.010	**0.030**
1,1,1-trifluorotoluene (SS)	5.246	5.217	5.231	5.231	0.015	**0.044**
toluene	8.082	8.039	8.049	8.057	0.023	**0.068**
chlorobenzene	12.683	12.635	12.643	12.654	0.026	**0.077**
ethylbenzene	13.748	13.695	13.702	13.715	0.029	**0.086**
m+p-xylene	14.244	14.182	14.187	14.204	0.034	**0.103**
o-xylene	15.328	15.266	15.271	15.288	0.034	**0.103**
bromofluorobenzene (SS)	16.400	16.347	16.355	16.367	0.029	**0.086**
1,3-dichlorobenzene	19.750	19.710	19.715	19.725	0.022	**0.065**
1,4-dichlorobenzene	19.915	19.876	19.880	19.890	0.021	**0.064**
1,2-dichlorobenzene	20.561	20.526	20.530	20.539	0.019	**0.057**
bromochlorobenzene (SS)	22.097	22.064	22.069	22.077	0.018	**0.053**

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\031902\5G12620.D Vial: 2
Acq On : 19 Mar 2002 7:47 Operator: CBN
Sample : WG114705-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 8:16 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12620.D Vial: 2
Acq On : 19 Mar 2002 7:47 Operator: CBN
Sample : WG114705-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-91-31 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 8:16 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

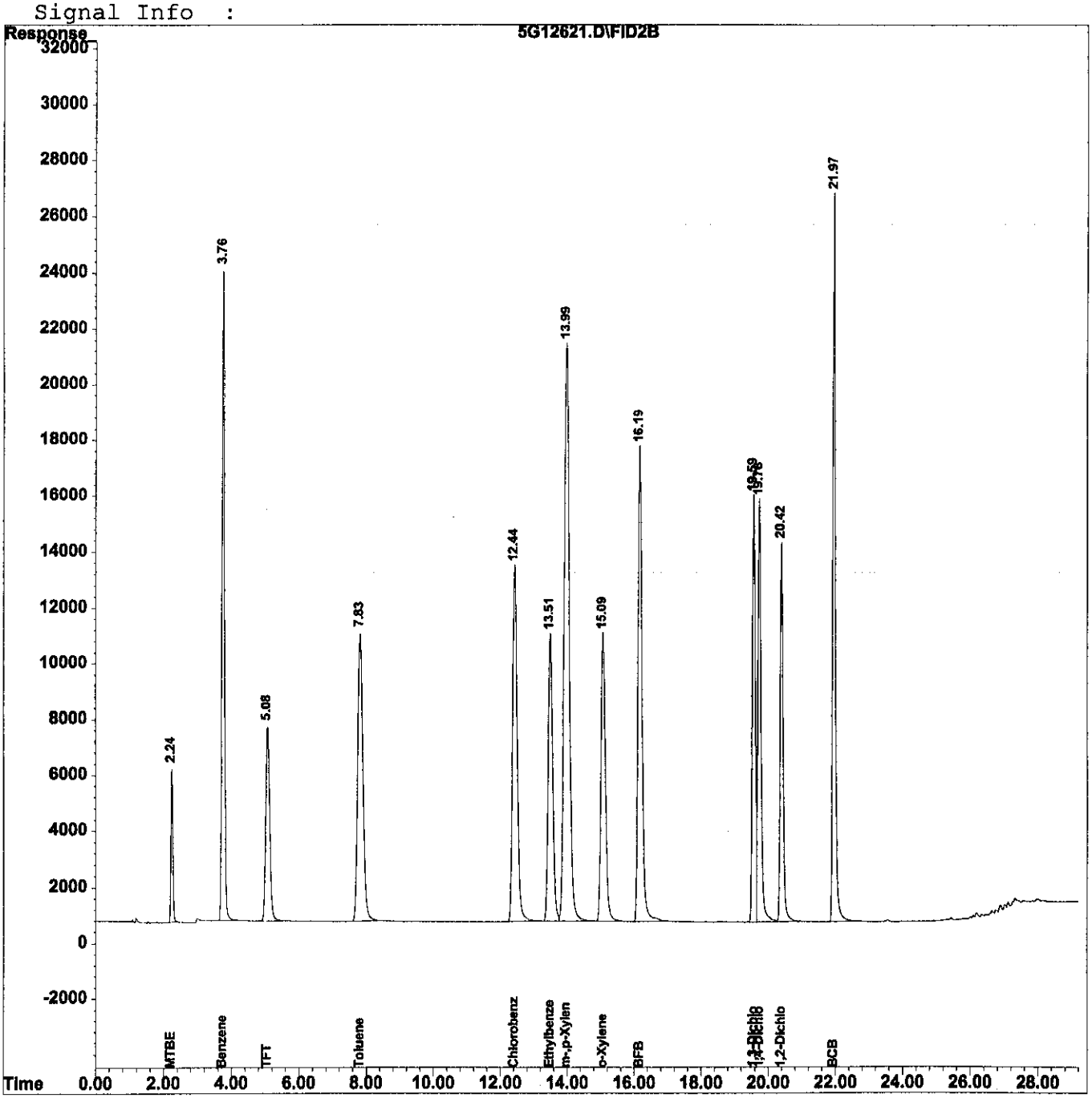
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.07	565424	33.4852 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	111.62%
9) S BFB	16.19	1397698	28.9631 ug/L
Spiked Amount 30.000		Recovery =	96.54%
13) S BCB	21.97	1353352	28.8877 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	96.29%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031902\5G12621.D Vial: 3
Acq On : 19 Mar 2002 8:33 Operator: CBN
Sample : WG114705-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 9:03 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031902\5G12621.D Vial: 3
Acq On : 19 Mar 2002 8:33 Operator: CBN
Sample : WG114705-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-91-(30,31) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 19 9:03 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 02/20/02
Last Update : Thu Feb 21 07:37:12 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.08	566300	33.5371 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 111.79%			
9) S BFB	16.19	1417479	29.3730 ug/L
Spiked Amount 30.000 Recovery = 97.91%			
13) S BCB	21.97	1392137	29.7156 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 99.05%			
Target Compounds			
1) TM MTBE	2.24	209201	18.8779 ug/L
2) TM Benzene	3.76	1193377	20.4122 ug/L
4) TM Toluene	7.83	1103000	21.0103 ug/L
5) TM Chlorobenzene	12.44	1209559	21.8036 ug/L
6) TM Ethylbenzene	13.51	960573	21.3901 ug/L
7) TM m-,p-Xylene	13.99	2240533	41.3649 ug/L
8) TM o-Xylene	15.09	955614	20.3740 ug/L
10) TM 1,3-Dichlorobenzene	19.59	920547	20.2871 ug/L
11) TM 1,4-Dichlorobenzene	19.76	1002274	20.5318 ug/L
12) TM 1,2-Dichlorobenzene	20.42	812442	20.5763 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: c:\hpchem\2\data\022002

WG113234
⊥ 278

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12231.d	1.	WG113234-01 8021 STD 20PPB 5ML	1,1 S-90-(28,15)	20 Feb 102 12::0
2	2	5g12232.d	1.	WG113234-01 8021 STD 20PPB 5ML ⊥	1,1 S-90-(28,15)	20 Feb 102 12::5
3	2	5g12233.d	1.	WG113244-01 STD 1 1PPB 5ML	1,1 S-89-49,90-39	20 Feb 102 12::4
4	3	5g12234.d	1.	WG113244-01 STD 1 1PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 12::2
5	4	5g12235.d	1.	WG113244-02 STD 2 10PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 12::5
6	5	5g12236.d	1.	WG113244-03 STD 3 20PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 13::3
7	6	5g12237.d	1.	WG113244-04 STD 4 50PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 13::0
8	7	5g12238.d	1.	WG113244-05 STD 5 100PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 13::4
9	8	5g12239.d	1.	WG113244-06 STD 6 200PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 13::1
10	9	5g12240.d	1.	WG113244-07 STD 7 300PPB 5ML ✓	1,1 S-89-49,90-39	20 Feb 102 13::5
11	10	5g12241.d	1.	RINSE ✓	1,1 S-90-39	20 Feb 102 12::2
12	11	5g12242.d	1.	RINSE ✓	1,1 S-90-39	20 Feb 102 12::0
13	12	5g12243.d	1.	WG113244-08 ALT SOURCE 20PPB 5ML ✓	1,1 S-90-(28,39)	20 Feb 102 12::3
14	1	5g12244.d	1.	WG113278-01 STD 1 90PPB 5ML ✓	1,1 S-90-(08,42)	20 Feb 102 12::4
15	2	5g12245.d	1.	WG113278-02 STD 2 360PPB 5ML ✓	1,1 S-90-(08,42)	20 Feb 102 12::1
16	3	5g12246.d	1.	WG113278-03 STD 3 900PPB 5ML ✓	1,1 S-90-(08,42)	20 Feb 102 12::5
17	4	5g12247.d	1.	WG113278-04 STD 4 1800PPB 5ML ✓	1,1 S-90-(08,42)	20 Feb 102 12::2
18	5	5g12248.d	1.	WG113278-05 STD 5 3600PPB 5ML ✓	1,1 S-90-(08,42)	20 Feb 102 12::0
19	6	5g12249.d	1.	WG113278-06 STD 6 7200PPB 5ML	1,1 S-90-(08,42)	20 Feb 102 12::3
20	7	5g12250.d	1.	RINSE ✓	1,1 S-90-42	20 Feb 102 12::1
21	8	5g12251.d	1.	RINSE ✓	1,1 S-90-42	20 Feb 102 12::4
22	9	5g12252.d	1.	WG113278-07 ALT SOURCE 900PPB 5ML ✓	1,1 S-90-(08,42)	20 Feb 102 12::1

Injection Log

WG114705

Directory: c:\hpchem\2\data\031902

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g12619.d	1.	WG114704-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::0
2	2	5g12620.d	1.	WG114705-01 WATER BLANK 5ML ✓	1,1 S-91-31	19 Mar 102 12::4
3	3	5g12621.d	1.	WG114705-02 WATER LCS 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
4	1	5g12622.d	100.	WG114705-03 L0203296-04 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 12::1
5	2	5g12623.d	100.	WG114705-04 L0203296-04 MS A 5ML pH<2 1 ✓	1,100 S-91-(30,31)	19 Mar 102 12::5
6	3	5g12624.d	100.	WG114705-05 L0203296-04 MSD A 5ML pH<2 ✓	1,100 S-91-(30,31)	19 Mar 102 13::2
7	4	5g12625.d	100.	L0203296-05 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::0
8	5	5g12626.d	100.	L0203296-06 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::3
9	6	5g12627.d	100.	L0203296-07 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::1
10	7	5g12628.d	100.	L0203296-08 A 5ML pH<2 100X ✓	1,100 S-91-31	19 Mar 102 13::4
11	8	5g12629.d	1.	L0203296-09 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
12	9	5g12630.d	1.	WG114704-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::5
13	1	5g12631.d	1.	L0203296-10 B 5ML pH<2 HIGH SSS ✓	1,1 S-91-31	19 Mar 102 12::4
14	2	5g12632.d	1.	L0203296-10 B 5ML pH<2 CONF SMI	1,1,RE S-91-31	19 Mar 102 12::2
15	3	5g12633.d	1.	L0203297-01 B 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
16	4	5g12634.d	1.	L0203321-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::3
17	5	5g12635.d	1.	L0203321-04 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
18	6	5g12636.d	1.	L0203321-05 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
19	7	5g12637.d	1.	L0203321-06 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
20	8	5g12638.d	1.	L0203326-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::5
21	9	5g12639.d	1.	L0203326-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::2
22	10	5g12640.d	1.	L0203326-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::0
23	11	5g12641.d	1.	WG114704-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 12::3
24	12	5g12642.d	1.	L0203327-01 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::1
25	13	5g12643.d	1.	L0203327-02 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 12::4
26	14	5g12644.d	1.	L0203327-03 A 5ML pH<2 ✓	1,1 S-91-31	19 Mar 102 13::2
27	15	5g12645.d	1.	WG114704-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,31)	19 Mar 102 13::5

REANALYSIS	FILE #
L0203296-10	5G12632

2.2 Semivolatiles Data

2.2.6 Method 8011

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203326

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 was not associated with this sample delivery group.
SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CLK REVIEWED: _____ DATE: 3/28/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0203326

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 (If applicable)

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ___ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: CLK Date: 3/28/02

2.2.6.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203326
Blank File ID: 2G19587
Date Analyzed: 03/26/02
Time Analyzed: 20:58
Analyst: CLK

Work Group: WG115175
Blank Sample ID: WG114738-02
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	WG114738-03	2G19588	03/26/02 21:13	01
062-CEF46-12I-Q1-01-11	L0203326-01	2G19589	03/26/02 21:29	01
062-CEF46-15I-Q1-01-11	L0203326-02	2G19590	03/26/02 21:44	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203326 Run Date: 03/26/2002 Sample ID: WG114738-02
Instrument ID: HP2 Run Time: 20:58 Method: 8015 MOD
File ID: 2G19587 Analyst: CLK Matrix: Water
Workgroup (AAB#): WG115175 Units: ug/L
Contract #: Cal ID: HP2-26-MAR-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	114	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/27/2002 10:04

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203326
Run Date: 03/26/2002
Sample ID: WG114738-03
Instrument ID: HP2
Run Time: 21:13
Method: 8015 MOD
File ID: 2G19588
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG115175
Units: ug/L
Contract #:
Cal ID: HP2-26-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2520	74.2	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	104	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 03/27/2002 19:05

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG115175

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-12I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	7	0.979	26-MAR-02	7	7.28	*ANAL
062-CEF46-15I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	7	1.00	26-MAR-02	7	7.29	*ANAL

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0203326
Instrument Id: HP2
Workgroup (AAB#): WG115175

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203326-01	1.00	01	128
L0203326-02	1.00	01	114
WG114738-02	1.00	01	114
WG114738-03	1.00	01	104

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002

Calibration Files

5	=2G19585.D	50	=2G19584.D	100	=2G19583.D
200	=2G19582.D	400	=2G19581.D	600	=2G19580.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.599	3.431	3.377	3.285	2.758	3.420	3.145	E4	11.72
2)	s	O-Terphenyl	2.787	2.811	2.957	2.676	1.993	2.979	2.700	E4	13.50
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E

Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2770.051	18.5#	78	0.00
2	s	O-Terphenyl	200.000	2.666	98.7#	1	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Login Number: L0203326
File ID: 2G19595
CCV ID: WG115180-08
Units: mg/L

Instrument ID: HP2
Run Date: 03/26/2002
Run Time: 23:01
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte	Expected	Found	RF	%D	Q
n-Nonatriacontane	200		0		
Petroleum Range	3400	3330	30800	2.1	

* Exceeds %D Limit

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g19548.d	1.	NA CH2CL2	1,1	26 Mar 102 13::2
2	1	2g19549.d	1.	CH2CL2	1,1	26 Mar 102 13::4
3	2	2g19550.d	1.	✓ win def std	1,1 NS 14-41	26 Mar 102 13::5
4	3	2g19551.d	1.	✓ JP-4 2000ppm Qualitative STD	1,1 SOS 59-03	26 Mar 102 12::0
5	4	2g19552.d	1.	WG115131-03 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
6	5	2g19553.d	1.	WG115131-06 10000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::2
7	6	2g19554.d	1.	WG115131-05 5000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::3
8	7	2g19555.d	1.	WG115131-04 2500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::4
9	8	2g19556.d	1.	WG115131-02 500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::0
10	9	2g19557.d	1.	WG115131-01 100ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::1
11	10	2g19558.d	1.	WG115131-07 1000ppm DRO Alt Source STD	1,1 SOS 58-20	26 Mar 102 12::2
12	11	2g19559.d	1.	RR DRO SPK @ 1000ppm ESS0041-02	1,1	26 Mar 102 12::3
13	12	2g19560.d	1.	✓ L0203345-01 WATER DRO	1,1	26 Mar 102 12::5
14	13	2g19561.d	1.	L0203345-03 WATER DRO	1,1	26 Mar 102 12::0
15	14	2g19562.d	1.	L0203345-04 WATER DRO	1,1	26 Mar 102 12::1
16	15	2g19563.d	1.	L0203345-02 WATER DRO	1,1	26 Mar 102 12::2
17	1	2g19564.d	1.	NA CH2CL2	1,1	26 Mar 102 12::3
18	1	2g19565.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
19	4	2g19566.d	1.	✓ WG115131-08 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::5
20	16	2g19567.d	1.	RR L0203407-02 WATER DRO	1,1	26 Mar 102 12::2
21	17	2g19568.d	20.	✓ L0203407-02 WATER DRO 20X	1,20	26 Mar 102 12::3
22	1	2g19569.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
23	1	2g19570.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
24	4	2g19571.d	1.	✓ WG115131-09 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::0
25	18	2g19572.d	1.	L0203340-01 SOIL DRO	7,1 SOIL	26 Mar 102 12::2
26	19	2g19573.d	1.	L0203340-02 SOIL DRO	7,1 SOIL	26 Mar 102 12::3
27	20	2g19574.d	1.	L0203340-03 SOIL DRO	7,1 SOIL	26 Mar 102 12::4
28	1	2g19575.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
29	1	2g19576.d	1.	NA CH2CL2	1,1	26 Mar 102 12::0
30	4	2g19577.d	1.	✓ WG115131-10 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
31	21	2g19578.d	1.	RR DRO SPK @ 1000 ESS0041-02	1,1	26 Mar 102 12::3
32	1	2g19579.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
33	2	2g19580.d	1.	✓ WG115180-06 600ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
34	3	2g19581.d	1.	WG115180-05 400ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
35	4	2g19582.d	1.	WG115180-04 200ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::4
36	5	2g19583.d	1.	WG115180-03 100ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::5
37	6	2g19584.d	1.	WG115180-02 50ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
38	7	2g19585.d	1.	WG115180-01 5ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
39	8	2g19586.d	1.	WG115180-07 200ppm PRO Alt Source STD	1,1 SOS 59-1	26 Mar 102 12::4
40	9	2g19587.d	1.	WG114738-02 BLK 3/19 V182P27	1,1	26 Mar 102 12::5
41	10	2g19588.d	1.	WG114738-03 LCS 3/19 V182P27	1,1	26 Mar 102 12::1
42	11	2g19589.d	1.	L0203326-01 PRO WATER	1,1	26 Mar 102 12::2
43	12	2g19590.d	1.	L0203326-02 PRO WATER	1,1	26 Mar 102 12::4
44	13	2g19591.d	1.	L0203327-01 PRO WATER	1,1	26 Mar 102 12::5
45	14	2g19592.d	1.	L0203327-02 PRO WATER	1,1	26 Mar 102 13::1
46	1	2g19593.d	1.	NA CH2CL2	1,1	26 Mar 102 13::3
47	1	2g19594.d	1.	NA CH2CL2	1,1	26 Mar 102 13::4
48	4	2g19595.d	1.	✓ WG115180-08 200ppm PRO CCV	1,1 SOS 59-6	26 Mar 102 13::0
49	15	2g19596.d	1.	L0203327-03 PRO WATER	1,1	26 Mar 102 13::1
50	16	2g19597.d	1.	WG114738-01 L0203327-04 PRO WATER REF	1,1	26 Mar 102 13::3
51	17	2g19598.d	1.	WG114738-04 L0203327-05 PRO WATER MS	1,1	26 Mar 102 13::4

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
5	18	2g19599.d	1.	✓ WG114738-05 L0203327-06 PRO WATER MSD	1,1	27 Mar 102 13::0
53	19	2g19600.d	1.	L0203327-07 PRO WATER	1,1	27 Mar 102 13::1
54	20	2g19601.d	1.	L0203327-08 PRO WATER	1,1	27 Mar 102 13::3
55	21	2g19602.d	1.	L0203327-09 PRO WATER	1,1	27 Mar 102 13::4
56	1	2g19603.d	1.	NA CH2CL2	1,1	27 Mar 102 12::0
57	4	2g19604.d	1.	✓ WG115180-09 200ppm CCV	1,1 SOS 59-6	27 Mar 102 12::1
58	22	2g19605.d	1.	NA 500ppm PRO ALT Check 1	1,1 SOS 59-1	27 Mar 102 12::5
59	23	2g19606.d	1.	600ppm PRO STD Check	1,1 SOS 59-6	27 Mar 102 13::2
60	24	2g19607.d	1.	500ppm PRO ALT CHECK II	1,1 STOCK (New Vial)	27 Mar 102 13::3
61	25	2g19608.d	1.	200ppm PRO STD CHK	1,1 SOS 59-6 Remix	27 Mar 102 13::5

CLK 3/27/02
REC 3/27/02

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/26/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 032602

Analyst Initials ____

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check

- [x] Gases >500 psi

Preventative Maintenance

- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [x] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?

Yes ✓ No ____

Additional Maintenance

Problem: Injection Port Pressure low

Action Taken: Replaced instrument weld, Replaced pre-column, Changed Gold Seal

Comments

DRO SPK @ 1000 ppm ESS0041-02, low (2g19559)

L0203407-02 WATER DRO, Needs 20X
⊥ -02 ⊥ ⊥ 20X, Dilution Good, Reported, SS DC

DRO SPK @ 1000 ESS0041-02, high (2g19578)

Files (2g19605 - 2g19603), (Check study)

Reviewed By: RJC 3/27/02

Parameter: PRO H_2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): RLK TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 @1440 Date TV/KD: 03/19/02
Spike/Surrogate Analyst: RLK Witness: CEB
Surrogate #: EJJ0040-18 Earliest Hold Date: 3/25
Spike #: A = EJJ0040-19 Spike #: B = –

Extraction Work Group WG 114738
Analytical Work Group WG 115175

Extract Relinquished By: DP
Extract Received By & Date: CLK 3/19/02

	Sample ID	Test Code	pH √ <2	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 114738-02
2	LCS		✓			↓		1mL		T				WG ↓ -03
3	03-326-01	FLA-PRO	✓			930mL				C	✓			*
4	-02		✓			950mL				T				
5	03-327-01		✓							C	✓			
6	-02		✓							C	✓			
7	-03		✓							C	✓			
8	-04		✓			940mL				T				WG 114738-01
9	-05MS		✓			950mL		1mL		T				* ↓ -04
10	-06MSD		✓			↓		↓		T				* ↓ -05
11	-07		✓			940mL				T				
12	-08		✓			↓				T				
13	-09	↓	✓			950mL	↓		↓	T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/19/02

Methylene Chloride Lot #: 42015
Hexane Lot #: ✓
Ether Lot #: –
Methanol Lot #: –
Solvent: – Lot #: –
Reagent: – Lot #: –
Reagent: – Lot #: –
Reagent: – Lot #: –
Acid: 1:1 HCl Lot #: EL2084
Florisil Lot #: –
Silica Gel Lot #: V32555
IR Analyst / Date / Time: –
Dried Na_2SO_4 Lot #: EL2075

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/19/02

Extraction Notes For Volume # 182 Page # 27

General Comments: * MS, MSD OF 03-327-04

Extraction Anomalies: & a Very Thick Emulsion during Extraction.

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.6.2 Sample Data

Data File : C:\HPCHEM\1\DATA\032602\2G19589.D Vial: 11
Acq On : 26 Mar 2002 21:29 Operator: CLK
Sample : L0203326-01 PRO WATER Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

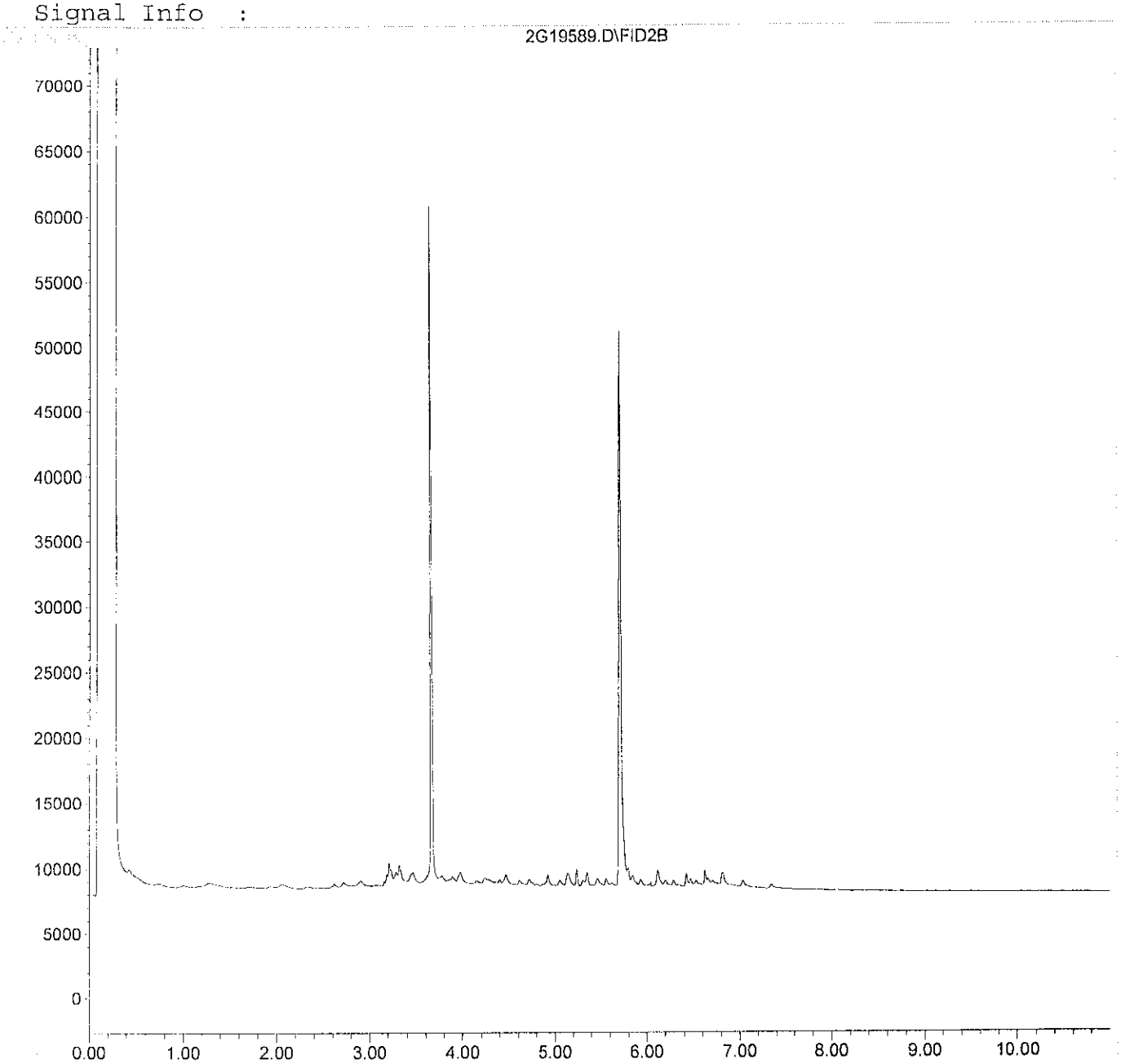
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	691572	25.610 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	128.05%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2369076	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19589.D Vial: 11
Acq On : 26 Mar 2002 21:29 Operator: CLK
Sample : L0203326-01 PRO WATER Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19590.D
Acq On : 26 Mar 2002 21:44
Sample : L0203326-02 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 12
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	613218	22.708 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	113.54%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1846254	<MDL ppb

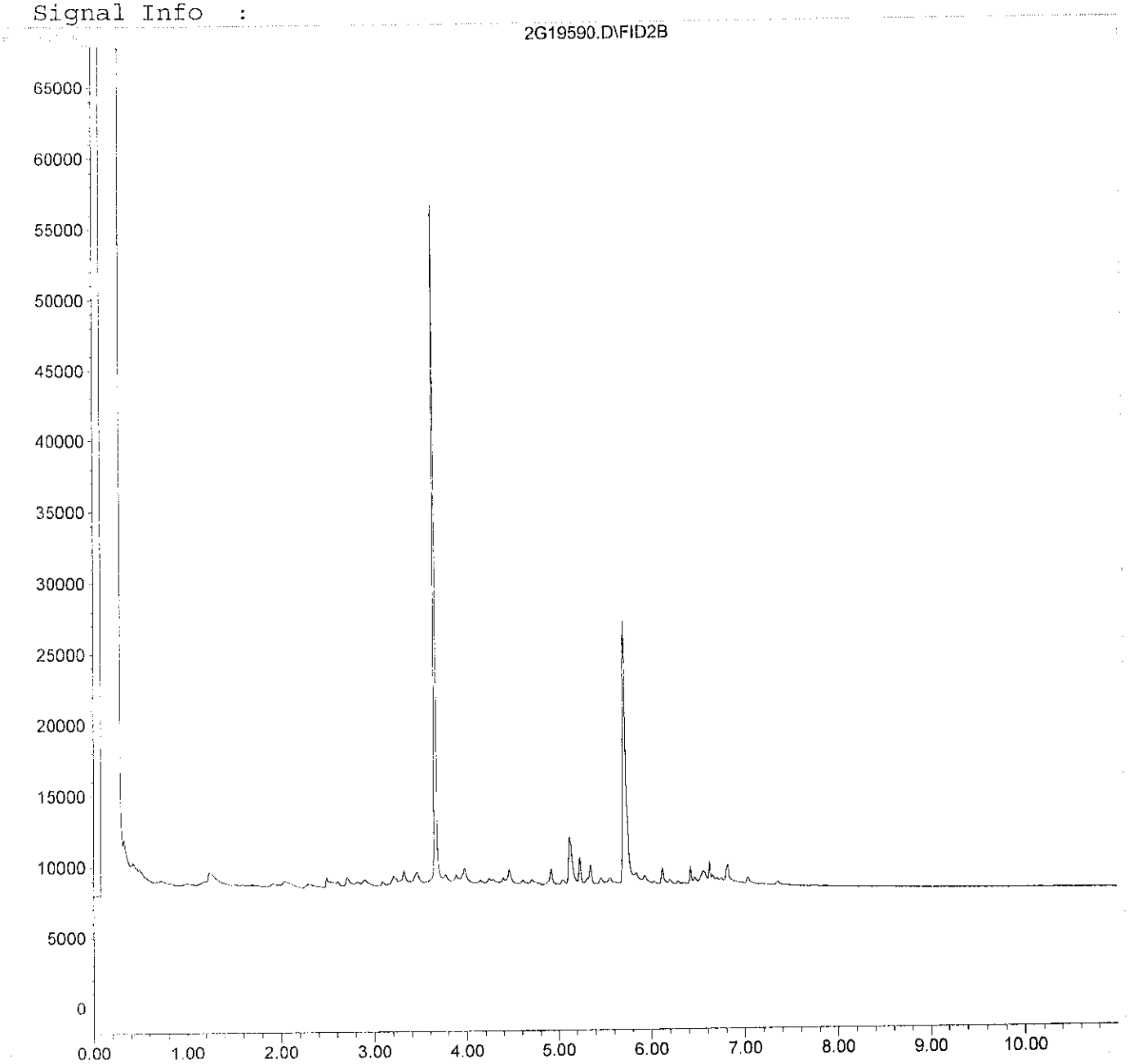
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19590.D
Acq On : 26 Mar 2002 21:44
Sample : L0203326-02 PRO WATER
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 12
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.6.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002

Calibration Files

5	=2G19585.D	50	=2G19584.D	100	=2G19583.D
200	=2G19582.D	400	=2G19581.D	600	=2G19580.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.599	3.431	3.377	3.285	2.758	3.420	3.145	E4	11.72
2)	s	O-Terphenyl	2.787	2.811	2.957	2.676	1.993	2.979	2.700	E4	13.50
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\032602\2G19580.D
Acq On : 26 Mar 2002 19:10
Sample : WG115180-06 600ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 2
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:23:38 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	17874205	661.898 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 3309.49%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	348822762	11091.432 ppb

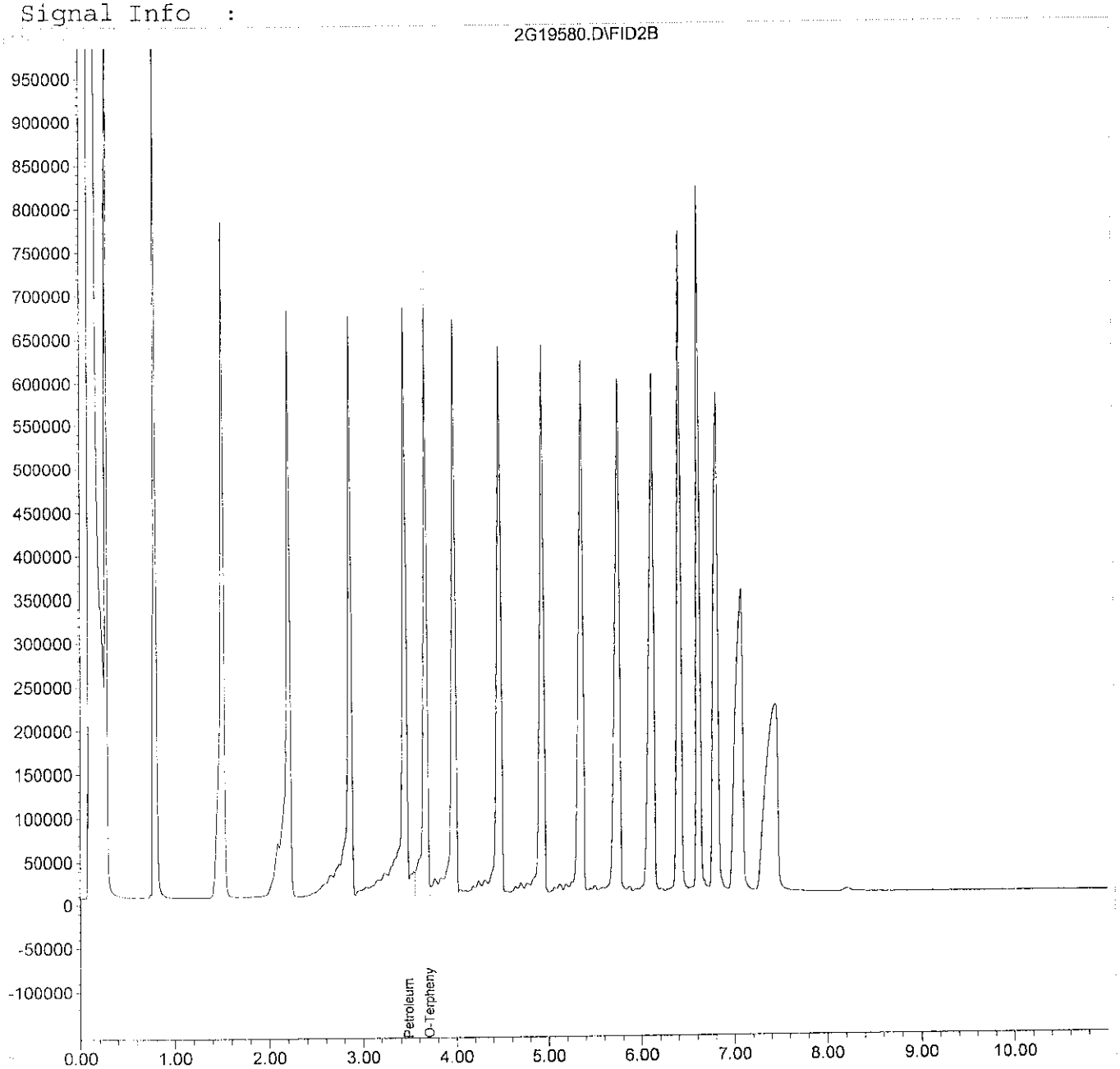
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19580.D
Acq On : 26 Mar 2002 19:10
Sample : WG115180-06 600ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 2
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:23:38 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19581.D
Acq On : 26 Mar 2002 19:26
Sample : WG115180-05 400ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	7972510	295.229 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1476.15%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	187550130	5963.485 ppb

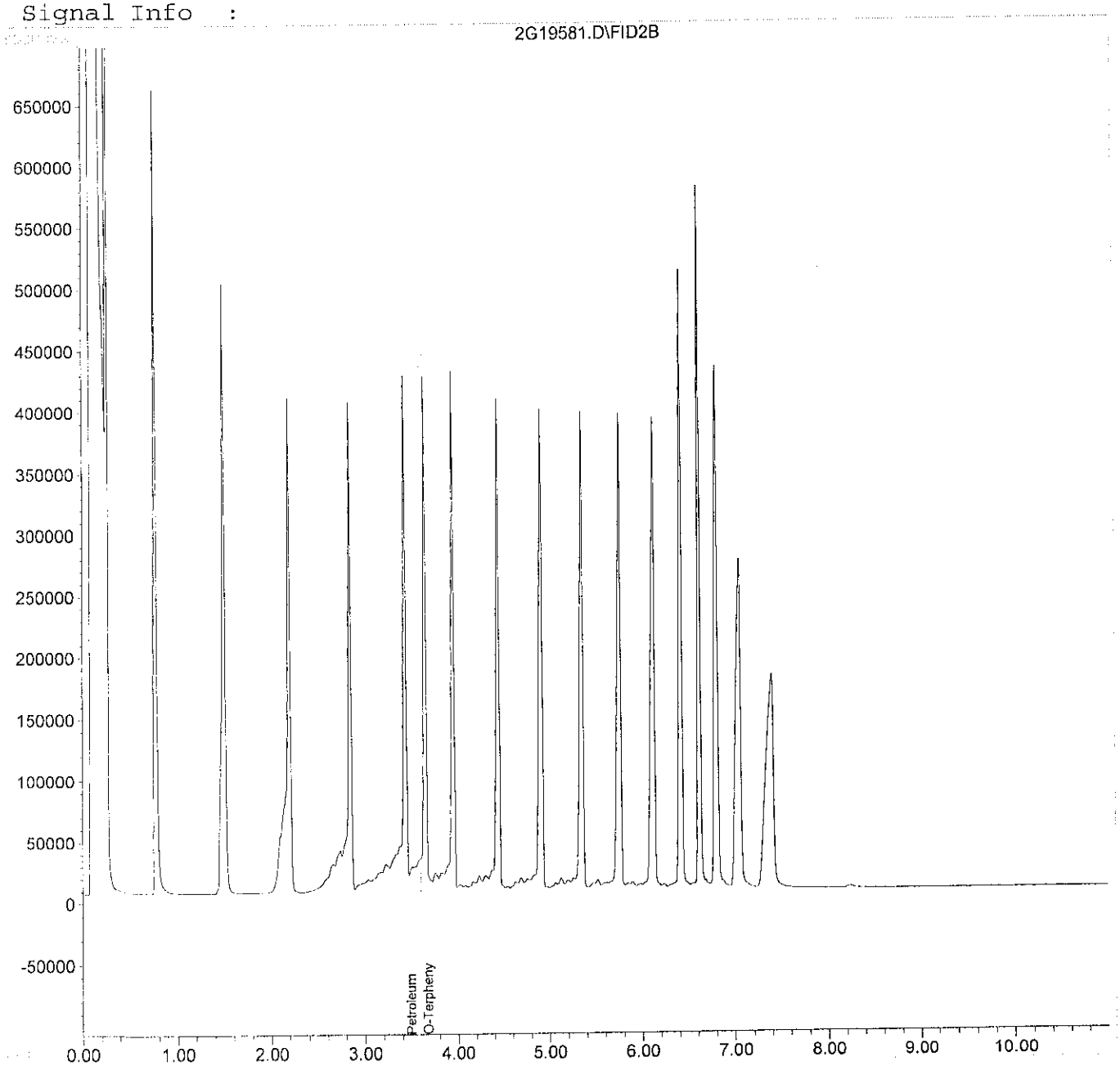
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19581.D
Acq On : 26 Mar 2002 19:26
Sample : WG115180-05 400ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19582.D
Acq On : 26 Mar 2002 19:41
Sample : WG115180-04 200ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.65	5351263	198.162 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	990.81%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	111694516	3551.523 ppb

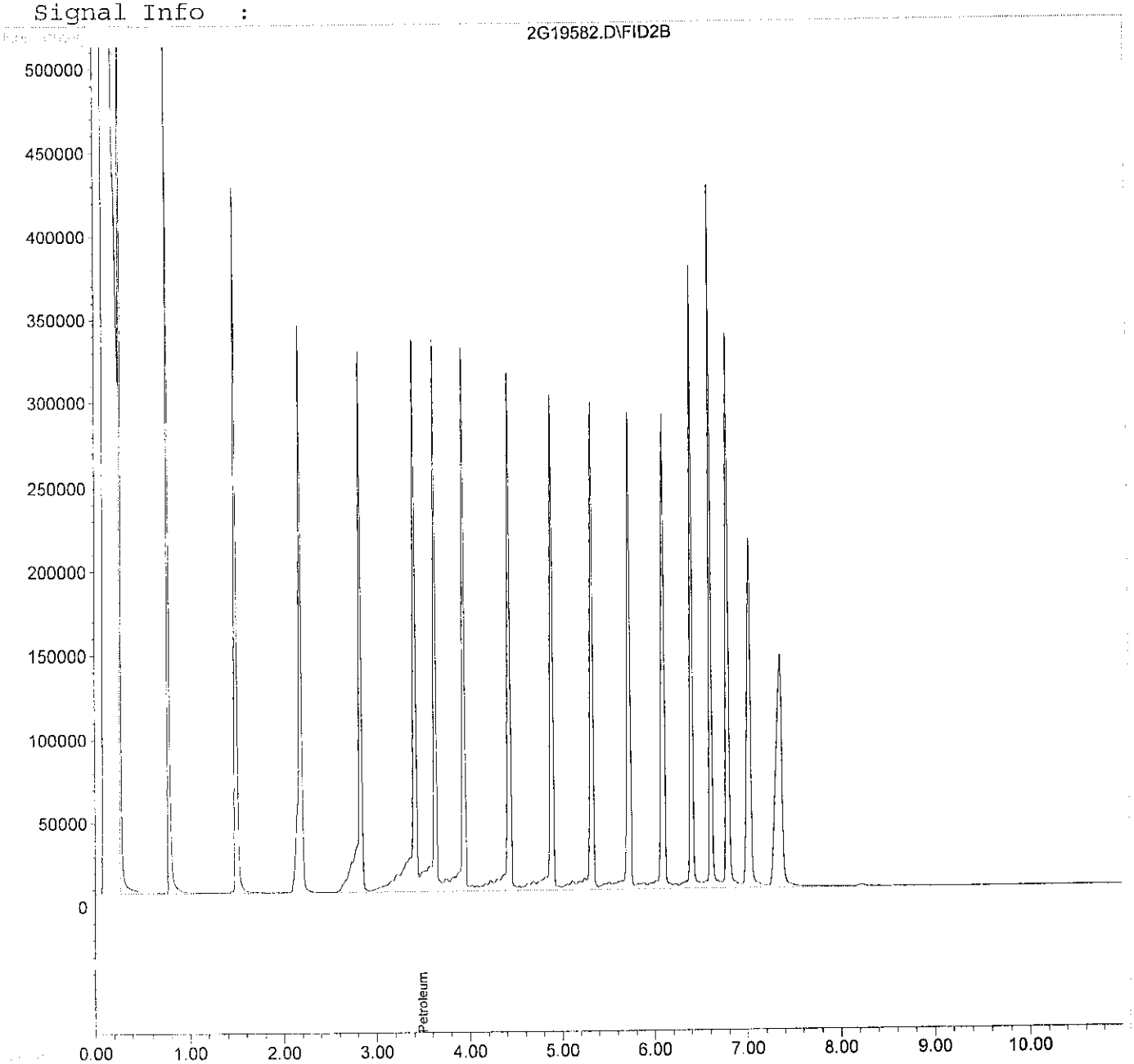
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19582.D
Acq On : 26 Mar 2002 19:41
Sample : WG115180-04 200ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19583.D
Acq On : 26 Mar 2002 19:56
Sample : WG115180-03 100ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	2957241	109.509 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 547.55%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	57410555	1825.469 ppb

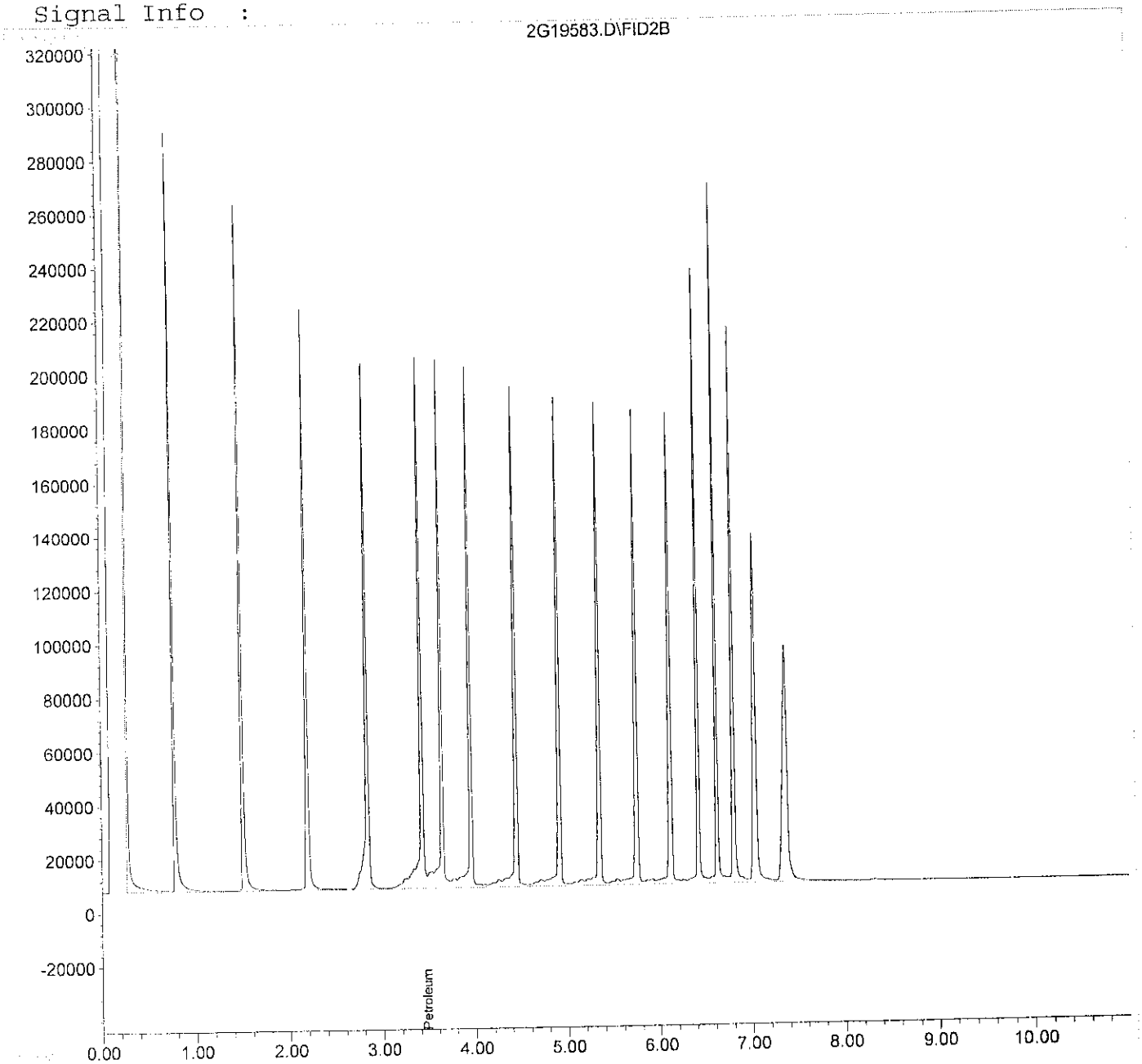
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19583.D
Acq On : 26 Mar 2002 19:56
Sample : WG115180-03 100ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19584.D
Acq On : 26 Mar 2002 20:12
Sample : WG115180-02 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	1405349	52.041 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	260.21%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	29163598	927.308 ppb

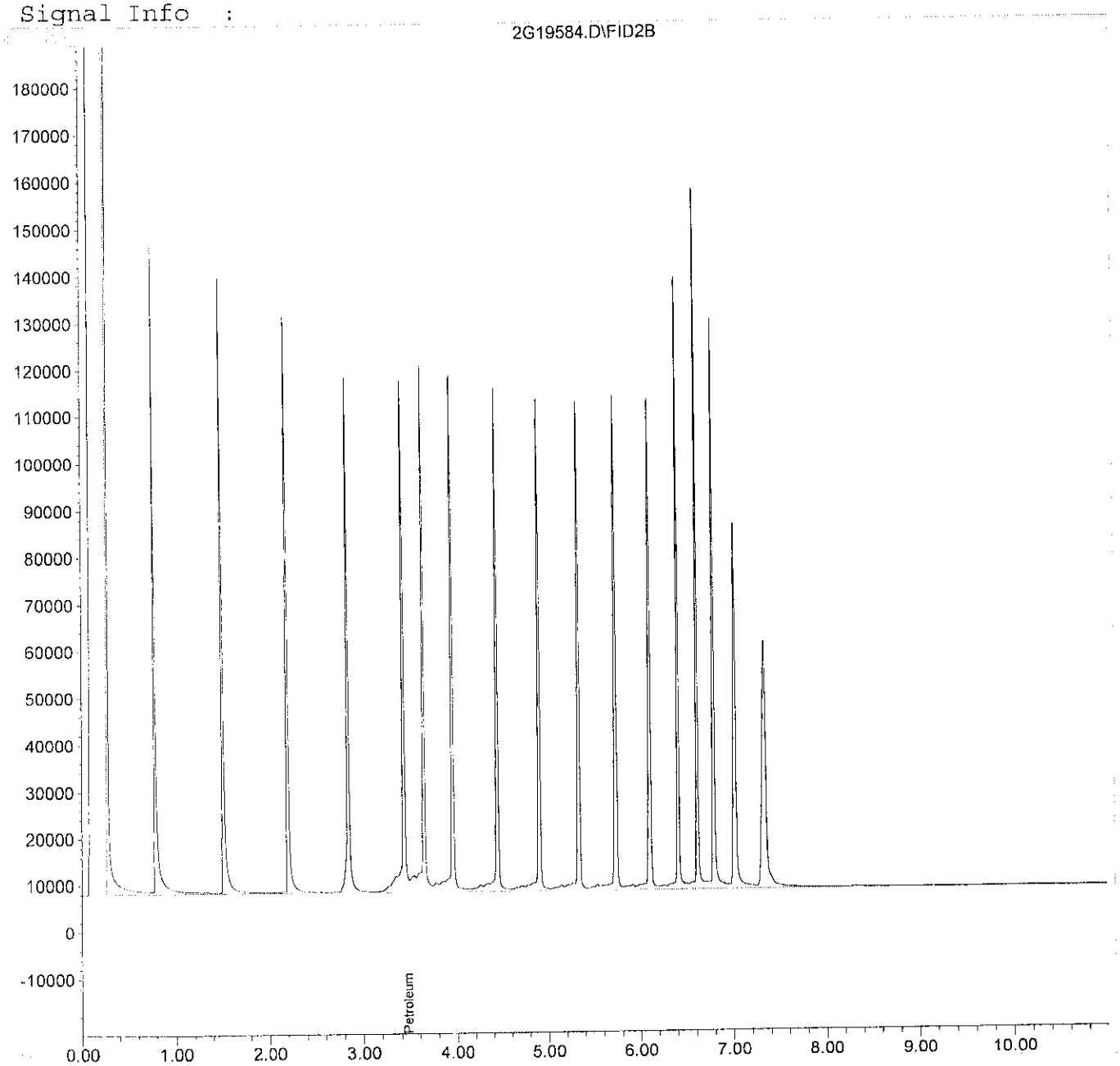
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19584.D
Acq On : 26 Mar 2002 20:12
Sample : WG115180-02 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19585.D
Acq On : 26 Mar 2002 20:27
Sample : WG115180-01 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	139347	5.160 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	25.80%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2208890	<MDL ppb

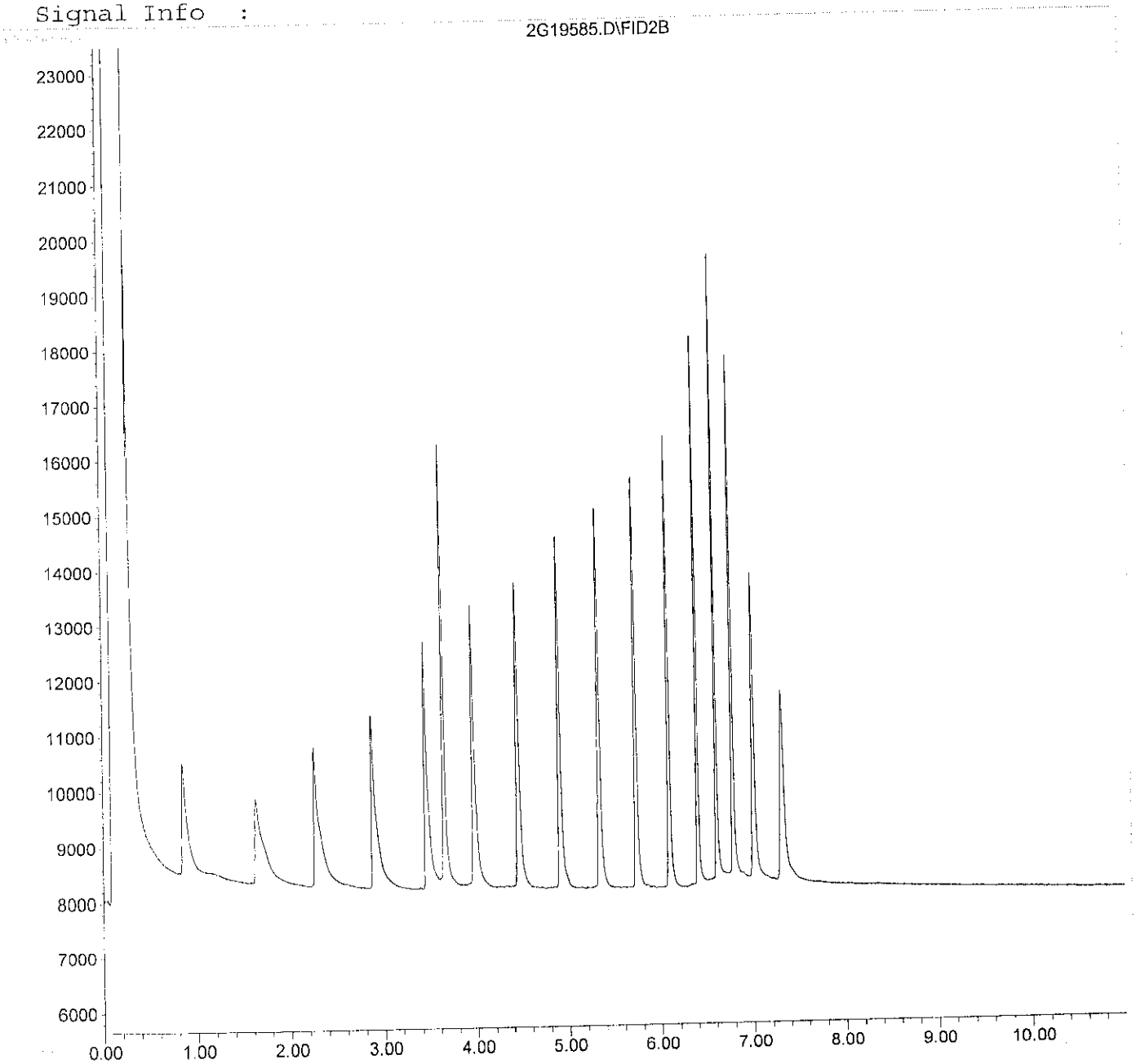
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19585.D
Acq On : 26 Mar 2002 20:27
Sample : WG115180-01 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2770.051	18.5#	78	0.00
2	s	O-Terphenyl	200.000	2.666	98.7#	1	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Mar 27 11:40 2002 Quant Results File: FLASHPRO.RES

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.63	71990	2.666 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	13.33%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	87117421	2770.051 ppb

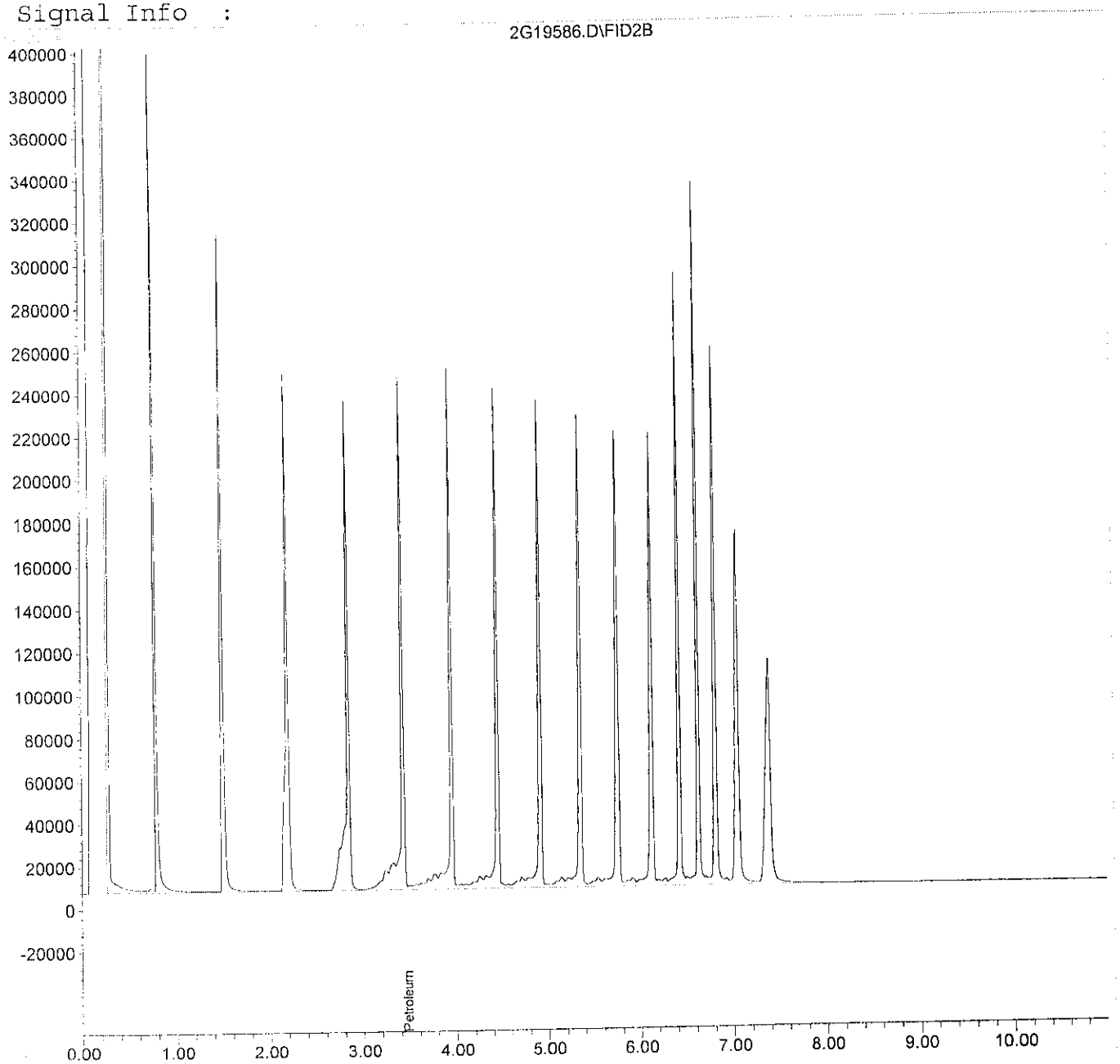
(f)=RT Delta > 1/2 Window
(m)=manual int

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E
Quant Time: Mar 27 11:40 2002 Quant Results File: FLASHPRO.RES

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19595.D
Acq On : 26 Mar 2002 23:01
Sample : WG115180-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3331.364	2.0	94	0.00
2	s	O-Terphenyl	200.000	184.006	8.0	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032602\2G19595.D
Acq On : 26 Mar 2002 23:01
Sample : WG115180-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032602\2G19595.D
Acq On : 26 Mar 2002 23:01
Sample : WG115180-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:52 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	4968975	184.006 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	920.03%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	104770583	3331.364 ppb

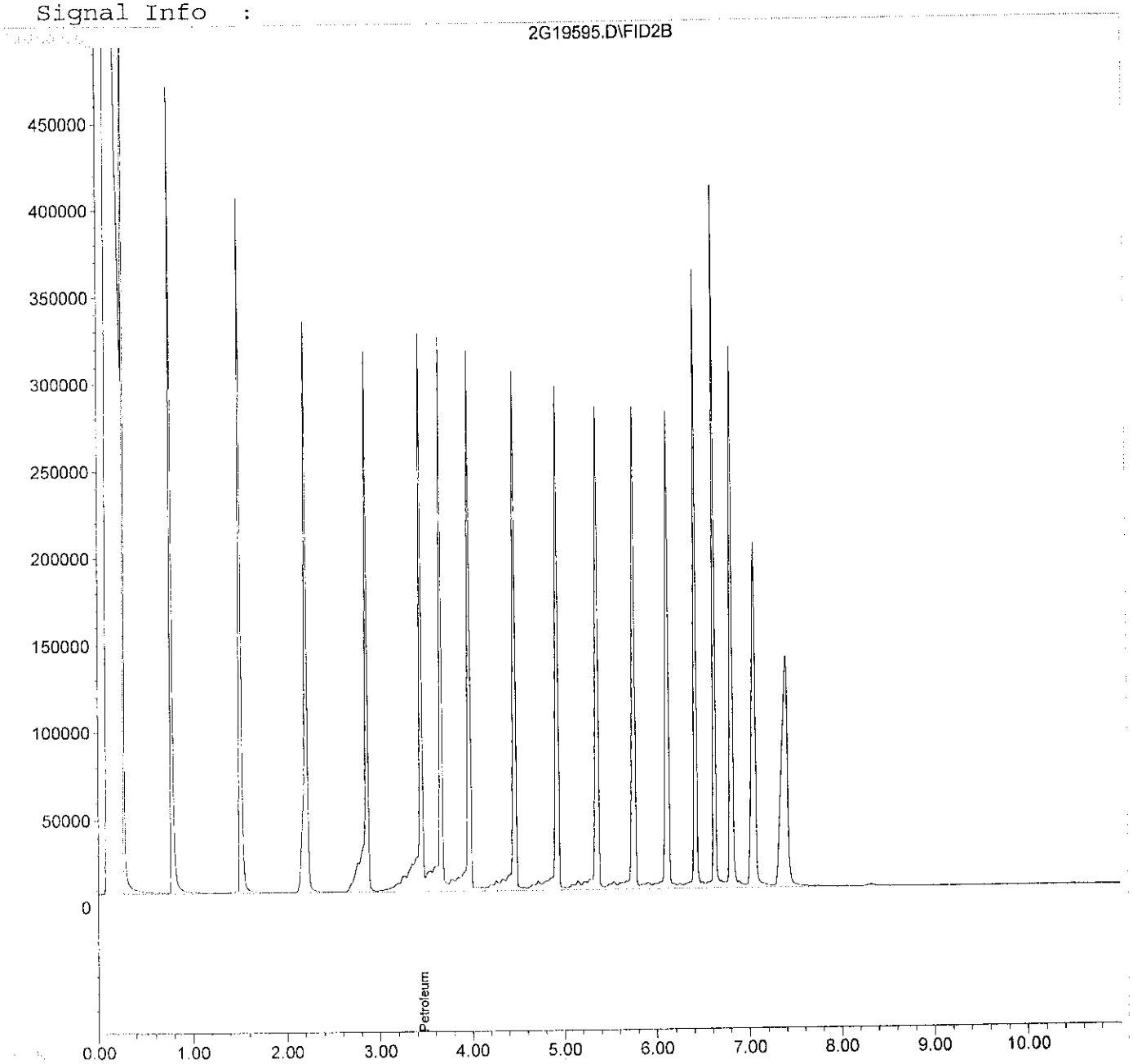
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19595.D
Acq On : 26 Mar 2002 23:01
Sample : WG115180-08 200ppm PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:52 2002 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:52:31 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-2

GC Column: RTX-5

	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

2.2.6.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\032602\2G19587.D
Acq On : 26 Mar 2002 20:58
Sample : WG114738-02 BLK 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:48 2002 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.65	617033	22.849 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	114.25%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1714669	<MDL ppb

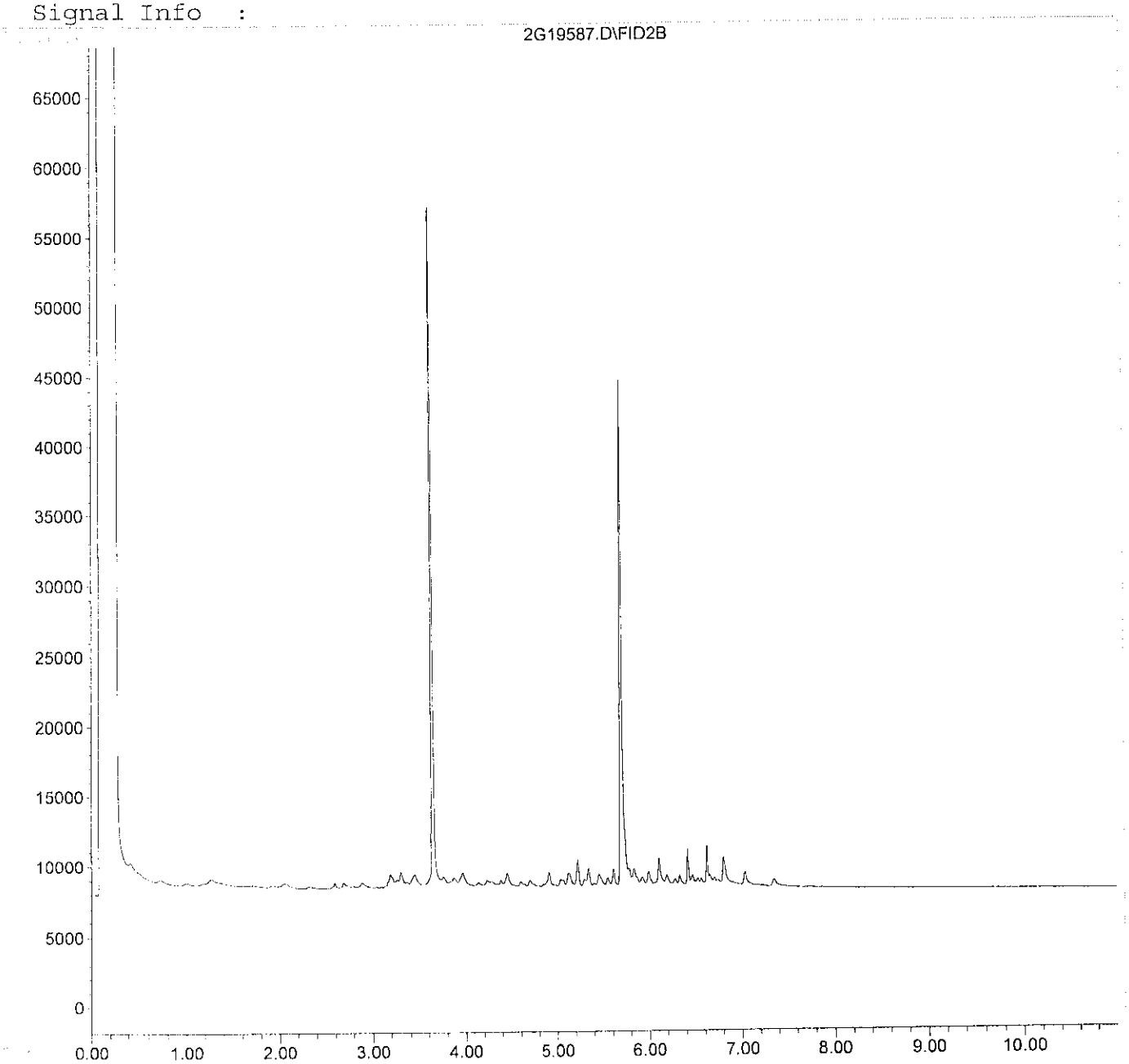
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19587.D
Acq On : 26 Mar 2002 20:58
Sample : WG114738-02 BLK 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:48 2002 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19588.D
Acq On : 26 Mar 2002 21:13
Sample : WG114738-03 LCS 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 10
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	562192	20.818 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	104.09%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	79357645	2523.316 ppb

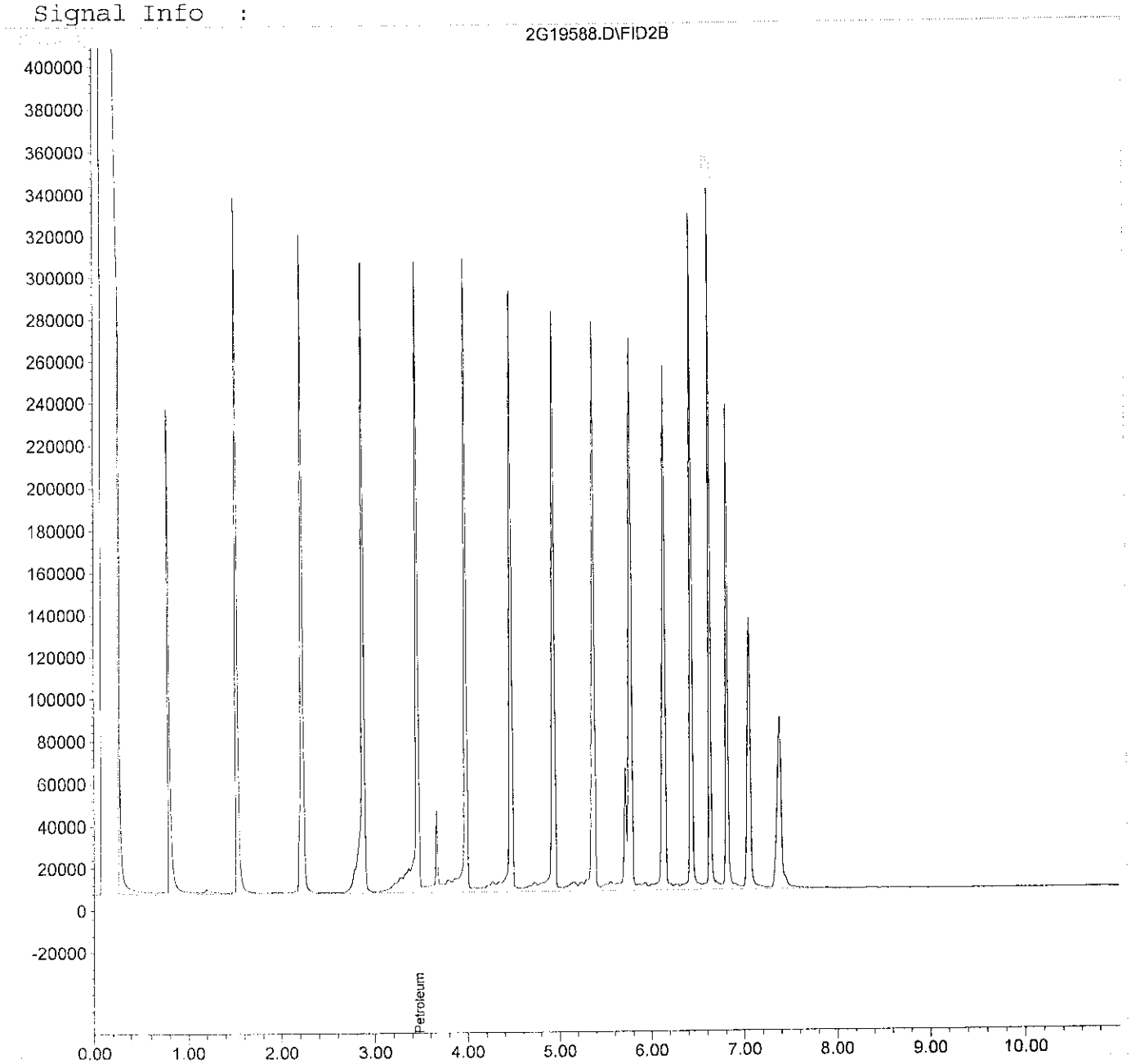
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19588.D
Acq On : 26 Mar 2002 21:13
Sample : WG114738-03 LCS 3/19 V182P27
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 27 11:42 2002 Quant Results File: FLASHPRO.RES

Vial: 10
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g19548.d	1.	NA CH2CL2	1,1	26 Mar 102 13::2
2	1	2g19549.d	1.	CH2CL2	1,1	26 Mar 102 13::4
3	2	2g19550.d	1.	✓ win def std	1,1 NS 14-41	26 Mar 102 13::5
4	3	2g19551.d	1.	✓ JP-4 2000ppm Qualitative STD	1,1 SOS 59-03	26 Mar 102 12::0
5	4	2g19552.d	1.	WG115131-03 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
6	5	2g19553.d	1.	WG115131-06 10000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::2
7	6	2g19554.d	1.	WG115131-05 5000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::3
8	7	2g19555.d	1.	WG115131-04 2500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::4
9	8	2g19556.d	1.	WG115131-02 500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::0
10	9	2g19557.d	1.	WG115131-01 100ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::1
11	10	2g19558.d	1.	WG115131-07 1000ppm DRO Alt Source STD	1,1 SOS 58-20	26 Mar 102 12::2
12	11	2g19559.d	1.	RZ DRO SPK @ 1000ppm ESS0041-02	1,1	26 Mar 102 12::3
13	12	2g19560.d	1.	✓ L0203345-01 WATER DRO	1,1	26 Mar 102 12::5
14	13	2g19561.d	1.	L0203345-03 WATER DRO	1,1	26 Mar 102 12::0
15	14	2g19562.d	1.	L0203345-04 WATER DRO	1,1	26 Mar 102 12::1
16	15	2g19563.d	1.	L0203345-02 WATER DRO	1,1	26 Mar 102 12::2
17	1	2g19564.d	1.	NA CH2CL2	1,1	26 Mar 102 12::3
18	1	2g19565.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
19	4	2g19566.d	1.	✓ WG115131-08 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::5
20	16	2g19567.d	1.	RZ L0203407-02 WATER DRO	1,1	26 Mar 102 12::2
21	17	2g19568.d	20.	✓ L0203407-02 WATER DRO 20X	1,20	26 Mar 102 12::3
22	1	2g19569.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
23	1	2g19570.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
24	4	2g19571.d	1.	✓ WG115131-09 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::0
25	18	2g19572.d	1.	L0203340-01 SOIL DRO	7,1 SOIL	26 Mar 102 12::2
26	19	2g19573.d	1.	L0203340-02 SOIL DRO	7,1 SOIL	26 Mar 102 12::3
27	20	2g19574.d	1.	L0203340-03 SOIL DRO	7,1 SOIL	26 Mar 102 12::4
28	1	2g19575.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
29	1	2g19576.d	1.	NA CH2CL2	1,1	26 Mar 102 12::0
30	4	2g19577.d	1.	✓ WG115131-10 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
31	21	2g19578.d	1.	RZ DRO SPK @ 1000 ESS0041-02	1,1	26 Mar 102 12::3
32	1	2g19579.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
33	2	2g19580.d	1.	✓ WG115180-06 600ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
34	3	2g19581.d	1.	WG115180-05 400ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
35	4	2g19582.d	1.	WG115180-04 200ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::4
36	5	2g19583.d	1.	WG115180-03 100ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::5
37	6	2g19584.d	1.	WG115180-02 50ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
38	7	2g19585.d	1.	WG115180-01 5ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
39	8	2g19586.d	1.	WG115180-07 200ppm PRO Alt Source STD	1,1 SOS 59-1	26 Mar 102 12::4
40	9	2g19587.d	1.	WG114738-02 BLK 3/19 V182P27	1,1	26 Mar 102 12::5
41	10	2g19588.d	1.	WG114738-03 LCS 3/19 V182P27	1,1	26 Mar 102 12::1
42	11	2g19589.d	1.	L0203326-01 PRO WATER	1,1	26 Mar 102 12::2
43	12	2g19590.d	1.	L0203326-02 PRO WATER	1,1	26 Mar 102 12::4
44	13	2g19591.d	1.	L0203327-01 PRO WATER	1,1	26 Mar 102 12::5
45	14	2g19592.d	1.	L0203327-02 PRO WATER	1,1	26 Mar 102 13::1
46	1	2g19593.d	1.	NA CH2CL2	1,1	26 Mar 102 13::3
47	1	2g19594.d	1.	NA CH2CL2	1,1	26 Mar 102 13::4
48	4	2g19595.d	1.	✓ WG115180-08 200ppm PRO CCV	1,1 SOS 59-6	26 Mar 102 13::0
49	15	2g19596.d	1.	L0203327-03 PRO WATER	1,1	26 Mar 102 13::1
50	16	2g19597.d	1.	WG114738-01 L0203327-04 PRO WATER REF	1,1	26 Mar 102 13::3
51	17	2g19598.d	1.	WG114738-04 L0203327-05 PRO WATER MS	1,1	26 Mar 102 13::4

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
5	18	2g19599.d	1.	✓ WG114738-05 L0203327-06 PRO WATER MSD	1,1	27 Mar 102 13::0
53	19	2g19600.d	1.	L0203327-07 PRO WATER	1,1	27 Mar 102 13::1
54	20	2g19601.d	1.	L0203327-08 PRO WATER	1,1	27 Mar 102 13::3
55	21	2g19602.d	1.	L0203327-09 PRO WATER	1,1	27 Mar 102 13::4
56	1	2g19603.d	1.	NA CH2CL2	1,1	27 Mar 102 12::0
57	4	2g19604.d	1.	✓ WG115180-09 200ppm CCV	1,1 SOS 59-6	27 Mar 102 12::1
58	22	2g19605.d	1.	NA 500ppm PRO ALT Check 1	1,1 SOS 59-1	27 Mar 102 12::5
59	23	2g19606.d	1.	600ppm PRO STD Check	1,1 SOS 59-6	27 Mar 102 13::2
60	24	2g19607.d	1.	500ppm PRO ALT CHECK II	1,1 STOCK (New Vial)	27 Mar 102 13::3
61	25	2g19608.d	1.	200ppm PRO STD CHK	1,1 SOS 59-6 Remix	27 Mar 102 13::5

CLK 3/27/02
Rec 3/27/02

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KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/26/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 032602
Analyst Initials ____

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☒ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☒ Change liner
☒ Change septum
☐ Clip column (___cm)
☒ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ✓ No ____

Additional Maintenance
Problem: Injection Port Pressure low

Action Taken: Replaced instrument weld, Replaced pre-column, Changed Gold Seal

Comments

DRO SPK @ 1000 ppm ESS0041-02, low (2g19559)

L0203467-02 WATER DRO, Needs 20X
⊥ -02 ⊥ ⊥ 20X, Dilution Good, Reported, SS DC

DRO SPK @ 1000 ESS0041-02, high (2g19578)

Files (2g19605 - 2g19608), (Check Study)

Reviewed By: [illegible] 3/27/02

Parameter: PRO H_2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): RLL TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 @1440 Date TV/KD: 03/19/02
Spike/Surrogate Analyst: RLL Witness: CEB
Surrogate #: E5500410-18 Earliest Hold Date: 3/25
Spike #: A = E5500410-19 Spike #: B = –

Extraction Work Group WG 114738
Analytical Work Group WG 115175

Extract Relinquished By: DP
Extract Received By & Date: CLK 3/19/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 114738-02
2	LCS		✓			⊥		1mL		T				WG ⊥ -03
3	03-326-01	FLA-PRO	✓			930mL				C	✓			*
4	-02		✓			950mL				T				
5	03-327-01		✓							C	✓			
6	-02		✓							C	✓			
7	-03		✓							C	✓			
8	-04		✓			940mL				T				WG 114738-01
9	-05MS		✓			950mL		1mL		T				* ⊥ -04
10	-06MSD		✓			⊥		⊥		T				* ⊥ -05
11	-07		✓			940mL				T				
12	-08		✓			⊥				T				
13	-09		✓			950mL				T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/19/02

Methylene Chloride Lot #: 42015
Hexane Lot #: –
Ether Lot #: –
Methanol Lot #: –
Solvent: – Lot #: –
Reagent: – Lot #: –
Reagent: – Lot #: –
Reagent: – Lot #: –
Acid: 1:1 HCl Lot #: EX2084
Florisil Lot #: –
Silica Gel Lot #: V32555
IR Analyst / Date / Time: –
Dried Na_2SO_4 Lot #: EX2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/19/02

Extraction Notes For Volume # 182 Page # 27

General Comments: * MS, MSD OF 03-327-04

Extraction Anomalies: ~~b~~ Very Thick Emulsion during Extraction.

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Date: 3/26/02
Analyst: CLK
Method: 8015 DRO, PRO
Instrument: HP2
Work Group: W6115175, W6114952
W6115089, W6114964

03-326 3/26 —
03-327 3/26 —
03-407 3/29 A1
03-340 4/2 —
03-345 3/26 P2

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	✓
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	NA
Check Sample Histories	NA
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 3/27/02

Secondary Reviewer Initials & Date Checked [illegible] 3/27/02

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 3/27/02

Comments:

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

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.: L0203326

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 4/2/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number L0203326

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 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: RRC Date: RRC 4/1/02 3/ 4/1/02

2.2.7.1 QC Summary

Login Number: L0203326
Blank File ID: 4L002901.R
Date Analyzed: 03/20/02
Time Analyzed: 17:40
Analyst: RDC

Work Group: WG114811
Blank Sample ID: WG114754-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114754-03	4L002902.R	03/20/02 18:37	01
062-CEF46-12I-Q1-01-11	L0203326-01	4L002903.R	03/20/02 19:33	01
062-CEF46-15I-Q1-01-11	L0203326-02	4L002904.R	03/20/02 20:30	01

KEMRON FORMS - Modified 01/11/2002
Version 1.1
Report generated 03/22/2002 14:06

BLANK REPORT

Login Number: L0203326
Instrument ID: HPLC4
File ID: 4L002901.R
Workgroup (AAB#): WG114811
Contract #:

Run Date: 03/20/2002
Run Time: 17:40
Analyst: RDC

Sample ID: WG114754-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
2-Methylnaphthalene	0.336	1.00	0.336	1.00	ND
1-Methylnaphthalene	0.362	1.00	0.362	1.00	ND
Phenanthrene	0.287	1.00	0.287	1.00	ND
Pyrene	0.0680	0.200	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	99.1	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/22/2002 14:06

LABORATORY CONTROL SAMPLE

Login Number: L0203326
Instrument ID: HPLC4
File ID: 4L002902.R
Workgroup (AAB#): WG114811
Contract #:

Run Date: 03/20/2002
Run Time: 18:37
Analyst: RDC

Sample ID: WG114754-03
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	26.3	52.5	25 - 78	
Acenaphthylene	50	27.0	53.9	25 - 77	
Anthracene	50	40.2	80.4	47 - 101	
Benzo(a)anthracene	5	4.61	92.2	50 - 115	
Benzo[a]pyrene	5	3.76	75.2	29 - 113	
Benzo(b)Fluoranthene	5	4.01	80.2	41 - 110	
Benzo[ghi]perylene	5	2.73	54.6	11 - 84	
Benzo[k]fluoranthene	2.5	1.78	71.0	25 - 107	
Chrysene	5	4.21	84.2	39 - 120	
Dibenz(a,h)Anthracene	5	2.61	52.3	10 - 92	
Fluoranthene	5	4.36	87.1	55 - 104	
Fluorene	50	28.7	57.5	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.86	57.2	16 - 98	
Naphthalene	50	25.1	50.2	25 - 68	
2-Methylnaphthalene	50	25.3	50.6	26 - 72	
1-Methylnaphthalene	50	25.1	50.3	26 - 71	
Phenanthrene	50	34.4	68.8	39 - 95	
Pyrene	5	4.42	88.4	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	82.8	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2
Report generated 03/22/2002 14:06

EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG114811

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-12I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	7	1.02	20-MAR-02	40	1.16	
062-CEF46-15I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	7	1.05	20-MAR-02	40	1.20	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/22/2002 14:06

Login Number: L0203326
Instrument Id: HPLC4
Workgroup (AAB#): WG114811

Method: 8310
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203326-01	1.00	01	49.3
L0203326-02	1.00	01	104
WG114754-02	1.00	01	99.1
WG114754-02	1.00	CF01	98.8
WG114754-03	1.00	01	82.8
WG114754-03	1.00	CF01	83.0

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 03/22/2002 14:06

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

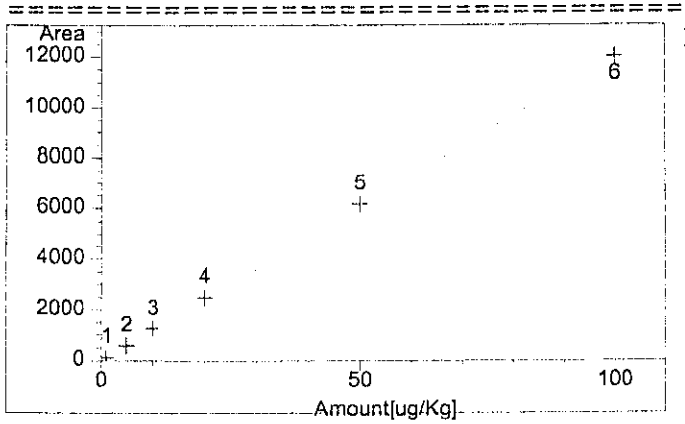
RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

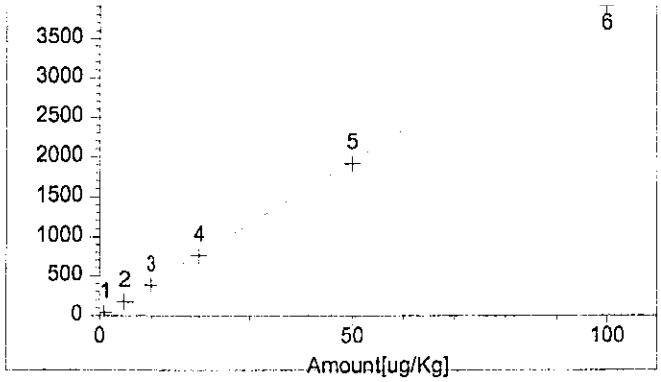
Peak Sum Table

No Entries in table

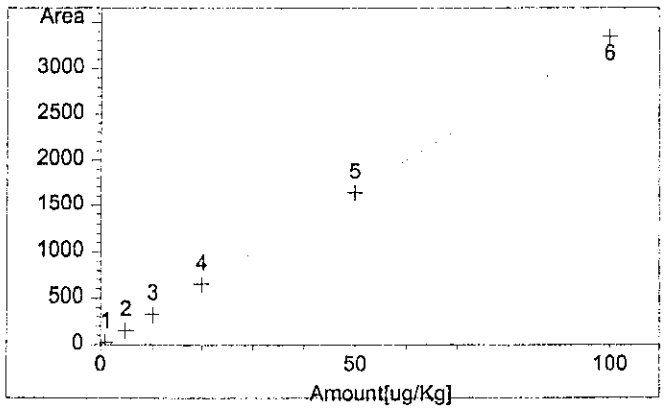
Calibration Curves



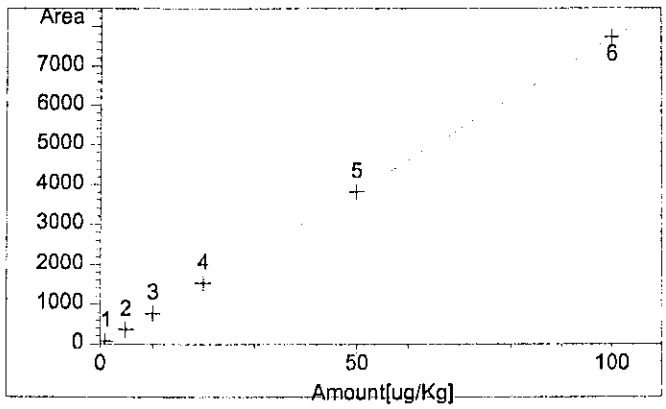
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount[ug/Kg]
y: Area



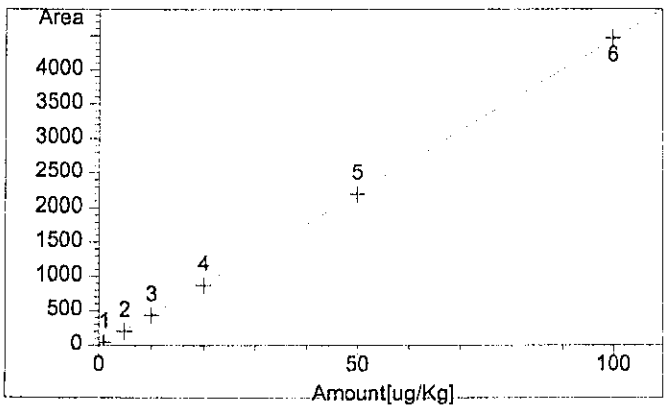
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



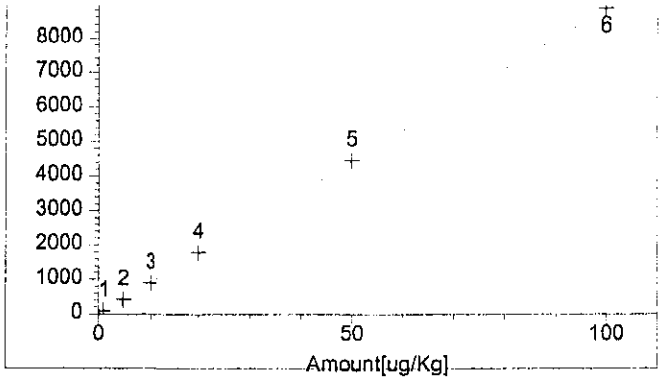
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



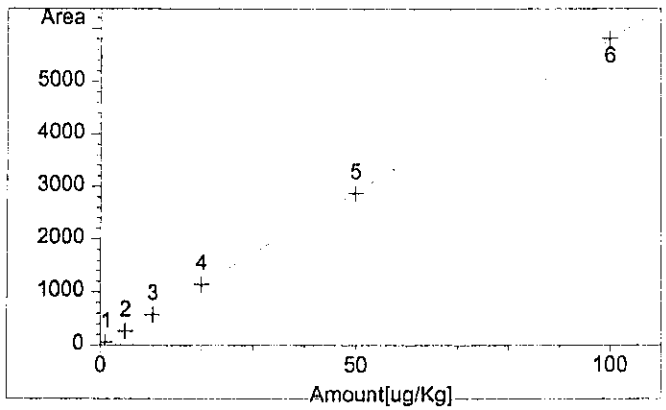
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



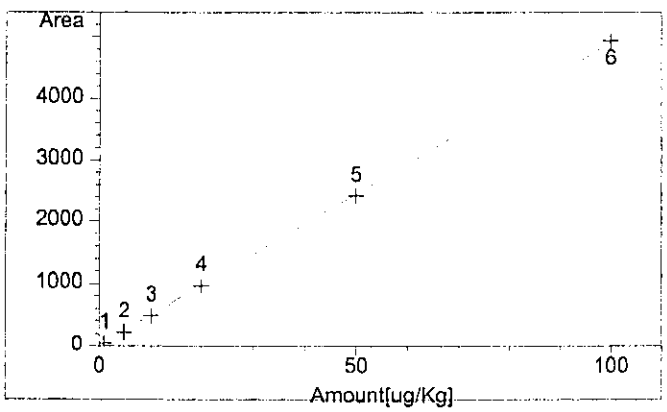
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



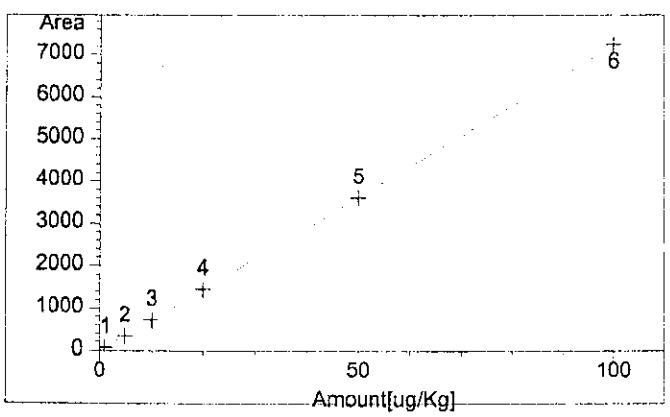
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount [ug/Kg]
y: Area



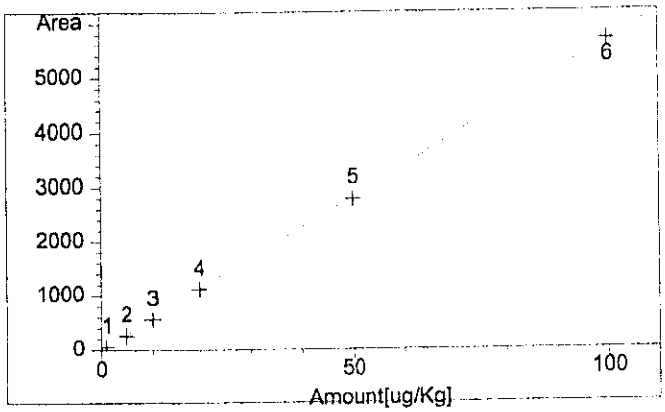
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount [ug/Kg]
y: Area



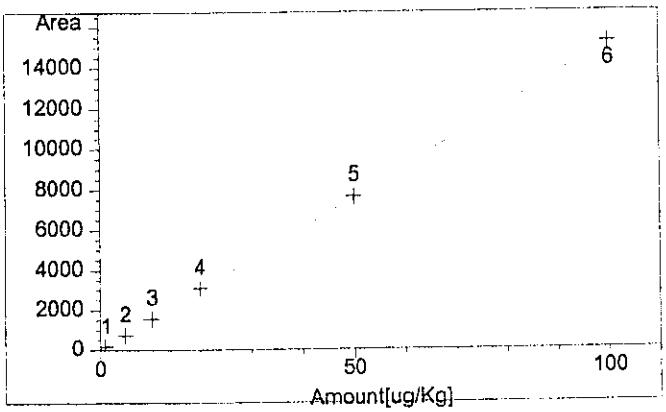
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount [ug/Kg]
y: Area



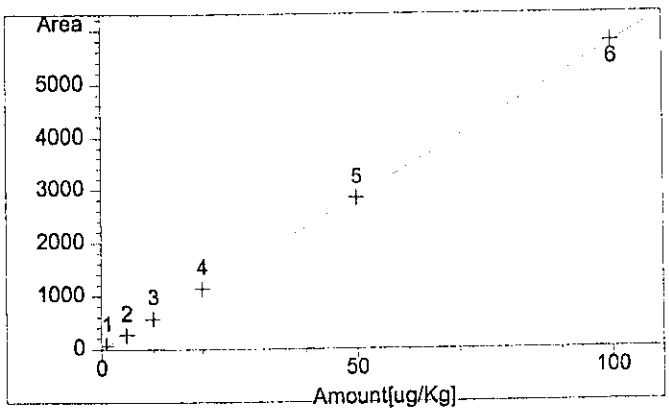
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount [ug/Kg]
y: Area



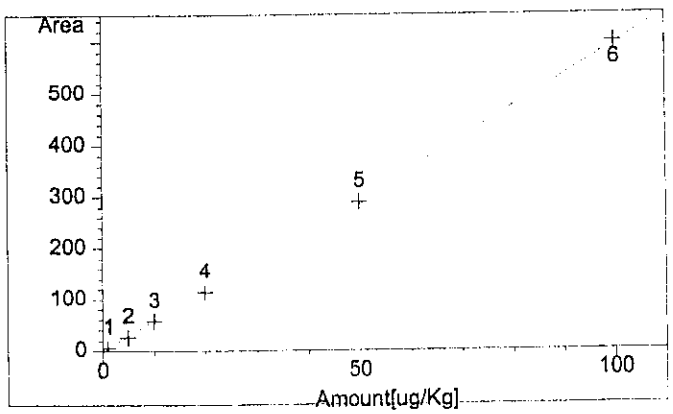
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



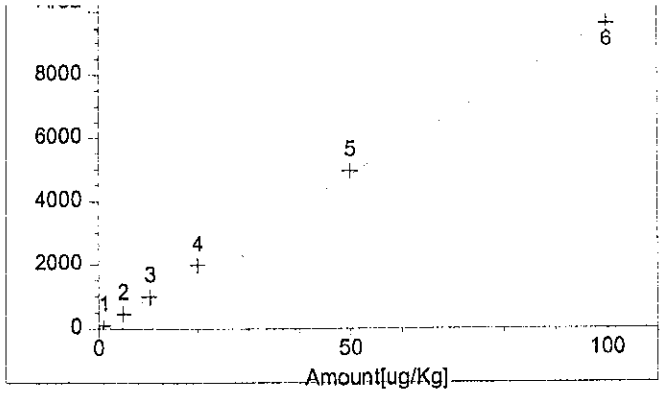
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



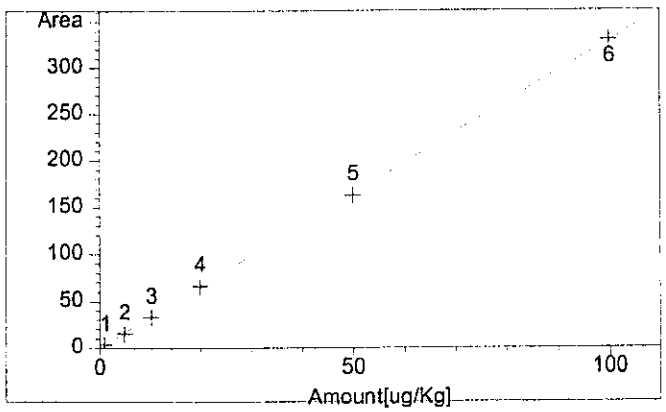
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



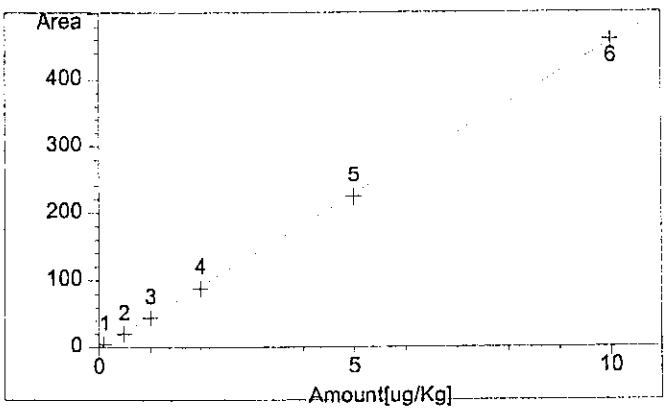
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



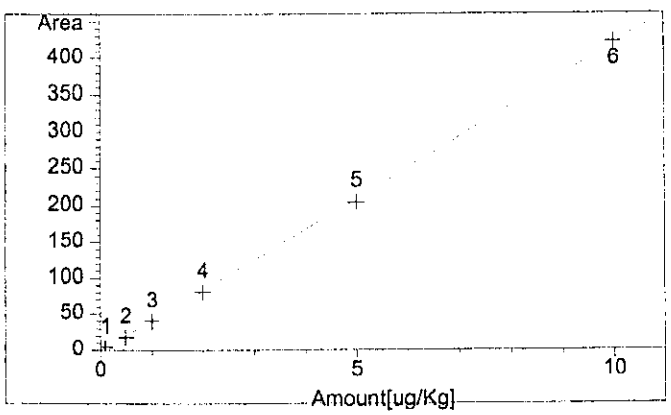
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount[ug/Kg]
y: Area



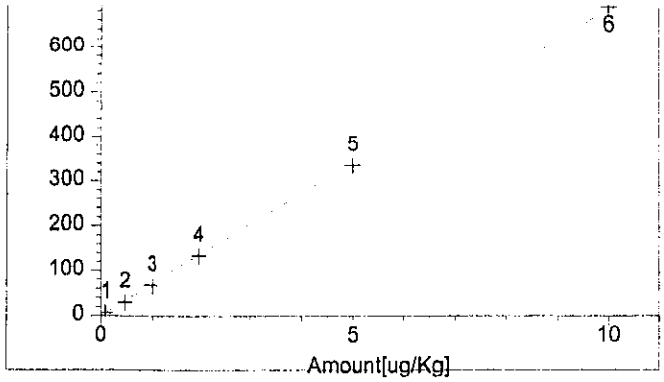
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount[ug/Kg]
y: Area



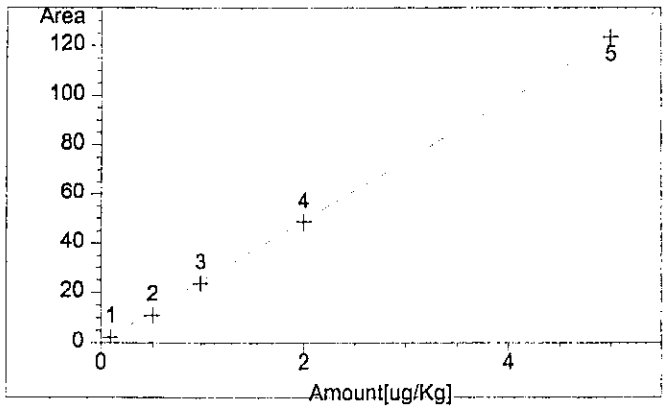
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount[ug/Kg]
y: Area



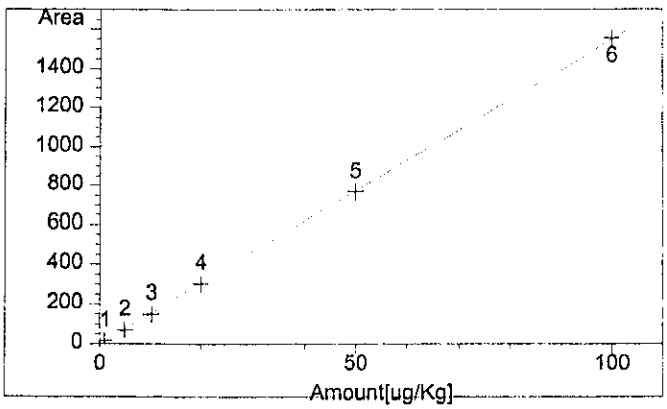
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount[ug/Kg]
y: Area



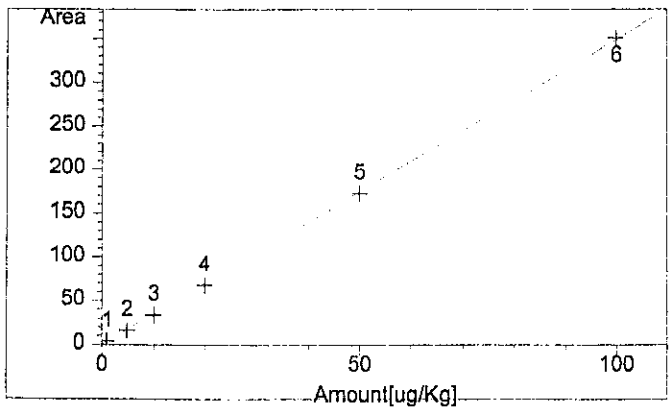
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



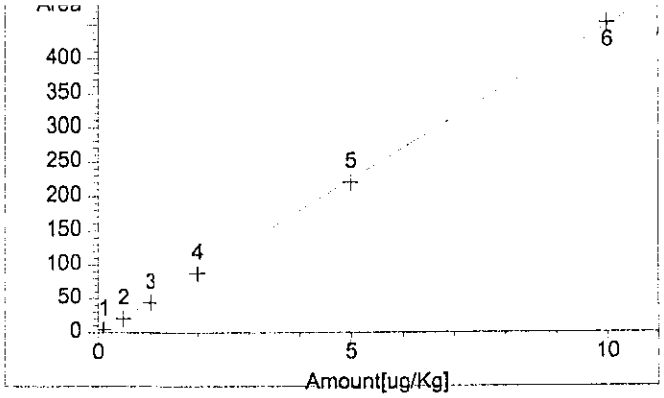
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



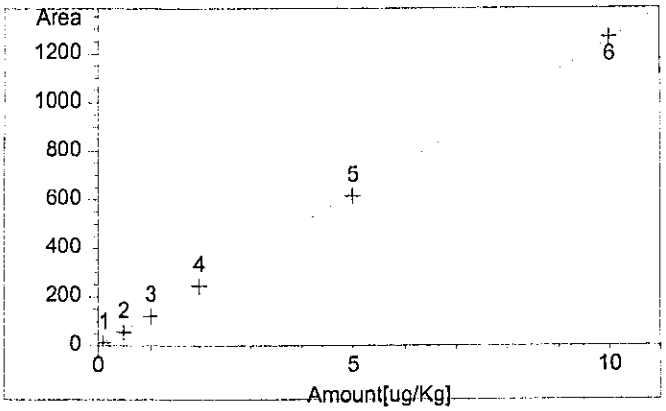
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



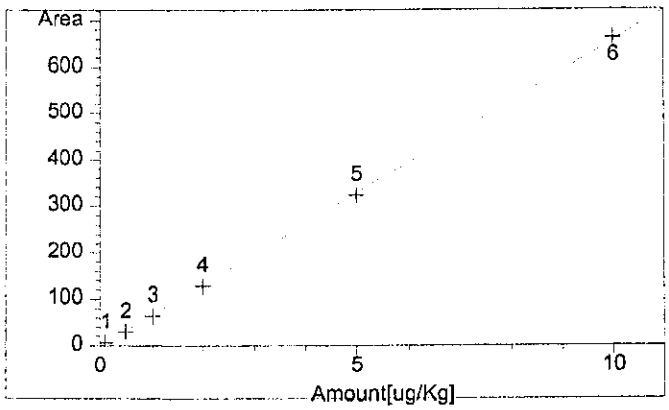
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



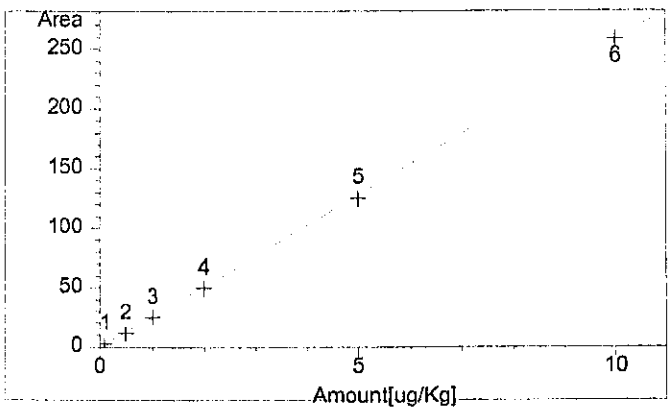
Benzo(a)anthracene #12 at exp. RT: 22.400
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount[ug/Kg]
y: Area



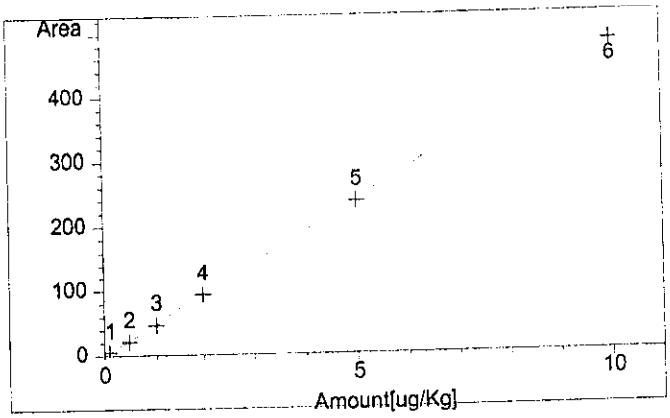
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount[ug/Kg]
y: Area



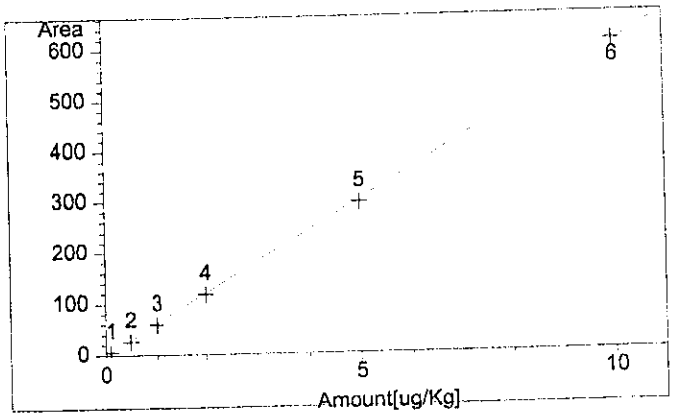
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount[ug/Kg]
y: Area



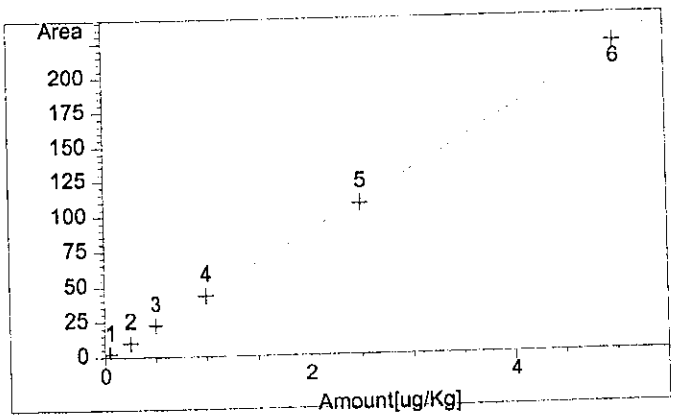
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount[ug/Kg]
y: Area



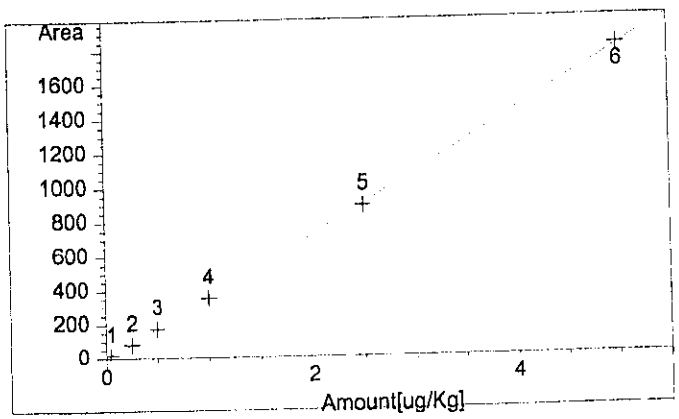
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



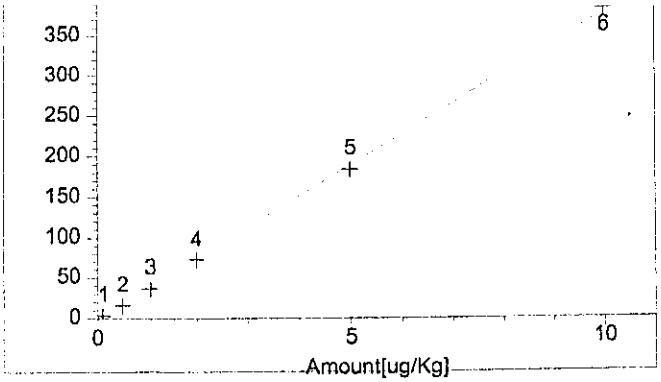
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



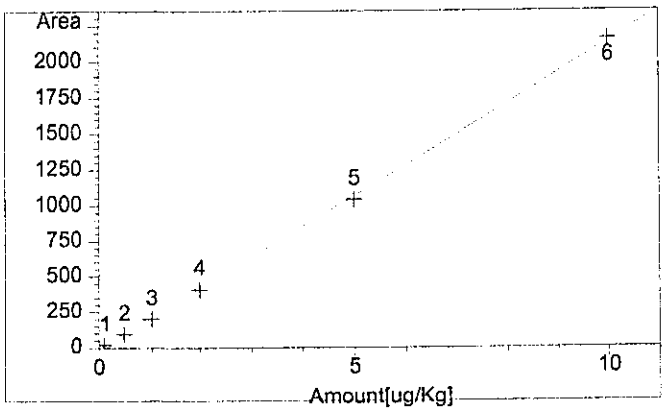
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



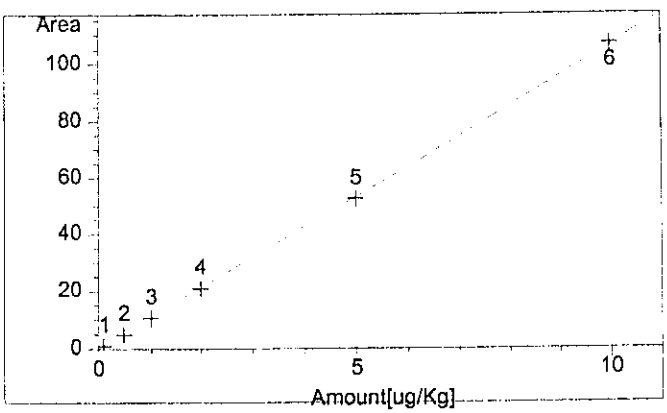
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



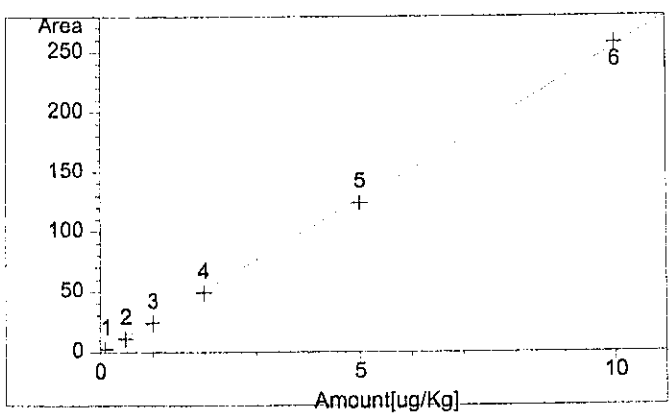
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount[ug/Kg]
y: Area



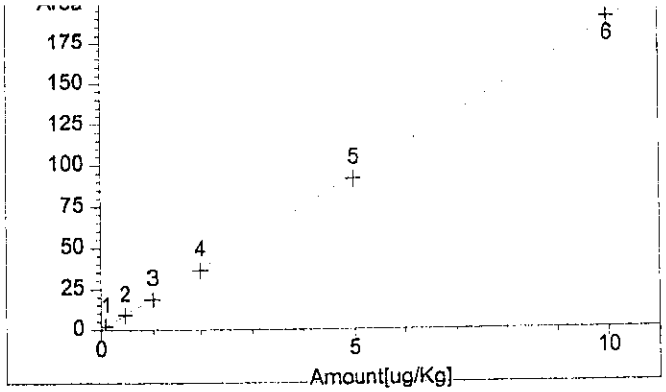
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount[ug/Kg]
y: Area



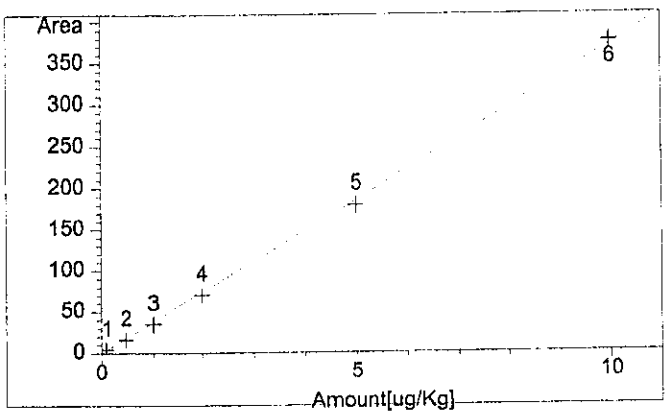
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount[ug/Kg]
y: Area



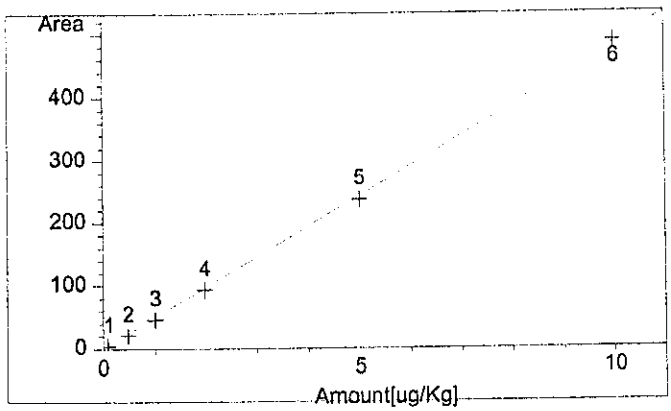
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount[ug/Kg]
y: Area



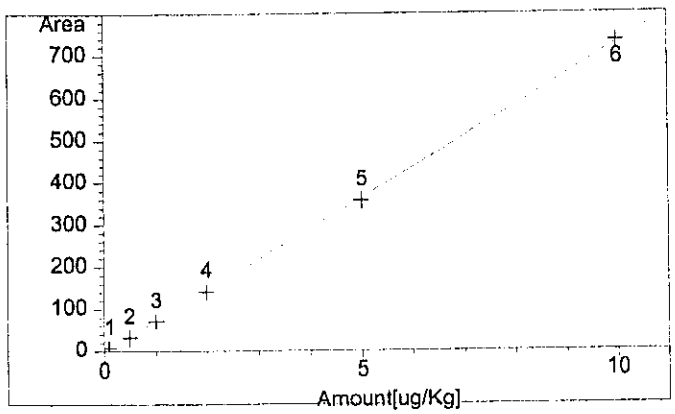
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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Check Standard Report

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Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

==========

Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

==========

Data File C:\HPCHEM\2\DATA\032002\4L002898.D Sample Name: WG114812-01 CCV
HPLC4 3/20/2002 4:46:16 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/20/2002 2:50:47 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	19.764	-1.2
1-Methylnaphthalene #3	12.004	20.0	19.722	-1.4
2-Methylnaphthalene #4	12.579	20.0	19.108	-4.5
Acenaphthene #5	13.057	20.0	19.424	-2.9
Fluorene #6	13.714	20.0	20.297	1.5
Phenanthrene #7	15.100	20.0	19.594	-2.0
Anthracene #8	16.501	20.0	20.148	0.7
Fluoranthene #9	17.877	2.0	1.930	-3.5
Pyrene #10	18.879	2.0	1.988	-0.6
p-Terphenyl d14 #11*	21.212	20.0	19.107	-4.5
Benzo(a)anthracene #12	22.530	2.0	1.947	-2.7
Chrysene #13	23.393	2.0	1.967	-1.6
Benzo(b)fluoranthene #14	26.110	2.0	1.956	-2.2
Benzo(k)fluoranthene #15	27.538	1.0	0.984	-1.6
Benzo(a)pyrene #16	28.640	2.0	1.993	-0.4
Dibenz(a,h)anthracene #1	30.493	2.0	1.929	-3.6
Benzo(g,h,i)perylene #18	31.311	2.0	1.931	-3.5
Indeno(1,2,3-cd)pyrene #	32.246	2.0	1.942	-2.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.415	20.0	20.685	3.4
Acenaphthylene #2	11.043	20.0	19.954	-0.2
1-Methylnaphthalene #3	11.988	20.0	19.935	-0.3
2-Methylnaphthalene #4	12.563	20.0	19.954	-0.2
Acenaphthene #5	13.041	20.0	19.254	-3.7
Fluorene #6	13.697	20.0	19.763	-1.2
Phenanthrene #7	15.084	20.0	20.092	0.5
Anthracene #8	16.485	20.0	20.818	4.1
Fluoranthene #9	17.860	2.0	1.953	-2.3
Pyrene #10	18.861	2.0	1.960	-2.0
p-Terphenyl d14 #11*	21.196	20.0	19.175	-4.1
Benzo(a)anthracene #12	22.514	2.0	1.961	-1.9
Chrysene #13	23.378	2.0	1.955	-2.2
Benzo(b)fluoranthene #14	26.093	2.0	1.959	-2.1
Benzo(k)fluoranthene #15	27.522	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.623	2.0	2.002	0.1
Dibenz(a,h)anthracene #1	30.477	2.0	1.937	-3.1
Benzo(g,h,i)perylene #18	31.293	2.0	2.121	6.1
Indeno(1,2,3-cd)pyrene #	32.228	2.0	1.936	-3.2

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032002\4L002909.D Sample Name: WG114812-02 CCV
HPLC4 3/21/2002 8:37:14 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/21/2002 1:13:38 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.439	20.0	19.140	-4.3
1-Methylnaphthalene #3	12.015	20.0	19.189	-4.1
2-Methylnaphthalene #4	12.588	20.0	18.997	-5.0
Acenaphthene #5	13.066	20.0	19.332	-3.3
Fluorene #6	13.717	20.0	20.094	0.5
Phenanthrene #7	15.099	20.0	18.915	-5.4
Anthracene #8	16.498	20.0	19.958	-0.2
Fluoranthene #9	17.876	2.0	1.908	-4.6
Pyrene #10	18.879	2.0	1.882	-5.9
p-Terphenyl d14 #11*	21.208	20.0	18.962	-5.2
Benzo(a)anthracene #12	22.523	2.0	1.901	-5.0
Chrysene #13	23.385	2.0	1.911	-4.5
Benzo(b)fluoranthene #14	26.105	2.0	1.915	-4.2
Benzo(k)fluoranthene #15	27.531	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.633	2.0	1.916	-4.2
Dibenz(a,h)anthracene #1	30.476	2.0	1.898	-5.1
Benzo(g,h,i)perylene #18	31.288	2.0	1.874	-6.3
Indeno(1,2,3-cd)pyrene #	32.220	2.0	1.918	-4.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.424	20.0	20.723	3.6
Acenaphthylene #2	11.050	20.0	20.007	0.0
1-Methylnaphthalene #3	11.999	20.0	19.981	-0.1
2-Methylnaphthalene #4	12.572	20.0	20.145	0.7
Acenaphthene #5	13.051	20.0	19.572	-2.1
Fluorene #6	13.701	20.0	19.764	-1.2
Phenanthrene #7	15.082	20.0	20.091	0.5
Anthracene #8	16.482	20.0	20.684	3.4
Fluoranthene #9	17.859	2.0	1.959	-2.1
Pyrene #10	18.861	2.0	1.964	-1.8
p-Terphenyl d14 #11*	21.192	20.0	19.162	-4.2
Benzo(a)anthracene #12	22.507	2.0	1.952	-2.4
Chrysene #13	23.369	2.0	1.957	-2.1
Benzo(b)fluoranthene #14	26.087	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.514	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.615	2.0	1.974	-1.3
Dibenz(a,h)anthracene #1	30.459	2.0	1.997	-0.2
Benzo(g,h,i)perylene #18	31.271	2.0	2.130	6.5
Indeno(1,2,3-cd)pyrene #	32.200	2.0	1.919	-4.0

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032002\4L002915.D Sample Name: WG114812-03 CCV
HPLC4 3/21/2002 8:44:33 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/21/2002 6:53:28 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.444	20.0	19.202	-4.0
1-Methylnaphthalene #3	12.022	20.0	19.284	-3.6
2-Methylnaphthalene #4	12.595	20.0	19.061	-4.7
Acenaphthene #5	13.074	20.0	19.406	-3.0
Fluorene #6	13.727	20.0	20.191	1.0
Phenanthrene #7	15.107	20.0	18.980	-5.1
Anthracene #8	16.502	20.0	19.921	-0.4
Fluoranthene #9	17.876	2.0	1.921	-4.0
Pyrene #10	18.874	2.0	1.898	-5.1
p-Terphenyl d14 #11*	21.191	20.0	19.214	-3.9
Benzo(a)anthracene #12	22.500	2.0	1.916	-4.2
Chrysene #13	23.357	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.069	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.490	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.595	2.0	1.935	-3.3
Dibenz(a,h)anthracene #1	30.442	2.0	1.919	-4.0
Benzo(g,h,i)perylene #18	31.259	2.0	1.894	-5.3
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.936	-3.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.790	3.9
Acenaphthylene #2	11.060	20.0	20.093	0.5
1-Methylnaphthalene #3	12.006	20.0	20.029	0.1
2-Methylnaphthalene #4	12.580	20.0	20.217	1.1
Acenaphthene #5	13.059	20.0	19.667	-1.7
Fluorene #6	13.711	20.0	19.827	-0.9
Phenanthrene #7	15.091	20.0	20.172	0.9
Anthracene #8	16.486	20.0	20.741	3.7
Fluoranthene #9	17.859	2.0	1.964	-1.8
Pyrene #10	18.858	2.0	1.966	-1.7
p-Terphenyl d14 #11*	21.176	20.0	19.251	-3.7
Benzo(a)anthracene #12	22.484	2.0	1.966	-1.7
Chrysene #13	23.341	2.0	1.965	-1.8
Benzo(b)fluoranthene #14	26.052	2.0	1.969	-1.6
Benzo(k)fluoranthene #15	27.474	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.578	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.426	2.0	1.973	-1.4
Benzo(g,h,i)perylene #18	31.242	2.0	2.068	3.4
Indeno(1,2,3-cd)pyrene #	32.175	2.0	1.935	-3.2

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	cc 02:01	505 56 19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	505 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	505 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	D.I'n. of 505 56 19/56-2	WG111292-03 ST
No	8	8	8310	4L002668	08:01		WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	✓ 12:01	D.I'n. of 505 57-27/ 505 57-28	WG111292-08 AL

Rec'd
1/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials BDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☐ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114812-01 CCV	8310	1	Sample		
3	3	ESS0040-50 surr.	8310	1	Sample		
4	4	ESS0041-01 spk.	8310	1	Sample		
5	5	WG114754-02 ~~WBKL~~	8310 WBLK	1	Sample		
6	6	WG114754-03 ~~WBKL~~	8310 WLCS	1	Sample		
7	7	L0203326-01 831W	8310	1	Sample		
8	8	L0203326-02 831W	8310	1	Sample		
9	9	L0203327-01 831W	8310	1	Sample		
10	10	L0203327-02 831W	8310	1	Sample		
11	11	L0203327-03 831W	8310	1	Sample		
12	12	WG114754-01 WREF	8310	1	Sample		
13	13	WG114812-02 CCV	8310	1	Sample		
14	14	WG114754-04 WMS	8310	1	Sample		
15	15	WG114754-05 WMSD	8310	1	Sample		
16	16	L0203327-07 831W	8310	1	Sample		
17	17	L0203327-08 831W	8310	1	Sample		
18	18	L0203327-09 831W	8310	1	Sample		
19	13	WG114812-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002897	01:01 ✓		accn blk
No	2	2	8310	4L002898	02:01 ✓	SOS 56-20/58-26	WG114812-01 CC
No	3	3	8310	4L002899	03:01 ✓		ESS0040-50 sur
No	4	4	8310	4L002900	04:01 ✓		ESS0041-01 spk
No	5	5	8310	4L002901	05:01 ✓		WG114754-02 WB
No	6	6	8310	4L002902	06:01 ✓		WG114754-03 WB
No	7	7	8310	4L002903	07:01 ✓		L0203326-01 83
No	8	8	8310	4L002904	08:01 ✓		L0203326-02 83
No	9	9	8310	4L002905	09:01 ✓		L0203327-01 83
No	10	10	8310	4L002906	10:01 ✓		L0203327-02 83
No	11	11	8310	4L002907	11:01 ✓		L0203327-03 83
No	12	12	8310	4L002908	12:01 ✓		WG114754-01 WR
No	13	13	8310	4L002909	13:01 ✓	SOS 56-20/58-26	WG114812-02 CC
No	14	14	8310	4L002910	14:01 ✓		WG114754-04 WM
No	15	15	8310	4L002911	15:01 ✓		WG114754-05 WM
No	16	16	8310	4L002912	16:01 RC (conf.)		L0203327-07 83
No	17	17	8310	4L002913	17:01 ✓		L0203327-08 83
No	18	18	8310	4L002914	18:01 ✓		L0203327-09 83
No	19	13	8310	4L002915	19:01 ✓		WG114812-03 CC

RWC 3/22/02

rdc 3/22/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 26 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory C32002
Analyst Initials [illegible] SOP # HPLC01 Rev. # 3 [illegible] 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0203327-07 requires conf of acenaphthylene

Reviewed By: [illegible]

194

Parameter: 8510 H_2O SOP #: EXHALC01 Revision #: 6
Extraction Analyst(s): RCK TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 @ 1540 Date TV/KD: 3/20/02
Spike/Surrogate Analyst: RCK Witness: CEB
Surrogate #: ES00039-27 Earliest Hold Date: 3/25
Spike #: A = ES00040-24 Spike #: B = —

Extraction Work Group WG 114754
Analytical Work Group WG 114811

Extract Relinquished By: DP
Extract Received By & Date: CVK 3/20/02

	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 114754-02
2	LCS			✓		↓		500ul		C				WG ↓ -03
3	03-326-01	8210		✓		940 mL				T			✓	A
4	-02			✓		965 mL				T				
5	03-327-01			✓						C				
6	-02			✓						T				
7	-03			✓						T				
8	-04			✓						T				
9	-05 MS			✓				500ul		C				WG 114754-01 * ↓ -04
10	-06 MSD			✓		↓		↓		C				* ↓ -05
11	-07			✓		950 mL				T				
12	-08			✓		965 mL				T				
13	-09	↓		✓		980 mL	↓		↓	T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/20/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH_3CN Lot #: 41264
Reagent: Form. Sol. Lot #: Ex 2092
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: Ex 2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Donna Pierson Date: 03/20/02

Extraction Notes For Volume # 182 Page # 29

General Comments: * MS, MD OF 03-327-04

Extraction Anomalies: * Very Thick Emulsion during Extraction.

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

2.2.7.2 Sample Data

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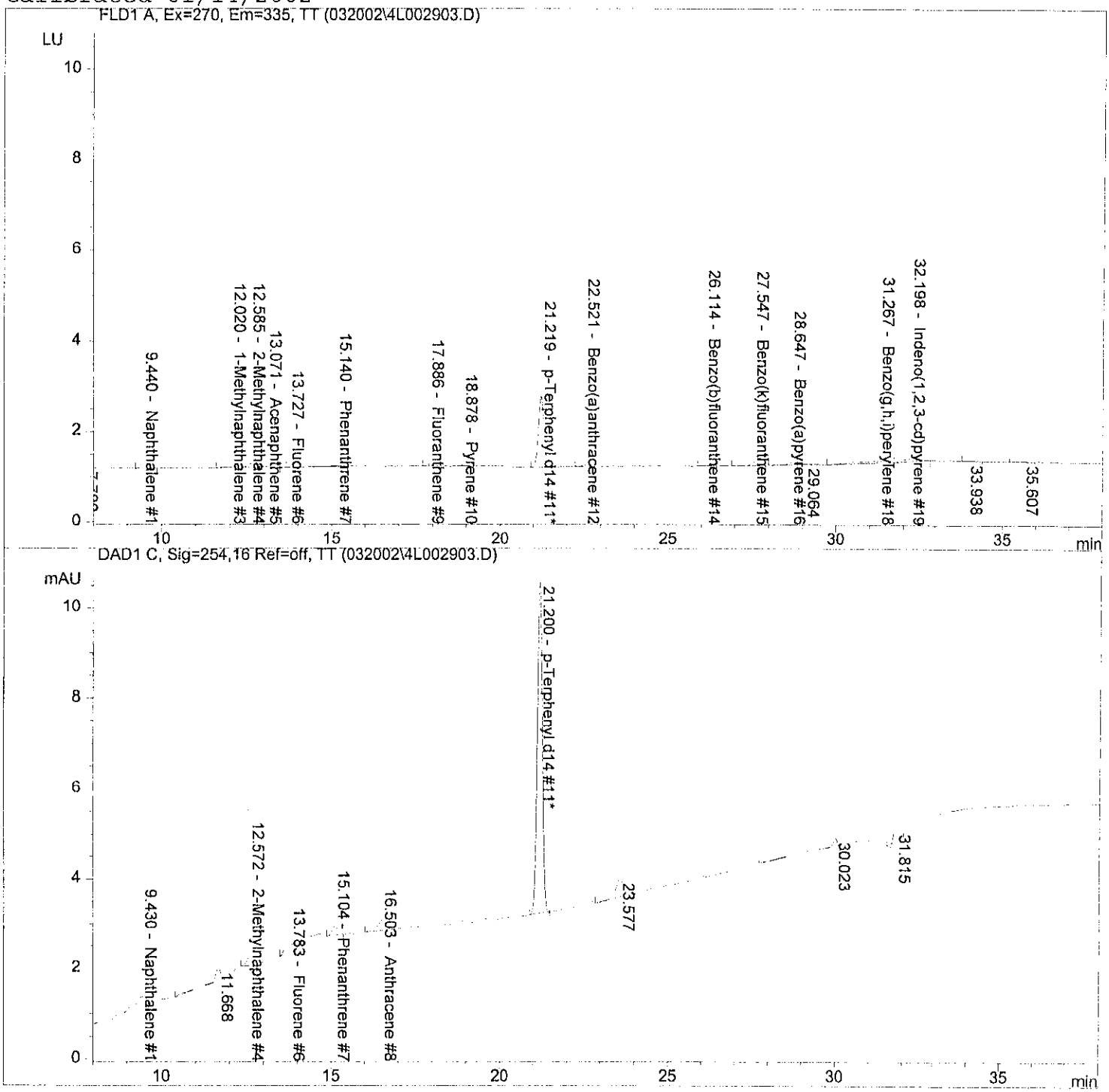
Injection Date : 3/20/2002 7:33:54 PM
Sample Name : L0203326-01 831W
Acq. Operator : RDC

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 : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002



External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.440	BB	9.85096e-1	2.57003e-2	2.53172e-2		Naphthalene #1
12.020	BB	5.95176e-1	2.24893e-2	1.33851e-2		1-Methylnaphthalene #3
12.585	BB	1.06130	1.72691e-2	1.83277e-2		2-Methylnaphthalene #4
13.071	BB	5.14569e-1	1.38228e-2	7.11277e-3		Acenaphthene #5
13.727	BB	1.93617	6.56879e-3	1.27183e-2		Fluorene #6
15.140	BB	9.53482e-1	1.68488e-1	1.60650e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.886	BBA	4.50653e-1	2.38671e-2	1.07558e-2		Fluoranthene #9
18.878	BBA	2.72519e-1	4.06594e-2	1.10804e-2		Pyrene #10
21.219	BBA	17.39730	2.86511e-1	4.98453		p-Terphenyl d14 #11*
22.521	BB	4.76991e-1	7.96557e-3	3.79950e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.114	BBA	2.96045e-1	1.65598e-2	4.90244e-3		Benzo(b)fluoranthene #14
27.547	PBA	8.73444e-1	2.77566e-3	2.42439e-3		Benzo(k)fluoranthene #15
28.647	BB	4.34737e-1	4.67660e-3	2.03309e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.267	PB	3.29439	2.69466e-2	8.87728e-2		Benzo(g,h,i)perylene #18
32.198	BB	2.30122	1.37440e-2	3.16281e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 5.37743

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.430	BB	2.32295	8.27651e-3	1.92259e-2	200%	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.572	BB	1.93228	1.12713e-2	2.17792e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.783	BB	2.93145	1.76946e-2	5.18708e-2		Fluorene #6
15.104	BB	2.55266	1.74291e-2	4.44905e-2		Phenanthrene #7
16.503	BBA	4.05105	1.03455e-2	4.19101e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.200	PBA	76.27371	6.45989e-2	4.92720		p-Terphenyl d14 #11*
22.477		-	-	-	49.3%	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]	
31.268	-	-	-	Benzo(g,h,i)perylene #18
32.209	-	-	-	Indeno(1,2,3-cd)pyrene #1

Totals : 5.10648

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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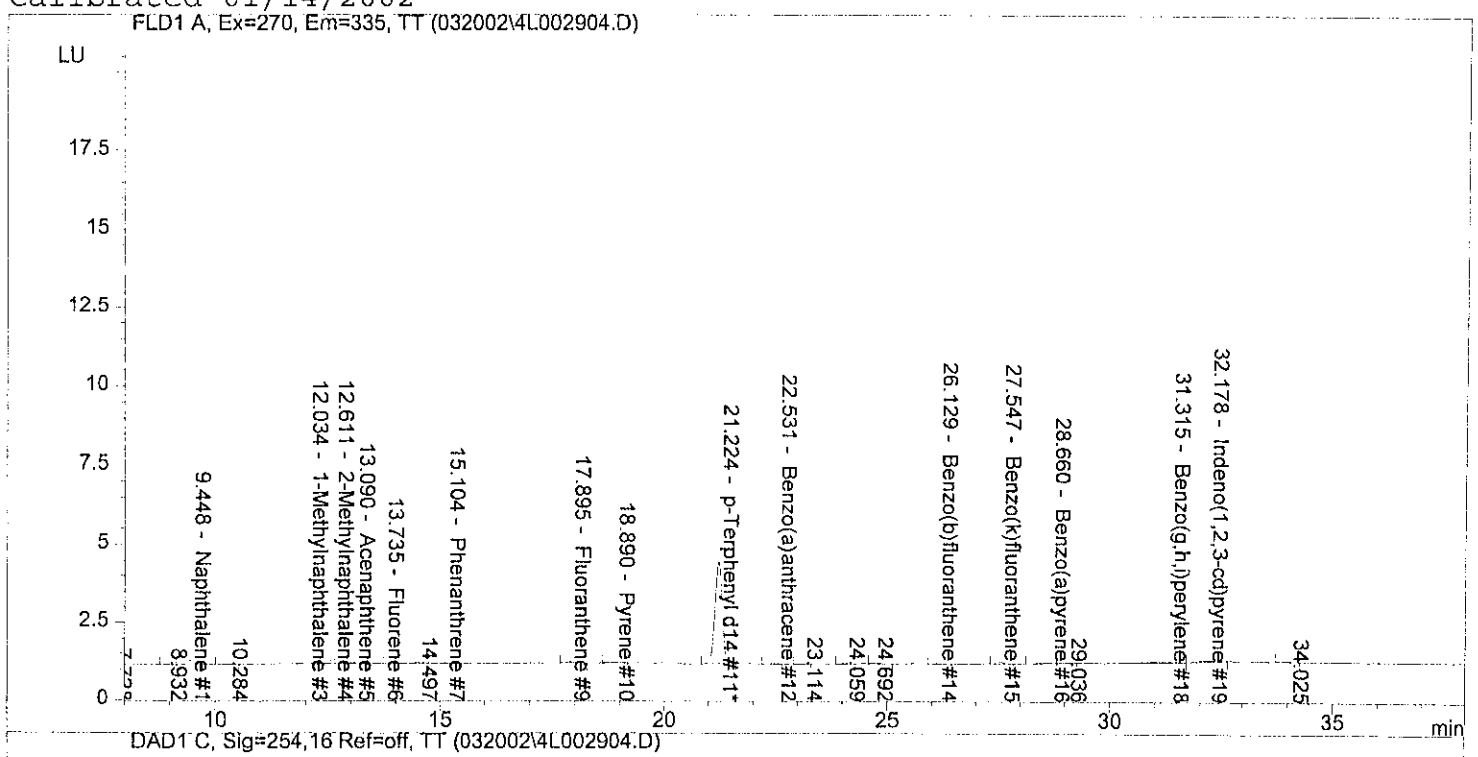
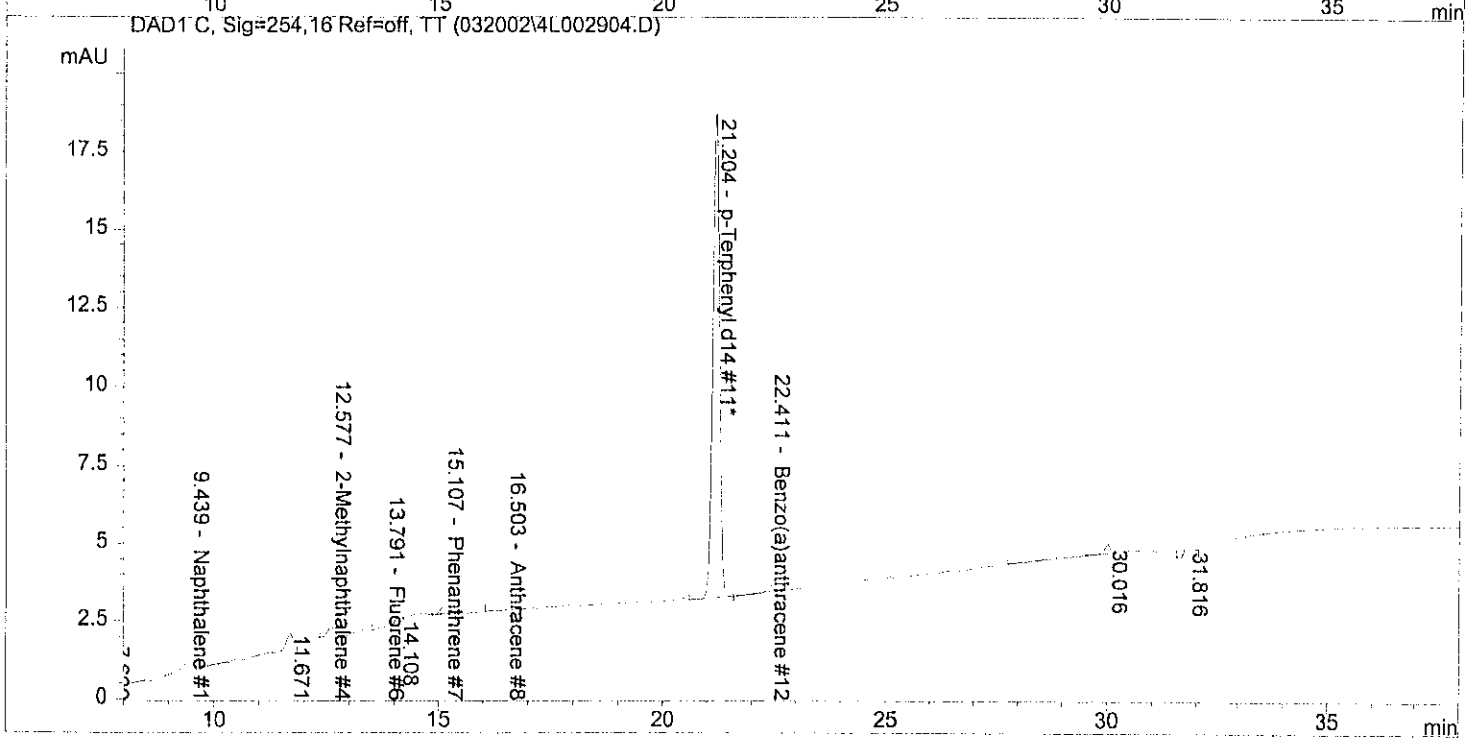
Injection Date	: 3/20/2002 8:30:30 PM	Seq. Line :	8
Sample Name	: L0203326-02 831W	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

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 : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.448	BB	1.37136	2.57003e-2	3.52442e-2		Naphthalene #1
12.034	BB	6.94991e-1	2.24893e-2	1.56299e-2		1-Methylnaphthalene #3
12.611	BB	1.67030	1.72691e-2	2.88446e-2		2-Methylnaphthalene #4
13.090	BB	7.27273e-1	1.38228e-2	1.00529e-2		Acenaphthene #5
13.735	BB	2.40811	6.56879e-3	1.58184e-2		Fluorene #6
15.104	BB	3.11898e-1	1.68488e-1	5.25510e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.895	BBA	5.68275e-1	2.38671e-2	1.35631e-2		Fluoranthene #9
18.890	BBA	3.03570e-1	4.06594e-2	1.23430e-2		Pyrene #10
21.224	BB	36.48937	2.86511e-1	10.45462		p-Terphenyl d14 #11*
22.531	BB	4.37003e-1	7.96557e-3	3.48098e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.129	BBA	2.58189e-1	1.65598e-2	4.27556e-3		Benzo(b)fluoranthene #14
27.547	PBA	5.60461e-1	2.77566e-3	1.55565e-3		Benzo(k)fluoranthene #15
28.660	BB	2.51652e-1	4.67660e-3	1.17687e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.315	BB	2.33911	2.69466e-2	6.30311e-2		Benzo(g,h,i)perylene #18
32.178	BB	1.41417	1.37440e-2	1.94364e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 10.73163

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.439	BB	3.39390	8.27651e-3	2.80897e-2	MDL	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.577	BB	4.19458	1.12713e-2	4.72782e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.791	BB	3.72855	1.76946e-2	6.59751e-2		Fluorene #6
15.107	BB	2.82505	1.74291e-2	4.92380e-2		Phenanthrene #7
16.503	BBA	5.00197	1.03455e-2	5.17479e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-	104%	Pyrene #10
21.204	BB	160.74544	6.45989e-2	10.38398		p-Terphenyl d14 #11*
22.411	BB	1.19731	2.22878e-2	2.66854e-2	MDL	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]	
31.268	-	-	-	Benzo(g,h,i)perylene #18
32.209	-	-	-	Indeno(1,2,3-cd)pyrene #1

Totals : 10.65300

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.3 Standards Data

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

[min]	Sig		[ug/Kg]				
		2	5.00000	352.56210	1.41819e-2		
		3	10.00000	761.30933	1.31353e-2		
		4	20.00000	1527.97900	1.30892e-2		
		5	50.00000	3818.50562	1.30941e-2		
		6	100.00000	7715.90479	1.29602e-2		
11.847	1	1	1.00000	41.42604	2.41394e-2		1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2		
		3	10.00000	434.69620	2.30046e-2		
		4	20.00000	876.57288	2.28161e-2		
		5	50.00000	2196.17188	2.27669e-2		
		6	100.00000	4464.79199	2.23975e-2		
12.413	2	1	1.00000	84.19754	1.18768e-2		2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2		
		3	10.00000	894.14850	1.11838e-2		
		4	20.00000	1790.56641	1.11696e-2		
		5	50.00000	4453.67236	1.12267e-2		
		6	100.00000	8860.92187	1.12855e-2		
12.428	1	1	1.00000	53.86543	1.85648e-2		2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2		
		3	10.00000	570.62238	1.75247e-2		
		4	20.00000	1149.51221	1.73987e-2		
		5	50.00000	2872.90649	1.74040e-2		
		6	100.00000	5805.80029	1.72242e-2		
12.895	2	1	1.00000	45.25933	2.20949e-2		Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2		
		3	10.00000	483.23654	2.06938e-2		
		4	20.00000	968.73480	2.06455e-2		
		5	50.00000	2423.54761	2.06309e-2		
		6	100.00000	4924.77783	2.03055e-2		
12.909	1	1	1.00000	67.89028	1.47296e-2		Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2		
		3	10.00000	718.57635	1.39164e-2		
		4	20.00000	1447.01648	1.38215e-2		
		5	50.00000	3601.05908	1.38848e-2		
		6	100.00000	7244.47559	1.38036e-2		
13.554	2	1	1.00000	50.57839	1.97713e-2		Fluorene #6
		2	5.00000	254.83487	1.96205e-2		
		3	10.00000	552.99121	1.80835e-2		
		4	20.00000	1111.38098	1.79956e-2		
		5	50.00000	2784.74756	1.79549e-2		
		6	100.00000	5678.37842	1.76107e-2		
13.569	1	1	1.00000	146.82553	6.81080e-3		Fluorene #6
		2	5.00000	715.49780	6.98814e-3		
		3	10.00000	1545.26501	6.47138e-3		
		4	20.00000	3090.21484	6.47204e-3		
		5	50.00000	7650.25977	6.53573e-3		
		6	100.00000	1.51952e4	6.58103e-3		
14.954	2	1	1.00000	66.64948	1.50039e-2		Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2		
		3	10.00000	563.78040	1.77374e-2		
		4	20.00000	1130.27087	1.76949e-2		
		5	50.00000	2829.81055	1.76690e-2		
		6	100.00000	5762.64355	1.73531e-2		
14.969	1	1	1.00000	5.24433	1.90682e-1		Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1		
		3	10.00000	56.83334	1.75953e-1		

[min]	Sig		[ug/Kg]				
		4	20.00000	114.46365	1.74728e-1		
		5	50.00000	289.46243	1.72734e-1		
		6	100.00000	598.44012	1.67101e-1		
16.371	2	1	1.00000	94.15485	1.06208e-2		Anthracene #8
		2	5.00000	458.90207	1.08956e-2		
		3	10.00000	992.23688	1.00782e-2		
		4	20.00000	1988.68909	1.00569e-2		
		5	50.00000	4949.62500	1.01018e-2		
		6	100.00000	9595.33398	1.04217e-2		
16.386	1	1	1.00000	3.17308	3.15151e-1		Anthracene #8
		2	5.00000	15.12442	3.30591e-1		
		3	10.00000	32.77779	3.05085e-1		
		4	20.00000	66.19009	3.02160e-1		
		5	50.00000	163.06247	3.06631e-1		
		6	100.00000	330.05484	3.02980e-1		
17.757	2	1	1.00000e-1	4.13764	2.41683e-2		Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2		
		3	1.00000	44.30089	2.25729e-2		
		4	2.00000	88.82484	2.25162e-2		
		5	5.00000	223.85286	2.23361e-2		
		6	10.00000	459.72919	2.17519e-2		
17.771	1	1	1.00000e-1	3.88309	2.57527e-2		Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2		
		3	1.00000	40.55882	2.46556e-2		
		4	2.00000	81.38047	2.45759e-2		
		5	5.00000	205.21196	2.43651e-2		
		6	10.00000	421.88382	2.37032e-2		
18.769	2	1	1.00000e-1	6.03502	1.65699e-2		Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2		
		3	1.00000	66.46920	1.50446e-2		
		4	2.00000	134.09285	1.49150e-2		
		5	5.00000	335.84097	1.48880e-2		
		6	10.00000	687.15900	1.45527e-2		
18.783	1	1	1.00000e-1	2.17142	4.60529e-2		Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2		
		3	1.00000	23.90537	4.18316e-2		
		4	2.00000	48.63459	4.11230e-2		
		5	5.00000	123.47372	4.04944e-2		
21.133	2	1	1.00000	13.90859	7.18980e-2		p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2		
		3	10.00000	149.64757	6.68237e-2		
		4	20.00000	301.36755	6.63641e-2		
		5	50.00000	768.36145	6.50735e-2		
		6	100.00000	1553.40210	6.43748e-2		
21.147	1	1	1.00000	3.53695	2.82730e-1		p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1		
		3	10.00000	33.44160	2.99029e-1		
		4	20.00000	67.61504	2.95792e-1		
		5	50.00000	172.45569	2.89930e-1		
		6	100.00000	350.72665	2.85122e-1		
22.460	2	1	1.00000e-1	4.29036	2.33081e-2		Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2		
		3	1.00000	43.45026	2.30148e-2		
		4	2.00000	87.40981	2.28807e-2		
		5	5.00000	219.83919	2.27439e-2		
		6	10.00000	451.63605	2.21417e-2		

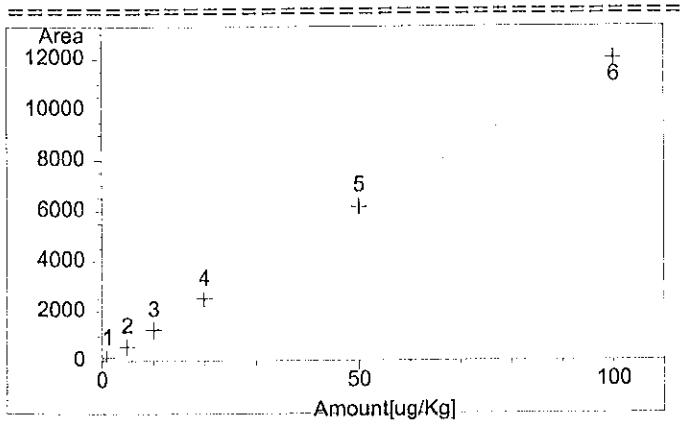
[min]	Sig		[ug/Kg]			
22.475	1	1	1.00000e-1	11.70344	8.54450e-3	Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3	
		3	1.00000	120.40920	8.30501e-3	
		4	2.00000	243.40866	8.21663e-3	
		5	5.00000	613.80975	8.14585e-3	
		6	10.00000	1264.77136	7.90657e-3	
23.344	2	1	1.00000e-1	5.99650	1.66764e-2	Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2	
		3	1.00000	63.55274	1.57350e-2	
		4	2.00000	127.90170	1.56370e-2	
		5	5.00000	322.44791	1.55064e-2	
		6	10.00000	661.99542	1.51058e-2	
23.359	1	1	1.00000e-1	2.53400	3.94634e-2	Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2	
		3	1.00000	24.62586	4.06077e-2	
		4	2.00000	49.65573	4.02773e-2	
		5	5.00000	125.29953	3.99044e-2	
		6	10.00000	258.24448	3.87230e-2	
26.084	2	1	1.00000e-1	4.71873	2.11921e-2	Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2	
		3	1.00000	46.72572	2.14015e-2	
		4	2.00000	93.43871	2.14044e-2	
		5	5.00000	235.80293	2.12041e-2	
		6	10.00000	482.47552	2.07264e-2	
26.097	1	1	1.00000e-1	5.50489	1.81657e-2	Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2	
		3	1.00000	58.49529	1.70954e-2	
		4	2.00000	117.46639	1.70261e-2	
		5	5.00000	295.74701	1.69063e-2	
		6	10.00000	607.99158	1.64476e-2	
27.543	2	1	5.00000e-2	1.94087	2.57616e-2	Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2	
		3	5.00000e-1	22.23862	2.24834e-2	
		4	1.00000	43.15946	2.31699e-2	
		5	2.50000	107.77484	2.31965e-2	
		6	5.00000	221.38257	2.25853e-2	
27.552	1	1	5.00000e-2	16.52934	3.02492e-3	Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3	
		3	5.00000e-1	175.63820	2.84676e-3	
		4	1.00000	353.46982	2.82910e-3	
		5	2.50000	887.50769	2.81688e-3	
		6	5.00000	1810.23218	2.76208e-3	
28.658	2	1	1.00000e-1	2.93301	3.40947e-2	Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2	
		3	1.00000	36.33923	2.75185e-2	
		4	2.00000	72.43052	2.76127e-2	
		5	5.00000	183.75787	2.72097e-2	
		6	10.00000	382.09714	2.61714e-2	
28.671	1	1	1.00000e-1	19.03635	5.25311e-3	Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3	
		3	1.00000	203.03578	4.92524e-3	
		4	2.00000	411.81049	4.85660e-3	
		5	5.00000	1042.10840	4.79797e-3	
		6	10.00000	2156.77197	4.63656e-3	
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1	Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1	

[min]	Sig		[ug/Kg]			
		3	1.00000	10.59134	9.44168e-2	
		4	2.00000	20.95795	9.54292e-2	
		5	5.00000	52.59206	9.50714e-2	
		6	10.00000	106.91074	9.35360e-2	
30.549	1	1	1.00000e-1	2.25618	4.43227e-2	Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2	
		3	1.00000	24.01385	4.16426e-2	
		4	2.00000	49.01668	4.08024e-2	
		5	5.00000	123.83313	4.03769e-2	
		6	10.00000	256.59177	3.89724e-2	
31.330	2	1	1.00000e-1	2.16289	4.62345e-2	Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2	
		3	1.00000	18.37240	5.44295e-2	
		4	2.00000	36.23856	5.51898e-2	
		5	5.00000	91.19056	5.48302e-2	
		6	10.00000	188.48102	5.30557e-2	
31.354	1	1	1.00000e-1	3.69533	2.70612e-2	Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2	
		3	1.00000	34.73734	2.87875e-2	
		4	2.00000	70.52281	2.83596e-2	
		5	5.00000	179.72395	2.78204e-2	
		6	10.00000	375.12704	2.66576e-2	
32.286	2	1	1.00000e-1	3.89559	2.56700e-2	Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2	
		3	1.00000	46.32841	2.15850e-2	
		4	2.00000	93.53850	2.13816e-2	
		5	5.00000	237.57994	2.10455e-2	
		6	10.00000	488.50769	2.04705e-2	
32.292	1	1	1.00000e-1	6.81821	1.46666e-2	Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2	
		3	1.00000	70.38887	1.42068e-2	
		4	2.00000	141.77130	1.41072e-2	
		5	5.00000	357.19571	1.39979e-2	
		6	10.00000	732.07330	1.36598e-2	

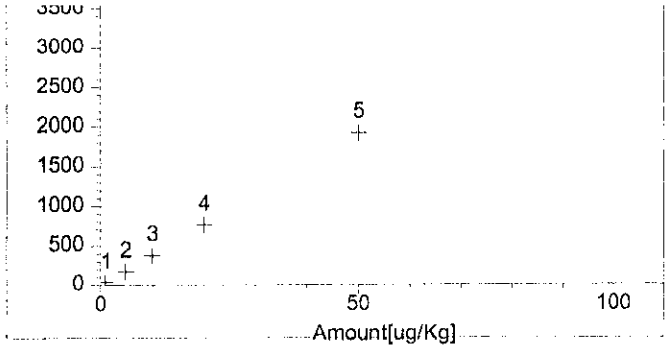
Peak Sum Table

No Entries in table

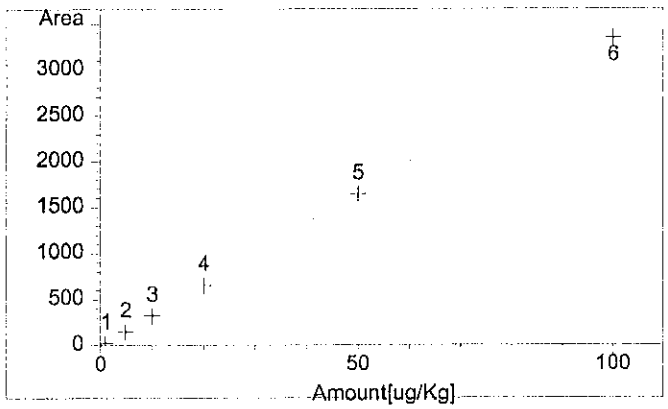
Calibration Curves



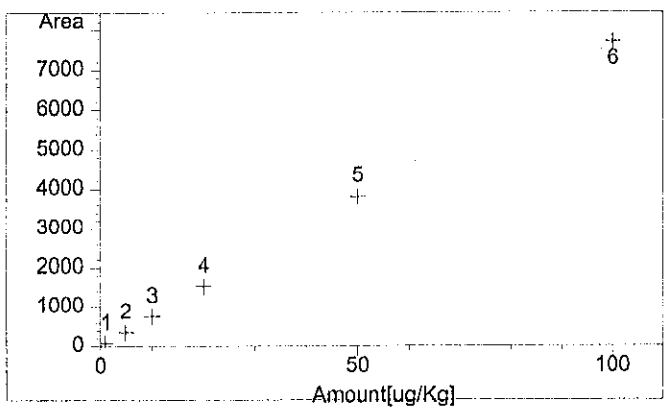
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount [ug/Kg]
y: Area



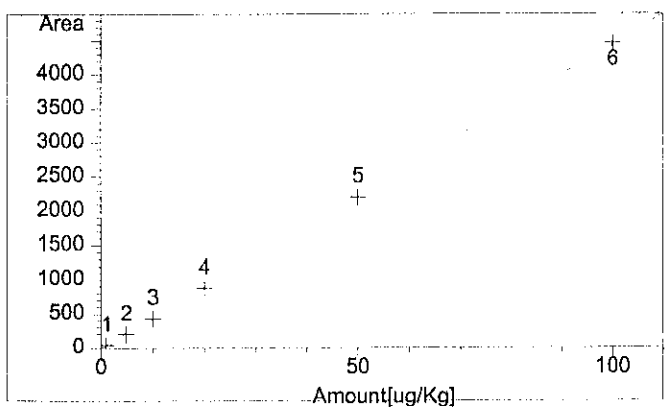
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



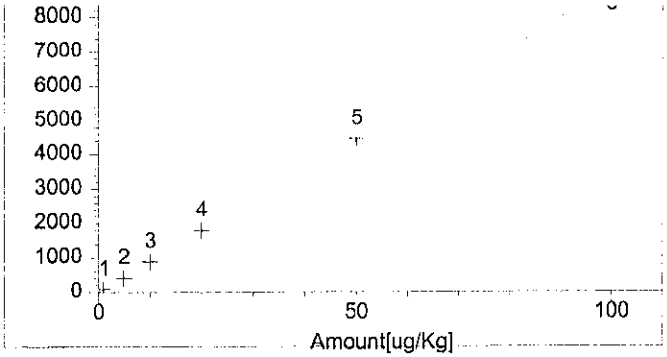
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



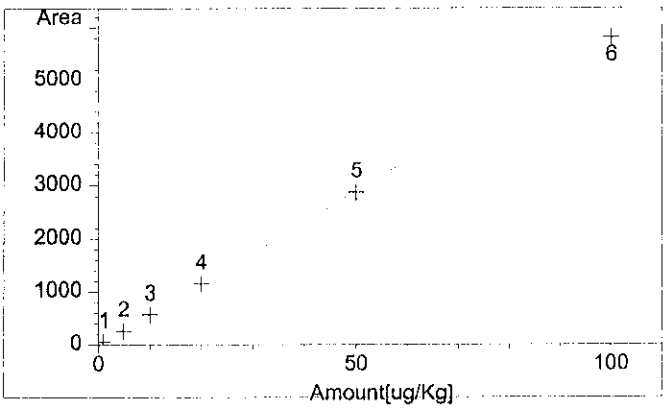
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



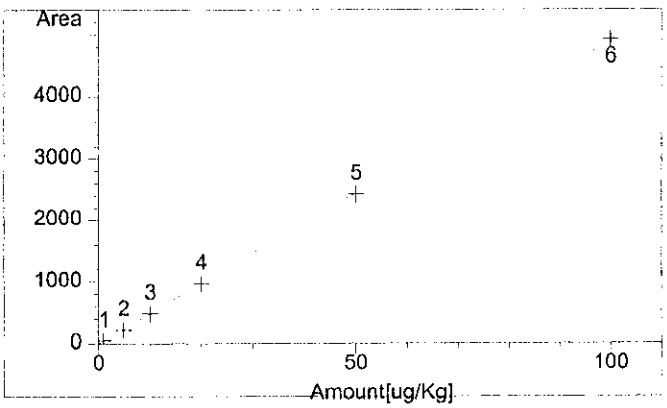
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



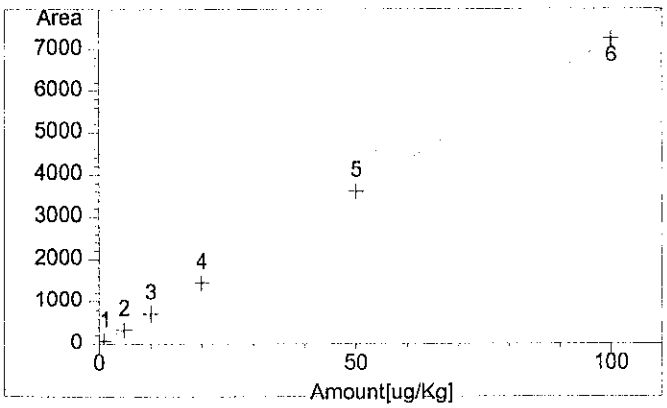
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount[ug/Kg]
y: Area



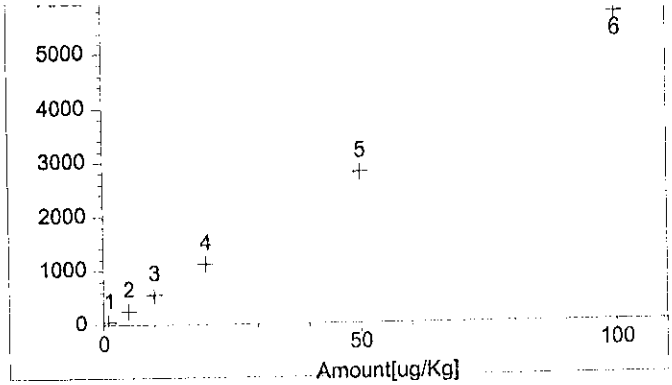
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount[ug/Kg]
y: Area



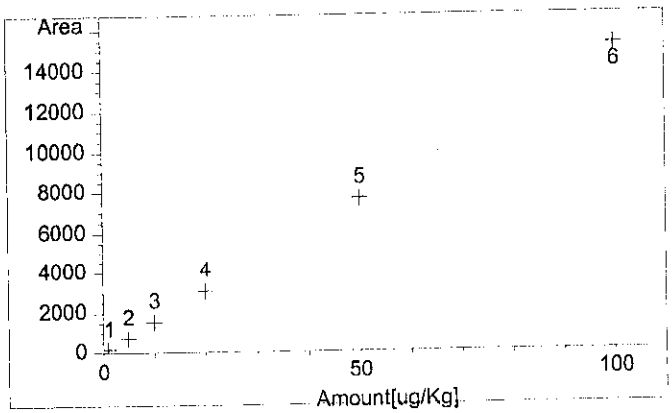
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount[ug/Kg]
y: Area



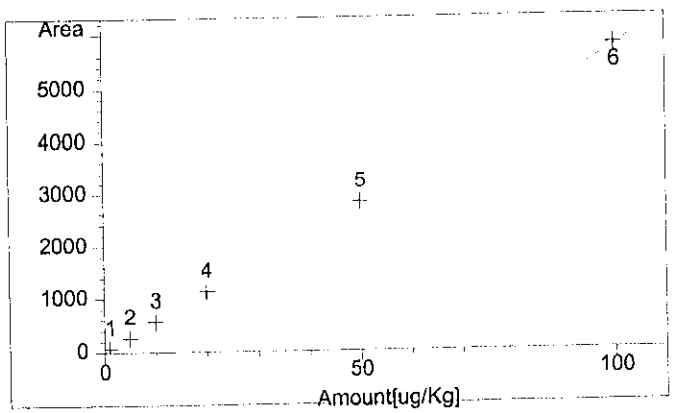
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount[ug/Kg]
y: Area



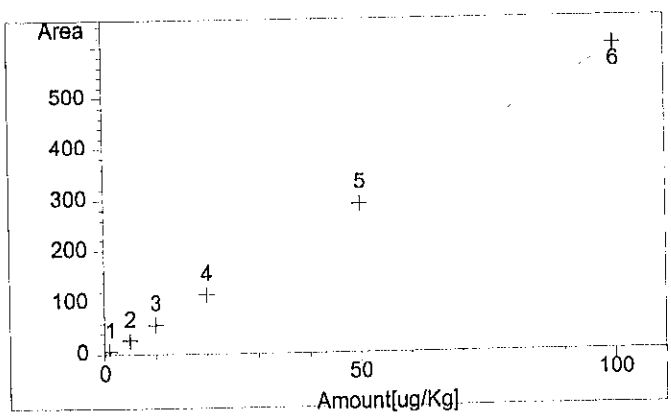
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



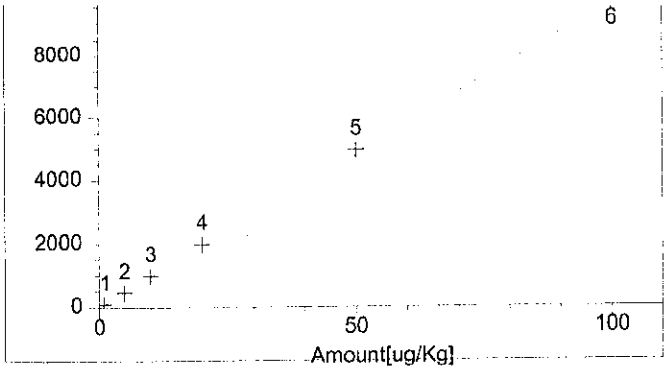
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



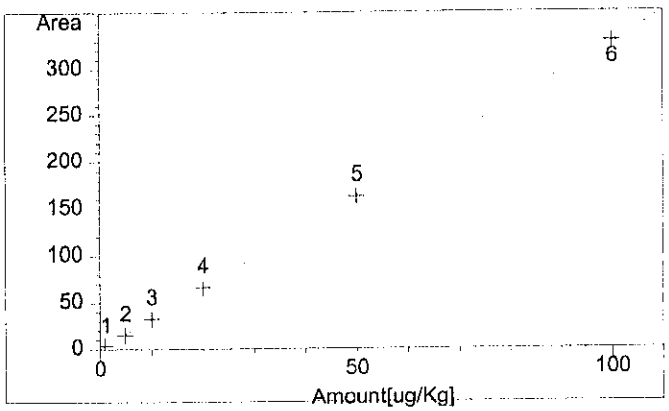
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



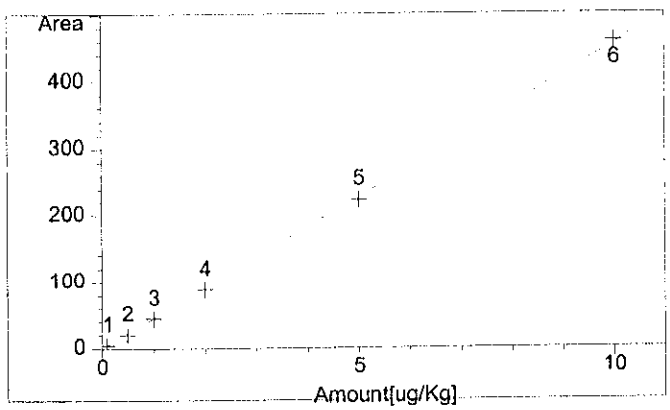
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



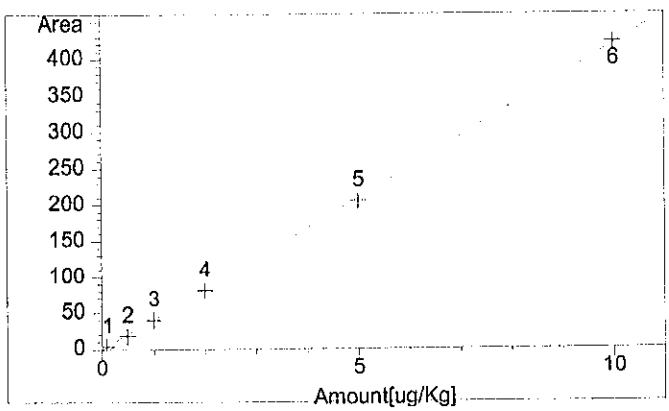
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



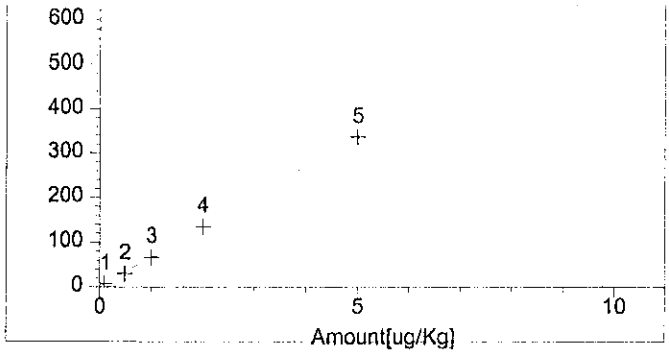
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



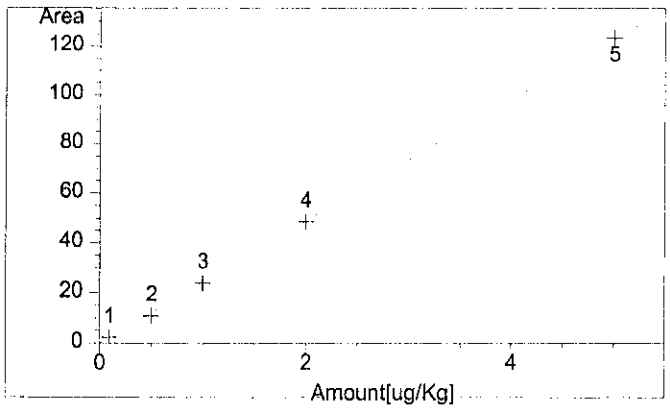
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



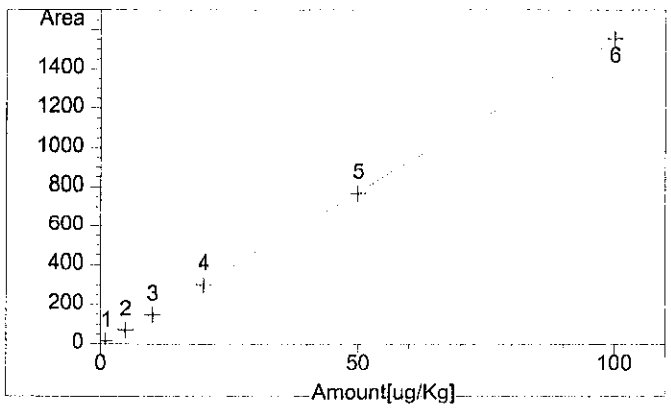
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



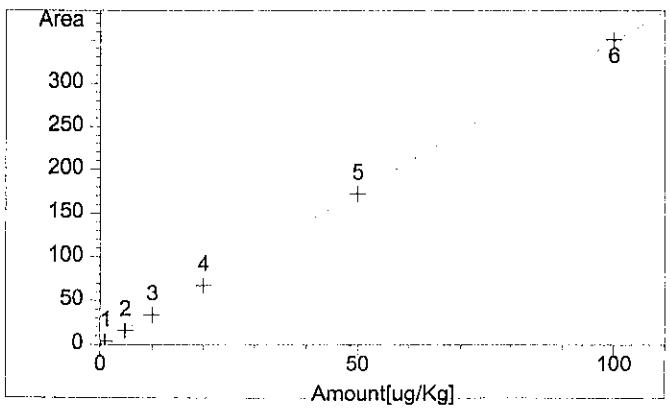
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



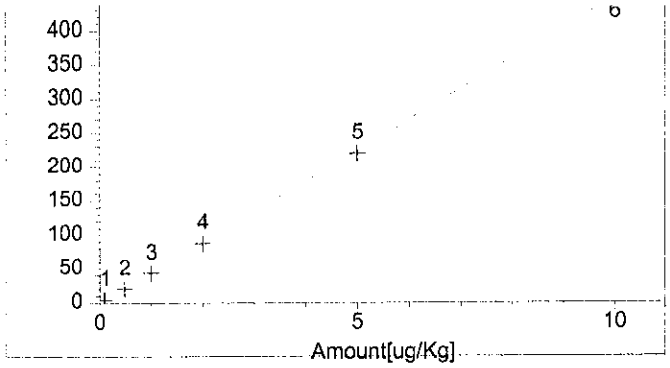
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



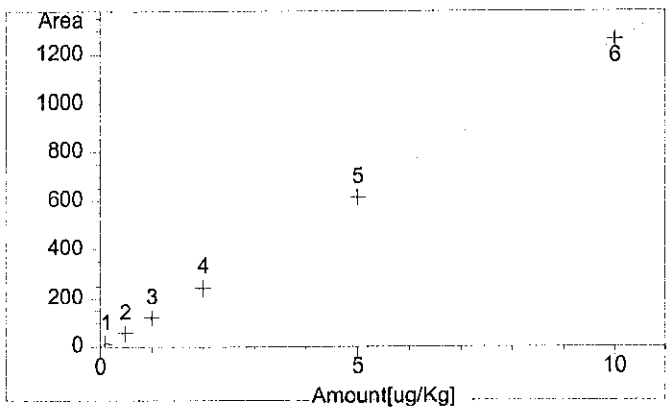
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



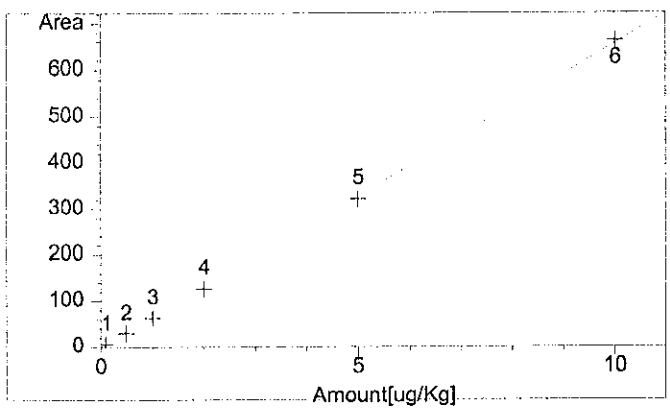
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



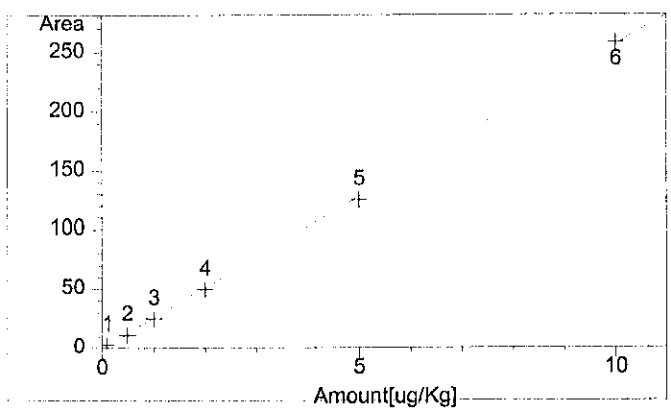
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



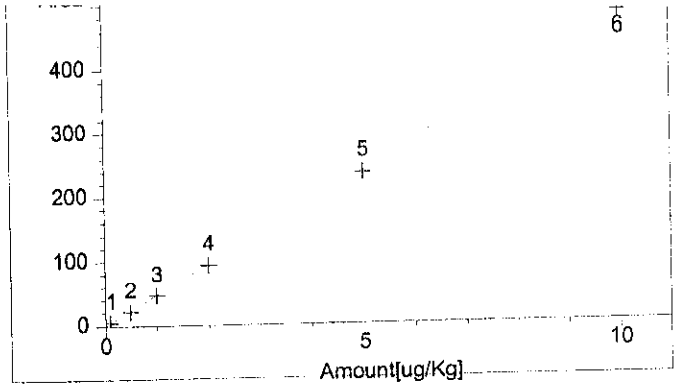
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



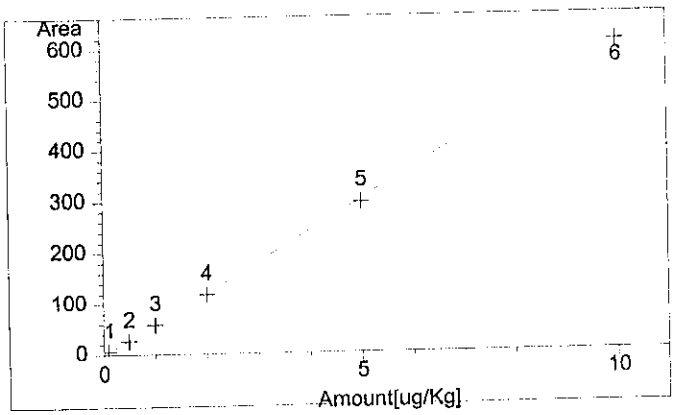
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



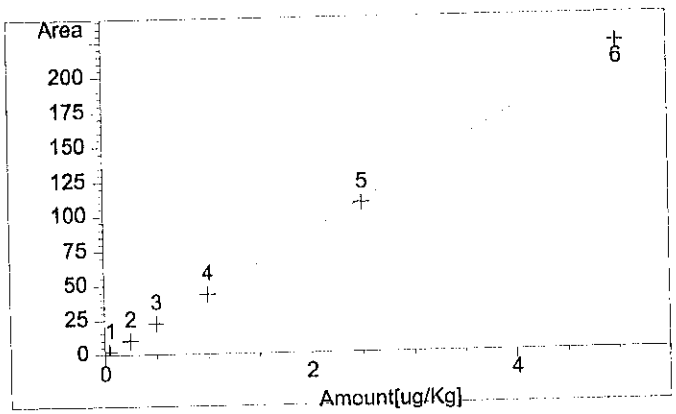
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



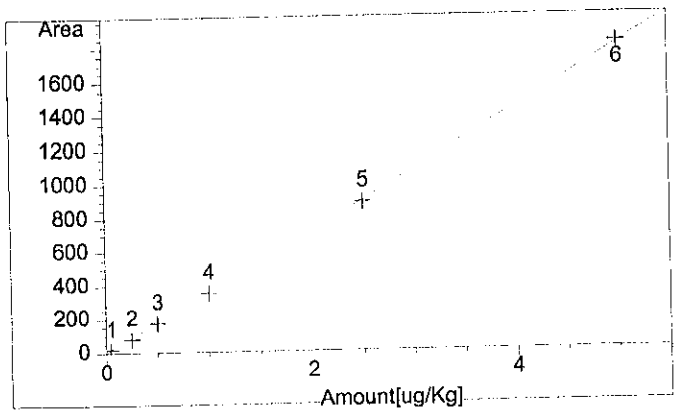
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



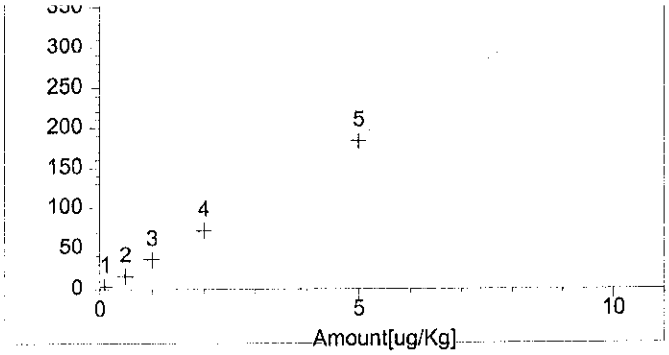
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



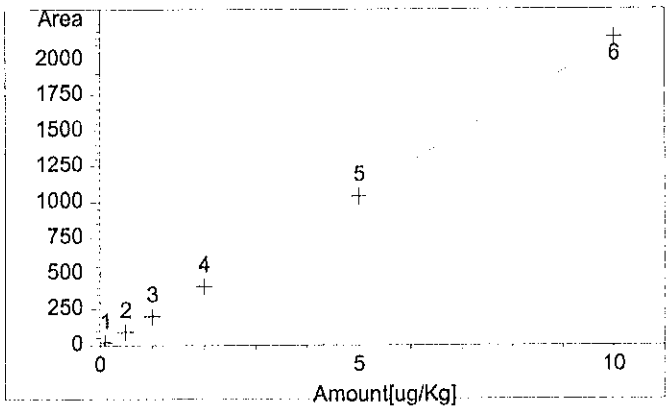
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



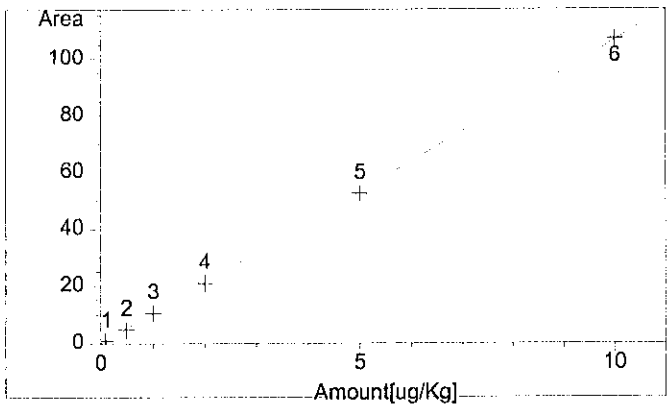
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



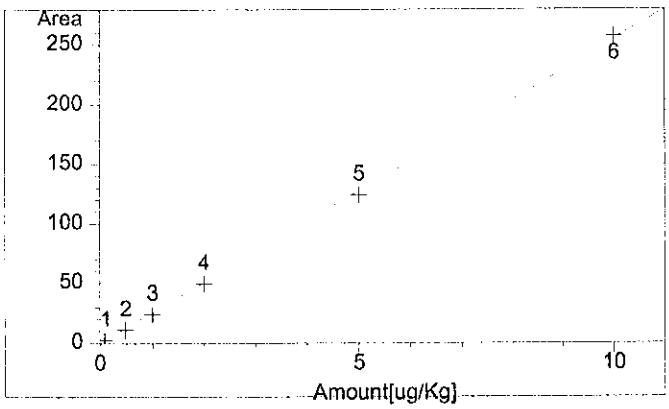
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount[ug/Kg]
y: Area



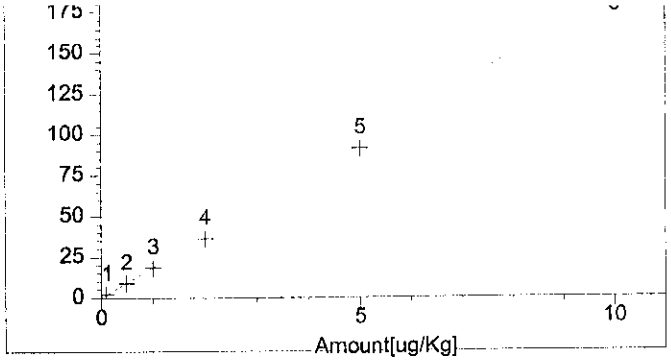
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount[ug/Kg]
y: Area



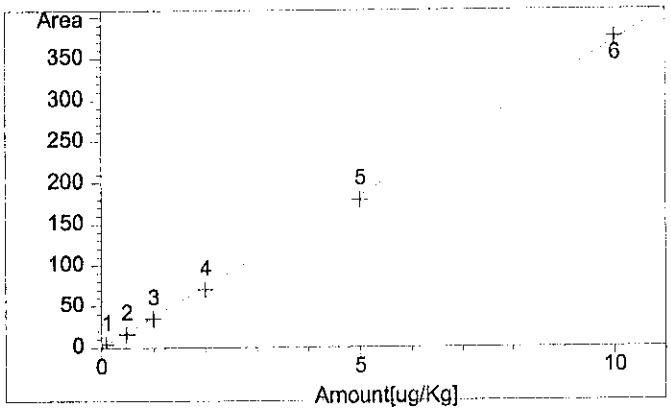
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount[ug/Kg]
y: Area



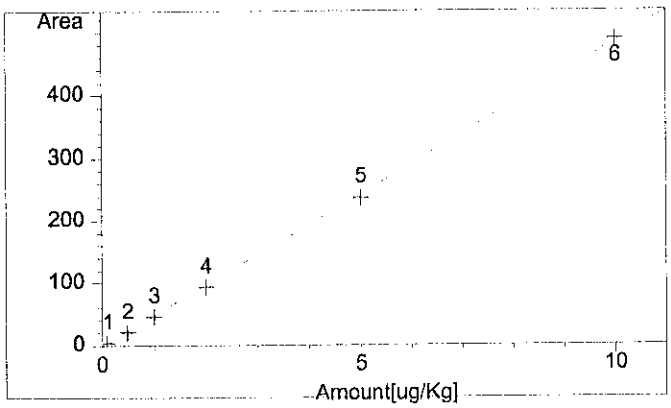
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount[ug/Kg]
y: Area



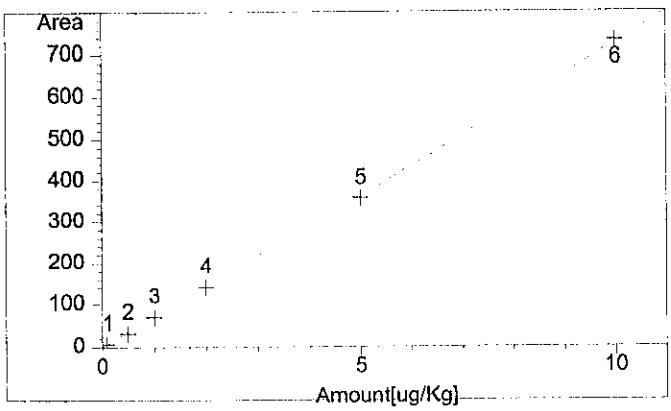
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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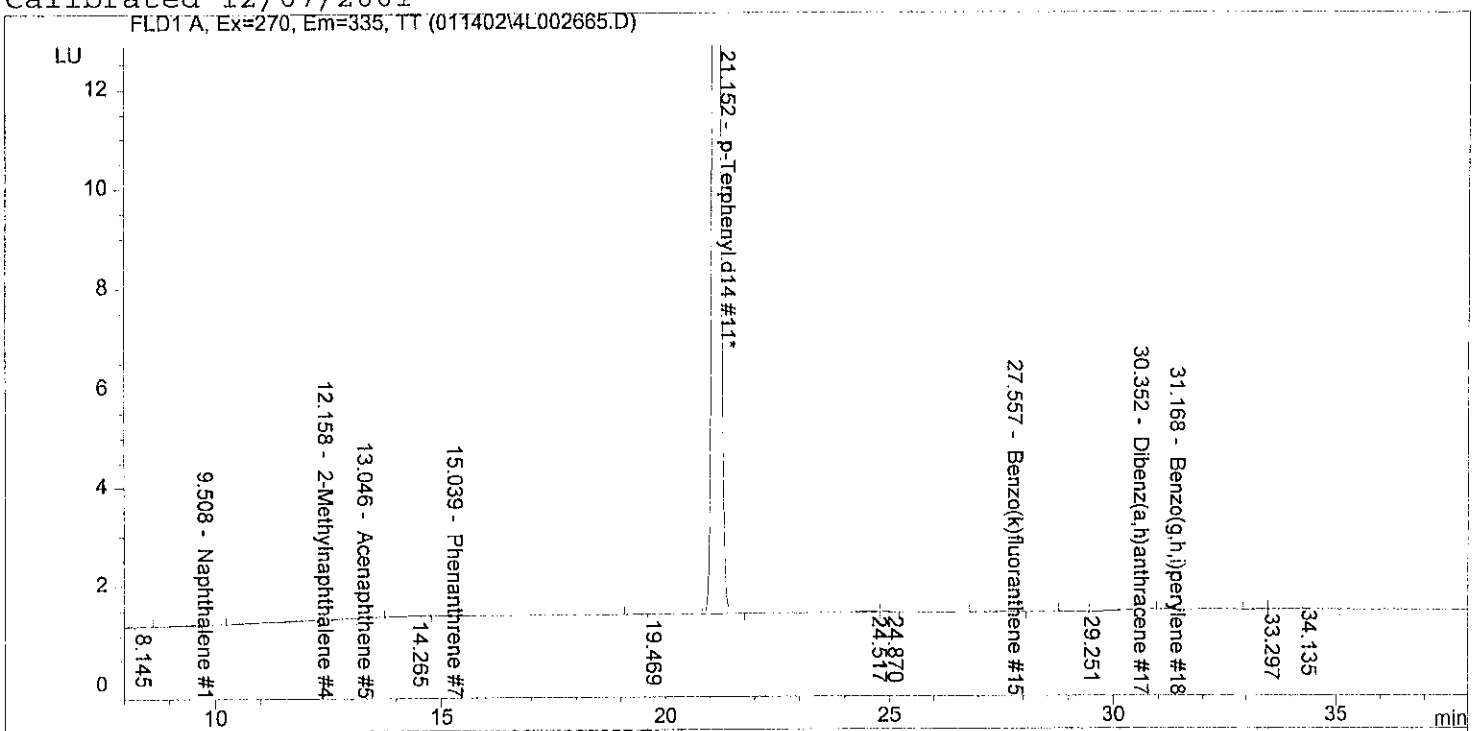
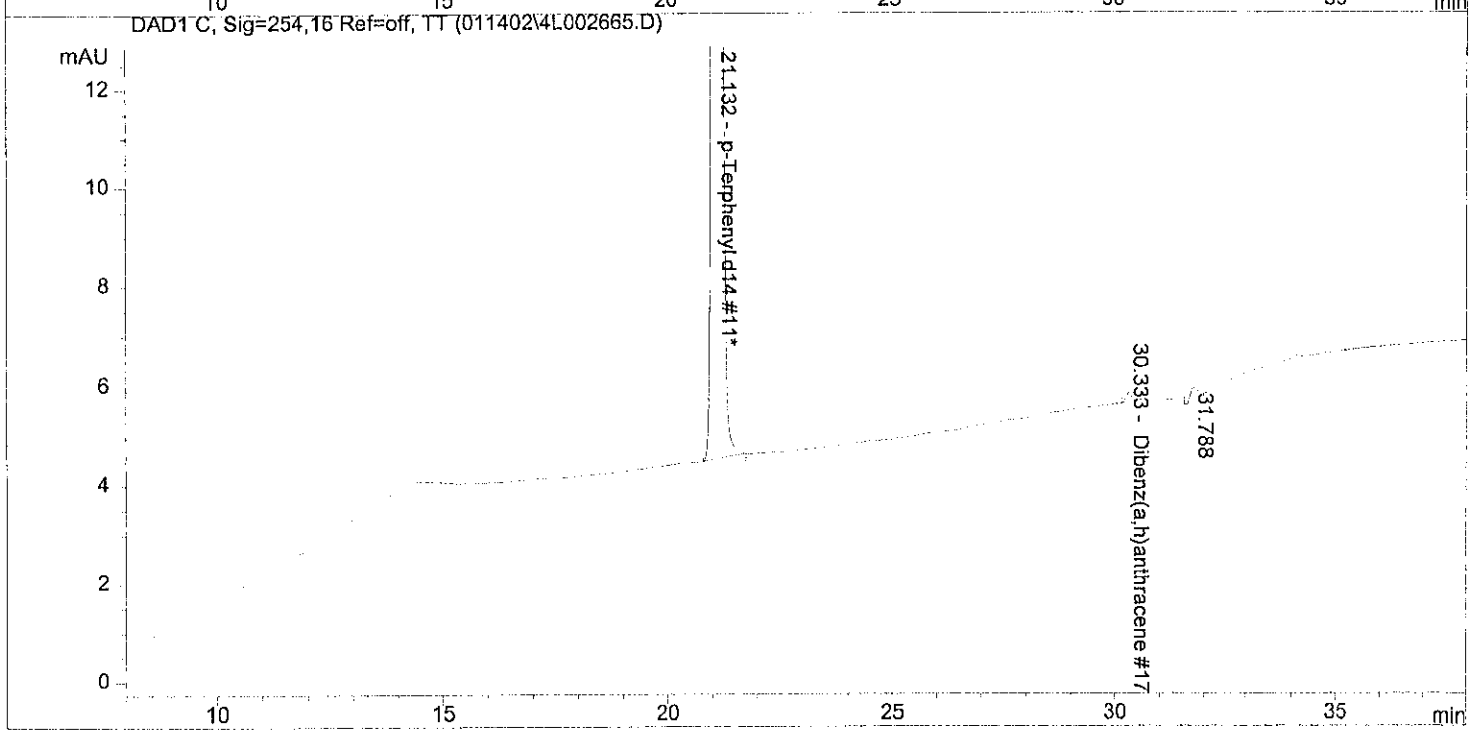
Injection Date : 1/14/2002 4:49:46 PM
Sample Name : WG111292-01 STD6
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:55:14 AM by RDC
(modified after loading)

Calibrated 12/07/2001





Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:54:56 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.508	BB	4.34759e-1	1.16481e-1	5.06410e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.158	BB	1.07918	7.75522e-2	8.36927e-2		2-Methylnaphthalene #4
13.046	BB	1.89278e-1	6.17121e-2	1.16807e-2		Acenaphthene #5
13.592		-	-	-		Fluorene #6
15.039	BB	1.66581e-1	7.68372e-1	1.27997e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.152	BB	350.72665	2.88863e-1	101.31209		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.557	BB	2.49311e-1	1.22777e-2	3.06097e-3		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.352	BB	3.07933e-1	1.82908e-1	5.63234e-2		Dibenz(a,h)anthracene #17
31.168	BB	1.72865e-1	1.36072e-1	2.35222e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 101.66901

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.574		-	-	-		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.132	PBA	1553.40210	6.46122e-2	100.36876		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.333	PBA	1.41009	3.91388e-1	5.51892e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.92065

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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*** End of Report ***

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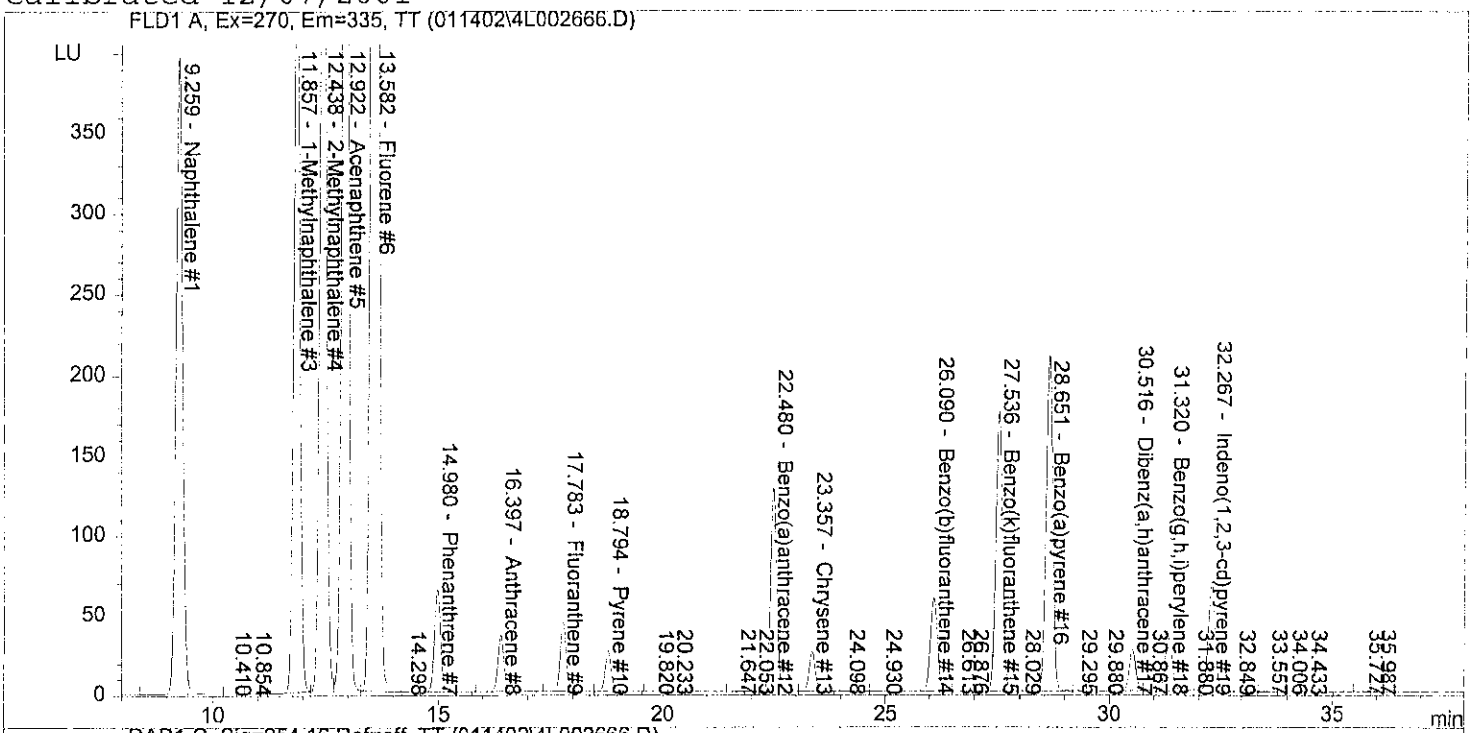
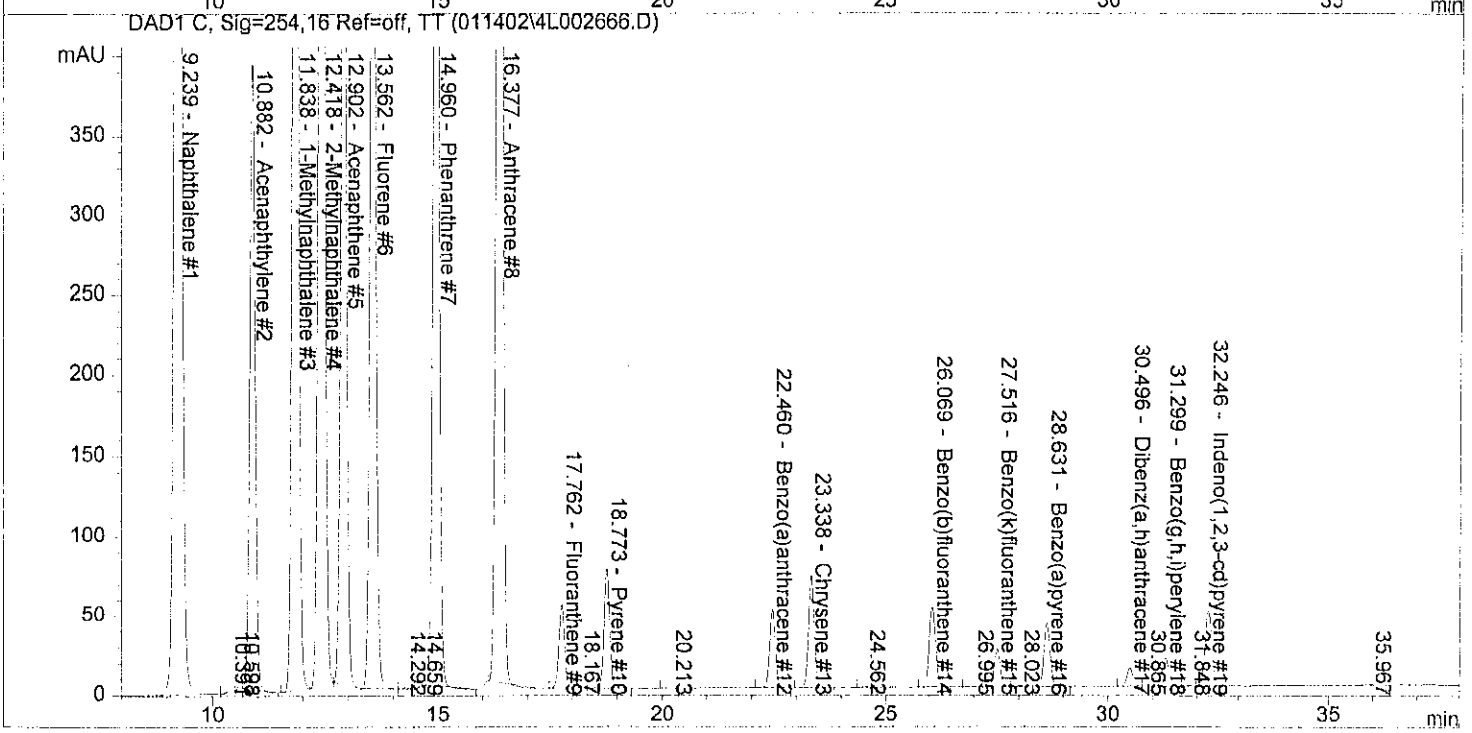
Injection Date : 1/14/2002 5:46:24 PM Seq. Line : 6
Sample Name : WG111292-02 STD6 Vial : 6
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:15 AM by RDC
(modified after loading)

Calibrated 12/07/2001





Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.259	BB	3909.56982	2.59098e-2	101.29633		Naphthalene #1
11.857	BB	4464.79199	2.26593e-2	101.16897		1-Methylnaphthalene #3
12.438	BB	5805.80029	1.74043e-2	101.04580		2-Methylnaphthalene #4
12.922	BB	7244.47559	1.39240e-2	100.87222		Acenaphthene #5
13.582	BB	1.51952e4	6.58360e-3	100.03904		Fluorene #6
14.980	BBA	598.44012	1.69653e-1	101.52739		Phenanthrene #7
16.397	PB	330.05484	3.06735e-1	101.23935		Anthracene #8
17.783	BB	421.88382	2.42042e-2	10.21136		Fluoranthene #9
18.794	BBA	256.38925	4.52106e-2	11.59150		Pyrene #10
21.152		-	-	-		p-Terphenyl d14 #11*
22.480	BB	1264.77136	8.05530e-3	10.18811		Benzo(a)anthracene #12
23.357	BB	258.24448	3.94803e-2	10.19558		Chrysene #13
26.090	BB	607.99158	1.66154e-2	10.10204		Benzo(b)fluoranthene #14
27.536	BB	1810.23218	2.78279e-3	5.03750		Benzo(k)fluoranthene #15
28.651	BB	2156.77197	4.79942e-3	10.35126		Benzo(a)pyrene #16
30.516	BB	256.59177	3.97741e-2	10.20569		Dibenz(a,h)anthracene #17
31.320	BB	375.12704	2.76747e-2	10.38153		Benzo(g,h,i)perylene #18
32.267	BB	732.07330	1.37649e-2	10.07693		Indeno(1,2,3-cd)pyrene #1
Totals :				805.53062		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.239	BB	1.20010e4	8.25558e-3	99.07545		Naphthalene #1
10.882	BBA	3349.02344	2.99703e-2	100.37122		Acenaphthylene #2
11.838	PB	7715.90479	1.29630e-2	100.02135		1-Methylnaphthalene #3
12.418	BB	8860.92187	1.12528e-2	99.71030		2-Methylnaphthalene #4
12.902	BB	4924.77783	2.03626e-2	100.28115		Acenaphthene #5
13.562	BB	5678.37842	1.76507e-2	100.22728		Fluorene #6
14.960	BBA	5762.64355	1.73998e-2	100.26891		Phenanthrene #7
16.377	BBA	9595.33398	1.04250e-2	100.03098		Anthracene #8
17.762	PB	459.72919	2.18384e-2	10.03975		Fluoranthene #9
18.773	BBA	687.15900	1.45933e-2	10.02794		Pyrene #10
21.132		-	-	-		p-Terphenyl d14 #11*
22.460	BBA	451.63605	2.22799e-2	10.06240		Benzo(a)anthracene #12
23.338	BBA	661.99542	1.51643e-2	10.03871		Chrysene #13
26.069	BBA	482.47552	2.08014e-2	10.03615		Benzo(b)fluoranthene #14
27.516	BB	221.38257	2.26525e-2	5.01487		Benzo(k)fluoranthene #15
28.631	BB	382.09714	2.68748e-2	10.26877		Benzo(a)pyrene #16
30.496	PB	106.91074	9.38593e-2	10.03457		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/kg]		
31.299	BB	188.48102	5.43668e-2	10.24712		Benzo(g,h,i)perylene #18
32.246	BB	488.50769	2.05620e-2	10.04469		Indeno(1,2,3-cd)pyrene #1

Totals : 895.80161

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

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*** End of Report ***

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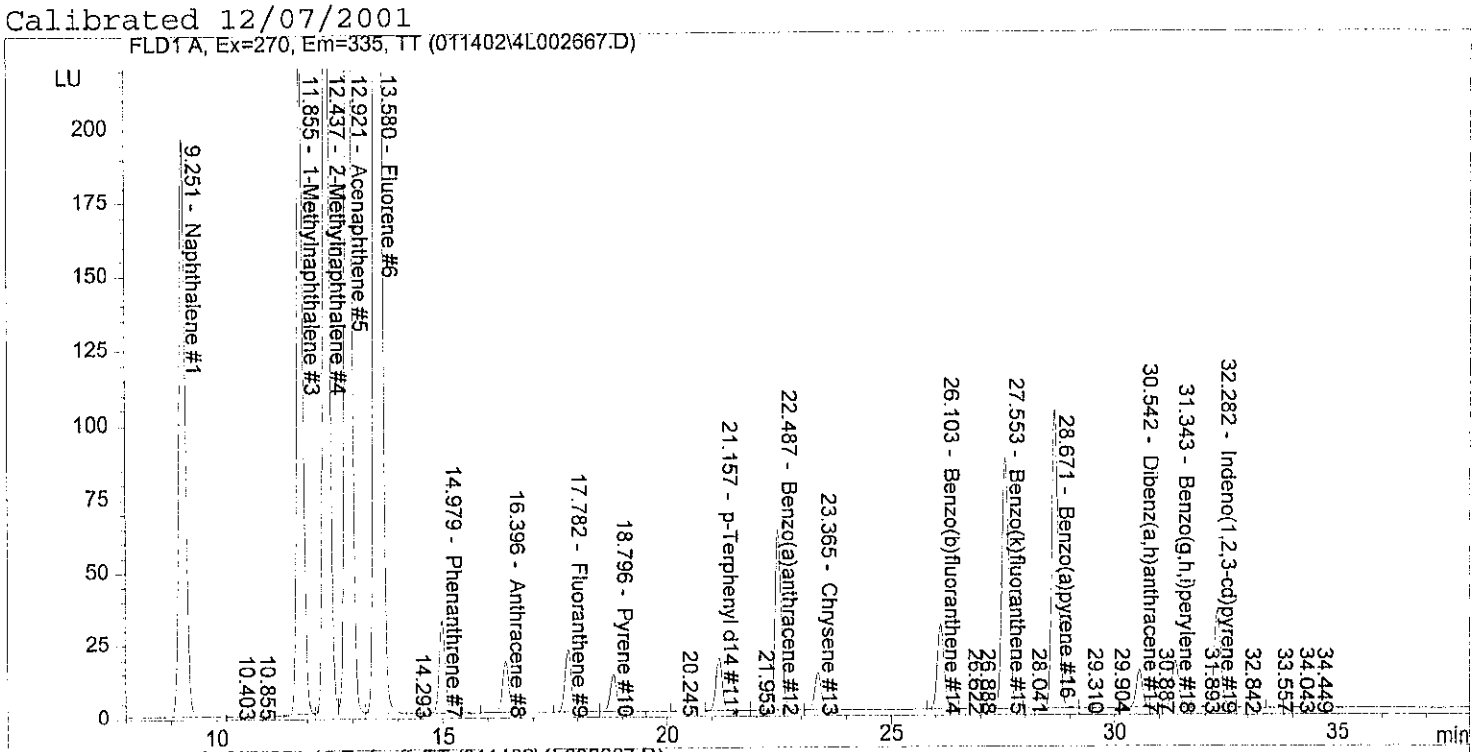
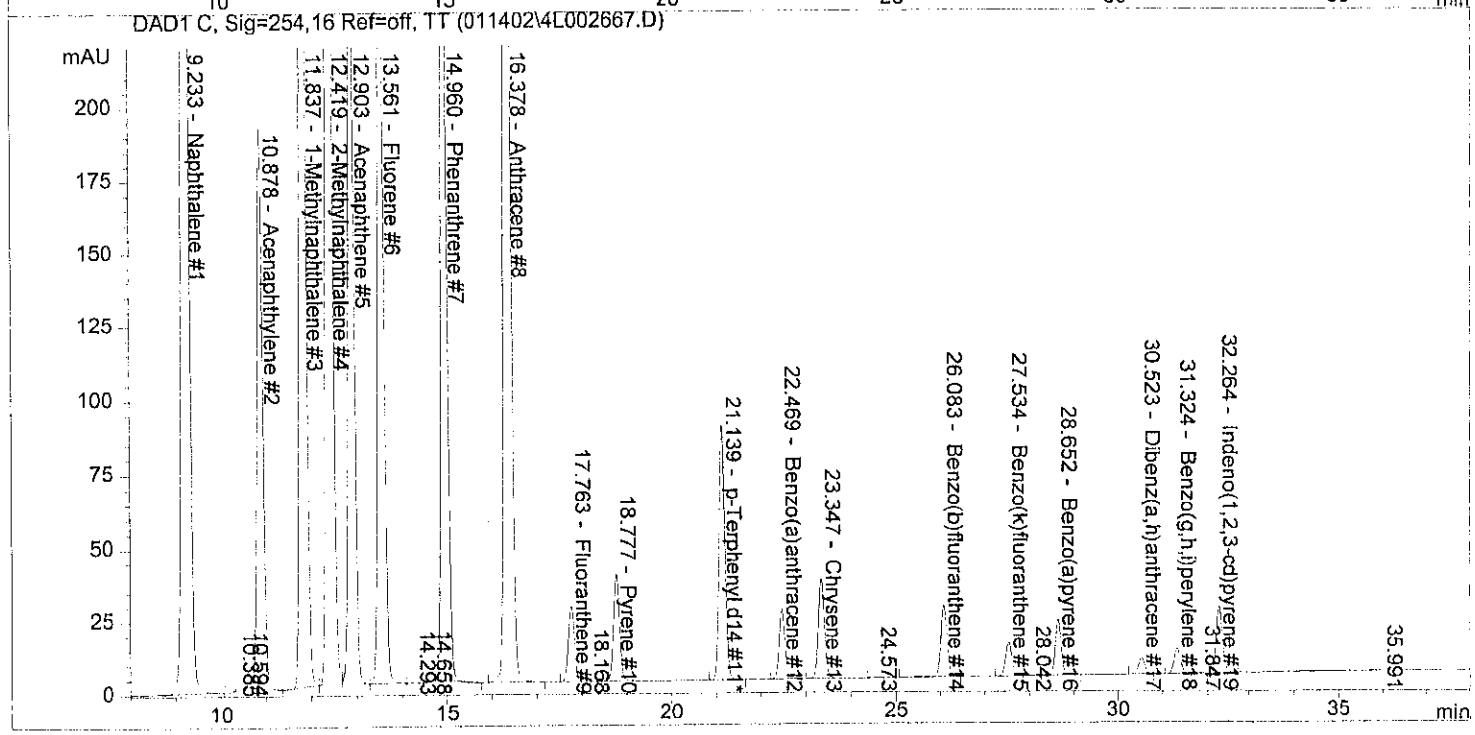
Injection Date : 1/14/2002 6:43:01 PM
Sample Name : WG111292-03 STD5
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:54 AM by RDC
(modified after loading)

Calibrated 12/07/2001





Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	PB	1917.75940	2.57391e-2	49.36141		Naphthalene #1
11.855	BB	2196.17188	2.25224e-2	49.46298		1-Methylnaphthalene #3
12.437	BB	2872.90649	1.72938e-2	49.68347		2-Methylnaphthalene #4
12.921	BB	3601.05908	1.38425e-2	49.84749		Acenaphthene #5
13.580	BB	7650.25977	6.57169e-3	50.27517		Fluorene #6
14.979	BBA	289.46243	1.68729e-1	48.84075		Phenanthrene #7
16.396	PB	163.06247	3.04476e-1	49.64867		Anthracene #8
17.782	PB	205.21196	2.39096e-2	4.90655		Fluoranthene #9
18.796	BBA	123.47372	4.13417e-2	5.10461		Pyrene #10
21.157	BB	172.45569	2.86901e-1	49.47773		p-Terphenyl d14 #11*
22.487	BB	613.80975	7.98167e-3	4.89922		Benzo(a)anthracene #12
23.365	BBA	125.29953	3.90970e-2	4.89883		Chrysene #13
26.103	BB	295.74701	1.65676e-2	4.89983		Benzo(b)fluoranthene #14
27.553	BB	887.50769	2.77706e-3	2.46466		Benzo(k)fluoranthene #15
28.671	BB	1042.10840	4.69783e-3	4.89565		Benzo(a)pyrene #16
30.542	BB	123.83313	3.94476e-2	4.88492		Dibenz(a,h)anthracene #17
31.343	BB	179.72395	2.70688e-2	4.86491		Benzo(g,h,i)perylene #18
32.282	BB	357.19571	1.37309e-2	4.90463		Indeno(1,2,3-cd)pyrene #1

Totals : 443.32149

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	6168.26709	8.27438e-3	51.03859		Naphthalene #1
10.878	BB	1640.81848	3.00057e-2	49.23384		Acenaphthylene #2
11.837	BB	3818.50562	1.29899e-2	49.60194		1-Methylnaphthalene #3
12.419	BB	4453.67236	1.12699e-2	50.19243		2-Methylnaphthalene #4
12.903	BB	2423.54761	2.03840e-2	49.40167		Acenaphthene #5
13.561	BB	2784.74756	1.76899e-2	49.26182		Fluorene #6
14.960	BBA	2829.81055	1.74269e-2	49.31471		Phenanthrene #7
16.378	BBA	4949.62500	1.03683e-2	51.31903		Anthracene #8
17.763	PB	223.85286	2.18887e-2	4.89985		Fluoranthene #9
18.777	BBA	335.84097	1.46312e-2	4.91376		Pyrene #10
21.139	PBA	768.36145	6.46010e-2	49.63695		p-Terphenyl d14 #11*
22.469	BBA	219.83919	2.22917e-2	4.90059		Benzo(a)anthracene #12
23.347	BBA	322.44791	1.52017e-2	4.90177		Chrysene #13
26.083	PBA	235.80293	2.08378e-2	4.91361		Benzo(b)fluoranthene #14
27.534	BB	107.77484	2.27191e-2	2.44855		Benzo(k)fluoranthene #15
28.652	BBA	183.75787	2.65103e-2	4.87147		Benzo(a)pyrene #16
30.523	PB	52.59206	9.36520e-2	4.92535		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.324	BB	91.19056	5.36419e-2	4.89163		Benzo(g,h,i)perylene #18
32.264	BBA	237.57994	2.05885e-2	4.89142		Indeno(1,2,3-cd)pyrene #1

Totals : 495.55898

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

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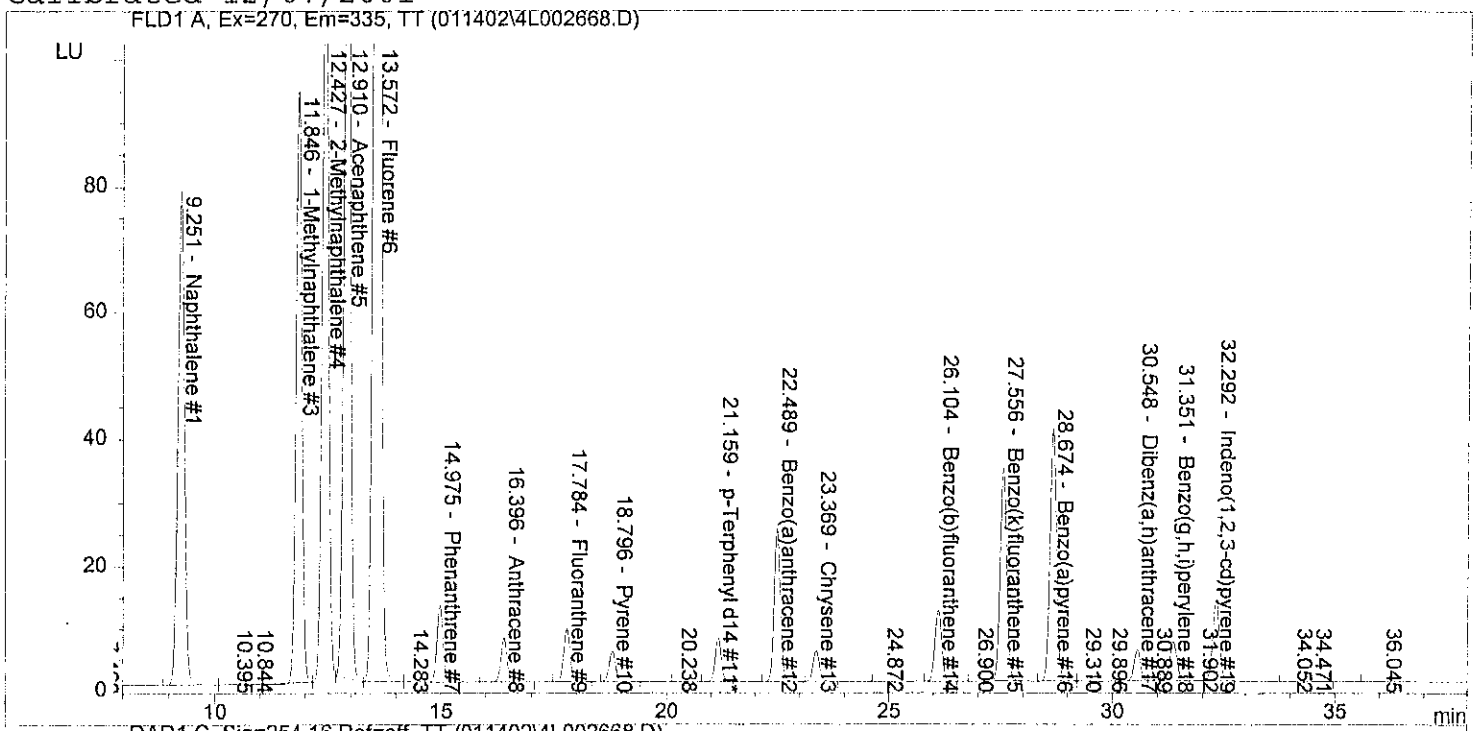
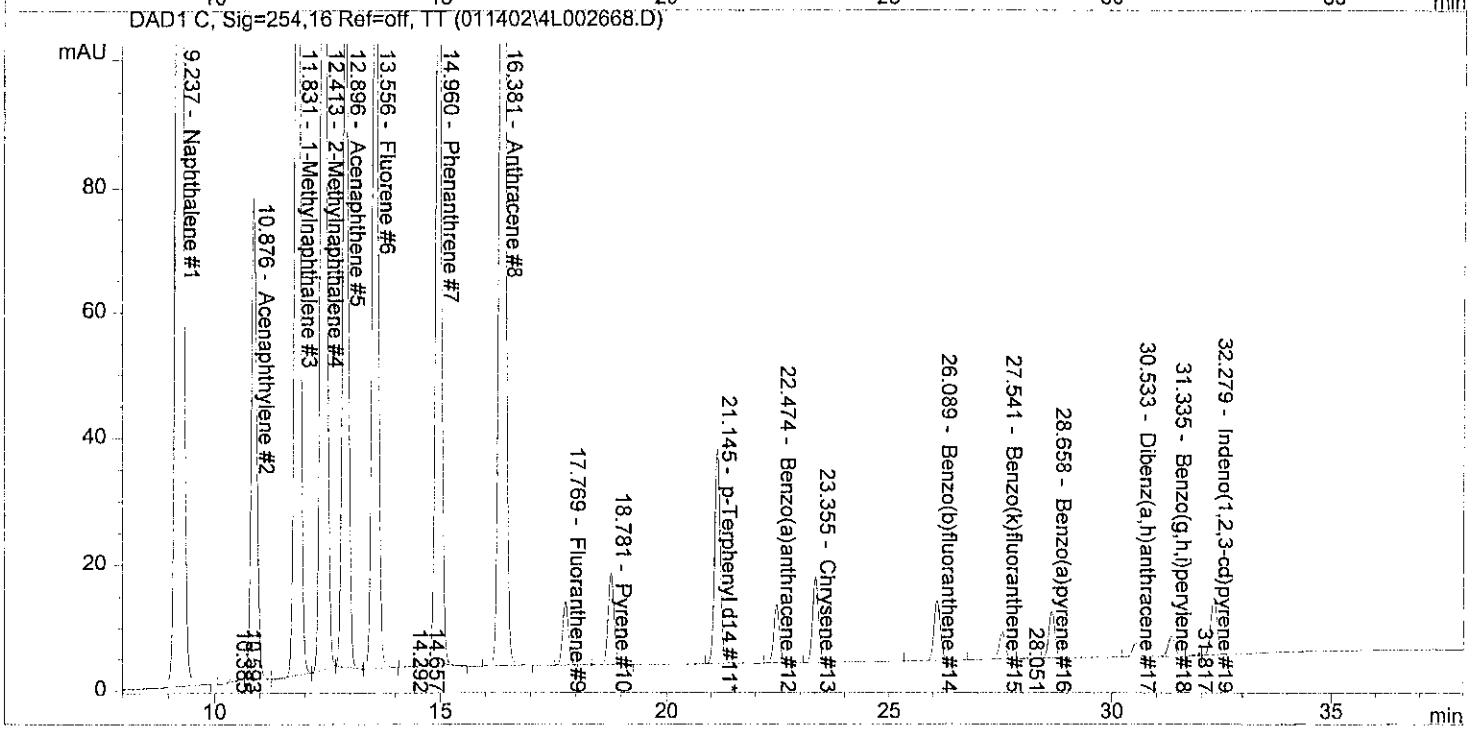
Injection Date	: 1/14/2002 7:39:37 PM	Seq. Line :	8
Sample Name	: WG111292-04 STD4	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:57:31 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:26 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	BB	764.84155	2.57113e-2	19.66506		Naphthalene #1
11.846	BB	876.57288	2.24980e-2	19.72111		1-Methylnaphthalene #3
12.427	BB	1149.51221	1.72762e-2	19.85915		2-Methylnaphthalene #4
12.910	BB	1447.01648	1.38282e-2	20.00960		Acenaphthene #5
13.572	BB	3090.21484	6.56989e-3	20.30237		Fluorene #6
14.975	BBA	114.46365	1.68568e-1	19.29489		Phenanthrene #7
16.396	PB	66.19009	3.03909e-1	20.11577		Anthracene #8
17.784	BBA	81.38047	2.38718e-2	1.94270		Fluoranthene #9
18.796	BBA	48.63459	4.08244e-2	1.98548		Pyrene #10
21.159	BB	67.61504	2.86614e-1	19.37940		p-Terphenyl d14 #11*
22.489	BBA	243.40866	7.97013e-3	1.94000		Benzo(a)anthracene #12
23.369	BB	49.65573	3.90341e-2	1.93827		Chrysene #13
26.104	BB	117.46639	1.65629e-2	1.94559		Benzo(b)fluoranthene #14
27.556	BB	353.46982	2.77623e-3	9.81314e-1		Benzo(k)fluoranthene #15
28.674	BB	411.81049	4.68187e-3	1.92804		Benzo(a)pyrene #16
30.548	BB	49.01668	3.93610e-2	1.92935		Dibenz(a,h)anthracene #17
31.351	BB	70.52281	2.69711e-2	1.90208		Benzo(g,h,i)perylene #18
32.292	BB	141.77130	1.37318e-2	1.94677		Indeno(1,2,3-cd)pyrene #1

Totals : 176.78695

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.237	BBA	2493.37891	8.27672e-3	20.63700		Naphthalene #1
10.876	BB	654.20630	3.00100e-2	19.63274		Acenaphthylene #2
11.831	BB	1527.97900	1.29933e-2	19.85351		1-Methylnaphthalene #3
12.413	BB	1790.56641	1.12718e-2	20.18291		2-Methylnaphthalene #4
12.896	BB	968.73480	2.03858e-2	19.74842		Acenaphthene #5
13.556	BBA	1111.38098	1.76946e-2	19.66540		Fluorene #6
14.960	BBA	1130.27087	1.74304e-2	19.70112		Phenanthrene #7
16.381	PBA	1988.68909	1.03512e-2	20.58537		Anthracene #8
17.769	PB	88.82484	2.18962e-2	1.94493		Fluoranthene #9
18.781	BBA	134.09285	1.46350e-2	1.96245		Pyrene #10
21.145	PBA	301.36755	6.46036e-2	19.46943		p-Terphenyl d14 #11*
22.474	BBA	87.40981	2.22922e-2	1.94856		Benzo(a)anthracene #12
23.355	BBA	127.90170	1.52055e-2	1.94481		Chrysene #13
26.089	BBA	93.43871	2.08450e-2	1.94773		Benzo(b)fluoranthene #14
27.541	BBA	43.15946	2.27263e-2	9.80857e-1		Benzo(k)fluoranthene #15
28.658	BBA	72.43052	2.64554e-2	1.91618		Benzo(a)pyrene #16
30.533	PBA	20.95795	9.37185e-2	1.96415		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/kg]		
31.335	BB	36.23856	5.34889e-2	1.93836		Benzo(g,h,i)perylene #18
32.279	BBA	93.53850	2.06233e-2	1.92908		Indeno(1,2,3-cd)pyrene #1

Totals : 197.95301

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

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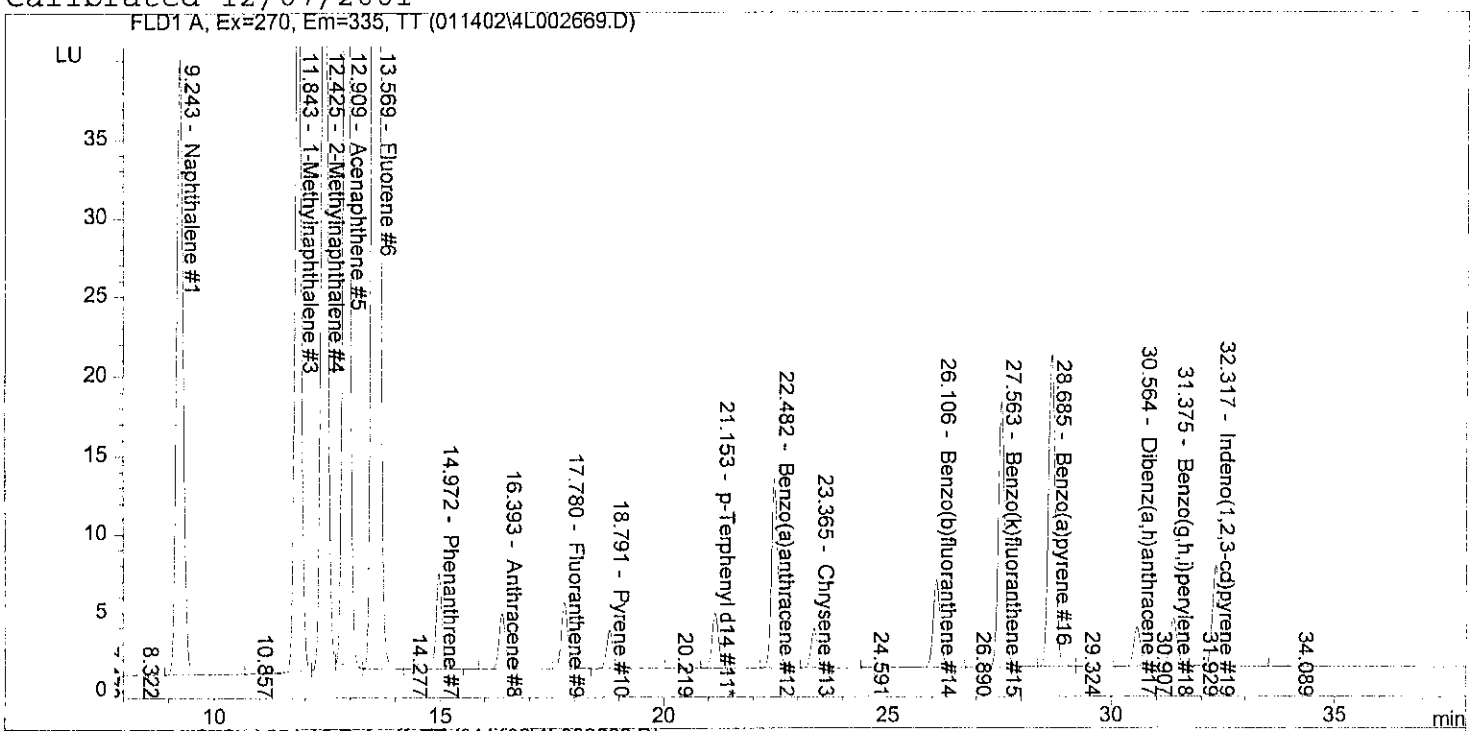
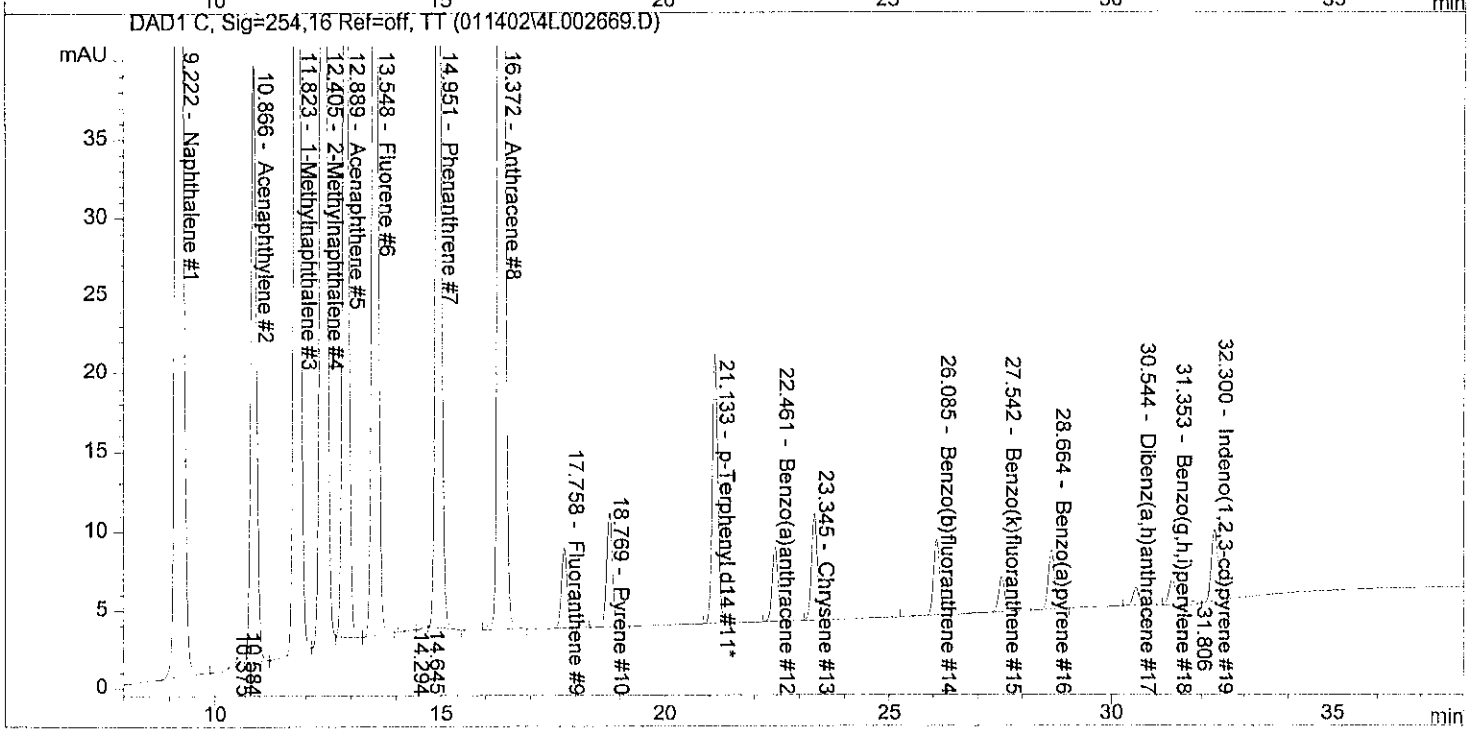
Injection Date : 1/14/2002 8:36:14 PM
Sample Name : WG111292-05 STD3
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:04 AM by RDC
(modified after loading)

Calibrated 12/07/2001





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Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:59 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.243	BBA	379.16129	2.57002e-2	9.74453		Naphthalene #1
11.843	BB	434.69620	2.24890e-2	9.77589		1-Methylnaphthalene #3
12.425	BB	570.62238	1.72690e-2	9.85408		2-Methylnaphthalene #4
12.909	BB	718.57635	1.38226e-2	9.93260		Acenaphthene #5
13.569	BB	1545.26501	6.56835e-3	10.14984		Fluorene #6
14.972	BBA	56.83334	1.68487e-1	9.57567		Phenanthrene #7
16.393	BB	32.77779	3.03723e-1	9.95538		Anthracene #8
17.780	BBA	40.55882	2.38651e-2	9.67941e-1		Fluoranthene #9
18.791	BBA	23.90537	4.06767e-2	9.72391e-1		Pyrene #10
21.153	BB	33.44160	2.86510e-1	9.58136		p-Terphenyl d14 #11*
22.482	BB	120.40920	7.96570e-3	9.59144e-1		Benzo(a)anthracene #12
23.365	BB	24.62586	3.90135e-2	9.60740e-1		Chrysene #13
26.106	BB	58.49529	1.65575e-2	9.68536e-1		Benzo(b)fluoranthene #14
27.563	BB	175.63820	2.77551e-3	4.87486e-1		Benzo(k)fluoranthene #15
28.685	BB	203.03578	4.67719e-3	9.49638e-1		Benzo(a)pyrene #16
30.564	BB	24.01385	3.93187e-2	9.44192e-1		Dibenz(a,h)anthracene #17
31.375	BB	34.73734	2.69479e-2	9.36098e-1		Benzo(g,h,i)perylene #18
32.317	BB	70.38887	1.37428e-2	9.67338e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 87.68286

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.222	PBA	1246.98584	8.27572e-3	10.31971		Naphthalene #1
10.866	BB	325.75351	3.00062e-2	9.77463		Acenaphthylene #2
11.823	BB	761.30933	1.29920e-2	9.89092		1-Methylnaphthalene #3
12.405	BB	894.14850	1.12702e-2	10.07728		2-Methylnaphthalene #4
12.889	BB	483.23654	2.03825e-2	9.84955		Acenaphthene #5
13.548	BBA	552.99121	1.76927e-2	9.78392		Fluorene #6
14.951	BBA	563.78040	1.74279e-2	9.82554		Phenanthrene #7
16.372	PBA	992.23688	1.03457e-2	10.26534		Anthracene #8
17.758	PB	44.30089	2.18935e-2	9.69901e-1		Fluoranthene #9
18.769	BBA	66.46920	1.46332e-2	9.72658e-1		Pyrene #10
21.133	BBA	149.64757	6.45954e-2	9.66654		p-Terphenyl d14 #11*
22.461	BBA	43.45026	2.22870e-2	9.68375e-1		Benzo(a)anthracene #12
23.345	BBA	63.55274	1.52040e-2	9.66253e-1		Chrysene #13
26.085	PBA	46.72572	2.08440e-2	9.73952e-1		Benzo(b)fluoranthene #14
27.542	BBA	22.23862	2.27170e-2	5.05194e-1		Benzo(k)fluoranthene #15
28.664	BBA	36.33923	2.64282e-2	9.60381e-1		Benzo(a)pyrene #16
30.544	PBA	10.59134	9.39051e-2	9.94581e-1		Dibenz(a,h)anthracene #17

[min]		[MAU*s]				
31.353	BB	18.37240	5.34686e-2	9.82347e-1		Benzo(g,h,i)perylene #18
32.300	BBA	46.32841	2.06171e-2	9.55155e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.70222

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

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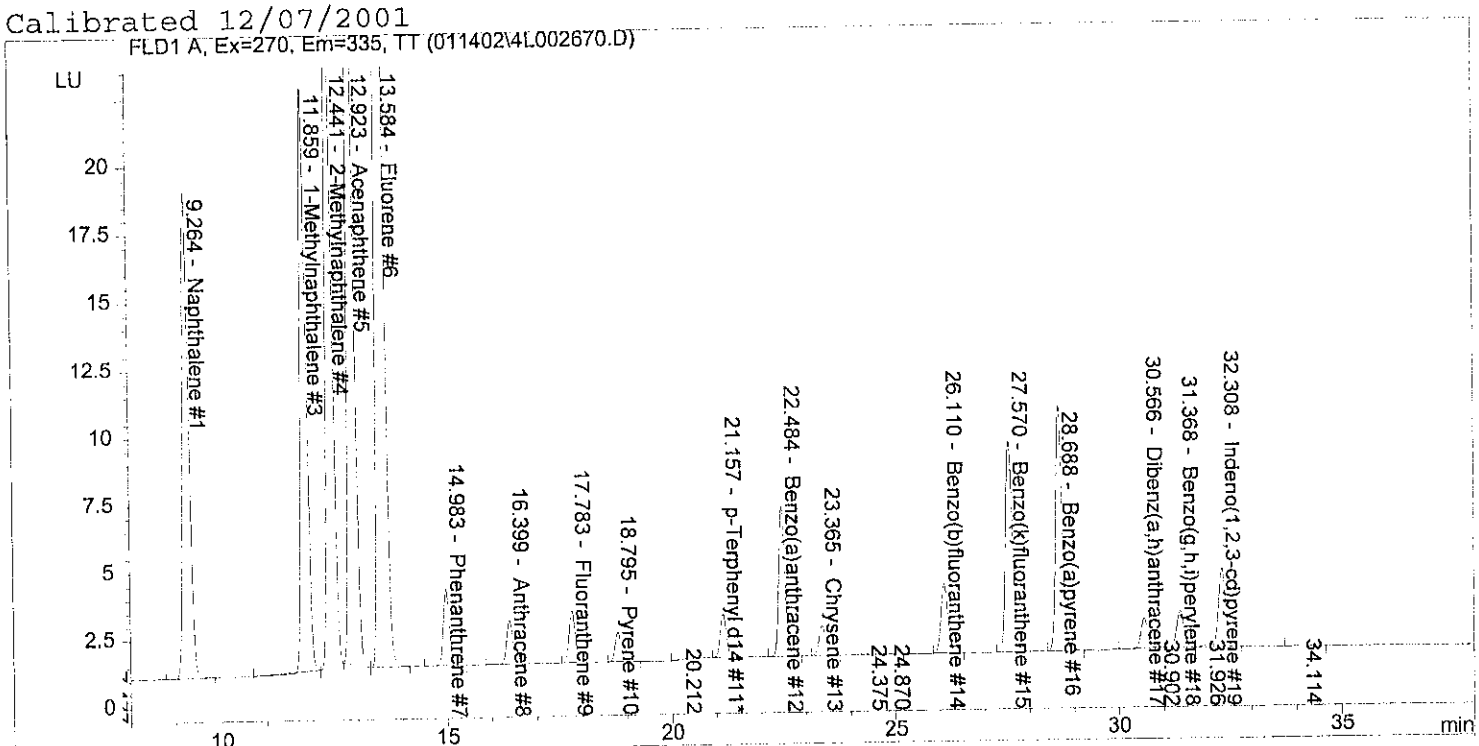
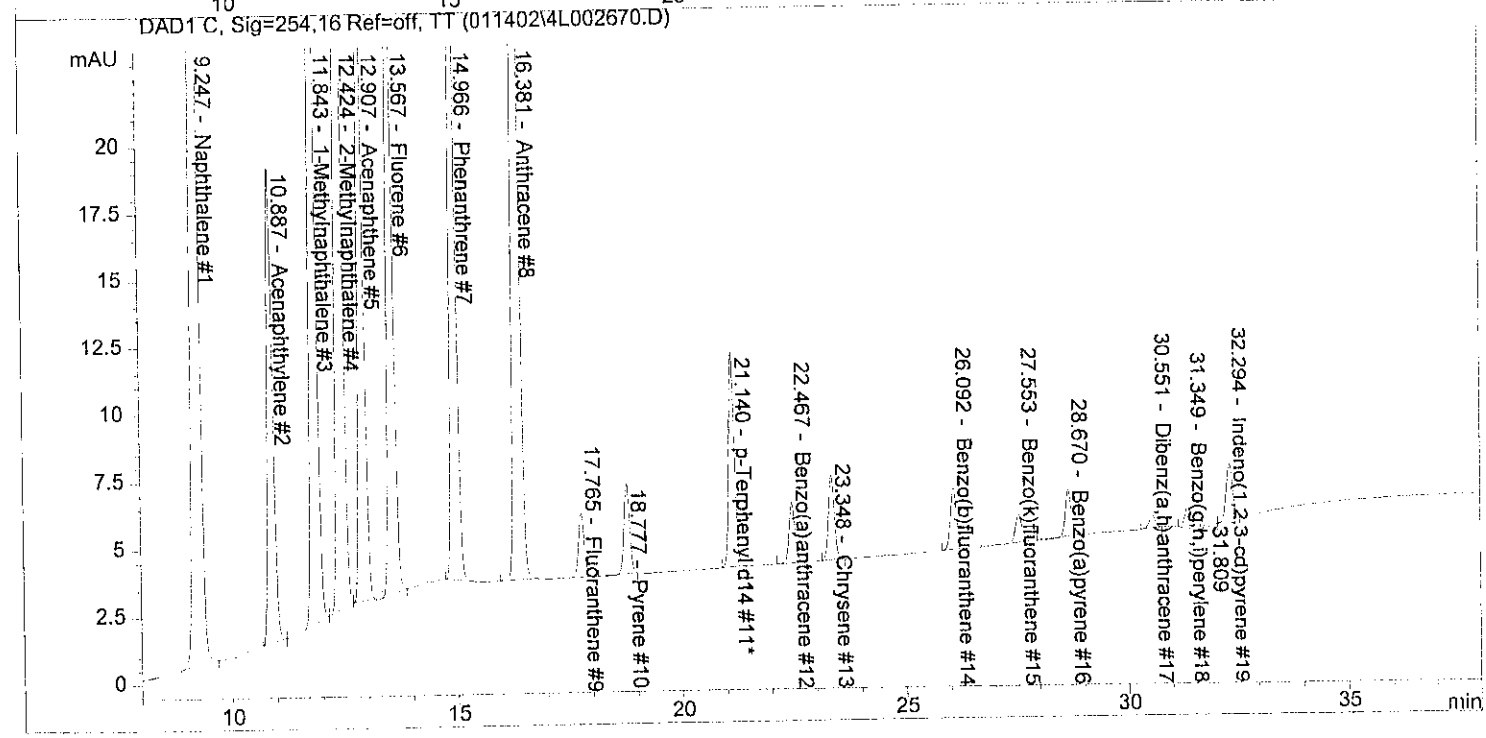
Injection Date : 1/14/2002 9:32:51 PM
Sample Name : WG111292-06 STD2
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:46 AM by RDC
(modified after loading)

Calibrated 12/07/2001





Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:58:38 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.264	BBA	174.72874	2.57004e-2	4.49059		Naphthalene #1
11.859	BB	200.14003	2.24894e-2	4.50103		1-Methylnaphthalene #3
12.441	BB	263.61240	1.72692e-2	4.55237		2-Methylnaphthalene #4
12.923	BB	332.58978	1.38228e-2	4.59733		Acenaphthene #5
13.584	BB	715.49780	6.56880e-3	4.69996		Fluorene #6
14.983	BBA	26.26655	1.68488e-1	4.42559		Phenanthrene #7
16.399	PBA	15.12442	3.03717e-1	4.59355		Anthracene #8
17.783	PBA	18.24046	2.38673e-2	4.35351e-1		Fluoranthene #9
18.795	PBA	10.94241	4.06617e-2	4.44937e-1		Pyrene #10
21.157	BB	15.68857	2.86514e-1	4.49500		p-Terphenyl d14 #11*
22.484	BBA	55.43239	7.96561e-3	4.41553e-1		Benzo(a)anthracene #12
23.365	BBA	11.26101	3.90146e-2	4.39344e-1		Chrysene #13
26.110	BBA	26.85213	1.65597e-2	4.44664e-1		Benzo(b)fluoranthene #14
27.570	PBA	81.11520	2.77567e-3	2.25149e-1		Benzo(k)fluoranthene #15
28.688	PB	93.51391	4.67664e-3	4.37331e-1		Benzo(a)pyrene #16
30.566	BB	10.98461	3.93199e-2	4.31913e-1		Dibenz(a,h)anthracene #17
31.368	BB	15.91699	2.69467e-2	4.28911e-1		Benzo(g,h,i)perylene #18
32.308	BBA	32.46655	1.37441e-2	4.46224e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 40.53080

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	PBA	576.60266	8.27651e-3	4.77226		Naphthalene #1
10.887	BB	150.79996	3.00090e-2	4.52535		Acenaphthylene #2
11.843	BB	352.56210	1.29932e-2	4.58091		1-Methylnaphthalene #3
12.424	BB	414.06625	1.12713e-2	4.66705		2-Methylnaphthalene #4
12.907	BBA	223.83940	2.03841e-2	4.56277		Acenaphthene #5
13.567	PBA	254.83487	1.76945e-2	4.50919		Fluorene #6
14.966	BBA	261.27347	1.74294e-2	4.55384		Phenanthrene #7
16.381	PBA	458.90207	1.03455e-2	4.74759		Anthracene #8
17.765	BBA	20.33956	2.18957e-2	4.45349e-1		Fluoranthene #9
18.777	BBA	29.23632	1.46348e-2	4.27869e-1		Pyrene #10
21.140	BBA	69.63579	6.45989e-2	4.49840		p-Terphenyl d14 #11*
22.467	BBA	20.37423	2.22879e-2	4.54100e-1		Benzo(a)anthracene #12
23.348	BBA	29.37774	1.52052e-2	4.46693e-1		Chrysene #13
26.092	BBA	21.54782	2.08463e-2	4.49192e-1		Benzo(b)fluoranthene #14
27.553	PBA	9.94531	2.27216e-2	2.25973e-1		Benzo(k)fluoranthene #15
28.670	BBA	15.71871	2.64268e-2	4.15396e-1		Benzo(a)pyrene #16
30.551	PBA	4.83241	9.39112e-2	4.53817e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/Kg]		
31.349	BB	8.91349	5.34670e-2	4.76577e-1		Benzo(g,h,i)perylene #18
32.294	BB	20.89905	2.06199e-2	4.30937e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 45.64325

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

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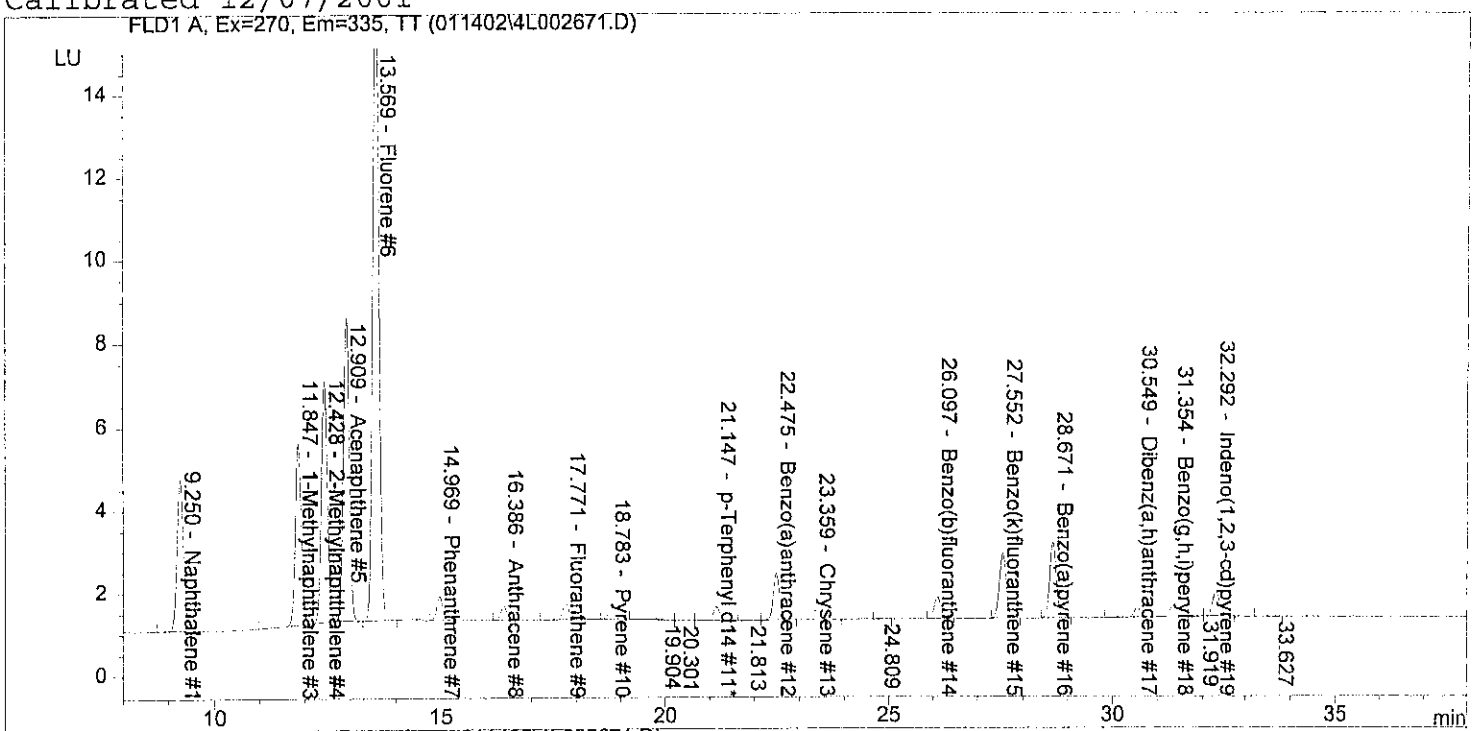
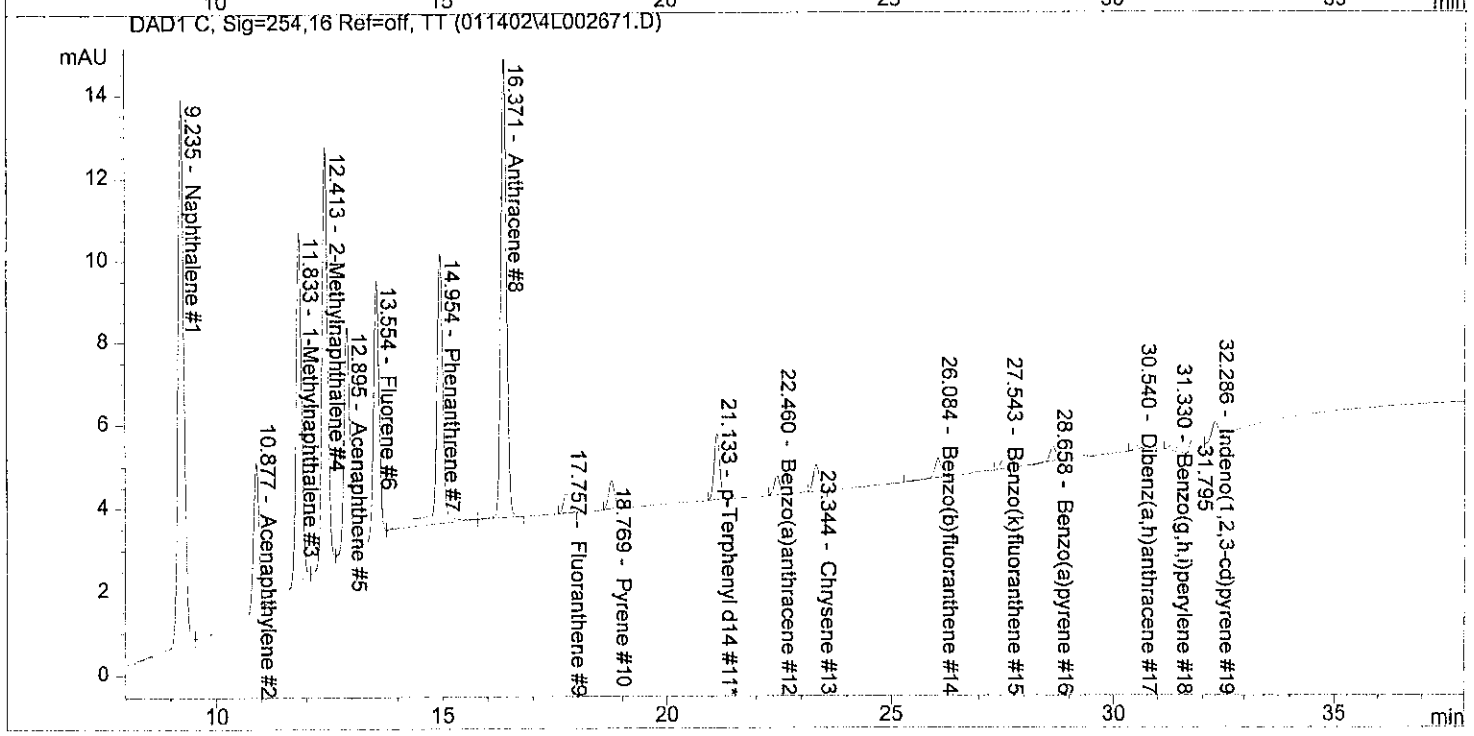
Injection Date : 1/14/2002 10:29:31 PM
Sample Name : WG111292-07 STD1
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

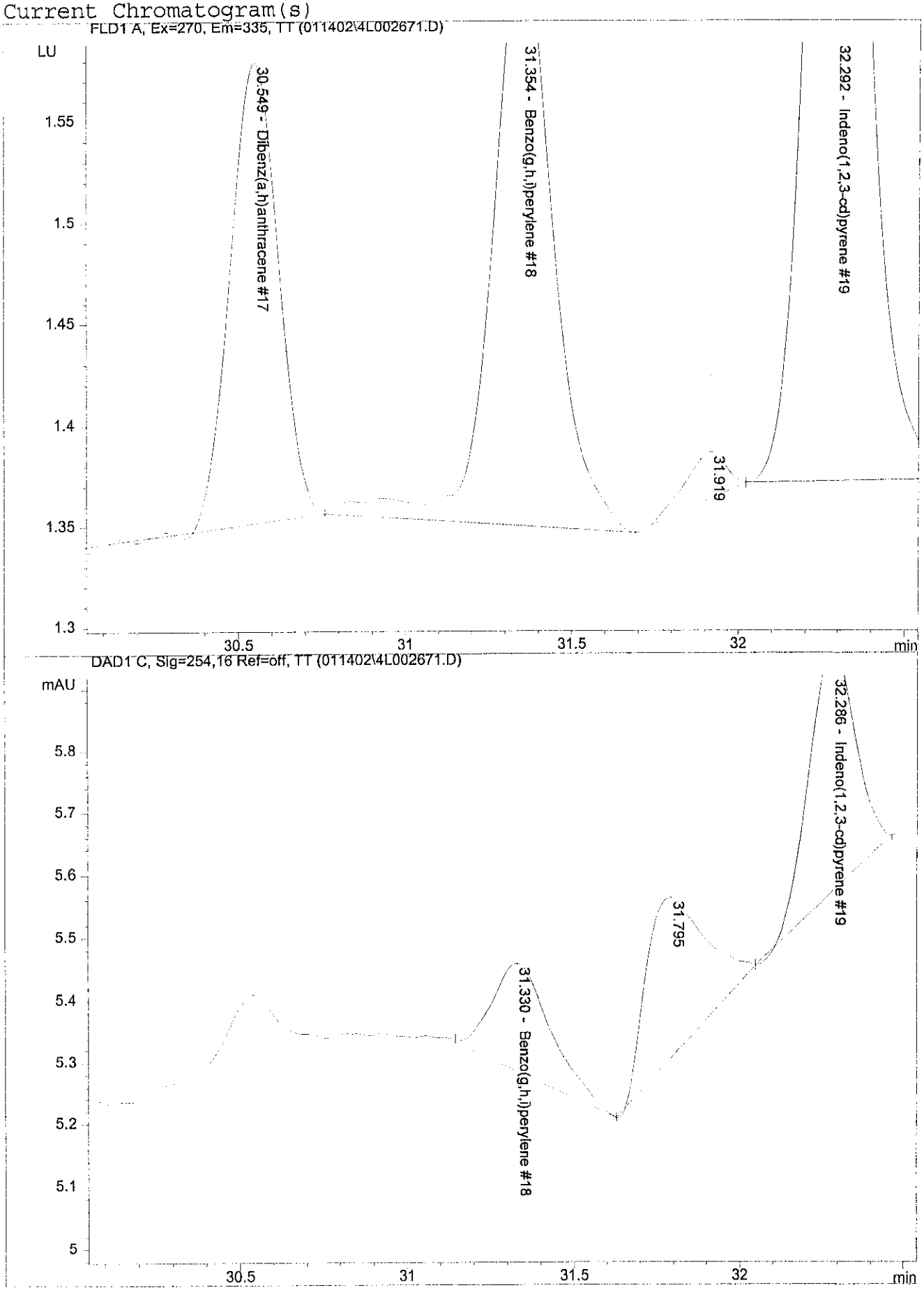
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:02:17 AM by RDC
(modified after loading)

Calibrated 12/07/2001

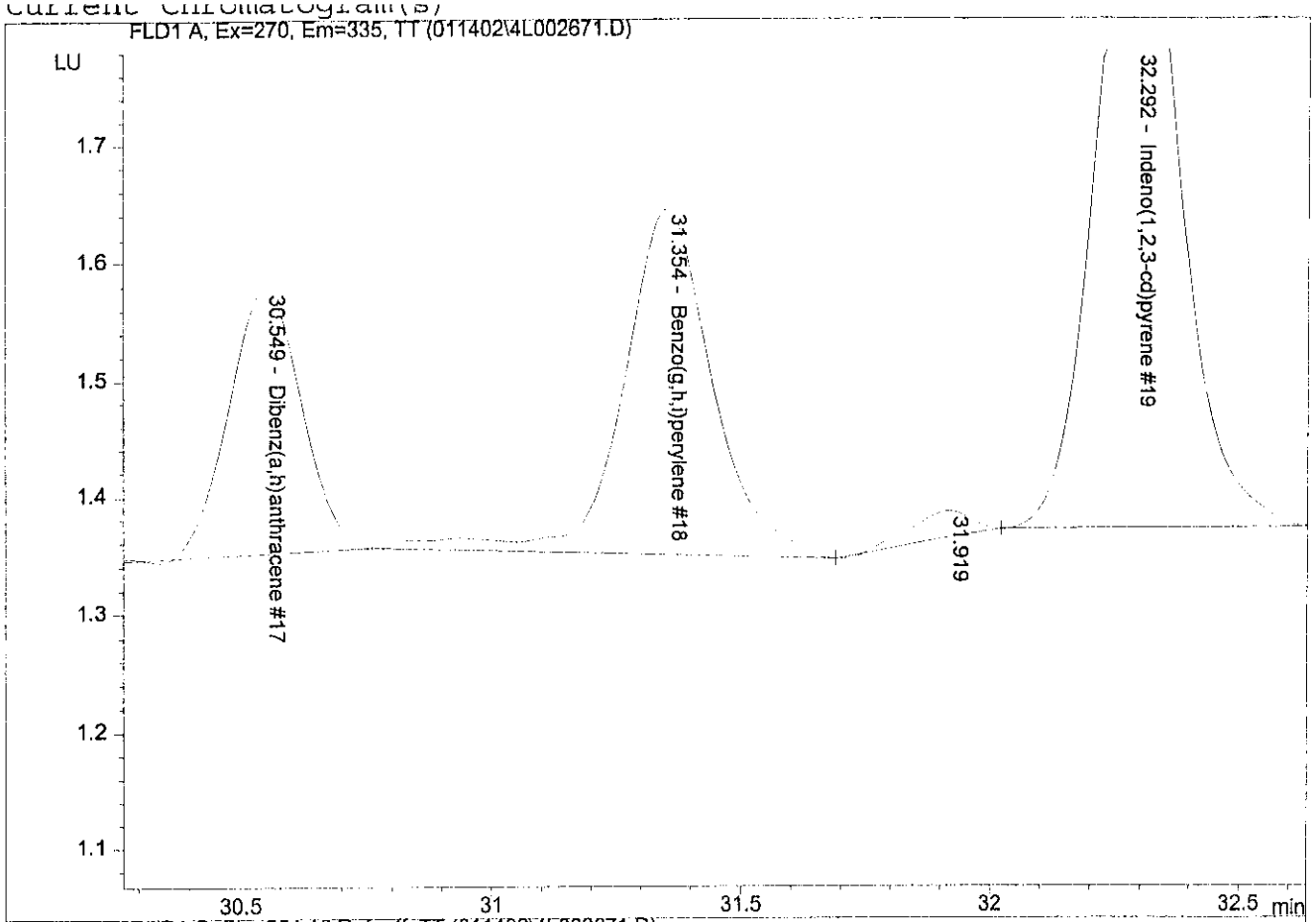


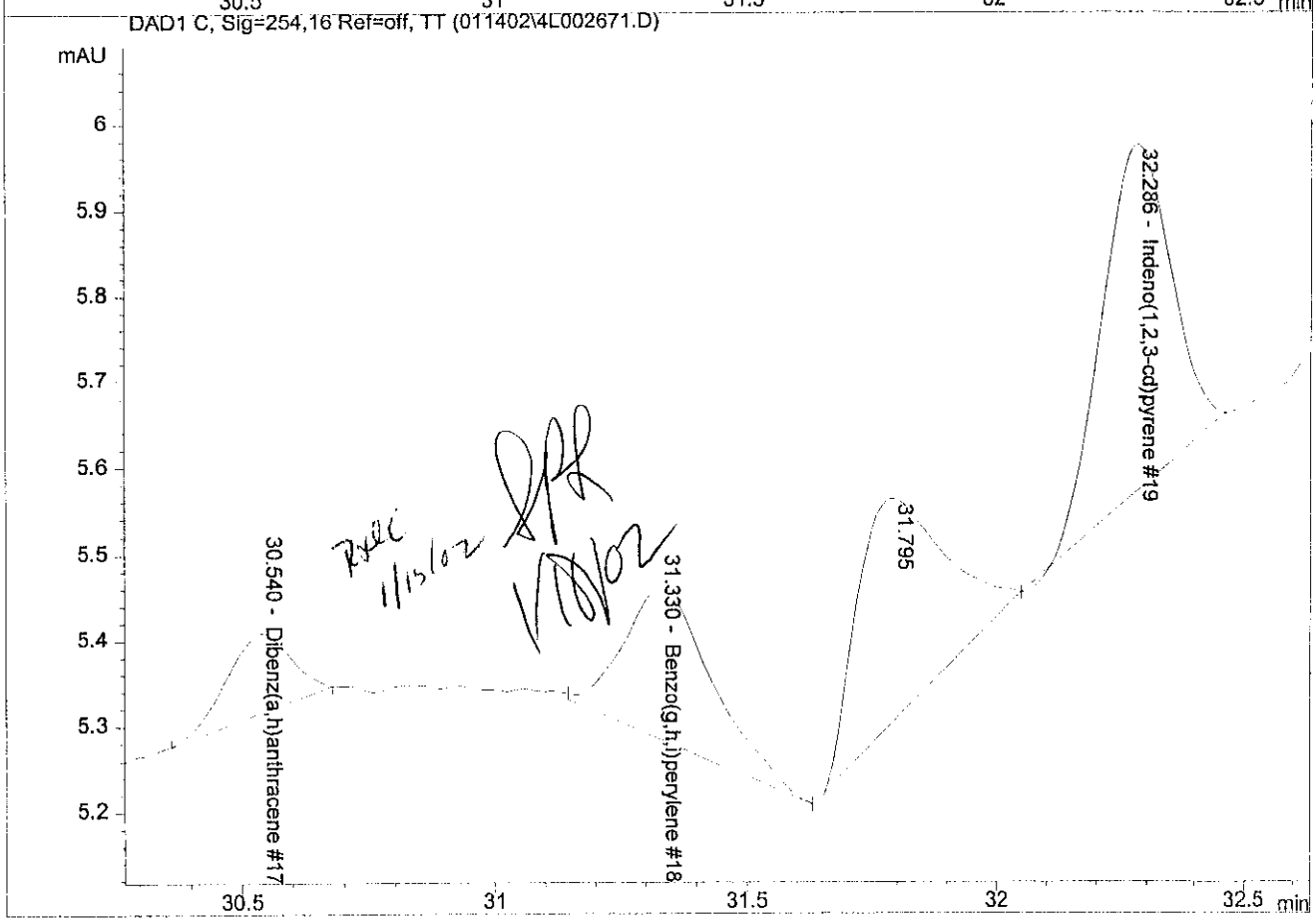


Current Chromatogram(s)



Current Chromatogram(s)





RDC 1/15/02

HPLC4 1/15/2002 9:02:45 AM RDC

Page 1 of 1

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:02:14 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.250	PBA	35.78353	2.57003e-2	9.19647e-1		Naphthalene #1
11.847	BB	41.42604	2.24893e-2	9.31643e-1		1-Methylnaphthalene #3
12.428	BB	53.86543	1.72691e-2	9.30209e-1		2-Methylnaphthalene #4
12.909	BB	67.89028	1.38228e-2	9.38432e-1		Acenaphthene #5
13.569	BBA	146.82553	6.56879e-3	9.64466e-1		Fluorene #6
14.969	PBA	5.24433	1.68488e-1	8.83605e-1		Phenanthrene #7
16.386	BBA	3.17308	3.03714e-1	9.63711e-1		Anthracene #8
17.771	PBA	3.88309	2.38671e-2	9.26781e-2		Fluoranthene #9
18.783	PBA	2.17142	4.06594e-2	8.82885e-2		Pyrene #10
21.147	BB	3.53695	2.86511e-1	1.01338		p-Terphenyl d14 #11*
22.475	BBA	11.70344	7.96557e-3	9.32246e-2		Benzo(a)anthracene #12
23.359	PBA	2.53400	3.90144e-2	9.88624e-2		Chrysene #13
26.097	BBA	5.50489	1.65598e-2	9.11596e-2		Benzo(b)fluoranthene #14
27.552	BBA	16.52934	2.77566e-3	4.58799e-2		Benzo(k)fluoranthene #15
28.671	BBA	19.03635	4.67660e-3	8.90254e-2		Benzo(a)pyrene #16
30.549	PB	2.25618	3.93196e-2	8.87121e-2		Dibenz(a,h)anthracene #17
31.354	BB	3.69533	2.69466e-2	9.95766e-2		Benzo(g,h,i)perylene #18
32.292	BBA	6.81821	1.37440e-2	9.37098e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.42621

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.235	PB	114.71877	8.27651e-3	9.49471e-1		Naphthalene #1
10.877	BB	23.62006	3.00095e-2	7.08826e-1		Acenaphthylene #2
11.833	BB	70.63459	1.29932e-2	9.17772e-1		1-Methylnaphthalene #3
12.413	BB	84.19754	1.12713e-2	9.49012e-1		2-Methylnaphthalene #4
12.895	BB	45.25933	2.03841e-2	9.22572e-1		Acenaphthene #5
13.554	BB	50.57839	1.76946e-2	8.94964e-1		Fluorene #6
14.954	BB	66.64948	1.74291e-2	1.16164		Phenanthrene #7
16.371	BBA	94.15485	1.03455e-2	9.74078e-1		Anthracene #8
17.757	BBA	4.13764	2.18958e-2	9.05969e-2		Fluoranthene #9
18.769	BBA	6.03502	1.46349e-2	8.83217e-2		Pyrene #10
21.133	BBA	13.90859	6.45989e-2	8.98480e-1		p-Terphenyl d14 #11*
22.460	BBA	4.29036	2.22878e-2	9.56229e-2		Benzo(a)anthracene #12
23.344	BBA	5.99650	1.52051e-2	9.11777e-2		Chrysene #13
26.084	BBA	4.71873	2.08462e-2	9.83676e-2		Benzo(b)fluoranthene #14
27.543	PBA	1.94087	2.27217e-2	4.40999e-2		Benzo(k)fluoranthene #15
28.658	BBA	2.93301	2.64267e-2	7.75095e-2		Benzo(a)pyrene #16
30.540	MM	8.22757e-1	9.39100e-2	7.72651e-2		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/kg]		
31.330	BB	2.16289	5.34666e-2	1.15642e-1		Benzo(g,h,i)perylene #18
32.286	BB	3.89559	2.06198e-2	8.03264e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.23574

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

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Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

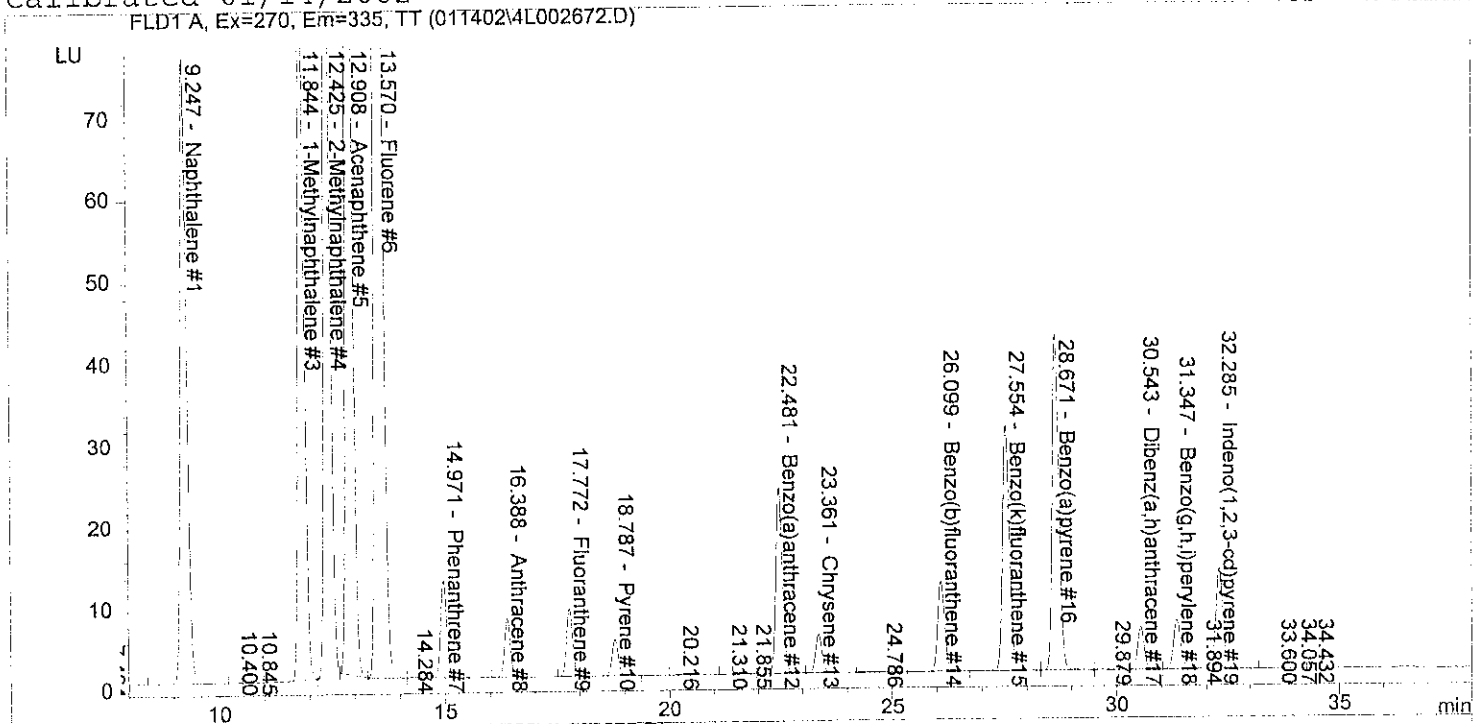
==========

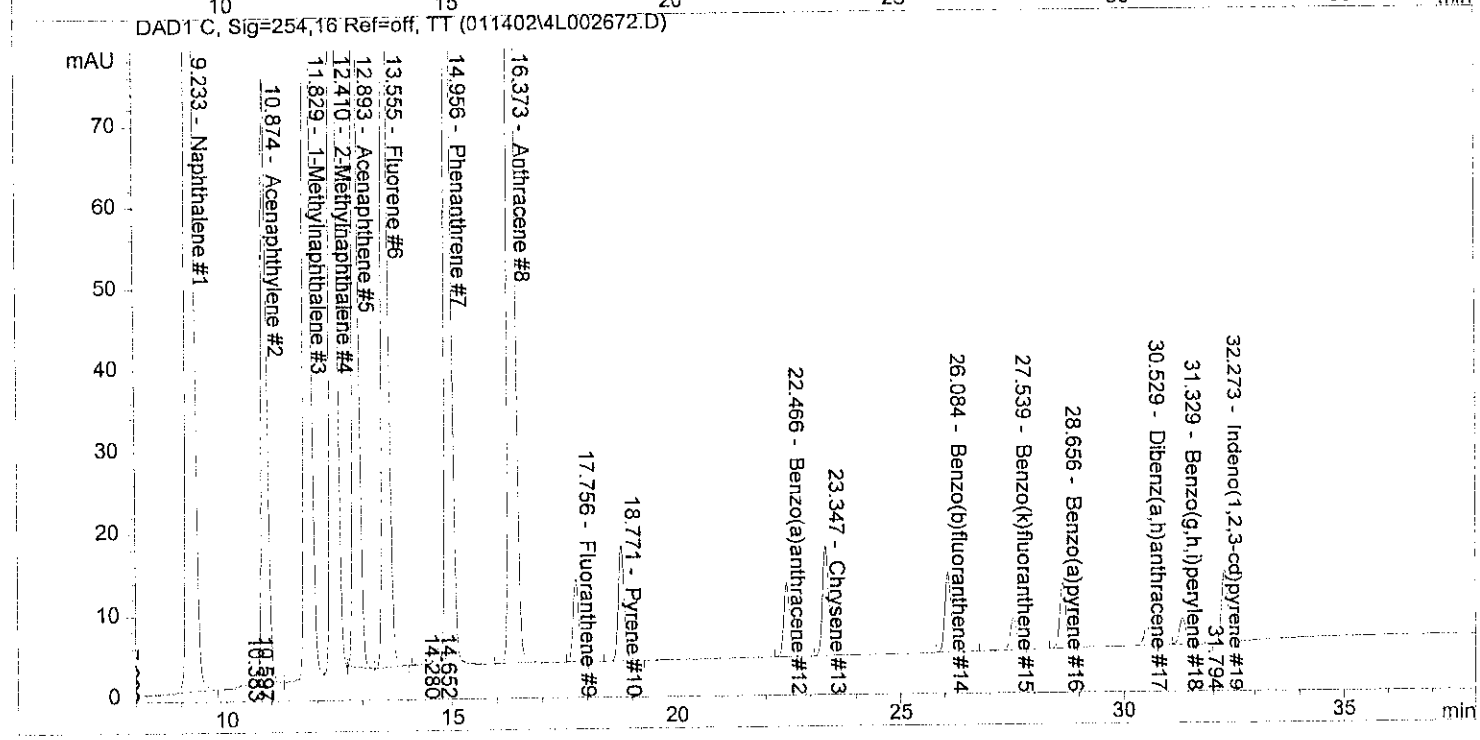
Injection Date : 1/14/2002 11:26:07 PM
Sample Name : WG111292-08 ALT
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:05:41 AM by RDC
(modified after loading)

Calibrated 01/14/2002





Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:05:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	BBA	748.52362	2.57003e-2	19.23726		Naphthalene #1
11.844	BB	877.28461	2.24893e-2	19.72953		1-Methylnaphthalene #3
12.425	BB	1090.29724	1.72691e-2	18.82849		2-Methylnaphthalene #4
12.908	BB	1448.90186	1.38228e-2	20.02785		Acenaphthene #5
13.570	BB	3083.72266	6.56879e-3	20.25632		Fluorene #6
14.971	BBA	111.55298	1.68488e-1	18.79530		Phenanthrene #7
16.388	PBA	66.76292	3.03714e-1	20.27686		Anthracene #8
17.772	PBA	79.23566	2.38671e-2	1.89112		Fluoranthene #9
18.787	BBA	45.12247	4.06594e-2	1.83465		Pyrene #10
21.147		-	-	-		p-Terphenyl d14 #11*
22.481	BB	226.27448	7.96557e-3	1.80241		Benzo(a)anthracene #12
23.361	BB	47.86744	3.90144e-2	1.86752		Chrysene #13
26.099	BBA	116.86459	1.65598e-2	1.93525		Benzo(b)fluoranthene #14
27.554	PB	314.46066	2.77566e-3	8.72837e-1		Benzo(k)fluoranthene #15
28.671	BB	423.19098	4.67660e-3	1.97909		Benzo(a)pyrene #16
30.543	BB	53.38907	3.93196e-2	2.09924		Dibenz(a,h)anthracene #17
31.347	BB	69.61732	2.69466e-2	1.87595		Benzo(g,h,i)perylene #18
32.285	BBA	136.55934	1.37440e-2	1.87688		Indeno(1,2,3-cd)pyrene #1

Totals : 155.18656

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	2468.22412	8.27651e-3	20.42828		Naphthalene #1
10.874	BB	630.04449	3.00095e-2	18.90732		Acenaphthylene #2
11.829	BB	1556.25403	1.29932e-2	20.22077		1-Methylnaphthalene #3
12.410	BB	1724.90198	1.12713e-2	19.44181		2-Methylnaphthalene #4
12.893	BB	983.60773	2.03841e-2	20.04998		Acenaphthene #5
13.555	BBA	1113.45837	1.76946e-2	19.70218		Fluorene #6
14.956	BBA	1113.83740	1.74291e-2	19.41317		Phenanthrene #7
16.373	PBA	2030.43079	1.03455e-2	21.00580		Anthracene #8
17.756	BB	88.16366	2.18958e-2	1.93041		Fluoranthene #9
18.771	BBA	129.84206	1.46349e-2	1.90022		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.466	BBA	82.83583	2.22878e-2	1.84623		Benzo(a)anthracene #12
23.347	BBA	125.89037	1.52051e-2	1.91418		Chrysene #13
26.084	BBA	93.34034	2.08462e-2	1.94579		Benzo(b)fluoranthene #14
27.539	BBA	38.95745	2.27217e-2	8.85179e-1		Benzo(k)fluoranthene #15
28.656	PBA	75.30036	2.64267e-2	1.98994		Benzo(a)pyrene #16
30.529	PBA	22.13976	9.39100e-2	2.07914		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/kg]		
31.329	BB	36.24539	5.34666e-2	1.93792		Benzo(g,h,i)perylene #18
32.273	BB	90.78680	2.06198e-2	1.87201		Indeno(1,2,3-cd)pyrene #1

Totals : 177.47035

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\032002\4L002898.D Sample Name: WG114812-01 CCV
HPLC4 3/20/2002 4:46:16 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/20/2002 2:50:47 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	19.764	-1.2
1-Methylnaphthalene #3	12.004	20.0	19.722	-1.4
2-Methylnaphthalene #4	12.579	20.0	19.108	-4.5
Acenaphthene #5	13.057	20.0	19.424	-2.9
Fluorene #6	13.714	20.0	20.297	1.5
Phenanthrene #7	15.100	20.0	19.594	-2.0
Anthracene #8	16.501	20.0	20.148	0.7
Fluoranthene #9	17.877	2.0	1.930	-3.5
Pyrene #10	18.879	2.0	1.988	-0.6
p-Terphenyl d14 #11*	21.212	20.0	19.107	-4.5
Benzo(a)anthracene #12	22.530	2.0	1.947	-2.7
Chrysene #13	23.393	2.0	1.967	-1.6
Benzo(b)fluoranthene #14	26.110	2.0	1.956	-2.2
Benzo(k)fluoranthene #15	27.538	1.0	0.984	-1.6
Benzo(a)pyrene #16	28.640	2.0	1.993	-0.4
Dibenz(a,h)anthracene #1	30.493	2.0	1.929	-3.6
Benzo(g,h,i)perylene #18	31.311	2.0	1.931	-3.5
Indeno(1,2,3-cd)pyrene #	32.246	2.0	1.942	-2.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.415	20.0	20.685	3.4
Acenaphthylene #2	11.043	20.0	19.954	-0.2
1-Methylnaphthalene #3	11.988	20.0	19.935	-0.3
2-Methylnaphthalene #4	12.563	20.0	19.954	-0.2
Acenaphthene #5	13.041	20.0	19.254	-3.7
Fluorene #6	13.697	20.0	19.763	-1.2
Phenanthrene #7	15.084	20.0	20.092	0.5
Anthracene #8	16.485	20.0	20.818	4.1
Fluoranthene #9	17.860	2.0	1.953	-2.3
Pyrene #10	18.861	2.0	1.960	-2.0
p-Terphenyl d14 #11*	21.196	20.0	19.175	-4.1
Benzo(a)anthracene #12	22.514	2.0	1.961	-1.9
Chrysene #13	23.378	2.0	1.955	-2.2
Benzo(b)fluoranthene #14	26.093	2.0	1.959	-2.1
Benzo(k)fluoranthene #15	27.522	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.623	2.0	2.002	0.1
Dibenz(a,h)anthracene #1	30.477	2.0	1.937	-3.1
Benzo(g,h,i)perylene #18	31.293	2.0	2.121	6.1
Indeno(1,2,3-cd)pyrene #	32.228	2.0	1.936	-3.2

= Failed 15.0% Criteria

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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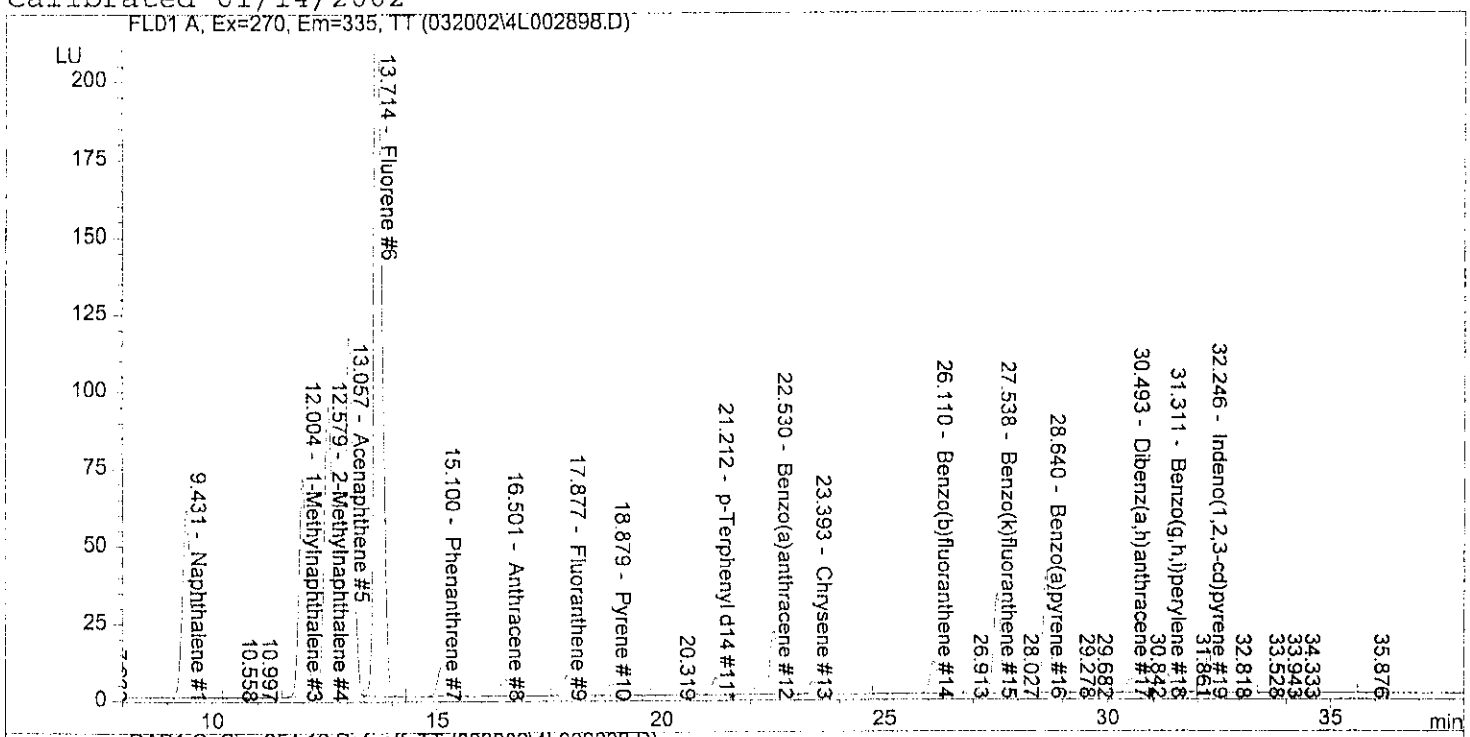
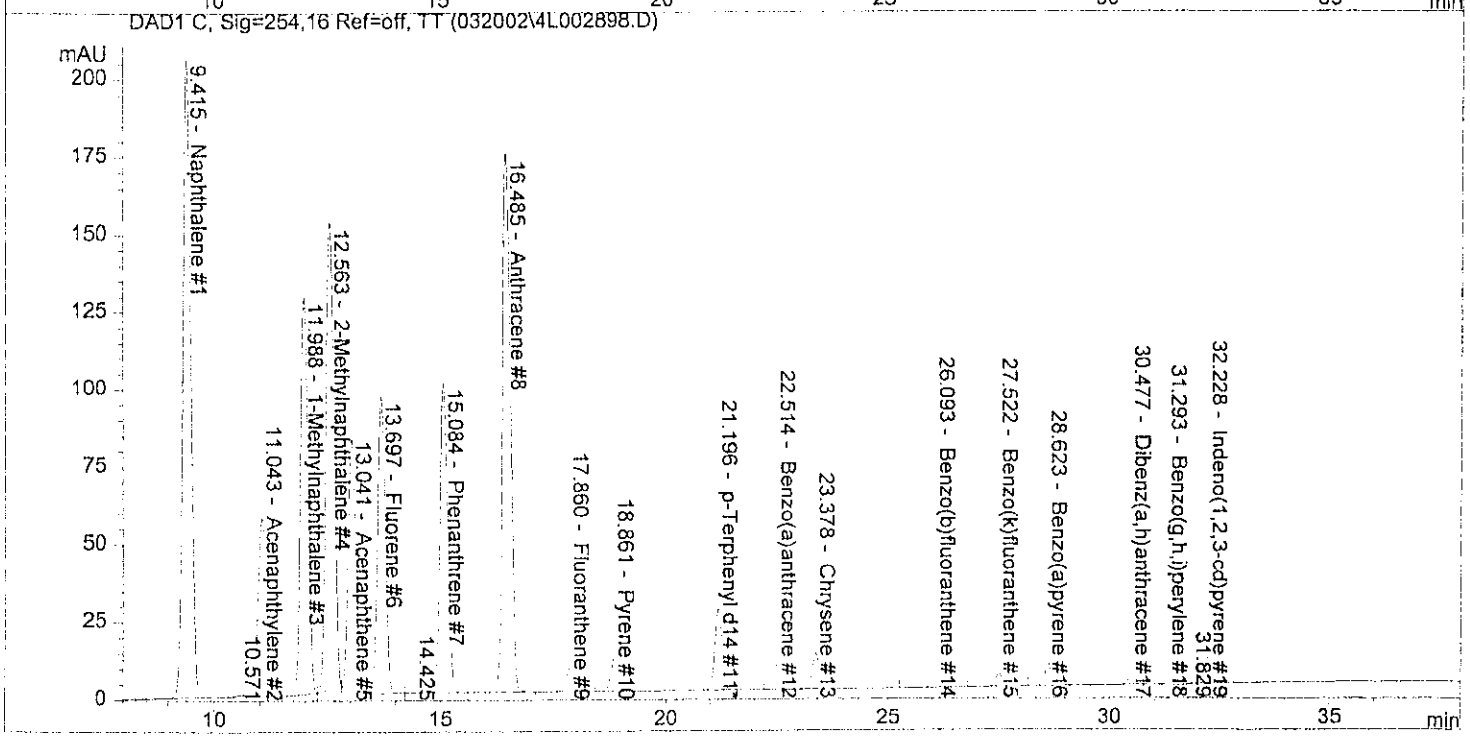
Injection Date	: 3/20/2002 2:50:47 PM	Seq. Line	: 2
Sample Name	: WG114812-01 CCV	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BB	769.00659	2.57003e-2	19.76368		Naphthalene #1
12.004	BB	876.96686	2.24893e-2	19.72239		1-Methylnaphthalene #3
12.579	BB	1106.45996	1.72691e-2	19.10761		2-Methylnaphthalene #4
13.057	BB	1405.19214	1.38228e-2	19.42366		Acenaphthene #5
13.714	BB	3089.98560	6.56879e-3	20.29746		Fluorene #6
15.100	BBA	116.29288	1.68488e-1	19.59391		Phenanthrene #7
16.501	BBA	66.33975	3.03714e-1	20.14834		Anthracene #8
17.877	PB	80.86863	2.38671e-2	1.93010		Fluoranthene #9
18.879	BBA	48.89309	4.06594e-2	1.98796		Pyrene #10
21.212	BB	66.68943	2.86511e-1	19.10729		p-Terphenyl d14 #11*
22.530	BB	244.38745	7.96557e-3	1.94669		Benzo(a)anthracene #12
23.393	BB	50.41854	3.90144e-2	1.96705		Chrysene #13
26.110	BB	118.09793	1.65598e-2	1.95567		Benzo(b)fluoranthene #14
27.538	BB	354.63373	2.77566e-3	9.84344e-1		Benzo(k)fluoranthene #15
28.640	BB	426.06644	4.67660e-3	1.99254		Benzo(a)pyrene #16
30.493	BB	49.05696	3.93196e-2	1.92890		Dibenz(a,h)anthracene #17
31.311	BB	71.64774	2.69466e-2	1.93066		Benzo(g,h,i)perylene #18
32.246	BB	141.27924	1.37440e-2	1.94175		Indeno(1,2,3-cd)pyrene #1

Totals : 175.73000

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.415	BBA	2499.20508	8.27651e-3	20.68470		Naphthalene #1
11.043	BBA	664.90613	3.00095e-2	19.95350		Acenaphthylene #2
11.988	PB	1534.22412	1.29932e-2	19.93453		1-Methylnaphthalene #3
12.563	BB	1770.34314	1.12713e-2	19.95399		2-Methylnaphthalene #4
13.041	BB	944.56982	2.03841e-2	19.25423		Acenaphthene #5
13.697	BB	1116.90332	1.76946e-2	19.76314		Fluorene #6
15.084	BBA	1152.75684	1.74291e-2	20.09150		Phenanthrene #7
16.485	PBA	2012.26697	1.03455e-2	20.81789		Anthracene #8
17.860	PB	89.21658	2.18958e-2	1.95347		Fluoranthene #9
18.861	BBA	133.93385	1.46349e-2	1.96010		Pyrene #10
21.196	BBA	296.82434	6.45989e-2	19.17454		p-Terphenyl d14 #11*
22.514	BBA	87.98779	2.22878e-2	1.96106		Benzo(a)anthracene #12
23.378	BBA	128.57744	1.52051e-2	1.95504		Chrysene #13
26.093	BBA	93.95087	2.08462e-2	1.95852		Benzo(b)fluoranthene #14
27.522	PB	43.09077	2.27217e-2	9.79095e-1		Benzo(k)fluoranthene #15
28.623	BB	75.76366	2.64267e-2	2.00218		Benzo(a)pyrene #16
30.477	BB	20.63096	9.39100e-2	1.93745		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.293	BB	39.67716	5.34666e-2	2.12140		Benzo(g,h,i)perylene #18
32.228	BB	93.87482	2.06198e-2	1.93568		Indeno(1,2,3-cd)pyrene #1

Totals : 198.39201

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032002\4L002909.D Sample Name: WG114812-02 CCV
HPLC4 3/21/2002 8:37:14 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/21/2002 1:13:38 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.439	20.0	19.140	-4.3
1-Methylnaphthalene #3	12.015	20.0	19.189	-4.1
2-Methylnaphthalene #4	12.588	20.0	18.997	-5.0
Acenaphthene #5	13.066	20.0	19.332	-3.3
Fluorene #6	13.717	20.0	20.094	0.5
Phenanthrene #7	15.099	20.0	18.915	-5.4
Anthracene #8	16.498	20.0	19.958	-0.2
Fluoranthene #9	17.876	2.0	1.908	-4.6
Pyrene #10	18.879	2.0	1.882	-5.9
p-Terphenyl d14 #11*	21.208	20.0	18.962	-5.2
Benzo(a)anthracene #12	22.523	2.0	1.901	-5.0
Chrysene #13	23.385	2.0	1.911	-4.5
Benzo(b)fluoranthene #14	26.105	2.0	1.915	-4.2
Benzo(k)fluoranthene #15	27.531	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.633	2.0	1.916	-4.2
Dibenz(a,h)anthracene #1	30.476	2.0	1.898	-5.1
Benzo(g,h,i)perylene #18	31.288	2.0	1.874	-6.3
Indeno(1,2,3-cd)pyrene #	32.220	2.0	1.918	-4.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.424	20.0	20.723	3.6
Acenaphthylene #2	11.050	20.0	20.007	0.0
1-Methylnaphthalene #3	11.999	20.0	19.981	-0.1
2-Methylnaphthalene #4	12.572	20.0	20.145	0.7
Acenaphthene #5	13.051	20.0	19.572	-2.1
Fluorene #6	13.701	20.0	19.764	-1.2
Phenanthrene #7	15.082	20.0	20.091	0.5
Anthracene #8	16.482	20.0	20.684	3.4
Fluoranthene #9	17.859	2.0	1.959	-2.1
Pyrene #10	18.861	2.0	1.964	-1.8
p-Terphenyl d14 #11*	21.192	20.0	19.162	-4.2
Benzo(a)anthracene #12	22.507	2.0	1.952	-2.4
Chrysene #13	23.369	2.0	1.957	-2.1
Benzo(b)fluoranthene #14	26.087	2.0	1.983	-0.8
Benzo(k)fluoranthene #15	27.514	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.615	2.0	1.974	-1.3
Dibenz(a,h)anthracene #1	30.459	2.0	1.997	-0.2
Benzo(g,h,i)perylene #18	31.271	2.0	2.130	6.5
Indeno(1,2,3-cd)pyrene #	32.200	2.0	1.919	-4.0

= Failed 15.0% Criteria

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

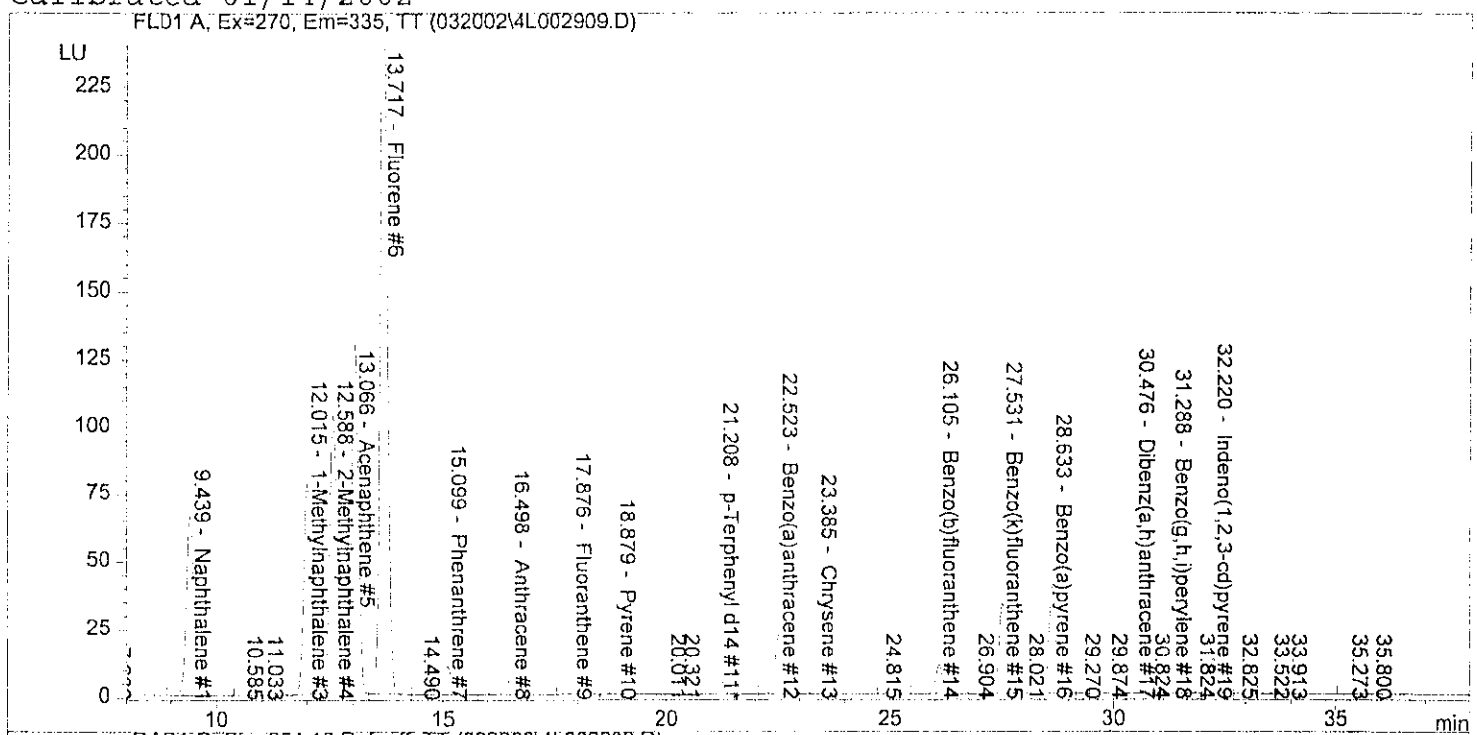
==========

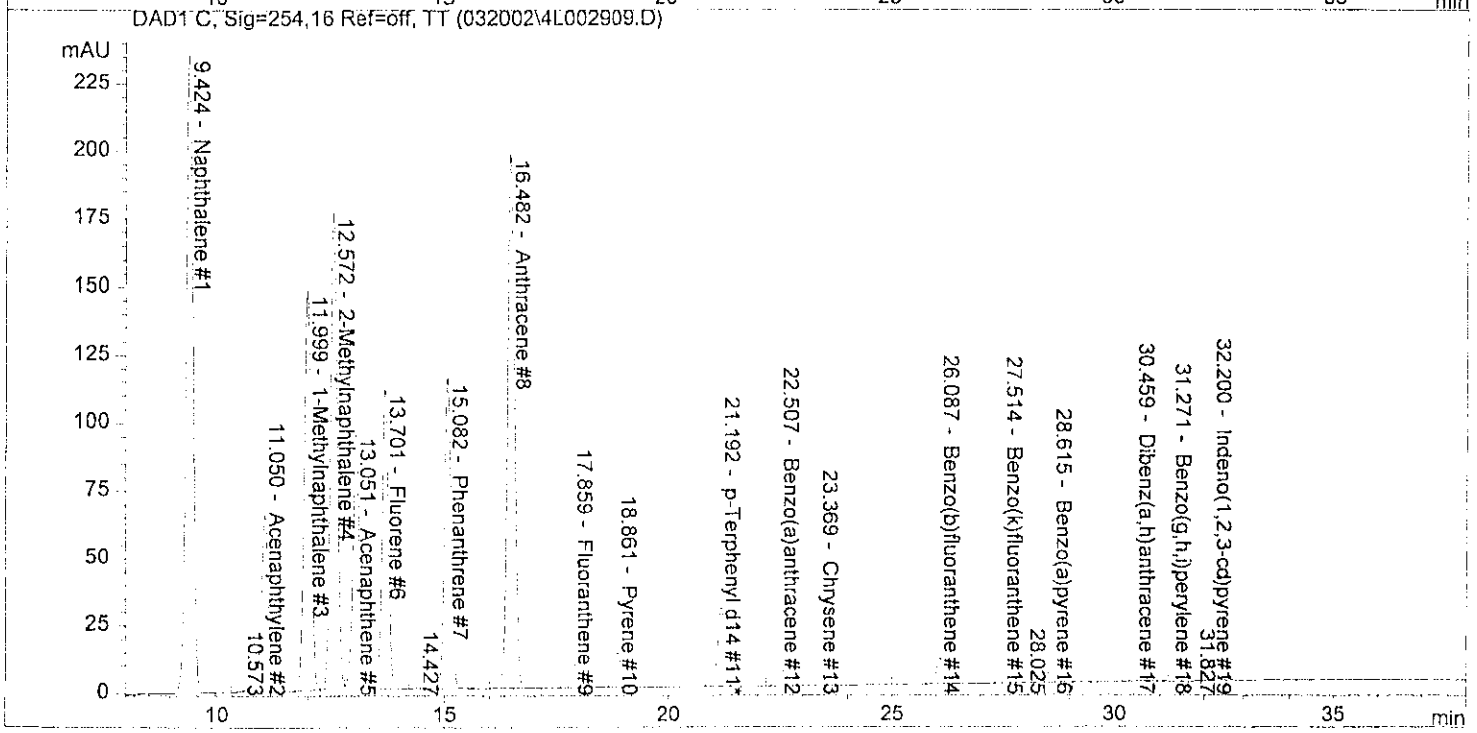
Injection Date : 3/21/2002 1:13:38 AM
Sample Name : WG114812-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.439	BBA	744.74255	2.57003e-2	19.14009		Naphthalene #1
12.015	BB	853.25751	2.24893e-2	19.18918		1-Methylnaphthalene #3
12.588	BB	1100.06165	1.72691e-2	18.99711		2-Methylnaphthalene #4
13.066	BB	1398.53796	1.38228e-2	19.33168		Acenaphthene #5
13.717	BB	3058.98901	6.56879e-3	20.09385		Fluorene #6
15.099	BBA	112.26233	1.68488e-1	18.91481		Phenanthrene #7
16.498	BBA	65.71456	3.03714e-1	19.95846		Anthracene #8
17.876	BB	79.94916	2.38671e-2	1.90815		Fluoranthene #9
18.879	BB	46.28024	4.06594e-2	1.88173		Pyrene #10
21.208	BB	66.18333	2.86511e-1	18.96228		p-Terphenyl d14 #11*
22.523	BB	238.60034	7.96557e-3	1.90059		Benzo(a)anthracene #12
23.385	BB	48.97416	3.90144e-2	1.91070		Chrysene #13
26.105	BB	115.65310	1.65598e-2	1.91519		Benzo(b)fluoranthene #14
27.531	BB	350.50510	2.77566e-3	9.72885e-1		Benzo(k)fluoranthene #15
28.633	BB	409.69882	4.67660e-3	1.91600		Benzo(a)pyrene #16
30.476	BB	48.25919	3.93196e-2	1.89753		Dibenz(a,h)anthracene #17
31.288	BB	69.54958	2.69466e-2	1.87413		Benzo(g,h,i)perylene #18
32.220	BB	139.55592	1.37440e-2	1.91806		Indeno(1,2,3-cd)pyrene #1

Totals : 172.68242

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.424	BBA	2503.79663	8.27651e-3	20.72270		Naphthalene #1
11.050	BBA	666.67963	3.00095e-2	20.00672		Acenaphthylene #2
11.999	PB	1537.82837	1.29932e-2	19.98136		1-Methylnaphthalene #3
12.572	BB	1787.33203	1.12713e-2	20.14548		2-Methylnaphthalene #4
13.051	BB	960.15289	2.03841e-2	19.57188		Acenaphthene #5
13.701	BBA	1116.96094	1.76946e-2	19.76416		Fluorene #6
15.082	BBA	1152.73523	1.74291e-2	20.09113		Phenanthrene #7
16.482	PBA	1999.29541	1.03455e-2	20.68369		Anthracene #8
17.859	PB	89.44991	2.18958e-2	1.95858		Fluoranthene #9
18.861	BBA	134.17244	1.46349e-2	1.96359		Pyrene #10
21.192	BBA	296.62781	6.45989e-2	19.16184		p-Terphenyl d14 #11*
22.507	PBA	87.56583	2.22878e-2	1.95165		Benzo(a)anthracene #12
23.369	BBA	128.73080	1.52051e-2	1.95737		Chrysene #13
26.087	BB	95.14881	2.08462e-2	1.98349		Benzo(b)fluoranthene #14
27.514	BB	43.53363	2.27217e-2	9.89158e-1		Benzo(k)fluoranthene #15
28.615	BB	74.71053	2.64267e-2	1.97435		Benzo(a)pyrene #16
30.459	PB	21.26099	9.39100e-2	1.99662		Dibenz(a,h)anthracene #17

959

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.271	BB	39.84513	5.34666e-2	2.13039		Benzo(g,h,i)perylene #18
32.200	BB	93.07120	2.06198e-2	1.91911		Indeno(1,2,3-cd)pyrene #1

Totals : 198.95326

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\032002\4L002915.D Sample Name: WG114812-03 CCV
HPLC4 3/21/2002 8:44:33 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/21/2002 6:53:28 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.444	20.0	19.202	-4.0
1-Methylnaphthalene #3	12.022	20.0	19.284	-3.6
2-Methylnaphthalene #4	12.595	20.0	19.061	-4.7
Acenaphthene #5	13.074	20.0	19.406	-3.0
Fluorene #6	13.727	20.0	20.191	1.0
Phenanthrene #7	15.107	20.0	18.980	-5.1
Anthracene #8	16.502	20.0	19.921	-0.4
Fluoranthene #9	17.876	2.0	1.921	-4.0
Pyrene #10	18.874	2.0	1.898	-5.1
p-Terphenyl d14 #11*	21.191	20.0	19.214	-3.9
Benzo(a)anthracene #12	22.500	2.0	1.916	-4.2
Chrysene #13	23.357	2.0	1.928	-3.6
Benzo(b)fluoranthene #14	26.069	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.490	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.595	2.0	1.935	-3.3
Dibenz(a,h)anthracene #1	30.442	2.0	1.919	-4.0
Benzo(g,h,i)perylene #18	31.259	2.0	1.894	-5.3
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.936	-3.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.790	3.9
Acenaphthylene #2	11.060	20.0	20.093	0.5
1-Methylnaphthalene #3	12.006	20.0	20.029	0.1
2-Methylnaphthalene #4	12.580	20.0	20.217	1.1
Acenaphthene #5	13.059	20.0	19.667	-1.7
Fluorene #6	13.711	20.0	19.827	-0.9
Phenanthrene #7	15.091	20.0	20.172	0.9
Anthracene #8	16.486	20.0	20.741	3.7
Fluoranthene #9	17.859	2.0	1.964	-1.8
Pyrene #10	18.858	2.0	1.966	-1.7
p-Terphenyl d14 #11*	21.176	20.0	19.251	-3.7
Benzo(a)anthracene #12	22.484	2.0	1.966	-1.7
Chrysene #13	23.341	2.0	1.965	-1.8
Benzo(b)fluoranthene #14	26.052	2.0	1.969	-1.6
Benzo(k)fluoranthene #15	27.474	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.578	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.426	2.0	1.973	-1.4
Benzo(g,h,i)perylene #18	31.242	2.0	2.068	3.4
Indeno(1,2,3-cd)pyrene #	32.175	2.0	1.935	-3.2

= Failed 15.0% Criteria

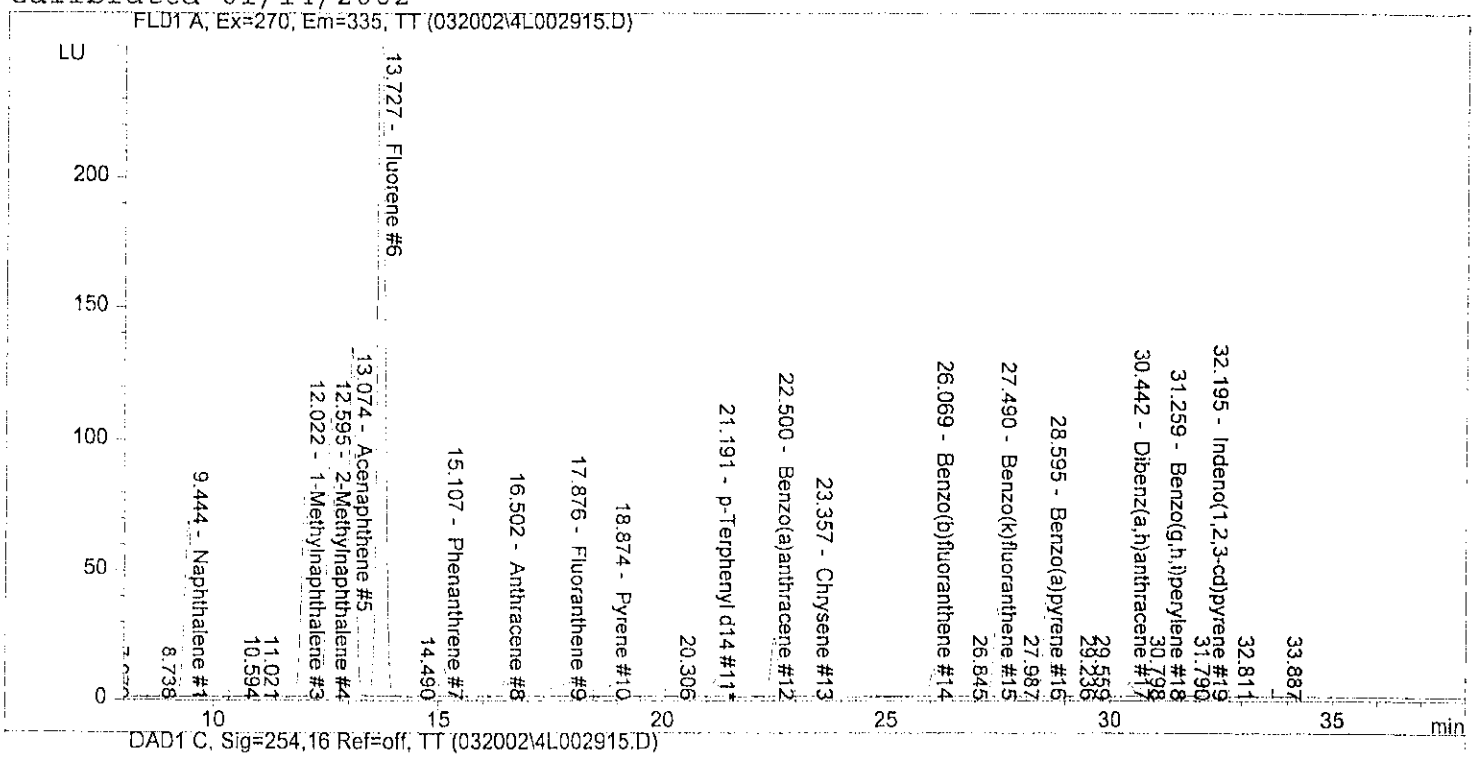
1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

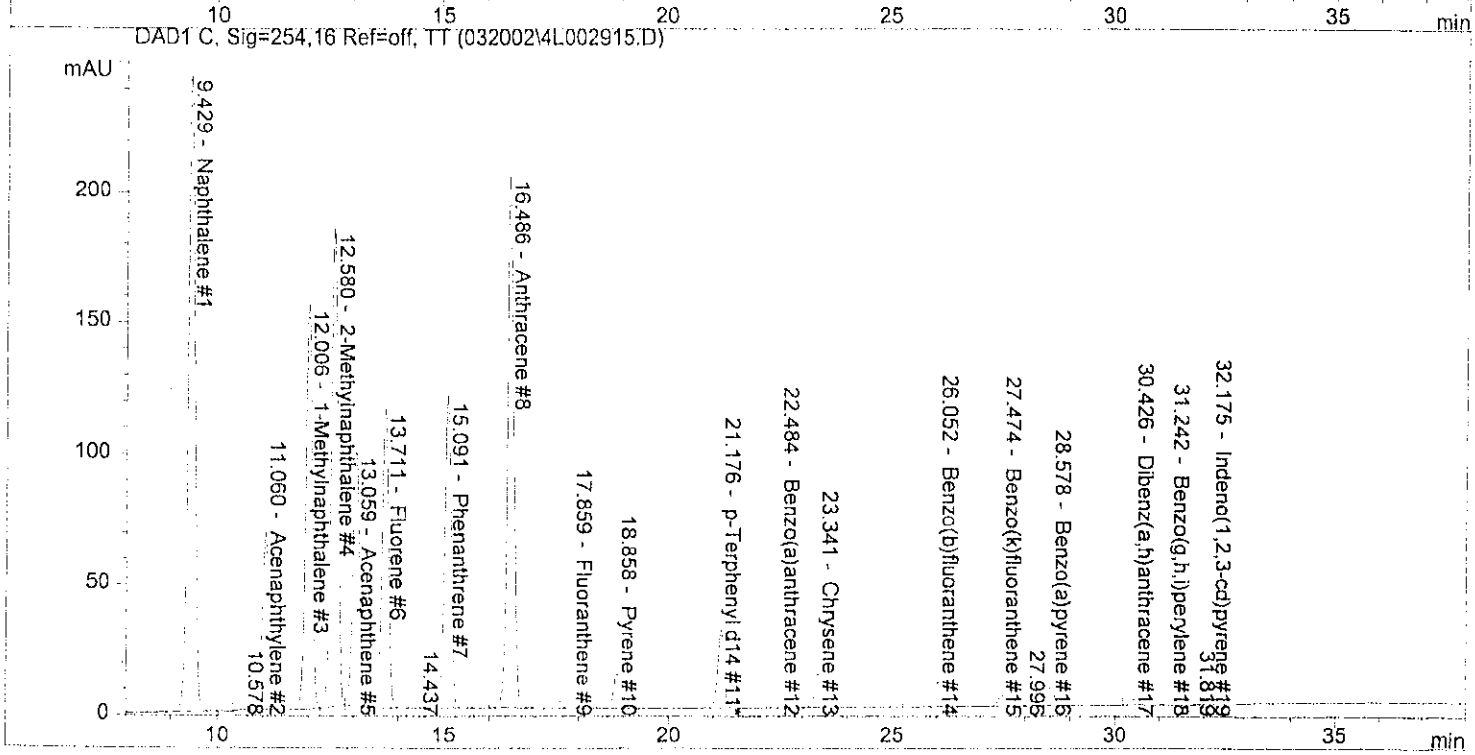
==========

Injection Date	: 3/21/2002 6:53:28 AM	Seq. Line	: 19
Sample Name	: WG114812-03 CCV	Vial	: 13
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	747.16278	2.57003e-2	19.20229		Naphthalene #1
12.022	BB	857.46637	2.24893e-2	19.28383		1-Methylnaphthalene #3
12.595	BB	1103.77307	1.72691e-2	19.06121		2-Methylnaphthalene #4
13.074	BB	1403.90527	1.38228e-2	19.40587		Acenaphthene #5
13.727	BB	3073.84229	6.56879e-3	20.19142		Fluorene #6
15.107	BBA	112.64700	1.68488e-1	18.97963		Phenanthrene #7
16.502	BBA	65.59051	3.03714e-1	19.92078		Anthracene #8
17.876	BB	80.48541	2.38671e-2	1.92095		Fluoranthene #9
18.874	BBA	46.69043	4.06594e-2	1.89840		Pyrene #10
21.191	BB	67.06191	2.86511e-1	19.21401		p-Terphenyl d14 #11*
22.500	BB	240.53757	7.96557e-3	1.91602		Benzo(a)anthracene #12
23.357	BB	49.40866	3.90144e-2	1.92765		Chrysene #13
26.069	BB	117.45109	1.65598e-2	1.94496		Benzo(b)fluoranthene #14
27.490	BB	352.34430	2.77566e-3	9.77990e-1		Benzo(k)fluoranthene #15
28.595	BB	413.69882	4.67660e-3	1.93470		Benzo(a)pyrene #16
30.442	BB	48.80956	3.93196e-2	1.91917		Dibenz(a,h)anthracene #17
31.259	BB	70.29235	2.69466e-2	1.89414		Benzo(g,h,i)perylene #18
32.195	BB	140.86295	1.37440e-2	1.93603		Indeno(1,2,3-cd)pyrene #1

Totals : 173.52906

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.429	BBA	2511.89209	8.27651e-3	20.78970		Naphthalene #1
11.060	BBA	669.56586	3.00095e-2	20.09334		Acenaphthylene #2
12.006	PB	1541.48511	1.29932e-2	20.02887		1-Methylnaphthalene #3
12.580	BB	1793.71069	1.12713e-2	20.21737		2-Methylnaphthalene #4
13.059	BB	964.84308	2.03841e-2	19.66748		Acenaphthene #5
13.711	BBA	1120.51575	1.76946e-2	19.82706		Fluorene #6
15.091	BBA	1157.38086	1.74291e-2	20.17210		Phenanthrene #7
16.486	BBA	2004.84766	1.03455e-2	20.74113		Anthracene #8
17.859	BB	89.69737	2.18958e-2	1.96399		Fluoranthene #9
18.858	BBA	134.31787	1.46349e-2	1.96572		Pyrene #10
21.176	BBA	298.00543	6.45989e-2	19.25083		p-Terphenyl d14 #11*
22.484	BBA	88.20395	2.22878e-2	1.96588		Benzo(a)anthracene #12
23.341	BBA	129.21646	1.52051e-2	1.96475		Chrysene #13
26.052	PBA	94.44662	2.08462e-2	1.96885		Benzo(b)fluoranthene #14
27.474	BB	43.36811	2.27217e-2	9.85397e-1		Benzo(k)fluoranthene #15
28.578	BBA	74.89756	2.64267e-2	1.97929		Benzo(a)pyrene #16
30.426	PBA	21.00849	9.39100e-2	1.97291		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.242	BB	38.67940	5.34666e-2	2.06806		Benzo(g,h,i)perylene #18
32.175	BBA	93.86073	2.06198e-2	1.93539		Indeno(1,2,3-cd)pyrene #1

Totals : 199.55813

Results obtained with enhanced integrator!

*** End of Report ***

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8310

Column: LC-PAH

	STD #1	STD #2	STD #3
Date Run	10/30/2001	10/31/2001	11/2/2001
File #	4L002247	4L002275	4L002311
Time	0:54	3:51	14:47

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Naphthalene (FLD)	9.337	9.362	9.352	0.038
1-Methylnaphthalene (FLD)	11.935	11.941	11.940	0.010
2-Methylnaphthalene (FLD)	12.517	12.523	12.521	0.009
Acenaphthene (FLD)	13.001	13.006	13.005	0.008
Fluorene (FLD)	13.664	13.667	13.669	0.008
Phenanthrene (FLD)	15.062	15.066	15.071	0.014
Anthracene (FLD)	16.475	16.483	16.493	0.027
Fluoranthene (FLD)	17.860	17.869	17.883	0.035
Pyrene (FLD)	18.868	18.881	18.897	0.044
p-Terphenyl-d14 (FLD)	21.217	21.244	21.262	0.068
Benzo(a)anthracene (FLD)	22.535	22.572	22.587	0.080
Chrysene (FLD)	23.401	23.449	23.467	0.102
Benzo(b)fluoranthene (FLD)	26.119	26.182	26.204	0.132
Benzo(k)fluoranthene (FLD)	27.554	27.629	27.650	0.151
Benzo(a)pyrene (FLD)	28.666	28.739	28.758	0.146
Dibenz(a,h)anthracene (FLD)	30.532	30.615	30.635	0.164
Benzo(g,h,i)perylene (FLD)	31.340	31.420	31.445	0.165
Indeno(1,2,3-cd)pyrene (FLD)	32.285	32.355	32.382	0.150
Naphthalene (VWD)	9.318	9.341	9.330	0.035
Acenaphthylene (VWD)	10.959	10.965	10.968	0.014
1-Methylnaphthalene (VWD)	11.916	11.920	11.922	0.009
2-Methylnaphthalene (VWD)	12.498	12.502	12.502	0.007
Acenaphthene (VWD)	12.982	12.986	12.986	0.007
Fluorene (VWD)	13.644	13.646	13.649	0.008
Phenanthrene (VWD)	15.042	15.045	15.052	0.015
Anthracene (VWD)	16.456	16.462	16.474	0.027
Fluoranthene (VWD)	17.840	17.848	17.863	0.035
Pyrene (VWD)	18.848	18.859	18.876	0.042
p-Terphenyl-d14 (VWD)	21.198	21.223	21.243	0.068
Benzo(a)anthracene (VWD)	22.516	22.551	22.568	0.080
Chrysene (VWD)	23.382	23.428	23.448	0.102
Benzo(b)fluoranthene (VWD)	26.099	26.160	26.184	0.131
Benzo(k)fluoranthene (VWD)	27.535	27.609	27.632	0.152
Benzo(a)pyrene (VWD)	28.646	28.717	28.738	0.145
Dibenz(a,h)anthracene (VWD)	30.513	30.595	30.617	0.164
Benzo(g,h,i)perylene (VWD)	31.320	31.398	31.426	0.165
Indeno(1,2,3-cd)pyrene (VWD)	32.266	32.338	32.367	0.156

2.2.7.4 Raw QC Data

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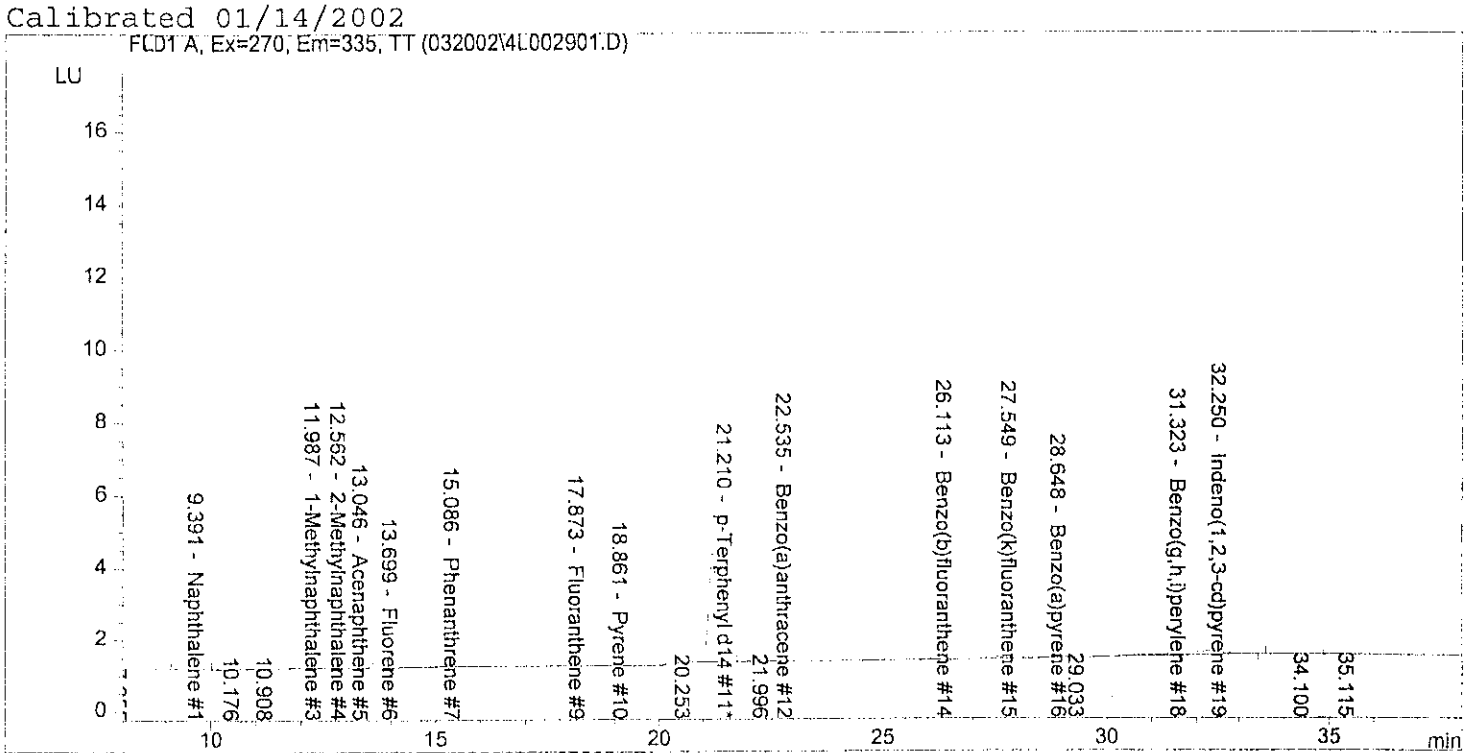
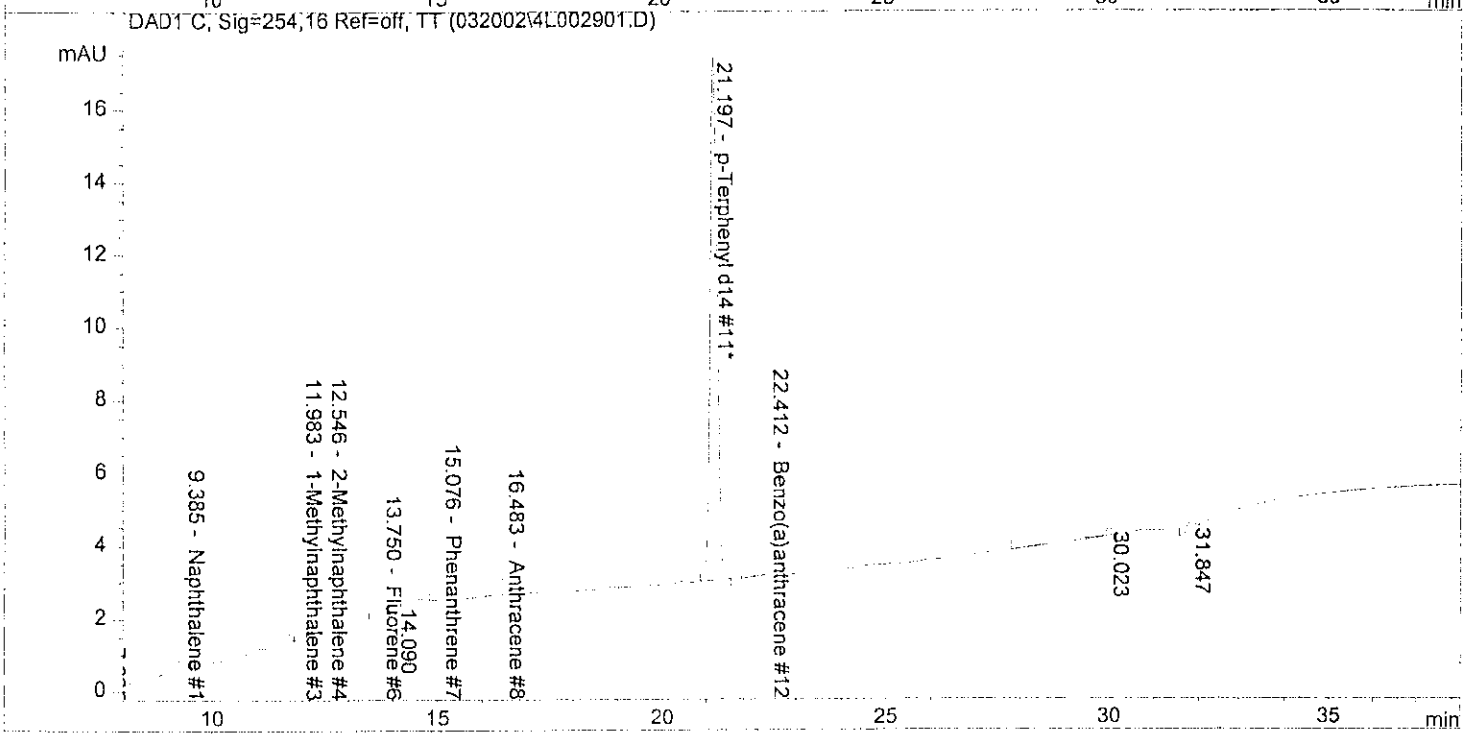
Injection Date : 3/20/2002 5:40:39 PM
Sample Name : WG114754-02 ~~WBKL~~
Acq. Operator : RDC

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 : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





W BLK

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.391	BB	1.84640	2.57003e-2	4.74530e-2		Naphthalene #1
11.987	BB	1.42068	2.24893e-2	3.19501e-2		1-Methylnaphthalene #3
12.562	BB	2.35966	1.72691e-2	4.07493e-2		2-Methylnaphthalene #4
13.046	BB	1.47351	1.38228e-2	2.03680e-2		Acenaphthene #5
13.699	BBA	3.76487	6.56879e-3	2.47306e-2		Fluorene #6
15.086	BBA	1.07798	1.68488e-1	1.81626e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.873	BB	8.33903e-1	2.38671e-2	1.99028e-2		Fluoranthene #9
18.861	BB	4.72918e-1	4.06594e-2	1.92286e-2		Pyrene #10
21.210	BBA	34.48734	2.86511e-1	9.88102	97.8%	p-Terphenyl d14 #11*
22.535	BB	3.35721e-1	7.96557e-3	2.67421e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.113	BBA	3.66022e-1	1.65598e-2	6.06124e-3		Benzo(b)fluoranthene #14
27.549	BBA	6.86507e-1	2.77566e-3	1.90551e-3		Benzo(k)fluoranthene #15
28.648	PB	2.04128e-1	4.67660e-3	9.54625e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.323	PB	2.84558	2.69466e-2	7.66789e-2		Benzo(g,h,i)perylene #18
32.250	BB	4.67872	1.37440e-2	6.43045e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 10.41961

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.385	BB	6.37380	8.27651e-3	5.27528e-2	2 mo	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.983	BB	1.04918	1.29932e-2	1.36322e-2		1-Methylnaphthalene #3
12.546	BB	7.22319	1.12713e-2	8.14144e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.750	BB	3.94231	1.76946e-2	6.97575e-2		Fluorene #6
15.076	BB	4.29316	1.74291e-2	7.48258e-2		Phenanthrene #7
16.483	BB	7.93336	1.03455e-2	8.20745e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-	99.8%	Pyrene #10
21.197	BBA	153.42522	6.45989e-2	9.91111		p-Terphenyl d14 #11*
22.412	PB	1.10508	2.22878e-2	2.46299e-2	2 mo	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

WBLK

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.31019

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 V182P29 031902 @ 1540

WLCS

RDC 3/20/02

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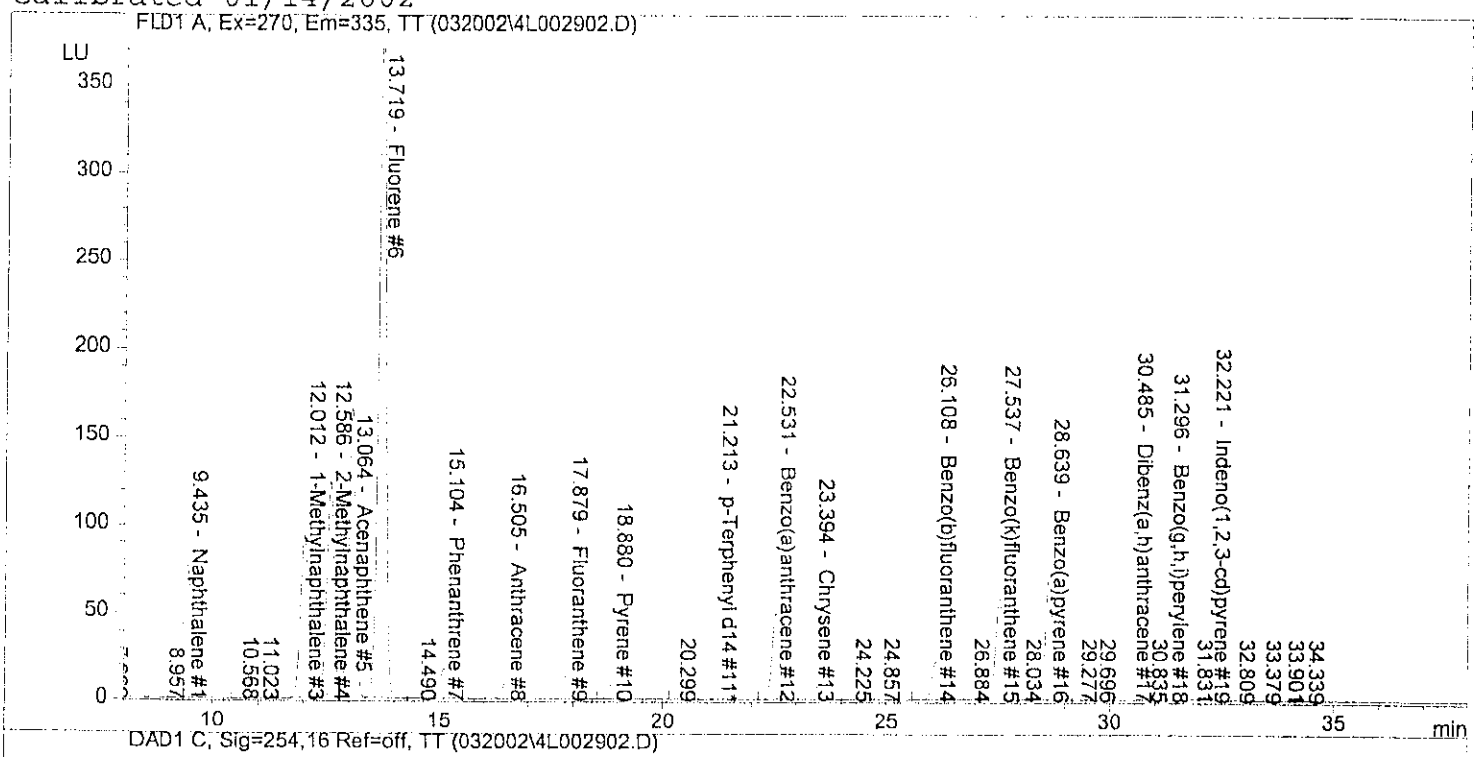
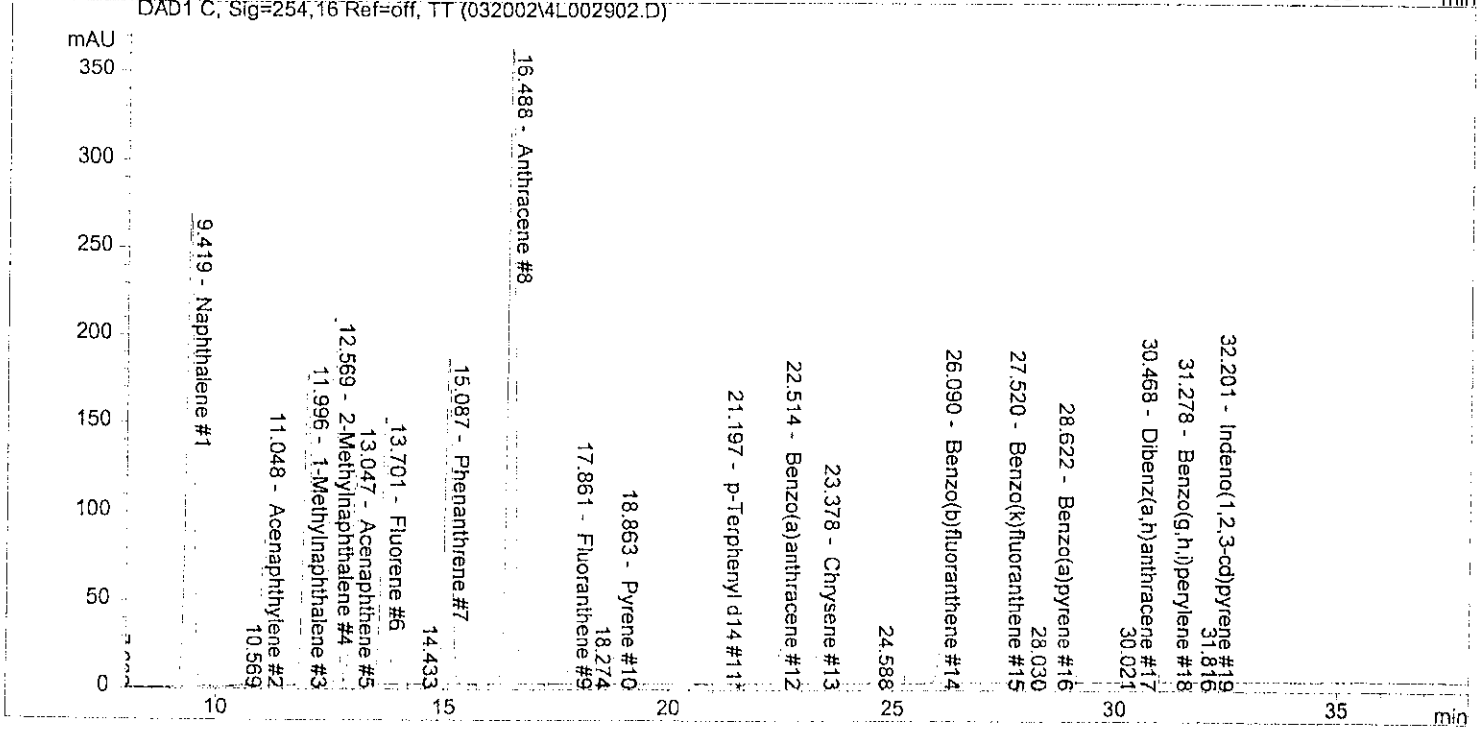
Injection Date : 3/20/2002 6:37:17 PM Seq. Line : 6
Sample Name : WG114754-03 ~~WBKL~~ WLCS Vial : 6
Acq. Operator : RDC Inj : 1
RDC 3/20/02 Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/18/2002 5:17:16 PM by RDC
(modified after loading)

Calibrated 01/14/2002





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 3/9/2002 1:33:04 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	BBA	905.19745	2.57003e-2	23.26382		Naphthalene #1
12.012	PB	1082.32275	2.24893e-2	24.34070		1-Methylnaphthalene #3
12.586	BB	1383.54382	1.72691e-2	23.89260		2-Methylnaphthalene #4
13.064	BB	1881.77722	1.38228e-2	26.01139		Acenaphthene #5
13.719	BB	4448.37598	6.56879e-3	29.22044		Fluorene #6
15.104	BBA	193.17192	1.68488e-1	32.54708		Phenanthrene #7
16.505	BBA	127.50488	3.03714e-1	38.72506		Anthracene #8
17.879	PBA	176.26366	2.38671e-2	4.20690		Fluoranthene #9
18.880	BBA	104.84708	4.06594e-2	4.26302		Pyrene #10
21.213	BB	28.96230	2.86511e-1	8.29803		p-Terphenyl d14 #11*
22.531	BB	555.57281	7.96557e-3	4.42546		Benzo(a)anthracene #12
23.394	BB	105.56956	3.90144e-2	4.11874		Chrysene #13
26.108	BB	236.71915	1.65598e-2	3.92001		Benzo(b)fluoranthene #14
27.537	BB	624.97852	2.77566e-3	1.73473		Benzo(k)fluoranthene #15
28.639	BB	778.75800	4.67660e-3	3.64194		Benzo(a)pyrene #16
30.485	BB	63.68378	3.93196e-2	2.50402		Dibenz(a,h)anthracene #17
31.296	BB	92.53856	2.69466e-2	2.49360		Benzo(g,h,i)perylene #18
32.221	BB	204.24646	1.37440e-2	2.80717		Indeno(1,2,3-cd)pyrene #1

Totals : 240.41472

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.419	BBA	3035.69092	8.27651e-3	25.12493		Naphthalene #1
11.048	BB	898.05634	3.00095e-2	26.95022		Acenaphthylene #2
11.996	BB	1935.56836	1.29932e-2	25.14929		1-Methylnaphthalene #3
12.569	BB	2245.74536	1.12713e-2	25.31237		2-Methylnaphthalene #4
13.047	BB	1288.43042	2.03841e-2	26.26353		Acenaphthene #5
13.701	BB	1624.18945	1.76946e-2	28.73935		Fluorene #6
15.087	BBA	1973.47498	1.74291e-2	34.39588		Phenanthrene #7
16.488	BBA	3885.11914	1.03455e-2	40.19346		Anthracene #8
17.861	BB	198.92139	2.18958e-2	4.35554		Fluoranthene #9
18.863	BBA	302.02359	1.46349e-2	4.42007		Pyrene #10
21.197	BBA	128.16081	6.45989e-2	8.27905		p-Terphenyl d14 #11*
22.514	BBA	206.85973	2.22878e-2	4.61046		Benzo(a)anthracene #12
23.378	PBA	276.90735	1.52051e-2	4.21042		Chrysene #13
26.090	BBA	192.44579	2.08462e-2	4.01176		Benzo(b)fluoranthene #14
27.520	PB	78.14378	2.27217e-2	1.77556		Benzo(k)fluoranthene #15
28.622	BB	142.31979	2.64267e-2	3.76104		Benzo(a)pyrene #16
30.468	BB	27.82415	9.39100e-2	2.61296		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.278	BB	51.07441	5.34666e-2	2.73078		Benzo(g,h,i)perylene #18
32.201	BB	138.60379	2.06198e-2	2.85799		Indeno(1,2,3-cd)pyrene #1

Totals : 275.75465

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

1/16/02

Sel	Run	Vial	Method	Datafile	Seqfable	Calib.Kf.Kl	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	cc 02:01	505 56 19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	cc 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	cc 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	505 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	505 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	Dil'n. of 505 56 19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01		WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	12:01	Dil'n. of 505 57-27/ 505 57-28	WG111292-08 AL

RRC
1/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan 14 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials RDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☐ Waste container

Returned to Control?
Yes ✓ No ___

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature] 1/16/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG114812-01 CCV	8310	1	Sample		
3	3	ESS0040-50 surr.	8310	1	Sample		
4	4	ESS0041-01 spk.	8310	1	Sample		
5	5	WG114754-02 ~~WBKL~~	8310 WBLK	1	Sample		
6	6	WG114754-03 ~~WBKL~~	8310 WLCS	1	Sample		
7	7	L0203326-01 831W	8310	1	Sample		
8	8	L0203326-02 831W	8310	1	Sample		
9	9	L0203327-01 831W	8310	1	Sample		
10	10	L0203327-02 831W	8310	1	Sample		
11	11	L0203327-03 831W	8310	1	Sample		
12	12	WG114754-01 WREF	8310	1	Sample		
13	13	WG114812-02 CCV	8310	1	Sample		
14	14	WG114754-04 WMS	8310	1	Sample		
15	15	WG114754-05 WMSD	8310	1	Sample		
16	16	L0203327-07 831W	8310	1	Sample		
17	17	L0203327-08 831W	8310	1	Sample		
18	18	L0203327-09 831W	8310	1	Sample		
19	13	WG114812-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\MAR20.S

3/22/02 TRC

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002897	01:01		accn blk
No	2	2	8310	4L002898	02:01	SOS 5620/5826	WG114812-01 CC
No	3	3	8310	4L002899	03:01		ESS0040-50 sur
No	4	4	8310	4L002900	04:01		ESS0041-01 spk
No	5	5	8310	4L002901	05:01		WG114754-02 WB
No	6	6	8310	4L002902	06:01		WG114754-03 WB
No	7	7	8310	4L002903	07:01		L0203326-01 83
No	8	8	8310	4L002904	08:01		L0203326-02 83
No	9	9	8310	4L002905	09:01		L0203327-01 83
No	10	10	8310	4L002906	10:01		L0203327-02 83
No	11	11	8310	4L002907	11:01		L0203327-03 83
No	12	12	8310	4L002908	12:01		WG114754-01 WR
No	13	13	8310	4L002909	13:01	SOS 5620/5826	WG114812-02 CC
No	14	14	8310	4L002910	14:01		WG114754-04 WM
No	15	15	8310	4L002911	15:01		WG114754-05 WM
No	16	16	8310	4L002912	16:01	RC (cont.)	L0203327-07 83
No	17	17	8310	4L002913	17:01		L0203327-08 83
No	18	18	8310	4L002914	18:01		L0203327-09 83
No	19	13	8310	4L002915	19:01		WG114812-03 CC

TRC 3/22/02

mk 3/22/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time May 20 2002 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 0520002
Analyst Initials LDC SOP # HPLC01 Rev. # 3 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0203327-07 requires conf of acenaphthylene

Reviewed By: [illegible]

Parameter: 8310 H_2O SOP #: EXHPLC01 Revision #: 6
Extraction Analyst(s): RLL TV/KD Analyst(s): DP
Date/Time Extracted: 3/19/02 @ 1540 Date TV/KD: 3/20/02
Spike/Surrogate Analyst: RLL Witness: CEB
Surrogate #: ESS0039-27 Earliest Hold Date: 3/25
Spike #: A = ESS0040-34 Spike #: B = —

Extraction Work Group WG 114754
Analytical Work Group WG 114811

Extract Relinquished By: DP
Extract Received By & Date: CVK 3/20/02

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank			✓		1 L	100 ul		1 mL	T				WG 114754-02
2	LCS			✓		⊥		500 ul		C				WG ⊥ -03
3	03-326-01	8310		✓		940 mL				T			✓	A
4	-02			✓		965 mL				T				
5	03-327-01			✓						C				
6	-02			✓						T				
7	-03			✓						T				
8	-04			✓						T				wG 114754-01
9	-05 MS			✓				500 ul		C				* ⊥ -04
10	-06 MSD			✓		⊥		⊥		C				* ⊥ -05
11	-07			✓		950 mL				T				
12	-08			✓		965 mL				T				
13	-09	⊥		✓		880 mL	⊥		⊥	T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/20/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH_3CN Lot #: 41264
Reagent: Fort. Sol. Lot #: ER2092
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Donna Pierson Date: 03/20/02

Extraction Notes For Volume # 182 Page # 29

General Comments: * MS, MD OF 03-327-04

Extraction Anomalies: * * Very Thick Emulsion during Extraction.

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Run Date: 14-Jan-02

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	✓
Corrective Action:	✓
Results Reporting/Data Qualifiers:	✓
Client Data Package Assembly:	✓
Check for Completeness:	✓
Check for compliance with method and project requirements:	✓
Check the reasonableness of results:	✓

Comments:

Re-calibration

Primary Reviewer: RDC 1/18/02

Secondary Reviewer: 1/18/02

Supervisor Review: 1/18/02

√ = Checked & OK

NA = Not Applicable

Run Date: 20-Mar-02

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG114811 03-326	3/26/2002	
WG114811 03-327	3/26/2002	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0203327-07 needs confirmation of acenaphthylene.

Client requested MSD yielded percent recoveries for several analytes which were above advisory limits.

Primary Reviewer: RDC 3/22/02

Secondary Reviewer: rdc 3/25/02

Supervisor Review: rdc 3/25/02

√

NA

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0203326

METHOD

Analysis: SW-846 9056 / 300

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met. All method 300 acceptance criteria were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: Stephanie L Lepe DATE: 4/3/02

Rev. 7/14/00

ANIONS (9056)

Login Number L0203326

A. QC Summary

✓ Method Blank Summary
✓ Method Blank Results
✓ Laboratory Control Sample (LCS)
NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
✓ Holding Time Summary
✓ Initial Calibration Summary
✓ Initial Calibration Verification (ICV) Form (Second Source)
✓ Continuing Calibration Verification (CCV)
✓ Instrument Run Log
NA Extraction Bench Sheet

B. Sample Data

___ Target analyte results summary (See Summary Report)
✓ Chromatograms and quantitation report

C. Standards Data

✓ Initial calibration (ICAL) summary form
✓ Chromatograms and quantitation report for ICAL standards
✓ Initial calibration verification (ICV/second source) summary forms
✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
✓ Continuing Calibration Verification (CCV) summary forms
✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
✓ Retention Time Window Summary

D. Raw QC Data

✓ Method blank chromatogram and quantitation report
✓ LCS chromatogram and quantitation report
NA MS/MSD chromatogram and quantitation report
✓ Duplicate chromatogram and quantitation report.
✓ Instrument Run Log
NA Extraction Bench Sheet
✓ Daily Checklist
✓ Example Calcutations

Checked By: RDC Date: 4/2/02

2.4.5.1 QC Summary

Login Number: L0203326
Blank File ID: 031902.13
Date Analyzed: 03/19/02
Time Analyzed: 13:24
Analyst: RDC

Work Group: WG114742
Blank Sample ID: WG114742-01
Instrument ID: IC2
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG114742-02	031902.14	03/19/02 13:35	01
062-CEF46-12I-Q1-01-11	L0203326-01	031902.15	03/19/02 13:47	01
062-CEF46-15I-Q1-01-11	L0203326-02	031902.16	03/19/02 13:58	01
DUP	WG114742-04	031902.25	03/19/02 15:50	01

BLANK REPORT

Login Number: L0203326
Run Date: 03/19/2002
Sample ID: WG114742-01
Instrument ID: IC2
Run Time: 13:24
Method: 9056
File ID: 031902.13
Analyst: RDC
Matrix: Water
Workgroup (AAB#): WG114742
Units: mg/L
Contract #:
Cal ID: IC2-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 03/27/2002 15:15

LABORATORY CONTROL SAMPLE

Login Number: L0203326
Instrument ID: IC2
File ID: 031902.14
Workgroup (AAB#): WG114742
Contract #:

Run Date: 03/19/2002
Run Time: 13:35
Analyst: RDC

Sample ID: WG114742-02
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	4.17	103	90 - 110	
Nitrite	3.65	3.76	103	90 - 110	
Phosphate	9.78	9.94	102	90 - 110	

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 03/27/2002 15:16

DUPLICATE REPORT

Sample Login ID: L0203326-02
Instrument ID: IC2
Sample ID: WG114742-03 File ID: 031902.16 Dil: 1
Duplicate ID: WG114742-04 File ID: 031902.25 Dil: 1

Worknum: WG114742
Method: 9056
Matrix: Water
Units: mg/L

Analyte	Sample	Duplicate	RPD	RPD Limit	Q
Nitrate	0.169	0.161	4.91	30	
Nitrite	ND	ND	0	30	
Phosphate	ND	ND	0	30	

KEMRON FORMS - Modified 03/12/2002
Version 1.1
Report generated 03/27/2002 15:16

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056 AAB#: WG114742

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-CEF46-12I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	2	0.942	19-MAR-02	2	0.942	
062-CEF46-15I-Q1-01-11	18-MAR-02	19-MAR-02	19-MAR-02	2	0.974	19-MAR-02	2	0.974	

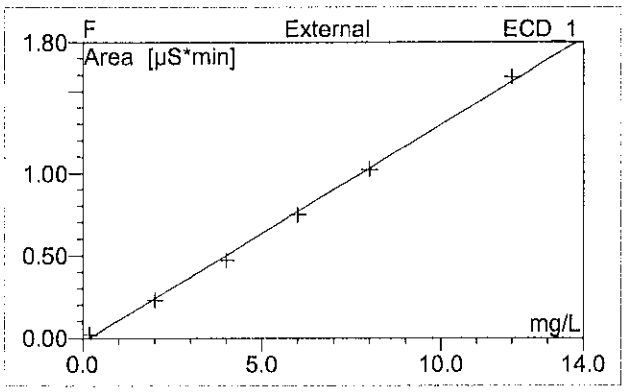
* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

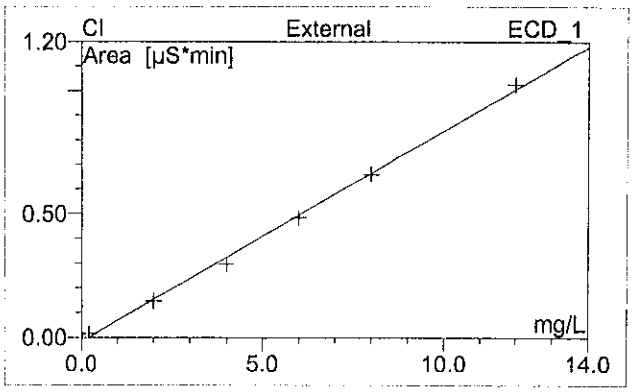
KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 03/27/2002 15:15

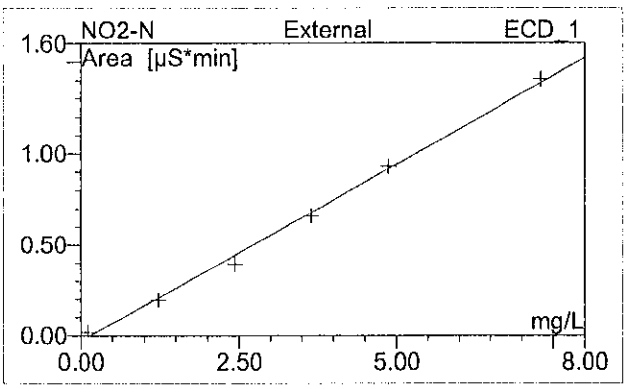
6 ANION STD #6

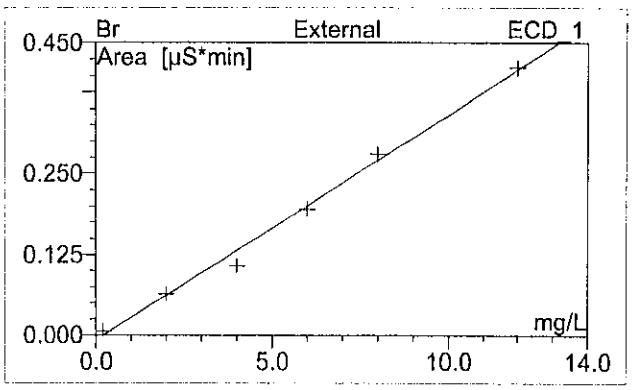
1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







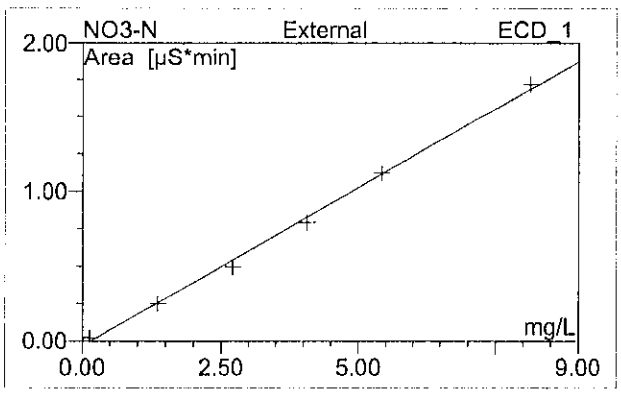


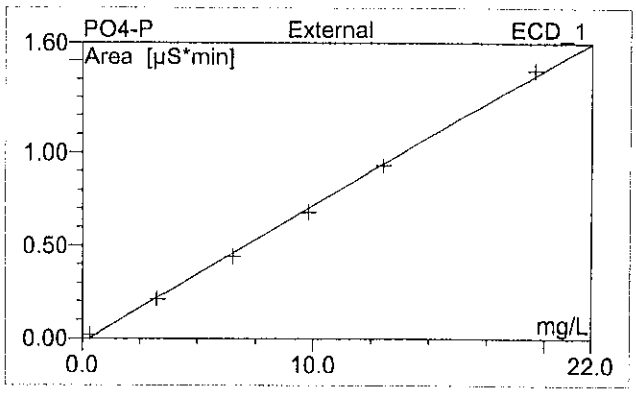
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

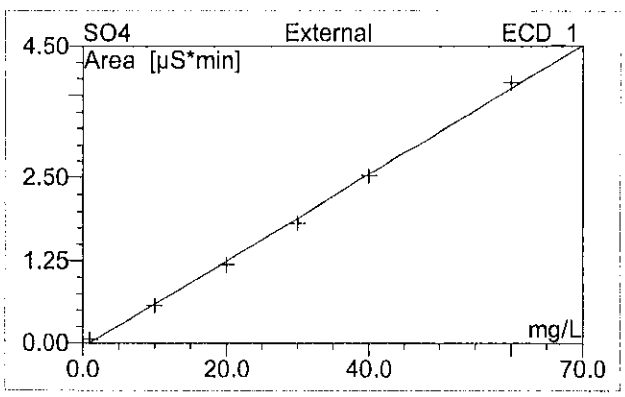
6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

Sample Name:	**ANION ALT STD: SV53-30**		*Injection Volume:*
Vial Number:	**8**		*Channel:*
Sample Type:	**unknown**		*Wavelength:*
Control Program:	**9056**		*Bandwidth:*
Quantif. Method:	**9056**		*Dilution Factor:*
Recording Time:	**3/7/2002 12:50**		*Sample Weight:*
Run Time (min):	**9.10**		*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9159	-1.40	PASS
Cl	6	5.9267	-1.22	PASS
NO2-N	3.65	1.5489	-57.56	FAIL
Br	6	5.8498	-2.50	PASS
NO3-N	4.07	6.2520	53.61	FAIL
PO4-P	9.78	9.6802	-1.02	PASS
SO4	30	29.6053	-1.32	PASS

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*
Vial Number:	**10**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.2461	-95.90	FAIL
NO2-N	3.65	3.5391	-3.04	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	4.0656	-0.11	PASS
PO4-P	9.78	0.2847	-97.09	FAIL
n.a.	30	n.a.	#VALUE!	#VALUE!

12 WG114743-01 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-01 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 13:12**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9927	-0.12	PASS
Cl	6	5.9929	-0.12	PASS
NO2-N	3.65	3.6406	-0.26	PASS
Br	6	6.1326	2.21	PASS
NO3-N	4.07	4.0620	-0.20	PASS
PO4-P	9.78	9.8546	0.76	PASS
SO4	30	29.6360	-1.21	PASS

23 WG114743-02 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-02 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 15:27**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.1428	2.38	PASS
Cl	6	6.1034	1.72	PASS
NO2-N	3.65	3.6650	0.41	PASS
Br	6	6.3253	5.42	PASS
NO3-N	4.07	4.1954	3.08	PASS
PO4-P	9.78	10.1212	3.49	PASS
SO4	30	30.6150	2.05	PASS

29 WG114743-03 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-03 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 16:37**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2212	3.69	PASS
Cl	6	6.2515	4.19	PASS
NO2-N	3.65	3.8121	4.44	PASS
Br	6	6.3827	6.38	PASS
NO3-N	4.07	4.2346	4.04	PASS
PO4-P	9.78	10.2573	4.88	PASS
SO4	30	30.8755	2.92	PASS

Operator: Analyst Printed: 3/27/2002 14:42:05

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 3/19/2002 12:45:30 by gsg
#Samples: 30 Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	3/7/2002 11:17:12
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	3/7/2002 11:28:43
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	3/7/2002 11:40:13
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished	3/7/2002 11:51:43
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	3/7/2002 12:03:12
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	3/7/2002 12:14:42
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	3/7/2002 12:38:53
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished	3/7/2002 12:50:23
9	ANION ALT STD: SOS58-15	Unknown	10	25.0	9056	9056	Finished	3/7/2002 13:01:53
10	DI WATER BLANK	Unknown	11	25.0	9056	9056	Finished	3/19/2002 12:49:36
11	ELUENT BLANK	Unknown	12	25.0	9056	9056	Finished	3/19/2002 13:01:06
12	WG114743-01 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 13:12:37
13	WG114742-01 BLANK 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:24:07
14	WG114742-02 LCS 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:35:36
15	L0203326-01 9056	Unknown	15	25.0	9056	9056	Finished	3/19/2002 13:47:07
16	WG114742-03 REF-DUP	Unknown	16	25.0	9056	9056	Finished	3/19/2002 13:58:38
17	L0203327-01 9056	Unknown	17	25.0	9056	9056	Finished	3/19/2002 14:10:07
18	L0203327-02 9056	Unknown	18	25.0	9056	9056	Finished	3/19/2002 14:28:04
19	L0203327-03 9056	Unknown	19	25.0	9056	9056	Finished	3/19/2002 14:41:24
20	WG114742-05 REF-MS	Unknown	20	25.0	9056	9056	Finished	3/19/2002 14:52:54
21	L0203327-07 9056	Unknown	21	25.0	9056	9056	Finished	3/19/2002 15:04:24
22	L0203327-08 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:15:54
23	WG114743-02 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 15:27:24
24	L0203327-09 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:38:55
25	WG114742-04 DUP	Unknown	15	25.0	9056	9056	Finished	3/19/2002 15:50:25
26	L0203327-09 9056 RR	Unknown	16	25.0	9056	9056	Finished	3/19/2002 16:03:18
27	WG114742-06 MS	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:14:48
28	WG114742-07 MSD	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:26:18
29	WG114743-03 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 16:37:48
30	END	Unknown	22	25.0	DX-320 OFF	9056	Finished	3/19/2002 16:49:18

RJC 3/27/02
[illegible] 3/27/02

Operator: Analyst Printed: 3/27/2002 14:42:05

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 3/19/2002 12:45:30 by gsg
#Samples: 30 Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
2	ANION STD #2	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
3	ANION STD #3	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
4	ANION STD #4	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
5	ANION STD #5	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
6	ANION STD #6	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
7	ELUENT BLANK	1.0000		1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1.0000		1,1 RDC/JWR ANION ALT STD SV53-30 030702
9	ANION ALT STD: SOS58-15	1.0000		1,1 RDC/JWR ANION ALT STD SOS58-15 030702
10	DI WATER BLANK	1.0000		1,1 RDC
11	ELUENT BLANK	1.0000		1,1 RDC
12	WG114743-01 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
13	WG114742-01 BLANK 031902	1.0000		1,1 RDC
14	WG114742-02 LCS 031902	1.0000		1,1 RDC ANION STD SOS0058-24 031902
15	L0203326-01 9056	1.0000		1,1 RDC
16	WG114742-03 REF-DUP	1.0000		1,1 RDC L0203326-02
17	L0203327-01 9056	1.0000		1,1 RDC
18	L0203327-02 9056	1.0000		1,1 RDC
19	L0203327-03 9056	1.0000		1,1 RDC
20	WG114742-05 REF-MS	1.0000		1,1 RDC L0203327-04 REF
21	L0203327-07 9056	1.0000		1,1 RDC
22	L0203327-08 9056	1.0000		1,1 RDC
23	WG114743-02 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
24	L0203327-09 9056	1.0000		1,1 RDC
25	WG114742-04 DUP	1.0000		1,1 RDC L0203326-02 DUP
26	L0203327-09 9056 RR	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
27	WG114742-06 MS	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
28	WG114742-07 MSD	1.0000		1,1 RDC L0203327-06 MSD SOS0058-24
29	WG114743-03 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
30	END	1.0000		1,1 RDC

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KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2002 Instrument ID IC-2 Column ID AG4A-SC Data Subdirectory 031902
Analyst Initials RLC SOP # IC01 Rev. # 0 9056 AS4A-SC SOP # IC02 Rev. # 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1193 psi
- ☑ Waste container

Returned to Control?
Yes ____ No _____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

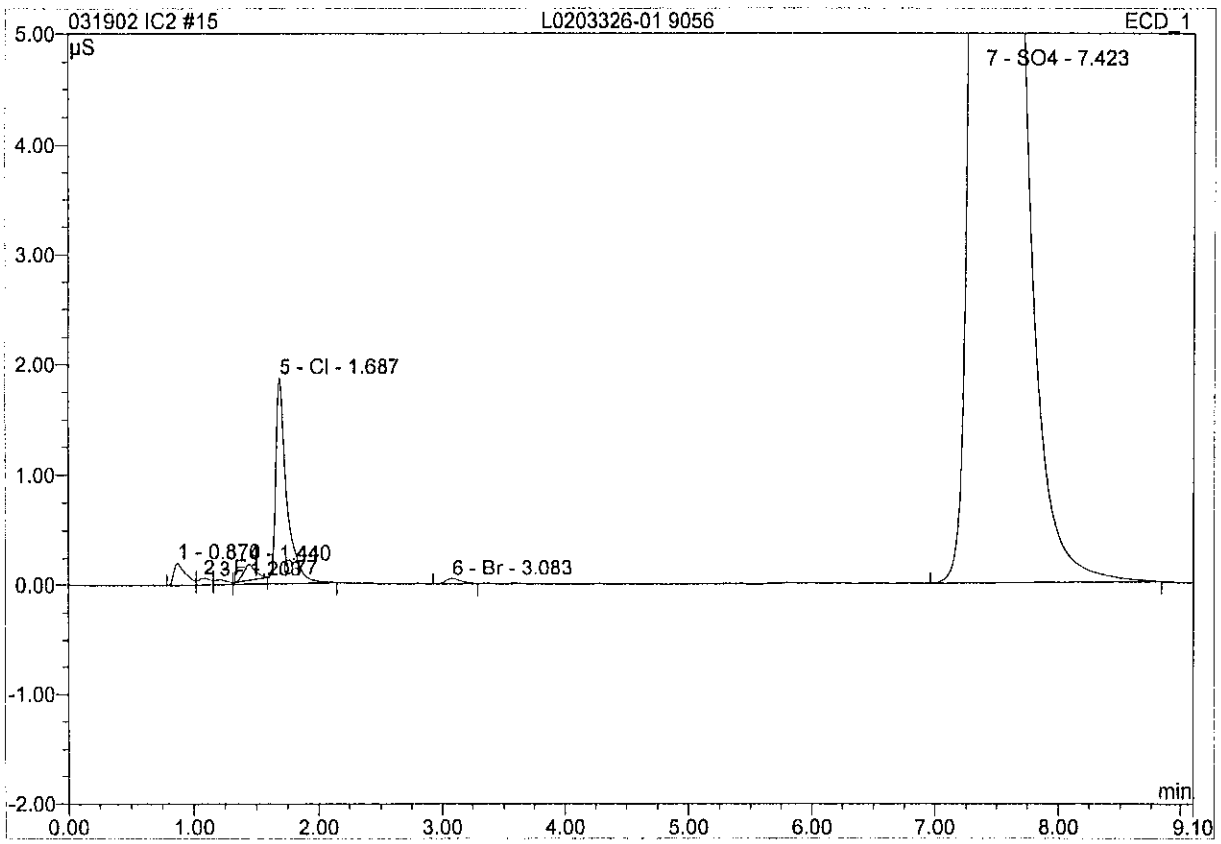
Reviewed By: [illegible]

2.4.5.2 Sample Data

15 L0203326-01 9056

1,1 RDC

Sample Name:	**L0203326-01 9056**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

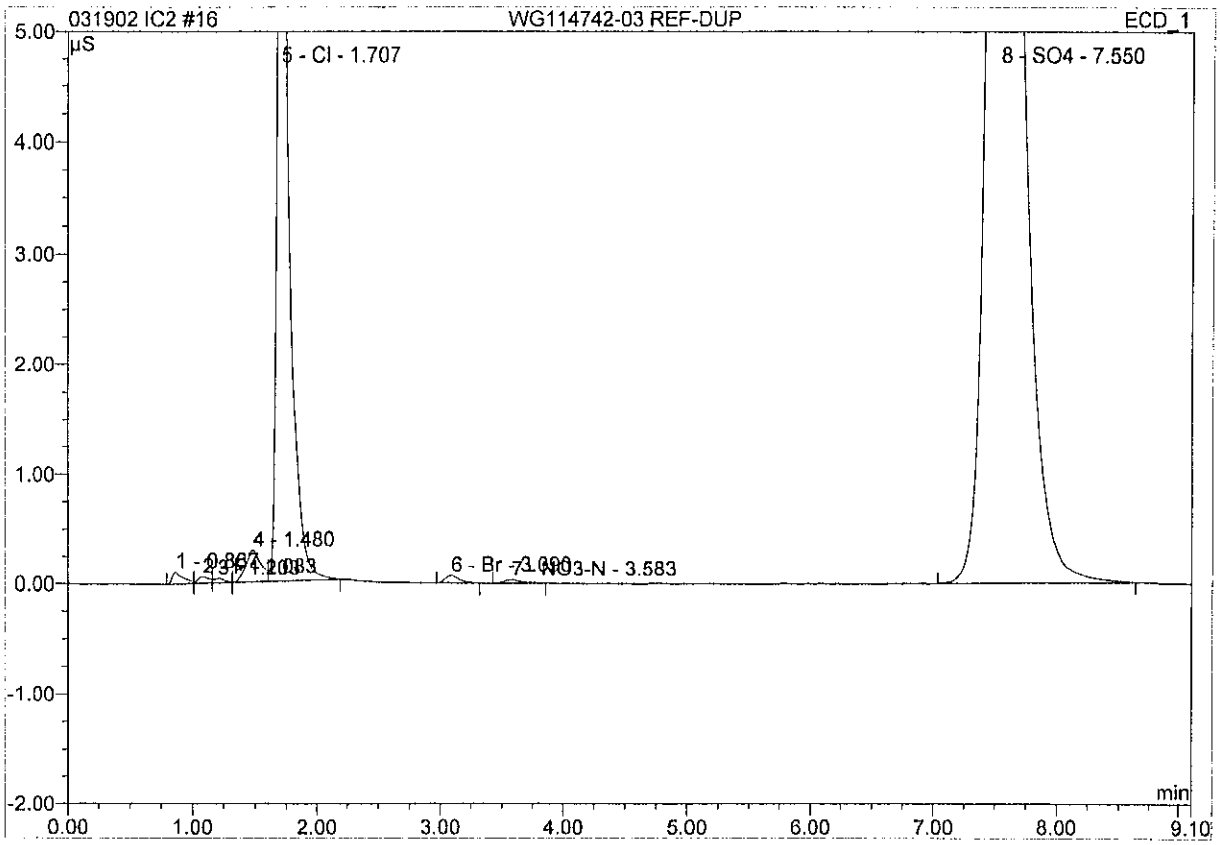


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.209	0.023	0.25	n.a.	BM
2	1.08	F	0.060	0.007	0.07	0.237	M
3	1.20	n.a.	0.045	0.005	0.06	n.a.	M
4	1.44	n.a.	0.155	0.017	0.19	n.a.	Ru
5	1.69	Cl	1.867	0.211	2.32	2.669	MB
6	3.08	Br	0.049	0.007	0.08	0.412	BMB
7	7.42	SO4	28.458	8.830	97.04	136.253	BMB
Total:			30.843	9.099	100.00	139.571	

16 WG114742-03 REF-DUP

1,1 RDC L0203326-02

Sample Name:	**WG114742-03 REF-DUP**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:58**	*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	0.87	n.a.	0.109	0.010	0.22	n.a.	BM
2	1.08	F	0.057	0.006	0.12	0.231	M
3	1.20	n.a.	0.038	0.004	0.07	n.a.	M
4	1.48	n.a.	0.289	0.041	0.86	n.a.	M
5	1.71	Cl	9.623	0.914	19.14	10.899	MB
6	3.09	Br	0.067	0.009	0.18	0.455	BMB
7	3.58	NO3-N	0.032	0.005	0.11	0.169	BMB
8	7.55	SO4	13.076	3.787	79.30	58.931	BMB
Total:			23.291	4.776	100.00	70.685	

2.4.5.3 Standards Data

100ml Total	1/10 ~~#3~~ #2	.5 ML STD	1ML STD	CCV 1.5 ML STD	2ML STD	3ML STD	3ML ALT STD
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
CHLORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRITE-N	0.1218	1.2178	2.4356	3.6534	4.8714	7.3070	3.6534
BROMIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRATE-N	0.1355	1.3554	2.7108	4.0662	5.4216	8.1322	4.0662
PHOSPHATE-P	0.3261	3.2614	6.5228	9.7842	13.0456	19.5682	9.7842
SULFATE	1.0000	10.0000	20.0000	30.0000	40.0000	60.0000	30.0000

NO2 -N $\frac{14.0067}{46.0055}$ = % 30.446

NO3-N $\frac{14.0067}{62.0049}$ = % 22.590

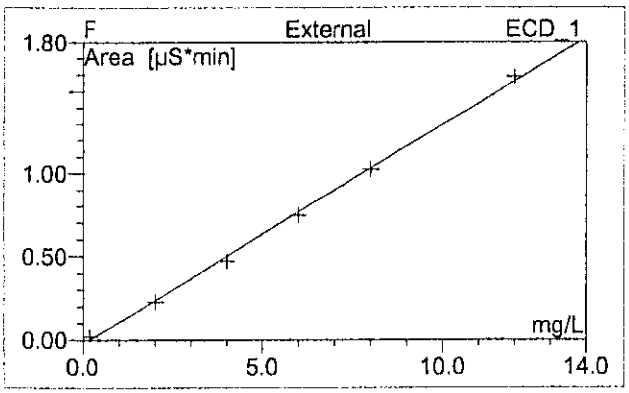
PO4-P $\frac{30.97376}{94.97136}$ = % 32.614

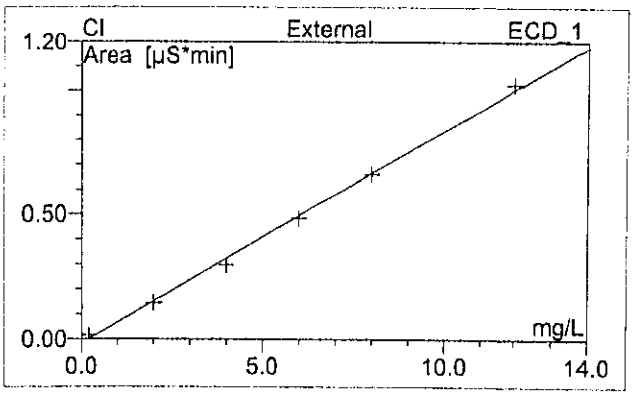
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
CHLORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRITE	0.400	4.000	8.000	12.000	16.000	24.000	12.000
BROMIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRATE	0.600	6.000	12.000	18.000	24.000	36.000	18.000
PHOSPHATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000
SULFATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000

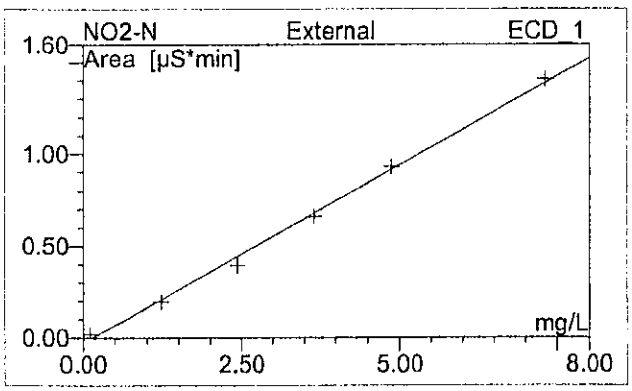
6 ANION STD #6

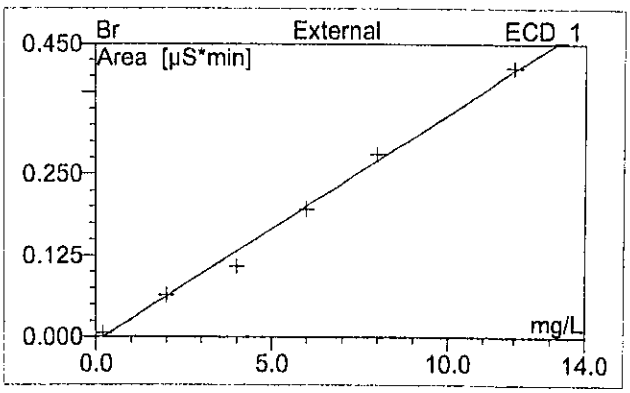
1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







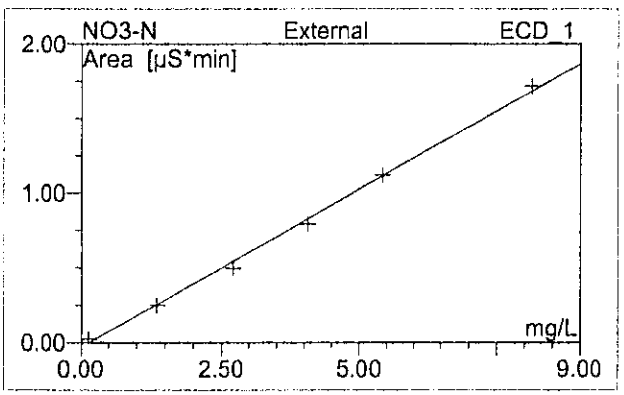


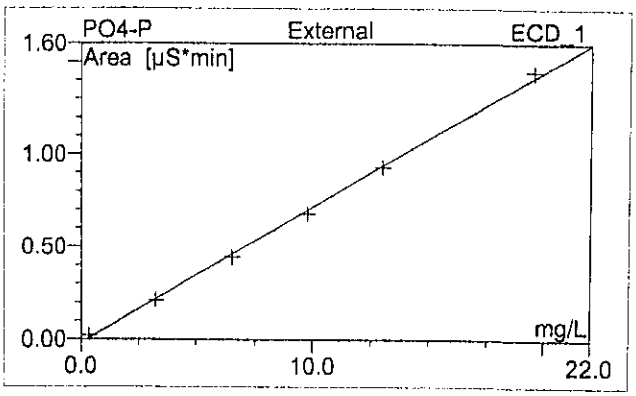
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

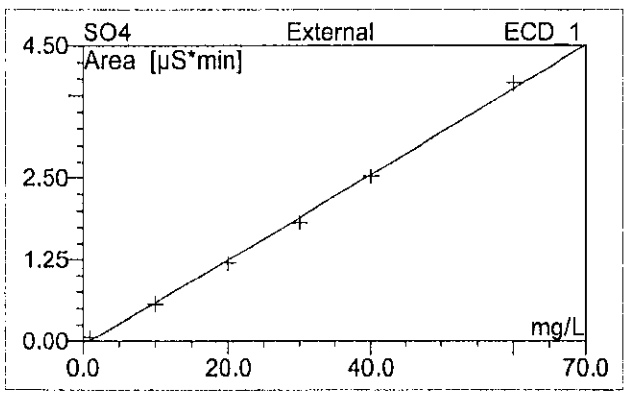
6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





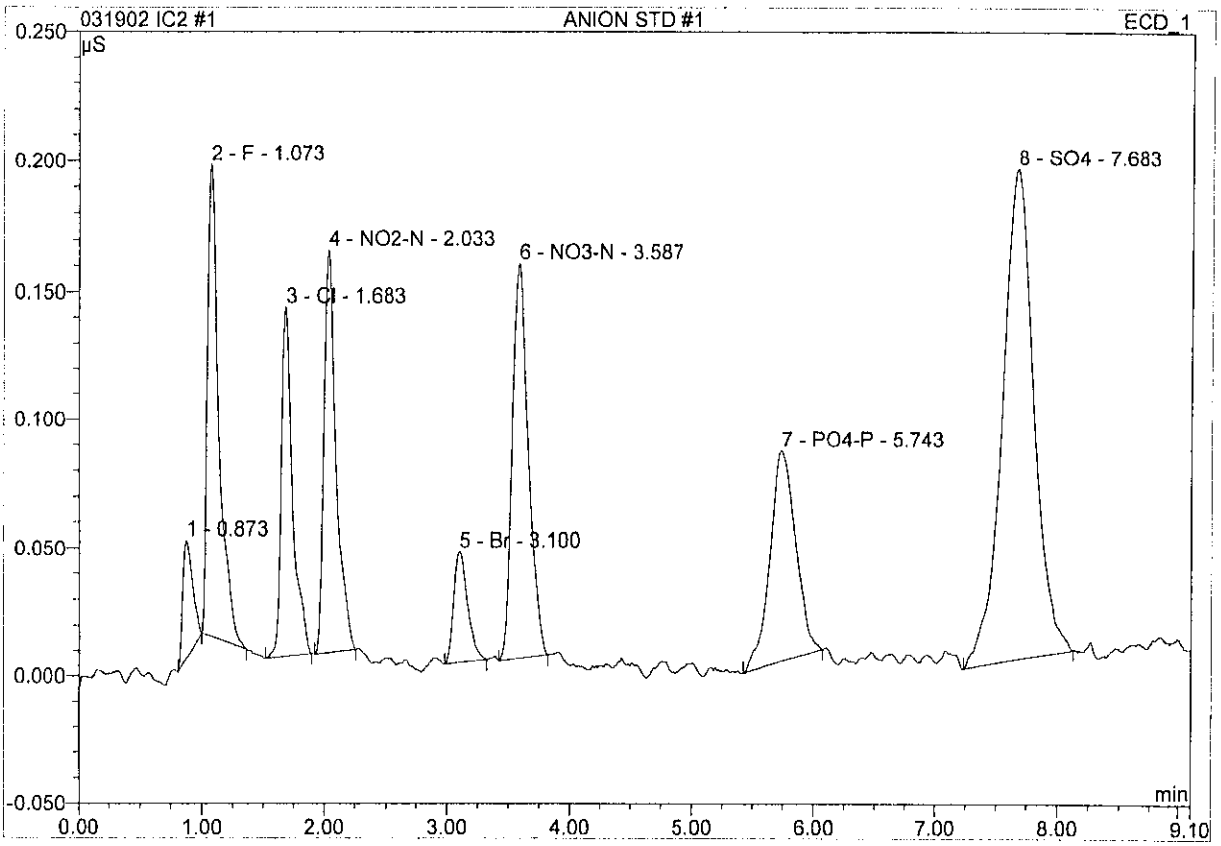


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

1 ANION STD #1

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

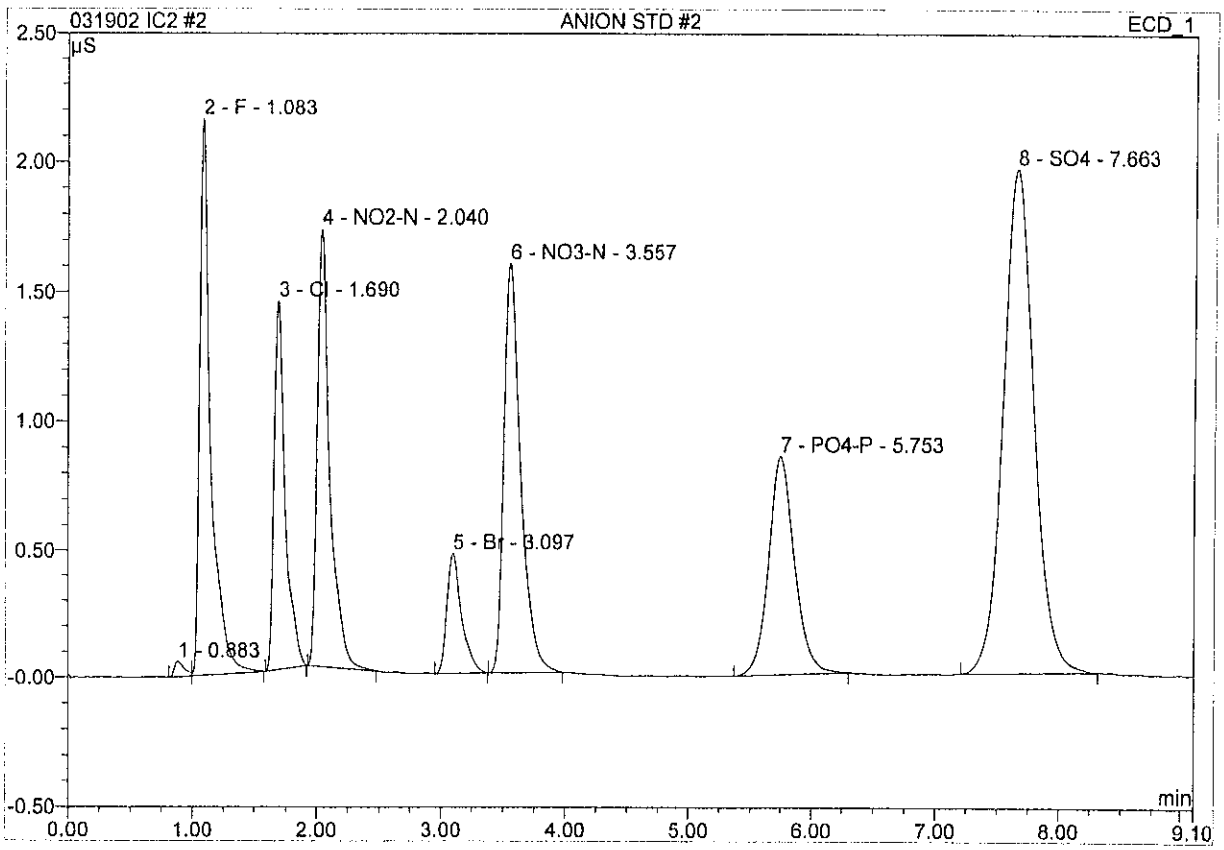


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.046	0.004	2.54	n.a.	BMB
2	1.07	F	0.183	0.019	11.95	0.335	BMB
3	1.68	Cl	0.136	0.015	9.07	0.376	BMB
4	2.03	NO2-N	0.157	0.018	11.15	0.233	BMB
5	3.10	Br	0.044	0.006	3.51	0.373	BMB
6	3.59	NO3-N	0.154	0.023	14.26	0.254	BMB
7	5.74	PO4-P	0.082	0.020	12.31	0.543	BMB
8	7.68	SO4	0.191	0.057	35.20	1.740	BMB
Total:			0.993	0.163	100.00	3.855	

2 ANION STD #2

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.059	0.006	0.34	n.a.	BM
2	1.08	F	2.156	0.229	13.71	1.921	MB
3	1.69	Cl	1.434	0.146	8.73	1.909	BMB
4	2.04	NO2-N	1.702	0.196	11.74	1.152	BMB
5	3.10	Br	0.472	0.064	3.84	2.054	BMB
6	3.56	NO3-N	1.590	0.249	14.92	1.325	BMB
7	5.75	PO4-P	0.853	0.210	12.59	3.128	BMB
8	7.66	SO4	1.955	0.570	34.14	9.603	BMB
Total:			10.222	1.670	100.00	21.092	

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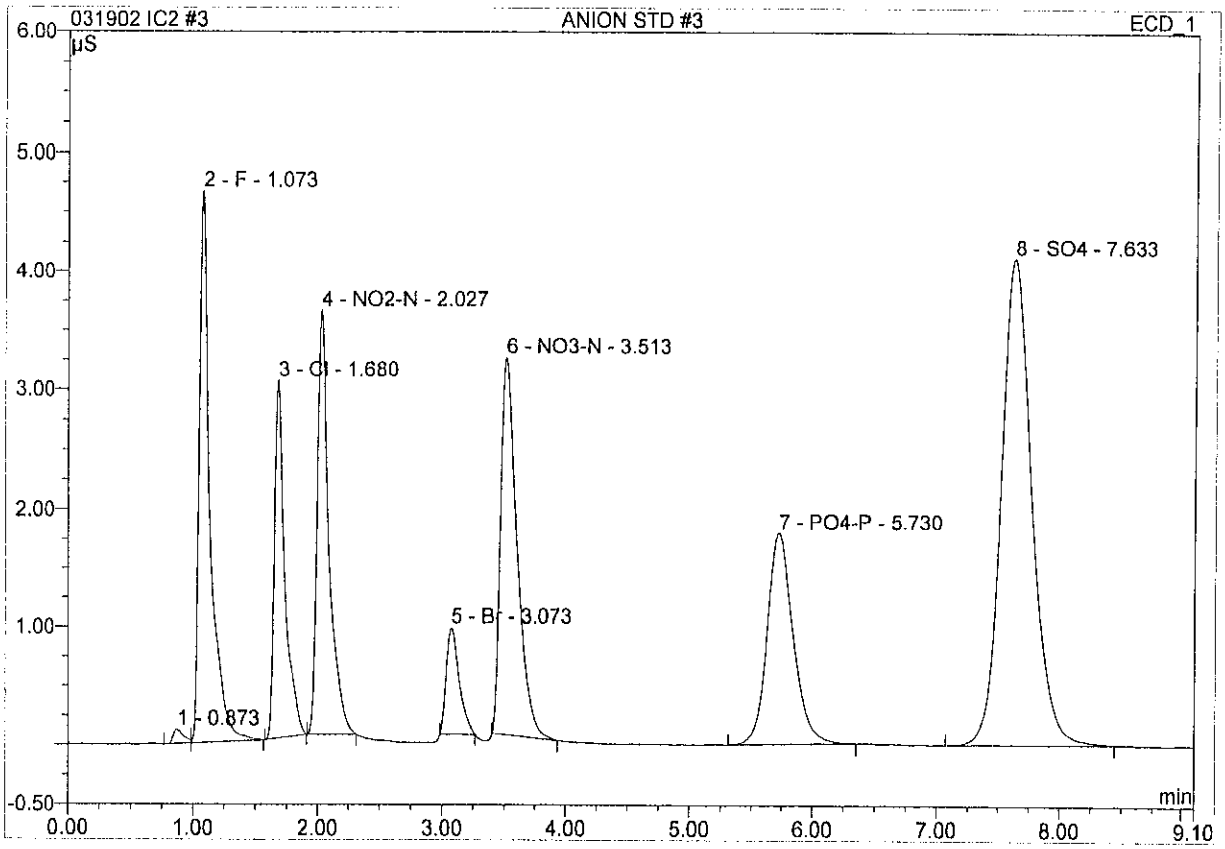
3 ANION STD #3

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

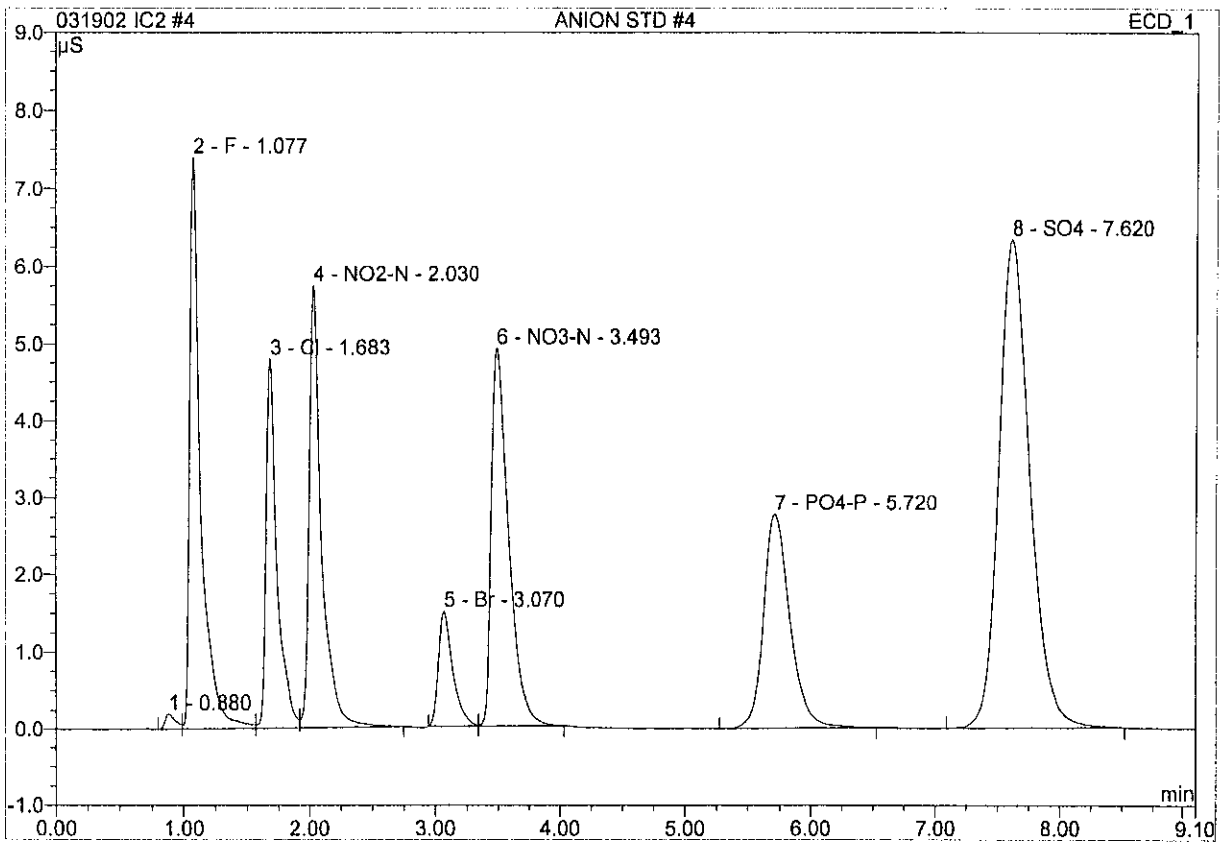


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.124	0.012	0.35	n.a.	BM
2	1.07	F	4.661	0.474	13.88	3.776	MB
3	1.68	Cl	3.016	0.297	8.70	3.682	BMB
4	2.03	NO2-N	3.579	0.395	11.58	2.181	BM
5	3.07	Br	0.903	0.108	3.17	3.328	BMB
6	3.51	NO3-N	3.185	0.494	14.45	2.484	BMB
7	5.73	PO4-P	1.791	0.442	12.93	6.269	BMB
8	7.63	SO4	4.106	1.194	34.95	19.168	BMB
Total:			21.366	3.416	100.00	40.887	

4 ANION STD #4

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.198	0.019	0.36	n.a.	BM
2	1.08	F	7.393	0.746	13.80	5.832	M
3	1.68	Cl	4.789	0.483	8.95	5.859	M
4	2.03	NO2-N	5.729	0.662	12.26	3.558	MB
5	3.07	Br	1.486	0.196	3.63	5.862	BM
6	3.49	NO3-N	4.902	0.791	14.64	3.892	MB
7	5.72	PO4-P	2.768	0.679	12.56	9.490	BMB
8	7.62	SO4	6.330	1.827	33.81	28.880	BMB
Total:			33.595	5.404	100.00	63.372	

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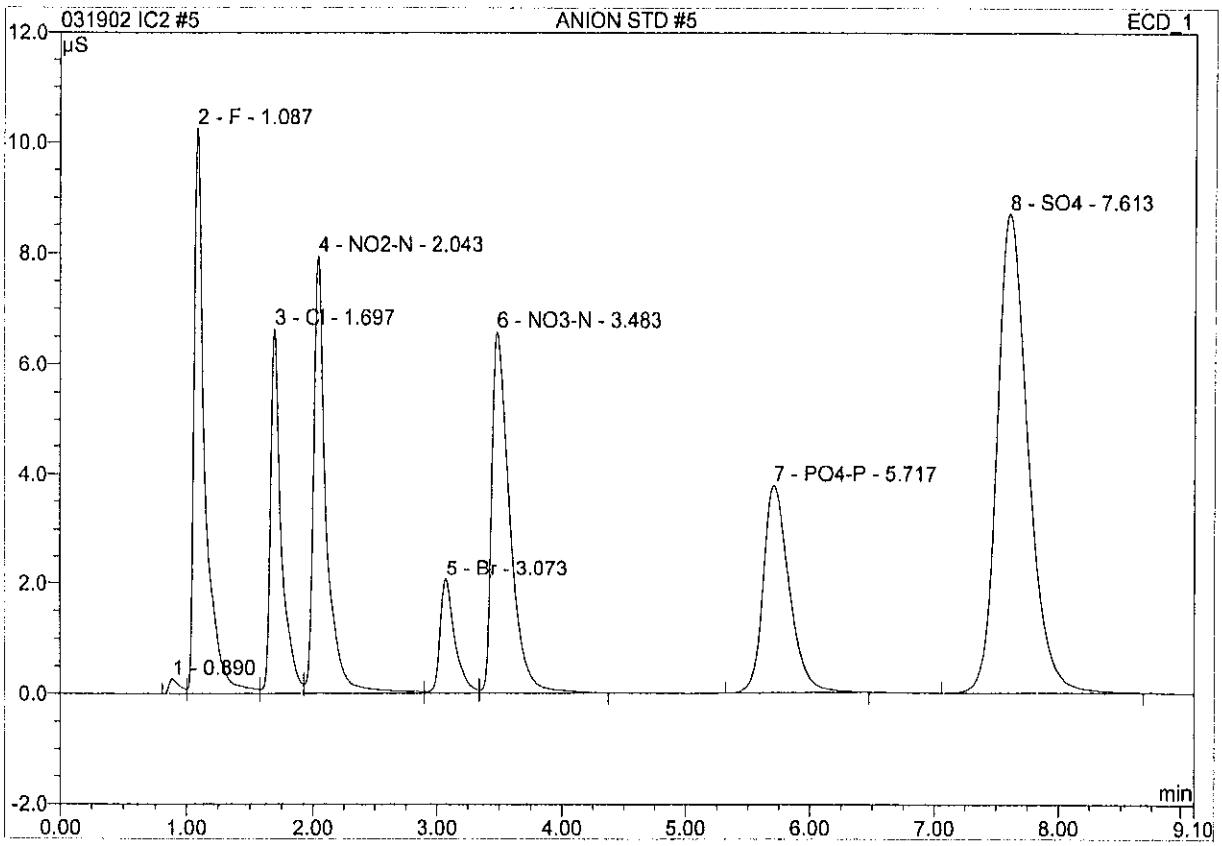
5 ANION STD #5

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

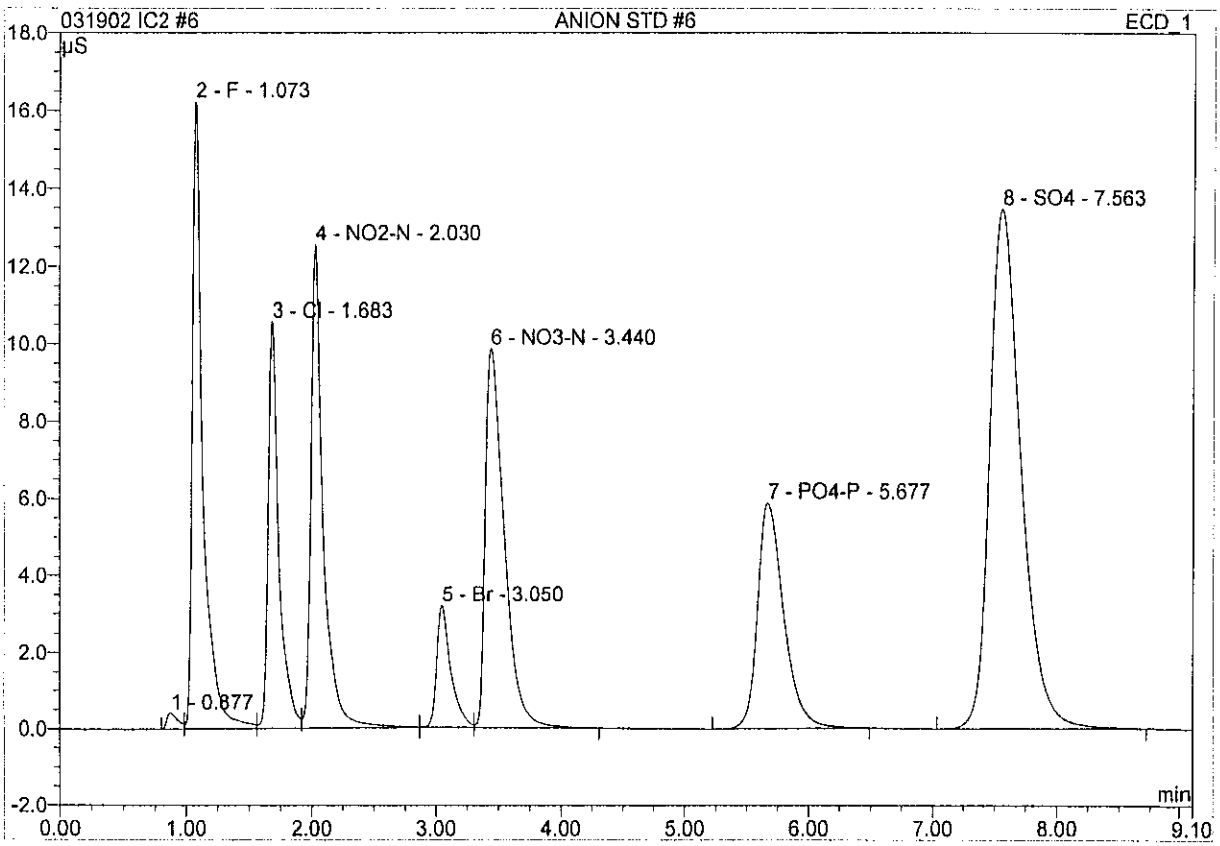


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.268	0.027	0.36	n.a.	BM
2	1.09	F	10.257	1.024	13.67	7.938	M
3	1.70	Cl	6.638	0.662	8.83	7.946	M
4	2.04	NO2-N	7.942	0.930	12.42	4.940	M
5	3.07	Br	2.062	0.280	3.74	8.279	M
6	3.48	NO3-N	6.579	1.116	14.90	5.432	MB
7	5.72	PO4-P	3.782	0.928	12.39	12.876	BMB
8	7.61	SO4	8.694	2.525	33.70	39.574	BMB
Total:			46.223	7.492	100.00	86.985	

6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.398	0.039	0.33	n.a.	BM
2	1.07	F	16.218	1.589	13.72	12.211	M
3	1.68	Cl	10.563	1.027	8.88	12.225	M
4	2.03	NO2-N	12.534	1.407	12.16	7.403	MB
5	3.05	Br	3.164	0.413	3.57	12.095	bM
6	3.44	NO3-N	9.833	1.719	14.85	8.291	MB
7	5.68	PO4-P	5.873	1.448	12.51	19.932	BMB
8	7.56	SO4	13.460	3.934	33.98	61.176	BMB
Total:			72.042	11.575	100.00	133.332	

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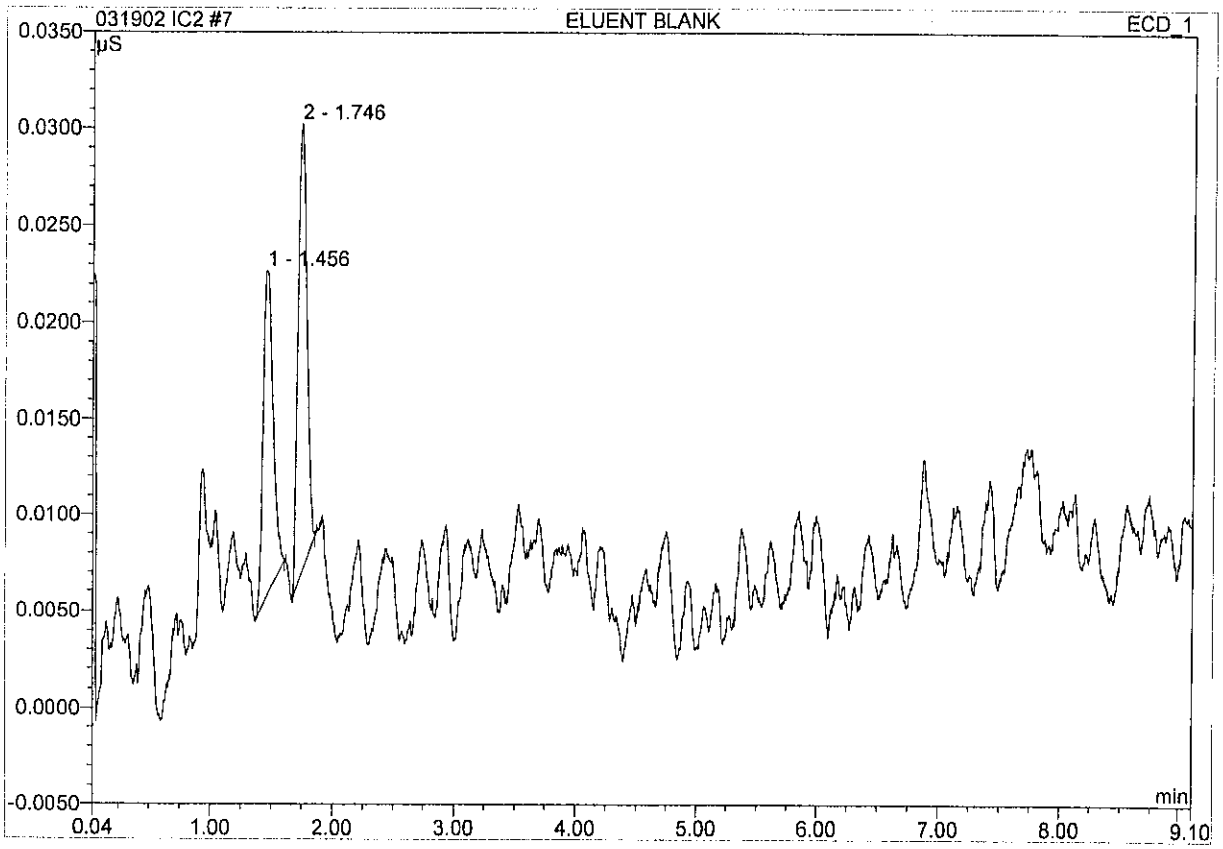
7 ELUENT BLANK

1,1 RDC/JWR

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.06**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.46	n.a.	0.017	0.002	44.36	n.a.	BMB
2	1.75	n.a.	0.023	0.002	55.64	n.a.	BMB
Total:			0.040	0.004	100.00	0.000	

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

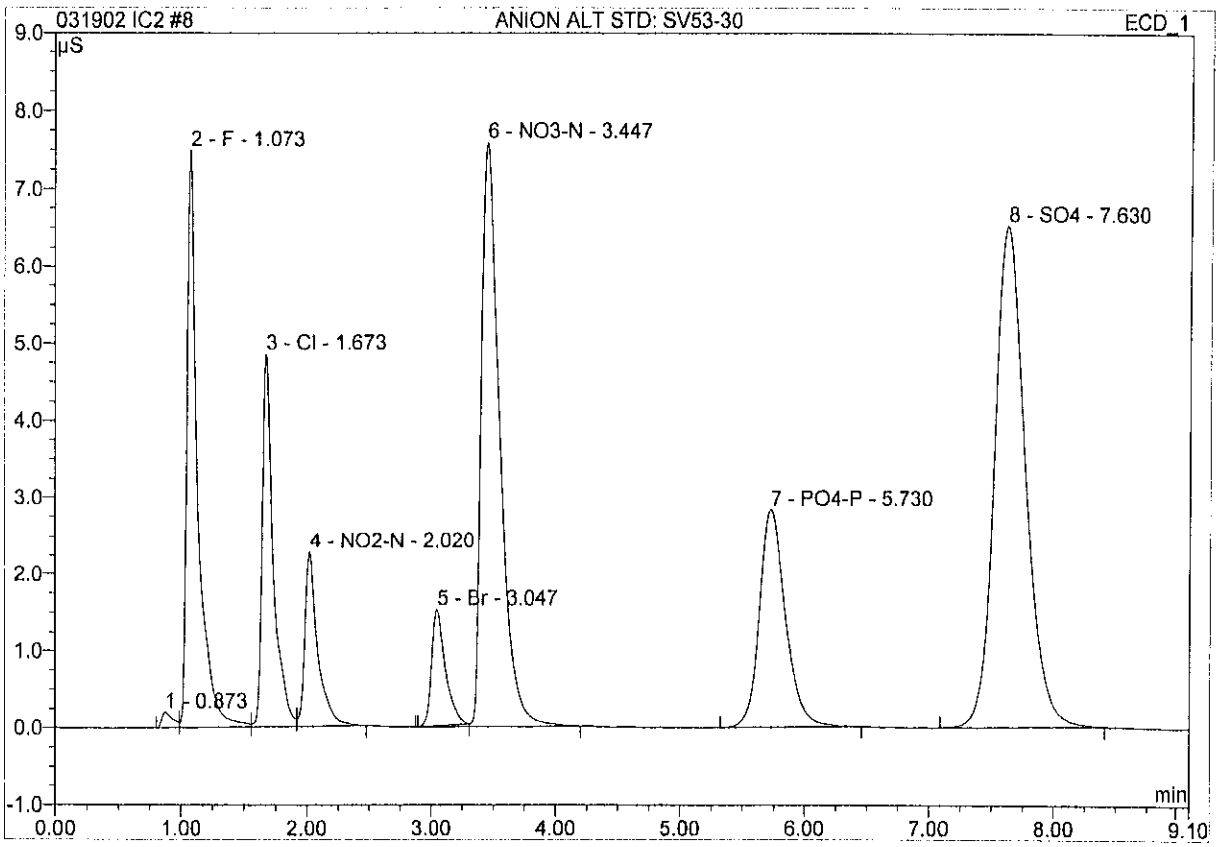
Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	
Vial Number:	**8**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9159	-1.40	PASS
Cl	6	5.9267	-1.22	PASS
NO2-N	3.65	1.5489	-57.56	FAIL
Br	6	5.8498	-2.50	PASS
NO3-N	4.07	6.2520	53.61	FAIL
PO4-P	9.78	9.6802	-1.02	PASS
SO4	30	29.6053	-1.32	PASS

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.203	0.021	0.37	n.a.	BM
2	1.07	F	7.485	0.757	13.53	5.916	M
3	1.67	Cl	4.847	0.489	8.75	5.927	M
4	2.02	NO2-N	2.276	0.273	4.88	1.549	MB
5	3.05	Br	1.510	0.196	3.50	5.850	Ru
6	3.45	NO3-N	7.574	1.289	23.05	6.252	BMB
7	5.73	PO4-P	2.827	0.693	12.39	9.680	BMB
8	7.63	SO4	6.507	1.875	33.52	29.605	BMB
Total:			33.231	5.592	100.00	64.779	

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9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

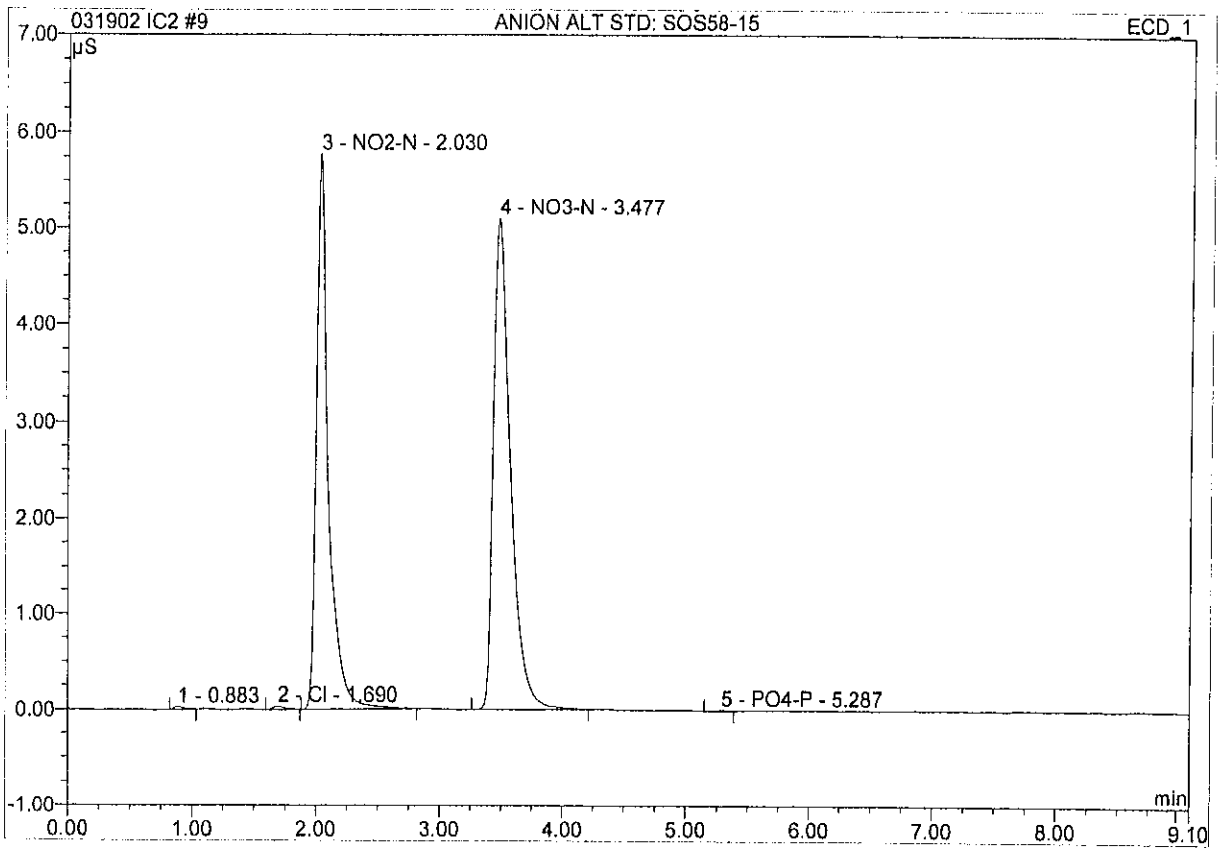
Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*
Vial Number:	**10**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.2461	-95.90	FAIL
NO2-N	3.65	3.5391	-3.04	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	4.0656	-0.11	PASS
PO4-P	9.78	0.2847	-97.09	FAIL
n.a.	30	n.a.	#VALUE!	#VALUE!

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*	**25.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.026	0.003	0.17	n.a.	BMB
2	1.69	Cl	0.033	0.004	0.25	0.246	BMB
3	2.03	NO2-N	5.773	0.659	44.10	3.539	BMB
4	3.48	NO3-N	5.091	0.828	55.41	4.066	BMB
5	5.29	PO4-P	0.009	0.001	0.07	0.285	BMB
Total:			10.933	1.494	100.00	8.135	

12 WG114743-01 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

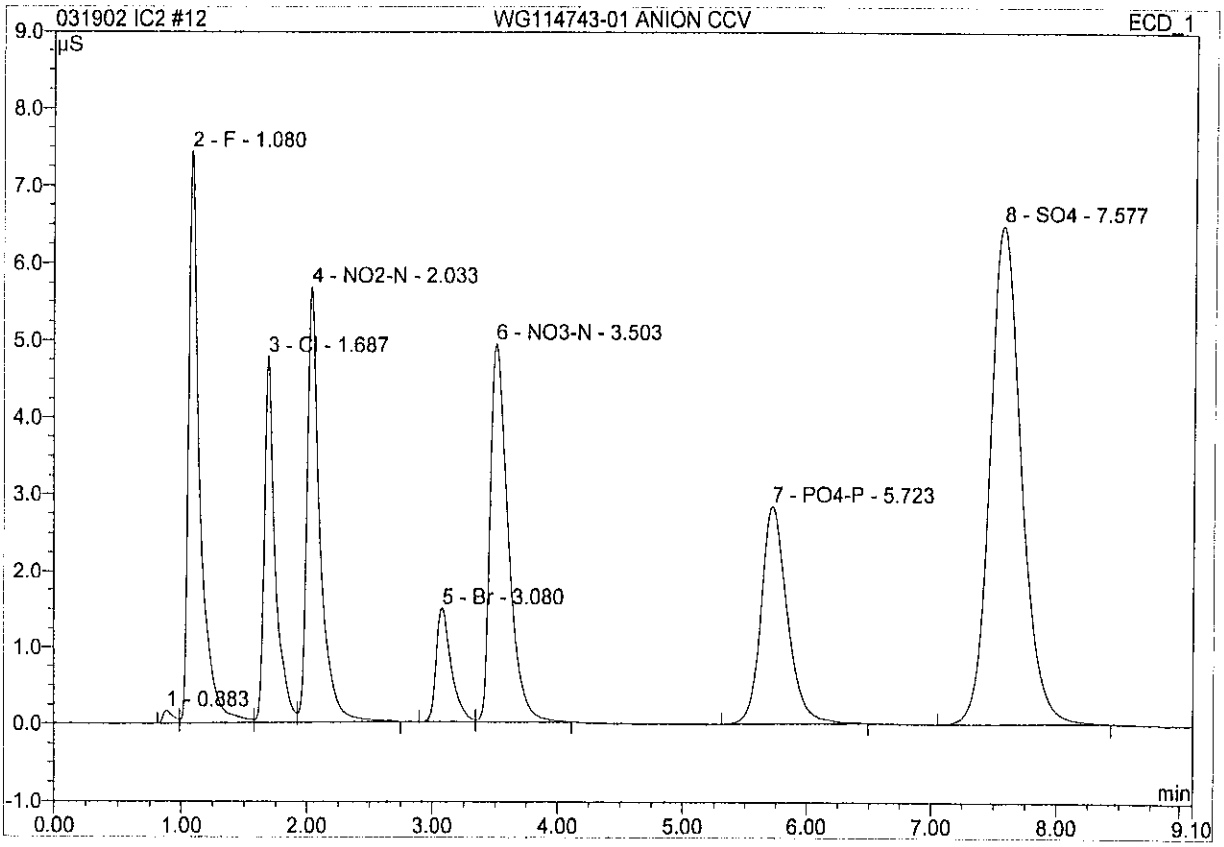
Sample Name:	**WG114743-01 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 13:12**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9927	-0.12	PASS
Cl	6	5.9929	-0.12	PASS
NO2-N	3.65	3.6406	-0.26	PASS
Br	6	6.1326	2.21	PASS
NO3-N	4.07	4.0620	-0.20	PASS
PO4-P	9.78	9.8546	0.76	PASS
SO4	30	29.6360	-1.21	PASS

12 WG114743-01 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.171	0.016	0.29	n.a.	BM
2	1.08	F	7.438	0.767	13.77	5.993	M
3	1.69	Cl	4.778	0.495	8.88	5.993	M
4	2.03	NO2-N	5.679	0.678	12.18	3.641	MB
5	3.08	Br	1.489	0.206	3.69	6.133	BM
6	3.50	NO3-N	4.934	0.827	14.84	4.062	MB
7	5.72	PO4-P	2.843	0.706	12.67	9.855	BMB
8	7.58	SO4	6.484	1.877	33.69	29.636	BMB
Total:			33.815	5.571	100.00	65.311	

23 WG114743-02 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-02 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 15:27**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

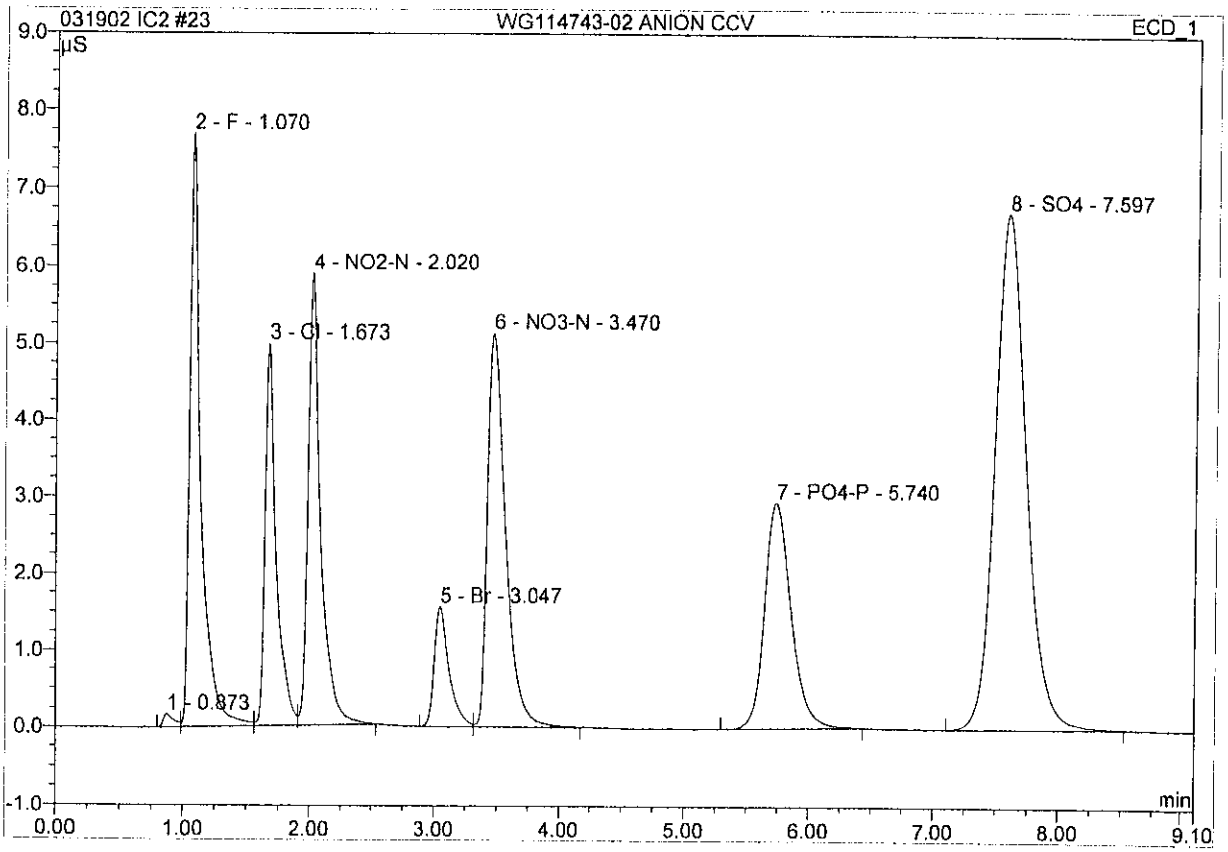
WG114743-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.1428	2.38	PASS
Cl	6	6.1034	1.72	PASS
NO2-N	3.65	3.6650	0.41	PASS
Br	6	6.3253	5.42	PASS
NO3-N	4.07	4.1954	3.08	PASS
PO4-P	9.78	10.1212	3.49	PASS
SO4	30	30.6150	2.05	PASS

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

23 WG114743-02 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-02 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 15:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.164	0.016	0.28	n.a.	BM
2	1.07	F	7.685	0.787	13.75	6.143	M
3	1.67	Cl	4.974	0.504	8.81	6.103	M
4	2.02	NO2-N	5.878	0.683	11.94	3.665	MB
5	3.05	Br	1.549	0.212	3.71	6.325	BM
6	3.47	NO3-N	5.121	0.855	14.94	4.195	MB
7	5.74	PO4-P	2.936	0.725	12.67	10.121	BMB
8	7.60	SO4	6.701	1.941	33.91	30.615	BMB
Total:			35.008	5.723	100.00	67.168	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

29 WG114743-03 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

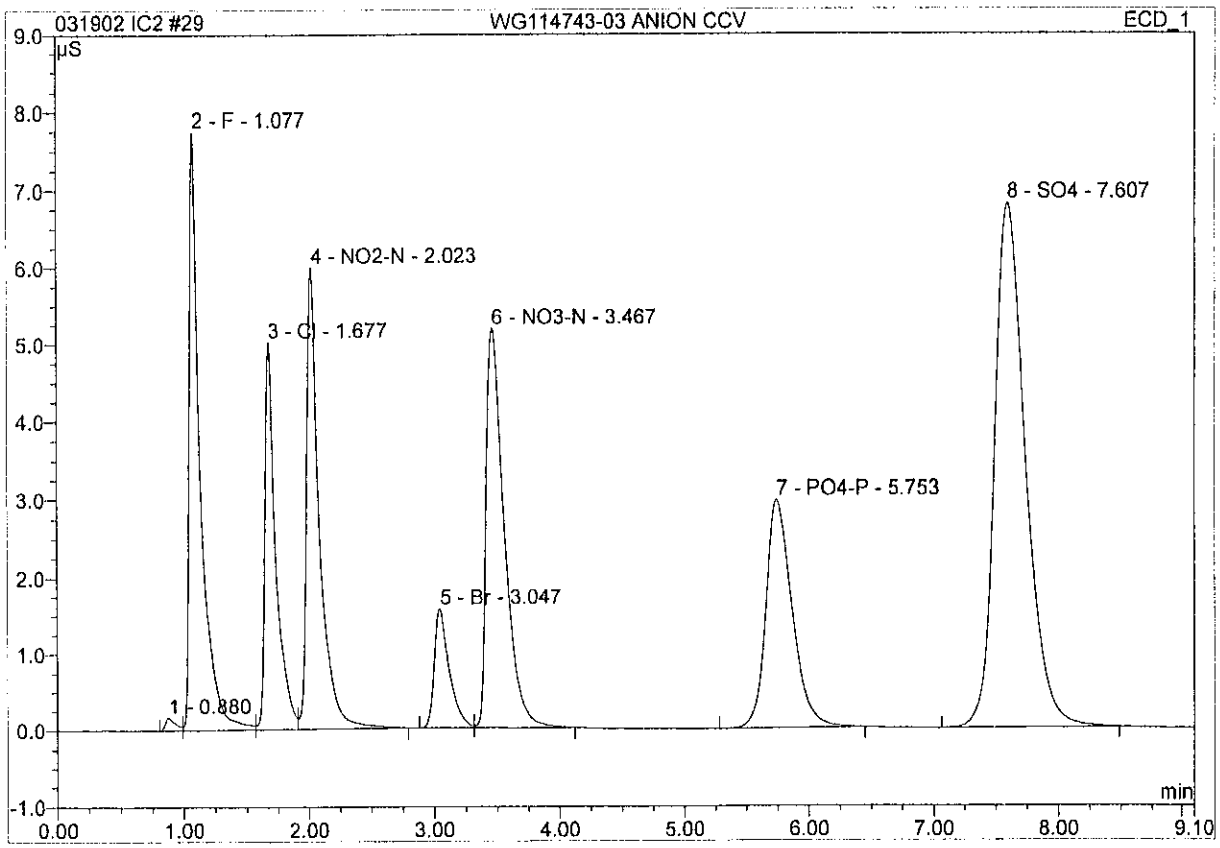
Sample Name:	**WG114743-03 ANION CCV**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/19/2002 16:37**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114743-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2212	3.69	PASS
Cl	6	6.2515	4.19	PASS
NO2-N	3.65	3.8121	4.44	PASS
Br	6	6.3827	6.38	PASS
NO3-N	4.07	4.2346	4.04	PASS
PO4-P	9.78	10.2573	4.88	PASS
SO4	30	30.8755	2.92	PASS

29 WG114743-03 ANION CCV

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114743-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 16:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.168	0.016	0.28	n.a.	BM
2	1.08	F	7.741	0.797	13.72	6.221	M
3	1.68	Cl	5.017	0.517	8.89	6.251	M
4	2.02	NO2-N	5.979	0.712	12.24	3.812	MB
5	3.05	Br	1.564	0.214	3.69	6.383	BM
6	3.47	NO3-N	5.180	0.863	14.85	4.235	MB
7	5.75	PO4-P	2.970	0.735	12.65	10.257	BMB
8	7.61	SO4	6.804	1.958	33.68	30.875	BMB
Total:			35.423	5.812	100.00	68.035	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: IC2

IC Column: AG4A-SC/AS4A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	10/30/2001	11/1/2001	11/2/2001
File #	IC2_019	IC2_022	IC2_012
Time	15:32	11:59	07:55

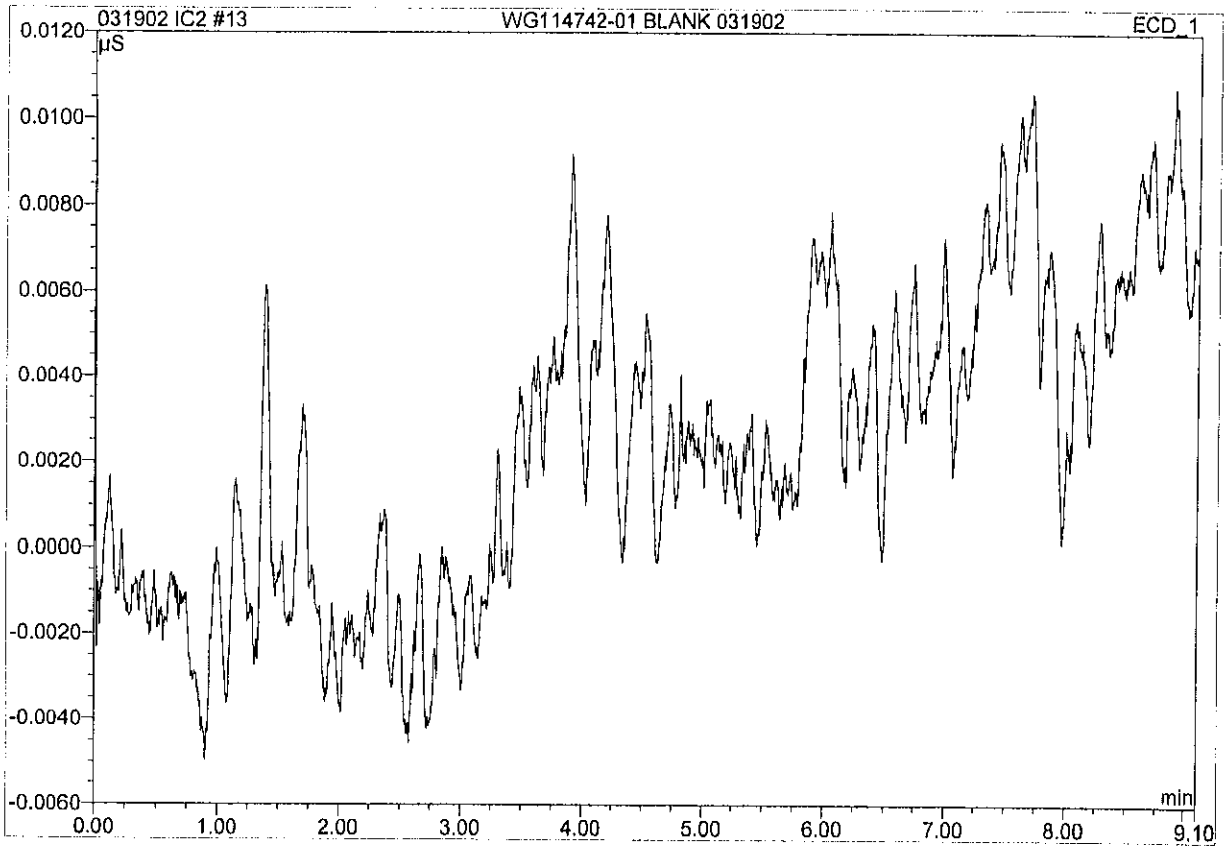
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	1.07	1.07	1.08	0.017
Cl	1.69	1.69	1.70	0.017
NO2-N	2.05	2.04	2.06	0.030
Br	3.12	3.11	3.16	0.079
NO3-N	3.55	3.53	3.58	0.075
PO4-P	5.85	5.83	5.76	0.142
SO4	7.59	7.58	7.51	0.131

2.4.5.4 Raw QC Data

13 WG114742-01 BLANK 031902

1,1 RDC

Sample Name:	**WG114742-01 BLANK 031902**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

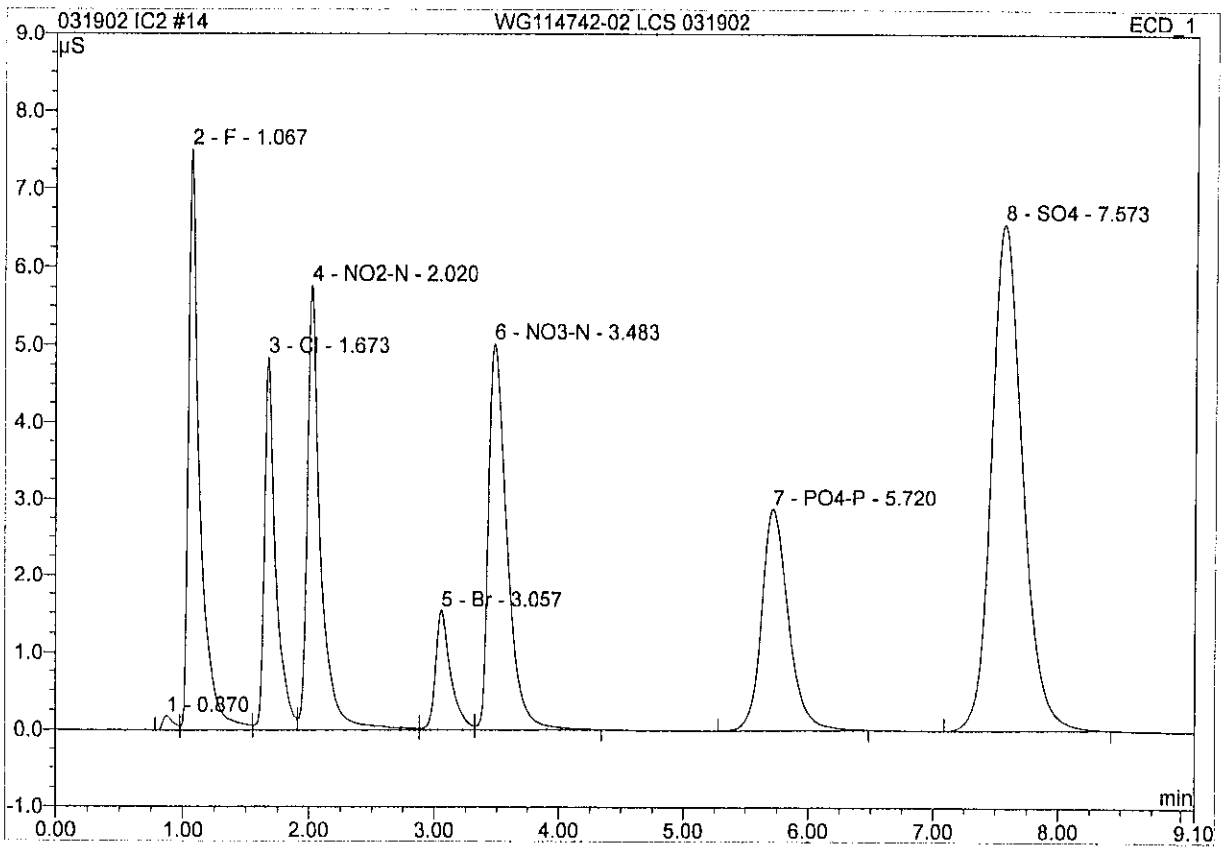


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG114742-02 LCS 031902

1,1 RDC ANION STD SOS0058-24 031902

Sample Name:	**WG114742-02 LCS 031902**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 13:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.174	0.017	0.30	n.a.	BM
2	1.07	F	7.511	0.775	13.69	6.056	M
3	1.67	Cl	4.843	0.504	8.89	6.098	M
4	2.02	NO2-N	5.769	0.702	12.39	3.761	M
5	3.06	Br	1.527	0.215	3.79	6.400	M
6	3.48	NO3-N	5.012	0.850	15.01	4.173	MB
7	5.72	PO4-P	2.869	0.712	12.56	9.936	BMB
8	7.57	SO4	6.552	1.891	33.37	29.850	BMB
Total:			34.257	5.665	100.00	66.274	

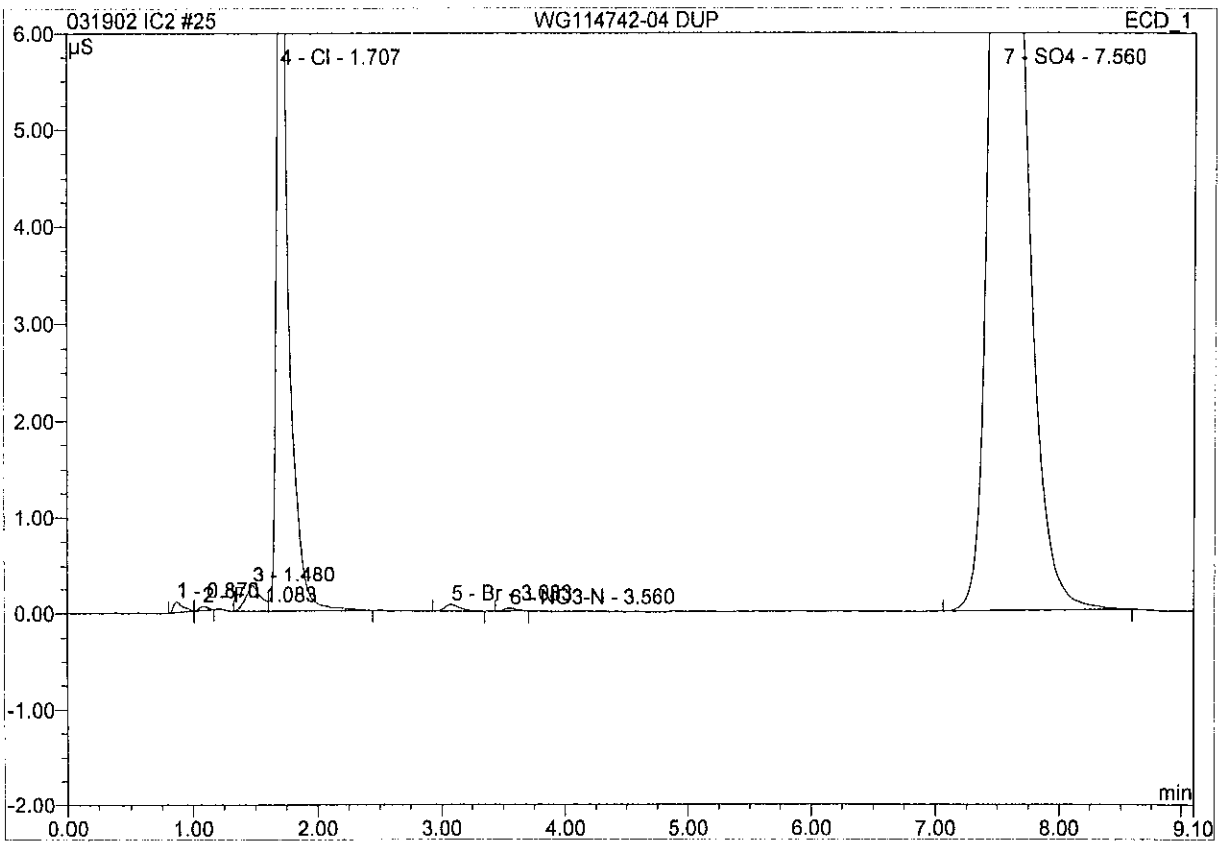
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

25 WG114742-04 DUP

1,1 RDC L0203326-02 DUP

Sample Name:	**WG114742-04 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/19/2002 15:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.111	0.010	0.20	n.a.	BM
2	1.08	F	0.043	0.003	0.07	0.212	MB
3	1.48	n.a.	0.269	0.038	0.78	n.a.	BM
4	1.71	Cl	9.707	0.929	19.16	11.077	MB
5	3.08	Br	0.071	0.010	0.21	0.496	BMB
6	3.56	NO3-N	0.029	0.004	0.07	0.161	BMB
7	7.56	SO4	13.383	3.857	79.51	59.997	BMB
Total:			23.612	4.850	100.00	71.942	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/19/2002 12:45:30 by gsg
Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished	3/7/2002 11:17:12
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished	3/7/2002 11:28:43
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished	3/7/2002 11:40:13
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished	3/7/2002 11:51:43
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished	3/7/2002 12:03:12
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished	3/7/2002 12:14:42
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	3/7/2002 12:38:53
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished	3/7/2002 12:50:23
9	ANION ALT STD: SOS58-15	Unknown	10	25.0	9056	9056	Finished	3/7/2002 13:01:53
10	DI WATER BLANK	Unknown	11	25.0	9056	9056	Finished	3/19/2002 12:49:36
11	ELUENT BLANK	Unknown	12	25.0	9056	9056	Finished	3/19/2002 13:01:06
12	WG114743-01 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 13:12:37
13	WG114742-01 BLANK 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:24:07
14	WG114742-02 LCS 031902	Unknown	14	25.0	9056	9056	Finished	3/19/2002 13:35:36
15	L0203326-01 9056	Unknown	15	25.0	9056	9056	Finished	3/19/2002 13:47:07
16	WG114742-03 REF-DUP	Unknown	16	25.0	9056	9056	Finished	3/19/2002 13:58:38
17	L0203327-01 9056	Unknown	17	25.0	9056	9056	Finished	3/19/2002 14:10:07
18	L0203327-02 9056	Unknown	18	25.0	9056	9056	Finished	3/19/2002 14:28:04
19	L0203327-03 9056	Unknown	19	25.0	9056	9056	Finished	3/19/2002 14:41:24
20	WG114742-05 REF-MS	Unknown	20	25.0	9056	9056	Finished	3/19/2002 14:52:54
21	L0203327-07 9056	Unknown	21	25.0	9056	9056	Finished	3/19/2002 15:04:24
22	L0203327-08 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:15:54
23	WG114743-02 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 15:27:24
24	L0203327-09 9056	Unknown	22	25.0	9056	9056	Finished	3/19/2002 15:38:55
25	WG114742-04 DUP	Unknown	15	25.0	9056	9056	Finished	3/19/2002 15:50:25
26	L0203327-09 9056 RR	Unknown	16	25.0	9056	9056	Finished	3/19/2002 16:03:18
27	WG114742-06 MS	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:14:48
28	WG114742-07 MSD	Unknown	17	25.0	9056	9056	Finished	3/19/2002 16:26:18
29	WG114743-03 ANION CCV	Unknown	13	25.0	9056	9056	Finished	3/19/2002 16:37:48
30	END	Unknown	22	25.0	DX-320 OFF	9056	Finished	3/19/2002 16:49:18

BHC 3/27/02

n ale 3/27/02

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Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/19/2002 12:45:30 by gsg
Last Update: 3/19/2002 16:03:18 by <CmServer>

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION STD #1	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
2	ANION STD #2	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
3	ANION STD #3	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
4	ANION STD #4	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
5	ANION STD #5	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
6	ANION STD #6	1.0000		1,1 RDC/JWR ANION STD SOS0058-24 030702
7	ELUENT BLANK	1.0000		1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1.0000		1,1 RDC/JWR ANION ALT STD SV53-30 030702
9	ANION ALT STD: SOS58-15	1.0000		1,1 RDC/JWR ANION ALT STD SOS58-15 030702
10	DI WATER BLANK	1.0000		1,1 RDC
11	ELUENT BLANK	1.0000		1,1 RDC
12	WG114743-01 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
13	WG114742-01 BLANK 031902	1.0000		1,1 RDC
14	WG114742-02 LCS 031902	1.0000		1,1 RDC ANION STD SOS0058-24 031902
15	L0203326-01 9056	1.0000		1,1 RDC
16	WG114742-03 REF-DUP	1.0000		1,1 RDC L0203326-02
17	L0203327-01 9056	1.0000		1,1 RDC
18	L0203327-02 9056	1.0000		1,1 RDC
19	L0203327-03 9056	1.0000		1,1 RDC
20	WG114742-05 REF-MS	1.0000		1,1 RDC L0203327-04 REF
21	L0203327-07 9056	1.0000		1,1 RDC
22	L0203327-08 9056	1.0000		1,1 RDC
23	WG114743-02 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
24	L0203327-09 9056	1.0000		1,1 RDC
25	WG114742-04 DUP	1.0000		1,1 RDC L0203326-02 DUP
26	L0203327-09 9056 RR	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
27	WG114742-06 MS	1.0000		1,1 RDC L0203327-05 MS SOS0058-24
28	WG114742-07 MSD	1.0000		1,1 RDC L0203327-06 MSD SOS0058-24
29	WG114743-03 ANION CCV	1.0000		1,1 RDC ANION STD SOS0058-24 031902
30	END	1.0000		1,1 RDC

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KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2002 Instrument ID IC2 Column ID AG4A-SC ~~AS4A-SC~~ Data Subdirectory 031902
Analyst Initials RLC SOP # IC01 Rev. # 0 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1193 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

Reviewed By: [illegible]

Workorders:	Due Date:	Priority:
WG114742 03-326	3/26/2002	
WG114742 03-327	3/26/2002	

Run Date: 3/19/2002

Analyst: RDC

Instrument: IC2

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	
Data Package:	Level 2	
	Level 3	
	Level 4	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Π = Checked & OK

NA = Not Applicable

Comments:

nitrate-N, nitrite-N, and PO4-P only.....

Level 4 pkg. needed

Primary Reviewer: RDC 3/27/02

Secondary Reviewer: 3/27/02

Supervisor Review: 3/27/02

Example 9056 Calculations

1.0 Software determines Linear Regression and area counts by the following calculation through operator entered concentrations:

Where: area=slope(concentration)+offset

area in uS/min. of the compound being measured in the standard
slope(concentration)+offset = Concentration of the compound being measured (mg/ml).

2.0 Calculating the concentration of an anion in water using (area-(offset)/slope:

amt=(area-(offest)/slope

Area of the compound being measured in uS/min.
Offset = axis of chromatogram corresponding to calibration table
Slope = the ascending calib.curve where amt/area=slope (linear regression).

Where: amt cl = area 0.382-(offset -0.0113)/slope 0.0622

0.382-(-0.0113)/0.0622= 6.323

KEMRON REPORT L0203380

PREPARED FOR CCI

WORK ID: N.A.S. CECIL FIELD BUILDING 46

Summary Report 1
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1.0 Summary Report

1.1 Laboratory Report

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Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0203380

CHAIN OF CUSTODY:

The chain of custody number was 163151-036.

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperatures were 2, 1, 1, 2, 1, 2, 1, 1, and 0 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie L Lupe DATE: 3/21/02

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0203380

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of fraction 08. Fraction 14 ("D1") was selected for MS/MSD analyses; outliers were acceptable in the LCS.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Sample 14 required a dilution analyses to obtain results within the calibrated range of the instrument.

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Analyst: CBN REVIEWED: [signature] DATE: 3/26/02

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203380

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 08 was chosen by the client for MS/MSD analysis. All other acceptance criteria were met.

SAMPLES

Samples: Sample 01 was analyzed at a 20X dilution in order to maintain analysis within the range of calibration. All other acceptance criteria were met.
Surrogates: O-Terphenyl was diluted out of sample 01 due to an analysis at 20X. The MS/MSD yielded an RPD for O-Terphenyl that was greater than advisory limit. 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: 4/2/02

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203380

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: Sample fraction 03 was re-extracted out of holding time.
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: For the re-extraction batch associated with sample fraction 03, the LCS yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. This analyte was not found above detectible limits in sample fraction 03 re-extract.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: Sample fraction 03 yielded a percent recovery for the surrogate which was below the advisory limit. This sample was re-extracted out of holding time with all acceptance criteria met for the surrogate. For sample fraction 01 at a 10X dilution the surrogate was reported as "DL", diluted out.
Samples: Sample fraction 01 was re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 4/9/02

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0203380

METHOD

Analysis: SW-846 9056/ 300

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All 300 method criteria was acceptable.All sample fractions except 03 and 04 were re-analyzed out of holding time due to ending CCV failure for PO4-P.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : CCV standards analyzed after sample fractions 03,04, 05, and 11-14 failed low for PO4-P. Each of these samples contained high levels of SO4 which may be associated with metals which would foul the analytical column. Following the initial analysis of this sample delivery group, the column was cleaned, re-installed and a re-calibration was performed. Samples 03 and 04 which contained the highest levels were not re-analyzed due to the potential for re-contaminating the analytical system. All other samples were re-analyzed out of holding time. For this re-analysis, sample fractions 05, and 11-14 were the only samples which, after analysis, again resulted in a failing ending CCV for PO4-P

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

See continuing calibration and analysis holding time data above. Sample fraction 03 contained a level of NO3-N which was above calibration range. The sample was not re-analyzed due to the significant sample matrix interference that had been shown to contaminate the analytical system.

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Analyst: RDC REVIEWED: Stephanie L Lepe DATE: 4/1/02

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114905**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-1S-Q1-02-14		L0203380-01
062-CEF46-2S-Q1-02-14		L0203380-02
062-CEF46-5I-Q1-02-14		L0203380-03
062-CEF46-6D-Q1-02-14		L0203380-04
062-CEF46-7I-Q1-02-14		L0203380-05
062-CEF46-9I-Q1-02-14		L0203380-06
062-CEF46-13I-Q1-02-14		L0203380-07
062-CEF46-14D-Q1-02-14	RS01	L0203380-08
062-CEF46-14D-Q1-02-14	MS01	L0203380-09
062-CEF46-14D-Q1-02-14	SD01	L0203380-10

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: **08-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114905**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	
062-CEF46-21I-Q1-02-14	L0203380-11
062-CEF46-24D-Q1-02-14	L0203380-12
062-CEF46-25I-Q1-02-14	L0203380-13
062-CEF46-26I-Q1-02-14	L0203380-14
062-46EQB-Q1-02-14	L0203380-16
062-46TB2-Q1-02-14	L0203380-17

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-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 18:04

Concentration Units: ug/L File ID: 11G13782

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	50.0	100	1500	100	
Ethylbenzene	50.0	100	1500	100	
Methyl tert-butyl ether	50.0	100	560	100	
Toluene	50.0	100	15000	100	
Xylenes, Total	50.0	100	16000	100	

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.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 18:39

Concentration Units: ug/L File ID: 11G13783

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	3.00	1	
Ethylbenzene	0.500	1.0	3.10	1	
Methyl tert-butyl ether	0.500	1.0	100	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	3.10	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	114	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q1-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 19:14

Concentration Units: ug/L File ID: 11G13784

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	2.40	1	
Methyl tert-butyl ether	0.500	1.0	1.70	1	
Toluene	0.500	1.0	2.10	1	
Xylenes, Total	0.500	1.0	51.0	1	

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.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-01-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 22:07

Concentration Units: ug/L File ID: 11G13789

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.980	1	J
Ethylbenzene	0.500	1.0	2.60	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.20	1	
Xylenes, Total	0.500	1.0	32.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.4	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 22:41

Concentration Units: ug/L File ID: 11G13790

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	25.0	50	590	50	
Ethylbenzene	25.0	50	120	50	
Methyl tert-butyl ether	25.0	50	4700	50	
Toluene	25.0	50	530	50	
Xylenes, Total	25.0	50	840	50	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	108	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q1-02-14 Lab Sample ID: L0203380-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 23:16

Concentration Units: ug/L File ID: 11G13791

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	98.9	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q1-02-14 Lab Sample ID: L0203380-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 23:51

Concentration Units: ug/L File ID: 11G13792

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	140	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 : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 19:48

Concentration Units: ug/L File ID: 11G13785

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.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 20:23

Concentration Units: ug/L File ID: 11G13786

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	21.0	1	
Ethylbenzene	0.500	1.0	21.0	1	
Methyl tert-butyl ether	0.500	1.0	21.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	61.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.4	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-01-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 20:58

Concentration Units: ug/L File ID: 11G13787

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	21.0	1	
Ethylbenzene	0.500	1.0	21.0	1	
Methyl tert-butyl ether	0.500	1.0	21.0	1	
Toluene	0.500	1.0	21.0	1	
Xylenes, Total	0.500	1.0	62.0	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 : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q1-02-14 Lab Sample ID: L0203380-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 00:25

Concentration Units: ug/L File ID: 11G13793

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	99.0	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 : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-01-02-14 Lab Sample ID: L0203380-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 01:00

Concentration Units: ug/L File ID: 11G13794

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 : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q1-02-14 Lab Sample ID: L0203380-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 01:34

Concentration Units: ug/L File ID: 11G13795

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	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 : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q1-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 02:09

Concentration Units: ug/L File ID: 11G13796

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1700	1	I
Ethylbenzene	0.500	1.0	63.0	1	
Methyl tert-butyl ether	0.500	1.0	15.0	1	
Toluene	0.500	1.0	14.0	1	
Xylenes, Total	0.500	1.0	480	1	I

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 – 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q1-02-14 Lab Sample ID: L0203380-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 03:18

Concentration Units: ug/L File ID: 11G13798

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	99.6	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114905

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46TB2-Q1-02-14 Lab Sample ID: L0203380-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 04:27

Concentration Units: ug/L File ID: 11G13800

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	93.1	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG114938**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-26I-Q1-02-14	L0203380-14
062-46DUP-Q1-02-14	L0203380-15

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-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG114938

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q1-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 16:10

Concentration Units: ug/L File ID: 11G13814

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	25.0	50	1500	50	
Ethylbenzene	25.0	50	51.0	50	
Methyl tert-butyl ether	25.0	50	25.0	50	ND
Toluene	25.0	50	31.0	50	J
Xylenes, Total	25.0	50	420	50	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	98.9	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 : 8021 Preparatory Method: 8021B AAB # : WG114938

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q1-02-14 Lab Sample ID: L0203380-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 22-MAR-02 17:55

Concentration Units: ug/L File ID: 11G13817

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	130	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	103	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG114911**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-1S-Q1-02-14		L0203380-01
062-CEF46-2S-Q1-02-14		L0203380-02
062-CEF46-5I-Q1-02-14		L0203380-03
062-CEF46-6D-Q1-02-14		L0203380-04
062-CEF46-7I-Q1-02-14		L0203380-05
062-CEF46-9I-Q1-02-14		L0203380-06
062-CEF46-13I-Q1-02-14		L0203380-07
062-CEF46-14D-Q1-02-14	RS01	L0203380-08
062-CEF46-14D-Q1-02-14	MS01	L0203380-09
062-CEF46-14D-Q1-02-14	SD01	L0203380-10

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: **08-APR-02**

Title: **Laboratory Director**

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG114911**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	
062-CEF46-21I-Q1-02-14	L0203380-11
062-CEF46-24D-Q1-02-14	L0203380-12
062-CEF46-25I-Q1-02-14	L0203380-13
062-CEF46-26I-Q1-02-14	L0203380-14
062-46DUP-Q1-02-14	L0203380-15
062-46EQB-Q1-02-14	L0203380-16

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-APR-02**

Title: **Laboratory Director**

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 18:49

Concentration Units: ug/L File ID: 4L002945.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	65.0	1	
2-Methylnaphthalene	0.354	1.1	130	1	P
Acenaphthene	0.437	1.1	1.60	1	P
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	1.40	1	P
Indeno(1,2,3-cd)pyrene	0.0842	0.21	0.0842	1	ND
Naphthalene	0.378	1.1	560	1	I
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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 18:49

Concentration Units: % Recovery File ID: 4L002945.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	75.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 18:49

Concentration Units: ug/L File ID: 4L002945.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	55.0	1	
2-Methylnaphthalene	0.354	1.1	200	1	P
Acenaphthene	0.437	1.1	96.0	1	P
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	28.0	1	P
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	140	1	I
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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 18:49

Concentration Units: % Recovery File ID: 4L002945.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	75.8	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 28-MAR-02 12:34

Concentration Units: ug/L File ID: 4L002965.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.81	11	65.0	10	
2-Methylnaphthalene	3.54	11	130	10	P
Acenaphthene	4.37	11	4.37	10	ND
Acenaphthylene	3.51	10	3.51	10	ND
Anthracene	3.00	11	3.00	10	ND
Benzo(a)anthracene	0.316	2.1	0.316	10	ND
Benzo(a)pyrene	0.558	2.1	0.558	10	ND
Benzo(b)fluoranthene	0.358	2.1	0.358	10	ND
Benzo(g,h,i)perylene	0.526	2.1	0.526	10	ND
Benzo(k)fluoranthene	0.758	2.1	0.758	10	ND
Chrysene	0.253	2.1	0.253	10	ND
Dibenzo(a,h)anthracene	0.811	2.1	0.811	10	ND
Fluoranthene	0.526	2.1	0.526	10	ND
Fluorene	5.88	11	5.88	10	ND
Indeno(1,2,3-cd)pyrene	0.842	2.1	0.842	10	ND
Naphthalene	3.78	11	660	10	
Phenanthrene	3.02	11	3.02	10	ND
Pyrene	0.716	2.1	0.716	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 28-MAR-02 12:34

Concentration Units: % Recovery File ID: 4L002965.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.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 28-MAR-02 12:34

Concentration Units: ug/L File ID: 4L002965.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.81	11	59.0	10	
2-Methylnaphthalene	3.54	11	220	10	P
Acenaphthene	4.37	11	4.37	10	ND
Acenaphthylene	3.69	11	3.69	10	ND
Anthracene	3.00	11	3.00	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	5.88	11	5.88	10	ND
Indeno(1,2,3-cd)pyrene	0.800	2.0	0.800	10	ND
Naphthalene	3.78	11	640	10	
Phenanthrene	3.02	11	3.02	10	ND
Pyrene	0.716	2.1	0.716	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 28-MAR-02 12:34

Concentration Units: % Recovery File ID: 4L002965.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.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 19:46

Concentration Units: ug/L File ID:4L002946.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	0.530	1	J
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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 19:46

Concentration Units: % Recovery File ID: 4L002946.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	72.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 19:46

Concentration Units: ug/L File ID: 4L002946.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	0.285	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	0.540	1	J
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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 19:46

Concentration Units: % Recovery File ID: 4L002946.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	72.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q1-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 20:43

Concentration Units: ug/L File ID: 4L002947.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	0.303	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	0.0680	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q1-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 20:43

Concentration Units: % Recovery File ID: 4L002947.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	37.8	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q1-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 21:39

Concentration Units: ug/L File ID: 4L002948.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	1.00	1	J
Phenanthrene	0.297	1.0	0.300	1	J
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q1-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 21:39

Concentration Units: % Recovery File ID: 4L002948.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	42.3	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q1-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 21:39

Concentration Units: ug/L File ID: 4L002948.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	0.430	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	0.890	1	J
Phenanthrene	0.297	1.0	0.960	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q1-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 21:39

Concentration Units: % Recovery File ID: 4L002948.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	42.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 22:36

Concentration Units: ug/L File ID: 4L002949.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.375	1	ND
2-Methylnaphthalene	0.348	1.0	0.400	1	J
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	9.90	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 22:36

Concentration Units: % Recovery File ID: 4L002949.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	52.2	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 22:36

Concentration Units: ug/L File ID: 4L002949.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.348	1.0	3.40	1	P
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	0.0300	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	9.70	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 22:36

Concentration Units: % Recovery File ID: 4L002949.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	52.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q1-02-14 Lab Sample ID: L0203380-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 23:33

Concentration Units: ug/L File ID: 4L002950.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	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0526	0.21	0.0526	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q1-02-14 Lab Sample ID: L0203380-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 25-MAR-02 23:33

Concentration Units: % Recovery File ID: 4L002950.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	82.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q1-02-14 Lab Sample ID: L0203380-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 00:29

Concentration Units: ug/L File ID: 4L002951.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	0.369	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	0.0500	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 # : WQ114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q1-02-14 Lab Sample ID: L0203380-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 00:29

Concentration Units: % Recovery File ID: 4L002951.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 01:26

Concentration Units: ug/L File ID: 4L002952.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	0.377	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	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	0.0500	0.20	0.0500	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.374	1.0	0.374	1	ND
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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 01:26

Concentration Units: % Recovery File ID: 4L002952.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	79.5	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 03:19

Concentration Units: ug/L File ID: 4L002954.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	30.0	1	
2-Methylnaphthalene	0.354	1.1	29.0	1	
Acenaphthene	0.437	1.1	31.0	1	
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	40.0	1	
Benzo(a)anthracene	0.0316	0.21	4.60	1	
Benzo(a)pyrene	0.0558	0.21	4.30	1	
Benzo(b)fluoranthene	0.0358	0.21	4.40	1	
Benzo(g,h,i)perylene	0.0526	0.21	3.10	1	
Benzo(k)fluoranthene	0.0758	0.21	2.10	1	
Chrysene	0.0253	0.21	4.60	1	
Dibenzo(a,h)anthracene	0.0811	0.21	2.50	1	
Fluoranthene	0.0526	0.21	4.40	1	
Fluorene	0.588	1.1	34.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	3.40	1	
Naphthalene	0.378	1.1	28.0	1	
Phenanthrene	0.302	1.1	38.0	1	
Pyrene	0.0716	0.21	4.50	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 03:19

Concentration Units: % Recovery File ID: 4L002954.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 03:19

Concentration Units: ug/L File ID: 4L002954.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	31.0	1	
2-Methylnaphthalene	0.354	1.1	31.0	1	
Acenaphthene	0.437	1.1	32.0	1	
Acenaphthylene	0.369	1.1	32.0	1	
Anthracene	0.300	1.1	42.0	1	
Benzo(a)anthracene	0.0316	0.21	4.80	1	
Benzo(a)pyrene	0.0558	0.21	4.40	1	
Benzo(b)fluoranthene	0.0358	0.21	4.60	1	
Benzo(g,h,i)perylene	0.0526	0.21	3.20	1	
Benzo(k)fluoranthene	0.0758	0.21	2.20	1	
Chrysene	0.0253	0.21	4.60	1	
Dibenzo(a,h)anthracene	0.0811	0.21	2.60	1	
Fluoranthene	0.0526	0.21	4.70	1	
Fluorene	0.588	1.1	34.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	3.60	1	
Naphthalene	0.378	1.1	31.0	1	
Phenanthrene	0.302	1.1	40.0	1	
Pyrene	0.0716	0.21	4.90	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 03:19

Concentration Units: % Recovery File ID: 4L002954.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 04:16

Concentration Units: ug/L File ID: 4L002955.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	26.0	1	
2-Methylnaphthalene	0.348	1.0	26.0	1	
Acenaphthene	0.430	1.0	28.0	1	
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	36.0	1	
Benzo(a)anthracene	0.0311	0.21	4.50	1	
Benzo(a)pyrene	0.0549	0.21	4.30	1	
Benzo(b)fluoranthene	0.0352	0.21	4.40	1	
Benzo(g,h,i)perylene	0.0518	0.21	3.10	1	
Benzo(k)fluoranthene	0.0746	0.21	2.20	1	
Chrysene	0.0249	0.21	4.50	1	
Dibenzo(a,h)anthracene	0.0798	0.21	2.50	1	
Fluoranthene	0.0518	0.21	4.20	1	
Fluorene	0.579	1.0	31.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	3.60	1	
Naphthalene	0.372	1.0	26.0	1	
Phenanthrene	0.297	1.0	34.0	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 04:16

Concentration Units: % Recovery File ID: 4L002955.F

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-01-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 04:16

Concentration Units: ug/L File ID: 4L002955.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	28.0	1	
2-Methylnaphthalene	0.348	1.0	28.0	1	
Acenaphthene	0.430	1.0	29.0	1	
Acenaphthylene	0.364	1.0	29.0	1	
Anthracene	0.295	1.0	38.0	1	
Benzo(a)anthracene	0.0311	0.21	4.70	1	
Benzo(a)pyrene	0.0549	0.21	4.40	1	
Benzo(b)fluoranthene	0.0352	0.21	4.50	1	
Benzo(g,h,i)perylene	0.0518	0.21	3.30	1	
Benzo(k)fluoranthene	0.0746	0.21	2.20	1	
Chrysene	0.0249	0.21	4.50	1	
Dibenzo(a,h)anthracene	0.0798	0.21	2.60	1	
Fluoranthene	0.0518	0.21	4.40	1	
Fluorene	0.579	1.0	31.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	3.70	1	
Naphthalene	0.372	1.0	28.0	1	
Phenanthrene	0.297	1.0	36.0	1	
Pyrene	0.0705	0.21	4.60	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 04:16

Concentration Units: % Recovery File ID: 4L002955.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	84.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q1-02-14 Lab Sample ID: L0203380-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 05:12

Concentration Units: ug/L File ID: 4L002956.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	0.0558	0.21	0.0558	1	ND
Benzo(b)fluoranthene	0.0358	0.21	0.0358	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	0.287	1.0	0.287	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q1-02-14 Lab Sample ID: L0203380-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 05:12

Concentration Units: % Recovery File ID: 4L002956.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	90.2	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-01-02-14 Lab Sample ID: L0203380-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 06:09

Concentration Units: ug/L File ID: 4L002957.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	0.285	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	0.579	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-01-02-14 Lab Sample ID: L0203380-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 06:09

Concentration Units: % Recovery File ID: 4L002957.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	84.9	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-01-02-14 Lab Sample ID: L0203380-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 07:06

Concentration Units: ug/L File ID: 4L002958.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.432	1.0	0.432	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	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.374	1.0	0.374	1	ND
Phenanthrene	0.287	1.0	0.287	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q1-02-14 Lab Sample ID: L0203380-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 07:06

Concentration Units: % Recovery File ID: 4L002958.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	87.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q1-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 08:02

Concentration Units: ug/L File ID: 4L002959.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.366	1.0	0.366	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	0.582	1.0	0.582	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	0.299	1.0	0.299	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-01-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 08:02

Concentration Units: % Recovery File ID: 4L002959.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	81.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-01-02-14 Lab Sample ID: L0203380-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 08:59

Concentration Units: ug/L File ID: 4L002960.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	0.0362	0.21	0.0362	1	ND
Benzo(g,h,i)perylene	0.0532	0.21	0.0532	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	0.0680	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q1-02-14 Lab Sample ID: L0203380-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 08:59

Concentration Units: % Recovery File ID: 4L002960.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.5	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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q1-02-14 Lab Sample ID: L0203380-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 09:56

Concentration Units: ug/L File ID: 4L002961.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 # : WG114911

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q1-02-14 Lab Sample ID: L0203380-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 26-MAR-02 09:56

Concentration Units: % Recovery File ID: 4L002961.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	82.5	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 : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG115477**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
062-CEF46-5I-Q1-02-14	L0203380-03

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-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG115477

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q1-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 28-MAR-02 Date Analyzed: 28-MAR-02 20:09

Concentration Units: ug/L File ID: 4L002970.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.378	1.1	0.378	1	ND
Acenaphthene	0.466	1.1	0.466	1	ND
Acenaphthylene	0.394	1.1	0.394	1	ND
Anthracene	0.320	1.1	0.320	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	0.628	1.1	0.628	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.403	1.1	0.403	1	ND
Phenanthrene	0.322	1.1	0.322	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 # : WG115477

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q1-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 14-JAN-2002

Date Received: 20-MAR-02 Date Extracted: 28-MAR-02 Date Analyzed: 28-MAR-02 20:09

Concentration Units: % Recovery File ID:4L002970.R

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	67.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG115176**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-1S-Q1-02-14		L0203380-01
062-CEF46-2S-Q1-02-14		L0203380-02
062-CEF46-5I-Q1-02-14		L0203380-03
062-CEF46-6D-Q1-02-14		L0203380-04
062-CEF46-7I-Q1-02-14		L0203380-05
062-CEF46-9I-Q1-02-14		L0203380-06
062-CEF46-13I-Q1-02-14		L0203380-07
062-CEF46-14D-Q1-02-14	RS01	L0203380-08
062-CEF46-14D-Q1-02-14	MS01	L0203380-09
062-CEF46-14D-Q1-02-14	SD01	L0203380-10

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG115176**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	
062-CEF46-21I-Q1-02-14	L0203380-11
062-CEF46-24D-Q1-02-14	L0203380-12
062-CEF46-25I-Q1-02-14	L0203380-13
062-CEF46-26I-Q1-02-14	L0203380-14
062-46DUP-Q1-02-14	L0203380-15
062-46EQB-Q1-02-14	L0203380-16

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **08-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 28-MAR-02 10:07

Concentration Units: ug/L File ID: 2G19643

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5430	11000	48000	20	

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 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 19:25

Concentration Units: ug/L File ID: 2G19622

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	400	1	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	85.0	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-01-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 19:40

Concentration Units: ug/L File ID: 2G19623

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	269	540	269	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	119	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q1-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 19:56

Concentration Units: ug/L File ID: 2G19624

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	275	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	108	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 20:11

Concentration Units: ug/L File ID: 2G19625

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1100	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	107	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q1-02-14 Lab Sample ID: L0203380-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 20:27

Concentration Units: ug/L File ID: 2G19626

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	266	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	82.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q1-02-14 Lab Sample ID: L0203380-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 20:42

Concentration Units: ug/L File ID: 2G19627

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	266	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 18:02

Concentration Units: ug/L File ID: 2G19617

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	259	520	259	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.2	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-01-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 18:17

Concentration Units: ug/L File ID: 2G19618

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	272	540	2400	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	93.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 18:32

Concentration Units: ug/L File ID: 2G19619

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	259	520	2800	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	117	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q1-02-14 Lab Sample ID: L0203380-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 20:57

Concentration Units: ug/L File ID: 2G19628

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	259	520	259	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	78.6	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q1-02-14 Lab Sample ID: L0203380-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 21:44

Concentration Units: ug/L File ID: 2G19631

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	84.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-01-02-14 Lab Sample ID: L0203380-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 21:59

Concentration Units: ug/L File ID: 2G19632

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	259	520	259	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	108	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q1-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 22:15

Concentration Units: ug/L File ID: 2G19633

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	266	530	360	1	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	71.4	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 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q1-02-14 Lab Sample ID: L0203380-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 22:30

Concentration Units: ug/L File ID: 2G19634

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	275	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	92.4	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 Preparatory Method: 8015 MOD\3510C AAB # : WG115176

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q1-02-14 Lab Sample ID: L0203380-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-MAR-2002

Date Received: 20-MAR-02 Date Extracted: 21-MAR-02 Date Analyzed: 27-MAR-02 22:45

Concentration Units: ug/L File ID: 2G19635

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	70.3	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 # : WG114843
Contract # : Colleen Kurtz
Prime Contractor : CCI

Field sample ID		Lab Sample ID
062-CEF46-1S-Q1-02-14		L0203380-01
062-CEF46-2S-Q1-02-14		L0203380-02
062-CEF46-5I-Q1-02-14		L0203380-03
062-CEF46-6D-Q1-02-14		L0203380-04
062-CEF46-7I-Q1-02-14		L0203380-05
062-CEF46-9I-Q1-02-14		L0203380-06
062-CEF46-13I-Q1-02-14		L0203380-07
062-CEF46-14D-Q1-02-14	RS01	L0203380-08
062-CEF46-14D-Q1-02-14	MS01	L0203380-09
062-CEF46-14D-Q1-02-14	SD01	L0203380-10

Comments:
RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.
Suffix Matches parent to QC

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Signature: David L. Bumgarner
Name: David L. Bumgarner
Date: 08-APR-02
Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA PACKAGE

Analytical Method : 9056
AAB # : WG114843
Lab Name : Kemron Environmental Services
Contract # : Colleen Kurtz
Base/Command : NAS Cecil Field Jacksonville (
Prime Contractor : CCI

Field sample ID	
062-CEF46-21I-Q1-02-14	L0203380-11
062-CEF46-24D-Q1-02-14	L0203380-12
062-CEF46-25I-Q1-02-14	L0203380-13
062-CEF46-26I-Q1-02-14	L0203380-14
062-46DUP-Q1-02-14	L0203380-15
062-46EQB-Q1-02-14	L0203380-16

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-APR-02
Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-1S-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 17:26

Concentration Units: mg/L File ID: 032002.25

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-28-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 17:49

Concentration Units: mg/L File ID: 032002.27

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-5I-Q1-02-14 Lab Sample ID: L0203380-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 16:52

Concentration Units: mg/L File ID: 032002.22

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.660	1	
Nitrite	0.0610	0.40	7.70	1	I
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-6D-Q1-02-14 Lab Sample ID: L0203380-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 17:15

Concentration Units: mg/L File ID: 032002.24

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 18:01

Concentration Units: mg/L File ID: 032002.28

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.150	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q1-02-14 Lab Sample ID: L0203380-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 16:40

Concentration Units: mg/L File ID: 032002.21

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.160	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-Q1-02-14 Lab Sample ID: L0203380-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 15:29

Concentration Units: mg/L File ID: 032002.15

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	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 16:04

Concentration Units: mg/L File ID: 032002.18

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.390	1	J

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 16:15

Concentration Units: mg/L File ID: 032002.19

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.30	1	
Nitrite	0.0610	0.40	4.00	1	
Phosphate	0.163	1.0	10.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-Q1-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 16:29

Concentration Units: mg/L File ID: 032002.20

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.30	1	
Nitrite	0.0610	0.40	4.10	1	
Phosphate	0.163	1.0	11.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q1-02-14 Lab Sample ID: L0203380-11 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 18:24

Concentration Units: mg/L File ID: 032002.30

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q1-02-14 Lab Sample ID: L0203380-12 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 18:12

Concentration Units: mg/L File ID: 032002.29

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	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q1-02-14 Lab Sample ID: L0203380-13 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 18:35

Concentration Units: mg/L File ID: 032002.31

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q1-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 18:47

Concentration Units: mg/L File ID: 032002.32

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.150	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q1-02-14 Lab Sample ID: L0203380-15 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 15:52

Concentration Units: mg/L File ID: 032002.17

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.150	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG114843

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q1-02-14 Lab Sample ID: L0203380-16 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 20-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 20-MAR-02 17:38

Concentration Units: mg/L File ID: 032002.26

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.170	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

Base/Command : **NAS Cecil Field Jacksonville (**

AAB # : **WG115428**

Contract # : **Colleen Kurtz**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
062-CEF46-1S-Q1-02-14		L0203380-01
062-CEF46-2S-Q1-02-14		L0203380-02
062-CEF46-7I-Q1-02-14		L0203380-05
062-CEF46-9I-Q1-02-14		L0203380-06
062-CEF46-13I-Q1-02-14		L0203380-07
062-CEF46-14D-Q1-02-14	RS01	L0203380-08
062-CEF46-14D-Q1-02-14	MS01	L0203380-09
062-CEF46-14D-Q1-02-14	SD01	L0203380-10
062-CEF46-21I-Q1-02-14		L0203380-11
062-CEF46-24D-Q1-02-14		L0203380-12

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: **08-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

AAB # : **WG115428**

Lab Name : **Kemron Environmental Services**

Contract # : **Colleen Kurtz**

Base/Command : **NAS Cecil Field Jacksonville (**

Prime Contractor : **CCI**

Field sample ID	
062-CEF46-25I-Q1-02-14	L0203380-13
062-CEF46-26I-Q1-02-14	L0203380-14
062-46DUP-Q1-02-14	L0203380-15
062-46EQB-Q1-02-14	L0203380-16

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-APR-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-18-Q1-02-14 Lab Sample ID: L0203380-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 18:28

Concentration Units: mg/L File ID: 032102.18

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-2S-Q1-02-14 Lab Sample ID: L0203380-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 18:40

Concentration Units: mg/L File ID: 032102.19

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	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-7I-Q1-02-14 Lab Sample ID: L0203380-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 19:37

Concentration Units: mg/L File ID: 032102.24

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	1.30	1	
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-9I-Q1-02-14 Lab Sample ID: L0203380-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 18:17

Concentration Units: mg/L File ID: 032102.17

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-13I-01-02-14 Lab Sample ID: L0203380-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 17:19

Concentration Units: mg/L File ID: 032102.12

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-01-02-14 Lab Sample ID: L0203380-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 17:42

Concentration Units: mg/L File ID: 032102.14

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.130	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-01-02-14 Lab Sample ID: L0203380-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 17:54

Concentration Units: mg/L File ID: 032102.15

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	3.90	1	
Nitrite	0.0610	0.40	3.70	1	
Phosphate	0.163	1.0	9.50	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-14D-01-02-14 Lab Sample ID: L0203380-10 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 18:05

Concentration Units: mg/L File ID: 032102.16

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	3.90	1	
Nitrite	0.0610	0.40	3.70	1	
Phosphate	0.163	1.0	9.90	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-21I-Q1-02-14 Lab Sample ID: L0203380-11 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 19:49

Concentration Units: mg/L File ID: 032102.25

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-24D-Q1-02-14 Lab Sample ID: L0203380-12 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 20:00

Concentration Units: mg/L File ID: 032102.26

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-25I-Q1-02-14 Lab Sample ID: L0203380-13 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 20:12

Concentration Units: mg/L File ID: 032102.27

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

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-CEF46-26I-Q1-02-14 Lab Sample ID: L0203380-14 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 20:23

Concentration Units: mg/L File ID: 032102.28

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	3.80	1	
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46DUP-Q1-02-14 Lab Sample ID: L0203380-15 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 19:03

Concentration Units: mg/L File ID: 032102.21

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG115428

Lab Name : Kemron Environmental Services Contract#: Colleen Kurtz

Field Sample ID: 062-46EQB-Q1-02-14 Lab Sample ID: L0203380-16 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 21-MAR-2002

Date Received: 20-MAR-02 Date Extracted: Date Analyzed: 21-MAR-02 19:14

Concentration Units: mg/L File ID: 032102.22

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.130	1	J
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

01/28/2002

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SMW - SHARON M. WASHBURN
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
163151-036 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-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab	1 bottle broken for 8310 AKW Fla-PRO 3/20/02	
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD 1 bottle broken for 8310 msd AKW 3/20/02	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop [signature]	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		
Jane K. Warden	3-20-02	1436			

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 02/00

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Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
163151-036 page _2_ of _2_

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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
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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-CEF46-25I-Q1-02-14	CEF-46-25I	W	03/19/02	16:20	III/C	14	2	2	2	1				Grab		
2	062-CEF46-26I-Q1-02-14	CEF-46-26I	W	03/19/02	17:05	III/C	14	2	2	2	1				Grab	1 bottle broken for 8310 JKW	3/20/02
3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab ~~heads~~ JKW bubbles	Prepared on
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	11/9/02
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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

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CHAIN-OF-CUSTODY RECORD

163151-036 page _1_ of _2_

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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
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

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1	062-CEF46-1S-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab		
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 02/00

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Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

163151-036 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
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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-CEF46-25I-Q1-02-14	CEF-46-25I	W	03/19/02	16:20	III/C	14	2	2	2	1				Grab		
2	062-CEF46-26I-Q1-02-14	CEF-46-26I	W	03/19/02	17:05	III/C	14	2	2	2	1				Grab		
3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	
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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form 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

163151-036 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~~ DATA 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-CEF46-1S-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab		
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
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R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
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115 Perimeter Center Place, Suite 700
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CHAIN-OF-CUSTODY RECORD

163151-036 page _2_ of _2_

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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 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-CEF46-25I-Q1-02-14	CEF-46-25I	W	03/19/02	16:20	III/C	14	2	2	2	1				Grab		
2	062-CEF46-26I-Q1-02-14	CEF-46-26I	W	03/19/02	17:05	III/C	14	2	2	2	1				Grab		
3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	
7																	
8																	
9																	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
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Printed Name and Signature:			Printed Name and Signature:		

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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		

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1	062-CEF46-1S-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab		
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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CHAIN-OF-CUSTODY RECORD

163151-036 page _2_ of _2_

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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.):
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

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3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	
7																	
8																	
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10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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CHAIN-OF-CUSTODY RECORD

163151-036 page _1_ of _2_

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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		

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3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
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CHAIN-OF-CUSTODY RECORD

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Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
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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-CEF46-1S-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab		
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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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

163151-036 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 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-CEF46-25I-Q1-02-14	CEF-46-25I	W	03/19/02	16:20	III/C	14	2	2	2	1				Grab		
2	062-CEF46-26I-Q1-02-14	CEF-46-26I	W	03/19/02	17:05	III/C	14	2	2	2	1				Grab		
3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	
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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

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CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
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CHAIN-OF-CUSTODY RECORD

163151-036 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-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab		
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580. 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

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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

163151-036 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 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-CEF46-25I-Q1-02-14	CEF-46-25I	W	03/19/02	16:20	III/C	14	2	2	2	1				Grab		
2	062-CEF46-26I-Q1-02-14	CEF-46-26I	W	03/19/02	17:05	III/C	14	2	2	2	1				Grab		
3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	
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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
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CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
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Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

163151-036 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		

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2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
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9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
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SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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Printed Name and Signature:			Printed Name and Signature:		

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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

163151-036 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.):
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

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SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

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R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

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CHAIN-OF-CUSTODY RECORD

163151-036 page _1_ of _2_

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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.):
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Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

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ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ DATA 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-CEF46-1S-Q1-02-14	CEF-46-1S	W	03/19/02	11:40	III/C	14	2	2	2	1				Grab		
2	062-CEF46-2S-Q1-02-14	CEF-46-2S	W	03/19/02	13:10	III/C	14	2	2	2	1				Grab		
3	062-CEF46-5I-Q1-02-14	CEF-46-5I	W	03/19/02	10:50	III/C	14	2	2	2	1				Grab		
4	062-CEF46-6D-Q1-02-14	CEF-46-6D	W	03/19/02	11:15	III/C	14	2	2	2	1				Grab		
5	062-CEF46-7I-Q1-02-14	CEF-46-7I	W	03/19/02	13:40	III/C	14	2	2	2	1				Grab		
6	062-CEF46-9I-Q1-02-14	CEF-46-9I	W	03/19/02	10:10	III/C	14	2	2	2	1				Grab		
7	062-CEF46-13I-Q1-02-14	CEF-46-13I	W	03/19/02	8:30	III/C	14	2	2	2	1				Grab		
8	062-CEF46-14D-Q1-02-14	CEF-46-14D	W	03/19/02	9:35	III/C	14	6	6	6	3				Grab	MS/MSD	
9	062-CEF46-21I-Q1-02-14	CEF-46-21I	W	03/19/02	15:25	III/C	14	2	2	2	1				Grab		
10	062-CEF46-24D-Q1-02-14	CEF-46-24D	W	03/19/02	14:50	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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form 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

163151-036 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 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-CEF46-25I-Q1-02-14	CEF-46-25I	W	03/19/02	16:20	III/C	14	2	2	2	1				Grab		
2	062-CEF46-26I-Q1-02-14	CEF-46-26I	W	03/19/02	17:05	III/C	14	2	2	2	1				Grab		
3	062-46DUP-Q1-02-14	Duplicate	W	03/19/02	NA	III/C	14	2	2	2	1				Grab		
4	062-46EQB-Q1-02-14	Equipment Blank	W	03/19/02	12:00	III/C	14	2	2	2	1				Grab		
5	062-46TB2-Q1-02-14	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14					9			Grab	Prepared by Lab	
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 # 790348269580, 790348269616, 790501133469, 791180541497, 790348260708, 790348275828, 790501134811, 790348275883, 790348275920.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	3/19/02	18:00	Federal Express	3/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		

[ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0203380 **Client:** CCI-FL **# of Samples:** 17 **Due Date:** March 27 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
* 1-16	9056	An.	JWR/03/20/02/1500	Login	SV	JKW	RDC 4/2/02 @ 1640	Archive	Blg	Archive
1-016A	ELA-PRO	EXT	MR 3/21/02 @ 0705	WALKIN	SHB	CEB	03-21-02 @ 2400	crusher	[illegible]	disposal
1-016A	8310	EXT	MR 3/21/02 @ 0705	WALKIN	SHB	CEB	03-21-02 @ 2400	crusher	[illegible]	disposal
1-17	BTEX	ANAL	CAN 3/21/02 @ 0840	V-1	ORG-3	Blg				
03A	8310	Re-ext	MR 3/28/02 @ 1422	WALKIN	SHB	Blg	03-29-02 @ 0200	crusher	[illegible]	disposal

Report Sent 4/9 CR

*Note: Sx's 9056's released to lab before logging/Short hold times. JKW

KEMRON Environmental Services

SAMPLES RECEIPT FORM

Marietta Laboratory

CLIENT:	DATE:	SHIPPED BY:
CCI BRG Other JKW	3/20/02 1436	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-756	COOLER ID: KL-584	COOLER ID: KL 1040
INDEX # : 79034826 9708	INDEX # : 79050113 3469	INDEX # : 79050113 4811
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 2 °C	TEMP : (C) (D) 1 °C	TEMP : (C) (D) 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	LOG-IN COMMENTS	LOG-IN COMMENTS
1050 / 1115	MS / MSD both 0935	1450 / 1525
	1 bottle broken - 8310	

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 JKW	3/20/02 1436	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: 790348269616	COOLER ID: KL-288	COOLER ID: KL-208
INDEX # : KL-260	INDEX # : 790348269580	INDEX # : 79118054 1497
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 2 °C	TEMP : (C) (D) 1 °C	TEMP : (C) (D) 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	LOG-IN COMMENTS	LOG-IN COMMENTS
0935 / 1010	1140 / 1200 1140 - 1 bottle broken from FL-PRO	0830 / DUP

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI BRG Other JKW	DATE: 3/20/02 1436	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-498	COOLER ID: KL-911	COOLER ID: Handex
INDEX # : 7903 4827 5828	INDEX # : 7903 4827 5883	INDEX # : 7903 4827 5920
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 1 °C	TEMP : (C) (D) 1 °C	TEMP : (C) (D) 0 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES (✓) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
1310 / 1340	1620 / 1705	original chain - VOAs
	1-bottle broken 8310 - on 1705	

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

CRF#4

Sample Receipt Form #2

Client: CCI Project: NAS Cecil Field Bldg 46
Date Received: 3-20-02

_____ 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)
CEF-46-26I - 1 bottle from 8310, CEF-46-IS - 1 bottle from Fla-PRO,
~~CEP~~ CEF -46-14D = MSD bottle from 8310 - 1 bottle,
JKW there is enough volume to run. JKW 3/20/02

_____ pH out (List sample ID & which container)

_____ Insufficient sample volume

✓ Air bubbles present in Voa vials (List sample ID)
Trip blank only prepared 11/9/02

_____ Hold time expired (List sample ID)

TSR:
Was client notified regarding information: YES NO
Name of person contacted:_____ Company:_____
TSR:_____ Date:_____
Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers _____

PROJECT: NAS Cecil Field Bldg 46 LIMS# _____

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 3-20-02 C-of-C Number: 163151-036
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: See CRF#3 form
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 1 - front, seal date: 3/19/02 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 see CRF#3 °C ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: JKW (date) 3-20-02

B. **LOG-IN PHASE:** Date samples were logged-in: 3-20-02
by (print) Jane K. Warden (sign) Jane K. Warden

11. Describe type of packing in cooler: 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 bottle dated 11/9/02 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: L0203380

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of fraction 08. Fraction 14 ("D1") was selected for MS/MSD analyses; outliers were acceptable in the LCS.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Sample 14 required a dilution analyses to obtain results within the calibrated 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: CBN REVIEWED: [signature] DATE: 3/26/02

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0203380

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:** 3/25/02

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 11G13777
Date Analyzed: 03/21/02
Time Analyzed: 15:10
Analyst: CBN

Work Group: WG114905
Blank Sample ID: WG114905-01
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	WG114905-02	11G13778	03/21/02 15:45	
062-CEF46-1S-Q1-02-14	L0203380-01	11G13782	03/21/02 18:04	
062-CEF46-2S-Q1-02-14	L0203380-02	11G13783	03/21/02 18:39	
062-CEF46-5I-Q1-02-14	L0203380-03	11G13784	03/21/02 19:14	
062-CEF46-14D-Q1-02-14	L0203380-08	11G13785	03/21/02 19:48	
062-CEF46-14D-Q1-02-14	L0203380-09	11G13786	03/21/02 20:23	
062-CEF46-14D-Q1-02-14	L0203380-10	11G13787	03/21/02 20:58	
062-CEF46-6D-Q1-02-14	L0203380-04	11G13789	03/21/02 22:07	
062-CEF46-7I-Q1-02-14	L0203380-05	11G13790	03/21/02 22:41	
062-CEF46-9I-Q1-02-14	L0203380-06	11G13791	03/21/02 23:16	
062-CEF46-13I-Q1-02-14	L0203380-07	11G13792	03/21/02 23:51	
062-CEF46-21I-Q1-02-14	L0203380-11	11G13793	03/22/02 00:25	
062-CEF46-24D-Q1-02-14	L0203380-12	11G13794	03/22/02 01:00	
062-CEF46-25I-Q1-02-14	L0203380-13	11G13795	03/22/02 01:34	
062-CEF46-26I-Q1-02-14	L0203380-14	11G13796	03/22/02 02:09	
062-46EQB-Q1-02-14	L0203380-16	11G13798	03/22/02 03:18	
062-46TB2-Q1-02-14	L0203380-17	11G13800	03/22/02 04:27	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380 Run Date: 03/21/2002 Sample ID: WG114905-01
Instrument ID: HP11 Run Time: 15:10 Method: 8021B
File ID: 11G13777 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG114905 Units: ug/L
Contract #: Cal ID: HP11-21-MAR-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	102	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Run Date: 03/21/2002
Sample ID: WG114905-02
Instrument ID: HP11
Run Time: 15:45
Method: 8021B
File ID: 11G13778
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG114905
Units: ug/L
Contract #:
Cal ID: HP11-21-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.8	104	41 - 161	
Benzene	20	21.2	106	80 - 122	
Toluene	20	20.9	104	80 - 124	
Ethylbenzene	20	21.2	106	80 - 125	
Total xylenes	60	62.8	105	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	103	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0203380
Cal ID: HP11-21-MAR-2002
Worknum: WG114905
Instrument ID: HP11
Contract #:
Method: 8021B
Parent ID: L0203380-08 File ID: 11G13785 Dil: 1
Matrix: Water
Sample ID: L0203380-09 MS File ID: 11G13786 Dil: 1
Units: ug/L
Sample ID: L0203380-10 MSD File ID: 11G13787 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	20.8	104	20.0	21.2	106	1.90	80 - 122	24	
Ethylbenzene	0	20.0	20.5	103	20.0	20.9	105	1.93	80 - 125	25	
Methyl tert-butyl ether	0	20.0	20.5	103	20.0	20.9	105	1.93	41 - 161	73	
Toluene	0	20.0	20.4	102	20.0	20.8	104	1.94	80 - 124	26	
Xylenes, Total	0	60.0	60.8	101	60.0	61.7	103	1.47	80 - 121	24	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 01/11/2001
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B AAB#: WG114905

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-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	2.64	22-MAR-02	14	2.64	
062-46TB2-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	3.19	22-MAR-02	14	3.19	
062-CEF46-13I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.64	21-MAR-02	14	2.64	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.43	21-MAR-02	14	2.43	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.45	21-MAR-02	14	2.45	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.47	21-MAR-02	14	2.47	
062-CEF46-1S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.27	21-MAR-02	14	2.27	
062-CEF46-21I-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	2.38	22-MAR-02	14	2.38	
062-CEF46-24D-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	2.42	22-MAR-02	14	2.42	
062-CEF46-25I-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	2.38	22-MAR-02	14	2.38	
062-CEF46-26I-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	2.38	22-MAR-02	14	2.38	
062-CEF46-2S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.23	21-MAR-02	14	2.23	
062-CEF46-5I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.35	21-MAR-02	14	2.35	
062-CEF46-6D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.45	21-MAR-02	14	2.45	
062-CEF46-7I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.38	21-MAR-02	14	2.38	
062-CEF46-9I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	14	2.55	21-MAR-02	14	2.55	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0203380
Instrument Id: HP11
Workgroup (AAB#): WG114905

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203380-01	100		107
L0203380-02	1.00		114
L0203380-03	1.00		101
L0203380-04	1.00		99.4
L0203380-05	50.0		108
L0203380-06	1.00		98.9
L0203380-07	1.00		106
L0203380-08	1.00		105
L0203380-09	1.00		99.4
L0203380-10	1.00		108
L0203380-11	1.00		99.0
L0203380-12	1.00		105
L0203380-13	1.00		107
L0203380-14	1.00		109
L0203380-16	1.00		99.6
L0203380-17	1.00		93.1
WG114905-01	1.00		102
WG114905-02	1.00		103

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 3/21/02
Last Calibration: Thu Mar 21 12:38:51 2002

Calibration Files

Compound	1 11G13766.D	10 11G13767.D	20 11G13768.D	50 11G13769.D	100 11G13770.D	200 11G13771.D	300 11G13772.D	Avg	%RSD
MTBE	52873.4	52154.8	54417.7	49566.3	55113.9	54487.1	57358.4	53710.2	4.60
Benzene	130761.2	124819.4	130100.3	120205.6	131375.9	125414.0	132024.4	127814.0	3.45
TFT	39237.5	40348.6	42174.1	45475.4	37579.4	43745.6	36199.8	40680.1	8.18
Toluene	124591.6	123645.5	128153.1	118240.5	130587.2	125503.2	131029.9	125964.0	3.53
Chlorobenzene	127442.5	128795.6	138059.1	121324.3	139011.5	134491.4	140942.5	132867.0	5.43
Ethylbenzene	113628.6	112902.5	121021.5	104425.3	118536.8	113794.0	118564.5	114696.0	4.78
m-,p-Xylene	138301.3	138137.7	146414.9	124578.6	140403.2	133987.9	138899.7	137246.0	4.89
o-Xylene	121292.1	118654.2	126913.7	108911.2	123362.0	118582.7	123402.9	120160.0	4.79
BFB	108305.7	115685.5	128022.6	131249.2	121326.4	131537.0	123410.5	122791.0	6.96
1,3-Dichlorobenzene	113115.1	109256.4	123403.0	109000.8	128574.6	124640.3	128772.9	119538.0	7.37
1,4-Dichlorobenzene	116312.5	113628.4	133528.3	115107.6	132762.4	127114.1	131030.8	124212.0	7.14
1,2-Dichlorobenzene	97131.8	100175.2	115897.2	100322.0	113953.0	108079.0	111300.5	106694.0	7.00
BCB	102226.5	121332.5	134835.6	138201.7	129239.4	136594.7	130278.1	127530.0	9.8

Thu Mar 21 12:39:26 2002

Login Number: L0203380
File ID: 11G13776
ALT ID: WG114847-08
Units: ug/L

Instrument ID: HP11
Run Date: 03/21/2002
Run Time: 14:35
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.8	116000	9.0	
1,4-Dichlorobenzene		20	20.8	129000	4.0	
1,3-Dichlorobenzene		20	20.0	119000	0.0	
o-Xylene		20	20.2	121000	1.0	
m-,p-Xylene		40	41.6	143000	4.0	
Ethylbenzene		20	20.9	120000	4.5	
Chlorobenzene		20	20.0	133000	0.0	
Toluene		20	20.5	129000	2.5	
Benzene		20	20.8	133000	4.0	
MTBE		20	20.7	55700	3.5	

Login Number: L0203380
File ID: 11G13768
CCV ID: WG114847-03
Units: ug/L

Instrument ID: HP11
Run Date: 03/21/2002
Run Time: 09:42
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	23.5	116000	17.5	*
1,4-Dichlorobenzene		20	23.2	134000	16.0	*
1,3-Dichlorobenzene		20	22.2	123000	11.0	
o-Xylene		20	21.2	127000	6.0	
m-,p-Xylene		40	42.4	146000	6.0	
Ethylbenzene		20	21.4	121000	7.0	
Chlorobenzene		20	21.6	138000	8.0	
Toluene		20	20.7	128000	3.5	
Benzene		20	20.4	130000	2.0	
MTBE		20	20.7	54400	3.5	

* Exceeds %D Limit

Login Number: L0203380
File ID: 11G13799
CCV ID: WG114847-09
Units: ug/L

Instrument ID: HP11
Run Date: 03/22/2002
Run Time: 03:53
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.6	115000	8.0	
1,4-Dichlorobenzene		20	20.5	127000	2.5	
1,3-Dichlorobenzene		20	19.6	117000	2.0	
o-Xylene		20	20.5	123000	2.5	
m-,p-Xylene		40	41.9	144000	4.8	
Ethylbenzene		20	21.1	121000	5.5	
Chlorobenzene		20	20.1	134000	0.5	
Toluene		20	20.8	131000	4.0	
Benzene		20	21.4	137000	7.0	
MTBE		20	20.1	53900	0.5	

* Exceeds %D Limit

Login Number: L0203380
File ID: 11G13801
CCV ID: WG114847-10
Units: ug/L

Instrument ID: HP11
Run Date: 03/22/2002
Run Time: 05:02
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.4	114000	7.0	
1,4-Dichlorobenzene		20	20.3	126000	1.5	
1,3-Dichlorobenzene		20	19.4	116000	3.0	
o-Xylene		20	20.2	121000	1.0	
m-,p-Xylene		40	41.4	142000	3.5	
Ethylbenzene		20	20.8	119000	4.0	
Chlorobenzene		20	19.9	132000	0.5	
Toluene		20	20.6	130000	3.0	
Benzene		20	21.1	135000	5.5	
MTBE		20	20.0	53600	0.0	

* Exceeds %D Limit

Injection Log

Directory: C:\HPCHEM\1\DATA\032102

WG114847
⊥ 905

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13764.d	1.	WG114847-01 8021 STD 20PPB 5ML Low	1,1 S-91-(30,29)	21 Mar 2002 07:03
2	1	11g13765.d	1.	WG114847-01 8021 STD1 1PPB 5ML ANR	1,1 S-91-(23,32)	21 Mar 2002 07:58
3	2	11g13766.d	1.	WG114847-01 8021 STD1 1PPB 5ML ✓	1,1 S-91-(23,32)	21 Mar 2002 08:32
4	3	11g13767.d	1.	WG114847-02 8021 STD2 10PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 09:07
5	4	11g13768.d	1.	WG114847-03 8021 STD3 20PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 09:42
6	5	11g13769.d	1.	WG114847-04 8021 STD4 50PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 10:17
7	6	11g13770.d	1.	WG114847-05 8021 STD5 100PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 10:52
8	7	11g13771.d	1.	WG114847-06 8021 STD6 200PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 11:27
9	8	11g13772.d	1.	WG114847-07 8021 STD7 300PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 12:02
10	9	11g13773.d	1.	RINSE 5ML ✓	1,1 S-91-(29)	21 Mar 2002 12:37
11	10	11g13774.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 13:12
12	11	11g13775.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 14:00
13	1	11g13776.d	1.	WG114847-08 ALT SOURCE 20PP... ✓	1,1 S-91-(30,29)	21 Mar 2002 14:35
14	1	11g13777.d	1.	WG114905-01 WATER BLANK 5ML ✓	1,1 S-91-29	21 Mar 2002 15:10
15	2	11g13778.d	1.	WG114905-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	21 Mar 2002 15:45
16	3	11g13779.d	1.	L0203372-01 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 16:20
17	4	11g13780.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 16:55
18	5	11g13781.d	1.	L0203360-01 A 5ML pH=7 ✓	1,1 S-91-29	21 Mar 2002 17:30
19	6	11g13782.d	100.	L0203380-01 A 100X 5ML pH<2 ✓	1,100 S-91-29	21 Mar 2002 18:04
20	7	11g13783.d	1.	L0203380-02 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 18:39
21	8	11g13784.d	1.	L0203380-03 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 19:14
22	9	11g13785.d	1.	WG114905-03 L0203380-08 A 5... ✓	1,1 S-91-29	21 Mar 2002 19:48
23	10	11g13786.d	1.	WG114905-04 L0203380-09 A M... ✓	1,1 S-91-29	21 Mar 2002 20:23
24	11	11g13787.d	1.	WG114905-04 L0203380-10 A M... ✓	1,1 S-91-(30,29)	21 Mar 2002 20:58
25	12	11g13788.d	1.	WG114847-08 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	21 Mar 2002 21:32
26	13	11g13789.d	1.	L0203380-04 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 22:07
27	14	11g13790.d	50.	L0203380-05 A 50X 5ML pH<2 ✓	1,50 S-91-29	21 Mar 2002 22:41
28	15	11g13791.d	1.	L0203380-06 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 23:16
29	16	11g13792.d	1.	L0203380-07 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 23:51
30	17	11g13793.d	1.	L0203380-11 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 00:25
31	18	11g13794.d	1.	L0203380-12 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 01:00
32	19	11g13795.d	1.	L0203380-13 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 01:34
33	20	11g13796.d	1.	L0203380-14 A 5ML pH<2 ✓ RR @ 50x	1,1 S-91-29	22 Mar 2002 02:09
34	21	11g13797.d	1.	L0203380-15 A 5ML pH<2 RR c/o	1,1 S-91-29	22 Mar 2002 02:44
35	22	11g13798.d	1.	L0203380-16 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 03:18
36	23	11g13799.d	1.	WG114847-09 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 03:53
37	24	11g13800.d	1.	L0203380-17 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 04:27
38	25	11g13801.d	1.	WG114847-10 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 05:02

REANALYSIS FILE #

L0203380-14
⊥ -15

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METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 11G13803
Date Analyzed: 03/22/02
Time Analyzed: 07:37
Analyst: CBN

Work Group: WG114938
Blank Sample ID: WG114938-01
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	WG114938-02	11G13804	03/22/02 08:12	
062-CEF46-26I-Q1-02-14	L0203380-14	11G13814	03/22/02 16:10	D1
062-46DUP-Q1-02-14	L0203380-15	11G13817	03/22/02 17:55	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380 Run Date: 03/22/2002 Sample ID: WG114938-01
Instrument ID: HP11 Run Time: 07:37 Method: 8021B
File ID: 11G13803 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG114938 Units: ug/L
Contract #: Cal ID: HP11-21-MAR-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	98.2	70 - 130	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Run Date: 03/22/2002
Sample ID: WG114938-02
Instrument ID: HP11
Run Time: 08:12
Method: 8021B
File ID: 11G13804
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG114938
Units: ug/L
Contract #:
Cal ID: HP11-21-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	19.9	99.6	41 - 161	
Benzene	20	21.6	108	80 - 122	
Toluene	20	21.1	106	80 - 124	
Ethylbenzene	20	21.5	107	80 - 125	
Total xylenes	60	63.5	106	80 - 121	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	106	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 02/13/2001
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021B

AAB#: WG114938

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-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	3.75	22-MAR-02	14	3.75	
062-CEF46-26I-Q1-02-14	19-MAR-02	20-MAR-02	22-MAR-02	14	2.96	22-MAR-02	14	2.96	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0203380
Instrument Id: HP11
Workgroup (AAB#): WG114938

Method: 8021
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203380-14	50.0	D1	98.9
L0203380-15	1.00		103
WG114938-01	1.00		98.2
WG114938-02	1.00		106

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

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 3/21/02
Last Calibration: Thu Mar 21 12:38:51 2002

Calibration Files

Compound	1 11G13766.D	10 11G13767.D	20 11G13768.D	50 11G13769.D	100 11G13770.D	200 11G13771.D	300 11G13772.D	Avg	%RSD
MTBE	52873.4	52154.8	54417.7	49566.3	55113.9	54487.1	57358.4	53710.2	4.60
Benzene	130761.2	124819.4	130100.3	120205.6	131375.9	125414.0	132024.4	127814.0	3.45
TFT	39237.5	40348.6	42174.1	45475.4	37579.4	43745.6	36199.8	40680.1	8.18
Toluene	124591.6	123645.5	128153.1	118240.5	130587.2	125503.2	131029.9	125964.0	3.53
Chlorobenzene	127442.5	128795.6	138059.1	121324.3	139011.5	134491.4	140942.5	132867.0	5.43
Ethylbenzene	113628.6	112902.5	121021.5	104425.3	118536.8	113794.0	118564.5	114696.0	4.78
m-,p-Xylene	138301.3	138137.7	146414.9	124578.6	140403.2	133987.9	138899.7	137246.0	4.89
o-Xylene	121292.1	118654.2	126913.7	108911.2	123362.0	118582.7	123402.9	120160.0	4.79
BFB	108305.7	115685.5	128022.6	131249.2	121326.4	131537.0	123410.5	122791.0	6.96
1,3-Dichlorobenzene	113115.1	109256.4	123403.0	109000.8	128574.6	124640.3	128772.9	119538.0	7.37
1,4-Dichlorobenzene	116312.5	113628.4	133528.3	115107.6	132762.4	127114.1	131030.8	124212.0	7.14
1,2-Dichlorobenzene	97131.8	100175.2	115897.2	100322.0	113953.0	108079.0	111300.5	106694.0	7.00
BCB	102226.5	121332.5	134835.6	138201.7	129239.4	136594.7	130278.1	127530.0	9.8

Thu Mar 21 12:39:26 2002

Login Number: L0203380
File ID: 11G13788
ALT ID: WG114847-08
Units: ug/L

Instrument ID: HP11
Run Date: 03/21/2002
Run Time: 21:32
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.3	114000	6.5	
1,4-Dichlorobenzene		20	20.3	126000	1.5	
1,3-Dichlorobenzene		20	19.4	116000	3.0	
o-Xylene		20	19.9	120000	0.5	
m-,p-Xylene		40	40.9	140000	2.3	
Ethylbenzene		20	20.6	118000	3.0	
Chlorobenzene		20	19.7	131000	1.5	
Toluene		20	20.3	128000	1.5	
Benzene		20	20.7	132000	3.5	
MTBE		20	19.8	53200	1.0	

Login Number: L0203380
File ID: 11G13802
CCV ID: WG114936-01
Units: ug/L

Instrument ID: HP11
Run Date: 03/22/2002
Run Time: 06:54
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	22.6	121000	13.0	
1,4-Dichlorobenzene		20	21.7	135000	8.5	
1,3-Dichlorobenzene		20	20.6	123000	3.0	
o-Xylene		20	21.0	126000	5.0	
m-,p-Xylene		40	43.2	148000	8.0	
Ethylbenzene		20	21.7	124000	8.5	
Chlorobenzene		20	20.6	137000	3.0	
Toluene		20	21.2	134000	6.0	
Benzene		20	21.7	139000	8.5	
MTBE		20	18.9	50700	5.5	

* Exceeds %D Limit

Login Number: L0203380
File ID: 11G13819
CCV ID: WG114936-02
Units: ug/L

Instrument ID: HP11
Run Date: 03/22/2002
Run Time: 19:04
Analyst: CBN
Cal ID: HP11 - 21-MAR-02

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.4	109000	2.0	
1,4-Dichlorobenzene		20	19.5	121000	2.5	
1,3-Dichlorobenzene		20	18.9	113000	5.5	
o-Xylene		20	19.5	117000	2.5	
m-,p-Xylene		40	39.9	137000	0.3	
Ethylbenzene		20	20.0	115000	0.0	
Chlorobenzene		20	19.3	128000	3.5	
Toluene		20	20.1	127000	0.5	
Benzene		20	20.5	131000	2.5	
MTBE		20	19.8	53200	1.0	

* Exceeds %D Limit

Injection Log

Directory: C:\HPCHEM\1\DATA\032102

WG114847
⊥ 905

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13764.d	1.	WG114847-01 8021 STD 20PPB 5ML Low	1,1 S-91-(30,29)	21 Mar 2002 07:03
2	1	11g13765.d	1.	WG114847-01 8021 STD1 1PPB 5ML ANR	1,1 S-91-(23,32)	21 Mar 2002 07:58
3	2	11g13766.d	1.	WG114847-01 8021 STD1 1PPB 5ML ✓	1,1 S-91-(23,32)	21 Mar 2002 08:32
4	3	11g13767.d	1.	WG114847-02 8021 STD2 10PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 09:07
5	4	11g13768.d	1.	WG114847-03 8021 STD3 20PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 09:42
6	5	11g13769.d	1.	WG114847-04 8021 STD4 50PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 10:17
7	6	11g13770.d	1.	WG114847-05 8021 STD5 100PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 10:52
8	7	11g13771.d	1.	WG114847-06 8021 STD6 200PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 11:27
9	8	11g13772.d	1.	WG114847-07 8021 STD7 300PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 12:02
10	9	11g13773.d	1.	RINSE 5ML ✓	1,1 S-91-(29)	21 Mar 2002 12:37
11	10	11g13774.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 13:12
12	11	11g13775.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 14:00
13	1	11g13776.d	1.	WG114847-08 ALT SOURCE 20PP... ✓	1,1 S-91-(30,29)	21 Mar 2002 14:35
14	1	11g13777.d	1.	WG114905-01 WATER BLANK 5ML ✓	1,1 S-91-29	21 Mar 2002 15:10
15	2	11g13778.d	1.	WG114905-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	21 Mar 2002 15:45
16	3	11g13779.d	1.	L0203372-01 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 16:20
17	4	11g13780.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 16:55
18	5	11g13781.d	1.	L0203360-01 A 5ML pH=7 ✓	2 1,1 S-91-29	21 Mar 2002 17:30
19	6	11g13782.d	100.	L0203380-01 A 100X 5ML pH<2 ✓	1,100 S-91-29	21 Mar 2002 18:04
20	7	11g13783.d	1.	L0203380-02 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 18:39
21	8	11g13784.d	1.	L0203380-03 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 19:14
22	9	11g13785.d	1.	WG114905-03 L0203380-08 A 5... ✓	1,1 S-91-29	21 Mar 2002 19:48
23	10	11g13786.d	1.	WG114905-04 L0203380-09 A M... ✓	1,1 S-91-29	21 Mar 2002 20:23
24	11	11g13787.d	1.	WG114905-04 L0203380-10 A M... ✓	1,1 S-91-(30,29)	21 Mar 2002 20:58
25	12	11g13788.d	1.	WG114847-08 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	21 Mar 2002 21:32
26	13	11g13789.d	1.	L0203380-04 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 22:07
27	14	11g13790.d	50.	L0203380-05 A 50X 5ML pH<2 ✓	1,50 S-91-29	21 Mar 2002 22:41
28	15	11g13791.d	1.	L0203380-06 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 23:16
29	16	11g13792.d	1.	L0203380-07 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 23:51
30	17	11g13793.d	1.	L0203380-11 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 00:25
31	18	11g13794.d	1.	L0203380-12 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 01:00
32	19	11g13795.d	1.	L0203380-13 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 01:34
33	20	11g13796.d	1.	L0203380-14 A 5ML pH<2 ✓ RR @ 50X	1,1 S-91-29	22 Mar 2002 02:09
34	21	11g13797.d	1.	L0203380-15 A 5ML pH<2 RR c/o	1,1 S-91-29	22 Mar 2002 02:44
35	22	11g13798.d	1.	L0203380-16 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 03:18
36	23	11g13799.d	1.	WG114847-09 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 03:53
37	24	11g13800.d	1.	L0203380-17 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 04:27
38	25	11g13801.d	1.	WG114847-10 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 05:02

REANALYSIS FILE #

L0203380-14
⊥ -15

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Injection Log

Directory: C:\HPCHEM\1\DATA\032202

WG114938
WG115005

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13802.d	1.	WG114936-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 06:54
2	2	11g13803.d	1.	WG114938-01 WATER BLANK 5ML ✓	1,1 S-91-29	22 Mar 2002 07:37
3	3	11g13804.d	1.	WG114938-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	22 Mar 2002 08:12
4	1	11g13805.d	1.	L0203374-01 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 08:55
5	2	11g13806.d	1.	L0203374-02 A 5ML pH<2 RR @ 100x	1,1 S-91-29	22 Mar 2002 09:30
6	3	11g13807.d	50.	WG114938-03 L0203380-14 B 5... RR c/o	1,50 S-91-29	22 Mar 2002 10:05
7	4	11g13808.d	1.	RINSE 5ML CONT	1,1 S-91-29	22 Mar 2002 10:53
8	5	11g13809.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 11:36
9	6	11g13810.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 12:21
10	7	11g13811.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 13:05
11	8	11g13812.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 14:37
12	9	11g13813.d	1.	RINSE 5ML ✓	1,1 S-91-29	22 Mar 2002 15:26
13	2	11g13814.d	50.	WG114938-03 L0203380-14 B 5... ✓	1,50 S-91-29	22 Mar 2002 16:10
14	3	11g13815.d	50.	WG114938-04 L0203380-14 MS ... ✓	1,50 S-91-(30,29)	22 Mar 2002 16:45
15	4	11g13816.d	50.	WG114938-05 L0203380-14 MSD... ✓	1,50 S-91-(30,29)	22 Mar 2002 17:20
16	5	11g13817.d	1.	L0203380-15 B 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 17:55
17	6	11g13818.d	100.	L0203374-02 A 5ML pH<2 100X ✓	1,100 S-91-29	22 Mar 2002 18:29
18	7	11g13819.d	1.	WG114936-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 19:04
19	8	11g13820.d	1.	L0203384-01 A 5ML pH<2 RR ALL	1,1 S-91-29	22 Mar 2002 19:39
20	9	11g13821.d	1.	L0203384-02 A 5ML pH<2 c/o	1,1 S-91-29	22 Mar 2002 20:13
21	10	11g13822.d	1.	L0203384-03 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 20:48
22	11	11g13823.d	1.	L0203384-04 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 21:23
23	12	11g13824.d	1.	L0203384-05 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 21:57
24	13	11g13825.d	1.	L0203384-06 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 22:32
25	14	11g13826.d	1.	L0203384-07 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 23:06
26	15	11g13827.d	1.	L0203384-08 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 23:41
27	16	11g13828.d	1.	L0203384-09 A 5ML pH<2	1,1 S-91-29	23 Mar 2002 00:15
28	17	11g13829.d	1.	WG114936-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	23 Mar 2002 00:50
29	18	11g13830.d	1.	WG115005-01 WATER BLANK 5ML ✓	1,1 S-91-29	23 Mar 2002 01:25
30	19	11g13831.d	1.	WG115005-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	23 Mar 2002 01:59
31	20	11g13832.d	5.	WG115005-03 L0203377-01 A 5... RR c/o	17,5 S-91-29 TCLP...	23 Mar 2002 02:34
32	21	11g13833.d	5.	WG115005-04 L0203377-01 MS ...	17,5 S-91-(30,29)...	23 Mar 2002 03:08
33	22	11g13834.d	5.	WG115005-05 L0203377-01 MSD...	17,5 S-91-(30,29)...	23 Mar 2002 03:43
34	23	11g13835.d	5.	L0203382-01 A 5ML pH=5 5X	17,5 S-91-29 TCLP...	23 Mar 2002 04:18
35	24	11g13836.d	5.	L0203382-02 A 5ML pH=5 5X	17,5 S-91-29 TCLP...	23 Mar 2002 04:52
36	25	11g13837.d	5.	L0203382-03 A 5ML pH<2 5X	1,5 S-91-29	23 Mar 2002 05:27
37	26	11g13838.d	1.	WG114936-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	23 Mar 2002 06:01

REANALYSIS	FILE #
L0203374-02	11G13818

VOA - GC

Date: 3/21/02 **Analyst:** CBN **Method:** 8021 8015 602

Instrument: HP11 **Work Group:** WG 114950 05

	Analyst
Initial Calibration	✓
Average RF	~~NA~~ ✓
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	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: JS 3/22/02

Secondary Reviewers Initials & Date Checked: CBN 3/22/02

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 3/22/02 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 114938

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 3/25/02

Secondary Reviewers Initials & Date Checked: CBN 3/25/02

_____ • 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: _____

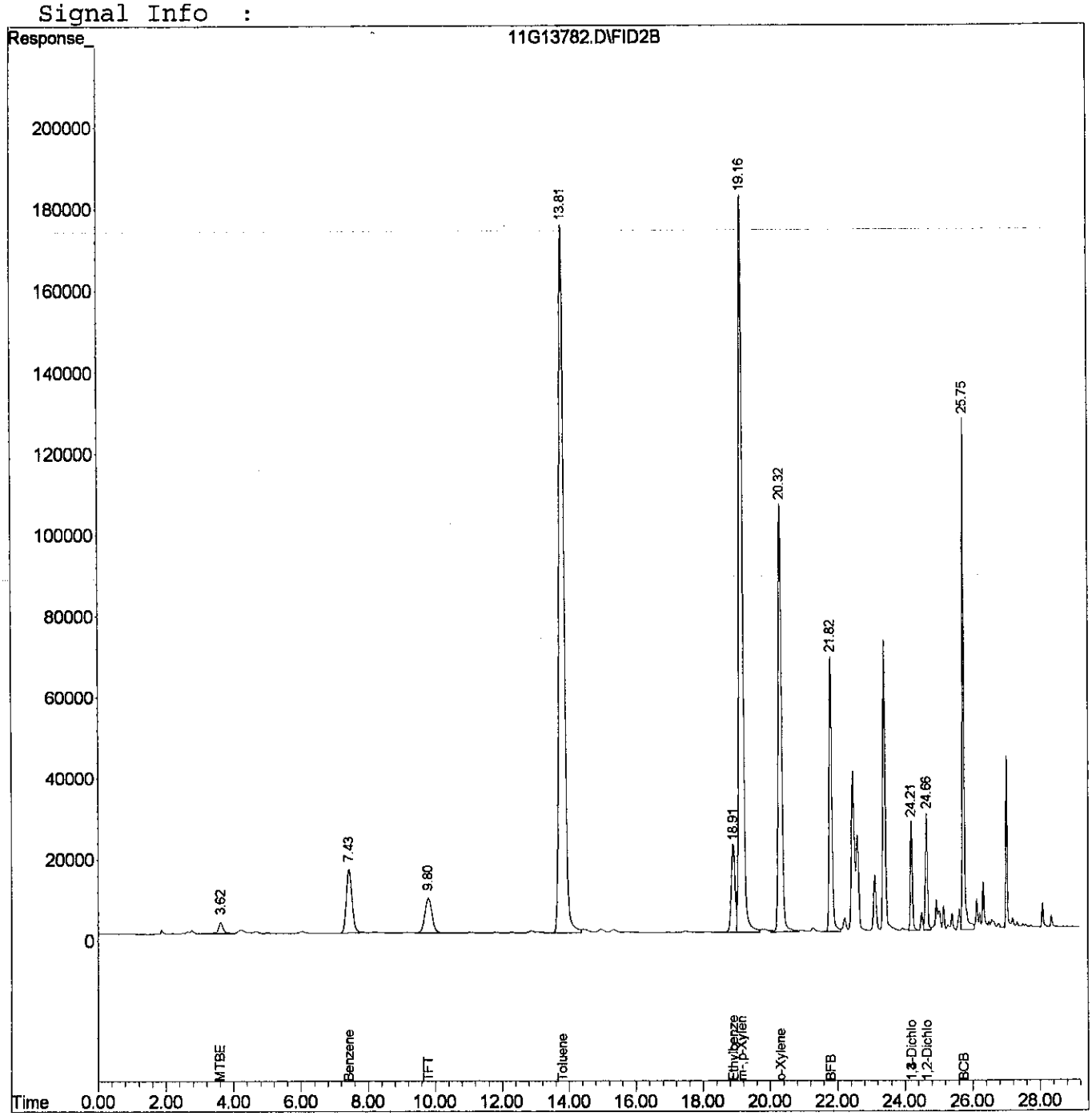
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\1\DATA\032102\11G13782.D Vial: 6
Acq On : 21 Mar 2002 6:04 pm Operator: CBN
Sample : L0203380-01 A 100X 5ML pH<2 Inst : HP11
Misc : 1,100 S-91-29 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Mar 21 18:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13782.D Vial: 6
Acq On : 21 Mar 2002 6:04 pm Operator: CBN
Sample : L0203380-01 A 100X 5ML pH<2 Inst : HP11
Misc : 1,100 S-91-29 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Mar 21 18:34 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.80	1302888	32.0277 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 106.76%
9) S BFB	21.82	3746110	30.5080 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 101.69%
13) S BCB	25.75	4280569	33.5653 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 111.88%
Target Compounds			
1) TM MTBE	3.61	303069	564.2670 UG/L
2) TM Benzene	7.43	1896674	1483.9286 UG/L
4) TM Toluene	13.81	18310553	14536.2877 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.92	1677800	1462.8217 UG/L
7) TM m-,p-Xylene	19.16	14170082	10324.5727 UG/L
8) TM o-Xylene	20.32	7357902	6123.4287 UG/L
10) T 1,3-Dichlorobenzene	24.21	1109439	~~928.1086 UG/L~~
11) T 1,4-Dichlorobenzene	24.21	1109439	~~893.1814 UG/L~~
12) T 1,2-Dichlorobenzene	24.66	1216420	~~1140.1005 UG/L~~

(f) RT Delta > 1/2 Window (m) manual int

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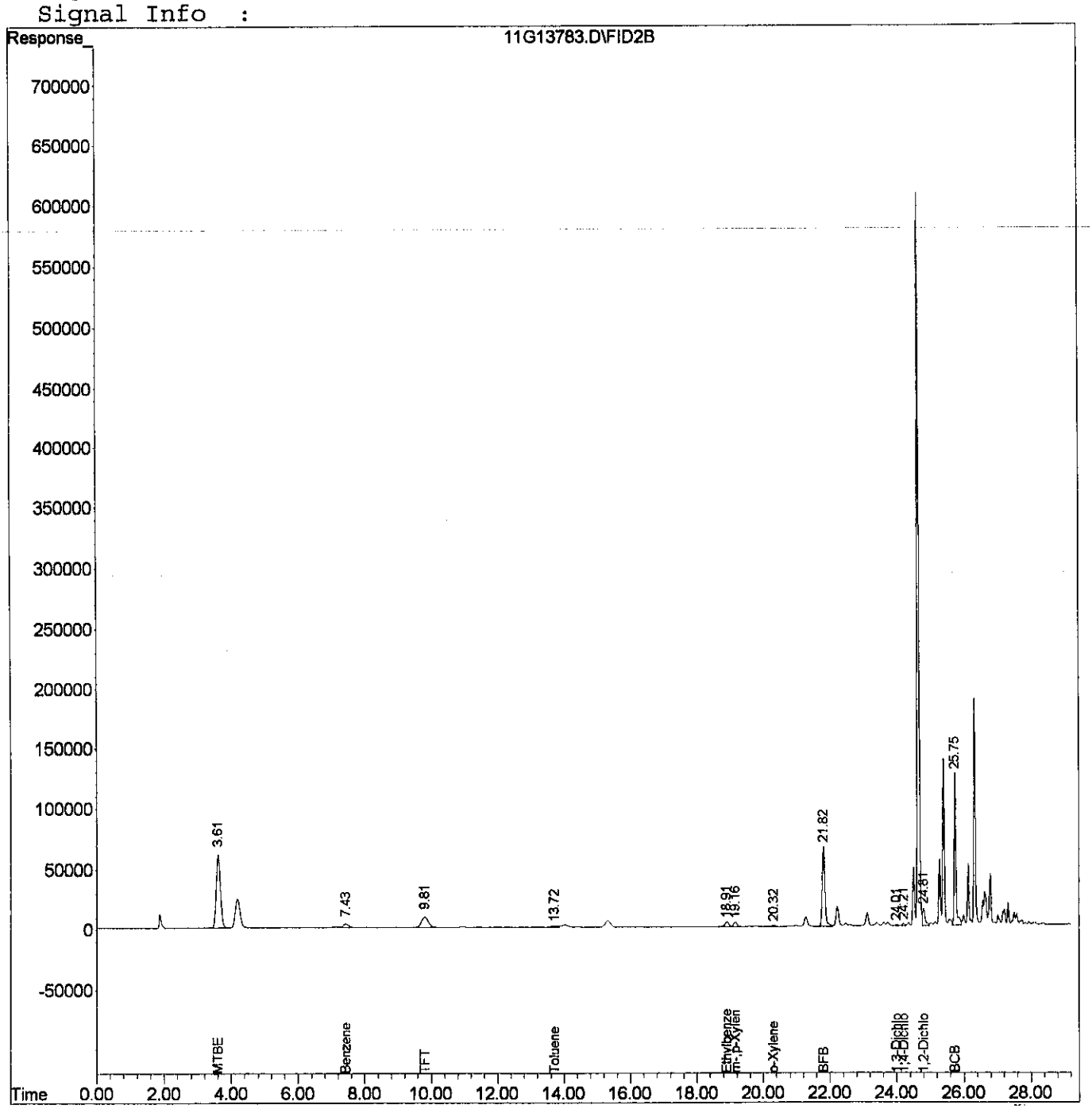
Data File : C:\HPCHEM\1\DATA\032102\11G13783.D Vial: 7
Acq On : 21 Mar 2002 6:39 pm Operator: CBN
Sample : L0203380-02 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 19:08 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13783.D Vial: 7
Acq On : 21 Mar 2002 6:39 pm Operator: CBN
Sample : L0203380-02 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 19:08 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

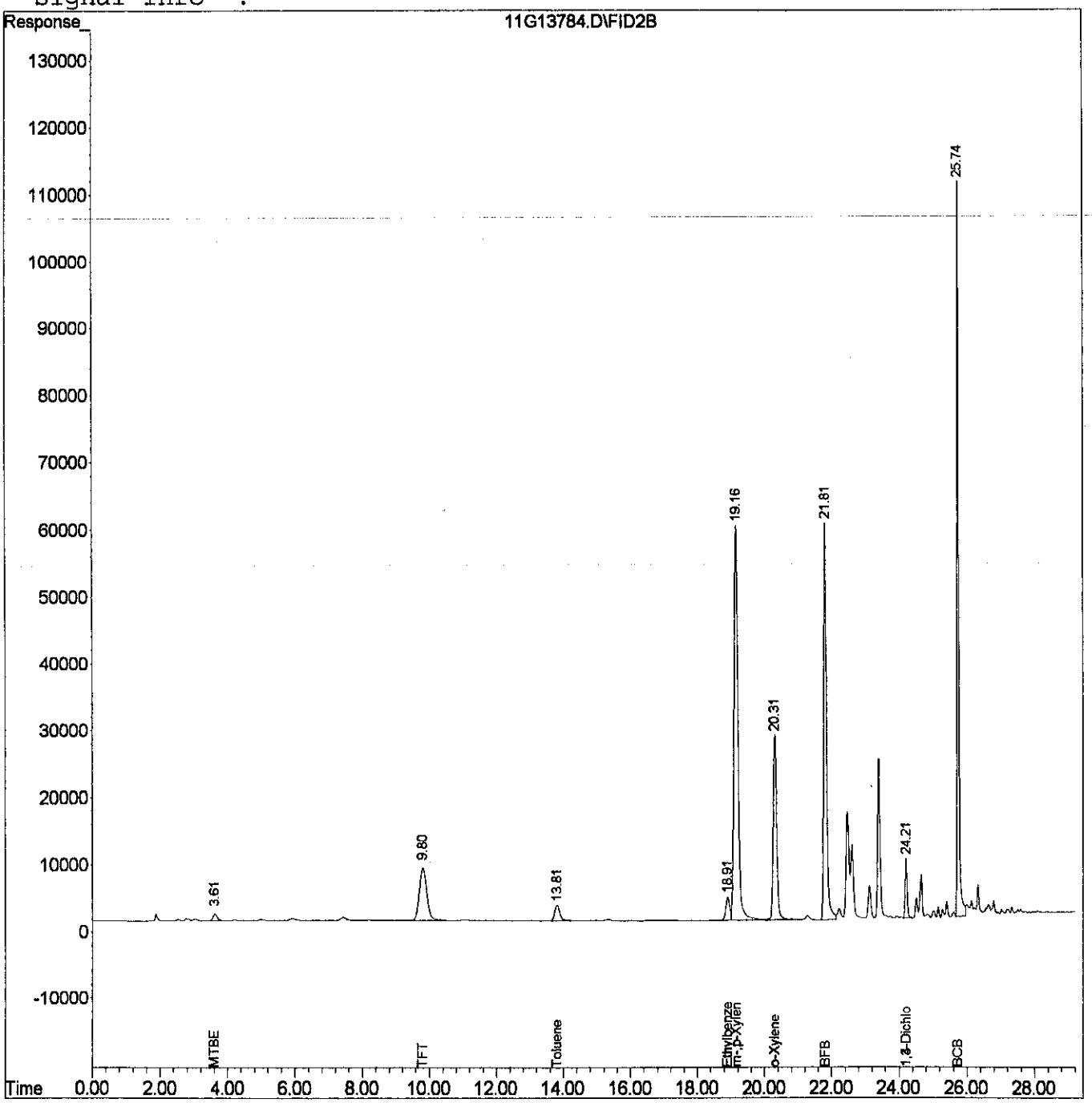
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.81	1391844	34.2144 UG/L ✓
Spiked Amount 30.0000 Range 70 - 130		Recovery	= 114.05%
9) S BFB	21.82	3707859	30.1965 UG/L
Spiked Amount 30.0000 Range 70 - 130		Recovery	= 100.66%
13) S BCB	25.75	4294685	33.6759 UG/L
Spiked Amount 30.0000 Range 37 - 137		Recovery	= 112.25%
Target Compounds			
1) TM MTBE	3.61✓	5559441	103.5081 UG/L
2) TM Benzene	7.43✓	377493	2.9535 UG/L
4) TM Toluene	13.72	222648	~~1.7675 UG/L~~
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.92✓	358880	3.1290 UG/L
7) TM m-,p-Xylene	19.17✓	312995	2.2805 UG/L
8) TM o-Xylene	20.32✓	100248	0.8343 UG/L F
10) T 1,3-Dichlorobenzene	24.01	83941	~~0.7022 UG/L~~
11) T 1,4-Dichlorobenzene	24.21	91997	~~0.7406 UG/L~~
12) T 1,2-Dichlorobenzene	24.81	768150	~~7.1996 UG/L~~

Data File : C:\HPCHEM\1\DATA\032102\11G13784.D Vial: 8
Acq On : 21 Mar 2002 7:14 pm Operator: CBN
Sample : L0203380-03 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 19:43 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13784.D Vial: 8
Acq On : 21 Mar 2002 7:14 pm Operator: CBN
Sample : L0203380-03 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 19:43 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

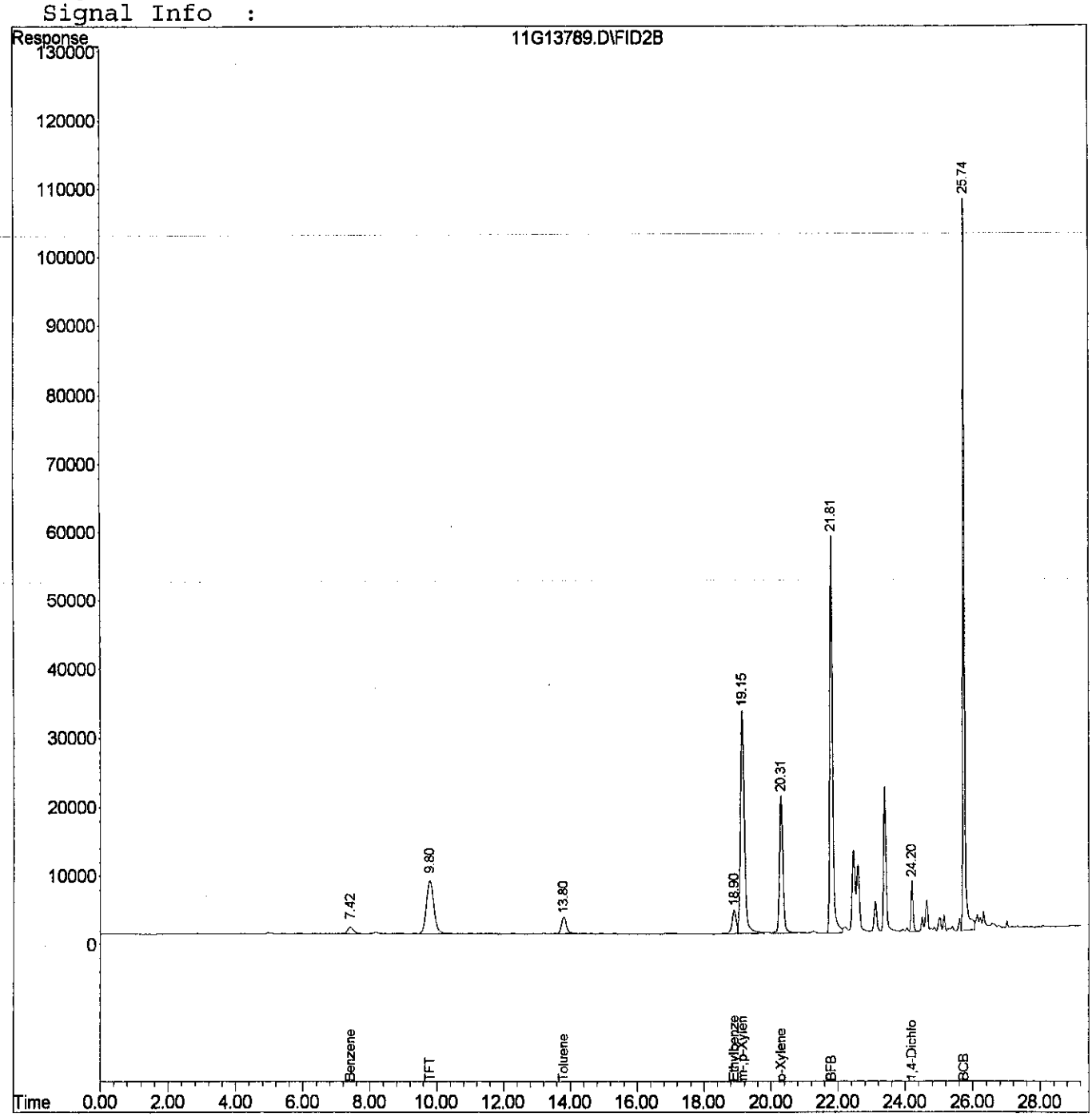
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.81	1233981	30.3338 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 101.11%
9) S BFB	21.82	3366340	27.4152 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 91.38%
13) S BCB	25.75	3498302	27.4313 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 91.44%
Target Compounds			
1) TM MTBE	3.61	91784	1.7089 UG/L
2) TM Benzene	7.42	59012	<MDL UG/L
4) TM Toluene	13.81	259984	2.0639 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.91	272323	2.3743 UG/L
7) TM m-,p-Xylene	19.16	4797353	34.9544 UG/L
8) TM o-Xylene	20.32	1968326	16.3809 UG/L
10) T 1,3-Dichlorobenzene	24.21	369214	~~3.0887 UG/L~~
11) T 1,4-Dichlorobenzene	24.21	369214	~~2.9725 UG/L~~
12) T 1,2-Dichlorobenzene	24.82	33793	<MDL UG/L

Data File : C:\HPCHEM\1\DATA\032102\11G13789.D Vial: 13
Acq On : 21 Mar 2002 10:07 pm Operator: CBN
Sample : L0203380-04 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 22:36 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13789.D Vial: 13
Acq On : 21 Mar 2002 10:07 pm Operator: CBN
Sample : L0203380-04 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 22:36 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

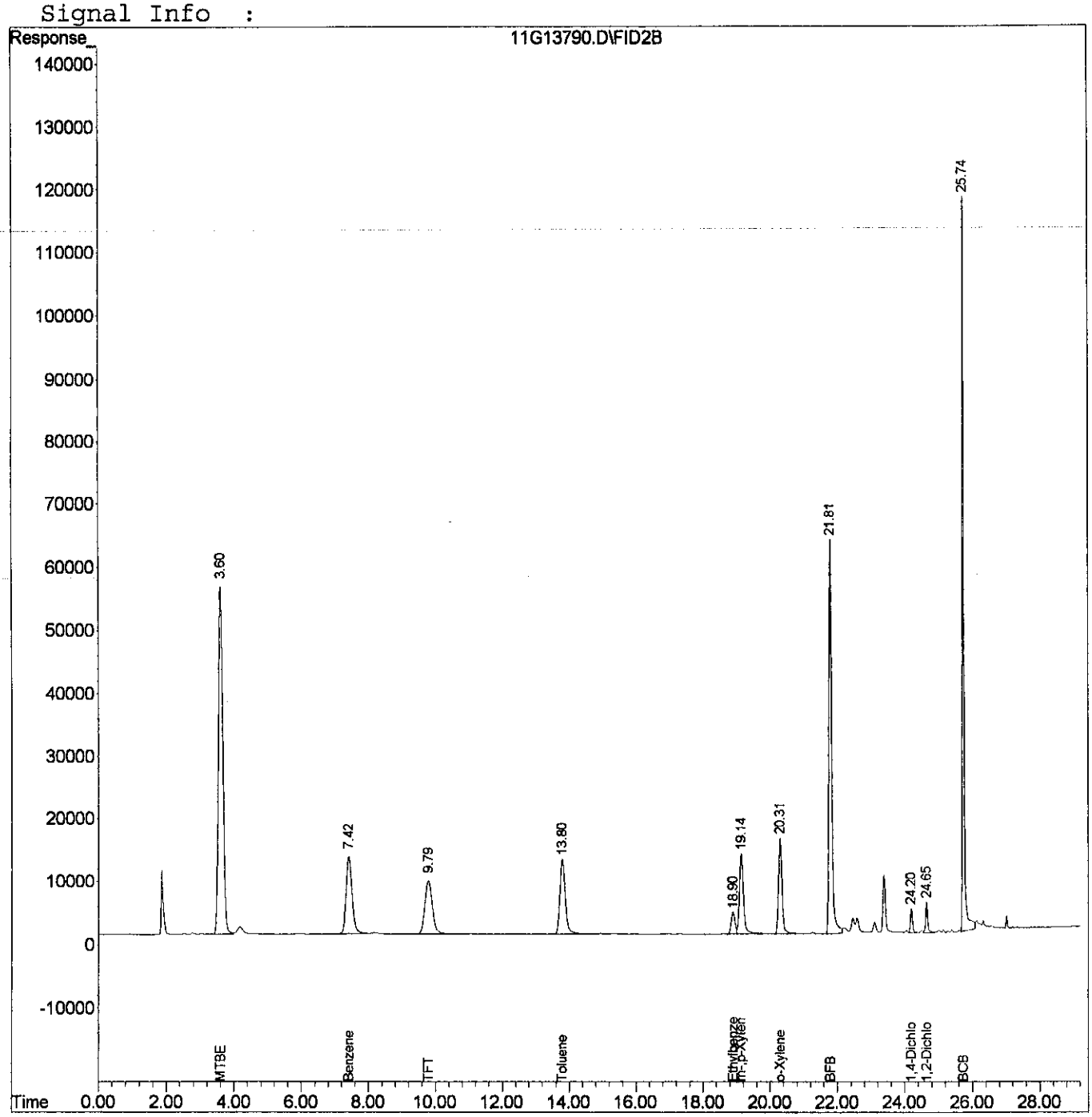
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.80	1212620	29.8087 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.36%
9) S BFB	21.81	3316723	27.0111 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 90.04%
13) S BCB	25.74	3579263	28.0661 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 93.55%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.42	125508	0.9820 UG/L F
4) TM Toluene	13.81	273992	2.1752 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.91	298231	2.6002 UG/L
7) TM m-,p-Xylene	19.16	2685840	19.5695 UG/L
8) TM o-Xylene	20.31	1452296	12.0864 UG/L
10) T 1,3-Dichlorobenzene	24.05	24264	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.21	327767	~~2.6388 UG/L~~
12) T 1,2-Dichlorobenzene	24.77	21014	<MDL UG/L

200

Data File : C:\HPCHEM\1\DATA\032102\11G13790.D Vial: 14
Acq On : 21 Mar 2002 10:41 pm Operator: CBN
Sample : L0203380-05 A 50X 5ML pH<2 Inst : HP11
Misc : 1,50 S-91-29 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Mar 21 23:11 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



201

Data File : C:\HPCHEM\1\DATA\032102\11G13790.D
Acq On : 21 Mar 2002 10:41 pm
Sample : L0203380-05 A 50X 5ML pH<2
Misc : 1,50 S-91-29
IntFile : autoint1.e
Quant Time: Mar 21 23:11 2002 Quant Results File: 8021W.RES

Vial: 14
Operator: CBN
Inst : HP11
Multiplr: 50.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

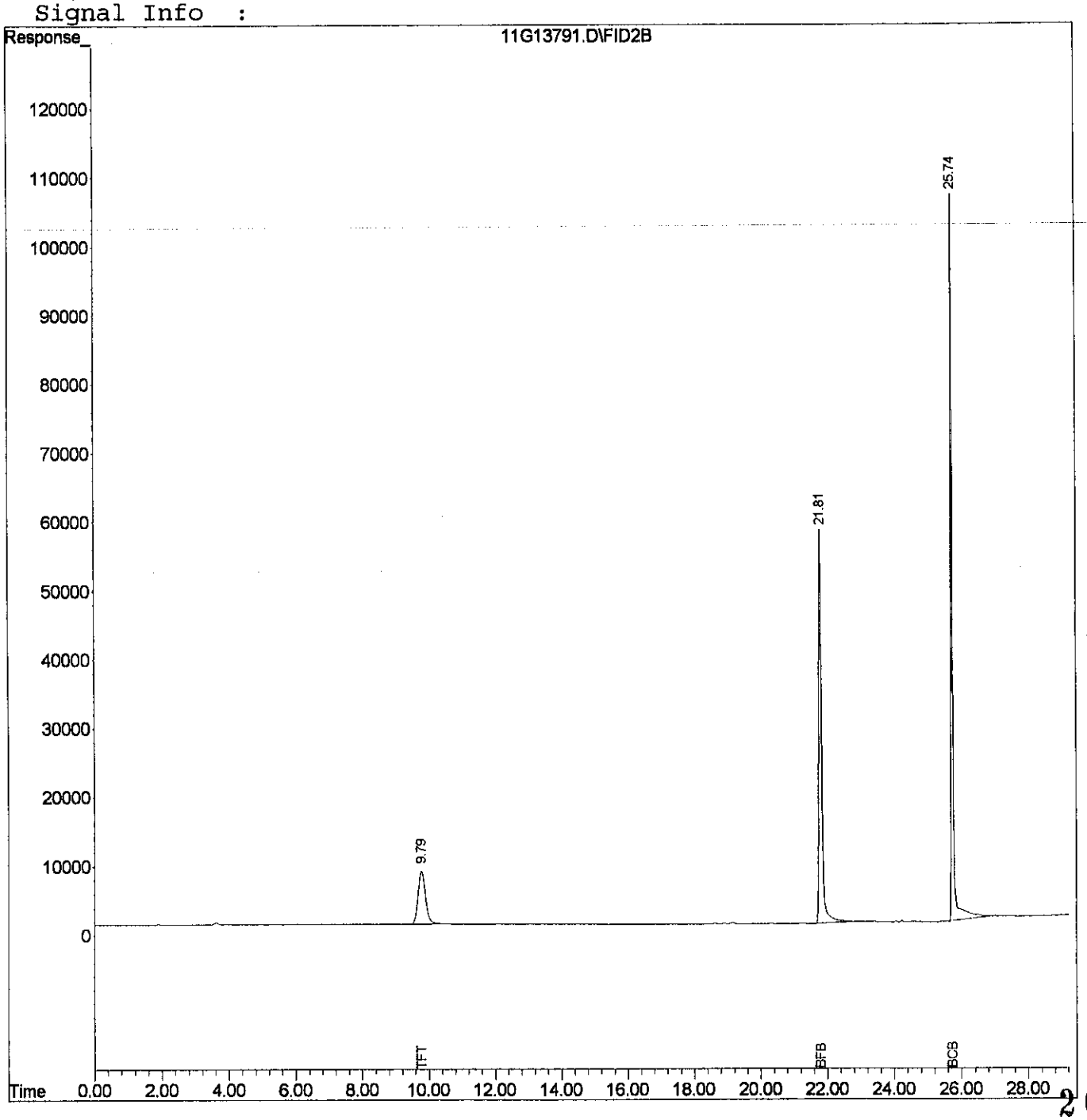
Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.80	1320492	32.4604 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 108.20%
9) S BFB			21.81	3592866	29.2600 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 97.53%
13) S BCB			25.74	3812271	29.8932 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 99.64%
Target Compounds					
1) TM MTBE			3.60	5049790	4700.9587 UG/L
2) TM Benzene			7.42	1512239	591.5764 UG/L
4) TM Toluene			13.80	1346753	534.5767 UG/L
5) TM Chlorobenzene			0.00	0	N.D. UG/L
6) TM Ethylbenzene			18.90	265508	115.7440 UG/L
7) TM m-,p-Xylene			19.15	1054994	384.3438 UG/L
8) TM o-Xylene			20.31	1096917	456.4407 UG/L
10) T 1,3-Dichlorobenzene			24.05	8028	~~3.3580 UG/L~~
11) T 1,4-Dichlorobenzene			24.20	161046	~~64.8269 UG/L~~
12) T 1,2-Dichlorobenzene			24.66	200154	~~93.7982 UG/L~~

Data File : C:\HPCHEM\1\DATA\032102\11G13791.D Vial: 15
Acq On : 21 Mar 2002 11:16 pm Operator: CBN
Sample : L0203380-06 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 23:45 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



203

Data File : C:\HPCHEM\1\DATA\032102\11G13791.D Vial: 15
Acq On : 21 Mar 2002 11:16 pm Operator: CBN
Sample : L0203380-06 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 23:45 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

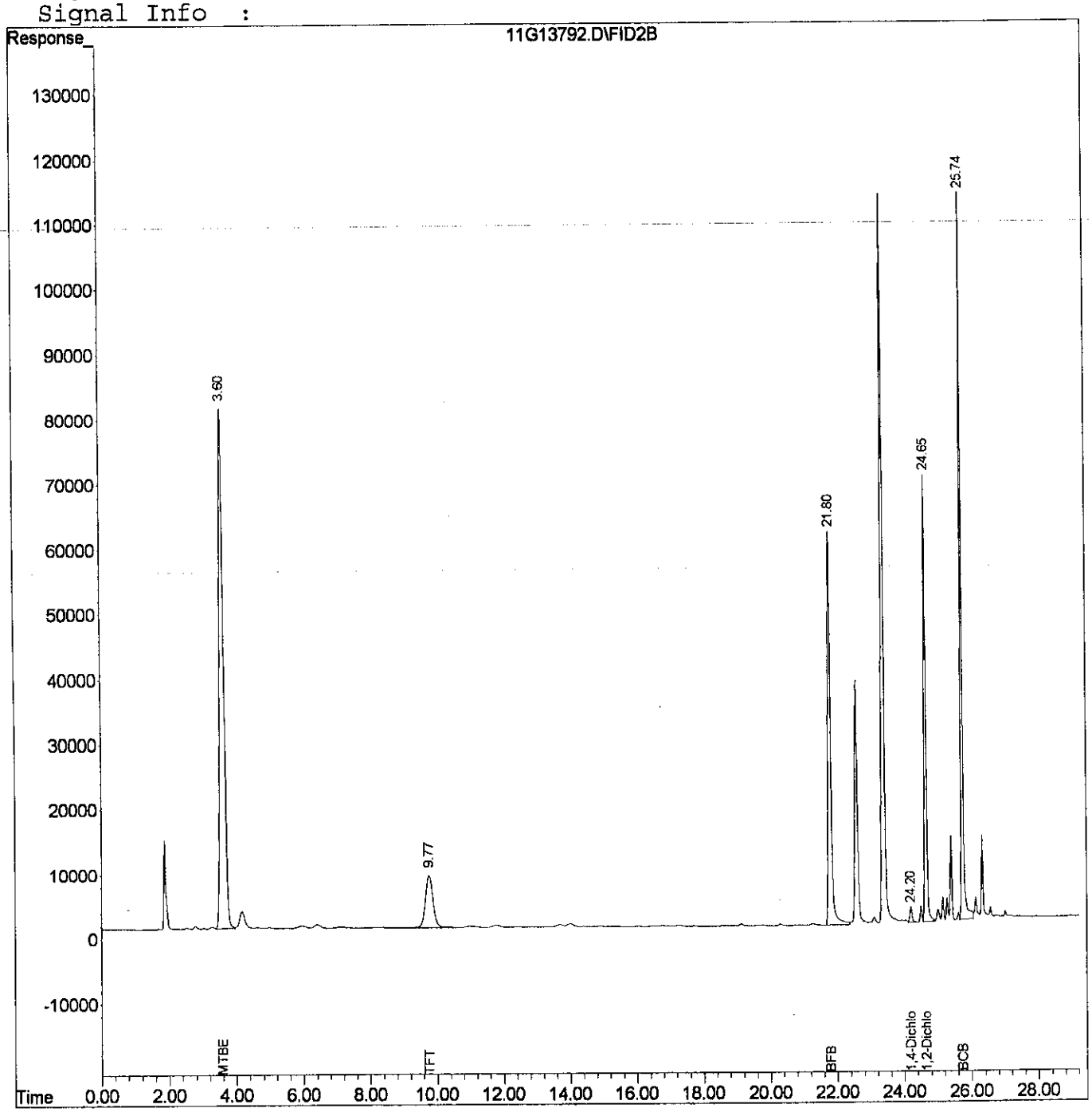
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.79	1206782	29.6652 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 98.88%
9) S BFB	21.81	3375808	27.4923 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 91.64%
13) S BCB	25.74	3734977	29.2871 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 97.62%
Target Compounds			
1) TM MTBE	3.61	23840	<MDL UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	0.00	0	N.D. UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	24.24	10443	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.24	10443	<MDL UG/L
12) T 1,2-Dichlorobenzene	0.00	0	N.D. UG/L

Data File : C:\HPCHEM\1\DATA\032102\11G13792.D
Acq On : 21 Mar 2002 11:51 pm
Sample : L0203380-07 A 5ML pH<2
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 0:20 2002 Quant Results File: 8021W.RES

Vial: 16
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



205

Data File : C:\HPCHEM\1\DATA\032102\11G13792.D Vial: 16
Acq On : 21 Mar 2002 11:51 pm Operator: CBN
Sample : L0203380-07 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 0:20 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

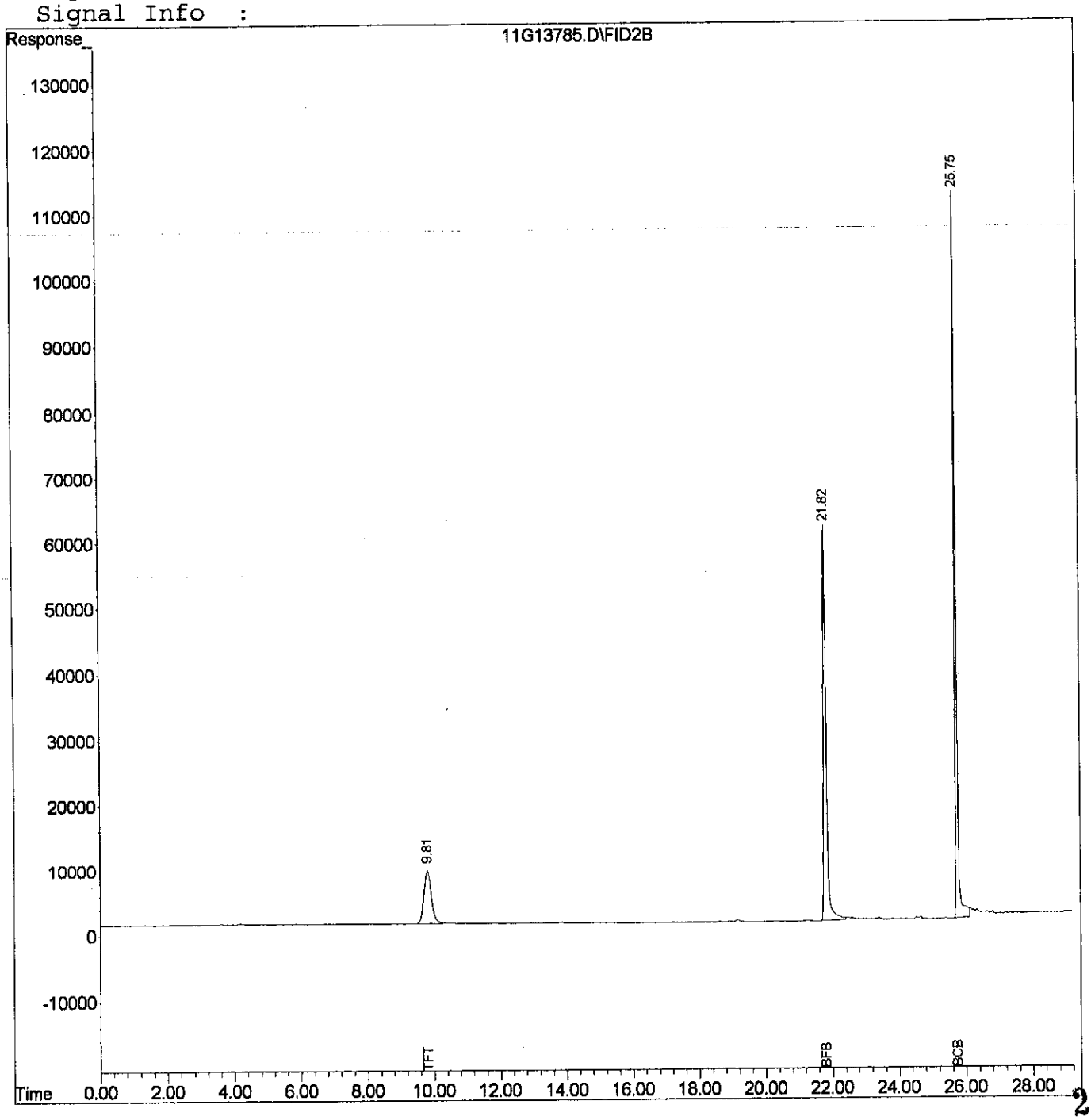
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.77	1294510	31.8217 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 106.07%
9) S BFB			21.80	3511135	28.5944 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 95.31%
13) S BCB			25.74	3640465	28.5460 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 95.15%
Target Compounds					
1) TM MTBE			3.60 ✓	7289363	135.7165 UG/L
2) TM Benzene			0.00	0	N.D. UG/L
4) TM Toluene			13.69	47668	<MDL UG/L
5) TM Chlorobenzene			0.00	0	N.D. UG/L
6) TM Ethylbenzene			19.14	21707	<MDL UG/L
7) TM m-,p-Xylene			19.14	21707	<MDL UG/L
8) TM o-Xylene			0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene			24.05	19258	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.20	114878	0 ~~.9249 UG/L~~
12) T 1,2-Dichlorobenzene			24.66	2601269	24 ~~.3806 UG/L~~

206

Data File : C:\HPCHEM\1\DATA\032102\11G13785.D Vial: 9
Acq On : 21 Mar 2002 7:48 pm Operator: CBN
Sample : WG114905-03 L0203380-08 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 20:18 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



207

Data File : C:\HPCHEM\1\DATA\032102\11G13785.D Vial: 9
Acq On : 21 Mar 2002 7:48 pm Operator: CBN
Sample : WG114905-03 L0203380-08 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 20:18 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.81	1287197	31.6420 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 105.47%
9) S BFB	21.82	3554139	28.9446 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 96.48%
13) S BCB	25.75	3693362	28.9608 UG/L
Spiked Amount 30.0000	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	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	19.17	20219	<MDL UG/L
7) TM m-,p-Xylene	19.17	20219	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) T 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) T 1,2-Dichlorobenzene	24.65	18957	<MDL UG/L

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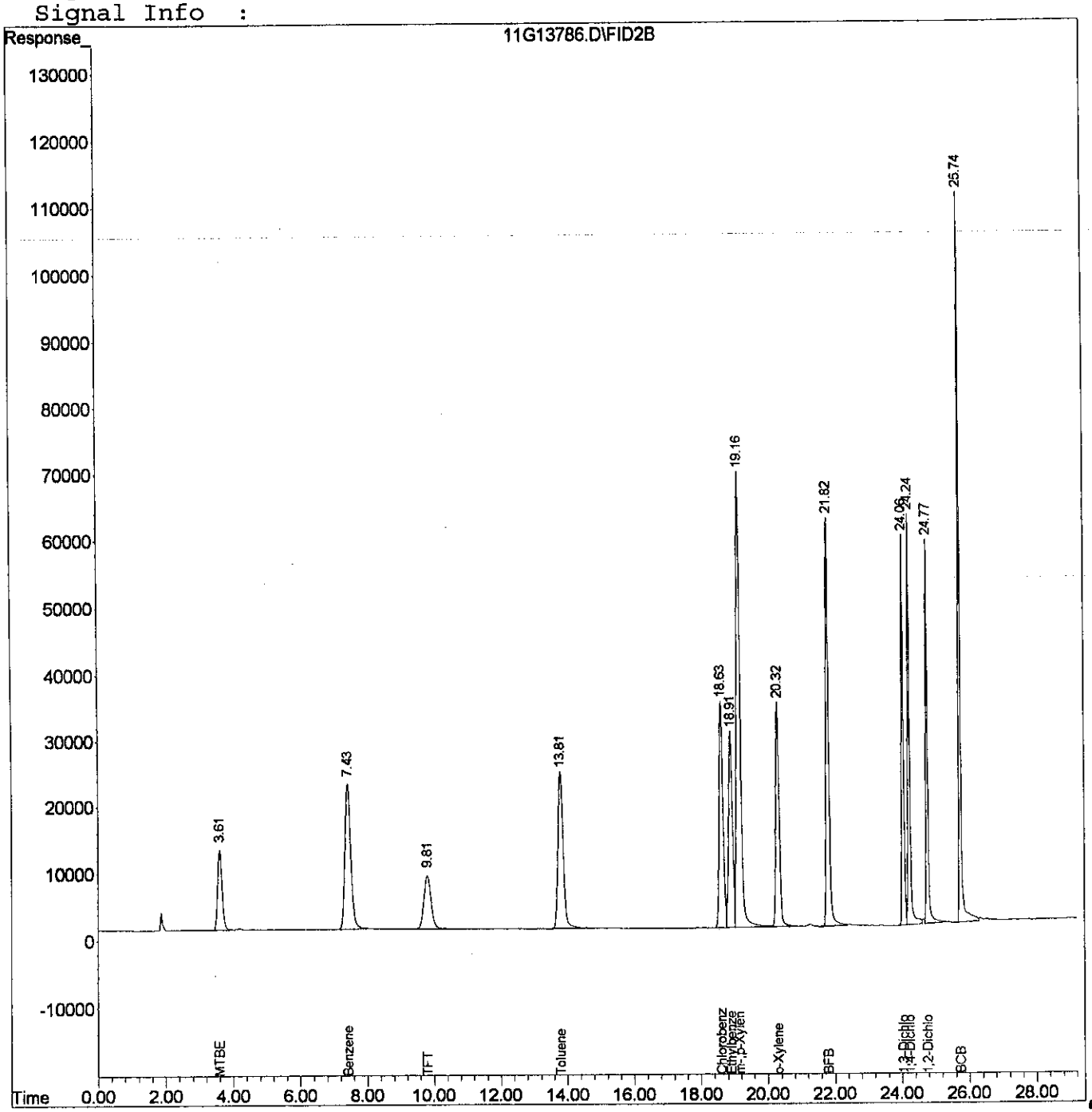
(6) RT Delta > 1/2 Window (m)-manual int

Data File : C:\HPCHEM\1\DATA\032102\11G13786.D Vial: 10
Acq On : 21 Mar 2002 8:23 pm Operator: CBN
Sample : WG114905-04 L0203380-09 A MS 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 20:52 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032102\11G13786.D Vial: 10
Acq On : 21 Mar 2002 8:23 pm Operator: CBN
Sample : WG114905-04 L0203380-09 A MS 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 20:52 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

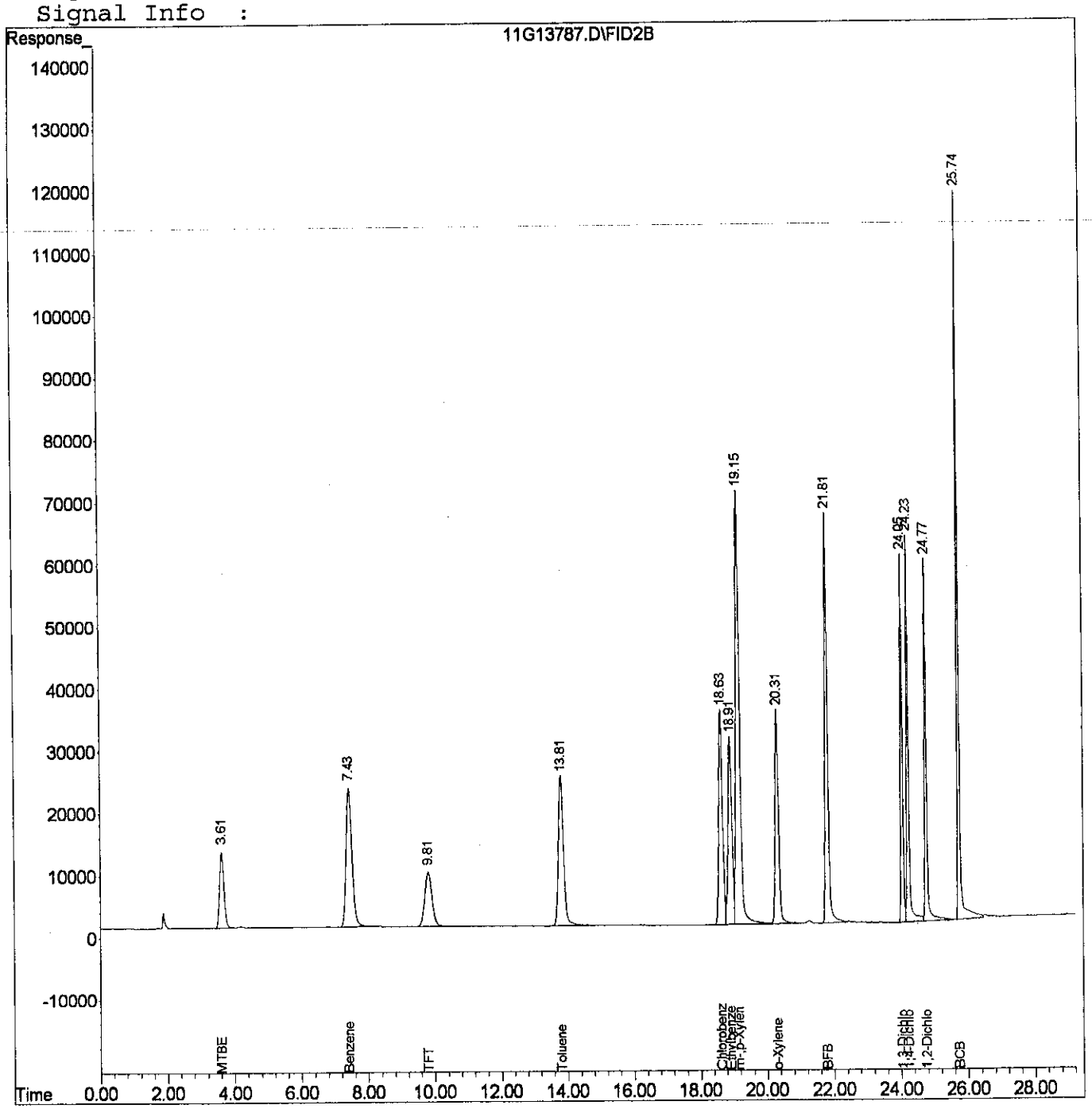
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.81	1212889	29.8153 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.38%
9) S BFB	21.82	3464445	28.2142 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 94.05%
13) S BCB	25.75	3641643	28.5552 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 95.18%
Target Compounds			
1) TM MTBE	3.61	1102336	20.5238 UG/L
2) TM Benzene	7.43	2658355	20.7986 UG/L
4) TM Toluene	13.81	2569559	20.3991 UG/L
5) TM Chlorobenzene	18.64	2626835	19.7705 UG/L
6) TM Ethylbenzene	18.91	2356302	20.5439 UG/L
7) TM m-,p-Xylene	19.16	5600237	40.8043 UG/L
8) TM o-Xylene	20.32	2399571	19.9698 UG/L
10) T 1,3-Dichlorobenzene	24.06	2309298	19.3186 UG/L
11) T 1,4-Dichlorobenzene	24.24	2471294	19.8958 UG/L
12) T 1,2-Dichlorobenzene	24.77	2192235	20.5469 UG/L

Data File : C:\HPCHEM\1\DATA\032102\11G13787.D Vial: 11
Acq On : 21 Mar 2002 8:58 pm Operator: CBN
Sample : WG114905-04 L0203380-10 A MSD 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-(30,29) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 21:27 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032102\11G13787.D Vial: 11
Acq On : 21 Mar 2002 8:58 pm Operator: CBN
Sample : WG114905-04 L0203380-10 A MSD 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-(30,29) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 21:27 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.81	1315853	32.3464 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 107.82%
9) S BFB	21.81	3715847	30.2616 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 100.87%
13) S BCB	25.74	3971343	31.1405 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 103.80%
Target Compounds			
1) TM MTBE	3.61	1122557	20.9003 UG/L
2) TM Benzene	7.43	2705228	21.1653 UG/L
4) TM Toluene	13.81	2617671	20.7810 UG/L
5) TM Chlorobenzene	18.63	2669960	20.0950 UG/L
6) TM Ethylbenzene	18.91	2397713	20.9049 UG/L
7) TM m-,p-Xylene	19.16	5691256	41.4675 UG/L
8) TM o-Xylene	20.32	2435511	20.2689 UG/L
10) T 1,3-Dichlorobenzene	24.05	2344869	19.6162 UG/L
11) T 1,4-Dichlorobenzene	24.24	2547834	20.5120 UG/L
12) T 1,2-Dichlorobenzene	24.77	2300393	21.5606 UG/L

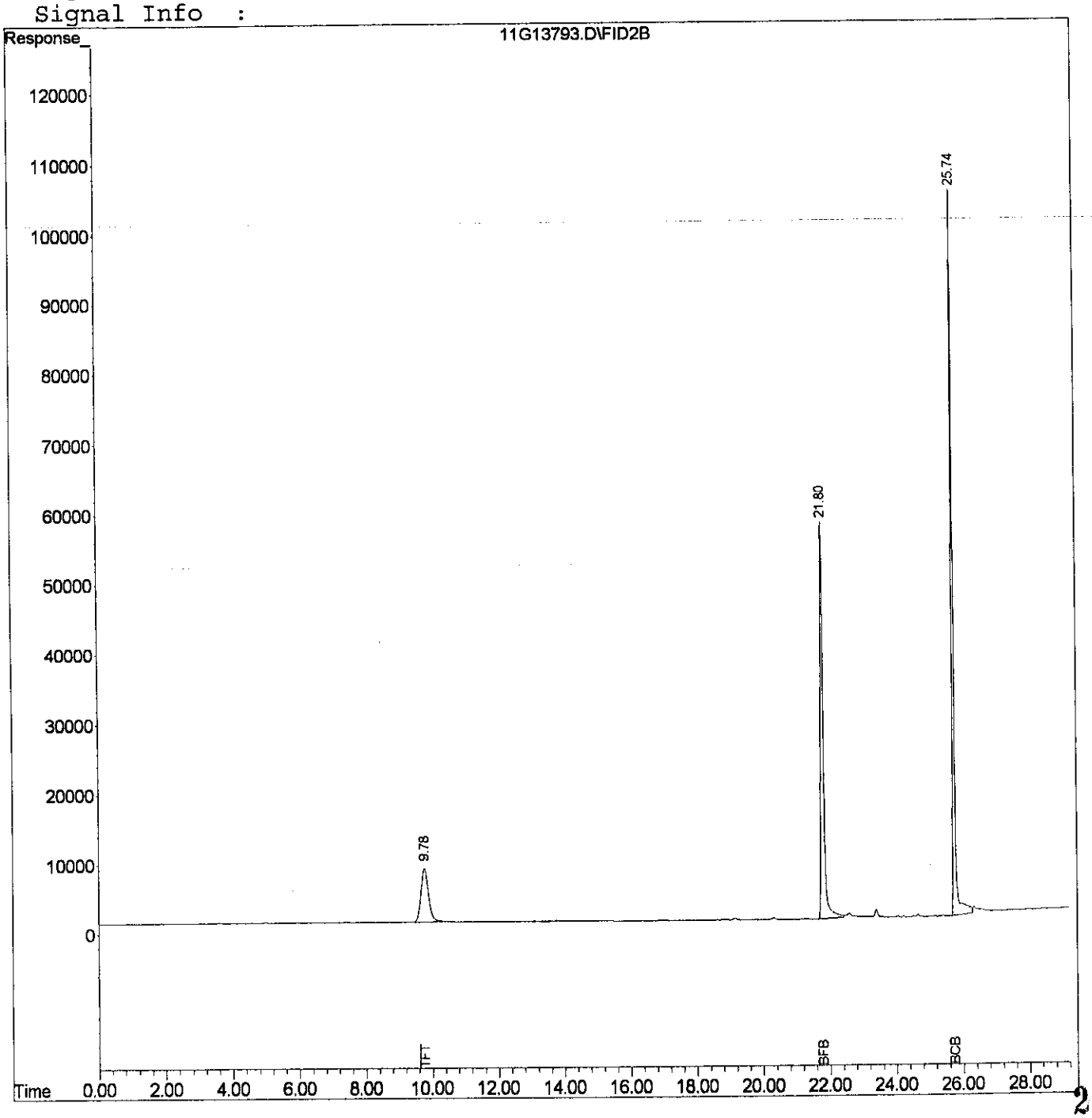
(f)=RT Delta > 1/2 Window (m)=manual int. 212

Data File : C:\HPCHEM\1\DATA\032102\11G13793.D
Acq On : 22 Mar 2002 12:25 am
Sample : L0203380-11 A 5ML pH<2
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 0:55 2002 Quant Results File: 8021W.RES

Vial: 17
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032102\11G13793.D Vial: 17
Acq On : 22 Mar 2002 12:25 am Operator: CBN
Sample : L0203380-11 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 0:55 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

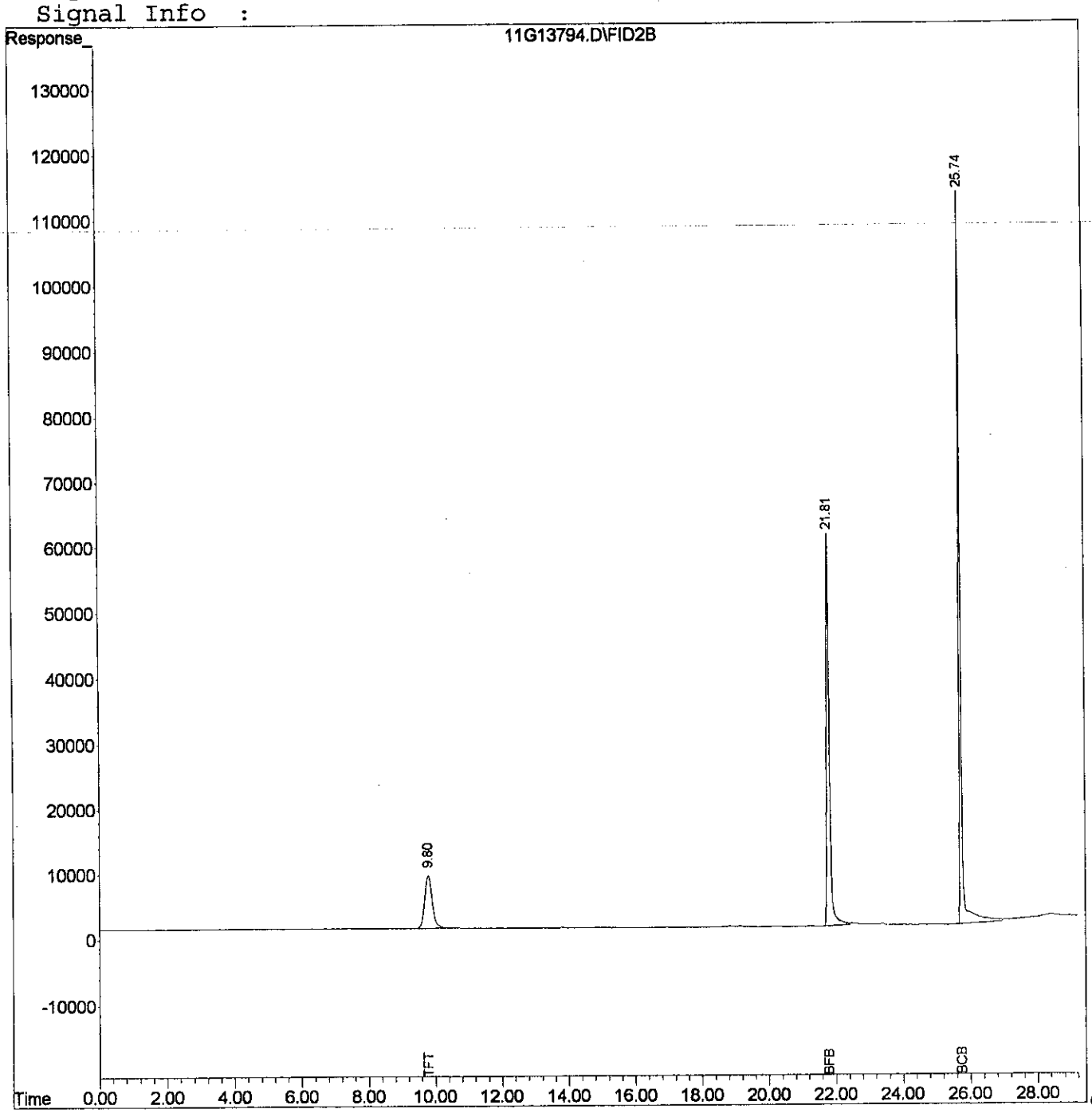
Compound			R.T.	Response	Conc	Units
System Monitoring Compounds						
3) S TFT			9.78	1208659	29.7113	UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 99.04%	
9) S BFB			21.81	3333368	27.1467	UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 90.49%	
13) S BCB			25.74	3563473	27.9423	UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 93.14%	
Target Compounds						
1) TM MTBE			0.00	0	N.D.	UG/L
2) TM Benzene			0.00	0	N.D.	UG/L
4) TM Toluene			0.00	0	N.D.	UG/L
5) TM Chlorobenzene			0.00	0	N.D.	UG/L
6) TM Ethylbenzene			0.00	0	N.D.	UG/L
7) TM m-,p-Xylene			0.00	0	N.D.	UG/L
8) TM o-Xylene			20.31	16474	<MDL	UG/L
10) T 1,3-Dichlorobenzene			0.00	0	N.D.	UG/L
11) T 1,4-Dichlorobenzene			0.00	0	N.D.	UG/L
12) T 1,2-Dichlorobenzene			24.65	16123	<MDL	UG/L

214

Data File : C:\HPCHEM\1\DATA\032102\11G13794.D Vial: 18
Acq On : 22 Mar 2002 1:00 am Operator: CBN
Sample : L0203380-12 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 1:29 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



215

Data File : C:\HPCHEM\1\DATA\032102\11G13794.D Vial: 18
Acq On : 22 Mar 2002 1:00 am Operator: CBN
Sample : L0203380-12 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 1:29 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

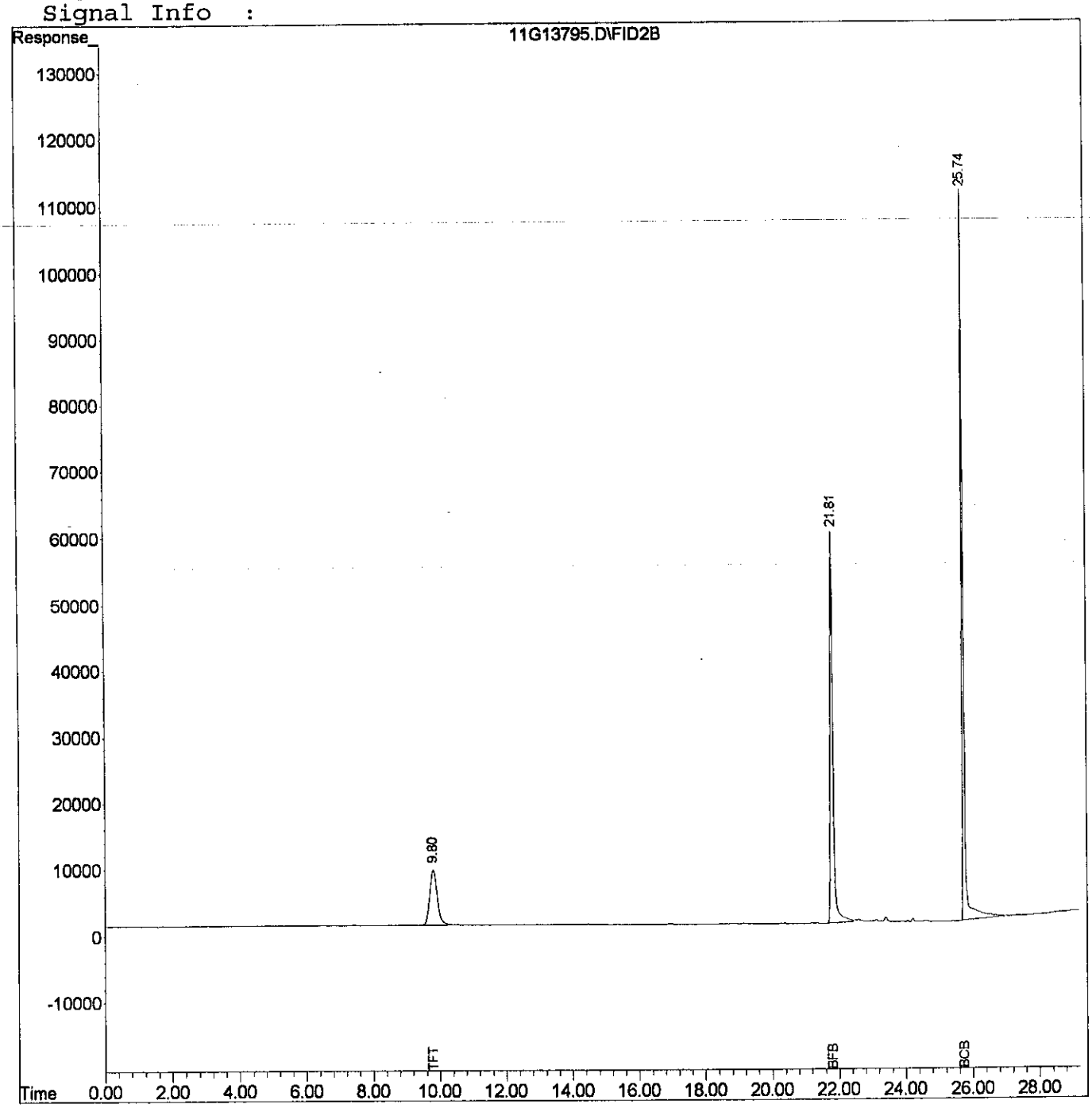
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.80	1278831	31.4363 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 104.79%
9) S BFB	21.81	3529919	28.7474 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 95.82%
13) S BCB	25.74	4062602	31.8561 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 106.19%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	0.00	0	N.D. UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) T 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) T 1,2-Dichlorobenzene	0.00	0	N.D. UG/L

Data File : C:\HPCHEM\1\DATA\032102\11G13795.D
Acq On : 22 Mar 2002 1:34 am
Sample : L0203380-13 A 5ML pH<2
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 2:04 2002 Quant Results File: 8021W.RES

Vial: 19
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



217

Data File : C:\HPCHEM\1\DATA\032102\11G13795.D Vial: 19
Acq On : 22 Mar 2002 1:34 am Operator: CBN
Sample : L0203380-13 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 2:04 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

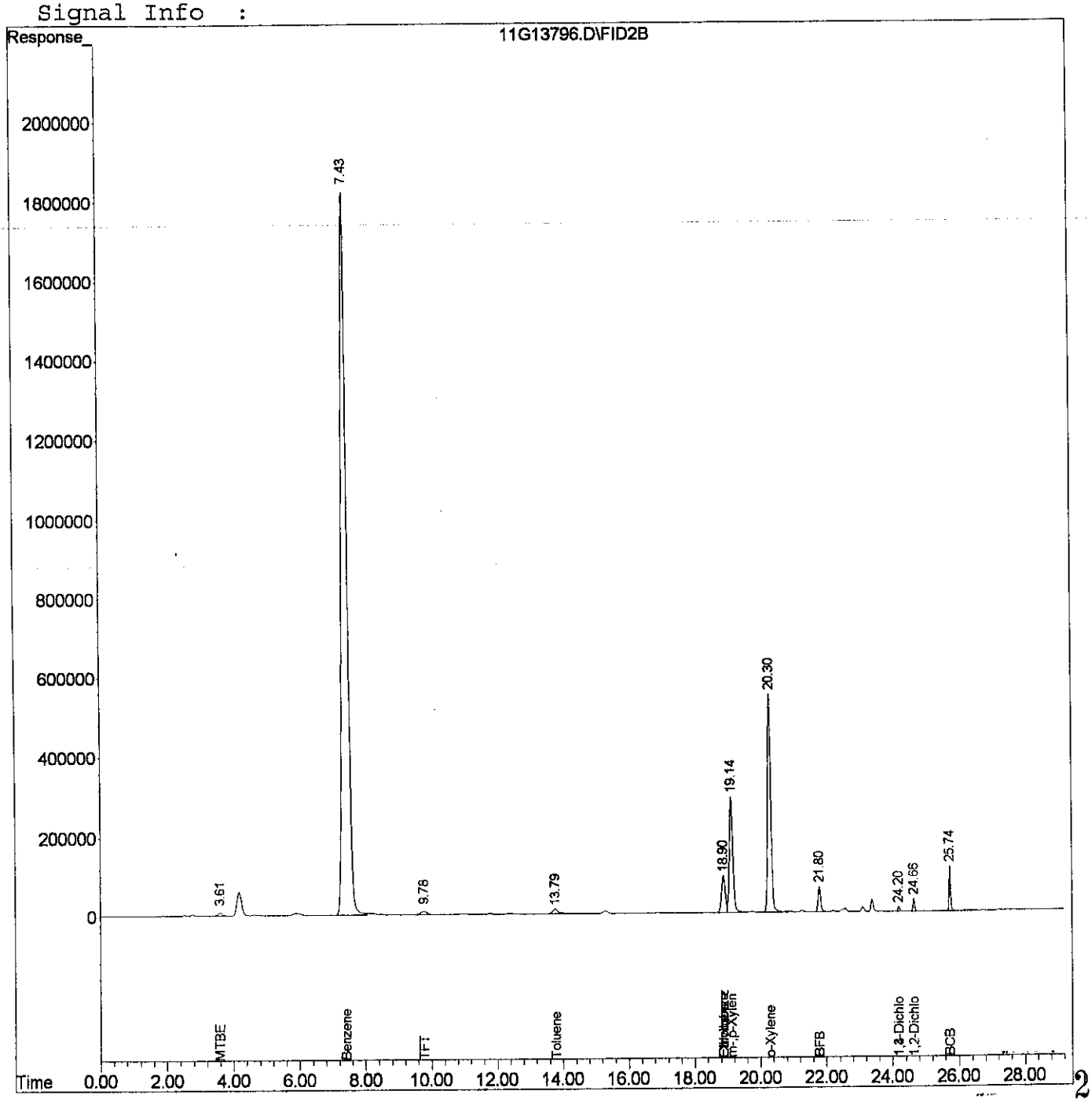
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.81	1307032	32.1295 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 107.10%
9) S BFB	21.81	3479278	28.3350 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 94.45%
13) S BCB	25.74	3927310	30.7952 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 102.65%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	0.00	0	N.D. UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	24.21	20814	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.21	20814	<MDL UG/L
12) T 1,2-Dichlorobenzene	0.00	0	N.D. UG/L

218

Data File : C:\HPCHEM\1\DATA\032102\11G13796.D Vial: 20
Acq On : 22 Mar 2002 2:09 am Operator: CBN
Sample : L0203380-14 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 2:38 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



219

Data File : C:\HPCHEM\1\DATA\032102\11G13796.D
Acq On : 22 Mar 2002 2:09 am
Sample : L0203380-14 A 5ML pH<2
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 2:38 2002 Quant Results File: 8021W.RES

Vial: 20
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.78	1334137	32.7958 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 109.32%
9) S BFB			21.81	3634956	29.6028 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 98.68%
13) S BCB			25.74	3941116	30.9035 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 103.01%
Target Compounds					
1) TM MTBE			3.61 ✓	798029	14.8581 UG/L
2) TM Benzene			7.43 ✓	215021465	1682.2948 UG/L I
4) TM Toluene			13.79 ✓	1768394	14.0388 UG/L
5) TM Chlorobenzene			18.90	7266078	~~54.6870 UG/L~~
6) TM Ethylbenzene			18.90 ✓	7266078	63.3507 UG/L
7) TM m-,p-Xylene			19.14 ✓	22539085	164.2238 UG/L
8) TM o-Xylene			20.31 ✓	38081691	316.9253 UG/L I
10) T 1,3-Dichlorobenzene			24.20	559008	~~4.6764 UG/L~~
11) T 1,4-Dichlorobenzene			24.20	559008	~~4.5004 UG/L~~
12) T 1,2-Dichlorobenzene			24.66	1232347	~~11.5503 UG/L~~

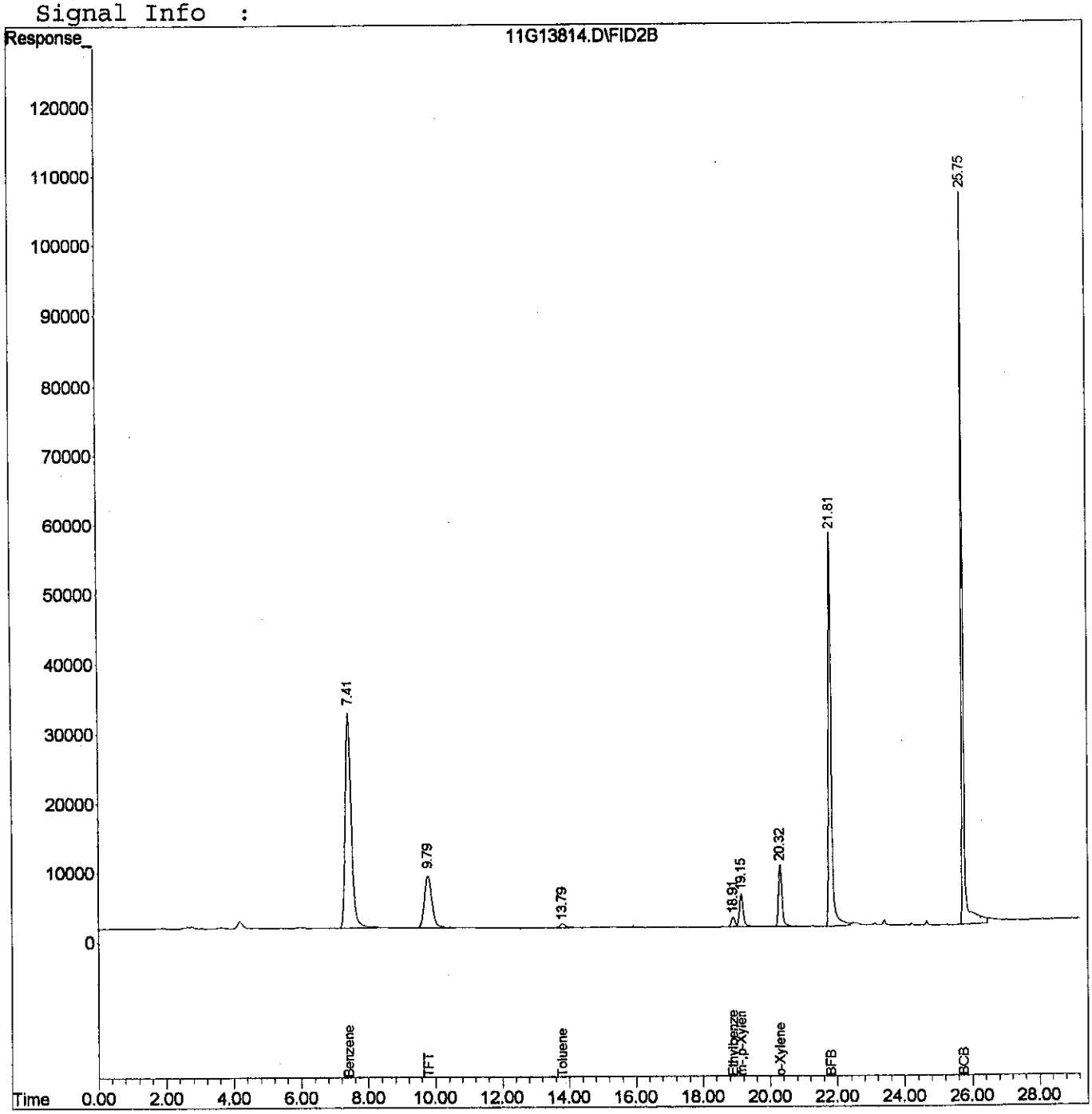
RR @ 50X

220

Data File : C:\HPCHEM\1\DATA\032202\11G13814.D Vial: 2
Acq On : 22 Mar 2002 4:10 pm Operator: CBN
Sample : WG114938-03 L0203380-14 B 5ML pH<2 50X Inst : HP11
Misc : 1,50 S-91-29 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Mar 22 16:40 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032202\11G13814.D Vial: 2
Acq On : 22 Mar 2002 4:10 pm Operator: CBN
Sample : WG114938-03 L0203380-14 B 5ML pH<2 50X Inst : HP11
Misc : 1,50 S-91-29 Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Mar 22 16:40 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.79	1206400	29.6558 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 98.85%
9) S BFB	21.82	3333386	27.1468 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 90.49%
13) S BCB	25.75	3727700	29.2300 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 97.43%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.42 ✓	3870960	1514.2897 UG/L
4) TM Toluene	13.80	78135	31.0147 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.91 ✓	115975	50.5573 UG/L
7) TM m-,p-Xylene	19.15 ✓	389129	141.7633 UG/L
8) TM o-Xylene	20.32 ✓	677214	281.7972 UG/L
10) T 1,3-Dichlorobenzene	24.22	14423	~~6.0329 UG/L~~
11) T 1,4-Dichlorobenzene	24.22	14423	~~5.8058 UG/L~~
12) T 1,2-Dichlorobenzene	24.66	23368	~~10.9509 UG/L~~

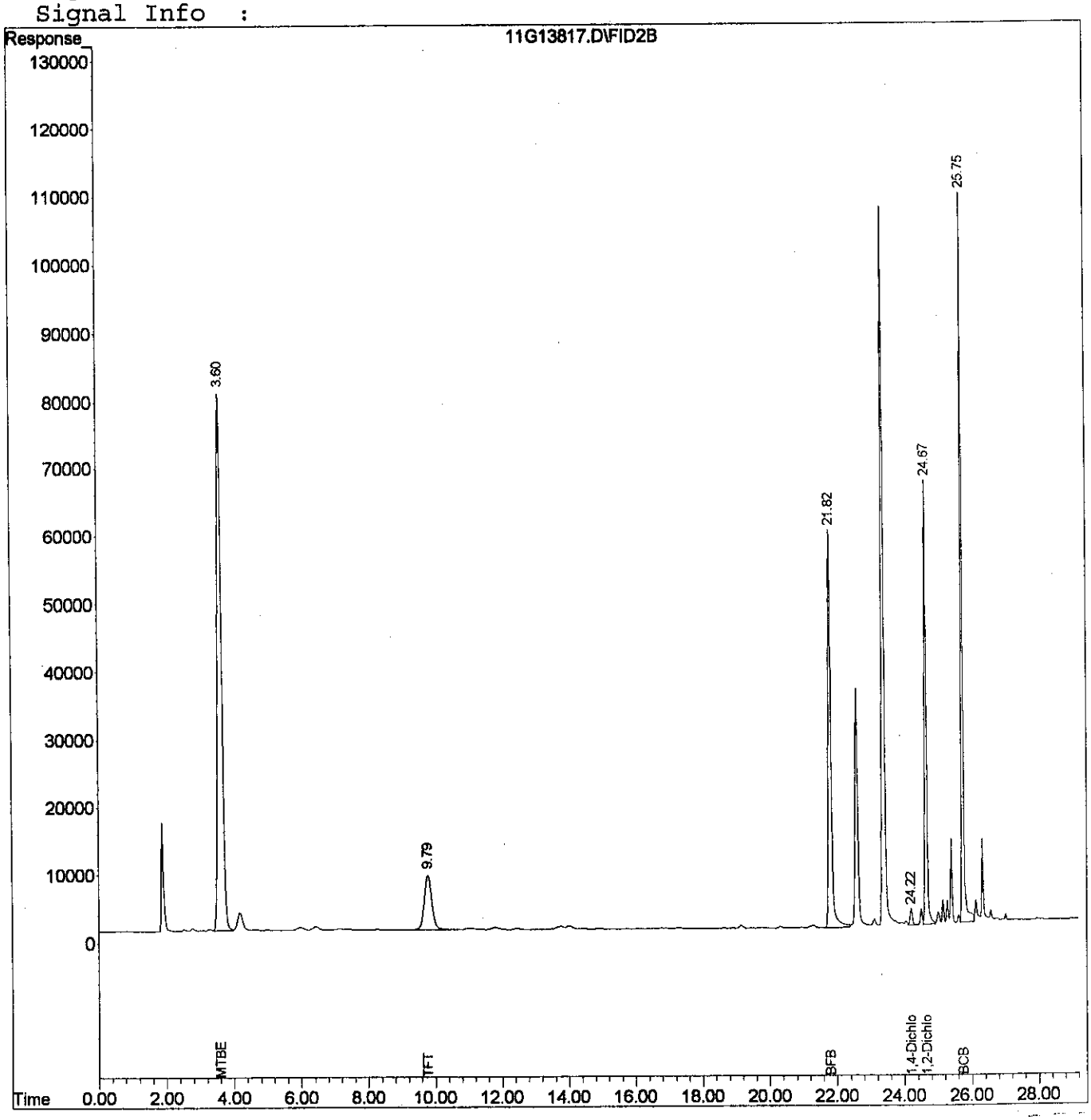
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032202\11G13817.D
Acq On : 22 Mar 2002 5:55 pm
Sample : L0203380-15 B 5ML pH<2
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 18:24 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 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032202\11G13817.D Vial: 5
Acq On : 22 Mar 2002 5:55 pm Operator: CBN
Sample : L0203380-15 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 18:24 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.79	1251956	30.7757 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 102.59%
9) S BFB			21.82	3399252	27.6832 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 92.28%
13) S BCB			25.75	3506100	27.4924 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 91.64%
Target Compounds					
1) TM MTBE			3.61✓	7228803	134.5890 UG/L
2) TM Benzene			0.00	0	N.D. UG/L
4) TM Toluene			13.77	62069	<MDL UG/L
5) TM Chlorobenzene			0.00	0	N.D. UG/L
6) TM Ethylbenzene			19.16	35627	<MDL UG/L
7) TM m-,p-Xylene			19.16	35627	<MDL UG/L
8) TM o-Xylene			20.32	21570	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.06	29698	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.22	118054	0~~.9504 UG/L~~
12) T 1,2-Dichlorobenzene			24.67	2491904	23~~.3556 UG/L~~

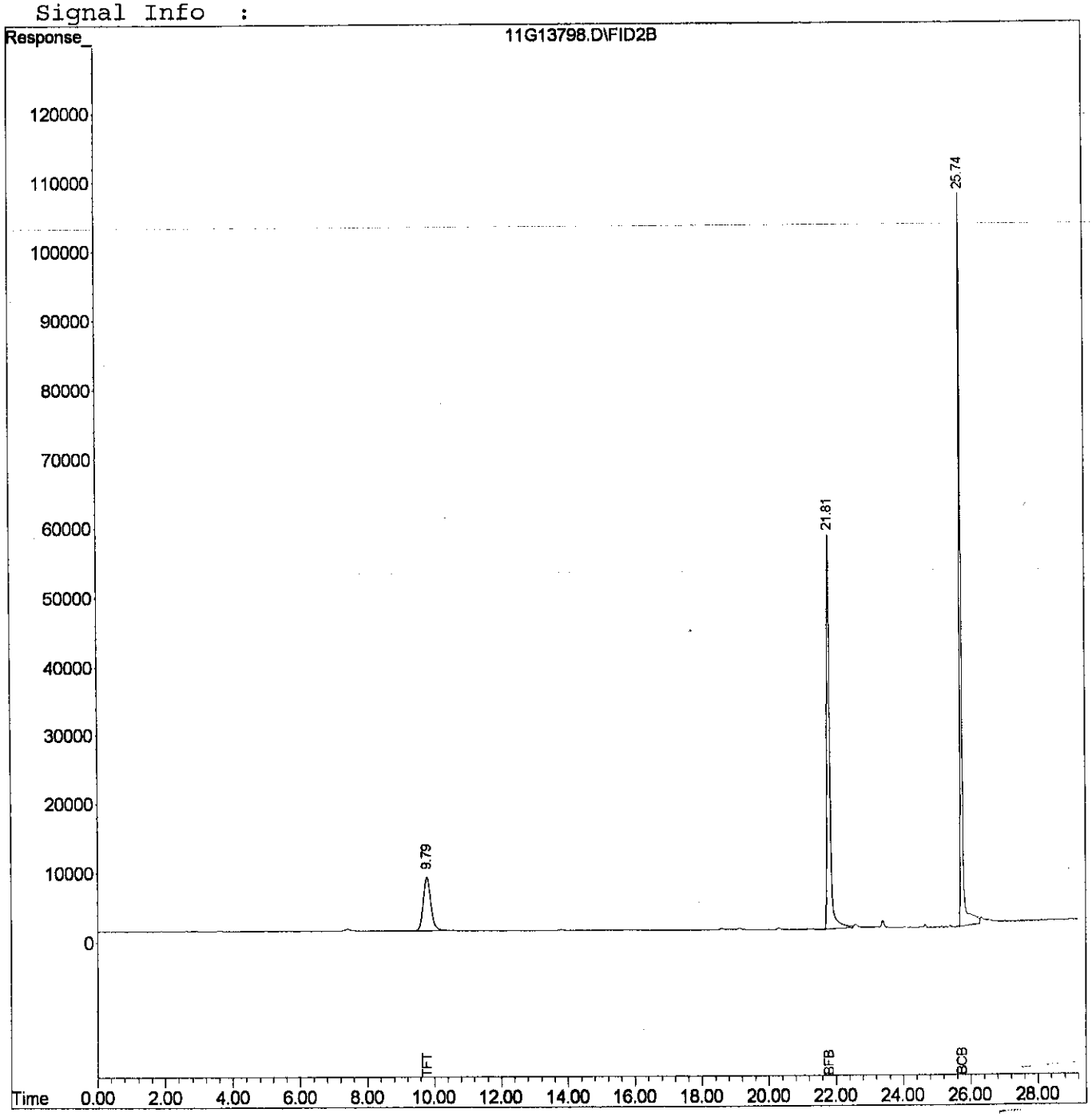
(f)=RT Delta > 1/2 Window (m)=manual int.

224

Data File : C:\HPCHEM\1\DATA\032102\11G13798.D Vial: 22
Acq On : 22 Mar 2002 3:18 am Operator: CBN
Sample : L0203380-16 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 3:48 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



225

Data File : C:\HPCHEM\1\DATA\032102\11G13798.D Vial: 22
Acq On : 22 Mar 2002 3:18 am Operator: CBN
Sample : L0203380-16 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 3:48 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

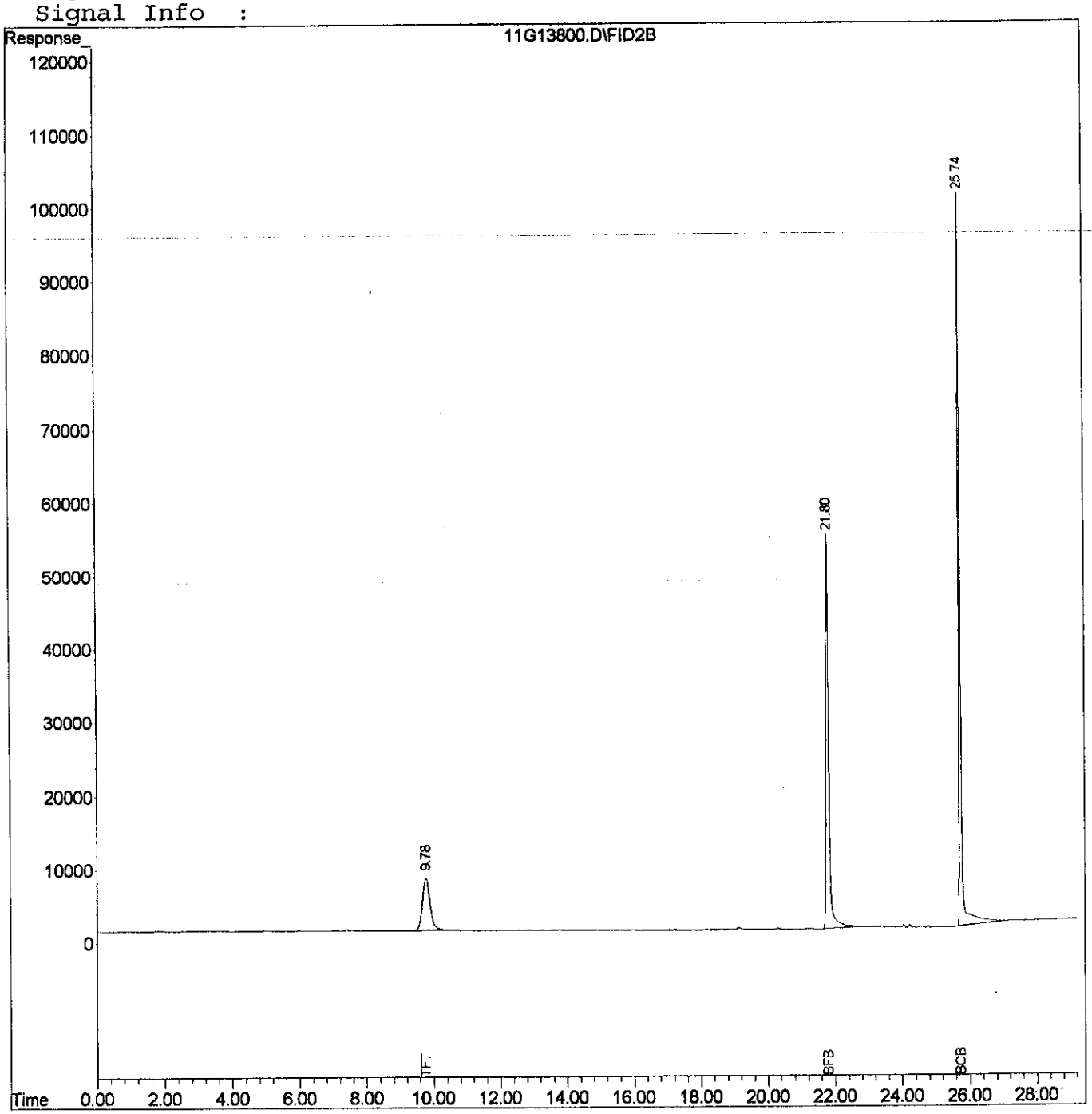
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.79	1215581	29.8815 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.61%
9) S BFB	21.81	3376237	27.4958 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 91.65%
13) S BCB	25.74	3645396	28.5847 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 95.28%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.41	29514	<MDL UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	0.00	0	N.D. UG/L
8) TM o-Xylene	20.31	13207	<MDL UG/L
10) T 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) T 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) T 1,2-Dichlorobenzene	24.65	11339	<MDL UG/L

226

Data File : C:\HPCHEM\1\DATA\032102\11G13800.D Vial: 24
Acq On : 22 Mar 2002 4:27 am Operator: CBN
Sample : L0203380-17 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 4:57 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13800.D Vial: 24
Acq On : 22 Mar 2002 4:27 am Operator: CBN
Sample : L0203380-17 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-91-29 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 4:57 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.78	1136626	27.9406 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery =	93.14%
9) S BFB	21.80	3183211	25.9238 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	86.41%
13) S BCB	25.74	3565855	27.9610 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery =	93.20%
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	19.14	16313	<MDL UG/L
7) TM m-,p-Xylene	19.14	16313	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	24.05	13330	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.23	11556	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.77	9306	<MDL UG/L

228

(f)=RT Delta > 1/2 Window (m)=manual int.

2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 3/21/02
Last Calibration: Thu Mar 21 12:38:51 2002

Calibration Files

Compound	1 11G13766.D	10 11G13767.D	20 11G13768.D	50 11G13769.D	100 11G13770.D	200 11G13771.D	300 11G13772.D	Avg	%RSD
MTBE	52873.4	52154.8	54417.7	49566.3	55113.9	54487.1	57358.4	53710.2	4.60
Benzene	130761.2	124819.4	130100.3	120205.6	131375.9	125414.0	132024.4	127814.0	3.45
TFT	39237.5	40348.6	42174.1	45475.4	37579.4	43745.6	36199.8	40680.1	8.18
Toluene	124591.6	123645.5	128153.1	118240.5	130587.2	125503.2	131029.9	125964.0	3.53
Chlorobenzene	127442.5	128795.6	138059.1	121324.3	139011.5	134491.4	140942.5	132867.0	5.43
Ethylbenzene	113628.6	112902.5	121021.5	104425.3	118536.8	113794.0	118564.5	114696.0	4.78
m-,p-Xylene	138301.3	138137.7	146414.9	124578.6	140403.2	133987.9	138899.7	137246.0	4.89
o-Xylene	121292.1	118654.2	126913.7	108911.2	123362.0	118582.7	123402.9	120160.0	4.79
BFB	108305.7	115685.5	128022.6	131249.2	121326.4	131537.0	123410.5	122791.0	6.96
1,3-Dichlorobenzene	113115.1	109256.4	123403.0	109000.8	128574.6	124640.3	128772.9	119538.0	7.37
1,4-Dichlorobenzene	116312.5	113628.4	133528.3	115107.6	132762.4	127114.1	131030.8	124212.0	7.14
1,2-Dichlorobenzene	97131.8	100175.2	115897.2	100322.0	113953.0	108079.0	111300.5	106694.0	7.00
BCB	102226.5	121332.5	134835.6	138201.7	129239.4	136594.7	130278.1	127530.0	9.8

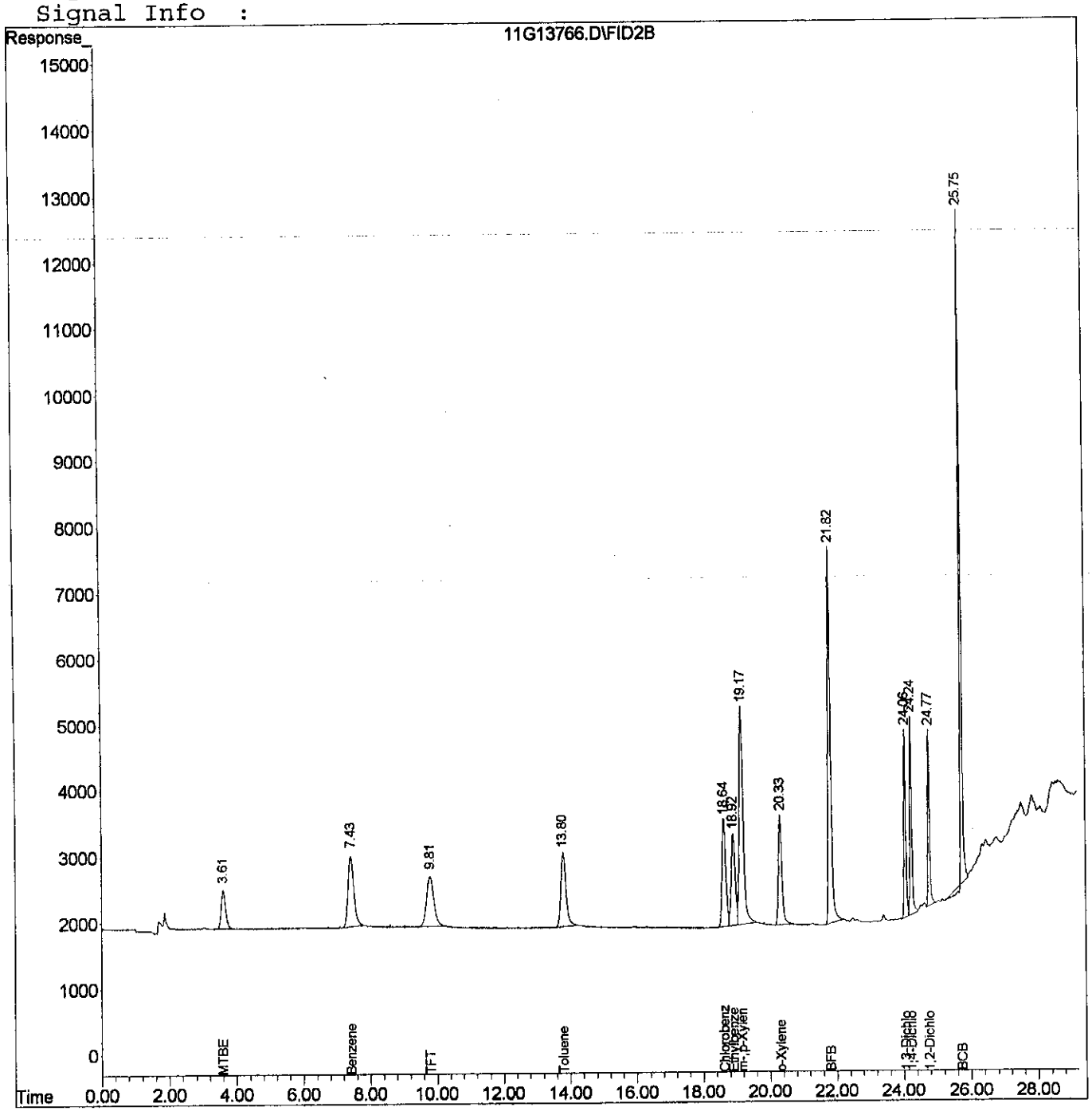
Thu Mar 21 12:39:26 2002

Data File : C:\HPCHEM\1\DATA\032102\11G13766.D
Acq On : 21 Mar 2002 8:32 am
Sample : WG114847-01 8021 STD1 1PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 9:02 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 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13766.D Vial: 2
Acq On : 21 Mar 2002 8:32 am Operator: CBN
Sample : WG114847-01 8021 STD1 1PPB 5ML Inst : HP11
Misc : 1,1 S-91-(23,32) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 9:02 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.81	117712	2.0912 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	6.97%#
9) S BFB	21.83	324917	1.9538 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	6.51%#
13) S BCB	25.75	306680	1.7862 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery =	5.95%#
Target Compounds			
1) TM MTBE	3.61	52873	0.6588 UG/L
2) TM Benzene	7.43	130761	0.7210 UG/L
4) TM Toluene	13.81	124592	0.7183 UG/L
5) TM Chlorobenzene	18.65	127443	0.6899 UG/L
6) TM Ethylbenzene	18.93	113629	0.7270 UG/L
7) TM m-,p-Xylene	19.17	276603	1.4409 UG/L
8) TM o-Xylene	20.33	121292	0.7112 UG/L
10) T 1,3-Dichlorobenzene	24.07	113115	0.6758 UG/L
11) T 1,4-Dichlorobenzene	24.25	116312	0.6492 UG/L
12) T 1,2-Dichlorobenzene	24.78	97132	0.6047 UG/L

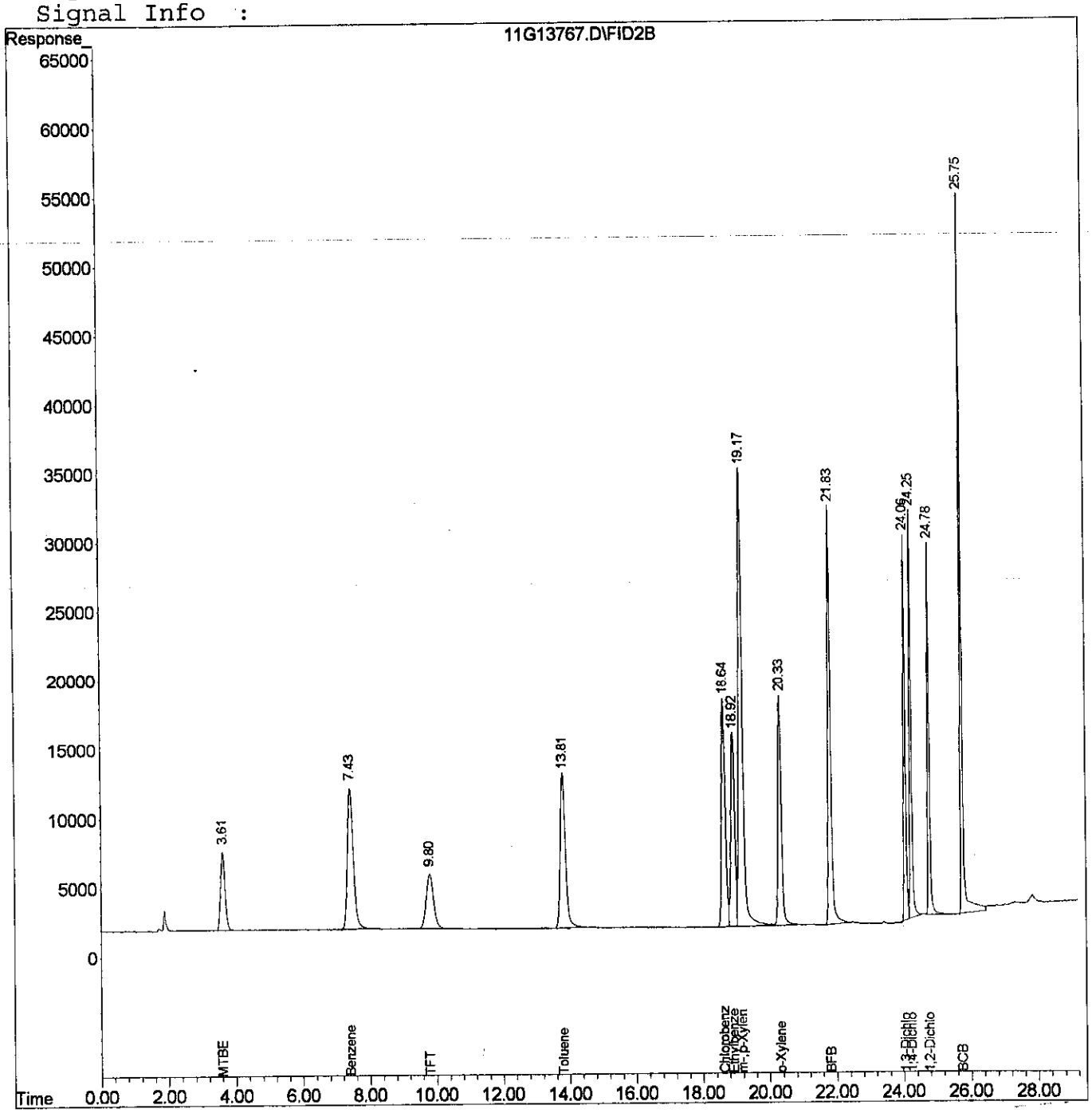
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032102\11G13767.D
Acq On : 21 Mar 2002 9:07 am
Sample : WG114847-02 8021 STD2 10PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 9:37 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 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13767.D Vial: 3
Acq On : 21 Mar 2002 9:07 am Operator: CBN
Sample : WG114847-02 8021 STD2 10PPB 5ML Inst : HP11
Misc : 1,1 S-91-(23,32) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 21 9:37 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.80	605230	10.7521 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 35.84%#
9) S BFB	21.83	1735283	10.4348 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 34.78%#
13) S BCB	25.75	1819987	10.5999 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 35.33%#
Target Compounds			
1) TM MTBE	3.61	521548	6.4985 UG/L
2) TM Benzene	7.43	1248194	6.8824 UG/L
4) TM Toluene	13.81	1236455	7.1282 UG/L
5) TM Chlorobenzene	18.65	1287956	6.9722 UG/L
6) TM Ethylbenzene	18.93	1129025	7.2232 UG/L
7) TM m-,p-Xylene	19.17	2762754	14.3920 UG/L
8) TM o-Xylene	20.33	1186542	6.9575 UG/L
10) T 1,3-Dichlorobenzene	24.07	1092564	6.5276 UG/L
11) T 1,4-Dichlorobenzene	24.25	1136284	6.3424 UG/L
12) T 1,2-Dichlorobenzene	24.78	1001752	6.2361 UG/L

234

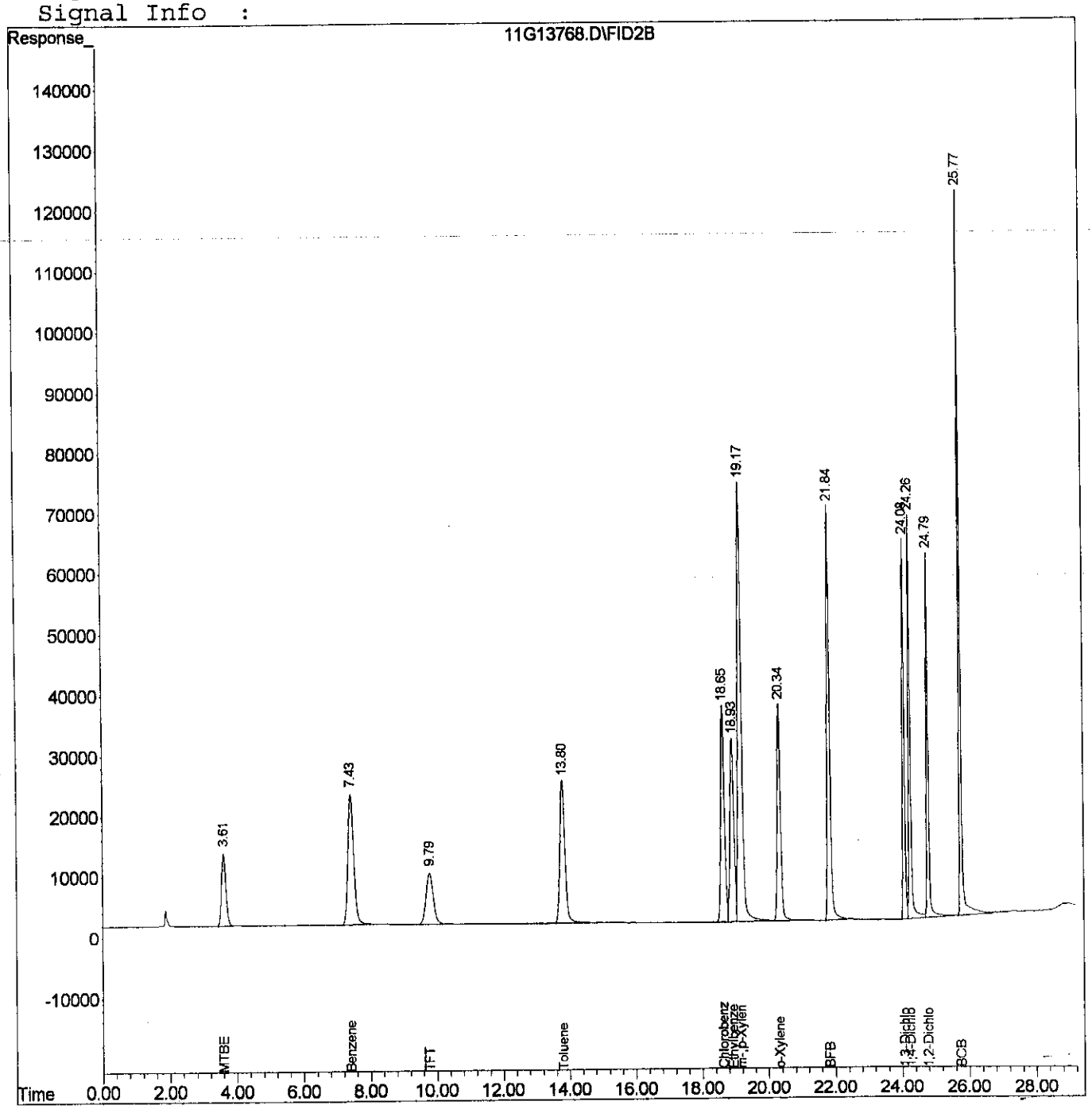
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032102\11G13768.D
Acq On : 21 Mar 2002 9:42 am
Sample : WG114847-03 8021 STD3 20PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 10:11 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 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



235

Data File : C:\HPCHEM\1\DATA\032102\11G13768.D
Acq On : 21 Mar 2002 9:42 am
Sample : WG114847-03 8021 STD3 20PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 10:11 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 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.79	1265223	22.4771 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 74.92%
9) S BFB	21.84	3840677	23.0951 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 76.98%
13) S BCB	25.77	4045069	23.5592 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 78.53%
Target Compounds			
1) TM MTBE	3.61	1088354	13.5608 UG/L
2) TM Benzene	7.42	2602005	14.3472 UG/L
4) TM Toluene	13.81	2563061	14.7761 UG/L
5) TM Chlorobenzene	18.65	2761182	14.9474 UG/L
6) TM Ethylbenzene	18.93	2420430	15.4852 UG/L
7) TM m-,p-Xylene	19.17	5856595	30.5086 UG/L
8) TM o-Xylene	20.34	2538275	14.8836 UG/L
10) T 1,3-Dichlorobenzene	24.08	2468060	14.7457 UG/L
11) T 1,4-Dichlorobenzene	24.26	2670565	14.9063 UG/L
12) T 1,2-Dichlorobenzene	24.79	2317944	14.4296 UG/L

236

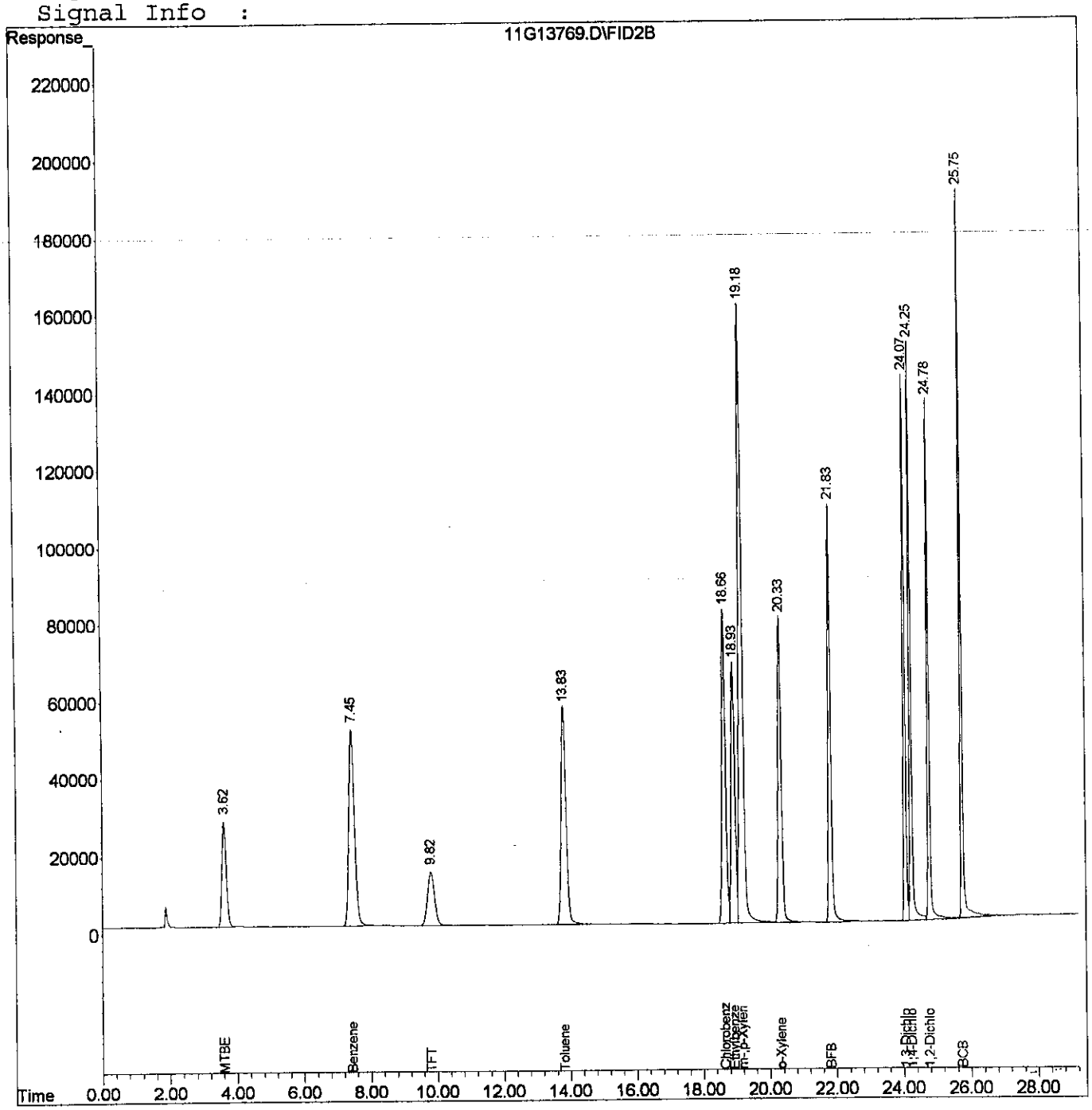
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032102\11G13769.D
Acq On : 21 Mar 2002 10:17 am
Sample : WG114847-04 8021 STD4 50PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 10:46 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 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



237

Data File : C:\HPCHEM\1\DATA\032102\11G13769.D
Acq On : 21 Mar 2002 10:17 am
Sample : WG114847-04 8021 STD4 50PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 10:46 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 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.82	2046395	36.3549 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 121.18%
9) S BFB	21.83	5906213	35.5158 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 118.39%
13) S BCB	25.76	6219077	36.2211 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 120.74%
Target Compounds			
1) TM MTBE	3.62	2478316	30.8797 UG/L
2) TM Benzene	7.45	6010278	33.1401 UG/L
4) TM Toluene	13.83	5912025	34.0828 UG/L
5) TM Chlorobenzene	18.66	6066216	32.8388 UG/L
6) TM Ethylbenzene	18.93	5221266	33.4042 UG/L
7) TM m-,p-Xylene	19.18	12457861	64.8965 UG/L
8) TM o-Xylene	20.34	5445562	31.9310 UG/L
10) T 1,3-Dichlorobenzene	24.07	5450041	32.5619 UG/L
11) T 1,4-Dichlorobenzene	24.25	5755380	32.1248 UG/L
12) T 1,2-Dichlorobenzene	24.78	5016102	31.2261 UG/L

238

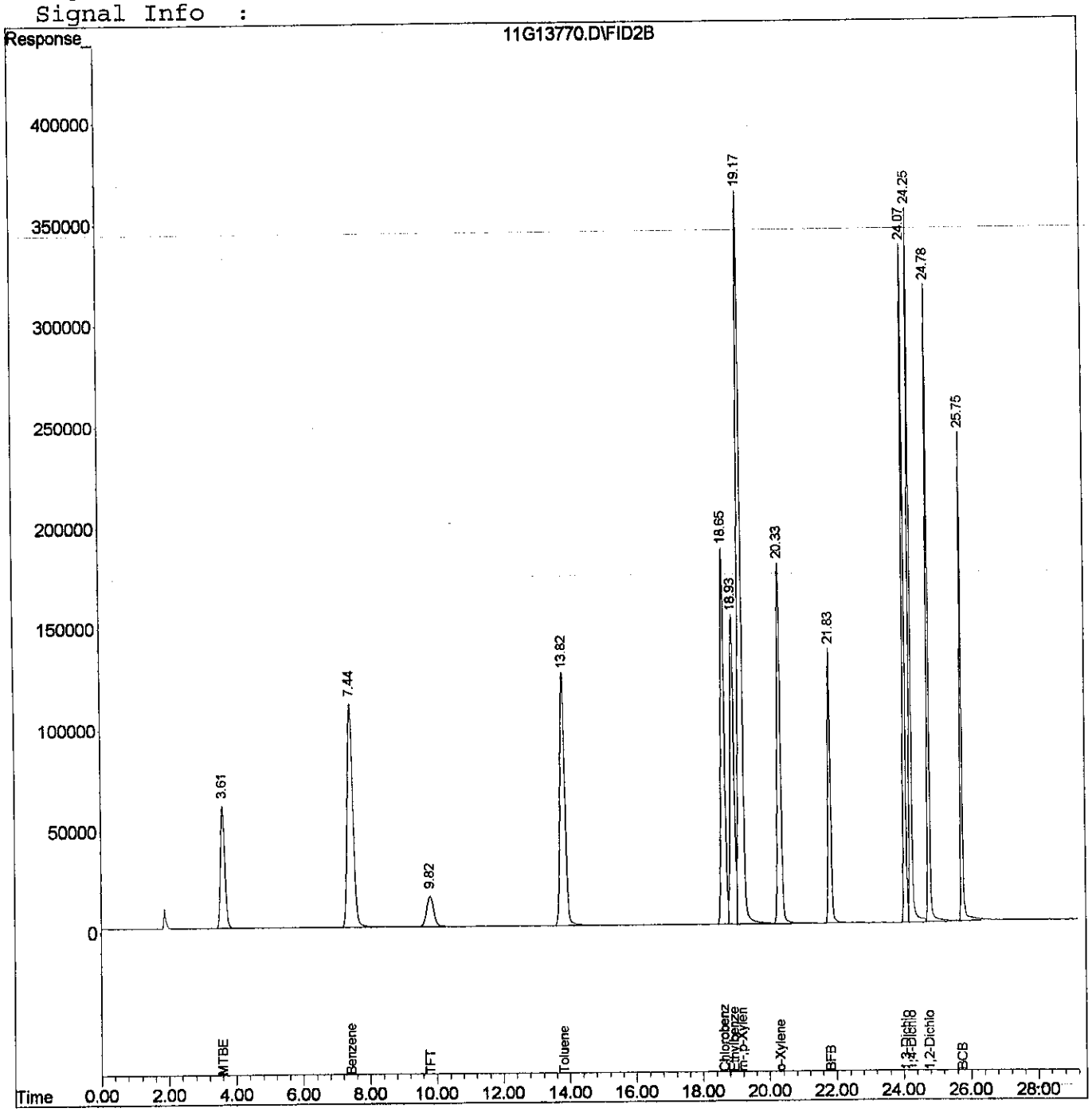
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032102\11G13770.D
Acq On : 21 Mar 2002 10:52 am
Sample : WG114847-05 8021 STD5 100PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 11:21 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 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13770.D
Acq On : 21 Mar 2002 10:52 am
Sample : WG114847-05 8021 STD5 100PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 11:21 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 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.82	2254764	40.0567 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 133.52%#
9) S BFB	21.83	7279587	43.7743 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 145.91%#
13) S BCB	25.76	7754361	45.1628 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 150.54%#
Target Compounds			
1) TM MTBE	3.61	5511390	68.6717 UG/L
2) TM Benzene	7.44	13137594	72.4394 UG/L
4) TM Toluene	13.82	13058716	75.2835 UG/L
5) TM Chlorobenzene	18.65	13901148	75.2524 UG/L
6) TM Ethylbenzene	18.93	11853681	75.8366 UG/L
7) TM m-,p-Xylene	19.17	28080650	146.2800 UG/L
8) TM o-Xylene	20.33	12336203	72.3354 UG/L
10) T 1,3-Dichlorobenzene	24.07	12857455	76.8183 UG/L
11) T 1,4-Dichlorobenzene	24.25	13276243	74.1040 UG/L
12) T 1,2-Dichlorobenzene	24.78	11395296	70.9378 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

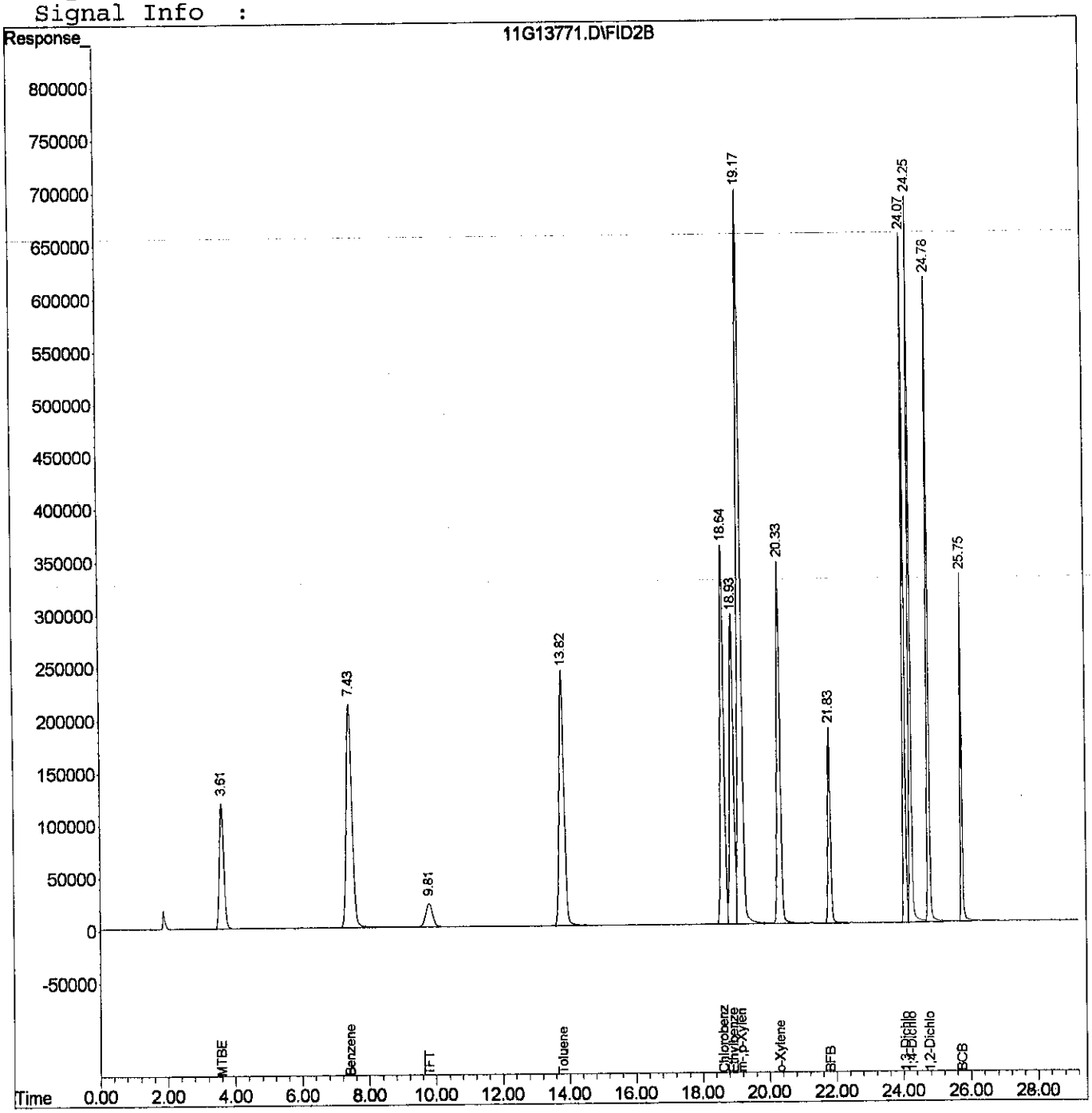
240

Data File : C:\HPCHEM\1\DATA\032102\11G13771.D
Acq On : 21 Mar 2002 11:27 am
Sample : WG114847-06 8021 STD6 200PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 11:56 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 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G13771.D 8021W.M Thu Mar 21 11:56:42 2002 Page 2

Data File : C:\HPCHEM\1\DATA\032102\11G13771.D
Acq On : 21 Mar 2002 11:27 am
Sample : WG114847-06 8021 STD6 200PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 11:56 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 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.81	3280921	58.2867 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 194.29%#
9) S BFB	21.83	9865276	59.3228 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 197.74%#
13) S BCB	25.76	10244599	59.6664 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 198.89%#
Target Compounds			
1) TM MTBE	3.61	10897410	135.7813 UG/L
2) TM Benzene	7.43	25082799	138.3041 UG/L
4) TM Toluene	13.82	25100645	144.7053 UG/L
5) TM Chlorobenzene	18.65	26898288	145.6110 UG/L
6) TM Ethylbenzene	18.93	22758803	145.6046 UG/L
7) TM m-,p-Xylene	19.17	53595165	279.1923 UG/L
8) TM o-Xylene	20.33	23716543	139.0660 UG/L
10) T 1,3-Dichlorobenzene	24.07	24928069	148.9355 UG/L
11) T 1,4-Dichlorobenzene	24.25	25422826	141.9027 UG/L
12) T 1,2-Dichlorobenzene	24.78	21615797	134.5623 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

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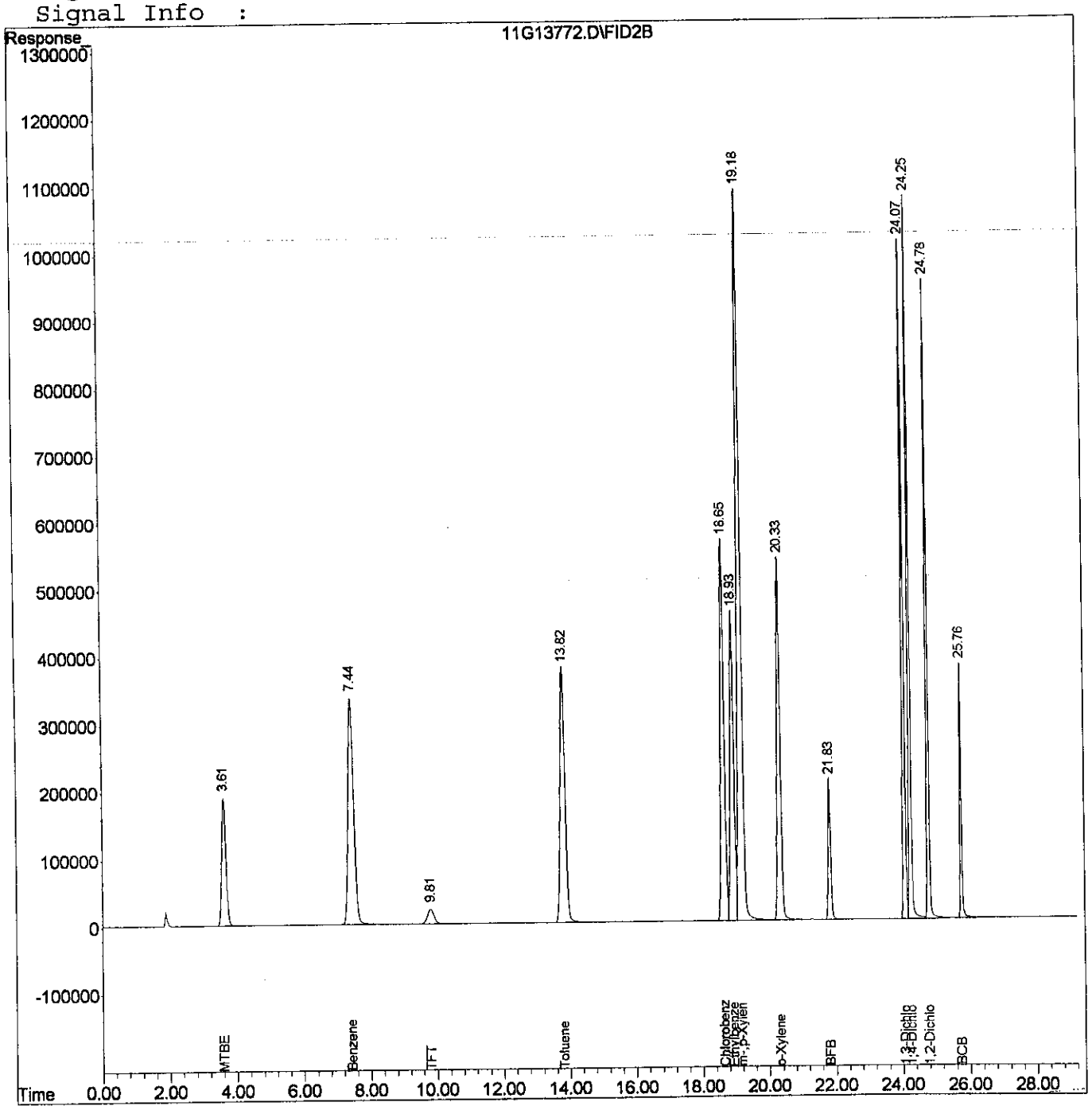
Data File : C:\HPCHEM\1\DATA\032102\11G13772.D
Acq On : 21 Mar 2002 12:02 pm
Sample : WG114847-07 8021 STD7 300PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 12:31 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 2/27/02
Last Update : Thu Feb 28 07:13:06 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13772.D
Acq On : 21 Mar 2002 12:02 pm
Sample : WG114847-07 8021 STD7 300PPB 5ML
Misc : 1,1 S-91-(23,32)
IntFile : autoint1.e
Quant Time: Mar 21 12:31 2002 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 2/27/02
Last Update : Thu Feb 28 07:13:06 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	9.82	3257985	57.8792 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 192.93%#
9) S BFB	21.83	11106941	66.7893 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 222.63%#
13) S BCB	25.76	11725028	68.2887 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 227.63%#
Target Compounds			
1) TM MTBE	3.61	17207514	214.4049 UG/L
2) TM Benzene	7.44	39607309	218.3908 UG/L
4) TM Toluene	13.82	39308979	226.6164 UG/L
5) TM Chlorobenzene	18.65	42282743	228.8931 UG/L
6) TM Ethylbenzene	18.94	35569339	227.5629 UG/L
7) TM m-,p-Xylene	19.18	83339806	434.1405 UG/L
8) TM o-Xylene	20.34	37020864	217.0781 UG/L
10) T 1,3-Dichlorobenzene	24.07	38631864	230.8103 UG/L
11) T 1,4-Dichlorobenzene	24.25	39309247	219.4125 UG/L
12) T 1,2-Dichlorobenzene	24.78	33390163	207.8598 UG/L

(m)=manual int.

244

Data File : C:\HPCHEM\1\DATA\032102\11G13776.D
Acq On : 21 Mar 2002 14:35
Sample : WG114847-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	53.710	55.692 E3	-3.7	102	0.01
2	TM	Benzene	127.814	133.017 E3	-4.1	102	0.02
3	S	TFT	40.680	43.087 E3	-5.9	102	0.03
4	TM	Toluene	125.964	129.387 E3	-2.7	101	0.02
5	TM	Chlorobenzene	132.867	133.064 E3	-0.1	96	0.00
6	TM	Ethylbenzene	114.696	120.074 E3	-4.7	99	0.00
7	TM	m-,p-Xylene	137.246	142.691 E3	-4.0	97	0.00
8	TM	o-Xylene	120.160	121.438 E3	-1.1	96	0.00
9	S	BFB	122.791	122.337 E3	0.4	96	0.00
10	T	1,3-Dichlorobenzene	119.538	119.251 E3	0.2	97	-0.01
11	T	1,4-Dichlorobenzene	124.212	128.914 E3	-3.8	97	-0.01
12	T	1,2-Dichlorobenzene	106.694	116.279 E3	-9.0	100	-0.01
13	S	BCB	127.530	134.072 E3	-5.1	99	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032102\11G13776.D
Acq On : 21 Mar 2002 14:35
Sample : WG114847-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	20.738	-3.7	102	0.01
2	TM	Benzene	20.000	20.814	-4.1	102	0.02
3	S	TFT	30.000	31.775	-5.9	102	0.03
4	TM	Toluene	20.000	20.543	-2.7	101	0.02
5	TM	Chlorobenzene	20.000	20.030	-0.2	96	0.00
6	TM	Ethylbenzene	20.000	20.938	-4.7	99	0.00
7	TM	m-,p-Xylene	40.000	41.587	-4.0	97	0.00
8	TM	o-Xylene	20.000	20.213	-1.1	96	0.00
9	S	BFB	30.000	29.889	0.4	96	0.00
10	T	1,3-Dichlorobenzene	20.000	19.952	0.2	97	-0.01
11	T	1,4-Dichlorobenzene	20.000	20.757	-3.8	97	-0.01
12	T	1,2-Dichlorobenzene	20.000	21.797	-9.0	100	-0.01
13	S	BCB	30.000	31.539	-5.1	99	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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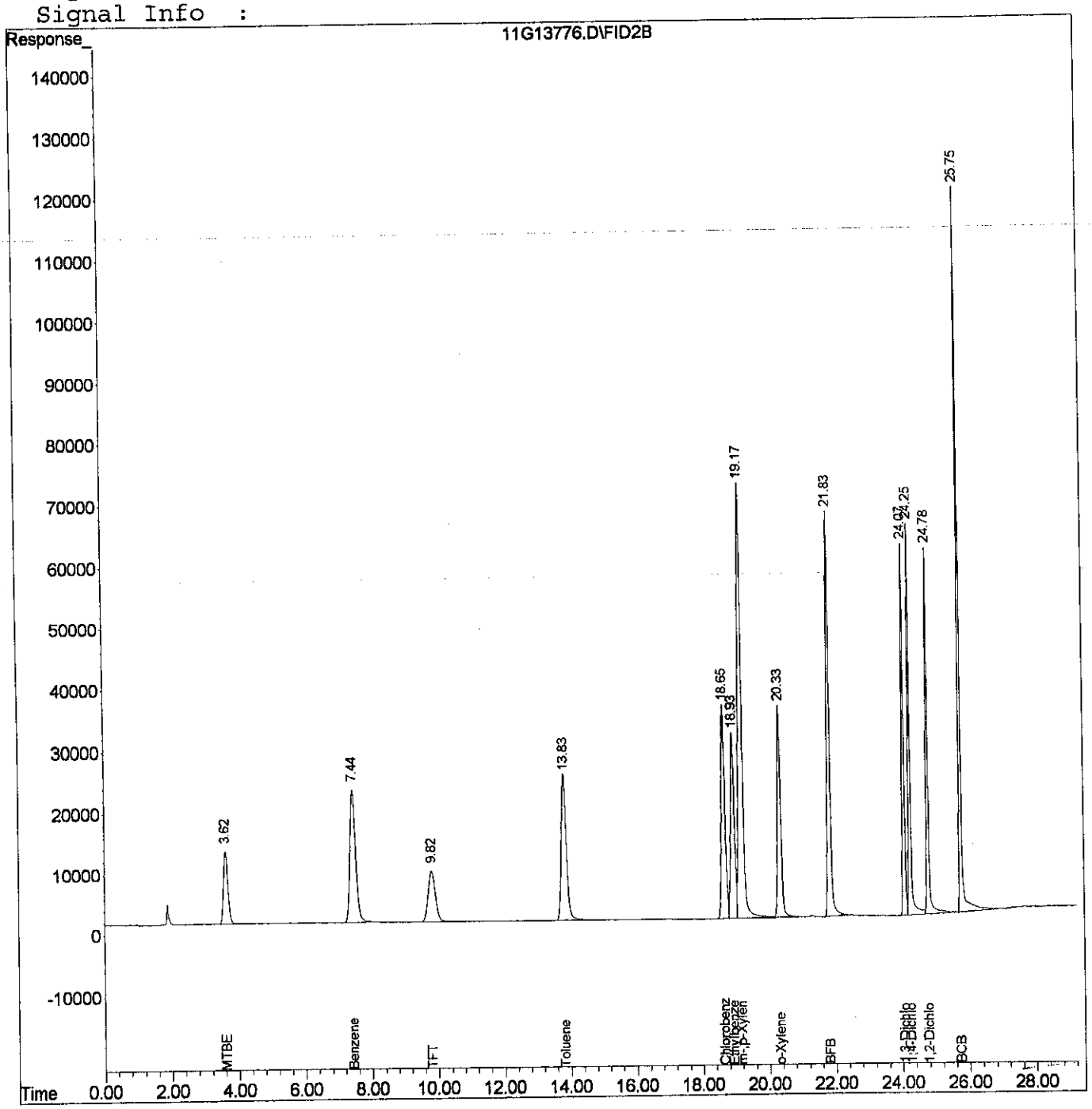
Data File : C:\HPCHEM\1\DATA\032102\11G13776.D
Acq On : 21 Mar 2002 2:35 pm
Sample : WG114847-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 21 15:04 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Page 2

Data File : C:\HPCHEM\1\DATA\032102\11G13776.D
Acq On : 21 Mar 2002 2:35 pm
Sample : WG114847-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 21 15:04 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.82	1292604	31.7749 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 105.92%
9) S BFB			21.83	3670101	29.8890 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 99.63%
13) S BCB			25.76	4022173	31.5391 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 105.13%
Target Compounds					
1) TM MTBE			3.62	1113847	20.7381 UG/L
2) TM Benzene			7.45	2660342	20.8141 UG/L
4) TM Toluene			13.83	2587740	20.5434 UG/L
5) TM Chlorobenzene			18.65	2661280	20.0297 UG/L
6) TM Ethylbenzene			18.93	2401477	20.9377 UG/L
7) TM m-,p-Xylene			19.18	5707625	41.5868 UG/L
8) TM o-Xylene			20.33	2428755	20.2127 UG/L
10) T 1,3-Dichlorobenzene			24.07	2385016	19.9520 UG/L
11) T 1,4-Dichlorobenzene			24.25	2578284	20.7571 UG/L
12) T 1,2-Dichlorobenzene			24.78	2325570	21.7966 UG/L

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(6) RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032102\11G13788.D
Acq On : 21 Mar 2002 21:32
Sample : WG114847-08 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 12
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	53.710	53.242 E3	0.9	98	0.00
2	TM	Benzene	127.814	132.172 E3	-3.4	102	0.00
3	S	TFT	40.680	43.983 E3	-8.1	104	0.00
4	TM	Toluene	125.964	127.588 E3	-1.3	100	0.00
5	TM	Chlorobenzene	132.867	130.745 E3	1.6	95	-0.02
6	TM	Ethylbenzene	114.696	118.117 E3	-3.0	98	-0.02
7	TM	m-,p-Xylene	137.246	140.364 E3	-2.3	96	-0.02
8	TM	o-Xylene	120.160	119.546 E3	0.5	94	-0.03
9	S	BFB	122.791	125.649 E3	-2.3	98	-0.03
10	T	1,3-Dichlorobenzene	119.538	115.800 E3	3.1	94	-0.03
11	T	1,4-Dichlorobenzene	124.212	125.906 E3	-1.4	94	-0.03
12	T	1,2-Dichlorobenzene	106.694	113.514 E3	-6.4	98	-0.03
13	S	BCB	127.530	135.549 E3	-6.3	101	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032102\11G13788.D
Acq On : 21 Mar 2002 21:32
Sample : WG114847-08 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 12
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.825	0.9	98	0.00
2	TM	Benzene	20.000	20.682	-3.4	102	0.00
3	S	TFT	30.000	32.436	-8.1	104	0.00
4	TM	Toluene	20.000	20.258	-1.3	100	0.00
5	TM	Chlorobenzene	20.000	19.681	1.6	95	-0.02
6	TM	Ethylbenzene	20.000	20.597	-3.0	98	-0.02
7	TM	m-,p-Xylene	40.000	40.909	-2.3	96	-0.02
8	TM	o-Xylene	20.000	19.898	0.5	94	-0.03
9	S	BFB	30.000	30.698	-2.3	98	-0.03
10	T	1,3-Dichlorobenzene	20.000	19.375	3.1	94	-0.03
11	T	1,4-Dichlorobenzene	20.000	20.273	-1.4	94	-0.03
12	T	1,2-Dichlorobenzene	20.000	21.278	-6.4	98	-0.03
13	S	BCB	30.000	31.887	-6.3	101	-0.02

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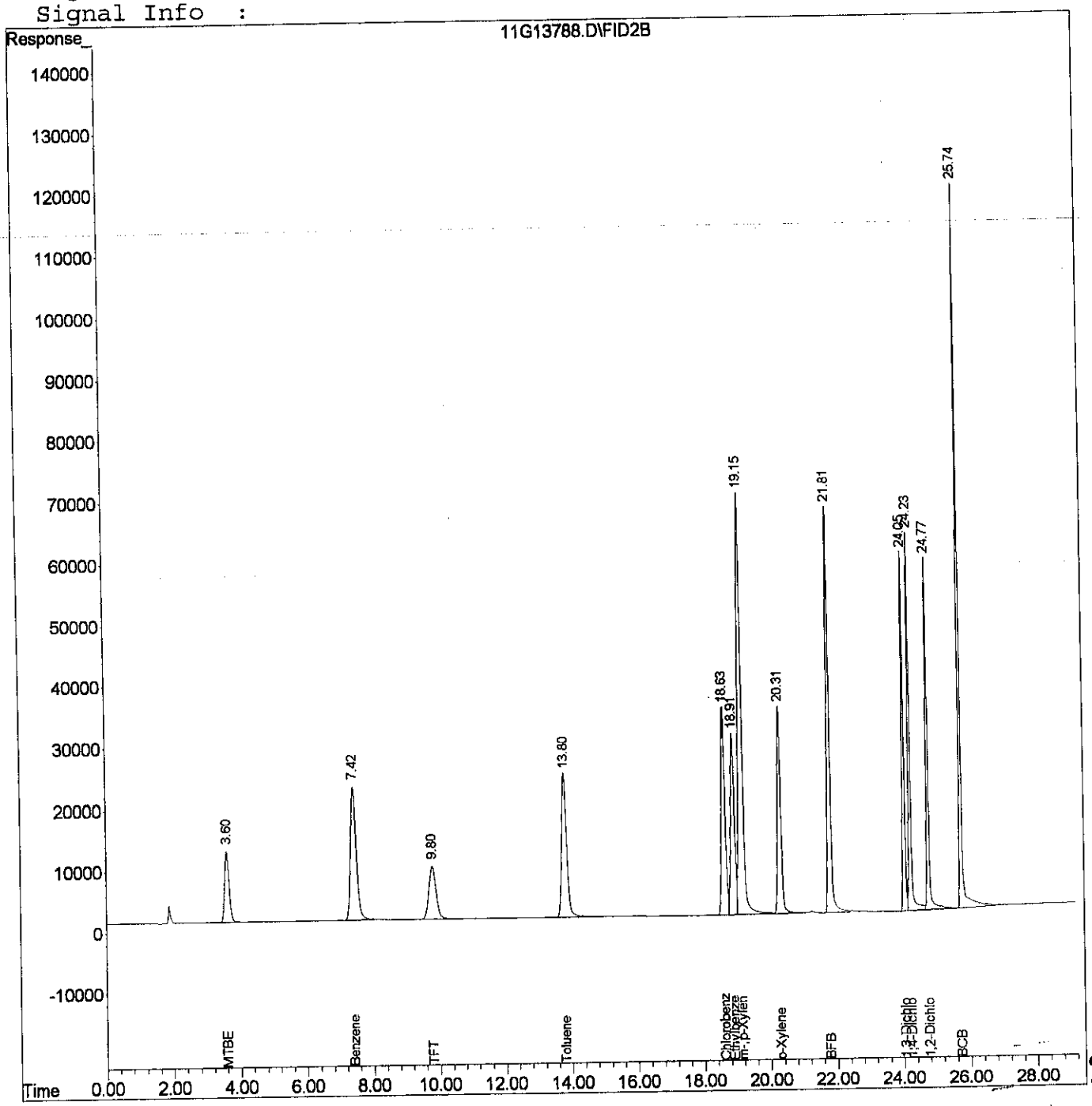
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032102\11G13788.D
Acq On : 21 Mar 2002 9:32 pm
Sample : WG114847-08 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 21 22:01 2002 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032102\11G13788.D
Acq On : 21 Mar 2002 9:32 pm
Sample : WG114847-08 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 21 22:01 2002 Quant Results File: 8021W.RES

Vial: 12
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.80	1319495	32.4359 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 108.12%
9) S BFB			21.81	3769467	30.6982 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 102.33%
13) S BCB			25.74	4066483	31.8865 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 106.29%
Target Compounds					
1) TM MTBE			3.61	1064831	19.8255 UG/L
2) TM Benzene			7.42	2643436	20.6818 UG/L
4) TM Toluene			13.80	2551753	20.2577 UG/L
5) TM Chlorobenzene			18.63	2614893	19.6806 UG/L
6) TM Ethylbenzene			18.91	2362345	20.5965 UG/L
7) TM m-,p-Xylene			19.15	5614558	40.9087 UG/L
8) TM o-Xylene			20.31	2390913	19.8978 UG/L
10) T 1,3-Dichlorobenzene			24.05	2315993	19.3746 UG/L
11) T 1,4-Dichlorobenzene			24.24	2518116	20.2727 UG/L
12) T 1,2-Dichlorobenzene			24.77	2270286	21.2785 UG/L

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Data File : C:\HPCHEM\1\DATA\032102\11G13799.D
Acq On : 22 Mar 2002 3:53
Sample : WG114847-09 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 23
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	53.710	53.865 E3	-0.3	99	0.00
2	TM	Benzene	127.814	136.914 E3	-7.1	105	0.00
3	S	TFT	40.680	43.693 E3	-7.4	104	0.00
4	TM	Toluene	125.964	130.799 E3	-3.8	102	-0.01
5	TM	Chlorobenzene	132.867	133.773 E3	-0.7	97	-0.03
6	TM	Ethylbenzene	114.696	120.884 E3	-5.4	100	-0.03
7	TM	m-,p-Xylene	137.246	143.717 E3	-4.7	98	-0.03
8	TM	o-Xylene	120.160	122.894 E3	-2.3	97	-0.03
9	S	BFB	122.791	123.117 E3	-0.3	96	-0.03
10	T	1,3-Dichlorobenzene	119.538	117.138 E3	2.0	95	-0.03
11	T	1,4-Dichlorobenzene	124.212	127.098 E3	-2.3	95	-0.03
12	T	1,2-Dichlorobenzene	106.694	115.277 E3	-8.0	99	-0.03
13	S	BCB	127.530	134.149 E3	-5.2	99	-0.02

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(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032102\11G13799.D
Acq On : 22 Mar 2002 3:53
Sample : WG114847-09 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 23
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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%

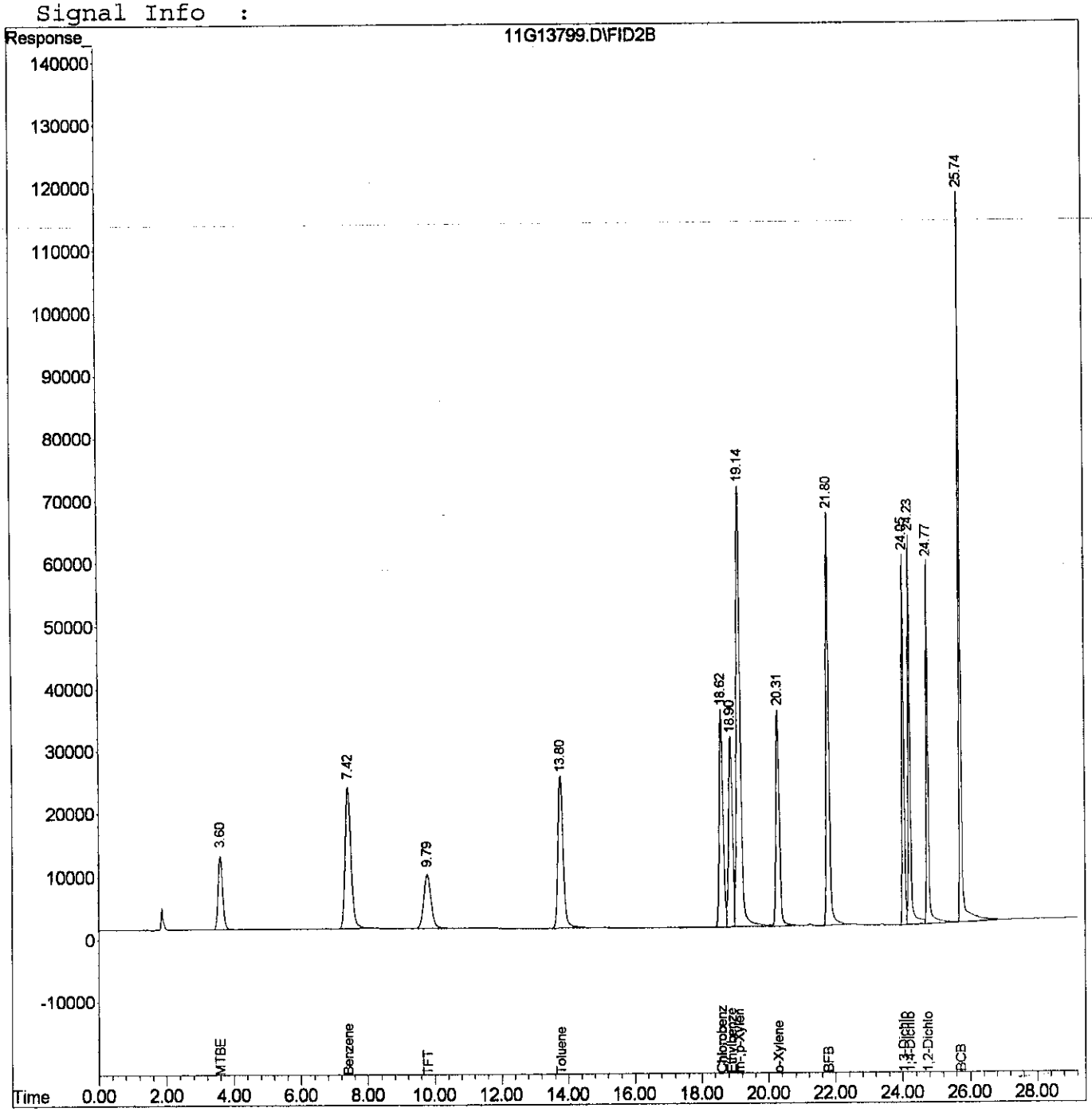
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.058	-0.3	99	0.00
2	TM	Benzene	20.000	21.424	-7.1	105	0.00
3	S	TFT	30.000	32.222	-7.4	104	0.00
4	TM	Toluene	20.000	20.768	-3.8	102	-0.01
5	TM	Chlorobenzene	20.000	20.136	-0.7	97	-0.03
6	TM	Ethylbenzene	20.000	21.079	-5.4	100	-0.03
7	TM	m-,p-Xylene	40.000	41.886	-4.7	98	-0.03
8	TM	o-Xylene	20.000	20.455	-2.3	97	-0.03
9	S	BFB	30.000	30.080	-0.3	96	-0.03
10	T	1,3-Dichlorobenzene	20.000	19.599	2.0	95	-0.03
11	T	1,4-Dichlorobenzene	20.000	20.465	-2.3	95	-0.03
12	T	1,2-Dichlorobenzene	20.000	21.609	-8.0	99	-0.03
13	S	BCB	30.000	31.557	-5.2	99	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032102\11G13799.D Vial: 23
Acq On : 22 Mar 2002 3:53 am Operator: CBN
Sample : WG114847-09 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-91-(30,29) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 4:22 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032102\11G13799.D Vial: 23
Acq On : 22 Mar 2002 3:53 am Operator: CBN
Sample : WG114847-09 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-91-(30,29) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 4:22 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.79	1310787	32.2219 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 107.41%
9) S BFB	21.81	3693512	30.0797 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 100.27%
13) S BCB	25.74	4024470	31.5571 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 105.19%
Target Compounds			
1) TM MTBE	3.60	1077301	20.0577 UG/L
2) TM Benzene	7.42	2738283	21.4239 UG/L
4) TM Toluene	13.79	2615979	20.7676 UG/L
5) TM Chlorobenzene	18.62	2675456	20.1364 UG/L
6) TM Ethylbenzene	18.90	2417686	21.0790 UG/L
7) TM m-,p-Xylene	19.14	5748684	41.8859 UG/L
8) TM o-Xylene	20.31	2457884	20.4551 UG/L
10) T 1,3-Dichlorobenzene	24.05	2342766	19.5986 UG/L
11) T 1,4-Dichlorobenzene	24.23	2541961	20.4647 UG/L
12) T 1,2-Dichlorobenzene	24.77	2305531	21.6088 UG/L

Data File : C:\HPCHEM\1\DATA\032102\11G13801.D
Acq On : 22 Mar 2002 5:02
Sample : WG114847-10 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 25
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	53.710	53.616 E3	0.2	99	0.00
2	TM	Benzene	127.814	135.060 E3	-5.7	104	-0.01
3	S	TFT	40.680	38.700 E3	4.9	92	-0.01
4	TM	Toluene	125.964	129.612 E3	-2.9	101	-0.02
5	TM	Chlorobenzene	132.867	132.240 E3	0.5	96	-0.03
6	TM	Ethylbenzene	114.696	119.427 E3	-4.1	99	-0.03
7	TM	m-,p-Xylene	137.246	141.965 E3	-3.4	97	-0.03
8	TM	o-Xylene	120.160	121.356 E3	-1.0	96	-0.04
9	S	BFB	122.791	110.105 E3	10.3	86	-0.04
10	T	1,3-Dichlorobenzene	119.538	115.792 E3	3.1	94	-0.03
11	T	1,4-Dichlorobenzene	124.212	125.996 E3	-1.4	94	-0.03
12	T	1,2-Dichlorobenzene	106.694	114.424 E3	-7.2	99	-0.03
13	S	BCB	127.530	118.877 E3	6.8	88	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032102\11G13801.D
Acq On : 22 Mar 2002 5:02
Sample : WG114847-10 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 25
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

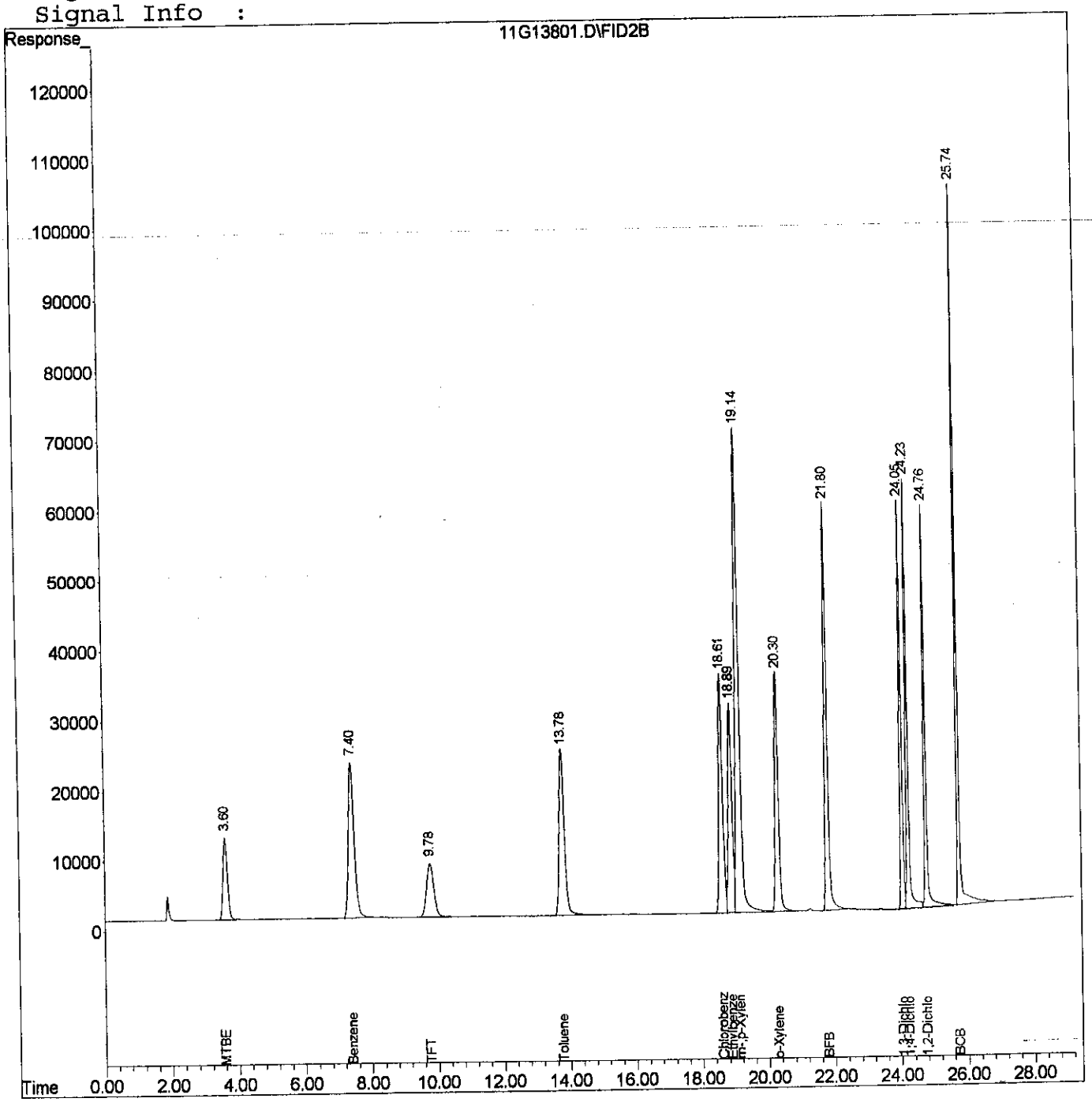
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.965	0.2	99	0.00
2	TM	Benzene	20.000	21.134	-5.7	104	-0.01
3	S	TFT	30.000	28.540	4.9	92	-0.01
4	TM	Toluene	20.000	20.579	-2.9	101	-0.02
5	TM	Chlorobenzene	20.000	19.906	0.5	96	-0.03
6	TM	Ethylbenzene	20.000	20.825	-4.1	99	-0.03
7	TM	m-,p-Xylene	40.000	41.375	-3.4	97	-0.03
8	TM	o-Xylene	20.000	20.199	-1.0	96	-0.04
9	S	BFB	30.000	26.901	10.3	86	-0.04
10	T	1,3-Dichlorobenzene	20.000	19.373	3.1	94	-0.03
11	T	1,4-Dichlorobenzene	20.000	20.287	-1.4	94	-0.03
12	T	1,2-Dichlorobenzene	20.000	21.449	-7.2	99	-0.03
13	S	BCB	30.000	27.964	6.8	88	-0.03

Data File : C:\HPCHEM\1\DATA\032102\11G13801.D
Acq On : 22 Mar 2002 5:02 am
Sample : WG114847-10 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 5:31 2002 Quant Results File: 8021W.RES

Vial: 25
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032102\11G13801.D
Acq On : 22 Mar 2002 5:02 am
Sample : WG114847-10 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 5:31 2002 Quant Results File: 8021W.RES

Vial: 25
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.78	1161003	28.5399 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 95.13%
9) S BFB			21.80	3303163	26.9007 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 89.67%
13) S BCB			25.74	3566306	27.9645 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 93.22%
Target Compounds					
1) TM MTBE			3.60	1072313	19.9648 UG/L
2) TM Benzene			7.41	2701206	21.1338 UG/L
4) TM Toluene			13.79	2592246	20.5792 UG/L
5) TM Chlorobenzene			18.61	2644795	19.9056 UG/L
6) TM Ethylbenzene			18.89	2388537	20.8249 UG/L
7) TM m-,p-Xylene			19.14	5678585	41.3752 UG/L
8) TM o-Xylene			20.30	2427122	20.1991 UG/L
10) T 1,3-Dichlorobenzene			24.05	2315831	19.3732 UG/L
11) T 1,4-Dichlorobenzene			24.23	2519929	20.2873 UG/L
12) T 1,2-Dichlorobenzene			24.76	2288490	21.4491 UG/L

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Data File : C:\HPCHEM\1\DATA\032202\11G13802.D
Acq On : 22 Mar 2002 6:54
Sample : WG114936-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	53.710	50.738 E3	5.5	93	-0.02
2	TM	Benzene	127.814	138.519 E3	-8.4	106	-0.04
3	S	TFT	40.680	39.824 E3	2.1	94	-0.05
4	TM	Toluene	125.964	133.834 E3	-6.2	104	-0.05
5	TM	Chlorobenzene	132.867	136.575 E3	-2.8	99	-0.05
6	TM	Ethylbenzene	114.696	124.214 E3	-8.3	103	-0.05
7	TM	m-,p-Xylene	137.246	148.211 E3	-8.0	101	-0.05
8	TM	o-Xylene	120.160	126.269 E3	-5.1	99	-0.05
9	S	BFB	122.791	112.977 E3	8.0	88	-0.05
10	T	1,3-Dichlorobenzene	119.538	123.223 E3	-3.1	100	-0.04
11	T	1,4-Dichlorobenzene	124.212	134.741 E3	-8.5	101	-0.03
12	T	1,2-Dichlorobenzene	106.694	120.743 E3	-13.2	104	-0.03
13	S	BCB	127.530	121.249 E3	4.9	90	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032202\11G13802.D
Acq On : 22 Mar 2002 6:54
Sample : WG114936-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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%

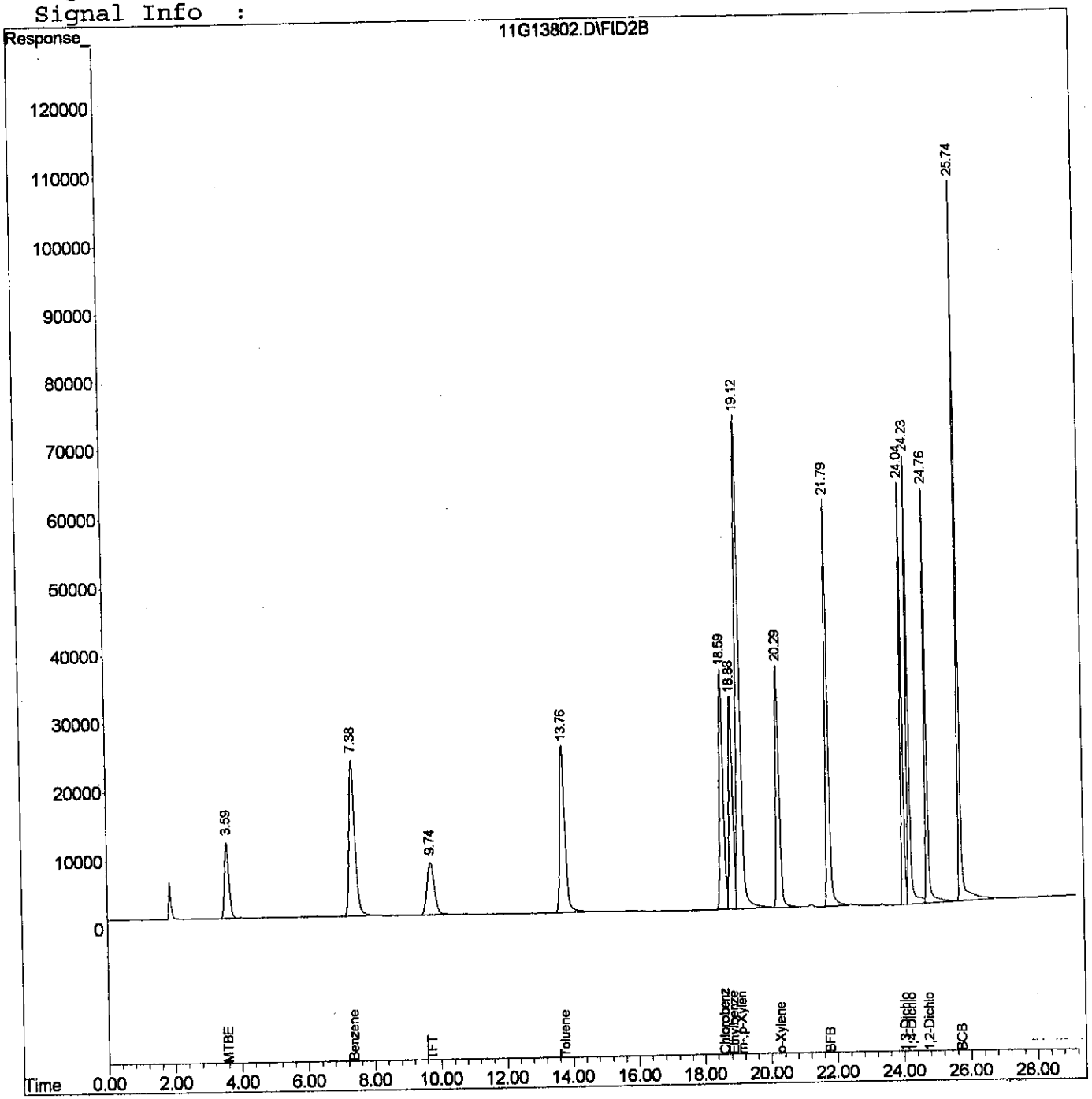
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.893	5.5	93	-0.02
2	TM	Benzene	20.000	21.675	-8.4	106	-0.04
3	S	TFT	30.000	29.369	2.1	94	-0.05
4	TM	Toluene	20.000	21.249	-6.2	104	-0.05
5	TM	Chlorobenzene	20.000	20.558	-2.8	99	-0.05
6	TM	Ethylbenzene	20.000	21.660	-8.3	103	-0.05
7	TM	m-,p-Xylene	40.000	43.196	-8.0	101	-0.05
8	TM	o-Xylene	20.000	21.017	-5.1	99	-0.05
9	S	BFB	30.000	27.602	8.0	88	-0.05
10	T	1,3-Dichlorobenzene	20.000	20.617	-3.1	100	-0.04
11	T	1,4-Dichlorobenzene	20.000	21.695	-8.5	101	-0.03
12	T	1,2-Dichlorobenzene	20.000	22.633	-13.2	104	-0.03
13	S	BCB	30.000	28.523	4.9	90	-0.03

Data File : C:\HPCHEM\1\DATA\032202\11G13802.D
Acq On : 22 Mar 2002 6:54 am
Sample : WG114936-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 7:23 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



263

Data File : C:\HPCHEM\1\DATA\032202\11G13802.D
Acq On : 22 Mar 2002 6:54 am
Sample : WG114936-01 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 7:23 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	1194714	29.3685 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 97.89%
9) S BFB			21.79	3389302	27.6022 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 92.01%
13) S BCB			25.74	3637471	28.5225 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 95.08%
Target Compounds					
1) TM MTBE			3.59	1014754	18.8931 UG/L
2) TM Benzene			7.38	2770390	21.6751 UG/L
4) TM Toluene			13.76	2676673	21.2494 UG/L
5) TM Chlorobenzene			18.60	2731507	20.5583 UG/L
6) TM Ethylbenzene			18.88	2484286	21.6597 UG/L
7) TM m-,p-Xylene			19.12	5928434	43.1956 UG/L
8) TM o-Xylene			20.29	2525376	21.0168 UG/L
10) T 1,3-Dichlorobenzene			24.05	2464462	20.6166 UG/L
11) T 1,4-Dichlorobenzene			24.23	2694811	21.6953 UG/L
12) T 1,2-Dichlorobenzene			24.76	2414852	22.6334 UG/L

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(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032202\11G13819.D
Acq On : 22 Mar 2002 19:04
Sample : WG114936-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 7
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	53.710	53.173 E3	1.0	98	0.00
2	TM	Benzene	127.814	130.822 E3	-2.4	101	0.00
3	S	TFT	40.680	42.809 E3	-5.2	102	0.00
4	TM	Toluene	125.964	126.719 E3	-0.6	99	0.00
5	TM	Chlorobenzene	132.867	128.416 E3	3.3	93	-0.02
6	TM	Ethylbenzene	114.696	114.548 E3	0.1	95	-0.02
7	TM	m-,p-Xylene	137.246	136.838 E3	0.3	93	-0.02
8	TM	o-Xylene	120.160	117.081 E3	2.6	92	-0.02
9	S	BFB	122.791	120.552 E3	1.8	94	-0.02
10	T	1,3-Dichlorobenzene	119.538	112.928 E3	5.5	92	-0.02
11	T	1,4-Dichlorobenzene	124.212	121.396 E3	2.3	91	-0.02
12	T	1,2-Dichlorobenzene	106.694	109.045 E3	-2.2	94	-0.02
13	S	BCB	127.530	130.699 E3	-2.5	97	-0.01

Data File : C:\HPCHEM\1\DATA\032202\11G13819.D
Acq On : 22 Mar 2002 19:04
Sample : WG114936-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e

Vial: 7
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.800	1.0	98	0.00
2	TM	Benzene	20.000	20.471	-2.4	101	0.00
3	S	TFT	30.000	31.570	-5.2	102	0.00
4	TM	Toluene	20.000	20.120	-0.6	99	0.00
5	TM	Chlorobenzene	20.000	19.330	3.4	93	-0.02
6	TM	Ethylbenzene	20.000	19.974	0.1	95	-0.02
7	TM	m-,p-Xylene	40.000	39.881	0.3	93	-0.02
8	TM	o-Xylene	20.000	19.487	2.6	92	-0.02
9	S	BFB	30.000	29.453	1.8	94	-0.02
10	T	1,3-Dichlorobenzene	20.000	18.894	5.5	92	-0.02
11	T	1,4-Dichlorobenzene	20.000	19.547	2.3	91	-0.02
12	T	1,2-Dichlorobenzene	20.000	20.441	-2.2	94	-0.02
13	S	BCB	30.000	30.745	-2.5	97	-0.01

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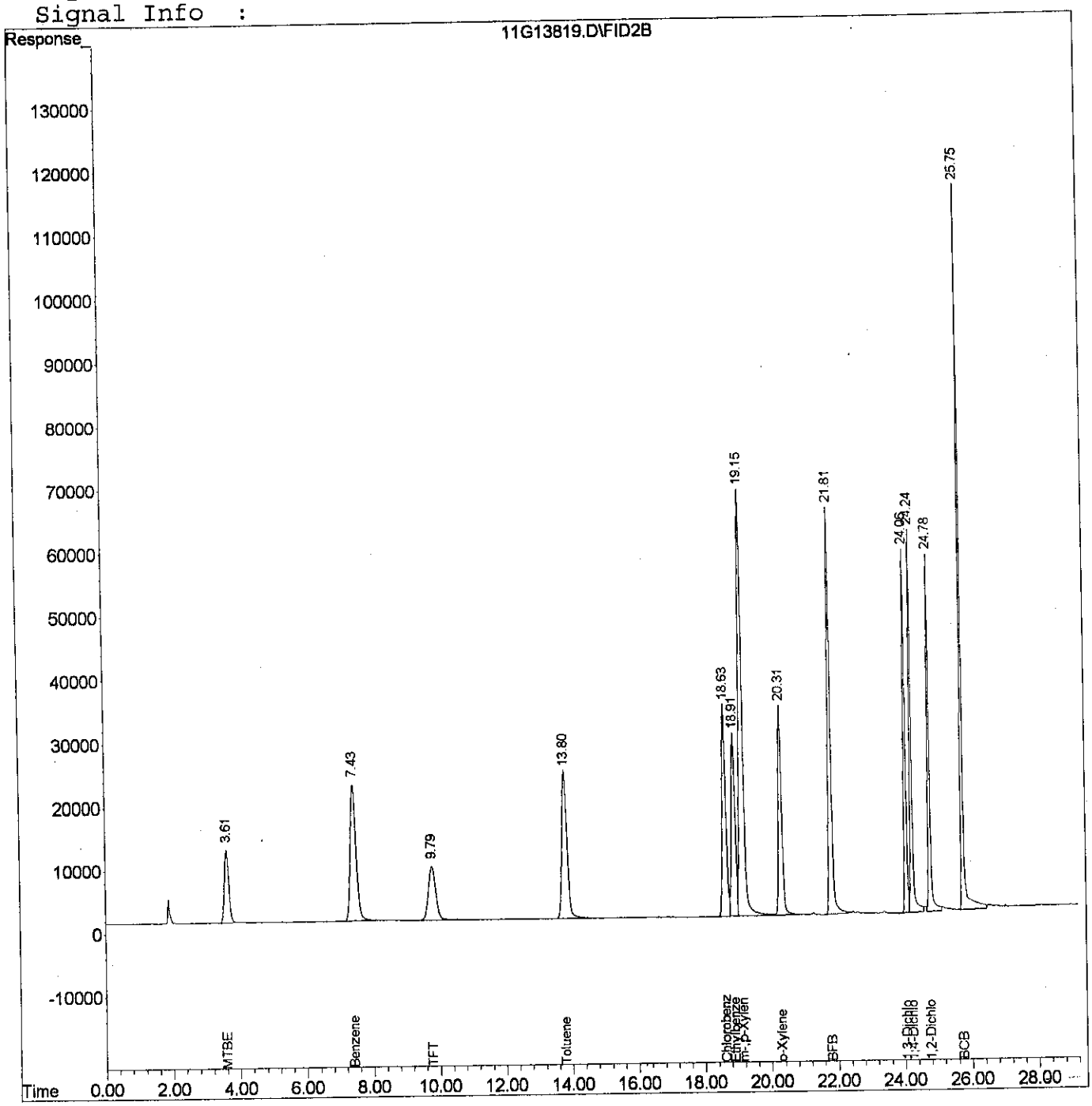
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\032202\11G13819.D
Acq On : 22 Mar 2002 7:04 pm
Sample : WG114936-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 19:33 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 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032202\11G13819.D
Acq On : 22 Mar 2002 7:04 pm
Sample : WG114936-02 8021 STD 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 19:33 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 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.79	1284281	31.5703 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 105.23%
9) S BFB			21.82	3616564	29.4530 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 98.18%
13) S BCB			25.75	3920956	30.7454 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 102.48%
Target Compounds					
1) TM MTBE			3.61	1063470	19.8001 UG/L
2) TM Benzene			7.43	2616431	20.4706 UG/L
4) TM Toluene			13.80	2534377	20.1198 UG/L
5) TM Chlorobenzene			18.63	2568327	19.3301 UG/L
6) TM Ethylbenzene			18.91	2290955	19.9741 UG/L
7) TM m-,p-Xylene			19.15	5473513	39.8810 UG/L
8) TM o-Xylene			20.31	2341611	19.4875 UG/L
10) T 1,3-Dichlorobenzene			24.06	2258552	18.8941 UG/L
11) T 1,4-Dichlorobenzene			24.24	2427926	19.5466 UG/L
12) T 1,2-Dichlorobenzene			24.78	2180897	20.4407 UG/L

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 21-Mar-02
Filename: 11G13768
Sub Directory: 032102
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.608	3.580	3.636
benzene	7.424	7.371	7.477
1,1,1-trifluorotoluene (SS)	9.792	9.719	9.865
toluene	13.806	13.741	13.871
chlorobenzene	18.645	18.589	18.700
ethylbenzene	18.927	18.876	18.978
m+p-xylene	19.173	19.122	19.224
o-xylene	20.337	20.293	20.381
bromofluorobenzene (SS)	21.840	21.800	21.880
1,3-dichlorobenzene	24.081	24.053	24.109
1,4-dichlorobenzene	24.262	24.236	24.288
1,2-dichlorobenzene	24.793	24.770	24.816
bromochlorobenzene (SS)	25.767	25.747	25.787

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: 22-Mar-02
Filename: 11G13802
Sub Directory: 032202
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.590	3.562	3.618
benzene	7.382	7.329	7.435
1,1,1-trifluorotoluene (SS)	9.741	9.668	9.814
toluene	13.760	13.695	13.825
chlorobenzene	18.595	18.539	18.651
ethylbenzene	18.876	18.825	18.927
m+p-xylene	19.124	19.073	19.175
o-xylene	20.289	20.245	20.333
bromofluorobenzene (SS)	21.793	21.753	21.833
1,3-dichlorobenzene	24.046	24.018	24.074
1,4-dichlorobenzene	24.228	24.202	24.254
1,2-dichlorobenzene	24.761	24.738	24.784
bromochlorobenzene (SS)	25.738	25.718	25.758

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

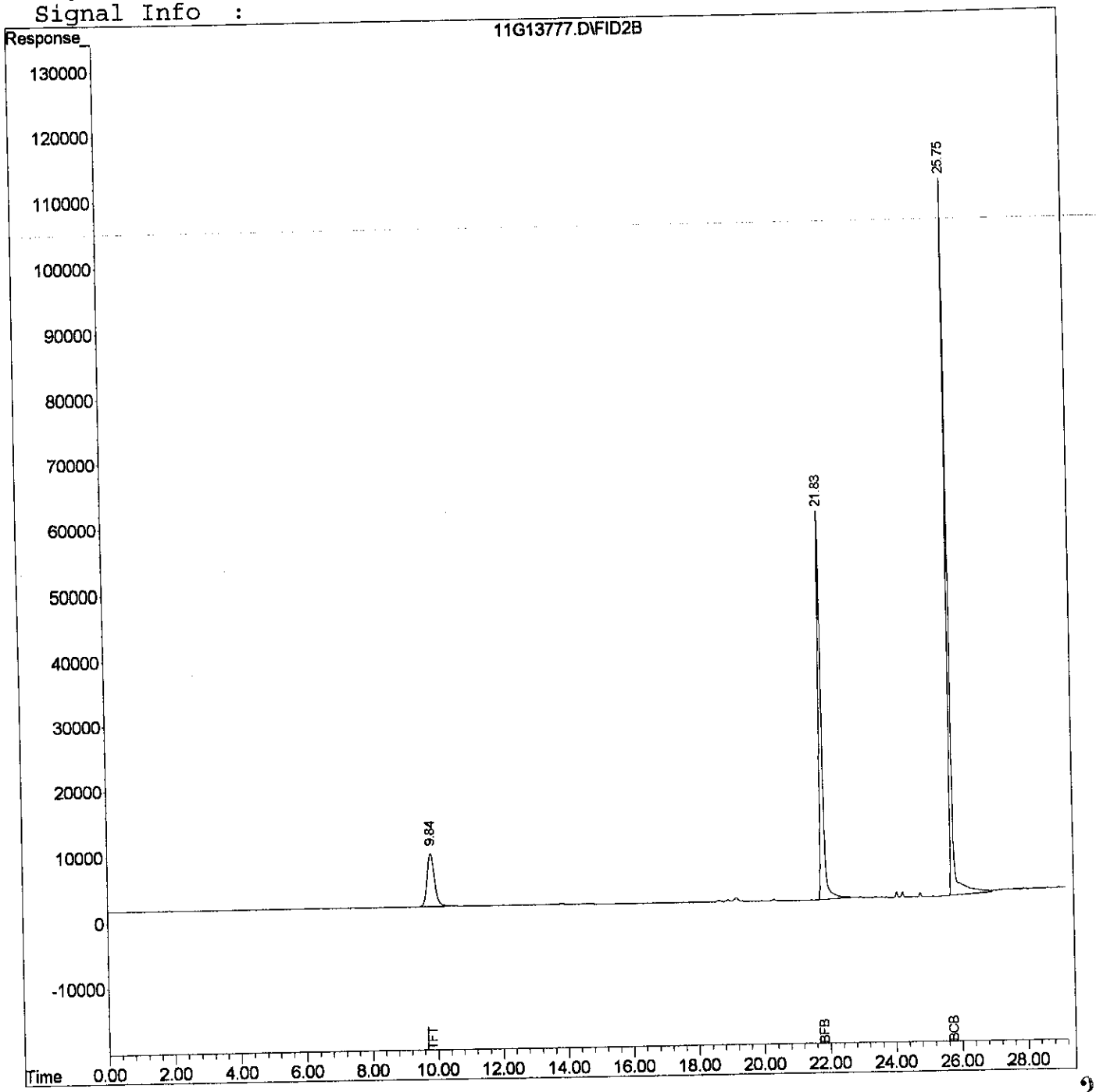
2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\032102\11G13777.D
Acq On : 21 Mar 2002 3:10 pm
Sample : WG114905-01 WATER BLANK 5ML
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 21 15:39 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032102\11G13777.D
Acq On : 21 Mar 2002 3:10 pm
Sample : WG114905-01 WATER BLANK 5ML
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 21 15:39 2002 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.84	1248492	30.6905 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 102.30%
9) S BFB			21.83	3488565	28.4106 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 94.70%
13) S BCB			25.76	3962300	31.0696 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 103.57%
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			18.93	15783	<MDL UG/L
7) TM m-,p-Xylene			19.18	42993	<MDL UG/L
8) TM o-Xylene			0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene			24.07	33152	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.25	31991	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.78	21971	<MDL UG/L

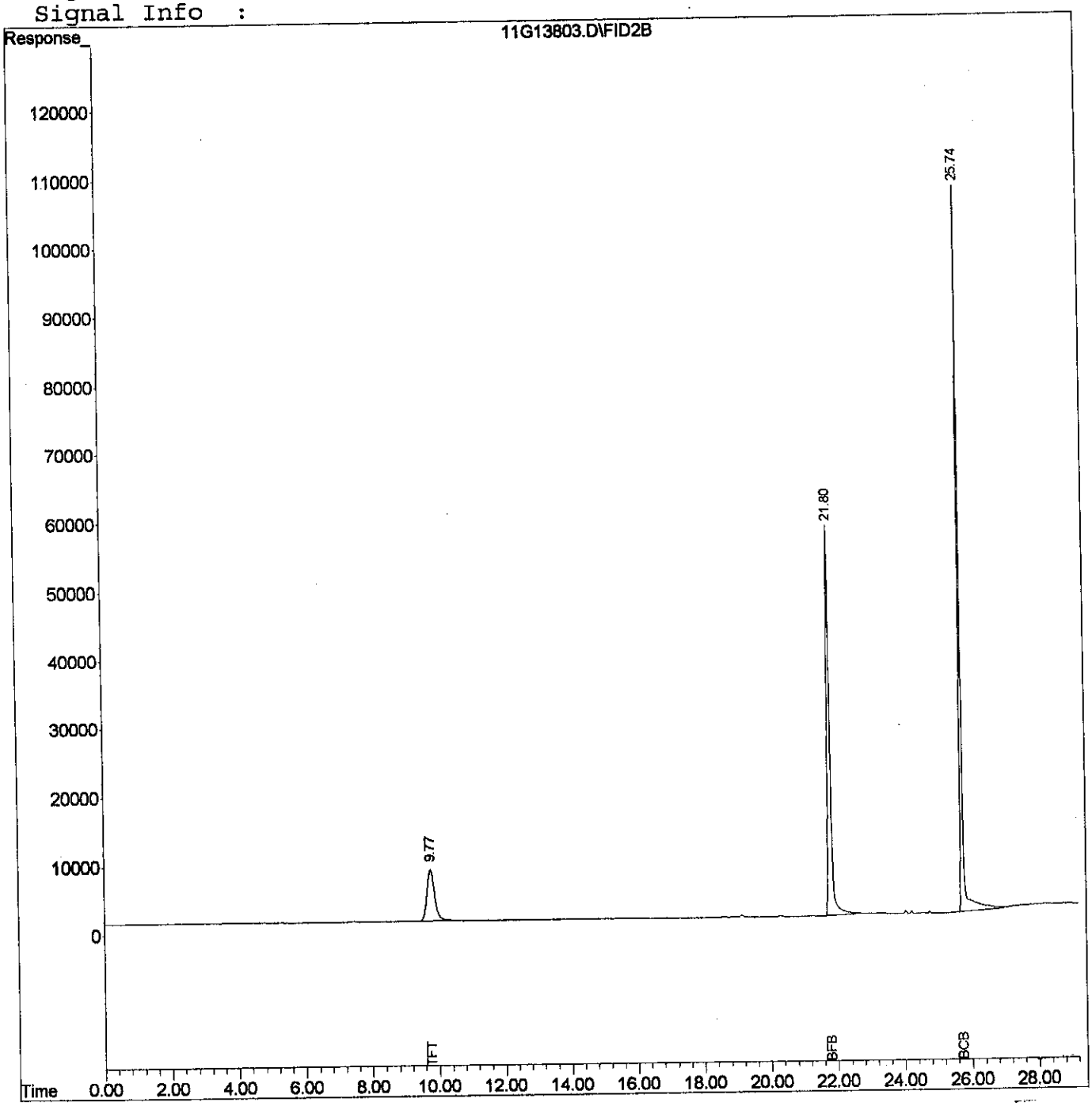
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\032202\11G13803.D
Acq On : 22 Mar 2002 7:37 am
Sample : WG114938-01 WATER BLANK 5ML
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 8:07 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 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032202\11G13803.D
Acq On : 22 Mar 2002 7:37 am
Sample : WG114938-01 WATER BLANK 5ML
Misc : 1,1 S-91-29
IntFile : autoint1.e
Quant Time: Mar 22 8:07 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 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.77	1197853	29.4457 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 98.15%
9) S BFB			21.80	3384671	27.5645 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 91.88%
13) S BCB			25.74	3809453	29.8711 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 99.57%
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			19.14	18631	<MDL UG/L
7) TM m-,p-Xylene			19.14	18631	<MDL UG/L
8) TM o-Xylene			0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene			24.05	16953	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.23	14392	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.77	11860	<MDL UG/L

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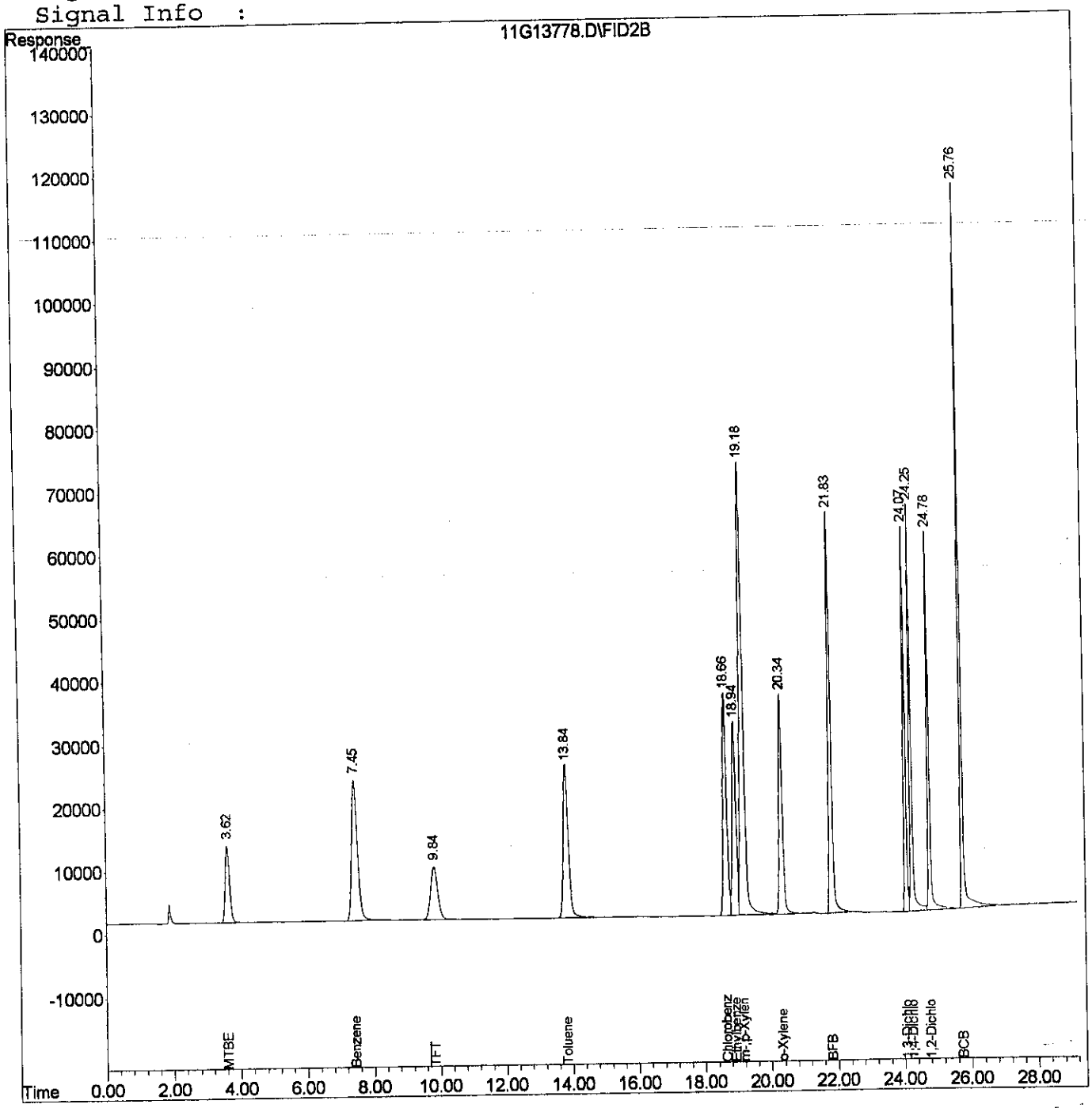
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\032102\11G13778.D
Acq On : 21 Mar 2002 3:45 pm
Sample : WG114905-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 21 16:14 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 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Page 2

Data File : C:\HPCHEM\1\DATA\032102\11G13778.D
Acq On : 21 Mar 2002 3:45 pm
Sample : WG114905-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 21 16:14 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 3/21/02
Last Update : Thu Mar 21 12:38:51 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			9.84	1258632	30.9398 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 103.13%
9) S BFB			21.84	3558416	28.9795 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 96.60%
13) S BCB			25.76	3902743	30.6026 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 102.01%
Target Compounds					
1) TM MTBE			3.62	1119719	20.8474 UG/L
2) TM Benzene			7.46	2711511	21.2144 UG/L
4) TM Toluene			13.85	2627505	20.8591 UG/L
5) TM Chlorobenzene			18.66	2705829	20.3650 UG/L
6) TM Ethylbenzene			18.94	2431373	21.1984 UG/L
7) TM m-,p-Xylene			19.19	5803741	42.2871 UG/L
8) TM o-Xylene			20.34	2464889	20.5134 UG/L
10) T 1,3-Dichlorobenzene			24.07	2414672	20.2001 UG/L
11) T 1,4-Dichlorobenzene			24.25	2600091	20.9327 UG/L
12) T 1,2-Dichlorobenzene			24.78	2343227	21.9621 UG/L

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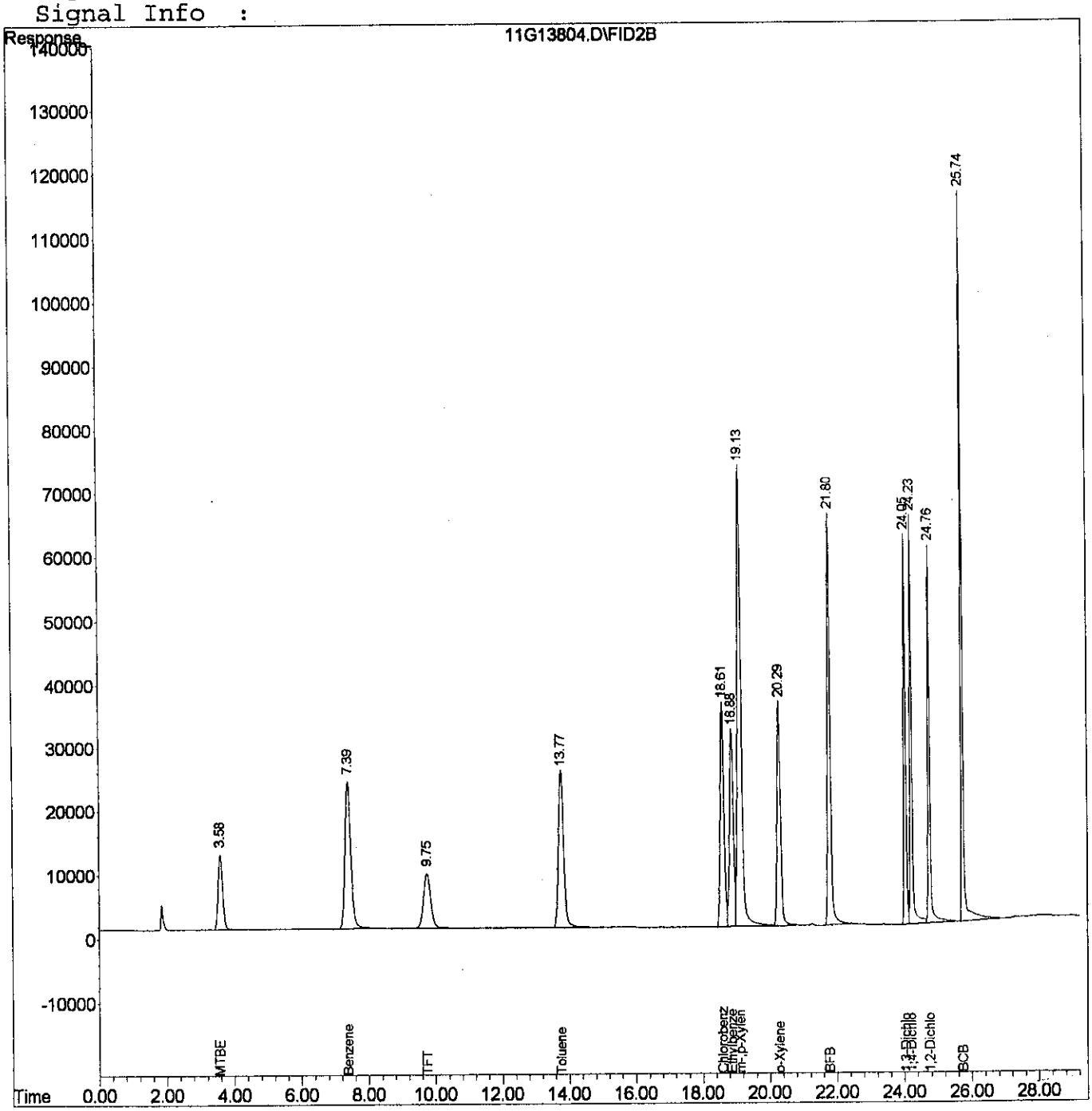
(f) RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032202\11G13804.D
Acq On : 22 Mar 2002 8:12 am
Sample : WG114938-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 8:41 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 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032202\11G13804.D Vial: 3
Acq On : 22 Mar 2002 8:12 am Operator: CBN
Sample : WG114938-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-91-(30,29) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 22 8:41 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.75	1295708	31.8512 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 106.17%
9) S BFB	21.80	3636239	29.6132 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 98.71%
13) S BCB	25.74	3946195	30.9433 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 103.14%
Target Compounds			
1) TM MTBE	3.58	1069531	19.9130 UG/L
2) TM Benzene	7.39	2763926	21.6245 UG/L
4) TM Toluene	13.77	2662232	21.1348 UG/L
5) TM Chlorobenzene	18.61	2727278	20.5264 UG/L
6) TM Ethylbenzene	18.89	2462716	21.4716 UG/L
7) TM m-,p-Xylene	19.13	5860567	42.7011 UG/L
8) TM o-Xylene	20.30	2497924	20.7883 UG/L
10) T 1,3-Dichlorobenzene	24.05	2414472	20.1984 UG/L
11) T 1,4-Dichlorobenzene	24.23	2610334	21.0151 UG/L
12) T 1,2-Dichlorobenzene	24.76	2353347	22.0570 UG/L

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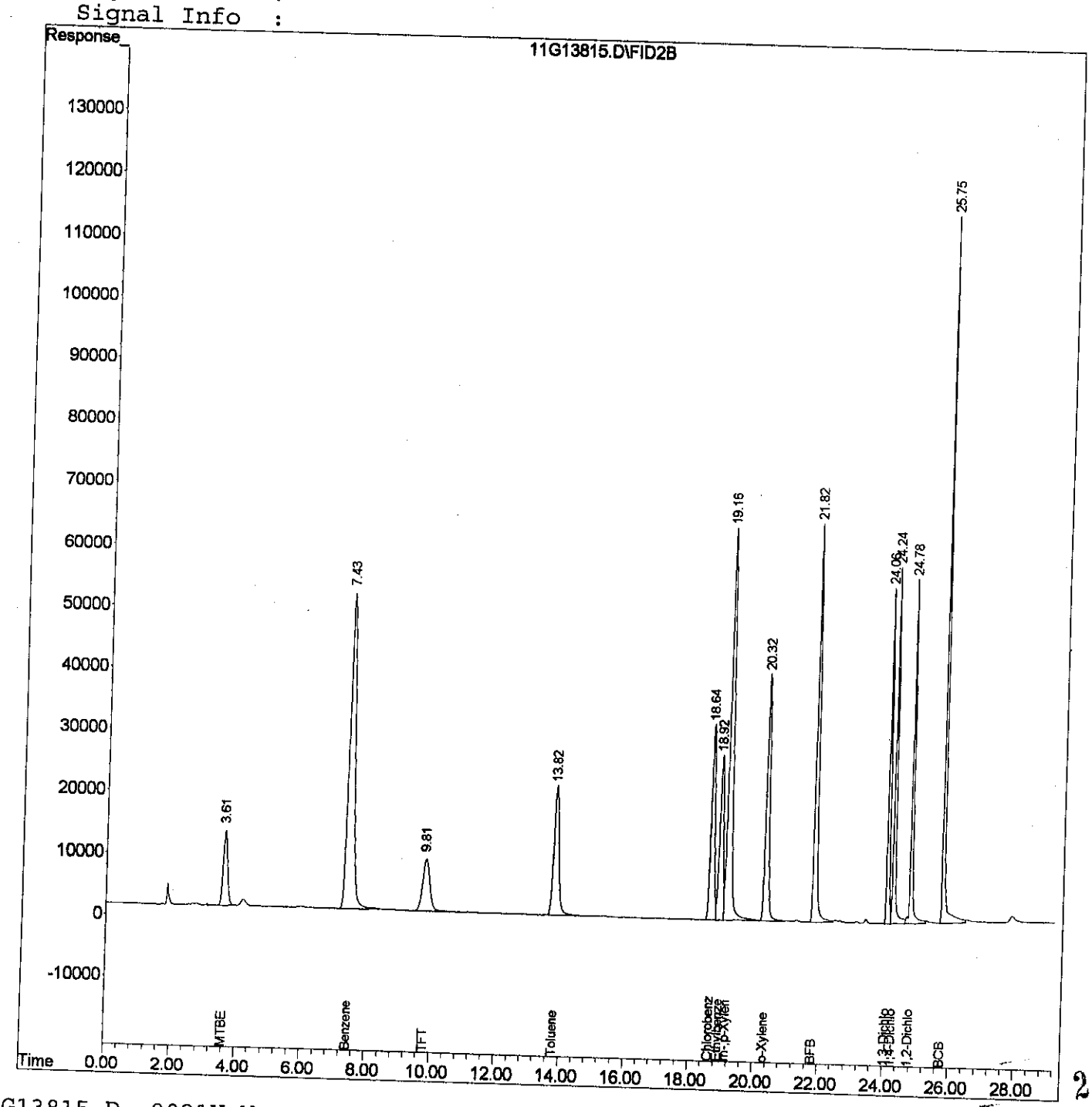
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032202\11G13815.D
Acq On : 22 Mar 2002 4:45 pm
Sample : WG114938-04 L0203380-14 MS B 5ML pH<2 50
Misc : 1,50 S-91-(30,29)
IntFile : autoint1.e
Quant Time: Mar 22 17:15 2002 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP11
Multiplr: 50.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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11G13815.D 8021W.M Fri Mar 22 17:15:01 2002

Data File : C:\HPCHEM\1\DATA\032202\11G13815.D Vial: 3
Acq On : 22 Mar 2002 4:45 pm Operator: CBN
Sample : WG114938-04 L0203380-14 MS B 5ML pH<2 50 Inst : HP11
Misc : 1,50 S-91-(30,29) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Mar 22 17:15 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

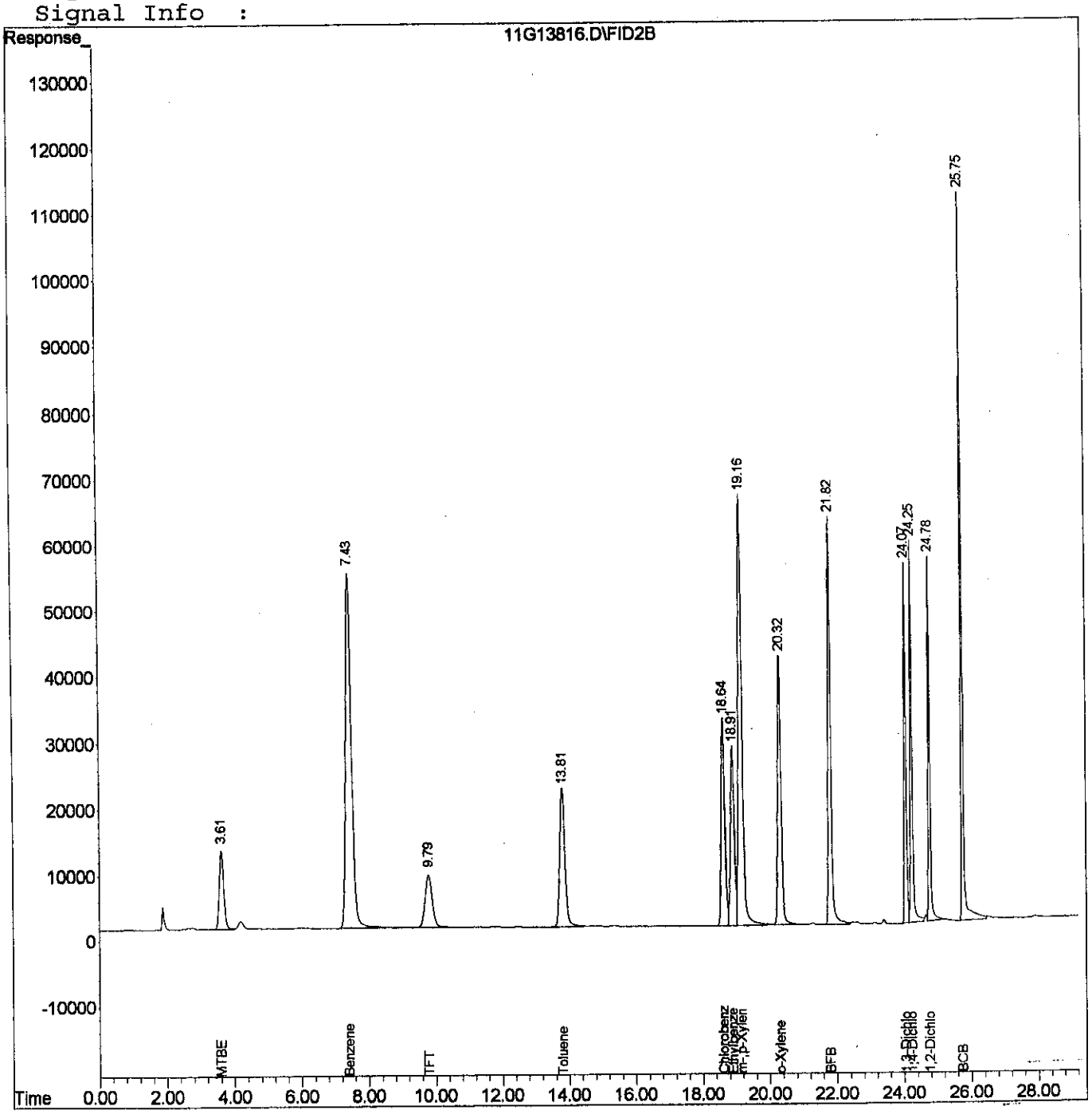
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.81	1275916	31.3647 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 104.55%
9) S BFB	21.82	3659561	29.8032 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.34%
13) S BCB	25.75	3903715	30.6102 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 102.03%
Target Compounds			
1) TM MTBE	3.61	1109064	1032.4520 UG/L
2) TM Benzene	7.43	6221243	2433.7022 UG/L
4) TM Toluene	13.81	2262980	898.2615 UG/L
5) TM Chlorobenzene	18.64	2426728	913.2189 UG/L
6) TM Ethylbenzene	18.92	2106650	918.3610 UG/L
7) TM m-,p-Xylene	19.16	5161519	1880.3871 UG/L
8) TM o-Xylene	20.32	2825869	1175.8790 UG/L
10) T 1,3-Dichlorobenzene	24.07	2146032	897.6390 UG/L
11) T 1,4-Dichlorobenzene	24.25	2343095	943.1839 UG/L
12) T 1,2-Dichlorobenzene	24.78	2219043	1039.9087 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032202\11G13816.D Vial: 4
Acq On : 22 Mar 2002 5:20 pm Operator: CBN
Sample : WG114938-05 L0203380-14 MSD B 5ML pH<2 5 Inst : HP11
Misc : 1,50 S-91-(30,29) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Mar 22 17:49 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 2002
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\1\DATA\032202\11G13816.D Vial: 4
Acq On : 22 Mar 2002 5:20 pm Operator: CBN
Sample : WG114938-05 L0203380-14 MSD B 5ML pH<2 5 Inst : HP11
Misc : 1,50 S-91-(30,29) Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Mar 22 17:49 2002 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 3/21/02
Last Update : Thu Mar 21 12:38:51 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	9.80	1222517	30.0520 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 100.17%
9) S BFB	21.82	3517710	28.6480 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 95.49%
13) S BCB	25.76	3732504	29.2677 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 97.56%
Target Compounds			
1) TM MTBE	3.61	1107040	1030.5679 UG/L
2) TM Benzene	7.43	6532878	2555.6116 UG/L
4) TM Toluene	13.81	2298108	912.2052 UG/L
5) TM Chlorobenzene	18.64	2428284	913.8044 UG/L
6) TM Ethylbenzene	18.92	2164521	943.5891 UG/L
7) TM m-,p-Xylene	19.16	5289573	1927.0381 UG/L
8) TM o-Xylene	20.32	2883833	1199.9988 UG/L
10) T 1,3-Dichlorobenzene	24.07	2140311	895.2461 UG/L
11) T 1,4-Dichlorobenzene	24.25	2304703	927.7294 UG/L
12) T 1,2-Dichlorobenzene	24.78	2074593	972.2152 UG/L

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(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: C:\HPCHEM\1\DATA\032102

WG114847
⊥ 905

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13764.d	1.	WG114847-01 8021 STD 20PPB 5ML LOW	1,1 S-91-(30,29)	21 Mar 2002 07:03
2	1	11g13765.d	1.	WG114847-01 8021 STD1 1PPB 5ML ANR	1,1 S-91-(23,32)	21 Mar 2002 07:58
3	2	11g13766.d	1.	WG114847-01 8021 STD1 1PPB 5ML ✓	1,1 S-91-(23,32)	21 Mar 2002 08:32
4	3	11g13767.d	1.	WG114847-02 8021 STD2 10PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 09:07
5	4	11g13768.d	1.	WG114847-03 8021 STD3 20PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 09:42
6	5	11g13769.d	1.	WG114847-04 8021 STD4 50PPB... ✓	1,1 S-91-(23,32)	21 Mar 2002 10:17
7	6	11g13770.d	1.	WG114847-05 8021 STD5 100PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 10:52
8	7	11g13771.d	1.	WG114847-06 8021 STD6 200PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 11:27
9	8	11g13772.d	1.	WG114847-07 8021 STD7 300PP... ✓	1,1 S-91-(23,32)	21 Mar 2002 12:02
10	9	11g13773.d	1.	RINSE 5ML ✓	1,1 S-91-(29)	21 Mar 2002 12:37
11	10	11g13774.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 13:12
12	11	11g13775.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 14:00
13	1	11g13776.d	1.	WG114847-08 ALT SOURCE 20PP... ✓	1,1 S-91-(30,29)	21 Mar 2002 14:35
14	1	11g13777.d	1.	WG114905-01 WATER BLANK 5ML ✓	1,1 S-91-29	21 Mar 2002 15:10
15	2	11g13778.d	1.	WG114905-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	21 Mar 2002 15:45
16	3	11g13779.d	1.	L0203372-01 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 16:20
17	4	11g13780.d	1.	RINSE 5ML ✓	1,1 S-91-29	21 Mar 2002 16:55
18	5	11g13781.d	1.	L0203360-01 A 5ML pH=7 ✓	1,1 S-91-29	21 Mar 2002 17:30
19	6	11g13782.d	100.	L0203380-01 A 100X 5ML pH<2 ✓	1,100 S-91-29	21 Mar 2002 18:04
20	7	11g13783.d	1.	L0203380-02 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 18:39
21	8	11g13784.d	1.	L0203380-03 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 19:14
22	9	11g13785.d	1.	WG114905-03 L0203380-08 A 5... ✓	1,1 S-91-29	21 Mar 2002 19:48
23	10	11g13786.d	1.	WG114905-04 L0203380-09 A M... ✓	1,1 S-91-29	21 Mar 2002 20:23
24	11	11g13787.d	1.	WG114905-04 L0203380-10 A M... ✓	1,1 S-91-(30,29)	21 Mar 2002 20:58
25	12	11g13788.d	1.	WG114847-08 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	21 Mar 2002 21:32
26	13	11g13789.d	1.	L0203380-04 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 22:07
27	14	11g13790.d	50.	L0203380-05 A 50X 5ML pH<2 ✓	1,50 S-91-29	21 Mar 2002 22:41
28	15	11g13791.d	1.	L0203380-06 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 23:16
29	16	11g13792.d	1.	L0203380-07 A 5ML pH<2 ✓	1,1 S-91-29	21 Mar 2002 23:51
30	17	11g13793.d	1.	L0203380-11 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 00:25
31	18	11g13794.d	1.	L0203380-12 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 01:00
32	19	11g13795.d	1.	L0203380-13 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 01:34
33	20	11g13796.d	1.	L0203380-14 A 5ML pH<2 ✓ RR @ 50X	1,1 S-91-29	22 Mar 2002 02:09
34	21	11g13797.d	1.	L0203380-15 A 5ML pH<2 RR c/o	1,1 S-91-29	22 Mar 2002 02:44
35	22	11g13798.d	1.	L0203380-16 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 03:18
36	23	11g13799.d	1.	WG114847-09 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 03:53
37	24	11g13800.d	1.	L0203380-17 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 04:27
38	25	11g13801.d	1.	WG114847-10 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 05:02

REANALYSIS FILE #

L0203380-14
⊥ -15

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Directory: C:\HPCHEM\1\DATA\032202

WG114938
WG115005

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g13802.d	1.	WG114936-01 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 06:54
2	2	11g13803.d	1.	WG114938-01 WATER BLANK 5ML ✓	1,1 S-91-29	22 Mar 2002 07:37
3	3	11g13804.d	1.	WG114938-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	22 Mar 2002 08:12
4	1	11g13805.d	1.	L0203374-01 A 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 08:55
5	2	11g13806.d	1.	L0203374-02 A 5ML pH<2 RR @ 100x	1,1 S-91-29	22 Mar 2002 09:30
6	3	11g13807.d	50.	WG114938-03 L0203380-14 B 5... RR c/o	1,50 S-91-29	22 Mar 2002 10:05
7	4	11g13808.d	1.	RINSE 5ML CONT	1,1 S-91-29	22 Mar 2002 10:53
8	5	11g13809.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 11:36
9	6	11g13810.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 12:21
10	7	11g13811.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 13:05
11	8	11g13812.d	1.	RINSE 5ML	1,1 S-91-29	22 Mar 2002 14:37
12	9	11g13813.d	1.	RINSE 5ML ✓	1,1 S-91-29	22 Mar 2002 15:26
13	2	11g13814.d	50.	WG114938-03 L0203380-14 B 5... ✓	1,50 S-91-29	22 Mar 2002 16:10
14	3	11g13815.d	50.	WG114938-04 L0203380-14 MS ... ✓	1,50 S-91-(30,29)	22 Mar 2002 16:45
15	4	11g13816.d	50.	WG114938-05 L0203380-14 MSD... ✓	1,50 S-91-(30,29)	22 Mar 2002 17:20
16	5	11g13817.d	1.	L0203380-15 B 5ML pH<2 ✓	1,1 S-91-29	22 Mar 2002 17:55
17	6	11g13818.d	100.	L0203374-02 A 5ML pH<2 100X ✓	1,100 S-91-29	22 Mar 2002 18:29
18	7	11g13819.d	1.	WG114936-02 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	22 Mar 2002 19:04
19	8	11g13820.d	1.	L0203384-01 A 5ML pH<2 RR ALL	1,1 S-91-29	22 Mar 2002 19:39
20	9	11g13821.d	1.	L0203384-02 A 5ML pH<2 c/o	1,1 S-91-29	22 Mar 2002 20:13
21	10	11g13822.d	1.	L0203384-03 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 20:48
22	11	11g13823.d	1.	L0203384-04 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 21:23
23	12	11g13824.d	1.	L0203384-05 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 21:57
24	13	11g13825.d	1.	L0203384-06 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 22:32
25	14	11g13826.d	1.	L0203384-07 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 23:06
26	15	11g13827.d	1.	L0203384-08 A 5ML pH<2	1,1 S-91-29	22 Mar 2002 23:41
27	16	11g13828.d	1.	L0203384-09 A 5ML pH<2	1,1 S-91-29	23 Mar 2002 00:15
28	17	11g13829.d	1.	WG114936-03 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	23 Mar 2002 00:50
29	18	11g13830.d	1.	WG115005-01 WATER BLANK 5ML ✓	1,1 S-91-29	23 Mar 2002 01:25
30	19	11g13831.d	1.	WG115005-02 WATER LCS 20PPB... ✓	1,1 S-91-(30,29)	23 Mar 2002 01:59
31	20	11g13832.d	5.	WG115005-03 L0203377-01 A 5... RR c/o	17,5 S-91-29 TCLP...	23 Mar 2002 02:34
32	21	11g13833.d	5.	WG115005-04 L0203377-01 MS ...	17,5 S-91-(30,29)...	23 Mar 2002 03:08
33	22	11g13834.d	5.	WG115005-05 L0203377-01 MSD...	17,5 S-91-(30,29)...	23 Mar 2002 03:43
34	23	11g13835.d	5.	L0203382-01 A 5ML pH=5 5X	17,5 S-91-29 TCLP...	23 Mar 2002 04:18
35	24	11g13836.d	5.	L0203382-02 A 5ML pH=5 5X	17,5 S-91-29 TCLP...	23 Mar 2002 04:52
36	25	11g13837.d	5.	L0203382-03 A 5ML pH<2 5X	1,5 S-91-29	23 Mar 2002 05:27
37	26	11g13838.d	1.	WG114936-04 8021 STD 20PPB 5ML ✓	1,1 S-91-(30,29)	23 Mar 2002 06:01

REANALYSIS	FILE #
L0203374-02	11G13818

285

2.2 Semivolatiles Data

2.2.6 Method 8011

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0203380

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 08 was chosen by the client for MS/MSD analysis. All other acceptance criteria were met.

SAMPLES

Samples: Sample 01 was analyzed at a 20X dilution in order to maintain analysis within the range of calibration. All other acceptance criteria were met.
Surrogates: O-Terphenyl was diluted out of sample 01 due to an analysis at 20X. The MS/MSD yielded an RPD for O-Terphenyl that was greater than advisory limit. 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: 4/2/02

Rev. 7/14/00

TRPH – GC DATA (FLA-PRO)

Login Number L0203380

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: 4/2/02

2.2.6.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 2G19615
Date Analyzed: 03/27/02
Time Analyzed: 17:31
Analyst: CLK

Work Group: WG115176
Blank Sample ID: WG114849-02
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	WG114849-03	2G19616	03/27/02 17:46	01
062-CEF46-14D-Q1-02-14	L0203380-08	2G19617	03/27/02 18:02	01
062-CEF46-14D-Q1-02-14	L0203380-09	2G19618	03/27/02 18:17	01
062-CEF46-14D-Q1-02-14	L0203380-10	2G19619	03/27/02 18:32	01
062-CEF46-2S-Q1-02-14	L0203380-02	2G19622	03/27/02 19:25	01
062-CEF46-5I-Q1-02-14	L0203380-03	2G19623	03/27/02 19:40	01
062-CEF46-6D-Q1-02-14	L0203380-04	2G19624	03/27/02 19:56	01
062-CEF46-7I-Q1-02-14	L0203380-05	2G19625	03/27/02 20:11	01
062-CEF46-9I-Q1-02-14	L0203380-06	2G19626	03/27/02 20:27	01
062-CEF46-13I-Q1-02-14	L0203380-07	2G19627	03/27/02 20:42	01
062-CEF46-21I-Q1-02-14	L0203380-11	2G19628	03/27/02 20:57	01
062-CEF46-24D-Q1-02-14	L0203380-12	2G19631	03/27/02 21:44	01
062-CEF46-25I-Q1-02-14	L0203380-13	2G19632	03/27/02 21:59	01
062-CEF46-26I-Q1-02-14	L0203380-14	2G19633	03/27/02 22:15	01
062-46DUP-Q1-02-14	L0203380-15	2G19634	03/27/02 22:30	01
062-46EQB-Q1-02-14	L0203380-16	2G19635	03/27/02 22:45	01
062-CEF46-1S-Q1-02-14	L0203380-01	2G19643	03/28/02 10:07	DL01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380
Instrument ID: HP2
File ID: 2G19615
Workgroup (AAB#): WG115176
Contract #:

Run Date: 03/27/2002
Run Time: 17:31
Analyst: CLK

Sample ID: WG114849-02
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-26-MAR-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	88.8	49 - 174	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 04/02/2002 10:37

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Run Date: 03/27/2002
Sample ID: WG114849-03
Instrument ID: HP2
Run Time: 17:46
Method: 8015 MOD
File ID: 2G19616
Analyst: CLK
Matrix: Water
Workgroup (AAB#): WG115176
Units: ug/L
Contract #:
Cal ID: HP2-26-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2820	82.9	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	112	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 04/02/2002 10:37

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum:L0203380
Instrument ID:HP2
Parent ID:L0203380-08
Sample ID:L0203380-09 MS
Sample ID:L0203380-10 MSD

Cal ID: HP2-26-MAR-2002
Contract #:
File ID:2G19617 Dil:1
File ID:2G19618 Dil:1
File ID:2G19619 Dil:1

Worknum:WG115176
Method:8015 MOD
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
TRPH-Florida PRO	0	3700	2440	65.9	3700	2820	80.1	14.4	50 - 120	20	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 01/11/2001
Version 1.2
Report generated 04/02/2002 10:37

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 MOD

AAB#: WG115176

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-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	2.34	27-MAR-02	7	6.59	
062-46EQB-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.84	27-MAR-02	7	6.60	
062-CEF46-13I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.99	27-MAR-02	7	6.52	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.94	27-MAR-02	7	6.41	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.94	27-MAR-02	7	6.42	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.94	27-MAR-02	7	6.43	
062-CEF46-1S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.86	28-MAR-02	7	7.08	*ANAL
062-CEF46-21I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.70	27-MAR-02	7	6.53	
062-CEF46-24D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.73	27-MAR-02	7	6.56	
062-CEF46-25I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.66	27-MAR-02	7	6.57	
062-CEF46-26I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.63	27-MAR-02	7	6.58	
062-CEF46-2S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.80	27-MAR-02	7	6.47	
062-CEF46-5I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.89	27-MAR-02	7	6.48	
062-CEF46-6D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.88	27-MAR-02	7	6.49	
062-CEF46-7I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.77	27-MAR-02	7	6.50	
062-CEF46-9I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.92	27-MAR-02	7	6.51	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 04/02/2002 10:37

SURROGATE STANDARDS

Login Number: L0203380
Instrument Id: HP2
Workgroup (AAB#): WG115176

Method: FLA-PRO
Matrix: WATER

Sample Number	Dilution	Tag	1
L0203380-01	20.0	DL01	DL
L0203380-02	1.00	01	85.0
L0203380-03	1.00	01	119
L0203380-04	1.00	01	108
L0203380-05	1.00	01	107
L0203380-06	1.00	01	82.8
L0203380-07	1.00	01	80.5
L0203380-08	1.00	01	80.2
L0203380-09	1.00	01	93.1
L0203380-10	1.00	01	117
L0203380-11	1.00	01	78.6
L0203380-12	1.00	01	84.5
L0203380-13	1.00	01	108
L0203380-14	1.00	01	71.4
L0203380-15	1.00	01	92.4
L0203380-16	1.00	01	70.3
WG114849-02	1.00	01	88.8
WG114849-03	1.00	01	112

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 04/02/2002 10:41

Response Factor Report HP2

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002

Calibration Files

5	=2G19585.D	50	=2G19584.D	100	=2G19583.D
200	=2G19582.D	400	=2G19581.D	600	=2G19580.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.599	3.431	3.377	3.285	2.758	3.420	3.145	E4	11.72
2)	s	O-Terphenyl	2.787	2.811	2.957	2.676	1.993	2.979	2.700	E4	13.50
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

Login Number: L0203380
File ID: 2G19586
ALT ID: WG115180-07
Units: mg/L

Instrument ID: HP2
Run Date: 03/26/2002
Run Time: 20:43
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	2770	25600	18.5	

KEMRON FORMS - Modified 03/20/2002
Version 1.2
Report generated 04/02/2002 10:39

Login Number: L0203380
File ID: 2G19614
CCV ID: WG115259-01
Units: mg/L

Instrument ID: HP2
Run Date: 03/27/2002
Run Time: 17:13
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3010	27800	11.5	

* Exceeds %D Limit

KEMRON FORMS - Modified 03/20/2002
Version 1.2
Report generated 04/02/2002 10:40

Login Number: L0203380
File ID: 2G19621
CCV ID: WG115259-02
Units: mg/L

Instrument ID: HP2
Run Date: 03/27/2002
Run Time: 19:02
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3730	34500	9.7	

* Exceeds %D Limit

KEMRON FORMS - Modified 03/20/2002
Version 1.2
Report generated 04/02/2002 10:40

Login Number: L0203380
File ID: 2G19630
CCV ID: WG115259-03
Units: mg/L

Instrument ID: HP2
Run Date: 03/27/2002
Run Time: 21:28
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3550	32800	4.4	

* Exceeds %D Limit

KEMRON FORMS - Modified 03/20/2002
Version 1.2
Report generated 04/02/2002 10:40

Login Number: L0203380
File ID: 2G19639
CCV ID: WG115259-04
Units: mg/L

Instrument ID: HP2
Run Date: 03/27/2002
Run Time: 23:47
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3650	33800	7.4	

* Exceeds %D Limit

Login Number: L0203380
File ID: 2G19642
CCV ID: WG115284-01
Units: mg/L

Instrument ID: HP2
Run Date: 03/28/2002
Run Time: 09:45
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3240	30000	4.7	

* Exceeds %D Limit

KEMRON FORMS - Modified 03/20/2002
Version 1.2
Report generated 04/02/2002 10:40

Login Number: L0203380
File ID: 2G19646
CCV ID: WG115284-02
Units: mg/L

Instrument ID: HP2
Run Date: 03/28/2002
Run Time: 11:03
Analyst: CLK
Cal ID: HP2 - 26-MAR-02

Analyte		Expected	Found	RF	%D	Q
n-Nonatriacontane		200		0		
Petroleum Range		3400	3530	32700	3.8	

* Exceeds %D Limit

KEMRON FORMS - Modified 03/20/2002
Version 1.2
Report generated 04/02/2002 10:40

1	1	2g19548.d	1.	NA CH2CL2	1,1	26 Mar 102 13::2
2	1	2g19549.d	1.	CH2CL2	1,1	26 Mar 102 13::4
3	2	2g19550.d	1.	✓ win def std	1,1 NS 14-41	26 Mar 102 13::5
4	3	2g19551.d	1.	✓ JP-4 2000ppm Qualitative STD	1,1 SOS 59-03	26 Mar 102 12::0
5	4	2g19552.d	1.	WG115131-03 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
6	5	2g19553.d	1.	WG115131-06 10000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::2
7	6	2g19554.d	1.	WG115131-05 5000ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::3
8	7	2g19555.d	1.	WG115131-04 2500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::4
9	8	2g19556.d	1.	WG115131-02 500ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::0
10	9	2g19557.d	1.	WG115131-01 100ppm DRO STD	1,1 NS 14-29	26 Mar 102 12::1
11	10	2g19558.d	1.	WG115131-07 1000ppm DRO Alt Source STD	1,1 SOS 58-20	26 Mar 102 12::2
12	11	2g19559.d	1.	RR DRO SPK @ 1000ppm ESS0041-02	1,1	26 Mar 102 12::3
13	12	2g19560.d	1.	✓ L0203345-01 WATER DRO	1,1	26 Mar 102 12::5
14	13	2g19561.d	1.	L0203345-03 WATER DRO	1,1	26 Mar 102 12::0
15	14	2g19562.d	1.	L0203345-04 WATER DRO	1,1	26 Mar 102 12::1
16	15	2g19563.d	1.	L0203345-02 WATER DRO	1,1	26 Mar 102 12::2
17	1	2g19564.d	1.	NA CH2CL2	1,1	26 Mar 102 12::3
18	1	2g19565.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
19	4	2g19566.d	1.	✓ WG115131-08 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::5
20	16	2g19567.d	1.	RR L0203407-02 WATER DRO	1,1	26 Mar 102 12::2
21	17	2g19568.d	20.	✓ L0203407-02 WATER DRO 20X	1,20	26 Mar 102 12::3
22	1	2g19569.d	1.	NA CH2CL2	1,1	26 Mar 102 12::4
23	1	2g19570.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
24	4	2g19571.d	1.	✓ WG115131-09 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::0
25	18	2g19572.d	1.	L0203340-01 SOIL DRO	7,1 SOIL	26 Mar 102 12::2
26	19	2g19573.d	1.	L0203340-02 SOIL DRO	7,1 SOIL	26 Mar 102 12::3
27	20	2g19574.d	1.	L0203340-03 SOIL DRO	7,1 SOIL	26 Mar 102 12::4
28	1	2g19575.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
29	1	2g19576.d	1.	NA CH2CL2	1,1	26 Mar 102 12::0
30	4	2g19577.d	1.	✓ WG115131-10 1000ppm DRO CCV	1,1 NS 14-29	26 Mar 102 12::1
31	21	2g19578.d	1.	RR DRO SPK @ 1000 ESS0041-02	1,1	26 Mar 102 12::3
32	1	2g19579.d	1.	NA CH2CL2	1,1	26 Mar 102 12::5
33	2	2g19580.d	1.	✓ WG115180-06 600ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
34	3	2g19581.d	1.	WG115180-05 400ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
35	4	2g19582.d	1.	WG115180-04 200ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::4
36	5	2g19583.d	1.	WG115180-03 100ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::5
37	6	2g19584.d	1.	WG115180-02 50ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::1
38	7	2g19585.d	1.	WG115180-01 5ppm PRO STD	1,1 SOS 59-6	26 Mar 102 12::2
39	8	2g19586.d	1.	WG115180-07 200ppm PRO Alt Source STD	1,1 SOS 59-1	26 Mar 102 12::4
40	9	2g19587.d	1.	WG114738-02 BLK 3/19 V182P27	1,1	26 Mar 102 12::5
41	10	2g19588.d	1.	WG114738-03 LCS 3/19 V182P27	1,1	26 Mar 102 12::1
42	11	2g19589.d	1.	L0203326-01 PRO WATER	1,1	26 Mar 102 12::2
43	12	2g19590.d	1.	L0203326-02 PRO WATER	1,1	26 Mar 102 12::4
44	13	2g19591.d	1.	L0203327-01 PRO WATER	1,1	26 Mar 102 12::5
45	14	2g19592.d	1.	L0203327-02 PRO WATER	1,1	26 Mar 102 13::1
46	1	2g19593.d	1.	NA CH2CL2	1,1	26 Mar 102 13::3
47	1	2g19594.d	1.	NA CH2CL2	1,1	26 Mar 102 13::4
48	4	2g19595.d	1.	✓ WG115180-08 200ppm PRO CCV	1,1 SOS 59-6	26 Mar 102 13::0
49	15	2g19596.d	1.	L0203327-03 PRO WATER	1,1	26 Mar 102 13::1
50	16	2g19597.d	1.	WG114738-01 L0203327-04 PRO WATER REF	1,1	26 Mar 102 13::3
51	17	2g19598.d	1.	WG114738-04 L0203327-05 PRO WATER MS	1,1	26 Mar 102 13::4

5	18	2g19599.d	1.	✓	WG114738-05 L0203327-06 PRO WATER MSD	1,1	27 Mar 102 13::0
53	19	2g19600.d	1.		L0203327-07 PRO WATER	1,1	27 Mar 102 13::1
54	20	2g19601.d	1.		L0203327-08 PRO WATER	1,1	27 Mar 102 13::3
55	21	2g19602.d	1.		L0203327-09 PRO WATER	1,1	27 Mar 102 13::4
56	1	2g19603.d	1.	NA	CH2CL2	1,1	27 Mar 102 12::0
57	4	2g19604.d	1.	✓	WG115180-09 200ppm CCV	1,1 SOS 59-6	27 Mar 102 12::1
58	22	2g19605.d	1.	NA	500ppm PRO ALT Check 1	1,1 SOS 59-1	27 Mar 102 12::5
59	23	2g19606.d	1.		600ppm PRO STD Check	1,1 SOS 59-6	27 Mar 102 13::2
60	24	2g19607.d	1.		500ppm PRO ALT CHECK II	1,1 STOCK (New Vial)	27 Mar 102 13::3
61	25	2g19608.d	1.		200ppm PRO STD CHK	1,1 SOS 59-6 Remix	27 Mar 102 13::5

CLK 3/27/02
RLC 3/27/02

Analysis Date/Time 3/26/02 Instrument ID HP7 Column ID RTX-5 Data Subdirectory 032602
Analyst Initials ____

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check

☒ Gases >500 psi

Preventative Maintenance

☐ Change o-ring
☒ Change liner
☒ Change septum
☐ Clip column (___cm)
☒ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?

Yes ✓ No ____

Additional Maintenance

Problem: Injection Port Pressure low

Action Taken: Replaced instrument weld, Replaced pre-column, Changed Gold Seal

Comments

DRO SPK @ 1000 ppm ESS0041-02, low (2g19559)

LCF03467-02 WATER DRO, Needs 20X
↓ -02 ↓ ↓ 20X, Dilution bail, Reported, SS DC

DRO SPK @ 1000 ESS0041-02, high (2g19578)

Fks (2g19605 - 2g19603), (Check study)

Reviewed By: [illegible] 3/27/02

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g19609.d	1.	N/A CH2CL2	1,1	27 Mar 102 12::4
2	2	2g19610.d	1.	✓ 1000ppm DRO CCV	1,1 NS 14-29	27 Mar 102 12::5
3	3	2g19611.d	1.	RR DRO SPK @ 1000 ESS0041-02	1,1	27 Mar 102 12::0
4	4	2g19612.d	1.	✓ win def std	1,1 NS 14-41	27 Mar 102 12::4
5	5	2g19613.d	1.	CC 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::5
6	6	2g19614.d	1.	✓ WG115259-01 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::1
7	7	2g19615.d	1.	WG114849-02 BLK 3/21 V182P45	1,1	27 Mar 102 12::3
8	8	2g19616.d	1.	WG114849-03 LCS 3/21 V182P45	1,1	27 Mar 102 12::4
9	9	2g19617.d	1.	WG114849-01 L0203380-08 PRO WATER REF	1,1	27 Mar 102 12::0
10	10	2g19618.d	1.	WG114849-04 L0203380-09 PRO WATER MS	1,1	27 Mar 102 12::1
11	11	2g19619.d	1.	WG114849-05 L0203380-10 PRO WATER MSD	1,1	27 Mar 102 12::3
12	1	2g19620.d	1.	N/A CH2CL2	1,1	27 Mar 102 12::4
13	6	2g19621.d	1.	✓ WG115259-02 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::0
14	12	2g19622.d	1.	L0203380-02 *	1,1	27 Mar 102 12::2
15	13	2g19623.d	1.	L0203380-03 *	1,1	27 Mar 102 12::4
16	14	2g19624.d	1.	L0203380-04 *	1,1	27 Mar 102 12::5
17	15	2g19625.d	1.	L0203380-05 *	1,1	27 Mar 102 12::1
18	16	2g19626.d	1.	L0203380-06 *	1,1	27 Mar 102 12::2
19	17	2g19627.d	1.	L0203380-07 *	1,1	27 Mar 102 12::4
20	18	2g19628.d	1.	L0203380-11 *	1,1	27 Mar 102 12::5
21	1	2g19629.d	1.	N/A CH2CL2	1,1	27 Mar 102 12::1
22	6	2g19630.d	1.	✓ WG115259-03 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::2
23	19	2g19631.d	1.	L0203380-12 *	1,1	27 Mar 102 12::4
24	20	2g19632.d	1.	L0203380-13 *	1,1	27 Mar 102 12::5
25	21	2g19633.d	1.	L0203380-14 *	1,1	27 Mar 102 13::1
26	22	2g19634.d	1.	L0203380-15 *	1,1	27 Mar 102 13::3
27	23	2g19635.d	1.	L0203380-16 *	1,1	27 Mar 102 13::4
28	24	2g19636.d	1.	RR L0203380-01 *	1,1	27 Mar 102 13::0
29	1	2g19637.d	1.	N/A CH2CL2	1,1	27 Mar 102 13::1
30	1	2g19638.d	1.	N/A CH2CL2	1,1	27 Mar 102 13::3
31	6	2g19639.d	1.	✓ WG115259-04 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 13::4

CLK
3/28/02
FWC 3/28/02

Analysis Date/Time 3/27/02 Instrument ID HP7 Column ID RTX-5 Data Subdirectory 032702
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
- [ ] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

* PRO WATER
L0203380-01, Neat 20X

DRO SPK @ 1000 E550041-02, high (2g19611)

Reviewed By: TRPC 3/28/02

	1	2g19640.d	1.	NA CH2CL2	1,1	28 Mar 102 12::1
	2	2g19641.d	1.	✓ win def std	1,1 NS 14-41	28 Mar 102 12::3
	3	2g19642.d	1.	✓ WG115284-01 200PPM PRO CCV	1,1 SOS 59-6	28 Mar 102 12::4
	4	2g19643.d	20.	✓ L0203380-01 PRO WATER 20X	1,20	28 Mar 102 13::0
	1	2g19644.d	1.	NA CH2CL2	1,1	28 Mar 102 13::3
	1	2g19645.d	1.	NA CH2CL2	1,1	28 Mar 102 13::4
	3	2g19646.d	1.	✓ WG115284-02 200PPM PRO CCV	1,1 SOS 59-6	28 Mar 102 13::0
	1	2g19647.d	1.	NA CH2CL2	1,1	28 Mar 102 13::2
	5	2g19648.d	1.	✓ WG115303-01 1000ppm DRO CCV	1,1 NS 14-29	28 Mar 102 13::3
0	6	2g19649.d	1.	✓ DRO SPK @ 1000ppm ESS0041-02	1,1	28 Mar 102 13::4
1	7	2g19650.d	1.	RR WG115110-02 BLK 3/26 V182P101	7,1 SOIL	28 Mar 102 12::0
2	8	2g19651.d	1.	✓ WG115110-03 LCS 3/26 V182P101	7,1 SOIL	28 Mar 102 12::1
3	9	2g19652.d	1.	RR L0203417-01 DRO SOIL	7,1 SOIL	28 Mar 102 12::2
4	10	2g19653.d	1.	RR L0203417-02 DRO SOIL	7,1 SOIL	28 Mar 102 12::3
5	11	2g19654.d	1.	RR WG115110-01 L0203417-03 DRO SOIL REF	7,1 SOIL	28 Mar 102 12::4
6	12	2g19655.d	1.	✓ WG115110-04 L0203417-03 DRO SOIL MS	7,1 SOIL	28 Mar 102 12::5
7	13	2g19656.d	1.	✓ WG115110-05 L0203417-03 DRO SOIL MSD	7,1 SOIL	28 Mar 102 12::0
8	14	2g19657.d	1.	NA CH2CL2	1,1	28 Mar 102 12::1
9	14	2g19658.d	1.	NA CH2CL2	1,1	28 Mar 102 12::4
0	5	2g19659.d	1.	✓ WG115303-02 1000ppm DRO CCV	1,1 NS 14-29	28 Mar 102 12::5
1	15	2g19660.d	1.	✓ WG115280-01 BLK 3/28 V182P133	1,1	28 Mar 102 12::1
2	16	2g19661.d	1.	✓ WG115280-02 LCS 3/28 V182P133	1,1	28 Mar 102 12::2
3	17	2g19662.d	1.	✓ WG115280-03 LCS DUP 3/28 V182P133	1,1	28 Mar 102 12::3
4	18	2g19663.d	1.	✓ L0203543-01 DRO WATER	1,1	28 Mar 102 12::4
5	19	2g19664.d	1.	NA CH2CL2	1,1	28 Mar 102 12::5
6	20	2g19665.d	1.	✓ WG115303-03 1000ppm DRO CCV	1,1	28 Mar 102 12::0

CLK 4/1/02

4/1/02

Analysis Date/Time 5/08/02 Instrument ID HP2 Column ID KTX-5 Data Subdirectory 032802
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. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- [x] Gases >500 psi

Preventative Maintenance
- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

WG115110-02 BLK 3/26 V182P101 , Needs RR , Needs Fractionated
L0203417-01 DRO SOIL
⊥ -02 ⊥ ⊥
WG115110-01 L0203417-03 DRO SOIL REF ⊥ ⊥

Need PRO ~~[illegible]~~ 4/1/02 Win STD ran

WG115110-04 L0203417-03 DRO SOIL MS , SS 1 high , O-Terphenyl
⊥ -05 ⊥ -03 ⊥ ⊥ MSD , ⊥ , ⊥

Reviewed By: SPR 4/1/02

Date/Time Extracted: 3/21/02 @0815 Date TV/KD: 3/21/02
Spike/Surrogate Analyst: REK Witness: CEB
Surrogate #: ES5C0 40-18 Earliest Hold Date: 3/26/02
Spike #: A = ES5C0 40-19 Spike #: B = —

Extract Relinquished By: CSH
Extract Received By & Date: [illegible] 3/21/02

	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 114849-02
2	LCS		✓			⊥		1mL		⊥				WG ⊥ -03
3/27 3	03-380-01	FLA-PRO	✓			920mL				C	✓			
4	-02		✓			950mL				T	✓			
5	-03		✓			930mL								
6	-04		✓			910mL								
7	-05		✓			960mL								
8	-06		✓			940mL								
9	-07		✓			⊥								
10	-08		✓			965mL								WG 114849-01
11	-09MS		✓			920mL		1mL						⊥ -04
12	-10MSD		✓			965mL		⊥		C				* ⊥ -05
13	-11		✓			⊥				T				
14	-12		✓			950mL								
15	-13		✓			965mL								
16	-14		✓			940mL								
17	-15		✓			910mL								
18	-16		✓			1L								
19														
20														
21														
22														
23														
24														

CSH 3/21/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: ER2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/21/02

Extraction Notes For Volume # 182 Page # 45

General Comments: MS OF 03-380-08
MSD

Extraction Anomalies:
* → THE MSD EXTRACT WAS COLORED, WHILE THE REF AND MS WERE TRANSPARENT.

Concentration Anomalies:
NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

2.2.6.2 Sample Data

```
Acq On     : 28 Mar 2002  10:07                          Operator: CLK
Sample     : L0203380-01 PRO WATER 20X                   Inst    : HP2
Misc       : 1,20                                        Multiplr: 20.00
IntFile    : PETRO.E
Quant Time: Mar 28 13:31 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

      Compound                          R.T.        Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                     3.67          41277   30.570 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  152.85%
 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       68776531 2186.870 ppb
```

DL

✓

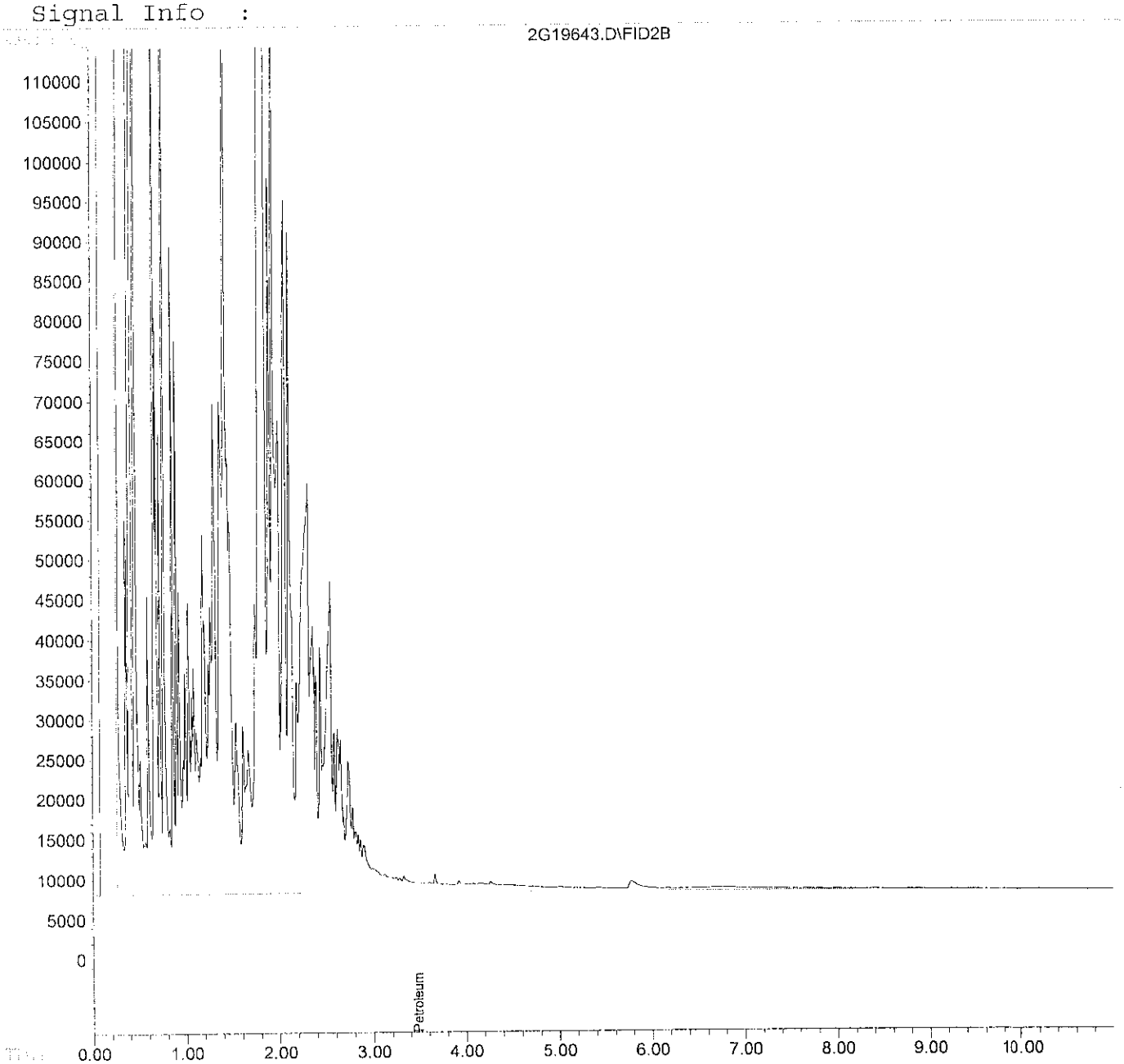
```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                  (m)=manual int.
2G19643.D  FLASHPRO.M      Thu Mar 28 13:32:00 2002        HP2          Page 1
```

Acq On : 28 Mar 2002 10:07
Sample : L0203380-01 PRO WATER 20X
Misc : 1,20
IntFile : PETRO.E
Quant Time: Mar 28 13:31 2002 Quant Results File: FLASHPRO.RES

Operator: CLK
Inst : HP2
Multiplr: 20.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 19:25 Operator: CLK
Sample : L0203380-02 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

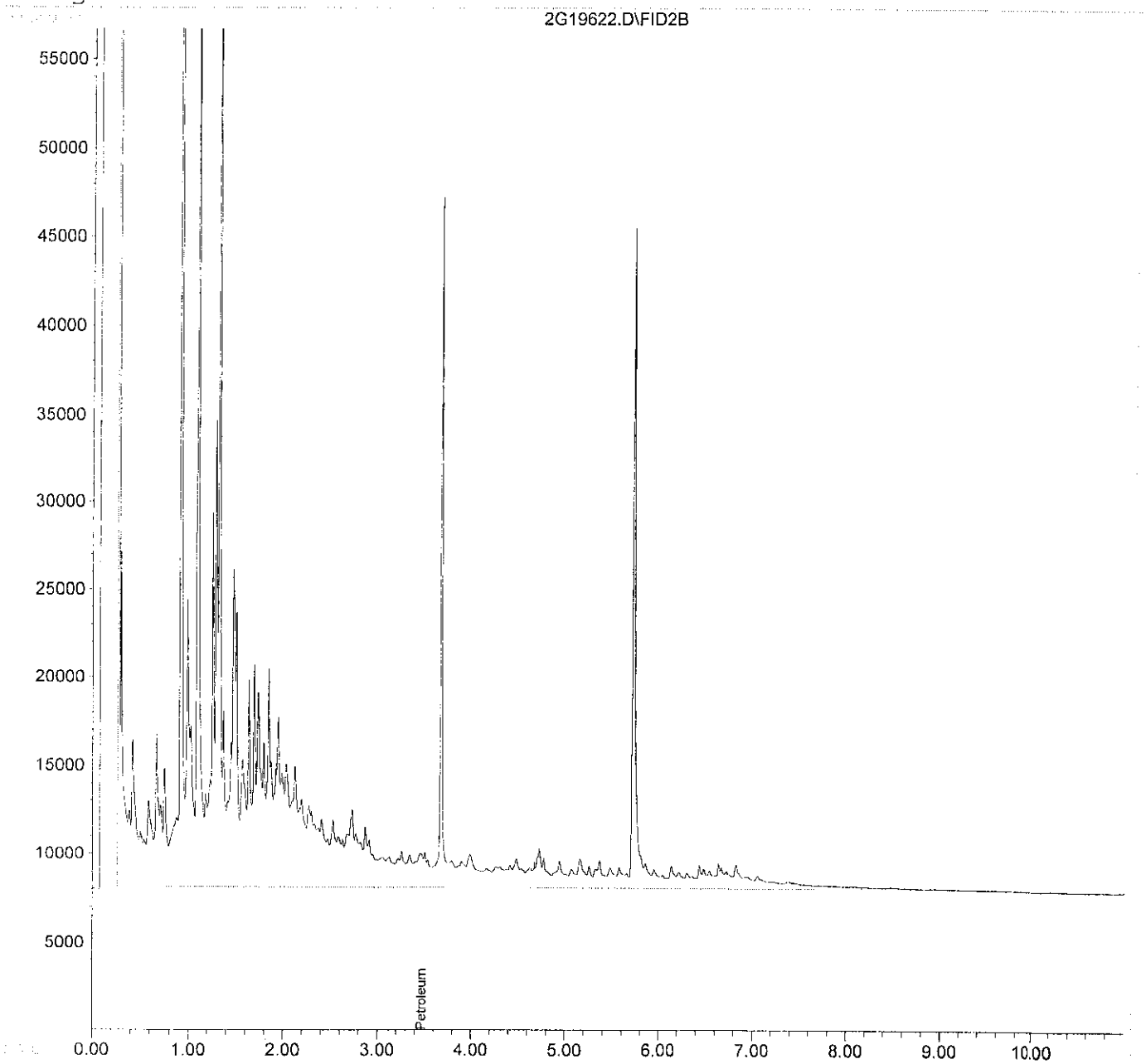
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	459001	16.997 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	84.99%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	12074165	383.919 ppb F

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19622.D FLASHPRO.M Thu Mar 28 08:47:25 2002 HP2 Page 1

Acq On : 27 Mar 2002 19:25 Operator: CLK
Sample : L0203380-02 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 19:40 Operator: CLK
Sample : L0203380-03 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

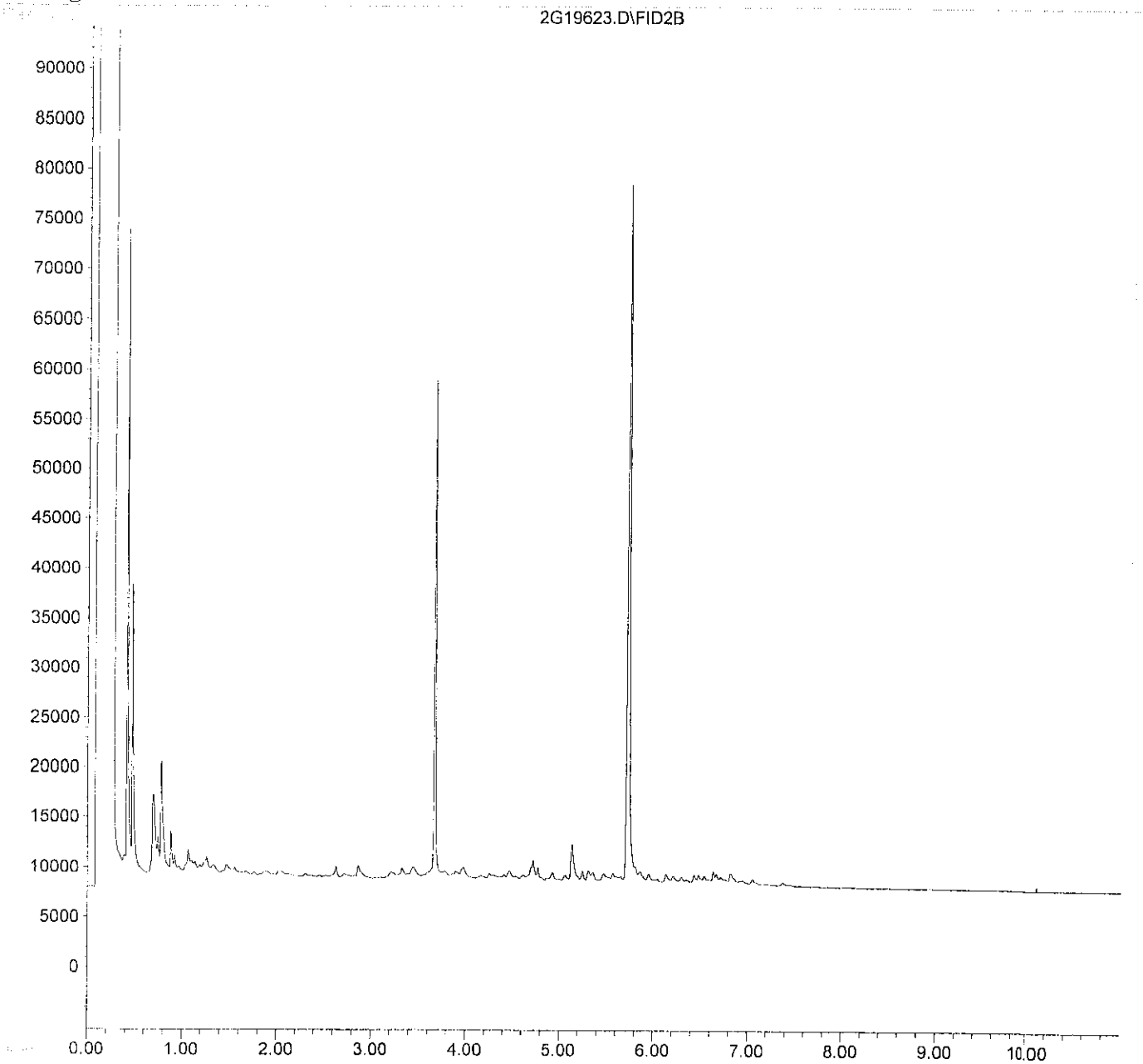
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	642916	23.808 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 119.04%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	4281501	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19623.D FLASHPRO.M Thu Mar 28 08:47:30 2002 HP2 Page 1

Acq On : 27 Mar 2002 19:10 Operator: CLK
Sample : L0203380-03 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 19:50 Operator: CLK
Sample : L0203380-04 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	582709	21.578 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 107.89%			
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	6669555	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19624.D FLASHPRO.M Thu Mar 28 08:47:34 2002 HP2 Page 1

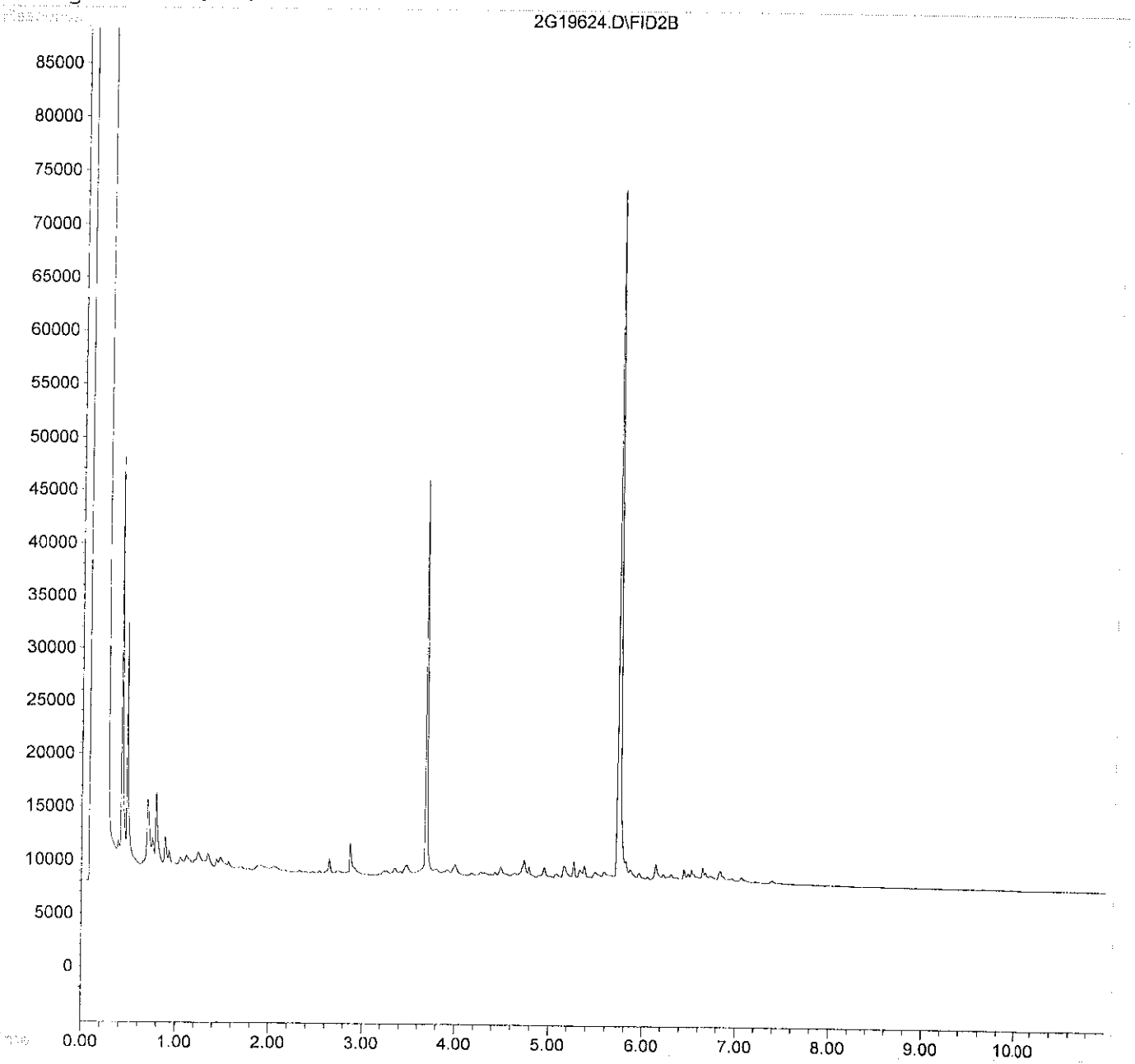
Acq On : 27 Mar 2002 19:56
Sample : L0203380-04
Misc : 1,1
IntFile : PETRO.E

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 20:11
Sample : L0203380-05
Misc : 1,1
IntFile : PETRO.E

Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	580447	21.494 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	107.47%
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	32060015	1019.404 ppb

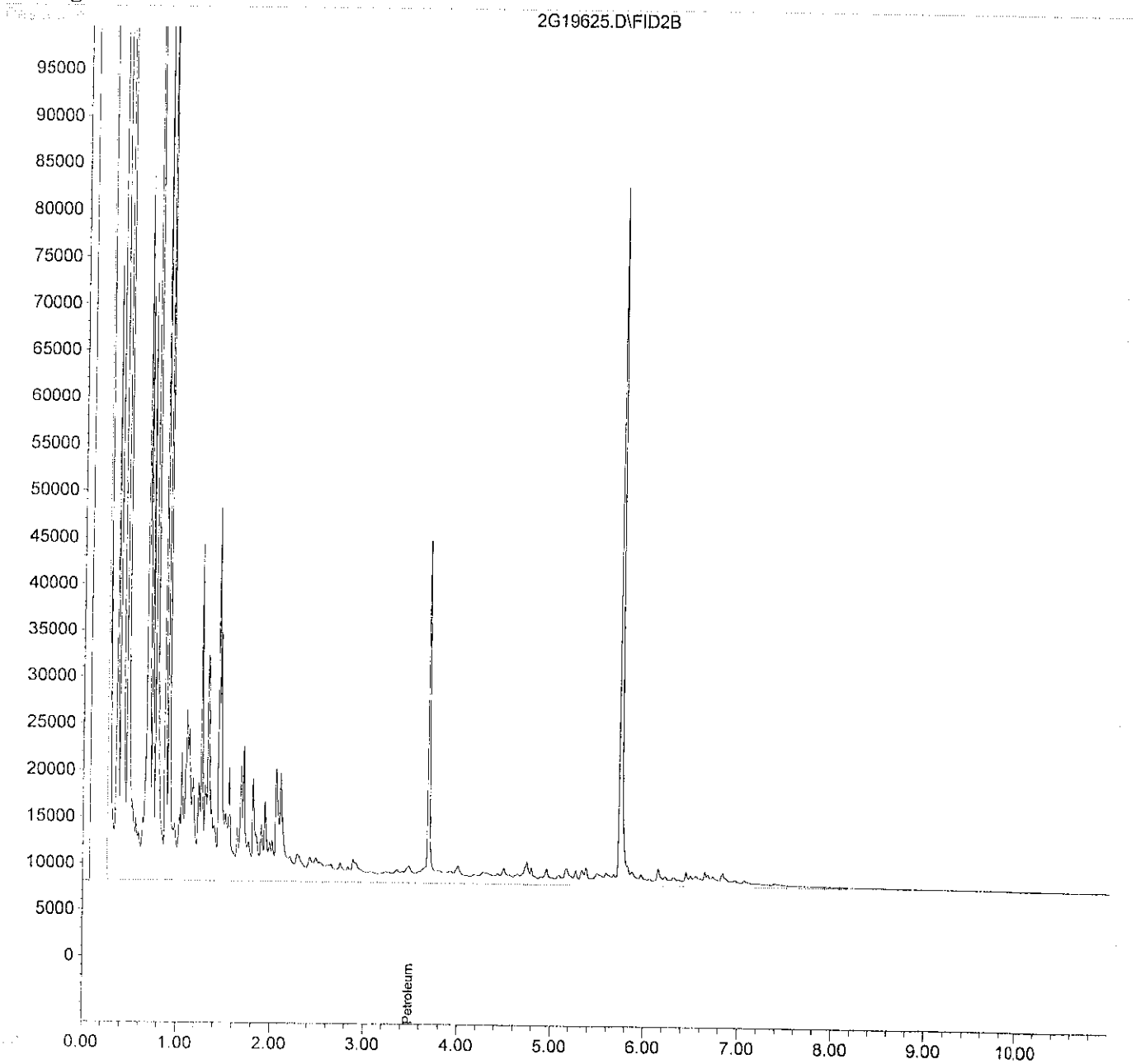
(f)=RT Delta > 1/2 Window
(m)=manual int.

Acq On : 27 Mar 2002 20:11
Sample : L0203380-05
Misc : 1,1
IntFile : PETRO.E
Quant Time: Mar 28 8:47 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 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 20:27 Operator: CLK
Sample : L0203380-06 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

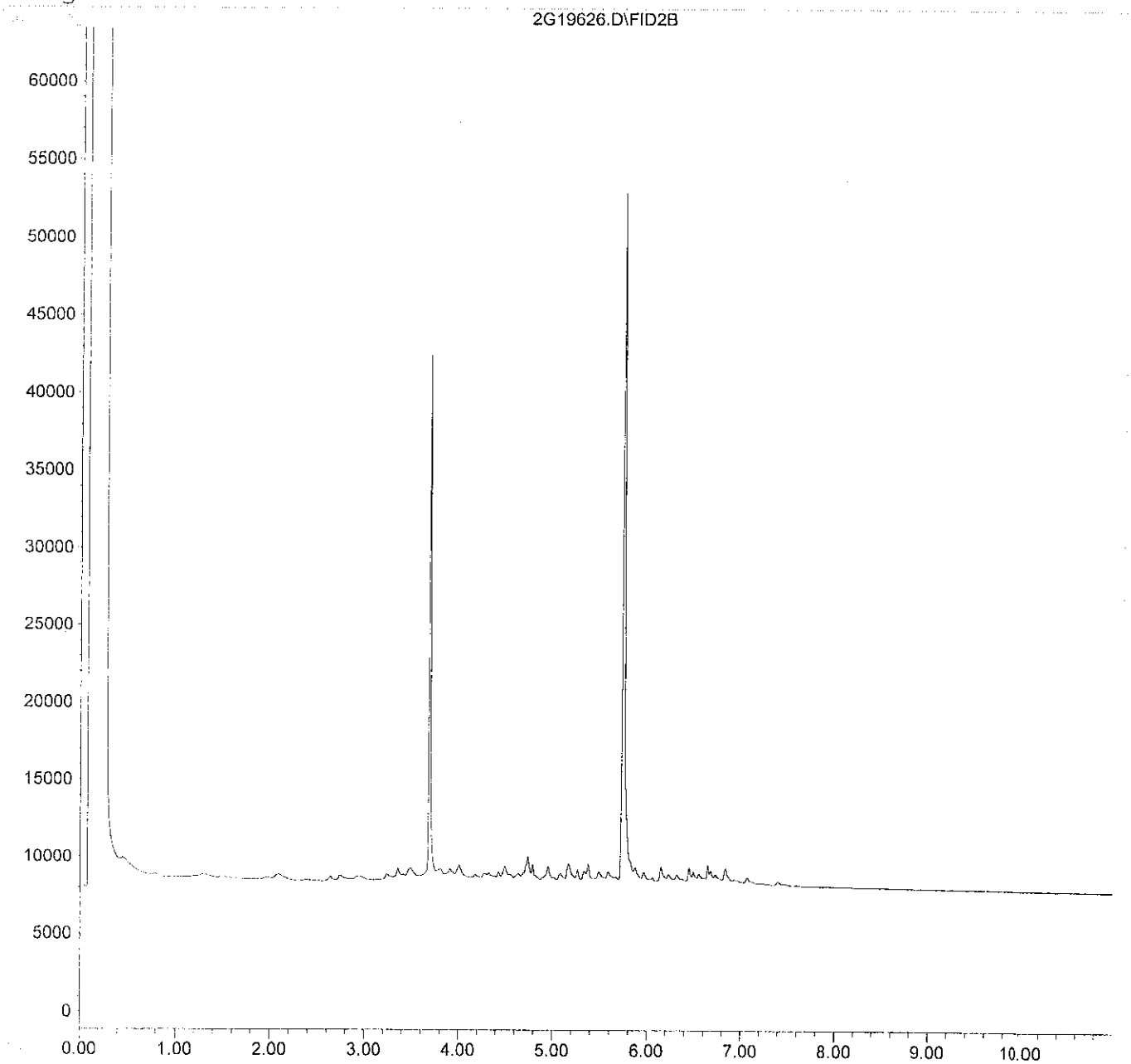
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	446956	16.551 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	82.76%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1933114	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19626.D FLASHPRO.M Thu Mar 28 08:47:44 2002 HP2 Page 1

Acq On : 27 Mar 2002 20:27 Operator: CLK
Sample : L0203380-06 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 20:42 Operator: CLK
Sample : L0203380-07 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

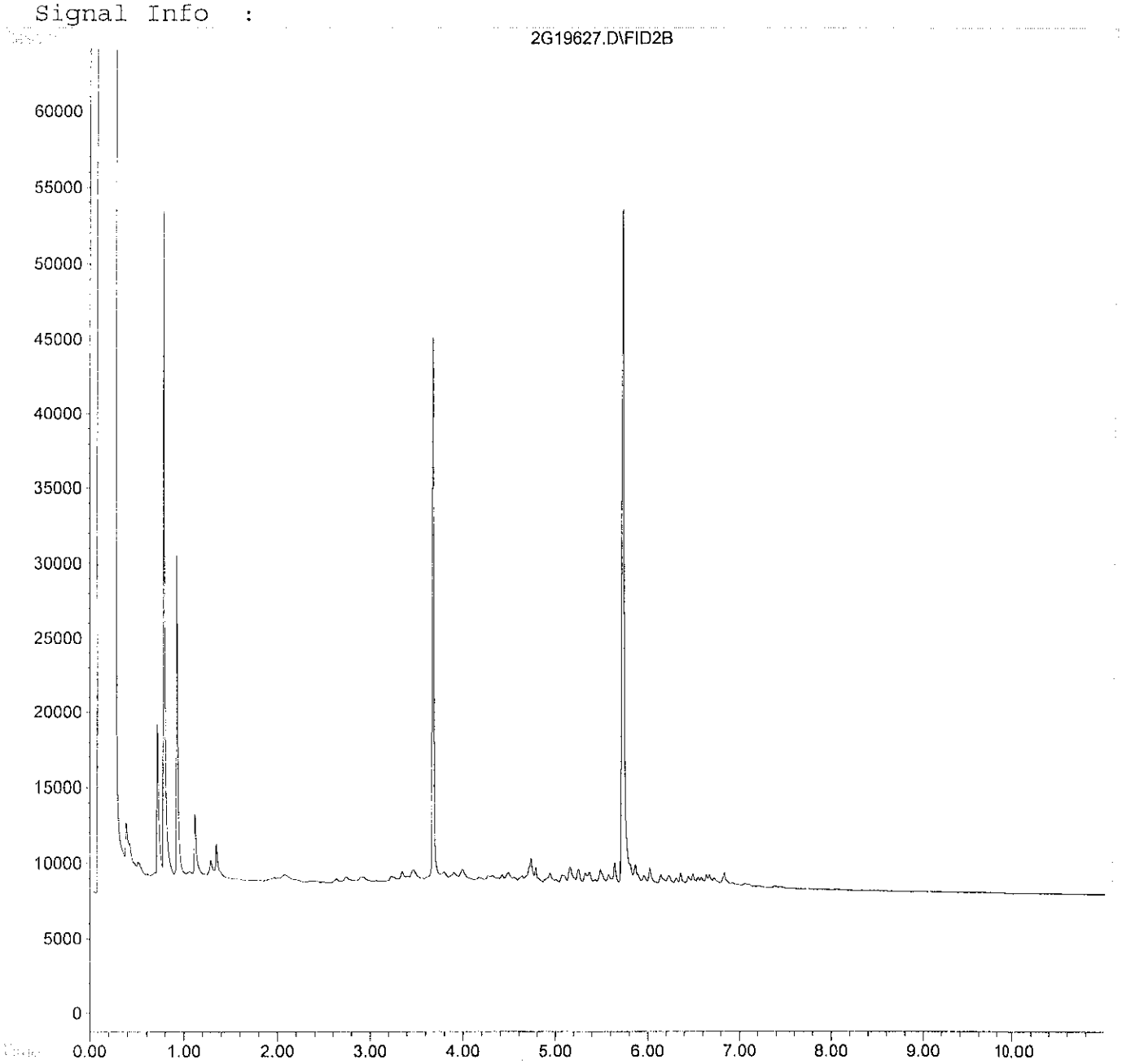
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	434489	16.090 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 80.45%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	2691167	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19627.D FLASHPRO.M Thu Mar 28 08:47:48 2002 HP2 Page 1

Acq On : 27 Mar 2002 20:42 Operator: CLK
Sample : L0203380-07 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 18:02 Operator: CLK
Sample : WG114849-01 L0203380-08 PRO WATER REF Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

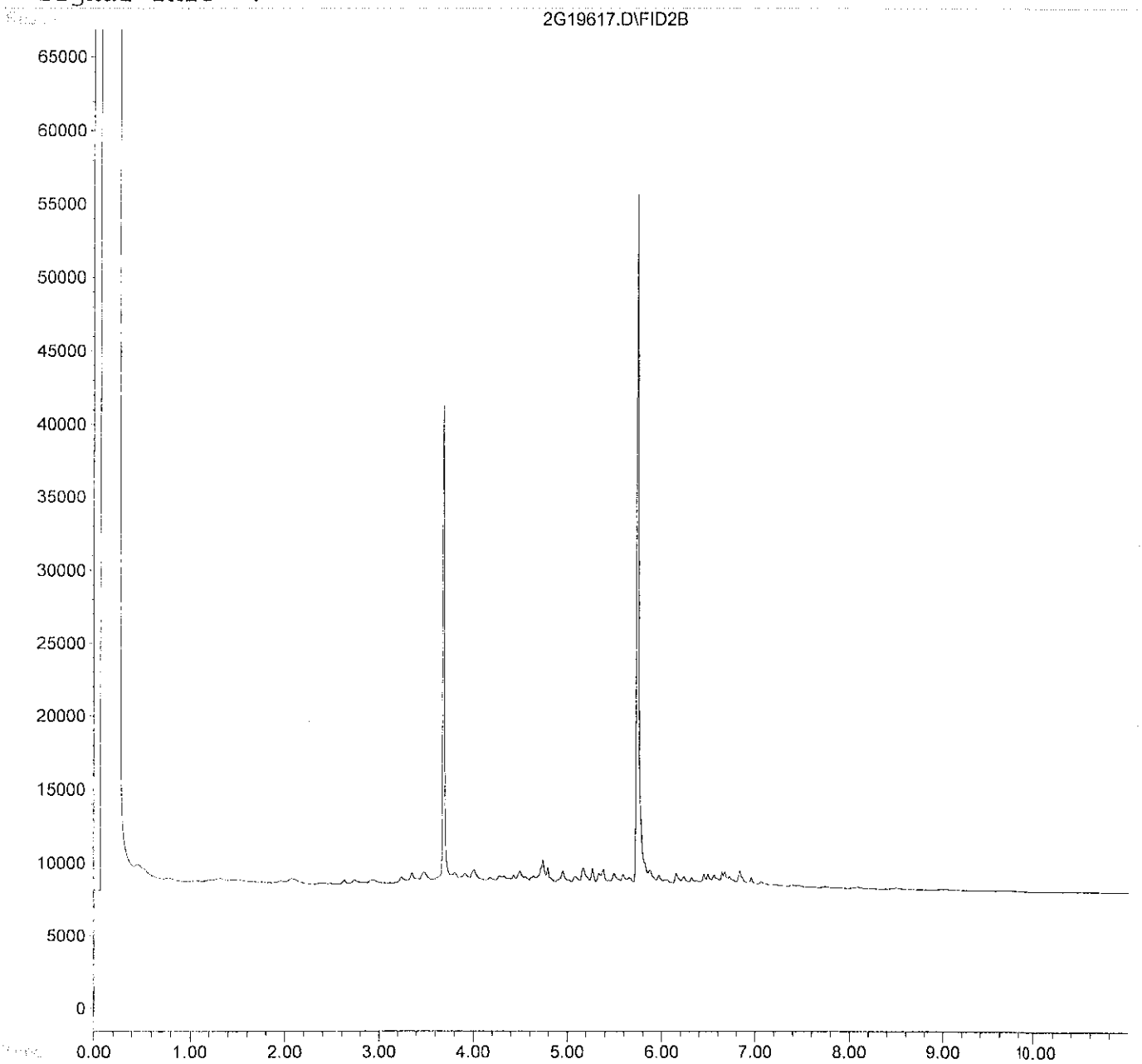
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	433160	16.040 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 80.20%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	2059302	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19617.D FLASHPRO.M Thu Mar 28 08:38:40 2002 HP2 Page 1

Acq On : 27 Mar 2002 18:02 Operator: CLK
Sample : WG114849-01 L0203380-08 PRO WATER REF Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 18:17 Operator: CLK
Sample : WG114849-04 L0203380-09 PRO WATER MS Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

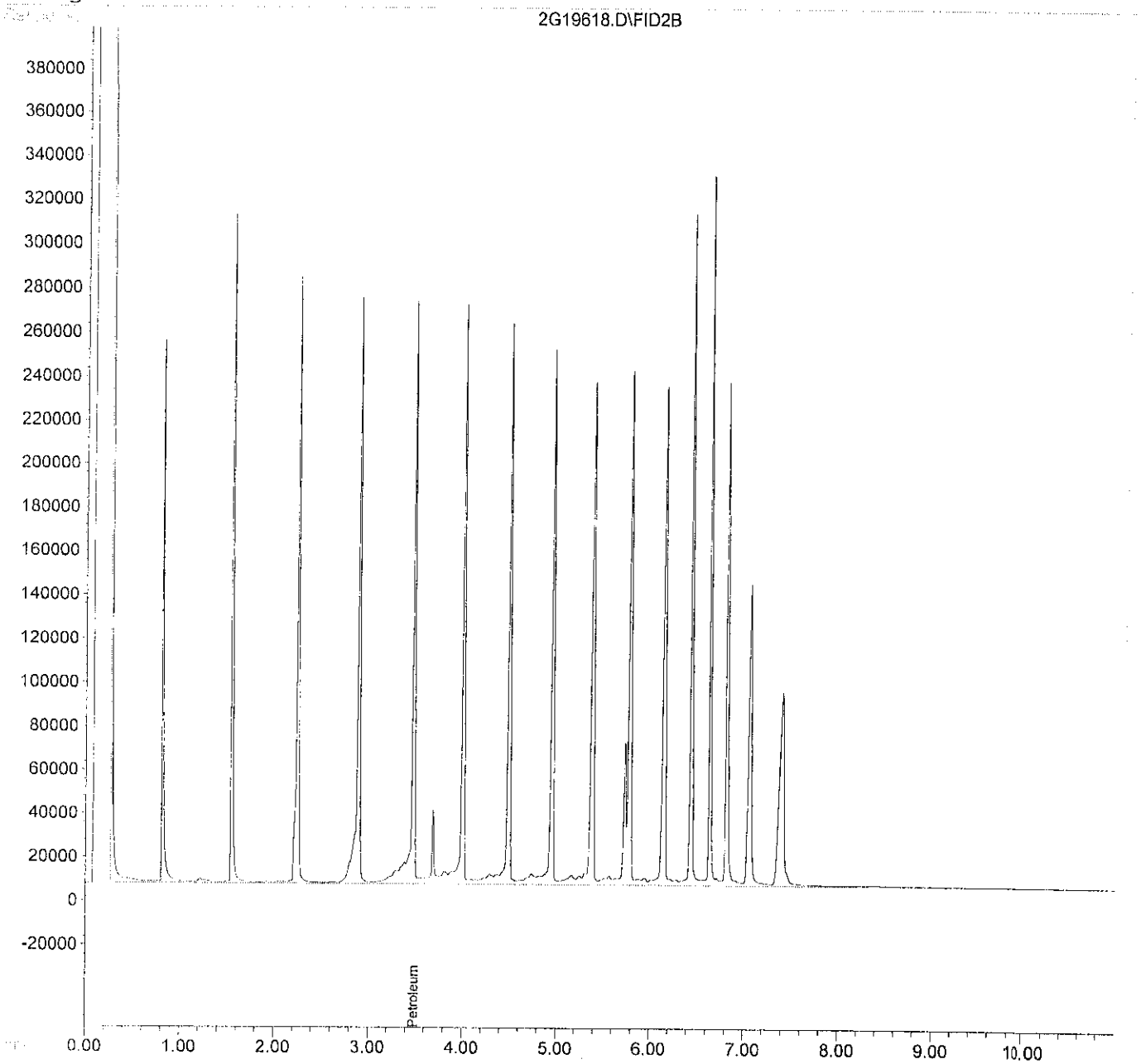
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	502814	18.620 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	93.10%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	70489990	2241.353 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19618.D FLASHPRO.M Thu Mar 28 08:38:45 2002 HP2 Page 1

Acq On : 27 Mar 2002 18:17 Operator: CLK
Sample : WG114849-04 L0203380-09 PRO WATER MS Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 18:32 Operator: CLK
Sample : WG114849-05 L0203380-10 PRO WATER MSD Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

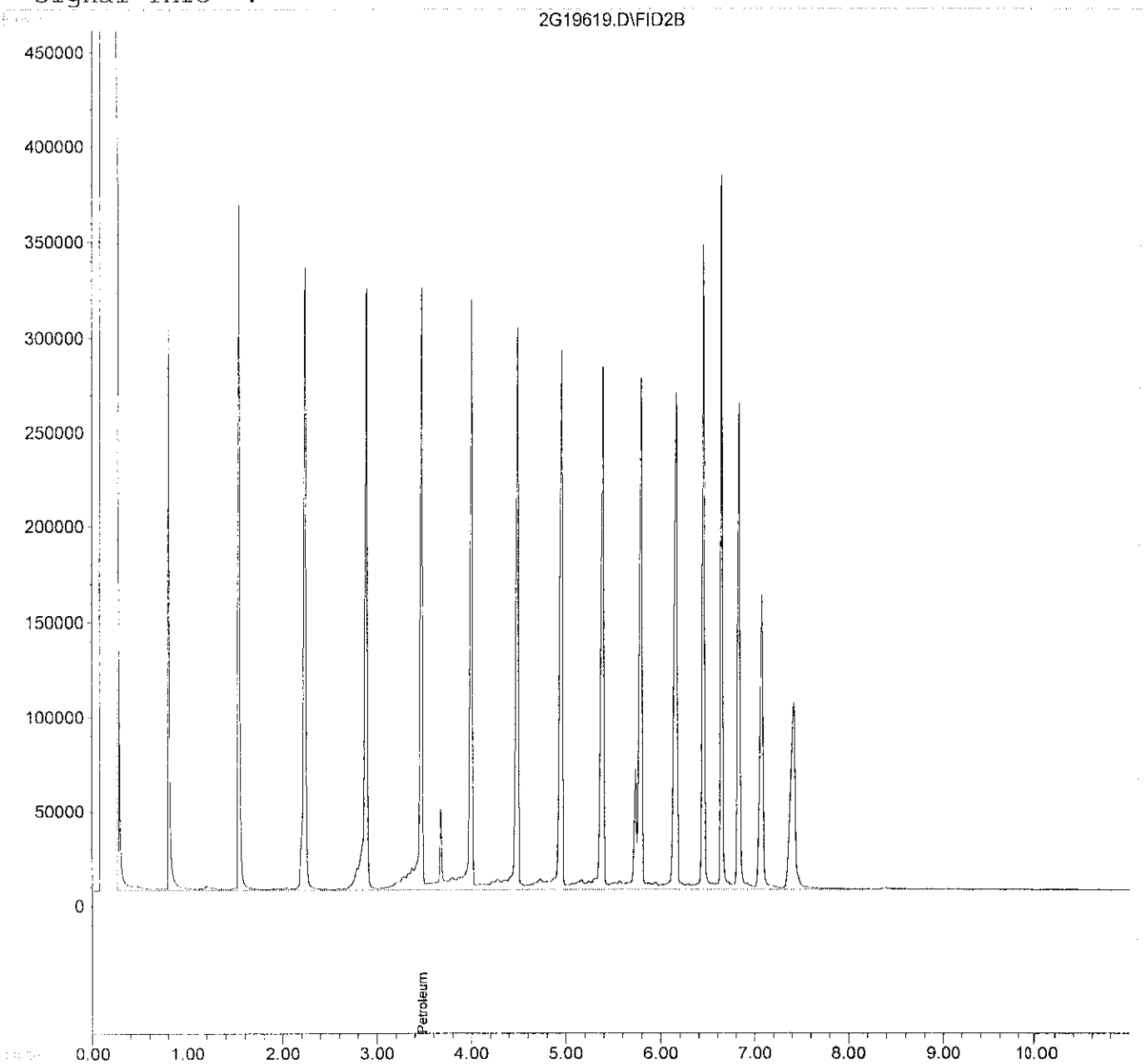
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	630475	23.347 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	116.74%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	85650600	2723.411 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19619.D FLASHPRO.M Thu Mar 28 08:38:49 2002 HP2 Page 1

Acq On : 27 Mar 2002 18:32 Operator: CLK
Sample : WG114849-05 L0203380-10 PRO WATER MSD Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 20:57 Operator: CLK
Sample : L0203380-11 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

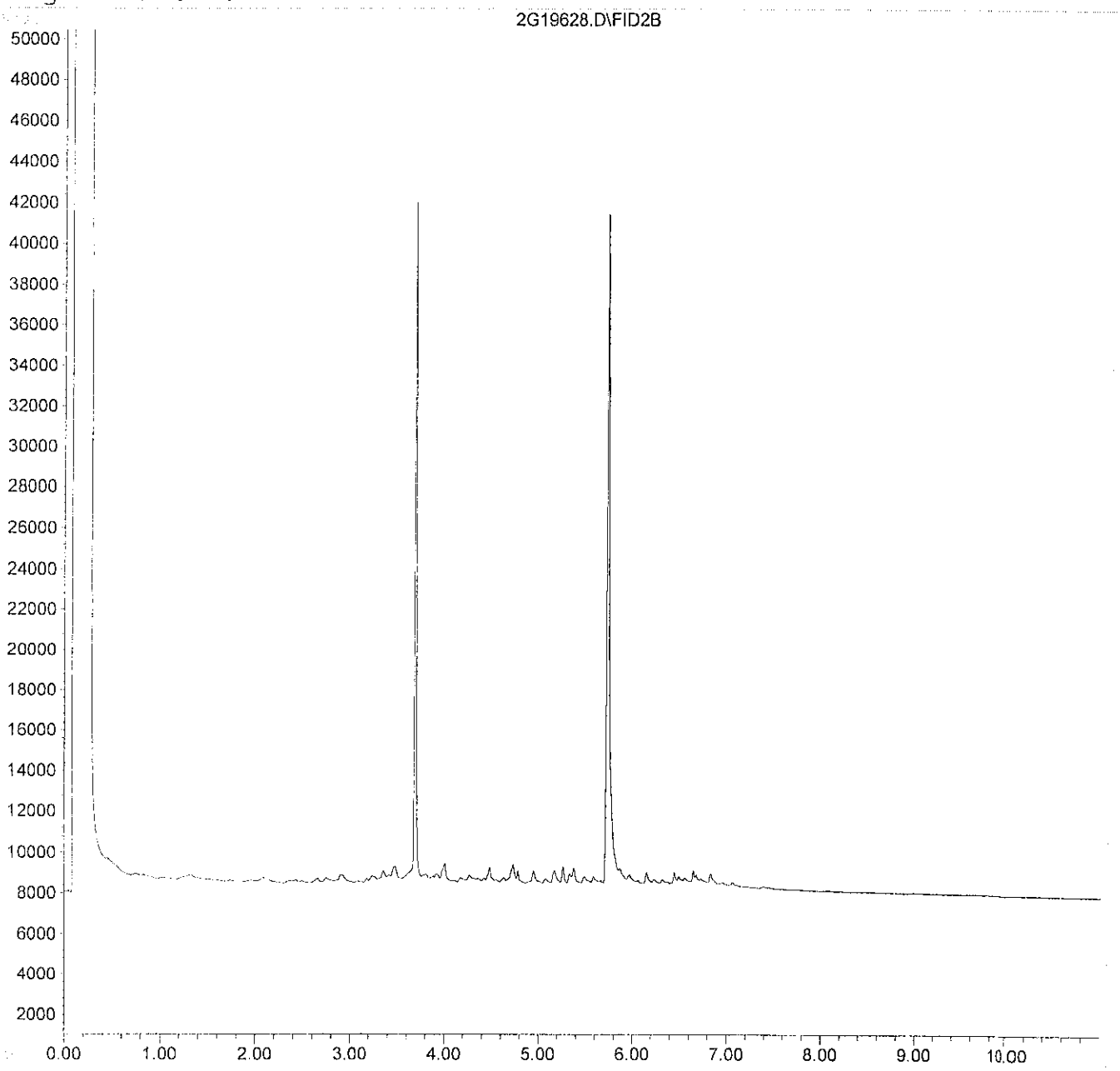
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.69	424548	15.721 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	78.61%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1426496	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19628.D FLASHPRO.M Thu Mar 28 08:47:53 2002 HP2 Page 1

Acq On : 27 Mar 2002 20:57 Operator: CLK
Sample : L0203380-11 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:47 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 21:44 Operator: CLK
Sample : L0203380-12 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:00 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

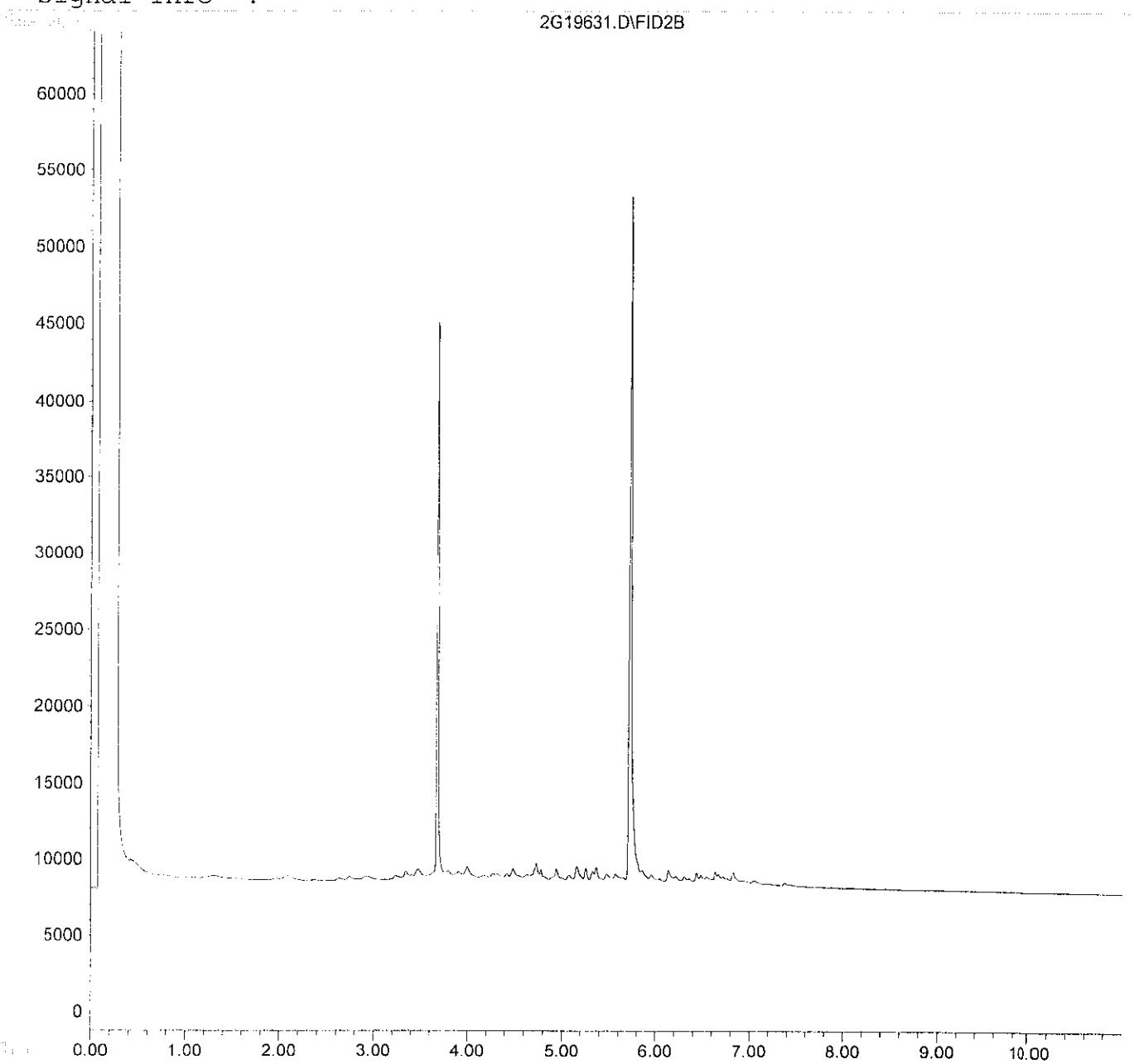
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	456059	16.888 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	84.44%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.48	1637154	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19631.D FLASHPRO.M Thu Mar 28 09:00:51 2002 HP2 Page 1

Acq On : 27 Mar 2002 21:44 Operator: CLK
Sample : L0203380-12 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:00 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 21:59 Operator: CLK
Sample : L0203380-13 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:00 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

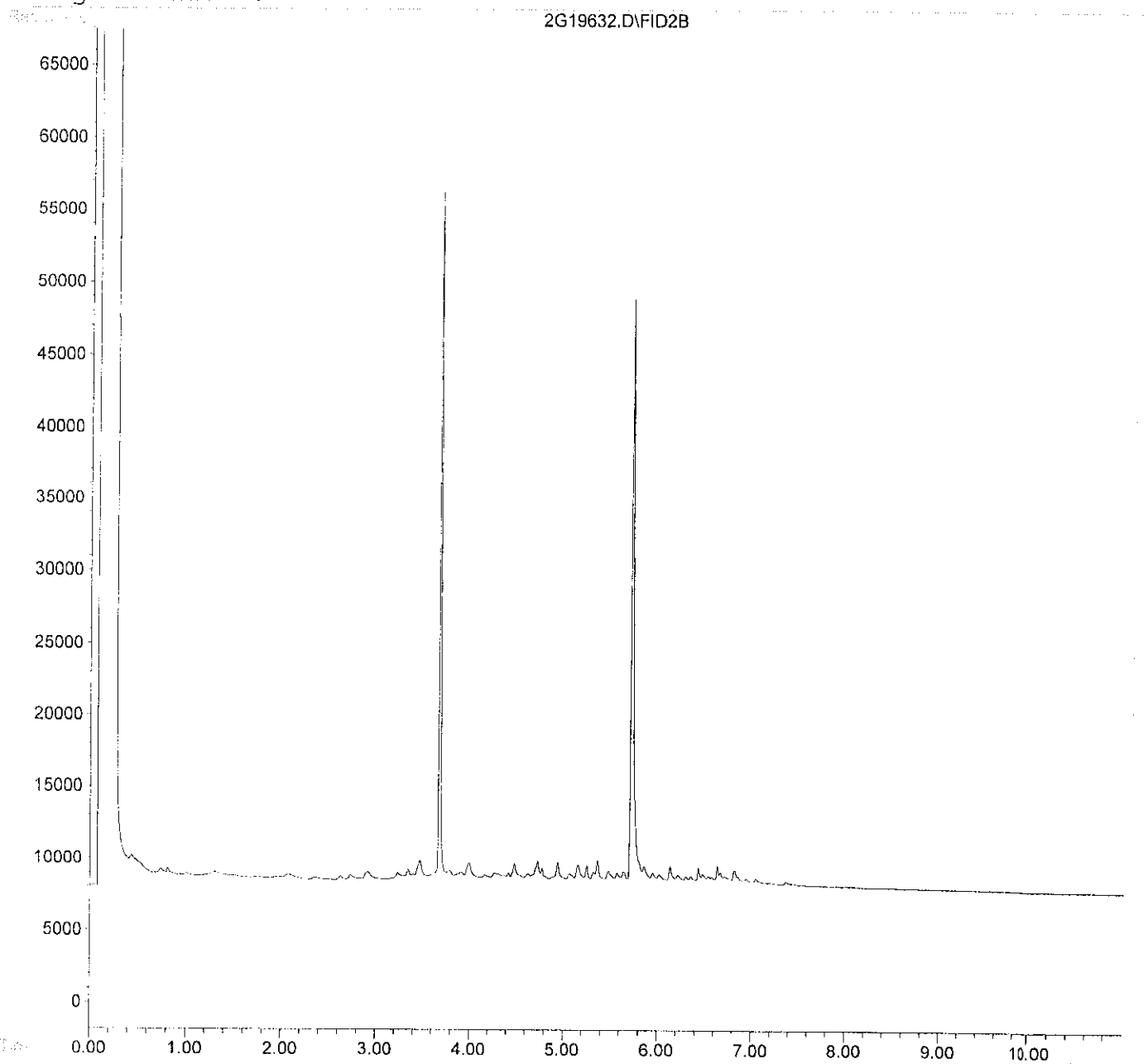
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	581749	21.543 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	107.72%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2032178	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19632.D FLASHPRO.M Thu Mar 28 09:00:56 2002 HP2 Page 1

Acq On : 27 Mar 2002 21:59 Operator: CLK
Sample : L0203380-13 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:00 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 22:15 Operator: CLK
Sample : L0203380-14 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:01 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

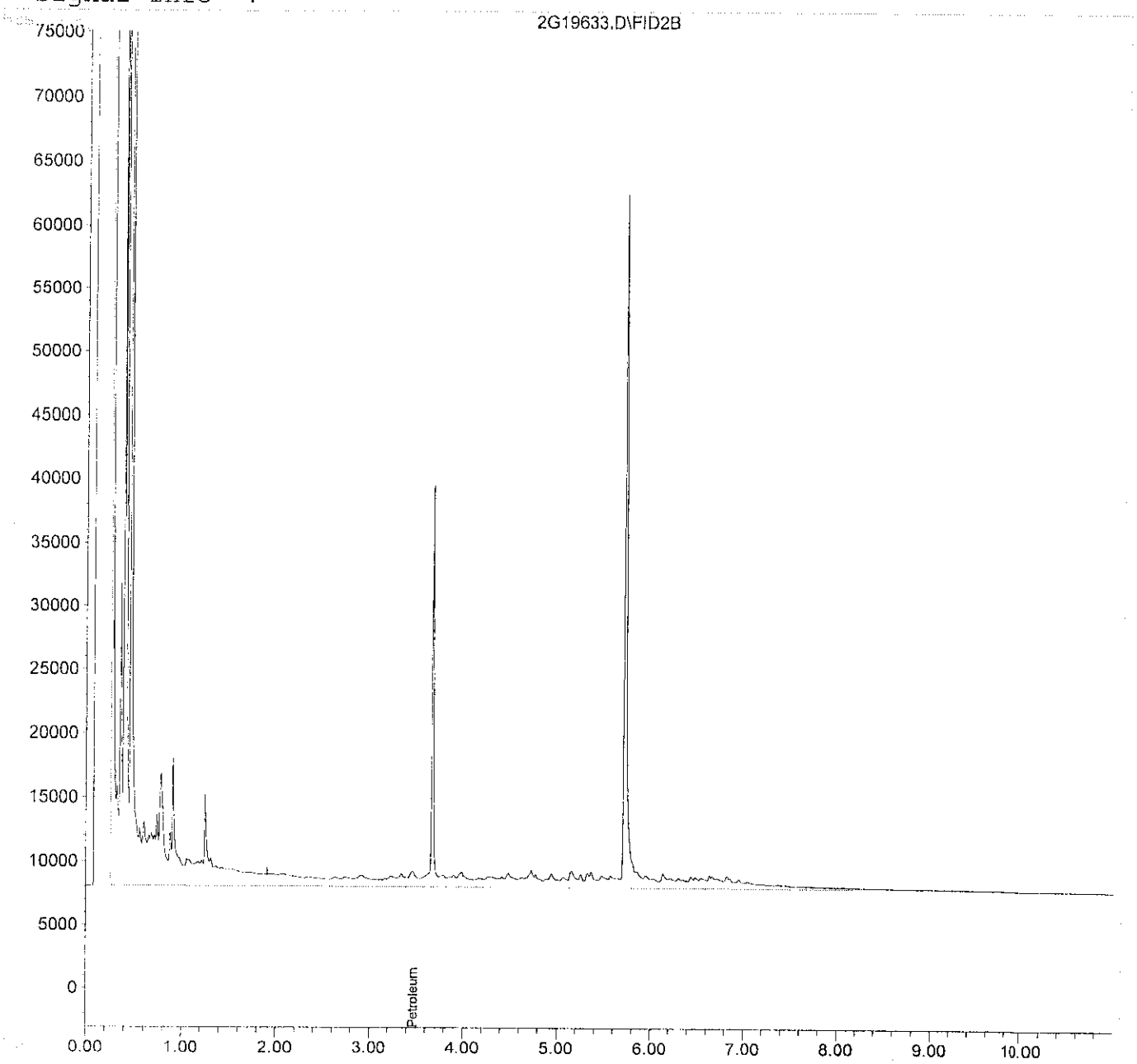
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.67	385755	14.285 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	71.43%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	10654253	338.771 ppb F

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19633.D FLASHPRO.M Thu Mar 28 09:01:01 2002 HP2 Page 1

Acq On : 27 Mar 2002 22:15 Operator: CLK
Sample : L0203380-14 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:01 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 22:50 Operator: CLK
Sample : L0203380-15 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:01 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

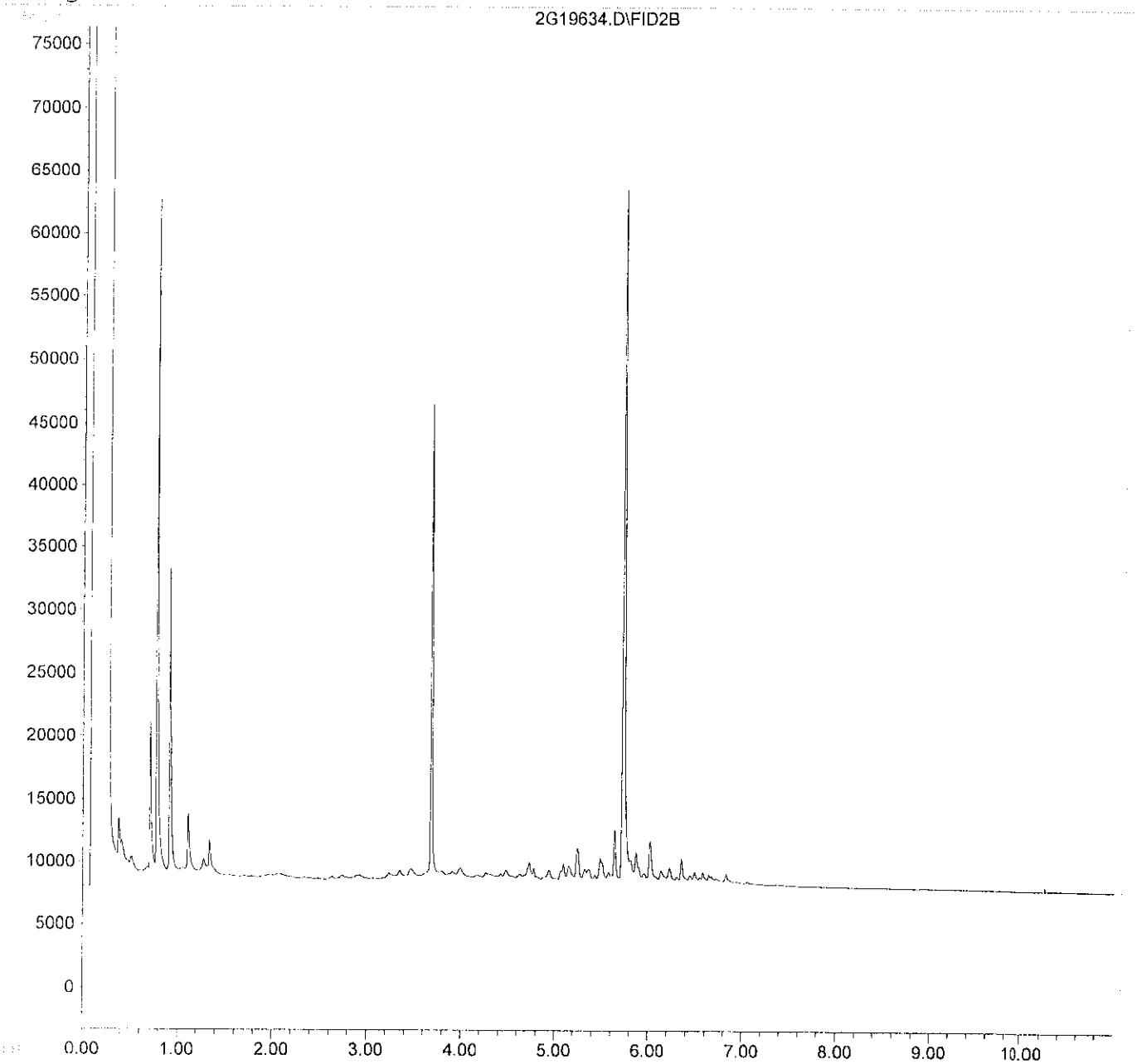
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	498805	18.471 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	92.36%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	4040423	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19634.D FLASHPRO.M Thu Mar 28 09:01:06 2002 HP2 Page 1

Acq On : 27 Mar 2002 22:30 Operator: CLK
Sample : L0203380-15 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:01 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 22:45 Operator: CLK
Sample : L0203380-16 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:01 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

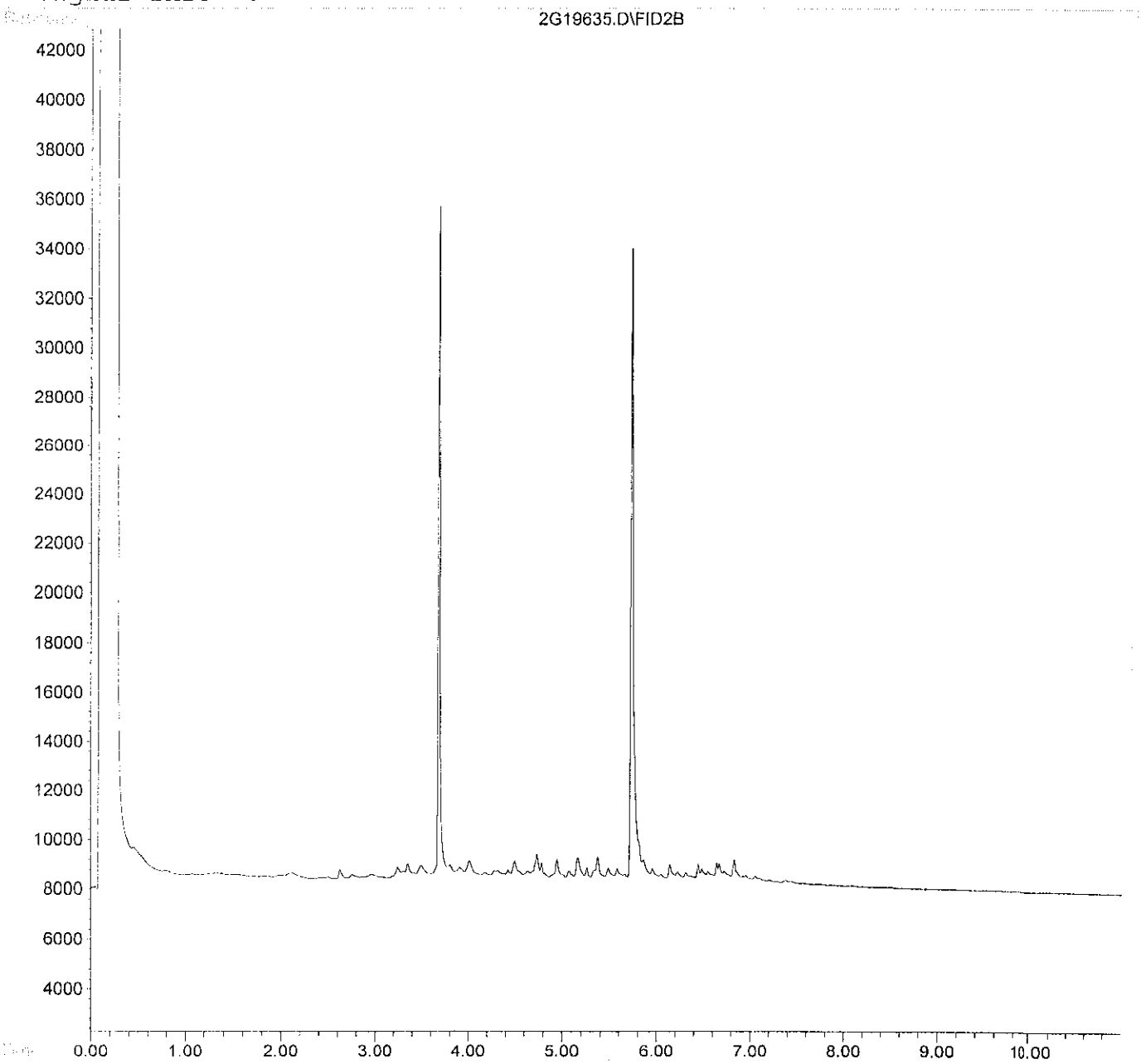
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	379639	14.058 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 70.29%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	1532401	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19635.D FLASHPRO.M Thu Mar 28 09:01:11 2002 HP2 Page 1

Acq On : 27 Mar 2002 22:45 Operator: CLK
Sample : L0203380-16 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:01 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.6.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002

Calibration Files

5	=2G19585.D	50	=2G19584.D	100	=2G19583.D
200	=2G19582.D	400	=2G19581.D	600	=2G19580.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.599	3.431	3.377	3.285	2.758	3.420	3.145	E4	11.72
2)	s	O-Terphenyl	2.787	2.811	2.957	2.676	1.993	2.979	2.700	E4	13.50
3)	s	n-Nonatriacontane							0.000	0	-1.00

(#) = Out of Range

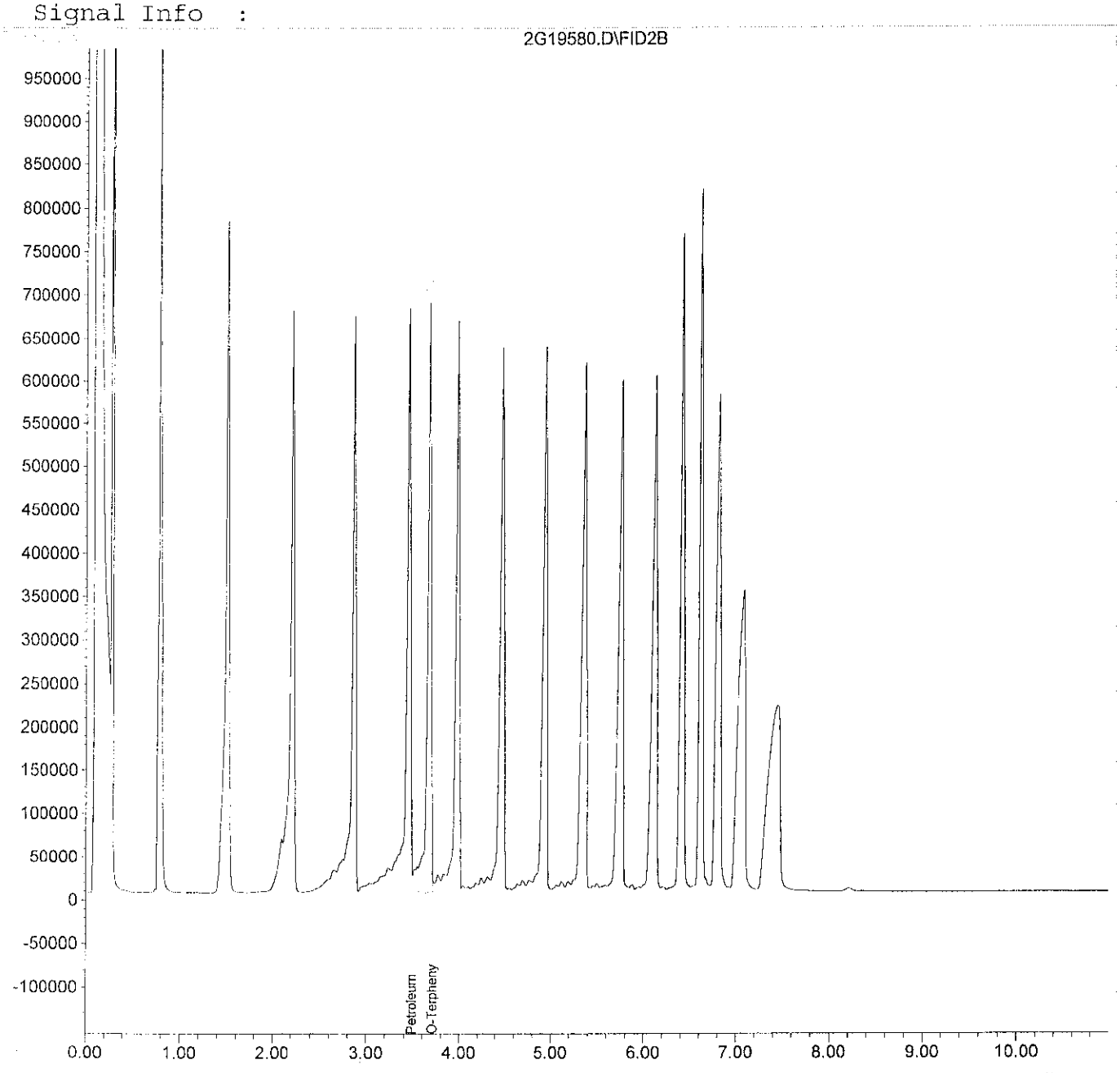
```
Data File : C:\HPCHEM\1\DATA\032602\2G19580.D              Vial: 2
Acq On    : 26 Mar 2002  19:10                          Operator: CLK
Sample    : WG115180-06 600ppm PRO STD                  Inst    : HP2
Misc      : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Mar 27 11:33 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 09:23:38 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.71       17874205  661.898 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery   = 3309.49%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48      348822762 11091.432 ppb
```

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19580.D Vial: 2
Acq On : 26 Mar 2002 19:10 Operator: CLK
Sample : WG115180-06 600ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:23:38 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



```
Data File : C:\HPCHEM\1\DATA\032602\2G19581.D              Vial: 3
Acq On    : 26 Mar 2002  19:26                          Operator: CLK
Sample    : WG115180-05 400ppm PRO STD                  Inst    : HP2
Misc      : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Mar 27 11:33 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.67        7972510  295.229 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1476.15%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48      187550130 5963.485 ppb
```

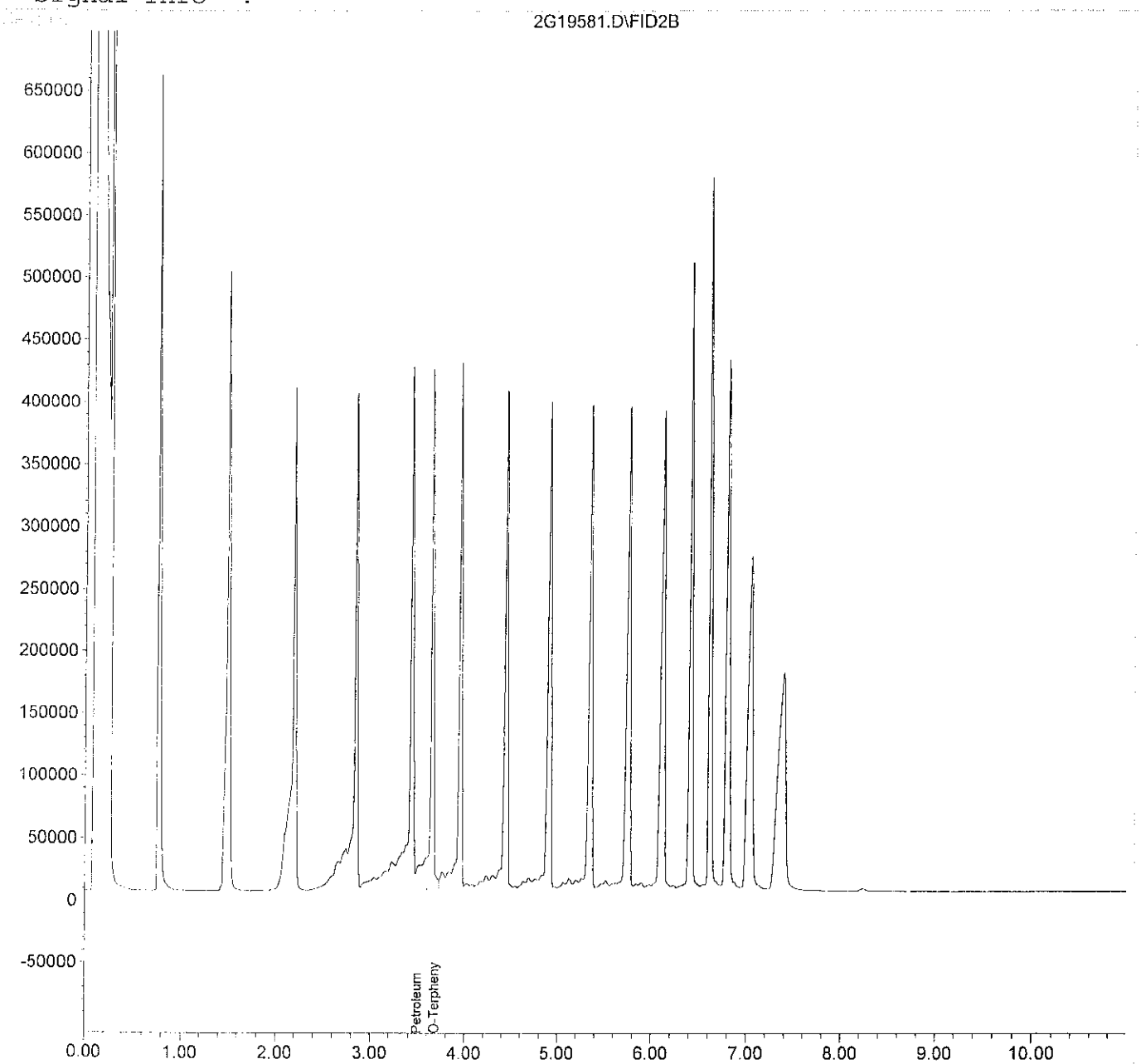
(f)=RT Delta > 1/2 Window (m)=manual int.

351

Data File : C:\HPCHEM\1\DATA\032602\2G19581.D Vial: 3
Acq On : 26 Mar 2002 19:26 Operator: CLK
Sample : WG115180-05 400ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



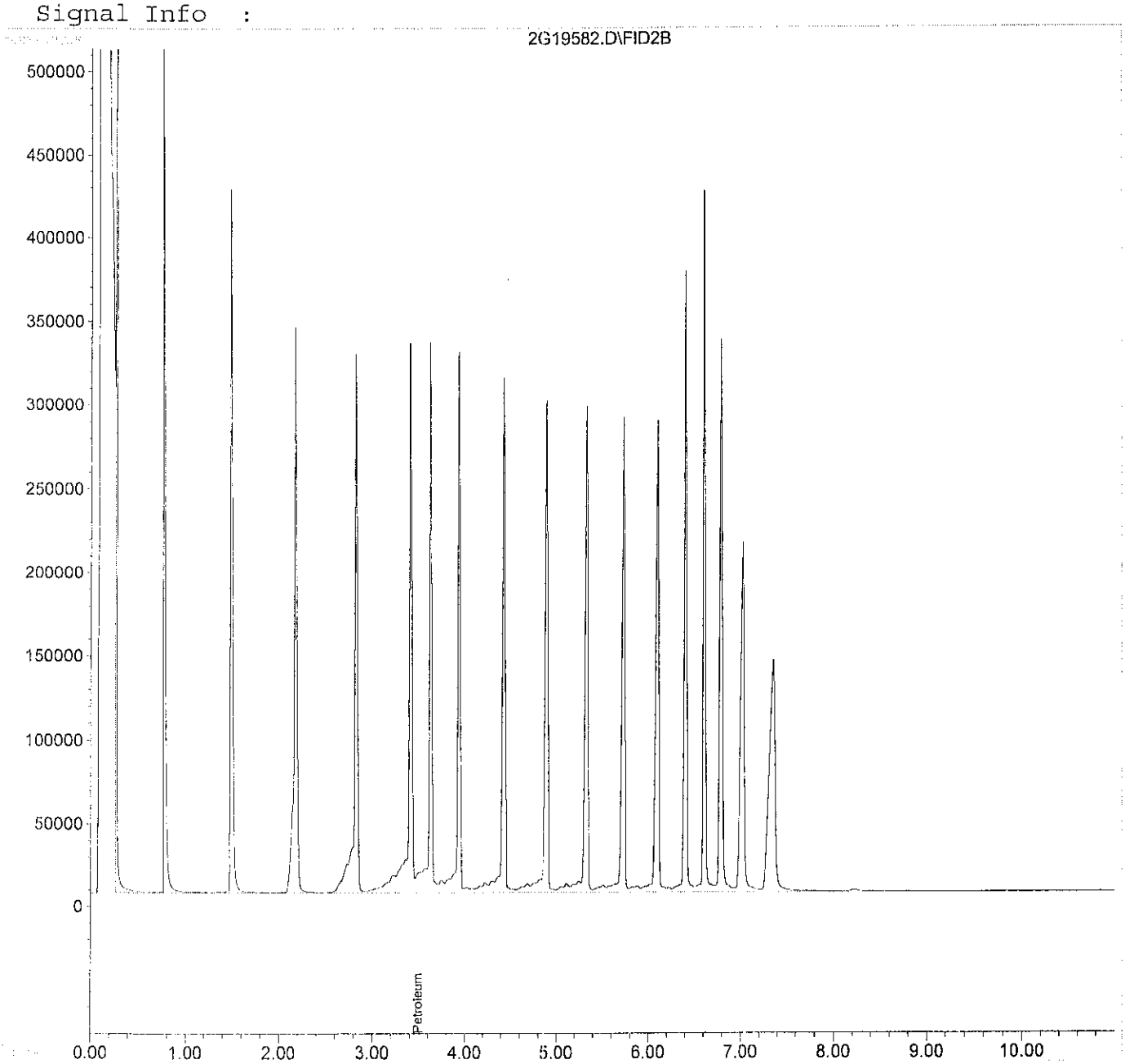
```
Data File : C:\HPCHEM\1\DATA\032602\2G19582.D              Vial: 4
Acq On    : 26 Mar 2002  19:41                          Operator: CLK
Sample    : WG115180-04 200ppm PRO STD                  Inst    : HP2
Misc      : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Mar 27 11:33 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.65        5351263  198.162 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  990.81%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48      111694516 3551.523 ppb
```

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19582.D Vial: 4
Acq On : 26 Mar 2002 19:41 Operator: CLK
Sample : WG115180-04 200ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



```
Data File : C:\HPCHEM\1\DATA\032602\2G19583.D              Vial: 5
Acq On    : 26 Mar 2002  19:56                          Operator: CLK
Sample    : WG115180-03 100ppm PRO STD                  Inst    : HP2
Misc      : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Mar 27 11:33 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.66        2957241  109.509 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  547.55%#
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                     Recovery      =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.48       57410555 1825.469 ppb
```

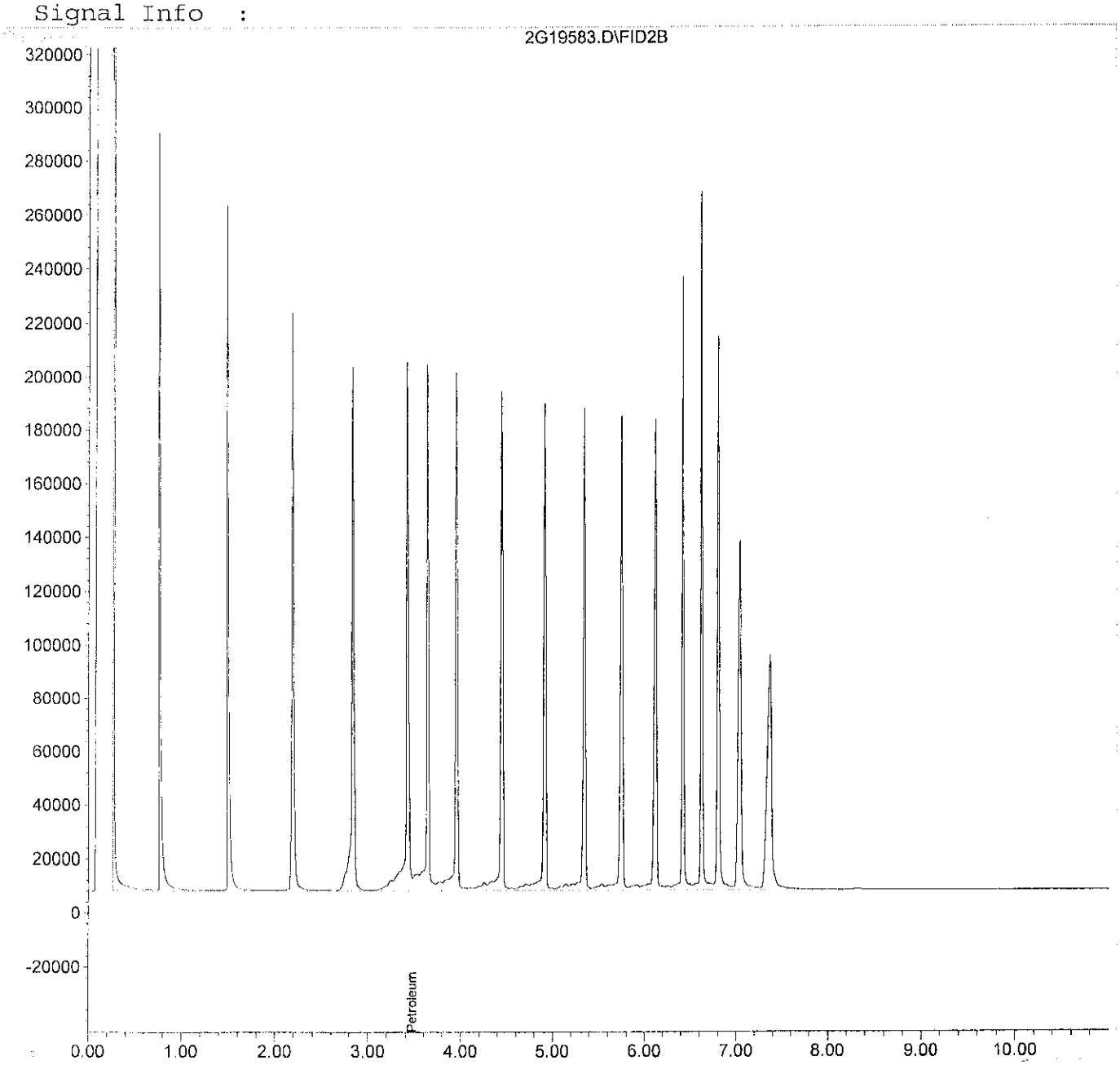
355

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19583.D Vial: 5
Acq On : 26 Mar 2002 19:56 Operator: CLK
Sample : WG115180-03 100ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19584.D Vial: 6
Acq On : 26 Mar 2002 20:12 Operator: CLK
Sample : WG115180-02 50ppm PRO STD Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	1405349	52.041 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	260.21%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	29163598	927.308 ppb

357

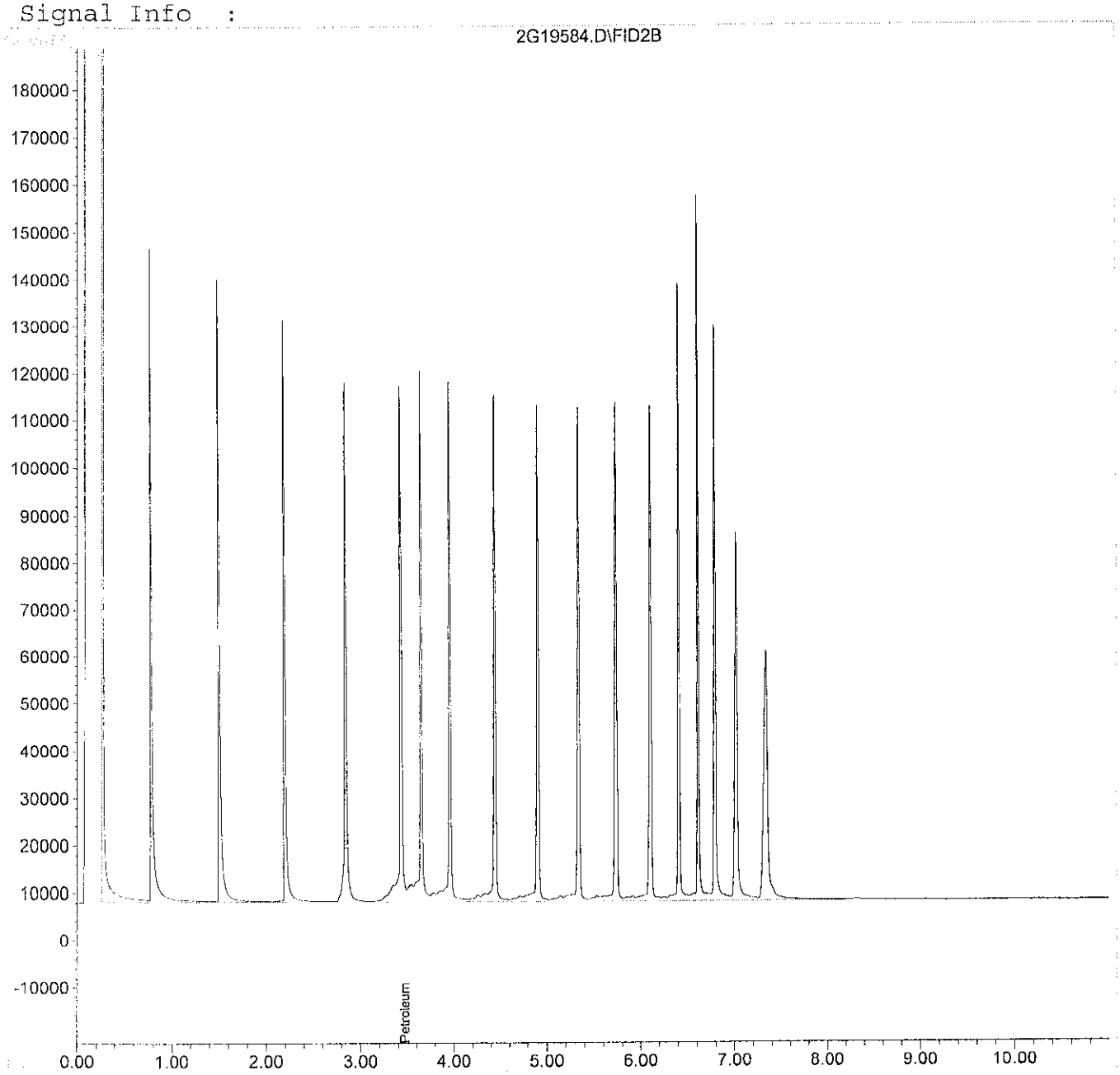
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19584.D
Acq On : 26 Mar 2002 20:12
Sample : WG115180-02 50ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 6
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\032602\2G19585.D
Acq On : 26 Mar 2002 20:27
Sample : WG115180-01 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.66	139347	5.160 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	25.80%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2208890	<MDL ppb

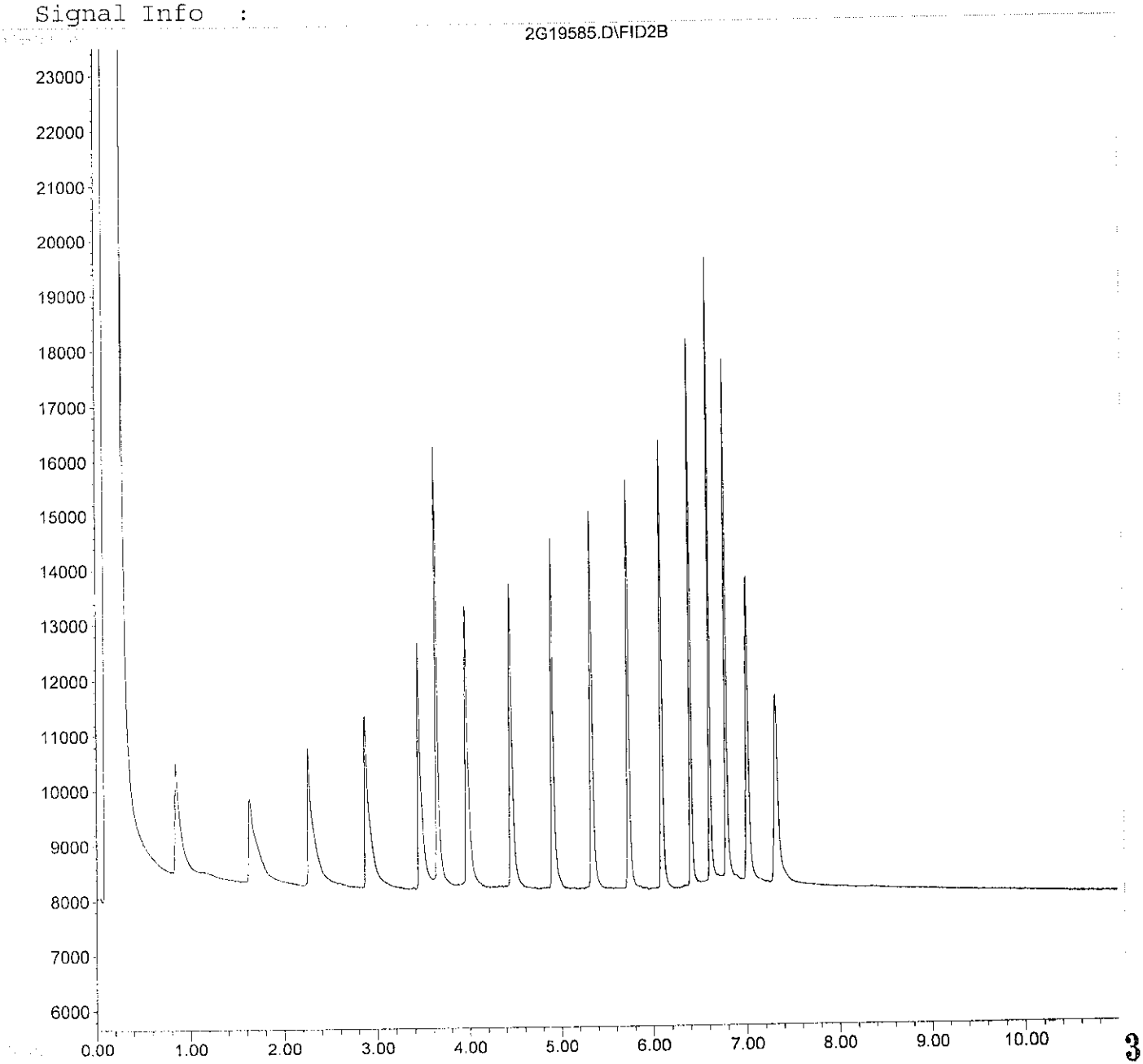
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19585.D
Acq On : 26 Mar 2002 20:27
Sample : WG115180-01 5ppm PRO STD
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 27 11:33 2002 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: CLK
Inst : HP2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 09:05:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



360

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D
Acq On : 26 Mar 2002 20:43
Sample : WG115180-07 200ppm PRO Alt Source STD
Misc : 1,1 SOS 59-1
IntFile : PETRO.E

Vial: 8
Operator: CLK
Inst : HP2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2770.051	18.5#	78	0.00
2	s	O-Terphenyl	200.000	2.666	98.7#	1	-0.03

CLK 4/2/02
Limit 20%

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19586.D FLASHPRO.M Wed Mar 27 11:41:07 2002 HP2 Page 1

361

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D Vial: 8
Acq On : 26 Mar 2002 20:43 Operator: CLK
Sample : WG115180-07 200ppm PRO Alt Source STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

362

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19586.D FLASHPRO.M Wed Mar 27 11:41:07 2002 HP2 Page 2

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D Vial: 8
Acq On : 26 Mar 2002 20:43 Operator: CLK
Sample : WG115180-07 200ppm PRO Alt Source STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:40 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.63	71990	2.666 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	13.33%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	87117421	2770.051 ppb

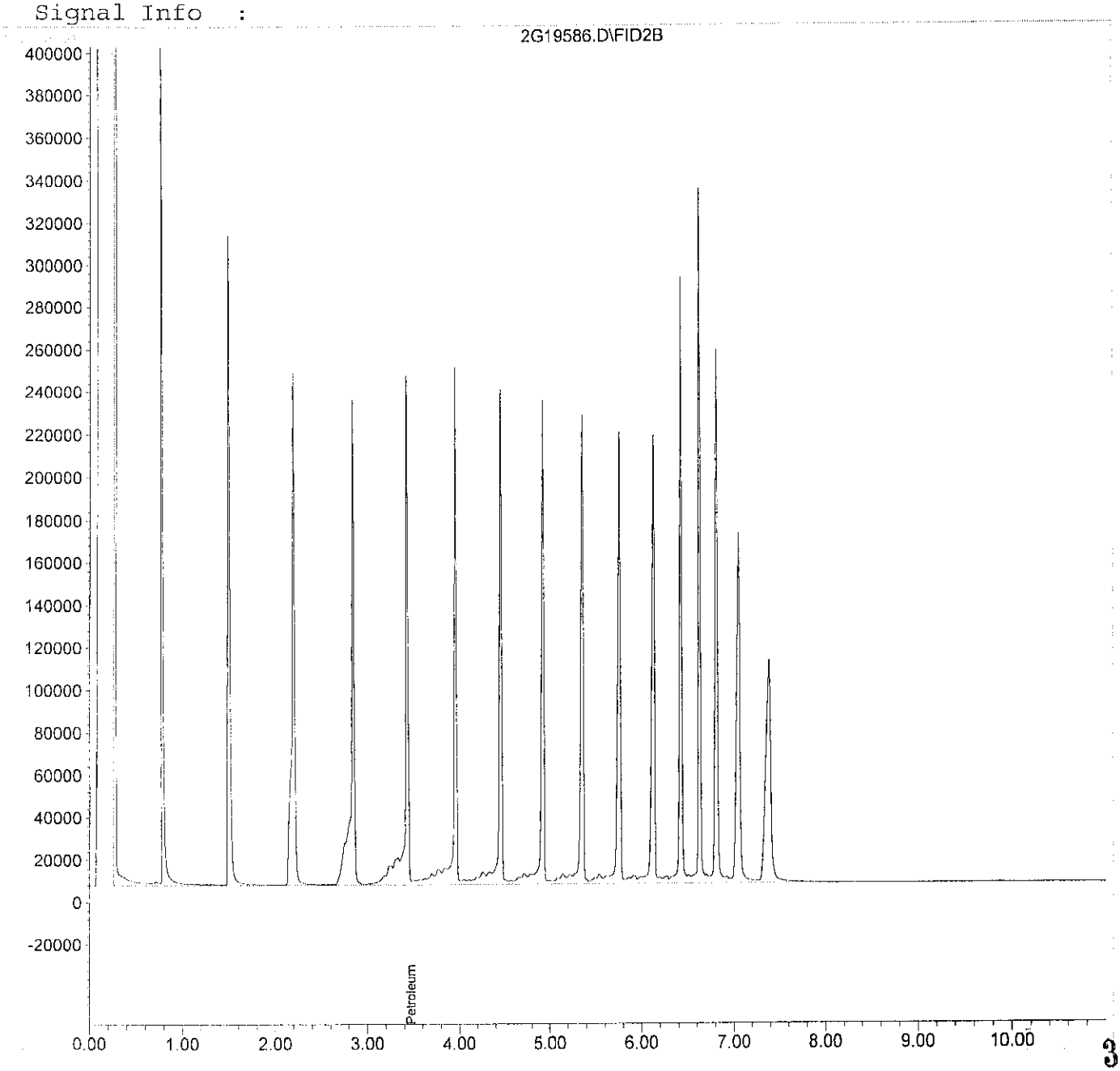
363

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032602\2G19586.D Vial: 8
Acq On : 26 Mar 2002 20:43 Operator: CLK
Sample : WG115180-07 200ppm PRO Alt Source STD Inst : HP2
Misc : 1,1 SOS 59-1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 27 11:40 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 11:36:35 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



364

Acq On : 27 Mar 2002 17:13 Operator: CLK
Sample : WG115259-01 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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	3005.463	11.6	85	0.00
2	s	O-Terphenyl	200.000	173.451	13.3	88	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19614.D FLASHPRO.M Thu Mar 28 09:19:39 2002 HP2 Page 1

365

Acq On : 27 Mar 2002 17:13 Operator: CLK
Sample : WG115259-01 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

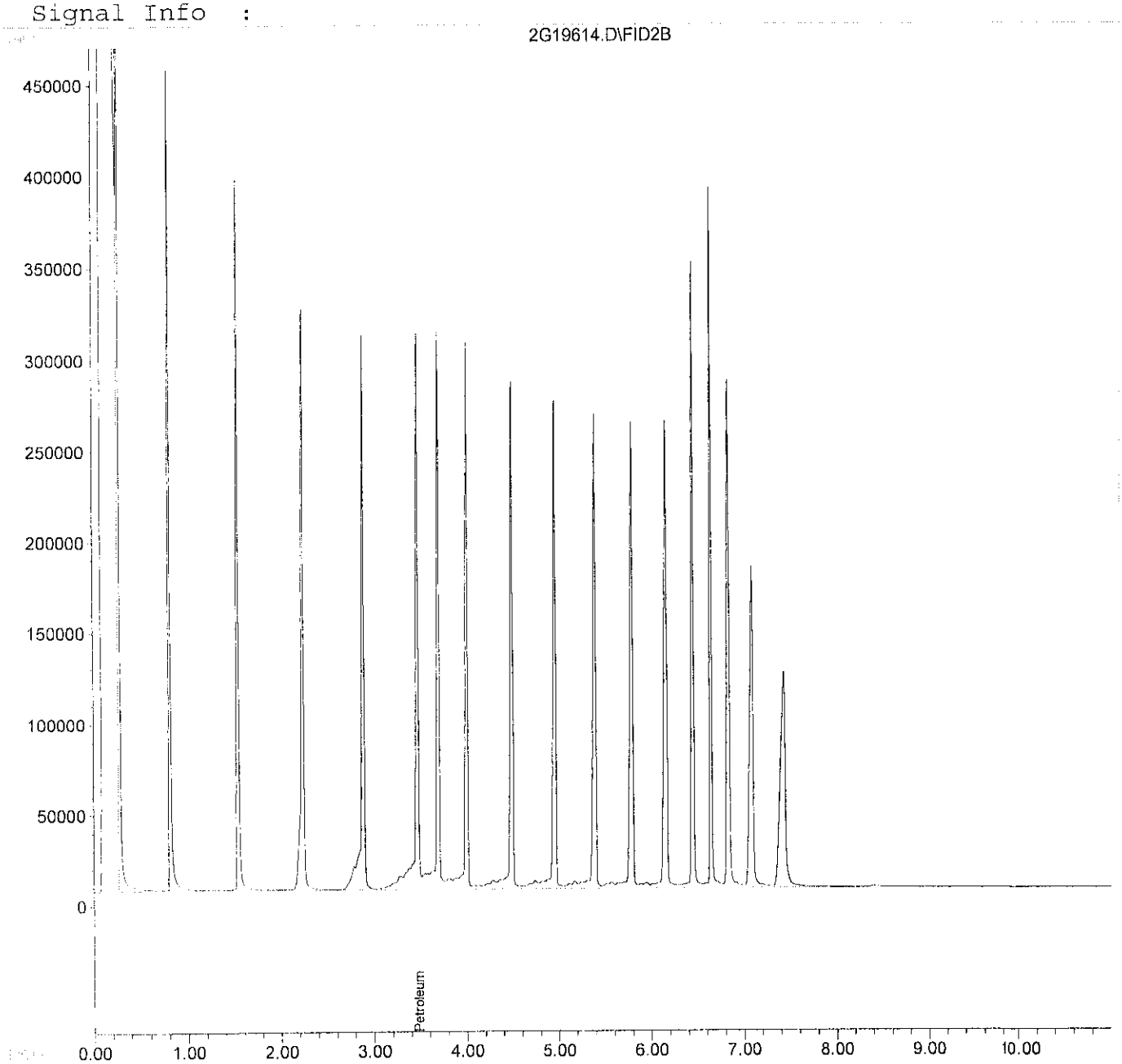
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Acq On     : 27 Mar 2002  17:13                          Operator: CLK
Sample     : WG115259-01 200PPM PRO CCV                  Inst     : HP2
Misc       : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 28  8:37 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

      Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                     3.70        4683945  173.451 ppb
Spiked Amount      20.000   Range  49 - 174    Recovery    =  867.25%#
 3) s   n-Nonatriacontane               0.00              0    N.D.  ppm
Spiked Amount   20.000                      Recovery      =    0.00%

   Target Compounds
 1) H   Petroleum Range                 3.48       94521069 3005.463 ppb
```

Acq On : 27 Mar 2002 17:13 Operator: CLK
Sample : WG115259-01 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:37 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 19:02 Operator: CLK
Sample : WG115259-02 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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	3728.225	-9.7	105	0.00
2	s	O-Terphenyl	200.000	229.132	-14.6	116	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19621.D FLASHPRO.M Thu Mar 28 09:20:16 2002 HP2 Page 1

Acq On : 27 Mar 2002 19:02 Operator: CLK
Sample : WG115259-02 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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

Acq On : 27 Mar 2002 19:02 Operator: CLK
Sample : WG115259-02 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:39 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

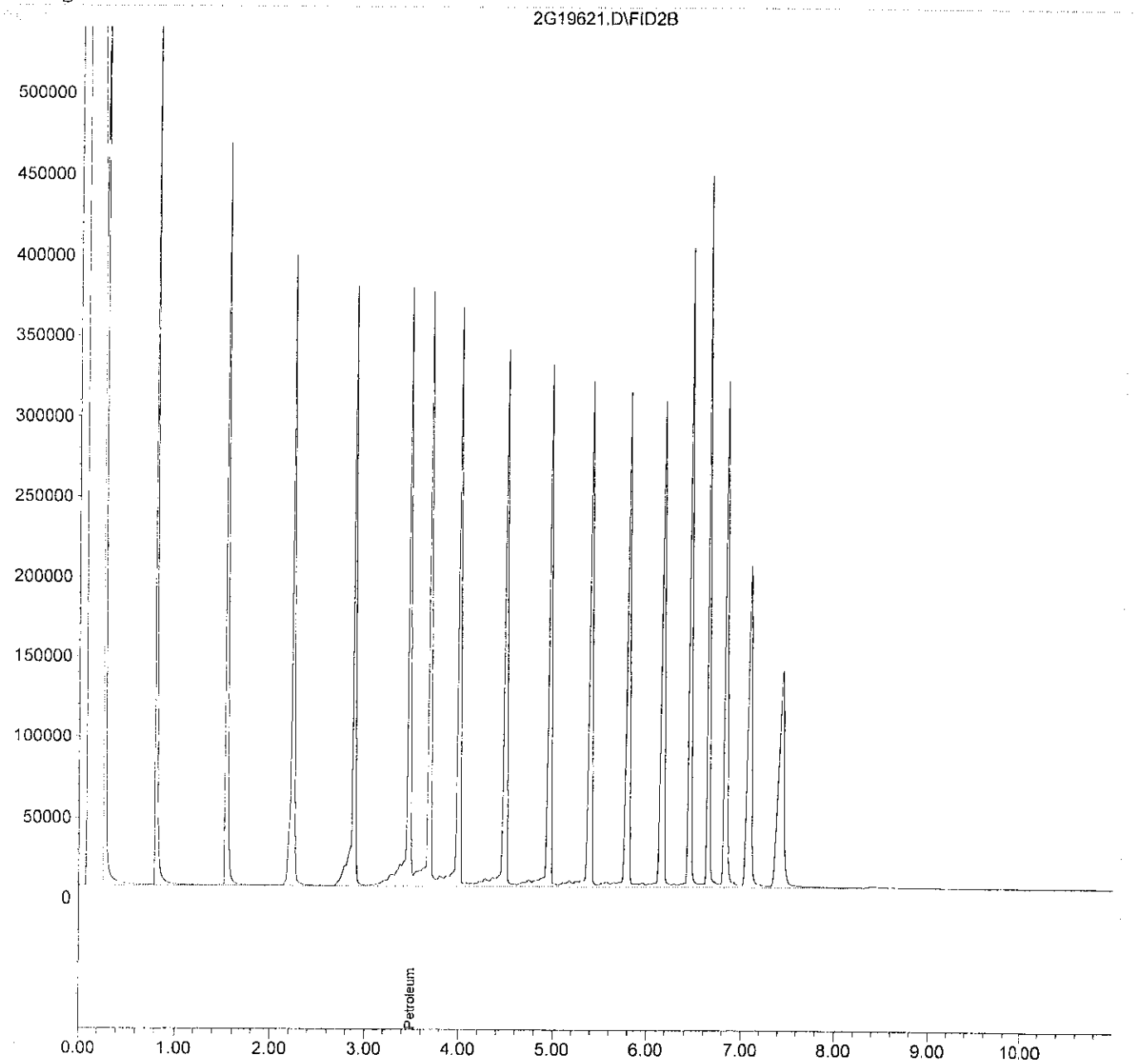
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	6187588	229.132 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1145.66%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.48	117251760	3728.225 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19621.D FLASHPRO.M Thu Mar 28 09:20:10 2002 HP2 Page 1

Acq On : 27 Mar 2002 19:02 Operator: CLK
Sample : WG115259-02 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:39 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 21:28 Operator: CLK
Sample : WG115259-03 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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	3545.329	-4.3	100	0.00
2	s	O-Terphenyl	200.000	220.980	-10.5	112	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19630.D FLASHPRO.M Thu Mar 28 09:20:41 2002 HP2 Page 1

Acq On : 27 Mar 2002 21:28 Operator: CLK
Sample : WG115259-03 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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

Acq On : 27 Mar 2002 21:28 Operator: CLK
Sample : WG115259-03 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

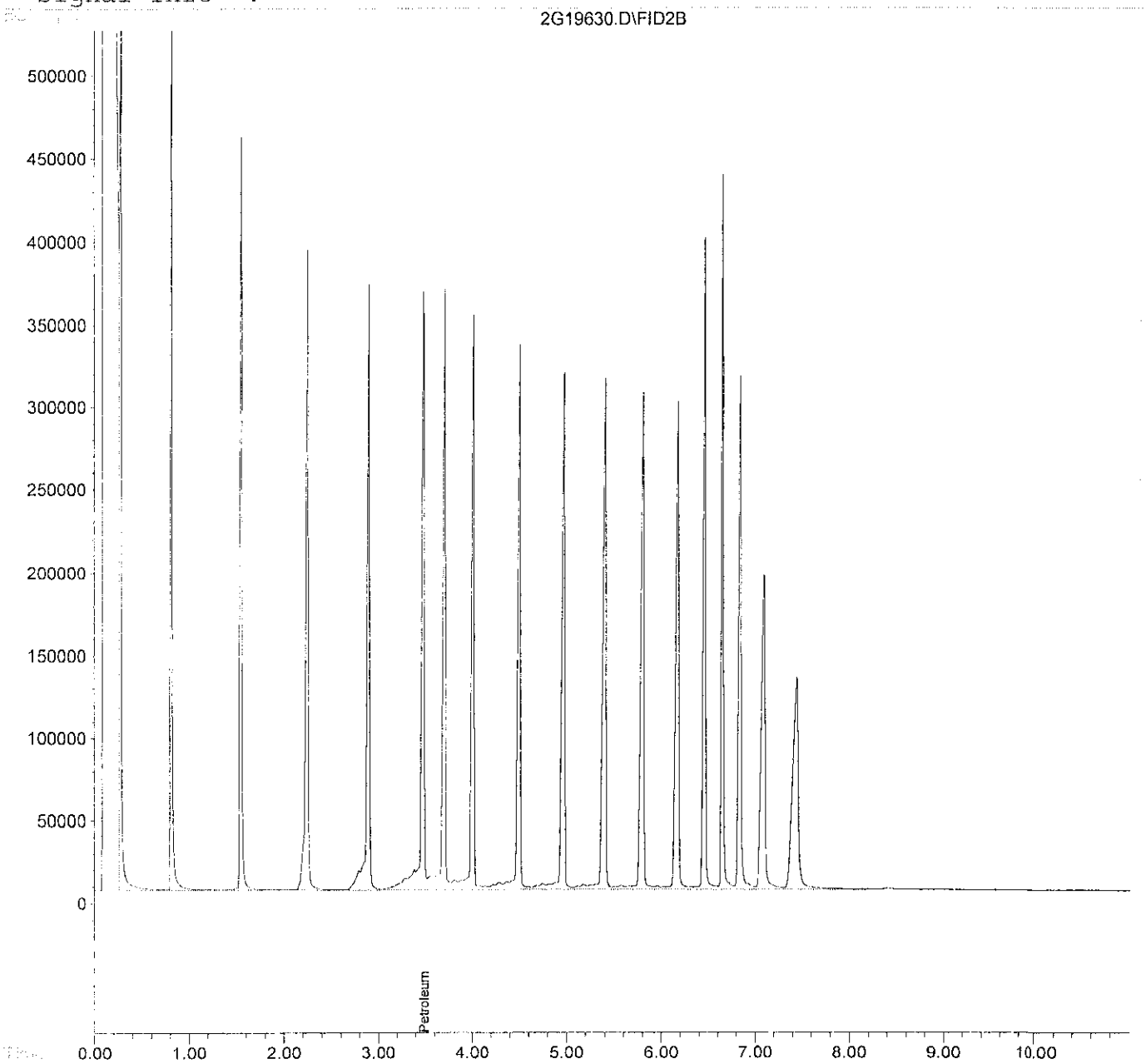
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.71	5967457	220.980 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1104.90%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery	= 0.00%
Target Compounds			
1) H Petroleum Range	3.48	111499705	3545.329 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 27 Mar 2002 21:28 Operator: CLK
Sample : WG115259-03 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:48 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Mar 2002 23:47 Operator: CLK
Sample : WG115259-04 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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	3653.745	-7.5	103	0.00
2	s	O-Terphenyl	200.000	222.057	-11.0	112	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19639.D FLASHPRO.M Thu Mar 28 09:21:05 2002 HP2 Page 1

Acq On : 27 Mar 2002 23:47 Operator: CLK
Sample : WG115259-04 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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%

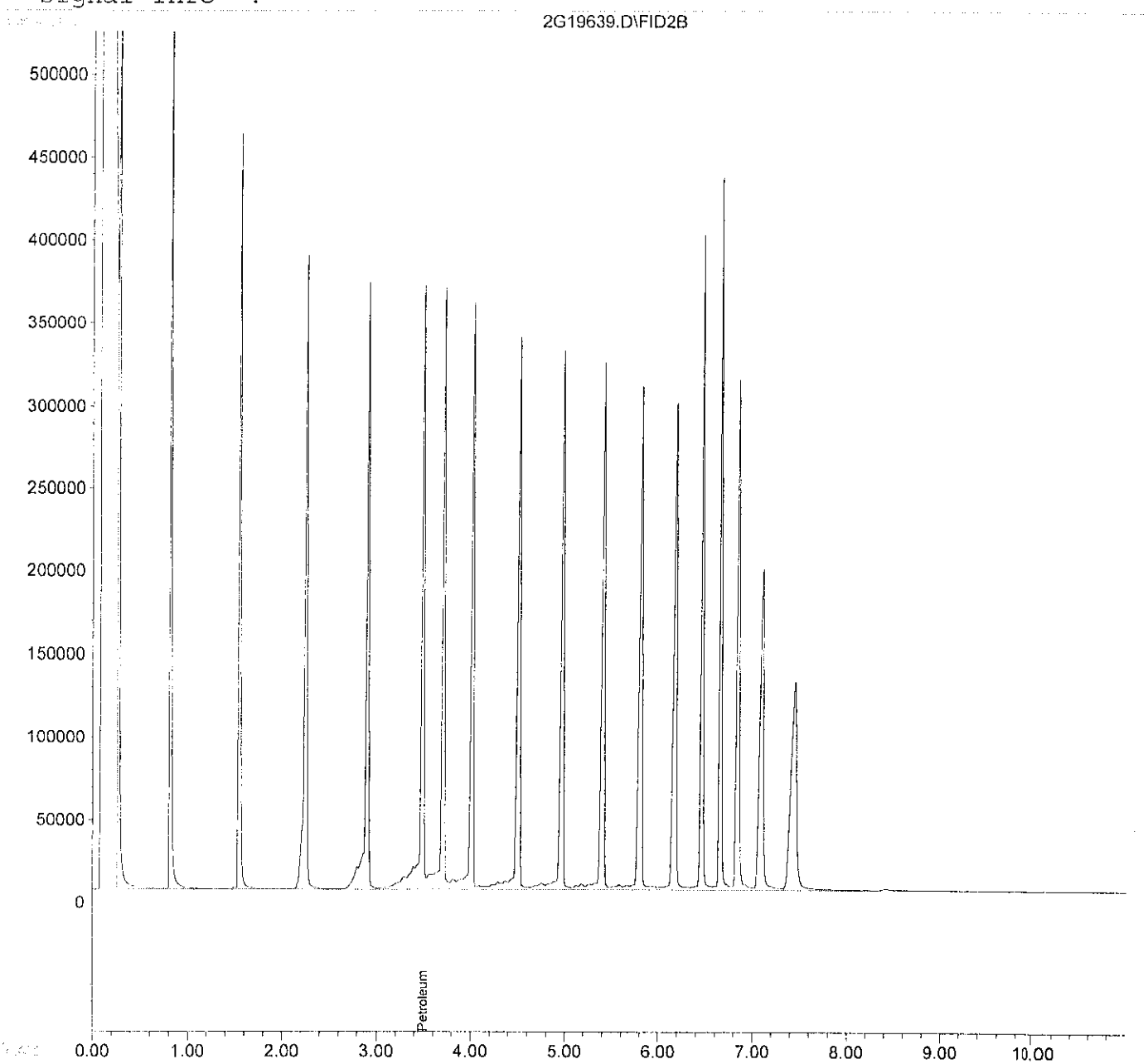
	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

```
Acq On     : 27 Mar 2002  23:47                          Operator: CLK
Sample     : WG115259-04 200PPM PRO CCV                  Inst    : HP2
Misc       : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 28  9:02 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.72        5996522  222.057 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1110.29%#
 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      114909370 3653.745 ppb
```

Acq On : 27 Mar 2002 23:47 Operator: CLK
Sample : WG115259-04 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 9:02 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Mar 2002 9:45
Sample : WG115284-01 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 03/26/02
Last Update : Wed Mar 27 12:53:50 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	3242.942	4.6	91	0.00
2	s	O-Terphenyl	200.000	195.180	2.4	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 28 Mar 2002 9:45
Sample : WG115284-01 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 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	0.00

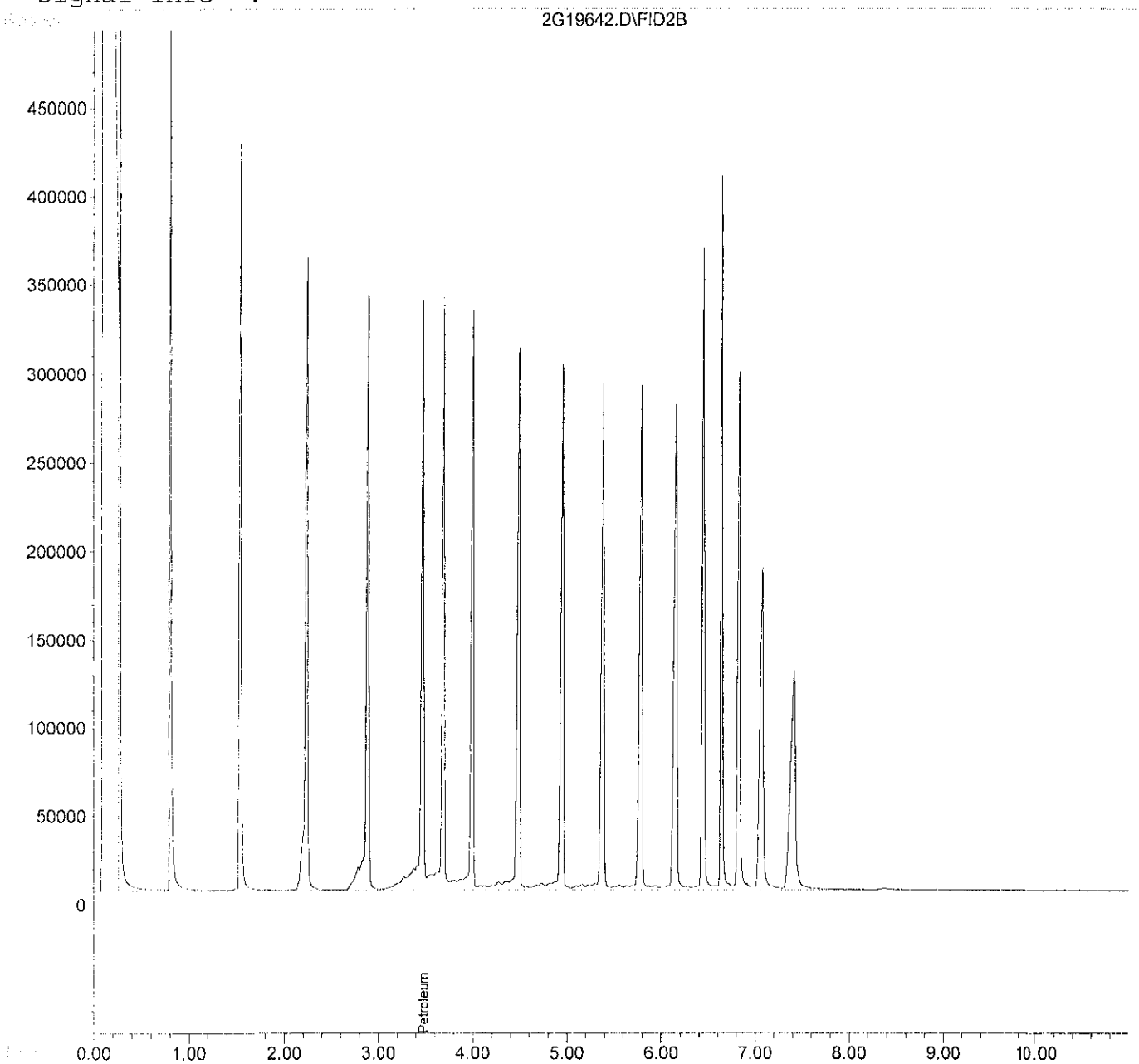
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Acq On     : 28 Mar 2002   9:45                          Operator: CLK
Sample     : WG115284-01 200PPM PRO CCV                  Inst    : HP2
Misc       : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 28 13:31 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

      Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                     3.70        5270723  195.180 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  975.90%#
 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      101989727 3242.942 ppb
```

Acq On : 28 Mar 2002 9:45 Operator: CLK
Sample : WG115284-01 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 13:31 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 28 Mar 2002 11:03 Operator: CLK
Sample : WG115284-02 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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	3534.045	-3.9	100	0.00
2	s	O-Terphenyl	200.000	213.293	-6.6	108	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G19646.D FLASHPRO.M Thu Mar 28 13:32:27 2002 HP2 Page 1

Acq On : 28 Mar 2002 11:03 Operator: CLK
Sample : WG115284-02 200PPM PRO CCV Inst : HP2
Misc : 1,1 SOS 59-6 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 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

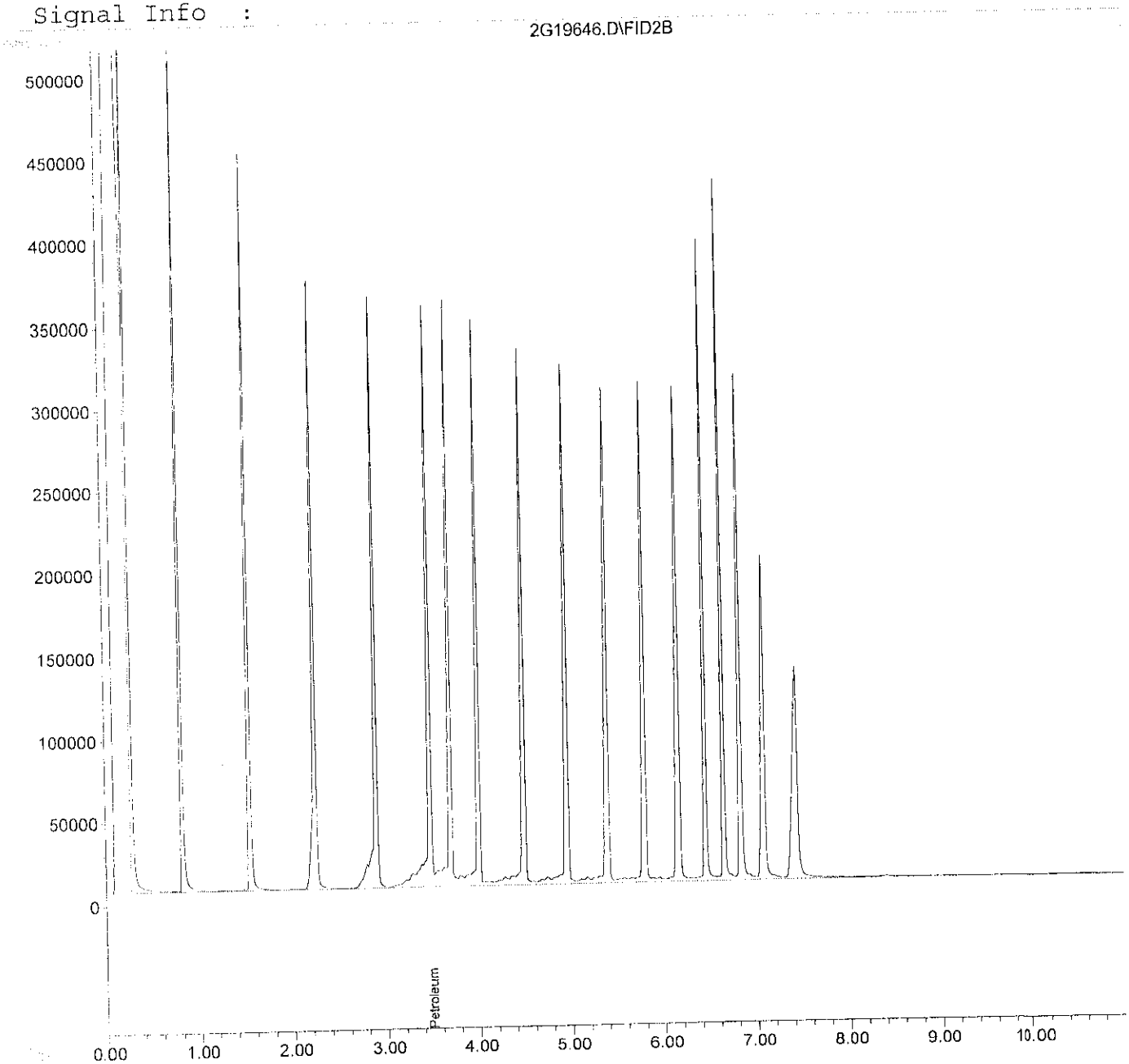
```
Acq On     : 28 Mar 2002  11:03                          Operator: CLK
Sample     : WG115284-02 200PPM PRO CCV                  Inst    : HP2
Misc       : 1,1 SOS 59-6                                Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 28 13:32 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                    3.71        5759852  213.293 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1066.47%#
 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      111144840 3534.045 ppb
```

Acq On : 28 Mar 2002 11:03
Sample : WG115284-02 200PPM PRO CCV
Misc : 1,1 SOS 59-6
IntFile : PETRO.E
Quant Time: Mar 28 13:32 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 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

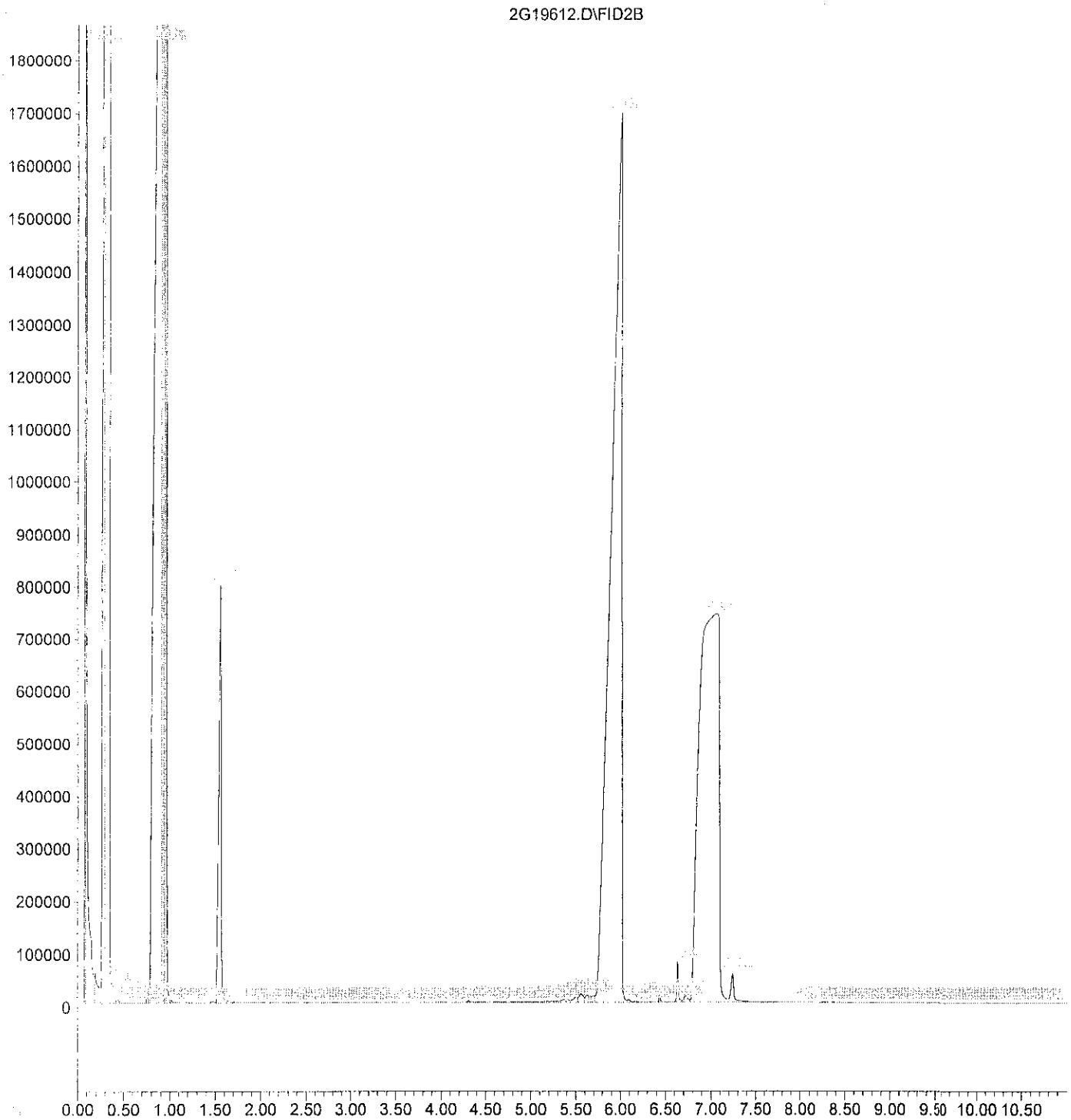
Instrument ID: HP-2

GC Column: RTX-5

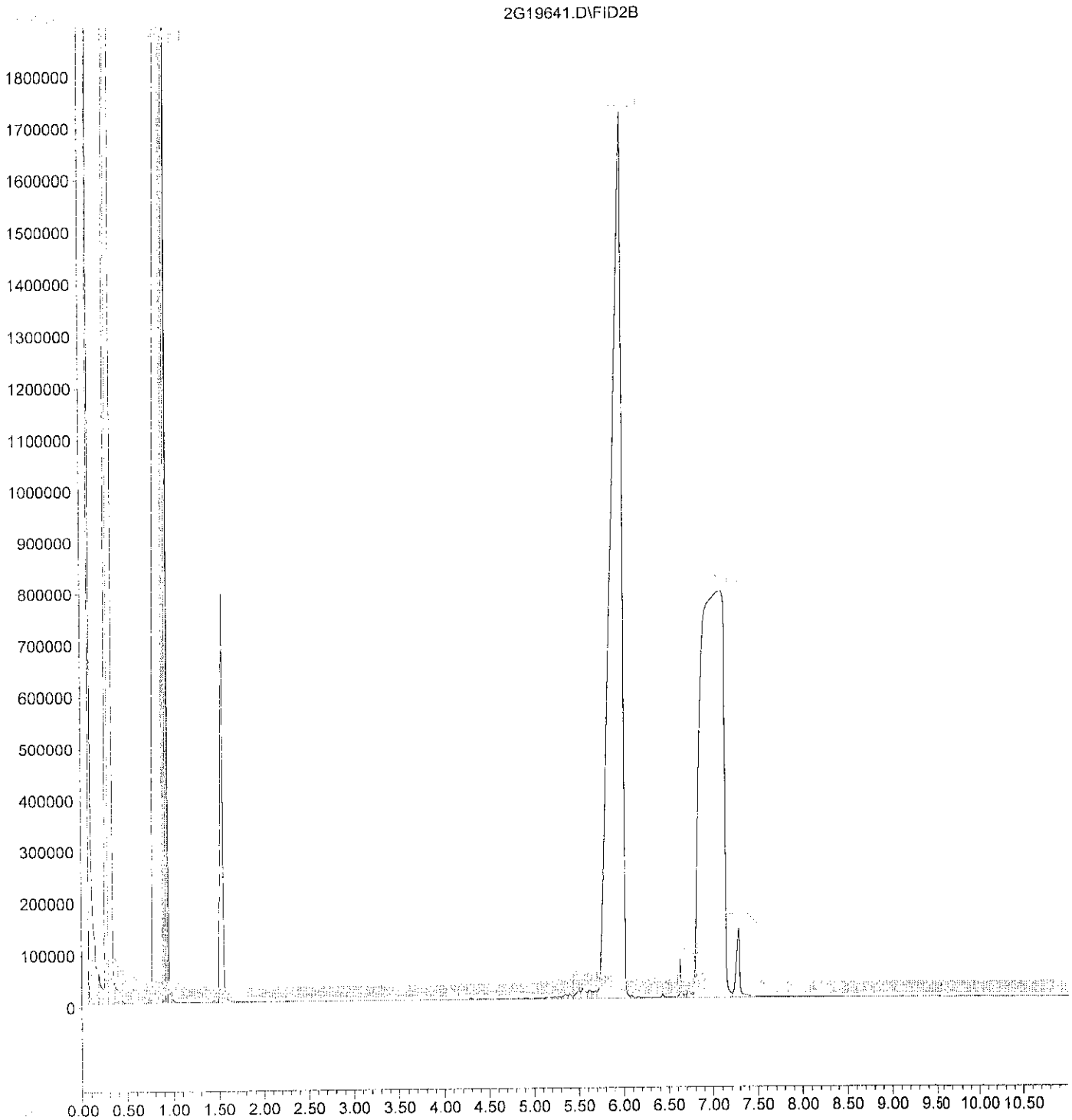
	WIN.STD #1	WIN.STD #2	WIN.STD #3
Date Run	01-23-02	01-24-02	01-25-02
File #	2g18031	2g18074	2g18121

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Petroleum Range				
PRO - C8 #1	0.28	0.26	0.26	0.035
PRO - C40 #2	7.97	7.75	7.88	0.332
Surrogates				
O-Terphenyl (C28)	3.81	3.72	3.75	0.137

File : C:\HPCHEM\1\DATA\032702\2G19612.D
Operator : CLK
Acquired : 27 Mar 2002 16:41 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: win def std
Misc Info : 1,1 NS 14-41
Vial Number: 4



File : C:\HPCHEM\1\DATA\032802\2G19641.D
Operator : CLK
Acquired : 28 Mar 2002 9:30 using AcqMethod FLASHPRO.M
Instrument : HP2
Sample Name: win def std
Misc Info : 1,1 NS 14-41
Vial Number: 2



2.2.6.4 Raw QC Data

Acq On : 27 Mar 2002 17:31 Operator: CLK
Sample : WG114849-02 BLK 3/21 V182P45 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

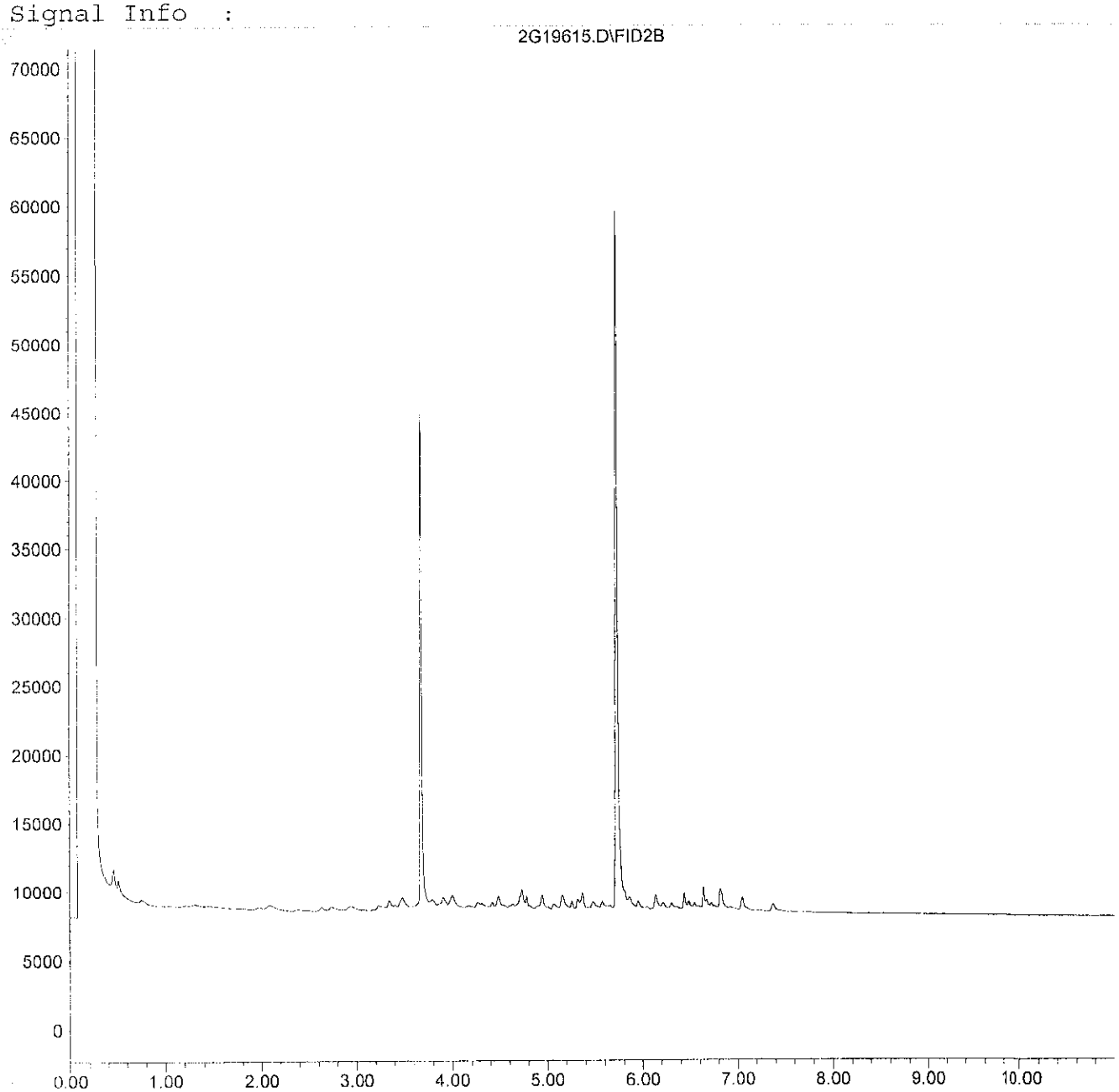
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.68	479584	17.759 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	88.80%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.48	2145872	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G19615.D FLASHPRO.M Thu Mar 28 08:38:31 2002 HP2 Page 1

Acq On : 27 Mar 2002 17:31 Operator: CLK
Sample : WG114849-02 BLK 3/21 V182P45 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:53:50 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



```
Acq On     : 27 Mar 2002  17:46                          Operator: CLK
Sample     : WG114849-03 LCS 3/21 V182P45                Inst     : HP2
Misc       : 1,1                                         Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Mar 28  8:38 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 03/26/02
Last Update  : Wed Mar 27 12:40:07 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                    3.69         606680   22.466 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  112.33%
 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       88644316(2818.602)ppb
```

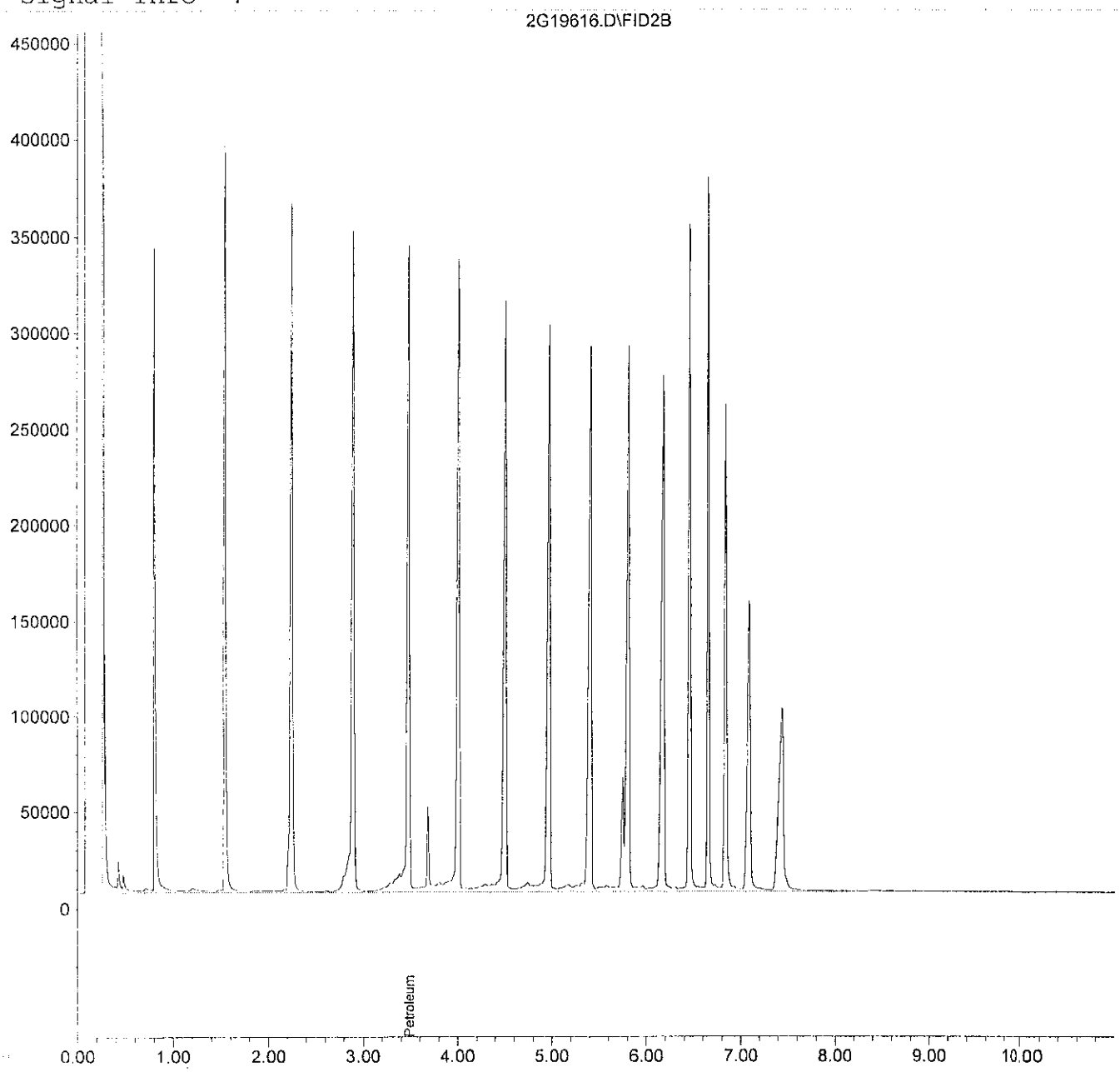
(f)=RT Delta > 1/2 Window (m)=manual int.

2G19616.D FLASHPRO.M Thu Mar 28 08:38:35 2002 HP2 Page 1

Acq On : 27 Mar 2002 17:46 Operator: CLK
Sample : WG114849-03 LCS 3/21 V182P45 Inst : HP2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Mar 28 8:38 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 03/26/02
Last Update : Wed Mar 27 12:40:07 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	Filename	Multiplier	Samplename			
1	1	2g19548.d	1.	NA CH2CL2	1,1		26 Mar 102 13::2
2	1	2g19549.d	1.	CH2CL2	1,1		26 Mar 102 13::4
3	2	2g19550.d	1.	win def std	1,1	NS 14-41	26 Mar 102 13::5
4	3	2g19551.d	1.	JP-4 2000ppm Qualitative STD	1,1	SOS 59-03	26 Mar 102 12::0
5	4	2g19552.d	1.	WG115131-03 1000ppm DRO CCV	1,1	NS 14-29	26 Mar 102 12::1
6	5	2g19553.d	1.	WG115131-06 10000ppm DRO STD	1,1	NS 14-29	26 Mar 102 12::2
7	6	2g19554.d	1.	WG115131-05 5000ppm DRO STD	1,1	NS 14-29	26 Mar 102 12::3
8	7	2g19555.d	1.	WG115131-04 2500ppm DRO STD	1,1	NS 14-29	26 Mar 102 12::4
9	8	2g19556.d	1.	WG115131-02 500ppm DRO STD	1,1	NS 14-29	26 Mar 102 12::0
10	9	2g19557.d	1.	WG115131-01 100ppm DRO STD	1,1	NS 14-29	26 Mar 102 12::1
11	10	2g19558.d	1.	WG115131-07 1000ppm DRO Alt Source STD	1,1	SOS 58-20	26 Mar 102 12::2
12	11	2g19559.d	1.	DRO SPK @ 1000ppm ESS0041-02	1,1		26 Mar 102 12::3
13	12	2g19560.d	1.	L0203345-01 WATER DRO	1,1		26 Mar 102 12::5
14	13	2g19561.d	1.	L0203345-03 WATER DRO	1,1		26 Mar 102 12::0
15	14	2g19562.d	1.	L0203345-04 WATER DRO	1,1		26 Mar 102 12::1
16	15	2g19563.d	1.	L0203345-02 WATER DRO	1,1		26 Mar 102 12::2
17	1	2g19564.d	1.	NA CH2CL2	1,1		26 Mar 102 12::3
18	1	2g19565.d	1.	NA CH2CL2	1,1		26 Mar 102 12::4
19	4	2g19566.d	1.	WG115131-08 1000ppm DRO CCV	1,1	NS 14-29	26 Mar 102 12::5
20	16	2g19567.d	1.	L0203407-02 WATER DRO	1,1		26 Mar 102 12::2
21	17	2g19568.d	20.	L0203407-02 WATER DRO 20X	1,20		26 Mar 102 12::3
22	1	2g19569.d	1.	NA CH2CL2	1,1		26 Mar 102 12::4
23	1	2g19570.d	1.	NA CH2CL2	1,1		26 Mar 102 12::5
24	4	2g19571.d	1.	WG115131-09 1000ppm DRO CCV	1,1	NS 14-29	26 Mar 102 12::0
25	18	2g19572.d	1.	L0203340-01 SOIL DRO	7,1	SOIL	26 Mar 102 12::2
26	19	2g19573.d	1.	L0203340-02 SOIL DRO	7,1	SOIL	26 Mar 102 12::3
27	20	2g19574.d	1.	L0203340-03 SOIL DRO	7,1	SOIL	26 Mar 102 12::4
28	1	2g19575.d	1.	NA CH2CL2	1,1		26 Mar 102 12::5
29	1	2g19576.d	1.	NA CH2CL2	1,1		26 Mar 102 12::0
30	4	2g19577.d	1.	WG115131-10 1000ppm DRO CCV	1,1	NS 14-29	26 Mar 102 12::1
31	21	2g19578.d	1.	DRO SPK @ 1000 ESS0041-02	1,1		26 Mar 102 12::3
32	1	2g19579.d	1.	NA CH2CL2	1,1		26 Mar 102 12::5
33	2	2g19580.d	1.	WG115180-06 600ppm PRO STD	1,1	SOS 59-6	26 Mar 102 12::1
34	3	2g19581.d	1.	WG115180-05 400ppm PRO STD	1,1	SOS 59-6	26 Mar 102 12::2
35	4	2g19582.d	1.	WG115180-04 200ppm PRO STD	1,1	SOS 59-6	26 Mar 102 12::4
36	5	2g19583.d	1.	WG115180-03 100ppm PRO STD	1,1	SOS 59-6	26 Mar 102 12::5
37	6	2g19584.d	1.	WG115180-02 50ppm PRO STD	1,1	SOS 59-6	26 Mar 102 12::1
38	7	2g19585.d	1.	WG115180-01 5ppm PRO STD	1,1	SOS 59-6	26 Mar 102 12::2
39	8	2g19586.d	1.	WG115180-07 200ppm PRO Alt Source STD	1,1	SOS 59-1	26 Mar 102 12::4
40	9	2g19587.d	1.	WG114738-02 BLK 3/19 V182P27	1,1		26 Mar 102 12::5
41	10	2g19588.d	1.	WG114738-03 LCS 3/19 V182P27	1,1		26 Mar 102 12::1
42	11	2g19589.d	1.	L0203326-01 PRO WATER	1,1		26 Mar 102 12::2
43	12	2g19590.d	1.	L0203326-02 PRO WATER	1,1		26 Mar 102 12::4
44	13	2g19591.d	1.	L0203327-01 PRO WATER	1,1		26 Mar 102 12::5
45	14	2g19592.d	1.	L0203327-02 PRO WATER	1,1		26 Mar 102 13::1
46	1	2g19593.d	1.	NA CH2CL2	1,1		26 Mar 102 13::3
47	1	2g19594.d	1.	NA CH2CL2	1,1		26 Mar 102 13::4
48	4	2g19595.d	1.	WG115180-08 200ppm PRO CCV	1,1	SOS 59-6	26 Mar 102 13::0
49	15	2g19596.d	1.	L0203327-03 PRO WATER	1,1		26 Mar 102 13::1
50	16	2g19597.d	1.	WG114738-01 L0203327-04 PRO WATER REF	1,1		26 Mar 102 13::3
51	17	2g19598.d	1.	WG114738-04 L0203327-05 PRO WATER MS	1,1		26 Mar 102 13::4

5	18	2g19599.d	1.	✓	WG114738-05 L0203327-06 PRO WATER MSD	1,1	27 Mar 102 13::0
53	19	2g19600.d	1.		L0203327-07 PRO WATER	1,1	27 Mar 102 13::1
54	20	2g19601.d	1.		L0203327-08 PRO WATER	1,1	27 Mar 102 13::3
55	21	2g19602.d	1.		L0203327-09 PRO WATER	1,1	27 Mar 102 13::4
56	1	2g19603.d	1.	NA	CH2CL2	1,1	27 Mar 102 12::0
57	4	2g19604.d	1.	✓	WG115180-09 200ppm CCV	1,1 SOS 59-6	27 Mar 102 12::1
58	22	2g19605.d	1.	NA	500ppm PRO ALT Check 1	1,1 SOS 59-1	27 Mar 102 12::5
59	23	2g19606.d	1.		600ppm PRO STD Check	1,1 SOS 59-6	27 Mar 102 13::2
60	24	2g19607.d	1.		500ppm PRO ALT CHECK II	1,1 STOCK (New Vial)	27 Mar 102 13::3
61	25	2g19608.d	1.		200ppm PRO STD CHK	1,1 SOS 59-6 Remix	27 Mar 102 13::5

CLK
3/27/02
Rec 3/27/02

Analysis Date/Time 3/26/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 032602
Analyst Initials ____

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # 2 PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS05 Rev. # ___ TNRCC 1005 ____
SOP # GCS02 Rev. # 2 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☒ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☒ Change liner
☒ Change septum
☐ Clip column (___cm)
☒ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ✓ No ____

Additional Maintenance
Problem: Injection Port Pressure low

Action Taken: Replaced instrument weld, Replaced pre-column, Changed Gold Seal

Comments

DRO SPK @ 1000 ppm ESS0041-02, low (2g19559)

LCS03467-02 WATER DRO, Needs 20X
↓ -02 ↓ ↓ 20X, Dilution bad, Reported, SS DC

DRO SPK @ 1000 ESS0041-02, high (2g19578)

Fks (2g19605 - 2g19608), (Check study)

Reviewed By: RPC 3/27/02

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g19609.d	1.	NA CH2CL2	1,1	27 Mar 102 12::4
2	2	2g19610.d	1.	✓ 1000ppm DRO CCV	1,1 NS 14-29	27 Mar 102 12::5
3	3	2g19611.d	1.	RR DRO SPK @ 1000 ESS0041-02	1,1	27 Mar 102 12::0
4	4	2g19612.d	1.	✓ win def std	1,1 NS 14-41	27 Mar 102 12::4
5	5	2g19613.d	1.	CL 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::5
6	6	2g19614.d	1.	✓ WG115259-01 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::1
7	7	2g19615.d	1.	WG114849-02 BLK 3/21 V182P45	1,1	27 Mar 102 12::3
8	8	2g19616.d	1.	WG114849-03 LCS 3/21 V182P45	1,1	27 Mar 102 12::4
9	9	2g19617.d	1.	WG114849-01 L0203380-08 PRO WATER REF	1,1	27 Mar 102 12::0
10	10	2g19618.d	1.	WG114849-04 L0203380-09 PRO WATER MS	1,1	27 Mar 102 12::1
11	11	2g19619.d	1.	WG114849-05 L0203380-10 PRO WATER MSD	1,1	27 Mar 102 12::3
12	1	2g19620.d	1.	NA CH2CL2	1,1	27 Mar 102 12::4
13	6	2g19621.d	1.	✓ WG115259-02 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::0
14	12	2g19622.d	1.	L0203380-02 *	1,1	27 Mar 102 12::2
15	13	2g19623.d	1.	L0203380-03 *	1,1	27 Mar 102 12::4
16	14	2g19624.d	1.	L0203380-04 *	1,1	27 Mar 102 12::5
17	15	2g19625.d	1.	L0203380-05 *	1,1	27 Mar 102 12::1
18	16	2g19626.d	1.	L0203380-06 *	1,1	27 Mar 102 12::2
19	17	2g19627.d	1.	L0203380-07 *	1,1	27 Mar 102 12::4
20	18	2g19628.d	1.	L0203380-11 *	1,1	27 Mar 102 12::5
21	1	2g19629.d	1.	NA CH2CL2	1,1	27 Mar 102 12::1
22	6	2g19630.d	1.	✓ WG115259-03 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 12::2
23	19	2g19631.d	1.	L0203380-12 *	1,1	27 Mar 102 12::4
24	20	2g19632.d	1.	L0203380-13 *	1,1	27 Mar 102 12::5
25	21	2g19633.d	1.	L0203380-14 *	1,1	27 Mar 102 13::1
26	22	2g19634.d	1.	L0203380-15 *	1,1	27 Mar 102 13::3
27	23	2g19635.d	1.	L0203380-16 *	1,1	27 Mar 102 13::4
28	24	2g19636.d	1.	RR L0203380-01 *	1,1	27 Mar 102 13::0
29	1	2g19637.d	1.	NA CH2CL2	1,1	27 Mar 102 13::1
30	1	2g19638.d	1.	NA CH2CL2	1,1	27 Mar 102 13::3
31	6	2g19639.d	1.	✓ WG115259-04 200PPM PRO CCV	1,1 SOS 59-6	27 Mar 102 13::4

CLK
3/28/02
RQC 3/28/02

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/27/02 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 032702
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
- [ ] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

* PRO WATER
L0203380-01, Neat's 20X

DRO SPK @ 1000 E550041-02, high (2g19611)

Reviewed By: TRC 3/28/02

ine	Vial	FileName	Multiplier	SampleName	Misc Info	
	1	2g19640.d	1.	NA CH2CL2	1,1	28 Mar 102 12::1
	2	2g19641.d	1.	✓ win def std	1,1 NS 14-41	28 Mar 102 12::3
	3	2g19642.d	1.	✓ WG115284-01 200PPM PRO CCV	1,1 SOS 59-6	28 Mar 102 12::4
	4	2g19643.d	20.	✓ L0203380-01 PRO WATER 20X	1,20	28 Mar 102 13::0
	1	2g19644.d	1.	NA CH2CL2	1,1	28 Mar 102 13::3
	1	2g19645.d	1.	NA CH2CL2	1,1	28 Mar 102 13::4
	3	2g19646.d	1.	✓ WG115284-02 200PPM PRO CCV	1,1 SOS 59-6	28 Mar 102 13::0
	1	2g19647.d	1.	NA CH2CL2	1,1	28 Mar 102 13::2
	5	2g19648.d	1.	✓ WG115303-01 1000ppm DRO CCV	1,1 NS 14-29	28 Mar 102 13::3
0	6	2g19649.d	1.	✓ DRO SPK @ 1000ppm ESS0041-02	1,1	28 Mar 102 13::4
1	7	2g19650.d	1.	RR WG115110-02 BLK 3/26 V182P101	7,1 SOIL	28 Mar 102 12::0
2	8	2g19651.d	1.	✓ WG115110-03 LCS 3/26 V182P101	7,1 SOIL	28 Mar 102 12::1
3	9	2g19652.d	1.	RR L0203417-01 DRO SOIL	7,1 SOIL	28 Mar 102 12::2
4	10	2g19653.d	1.	RR L0203417-02 DRO SOIL	7,1 SOIL	28 Mar 102 12::3
5	11	2g19654.d	1.	RR WG115110-01 L0203417-03 DRO SOIL REF	7,1 SOIL	28 Mar 102 12::4
6	12	2g19655.d	1.	✓ WG115110-04 L0203417-03 DRO SOIL MS	7,1 SOIL	28 Mar 102 12::5
7	13	2g19656.d	1.	✓ WG115110-05 L0203417-03 DRO SOIL MSD	7,1 SOIL	28 Mar 102 12::0
8	14	2g19657.d	1.	NA CH2CL2	1,1	28 Mar 102 12::1
9	14	2g19658.d	1.	NA CH2CL2	1,1	28 Mar 102 12::4
0	5	2g19659.d	1.	✓ WG115303-02 1000ppm DRO CCV	1,1 NS 14-29	28 Mar 102 12::5
1	15	2g19660.d	1.	✓ WG115280-01 BLK 3/28 V182P133	1,1	28 Mar 102 12::1
2	16	2g19661.d	1.	✓ WG115280-02 LCS 3/28 V182P133	1,1	28 Mar 102 12::2
3	17	2g19662.d	1.	✓ WG115280-03 LCS DUP 3/28 V182P133	1,1	28 Mar 102 12::3
4	18	2g19663.d	1.	✓ L0203543-01 DRO WATER	1,1	28 Mar 102 12::4
5	19	2g19664.d	1.	NA CH2CL2	1,1	28 Mar 102 12::5
6	20	2g19665.d	1.	✓ WG115303-03 1000ppm DRO CCV	1,1	28 Mar 102 12::0

CLK 4/1/02

4/1/02

Analysis Date/Time 3/28/02 Instrument ID HP7 Column ID RTX-5 Data Subdirectory 032802
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. # 3 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- [x] Gases >500 psi

Preventative Maintenance
- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

W6115110-02 BLK 3/26 V182P101, Needs RR, Needs Fractionated
L0203417-01 DRO SOIL
↓ -02 ↓ ↓
W6115110-01 L0203417-03 DRO SOIL REF ↓ ↓

Need PRO ~~[illegible]~~ CLK 4/1/02 Win STD ran

W6115110-04 L0203417-03 DRO SOIL MS, SS high, O-Terphenyl
↓ -05 ↓ -03 ↓ ↓ MSD, ↓, ↓

Reviewed By: SPR 4/1/02

Extraction Analyst(s): REK CSH TV/KD Analyst(s): CSH
Date/Time Extracted: 3/21/02 @0815 Date TV/KD: 3/21/02
Spike/Surrogate Analyst: REK Witness: CEB
Surrogate #: ES5004040-18 Earliest Hold Date: 3/26/02
Spike #: A = ES5004040-19 Spike #: B = —

Analytical Work Group WG 115176
Extract Relinquished By: CSH
Extract Received By & Date: RMC 3/21/02

	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 114849-01
2	LCS		✓			⊥		1mL		⊥				WG ⊥ -03
3	03-380-01	FLA-PRO	✓			920mL				C	✓			
4	-02		✓			950mL				T	✓			
5	-03		✓			930mL								
6	-04		✓			910mL								
7	-05		✓			960mL								
8	-06		✓			940mL								
9	-07		✓			⊥								
10	-08		✓			965mL								WG 114849-01
11	-09MS		✓			920mL		1mL		⊥				⊥ -04
12	-10MSD		✓			965mL		⊥		C				* ⊥ -05
13	-11		✓			⊥				T				
14	-12		✓			950mL								
15	-13		✓			965mL								
16	-14		✓			940mL								
17	-15		✓			910mL								
18	-16		✓			1L								
19														
20														
21														
22														
23														
24														

CSH 3/21/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: ER2084
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 03/21/02

Extraction Notes For Volume # 182 Page # 45

General Comments: MS OF 03-380-08
MSD I

Extraction Anomalies:
* → THE MSD EXTRACT WAS COLORED, WHILE THE REF AND MS WERE TRANSPARENT.

Concentration Anomalies:
NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Date: 3/26/02
Analyst: CLK
Method: 8015 DRO, PRO
Instrument: HP2
Work Group: W6115175, W6114952
W6115089, W6114964

03-326 3/26 —
03-327 3/26 —
03-407 3/29 A1
03-340 4/2 —
03-345 3/26 P2

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	✓
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	NA
Check Sample Histories	NA
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked CLK 3/27/02

Secondary Reviewer Initials & Date Checked PK 3/27/02

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked PK 3/27/02

Comments:

✓ Checked & OK

Analyst: CLK
Method: 8015 PRO
Instrument: HP2
Work Group: WG115176

	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	NA
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 3/28/02

Secondary Reviewer Initials & Date Checked PAR 3/28/02

- 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 PAR 3/28/02

Comments:

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

407

Analyst: CUC
Method: 8015 DRO, PRO
Instrument: HP2
Work Group: WG115177, WG115313

03-417 4/1 –
03-380 3/27 –

	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	NA
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	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 CUC 4/1/02

Secondary Reviewer Initials & Date Checked [illegible] 4/1/02

- 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] 4/1/02

Comments: ~~03-14~~ CUC 4/1/02 03-417 -01, 02, 03 Need Fractionated

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0203380

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: Sample fraction 03 was re-extracted out of holding time.
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: For the re-extraction batch associated with sample fraction 03, the LCS yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. This analyte was not found above detectible limits in sample fraction 03 re-extract.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: Sample fraction 03 yielded a percent recovery for the surrogate which was below the advisory limit. This sample was re-extracted out of holding time with all acceptance criteria met for the surrogate. For sample fraction 01 at a 10X dilution the surrogate was reported as "DL", diluted out.
Samples: Sample fraction 01 was re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 4/9/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number L0203380

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: RKC Date: 4/5/02

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 4L002943.R
Date Analyzed: 03/25/02
Time Analyzed: 16:56
Analyst: RDC

Work Group: WG114911
Blank Sample ID: WG114850-02
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	WG114850-03	4L002944.R	03/25/02 17:53	01
062-CEF46-1S-Q1-02-14	L0203380-01	4L002945.R	03/25/02 18:49	01
062-CEF46-2S-Q1-02-14	L0203380-02	4L002946.R	03/25/02 19:46	01
062-CEF46-5I-Q1-02-14	L0203380-03	4L002947.R	03/25/02 20:43	01
062-CEF46-6D-Q1-02-14	L0203380-04	4L002948.R	03/25/02 21:39	01
062-CEF46-7I-Q1-02-14	L0203380-05	4L002949.R	03/25/02 22:36	01
062-CEF46-9I-Q1-02-14	L0203380-06	4L002950.R	03/25/02 23:33	01
062-CEF46-13I-Q1-02-14	L0203380-07	4L002951.R	03/26/02 00:29	01
062-CEF46-14D-Q1-02-14	L0203380-08	4L002952.R	03/26/02 01:26	01
062-CEF46-14D-Q1-02-14	L0203380-09	4L002954.R	03/26/02 03:19	01
062-CEF46-14D-Q1-02-14	L0203380-10	4L002955.R	03/26/02 04:16	01
062-CEF46-21I-Q1-02-14	L0203380-11	4L002956.R	03/26/02 05:12	01
062-CEF46-24D-Q1-02-14	L0203380-12	4L002957.R	03/26/02 06:09	01
062-CEF46-25I-Q1-02-14	L0203380-13	4L002958.R	03/26/02 07:06	01
062-CEF46-26I-Q1-02-14	L0203380-14	4L002959.R	03/26/02 08:02	01
062-46DUP-Q1-02-14	L0203380-15	4L002960.R	03/26/02 08:59	01
062-46EQB-Q1-02-14	L0203380-16	4L002961.R	03/26/02 09:56	01
062-CEF46-1S-Q1-02-14	L0203380-01	4L002965.R	03/28/02 12:34	DL01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 4L002943.F
Date Analyzed: 03/25/02
Time Analyzed: 16:56
Analyst: RDC

Work Group: WG114911
Blank Sample ID: WG114850-02
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	WG114850-03	4L002944.F	03/25/02 17:53	CF01
062-CEF46-1S-Q1-02-14	L0203380-01	4L002945.F	03/25/02 18:49	CF01
062-CEF46-2S-Q1-02-14	L0203380-02	4L002946.F	03/25/02 19:46	CF01
062-CEF46-6D-Q1-02-14	L0203380-04	4L002948.F	03/25/02 21:39	CF01
062-CEF46-7I-Q1-02-14	L0203380-05	4L002949.F	03/25/02 22:36	CF01
062-CEF46-14D-Q1-02-14	L0203380-09	4L002954.F	03/26/02 03:19	CF01
062-CEF46-14D-Q1-02-14	L0203380-10	4L002955.F	03/26/02 04:16	CF01
062-CEF46-1S-Q1-02-14	L0203380-01	4L002965.F	03/28/02 12:34	CFDL01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 4L002967.R
Date Analyzed: 03/28/02
Time Analyzed: 17:20
Analyst: RDC

Work Group: WG115477
Blank Sample ID: WG115291-01
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	WG115291-02	4L002968.R	03/28/02 18:16	01
LCS2	WG115291-03	4L002969.R	03/28/02 19:13	01
062-CEF46-5I-Q1-02-14	L0203380-03	4L002970.R	03/28/02 20:09	RE01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380
Instrument ID: HPLC4
File ID: 4L002943.R
Workgroup (AAB#): WG114911
Contract #:

Run Date: 03/25/2002
Run Time: 16:56
Analyst: RDC

Sample ID: WG114850-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-14-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
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	81.4	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 03/07/2001
Version 1.2
Report generated 04/05/2002 11:01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380
Instrument ID: HPLC4
File ID: 4L002943.F
Workgroup (AAB#): WG114911
Contract #:

Run Date: 03/25/2002
Run Time: 16:56
Analyst: RDC

Sample ID: WG114850-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-14-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
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	81.4	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380
Instrument ID: HPLC4
File ID: 4L002967.R
Workgroup (AAB#): WG115477
Contract #:

Run Date: 03/28/2002
Run Time: 17:20
Analyst: RDC

Sample ID: WG115291-01
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-14-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	0.415	1.00	0.415	1.00	ND
Acenaphthylene	0.351	1.00	0.351	1.00	ND
Anthracene	0.285	1.00	0.285	1.00	ND
Benzo(a)anthracene	0.0300	0.200	0.0300	1.00	ND
Benzo[a]pyrene	0.0530	0.200	0.0530	1.00	ND
Benzo(b)Fluoranthene	0.0340	0.200	0.0340	1.00	ND
Benzo[ghi]perylene	0.0500	0.200	0.0500	1.00	ND
Benzo[k]fluoranthene	0.0720	0.200	0.0720	1.00	ND
Chrysene	0.0240	0.200	0.0240	1.00	ND
Dibenz(a,h)Anthracene	0.0770	0.200	0.0770	1.00	ND
Fluoranthene	0.0500	0.200	0.0500	1.00	ND
Fluorene	0.559	1.00	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.200	0.0800	1.00	ND
Naphthalene	0.359	1.00	0.359	1.00	ND
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	92.3	40 - 132	PASS

* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Run Date: 03/25/2002
Sample ID: WG114850-03
Instrument ID: HPLC4
Run Time: 17:53
Method: 8310
File ID: 4L002944.R
Analyst: RDC
Matrix: Water
Workgroup (AAB#): WG114911
Units: ug/L
Contract #:
Cal ID: HPLC4-14-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	26.8	53.6	25 - 78	
Acenaphthylene	50	27.2	54.4	25 - 77	
Anthracene	50	45.1	90.2	47 - 101	
Benzo(a)anthracene	5	4.59	91.7	50 - 115	
Benzo[a]pyrene	5	3.73	74.6	29 - 113	
Benzo(b)Fluoranthene	5	3.77	75.4	41 - 110	
Benzo[ghi]perylene	5	2.75	55.1	11 - 84	
Benzo[k]fluoranthene	2.5	1.71	68.3	25 - 107	
Chrysene	5	4.15	83.0	39 - 120	
Dibenz(a,h)Anthracene	5	2.60	52.1	10 - 92	
Fluoranthene	5	4.62	92.4	55 - 104	
Fluorene	50	31.6	63.1	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.86	57.2	16 - 98	
Naphthalene	50	24.5	48.9	25 - 68	
2-Methylnaphthalene	50	26.0	52.1	26 - 72	
1-Methylnaphthalene	50	25.5	51.1	26 - 71	
Phenanthrene	50	39.8	79.6	39 - 95	
Pyrene	5	4.69	93.7	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	70.6	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 04/05/2002 11:01

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Instrument ID: HPLC4
File ID: 4L002944.F
Workgroup (AAB#): WG114911
Contract #:

Run Date: 03/25/2002
Run Time: 17:53
Analyst: RDC

Sample ID: WG114850-03
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-14-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	26.4	52.8	25 - 78	
Acenaphthylene	50		0	25 - 77	*
Anthracene	50	43.4	86.8	47 - 101	
Benzo(a)anthracene	5	4.43	88.5	50 - 115	
Benzo[a]pyrene	5	3.65	72.9	29 - 113	
Benzo(b)Fluoranthene	5	3.68	73.6	41 - 110	
Benzo[ghi]perylene	5	2.57	51.3	11 - 84	
Benzo[k]fluoranthene	2.5	1.69	67.7	25 - 107	
Chrysene	5	4.08	81.6	39 - 120	
Dibenz(a,h)Anthracene	5	2.53	50.6	10 - 92	
Fluoranthene	5	4.46	89.1	55 - 104	
Fluorene	50	31.8	63.7	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.80	56.0	16 - 98	
Naphthalene	50	24.5	49.0	25 - 68	
2-Methylnaphthalene	50	24.7	49.5	26 - 72	
1-Methylnaphthalene	50	24.6	49.2	26 - 71	
Phenanthrene	50	37.7	75.4	39 - 95	
Pyrene	5	4.52	90.4	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	69.9	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 04/05/2002 11:01

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Instrument ID: HPLC4
File ID: 4L002968.R
Workgroup (AAB#): WG115477
Contract #:

Run Date: 03/28/2002
Run Time: 18:16
Analyst: RDC

Sample ID: WG115291-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-14-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	34.8	69.5	25 - 78	
Acenaphthylene	50	34.7	69.4	25 - 77	
Anthracene	50	45.7	91.3	47 - 101	
Benzo(a)anthracene	5	4.94	98.8	50 - 115	
Benzo[a]pyrene	5	4.94	98.9	29 - 113	
Benzo(b)Fluoranthene	5	4.67	93.5	41 - 110	
Benzo[ghi]perylene	5	4.25	84.9	11 - 84	*
Benzo[k]fluoranthene	2.5	2.24	89.7	25 - 107	
Chrysene	5	4.84	96.7	39 - 120	
Dibenz(a,h)Anthracene	5	4.13	82.6	10 - 92	
Fluoranthene	5	4.73	94.7	55 - 104	
Fluorene	50	37.8	75.6	29 - 84	
Indeno(1,2,3-cd)pyrene	5	4.25	85.0	16 - 98	
Naphthalene	50	32.2	64.3	25 - 68	
2-Methylnaphthalene	50	32.3	64.7	26 - 72	
1-Methylnaphthalene	50	32.3	64.5	26 - 71	
Phenanthrene	50	42.1	84.1	39 - 95	
Pyrene	5	4.79	95.9	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	88.5	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 03/27/2002
Version 1.3
Report generated 04/05/2002 11:01

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0203380 | Cal ID: HPLC4-14-JAN-2002 | Worknum: WG114911
Instrument ID: HPLC4 | Contract #: | Method: 8310
Parent ID: L0203380-08 | File ID: 4L002952.R | Dil: | Matrix: Water
Sample ID: L0203380-09 MS | File ID: 4L002954.R | Dil: 1 | Units: ug/L
Sample ID: L0203380-10 MSD | File ID: 4L002955.R | Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Naphthalene	0	52.6	31.4	59.7	52.6	31.4	54.2	11.1	25 - 68	50	
1-Methylnaphthalene	0	52.6	30.9	58.7	52.6	30.9	53.5	10.9	26 - 71	50	
2-Methylnaphthalene	0	52.6	31.0	58.9	52.6	31.0	53.7	10.9	26 - 72	50	
Acenaphthylene	0	52.6	32.3	61.4	52.6	32.3	55.8	11.1	25 - 77	50	
Acenaphthene	0	52.6	32.1	61.0	52.6	32.1	55.4	11.2	25 - 78	50	
Fluorene	0	52.6	34.1	64.8	52.6	34.1	59.1	10.8	29 - 84	50	
Phenanthrene	0	52.6	40.5	77.0	52.6	40.5	68.9	12.6	39 - 95	50	
Anthracene	0	52.6	41.7	79.3	52.6	41.7	72.4	10.6	47 - 101	50	
Fluoranthene	0	5.26	4.65	88.4	5.26	4.65	85.7	4.62	55 - 104	50	
Pyrene	0	5.26	4.85	92.2	5.26	4.85	89.2	4.85	56 - 104	50	
Benzo(a)anthracene	0	5.26	4.81	91.4	5.26	4.81	90.2	2.95	50 - 115	50	
Chrysene	0	5.26	4.56	86.7	5.26	4.56	87.1	1.10	39 - 120	50	
Benzo(b)fluoranthene	0	5.26	4.56	86.7	5.26	4.56	87.5	0.659	41 - 110	50	
Benzo(k)fluoranthene	0	2.63	2.16	82.1	2.63	2.16	84.6	1.38	25 - 107	50	
Benzo(a)pyrene	0	5.26	4.40	83.7	5.26	4.40	85.3	0.454	29 - 113	50	
Indeno(1,2,3-cd)pyrene	0	5.26	3.60	68.4	5.26	3.60	72.2	3.81	16 - 98	50	
Dibenzo(a,h)anthracene	0	5.26	2.57	48.9	5.26	2.57	50.8	2.31	10 - 92	50	
Benzo(g,h,i)perylene	0	5.26	3.18	60.5	5.26	3.18	63.9	4.00	11 - 84	50	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

KEMRON FORMS - Modified 01/11/2001
Version 1.2
Report generated 04/05/2002 11:08

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0203380 Worknum:WG115477 Method:8310
Instrument ID:HPLC4 Cal ID: HPLC4-14-JAN-2002 Matrix:Water
Analyst:RDC Contract #: Units:ug/L
Sample ID:WG115291-02 LCS File ID:4L002968.R Run Date:03/28/2002 18:16
Sample ID:WG115291-03 LCS2 File ID:4L002969.R Run Date:03/28/2002 19:13

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Acenaphthene	50.0	34.8	69.5	50.0	31.5	62.9	9.98	25 - 78	50	
Acenaphthylene	50.0	34.7	69.4	50.0	31.4	62.8	10.1	25 - 77	50	
Anthracene	50.0	45.7	91.3	50.0	42.8	85.6	6.46	47 - 101	50	
Benzo(a)anthracene	5.00	4.94	98.8	5.00	4.76	95.1	3.82	50 - 115	50	
Benzo[a]pyrene	5.00	4.94	98.9	5.00	4.92	98.4	.472	29 - 113	50	
Benzo(b)Fluoranthene	5.00	4.67	93.5	5.00	4.65	92.9	.583	41 - 110	50	
Benzo[ghi]perylene	5.00	4.25	84.9	5.00	4.46	89.3	5	11 - 84	50	*
Benzo[k]fluoranthene	2.50	2.24	89.7	2.50	2.29	91.7	2.18	25 - 107	50	
Chrysene	5.00	4.84	96.7	5.00	4.85	97.0	.272	39 - 120	50	
Dibenz(a,h)Anthracene	5.00	4.13	82.6	5.00	4.28	85.6	3.58	10 - 92	50	
Fluoranthene	5.00	4.73	94.7	5.00	4.50	89.9	5.14	55 - 104	50	
Fluorene	50.0	37.8	75.6	50.0	33.8	67.6	11.1	29 - 84	50	
Indeno(1,2,3-cd)pyrene	5.00	4.25	85.0	5.00	4.36	87.2	2.58	16 - 98	50	
Naphthalene	50.0	32.2	64.3	50.0	29.8	59.5	7.69	25 - 68	50	
2-Methylnaphthalene	50.0	32.3	64.7	50.0	30.1	60.1	7.27	26 - 72	50	
1-Methylnaphthalene	50.0	32.3	64.5	50.0	30.0	60.0	7.31	26 - 71	50	
Phenanthrene	50.0	42.1	84.1	50.0	37.9	75.8	10.3	39 - 95	50	
Pyrene	5.00	4.79	95.9	5.00	4.57	91.3	4.89	56 - 104	50	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	88.5	89.3	40 - 132	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 02/27/2002
Version 1.2
Report generated 04/05/2002 11:11

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG114911

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-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	2.38	26-MAR-02	40	5.00	
062-46EQB-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.88	26-MAR-02	40	5.04	
062-CEF46-13I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	2.02	26-MAR-02	40	4.65	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.98	26-MAR-02	40	4.68	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.98	26-MAR-02	40	4.76	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.98	26-MAR-02	40	4.80	
062-CEF46-1S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.89	25-MAR-02	40	4.41	
062-CEF46-1S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.89	28-MAR-02	40	7.15	
062-CEF46-21I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.73	26-MAR-02	40	4.84	
062-CEF46-24D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.76	26-MAR-02	40	4.88	
062-CEF46-25I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.69	26-MAR-02	40	4.92	
062-CEF46-26I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.66	26-MAR-02	40	4.96	
062-CEF46-2S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.83	25-MAR-02	40	4.45	
062-CEF46-5I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.92	25-MAR-02	40	4.49	
062-CEF46-6D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.91	25-MAR-02	40	4.53	
062-CEF46-7I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.81	25-MAR-02	40	4.57	
062-CEF46-9I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	7	1.95	25-MAR-02	40	4.61	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 04/05/2002 11:02

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8310

AAB#: WG115477

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-CEF46-5I-Q1-02-14	19-MAR-02	20-MAR-02	28-MAR-02	7	9.15	28-MAR-02	40	0.236	*EXT

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 01/23/2001
Version 1.1
Report generated 04/05/2002 11:02

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number:L0203380

Instrument Id:HPLC4

Workgroup (AAB#):WG114911

Method:8310

Matrix:WATER

Sample Number	Dilution	Tag	1
L0203380-01	1.00	01	75.8
L0203380-01	1.00	CF01	75.1
L0203380-01	10.0	CFDL01	DL
L0203380-01	10.0	DL01	DL
L0203380-02	1.00	01	72.5
L0203380-02	1.00	CF01	72.2
L0203380-03	1.00	01	37.8
L0203380-04	1.00	01	42.4
L0203380-04	1.00	CF01	42.3
L0203380-05	1.00	01	52.1
L0203380-05	1.00	CF01	52.2
L0203380-06	1.00	01	82.5
L0203380-07	1.00	01	58.8
L0203380-08	1.00	01	79.5
L0203380-09	1.00	01	83.6
L0203380-09	1.00	CF01	83.7
L0203380-10	1.00	01	84.8
L0203380-10	1.00	CF01	83.9
L0203380-11	1.00	01	90.2
L0203380-12	1.00	01	84.9
L0203380-13	1.00	01	87.4
L0203380-14	1.00	01	81.6
L0203380-15	1.00	01	69.5
L0203380-16	1.00	01	82.5
WG114850-02	1.00	01	81.4
WG114850-02	1.00	CF01	81.4
WG114850-03	1.00	01	70.6
WG114850-03	1.00	CF01	69.9

Surrogates	Surrogate Limits
1 - p-terphenyl-d14	40 - 132

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002
Version 1.2
Report generated 04/05/2002 11:03

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number:L0203380

Instrument Id:HPLC4

Workgroup (AAB#):WG115477

Method:8310

Matrix:WATER

Sample Number	Dilution	Tag	1
L0203380-03	1.00	RE01	67.5
WG115291-01	1.00	01	92.3
WG115291-02	1.00	01	88.5
WG115291-03	1.00	01	89.3

Surrogates	Surrogate Limits		
1 - p-terphenyl-d14	40	-	132

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 03/07/2002

Version 1.2

Report generated 04/05/2002 11:02

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Calibration Table

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HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #2

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	[illegible]	[illegible]			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	[illegible]	[illegible]			

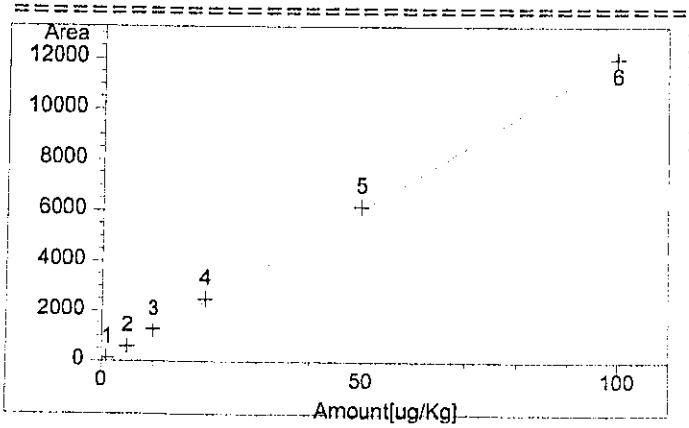
Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

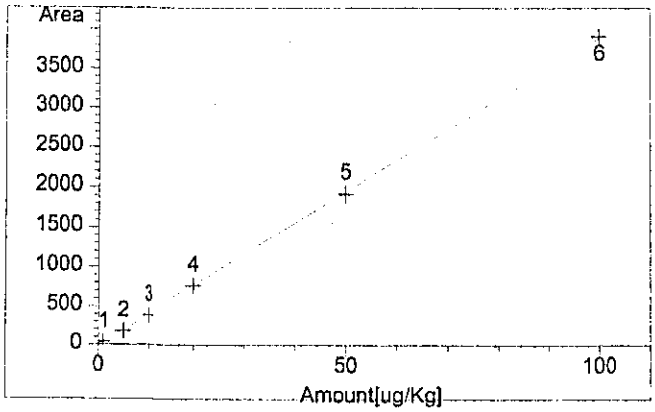
Peak Sum Table

No Entries in table

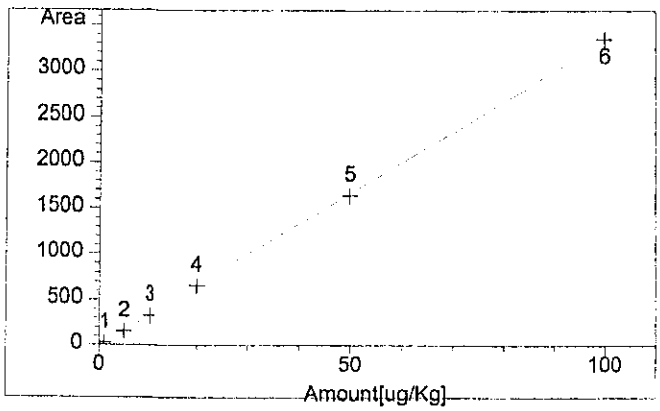
Calibration Curves



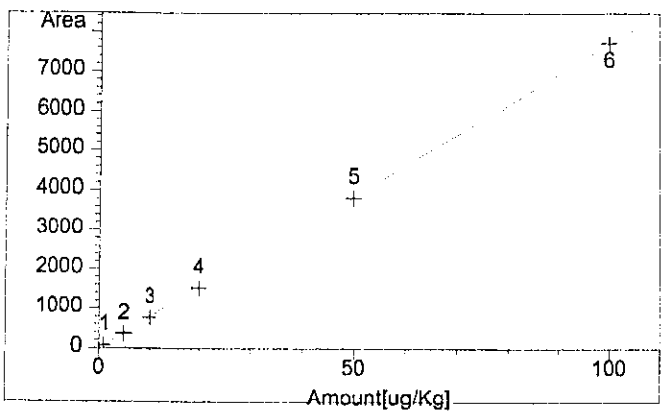
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount [ug/Kg]
y: Area



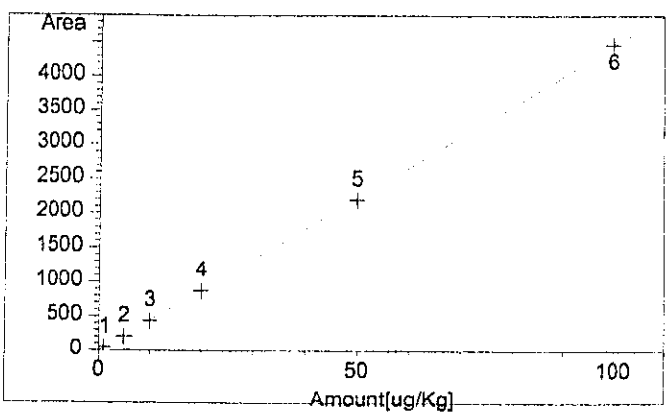
Naphthalene #1 at exp. RT: 9.250
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



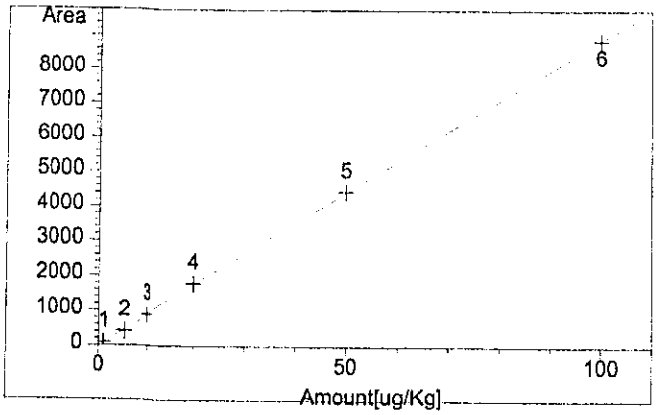
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



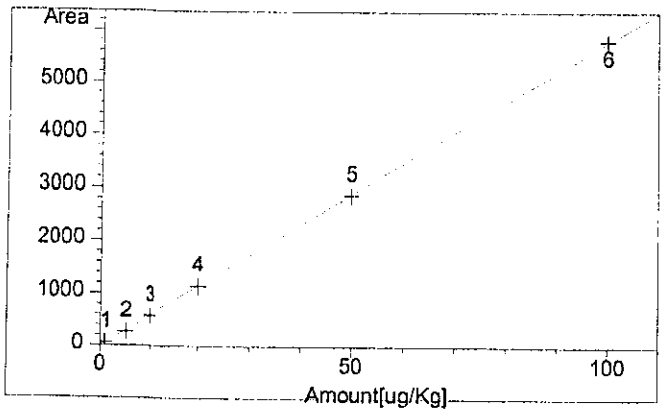
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



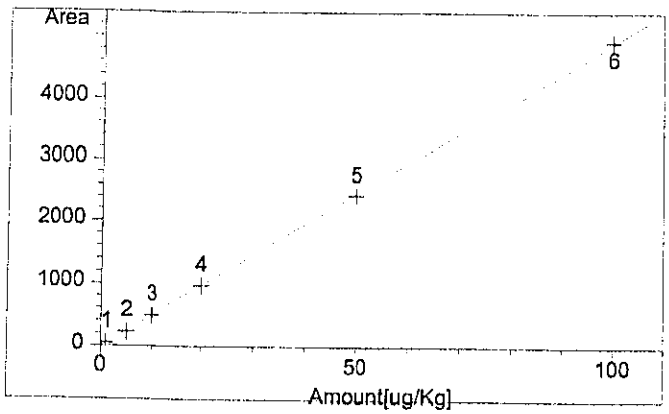
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



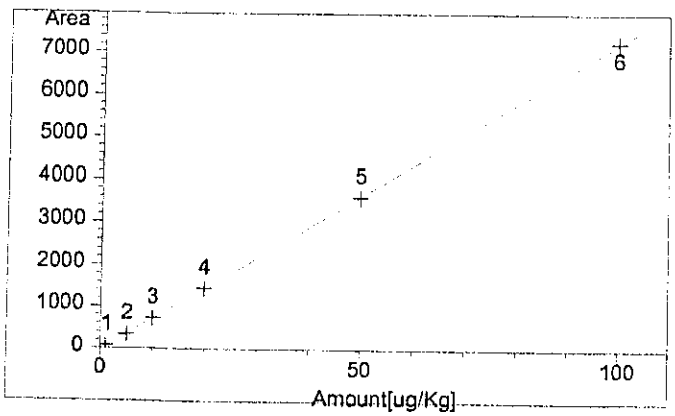
2-Methylnaphthalene #4 at exp. RT: 12.413
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount[ug/Kg]
y: Area



2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount[ug/Kg]
y: Area

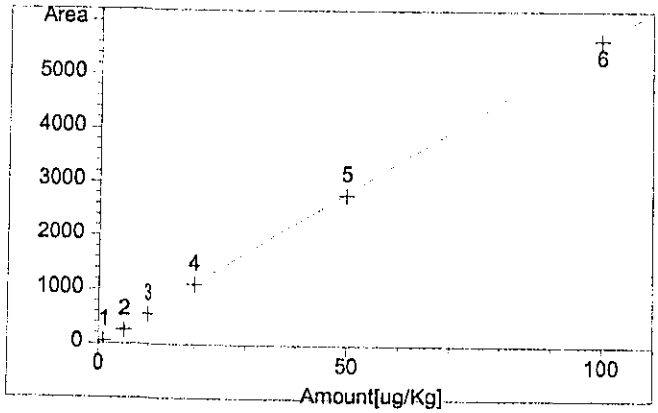


Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount[ug/Kg]
y: Area

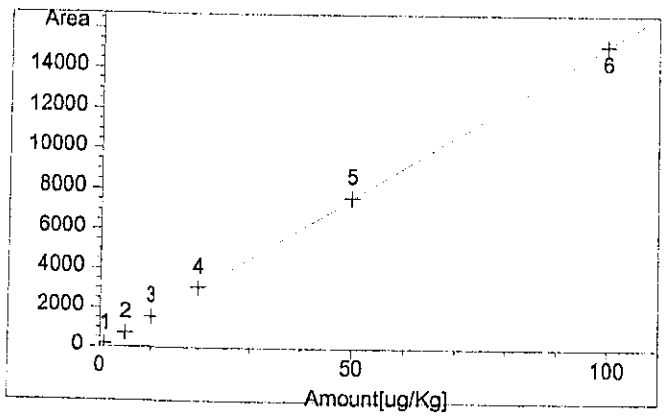


Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount[ug/Kg]
y: Area

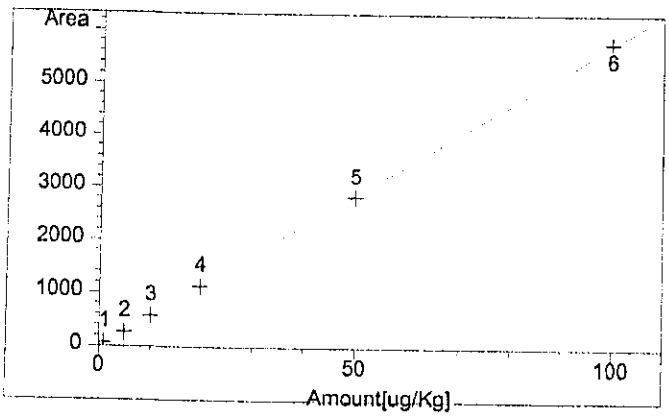
Method C:\HPCHEM\2\METHODS\8310DATA.M



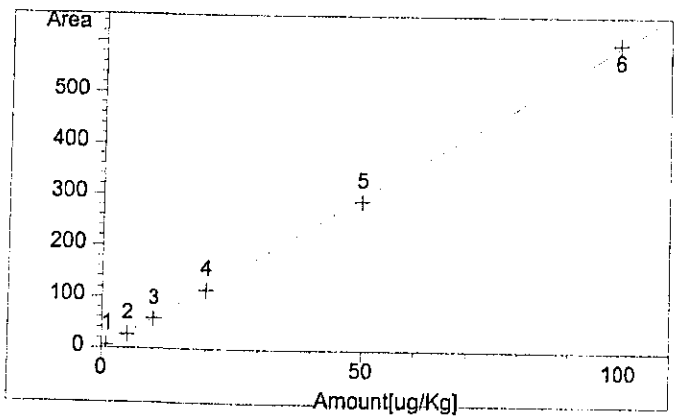
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



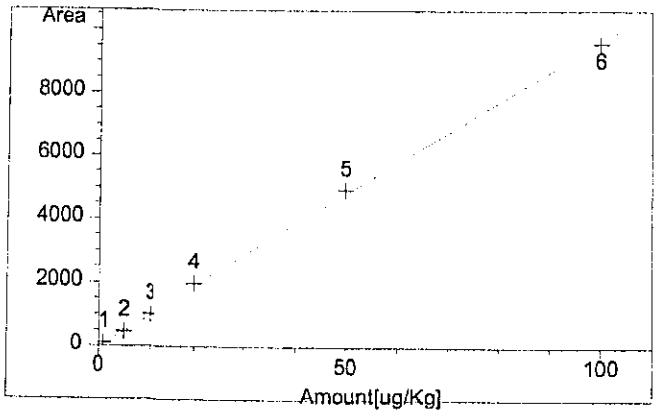
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



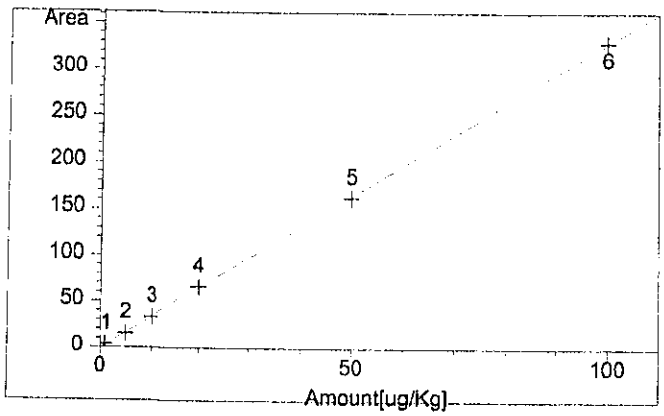
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



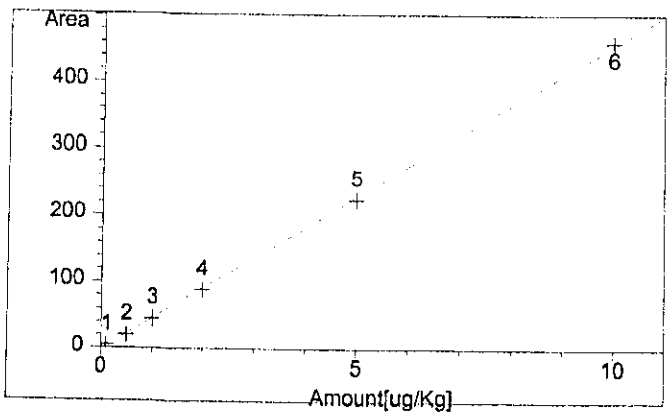
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



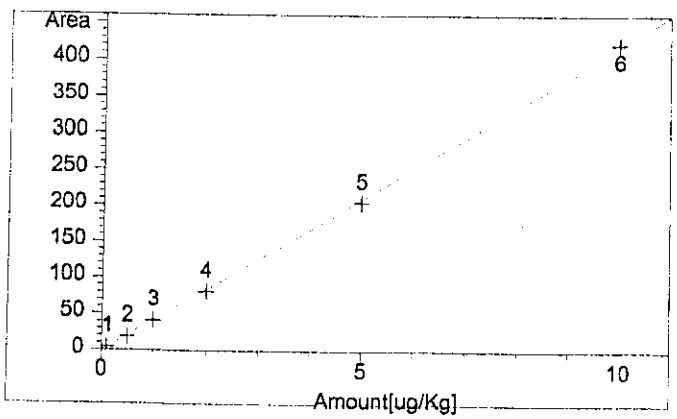
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount [ug/Kg]
y: Area



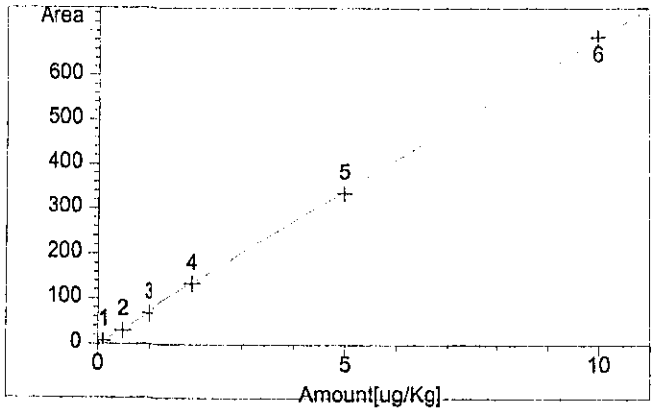
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount [ug/Kg]
y: Area



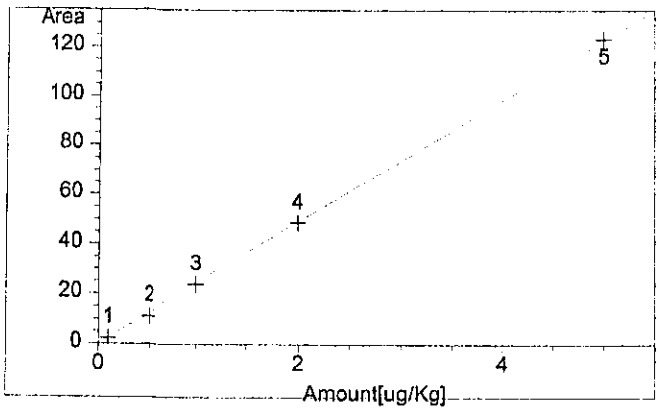
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount [ug/Kg]
y: Area



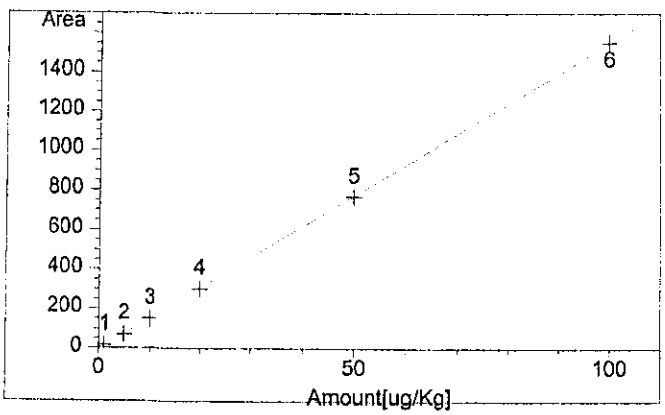
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount [ug/Kg]
y: Area



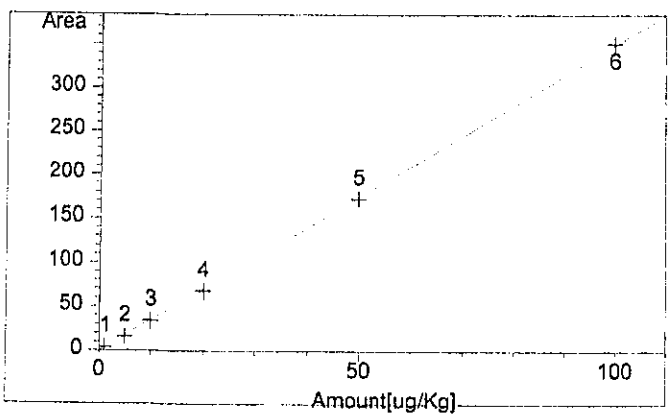
Pyrene #10 at exp. RT: 18.769
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



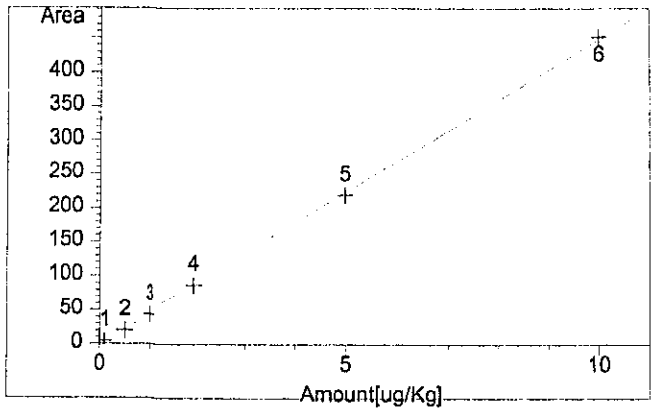
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



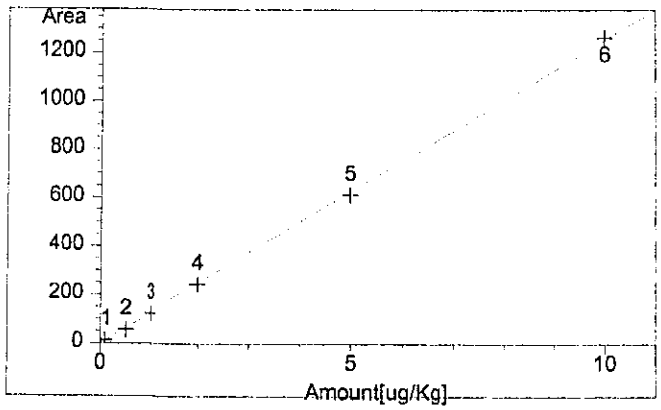
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



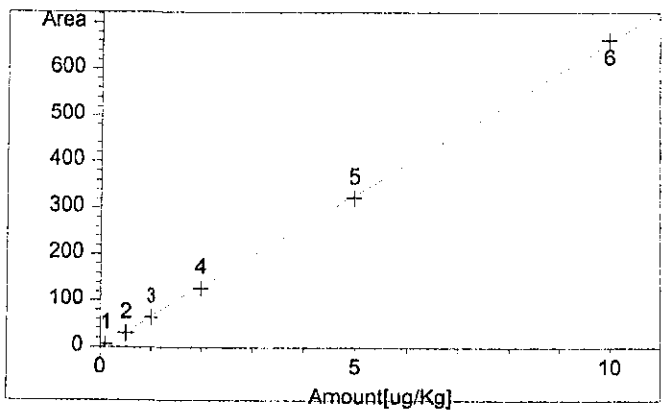
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



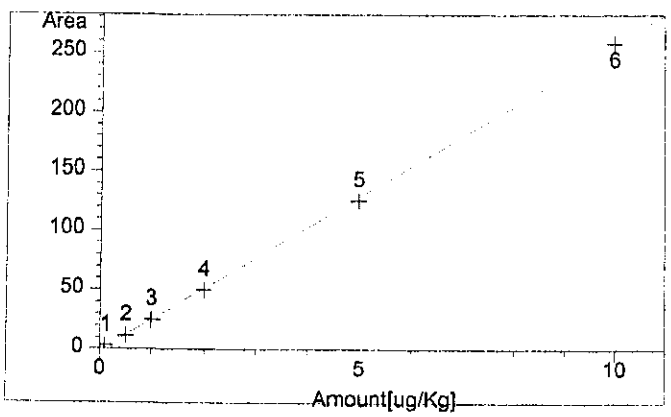
Benzo(a)anthracene #12 at exp. RT: 22.460
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount [ug/Kg]
y: Area



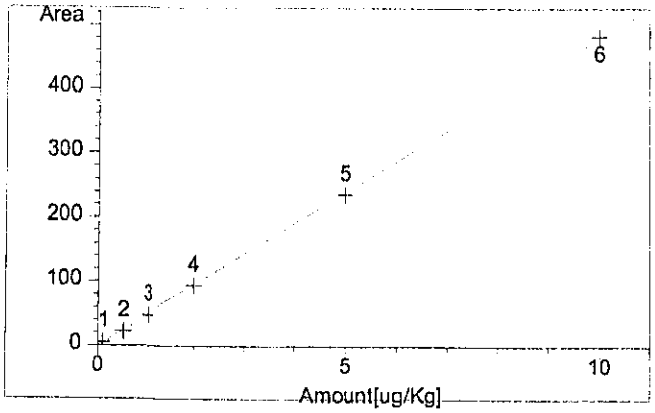
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount [ug/Kg]
y: Area



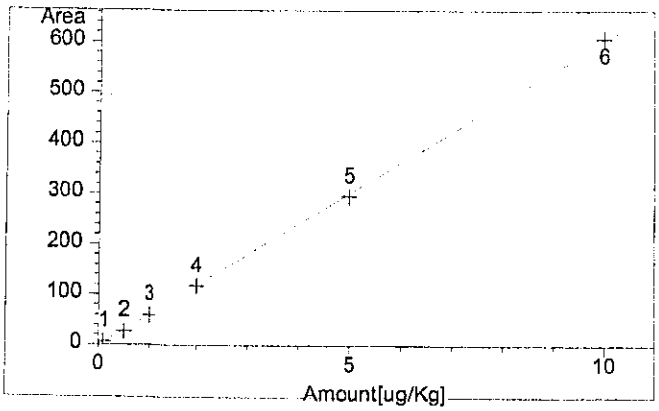
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount [ug/Kg]
y: Area



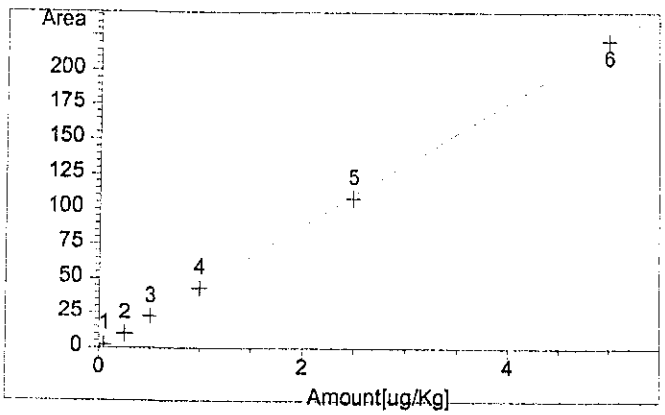
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount [ug/Kg]
y: Area



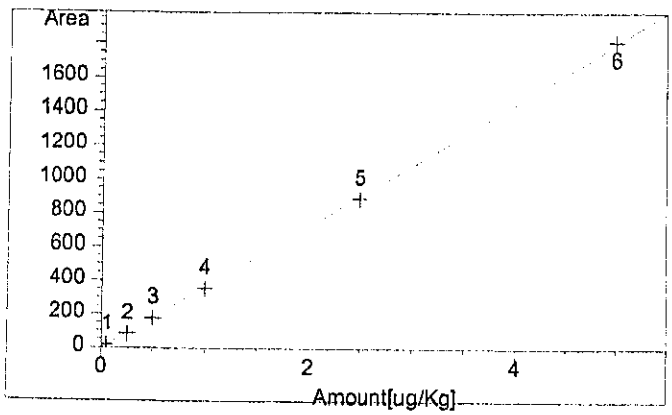
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount[ug/Kg]
y: Area



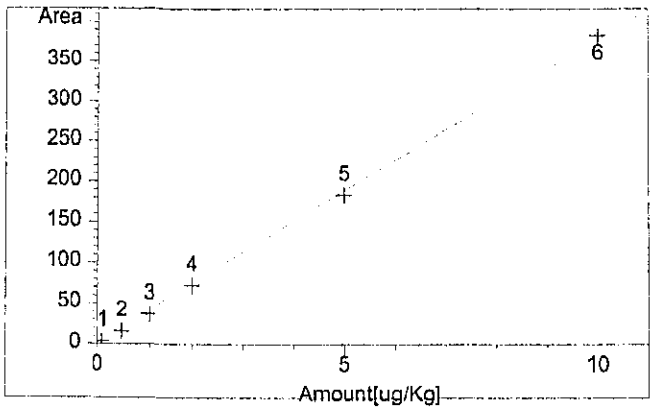
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount[ug/Kg]
y: Area



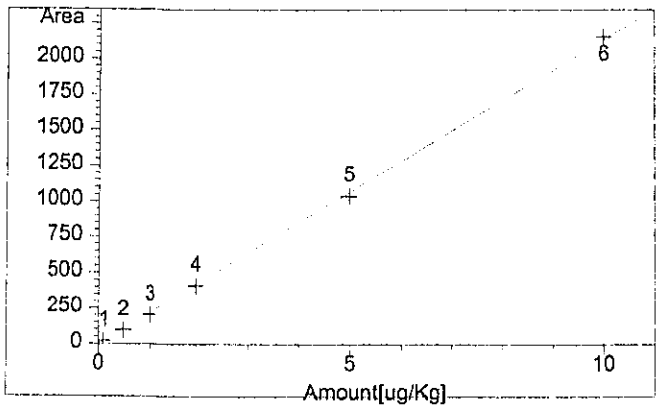
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount[ug/Kg]
y: Area



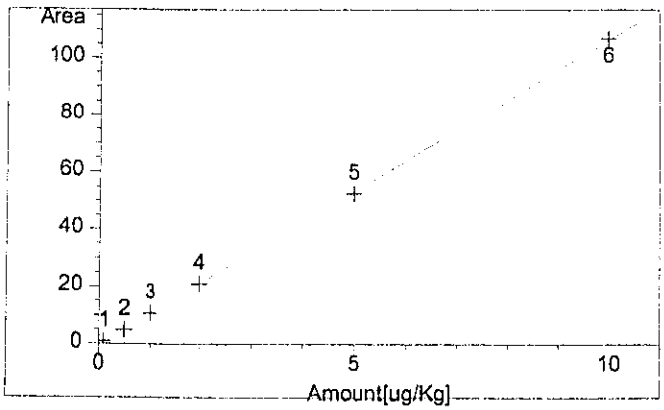
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount[ug/Kg]
y: Area



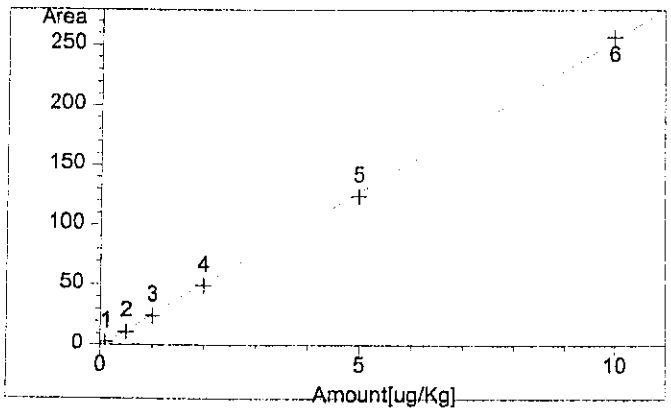
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount[ug/Kg]
y: Area



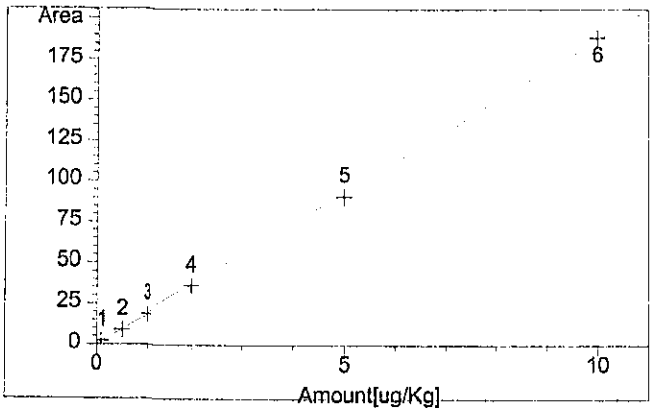
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount[ug/Kg]
y: Area



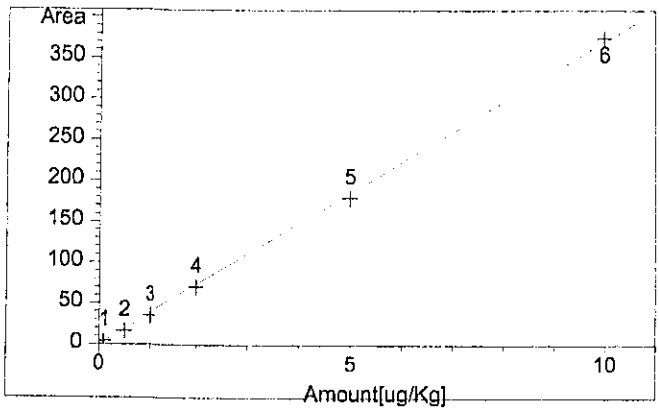
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount[ug/Kg]
y: Area



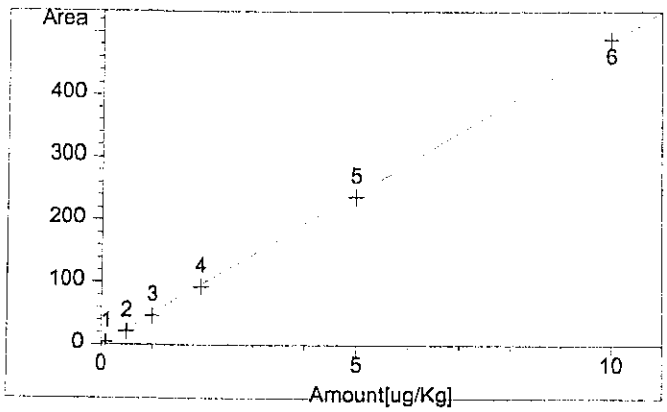
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount[ug/Kg]
y: Area



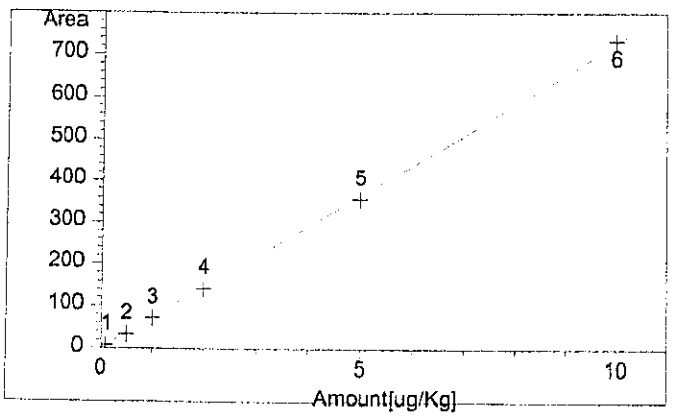
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount [ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount [ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount [ug/Kg]
y: Area

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Check Standard Report

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Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

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Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032502\4L002942.D Sample Name: WG115075-01 CCV
HPLC4 3/26/2002 1:43:01 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/25/2002 4:00:10 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.432	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.010	20.0	19.145	-4.3
2-Methylnaphthalene #4	12.586	20.0	19.094	-4.5
Acenaphthene #5	13.066	20.0	19.367	-3.2
Fluorene #6	13.719	20.0	19.943	-0.3
Phenanthrene #7	15.103	20.0	18.997	-5.0
Anthracene #8	16.506	20.0	19.733	-1.3
Fluoranthene #9	17.886	2.0	1.844	-7.8
Pyrene #10	18.891	2.0	1.919	-4.0
p-Terphenyl d14 #11*	21.224	20.0	18.742	-6.3
Benzo(a)anthracene #12	22.544	2.0	1.911	-4.5
Chrysene #13	23.411	2.0	1.930	-3.5
Benzo(b)fluoranthene #14	26.136	2.0	1.913	-4.4
Benzo(k)fluoranthene #15	27.568	1.0	0.970	-3.0
Benzo(a)pyrene #16	28.676	2.0	2.053	2.6
Dibenz(a,h)anthracene #1	30.541	2.0	1.883	-5.9
Benzo(g,h,i)perylene #18	31.356	2.0	1.925	-3.8
Indeno(1,2,3-cd)pyrene #	32.292	2.0	1.913	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.417	20.0	20.611	3.1
Acenaphthylene #2	11.046	20.0	19.465	-2.7
1-Methylnaphthalene #3	11.994	20.0	19.776	-1.1
2-Methylnaphthalene #4	12.570	20.0	19.951	-0.2
Acenaphthene #5	13.050	20.0	19.470	-2.7
Fluorene #6	13.704	20.0	19.596	-2.0
Phenanthrene #7	15.088	20.0	19.998	0.0
Anthracene #8	16.490	20.0	20.795	4.0
Fluoranthene #9	17.869	2.0	1.936	-3.2
Pyrene #10	18.875	2.0	1.950	-2.5
p-Terphenyl d14 #11*	21.209	20.0	18.939	-5.3
Benzo(a)anthracene #12	22.529	2.0	1.944	-2.8
Chrysene #13	23.396	2.0	1.944	-2.8
Benzo(b)fluoranthene #14	26.120	2.0	1.944	-2.8
Benzo(k)fluoranthene #15	27.552	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.659	2.0	2.054	2.7
Dibenz(a,h)anthracene #1	30.525	2.0	1.892	-5.4
Benzo(g,h,i)perylene #18	31.338	2.0	1.981	-1.0
Indeno(1,2,3-cd)pyrene #	32.276	2.0	1.942	-2.9

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032502\4L002953.D Sample Name: WG115075-02 CCV
HPLC4 3/27/2002 9:47:34 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/26/2002 2:23:00 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.458	20.0	19.019	-4.9
1-Methylnaphthalene #3	12.035	20.0	19.003	-5.0
2-Methylnaphthalene #4	12.609	20.0	18.907	-5.5
Acenaphthene #5	13.088	20.0	19.214	-3.9
Fluorene #6	13.742	20.0	19.890	-0.5
Phenanthrene #7	15.129	20.0	18.868	-5.7
Anthracene #8	16.534	20.0	19.752	-1.2
Fluoranthene #9	17.914	2.0	1.842	-7.9
Pyrene #10	18.921	2.0	1.865	-6.7
p-Terphenyl d14 #11*	21.259	20.0	18.642	-6.8
Benzo(a)anthracene #12	22.580	2.0	1.881	-5.9
Chrysene #13	23.447	2.0	1.891	-5.5
Benzo(b)fluoranthene #14	26.169	2.0	1.895	-5.2
Benzo(k)fluoranthene #15	27.591	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.685	2.0	1.891	-5.4
Dibenz(a,h)anthracene #1	30.528	2.0	1.854	-7.3
Benzo(g,h,i)perylene #18	31.342	2.0	1.847	-7.6
Indeno(1,2,3-cd)pyrene #	32.274	2.0	1.907	-4.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.438	20.0	20.702	3.5
Acenaphthylene #2	11.068	20.0	19.542	-2.3
1-Methylnaphthalene #3	12.015	20.0	19.823	-0.9
2-Methylnaphthalene #4	12.589	20.0	20.015	0.1
Acenaphthene #5	13.068	20.0	19.497	-2.5
Fluorene #6	13.722	20.0	19.662	-1.7
Phenanthrene #7	15.109	20.0	20.054	0.3
Anthracene #8	16.513	20.0	20.616	3.1
Fluoranthene #9	17.893	2.0	1.946	-2.7
Pyrene #10	18.900	2.0	1.952	-2.4
p-Terphenyl d14 #11*	21.239	20.0	19.006	-5.0
Benzo(a)anthracene #12	22.560	2.0	1.936	-3.2
Chrysene #13	23.428	2.0	1.943	-2.9
Benzo(b)fluoranthene #14	26.148	2.0	1.951	-2.4
Benzo(k)fluoranthene #15	27.570	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.664	2.0	1.943	-2.9
Dibenz(a,h)anthracene #1	30.507	2.0	1.971	-1.5
Benzo(g,h,i)perylene #18	31.320	2.0	1.966	-1.7
Indeno(1,2,3-cd)pyrene #	32.252	2.0	1.942	-2.9

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032502\4L002962.D Sample Name: WG115075-03 CCV
HPLC4 3/27/2002 9:53:22 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/26/2002 10:52:48 AM Seq. Line : 22

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.464	20.0	18.970	-5.1
1-Methylnaphthalene #3	12.042	20.0	19.032	-4.8
2-Methylnaphthalene #4	12.617	20.0	18.906	-5.5
Acenaphthene #5	13.094	20.0	19.234	-3.8
Fluorene #6	13.747	20.0	19.921	-0.4
Phenanthrene #7	15.131	20.0	18.831	-5.8
Anthracene #8	16.531	20.0	19.630	-1.9
Fluoranthene #9	17.908	2.0	1.842	-7.9
Pyrene #10	18.913	2.0	1.872	-6.4
p-Terphenyl d14 #11*	21.243	20.0	18.654	-6.7
Benzo(a)anthracene #12	22.562	2.0	1.884	-5.8
Chrysene #13	23.427	2.0	1.966	-1.7
Benzo(b)fluoranthene #14	26.157	2.0	1.905	-4.7
Benzo(k)fluoranthene #15	27.579	1.0	0.967	-3.3
Benzo(a)pyrene #16	28.679	2.0	1.917	-4.1
Dibenz(a,h)anthracene #1	30.533	2.0	1.886	-5.7
Benzo(g,h,i)perylene #18	31.353	2.0	1.882	-5.9
Indeno(1,2,3-cd)pyrene #	32.287	2.0	1.912	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.446	20.0	20.810	4.0
Acenaphthylene #2	11.073	20.0	19.543	-2.3
1-Methylnaphthalene #3	12.023	20.0	19.867	-0.7
2-Methylnaphthalene #4	12.598	20.0	20.036	0.2
Acenaphthene #5	13.076	20.0	19.531	-2.3
Fluorene #6	13.728	20.0	19.686	-1.6
Phenanthrene #7	15.112	20.0	20.058	0.3
Anthracene #8	16.512	20.0	20.692	3.5
Fluoranthene #9	17.888	2.0	1.945	-2.7
Pyrene #10	18.893	2.0	1.959	-2.1
p-Terphenyl d14 #11*	21.225	20.0	19.035	-4.8
Benzo(a)anthracene #12	22.543	2.0	1.954	-2.3
Chrysene #13	23.409	2.0	1.947	-2.7
Benzo(b)fluoranthene #14	26.137	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.559	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.660	2.0	1.949	-2.6
Dibenz(a,h)anthracene #1	30.514	2.0	1.989	-0.5
Benzo(g,h,i)perylene #18	31.333	2.0	1.976	-1.2
Indeno(1,2,3-cd)pyrene #	32.268	2.0	1.960	-2.0

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032802\4L002964.D Sample Name: WG115260-01 CCV
HPLC4 4/1/2002 9:20:39 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/28/2002 11:38:08 AM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.445	20.0	19.482	-2.6
1-Methylnaphthalene #3	12.017	20.0	19.386	-3.1
2-Methylnaphthalene #4	12.592	20.0	19.376	-3.1
Acenaphthene #5	13.071	20.0	19.590	-2.0
Fluorene #6	13.726	20.0	19.984	-0.1
Phenanthrene #7	15.111	20.0	19.334	-3.3
Anthracene #8	16.515	20.0	19.581	-2.1
Fluoranthene #9	17.895	2.0	1.844	-7.8
Pyrene #10	18.901	2.0	1.980	-1.0
p-Terphenyl d14 #11*	21.235	20.0	18.602	-7.0
Benzo(a)anthracene #12	22.557	2.0	1.924	-3.8
Chrysene #13	23.425	2.0	1.949	-2.5
Benzo(b)fluoranthene #14	26.154	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.581	1.0	0.968	-3.2
Benzo(a)pyrene #16	28.679	2.0	1.948	-2.6
Dibenz(a,h)anthracene #1	30.532	2.0	1.878	-6.1
Benzo(g,h,i)perylene #18	31.347	2.0	1.905	-4.8
Indeno(1,2,3-cd)pyrene #	32.286	2.0	1.911	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.603	3.0
Acenaphthylene #2	11.052	20.0	19.529	-2.4
1-Methylnaphthalene #3	12.001	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.577	20.0	19.919	-0.4
Acenaphthene #5	13.055	20.0	19.472	-2.6
Fluorene #6	13.709	20.0	19.538	-2.3
Phenanthrene #7	15.095	20.0	19.582	-2.1
Anthracene #8	16.499	20.0	20.532	2.7
Fluoranthene #9	17.878	2.0	1.936	-3.2
Pyrene #10	18.884	2.0	1.943	-2.8
p-Terphenyl d14 #11*	21.220	20.0	18.840	-5.8
Benzo(a)anthracene #12	22.541	2.0	1.931	-3.5
Chrysene #13	23.409	2.0	1.932	-3.4
Benzo(b)fluoranthene #14	26.137	2.0	1.928	-3.6
Benzo(k)fluoranthene #15	27.564	1.0	0.976	-2.4
Benzo(a)pyrene #16	28.662	2.0	1.928	-3.6
Dibenz(a,h)anthracene #1	30.516	2.0	1.907	-4.6
Benzo(g,h,i)perylene #18	31.329	2.0	2.015	0.8
Indeno(1,2,3-cd)pyrene #	32.271	2.0	1.933	-3.3

= Failed 15.0% Criteria

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032802\4L002966.D Sample Name: WG115260-02 CCV
HPLC4 4/1/2002 9:40:48 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/28/2002 1:31:27 PM Seq. Line : 4

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.451	20.0	19.155	-4.2
1-Methylnaphthalene #3	12.024	20.0	19.176	-4.1
2-Methylnaphthalene #4	12.599	20.0	19.105	-4.5
Acenaphthene #5	13.077	20.0	19.392	-3.0
Fluorene #6	13.730	20.0	19.952	-0.2
Phenanthrene #7	15.115	20.0	19.008	-5.0
Anthracene #8	16.514	20.0	19.848	-0.8
Fluoranthene #9	17.891	2.0	1.840	-8.0
Pyrene #10	18.895	2.0	1.921	-4.0
p-Terphenyl d14 #11*	21.229	20.0	18.798	-6.0
Benzo(a)anthracene #12	22.548	2.0	1.900	-5.0
Chrysene #13	23.411	2.0	1.903	-4.9
Benzo(b)fluoranthene #14	26.135	2.0	1.904	-4.8
Benzo(k)fluoranthene #15	27.557	1.0	0.966	-3.4
Benzo(a)pyrene #16	28.656	2.0	1.931	-3.4
Dibenz(a,h)anthracene #1	30.506	2.0	1.875	-6.3
Benzo(g,h,i)perylene #18	31.319	2.0	1.873	-6.3
Indeno(1,2,3-cd)pyrene #	32.256	2.0	1.903	-4.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.432	20.0	20.534	2.7
Acenaphthylene #2	11.056	20.0	19.545	-2.3
1-Methylnaphthalene #3	12.005	20.0	19.763	-1.2
2-Methylnaphthalene #4	12.580	20.0	19.944	-0.3
Acenaphthene #5	13.058	20.0	19.493	-2.5
Fluorene #6	13.710	20.0	19.558	-2.2
Phenanthrene #7	15.095	20.0	19.592	-2.0
Anthracene #8	16.495	20.0	20.555	2.8
Fluoranthene #9	17.871	2.0	1.935	-3.3
Pyrene #10	18.874	2.0	1.946	-2.7
p-Terphenyl d14 #11*	21.210	20.0	18.864	-5.7
Benzo(a)anthracene #12	22.529	2.0	1.940	-3.0
Chrysene #13	23.392	2.0	1.935	-3.2
Benzo(b)fluoranthene #14	26.114	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.537	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.636	2.0	1.968	-1.6
Dibenz(a,h)anthracene #1	30.486	2.0	1.912	-4.4
Benzo(g,h,i)perylene #18	31.298	2.0	1.992	-0.4
Indeno(1,2,3-cd)pyrene #	32.235	2.0	1.922	-3.9

= Failed 15.0% Criteria

..14

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032802\4L002971.D Sample Name: WG115260-03 CCV
HPLC4 4/1/2002 10:00:13 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/28/2002 9:06:35 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.453	20.0	18.992	-5.0
1-Methylnaphthalene #3	12.029	20.0	19.103	-4.5
2-Methylnaphthalene #4	12.604	20.0	18.999	-5.0
Acenaphthene #5	13.082	20.0	19.331	-3.3
Fluorene #6	13.736	20.0	19.972	-0.1
Phenanthrene #7	15.121	20.0	18.862	-5.7
Anthracene #8	16.523	20.0	20.082	0.4
Fluoranthene #9	17.903	2.0	1.839	-8.1
Pyrene #10	18.910	2.0	1.868	-6.6
p-Terphenyl d14 #11*	21.247	20.0	18.614	-6.9
Benzo(a)anthracene #12	22.567	2.0	1.892	-5.4
Chrysene #13	23.437	2.0	1.894	-5.3
Benzo(b)fluoranthene #14	26.170	2.0	1.904	-4.8
Benzo(k)fluoranthene #15	27.598	1.0	0.966	-3.4
Benzo(a)pyrene #16	28.695	2.0	2.037	1.8
Dibenz(a,h)anthracene #1	30.552	2.0	1.859	-7.1
Benzo(g,h,i)perylene #18	31.369	2.0	1.892	-5.4
Indeno(1,2,3-cd)pyrene #	32.305	2.0	1.911	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.434	20.0	20.630	3.1
Acenaphthylene #2	11.062	20.0	19.579	-2.1
1-Methylnaphthalene #3	12.011	20.0	19.802	-1.0
2-Methylnaphthalene #4	12.586	20.0	19.997	0.0
Acenaphthene #5	13.064	20.0	19.539	-2.3
Fluorene #6	13.717	20.0	19.639	-1.8
Phenanthrene #7	15.102	20.0	19.652	-1.7
Anthracene #8	16.504	20.0	20.799	4.0
Fluoranthene #9	17.884	2.0	1.941	-2.9
Pyrene #10	18.890	2.0	1.952	-2.4
p-Terphenyl d14 #11*	21.228	20.0	18.953	-5.2
Benzo(a)anthracene #12	22.548	2.0	1.943	-2.9
Chrysene #13	23.418	2.0	1.943	-2.8
Benzo(b)fluoranthene #14	26.150	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.579	1.0	0.962	-3.8
Benzo(a)pyrene #16	28.675	2.0	2.078	3.9
Dibenz(a,h)anthracene #1	30.533	2.0	2.055	2.7
Benzo(g,h,i)perylene #18	31.348	2.0	1.980	-1.0
Indeno(1,2,3-cd)pyrene #	32.287	2.0	1.960	-2.0

= Failed 15.0% Criteria

Sequence: C:\HPCHEM\2\SEQUENCE\JAN14.S

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\JAN14.S

RAC 1/16/02

Page ~~1~~ 2 of ~~1~~ 2

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	CC 02:01	SOS 56-19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	CC 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	CC 04:01	↓	WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	SOS 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	SOS 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	Dil'n. of SOS 56-19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01	↓	WG111292-04 ST
No	9	9	8310	4L002669	09:01	↓	WG111292-05 ST
No	10	10	8310	4L002670	10:01	↓	WG111292-06 ST
No	11	11	8310	4L002671	11:01	↓	WG111292-07 ST
No	12	12	8310	4L002672	12:01	Dil'n. of SOS 57-27/ SOS 57-28	WG111292-08 AL

RAC 1/16/02

[signature] 1/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials BDL SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature] 1/14/02

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002941	01:01		AcCN blk
No	2	2	8310	4L002942	02:01	SOS 58-26/56-20	WG115075-01 CC
No	3	3	8310	4L002943	03:01		WG114850-02 WB
No	4	4	8310	4L002944	04:01		WG114850-03 WL
No	5	5	8310	4L002945	05:01	RR/0, CONF	L0203380-01 83
No	6	6	8310	4L002946	06:01		L0203380-02 83
No	7	7	8310	4L002947	07:01	RE	L0203380-03 83
No	8	8	8310	4L002948	08:01		L0203380-04 83
No	9	9	8310	4L002949	09:01		L0203380-05 83
No	10	10	8310	4L002950	10:01		L0203380-06 83
No	11	11	8310	4L002951	11:01		L0203380-07 83
No	12	12	8310	4L002952	12:01		WG114850-01 WR
No	13	13	8310	4L002953	13:01	SOS 58-26/56-20	WG115075-02 CC
No	14	14	8310	4L002954	14:01		WG114850-04 WM
No	15	15	8310	4L002955	15:01		WG114850-05 WM
No	16	16	8310	4L002956	16:01		L0203380-11 83
No	17	17	8310	4L002957	17:01		L0203380-12 83
No	18	18	8310	4L002958	18:01		L0203380-13 83
No	19	19	8310	4L002959	19:01		L0203380-14 83
No	20	20	8310	4L002960	20:01		L0203380-15 83
No	21	21	8310	4L002961	21:01		L0203380-16 83
No	22	13	8310	4L002962	22:01	SOS 58-26/56-20	WG115075-03 CC

4/2/02

4/2/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blk	8310	1	Sample		
2	2	WG115075-01 CCV	8310	1	Sample		
3	3	WG114850-02 WBLK	8310	1	Sample		
4	4	WG114850-03 WLCS	8310	1	Sample		
5	5	L0203380-01 831W	8310	1	Sample		
6	6	L0203380-02 831W	8310	1	Sample		
7	7	L0203380-03 831W	8310	1	Sample		
8	8	L0203380-04 831W	8310	1	Sample		
9	9	L0203380-05 831W	8310	1	Sample		
10	10	L0203380-06 831W	8310	1	Sample		
11	11	L0203380-07 831W	8310	1	Sample		
12	12	WG114850-01 WREF	8310	1	Sample		
13	13	WG115075-02 CCV	8310	1	Sample		
14	14	WG114850-04 WMS	8310	1	Sample		
15	15	WG114850-05 WMSD	8310	1	Sample		
16	16	L0203380-11 831W	8310	1	Sample		
17	17	L0203380-12 831W	8310	1	Sample		
18	18	L0203380-13 831W	8310	1	Sample		
19	19	L0203380-14 831W	8310	1	Sample		
20	20	L0203380-15 831W	8310	1	Sample		
21	21	L0203380-16 831W	8310	1	Sample		
22	13	WG115075-03 CCV	8310	1	Sample		

RPC 4/1/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 25, 2002 Instrument ID 11 PLC4 Column ID LC-PAH Data Subdirectory 032502
Analyst Initials PRC 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 ____
was not out of control —

Additional Maintenance
Problem: Baseline disturbances from previous days samples which had significant SIMI

Action Taken: Changed guard cartridge.

Comments

L0203380-01 Needs RR @ 10X, Needs conf of acenaphthylene
L0203380-01 Sent for re-ext. due to ↓ surrogate

Reviewed By: [signature] 4/2/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blk	8310	1	Sample		
2	2	WG115260-01 CCV	8310	1	Sample		
3	3	L0203380-01 831W	8310	1	Sample		
4	2	WG115260-02 CCV	8310	1	Sample		
5	4	WG115291-01 WBLK	8310	1	Sample		
6	5	WG115291-02 WLCS	8310	1	Sample		
7	6	WG115291-03 WLCS	8310	1	Sample		
8	7	L0203380-03 REEX	8310	1	Sample		
9	2	WG115260-03 CCV	8310	1	Sample		

PAC 11/2/02

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT 4/2/02	Sample Name
No	1	1	8310	4L002963	01:01		AcCN blk
No	2	2	8310	4L002964	02:01	50558-26/56-20	WG115260-01 CC
No	3	3	8310	4L002965	03:01		L0203380-01 83
No	4	2	8310	4L002966	04:01	50558-26/56-20	WG115260-02 CC
No	5	4	8310	4L002967	05:01		WG115291-01 WB
No	6	5	8310	4L002968	06:01		WG115291-02 WL
No	7	6	8310	4L002969	07:01		WG115291-03 WL
No	8	7	8310	4L002970	08:01		L0203380-03 RE
No	9	2	8310	4L002971	09:01	50558-26/56-20	WG115260-03 CC

RVL 3+ 4/2/02

4/2/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 28, 2002 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 032802
Analyst Initials BPC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 116 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RAR 4/3/02

Parameter: 8310 LLO SOP #: EXLPLC01 Revision #: 6
Extraction Analyst(s): RSK CSH TV/KD Analyst(s): DP
Date/Time Extracted: 3/21/02 0900 Date TV/KD: 03/21/02
Spike/Surrogate Analyst: RSK Witness: CSH
Surrogate #: ES00040-50 Earliest Hold Date: 3/26
Spike #: A = ES00040-34 Spike #: B = —

Extraction Work Group WG 114850
Analytical Work Group WG 114911

Extract Relinquished By: DP
Extract Received By & Date: CK 3/21/02

	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 114850-02
2	LCS			✓		↓		500ul		C				WG -03
3	03-580-01	8310		✓		950 mL				C				
4	-02			✓		↓				T				
5	-03			✓		940 mL				T				*
6	-04			✓		965 mL				T				*
7	-05			✓		↓				T				*
8	-06			✓		950mL				T				
9	-07			✓		↓				T				
10	-08			✓		960mL				T				WG 114850-01
11	-09 MS			✓		950mL		500ul		C				* -04
12	-10 MSD			✓		965mL		↓		C				* -05
13	-11			✓		950mL				T				
14	-12			✓		965mL				T				
15	-13			✓		960mL				T				
16	-14			✓		↓				T				
17	-15			✓		940mL				C				
18	-16	↓		✓		1L	↓		↓	T				
19														
20														
21							DP							
22							03/21/02							
23														
24														

Methylene Chloride Lot #: 21015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH3CN Lot #: 41264
Reagent: Fortified Lot #: ER2092
Reagent: 10N NaOH Lot #: ER2110 *
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/21/02

Extraction Notes For Volume # 182 Page # 47

General Comments: * + MS, MSD OF 03-380-08

Extraction Anomalies: * + Sample's were ~~Acetic~~ Acidic. Had to adjust pH with 10N NaOH. *

Concentration Anomalies: None

Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 03/28/02 @ 1430 Date TV/KD: 03/28/02
Spike/Surrogate Analyst: DP Witness: [illegible]
Surrogate #: ESSC040-30 Earliest Hold Date: out
Spike #: A = ESSC040-34 Spike #: B = —

Extraction Work Group WG 115291
Analytical Work Group WG 115477

Extract Relinquished By: DP
Extract Received By & Date: HV 3/28/02 ✓

	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 uL		1mL	T				WG 115291-01
2	LCS			✓		↓	↓	500 uL	↓	C				WG ↓ -02
3	LCS Dup			✓		↓	↓	↓	↓	C				WG ↓ -03
4	03-380-03	8310		✓		890 mL	↓		↓	T			✓	re-ext. our hold
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/28/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: ER 2112
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2015

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/27/02

Extraction Notes For Volume # 182 Page # 135

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

2.2.7.2 Sample Data

1,1

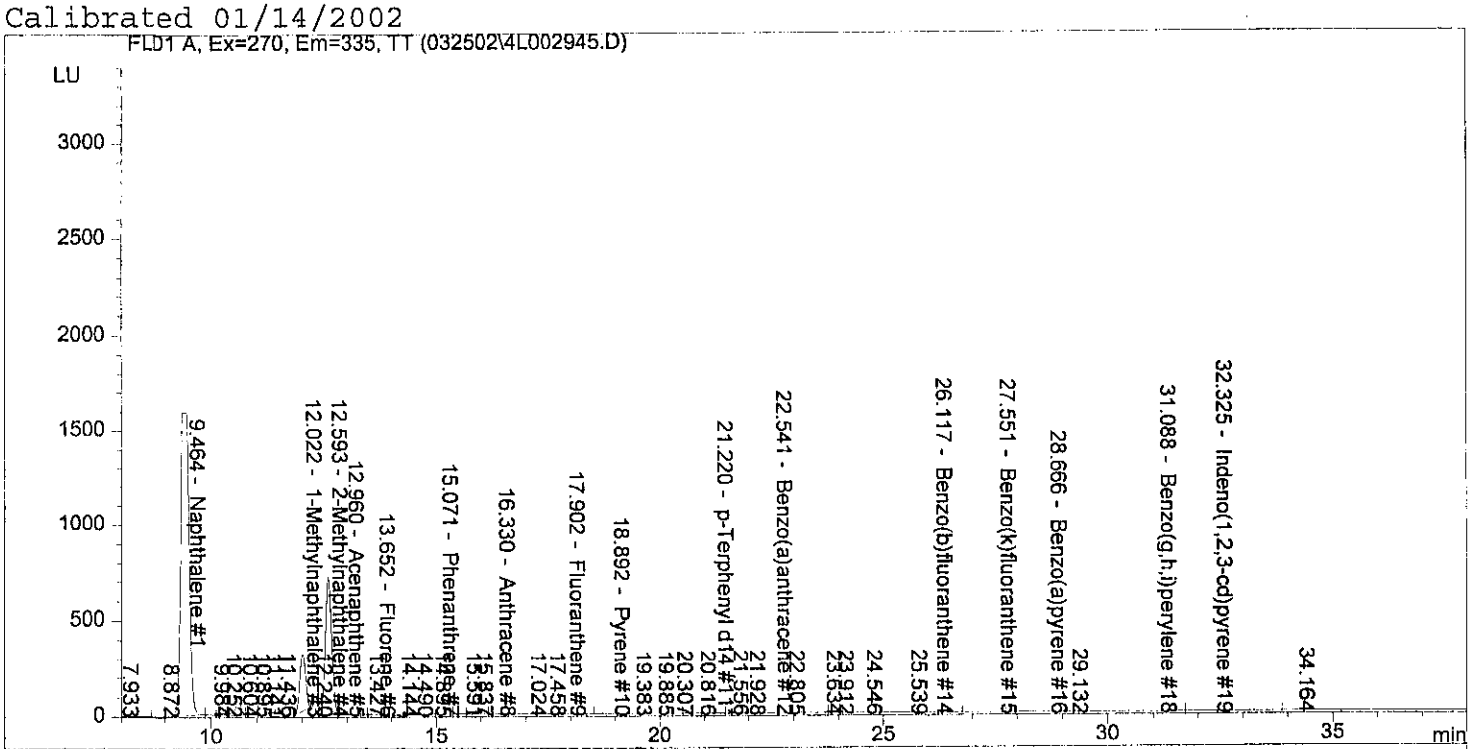
==========

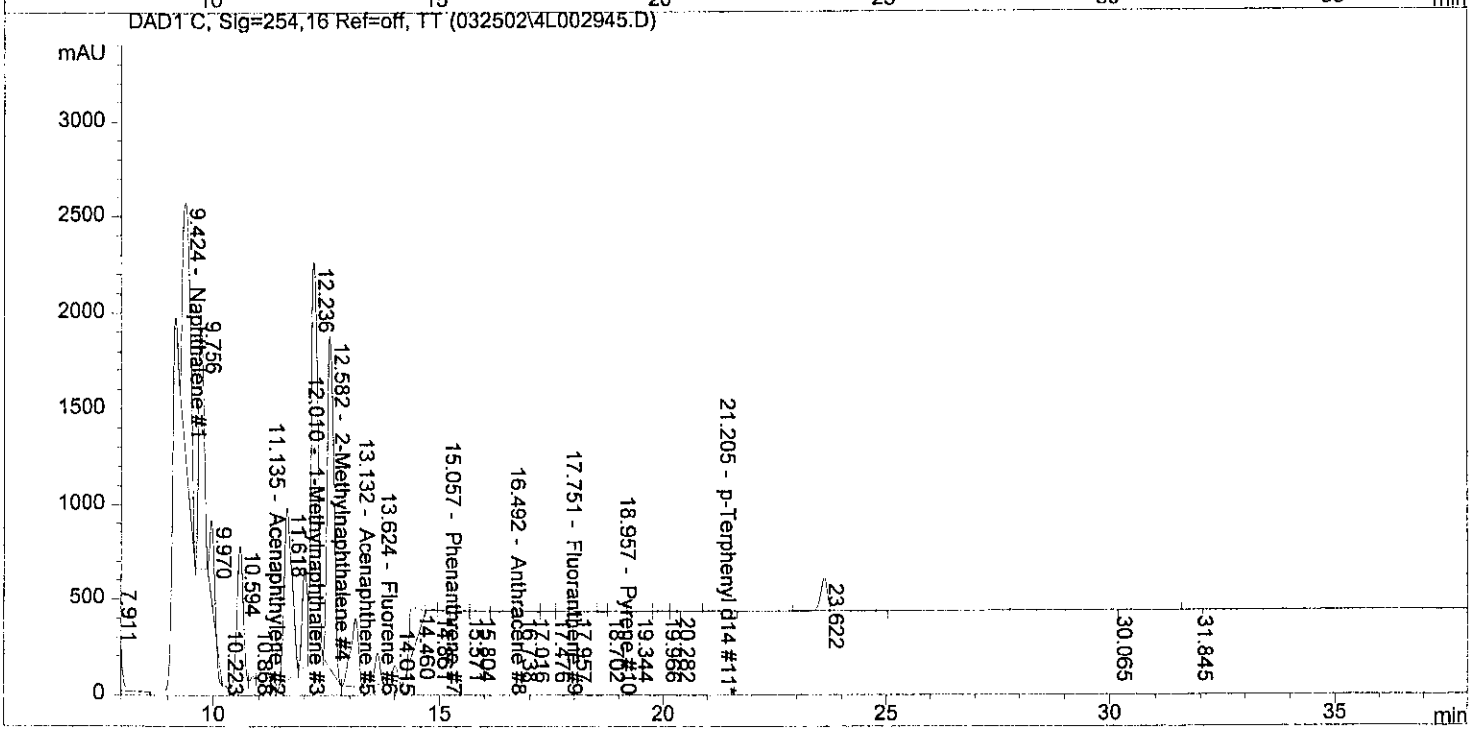
Injection Date : 3/25/2002 6:49:56 PM
Sample Name : L0203380-01 831W
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

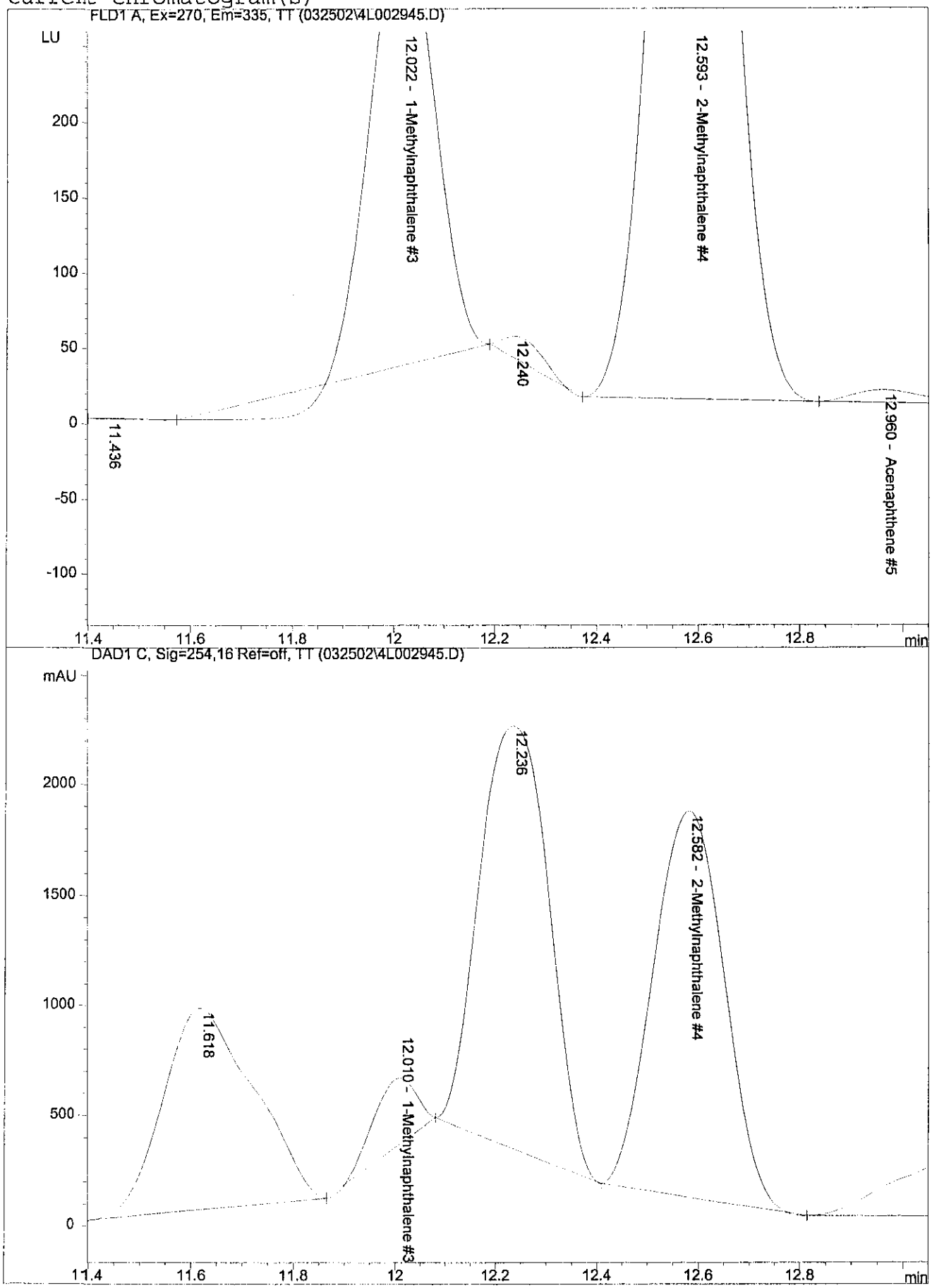
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





Current Chromatogram(s)



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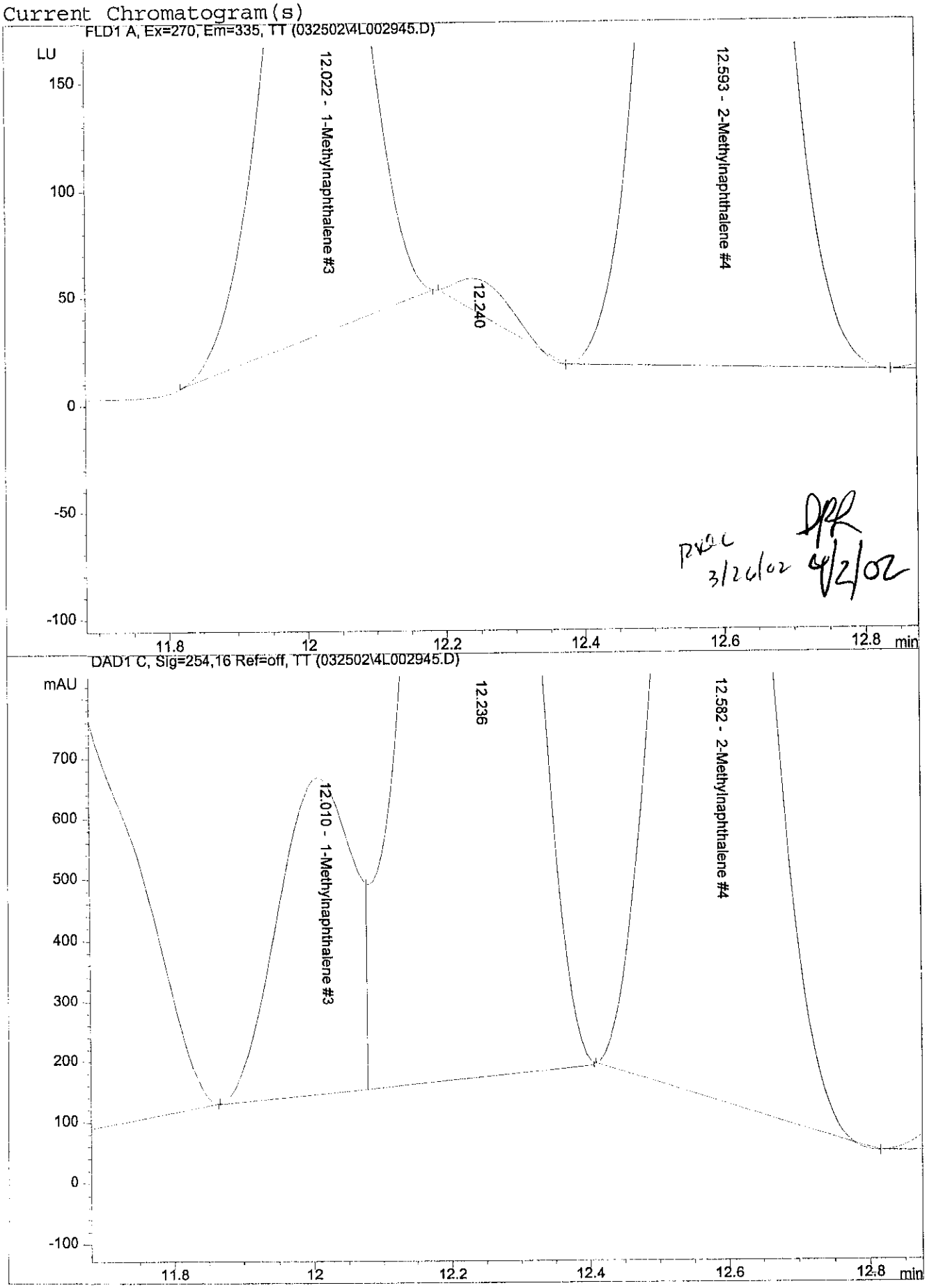
Current Chromatogram(s)



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External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.464	BB	2.07496e4	2.57003e-2	533.27002	I	Naphthalene #1
12.022	FM	2725.49658	2.24893e-2	61.29456		1-Methylnaphthalene #3
12.593	BB	6929.17969	1.72691e-2	119.66093	P	2-Methylnaphthalene #4
12.960	BB	106.69516	1.38228e-2	1.47482		Acenaphthene #5
13.652	BB	208.41518	6.56879e-3	1.36904		Fluorene #6
15.071	BB	3.83682e-1	1.68488e-1	6.46457e-2		Phenanthrene #7
16.330	BB	1.97378e-1	3.03714e-1	5.99466e-2		Anthracene #8
17.902	BB	5.47426e-1	2.38671e-2	1.30655e-2		Fluoranthene #9
18.892	BB	5.77683e-1	4.06594e-2	2.34882e-2		Pyrene #10
21.220	BB	26.21001	2.86511e-1	7.50947		p-Terphenyl d14 #11*
22.541	BB	1.81718e-1	7.96557e-3	1.44749e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.117	BB	1.65112e-1	1.65598e-2	2.73421e-3		Benzo(b)fluoranthene #14
27.551	PB	4.21593e-1	2.77566e-3	1.17020e-3		Benzo(k)fluoranthene #15
28.666	BB	4.47255e-1	4.67660e-3	2.09163e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.088	BB	9.37941	2.69466e-2	2.52743e-1		Benzo(g,h,i)perylene #18
32.325	BB	2.56313	1.37440e-2	3.52278e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 725.03540

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.424	BB	1.64330e4	8.27651e-3	136.00776	I	Naphthalene #1
11.135	BB	1154.77722	3.00095e-2	34.65429		Acenaphthylene #2
12.010	MV	3990.04297	1.29932e-2	51.84356		1-Methylnaphthalene #3
12.582	BB	1.69183e4	1.12713e-2	190.69025	P	2-Methylnaphthalene #4
13.132	BB	4461.44482	2.03841e-2	90.94265	P	Acenaphthene #5
13.624	BB	1510.76477	1.76946e-2	26.73235	P	Fluorene #6
15.057	BB	20.98602	1.74291e-2	3.65767e-1		Phenanthrene #7
16.492	BB	42.31583	1.03455e-2	4.37778e-1		Anthracene #8
17.751	BB	7.49674	2.18958e-2	1.64147e-1		Fluoranthene #9
18.957	BB	20.65207	1.46349e-2	3.02240e-1		Pyrene #10
21.205	BB	117.36863	6.45989e-2	7.58189		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 539.72268

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 ***

1,10 dil'n. @ 10X of L0203380-01

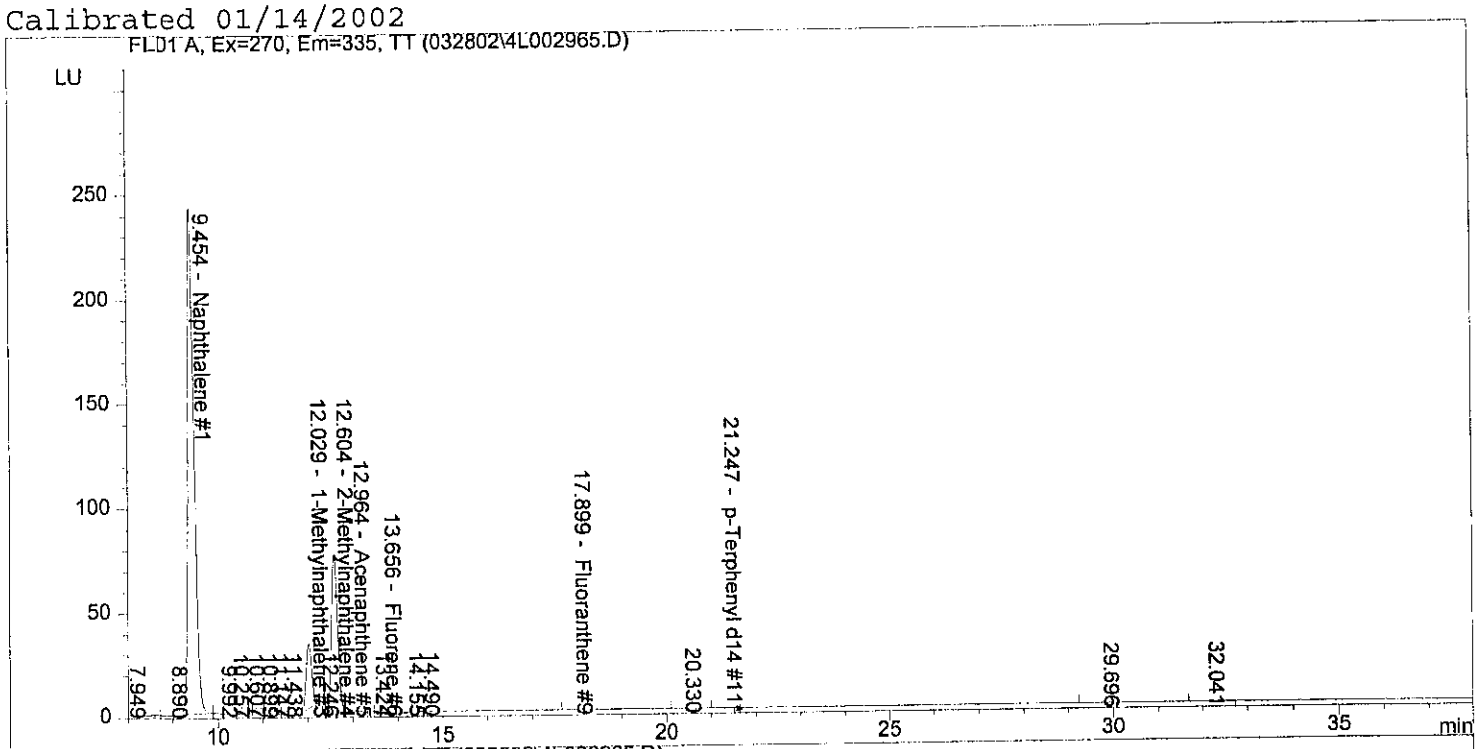
==========

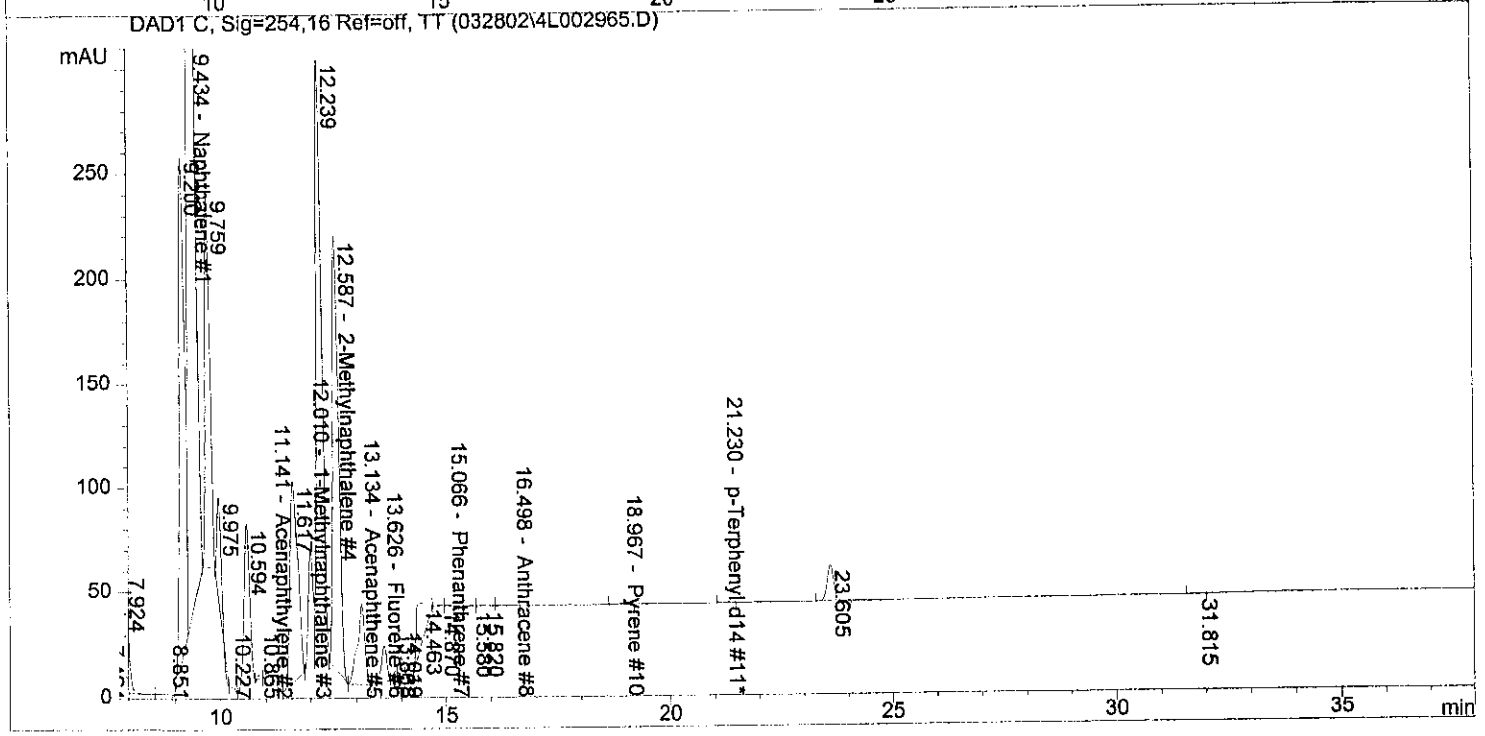
Injection Date : 3/28/2002 12:34:46 PM
Sample Name : L0203380-01 831W
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

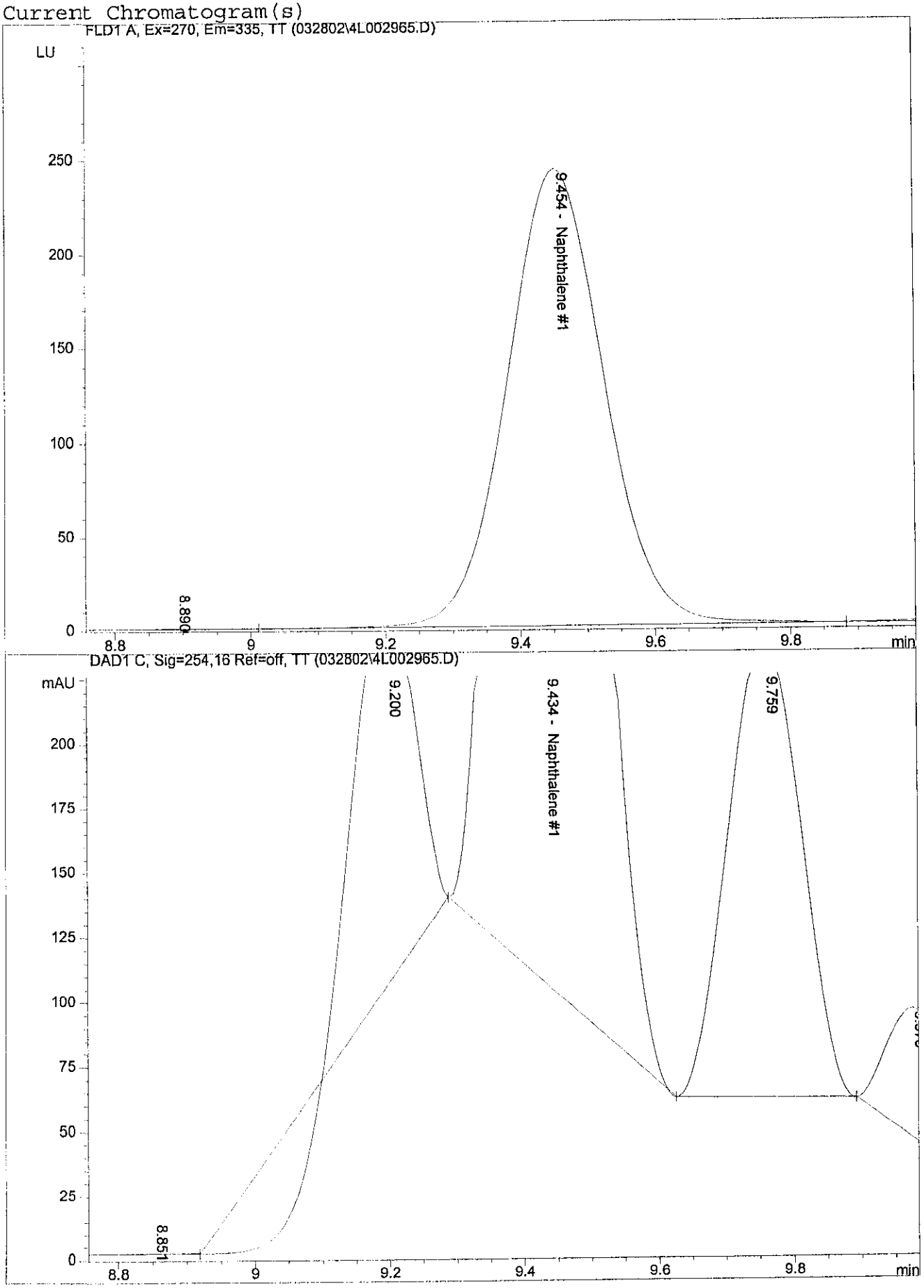
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002

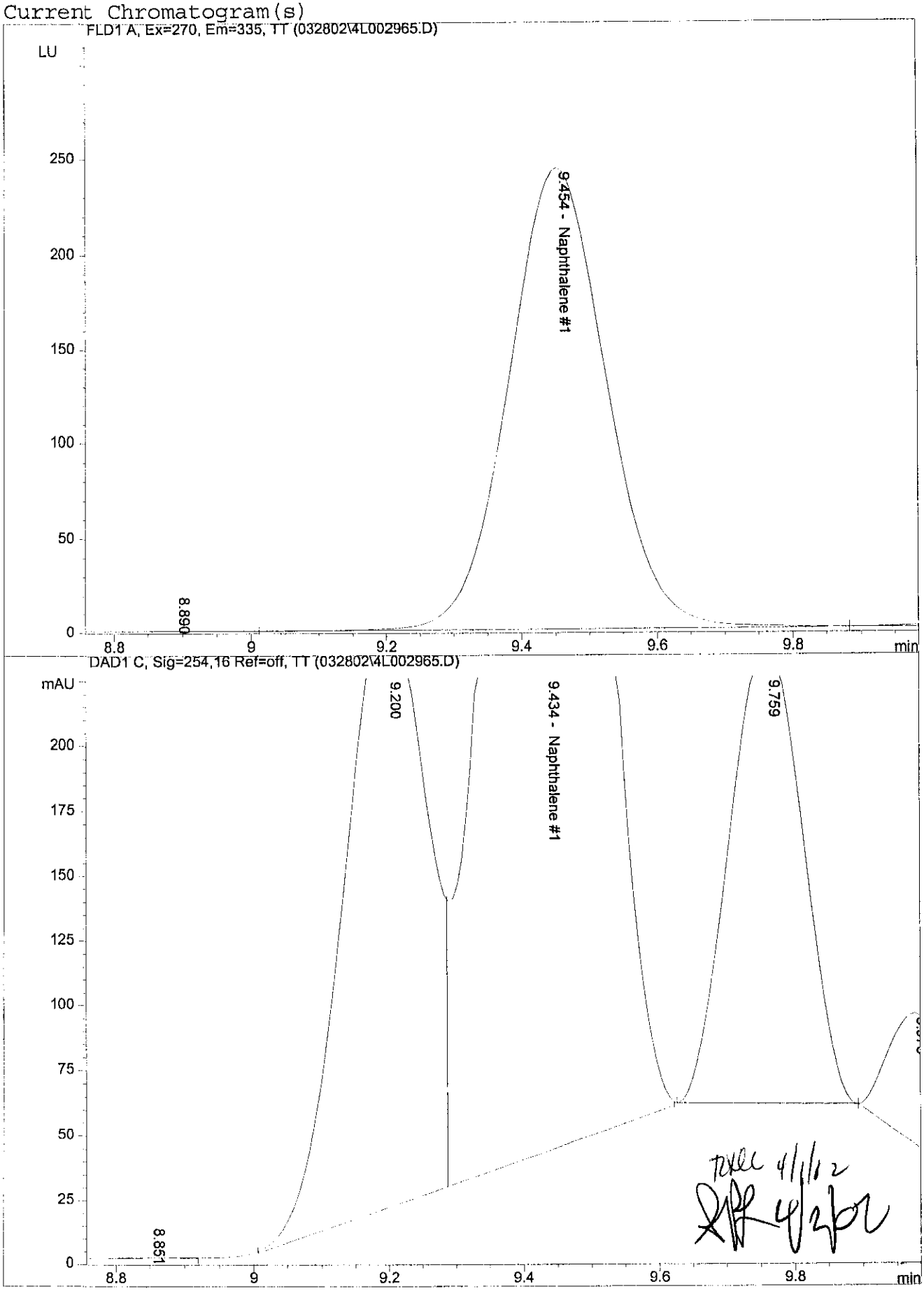




Current Chromatogram(s)



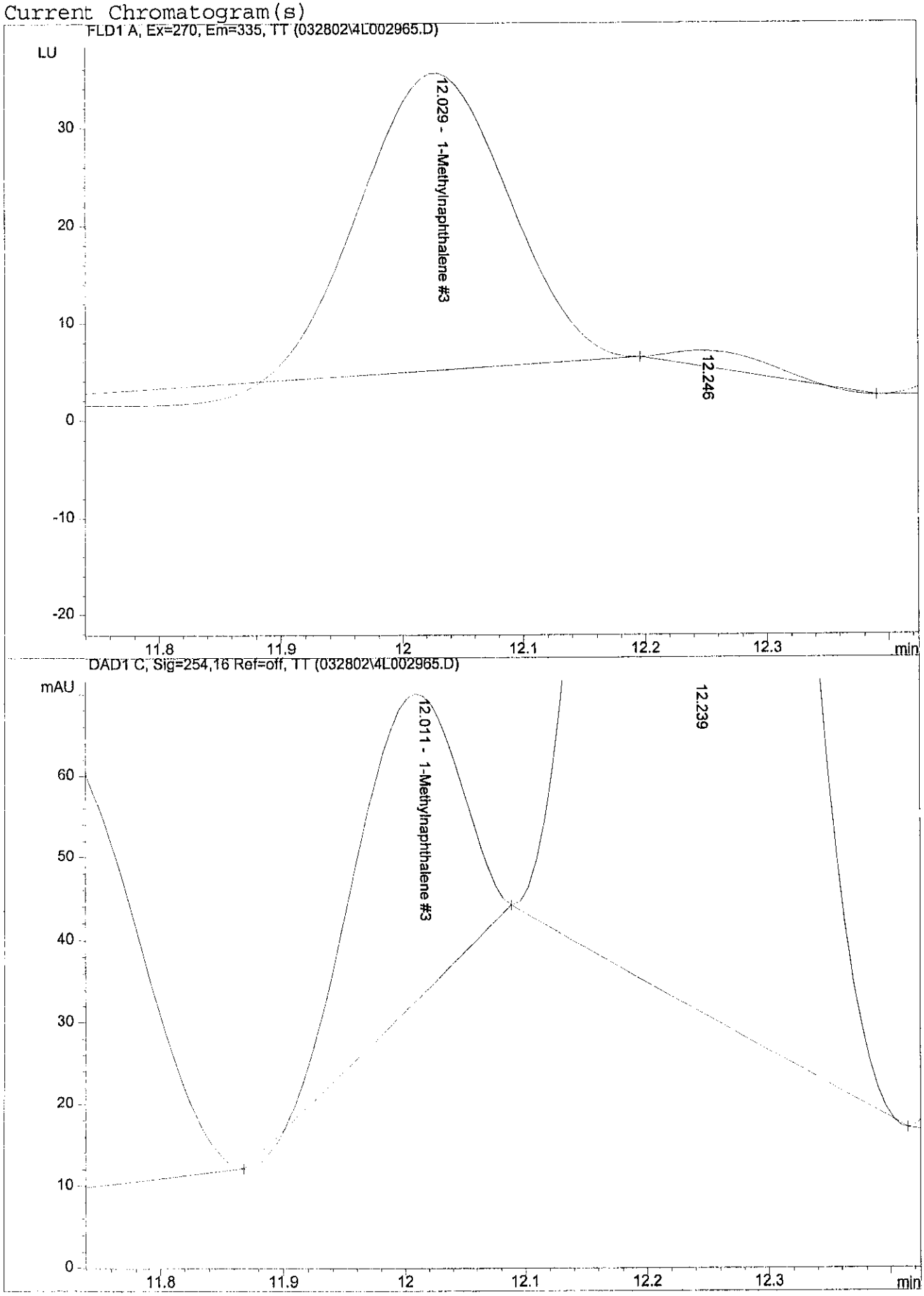
Current Chromatogram(s)



TXEC 4/1/02

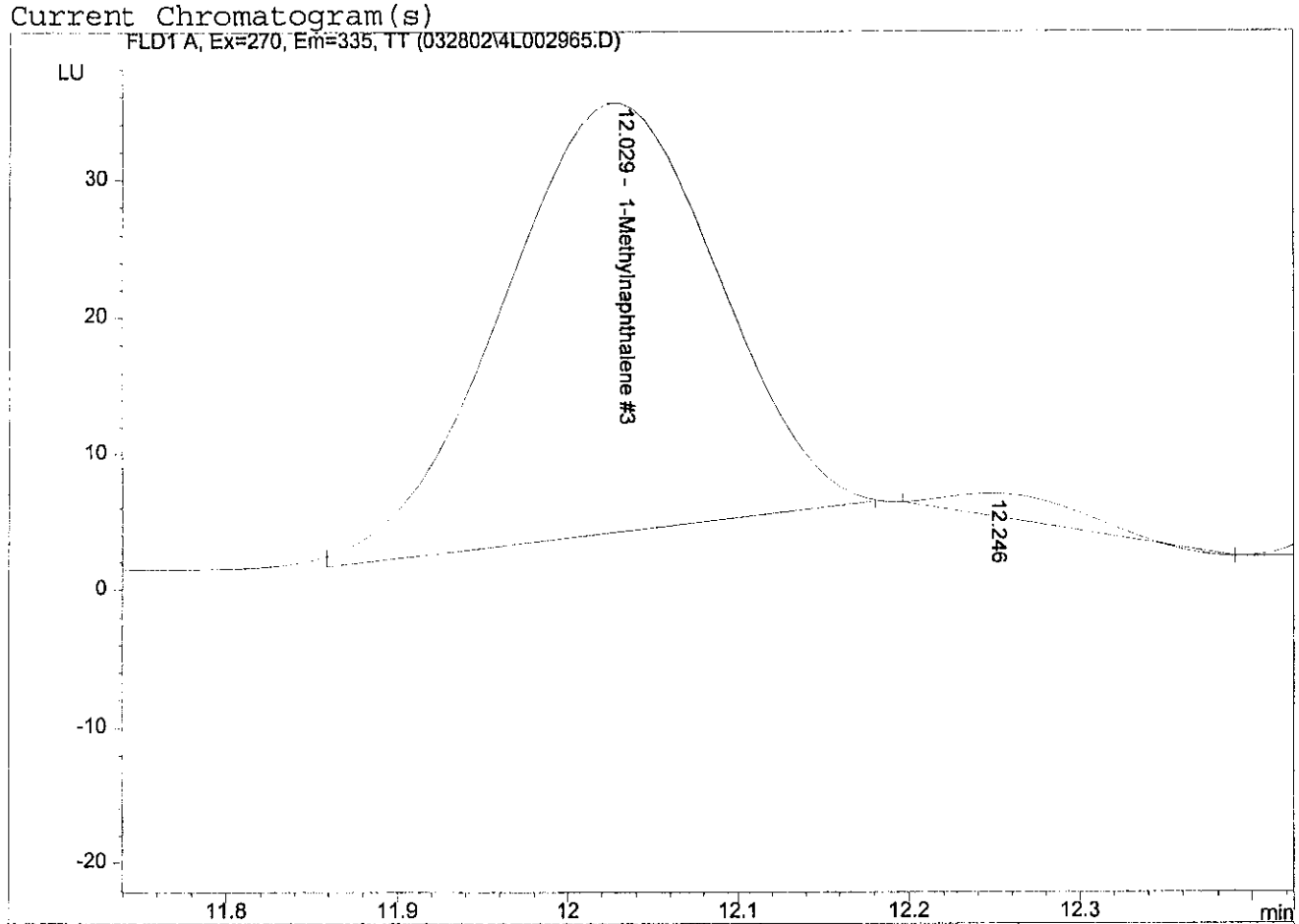
471

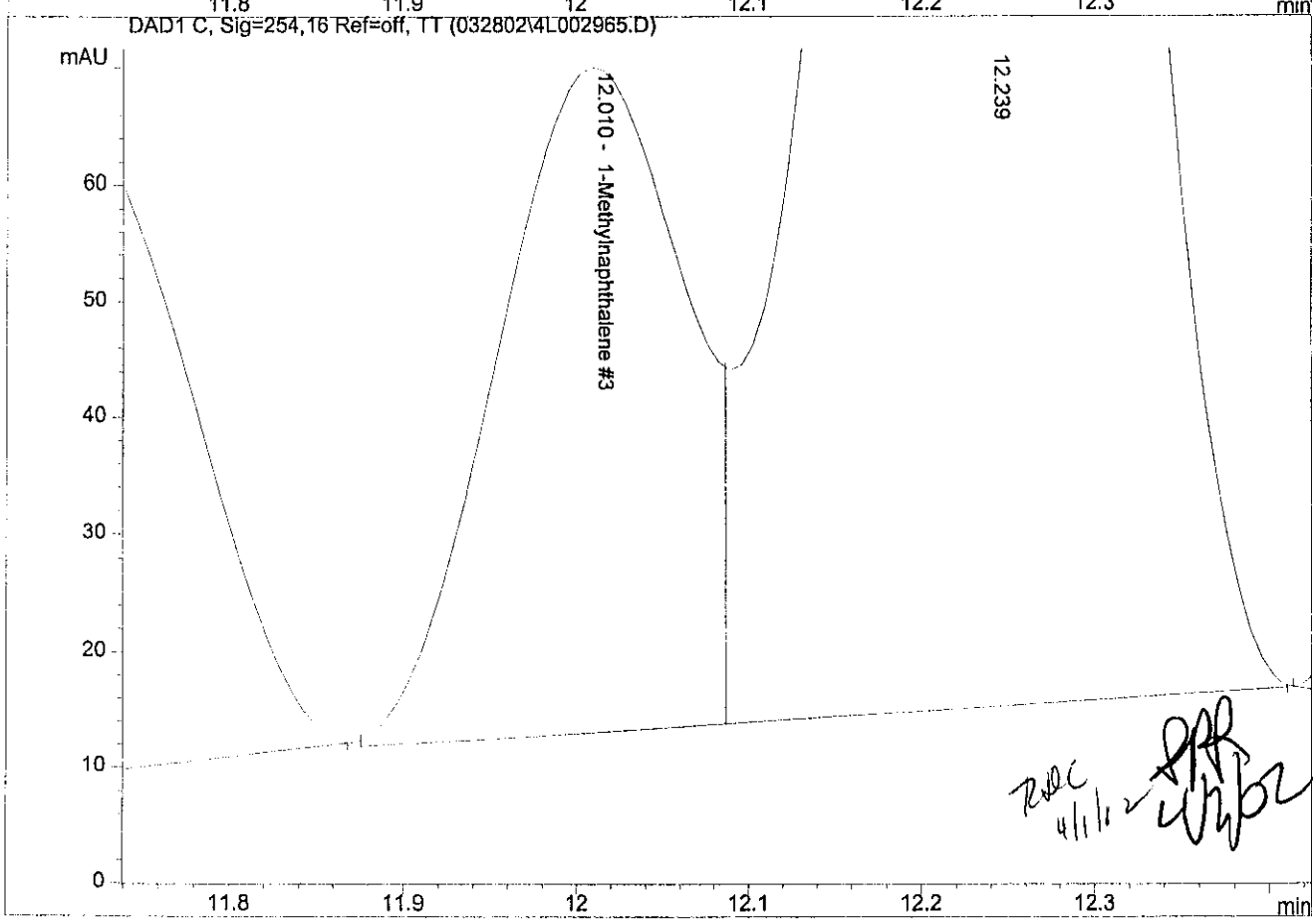
Current Chromatogram(s)



479

Current Chromatogram(s)





RVC 4/1/12

External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.454	BB	2424.86182	2.57003e-2	62.31962		Naphthalene #1
12.029	MM	275.27087	2.24893e-2	6.19065		1-Methylnaphthalene #3
12.604	BB	701.74536	1.72691e-2	12.11853		2-Methylnaphthalene #4
12.964	BB	10.49242	1.38228e-2	1.45034e-1		Acenaphthene #5
13.656	BB	20.89821	6.56879e-3	1.37276e-1		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.899	BBA	1.56956e-1	2.38671e-2	3.74609e-3		Fluoranthene #9
18.848		-	-	-		Pyrene #10
21.247	BB	2.62467	2.86511e-1	7.51999e-1		p-Terphenyl d14 #11*
22.493		-	-	-		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.496		-	-	-		Benzo(k)fluoranthene #15
28.605		-	-	-		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.280		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 81.66686

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
9.434	VM	7310.17188	8.27651e-3	60.50272		Naphthalene #1
11.141	BB	118.64047	3.00095e-2	3.56034		Acenaphthylene #2
12.010	MV	430.67877	1.29932e-2	5.59591		1-Methylnaphthalene #3
12.587	BB	1837.30872	1.12713e-2	20.70878		2-Methylnaphthalene #4
13.134	BB	442.18451	2.03841e-2	9.01354		Acenaphthene #5
13.626	BB	152.84312	1.76946e-2	2.70450		Fluorene #6
15.066	BB	1.46995	1.74291e-2	2.56199e-2		Phenanthrene #7
16.498	BB	4.81469	1.03455e-2	4.98103e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.967	BBA	2.86035	1.46349e-2	4.18609e-2		Pyrene #10
21.230	BBA	11.20847	6.45989e-2	7.24055e-1		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 102.92713

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Acq On : 2 Apr 2002 15:39 Operator: RDC
Sample : L0203380-01 8310 for confirmation Inst : HPMS7
Misc : 1,5 5X dil'n. Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 16:23:55 2002 Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 29 10:49:04 2002
Response via : Initial Calibration
DataAcq Meth : PAHL

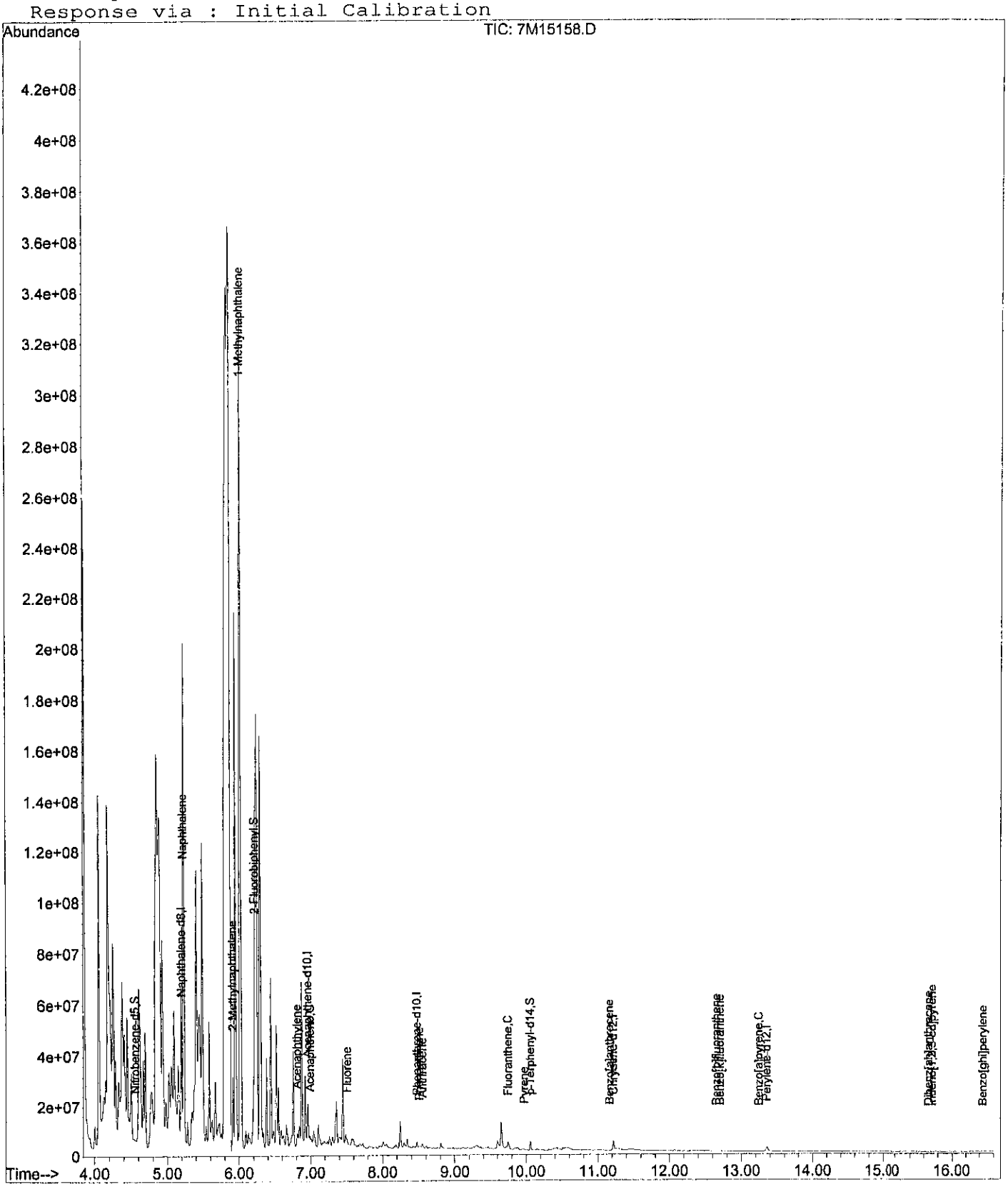
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.20	136	1626235	1.00 ug/ml	0.00
6) Acenaphthene-d10	6.96	164	900285	1.00 ug/ml	0.01
11) Phenanthrene-d10	8.48	188	1037463	1.00 ug/ml	0.00
15) Chrysene-d12	11.22	240	1540624	1.00 ug/ml	0.00
20) Perylene-d12	13.35	264	1056516	1.00 ug/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5	4.56	82	324376	0.5393 ug/ml	0.03
Spiked Amount 2.500	Range 35 - 114		Recovery	= 21.60%#	
7) 2-Fluorobiphenyl	6.21	172	5685	0.0042 ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery	= 0.00%#	
17) p-Terphenyl-d14	10.06	244	1279833	0.8311 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	= 33.20%	

Target Compounds					Qvalue
3) Naphthalene	5.21	128	18834416	10.3251 ug/ml#	1
4) 2-Methylnaphthalene	5.91	142	6179938	5.0442 ug/ml	96
5) 1-Methylnaphthalene	6.01	142	10837422	8.8891 ug/ml#	1
8) Acenaphthylene	6.81	152	12476	NL 0.0079 ug/ml#	1
9) Acenaphthene	7.00	154	43536	0.0406 ug/ml	86
10) Fluorene	7.51	166	50611	0.0388 ug/ml	89
12) Phenanthrene	8.50	178	66155	0.0569 ug/ml#	57
13) Anthracene	8.56	178	26896	0.0233 ug/ml#	1
14) Fluoranthene	9.74	202	10168	0.0071 ug/ml#	51
16) Pyrene	9.98	202	16394	0.0635 ug/ml#	22
18) Benzo[a]anthracene	11.17	228	2541	0.0014 ug/ml#	1
19) Chrysene	11.22	228	17445	0.0103 ug/ml#	79
21) Benzo[b]fluoranthene	12.66	252	1952	0.0011 ug/ml#	1
22) Benzo[k]fluoranthene	12.71	252	9333	0.0050 ug/ml#	61
23) Benzo[a]pyrene	13.25	252	2267	0.0014 ug/ml#	1
24) Indeno[1,2,3-cd]pyrene	15.72	276	1935	0.0012 ug/ml#	54
25) Dibenz[ah]anthracene	15.66	278	1318	0.0010 ug/ml#	1
26) Benzo[ghi]perylene	16.44	276	665	0.0005 ug/ml#	40

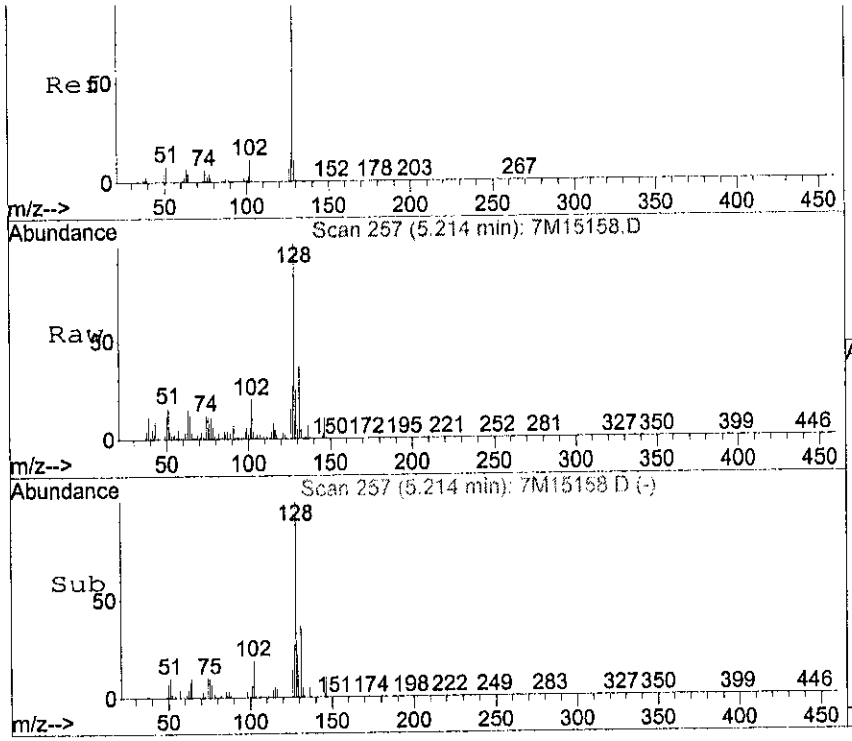
(#) = qualifier out of range (m) = manual integration

Acq On : 2 Apr 2002 15:39 Operator: RDC
Sample : L0203380-01 8310 for confirmation Inst : HPMS7
Misc : 1,5 5X dil'n. Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 16:23 2002 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 03/07/02
Last Update : Fri Mar 29 10:49:04 2002
Response via : Initial Calibration



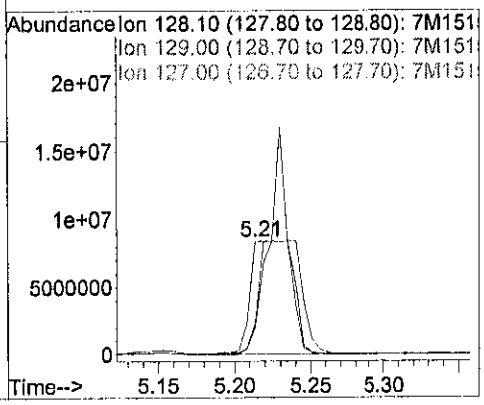
7M15158.D PAHLOW.M Tue Apr 02 16:28:05 2002 HPMS7 Page 2

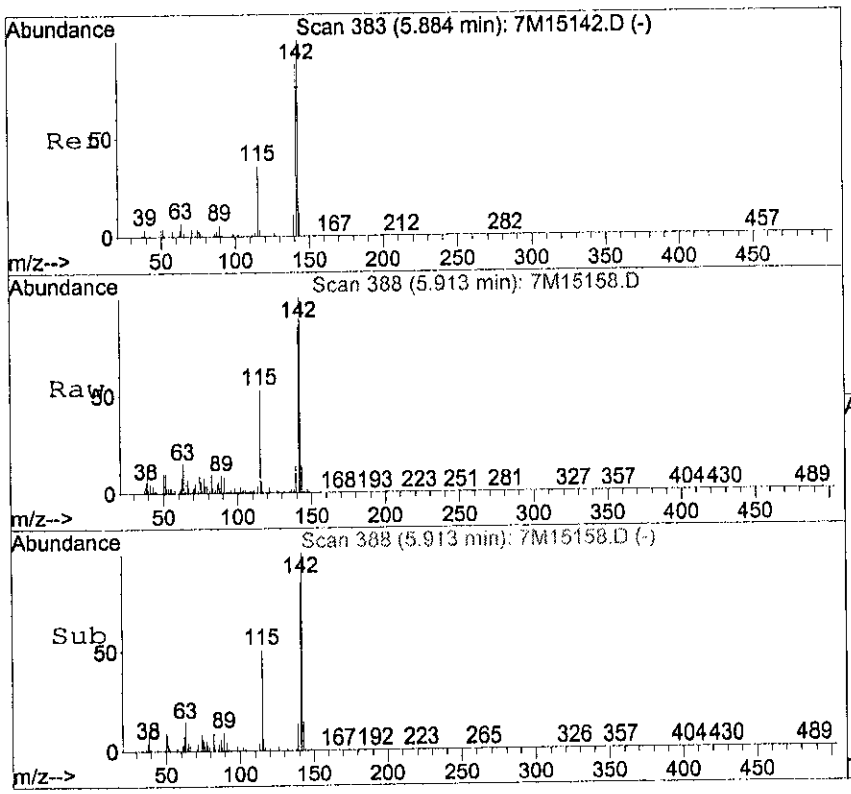


Concen: 10.33 ug/ml
RT: 5.21 min Scan# 257
Delta R.T. -0.00 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:128 Resp:18834416

Ion	Ratio	Lower	Upper
128	100		
129	66.7	9.0	13.4#
127	86.6	11.4	17.2#

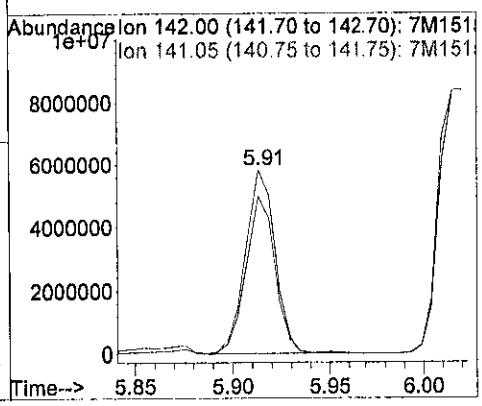


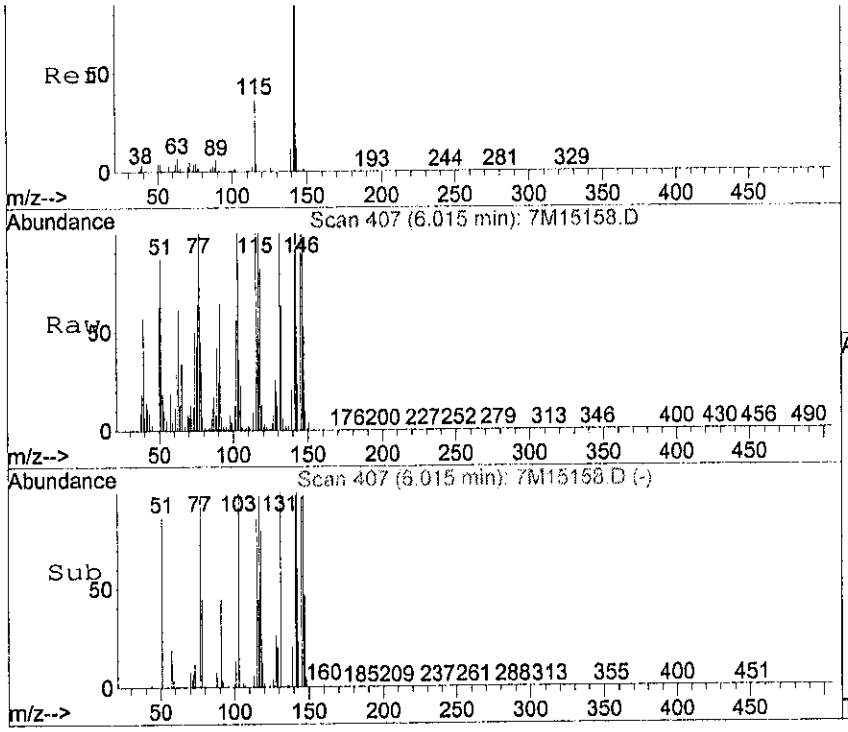


#4
2-Methylnaphthalene
Concen: 5.04 ug/ml
RT: 5.91 min Scan# 388
Delta R.T. 0.03 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:142 Resp: 6179938

Ion	Ratio	Lower	Upper
142	100		
141	83.8	70.1	105.1

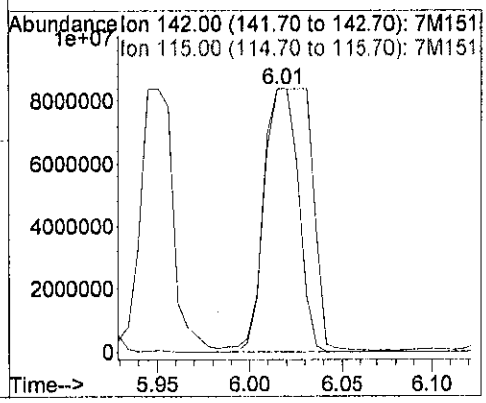


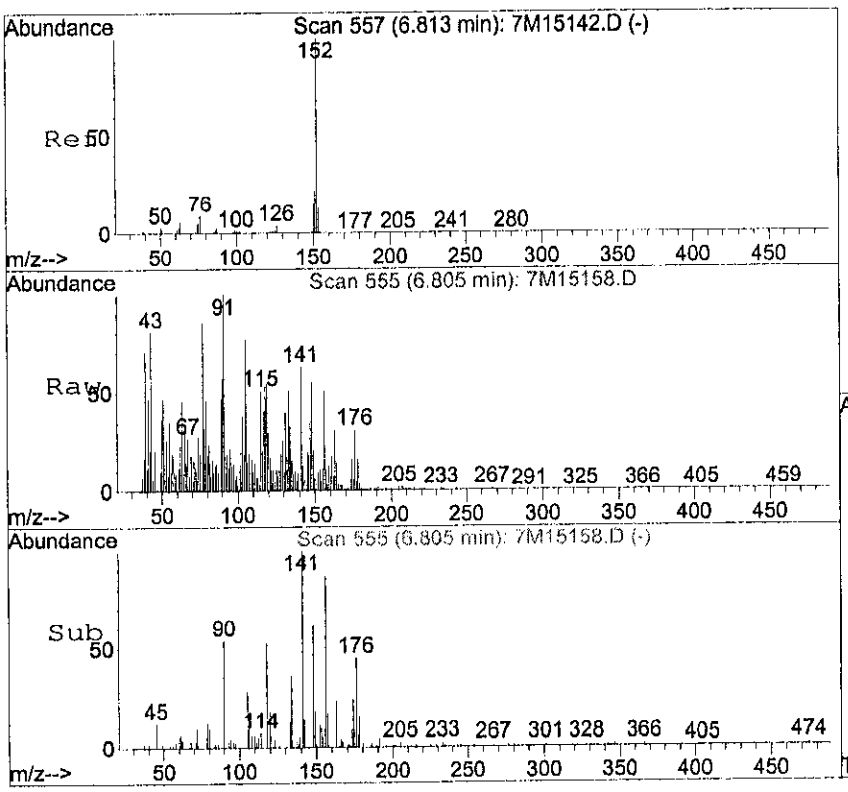


Concen: 8.89 ug/ml
RT: 6.01 min Scan# 407
Delta R.T. 0.02 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:142 Resp:10837422

Ion	Ratio	Lower	Upper
142	100		
115	136.8	34.7	52.1#

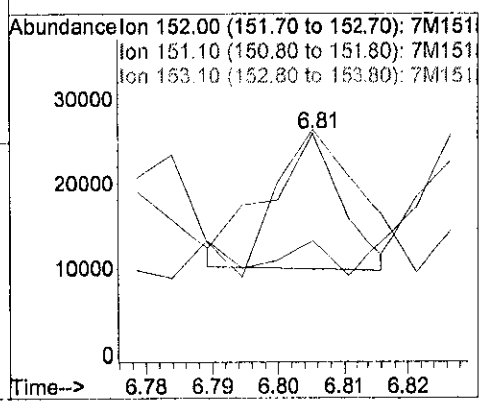


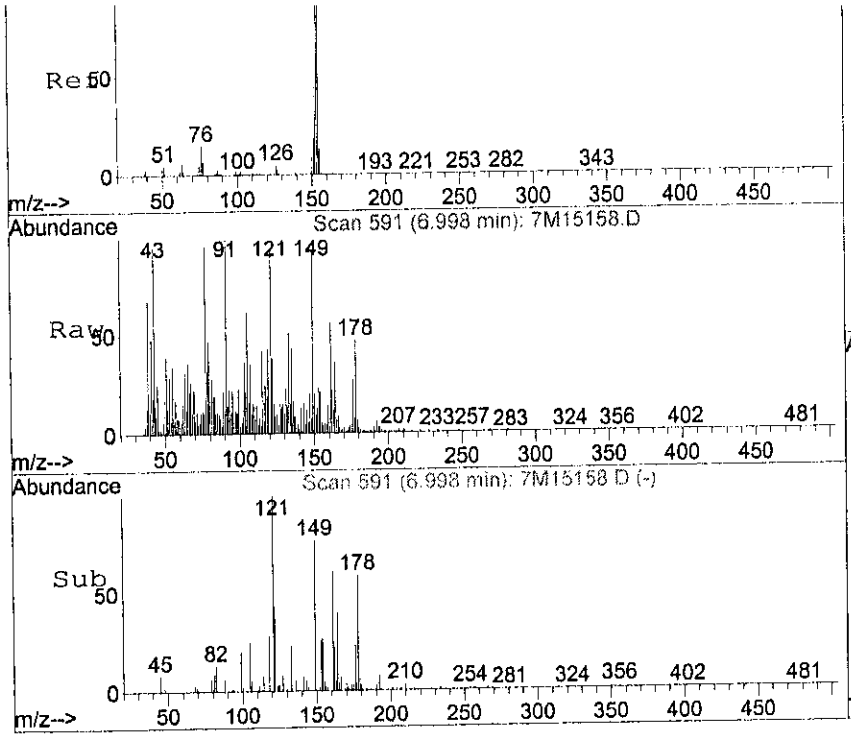


#8
Acenaphthylene
Concen: 0.01 ug/ml
RT: 6.81 min Scan# 555
Delta R.T. -0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:152 Resp: 12476

Ion	Ratio	Lower	Upper
152	100		
151	60.0	16.6	25.0#
153	191.9	10.2	15.2#

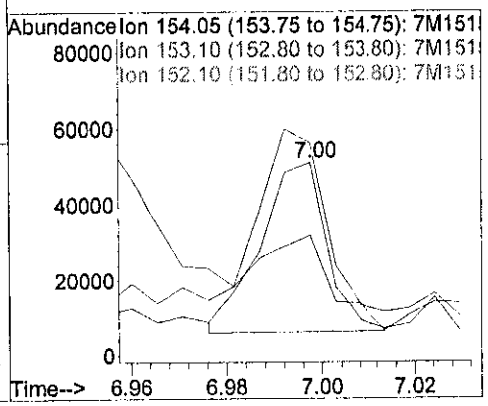


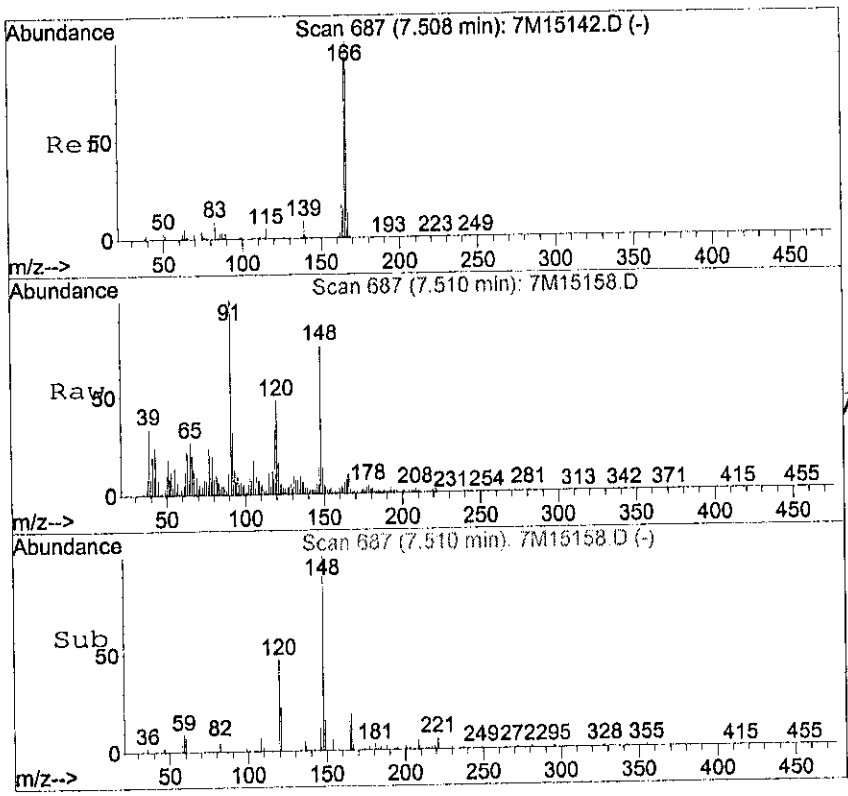


Concen: 0.04 ug/ml
RT: 7.00 min Scan# 591
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:154 Resp: 43536

Ion	Ratio	Lower	Upper
154	100		
153	124.6	87.0	130.6
152	59.9	41.3	61.9

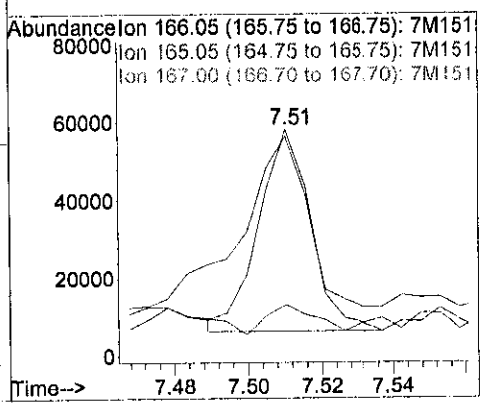


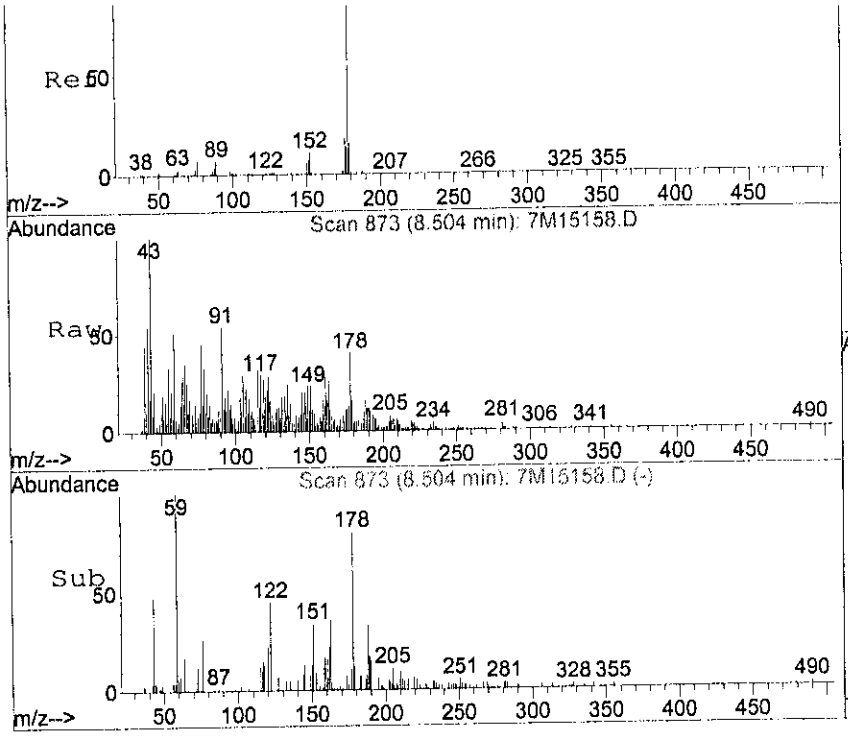


#10
Fluorene
Concen: 0.04 ug/ml
RT: 7.51 min Scan# 687
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:166 Resp: 50611

Ion	Ratio	Lower	Upper
166	100		
165	107.2	75.8	113.6
167	13.5	11.1	16.7

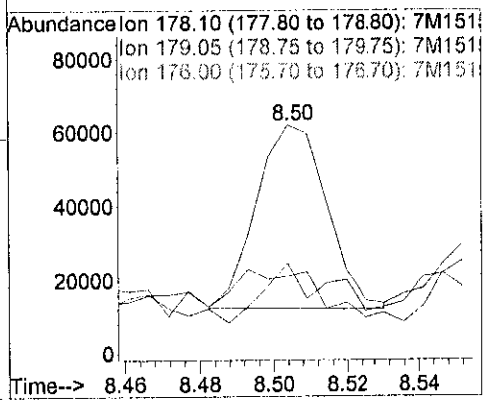


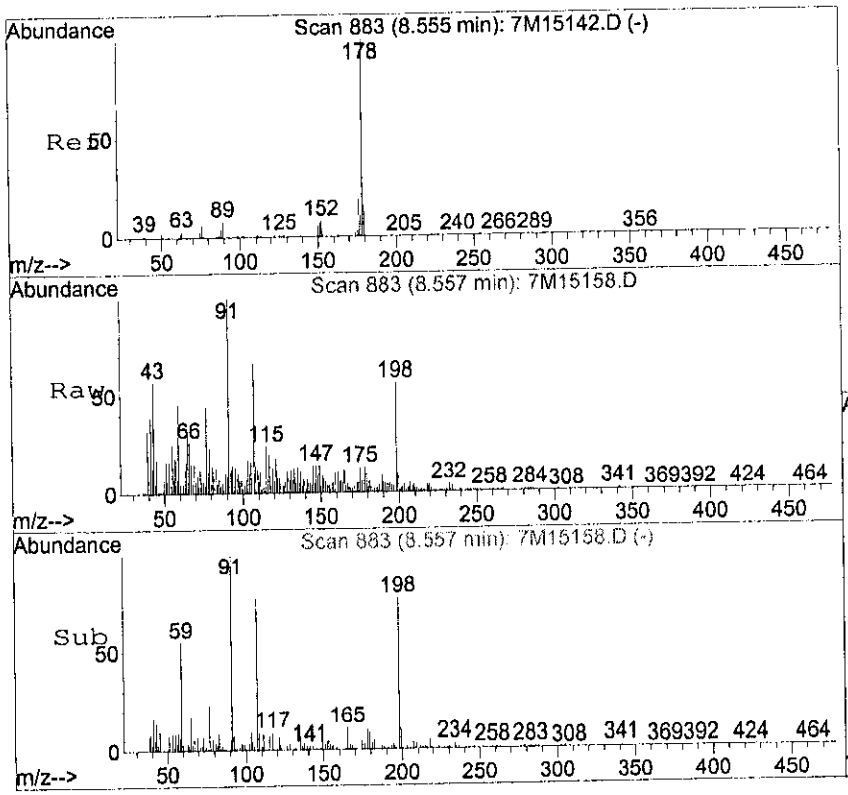


Concen: 0.06 ug/ml
RT: 8.50 min Scan# 873
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:178 Resp: 66155

Ion	Ratio	Lower	Upper
178	100		
179	32.4	13.1	19.7#
176	41.9	15.8	23.8#

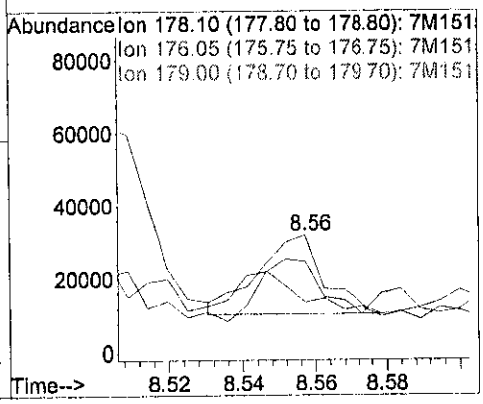


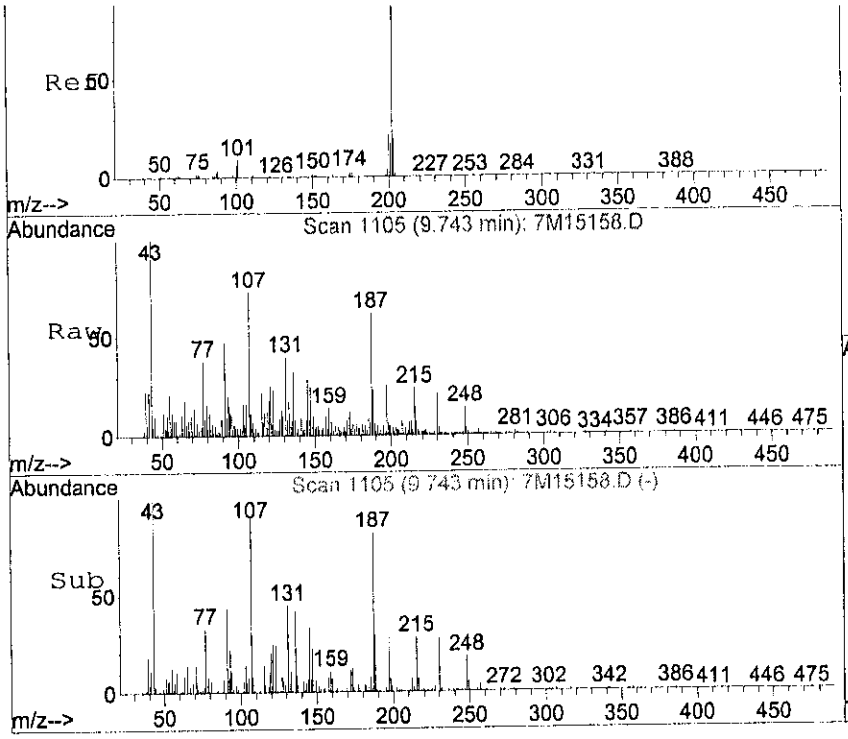


#13
Anthracene
Concen: 0.02 ug/ml
RT: 8.56 min Scan# 883
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:178 Resp: 26896

Ion	Ratio	Lower	Upper
178	100		
176	59.2	15.1	22.7#
179	75.9	12.4	18.6#

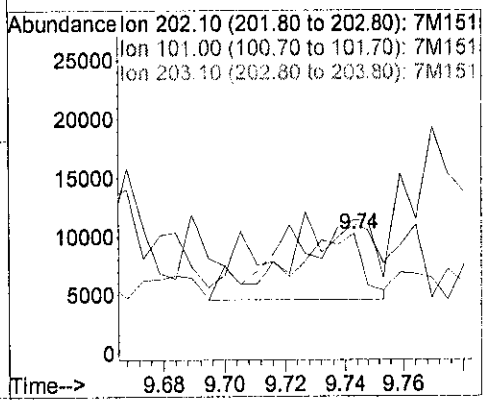


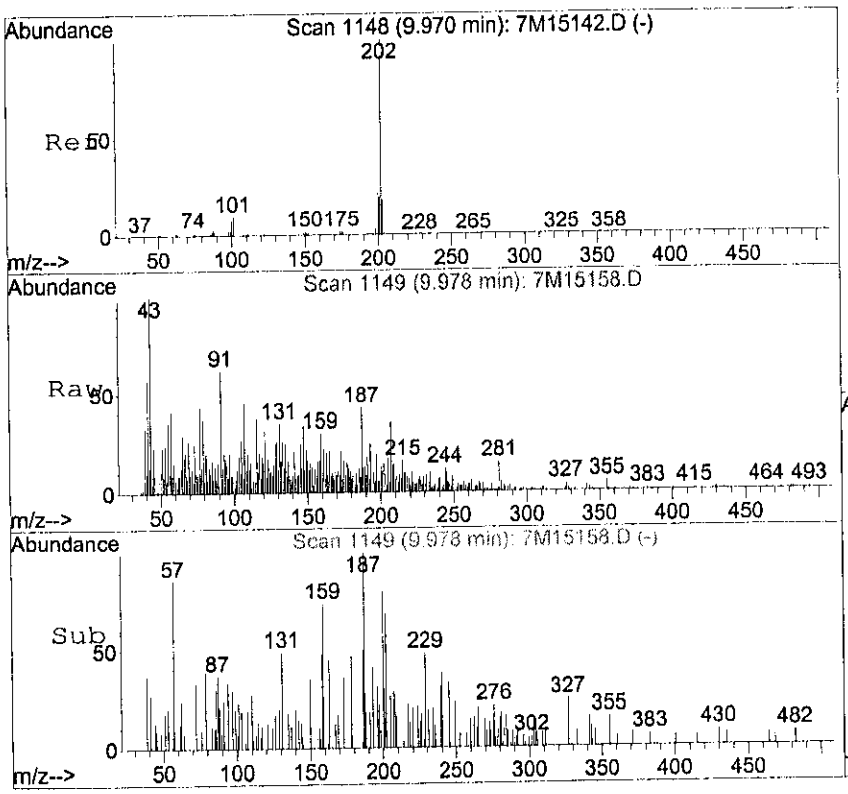


Concen: 0.01 ug/ml
RT: 9.74 min Scan# 1105
Delta R.T. 0.02 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:202 Resp: 10168

Ion	Ratio	Lower	Upper
202	100		
101	0.0	7.2	10.8#
203	44.4	14.2	21.2#

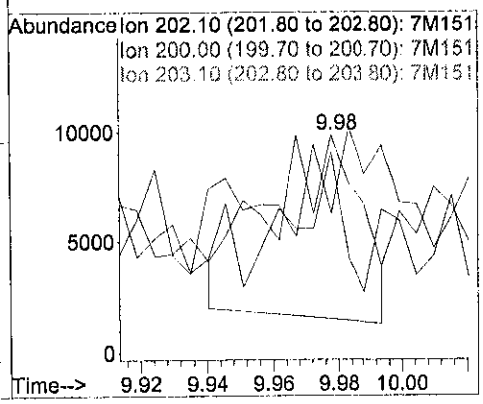


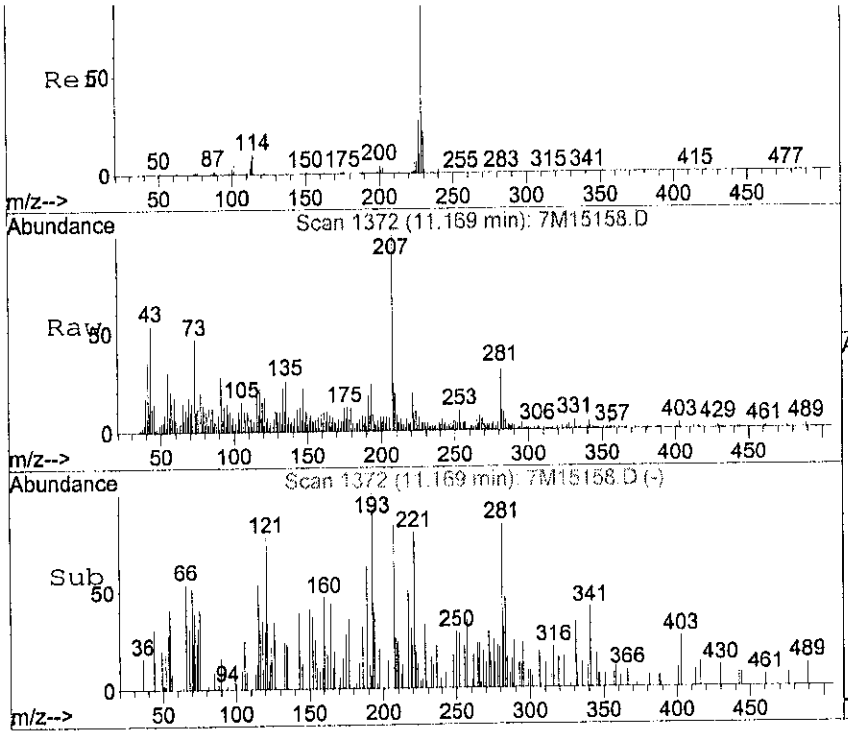


#16
Pyrene
Concen: 0.06 ug/ml
RT: 9.98 min Scan# 1149
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:202 Resp: 16394

Ion	Ratio	Lower	Upper
202	100		
200	50.7	17.2	25.8#
203	62.1	14.8	22.2#

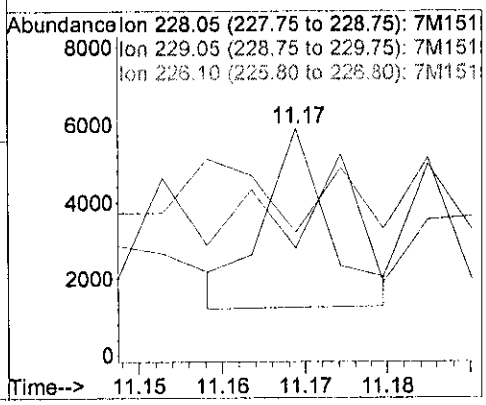


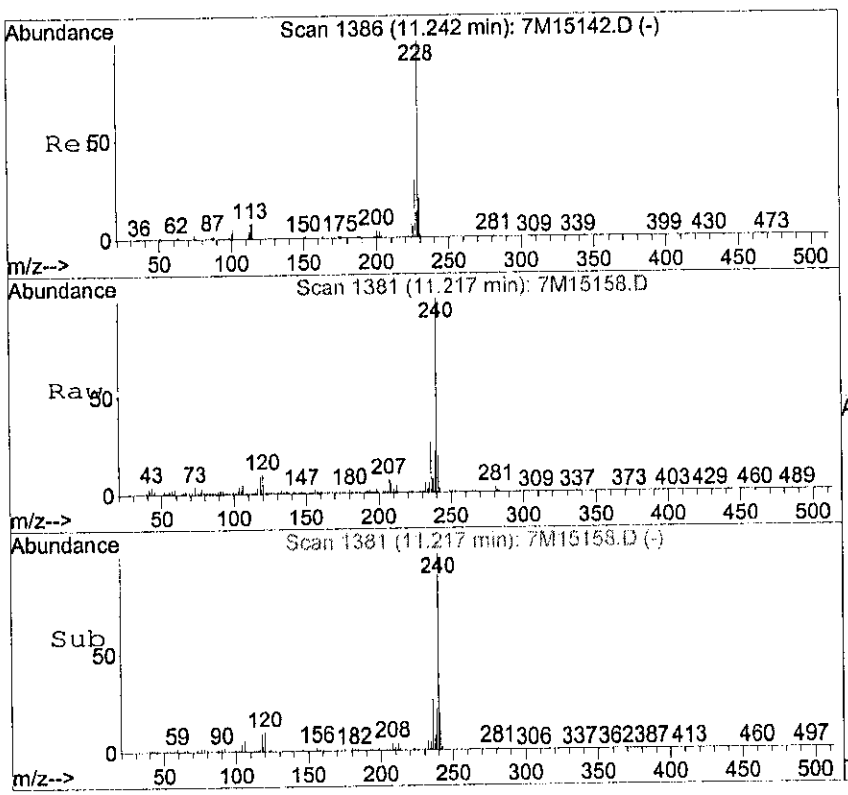


Concen: 0.00 ug/ml
RT: 11.17 min Scan# 1372
Delta R.T. -0.03 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:228 Resp: 2541

Ion	Ratio	Lower	Upper
228	100		
229	81.1	16.2	24.2#
226	266.8	21.4	32.0#

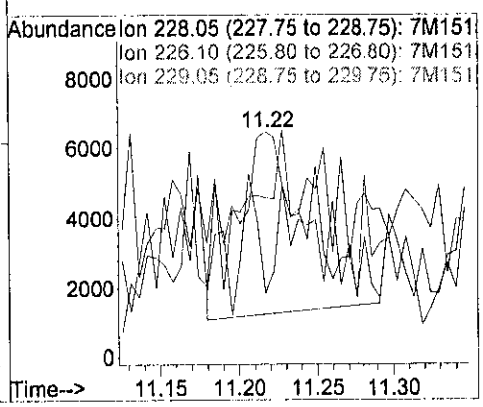


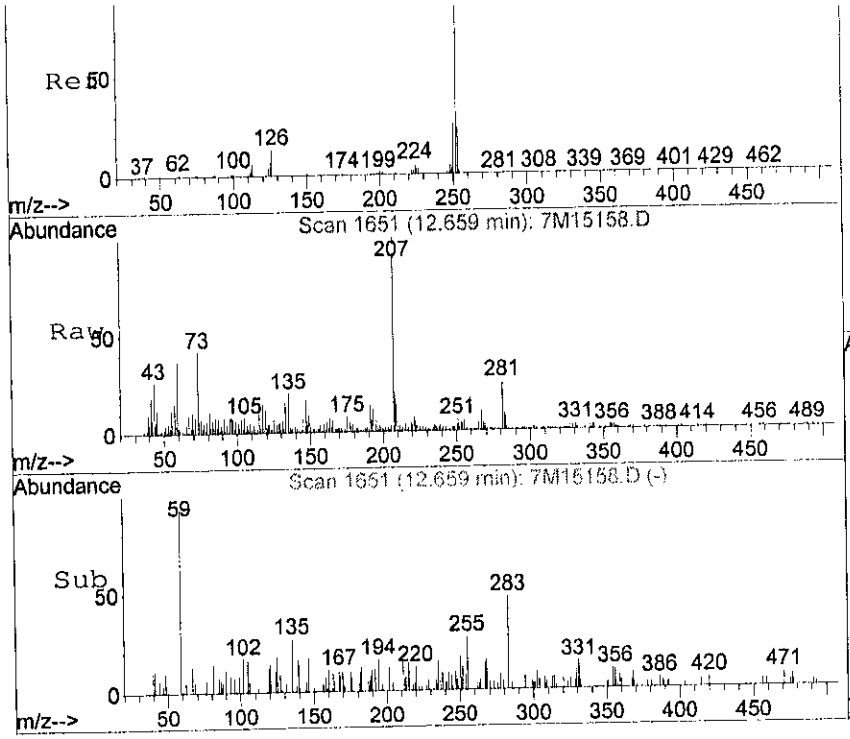


#19
Chrysene
Concen: 0.01 ug/ml
RT: 11.22 min Scan# 1381
Delta R.T. -0.03 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:228 Resp: 17445

Ion	Ratio	Lower	Upper
228	100		
226	30.2	23.6	35.4
229	43.7	16.2	24.4#

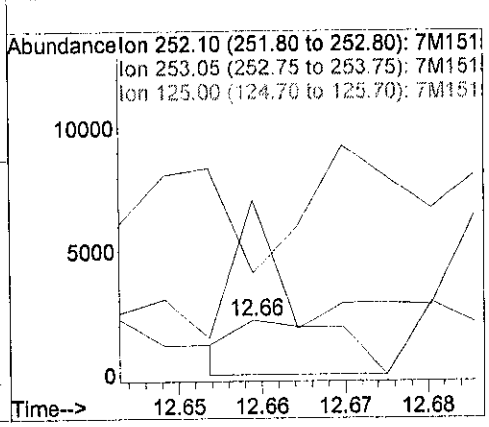


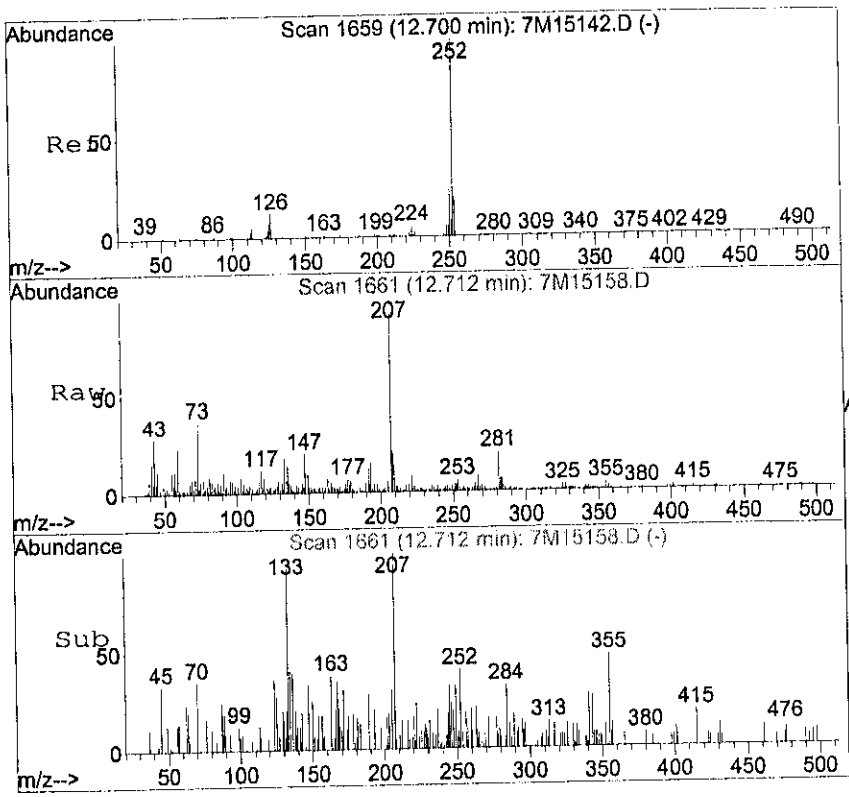


Concen: 0.00 ug/ml
RT: 12.66 min Scan# 1651
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:252 Resp: 1952

Ion	Ratio	Lower	Upper
252	100		
253	135.0	17.5	26.3#
125	61.6	6.2	9.2#

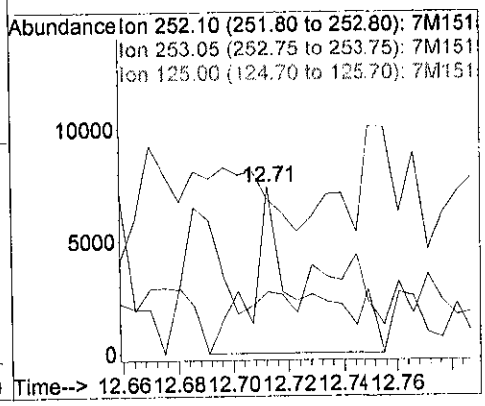


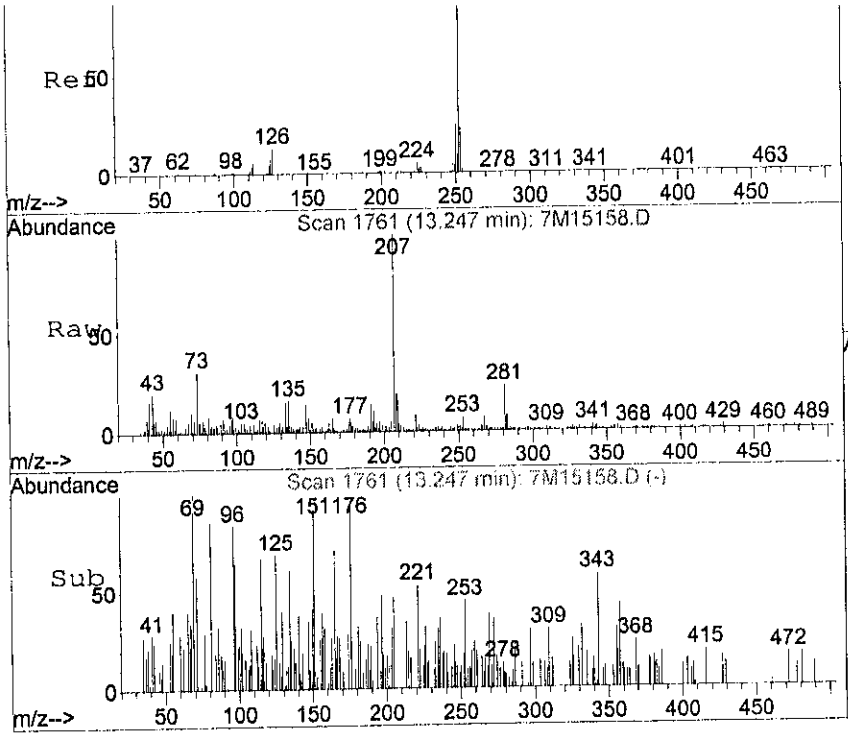


#22
Benzo[k]fluoranthene
Concen: 0.00 ug/ml
RT: 12.71 min Scan# 1661
Delta R.T. 0.02 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:252 Resp: 9333

Ion	Ratio	Lower	Upper
252	100		
253	0.0	17.1	25.7#
125	0.0	5.6	8.4#

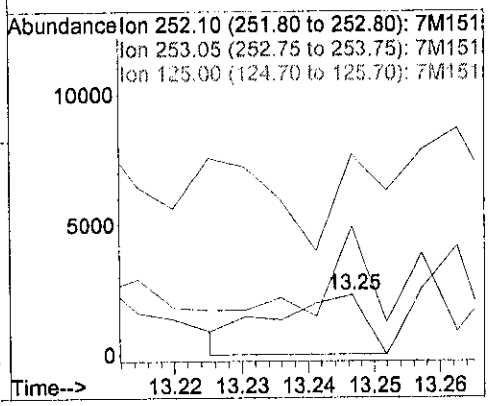


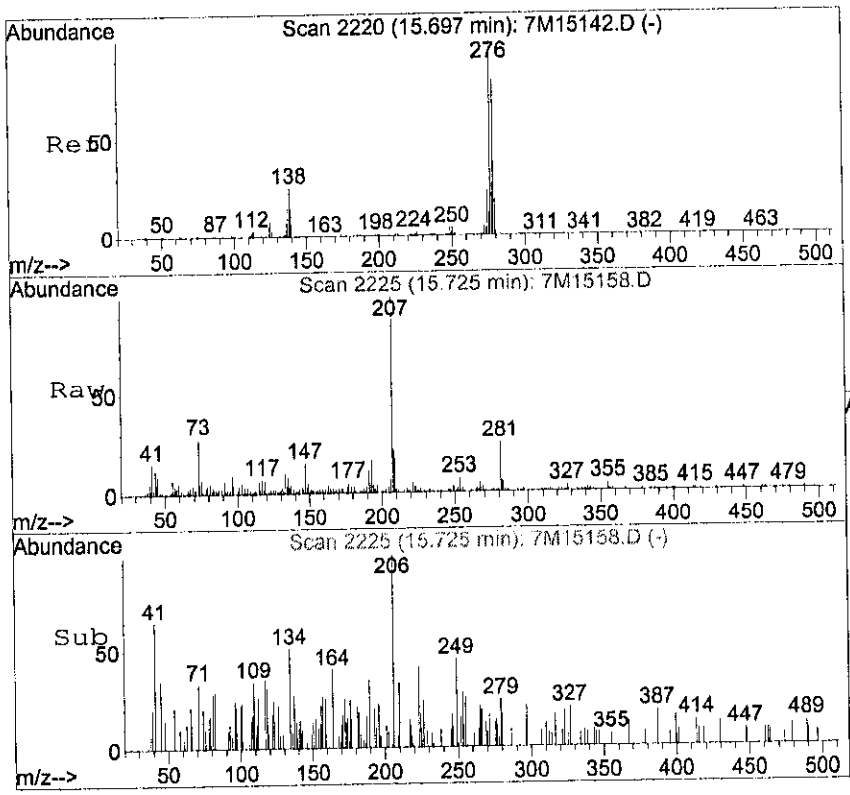


Concen: 0.00 ug/ml
RT: 13.25 min Scan# 1761
Delta R.T. 0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:252 Resp: 2267

Ion	Ratio	Lower	Upper
252	100		
253	123.6	17.5	26.3#
125	131.0	6.6	10.0#

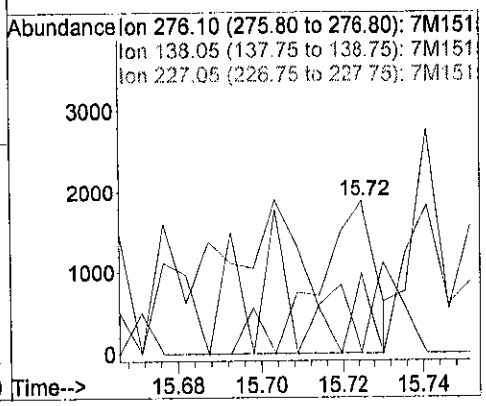


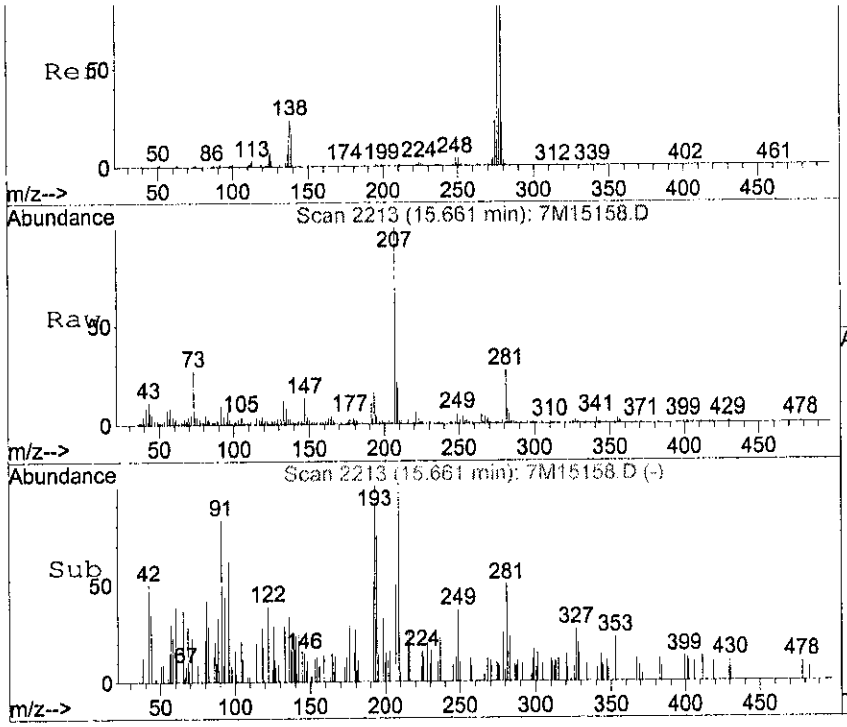


#24
Indeno[1,2,3-cd]pyrene
Concen: 0.00 ug/ml
RT: 15.72 min Scan# 2225
Delta R.T. 0.03 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:276 Resp: 1935

Ion	Ratio	Lower	Upper
276	100		
138	0.0	17.7	26.5#
227	13.9	0.2	0.2#

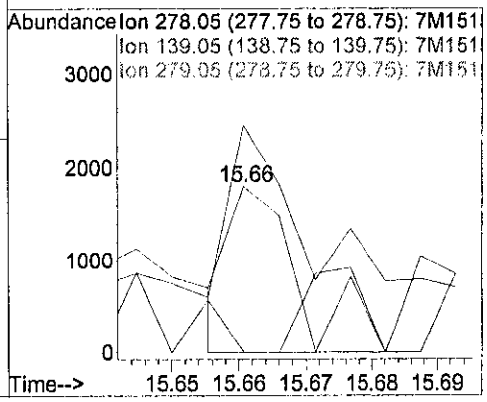


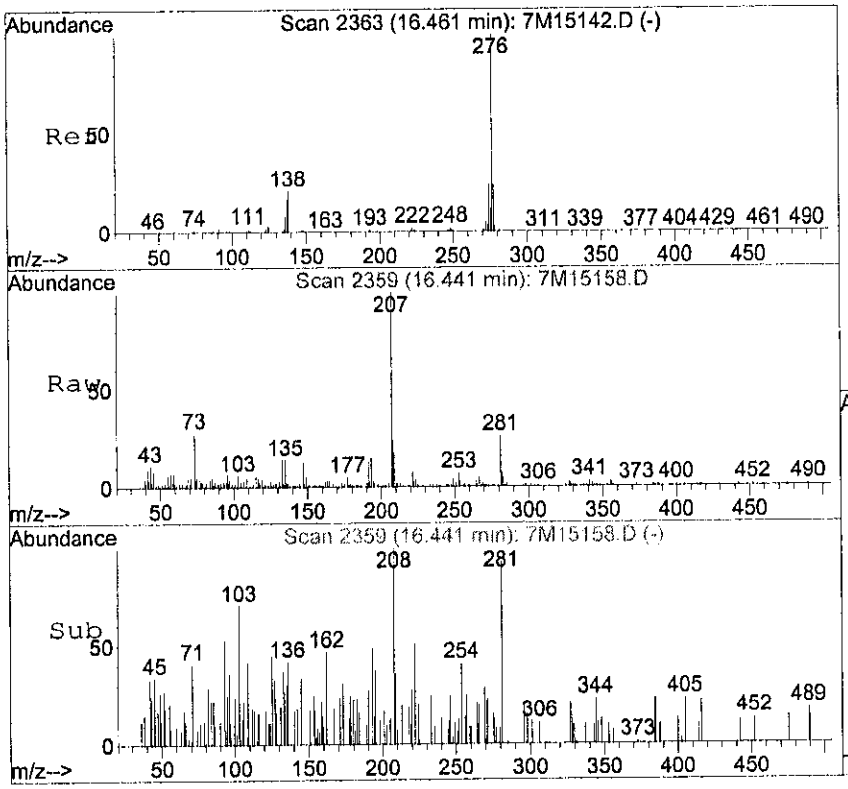


Concen: 0.00 ug/ml
RT: 15.66 min Scan# 2213
Delta R.T. -0.02 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:278 Resp: 1318

Ion	Ratio	Lower	Upper
278	100		
139	165.9	12.6	18.8#
279	43.3	18.8	28.2#

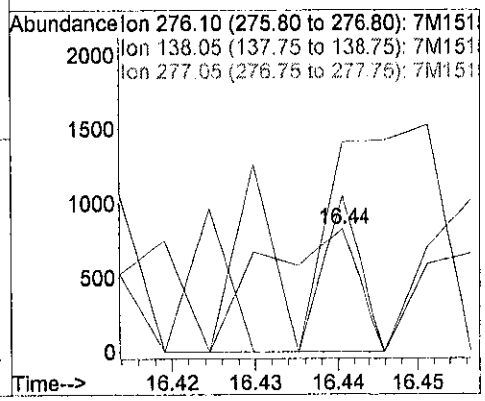




#26
Benzo[ghi]perylene
Concen: 0.00 ug/ml
RT: 16.44 min Scan# 2359
Delta R.T. -0.01 min
Lab File: 7M15158.D
Acq: 2 Apr 2002 15:39

Tgt Ion:276 Resp: 665

Ion	Ratio	Lower	Upper
276	100		
138	0.0	15.8	23.8#
277	60.8	19.4	29.0#



1,1

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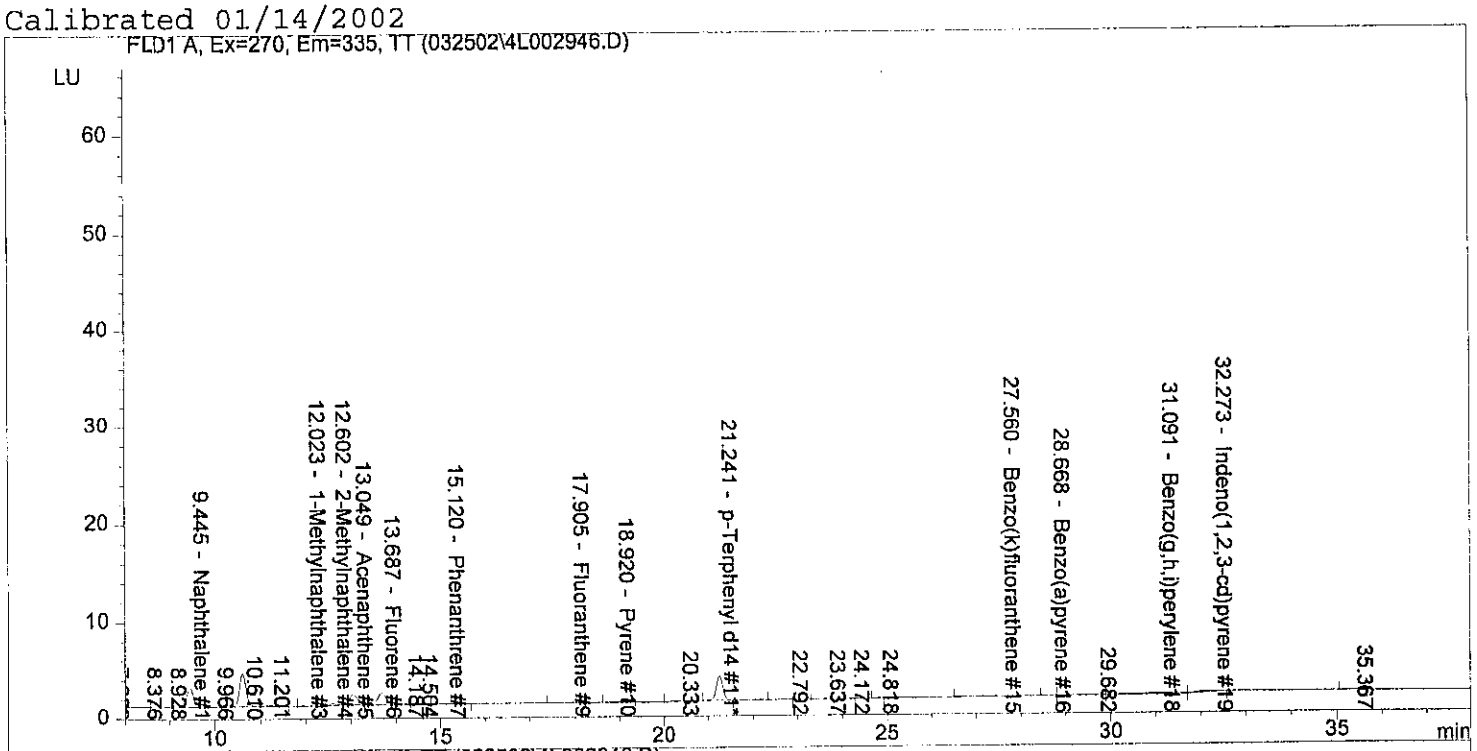
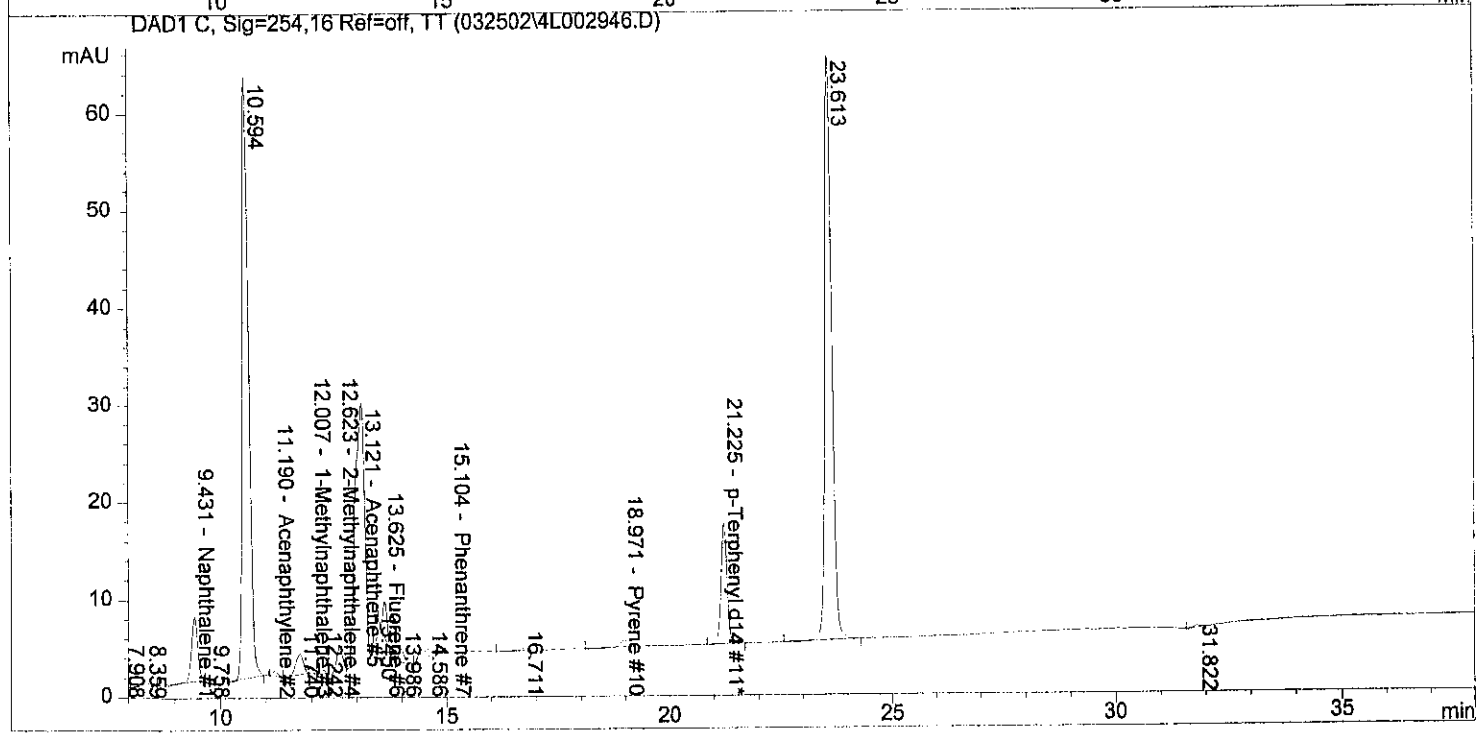
Injection Date	: 3/25/2002 7:46:35 PM	Seq. Line :	6
Sample Name	: L0203380-02 831W	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.445	BB	19.77518	2.57003e-2	5.08228e-1	F	Naphthalene #1
12.023	BB	2.31898	2.24893e-2	5.21522e-2		1-Methylnaphthalene #3
12.602	BB	2.50415	1.72691e-2	4.32445e-2		2-Methylnaphthalene #4
13.049	BB	12.76131	1.38228e-2	1.76397e-1		Acenaphthene #5
13.687	BB	18.21656	6.56879e-3	1.19661e-1		Fluorene #6
15.120	BB	3.89094e-1	1.68488e-1	6.55575e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.905	PBA	4.93962e-1	2.38671e-2	1.17894e-2		Fluoranthene #9
18.920	PBA	4.74214e-1	4.06594e-2	1.92812e-2		Pyrene #10
21.241	BB	25.19264	2.86511e-1	7.21798	72%	p-Terphenyl d14 #11*
22.493		-	-	-		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.560	PB	3.37711e-1	2.77566e-3	9.37372e-4		Benzo(k)fluoranthene #15
28.668	BB	1.66167e-1	4.67660e-3	7.77095e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.091	BB	7.35360	2.69466e-2	1.98155e-1		Benzo(g,h,i)perylene #18
32.273	BB	3.75369	1.37440e-2	5.15909e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.46575

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BB	62.47719	8.27651e-3	5.17093e-1	F	Naphthalene #1
11.190	BB	3.92818	3.00095e-2	1.17883e-1	imp	Acenaphthylene #2
12.007	BB	1.16785	1.29932e-2	1.51741e-2		1-Methylnaphthalene #3
12.623	BB	23.58931	1.12713e-2	2.65881e-1		2-Methylnaphthalene #4
13.121	BB	378.70068	2.03841e-2	7.71948	NC	Acenaphthene #5
13.625	BB	21.34892	1.76946e-2	3.77760e-1	NC	Fluorene #6
15.104	BB	2.18539	1.74291e-2	3.80894e-2	imp	Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.971	BB	6.63388	1.46349e-2	9.70858e-2	NC	Pyrene #10
21.225	PBA	112.20016	6.45989e-2	7.24801		p-Terphenyl d14 #11*
22.477		-	-	-	72.5%	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 16.39646

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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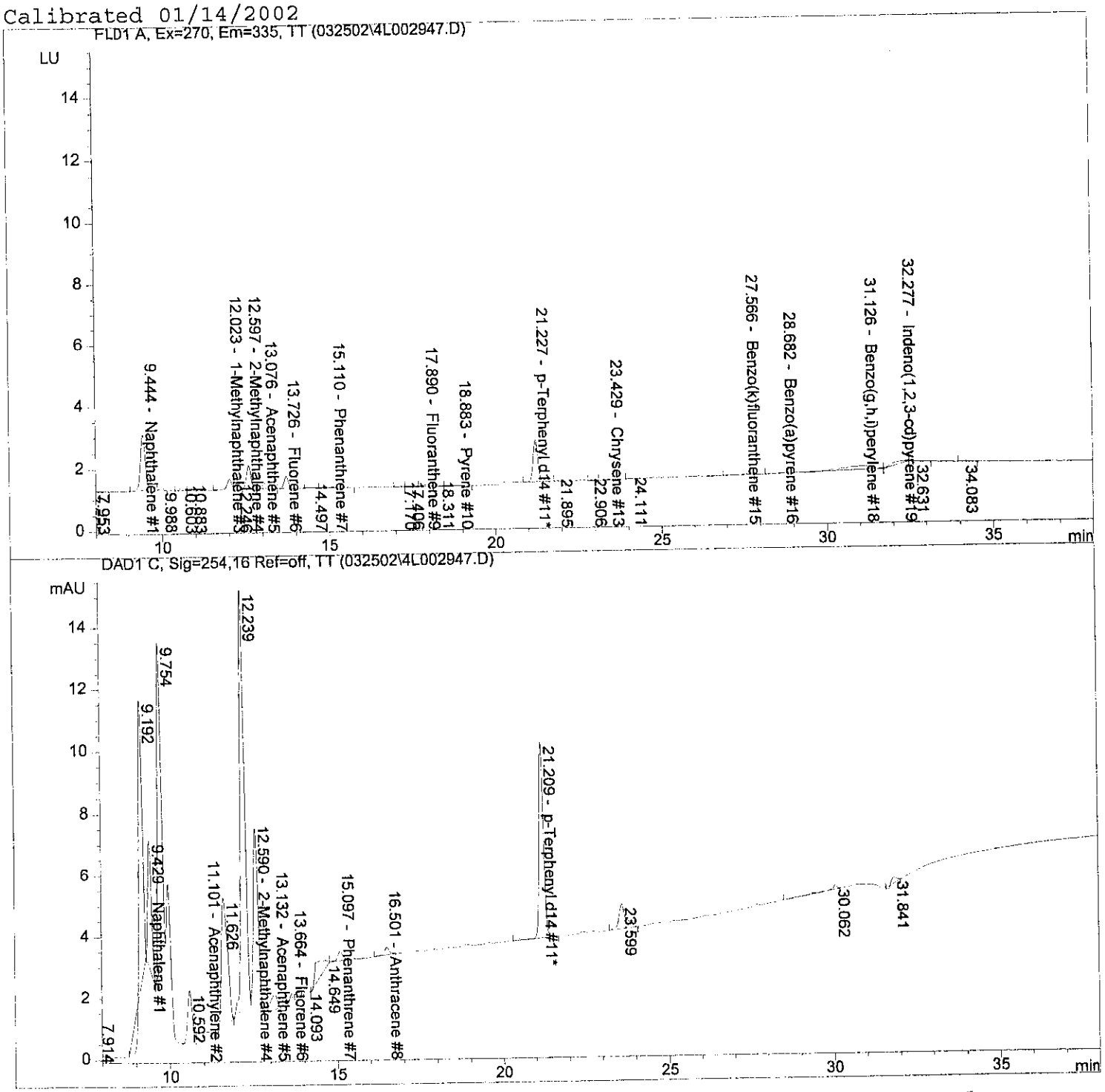
Injection Date : 3/25/2002 8:43:14 PM
Sample Name : L0203380-03 831W
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002



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External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	18.35690	2.57003e-2	4.71777e-1		Naphthalene #1
12.023	PB	1.41587	2.24893e-2	3.18420e-2		1-Methylnaphthalene #3
12.597	BB	7.28558	1.72691e-2	1.25816e-1		2-Methylnaphthalene #4
13.076	BB	2.35377	1.38228e-2	3.25356e-2		Acenaphthene #5
13.726	BB	4.27264	6.56879e-3	2.80661e-2		Fluorene #6
15.110	BBA	3.99637e-1	1.68488e-1	6.73339e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.890	BB	6.49189e-1	2.38671e-2	1.54942e-2		Fluoranthene #9
18.883	BB	4.49425e-1	4.06594e-2	1.82734e-2		Pyrene #10
21.227	BB	13.12783	2.86511e-1	3.76127		p-Terphenyl d14 #11*
22.493		-	-	- 37.6%		Benzo(a)anthracene #12
23.429	BB	2.12803e-1	3.90144e-2	8.30240e-3		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.566	PB	4.17245e-1	2.77566e-3	1.15813e-3		Benzo(k)fluoranthene #15
28.682	BB	4.61159e-1	4.67660e-3	2.15665e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.126	BB	7.62132	2.69466e-2	2.05369e-1		Benzo(g,h,i)perylene #18
32.277	BB	2.39940	1.37440e-2	3.29775e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 4.80237

Results obtained with enhanced integrator!

requires re-ext.

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.429	BB	29.94112	8.27651e-3	2.47808e-1	NC	Naphthalene #1
11.101	BB	2.71486	3.00095e-2	8.14716e-2		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.590	BB	54.67305	1.12713e-2	6.16234e-1	NC	2-Methylnaphthalene #4
13.132	BB	7.25158	2.03841e-2	1.47817e-1	NC	Acenaphthene #5
13.664	BB	8.26077e-1	1.76946e-2	1.46171e-2		Fluorene #6
15.097	BB	3.24356	1.74291e-2	5.65323e-2		Phenanthrene #7
16.501	PB	2.81095	1.03455e-2	2.90806e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.209	BB	58.58672	6.45989e-2	3.78464		p-Terphenyl d14 #11*
22.477		-	-	- 37.8%*		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.97820

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 re-extract of L0203380-03

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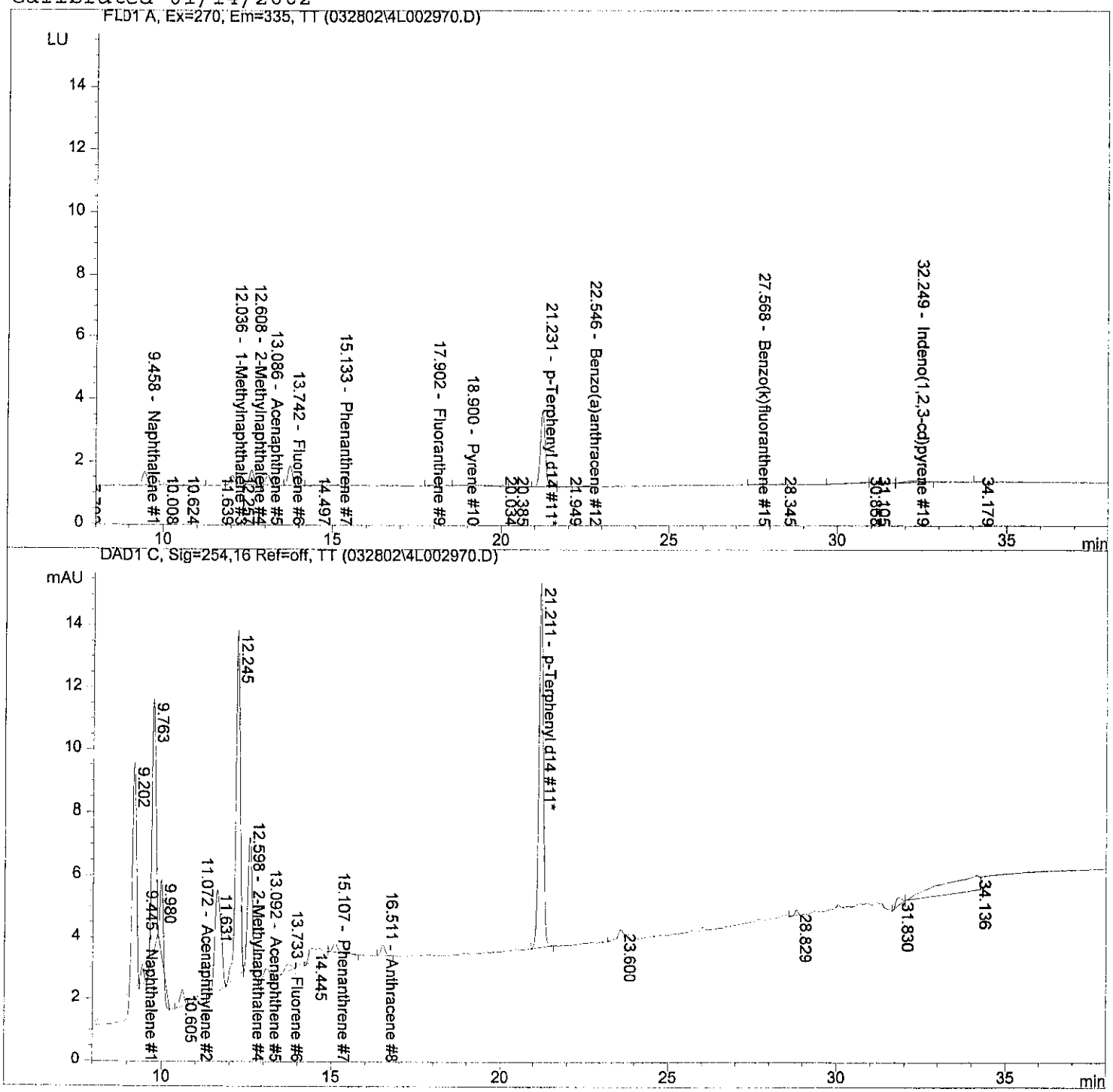
Injection Date	: 3/28/2002 8:09:57 PM	Seq. Line :	8
Sample Name	: L0203380-03 REEX	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

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 : 3/27/2002 9:51:30 AM by RDC
(modified after loading)
Calibrated 01/14/2002



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.458	BB	4.21552	2.57003e-2	1.08340e-1		Naphthalene #1
12.036	BB	1.90239	2.24893e-2	4.27835e-2		1-Methylnaphthalene #3
12.608	BB	4.13458	1.72691e-2	7.14007e-2		2-Methylnaphthalene #4
13.086	BBA	3.27334	1.38228e-2	4.52467e-2		Acenaphthene #5
13.742	BBA	5.90368	6.56879e-3	3.87800e-2		Fluorene #6
15.133	BBA	2.14931e-1	1.68488e-1	3.62132e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.902	PBA	2.76203e-1	2.38671e-2	6.59217e-3		Fluoranthene #9
18.900	BBA	2.45802e-1	4.06594e-2	9.99417e-3		Pyrene #10
21.231	BB	24.10236	2.86511e-1	6.90560		p-Terphenyl d14 #11*
22.546	BB	5.58508e-1	7.96557e-3	4.44883e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.568	BB	3.39066e-1	2.77566e-3	9.41133e-4		Benzo(k)fluoranthene #15
28.605		-	-	-		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.249	BB	2.22308	1.37440e-2	3.05541e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 7.30090

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
9.445	BB	3.70404	8.27651e-3	3.06565e-2	cmol	Naphthalene #1
11.072	BB	1.91169	3.00095e-2	5.73688e-2	↓	Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.598	BB	41.87158	1.12713e-2	4.71945e-1	NC	2-Methylnaphthalene #4
13.092	BB	4.45813	2.03841e-2	9.08752e-2	cmol	Acenaphthene #5
13.733	BB	3.51785	1.76946e-2	6.22469e-2		Fluorene #6
15.107	BBA	3.00746	1.74291e-2	5.24173e-2		Phenanthrene #7
16.511	BBA	3.29676	1.03455e-2	3.41066e-2	↓	Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.211	BBA	104.55888	6.45989e-2	6.75439		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-	67%	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.55401

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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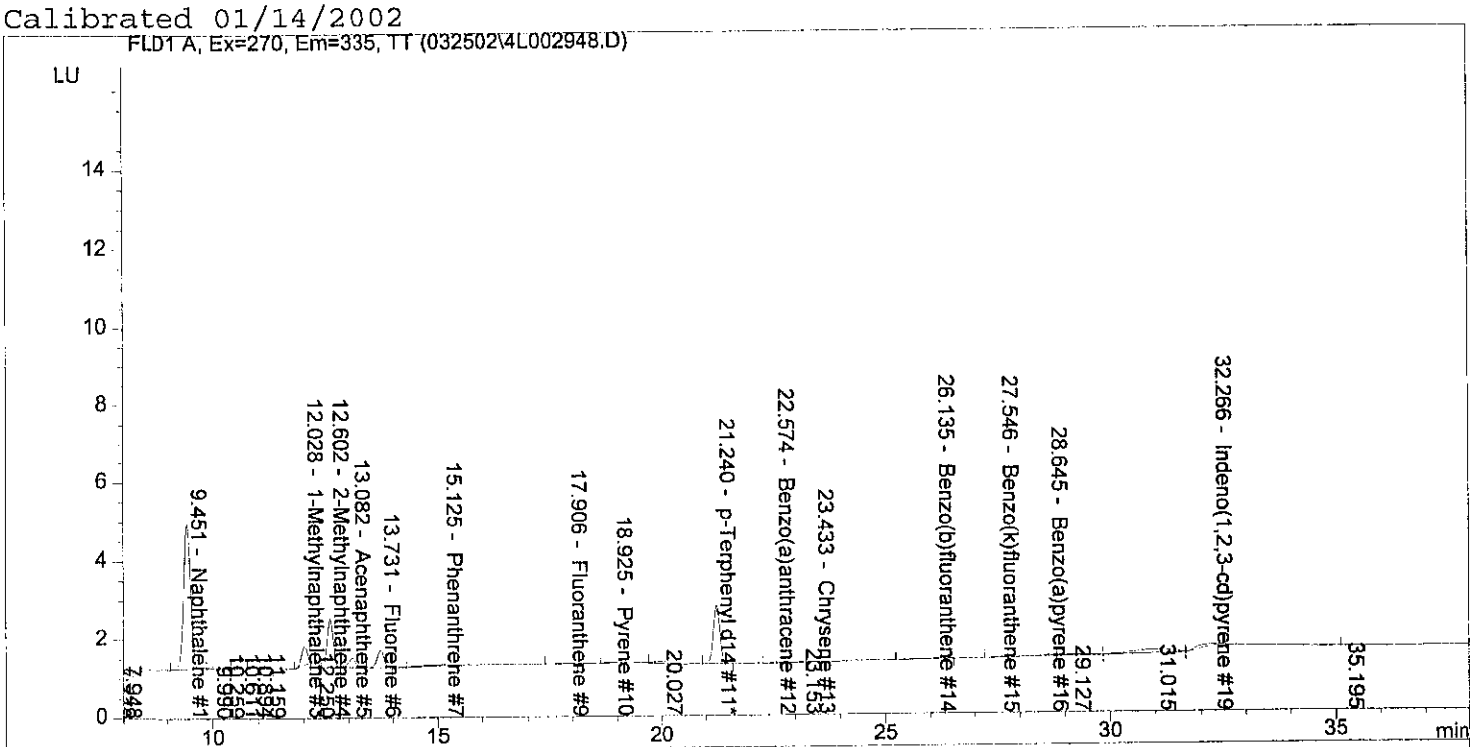
*** End of Report ***

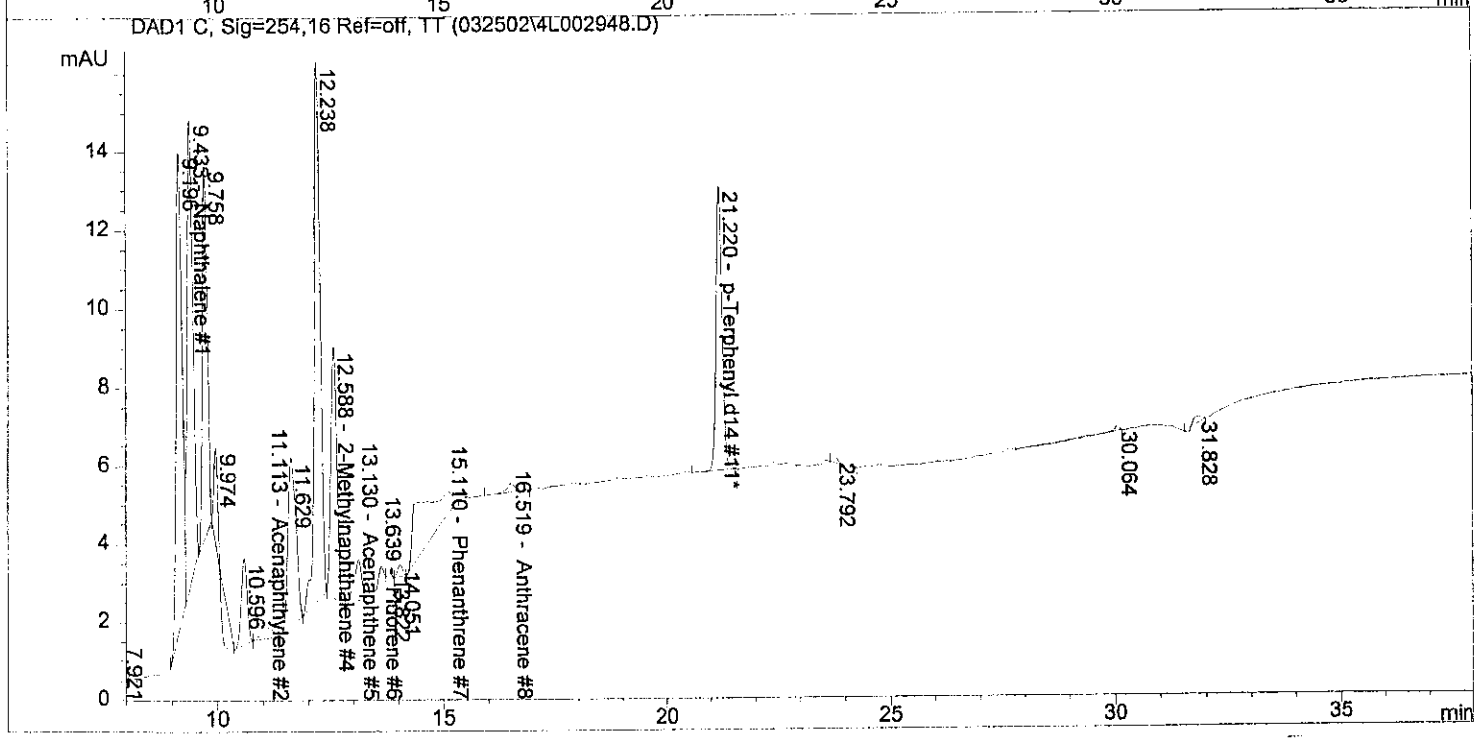
1,1

Injection Date	: 3/25/2002 9:39:49 PM	Seq. Line :	8
Sample Name	: L0203380-04 831W	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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





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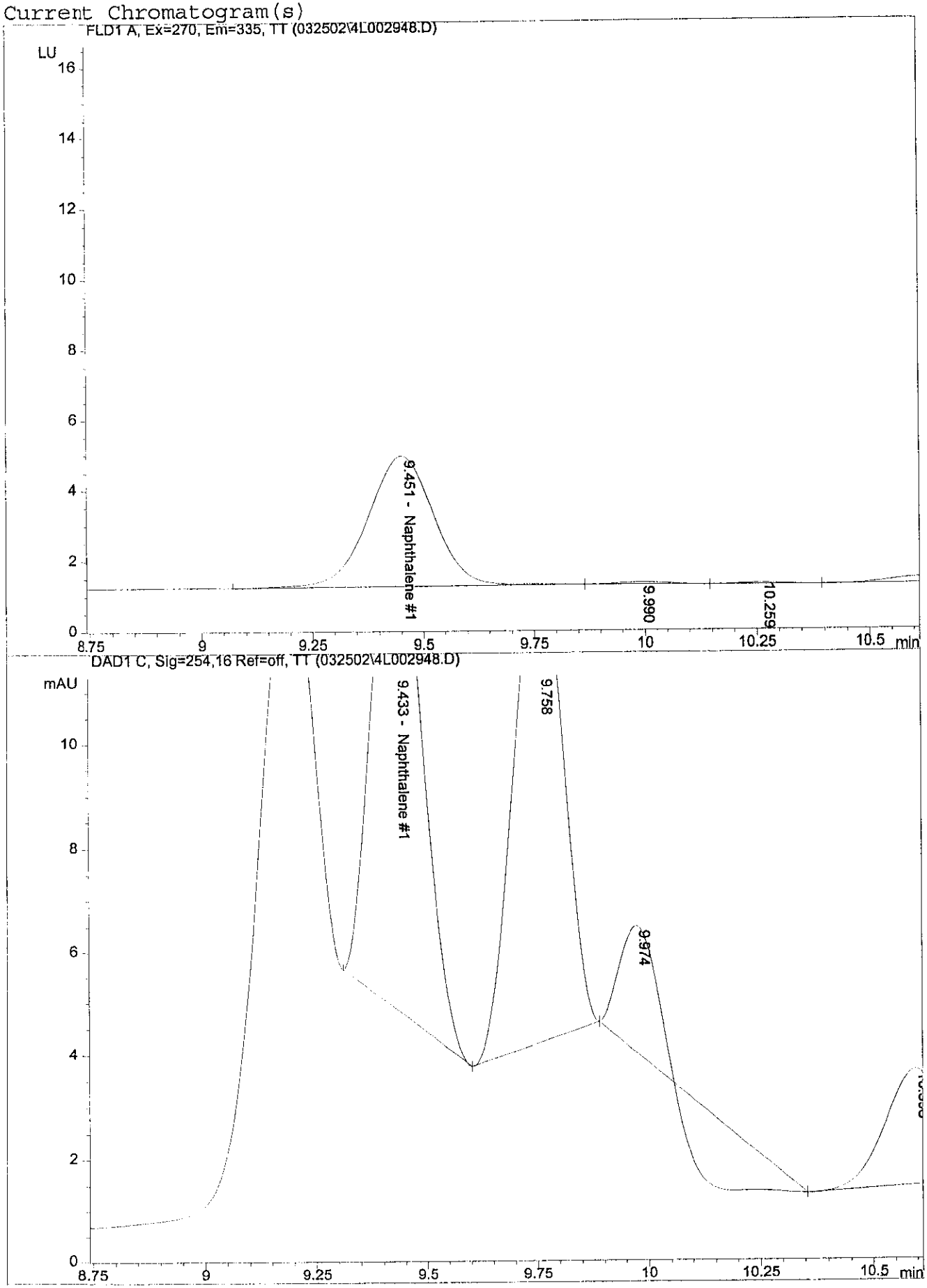
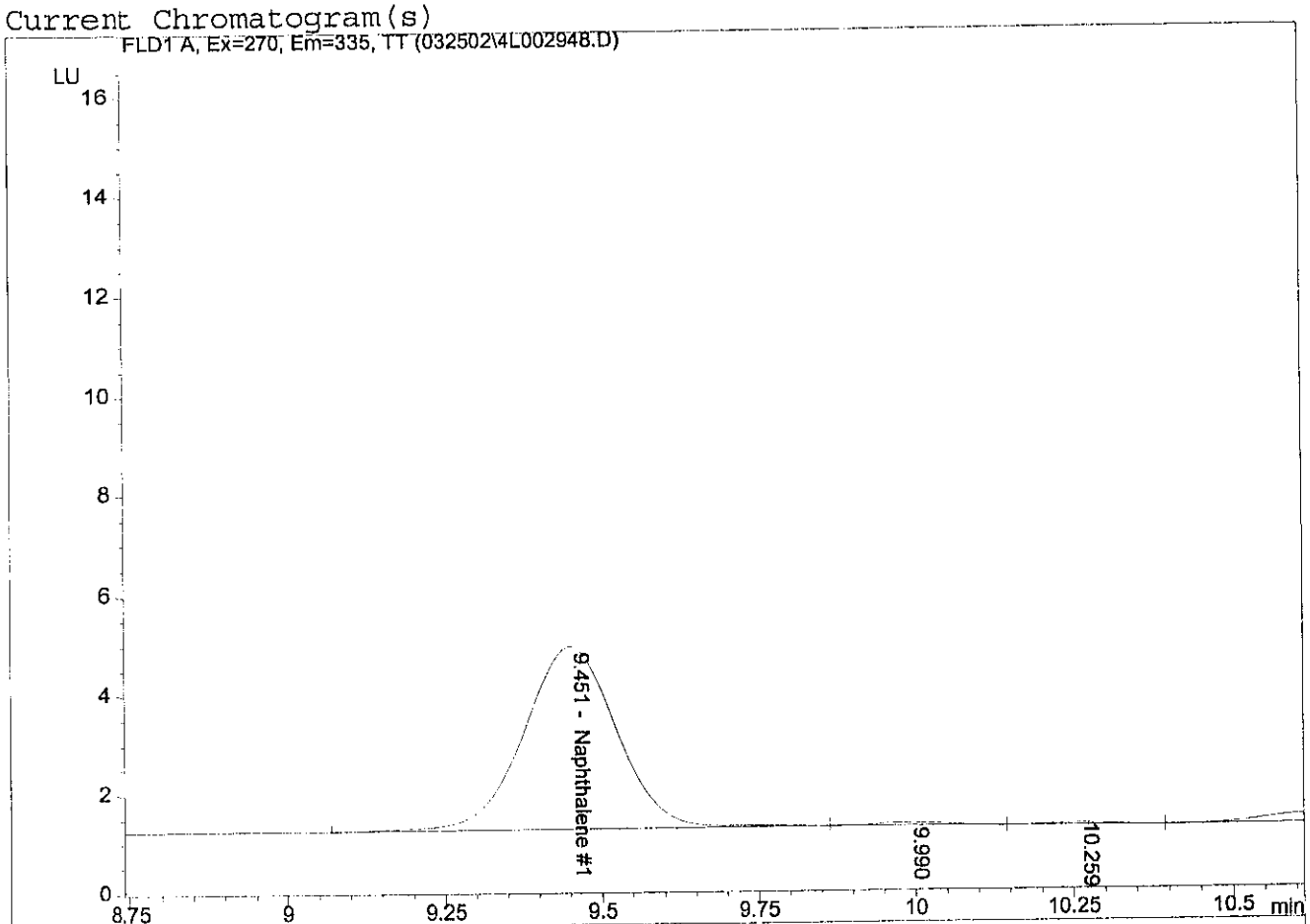
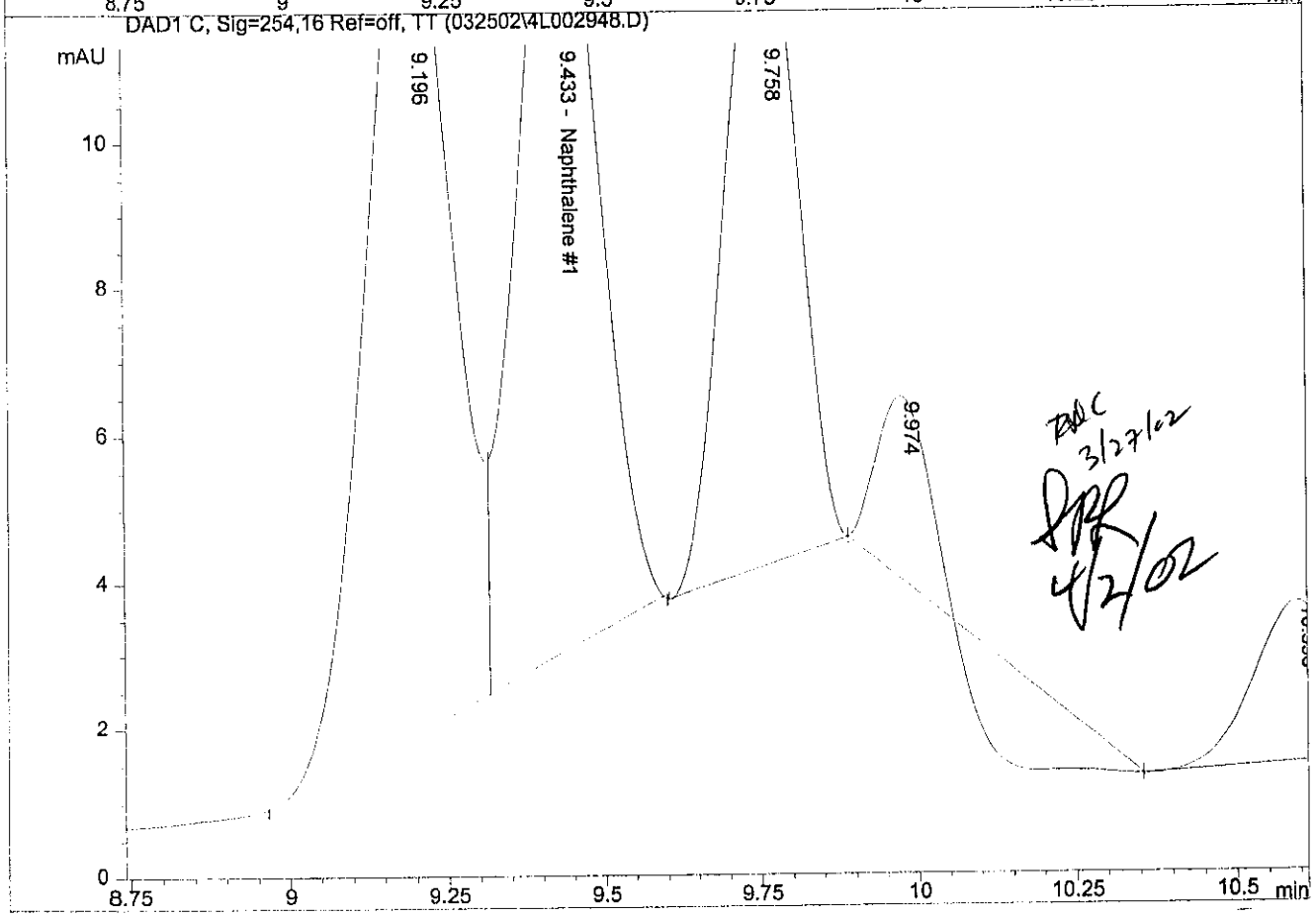
Current Chromatogram(s)



Current Chromatogram(s)





DAC 3/27/02

4/2/02

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External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.451	BB	38.33089	2.57003e-2	9.85114e-1	F	Naphthalene #1
12.028	BB	3.97596	2.24893e-2	8.94165e-2		1-Methylnaphthalene #3
12.602	BB	11.78593	1.72691e-2	2.03533e-1		2-Methylnaphthalene #4
13.082	BB	2.80296	1.38228e-2	3.87447e-2		Acenaphthene #5
13.731	BBA	4.54751	6.56879e-3	2.98716e-2		Fluorene #6
15.125	BB	1.72280	1.68488e-1	2.90270e-1	F	Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.906	PBA	5.54434e-1	2.38671e-2	1.32327e-2		Fluoranthene #9
18.925	PB	2.39456e-1	4.06594e-2	9.73614e-3		Pyrene #10
21.240	BB	14.76158	2.86511e-1	4.22936	42.3%	p-Terphenyl d14 #11*
22.574	BB	5.55843e-1	7.96557e-3	4.42760e-3		Benzo(a)anthracene #12
23.433	BB	3.31738e-1	3.90144e-2	1.29426e-2		Chrysene #13
26.135	PB	3.15001e-1	1.65598e-2	5.21635e-3		Benzo(b)fluoranthene #14
27.546	BB	4.95926e-1	2.77566e-3	1.37652e-3		Benzo(k)fluoranthene #15
28.645	BB	2.27668e-1	4.67660e-3	1.06471e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.266	BB	2.00148	1.37440e-2	2.75084e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 5.94182

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
9.433	VM	103.31214	8.27651e-3	8.55064e-1	F	Naphthalene #1
11.113	BB	4.55925	3.00095e-2	1.36821e-1	<MDL	Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.588	BB	60.02201	1.12713e-2	6.76523e-1	NC	2-Methylnaphthalene #4
13.130	BB	13.93480	2.03841e-2	2.84049e-1	<MDL	Acenaphthene #5
13.639	BB	2.76697	1.76946e-2	4.89604e-2	↓	Fluorene #6
15.110	BB	52.87637	1.74291e-2	9.21587e-1	F	Phenanthrene #7
16.519	PB	3.25958	1.03455e-2	3.37220e-2	<MDL	Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.220	BBA	65.64391	6.45989e-2	4.24053		p-Terphenyl d14 #11*
22.477		-	-	-	42.4%	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.19725

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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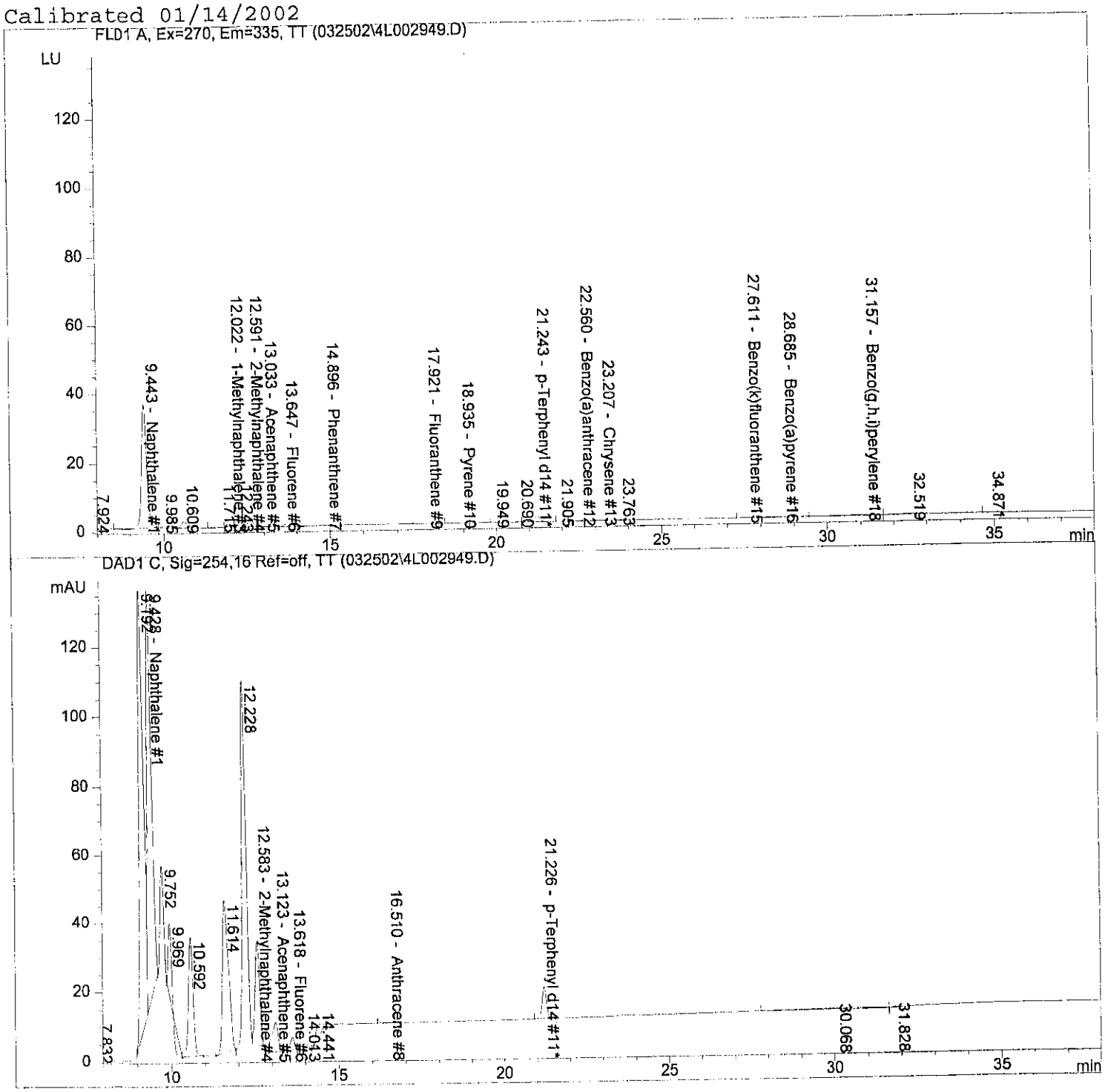
Injection Date : 3/25/2002 10:36:27 PM
Sample Name : L0203380-05 831W
Acq. Operator : RDC

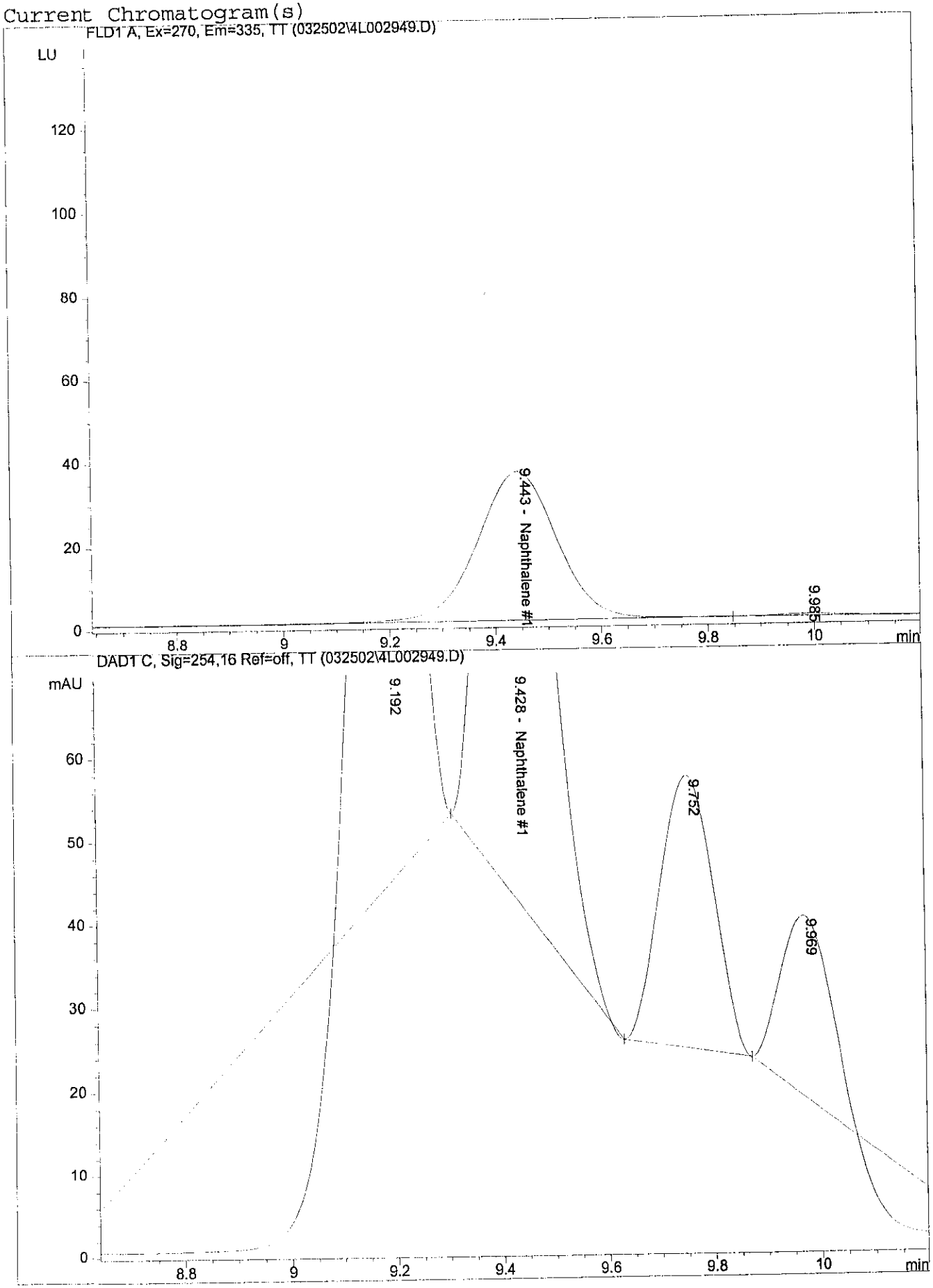
Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002

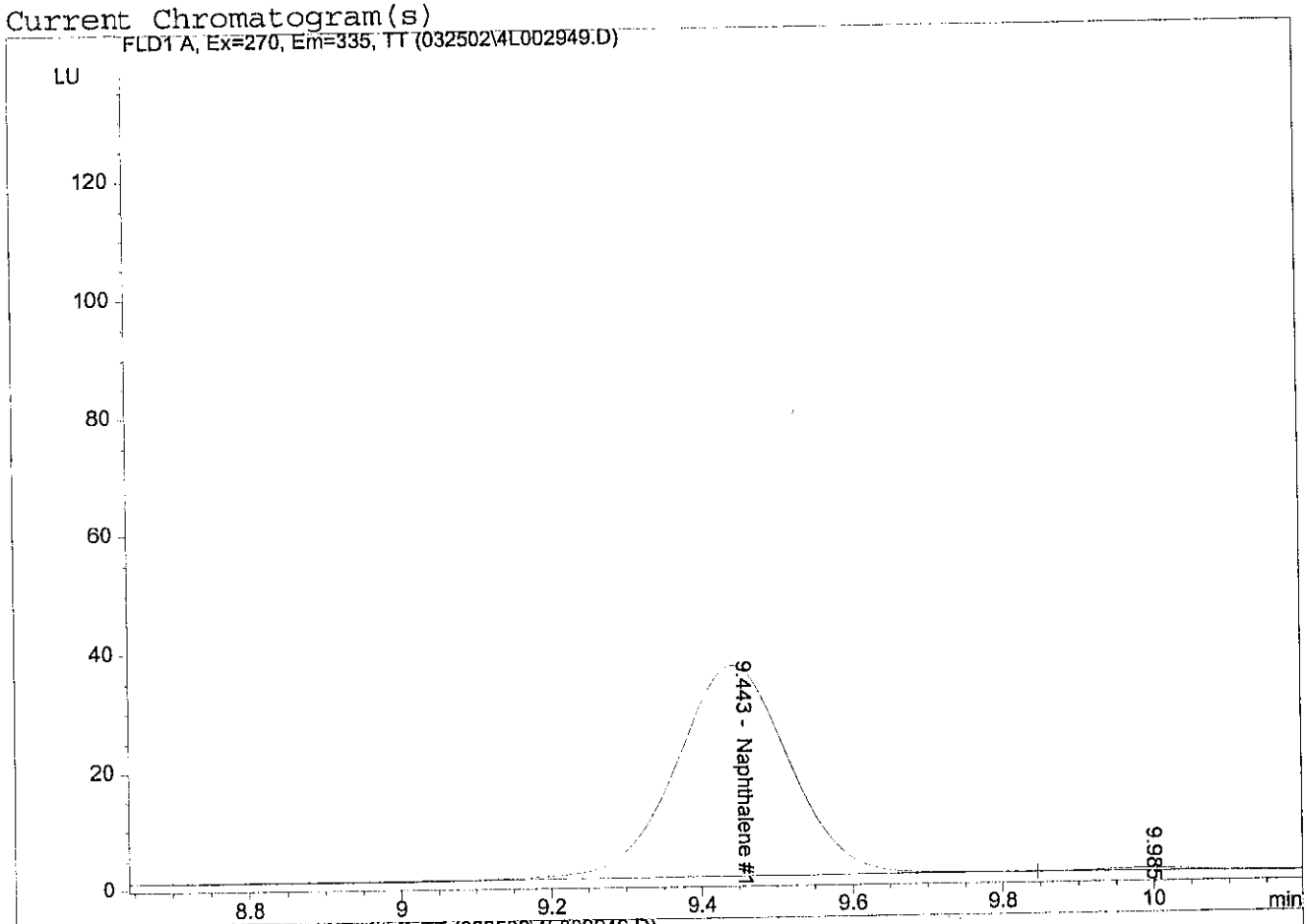


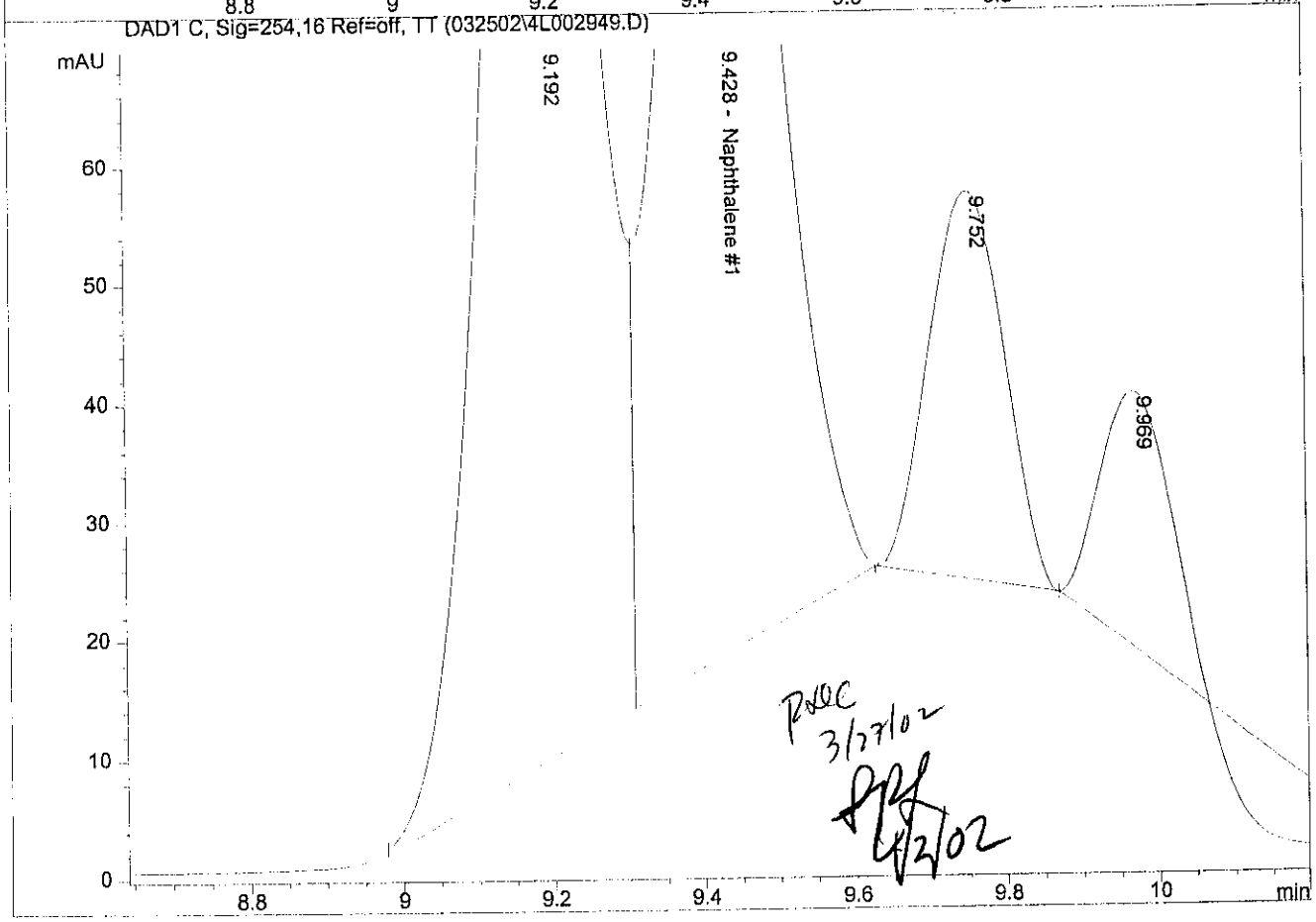
Current Chromatogram(s)



502

Current Chromatogram(s)





RDC 3/27/02

4/2/02

503

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, March 21, 2002 1:25:06 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.443	BB	373.18140	2.57003e-2	9.59086		Naphthalene #1
12.022	BB	3.86415	2.24893e-2	8.69021e-2		1-Methylnaphthalene #3
12.591	BB	22.09748	1.72691e-2	3.81604e-1		2-Methylnaphthalene #4
13.033	BB	2.57445	1.38228e-2	3.55860e-2		Acenaphthene #5
13.647	BB	6.58149	6.56879e-3	4.32324e-2		Fluorene #6
14.896	BB	2.02590	1.68488e-1	3.41338e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.921	BB	2.30340e-1	2.38671e-2	5.49754e-3		Fluoranthene #9
18.935	BBA	2.92440e-1	4.06594e-2	1.18904e-2		Pyrene #10
21.243	BB	18.21033	2.86511e-1	5.21747		p-Terphenyl d14 #11*
22.560	BB	2.73893e-1	7.96557e-3	2.18171e-3		Benzo(a)anthracene #12
23.207	BB	3.04205e-1	3.90144e-2	1.18684e-2		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.611	PBA	1.74315e-1	2.77566e-3	4.83840e-4		Benzo(k)fluoranthene #15
28.685	BB	1.91496e-1	4.67660e-3	8.95551e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.157	BB	7.40938	2.69466e-2	1.99658e-1		Benzo(g,h,i)perylene #18
32.280		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 15.92947

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.428	VM	1127.59521	8.27651e-3	9.33255		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.583	BB	287.64832	1.12713e-2	3.24216		2-Methylnaphthalene #4
13.123	BB	110.94130	2.03841e-2	2.26144		Acenaphthene #5
13.618	BB	36.12240	1.76946e-2	6.39171e-1		Fluorene #6
15.050		-	-	-		Phenanthrene #7
16.510	BBA	2.15086	1.03455e-2	2.22517e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.226	PBA	80.57842	6.45989e-2	5.20528		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

504

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 20.70286

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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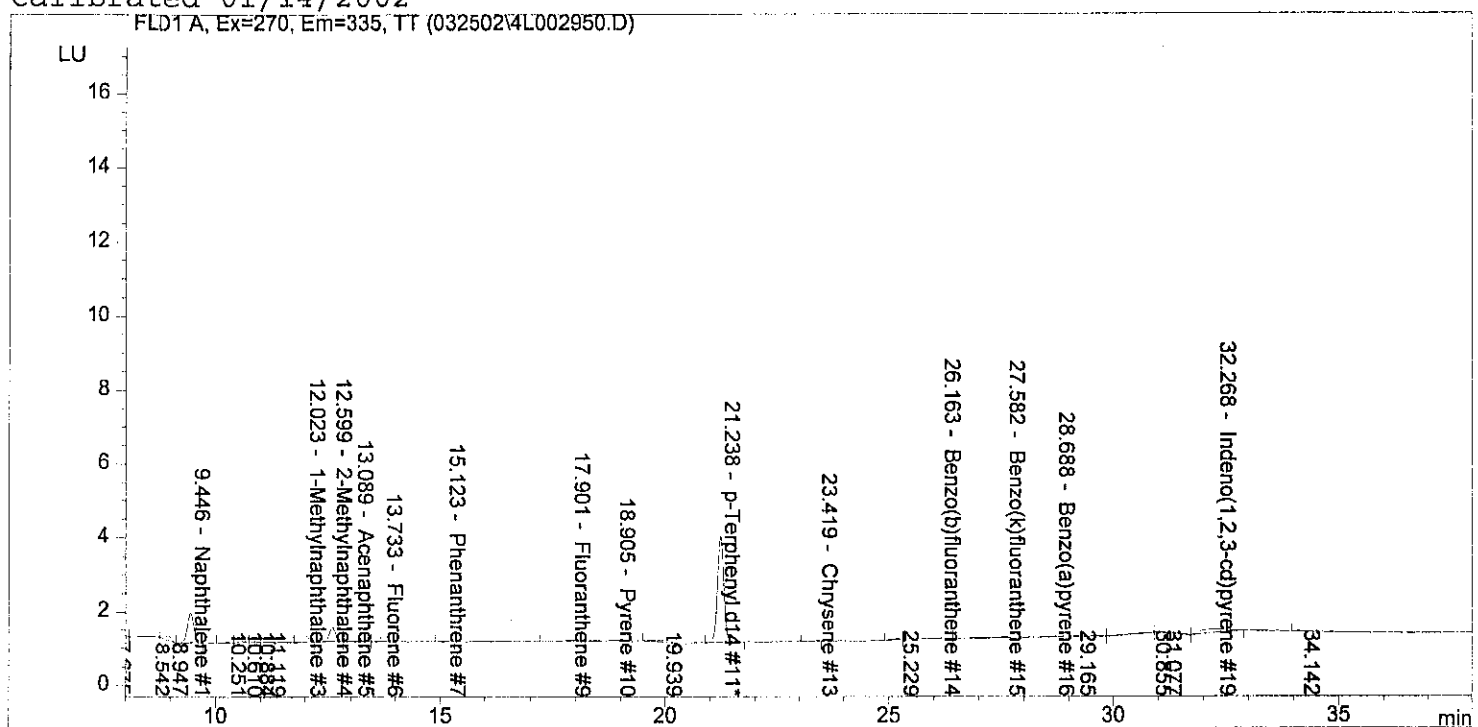
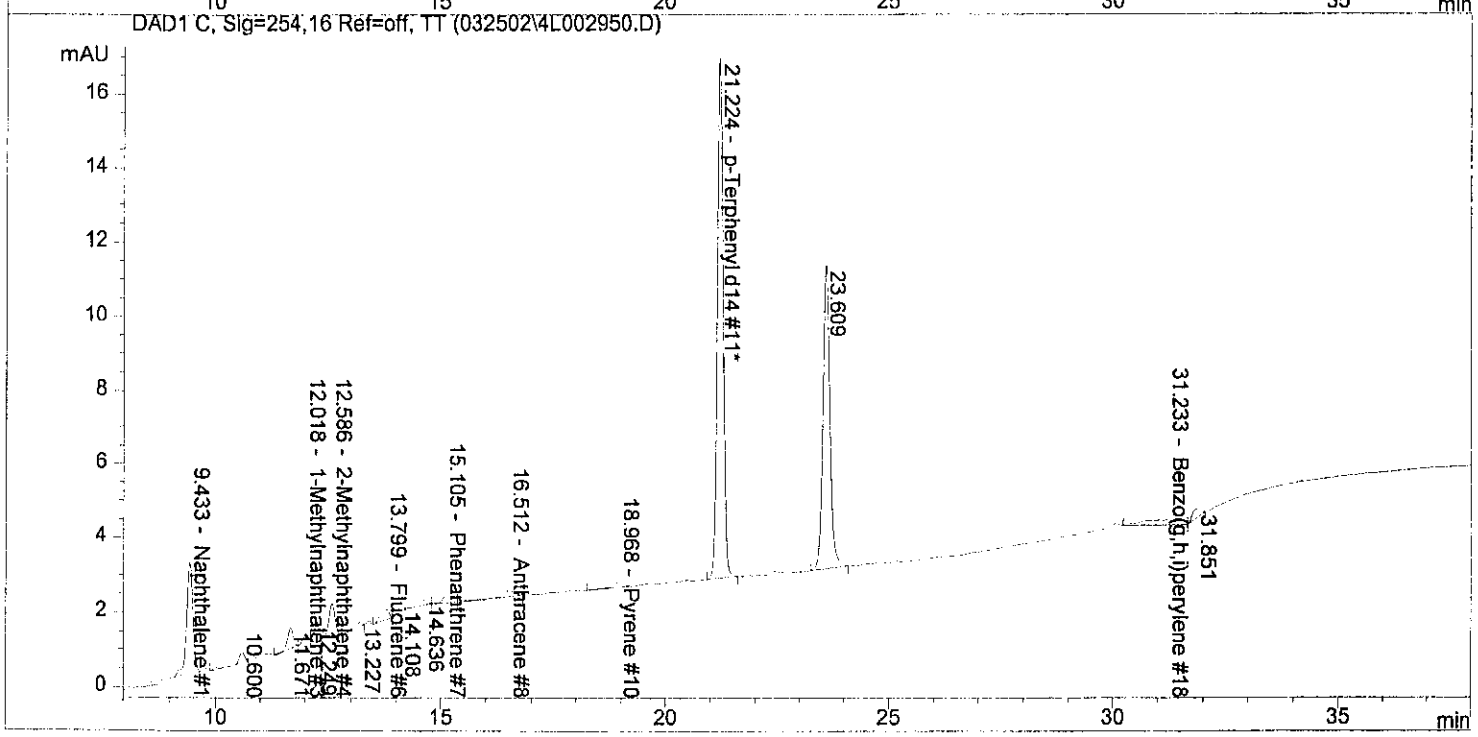
Injection Date : 3/25/2002 11:33:04 PM Seq. Line : 10
Sample Name : L0203380-06 831W Vial : 10
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.446	BB	8.50194	2.57003e-2	2.18502e-1		Naphthalene #1
12.023	BBA	1.45922	2.24893e-2	3.28168e-2		1-Methylnaphthalene #3
12.599	PB	3.92213	1.72691e-2	6.77318e-2		2-Methylnaphthalene #4
13.089	BB	1.23087	1.38228e-2	1.70141e-2		Acenaphthene #5
13.733	BBA	1.75063	6.56879e-3	1.14995e-2		Fluorene #6
15.123	BB	1.83874e-1	1.68488e-1	3.09805e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.901	BB	5.68024e-1	2.38671e-2	1.35571e-2		Fluoranthene #9
18.905	BB	4.29660e-1	4.06594e-2	1.74697e-2		Pyrene #10
21.238	BBA	28.71155	2.86511e-1	8.22619		p-Terphenyl d14 #11*
22.493		-	-	-		Benzo(a)anthracene #12
23.419	BB	1.52824e-1	3.90144e-2	5.96235e-3		Chrysene #13
26.163	BB	3.67934e-1	1.65598e-2	6.09290e-3		Benzo(b)fluoranthene #14
27.582	BB	2.95142e-1	2.77566e-3	8.19214e-4		Benzo(k)fluoranthene #15
28.688	BB	2.57263e-1	4.67660e-3	1.20311e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.268	BB	4.22253	1.37440e-2	5.80347e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.70787

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
9.433	BB	24.86475	8.27651e-3	2.05793e-1	mol	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
12.018	BB	1.51818	1.29932e-2	1.97261e-2		1-Methylnaphthalene #3
12.586	BB	7.67657	1.12713e-2	8.65246e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.799	BB	3.48785	1.76946e-2	6.17161e-2		Fluorene #6
15.105	BB	1.93080	1.74291e-2	3.36521e-2		Phenanthrene #7
16.512	BB	2.60870	1.03455e-2	2.69882e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.968	PB	2.61921	1.46349e-2	3.83318e-2	NC	Pyrene #10
21.224	PBA	127.67305	6.45989e-2	8.24754		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-	82.5%	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.233	BB	7.32037	5.34666e-2	3.91396e-1	NV	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.11167

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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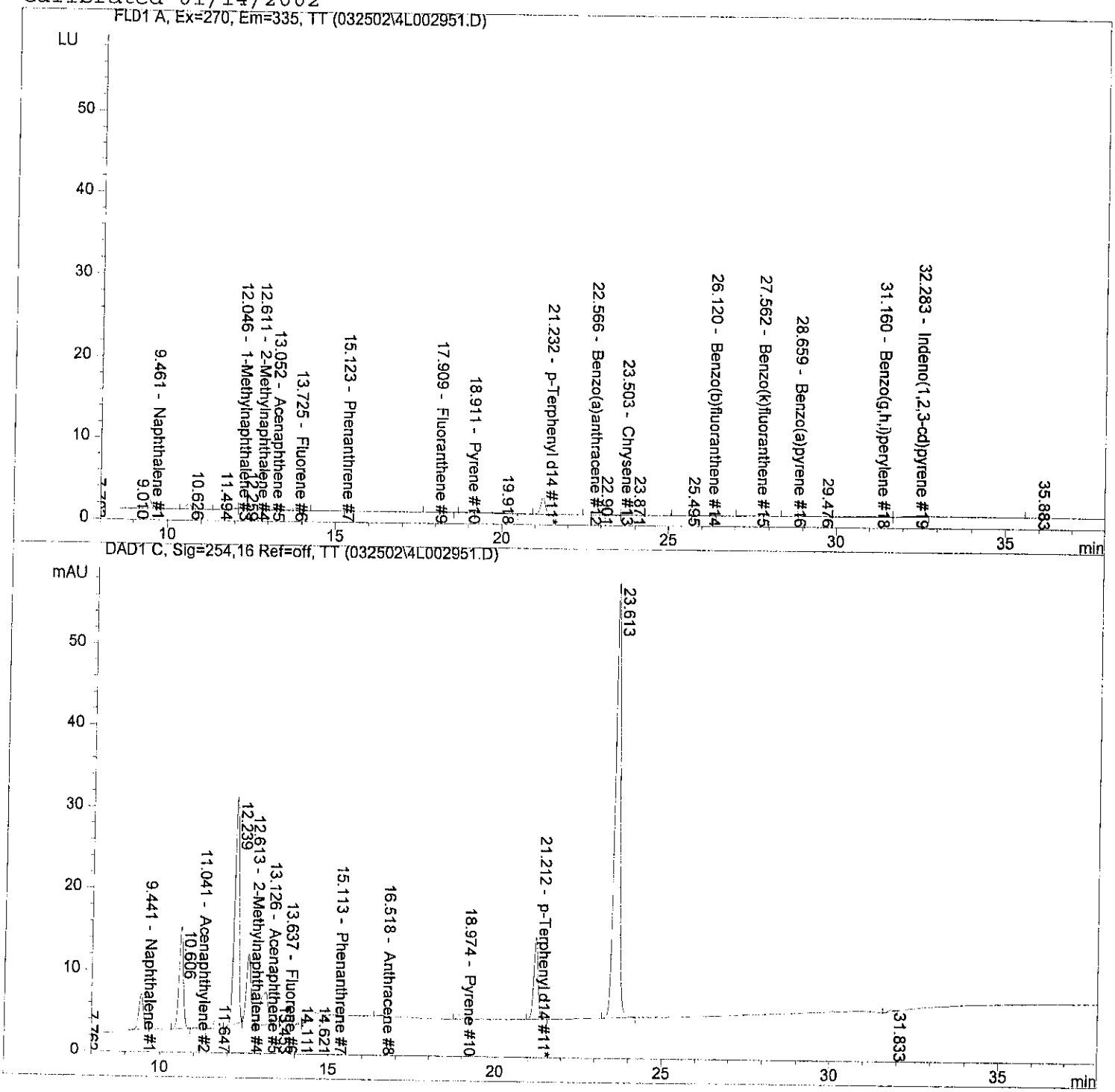
Injection Date : 3/26/2002 12:29:41 AM
Sample Name : L0203380-07 831W
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.461	BBA	12.30357	2.57003e-2	3.16205e-1		Naphthalene #1
12.046	BB	2.55859e-1	2.24893e-2	5.75410e-3		1-Methylnaphthalene #3
12.611	BB	3.61604	1.72691e-2	6.24459e-2		2-Methylnaphthalene #4
13.052	BB	2.21793	1.38228e-2	3.06580e-2		Acenaphthene #5
13.725	BB	2.53283	6.56879e-3	1.66376e-2		Fluorene #6
15.123	BB	7.32798e-1	1.68488e-1	1.23467e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.909	BBA	3.92722e-1	2.38671e-2	9.37314e-3		Fluoranthene #9
18.911	BBA	4.16394e-1	4.06594e-2	1.69303e-2		Pyrene #10
21.232	PBA	20.65255	2.86511e-1	5.91719		p-Terphenyl d14 #11*
22.566	BB	1.66353e-1	7.96557e-3	1.32510e-3		Benzo(a)anthracene #12
23.503	BB	2.57648e-1	3.90144e-2	1.00520e-2		Chrysene #13
26.120	BBA	2.47258e-1	1.65598e-2	4.09454e-3		Benzo(b)fluoranthene #14
27.562	BB	3.81220e-1	2.77566e-3	1.05814e-3		Benzo(k)fluoranthene #15
28.659	BB	2.02274e-1	4.67660e-3	9.45953e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.160	BB	4.93859	2.69466e-2	1.33078e-1		Benzo(g,h,i)perylene #18
32.283	BB	3.30057	1.37440e-2	4.53632e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 6.69458

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
9.441	BB	40.72153	8.27651e-3	3.37032e-1	2mol	Naphthalene #1
11.041	BB	1.87317	3.00095e-2	5.62128e-2	↓	Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.613	BB	75.19716	1.12713e-2	8.47566e-1	NC	2-Methylnaphthalene #4
13.126	BB	60.00458	2.03841e-2	1.22314	↓	Acenaphthene #5
13.637	BB	3.37756	1.76946e-2	5.97645e-2	2mol	Fluorene #6
15.113	BB	1.88728	1.74291e-2	3.28936e-2		Phenanthrene #7
16.518	PB	8.47373e-1	1.03455e-2	8.76649e-3	↓	Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.974	BBA	7.77813	1.46349e-2	1.13832e-1	NC	Pyrene #10
21.212	PBA	91.06325	6.45989e-2	5.88259		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-	57.9%	Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.56180

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 L0203380-08 REF

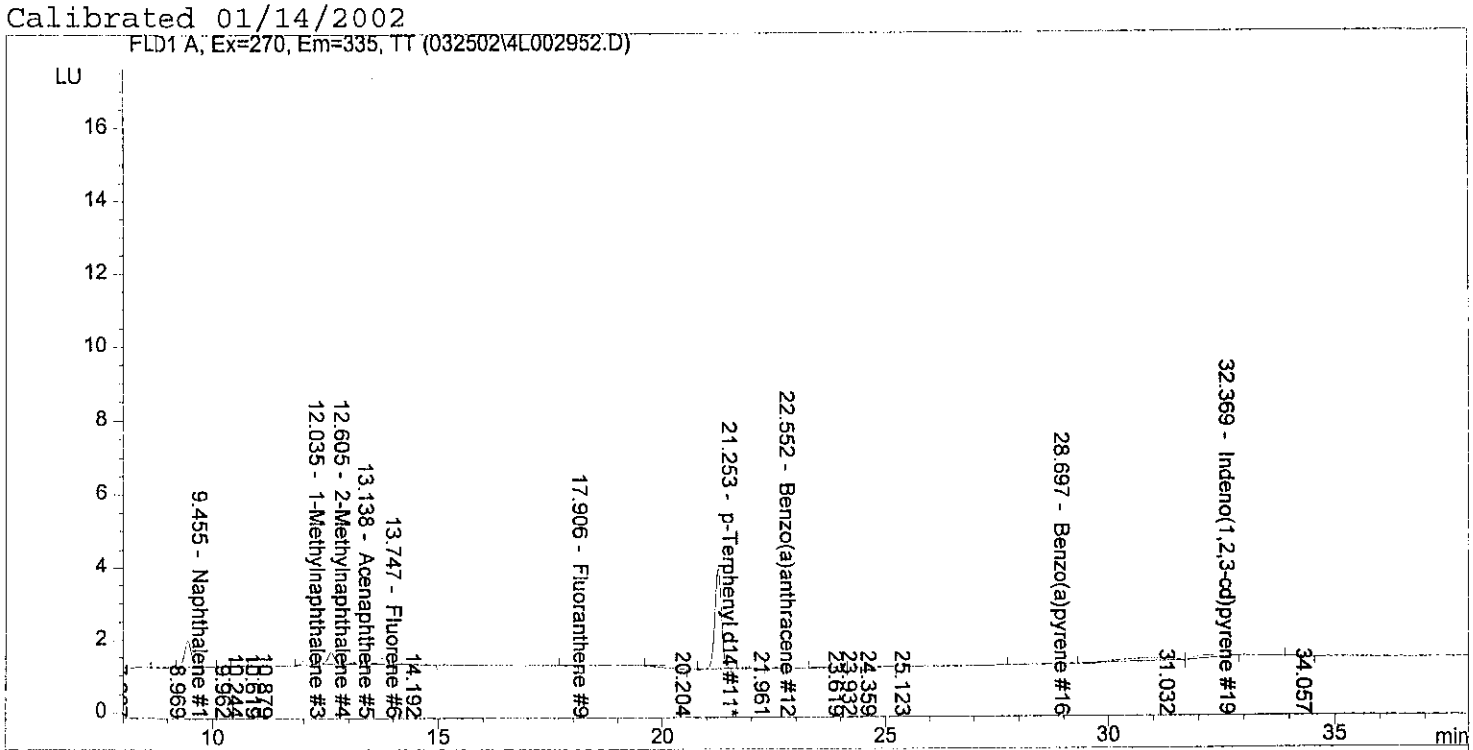
==========

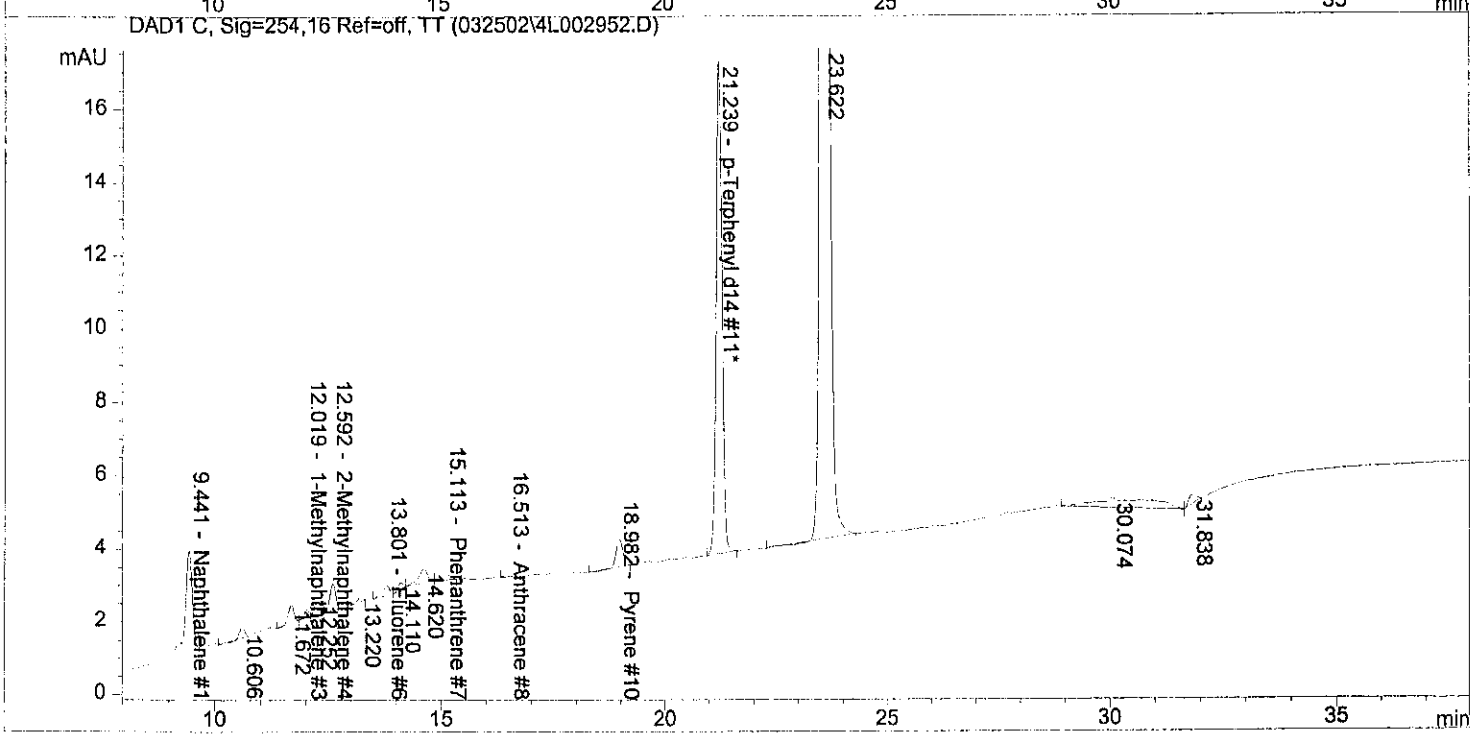
Injection Date : 3/26/2002 1:26:22 AM
Sample Name : WG114850-01 WREF
Acq. Operator : RDC

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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





512

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.455	BB	7.94075	2.57003e-2	2.04079e-1		Naphthalene #1
12.035	BB	1.53804	2.24893e-2	3.45895e-2		1-Methylnaphthalene #3
12.605	BB	3.27587	1.72691e-2	5.65715e-2		2-Methylnaphthalene #4
13.138	BB	7.76514e-1	1.38228e-2	1.07336e-2		Acenaphthene #5
13.747	BB	1.94967	6.56879e-3	1.28070e-2		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.906	BB	3.07820e-1	2.38671e-2	7.34676e-3		Fluoranthene #9
18.848		-	-	-		Pyrene #10
21.253	BB	27.89106	2.86511e-1	7.99111	79.9%	p-Terphenyl d14 #11*
22.552	BB	2.40034e-1	7.96557e-3	1.91201e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.496		-	-	-		Benzo(k)fluoranthene #15
28.697	BB	2.24854e-1	4.67660e-3	1.05155e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.369	BB	3.77731	1.37440e-2	5.19155e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.37212

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
9.441	BB	23.00021	8.27651e-3	1.90361e-1	2 mol	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
12.019	BB	1.20879	1.29932e-2	1.57061e-2		1-Methylnaphthalene #3
12.592	BB	6.38613	1.12713e-2	7.19797e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.801	BB	3.38301	1.76946e-2	5.98610e-2		Fluorene #6
15.113	BB	1.82186	1.74291e-2	3.17534e-2		Phenanthrene #7
16.513	BBA	2.18426	1.03455e-2	2.25973e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.982	PBA	7.42920	1.46349e-2	1.08725e-1	NC	Pyrene #10
21.239	PBA	123.05508	6.45989e-2	7.94923		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-	79.5%	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.45021

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 L0203380-09 MS

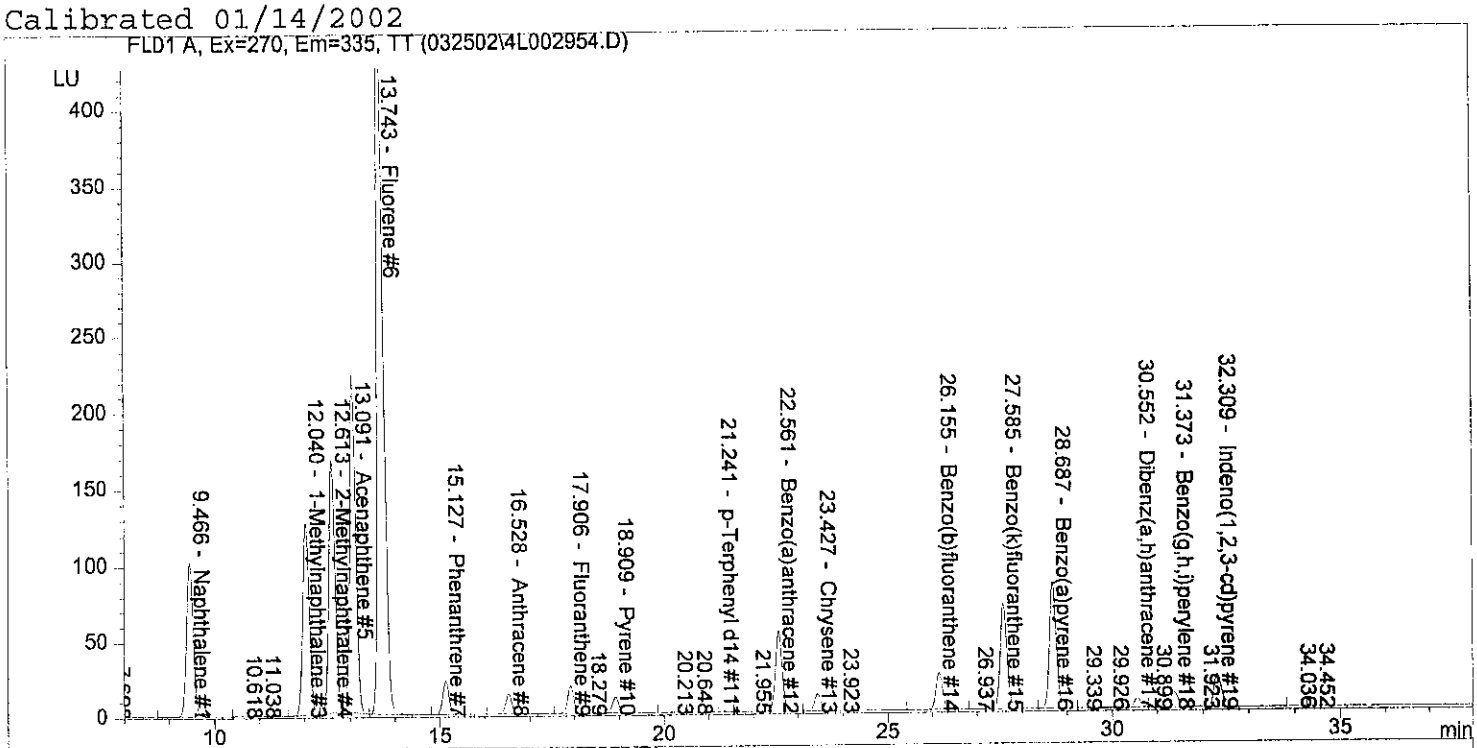
==========

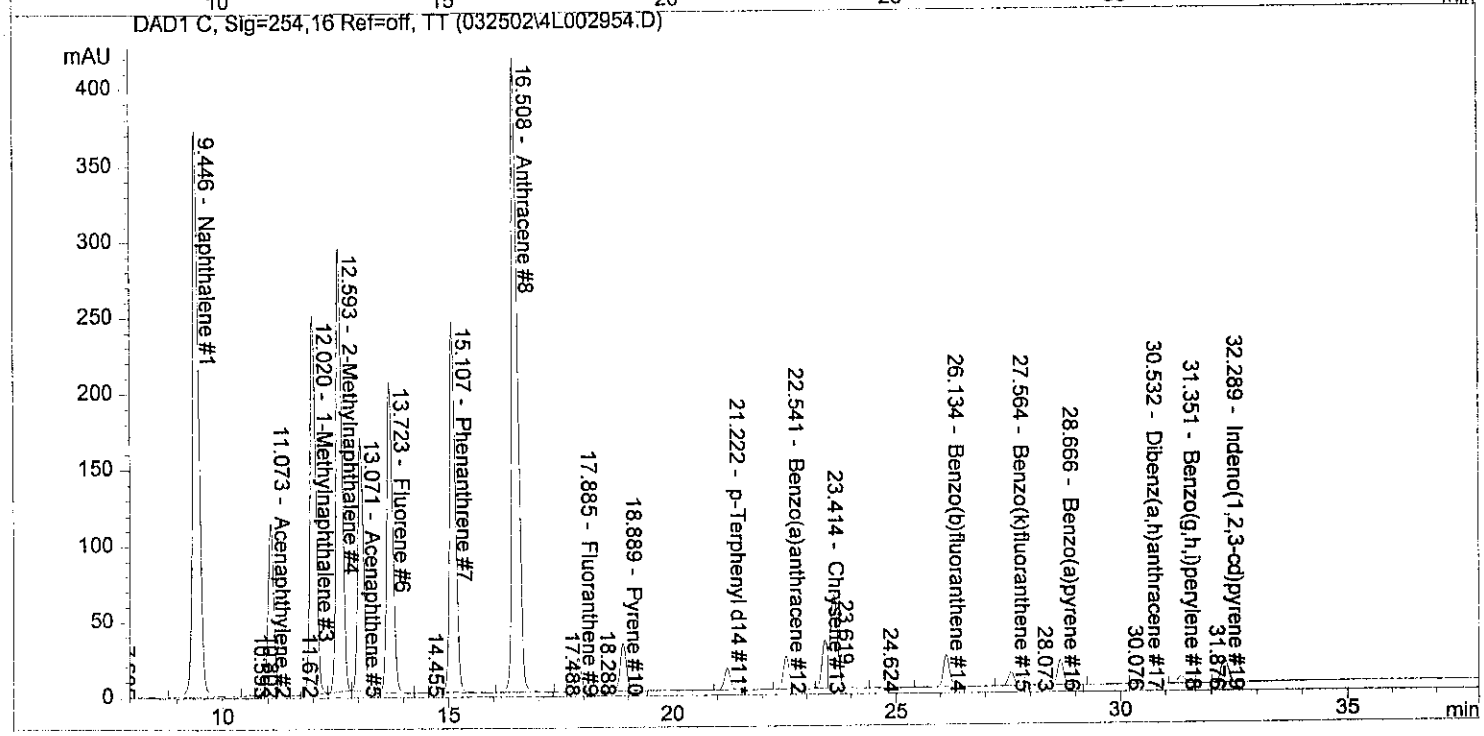
Injection Date : 3/26/2002 3:19:37 AM
Sample Name : WG114850-04 WMS
Acq. Operator : RDC

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

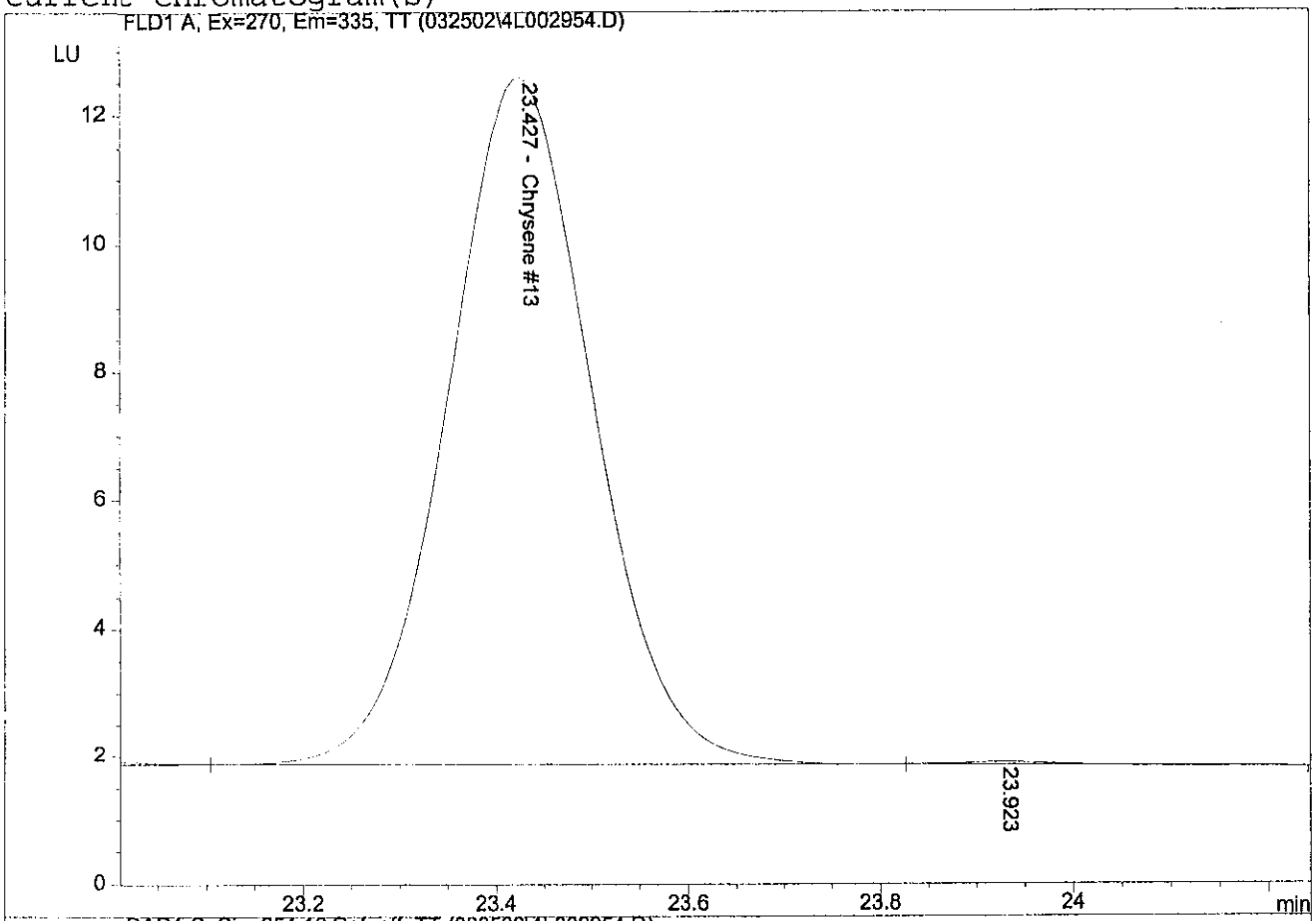
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

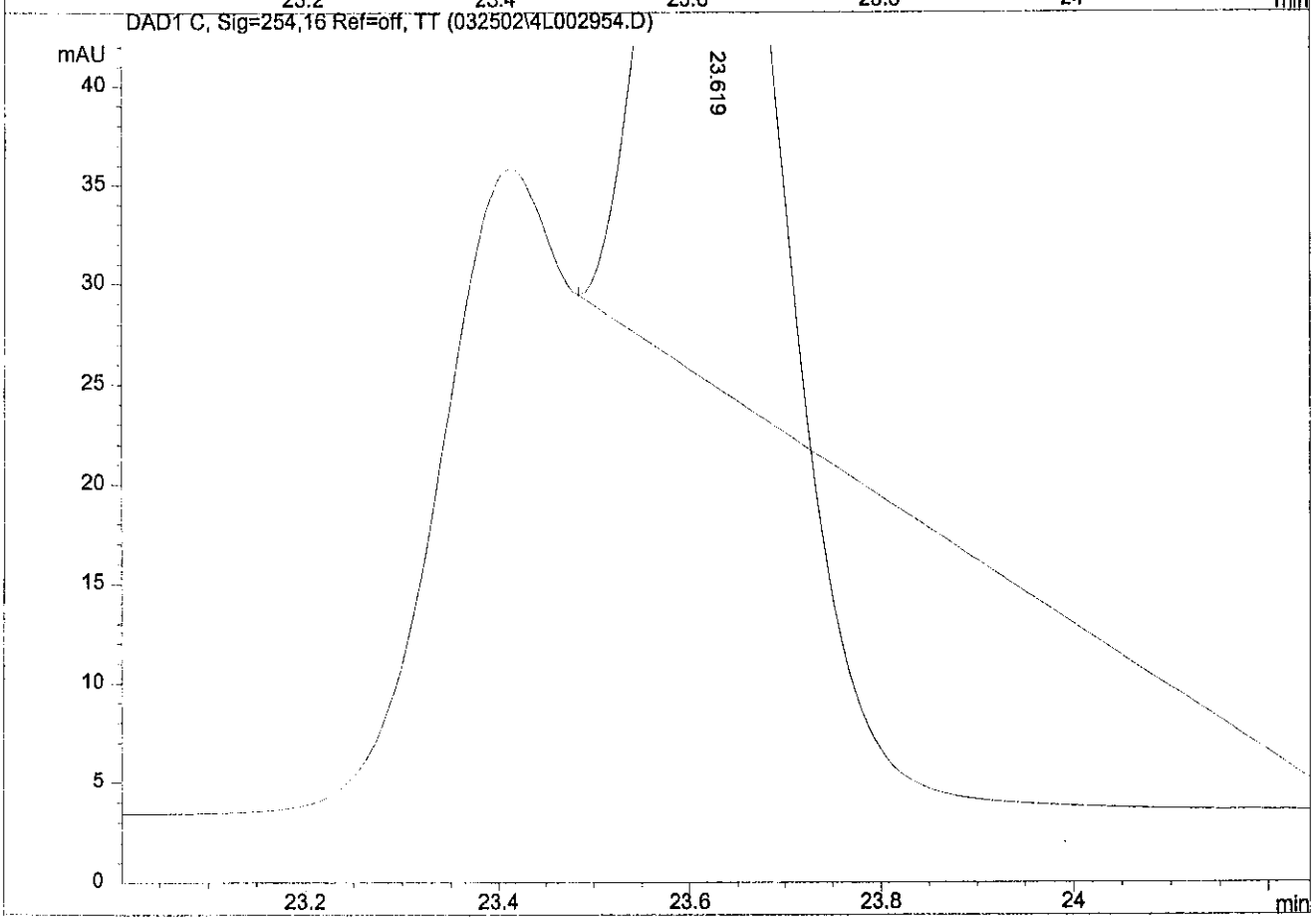
Calibrated 01/14/2002



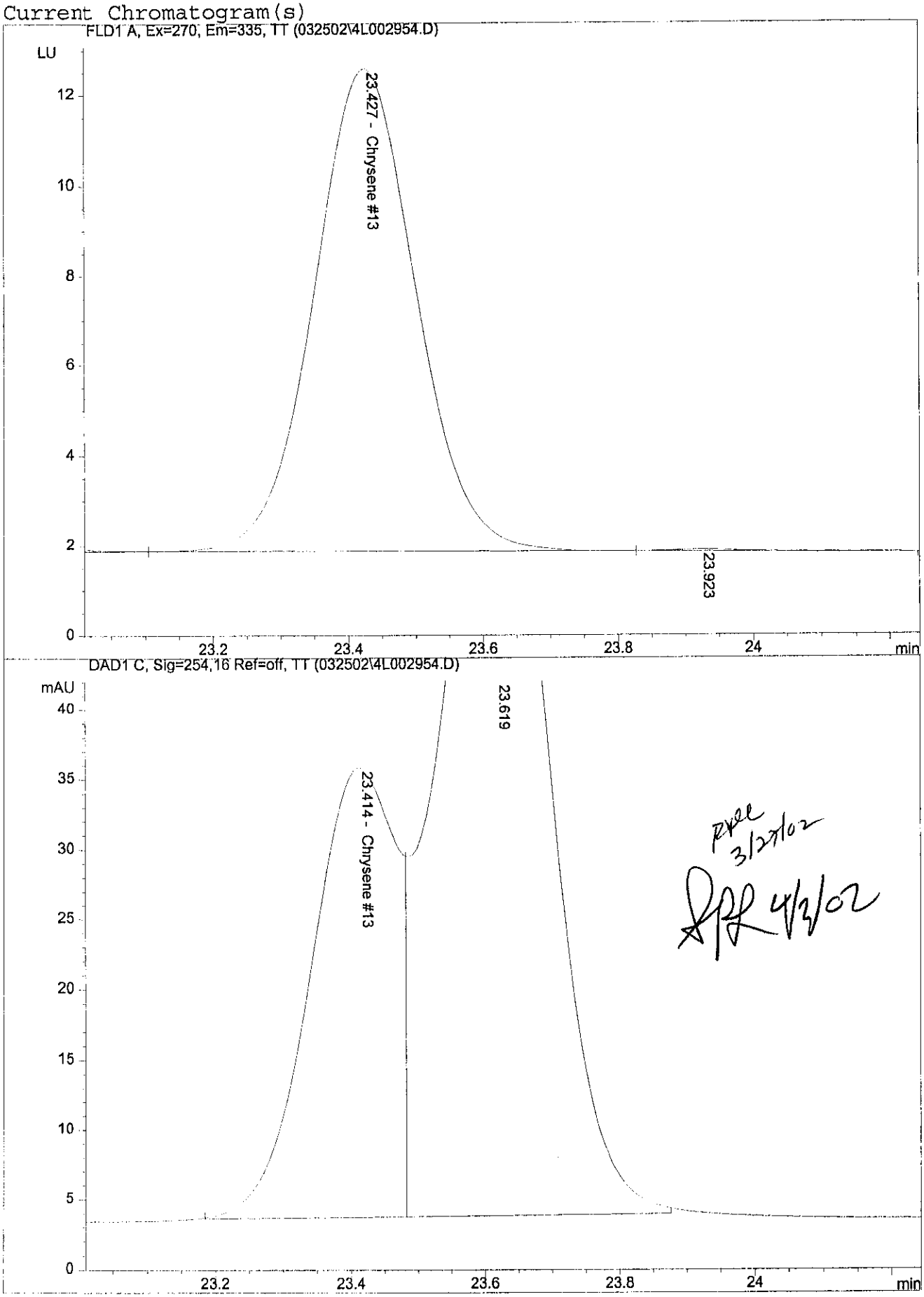


Current Chromatogram(s)





Current Chromatogram(s)



RPE 3/27/02

4/3/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.466	BB	1052.35413	2.57003e-2	27.04579		Naphthalene #1
12.040	BB	1249.23169	2.24893e-2	28.09437		1-Methylnaphthalene #3
12.613	BB	1608.30066	1.72691e-2	27.77396		2-Methylnaphthalene #4
13.091	BB	2164.58398	1.38228e-2	29.92057		Acenaphthene #5
13.743	BBA	4963.35986	6.56879e-3	32.60326		Fluorene #6
15.127	PBA	214.97786	1.68488e-1	36.22111		Phenanthrene #7
16.528	BBA	125.00303	3.03714e-1	37.96522		Anthracene #8
17.906	BB	175.07672	2.38671e-2	4.17857		Fluoranthene #9
18.909	BBA	105.78117	4.06594e-2	4.30100		Pyrene #10
21.241	BB	29.20630	2.86511e-1	8.36794	83.7%	p-Terphenyl d14 #11*
22.561	BB	551.34631	7.96557e-3	4.39179		Benzo(a)anthracene #12
23.427	BB	111.73269	3.90144e-2	4.35919		Chrysene #13
26.155	PB	254.90927	1.65598e-2	4.22124		Benzo(b)fluoranthene #14
27.585	BB	729.93018	2.77566e-3	2.02604		Benzo(k)fluoranthene #15
28.687	BB	868.52789	4.67660e-3	4.06176		Benzo(a)pyrene #16
30.552	BB	59.51654	3.93196e-2	2.34017		Dibenz(a,h)anthracene #17
31.373	BB	108.20574	2.69466e-2	2.91578		Benzo(g,h,i)perylene #18
32.309	BB	236.03094	1.37440e-2	3.24402		Indeno(1,2,3-cd)pyrene #1

Totals : 264.03176

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.446	PBA	3600.04346	8.27651e-3	29.79580		Naphthalene #1
11.073	BB	1022.24164	3.00095e-2	30.67696		Acenaphthylene #2
12.020	BB	2256.93994	1.29932e-2	29.32495		1-Methylnaphthalene #3
12.593	BB	2612.72485	1.12713e-2	29.44869		2-Methylnaphthalene #4
13.071	BB	1495.64624	2.03841e-2	30.48744		Acenaphthene #5
13.723	BB	1831.48206	1.76946e-2	32.40731		Fluorene #6
15.107	BBA	2206.35645	1.74291e-2	38.45479		Phenanthrene #7
16.508	BBA	3831.64819	1.03455e-2	39.64028		Anthracene #8
17.885	BB	201.84535	2.18958e-2	4.41956		Fluoranthene #9
18.889	BBA	314.87036	1.46349e-2	4.60808		Pyrene #10
21.222	PBA	129.38643	6.45989e-2	8.35823	83.6%	p-Terphenyl d14 #11*
22.541	BBA	205.07379	2.22878e-2	4.57065		Benzo(a)anthracene #12
23.414	MV	284.99454	1.52051e-2	4.33338		Chrysene #13
26.134	PBA	207.83882	2.08462e-2	4.33265		Benzo(b)fluoranthene #14
27.564	BB	90.36989	2.27217e-2	2.05336		Benzo(k)fluoranthene #15
28.666	BBA	158.01595	2.64267e-2	4.17583		Benzo(a)pyrene #16
30.532	BB	26.01458	9.39100e-2	2.44303		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.351	BB	56.50700	5.34666e-2	3.02124		Benzo(g,h,i)perylene #18
32.289	BB	165.78484	2.06198e-2	3.41845		Indeno(1,2,3-cd)pyrene #1

Totals : 305.97068

Results obtained with enhanced integrator!

*** End of Report ***

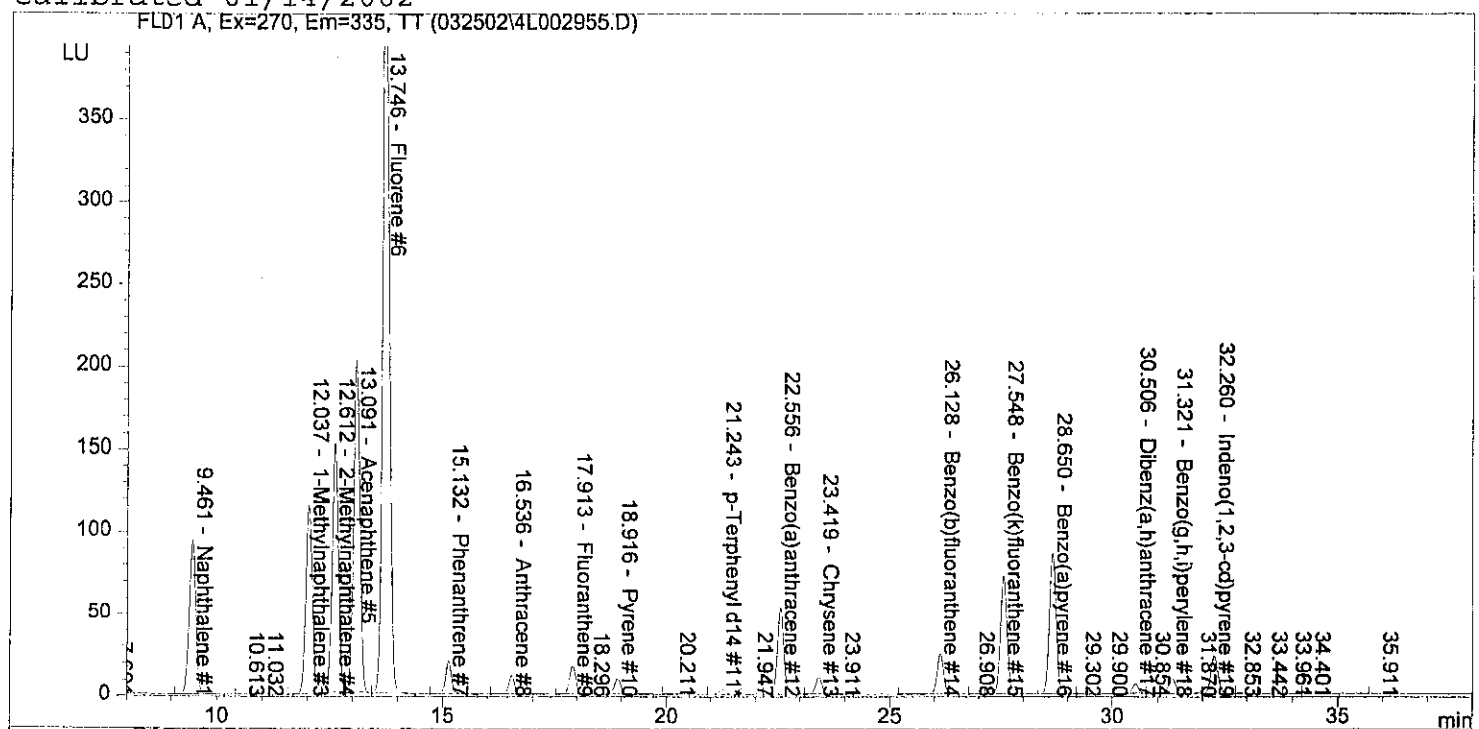
1,1 L0203380-10 MSD

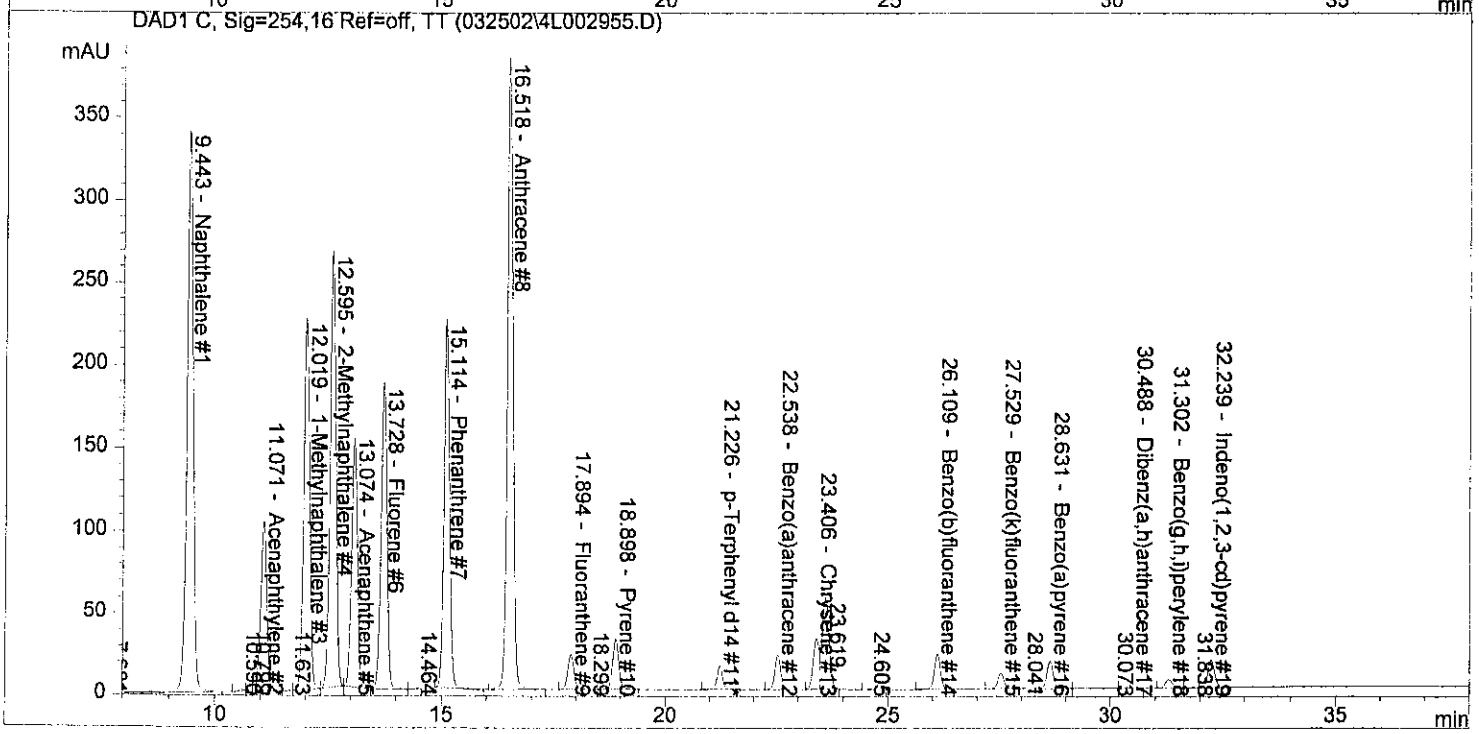
==========

Injection Date	: 3/26/2002 4:16:16 AM	Seq. Line	: 15
Sample Name	: WG114850-05 WMSD	Vial	: 15
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

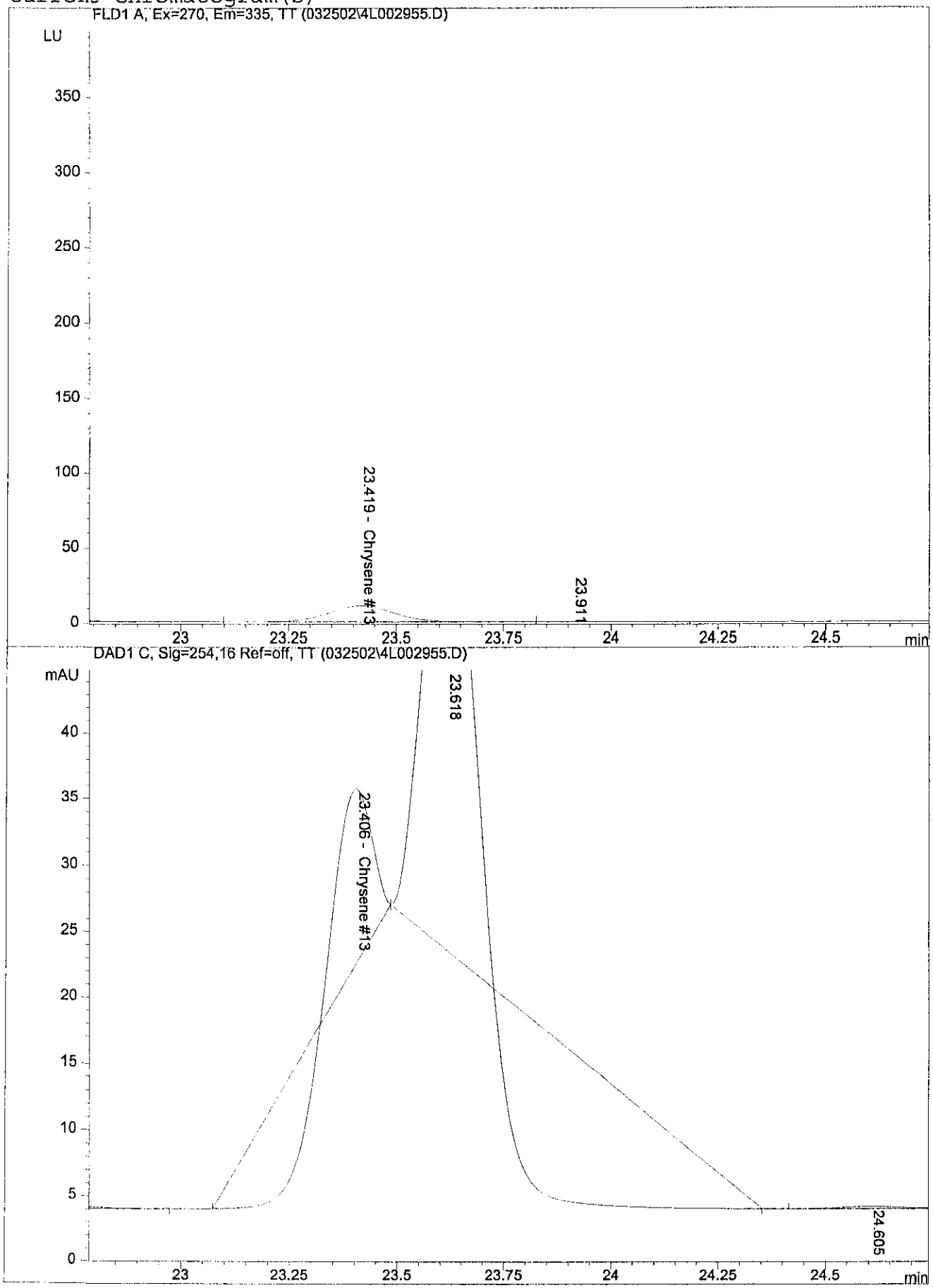
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002

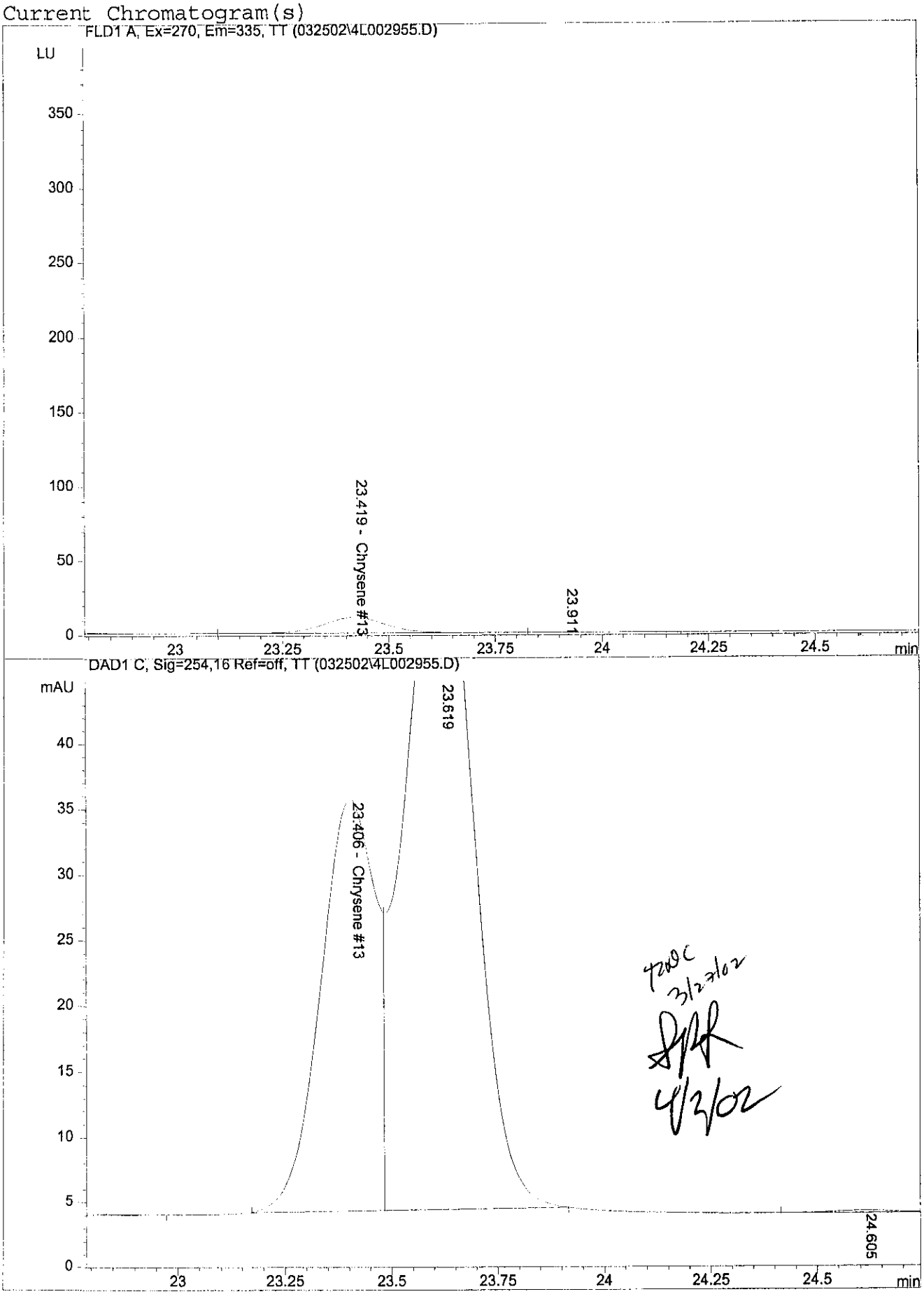




Current Chromatogram(s)



Current Chromatogram(s)



720C
3/27/02
4/3/02

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.461	BB	965.32825	2.57003e-2	24.80920		Naphthalene #1
12.037	BB	1135.37683	2.24893e-2	25.53385		1-Methylnaphthalene #3
12.612	BB	1463.14795	1.72691e-2	25.26730		2-Methylnaphthalene #4
13.091	BB	1961.00342	1.38228e-2	27.10652		Acenaphthene #5
13.746	BBA	4522.93994	6.56879e-3	29.71023		Fluorene #6
15.132	BBA	196.39386	1.68488e-1	33.08993		Phenanthrene #7
16.536	PBA	114.04383	3.03714e-1	34.63675		Anthracene #8
17.913	BB	169.71585	2.38671e-2	4.05062		Fluoranthene #9
18.916	BBA	102.16029	4.06594e-2	4.15377		Pyrene #10
21.243	BB	29.29924	2.86511e-1	8.39457	83.9%	p-Terphenyl d14 #11*
22.556	BB	542.91010	7.96557e-3	4.32459		Benzo(a)anthracene #12
23.419	BB	110.54210	3.90144e-2	4.31274		Chrysene #13
26.128	BB	256.83618	1.65598e-2	4.25315		Benzo(b)fluoranthene #14
27.548	BB	749.06091	2.77566e-3	2.07914		Benzo(k)fluoranthene #15
28.650	BB	883.90253	4.67660e-3	4.13366		Benzo(a)pyrene #16
30.506	BB	61.73813	3.93196e-2	2.42752		Dibenz(a,h)anthracene #17
31.321	BB	111.49583	2.69466e-2	3.00444		Benzo(g,h,i)perylene #18
32.260	BB	251.24974	1.37440e-2	3.45319		Indeno(1,2,3-cd)pyrene #1

Totals : 244.74117

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.443	BBA	3276.27075	8.27651e-3	27.11609		Naphthalene #1
11.071	BB	929.74481	3.00095e-2	27.90118		Acenaphthylene #2
12.019	BB	2054.31909	1.29932e-2	26.69225		1-Methylnaphthalene #3
12.595	BB	2380.18896	1.12713e-2	26.82772		2-Methylnaphthalene #4
13.074	BB	1358.91492	2.03841e-2	27.70029		Acenaphthene #5
13.728	BB	1668.96277	1.76946e-2	29.53160		Fluorene #6
15.114	BBA	1977.24829	1.74291e-2	34.46164		Phenanthrene #7
16.518	BBA	3501.66162	1.03455e-2	36.22640		Anthracene #8
17.894	PB	195.67877	2.18958e-2	4.28454		Fluoranthene #9
18.898	BBA	304.94583	1.46349e-2	4.46284		Pyrene #10
21.226	BBA	131.34497	6.45989e-2	8.48474	24.8%	p-Terphenyl d14 #11*
22.538	PBA	202.29080	2.22878e-2	4.50863		Benzo(a)anthracene #12
23.406	MV	286.14078	1.52051e-2	4.35081		Chrysene #13
26.109	PBA	209.68848	2.08462e-2	4.37121		Benzo(b)fluoranthene #14
27.529	BB	92.99640	2.27217e-2	2.11304		Benzo(k)fluoranthene #15
28.631	BB	161.47711	2.64267e-2	4.26730		Benzo(a)pyrene #16
30.488	BB	27.00911	9.39100e-2	2.53642		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.302	BB	59.74787	5.34666e-2	3.19452		Benzo(g,h,i)perylene #18
32.239	BBA	175.25668	2.06198e-2	3.61376		Indeno(1,2,3-cd)pyrene #1

Totals : 282.64498

Results obtained with enhanced integrator!

*** End of Report ***

1,1

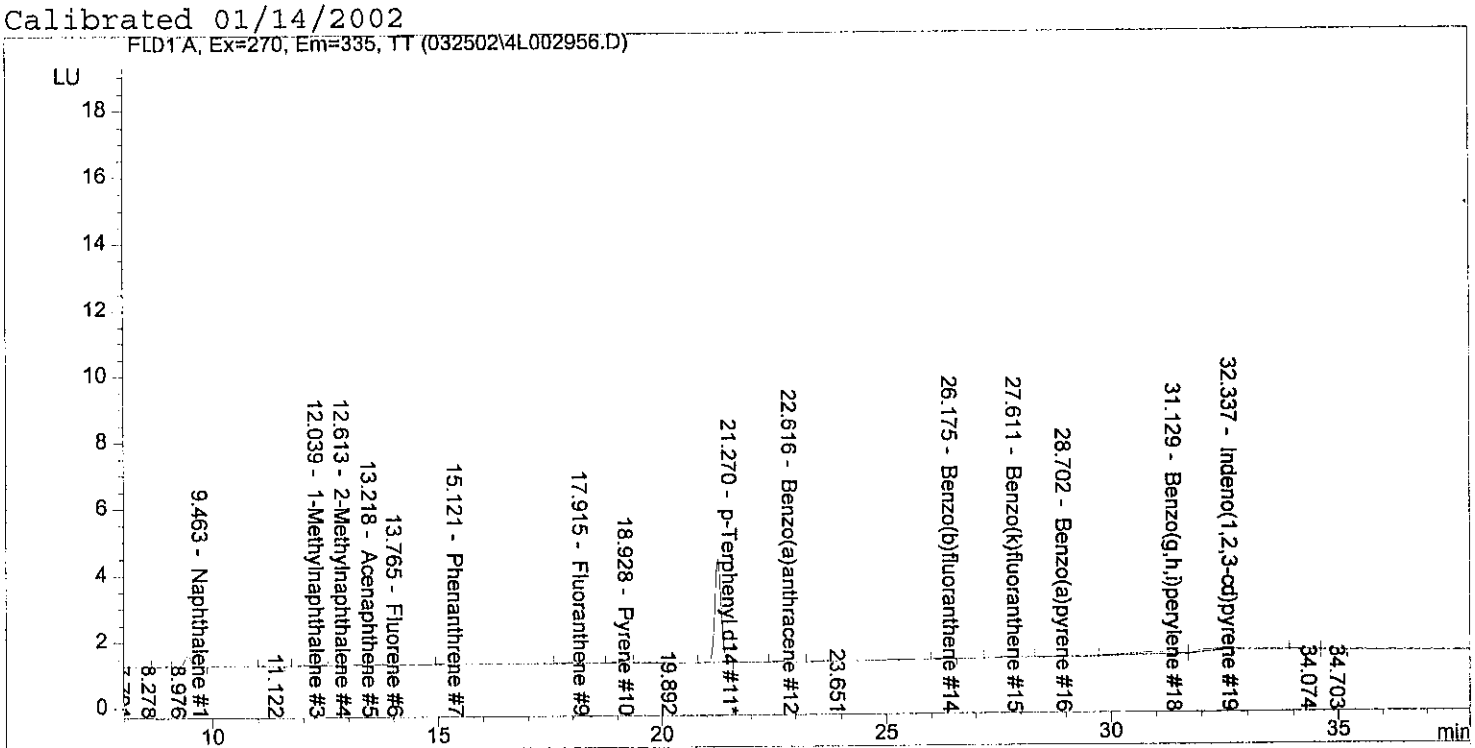
==========

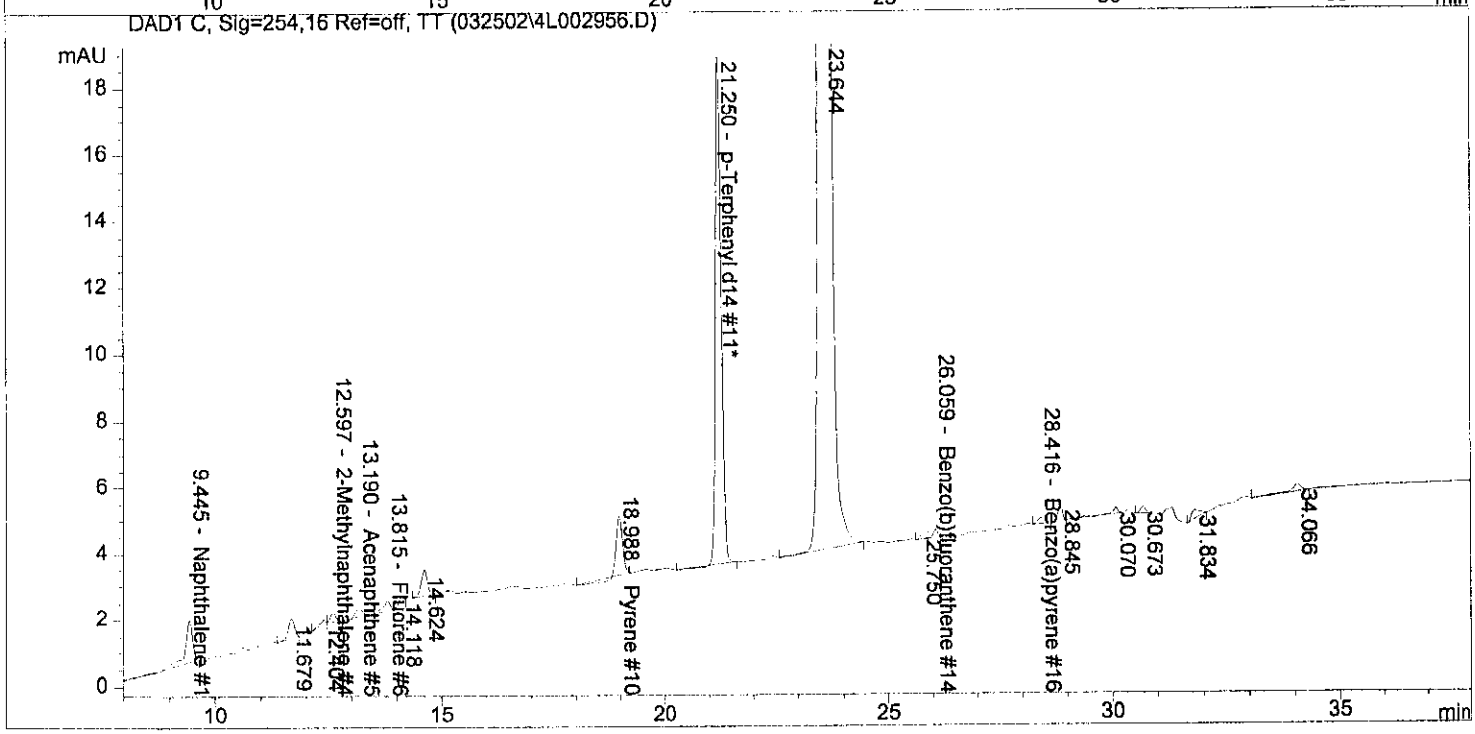
Injection Date : 3/26/2002 5:12:55 AM
Sample Name : L0203380-11 831W
Acq. Operator : RDC

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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.463	BB	3.92115	2.57003e-2	1.00775e-1		Naphthalene #1
12.039	BB	6.33300e-1	2.24893e-2	1.42425e-2		1-Methylnaphthalene #3
12.613	BB	1.92511	1.72691e-2	3.32450e-2		2-Methylnaphthalene #4
13.218	BB	4.07725e-1	1.38228e-2	5.63589e-3		Acenaphthene #5
13.765	BB	6.06794e-1	6.56879e-3	3.98590e-3		Fluorene #6
15.121	BB	1.88188e-1	1.68488e-1	3.17074e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.915	BBA	4.58266e-1	2.38671e-2	1.09375e-2		Fluoranthene #9
18.928	PBA	1.66835e-1	4.06594e-2	6.78341e-3		Pyrene #10
21.270	BBA	31.14314	2.86511e-1	8.92287		p-Terphenyl d14 #11*
22.616	BB	3.43858e-1	7.96557e-3	2.73902e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.175	BBA	3.22978e-1	1.65598e-2	5.34843e-3		Benzo(b)fluoranthene #14
27.611	PBA	4.62286e-1	2.77566e-3	1.28315e-3		Benzo(k)fluoranthene #15
28.702	BB	3.10759e-1	4.67660e-3	1.45329e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.129	PB	5.67388	2.69466e-2	1.52892e-1		Benzo(g,h,i)perylene #18
32.337	BB	2.41458	1.37440e-2	3.31861e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.32708

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
9.445	BB	16.37713	8.27651e-3	1.35546e-1	UNDL	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.597	BB	2.35128	1.12713e-2	2.65019e-2		2-Methylnaphthalene #4
13.190	BB	2.69807	2.03841e-2	5.49978e-2		Acenaphthene #5
13.815	BB	3.32133	1.76946e-2	5.87695e-2		Fluorene #6
15.050		-	-	-		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.988	BB	15.97947	1.46349e-2	2.33857e-1	NC	Pyrene #10
21.250	BBA	139.58273	6.45989e-2	9.01690	90.3%	p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.059	BB	2.06094	2.08462e-2	4.29628e-2	NC	Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.416	BB	2.07124	2.64267e-2	5.47359e-2	NC	Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.62427

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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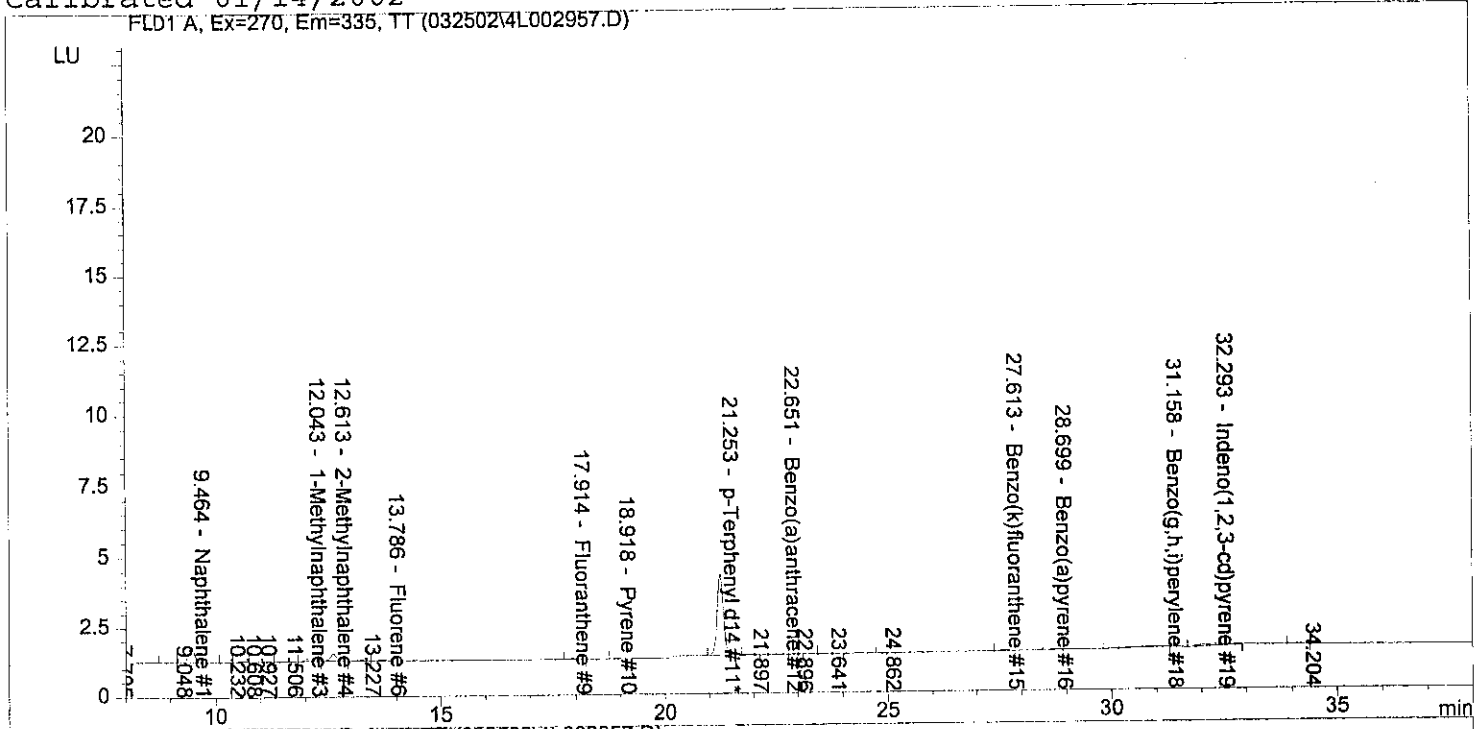
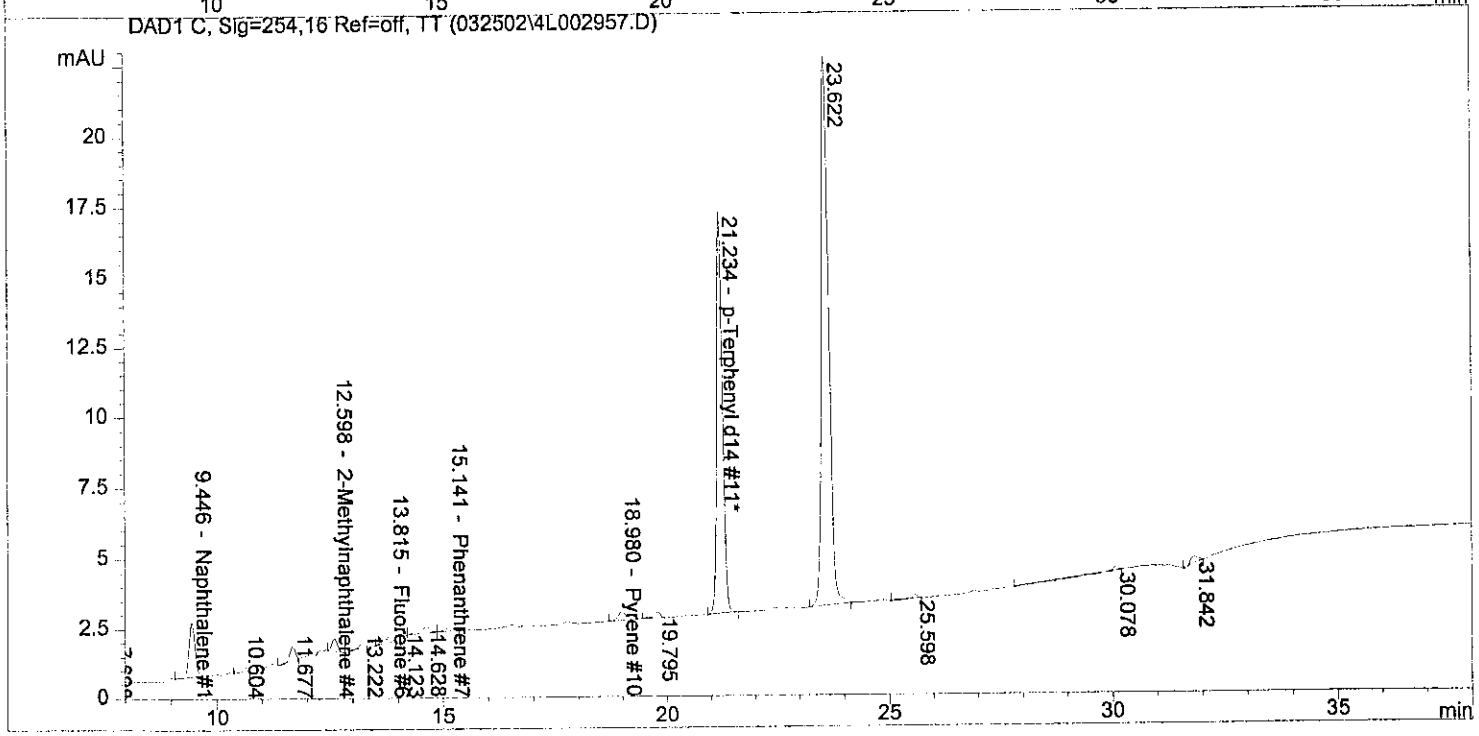
Injection Date : 3/26/2002 6:09:33 AM
Sample Name : L0203380-12 831W
Acq. Operator : RDC

Seq. Line : 17
Vial : 17
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.464	BB	5.54723	2.57003e-2	1.42565e-1		Naphthalene #1
12.043	BB	9.20365e-1	2.24893e-2	2.06984e-2		1-Methylnaphthalene #3
12.613	BBA	2.36101	1.72691e-2	4.07727e-2		2-Methylnaphthalene #4
13.027		-	-	-		Acenaphthene #5
13.786	BB	7.82727e-1	6.56879e-3	5.14157e-3		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.914	BBA	3.44944e-1	2.38671e-2	8.23280e-3		Fluoranthene #9
18.918	BBA	2.22184e-1	4.06594e-2	9.03388e-3		Pyrene #10
21.253	BB	29.26375	2.86511e-1	8.38440		p-Terphenyl d14 #11*
22.651	BB	3.61135e-1	7.96557e-3	2.87664e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.613	BB	3.25938e-1	2.77566e-3	9.04695e-4		Benzo(k)fluoranthene #15
28.699	PB	2.02901e-1	4.67660e-3	9.48887e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.158	PB	1.30196	2.69466e-2	3.50835e-2		Benzo(g,h,i)perylene #18
32.293	BB	2.84074	1.37440e-2	3.90433e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.68970

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.446	BB	18.99987	8.27651e-3	1.57253e-1	LMDL	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.598	BB	3.65393	1.12713e-2	4.11843e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.815	BB	3.05999	1.76946e-2	5.41452e-2		Fluorene #6
15.141	BB	1.68127	1.74291e-2	2.93030e-2		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.980	BBA	3.63966	1.46349e-2	5.32659e-2		Pyrene #10
21.234	PBA	131.42700	6.45989e-2	8.49004		p-Terphenyl d14 #11*
22.477		-	-	-	84.9%	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.82520

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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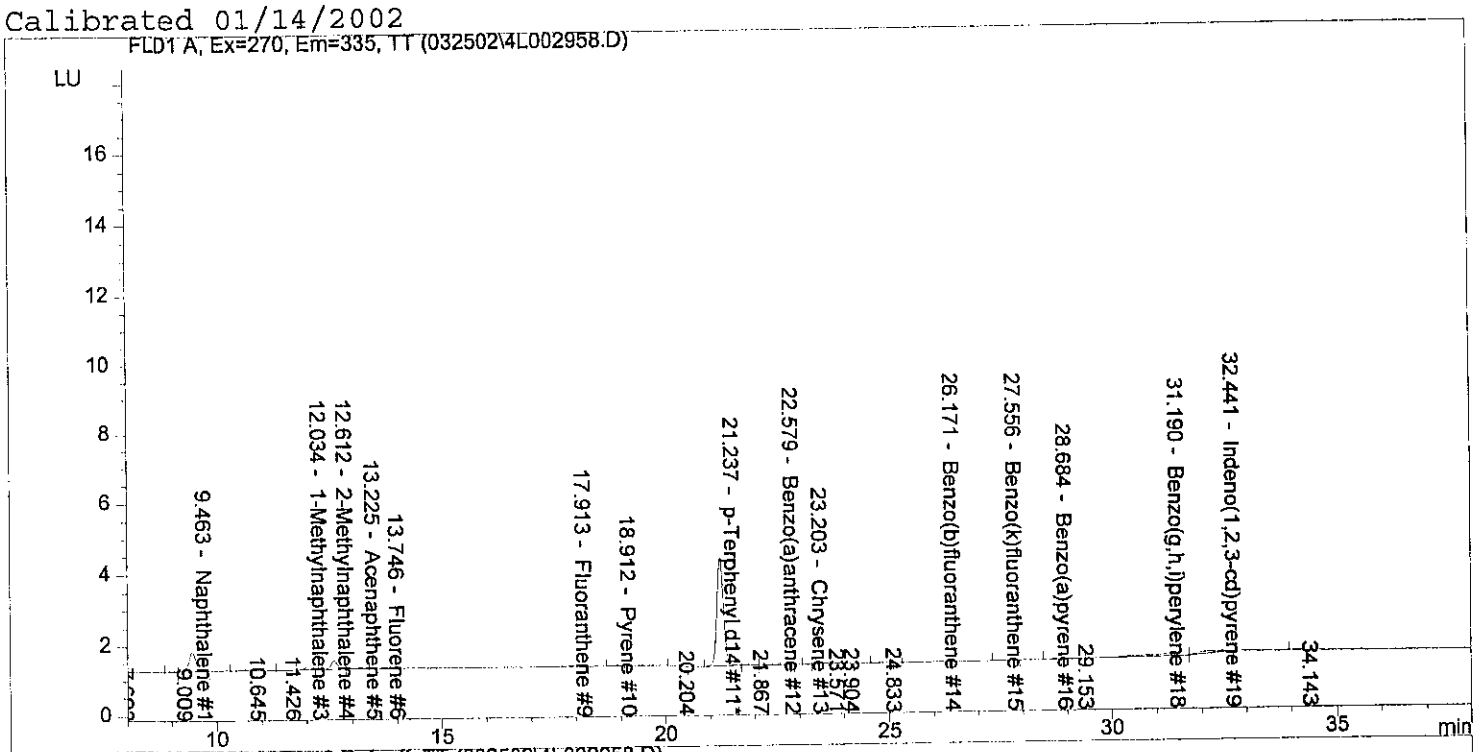
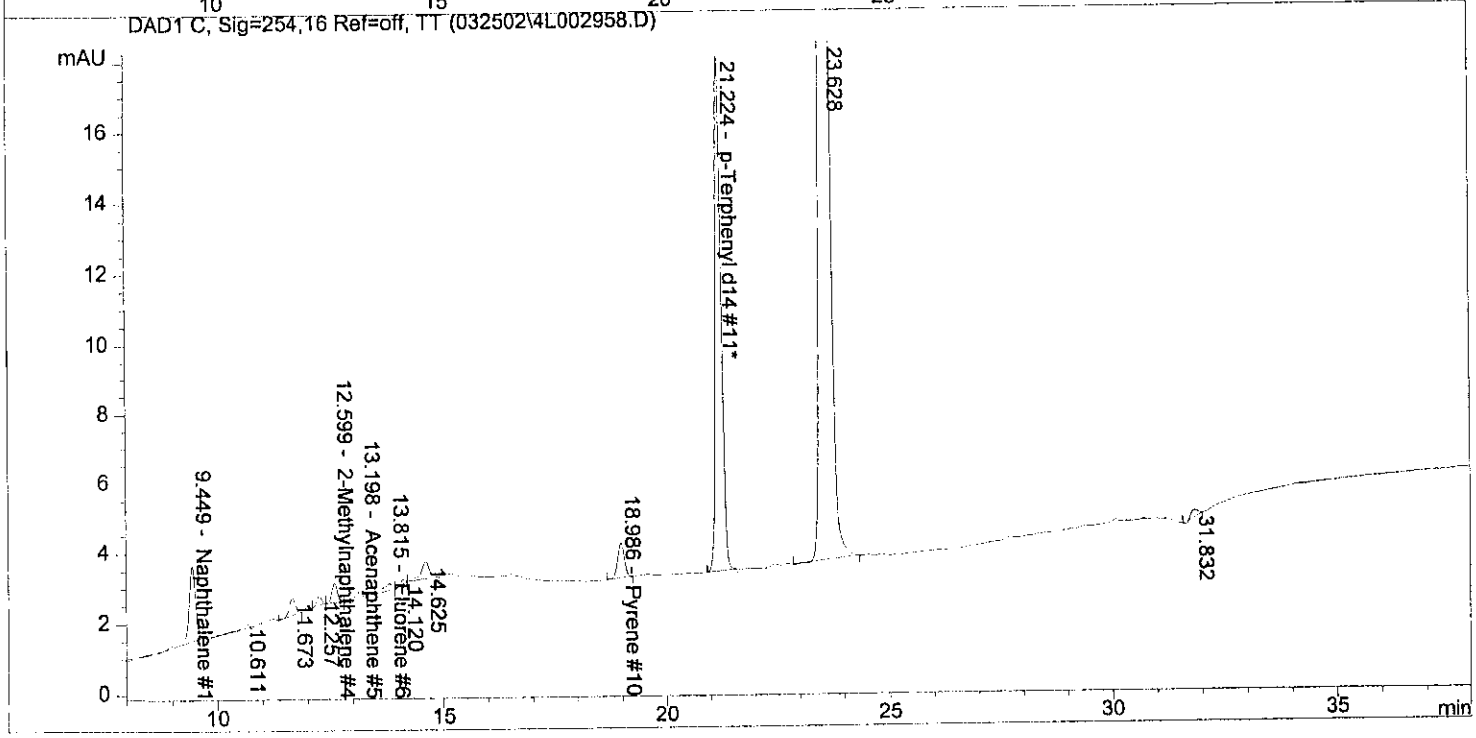
Injection Date : 3/26/2002 7:06:12 AM
Sample Name : L0203380-13 831W
Acq. Operator : RDC

Seq. Line : 18
Vial : 18
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.463	BB	6.29808	2.57003e-2	1.61862e-1		Naphthalene #1
12.034	BB	8.29567e-1	2.24893e-2	1.86564e-2		1-Methylnaphthalene #3
12.612	BB	2.56389	1.72691e-2	4.42762e-2		2-Methylnaphthalene #4
13.225	BB	5.41669e-1	1.38228e-2	7.48737e-3		Acenaphthene #5
13.746	BB	5.63376e-1	6.56879e-3	3.70070e-3		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.913	BBA	2.61729e-1	2.38671e-2	6.24671e-3		Fluoranthene #9
18.912	BBA	3.12520e-1	4.06594e-2	1.27069e-2		Pyrene #10
21.237	BB	30.98000	2.86511e-1	8.87613		p-Terphenyl d14 #11*
22.579	BB	9.76303e-1	7.96557e-3	7.77681e-3		Benzo(a)anthracene #12
23.203	BB	1.67490e-1	3.90144e-2	6.53454e-3		Chrysene #13
26.171	BB	3.60847e-1	1.65598e-2	5.97554e-3		Benzo(b)fluoranthene #14
27.556	BB	3.76189e-1	2.77566e-3	1.04417e-3		Benzo(k)fluoranthene #15
28.684	BB	1.65042e-1	4.67660e-3	7.71836e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.190	BB	4.15615	2.69466e-2	1.11994e-1		Benzo(g,h,i)perylene #18
32.441	BB	2.47567	1.37440e-2	3.40257e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.29918

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.449	BB	24.77341	8.27651e-3	2.05037e-1	2 mol	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.599	BB	4.81390	1.12713e-2	5.42586e-2		2-Methylnaphthalene #4
13.198	BB	1.97934	2.03841e-2	4.03471e-2		Acenaphthene #5
13.815	BB	2.56938	1.76946e-2	4.54641e-2		Fluorene #6
15.050		-	-	-		Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.986	PBA	10.84791	1.46349e-2	1.58757e-1	NC	Pyrene #10
21.224	PBA	135.29778	6.45989e-2	8.74009		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-	27.4%	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.24396

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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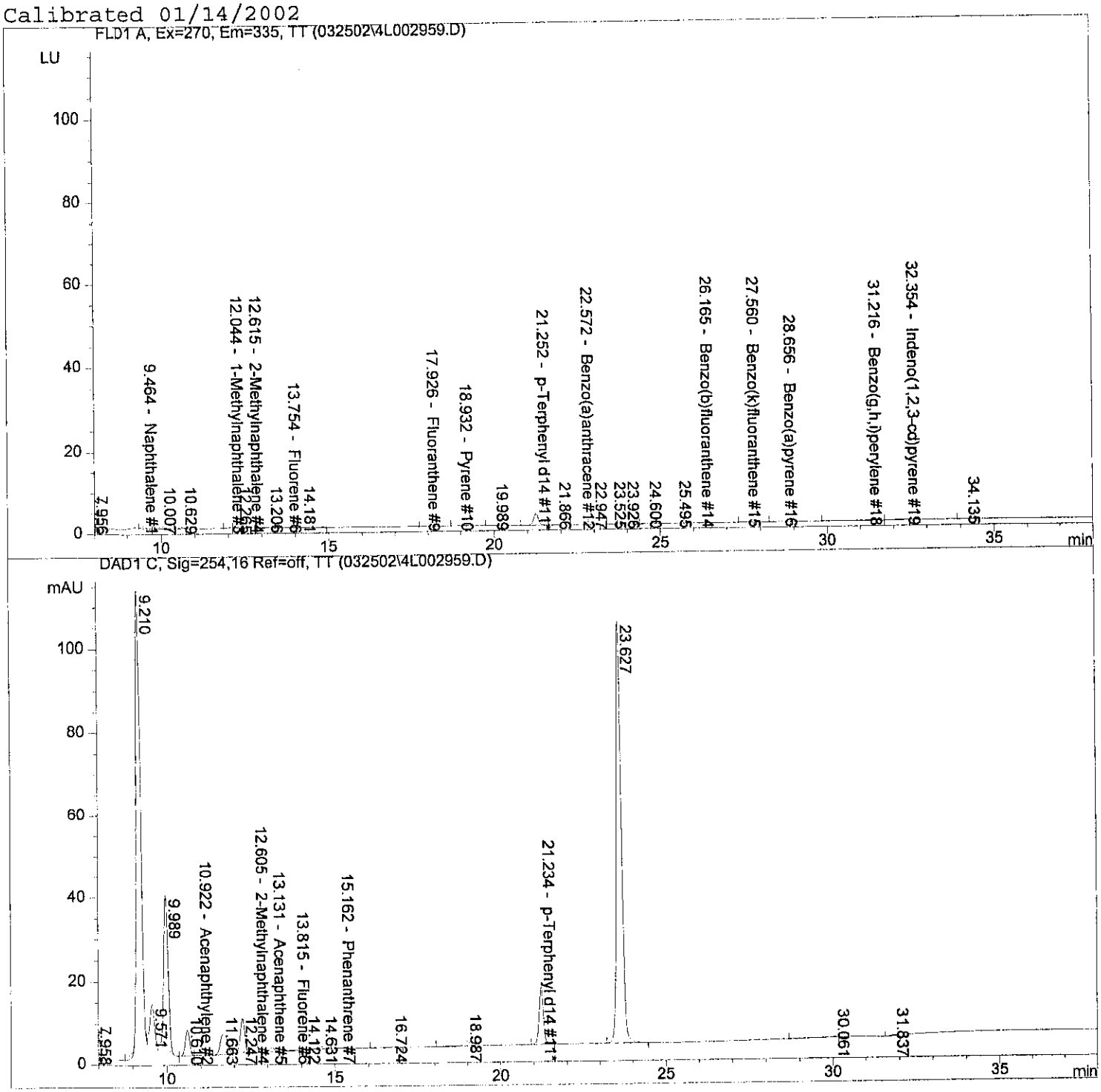
Injection Date : 3/26/2002 8:02:51 AM
Sample Name : L0203380-14 831W
Acq. Operator : RDC

Seq. Line : 19
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.464	BB	4.55098	2.57003e-2	1.16961e-1		Naphthalene #1
12.044	BB	4.33128e-1	2.24893e-2	9.74075e-3		1-Methylnaphthalene #3
12.615	BB	2.91680	1.72691e-2	5.03707e-2		2-Methylnaphthalene #4
13.027		-	-	-		Acenaphthene #5
13.754	BB	7.41062e-1	6.56879e-3	4.86788e-3		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.926	BBA	3.48840e-1	2.38671e-2	8.32579e-3		Fluoranthene #9
18.932	PBA	4.54838e-1	4.06594e-2	1.84934e-2		Pyrene #10
21.252	BB	28.74086	2.86511e-1	8.23459		p-Terphenyl d14 #11*
22.572	BB	4.75775e-1	7.96557e-3	3.78982e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.165	BBA	3.33198e-1	1.65598e-2	5.51767e-3		Benzo(b)fluoranthene #14
27.560	BBA	3.13293e-1	2.77566e-3	8.69597e-4		Benzo(k)fluoranthene #15
28.656	BBA	2.99699e-1	4.67660e-3	1.40157e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.216	PB	3.85005	2.69466e-2	1.03746e-1		Benzo(g,h,i)perylene #18
32.354	BB	1.48668	1.37440e-2	2.04330e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.57910

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.384		-	-	-		Naphthalene #1
10.922	BB	1.35126	3.00095e-2	4.05507e-2	<MDL	Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.605	BB	32.92719	1.12713e-2	3.71131e-1	NC	2-Methylnaphthalene #4
13.131	BB	10.96034	2.03841e-2	2.23417e-1	<MDL	Acenaphthene #5
13.815	BB	3.65343	1.76946e-2	6.46460e-2	↓	Fluorene #6
15.162	BB	1.92753	1.74291e-2	3.35950e-2	↓	Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-	81.6%	Pyrene #10
21.234	BBA	126.34773	6.45989e-2	8.16193		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				8.89527		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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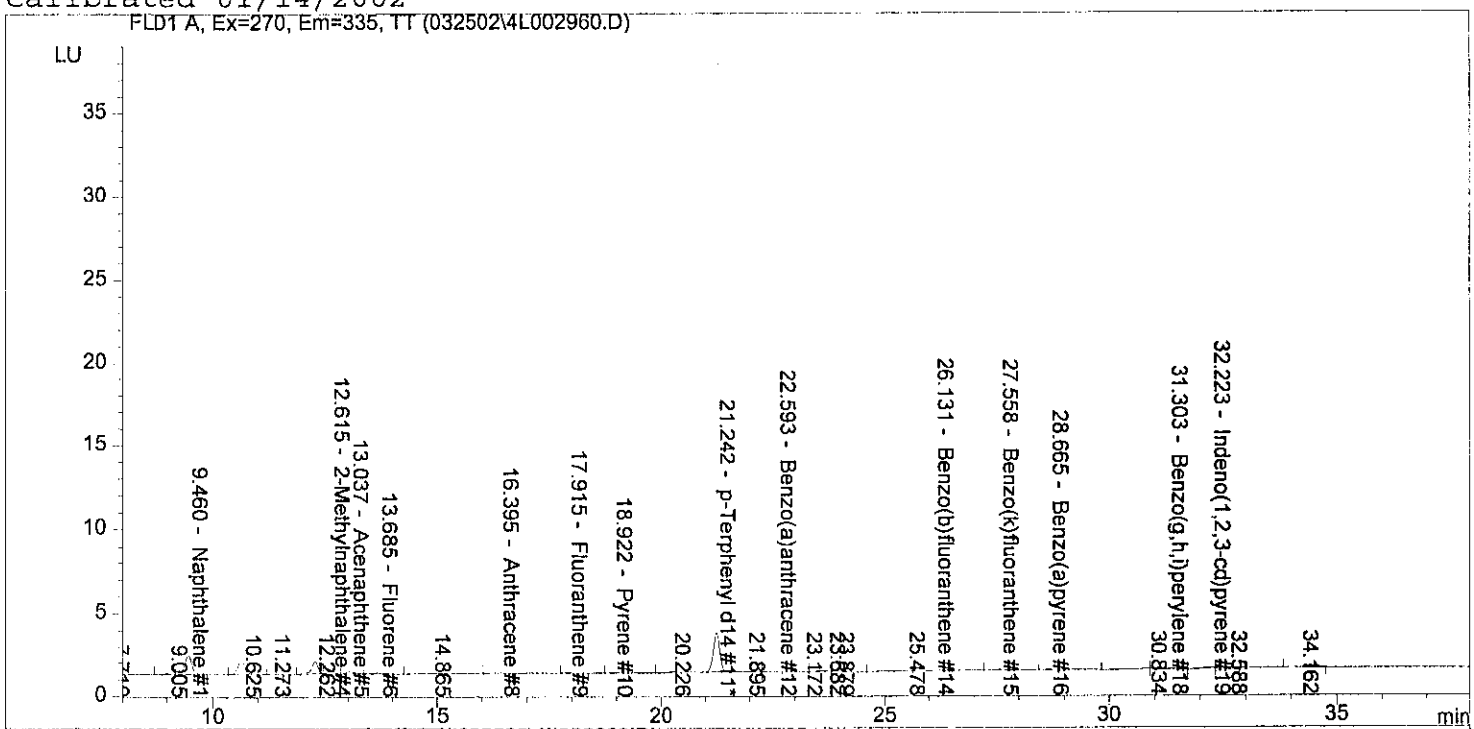
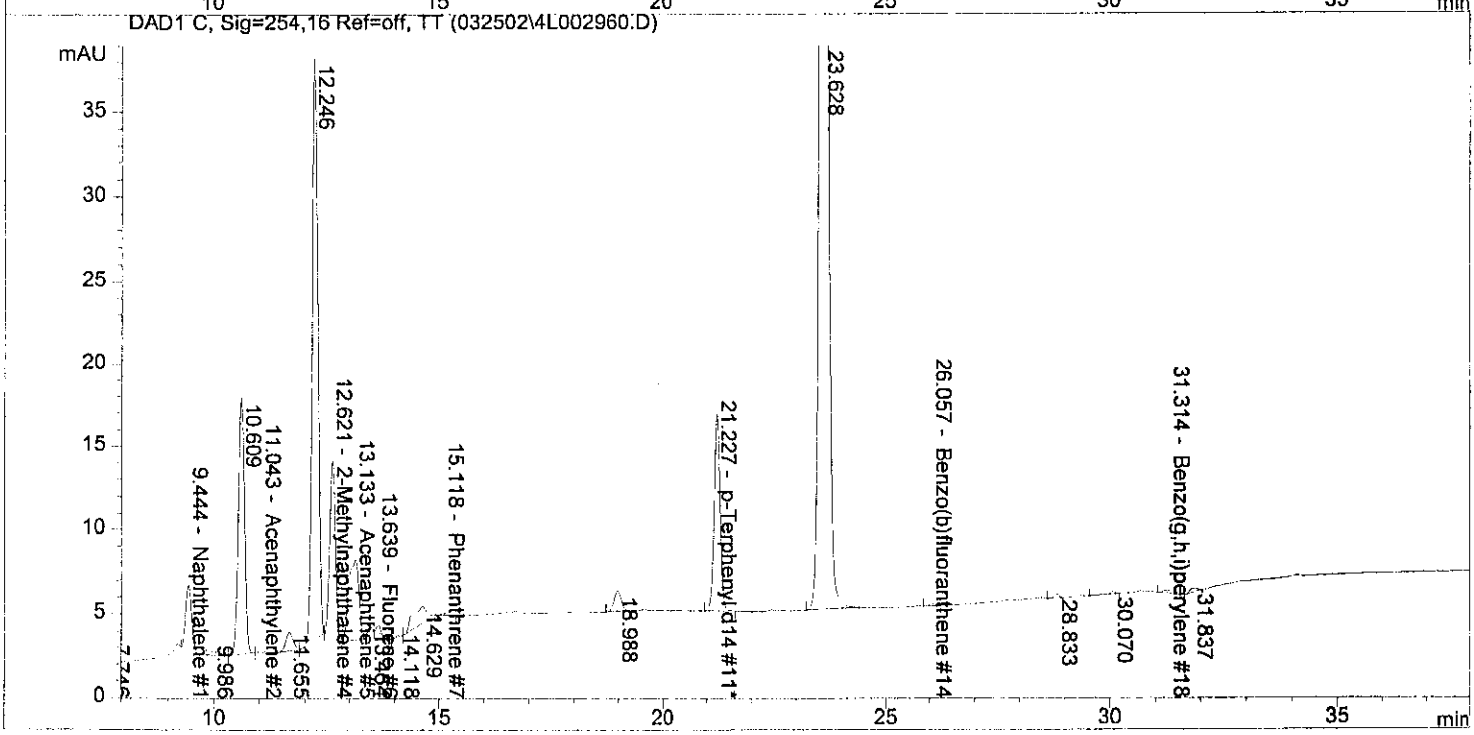
Injection Date	: 3/26/2002 8:59:30 AM	Seq. Line	: 20
Sample Name	: L0203380-15 831W	Vial	: 20
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.460	BB	12.16557	2.57003e-2	3.12659e-1		Naphthalene #1
11.973		-	-	-		1-Methylnaphthalene #3
12.615	BB	2.91000	1.72691e-2	5.02532e-2		2-Methylnaphthalene #4
13.037	BB	2.13044	1.38228e-2	2.94486e-2		Acenaphthene #5
13.685	BB	1.73966	6.56879e-3	1.14274e-2		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.395	PB	3.70085e-1	3.03714e-1	1.12400e-1		Anthracene #8
17.915	BBA	4.18721e-1	2.38671e-2	9.99364e-3		Fluoranthene #9
18.922	BBA	3.76909e-1	4.06594e-2	1.53249e-2		Pyrene #10
21.242	BB	24.15414	2.86511e-1	6.92044		p-Terphenyl d14 #11*
22.593	BB	2.87603e-1	7.96557e-3	2.29092e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.131	BBA	2.45243e-1	1.65598e-2	4.06116e-3		Benzo(b)fluoranthene #14
27.558	BBA	4.34848e-1	2.77566e-3	1.20699e-3		Benzo(k)fluoranthene #15
28.665	BB	2.64894e-1	4.67660e-3	1.23880e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.303	BB	6.19204e-1	2.69466e-2	1.66854e-2		Benzo(g,h,i)perylene #18
32.223	BB	7.79296e-1	1.37440e-2	1.07107e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 7.49814

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
9.444	BB	33.50212	8.27651e-3	2.77281e-1	LMDL	Naphthalene #1
11.043	BB	1.62054	3.00095e-2	4.86317e-2	↓	Acenaphthylene #2
11.958		-	-	-		1-Methylnaphthalene #3
12.621	BB	92.31571	1.12713e-2	1.04051	NC	2-Methylnaphthalene #4
13.133	BB	71.87972	2.03841e-2	1.46521	NC	Acenaphthene #5
13.639	BB	2.60253	1.76946e-2	4.60507e-2	LMDL	Fluorene #6
15.118	BB	1.45456	1.74291e-2	2.53517e-2	↓	Phenanthrene #7
16.450		-	-	-		Anthracene #8
17.829		-	-	-	69.5%	Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.227	BBA	107.65316	6.45989e-2	6.95428		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.057	BB	1.06272	2.08462e-2	2.21537e-2	LMDL	Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.314	BB	2.33030	5.34666e-2	1.24593e-1	N	Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.00406

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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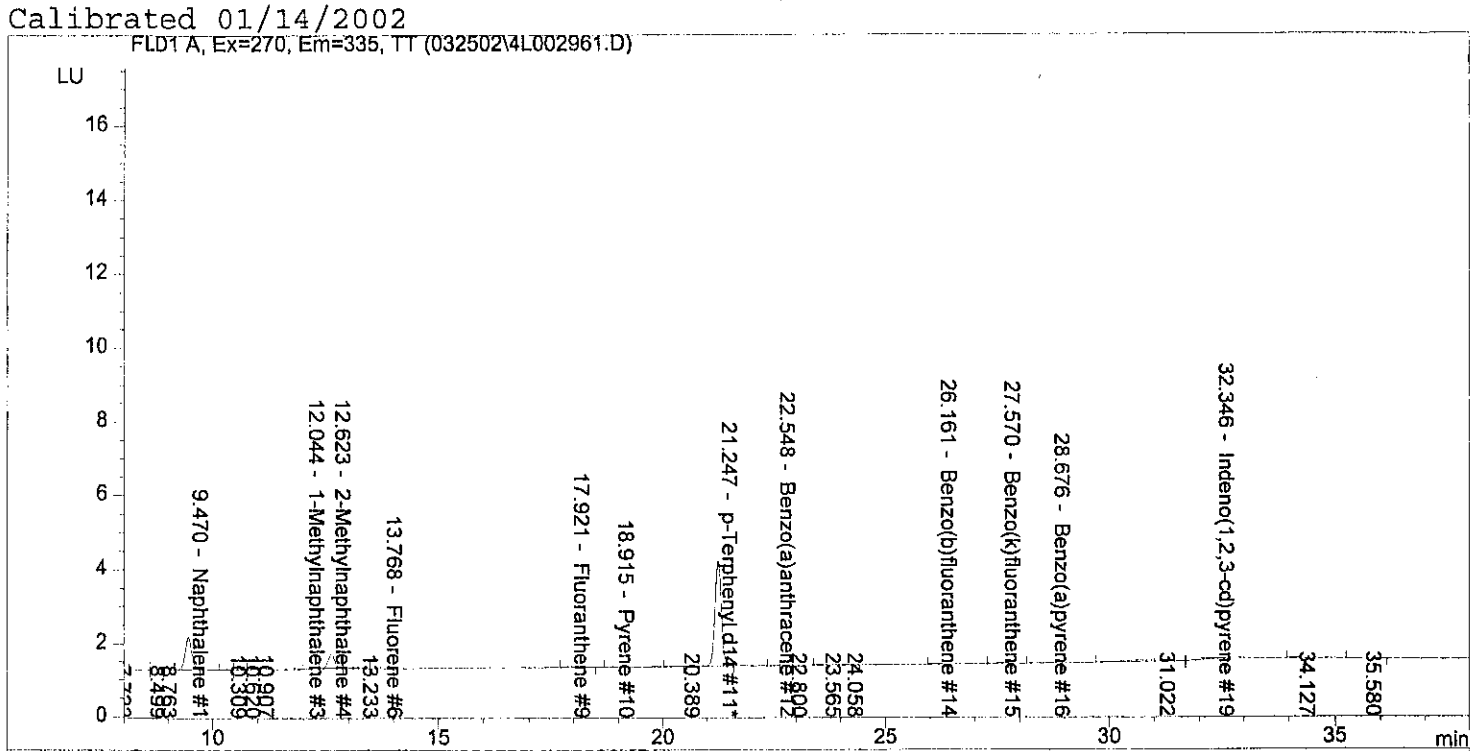
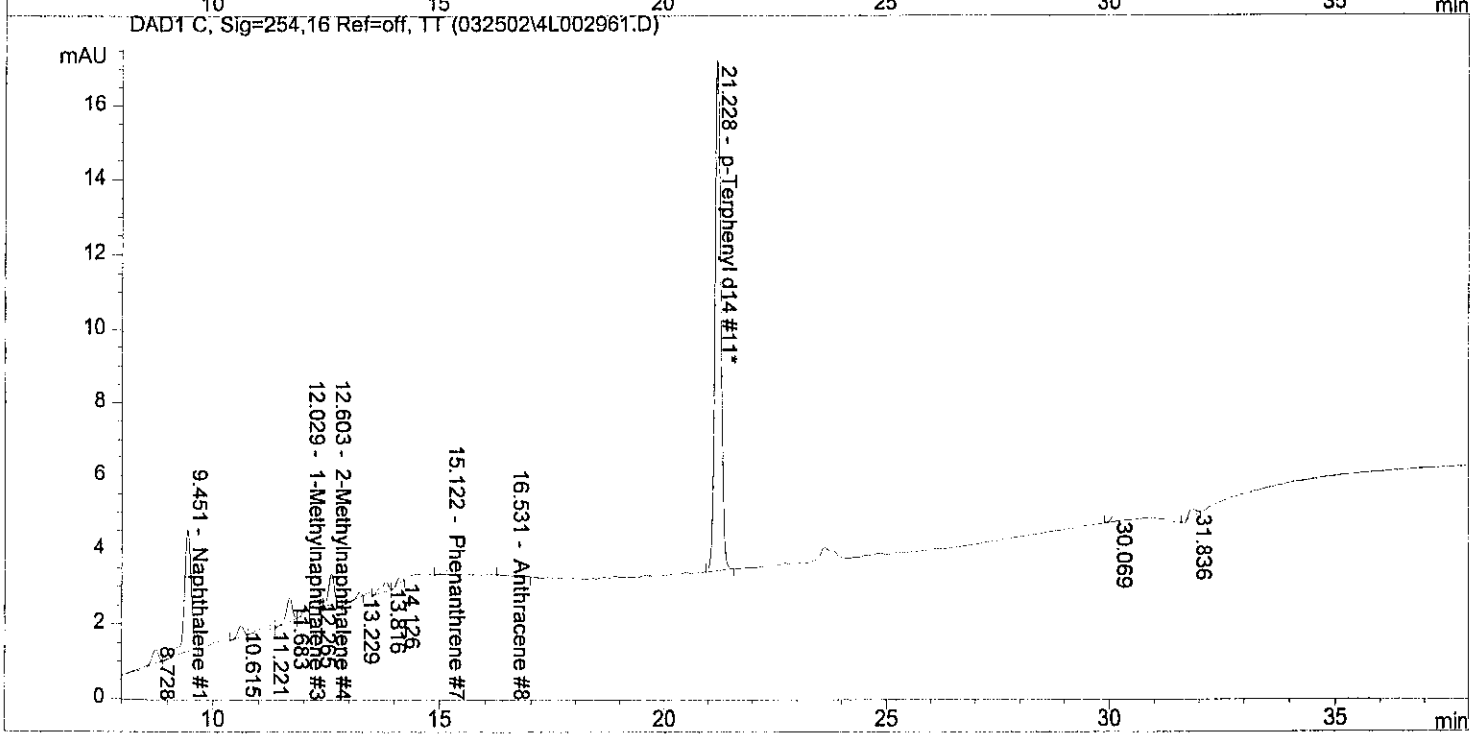
Injection Date : 3/26/2002 9:56:10 AM
Sample Name : L0203380-16 831W
Acq. Operator : RDC

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 : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.470	BB	9.17950	2.57003e-2	2.35916e-1		Naphthalene #1
12.044	BB	1.41428	2.24893e-2	3.18062e-2		1-Methylnaphthalene #3
12.623	BB	3.96507	1.72691e-2	6.84733e-2		2-Methylnaphthalene #4
13.027		-	-	-		Acenaphthene #5
13.768	BB	9.85494e-1	6.56879e-3	6.47350e-3		Fluorene #6
15.065		-	-	-		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.921	BBA	4.55788e-1	2.38671e-2	1.08783e-2		Fluoranthene #9
18.915	PBA	1.74565e-1	4.06594e-2	7.09772e-3		Pyrene #10
21.247	BB	28.57741	2.86511e-1	8.18776		p-Terphenyl d14 #11*
22.548	BB	1.56103e-1	7.96557e-3	1.24345e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.161	BBA	1.45072e-1	1.65598e-2	2.40235e-3		Benzo(b)fluoranthene #14
27.570	BBA	2.93030e-1	2.77566e-3	8.13354e-4		Benzo(k)fluoranthene #15
28.676	BB	2.63733e-1	4.67660e-3	1.23337e-3		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.346	BB	1.70027	1.37440e-2	2.33686e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.57746

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
9.451	BB	32.05952	8.27651e-3	2.65341e-1		Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
12.029	BB	1.39744	1.29932e-2	1.81572e-2		1-Methylnaphthalene #3
12.603	BB	7.40103	1.12713e-2	8.34189e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.665		-	-	-		Fluorene #6
15.122	BB	1.55350	1.74291e-2	2.70761e-2		Phenanthrene #7
16.531	BBA	3.27427	1.03455e-2	3.38739e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.228	BBA	127.73452	6.45989e-2	8.25151		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

MDL

82.5%

541

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.67938

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.3 Standards Data

==========
Calibration Table
==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : Tuesday, January 15, 2002 9:04:52 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
9.235	2	1	1.00000	114.71877	8.71697e-3			Naphthalene #1
		2	5.00000	576.60266	8.67148e-3			
		3	10.00000	1246.98584	8.01934e-3			
		4	20.00000	2493.37891	8.02124e-3			
		5	50.00000	6168.26709	8.10600e-3			
		6	100.00000	1.20010e4	8.33262e-3			
9.250	1	1	1.00000	35.78353	2.79458e-2			Naphthalene #1
		2	5.00000	174.72874	2.86158e-2			
		3	10.00000	379.16129	2.63740e-2			
		4	20.00000	764.84155	2.61492e-2			
		5	50.00000	1917.75940	2.60721e-2			
		6	100.00000	3909.56982	2.55783e-2			
10.877	2	1	1.00000	23.62006	4.23369e-2			Acenaphthylene #2
		2	5.00000	150.79996	3.31565e-2			
		3	10.00000	325.75351	3.06981e-2			
		4	20.00000	654.20630	3.05714e-2			
		5	50.00000	1640.81848	3.04726e-2			
		6	100.00000	3349.02344	2.98595e-2			
11.833	2	1	1.00000	70.63459	1.41574e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	352.56210	1.41819e-2			
		3	10.00000	761.30933	1.31353e-2			
		4	20.00000	1527.97900	1.30892e-2			
		5	50.00000	3818.50562	1.30941e-2			
		6	100.00000	7715.90479	1.29602e-2			
11.847	1	1	1.00000	41.42604	2.41394e-2			1-Methylnaphthalene #3
		2	5.00000	200.14003	2.49825e-2			
		3	10.00000	434.69620	2.30046e-2			
		4	20.00000	876.57288	2.28161e-2			
		5	50.00000	2196.17188	2.27669e-2			
		6	100.00000	4464.79199	2.23975e-2			
12.413	2	1	1.00000	84.19754	1.18768e-2			2-Methylnaphthalene #4
		2	5.00000	414.06625	1.20754e-2			
		3	10.00000	894.14850	1.11838e-2			
		4	20.00000	1790.56641	1.11696e-2			
		5	50.00000	4453.67236	1.12267e-2			
		6	100.00000	8860.92187	1.12855e-2			
12.428	1	1	1.00000	53.86543	1.85648e-2			2-Methylnaphthalene #4
		2	5.00000	263.61240	1.89672e-2			
		3	10.00000	570.62238	1.75247e-2			
		4	20.00000	1149.51221	1.73987e-2			
		5	50.00000	2872.90649	1.74040e-2			
		6	100.00000	5805.80029	1.72242e-2			
12.895	2	1	1.00000	45.25933	2.20949e-2			Acenaphthene #5
		2	5.00000	223.83940	2.23374e-2			
		3	10.00000	483.23654	2.06938e-2			
		4	20.00000	968.73480	2.06455e-2			
		5	50.00000	2423.54761	2.06309e-2			
		6	100.00000	4924.77783	2.03055e-2			
12.909	1	1	1.00000	67.89028	1.47296e-2			Acenaphthene #5
		2	5.00000	332.58978	1.50335e-2			
		3	10.00000	718.57635	1.39164e-2			
		4	20.00000	1447.01648	1.38215e-2			
		5	50.00000	3601.05908	1.38848e-2			
		6	100.00000	7244.47559	1.38036e-2			
13.554	2	1	1.00000	50.57839	1.97713e-2			Fluorene #6
		2	5.00000	254.83487	1.96205e-2			
		3	10.00000	552.99121	1.80835e-2			
		4	20.00000	1111.38098	1.79956e-2			
		5	50.00000	2784.74756	1.79549e-2			
		6	100.00000	5678.37842	1.76107e-2			
13.569	1	1	1.00000	146.82553	6.81080e-3			Fluorene #6
		2	5.00000	715.49780	6.98814e-3			
		3	10.00000	1545.26501	6.47138e-3			
		4	20.00000	3090.21484	6.47204e-3			
		5	50.00000	7650.25977	6.53573e-3			
		6	100.00000	1.51952e4	6.58103e-3			
14.954	2	1	1.00000	66.64948	1.50039e-2			Phenanthrene #7
		2	5.00000	261.27347	1.91370e-2			
		3	10.00000	563.78040	1.77374e-2			
		4	20.00000	1130.27087	1.76949e-2			
		5	50.00000	2829.81055	1.76690e-2			
		6	100.00000	5762.64355	1.73531e-2			
14.969	1	1	1.00000	5.24433	1.90682e-1			Phenanthrene #7
		2	5.00000	26.26655	1.90356e-1			
		3	10.00000	56.83334	1.75953e-1			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	114.46365	1.74728e-1			
		5	50.00000	289.46243	1.72734e-1			
		6	100.00000	598.44012	1.67101e-1			
16.371	2	1	1.00000	94.15485	1.06208e-2			Anthracene #8
		2	5.00000	458.90207	1.08956e-2			
		3	10.00000	992.23688	1.00782e-2			
		4	20.00000	1988.68909	1.00569e-2			
		5	50.00000	4949.62500	1.01018e-2			
		6	100.00000	9595.33398	1.04217e-2			
16.386	1	1	1.00000	3.17308	3.15151e-1			Anthracene #8
		2	5.00000	15.12442	3.30591e-1			
		3	10.00000	32.77779	3.05085e-1			
		4	20.00000	66.19009	3.02160e-1			
		5	50.00000	163.06247	3.06631e-1			
		6	100.00000	330.05484	3.02980e-1			
17.757	2	1	1.00000e-1	4.13764	2.41683e-2			Fluoranthene #9
		2	5.00000e-1	20.33956	2.45826e-2			
		3	1.00000	44.30089	2.25729e-2			
		4	2.00000	88.82484	2.25162e-2			
		5	5.00000	223.85286	2.23361e-2			
		6	10.00000	459.72919	2.17519e-2			
17.771	1	1	1.00000e-1	3.88309	2.57527e-2			Fluoranthene #9
		2	5.00000e-1	18.24046	2.74116e-2			
		3	1.00000	40.55882	2.46556e-2			
		4	2.00000	81.38047	2.45759e-2			
		5	5.00000	205.21196	2.43651e-2			
		6	10.00000	421.88382	2.37032e-2			
18.769	2	1	1.00000e-1	6.03502	1.65699e-2			Pyrene #10
		2	5.00000e-1	29.23632	1.71020e-2			
		3	1.00000	66.46920	1.50446e-2			
		4	2.00000	134.09285	1.49150e-2			
		5	5.00000	335.84097	1.48880e-2			
		6	10.00000	687.15900	1.45527e-2			
18.783	1	1	1.00000e-1	2.17142	4.60529e-2			Pyrene #10
		2	5.00000e-1	10.94241	4.56938e-2			
		3	1.00000	23.90537	4.18316e-2			
		4	2.00000	48.63459	4.11230e-2			
		5	5.00000	123.47372	4.04944e-2			
21.133	2	1	1.00000	13.90859	7.18980e-2			p-Terphenyl d14 #11*
		2	5.00000	69.63579	7.18022e-2			
		3	10.00000	149.64757	6.68237e-2			
		4	20.00000	301.36755	6.63641e-2			
		5	50.00000	768.36145	6.50735e-2			
		6	100.00000	1553.40210	6.43748e-2			
21.147	1	1	1.00000	3.53695	2.82730e-1			p-Terphenyl d14 #11*
		2	5.00000	15.68857	3.18703e-1			
		3	10.00000	33.44160	2.99029e-1			
		4	20.00000	67.61504	2.95792e-1			
		5	50.00000	172.45569	2.89930e-1			
		6	100.00000	350.72665	2.85122e-1			
22.460	2	1	1.00000e-1	4.29036	2.33081e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.37423	2.45408e-2			
		3	1.00000	43.45026	2.30148e-2			
		4	2.00000	87.40981	2.28807e-2			
		5	5.00000	219.83919	2.27439e-2			
		6	10.00000	451.63605	2.21417e-2			

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
22.475	1	1	1.00000e-1	11.70344	8.54450e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.43239	9.02000e-3			
		3	1.00000	120.40920	8.30501e-3			
		4	2.00000	243.40866	8.21663e-3			
		5	5.00000	613.80975	8.14585e-3			
		6	10.00000	1264.77136	7.90657e-3			
23.344	2	1	1.00000e-1	5.99650	1.66764e-2			Chrysene #13
		2	5.00000e-1	29.37774	1.70197e-2			
		3	1.00000	63.55274	1.57350e-2			
		4	2.00000	127.90170	1.56370e-2			
		5	5.00000	322.44791	1.55064e-2			
		6	10.00000	661.99542	1.51058e-2			
23.359	1	1	1.00000e-1	2.53400	3.94634e-2			Chrysene #13
		2	5.00000e-1	11.26101	4.44010e-2			
		3	1.00000	24.62586	4.06077e-2			
		4	2.00000	49.65573	4.02773e-2			
		5	5.00000	125.29953	3.99044e-2			
		6	10.00000	258.24448	3.87230e-2			
26.084	2	1	1.00000e-1	4.71873	2.11921e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	21.54782	2.32042e-2			
		3	1.00000	46.72572	2.14015e-2			
		4	2.00000	93.43871	2.14044e-2			
		5	5.00000	235.80293	2.12041e-2			
		6	10.00000	482.47552	2.07264e-2			
26.097	1	1	1.00000e-1	5.50489	1.81657e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	26.85213	1.86205e-2			
		3	1.00000	58.49529	1.70954e-2			
		4	2.00000	117.46639	1.70261e-2			
		5	5.00000	295.74701	1.69063e-2			
		6	10.00000	607.99158	1.64476e-2			
27.543	2	1	5.00000e-2	1.94087	2.57616e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	9.94531	2.51375e-2			
		3	5.00000e-1	22.23862	2.24834e-2			
		4	1.00000	43.15946	2.31699e-2			
		5	2.50000	107.77484	2.31965e-2			
		6	5.00000	221.38257	2.25853e-2			
27.552	1	1	5.00000e-2	16.52934	3.02492e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	81.11520	3.08204e-3			
		3	5.00000e-1	175.63820	2.84676e-3			
		4	1.00000	353.46982	2.82910e-3			
		5	2.50000	887.50769	2.81688e-3			
		6	5.00000	1810.23218	2.76208e-3			
28.658	2	1	1.00000e-1	2.93301	3.40947e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.71871	3.18092e-2			
		3	1.00000	36.33923	2.75185e-2			
		4	2.00000	72.43052	2.76127e-2			
		5	5.00000	183.75787	2.72097e-2			
		6	10.00000	382.09714	2.61714e-2			
28.671	1	1	1.00000e-1	19.03635	5.25311e-3			Benzo(a)pyrene #16
		2	5.00000e-1	93.51391	5.34680e-3			
		3	1.00000	203.03578	4.92524e-3			
		4	2.00000	411.81049	4.85660e-3			
		5	5.00000	1042.10840	4.79797e-3			
		6	10.00000	2156.77197	4.63656e-3			
30.540	2	1	1.00000e-1	8.22757e-1	1.21543e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	4.83241	1.03468e-1			

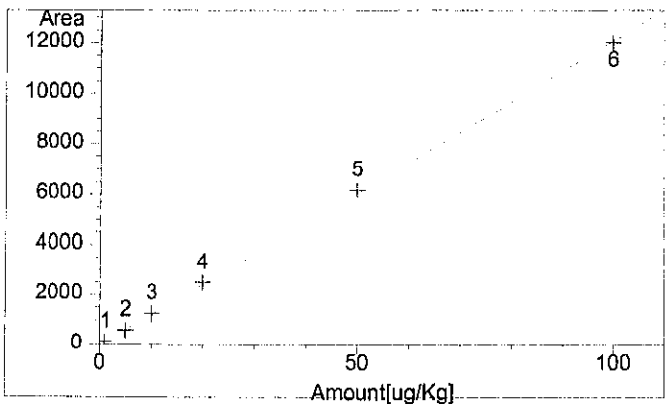
547

RetTime [min]	Sig	Lvl	Amount [ug/Kg]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.59134	9.44168e-2			
		4	2.00000	20.95795	9.54292e-2			
		5	5.00000	52.59206	9.50714e-2			
		6	10.00000	106.91074	9.35360e-2			
30.549	1	1	1.00000e-1	2.25618	4.43227e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.98461	4.55182e-2			
		3	1.00000	24.01385	4.16426e-2			
		4	2.00000	49.01668	4.08024e-2			
		5	5.00000	123.83313	4.03769e-2			
		6	10.00000	256.59177	3.89724e-2			
31.330	2	1	1.00000e-1	2.16289	4.62345e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.91349	5.60948e-2			
		3	1.00000	18.37240	5.44295e-2			
		4	2.00000	36.23856	5.51898e-2			
		5	5.00000	91.19056	5.48302e-2			
		6	10.00000	188.48102	5.30557e-2			
31.354	1	1	1.00000e-1	3.69533	2.70612e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.91699	3.14130e-2			
		3	1.00000	34.73734	2.87875e-2			
		4	2.00000	70.52281	2.83596e-2			
		5	5.00000	179.72395	2.78204e-2			
		6	10.00000	375.12704	2.66576e-2			
32.286	2	1	1.00000e-1	3.89559	2.56700e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	20.89905	2.39245e-2			
		3	1.00000	46.32841	2.15850e-2			
		4	2.00000	93.53850	2.13816e-2			
		5	5.00000	237.57994	2.10455e-2			
		6	10.00000	488.50769	2.04705e-2			
32.292	1	1	1.00000e-1	6.81821	1.46666e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.46655	1.54005e-2			
		3	1.00000	70.38887	1.42068e-2			
		4	2.00000	141.77130	1.41072e-2			
		5	5.00000	357.19571	1.39979e-2			
		6	10.00000	732.07330	1.36598e-2			

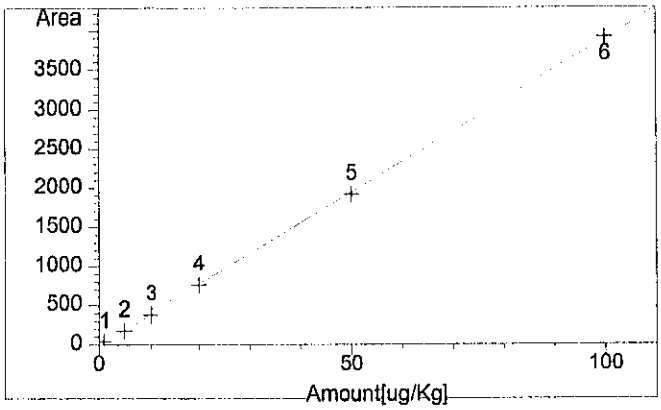
Peak Sum Table

No Entries in table

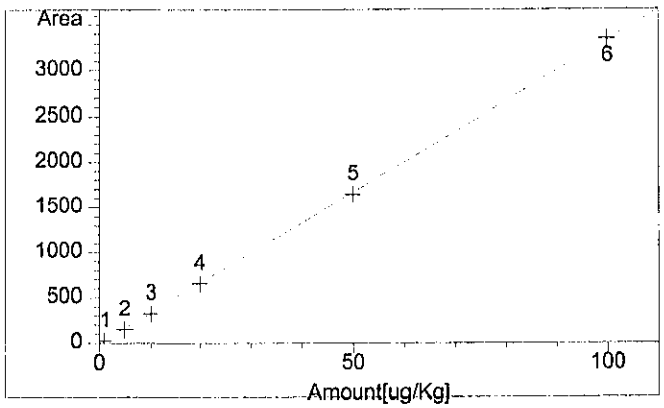
Calibration Curves



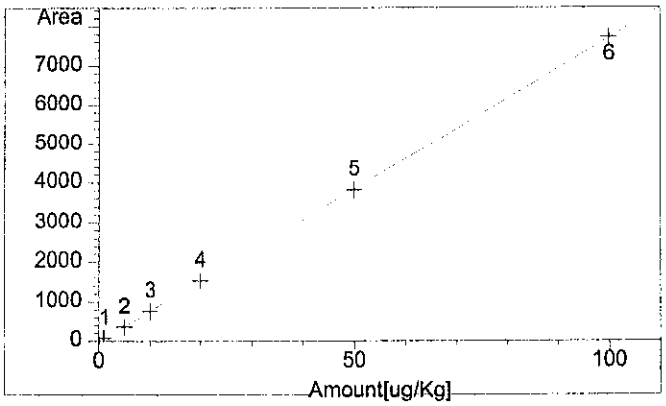
Naphthalene #1 at exp. RT: 9.235
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 78.70989
Formula: y = mx
m: 120.82386
x: Amount[ug/Kg]
y: Area



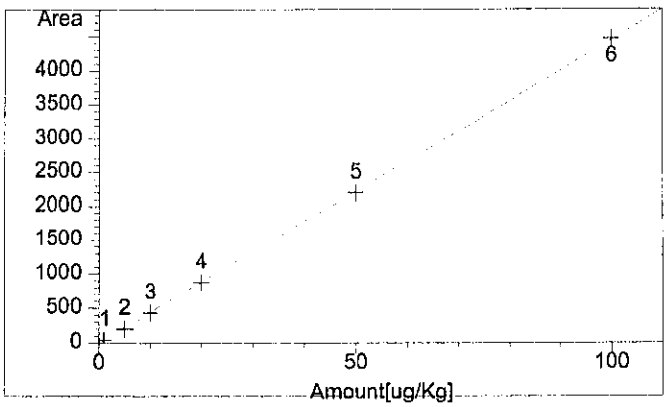
Naphthalene #1 at exp. RT: 9.250
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 18.94340
Formula: y = mx
m: 38.91009
x: Amount [ug/Kg]
y: Area



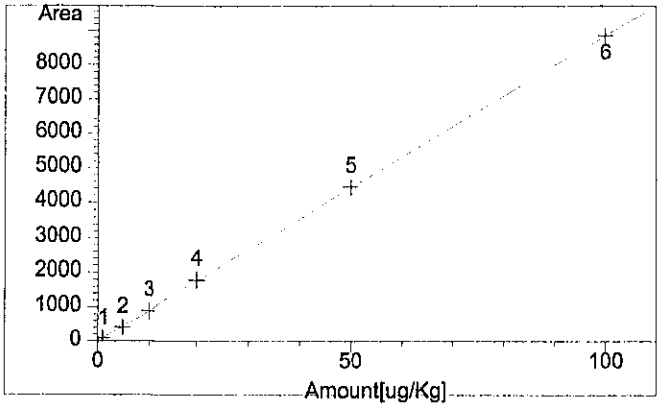
Acenaphthylene #2 at exp. RT: 10.877
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 17.15618
Formula: y = mx
m: 33.32278
x: Amount [ug/Kg]
y: Area



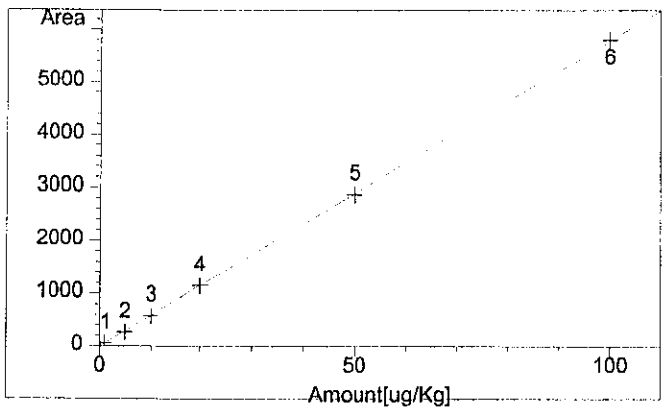
1-Methylnaphthalene #3 at exp. RT: 11.833
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 22.53854
Formula: y = mx
m: 76.96314
x: Amount [ug/Kg]
y: Area



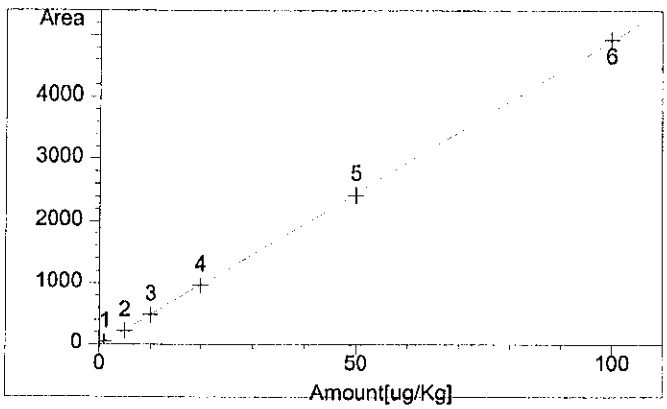
1-Methylnaphthalene #3 at exp. RT: 11.847
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 19.13261
Formula: y = mx
m: 44.46556
x: Amount [ug/Kg]
y: Area



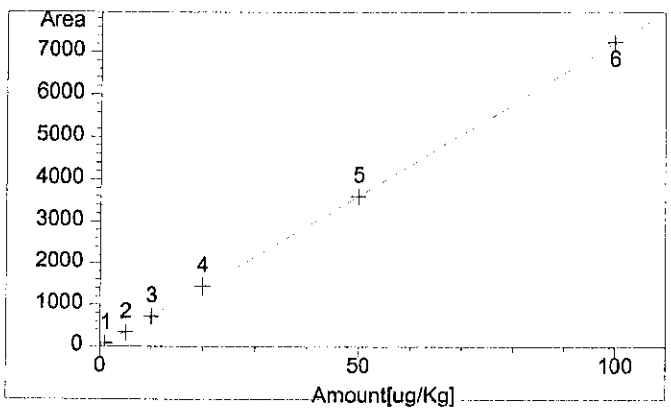
2-Methylnaphthalene #4 at exp. RT: 12.413
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 18.09611
Formula: y = mx
m: 88.72126
x: Amount[ug/Kg]
y: Area



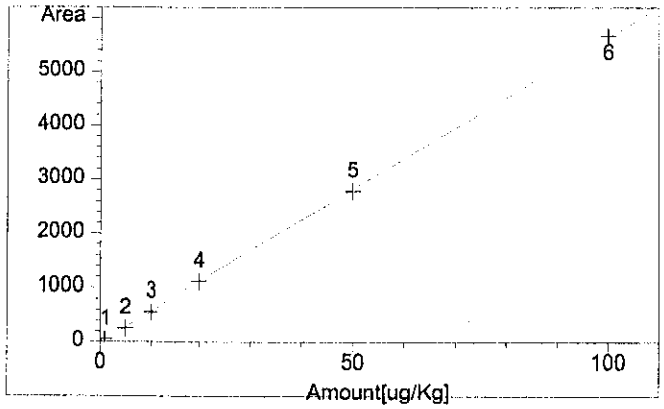
2-Methylnaphthalene #4 at exp. RT: 12.428
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 17.69659
Formula: y = mx
m: 57.90678
x: Amount[ug/Kg]
y: Area



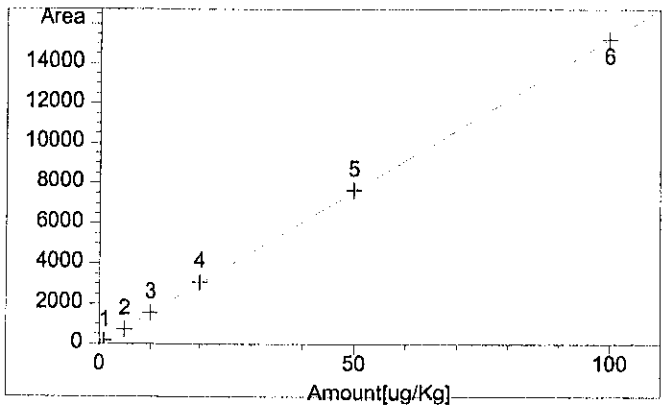
Acenaphthene #5 at exp. RT: 12.895
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 19.51712
Formula: y = mx
m: 49.05778
x: Amount[ug/Kg]
y: Area



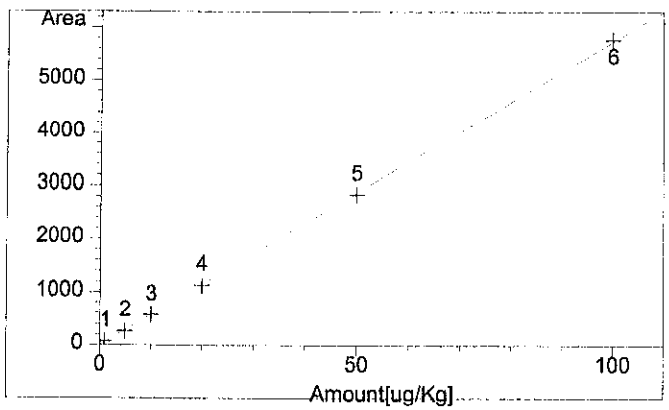
Acenaphthene #5 at exp. RT: 12.909
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.83745
Formula: y = mx
m: 72.34435
x: Amount[ug/Kg]
y: Area



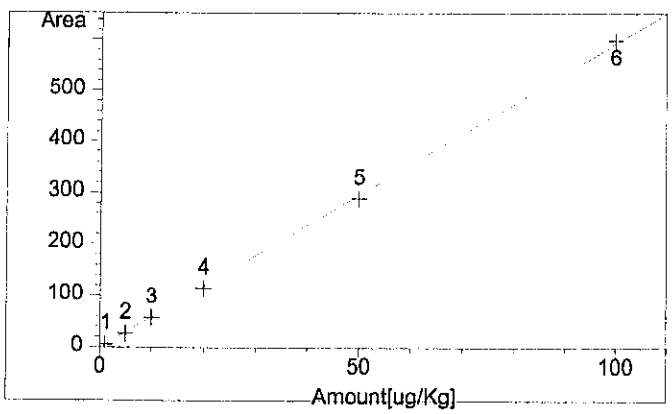
Fluorene #6 at exp. RT: 13.554
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 27.25498
Formula: y = mx
m: 56.51447
x: Amount [ug/Kg]
y: Area



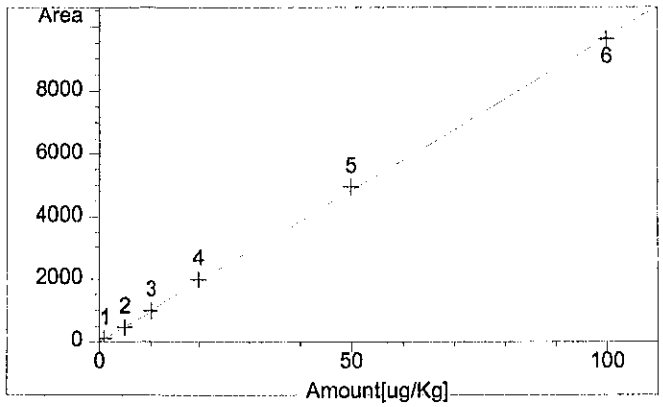
Fluorene #6 at exp. RT: 13.569
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 37.40669
Formula: y = mx
m: 152.23508
x: Amount [ug/Kg]
y: Area



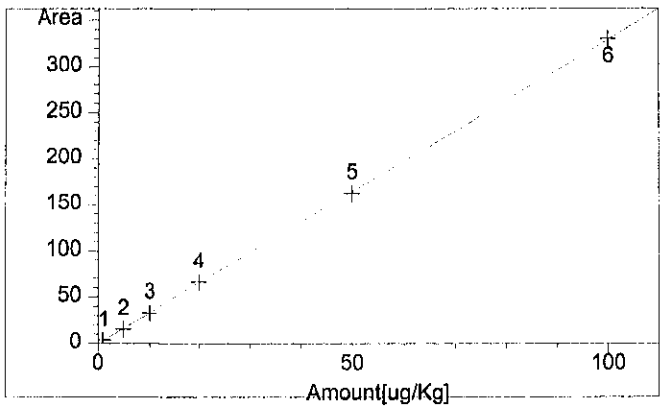
Phenanthrene #7 at exp. RT: 14.954
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 25.63657
Formula: y = mx
m: 57.37534
x: Amount [ug/Kg]
y: Area



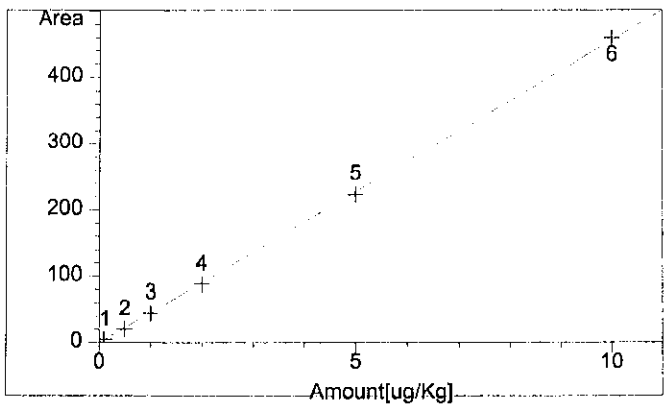
Phenanthrene #7 at exp. RT: 14.969
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99988
Residual Std. Dev.: 4.77259
Formula: y = mx
m: 5.93515
x: Amount [ug/Kg]
y: Area



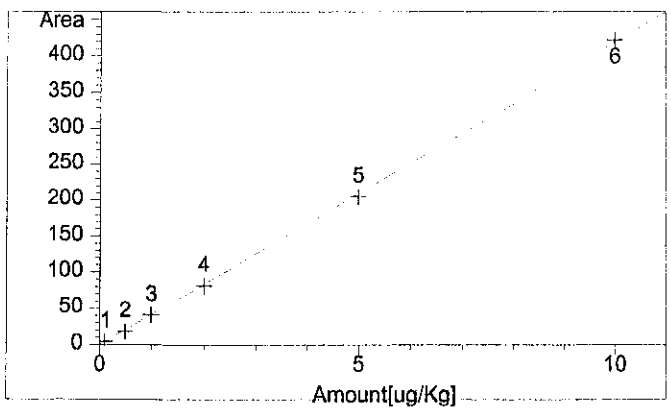
Anthracene #8 at exp. RT: 16.371
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 67.72429
Formula: y = mx
m: 96.66048
x: Amount[ug/Kg]
y: Area



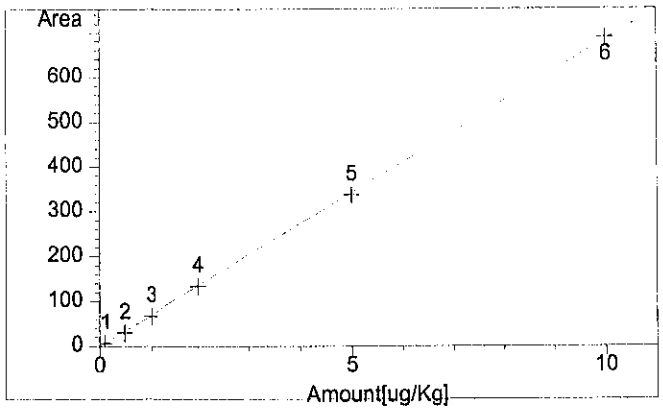
Anthracene #8 at exp. RT: 16.386
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99998
Residual Std. Dev.: 1.00312
Formula: y = mx
m: 3.29257
x: Amount[ug/Kg]
y: Area



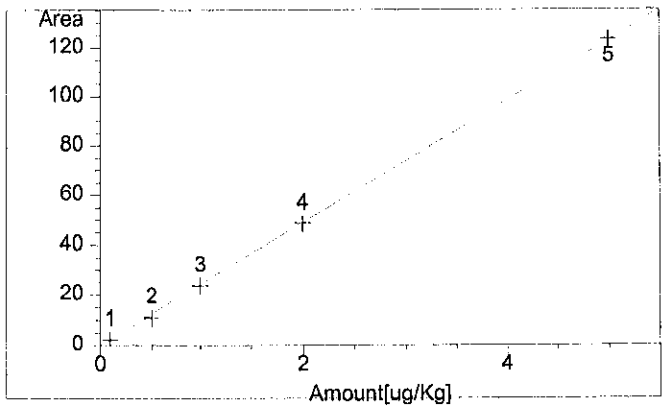
Fluoranthene #9 at exp. RT: 17.757
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.96689
Formula: y = mx
m: 45.67089
x: Amount[ug/Kg]
y: Area



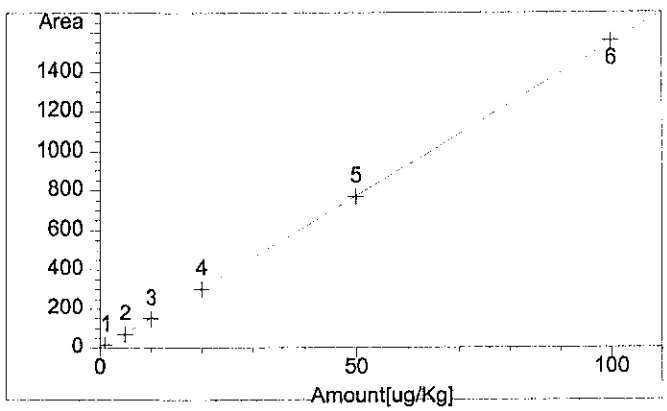
Fluoranthene #9 at exp. RT: 17.771
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.89110
Formula: y = mx
m: 41.89871
x: Amount[ug/Kg]
y: Area



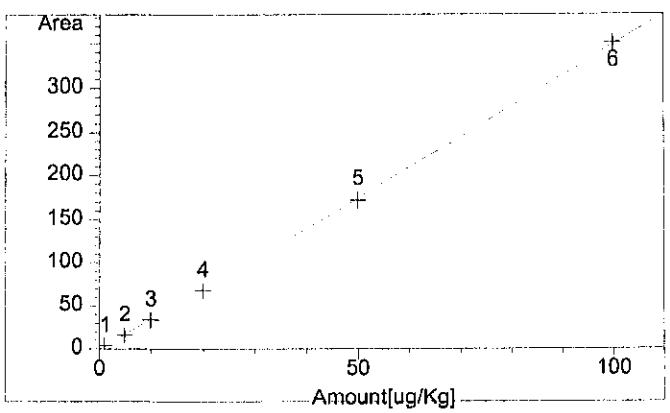
Pyrene #10 at exp. RT: 18.769
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 4.08945
Formula: y = mx
m: 68.33004
x: Amount [ug/Kg]
y: Area



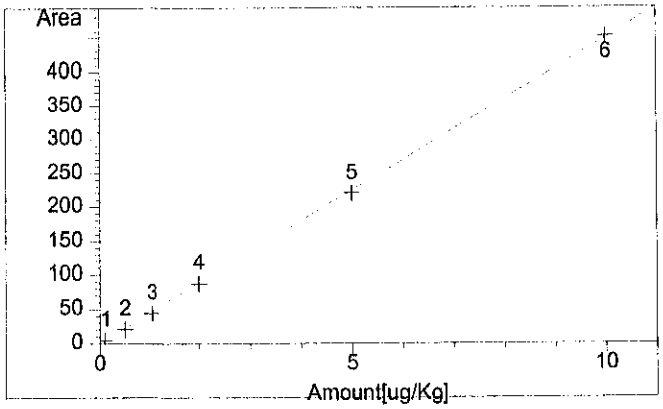
Pyrene #10 at exp. RT: 18.783
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 0.85908
Formula: y = mx
m: 24.59456
x: Amount [ug/Kg]
y: Area



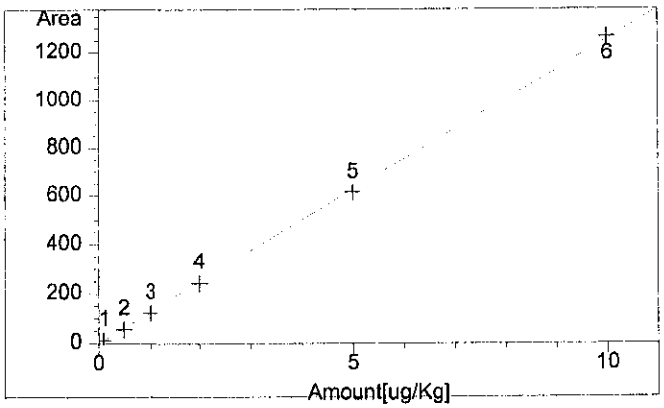
p-Terphenyl d14 #11* at exp. RT: 21.133
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 6.60377
Formula: y = mx
m: 15.48013
x: Amount [ug/Kg]
y: Area



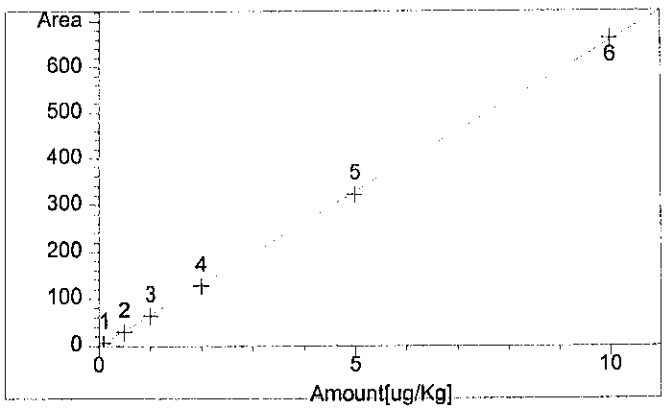
p-Terphenyl d14 #11* at exp. RT: 21.147
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 1.85286
Formula: y = mx
m: 3.49026
x: Amount [ug/Kg]
y: Area



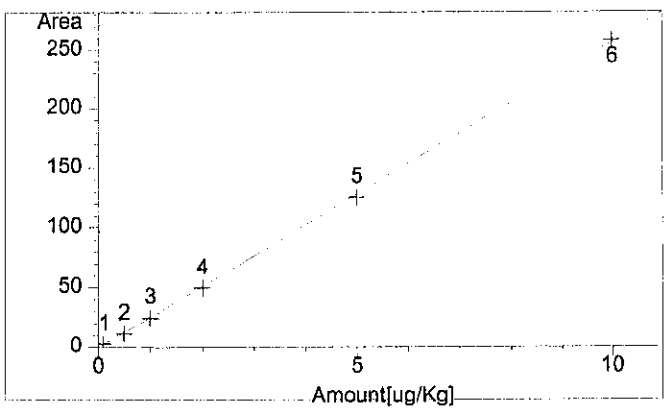
Benzo(a)anthracene #12 at exp. RT: 22.460
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 2.85299
Formula: y = mx
m: 44.86751
x: Amount[ug/Kg]
y: Area



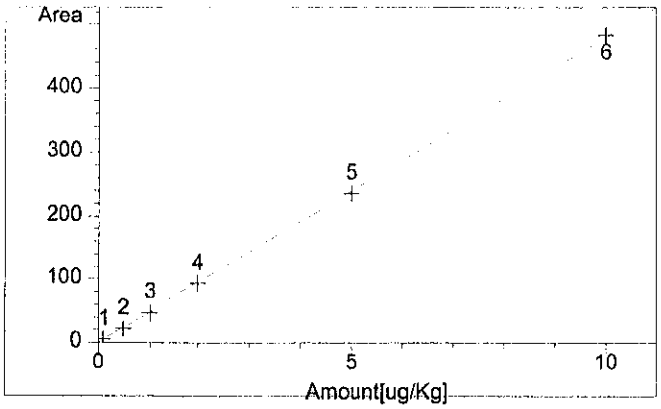
Benzo(a)anthracene #12 at exp. RT: 22.475
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 9.17060
Formula: y = mx
m: 125.54027
x: Amount[ug/Kg]
y: Area



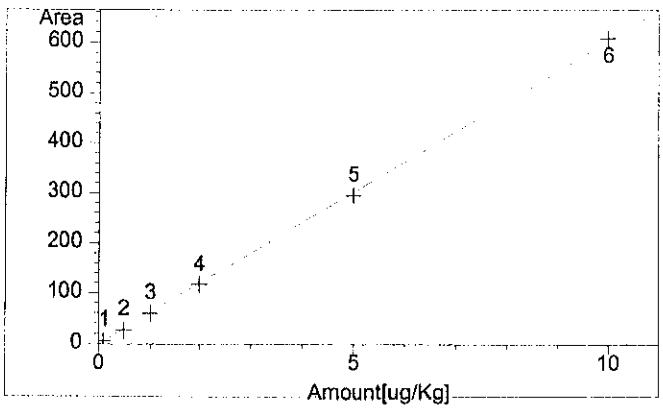
Chrysene #13 at exp. RT: 23.344
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99992
Residual Std. Dev.: 4.24801
Formula: y = mx
m: 65.76722
x: Amount[ug/Kg]
y: Area



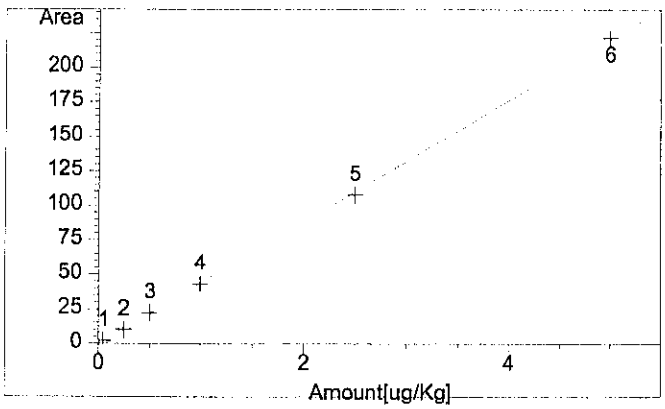
Chrysene #13 at exp. RT: 23.359
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 1.89228
Formula: y = mx
m: 25.63153
x: Amount[ug/Kg]
y: Area



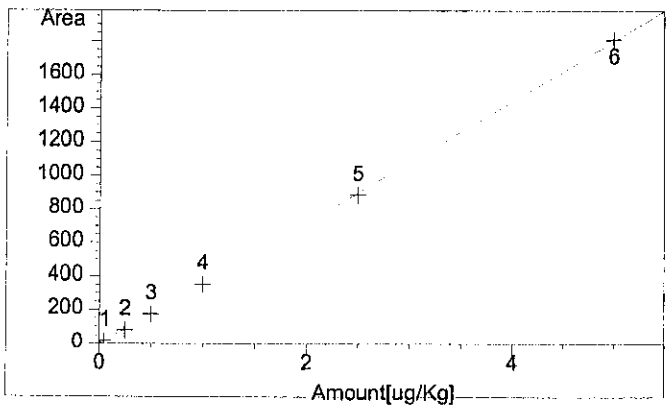
Benzo(b)fluoranthene #14 at exp. RT: 26.0
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.75074
Formula: y = mx
m: 47.97036
x: Amount [ug/Kg]
y: Area



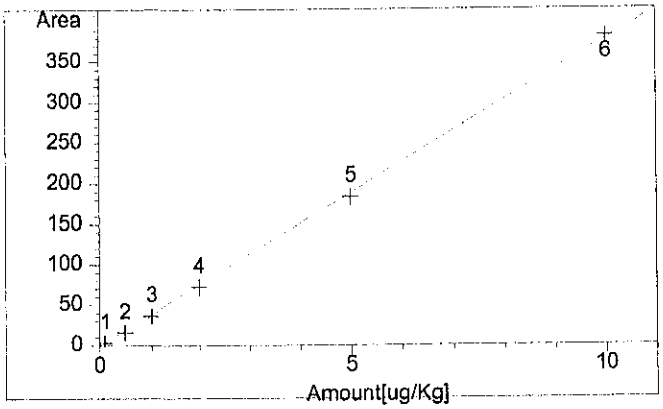
Benzo(b)fluoranthene #14 at exp. RT: 26.0
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 4.03106
Formula: y = mx
m: 60.38734
x: Amount [ug/Kg]
y: Area



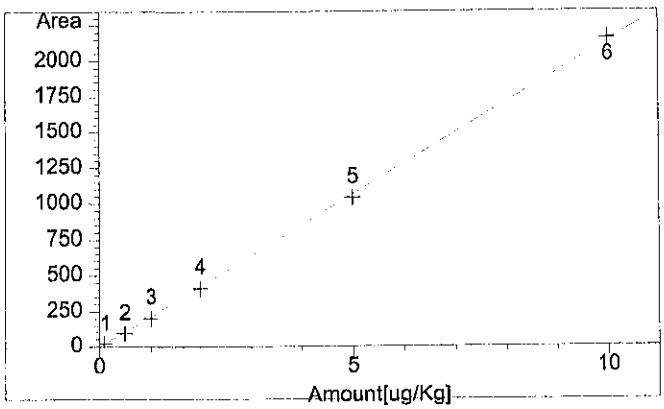
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 1.32680
Formula: y = mx
m: 44.01081
x: Amount [ug/Kg]
y: Area



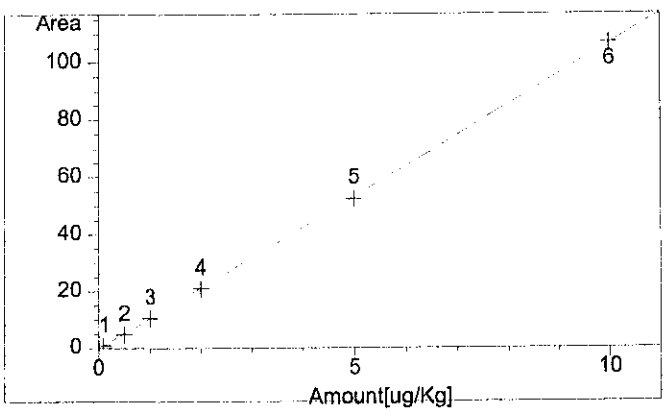
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 8.95635
Formula: y = mx
m: 360.27405
x: Amount [ug/Kg]
y: Area



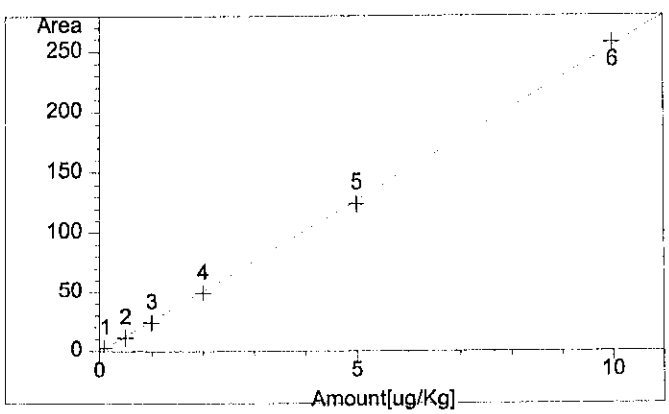
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.66250
Formula: y = mx
m: 37.84058
x: Amount [ug/Kg]
y: Area



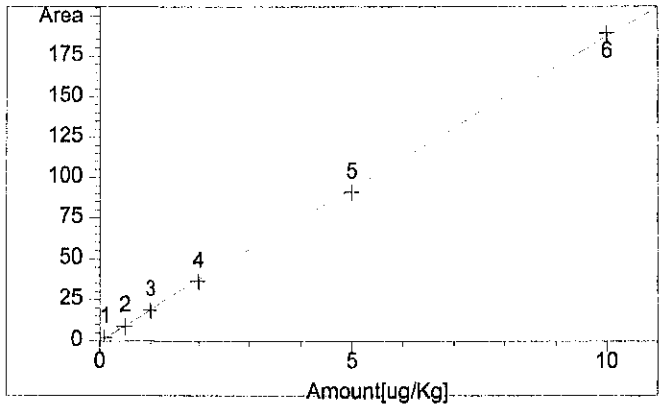
Benzo(a)pyrene #16 at exp. RT: 28.671
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 18.02931
Formula: y = mx
m: 213.83064
x: Amount [ug/Kg]
y: Area



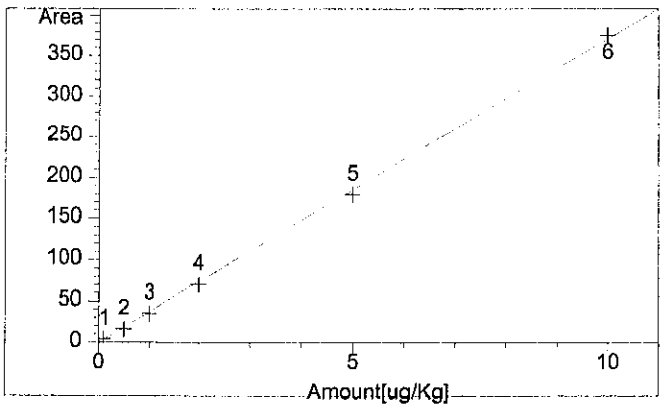
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 0.45234
Formula: y = mx
m: 10.64850
x: Amount [ug/Kg]
y: Area



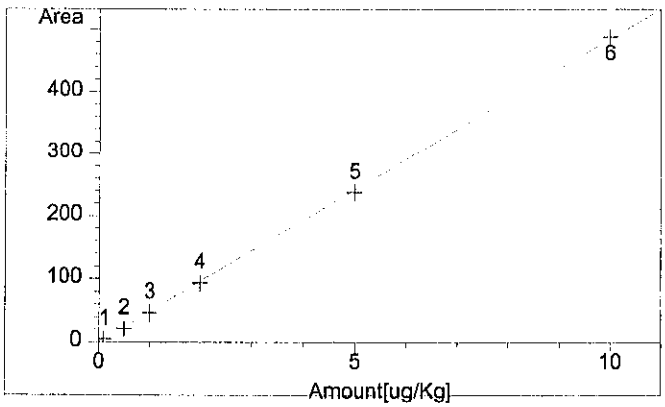
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99985
Residual Std. Dev.: 2.22409
Formula: y = mx
m: 25.43258
x: Amount [ug/Kg]
y: Area



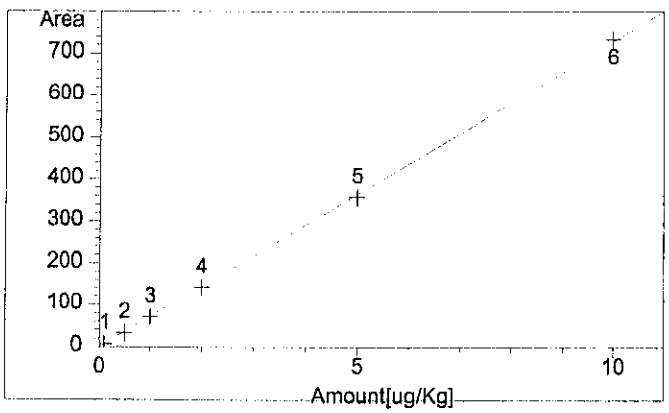
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 1.36075
Formula: y = mx
m: 18.70325
x: Amount[ug/Kg]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99979
Residual Std. Dev.: 3.90942
Formula: y = mx
m: 37.11040
x: Amount[ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99989
Residual Std. Dev.: 3.61517
Formula: y = mx
m: 48.49701
x: Amount[ug/Kg]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 4.44582
Formula: y = mx
m: 72.75878
x: Amount[ug/Kg]
y: Area

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557

1,1 SOS56-19 SURROGATE LVL 6 100 ppm

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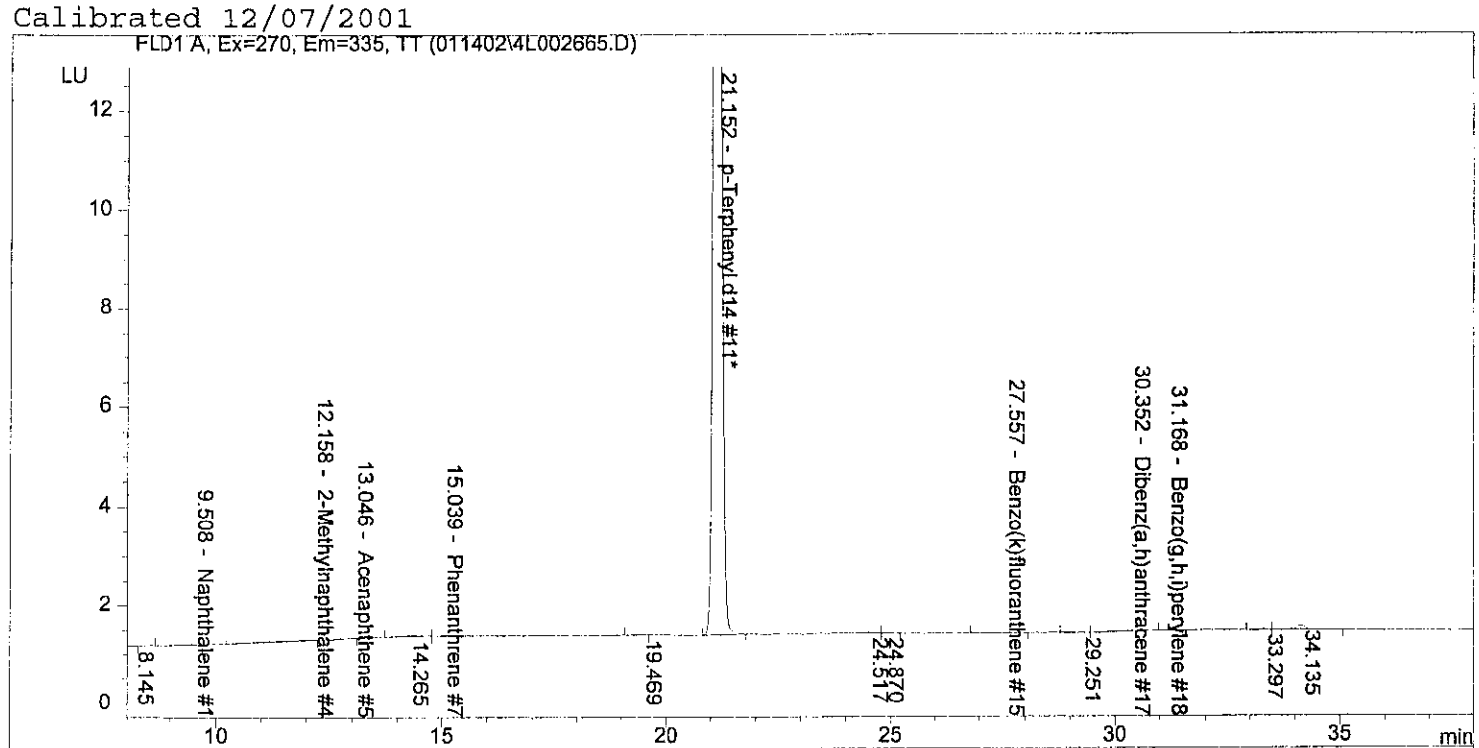
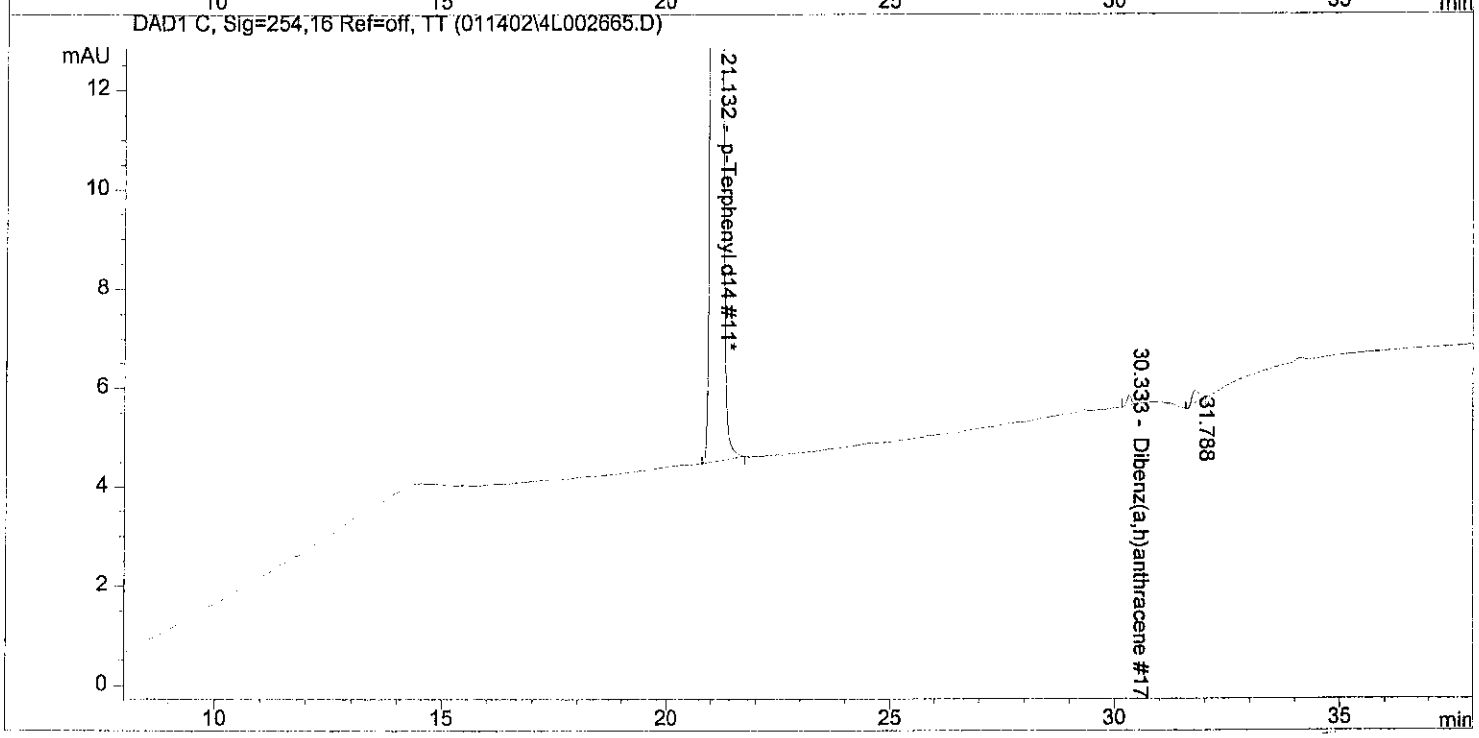
Injection Date	: 1/14/2002 4:49:46 PM	Seq. Line :	5
Sample Name	: WG111292-01 STD6	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:55:14 AM by RDC
(modified after loading)

Calibrated 12/07/2001





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External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:54:56 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.508	BB	4.34759e-1	1.16481e-1	5.06410e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.158	BB	1.07918	7.75522e-2	8.36927e-2		2-Methylnaphthalene #4
13.046	BB	1.89278e-1	6.17121e-2	1.16807e-2		Acenaphthene #5
13.592		-	-	-		Fluorene #6
15.039	BB	1.66581e-1	7.68372e-1	1.27997e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.152	BB	350.72665	2.88863e-1	101.31209		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.557	BB	2.49311e-1	1.22777e-2	3.06097e-3		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.352	BB	3.07933e-1	1.82908e-1	5.63234e-2		Dibenz(a,h)anthracene #17
31.168	BB	1.72865e-1	1.36072e-1	2.35222e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 101.66901

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.574		-	-	-		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.132	PBA	1553.40210	6.46122e-2	100.36876		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.333	PBA	1.41009	3.91388e-1	5.51892e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.92065

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

1,1 SOS56-20 8310 MIX LVL 6 100/10/1 ppm

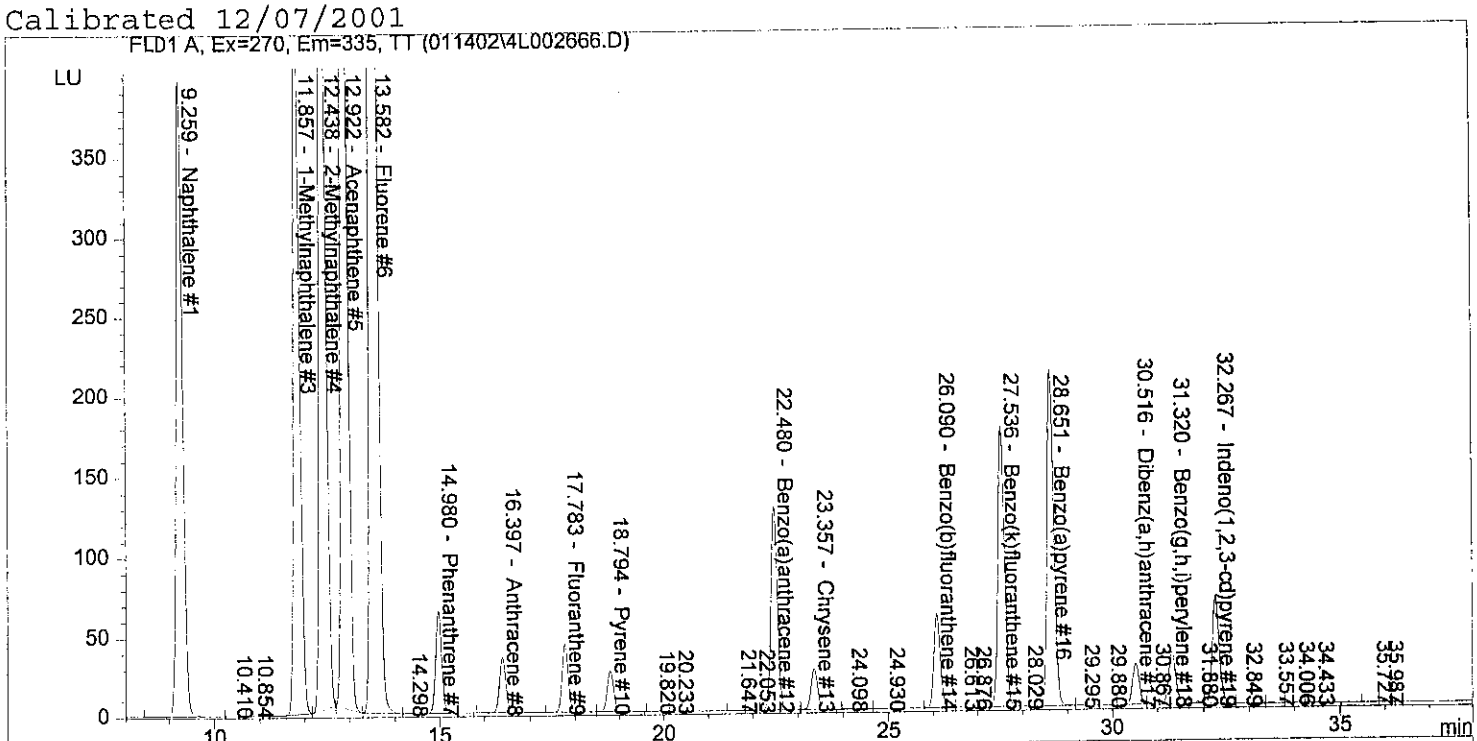
==========

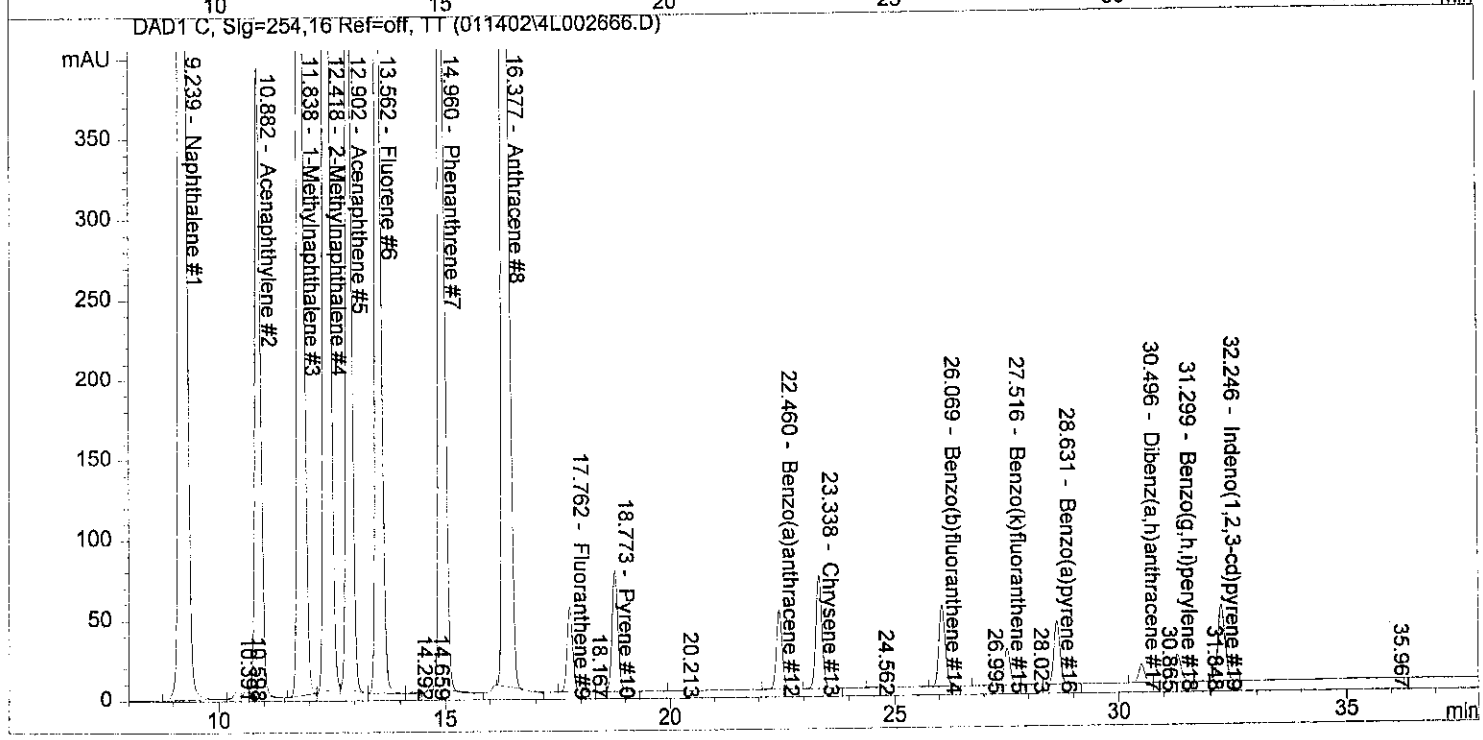
Injection Date : 1/14/2002 5:46:24 PM
Sample Name : WG111292-02 STD6
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:15 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.259	BB	3909.56982	2.59098e-2	101.29633		Naphthalene #1
11.857	BB	4464.79199	2.26593e-2	101.16897		1-Methylnaphthalene #3
12.438	BB	5805.80029	1.74043e-2	101.04580		2-Methylnaphthalene #4
12.922	BB	7244.47559	1.39240e-2	100.87222		Acenaphthene #5
13.582	BB	1.51952e4	6.58360e-3	100.03904		Fluorene #6
14.980	BBA	598.44012	1.69653e-1	101.52739		Phenanthrene #7
16.397	PB	330.05484	3.06735e-1	101.23935		Anthracene #8
17.783	BB	421.88382	2.42042e-2	10.21136		Fluoranthene #9
18.794	BBA	256.38925	4.52106e-2	11.59150		Pyrene #10
21.152		-	-	-		p-Terphenyl d14 #11*
22.480	BB	1264.77136	8.05530e-3	10.18811		Benzo(a)anthracene #12
23.357	BB	258.24448	3.94803e-2	10.19558		Chrysene #13
26.090	BB	607.99158	1.66154e-2	10.10204		Benzo(b)fluoranthene #14
27.536	BB	1810.23218	2.78279e-3	5.03750		Benzo(k)fluoranthene #15
28.651	BB	2156.77197	4.79942e-3	10.35126		Benzo(a)pyrene #16
30.516	BB	256.59177	3.97741e-2	10.20569		Dibenz(a,h)anthracene #17
31.320	BB	375.12704	2.76747e-2	10.38153		Benzo(g,h,i)perylene #18
32.267	BB	732.07330	1.37649e-2	10.07693		Indeno(1,2,3-cd)pyrene #1

Totals : 805.53062

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.239	BB	1.20010e4	8.25558e-3	99.07545		Naphthalene #1
10.882	BBA	3349.02344	2.99703e-2	100.37122		Acenaphthylene #2
11.838	PB	7715.90479	1.29630e-2	100.02135		1-Methylnaphthalene #3
12.418	BB	8860.92187	1.12528e-2	99.71030		2-Methylnaphthalene #4
12.902	BB	4924.77783	2.03626e-2	100.28115		Acenaphthene #5
13.562	BB	5678.37842	1.76507e-2	100.22728		Fluorene #6
14.960	BBA	5762.64355	1.73998e-2	100.26891		Phenanthrene #7
16.377	BBA	9595.33398	1.04250e-2	100.03098		Anthracene #8
17.762	PB	459.72919	2.18384e-2	10.03975		Fluoranthene #9
18.773	BBA	687.15900	1.45933e-2	10.02794		Pyrene #10
21.132		-	-	-		p-Terphenyl d14 #11*
22.460	BBA	451.63605	2.22799e-2	10.06240		Benzo(a)anthracene #12
23.338	BBA	661.99542	1.51643e-2	10.03871		Chrysene #13
26.069	BBA	482.47552	2.08014e-2	10.03615		Benzo(b)fluoranthene #14
27.516	BB	221.38257	2.26525e-2	5.01487		Benzo(k)fluoranthene #15
28.631	BB	382.09714	2.68748e-2	10.26877		Benzo(a)pyrene #16
30.496	PB	106.91074	9.38593e-2	10.03457		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.299	BB	188.48102	5.43668e-2	10.24712		Benzo(g,h,i)perylene #18
32.246	BB	488.50769	2.05620e-2	10.04469		Indeno(1,2,3-cd)pyrene #1

Totals : 895.80161

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

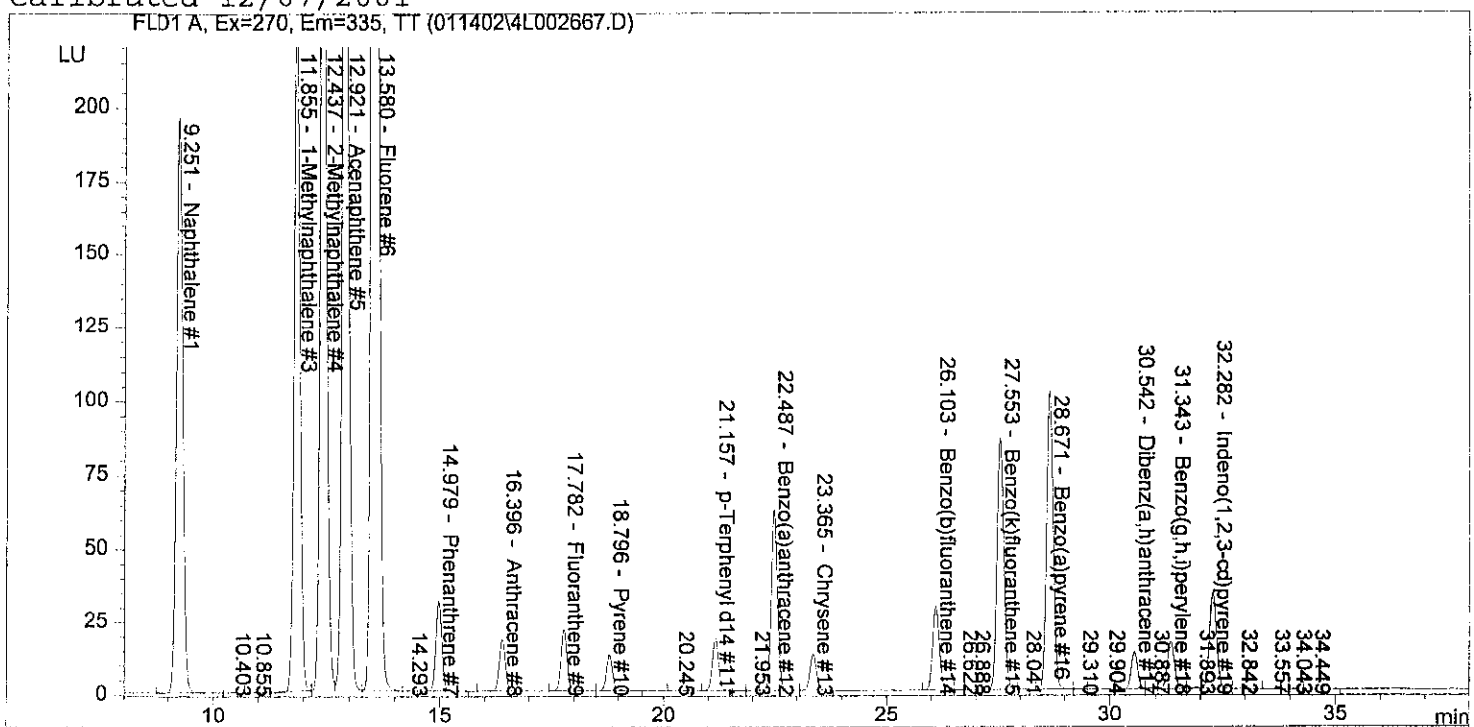
1,1 SOS56-19/56-20 8310 LVL 5 50/5/2.5 ppm

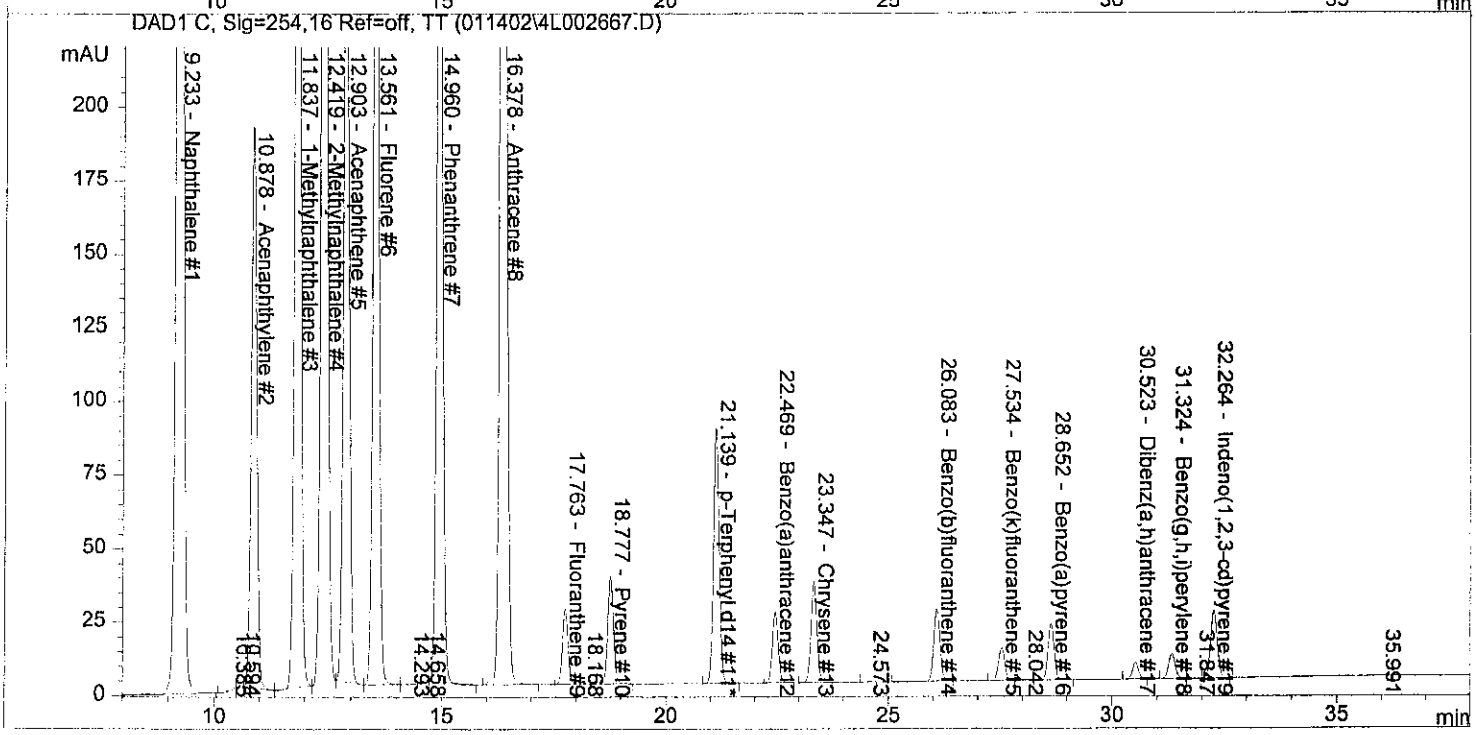
==========

Injection Date	: 1/14/2002 6:43:01 PM	Seq. Line	: 7
Sample Name	: WG111292-03 STD5	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:56:54 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:56:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	PB	1917.75940	2.57391e-2	49.36141		Naphthalene #1
11.855	BB	2196.17188	2.25224e-2	49.46298		1-Methylnaphthalene #3
12.437	BB	2872.90649	1.72938e-2	49.68347		2-Methylnaphthalene #4
12.921	BB	3601.05908	1.38425e-2	49.84749		Acenaphthene #5
13.580	BB	7650.25977	6.57169e-3	50.27517		Fluorene #6
14.979	BBA	289.46243	1.68729e-1	48.84075		Phenanthrene #7
16.396	PB	163.06247	3.04476e-1	49.64867		Anthracene #8
17.782	PB	205.21196	2.39096e-2	4.90655		Fluoranthene #9
18.796	BBA	123.47372	4.13417e-2	5.10461		Pyrene #10
21.157	BB	172.45569	2.86901e-1	49.47773		p-Terphenyl d14 #11*
22.487	BB	613.80975	7.98167e-3	4.89922		Benzo(a)anthracene #12
23.365	BBA	125.29953	3.90970e-2	4.89883		Chrysene #13
26.103	BB	295.74701	1.65676e-2	4.89983		Benzo(b)fluoranthene #14
27.553	BB	887.50769	2.77706e-3	2.46466		Benzo(k)fluoranthene #15
28.671	BB	1042.10840	4.69783e-3	4.89565		Benzo(a)pyrene #16
30.542	BB	123.83313	3.94476e-2	4.88492		Dibenz(a,h)anthracene #17
31.343	BB	179.72395	2.70688e-2	4.86491		Benzo(g,h,i)perylene #18
32.282	BB	357.19571	1.37309e-2	4.90463		Indeno(1,2,3-cd)pyrene #1

Totals : 443.32149

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	6168.26709	8.27438e-3	51.03859		Naphthalene #1
10.878	BB	1640.81848	3.00057e-2	49.23384		Acenaphthylene #2
11.837	BB	3818.50562	1.29899e-2	49.60194		1-Methylnaphthalene #3
12.419	BB	4453.67236	1.12699e-2	50.19243		2-Methylnaphthalene #4
12.903	BB	2423.54761	2.03840e-2	49.40167		Acenaphthene #5
13.561	BB	2784.74756	1.76899e-2	49.26182		Fluorene #6
14.960	BBA	2829.81055	1.74269e-2	49.31471		Phenanthrene #7
16.378	BBA	4949.62500	1.03683e-2	51.31903		Anthracene #8
17.763	PB	223.85286	2.18887e-2	4.89985		Fluoranthene #9
18.777	BBA	335.84097	1.46312e-2	4.91376		Pyrene #10
21.139	PBA	768.36145	6.46010e-2	49.63695		p-Terphenyl d14 #11*
22.469	BBA	219.83919	2.22917e-2	4.90059		Benzo(a)anthracene #12
23.347	BBA	322.44791	1.52017e-2	4.90177		Chrysene #13
26.083	PBA	235.80293	2.08378e-2	4.91361		Benzo(b)fluoranthene #14
27.534	BB	107.77484	2.27191e-2	2.44855		Benzo(k)fluoranthene #15
28.652	BBA	183.75787	2.65103e-2	4.87147		Benzo(a)pyrene #16
30.523	PB	52.59206	9.36520e-2	4.92535		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.324	BB	91.19056	5.36419e-2	4.89163		Benzo(g,h,i)perylene #18
32.264	BBA	237.57994	2.05885e-2	4.89142		Indeno(1,2,3-cd)pyrene #1

Totals : 495.55898

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

1,1 SOS56-19/56-20 8310 LVL 4 20/2/1 ppm (CCV)

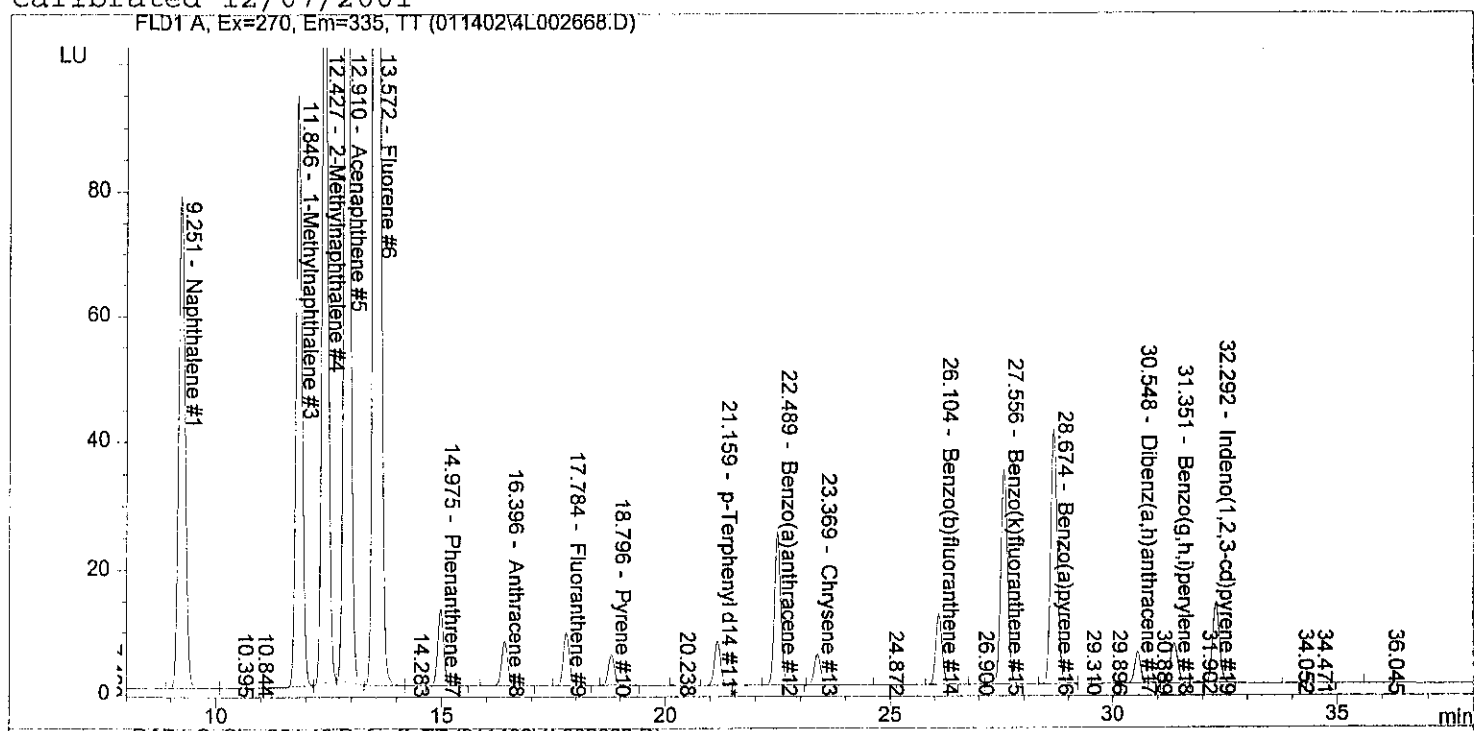
==========

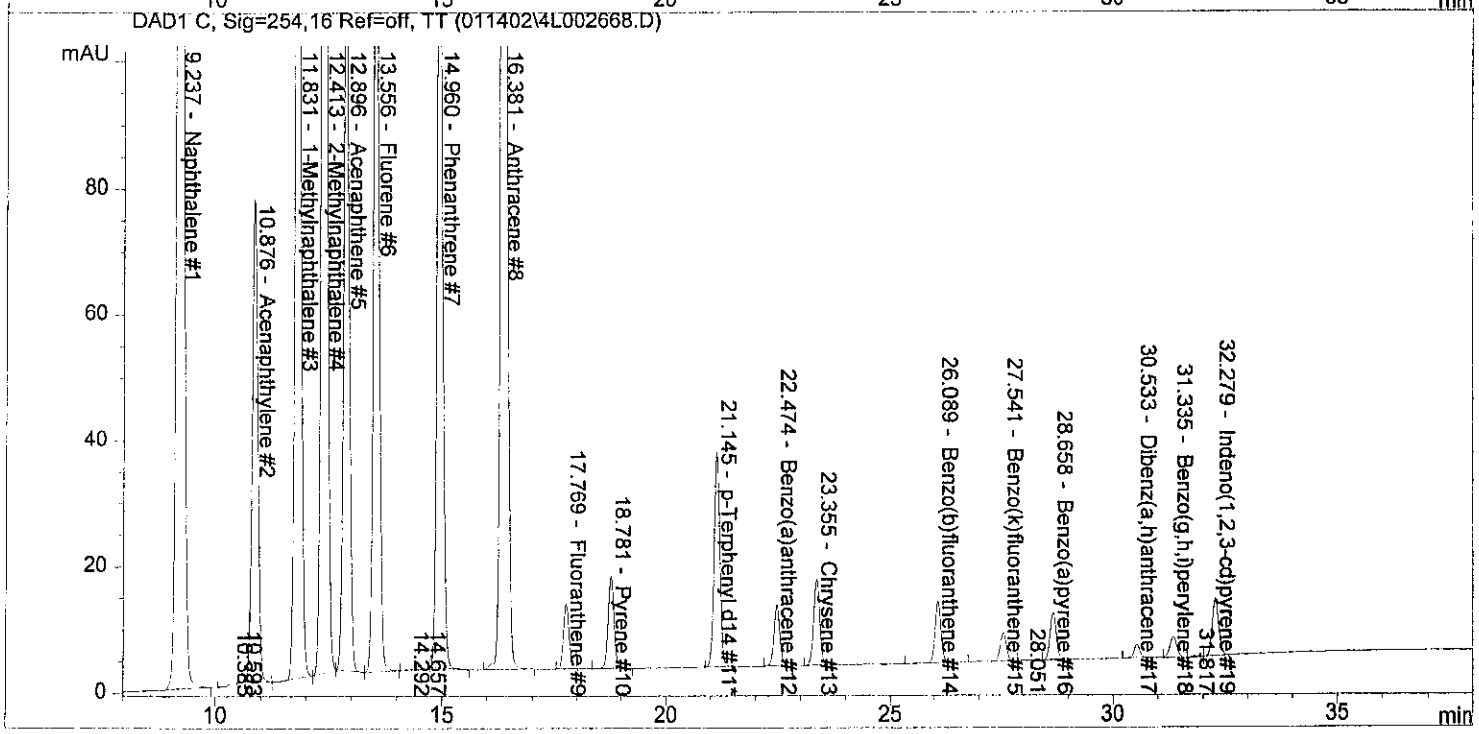
Injection Date : 1/14/2002 7:39:37 PM
Sample Name : WG111292-04 STD4
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:57:31 AM by RDC
(modified after loading)

Calibrated 12/07/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:26 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.251	BB	764.84155	2.57113e-2	19.66506		Naphthalene #1
11.846	BB	876.57288	2.24980e-2	19.72111		1-Methylnaphthalene #3
12.427	BB	1149.51221	1.72762e-2	19.85915		2-Methylnaphthalene #4
12.910	BB	1447.01648	1.38282e-2	20.00960		Acenaphthene #5
13.572	BB	3090.21484	6.56989e-3	20.30237		Fluorene #6
14.975	BBA	114.46365	1.68568e-1	19.29489		Phenanthrene #7
16.396	PB	66.19009	3.03909e-1	20.11577		Anthracene #8
17.784	BBA	81.38047	2.38718e-2	1.94270		Fluoranthene #9
18.796	BBA	48.63459	4.08244e-2	1.98548		Pyrene #10
21.159	BB	67.61504	2.86614e-1	19.37940		p-Terphenyl d14 #11*
22.489	BBA	243.40866	7.97013e-3	1.94000		Benzo(a)anthracene #12
23.369	BB	49.65573	3.90341e-2	1.93827		Chrysene #13
26.104	BB	117.46639	1.65629e-2	1.94559		Benzo(b)fluoranthene #14
27.556	BB	353.46982	2.77623e-3	9.81314e-1		Benzo(k)fluoranthene #15
28.674	BB	411.81049	4.68187e-3	1.92804		Benzo(a)pyrene #16
30.548	BB	49.01668	3.93610e-2	1.92935		Dibenz(a,h)anthracene #17
31.351	BB	70.52281	2.69711e-2	1.90208		Benzo(g,h,i)perylene #18
32.292	BB	141.77130	1.37318e-2	1.94677		Indeno(1,2,3-cd)pyrene #1

Totals : 176.78695

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.237	BBA	2493.37891	8.27672e-3	20.63700		Naphthalene #1
10.876	BB	654.20630	3.00100e-2	19.63274		Acenaphthylene #2
11.831	BB	1527.97900	1.29933e-2	19.85351		1-Methylnaphthalene #3
12.413	BB	1790.56641	1.12718e-2	20.18291		2-Methylnaphthalene #4
12.896	BB	968.73480	2.03858e-2	19.74842		Acenaphthene #5
13.556	BBA	1111.38098	1.76946e-2	19.66540		Fluorene #6
14.960	BBA	1130.27087	1.74304e-2	19.70112		Phenanthrene #7
16.381	PBA	1988.68909	1.03512e-2	20.58537		Anthracene #8
17.769	PB	88.82484	2.18962e-2	1.94493		Fluoranthene #9
18.781	BBA	134.09285	1.46350e-2	1.96245		Pyrene #10
21.145	PBA	301.36755	6.46036e-2	19.46943		p-Terphenyl d14 #11*
22.474	BBA	87.40981	2.22922e-2	1.94856		Benzo(a)anthracene #12
23.355	BBA	127.90170	1.52055e-2	1.94481		Chrysene #13
26.089	BBA	93.43871	2.08450e-2	1.94773		Benzo(b)fluoranthene #14
27.541	BBA	43.15946	2.27263e-2	9.80857e-1		Benzo(k)fluoranthene #15
28.658	BBA	72.43052	2.64554e-2	1.91618		Benzo(a)pyrene #16
30.533	PBA	20.95795	9.37185e-2	1.96415		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.335	BB	36.23856	5.34889e-2	1.93836		Benzo(g,h,i)perylene #18
32.279	BBA	93.53850	2.06233e-2	1.92908		Indeno(1,2,3-cd)pyrene #1

Totals : 197.95301

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

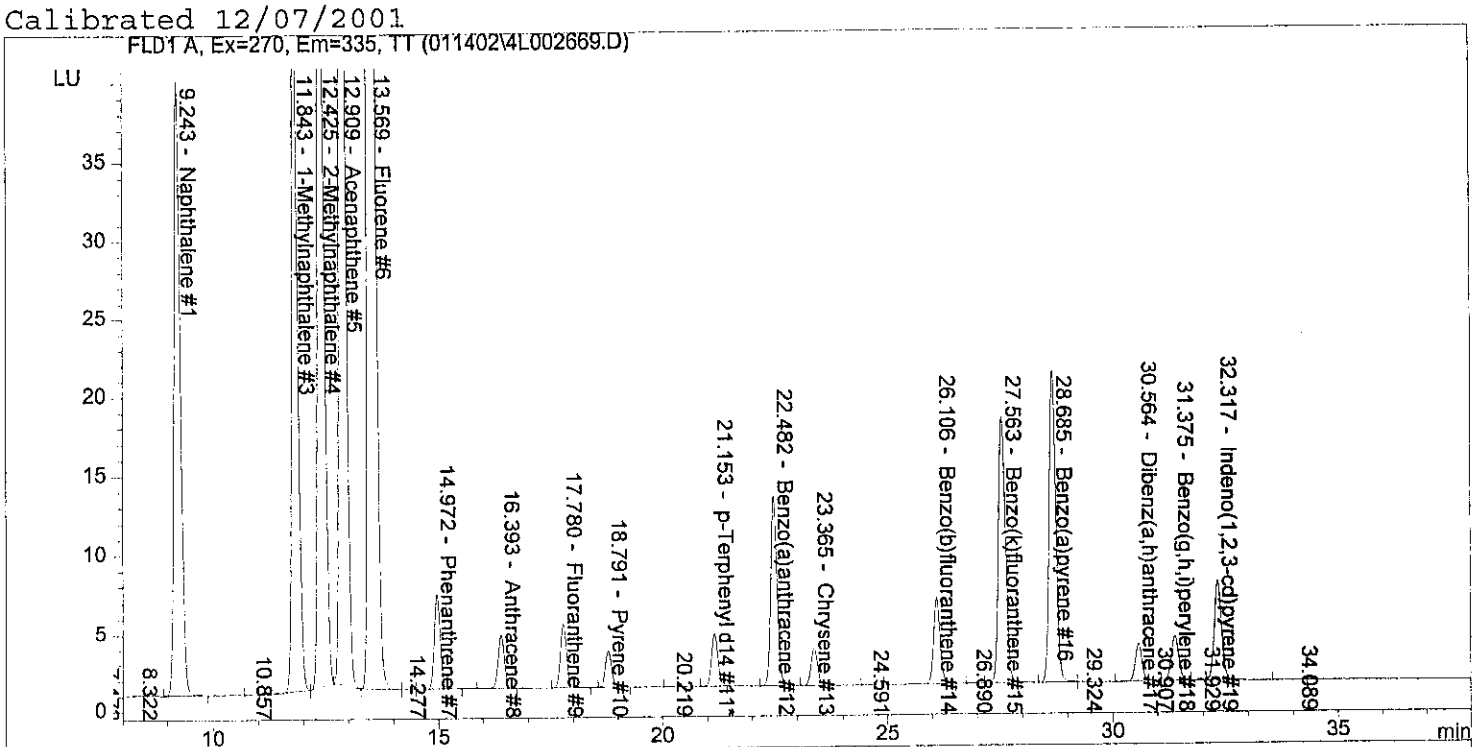
1,1 SOS56-19/56-20 8310 LVL 3 10/1/.5 ppm

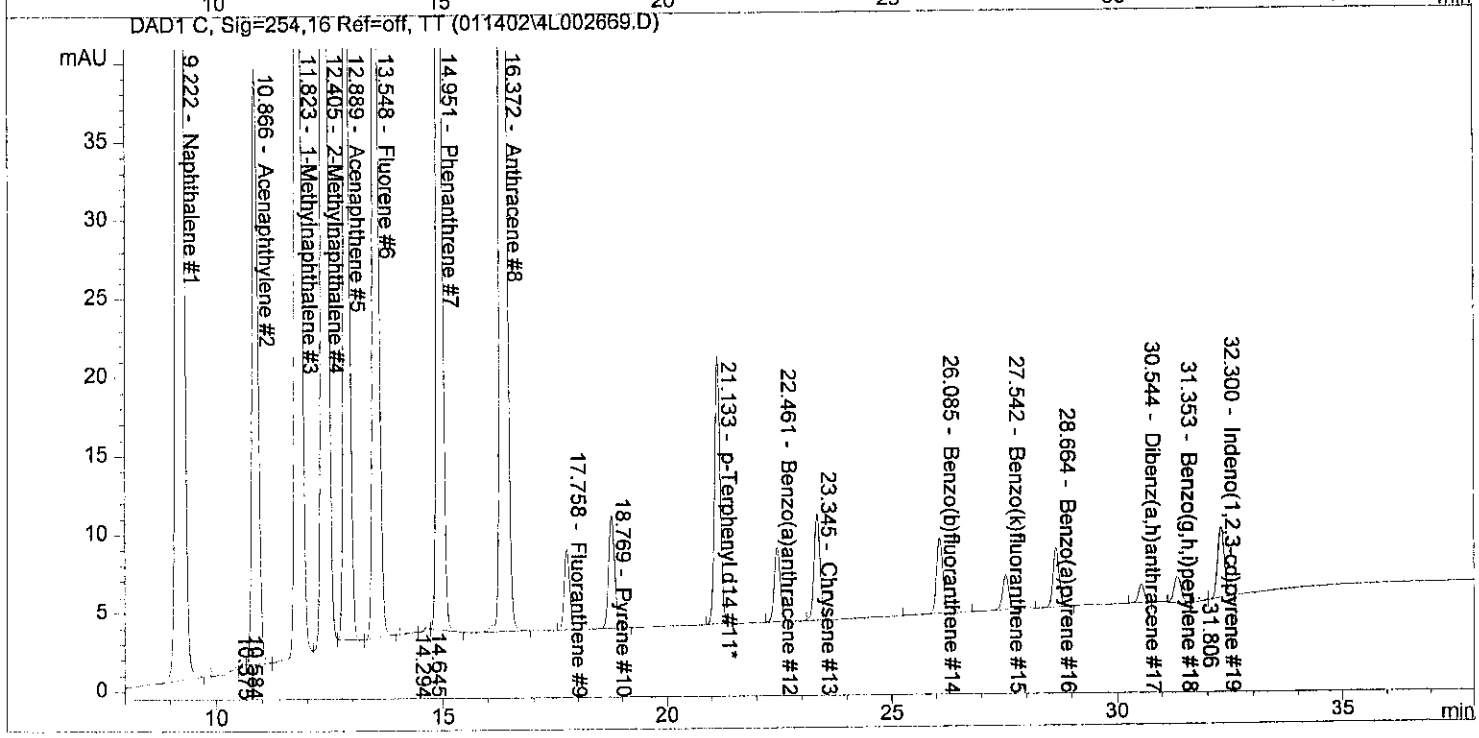
==========

Injection Date	: 1/14/2002 8:36:14 PM	Seq. Line	: 9
Sample Name	: WG111292-05 STD3	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:04 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:57:59 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.243	BBA	379.16129	2.57002e-2	9.74453		Naphthalene #1
11.843	BB	434.69620	2.24890e-2	9.77589		1-Methylnaphthalene #3
12.425	BB	570.62238	1.72690e-2	9.85408		2-Methylnaphthalene #4
12.909	BB	718.57635	1.38226e-2	9.93260		Acenaphthene #5
13.569	BB	1545.26501	6.56835e-3	10.14984		Fluorene #6
14.972	BBA	56.83334	1.68487e-1	9.57567		Phenanthrene #7
16.393	BB	32.77779	3.03723e-1	9.95538		Anthracene #8
17.780	BBA	40.55882	2.38651e-2	9.67941e-1		Fluoranthene #9
18.791	BBA	23.90537	4.06767e-2	9.72391e-1		Pyrene #10
21.153	BB	33.44160	2.86510e-1	9.58136		p-Terphenyl d14 #11*
22.482	BB	120.40920	7.96570e-3	9.59144e-1		Benzo(a)anthracene #12
23.365	BB	24.62586	3.90135e-2	9.60740e-1		Chrysene #13
26.106	BB	58.49529	1.65575e-2	9.68536e-1		Benzo(b)fluoranthene #14
27.563	BB	175.63820	2.77551e-3	4.87486e-1		Benzo(k)fluoranthene #15
28.685	BB	203.03578	4.67719e-3	9.49638e-1		Benzo(a)pyrene #16
30.564	BB	24.01385	3.93187e-2	9.44192e-1		Dibenz(a,h)anthracene #17
31.375	BB	34.73734	2.69479e-2	9.36098e-1		Benzo(g,h,i)perylene #18
32.317	BB	70.38887	1.37428e-2	9.67338e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 87.68286

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.222	PBA	1246.98584	8.27572e-3	10.31971		Naphthalene #1
10.866	BB	325.75351	3.00062e-2	9.77463		Acenaphthylene #2
11.823	BB	761.30933	1.29920e-2	9.89092		1-Methylnaphthalene #3
12.405	BB	894.14850	1.12702e-2	10.07728		2-Methylnaphthalene #4
12.889	BB	483.23654	2.03825e-2	9.84955		Acenaphthene #5
13.548	BBA	552.99121	1.76927e-2	9.78392		Fluorene #6
14.951	BBA	563.78040	1.74279e-2	9.82554		Phenanthrene #7
16.372	PBA	992.23688	1.03457e-2	10.26534		Anthracene #8
17.758	PB	44.30089	2.18935e-2	9.69901e-1		Fluoranthene #9
18.769	BBA	66.46920	1.46332e-2	9.72658e-1		Pyrene #10
21.133	BBA	149.64757	6.45954e-2	9.66654		p-Terphenyl d14 #11*
22.461	BBA	43.45026	2.22870e-2	9.68375e-1		Benzo(a)anthracene #12
23.345	BBA	63.55274	1.52040e-2	9.66253e-1		Chrysene #13
26.085	PBA	46.72572	2.08440e-2	9.73952e-1		Benzo(b)fluoranthene #14
27.542	BBA	22.23862	2.27170e-2	5.05194e-1		Benzo(k)fluoranthene #15
28.664	BBA	36.33923	2.64282e-2	9.60381e-1		Benzo(a)pyrene #16
30.544	PBA	10.59134	9.39051e-2	9.94581e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.353	BB	18.37240	5.34686e-2	9.82347e-1		Benzo(g,h,i)perylene #18
32.300	BBA	46.32841	2.06171e-2	9.55155e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 98.70222

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

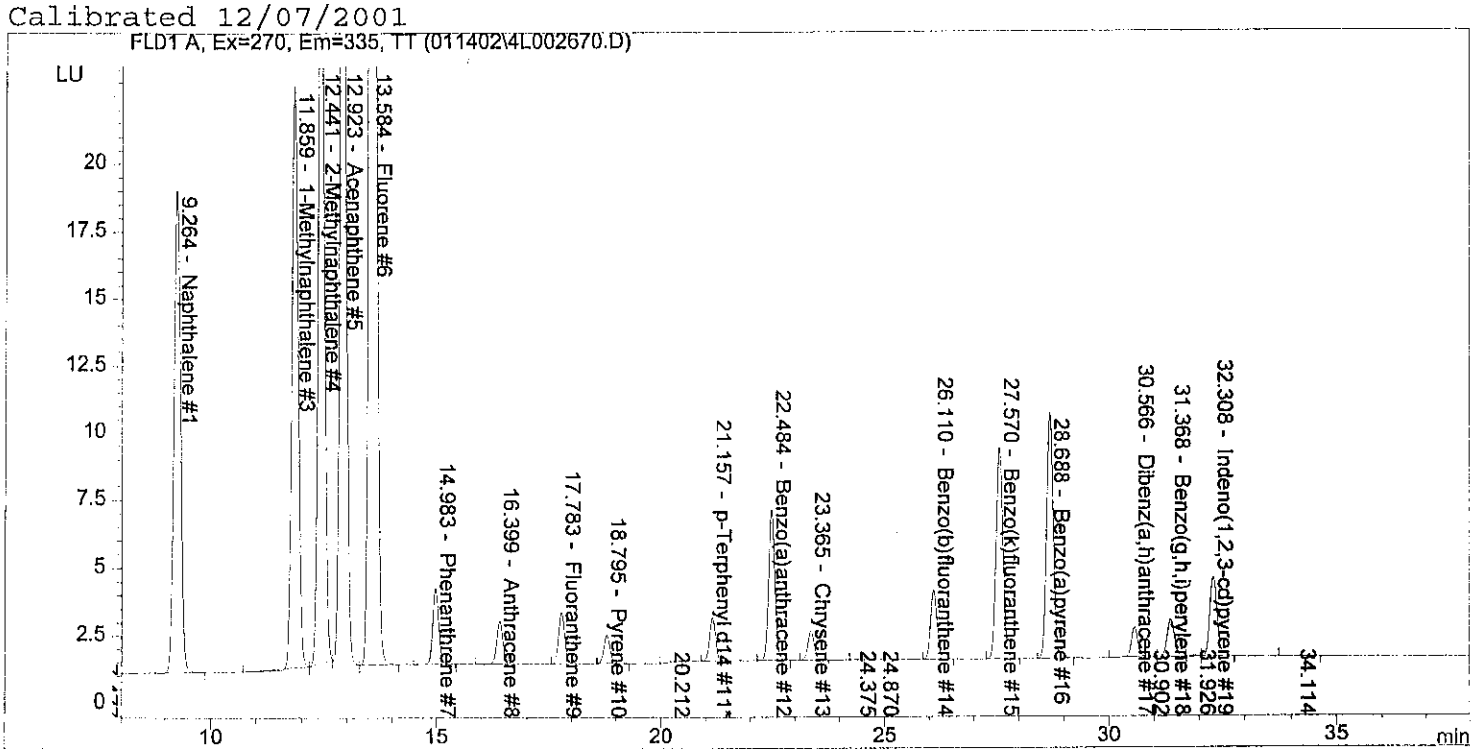
1,1 SOS56-19/56-20 8310 LVL 2 5/.5/.25 ppm

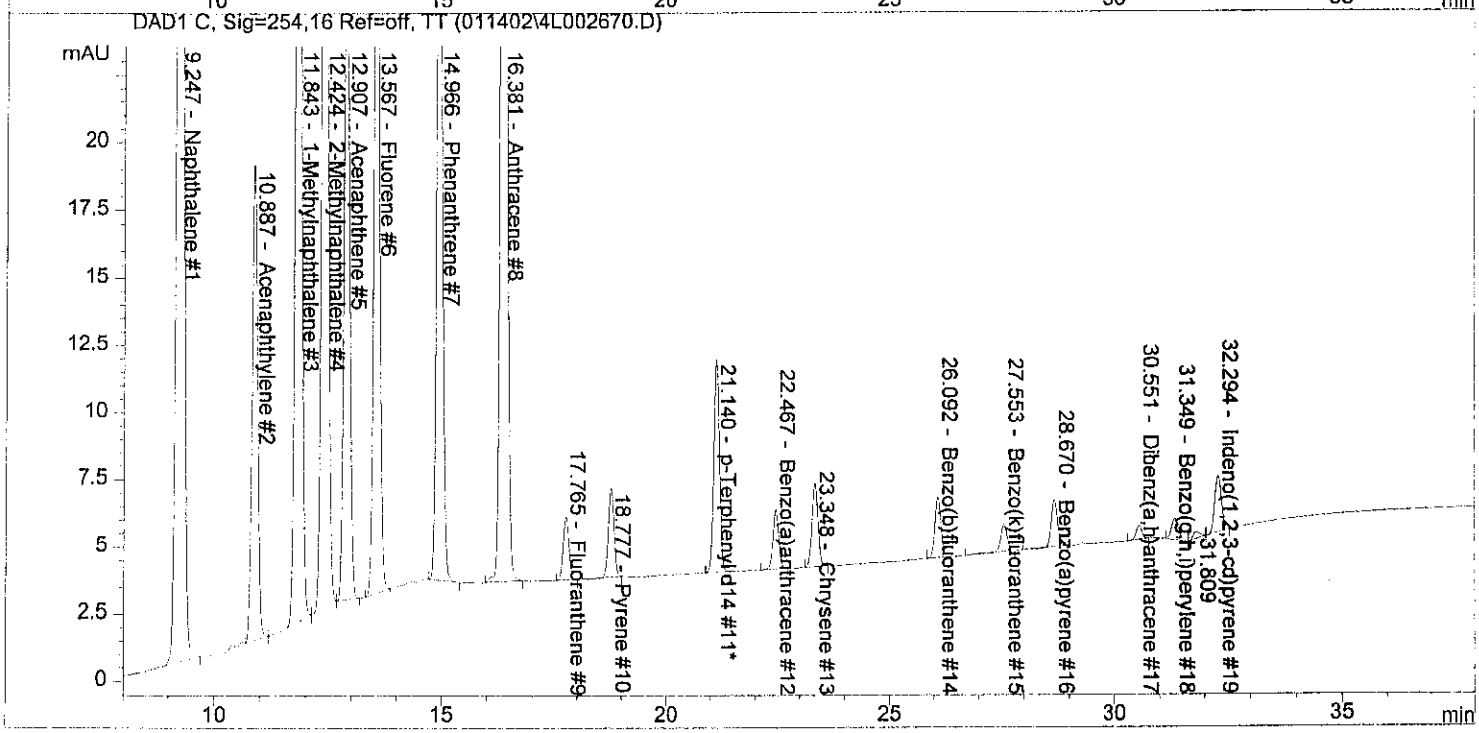
==========

Injection Date	: 1/14/2002 9:32:51 PM	Seq. Line	: 10
Sample Name	: WG111292-06 STD2	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 8:58:46 AM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, January 15, 2002 8:58:38 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.264	BBA	174.72874	2.57004e-2	4.49059		Naphthalene #1
11.859	BB	200.14003	2.24894e-2	4.50103		1-Methylnaphthalene #3
12.441	BB	263.61240	1.72692e-2	4.55237		2-Methylnaphthalene #4
12.923	BB	332.58978	1.38228e-2	4.59733		Acenaphthene #5
13.584	BB	715.49780	6.56880e-3	4.69996		Fluorene #6
14.983	BBA	26.26655	1.68488e-1	4.42559		Phenanthrene #7
16.399	PBA	15.12442	3.03717e-1	4.59355		Anthracene #8
17.783	PBA	18.24046	2.38673e-2	4.35351e-1		Fluoranthene #9
18.795	PBA	10.94241	4.06617e-2	4.44937e-1		Pyrene #10
21.157	BB	15.68857	2.86514e-1	4.49500		p-Terphenyl d14 #11*
22.484	BBA	55.43239	7.96561e-3	4.41553e-1		Benzo(a)anthracene #12
23.365	BBA	11.26101	3.90146e-2	4.39344e-1		Chrysene #13
26.110	BBA	26.85213	1.65597e-2	4.44664e-1		Benzo(b)fluoranthene #14
27.570	PBA	81.11520	2.77567e-3	2.25149e-1		Benzo(k)fluoranthene #15
28.688	PB	93.51391	4.67664e-3	4.37331e-1		Benzo(a)pyrene #16
30.566	BB	10.98461	3.93199e-2	4.31913e-1		Dibenz(a,h)anthracene #17
31.368	BB	15.91699	2.69467e-2	4.28911e-1		Benzo(g,h,i)perylene #18
32.308	BBA	32.46655	1.37441e-2	4.46224e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 40.53080

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	PBA	576.60266	8.27651e-3	4.77226		Naphthalene #1
10.887	BB	150.79996	3.00090e-2	4.52535		Acenaphthylene #2
11.843	BB	352.56210	1.29932e-2	4.58091		1-Methylnaphthalene #3
12.424	BB	414.06625	1.12713e-2	4.66705		2-Methylnaphthalene #4
12.907	BBA	223.83940	2.03841e-2	4.56277		Acenaphthene #5
13.567	PBA	254.83487	1.76945e-2	4.50919		Fluorene #6
14.966	BBA	261.27347	1.74294e-2	4.55384		Phenanthrene #7
16.381	PBA	458.90207	1.03455e-2	4.74759		Anthracene #8
17.765	BBA	20.33956	2.18957e-2	4.45349e-1		Fluoranthene #9
18.777	BBA	29.23632	1.46348e-2	4.27869e-1		Pyrene #10
21.140	BBA	69.63579	6.45989e-2	4.49840		p-Terphenyl d14 #11*
22.467	BBA	20.37423	2.22879e-2	4.54100e-1		Benzo(a)anthracene #12
23.348	BBA	29.37774	1.52052e-2	4.46693e-1		Chrysene #13
26.092	BBA	21.54782	2.08463e-2	4.49192e-1		Benzo(b)fluoranthene #14
27.553	PBA	9.94531	2.27216e-2	2.25973e-1		Benzo(k)fluoranthene #15
28.670	BBA	15.71871	2.64268e-2	4.15396e-1		Benzo(a)pyrene #16
30.551	PBA	4.83241	9.39112e-2	4.53817e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.349	BB	8.91349	5.34670e-2	4.76577e-1		Benzo(g,h,i)perylene #18
32.294	BB	20.89905	2.06199e-2	4.30937e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 45.64325

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

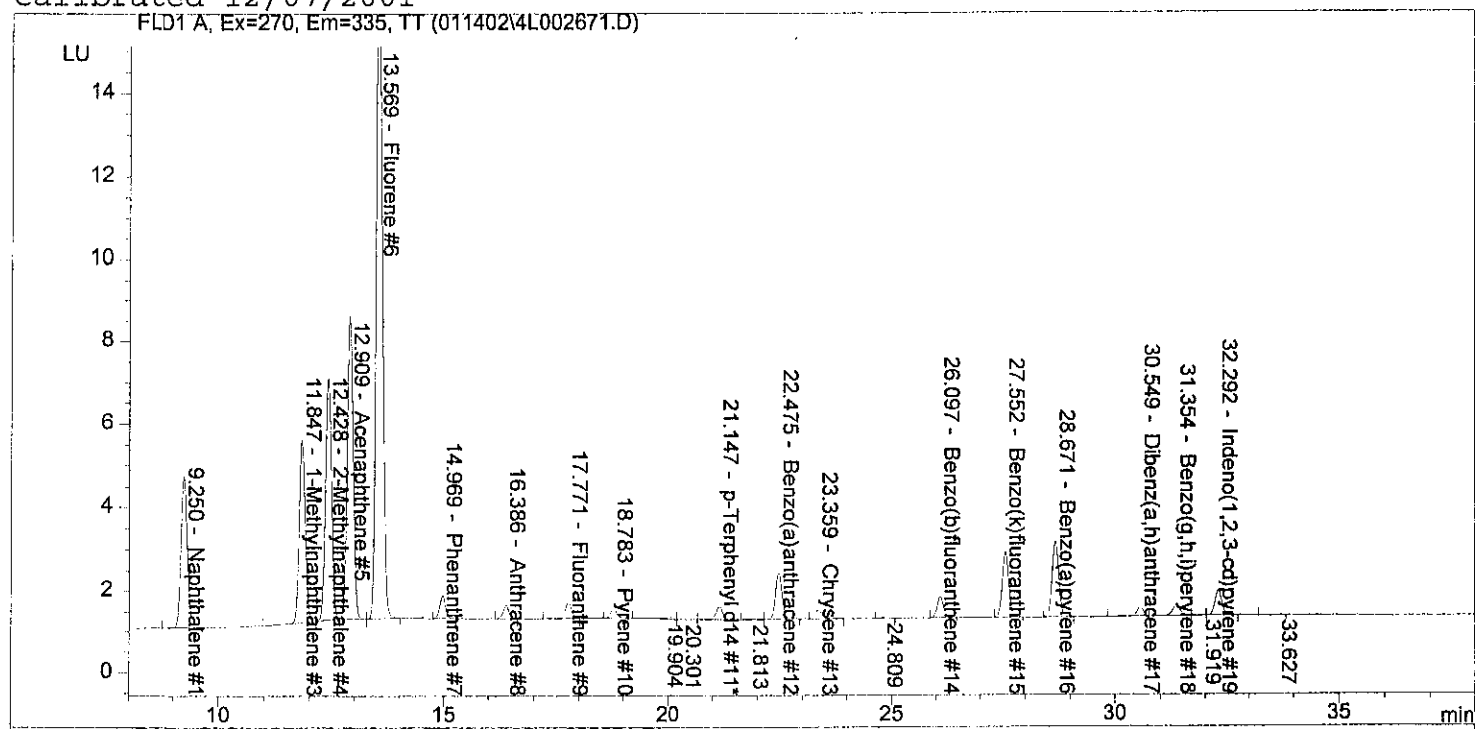
1,1 SOS56-19/56-20 8310 LVL 1 1/.1/.05 ppm

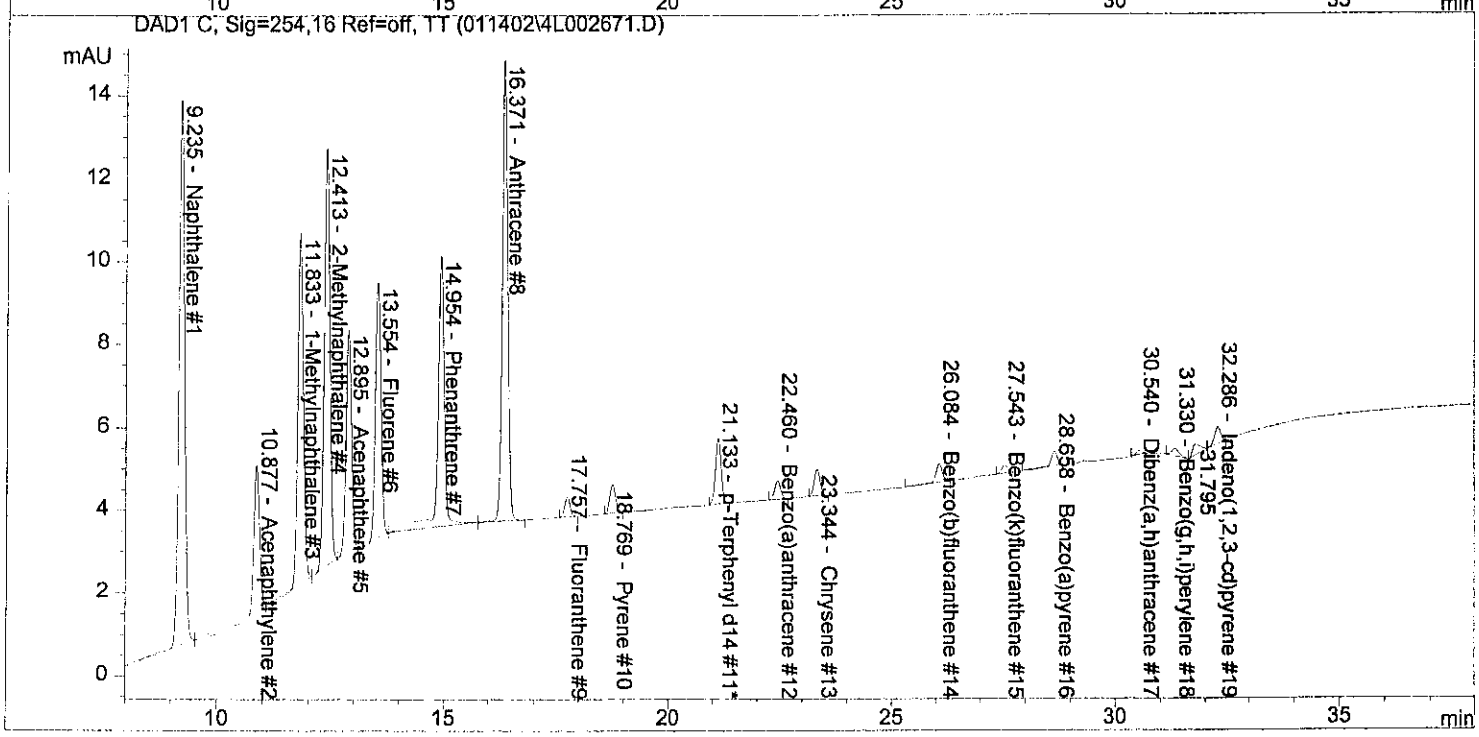
==========

Injection Date	: 1/14/2002 10:29:31 PM	Seq. Line	: 11
Sample Name	: WG111292-07 STD1	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:02:17 AM by RDC
(modified after loading)

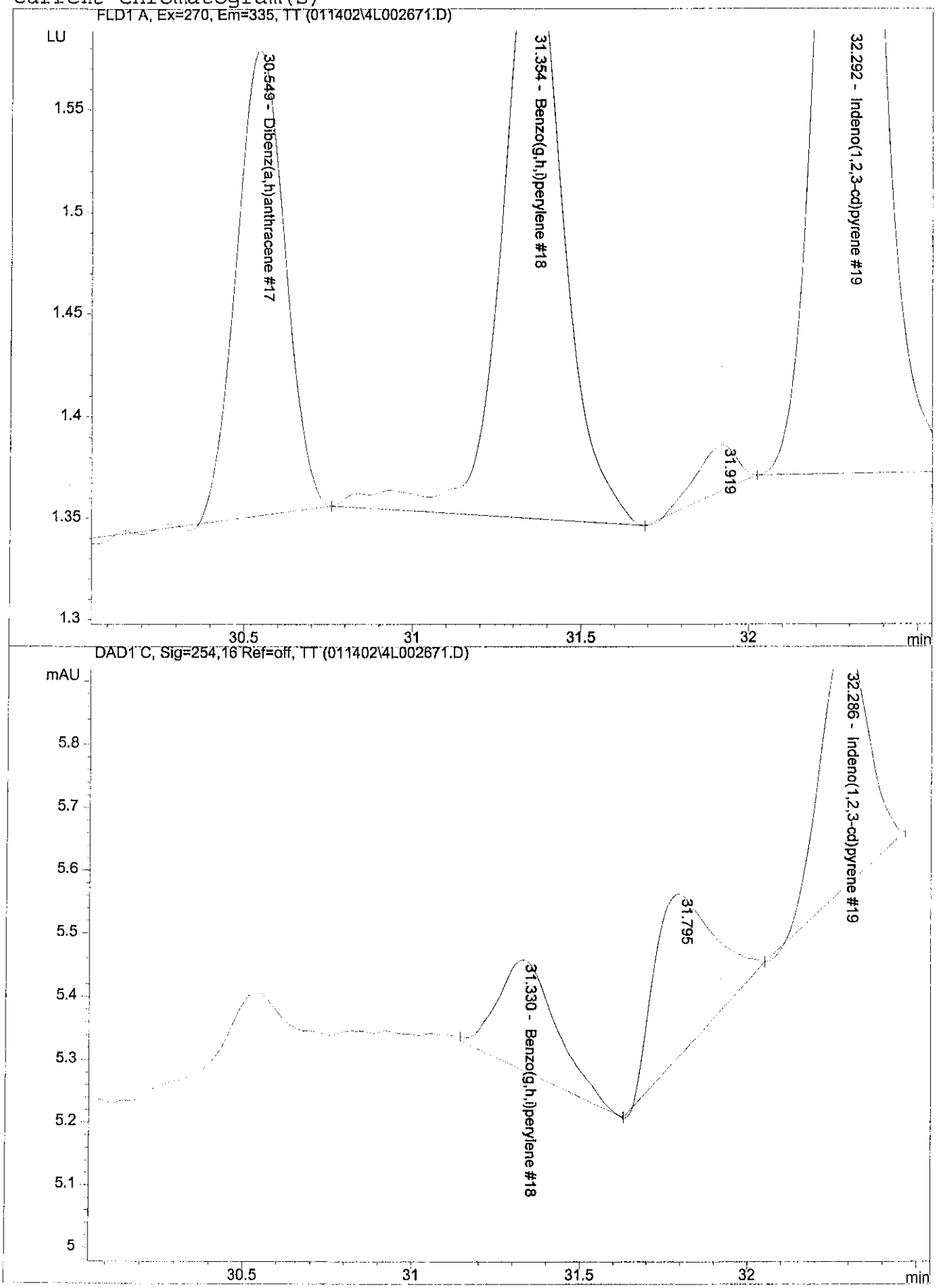
Calibrated 12/07/2001





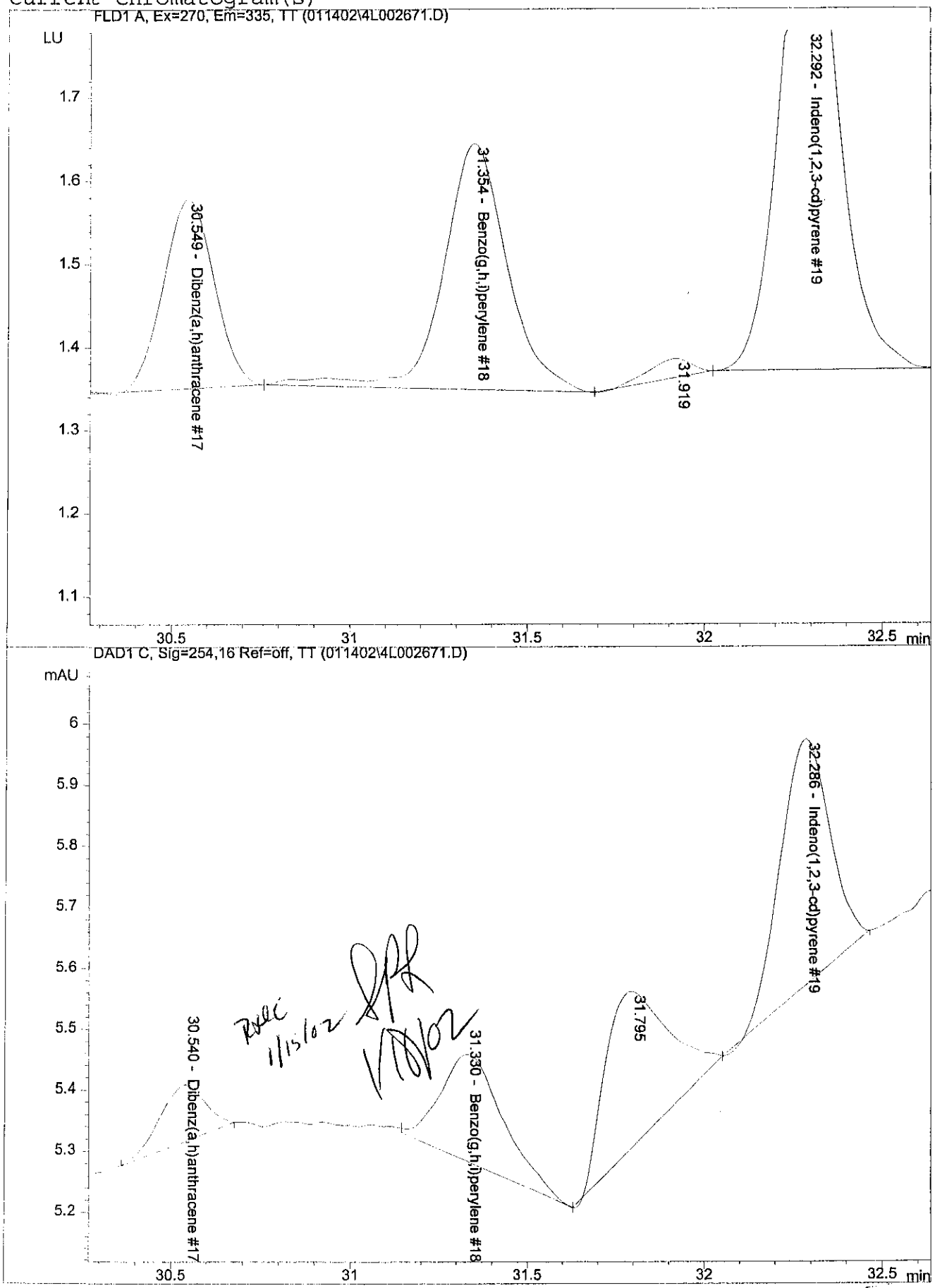
576

Current Chromatogram(s)



577

Current Chromatogram(s)



RWC 1/15/02

578

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:02:14 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.250	PBA	35.78353	2.57003e-2	9.19647e-1		Naphthalene #1
11.847	BB	41.42604	2.24893e-2	9.31643e-1		1-Methylnaphthalene #3
12.428	BB	53.86543	1.72691e-2	9.30209e-1		2-Methylnaphthalene #4
12.909	BB	67.89028	1.38228e-2	9.38432e-1		Acenaphthene #5
13.569	BBA	146.82553	6.56879e-3	9.64466e-1		Fluorene #6
14.969	PBA	5.24433	1.68488e-1	8.83605e-1		Phenanthrene #7
16.386	BBA	3.17308	3.03714e-1	9.63711e-1		Anthracene #8
17.771	PBA	3.88309	2.38671e-2	9.26781e-2		Fluoranthene #9
18.783	PBA	2.17142	4.06594e-2	8.82885e-2		Pyrene #10
21.147	BB	3.53695	2.86511e-1	1.01338		p-Terphenyl d14 #11*
22.475	BBA	11.70344	7.96557e-3	9.32246e-2		Benzo(a)anthracene #12
23.359	PBA	2.53400	3.90144e-2	9.88624e-2		Chrysene #13
26.097	BBA	5.50489	1.65598e-2	9.11596e-2		Benzo(b)fluoranthene #14
27.552	BBA	16.52934	2.77566e-3	4.58799e-2		Benzo(k)fluoranthene #15
28.671	BBA	19.03635	4.67660e-3	8.90254e-2		Benzo(a)pyrene #16
30.549	PB	2.25618	3.93196e-2	8.87121e-2		Dibenz(a,h)anthracene #17
31.354	BB	3.69533	2.69466e-2	9.95766e-2		Benzo(g,h,i)perylene #18
32.292	BBA	6.81821	1.37440e-2	9.37098e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.42621

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.235	PB	114.71877	8.27651e-3	9.49471e-1		Naphthalene #1
10.877	BB	23.62006	3.00095e-2	7.08826e-1		Acenaphthylene #2
11.833	BB	70.63459	1.29932e-2	9.17772e-1		1-Methylnaphthalene #3
12.413	BB	84.19754	1.12713e-2	9.49012e-1		2-Methylnaphthalene #4
12.895	BB	45.25933	2.03841e-2	9.22572e-1		Acenaphthene #5
13.554	BB	50.57839	1.76946e-2	8.94964e-1		Fluorene #6
14.954	BB	66.64948	1.74291e-2	1.16164		Phenanthrene #7
16.371	BBA	94.15485	1.03455e-2	9.74078e-1		Anthracene #8
17.757	BBA	4.13764	2.18958e-2	9.05969e-2		Fluoranthene #9
18.769	BBA	6.03502	1.46349e-2	8.83217e-2		Pyrene #10
21.133	BBA	13.90859	6.45989e-2	8.98480e-1		p-Terphenyl d14 #11*
22.460	BBA	4.29036	2.22878e-2	9.56229e-2		Benzo(a)anthracene #12
23.344	BBA	5.99650	1.52051e-2	9.11777e-2		Chrysene #13
26.084	BBA	4.71873	2.08462e-2	9.83676e-2		Benzo(b)fluoranthene #14
27.543	PBA	1.94087	2.27217e-2	4.40999e-2		Benzo(k)fluoranthene #15
28.658	BBA	2.93301	2.64267e-2	7.75095e-2		Benzo(a)pyrene #16
30.540	MM	8.22757e-1	9.39100e-2	7.72651e-2		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.330	BB	2.16289	5.34666e-2	1.15642e-1		Benzo(g,h,i)perylene #18
32.286	BB	3.89559	2.06198e-2	8.03264e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.23574

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

580

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\011402\4L002672.D Sample Name: WG111292-08 ALT
HPLC4 1/15/2002 9:06:42 AM RDC

1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

==========

Injection Date : 1/14/2002 11:26:07 PM Seq. Line : 12

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.247	20.0	19.237	-3.8
1-Methylnaphthalene #3	11.844	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.425	20.0	18.828	-5.9
Acenaphthene #5	12.908	20.0	20.028	0.1
Fluorene #6	13.570	20.0	20.256	1.3
Phenanthrene #7	14.971	20.0	18.795	-6.0
Anthracene #8	16.388	20.0	20.277	1.4
Fluoranthene #9	17.772	2.0	1.891	-5.4
Pyrene #10	18.787	2.0	1.835	-8.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.481	2.0	1.802	-9.9
Chrysene #13	23.361	2.0	1.868	-6.6
Benzo(b)fluoranthene #14	26.099	2.0	1.935	-3.2
Benzo(k)fluoranthene #15	27.554	1.0	0.873	-12.7
Benzo(a)pyrene #16	28.671	2.0	1.979	-1.0
Dibenz(a,h)anthracene #1	30.543	2.0	2.099	5.0
Benzo(g,h,i)perylene #18	31.347	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.877	-6.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.233	20.0	20.428	2.1
Acenaphthylene #2	10.874	20.0	18.907	-5.5
1-Methylnaphthalene #3	11.829	20.0	20.221	1.1
2-Methylnaphthalene #4	12.410	20.0	19.442	-2.8
Acenaphthene #5	12.893	20.0	20.050	0.2
Fluorene #6	13.555	20.0	19.702	-1.5
Phenanthrene #7	14.956	20.0	19.413	-2.9
Anthracene #8	16.373	20.0	21.006	5.0
Fluoranthene #9	17.756	2.0	1.930	-3.5
Pyrene #10	18.771	2.0	1.900	-5.0
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.466	2.0	1.846	-7.7
Chrysene #13	23.347	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.084	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.539	1.0	0.885	-11.5
Benzo(a)pyrene #16	28.656	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.529	2.0	2.079	4.0
Benzo(g,h,i)perylene #18	31.329	2.0	1.938	-3.1
Indeno(1,2,3-cd)pyrene #	32.273	2.0	1.872	-6.4

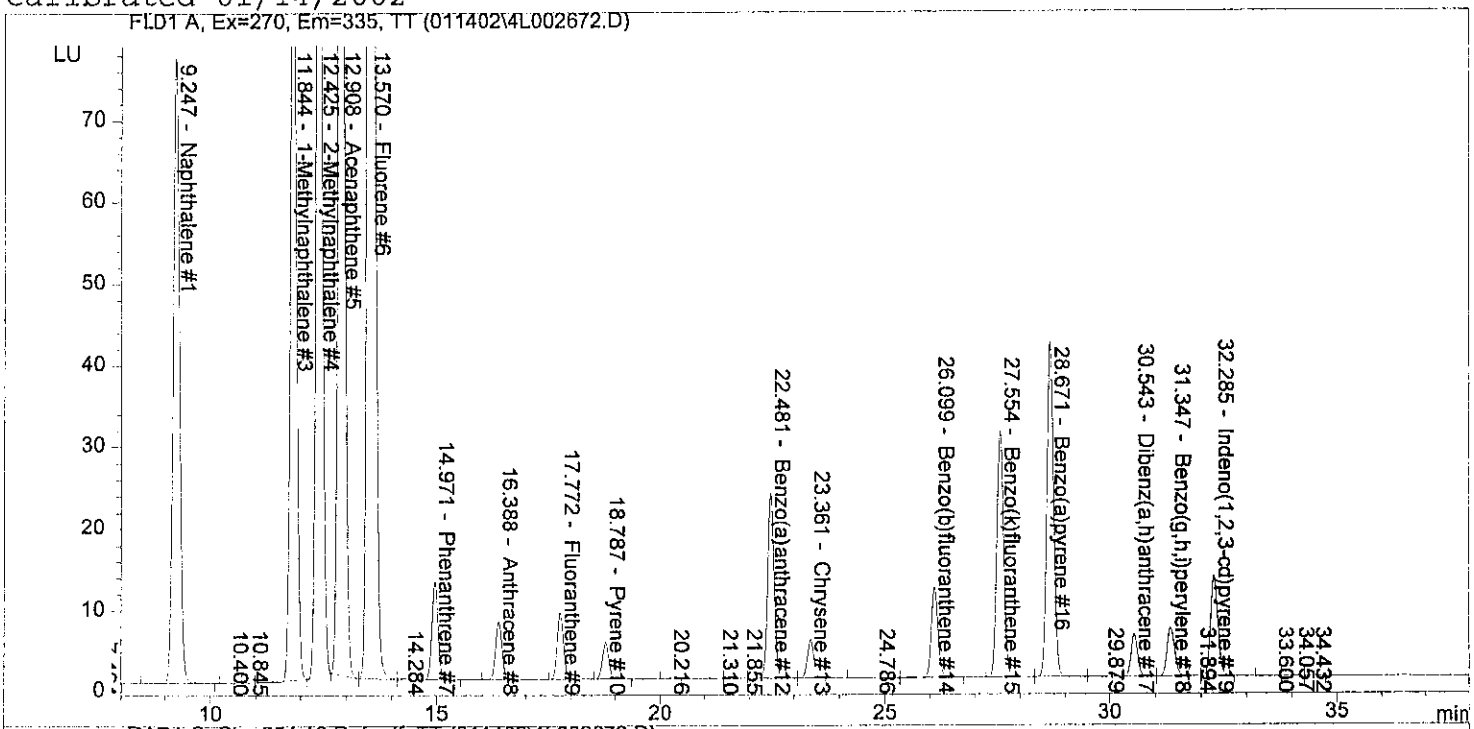
= Failed 15.0% Criteria

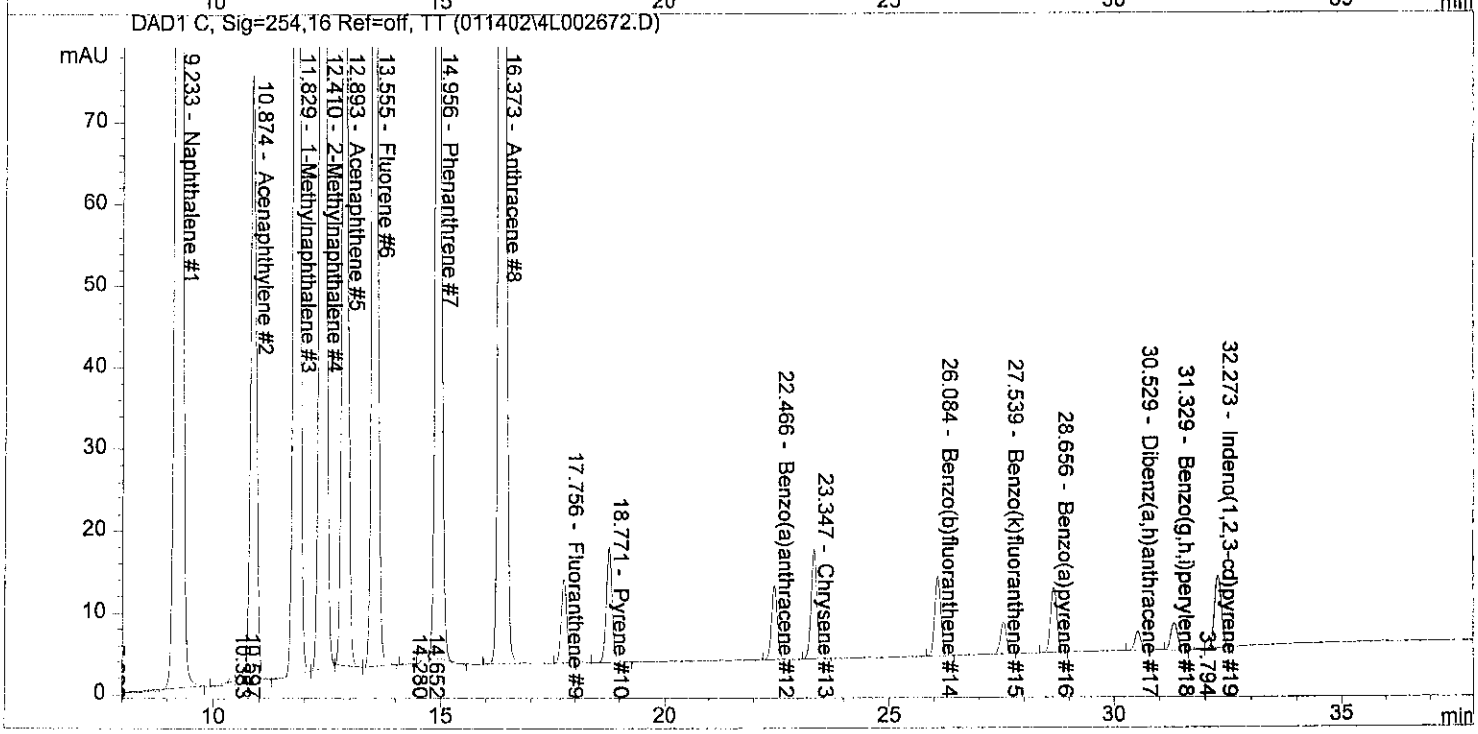
1,1 SOS57-27/57-28 8310 ALTLVL 4 20/2/1 ppm

Injection Date	: 1/14/2002 11:26:07 PM	Seq. Line	: 12
Sample Name	: WG111292-08 ALT	Vial	: 12
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 1/15/2002 9:05:41 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : 1/15/2002 9:05:41 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.247	BBA	748.52362	2.57003e-2	19.23726		Naphthalene #1
11.844	BB	877.28461	2.24893e-2	19.72953		1-Methylnaphthalene #3
12.425	BB	1090.29724	1.72691e-2	18.82849		2-Methylnaphthalene #4
12.908	BB	1448.90186	1.38228e-2	20.02785		Acenaphthene #5
13.570	BB	3083.72266	6.56879e-3	20.25632		Fluorene #6
14.971	BBA	111.55298	1.68488e-1	18.79530		Phenanthrene #7
16.388	PBA	66.76292	3.03714e-1	20.27686		Anthracene #8
17.772	PBA	79.23566	2.38671e-2	1.89112		Fluoranthene #9
18.787	BBA	45.12247	4.06594e-2	1.83465		Pyrene #10
21.147		-	-	-		p-Terphenyl d14 #11*
22.481	BB	226.27448	7.96557e-3	1.80241		Benzo(a)anthracene #12
23.361	BB	47.86744	3.90144e-2	1.86752		Chrysene #13
26.099	BBA	116.86459	1.65598e-2	1.93525		Benzo(b)fluoranthene #14
27.554	PB	314.46066	2.77566e-3	8.72837e-1		Benzo(k)fluoranthene #15
28.671	BB	423.19098	4.67660e-3	1.97909		Benzo(a)pyrene #16
30.543	BB	53.38907	3.93196e-2	2.09924		Dibenz(a,h)anthracene #17
31.347	BB	69.61732	2.69466e-2	1.87595		Benzo(g,h,i)perylene #18
32.285	BBA	136.55934	1.37440e-2	1.87688		Indeno(1,2,3-cd)pyrene #1

Totals : 155.18656

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.233	BBA	2468.22412	8.27651e-3	20.42828		Naphthalene #1
10.874	BB	630.04449	3.00095e-2	18.90732		Acenaphthylene #2
11.829	BB	1556.25403	1.29932e-2	20.22077		1-Methylnaphthalene #3
12.410	BB	1724.90198	1.12713e-2	19.44181		2-Methylnaphthalene #4
12.893	BB	983.60773	2.03841e-2	20.04998		Acenaphthene #5
13.555	BBA	1113.45837	1.76946e-2	19.70218		Fluorene #6
14.956	BBA	1113.83740	1.74291e-2	19.41317		Phenanthrene #7
16.373	PBA	2030.43079	1.03455e-2	21.00580		Anthracene #8
17.756	BB	88.16366	2.18958e-2	1.93041		Fluoranthene #9
18.771	BBA	129.84206	1.46349e-2	1.90022		Pyrene #10
21.133		-	-	-		p-Terphenyl d14 #11*
22.466	BBA	82.83583	2.22878e-2	1.84623		Benzo(a)anthracene #12
23.347	BBA	125.89037	1.52051e-2	1.91418		Chrysene #13
26.084	BBA	93.34034	2.08462e-2	1.94579		Benzo(b)fluoranthene #14
27.539	BBA	38.95745	2.27217e-2	8.85179e-1		Benzo(k)fluoranthene #15
28.656	PBA	75.30036	2.64267e-2	1.98994		Benzo(a)pyrene #16
30.529	PBA	22.13976	9.39100e-2	2.07914		Dibenz(a,h)anthracene #17

583

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.329	BB	36.24539	5.34666e-2	1.93792		Benzo(g,h,i)perylene #18
32.273	BB	90.78680	2.06198e-2	1.87201		Indeno(1,2,3-cd)pyrene #1

Totals : 177.47035

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032502\4L002942.D Sample Name: WG115075-01 CCV
HPLC4 3/26/2002 1:43:01 PM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/25/2002 4:00:10 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.432	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.010	20.0	19.145	-4.3
2-Methylnaphthalene #4	12.586	20.0	19.094	-4.5
Acenaphthene #5	13.066	20.0	19.367	-3.2
Fluorene #6	13.719	20.0	19.943	-0.3
Phenanthrene #7	15.103	20.0	18.997	-5.0
Anthracene #8	16.506	20.0	19.733	-1.3
Fluoranthene #9	17.886	2.0	1.844	-7.8
Pyrene #10	18.891	2.0	1.919	-4.0
p-Terphenyl d14 #11*	21.224	20.0	18.742	-6.3
Benzo(a)anthracene #12	22.544	2.0	1.911	-4.5
Chrysene #13	23.411	2.0	1.930	-3.5
Benzo(b)fluoranthene #14	26.136	2.0	1.913	-4.4
Benzo(k)fluoranthene #15	27.568	1.0	0.970	-3.0
Benzo(a)pyrene #16	28.676	2.0	2.053	2.6
Dibenz(a,h)anthracene #1	30.541	2.0	1.883	-5.9
Benzo(g,h,i)perylene #18	31.356	2.0	1.925	-3.8
Indeno(1,2,3-cd)pyrene #	32.292	2.0	1.913	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.417	20.0	20.611	3.1
Acenaphthylene #2	11.046	20.0	19.465	-2.7
1-Methylnaphthalene #3	11.994	20.0	19.776	-1.1
2-Methylnaphthalene #4	12.570	20.0	19.951	-0.2
Acenaphthene #5	13.050	20.0	19.470	-2.7
Fluorene #6	13.704	20.0	19.596	-2.0
Phenanthrene #7	15.088	20.0	19.998	0.0
Anthracene #8	16.490	20.0	20.795	4.0
Fluoranthene #9	17.869	2.0	1.936	-3.2
Pyrene #10	18.875	2.0	1.950	-2.5
p-Terphenyl d14 #11*	21.209	20.0	18.939	-5.3
Benzo(a)anthracene #12	22.529	2.0	1.944	-2.8
Chrysene #13	23.396	2.0	1.944	-2.8
Benzo(b)fluoranthene #14	26.120	2.0	1.944	-2.8
Benzo(k)fluoranthene #15	27.552	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.659	2.0	2.054	2.7
Dibenz(a,h)anthracene #1	30.525	2.0	1.892	-5.4
Benzo(g,h,i)perylene #18	31.338	2.0	1.981	-1.0
Indeno(1,2,3-cd)pyrene #	32.276	2.0	1.942	-2.9

= Failed 15.0% Criteria

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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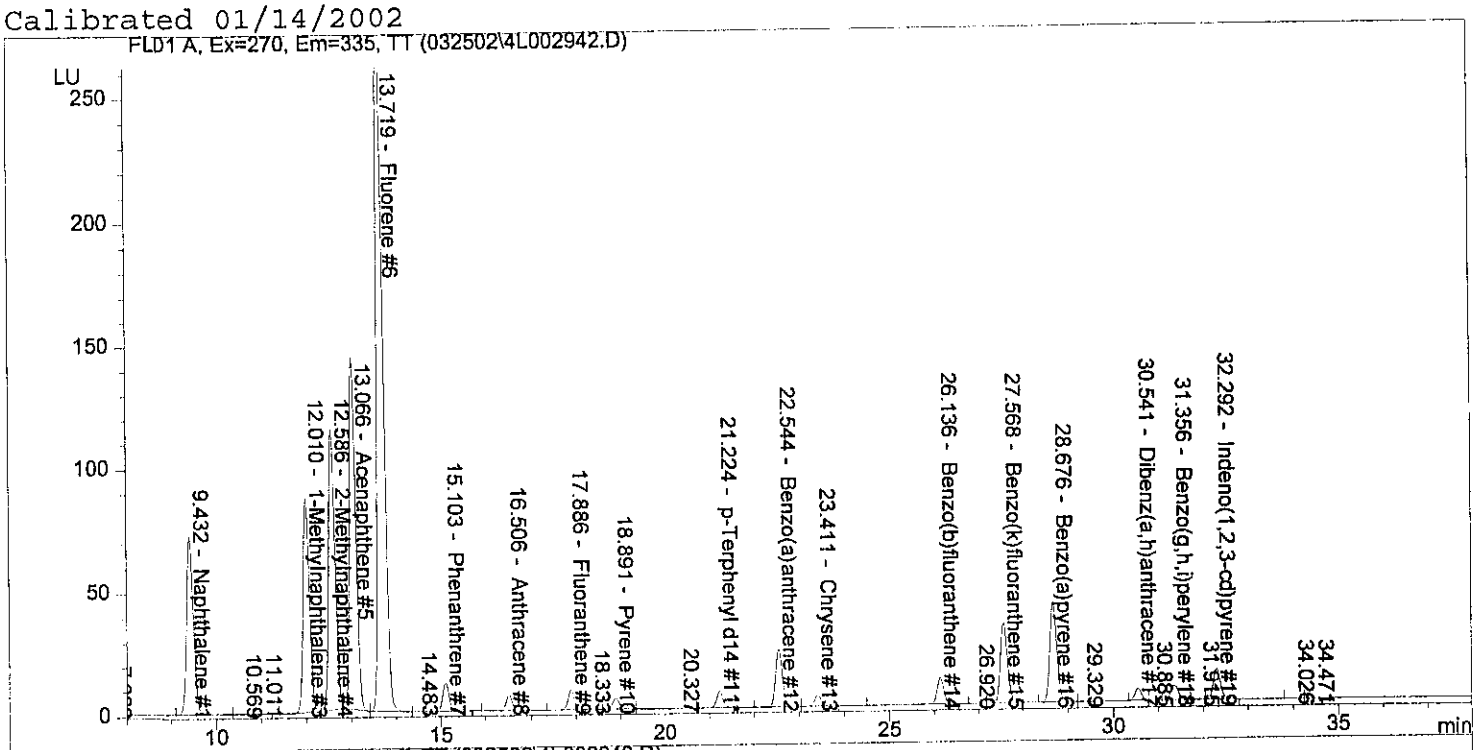
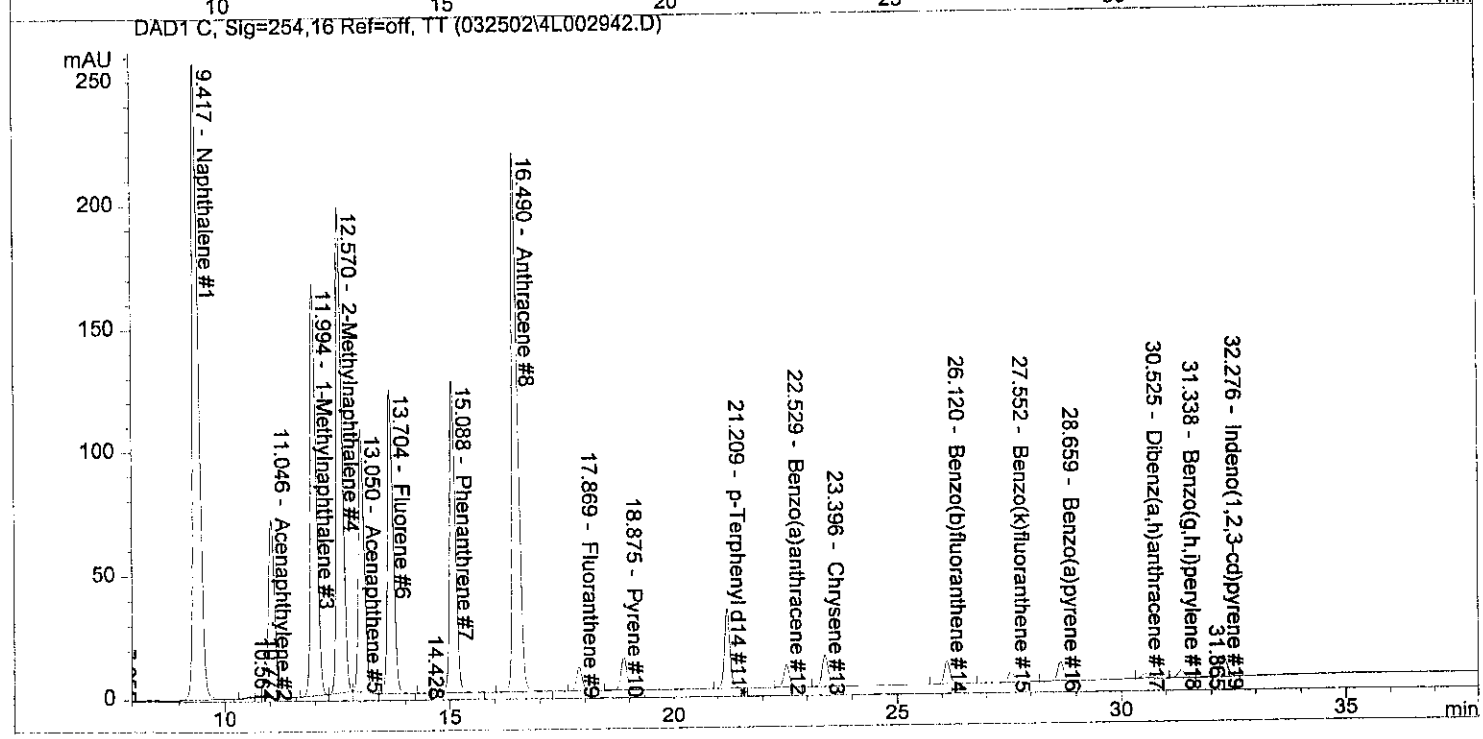
Injection Date : 3/25/2002 4:00:10 PM
Sample Name : WG115075-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

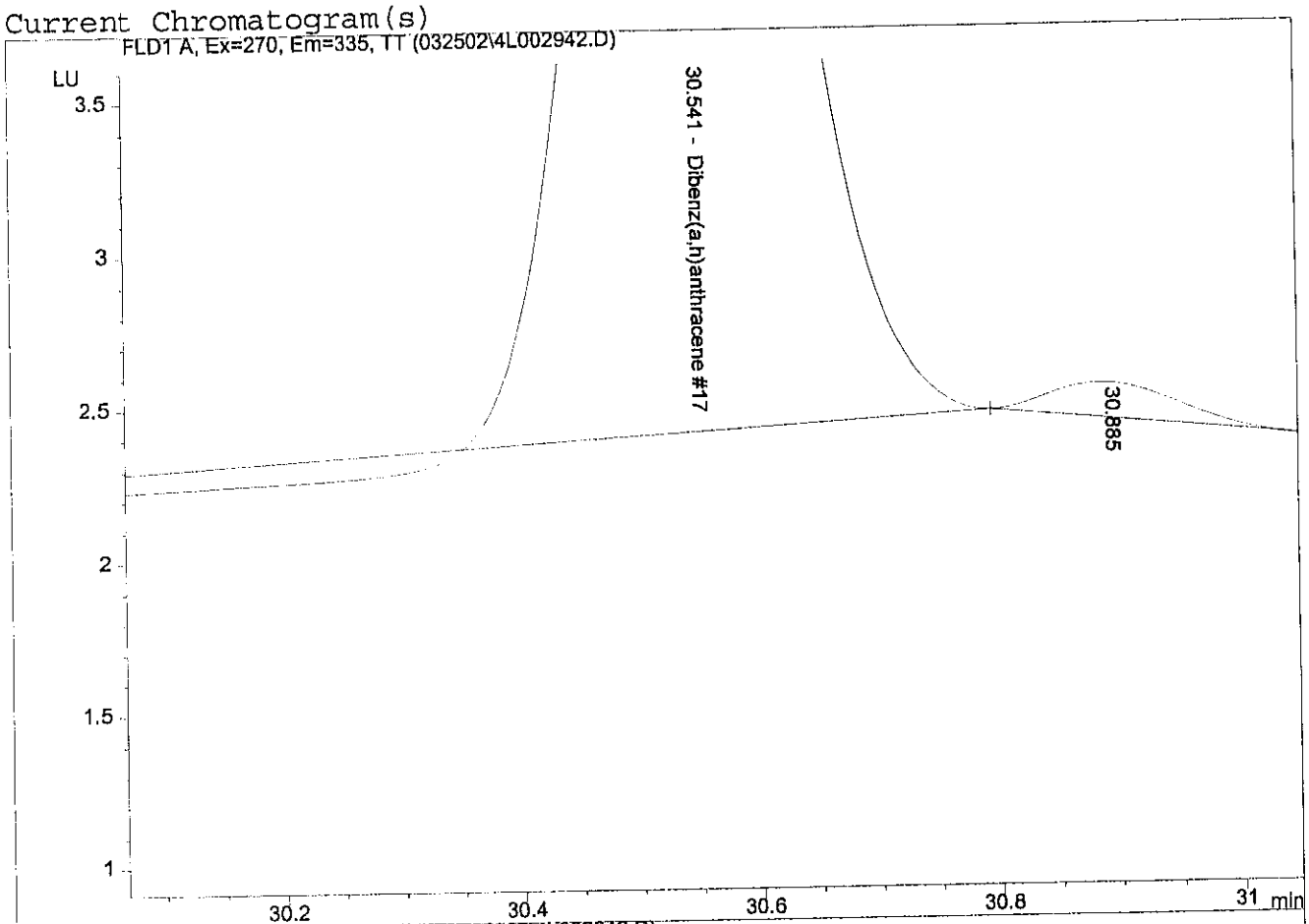
Calibrated 01/14/2002

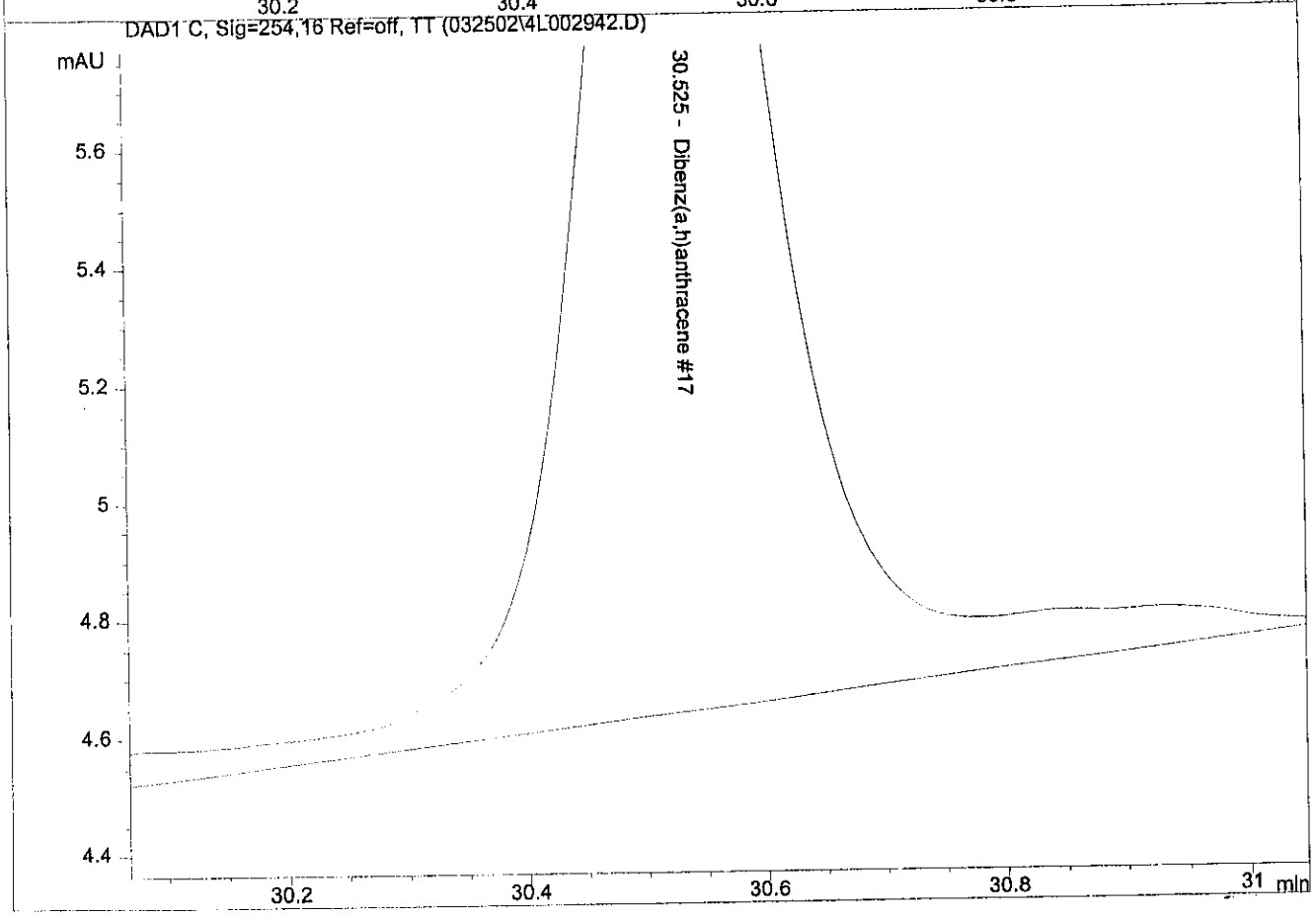




586

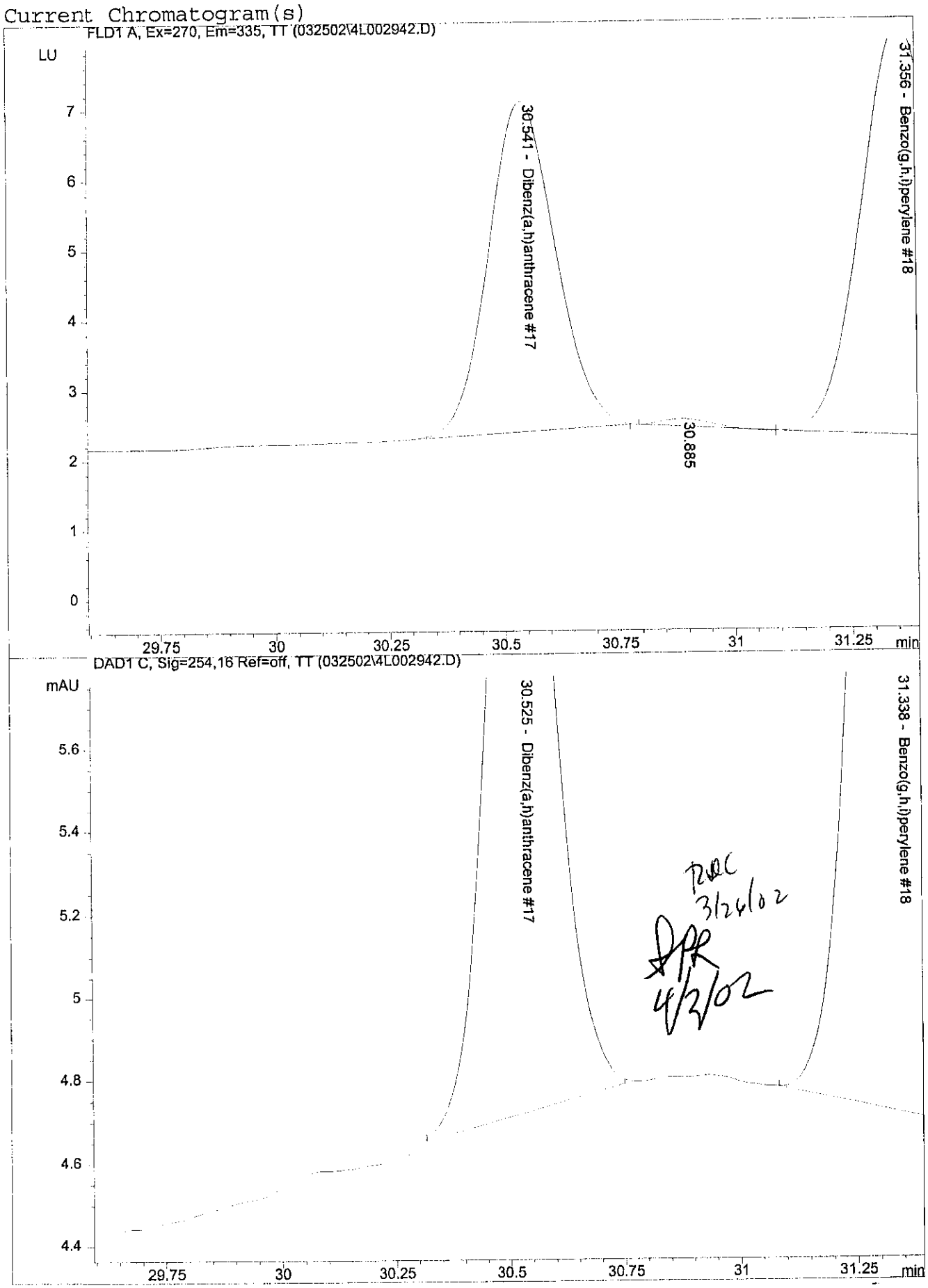
Current Chromatogram(s)





587

Current Chromatogram(s)



588

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.432	BB	748.25195	2.57003e-2	19.23028		Naphthalene #1
12.010	BB	851.28577	2.24893e-2	19.14484		1-Methylnaphthalene #3
12.586	BB	1105.66309	1.72691e-2	19.09384		2-Methylnaphthalene #4
13.066	BB	1401.09863	1.38228e-2	19.36708		Acenaphthene #5
13.719	BB	3036.04858	6.56879e-3	19.94316		Fluorene #6
15.103	BBA	112.74756	1.68488e-1	18.99657		Phenanthrene #7
16.506	PBA	64.97350	3.03714e-1	19.73338		Anthracene #8
17.886	PB	77.27234	2.38671e-2	1.84427		Fluoranthene #9
18.891	BB	47.20372	4.06594e-2	1.91927		Pyrene #10
21.224	BB	65.41502	2.86511e-1	18.74216		p-Terphenyl d14 #11*
22.544	BB	239.89316	7.96557e-3	1.91089		Benzo(a)anthracene #12
23.411	BB	49.46686	3.90144e-2	1.92992		Chrysene #13
26.136	BB	115.49123	1.65598e-2	1.91251		Benzo(b)fluoranthene #14
27.568	BB	349.29703	2.77566e-3	9.69531e-1		Benzo(k)fluoranthene #15
28.676	BB	438.96176	4.67660e-3	2.05285		Benzo(a)pyrene #16
30.541	MM	47.88147	3.93196e-2	1.88268		Dibenz(a,h)anthracene #17
31.356	BB	71.42769	2.69466e-2	1.92473		Benzo(g,h,i)perylene #18
32.292	BB	139.17450	1.37440e-2	1.91282		Indeno(1,2,3-cd)pyrene #1

Totals : 172.51078

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
9.417	BBA	2490.31763	8.27651e-3	20.61114		Naphthalene #1
11.046	BBA	648.63776	3.00095e-2	19.46529		Acenaphthylene #2
11.994	PB	1522.01282	1.29932e-2	19.77587		1-Methylnaphthalene #3
12.570	BB	1770.09729	1.12713e-2	19.95122		2-Methylnaphthalene #4
13.050	BB	955.13074	2.03841e-2	19.46950		Acenaphthene #5
13.704	BBA	1107.47009	1.76946e-2	19.59622		Fluorene #6
15.088	BBA	1147.39563	1.74291e-2	19.99806		Phenanthrene #7
16.490	PBA	2010.06677	1.03455e-2	20.79512		Anthracene #8
17.869	PB	88.41483	2.18958e-2	1.93591		Fluoranthene #9
18.875	BBA	133.22385	1.46349e-2	1.94971		Pyrene #10
21.209	PBA	293.18448	6.45989e-2	18.93940		p-Terphenyl d14 #11*
22.529	BBA	87.22636	2.22878e-2	1.94409		Benzo(a)anthracene #12
23.396	BBA	127.86104	1.52051e-2	1.94415		Chrysene #13
26.120	PBA	93.24858	2.08462e-2	1.94388		Benzo(b)fluoranthene #14
27.552	PB	43.33630	2.27217e-2	9.84674e-1		Benzo(k)fluoranthene #15
28.659	BB	77.73129	2.64267e-2	2.05418		Benzo(a)pyrene #16
30.525	MM	20.14219	9.39100e-2	1.89155		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.338	BB	37.04457	5.34666e-2	1.98065		Benzo(g,h,i)perylene #18
32.276	BB	94.16241	2.06198e-2	1.94161		Indeno(1,2,3-cd)pyrene #1

Totals : 197.17224

Results obtained with enhanced integrator!

*** End of Report ***

590

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032502\4L002953.D Sample Name: WG115075-02 CCV
HPLC4 3/27/2002 9:47:34 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/26/2002 2:23:00 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.458	20.0	19.019	-4.9
1-Methylnaphthalene #3	12.035	20.0	19.003	-5.0
2-Methylnaphthalene #4	12.609	20.0	18.907	-5.5
Acenaphthene #5	13.088	20.0	19.214	-3.9
Fluorene #6	13.742	20.0	19.890	-0.5
Phenanthrene #7	15.129	20.0	18.868	-5.7
Anthracene #8	16.534	20.0	19.752	-1.2
Fluoranthene #9	17.914	2.0	1.842	-7.9
Pyrene #10	18.921	2.0	1.865	-6.7
p-Terphenyl d14 #11*	21.259	20.0	18.642	-6.8
Benzo(a)anthracene #12	22.580	2.0	1.881	-5.9
Chrysene #13	23.447	2.0	1.891	-5.5
Benzo(b)fluoranthene #14	26.169	2.0	1.895	-5.2
Benzo(k)fluoranthene #15	27.591	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.685	2.0	1.891	-5.4
Dibenz(a,h)anthracene #1	30.528	2.0	1.854	-7.3
Benzo(g,h,i)perylene #18	31.342	2.0	1.847	-7.6
Indeno(1,2,3-cd)pyrene #	32.274	2.0	1.907	-4.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.438	20.0	20.702	3.5
Acenaphthylene #2	11.068	20.0	19.542	-2.3
1-Methylnaphthalene #3	12.015	20.0	19.823	-0.9
2-Methylnaphthalene #4	12.589	20.0	20.015	0.1
Acenaphthene #5	13.068	20.0	19.497	-2.5
Fluorene #6	13.722	20.0	19.662	-1.7
Phenanthrene #7	15.109	20.0	20.054	0.3
Anthracene #8	16.513	20.0	20.616	3.1
Fluoranthene #9	17.893	2.0	1.946	-2.7
Pyrene #10	18.900	2.0	1.952	-2.4
p-Terphenyl d14 #11*	21.239	20.0	19.006	-5.0
Benzo(a)anthracene #12	22.560	2.0	1.936	-3.2
Chrysene #13	23.428	2.0	1.943	-2.9
Benzo(b)fluoranthene #14	26.148	2.0	1.951	-2.4
Benzo(k)fluoranthene #15	27.570	1.0	0.975	-2.5
Benzo(a)pyrene #16	28.664	2.0	1.943	-2.9
Dibenz(a,h)anthracene #1	30.507	2.0	1.971	-1.5
Benzo(g,h,i)perylene #18	31.320	2.0	1.966	-1.7
Indeno(1,2,3-cd)pyrene #	32.252	2.0	1.942	-2.9

= Failed 15.0% Criteria

591

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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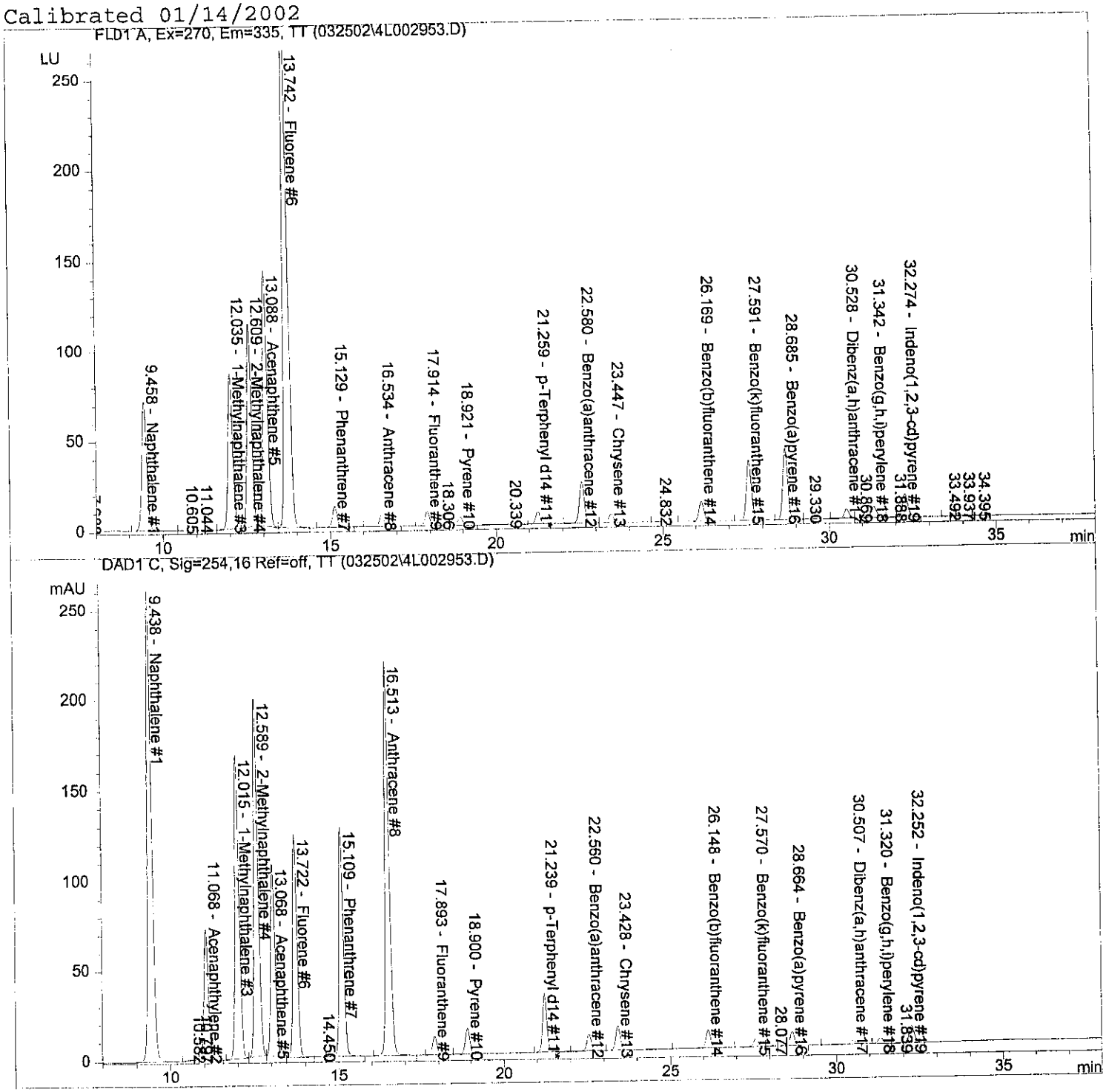
Injection Date : 3/26/2002 2:23:00 AM
Sample Name : WG115075-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.458	BB	740.04810	2.57003e-2	19.01944		Naphthalene #1
12.035	BB	844.98639	2.24893e-2	19.00317		1-Methylnaphthalene #3
12.609	BB	1094.81946	1.72691e-2	18.90658		2-Methylnaphthalene #4
13.088	BB	1390.04175	1.38228e-2	19.21424		Acenaphthene #5
13.742	BBA	3028.01074	6.56879e-3	19.89036		Fluorene #6
15.129	BBA	111.98410	1.68488e-1	18.86793		Phenanthrene #7
16.534	PBA	65.03615	3.03714e-1	19.75241		Anthracene #8
17.914	PB	77.17055	2.38671e-2	1.84184		Fluoranthene #9
18.921	BBA	45.87141	4.06594e-2	1.86510		Pyrene #10
21.259	BB	65.06608	2.86511e-1	18.64218		p-Terphenyl d14 #11*
22.580	BB	236.19679	7.96557e-3	1.88144		Benzo(a)anthracene #12
23.447	BB	48.46619	3.90144e-2	1.89088		Chrysene #13
26.169	PBA	114.44847	1.65598e-2	1.89524		Benzo(b)fluoranthene #14
27.591	BB	347.29132	2.77566e-3	9.63964e-1		Benzo(k)fluoranthene #15
28.685	BB	404.45349	4.67660e-3	1.89147		Benzo(a)pyrene #16
30.528	BB	47.16445	3.93196e-2	1.85449		Dibenz(a,h)anthracene #17
31.342	BB	68.55150	2.69466e-2	1.84723		Benzo(g,h,i)perylene #18
32.274	BB	138.75671	1.37440e-2	1.90708		Indeno(1,2,3-cd)pyrene #1

Totals : 171.13505

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
9.438	BBA	2501.31689	8.27651e-3	20.70218		Naphthalene #1
11.068	BBA	651.20386	3.00095e-2	19.54230		Acenaphthylene #2
12.015	PB	1525.61804	1.29932e-2	19.82271		1-Methylnaphthalene #3
12.589	BB	1775.73450	1.12713e-2	20.01476		2-Methylnaphthalene #4
13.068	BB	956.49768	2.03841e-2	19.49737		Acenaphthene #5
13.722	BB	1111.20227	1.76946e-2	19.66226		Fluorene #6
15.109	BBA	1150.61780	1.74291e-2	20.05422		Phenanthrene #7
16.513	PBA	1992.72571	1.03455e-2	20.61572		Anthracene #8
17.893	PB	88.87579	2.18958e-2	1.94601		Fluoranthene #9
18.900	BBA	133.35045	1.46349e-2	1.95156		Pyrene #10
21.239	PBA	294.21234	6.45989e-2	19.00580		p-Terphenyl d14 #11*
22.560	BBA	86.86114	2.22878e-2	1.93595		Benzo(a)anthracene #12
23.428	PBA	127.77930	1.52051e-2	1.94290		Chrysene #13
26.148	BBA	93.61024	2.08462e-2	1.95142		Benzo(b)fluoranthene #14
27.570	PB	42.90921	2.27217e-2	9.74970e-1		Benzo(k)fluoranthene #15
28.664	BB	73.50833	2.64267e-2	1.94258		Benzo(a)pyrene #16
30.507	BB	20.98462	9.39100e-2	1.97066		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.320	BB	36.77216	5.34666e-2	1.96608		Benzo(g,h,i)perylene #18
32.252	BB	94.18098	2.06198e-2	1.94200		Indeno(1,2,3-cd)pyrene #1

Totals : 197.44146

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032502\4L002962.D Sample Name: WG115075-03 CCV
HPLC4 3/27/2002 9:53:22 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/26/2002 10:52:48 AM Seq. Line : 22

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.464	20.0	18.970	-5.1
1-Methylnaphthalene #3	12.042	20.0	19.032	-4.8
2-Methylnaphthalene #4	12.617	20.0	18.906	-5.5
Acenaphthene #5	13.094	20.0	19.234	-3.8
Fluorene #6	13.747	20.0	19.921	-0.4
Phenanthrene #7	15.131	20.0	18.831	-5.8
Anthracene #8	16.531	20.0	19.630	-1.9
Fluoranthene #9	17.908	2.0	1.842	-7.9
Pyrene #10	18.913	2.0	1.872	-6.4
p-Terphenyl d14 #11*	21.243	20.0	18.654	-6.7
Benzo(a)anthracene #12	22.562	2.0	1.884	-5.8
Chrysene #13	23.427	2.0	1.966	-1.7
Benzo(b)fluoranthene #14	26.157	2.0	1.905	-4.7
Benzo(k)fluoranthene #15	27.579	1.0	0.967	-3.3
Benzo(a)pyrene #16	28.679	2.0	1.917	-4.1
Dibenz(a,h)anthracene #1	30.533	2.0	1.886	-5.7
Benzo(g,h,i)perylene #18	31.353	2.0	1.882	-5.9
Indeno(1,2,3-cd)pyrene #	32.287	2.0	1.912	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.446	20.0	20.810	4.0
Acenaphthylene #2	11.073	20.0	19.543	-2.3
1-Methylnaphthalene #3	12.023	20.0	19.867	-0.7
2-Methylnaphthalene #4	12.598	20.0	20.036	0.2
Acenaphthene #5	13.076	20.0	19.531	-2.3
Fluorene #6	13.728	20.0	19.686	-1.6
Phenanthrene #7	15.112	20.0	20.058	0.3
Anthracene #8	16.512	20.0	20.692	3.5
Fluoranthene #9	17.888	2.0	1.945	-2.7
Pyrene #10	18.893	2.0	1.959	-2.1
p-Terphenyl d14 #11*	21.225	20.0	19.035	-4.8
Benzo(a)anthracene #12	22.543	2.0	1.954	-2.3
Chrysene #13	23.409	2.0	1.947	-2.7
Benzo(b)fluoranthene #14	26.137	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.559	1.0	0.985	-1.5
Benzo(a)pyrene #16	28.660	2.0	1.949	-2.6
Dibenz(a,h)anthracene #1	30.514	2.0	1.989	-0.5
Benzo(g,h,i)perylene #18	31.333	2.0	1.976	-1.2
Indeno(1,2,3-cd)pyrene #	32.268	2.0	1.960	-2.0

= Failed 15.0% Criteria

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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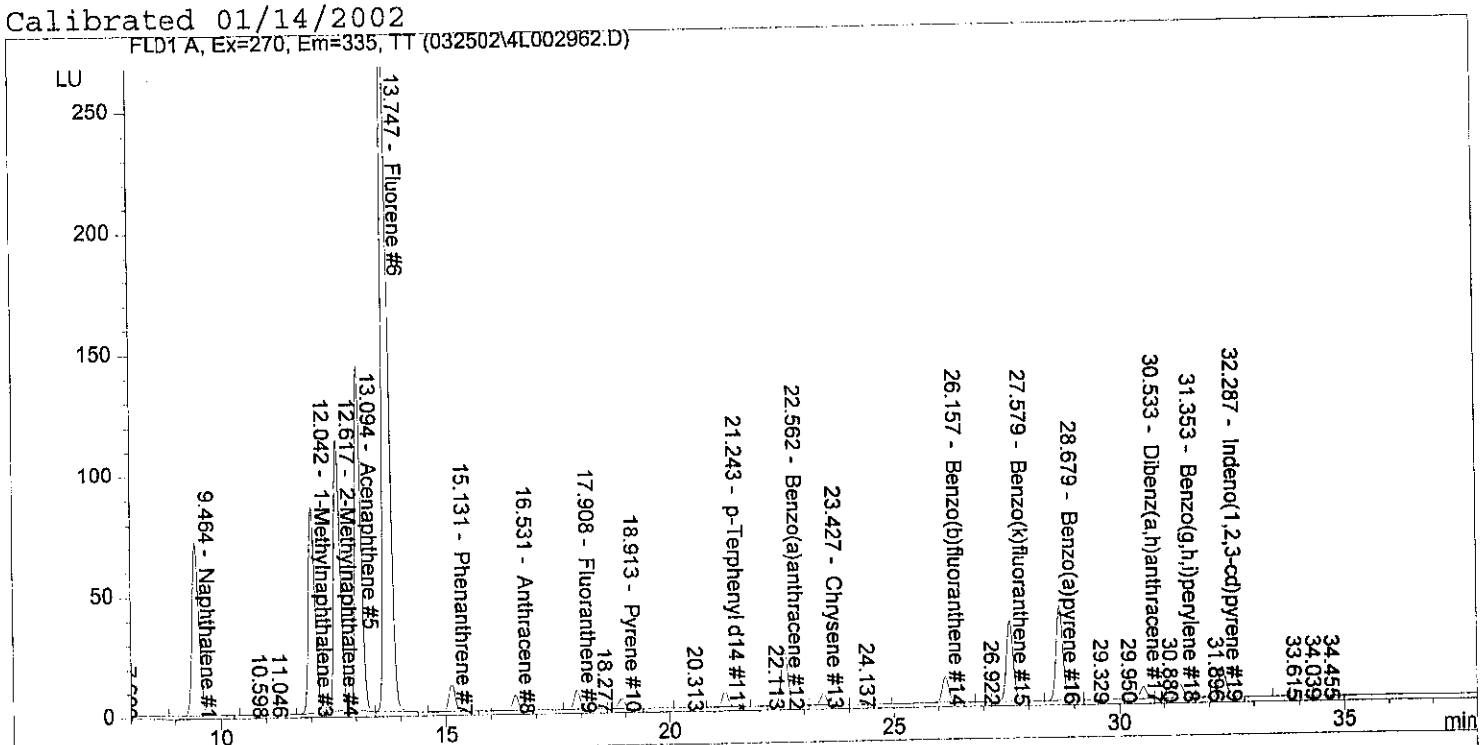
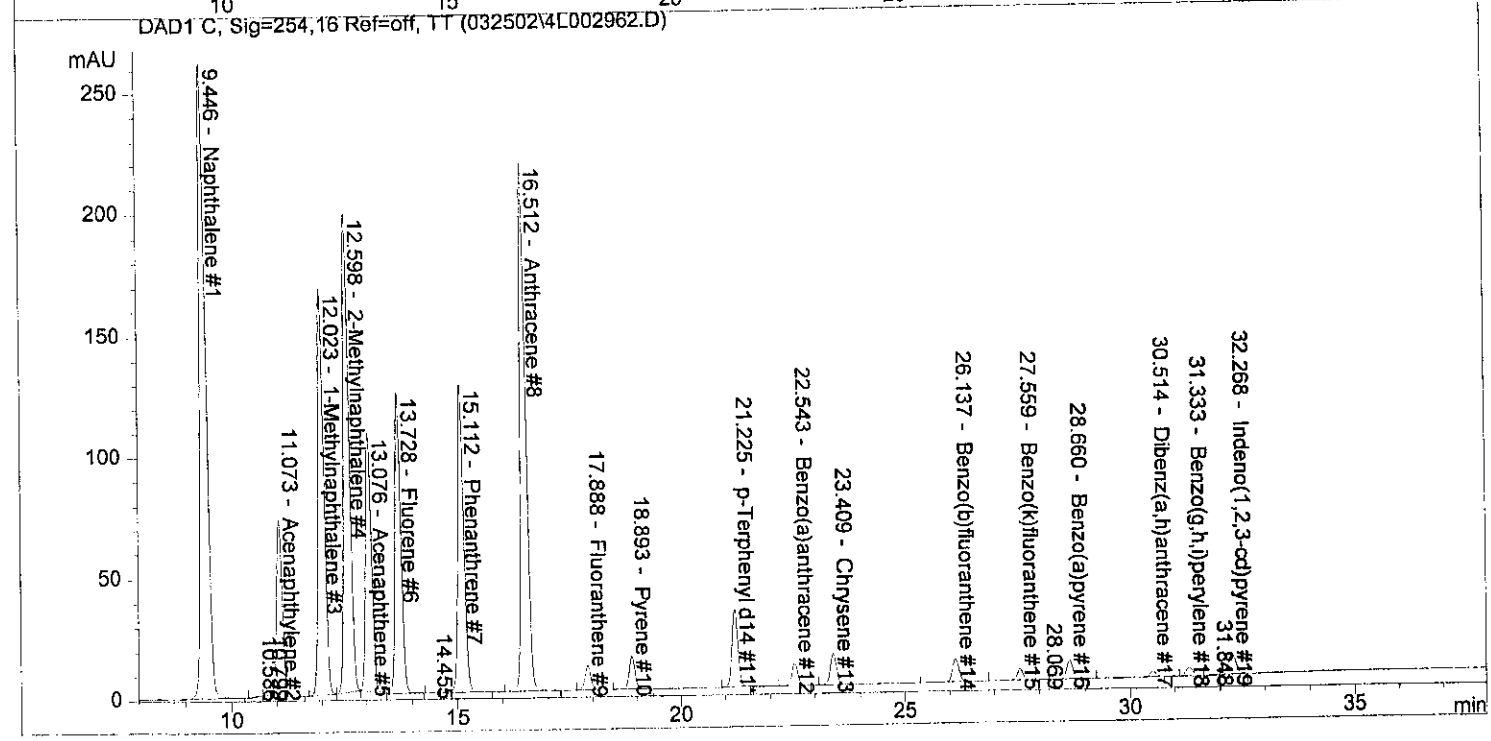
Injection Date : 3/26/2002 10:52:48 AM
Sample Name : WG115075-03 CCV
Acq. Operator : RDC

Seq. Line : 22
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, March 27, 2002 9:51:30 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
9.464	BBA	738.12811	2.57003e-2	18.97010		Naphthalene #1
12.042	BB	846.27631	2.24893e-2	19.03218		1-Methylnaphthalene #3
12.617	BB	1094.78601	1.72691e-2	18.90601		2-Methylnaphthalene #4
13.094	BB	1391.50488	1.38228e-2	19.23447		Acenaphthene #5
13.747	BBA	3032.67358	6.56879e-3	19.92099		Fluorene #6
15.131	BBA	111.76656	1.68488e-1	18.83128		Phenanthrene #7
16.531	PBA	64.63216	3.03714e-1	19.62971		Anthracene #8
17.908	PB	77.16793	2.38671e-2	1.84177		Fluoranthene #9
18.913	BBA	46.05067	4.06594e-2	1.87239		Pyrene #10
21.243	BB	65.10664	2.86511e-1	18.65380		p-Terphenyl d14 #11*
22.562	BB	236.48737	7.96557e-3	1.88376		Benzo(a)anthracene #12
23.427	BB	50.38150	3.90144e-2	1.96561		Chrysene #13
26.157	BB	115.06369	1.65598e-2	1.90543		Benzo(b)fluoranthene #14
27.579	BB	348.42813	2.77566e-3	9.67120e-1		Benzo(k)fluoranthene #15
28.679	BB	409.95120	4.67660e-3	1.91718		Benzo(a)pyrene #16
30.533	BB	47.95823	3.93196e-2	1.88570		Dibenz(a,h)anthracene #17
31.353	BB	69.83337	2.69466e-2	1.88177		Benzo(g,h,i)perylene #18
32.287	BB	139.13043	1.37440e-2	1.91222		Indeno(1,2,3-cd)pyrene #1
Totals :				171.21147		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.446	BBA	2514.32056	8.27651e-3	20.80980		Naphthalene #1
11.073	BBA	651.22040	3.00095e-2	19.54280		Acenaphthylene #2
12.023	PB	1529.06372	1.29932e-2	19.86748		1-Methylnaphthalene #3
12.598	BB	1777.57715	1.12713e-2	20.03553		2-Methylnaphthalene #4
13.076	BB	958.14838	2.03841e-2	19.53102		Acenaphthene #5
13.728	BBA	1112.55261	1.76946e-2	19.68615		Fluorene #6
15.112	BBA	1150.82495	1.74291e-2	20.05783		Phenanthrene #7
16.512	PBA	2000.12891	1.03455e-2	20.69231		Anthracene #8
17.888	PB	88.84771	2.18958e-2	1.94539		Fluoranthene #9
18.893	BBA	133.84302	1.46349e-2	1.95877		Pyrene #10
21.225	PBA	294.66876	6.45989e-2	19.03529		p-Terphenyl d14 #11*
22.543	PBA	87.66299	2.22878e-2	1.95382		Benzo(a)anthracene #12
23.409	BBA	128.03064	1.52051e-2	1.94672		Chrysene #13
26.137	PBA	93.37316	2.08462e-2	1.94648		Benzo(b)fluoranthene #14
27.559	PBA	43.34100	2.27217e-2	9.84781e-1		Benzo(k)fluoranthene #15
28.660	BBA	73.73742	2.64267e-2	1.94863		Benzo(a)pyrene #16
30.514	BBA	21.18302	9.39100e-2	1.98930		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.333	BB	36.96008	5.34666e-2	1.97613		Benzo(g,h,i)perylene #18
32.268	BBA	95.04432	2.06198e-2	1.95980		Indeno(1,2,3-cd)pyrene #1

Totals : 197.86803

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032802\4L002964.D Sample Name: WG115260-01 CCV
HPLC4 4/1/2002 9:20:39 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/28/2002 11:38:08 AM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.445	20.0	19.482	-2.6
1-Methylnaphthalene #3	12.017	20.0	19.386	-3.1
2-Methylnaphthalene #4	12.592	20.0	19.376	-3.1
Acenaphthene #5	13.071	20.0	19.590	-2.0
Fluorene #6	13.726	20.0	19.984	-0.1
Phenanthrene #7	15.111	20.0	19.334	-3.3
Anthracene #8	16.515	20.0	19.581	-2.1
Fluoranthene #9	17.895	2.0	1.844	-7.8
Pyrene #10	18.901	2.0	1.980	-1.0
p-Terphenyl d14 #11*	21.235	20.0	18.602	-7.0
Benzo(a)anthracene #12	22.557	2.0	1.924	-3.8
Chrysene #13	23.425	2.0	1.949	-2.5
Benzo(b)fluoranthene #14	26.154	2.0	1.918	-4.1
Benzo(k)fluoranthene #15	27.581	1.0	0.968	-3.2
Benzo(a)pyrene #16	28.679	2.0	1.948	-2.6
Dibenz(a,h)anthracene #1	30.532	2.0	1.878	-6.1
Benzo(g,h,i)perylene #18	31.347	2.0	1.905	-4.8
Indeno(1,2,3-cd)pyrene #	32.286	2.0	1.911	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.429	20.0	20.603	3.0
Acenaphthylene #2	11.052	20.0	19.529	-2.4
1-Methylnaphthalene #3	12.001	20.0	19.730	-1.4
2-Methylnaphthalene #4	12.577	20.0	19.919	-0.4
Acenaphthene #5	13.055	20.0	19.472	-2.6
Fluorene #6	13.709	20.0	19.538	-2.3
Phenanthrene #7	15.095	20.0	19.582	-2.1
Anthracene #8	16.499	20.0	20.532	2.7
Fluoranthene #9	17.878	2.0	1.936	-3.2
Pyrene #10	18.884	2.0	1.943	-2.8
p-Terphenyl d14 #11*	21.220	20.0	18.840	-5.8
Benzo(a)anthracene #12	22.541	2.0	1.931	-3.5
Chrysene #13	23.409	2.0	1.932	-3.4
Benzo(b)fluoranthene #14	26.137	2.0	1.928	-3.6
Benzo(k)fluoranthene #15	27.564	1.0	0.976	-2.4
Benzo(a)pyrene #16	28.662	2.0	1.928	-3.6
Dibenz(a,h)anthracene #1	30.516	2.0	1.907	-4.6
Benzo(g,h,i)perylene #18	31.329	2.0	2.015	0.8
Indeno(1,2,3-cd)pyrene #	32.271	2.0	1.933	-3.3

= Failed 15.0% Criteria

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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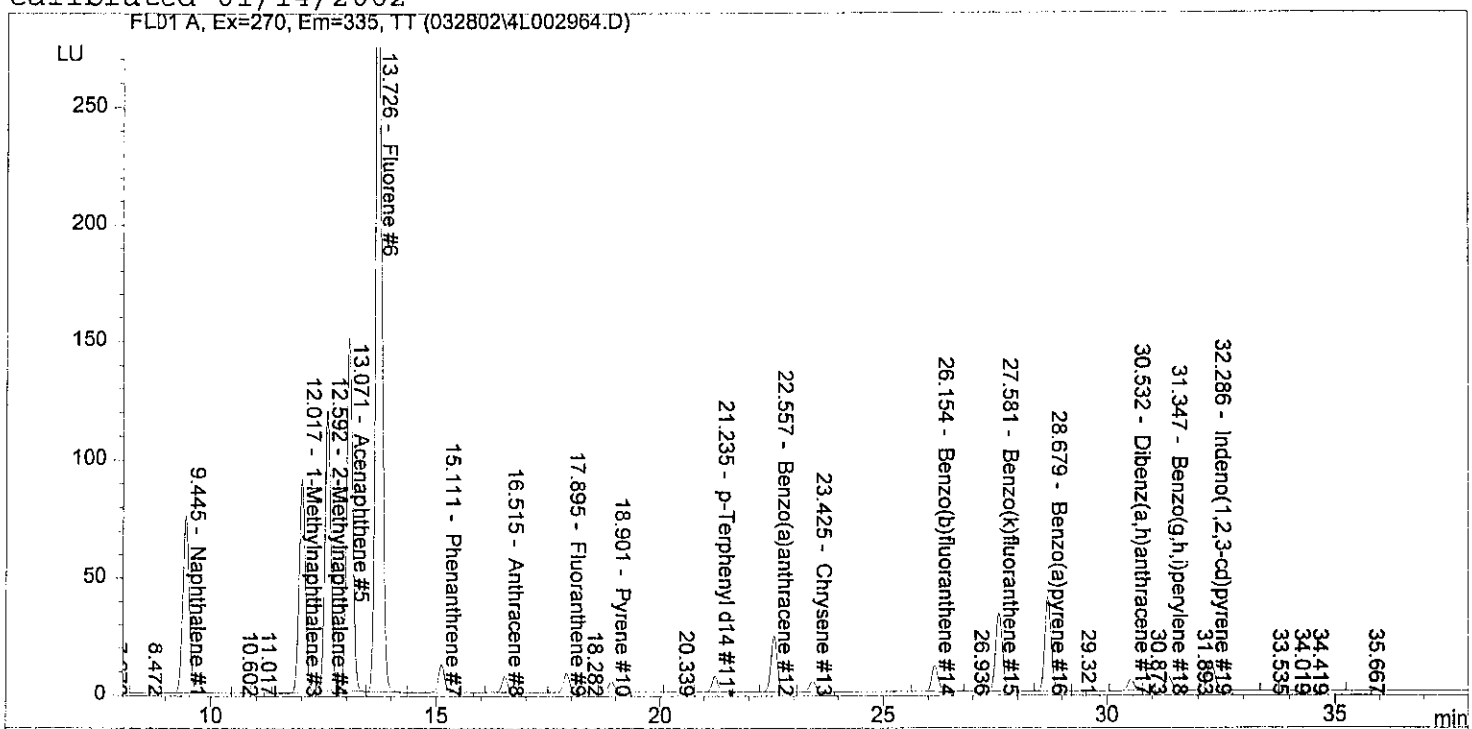
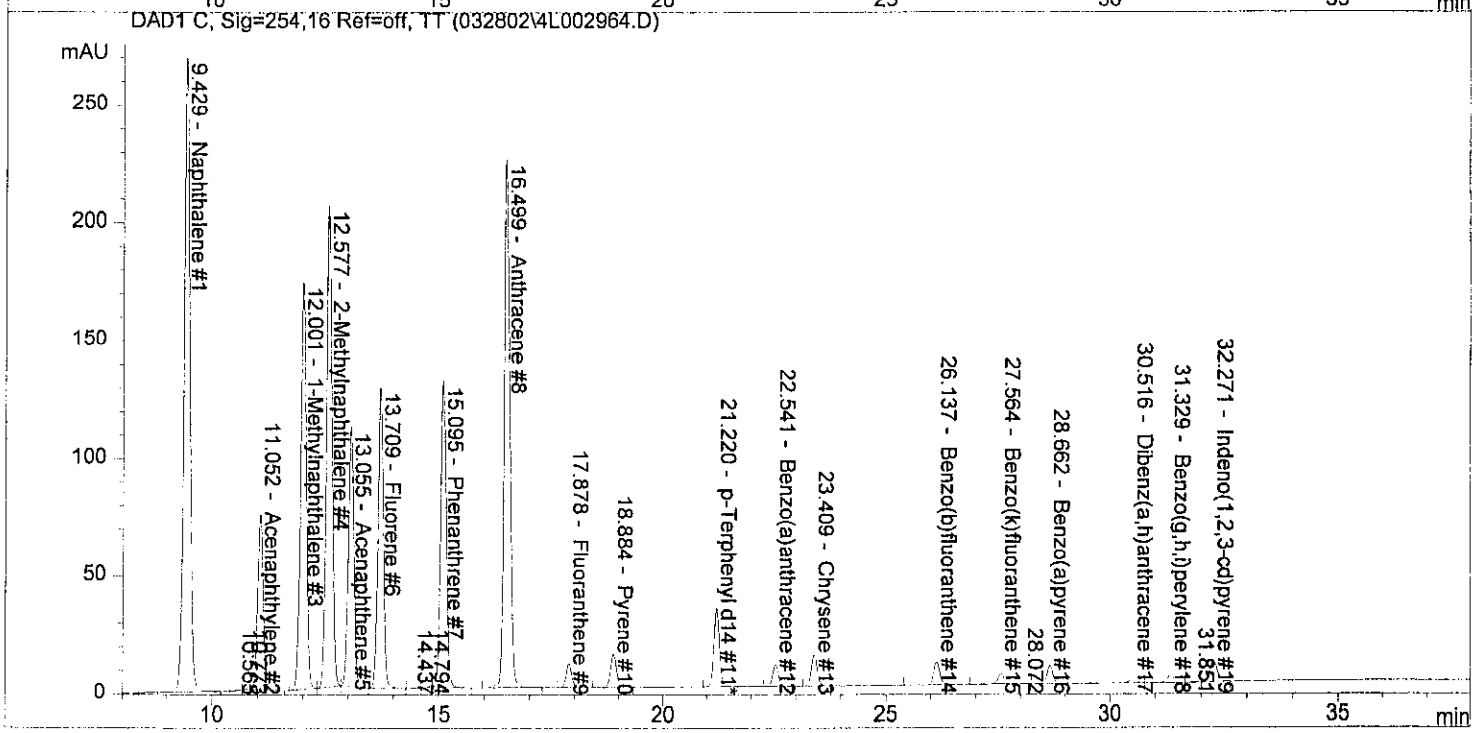
Injection Date : 3/28/2002 11:38:08 AM
Sample Name : WG115260-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.445	BB	758.04950	2.57003e-2	19.48208		Naphthalene #1
12.017	BB	862.01886	2.24893e-2	19.38622		1-Methylnaphthalene #3
12.592	BB	1121.98401	1.72691e-2	19.37569		2-Methylnaphthalene #4
13.071	BB	1417.25012	1.38228e-2	19.59034		Acenaphthene #5
13.726	BB	3042.25366	6.56879e-3	19.98392		Fluorene #6
15.111	BBA	114.75176	1.68488e-1	19.33425		Phenanthrene #7
16.515	BBA	64.47322	3.03714e-1	19.58144		Anthracene #8
17.895	PB	77.24126	2.38671e-2	1.84352		Fluoranthene #9
18.901	BB	48.68884	4.06594e-2	1.97966		Pyrene #10
21.235	BB	64.92657	2.86511e-1	18.60221		p-Terphenyl d14 #11*
22.557	BB	241.59219	7.96557e-3	1.92442		Benzo(a)anthracene #12
23.425	BB	49.96256	3.90144e-2	1.94926		Chrysene #13
26.154	PB	115.82711	1.65598e-2	1.91807		Benzo(b)fluoranthene #14
27.581	PB	348.77597	2.77566e-3	9.68085e-1		Benzo(k)fluoranthene #15
28.679	BB	416.59985	4.67660e-3	1.94827		Benzo(a)pyrene #16
30.532	BB	47.75436	3.93196e-2	1.87768		Dibenz(a,h)anthracene #17
31.347	BB	70.69347	2.69466e-2	1.90495		Benzo(g,h,i)perylene #18
32.286	BB	139.05991	1.37440e-2	1.91125		Indeno(1,2,3-cd)pyrene #1

Totals : 173.56132

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.429	BBA	2489.35156	8.27651e-3	20.60315		Naphthalene #1
11.052	BBA	650.77075	3.00095e-2	19.52930		Acenaphthylene #2
12.001	PB	1518.45740	1.29932e-2	19.72967		1-Methylnaphthalene #3
12.577	BB	1767.28174	1.12713e-2	19.91948		2-Methylnaphthalene #4
13.055	BB	955.25098	2.03841e-2	19.47196		Acenaphthene #5
13.709	BBA	1104.15234	1.76946e-2	19.53752		Fluorene #6
15.095	BBA	1123.49646	1.74291e-2	19.58152		Phenanthrene #7
16.499	PBA	1984.63049	1.03455e-2	20.53197		Anthracene #8
17.878	PB	88.41319	2.18958e-2	1.93588		Fluoranthene #9
18.884	BBA	132.77768	1.46349e-2	1.94318		Pyrene #10
21.220	PBA	291.64392	6.45989e-2	18.83989		p-Terphenyl d14 #11*
22.541	PBA	86.62823	2.22878e-2	1.93076		Benzo(a)anthracene #12
23.409	BBA	127.05878	1.52051e-2	1.93195		Chrysene #13
26.137	PBA	92.50993	2.08462e-2	1.92848		Benzo(b)fluoranthene #14
27.564	PB	42.94511	2.27217e-2	9.75785e-1		Benzo(k)fluoranthene #15
28.662	BB	72.95095	2.64267e-2	1.92785		Benzo(a)pyrene #16
30.516	BB	20.30780	9.39100e-2	1.90710		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.329	BB	37.69181	5.34666e-2	2.01525		Benzo(g,h,i)perylene #18
32.271	BB	93.76828	2.06198e-2	1.93349		Indeno(1,2,3-cd)pyrene #1

Totals : 196.17418

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\032802\4L002966.D Sample Name: WG115260-02 CCV
HPLC4 4/1/2002 9:40:48 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

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Injection Date : 3/28/2002 1:31:27 PM Seq. Line : 4

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.451	20.0	19.155	-4.2
1-Methylnaphthalene #3	12.024	20.0	19.176	-4.1
2-Methylnaphthalene #4	12.599	20.0	19.105	-4.5
Acenaphthene #5	13.077	20.0	19.392	-3.0
Fluorene #6	13.730	20.0	19.952	-0.2
Phenanthrene #7	15.115	20.0	19.008	-5.0
Anthracene #8	16.514	20.0	19.848	-0.8
Fluoranthene #9	17.891	2.0	1.840	-8.0
Pyrene #10	18.895	2.0	1.921	-4.0
p-Terphenyl d14 #11*	21.229	20.0	18.798	-6.0
Benzo(a)anthracene #12	22.548	2.0	1.900	-5.0
Chrysene #13	23.411	2.0	1.903	-4.9
Benzo(b)fluoranthene #14	26.135	2.0	1.904	-4.8
Benzo(k)fluoranthene #15	27.557	1.0	0.966	-3.4
Benzo(a)pyrene #16	28.656	2.0	1.931	-3.4
Dibenz(a,h)anthracene #1	30.506	2.0	1.875	-6.3
Benzo(g,h,i)perylene #18	31.319	2.0	1.873	-6.3
Indeno(1,2,3-cd)pyrene #	32.256	2.0	1.903	-4.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.432	20.0	20.534	2.7
Acenaphthylene #2	11.056	20.0	19.545	-2.3
1-Methylnaphthalene #3	12.005	20.0	19.763	-1.2
2-Methylnaphthalene #4	12.580	20.0	19.944	-0.3
Acenaphthene #5	13.058	20.0	19.493	-2.5
Fluorene #6	13.710	20.0	19.558	-2.2
Phenanthrene #7	15.095	20.0	19.592	-2.0
Anthracene #8	16.495	20.0	20.555	2.8
Fluoranthene #9	17.871	2.0	1.935	-3.3
Pyrene #10	18.874	2.0	1.946	-2.7
p-Terphenyl d14 #11*	21.210	20.0	18.864	-5.7
Benzo(a)anthracene #12	22.529	2.0	1.940	-3.0
Chrysene #13	23.392	2.0	1.935	-3.2
Benzo(b)fluoranthene #14	26.114	2.0	1.945	-2.8
Benzo(k)fluoranthene #15	27.537	1.0	0.973	-2.7
Benzo(a)pyrene #16	28.636	2.0	1.968	-1.6
Dibenz(a,h)anthracene #1	30.486	2.0	1.912	-4.4
Benzo(g,h,i)perylene #18	31.298	2.0	1.992	-0.4
Indeno(1,2,3-cd)pyrene #	32.235	2.0	1.922	-3.9

= Failed 15.0% Criteria

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

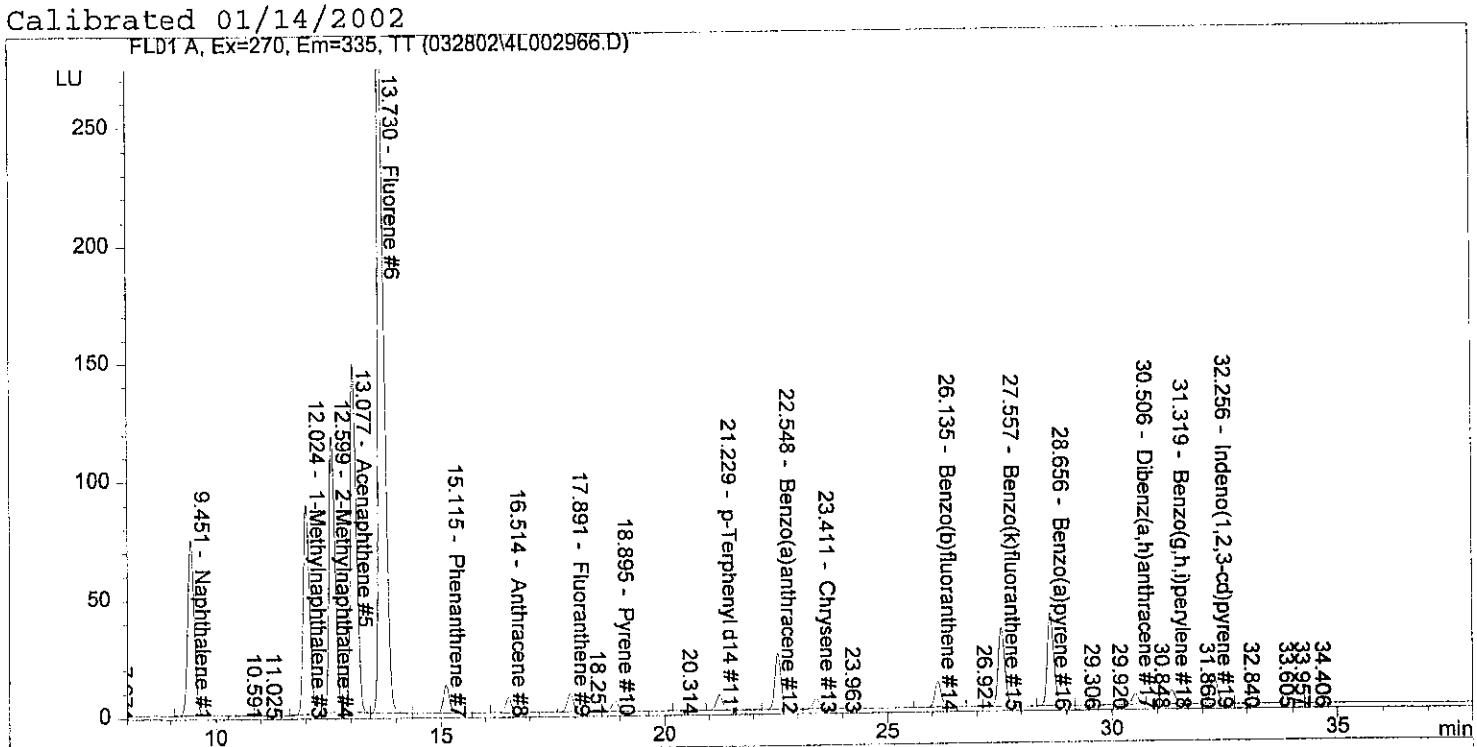
==========

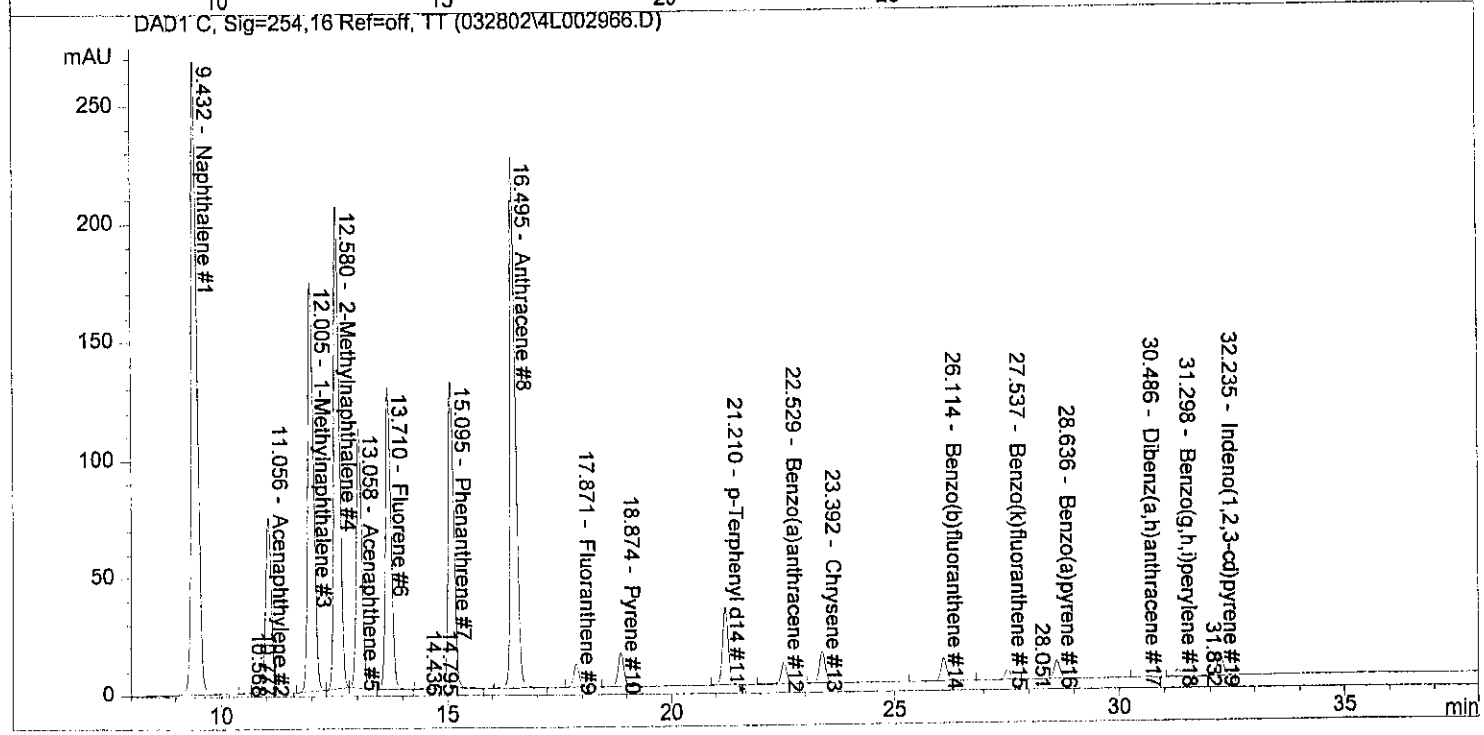
Injection Date : 3/28/2002 1:31:27 PM
Sample Name : WG115260-02 CCV
Acq. Operator : RDC

Seq. Line : 4
Vial : 2
Inj : 1
Inj Volume : 8 µl

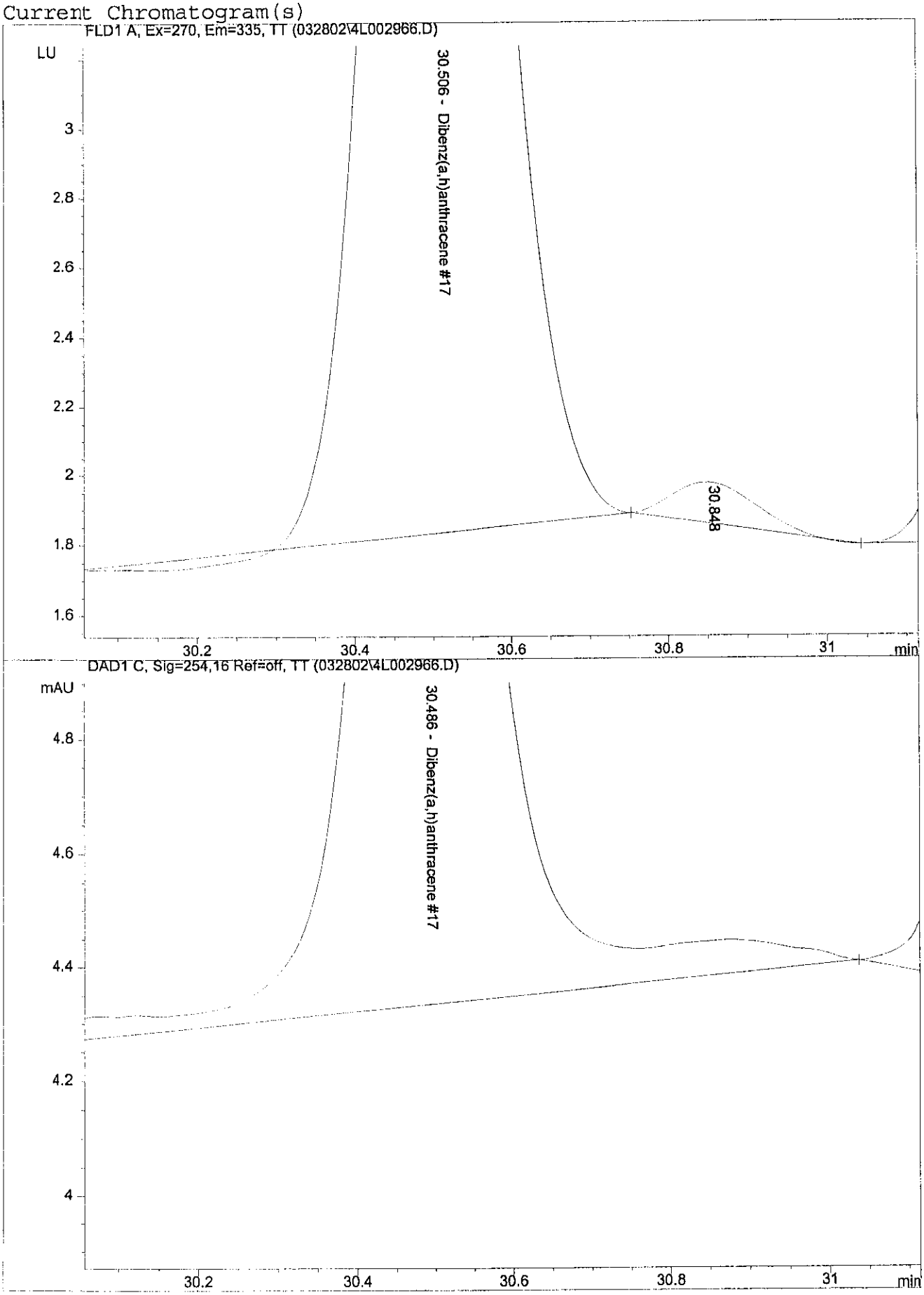
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)

Calibrated 01/14/2002



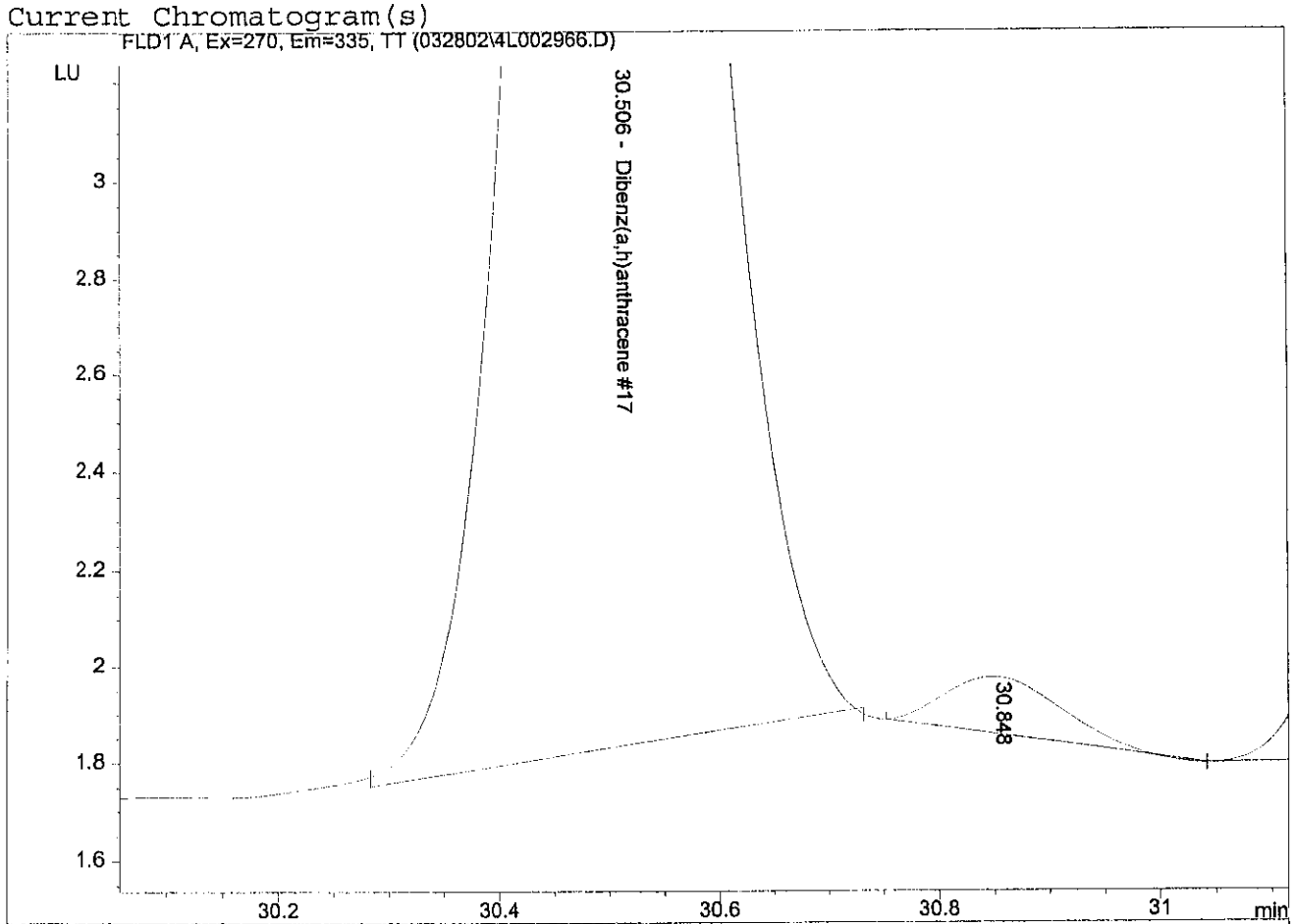


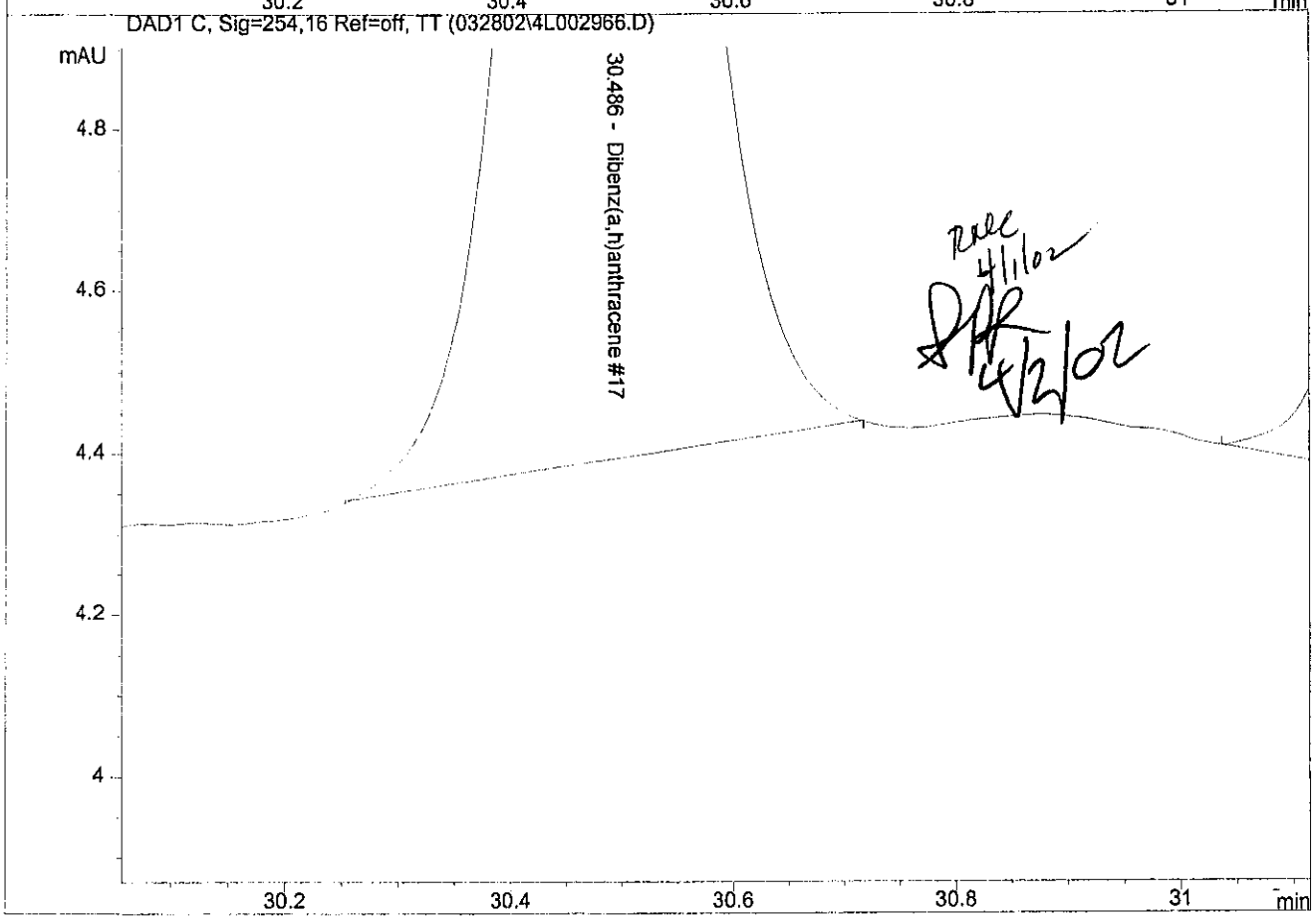
Current Chromatogram(s)



605

Current Chromatogram(s)





606

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.451	BB	745.33966	2.57003e-2	19.15543		Naphthalene #1
12.024	BB	852.67328	2.24893e-2	19.17604		1-Methylnaphthalene #3
12.599	BB	1106.29407	1.72691e-2	19.10474		2-Methylnaphthalene #4
13.077	BB	1402.91980	1.38228e-2	19.39225		Acenaphthene #5
13.730	BB	3037.41138	6.56879e-3	19.95211		Fluorene #6
15.115	BBA	112.81347	1.68488e-1	19.00767		Phenanthrene #7
16.514	BBA	65.35147	3.03714e-1	19.84818		Anthracene #8
17.891	PB	77.10084	2.38671e-2	1.84017		Fluoranthene #9
18.895	BBA	47.24220	4.06594e-2	1.92084		Pyrene #10
21.229	BBA	65.61098	2.86511e-1	18.79830		p-Terphenyl d14 #11*
22.548	BB	238.48901	7.96557e-3	1.89970		Benzo(a)anthracene #12
23.411	BBA	48.77207	3.90144e-2	1.90282		Chrysene #13
26.135	PB	114.98999	1.65598e-2	1.90421		Benzo(b)fluoranthene #14
27.557	BB	348.06778	2.77566e-3	9.66119e-1		Benzo(k)fluoranthene #15
28.656	BB	412.98038	4.67660e-3	1.93134		Benzo(a)pyrene #16
30.506	MM	47.68042	3.93196e-2	1.87478		Dibenz(a,h)anthracene #17
31.319	BB	69.52003	2.69466e-2	1.87333		Benzo(g,h,i)perylene #18
32.256	BB	138.48245	1.37440e-2	1.90331		Indeno(1,2,3-cd)pyrene #1

Totals : 172.45135

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
9.432	BBA	2481.03296	8.27651e-3	20.53430		Naphthalene #1
11.056	BBA	651.28101	3.00095e-2	19.54462		Acenaphthylene #2
12.005	PB	1521.03003	1.29932e-2	19.76310		1-Methylnaphthalene #3
12.580	BB	1769.44568	1.12713e-2	19.94387		2-Methylnaphthalene #4
13.058	BB	956.29980	2.03841e-2	19.49334		Acenaphthene #5
13.710	BBA	1105.30969	1.76946e-2	19.55799		Fluorene #6
15.095	BBA	1124.12061	1.74291e-2	19.59240		Phenanthrene #7
16.495	PBA	1986.83582	1.03455e-2	20.55479		Anthracene #8
17.871	PB	88.35793	2.18958e-2	1.93467		Fluoranthene #9
18.874	BBA	132.95248	1.46349e-2	1.94574		Pyrene #10
21.210	PBA	292.01935	6.45989e-2	18.86414		p-Terphenyl d14 #11*
22.529	BBA	87.06020	2.22878e-2	1.94038		Benzo(a)anthracene #12
23.392	PBA	127.26712	1.52051e-2	1.93511		Chrysene #13
26.114	PBA	93.27995	2.08462e-2	1.94453		Benzo(b)fluoranthene #14
27.537	PB	42.81112	2.27217e-2	9.72741e-1		Benzo(k)fluoranthene #15
28.636	BB	74.46358	2.64267e-2	1.96782		Benzo(a)pyrene #16
30.486	MM	20.36390	9.39100e-2	1.91237		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.298	BB	37.24927	5.34666e-2	1.99159		Benzo(g,h,i)perylene #18
32.235	BB	93.19195	2.06198e-2	1.92160		Indeno(1,2,3-cd)pyrene #1

Totals : 196.31511

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\032802\4L002971.D Sample Name: WG115260-03 CCV
HPLC4 4/1/2002 10:00:13 AM RDC

1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date : 3/28/2002 9:06:35 PM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.453	20.0	18.992	-5.0
1-Methylnaphthalene #3	12.029	20.0	19.103	-4.5
2-Methylnaphthalene #4	12.604	20.0	18.999	-5.0
Acenaphthene #5	13.082	20.0	19.331	-3.3
Fluorene #6	13.736	20.0	19.972	-0.1
Phenanthrene #7	15.121	20.0	18.862	-5.7
Anthracene #8	16.523	20.0	20.082	0.4
Fluoranthene #9	17.903	2.0	1.839	-8.1
Pyrene #10	18.910	2.0	1.868	-6.6
p-Terphenyl d14 #11*	21.247	20.0	18.614	-6.9
Benzo(a)anthracene #12	22.567	2.0	1.892	-5.4
Chrysene #13	23.437	2.0	1.894	-5.3
Benzo(b)fluoranthene #14	26.170	2.0	1.904	-4.8
Benzo(k)fluoranthene #15	27.598	1.0	0.966	-3.4
Benzo(a)pyrene #16	28.695	2.0	2.037	1.8
Dibenz(a,h)anthracene #1	30.552	2.0	1.859	-7.1
Benzo(g,h,i)perylene #18	31.369	2.0	1.892	-5.4
Indeno(1,2,3-cd)pyrene #	32.305	2.0	1.911	-4.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.434	20.0	20.630	3.1
Acenaphthylene #2	11.062	20.0	19.579	-2.1
1-Methylnaphthalene #3	12.011	20.0	19.802	-1.0
2-Methylnaphthalene #4	12.586	20.0	19.997	0.0
Acenaphthene #5	13.064	20.0	19.539	-2.3
Fluorene #6	13.717	20.0	19.639	-1.8
Phenanthrene #7	15.102	20.0	19.652	-1.7
Anthracene #8	16.504	20.0	20.799	4.0
Fluoranthene #9	17.884	2.0	1.941	-2.9
Pyrene #10	18.890	2.0	1.952	-2.4
p-Terphenyl d14 #11*	21.228	20.0	18.953	-5.2
Benzo(a)anthracene #12	22.548	2.0	1.943	-2.9
Chrysene #13	23.418	2.0	1.943	-2.8
Benzo(b)fluoranthene #14	26.150	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.579	1.0	0.962	-3.8
Benzo(a)pyrene #16	28.675	2.0	2.078	3.9
Dibenz(a,h)anthracene #1	30.533	2.0	2.055	2.7
Benzo(g,h,i)perylene #18	31.348	2.0	1.980	-1.0
Indeno(1,2,3-cd)pyrene #	32.287	2.0	1.960	-2.0

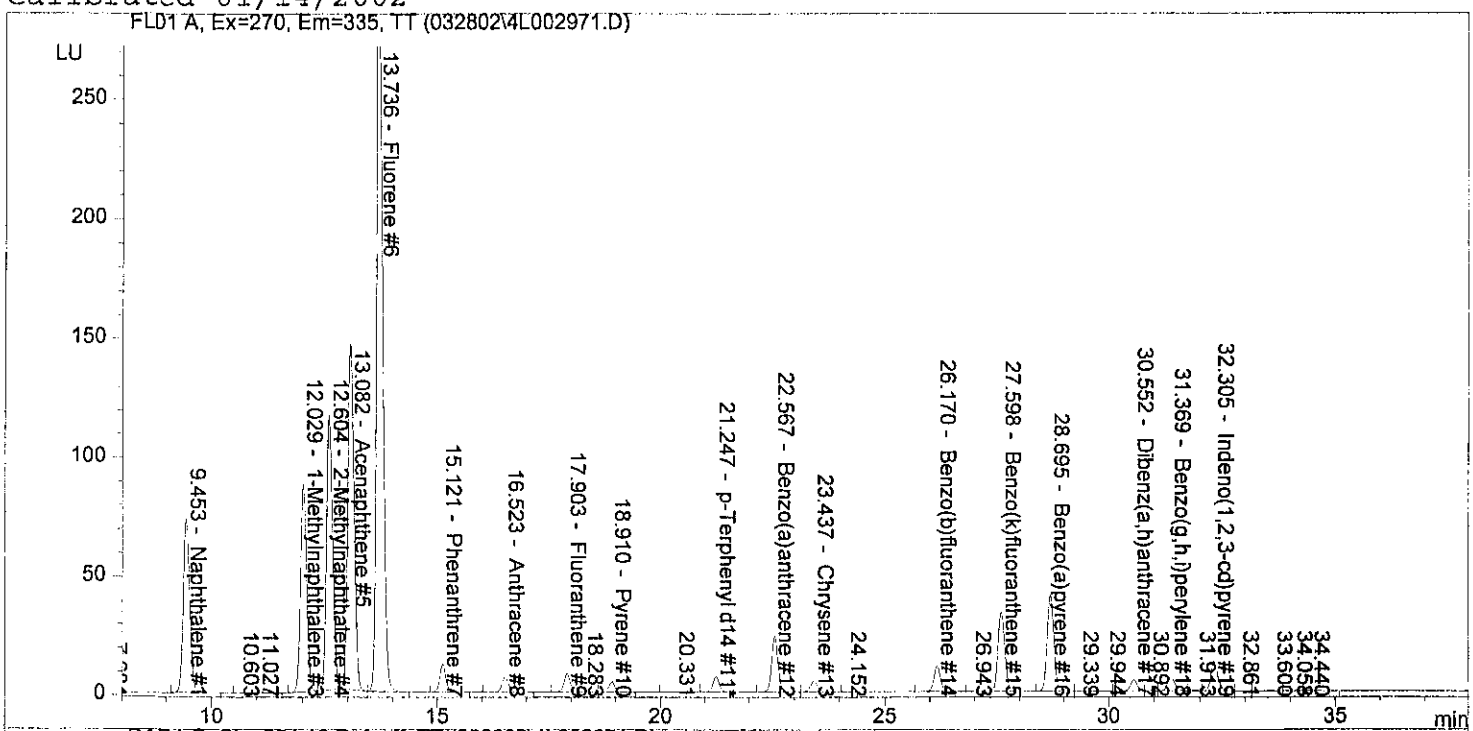
= Failed 15.0% Criteria

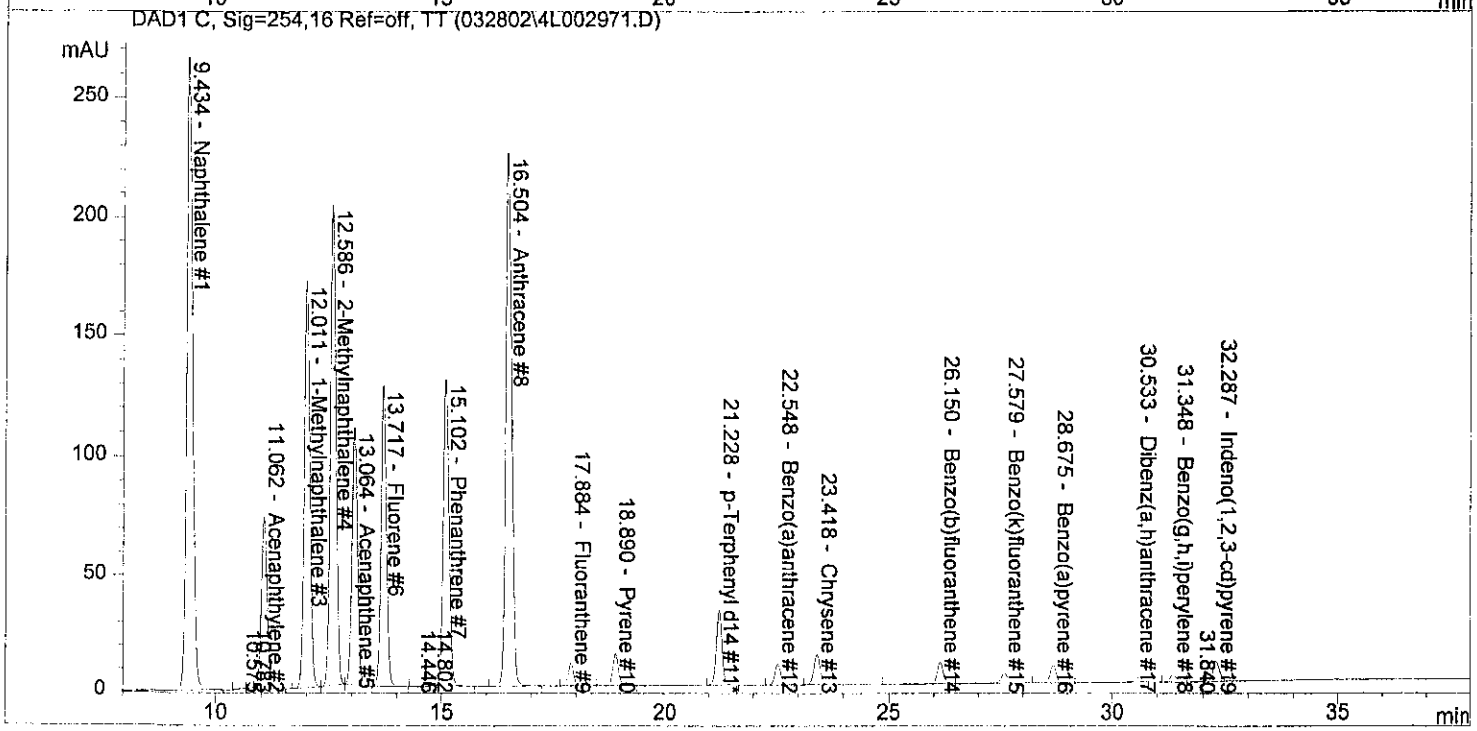
1,1 8310 CCV 20/2/1 ppm SOS58-26/56-20

==========

Injection Date	: 3/28/2002 9:06:35 PM	Seq. Line :	9
Sample Name	: WG115260-03 CCV	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)
Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.453	BB	738.98322	2.57003e-2	18.99207		Naphthalene #1
12.029	PB	849.40411	2.24893e-2	19.10252		1-Methylnaphthalene #3
12.604	BB	1100.15698	1.72691e-2	18.99876		2-Methylnaphthalene #4
13.082	BB	1398.51819	1.38228e-2	19.33141		Acenaphthene #5
13.736	BB	3040.42798	6.56879e-3	19.97193		Fluorene #6
15.121	BBA	111.94981	1.68488e-1	18.86216		Phenanthrene #7
16.523	BBA	66.12048	3.03714e-1	20.08174		Anthracene #8
17.903	PB	77.03611	2.38671e-2	1.83863		Fluoranthene #9
18.910	BBA	45.93760	4.06594e-2	1.86779		Pyrene #10
21.247	BB	64.96765	2.86511e-1	18.61398		p-Terphenyl d14 #11*
22.567	BB	237.46414	7.96557e-3	1.89154		Benzo(a)anthracene #12
23.437	BB	48.55450	3.90144e-2	1.89433		Chrysene #13
26.170	PB	114.98478	1.65598e-2	1.90412		Benzo(b)fluoranthene #14
27.598	BB	347.95166	2.77566e-3	9.65797e-1		Benzo(k)fluoranthene #15
28.695	BB	435.56595	4.67660e-3	2.03697		Benzo(a)pyrene #16
30.552	BB	47.26950	3.93196e-2	1.85862		Dibenz(a,h)anthracene #17
31.369	BB	70.21430	2.69466e-2	1.89204		Benzo(g,h,i)perylene #18
32.305	BB	139.06146	1.37440e-2	1.91127		Indeno(1,2,3-cd)pyrene #1

Totals : 172.01566

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
9.434	BBA	2492.54639	8.27651e-3	20.62959		Naphthalene #1
11.062	BBA	652.41718	3.00095e-2	19.57871		Acenaphthylene #2
12.011	PB	1524.02979	1.29932e-2	19.80207		1-Methylnaphthalene #3
12.586	BB	1774.14343	1.12713e-2	19.99682		2-Methylnaphthalene #4
13.064	BB	958.53546	2.03841e-2	19.53891		Acenaphthene #5
13.717	BBA	1109.90759	1.76946e-2	19.63935		Fluorene #6
15.102	BBA	1127.52881	1.74291e-2	19.65180		Phenanthrene #7
16.504	PBA	2010.44690	1.03455e-2	20.79906		Anthracene #8
17.884	PB	88.66517	2.18958e-2	1.94139		Fluoranthene #9
18.890	BBA	133.38879	1.46349e-2	1.95213		Pyrene #10
21.228	BBA	293.39001	6.45989e-2	18.95268		p-Terphenyl d14 #11*
22.548	PBA	87.16393	2.22878e-2	1.94270		Benzo(a)anthracene #12
23.418	BBA	127.79425	1.52051e-2	1.94313		Chrysene #13
26.150	BB	92.91653	2.08462e-2	1.93696		Benzo(b)fluoranthene #14
27.579	BB	42.34630	2.27217e-2	9.62180e-1		Benzo(k)fluoranthene #15
28.675	BB	78.64256	2.64267e-2	2.07826		Benzo(a)pyrene #16
30.533	BB	21.87901	9.39100e-2	2.05466		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.348	BB	37.03518	5.34666e-2	1.98015		Benzo(g,h,i)perylene #18
32.287	BB	95.05192	2.06198e-2	1.95995		Indeno(1,2,3-cd)pyrene #1

Totals : 197.34050

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 V182P47 WATER BLANK 032102

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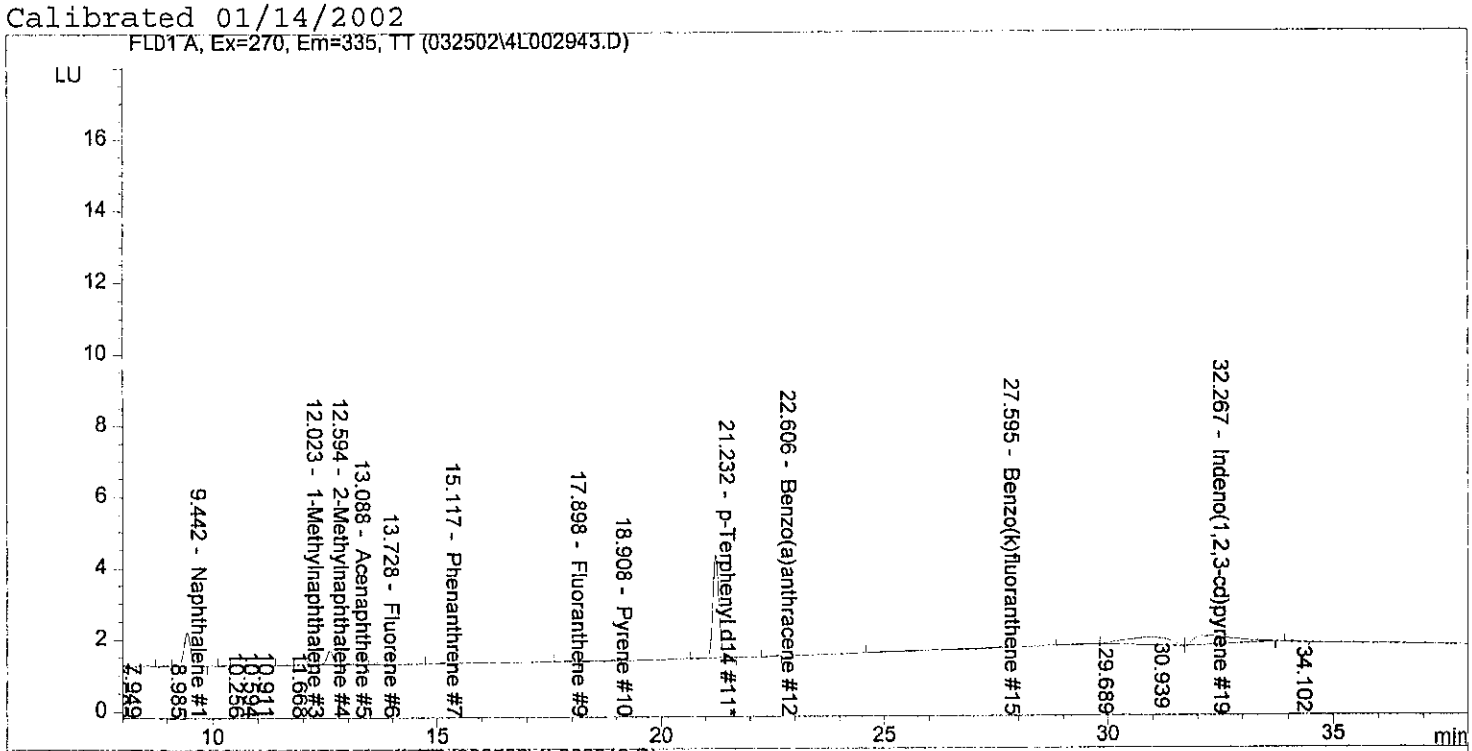
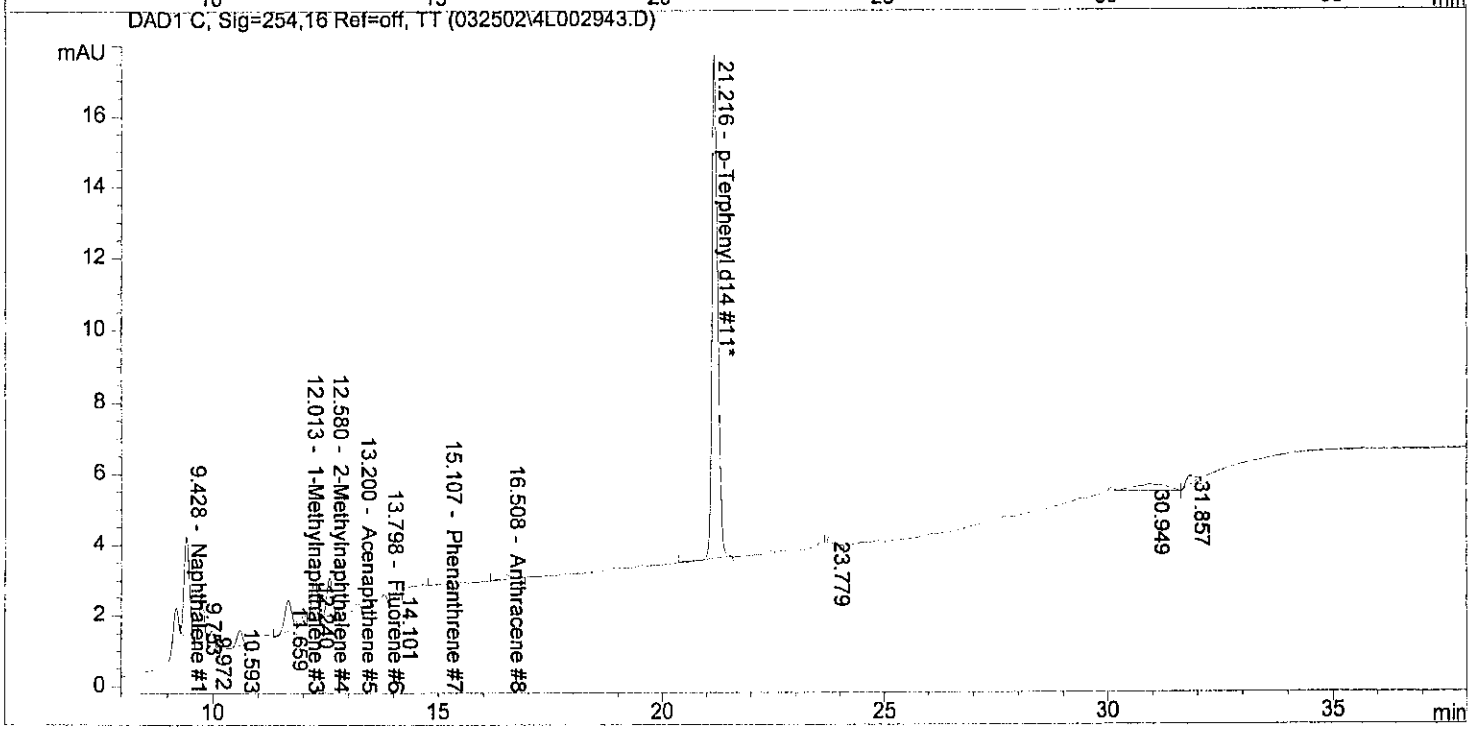
Injection Date	: 3/25/2002 4:56:44 PM	Seq. Line :	3
Sample Name	: WG114850-02 WBLK	Vial :	3
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.442	BB	10.03555	2.57003e-2	2.57916e-1		Naphthalene #1
12.023	BB	1.50647	2.24893e-2	3.38795e-2		1-Methylnaphthalene #3
12.594	BB	4.01207	1.72691e-2	6.92849e-2		2-Methylnaphthalene #4
13.088	BB	1.01115	1.38228e-2	1.39769e-2		Acenaphthene #5
13.728	BB	1.58761	6.56879e-3	1.04287e-2		Fluorene #6
15.117	BB	2.41823e-1	1.68488e-1	4.07442e-2		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.898	BB	3.99619e-1	2.38671e-2	9.53774e-3		Fluoranthene #9
18.908	BB	1.71639e-1	4.06594e-2	6.97872e-3		Pyrene #10
21.232	BB	28.41856	2.86511e-1	8.14224	81.4%	p-Terphenyl d14 #11*
22.606	BB	2.05255e-1	7.96557e-3	1.63497e-3		Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.595	BB	1.43421	2.77566e-3	3.98090e-3		Benzo(k)fluoranthene #15
28.605		-	-	-		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.267	BB	15.08523	1.37440e-2	2.07332e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 8.79794

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.428	BB	23.28383	8.27651e-3	1.92709e-1	cmol	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
12.013	BB	1.10508	1.29932e-2	1.43585e-2		1-Methylnaphthalene #3
12.580	BB	9.78670	1.12713e-2	1.10308e-1		2-Methylnaphthalene #4
13.200	BB	2.06135	2.03841e-2	4.20187e-2		Acenaphthene #5
13.798	BB	3.28310	1.76946e-2	5.80931e-2		Fluorene #6
15.107	BB	1.51050	1.74291e-2	2.63266e-2		Phenanthrene #7
16.508	PBA	1.94826	1.03455e-2	2.01557e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.216	BBA	125.99479	6.45989e-2	8.13913		p-Terphenyl d14 #11*
22.477		-	-	-		Benzo(a)anthracene #12
23.340		-	-	-	81.4%	Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.268		-	-	-		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.60310

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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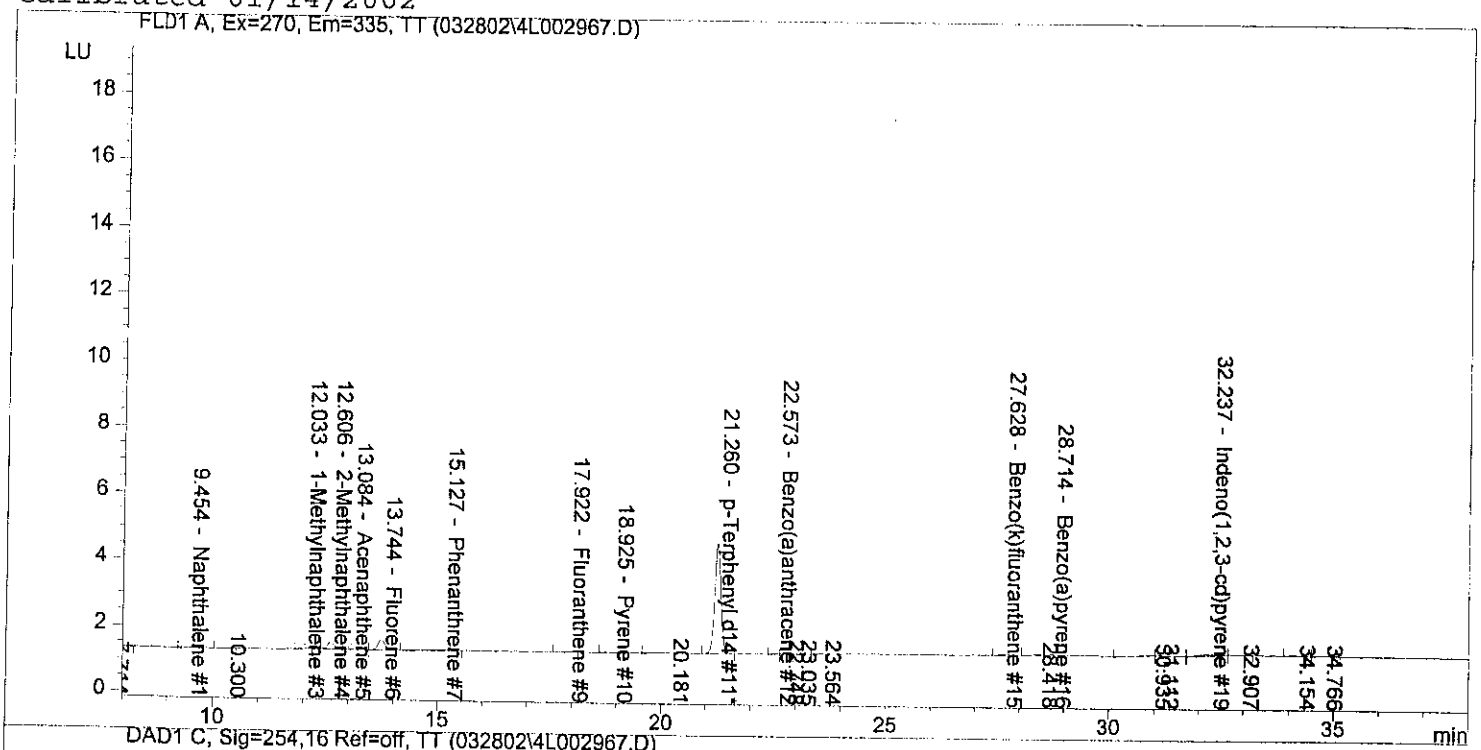
*** End of Report ***

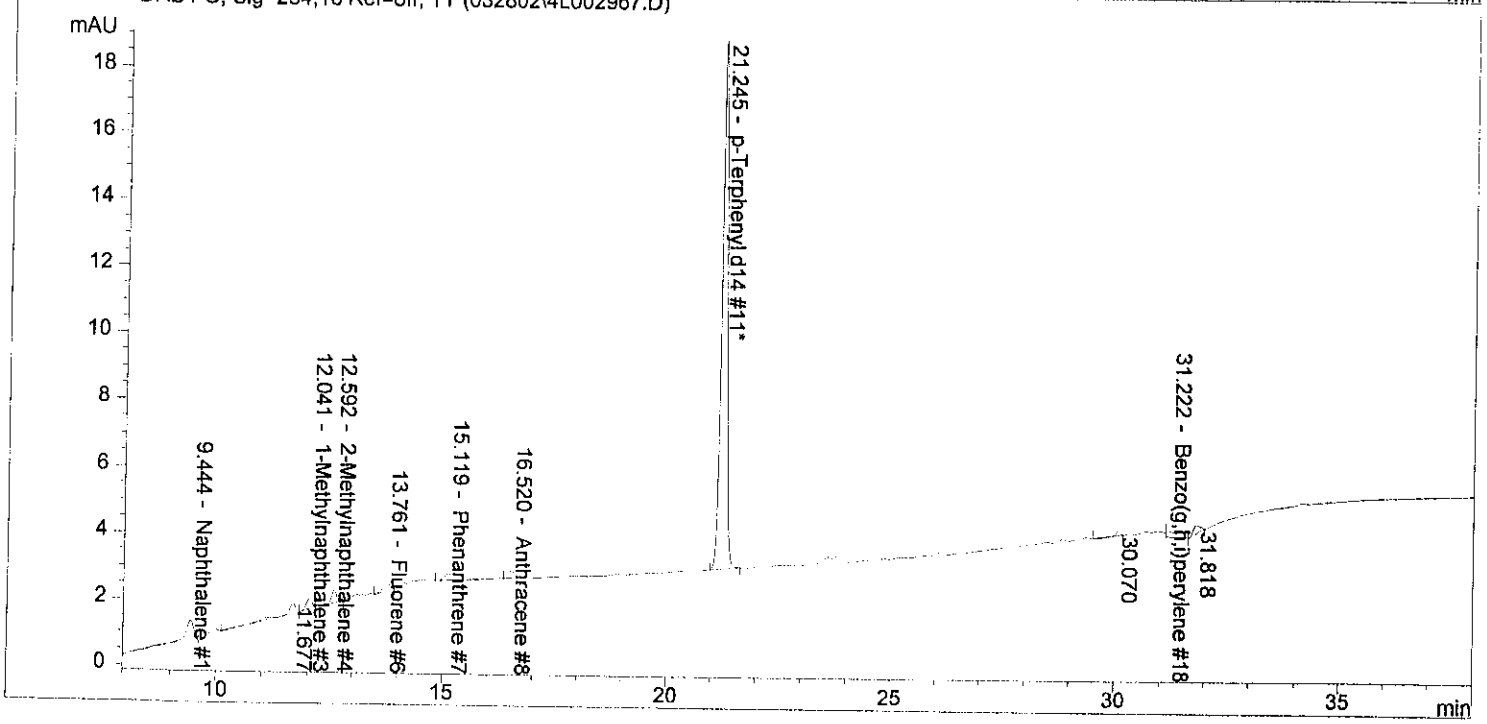
1,1 V182P135 water blank 032802

==========

Injection Date	: 3/28/2002 5:20:08 PM	Seq. Line :	5
Sample Name	: WG115291-01 WBLK	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 : 3/27/2002 9:51:30 AM by RDC
(modified after loading)
Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.454	BBA	1.65270	2.57003e-2	4.24749e-2		Naphthalene #1
12.033	BBA	1.29829	2.24893e-2	2.91976e-2		1-Methylnaphthalene #3
12.606	BB	2.16316	1.72691e-2	3.73559e-2		2-Methylnaphthalene #4
13.084	BB	1.76260	1.38228e-2	2.43640e-2		Acenaphthene #5
13.744	BBA	3.32391	6.56879e-3	2.18340e-2		Fluorene #6
15.127	BB	7.12313e-1	1.68488e-1	1.20016e-1		Phenanthrene #7
16.466		-	-	-		Anthracene #8
17.922	BBA	3.71312e-1	2.38671e-2	8.86214e-3		Fluoranthene #9
18.925	PB	2.05987e-1	4.06594e-2	8.37529e-3		Pyrene #10
21.260	PB	32.73150	2.86511e-1	9.37795		p-Terphenyl d14 #11*
22.573	BB	1.69923e-1	7.96557e-3	1.35353e-3	93.7%	Benzo(a)anthracene #12
23.356		-	-	-		Chrysene #13
26.097		-	-	-		Benzo(b)fluoranthene #14
27.628	BBA	2.40917e-1	2.77566e-3	6.68704e-4		Benzo(k)fluoranthene #15
28.714	BB	1.52031e-1	4.67660e-3	7.10989e-4		Benzo(a)pyrene #16
30.471		-	-	-		Dibenz(a,h)anthracene #17
31.285		-	-	-		Benzo(g,h,i)perylene #18
32.237	BB	1.76829	1.37440e-2	2.43034e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.69747

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
9.444	PB	8.55158	8.27651e-3	7.07772e-2	(MDL	Naphthalene #1
11.009		-	-	-		Acenaphthylene #2
12.041	BB	2.64745	1.29932e-2	3.43990e-2		1-Methylnaphthalene #3
12.592	BB	4.01496	1.12713e-2	4.52537e-2		2-Methylnaphthalene #4
13.012		-	-	-		Acenaphthene #5
13.761	BB	2.18036	1.76946e-2	3.85806e-2		Fluorene #6
15.119	BBA	2.14333	1.74291e-2	3.73563e-2		Phenanthrene #7
16.520	BBA	2.18360	1.03455e-2	2.25904e-2		Anthracene #8
17.829		-	-	-		Fluoranthene #9
18.831		-	-	-		Pyrene #10
21.245	PBA	142.82007	6.45989e-2	9.22602		p-Terphenyl d14 #11*
22.477		-	-	-	92.3%	Benzo(a)anthracene #12
23.340		-	-	-		Chrysene #13
26.084		-	-	-		Benzo(b)fluoranthene #14
27.479		-	-	-		Benzo(k)fluoranthene #15
28.588		-	-	-		Benzo(a)pyrene #16
30.454		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.222	BB	2.88053	5.34666e-2	1.54012e-1		Benzo(g,h,i)perylene #18
32.209		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.62899

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 V182P47 WATER LCS 032102

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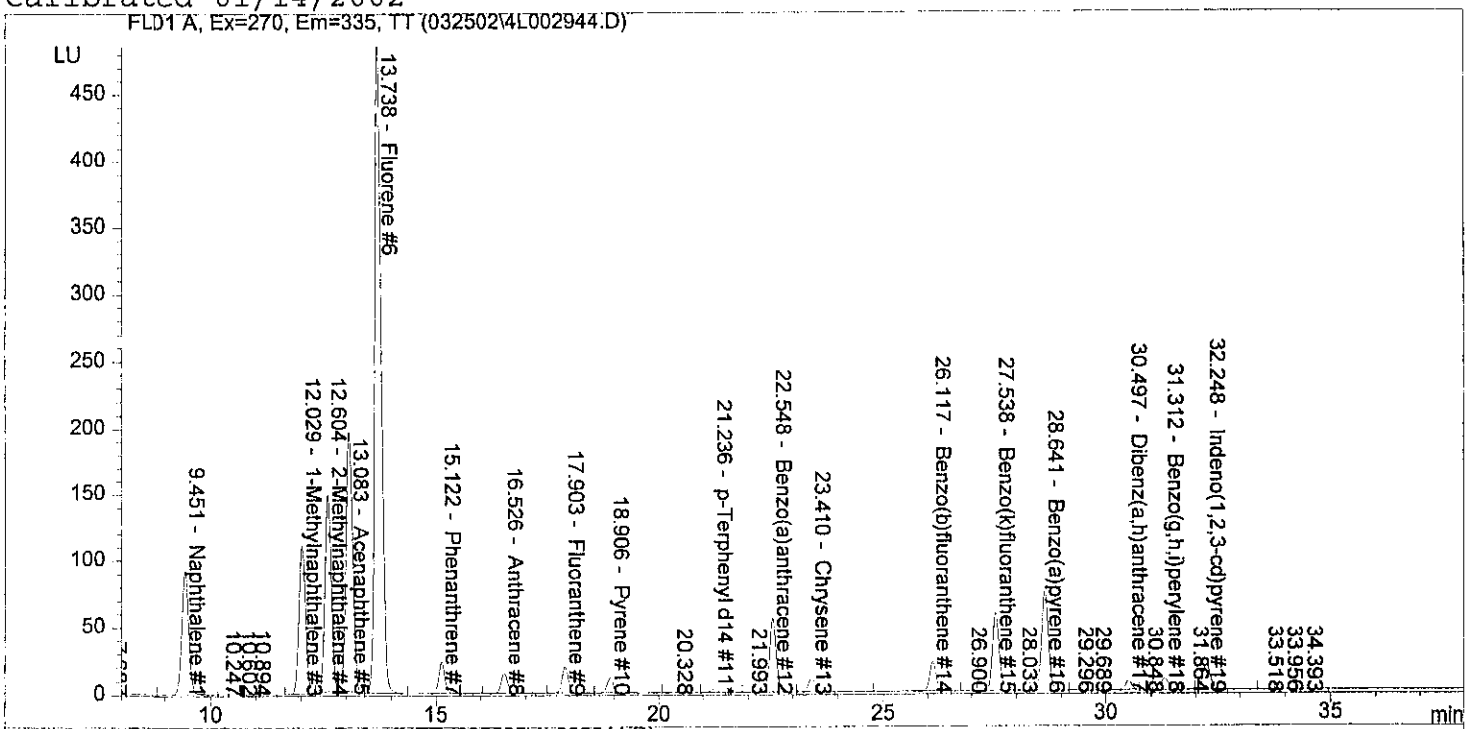
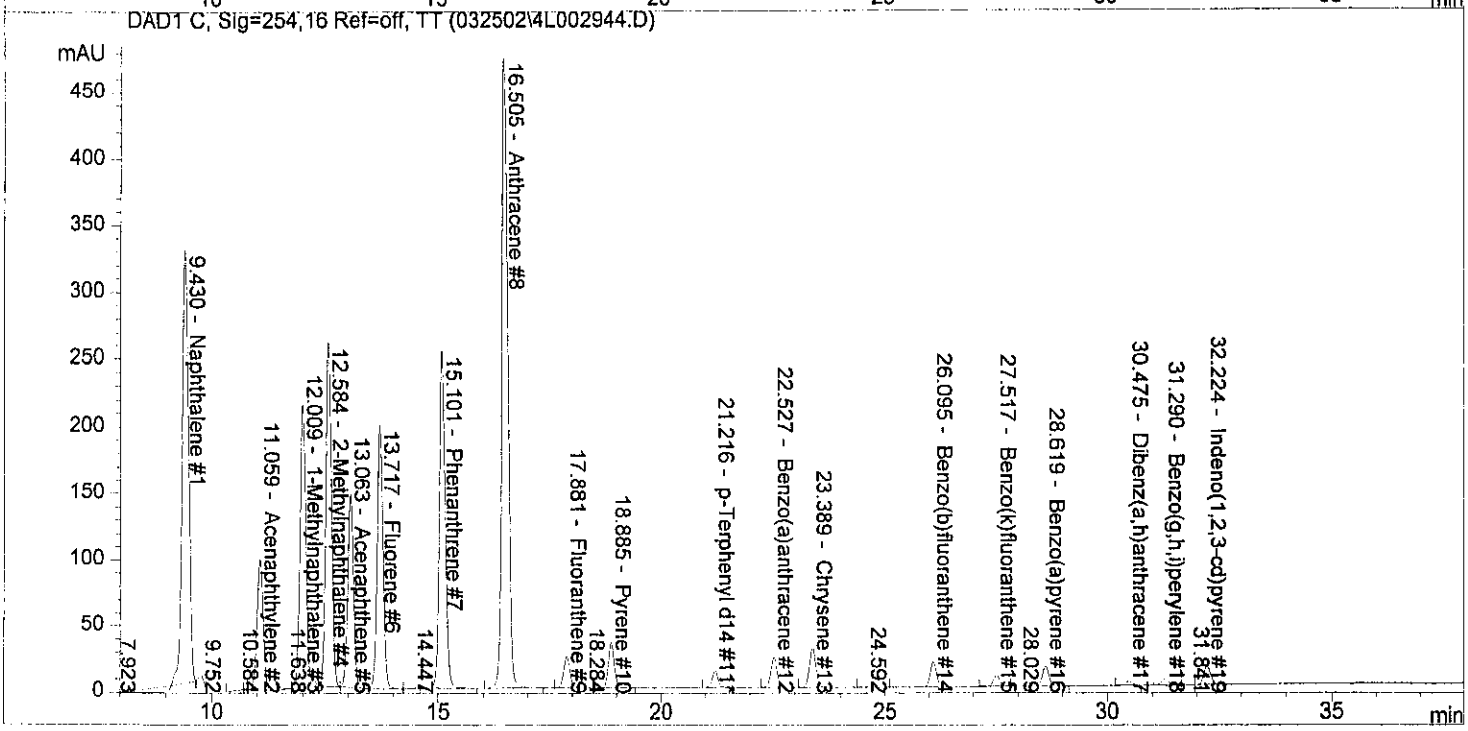
Injection Date	: 3/25/2002 5:53:21 PM	Seq. Line	: 4
Sample Name	: WG114850-03 WLCS	Vial	: 4
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

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 : 3/26/2002 1:39:15 PM by RDC
(modified after loading)

Calibrated 01/14/2002





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External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 21, 2002 1:25:06 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.451	BB	953.01636	2.57003e-2	24.49278		Naphthalene #1
12.029	BB	1093.19299	2.24893e-2	24.58516		1-Methylnaphthalene #3
12.604	BB	1432.86548	1.72691e-2	24.74435		2-Methylnaphthalene #4
13.083	BB	1911.44043	1.38228e-2	26.42142		Acenaphthene #5
13.738	BB	4845.12939	6.56879e-3	31.82663		Fluorene #6
15.122	BBA	223.75089	1.68488e-1	37.69925		Phenanthrene #7
16.526	BBA	142.82585	3.03714e-1	43.37826		Anthracene #8
17.903	PB	186.67763	2.38671e-2	4.45545		Fluoranthene #9
18.906	BBA	111.15810	4.06594e-2	4.51962		Pyrene #10
21.236	BB	24.41298	2.86511e-1	6.99460	69%	p-Terphenyl d14 #11*
22.548	BB	555.60352	7.96557e-3	4.42570		Benzo(a)anthracene #12
23.410	BB	104.54692	3.90144e-2	4.07884		Chrysene #13
26.117	BB	222.27919	1.65598e-2	3.68089		Benzo(b)fluoranthene #14
27.538	BB	609.85565	2.77566e-3	1.69275		Benzo(k)fluoranthene #15
28.641	BB	779.70856	4.67660e-3	3.64638		Benzo(a)pyrene #16
30.497	BB	64.31679	3.93196e-2	2.52891		Dibenz(a,h)anthracene #17
31.312	BB	95.23556	2.69466e-2	2.56628		Benzo(g,h,i)perylene #18
32.248	BB	203.74742	1.37440e-2	2.80031		Indeno(1,2,3-cd)pyrene #1

Totals : 254.53760

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.430	BB	2954.23608	8.27651e-3	24.45077		Naphthalene #1
11.059	BB	906.39404	3.00095e-2	27.20043		Acenaphthylene #2
12.009	BB	1964.99316	1.29932e-2	25.53161		1-Methylnaphthalene #3
12.584	BB	2310.97461	1.12713e-2	26.04759		2-Methylnaphthalene #4
13.063	BB	1314.64319	2.03841e-2	26.79785		Acenaphthene #5
13.717	BB	1783.81506	1.76946e-2	31.56386		Fluorene #6
15.101	BBA	2284.12744	1.74291e-2	39.81027		Phenanthrene #7
16.505	PBA	4358.36133	1.03455e-2	45.08938		Anthracene #8
17.881	PB	211.05038	2.18958e-2	4.62111		Fluoranthene #9
18.885	BBA	320.14636	1.46349e-2	4.68529		Pyrene #10
21.216	PBA	109.31339	6.45989e-2	7.06153	70.6%	p-Terphenyl d14 #11*
22.527	BBA	205.73892	2.22878e-2	4.58548		Benzo(a)anthracene #12
23.389	BB	273.01797	1.52051e-2	4.15128		Chrysene #13
26.095	BBA	180.82532	2.08462e-2	3.76952		Benzo(b)fluoranthene #14
27.517	BB	75.13744	2.27217e-2	1.70725		Benzo(k)fluoranthene #15
28.619	BBA	141.18634	2.64267e-2	3.73108		Benzo(a)pyrene #16
30.475	BB	27.71703	9.39100e-2	2.60291		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.290	BB	51.48769	5.34666e-2	2.75287		Benzo(g,h,i)perylene #18
32.224	BB	138.69873	2.06198e-2	2.85994		Indeno(1,2,3-cd)pyrene #1
Totals :				289.02003		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 V182P135 water LCS 032802

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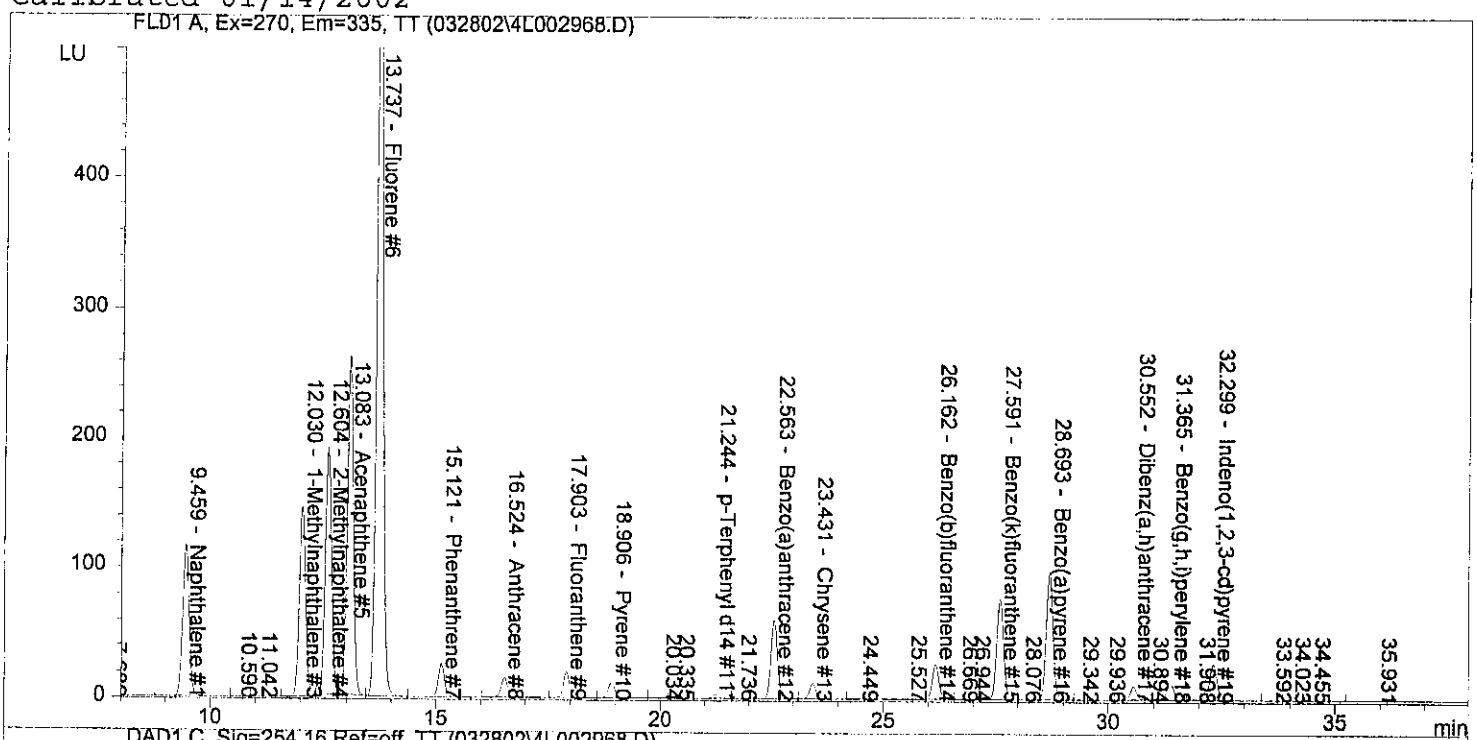
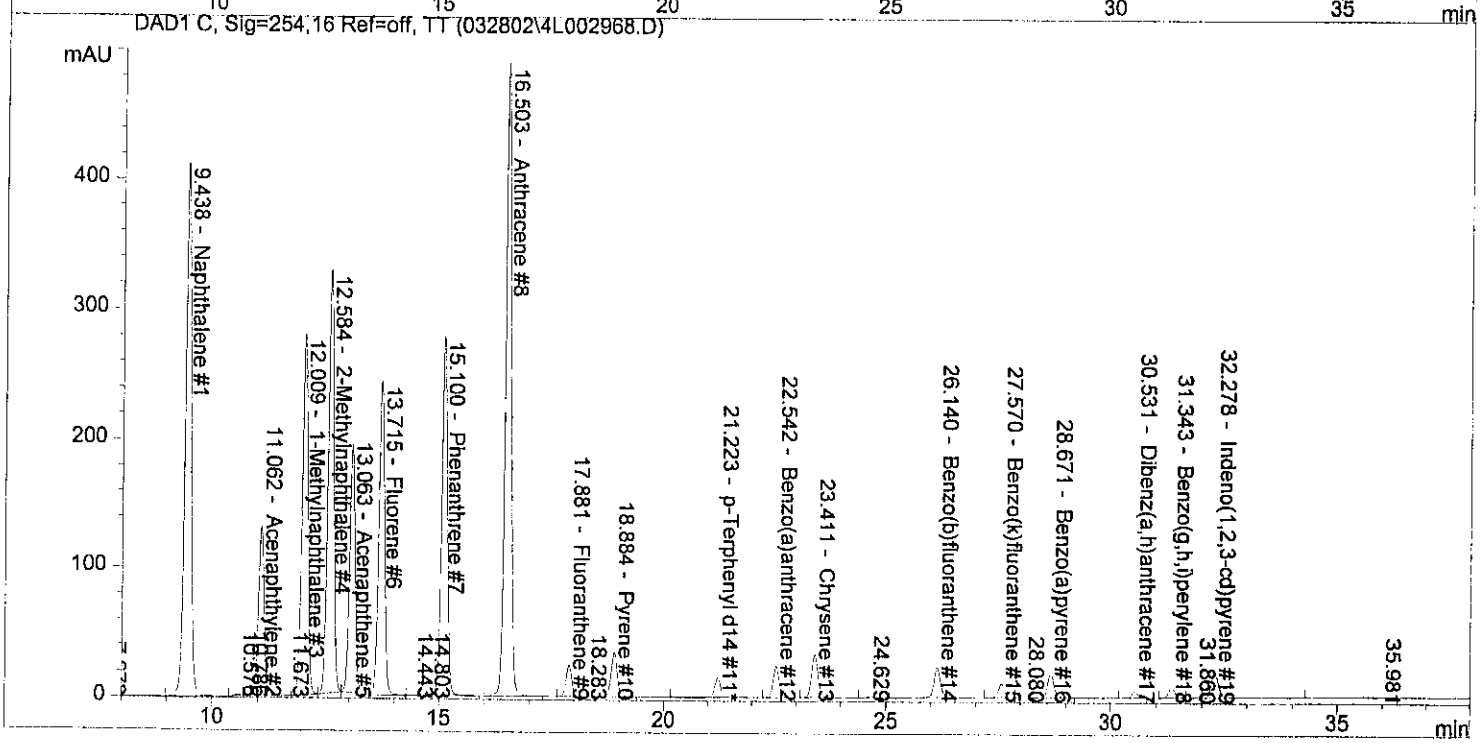
Injection Date	: 3/28/2002 6:16:43 PM	Seq. Line :	6
Sample Name	: WG115291-02 WLCS	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 2/11/2002 4:29:00 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 3/27/2002 9:51:30 AM by RDC
(modified after loading)
Calibrated 01/14/2002





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 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
9.459	BB	1172.96130	2.57003e-2	30.14543		Naphthalene #1
12.030	BB	1406.73584	2.24893e-2	31.63653		1-Methylnaphthalene #3
12.604	BB	1811.22107	1.72691e-2	31.27822		2-Methylnaphthalene #4
13.083	BB	2514.03174	1.38228e-2	34.75091		Acenaphthene #5
13.737	BB	5859.61572	6.56879e-3	38.49057		Fluorene #6
15.121	BBA	245.74713	1.68488e-1	41.40535		Phenanthrene #7
16.524	PBA	146.25914	3.03714e-1	44.42100		Anthracene #8
17.903	BB	194.88374	2.38671e-2	4.65131		Fluoranthene #9
18.906	BB	118.48383	4.06594e-2	4.81748		Pyrene #10
21.244	BB	31.10378	2.86511e-1	8.91159	89.1%	p-Terphenyl d14 #11*
22.563	BB	610.53949	7.96557e-3	4.86330		Benzo(a)anthracene #12
23.431	BB	123.64115	3.90144e-2	4.82379		Chrysene #13
26.162	BB	279.02411	1.65598e-2	4.62057		Benzo(b)fluoranthene #14
27.591	BB	807.42126	2.77566e-3	2.24113		Benzo(k)fluoranthene #15
28.693	BB	1036.76013	4.67660e-3	4.84851		Benzo(a)pyrene #16
30.552	BB	101.72877	3.93196e-2	3.99994		Dibenz(a,h)anthracene #17
31.365	BB	152.64948	2.69466e-2	4.11339		Benzo(g,h,i)perylene #18
32.299	BB	303.18402	1.37440e-2	4.16698		Indeno(1,2,3-cd)pyrene #1

Totals : 304.18599

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
9.438	BBA	3884.62793	8.27651e-3	32.15117		Naphthalene #1
11.062	BB	1157.05383	3.00095e-2	34.72261		Acenaphthylene #2
12.009	BB	2483.65723	1.29932e-2	32.27074		1-Methylnaphthalene #3
12.584	BB	2869.60303	1.12713e-2	32.34403		2-Methylnaphthalene #4
13.063	BB	1705.29114	2.03841e-2	34.76087		Acenaphthene #5
13.715	BB	2135.83496	1.76946e-2	37.79271		Fluorene #6
15.100	BBA	2412.82544	1.74291e-2	42.05336		Phenanthrene #7
16.503	PBA	4414.10010	1.03455e-2	45.66603		Anthracene #8
17.881	PB	216.22781	2.18958e-2	4.73448		Fluoranthene #9
18.884	BBA	327.62906	1.46349e-2	4.79480		Pyrene #10
21.223	PBA	136.94148	6.45989e-2	8.84627	97.5	p-Terphenyl d14 #11*
22.542	PBA	221.66481	2.22878e-2	4.94043		Benzo(a)anthracene #12
23.411	PB	318.10446	1.52051e-2	4.83682		Chrysene #13
26.140	PBA	224.16896	2.08462e-2	4.67307		Benzo(b)fluoranthene #14
27.570	BB	98.69572	2.27217e-2	2.24253		Benzo(k)fluoranthene #15
28.671	BB	187.05856	2.64267e-2	4.94333		Benzo(a)pyrene #16
30.531	BB	43.98259	9.39100e-2	4.13040		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.343	BB	79.42410	5.34666e-2	4.24654		Benzo(g,h,i)perylene #18
32.278	BB	206.13380	2.06198e-2	4.25044		Indeno(1,2,3-cd)pyrene #1

Totals : 344.40063

Results obtained with enhanced integrator!

*** End of Report ***

1,1 V182P135 water LCS2 032802

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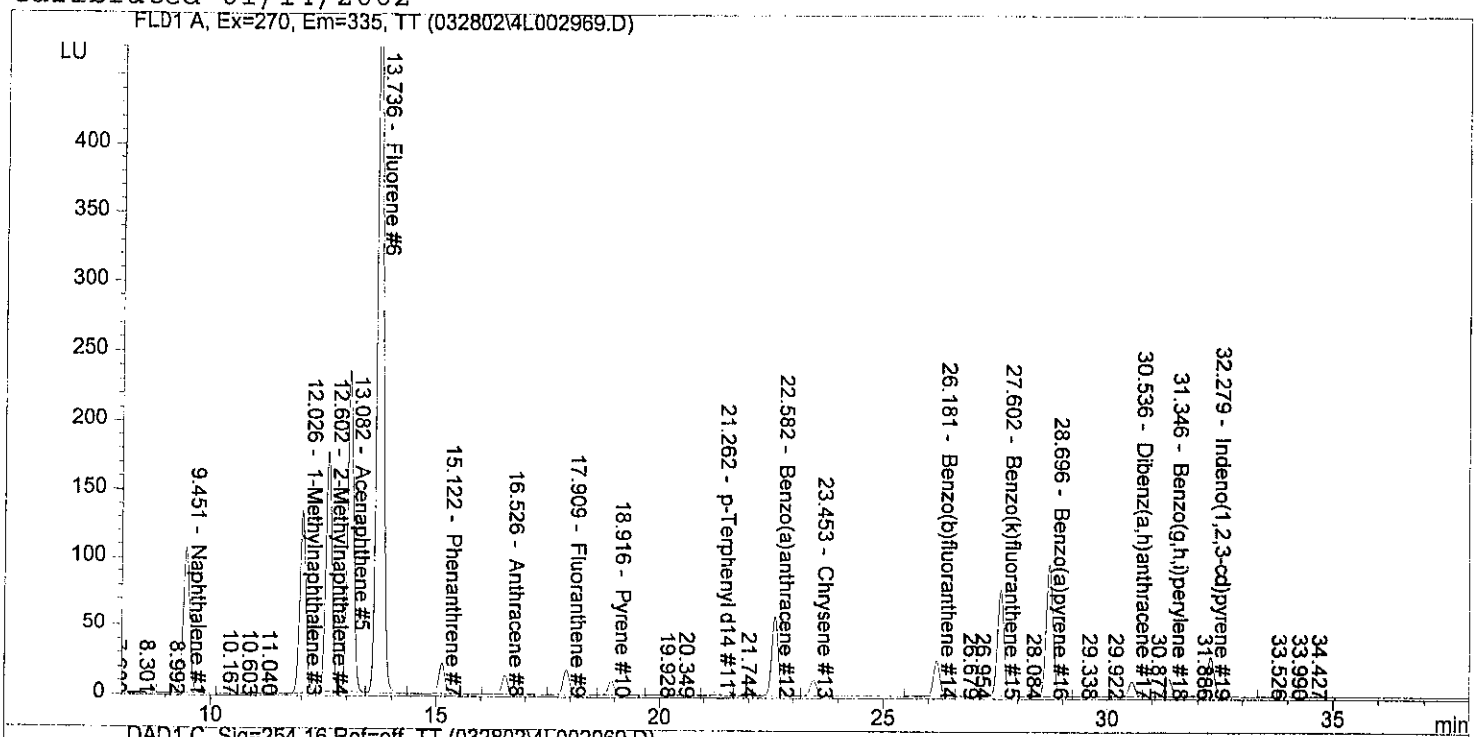
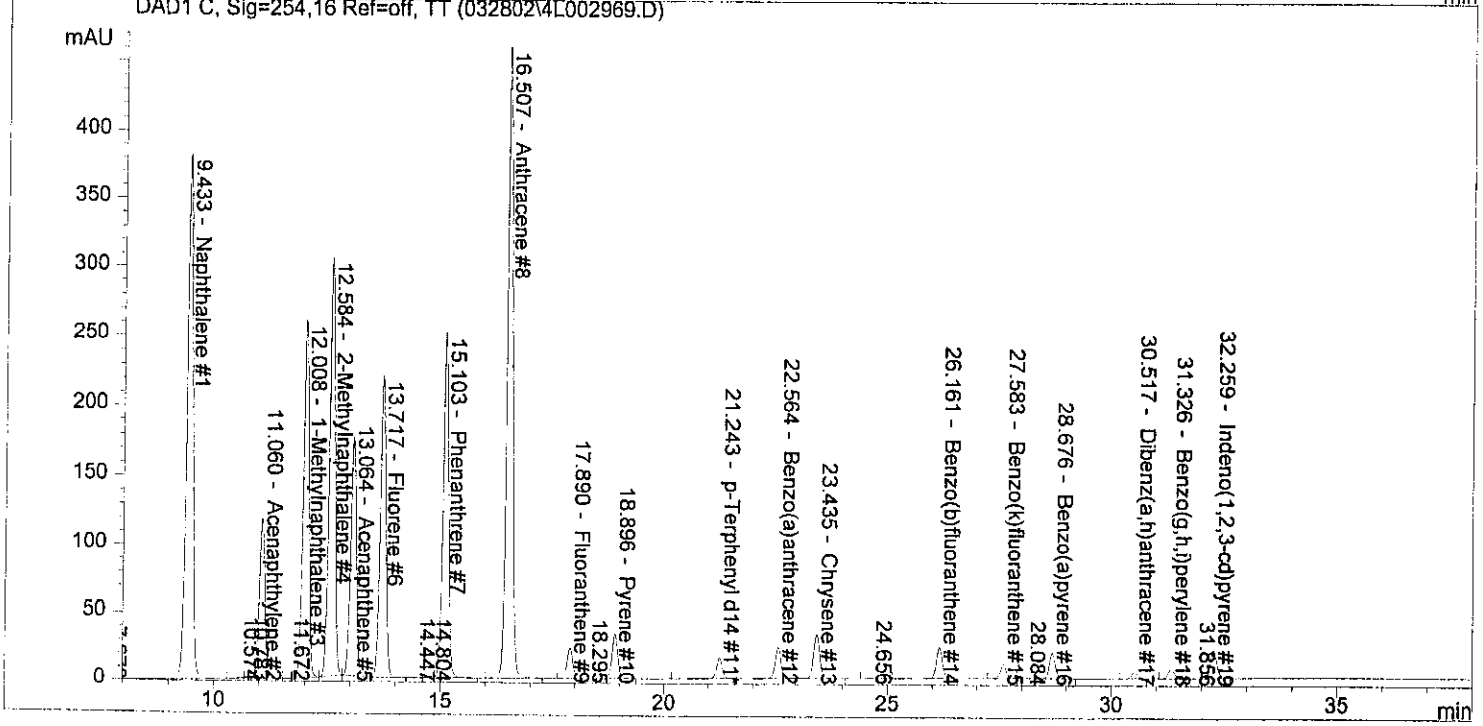
Injection Date	: 3/28/2002 7:13:22 PM	Seq. Line :	7
Sample Name	: WG115291-03 WLCS	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

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 : 3/27/2002 9:51:30 AM by RDC
(modified after loading)
Calibrated 01/14/2002





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, March 27, 2002 9:51:30 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.451	BB	1073.87512	2.57003e-2	27.59889		Naphthalene #1
12.026	BB	1292.83008	2.24893e-2	29.07487		1-Methylnaphthalene #3
12.602	BB	1670.45789	1.72691e-2	28.84736		2-Methylnaphthalene #4
13.082	BB	2260.78369	1.38228e-2	31.25032		Acenaphthene #5
13.736	BB	5209.59814	6.56879e-3	34.22075		Fluorene #6
15.122	BBA	218.26077	1.68488e-1	36.77424		Phenanthrene #7
16.526	PBA	136.11713	3.03714e-1	41.34073		Anthracene #8
17.909	BB	183.42230	2.38671e-2	4.37776		Fluoranthene #9
18.916	BBA	110.10419	4.06594e-2	4.47677		Pyrene #10
21.262	BB	31.19517	2.86511e-1	8.93777	77.4%	p-Terphenyl d14 #11*
22.582	BB	582.97229	7.96557e-3	4.64371		Benzo(a)anthracene #12
23.453	BB	119.13312	3.90144e-2	4.64791		Chrysene #13
26.181	PB	274.01523	1.65598e-2	4.53763		Benzo(b)fluoranthene #14
27.602	BB	814.12091	2.77566e-3	2.25973		Benzo(k)fluoranthene #15
28.696	BB	1023.86951	4.67660e-3	4.78823		Benzo(a)pyrene #16
30.536	BB	105.27275	3.93196e-2	4.13929		Dibenz(a,h)anthracene #17
31.346	BB	156.71913	2.69466e-2	4.22305		Benzo(g,h,i)perylene #18
32.279	BB	311.18134	1.37440e-2	4.27689		Indeno(1,2,3-cd)pyrene #1

Totals : 280.41587

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
9.433	BBA	3596.62134	8.27651e-3	29.76748		Naphthalene #1
11.060	BB	1046.06738	3.00095e-2	31.39196		Acenaphthylene #2
12.008	BB	2308.68213	1.29932e-2	29.99724		1-Methylnaphthalene #3
12.584	BB	2668.26074	1.12713e-2	30.07465		2-Methylnaphthalene #4
13.064	BB	1543.28711	2.03841e-2	31.45856		Acenaphthene #5
13.717	BB	1910.32043	1.76946e-2	33.80232		Fluorene #6
15.103	BBA	2175.75635	1.74291e-2	37.92146		Phenanthrene #7
16.507	PBA	4138.12744	1.03455e-2	42.81095		Anthracene #8
17.890	PB	205.37897	2.18958e-2	4.49693		Fluoranthene #9
18.896	BBA	311.99631	1.46349e-2	4.56602		Pyrene #10
21.243	PBA	138.30125	6.45989e-2	8.93411	76.3%	p-Terphenyl d14 #11*
22.564	BBA	213.36122	2.22878e-2	4.75536		Benzo(a)anthracene #12
23.435	BBA	318.96921	1.52051e-2	4.84997		Chrysene #13
26.161	BBA	222.86499	2.08462e-2	4.64589		Benzo(b)fluoranthene #14
27.583	BB	100.87424	2.27217e-2	2.29203		Benzo(k)fluoranthene #15
28.676	BB	186.17870	2.64267e-2	4.92008		Benzo(a)pyrene #16
30.517	BB	45.58579	9.39100e-2	4.28096		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.326	BB	83.50265	5.34666e-2	4.46461		Benzo(g,h,i)perylene #18
32.259	BBA	211.53377	2.06198e-2	4.36179		Indeno(1,2,3-cd)pyrene #1
Totals :				319.79238		

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG111259-01 CCV	8310	1	Sample		
3	3	WG111259-01 CCV	8310	1	Sample		
4	4	WG111259-01 CCV	8310	1	Sample		
5	5	WG111292-01 STD6	8310	1	Sample		
6	6	WG111292-02 STD6	8310	1	Sample		
7	7	WG111292-03 STD5	8310	1	Sample		
8	8	WG111292-04 STD4	8310	1	Sample		
9	9	WG111292-05 STD3	8310	1	Sample		
10	10	WG111292-06 STD2	8310	1	Sample		
11	11	WG111292-07 STD1	8310	1	Sample		
12	12	WG111292-08 ALT	8310	1	Sample		

Table 630

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002661	✓ 01:01		accn blk
No	2	2	8310	4L002662	CC 02:01	50556-19/56-20	WG111259-01 CC
No	3	3	8310	4L002663	CC 03:01	↓	WG111259-01 CC
No	4	4	8310	4L002664	CC 04:01		WG111259-01 CC
No	5	5	8310	4L002665	✓ 05:01	505 56-19	WG111292-01 ST
No	6	6	8310	4L002666	06:01	505 56-20	WG111292-02 ST
No	7	7	8310	4L002667	07:01	Dil'n. of 505 56-19/56-20	WG111292-03 ST
No	8	8	8310	4L002668	08:01		WG111292-04 ST
No	9	9	8310	4L002669	09:01		WG111292-05 ST
No	10	10	8310	4L002670	10:01		WG111292-06 ST
No	11	11	8310	4L002671	11:01		WG111292-07 ST
No	12	12	8310	4L002672	✓ 12:01	Dil'n. of 505 57-27/ 505 57-28	WG111292-08 AL

RQC
1/16/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Jan. 14, 2002 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 011402
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 110 bar
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: pyrene high by FLD

Action Taken: re-calibration

Comments

Reviewed By: [signature] 1/16/02

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002941	01:01		AcCN blk
No	2	2	8310	4L002942	02:01	SOS 58·26/56·20	WG115075-01 CC
No	3	3	8310	4L002943	03:01		WG114850-02 WB
No	4	4	8310	4L002944	04:01		WG114850-03 WL
No	5	5	8310	4L002945	05:01	RR/0, CONF	L0203380-01 83
No	6	6	8310	4L002946	06:01		L0203380-02 83
No	7	7	8310	4L002947	07:01	RE	L0203380-03 83
No	8	8	8310	4L002948	08:01		L0203380-04 83
No	9	9	8310	4L002949	09:01		L0203380-05 83
No	10	10	8310	4L002950	10:01		L0203380-06 83
No	11	11	8310	4L002951	11:01		L0203380-07 83
No	12	12	8310	4L002952	12:01		WG114850-01 WR
No	13	13	8310	4L002953	13:01	SOS 58·26/56·20	WG115075-02 CC
No	14	14	8310	4L002954	14:01		WG114850-04 WM
No	15	15	8310	4L002955	15:01		WG114850-05 WM
No	16	16	8310	4L002956	16:01		L0203380-11 83
No	17	17	8310	4L002957	17:01		L0203380-12 83
No	18	18	8310	4L002958	18:01		L0203380-13 83
No	19	19	8310	4L002959	19:01		L0203380-14 83
No	20	20	8310	4L002960	20:01		L0203380-15 83
No	21	21	8310	4L002961	21:01		L0203380-16 83
No	22	13	8310	4L002962	22:01	SOS 58·26/56·20	WG115075-03 CC

DWC 4/2/02

4/2/02

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blk	8310	1	Sample		
2	2	WG115075-01 CCV	8310	1	Sample		
3	3	WG114850-02 WBLK	8310	1	Sample		
4	4	WG114850-03 WLCS	8310	1	Sample		
5	5	L0203380-01 831W	8310	1	Sample		
6	6	L0203380-02 831W	8310	1	Sample		
7	7	L0203380-03 831W	8310	1	Sample		
8	8	L0203380-04 831W	8310	1	Sample		
9	9	L0203380-05 831W	8310	1	Sample		
10	10	L0203380-06 831W	8310	1	Sample		
11	11	L0203380-07 831W	8310	1	Sample		
12	12	WG114850-01 WREF	8310	1	Sample		
13	13	WG115075-02 CCV	8310	1	Sample		
14	14	WG114850-04 WMS	8310	1	Sample		
15	15	WG114850-05 WMSD	8310	1	Sample		
16	16	L0203380-11 831W	8310	1	Sample		
17	17	L0203380-12 831W	8310	1	Sample		
18	18	L0203380-13 831W	8310	1	Sample		
19	19	L0203380-14 831W	8310	1	Sample		
20	20	L0203380-15 831W	8310	1	Sample		
21	21	L0203380-16 831W	8310	1	Sample		
22	13	WG115075-03 CCV	8310	1	Sample		

BPC 1.02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 25, 2002 Instrument ID 11 PLC4 Column ID LC-PAH Data Subdirectory 032502
Analyst Initials PLE 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 ___
was not out of control —

Additional Maintenance
Problem: Baseline disturbances from previous days samples which had significant SIMI

Action Taken: Changed guard cartridge.

Comments

L0203380-01 Needs RR @ 10X, Needs copy of acenaphthylene
L0203380-01 Sent for re-ext. due to ↓ surrogate

Reviewed By: JR 4/2/02

Sequence: C:\HPCHEM\2\SEQUENCE\[illegible]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blk	8310	1	Sample		
2	2	WG115260-01 CCV	8310	1	Sample		
3	3	L0203380-01 831W	8310	1	Sample		
4	2	WG115260-02 CCV	8310	1	Sample		
5	4	WG115291-01 WBLK	8310	1	Sample		
6	5	WG115291-02 WLCS	8310	1	Sample		
7	6	WG115291-03 WLCS	8310	1	Sample		
8	7	L0203380-03 REEX	8310	1	Sample		
9	2	WG115260-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002963	01:01		AcCN blk
No	2	2	8310	4L002964	02:01	50558-26/56-20	WG115260-01 CC
No	3	3	8310	4L002965	03:01		L0203380-01 83
No	4	2	8310	4L002966	04:01	50558-24/56-20	WG115260-02 CC
No	5	4	8310	4L002967	05:01		WG115291-01 WB
No	6	5	8310	4L002968	06:01		WG115291-02 WL
No	7	6	8310	4L002969	07:01		WG115291-03 WL
No	8	7	8310	4L002970	08:01		L0203380-03 RE
No	9	2	8310	4L002971	09:01	50558-24/56-20	WG115260-03 CC

RWC 4/2/02

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 28, 2002 Instrument ID #HPLC4 Column ID LC-PAH Data Subdirectory 032802
Analyst Initials BPC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 116 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RPR 4/3/02

Volume 182
Page 47

Parameter: 8310 LLO SOP #: EXW/C01 Revision #: 6
Extraction Analyst(s): RSH CSH TV/KD Analyst(s): DP
Date/Time Extracted: 3/21/02 0600 Date TV/KD: 03/21/02
Spike/Surrogate Analyst: RSH Witness: CSH
Surrogate #: 550040-50 Earliest Hold Date: 3/26
Spike #: A = 550040-34 Spike #: B = —

Extraction Work Group WG 114850
Analytical Work Group WG 114911

Extract Relinquished By: DP
Extract Received By & Date: CK 3/21/02

	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	100ml		1ml	T				WG 114850-02
2	LCS			✓		↓	↓	500ml	↓	C				WG -03
3	03-580-01	8310		✓		950 mL				C				
4	-02	↓		✓		↓				T				
5	-03			✓		940 mL				T				*
6	-04			✓		965 mL				T				*
7	-05			✓		↓				T				*
8	-06			✓		950mL				T				
9	-07			✓		↓				T				
10	-08			✓		960mL				T				wG 114850-01
11	-09 MS			✓		950mL		500ml		C				* -04
12	-10 MSD			✓		965mL		↓		C				* -05
13	-11			✓		950mL				T				
14	-12			✓		965mL				T				
15	-13			✓		960mL				T				
16	-14			✓		↓				T				
17	-15			✓		940mL				C				
18	-16	↓		✓		1L	↓		↓	T				
19														
20														
21														
22														
23														
24														

DP 03/21/02

Methylene Chloride Lot #: 21015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH3CN Lot #: 41264
Reagent: Fortified Lot #: ER2092
Reagent: 10N NaOH Lot #: ER2110 *
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2095

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 7/21/02

Extraction Notes For Volume # 182 Page # 47

General Comments: * * MS, MSD OF 03-380-08

Extraction Anomalies: * * Sample's were ~~Acetic~~ Acidic. Had to adjust PH with 10N NaOH. *

Concentration Anomalies: None

Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 03/28/02 @ 1430 Date TV/KD: 03/28/02
Spike/Surrogate Analyst: DP Witness: [illegible]
Surrogate #: ESSC040-50 Earliest Hold Date: out
Spike #: A = ESSC040-34 Spike #: B = —

Extraction Work Group WG 115291
Analytical Work Group WG 115477

Extract Relinquished By: DP
Extract Received By & Date: HV 3/28/02

	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 uL		1mL	T				WG 115291-01
2	LCS			✓				500 uL		C				WG -02
3	LCS Dup			✓						C				WG -03
4	03-380-03	8310		✓		890 mL				T			✓	re-ext. out hold
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/28/02

Methylene Chloride Lot #: 42015
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: Fortified Lot #: ER 2112
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2015

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/27/02

Extraction Notes For Volume # 182 Page # 135

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

Semi-Volatile 8310 Checklist

Run Date: 14-Jan-02

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	Excel Spreadsheet	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
Re-calibration

Primary Reviewer: RDC 1/18/02

Secondary Reviewer: 1/18/02

Supervisor Review: 1/18/02

√ = Checked & OK
NA = Not Applicable

Semi-Volatile 8310 Checklist

Workorders:	Due Date:	Priority:
WG114911 03-380	3/27/2002	

Run Date: 25-Mar-02

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

Sample fraction 01 requires 10X dil'n. and conf. of acenaphthylene.

Sample fraction 03 sent for re-ext. due to low surrogate recovery.

Primary Reviewer: 4/2/02

Secondary Reviewer: 4/2/02

Supervisor Review:

√
NA

Semi-Volatile 8310 Checklist

Run Date: 28-Mar-02

Analyst: RDC

Instrument: HPLC4

	Workorders:	Due Date:	Priority:
(dil'n.)	WG114911 03-380	3/27/2002	
(re-ext.)	WG115477 03-380	3/27/2002	

		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	√
	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:

L0203380-01 dilution.....

L0203380-03 re-extract out of hold with acceptable surrogate.

Primary Reviewer: 4/2/02

Secondary Reviewer: 4/2/02

Supervisor Review: 4/2/02

√ = Checked & OK

NA = Not Applicable

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0203380

METHOD

Analysis: SW-846 9056/ 300

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All 300 method criteria was acceptable.All sample fractions except 03 and 04 were re-analyzed out of holding time due to ending CCV failure for PO4-P.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : CCV standards analyzed after sample fractions 03,04, 05, and 11-14 failed low for PO4-P. Each of these samples contained high levels of SO4 which may be associated with metals which would foul the analytical column. Following the initial analysis of this sample delivery group, the column was cleaned, re-installed and a re-calibration was performed. Samples 03 and 04 which contained the highest levels were not re-analyzed due to the potential for re-contaminating the analytical system. All other samples were re-analyzed out of holding time. For this re-analysis, sample fractions 05, and 11-14 were the only samples which, after analysis, again resulted in a failing ending CCV for PO4-P

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

See continuing calibration and analysis holding time data above. Sample fraction 03 contained a level of NO3-N which was above calibration range. The sample was not re-analyzed due to the significant sample matrix interference that had been shown to contaminate the analytical system.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: Stephanie A Lepe DATE: 4/1/02

Rev. 7/14/00

ANIONS (9056)

Login Number L0203380

A. QC Summary

✓ Method Blank Summary
✓ Method Blank Results
✓ Laboratory Control Sample (LCS)
✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
✓ Holding Time Summary
✓ Initial Calibration Summary
✓ Initial Calibration Verification (ICV) Form (Second Source)
✓ Continuing Calibration Verification (CCV)
✓ Instrument Run Log
NA Extraction Bench Sheet

B. Sample Data

___ Target analyte results summary (See Summary Report)
✓ Chromatograms and quantitation report

C. Standards Data

✓ Initial calibration (ICAL) summary form
✓ Chromatograms and quantitation report for ICAL standards
✓ Initial calibration verification (ICV/second source) summary forms
✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
✓ Continuing Calibration Verification (CCV) summary forms
✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
✓ Retention Time Window Summary

D. Raw QC Data

✓ Method blank chromatogram and quantitation report
✓ LCS chromatogram and quantitation report
✓ MS/MSD chromatogram and quantitation report
✓ Duplicate chromatogram and quantitation report.
✓ Instrument Run Log
NA Extraction Bench Sheet
✓ Daily Checklist
✓ Example Calcutations

Checked By: RRC Date: 4/5/02

2.4.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 032002.13
Date Analyzed: 03/20/02
Time Analyzed: 14:46
Analyst: RDC

Work Group: WG114843
Blank Sample ID: WG114843-01
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	WG114843-02	032002.14	03/20/02 14:58	01
062-CEF46-13I-Q1-02-14	L0203380-07	032002.15	03/20/02 15:29	01
DUP	WG114843-04	032002.16	03/20/02 15:41	01
062-46DUP-Q1-02-14	L0203380-15	032002.17	03/20/02 15:52	01
062-CEF46-14D-Q1-02-14	L0203380-08	032002.18	03/20/02 16:04	01
062-CEF46-14D-Q1-02-14	L0203380-09	032002.19	03/20/02 16:15	01
062-CEF46-14D-Q1-02-14	L0203380-10	032002.20	03/20/02 16:29	01
062-CEF46-9I-Q1-02-14	L0203380-06	032002.21	03/20/02 16:40	01
062-CEF46-5I-Q1-02-14	L0203380-03	032002.22	03/20/02 16:52	01
062-CEF46-6D-Q1-02-14	L0203380-04	032002.24	03/20/02 17:15	01
062-CEF46-1S-Q1-02-14	L0203380-01	032002.25	03/20/02 17:26	01
062-46EQB-Q1-02-14	L0203380-16	032002.26	03/20/02 17:38	01
062-CEF46-2S-Q1-02-14	L0203380-02	032002.27	03/20/02 17:49	01
062-CEF46-7I-Q1-02-14	L0203380-05	032002.28	03/20/02 18:01	01
062-CEF46-24D-Q1-02-14	L0203380-12	032002.29	03/20/02 18:12	01
062-CEF46-21I-Q1-02-14	L0203380-11	032002.30	03/20/02 18:24	01
062-CEF46-25I-Q1-02-14	L0203380-13	032002.31	03/20/02 18:35	01
062-CEF46-26I-Q1-02-14	L0203380-14	032002.32	03/20/02 18:47	01

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0203380
Blank File ID: 032102.10
Date Analyzed: 03/21/02
Time Analyzed: 16:56
Analyst: RDC

Work Group: WG115428
Blank Sample ID: WG115428-01
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	WG115428-02	032102.11	03/21/02 17:08	01
062-CEF46-13I-Q1-02-14	L0203380-07	032102.12	03/21/02 17:19	02
DUP	WG115428-04	032102.13	03/21/02 17:31	01
062-CEF46-14D-Q1-02-14	L0203380-08	032102.14	03/21/02 17:42	02
062-CEF46-14D-Q1-02-14	L0203380-09	032102.15	03/21/02 17:54	02
062-CEF46-14D-Q1-02-14	L0203380-10	032102.16	03/21/02 18:05	02
062-CEF46-9I-Q1-02-14	L0203380-06	032102.17	03/21/02 18:17	02
062-CEF46-1S-Q1-02-14	L0203380-01	032102.18	03/21/02 18:28	02
062-CEF46-2S-Q1-02-14	L0203380-02	032102.19	03/21/02 18:40	02
062-46DUP-Q1-02-14	L0203380-15	032102.21	03/21/02 19:03	02
062-46EQB-Q1-02-14	L0203380-16	032102.22	03/21/02 19:14	02
062-CEF46-7I-Q1-02-14	L0203380-05	032102.24	03/21/02 19:37	02
062-CEF46-21I-Q1-02-14	L0203380-11	032102.25	03/21/02 19:49	02
062-CEF46-24D-Q1-02-14	L0203380-12	032102.26	03/21/02 20:00	02
062-CEF46-25I-Q1-02-14	L0203380-13	032102.27	03/21/02 20:12	02
062-CEF46-26I-Q1-02-14	L0203380-14	032102.28	03/21/02 20:23	02

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0203380
Instrument ID: IC2
File ID: 032002.13
Workgroup (AAB#): WG114843
Contract #:

Run Date: 03/20/2002
Run Time: 14:46
Analyst: RDC

Sample ID: WG114843-01
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-20-MAR-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: L0203380
Instrument ID: IC2
File ID: 032102.10
Workgroup (AAB#): WG115428
Contract #:

Run Date: 03/21/2002
Run Time: 16:56
Analyst: RDC

Sample ID: WG115428-01
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-21-MAR-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 03/07/2001
Version 1.2

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Instrument ID: IC2
File ID: 032002.14
Workgroup (AAB#): WG114843
Contract #:

Run Date: 03/20/2002
Run Time: 14:58
Analyst: RDC

Sample ID: WG114843-02
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-20-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	4.20	103	90 - 110	
Nitrite	3.65	3.75	103	90 - 110	
Phosphate	9.78	10.2	104	90 - 110	

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0203380
Instrument ID: IC2
File ID: 032102.11
Workgroup (AAB#): WG115428
Contract #:

Run Date: 03/21/2002
Run Time: 17:08
Analyst: RDC

Sample ID: WG115428-02
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-21-MAR-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrate	4.07	3.97	97.6	90 - 110	
Nitrite	3.65	3.55	97.2	90 - 110	
Phosphate	9.78	9.52	97.3	90 - 110	

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0203380
Instrument ID: IC2
Parent ID: L0203380-08
Sample ID: L0203380-09 MS
Sample ID: L0203380-10 MSD

Cal ID: IC2-20-MAR-2002
Contract #:
File ID: 032002.18 Dil: 1
File ID: 032002.19 Dil: 1
File ID: 032002.20 Dil: 1

Worknum: WG114843
Method: 9056
Matrix: Water
Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Nitrate	0	4.07	4.26	105	4.07	4.29	105	0.701	80 - 120	20	
Nitrite	0	3.65	4.04	111	3.65	4.12	113	1.96	80 - 120	20	
Phosphate	.391	9.78	10.4	102	9.78	10.8	106	3.77	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 01/11/2001
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0203380
Instrument ID: IC2
Parent ID: L0203380-08
Sample ID: L0203380-09 MS
Sample ID: L0203380-10 MSD

Cal ID: IC2-21-MAR-2002
Contract #:
File ID: 032102.14 Dil: 1
File ID: 032102.15 Dil: 1
File ID: 032102.16 Dil: 1

Worknum: WG115428
Method: 9056
Matrix: Water
Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Nitrate	.128	NS	3.93	NA	NS	3.90	NA	NA	80 - 120	20	
Nitrite	0	NS	3.71	NA	NS	3.67	NA	NA	80 - 120	20	
Phosphate	0	NS	9.50	NA	NS	9.88	NA	NA	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
DUPLICATE REPORT

Sample Login ID:L0203380-07
Instrument ID:IC2
Sample ID:WG114843-03 File ID:032002.15 Dil:1
Duplicate ID:WG114843-04 File ID:032002.16 Dil:1

Worknum:WG114843
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 ENVIRONMENTAL SERVICES
DUPLICATE REPORT

Sample Login ID:L0203380-07
Instrument ID:IC2
Sample ID:WG115428-03 File ID:032102.12 Dil:1
Duplicate ID:WG115428-04 File ID:032102.13 Dil:1

Worknum:WG115428
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 ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056

AAB#: WG114843

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-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.66	20-MAR-02	2	1.66	
062-46EQB-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.23	20-MAR-02	2	1.23	
062-CEF46-13I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.29	20-MAR-02	2	1.29	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.27	20-MAR-02	2	1.27	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.28	20-MAR-02	2	1.28	
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.29	20-MAR-02	2	1.29	
062-CEF46-1S-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.24	20-MAR-02	2	1.24	
062-CEF46-21I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.12	20-MAR-02	2	1.12	
062-CEF46-24D-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.14	20-MAR-02	2	1.14	
062-CEF46-25I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.09	20-MAR-02	2	1.09	
062-CEF46-26I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.07	20-MAR-02	2	1.07	
062-CEF46-2S-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.19	20-MAR-02	2	1.19	
062-CEF46-5I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.25	20-MAR-02	2	1.25	
062-CEF46-6D-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.25	20-MAR-02	2	1.25	
062-CEF46-7I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.18	20-MAR-02	2	1.18	
062-CEF46-9I-Q1-02-14	19-MAR-02	20-MAR-02	20-MAR-02	2	1.27	20-MAR-02	2	1.27	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9056

AAB#: WG115428

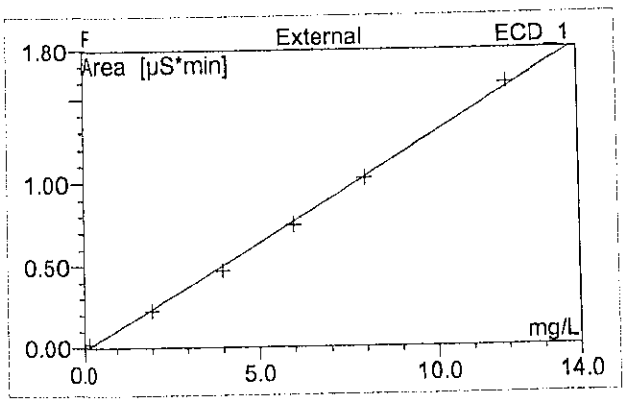
Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
062-46DUP-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.79	21-MAR-02	2	2.79	*ANAL
062-46EQB-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.30	21-MAR-02	2	2.30	*ANAL
062-CEF46-13I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.37	21-MAR-02	2	2.37	*ANAL
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.34	21-MAR-02	2	2.34	*ANAL
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.35	21-MAR-02	2	2.35	*ANAL
062-CEF46-14D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.35	21-MAR-02	2	2.35	*ANAL
062-CEF46-1S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.28	21-MAR-02	2	2.28	*ANAL
062-CEF46-21I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.18	21-MAR-02	2	2.18	*ANAL
062-CEF46-24D-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.22	21-MAR-02	2	2.22	*ANAL
062-CEF46-25I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.16	21-MAR-02	2	2.16	*ANAL
062-CEF46-26I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.14	21-MAR-02	2	2.14	*ANAL
062-CEF46-2S-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.23	21-MAR-02	2	2.23	*ANAL
062-CEF46-7I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.25	21-MAR-02	2	2.25	*ANAL
062-CEF46-9I-Q1-02-14	19-MAR-02	20-MAR-02	21-MAR-02	2	2.34	21-MAR-02	2	2.34	*ANAL

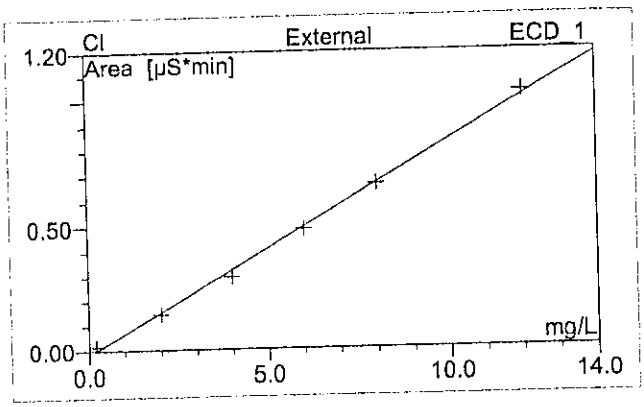
* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

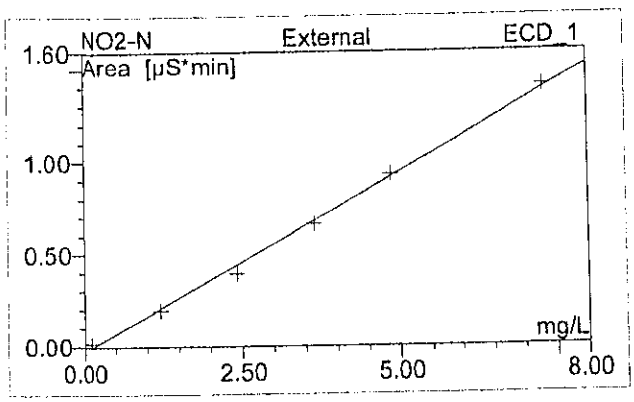
6 ANION STD #6

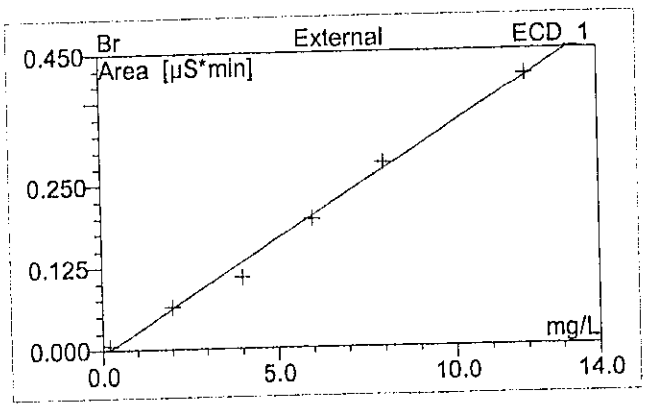
1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantit. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







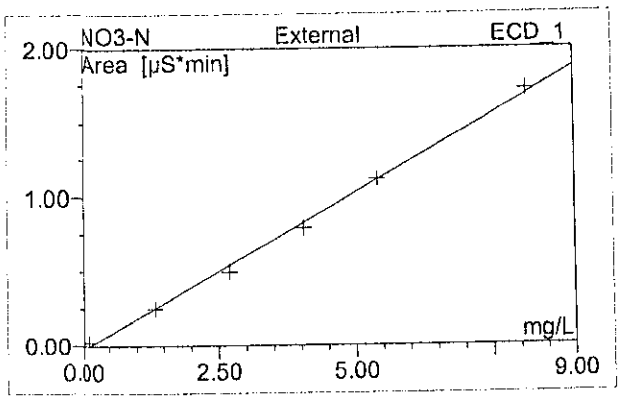


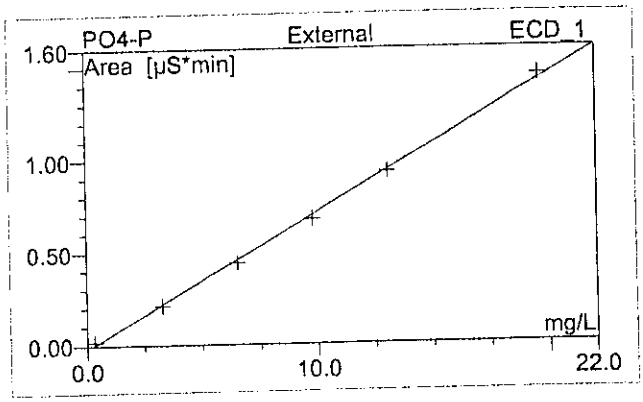
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

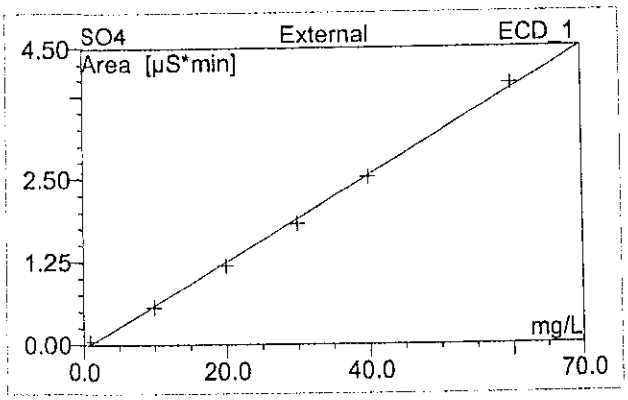
6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

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Version 6.30 SP1 Build 587

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	
Vial Number:	**8**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantit. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9159	-1.40	PASS
Cl	6	5.9267	-1.22	PASS
NO2-N	3.65	1.5489	-57.56	FAIL
Br	6	5.8498	-2.50	PASS
NO3-N	4.07	6.2520	53.61	FAIL
PO4-P	9.78	9.6802	-1.02	PASS
SO4	30	29.6053	-1.32	PASS

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Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*
Vial Number:	**10**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

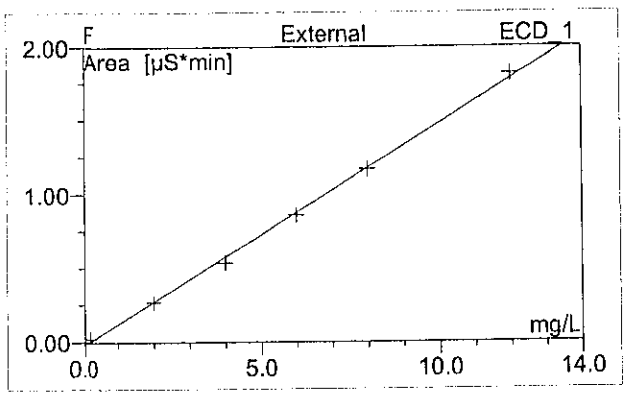
ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.2461	-95.90	FAIL
NO2-N	3.65	3.5391	-3.04	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	4.0656	-0.11	PASS
PO4-P	9.78	0.2847	-97.09	FAIL
n.a.	30	n.a.	#VALUE!	#VALUE!

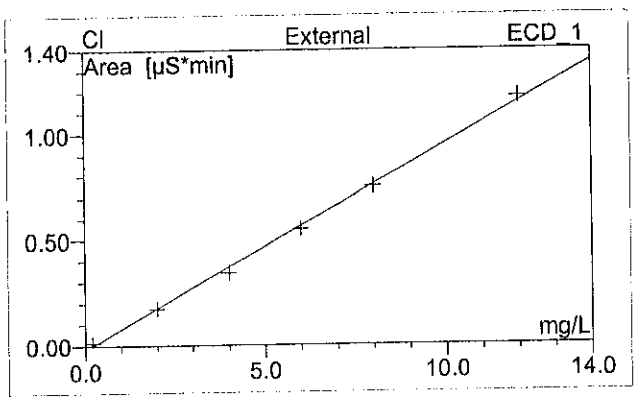
667

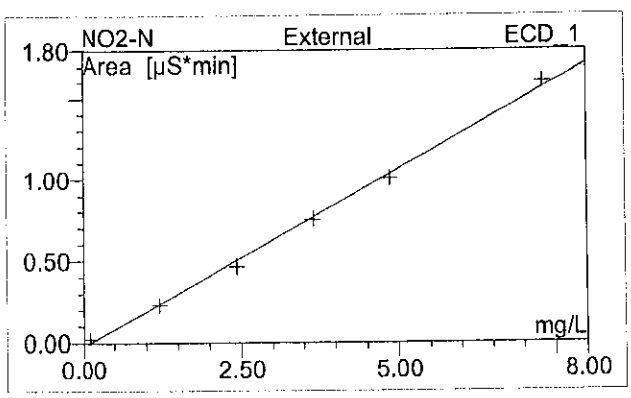
6 ANION STD #6

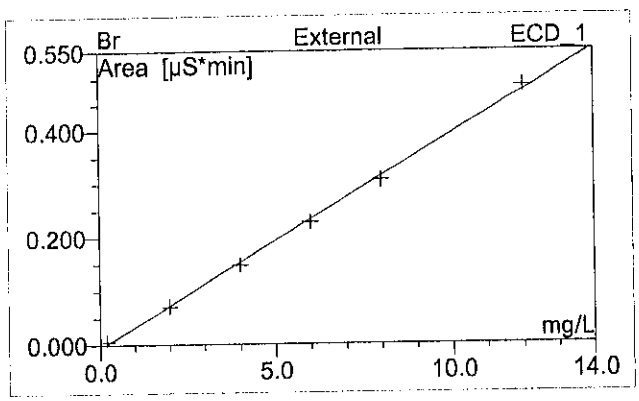
1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**









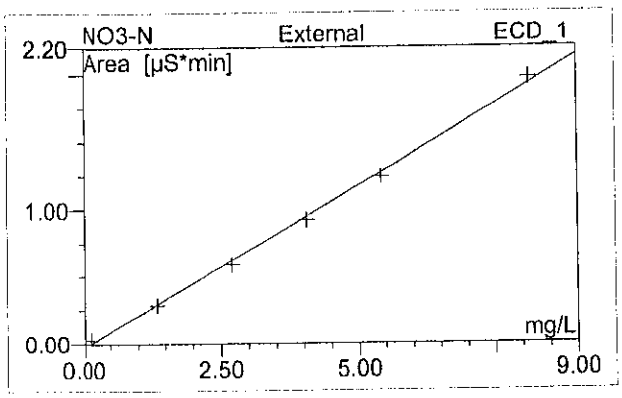
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9248	-0.0263	0.1504	0.0000
3	1.69	Cl	0LOff	6	99.9030	-0.0190	0.0972	0.0000
4	2.04	NO2-N	0LOff	6	99.8777	-0.0263	0.2179	0.0000
5	3.08	Br	0LOff	6	99.9263	-0.0067	0.0401	0.0000
6	3.50	NO3-N	0LOff	6	99.8987	-0.0294	0.2406	0.0000
7	5.83	PO4-P	0LOff	6	99.7048	-0.0450	0.0780	0.0000
8	7.77	SO4	0LOff	6	99.9082	-0.0709	0.0741	0.0000
Average:					99.8776	-0.0319	0.1283	0.0000

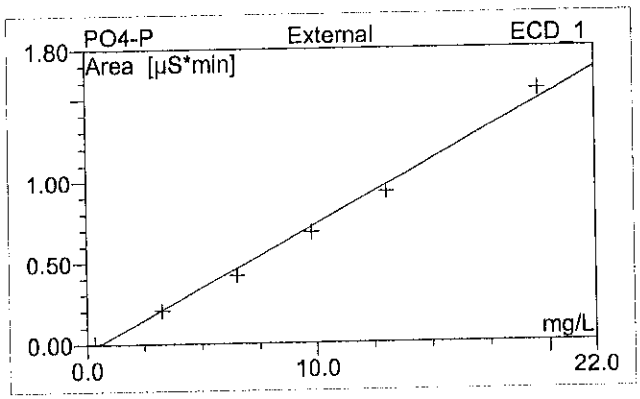
668

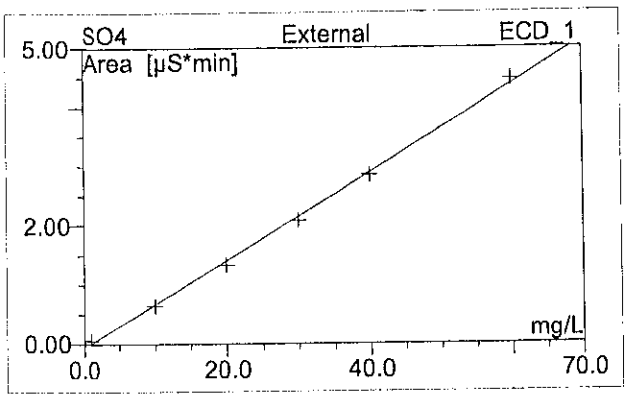
6 ANION STD #6

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:59**	*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	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9248	-0.0263	0.1504	0.0000
3	1.69	Cl	0LOff	6	99.9030	-0.0190	0.0972	0.0000
4	2.04	NO2-N	0LOff	6	99.8777	-0.0263	0.2179	0.0000
5	3.08	Br	0LOff	6	99.9263	-0.0067	0.0401	0.0000
6	3.50	NO3-N	0LOff	6	99.8987	-0.0294	0.2406	0.0000
7	5.83	PO4-P	0LOff	6	99.7048	-0.0450	0.0780	0.0000
8	7.77	SO4	0LOff	6	99.9082	-0.0709	0.0741	0.0000
Average:					99.8776	-0.0319	0.1283	0.0000

669

8 ANION ALT STD: SV53-30

1,1 RDC ANION ALT STD SV53-30 032102

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	
Vial Number:	**8**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 16:21**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7820	-3.63	PASS
Cl	6	5.6689	-5.52	PASS
NO2-N	3.65	1.4616	-59.96	FAIL
Br	6	5.8865	-1.89	PASS
NO3-N	4.07	6.1337	50.71	FAIL
PO4-P	9.78	9.2658	-5.26	PASS
SO4	30	29.4305	-1.90	PASS

670

9 ANION ALT STD: SOS59-02

1,1 RDC ANION ALT STD SOS59-02 032102

Sample Name:	**ANION ALT STD: SOS59-02**	*Injection Volume:*	
Vial Number:	**10**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 16:32**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.3994	-6.86	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.9230	-3.61	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

671

12 WG114844-01 ANION CCV 032002

1,1 RDC/JWR ANION STD SOS0058-24 032002

Sample Name:	WG114844-01 ANION CCV 032002	*Injection Volume:*	
Vial Number:	13	*Channel:*	
Sample Type:	unknown	*Wavelength:*	
Control Program:	9056	*Bandwidth:*	
Quantif. Method:	9056	*Dilution Factor:*	
Recording Time:	3/20/2002 14:35	*Sample Weight:*	
Run Time (min):	9.10	*Sample Amount:*	

WG114844-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.1395	2.33	PASS
Cl	6	6.1846	3.08	PASS
NO2-N	3.65	3.7359	2.35	PASS
Br	6	6.3116	5.19	PASS
NO3-N	4.07	4.1795	2.69	PASS
PO4-P	9.78	10.1343	3.62	PASS
SO4	30	30.5406	1.80	PASS

672

23 WG114844-02 ANION CCV 032002

1,1 RDC/JWR

Sample Name:	**WG114844-02 ANION CCV 032002**	*Injection Volume:*	
Vial Number:	**19**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/20/2002 17:03**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114844-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.0436	0.73	PASS
Cl	6	6.3938	6.56	PASS
NO2-N	3.65	3.8709	6.05	PASS
Br	6	6.4154	6.92	PASS
NO3-N	4.07	4.2933	5.49	PASS
PO4-P	9.78	6.3897	-34.67	FAIL
SO4	30	33.5821	11.94	FAIL

673

33 WG114844-03 ANION CCV 032002

1,1 RDC/JWR

Sample Name:	**WG114844-03 ANION CCV 032002**	*Injection Volume:*	
Vial Number:	**26**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/20/2002 18:58**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114844-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2914	4.86	PASS
Cl	6	6.3326	5.54	PASS
NO2-N	3.65	3.7899	3.83	PASS
Br	6	6.3093	5.15	PASS
NO3-N	4.07	4.2654	4.80	PASS
PO4-P	9.78	6.0503	-38.14	FAIL
SO4	30	33.1174	10.39	FAIL

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Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

20 WG115429-01 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-01 ANION CCV 032102**	*Injection Volume:*	
Vial Number:	**21**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 18:51**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG115429-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8740	-2.10	PASS
Cl	6	5.8156	-3.07	PASS
NO2-N	3.65	3.5517	-2.69	PASS
Br	6	5.9043	-1.60	PASS
NO3-N	4.07	3.9615	-2.67	PASS
PO4-P	9.78	8.9239	-8.75	PASS
SO4	30	29.1081	-2.97	PASS

675

23 WG115429-02 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-02 ANION CCV 032102**	*Injection Volume:*	
Vial Number:	**21**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantit. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 19:26**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG115429-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9202	-1.33	PASS
Cl	6	5.8776	-2.04	PASS
NO2-N	3.65	3.5476	-2.80	PASS
Br	6	5.9637	-0.60	PASS
NO3-N	4.07	4.0265	-1.07	PASS
PO4-P	9.78	8.8533	-9.48	PASS
SO4	30	28.9845	-3.38	PASS

676

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

29 WG115429-03 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-03 ANION CCV 032102**	*Injection Volume:*	
Vial Number:	**21**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantit. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 20:35**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG115429-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8393	-2.68	PASS
Cl	6	5.9541	-0.77	PASS
NO2-N	3.65	3.5259	-3.40	PASS
Br	6	5.8913	-1.81	PASS
NO3-N	4.07	3.9218	-3.64	PASS
PO4-P	9.78	7.3384	-24.97	FAIL
SO4	30	29.1189	-2.94	PASS

677

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

Sequence: 032002 IC2
Operator: Analyst

Printed: 3/28/2002 16:35:27

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 38

Created: 3/20/2002 13:44:33 by gsg
Last Update: 3/28/2002 16:09:08 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program		Method	Status
1	ANION STD #1	Standard	1	25.0	9056		9056	Finished
2	ANION STD #2	Standard	2	25.0	9056		9056	Finished
3	ANION STD #3	Standard	3	25.0	9056		9056	Finished
4	ANION STD #4	Standard	4	25.0	9056		9056	Finished
5	ANION STD #5	Standard	5	25.0	9056		9056	Finished
6	ANION STD #6	Standard	6	25.0	9056		9056	Finished
7	ELUENT BLANK	Unknown	7	25.0	9056		9056	Finished
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056		9056	Finished
9	ANION ALT STD: SOS58-15	Unknown	10	25.0	9056		9056	Finished
10	DI WATER BLANK	Unknown	11	25.0	9056		9056	Finished
11	ELUENT BLANK	Unknown	12	25.0	9056		9056	Finished
12	WG114844-01 ANION CCV 032002	Unknown	13	25.0	9056		9056	Finished
13	WG114843-01 BLANK 032002	Unknown	14	25.0	9056		9056	Finished
14	WG114843-02 LCS 032002	Unknown	15	25.0	9056		9056	Finished
15	WG114843-03 REF for DUP	Unknown	16	25.0	9056	RR	9056	Finished
16	WG114843-04 DUP	Unknown	17	25.0	9056		9056	Finished
17	L0203380-15	Unknown	18	25.0	9056		9056	Finished
18	WG114843-05 REF for MS/MSD	Unknown	19	25.0	9056		9056	Finished
19	WG114843-06 MS	Unknown	20	25.0	9056		9056	Finished
20	WG114843-07 MSD	Unknown	19	25.0	9056		9056	Finished
21	L0203380-06	Unknown	20	25.0	9056		9056	Finished
22	L0203380-03	Unknown	20	25.0	9056		9056	Finished
23	WG114844-02 ANION CCV 032002	Unknown	19	25.0	9056	CC	9056	Finished
24	L0203380-04	Unknown	20	25.0	9056	RR	9056	Finished
25	L0203380-01	Unknown	21	25.0	9056		9056	Finished
26	L0203380-16	Unknown	22	25.0	9056		9056	Finished
27	L0203380-02	Unknown	23	25.0	9056		9056	Finished
28	L0203380-05	Unknown	24	25.0	9056		9056	Finished
29	L0203380-12	Unknown	25	25.0	9056		9056	Finished
30	L0203380-11	Unknown	25	25.0	9056		9056	Finished
31	L0203380-13	Unknown	25	25.0	9056		9056	Finished
32	L0203380-14	Unknown	25	25.0	9056		9056	Finished
33	WG114844-03 ANION CCV 032002	Unknown	26	25.0	9056	CC	9056	Finished
34	WG114844-04 ANION CCV 032002	Unknown	26	25.0	9056		9056	Finished
35	CLEAN UP SOL'N.	Unknown	26	25.0	9056		9056	Finished
36	CLEAN UP SOL'N.	Unknown	27	25.0	9056		9056	Finished
37	WG114844-04 ANION CCV 032002	Unknown	26	25.0	9056	CC	9056	Finished
38	end	Unknown	20	25.0	DX-320 OFF		9056	Single

RWG 4/1/02

678

Printed: 3/28/2002 16:35:27

Sequence: 032002 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 38

Created: 3/20/2002 13:44:33 by gsg
Last Update: 3/28/2002 16:09:08 by Analyst

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION STD #1	3/7/2002 11:17:12	1.0000	
2	ANION STD #2	3/7/2002 11:28:43	1.0000	
3	ANION STD #3	3/7/2002 11:40:13	1.0000	
4	ANION STD #4	3/7/2002 11:51:43	1.0000	
5	ANION STD #5	3/7/2002 12:03:12	1.0000	
6	ANION STD #6	3/7/2002 12:14:42	1.0000	
7	ELUENT BLANK	3/7/2002 12:38:53	1.0000	
8	ANION ALT STD: SV53-30	3/7/2002 12:50:23	1.0000	
9	ANION ALT STD: SOS58-15	3/7/2002 13:01:53	1.0000	
10	DI WATER BLANK	3/20/2002 14:12:04	1.0000	
11	ELUENT BLANK	3/20/2002 14:23:35	1.0000	
12	WG114844-01 ANION CCV 032002	3/20/2002 14:35:04	1.0000	
13	WG114843-01 BLANK 032002	3/20/2002 14:46:37	1.0000	
14	WG114843-02 LCS 032002	3/20/2002 14:58:08	1.0000	
15	WG114843-03 REF for DUP	3/20/2002 15:29:44	1.0000	
16	WG114843-04 DUP	3/20/2002 15:41:14	1.0000	
17	L0203380-15	3/20/2002 15:52:44	1.0000	
18	WG114843-05 REF for MS/MSD	3/20/2002 16:04:14	1.0000	
19	WG114843-06 MS	3/20/2002 16:15:44	1.0000	
20	WG114843-07 MSD	3/20/2002 16:29:21	1.0000	
21	L0203380-06	3/20/2002 16:40:50	1.0000	
22	L0203380-03	3/20/2002 16:52:20	1.0000	
23	WG114844-02 ANION CCV 032002	3/20/2002 17:03:50	1.0000	
24	L0203380-04	3/20/2002 17:15:21	1.0000	
25	L0203380-01	3/20/2002 17:26:51	1.0000	
26	L0203380-16	3/20/2002 17:38:20	1.0000	
27	L0203380-02	3/20/2002 17:49:50	1.0000	
28	L0203380-05	3/20/2002 18:01:20	1.0000	
29	L0203380-12	3/20/2002 18:12:50	1.0000	
30	L0203380-11	3/20/2002 18:24:21	1.0000	
31	L0203380-13	3/20/2002 18:35:51	1.0000	
32	L0203380-14	3/20/2002 18:47:23	1.0000	
33	WG114844-03 ANION CCV 032002	3/20/2002 18:58:52	1.0000	
34	WG114844-04 ANION CCV 032002	3/20/2002 19:23:56	1.0000	
35	CLEAN UP SOL'N.	3/20/2002 19:37:57	1.0000	
36	CLEAN UP SOL'N.	3/20/2002 19:49:27	1.0000	
37	WG114844-04 ANION CCV 032002	3/20/2002 20:02:53	1.0000	
38	end		1.0000	

Sequence: 032002 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 38

Created: 3/20/2002 13:44:33 by gsg
Last Update: 3/28/2002 16:09:08 by Analyst

No.	Name	Comment
1	ANION STD #1	1,1 RDC/JWR ANION STD SOS0058-24 030702
2	ANION STD #2	1,1 RDC/JWR ANION STD SOS0058-24 030702
3	ANION STD #3	1,1 RDC/JWR ANION STD SOS0058-24 030702
4	ANION STD #4	1,1 RDC/JWR ANION STD SOS0058-24 030702
5	ANION STD #5	1,1 RDC/JWR ANION STD SOS0058-24 030702
6	ANION STD #6	1,1 RDC/JWR ANION STD SOS0058-24 030702
7	ELUENT BLANK	1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1,1 RDC/JWR ANION ALT STD SV53-30 030702
9	ANION ALT STD: SOS58-15	1,1 RDC/JWR ANION ALT STD SOS58-15 030702
10	DI WATER BLANK	1,1 RDC/JWR
11	ELUENT BLANK	1,1 RDC/JWR
12	WG114844-01 ANION CCV 032002	1,1 RDC/JWR ANION STD SOS0058-24 032002
13	WG114843-01 BLANK 032002	1,1 RDC/JWR
14	WG114843-02 LCS 032002	1,1 RDC/JWR ANION STD SOS0058-24 032002
15	WG114843-03 REF for DUP	1,1 RDC/JWR L0203380-07
16	WG114843-04 DUP	1,1 RDC/JWR L0203380-07 DUP
17	L0203380-15	1,1 RDC/JWR
18	WG114843-05 REF for MS/MSD	1,1 RDC/JWR L0203380-08 REF
19	WG114843-06 MS	1,1 RDC/JWR L0203380-09 MS (SOS0058-24)
20	WG114843-07 MSD	1,1 RDC/JWR L0203380-10 MSD (SOS0058-24)
21	L0203380-06	1,1 RDC/JWR
22	L0203380-03	1,1 RDC/JWR
23	WG114844-02 ANION CCV 032002	1,1 RDC/JWR
24	L0203380-04	1,1 RDC/JWR
25	L0203380-01	1,1 RDC/JWR
26	L0203380-16	1,1 RDC/JWR
27	L0203380-02	1,1 RDC/JWR
28	L0203380-05	1,1 RDC/JWR
29	L0203380-12	1,1 RDC/JWR
30	L0203380-11	1,1 RDC/JWR
31	L0203380-13	1,1 RDC/JWR
32	L0203380-14	1,1 RDC/JWR
33	WG114844-03 ANION CCV 032002	1,1 RDC/JWR
34	WG114844-04 ANION CCV 032002	1,1 RDC/JWR
35	CLEAN UP SOL'N.	1,1 RDC/JWR
36	CLEAN UP SOL'N.	1,1 RDC/JWR
37	WG114844-04 ANION CCV 032002	1,1 RDC/JWR
38	end	1,1 RDC/JWR

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar 20, 2002 Instrument ID IC2 Column ID AS9ASC / AG9ASC Data Subdirectory 032002
Analyst Initials [illegible] SOP # IC01 Rev. # 2 9056 SOP # IC02 Rev. # 314.0

Daily Check
- [x] Mobile phase reservoir
- [x] System pressure 1288 psi
- [x] Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

WG 114844-02 CCV failed low for PO4-P
-03
-04

- Samples from this SDG had a significant amount of SO4 which may be indicative of Fe, Al, or other metals which would foul the column & result in a failure of the PO4 anion recovery.

Column will be cleaned & re-calibration performed before samples are re-analyzed out of holding time for PO4. Fraction 03 & 04 will not be re-analyzed due to the extreme amounts of SO4.

Reviewed By: [signature] 4/1/02

Sequence: 032102 IC2
Operator: Analyst

Printed: 4/1/2002 14:58:41

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/21/2002 16:53:34 by gsg
Last Update: 4/1/2002 13:07:04 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished
9	ANION ALT STD: SOS59-02	Unknown	10	25.0	9056	9056	Finished
10	WG115428-01 ANION BLANK 032102	Unknown	11	25.0	9056	9056	Finished
11	WG115428-02 ANION LCS 032102	Unknown	12	25.0	9056	9056	Finished
12	WG115428-03 L0203380-07	Unknown	13	25.0	9056	9056	Finished
13	WG115428-04 L0203380-07 DUP	Unknown	14	25.0	9056	9056	Finished
14	WG115428-05 L0203380-08 REF	Unknown	15	25.0	9056	9056	Finished
15	WG115428-06 L0203380-09 MS	Unknown	16	25.0	9056	9056	Finished
16	WG115428-07 L0203380-10 MSD	Unknown	17	25.0	9056	9056	Finished
17	L0203380-06	Unknown	18	25.0	9056	9056	Finished
18	L0203380-01	Unknown	19	25.0	9056	9056	Finished
19	L0203380-02	Unknown	20	25.0	9056	9056	Finished
20	WG115429-01 ANION CCV 032102	Unknown	21	25.0	9056	9056	Finished
21	L0203380-15	Unknown	22	25.0	9056	9056	Finished
22	L0203380-16	Unknown	23	25.0	9056	9056	Finished
23	WG115429-02 ANION CCV 032102	Unknown	21	25.0	9056	9056	Finished
24	L0203380-05	Unknown	23	25.0	9056	9056	Finished
25	L0203380-11	Unknown	24	25.0	9056	9056	Finished
26	L0203380-12	Unknown	25	25.0	9056	9056	Finished
27	L0203380-13	Unknown	26	25.0	9056	9056	Finished
28	L0203380-14	Unknown	27	25.0	9056	9056	Finished
29	WG115429-03 ANION CCV 032102	Unknown	21	25.0	9056	9056	Finished
30	END	Unknown	22	25.0	DX-320 OFF	9056	Finished

TDRC 4/1/02

4/1/02

Sequence: 032102 IC2
Operator: Analyst

Printed: 4/1/2002 14:58:41

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/21/2002 16:53:34 by gsg
Last Update: 4/1/2002 13:07:04 by Analyst

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION STD #1	3/21/2002 14:01:49	1.0000	
2	ANION STD #2	3/21/2002 14:13:20	1.0000	
3	ANION STD #3	3/21/2002 14:24:49	1.0000	
4	ANION STD #4	3/21/2002 14:36:20	1.0000	
5	ANION STD #5	3/21/2002 14:47:49	1.0000	
6	ANION STD #6	3/21/2002 14:59:20	1.0000	
7	ELUENT BLANK	3/21/2002 15:10:50	1.0000	
8	ANION ALT STD: SV53-30	3/21/2002 16:21:21	1.0000	
9	ANION ALT STD: SOS59-02	3/21/2002 16:32:51	1.0000	
10	WG115428-01 ANION BLANK 032102	3/21/2002 16:56:42	1.0000	
11	WG115428-02 ANION LCS 032102	3/21/2002 17:08:12	1.0000	
12	WG115428-03 L0203380-07	3/21/2002 17:19:45	1.0000	
13	WG115428-04 L0203380-07 DUP	3/21/2002 17:31:15	1.0000	
14	WG115428-05 L0203380-08 REF	3/21/2002 17:42:45	1.0000	
15	WG115428-06 L0203380-09 MS	3/21/2002 17:54:15	1.0000	
16	WG115428-07 L0203380-10 MSD	3/21/2002 18:05:46	1.0000	
17	L0203380-06	3/21/2002 18:17:16	1.0000	
18	L0203380-01	3/21/2002 18:28:45	1.0000	
19	L0203380-02	3/21/2002 18:40:15	1.0000	
20	WG115429-01 ANION CCV 032102	3/21/2002 18:51:44	1.0000	
21	L0203380-15	3/21/2002 19:03:16	1.0000	
22	L0203380-16	3/21/2002 19:14:46	1.0000	
23	WG115429-02 ANION CCV 032102	3/21/2002 19:26:17	1.0000	
24	L0203380-05	3/21/2002 19:37:47	1.0000	
25	L0203380-11	3/21/2002 19:49:17	1.0000	
26	L0203380-12	3/21/2002 20:00:47	1.0000	
27	L0203380-13	3/21/2002 20:12:17	1.0000	
28	L0203380-14	3/21/2002 20:23:47	1.0000	
29	WG115429-03 ANION CCV 032102	3/21/2002 20:35:17	1.0000	
30	END	3/21/2002 20:46:47	1.0000	

Sequence: 032102 IC2
Operator: Analyst
Printed: 4/1/2002 14:58:41

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/21/2002 16:53:34 by gsg
Last Update: 4/1/2002 13:07:04 by Analyst

No.	Name	Comment
1	ANION STD #1	1,1 RDC ANION STD SOS0058-24 032102
2	ANION STD #2	1,1 RDC ANION STD SOS0058-24 032102
3	ANION STD #3	1,1 RDC ANION STD SOS0058-24 032102
4	ANION STD #4	1,1 RDC ANION STD SOS0058-24 032102
5	ANION STD #5	1,1 RDC ANION STD SOS0058-24 032102
6	ANION STD #6	1,1 RDC ANION STD SOS0058-24 032102
7	ELUENT BLANK	1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1,1 RDC ANION ALT STD SV53-30 032102
9	ANION ALT STD: SOS59-02	1,1 RDC ANION ALT STD SOS59-02 032102
10	WG115428-01 ANION BLANK 032102	1,1 RDC
11	WG115428-02 ANION LCS 032102	1,1 RDC SOS0058-24
12	WG115428-03 L0203380-07	1,1 RDC L0203380-07
13	WG115428-04 L0203380-07 DUP	1,1 RDC L0203380-07 DUP
14	WG115428-05 L0203380-08 REF	1,1 RDC L0203380-08 REF
15	WG115428-06 L0203380-09 MS	1,1 RDC SOS0058-24 032102
16	WG115428-07 L0203380-10 MSD	1,1 RDC SOS0058-24 032102
17	L0203380-06	1,1 RDC
18	L0203380-01	1,1 RDC
19	L0203380-02	1,1 RDC
20	WG115429-01 ANION CCV 032102	1,1 RDC ANION CCV SOS0058-24 032102
21	L0203380-15	1,1 RDC
22	L0203380-16	1,1 RDC
23	WG115429-02 ANION CCV 032102	1,1 RDC ANION CCV SOS0058-24 032102
24	L0203380-05	1,1 RDC
25	L0203380-11	1,1 RDC
26	L0203380-12	1,1 RDC
27	L0203380-13	1,1 RDC
28	L0203380-14	1,1 RDC
29	WG115429-03 ANION CCV 032102	1,1 RDC ANION CCV SOS0058-24 032102
30	END	1,1 RDC ANION CCV SOS0058-24 032102

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 31, 2002 Instrument ID IC2 Column ID AS4A-SC AG4A-SC Data Subdirectory 032402
Analyst Initials RRC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1257
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: PO4-P recovery is low. Column was fouled by client samples

Action Taken: Base, Acid, & Organic cleanup of column & guard followed by re-calibration

Comments

Samples are analyzed out of hold time.
PO4-P again failed but only after the analysis of sample fractions L0203280-05 & 11-14.

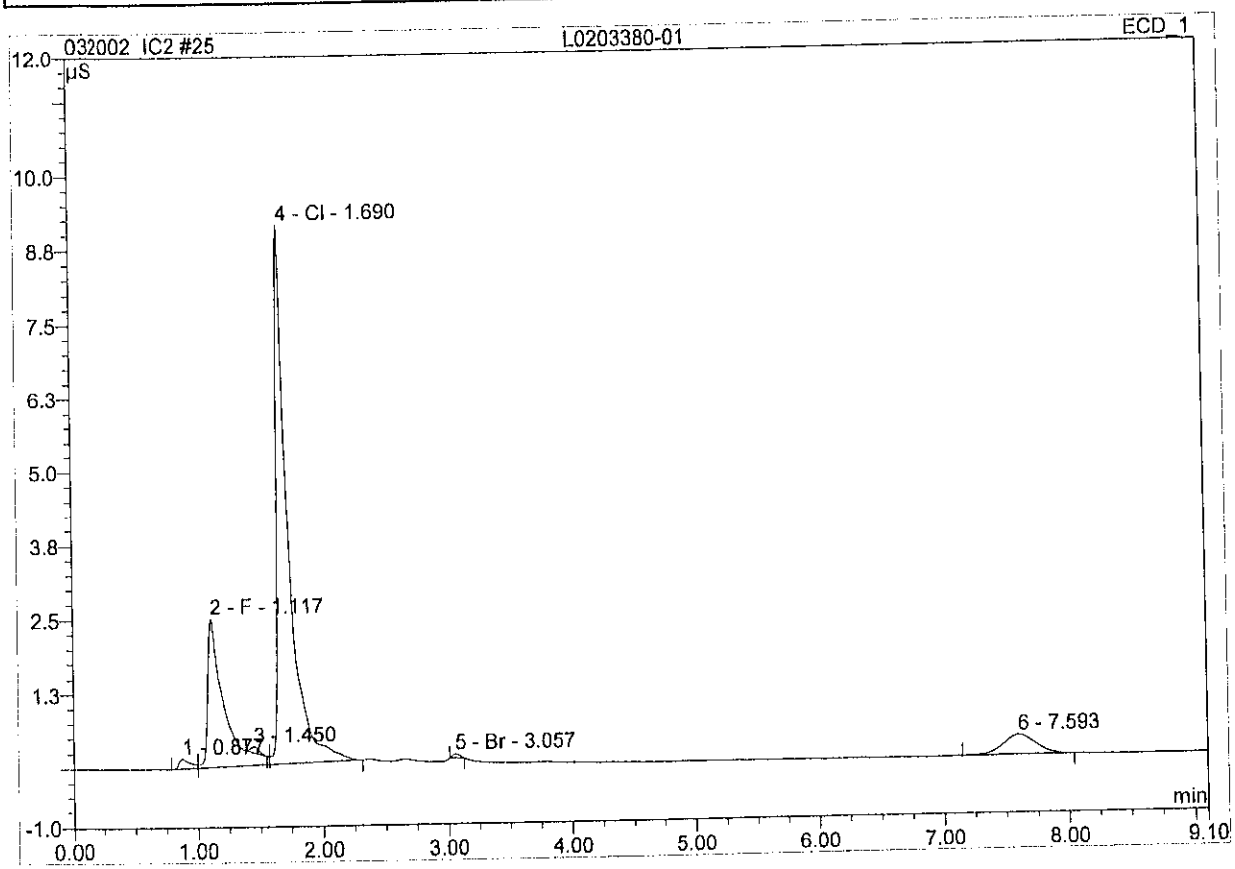
Reviewed By: RPR 4/1/02

2.4.5.2 Sample Data

25 L0203380-01

1,1 RDC/JWR

Sample Name:	**L0203380-01**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 17:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



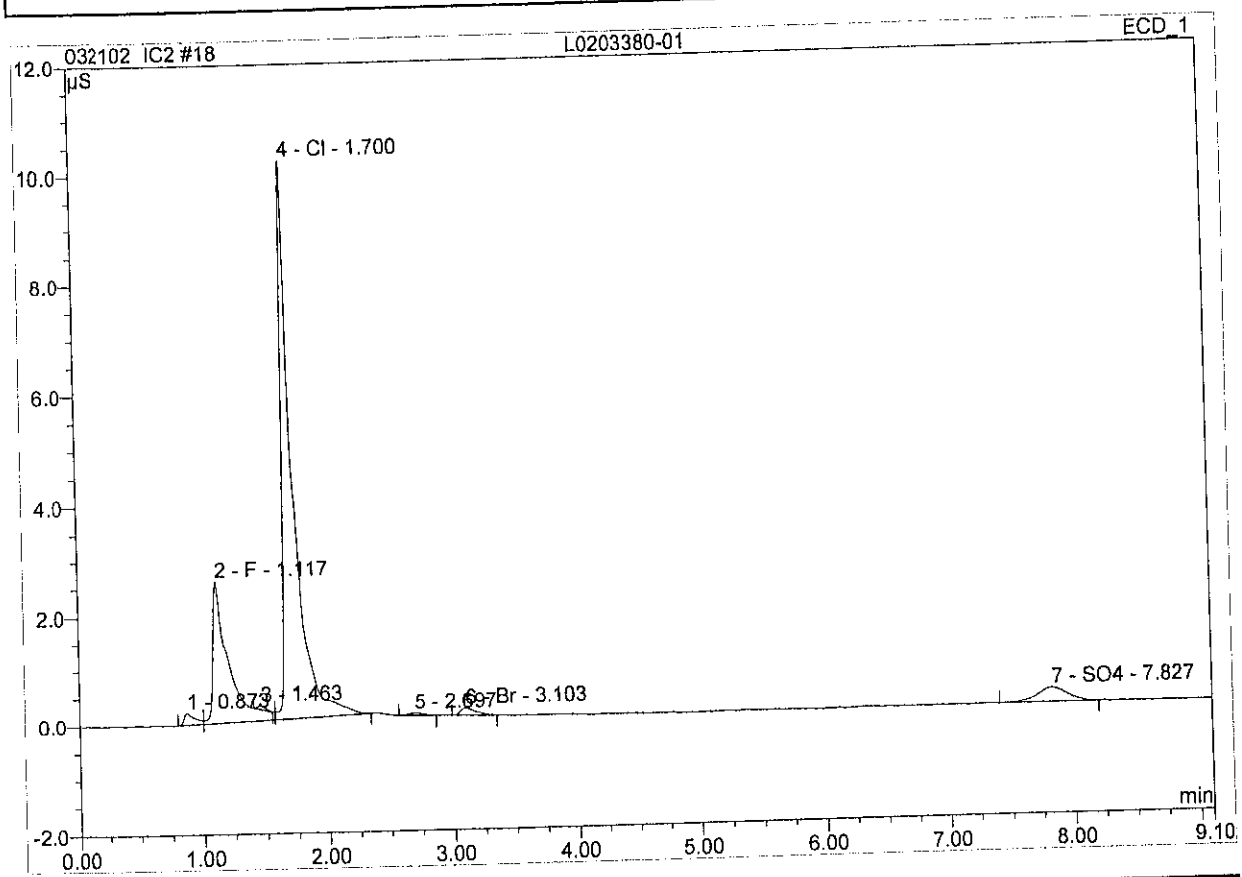
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.165	0.017	1.16	n.a.	BM
2	1.12	F	2.492	0.376	25.56	3.031	M
3	1.45	n.a.	0.094	0.007	0.49	n.a.	Rd
4	1.69	Cl	9.097	0.967	65.83	11.523	MB
5	3.06	Br	0.064	0.004	0.31	0.338	BMB
6	7.59	n.a.	0.330	0.098	6.65	n.a.	BMB
Total:			12.242	1.470	100.00	14.891	

687

18 L0203380-01

1,1 RDC

Sample Name:	**L0203380-01**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.87	n.a.	0.213	0.022	1.44	n.a.	BM
2	1.12	F	2.581	0.371	24.49	2.643	M
3	1.46	n.a.	0.073	0.005	0.33	n.a.	Rd
4	1.70	Cl	10.149	1.019	67.20	10.676	MB
5	2.70	n.a.	0.042	0.006	0.40	n.a.	BMB
6	3.10	Br	0.127	0.018	1.16	0.608	BMB
7	7.83	SO4	0.259	0.075	4.97	1.973	BMB
Total:			13.444	1.516	100.00	15.900	

688

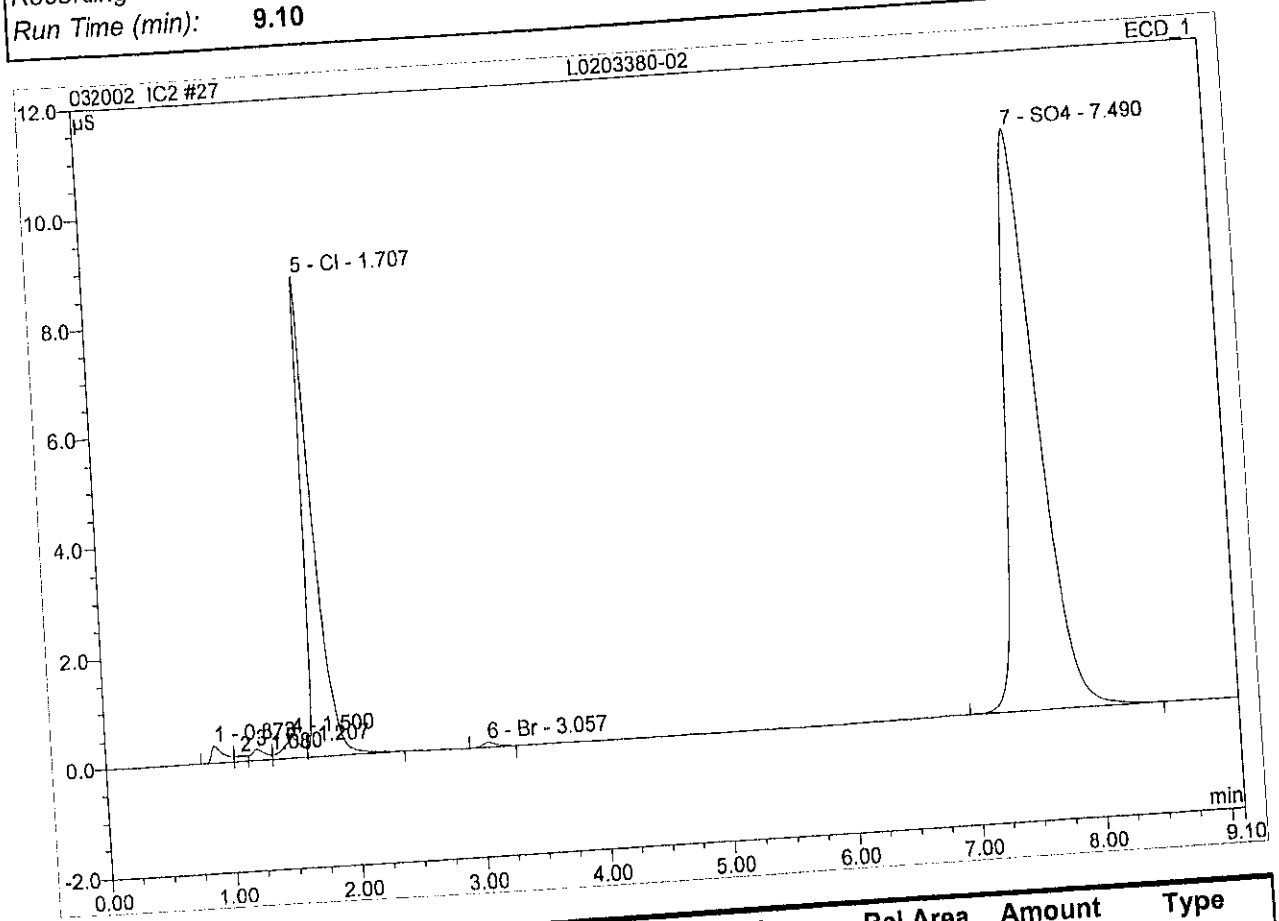
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

IC/Integration

27 L0203380-02

1,1 RDC/JWR

Sample Name:	L0203380-02	Injection Volume:	25.0
Vial Number:	23	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	9056	Bandwidth:	n.a.
Quantif. Method:	9056	Dilution Factor:	1.0000
Recording Time:	3/20/2002 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	0.87	n.a.	0.320	0.036	0.89	n.a.	BM
2	1.08	n.a.	0.018	0.001	0.03	n.a.	Ru
3	1.21	F	0.212	0.039	0.95	0.481	M
4	1.50	n.a.	0.380	0.063	1.54	n.a.	M
5	1.71	Cl	8.743	0.842	20.64	10.057	MB
6	3.06	Br	0.090	0.012	0.30	0.567	BMB
7	7.49	SO4	10.563	3.087	75.65	48.196	BMB
Total:			20.327	4.081	100.00	59.301	

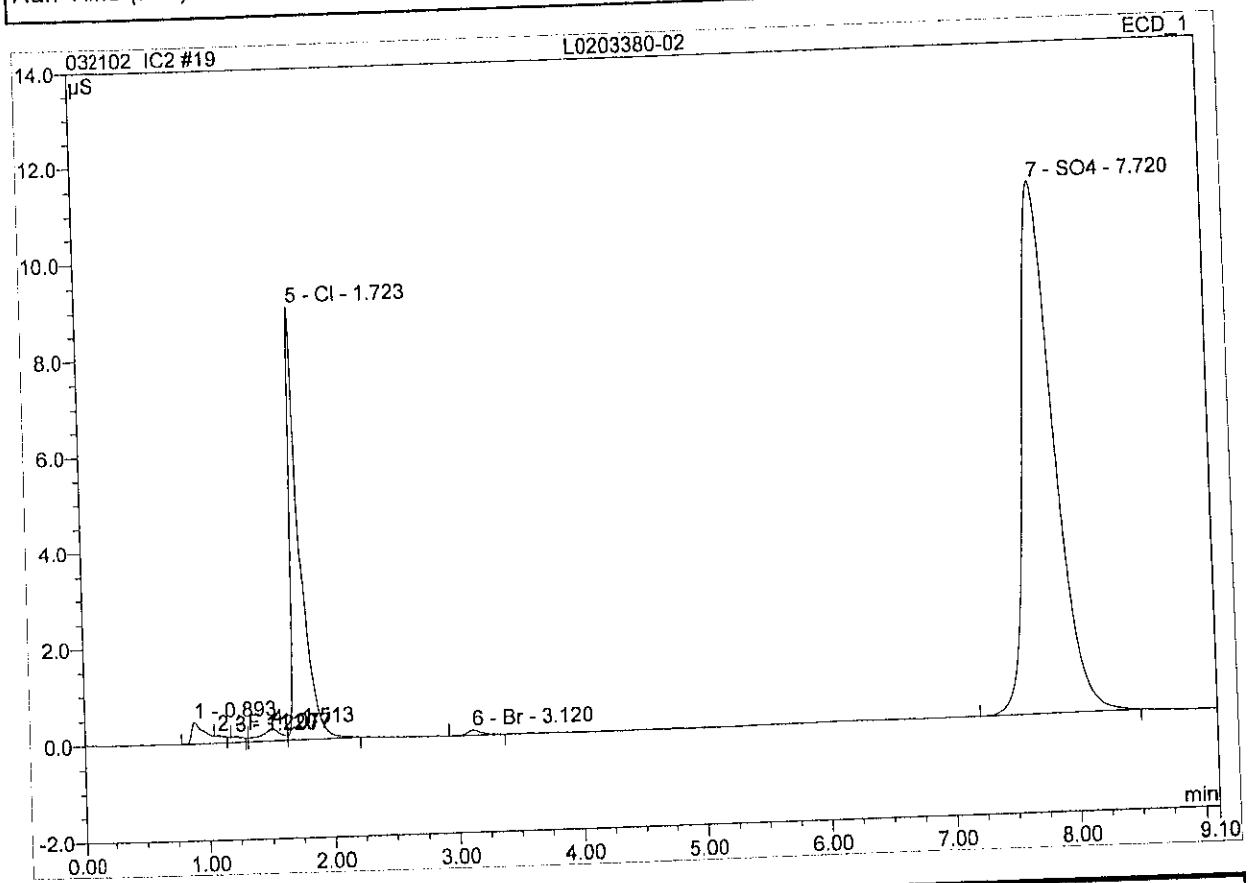
689

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

19 L0203380-02

1,1 RDC

Sample Name:	**L0203380-02**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.89	n.a.	0.444	0.086	2.06	n.a.	BM
2	1.08	F	0.019	0.001	0.03	0.182	Rd
3	1.22	n.a.	0.025	0.001	0.03	n.a.	Rd
4	1.51	n.a.	0.251	0.045	1.09	n.a.	M
5	1.72	Cl	8.997	0.795	19.06	8.372	MB
6	3.12	Br	0.101	0.014	0.35	0.529	BMB
7	7.72	SO4	11.039	3.228	77.39	44.514	BMB
Total:			20.878	4.171	100.00	53.597	

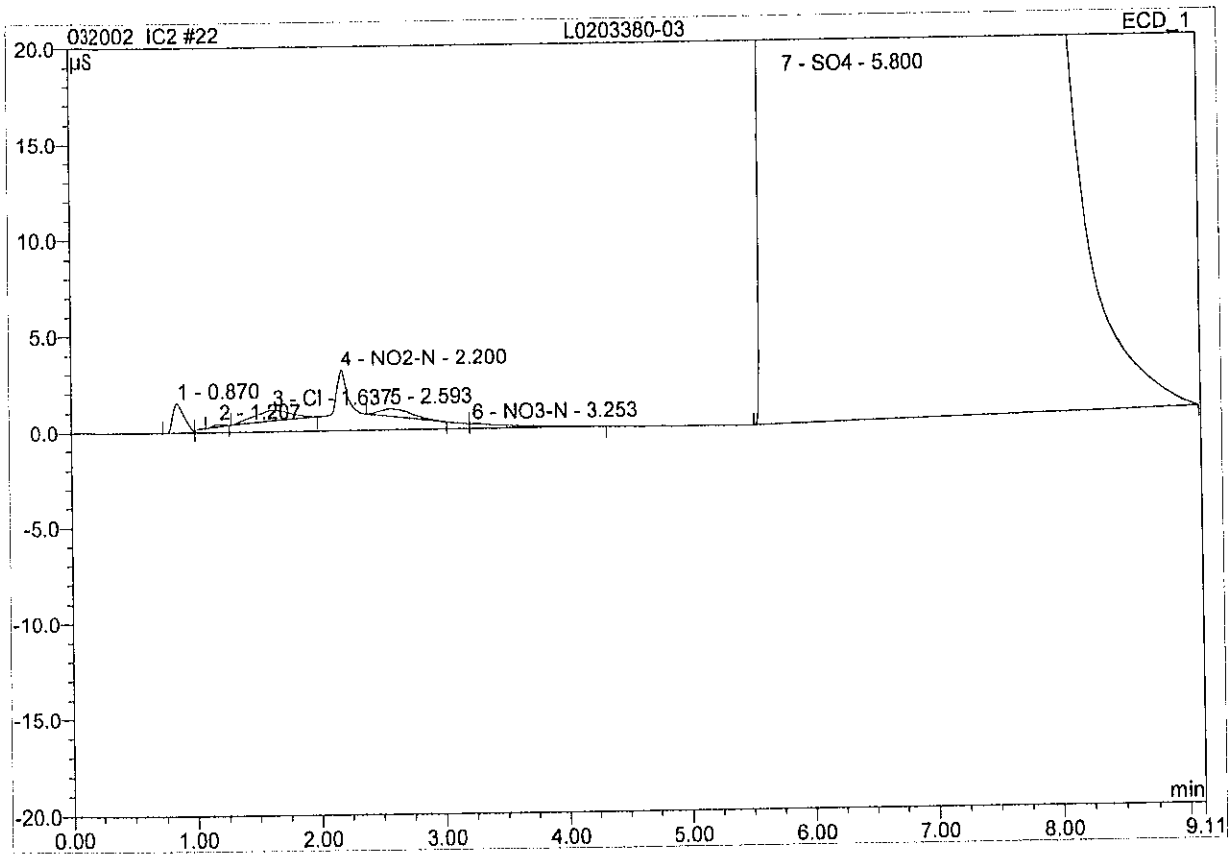
690

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

22 L0203380-03

1,1 RDC/JWR

Sample Name:	**L0203380-03**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 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
1	0.87	n.a.	1.512	0.164	0.02	n.a.	BM
2	1.21	n.a.	0.114	0.011	0.00	n.a.	Ru
3	1.64	Cl	0.554	0.192	0.02	2.449	Ru
4	2.20	NO2-N	3.121	1.466	0.19	7.708	M
5	2.59	n.a.	0.409	0.119	0.02	n.a.	Rd
6	3.25	NO3-N	0.265	0.109	0.01	0.661	MB
7	5.80	SO4	659.477	774.906	99.73	#########	BMB
Total:			665.452	776.968	100.00	#########	

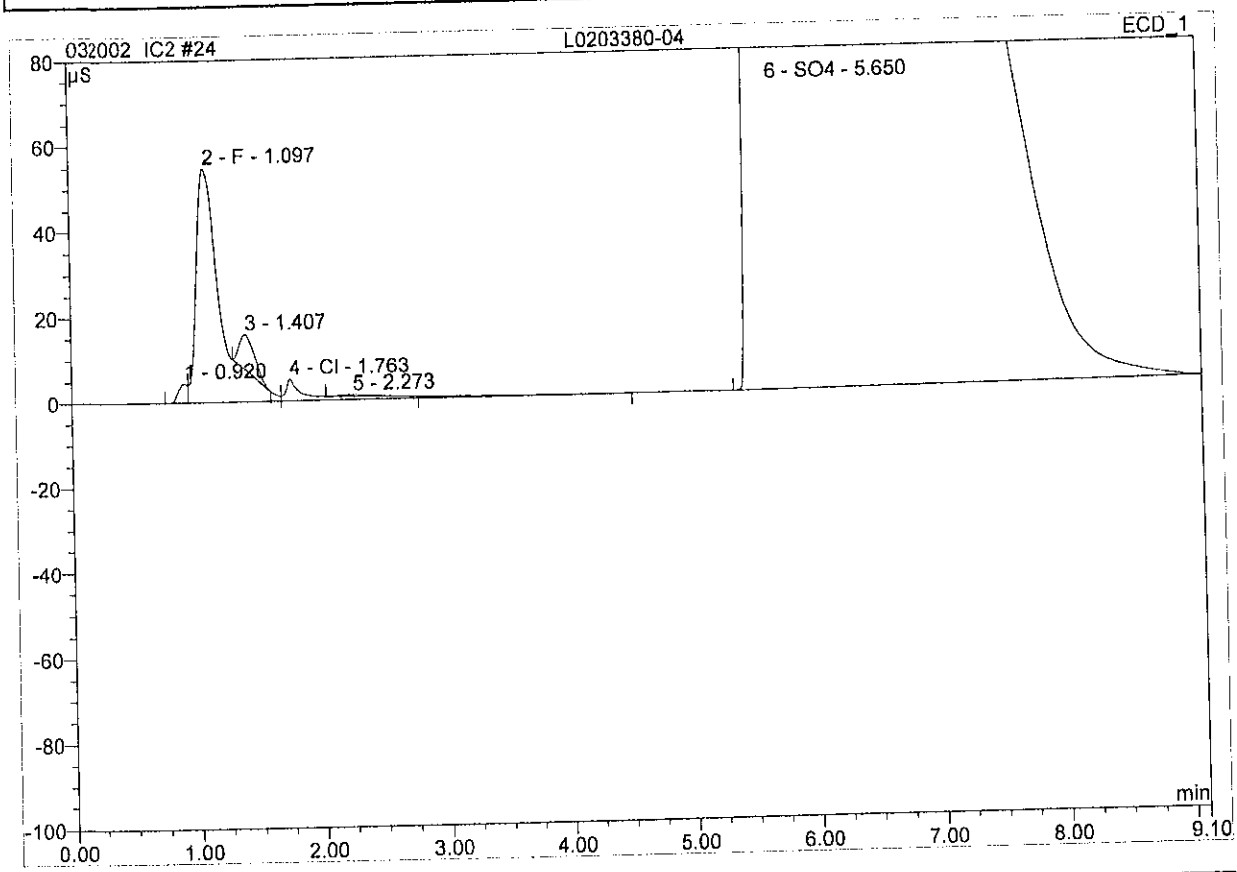
691

Chromeleon (c) Dionex 1996-2001

24 L0203380-04

1,1 RDC/JWR

Sample Name:	**L0203380-04**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 17:15**	*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	0.92	n.a.	4.459	0.377	0.05	n.a.	BM
2	1.10	F	54.632	12.210	1.56	92.601	M
3	1.41	n.a.	8.249	1.158	0.15	n.a.	Rd
4	1.76	Cl	5.102	1.480	0.19	17.520	M
5	2.27	n.a.	0.427	0.132	0.02	n.a.	Rd
6	5.65	SO4	637.042	766.369	98.04	##########	BMB
Total:			709.911	781.725	100.00	##########	

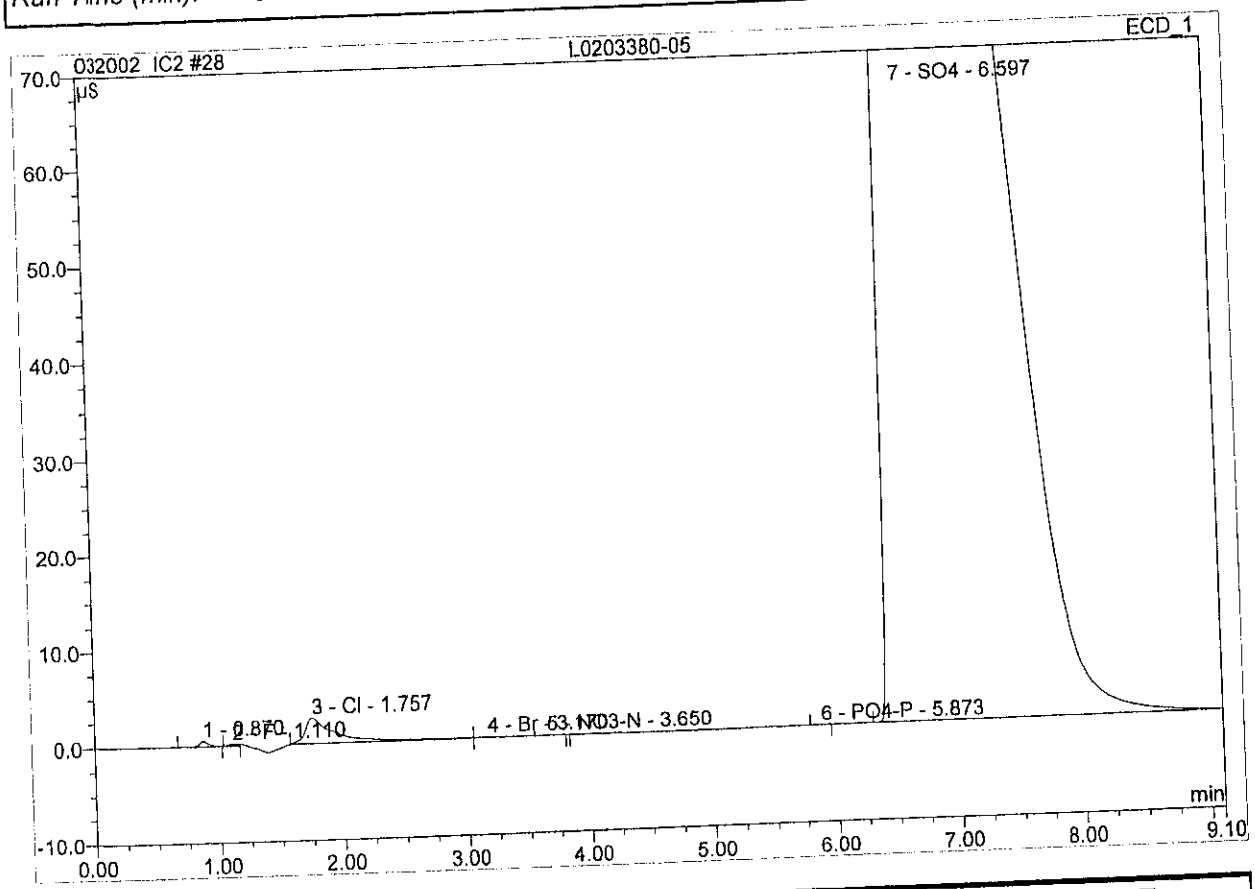
692

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

28 L0203380-05

1,1 RDC/JWR

Sample Name:	**L0203380-05**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 18:01**	*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	0.87	n.a.	0.546	0.046	0.02	n.a.	BMB
2	1.11	F	0.180	0.017	0.01	0.315	BM
3	1.76	Cl	2.677	0.739	0.40	8.856	BM
4	3.17	Br	0.078	0.019	0.01	0.759	MB
5	3.65	NO3-N	0.009	0.001	0.00	0.150	Rd
6	5.87	PO4-P	0.013	0.001	0.00	n.a.	BMB
7	6.60	SO4	247.298	185.690	99.56	2848.136	BMB
Total:			250.801	186.514	100.00	2858.216	

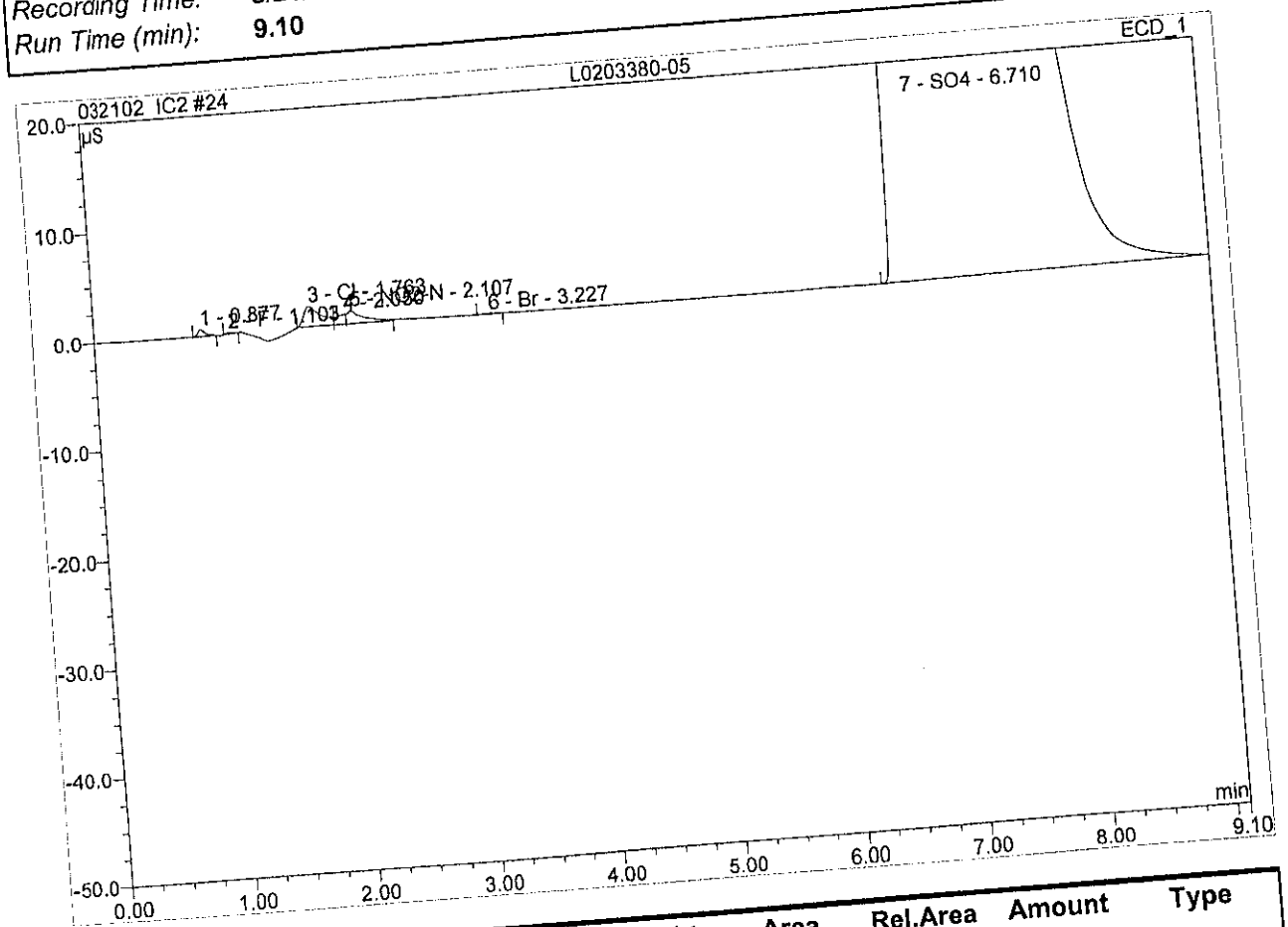
693

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

24 L0203380-05

1,1 RDC

Sample Name:	L0203380-05	Injection Volume:	25.0
Vial Number:	23	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	9056	Bandwidth:	n.a.
Quantif. Method:	9056	Dilution Factor:	1.0000
Recording Time:	3/21/2002 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	0.88	n.a.	0.592	0.044	0.02	n.a.	BM
2	1.10	F	0.089	0.006	0.00	0.213	BMB
3	1.76	Cl	1.838	0.301	0.14	3.286	BM
4	2.05	n.a.	0.046	0.002	0.00	n.a.	Ru
5	2.11	NO2-N	1.188	0.259	0.12	1.308	M
6	3.23	Br	0.043	0.005	0.00	0.280	BMB
7	6.71	SO4	275.774	219.805	99.72	2967.099	BMB
Total:			279.571	220.419	100.00	2972.186	

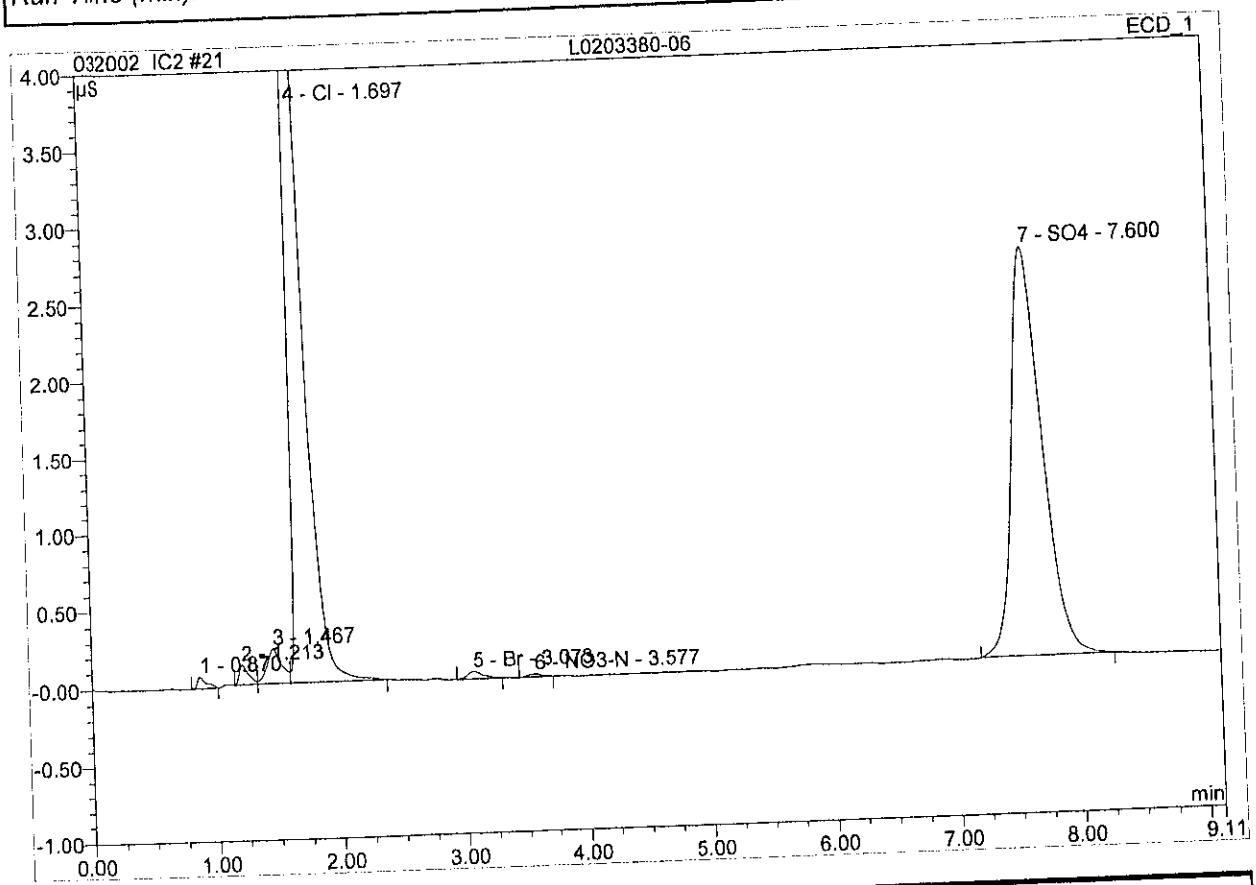
694

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

21 L0203380-06

1,1 RDC/JWR

Sample Name:	**L0203380-06**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 16:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.071	0.006	0.37	n.a.	BMB
2	1.21	n.a.	0.123	0.011	0.68	n.a.	BM
3	1.47	n.a.	0.225	0.030	1.83	n.a.	M
4	1.70	Cl	8.663	0.840	50.63	10.032	MB
5	3.07	Br	0.045	0.007	0.39	0.396	BMB
6	3.58	NO3-N	0.018	0.002	0.15	0.155	BMB
7	7.60	SO4	2.657	0.763	45.96	12.553	BMB
Total:			11.801	1.659	100.00	23.137	

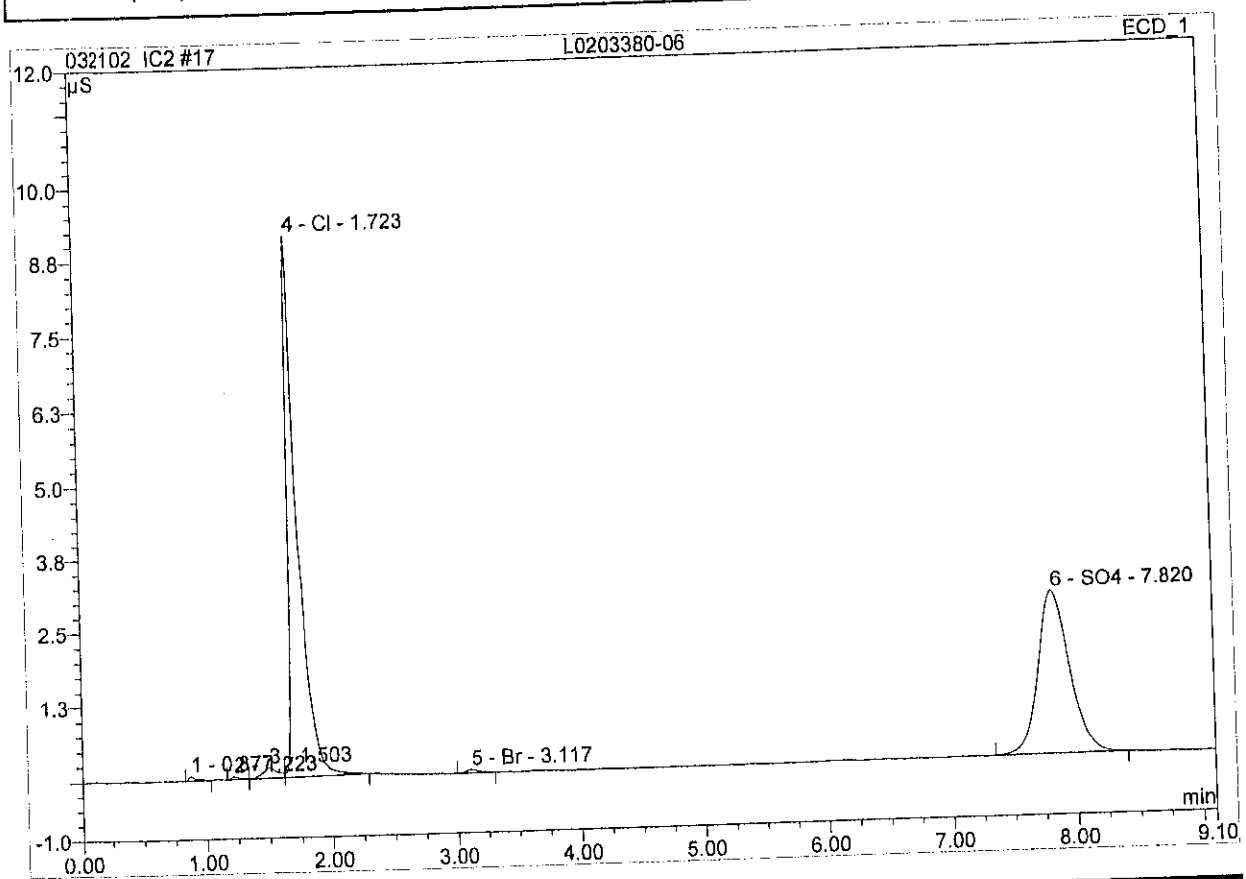
695

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

17 L0203380-06

1,1 RDC

Sample Name:	**L0203380-06**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.88	n.a.	0.073	0.006	0.34	n.a.	BMB
2	1.22	n.a.	0.042	0.004	0.21	n.a.	BM
3	1.50	n.a.	0.169	0.023	1.41	n.a.	M
4	1.72	Cl	9.126	0.828	49.66	8.716	MB
5	3.12	Br	0.052	0.006	0.38	0.325	BMB
6	7.82	SO4	2.744	0.801	48.00	11.761	BMB
Total:			12.206	1.668	100.00	20.801	

696

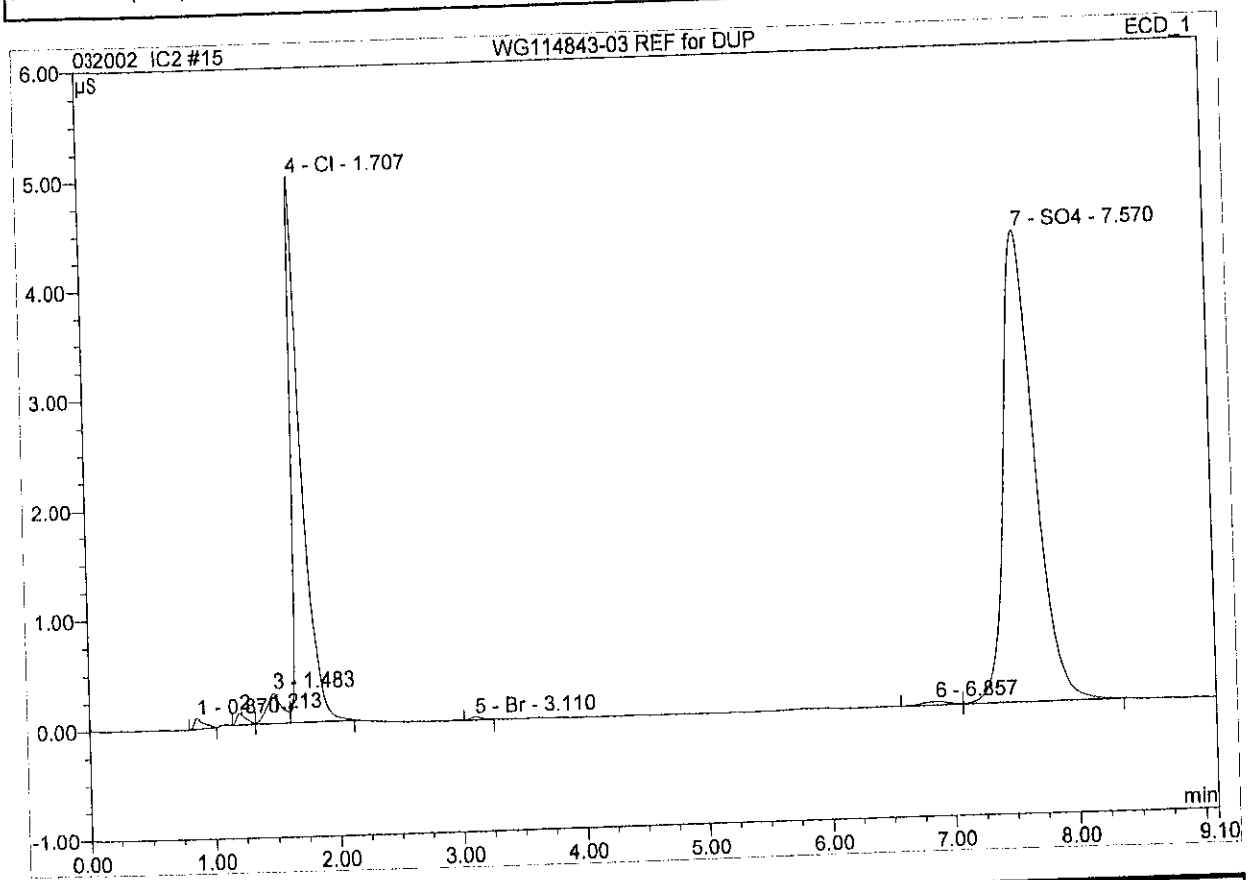
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

IC/Integration

15 WG114843-03 REF for DUP

1,1 RDC/JWR L0203380-07

Sample Name:	**WG114843-03 REF for DUP**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 15:29**	*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	0.87	n.a.	0.096	0.008	0.47	n.a.	BMB
2	1.21	n.a.	0.104	0.009	0.52	n.a.	BM
3	1.48	n.a.	0.281	0.041	2.26	n.a.	M
4	1.71	Cl	4.976	0.494	27.47	5.980	MB
5	3.11	Br	0.025	0.003	0.15	0.288	BMB
6	6.86	n.a.	0.033	0.009	0.47	n.a.	BM
7	7.57	SO4	4.287	1.234	68.65	19.783	MB
Total:			9.803	1.798	100.00	26.052	

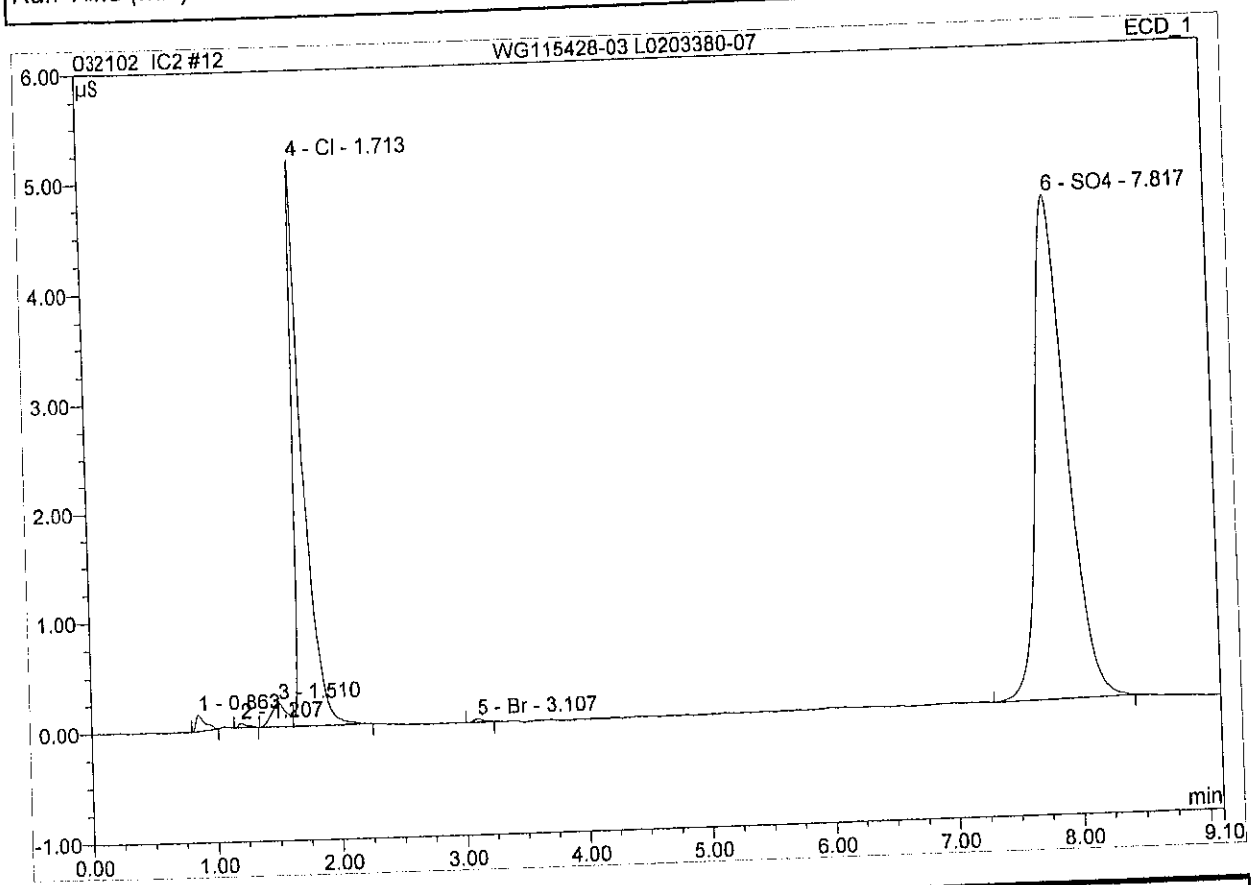
697

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

12 WG115428-03 L0203380-07

1,1 RDC L0203380-07

Sample Name:	**WG115428-03 L0203380-07**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 17:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



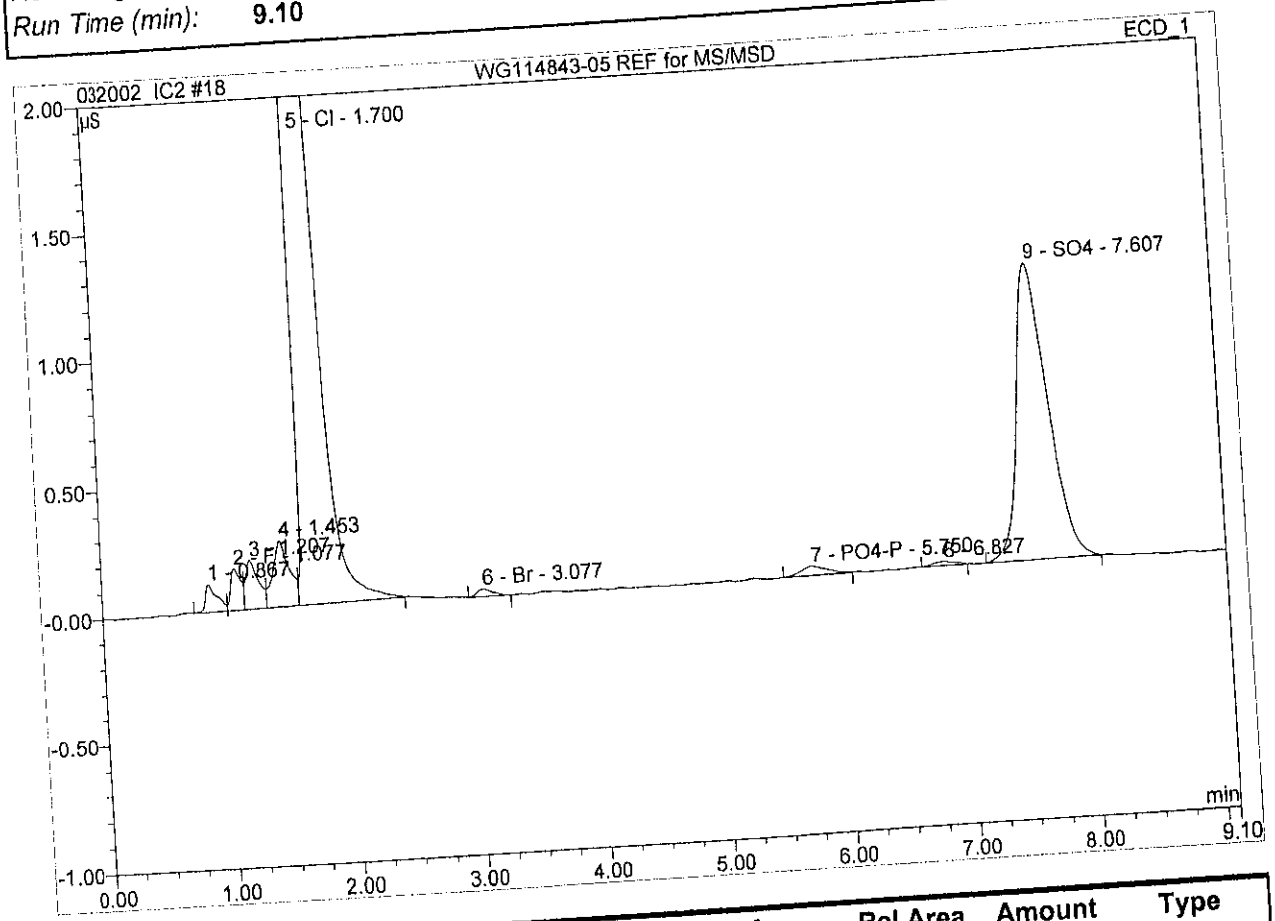
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.146	0.013	0.68	n.a.	BMB
2	1.21	n.a.	0.040	0.003	0.19	n.a.	BMB
3	1.51	n.a.	0.212	0.030	1.63	n.a.	BM
4	1.71	Cl	5.147	0.476	25.55	5.094	MB
5	3.11	Br	0.027	0.003	0.14	0.232	BMB
6	7.82	SO4	4.584	1.339	71.81	19.020	BMB
Total:			10.155	1.864	100.00	24.346	

698

18 WG114843-05 REF for MS/MSD

1,1 RDC/JWR L0203380-08 REF

Sample Name:	WG114843-05 REF for MS/MSD	*Injection Volume:*	25.0
Vial Number:	19	*Channel:*	ECD_1
Sample Type:	unknown	*Wavelength:*	n.a.
Control Program:	9056	*Bandwidth:*	n.a.
Quantif. Method:	9056	*Dilution Factor:*	1.0000
Recording Time:	3/20/2002 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	0.87	n.a.	0.107	0.012	0.58	n.a.	BM
2	1.08	F	0.160	0.016	0.74	0.305	M
3	1.21	n.a.	0.189	0.023	1.08	n.a.	M
4	1.45	n.a.	0.258	0.040	1.91	n.a.	M
5	1.70	Cl	17.560	1.664	78.99	19.671	MB
6	3.08	Br	0.030	0.004	0.21	0.335	BMB
7	5.75	PO4-P	0.038	0.009	0.42	0.391	BMB
8	6.83	n.a.	0.017	0.003	0.16	n.a.	BMB
9	7.61	SO4	1.157	0.335	15.92	6.003	BMB
Total:			19.516	2.106	100.00	26.705	

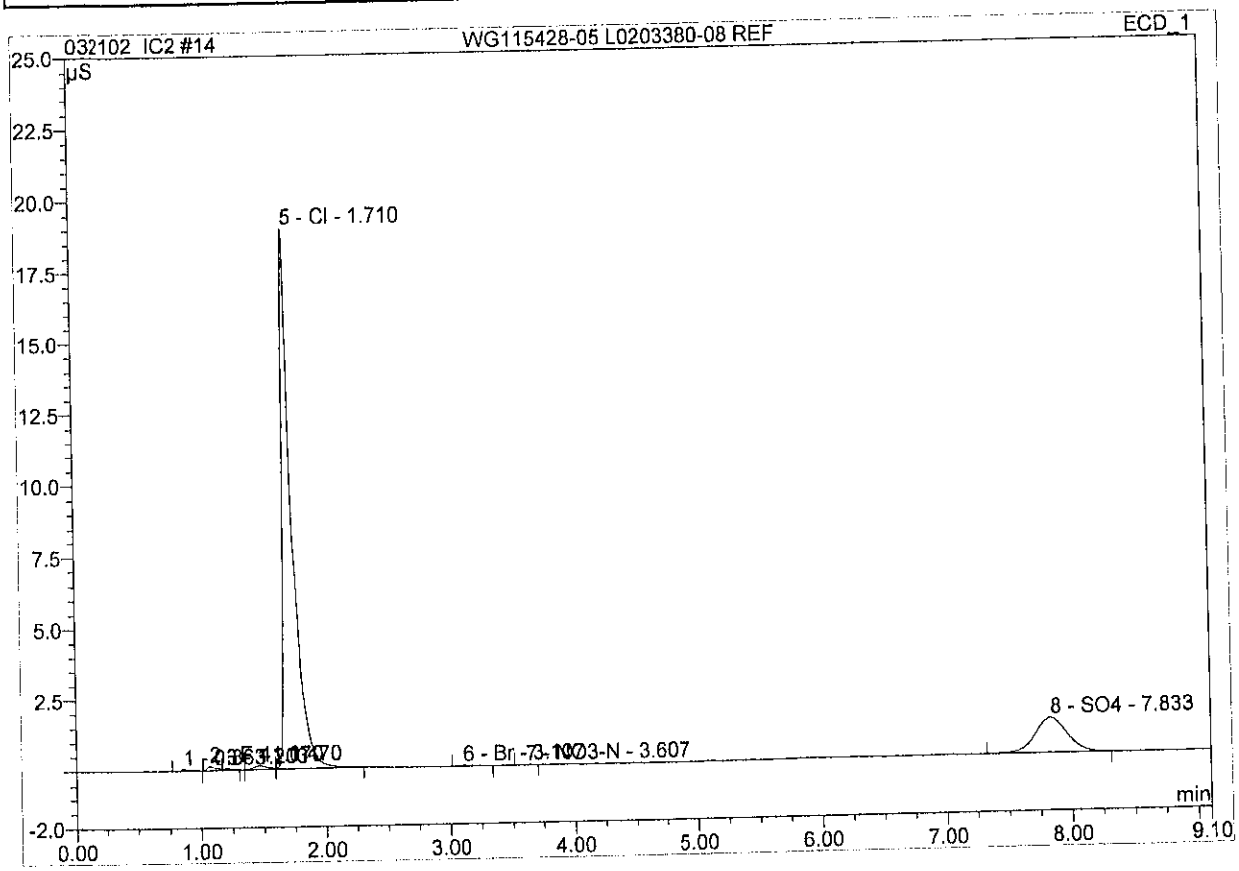
699

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

14 WG115428-05 L0203380-08 REF

1,1 RDC L0203380-08 REF

Sample Name:	**WG115428-05 L0203380-08 REF**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 17:42**	*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	0.86	n.a.	0.068	0.007	0.31	n.a.	BMB
2	1.07	F	0.144	0.017	0.81	0.289	BM
3	1.20	n.a.	0.028	0.002	0.08	n.a.	Rd
4	1.47	n.a.	0.138	0.018	0.86	n.a.	M
5	1.71	Cl	18.968	1.697	80.39	17.654	MB
6	3.11	Br	0.031	0.005	0.24	0.294	BMB
7	3.61	NO3-N	0.012	0.001	0.06	0.128	BMB
8	7.83	SO4	1.229	0.364	17.24	5.870	BMB
Total:			20.618	2.112	100.00	24.235	

700

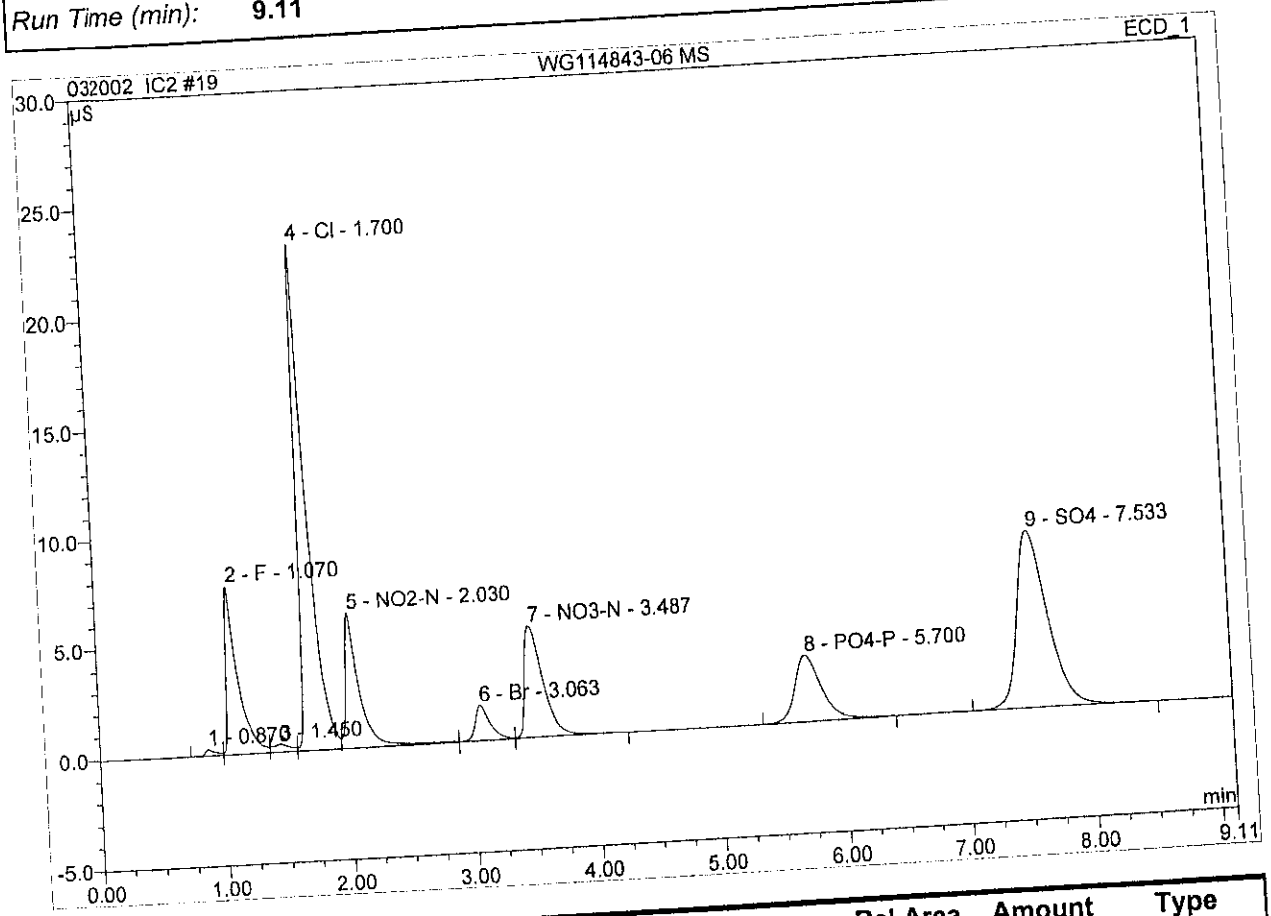
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

IC/Integration

19 WG114843-06 MS

1,1 RDC/JWR L0203380-09 MS (SOS0058-24)

Sample Name:	**WG114843-06 MS**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 16:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.282	0.029	0.36	n.a.	BM
2	1.07	F	7.670	0.821	10.29	6.401	M
3	1.45	n.a.	0.343	0.055	0.69	n.a.	M
4	1.70	Cl	23.037	2.166	27.13	25.544	M
5	2.03	NO2-N	6.159	0.755	9.46	4.038	M
6	3.06	Br	1.592	0.223	2.79	6.628	M
7	3.49	NO3-N	5.108	0.869	10.89	4.263	MB
8	5.70	PO4-P	3.009	0.747	9.35	10.412	BMB
9	7.53	SO4	8.099	2.317	29.03	36.390	BMB
Total:			55.300	7.982	100.00	93.676	

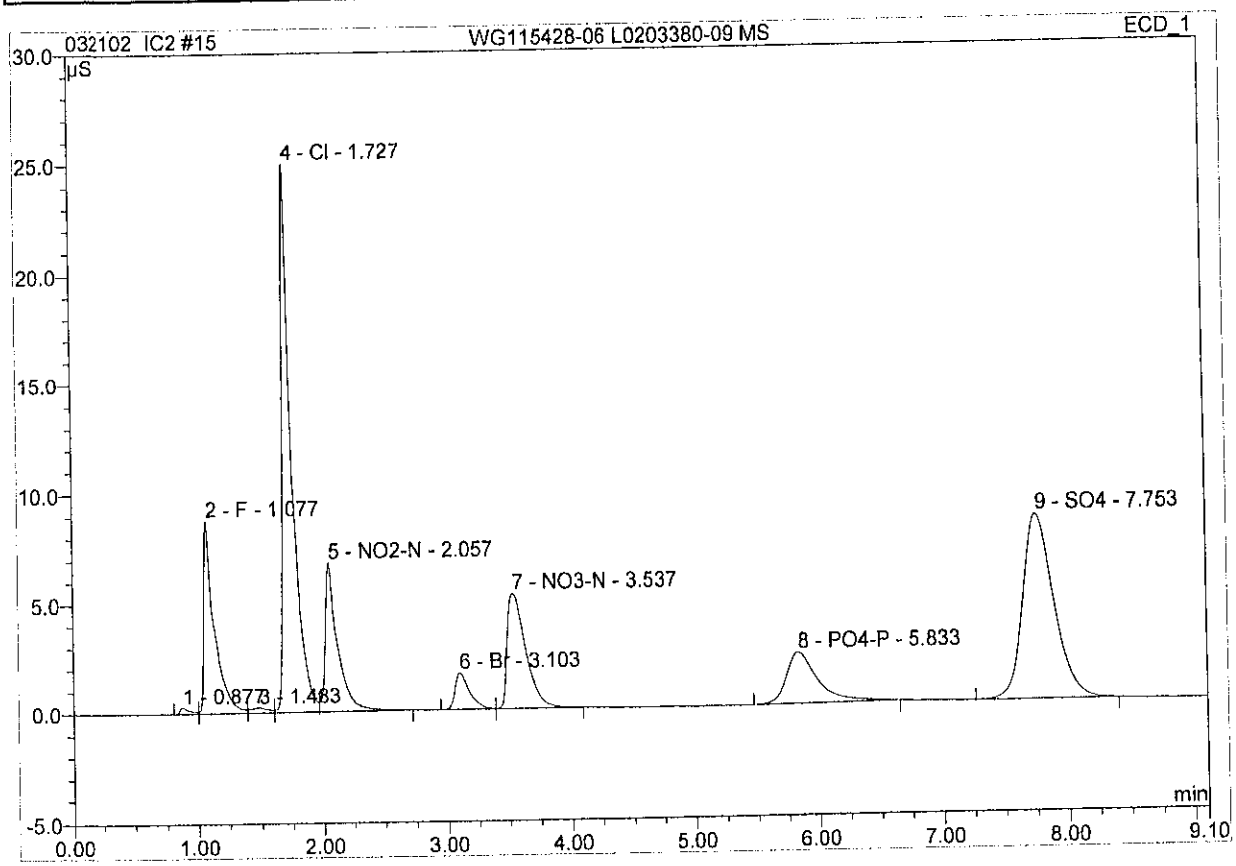
701

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

15 WG115428-06 L0203380-09 MS

1,1 RDC SOS0058-24 032102

Sample Name:	**WG115428-06 L0203380-09 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:	**3/21/2002 17:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



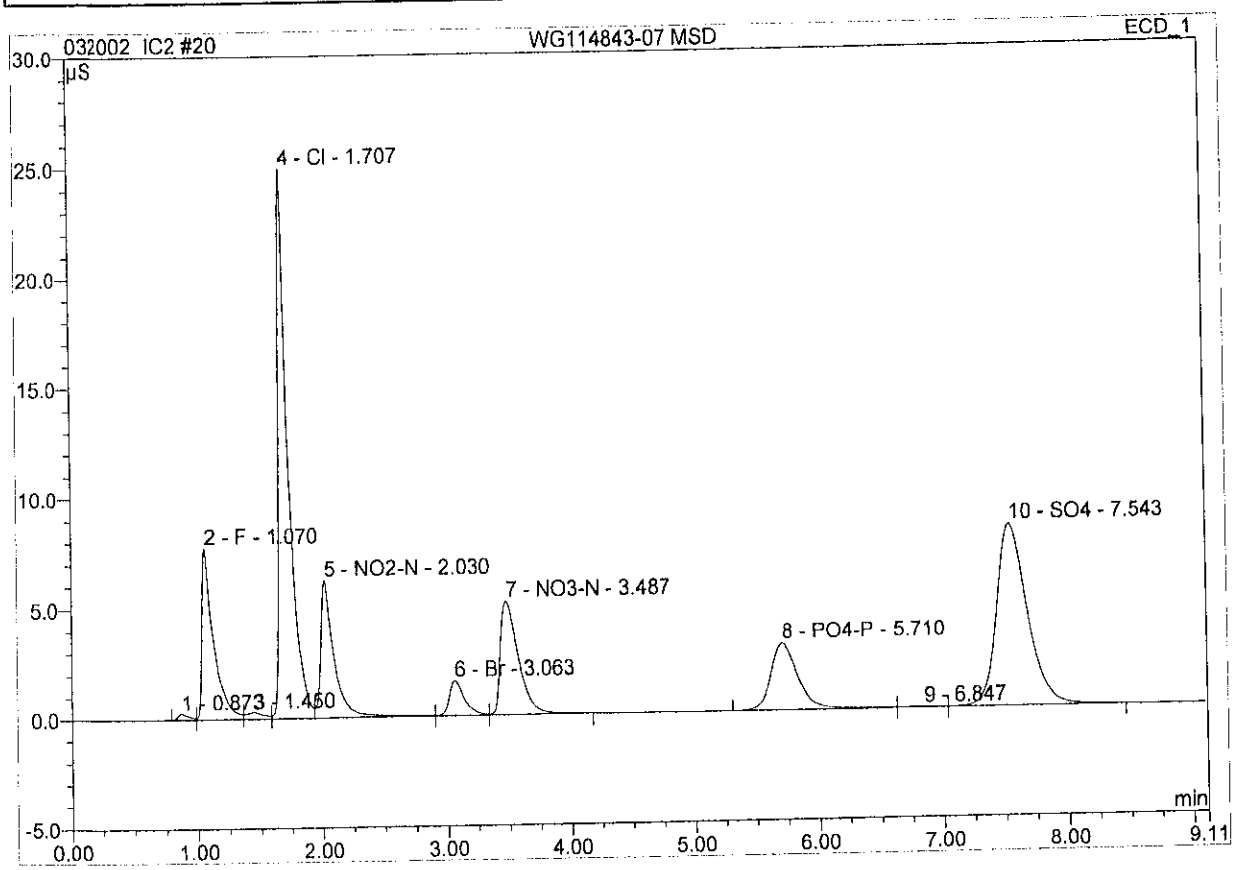
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.291	0.027	0.32	n.a.	BM
2	1.08	F	8.812	0.855	10.38	5.861	M
3	1.48	n.a.	0.230	0.036	0.44	n.a.	M
4	1.73	Cl	24.962	2.248	27.28	23.318	M
5	2.06	NO2-N	6.836	0.783	9.50	3.714	MB
6	3.10	Br	1.696	0.232	2.81	5.945	BM
7	3.54	NO3-N	5.283	0.915	11.11	3.925	MB
8	5.83	PO4-P	2.363	0.695	8.44	9.496	BMB
9	7.75	SO4	8.455	2.449	29.72	34.010	BMB
Total:			58.928	8.241	100.00	86.270	

702

20 WG114843-07 MSD

1,1 RDC/JWR L0203380-10 MSD (SOS0058-24)

Sample Name:	**WG114843-07 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 16:29**	*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	0.87	n.a.	0.272	0.026	0.32	n.a.	BM
2	1.07	F	7.745	0.816	9.90	6.360	M
3	1.45	n.a.	0.297	0.047	0.57	n.a.	M
4	1.71	Cl	24.929	2.344	28.45	27.634	M
5	2.03	NO2-N	6.238	0.771	9.35	4.117	M
6	3.06	Br	1.604	0.226	2.74	6.714	M
7	3.49	NO3-N	5.152	0.874	10.61	4.287	MB
8	5.71	PO4-P	3.052	0.779	9.45	10.845	BM
9	6.85	n.a.	0.026	0.008	0.10	n.a.	M
10	7.54	SO4	8.212	2.350	28.52	36.893	MB
Total:			57.527	8.240	100.00	96.850	

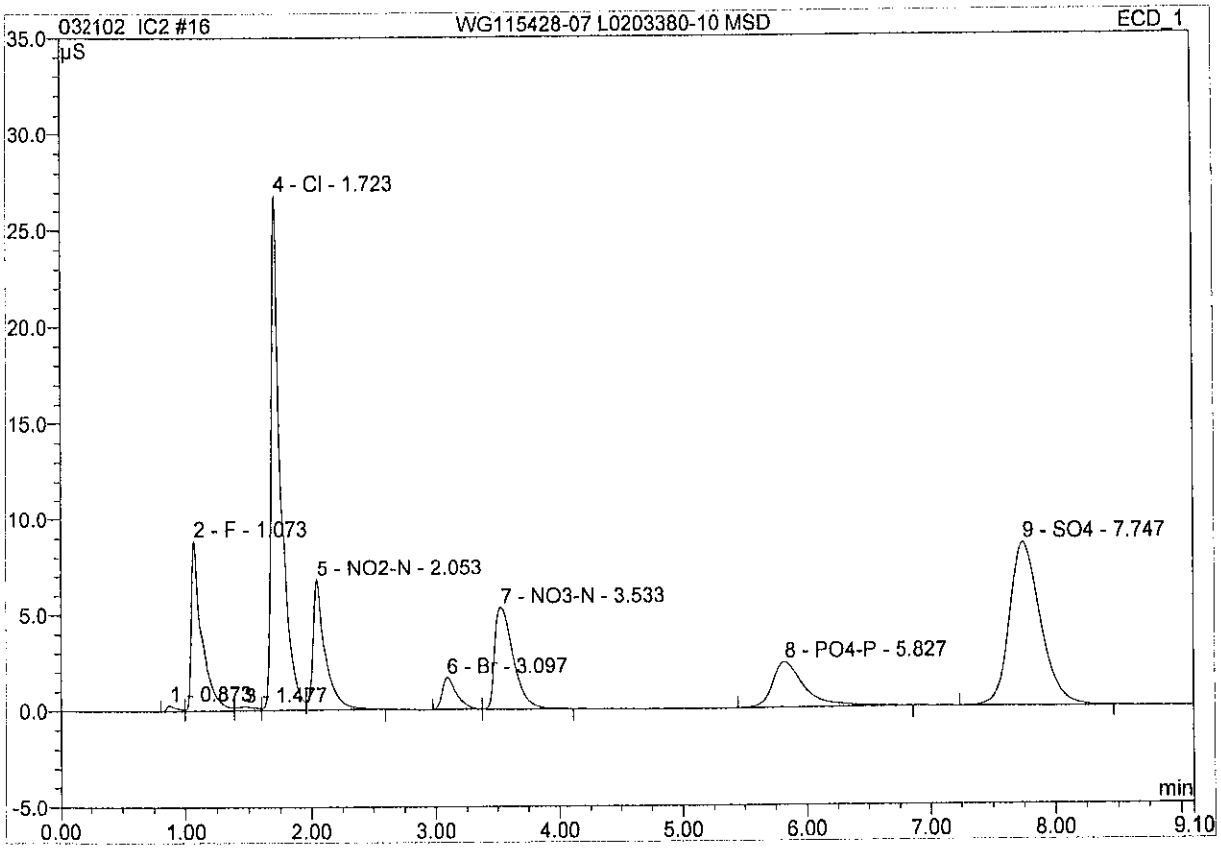
703

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

16 WG115428-07 L0203380-10 MSD

1,1 RDC SOS0058-24 032102

Sample Name:	**WG115428-07 L0203380-10 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 18:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



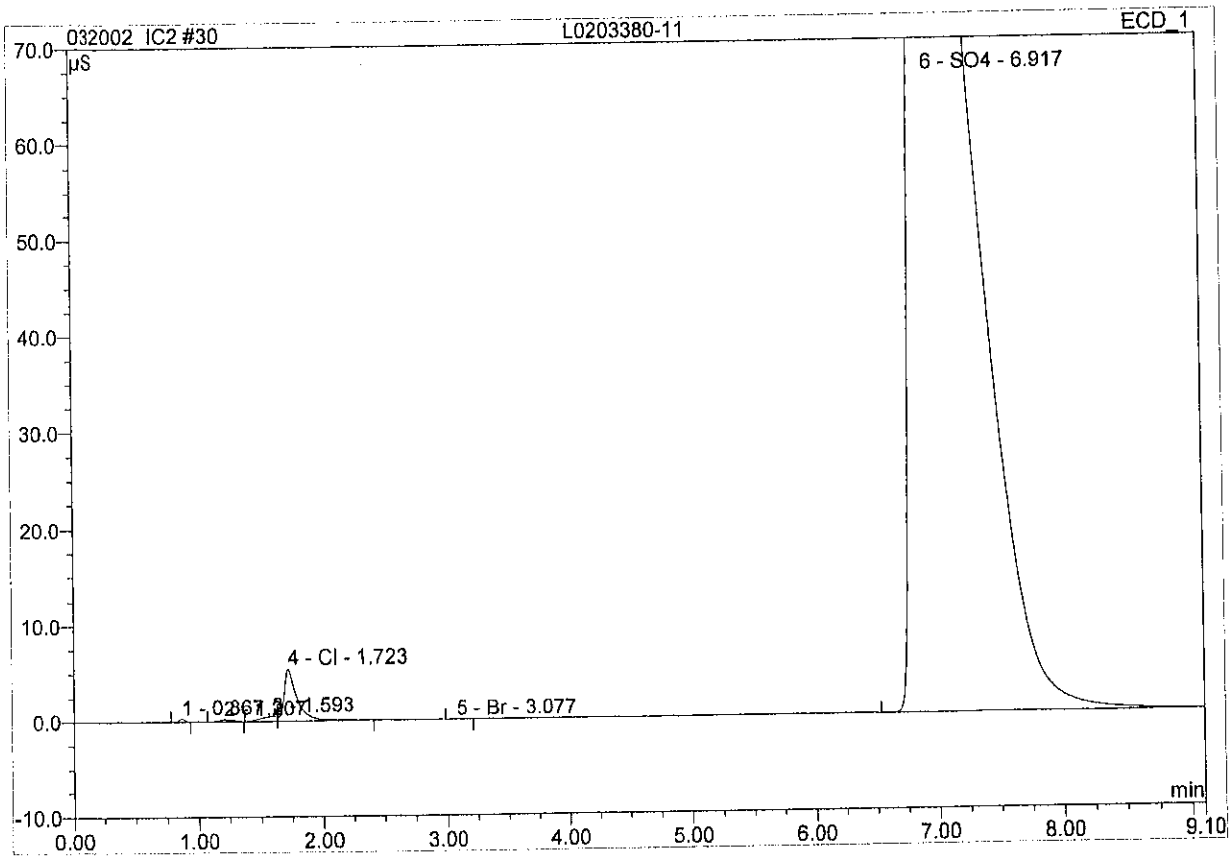
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.296	0.027	0.32	n.a.	BM
2	1.07	F	8.869	0.852	10.09	5.838	M
3	1.48	n.a.	0.215	0.035	0.41	n.a.	M
4	1.72	Cl	26.810	2.422	28.68	25.107	M
5	2.05	NO2-N	6.798	0.772	9.14	3.665	MB
6	3.10	Br	1.671	0.226	2.68	5.812	BM
7	3.53	NO3-N	5.279	0.910	10.77	3.902	MB
8	5.83	PO4-P	2.387	0.726	8.59	9.884	BMB
9	7.75	SO4	8.487	2.476	29.32	34.374	BM
Total:			60.813	8.445	100.00	88.581	

704

30 L0203380-11

1,1 RDC/JWR

Sample Name:	**L0203380-11**	*Injection Volume:*	**25.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 18:24**	*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	0.87	n.a.	0.300	0.017	0.03	n.a.	BMB
2	1.21	n.a.	0.210	0.030	0.04	n.a.	BMB
3	1.59	n.a.	0.525	0.075	0.11	n.a.	BM
4	1.72	Cl	5.507	0.674	1.00	8.088	MB
5	3.08	Br	0.014	0.002	0.00	0.261	BMB
6	6.92	SO4	126.033	66.638	98.82	1022.648	BMB
Total:			132.589	67.435	100.00	1030.997	

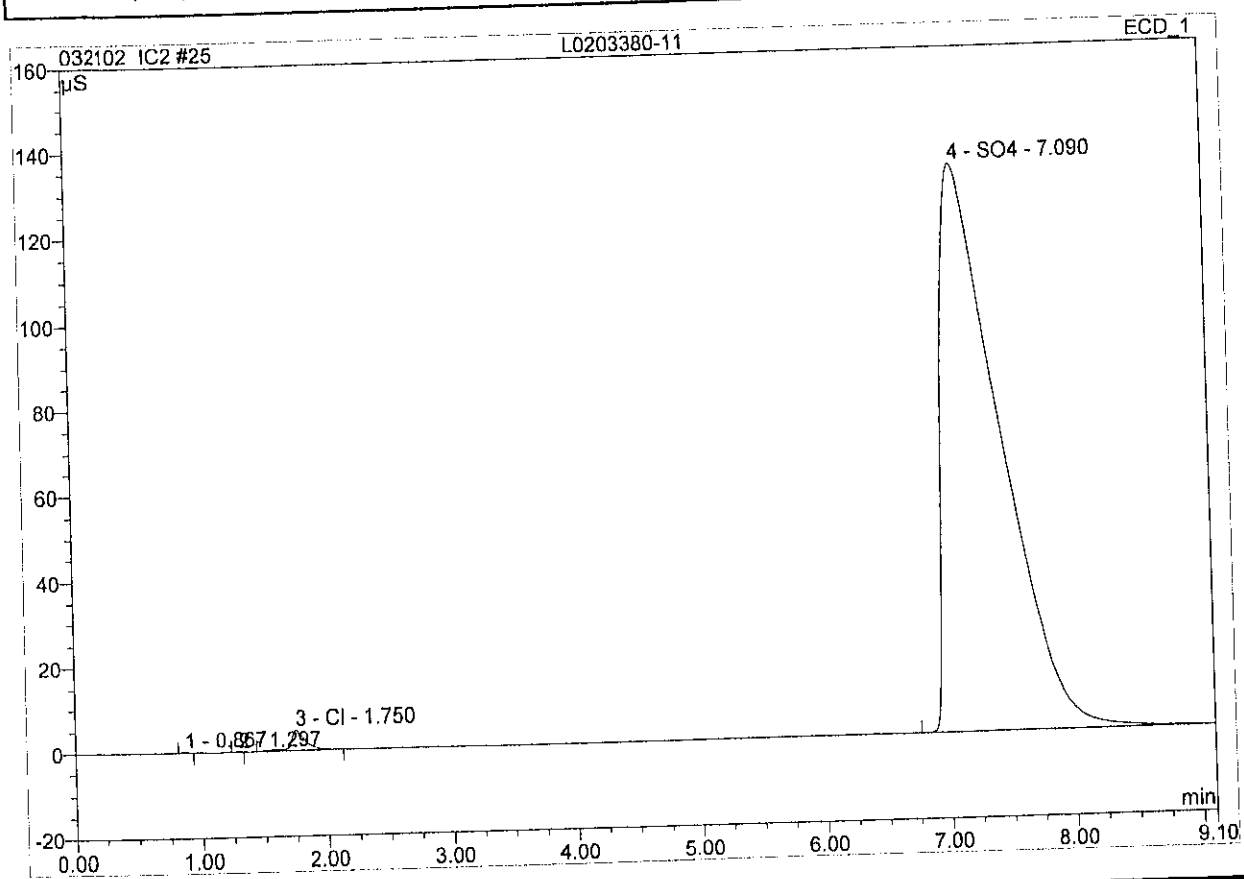
705

~~704~~

25 L0203380-11

1,1 RDC

Sample Name:	**L0203380-11**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.87	n.a.	0.257	0.014	0.02	n.a.	BMB
2	1.30	n.a.	0.022	0.001	0.00	n.a.	BMB
3	1.75	Cl	4.785	0.654	0.91	6.917	BMB
4	7.09	SO4	132.498	71.147	99.07	961.050	BMB
Total:			137.560	71.816	100.00	967.967	

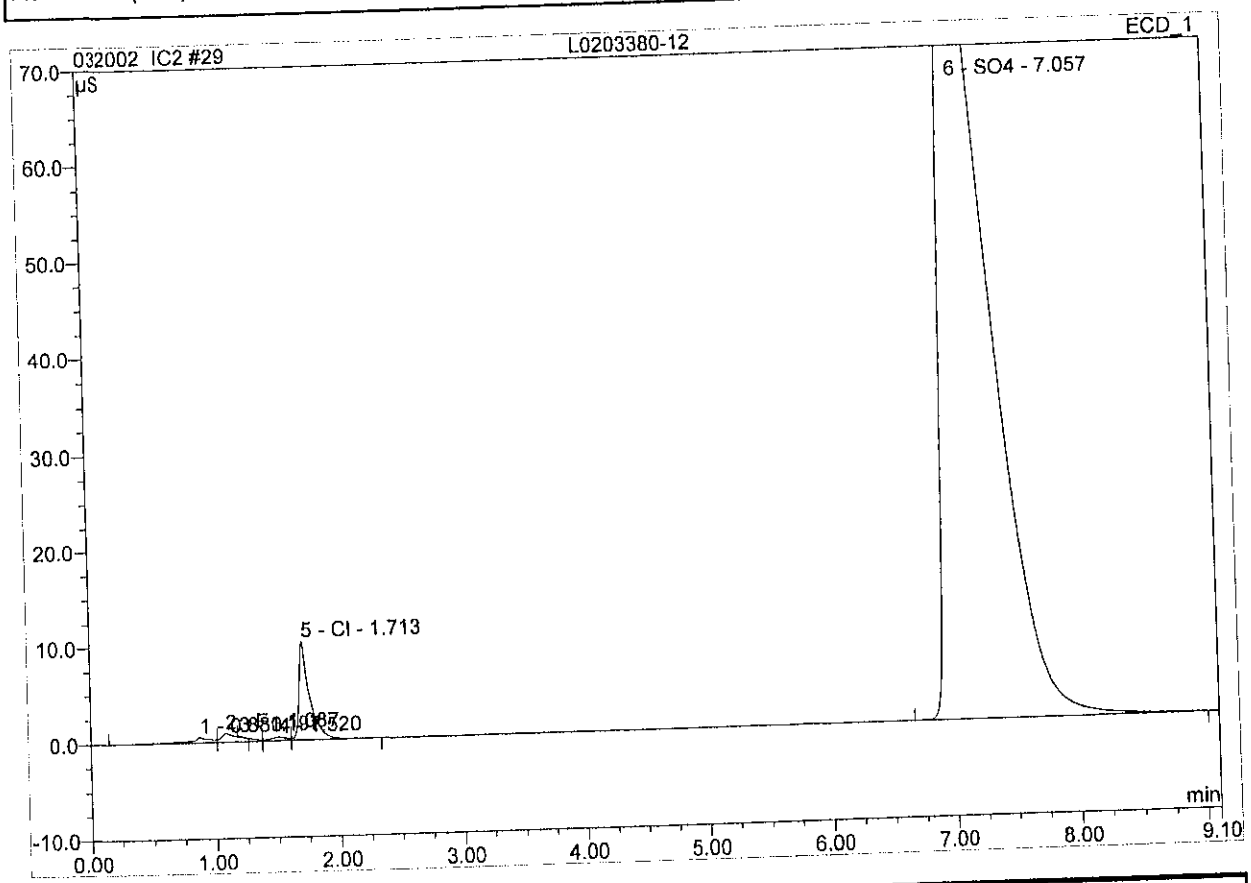
706

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

29 L0203380-12

1,1 RDC/JWR

Sample Name:	**L0203380-12**	*Injection Volume:*	**25.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 18:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.536	0.120	0.30	n.a.	BM
2	1.09	F	0.864	0.165	0.41	1.436	M
3	1.20	n.a.	0.042	0.003	0.01	n.a.	Rd
4	1.52	n.a.	0.365	0.059	0.15	n.a.	M
5	1.71	Cl	10.230	1.039	2.58	12.363	MB
6	7.06	SO4	88.078	38.918	96.56	597.603	BMB
Total:			100.115	40.303	100.00	611.402	

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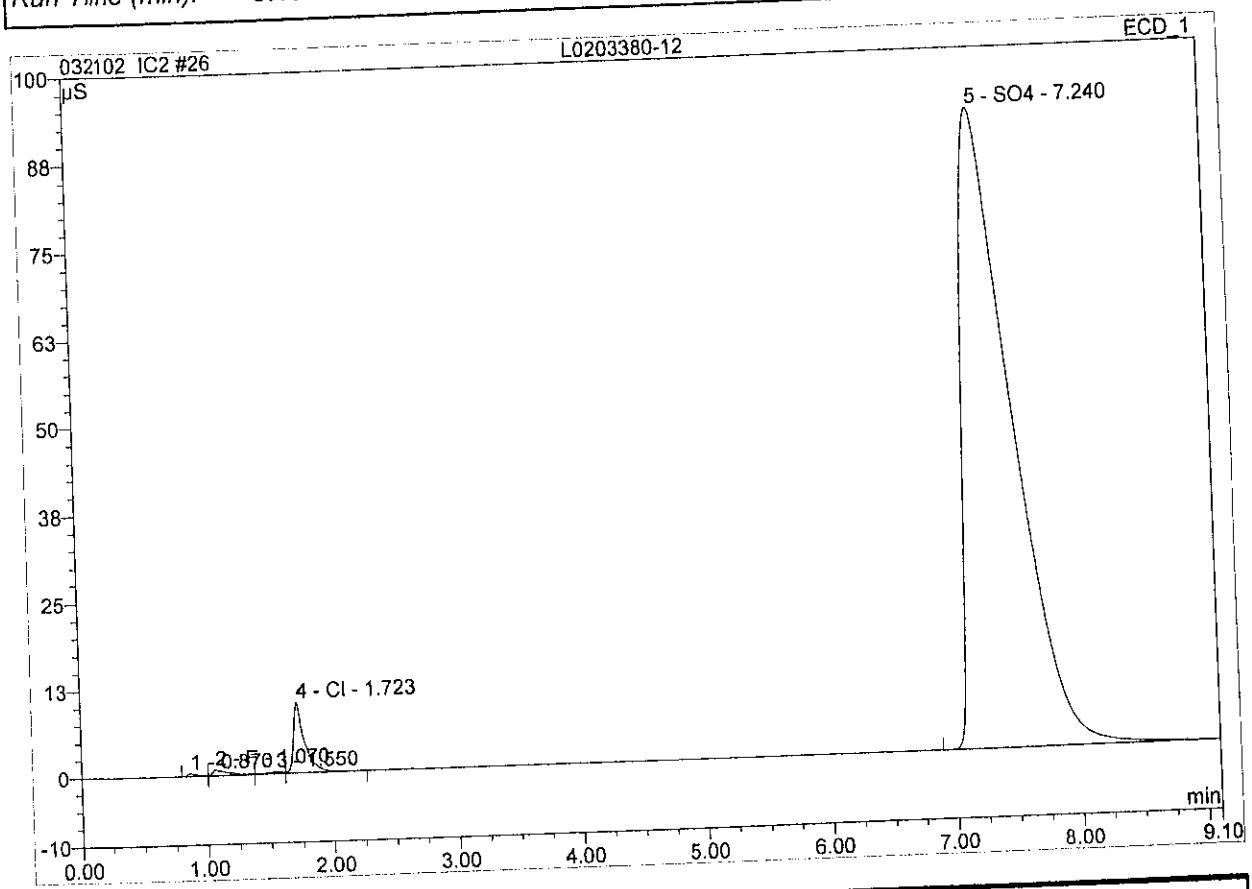
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

26 L0203380-12

1,1 RDC

Sample Name:	L0203380-12	*Injection Volume:*	25.0
Vial Number:	25	*Channel:*	ECD_1
Sample Type:	unknown	*Wavelength:*	n.a.
Control Program:	9056	*Bandwidth:*	n.a.
Quantif. Method:	9056	*Dilution Factor:*	1.0000
Recording Time:	3/21/2002 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	0.87	n.a.	0.389	0.036	0.09	n.a.	BM
2	1.07	F	0.835	0.118	0.28	0.956	M
3	1.55	n.a.	0.279	0.043	0.10	n.a.	M
4	1.72	Cl	10.211	1.023	2.44	10.717	MB
5	7.24	SO4	91.336	40.725	97.09	550.513	BMB
Total:			103.050	41.944	100.00	562.186	

708

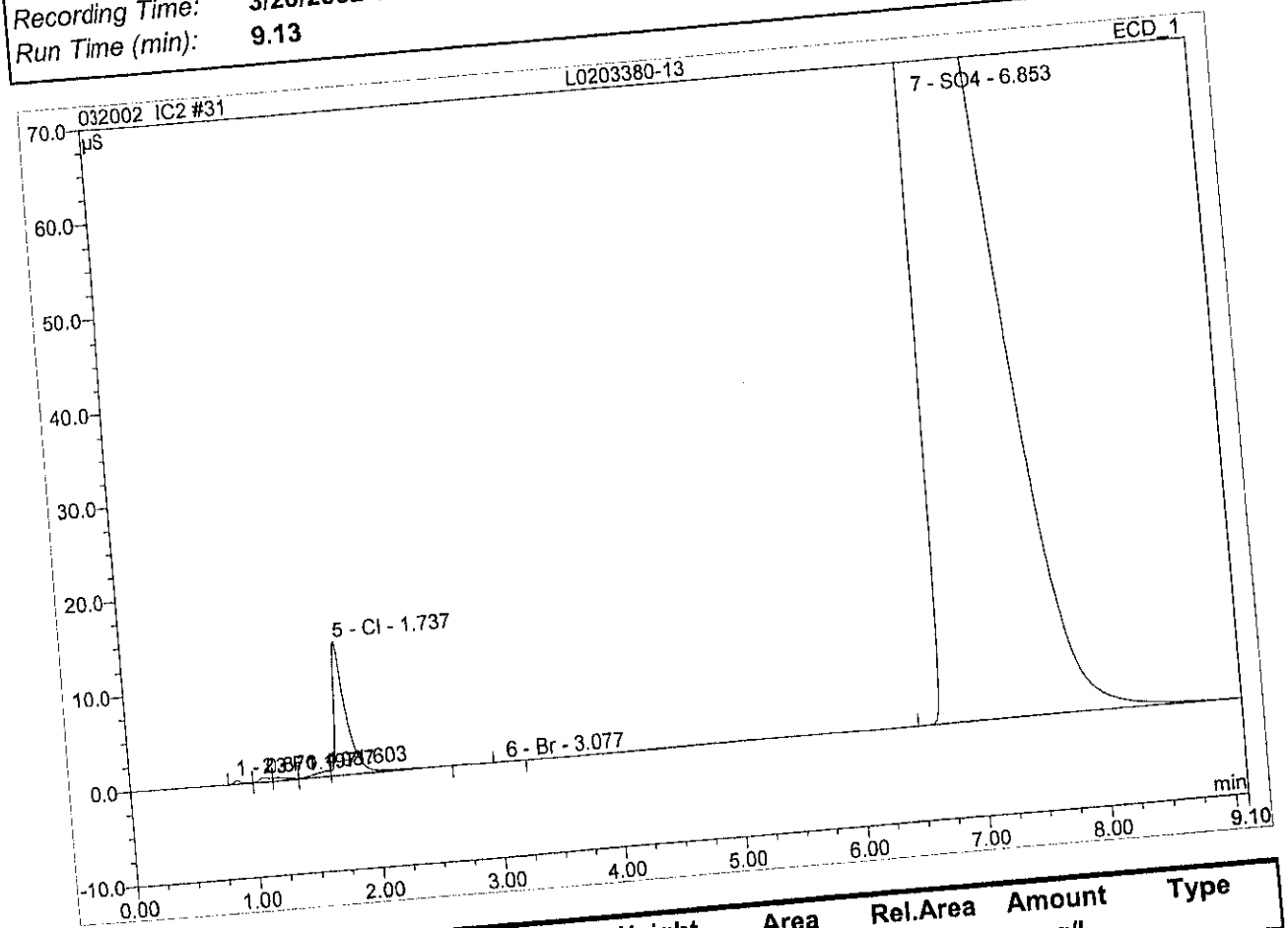
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

IC/Integration

31 L0203380-13

1,1 RDC/JWR

Sample Name:	L0203380-13	Injection Volume:	25.0
Vial Number:	25	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	9056	Bandwidth:	n.a.
Quantif. Method:	9056	Dilution Factor:	1.0000
Recording Time:	3/20/2002 18:35	Sample Weight:	1.0000
Run Time (min):	9.13	Sample Amount:	1.0000

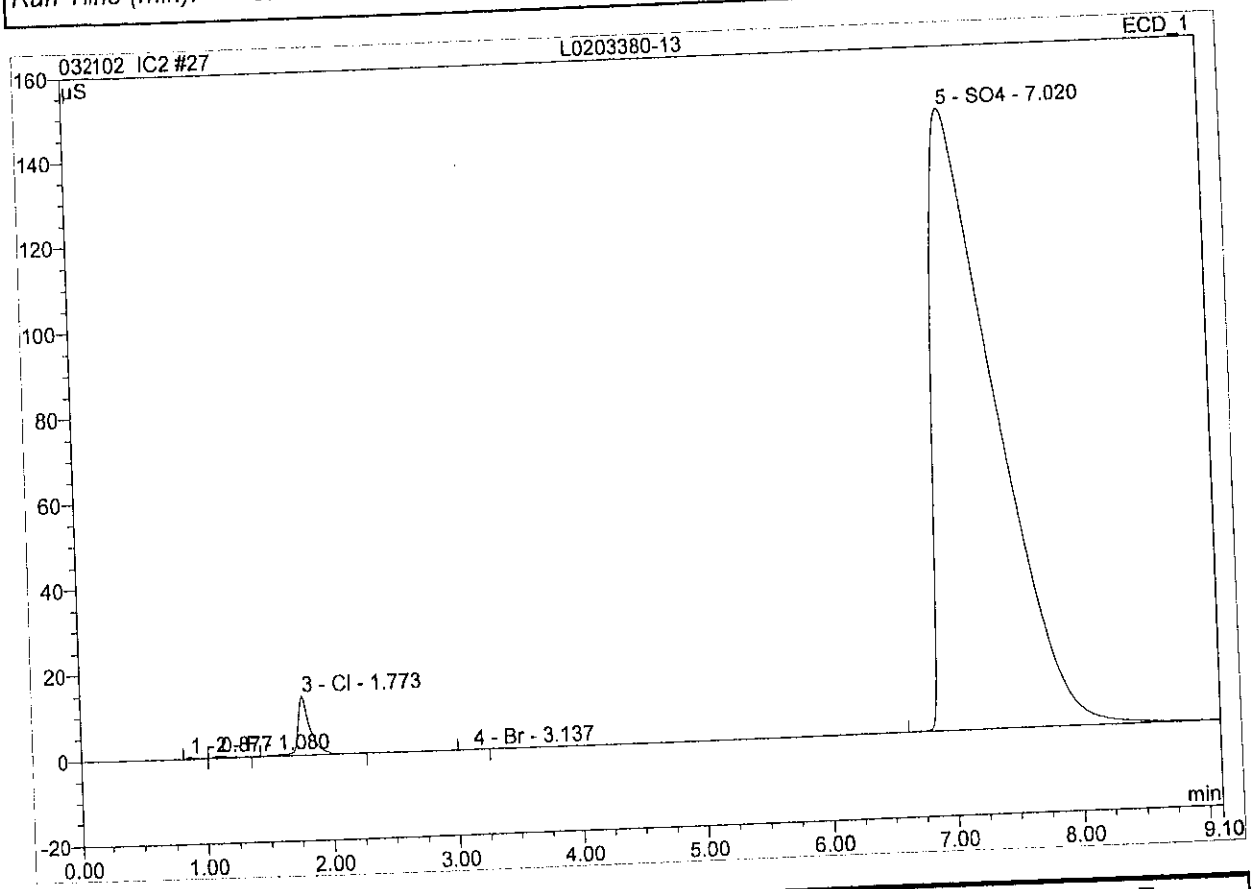


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.389	0.026	0.03	n.a.	BM
2	1.09	F	0.437	0.045	0.06	0.528	M
3	1.20	n.a.	0.341	0.044	0.05	n.a.	M
4	1.60	n.a.	0.536	0.080	0.10	n.a.	M
5	1.74	Cl	13.942	1.556	1.93	18.413	MB
6	3.08	Br	0.032	0.004	0.01	0.325	BMB
7	6.85	SO4	140.737	78.796	97.82	1209.080	BMB
Total:			156.413	80.552	100.00	1228.346	

27 L0203380-13

1,1 RDC

Sample Name:	L0203380-13	*Injection Volume:*	25.0
Vial Number:	26	*Channel:*	ECD_1
Sample Type:	unknown	*Wavelength:*	n.a.
Control Program:	9056	*Bandwidth:*	n.a.
Quantif. Method:	9056	*Dilution Factor:*	1.0000
Recording Time:	3/21/2002 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	0.88	n.a.	0.398	0.025	0.03	n.a.	BMB
2	1.08	F	0.389	0.054	0.07	0.536	BMB
3	1.77	Cl	13.828	1.574	1.89	16.381	BMB
4	3.14	Br	0.042	0.004	0.01	0.279	BMB
5	7.02	SO4	145.214	81.683	98.01	1103.221	BMB
Total:			159.871	83.341	100.00	1120.417	

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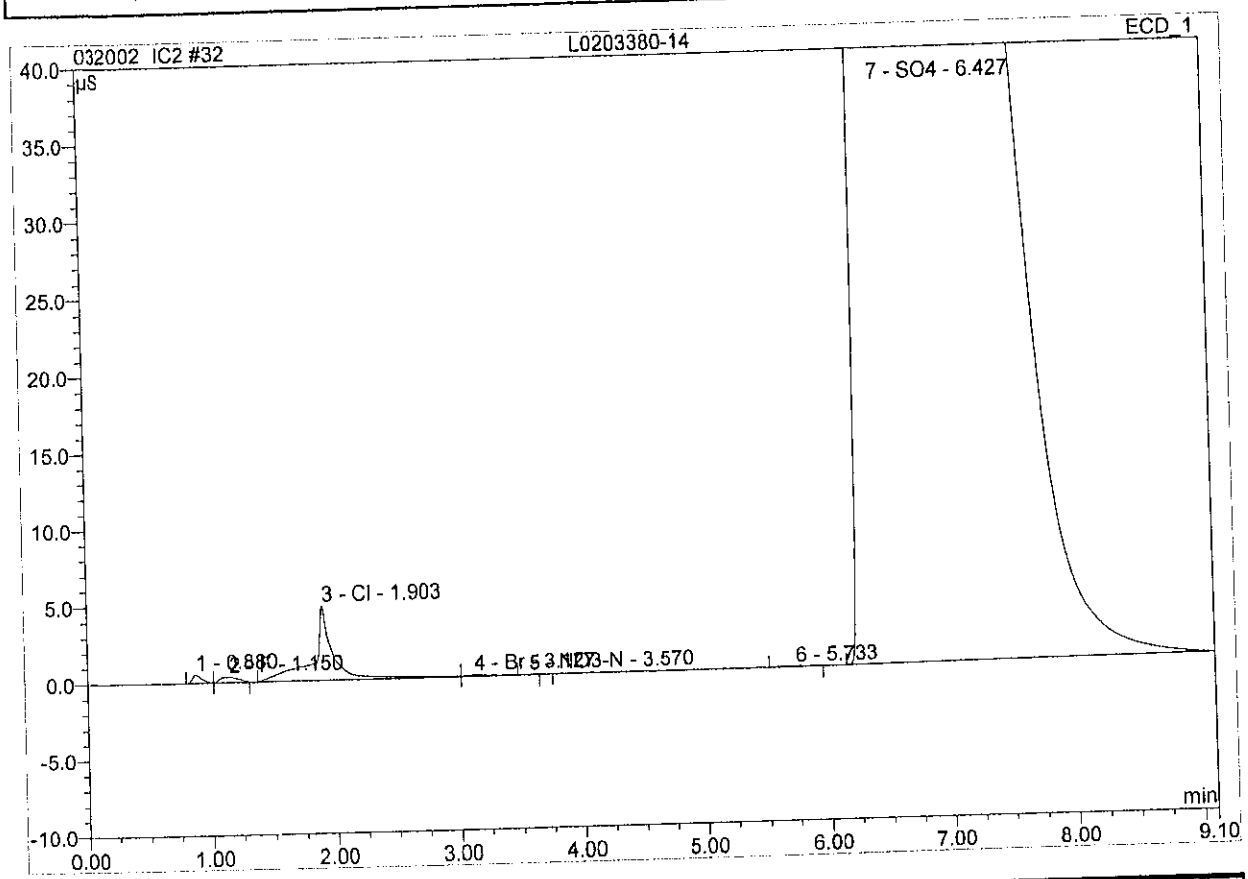
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

32 L0203380-14

1,1 RDC/JWR

Sample Name:	**L0203380-14**	*Injection Volume:*	**25.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 18:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



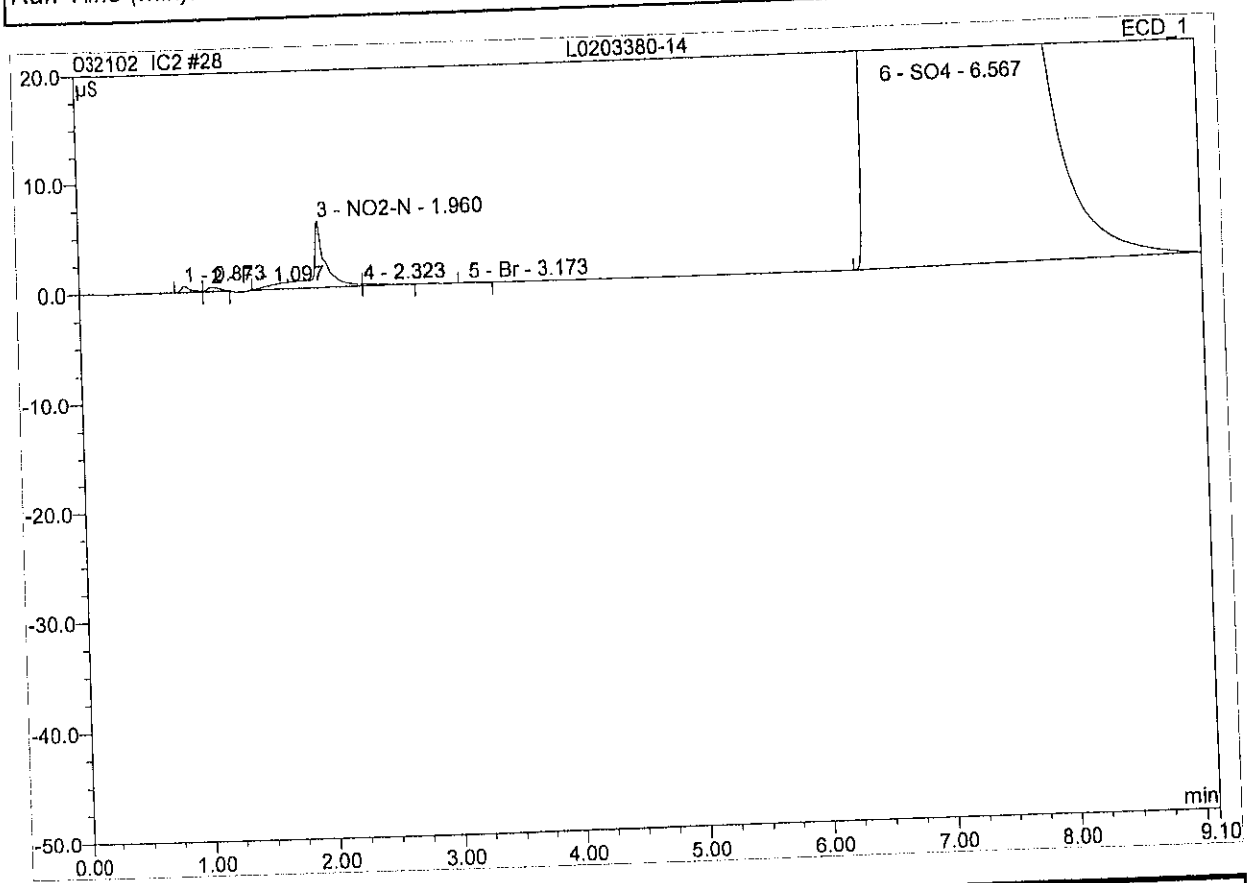
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.558	0.048	0.02	n.a.	BM
2	1.15	F	0.373	0.065	0.03	0.678	MB
3	1.90	Cl	4.827	0.903	0.41	10.772	BM
4	3.13	Br	0.087	0.021	0.01	0.826	MB
5	3.57	NO3-N	0.009	0.001	0.00	0.148	Rd
6	5.73	n.a.	0.028	0.006	0.00	n.a.	BMB
7	6.43	SO4	272.666	219.595	99.53	9146.013	BMB
Total:			278.548	220.639	100.00	9158.436	

711

28 L0203380-14

1,1 RDC

Sample Name:	**L0203380-14**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 20:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



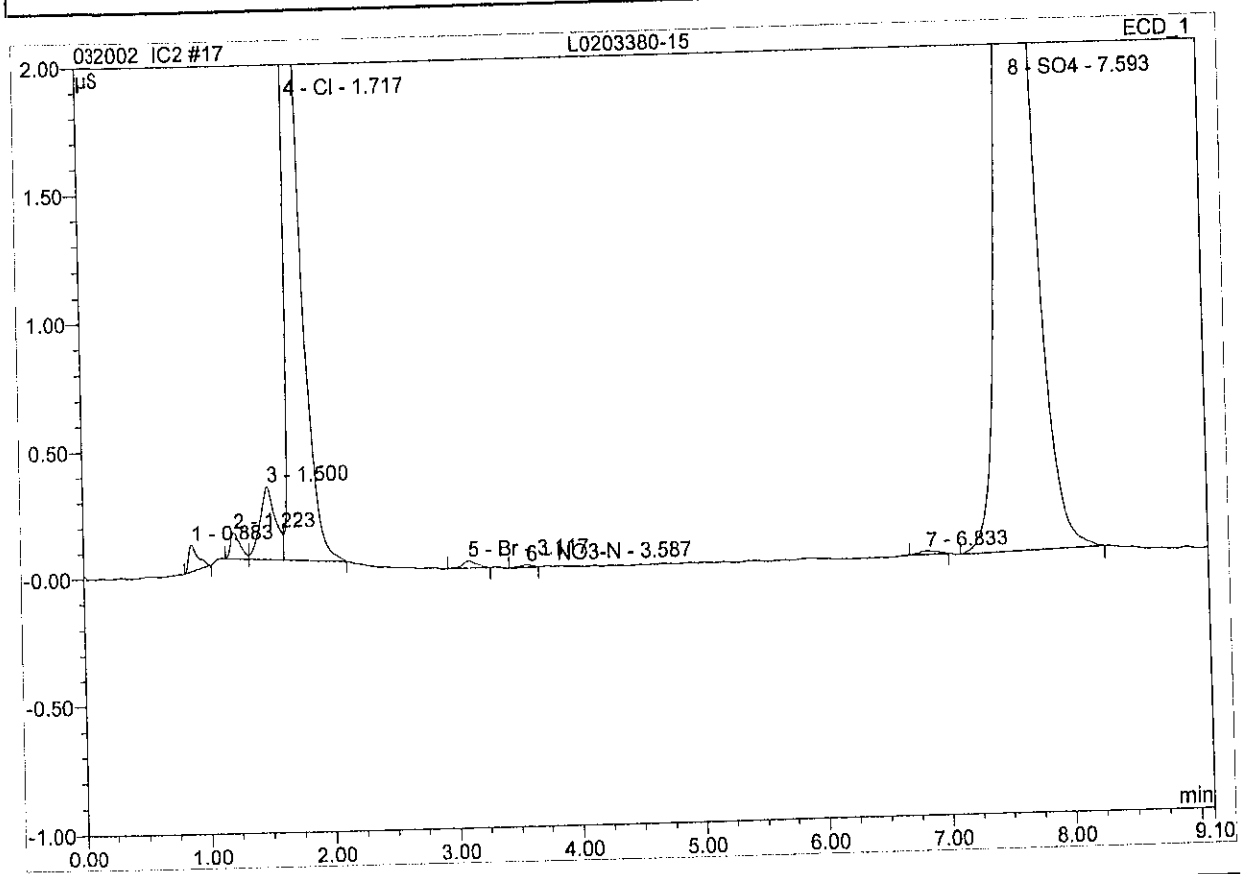
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.537	0.045	0.02	n.a.	BM
2	1.10	F	0.345	0.041	0.02	0.448	MB
3	1.96	NO2-N	6.099	0.807	0.35	3.824	BM
4	2.32	n.a.	0.170	0.030	0.01	n.a.	MB
5	3.17	Br	0.066	0.008	0.00	0.366	BMB
6	6.57	SO4	280.469	228.484	99.59	3084.229	BMB
Total:			287.687	229.416	100.00	3088.868	

712

17 L0203380-15

1,1 RDC/JWR

Sample Name:	**L0203380-15**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 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	0.88	n.a.	0.104	0.009	0.49	n.a.	BMB
2	1.22	n.a.	0.104	0.010	0.52	n.a.	BM
3	1.50	n.a.	0.289	0.043	2.34	n.a.	M
4	1.72	Cl	5.079	0.500	27.42	6.055	MB
5	3.12	Br	0.028	0.004	0.22	0.322	BMB
6	3.59	NO3-N	0.010	0.001	0.06	0.149 F	BMB
7	6.83	n.a.	0.013	0.002	0.12	n.a.	BMB
8	7.59	SO4	4.388	1.256	68.83	20.114	BMB
Total:			10.015	1.824	100.00	26.640	

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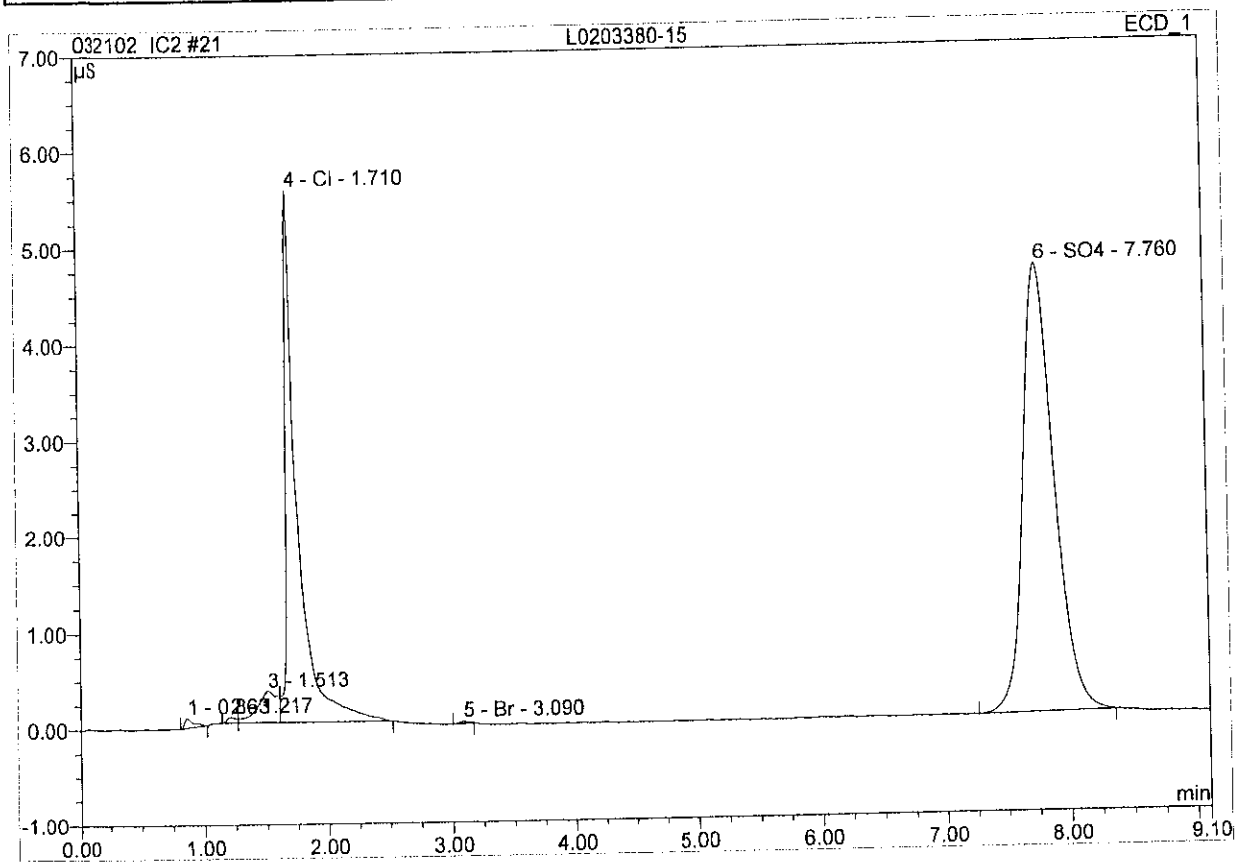
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

21 L0203380-15

1,1 RDC

Sample Name:	**L0203380-15**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 19:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



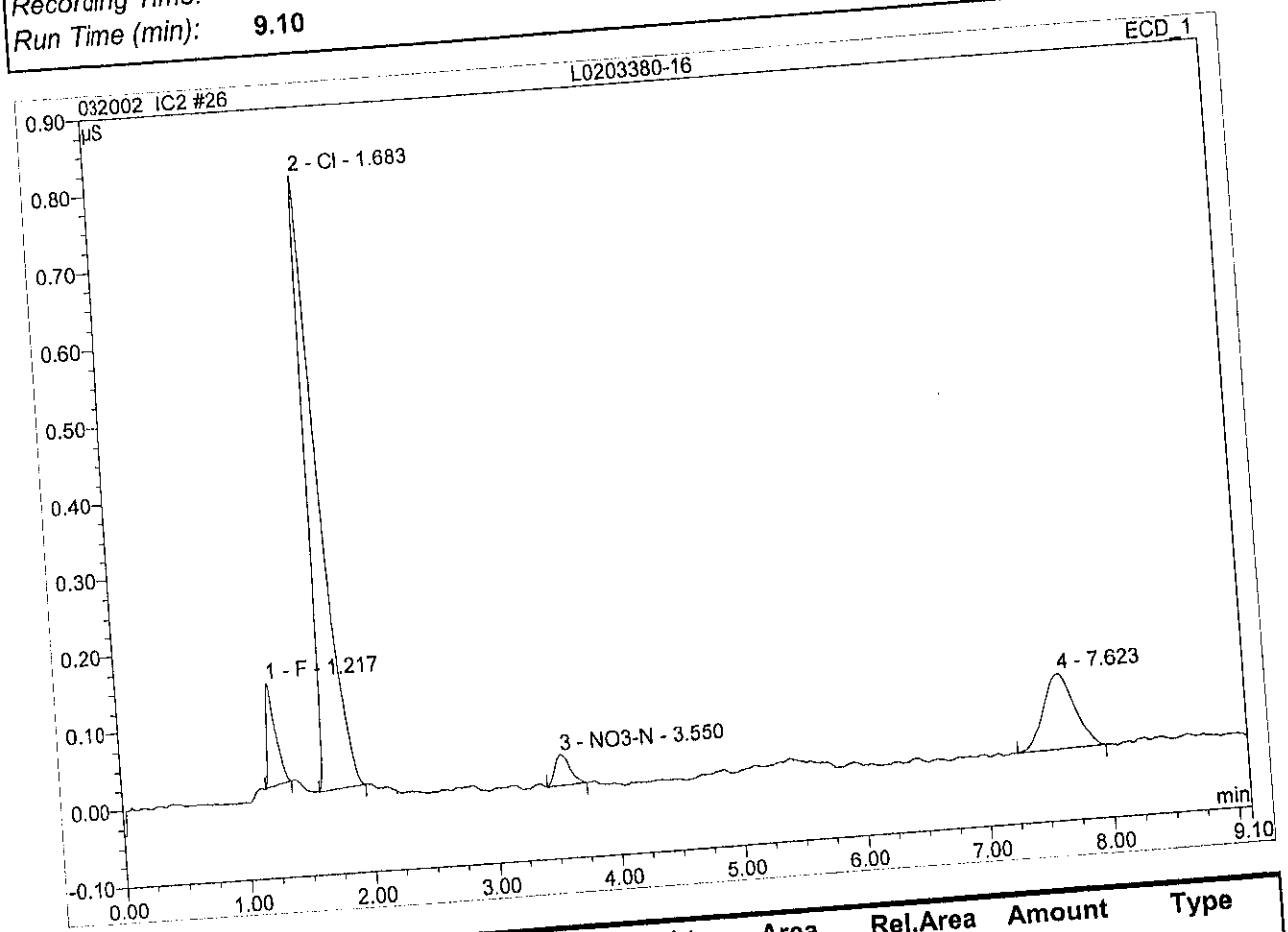
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.101	0.008	0.40	n.a.	BMB
2	1.22	n.a.	0.056	0.005	0.24	n.a.	BM
3	1.51	n.a.	0.326	0.062	3.02	n.a.	M
4	1.71	Cl	5.535	0.624	30.53	6.614	MB
5	3.09	Br	0.022	0.002	0.09	0.211	BMB
6	7.76	SO4	4.654	1.344	65.72	19.088	BMB
Total:			10.694	2.044	100.00	25.912	

714

26 L0203380-16

1,1 RDC/JWR

Sample Name:	L0203380-16	Injection Volume:	25.0
Vial Number:	22	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	9056	Bandwidth:	n.a.
Quantif. Method:	9056	Dilution Factor:	1.0000
Recording Time:	3/20/2002 17:38	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	1.22	F	0.134	0.011	8.55	0.273	BMB
2	1.68	Cl	0.801	0.087	65.70	1.217	BMB
3	3.55	NO3-N	0.040	0.006	4.28	0.171 F	BMB
4	7.62	n.a.	0.098	0.028	21.47	n.a.	BMB
Total:			1.073	0.132	100.00	1.660	

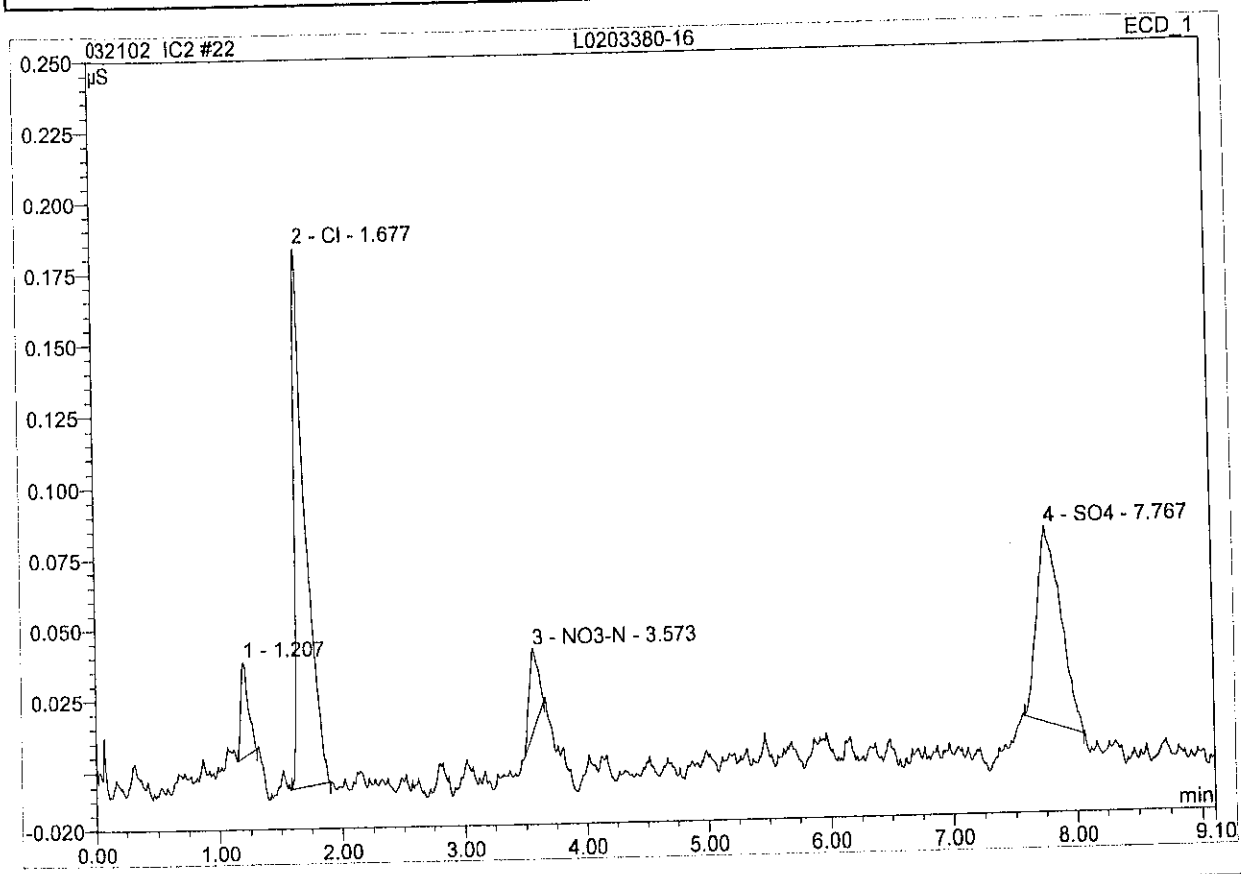
715

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

22 L0203380-16

1,1 RDC

Sample Name:	**L0203380-16**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	1.21	n.a.	0.033	0.002	5.70	n.a.	BMB
2	1.68	Cl	0.189	0.020	49.78	0.402	BMB
3	3.57	NO3-N	0.029	0.002	6.17	0.133 F	BMB
4	7.77	SO4	0.069	0.015	38.35	1.165	BMB
Total:			0.320	0.040	100.00	1.700	

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Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

2.4.5.3 Standards Data

BOC 4/5/02

#2

100ml Total	1/10 ~~#3~~	.5 ML STD	1ML STD	CCV 1.5 ML STD	2ML STD	3ML STD	3ML ALT STD
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
CHLORIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRITE-N	0.1218	1.2178	2.4356	3.6534	4.8714	7.3070	3.6534
BROMIDE	0.2000	2.0000	4.0000	6.0000	8.0000	12.0000	6.0000
NITRATE-N	0.1355	1.3554	2.7108	4.0662	5.4216	8.1322	4.0662
PHOSPHATE-P	0.3261	3.2614	6.5228	9.7842	13.0456	19.5682	9.7842
SULFATE	1.0000	10.0000	20.0000	30.0000	40.0000	60.0000	30.0000

NO2 -N $\frac{14.0067}{46.0055}$ = % 30.446

NO3-N $\frac{14.0067}{62.0049}$ = % 22.590

PO4-P $\frac{30.97376}{94.97136}$ = % 32.614

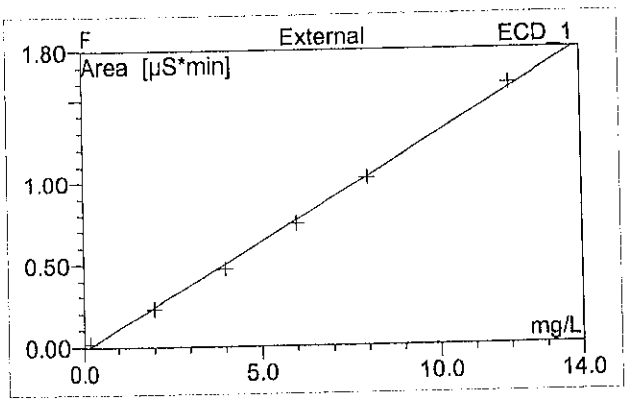
ANALYTE	LEVEL #1	LEVEL #2	LEVEL #3	LEVEL #4	LEVEL #5	LEVEL #6	ALT SORCE STD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FLUORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
CHLORIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRITE	0.400	4.000	8.000	12.000	16.000	24.000	12.000
BROMIDE	0.200	2.000	4.000	6.000	8.000	12.000	6.000
NITRATE	0.600	6.000	12.000	18.000	24.000	36.000	18.000
PHOSPHATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000
SULFATE	1.000	10.000	20.000	30.000	40.000	60.000	30.000

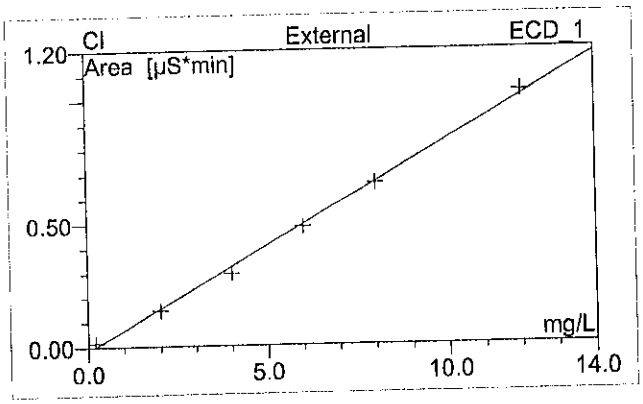
718

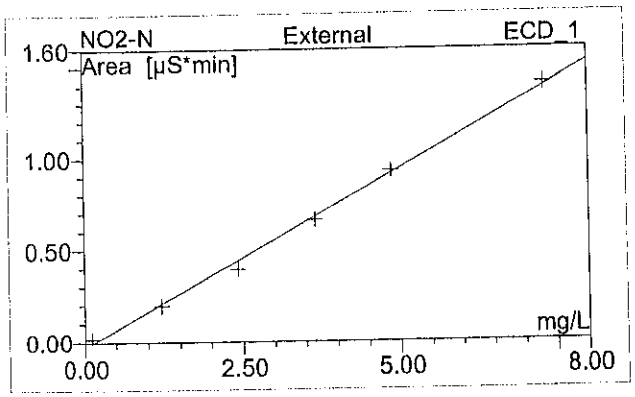
6 ANION STD #6

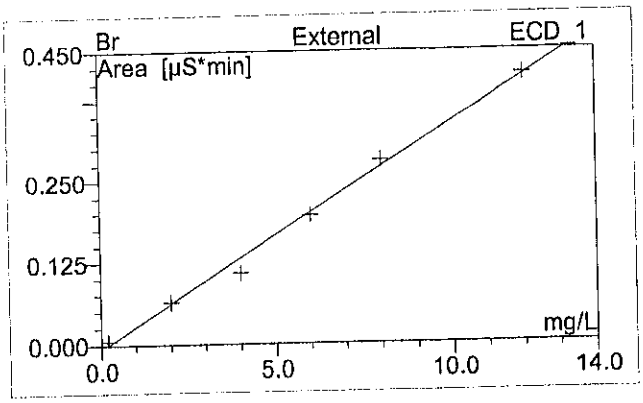
1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







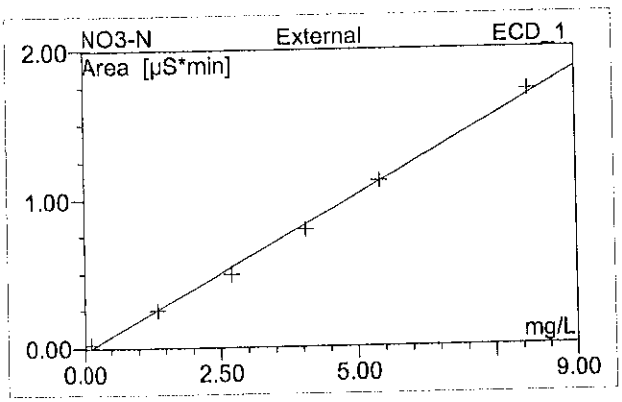


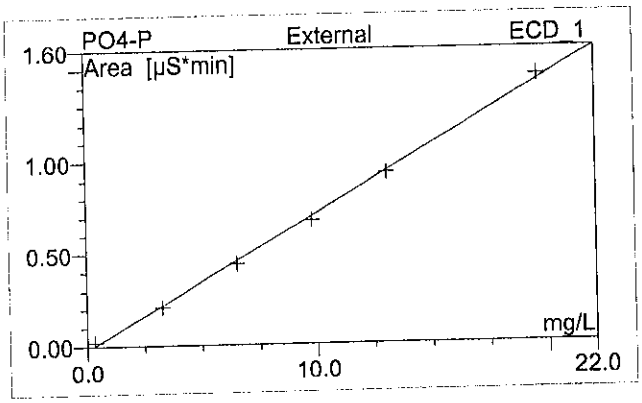
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

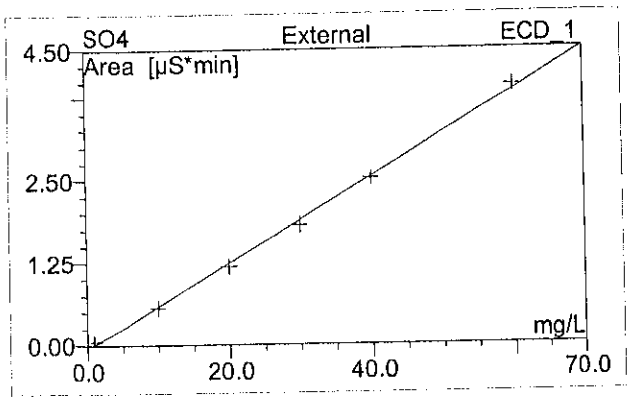
6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





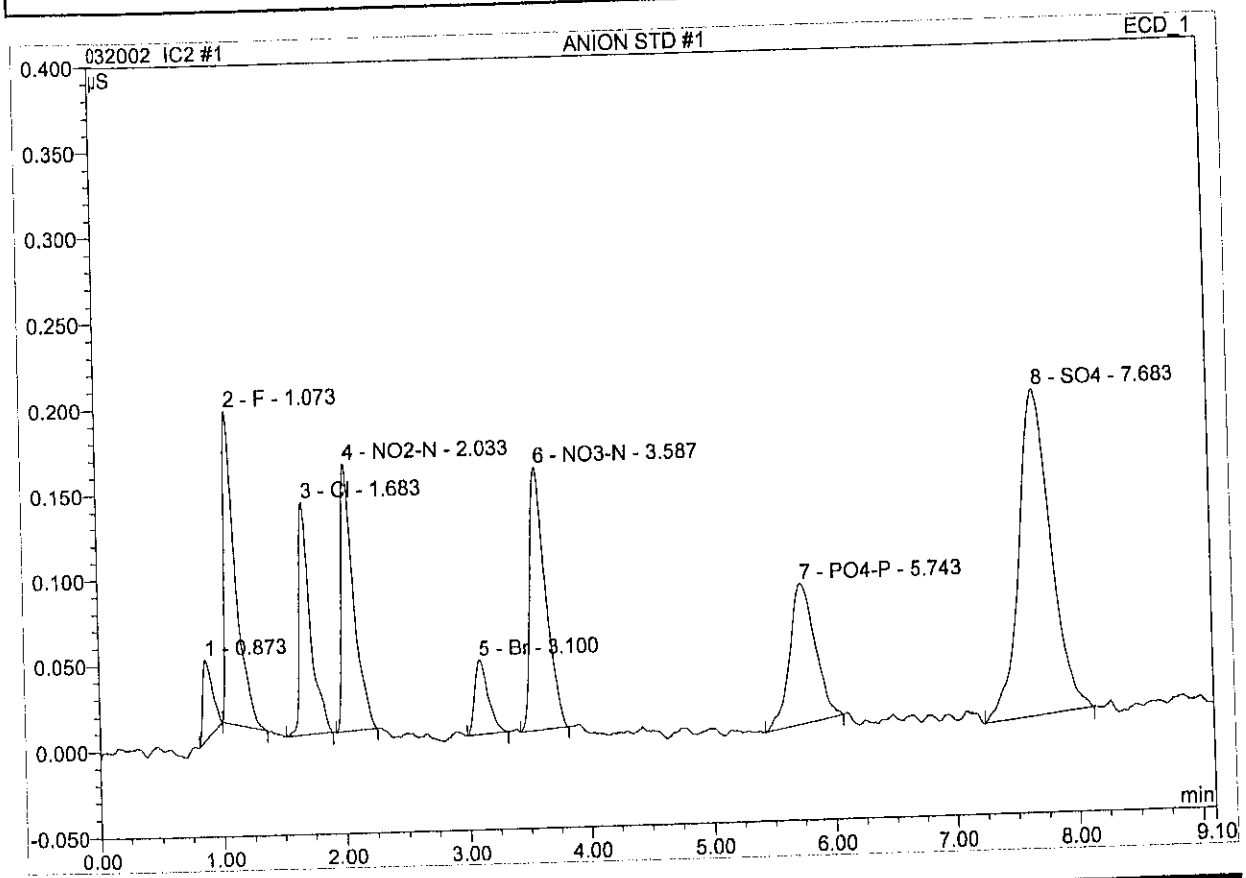


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9281	-0.0248	0.1321	0.0000
3	1.68	Cl	0LOff	6	99.8964	-0.0174	0.0855	0.0000
4	2.03	NO2-N	0LOff	6	99.8630	-0.0271	0.1938	0.0000
5	3.05	Br	0LOff	6	99.6966	-0.0072	0.0347	0.0000
6	3.44	NO3-N	0LOff	6	99.8695	-0.0304	0.2110	0.0000
7	5.68	PO4-P	0LOff	6	99.9310	-0.0199	0.0736	0.0000
8	7.56	SO4	0LOff	6	99.9172	-0.0561	0.0652	0.0000
Average:					99.8717	-0.0261	0.1137	0.0000

1 ANION STD #1

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

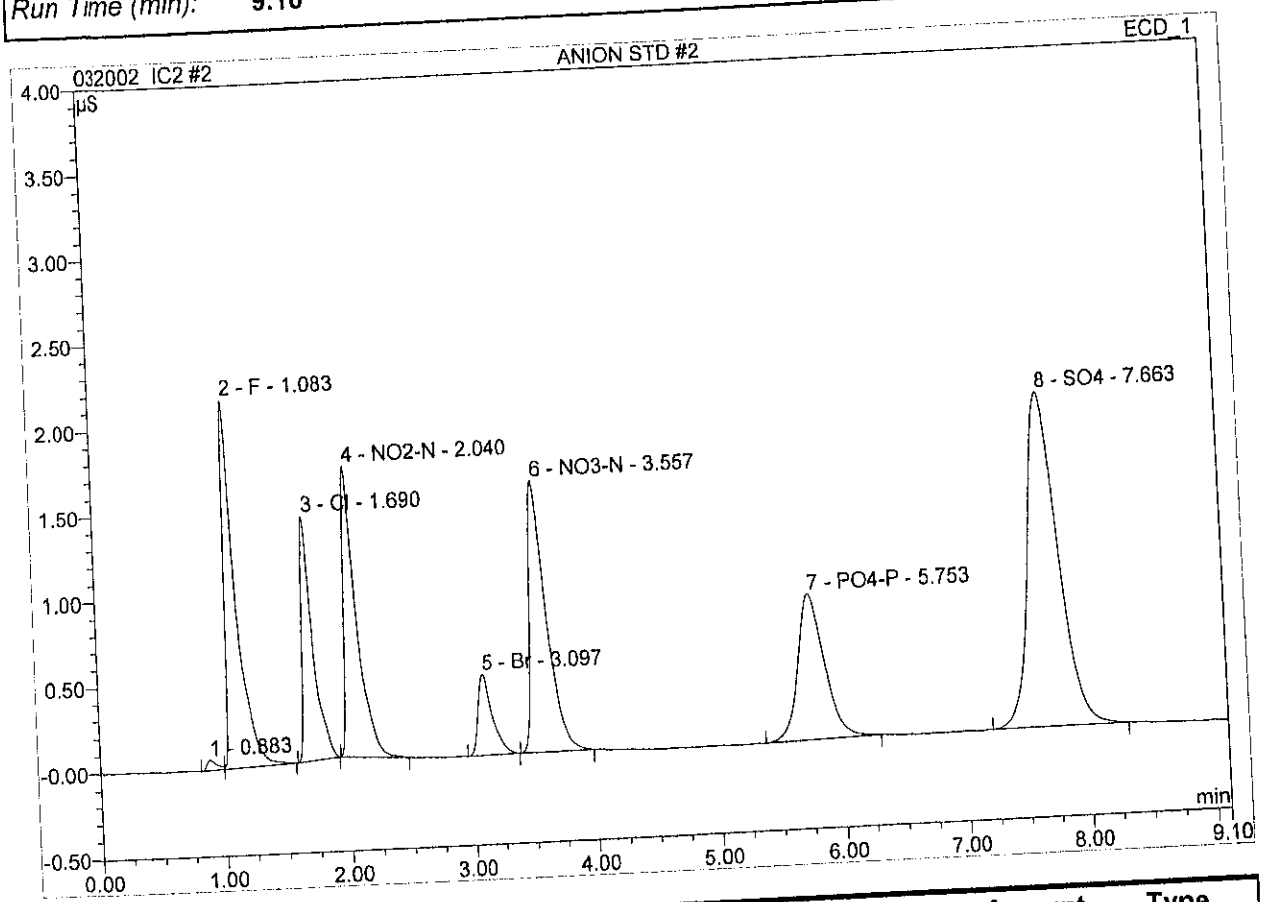


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.046	0.004	2.54	n.a.	BMB
2	1.07	F	0.183	0.019	11.95	0.335	BMB
3	1.68	Cl	0.136	0.015	9.07	0.376	BMB
4	2.03	NO2-N	0.157	0.018	11.15	0.233	BMB
5	3.10	Br	0.044	0.006	3.51	0.373	BMB
6	3.59	NO3-N	0.154	0.023	14.26	0.254	BMB
7	5.74	PO4-P	0.082	0.020	12.31	0.543	BMB
8	7.68	SO4	0.191	0.057	35.20	1.740	BMB
Total:			0.993	0.163	100.00	3.855	

2 ANION STD #2

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.059	0.006	0.34	n.a.	BM
2	1.08	F	2.156	0.229	13.71	1.921	MB
3	1.69	Cl	1.434	0.146	8.73	1.909	BMB
4	2.04	NO2-N	1.702	0.196	11.74	1.152	BMB
5	3.10	Br	0.472	0.064	3.84	2.054	BMB
6	3.56	NO3-N	1.590	0.249	14.92	1.325	BMB
7	5.75	PO4-P	0.853	0.210	12.59	3.128	BMB
8	7.66	SO4	1.955	0.570	34.14	9.603	BMB
Total:			10.222	1.670	100.00	21.092	

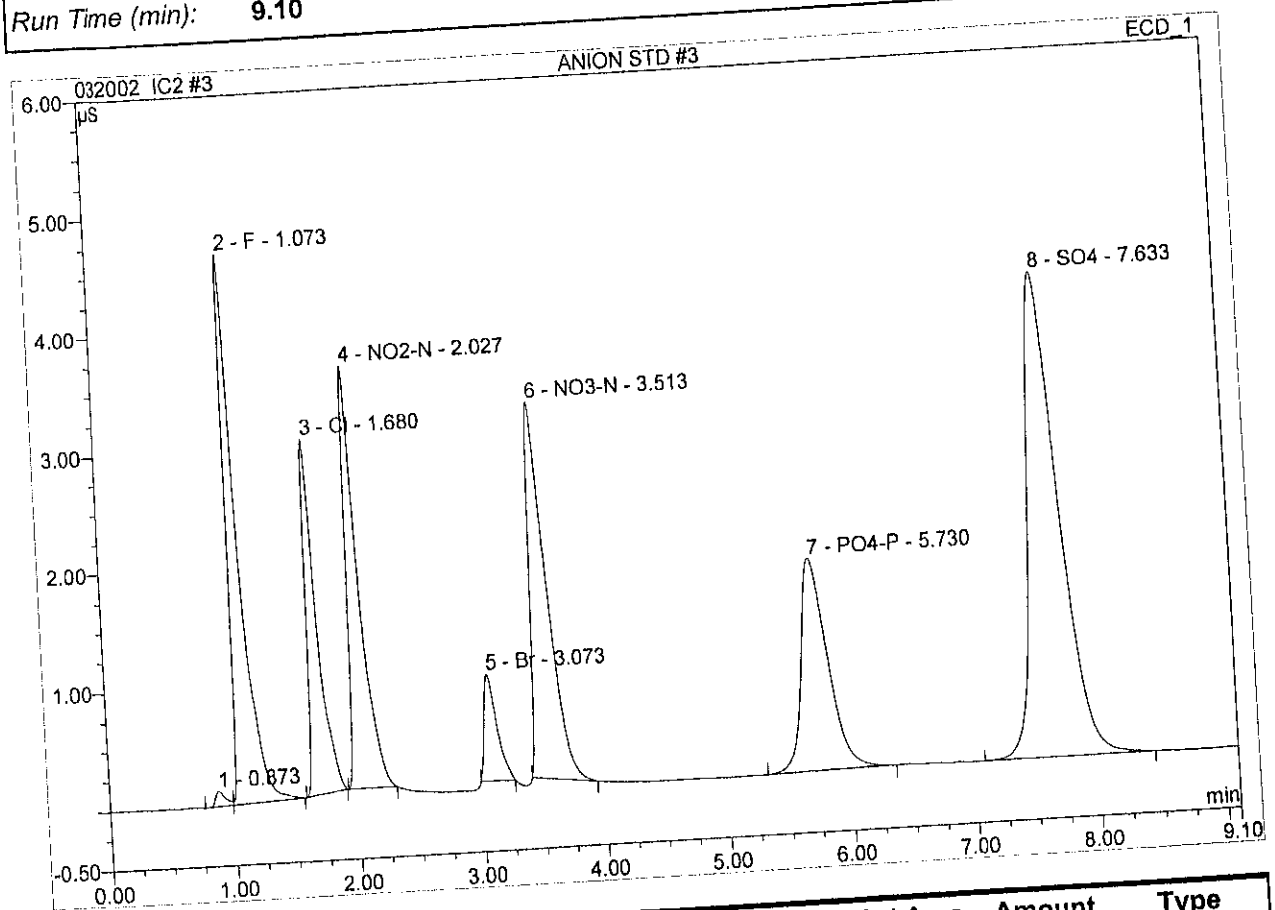
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

Operator:Analyst Timebase:DX-320 Sequence:032002 IC2

3 ANION STD #3

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



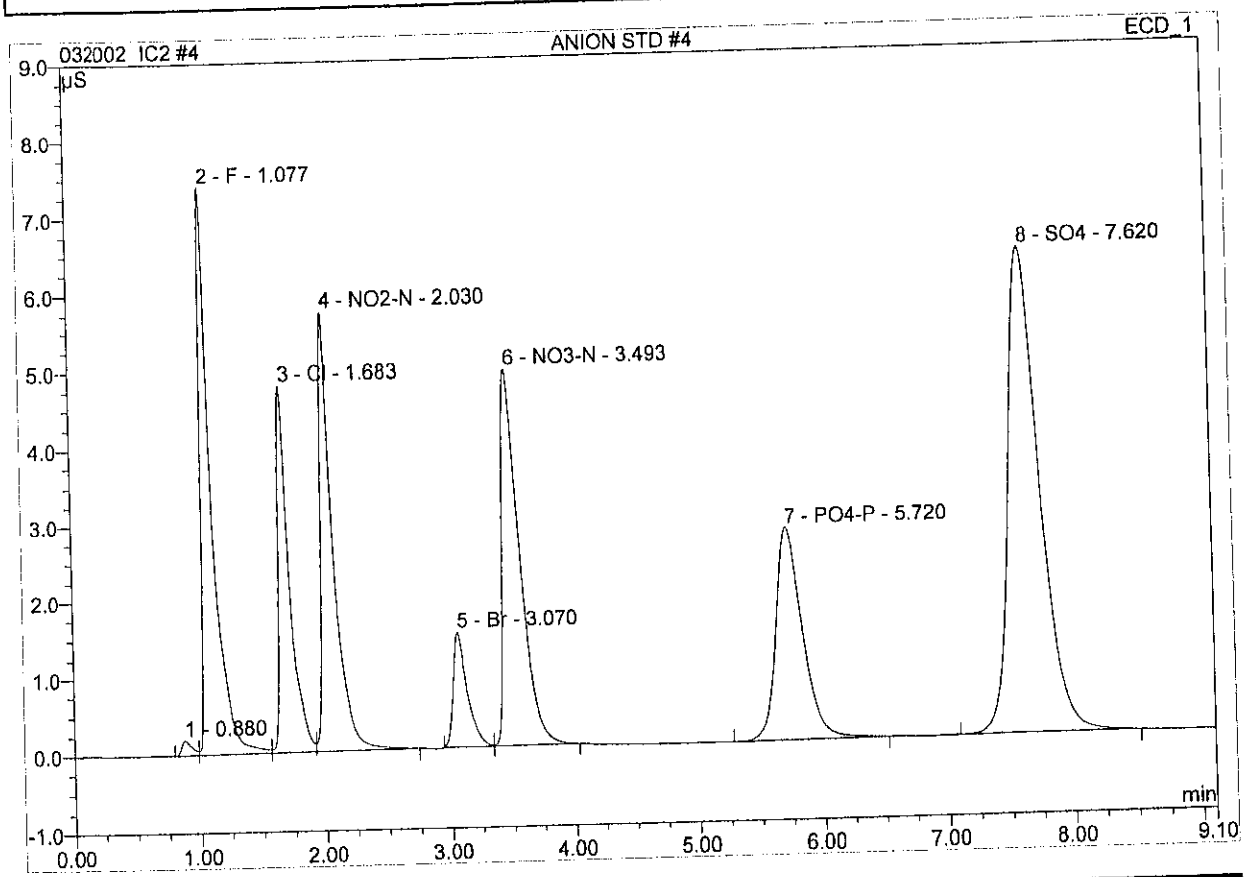
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.124	0.012	0.35	n.a.	BM
2	1.07	F	4.661	0.474	13.88	3.776	MB
3	1.68	Cl	3.016	0.297	8.70	3.682	BMB
4	2.03	NO2-N	3.579	0.395	11.58	2.181	BM
5	3.07	Br	0.903	0.108	3.17	3.328	BMB
6	3.51	NO3-N	3.185	0.494	14.45	2.484	BMB
7	5.73	PO4-P	1.791	0.442	12.93	6.269	BMB
8	7.63	SO4	4.106	1.194	34.95	19.168	BMB
Total:			21.366	3.416	100.00	40.887	

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

4 ANION STD #4

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 11:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

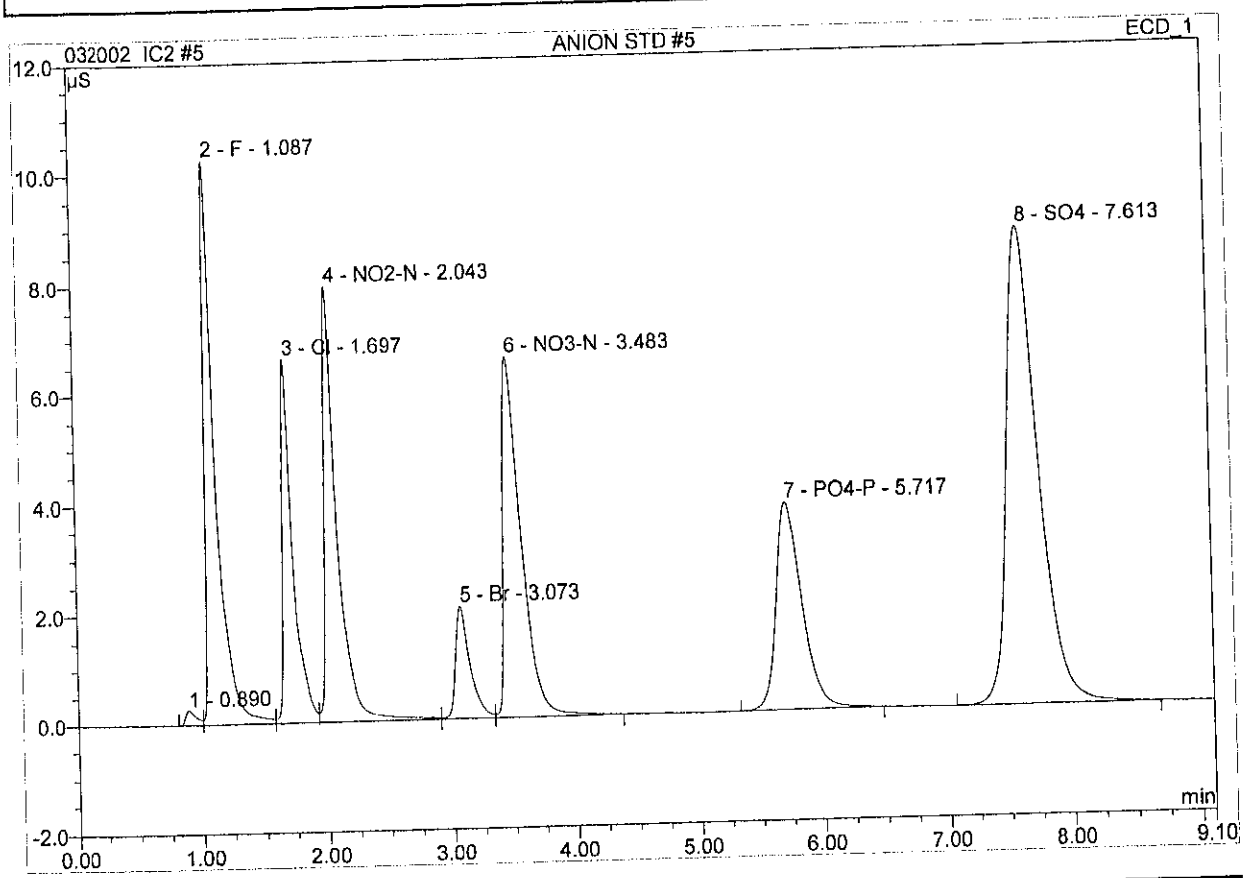


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.198	0.019	0.36	n.a.	BM
2	1.08	F	7.393	0.746	13.80	5.832	M
3	1.68	Cl	4.789	0.483	8.95	5.859	M
4	2.03	NO2-N	5.729	0.662	12.26	3.558	MB
5	3.07	Br	1.486	0.196	3.63	5.862	BM
6	3.49	NO3-N	4.902	0.791	14.64	3.892	MB
7	5.72	PO4-P	2.768	0.679	12.56	9.490	BMB
8	7.62	SO4	6.330	1.827	33.81	28.880	BMB
Total:			33.595	5.404	100.00	63.372	

5 ANION STD #5

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

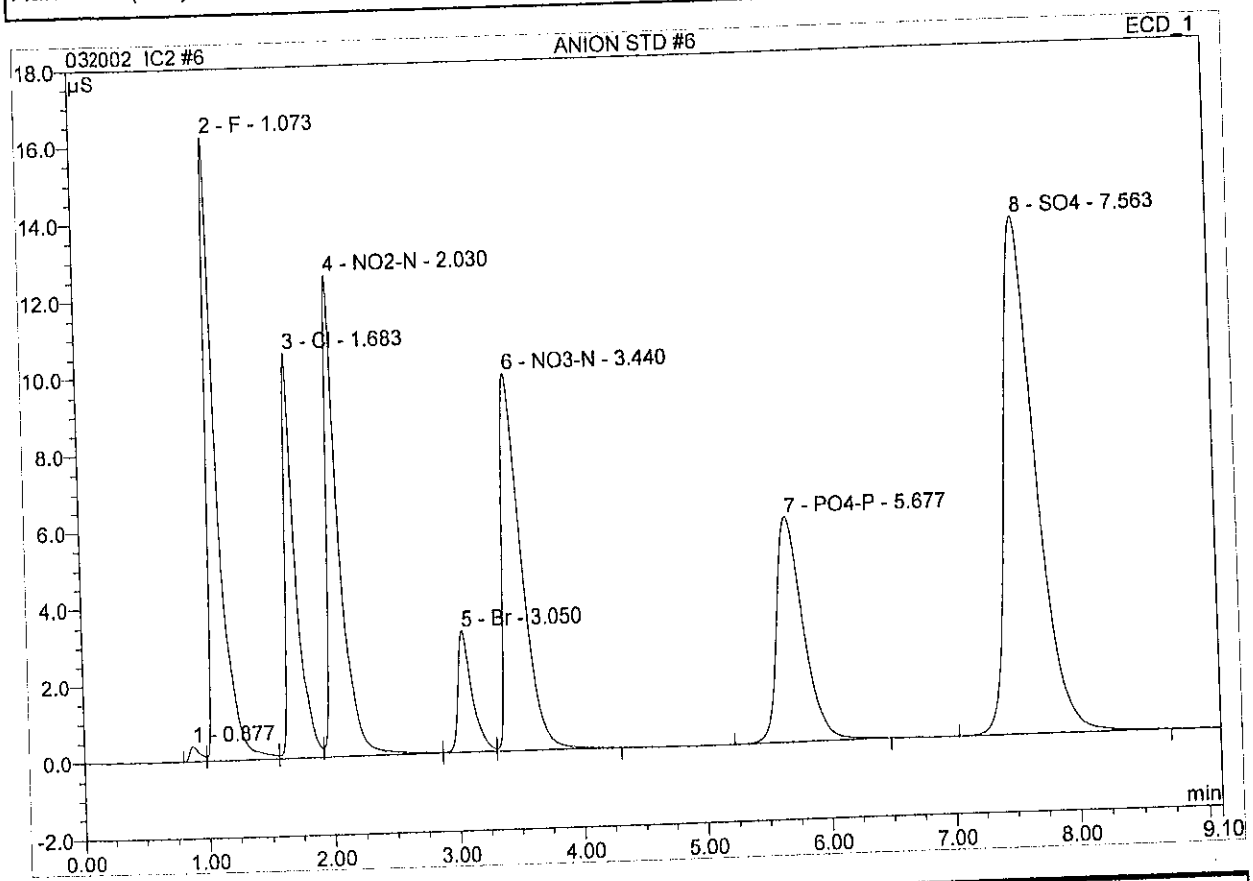


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.268	0.027	0.36	n.a.	BM
2	1.09	F	10.257	1.024	13.67	7.938	M
3	1.70	Cl	6.638	0.662	8.83	7.946	M
4	2.04	NO2-N	7.942	0.930	12.42	4.940	M
5	3.07	Br	2.062	0.280	3.74	8.279	M
6	3.48	NO3-N	6.579	1.116	14.90	5.432	MB
7	5.72	PO4-P	3.782	0.928	12.39	12.876	BMB
8	7.61	SO4	8.694	2.525	33.70	39.574	BMB
Total:			46.223	7.492	100.00	86.985	

6 ANION STD #6

1,1 RDC/JWR ANION STD SOS0058-24 030702

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

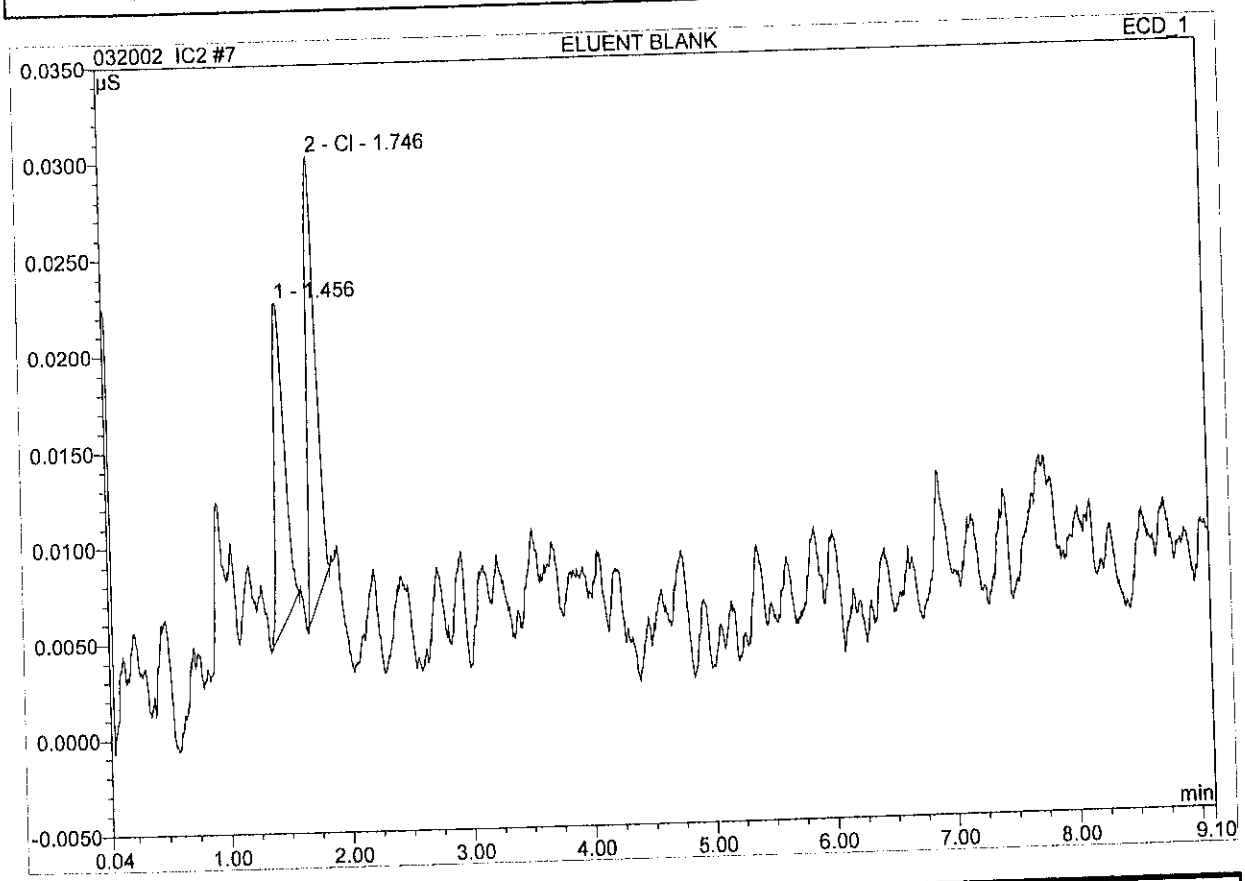


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.398	0.039	0.33	n.a.	BM
2	1.07	F	16.218	1.589	13.72	12.211	M
3	1.68	Cl	10.563	1.027	8.88	12.225	M
4	2.03	NO2-N	12.534	1.407	12.16	7.403	MB
5	3.05	Br	3.164	0.413	3.57	12.095	bM
6	3.44	NO3-N	9.833	1.719	14.85	8.291	MB
7	5.68	PO4-P	5.873	1.448	12.51	19.932	BMB
8	7.56	SO4	13.460	3.934	33.98	61.176	BMB
Total:			72.042	11.575	100.00	133.332	

7 ELUENT BLANK

1,1 RDC/JWR

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.06**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.46	n.a.	0.017	0.002	44.36	n.a.	BMB
2	1.75	Cl	0.023	0.002	55.64	0.226	BMB
Total:			0.040	0.004	100.00	0.226	

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

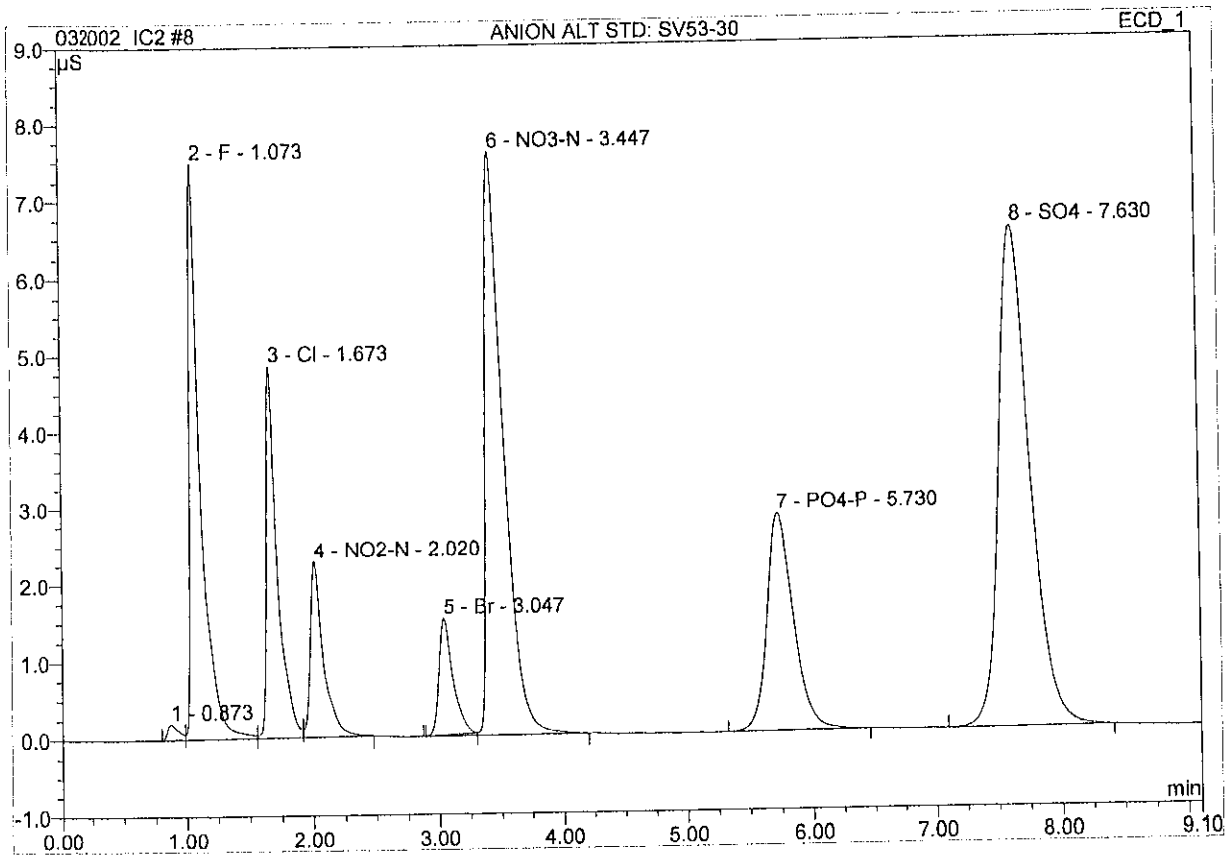
Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	
Vial Number:	**8**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9159	-1.40	PASS
Cl	6	5.9267	-1.22	PASS
NO2-N	3.65	1.5489	-57.56	FAIL
Br	6	5.8498	-2.50	PASS
NO3-N	4.07	6.2520	53.61	FAIL
PO4-P	9.78	9.6802	-1.02	PASS
SO4	30	29.6053	-1.32	PASS

8 ANION ALT STD: SV53-30

1,1 RDC/JWR ANION ALT STD SV53-30 030702

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 12:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.203	0.021	0.37	n.a.	BM
2	1.07	F	7.485	0.757	13.53	5.916	M
3	1.67	Cl	4.847	0.489	8.75	5.927	M
4	2.02	NO2-N	2.276	0.273	4.88	1.549	MB
5	3.05	Br	1.510	0.196	3.50	5.850	Ru
6	3.45	NO3-N	7.574	1.289	23.05	6.252	BMB
7	5.73	PO4-P	2.827	0.693	12.39	9.680	BMB
8	7.63	SO4	6.507	1.875	33.52	29.605	BMB
Total:			33.231	5.592	100.00	64.779	

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

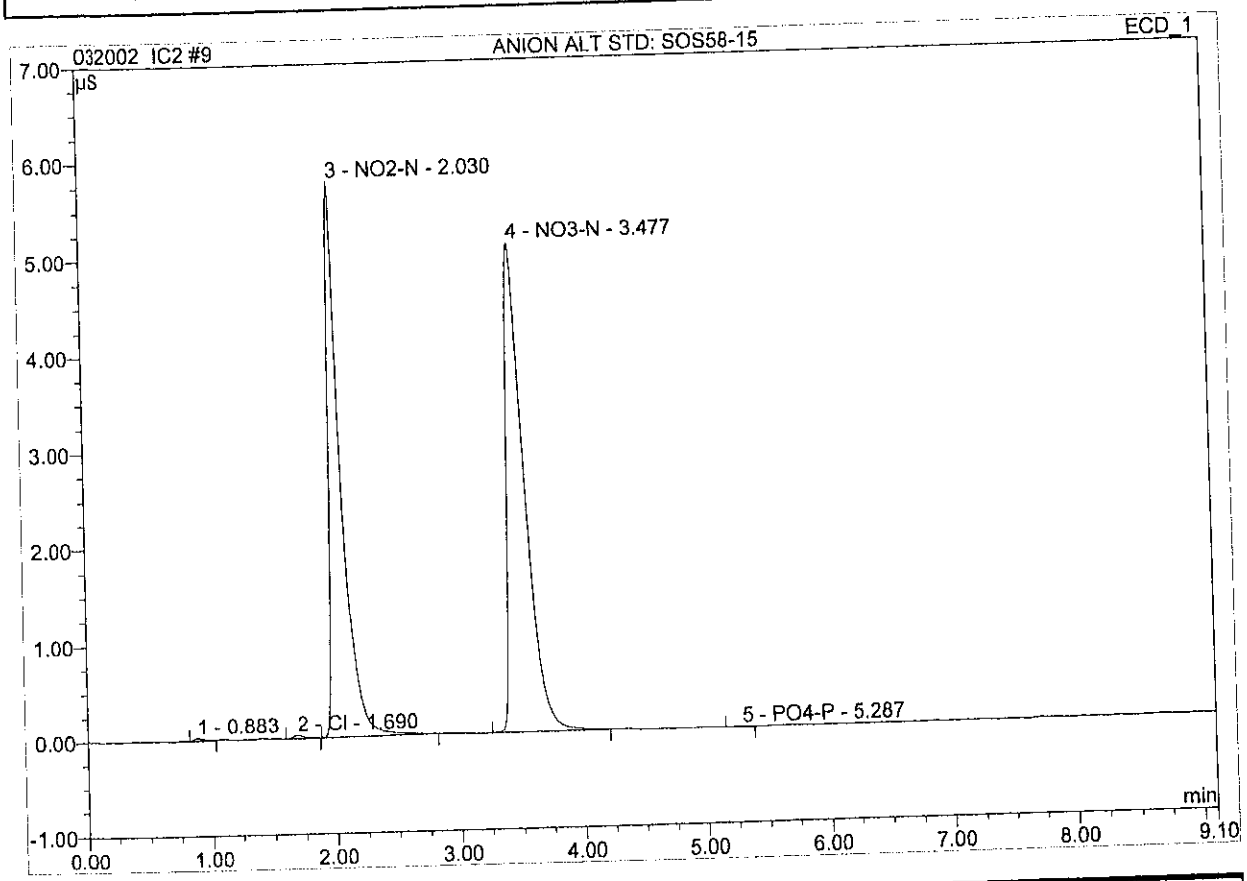
Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*
Vial Number:	**10**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.2461	-95.90	FAIL
NO2-N	3.65	3.5391	-3.04	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	4.0656	-0.11	PASS
PO4-P	9.78	0.2847	-97.09	FAIL
n.a.	30	n.a.	#VALUE!	#VALUE!

9 ANION ALT STD: SOS58-15

1,1 RDC/JWR ANION ALT STD SOS58-15 030702

Sample Name:	**ANION ALT STD: SOS58-15**	*Injection Volume:*	**25.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/7/2002 13:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

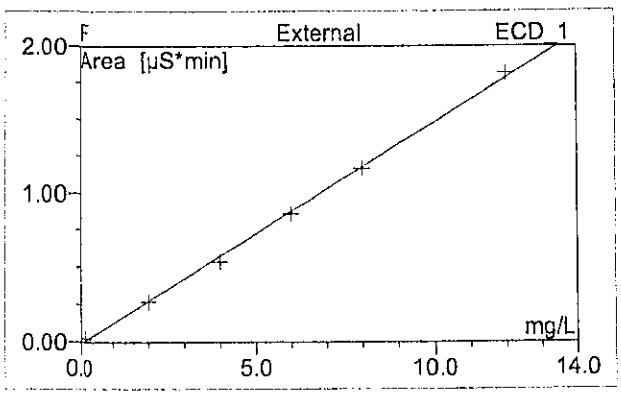


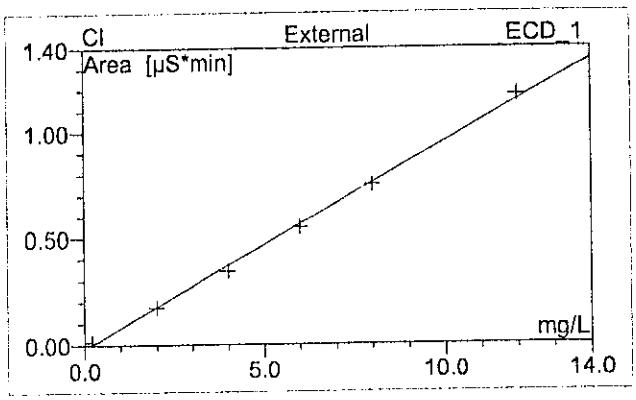
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.026	0.003	0.17	n.a.	BMB
2	1.69	Cl	0.033	0.004	0.25	0.246	BMB
3	2.03	NO2-N	5.773	0.659	44.10	3.539	BMB
4	3.48	NO3-N	5.091	0.828	55.41	4.066	BMB
5	5.29	PO4-P	0.009	0.001	0.07	0.285	BMB
Total:			10.933	1.494	100.00	8.135	

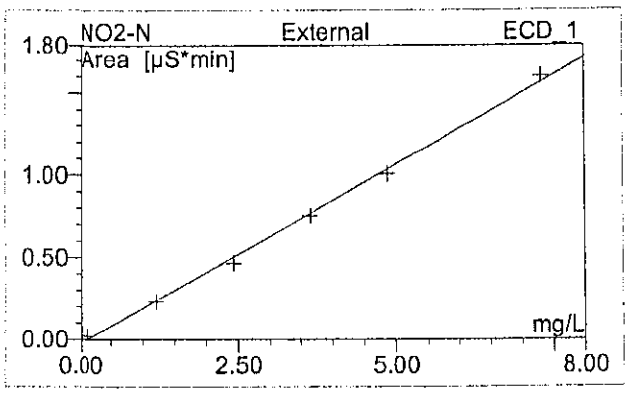
6 ANION STD #6

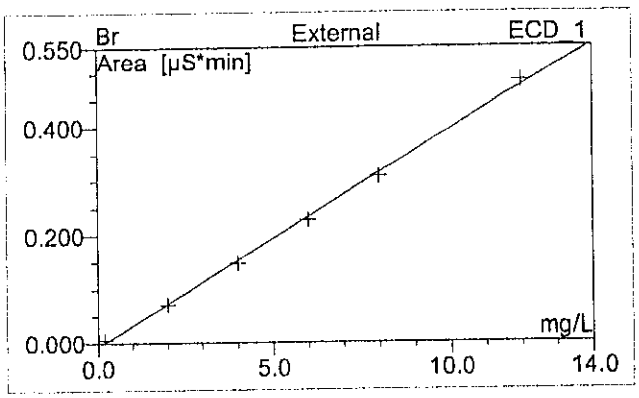
1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:59**	*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	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9248	-0.0263	0.1504	0.0000
3	1.69	Cl	0LOff	6	99.9030	-0.0190	0.0972	0.0000
4	2.04	NO2-N	0LOff	6	99.8777	-0.0263	0.2179	0.0000
5	3.08	Br	0LOff	6	99.9263	-0.0067	0.0401	0.0000
6	3.50	NO3-N	0LOff	6	99.8987	-0.0294	0.2406	0.0000
7	5.83	PO4-P	0LOff	6	99.7048	-0.0450	0.0780	0.0000
8	7.77	SO4	0LOff	6	99.9082	-0.0709	0.0741	0.0000
Average:					99.8776	-0.0319	0.1283	0.0000

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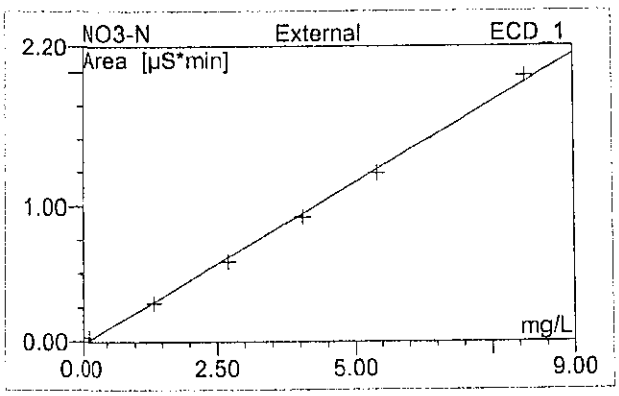
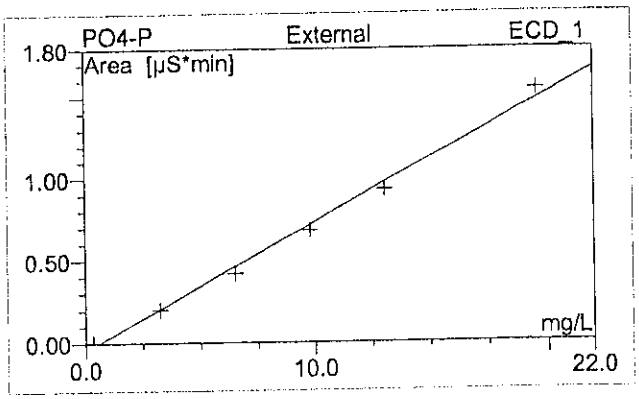
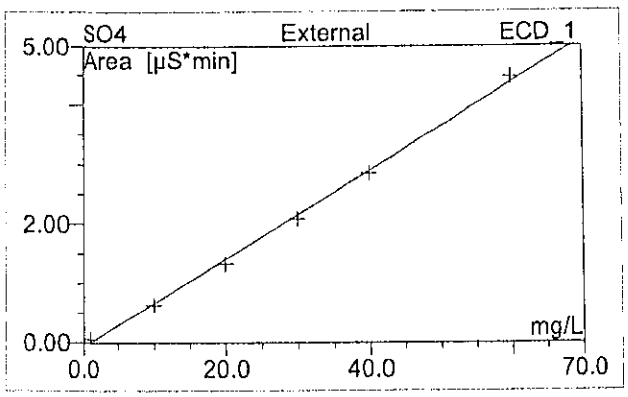
6 ANION STD #6

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:59**	*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	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.9248	-0.0263	0.1504	0.0000
3	1.69	Cl	0LOff	6	99.9030	-0.0190	0.0972	0.0000
4	2.04	NO2-N	0LOff	6	99.8777	-0.0263	0.2179	0.0000
5	3.08	Br	0LOff	6	99.9263	-0.0067	0.0401	0.0000
6	3.50	NO3-N	0LOff	6	99.8987	-0.0294	0.2406	0.0000
7	5.83	PO4-P	0LOff	6	99.7048	-0.0450	0.0780	0.0000
8	7.77	SO4	0LOff	6	99.9082	-0.0709	0.0741	0.0000
Average:					99.8776	-0.0319	0.1283	0.0000

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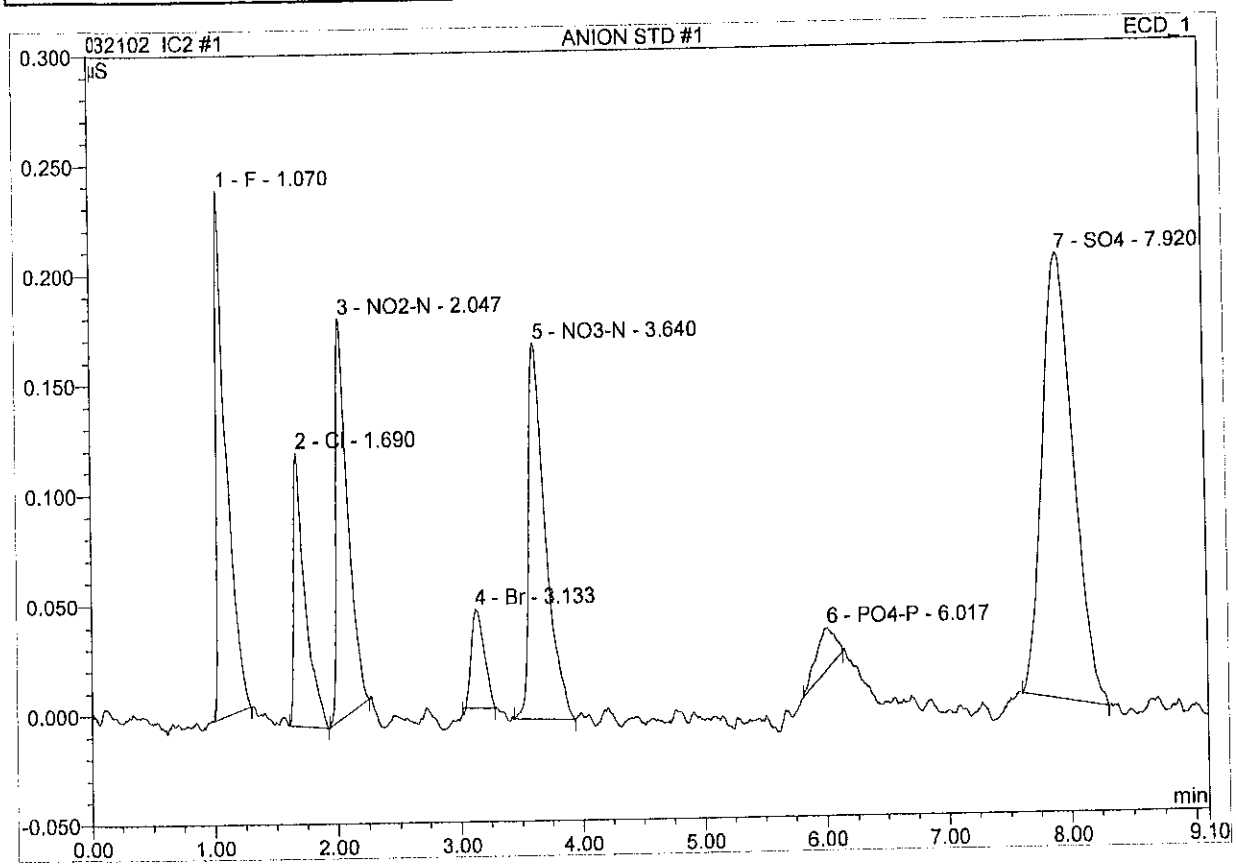
Chromeleon (c) Dionex 1996-2001

1 ANION STD #1

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:01**	*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	1.07	F	0.239	0.023	15.19	0.329	BMB
2	1.69	Cl	0.124	0.013	8.71	0.332	BMB
3	2.05	NO2-N	0.181	0.020	13.13	0.213	BMB
4	3.13	Br	0.045	0.006	3.64	0.306	MB
5	3.64	NO3-N	0.171	0.028	18.17	0.238	BMB
6	6.02	PO4-P	0.019	0.003	2.26	0.621	BMB
7	7.92	SO4	0.202	0.059	38.89	1.758	BMB
Total:			0.981	0.153	100.00	3.796	

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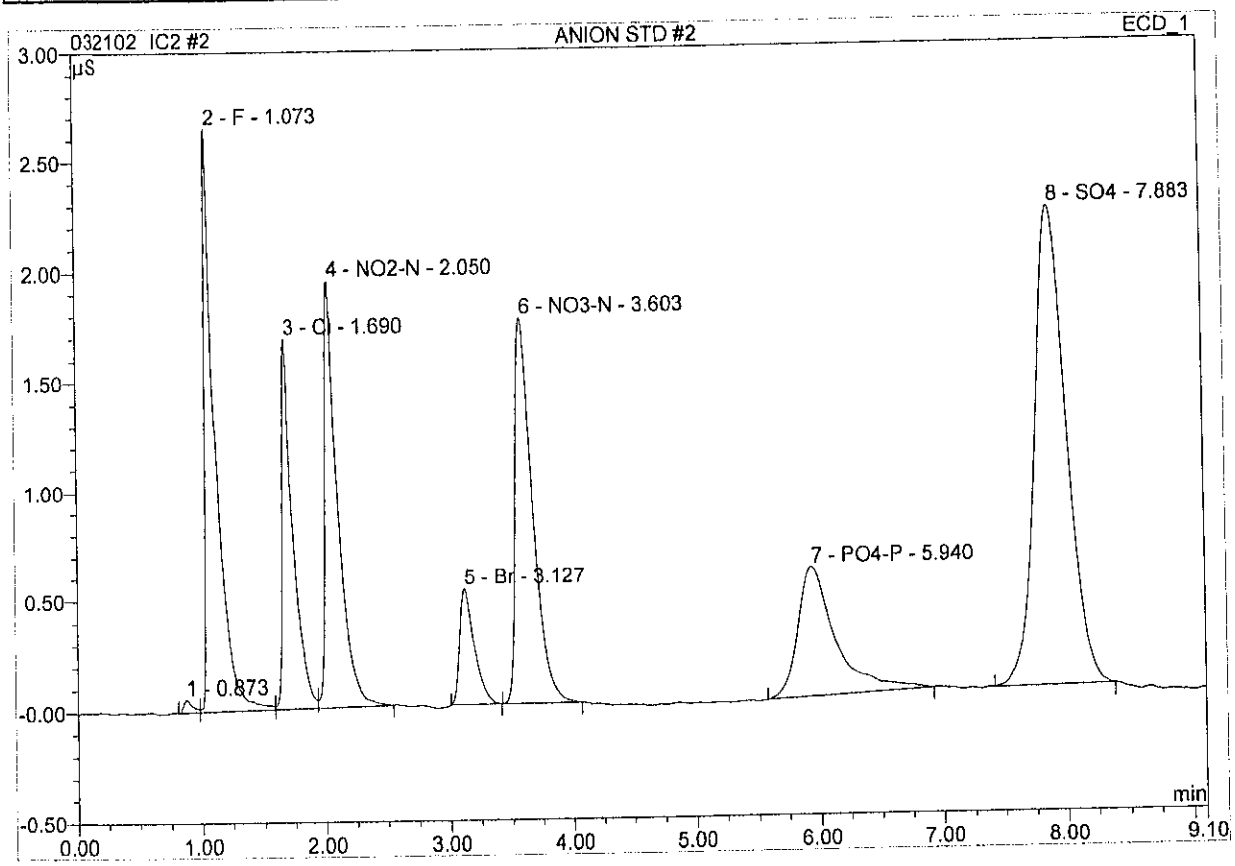
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

2 ANION STD #2

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:13**	*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	0.87	n.a.	0.056	0.005	0.25	n.a.	BM
2	1.07	F	2.650	0.268	14.24	1.959	M
3	1.69	Cl	1.685	0.174	9.21	1.981	M
4	2.05	NO2-N	1.940	0.234	12.43	1.196	MB
5	3.13	Br	0.521	0.071	3.78	1.948	BMB
6	3.60	NO3-N	1.751	0.287	15.23	1.316	BMB
7	5.94	PO4-P	0.584	0.205	10.86	3.203	BMB
8	7.88	SO4	2.179	0.641	34.01	9.610	BMB
Total:			11.367	1.885	100.00	21.213	

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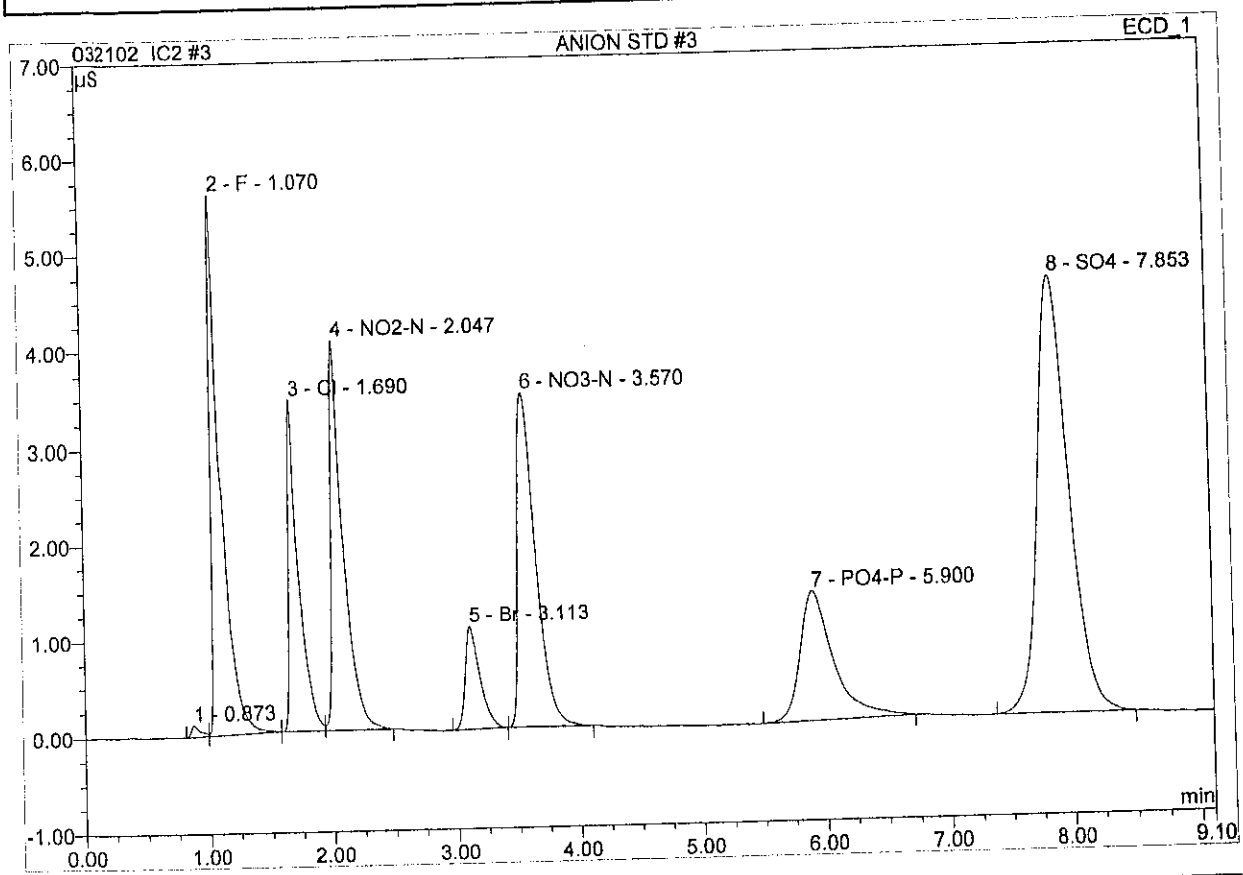
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

3 ANION STD #3

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:24**	*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	0.87	n.a.	0.115	0.010	0.26	n.a.	BM
2	1.07	F	5.609	0.535	13.93	3.729	MB
3	1.69	Cl	3.440	0.342	8.90	3.710	bM
4	2.05	NO2-N	4.039	0.466	12.14	2.259	MB
5	3.11	Br	1.066	0.148	3.85	3.857	BMB
6	3.57	NO3-N	3.470	0.588	15.33	2.567	BMB
7	5.90	PO4-P	1.343	0.417	10.86	5.923	BMB
8	7.85	SO4	4.525	1.333	34.73	18.946	BMB
Total:			23.607	3.839	100.00	40.991	

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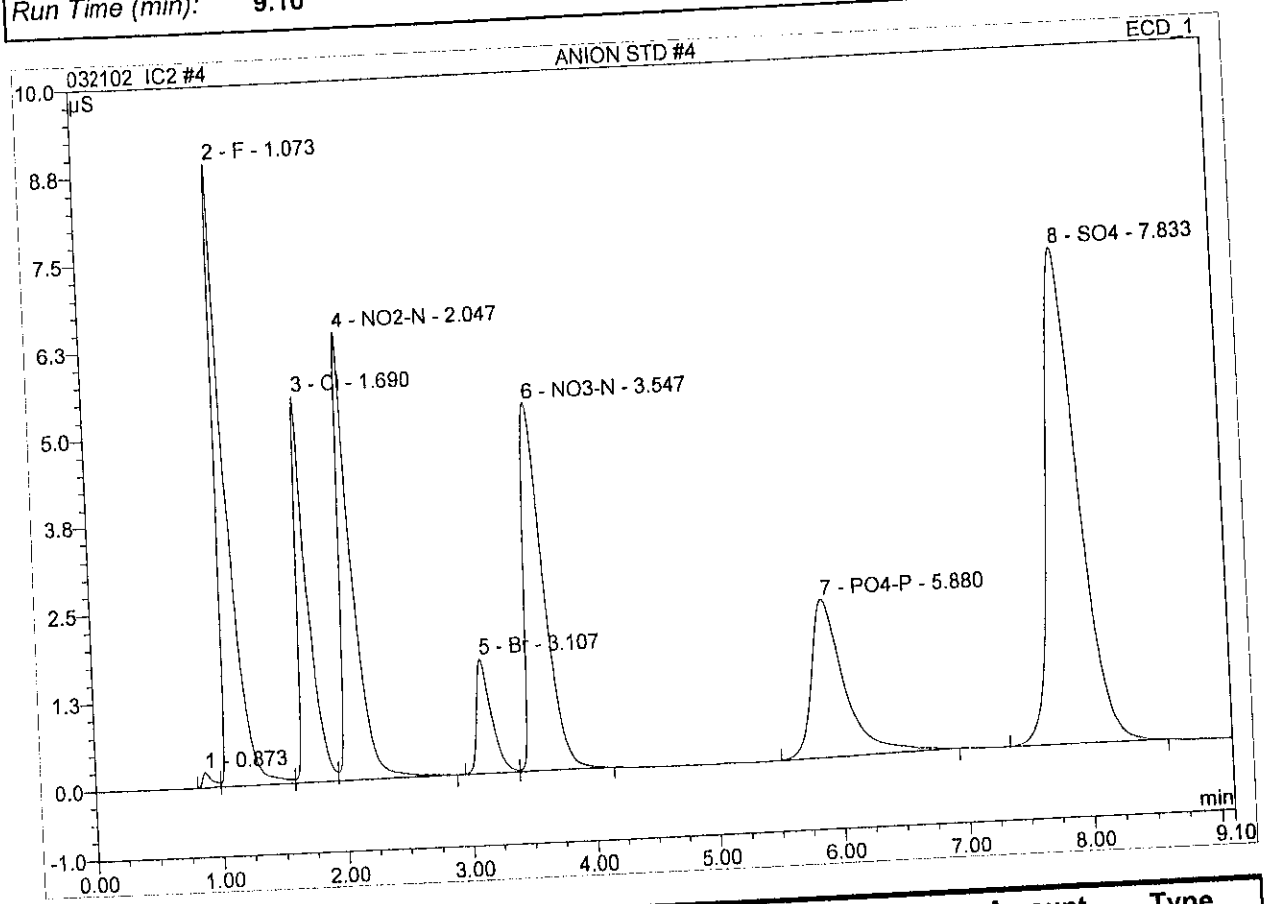
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

4 ANION STD #4

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:36**	*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	0.87	n.a.	0.216	0.019	0.32	n.a.	BM
2	1.07	F	8.892	0.858	14.06	5.875	M
3	1.69	Cl	5.515	0.548	8.99	5.835	M
4	2.05	NO2-N	6.402	0.756	12.39	3.589	MB
5	3.11	Br	1.638	0.228	3.74	5.856	BM
6	3.55	NO3-N	5.244	0.924	15.15	3.961	MB
7	5.88	PO4-P	2.242	0.683	11.20	9.334	BMB
8	7.83	SO4	7.071	2.082	34.15	29.053	BMB
Total:			37.221	6.097	100.00	63.502	

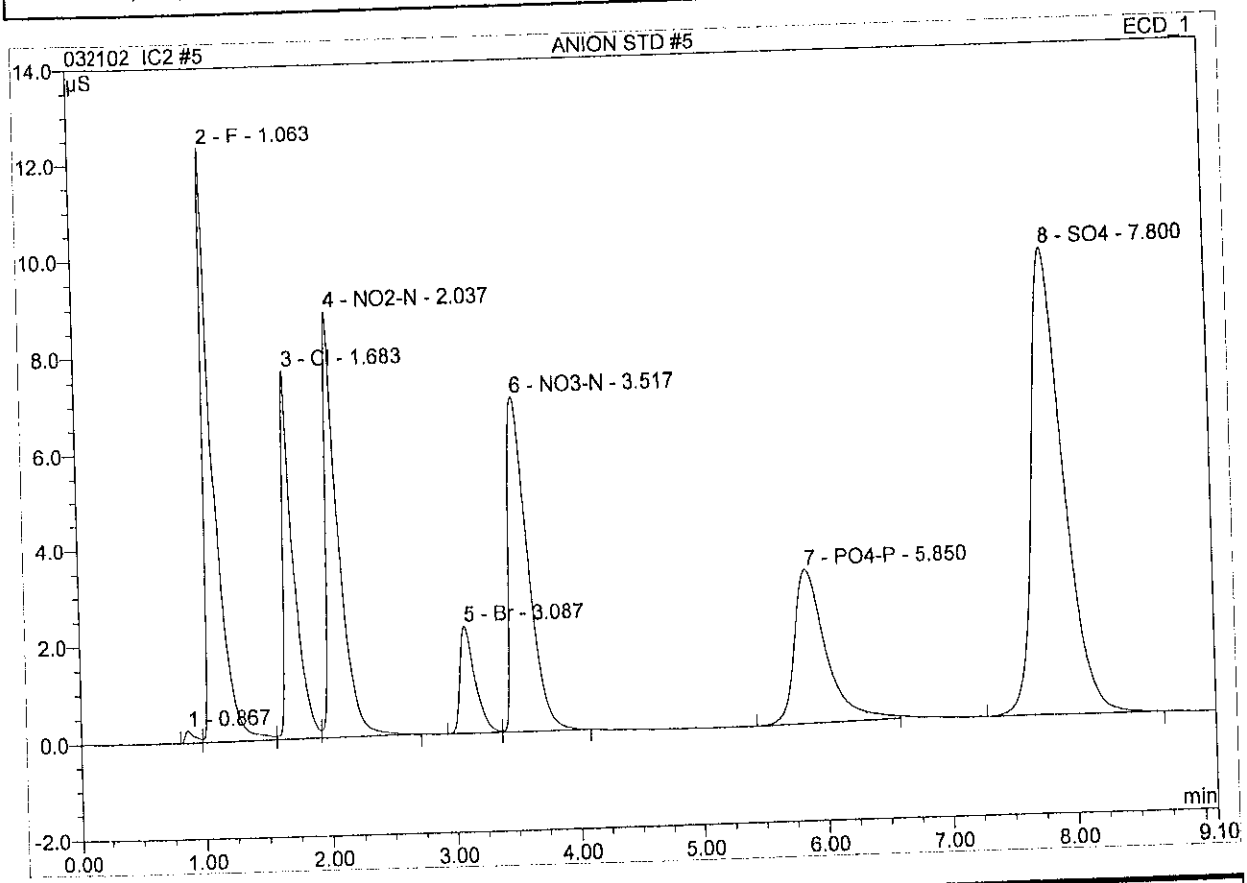
737

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

5 ANION STD #5

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.247	0.022	0.26	n.a.	BM
2	1.06	F	12.325	1.166	14.10	7.928	M
3	1.68	Cl	7.650	0.749	9.06	7.901	M
4	2.04	NO2-N	8.839	1.007	12.18	4.744	MB
5	3.09	Br	2.210	0.307	3.71	7.817	BM
6	3.52	NO3-N	6.968	1.246	15.06	5.299	MB
7	5.85	PO4-P	3.179	0.927	11.20	12.464	BM
8	7.80	SO4	9.673	2.849	34.44	39.400	BMB
Total:			51.092	8.273	100.00	85.551	

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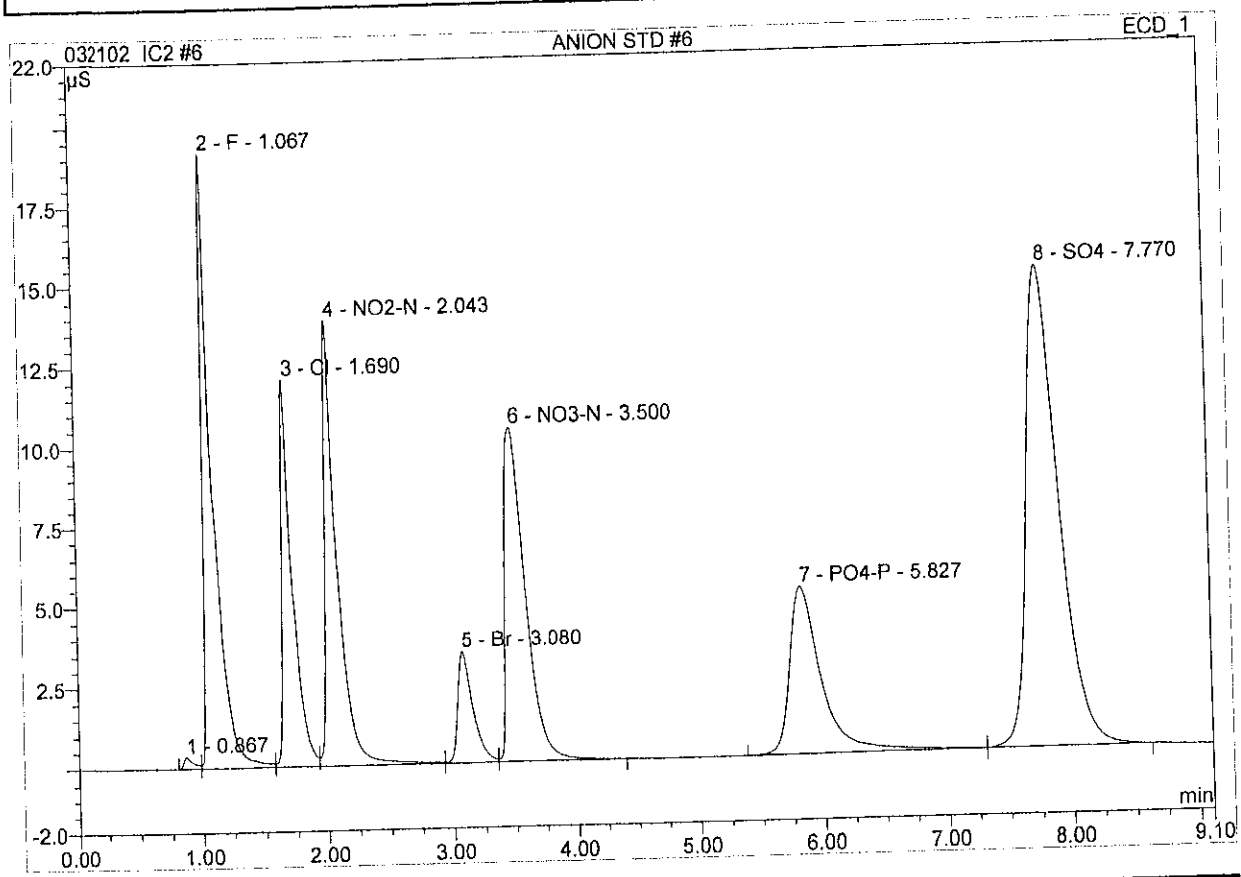
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

6 ANION STD #6

1,1 RDC ANION STD SOS0058-24 032102

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 14:59**	*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	0.87	n.a.	0.374	0.034	0.26	n.a.	BM
2	1.07	F	19.175	1.810	13.83	12.206	M
3	1.69	Cl	12.073	1.172	8.95	12.246	M
4	2.04	NO2-N	13.883	1.605	12.26	7.485	M
5	3.08	Br	3.447	0.484	3.70	12.249	M
6	3.50	NO3-N	10.403	1.973	15.07	8.320	MB
7	5.83	PO4-P	5.192	1.544	11.80	20.386	BM
8	7.77	SO4	14.949	4.470	34.14	61.278	MB
Total:			79.496	13.092	100.00	134.169	

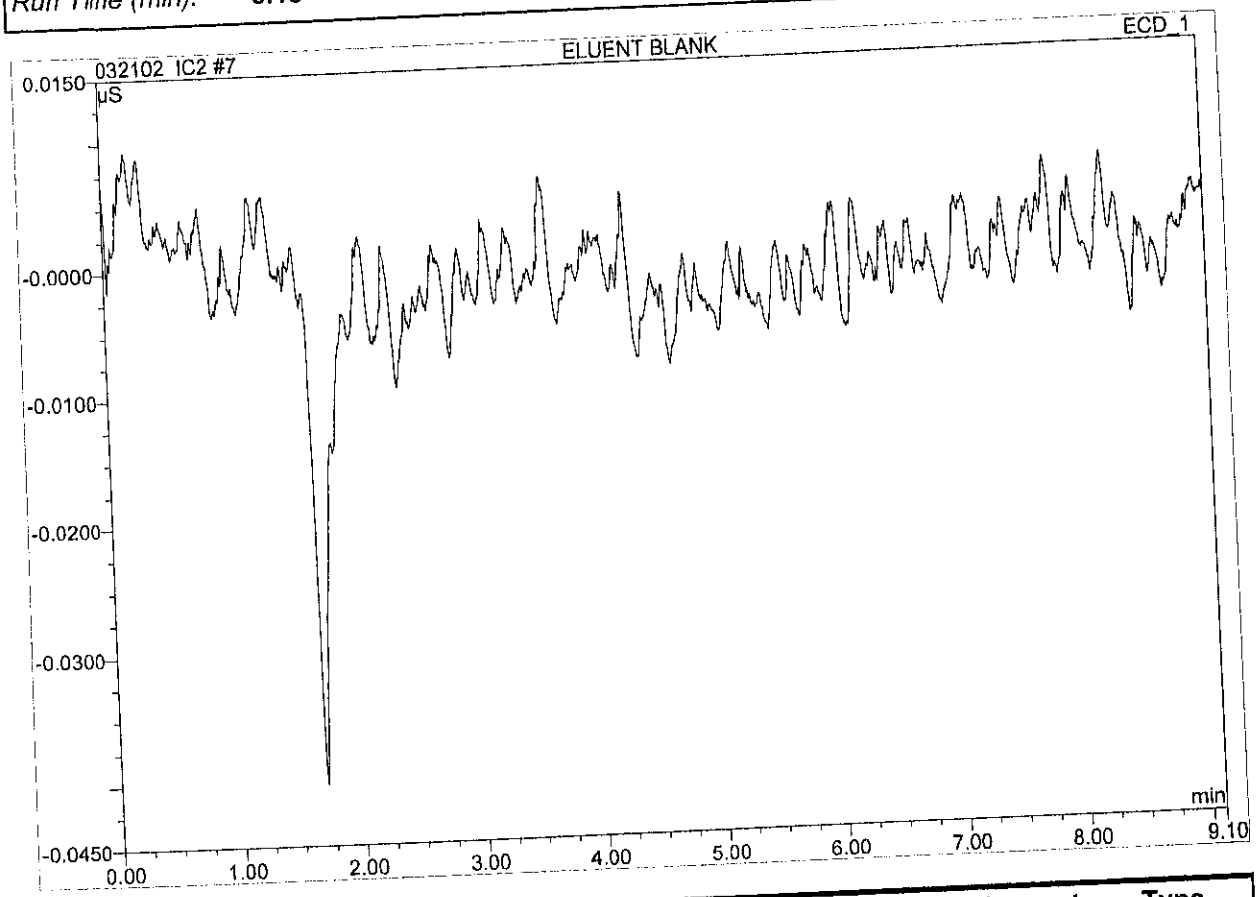
739

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

7 ELUENT BLANK

1,1 RDC/JWR

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 15:10**	*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
Total:			0.000	0.000	0.00	0.000	

740

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

8 ANION ALT STD: SV53-30

1,1 RDC ANION ALT STD SV53-30 032102

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*
Vial Number:	**8**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**3/21/2002 16:21**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7820	-3.63	PASS
Cl	6	5.6689	-5.52	PASS
NO2-N	3.65	1.4616	-59.96	FAIL
Br	6	5.8865	-1.89	PASS
NO3-N	4.07	6.1337	50.71	FAIL
PO4-P	9.78	9.2658	-5.26	PASS
SO4	30	29.4305	-1.90	PASS

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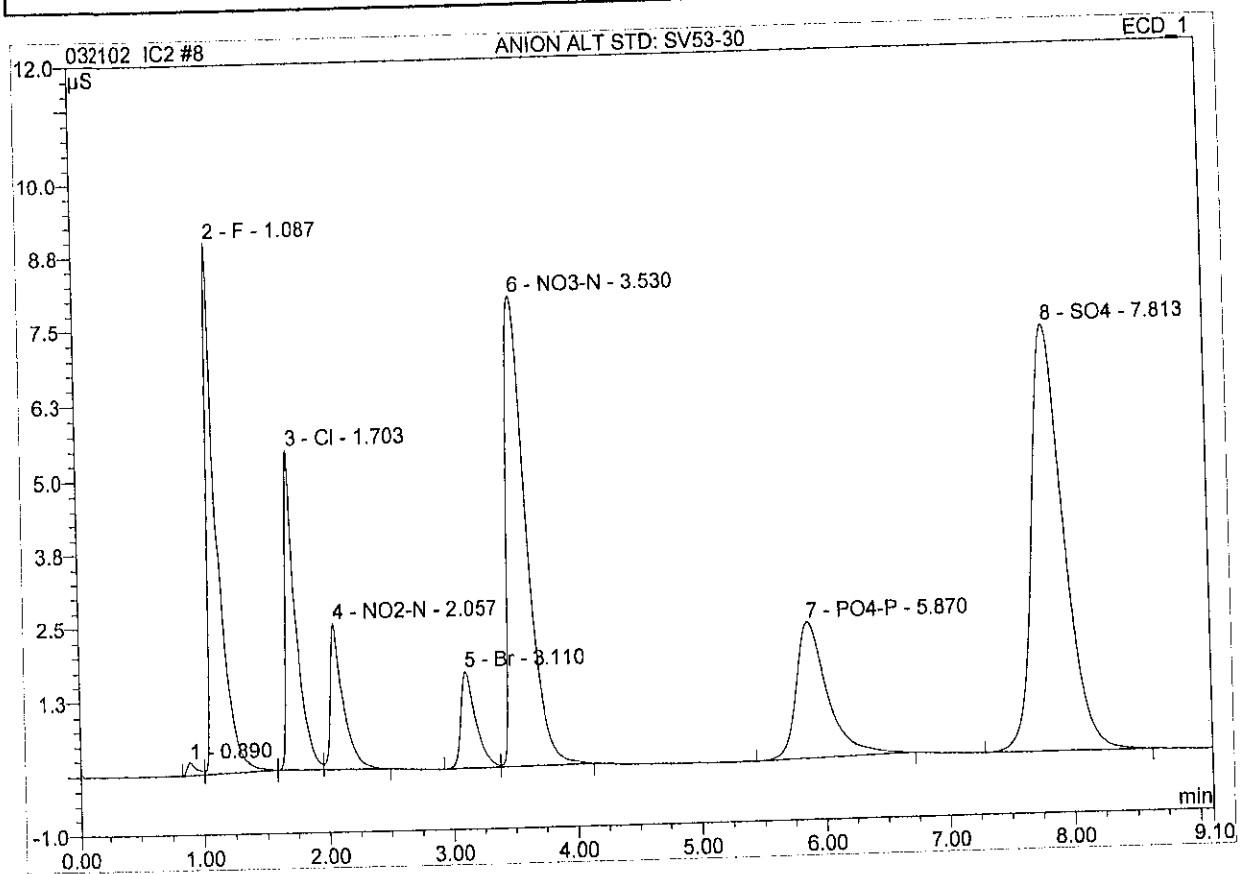
Chromeleon (c) Dionex 1996-2001

8 ANION ALT STD: SV53-30

1,1 RDC ANION ALT STD SV53-30 032102

Sample Name:	**ANION ALT STD: SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 16:21**	*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	0.89	n.a.	0.208	0.018	0.30	n.a.	BM
2	1.09	F	8.968	0.844	13.72	5.782	MB
3	1.70	Cl	5.420	0.532	8.65	5.669	BM
4	2.06	NO2-N	2.470	0.292	4.75	1.462	MB
5	3.11	Br	1.642	0.229	3.73	5.887	BM
6	3.53	NO3-N	7.926	1.447	23.52	6.134	MB
7	5.87	PO4-P	2.309	0.677	11.02	9.266	BMB
8	7.81	SO4	7.178	2.110	34.31	29.431	BMB
Total:			36.121	6.150	100.00	63.629	

742

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

9 ANION ALT STD: SOS59-02

1,1 RDC ANION ALT STD SOS59-02 032102

Sample Name:	**ANION ALT STD: SOS59-02**	*Injection Volume:*	
Vial Number:	**10**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantit. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 16:32**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT STD: S	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.3994	-6.86	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.9230	-3.61	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

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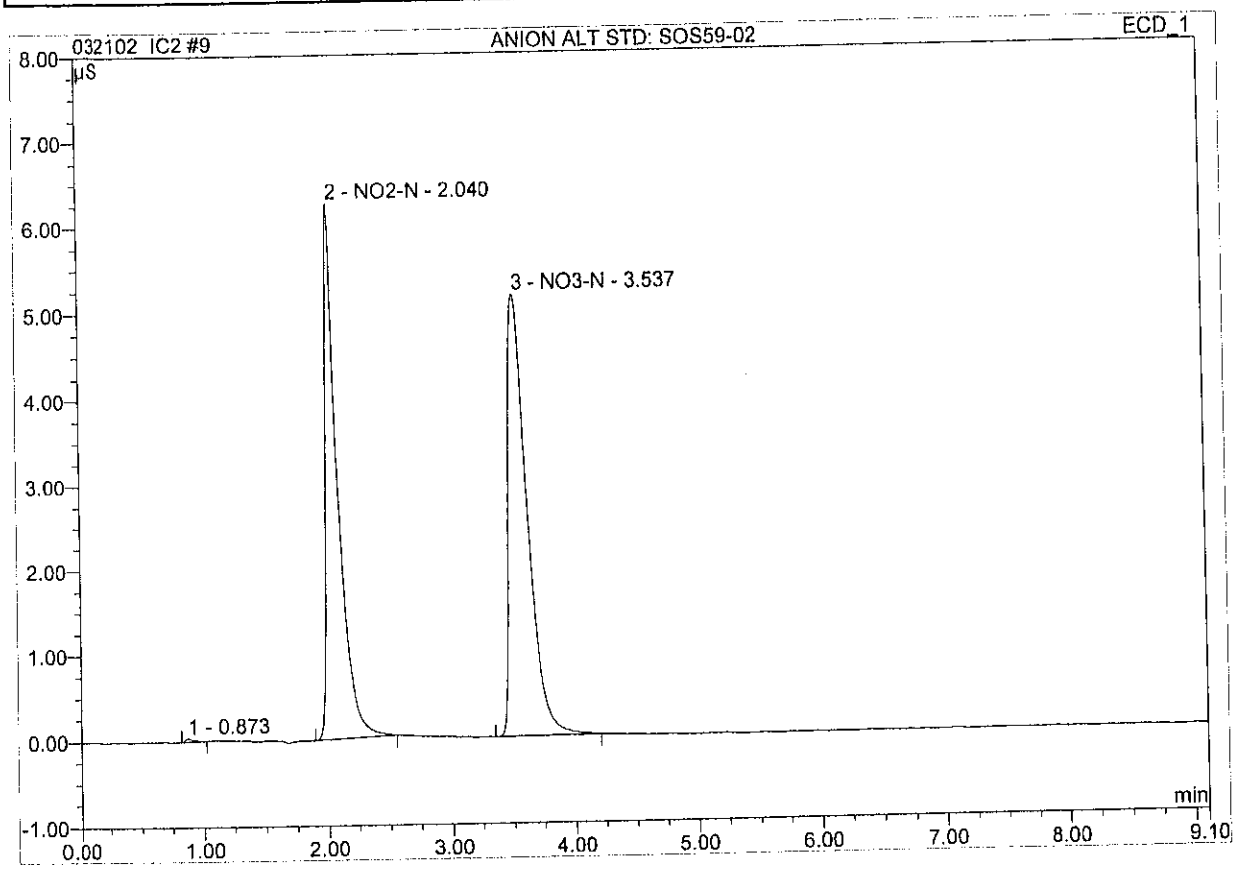
Chromeleon (c) Dionex 1996-2001

9 ANION ALT STD: SOS59-02

1,1 RDC ANION ALT STD SOS59-02 032102

Sample Name:	**ANION ALT STD: SOS59-02**	*Injection Volume:*	**25.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 16:32**	*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	0.87	n.a.	0.036	0.003	0.19	n.a.	BMB
2	2.04	NO2-N	6.261	0.714	43.77	3.399	BMB
3	3.54	NO3-N	5.168	0.915	56.04	3.923	BMB
Total:			11.465	1.632	100.00	7.322	

744

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

12 WG114844-01 ANION CCV 032002

1,1 RDC/JWR ANION STD SOS0058-24 032002

Sample Name:	**WG114844-01 ANION CCV 032002**	*Injection Volume:*	
Vial Number:	**13**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/20/2002 14:35**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114844-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.1395	2.33	PASS
Cl	6	6.1846	3.08	PASS
NO2-N	3.65	3.7359	2.35	PASS
Br	6	6.3116	5.19	PASS
NO3-N	4.07	4.1795	2.69	PASS
PO4-P	9.78	10.1343	3.62	PASS
SO4	30	30.5406	1.80	PASS

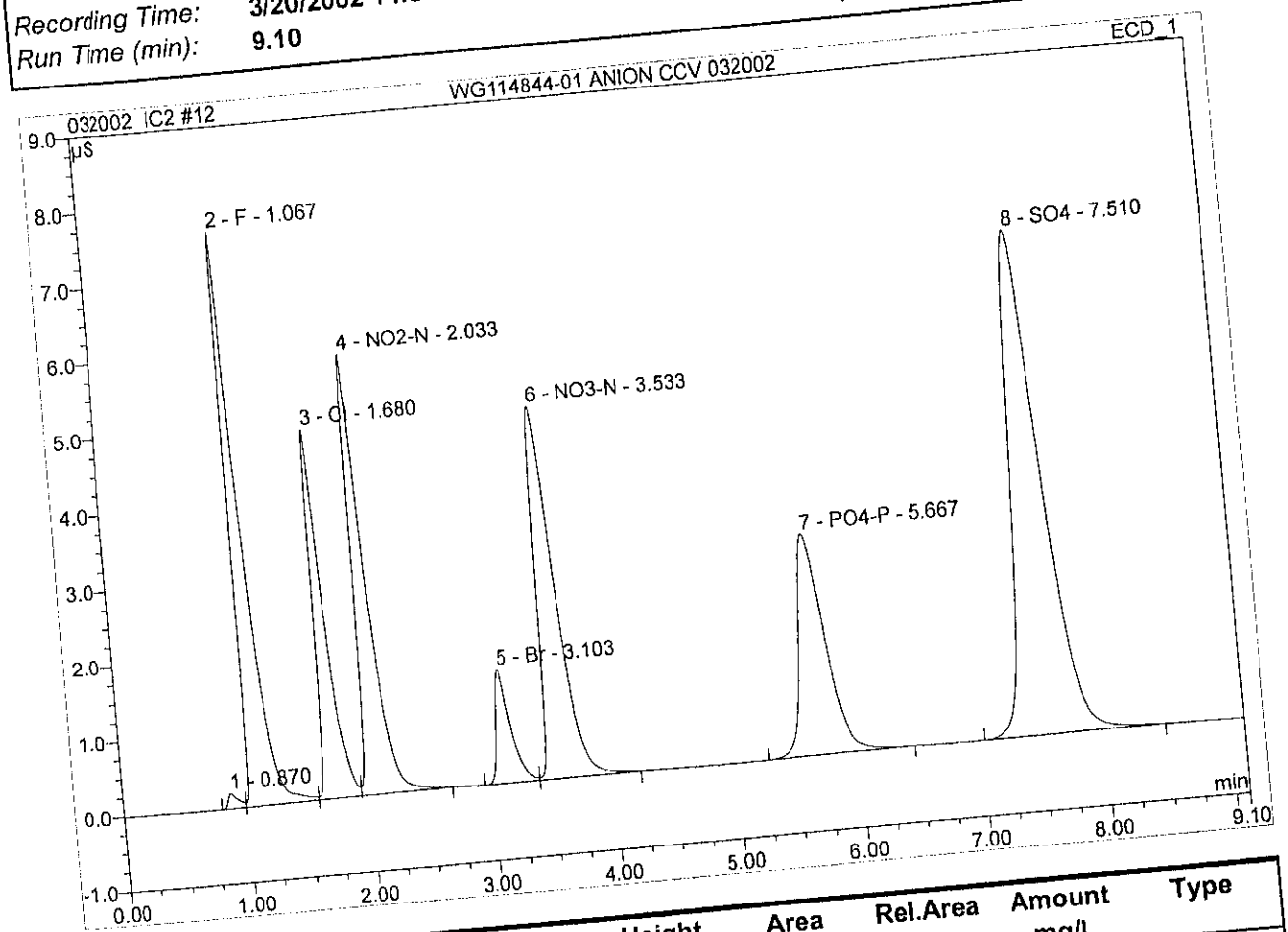
745

Operator:Analyst Timebase:DX-320 Sequence:032002 IC2

12 WG114844-01 ANION CCV 032002

1,1 RDC/JWR ANION STD SOS0058-24 032002

Sample Name:	WG114844-01 ANION CCV 032002	Injection Volume:	25.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	9056	Bandwidth:	n.a.
Quantif. Method:	9056	Dilution Factor:	1.0000
Recording Time:	3/20/2002 14:35	Sample Weight:	1.0000
Run Time (min):	9.10	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.205	0.020	0.34	n.a.	BM
2	1.07	F	7.629	0.786	13.70	6.140	M
3	1.68	Cl	4.902	0.511	8.91	6.185	M
4	2.03	NO2-N	5.838	0.697	12.14	3.736	MB
5	3.10	Br	1.509	0.212	3.69	6.312	BM
6	3.53	NO3-N	4.931	0.852	14.84	4.179	MB
7	5.67	PO4-P	2.937	0.726	12.65	10.134	BMB
8	7.51	SO4	6.693	1.936	33.73	30.541	BMB
Total:			34.644	5.740	100.00	67.226	

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Chromeleon (c) Dionex 1996-200
Version 6.30 SP1 Build 58

23 WG114844-02 ANION CCV 032002

1,1 RDC/JWR

Sample Name:	**WG114844-02 ANION CCV 032002**	*Injection Volume:*	
Vial Number:	**19**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/20/2002 17:03**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114844-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.0436	0.73	PASS
Cl	6	6.3938	6.56	PASS
NO2-N	3.65	3.8709	6.05	PASS
Br	6	6.4154	6.92	PASS
NO3-N	4.07	4.2933	5.49	PASS
PO4-P	9.78	6.3897	-34.67	FAIL
SO4	30	33.5821	11.94	FAIL

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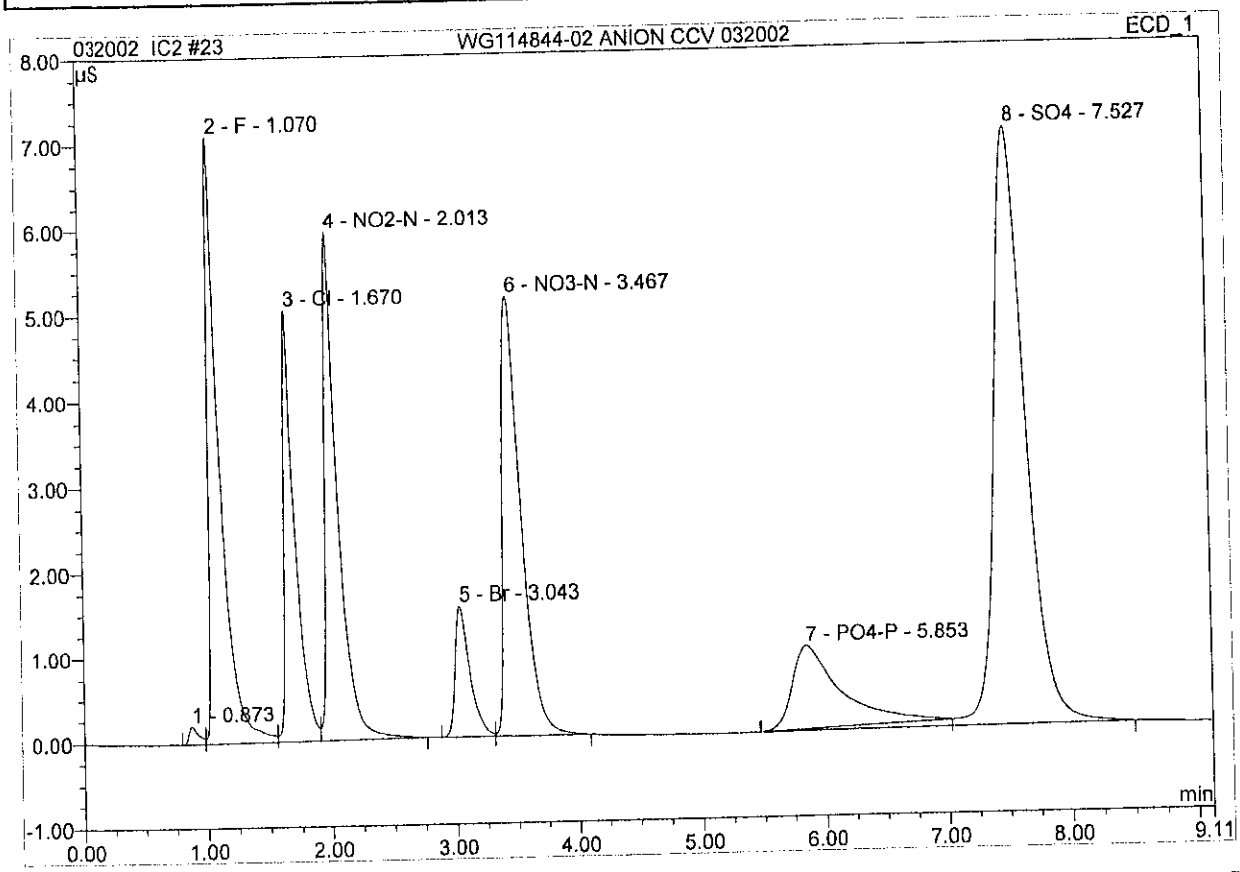
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

23 WG114844-02 ANION CCV 032002

1,1 RDC/JWR

Sample Name:	**WG114844-02 ANION CCV 032002**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 17:03**	*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	0.87	n.a.	0.202	0.019	0.33	n.a.	BM
2	1.07	F	7.095	0.774	13.53	6.044	M
3	1.67	Cl	5.036	0.529	9.25	6.394	M
4	2.01	NO2-N	5.947	0.723	12.64	3.871	MB
5	3.04	Br	1.545	0.216	3.77	6.415	BM
6	3.47	NO3-N	5.139	0.876	15.31	4.293	MB
7	5.85	PO4-P	0.982	0.451	7.88	6.390	Ru
8	7.53	SO4	6.996	2.134	37.30	33.582	BMB
Total:			32.942	5.721	100.00	66.989	

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33 WG114844-03 ANION CCV 032002

1,1 RDC/JWR

Sample Name:	**WG114844-03 ANION CCV 032002**	*Injection Volume:*	
Vial Number:	**26**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/20/2002 18:58**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG114844-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.2914	4.86	PASS
Cl	6	6.3326	5.54	PASS
NO2-N	3.65	3.7899	3.83	PASS
Br	6	6.3093	5.15	PASS
NO3-N	4.07	4.2654	4.80	PASS
PO4-P	9.78	6.0503	-38.14	FAIL
SO4	30	33.1174	10.39	FAIL

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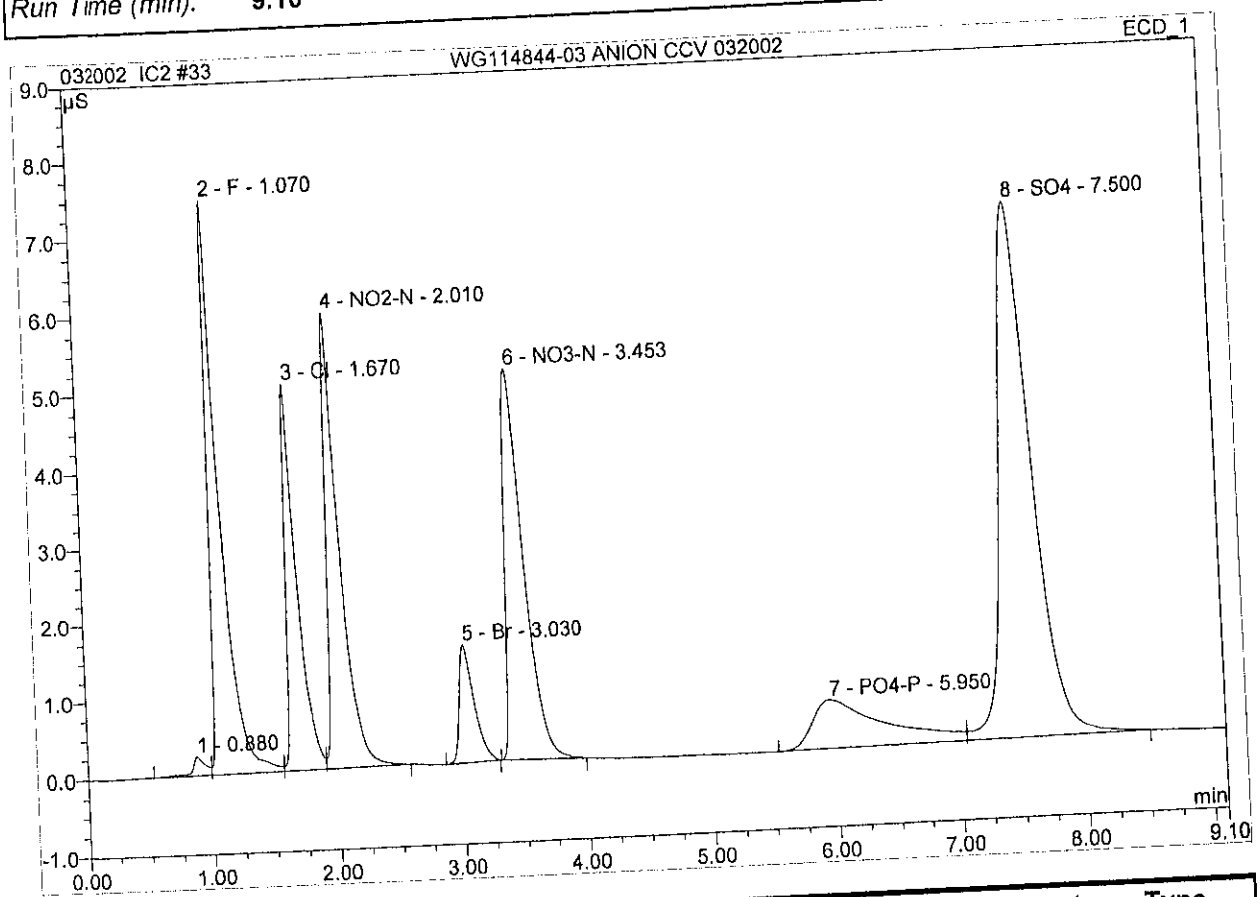
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

33 WG114844-03 ANION CCV 032002

1,1 RDC/JWR

Sample Name:	WG114844-03 ANION CCV 032002	*Injection Volume:*	25.0
Vial Number:	26	*Channel:*	ECD_1
Sample Type:	unknown	*Wavelength:*	n.a.
Control Program:	9056	*Bandwidth:*	n.a.
Quantif. Method:	9056	*Dilution Factor:*	1.0000
Recording Time:	3/20/2002 18:58	*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	0.88	n.a.	0.239	0.030	0.52	n.a.	BM
2	1.07	F	7.467	0.806	14.20	6.291	M
3	1.67	Cl	5.041	0.524	9.23	6.333	M
4	2.01	NO2-N	5.936	0.707	12.46	3.790	MB
5	3.03	Br	1.540	0.212	3.73	6.309	BMB
6	3.45	NO3-N	5.097	0.870	15.32	4.265	BMB
7	5.95	PO4-P	0.633	0.426	7.49	6.050	BM
8	7.50	SO4	6.968	2.104	37.05	33.117	MB
Total:			32.921	5.678	100.00	66.156	

750

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

20 WG115429-01 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-01 ANION CCV 032102**	*Injection Volume:*	
Vial Number:	**21**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 18:51**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

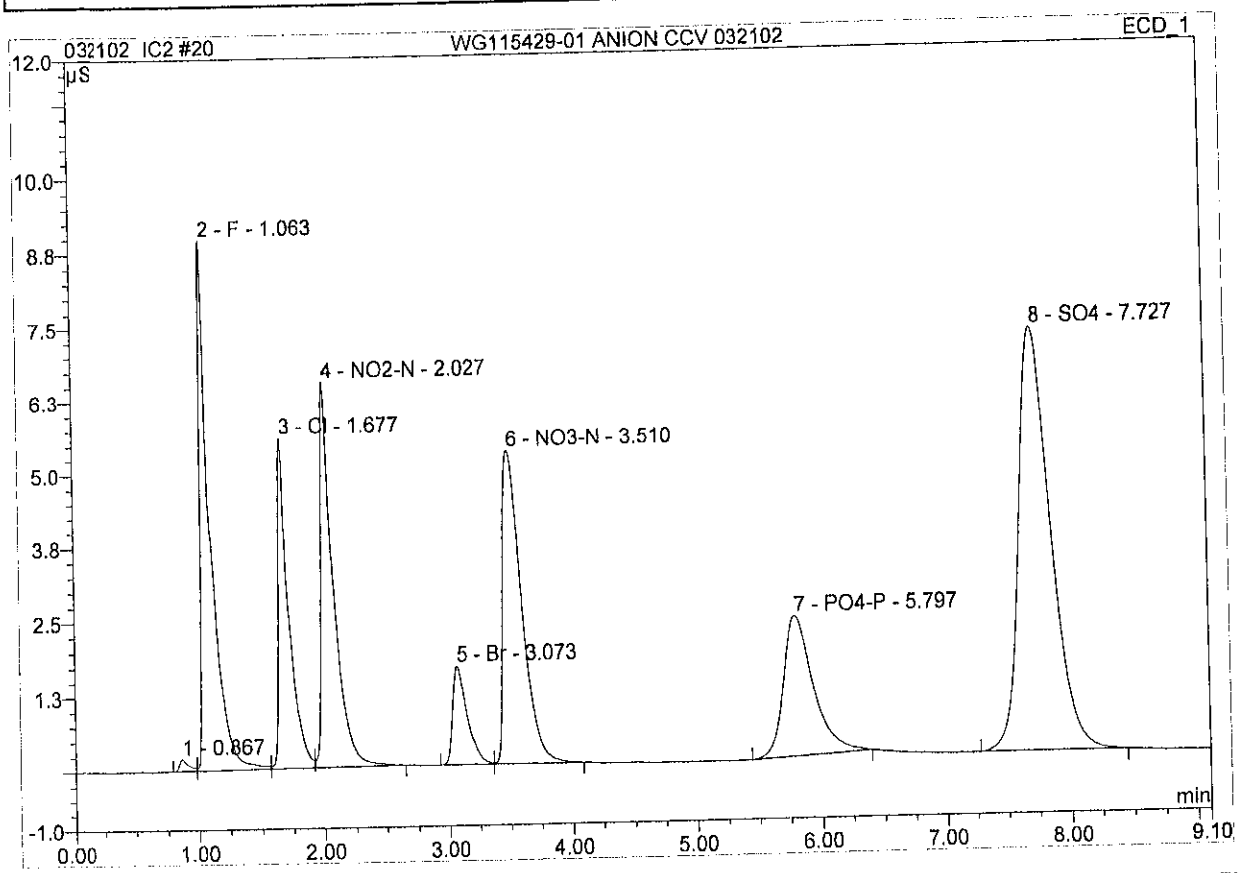
WG115429-01 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8740	-2.10	PASS
Cl	6	5.8156	-3.07	PASS
NO2-N	3.65	3.5517	-2.69	PASS
Br	6	5.9043	-1.60	PASS
NO3-N	4.07	3.9615	-2.67	PASS
PO4-P	9.78	8.9239	-8.75	PASS
SO4	30	29.1081	-2.97	PASS

751

20 WG115429-01 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-01 ANION CCV 032102**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.87	n.a.	0.211	0.019	0.31	n.a.	BM
2	1.06	F	8.967	0.857	14.15	5.874	M
3	1.68	Cl	5.585	0.546	9.02	5.816	M
4	2.03	NO2-N	6.518	0.748	12.33	3.552	MB
5	3.07	Br	1.663	0.230	3.79	5.904	BM
6	3.51	NO3-N	5.286	0.924	15.24	3.961	MB
7	5.80	PO4-P	2.347	0.651	10.74	8.924	BMB
8	7.73	SO4	7.173	2.086	34.42	29.108	BMB
Total:			37.750	6.061	100.00	63.139	

752

23 WG115429-02 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-02 ANION CCV 032102**	*Injection Volume:*	
Vial Number:	**21**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 19:26**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

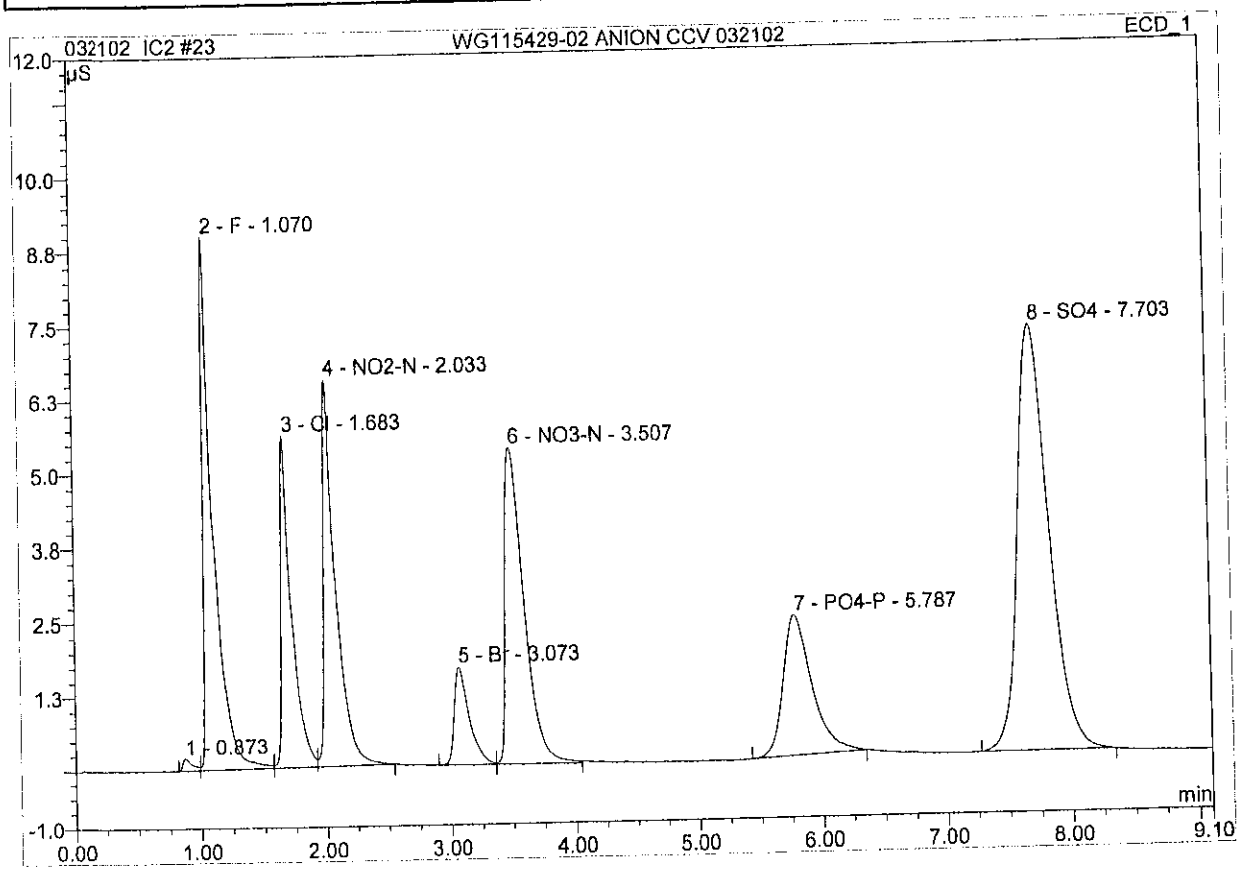
WG115429-02 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9202	-1.33	PASS
Cl	6	5.8776	-2.04	PASS
NO2-N	3.65	3.5476	-2.80	PASS
Br	6	5.9637	-0.60	PASS
NO3-N	4.07	4.0265	-1.07	PASS
PO4-P	9.78	8.8533	-9.48	PASS
SO4	30	28.9845	-3.38	PASS

753

23 WG115429-02 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-02 ANION CCV 032102**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.87	n.a.	0.206	0.019	0.31	n.a.	BM
2	1.07	F	9.006	0.864	14.23	5.920	M
3	1.68	Cl	5.609	0.552	9.09	5.878	M
4	2.03	NO2-N	6.544	0.747	12.29	3.548	MB
5	3.07	Br	1.667	0.232	3.82	5.964	BM
6	3.51	NO3-N	5.337	0.940	15.46	4.026	M
7	5.79	PO4-P	2.367	0.645	10.62	8.853	BMB
8	7.70	SO4	7.198	2.077	34.18	28.985	BMB
Total:			37.934	6.076	100.00	63.174	

754

29 WG115429-03 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-03 ANION CCV 032102**	*Injection Volume:*	
Vial Number:	**21**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**3/21/2002 20:35**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG115429-03 ANI(	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8393	-2.68	PASS
Cl	6	5.9541	-0.77	PASS
NO2-N	3.65	3.5259	-3.40	PASS
Br	6	5.8913	-1.81	PASS
NO3-N	4.07	3.9218	-3.64	PASS
PO4-P	9.78	7.3384	-24.97	FAIL
SO4	30	29.1189	-2.94	PASS

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Chromeleon (c) Dionex 1996-2001
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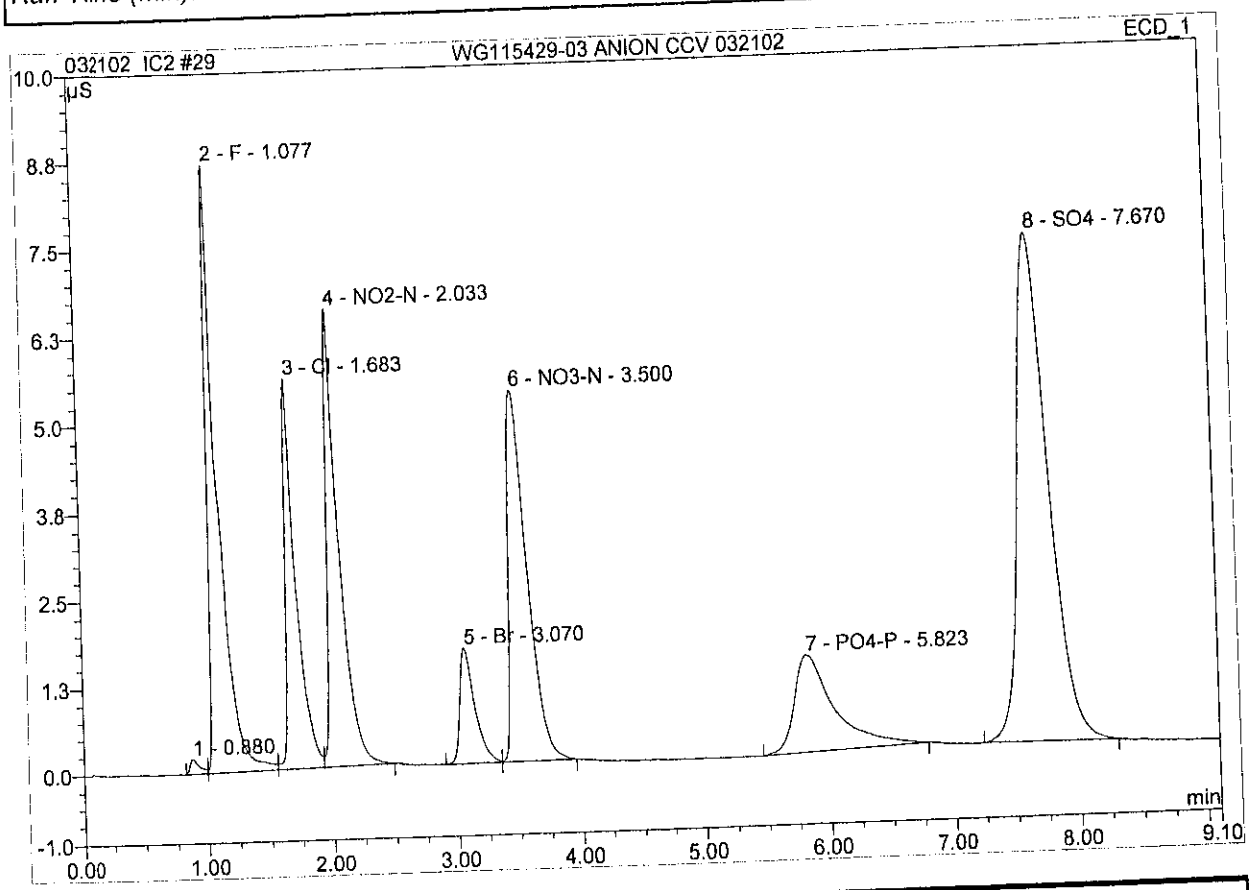
29 WG115429-03 ANION CCV 032102

1,1 RDC ANION CCV SOS0058-24 032102

Sample Name:	**WG115429-03 ANION CCV 032102**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 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	0.88	n.a.	0.207	0.018	0.31	n.a.	BM
2	1.08	F	8.696	0.852	14.37	5.839	M
3	1.68	Cl	5.577	0.560	9.44	5.954	M
4	2.03	NO2-N	6.542	0.742	12.51	3.526	MB
5	3.07	Br	1.661	0.229	3.87	5.891	BM
6	3.50	NO3-N	5.312	0.914	15.42	3.922	MB
7	5.82	PO4-P	1.397	0.527	8.89	7.338	BMB
8	7.67	SO4	7.267	2.087	35.19	29.119	BMB
Total:			36.659	5.930	100.00	61.590	

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Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

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

757

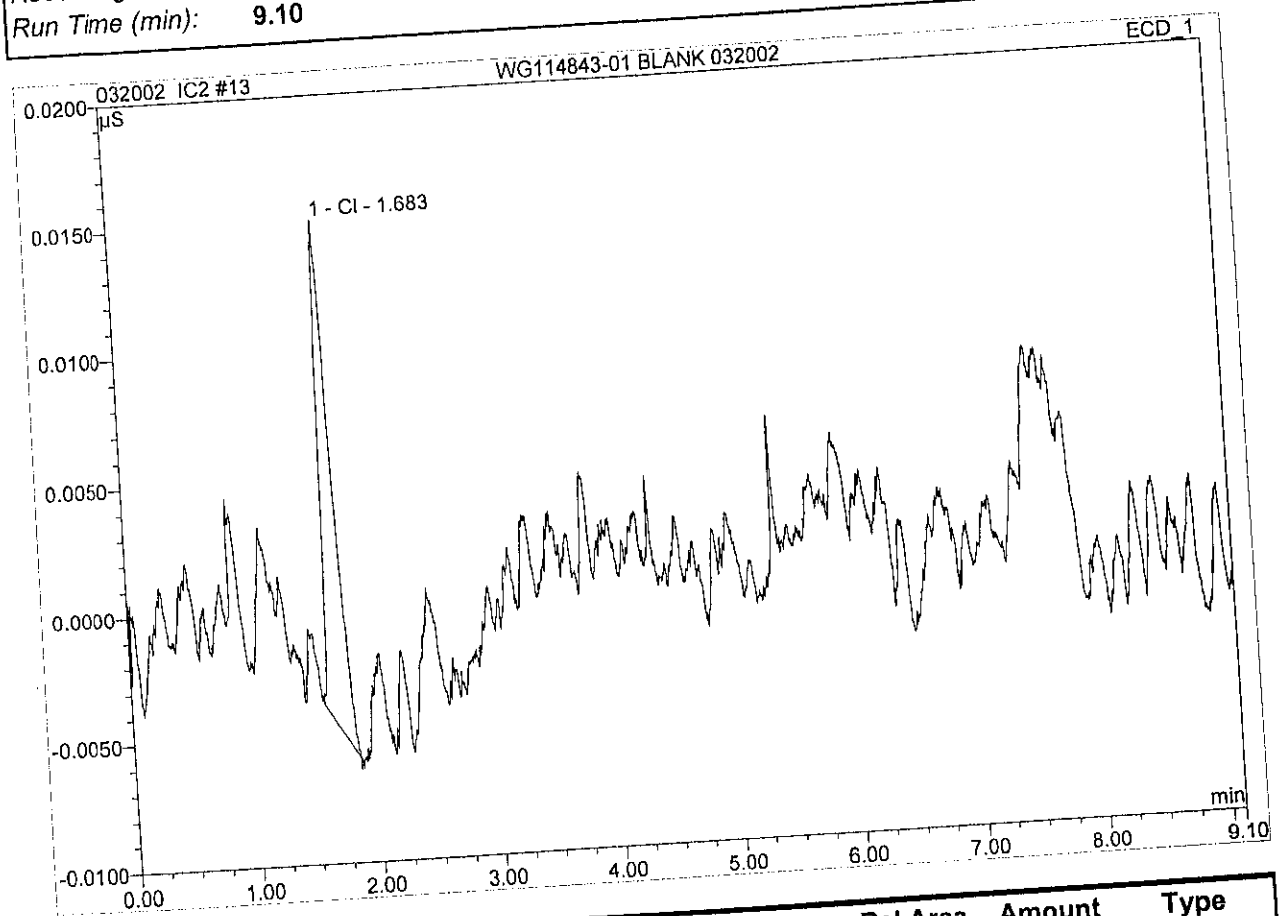
2.4.5.4 Raw QC Data

Operator:Analyst Timebase:DX-320 Sequence:032002 IC2

13 WG114843-01 BLANK 032002

1,1 RDC/JWR

Sample Name:	**WG114843-01 BLANK 032002**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/20/2002 14:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



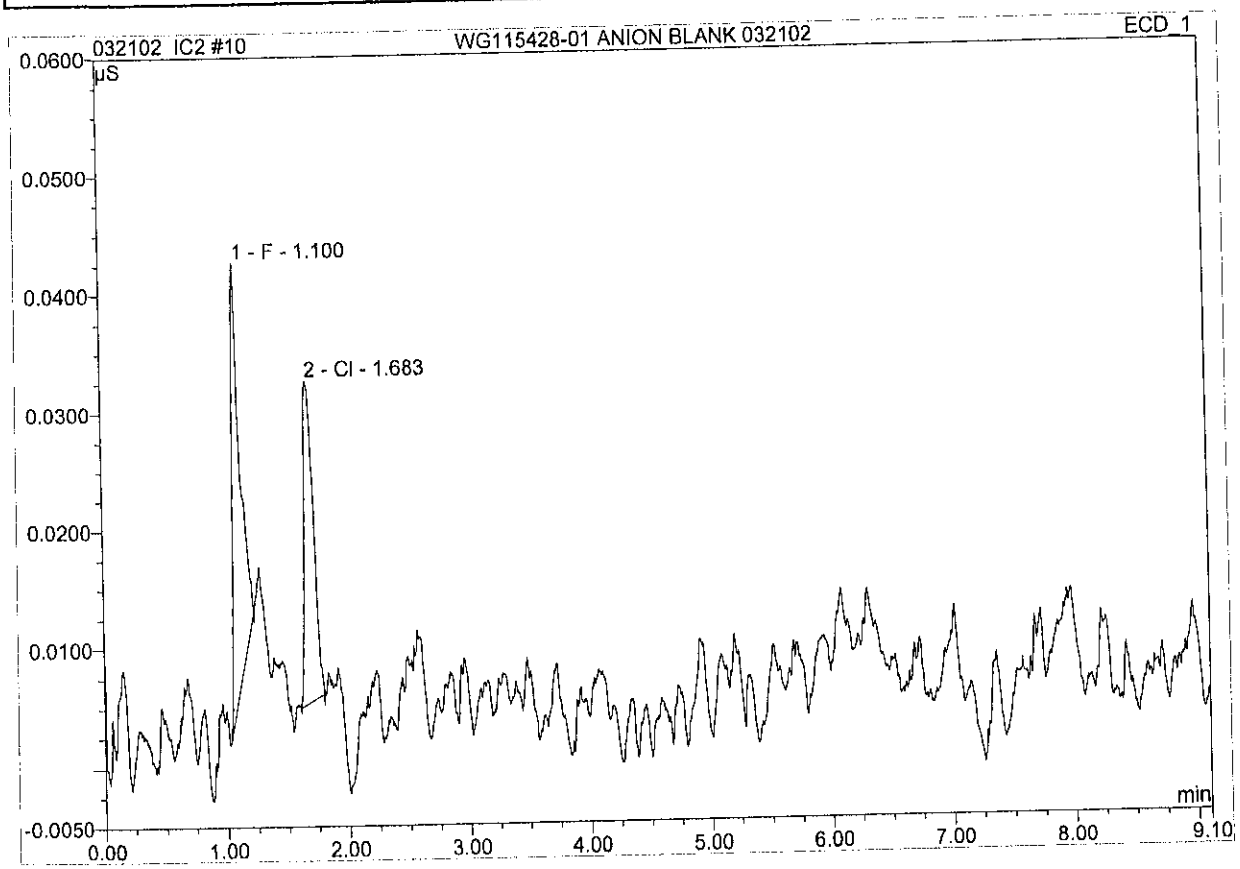
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.68	Cl	0.020	0.002	100.00	0.228	BMB
Total:			0.020	0.002	100.00	0.228	

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

10 WG115428-01 ANION BLANK 032102

1,1 RDC

Sample Name:	**WG115428-01 ANION BLANK 032102**	*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:	**3/21/2002 16:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



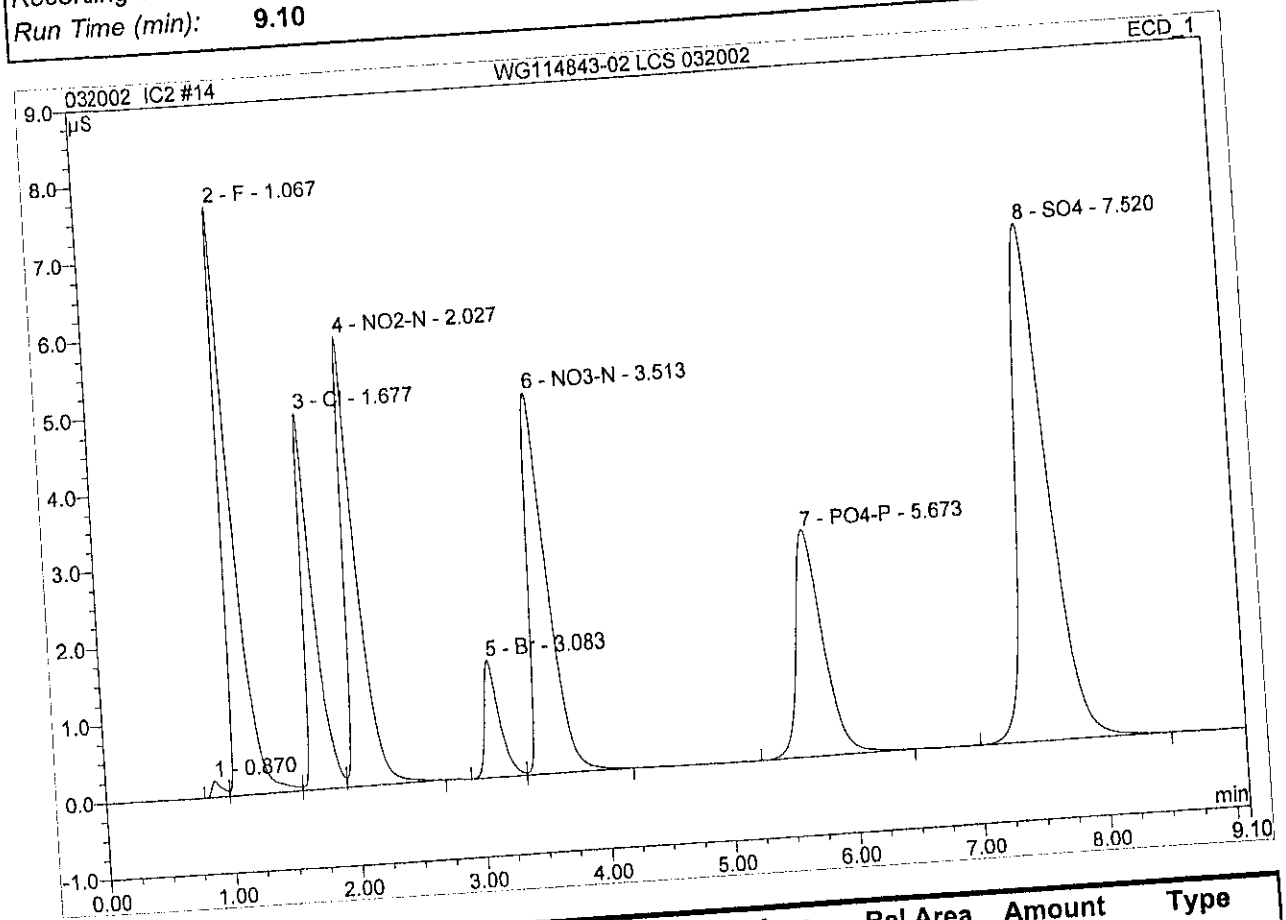
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.10	F	0.037	0.003	54.42	0.194	BMB
2	1.68	Cl	0.027	0.002	45.58	0.220	BMB
Total:			0.064	0.005	100.00	0.415	

Operator:Analyst Timebase:DX-320 Sequence:032002 IC2

14 WG114843-02 LCS 032002

1,1 RDC/JWR ANION STD SOS0058-24 032002

Sample Name:	WG114843-02 LCS 032002	*Injection Volume:*	25.0
Vial Number:	15	*Channel:*	ECD_1
Sample Type:	unknown	*Wavelength:*	n.a.
Control Program:	9056	*Bandwidth:*	n.a.
Quantif. Method:	9056	*Dilution Factor:*	1.0000
Recording Time:	3/20/2002 14:58	*Sample Weight:*	1.0000
Run Time (min):	9.10	*Sample Amount:*	1.0000



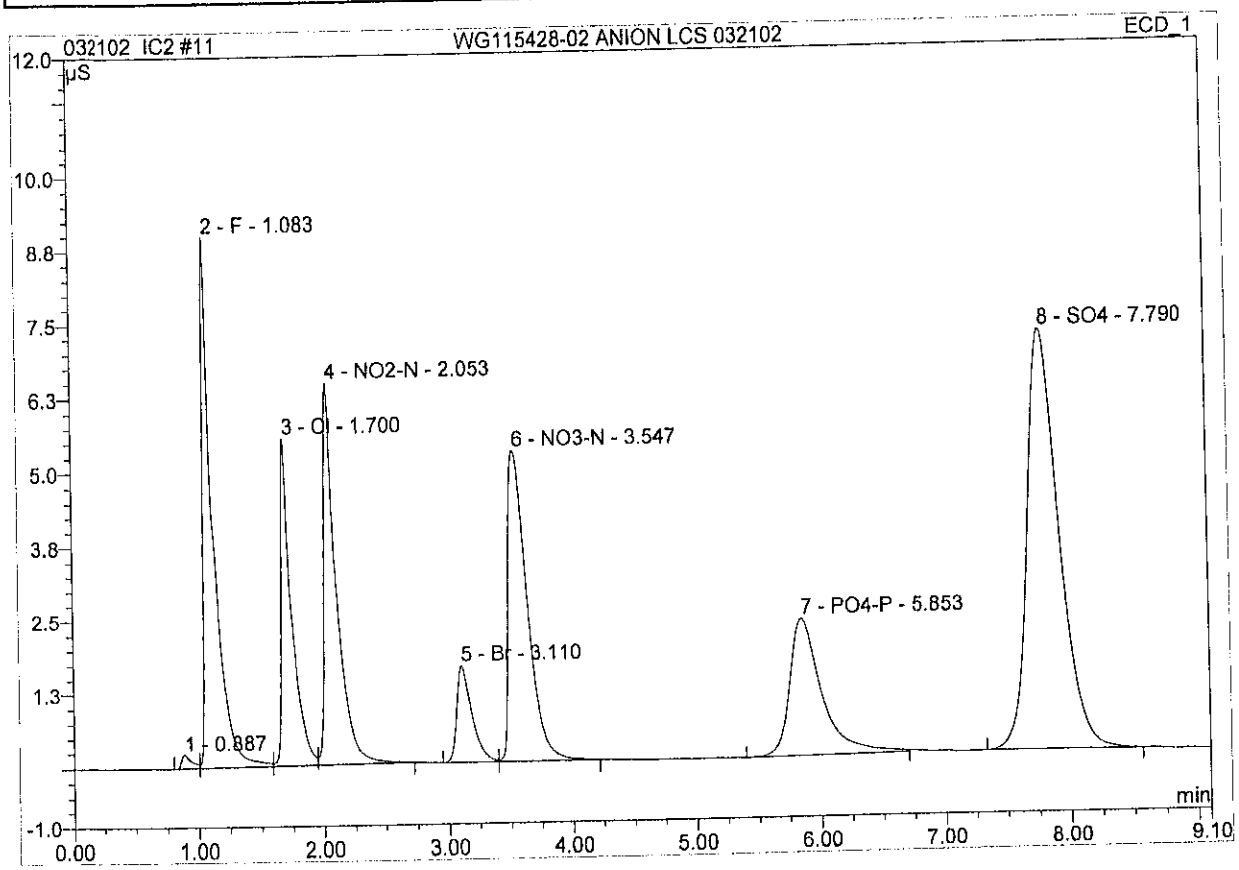
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.206	0.020	0.34	n.a.	BM
2	1.07	F	7.650	0.792	13.72	6.180	M
3	1.68	Cl	4.918	0.511	8.85	6.181	M
4	2.03	NO2-N	5.856	0.700	12.13	3.753	MB
5	3.08	Br	1.521	0.213	3.69	6.348	BM
6	3.51	NO3-N	4.981	0.857	14.85	4.204	MB
7	5.67	PO4-P	2.946	0.731	12.67	10.203	BMB
8	7.52	SO4	6.721	1.947	33.74	30.714	BMB
Total:			34.800	5.771	100.00	67.583	

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

11 WG115428-02 ANION LCS 032102

1,1 RDC SOS0058-24

Sample Name:	**WG115428-02 ANION LCS 032102**	*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:	**3/21/2002 17:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



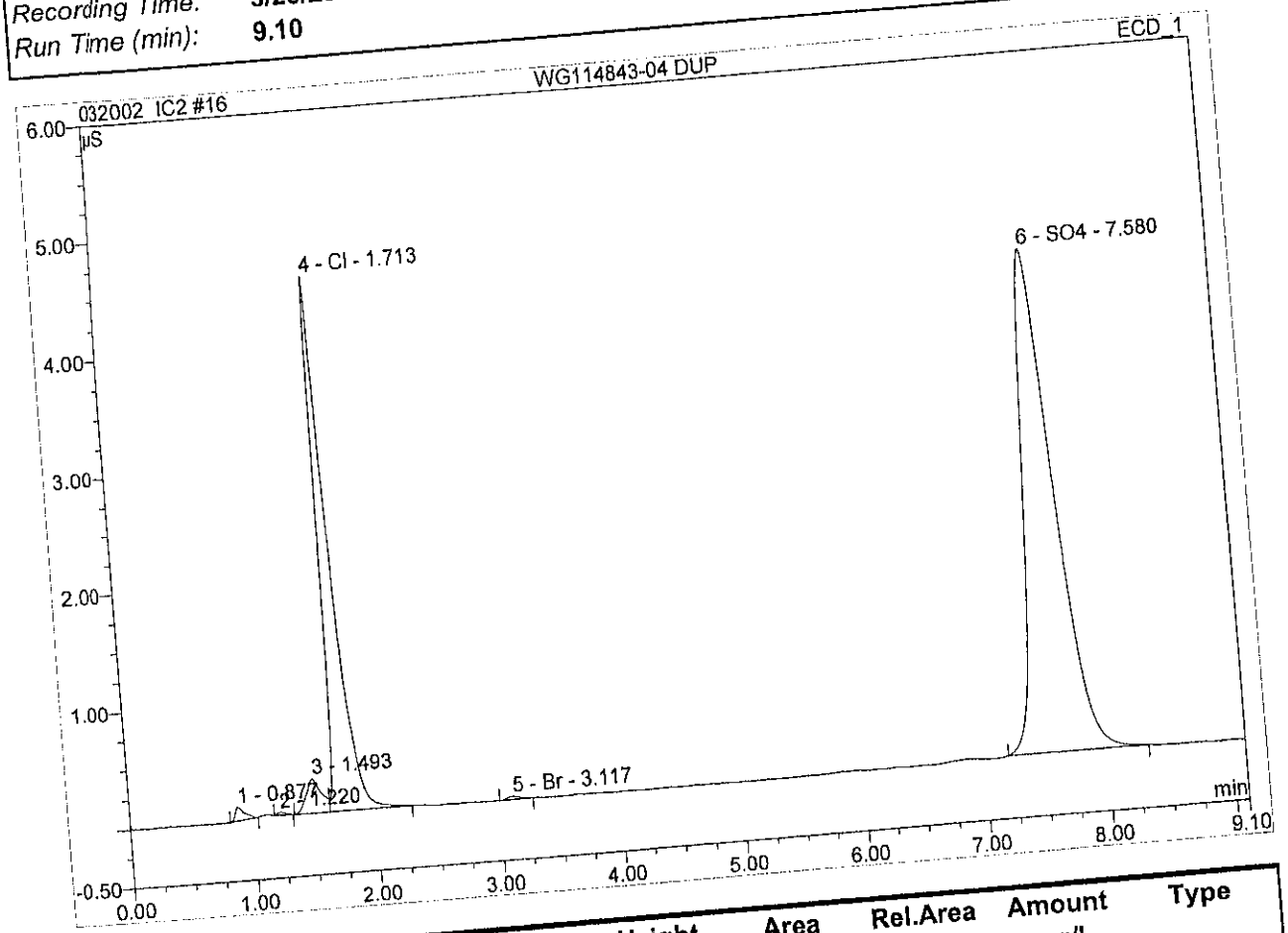
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.221	0.020	0.33	n.a.	BM
2	1.08	F	8.993	0.863	14.12	5.911	M
3	1.70	Cl	5.555	0.549	8.98	5.841	M
4	2.05	NO2-N	6.463	0.747	12.23	3.551	MB
5	3.11	Br	1.648	0.230	3.77	5.914	BM
6	3.55	NO3-N	5.269	0.926	15.14	3.969	MB
7	5.85	PO4-P	2.329	0.698	11.41	9.524	BM
8	7.79	SO4	7.108	2.080	34.03	29.024	BMB
Total:			37.586	6.113	100.00	63.733	

Operator:Analyst Timebase:DX-320 Sequence:032002 IC2

16 WG114843-04 DUP

1,1 RDC/JWR L0203380-07 DUP

Sample Name:	WG114843-04 DUP	Injection Volume:	25.0
Vial Number:	17	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	9056	Bandwidth:	n.a.
Quantif. Method:	9056	Dilution Factor:	1.0000
Recording Time:	3/20/2002 15:41	Sample Weight:	1.0000
Run Time (min):	9.10	Sample Amount:	1.0000



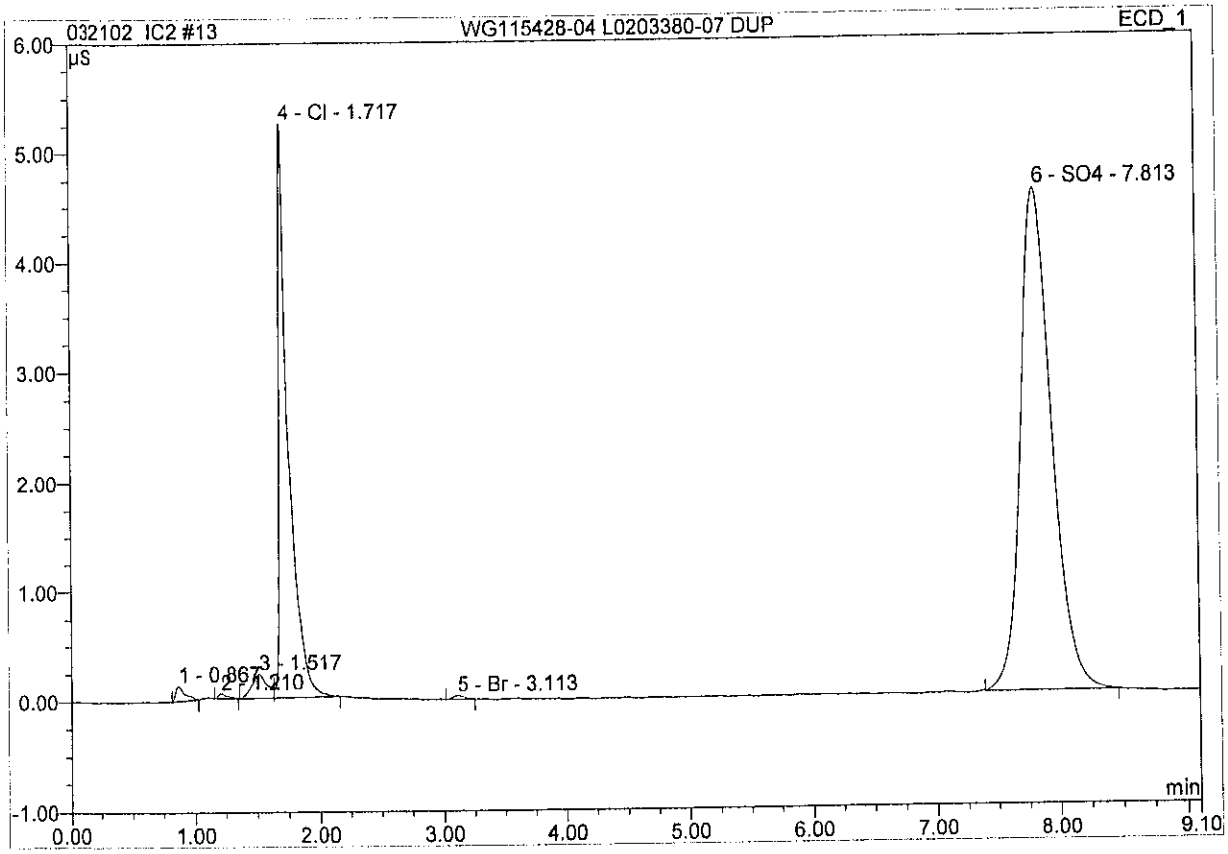
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.119	0.010	0.59	n.a.	BMB
2	1.22	n.a.	0.025	0.002	0.11	n.a.	BMB
3	1.49	n.a.	0.294	0.043	2.48	n.a.	BM
4	1.71	Cl	4.571	0.460	26.38	5.585	MB
5	3.12	Br	0.028	0.003	0.19	0.306	BMB
6	7.58	SO4	4.296	1.225	70.25	19.639	BMB
Total:			9.333	1.743	100.00	25.530	

Chromeleon (c) Dionex 1996-200
Version 6.30 SP1 Build 58

13 WG115428-04 L0203380-07 DUP

1,1 RDC L0203380-07 DUP

Sample Name:	**WG115428-04 L0203380-07 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/21/2002 17:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.140	0.012	0.64	n.a.	BMB
2	1.21	n.a.	0.043	0.004	0.19	n.a.	BMB
3	1.52	n.a.	0.217	0.031	1.67	n.a.	BM
4	1.72	Cl	5.234	0.483	25.86	5.161	MB
5	3.11	Br	0.033	0.003	0.19	0.254	BMB
6	7.81	SO4	4.581	1.334	71.44	18.955	BMB
Total:			10.249	1.867	100.00	24.370	

Sequence: 032002 IC2
Operator: Analyst

Printed: 3/28/2002 16:35:27

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 38

Created: 3/20/2002 13:44:33 by gsg
Last Update: 3/28/2002 16:09:08 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished
9	ANION ALT STD: SOS58-15	Unknown	10	25.0	9056	9056	Finished
10	DI WATER BLANK	Unknown	11	25.0	9056	9056	Finished
11	ELUENT BLANK	Unknown	12	25.0	9056	9056	Finished
12	WG114844-01 ANION CCV 032002	Unknown	13	25.0	9056	9056	Finished
13	WG114843-01 BLANK 032002	Unknown	14	25.0	9056	9056	Finished
14	WG114843-02 LCS 032002	Unknown	15	25.0	9056	9056	Finished
15	WG114843-03 REF for DUP	Unknown	16	25.0	9056 RR	9056	Finished
16	WG114843-04 DUP	Unknown	17	25.0	9056	9056	Finished
17	L0203380-15	Unknown	18	25.0	9056	9056	Finished
18	WG114843-05 REF for MS/MSD	Unknown	19	25.0	9056	9056	Finished
19	WG114843-06 MS	Unknown	20	25.0	9056	9056	Finished
20	WG114843-07 MSD	Unknown	19	25.0	9056	9056	Finished
21	L0203380-06	Unknown	20	25.0	9056	9056	Finished
22	L0203380-03	Unknown	20	25.0	9056	9056	Finished
23	WG114844-02 ANION CCV 032002	Unknown	19	25.0	9056 CC	9056	Finished
24	L0203380-04	Unknown	20	25.0	9056 RR	9056	Finished
25	L0203380-01	Unknown	21	25.0	9056	9056	Finished
26	L0203380-16	Unknown	22	25.0	9056	9056	Finished
27	L0203380-02	Unknown	23	25.0	9056	9056	Finished
28	L0203380-05	Unknown	24	25.0	9056	9056	Finished
29	L0203380-12	Unknown	25	25.0	9056	9056	Finished
30	L0203380-11	Unknown	25	25.0	9056	9056	Finished
31	L0203380-13	Unknown	25	25.0	9056	9056	Finished
32	L0203380-14	Unknown	25	25.0	9056	9056	Finished
33	WG114844-03 ANION CCV 032002	Unknown	26	25.0	9056 CC	9056	Finished
34	WG114844-04 ANION CCV 032002	Unknown	26	25.0	9056	9056	Finished
35	CLEAN UP SOL'N.	Unknown	26	25.0	9056	9056	Finished
36	CLEAN UP SOL'N.	Unknown	27	25.0	9056	9056	Finished
37	WG114844-04 ANION CCV 032002	Unknown	26	25.0	9056 CC	9056	Finished
38	end	Unknown	20	25.0	DX-320 OFF	9056	Single

RDL 4/1/02

4/1/02

Sequence: 032002 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 38

Created: 3/20/2002 13:44:33 by gsg
Last Update: 3/28/2002 16:09:08 by Analyst

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION STD #1	3/7/2002 11:17:12	1.0000	
2	ANION STD #2	3/7/2002 11:28:43	1.0000	
3	ANION STD #3	3/7/2002 11:40:13	1.0000	
4	ANION STD #4	3/7/2002 11:51:43	1.0000	
5	ANION STD #5	3/7/2002 12:03:12	1.0000	
6	ANION STD #6	3/7/2002 12:14:42	1.0000	
7	ELUENT BLANK	3/7/2002 12:38:53	1.0000	
8	ANION ALT STD: SV53-30	3/7/2002 12:50:23	1.0000	
9	ANION ALT STD: SOS58-15	3/7/2002 13:01:53	1.0000	
10	DI WATER BLANK	3/20/2002 14:12:04	1.0000	
11	ELUENT BLANK	3/20/2002 14:23:35	1.0000	
12	WG114844-01 ANION CCV 032002	3/20/2002 14:35:04	1.0000	
13	WG114843-01 BLANK 032002	3/20/2002 14:46:37	1.0000	
14	WG114843-02 LCS 032002	3/20/2002 14:58:08	1.0000	
15	WG114843-03 REF for DUP	3/20/2002 15:29:44	1.0000	
16	WG114843-04 DUP	3/20/2002 15:41:14	1.0000	
17	L0203380-15	3/20/2002 15:52:44	1.0000	
18	WG114843-05 REF for MS/MSD	3/20/2002 16:04:14	1.0000	
19	WG114843-06 MS	3/20/2002 16:15:44	1.0000	
20	WG114843-07 MSD	3/20/2002 16:29:21	1.0000	
21	L0203380-06	3/20/2002 16:40:50	1.0000	
22	L0203380-03	3/20/2002 16:52:20	1.0000	
23	WG114844-02 ANION CCV 032002	3/20/2002 17:03:50	1.0000	
24	L0203380-04	3/20/2002 17:15:21	1.0000	
25	L0203380-01	3/20/2002 17:26:51	1.0000	
26	L0203380-16	3/20/2002 17:38:20	1.0000	
27	L0203380-02	3/20/2002 17:49:50	1.0000	
28	L0203380-05	3/20/2002 18:01:20	1.0000	
29	L0203380-12	3/20/2002 18:12:50	1.0000	
30	L0203380-11	3/20/2002 18:24:21	1.0000	
31	L0203380-13	3/20/2002 18:35:51	1.0000	
32	L0203380-14	3/20/2002 18:47:23	1.0000	
33	WG114844-03 ANION CCV 032002	3/20/2002 18:58:52	1.0000	
34	WG114844-04 ANION CCV 032002	3/20/2002 19:23:56	1.0000	
35	CLEAN UP SOL'N.	3/20/2002 19:37:57	1.0000	
36	CLEAN UP SOL'N.	3/20/2002 19:49:27	1.0000	
37	WG114844-04 ANION CCV 032002	3/20/2002 20:02:53	1.0000	
38	end		1.0000	

Sequence: 032002 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 38

Created: 3/20/2002 13:44:33 by gsg
Last Update: 3/28/2002 16:09:08 by Analyst

No.	Name	Comment
1	ANION STD #1	1,1 RDC/JWR ANION STD SOS0058-24 030702
2	ANION STD #2	1,1 RDC/JWR ANION STD SOS0058-24 030702
3	ANION STD #3	1,1 RDC/JWR ANION STD SOS0058-24 030702
4	ANION STD #4	1,1 RDC/JWR ANION STD SOS0058-24 030702
5	ANION STD #5	1,1 RDC/JWR ANION STD SOS0058-24 030702
6	ANION STD #6	1,1 RDC/JWR ANION STD SOS0058-24 030702
7	ELUENT BLANK	1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1,1 RDC/JWR ANION ALT STD SV53-30 030702
9	ANION ALT STD: SOS58-15	1,1 RDC/JWR ANION ALT STD SOS58-15 030702
10	DI WATER BLANK	1,1 RDC/JWR
11	ELUENT BLANK	1,1 RDC/JWR
12	WG114844-01 ANION CCV 032002	1,1 RDC/JWR ANION STD SOS0058-24 032002
13	WG114843-01 BLANK 032002	1,1 RDC/JWR
14	WG114843-02 LCS 032002	1,1 RDC/JWR ANION STD SOS0058-24 032002
15	WG114843-03 REF for DUP	1,1 RDC/JWR L0203380-07
16	WG114843-04 DUP	1,1 RDC/JWR L0203380-07 DUP
17	L0203380-15	1,1 RDC/JWR
18	WG114843-05 REF for MS/MSD	1,1 RDC/JWR L0203380-08 REF
19	WG114843-06 MS	1,1 RDC/JWR L0203380-09 MS (SOS0058-24)
20	WG114843-07 MSD	1,1 RDC/JWR L0203380-10 MSD (SOS0058-24)
21	L0203380-06	1,1 RDC/JWR
22	L0203380-03	1,1 RDC/JWR
23	WG114844-02 ANION CCV 032002	1,1 RDC/JWR
24	L0203380-04	1,1 RDC/JWR
25	L0203380-01	1,1 RDC/JWR
26	L0203380-16	1,1 RDC/JWR
27	L0203380-02	1,1 RDC/JWR
28	L0203380-05	1,1 RDC/JWR
29	L0203380-12	1,1 RDC/JWR
30	L0203380-11	1,1 RDC/JWR
31	L0203380-13	1,1 RDC/JWR
32	L0203380-14	1,1 RDC/JWR
33	WG114844-03 ANION CCV 032002	1,1 RDC/JWR
34	WG114844-04 ANION CCV 032002	1,1 RDC/JWR
35	CLEAN UP SOL'N.	1,1 RDC/JWR
36	CLEAN UP SOL'N.	1,1 RDC/JWR
37	WG114844-04 ANION CCV 032002	1,1 RDC/JWR
38	end	1,1 RDC/JWR

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 20, 2002 Instrument ID IC2 Column ID AS4ASC AG4ASC Data Subdirectory 032002
Analyst Initials [illegible] SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1288 psi
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

WG 114844-02 CCV failed low for PO_4-P
-03
-04

- Samples from this SDG had a significant amount of SO_4 which may be indicative of Fe, Al, or other metals which would foul the column & result in a failure of the PO_4 anion recovery.

Column will be cleaned & re-calibration performed before samples are re-analyzed out of holding time for PO_4. Fraction 03 & 04 will not be re-analyzed due to the extreme amounts of SO_4.

Reviewed By: [signature] 4/1/02

Sequence: 032102 IC2
Operator: Analyst
Printed: 4/1/2002 14:58:41

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/21/2002 16:53:34 by gsg
Last Update: 4/1/2002 13:07:04 by Analyst

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION STD #1	Standard	1	25.0	9056	9056	Finished
2	ANION STD #2	Standard	2	25.0	9056	9056	Finished
3	ANION STD #3	Standard	3	25.0	9056	9056	Finished
4	ANION STD #4	Standard	4	25.0	9056	9056	Finished
5	ANION STD #5	Standard	5	25.0	9056	9056	Finished
6	ANION STD #6	Standard	6	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
8	ANION ALT STD: SV53-30	Unknown	8	25.0	9056	9056	Finished
9	ANION ALT STD: SOS59-02	Unknown	10	25.0	9056	9056	Finished
10	WG115428-01 ANION BLANK 032102	Unknown	11	25.0	9056	9056	Finished
11	WG115428-02 ANION LCS 032102	Unknown	12	25.0	9056	9056	Finished
12	WG115428-03 L0203380-07	Unknown	13	25.0	9056	9056	Finished
13	WG115428-04 L0203380-07 DUP	Unknown	14	25.0	9056	9056	Finished
14	WG115428-05 L0203380-08 REF	Unknown	15	25.0	9056	9056	Finished
15	WG115428-06 L0203380-09 MS	Unknown	16	25.0	9056	9056	Finished
16	WG115428-07 L0203380-10 MSD	Unknown	17	25.0	9056	9056	Finished
17	L0203380-06	Unknown	18	25.0	9056	9056	Finished
18	L0203380-01	Unknown	19	25.0	9056	9056	Finished
19	L0203380-02	Unknown	20	25.0	9056	9056	Finished
20	WG115429-01 ANION CCV 032102	Unknown	21	25.0	9056	9056	Finished
21	L0203380-15	Unknown	22	25.0	9056	9056	Finished
22	L0203380-16	Unknown	23	25.0	9056	9056	Finished
23	WG115429-02 ANION CCV 032102	Unknown	21	25.0	9056	9056	Finished
24	L0203380-05	Unknown	23	25.0	9056	9056	Finished
25	L0203380-11	Unknown	24	25.0	9056	9056	Finished
26	L0203380-12	Unknown	25	25.0	9056	9056	Finished
27	L0203380-13	Unknown	26	25.0	9056	9056	Finished
28	L0203380-14	Unknown	27	25.0	9056	9056	Finished
29	WG115429-03 ANION CCV 032102	Unknown	21	25.0	9056 CC	9056	Finished
30	END	Unknown	22	25.0	DX-320 OFF	9056	Finished

TAQC 4/1/02

4/1/02

Sequence: 032102 IC2
Operator: Analyst

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/21/2002 16:53:34 by gsg
Last Update: 4/1/2002 13:07:04 by Analyst

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION STD #1	3/21/2002 14:01:49	1.0000	
2	ANION STD #2	3/21/2002 14:13:20	1.0000	
3	ANION STD #3	3/21/2002 14:24:49	1.0000	
4	ANION STD #4	3/21/2002 14:36:20	1.0000	
5	ANION STD #5	3/21/2002 14:47:49	1.0000	
6	ANION STD #6	3/21/2002 14:59:20	1.0000	
7	ELUENT BLANK	3/21/2002 15:10:50	1.0000	
8	ANION ALT STD: SV53-30	3/21/2002 16:21:21	1.0000	
9	ANION ALT STD: SOS59-02	3/21/2002 16:32:51	1.0000	
10	WG115428-01 ANION BLANK 032102	3/21/2002 16:56:42	1.0000	
11	WG115428-02 ANION LCS 032102	3/21/2002 17:08:12	1.0000	
12	WG115428-03 L0203380-07	3/21/2002 17:19:45	1.0000	
13	WG115428-04 L0203380-07 DUP	3/21/2002 17:31:15	1.0000	
14	WG115428-05 L0203380-08 REF	3/21/2002 17:42:45	1.0000	
15	WG115428-06 L0203380-09 MS	3/21/2002 17:54:15	1.0000	
16	WG115428-07 L0203380-10 MSD	3/21/2002 18:05:46	1.0000	
17	L0203380-06	3/21/2002 18:17:16	1.0000	
18	L0203380-01	3/21/2002 18:28:45	1.0000	
19	L0203380-02	3/21/2002 18:40:15	1.0000	
20	WG115429-01 ANION CCV 032102	3/21/2002 18:51:44	1.0000	
21	L0203380-15	3/21/2002 19:03:16	1.0000	
22	L0203380-16	3/21/2002 19:14:46	1.0000	
23	WG115429-02 ANION CCV 032102	3/21/2002 19:26:17	1.0000	
24	L0203380-05	3/21/2002 19:37:47	1.0000	
25	L0203380-11	3/21/2002 19:49:17	1.0000	
26	L0203380-12	3/21/2002 20:00:47	1.0000	
27	L0203380-13	3/21/2002 20:12:17	1.0000	
28	L0203380-14	3/21/2002 20:23:47	1.0000	
29	WG115429-03 ANION CCV 032102	3/21/2002 20:35:17	1.0000	
30	END	3/21/2002 20:46:47	1.0000	

Sequence: 032102 IC2
Operator: Analyst
Printed: 4/1/2002 14:58:41

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 30

Created: 3/21/2002 16:53:34 by gsg
Last Update: 4/1/2002 13:07:04 by Analyst

No.	Name	Comment
1	ANION STD #1	1,1 RDC ANION STD SOS0058-24 032102
2	ANION STD #2	1,1 RDC ANION STD SOS0058-24 032102
3	ANION STD #3	1,1 RDC ANION STD SOS0058-24 032102
4	ANION STD #4	1,1 RDC ANION STD SOS0058-24 032102
5	ANION STD #5	1,1 RDC ANION STD SOS0058-24 032102
6	ANION STD #6	1,1 RDC ANION STD SOS0058-24 032102
7	ELUENT BLANK	1,1 RDC/JWR
8	ANION ALT STD: SV53-30	1,1 RDC ANION ALT STD SV53-30 032102
9	ANION ALT STD: SOS59-02	1,1 RDC ANION ALT STD SOS59-02 032102
10	WG115428-01 ANION BLANK 032102	1,1 RDC
11	WG115428-02 ANION LCS 032102	1,1 RDC SOS0058-24
12	WG115428-03 L0203380-07	1,1 RDC L0203380-07
13	WG115428-04 L0203380-07 DUP	1,1 RDC L0203380-07 DUP
14	WG115428-05 L0203380-08 REF	1,1 RDC L0203380-08 REF
15	WG115428-06 L0203380-09 MS	1,1 RDC SOS0058-24 032102
16	WG115428-07 L0203380-10 MSD	1,1 RDC SOS0058-24 032102
17	L0203380-06	1,1 RDC
18	L0203380-01	1,1 RDC
19	L0203380-02	1,1 RDC
20	WG115429-01 ANION CCV 032102	1,1 RDC ANION CCV SOS0058-24 032102
21	L0203380-15	1,1 RDC
22	L0203380-16	1,1 RDC
23	WG115429-02 ANION CCV 032102	1,1 RDC ANION CCV SOS0058-24 032102
24	L0203380-05	1,1 RDC
25	L0203380-11	1,1 RDC
26	L0203380-12	1,1 RDC
27	L0203380-13	1,1 RDC
28	L0203380-14	1,1 RDC
29	WG115429-03 ANION CCV 032102	1,1 RDC ANION CCV SOS0058-24 032102
30	END	1,1 RDC ANION CCV SOS0058-24 032102

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time Mar. 21, 2002 Instrument ID IC2 Column ID AS4A-SC / AG4A-SC Data Subdirectory 032102
Analyst Initials RRC SOP # IC01 Rev. # 2 / 9056 SOP # IC02 Rev. # 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1257
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: PO4-P recovery is low. Column was fouled by client samples

Action Taken: Base, Acid, & Organic cleanup of column & guard followed by re-calibration

Comments

Samples are analyzed out of hold time.
PO4-P again failed but only after the analysis of sample fractions L0203280-05 & 11-14.

Reviewed By: RRR 4/1/02

Semi-Volatile 9056 Checklist

Run Date: 3/20/2002

Analyst: JWR/RDC

Instrument: IC2

Workorders:	Due Date:	Priority:
WG11484303-380	3/27/2002	

		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:

Sample fractions 03 and 04 had a significant amount of SO4. Sample fractions 05 and 11-14 also had large amounts of SO4 but not as much as 03 and 04. The SO4 may have been associated with large amounts of metals such as Fe or Al which fouled the column and resulted in CCV failure for PO4-P. All results reported are with failed ending PO4 CCVs (low).

Column clean up and recalibration will be required before samples are re-analyzed out of hold for PO4.

Sample fractions 03 and 04 will not be reanalyzed due to the extreme amount of potential for re-fouling the column.

NOTE: Sample fraction 03 contains a reportable amount of NO2-N which would need dilution in order to be within calibration range. The NO2-N is being reported with an "I" but will not be re-analyzed because of the above mentioned problem with this sample fraction.

Primary Reviewer: RDC 4/1/02

Secondary Reviewer: 4/1/02

Supervisor Review: 4/1/02

Semi-Volatile 9056 Checklist

Run Date: 3/21/2002

Analyst: RDC

Instrument: IC2

(re-analysis out of hold)

Workorders:	Due Date:	Priority:
WG115428 03-380	3/27/2002	

		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:

Column was cleaned and re-calibration was performed. Samples were re-analyzed with the samples suspected of some column fouling being analyzed last. (Note: fractions 03 and 04, the suspected worse contributors to the fouling, were not re-analyzed)

Mid run CCV was acceptable but the ending CCV failed low for PO4-P following the analysis of sample fraction 05 and 11-14.

Primary Reviewer: RDC 3/4/02

Secondary Reviewer: DR 4/1/02

Supervisor Review: DR 4/1/02

Example 9056 Calculations

1.0 Software determines Linear Regression and area counts by the following calculation through operator entered concentrations:

Where: area=slope(concentration)+offset

area in uS/min. of the compound being measured in the standard
slope(concentration)+offset = Concentration of the compound being measured (mg/ml).

2.0 Calculating the concentration of an anion in water using (area-(offset)/slope:

amt=(area-(offest)/slope

Area of the compound being measured in uS/min.
Offset = axis of chromatogram corresponding to calibration table
Slope = the ascending calib.curve where amt/area=slope (linear regression).

Where: amt cl = area 0.382-(offset -0.0113)/slope 0.0622

0.382-(-0.0113)/0.0622= 6.323